CITY OF ALBUQUERQUE

Planning Department
Brennon Williams, Interim Director

Mayor Timothy M. Keller

August 19, 2019

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

RE: Academy Parkway Self-Storage
3605 Osuna Rd. NW
Grading and Drainage Plan
Engineer's Stamp Date: 08/05/19
Hydrology File: E17D001W

Dear Mr. Fierro:

PO Box 1293

Albuquerque

NM 87103

www.cabq.gov

Based upon the information provided in your submittal received 08/06/2019, the Grading & Drainage Plan **is not** approved for Building Permit. The following comments need to be addressed for approval of the above referenced project:

1. Since this project is adjacent to, or drains into an Albuquerque Metropolitan Arroyo and Flood Control Authority (AMAFCA) facility, approval by AMAFCA will be need prior to Hydrology approval. Please contact Nicole Friedt P.E, CFM (nfriedt@amafca.org or 505-884-2215).

2. Please show the Floodplain Zone "A" within the AMAFCA's North Diversion Channel on both sheets.

3. Please label AMAFCA's North Diversion Channel on both sheets.

4. Sheet C-1. Please show the stormwater quality ponds per AMAFCA's email dated 8/19/19.

5. Sheet C-1. Please remove the SO-19 Notes and replace with a note stating, "Coordinate with AMAFCA at (505) xxx-xxxx 48 hours prior to work within AMAFCA's North Diversion Channel." Please contact Nicole at AMAFCA for the contact person and number.

6. Sheet C-2. Please label "Academy Parkway S. NE" on both Basin Maps.

7. Sheet C-2 under Proposed Conditions. Since AMFCA is requiring the stormwater quality ponds please remove the line "The Owner will pay fee in lieu instead of retaining the first flush volume".

8. Sheet C-2 Proposed Basin Map. Please show the stormwater quality ponds per AMAFCA's email dated 8/19/19.

9. 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 (Dough Hughes, PE, jhughes@cabq.gov, 924-3420) 14 days prior to any earth disturbance.

10. Also as a reminder, please provide a Drainage Covenant for the proposed stormwater quality ponds per Chapter 17 of the DPM prior to Permanent Release of Occupancy. Please submit this on the 4th floor of Plaza de Sol. A $25 fee will be required.

11. Standard review fee of $150 will be required at the time of resubmittal.

PO Box 1293

Albuquerque

NM 87103

www.cabq.gov

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

City of Albuquerque

Planning Department

Development & Building Services Division

DRAINAGE AND TRANSPORTATION INFORMATION SHEET (REV 3/2018)

Project Title: Academy Parkway Self-Storage Building Permit #: _____ Hydrology File #: _____

DRB#: _____ EPC#: _____ Work Order#: _____

Legal Description: Lot 6A-1, Block A, Interstate Industrial Tract, Unit 1

City Address: 3605 Osuna Rd. NW, Albuquerque, NM 87120

Applicant: Fierro & Company, LLC Contact: Robert Fierro

Address: 6300 Montano Rd. NW, Albuquerque, NM 87120

Phone#: (505) 503-9546 Fax#: _____ E-mail: robertfierro@fierrocompany.com

Other Contact: _____ Contact: _____

Address: _____

Phone#: _____ Fax#: _____ E-mail: _____

Check all that Apply:

IS THIS A RESUBMITTAL?: ____ Yes __x__ No

DEPARTMENT:

__x__ HYDROLOGY/ DRAINAGE

____ TRAFFIC/ TRANSPORTATION

TYPE OF SUBMITTAL:

____ ENGINEER/ARCHITECT CERTIFICATION

____ PAD CERTIFICATION

____ CONCEPTUAL G & D PLAN

__x__ GRADING PLAN

____ DRAINAGE MASTER PLAN

____ DRAINAGE REPORT

____ FLOODPLAIN DEVELOPMENT PERMIT APPLIC

____ ELEVATION CERTIFICATE

____ CLOMR/LOMR

____ TRAFFIC CIRCULATION LAYOUT (TCL)

____ TRAFFIC IMPACT STUDY (TIS)

____ OTHER (SPECIFY) _____

____ PRE-DESIGN MEETING?

TYPE OF APPROVAL/ACCEPTANCE SOUGHT:

__X__ BUILDING PERMIT APPROVAL

____ CERTIFICATE OF OCCUPANCY

____ PRELIMINARY PLAT APPROVAL

____ SITE PLAN FOR SUB'D APPROVAL

____ SITE PLAN FOR BLDG. PERMIT APPROVAL

____ FINAL PLAT 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

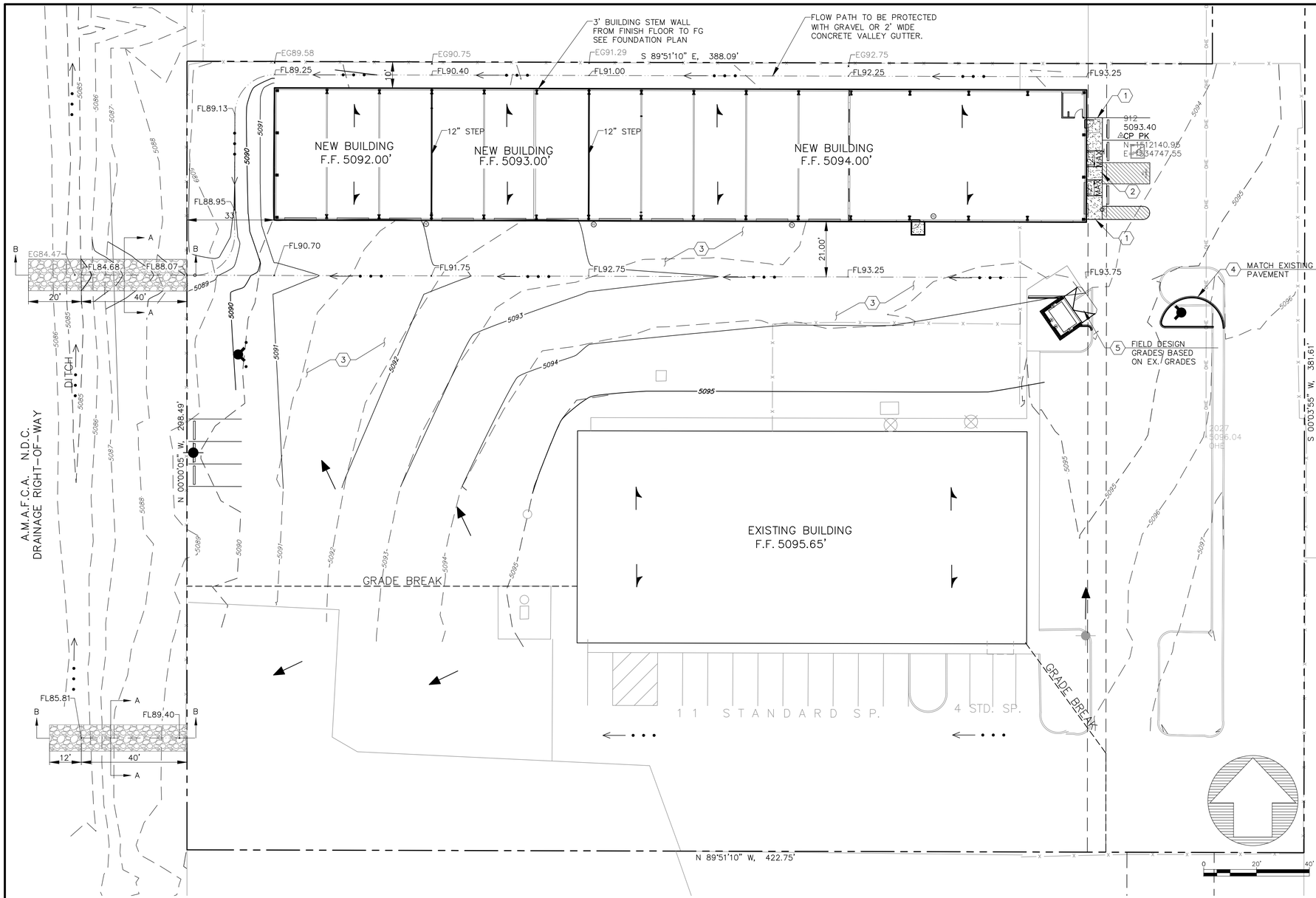
____ FLOODPLAIN DEVELOPMENT PERMIT

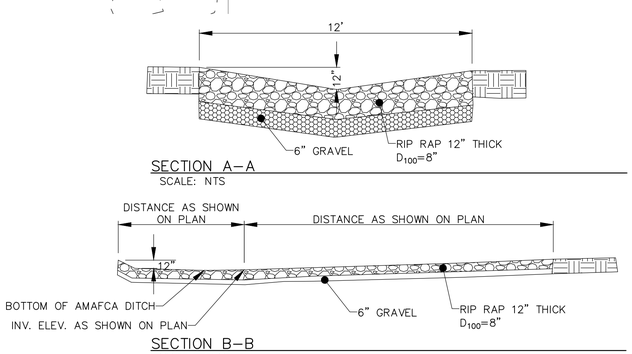
____ OTHER (SPECIFY) _____

DATE SUBMITTED: 8/6/2019 By: Robert Fierro

COA STAFF: ELECTRONIC SUBMITTAL RECEIVED: _____

FEE PAID: _____





1 GRAVEL RUNDOWN DETAIL

GENERAL GRADING NOTES:

1. 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.
2. PERFORM GRADING AND EXCAVATION WORK IN COMPLIANCE WITH APPLICABLE SPECIFICATIONS, REQUIREMENTS, CODES AND ORDINANCES OF ALBUQUERQUE, NEW MEXICO.
3. CONTRACTOR SHALL BE RESPONSIBLE FOR THE DISPOSAL OF OR OBTAINING EXCESS CUT OR FILL MATERIAL REQUIRED FOR FINAL GRADE.
4. CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING AND COORDINATING WITH NEW MEXICO ONE CALL PRIOR EXCAVATION.
5. DO NOT DEPRESS LANDSCAPING WITHIN 15–FEET FROM BUILDING FOUNDATION.

KEYED NOTES:

1. CONSTRUCT TURNDOWN SIDEWALK PER DETAIL 1/C–3.
2. CONSTRUCT TURNDOWN SIDEWALK AT ACCESSIBLE ZONES PER DETAIL 2/C–3.
3. CONSTRUCT ASPHALT PAVEMENT PER DETAIL 3/C–3.
4. CONSTRUCT HEADER CURB PER DETAIL 4/C–3.
5. CONSTRUCT CONCRETE PER DETAIL 5/C–3.
6. CONSTRUCT GRAVEL RUNDOWN PER DETAIL 1/C–1.

LEGEND

- PROPERTY BOUNDARY
- FLOW PATH
- PROPOSED RETAINING WALL
- FLOWLINE
- 3905 EXISTING MAJOR CONTOUR
- 05 EXISTING MINOR CONTOUR
- PROPOSED MAJOR CONTOUR
- PROPOSED MINOR CONTOUR
- FG26.29 FINISHED GRADE
- FL FLOW LINE
- TA TOP OF ASPHALT
- TBC TOP BACK OF CURB
- TC TOP OF CURB
- TOC TOP OF CONCRETE
- TS TOP OF SIDEWALK
- TW TOP OF WALL
- BW BOTTOM OF WALL
- ROOF FLOW DIRECTION
- SURFACE FLOW DIRECTION
- NEW SIDEWALK
- FIRST FLUSH PONDING LIMITS

Private Drainage Facilities within City Right-of-Way
Notice to Contractor
(Special Order 19 ~ "SO-19")

1. An excavation permit will be required before beginning any work within City Right-Of-Way.
2. All work on this project shall be performed in accordance with applicable federal, state and local laws, rules and regulations concerning construction safety and health.
3. Two working days prior to any excavation, the contractor must contact **New Mexico One Call, dial "811"** [or (505) 260-1990] for the location of existing utilities.
4. Prior to construction, the contractor shall excavate and verify the locations of all obstructions. Should a conflict exist, the contractor shall notify the engineer so that the conflict can be resolved with a minimum amount of delay.
5. Backfill compaction shall be according to traffic/street use.
6. Maintenance of the facility shall be the responsibility of the owner of the property being served.
7. Work on arterial streets may be required on a 24-hour basis.
8. Contractor must contact Jason Rodriguez at 235-8016 and Construction Coordination at 924-3416 to schedule an inspection.

BENCH MARK
CITY OF ALBUQUERQUE GEODETIC CONTROL "20–L16"
NAVD 1988 ELEVATION 5210.836'
LOCATED AT THE SW CORNER OF GIRARD BLVD. SE AND BURTON AVENUE SE

Fierro&Company
ENGINEERING | SURVEYING
6300 MONTANO RD. NW, SUITE C
ALBUQUERQUE, NEW MEXICO 87120
PH (505) 352–8930
www.fierrocompany.com

ENGINEER'S SEAL

ROBERT J. FIERRO NEW MEXICO 20585 PROFESSIONAL ENGINEER 8-5-19

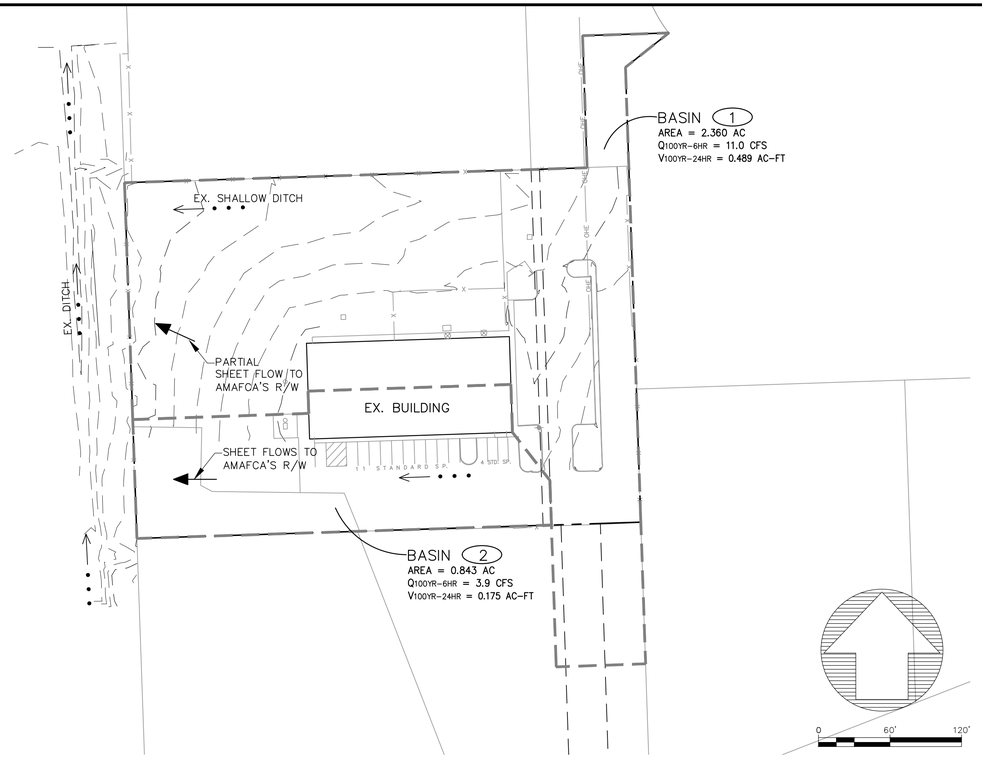
PROJECT NAME
ACADEMY PARKWAY SELF STORAGE
3605 OSUNA ROAD N.E.
ALBUQUERQUE, NM 87109

REV.	DATE	DESCRIPTION	BY

PROJECT NO:	19012
DESIGNED BY:	RJF
DRAWN BY:	RJS
CHECKED BY:	RJF
DATE:	MAY 2019

SHEET TITLE
GRADING PLAN

SHEET NO:
C-1



E1 EXISTING BASIN MAP

FLOOD INSURANCE RATE MAP
MAP NO. 35001C0136G
EFFECTIVE DATE: 09/26/2008

ZONE ATLAS MAP
PAGE K-15-Z

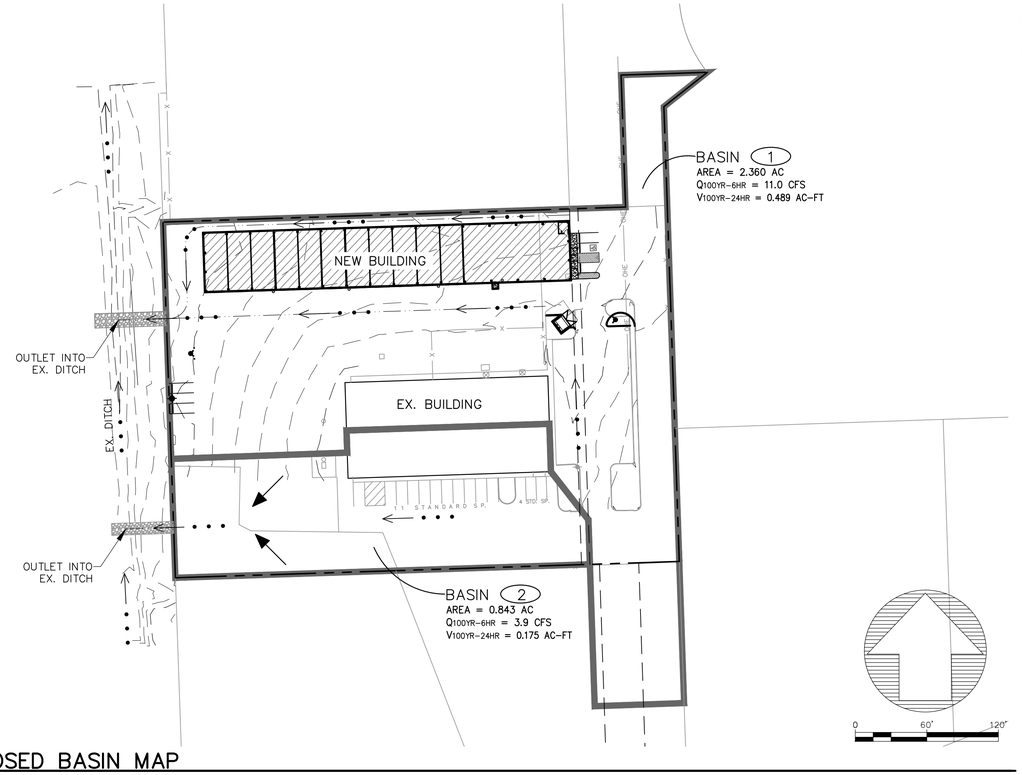
Introduction
A 15,370 sq.ft. RV storage building is being proposed at 3605 Osuna Rd. NE directly north of the Cox Tire and Automotive building . The proposed building will be built on the same lot as the Cox Tire and Automotive building, which is Lot 6A-1, Block A, Interstate Industrial Tract, Unit 1. The existing site's grading and drainage plan is file E15/D54 as recorded under City of Albuquerque's hydrology department. The purpose of this Grading & Drainage Plan is to 1) provide hydrologic and hydraulic analysis of the existing and proposed condition, 2) satisfy the first flush requirement, 3) seek building approval, and 4)seek approval to perform construction within AMAFCA's right-of-way.

Methodology
Hydrologic procedures presented in the Hydrology Section of the DMP, Section 22.2, revised April 7, 1993 were followed.

Existing Condition
The site currently outlets runoff from two discharge points. Basin 1 discharges via a shallow ditch located along the north property line. Basin 2 discharges as sheet flow into's AMAFCA's Right-of-Way. Both oultets are released into an AMAFCA's ditch. Said AMAFCA's ditch connects to a North Diversion Channel outfall, which is located approximately 550 feet north of the site. The approved Grading & Drainage plan under file E15/D54 allows free discharge into's AMAFCA's right-of-way with it being 100% impervious (Land Treatment D). The site is currently 98% impervious and includes a 13,700 sq.ft. building and asphalt parking lot.

Proposed Condition
Improvements includes a 15,370 sq.ft. RV storage building and additional parking. The proposed drainage pattern will not alter from the approved grading plan filed under E15/D54. The owner will pay the fee in lieu instead of retaining the first flush volume. The first flush volume is calculated to be 754 cubic feet as computed below. The new impervious area includes the RV storage building, new parking, and a 28-foot drive aisle along the self-storage building. The outlet from Basin 1 and Basin 2 is proposed to be a gravel rundown a shown in detail 1/C-1. The gravel rundown was originally proposed in the G&D plan under file E15/D54. Currently the gravel rundown does not exist and has not been maintained. It is proposed to construct both rundowns under this grading & drainage plan. Hydrologic and hydraulic analysis is included on this Sheet.

Conclusion
The City's requirements have been satisfied under this grading & drainage plan. The contractor shall use these civil sheets for construction, and will need a drainage certification in order to obtain a Close-out. This drainage report seeks approval for building permit and work within AMAFCA's right-of-way.



A1 PROPOSED BASIN MAP

LEGEND

- SWALE
- 5705 EXISTING MAJOR CONTOUR
- 5704 EXISTING MINOR CONTOUR
- PROPOSED MAJOR CONTOUR
- PROPOSED MINOR CONTOUR
- SURFACE FLOW DIRECTION
- ROOF FLOW DIRECTION
- EXISTING BASIN MAP
- PROPOSED BASIN MAP

Basin 1 - Existing/Proposed

Area of Treatment A	=	0.000	ft^2
		0	ac
Area of Treatment B	=	2146.00	ft^2
		0.049	ac
Area of Treatment C	=	0.00	ft^2
		0.000	ac
Area of Treatment D	=	100675.00	ft^2
		2.311	ac
Total Area	=	102821.00	ft^2
		2.360	ac
		0.003688	
Volumetric Flow			
Weighted E	=	2.092	inches
Volume (6hr)	=	0.412	acre-ft
Volume (24hr)	=	0.489	acre-ft
Volume (4days)	=	0.594	acre-ft
Volume (10days)	=	0.720	acre-ft
Peak Rate of Discharge			
Q_{100}	=	11.0	cfs

Basin 2 - Existing/Proposed

Area of Treatment A	=	0.000	ft^2
		0	ac
Area of Treatment B	=	515.00	ft^2
		0.012	ac
Area of Treatment C	=	0.00	ft^2
		0.000	ac
Area of Treatment D	=	36214.00	ft^2
		0.831	ac
Total Area	=	36729.00	ft^2
		0.843	ac
		0.001317	
Volumetric Flow			
Weighted E	=	2.101	inches
Volume (6hr)	=	0.148	acre-ft
Volume (24hr)	=	0.175	acre-ft
Volume (4days)	=	0.213	acre-ft
Volume (10days)	=	0.258	acre-ft
Peak Rate of Discharge			
Q_{100}	=	3.934	cfs

A6 HYDROLOGY CALCULATIONS

FIRST FLUSH STORAGE:
WATER QUALITY STORAGE NEEDED=26,600 SQ.FT.*(.34")*(1'/12")=754 CU.FT.

Triangular
Side Slopes (z:1) = 6.00, 6.00
Total Depth (ft) = 1.00
Invert Elev (ft) = 100.00
Slope (%) = 4.00
N-Value = 0.033
Calculations
Compute by: Known Q
Known Q (cfs) = 11.00

Highlighted
Depth (ft) = 0.66
Q (cfs) = 11.00
Area (sqft) = 2.61
Velocity (ft/s) = 4.21
Wetted Perim (ft) = 8.03
Crit Depth, Yc (ft) = 0.74
Top Width (ft) = 7.92
EGL (ft) = 0.94

B8 HYDRAULIC CALC.- BASIN 1 CHANNEL

Triangular
Side Slopes (z:1) = 6.00, 6.00
Total Depth (ft) = 1.00
Invert Elev (ft) = 100.00
Slope (%) = 4.00
N-Value = 0.033
Calculations
Compute by: Known Q
Known Q (cfs) = 4.00

Highlighted
Depth (ft) = 0.45
Q (cfs) = 4.000
Area (sqft) = 1.21
Velocity (ft/s) = 3.29
Wetted Perim (ft) = 5.47
Crit Depth, Yc (ft) = 0.49
Top Width (ft) = 5.40
EGL (ft) = 0.62

A8 HYDRAULIC CALC.- BASIN 2 CHANNEL

Fierro&Company
ENGINEERING | SURVEYING
6300 MONTANO RD. NW, SUITE C
ALBUQUERQUE, NEW MEXICO 87120
PH (505) 352-8930
www.fierrocompany.com

ENGINEER'S SEAL
ROBERT J. FIERRO
NEW MEXICO
20585
8-5-19
PROFESSIONAL ENGINEER

PROJECT NAME
ACADEMY PARKWAY SELF STORAGE
3605 OSUNA ROAD N.E.
ALBUQUERQUE, NM 87109

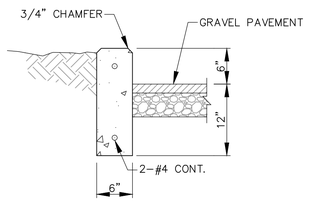
REV.	DATE	DESCRIPTION	BY

PROJECT NO:	19012
DESIGNED BY:	RJF
DRAWN BY:	RJS
CHECKED BY:	RJF
DATE:	MAY 2019

SHEET TITLE
DRAINAGE PLAN

SHEET NO:
C-2

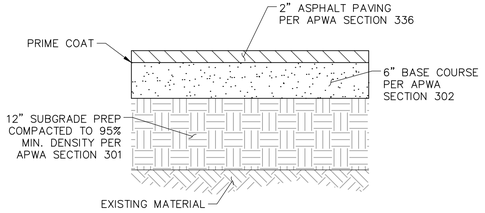
\\Server\projects\2019\19012\CADD\SHEETS\19012-DRAINAGE.dwg 8/5/2019 8:11:20 PM



CURB GENERAL NOTES

1. ANY DEVIATIONS FROM THESE STANDARDS SHALL BE SUBMITTED TO THE CITY ENGINEER FOR PRIOR APPROVAL
2. ALL WORK IN PUBLIC RIGHT–OF–WAY SHALL BE CONSTRUCTED BY A LICENSED CONTRACTOR AND REQUIRES PERMIT AND APPROVAL BY THE DEPT OF PUBLIC WORKS.
3. SUBGRADE SHALL BE COMPACTED TO 95% ASTM D 1557, MIN.
4. CURB SHALL BE PORTLAND CEMENT CONCRETE. PORTLAND CEMENT CONCRETE SHALL BE 3000 PSI @ 28 DAYS w/CLASS F FLY ASH AND 7% +/– 2% AIR ENTRAINMENT. (MAX 20% FLY ASH BY WEIGHT).
5. FOR CONCRETE CURB CONSTRUCT TRANSVERSE JOINTS AS FOLLOWS:
   – TOOLED CONTRACTION JOINTS AT 5' INTERVALS.
   – 1/2" PRE–MOLDED BITUMINOUS EXPANSION JOINTS AT 15' INTERVALS.
   – SEALED EXPANSION JOINTS AT 90' INTERVALS.
6. DIMENSIONS AT ROUNDED CORNERS MEASURED TO INTERSECTION OF STRAIGHT LINES.

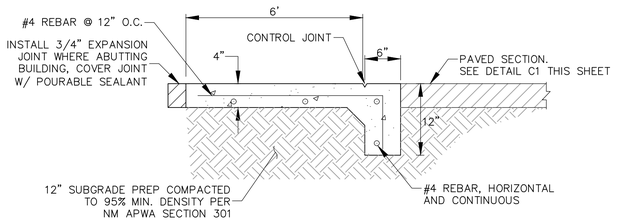
4 HEADER CURB DETAIL
SCALE: NTS



CONSTRUCTION NOTES

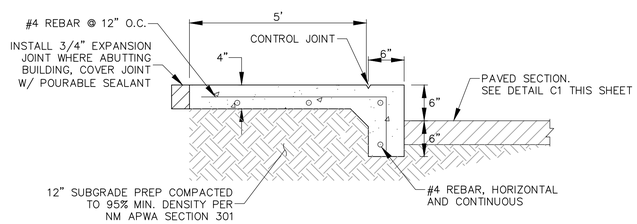
1. PRIOR TO CONSTRUCTION, CONTRACTOR TO OBTAIN PAVEMENT DESIGN FROM A MATERIAL LAB WITH A LICENSED PROFESSIONAL ENGINEER. USE PAVEMENT SECTION RECOMMENDED UNDER PAVEMENT DESIGN FROM MATERIAL LAB. THIS DETAIL IS PROVIDED AS A BASES FOR COST ESTIMATING PURPOSES.

3 TYPICAL ASPHALT PAVEMENT SECTION
SCALE: NTS



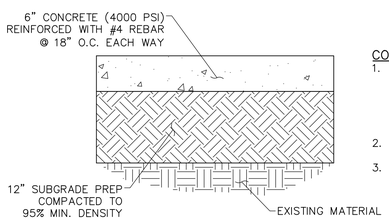
1. CONTROL JOINTS SHALL BE PLACED @ 5' O.C.
2. EXPANSION JOINTS SHALL BE PLACED @ 20' O.C.
3. 4000 PSI CONCRETE W/ BRUSH FINISH.

2 TURN DOWN SIDEWALK AT ACCESSIBLE ZONES
SCALE: 1" = 1'



1. CONTROL JOINTS SHALL BE PLACED @ 5' O.C.
2. EXPANSION JOINTS SHALL BE PLACED @ 20' O.C.
3. 4000 PSI CONCRETE W/ BRUSH FINISH.

1 TURN DOWN SIDEWALK
SCALE: 1" = 1'



CONSTRUCTION NOTES:

1. WHEN ABUTTING TO VERICAL WALLS, BENCHES OR BUILDINGS, INSTALL 1/2" BITUMINOUS EXPANSION JOINT. RECESS 1/4" VERTICALLY. INSTALL SIKA–FLEX POLYMER SEALANT OR APPROVED EQUAL.
2. INSTALL CONTRACTION JOINTS @ 6'–0" O.C.
3. LIGHT BROOM FINISH CONCRETE SURFACE REQUIRED.

5 TYPICAL 6" PCC
SCALE: NTS

Fierro&Company
ENGINEERING | SURVEYING
6300 MONTANO RD. NW, SUITE C
ALBUQUERQUE, NEW MEXICO 87120
PH (505) 352–8930
www.fierrocompany.com

ENGINEER'S SEAL

PROJECT NAME
ACADEMY PARKWAY SELF STORAGE
3605 OSUNA ROAD N.E.
ALBUQUERQUE, NM 87109

REV.	DATE	DESCRIPTION	BY

PROJECT NO:	19012
DESIGNED BY:	RJF
DRAWN BY:	RJS
CHECKED BY:	RJF
DATE:	MAY 2019

SHEET TITLE
DETAILS

SHEET NO:
C-3