

CITY OF ALBUQUERQUE

Planning Department
Alan Varela, Director



Mayor Timothy M. Keller

May 28, 2024

Robert Fierro, P.E.
Fierro & Company
6300 Montano Rd. NW
Albuquerque, NM 87120

**RE: Event Center
1611 Airtech Ct. SE
Grading and Drainage Plans
Engineer's Stamp Date: 05/14/24
Hydrology File: N15D017**

Dear Mr. Fierro:

PO Box 1293

Based upon the information provided in your submittal received 05/15/2024, the Grading & Drainage Plans **are not** approved for Building Permit and Grading Permit. The following comments need to be addressed for approval of the above referenced project:

Albuquerque

1. The entrance to off the knuckle on Airtech Court has a huge existing inlet which needs to stay in place due to the flows and grades of Airtech Court. This entrance and parking will have to be rethought in order to get built.

NM 87103

www.cabq.gov



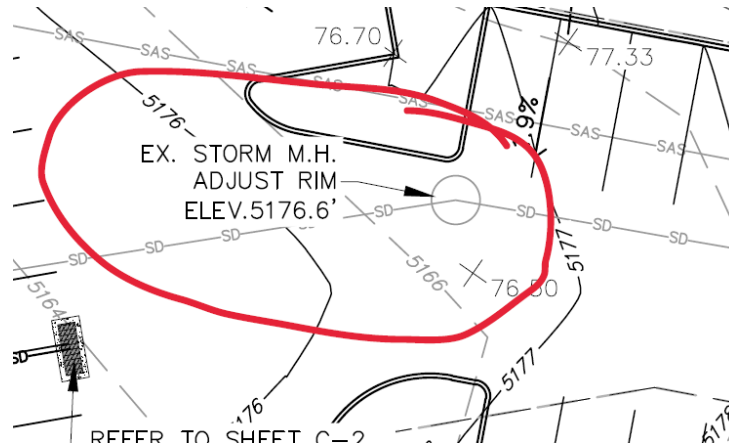
CITY OF ALBUQUERQUE

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4. Please note that adjusting the elevation to the existing manhole will also be required to be included in the Work Order since this is more than a simple adjustment. It appears that it will have to be moved up about 10 feet.



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5. I would highly recommend that the existing manhole rim elevation be topo'd along with the inverts of the 60-in storm sewer.
6. Also looking at the as-builts and the amount of fill that is being brought in on top of the existing 60-inch RCP Class III. This will have to be replaced with a 60-inch RCP Class IV due the cover and original installation.
7. The proposed grades in the rear are not 3:1, therefore please add a note under Grading Notes. "Side slopes need to be stabilized with Native Grass Seed (per City Spec 1012) with Aggregate Mulch or equal (Must satisfy the "Final Stabilization criteria" CGP 2.2.14.b.)".
8. The retaining walls shown along the northern property line violates the IDO's maximum wall height of 8 feet in total height. These walls have a total height of 19 feet.
9. The retaining walls shown along the southern property line violates the IDO's maximum wall height of 8 feet in total height. These walls have a total height of 15 feet.
10. On the Drainage Plan under the Existing Conditions, please state that this tract is within the Master Drainage Plan for Lots 6B-2 and 8B, Airport Technical Center with an allowable discharge rate of 16.4 cfs.

As a reminder, if the project total area of disturbance (including the staging area and any work within the adjacent Right-of-Way) is 1 acre or more, then an Erosion and Sediment Control (ESC) Plan and Owner's certified Notice of Intent (NOI) is required to be submitted to the Stormwater Quality Engineer (Doug Hughes, PE, jhughes@cabq.gov, 924-3420) 14 days prior to any earth disturbance.

CITY OF ALBUQUERQUE

Planning Department
Alan Varela, Director



Mayor Timothy M. Keller

If you have any questions, please contact me at 924-3995 or rbrissette@cabq.gov.

Sincerely,

Renée C. Brissette

Renée C. Brissette, P.E. CFM
Senior Engineer, Hydrology
Planning Department

PO Box 1293

Albuquerque

NM 87103

www.cabq.gov



City of Albuquerque

Planning Department
Development & Building Services Division

DRAINAGE AND TRANSPORTATION INFORMATION SHEET (DTIS)

Project Title: _____ Hydrology File # _____

Legal Description: _____

City Address, UPC, OR Parcel: _____

Applicant/Agent: _____ Contact: _____

Address: _____ Phone: _____

Email: _____

Applicant/Owner: _____ Contact: _____

Address: _____ Phone: _____

Email: _____

(Please note that a DFT SITE is one that needs Site Plan Approval & ADMIN SITE is one that does not need it.)

TYPE OF DEVELOPMENT: PLAT (#of lots) _____ RESIDENCE
DFT SITE ADMIN SITE

RE-SUBMITTAL: YES NO

DEPARTMENT: TRANSPORTATION HYDROLOGY/DRAINAGE

Check all that apply under Both the Type of Submittal and the Type of Approval Sought:

TYPE OF SUBMITTAL:

ENGINEER/ARCHITECT CERTIFICATION
PAD CERTIFICATION
CONCEPTUAL G&D PLAN
GRADING & DRAINAGE PLAN
DRAINAGE REPORT
DRAINAGE MASTER PLAN
CLOMR/LOMR
TRAFFIC CIRCULATION LAYOUT (TCL)
ADMINISTRATIVE
TRAFFIC CIRCULATION LAYOUT FOR DFT
APPROVAL
TRAFFIC IMPACT STUDY (TIS)
STREET LIGHT LAYOUT
OTHER (SPECIFY) _____

TYPE OF APPROVAL SOUGHT:

BUILDING PERMIT APPROVAL
CERTIFICATE OF OCCUPANCY
CONCEPTUAL TCL DFT APPROVAL
PRELIMINARY PLAT APPROVAL
FINAL PLAT APPROVAL
SITE PLAN FOR BLDG PERMIT DFT
APPROVAL
SIA/RELEASE OF FINANCIAL GUARANTEE
FOUNDATION PERMIT APPROVAL
GRADING PERMIT APPROVAL
SO-19 APPROVAL
PAVING PERMIT APPROVAL
GRADING PAD CERTIFICATION
WORK ORDER APPROVAL
CLOMR/LOMR
OTHER (SPECIFY) _____

DATE SUBMITTED: _____

CITY OF ALBUQUERQUE
PLANNING DEPARTMENT
HYDROLOGY DEVELOPMENT SECTION

**WAIVER APPLICATION FROM STORMWATER
QUALITY VOLUME MANAGEMENT ON-SITE**

GENERAL INFORMATION

APPLICANT: _____ DATE: _____

DEVELOPMENT: _____

LOCATION: _____

STORMWATER QUALITY POND VOLUME

Per the DPM Article 6-12 - Stormwater Quality and Low-Impact Development, the calculated sizing for required Stormwater Quality Pond volume is equal to the impervious area draining to the BMP multiplied by 0.42 inches for new development sites and by 0.26 inches for redevelopment sites.

The required volume is _____ cubic feet

The provided volume is _____ cubic feet

The deficient volume is _____ cubic feet

WAIVER JUSTIFICATION

Per the DPM Article 6-12(C), private off-site mitigation and payment-in-lieu may only be considered if management on-site is waived in accordance with the following criteria and procedures.

1. Management on-site shall be waived by the City Engineer if the following conditions are met:

- a. Stormwater quality can be effectively controlled through private off-site mitigation or through an arrangement (approved by the City) to use a cooperator's existing regional stormwater management infrastructure or facilities that are available to control stormwater quality.
 - b. Any of the following conditions apply:
 - i. The lot is too small to accommodate management on site while also accommodating the full plan of development.
 - ii. The soil is not stable as demonstrated by a geotechnical report certified by a professional engineer licensed in the State of New Mexico.
 - iii. The site use is inconsistent with the capture and reuse of stormwater.
 - iv. Other physical conditions exist where compliance with on-site stormwater quality control leaves insufficient area.
 - v. Public or private off-site facilities provide an opportunity to effectively accomplish the mitigation requirements of the Drainage Ordinance (Part 14-5-2 ROA 1994) as demonstrated on as-built construction drawings and an approved drainage report.
 - vi. The developer constructs a project to replenish regional groundwater supplies at an off-site location.
 - vii. A waiver to State water law or acquisition of water rights would be required in order to implement management on site.
2. The basis for requesting payment-in-lieu or private off-site mitigation is to be clearly demonstrated on the drainage plan.

This project's justification: _____

Professional Engineer or Architect

PAYMENT-IN-LIEU

Per the DPM Article 6-12(C)(1), the amount of payment-in-lieu is deficient volume (cubic feet) times \$6 per cubic feet for detached single-family residential projects or \$8 per cubic feet for all other projects.

AMOUNT OF PAYMENT-IN-LIEU = \$ _____

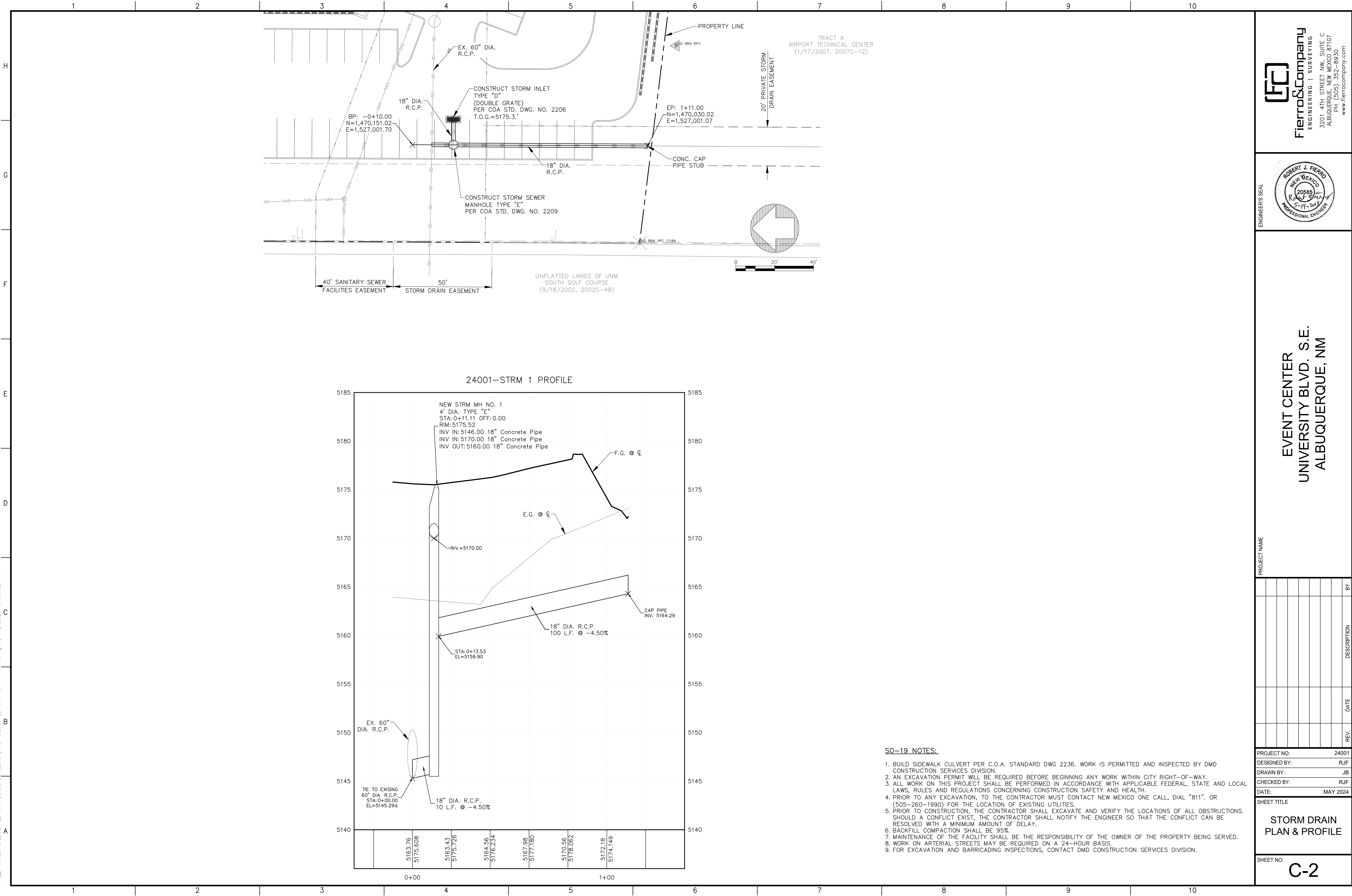
THIS SECTION IS FOR CITY USE ONLY

☐ Waiver is approved. The amount of payment-in-lieu from above must be paid prior to Certificate of Occupancy.

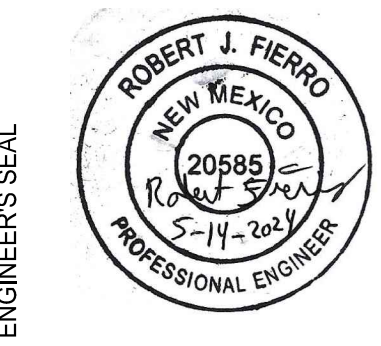
☐ Waiver is DENIED.

City of Albuquerque
Hydrology Section

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Fierro & Company
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ALBUQUERQUE, NEW MEXICO 87107
PH (505) 352-8930
www.fierrocompany.com



ENGINEER'S SEAL

EVENT CENTER
UNIVERSITY BLVD. S.E.
ALBUQUERQUE, NM

PROJECT NAME

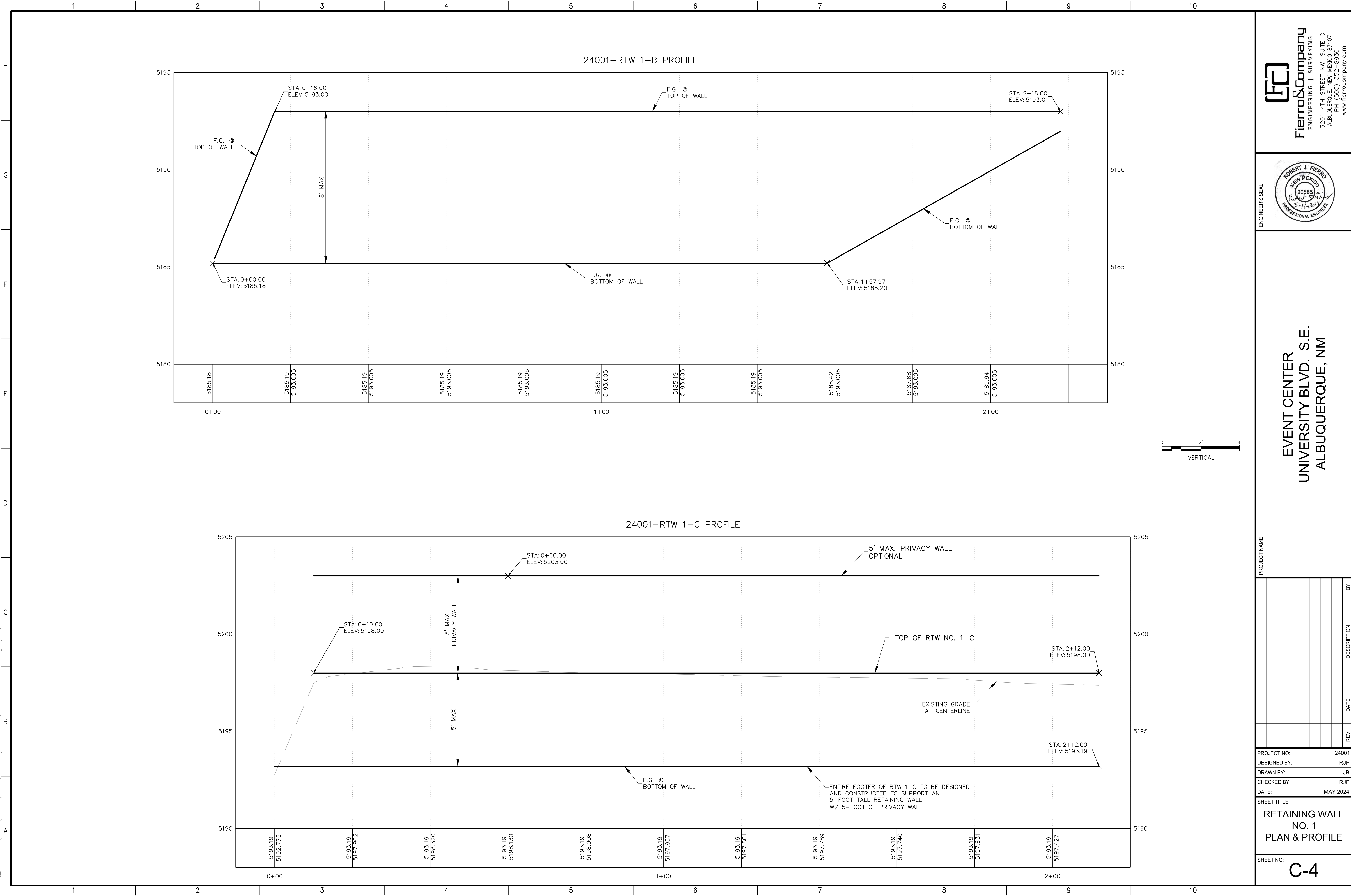
REV.	DATE	DESCRIPTION	BY

PROJECT NO: 24001
DESIGNED BY: RJF
DRAWN BY: JB
CHECKED BY: RJF
DATE: MAY 2024

SHEET TITLE
**STORM DRAIN
PLAN & PROFILE**

SHEET NO:
C-2

P:\PROJECTS\2024\24001\CADD\24001\HYDROLOGY\24001-WALL PNP.dwg 5/14/2024 3:56:06 PM



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EVENT CENTER
UNIVERSITY BLVD. S.E.
ALBUQUERQUE, NM

PROJECT NAME

REV.	DATE	DESCRIPTION	BY

PROJECT NO: 24001

DESIGNED BY: RJF

DRAWN BY: JB

CHECKED BY: RJF

DATE: MAY 2024

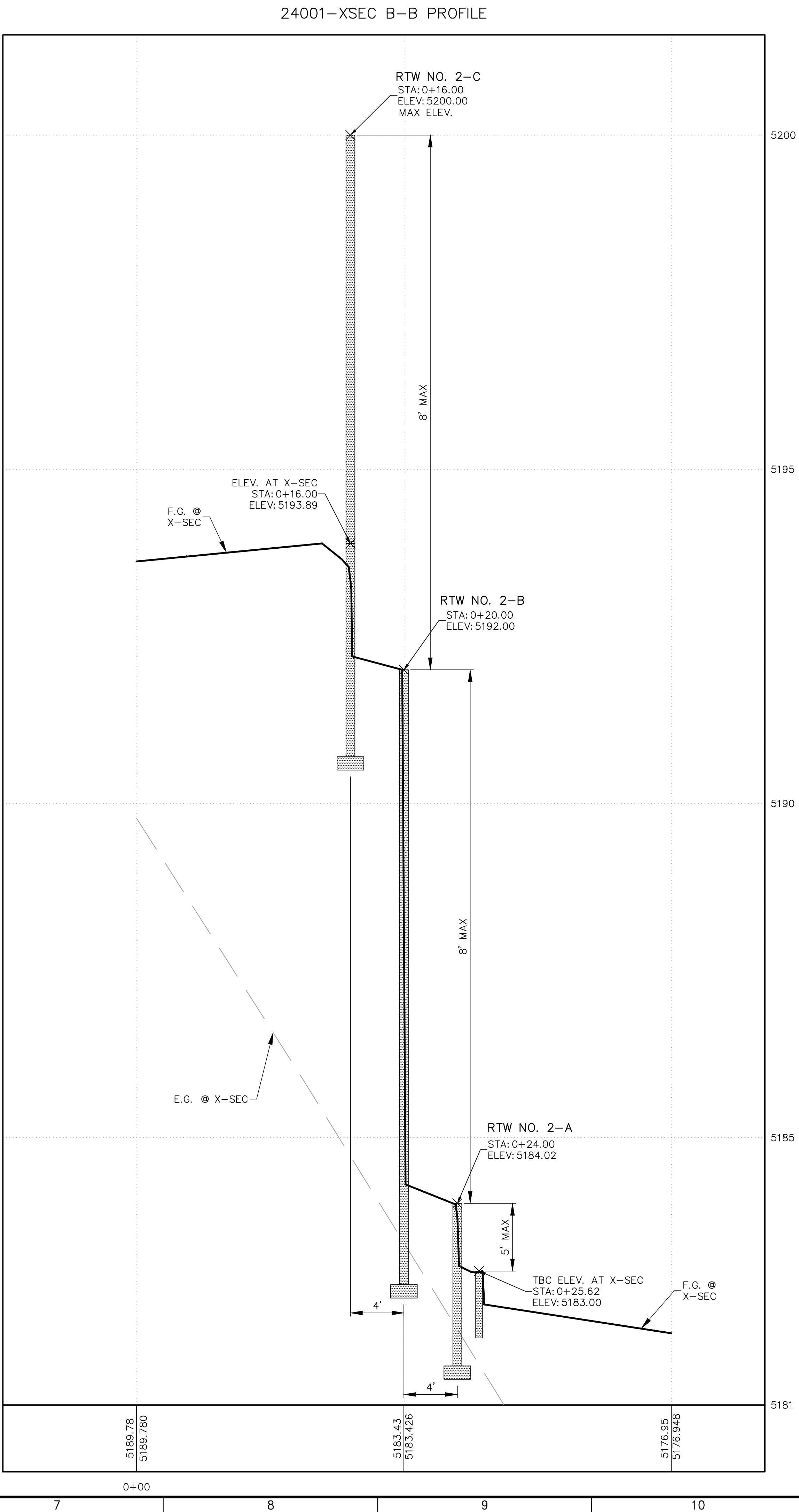
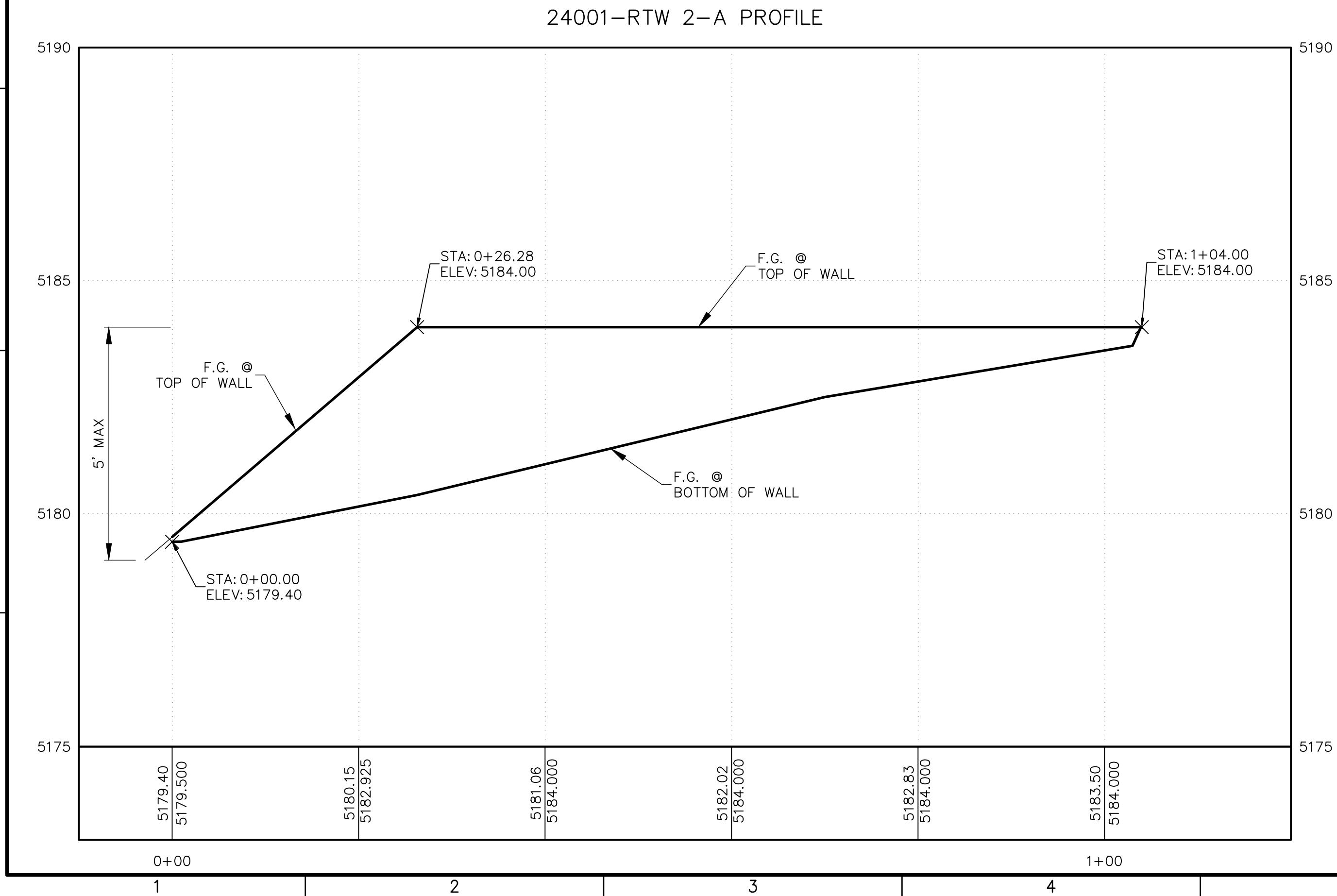
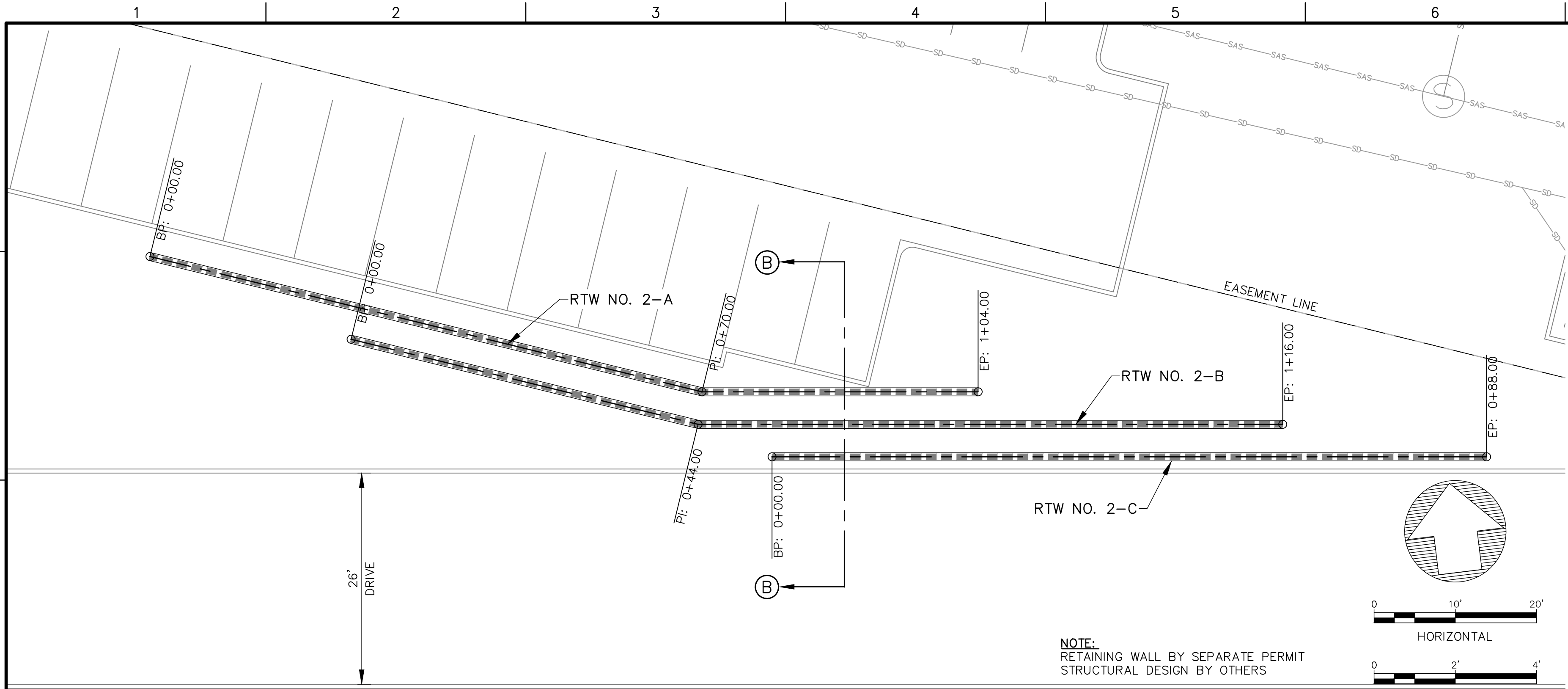
SHEET TITLE

RETAINING WALL
NO. 1
PLAN & PROFILE

SHEET NO:

C-4

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PROJECT NAME

REV.	DATE	DESCRIPTION	BY

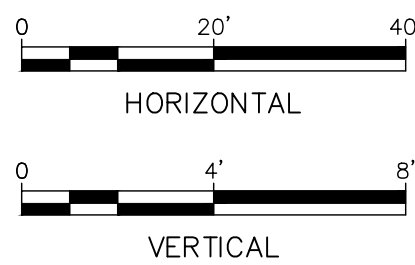
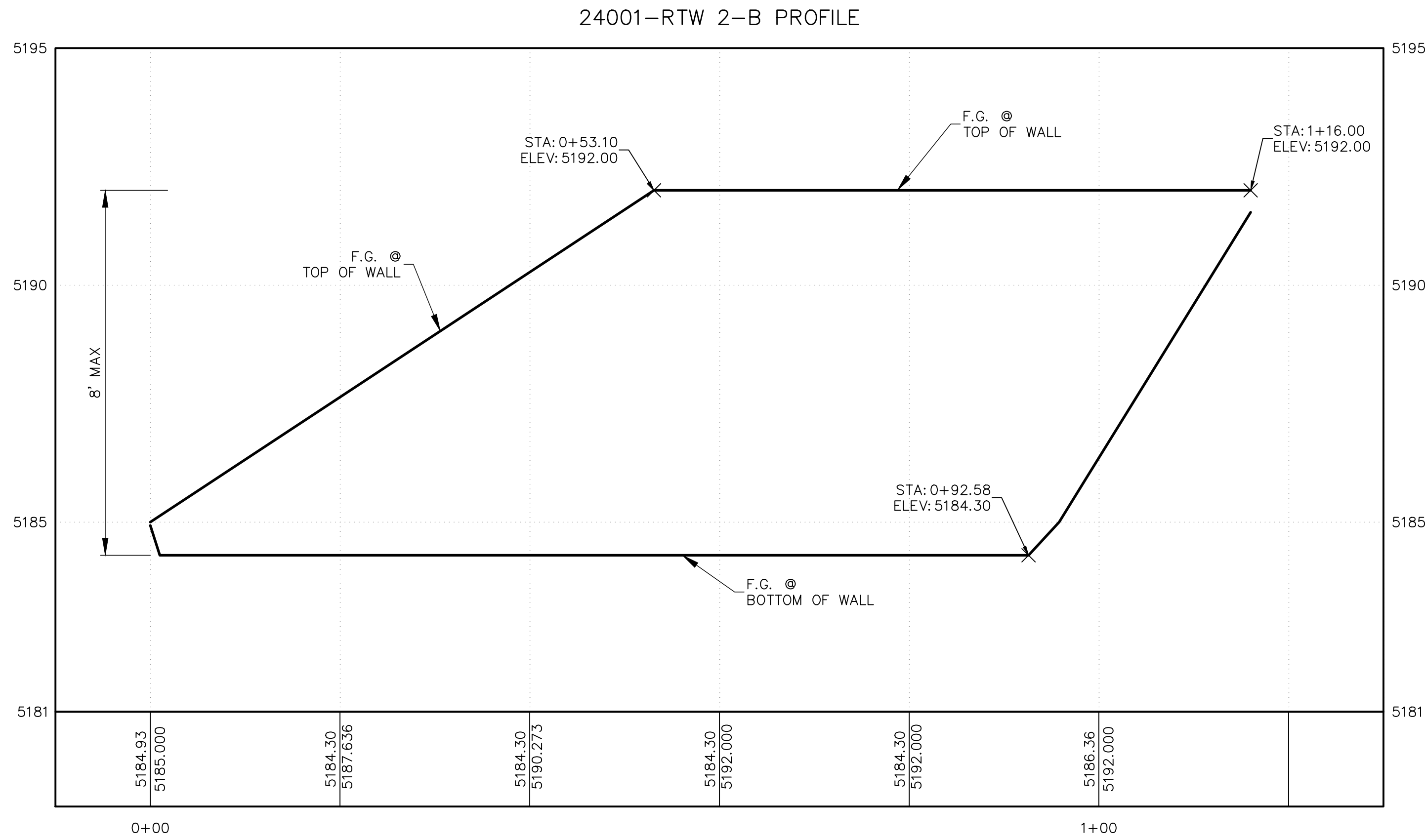
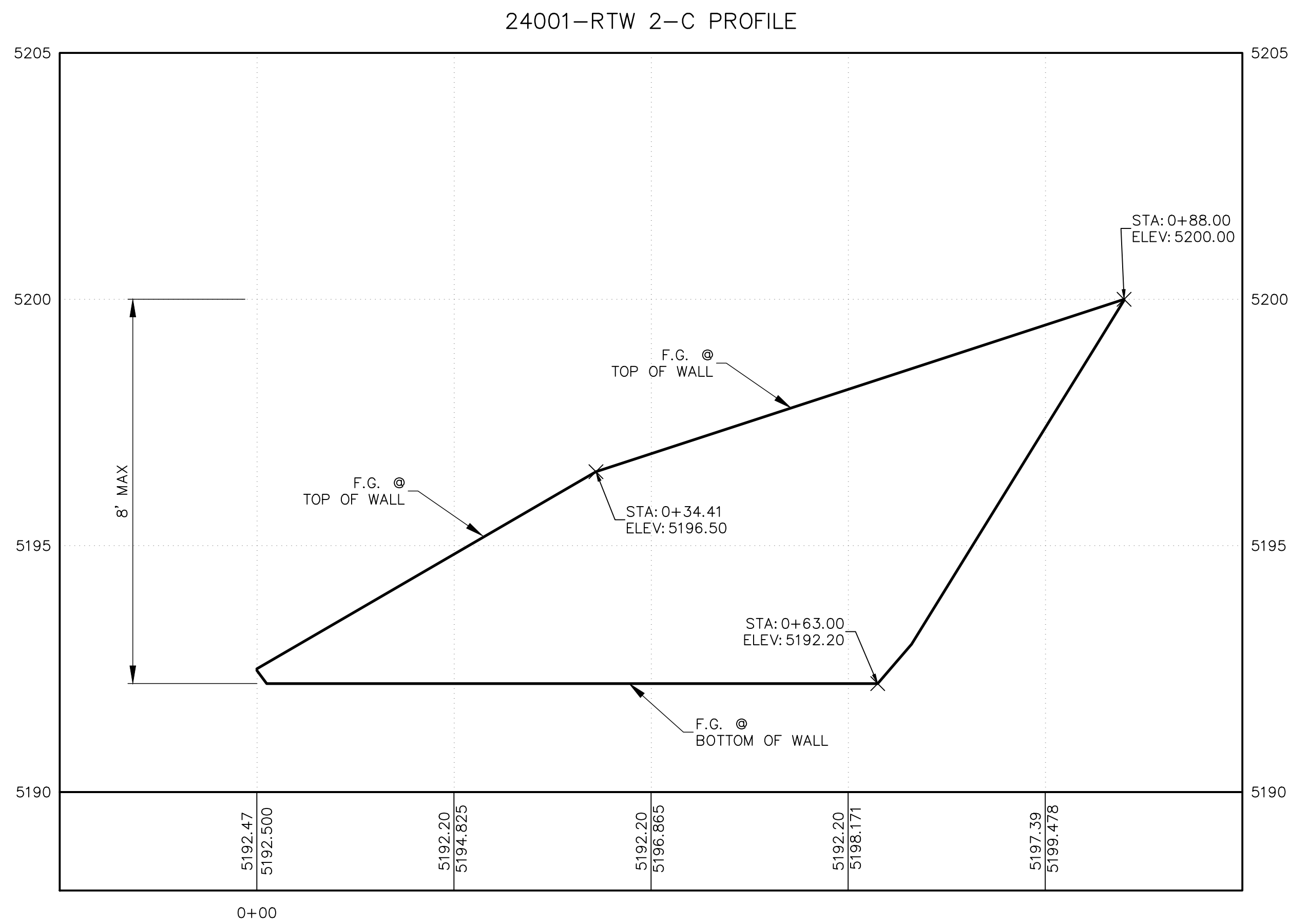
PROJECT NO: 24001
DESIGNED BY: RJF
DRAWN BY: JB
CHECKED BY: RJF
DATE: MAY 2024

SHEET TITLE
**RETAINING WALL
NO. 2
PLAN & PROFILE**

SHEET NO:
C-5

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PROJECT NAME

REV.	DATE	DESCRIPTION	BY

PROJECT NO:	24001
DESIGNED BY:	RJF
DRAWN BY:	JB
CHECKED BY:	RJF
DATE:	MAY 2024

SHEET TITLE

RETAINING WALL
NO. 2
PLAN & PROFILE

SHEET NO:

C-6

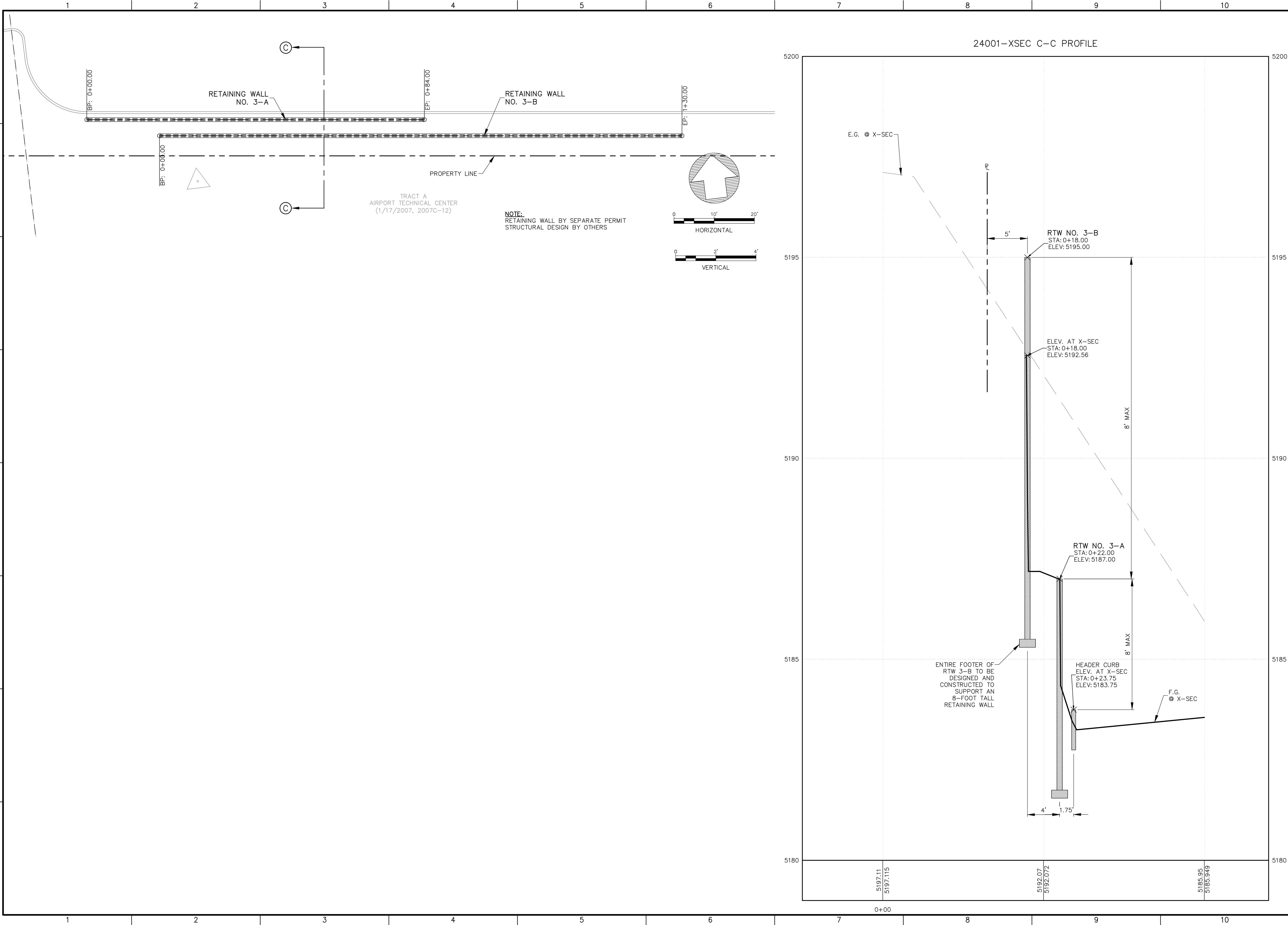
ENGINEER'S SEAL



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ENGINEER'S SEAL

PROJECT NAME

REV.	DATE	DESCRIPTION	BY

PROJECT NO: 24001

DESIGNED BY: R/JF

DRAWN BY: JB

CHECKED BY: R/JF

DATE: MAY 2024

SHEET TITLE

**RETAINING WALL
NO. 3
PLAN & PROFILE**

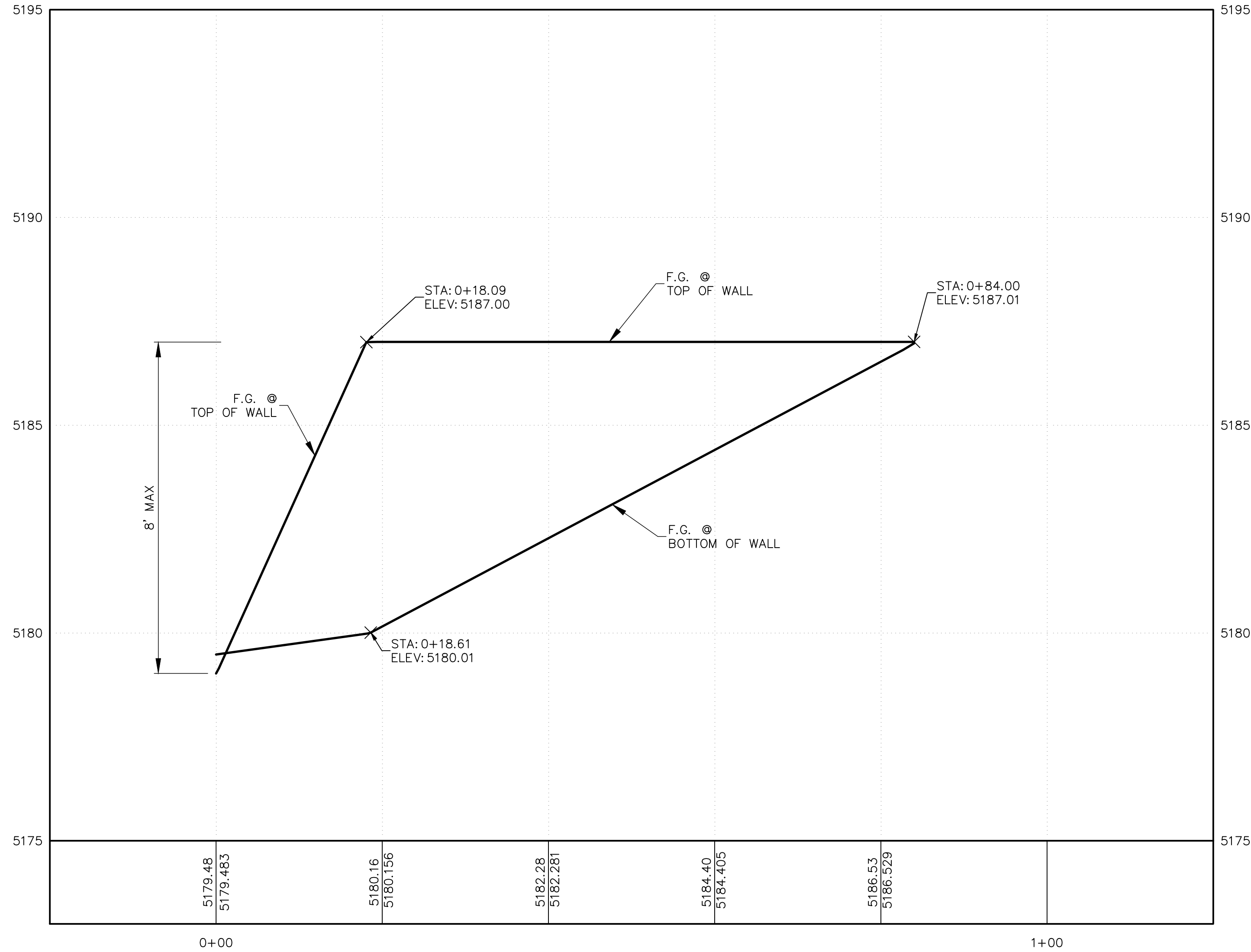
SHEET NO:

C-7

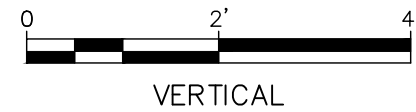
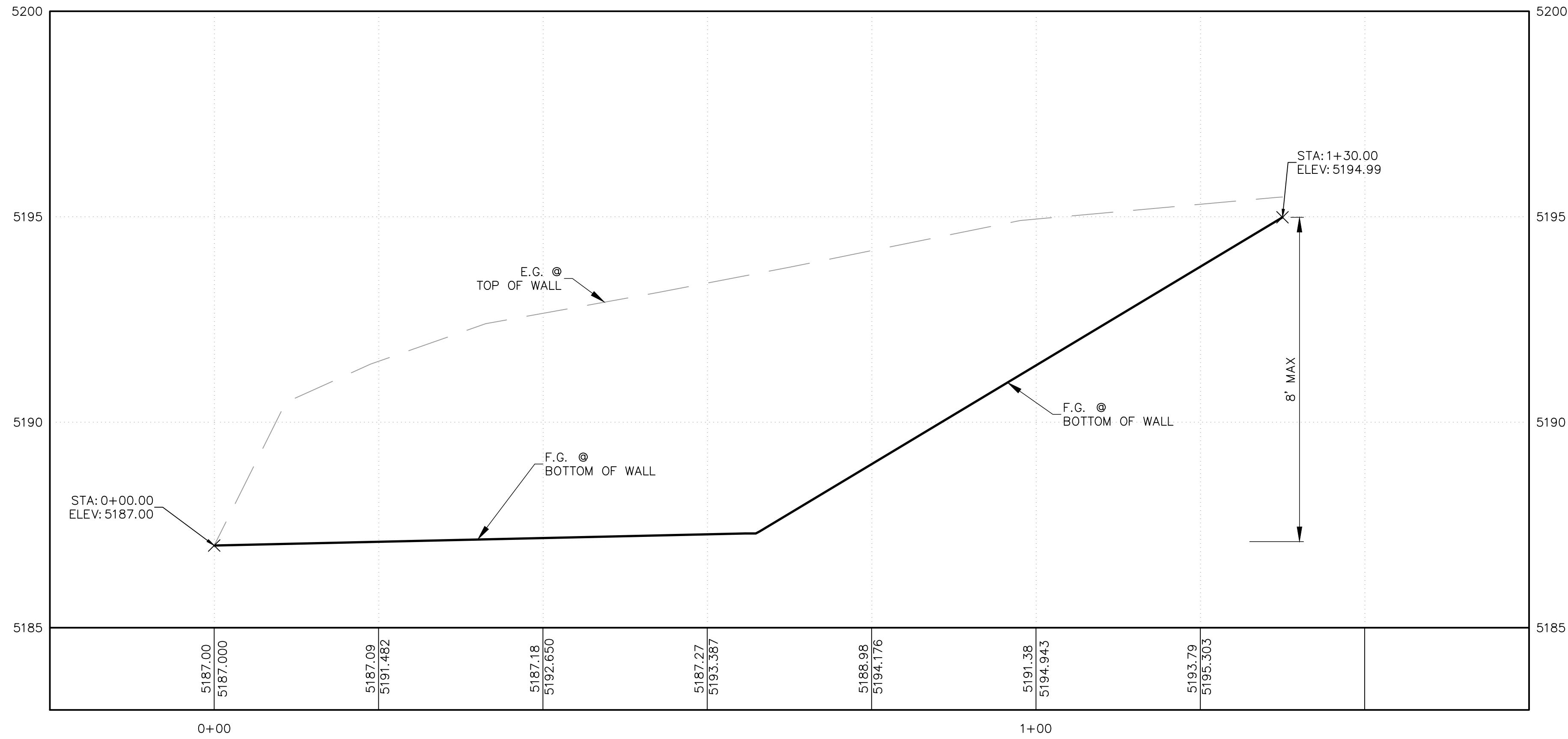
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24001-RTW 3-A PROFILE



24001-RTW 3-B PROFILE



PROJECT NAME

PROJECT NO.	24001	BY
DESIGNED BY:	RJF	
DRAWN BY:	JB	
CHECKED BY:	RJF	
DATE:	MAY 2024	
SHEET TITLE	RETAINING WALL NO. 3 PLAN & PROFILE	
SHEET NO:	C-8	

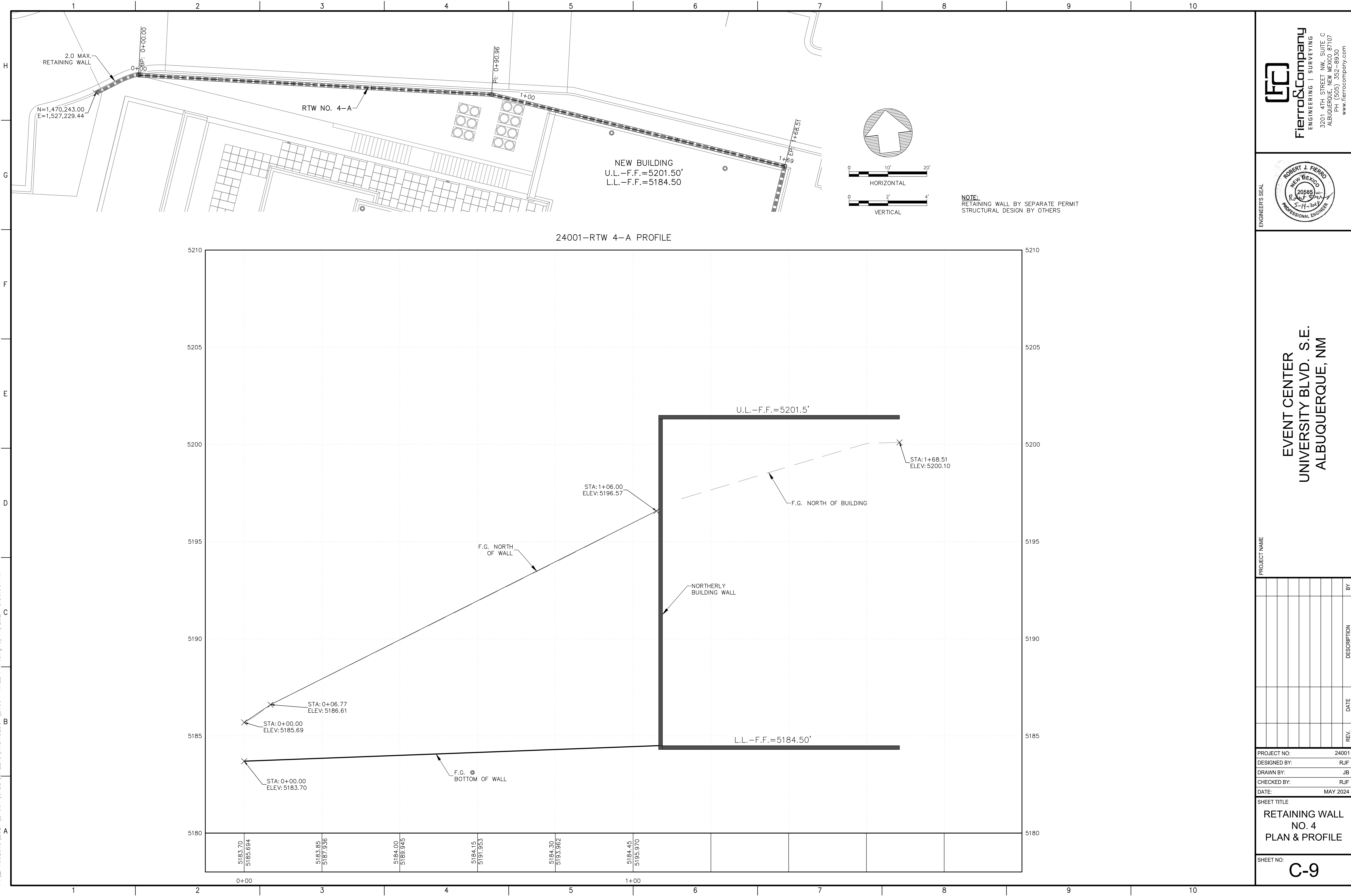
PROJECT NO.	24001
DESIGNED BY:	RJF
DRAWN BY:	JB
CHECKED BY:	RJF
DATE:	MAY 2024

SHEET TITLE	RETAINING WALL NO. 3 PLAN & PROFILE
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SHEET NO:

C-8

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ENGINEER'S SEAL

PROJECT NAME

EVENT CENTER
UNIVERSITY BLVD. S.E.
ALBUQUERQUE, NM

REV.	DATE	DESCRIPTION	BY

PROJECT NO: 24001

DESIGNED BY: RJF

DRAWN BY: JB

CHECKED BY: RJF

DATE: MAY 2024

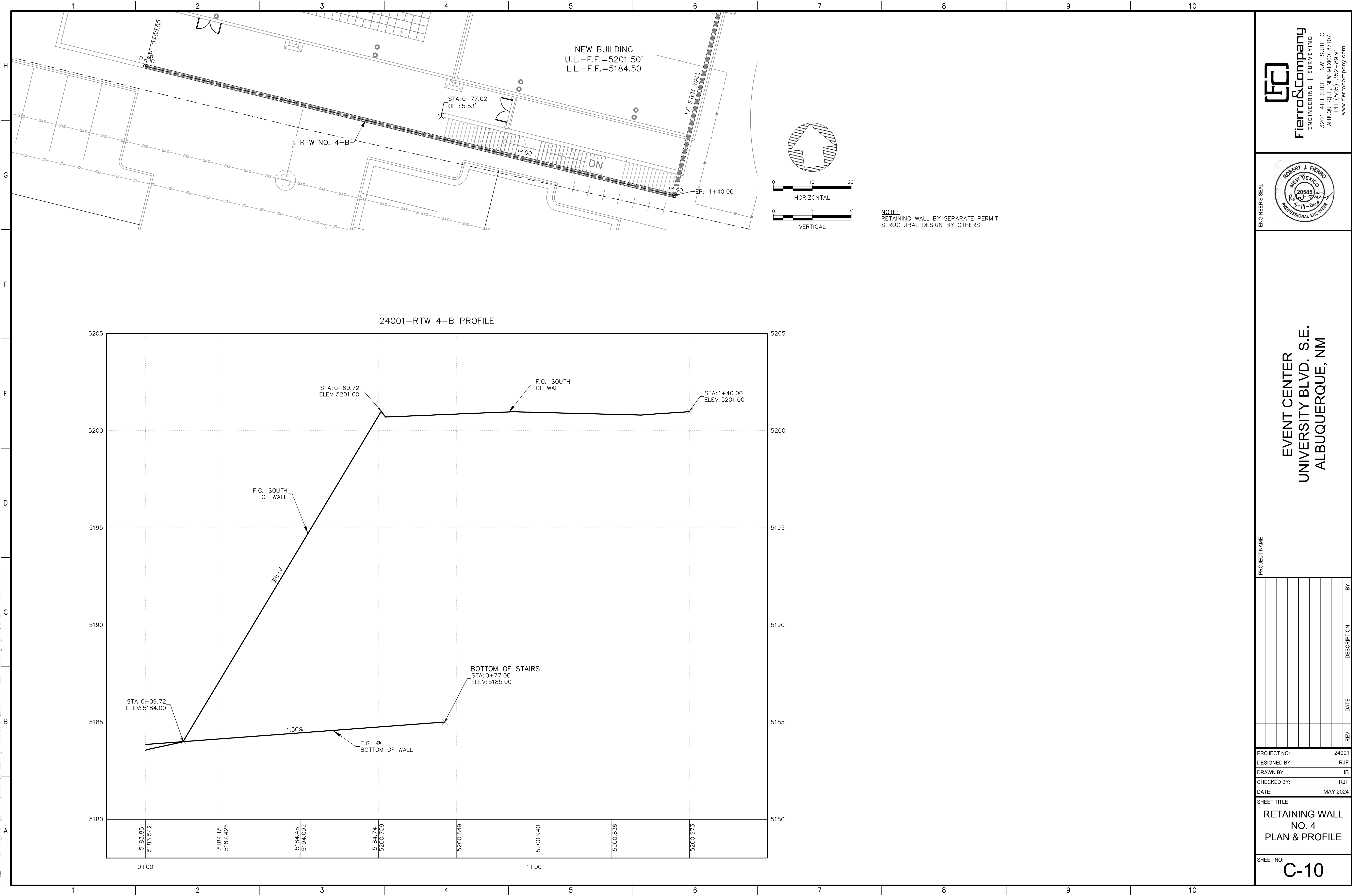
SHEET TITLE

RETAINING WALL
NO. 4
PLAN & PROFILE

SHEET NO:

C-9

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ENGINEER'S SEAL

PROJECT NAME

EVENT CENTER
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ALBUQUERQUE, NM

REV.	DATE	DESCRIPTION	BY

PROJECT NO: 24001

DESIGNED BY: RJF

DRAWN BY: JB

CHECKED BY: RJF

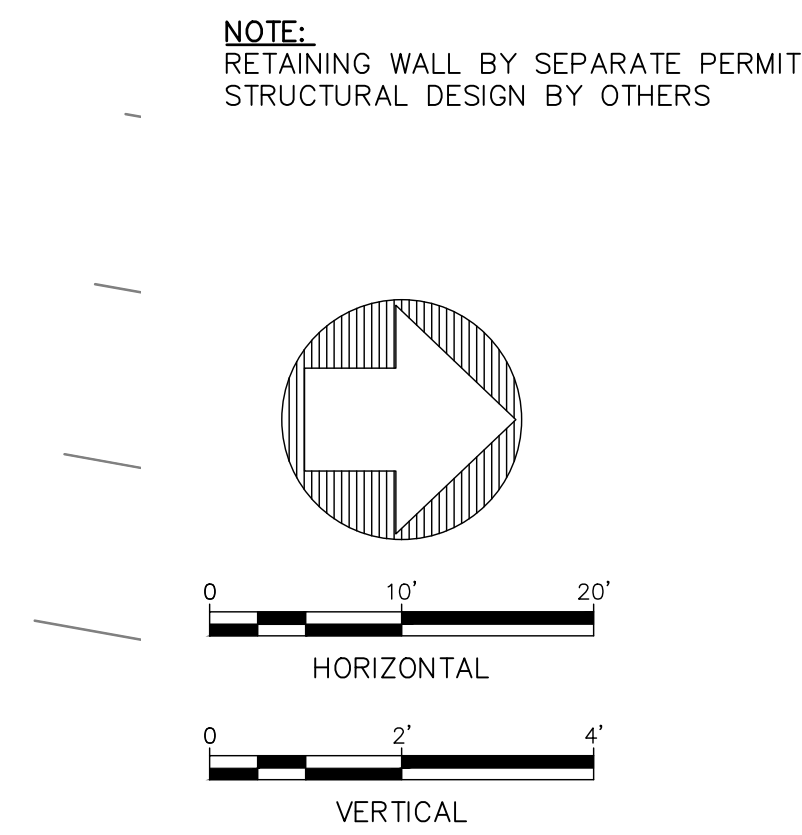
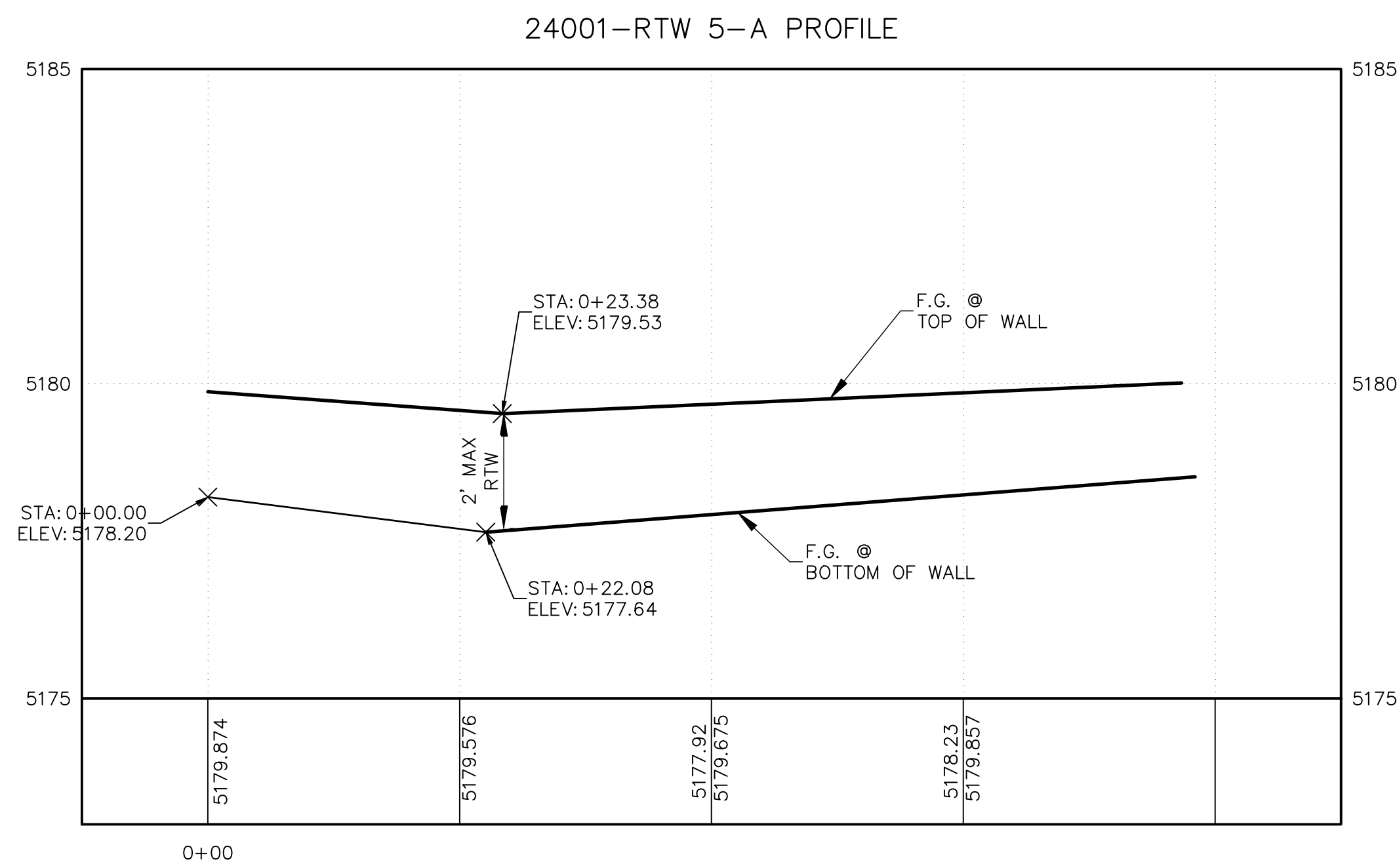
DATE: MAY 2024

SHEET TITLE

RETAINING WALL
NO. 4
PLAN & PROFILE

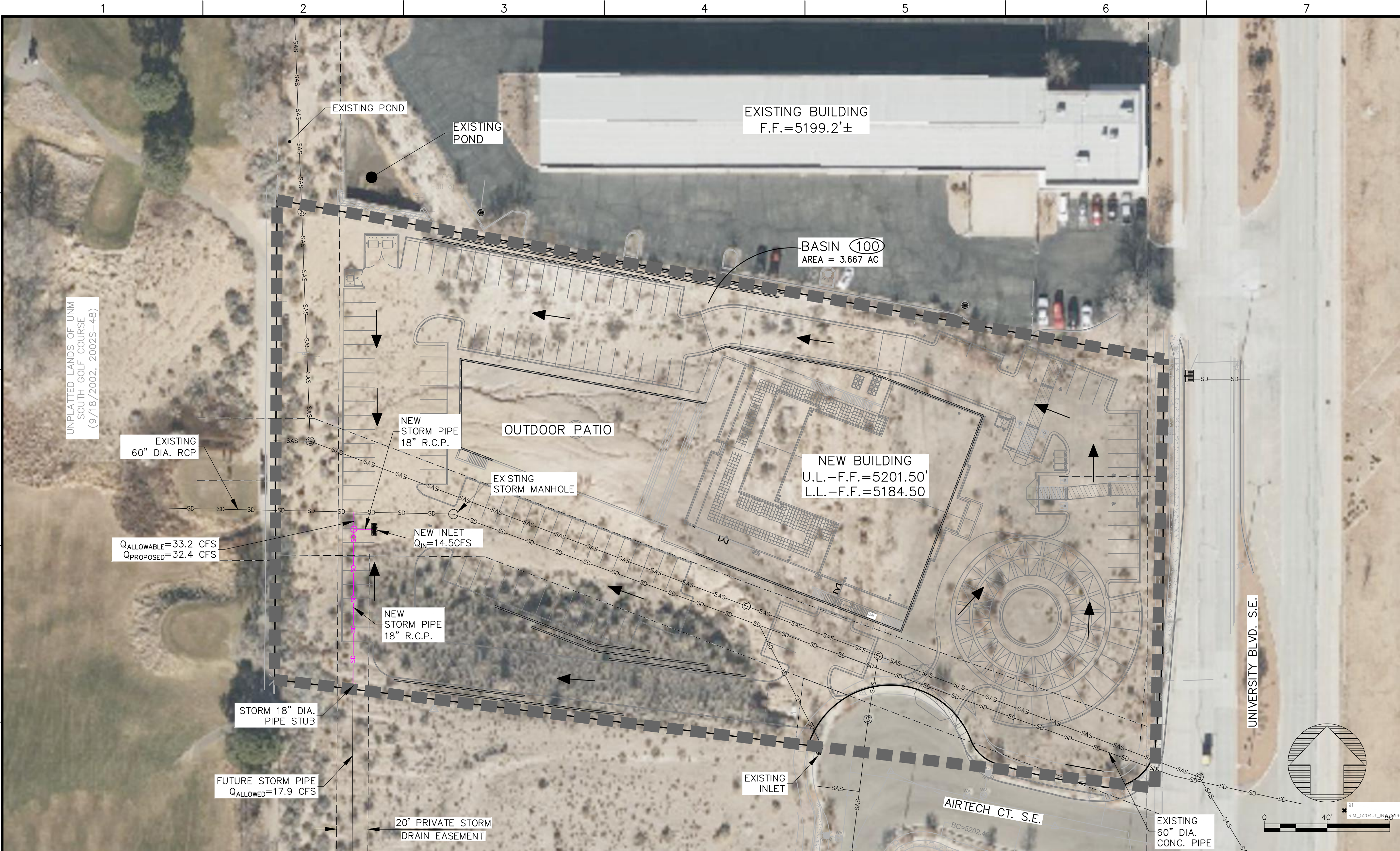
SHEET NO:

C-10



NOTE:
RETAINING WALL BY SEPARATE PERMIT
STRUCTURAL DESIGN BY OTHERS

[illegible]



FLOOD INSURANCE RATE MAP
MAP NO. 35001C0342G
EFFECTIVE DATE: 09/26/2008

Introduction
The site is located at the northwest intersection of University Blvd./Airtech Court, and is 3.7 acres. This property is part of a Master Drainage Plan for Airport Technical Center, being Tract B of said Center. Allowable discharge rates have been established. The purpose of this Grading & Drainage Plan is to 1) provide hydrologic and hydraulic analysis of the allowable and proposed condition, 2) satisfy allowable stormwater quality requirements, and 3) seek approval for building permit.

Methodology
Hydrologic procedures presented in the Hydrology Section of the DMP, Article 6-2(a), approved June 8, 2020 were followed. Precipitation Zone 2 data was used in the hydrologic computations.

Existing Condition
The site is undeveloped. There is a 40-foot elevation difference from the East to West property line. Prior to becoming Tract B, this land used to convey runoff via an arroyo which crossed the property with its runoff being intercepted by a 60-inch RCP at the west property line common to the East property line of UNM Golf Course. This 60-inch R.C.P. pipe has been extended through said Tract B to University Blvd. The terrain still represents features of an arroyo; however, all offsite flow now is conveyed via the 60-inch R.C.P. On-site flow discharges to UNM Golf Course with concentrated flow near the 60-inch RCP.

Proposed Condition
An event center is proposed at this site. To help make this tract developable the following design elements were incorporated: 1) several retaining walls, steep drive aisle from East to West, steep slopes along the western boundary, and a two tier building. The site will discharge to a double grate inlet which will connect to the 60-inch storm drain. The western 40-feet of the site has steep slopes of 2.5H:1V which discharge directly to UNM Golf Course. UNM Golf Course benefits from this development, since the entire site will not surface discharge to UNM Golf Course as in the existing condition. Also, the proposed surface discharge to UNM Golf Course is not concentrated as in the existing condition.

The proposed site cannot accommodate storing the storm water quality requirement due to the following reasons:
1) site is encumbered by public easements
2) Steep grades
3) Platting of Tract B and Master Drainage Plan allowed free discharge of the site; therefore, anticipated the Tract not being able to detain/retain runoff due to the two items above.

A waiver application from stormwater quality volume management on-site is being submitted to seek payment-in-lieu.

BASIN MAP

DRAINAGE NARRATIVE

STORMWATER QUALITY VOLUME (WAIVER):

GIVEN:
Area_{imp}=114,478 sq.ft.
SOLUTION:
SWQV= $\frac{1}{16}(R_p \cdot Area_p) = \frac{1}{16}[0.420 \cdot 114,478 \text{ sq.ft.}] = 4,007 \text{ cu.ft.}$

CONCLUSION: A waiver application is being submitted to allow runoff generated from 114,478 sq.ft of impervious area to discharge directly to the 60" storm drain within Tract B.

S.W.Q.V. CALCULATIONS

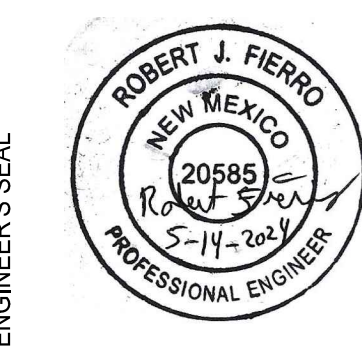
HYDROLOGY SUMMARY								
Allowable runoff based on Master Drainage Plan Lots 6B-2 and 8B, Airport Technical Center								
BASIN	Tota Area	Total Area	Land Treatment (%)				Q _{100yr-6hr}	V _{100yr-24hr}
	(sq.ft.)	(acres)	A	B	C	D	(cfs)	(ac-ft)
100 _{ALLOWABLE}	163540	3.754	0.0	0.0	20.0	80.0	15.3	0.723
100 _{PROPOSED}	163540	3.754	0.0	15.0	15.0	70.0	14.5	0.662

HYDROLOGY SUMMARY

LEGEND

- PROPERTY BOUNDARY
- FLOW PATH
- ROOF FLOW
- SURFACE DRAINAGE
- EASEMENT LINE
- EXISTING SEWER LINE
- EXISTING STORM DRAIN
- NEW STORM DRAIN
- PROPOSED MAJOR CONTOUR
- PROPOSED MINOR CONTOUR
- BASIN

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EVENT CENTER
UNIVERSITY BLVD. S.E.
ALBUQUERQUE, NM

PROJECT NAME	PROJECT NO.	DESIGNED BY	DRAWN BY	CHECKED BY	DATE	REV.	DESCRIPTION	BY

PROJECT NO: 24001
DESIGNED BY: RJF
DRAWN BY: JB
CHECKED BY: RJF
DATE: MAY 2024

SHEET TITLE
DRAINAGE PLAN

SHEET NO:
D-1

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Inlet Report

Hydrflow Express Extension for Autodesk® Civil 3D® by Autodesk, Inc.

Tuesday, May 14 2024

STORM INLET TYPE D (DOUBLE GRATE)

Drop Grate Inlet

Location = Sag
Curb Length (ft) = -0-
Throat Height (in) = -0-
Grate Area (sqft) = 7.44
Grate Width (ft) = 6.40
Grate Length (ft) = 2.10

Gutter

Slope, Sw (ft/ft) = 0.020
Slope, Sx (ft/ft) = 0.020
Local Depr (in) = -0-
Gutter Width (ft) = 6.40
Gutter Slope (%) = -0-
Gutter n-value = -0-

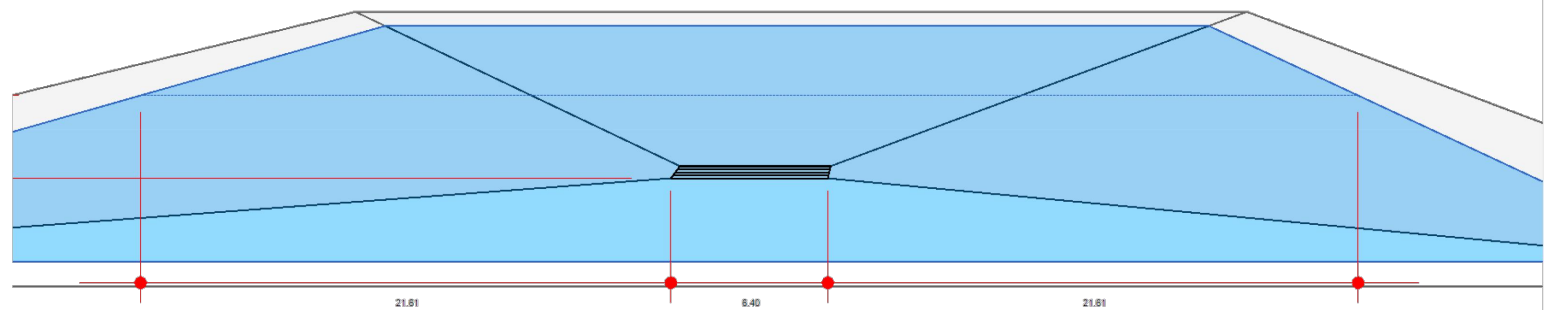
Calculations

Compute by: Known Q
Q (cfs) = 14.50

Highlighted

Q Total (cfs) = 14.50
Q Capt (cfs) = 14.50
Q Bypass (cfs) = -0-
Depth at Inlet (in) = 5.19
Efficiency (%) = 100
Gutter Spread (ft) = 49.62
Gutter Vel (ft/s) = -0-
Bypass Spread (ft) = -0-
Bypass Depth (in) = -0-

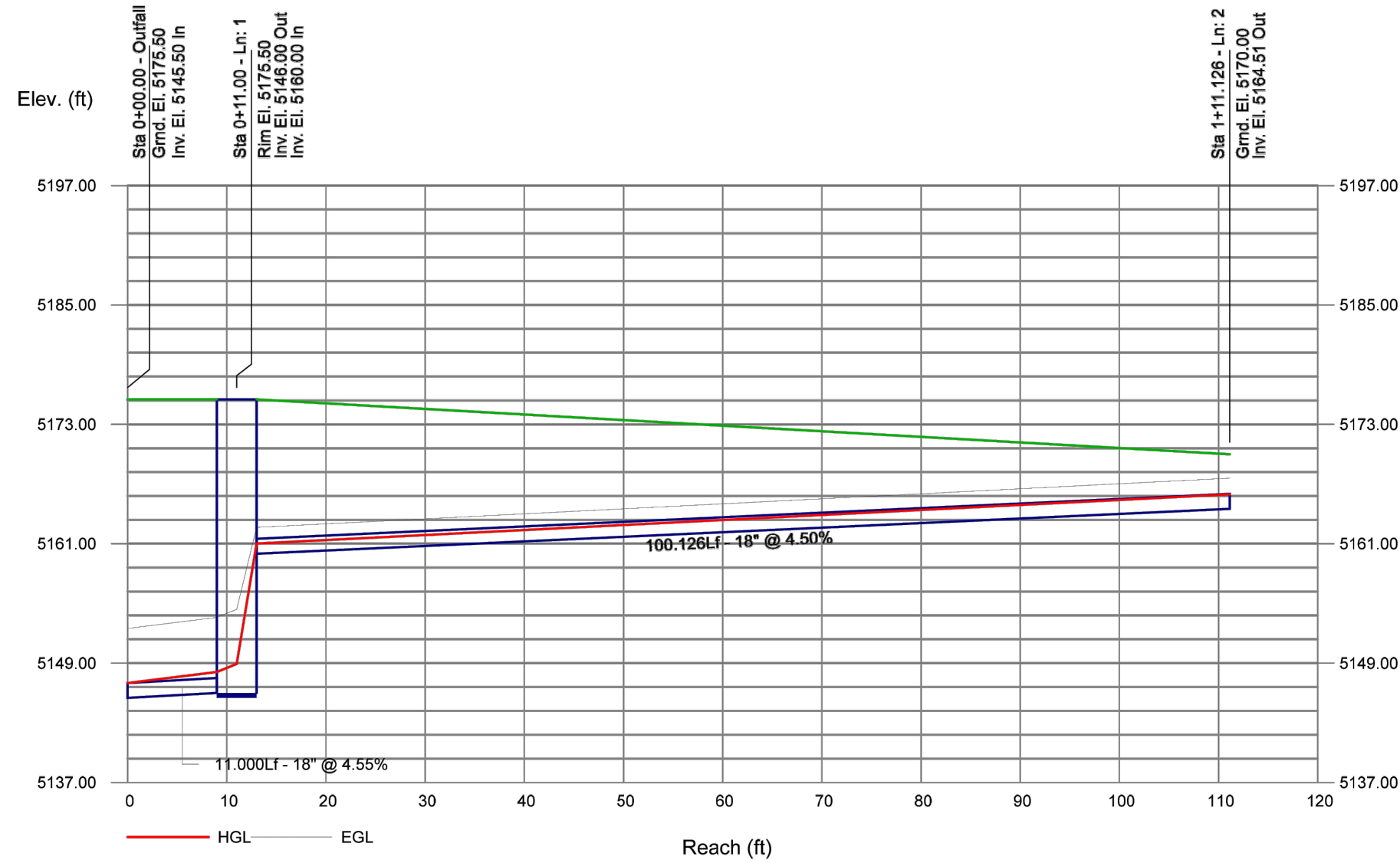
all dimensions in feet



INLET ANALYSIS

Storm Sewer Profile

Proj. file: 24001-STRM PIPE DESIGN.stm



Storm Sewer Summary Report

Page 1

Line No.	Line ID	Flow rate (cfs)	Line Size (in)	Line shape	Line length (ft)	Invert EL Dn (ft)	Invert EL Up (ft)	Line Slope (%)	HGL Down (ft)	HGL Up (ft)	Minor loss (ft)	HGL Junct (ft)	Dns Line No.	Junction Type
1		33.20	18	Cir	11.000	5145.50	5146.00	4.545	5147.00*	5148.10*	0.82	5148.93	End	Manhole
2		17.90	18	Cir	100.128	5160.00	5164.51	4.504	5161.02	5165.96	n/a	5165.96	1	None

24001-STRM PIPE

Number of lines: 2

Run Date: 5/14/2024

NOTES: Known Qs only ; *Surcharged (HGL above crown).

REV.	DATE	DESCRIPTION	BY

PROJECT NO:	24001
DESIGNED BY:	RJF
DRAWN BY:	JB
CHECKED BY:	RJF
DATE:	MAY 2024

SHEET TITLE
DRAINAGE PLAN