CITY OF ALBUQUERQUE

Planning Department
Alan Varela, Director

Mayor Timothy M. Keller

July 9, 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:06/20/24
Hydrology File: N15D017

Dear Mr. Fierro:

PO Box 1293

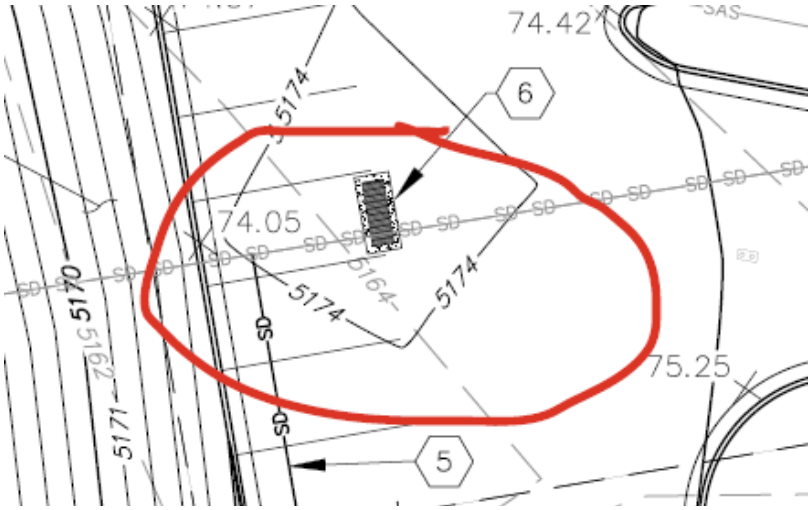
Albuquerque

NM 87103

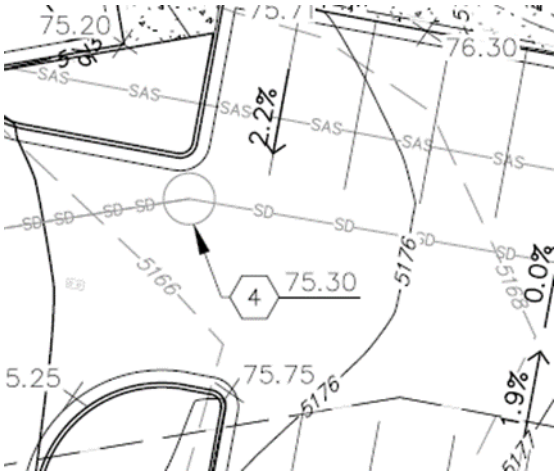
www.cabq.gov

Based upon the information provided in your submittal received 06/21/2024, 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:

1. The constructability with the Type D inlet along with the 18-in storm drain connecting to the existing 60-in pipe. This should a manhole with a grate top?? Please clarify the design.



2. I would highly recommend that the existing manhole rim elevation be topo'd along with the inverts of the 60-in storm sewer.



3. 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. Please specify the limits of this existing storm sewer that will need to be changed to Class IV.

4. As discussed with the City Engineer, Shahab Biazar, please provide written proof from a structural engineer that the retaining walls as designed will be buildable and will not create safety issues with the adjacent property. There is limit space for compaction.

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.

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: Event Center Hydrology File # _____
Legal Description: Tract B Plat of Tracts A, B, C, D & E Airport Technical Center
City Address, UPC, OR Parcel: UPC 101505429732310232

Applicant/Agent: Fierro & Company Contact: Robert Fierro
Address: 3201 4th Street NW, Suite C Phone: 505-352-8930
Email: rfierro@fierrocompany.com

Applicant/Owner: Sergio & Azucena Valles 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: 06/20/2024

REV. 09/13/23

Fierro&Company
ENGINEERING | SURVEYING
3201 4th Street NW, Suite C
Albuquerque, NM 87120
(505) 352-8930 | www.fierrocompany.com

June 6, 2024

Renee C. Brissette, P.E., CFM
Senior Engineer, Hydrology
Planning Department
Albuquerque, NM

RE: Event Center
1611 Airtech CT. SE
Comments dated May 28, 2024
Hydrology File: N15D017

Dear Ms. Brissette:

This letter is a response to the comments dated May 28, 2024, and is being provided with the grading plan resubmitted with engineer's date 6/20/2024. Please refer to the response under each comment.

Comment 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.

- Response: The site plan was modified to avoid modifying the existing inlet.

Comment 2: The Type E manhole needs to be at the existing 60-in pipe and not off to the side as shown. Any private inlet can also be tied into the manhole.

- Response: A city work order is required since a public storm drain is being constructed with this project. The private inlet connection will be shown on the public work order construction plans.

Comment No. 3: Please note that the above Type E manhole will have to be placed on a Work Order since it is within a City Public Drainage Easement.

- Response: Note added.

Comment No. 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 is will have to be moved up about 10 feet.

- Response: See response under Comment No. 3.

Comment No. 5: I would highly recommend that the existing manhole rim elevation be topo'd along with the inverts of the 60-in storm sewer.

- Response: Fierro & Company surveyed the outlet of the 60-inch RCP located on the Golf Course property on 6/18/2024. Using asbuilt information such as the slope. The elevation for the existing 60-inch pipe was established. A note was added to field verify existing inverts.

Fierro&Company
ENGINEERING | SURVEYING
3201 4th Street NW, Suite C
Albuquerque, NM 87120
(505) 352-8930 | www.fierrocompany.com

Comment No. 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.

- Response: Any pipe segments that will need to be replaced to RCP Class IV will be shown on the City Work Order Construction Plan Set.

Comment No. 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.)".

- Response: Note added.

Comment No. 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.

- Response: Emailed the City Engineer on June 17th, 2024 seeking administrative approval of the retaining walls. To date, the City Engineer has not replied to the email.

  The property is zoned NR-GM which allows retaining walls to have a maximum height of 10-feet with the current zoning. Retaining walls No. 1 through 3 were modified and if the wall height is greater than 10-feet, then the retaining walls were terraced with each separate wall not being greater than 6-feet. IDO Section 5-7(F)(2)(a) allows terracing the walls. Retaining Walls No. 1 through 3 now meet IDO Section 5-7(F)(2)(a) requirements.

  The building is two story with the upper floor being at the east parking lot level. There is an 18 foot retaining wall as part of the building structure. All building related walls will be reviewed with building permit.

Comment No. 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.

- Response: See response under Comment No. 8.

Comment No. 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.

- Response: Language added.

FIERRO & COMPANY

Robert Fierro

Robert Fierro, P.E., P.S.
President

CITY OF ALBUQUERQUE
PLANNING DEPARTMENT
HYDROLOGY DEVELOPMENT SECTION

WAIVER APPLICATION FROM STORMWATER QUALITY VOLUME MANAGEMENT ON-SITE

GENERAL INFORMATION

APPLICANT: Sergio Valles DATE: 6/20/2024

DEVELOPMENT: _____

LOCATION: Airtech Court

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 4007 cubic feet

The provided volume is 0 cubic feet

The deficient volume is 4007 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: This site contains the following challenges

1) Encumbered by easements

2) Steep grade and grading sheme challenges.

Forty foot (40') elevation difference within a 500-foot distance

3) Master Drainage Plan with engineer seal 6/19/2006 did not propose retaining and/or detaining runoff or S.W.Q.V.; therefore, the lot was not sized or designed for such.

Robert J. Fierro

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.

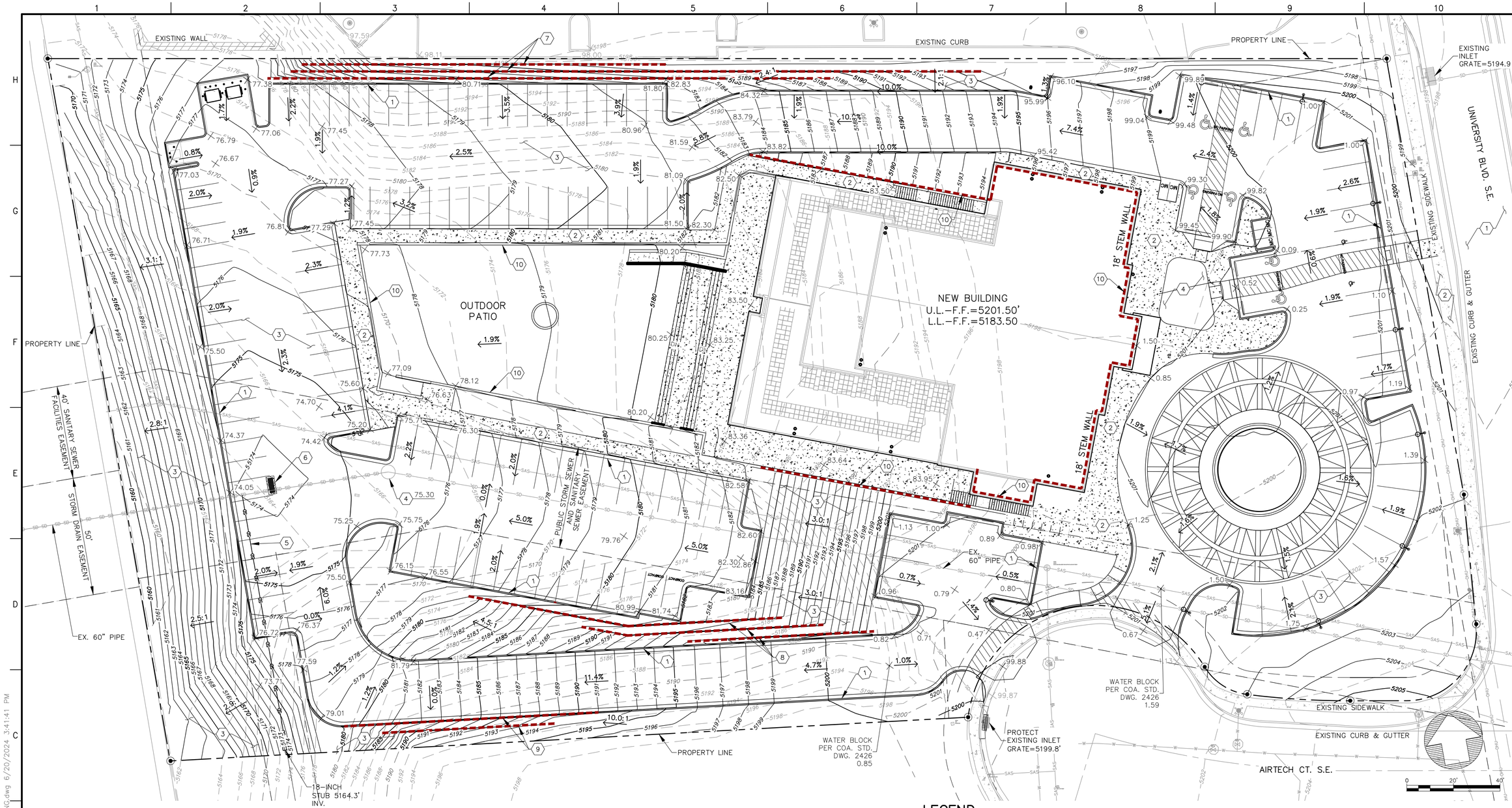
AMOUNT OF PAYMENT-IN-LIEU = $ 32,056

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



GENERAL GRADING NOTES:

1. THE CONTRACTOR TO VERIFY LOCATION OF ALL UTILITIES SHOWN AND COORDINATE WITH ALL UTILITY OWNERS PRIOR TO ANY EXCAVATION.
2. THE CONTRACTOR SHALL LIMIT DISTURBANCE OF NATIVE VEGETATION TO A MINIMUM.
3. THIS PLAN RECOMMENDS POSITIVE DRAINAGE AWAY FROM ALL STRUCTURES TO PROHIBIT PONDING OF RUNOFF WHICH MAY CAUSE STRUCTURAL SETTLEMENT. FUTURE ALTERATION OF GRADES ADJACENT TO THE PROPOSED STRUCTURES IS NOT RECOMMENDED.
4. PERFORM GRADING AND EXCAVATION WORK IN COMPLIANCE WITH APPLICABLE SPECIFICATIONS, REQUIREMENTS, CODES AND ORDINANCES OF CITY OF ALBUQUERQUE, NEW MEXICO.
5. CONTRACTOR SHALL BE RESPONSIBLE FOR THE DISPOSAL OF OR OBTAINING EXCESS CUT OR FILL MATERIAL REQUIRED FOR FINAL GRADE.
6. CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING AND COORDINATING WITH NEW MEXICO ONE CALL PRIOR EXCAVATION.
7. CLEAR AND GRUBBING PER NM APWA SECTION 201 SPECIFICATION.
8. SPOT ELEVATIONS ARE TO FINISH GRADE UNLESS NOTED OTHERWISE.
9. THE CONTRACTOR SHALL CONFINE THEIR WORK TO WITHIN THE CONSTRUCTION LIMITS AND/OR PUBLIC RIGHT-OF-WAY TO PRESERVE EXISTING VEGETATION, LANDSCAPING, AND PRIVATE PROPERTY. APPROVAL OF THESE PLANS DOES NOT GIVE OR IMPLY ANY PERMISSION TO TRESPASS OR WORK ON PRIVATE PROPERTY. PERMISSION MUST BE GRANTED IN WRITING BY THE OWNER OF THAT PROPERTY.
10. CONTRACTOR TO CLEAN UP SEDIMENT AND DEBRIS ON THE STREET, WHICH IS CAUSED BY CONSTRUCTION, AT THE END OF EACH WORK DAY. TEMPORARY DIRT RAMPS ARE NOT TO BE LEFT IN STREETS OR NEAR CURB.

EST. UNADJUSTED EARTHWORK VOLUMES (EXCLUDING SUB EXCAVATIONS, SHRINKING AND SWELLING FACTORS)

CUT = 10,500 C.Y.
FILL = 16,950 C.Y.
UNADJUSTED NET FILL=6,450 C.Y.

EST. ADJUSTED EARTHWORK VOLUMES (SHRINKING AND SWELLING FACTORS, AND OVEREX NOT INCLUDED)

SUB-EXCAVATION CALCULATION:

MISC. CONC. (4"):	AREA=	22,260 SQ.FT.
ASPHALT SECTION (8"):	AREA=	70,460 SQ.FT.
BUILDING CONC. (4"):	AREA=	19,000 SQ.FT.

THEREFORE;
ADDITIONAL CUT FROM ABOVE = 2,250 CU.FT.
NOT INCLUDING SUB-EXCAVATION FOR FOOTINGS OR ANYTHING ELSE NOT LISTED ABOVE

CUT = 10,500 C.Y.
FILL = 16,950 C.Y.
SUB-EX = 2,250 CU.FT.
ADJUSTED NET FILL= 4,200 C.Y.

PROJECT INFORMATION

BENCHMARK
ALBUQUERQUE SURVEY MONUMENT: ACS BM, 3-N14
NORTHING: 1469185.928 (NMSPC, CENTRAL, NAD 1983)
EASTING: 1522103.492 (NMSPC, CENTRAL, NAD 1983)
ELEVATION: 4958.90' (NAVD 1988, U.S. SURVEY FOOT)

DESCRIPTION
TRACT B PLAT OF TRACTS A, B, C, D & E AIRPORT TECHNICAL CENTER

FLOOD NOTE:
THIS PROPERTY LIES WITHIN FLOOD ZONE X WHICH IS DEFINED AS AN AREA OF MINIMAL FLOOD HAZARD. AS DETERMINED BY F.E.M.A. AND SHOWN ON THE FLOOD INSURANCE RATE MAP DATED SEPTEMBER 26, 2008, MAP NO. 35001C0342G.

SURVEYOR INFORMATION
TOPOGRAPHIC SURVEY PERFORMED OCTOBER AND NOVEMBER 2023 BY OTHERS.

LEGEND

- APPARENT PROPERTY BOUNDARY
- APPARENT ADJOINER PROPERTY LINE
- PROPERTY CORNER
- ROOF FLOW DIRECTION
- 3905 EXISTING MAJOR CONTOUR
- 3904 EXISTING MINOR CONTOUR
- 3905 PROPOSED MAJOR CONTOUR
- 3904 PROPOSED MINOR CONTOUR
- OHE EXISTING OVERHEAD ELECTIRC
- SD EXISTING STORM DRAIN
- SAS EXISTING SEWER LINE
- W EXISTING WATER LINE
- POND CONTOUR
- SD NEW STORM LINE
- NEW RETAINING WALL
- RTW RETAINING WALL
- M.H. MANHOLE
- E.G. EXISTING GRADE
- F.G. FINISH GRADE

CONSTRUCTION NOTES:

1. NEW HEADER CURB.
2. NEW SIDEWALK.
3. STABILIZE SIDE SLOPES WITH NATIVE GRASS SEED (PER City Spec 1012) WITH AGGREGATE MULCH OR EQUAL (MUST SATISFY THE "FINAL STABILIZATION CRITERIA" CGP 2.2.1.4.b.)
4. ADJUST STORM MANHOLE RIM PER CITY WORK ORDER.
5. CONSTRUCT PRIVATE 18" DIA. STORM PIPE. CONNECTION TO EXISTING 60-IN RCP PER CITY WORK ORDER.
6. CONSTRUCT STORM INLET TYPE "D" (DOUBLE GRATE) PER COA STD. DWG. NO. 2206 CONNECT TO EXISTING 60" DIA. PIPE PER CITY WORK ORDER.
7. NEW RETAINING WALL. (NO. 1). SEE SHEETS C-3 TO C-4.
8. NEW RETAINING WALLS. (NO. 2). SEE SHEETS C-5 TO C-6.
9. NEW RETAINING WALLS. (NO. 3). SEE SHEETS C-7 TO C-8.
10. RETAINING WALLS. SEE ARCHITECTURE AND STRUCTURAL SHEETS

Fierro&Company
ENGINEERING | SURVEYING
3201 4TH STREET NW, SUITE C
ALBUQUERQUE, NEW MEXICO 87107
PH (505) 352-8930
www.fierrocompany.com

ENGINEER'S SEAL
ROBERT J. FIERRO
NEW MEXICO
20585
9-10-70
PROFESSIONAL ENGINEER

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

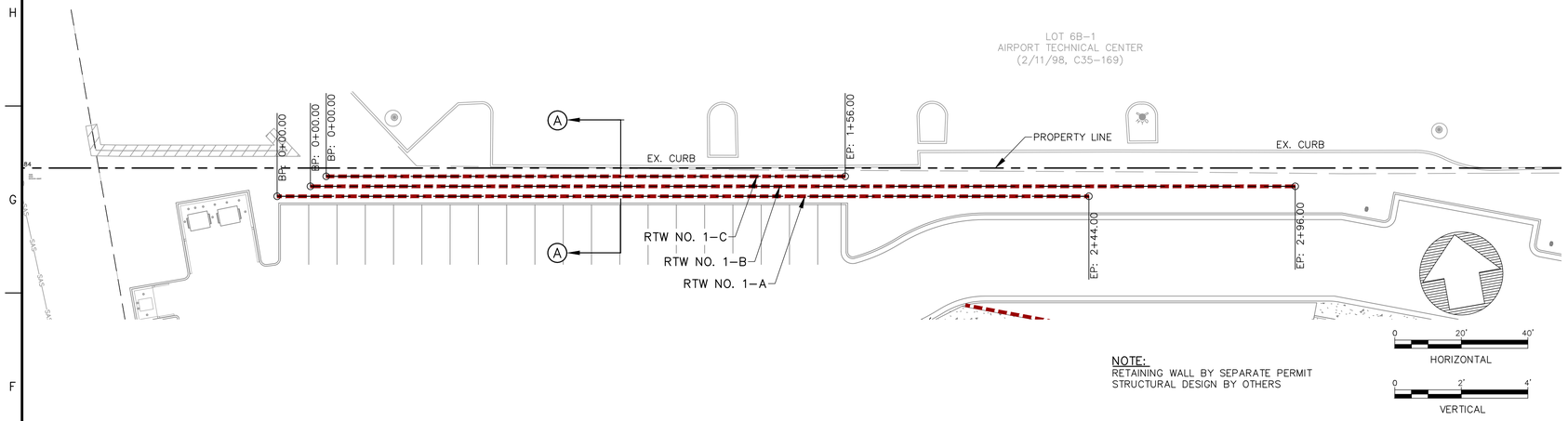
REV.	DATE	DESCRIPTION	BY

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

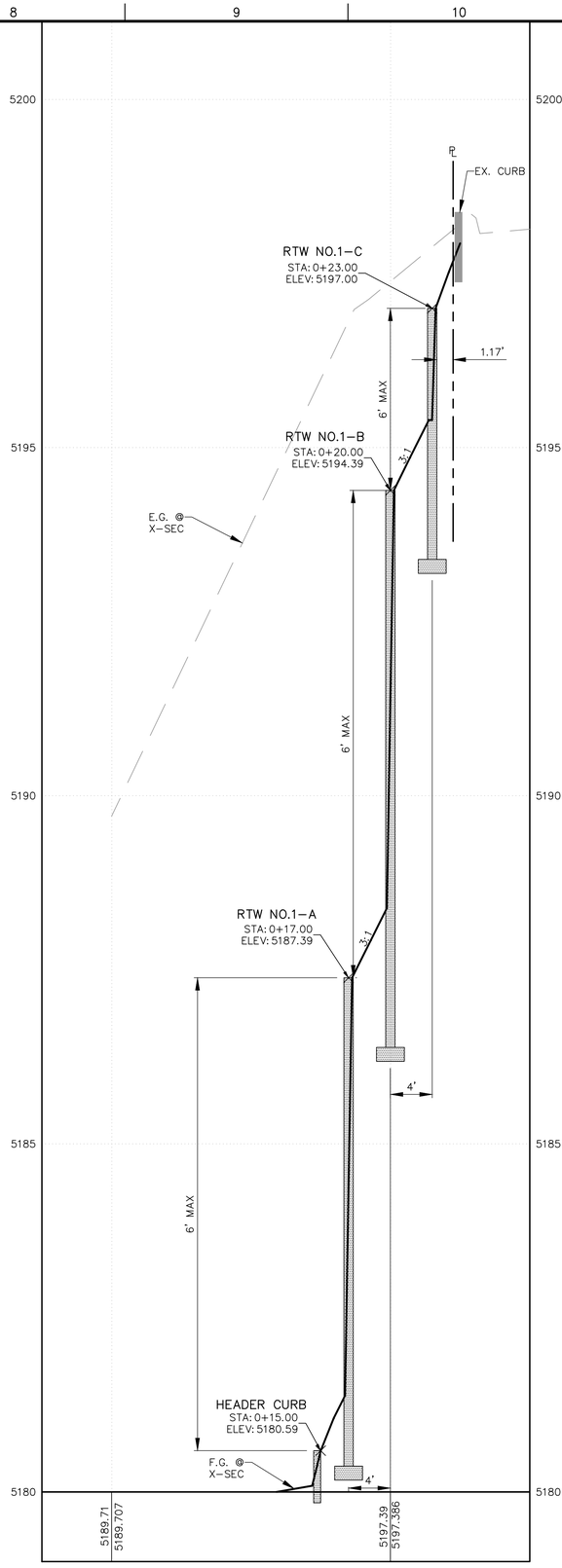
SHEET TITLE
GRADING PLAN

SHEET NO:
C-1

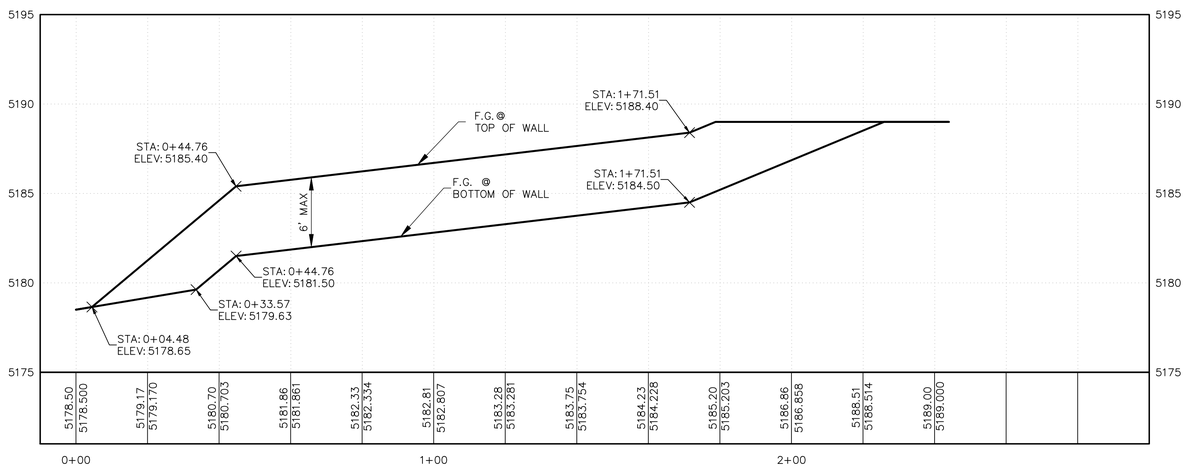
P:_PROJECTS\2024\24001\CADD\SHEETS\HYDROLOGY\24001-GRADING.dwg 6/20/2024 3:41:41 PM



NOTE:
RETAINING WALL BY SEPARATE PERMIT
STRUCTURAL DESIGN BY OTHERS



24001-RTW 1-A PROFILE



Fierro&Company
ENGINEERING | SURVEYING
3201 4TH STREET NW, SUITE C
ALBUQUERQUE, NEW MEXICO 87107
PH (505) 352-8930
www.fierrocompany.com

ENGINEER'S SEAL
ROBERT J. FIERRO
NEW MEXICO
20585
9-10-70
PROFESSIONAL ENGINEER

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

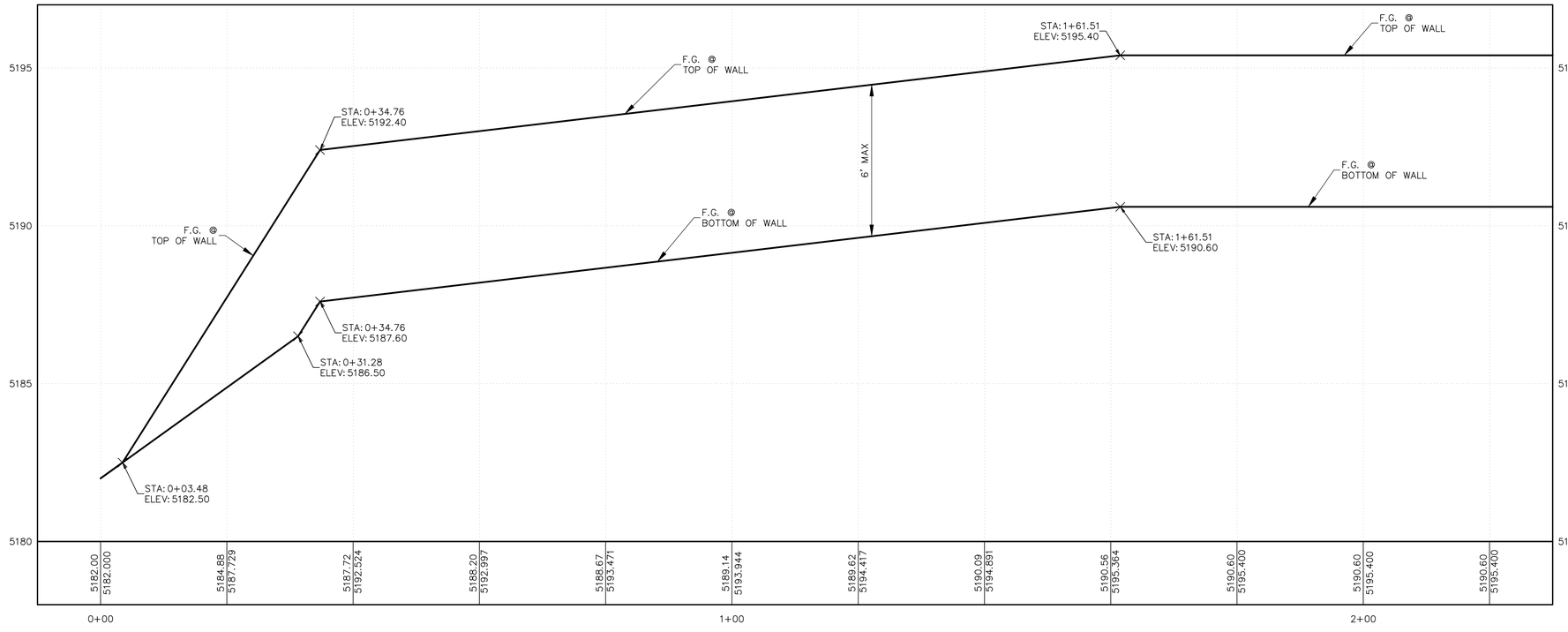
REV.	DATE	DESCRIPTION	BY

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

SHEET TITLE
RETAINING WALL NO. 1
PLAN & PROFILE

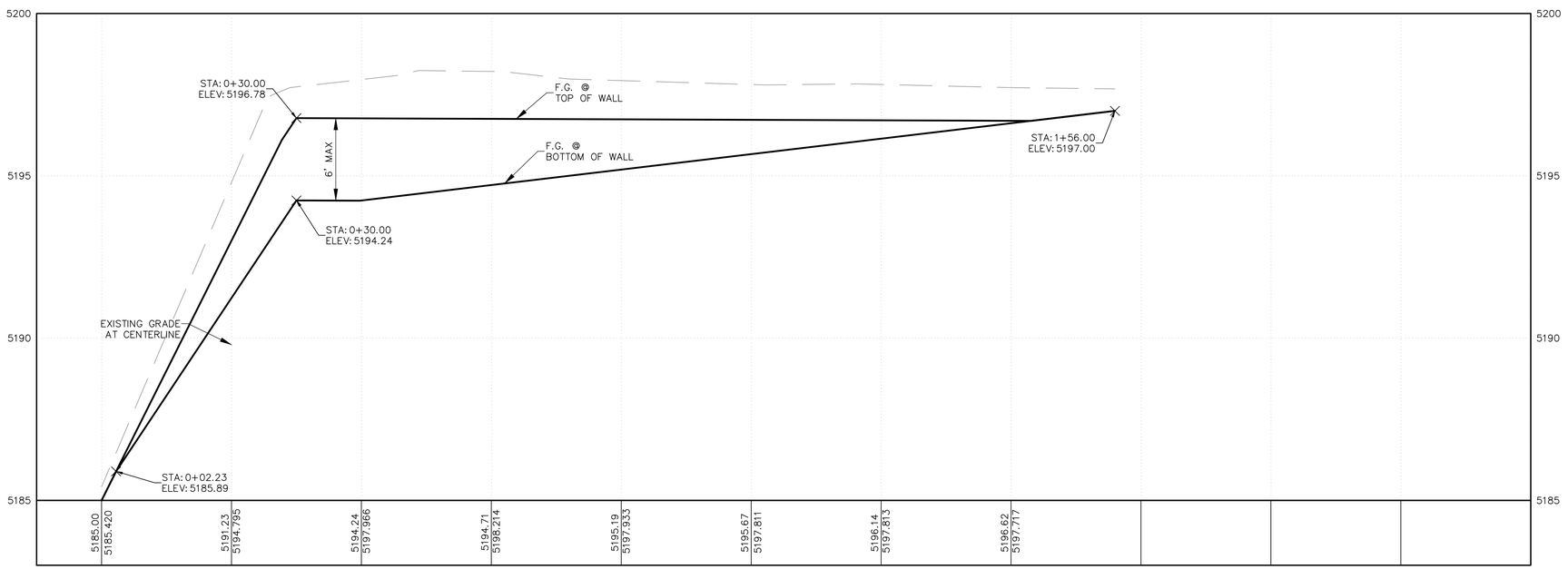
SHEET NO:
C-3

24001–RTW 1–B PROFILE



0 2' 4'
VERTICAL

24001–RTW 1–C PROFILE



Fierro&Company
ENGINEERING | SURVEYING
3201 4TH STREET NW, SUITE C
ALBUQUERQUE, NEW MEXICO 87107
PH (505) 352-8930
www.fierrocompany.com

ENGINEER'S SEAL

ROBERT J. FIERRO
NEW MEXICO
20585
PROFESSIONAL ENGINEER
6-20-2024

PROJECT NAME

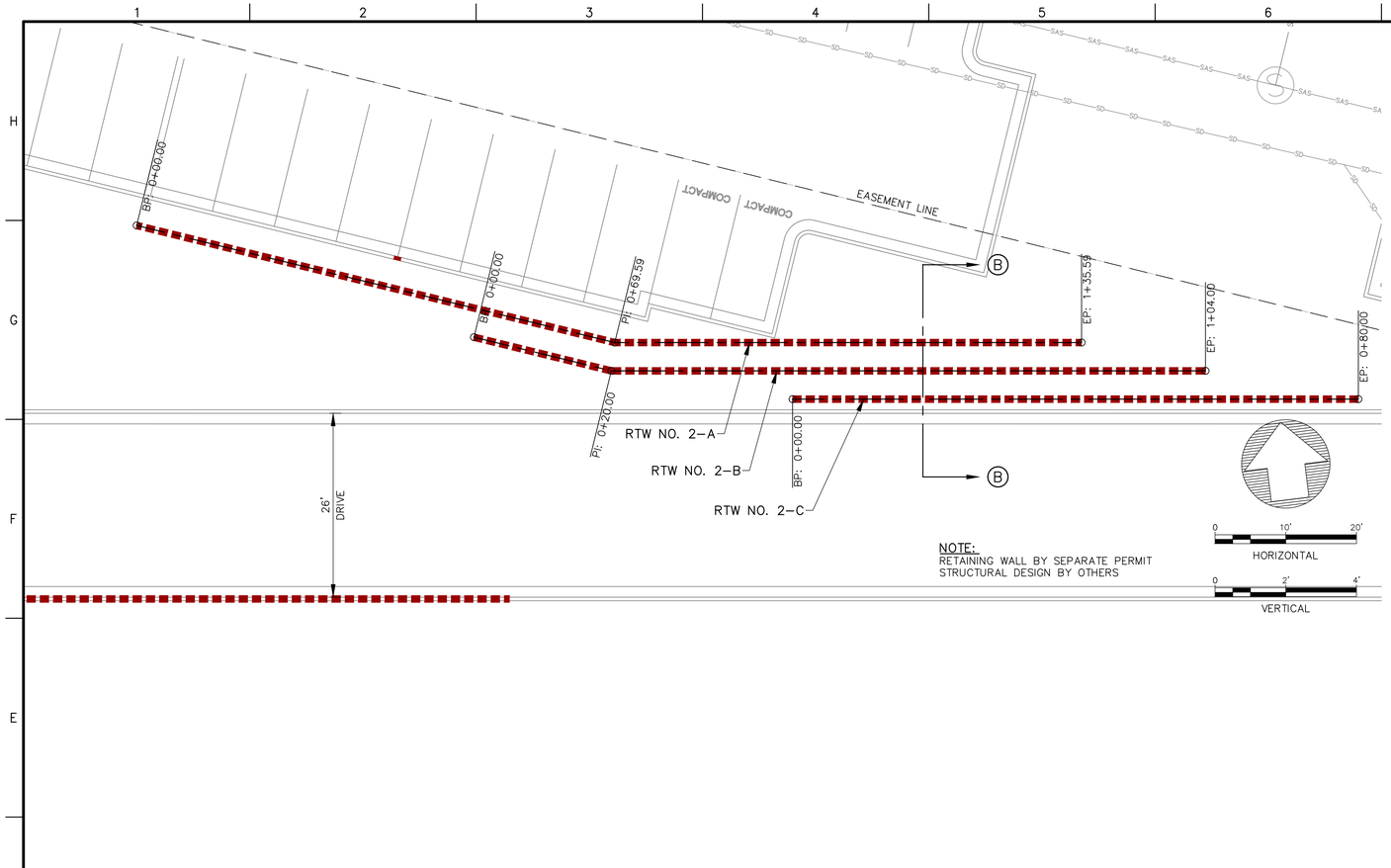
EVENT CENTER
UNIVERSITY BLVD. S.E.
ALBUQUERQUE, NM

REV.	DATE	DESCRIPTION	BY

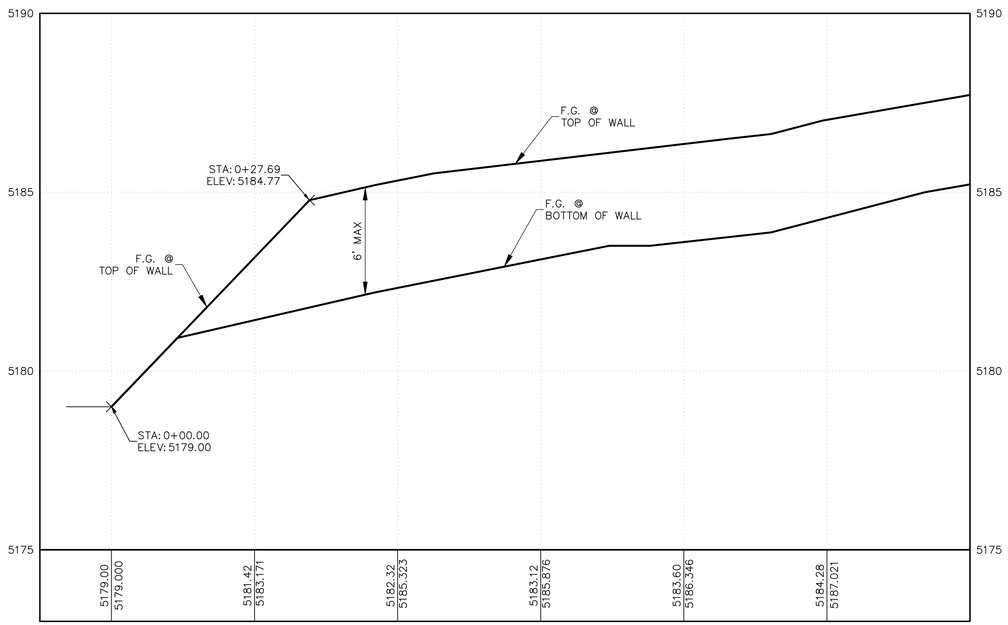
PROJECT NO:	24001
DESIGNED BY:	RJF
DRAWN BY:	JB
CHECKED BY:	RJF
DATE:	MAY 2024

SHEET TITLE
RETAINING WALL
NO. 1
PLAN & PROFILE

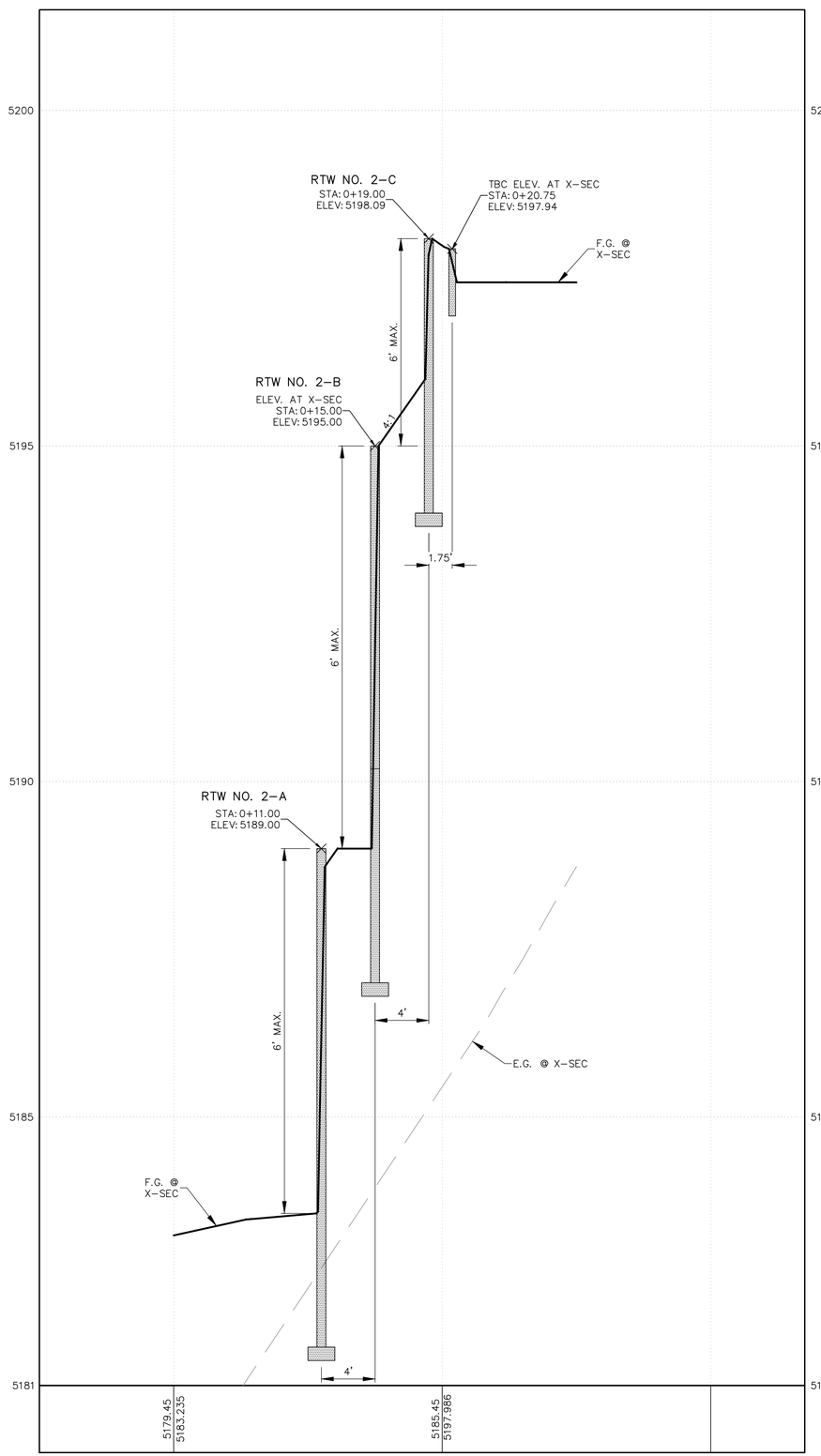
SHEET NO:
C-4



24001–RTW 2–A PROFILE



24001–XSEC B–B PROFILE



Fierro&Company
ENGINEERING | SURVEYING
3201 4TH STREET NW, SUITE C
ALBUQUERQUE, NEW MEXICO 87107
PH (505) 352-8930
www.fierrocompany.com

ENGINEER'S SEAL
ROBERT J. FIERRO
NEW MEXICO
20585
6-20-2024
PROFESSIONAL ENGINEER

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

REV.	DATE	DESCRIPTION	BY

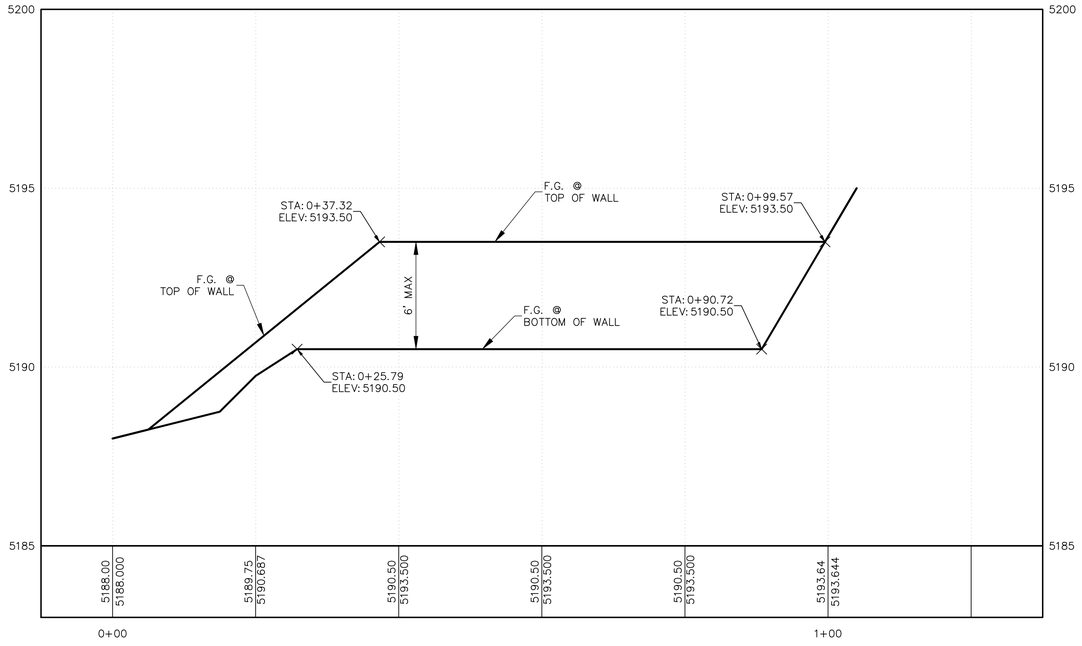
PROJECT NO:	24001
DESIGNED BY:	RJF
DRAWN BY:	JB
CHECKED BY:	RJF
DATE:	MAY 2024

SHEET TITLE
RETAINING WALL NO. 2 PLAN & PROFILE

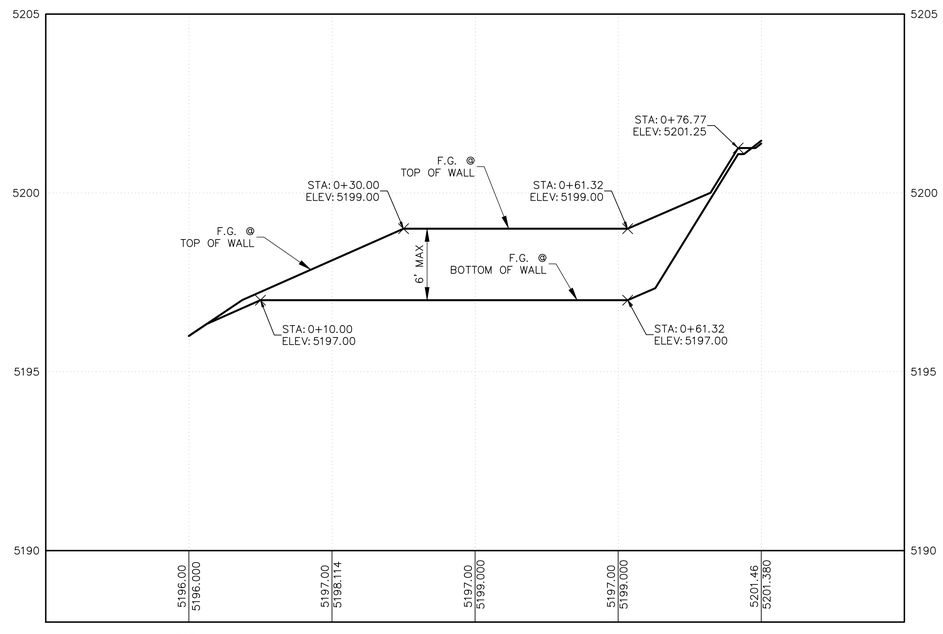
SHEET NO:
C-5

P:_PROJECTS\2024\24001\CADD\SHEETS\HYDROLOGY\24001-WALL PNP.dwg 6/20/2024 3:49:44 PM

24001–RTW 2–B PROFILE



24001–RTW 2–C PROFILE



0 20' 40'
HORIZONTAL

0 4' 8'
VERTICAL

Fierro&Company
ENGINEERING | SURVEYING
3201 4TH STREET NW, SUITE C
ALBUQUERQUE, NEW MEXICO 87107
PH (505) 352-8930
www.fierrocompany.com

ENGINEER'S SEAL

PROJECT NAME

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

	BY	DESCRIPTION	DATE	REV.

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

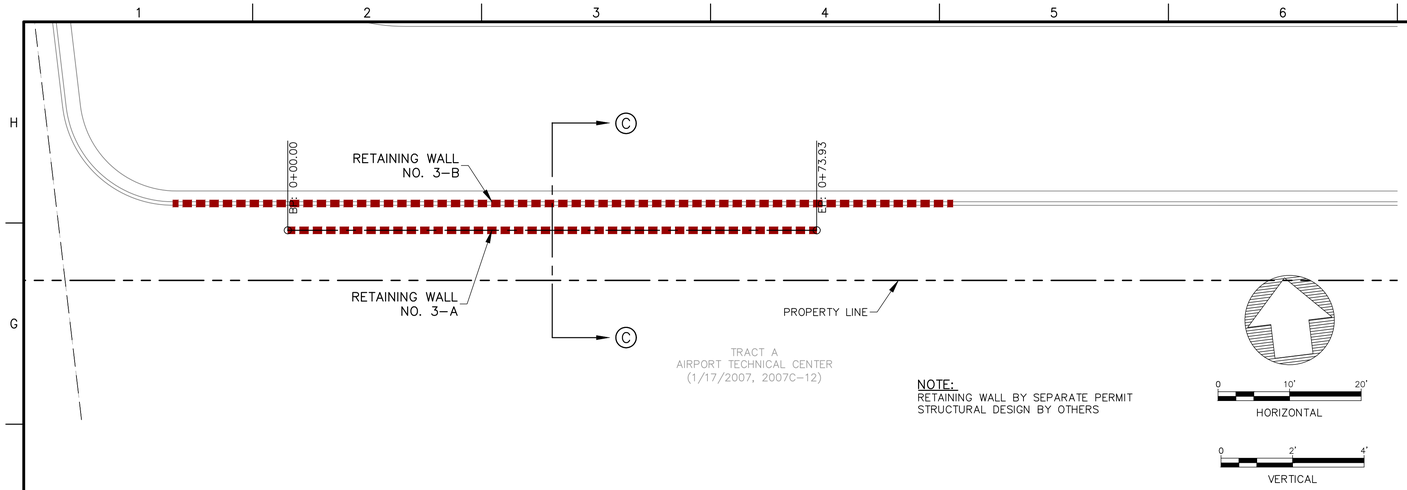
SHEET TITLE

RETAINING WALL
NO. 2
PLAN & PROFILE

SHEET NO:

C-6

P:_PROJECTS\2024\24001\CADD\SHEETS\HYDROLOGY\24001-WALL PNP.dwg 6/20/2024 3:49:44 PM

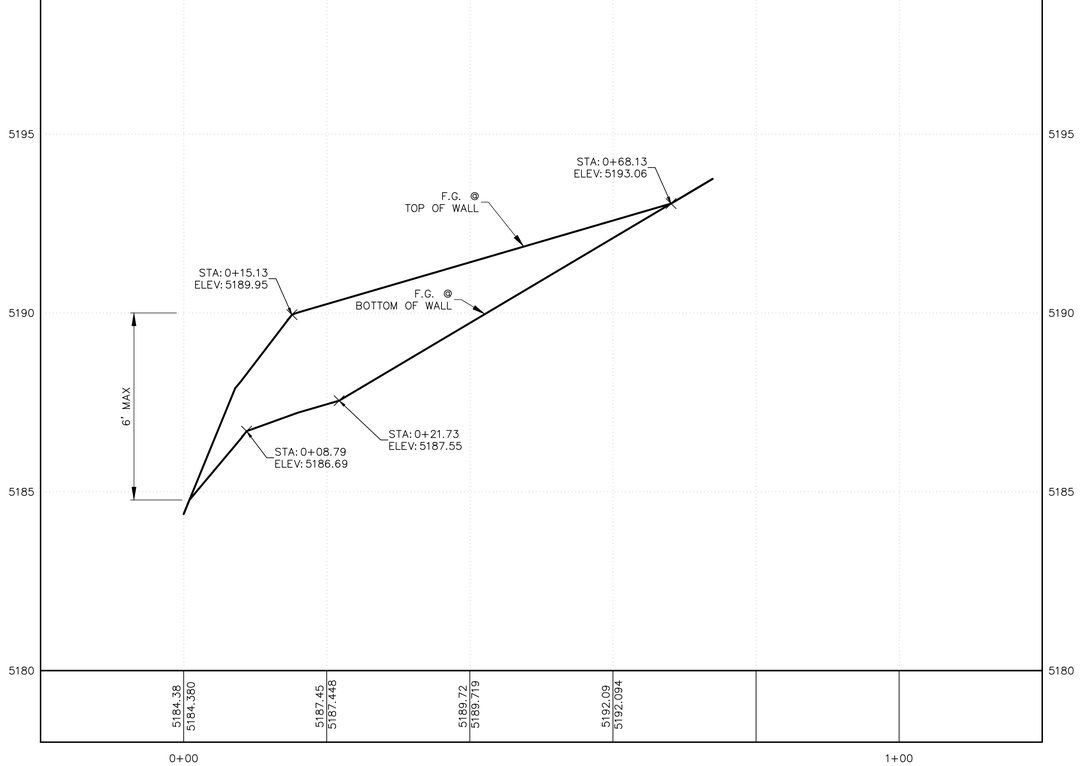


NOTE:
RETAINING WALL BY SEPARATE PERMIT
STRUCTURAL DESIGN BY OTHERS

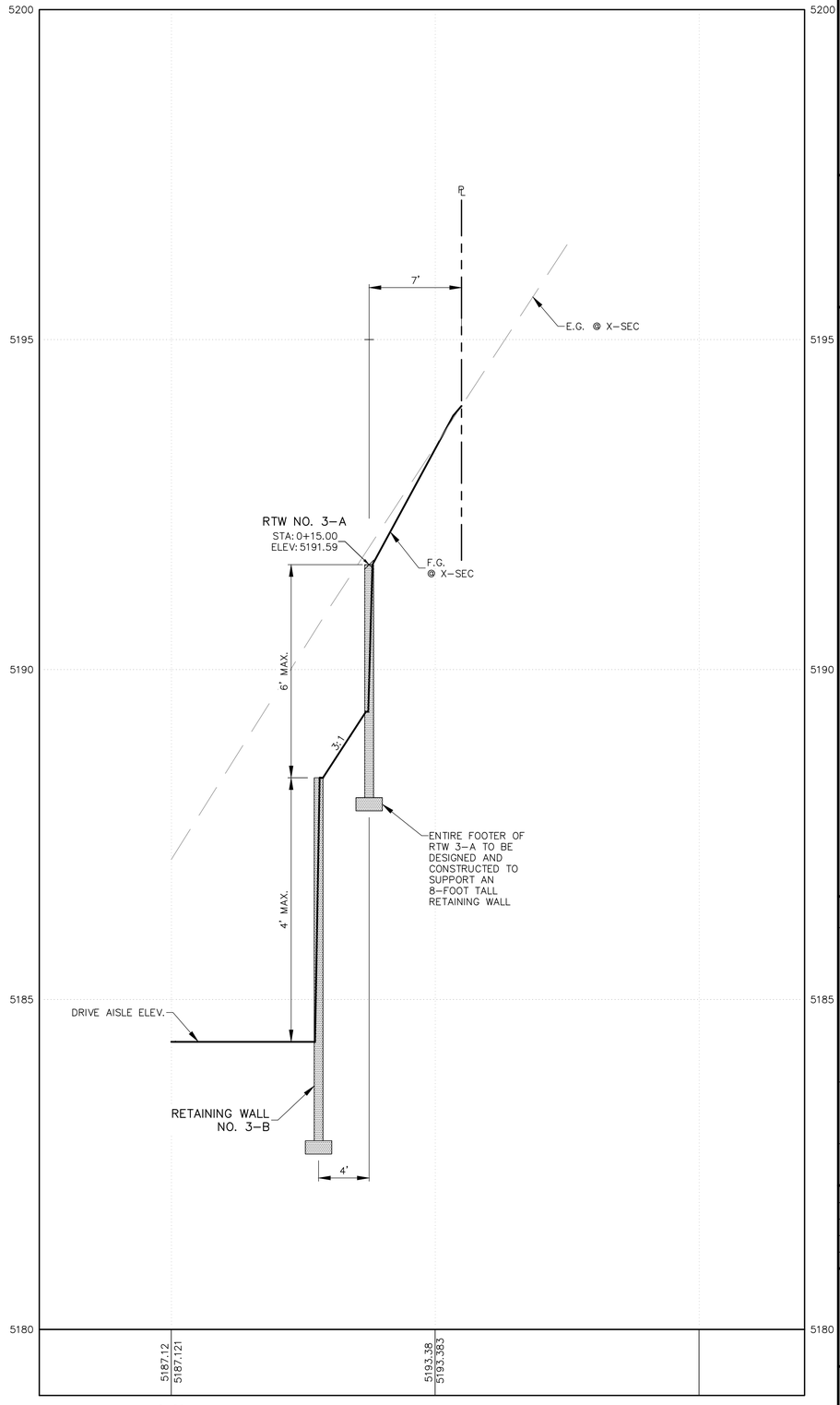
0 10' 20'
HORIZONTAL

0 2' 4'
VERTICAL

24001–RTW 3–A PROFILE



24001–XSEC C–C PROFILE



Fierro&Company
ENGINEERING | SURVEYING
3201 4TH STREET NW, SUITE C
ALBUQUERQUE, NEW MEXICO 87107
PH (505) 352–8930
www.fierrocompany.com

ENGINEER'S SEAL
ROBERT J. FIERRO
NEW MEXICO
20585
6-20-2024
PROFESSIONAL ENGINEER

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. 3
PLAN & PROFILE

SHEET NO:
C-7

BASIN MAP

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

DRAINAGE NARRATIVE

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. The subject site is within the Master Drainage Plan for Lots 6B-2 and 8B, Airport Technical Center with an allowable discharge rate of 16.4 cfs.

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.

STORMWATER QUALITY VOLUME (WAIVER):

GIVEN:
$Area_D$=114,478 sq.ft.
SOLUTION:
$SWQV=\frac{1}{12}(R_D*Area_D) = \frac{1}{12}[0.420"*114,478\ sq.ft] = 4,007\ cu.ft.$

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 (%)				$Q_{100yr-6hr}$	$V_{100yr-24hr}$	$V_{100yr-24hr}$
	(sq.ft.)	(acres)	A	B	C	D	(cfs)	(ac-ft)	(cu.ft.)
$100_{ALLOWABLE}$	163540	3.754	0.0	0.0	20.0	80.0	15.3	0.723	31481
$100_{PROPOSED}$	163540	3.754	0.0	15.0	15.0	70.0	14.5	0.662	28831

HYDROLOGY SUMMARY

LEGEND

- PROPERTY BOUNDARY
- FLOW PATH
- ROOF FLOW
- SURFACE DRAINAGE
- EASEMENT LINE
- SAS — EXISTING SEWER LINE
- SD — SD — SD — EXISTING STORM DRAIN
- SD — SD — SD — NEW STORM DRAIN
- 3910 — PROPOSED MAJOR CONTOUR
- 3908 — PROPOSED MINOR CONTOUR
- BASIN

Fierro&Company
ENGINEERING | SURVEYING
3201 4TH STREET NW, SUITE C
ALBUQUERQUE, NEW MEXICO 87107
PH (505) 352-8930
www.fierrocompany.com

ENGINEER'S SEAL
ROBERT J. FIERRO
NEW MEXICO
20585
9-10-70
PROFESSIONAL ENGINEER

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:	JUNE 2024

SHEET TITLE
DRAINAGE PLAN

SHEET NO:
D-1

P:\...PROJECTS\2024\24001\CADD\SHEETS\HYDROLOGY\24001-DRAINAGE.dwg 6/20/2024 3:28:15 PM