

# CITY OF ALBUQUERQUE

Planning Department  
Brennon Williams, Interim Director



Mayor Timothy M. Keller

August 30, 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: 08/22/19  
Hydrology File: E17D001W**

Dear Mr. Fierro:

PO Box 1293

Based upon the information provided in your submittal received 08/22/2019, the Grading & Drainage Plan and Drainage Report are approved for Building Permit.

Albuquerque

Please attach a copy of this approved plan in the construction sets for Building Permit processing along with a copy of this letter. Prior to approval in support of Permanent Release of Occupancy by Hydrology, Engineer Certification per the DPM checklist will be required.

NM 87103

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](mailto:jhughes@cabq.gov), 924-3420) 14 days prior to any earth disturbance.

[www.cabq.gov](http://www.cabq.gov)

Also as a reminder, please provide a Drainage Covenant for the proposed stormwater quality pond 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.

If you have any questions, please contact me at 924-3995 or [rbrissette@cabq.gov](mailto:rbrissette@cabq.gov).

Sincerely,

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:** \_\_\_\_\_ **Building Permit #:** \_\_\_\_\_ **Hydrology File #:** \_\_\_\_\_

**DRB#:** \_\_\_\_\_ **EPC#:** \_\_\_\_\_ **Work Order#:** \_\_\_\_\_

**Legal Description:** \_\_\_\_\_

**City Address:** \_\_\_\_\_

**Applicant:** \_\_\_\_\_ **Contact:** \_\_\_\_\_

**Address:** \_\_\_\_\_

**Phone#:** \_\_\_\_\_ **Fax#:** \_\_\_\_\_ **E-mail:** \_\_\_\_\_

**Other Contact:** \_\_\_\_\_ **Contact:** \_\_\_\_\_

**Address:** \_\_\_\_\_

**Phone#:** \_\_\_\_\_ **Fax#:** \_\_\_\_\_ **E-mail:** \_\_\_\_\_

Check all that Apply:

IS THIS A RESUBMITTAL?: \_\_\_\_ Yes \_\_\_\_ No

**DEPARTMENT:**

- \_\_\_\_ HYDROLOGY/ DRAINAGE  
\_\_\_\_ TRAFFIC/ TRANSPORTATION

**TYPE OF SUBMITTAL:**

- \_\_\_\_ ENGINEER/ARCHITECT CERTIFICATION  
\_\_\_\_ PAD CERTIFICATION  
\_\_\_\_ CONCEPTUAL G & D PLAN  
\_\_\_\_ 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:**

- \_\_\_\_ 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) \_\_\_\_\_

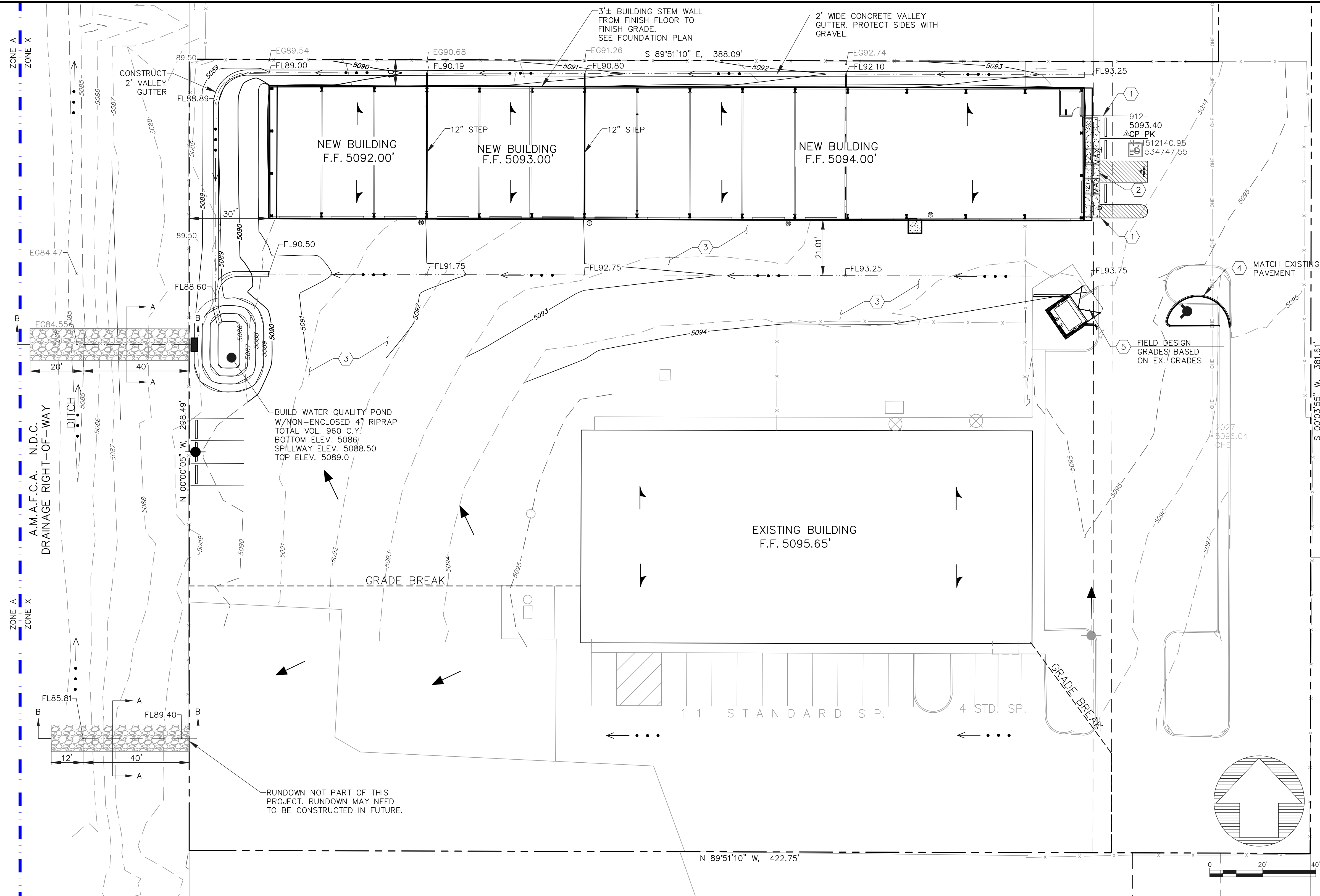
**DATE SUBMITTED:** \_\_\_\_\_ **By:** \_\_\_\_\_

COA STAFF:

ELECTRONIC SUBMITTAL RECEIVED: \_\_\_\_\_

FEE PAID: \_\_\_\_\_

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#### 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
- APPROX. FLOODPLAIN LINE
- FLOW PATH
- PROPOSED RETAINING WALL
- FLOWLINE
- EXISTING MAJOR CONTOUR
- 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

#### A.M.A.F.C.A. NOTE

COORDINATE WITH A.M.A.F.C.A.'S REPRESENTATIVE NICOLE M. FRIEDT, PE AT (505) 884-2215 48 HOURS PRIOR TO WORK WITHIN A.M.A.F.C.A.'S NORTH DIVERSION CHANNEL.

#### 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

PROJECT NAME

BY	DESCRIPTION	DATE	REV.

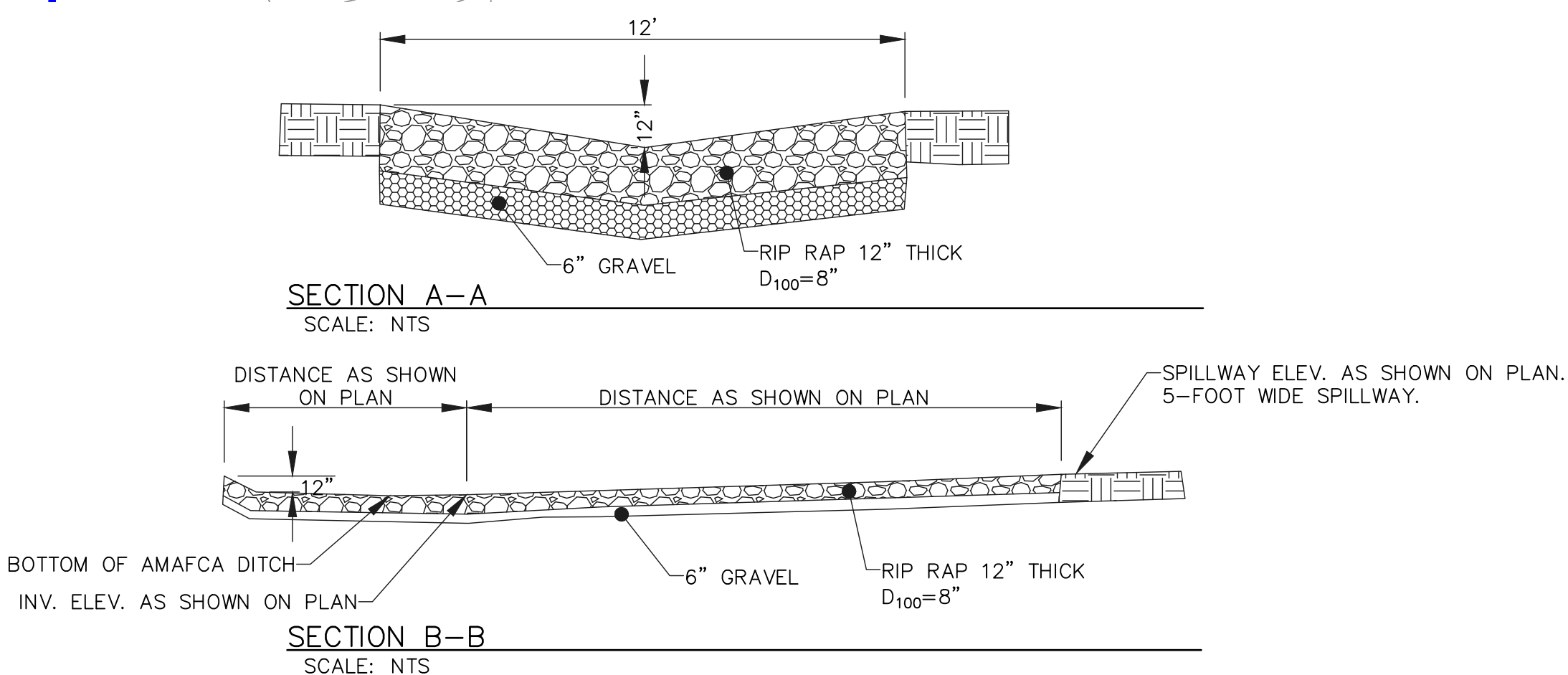
PROJECT NO:	19012
DESIGNED BY:	RJF
DRAWN BY:	RJS
CHECKED BY:	RJF
DATE:	MAY 2019
SHEET TITLE	

#### GRADING PLAN

SHEET NO:

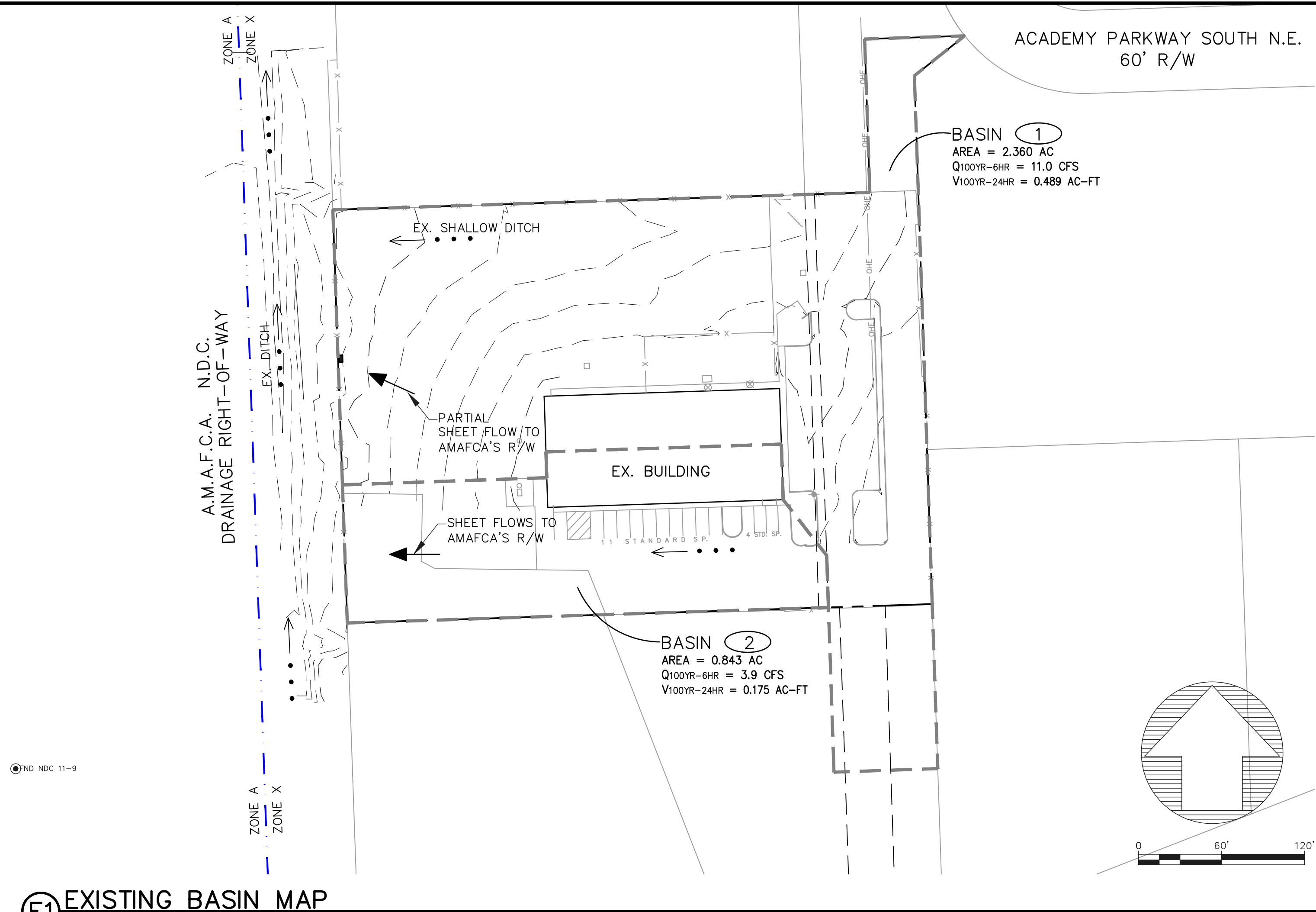
C-1

#### 1 GRAVEL RUNDOWN DETAIL

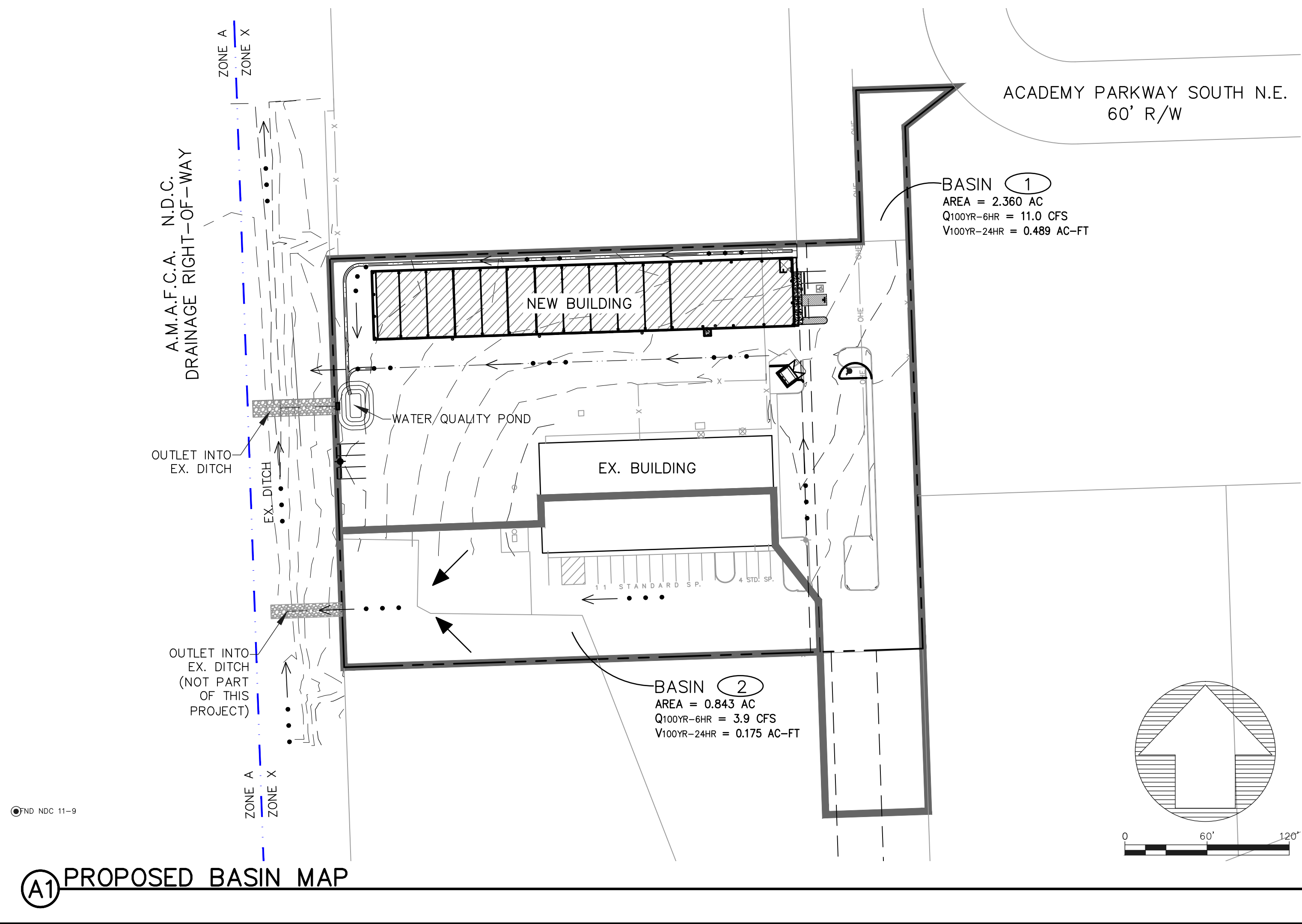




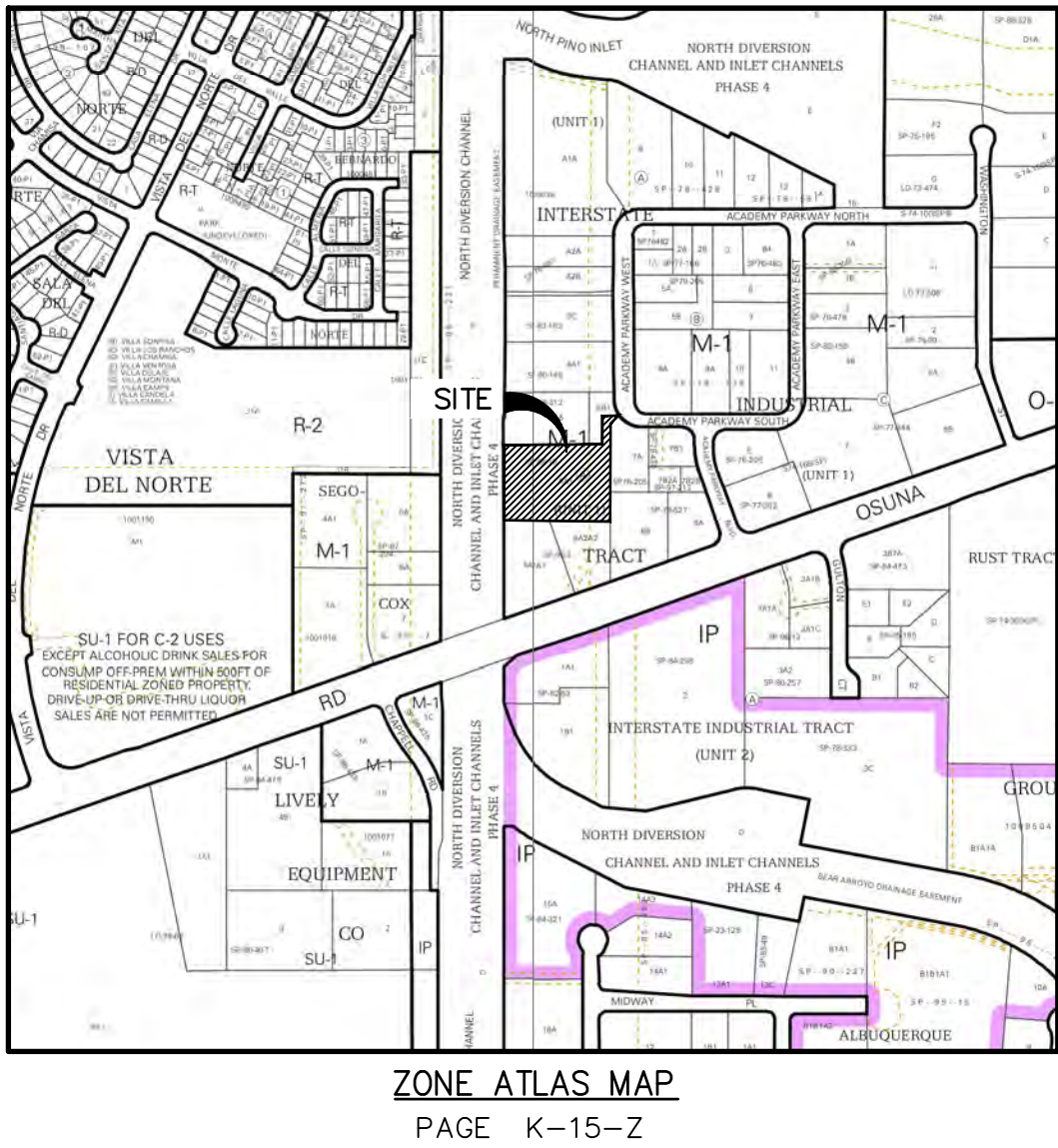
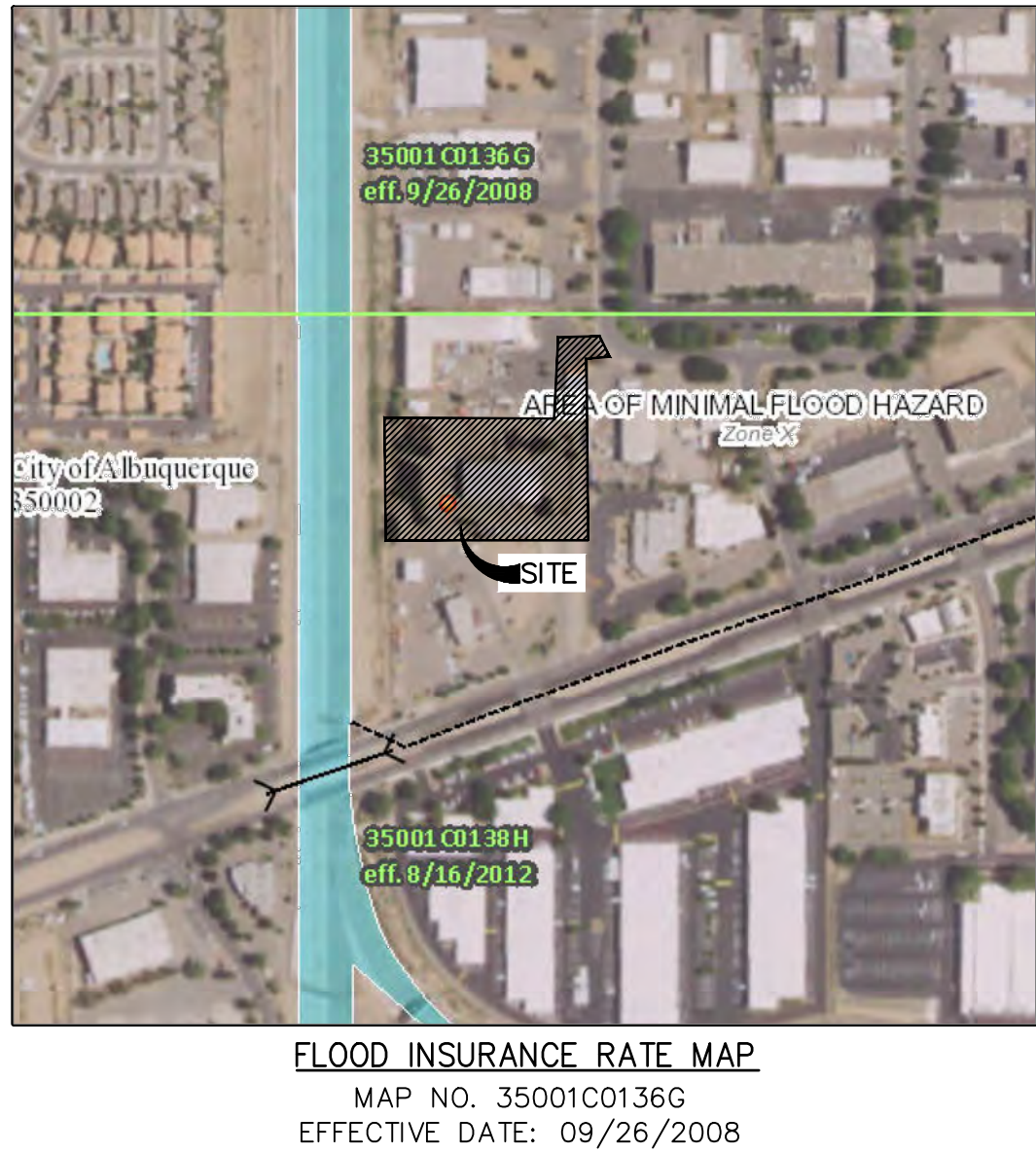
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E1 EXISTING BASIN MAP



A1 PROPOSED BASIN MAP



#### 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 outlets 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 first flush volume will be retained via a water quality pond. The first flush volume from Basin 1 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 is proposed to be a gravel rundown as 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. Hydrologic and hydraulic analysis is included on this Sheet.

The total area of disturbance is 39,500 sq.ft., which is less than the 1-acre threshold for an Erosion and Sediment Control Plan and Owner's certified Notice of Intent (NOI).

#### 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.

#### LEGEND

- SWALE
- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- PROPOSED MAJOR CONTOUR
- PROPOSED MINOR CONTOUR
- SURFACE FLOW DIRECTION
- ROOF FLOW DIRECTION
- EXISTING BASIN MAP
- PROPOSED BASIN MAP
- APPROXIMATE FLOOD PLAIN

#### Basin 1 - Existing/Proposed

Area of Treatment A	=	0.000	ft <sup>2</sup>
		0	ac
Area of Treatment B	=	2146.00	ft <sup>2</sup>
		0.049	ac
Area of Treatment C	=	0.00	ft <sup>2</sup>
		0.000	ac
Area of Treatment D	=	100675.00	ft <sup>2</sup>
		2.311	ac
Total Area	=	102821.00	ft <sup>2</sup>
		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 <sub>100</sub>	=	11.0	cfs

#### Basin 2 - Existing/Proposed

Area of Treatment A	=	0.000	ft <sup>2</sup>
		0	ac
Area of Treatment B	=	515.00	ft <sup>2</sup>
		0.012	ac
Area of Treatment C	=	0.00	ft <sup>2</sup>
		0.000	ac
Area of Treatment D	=	36214.00	ft <sup>2</sup>
		0.831	ac
Total Area	=	36729.00	ft <sup>2</sup>
		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 <sub>100</sub>	=	3.934	cfs

#### FIRST FLUSH STORAGE:

WATER QUALITY STORAGE NEEDED=26,600 SQ.FT.\*(0.34")\*(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

#### B8 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

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

PROJECT NAME

REV.	DATE	DESCRIPTION	BY

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

SHEET TITLE

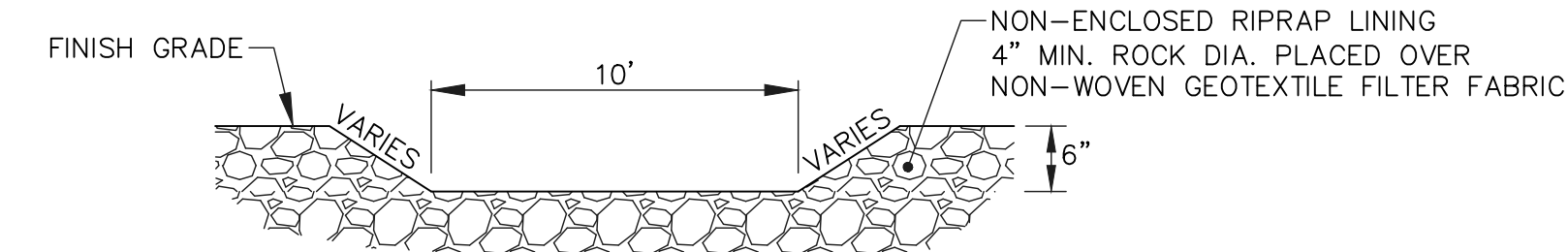
DRAINAGE PLAN

SHEET NO:

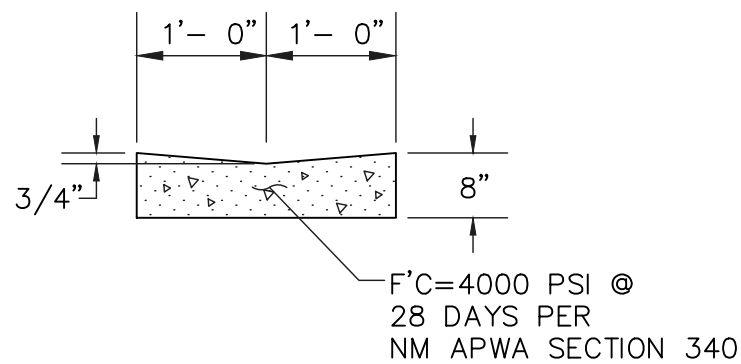
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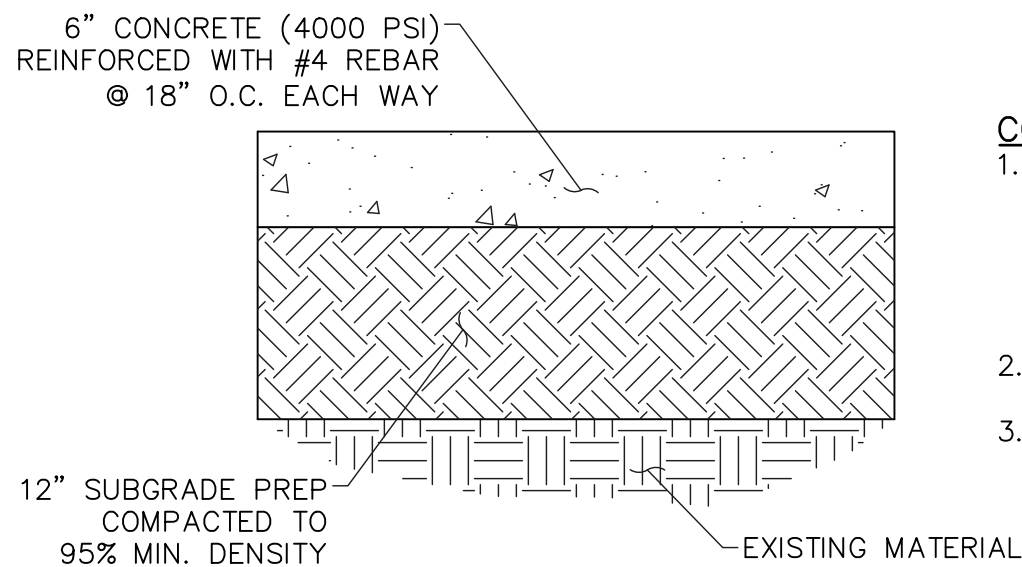
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7 POND OVERFLOW WEIR SECTION  
SCALE: NTS

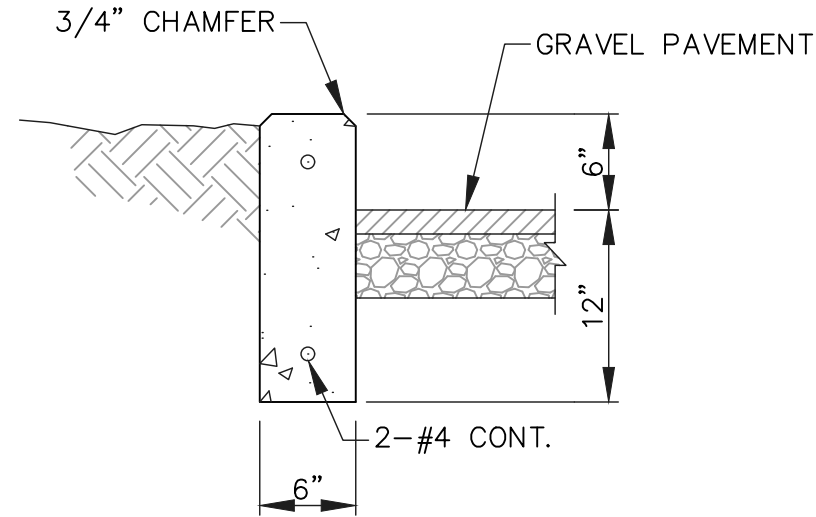


6 2-FT WIDE GUTTER  
SCALE: NTS

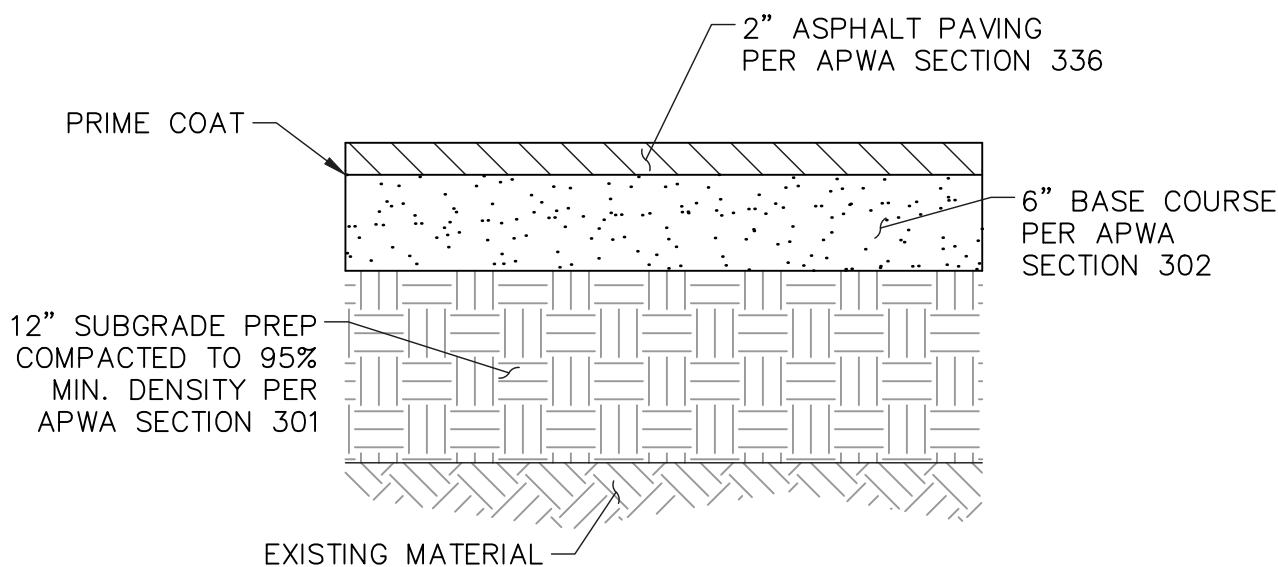


5 TYPICAL 6" PCC  
SCALE: NTS

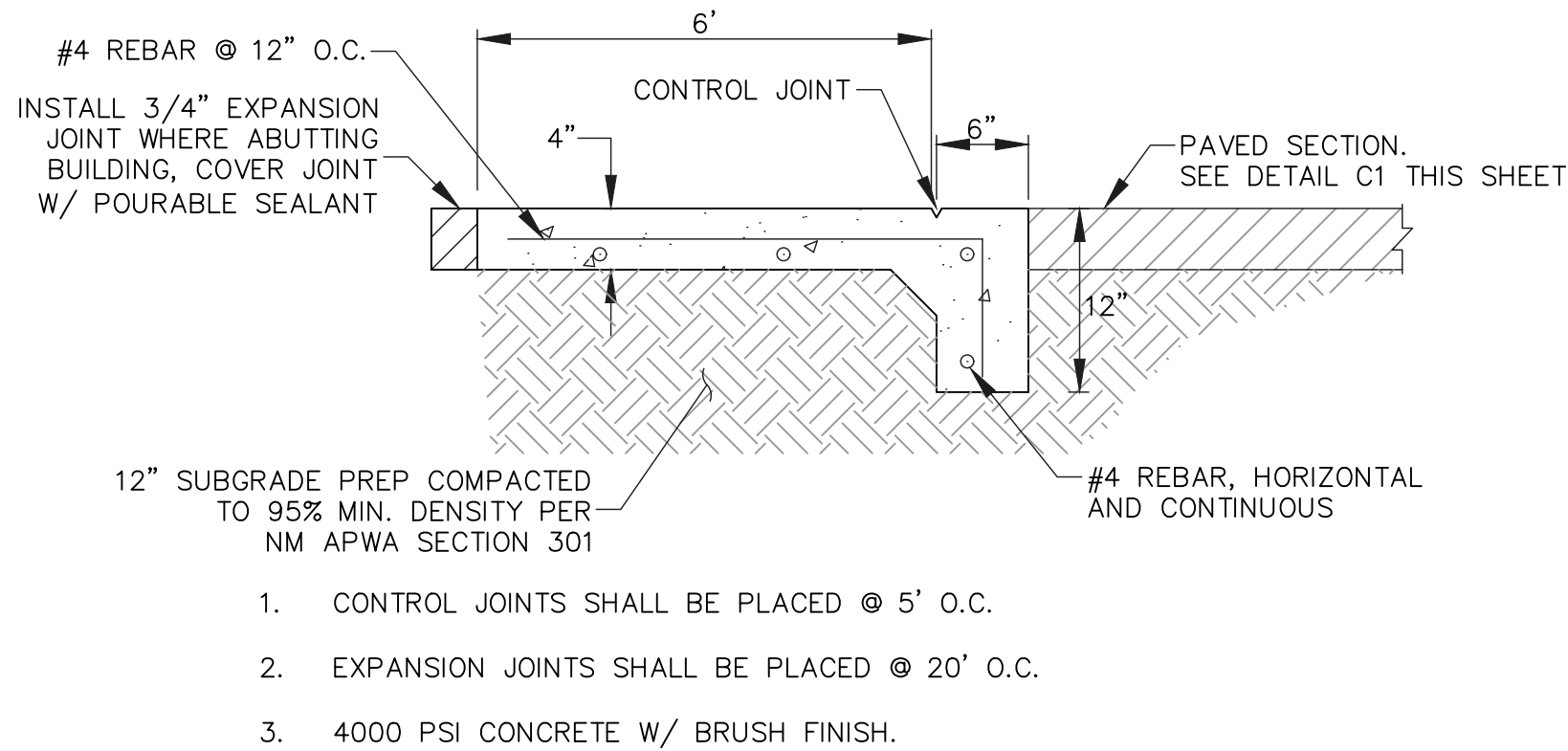
- CONSTRUCTION NOTES:**
1. WHEN ABUTTING TO VERTICAL WALLS, BENCHES OR BUILDINGS, INSTALL 1/2" BITUMINOUS EXPANSION JOINT. RECESS 1/4" VERTICALLY. INSTALL SIKA-FLEX POLYMER SEALANT OR APPROVED EQUAL.
  2. INSTALL CONTRACTION JOINTS @ 6'-0" O.C.
  3. LIGHT BROOM FINISH CONCRETE SURFACE REQUIRED.



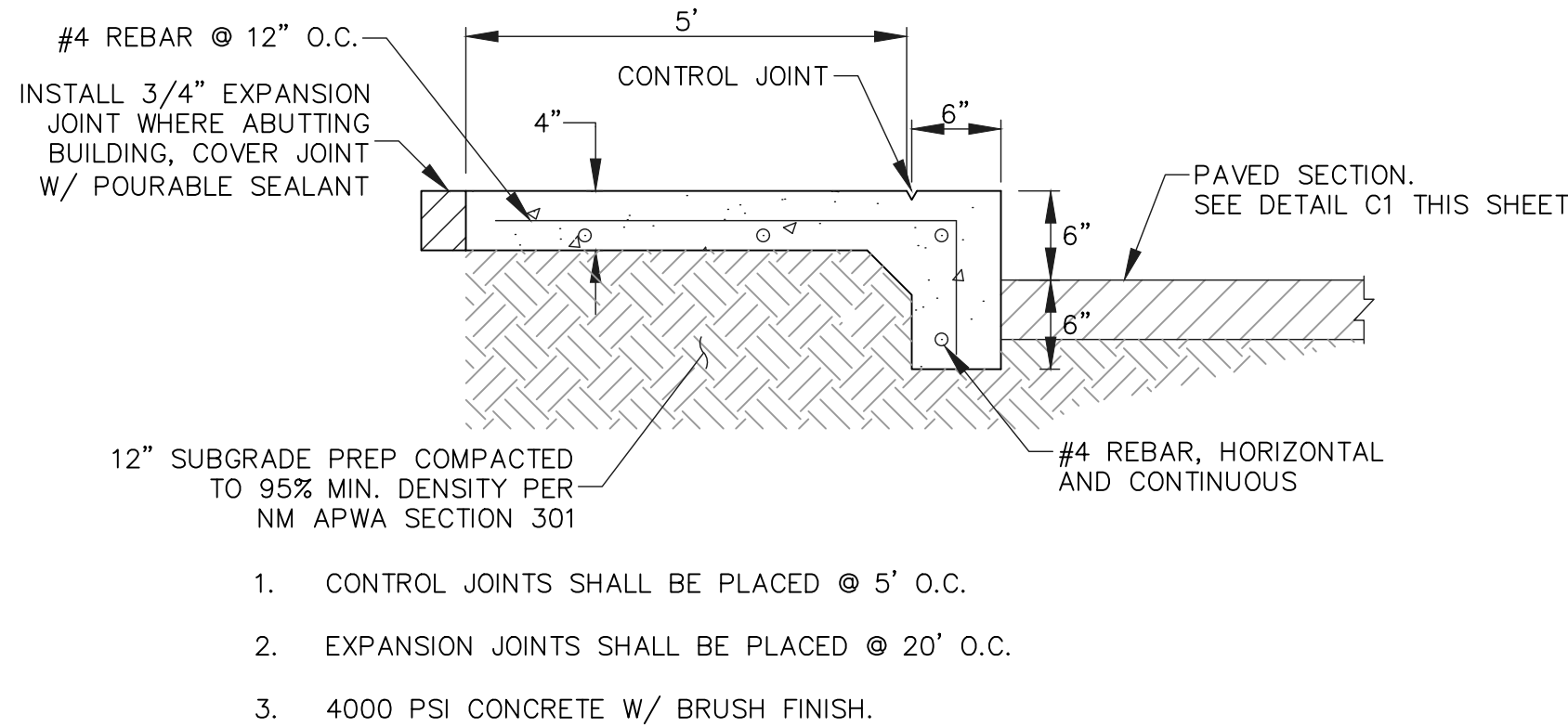
4 HEADER CURB DETAIL  
SCALE: NTS



3 TYPICAL ASPHALT PAVEMENT SECTION  
SCALE: NTS



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



1 TURN DOWN SIDEWALK  
SCALE: 1" = 1'

- 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.

**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.

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

PROJECT NAME

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

ENGINEER'S SEAL



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