CITY OF ALBUQUERQUE

Planning Department
Brennon Williams, Interim Director



June 9, 2020

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:

Based on the submittal received on 5/28/20, this certification is approved in support of

Permanent Certificate of Occupancy by Hydrology.

If you have any questions, please contact me at 924-3986 or earmijo@cabq.gov.

Albuquerque

Sincerely,

NM 87103

Ernest Armijo, P.E.

www.cabq.gov Principal Engineer, Planning Dept.

Development Review Services



City of Albuquerque

Planning Department

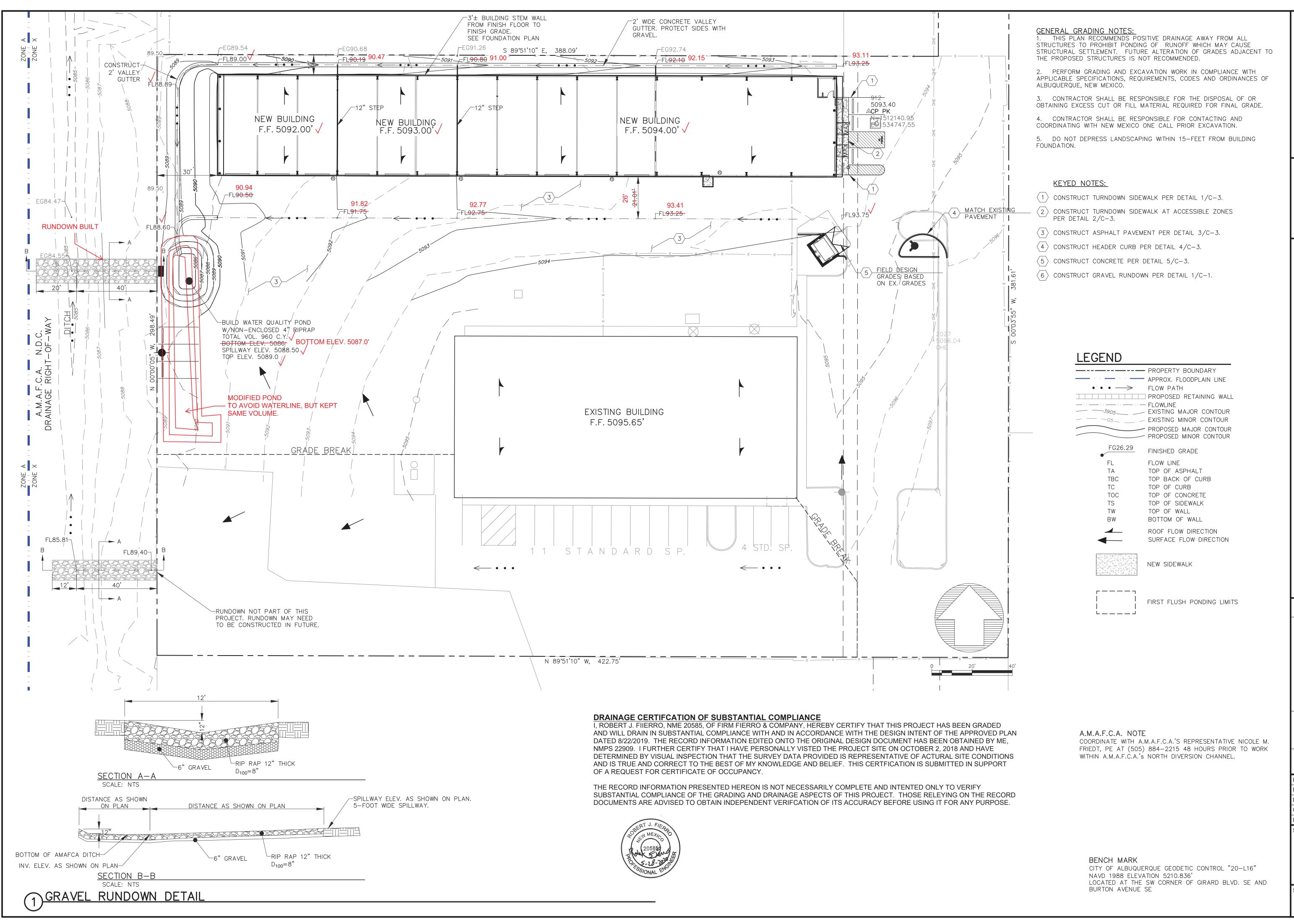
Development & Building Services Division

DRAINAGE AND TRANSPORTATION INFORMATION SHEET (REV 3/2018)

Project Title:	Building Pe	rmit #: Hydrology File #:
DRB#:	EPC#:	Work Order#:
Legal Description:		
City Address:		
Applicant:		Contact:
Address:		
		E-mail:
Other Contact:		Contact:
Address:		
Phone#:	Fax#:	E-mail:
Check all that Apply:		IS THIS A RESUBMITTAL?: Yes No
DEPARTMENT: HYDROLOGY/ DRAINAGETRAFFIC/ TRANSPORTAT TYPE OF SUBMITTAL: ENGINEER/ARCHITECT CEPAD CERTIFICATION	ERTIFICATION ENT PERMIT APPLIC AYOUT (TCL) (TIS)	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:	Ву:	

DA STAFF: ELECT

FEE PAID:



Robert J. FIERPO 205857 Robert Solonal Engineer

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

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

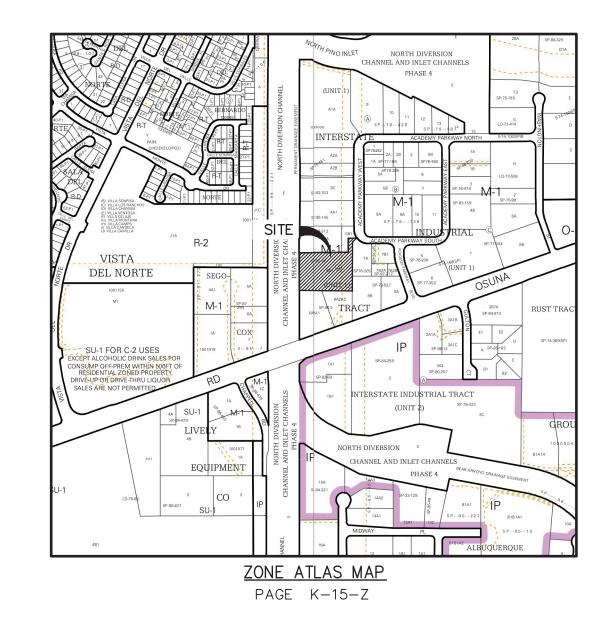
GRADING

SHEET NO:

PLAN



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



Σ

PARKWAY SELF OSUNA ROAD QUERQUE, NM

S6 ALB

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.

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

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.

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 then 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

- 5704	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

sin 1 - Existing/Propo	sec	<u>d</u>		Basin 2 - Existing/Propo	sec	1	
Area of Treatment A	_	0.000	ft ²	Area of Treatment A	=	0.000	ft ²
		0	ac			0	ac
Area of Treatment B	=	2146.00	ft ²	Area of Treatment B	-	515.00	ft ²
		0.049	ac			0.012	ac
Area of Treatment C	_	0.00	ft ²	Area of Treatment C	-	0.00	ft ²
		0.000	ac			0.000	ac
Area of Treatment D	=	100675.00	ft ²	Area of Treatment D	-	36214.00	ft ²
		2.311	ac			0.831	ac
Total Area	=	102821.00	ft ²	Total Area	=	36729.00	ft ²
		2.360	ac			0.843	ac
		0.003688				0.001317	
Volumetric Flow				Volumetric Flow			
Weighted E	=	2.092	inches	Weighted E	=	2.101	inche
Volume (6hr)	-	0.412	acre-ft	Volume (6hr)	=	0.148	acre-
Volume (24hr)	=	0.489	acre-ft	Volume (24hr)	=	0.175	acre-
Volume (4days)	=	0.594	acre-ft	Volume (4days)	=	0.213	acre-
Volume (10days)	=	0.720	acre-ft	Volume (10days)	=	0.258	acre-
eak Rate of Discharge				Peak Rate of Discharge			
Q ₁₀₀	=	11.0	cfs	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		Highlighted	
Side Slopes (z	:1) = 6.00, 6.00	Depth (ft)	= 0.66
Total Depth (ft)	*	Q (cfs)	= 11.0
		Area (sqft)	= 2.61
Invert Elev (ft)	= 100.00	Velocity (ft/s)	= 4.21
Slope (%)	= 4.00	Wetted Perim (ft)	= 8.03
N-Value	= 0.033	Crit Depth, Yc (ft)	= 0.74
		Top Width (ft)	= 7.92
Calculations		EGL (ft)	= 0.94
Compute by:	Known Q	(-)	
Known O (cfs)	= 11.00		

DACINI 1 CHANNEL MADDAILIC CVIC

9			
Triangular		Highlighted	
Side Slopes (z:1)	= 6.00, 6.00	Depth (ft)	= 0.45
Total Depth (ft)	= 1.00	Q (cfs)	= 4.00
		Area (sqft)	= 1.2
Invert Elev (ft)	= 100.00	Velocity (ft/s)	= 3.29
Slope (%)	= 4.00	Wetted Perim (ft)	= 5.4
N-Value	= 0.033	Crit Depth, Yc (ft)	= 0.49
		Top Width (ft)	= 5.4
Calculations		EGL (ft)	= 0.62
Compute by:	Known Q		
Known O (cfc)	- 4.00		

PROJECT NO: **DESIGNED BY** CHECKED BY: MAY 201 SHEET TITLE DRAINAGE PLAN

Known Q (cfs) (A8) HYDRAULIC CALC. - BASIN 2 CHANNEL

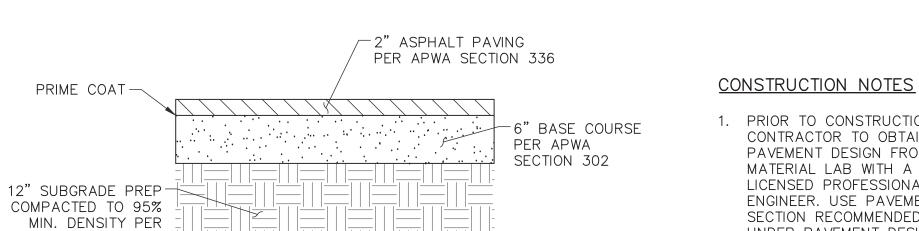
C-2

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.

HEADER CURB DETAIL SCALE: NTS

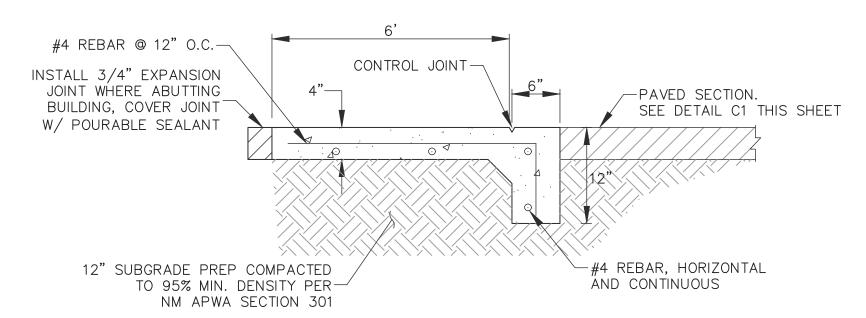
APWA SECTION 301



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.

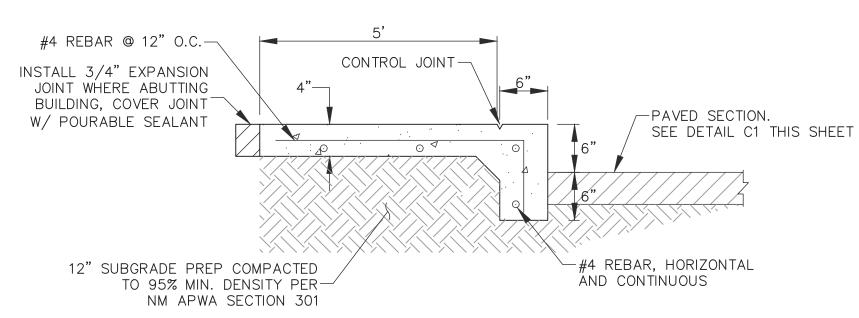
TYPICAL ASPHALT PAVEMENT SECTION SCALE: NTS

EXISTING MATERIAL -



- 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.

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.

TURN DOWN SIDEWALK SCALE: 1" = 1'

S Z % JEM 36 ALB

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PROJECT NO:

DESIGNED BY: DRAWN BY: CHECKED BY:

MAY 2019

SHEET TITLE

DETAILS

C-3

REINFORCED WITH #4 REBAR @ 18" O.C. EACH WAY

-F'C=4000 PSI @ 28 DAYS PER

NM APWA SECTION 340

CONSTRUCTION NOTES: 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.

-NON-ENCLOSED RIPRAP LINING

4" MIN. ROCK DIA. PLACED OVER

NON-WOVEN GEOTEXTILE FILTER FABRIC

- 2. INSTALL CONTRACTION JOINTS @ 6'-0" O.C.
- 3. LIGHT BROOM FINISH CONCRETE SURFACE REQUIRED.

TYPICAL 6" PCC SCALE: NTS

FINISH GRADE-

POND OVERFLOW WEIR SECTION

1'- 0" 1'- 0"

6" CONCRETE (4000 PSI)√

12" SUBGRADE PREP COMPACTED TO 95% MIN. DENSITY

-EXISTING MATERIAL