



PROPOSED CHANGE ORDER

PROJECT: Montgomery High School

PCO #: 25

DATE: 12/30/2024

WCI PROJECT #: 2401

ARCHITECT: TLCD
Carl Servais
520 Third St.
Santa Rosa CA, 95401

OWNER: Santa Rosa City Schools
SRSC School District
1850 Vallejo St.
Santa Rosa CA, 95404

Attached is an itemized quotation for changes in the Contract sum and/or time on subject Project as described herein. This document, when fully executed, as accepted, shall constitute authorization to proceed with the work described herein. Due to schedule impact, this work may be performed prior to approval of the formal Change Order. The Owner agrees that Wright Contracting will be reimbursed monthly for the cost of this work as completed, whether or not the Change Order has been fully executed.

DESCRIPTION OF THE PROPOSED CHANGE: Added Landscaping Project

PCO#25 includes the following: Additional landscaping work at the location where Portable Buildings previously existed per CCD 006. The original scope of the Project did not include landscaping in this area as it was planned for the Portable Buildings to remain. Please see attached for a full description of the scope inclusions and exclusions. Please note that there are no General Conditions added to this PCO - it is assumed that this work can be completed within the overall Project Schedule without additional General Conditions required. Please also note that for this pricing we have made the following changes to the design at the District's direction to save cost: Delete the undulating berms - all former berm areas are the same shape in plan but now flat, the concrete planter walls have been deleted and now a curb mow strip is proposed, the turf spec has been substituted. Please see backup for all notes of scope changes that dont match CCD 006.

Reference:		
Argonaut		\$ 367,434
Devincenzi		\$ 295,516
Neary Landscaping		\$ 325,000
Ahlborn (CCD Scope)		\$ 208,840
Ahlborn (Maintenance Mark Up Scope)		\$ 299,020
Use of "Metal Gate" GMP Budget - 32300		\$ (7,446)
Use of "Metals Fencing" Allowance - 32350		\$ (69,252)
	Subtotal	\$ 1,419,112
	Fee 5.25%	74,503
	Insurance 0.65%	9,708

Net Amount of This Proposed Change **\$ 1,503,324**

(ADD) (DEDUCT) (NO CHANGE) (TO BE EVALUATED AT A LATER DATE)

Net Change in Working Days Due to This Proposed Change **0 DAYS**

(ADD) (DEDUCT) (NO CHANGE) (TO BE EVALUATED AT A LATER DATE)

Wright Contracting LLC.
BY: 
Duncan Young - Project Manager

If Approved By:

1/6/2025

OWNER REPRESENTATIVE

Accepted By:
BY: _____

DATE: _____

REVISION 22

Bid Date: 2/01/2024

Time: 5:00PM

Proposal for:
(BUDGET) Montgomery High School New Classroom (Wright)

from

Argonaut Constructors

360 Sutton Place, Santa Rosa, CA 95402

(707) 542-4862 Fax: (707) 542-4897

License: 171432 Type: GENERAL ENGINEERING

Private

Lock	Item	Description	Quantity	Unit	Total Price
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Labor Total:

0.00 Total w/o Alternates:

0.00

ADDED-LS Updated Landscape Pricing

001	Demo Existing Storm Drain Line	321.00	LF
002	Demo Existing Concrete	2,412.00	SF
003	Remove Existing Tree	11.00	EA
004	Prep Subgrade For Concrete Area (Includes Select Fill)	4,362.00	SF
005	Prep For Concrete Curbs	151.00	LF
006	Place And Grade Class 2 For Concrete Area	4,362.00	SF
007	Install Subdrain And Fabric For Landscape Area	722.00	LF
008	Rough Grade For Landscape Area	8,507.00	SF
009	Bring In Class 2 Perm And Make Finish Grade For Landscaper	8,507.00	SF
010	8" Storm Drain	96.00	LF
011	6" Storm Drain	314.00	LF
012	4" Storm Drain	349.00	LF
013	DI Installation	13.00	EA

Total: 367,434.00

Total w/o Alternates: 0.00

Alternate Totals:

Total For Updated Landscape Pricing 367,434.00

√ = Locked Bid-Item

! = Zero Total Price

12/13/2024 11:01 am

Estimator: Matt Howell

Devincenzi

Concrete Construction

3276 Dutton Ave.
Santa Rosa, CA
95407-7866
T 707.546.3113
F 707.525.8532
Lic. # 326998
DIR #1000001188

November 15, 2024

Wright Contracting, LLC.

Attn: Duncan Young

Re: Montgomery HS New Classroom

Subject: Change Order Request #DC-09

CCD 006 - Flatwork, Mow Band and Trench Drain.

<i>Description</i>	<i>Quantity</i>	<i>Unit</i>	<i>Unit Price</i>	<i>Extension</i>
Foreman	106.00	HRS	133.00	14,098.00
Cement Mason	427.00	HRS	97.00	41,419.00
Forms & Accessories	1.00	LS	2,508.00	2,508.00
Rebar	1.00	LS	10,076.00	10,076.00
Trench Drain Material	1.00	LS	5,344.00	5,344.00
TopCast Retarder	15.00	GLS	85.50	1,282.50
Concrete	79.00	CY	230.00	18,170.00
Concrete Pump	1.00	LS	7,566.00	7,566.00
Concrete Washout	4.00	EA	500.00	2,000.00
Tools and Equipment	1.00	LS	4,070.00	4,070.00
Sub-total				106,533.50
15% Mark-up				15,980.03
TOTAL ADD				122,513.53

The terms and conditions of our original subcontract agreement shall govern this change.

Matt Adams
Project Manager

Devincenzi

Concrete Construction

3276 Dutton Ave.
Santa Rosa, CA
95407-7866
T 707.546.3113
F 707.525.8532
Lic. # 326998
DIR #1000001188

December 16, 2024

Wright Contracting, LLC.

Attn: Duncan Young

Re: Montgomery HS New Classroom

Subject: Change Order Request #DC-12

CCD 006 - Mow Curb in-lieu of Planter Walls at Landscape Revisions

<u>Description</u>	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Extension</u>
Foreman	24.00	HRS	133.00	3,192.00
Cement Mason	56.00	HRS	97.00	5,432.00
Forms & Accessories	1.00	LS	705.00	705.00
Rebar	1.00	LS	95.00	95.00
Concrete	4.00	CY	230.00	920.00
Concrete Pump	1.00	EA	1,008.00	1,008.00
Concrete Washout	1.00	EA	500.00	500.00
Tools and Equipment	1.00	LS	787.00	787.00
Sub-total				12,639.00
15% Mark-up				1,895.85
TOTAL ADD				14,534.85

The terms and conditions of our original subcontract agreement shall govern this change.

Matt Adams
Project Manager

Devincenzi

Concrete Construction

3276 Dutton Ave.
Santa Rosa, CA
95407-7866
T 707.546.3113
F 707.525.8532
Lic. # 326998
DIR #1000001188

November 15, 2024

Wright Contracting, LLC.

Attn: Duncan Young

Re: Montgomery HS New Classroom

Subject: Change Order Request #DC-11

CCD 006 - Seat Walls

Description	Quantity	Unit	Unit Price	Extension
Foreman	160.00	HRS	133.00	21,280.00
Carpenter	420.00	HRS	121.00	50,820.00
Cement Mason	192.00	HRS	97.00	18,624.00
Laborer	56.00	HRS	85.00	4,760.00
Operating Engineer	16.00	HRS	113.00	1,808.00
Forms & Accessories	1.00	LS	3,942.00	3,942.00
Form Retarder	5.00	GLS	109.52	547.60
Rebar	1.00	LS	6,019.00	6,019.00
Concrete	56.00	CY	230.00	12,880.00
Concrete Pump	1.00	LS	6,573.00	6,573.00
Excavator	16.00	HRS	60.00	960.00
Dump Truck	16.00	HRS	65.00	1,040.00
Concrete Washout	1.00	LS	1,500.00	1,500.00
Mockup	1.00	LS	2,500.00	2,500.00
Tools and Equipment	1.00	LS	4,543.00	4,543.00
Sub-total				137,796.60
15% Mark-up				20,669.49
TOTAL ADD				158,466.09

The terms and conditions of our original subcontract agreement shall govern this change.

Matt Adams
Project Manager

PROPOSAL
NEARY LANDSCAPE INC.
P.O. BOX 249
Cotati, CA 94931
Lic. #814207 A, C-27
DIR Registration # 1000002998
Phone 707-588-8677 Fax 707-588-8674

Proposal Submitted To:

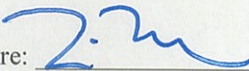
Date: 12/20/24

Wright Contracting
Duncan Young

Job Name: Montgomery High School
Location: Santa Rosa, CA

We Propose hereby to furnish material and labor-complete in accordance with specifications below, for the sum of:
PLEASE SEE BELOW-----dollars (\$0.00)
Payment to be made as follows: Monthly progress based on % complete.

All material is guaranteed to be as specified. All work to be completed in a workmanlike manner according to standard practices. Any alteration or deviation from the specifications below involving extra costs will be executed only upon written orders and will become an extra charge over and above the estimate. All agreements contingent upon strikes, accidents, or delays beyond our control. Owner to carry fire, earthquake and other necessary insurance. Our workers are fully covered by Workmen's Compensation Insurance.
Note: This proposal may be withdrawn by us if not accepted within 30 days.

Authorized Signature: 

Date: 12/20/24

Revised CCD 006 – Landscape Changes for Irrigation, Planting, Boulders and Synthetic Turf. All grading by others, deleting detail #7/L5.04 (skim coat and mounds and weep holes). Based on reducing size of boulders to a maximum of 5'W x 4'L x 3'H (same quantity and locations). Changing manufacturer of turf to Heavenly Greens in lieu of Forever Lawn

Add Cost \$ 325,000

Notes & Exclusions

1. Same terms and conditions as subcontract.
2. All grading, subgrade prep and ABII by others. Planting areas to be received at -3" from finished grade to allow for amendment and mulch. Synthetic turf areas to be received at -1" from finished grade to allow for fines.
3. Based on using Heavenly Green 'Coronado' or 'HG Bounce' turf in lieu of specified Forever Lawn turf.

In the State of California: Contractors are required by law to be licensed and regulated by the Contractors' State License Board. Any questions concerning a contractor may be referred to the board whose address is: CONTRACTORS' STATE LICENSE BOARD, P.O. BOX 26000, SACRAMENTO, CA 95826

ACCEPTANCE OF PROPOSAL - The above prices, specifications and conditions are satisfactory and are hereby accepted. You are authorized to do the work as specified. Payment will be made as outlined above.

Date of Acceptance: _____

Signature _____



1230 Century Court
Santa Rosa, CA 95403

P: (707) 573-0742 | F: (707) 573-0788
www.ahlbornco.com

License No. 793504 | C-13 C-23 C-51

DIR No. 1000001160

PROPOSAL

Proposal Name: Security Fence and Gates
Project Location: 1250 Hahman Dr, Santa Rosa Ca,
Proposal #: .

Wright Contracting Inc.
Attn: Duncan or Louis

Rev #	Date
0	12/14/24

Ahlborn Fence & Steel, Inc. proposes to provide materials and/or labor to complete the following work:

CCD 006 Fencing and gates

Installed Bid Items:

Installed Item #1: Appx 247LF of 8ft high black chainlink fence at north property line per 9/L-504

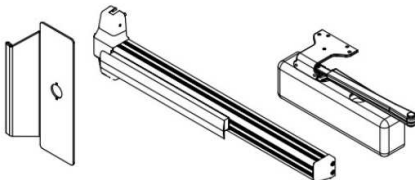
- All material will be black vinyl coated
- We will remove and dispose of existing chainlink fence framing and fabric, posts where removed will be cut off at grade.
- 146LF will be new posts sleeved over existing posts, 101LF will be on new posts in concrete footings.
- Wire mesh to be 9ga core wire, 1" vinyl coated chainlink.

Installed Item #2: 278LF of 8ft high Ameristar Genesis 3 rail montage II fence, one 26ft double swing gate, 1 double swing Exodus gate, and two single swing exodus gates per 1/L-103A and 2,3/L-505.

- Double gate post to be 6x6x.188" tube set 5ft deep in 18" diameter concrete footings.
- Exodus gate post to be 4x4x.11ga tube steel set 4ft deep in 12" diameter concrete footings.
- Line post to be 3x3x12ga tube steel set 4ft deep in 12" diameter concrete footings.
- Exodus gates bid with Ameristar hardware group 4C, see below.
- Exodus gates to have header panel over gate opening.
- All materials will be factory finished.
- WE have included core drilling existing concrete were occurs.

HARDWARE SET 4C

- CBC VON DUPRIN 99 SERIES EXIT DEVICE
- ROCKWOOD VRT16 PULL HANDLE
- LCN 4040XPSRI PARALLEL ARM CLOSER



Note: Includes small format cylinder housing w/ disposable construction key. Small format lock core supplied by customer. Cylinder housing is replaceable. MEETS CALIFORNIA BUILDING CODES (CBC)

Total Base Bid for Work for CCD 006 as Described Above = \$208,840. (includes sales tax)

Maintenance Fencing and gates

Installed Bid Items:

Installed Item #1: Appx 581LF of 8ft high black chainlink fence per 9/L-504 with 5 new double swing gates and one new single swing gate. We will also cover one existing chainlink gate with new 1" black chainlink mesh.

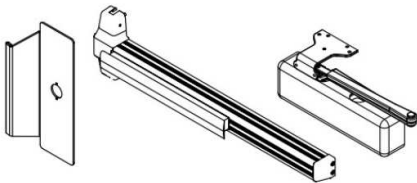
- a. All material will be black vinyl coated
- b. We will remove and dispose of existing chainlink fence framing and fabric, posts where removed will be cut off at grade.
- c. See alt price to sleeve over post at fence along the ball field.
- d. Wire mesh to be 9ga core wire, 1" vinyl coated chainlink.
- e. All gate will have standard hardware, no custom hardware is figured for the single or double gates.

Installed Item #2: 80LF of 8ft high, 30ft of 6ft high and 34ft of 4ft high Ameristar Genesis 3 rail montage II fence and 4 double swing Exodus gates per 1/L-103A and 2,3/L-505.

- f. Exodus gate post to be 4x4x.11ga tube steel set 4ft deep in 12" diameter concrete footings.
- g. Line post to be 3x3x12ga tube steel set 4ft deep in 12" diameter concrete footings.
- h. Exodus gates bid with Ameristar hardware group 4C, see below.
- i. Exodus gates to have header panel over gate opening.
- j. All materials will be factory finished.
- k. WE have included core drilling existing concrete were occurs.
- l. 6ft high panels will bolt into 3 existing opening, 4ft high panels will post to top of existing wood fence.

HARDWARE SET 4C

- CBC VON DUPRIN 99 SERIES EXIT DEVICE
- ROCKWOOD VRT16 PULL HANDLE
- LCN 4040XPSRI PARALLEL ARM CLOSER



Note: Includes small format cylinder housing w/ disposable construction key. Small format lock core supplied by customer. Cylinder housing is replaceable. MEETS CALIFORNIA BUILDING CODES (CBC)

Total Base Bid for Work for Maintenance as Described Above = \$299,020. (includes sales tax)

Total Base Project Price-\$507,860.

Alternate Pricing Options

Add Alt. Item #1: Decrease Ameristar fencing and 26ft double swing gate facing street tying into building to 7ft tall on CCD 006 pricing. = **Deduct \$5215.**

- a. Due to height of fence there will be no header panel over Exodus gates.

Project Specific Exclusions & Clarifications:

1. Demolition & removal of existing materials is not included within the proposed scope of work.
2. This proposal does not include an allowance for excavation conflicts below grade. Coring, jack-hammering, and general demolition/removal of any conflicts below the existing and obvious surface conditions can be performed on a time and material basis (as needed).
3. All soil resulting from the excavation of footings are to be redistributed on the project site (off-hauling of soil material is not included within the proposed scope of work).
4. All concrete work (mow strips, flatwork, cutting, patching, or otherwise) is to be provided by others unless otherwise indicated above.
5. Painting, priming, staining, and/or all custom finishes are not included within the proposed scope of work unless otherwise indicated above.

Proposal values based on the following project documents:

-

Acknowledgment of Addenda:

-

Regarding all public works bids that have a bid opening date: *Ahlborn Fence & Steel, Inc. must be notified within 10 days of bid date if listed as a subcontractor on this project. We reserve the right to withdraw our bid if not notified within this time frame.*

Unless noted otherwise above, Ahlborn Fence & Steel, Inc. standard change order rates are as follows:

Field: \$150.00 per hour | Shop Fabrication: \$130.00 per hour | Detailing: \$135.00 per hour

Standard Exclusions & Clarifications:

1. Demolition & removal of existing materials is excluded unless specifically included above.
2. Permits, bonds, and inspection fees are excluded. General Contractor is to provide, at no cost to Ahlborn, the necessary street use permits for cranes and steel delivery trucks.
3. Excludes engineering, calculations, bonds, fees, special insurances, surveying, or as-built drawings unless specifically included above.
4. Ahlborn Structural Steel, Inc. will be responsible for ordering a standard Underground Service Alert (U.S.A.) for location of public utilities when applicable to the work proposed above. Damage done to unmarked private utilities is not the responsibility of Ahlborn Structural Steel, Inc.
 - a. Private utilities are to be located and marked by others.
5. Exact layouts, locations, and elevations of the work to be installed are to be determined by the owner prior to mobilization.
 - b. The General Contractor is responsible for grades, grid lines, elevations, and anchor bolt locations.
6. Costs associated with excavation conflicts below grade are to be excluded. Coring, jack-hammering, and general demolition/removal of any conflicts below the existing and obvious surface conditions can be performed on a time and material basis (as needed).
7. All soil resulting from the excavation of footings is to be redistributed on the project site (off-hauling of soil material is not included within the proposed scope of work).
8. All concrete work (mow strips, grade beams, flatwork, cutting, patching, or otherwise) is to be excluded unless specifically included above.
9. All protection of potential runoff into waterways and drainage systems is excluded.
10. After execution of contract, deleted scope items may not be credited at full price due to costs associated with Ahlborn Structural Steel, Inc.' administrative and set up procedures.
11. All excavated posthole dirt will be spread on site unless specifically included above.
12. All painting, staining, and custom finishes are excluded unless specifically included above.
13. Matching colored concrete is excluded.
14. Traffic control is excluded.
15. Ahlborn excludes traffic control and all related design, engineering, and staffing.
 - c. The supply of markers, signs, barriers, and related materials is also excluded unless specifically indicated above.
16. Price based on continuous installation to include all units without interruption unless specifically included above. Additional mobilizations will be priced accordingly.
17. Installation of work shall be based on a full 8-hour workday unless otherwise indicated above.

18. Work is to be installed per an agreed upon preliminary schedule.
 19. Costs incurred by deviations from plans and field discrepancies shall be borne by the General Contractor.
 - d. Any alterations shall be agreed upon in writing and work shall commence only after a Change Order has been signed.
 20. Structural steel fabrications to be processed with a high-definition plasma fabrication system which is in full accordance with AISC standards.
 21. One leveling nut will be set to grade by the General Contractor at each structural steel footing.
 22. Carpenter Iron: Described as loose structural shapes, brackets, or fabricated assemblies which attach to the building by bolting to wood or concrete and not to steel are to be F.O.B. (not installed) unless specifically included above.
 23. Wood, masonry, and concrete connections are by others unless specifically included above.
 - e. Bolts, anchor bolts, drilling, or mounting anything other than steel unless specifically included above.
 24. Manufactured items (such as Simpson Hardware) are excluded unless specifically included above.
 25. Grout, epoxy adhesive, sandblasting, galvanizing, 10-gauge metals or lighter, and finish painting are excluded unless provided in scope unless specifically included above.
 26. Nonferrous metals, stainless steel, cast iron, pipe sleeves, and backing plates are excluded unless provided in scope unless specifically included above.
 27. Protection of existing conditions & finishes (i.e., glass, finish paint, stucco, drywall, concrete, landscape, etc.) are excluded unless provided in scope unless specifically included above.
 28. Gratings, grilles, expansion joints, stair nosings, glass stops, roof hatches, steel joists, and accessories are excluded unless provided in scope unless specifically included above.
 29. Welding inspection is by others. Scheduling for inspection will be provided by Ahlborn Structural Steel, Inc.
 30. The General Contractor or Construction Manager is the Controlling Contractor as defined by Cal/OSHA Article 29. Section 1710 (b). Responsibilities set forth in this Article will be borne by the General Contractor, including sections 1710 (c)(3)(A), 1710 (c)(3)(B), and 1710 (c)(3)(C), requiring the General Contractor provide adequate access for erectors crane and equipment including a platform capable of supporting such equipment as well as vehicular and pedestrian control. Also include all necessary demo to access the proposed installation locations.
 31. Field welding is defined as welding required to install Ahlborn supplied materials.
 32. Field touch-up painting of structural steel is excluded.
 33. FOB items shall be fabricated per design drawings, all field dimensions and verification shall be by general contractor.
 34. Ahlborn excludes supply, preparation, installation, and maintenance of safety cabling/temporary guardrails at each structural steel framed floor as well as protection measures at any fall hazards created at roof perimeters with metal decking and around structural framed openings with dimensions of 4'x 6' or greater in accordance with Cal/OSHA Article 16 unless otherwise stated above.
 - f. It is the General Contractor's responsibility to supply a guardrail if required.
 35. Priming or painting of galvanized surfaces is excluded.
 36. Temporary access/stairs for structures 24'-0 in height and greater is to be excluded.
 - g. Means of access is to be supplied, installed, and maintained by others.
 - h. Manlift equipment for structures above 60'-0 in height, or when otherwise warranted for emergency access, to be provided and maintained by others.
 37. All hardware related to FOB items are to be excluded unless specifically included above.
 38. Field dimensioning or surveying of existing structures is to be excluded.
 39. Prime paint is intended to be short-term protection per AISC. All prime/paint items will be field painted by others within ninety (90) days of delivery to jobsite if not specifically included above. Steel Subcontractor is not responsible for the deterioration of the prime paint coat that may result from extended exposure to the elements. Typical abrasions to the shop prime paint coat such as forklift marks, dunnage marks, handprints, marks from shipping tie down, unloading, and choking occurring at fabrication facilities, during shipment, and erection shall be acceptable and will be left as is upon delivery.
 40. Ownership of FOB products passes to the General Contractor or owner at the time of delivery.
 41. Retention is due in within 30 days after completion of installation/erection.
 42. Excludes all work not shown on the architectural or structural drawings unless specifically included above.
 43. If awarded the contract, Ahlborn must be provided with two sets of contract drawings and specifications.
 44. General Contractor is to provide wash facilities and labor to wash vehicle wheels prior to the Ahlborn vehicles leaving the site.
 45. X-raying or locating embedded steel in new or existing concrete is to be excluded unless specifically included above.
 46. Nuts and washers for welded studs used for wood or metal stud attachment are to be excluded unless specifically included above.
 47. This entire proposal must be included as part of the subcontract.
-

Note: Ahlborn Fence & Steel, Inc. will honor all labor and installation values for 30 (thirty) days from the proposal date. Due to the current, constantly fluctuating state of material costs, all scopes not contracted within 30 (thirty) days from the proposal date may be reevaluated for escalation.

Ahlborn Companies are a proud member of the American Fence Association, the California Fence Contractors Association, the National Ornamental & Miscellaneous Metals Association, and the North Coast Builders Exchange. We would like to thank you for taking the time to review our proposal. Should you have any questions or if I can be of further assistance, please do not hesitate to call.

Respectfully submitted,

Tom Ahlborn
Ahlborn Fence & Steel, Inc.



Customer Signature of Acceptance

Date

CONSTRUCTION CHANGE DIRECTIVE

IN ORDER TO EXPEDITE THE WORK AND AVOID OR MINIMIZE DELAYS IN THE WORK, THE CONTRACT DOCUMENTS ARE HEREBY AMENDED AS DESCRIBED BELOW. PLEASE PROCEED WITH THIS WORK PROMPTLY. THIS IS NOT A CHANGE ORDER BUT A DIRECTION TO PROCEED WITH THE WORK AS AGREED HEREIN. PLEASE SUBMIT A CHANGE ORDER REQUEST TO THE ARCHITECT **WITHIN TEN (10) DAYS**. A FORMAL CHANGE ORDER WILL FOLLOW.

TITLE: Revised Landscaping

DESCRIPTION:

Updated Civil, Landscape, and Architectural plans and specifications per attached narrative.

CCD NO:
6

ATTACHMENTS:

[CCD_006_Changes Narrative.pdf](#)

DATE:
10/28/2024

PROJECT:

Montgomery HS Classroom Building

PROJECT NO:
17123.00

TO:

Duncan Young
Wright Contracting

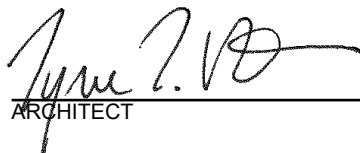
FROM:

Tyree Vantrease

COPIES TO:

Kurt Hirtzer
(Kurt Hirtzer Inspection Services)
Steve Petcavich
(Greystone West Company)
Louis Rampone
(Wright Contracting)
Cory Rossow
(Greystone West Company)
Carl Servais
(TLCD Architecture)
Hector Soto
(Wright Contracting)
Tyree Vantrease
(TLCD Architecture)

ISSUED BY:


ARCHITECT

10/29/24

DATE

AUTHORIZED BY:

OWNER (OR OWNERS AGENT)

DATE

Montgomery High School 2-Story Classroom Building

DSA File #49-H7

DSA Application #01-118024

Date: October 29, 2024

CCD_006_V1 CHANGES NARRATIVE

General Description: Remove two existing portable classrooms and revise landscape design south of new classroom building; update civil design including grading and drainage south of new classroom building; clarify scope of fencing and gates at west side of new classroom building.

G SHEETS - GENERAL

SHEET	CHANGE
G-004	Update egress site plan for new landscaped area

C SHEETS – CIVIL

C-002	Update for removal of portable classrooms and associated paving and utilities
C-003	Add grading information for area south of new classroom building
C-004	Add grading information for area south of new classroom
C-005	Update utility information for area south of new classroom
C-006	Update utility information for area south of new classroom
C-007	Revise paving plan for new hardscape areas south of new classroom
C-008	Update layout for areas south of new classroom building
C-009	Add erosion control measures for new developed areas

L SHEETS - LANDSCAPE

L-101	Added landscape design south of new classroom building
L-102	Added landscape design south of new classroom building
L-103A	Added new sheet to paving and gates added south of existing library building
L-104	Updated irrigation plan for newly developed area south of new classroom building
L-105	Updated irrigation plan for newly developed area south of new classroom building

MONTGOMERY HIGH SCHOOL TWO STORY CLASSROOM BUILDING DSA #01-118024

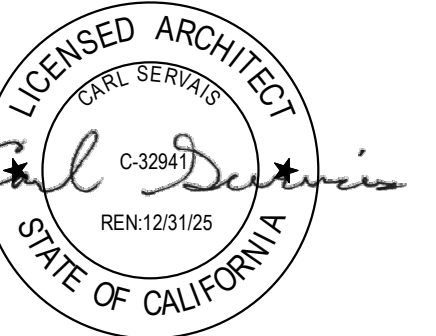
SHEET	CHANGE
L-106	Updated irrigation plan and welo calculations for area south of new classroom building and area south of existing library
L-107	Updated planting plan for area south of new classroom building
L-108	Updated planting plan for area south of new classroom building
L-109	Updated planting plan for area west and south of existing library building
L-503	Added specimen tree planting detail
L-504	New sheet added for planting and fencing details
L-505	New sheet added for site details including gates
L-506	New sheet added for site details including gates

A SHEETS - ARCHITECTURAL

A-102	Updated site demo plan to indicate removal of portable classrooms and paving
A-103	Updated site plan to indicate area of new work south of new classroom building and new gates south of existing library building

SPECIFICATIONS

	32 18 16.13 – Added section 32 31 13 – Added section 32 31 19 – Updated per owner preferred manufacturer 32 33 00 - Updated for new product selection 32 90 00 – Updated for new planted areas and soil treatment
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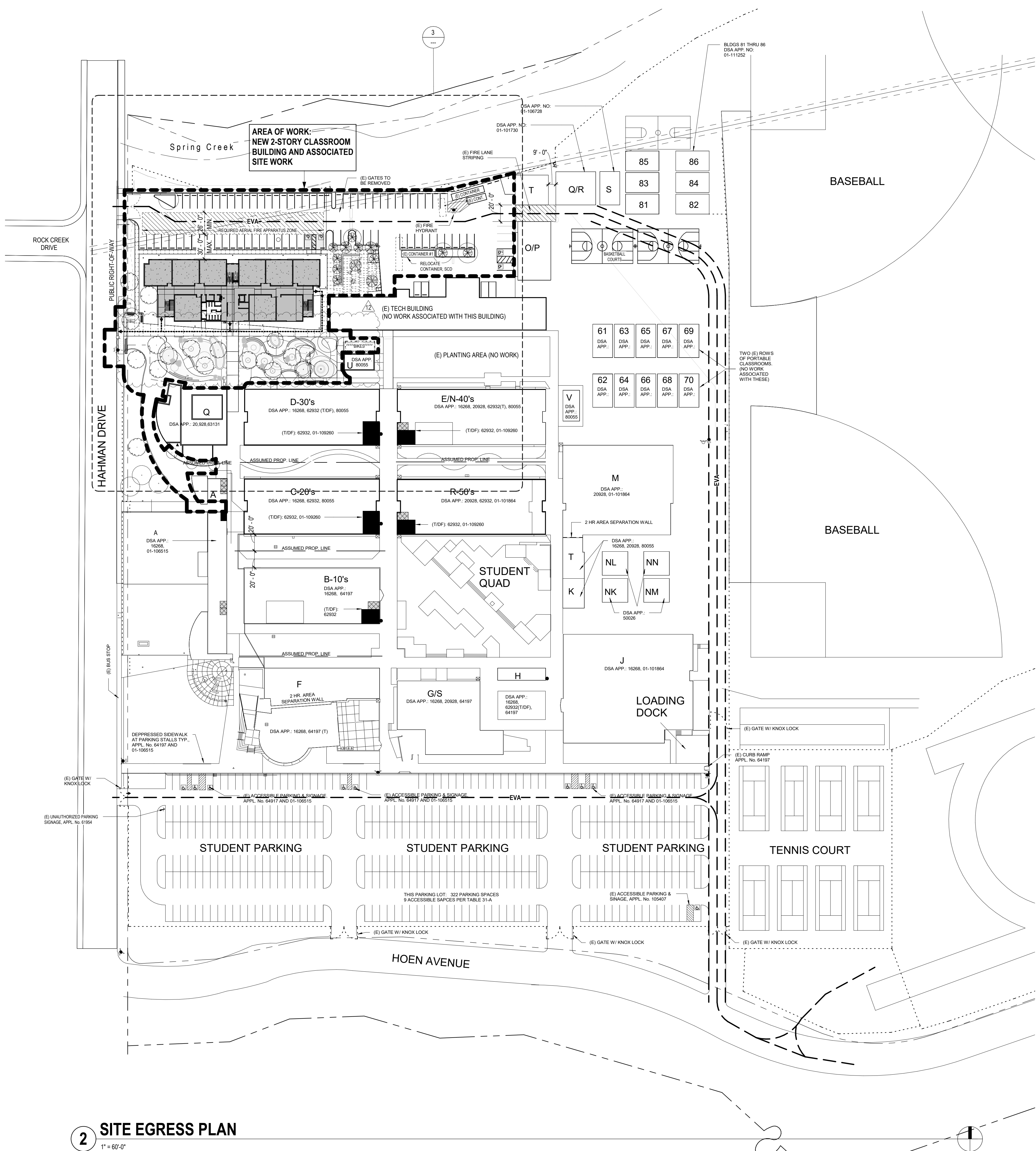
Number	Date	Description
12	10/28/24	CCD 006 LANDSCAPE REVISIONS

MONTGOMERY HIGH SCHOOL
CLASSROOM BUILDING
 1250 HAHMAN DR.
 SANTA ROSA, CA 95405

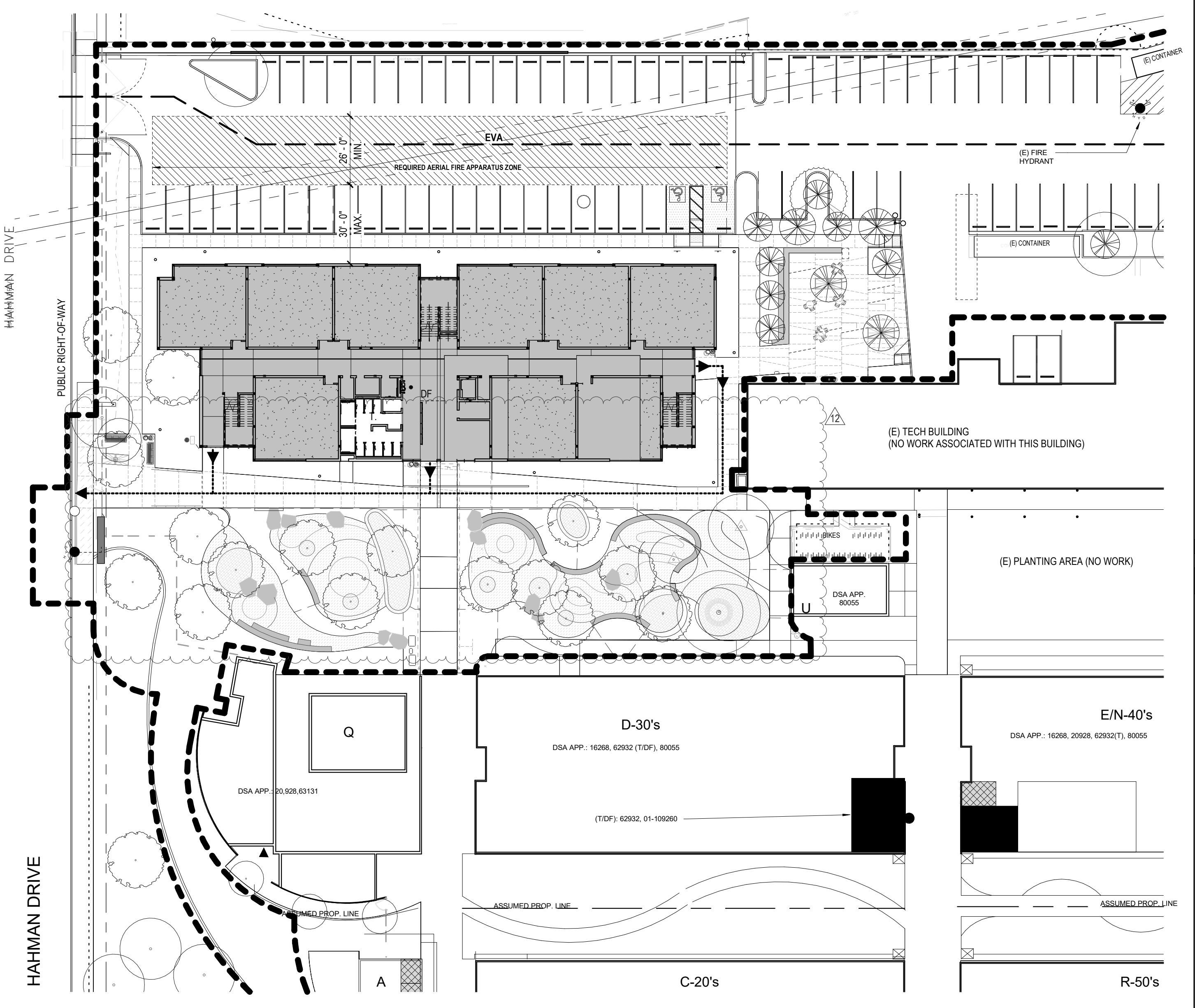
DSA PROJECT NUMBER
17123.00
 TLCD PROJECT NUMBER
17123.00
 DATE
5/10/2024
 DRAWN BY
Author
 CHECKED BY
Checker

EGRESS SITE PLAN

G-004



2 SITE EGRESS PLAN
 1" = 60'-0"



3 ENLARGED SITE EGRESS PLAN
 1" = 30'-0"

SITE EGRESS LEGEND
 ----- PATH OF EXIT DISCHARGE TO PUBLIC WAY



10-28-24

REVISION:

Number	Date	Description
1	10/28/24	CCD 006

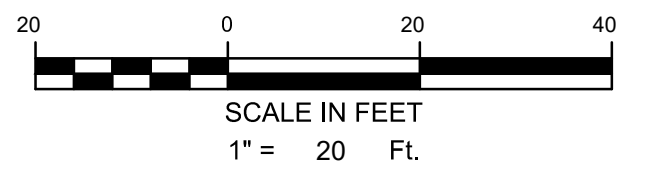
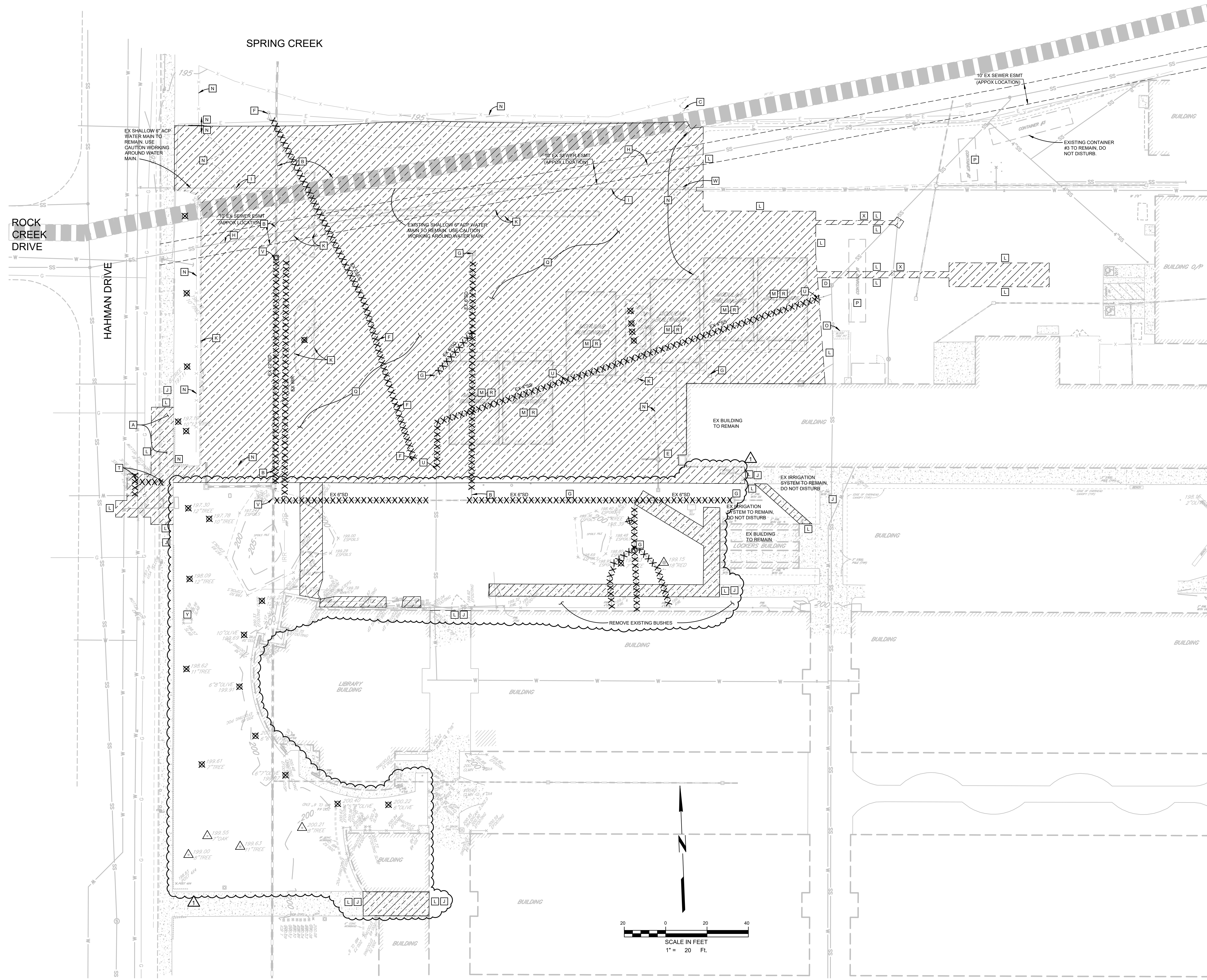
DEMOLITION NOTES

- A CONTRACTOR SHALL OBTAIN AND PAY FOR AN ENCROACHMENT PERMIT BEFORE ANY DEMOLITION WORK CAN OCCUR WITHIN THE PUBLIC RIGHT OF WAY.
- B PROTECT EXISTING STORM DRAIN IN PLACE. PROTECT INLETS FROM SILT AND SOIL.
- C EXISTING FENCE TO REMAIN. PROTECT IN PLACE. DO NOT DISTURB.
- D EXISTING ASPHALT PARKING LOT TO REMAIN. PROTECT IN PLACE. DO NOT DISTURB.
- E PROTECT EXISTING UTILITY BOX AND ADJUST TO GRADE.
- F PROPERLY DE-ENERGIZE EXISTING LIGHT POLE. REMOVE AND DISPOSE OF OFFSITE. SEE ELECTRICAL DEMOLITION PLAN FOR MORE DETAILS.
- G REMOVE STORM DRAIN STRUCTURE AND PROPERLY DISPOSE OF OFFSITE.
- H PROTECT EXISTING CITY OF SANTA ROSA 36" DIAMETER TRUNK SEWER MAIN. DO NOT DISTURB. PROTECT IN PLACE.
- I PROTECT EXISTING CITY OF SANTA ROSA 6" DIAMETER ACP WATER LINE. DO NOT DISTURB. PROTECT IN PLACE. WARNING, EXISTING WATER LINE MAY BE VERY SHALLOW.
- J EXISTING SIDEWALK TO REMAIN. PROTECT IN PLACE. DO NOT DISTURB.
- K REMOVE EXISTING CURB AND PROPERLY DISPOSE OF OFFSITE.
- L SAWCUT EXISTING PAVEMENT.
- M EXISTING PORTABLE AND RAMP AND LANDING TO BE RELOCATED ONSITE. SEE CIVIL PLANS FOR DETAILS.
- N REMOVE EXISTING FENCE, PROPERLY DISPOSE OF OFFSITE.
- O REMOVE EXISTING BLOCK FIRE PIT. SALVAGE AND RETURN TO SCHOOL DISTRICT IF POSSIBLE. OTHERWISE DISPOSE OF PROPERLY OFFSITE.
- P RELOCATE EXISTING CONTAINER. SEE SHEETS C-004, C-008 FOR THE NEW LOCATION OF THE CONTAINER.
- Q WORK WITH DISTRICT TO IDENTIFY KEY UTILITY CORRIDORS AND COMPONENTS. DEMOLITION EFFORTS MUST CAREFULLY PRESERVE CRITICAL UTILITY SYSTEMS IN PLACE AS REQUIRED FOR CONTINUED OPERATIONS IN PARTS OF THE CAMPUS NOT CURRENTLY UNDERGOING DEMOLITION.
- R ALL EXISTING WET AND DRY UTILITIES SHALL BE DISCONNECTED AND REMOVED FROM THE SITE. BACKFILL AND COMPACT RESULTING EXCAVATIONS BELOW PLANNED SUBGRADES WITH SELECT FILL. WET UTILITIES THAT DO NOT DIRECTLY CONFLICT WITH PROPOSED IMPROVEMENTS MAY BE FILLED WITH LEAN CONCRETE SLURRY AND CAPPED IN PLACE.
- S REMOVE AND SALVAGE EXISTING METAL RAMP AND LANDING. DELIVER RAMP AND LANDING TO THE SCHOOL DISTRICT.
- T REMOVE EXISTING FIRE HYDRANT TEE, GATE VALVE AND FIRE HYDRANT LATERAL. SALVAGE EXISTING FIRE HYDRANT ASSEMBLY AND RETURN FIRE HYDRANT TO THE CITY OF SANTA ROSA.
- U CONTRACTOR SHALL VERIFY IF THE EXISTING SEWER LINE IS ACTIVE AND IF IT IS ACTIVE WHAT BUILDINGS IT SERVES BEFORE REMOVING THE PORTION OF THE SEWER LINE UNDER THE PROPOSED BUILDING FOOTPRINT. IF IT IS DETERMINED THAT THE SEWER LINE IS ACTIVE, THEN THE CONTRACTOR SHALL VERIFY THE SIZE, LOCATION, DEPTH AND MATERIAL OF EXISTING SEWER LINE AT THE UPSTREAM END OF THE SEWER REMOVAL AND GIVE THE INFORMATION TO THE PROJECT CIVIL ENGINEER. IF IT IS DETERMINED THAT THE SEWER LINE IS REQUIRED TO STAY IN SERVICE DURING THE DURATION OF THE PROPOSED BUILDING CONSTRUCTION, THEN THE SEWER LINE SHALL BE REROUTED AROUND THE PROPOSED BUILDING AS SHOWN ON SHEETS C-005 AND C-006.
- V EXISTING 12" STORM DRAIN IS REQUIRED TO STAY IN SERVICE DURING THE DURATION OF THE PROPOSED BUILDING CONSTRUCTION. BEFORE 12" STORM DRAIN LINE IS REMOVED UNDER THE PROPOSED BUILDING THE CONTRACTOR SHALL REROUTE THE 12" STORM DRAIN LINE AS SHOWN ON SHEET C-005 TO ENSURE THE UPSTREAM STORM DRAIN SYSTEM REMAINS FUNCTIONAL.
- W REMOVE EXISTING GATE. PROPERLY DISPOSE OF OFFSITE.
- X SAWCUT AND REMOVE AND REPLACE EXISTING PAVEMENT TO INSTALL IRRIGATION LINE. COORDINATE LOCATION WITH LANDSCAPE ARCHITECTURAL PLANS.
- Y EXISTING SIGN TO REMAIN. PROTECT IN PLACE.

LEGEND

- XXXXX UTILITY PIPES AND STRUCTURES TO BE REMOVED AND PROPERLY DISPOSED OF OFFSITE. CUT AND CAP PORTIONS OF THE UTILITIES TO REMAIN. CONTRACTOR MAY ABANDON IN PLACE THOSE PORTIONS OF THE UTILITY THAT DO NOT CONFLICT WITH THE PROPOSED IMPROVEMENTS. REFER TO SPECIFICATIONS SECTION 31 1000 FOR ABANDONMENT REQUIREMENTS. SEE PLAN FOR SIZE AND TYPE.
- REMOVE ALL EXISTING SURFACE IMPROVEMENTS, INCLUDING, BUT NOT LIMITED TO, ASPHALT AND CONCRETE, CURBS, BASE MATERIAL, BIKE RACKS, FENCE GATES, HANDRAILS, HEADERS/BOARDS, PLAY AREA SURFACING AND EQUIPMENT (INCLUDING FOOTINGS), RAMPS, STAIRS, WALLS, ETC. WITHIN THE LIMITS OF THE WATCHING IDENTIFIED HEREON AND PROPERLY DISPOSE OF OFFSITE. UNLESS OTHERWISE NOTED, AT THE CONTRACTOR'S OPTION, NON-CONTAMINATED BASE MATERIAL MAY BE REUSED. AT THE CONTRACTOR'S OPTION, NON-CONTAMINATED BASE MATERIAL MAY BE STOCKPILED FOR REUSE ONSITE AS BASE MATERIAL FOR HARDSCAPE AREAS ONLY, (NON-BUILDING AREAS).
- TREE TO BE REMOVED.
- TREE TO BE SAVED.
- INSTALL TREE PROTECTION FENCING PER DETAIL SHEET C-010.
- CUT AND CAP EXISTING UTILITY. CAP MATERIAL SHALL MATCH EXISTING PIPE MATERIAL.

REFER TO ARCHITECTURAL, LANDSCAPE ARCHITECTURAL, ELECTRICAL AND MECHANICAL DRAWINGS FOR ADDITIONAL DEMOLITION REQUIREMENTS.



TAB: C-002 DEMO

10-22-24
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MONTGOMERY HIGH SCHOOL
CLASSROOM BUILDING
1250 HAHMAN DR.
SANTA ROSA, CA 95405

ISA APPLICATION NUMBER
01-18024
TCD PROJECT NUMBER
17123 003555 06
DATE
MARCH 18, 2020
DRAWN BY
DJK
CHECKED BY

DEMOLITION PLAN

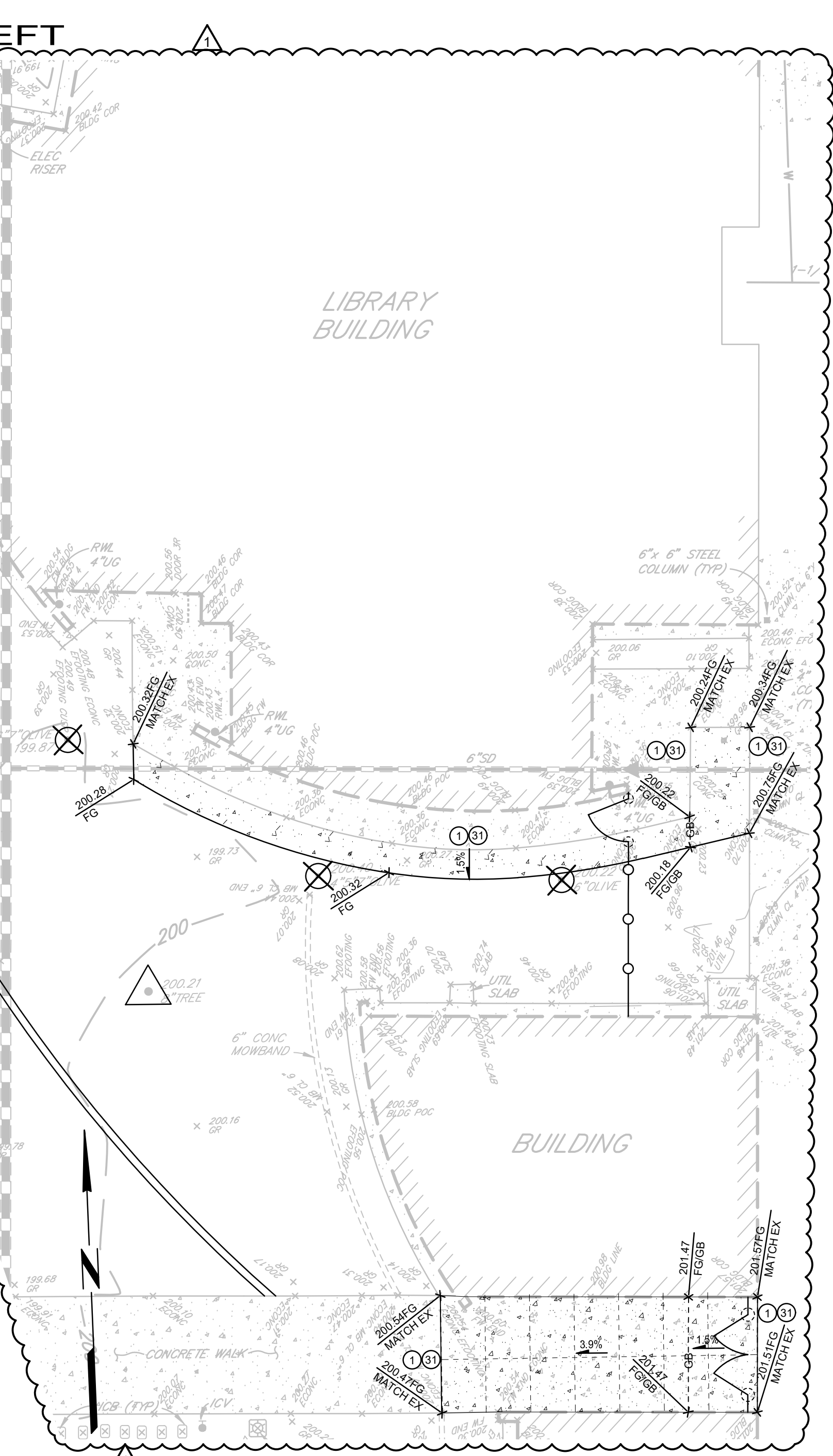
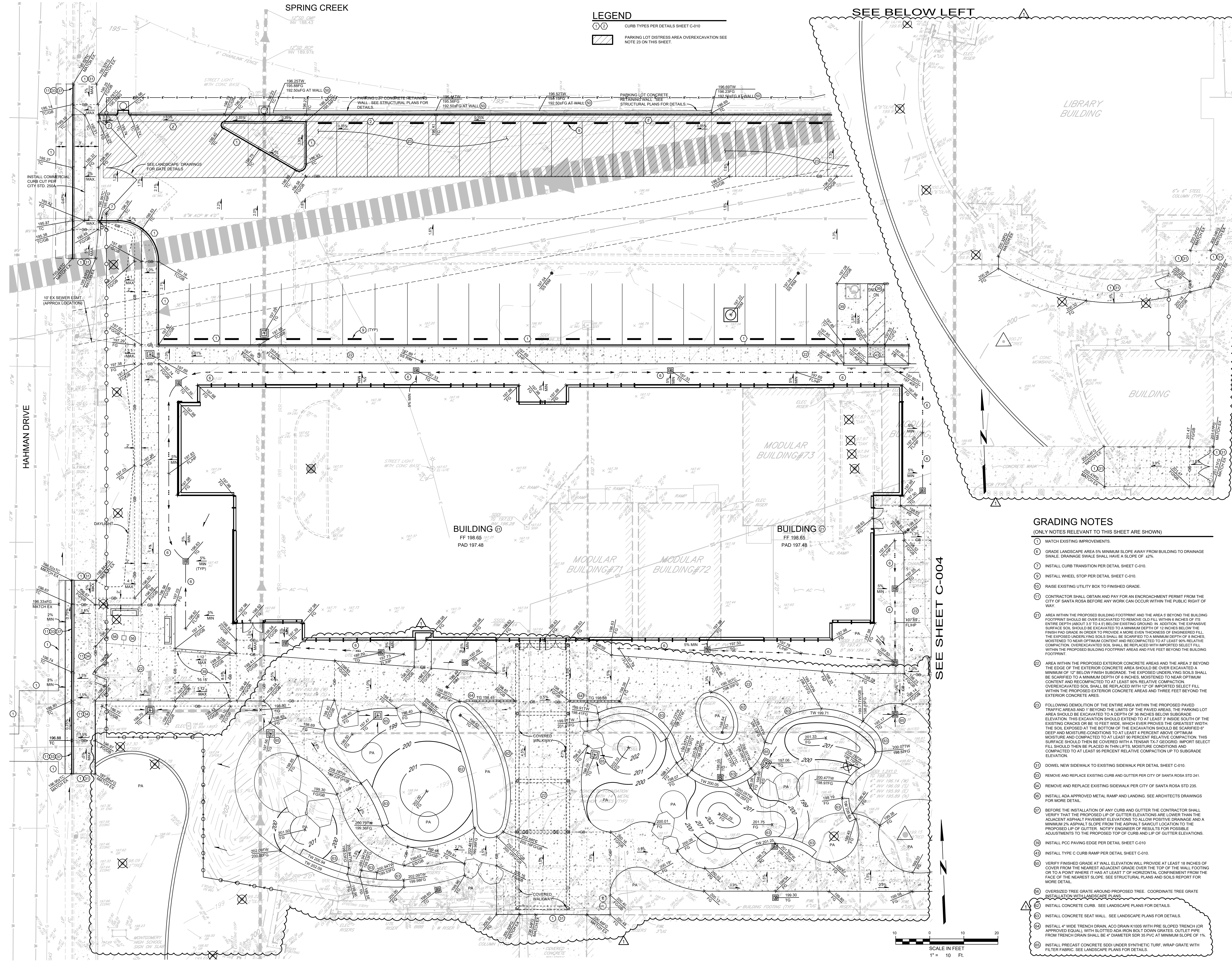
C-002

SPRING CREEK

LEGEND

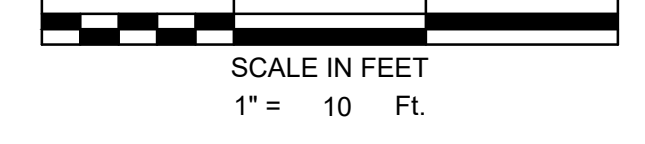
- ① ② CURB TYPES PER DETAILS SHEET C-010
- ▨ PARKING LOT DISTRESS AREA OVEREXCAVATION SEE NOTE 23 ON THIS SHEET.

SEE BELOW LEFT



GRADING NOTES

- (ONLY NOTES RELEVANT TO THIS SHEET ARE SHOWN)
- MATCH EXISTING IMPROVEMENTS.
 - GRADE LANDSCAPE AREA 5% MINIMUM SLOPE AWAY FROM BUILDING TO DRAINAGE SWALE. DRAINAGE SWALE SHALL HAVE A SLOPE OF 2%.
 - INSTALL CURB TRANSITION PER DETAIL SHEET C-010.
 - INSTALL WHEEL STOP PER DETAIL SHEET C-010.
 - RAISE EXISTING UTILITY BOX TO FINISHED GRADE.
 - CONTRACTOR SHALL OBTAIN AND PAY FOR AN ENCROACHMENT PERMIT FROM THE CITY OF SANTA ROSA BEFORE ANY WORK CAN OCCUR WITHIN THE PUBLIC RIGHT OF WAY.
 - AREA WITHIN THE PROPOSED BUILDING FOOTPRINT AND THE AREA 5' BEYOND THE BUILDING FOOTPRINT SHOULD BE OVER EXCAVATED TO REMOVE OLD FILL WITHIN 6 INCHES OF ITS ENTIRE DEPTH (ABOUT 3' TO 4' BELOW EXISTING GROUND). IN ADDITION, THE EXPANSIVE SURFACE SOIL SHOULD BE EXCAVATED TO A MINIMUM DEPTH OF 12 INCHES BELOW THE FINISH PAD GRADE IN ORDER TO PROVIDE A MORE EVEN THICKNESS OF ENGINEERED FILL. THE EXPOSED UNDERLYING SOILS SHALL BE SCARIFIED TO A MINIMUM DEPTH OF 6 INCHES, MOISTENED TO NEAR OPTIMUM CONTENT AND RECOMPACTED TO AT LEAST 90% RELATIVE COMPACTION. OVEREXCAVATED SOIL SHALL BE REPLACED WITH IMPORTED SELECT FILL WITHIN THE PROPOSED BUILDING FOOTPRINT AREAS AND FIVE FEET BEYOND THE BUILDING FOOTPRINT.
 - AREA WITHIN THE PROPOSED EXTERIOR CONCRETE AREAS AND THE AREA 3' BEYOND THE EDGE OF THE EXTERIOR CONCRETE AREA SHOULD BE OVER EXCAVATED A MINIMUM OF 12" BELOW FINISH SUBGRADE. THE EXPOSED UNDERLYING SOILS SHALL BE SCARIFIED TO A MINIMUM DEPTH OF 6 INCHES, MOISTENED TO NEAR OPTIMUM CONTENT AND RECOMPACTED TO AT LEAST 90% RELATIVE COMPACTION. OVEREXCAVATED SOIL SHALL BE REPLACED WITH 2" OF IMPORTED SELECT FILL WITHIN THE PROPOSED EXTERIOR CONCRETE AREAS AND THREE FEET BEYOND THE EXTERIOR CONCRETE AREAS.
 - FOLLOWING DEMOLITION OF THE ENTIRE AREA WITHIN THE PROPOSED PAVED TRAFFIC AREAS AND 1' BEYOND THE LIMITS OF THE PAVED AREAS, THE PARKING LOT AREA SHOULD BE EXCAVATED TO A DEPTH OF 36 INCHES BELOW SUBGRADE ELEVATION. THIS EXCAVATION SHOULD EXTEND TO AT LEAST 3' INSIDE SOUTH OF THE EXISTING CRACKS OR BE 10 FEET WIDE, WHICH EVER PROVIDES THE GREATEST WIDTH. THE SOIL EXPOSED AT THE BOTTOM OF THE EXCAVATION SHOULD BE SCARIFIED 6" DEEP AND MOISTURE CONDITIONS TO AT LEAST 4 PERCENT ABOVE OPTIMUM MOISTURE AND COMPACTED TO AT LEAST 90 PERCENT RELATIVE COMPACTION. THIS SURFACE SHOULD THEN BE COVERED WITH A TENSAR 747 GEOTEXTILE. IMPORT SELECT FILL SHOULD THEN BE PLACED IN THIN LIFTS, MOISTURE CONDITIONS AND COMPACTED TO AT LEAST 95 PERCENT RELATIVE COMPACTION UP TO SUBGRADE ELEVATION.
 - DOWEL NEW SIDEWALK TO EXISTING SIDEWALK PER DETAIL SHEET C-010.
 - REMOVE AND REPLACE EXISTING CURBS AND GUTTER PER CITY OF SANTA ROSA STD 241.
 - REMOVE AND REPLACE EXISTING SIDEWALK PER CITY OF SANTA ROSA STD 235.
 - INSTALL ADA APPROVED METAL RAMP AND LANDING. SEE ARCHITECTS DRAWINGS FOR MORE DETAIL.
 - BEFORE THE INSTALLATION OF ANY CURB AND GUTTER THE CONTRACTOR SHALL VERIFY THAT THE PROPOSED LIP OF GUTTER ELEVATIONS ARE LOWER THAN THE ADJACENT ASPHALT PAVEMENT ELEVATIONS TO ALLOW POSITIVE DRAINAGE AND A MINIMUM 2% ASPHALT SLOPE FROM THE ASPHALT SAWCUT LOCATION TO THE PROPOSED LIP OF GUTTER. NOTIFY ENGINEER OF RESULTS FOR POSSIBLE ADJUSTMENTS TO THE PROPOSED TOP OF CURB AND LIP OF GUTTER ELEVATIONS.
 - INSTALL PCC PAVING EDGE PER DETAIL SHEET C-010.
 - INSTALL TYPE C CURB RAMP PER DETAIL SHEET C-010.
 - VERIFY FINISHED GRADE AT WALL ELEVATION WILL PROVIDE AT LEAST 18 INCHES OF COVER FROM THE NEAREST ADJACENT GRADE OVER THE TOP OF THE WALL FOOTING OR TO A POINT WHERE IT HAS AT LEAST 7' OF HORIZONTAL CONFINEMENT FROM THE FACE OF THE NEAREST SLOPE. SEE STRUCTURAL PLANS AND SOILS REPORT FOR MORE DETAIL.
 - OVERSIZED TREE GRATE AROUND PROPOSED TREE. COORDINATE TREE GRATE INSTALLATION WITH LANDSCAPE PLANS.
 - INSTALL CONCRETE CURB. SEE LANDSCAPE PLANS FOR DETAILS.
 - INSTALL CONCRETE SEAT WALL. SEE LANDSCAPE PLANS FOR DETAILS.
 - INSTALL 4" WIDE TRENCH DRAIN, ACO DRAIN 1005 WITH PRE SLOPED TRENCH (OR APPROVED EQUAL), WITH SLOTTED ADA IRON BOLT DOWN GRATES. OUTLET PIPE FROM TRENCH DRAIN SHALL BE 4" DIAMETER SDR 35 PVC AT MINIMUM SLOPE OF 1%.
 - INSTALL PRECAST CONCRETE SODI UNDER SYNTHETIC TURF. WRAP GRATE WITH FILTER FABRIC. SEE LANDSCAPE PLANS FOR DETAILS.



AGENCY APPROVAL STAMP

TLCD ARCHITECTURE
 520 Third St. #250
 Santa Rosa, CA 95401
 o: 707.525.5600
 f: 707.525.5616
 tlcd.com

Brelje & Race
 CONSULTING ENGINEERS
 475 Aviation Boulevard, Suite 120
 Santa Rosa, CA 95403
 v: 707-576-1322
 f: 707-576-0469
 www.brc.com

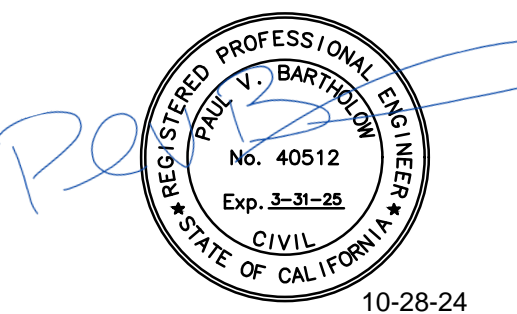
PROFESSIONAL ENGINEER
 No. 40512
 Exp. 8-28-28
 CIVIL
 STATE OF CALIFORNIA

Number	Date	Description
10/28/24		CCD 006

MONTGOMERY HIGH SCHOOL
CLASSROOM BUILDING
 1250 HAHMAN DR.
 SANTA ROSA, CA 95405

ISSUE APPLICATION NUMBER: 01-118024
 TLO PROJECT NUMBER: 17123.003555.06
 DATE: MARCH 18, 2020
 DRAWN BY: DJK
 CHECKED BY:

GRADING PLAN
C-003



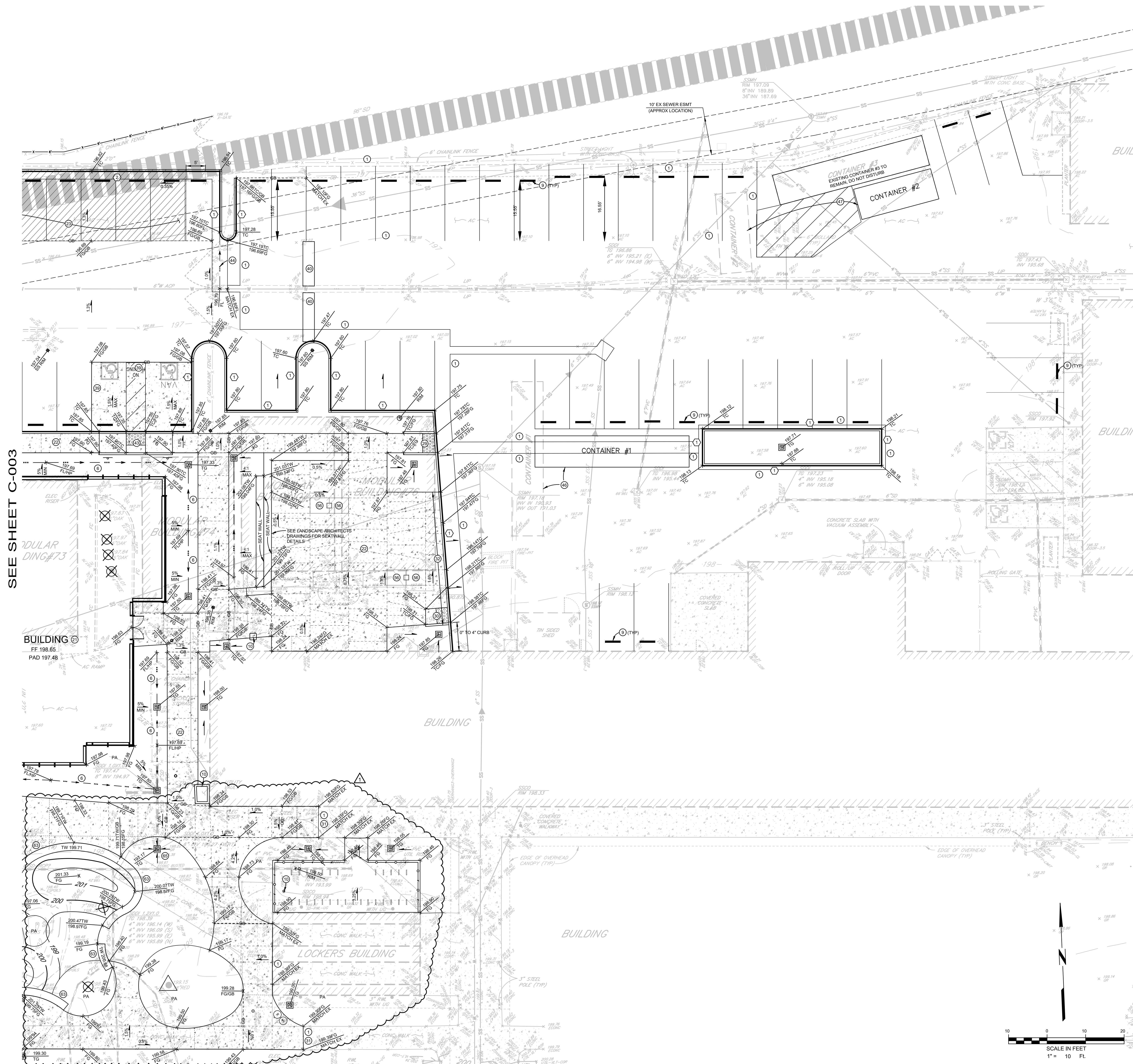
GRADING NOTES

(ONLY NOTES RELEVANT TO THIS SHEET ARE SHOWN)

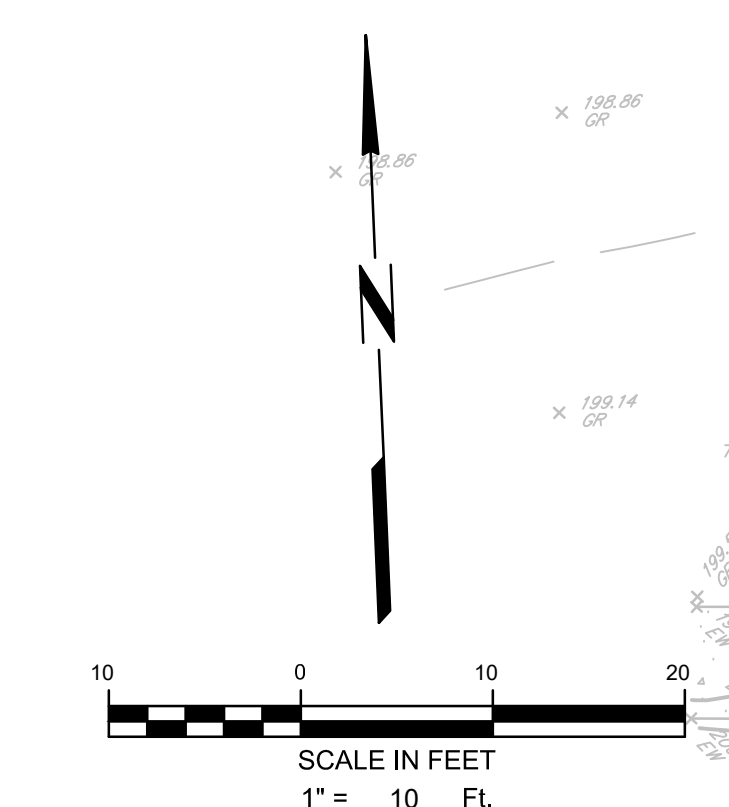
- ① MATCH EXISTING IMPROVEMENTS.
- ② GRADE LANDSCAPE AREA 5% MINIMUM SLOPE AWAY FROM BUILDING TO DRAINAGE SWALE. DRAINAGE SWALE SHALL HAVE A SLOPE OF 12%.
- ③ INSTALL WHEEL STOP PER DETAIL SHEET C-010.
- ④ RAISE EXISTING UTILITY BOX TO FINISHED GRADE.
- ⑤ AREA WITHIN THE PROPOSED BUILDING FOOTPRINT AND THE AREA 5' BEYOND THE BUILDING FOOTPRINT SHOULD BE OVER EXCAVATED TO REMOVE OLD FILL WITHIN 6 INCHES OF ITS ENTIRE DEPTH (ABOUT 3' TO 4') BELOW EXISTING GROUND. IN ADDITION, THE EXPANSIVE SURFACE SOIL SHOULD BE EXCAVATED TO A MINIMUM DEPTH OF 12 INCHES BELOW THE FINISH PAD GRADE IN ORDER TO PROVIDE A MORE EVEN THICKNESS OF ENGINEERED FILL. THE EXPOSED UNDERLYING SOILS SHALL BE SCARIFIED TO A MINIMUM DEPTH OF 8 INCHES, MOISTENED TO NEAR OPTIMUM CONTENT AND RECOMPACTED TO AT LEAST 90% RELATIVE COMPACTION. OVEREXCAVATED SOIL SHALL BE REPLACED WITH IMPORTED SELECT FILL WITHIN THE PROPOSED BUILDING FOOTPRINT AREAS AND FIVE FEET BEYOND THE BUILDING FOOTPRINT.
- ⑥ AREA WITHIN THE PROPOSED EXTERIOR CONCRETE AREAS AND THE AREA 3' BEYOND THE EDGE OF THE EXTERIOR CONCRETE AREA SHOULD BE OVER EXCAVATED TO A MINIMUM OF 12" BELOW FINISH SUBGRADE. THE EXPOSED UNDERLYING SOILS SHALL BE SCARIFIED TO A MINIMUM DEPTH OF 8 INCHES, MOISTENED TO NEAR OPTIMUM CONTENT AND RECOMPACTED TO AT LEAST 90% RELATIVE COMPACTION. OVEREXCAVATED SOIL SHALL BE REPLACED WITH 12" OF IMPORTED SELECT FILL WITHIN THE PROPOSED EXTERIOR CONCRETE AREAS AND THREE FEET BEYOND THE EXTERIOR CONCRETE AREAS.
- ⑦ INSTALL TYPE A CURB RAMP PER DETAIL SHEET C-010.
- ⑧ INSTALL TYPE B CURB RAMP PER DETAIL SHEET C-010.
- ⑨ DOWEL NEW SIDEWALK TO EXISTING SIDEWALK PER DETAIL SHEET C-010.
- ⑩ INSTALL 6" TO 4" HIGH VARIABLE HEIGHT VERTICAL CURB PER DETAIL SHEET C-010.
- ⑪ INSTALL PCC PAVING EDGE PER DETAIL SHEET C-010.
- ⑫ INSTALL SPEED BUMP PER DETAIL SHEET C-010.
- ⑬ INSTALL TYPE C CURB RAMP PER DETAIL SHEET C-010.
- ⑭ INSTALL CONCRETE VALLEY GUTTER PER DETAIL SHEET C-010.
- ⑮ RELOCATE EXISTING CONTAINER #1 TO THIS LOCATION.
- ⑯ RELOCATE EXISTING CONTAINER #2 TO THIS LOCATION.
- ⑰ OVERSIZED TREE GRATE AROUND PROPOSED TREE. COORDINATE TREE GRATE INSTALLATION WITH LANDSCAPE PLANS.
- ⑱ INSTALL CONCRETE SEAT WALL. SEE LANDSCAPE PLANS FOR DETAILS.
- ⑲ INSTALL PRECAST CONCRETE SDDI UNDER SYNTHETIC TURF. WRAP GRATE WITH FILTER FABRIC. SEE LANDSCAPE PLANS FOR DETAILS.

LEGEND

- ① ② CURB TYPES PER DETAILS SHEET C-010



SEE SHEET C-003



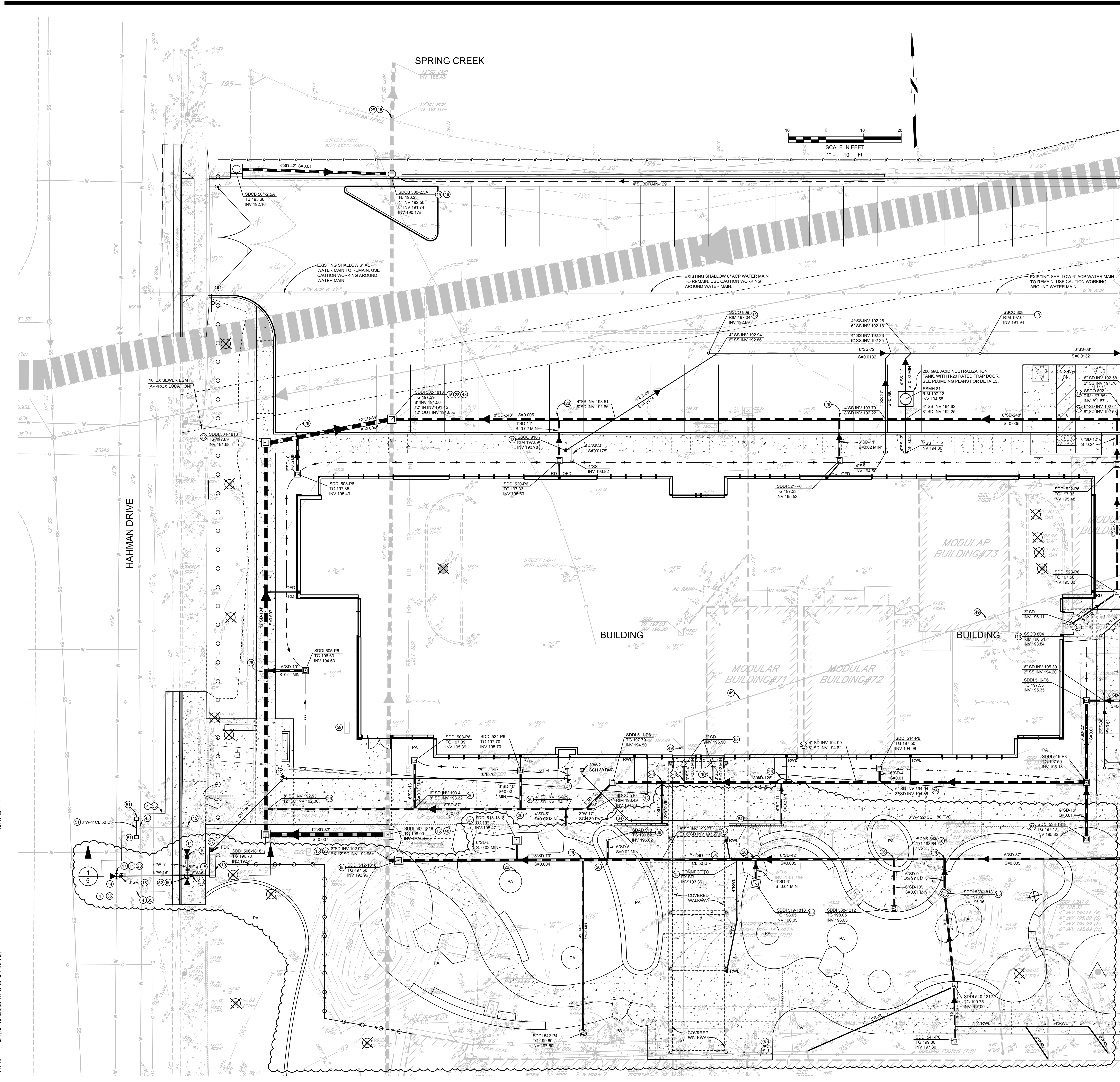
Number	Date	Description
1	10/28/24	CCD 006

MONTGOMERY HIGH SCHOOL
CLASSROOM BUILDING
1250 HAHMAN DR.
SANTA ROSA, CA 95405

CSA APPLICATION NUMBER: 01-118024
TLCD PROJECT NUMBER: 17123.003555.06
DATE: MARCH 18, 2020
DRAWN BY: DJK
CHECKED BY:

GRADING PLAN

C-004

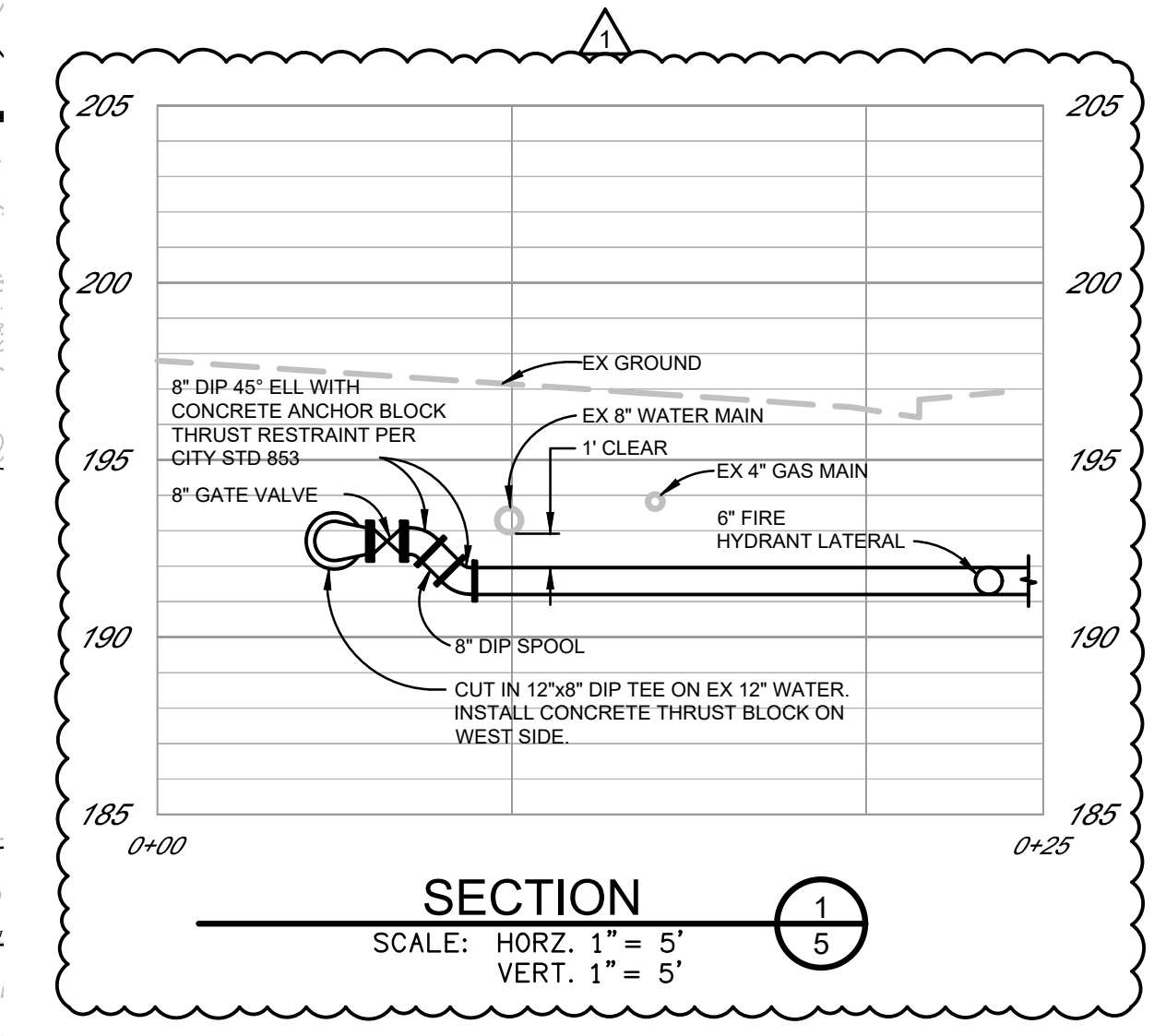


UTILITY NOTES

(ONLY NOTES RELEVANT TO THIS SHEET ARE SHOWN)

- 1 BACKFILL UTILITY TRENCH AND RESURFACE ROAD PER CITY STANDARD 215. SEE SHEET C-012 FOR DETAIL.
- 2 CONTRACTOR SHALL OBTAIN AND PAY FOR AN ENCROACHMENT PERMIT FROM THE CITY OF SANTA ROSA BEFORE ANY WORK CAN OCCUR WITHIN THE PUBLIC RIGHT OF WAY.
- 3 INSTALL CLEANOUT PER DETAIL SHEET C-010.
- 4 INSTALL CONCRETE THRUST BLOCK PER CITY OF SANTA ROSA STANDARD 854. USE SOIL BEARING CAPACITY OF 1000 P.S.F. SEE SHEET C-012 FOR DETAIL.
- 5 POT HOLE AND VERIFY SIZE, LOCATION AND INVERT ELEVATIONS OF EXISTING UTILITY LINE BEFORE ANY UTILITY CONSTRUCTION, OR ORDERING ANY SEWER/STORM DRAIN STRUCTURES. NOTIFY ENGINEER OF RESULTS FOR POSSIBLE ADJUSTMENTS OF SEWER STORM DRAIN LAYOUT AND OR INVERT ELEVATIONS.
- 6 INSTALL FIRE HYDRANT PER CITY OF SANTA ROSA STANDARD 857. SEE SHEET C-012 FOR DETAIL.
- 7 CUT IN 12"x8" DIP TEE ON EX. 12" WATER LINE PER CITY OF SANTA ROSA STANDARDS.
- 8 INSTALL WATER GATE VALVE PER CITY OF SANTA ROSA STANDARD 877. SEE SHEET C-012 FOR DETAIL.
- 9 INSTALL 6" DIAMETER DOUBLE CHECK DETECTOR FIRE LINE BACKFLOW ASSEMBLY WITH INTEGRAL 4" 90 DEGREE FDC PLUMBER CONNECTION WITH DUAL 2 1/2" OUTLETS PER CITY STANDARD 886. SEE SHEET C-012 FOR DETAIL.
- 10 POT HOLE AND VERIFY SIZE, LOCATION AND ELEVATIONS OF EXISTING WATER LINE BEFORE ANY WATER CONSTRUCTION. CONNECT TO EXISTING WATER.
- 11 REPAIR BROKEN STORM DRAIN CONNECTION BETWEEN EXISTING 12" RCP AND EXISTING 12" RCP BY POURING A NEW CONCRETE COLLAR AROUND THE BROKEN STORM DRAIN SECTION. PROPERLY BACKFILL EXCAVATION AROUND BROKEN SECTION OF PIPES WITH TRENCH BACKFILL TO EXISTING GRADE. SEE SHEET C-010 FOR CONCRETE COLLAR DETAIL.
- 12 BLIND CONNECTION TO STORM DRAIN PER DETAIL SHEET C-011.
- 13 INSTALL CONCRETE THRUST BLOCK (SOIL BEARING CAPACITY 1000 PSF) PER CITY OF SANTA ROSA STANDARD 854. SEE SHEET C-012 FOR DETAIL.
- 14 INSTALL ADA APPROVED BOLT DOWN GALVANIZED STEEL CHECKER PLATE TOP ON PROPOSED STORM DRAIN INLET. SDDI SHALL HAVE A PAVING NOTCH FRAME CAST ON TOP OF INLET.
- 15 SAWCUT AND MATCH EXISTING IMPROVEMENTS.
- 16 REMOVE EXISTING FIRE HYDRANT, TEE, GATE VALVE AND FIRE HYDRANT LATERAL. SALVAGE EXISTING FIRE HYDRANT AND BODY RETURN TO CITY OF SANTA ROSA.
- 17 EXISTING 12" STORM DRAIN IS REQUIRED TO STAY IN SERVICE DURING THE DURATION OF THE PROPOSED BUILDING CONSTRUCTION. BEFORE 12" STORM DRAIN LINE IS REMOVED UNDER THE PROPOSED BUILDING THE CONTRACTOR SHALL REROUTE THE 12" STORM DRAIN LINE AS SHOWN ON SHEET C-005 TO ENSURE THE UPSTREAM STORM DRAIN SYSTEM REMAINS FUNCTIONAL.
- 18 CONTRACTOR SHALL VERIFY IF THE EXISTING SEWER LINE IS ACTIVE AND IF IT IS ACTIVE WHAT BUILDINGS IT SERVES BEFORE REMOVING THE PORTION OF THE SEWER LINE UNDER THE PROPOSED BUILDING FOOTPRINT. IF IT IS DETERMINED THAT THE SEWER LINE IS ACTIVE, THEN THE CONTRACTOR SHALL VERIFY THE SIZE, LOCATION, DEPTH AND MATERIAL OF EXISTING SEWER LINE AT THE UPSTREAM END OF THE SEWER REMOVAL AND GIVE THE INFORMATION TO THE PROJECT CIVIL ENGINEER. IF IT IS DETERMINED THAT THE SEWER LINE IS REQUIRED TO STAY IN SERVICE DURING THE DURATION OF THE PROPOSED BUILDING CONSTRUCTION, THEN THE SEWER LINE SHALL BE REROUTED AROUND THE PROPOSED BUILDING AS SHOWN ON SHEETS C-005 AND C-006.
- 19 CUT AND REMOVE EXISTING 8" WATER (CAST IRON), CONNECT TO EXISTING 8" WATER MAIN WITH CITY OF SANTA ROSA APPROVED COUPLINGS.
- 20 INSTALL 8"x8" CROSS AND CONCRETE TRUST BLOCK. INSTALL BOLT ON 6" DIAMETER BLIND FLANGE ON THE SOUTH SIDE FOR FUTURE WATER METER CONNECTION.
- 21 INSTALL 8"x8" DIP REDUCER AND CONCRETE THRUST BLOCK PER CITY OF SANTA ROSA STANDARDS.
- 22 REMOVE AND REPLACE EXISTING 6" STORM DRAIN (CLASS 50) DIP UNDER CANOPY FOOTING. MATCH EXISTING SLOPE.
- 23 CONNECT EXISTING ROOF RAIN WATER LEADER TO PROPOSED 4" DIAMETER STORM DRAIN WITH SCH 40 PVC UNIVERSAL DOWNPOUT TO DRAIN PIPE ADAPTER. CONNECT ADAPTER TO PIPE WITH STAINLESS STEEL CLAMPS.
- 24 INSTALL FIRE ALARM CONDUIT AND WIRING FROM BACKFLOW DEVICE TAMPER SWITCH TO BUILDING FIRE ALARM SYSTEM. REFER TO FIRE ALARM DRAWINGS FOR DETAILS.
- 25 COORDINATE STORM DRAIN CONNECTION WITH MECHANICAL ENGINEERS PLANS.
- 26 APPROXIMATE LOCATION OF GAS METER. SEE MECHANICAL DRAWINGS FOR EXACT LOCATION.
- 27 INSTALL COMBINATION WATER STUB PER CITY OF SANTA ROSA STANDARD 886.
- 28 INSTALL 4" WIDE TRENCH DRAIN, ACO DRAIN K1005 WITH PRE SLOPED TRENCH (OR APPROVED EQUAL) WITH SLOTTED ADA IRON BOLT DOWN GRATES. OUTLET PIPE FROM TRENCH DRAIN SHALL BE 4" DIAMETER SDR 35 PVC AT MINIMUM SLOPE OF 1%.
- 29 INSTALL PRECAST CONCRETE SDDI UNDER SYNTHETIC TURF. WRAP GRATE WITH FILTER FABRIC. SEE LANDSCAPE PLANS FOR DETAILS.
- 30 INSTALL NDS 6" DIAMETER ROUND GRATE (PART #80) ON 6" STORM DRAIN RISER.

SEE SHEET C-006



AGENCY APPROVAL STAMP

TLCD ARCHITECTURE

520 Third St. #250
Santa Rosa, CA 95401
t: 707.525.5600
f: 707.525.5616
tlcd.com

Brelje & Race
CONSULTING ENGINEERS
475 Aviation Boulevard, Suite 120
Santa Rosa, CA 95403
t: 707-576-1322
f: 707-576-0469
www.broce.com

10-28-24

REVISIONS

Number	Date	Description
1	10/28/24	CCD 006

MONTGOMERY HIGH SCHOOL
CLASSROOM BUILDING
1250 HAHMAN DR.
SANTA ROSA, CA 95405

ISSUE APPLICATION NUMBER
01-118024

TLCD PROJECT NUMBER
17123 003555 06

DATE
MARCH 18, 2020

DRAWN BY
DJK

CHECKED BY

UTILITY PLAN

C-005

UTILITY NOTES

(ONLY NOTES RELEVANT TO THIS SHEET ARE SHOWN)

- (1) INSTALL CLEANOUT PER DETAIL SHEET C-010.
- (2) POTHOLE AND VERIFY SIZE, LOCATION AND INVERT ELEVATIONS OF EXISTING UTILITY LINE BEFORE ANY UTILITY CONSTRUCTION, OR ORDERING ANY SEWER/STORM DRAIN STRUCTURES. NOTIFY ENGINEER OF RESULTS FOR POSSIBLE ADJUSTMENTS OF SEWER/STORM DRAIN LAYOUT AND/OR INVERT ELEVATIONS.
- (3) POTHOLE AND VERIFY SIZE, LOCATION AND ELEVATIONS OF EXISTING WATER LINE BEFORE ANY WATER CONSTRUCTION. CONNECT TO EXISTING WATER.
- (4) BLIND CONNECTION TO STORM DRAIN PER DETAIL SHEET C-011.
- (5) DOWEL NEW SIDEWALK TO EXISTING SIDEWALK PER DETAIL SHEET C-010.
- (6) SAWCUT EXISTING ASPHALT PAVEMENT REMOVE AND REPLACE EXISTING ASPHALT PER STANDARD TRENCH DETAIL ON SHEET C-011.
- (7) SAWCUT AND REMOVE AND REPLACE EXISTING CONCRETE PAVEMENT. NEW CONCRETE SHALL BE INSTALLED PER PEDESTRIAN CONCRETE DETAIL. SEE SHEET C-010.
- (8) CONTRACTOR SHALL VERIFY IF THE EXISTING SEWER LINE IS ACTIVE AND IF IT IS ACTIVE WHAT BUILDINGS IT SERVES BEFORE REMOVING THE PORTION OF THE SEWER LINE UNDER THE PROPOSED BUILDING FOOTPRINT. IF IT IS DETERMINED THAT THE SEWER LINE IS ACTIVE, THEN THE CONTRACTOR SHALL VERIFY THE SIZE, LOCATION, DEPTH AND MATERIAL OF EXISTING SEWER LINE AT THE UPSTREAM END OF THE SEWER REMOVAL AND GIVE THE INFORMATION TO THE PROJECT CIVIL ENGINEER. IF IT IS DETERMINED THAT THE SEWER LINE IS REQUIRED TO STAY IN SERVICE DURING THE DURATION OF THE PROPOSED BUILDING CONSTRUCTION, THEN THE SEWER LINE SHALL BE REROUTED AROUND THE PROPOSED BUILDING AS SHOWN ON SHEETS C-005 AND C-006.
- (9) COORDINATE STORM DRAIN CONNECTION WITH MECHANICAL ENGINEERS PLANS.

TLCDARCHITECTURE

520 Third St. #250
Santa Rosa, CA 95401
o: 707.525.5600
f: 707.525.5616
tlcd.com

Brelje & Race

CONSULTING ENGINEERS
475 Aviation Boulevard, Suite 120
Santa Rosa, CA 95403
v: 707-576-1322
f: 707-576-0469
www.brce.com



10-28-24

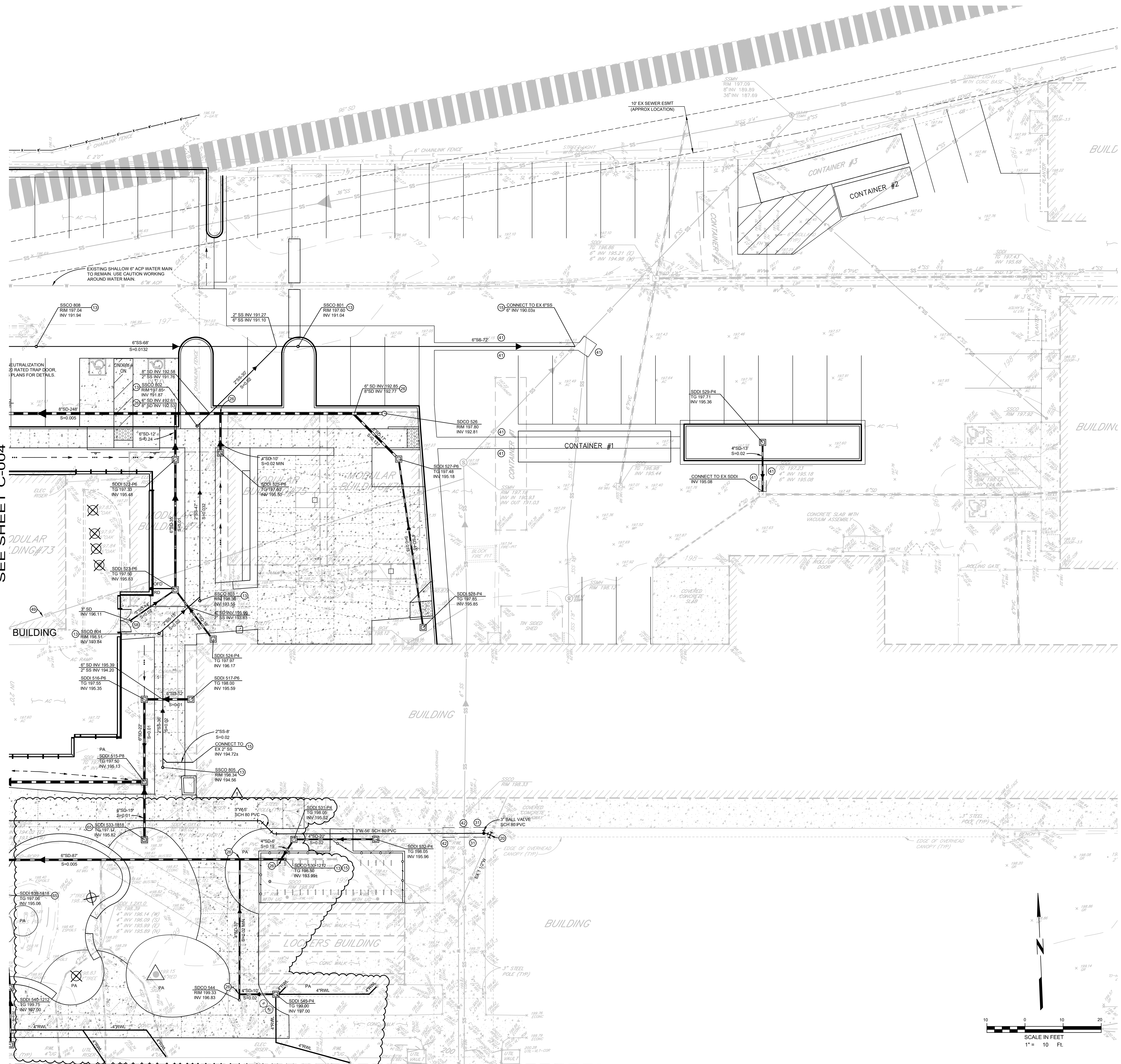
REVISION:

Number	Date	Description
1	10/28/24	CCD 006

SEE SHEET C-004

TAB: C-006 UTIL

10-22-24



MONTGOMERY HIGH SCHOOL
CLASSROOM BUILDING
1250 HAHMAN DR.
SANTA ROSA, CA 95405

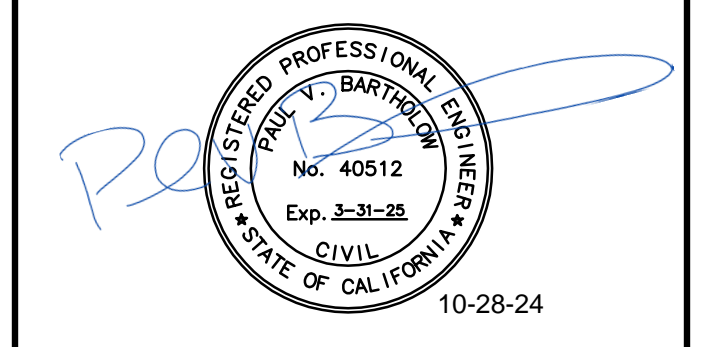
ISA APPLICATION NUMBER
01-118024
TLCD PROJECT NUMBER
17123.00-3555.06
DATE
MARCH 18, 2020
DRAWN BY
DJK
CHECKED BY

UTILITY PLAN

C-006

TLCDARCHITECTURE
 520 Third St. #250
 Santa Rosa, CA 95401
 o: 707.525.5600
 f: 707.525.5616
 tlcd.com

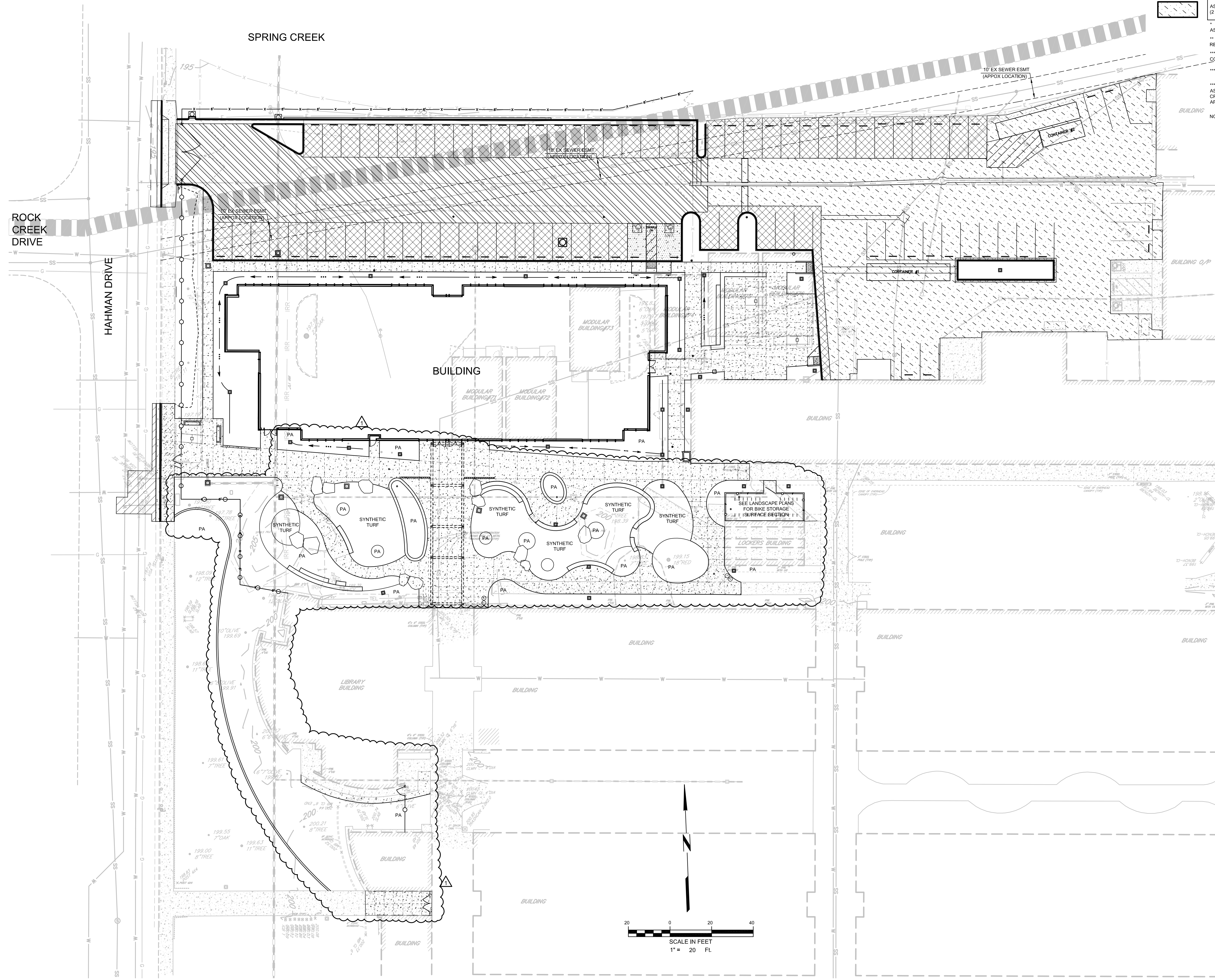
Brelje & Race
 CONSULTING ENGINEERS
 475 Aviation Boulevard, Suite 120
 Santa Rosa, CA 95403
 v: 707-576-1322
 f: 707-576-0469
 www.breco.com



PAVEMENT STRUCTURAL SECTION

LOCATION	AC*	CL2 AB**	PCC***	SELECT FILL****
DRIVE AISLE (T+4)	0.33'	0.67'	-	0
PARKING STALLS (T+4)	0.21'	0.63'	-	0
CONCRETE (PEDESTRIAN) PER DETAIL SHEET C-010. SEE LANDSCAPE PLANS FOR CONCRETE COLOR AND FINISH REQUIREMENTS	-	0.33'	0.33'	1.0'
CONCRETE (VEHICULAR) PER DETAIL SHEET C-010	-	0.50'	0.50'	0
CITY OF SANTA ROSA SIDEWALK PER STD 230G AND 235	-	0.33'	0.33'	-
RESURFACE ROAD PER CITY STANDARD 215	-	-	-	-
ASPHALT SEAL COAT (2 COATS)*****	-	-	-	-

* TYPE A 1 1/2" MAX MEDIUM ASPHALT PER CALTRANS SECTION 39, PG64-10 GRADE ASPHALT SHALL BE USED.
 ** 3/4" CLASS 2 AGGREGATE BASE PER CALTRANS SECTION 26, COMPACTED TO 95% RELATIVE COMPACTION
 *** CONCRETE PER CALTRANS STANDARD SPECIFICATIONS SECTION 90.2 "MINOR CONCRETE". SEE CIVIL CONCRETE SPECIFICATIONS FOR MORE DETAIL.
 **** SEE CIVIL EARTHWORK SPECIFICATIONS FOR SELECT FILL SPECIFICATIONS.
 ***** NOTE: A SEAL COAT 2 COATS (WITHOUT SAND) SHALL BE APPLIED TO ALL NEW ASPHALT SURFACES AND ALL EXISTING ASPHALT SURFACES SHOWN ON THE PLANS. CRACK SEAL EXISTING ASPHALT AREAS PER THE CIVIL SPECIFICATIONS BEFORE APPLYING SEAL COAT. SEE CIVIL SPECIFICATIONS FOR MORE DETAIL.
 NOTE: PAVEMENT SECTIONS ASSUME A SUBGRADE R-VALUE OF 5.



Number	Date	Description
1	10/28/24	CCD 006

MONTGOMERY HIGH SCHOOL
 CLASSROOM BUILDING
 1250 HAHMAN DR.
 SANTA ROSA, CA 95405

054 APPLICATION NUMBER: 01-18024
 TLCD PROJECT NUMBER: 17123.003555.06
 DATE: MARCH 18, 2020
 DRAWN BY: DJK
 CHECKED BY:

**PAVEMENT
 STRUCTURAL
 SECTION
 PLAN**

C-007



Number	Date	Description
10/28/24		CCD 006

MONTGOMERY HIGH SCHOOL
CLASSROOM BUILDING
 1250 HAHMAN DR.
 SANTA ROSA, CA 95405

SEA APPLICATION NUMBER: 01-118024
 TLCD PROJECT NUMBER: 17123.003555.06
 DATE: MARCH 18, 2020
 DRAWN BY:
 CHECKED BY: DJK

LAYOUT & STRIPING PLAN

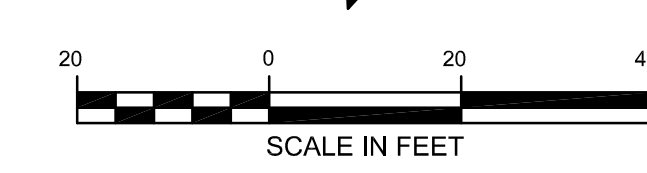
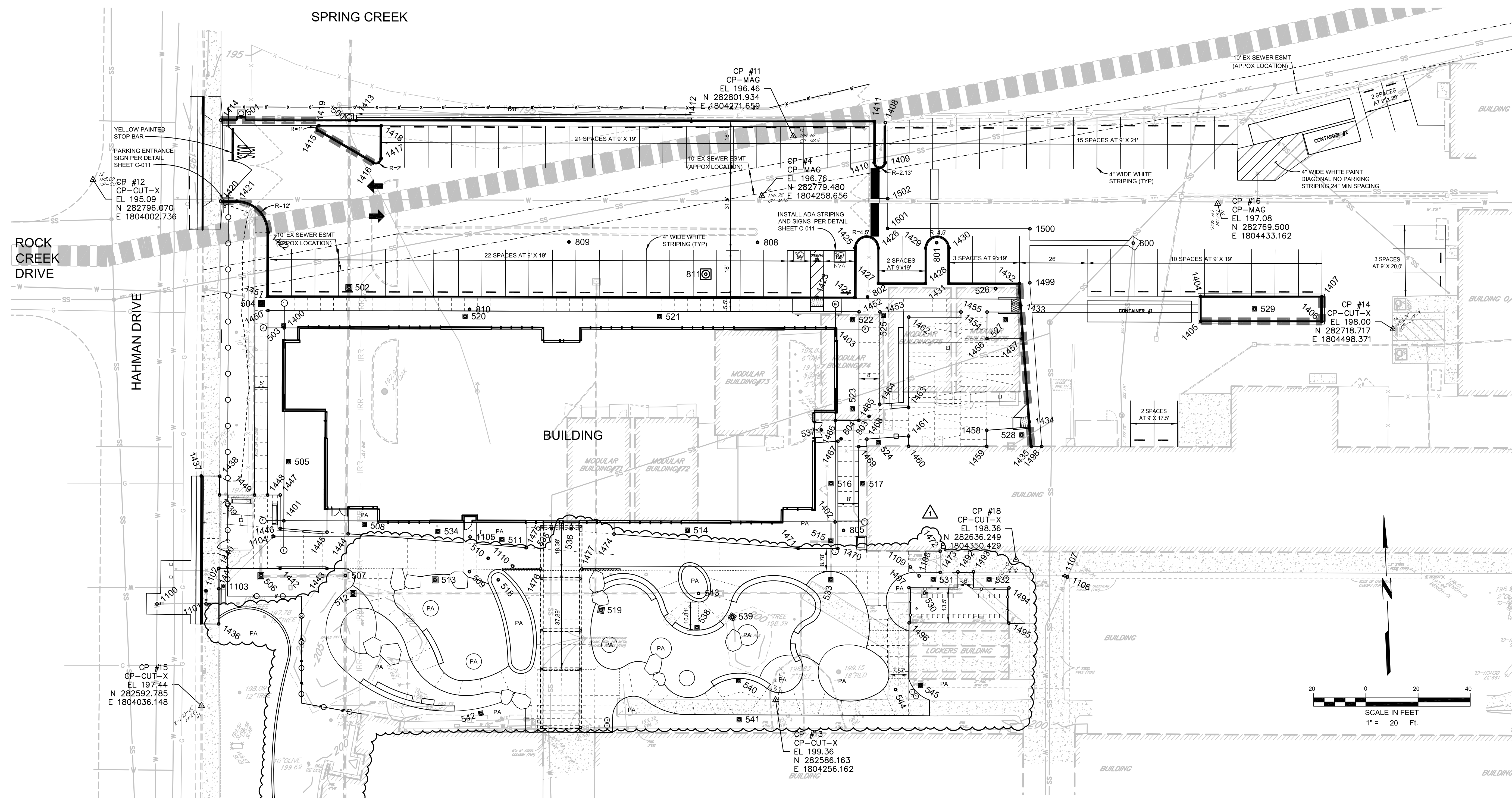
C-008

SIGNING AND STRIPING NOTES

- ALL CURBS (TOP AND SIDES) ADJACENT TO FIRE LANES SHALL BE PAINTED RED WITH RED CURB PAINT. THE WORDS "FIRE LANE" SHALL BE STENCILED ON THE TOP OF ALL RED PAINTED CURBS AT MAXIMUM INTERVALS OF 100'. LETTERING SHALL BE 2" HIGH AND HAVE 3/4" STROKE.
- ALL PARKING STRIPING SHALL BE 4" WIDE WHITE PAINT, EXCEPT AT ADA STALLS WHERE BLUE IS REQUIRED BY CODE. PER DETAIL SHEET C10.
- SIGN DESIGNATIONS AND PAVEMENT MARKINGS ARE PER THE 2012 CALIFORNIA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
- ALL SIGNS SHALL BE MOUNTED ON SIGN POST PER DETAIL SHEET C10.
- ALL PAVEMENT MARKING LETTERING SHALL BE STENCILED 18" HIGH WHITE LETTERS.
- PARKING STALL STRIPING SHALL BE 4" WIDE AND WHITE. SPACING AND LENGTH AS SHOWN ON THE PLAN VIEW.
- PAVEMENT MARKINGS AND TRAFFIC LINE DETAILS REFERENCE NUMBERS ARE SHOWN ON CALTRANS STD PLANS SHEETS A20-A, A20-B AND A20-C.

LEGEND

- TYPE 1 ARROW (WHITE PAINT) PER 2012 CALIFORNIA MUTCD.
- RED CURB WHERE SHOWN ON PLANS. SEE NOTE 1 THIS SHEET
- YELLOW PAINTED CURB OR SPEED BUMP
- YELLOW PAINTED STOP BAR



SD STRUCTURE COORDINATE TABLE

NO	NORTHING	EASTING	TYPE
800	28275.889	1804020.246	SSC-IN
801	28275.884	1804324.942	SSCO
802	282739.185	1804297.605	SSCO
803	282693.360	1804296.369	SSCO
804	282685.227	1804285.297	SSCO
805	282650.087	1804284.807	SSCO
806	282761.793	1804256.337	SSCO
809	282764.858	1804184.090	SSCO
810	282740.578	1804144.981	SSCO
811	282750.395	1804236.007	SSMH
500	28274.810	1804101.844	SDCB
501	282817.698	1804090.531	SDCB
502	282750.864	1804099.083	SDDI
503	282737.331	1804073.350	SDDI
504	282746.023	1804095.350	SDDI
505	282684.984	1804073.270	SDDI
506	282641.841	1804090.931	SDDI
507	282640.473	1804093.281	SDDI
508	282659.759	1804101.342	SDDI
509	282640.027	1804140.871	SDDI
510	282644.887	1804148.262	SDCO
511	282651.829	1804153.810	SDDI
512	282633.453	1804095.864	SDDI
513	282637.454	1804127.626	SDDI
514	282652.580	1804234.963	SDDI
515	282646.485	1804279.810	SDDI
516	282668.147	1804280.727	SDDI
517	282667.628	1804292.925	SDDI
518	282636.477	1804151.788	SDDI
519	282623.272	1804190.691	SDDI
520	282737.990	1804143.140	SDDI
521	282734.829	1804217.643	SDDI
522	282730.619	1804291.507	SDDI
523	282696.504	1804290.060	SDDI
524	282683.150	1804299.453	SDDI
525	282731.857	1804303.404	SDDI
526	282740.359	1804346.796	SDCO
527	282728.263	1804350.041	SDDI
528	282663.876	1804354.587	SDDI
529	282728.588	1804445.608	SDDI
530	282624.796	1804314.626	SDDI
531	282629.779	1804316.368	SDDI
532	282628.908	1804339.803	SDDI
533	282631.376	1804279.186	SDDI
534	282655.883	1804129.407	SDDI
535	282655.238	1804172.964	SD STUB
536	282654.916	1804180.543	SD STUB
537	282668.912	1804277.863	SD STUB
538	282615.077	1804227.190	SDDI
539	282618.631	1804240.840	SDDI
540	282594.110	1804242.314	SDDI
541	282579.117	1804241.872	SDDI
542	282565.596	1804143.069	SDDI
543	282628.177	1804228.318	SDAD
544	282588.296	1804302.292	SDCO

SEWER STRUCTURE COORDINATE TABLE

NO	NORTHING	EASTING	TYPE
800	28275.889	1804020.246	SS-TE-IN
801	282758.884	1804324.942	SSCO
802	282739.185	1804297.605	SSCO
803	282693.360	1804296.369	SSCO
804	282685.227	1804285.297	SSCO
805	282650.087	1804284.807	SSCO
806	282761.793	1804256.337	SSCO
809	282764.858	1804184.090	SSCO
810	282740.578	1804144.981	SSCO
811	282750.395	1804236.007	SSMH

WATER STRUCTURE COORDINATE TABLE

NO	NORTHING	EASTING	TYPE
1100	282632.522	1804020.682	W-TEE
1101	282631.779	1804039.498	W-TEE
1102	282636.776	1804039.683	W-FH
1103	282638.312	1804046.430	W-ELL
1104	282656.559	1804066.296	W-ELL
1105	282663.360	1804141.688	W-ELL
1106	282628.744	1804302.579	W-TE-IN
1107	282629.225	1804368.921	W-ELL
1108	282631.460	1804313.088	ELL
1109	282635.047	1804309.769	W-ELL
1110	282641.492	1804157.513	W-ELL

LAYOUT COORDINATE TABLE

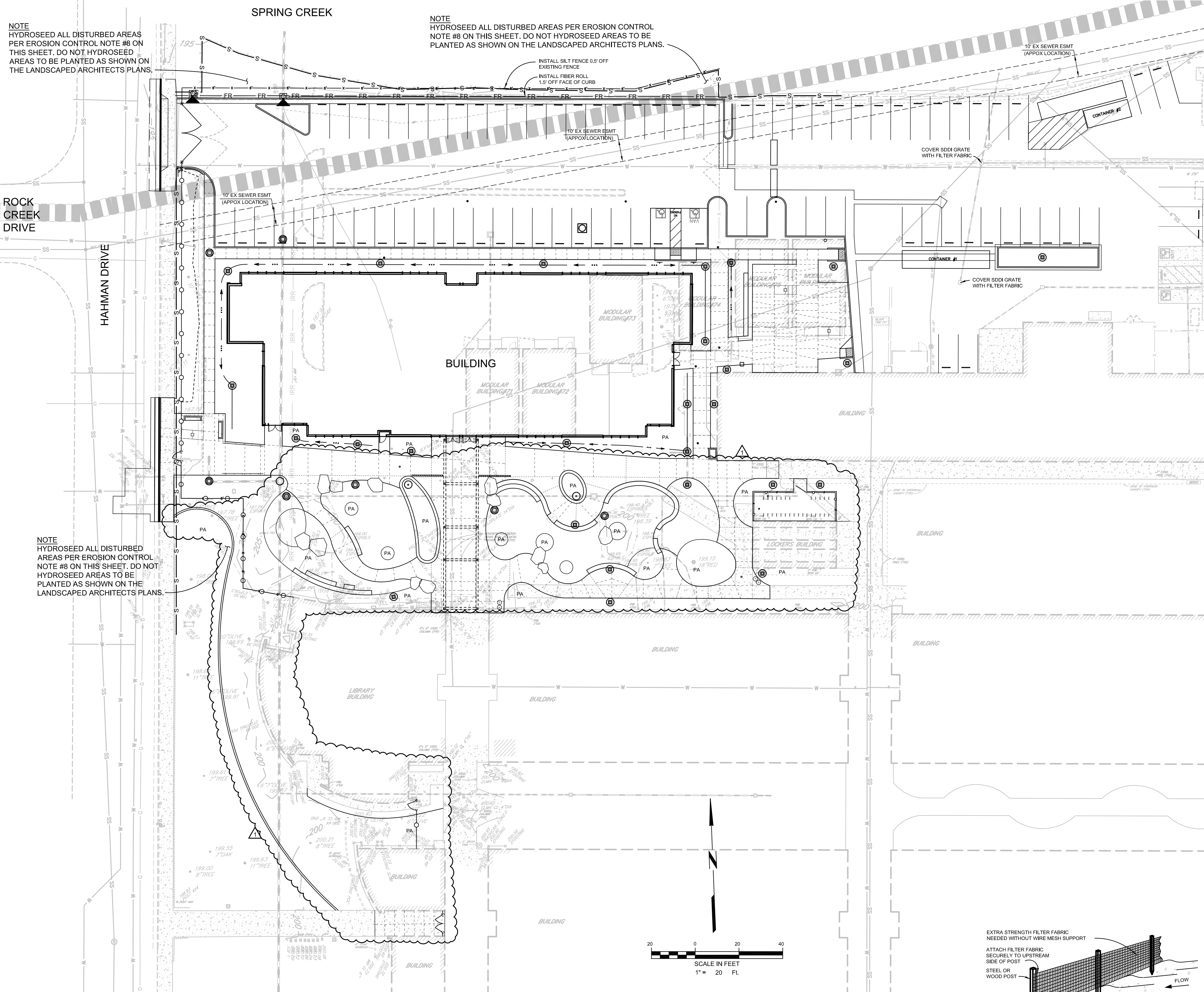
NO	NORTHING	EASTING	TYPE
1400	282736.313	1804073.703	GRID A-1
1401	282662.420	1804070.567	GRID F-1
1402	282653.460	1804281.731	GRID F-16
1403	282727.352	1804294.866	GRID A-16
1404	282734.232	1804425.226	FC AP
1405	282724.692	1804424.822	FC AP
1406	282722.720	1804471.280	FC AP
1407	282732.260	1804471.685	FC AP
1408	282695.642	1804307.115	FC END
1409	282780.372	1804306.467	FC CR
1410	282760.553	1804302.221	FC CR
1411	282696.279	1804302.888	FC AP
1412	282699.271	1804232.848	FC
1413	282614.699	1804104.469	FC
1414	282616.991	1804052.565	FC END
1415	282611.464	1804086.526	FC CR
1416	282796.174	1804110.369	FC CR
1417	282799.776	1804113.442	FC CR
1418	282812.294	1804113.973	FC AP
1419	282813.306	1804090.105	FC CR
1420	282765.882	1804051.275	FC END
1421	282765.817	1804057.522	FC CR
1422	282733.119	1804069.002	FC CR
1423	282739.763	1804279.276	FC AP
1424	282739.148	1804292.763	FC AP
1425	282758.122	1804293.568	FC CR
1426	282757.739	1804302.579	FC CR
1427	282744.261	1804302.007	FC AP
1428	282743.496	1804313.025	FC AP
1429	282736.984	1804320.597	FC CR

LAYOUT COORDINATE TABLE

NO	NORTHING	EASTING	TYPE
1430	282756.803	1804326.589	FC CR
1431	282743.115	1804326.017	FC AP
1432	282741.970	1804355.962	FC AP
1433	282733.492	1804356.202	FC CL-RAMP
1434	282688.784	1804357.712	FC CL-RAMP
1435	282679.352	1804356.031	FC END
1436	282623.931	1804044.015	FC
1437	282680.844	1804039.626	FC
1438	282680.488	1804046.673	EW
1439	282673.315	1804046.324	EW AP
1440	282645.192	1804044.955	EW AP
1441	282637.385	1804044.615	EW
1442	282644.198	1804068.379	EW
1443	282643.436	1804086.331	EW
1444	282656.448	1804096.007	EW AP
1445	282657.377	1804096.923	EW AP
1446	282659.542	1804098.030	EW AP
1447	282672.329	1804098.573	EW AP
1448	282672.534	1804054.734	EW AP
1449	282672.746	1804059.739	EW AP
1450	282743.192	1804067.732	EW AP
1451	282748.667	1804067.966	EW AP
1452	282733.585	1804294.136	EW AP
1453	282733.246	1804302.128	EW AP
1454	282731.928	1804333.161	EW AP
1455	282731.504	1804343.172	EW AP
1456	282721.320	1804342.740	EW AP
1457	282720.751	1804356.132	EW AP
1458	282686.226	1804341.225	EW AP
1459	282680.084	1804340.864	EW AP

LAYOUT COORDINATE TABLE

NO	NORTHING	EASTING	TYPE
1460	282681.361	1804311.017	EW AP
1461	282685.212	1804311.181	EW AP
1462	282730.778	1804313.114	EW AP
1463	282696.234	1804311.648	EW AP
1464	282697.863	1804300.627	EW AP
1465	282691.985	1804292.370	EW AP
1466	282692.366	1804283.378	EW AP
1467	282684.295	1804284.037	EW AP
1468	282684.671	1804295.151	EW AP
1469	282681.938	1804291.944	EW AP
1470	282643.197	1804282.369	EW AP
1471	282643.844	1804287.123	EW AP
1472	282640.595	1804321.533	EW AP
1473	282632.499	1804321.175	EW AP
1474	282632.216	1804196.848	EW AP
1475	282648.356	1804162.938	EW AP
1476	282639.963	1804168.186	EW AP
1477	282639.289	1804183.999	EW AP
1492	282632.392	1804327.966	EW AP
1493	282632.148	1804333.961	EW AP
1494	282625.477	1804347.258	EW AP
1495	282611.989	1804346.685	EW AP
1496	282613.636	1804308.514	EW AP
1497	282627.128	1804309.017	EW AP
1498	282679.182	1804362.038	EP
1499	282742.063	1804359.991	EP AP
1500	282762.783	1804360.870	EP AP
1501	282765.093	1804366.396	EP AP
1502	282776.520	1804368.881	EP AP



EROSION PREVENTION AND SEDIMENT CONTROL NOTES

GENERAL

1. THE OWNER IS RESPONSIBLE FOR PREVENTING STORM WATER POLLUTION GENERATED FROM THE CONSTRUCTION SITE YEAR ROUND. WORK SITES WITH EROSION AND SEDIMENT CONTROL MEASURES SHALL BE SUBJECT TO A STOP WORK ORDER.
2. AT ALL TIMES THE OWNER IS RESPONSIBLE FOR OBTAINING AND COMPLYING WITH THE STATE OF CALIFORNIA NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) GENERAL PERMIT WASTE DISCHARGE REQUIREMENTS FOR DISCHARGES OF STORM WATER RUNOFF ASSOCIATED WITH CONSTRUCTION ACTIVITY. CONSTRUCTION ACTIVITIES INCLUDE BUT ARE NOT LIMITED TO CLEARING, GRADING, EXCAVATION, STOCKPILING, AND RECONSTRUCTION OF EXISTING FACILITIES INVOLVING REMOVAL AND REPLACEMENT.

RAINY SEASON OPERATIONS

1. THE OWNER MUST IMPLEMENT AN EFFECTIVE COMBINATION OF EROSION PREVENTION AND SEDIMENT CONTROL ON ALL DISTURBED AREAS WITHIN THE PROJECT SITE FROM APRIL 1ST - APRIL 30TH OF EACH YEAR. MEASURES MUST BE MAINTAINED IN THE PERMIT AUTHORITY'S BEST MANAGEMENT PRACTICES GUIDE SHALL BE IMPLEMENTED AND FUNCTIONAL ON THE SITE AT ALL TIMES.
2. THE AREA OF ERODIBLE LAND EXPOSED AT ANY ONE TIME DURING THE WORK SHALL NOT EXCEED 1 ACRE OR 20% OF THE PERMITTED WORK AREA, WHICHEVER IS GREATER, AND THE TIME OF EXPOSURE SHALL BE MINIMIZED TO THE MAXIMUM EXTENT PRACTICABLE.

YEAR ROUND REQUIREMENTS

1. EROSION PREVENTION AND SEDIMENT CONTROL MEASURES SHALL BE INSPECTED BY THE OWNER BEFORE FORECASTED STORM EVENTS AND AFTER STORM EVENTS TO ENSURE MEASURES ARE FUNCTIONING PROPERLY. EROSION PREVENTION AND SEDIMENT CONTROL MEASURES THAT HAVE FAILED OR ARE NO LONGER EFFECTIVE SHALL BE PROMPTLY REPLACED. EROSION PREVENTION AND SEDIMENT CONTROL MEASURES SHALL BE MAINTAINED UNTIL DISTURBED AREAS ARE STABILIZED.
2. THE LIMITS OF GRADING SHALL BE DEFINED AND MARKED ON SITE TO PREVENT DAMAGE TO SURROUNDING VEGETATION. PRESERVATION OF EXISTING VEGETATION SHALL OCCUR TO THE MAXIMUM EXTENT PRACTICABLE. ANY EXISTING VEGETATION WITHIN THE LIMITS OF GRADING THAT IS TO REMAIN UNDISTURBED BY THE WORK SHALL BE IDENTIFIED AND PROTECTED FROM DAMAGE BY MARKING, FENCING, OR OTHER MEASURES.
3. CHANGES TO THE EROSION PREVENTION AND SEDIMENT CONTROL PLAN MAY BE MADE TO RESPOND TO FIELD CONDITIONS AND SHALL BE NOTED ON THE PLAN.
4. DISCHARGES OF POTENTIAL POLLUTANTS FROM CONSTRUCTION SITES SHALL BE PREVENTED USING SOURCE CONTROLS TO THE MAXIMUM EXTENT PRACTICABLE. POTENTIAL POLLUTANTS INCLUDE BUT ARE NOT LIMITED TO: SEDIMENT, TRASH, NUTRIENTS, PATHOGENS, PETROLEUM HYDROCARBONS, METALS, CONCRETE, CEMENT, ASPHALT, LIME, PAINT, STAINS, GLUES, WOOD PRODUCTS, PESTICIDES, HERBICIDES, CHEMICALS, HAZARDOUS WASTE, SANITARY WASTE, VEHICLE OR EQUIPMENT WASH WATER, AND CHLORINATED WATER.
5. ENTRANCE(S) TO THE CONSTRUCTION SITE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF POTENTIAL POLLUTANTS OFFSITE. POTENTIAL POLLUTANTS DEPOSITED ON PAVED AREAS WITHIN THE COUNTY RIGHT-OF-WAY, SUCH AS ROADWAYS AND SIDEWAYS, SHALL BE PROPERLY DISPOSED OF AT THE END OF EACH WORKING DAY OR MORE FREQUENTLY AS NECESSARY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CLEANING CONSTRUCTION VEHICLES LEAVING THE SITE ON A DAILY BASIS TO PREVENT TRACKING OF POLLUTANTS FROM BEING RELEASED ON TRACKED OFFSITE. ALL SEDIMENT DEPOSITED ON PAVED ROADWAYS SHALL BE REMOVED AT THE END OF EACH WORKING DAY OR MORE OFTEN AS NECESSARY.
6. ALL DISTURBED AREAS SHALL BE PROTECTED BY USING EROSION PREVENTION MEASURES TO THE MAXIMUM EXTENT PRACTICABLE, SUCH AS ESTABLISHING VEGETATION COVERAGE, HYDROSEEDING, STRAW MULCH, GEOTEXTILES, PLASTIC COVERS, BLANKETS OR MATS. TEMPORARY OR PERMANENT REVEGETATION SHALL BE INSTALLED AS SOON AS PRACTICAL AFTER VEGETATION REMOVAL BUT IN ALL CASES PRIOR TO OCTOBER 15. PRIOR TO FINAL INSPECTION, ALL DISTURBED AREAS SHALL BE REVEGETATED OR LANDSCAPING SHALL BE INSTALLED.
7. WHENEVER IT IS NOT POSSIBLE TO USE EROSION PREVENTION MEASURES ON EXPOSED SLOPES, SEDIMENT CONTROL DEVICES SUCH AS FIBER ROLLS AND SILT FENCES SHALL BE INSTALLED PROPERLY. FIBER ROLLS AND SILT FENCES SHALL BE TRENCHED AND KEPT INTO THE SOIL AND INSTALLED ON CONTOUR. SILT FENCES SHALL BE INSTALLED APPROXIMATELY 2 TO 5 FEET FROM TOE OF SLOPE.
8. HYDROSEEDING SHALL BE CONDUCTED IN A THREE STEP PROCESS. FIRST, EVENLY APPLY SEED MIX AND FERTILIZER TO THE EXPOSED SLOPE. SECOND, EVENLY APPLY THE SEED AND FERTILIZER. THIRD, STABILIZE THE MULCH IN PLACE. AN EQUIVALENT SINGLE STEP PROCESS, WITH SEED, FERTILIZER, WATER, AND BONDED FIBERS IS ACCEPTABLE. APPLICATIONS SHALL BE BROADCAST MECHANICALLY OR MANUALLY AT THE RATES SPECIFIED BELOW. SEED MIX AND FERTILIZER SHALL BE WORKED INTO THE SOIL BY ROLLING OR TAMPING. IF STRAW IS USED AS MULCH, STRAW SHALL BE DERIVED FROM WHEAT, RICE, OR BARLEY AND BE PROPERLY STABILIZED OR MULCH SHALL BE DONE HYDRAULICALLY BY APPLYING AN EMULSION OR MECHANICALLY BY CRIMPING OR PUNCHING THE MULCH INTO THE SOIL. EQUIVALENT METHODS AND MATERIALS MAY BE USED ONLY IF THEY ADEQUATELY PROMOTE VEGETATION GROWTH AND PROTECT EXPOSED SLOPES.

MATERIALS	APPLICATION RATE (POUNDS PER ACRE)
SEED MIX	
Bromus mollis (BLANDO BROME)	40
Triticum hirtum (HYKON ROSE CLOVER)	20
FERTILIZER	
16-20-0 & 15% SULPHUR	500
MULCH	
STRAW	4000
HYDRAULIC STABILIZER	75-100
M-SINGER OR SENTINEL	PER MANUFACTURER
EQUIVALENT MATERIAL	

*NON-ASPHALTIC, DERIVED FROM PLANTS

9. DUST CONTROL SHALL BE PROVIDED BY CONTRACTOR DURING ALL PHASES OF CONSTRUCTION.
10. STORM DRAIN INLETS SHALL BE PROTECTED FROM POTENTIAL POLLUTANTS UNTIL DRAINAGE CONVEYANCE SYSTEMS ARE FUNCTIONAL AND CONSTRUCTION HAS BEEN COMPLETED.
11. ENERGY DISSIPATORS SHALL BE INSTALLED AT STORM DRAIN OUTLETS WHICH MAY CONVEY EROSION STORM WATER FLOW.
12. SOIL, MATERIAL, STOCKPILES, AND FERTILIZING MATERIAL SHALL BE PROPERLY PROTECTED TO MINIMIZE SEDIMENT AND POLLUTANT TRANSPORT FROM THE CONSTRUCTION SITE.
13. SOLID WASTE, SUCH AS TRASH, DISCARDED BUILDING MATERIALS AND DEBRIS, SHALL BE PLACED IN DESIGNATED COLLECTION AREAS OR CONTAINERS. THE CONSTRUCTION SITE SHALL BE CLEARED OF SOLID WASTE DAILY OR AS NECESSARY. REGULAR REMOVAL AND PROPER DISPOSAL SHALL BE COORDINATED BY THE CONTRACTOR.
14. A CONCRETE WASHOUT AREA, SUCH AS A TEMPORARY PIT, SHALL BE DESIGNATED TO CLEAN CONCRETE TRUCKS AND TOOLS. AT NO TIME SHALL CONCRETE PRODUCTS AND WASTE BE ALLOWED TO ENTER COUNTY WATERWAYS SUCH AS CREEKS OR STORM DRAINS. NO WASHOUT OF CONCRETE, MORTAR MIXERS, OR TRUCKS SHALL BE ALLOWED ON SOIL.
15. APPROPRIATE VEHICLE STORAGE, FUELING, MAINTENANCE, AND CLEANING AREAS SHALL BE DESIGNATED AND MAINTAINED TO PREVENT DISCHARGE OF POLLUTANTS.
16. ALL GRADED AREAS AND EXPOSED SOIL WITHIN THIS PROJECT NOT OTHERWISE PROPOSED TO BE COVERED WITH HAND SURFACES, BUILDINGS, OR LANDSCAPING SHALL BE COVERED WITH BLOWN AND PUNCHED STRAW MULCH AT THE RATE OF (2) TONS PER ACRE. STRAW SHALL BE APPLIED BY OCTOBER 15TH TO ALL GRADED CUT AND FILL SLOPES WITHIN THE PROJECT THAT HAVE NOT BEEN LANDSCAPED. STORM WATER SHALL NOT BE ALLOWED TO FLOW DIRECTLY DOWN UNPROTECTED SLOPES. ENERGY DISSIPATING STRUCTURES AND EROSION CONTROL DEVICES SHALL BE PLACED AT ALL DRAINAGE OUTLETS WHICH DISCHARGE TO NATURAL CHANNELS. ALL SEDIMENT TRAPS SHALL BE MAINTAINED BY THE CONTRACTOR UNTIL SUCH TIME THAT VEGETATIVE COVER IS ESTABLISHED.
17. THIS PROJECT DISTURBS MORE THAN ONE ACRE OF LAND AND WILL REQUIRE A NOTICE OF INTENT FROM THE STATE OF CALIFORNIA. PRIOR TO ANY GROUND DISTURBING ACTIVITIES, THE CONTRACTOR SHALL PROVIDE THE INFORMATION TO THE OWNER FOR PREPARING A NOTICE OF INTENT (NOI). THE OWNER WILL SUBMIT THE NOI TO THE STATE DEPARTMENT OF WATER RESOURCES AND PREPARE THE STORM WATER POLLUTION PREVENTION PLAN (SWPPP). THIS PROJECT IS A RISK LEVEL 2 PROJECT. THE CONTRACTOR SHALL FOLLOW ALLOW RISK LEVEL 2 SWPPP REQUIREMENTS. THE CONTRACTOR SHALL ASSIGN A GSP TO THE PROJECT. THIS PERSON SHALL MEET ALL GSP REQUIREMENTS AS STATED IN THE STATE'S GENERAL STORMWATER PERMIT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR IMPLEMENTING AND MAINTAINING THE SWPPP AND ALL RISK LEVEL REQUIREMENTS, INCLUDING ALL SAMPLING AND RECORD KEEPING. THE CONTRACTOR SHALL KEEP A COPY OF THE SWPPP AT THE JOB SITE AT ALL TIMES AND MAKE THE PLAN AVAILABLE TO THE OWNER, ENGINEER AND STATE OF CALIFORNIA REPRESENTATIVES FOR THEIR USE. THE CONTRACTOR SHALL COMPLY WITH ALL TERMS OF THE SWPPP AND THE STATE WATER RESOURCES CONTROL BOARD (SWRCB) ORDER NO. 2003-008-DW2, NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) GENERAL PERMIT NO. CA000002 IN A TIMELY FASHION AND WITH NO ADDITIONAL COMPENSATION THEREFOR.

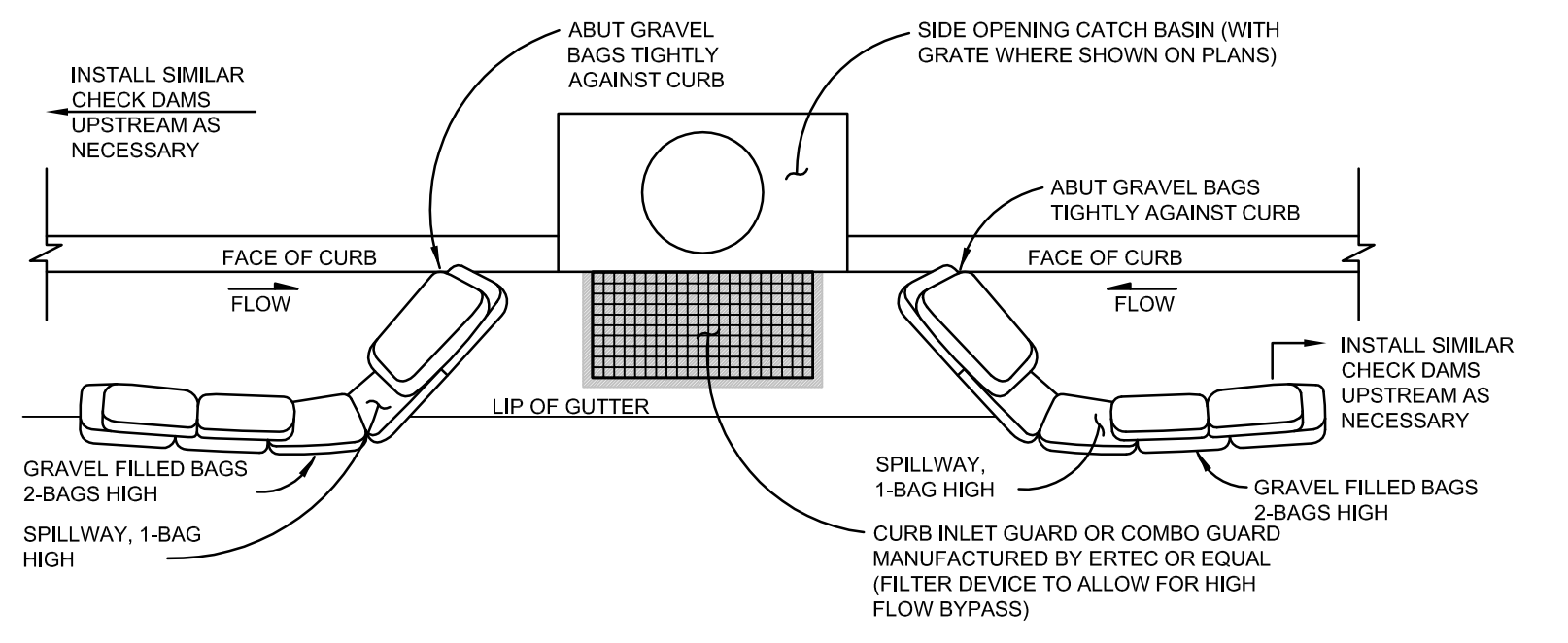
THE SWPPP SHALL INCLUDE AS A STANDARD COMPLIANCE REFERENCE THE LATEST EDITION OF THE CALIFORNIA STORMWATER QUALITY ASSOCIATES STORMWATER BEST MANAGEMENT PRACTICES HANDBOOK. THE SWPPP SHALL INCLUDE BUT NOT BE LIMITED TO SPECIFIC REFERENCES TO MANAGEMENT PRACTICES REQUIRED TO OPERATE THE EROSION CONTROL PLAN INCLUDED IN THE PROJECT DRAWINGS, DEWATERING, CONSTRUCTION NEAR WATER COURSES, MATERIAL USED AND STORAGE, EXCAVATION, SEDIMENT CONTROL, TRENCHING, USE AND STOCKPILING OF COLD PATCH ASPHALT, TEMPORARY STOCKPILING OF TRENCH SPOILS AND EARTHEN MATERIALS AND PILE DRAWINGS.

LEGEND

- S - SILT FENCE, PER DETAIL THIS SHEET
- FR - FIBER ROLL, PER DETAIL THIS SHEET
- - MINOR INLET PROTECTION, PER DETAIL THIS SHEET
- ◡ - CATCH BASIN PROTECTION, PER DETAIL THIS SHEET

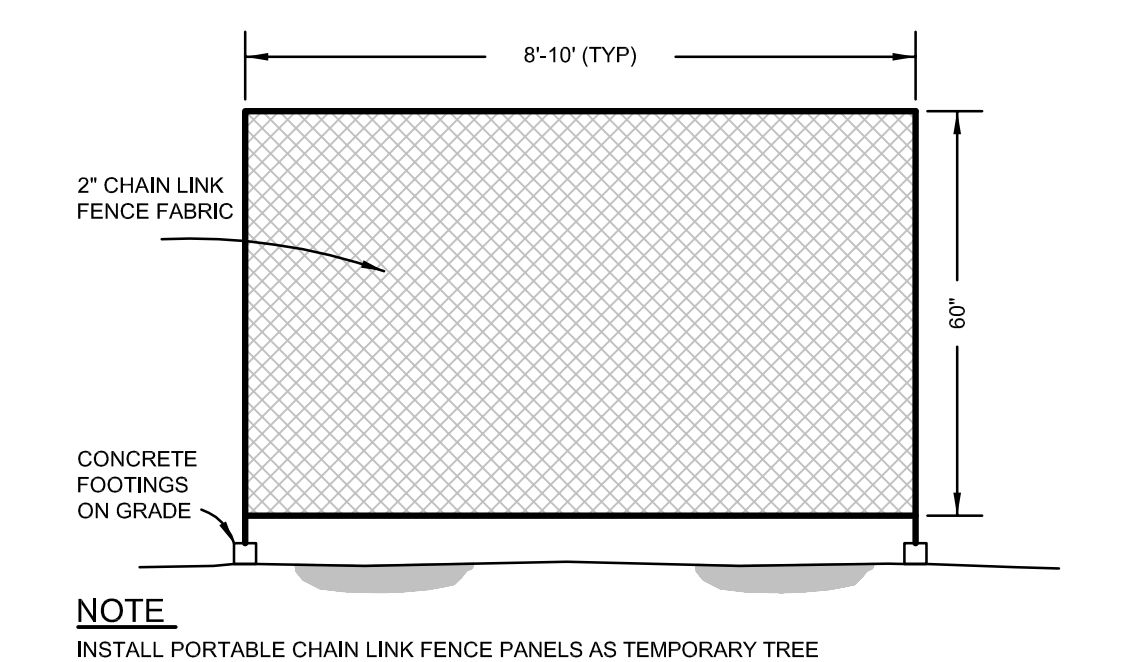
NOTES

1. SILT FENCE SHALL BE PLACED ON SLOPE CONTOURS TO MAXIMIZE PONDING EFFICIENCY.
2. INSPECT AND REPAIR FENCE AFTER EACH STORM EVENT AND REMOVE SEDIMENT WHEN NECESSARY. IF (220mm) MAXIMUM RECOMMENDED STORAGE HEIGHT.
3. REMOVED SEDIMENT SHALL BE DEPOSITED TO AN AREA THAT WILL NOT CONTRIBUTE SEDIMENT OFF-SITE AND CAN BE PERMANENTLY STABILIZED.



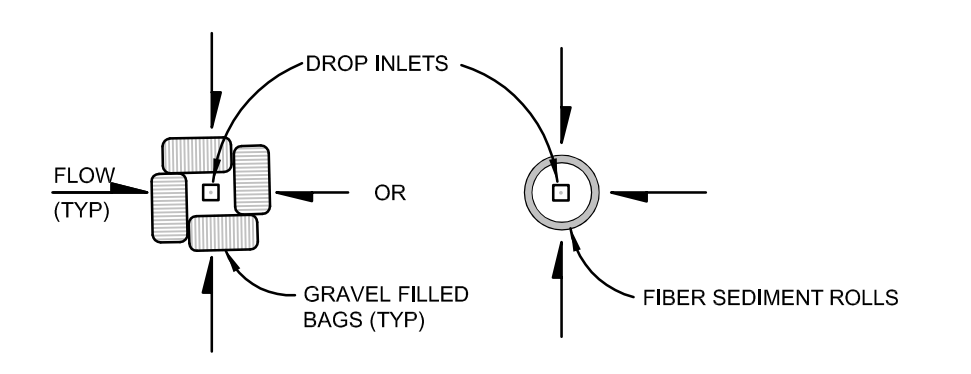
CATCH BASIN PROTECTION - AT SUMP

NOT TO SCALE



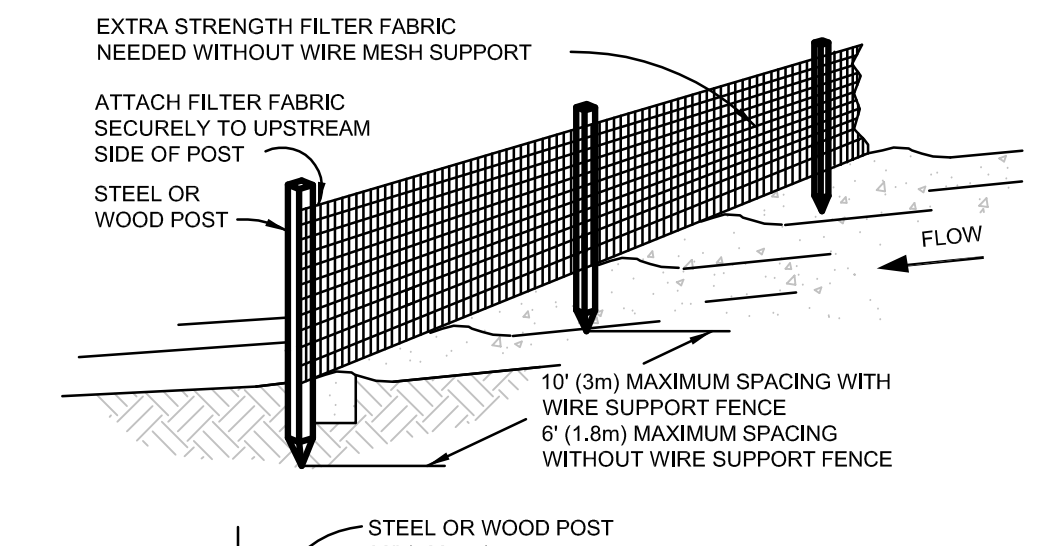
TEMPORARY TREE PROTECTION FENCE

NOT TO SCALE

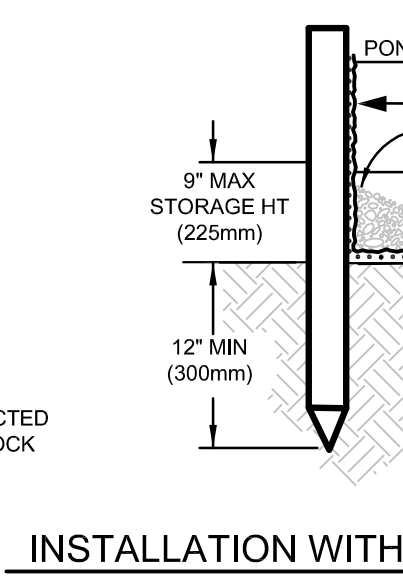


MINOR INLET PROTECTION

NOT TO SCALE



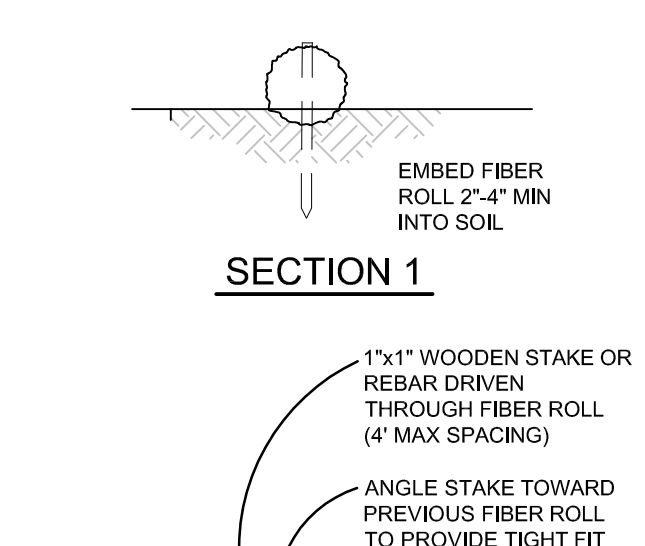
TRENCH



INSTALLATION WITHOUT TRENCHING

SILT FENCE

NOT TO SCALE



SECTION 1

NOTES

1. THE FIBER ROLLS SHALL BE PLACED ON SLOPE CONTOUR.
2. FIBER ROLLS TO BE PLACED IN A ROW WITH THE ENDS TIGHTLY ABUTTING. USE STRAW, ROCKS OR FILTER FABRIC TO FILL GAPS BETWEEN THE FIBER ROLLS AND TAMPER THE BACKFILL MATERIAL TO PREVENT EROSION OR FLOW AROUND FIBER ROLLS.

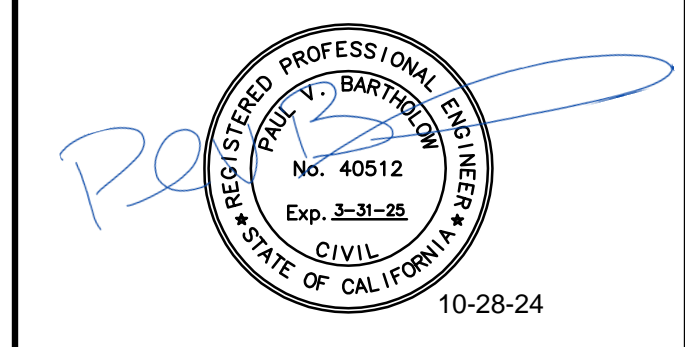
FIBER ROLL

NOT TO SCALE

AGENCY APPROVAL STAMP

TLCDARCHITECTURE
520 Third St. #250
Santa Rosa, CA 95401
o: 707.525.5600
f: 707.525.5616
tcd.com

Brelje & Race
CONSULTING ENGINEERS
475 Aviation Boulevard, Suite 120
Santa Rosa, CA 95403
v: 707-576-1322
f: 707-576-0469
www.brcoc.com



REVISION:

Number	Date	Description
1	10/28/24	CCD 006

MONTGOMERY HIGH SCHOOL
CLASSROOM BUILDING
1250 HAHMAN DR.
SANTA ROSA, CA 95405

004 APPLICATION NUMBER: 01-18024
TLO PROJECT NUMBER: 17123.003555.06
DATE: MARCH 18, 2020
DRAWN BY: DJK
CHECKED BY:

EROSION CONTROL PLAN

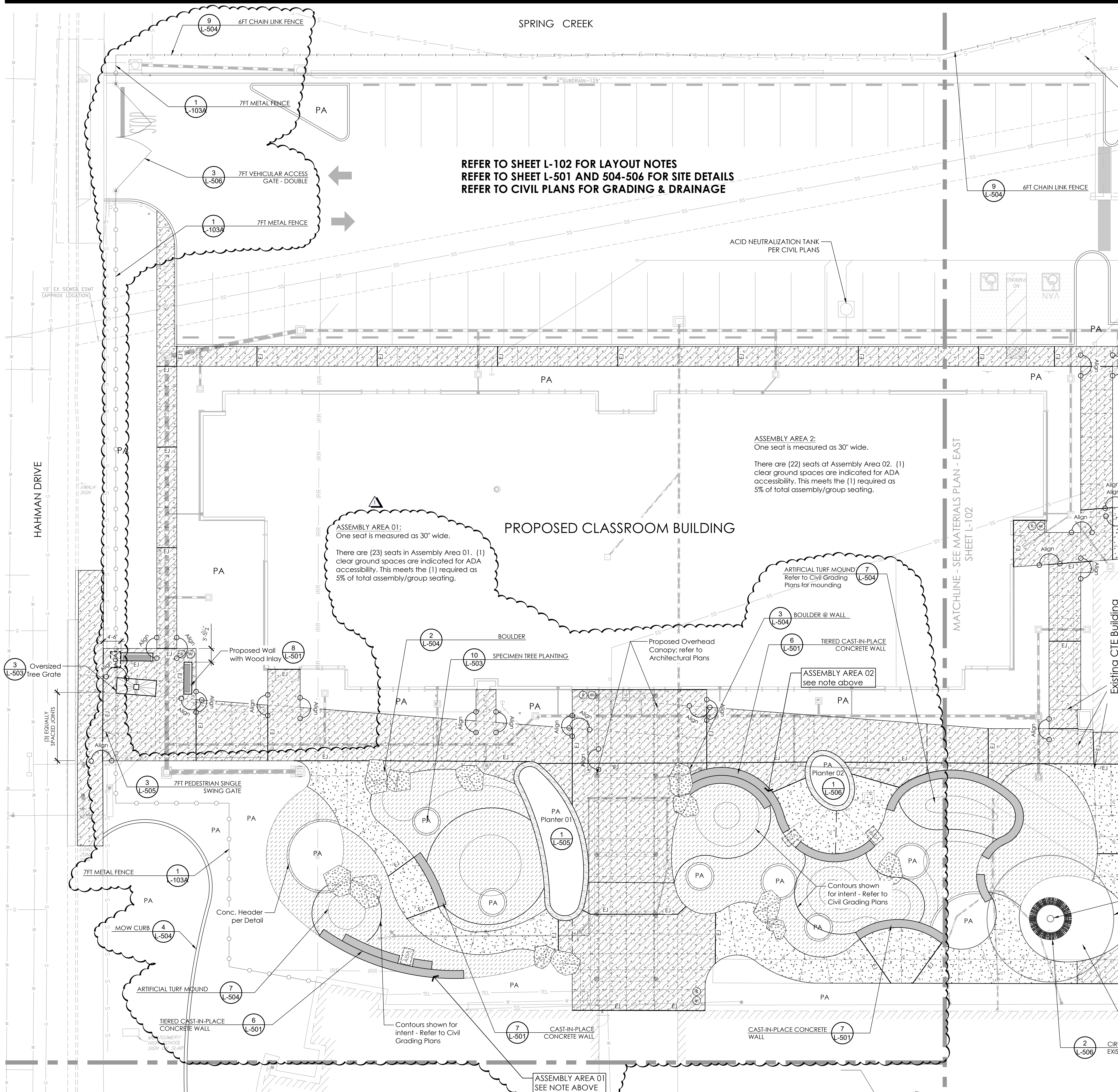
C-009

TAB: C-009 EROSION

ghsmon_133505/mw/133505_003555_06-BASE.dwg

10-22-24

DATE PLOTTED: 10/28/24 10:28:24 AM USER: ghosmon



REFER TO SHEET L-102 FOR LAYOUT NOTES
 REFER TO SHEET L-501 AND 504-506 FOR SITE DETAILS
 REFER TO CIVIL PLANS FOR GRADING & DRAINAGE

ACID NEUTRALIZATION TANK
 PER CIVIL PLANS

ASSEMBLY AREA 2:
 One seat is measured as 30" wide.
 There are (22) seats at Assembly Area 02. (1)
 clear ground spaces are indicated for ADA
 accessibility. This meets the (1) required as
 5% of total assembly/group seating.

ASSEMBLY AREA 01:
 One seat is measured as 30" wide.
 There are (23) seats in Assembly Area 01. (1)
 clear ground spaces are indicated for ADA
 accessibility. This meets the (1) required as
 5% of total assembly/group seating.

MATERIALS LEGEND

- Concrete Paving 01
 Match existing sidewalk concrete finish.
 Integral Color: 3967 Porcelain Gray, Scofield
 See also Civil Plans for details.
- Concrete Paving 02
 Integral Color: 1244 Coal Gray, Scofield
 Horiz. Surface Finish: #05 Top-Cast® Surface Retarder
 Vert. Face Surface Finish: #05 Euro-Tard Surface Retarder
 See Civil Plans for details.
- Stabilized Decomposed Granite Surfacing
 Model: 3/8" minus D.G. Select - buff/tan
 Mfr: SBI Materials
 See specifications. Submit sample for
 approval by Landscape Architect
- Artificial Turf with Mounds
 ForeverLawn Playground Ultra - Green
 Sand Infill per Mfr. - no rubber infill
 Refer to Details for more information.
 See Civil Plans for grading and drainage.
- 6FT Chain Link Fence
 Locations per plan along Creek
 Model: 72" tall Black Vinyl PVC Coated chain link
 fence and all components. See details and plan.
 Color: Black Install: per detail
- 7FT Fence with Gates
 Gate Locations and Swing as per plan
 Model: 84" tall Ameristar Montage II 3-rail fence
 with Genesis top; see details and plan for gates
 Mfr: Ameristar
 Color: Black Powder Coated Install: per detail
- Concrete Jointing Pattern
 Refer to Civil Details and Soils Engineer Reqs.
- Movable Tables and Chairs
 Table Model: FRT1700-MRD-36 Series
 Chair Model: FRT1700-MSF-M1-A Series
 Mfr: Maglin Color: Gray/Silver
- Planting Area
 Refer to Planting Plans and Schedule
- Bike Rack
 Model: 88-00/S-1
 Mfr: Dumor
 Color: Black
 Install: Embedded; spacing per plan and detail
- Oversized Tree Grate
 Model: 48" x 120" Starburst 2 - M12002-2
 Mfr: Ironsmith
 Color: Unfinished/natural cast iron
 Install: Per mfr. with recommended grate frame
- Bicycle Storage Fence with Gate
 Model: 72" tall "Twinbar" fence with top bar,
 and gate with lock set and handle
 Mfr: Metalco
 Color: Black Powder Coated
 Install: per Mfr. with appropriate framing
- Cast-in-Place Concrete Wall with Wood Inlay
 Wood Inlay
 100% FSC Cumaru Wood Top Slat System
 Mfr.: Streetlife
- CIP Concrete Wall
 Color and Finish to match Concrete Paving 02, above
- Tiered Cast in Place Concrete Walls
 Concrete Color and Finish to match Concrete
 Paving 01
- Circular Tree Bench
 Model: Ogden with lpe perpendicular slots
 with back and armrests. See detail.
 Mfr.: Maglin
 Color: TBD by District - submit samples
 Install: per Mfr. and detail
- Boulder
 Sonoma Fieldstone Boulder
 7x7x5 (+/- 1")
 Source to be within max. 100 miles
 Contact W. Johnson Rock
 Locate/Face with Landscape Architect
- CIP Concrete Planter
 Stake and Layout in field per Details. Provide
 mock-up per details. See details. Concrete
 Color and Finish to match Concrete Paving 02
- Waste & Recycle Containers
 RECYCLE
 Model: The Landscape - 40 gallon
 Model Number: RC-2441 RBL
 Mfr: Recycle Away System Solutions
 Color: Royal Blue
 Install: Surface Mount
- WASTE
 Model: The Landscape - 40 gallon
 Model Number: WR-2441 T BLK
 Mfr: Recycle Away System Solutions
 Color: Black
 Install: Surface Mount
- Accessible Clear Ground Space
 30" x 48" clear ground space for ADA compliance
 - see Plans for Assembly/Clear Space Calcs.

TLCD ARCHITECTURE
 520 Third St. #250
 Santa Rosa, CA 95401
 o: 707.525.5600
 f: 707.525.5616
 tcd.com

QUADRIGA
 landscape architecture and planning, inc.
 sacramento | santa rosa
 707.546.3561 | www.quadriga-inc.com

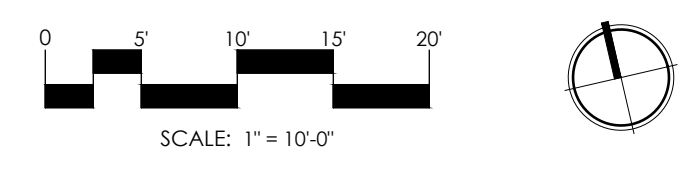


Number	Date	Description
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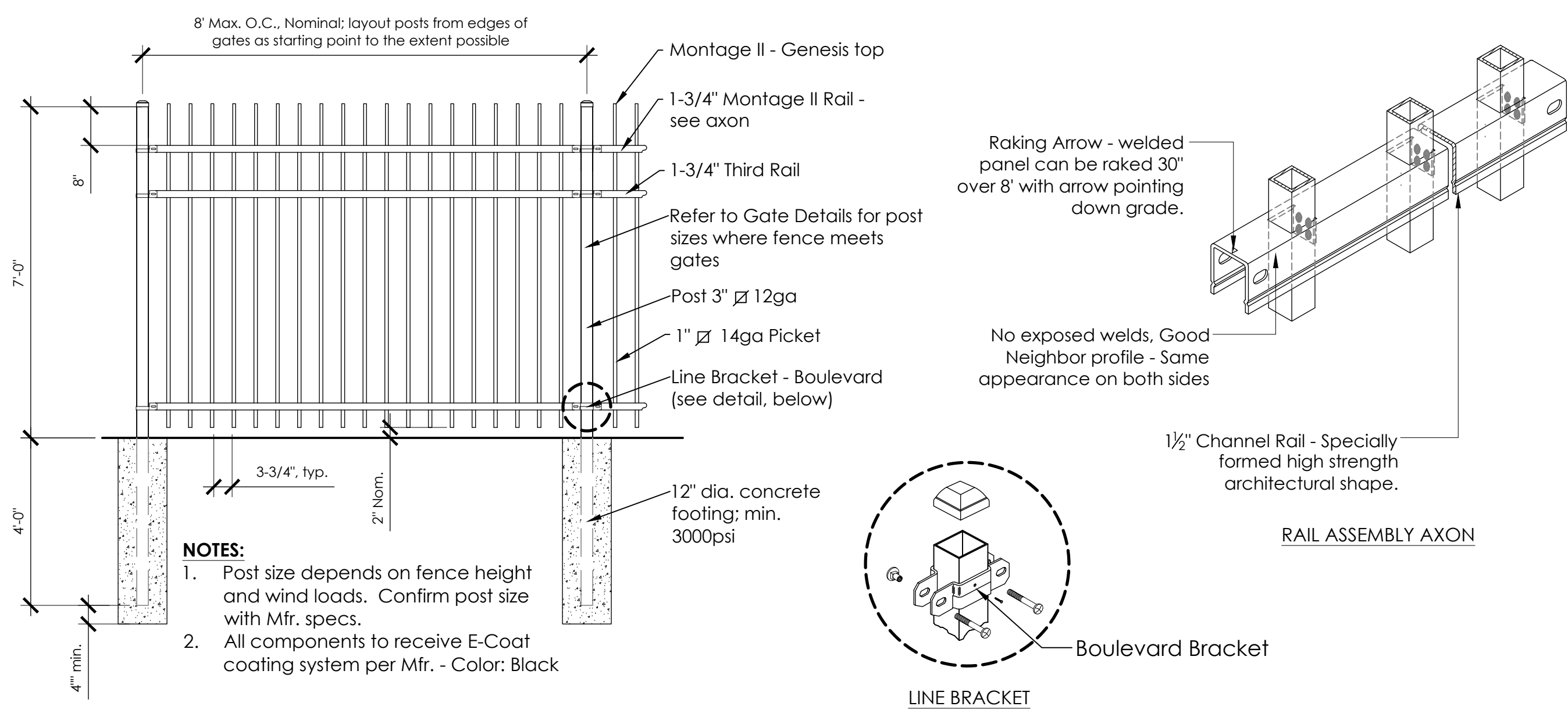
MONTGOMERY HIGH SCHOOL
CLASSROOM BUILDING
 1250 HAHMAN DR.
 SANTA ROSA, CA 95405

DISAPPLICATION NUMBER: 014189204
 TLOD PROJECT NUMBER: 17123.00
 QUADRIGA PROJECT NUMBER: 18-1640
 DATE: May 8, 2020
 DRAWN BY: BMK
 CHECKED BY: CT

MATERIALS & LAYOUT PLAN

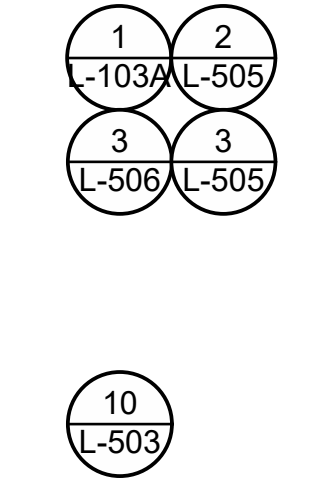


190110 11.14.22

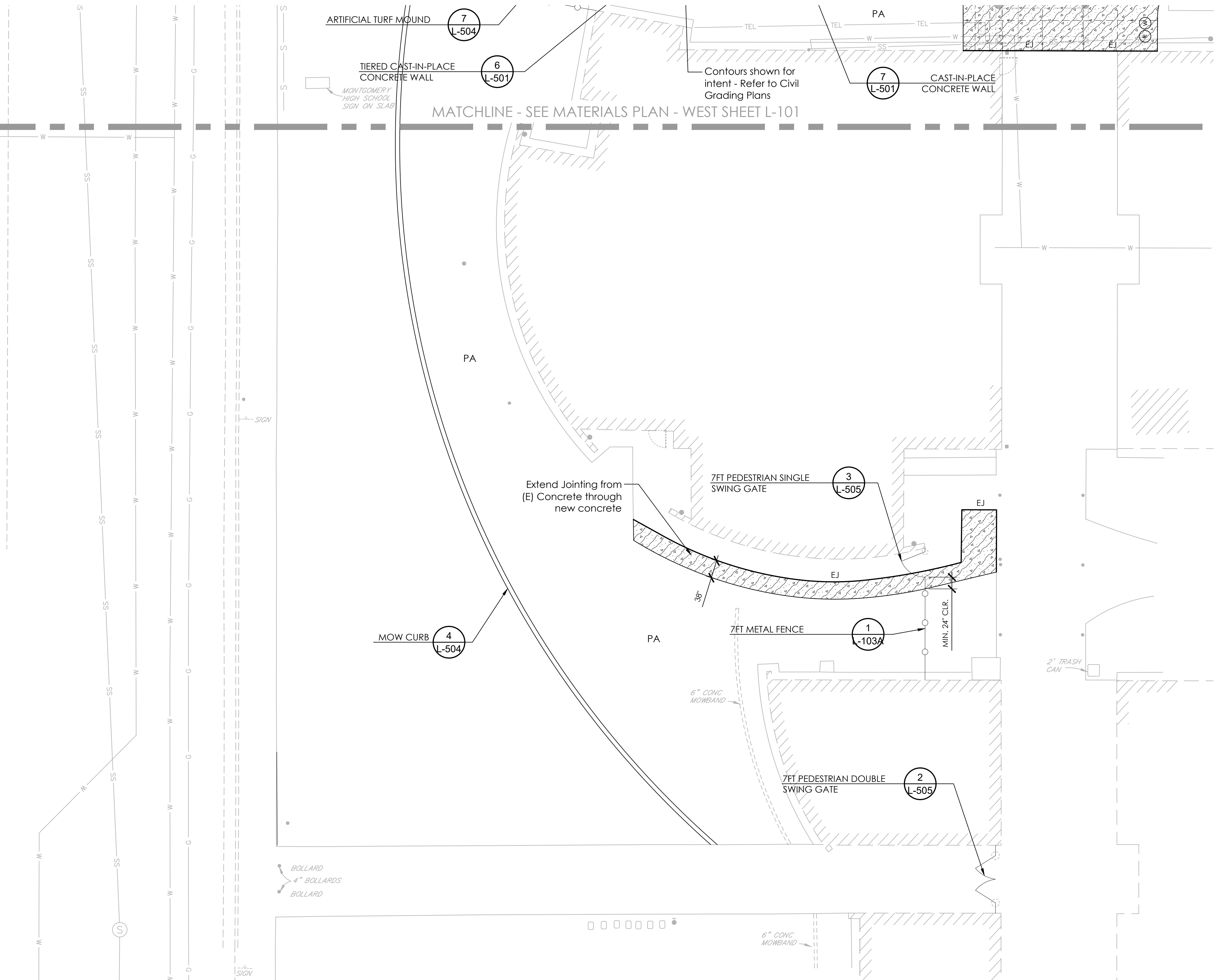


MATERIALS LEGEND - L-103A

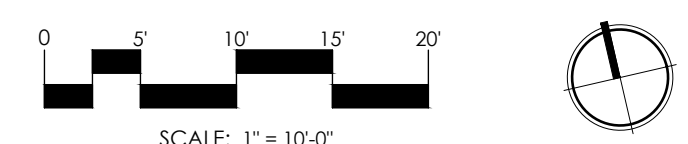
- Concrete Paving 01
Match existing sidewalk concrete finish.
Integral Color: 3967 Porcelain Gray, Scofield
See also Civil Plans for details.
- Concrete Jointing Pattern
Refer to Civil Details and Soils Engineer Reqs.
- 7FT Fence with Gates
Gate Locations and Swing as per plan
Model: 84" tall Ameristar Montage II 3-rail
fence with Genesis top; see details and
plan for gates
Mfr: Ameristar
Color: Black Powder Coated
Install: per Mfr. with appropriate framing
- Planting Area
Refer to Planting Plans



1 7FT METAL FENCE
DO NOT SCALE



MATERIALS & LAYOUT PLAN - SOUTH



REFER TO SHEET L-101 FOR LAYOUT NOTES
REFER TO SHEET L-501 & 504-506 FOR DETAILS
REFER TO CIVIL PLANS FOR GRADING & DRAINAGE

TLCD ARCHITECTURE
520 Third St. #250
Santa Rosa, CA 95401
o: 707.525.5600
f: 707.525.5616
tcd.com

QUADRIGA
landscape architecture and planning, inc.
sacramento | santa rosa
707.546.3561 | www.quadriga-inc.com



Number	Date	Description
1	10/29/2024	CCD 006

MONTGOMERY HIGH SCHOOL
CLASSROOM BUILDING
1250 HAHMAN DR.
SANTA ROSA, CA 95405

DISA APPLICATION NUMBER: 05-178924
TLCD PROJECT NUMBER: 17123.00
QUADRIGA PROJECT NUMBER: 18-1940
DATE: May 6, 2020
DRAWN BY: DMK
CHECKED BY: CT

MATERIALS & LAYOUT PLAN

L-103A

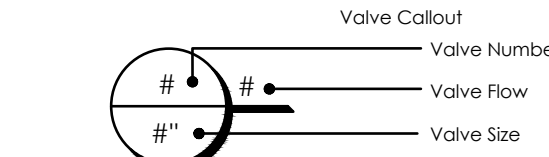
IRRIGATION LEGEND L-104

REMOTE CONTROL VALVES
Contractor to verify circuiting and operations of existing valves to remain with Campus Facilities and Operations and coordinate modifications to existing zones as necessary with Landscape Contractor and Landscape Architect.

BACKFLOW PREVENTER
Contractor to verify location of existing backflow preventer and alert Landscape Architect of any issues.

SYMBOL	MANUFACTURER/MODEL	ARC	PSI	GPM	RADIUS
⊙	Hunter MP Strip PROS-12-PRS40-CV	RCS	40	0.22	5'x15'
⊙	Hunter MP Strip PROS-12-PRS40-CV	SST	40	0.44	5'x30'
⊙	Hunter MP1000 PROS-12-PRS40-CV	210-270	40		13'
⊙	Hunter MP1000 PROS-12-PRS40-CV	90-210	40		13'
⊙	Hunter MP2000 PROS-12-PRS40-CV	210-270	40		19'
⊙	Hunter MP2000 PROS-12-PRS40-CV	90-210	40		19'
⊙	Hunter MP2000 PROS-12-PRS40-CV	360	40	1.48	19'
⊙	Hunter MP3000 PROS-12-PRS40-CV	360	40	3.64	30'
⊙	Hunter MP3000 PROS-12-PRS40-CV	90-210	40		30'
⊙	Hunter MP800SR PROS-12-PRS40-CV	Adj	40		9'
⊙	Rain Bird 1800-1401 Full circle bubbler	360	30	0.25	3'
⊙	Rain Bird 1806 SAM-1401 Full Circle bubbler in RWS-B-C-1401 Sock with vandal resistant grate.	360	30	0.25	3'

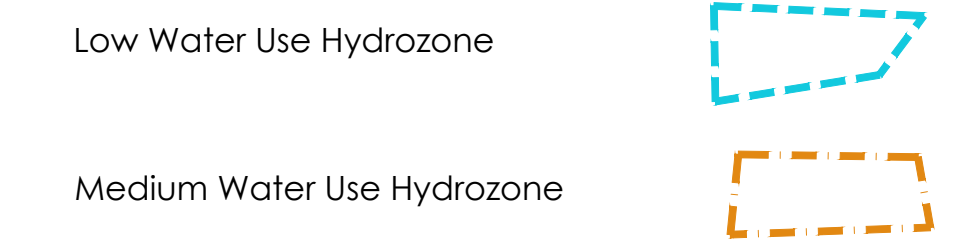
SYMBOL	MANUFACTURER/MODEL/DESCRIPTION
⊙	Rain Bird PEB Plastic Irrigation Valves; size per Plan. Low Flow Operating Capability, Globe Configuration.
⊙	Hunter HQ-44LRC Quick coupler valve, yellow rubber locking cover, red brass and stainless steel, with 1" NPT inlet, 2-piece body.
⊙	Nibco T-113-K Class 125 bronze gate shut off valve with cross handle, same size as mainline pipe diameter at valve location. Line Size.
⊙	Point of Connection at Existing 2" Mainline Contractor to field verify location and size.
---	Irrigation Lateral Line: PVC Schedule 40 Size per Plan
---	Irrigation Mainline: PVC Schedule 40 Size per Plan
---	Pipe Sleeve: PVC Schedule 40 Size per Specifications - min. 2x pipe size



LATERAL SIZING GUIDE

CIRCUIT GPM	PIPE SIZE	PIPE CLASS
0-8 GPM	3/4"	SCH. 40 PVC
9-12 GPM	1"	SCH. 40 PVC
13-22 GPM	1-1/4"	SCH. 40 PVC
23-30 GPM	1-1/2"	SCH. 40 PVC
31-50 GPM	2"	SCH. 40 PVC
51-70 GPM	2-1/2"	SCH. 40 PVC
71-110 GPM	3"	SCH. 40 PVC

HYDROZONE LEGEND



IRRIGATION NOTES

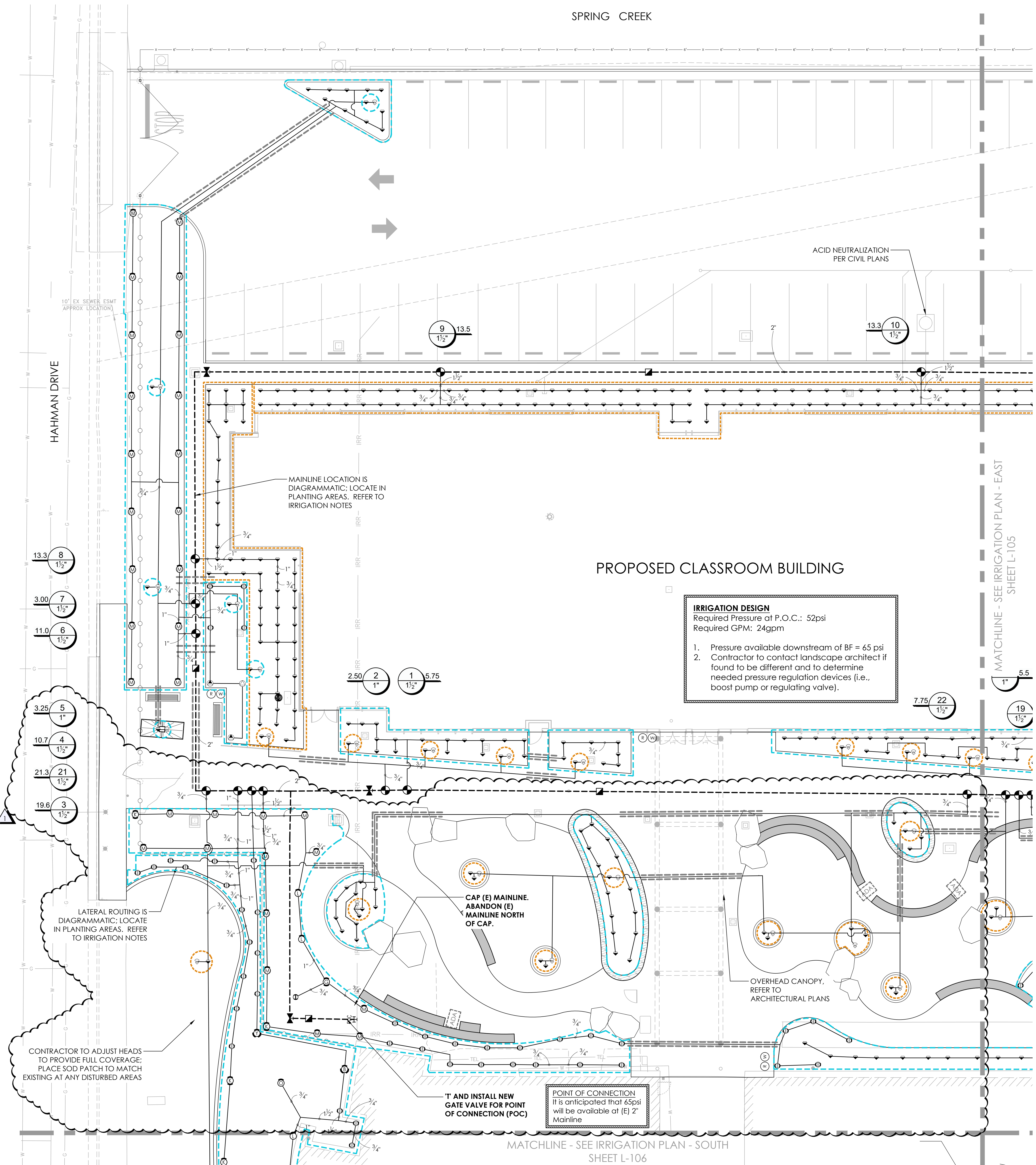
- The Landscape Contractor shall inspect the site and verify conditions and dimensions prior to construction.
- Install irrigation system in accordance with all local codes and ordinances.
- See details and specifications for procedures, material and installation requirements.
- Prior to cutting into soil, locate all cables, conduits, sewers, and other utilities or architectural features that are commonly encountered underground and take proper precautions not to damage or disturb such improvements. Any damage made during the installation of the irrigation system of the aforementioned items shall be repaired and/or replaced to the satisfaction of the Owner at the Contractor's own expense.
- Contractor to minimize disturbance to existing tree roots on site. Cut minor roots (less than 2" in diameter) of trees indicated to remain in a clean and careful manner where such roots obstruct installation of new construction. If any roots greater than 2" are encountered stop work and contact the Owner's representative immediately.
- The irrigation design is diagrammatic. All piping, valves, etc., shown within paved areas are for design clarification only and shall be installed in planting areas. Main and valves shall be installed in shrub/ground cover areas only. Avoid conflicts with utilities, new planting, new site or architectural elements.
- All valves shall be placed in NDS Pro Series, or equal, green valve box. All valve boxes shall be located in groundcover areas whenever possible, and shall be bolted.
- Station operation times shall not exceed the soil's infiltration rate per the soils report.
- All lateral end runs shall be 3/4" size unless otherwise noted.
- Where pipe sizes have been omitted or there is a conflict, refer to the lateral pipe sizing chart for sizes.
- Install two spare common and three spare control wires from each controller in a continuous loop through each valve box connected to that controller for future use.
- Contractor shall coordinate sleeving for irrigation piping with Paving Contractor prior to paving installation. It is the contractor's responsibility for providing appropriate sleeving under hardscape. At each mainline sleeve, provide a separate, appropriate-size sleeve for control/common wiring.
- The landscape Contractor shall coordinate his work with other trades involved (I.E. Grading, Plumbing and Electrical Contractors).
- Contractor shall verify all locations and function of existing irrigation equipment and points of connection that are to remain or to connect to new irrigation systems, upon notification of award of contract. Contractor to immediately notify Landscape Architect if any discrepancies are found between plans and existing irrigation conditions.

STATEMENT OF COMPLIANCE

I have complied with the criteria of the California Department of Water Resources Model Water Efficient Landscape Ordinance as established by Chapter 2.7, Title 23 of the 2015 California Building Code and have applied them for the efficient use of water in the landscape design plan.

PREPARER NAME: Christine Talbot
 PREPARER SIGNATURE: [Signature]
 PROFESSIONAL LICENSE: PLA CA #5226

SEE SHEET L-106 FOR WELO CALCULATIONS, HYDROZONE TABLE, AND IRRIGATION SCHEDULE
 REFER TO SHEET L-502 FOR IRRIGATION DETAILS

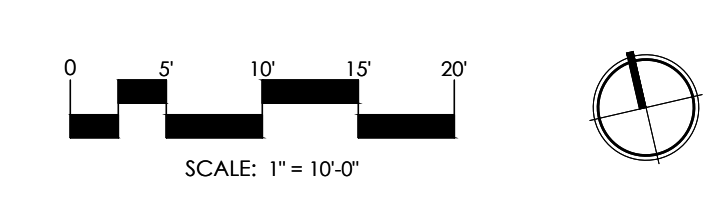


IRRIGATION DESIGN
 Required Pressure at P.O.C.: 52psi
 Required GPM: 24gpm

- Pressure available downstream of BF = 65 psi
- Contractor to contact landscape architect if found to be different and to determine needed pressure regulation devices (i.e., boost pump or regulating valve).

POINT OF CONNECTION
 If it is anticipated that 65psi will be available at (E) 2" Mainline

INSTALL NEW GATE VALVE FOR POINT OF CONNECTION (POC)



AGENCY APPROVAL STAMP

TLCD ARCHITECTURE
 520 Third St. #250
 Santa Rosa, CA 95401
 o: 707.525.5600
 f: 707.525.5616
 tcd.com

CONSULTANT

QUADRIGA
 landscape architecture and planning, inc.
 sacramento | santa rosa
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STAMP

REVISIONS

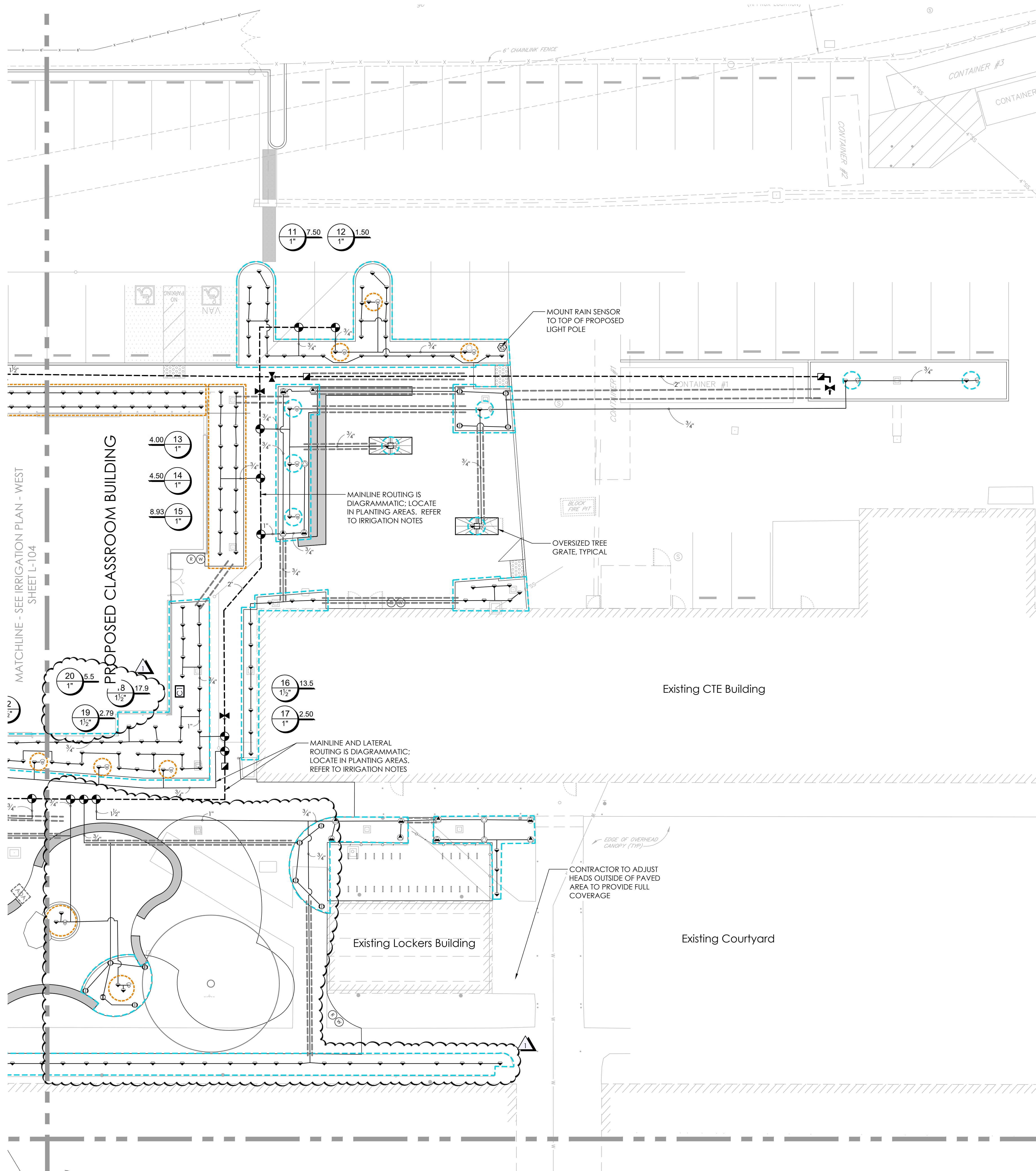
Number	Date	Description
1	10/29/2024	CCD 006

MONTGOMERY HIGH SCHOOL
CLASSROOM BUILDING
 1250 HAHMAN DR.
 SANTA ROSA, CA 95405

DISA APPLICATION NUMBER: 24-119824
 TLCD PROJECT NUMBER: 17123.00
 QUADRIGA PROJECT NUMBER: 18-1640
 DATE: May 6, 2020
 DRAWN BY: DMK
 CHECKED BY: CT

IRRIGATION PLAN

L-104



IRRIGATION LEGEND L-105

REMOTE CONTROL VALVES
Contractor to verify circuiting and operations of existing valves to remain with Campus Facilities and Operations and coordinate modifications to existing zones as necessary with Landscape Contractor and Landscape Architect.

BACKFLOW PREVENTER
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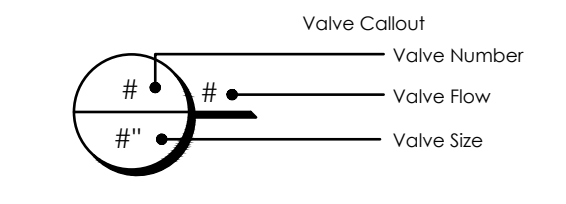
SYMBOL	MANUFACTURER/MODEL	ARC	PSI	GPM	RADIUS
⊙	Hunter MP Corner PROS-12-PRS40-CV	Adj	40		13'
⊙	Hunter MP Strip PROS-12-PRS40-CV	LCS	40	0.22	5x15'
⊙	Hunter MP Strip PROS-12-PRS40-CV	RCS	40	0.22	5x15'
⊙	Hunter MP Strip PROS-12-PRS40-CV	SST	40	0.44	5x30'
⊙	Hunter MP800SR PROS-12-PRS40-CV	Adj	40		9'
⊙	Rain Bird 1800-1401 Full circle bubbler	360	30	0.25	3'
⊙	Rain Bird 1806 SAM-1401 Full Circle bubbler in RWS-B-C-1401 Sock with vandal resistant grate.	360	30	0.25	3'

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION
⊙	Rain Bird PEB Plastic Irrigation Valves; size per Plan. Low flow Operating Capability, Globe Configuration.
⊙	Hunter HQ-44LRC Quick coupler valve, yellow rubber locking cover, red brass and stainless steel, with 1" NPT inlet, 2-piece body.
⊙	Nibco T-113-K Class 125 bronze gate shut off valve with cross handle, same size as mainline pipe diameter at valve location. Line size.

⊙ Rain Bird ESP4ME with (3) ESP-SM6
22 Station, Hybrid Modular Outdoor Controller. For Residential or Light Commercial Applications. Include LNK WiFi module and a WR2 rain sensor.

⊙ Rain Bird WR2-RFC
Wireless Rain and Freeze Sensor Combo, includes 1 receiver and 1 rain/freeze sensor transmitter. Location per plan or similar per manufacturer's specifications.

- Irrigation Lateral Line: PVC Schedule 40
Size per Plan
- - - Irrigation Mainline: PVC Schedule 40
Size per Plan
- - - Pipe Sleeve: PVC Schedule 40
Size per Specifications - min. 2x pipe size



LATERAL SIZING GUIDE

CIRCUIT GPM	PIPE SIZE	PIPE CLASS
0-8 GPM	3/4"	SCH. 40 PVC
9-12 GPM	1"	SCH. 40 PVC
13-22 GPM	1-1/4"	SCH. 40 PVC
23-30 GPM	1-1/2"	SCH. 40 PVC
31-50 GPM	2"	SCH. 40 PVC
51-70 GPM	2-1/2"	SCH. 40 PVC
71-110 GPM	3"	SCH. 40 PVC

HYDROZONE LEGEND

- Low Water Use Hydrozone
- Medium Water Use Hydrozone

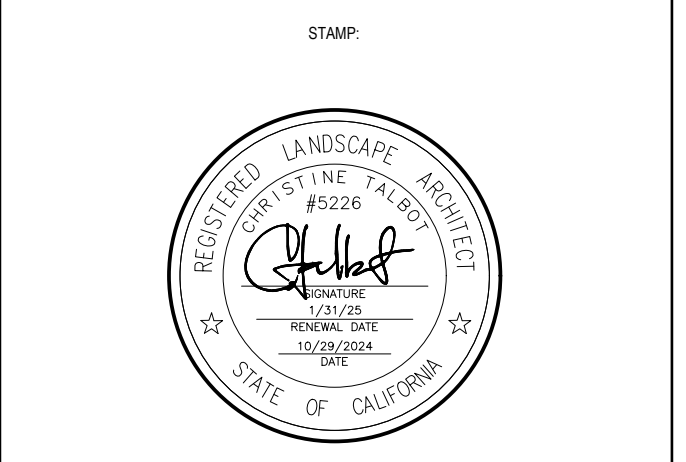
STATEMENT OF COMPLIANCE

I have complied with the criteria of the California Department of Water Resources Model Water Efficient Landscape Ordinance as established by Chapter 2.7, Title 23 of the 2015 California Building Code and have applied them for the efficient use of water in the landscape design plan.

PREPARER NAME: Christine Talbot
 PREPARER SIGNATURE: [Signature]
 PROFESSIONAL LICENSE: PLA CA #5226

TLCDARCHITECTURE
 520 Third St. #250
 Santa Rosa, CA 95401
 o: 707.525.5600
 f: 707.525.5616
 tcd.com

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Number	Date	Description
1	10/29/2024	CCD 006

MONTGOMERY HIGH SCHOOL
CLASSROOM BUILDING
 1250 HAHMAN DR.
 SANTA ROSA, CA 95405

DISAPPLICATION NUMBER: 01-118024
 TLOD PROJECT NUMBER: 17123.00
 QUADRIGA PROJECT NUMBER: 18-1646
 DATE: May 6, 2020
 DRAWN BY: BMK
 CHECKED BY: CT

IRRIGATION PLAN

L-105

SEE SHEET L-104 IRRIGATION NOTES
 SEE SHEET L-106 FOR WELO CALCULATIONS,
 HYDROZONE TABLE, AND IRRIGATION SCHEDULE
 SEE SHEET L-502 FOR IRRIGATION DETAILS

IRRIGATION WATERING SCHEDULE

Location: Santa Rosa				Eto: 37.8				Soil Type: Loam				Cycles per Week: 3 days per week											
Station	GPM	Soil Type	Plant Type	Area SF	Irrigation Type	Kc (PF)	IE	Precip Rate	No. of Cycles	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Total In/Yr	
MINUTES PER CYCLE AT 100% ET																							
1	5.8	0.7	Low	436	Shrub Bubbler	0.3	0.81	1.27	1	1.0	1.8	3.2	4.9	6.5	7.4	7.8	6.9	5.3	3.5	1.7	1.0	13.99	
2	2.5	0.7	Tree-M	90	Tree Bubbler	0.5	0.81	2.68	1	0.8	1.4	2.5	3.9	5.1	5.8	6.2	5.4	4.2	2.8	1.3	0.8	23.31	
3	19.6	0.7	Low	1,806	Rotor	0.3	0.75	1.05	2	0.7	1.2	2.1	3.2	4.2	4.8	5.1	4.5	3.5	2.3	1.1	0.6	15.10	
4	21.3	0.7	Low	2,052	Rotor	0.3	0.75	1.00	2	0.7	1.2	2.2	3.4	4.4	5.1	5.3	4.7	3.6	2.4	1.2	0.7	15.10	
5	10.7	0.7	Tree-M	108	Tree Bubbler	0.5	0.81	9.54	1	0.2	0.4	0.7	1.1	1.4	1.6	1.7	1.5	1.2	0.8	0.4	0.2	23.31	
6	11.0	0.7	Low	1,931	Rotor	0.3	0.75	0.55	1	2.5	4.4	8.0	12.3	16.1	18.4	19.4	17.2	13.2	8.8	4.2	2.4	15.10	
7	3.0	0.7	Tree-L	72	Tree Bubbler	0.3	0.81	4.01	1	0.3	0.6	1.0	1.6	2.0	2.3	2.5	2.2	1.7	1.1	0.5	0.3	13.99	
8	13.3	0.7	Med	889	Shrub Bubbler	0.5	0.81	1.44	1	1.5	2.6	4.7	7.2	9.5	10.8	11.4	10.1	7.8	5.2	2.5	1.4	23.31	
9	13.5	0.7	Med	681	Shrub Bubbler	0.5	0.81	1.91	2	0.6	1.0	1.8	2.7	3.6	4.1	4.3	3.8	2.9	1.9	0.9	0.5	23.31	
10	13.3	0.7	Med	681	Shrub Bubbler	0.5	0.81	1.88	3	0.4	0.7	1.2	1.8	2.4	2.8	2.9	2.6	2.0	1.3	0.6	0.4	23.31	
11	7.5	0.7	Low	576	Shrub Bubbler	0.3	0.81	1.25	4	0.3	0.5	0.8	1.2	1.6	1.9	2.0	1.7	1.3	0.9	0.4	0.2	13.99	
12	1.5	0.7	Tree-M	36	Tree Bubbler	0.5	0.81	4.01	5	0.1	0.2	0.3	0.5	0.7	0.8	0.8	0.7	0.6	0.4	0.2	0.1	23.31	
13	4.0	0.7	Tree-L	96	Tree Bubbler	0.3	0.81	4.01	6	0.1	0.1	0.2	0.3	0.3	0.4	0.4	0.4	0.3	0.2	0.1	0.1	13.99	
14	4.5	0.7	Med	339	Shrub Bubbler	0.5	0.81	1.28	7	0.2	0.4	0.8	1.2	1.5	1.7	1.8	1.6	1.3	0.8	0.4	0.2	23.31	
15	8.9	0.7	Med	604	Spray	0.5	0.75	1.42	8	0.2	0.4	0.6	1.0	1.3	1.5	1.6	1.4	1.1	0.7	0.3	0.2	25.17	
16	13.5	0.7	Low	903	Shrub Bubbler	0.3	0.81	1.44	9	0.1	0.2	0.3	0.5	0.6	0.7	0.8	0.7	0.5	0.3	0.2	0.1	13.99	
17	2.5	0.7	Tree-M	60	Tree Bubbler	0.5	0.81	4.01	10	0.1	0.1	0.2	0.3	0.3	0.4	0.4	0.4	0.3	0.2	0.1	0.1	23.31	
18	17.9	0.7	Low	1,140	Shrub Bubbler	0.3	0.81	1.51	11	0.1	0.1	0.2	0.4	0.5	0.6	0.6	0.5	0.4	0.3	0.1	0.1	13.99	
19	2.8	0.7	Low	789	Rotor	0.3	0.75	0.34	12	0.3	0.6	1.1	1.7	2.2	2.5	2.6	2.3	1.8	1.2	0.6	0.3	15.10	
20	5.5	0.7	Tree-M	144	Tree Bubbler	0.5	0.81	3.68	13	0.0	0.1	0.1	0.2	0.3	0.3	0.3	0.3	0.2	0.2	0.1	0.0	23.31	
21	21.3	0.7	Low	2,305	Shrub Bubbler	0.3	0.81	0.89	14	0.1	0.2	0.3	0.5	0.7	0.8	0.8	0.7	0.5	0.4	0.2	0.1	13.99	
22	7.8	0.7	Low	575	Shrub Bubbler	0.3	0.81	1.30	15	0.1	0.1	0.2	0.3	0.4	0.5	0.5	0.4	0.3	0.2	0.1	0.1	13.99	

Note: During Maintenance Period irrigation times may be increased by 20% to allow for establishment of newly planted material

HYDROZONE SUMMARY

Summary Hydrozone Table		
Hydrozone	Area (Sq. Ft.)	% of Landscape Area
High Water Use	0	0.0%
Moderate Water Use	3,632	23%
Low Water Use	12,681	79%
Total	16,313	100%

STATEMENT OF COMPLIANCE

I have complied with the criteria of the California Department of Water Resources Model Water Efficient Landscape Ordinance as established by Chapter 2.7, Title 23 of the 2015 California Building Code and have applied them for the efficient use of water in the landscape design plan.

PREPARER NAME: Christine Talbot
 PREPARER SIGNATURE: *[Signature]*
 PROFESSIONAL LICENSE: PLA CA #5226

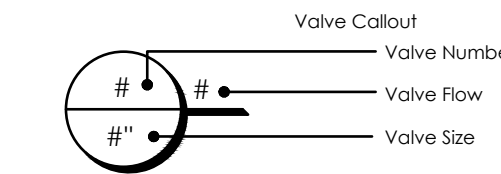
IRRIGATION LEGEND L-106

REMOTE CONTROL VALVES
 Contractor to verify circuiting and operations of existing valves to remain with Campus Facilities and Operations and coordinate modifications to existing zones as necessary with Landscape Contractor and Landscape Architect.

BACKFLOW PREVENTER
 Contractor to verify location of existing backflow preventer and alert Landscape Architect of any issues.

SYMBOL	MANUFACTURER/MODEL	ARC	PSI	GPM	RADIUS
⊙	Hunter MP1000 PROS-12-PRS40-CV	210-270	40		13'
⊙	Hunter MP1000 PROS-12-PRS40-CV	90-210	40		13'
⊙	Hunter MP1000 PROS-12-PRS40-CV	360	40	0.84	13'
⊙	Hunter MP2000 PROS-12-PRS40-CV	90-210	40		19'
⊙	Hunter MP2000 PROS-12-PRS40-CV	360	40	1.48	19'
⊙	Hunter MP800SR PROS-12-PRS40-CV	Adj	40		9'
⊙	Rain Bird 1800-1401 Full circle bubbler	360	30	0.25	3'
⊙	Rain Bird 1806 SAM-1401 Full Circle bubbler in RWS-B-C-1401 Sock with vandal resistant grate.	360	30	0.25	3'

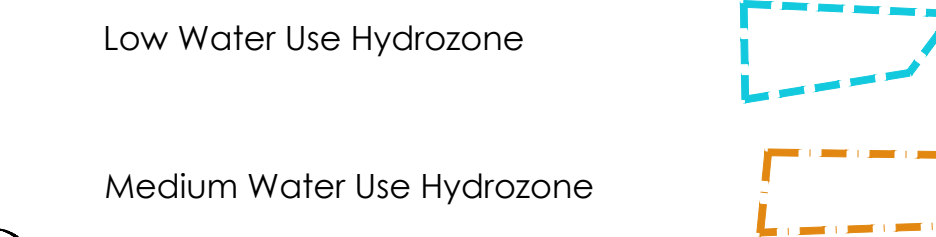
SYMBOL: MANUFACTURER/MODEL/DESCRIPTION
 Irrigation Lateral Line: PVC Schedule 40 Size per Plan



LATERAL SIZING GUIDE

CIRCUIT GPM	PIPE SIZE	PIPE CLASS
0-8 GPM	3/4"	SCH. 40 PVC
9-12 GPM	1"	SCH. 40 PVC
13-22 GPM	1-1/4"	SCH. 40 PVC
23-30 GPM	1-1/2"	SCH. 40 PVC
31-50 GPM	2"	SCH. 40 PVC
51-70 GPM	2-1/2"	SCH. 40 PVC
71-110 GPM	3"	SCH. 40 PVC

HYDROZONE LEGEND



WELO CALCULATIONS

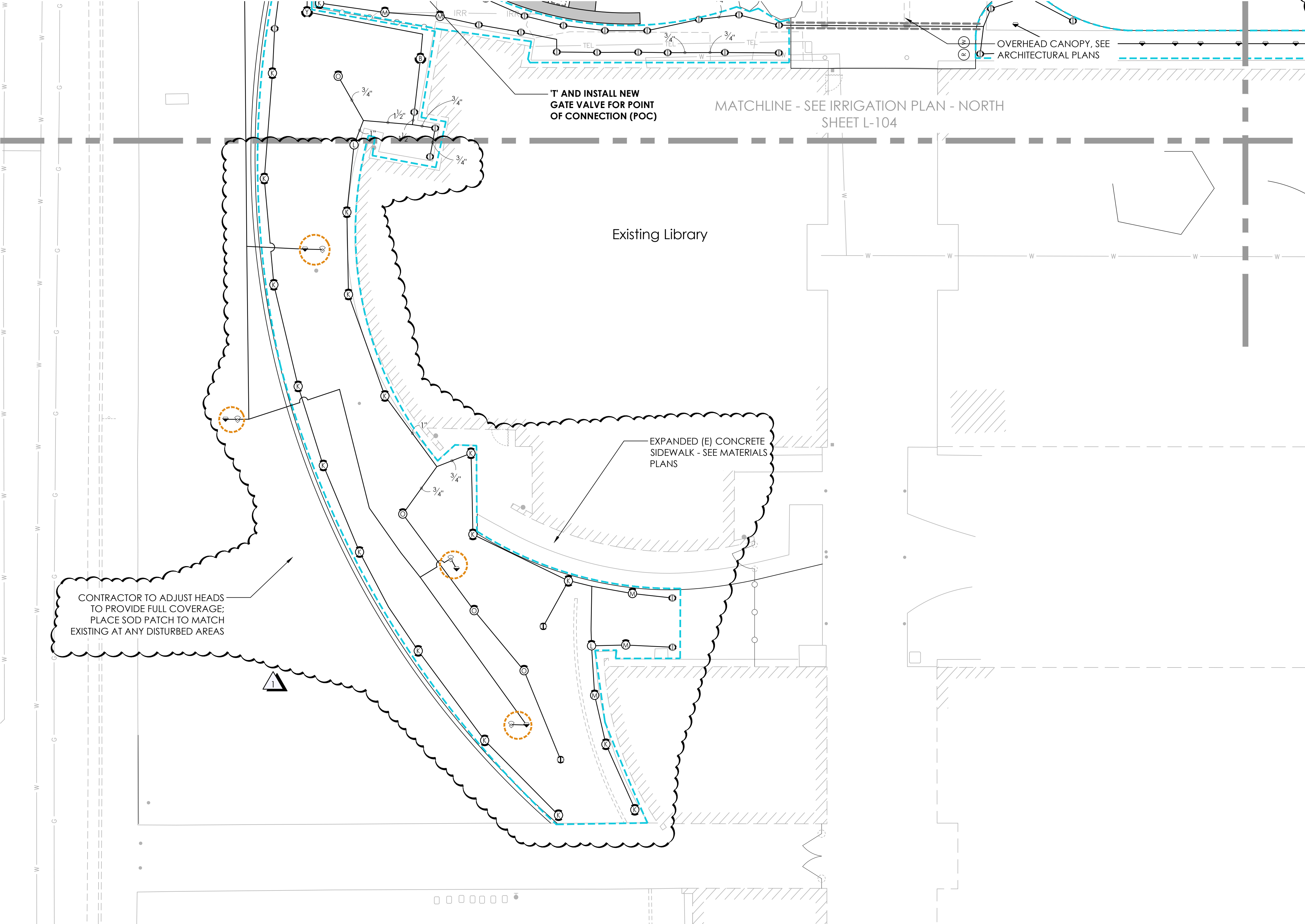
ETWU (Estimated Total Water Use) Annual Gallons Required

Valve #	Plant Type (Hydrozone)	Plant Factor	Irrigation Method	Irrigation Efficiency	ETAF (PF/IE)	Area (ft²)	ETAF x Area	ETWU (Eto)(0.62)(ETAF)(Area)
1	Low	0.3	Shrub Bubbler	0.81	0.37	436	161	3,780
2	Tree-M	0.5	Tree Bubbler	0.81	0.62	90	56	1,301
3	Low	0.3	Rotor	0.75	0.40	1,806	722	16,912
4	Low	0.3	Rotor	0.75	0.40	2,052	821	19,216
5	Tree-M	0.5	Tree Bubbler	0.81	0.62	108	67	1,561
6	Low	0.3	Rotor	0.75	0.40	1,931	772	18,083
7	Tree-L	0.3	Tree Bubbler	0.81	0.37	72	27	624
8	Med	0.5	Shrub Bubbler	0.81	0.62	889	549	12,847
9	Med	0.5	Shrub Bubbler	0.81	0.62	681	420	9,841
10	Med	0.5	Shrub Bubbler	0.81	0.62	681	420	9,841
11	Low	0.3	Shrub Bubbler	0.81	0.37	576	213	4,994
12	Tree-M	0.5	Tree Bubbler	0.81	0.62	36	22	520
13	Tree-L	0.3	Tree Bubbler	0.81	0.37	96	36	832
14	Med	0.5	Shrub Bubbler	0.81	0.62	339	209	4,899
15	Med	0.5	Spray	0.75	0.67	604	403	9,427
16	Low	0.3	Shrub Bubbler	0.81	0.37	903	334	7,830
17	Tree-M	0.5	Tree Bubbler	0.81	0.62	60	37	867
18	Low	0.3	Shrub Bubbler	0.81	0.37	1,140	422	9,885
19	Low	0.3	Rotor	0.75	0.40	789	316	7,389
20	Tree-M	0.5	Tree Bubbler	0.81	0.62	144	89	2,081
21	Low	0.3	Shrub Bubbler	0.81	0.37	2,305	854	19,986
22	Low	0.3	Shrub Bubbler	0.81	0.37	575	213	4,986
TOTAL		0.44				16,313	7,163	167,703

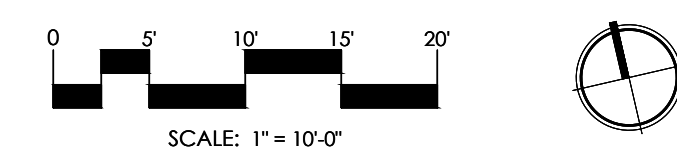
MAWA (Maximum Applied Water Allowance) Annual Gallons Allowed

Eto	0.62	ETAF	Area (ft²)	MAWA (Eto)(0.62)(ETAF)(Area)
37.8	0.62	0.45	16,313	171,858

The ETWU (167,703 gallons) is less than the MAWA (171,858 gallons), therefore this design complies with the California Code of Regulations Title 23, Waters - Model Water Efficient Landscape Ordinance.



IRRIGATION PLAN - SOUTH



SEE SHEET L-104 FOR IRRIGATION NOTES

SEE TO SHEET L-502 FOR IRRIGATION DETAILS

TLCDARCHITECTURE

520 Third St. #250
 Santa Rosa, CA 95401
 t: 707.525.5600
 f: 707.525.5616
 tcd.com

CONSULTANT

QUADRIGA
 landscape architecture and planning, inc.
 sacramento | santa rosa
 707.546.3561 | www.quadriga-inc.com

STAMP



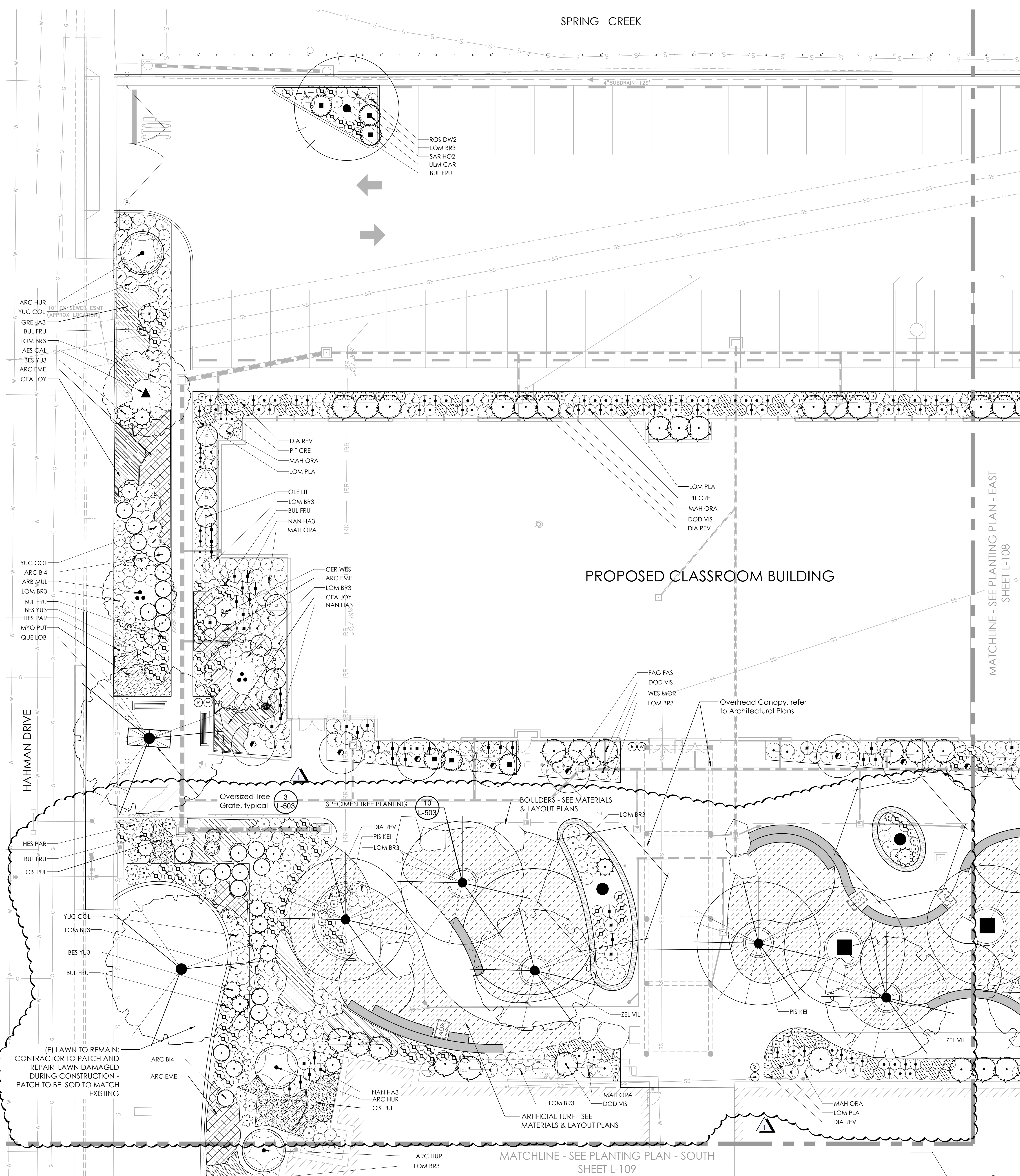
Number	Date	Description
1	10/29/2024	CCD 006

MONTGOMERY HIGH SCHOOL
 CLASSROOM BUILDING
 1250 HAHMAN DR.
 SANTA ROSA, CA 95405

DISA APPLICATION NUMBER: 014198204
 TLCD PROJECT NUMBER: 17123.00
 QUADRIGA PROJECT NUMBER: 18-1840
 DATE: May 5, 2020
 DRAWN BY: BMK
 CHECKED BY: CT

IRRIGATION PLAN & WELO CALCULATIONS

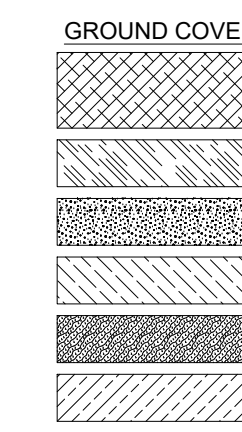
L-106



PLANTING PLAN - WEST

PLANT SCHEDULE L-107

SYMBOL	CODE	BOTANICAL / COMMON NAME	SIZE	WATER USE	SPACING	QTY
TREES						
	AES CAL	Aesculus californica California Buckeye	24"box	Low	Per Plan	1
	ARB MUL	Arbutus x 'Marino' Arbutus Multi-trunk	24"box	Low	Per Plan	2
	CER WES	Cercis occidentalis Western Redbud Multi-trunk	24"box	Very Low	Per Plan	1
	FAG FAS	Fagus sylvatica 'Fastigiata' European Beech	24"box	Medium	Per Plan	8
	GIN AUT	Ginkgo biloba 'Autumn Gold'™ Maidenhair Tree	24"box	Medium	Per Plan	2
	PIS KEI	Pistacia chinensis 'Keith Davey' Keith Davey Chinese Pistache Min. 15H x 7W x 3'Cal.	60"box	Low	Per Plan	3
	QUE LOB	Quercus lobata Valley Oak	36"box	Low	Per Plan	2
	ULM DRA	Ulmus parvifolia 'Drake' Drake Lacebark Elm Min. 18H x 8W x 2.5'Cal.	48"box	Low	Per Plan	1
	ULM CAR	Ulmus x 'Frontier' American Elm	24"box	Low	Per Plan	1
	ZEL VIL	Zelkova serata 'Village Green' Village Green Japanese Zelkova Min. 18H x 8W x 3'Cal.	48"box	Low	Per Plan	2
SHRUBS						
	ARC B4	Arctostaphylos edmundsii 'Big Sur' Big Sur Manzanita	5 gal	Low	Per Plan	23
	ARC HUR	Arctostaphylos manzanita 'Dr. Hurd' Dr. Hurd Manzanita	15 gal	Low	Per Plan	2
	BES YU3	Beschomera vucoides Arnica	5 gal	Low	Per Plan	23
	BUL FRU	Bulbine frutescens 'Haltmark' Staked Bulbine	1 gal	Low	Per Plan	88
	DIA REV	Dianella revoluta 'Little Rev' Little Rev Flax Lily	1 gal	Medium	Per Plan	76
	DOD VIS	Dodonaea viscosa 'Green' Green Hopseed Bush	5 gal	Low	Per Plan	26
	HES PAR	Hesperaloe parviflora 'Yellow' Yellow Yucca	1 gal	Low	36" O.C.	27
	LOM BR3	Lamandra longifolia 'Breeze' Dwarf Mat Rush	1 gal	Low	Per Plan	156
	LOM PLA	Lamandra longifolia 'Platinum Beauty' Dwarf Mat Rush	1 gal	Low	Per Plan	47
	MAH ORA	Malva aquifolium 'Orange Flame' Orange Flame Oregon Grape	5 gal	Medium	Per Plan	51
	NAN HA3	Nandina domestica 'Harbour Dwarf' Dwarf Heavenly Bamboo	1 gal	Low	Per Plan	43
	OLE LIT	Olea europaea 'Little Olive'™ Little Olive	5 gal	Low	Per Plan	8
	PIT CRE	Pittosporum tobira 'Cream De Mini'™ Cream De Mini Dwarf Mock Orange	5 gal	Low	Per Plan	81
	ROS DW2	Rosmarinus officinalis 'Prostratus' Dwarf Rosemary	1 gal	Low	Per Plan	6
	SAR HO2	Sarcococca hookeriana humilis Sweet Box	5 gal	Low	Per Plan	6
	WES MOR	Westringia fruticosa 'Morning Light' Morning Light Coast Rosemary	5 gal	Low	Per Plan	8
	YUC COL	Yucca filamentosa 'Color Guard' Adam's Needle	1 gal	Low	Per Plan	28
	ARC EME	Arctostaphylos uvula-ursi 'Emerald Carpet' Emerald Carpet Manzanita	1 gal	Low	36" O.C.	356 sf
	CEA JOY	Ceanothus x 'Joyce Coulter' Ceanothus Joyce Coulter	4"pot	Low	48" On Center	248 sf
	CIS PUL	Cistus pulverulentus 'Sunset' Rockrose	4"pot	Low	48" On Center	222 sf
	GRE JA3	Grevillea lanigera 'Jade Mound' Jade Mound Grevillea	4"pot	Low	36" O.C.	388 sf
	MYO PUT	Myoporum parvifolium 'Pulch Creek' Pulch Creek Myoporum	4"pot	Low	48" On Center	88 sf
	SED FUL	Sedum spurium 'Fuldagut' Stonewort	4"pot	Low	24" O.C.	39 sf



REFER TO SHEET L-109 FOR PLANTING NOTES
REFER TO SHEET L-502 FOR PLANTING DETAILS

TLCD ARCHITECTURE
520 Third St. #250
Santa Rosa, CA 95401
o: 707.525.5600
f: 707.525.5616
tcd.com

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landscape architecture and planning, inc.
sacramento | santa rosa
707.546.3561 | www.quadriga-inc.com



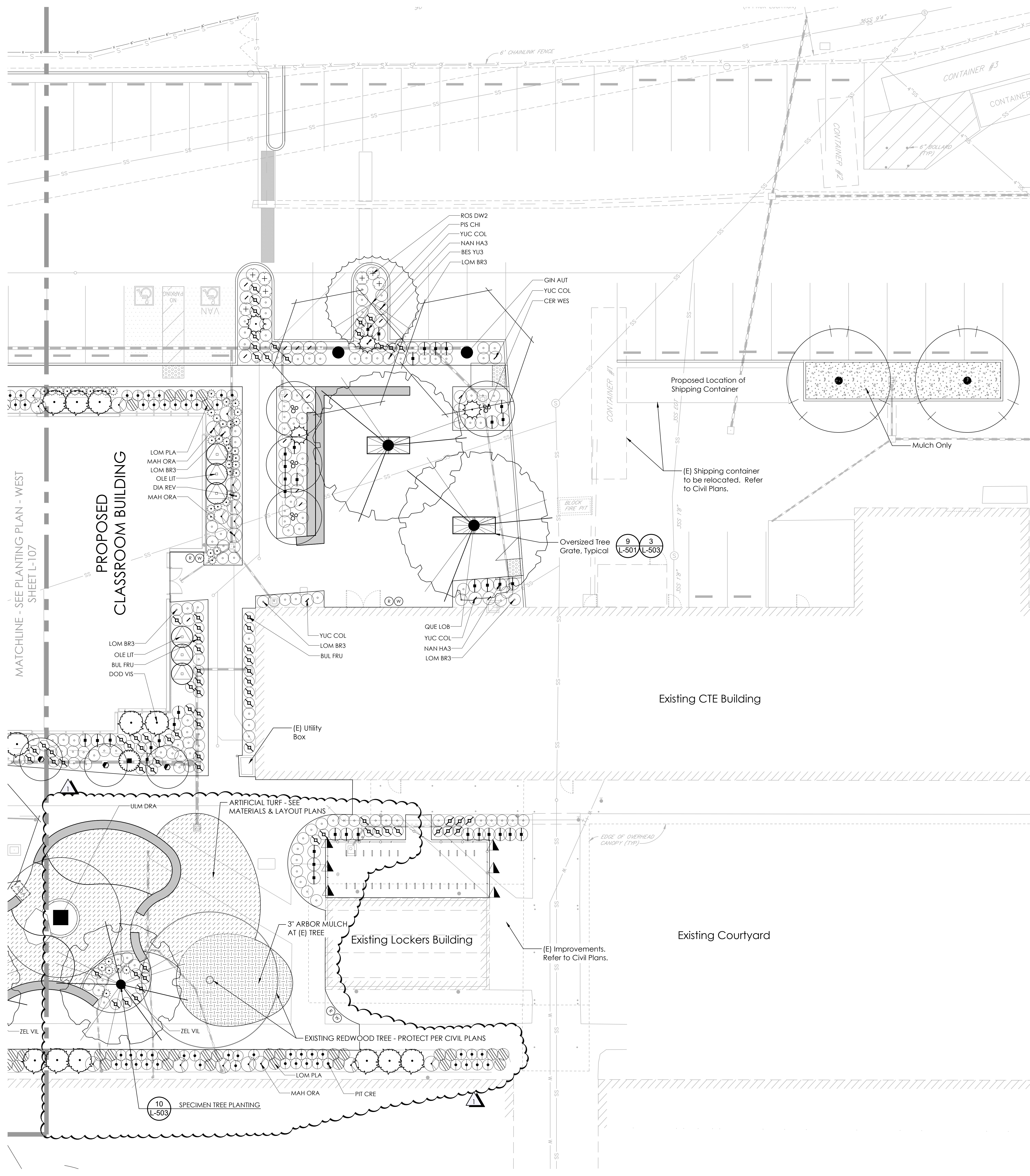
Number	Date	Description
1	10/29/2024	CCD 006

MONTGOMERY HIGH SCHOOL
CLASSROOM BUILDING
1250 HAHMAN DR.
SANTA ROSA, CA 95405

DISA APPLICATION NUMBER: 014-19824
TLCD PROJECT NUMBER: 17123.00
QUADRIGA PROJECT NUMBER: 18-1846
DATE: May 5, 2020
DRAWN BY: BMK
CHECKED BY: CT

PLANTING PLAN

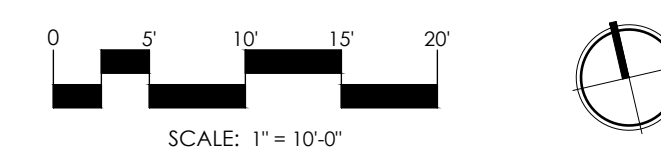
L-107



PLANT SCHEDULE L-108

SYMBOL	CODE	BOTANICAL / COMMON NAME	SIZE	WATER USE	SPACING	QTY
TREES						
	CER WES	Cercis occidentalis Western Redbud Multi-trunk	24"box	Very Low	Per Plan	4
	FAG FAS	Fagus sylvatica 'Fastigiata' European Beech	24"box	Medium	Per Plan	2
	GIN AUT	Ginkgo biloba 'Autumn Gold'™ Maidenhair Tree	24"box	Medium	Per Plan	2
	FIS CHI	Pistacia chinensis Chinese Pistache	24"box	Low	Per Plan	1
	QUE LOB	Quercus laevis Valley Oak	36"box	Low	Per Plan	2
	ULM DRA	Ulmus parvifolia 'Drake' Drake Lacebark Elm Min. 18'H x 8'W x 2.5'Cal.	48"box	Low	Per Plan	1
	ULM CAR	Ulmus x 'Frontier' American Elm	24"box	Low	Per Plan	2
	ZEL VIL	Zelkova serrata 'Village Green' Village Green Japanese Zelkova Min. 18'H x 8'W x 3'Cal.	48"box	Low	Per Plan	1
SHRUBS						
	BES YU3	Beschneria yuccoides Amole	5 gal	Low	Per Plan	4
	BUL FRU	Bulbine frutescens 'Haltmark' Staked Bulbine	1 gal	Low	Per Plan	72
	DIA REV	Dianella revoluta 'Little Rev' Little Rev Flax Lily	1 gal	Medium	Per Plan	44
	DOD VIS	Dodonaea viscosa 'Green' Green Hoopseed Bush	5 gal	Low	Per Plan	10
	LOM BR3	Lomandra longifolia 'Breeze' Dwarf Mat Rush	1 gal	Low	Per Plan	131
	LOM PLA	Lomandra longifolia 'Platinum Beauty' Dwarf Mat Rush	1 gal	Low	Per Plan	26
	MAH ORA	Mahonia aquifolium 'Orange Flame' Orange Flame Oregon Grape	5 gal	Medium	Per Plan	15
	NAN HA3	Handia domestica 'Harbour Dwarf' Dwarf Heavenly Bamboo	1 gal	Low	Per Plan	39
	OLE LIT	Olea europaea 'Little Olive'™ Little Olive Olive	5 gal	Low	Per Plan	6
	PIT CRE	Pittosporum tobira 'Cream De Mint'™ Cream De Mint Dwarf Mock Orange	5 gal	Low	Per Plan	46
	ROS DW2	Rosmarinus officinalis 'Prostratus' Dwarf Rosemary	1 gal	Low	Per Plan	7
	SAR HO2	Sarcococca hookeriana humilis Sweet Box	5 gal	Low	Per Plan	1
	YUC COL	Yucca filamentosa 'Color Guard' Adam's Needle	1 gal	Low	Per Plan	19
VINES						
	LON GR3	Lonicera periclymenum 'Graham Thomas' Graham Thomas Honeysuckle	5 gal	Low	Per Plan	6

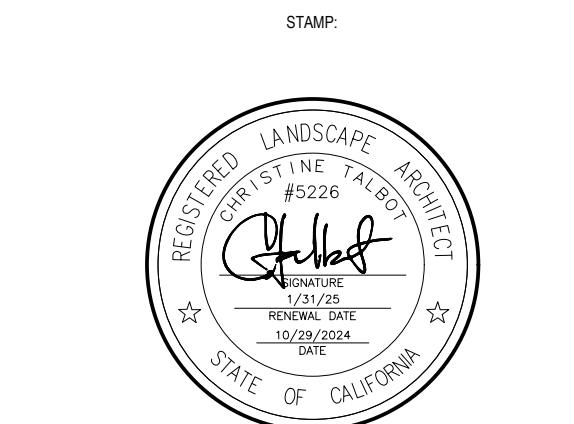
PLANTING PLAN - EAST



REFER TO SHEET L-109 FOR PLANTING NOTES
REFER TO SHEET L-502 FOR PLANTING DETAILS

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Santa Rosa, CA 95401
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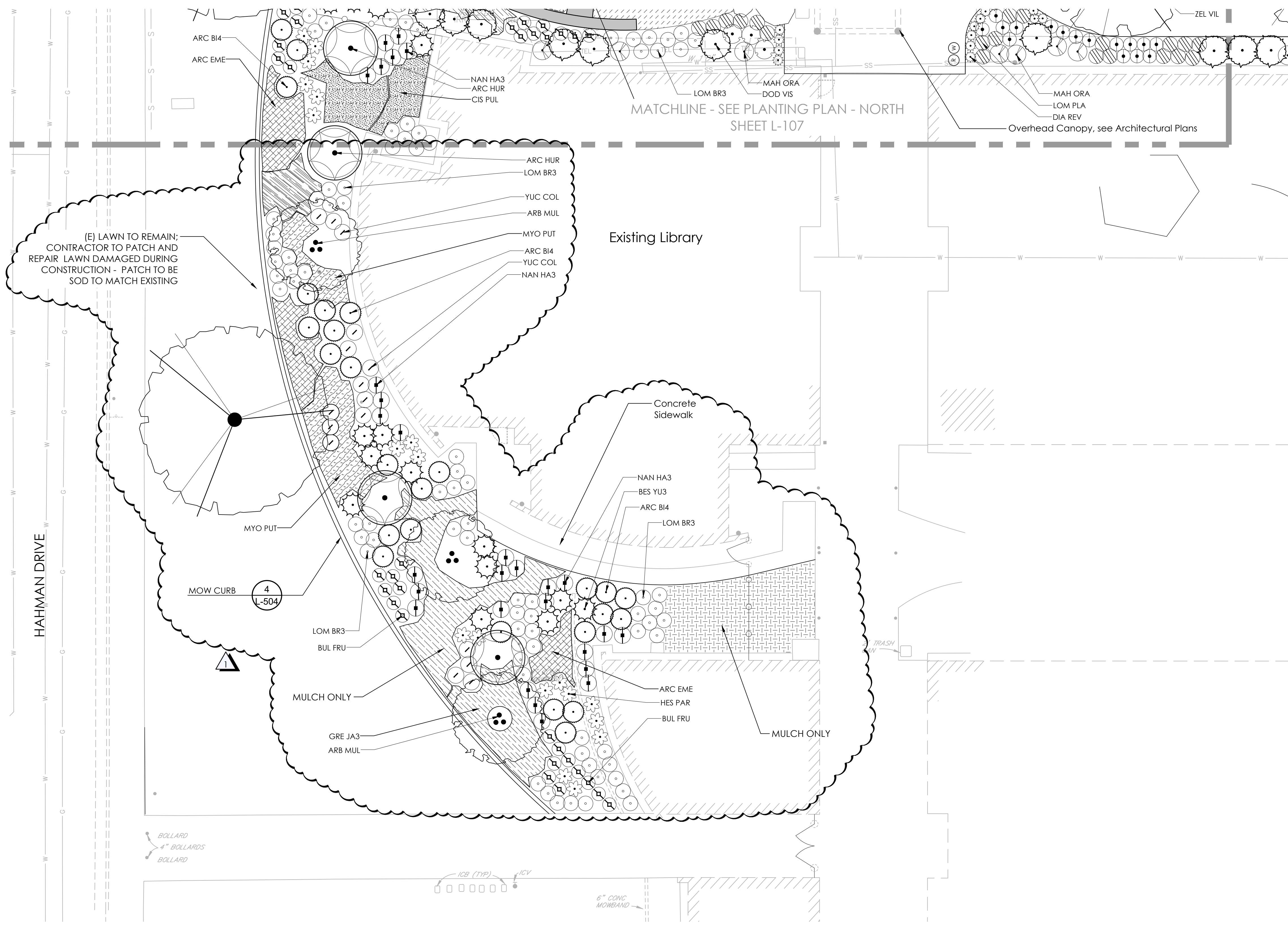
Number	Date	Description
1	10/29/2024	CCD 006

MONTGOMERY HIGH SCHOOL
CLASSROOM BUILDING
1250 HAHMAN DR.
SANTA ROSA, CA 95405

DISA APPLICATION NUMBER: 05-1789224
TLCD PROJECT NUMBER: 17123.00
QUADRIGA PROJECT NUMBER: 18-1646
DATE: May 6, 2020
DRAWN BY: DMK
CHECKED BY: CT

PLANTING PLAN

L-108



PLANTING PLAN - SOUTH

PLANT SCHEDULE L-109

SYMBOL	CODE	BOTANICAL / COMMON NAME	SIZE	WATER USE	SPACING	QTY
TREES						
	ARB MUL	Arbutus x 'Marina' Arbutus Multi-Trunk	24" box	Low	Per Plan	3
	QUE LOB	Quercus lobata Valley Oak	36" box	Low	Per Plan	1
SHRUBS						
	ARC B14	Arctostaphylos edmundsi 'Big Sur' Big Sur Manzanita	5 gal	Low	Per Plan	23
	ARC HUR	Arctostaphylos manzanita 'Dr. Hurd' Dr. Hurd Manzanita	15 gal	Low	Per Plan	3
	BES YU3	Beschneria yuccoides Amole	5 gal	Low	Per Plan	11
	BUL FRU	Bulbine frutescens 'Hallmark' Staked Bulbine	1 gal	Low	Per Plan	17
	HES PAR	Hesperaloe parviflora 'Yellow' Yellow Yucca	1 gal	Low	36" O.C.	13
	LOM BR3	Lomandra longifolia 'Breeze' Dwarf Mat Rush	1 gal	Low	Per Plan	62
	NAN HA3	Nandina domestica 'Harbour Dwarf' Dwarf Heavenly Bamboo	1 gal	Low	Per Plan	22
	YUC COL	Yucca filamentosa 'Color Guard' Adam's Needle	1 gal	Low	Per Plan	16
GROUND COVERS						
	ARC EME	Arctostaphylos uva-ursi 'Emerald Carpet' Emerald Carpet Manzanita	1 gal	Low	36" O.C.	157 sf
	CEA JOY	Ceanothus x 'Joyce Coulter' Ceanothus Joyce Coulter	4" pot	Low	48" On Center	79 sf
	GRE JAS	Grevillea lanigera 'Jade Mound' Jade Mound Grevillea	4" pot	Low	36" O.C.	500 sf
	MYO PUT	Myoporum parvifolium 'Putah Creek' Putah Creek Myoporum	4" pot	Low	48" On Center	239 sf

PLANTING NOTES

- The plant list is provided for the convenience of the Contractor. The Contractor shall verify all plant counts and if a discrepancy exists, the plan shall govern.
- Substitution of specified plant material shall not be made unless otherwise approved by the Landscape Architect. Same genus different species substitutions are acceptable provided the variety is similar in growth habit to the specified plant and water use is the same. Example: Escallonia 'Terry' could sub for 'Red Elf'. Rhaphiolepis can not substitute for Escallonia as they have different water use requirements. Certificates of compliance will not be completed for projects which exceed the water use of specified plant materials until conformance with the water efficient landscape requirements is achieved.
- Finish grade in planter areas shall be 3" below the top of adjacent curbs, walks or paved areas. Finish grade shall be smooth and even prior to installation of 3" bark mulch. All landscape areas not covered with live material shall be covered with 3" of bark mulch.
- Planting areas shall be kept clean and free from all waste materials such as concrete, asphaltic waste, lumber or other such materials. Waste materials shall be removed by excavation of the soil. Replace with clean native top soil.
- See details and specifications for procedures, material, and installation requirements.
- Imported top soil (if required) shall be fertile, friable sandy loam of uniform composition. Clay particles shall not exceed 9% by volume. The soil shall be free from subsoil, refuse, roots, rocks over 1" in diameter or other deleterious material. The imported soil shall be capable of sustaining healthy plant life, native top soil shall be used where available prior to importing soil. A soils report shall be provided for all imported top soils, per specifications.
- Adjacent streets, sidewalks and other areas shall be kept free of mud, dirt or similar nuisances resulting from earthwork operations.
- Any damaged or destroyed landscaping shall be replaced to the satisfaction of the Owner's Representative.
- For best results, native plant materials should not have their roots disturbed. For plastic cans, remove bottom of can, place in plant pit and cut sides to remove. Cut metal cans in three places minimum and carefully slide root ball into plant pit, for large plant material, use bottom support as necessary.
- Jute matting shall be installed on all slopes 3:1 or greater. Overlap edges of jute matting two (2) inches. Use jute matting staples at a rate of 200 staples per 900 square feet of jute matting for stabilization.
- Contractor to install root barrier at all trees within 5'-0" of pavement, per specifications.
- Soil sample reports and irrigation water suitability report shall be reviewed by Landscape Architect prior to amending soils, per specifications.

AGENCY APPROVAL STAMP

TLCD ARCHITECTURE
520 Third St. #250
Santa Rosa, CA 95401
o: 707.525.5600
f: 707.525.5616
tcd.com

CONSULTANT

QUADRIGA
landscape architecture and planning, inc.
sacramento | santa rosa
707.546.3561 | www.quadriga-inc.com

STAMP

REGISTERED LANDSCAPE ARCHITECT
STATE OF CALIFORNIA
No. 12345
Exp. 12/31/2024

REVISIONS

Number	Date	Description
1	10/29/2024	CCD 006

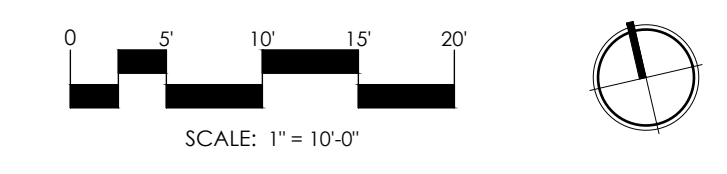
MONTGOMERY HIGH SCHOOL
CLASSROOM BUILDING
1250 HAHMAN DR.
SANTA ROSA, CA 95405

DISA APPLICATION NUMBER: 01-1789224
TLCD PROJECT NUMBER: 17123.00
QUADRIGA PROJECT NUMBER: 18-1646
DATE: May 6, 2020
DRAWN BY: DMK
CHECKED BY: CT

PLANTING PLAN

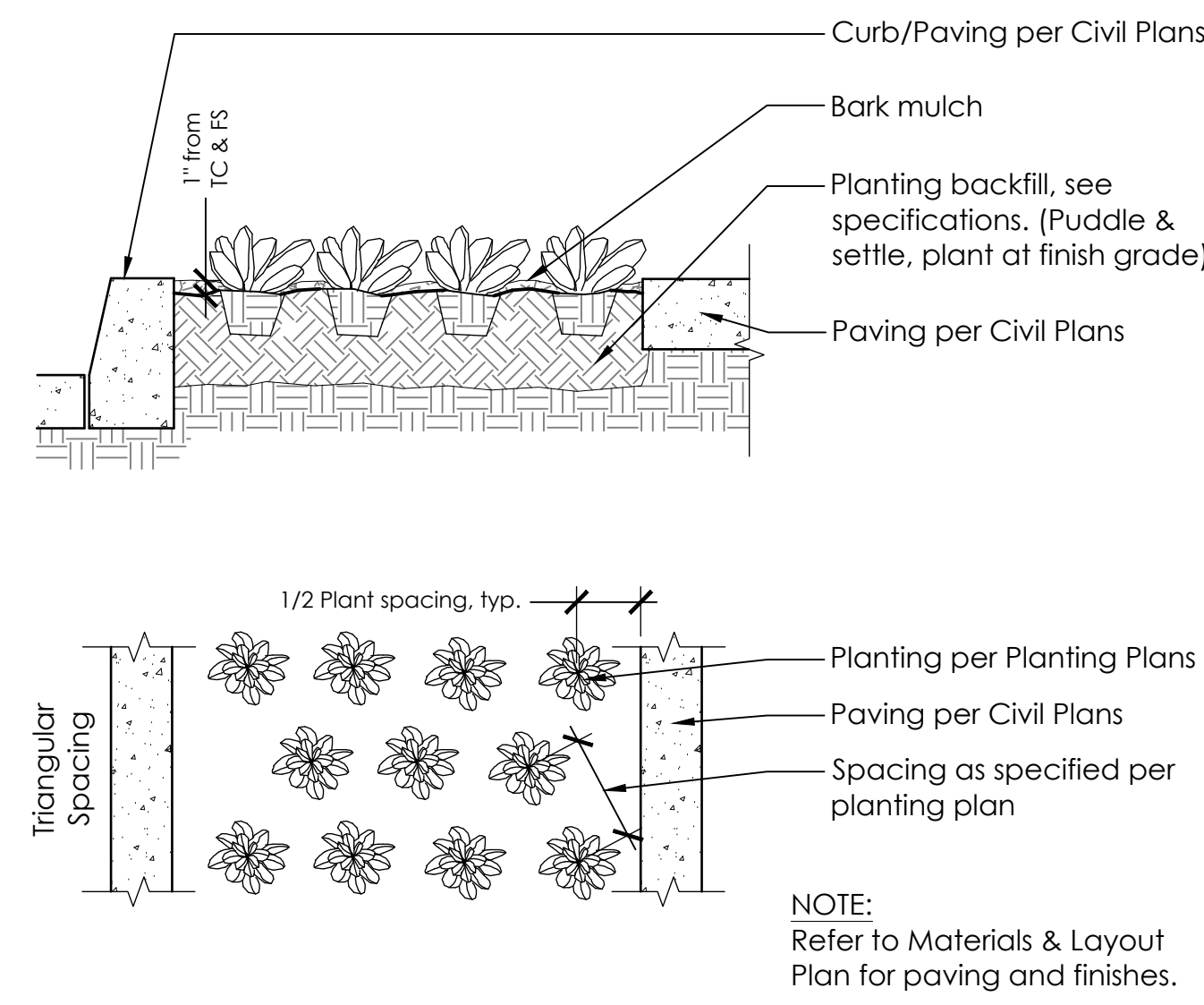
L-109

REFER TO SHEET L-502 FOR PLANTING DETAILS

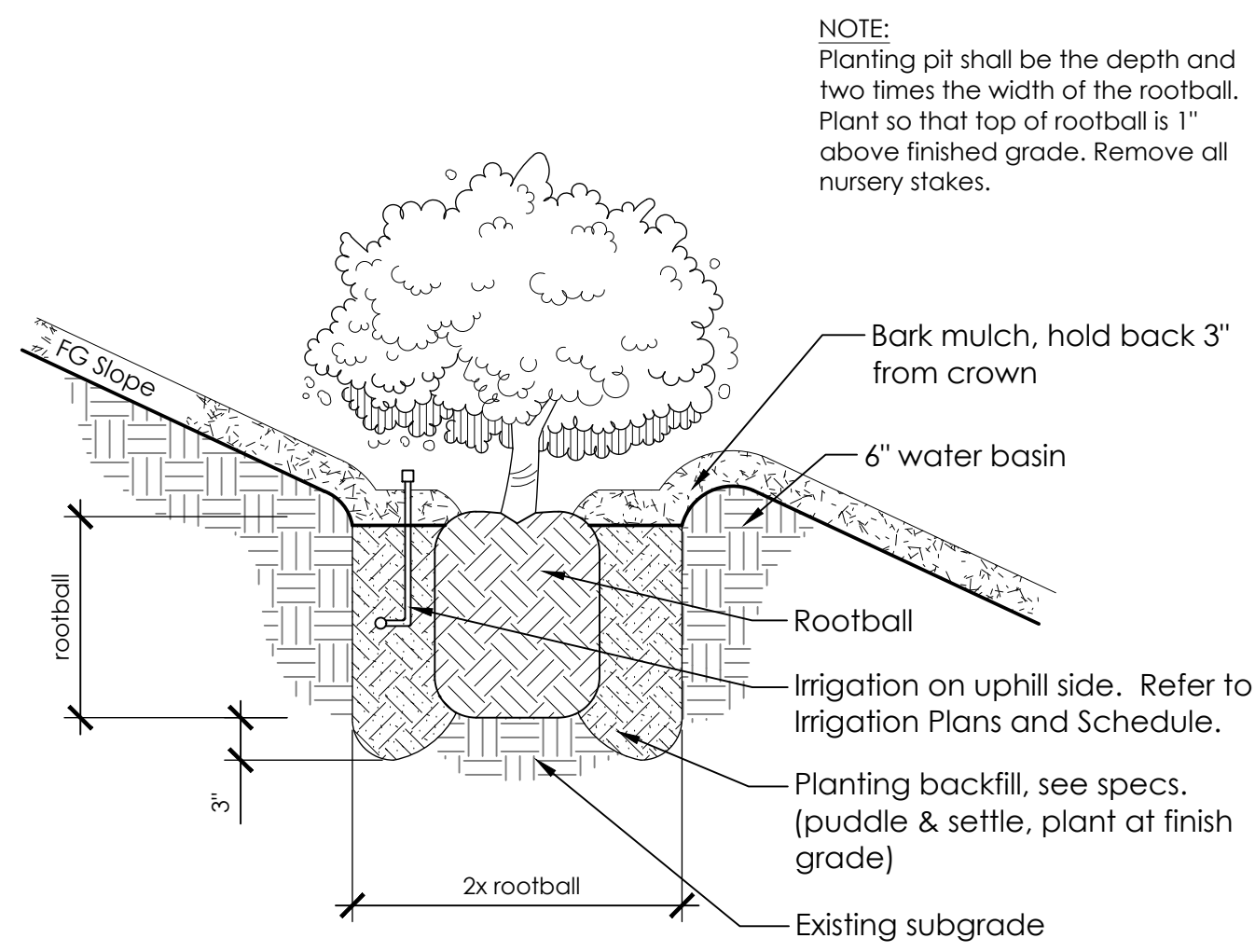


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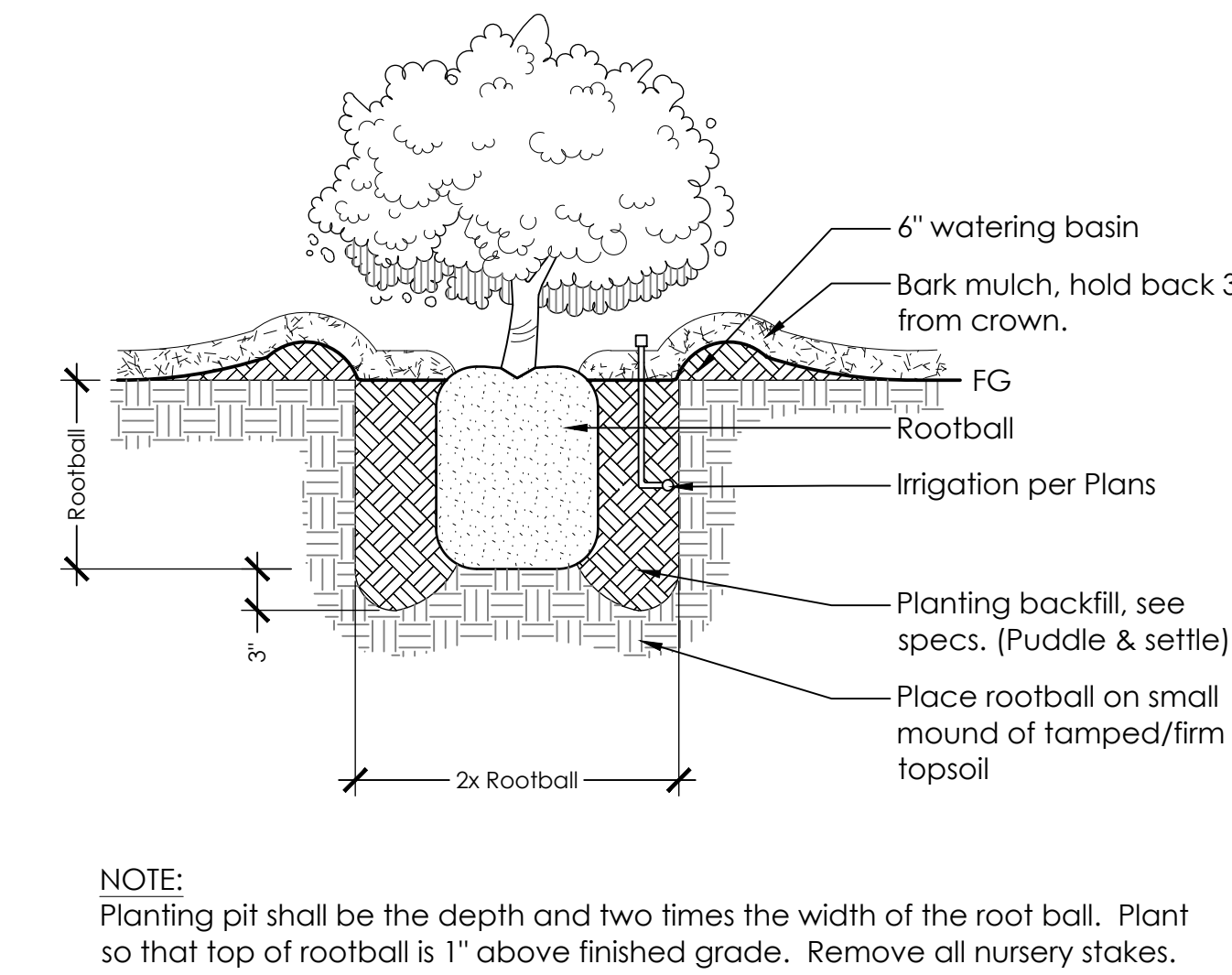
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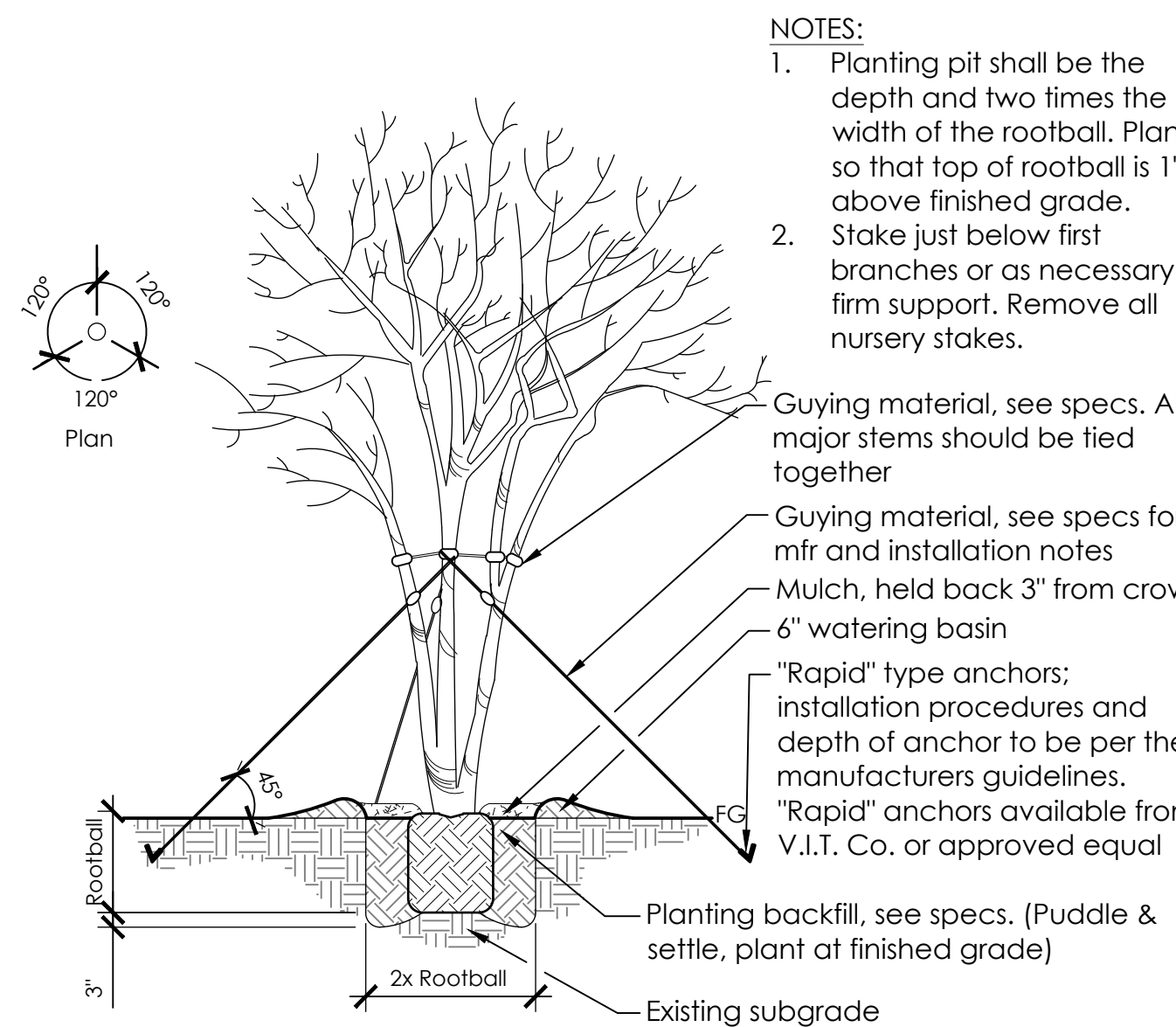
8 MASS PLANTING
NOT TO SCALE P-IN-MON-11



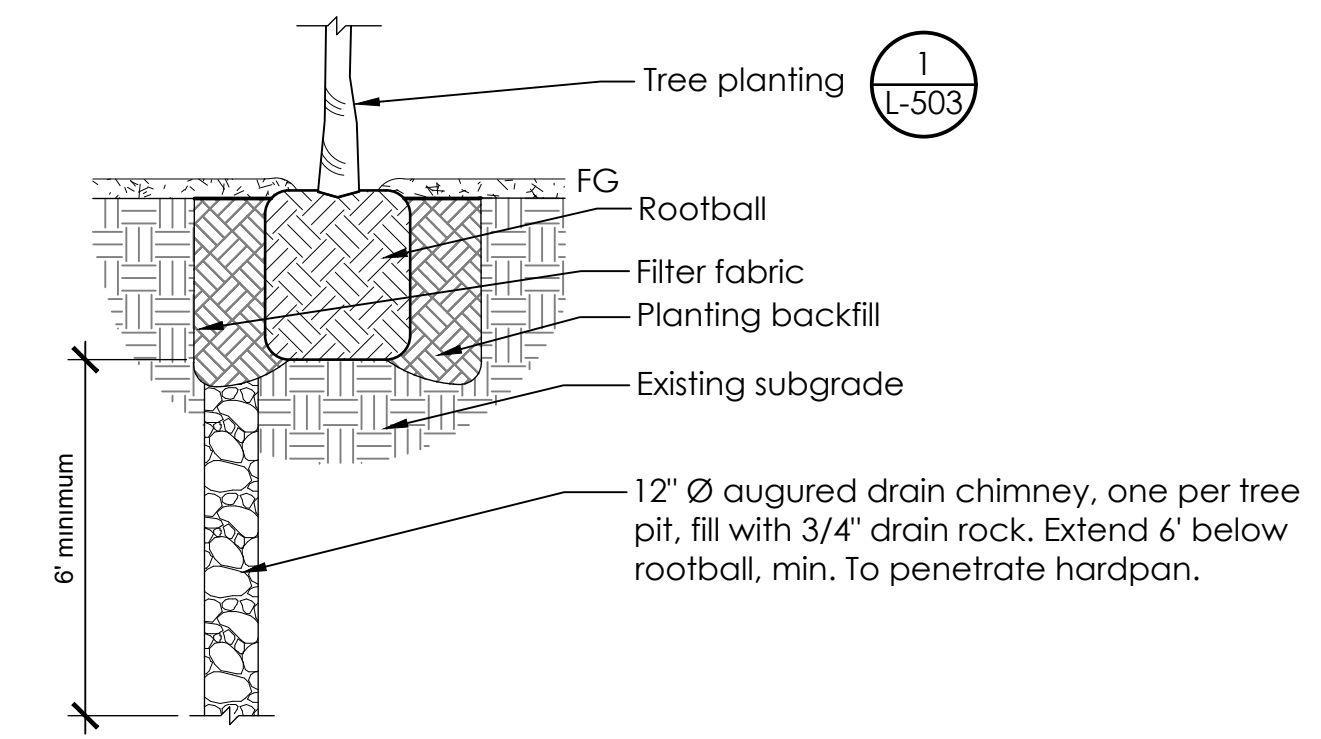
7 SHRUB PLANTING ON SLOPE
NOT TO SCALE P-IN-MON-45



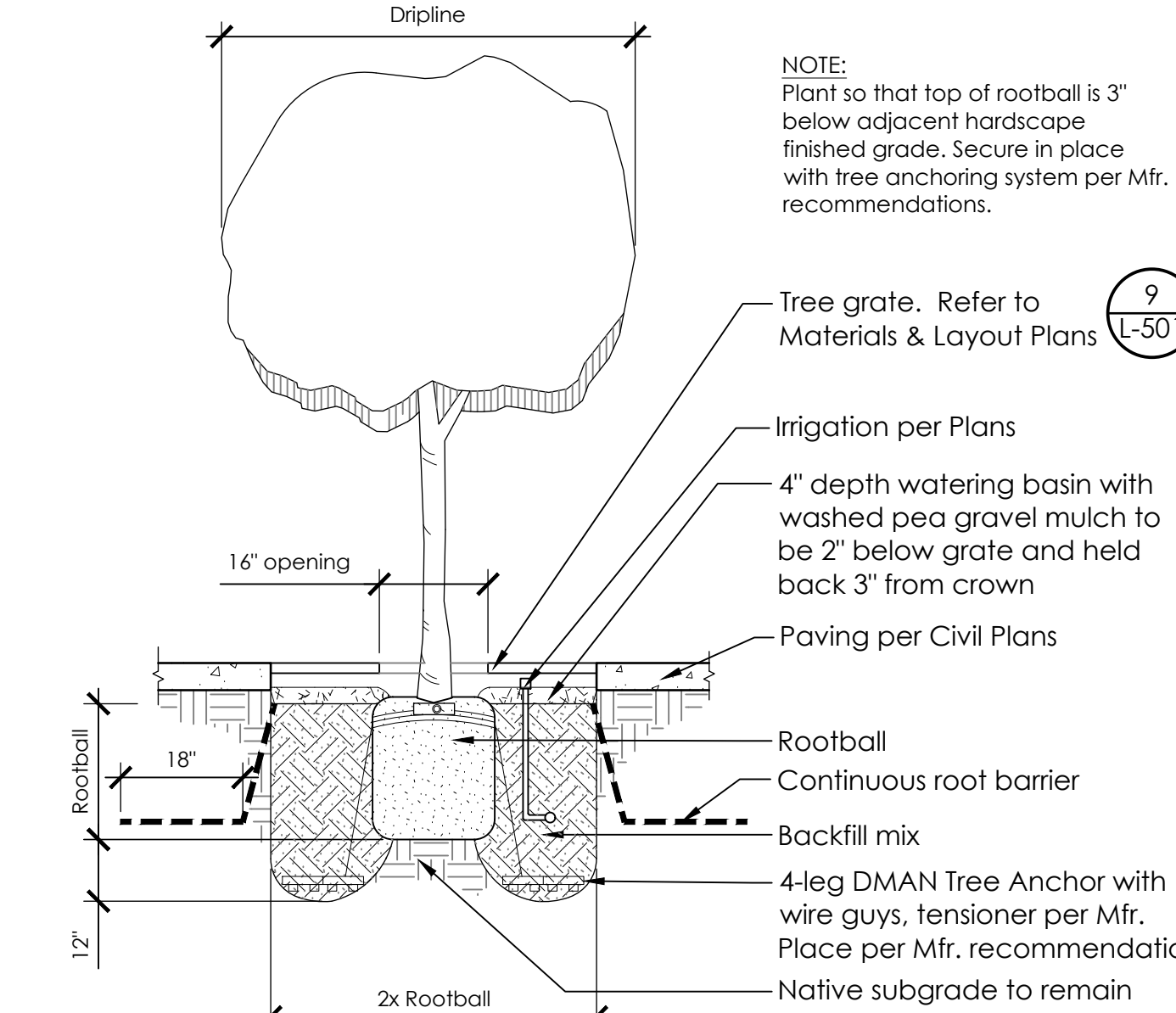
6 SHRUB PLANTING
NOT TO SCALE P-IN-MON-08



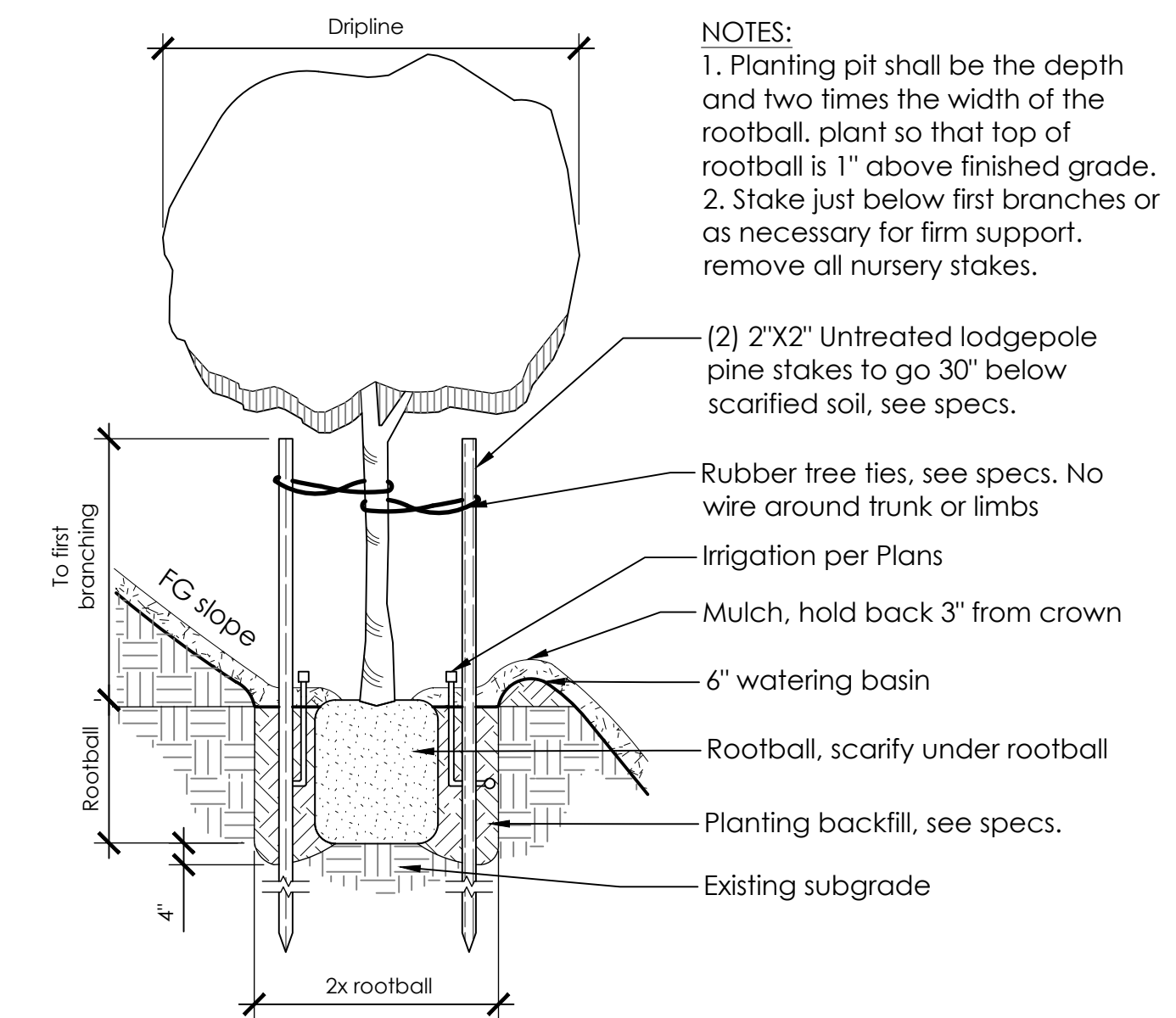
5 MULTI-TRUNK TREE GUYING
NOT TO SCALE P-IN-MON-07



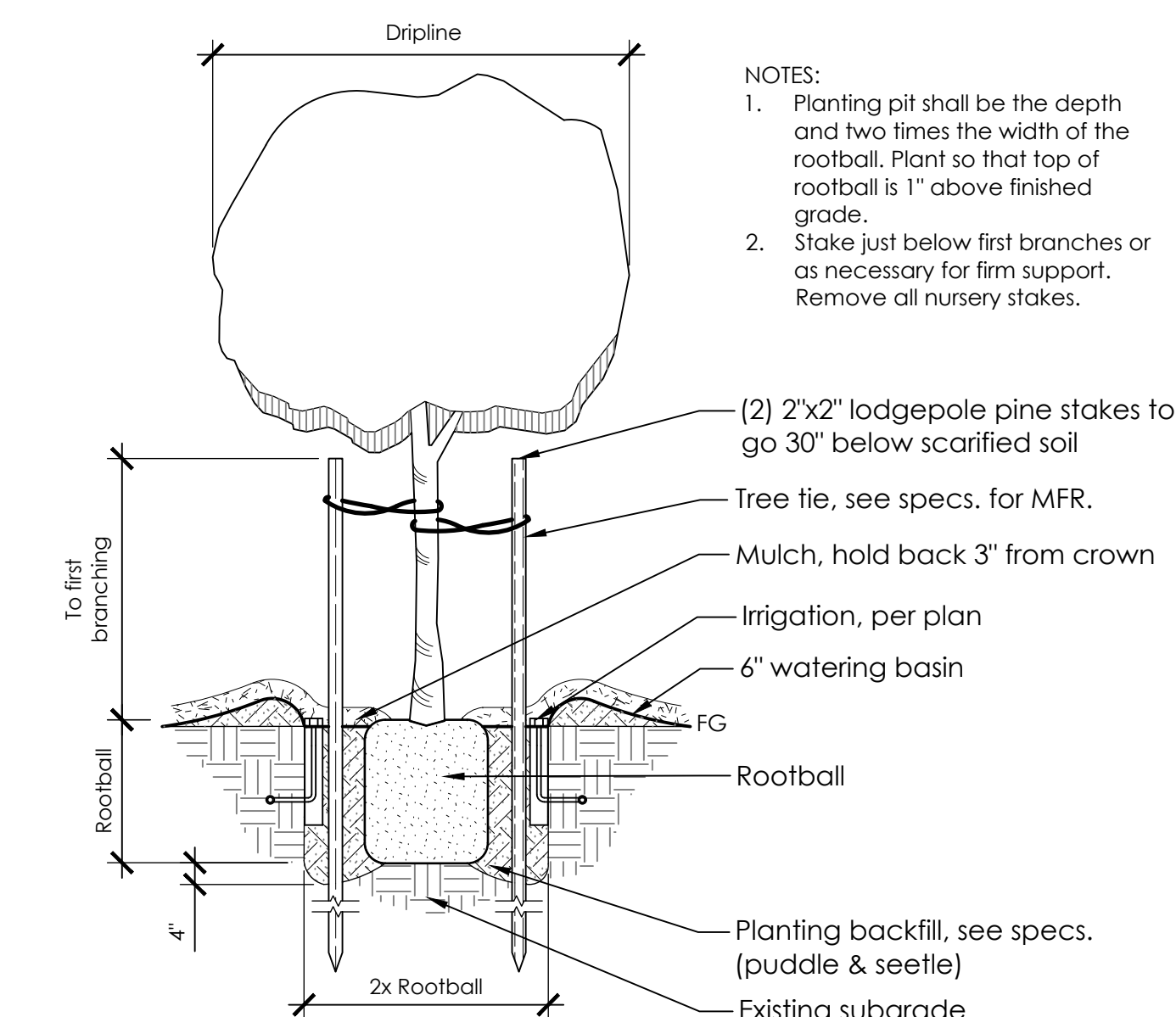
4 TREE PIT DRAINAGE CHIMNEY
NOT TO SCALE P-IN-MON-05



3 TREE PLANTING AT TREE GRATE
NOT TO SCALE P-IN-MON-09

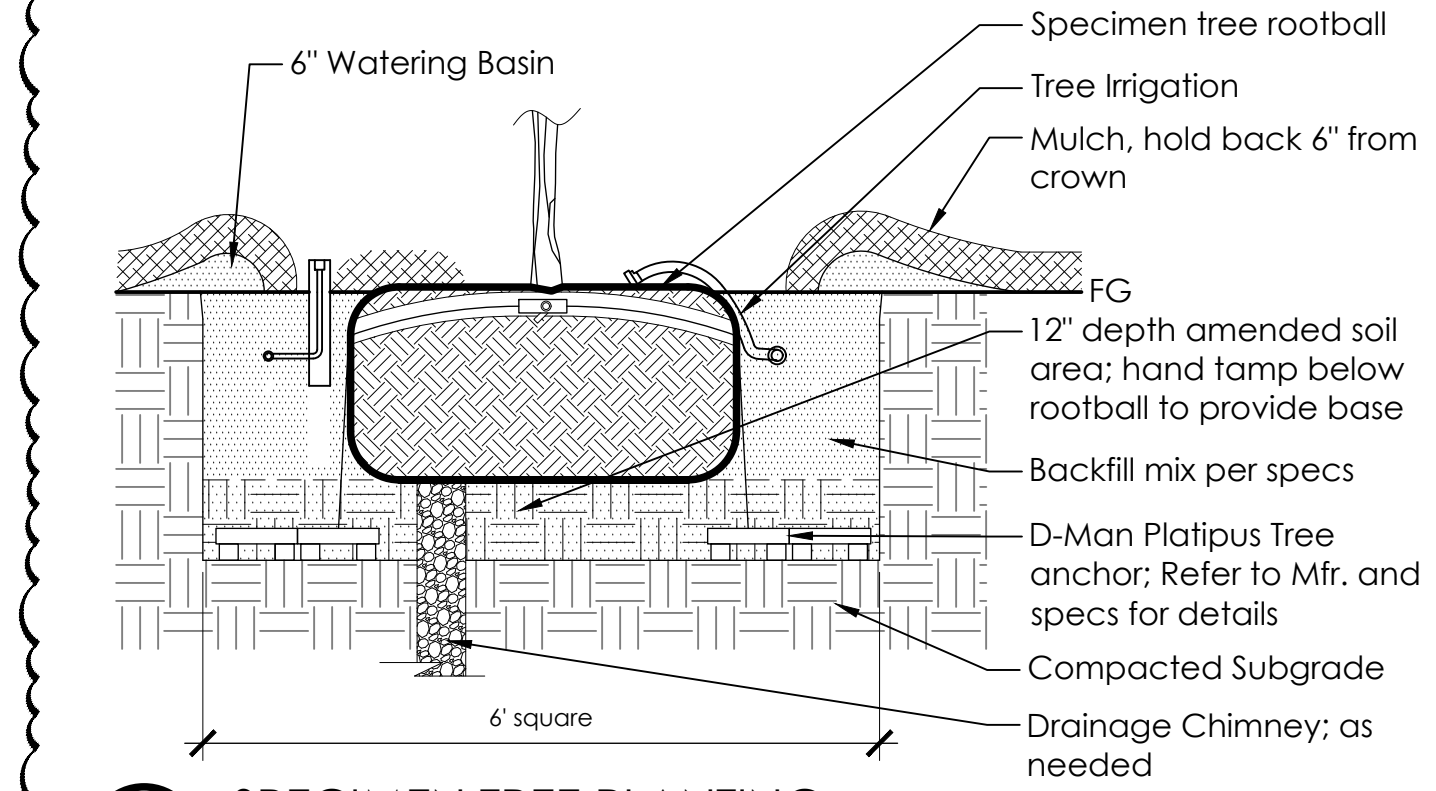


2 TREE PLANTING ON SLOPE
NOT TO SCALE P-IN-MON-44

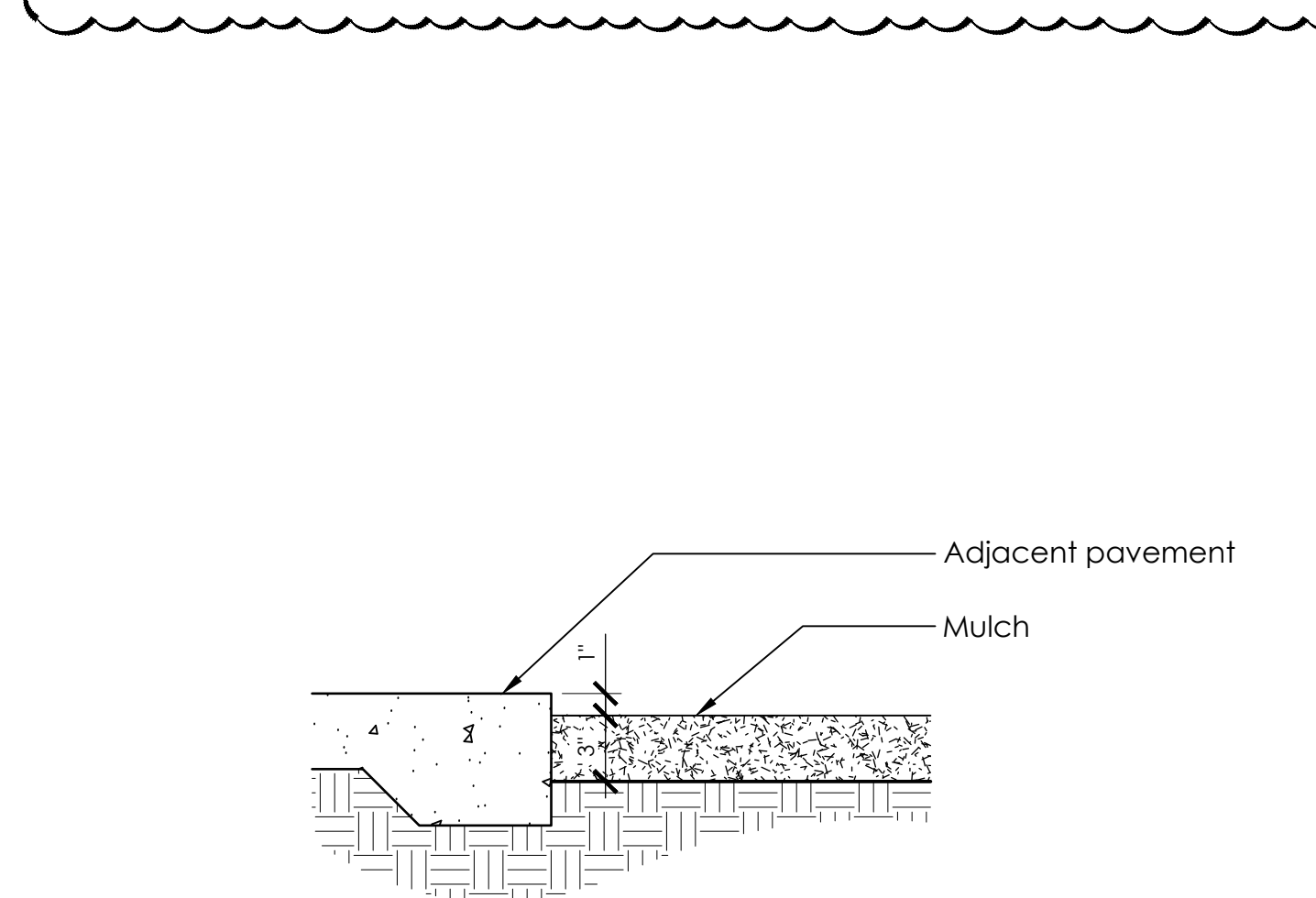


1 TREE PLANTING WITH IRRIGATION
NOT TO SCALE P-IN-MON-10

- NOTES:**
- Contractor to field locate Specimen trees with Landscape Architect and Client. Tag south side of tree in field/nursery. Client to approve locations before installation begins.
 - Prepare hole for tree and place Tree Anchors per Mfr. specs and instructions.
 - Secure straps/chains to/aroud tree box, gently lift, and place per plan/details to height specified in relation to FG. Position the tagged side of the tree to face southern exposure. Remove boxes, wire, straps from the rootball.
 - Backfill the hole, water and tamp firmly. Grade a 6" berm around the perimeter of the hole. Fill with water, then refill again once initial water is soaked in.
 - Irrigate trees deeply (30gal/week). Fertilize trees in May using a balanced soluble fertilizer (i.e. 16-16-16). Follow rate instructions and apply with deep irrigation.



10 SPECIMEN TREE PLANTING
DO NOT SCALE P-IN-MON-63



9 MULCH
N.T.S. P-IN-MON-14



Number	Date	Description
1	10/29/2024	CCD 006

MONTGOMERY HIGH SCHOOL
CLASSROOM BUILDING
1250 HAHMAN DR.
SANTA ROSA, CA 95405

DISA APPLICATION NUMBER: 01-118624
TLCD PROJECT NUMBER: 17123.00
QUADRIGA PROJECT NUMBER: 18-1840
DATE: May 6, 2020
DRAWN BY: BMK
CHECKED BY: CT

PLANTING DETAILS

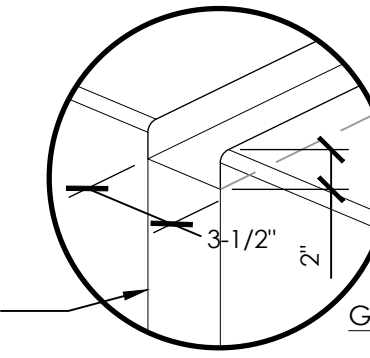
L-503



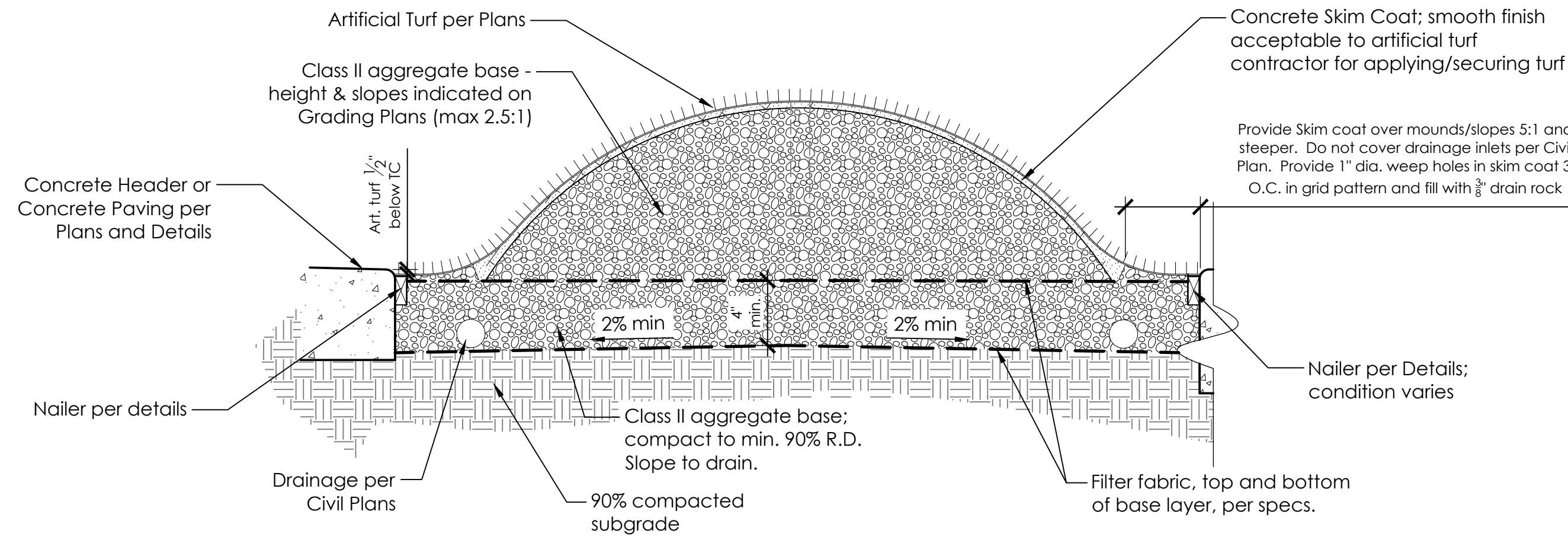
Number	Date	Description
1	10/29/2024	CCD 006

GENERAL NOTES:

- Contractor to provide 3' x 3' mock-up of wall including all associated elements (i.e., skate deterrent groove), per Specifications, for review of edges and finish. Mock-up to be approved by Landscape Architect and Architect before construction on tiered wall begins.
- Underlay with at least 12" select fill per Geotechnical Report.
- Refer to Civil Plans for Grading and Drainage.
- Refer to S-101 for typical lap splice and hook lengths, and other reinforcing information.



Extend Vert. Joints 3" below FG/FS



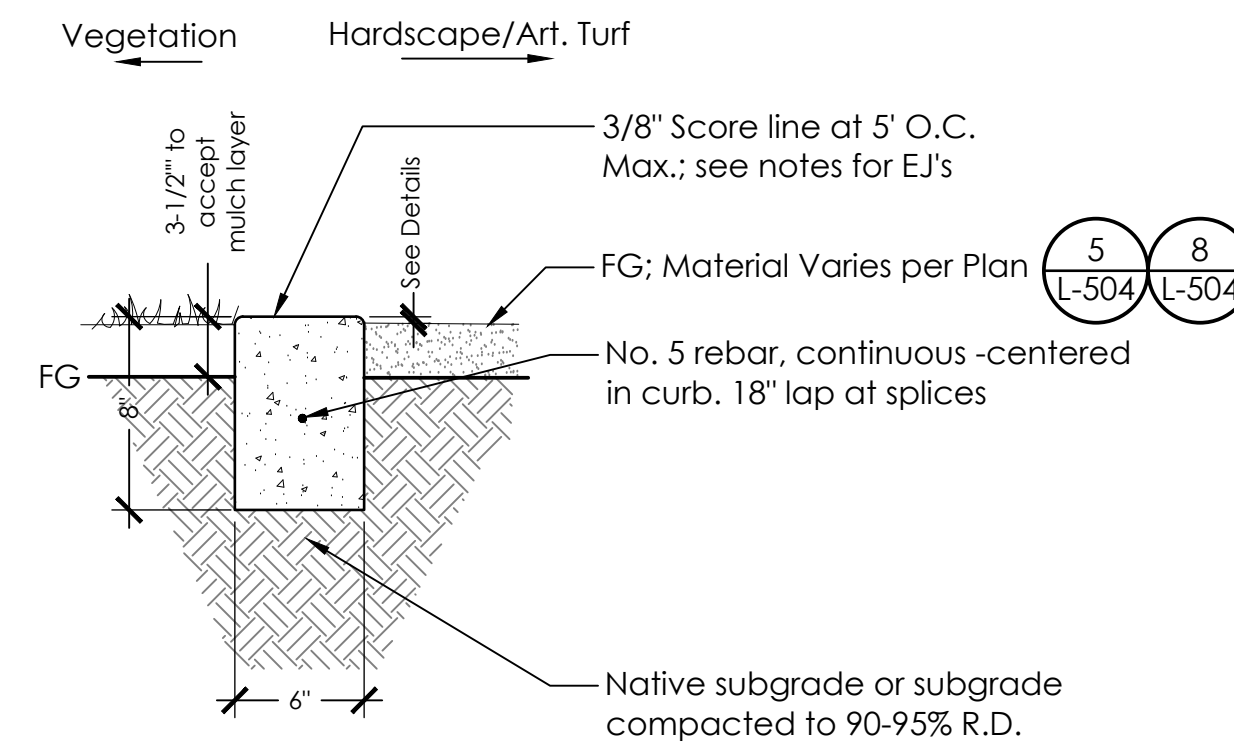
NOTES:

- Install artificial turf per specified mfr. specs and associated details.
- Contractor to mockup 3ft tall mound and hold for Architects review. Mock-up to include weep holes, general drainage, artificial turf, and securing methods to skim coat and base. Contractor to shown drainage operation/path to review skim coat locations are positively drained.

7 ARTIFICIAL TURF MOUND

NOT TO SCALE

P-IN-MON-60



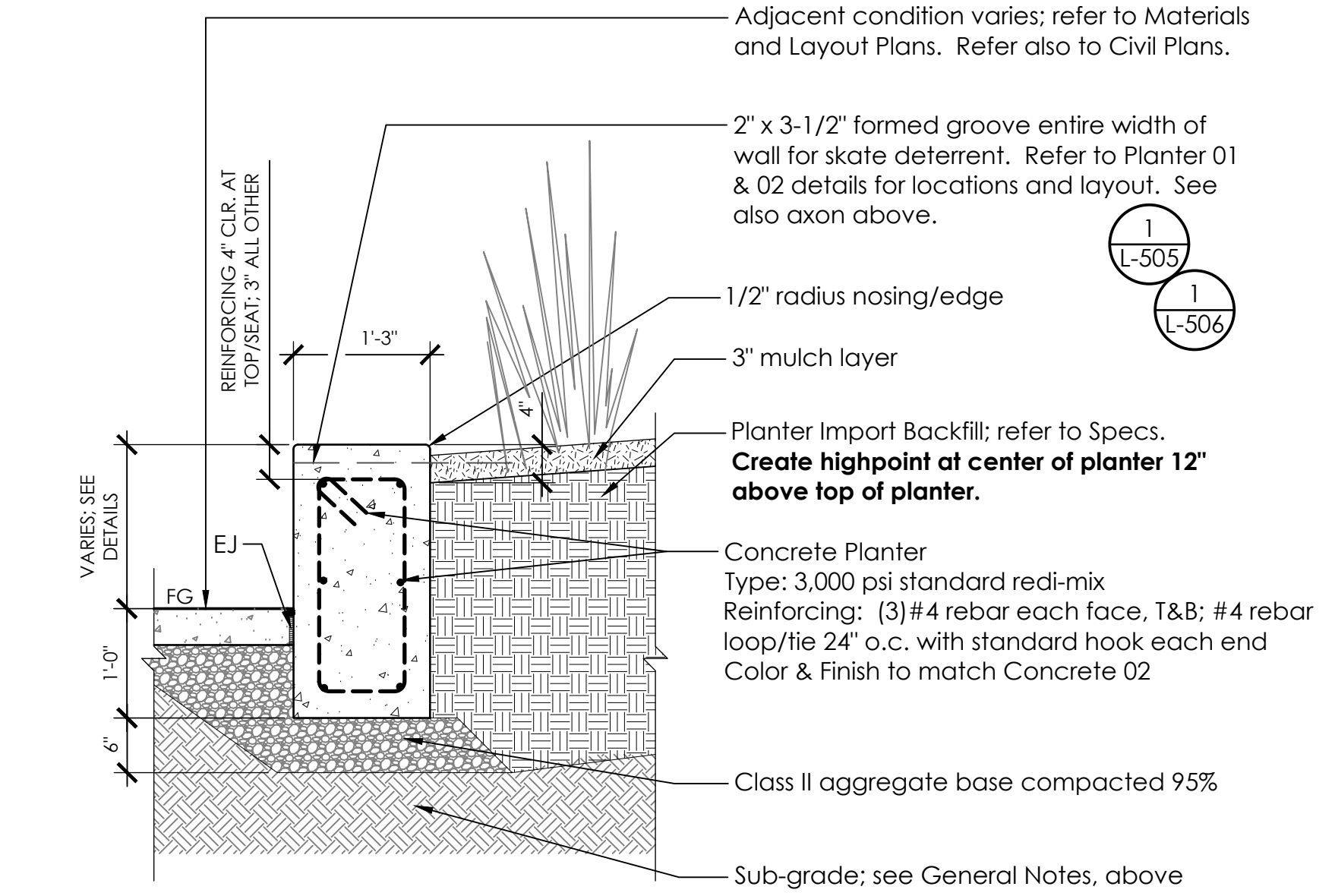
NOTES:

- Radius all edges to 1/2" and provide light broom finish to exposed areas of curb.
- Provide 1/4" pre-molded joint filler expansion joints at 30' O.C. max. Continue rebar through filler joint to connect each section of curb.
- Refer to Civil Plans for Grading and Drainage

4 MOW CURB

DO NOT SCALE

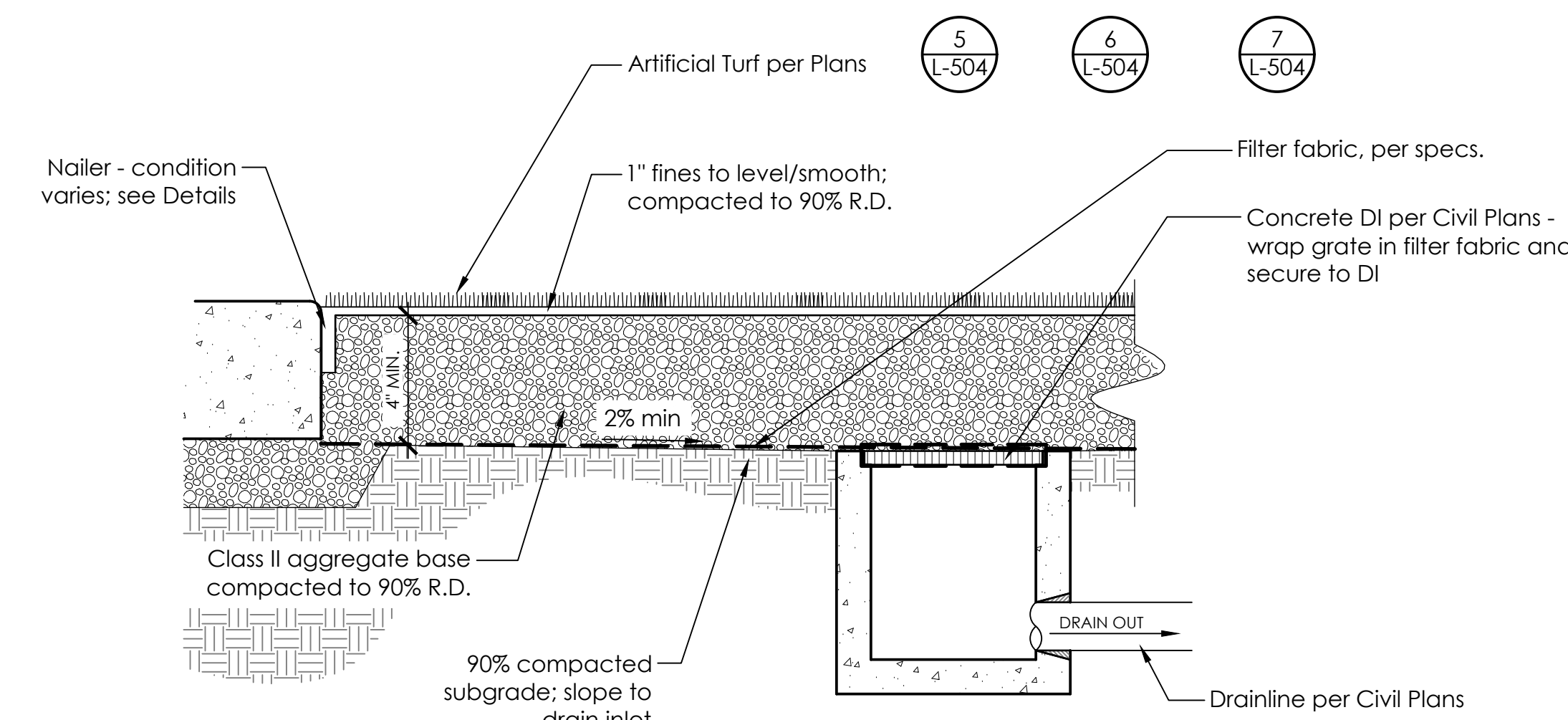
P-IN-MON-66



1 PLANTER - TYPICAL SECTION

DO NOT SCALE

P-IN-MON-89



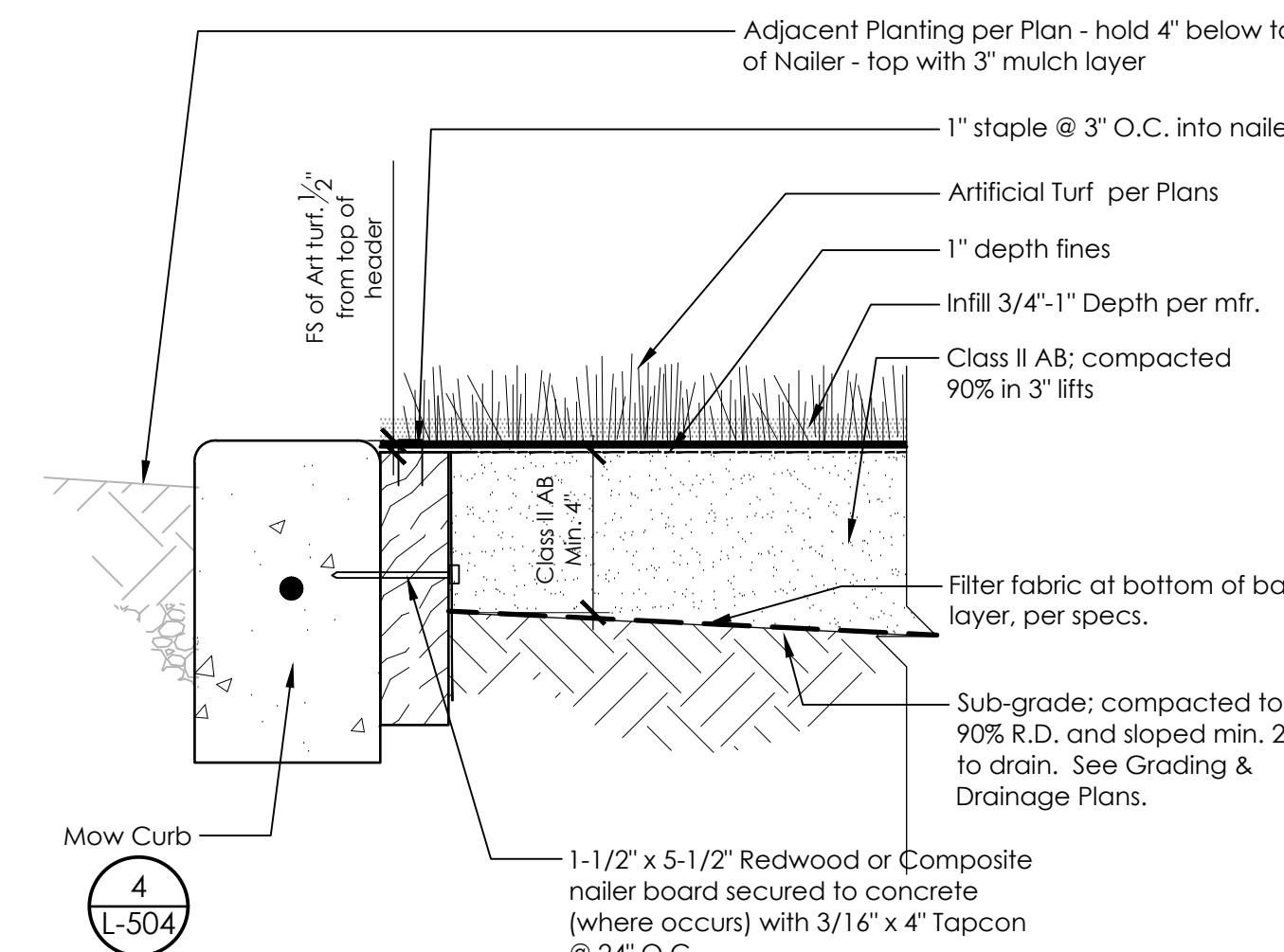
NOTE:

Install edging/perimeter, base, and artificial turf per Mfr. specs.

8 ARTIFICIAL TURF

NOT TO SCALE

P-IN-MON-61



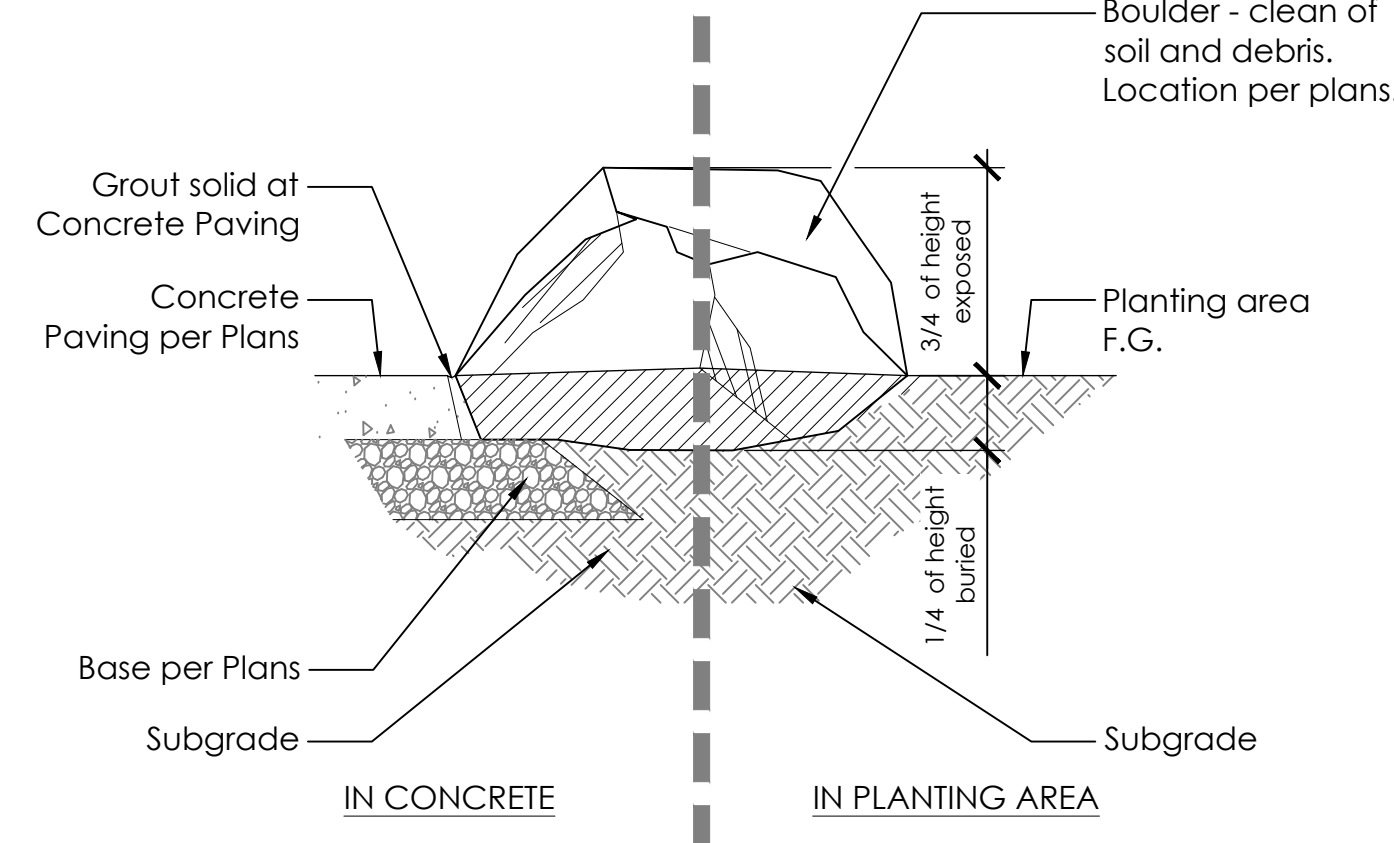
NOTE:

- Installation to be completed in accordance with manufacturer's specifications.

5 ARTIFICIAL TURF @ PLANTING AREA

DO NOT SCALE

P-IN-MON-58



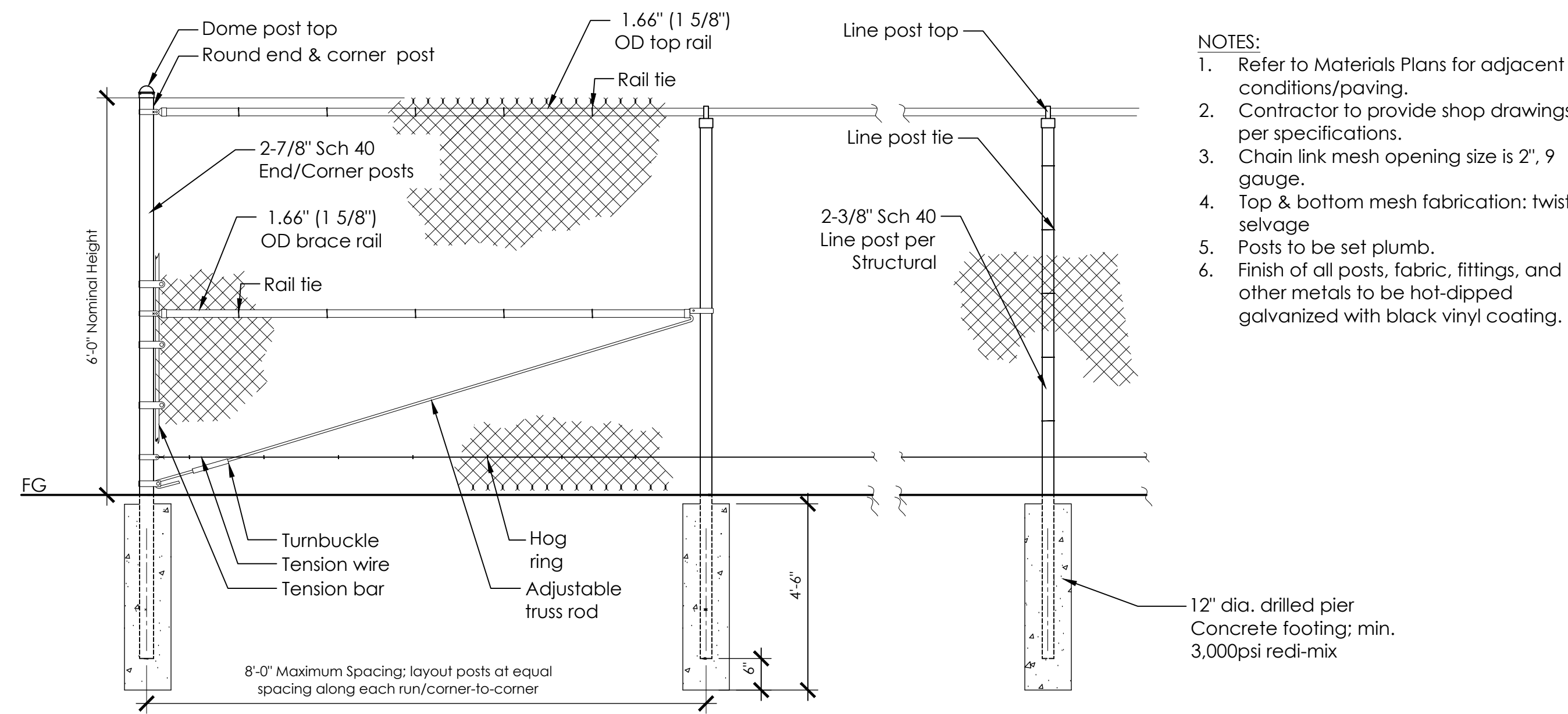
NOTE:

- Boulders shall be placed in a manner such that the slopes of the sides of the boulder are vertical or positive. No overhanging/undercut portions of boulders are to be visible and foot entrapment eliminated.
- Place on site with Landscape Architect to ensure intent is met.

2 BOULDER

NOT TO SCALE

P-IN-MON-65



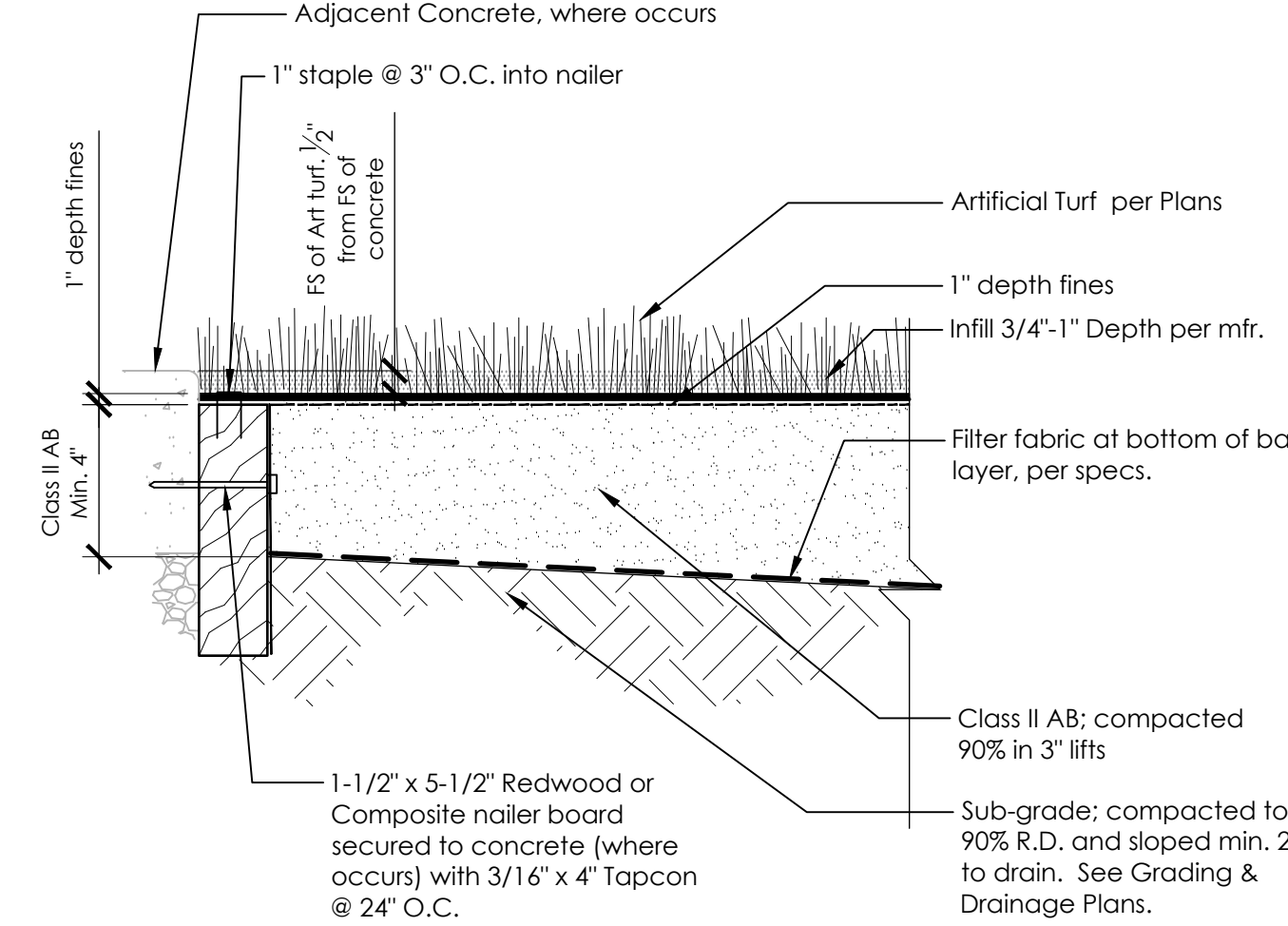
NOTES:

- Refer to Materials Plans for adjacent conditions/paving.
- Contractor to provide shop drawings per specifications.
- Chain link mesh opening size is 2', 9 gauge.
- Top & bottom mesh fabrication: twist selvage
- Posts to be set plumb.
- Finish of all posts, fabric, fittings, and other metals to be hot-dipped galvanized with black vinyl coating.

9 6FT CHAIN LINK FENCE

DO NOT SCALE

P-IN-MON-71



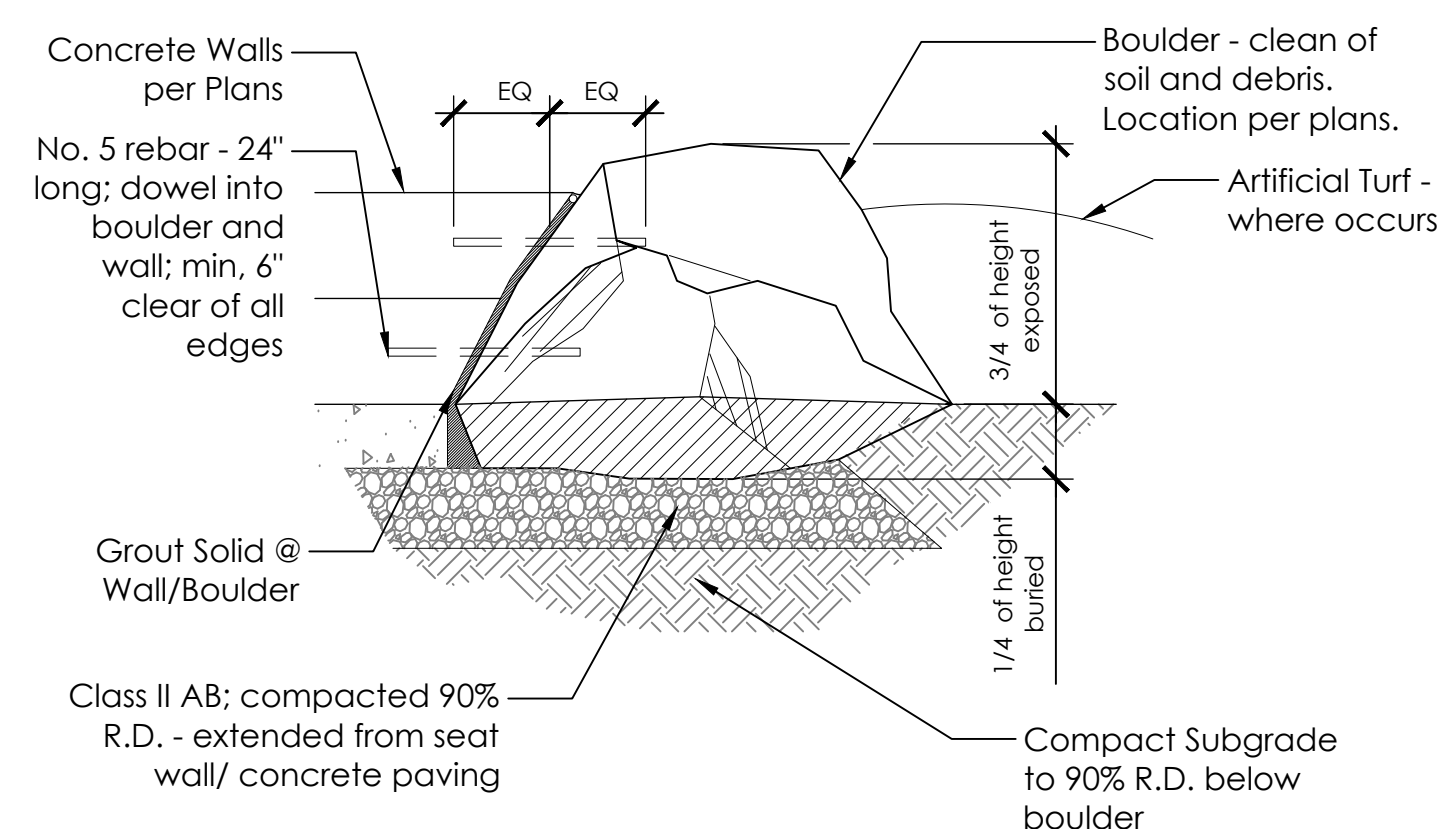
NOTE:

- Installation to be completed in accordance with manufacturer's specifications.

6 ARTIFICIAL TURF @ CONCRETE PAVING OR WALLS

DO NOT SCALE

P-IN-MON-55



NOTE:

- Boulders shall be placed in a manner such that the slopes of the sides of the boulder are vertical or positive. No overhanging/undercut portions of boulders are to be visible and foot entrapment eliminated - provide one palette of head size boulders to infill.
- Place on site with Landscape Architect to ensure intent is met. Provide boulder in concrete wall mock-up to show joints, doweling, interface.

3 BOULDER @ WALL

NOT TO SCALE

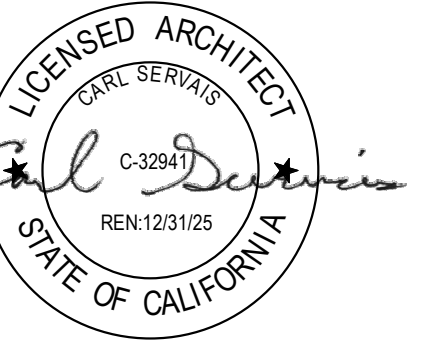
P-IN-MON-70

MONTGOMERY HIGH SCHOOL
CLASSROOM BUILDING
 1250 HAHMAN DR.
 SANTA ROSA, CA 95405

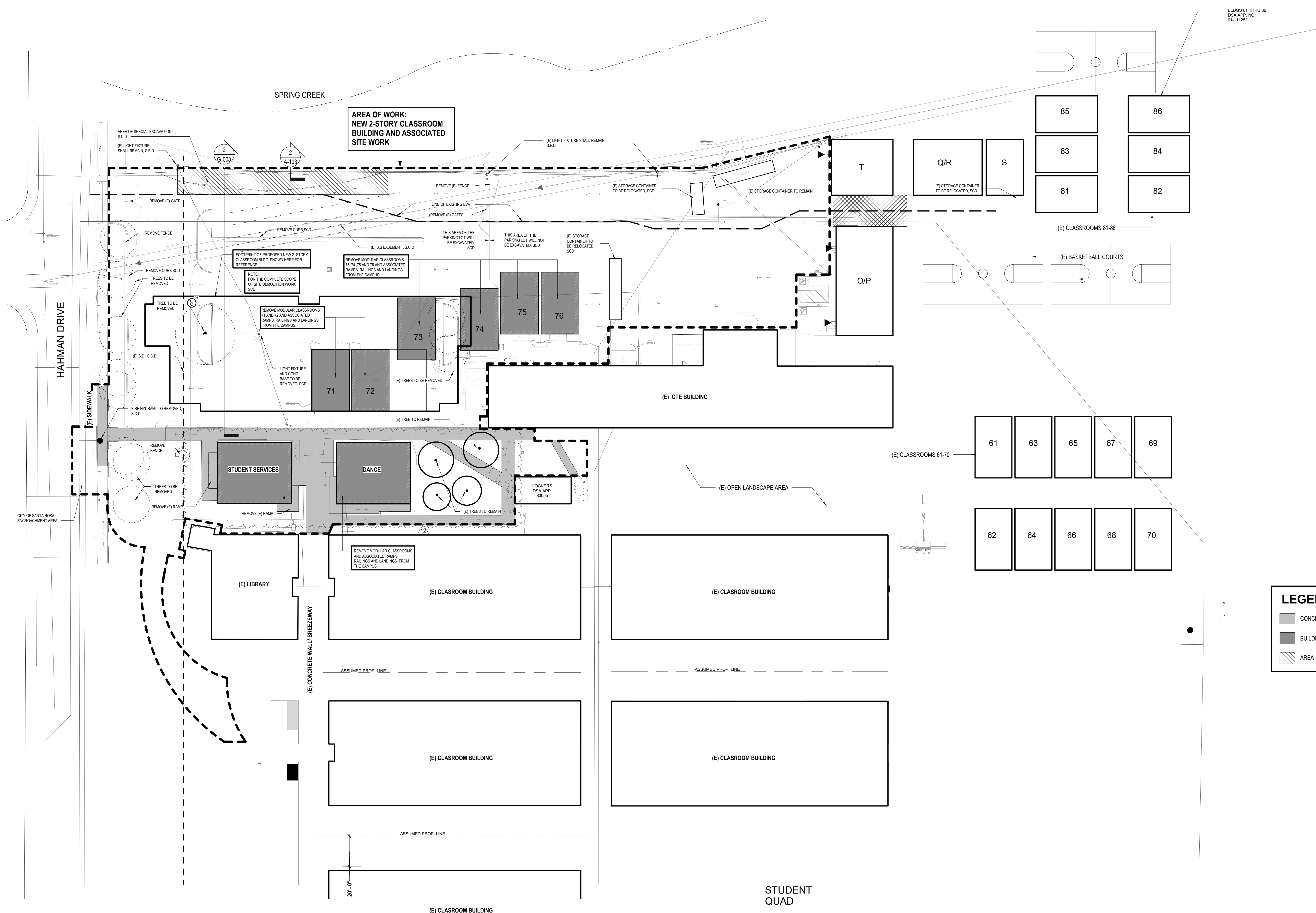
DISA APPLICATION NUMBER: 01-178024
 TLCD PROJECT NUMBER: 17123.00
 QUADRIGA PROJECT NUMBER: 18-1840
 DATE: May 6, 2020
 DRAWN BY: DMK
 CHECKED BY: CT

SITE DETAILS

L-504



Number	Date	Description
12	10/28/24	CCD 006 LANDSCAPE REVISIONS



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

MONTGOMERY HIGH SCHOOL
CLASSROOM BUILDING
1250 HAHMAN DR.
SANTA ROSA, CA 95405

DSA PROJECT NUMBER
17123.00
TLCD PROJECT NUMBER
17123.00
DATE
5/10/2024
DRAWN BY
Author
CHECKED BY
Checker

SITE DEMOLITION PLAN



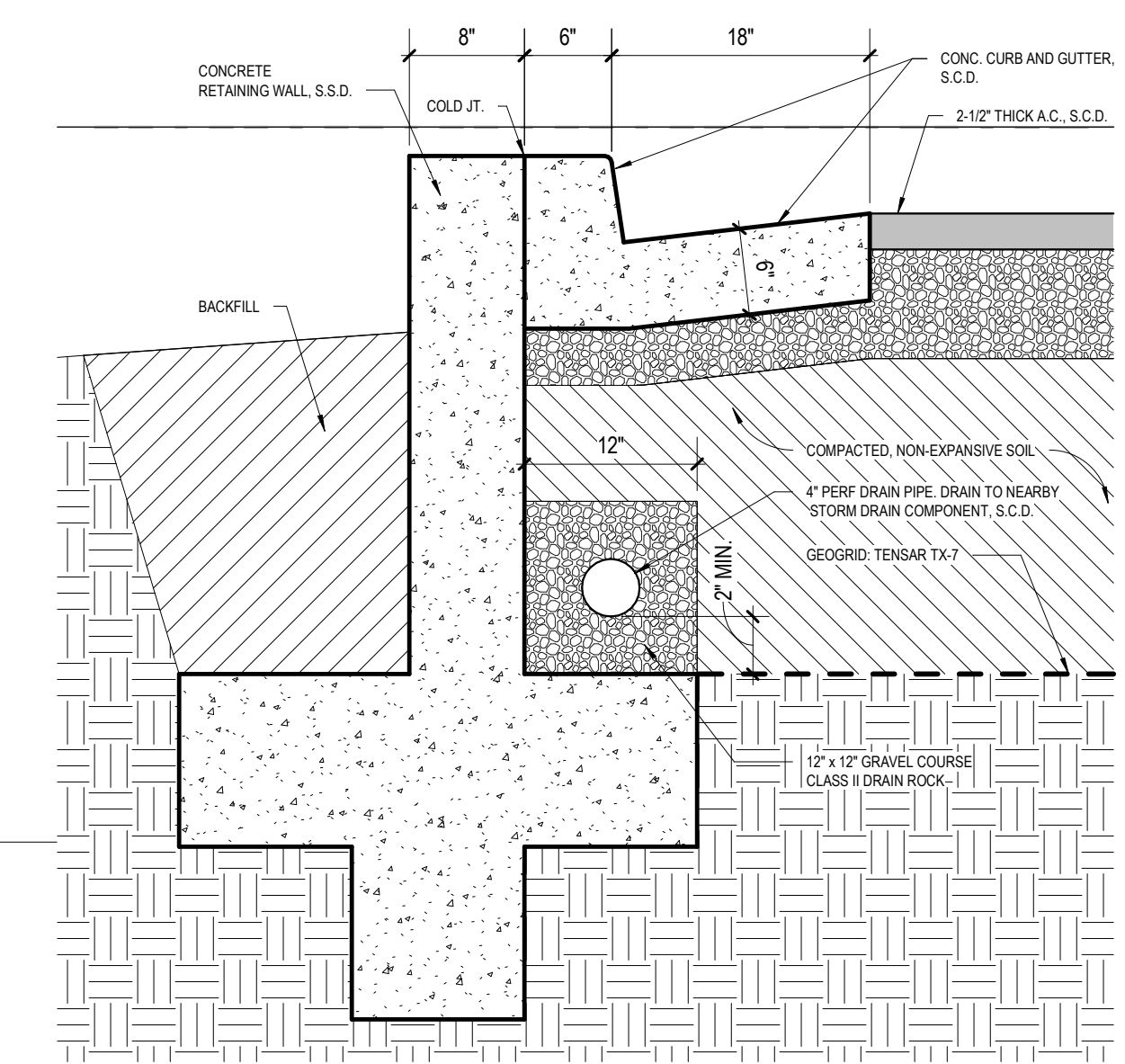
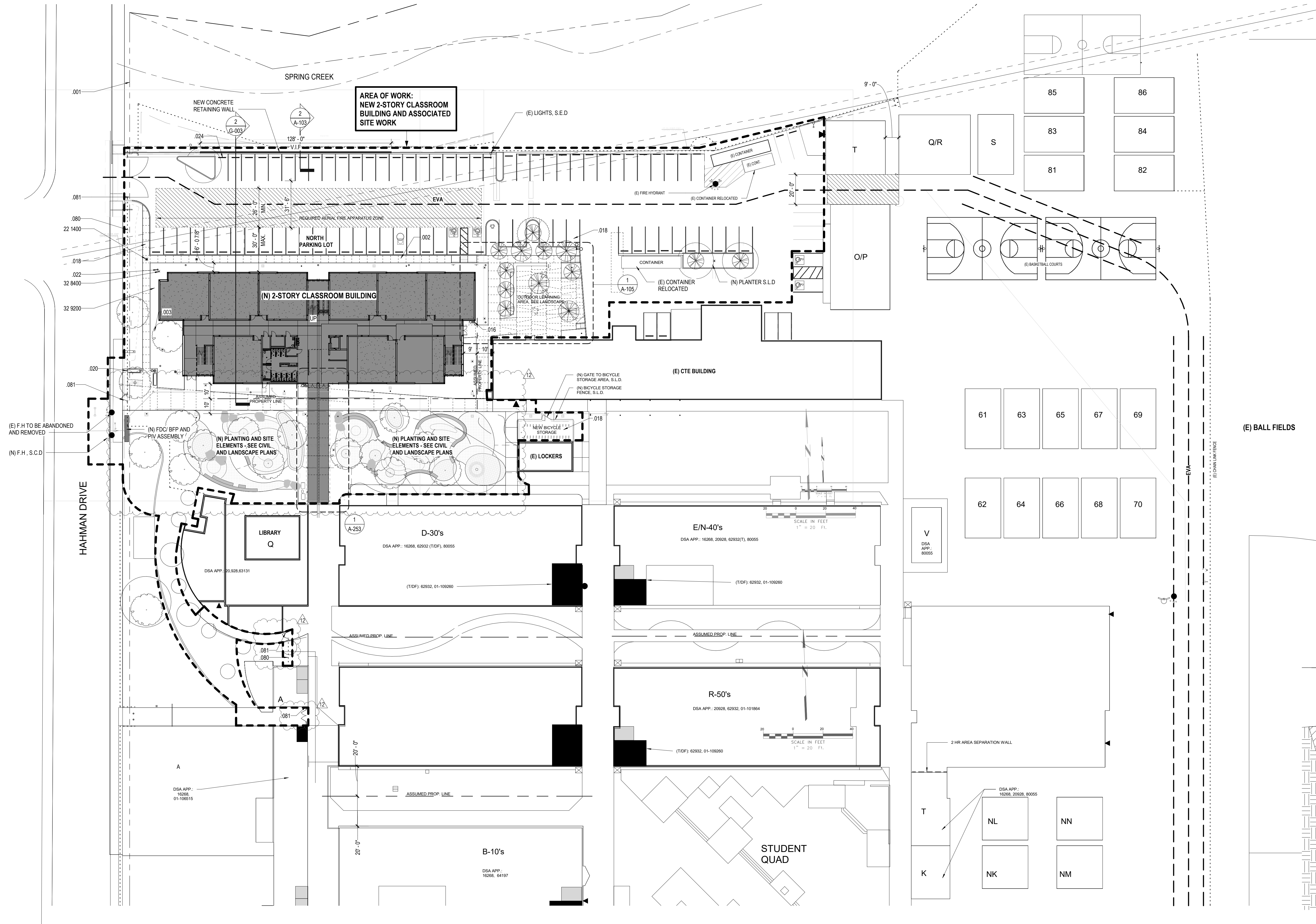
Number	Date	Description
12	10/28/24	CCD 006 LANDSCAPE REVISIONS

REFERENCE KEYNOTE

- 22 1400 FACILITY STORM DRAINAGE, SPD/SCD
- 32 8400 PLANTING IRRIGATION
- 32 9200 TURF AND GRASSES

DRAWING NOTES

- 001 (E) PROPERTY LINE
- 002 CHEMICAL NEUTRALIZATION TANK IN GROUND WITH COVER, S.P.D.
- 003 WAITING AREA, S.L.P.
- 016 RECYCLE & WASTE RECEPT., S.L.D.
- 018 CONC. PAVERS PER DETAILS
- 020 BENCH, TYP., S.L.D.
- 022 LIGHT FIXTURE, S.E.D.
- 024 CONC. WHEEL STOPS, S.C.D.
- 080 (N) SITE FENCING - SEE LANDSCAPE DRAWINGS
- 081 (N) SWINGING GATE, SEE LANDSCAPE DRAWINGS



1 SITE PLAN- IMMEDIATE AREAS OF WORK
1" = 30'-0"

2 CONCRETE RETAINING WALL
1" = 1'-0"

MONTGOMERY HIGH SCHOOL
CLASSROOM BUILDING
1250 HAHMAN DR.
SANTA ROSA, CA 95405

DSA PROJECT NUMBER
17123.00
 TLCD PROJECT NUMBER
17123.00
 DATE
5/10/2024
 DRAWN BY
JB
 CHECKED BY
Checker

SITE PLAN

A-103

SECTION 321816.13 - ARTIFICIAL TURF SYSTEMS**PART 1 - GENERAL****1.1 SUMMARY**

- A. Section includes:
- B. Playground grass resilient surface systems over a compacted base. This surfacing will not be used as a fall surfacing and therefore a impact attenuation layer will not be installed.

1.2 SUBMITTALS

- A. Product Data: For each type of product indicated. Include material descriptions and Manufacturer's construction details and cleaning/preventative maintenance instructions for the playground surface system.
- B. Materials List: A list of all materials and components to be installed as part of the playground surface system.
- C. Product Samples: For the following:
- D. 4-by-4-inch minimum sample of material specified
- E. Installer Certificates: Certificate of qualifications of the playground surface installer.
- F. Installer Reference Projects: A listing of at least 5 safety surfacing installations where products similar to those proposed have been installed and have been in successful service for a minimum period of 3 years. This list shall include Owner or purchaser, address of installation, date of installation, contact person and phone number.
- G. Product Certificates: Signed by manufacturers of playground surface systems certifying that protective surfaces furnished comply with surfacing installation requirements.
- H. Product Test Reports: From a qualified testing agency indicating playground surface system complies with requirements, based on comprehensive testing of current products.
- I. Material Certificates: Signed by manufacturers certifying that each item included in playground surface system installation complies with requirements:

- J. Material Test Reports: From a qualified testing agency indicating material complies with requirements.
- K. Maintenance Data: For playground surface system to include in maintenance manuals specified in Division 1.
- L. Warranty documents: Provide warranty documents from manufacturer.

1.3 QUALITY ASSURANCE

- A. Installer Qualifications: An experienced installer who has specialized in installing work similar in material, design, and extent to that indicated for this Project and whose work has resulted in installations with a record of successful in-service performance.
- B. Engage an installer who employs workers trained and approved by playground surface system manufacturer to install manufacturer's products.
- C. Engage an installer who is certified in writing by playground surface system manufacturer to install playground surface system specified.
- D. Testing Agency Qualifications: An independent testing agency with the experience and capability to conduct the testing indicated, as documented according to ASTM E 548.
- E. Source Limitations: Provide secondary materials and repair materials of type and from source recommended by manufacturer of primary playground surface system materials.
- F. Standards and Guidelines: Provide surface systems complying with applicable provisions of the following, unless more stringent provisions are indicated:
 - 1. Performance Specification for Playground Equipment for Public Use.
 - 2. ADA/ ABA – Federal Accessibility Guidelines
 - 3. ASTM F1951- Standard Specification for Determination of Accessibility of Surface Systems Under and Around Playground Equipment
 - 4. ASTM D2859- Flammability Standard –
 - 5. ASTM D7968 Standard Test Method for determination of Polyfluorinated (PFAS) compounds in soil by liquid chromatography Tandem Mass Spectrometry.
 - 6. All other state or local authorities having jurisdiction.

1.4 DELIVERY, STORAGE, AND HANDLING

- A. Deliver manufactured materials in original packages with seals unbroken and bearing manufacturer's labels indicating brand name and directions for storing.
- B. Store manufactured materials in a clean, dry location, protected from the weather and deterioration, and complying with manufacturer's written instructions for minimum and maximum temperature requirements for storage.

- C. Protect UV-light-sensitive materials from exposure to sunlight.

1.5 PROJECT CONDITIONS

- A. Environmental Limitations: Do not apply playground surface system materials or components over wet, frozen, or excessively damp substrates if prohibited by manufacturer's written instructions and warranty requirements.
- B. Storage; store materials in compliance with manufacturer's requirements and recommendation.
- C. Weather Limitations: Proceed with installation only when existing and forecasted weather conditions permit playground surface system to be performed according to manufacturer's written instructions and warranty requirements. Minimum ambient temperature is 40 degrees Fahrenheit minimum and 90 degrees Fahrenheit maximum,
- D. Field Measurements: Where playground surface system is indicated to fit to other construction, verify dimensions of other construction by field measurements.

1.6 COORDINATION

- A. Coordinate construction of playground surface systems with installation of playground equipment, including accurate use zones and fall heights, specified in Section 116800 "Playground Equipment and Structures."

1.7 WARRANTY

- A. Special Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace components of playground equipment that fail in materials or workmanship within their standard specified warranty period- five years.
- B. Failures include, but are not limited to, the following:
 - 1. Reduction in impact attenuation.
 - 2. Deterioration of surface and other materials beyond normal weathering.

PART 2 - PRODUCTS

2.1 ARTIFICIAL TURF SURFACE SYSTEMS, GENERAL

- A. Accessibility: Provide playground surface system determined to be accessible when tested according to ASTM F1951.
- B. Artificial Turf
 - 1. Primary Blades are a polyethylene slit film with anti -microbial agent Alphasan copyright. Integrated into the primary yard. Secondary blades are a set textured monofilament.

2. Weight: The product face weight will be 58 ounces. With backing the total weight of the product will be 108 ounces.
3. Tufting: Dual Yarn, same row. The tufting gauge will be 3/8", pile height 1"
4. Backing: The backing will be a multi-layered, three part backing.
 - a. First Single Layer (stabilizing primary consisting of polyester, fiberglass, and polyurethane. It is 18 pic construction and 6 ounces.
 - b. Second Layer is a minimum 40 ounces urethane layer
 - c. Third layer is nonwoven, recycled, geotextile fleece.
5. Seams: Primary seaming system shall be a micromechanical seam, utilizing hook and loop technology – ASTM F1292

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates, areas, and conditions, with Installer present, for compliance with requirements for subgrade and substrate conditions, for compliance with playground surface system manufacturer's requirements, and for other conditions affecting performance.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

- A. Stake locations of surfacing installation, and pathways. Clearly indicate locations of utilities, irrigation system, subgrade drainage systems, and underground structures.
- B. Install base material is indicated on plans and per manufacturers requirements.
- C. General: Prepare substrates to receive surfacing products according to surface system manufacturer's written instructions. Verify that substrates are sound without high spots, ridges, holes, and depressions.

3.3 INSTALLATION, GENERAL

- A. General: Comply with playground surface system manufacturer's written installation instructions. Install p surface system over area and in thickness indicated and as required to comply with specified requirements for impact-attenuation performance and, where indicated, for accessibility.

3.4 DRAINAGE

- A. Verify that subsurface drainage, if required, has been installed to provide positive drainage.
- B. Compacting and Grading: Uniformly compact and grade areas according to manufacturer's written instructions to an even surface free from irregular surface

changes and to cross sections, lines, and elevations indicated. Unless otherwise indicated, provide a smooth transition between adjacent existing grades and new grades.

3.5 CLEANING AND PROTECTION

- A. Protect newly installed play surfacing areas from traffic and erosion. Provide adequate curing time for poured in place materials prior to allowing foot traffic. Keep free of trash and debris. Replenish with matching material, repair, and reestablish densities and finish elevations where surfaces become eroded, rutted, or settled or where they lose compaction and depth, until date of Substantial Completion.

END OF SECTION 321816.13

SECTION 32 31 13- CHAIN LINK FENCES**PART 1 - GENERAL****1.1 RELATED DOCUMENTS**

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

1.2 SUMMARY

- A. Section Includes:
 - 1. Chain-link fence, including fence framework, fabric, and accessories.
 - 2. Excavation for posts
 - 3. Concrete encasement for posts.

1.3 ACTION SUBMITTALS

- A. Product Data: For each type of product indicated. Include material descriptions, dimensions of individual components and profiles, and finishes
 - 1. Fence posts, rails, hardware and fittings.
 - 2. Chain-link fabric, reinforcements, and attachment hardware.
 - 3. All other components required to install chain link fence per plan.
- B. Shop Drawings: Show locations of fences, posts, rails, tension wires, details of extended posts, hardware and accessories. Indicate materials, dimensions, sizes, weights, and finishes of components, Include plans, sections details of post anchorage, attachment, bracing, and other required installation and operational clearances.

1.4 INFORMATIONAL SUBMITTALS

- A. Product Certificates: For each type of chain-link fence from manufacturer.
- B. Product Test Reports: For framing strength according to ASTM F 1043.

- C. Product Test reports for zinc coated Chain link Fabric according to ASTM A641
- D. Warranty: Sample of special warranty.

1.5 CLOSEOUT SUBMITTALS

- A. Operation and Maintenance Data: For the following to include in emergency, operation, and maintenance manuals:
 - 1. Polymer finishes.

1.6 PROJECT CONDITIONS

- A. Field Measurements: Verify layout information for chain-link fences and gates shown on Drawings in relation to property survey and existing structures. Verify dimensions by field measurements. Notify Architect in writing if discrepancies are found.

1.7 WARRANTY

- A. Special Warranty: Manufacturer's standard form in which Installer agrees to repair or replace components of chain-link fences and gates that fail in materials or workmanship within specified warranty period.
 - 1. Failures include, but are not limited to, the following:
 - a. Deterioration of metals, metal finishes, and other materials beyond normal weathering.
 - 2. Warranty Period: Five years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 CHAIN-LINK FENCE FABRIC

- A. General: Provide fabric in one-piece heights measured between top and bottom of outer edge of selvage knuckle or twist. Comply with CLFMI Product Manual and with requirements indicated below:
 - 1. Fabric Height: As indicated on Drawings.
 - a. Polymer-Coated Fabric: ASTM F 668, Class 1 over zinc [Zn-5-Al-MM-alloy]-coated steel wire.
 - 1) Color: Black complying with ASTM F 934.

- b. Coat selvage ends of fabric that is metallic coated before the weaving process with manufacturer's standard clear protective coating.

2.2 FENCE FRAMING

- A. Posts and Rails: Comply with ASTM F 1043 for framing, including rails, braces, and line; terminal; and corner posts. Provide members with minimum dimensions and wall thickness according to ASTM F 1043 based on the following:
 1. Fence Height: 72 inches
 - a. Line Post: per plan. End, Corner and Pull Post: per plan
 - d. Top Rail: Per plan
 - e. Type A, consisting of not less than minimum 2.0-oz./sq. ft. (0.61-kg/sq. m) average zinc coating per ASTM A 123/A 123M or 4.0-oz./sq. ft. (1.22-kg/sq. m) zinc coating per ASTM A 653/A 653M.
 - f. Type B, zinc with organic overcoat, consisting of a minimum of 0.9 oz./sq. ft. (0.27 kg/sq. m) of zinc after welding, a chromate conversion coating, and a clear, verifiable polymer film.
 - g. External, Type B, zinc with organic overcoat, consisting of a minimum of 0.9 oz./sq. ft. (0.27 kg/sq. m) of zinc after welding, a chromate conversion coating, and a clear, verifiable polymer film. Internal, Type D, consisting of 81 percent, not less than 0.3-mil- (0.0076-mm-) thick, zinc-pigmented coating.
 - h. Type C, Zn-5-Al-MM alloy, consisting of not less than 1.8-oz./sq. ft. (0.55-kg/sq. m) coating.
 - i. Coatings: Any coating above.
 2. Polymer coating over metallic coating.
 - a. Color Black, complying with ASTM F 934.

2.3 FITTINGS

- A. General: Comply with ASTM F 626.
- B. Post Caps: Provide for each post.
 1. Provide line post caps with loop to receive tension wire or top rail.
- C. Rail and Brace Ends: For each gate, corner, pull, and end post.
- D. Rail Fittings: Provide the following:
 1. Top Rail Sleeves: to match fence fabric

- E. Tension and Brace Bands: to match fence fabric
- F. Tension Bars: length not less than 2 inches shorter than full height of chain-link fabric. Provide one bar for each gate and end post, and two for each corner and pull post, unless fabric is integrally woven into post.
- G. Truss Rod Assemblies: Steel, hot-dip galvanized after threading rod and turnbuckle or other means of adjustment.
- H. Finish:
 - 1. Metallic Coating for Pressed Steel or Cast Iron: Not less than 1.2 oz. /sq. ft. zinc.
 - a. Polymer coating over metallic coating.

2.4 GROUT AND ANCHORING CEMENT

- A. Non-shrink, Nonmetallic Grout: Premixed, factory-packaged, non-staining, noncorrosive, nongaseous grout complying with ASTM C 1107. Provide grout, recommended in writing by manufacturer, for exterior applications.
- B. Erosion-Resistant Anchoring Cement: Factory-packaged, non-shrink, non-staining, hydraulic-controlled expansion cement formulation for mixing with potable water at Project site to create pourable anchoring, patching, and grouting compound. Provide formulation that is resistant to erosion from water exposure without needing protection by a sealer or waterproof coating and that is recommended in writing by manufacturer, for exterior applications.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine areas and conditions, with Installer present, for compliance with requirements for [a verified survey of property lines and legal boundaries,] site clearing, earthwork, pavement work, and other conditions affecting performance of the Work.
 - 1. Do not begin installation before final grading is completed unless otherwise permitted by Architect.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 INSTALLATION, GENERAL

- A. Install chain-link fencing to comply with ASTM F 567 and more stringent requirements indicated.

3.3 CHAIN-LINK FENCE INSTALLATION

- A. Post Excavation: Drill or hand-excavate holes for posts to diameters and spacings indicated, in firm, undisturbed soil.
- B. Post Setting: Set posts in concrete indicated spacing into firm, undisturbed soil.
1. Verify that posts are set plumb, aligned, and at correct height and spacing, and hold in position during setting with concrete or mechanical devices.
- C. Line Posts: Space line posts uniformly at 96 inches o.c.
- D. Post Bracing and Intermediate Rails: Install according to ASTM F 567, maintaining plumb position and alignment of fencing. Diagonally brace terminal posts to adjacent line posts with truss rods and turnbuckles. Install braces at end and gate posts and at both sides of corner and pull posts.
1. Locate horizontal braces at midheight of fabric 72 inches (1830 mm) or higher, on fences with top rail and at two-third fabric height on fences without top rail. Install so posts are plumb when diagonal rod is under proper tension.
- E. Tension Wire: Install according to ASTM F 567, maintaining plumb position and alignment of fencing. Pull wire taut, without sags. Fasten fabric to tension wire with 0.120-inch- diameter hog rings of same material and finish as fabric wire, spaced a maximum of 24 inches o.c. Install tension wire in locations indicated before stretching fabric. Provide horizontal tension wire at the following locations:
1. Extended along top and bottom of fence fabric. Install top tension wire through post cap loops. Install bottom tension wire within 6 inches of bottom of fabric and tie to each post with not less than same diameter and type of wire.
- F. Top Rail: Install according to ASTM F 567, maintaining plumb position and alignment of fencing. Run rail continuously through line post caps, bending to radius for curved runs and terminating into rail end attached to posts or post caps fabricated to receive rail at terminal posts. Provide expansion couplings as recommended in writing by fencing manufacturer.
- G. Chain-Link Fabric: Apply fabric to outside of enclosing framework. Leave 2 inches between finish grade or surface and bottom selvage unless otherwise indicated. Pull fabric taut and tie to posts, rails, and tension wires. Anchor to framework so fabric remains under tension after pulling force is released.
- H. Tension or Stretcher Bars: Thread through fabric and secure to end, corner, pull, and gate posts with tension bands spaced not more than 15 inches o.c.

- I. Tie Wires: Use wire of proper length to firmly secure fabric to line posts and rails. Attach wire at one end to chain-link fabric, wrap wire around post a minimum of 180 degrees, and attach other end to chain-link fabric per ASTM F 626. Bend ends of wire to minimize hazard to individuals and clothing.
 1. Maximum Spacing: Tie fabric to line posts at 12 inches (300 mm) o.c. and to braces at 24 inches (610 mm) o.c.

3.4 DEMONSTRATION

- A. Engage a factory-authorized service representative to train Owner's personnel to adjust, operate, and maintain chain-link fences and gates.

END OF SECTION 32 31 13

SECTION 32 3119- DECORATIVE METAL FENCES AND GATES**PART 1 - GENERAL****1.1 RELATED DOCUMENTS**

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.
- B. 2016 California Building Code, Chapter 11B Accessibility to Public Buildings, Public Accommodations, Commercial Buildings and Public Housing

1.2 SUMMARY**A. Section Includes:**

- 1. Ornamental Steel Fence System Montage II 3 rail fence with Genesis top
- 2. Pedestrian Gate- Ameristar Exodus Egress Gate System
- 3. Vehicular Gate – Ameristar Montage II 3 Rail Genesis
- 4. Bicycle Storage Fence and Gate

1.3 PERFORMANCE REQUIREMENTS

- A. Lightning-Protection System: Maximum grounding-resistance value of 25 ohms under normal dry conditions.

1.4 ACTION SUBMITTALS

- A. Product Data: For each type of product indicated.
- B. Shop Drawings: For fencing and gate. Include plans, elevations, sections, details, and attachments to other work.

Samples: For each fence material and for each color specified.

- 1. Provide Sample 6 inches square for wire mesh and bar grating.

1.5 INFORMATIONAL SUBMITTALS

- A. Product Test Reports: Based on evaluation of comprehensive tests performed by a qualified testing agency, for decorative metallic-coated steel tubular picket fences, including finish, indicating compliance with referenced standard.

1.6 CLOSEOUT SUBMITTALS

- A. Manufacturer and Contractor Warranty information.
- B. Manufacturer touch up paint/material.
- C. Keys for gate

1.7 QUALITY ASSURANCE

- A. Installer Qualifications: An experienced installer who has completed fences and gates for DSA approved projects and whose work has resulted in construction with a record of successful performance.
- B. Welding Qualifications: Qualify procedures and personnel according to AWS D1.1/D1.1M, "Structural Welding Code - Steel"
- C. Preinstallation Conference: Conduct conference at Project site with Owners Representative.
- D. Warranty - 20 year limited warranty
- E. Meets American Buy Act

PART 2 - PRODUCTS

2.1 ORNAMENTAL STEEL FENCE PANELS

- A. Steel Material for fence panels and posts shall conform to the requirements of ASTM A653/A653M, with a minimum yield strength of 45,000 psi and a minimum zinc (hot dipped galvanized) coating weight of 0.90 oz/ft², Coating designation G-90
- B. Material for pickets shall be 1" square x 14 Ga. tubing. The rails shall be steel channel, 1.75" x 1.75" x .105". Picket holes in the rail shall be spaced 4.715" o.c. Fence posts and gate posts shall meet the minimum size requirements of Table 1
- C. Steel Mesh Fence Panels: Consisting of prefabricated panels of wire mesh formed by vertical rods placed between two horizontal rods. The rods are electro-forged welded at each crossing. Mesh is galvanized and powder polyester coated after fabrication into panels.
- D. Pickets, rails and posts shall be pre-cut to specified lengths. Rails shall be pre-punched to accept pickets.
- E. Pickets shall be inserted into the pre-punched holes in the rails and shall be aligned to standard spacing using a specially calibrated alignment fixture. The aligned pickets and rails shall be joined at each picket-to-rail intersection by Ameristar's proprietary fusion welding process, thus completing the rigid panel assembly. The manufactured panels and

posts shall be subjected to an inline electrodeposition coating (E-Coat) process consisting of a multi-stage pretreatment/wash, followed by a duplex application of an epoxy primer and an acrylic topcoat. The minimum cumulative coating thickness of epoxy and acrylic shall be 2 mils (0.058 mm). The color shall be Black.

- F. The manufactured fence system shall be capable of meeting the vertical load, horizontal load, and infill performance requirements for Industrial weight fences under ASTM F2408.

2.2 PEDESTRIAN GATES

- A. Metal Tubing framed gates, to match panel system. Steel, galvanized and powder polyester coated after fabrication.
1. Gate Height: per plan
- B. Locking Hardware- Von Duprin 996LNL or equal- provide deadbolt mechanism and key for owner- deadbolt to be able to be locked on open position.
- C. Door levers- Von Duprin 06 or equal
- D. Accessible Device/pushbar - Von Duprin AX or equal to meet current California Building code for 5lb maximum operating force.
- E. Door Closer/ hinges to meet gate closing speed as required in CBC 11B-404.2.8 2016 CBC 11B404.28 . Sureclose gate hinges with integral closer mechanism Model # 108 with a gate weight limit of 260 lbs. See manufacturers recommendation for stainless steel five knuckle bearing hinges with non-removable pin and stainless steel fasteners.

2.3 VEHICULAR GATES

- A. Metal Tubing framed gates, to match panel system. Steel, galvanized and powder polyester coated after fabrication.
1. Gate Height: per plan
- B. Hardware: Cane bolts
- C. Locking Hardware- lockable latch per manufacturer, include Knox box for emergency access.
- D. Hinges - per manufacturer to support gate width and provide smooth opening and closing.

2.4 STEEL MESH PANELS

- A. Infill frame shall be 12ga steel. Expanded metal mesh shall be 3/4" x #9 flattened or Perforated metal mesh shall be 3/16" round x 1/2" x 18ga.
- B. COATING MATERIALS

- C. Manufacturers standard powdercoat finish.

2.5 MISCELLANEOUS MATERIALS

- A. Welding Rods and Bare Electrodes: Select according to AWS specifications for metal alloy welded.
- B. Concrete: Normal-weight, air-entrained, ready-mix concrete complying with requirements in Section 033000 "Cast-in-Place Concrete" with a minimum 28-day compressive strength of 3000 psi, 3-inch slump, and 1-inch) maximum aggregate size.
- C. Nonshrink Grout: Factory-packaged, nonstaining, noncorrosive, nongaseous grout complying with ASTM C 1107 and specifically recommended by manufacturer for exterior applications.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine areas and conditions, with Installer present, for compliance with requirements for site clearing, earthwork, pavement work, construction layout, and other conditions affecting performance of the Work.
- B. Do not begin installation before final grading is completed unless otherwise permitted by Architect.
- C. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

- A. Stake locations of fence lines, gates, and terminal posts. Do not exceed intervals of 500 feet (152.5 m) or line of sight between stakes. Indicate locations of utilities, lawn sprinkler system, underground structures, benchmarks, and property monuments.
 - 1. Construction layout and field engineering are specified in Section 017300 "Execution."

3.3 DECORATIVE FENCE INSTALLATION

- A. Install fences according to manufacturer's written instructions.
- B. Post Setting: Set posts in concrete at indicated spacing into firm, undisturbed soil.
 - 1. Verify that posts are set plumb, aligned, and at correct height and spacing, and hold in position during setting with concrete or mechanical devices.

2. Concrete Fill: Place concrete around posts and vibrate or tamp for consolidation. Protect aboveground portion of posts from concrete splatter.

3.4 GATE INSTALLATION

- A. General: Install gates according to manufacturer's written instructions, level, plumb, and secure for full opening without interference. Attach hardware using tamper-resistant or concealed means. Install ground-set items in concrete for anchorage. Adjust hardware for smooth operation and lubricate where necessary.
- 3.5 Adjusting Gate: Adjust gate to operate smoothly, easily, and quietly, free from binding, warp, excessive deflection, distortion, nonalignment, misplacement, disruption, or malfunction, throughout entire operational range. Confirm that latches and locks engage accurately and securely without forcing or binding.

END OF SECTION

SECTION 32 3300 - SITE FURNISHINGS**PART 1 - GENERAL****1.1 SUMMARY**

- A. Work Included: All services, labor, materials, transportation and equipment necessary to construct or install the items indicated on the Drawings and/or herein specified, including all footings, anchorages, frames and accessories required to provide complete, safe and usable furnishings to the satisfaction of the School's Authorized Representative.
- B. This section includes the following site furnishings:
 - 1. Moveable Tables and Chairs
 - 2. Bike Rack
 - 3. Oversized Tree Grate
 - 4. Waste Container
 - 5. Recycle Container
 - 6. Wood Top System for Cast in place concrete wall
 - 7. Circular Tree Bench

1.2 SUBMITTALS

- A. Comply with 013300 - Submittal Procedures, unless otherwise indicated.
- B. Product Data: Submit product data for:
 - 1. Moveable Tables and Chairs
 - 2. Bike Rack
 - 3. Oversized Tree Grate
 - 4. Waste Container
 - 5. Recycle Container
 - 6. Wood Top System for cast in place concrete wall
 - 7. Circular Tree Bench

Product Data to include, material descriptions, photographs, dimensions of individual components and profiles, finishes, field-assembly requirements, Manufacturer's specifications and installation details.

- C. Shop Drawings:

1. Wood Top System for cast in place concrete wall. Include detailing for welds, reinforcement and attachment.

D. Equipment to be furnished:

1. Guarantee: Contractor shall provide Owner with a written guarantee from each Manufacturer identifying the nature of warranty for each product component.
2. Maintenance manuals identifying each piece of equipment and Manufacturer's recommended maintenance program.
3. Finish repair kit for each type and color of finish used on furnishings, with Manufacturer's recommended surface preparation and application guidelines.
4. The above-mentioned equipment shall be turned over to Owners Representative at the conclusion of the project. Before final observation can occur, evidence that the Owner has received equipment must be shown to the Landscape Architect.

1.3 DELIVERY, STORAGE AND HANDLING

- A. Deliver, store, and handle furnishings to prevent damage and deterioration. Contractor is responsible for repair/replacement of materials damaged after delivery and before final acceptance.
- B. Stack assembled items off the ground.

1.4 PROJECT CONDITIONS

- A. Coordinate work with trades furnishing adjacent work related to site furnishings installation.
- B. Provide sleeves, anchors, inserts, bolts, clips and other items furnished under this Section and built in with work of other trades.
- C. No work shall be installed until finish, color samples and shop drawings for the work have been reviewed and approved in writing by the Landscape Architect, and final grading and surfacing is completed.

1.5 QUALITY ASSURANCE

- A. Source limitations: Obtain all items as specified unless approved by Owner or Owner's representative.

PART 2 - PRODUCTS**2.1 PRODUCTS**

A. Subject to compliance with requirements, products that may be incorporated into the Work include, but are not limited to, the following:

1. Moveable Tables and Chairs

- a. Model info per plan
- b. Manufacturer: Maglin
- c. Contact: Sarah McKellar 519-539-6776

2. Bike Rack

- a. Per Plans
- b. Manufacturer: Dumor
- c. Contact : Tara Bartosch, Ross Recreation 707-538-3800

3. Oversized tree grate

- a. Per Plans
- b. Manufacturer: IronSmith
- c. Contact: Richard Hilton, Hilton Construction products 775-787-9595

4. Waste Container

- a. Per Plans
- b. Recycle Away Solutions – 855-752-8126

5. Recycle Container

- a. Per Plans
- b. Recycle Away Solutions – 855-752-8126

6. Wood Top System for cast in place wall

- a. Per Plans
- b. Manufacturer: Streetlife
- c. Contact: Thomas Lub – 215-247-0148

7. Circular Tree Bench

- a. Model info per plan
- b. Manufacturer: Maglin
- c. Contact: Sarah McKellar 519-539-6776

- B. Provide all other materials, not specifically described but required for a complete and proper installation, as selected by the Contractor, subject to the review by the Landscape Architect. (3.2-A, Preparation).

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine areas and conditions, with Installer present, for compliance with requirements for correct and level finished grade, mounting surfaces, installation tolerances, and other conditions affecting performance.
 - 1. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

- A. Provide required footings, sleeves, frames and anchorages. Furnish templates, setting drawings, and instructions for installation of sleeves and anchorages built into other work.
- B. Locate and layout all furniture, accessories and equipment items. Obtain the Owner's Authorized Representative written approval of the layout prior to installation.

3.3 INSTALLATION, GENERAL

- A. Comply with Manufacturer's written installation instructions, unless more stringent requirements are indicated on plans or approved shop drawings. Complete field assembly of site furnishings where required.
- B. Unless otherwise indicated, install site furnishings after landscaping and paving have been completed.
- C. Install site furnishings level, plumb, true, securely anchored (if applicable) and positioned at locations indicated on Drawings.

3.4 CLEANING

- A. After completing site furnishing installation, inspect components. Remove spots, dirt, and debris. Repair damaged finishes to match original finish or replace component.

END OF SECTION

SECTION 329000 – PLANTING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of Contract, including General and Supplementary Conditions and Division 01 Specifications sections, apply to Work of this Section.

1.2 SUMMARY

- A. Work Included: All services, labor, materials, transportation and equipment necessary to perform the work indicated on the Drawings and as specified, including lime treatment removal, landscape maintenance service during the specified maintenance period, and plant replacement during the specified warranty period.
- B. Related Sections:
 - 1. Division 31- Earthwork

1.3 DEFINITIONS

- A. Planting Area: All areas planted with container stock trees, shrubs, groundcovers and vines and covered with mulch. All soil preparation and amendment requirements apply.
- B. Plants, Plant Material: Includes all trees, shrubs, groundcovers, sod and vines installed as part of this project.
- C. Specimen Tree: All trees over 24 inch box size.

1.4 ACTION SUBMITTALS

- A. Technical Reports: Submit copies of technical reports per 1.7 Quality Assurance.
- B. Product Data: For each type of product indicated, including soil amendments, fertilizers, mulches, protective fencing, binders/tackifiers, import topsoil, pesticide and herbicide products.
 - 1. Pesticide and herbicide products must be reviewed and approved by both the Landscape Architect and the School's Representative. Include product label and manufacturer's application instructions specific to the Project.
 - 2. Soil amendments and fertilizers shall be based upon approved technical reports.
- C. Invoices and Delivery Slips:

1. Soil amendments: Upon delivery of materials and/or completion of all soil amending and grading but prior to initiating planting, the Contractor shall provide Landscape Architect with signed copies of required certificates, delivery slips and invoices for soil preparation materials. The Landscape Architect shall review such material, comparing the total quantities of each material furnished against the total area of each operation. If the minimum rates of application have not been met, the Landscape Architect will require the incorporation of additional quantities of these materials to fulfill the minimum application requirements specified.

1.5 INFORMATIONAL SUBMITTALS

- A. Qualification Data: For qualified landscape Installer. Include list of similar projects completed by Installer demonstrating Installer's capabilities and experience. Include project names, addresses, and year completed, and include names and addresses of Owners' contact persons.
- B. Maintenance Service Schedule: Contractor shall submit a dated schedule of services to be provided during the Maintenance Period, including but not limited to pruning, mowing, trimming, edging, leaf removal, weed eradication. See 1.11 Maintenance Service.
- C. Qualified Applicator's License (QAL): From the California Department of Pesticide Regulations.
- D. Lime Treated Soil: Contractor shall provide as-built drawings depicting the actual, installed limits of soil lime treatment at all buildings and hardscape if lime treatment was used in building and paving construction. This as-built clarification shall be submitted to the Landscape Architect prior to commencement of planting and irrigation operations.
- E. Weed Eradication: Contractor to submit schedule for pre-planting weed eradication.
- F. Soil Amendments and Fertilizers: Submit product data for soil amendments and fertilizers, and planting tablets. Composition and application rates of soil amendments and fertilizers shall be per the Technical Reports.
 1. Cost adjustments: Prior to construction, Contractor shall provide a line item cost for soil amendments and fertilizers according to these Specifications. Should the Technical Reports recommend a lesser degree of soil amending and fertilizing, Contractor shall adjust fees or provide a credit to the Client accordingly. In the event that the required soil amendments and fertilizers are greater than these Specifications, the Contractor shall not be responsible for funding the difference.
- G. Tree Pit Drainage Certification: Contractor to certify in writing that the tree pit drainage testing has been completed and note the number and location, if any, of tree pits requiring drainage improvements.
- H. Specimen Tree Instructions: Contractor to submit images of selected tree for review prior to delivery. Restocking or delivery fees associated with rejected trees that were not pre-reviewed will be the responsibility of the Contractor.

- I. Post-Planting Fertilizers: Submit product data for fertilizers for use post-planting. Quantities of fertilizers shall be per the Post-Amendment Agronomy Reports, including adjustments as required based on the results of the Irrigation water suitability test, where applicable.
- J. Manufacturer’s Instructions: Contractor to submit instructions for items not herein outlined or detailed on Drawings, but necessary to perform the work indicated on the Drawings and as specified.

1.6 CLOSE-OUT SUBMITTALS

- A. Maintenance Instructions: Contractor to outline recommended maintenance procedures to be established by Owner for maintenance of plants during a calendar year.

1.7 QUALITY ASSURANCE

- A. Installer Qualifications: A firm or individual experienced in installing, erecting or assembling work similar in material, design, and extent to that indicated for this Project, whose work has resulted in construction with a record of successful in-service performance.
- B. Installer’s Field Supervision: Installer to maintain an experienced full-time supervisor on the Project site when work of this section is in progress.
- C. Qualified Applicator’s License (QAL): Contractor shall have a current License from the California Department of Pesticide Regulation.
- D. Disease-and-Pest-Free Plant Material Certification: Contractor to purchase nursery stock from licensed nurseries that meet the requirements of The Pest Exclusion/ Nursery Program of the California Department of Food and Agriculture.
- E. Technical Reports: Work is to be performed by:

Environmental Technical Services (ETS)
 975 Transport Way, Suite 2
 Petaluma, CA 94954 707-778-9605
 or
 Waypoint Analytical
 4741 E. Hunter Ave, Ste A.
 Anaheim, CA 92807 408-727-0330

- 1. Agronomy Report for On-site soil:
 - a) An Agronomy Report shall be prepared analyzing **2** samples of soil.
 - b) Samples shall be taken after completion of rough grading, prior to planting.
 - c) Each of the (2) samples for reporting shall consist of a composite of three shovelfuls of soil. The 2 sample areas will be:
 - One from area previously covered by AC
 - One from area previously covered by planting material

- d) All costs of packaging and shipping soil samples and testing by the soils laboratory shall be borne by the Contractor.
- e) Report shall include basic and minor nutrients, as well as a textural analysis of each sample. Report shall make specific recommendations for initial amendments for each sample area, and preliminary recommendations for post-planting/maintenance fertilization (also see Irrigation Suitability Test and Post-amendment Agronomy Reports, below).
- f) The report shall be submitted to the Landscape Architect for review and acceptance prior to any amendment, fertilization or planting operations on-site.

2. Agronomy reports for Import topsoil (if used):

- a) One Agronomy Report shall be prepared for each source and/or batch of import topsoil.
- b) Costs of packaging and shipping soil samples and testing by the soils laboratory shall be borne by the Contractor.
- c) Report shall include basic and minor nutrients, as well as a textural analysis of each sample. Report shall make specific recommendations for initial amendments for each sample area, and preliminary recommendations for post-planting/maintenance fertilization (also see Irrigation Suitability Test and Post-amendment Agronomy Reports, below).
- d) The report shall be submitted to the Landscape Architect for review and acceptance prior to any import soil being delivered to the site, and prior to any amendment, fertilization or planting operations on-site.

3. Post-Amendment Agronomy Report:

- a) After soil amendments have been thoroughly mixed into the soil, and prior to planting, random samples of the mixed soil shall be taken with the Landscape Architect present and submitted to a soils laboratory.
- b) One Post-Amendment Agronomy Report analyzing (1) sample is required.
- c) Costs of packaging and shipping soil samples and testing by the soils laboratory shall be borne by the Contractor.
- d) Reports shall include recommendations for further amendments needed, if any, and also include post-planting fertilizing and schedules for the duration of the Maintenance Period.
- e) Costs for further amendments, if needed to bring the soils to a satisfactory condition, shall be borne by the Contractor.

F. Tree Pit Drainage:

1. It shall be the Contractor's responsibility to provide adequate drainage of all trees, sufficient to ensure healthy growth. See Item 3.7 for tree pit drainage testing and remediation.

G. Observations:

1. Observations herein shall be made by the Landscape Architect.

2. The Contractor shall be responsible for scheduling and notifying the Landscape Architect 72 hours (or 3 working days) in advance of observations.
 3. Observation will be **required** for the following parts of the work:
 - a) Incorporation of soil amendments and fertilizers into the soil.
 - b) Upon the completion of finish grading prior to planting.
 - c) Approval of plant material (Refer to section H & I below)
 - d) When trees and shrubs are spotted in place for planting, but before planting holes are excavated. Approval of mulch product shall be obtained prior to spreading.
 - e) When all planting, except the Maintenance Period, has been completed. Acceptance and written approval shall establish beginning of the Maintenance Period.
 - f) Final Observation at the completion of the Maintenance Period. This observation shall establish the beginning date for the guarantee of all trees.
 4. The Installer's field supervisor shall be on the site at the time of each observation.
 5. The Contractor will be charged, and responsible for, any time and mileage used by the Landscape Architect as a result of a prematurely scheduled site visit.
- H. Observation of Plant Material:
1. All plants are to be inspected for disease and pests and certified prior to delivery.
 2. All plant material shall be delivered to the project site for Observation by the Landscape Architect, for approval prior to planting.
 3. The Contractor shall immediately remove any plant material not approved.
 4. Approved plant material shall remain on the site and shall be maintained by the Contractor as standards of comparison for material to be furnished.
 5. The Contractor, at his option and at his expense, can retain the services of the Landscape Architect to review trees 15 gallon and larger tagged at the nursery and/or at its place of growth, or as otherwise specified on Drawings.
 6. All plants shall be labeled as to genus, species, and variety by the nursery providing the material.
- I. Rejection and Substitution:
1. Plants: All plants not conforming to the requirements herein specified shall be considered defective, and such plants, whether in place or not, shall be marked as rejected and be immediately removed from the site of the work and replaced with acceptable plant materials. The plant materials shall meet all applicable observations required by law. All plants shall be of the species, variety, size, age, flower color and condition as specified herein and/or as indicated on the Drawings. Under no condition will there be any substitution of plant species, variety, or reduced sizes for those listed on the accompany Drawings, except with the express written consent of the Landscape Architect.
 2. Import Topsoil: If unacceptable import soil is placed it shall be removed and replaced with approved soil at the Contractor's expense.

3. General: Any materials not meeting standards herein shall be marked as rejected and be immediately removed from the site of the work and replaced with acceptable materials at the Contractor's expense.

J. Acceptances: Upon completion of the Final Observation and the work of this section, the Contractor will be notified in writing (1) whether the work is acceptable, (2) of any requirements necessary for completion and Final Acceptance.

1.8 DELIVERY, STORAGE AND HANDLING

A. Delivery of materials other than plants may begin upon approval of samples or as directed by the Landscape Architect. Samples shall be stored on-site until furnishing of materials is completed.

B. All materials shall be delivered to the site in manufacturer's unopened standard containers bearing original labels showing quantity, analysis and name of manufacturer.

C. All materials shall be stored in designated areas and in such a manner as to protect from weather or other conditions that might impair the effectiveness of the product.

D. Bulk Materials:

1. Do not dump or store bulk materials near structures, utilities, walkways and pavements, or on existing turf areas or plants.
2. Provide erosion-control measures to prevent erosion or displacement of bulk materials, discharge of soil-bearing water runoff, and airborne dust reaching adjacent properties, water conveyance systems, or walkways.
3. Accompany each delivery of bulk materials with appropriate certificates.

E. Do not prune trees and shrubs before delivery. Protect bark, branches, and root systems from sun scald, drying, wind burn, sweating, whipping, and other handling and tying damage. Do not bend or bind-tie trees or shrubs in such a manner as to destroy their natural shape. Provide protective covering of plants during shipping and delivery. Do not drop plants during delivery and handling.

F. Deliver plants after preparations for planting have been completed. If planting is delayed more than six hours after delivery, set plants and trees in their appropriate aspect (sun, filtered sun, or shade), protect from weather, frost, and mechanical damage, and keep roots moist.

1. Do not remove container stock from containers before time of planting.
2. Water root systems of plants stored on-site deeply and thoroughly with a fine-mist spray.
3. Water as often as necessary to maintain root systems in a moist, but not overly-wet condition.

1.9 PROJECT CONDITIONS

- A. Lime Treated Soil: Contractor is responsible for the removal and disposal of lime treated soils from all planting areas, if lime treatment was used in construction of buildings and paving. Lime treated soils shall be removed to the full depth of the lime treatment and shall be removed from the site. Excavated lime treated soils shall be replaced with un-treated native soil from the site, or clean imported top soil per specifications. Contractor shall provide Agronomy reports and amend replacement soil as outlined in these Specifications. Method and extent of lime treated soil removal shall be approved by project geotechnical engineer.
- B. General Protection: Adequately stake, barricade, and protect all irrigation equipment, manholes, utility lines, and other existing property during all phases of the soil amending and grading operations.
- C. Utility Protection: Prior to excavation for planting or placing of plant materials, locate all underground utility lines still in use and take proper precautions to avoid damage to such improvements. In the event of a conflict between such lines and plant locations, notify the Landscape Architect who shall arrange for the relocation of one or the other. The Contractor assumes all responsibility for making any and all repairs for damages resulting from work as herein specified.
- D. Grading and Soil Limitations: Grading and soil preparation work shall be performed only during the period when beneficial and optimum results may be obtained. If the moisture content of the soil should reach such a level that working it would destroy soil structure, spreading and grading operations shall be suspended until the moisture content is increased or reduced to acceptable levels and the desired results are likely to be obtained.
- E. Planting Limitations: Actual planting shall be performed during those periods when weather and soil conditions are suitable in accordance with locally accepted horticultural practice.
- F. Soil Preparation: Rock and other growth or debris accumulated during the duration of the project shall be removed from the site. All rock larger than 1 inch diameter shall be removed from the site. For sod areas, rocks between $\frac{3}{4}$ inch and 1 inch and covering more than 20% of amended soil surface shall be removed.
- G. Field Measurements: All scaled dimensions are approximate. Before proceeding with any work carefully check and verify all dimensions and immediately inform the Landscape Architect of any discrepancy between the Drawings and/or Specifications and actual conditions.
- H. Quantities: Quantities for plant materials are shown for convenience only and are not guaranteed. Check and verify count and supply sufficient number to fulfill intent of Drawings.

1.10 WARRANTY

- A. All plants found to be dead, and all plants not in a vigorous condition noted within the Maintenance Period, shall be replaced within fourteen 14 days.

-
- B. Plants used for replacement shall be the same kind and size as specified in the plant list. They shall be furnished, planted and fertilized as originally specified.
- C. Warranty Period:
1. The Warranty Period begins on the day the Landscape Architect has authorized final acceptance of the project after the maintenance period has concluded.
 2. Three month plant warranty: All plants (except trees- see 1.10-C-3) shall be guaranteed to remain healthy and vigorously growing for three months after the beginning of the warranty period.
 3. One year tree warranty: All trees that have been planted under this Contract shall be guaranteed to live in a healthy condition for a period of one year after the beginning of the warranty period.

1.11 MAINTENANCE SERVICE

- A. Maintenance Service: Provide landscape maintenance service by skilled employees of the Installer. Plants shall be kept in a healthy, growing condition and in a visually pleasing appearance by watering, pruning, mowing, rolling, trimming, re-setting to proper grades, edging, fertilizing, re-staking, pest and disease controlling, spraying, weeding, cleaning up and any other necessary operation of maintenance. Landscape areas shall be kept free of weeds, noxious grass, and all other undesired vegetative growth and debris. All plants found to be dead or in an impaired condition shall be replaced immediately. Begin maintenance service immediately after plants are installed and continue for the duration of the Maintenance Period.
1. The Maintenance Period begins on the day the Landscape Architect has authorized the beginning of the maintenance period and shall continue thereafter for no less than **ninety (90)** continuous calendar days.
 2. Phased Maintenance Periods, if required, shall be negotiated prior to construction.
 3. If phased Maintenance Periods are not negotiated prior to construction, the Maintenance Period for all areas will begin after the entire project is 100% complete per contract documents. Portions completed earlier shall be maintained up to and including the specified Maintenance Period without additional compensation.
 4. The completion date of the Maintenance Period will be extended, when in the opinion of the Landscape Architect, improper maintenance and/or possible poor or unhealthy condition of planted material are evident at the end of the scheduled Maintenance Period. The Contractor shall be responsible for additional maintenance of the work at no change in Contract price until all of the work is completed and acceptable.
 5. Minimum Landscape Maintenance performance requirements shall conform to Landscape Maintenance per 'California Landscape Standards', Section VII, CLCA, First Edition.

- B. The Contractor shall continuously protect and maintain all involved areas of the Contract during the progress of the work and during the Maintenance Period until the Final Acceptance of the work.
- C. A protective temporary fence shall be installed and remain in place until final acceptance of the project. The Contractor shall be responsible for maintaining adequate protection of the areas. Damaged areas shall be repaired immediately at the Contractor's expense. Contractor is responsible for removal of the protective temporary fence at the close of the Maintenance Period and after Final Acceptance of the project.
- D. All paving, mulch, or other areas installed by the Contractor shall be maintained continuously. Weeds, clippings, trash, leaf litter or other debris shall be removed from the site and disposed of properly.
- E. All mulch shall be maintained at the specified depth, continuously, for the duration of the Maintenance Period.

PART 2 - PRODUCTS

2.1 STANDARD PLANTING MIX FOR PLANTERS

- A. Planting mix to be a well blended and screened mix of 50% organic compost and 50% sandy loam. or a commercial blend such as Sonoma Valley Organic Blend available from Soils-Plus.
 - 1. Permeability: Percolation rate shall be between 3 to 4 inches per hour. Hydraulic conductivity rate shall be not less than 1" per hour or more than 20" per hour when tested in accordance with USDA Handbook No. 60, Method 34b.
 - 2. Acidity: Soil pH range measured in the saturation extract (USDA Handbook No. 60, Method 21a) shall be 6.0 to 7.9.
 - 3. Salinity: ECE to be at or below 3 dS/m
 - 4. Boron: Maximum concentration of soluble boron in the saturation extract(USDA Handbook No. 60, Method 3a) shall be 1mg/l (parts per million).
 - 5. Sodium Adsorption Ratio (SAR): Maximum SAR shall be 6 measured in accordance with USDA Handbook No. 60 Method 20b.
 - 6. Organic Matter Content: Sufficient soil organic matter shall be present to impart good physical soil properties, but not be excessive to cause toxicity or cause excessive reduction in the volume of soil due to decomposition of organic matter. Calcium carbonate (limestone) shall not be present.

2.2 IMPORT TOPSOIL

- A. Additional imported topsoil, where required, shall be screened, fertile, friable, from well-drained arable land, free of nutgrass, refuse, roots, heavy clay, noxious weeds, rocks, or any material toxic to plant growth. The texture of the imported topsoil shall match the coarsest percentage of the site soil where additional soil will be added. A one (1) quart Sample and soil analysis documentation must be submitted to Landscape Architect for approval prior to delivery of material to the site.

Imported top soils must fall within the ranges as follows:

- Silt: 20-45%
- Clay: 15-20%
- Sand: 30-60%
- Organic material (natural): 2% minimum

pH: 6.0-7.9
Salinity: ECE to be at or below 3 dS/m

Percolation rate shall be between 3 to 4 inches per hour.

2.3 BACKFILL

- A. The following planting backfill ratios and installation guidelines are to be **used for bidding purposes only**. Contractor is responsible for providing Technical Reports as described in 1.7E, which shall outline backfill Specifications.
1. Fully amended (upper) excavation materials shall be put in one pile to go around the rootball.
 2. Any deeper un-amended materials shall be put in a separate pile. Condition this deeper soil at the following rates and use for the planting pit below the rootball:
 - a) Gypsum 16 lbs / cy.
 3. Over-excavate the planting pits so that there shall be one foot of amended material between native soil and the sides of the rootball. No OM or fertilizer shall be used below the rootball.

2.4 SOIL AMENDMENT, FERTILIZER, AND PLANTING TABLETS

- A. Soil Amendment and Fertilizer: Pre-planting and post-planting amendment and fertilizers shall be per specified Technical Reports (1.7E). The following amendments and fertilizers are to be **used for bidding purposes only**.
1. Organic Material (nitrolized redwood sawdust or equal and composted humus materials. 50:50 mix) PH of 5.5 to 6.5
 2. Gypsum shall be a commercially processed and packaged gypsum ($\text{CaSO}_4, 2 \text{H}_2\text{O}$ @ .90%).
 3. Calcium Nitrate ($\text{Ca}[\text{NO}_3]_2 \rightarrow 15/0/0$)
 4. Potassium Nitrate ($\text{KNO}_3 \rightarrow 13/0/44$)
 5. SCU ([urea] $[\text{NH}_2]_2\text{CO} \rightarrow 37/0/0$)
 6. Triple Superphosphate ($\text{Ca} [\text{H}_2\text{PO}_4]_2 \rightarrow 0/45/0$)
 7. Oyster Shell Lime ($\text{CaCO}_3 \rightarrow 95\%$)
 8. MicroMax fertilizer
- B. Quantities shall be furnished as needed to complete work shown on Drawings.

2.5 TREE STABILIZATION

A. Staking:

1. Stakes shall be untreated lodge pole stakes, with length as required to meet staking requirements per detail. Stake diameter and quantity per detail.
2. Tree ties shall be Arbor Tie, green, flat-woven polypropylene, or approved equal.

B. Rootball Anchor

1. Platipus Rootball anchor – contact Platipus 919-662-0991

2.6 WEED ERADICATION

A. Weed control products must be approved by Owner.

B. Pre-emergence herbicide shall be selected by the licensed applicator.

C. Post-emergence weed contact spray shall be selected by the licensed applicator.

D. Apply weed eradication products per the manufacturer's recommended application procedures.

2.7 PLANT MATERIAL

A. All plants shall be vigorous, of normal growth free from disease, insects, insect eggs, and meet or exceed the measurements specified.

B. Trees with cut leaders or with over 25% of branches headed back will be rejected.

C. Identify plant species or varieties correctly on legible, weatherproof labels attached securely to the plant. There shall be a minimum of one labeled plant for each 5 plants in a lot.

D. Substitutions will not be permitted except if proof is submitted that any plant specified is not obtainable, in which case a proposed substitution will be considered for use of the nearest equivalent size or variety and cost. All proposed substitutions shall be approved by Landscape Architect prior to ordering (See 1.7 Quality Assurance).

2.8 MULCH

A. For planting areas flatter than 3:1 slope: Planting areas shall be covered with 'Arbor Mulch' or approved equal. Mulch shall be a recycled, soft natural wood, dark color product shredded into small pieces consisting of a mix of finely shredded wood and medium shredded wood processed through an industrial tub grinder. No colored, rounded wood chips will be accepted. Available from 'Grab n'Grow Soil Products 707-575-7275 or Redi-Gro Corporation 916-381-6063.

B. No mulch shall be placed on slopes steeper than 2:1.

- C. In "Mulch Only" areas specified on the plan **3"** of 'Arbor Mulch' shall be applied. See Item A above. Ensure that the area is weed free before the application.

2.9 EROSION CONTROL

- A. Erosion control mat shall be BioD-Mat 60 blanket or approved equal. Available from RoLanka International, 800-760-3215, www.rolanka.com. The blankets shall be woven from coir yarns. Coir yarns shall be made of mattress coir obtained from freshwater cured coconut husks. Coir yarn shall be loosely spun to a uniform diameter.
- B. Biodegradable turf staples.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine areas to receive plants for compliance with requirements and conditions affecting installation and performance.
- B. Proceed with work only after unsatisfactory conditions have been corrected.

3.2 LIME TREATED SOILS

- A. Contractor is responsible for the removal and disposal of lime treated soils from all planting areas, if lime treatment was used in construction of buildings and paving.
- B. Lime treated soils shall be removed to the full depth of the lime treatment and shall be removed from the site.
- C. Excavated lime treated soils shall be replaced with un-treated native soil from the site, or clean imported top soil per specifications. Contractor shall provide Agronomy reports and amend replacement soil as outlined in these Specifications.
- D. Method and extent of lime treated soil removal shall be approved by the project geotechnical engineer.

3.3 SOIL AMENDMENT, FERTILIZING & ROTOTILLING

- A. Clear and grub all planting areas, removing all weeds, debris and rocks from the site per Project Conditions 1.9.
- B. Loosen soil by ripping and cross-ripping soil in planting areas to 8 inches depth, or as recommended in Technical Reports.
- C. Install amendments per Technical Reports. The following soil amendment incorporation is to be used **for bidding purposes only**:

1. The soil amendment materials shall be evenly spread over all planting areas and shall be thoroughly scarified to an average depth of 8 inches by rototilling a minimum of two alternating passes. Cultivation shall be by rototilling or ripping equipment.

Organic Material (nitrolized redwood sawdust or equal, and composted humus materials, 50:50 mix)	8 C.Y / 1000 sf
Gypsum	300 lbs / acre
Oyster Shell Lime	20 lbs / 1000 sf
Calcium Nitrate	20 lbs/1000 sf
Potassium Nitrate	10 lbs/1000 sf
SCU	12 lbs/1000 sf
Triple Superphosphate	10 lbs / 1000 sf.
MicroMax	15 lbs / 1000 sf

- D. The thoroughness and completeness of the rototilling and incorporation of the soil conditioners/amendments shall be acceptable to the Landscape Architect. Planting operations shall not begin until soil amendments are approved in writing.

3.4 STOCKPILED SOIL/IMPORT SOIL AMENDMENT, FERTILIZING & ROTOTILLING

- A. Place a minimum of twelve inches of Native Topsoil stockpiled from site or Imported Topsoil **into all proposed planting areas previously covered by pavement.**

- B. Install amendments per Technical Reports. The following soil amendment incorporation is to be used **for bidding purposes only:**

1. The soil amendment materials shall be evenly spread over all planting areas and shall be thoroughly incorporated to an average depth of 12 inches by rototilling a minimum of two alternating passes. Cultivation shall be by rototilling or ripping equipment. Call Underground Service Alert (USA) before beginning cultivation operation.

Organic Material (nitrolized redwood sawdust or equal, and composted humus materials, 50:50 mix)	8 C.Y / 1000 sf
Gypsum	300 lbs / acre
Oyster Shell Lime	20 lbs / 1000 sf
Calcium Nitrate	20 lbs/1000 sf
Potassium Nitrate	10 lbs/1000 sf
SCU	12 lbs/1000 sf
Triple Superphosphate	10 lbs / 1000 sf.
MicroMax	15 lbs / 1000 sf

- C. The thoroughness and completeness of the rototilling and incorporation of the soil conditioners/amendments shall be acceptable to the Landscape Architect. Planting operations shall not begin until soil amendments are approved in writing.

3.5 FINISH GRADING

- A. Finish grades shall be as indicated on the Civil Engineer's plans.

- B. Planting surfaces shall be graded with no less than 2 percent surface slope for positive drainage, or as otherwise noted according to Civil Engineer's plans.
- C. Final finish grades shall insure positive drainage of the site with all surface drainage away from buildings, walls, and toward roadways, drains and catch basins.
- D. Finish grades shall be measured as the final water compacted and settled surface grades, and shall be acceptable to the Landscape Architect before planting will be allowed to begin.
- E. All undulations and irregularities in the planting surfaces resulting from tillage, rototilling and all other operations shall be leveled and floated out before planting begins.
- F. The Contractor shall take every precaution to protect and avoid damage to sprinkler heads, irrigation lines, and other underground utilities during his grading and amendment operations.

3.6 WEED ERADICATION

- A. After incorporation of soil amendments and finish grading, and prior to planting, eradicate and physically remove all weeds dead or alive within the limits of work, in the following order:
 - 1. Irrigate twice each day for approximately 10 minutes each watering time for a period of 14 calendar days, until seedlings appear.
 - 2. Apply post emergence weed contact spray according to manufacturer's recommendations. Take care to protect existing plant material which is to remain as shown on the plans.
 - 3. Wait the required period for the post emergent to take effect (approximately 7-14 days).
 - 4. Physically remove all weeds, dead or alive, within the limits of work.
- B. Post- Planting:
 - 1. Planting Areas: Apply pre-emergence herbicide according to product directions.

3.7 EROSION CONTROL MAT

- A. Erosion control mat shall be installed on all slopes 3:1 or greater.
- B. All other specifications for soil preparation and planting apply.
- C. Mat shall be installed after soil preparation and after digging holes for plants, but prior to plant placement and backfilling. Install per manufacturer's specifications.
- D. When cut openings for plants are necessary, the cut in the mat shall not be larger than necessary to accommodate placement and backfilling. Opening shall be secured on four sides with staple fasteners.

- E. Overlap edges of matting two inches, and staple at a rate of 200 staples per 900 square feet for stabilization.
- F. Install mulch on top of mat where required. Hand tamp and settle mulch into place to limit loss of material down slope.

3.8 TREE PIT DRAINAGE TESTING

- A. After tree pit is dug, but prior to backfilling or planting, Contractor shall fill pit with 3" of water and then allow the water to completely drain from the pit. Fill the pit with 3" of water a second time. If the amount of time necessary for the pit to drain a second time is greater than 24 hours, install supplemental drainage per plan.
- B. Contractor to secure tree pit opening for safety.

3.9 PLANTING

- A. It is the Contractor's responsibility to notify appropriate agencies, requesting necessary plant inspections prior to planting.
- B. The layout of locations for plants and outlines of groundcover to be planted shall be approved on the site by the Landscape Architect, prior to their planting. All such locations shall be checked for possible interference with existing underground piping, prior to excavation of holes. If underground construction or utility lines are encountered in the excavation of planting areas, other locations for the planting may be selected by the Landscape Architect. Damage to existing utilities shall be the responsibility of the Contractor.
- C. Planting Trees, Shrubs, Groundcovers, Vines, and Grasses from Containers:
 - 1. All excavated holes shall have vertical sides with roughened surfaces and shall be of the minimum sizes indicated on detailed Drawings. Holes shall be, in all cases, large enough to permit handling and planting without injury or breakage of root balls or roots.
 - 2. Excavation shall include the stripping and temporary stockpiling of all acceptable soil encountered within areas that have been excavated for planting pits. With plywood, protect all areas that are expected to incur compaction and upon which soil is to be temporarily stacked pending its re-use for the backfilling of planting pits.
 - 3. Tree drainage shall be installed as required, see item 3.8.
 - 4. When removing plants from containers, take care not to pull foliage or damage the rootball. Recycle empty containers.
 - 5. No plant will be accepted if the rootball is broken or cracked before, during, or after the process of planting.
 - 6. The plants shall be planted at approved locations with the heretofore specified amendments, fertilizers and soil planting backfill.
 - 7. The plants shall be placed in the planting pits on the backfill material which has been hand tamped and water settled to the rootball base levels prior to the placement of the

plants. After setting the plants, the remaining backfill material shall be carefully tamped and settled around each rootball to fill all voids.

8. Each plant shall be placed in the center of the hole and shall be set plumb and held rigidly in position until the planting backfill has been tamped from around each root ball.
9. All plants shall be set at such a level that after settling they bear the same relationship to the surrounding finish grade as they bore to the soil line grade in the container, unless otherwise noted.
10. All plants shall be thoroughly watered in to the full depth of each planting hole immediately after planting.
11. Remove all nursery stakes and tags from plant material and dispose of properly.

D. Planting Specimen Trees:

1. Specimen trees shall be planted in accordance with the nursery's instructions and warranty provisions. Notify Landscape Architect if a discrepancy exists between contract document details and nursery instructions, and obtain approval prior to planting.

E. Mulch:

1. Apply a **3 inch** deep layer of specified mulch throughout all planting areas, unless otherwise noted on plans. Also refer to planting details for mulch requirements.

3.10 PRUNING

- A. Remove only dead, dying, or broken branches. Do not prune for shape. Do not cut tree leader.
- B. Pruning will be allowed if necessary to achieve specified overhead clearance or in response to a safety concern. Contractor shall notify Landscape Architect prior to proceeding with pruning work.
- C. Pruning cuts shall be per standard professional horticultural and arboricultural practices.
- D. Do not apply pruning paint to wounds.

3.11 TREE STABILIZATION

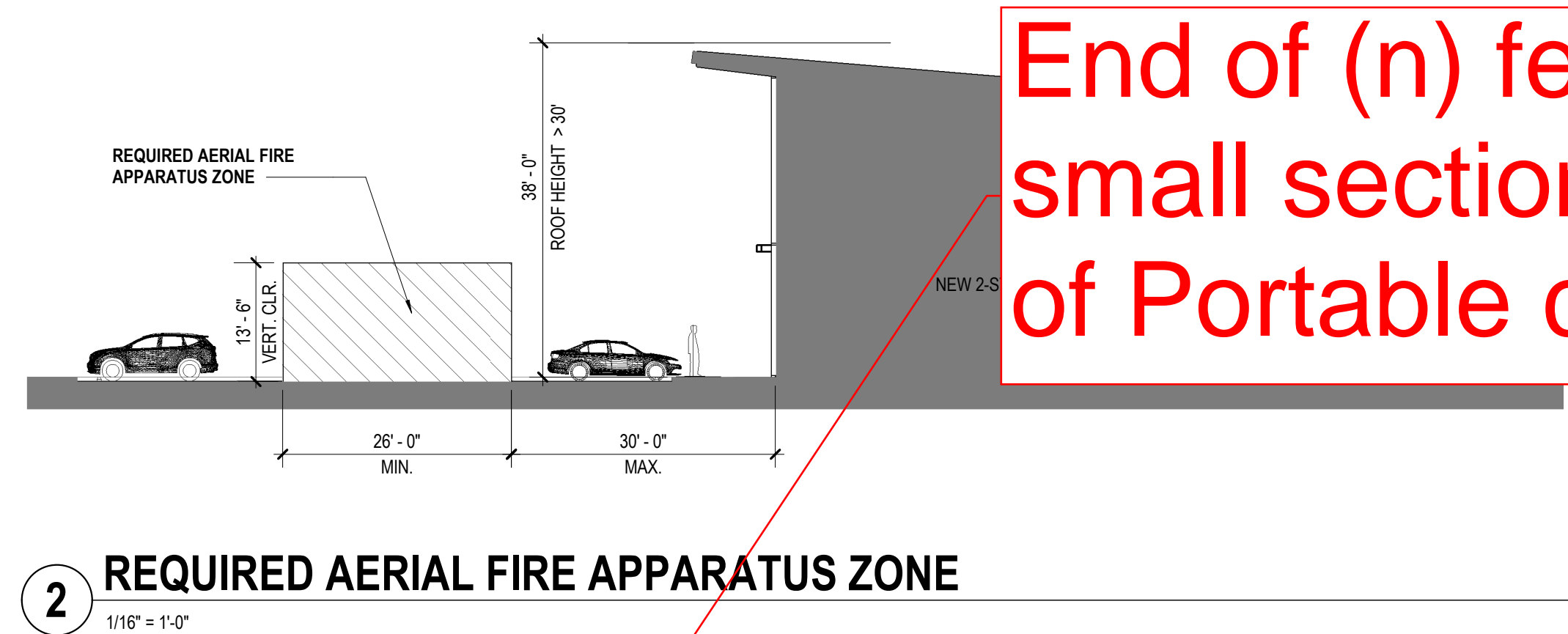
- A. All trees, 15 gallon to 24 inch box size, shall be staked. One of the stakes shall be driven into the ground on the windward side of the tree. The stakes shall be driven in plumb and secure. Special care shall be taken that driving in of the stake does not damage the tree roots or root ball. Tree ties shall be fastened to each tree and stake by looping figure 8's with the inside diameter of the tie at 2 or 3 times the diameter of the tree (Also see detailed Drawings).
- B. The staking shall be accomplished in such a manner as to insure the proper and healthy growth and safety of the plants, property, and the public.

- C. The Contractor shall be responsible for all surface and subsurface drainage required which may affect his guarantee of the plants.

3.12 CLEANUP

- A. As project progresses, Contractor shall maintain all areas in a neat manner and remove unsightly trash and debris as necessary. After completion of project, Contractor shall remove all debris and containers used in accomplishing work. Contractor shall sweep and clean all sidewalks, asphalt, and concrete, and planter walls adjacent to plantings.

END OF SECTION



End of (n) fencing to meet up with (ex.) black small section of chain link fencing coming off of Portable classroom.

SITE CODE ANALYSIS LEGEND

- NEW BUILDING
- EXISTING PORTABLE CLASSROOM RELOCATED
- EXISTING BUILDING
- (E) STUDENT TOILETS UPGRADED UNDER PREVIOUS DSA APPLICATION
- (E) STAFF TOILETS UPGRADED UNDER PREVIOUS DSA APPLICATION
- ACCESSIBLE DRINKING FOUNTAIN
- (E) FIRE HYDRANT
- EXTERIOR DOORS AT P.O.T.

ACCESSIBLE PATH OF TRAVEL AS INDICATED ON PLAN IS A BARRIER-FREE ACCESS ROUTE WITHOUT ANY ABRUPT LEVEL CHANGES EXCEEDING 1/2" IF BEVELED AT 1:2 MAX SLOPE, OR VERTICAL LEVEL CHANGES NOT EXCEEDING 1/4" MAX AND AT LEAST 48" IN WIDTH. SURFACE IS STABLE, FIRM, AND SLIP RESISTANT. CROSS SLOPE DOES NOT EXCEED 2% AND SLOPE IN THE DIRECTION OF TRAVEL IS LESS THAN 5%, UNLESS OTHERWISE INDICATED. ACCESSIBLE ROUTE OF TRAVEL SHALL BE MAINTAINED FREE OF OVERHANGING OBSTRUCTIONS TO 80" MINIMUM AND PROTRUDING OBJECTS GREATER THAN 4" PROJECTION FROM WALL AND ABOVE 27" AND LESS THAN 80". ARCHITECT SHALL VERIFY THAT THERE ARE NO BARRIERS IN THE ROUTE OF TRAVEL.

EMERGENCY VEHICLE ACCESS (E.V.A.) PATH, PER FIRE PROTECTION DISTRICT STANDARDS.

20' WIDE CLEAR DRIVEABLE SURFACE
13'-0" CLEAR VERTICAL CLEARANCE
ROAD SURFACE RATED TO 40,000 POUND MINIMUM LOAD, S.C.D.

(T/D/F) TOILET / DRINKING FOUNTAIN

AERIAL FIRE APPARATUS ZONE

AGENCY APPROVAL STAMP

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 01-118024 INC.
REVIEWED FOR
SS FLS ACS
DATE: 09/28/2020

TLCDARCHITECTURE

520 Third St. #250
Santa Rosa, CA 95401
o: 707.525.5600
f: 707.525.5616
tcd.com

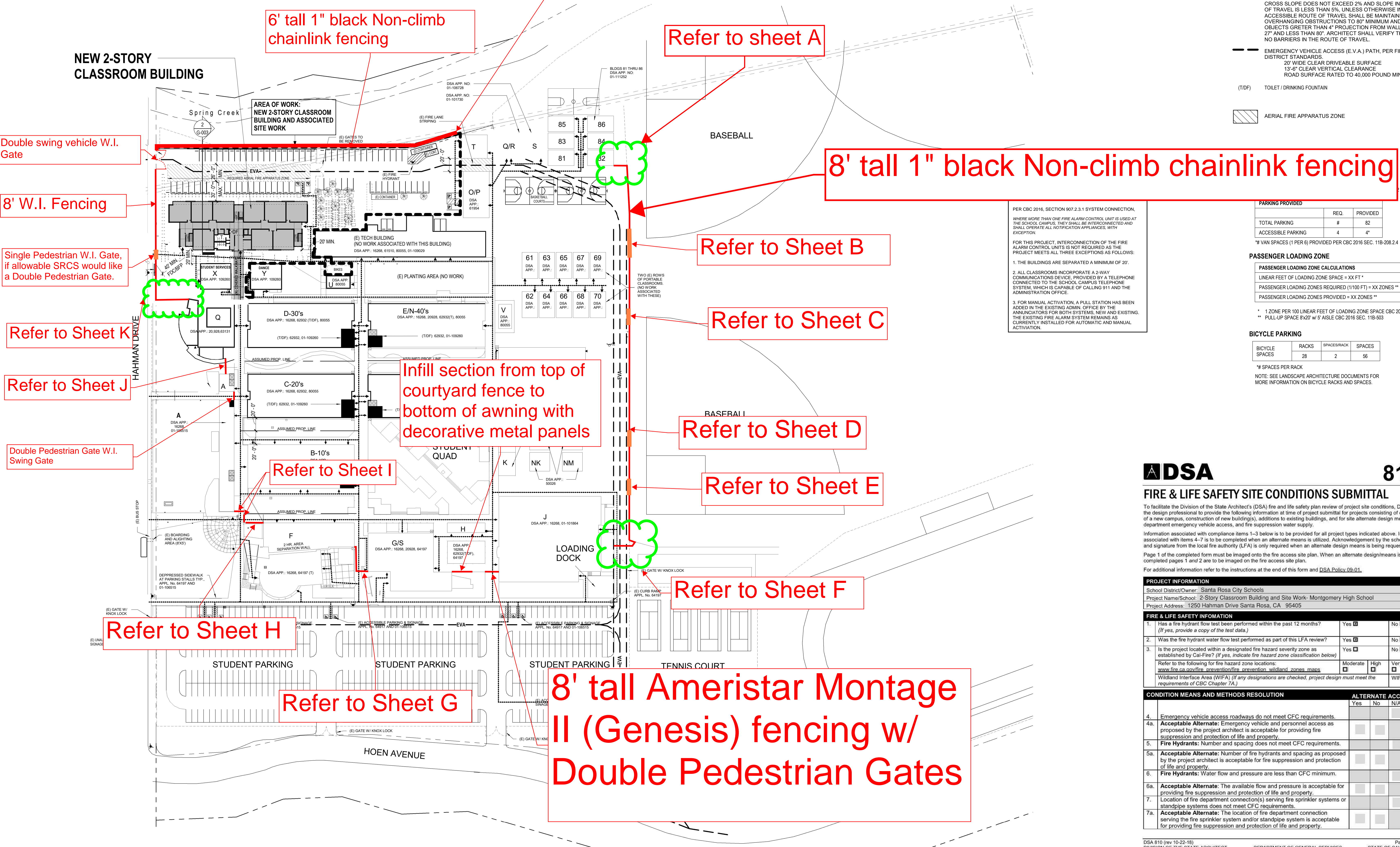
CONTRACT NO.

STAMP

LICENSED ARCHITECT
DANIEL C. TONKAY
STATE OF CALIFORNIA

2 REQUIRED AERIAL FIRE APPARATUS ZONE
1/16" = 1'-0"

NEW 2-STORY CLASSROOM BUILDING



PER CBC 2016, SECTION 907.2.3.1 SYSTEM CONNECTION, WHERE MORE THAN ONE FIRE ALARM CONTROL UNIT IS USED AT THE SCHOOL CAMPUS, THEY SHALL BE INTERCONNECTED AND SHALL OPERATE ALL NOTIFICATION APPLIANCES, WITH EXCEPTION:

FOR THIS PROJECT, INTERCONNECTION OF THE FIRE ALARM CONTROL UNITS IS NOT REQUIRED AS THE PROJECT MEETS ALL THREE EXCEPTIONS AS FOLLOWS:

1. THE BUILDINGS ARE SEPARATED A MINIMUM OF 20'.
2. ALL CLASSROOMS INCORPORATE A 2-WAY COMMUNICATIONS DEVICE, PROVIDED BY A TELEPHONE CONNECTED TO THE SCHOOL CAMPUS TELEPHONE SYSTEM, WHICH IS CAPABLE OF CALLING 911 AND THE ADMINISTRATION OFFICE.
3. FOR MANUAL ACTIVATION, A PULL STATION HAS BEEN ADDED IN THE EXISTING ADMIN. OFFICE BY THE ANNUNCIATORS FOR BOTH SYSTEMS, NEW AND EXISTING. THE EXISTING FIRE ALARM SYSTEM REMAINS AS CURRENTLY INSTALLED FOR AUTOMATIC AND MANUAL ACTIVATION.

PARKING PROVIDED

	REQ.	PROVIDED
TOTAL PARKING	#	82
ACCESSIBLE PARKING	#	4*

* VAN SPACES (1 PER 6) PROVIDED PER CBC 2016 SEC. 11B-208.2.4

PASSENGER LOADING ZONE

PASSENGER LOADING ZONE CALCULATIONS

LINEAR FEET OF LOADING ZONE SPACE = XX FT *

PASSENGER LOADING ZONES REQUIRED (1/100 FT) = XX ZONES **

PASSENGER LOADING ZONES PROVIDED = XX ZONES **

* 1 ZONE PER 100 LINEAR FEET OF LOADING ZONE SPACE CBC 2016 SEC. 11B-209.2.1
** PULL-UP SPACE 8'0" W/ 5' AISLE CBC 2016 SEC. 11B-903

BICYCLE PARKING

BICYCLE SPACES	RACKS	SPACES/RACK	SPACES
	28	2	56

*# SPACES PER RACK
NOTE: SEE LANDSCAPE ARCHITECTURE DOCUMENTS FOR MORE INFORMATION ON BICYCLE RACKS AND SPACES.

DSA 810

FIRE & LIFE SAFETY SITE CONDITIONS SUBMITTAL

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

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

Page 1 of the completed form must be imaged onto the fire access site plan. When an alternate design/means is proposed, completed pages 1 and 2 are to be imaged on the fire access site plan.

For additional information refer to the instructions at the end of this form and DSA Policy 09-01.

PROJECT INFORMATION

School District/Owner: Santa Rosa City Schools
Project Name/School: 2-Story Classroom Building and Site Work- Montgomery High School
Project Address: 1250 Hahman Drive Santa Rosa, CA 95405

FIRE & LIFE SAFETY INFORMATION

1. Has a fire hydrant flow test been performed within the past 12 months? (If yes, provide a copy of the test data.) Yes No
2. Was the fire hydrant water flow test performed as part of this LFA review? Yes No
3. Is the project located within a designated fire hazard severity zone as established by Cal-Fire? (If yes, indicate fire hazard zone classification below) Yes No

Refer to the following for fire hazard zone locations:
www.fire.ca.gov/fire-prevention/wildland-zone-maps Moderate High Very High

Wildland Interface Area (WIFA) (If any designations are checked, project design must meet the requirements of CBC Chapter 7.) WIFA

CONDITION MEANS AND METHODS RESOLUTION

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

REVISIONS

Number	Date	Description

MONTGOMERY HIGH SCHOOL
CLASSROOM BUILDING
1250 HAHMAN DR.
SANTA ROSA, CA 95405

DSA APPLICATION NUMBER: 01-118024
TLCD PROJECT NUMBER: 17123.00
DATE: MAY 6, 2020
DRAWN BY: Author
CHECKED BY: Checker

SITE CODE ANALYSIS

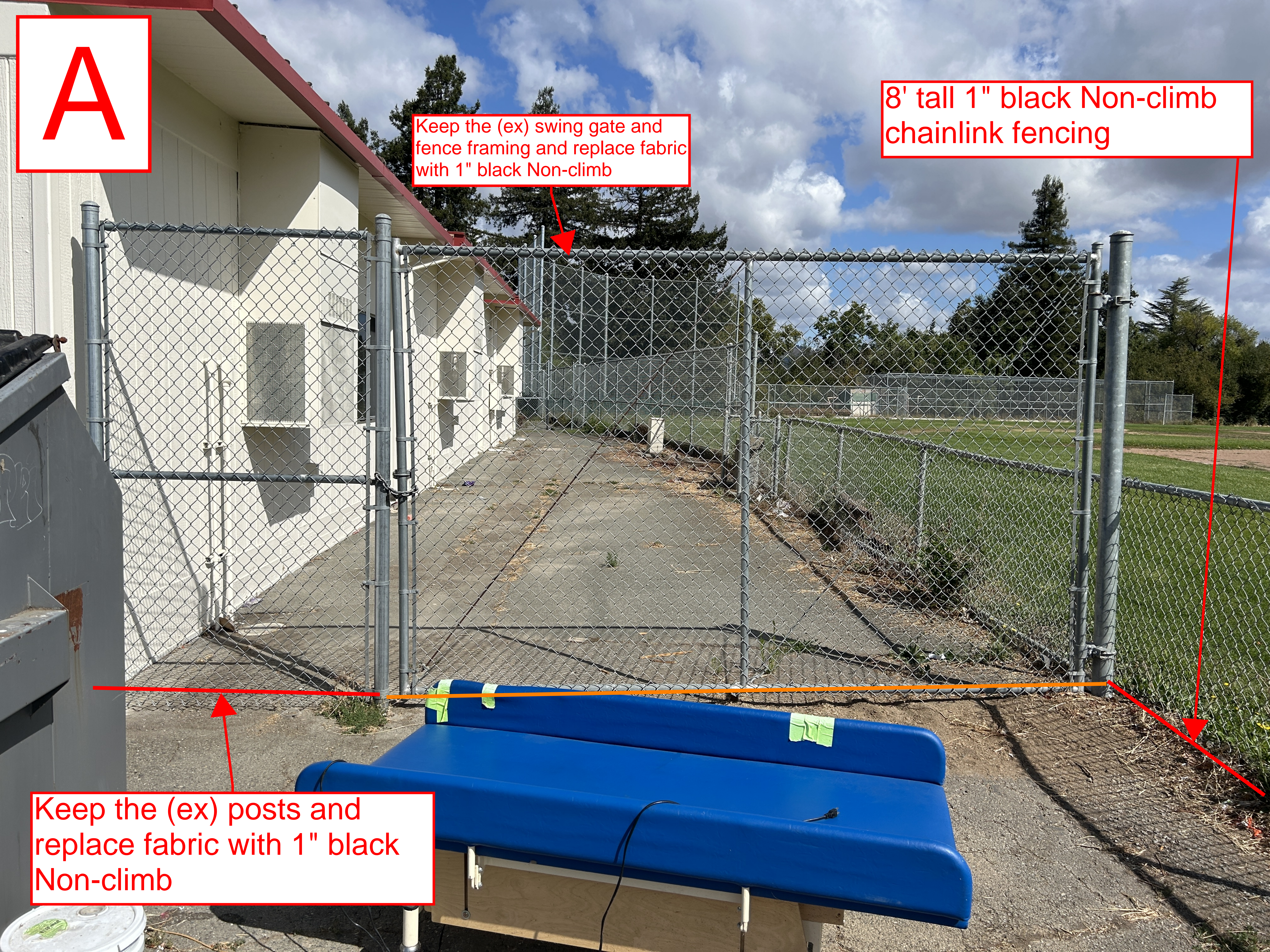
G-003

A

Keep the (ex) swing gate and fence framing and replace fabric with 1" black Non-climb

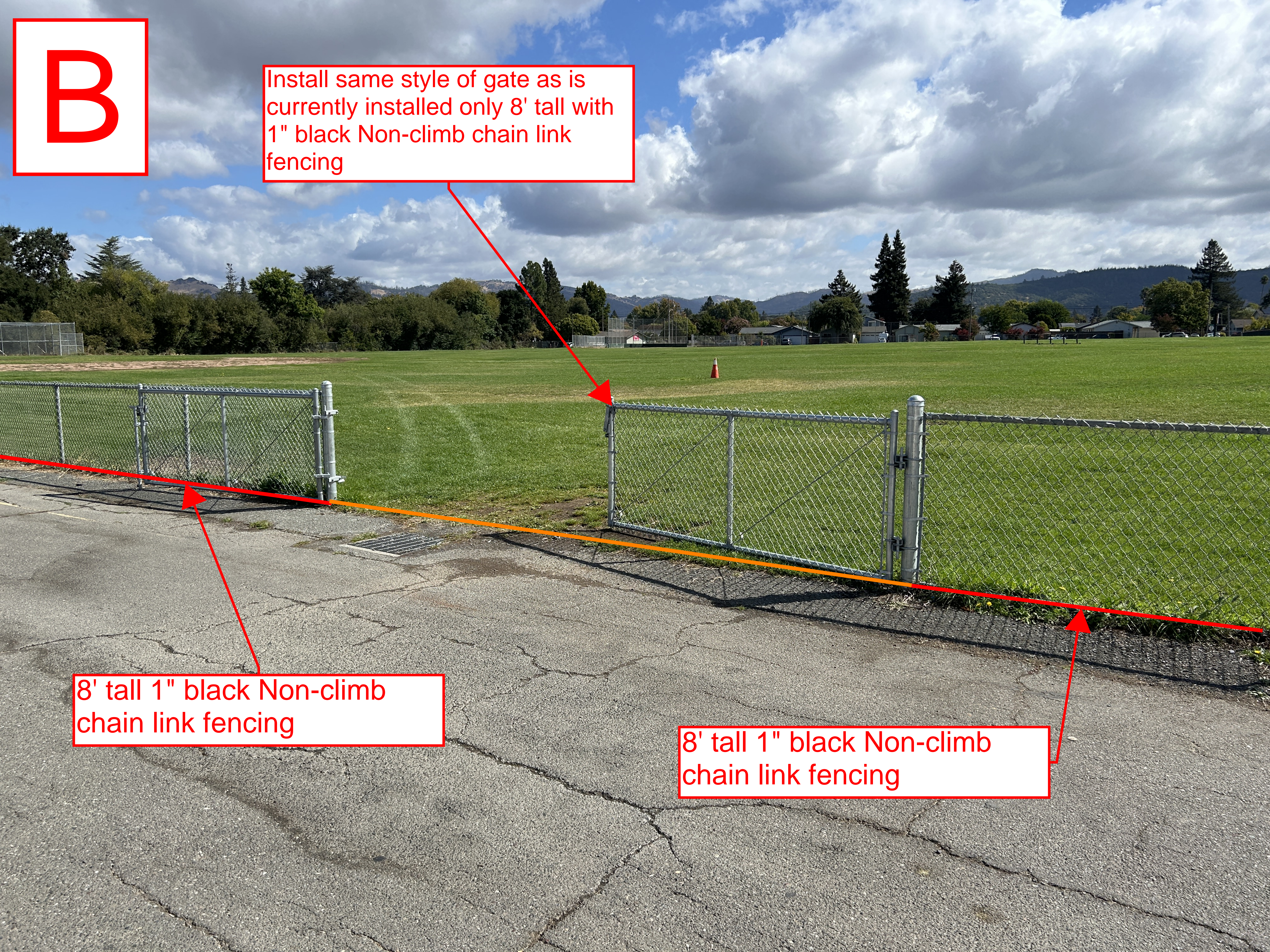
8' tall 1" black Non-climb chainlink fencing

Keep the (ex) posts and replace fabric with 1" black Non-climb



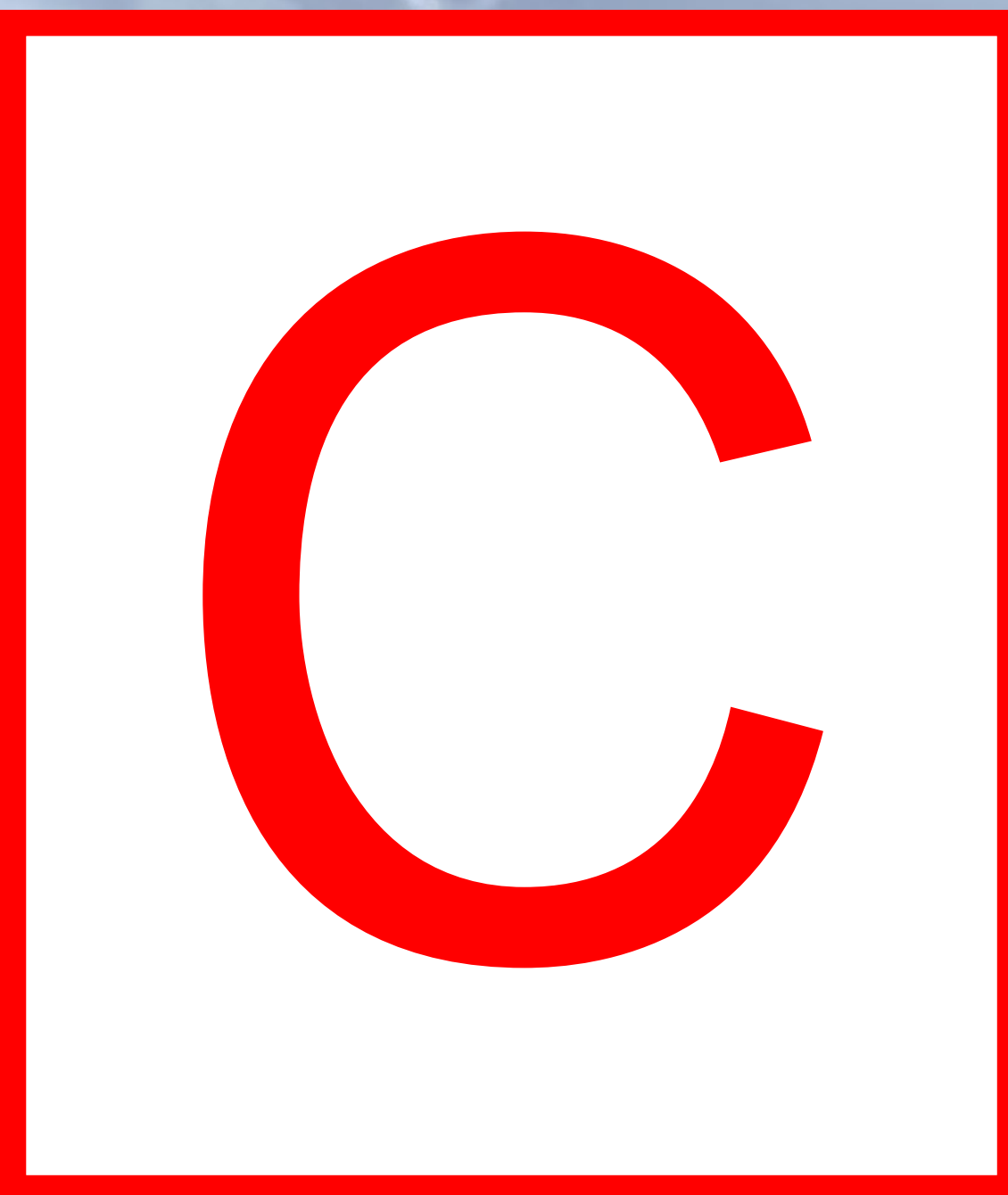
B

Install same style of gate as is currently installed only 8' tall with 1" black Non-climb chain link fencing



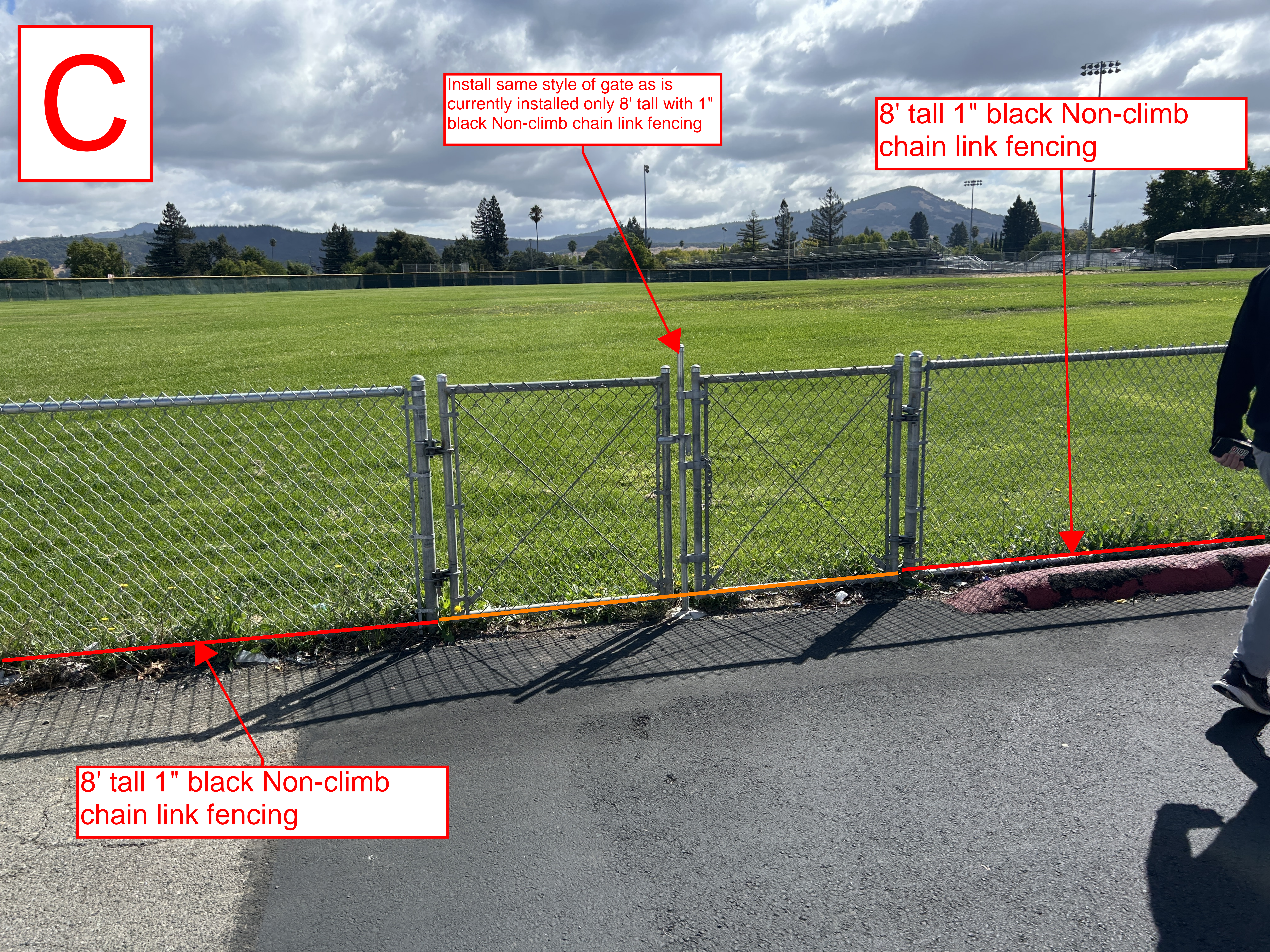
8' tall 1" black Non-climb chain link fencing

8' tall 1" black Non-climb chain link fencing



Install same style of gate as is currently installed only 8' tall with 1" black Non-climb chain link fencing

8' tall 1" black Non-climb chain link fencing

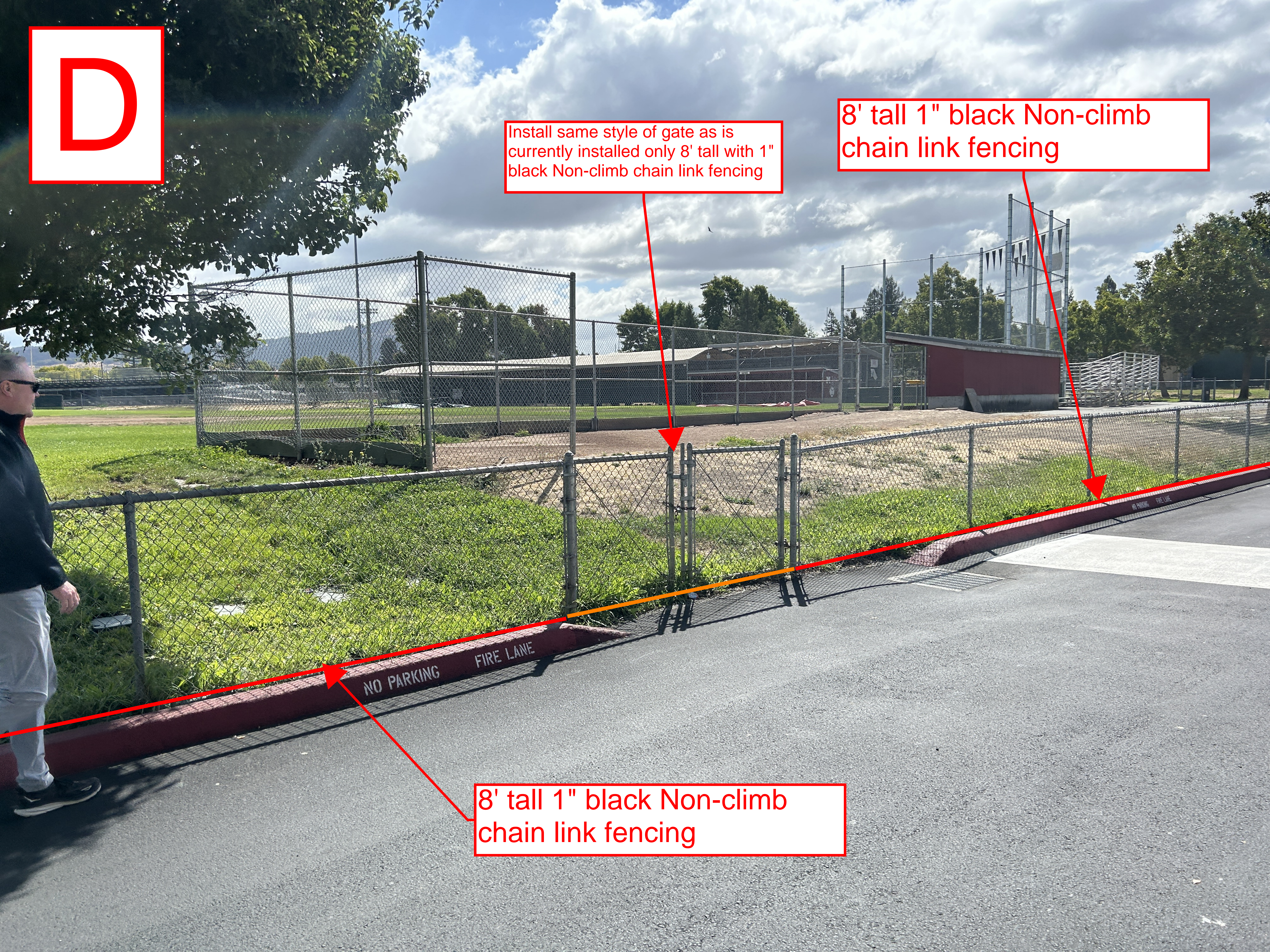


8' tall 1" black Non-climb chain link fencing

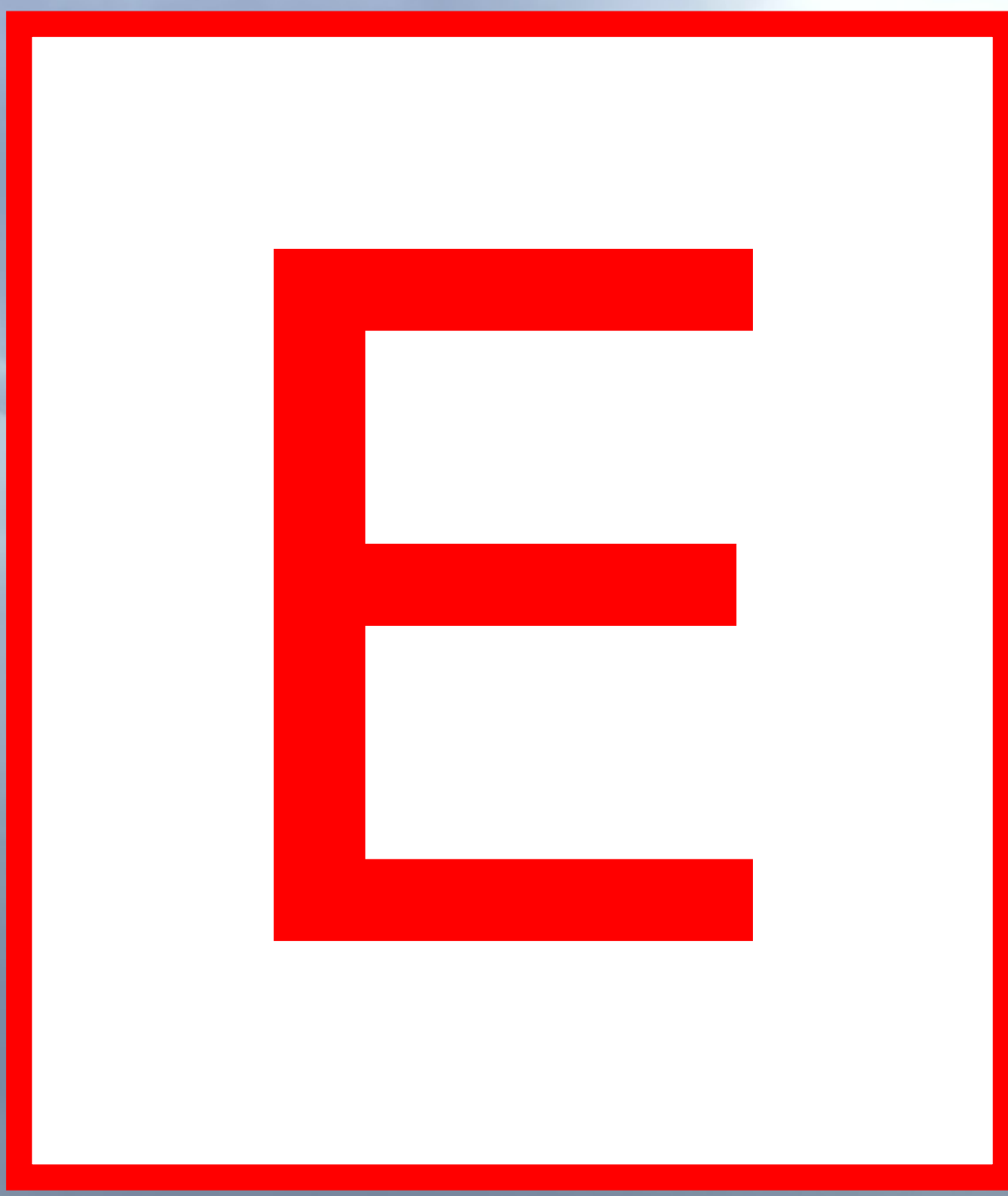
D

Install same style of gate as is currently installed only 8' tall with 1" black Non-climb chain link fencing

8' tall 1" black Non-climb chain link fencing

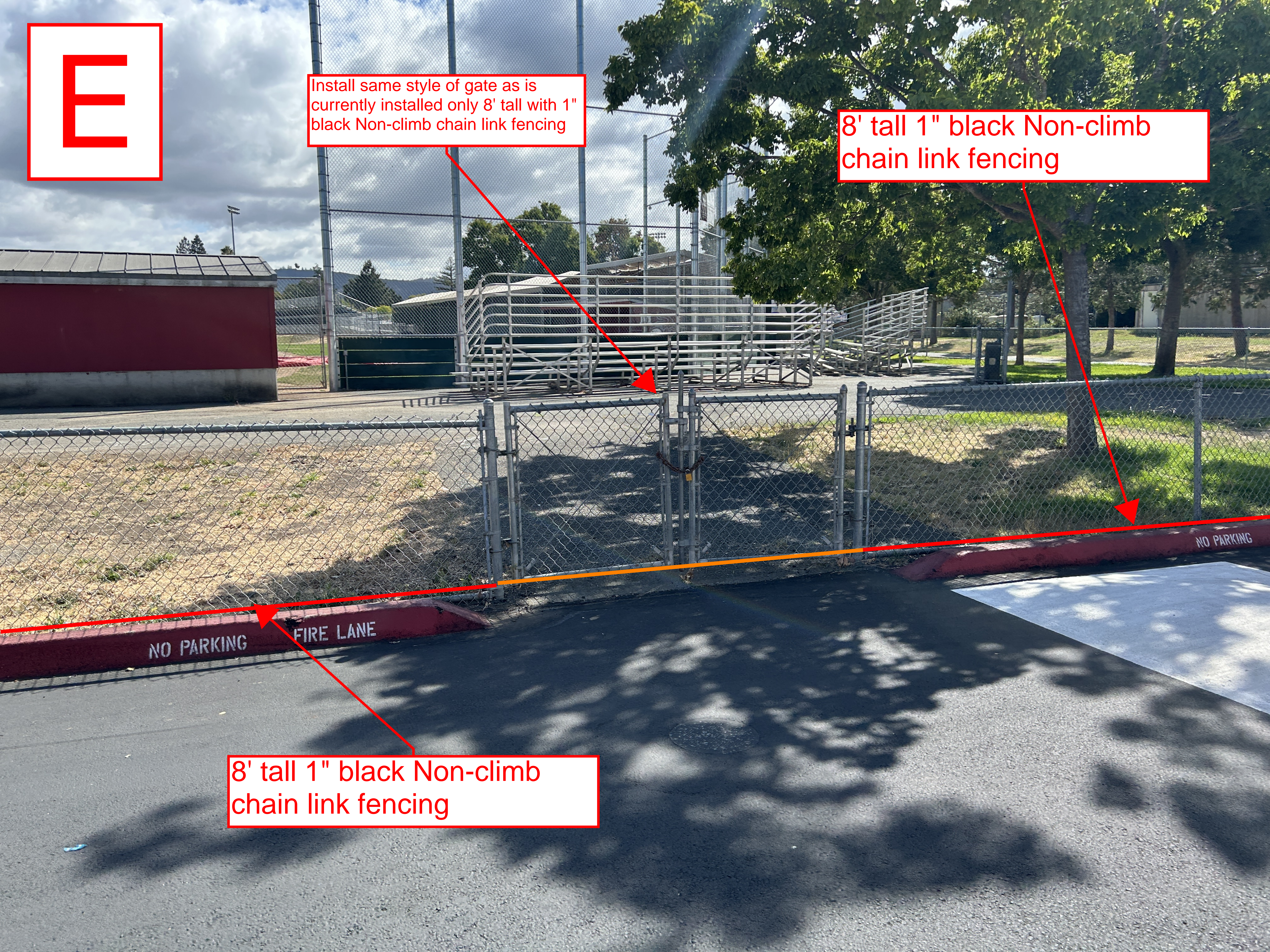


8' tall 1" black Non-climb chain link fencing



Install same style of gate as is currently installed only 8' tall with 1" black Non-climb chain link fencing

8' tall 1" black Non-climb chain link fencing



8' tall 1" black Non-climb chain link fencing

NO PARKING FIRE LANE

NO PARKING

F

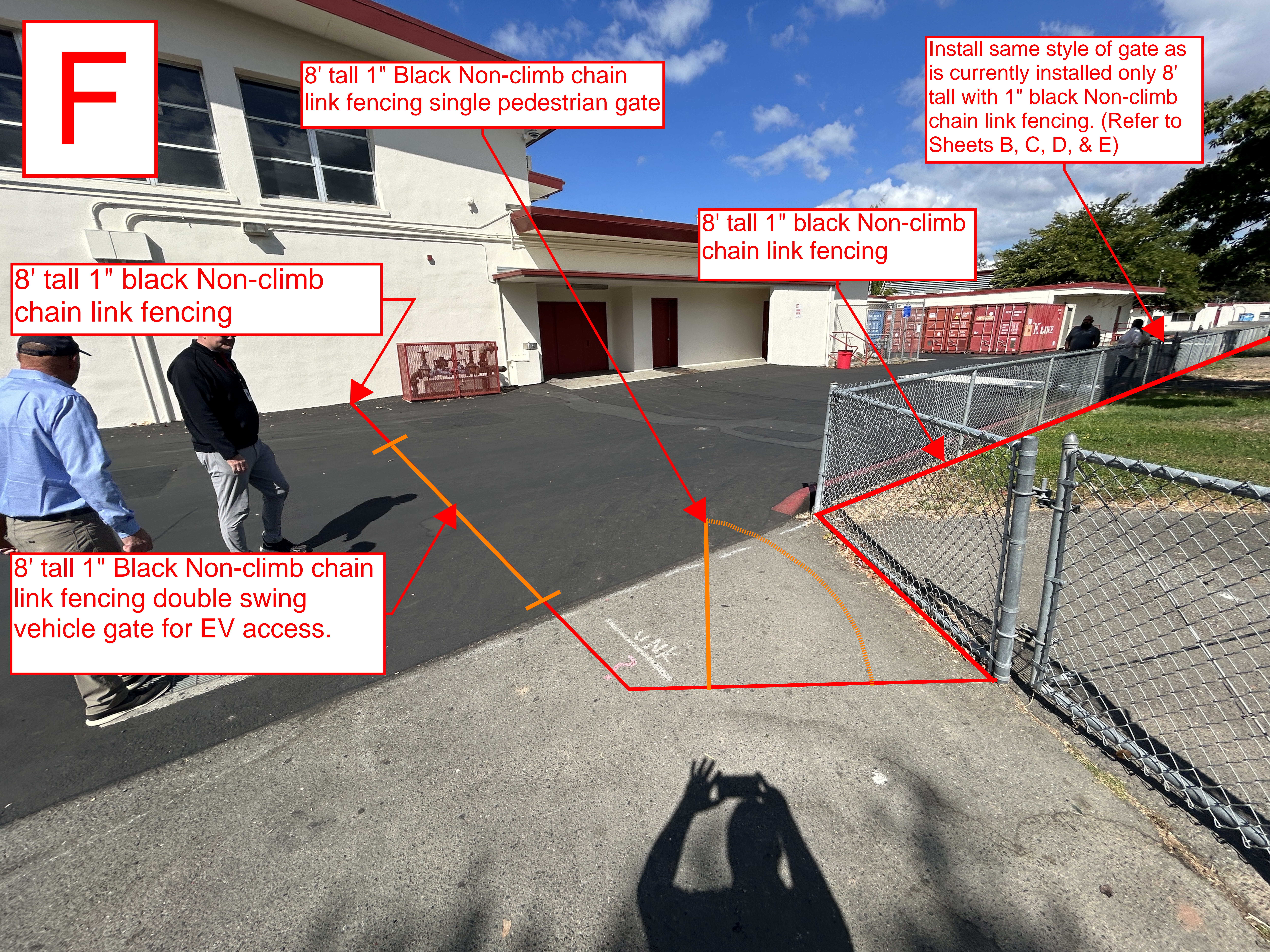
8' tall 1" Black Non-climb chain link fencing single pedestrian gate

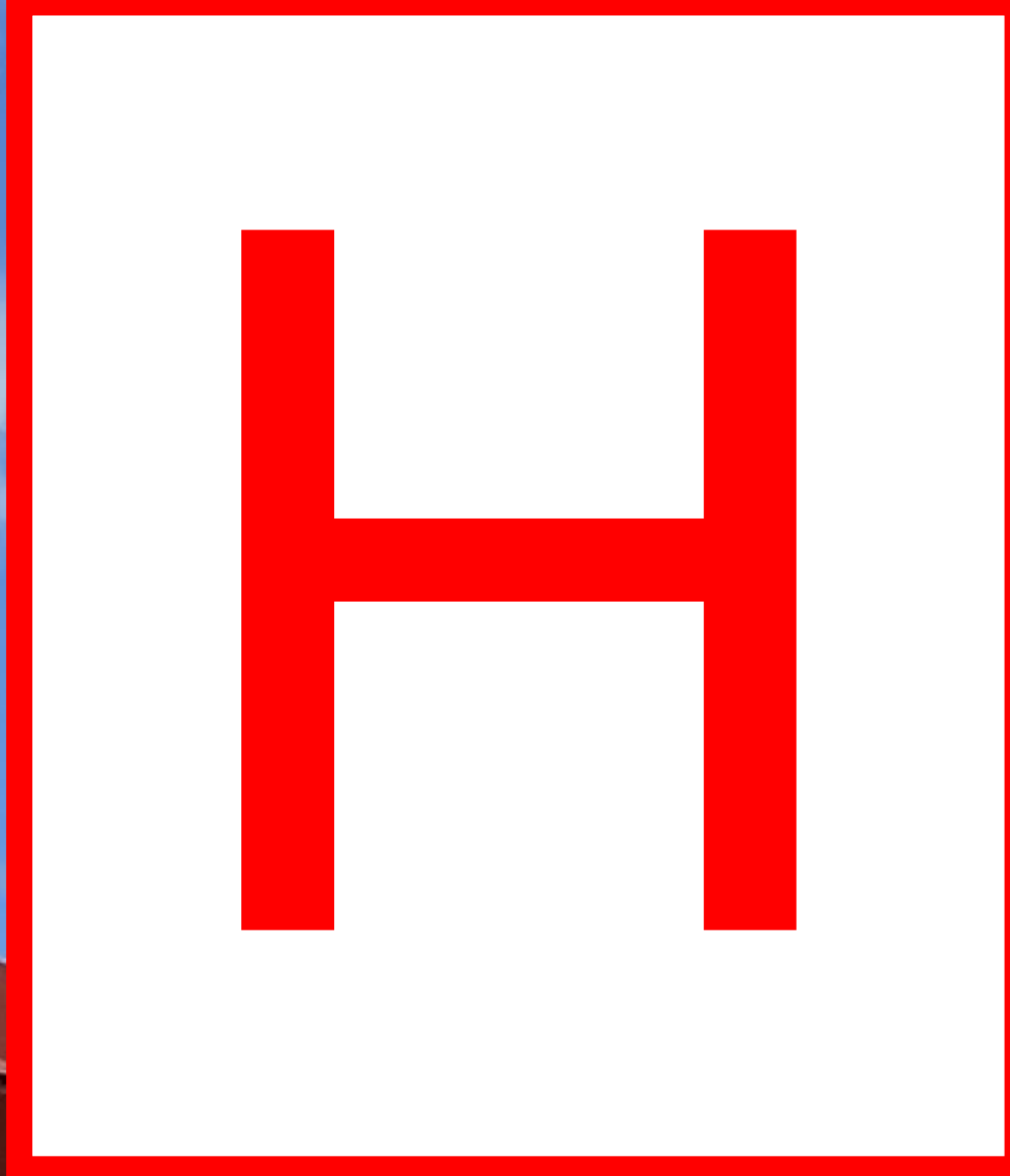
Install same style of gate as is currently installed only 8' tall with 1" black Non-climb chain link fencing. (Refer to Sheets B, C, D, & E)

8' tall 1" black Non-climb chain link fencing

8' tall 1" black Non-climb chain link fencing

8' tall 1" Black Non-climb chain link fencing double swing vehicle gate for EV access.

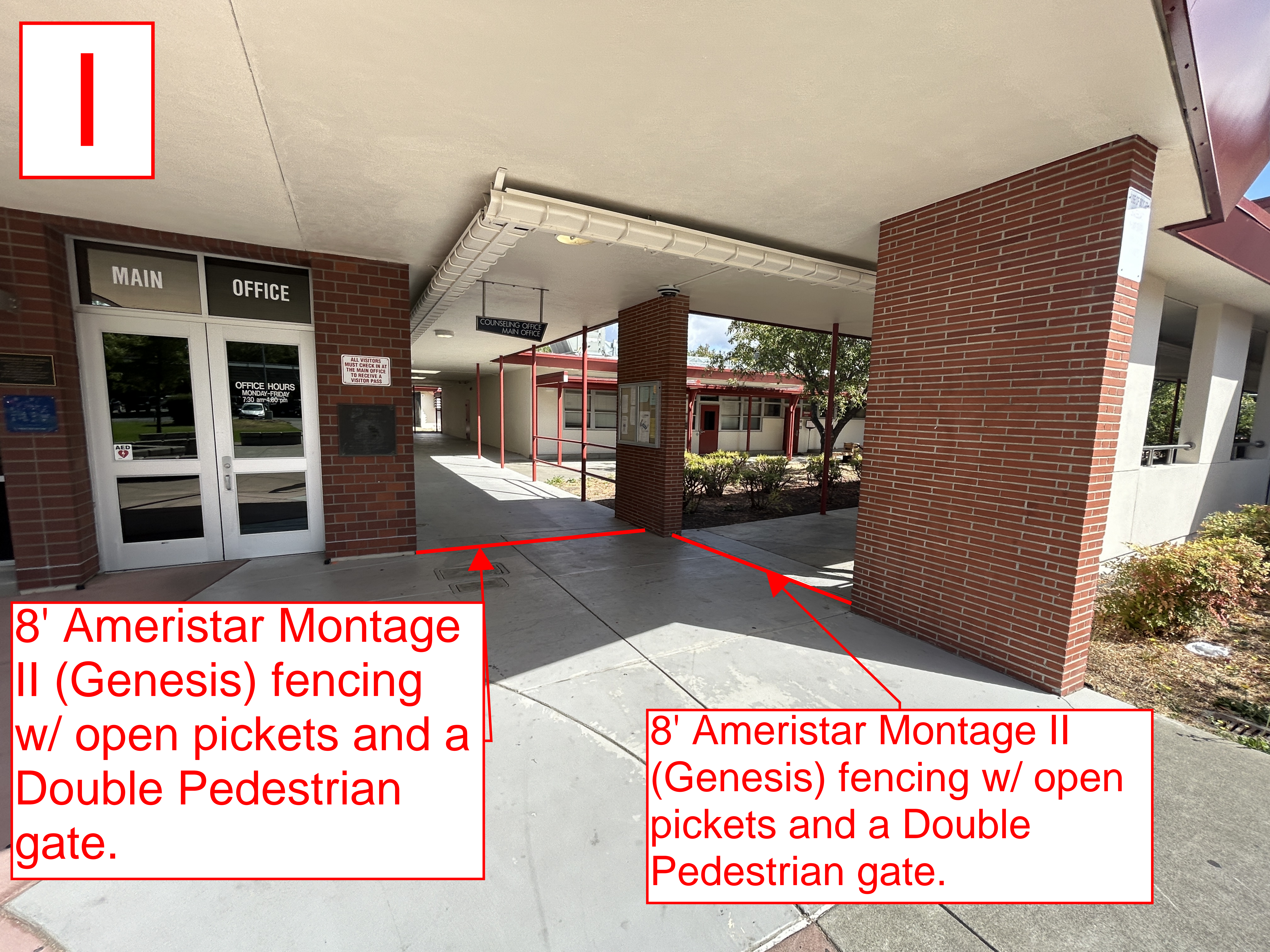
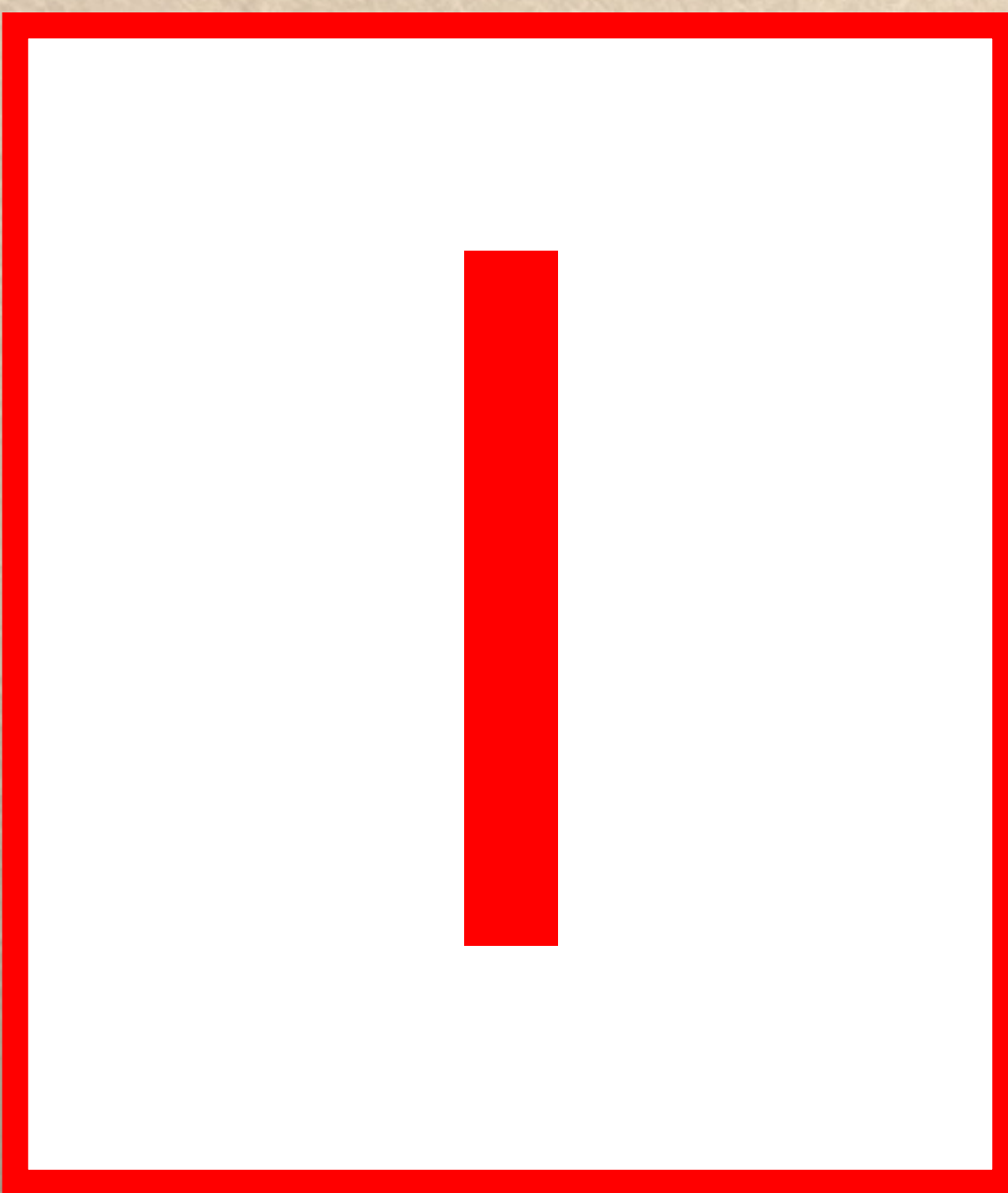




Install decorative metal panels in each of the three openings.

May Peace Prevail On Earth
Nguyện xin hòa bình đến với toàn thế nhân loại trên thế giới





8' Ameristar Montage II (Genesis) fencing w/ open pickets and a Double Pedestrian gate.

8' Ameristar Montage II (Genesis) fencing w/ open pickets and a Double Pedestrian gate.

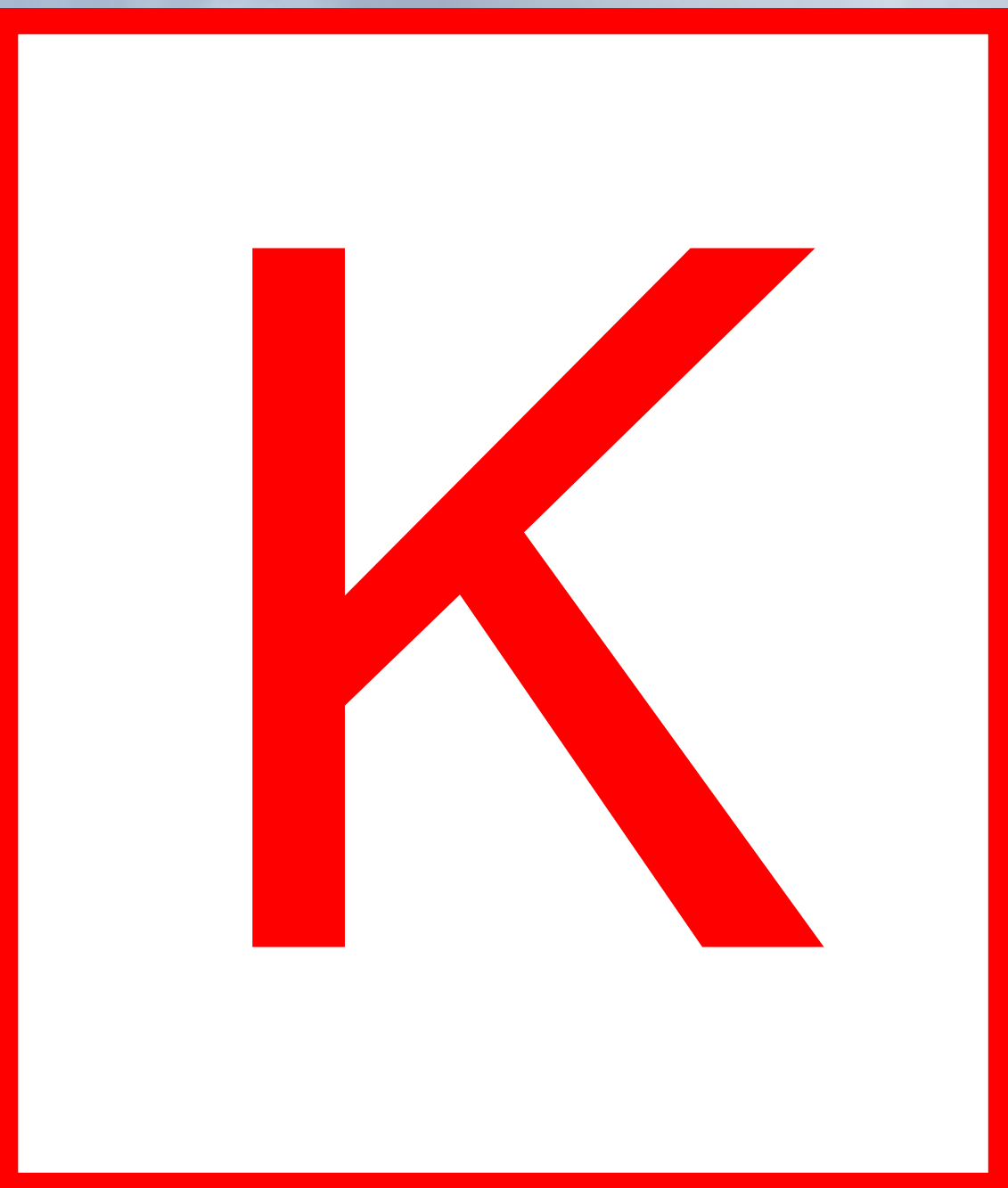
J

8' Ameristar Montage II (Genesis) to start at corner of Brick wall an go straight over to Stucco Wall.

8' Ameristar Montage II (Genesis) fencing w/ open pickets

Install one 8' Ameristar Montage II (Genesis) pedestrian gate here.





Sign to be outside of fence line

Security fence to start at corner of Stucco wall and go straight out to Sidewalk line

8' Ameristar Montage II (Genesis) fencing w/ open pickets

