CITY OF ALBUQUERQUE

Planning Department Brennon Williams, Director



February 7, 2020

Verlyn Miller Miller Engineering Consultants, Inc. 3500 Comanche NE Albuquerque, NM 87107

RE: Barlow Shop 6205 Wilshire NE Grading and Drainage Plan Engineer's Stamp Date: 2/4/20 Hydrology File: C18D070

Dear Mr. Miller,

PO Box 1293

Based on the submittal received on 2/4/20, the above-referenced Grading and Drainage Plan is approved for Building Permit.

Prior to Certificate of Occupancy (For Information):

Albuquerque

1. Engineer's Certification, per the DPM Chapter 22.7: *Engineer's Certification Checklist For Non-Subdivision* is required.

NM 87103

www.cabq.gov

- 2. City acceptance and close-out of the public Work Order will be required, unless a financial guarantee has been posted.
- 3. A Bernalillo County Recorded <u>Drainage Covenant (No Public Easement)</u> is required for the stormwater pond. The original notarized form, exhibit A (legible on 8.5x11 paper), and recording fee (\$25, payable to Bernalillo County) must be turned into DRC (4th, Plaza del Sol) for routing. Please contact Charlotte LaBadie (clabadie@cabq.gov, 924-3996) regarding the routing and recording process for covenants. The routing and recording process for

covenants can take a month or longer; Hydrology recommends beginning this process as

soon as possible as to not delay approval for certificate of occupancy.

If you have any questions, please contact me at 924-3695 or dpeterson@cabq.gov.

Sincerely,

Dana Peterson, P.E.

Senior Engineer, Planning Dept. Development Review Services



City of Albuquerque

Planning Department

Development & Building Services Division

DRAINAGE AND TRANSPORTATION INFORMATION SHEET (REV 6/2018)

Project Title: Barlow Shop Bu	ilding Permit #:	Hydrology File #: <u>C18D070</u>
DRB#:	EPC#:	Work Order#:
Legal Description: * 031 030 Tract A Unit I	3 North Albuquerque Acres Cont 38,6	510 SF M/L
City Address: 6205 Wilshire Ave. NE, Albuc	uerque, NM 87113	
Applicant: Scott Barlow		Contact: Scott Barlow
Address: 209 Sombrero Loop NE, Albuquero	ue, NM 87107	
Phone#:		
Other Contact: Miller Engineering Consultant	s, Inc.	Contact: Verlyn Miller
Address: 3500 Comanche NE, Bldg. F, Albud	querque, NM 87107	
Phone#: 505-888-7500 Fa	x#:	E-mail: vmiller@mecnm.com
TYPE OF DEVELOPMENT: PLAT (#	f of lots) RESIDENCE	DRB SITE _X_ ADMIN SITE
IS THIS A RESUBMITTAL X Yes	<u>N</u> o	
DEPARTMENT TRANSPORTATION	X HYDROLOGY/DRAINAGE	
Check all that Apply:	TYPE OF APPROVA	AL/ACCEPTANCE SOUGHT:
TYPE OF SUBMITTAL:	X_BUILDING PERI	
ENGINEER/ARCHITECT CERTIFICATION	CERTIFICATE C	OF OCCUPANCY
PAD CERTIFICATION		DI AT ADDDOVAL
CONCEPTUAL G & D PLAN	PRELIMINARY	R SUB'D APPROVAL
X_GRADING PLAN		R BLDG. PERMIT APPROVAL
DRAINAGE REPORT	FINAL PLAT A	
DRAINAGE MASTER PLAN	FINAL PLAT A	FFROVAL
FLOODPLAIN DEVELOPMENT PERMIT A	PPLIC SIA/ DELEASE	OF FINANCIAL GUARANTEE
ELEVATION CERTIFICATE		PERMIT APPROVAL
CLOMR/LOMR	GRADING PERI	
TRAFFIC CIRCULATION LAYOUT (TCL)	SO-19 APPROV	
TRAFFIC IMPACT STUDY (TIS)	PAVING PERM	
STREET LIGHT LAYOUT		CERTIFICATION
OTHER (SPECIFY)	WORK ORDER A	
PRE-DESIGN MEETING?	CLOMR/LOMR	
		DEVELOPMENT PERMIT
	OTHER (SPECI	
DATE SUBMITTED: 2-4-2020	By:	•
(
COA STAFF:	ELECTRONIC SUBMITTAL RECEIVED:	
	FEE PAID:	



LETTER OF TRANSMITTAL

TO	COA
	Planning Department
	Development & Building Services
	Division – Design Review
	600 2nd Street NW
	Albuquerque, NM 87102

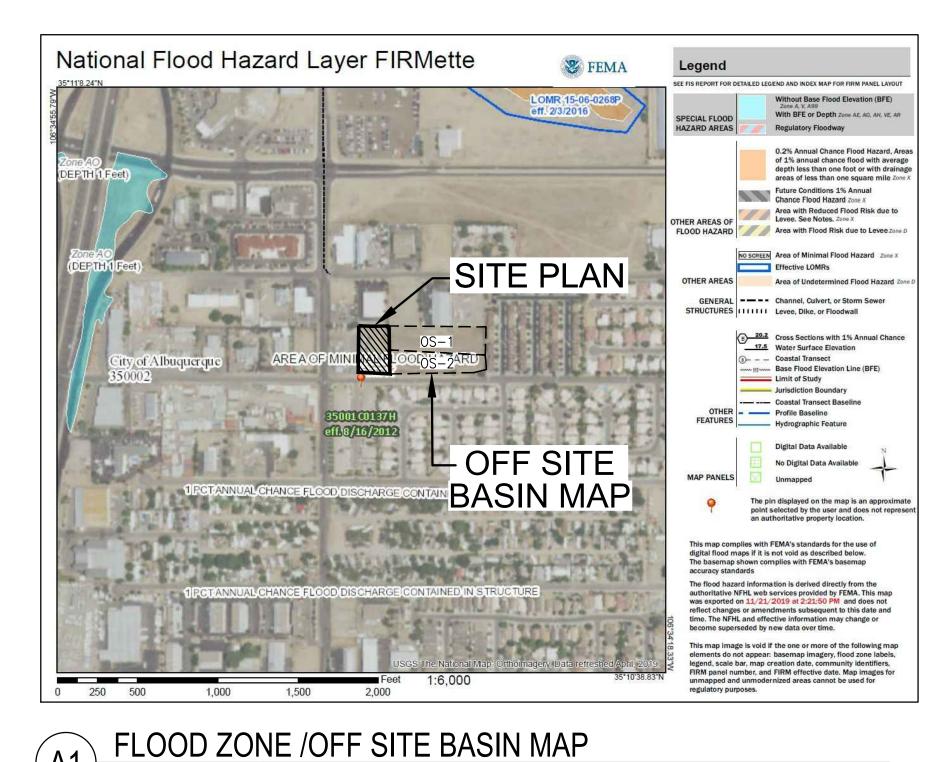
DATE 2/4/20	Project No.	
ATTENTION: Hydrology	Dept.	
RE:		
Barlow Shop Project		

Transmitted herein are the attached documents (noted below):

COPIES	DATE	NO.	DESCRIPTION
1			COA Application for Building Permit
2			Grading & Drainage Plans Set
1			Email of COA electronic copy
1			PDF electronic copy sent to COA
1			Transmittal Letter

THESE ARE TRANSM	ITTED as checked l	below:	
□ For Approval	☐ For Your Use	☐ As Requested	☐ For Review & Comment
Other:			
REMARKS: Project Eng	gineer: Verlyn Miller	-	
Copy Sent To: VA MEC Fil	le		

SIGNED:



SITE LOCATION

The site is located on Wilshire Avenue NE and can be accessed by San Pedro Boulevard south of Alameda Boulevard (see vicinity map).

EXISTING CONDITIONS

The current site is estimated at 0.87 acres and is partially developed with an existing commercial building and a small gravel parking area. Most of the site is a dirt parking lot with sparse native vegetation. The terrain moderately slopes from east to west at an estimated average slope of 4%. There are two offsite drainage basins that potentially impact the site, Basin OS-1 and OS-2, as indicated o the FEMA Panel Mop on this sheet. It appears that these offsite areas have been recently grading and surfaced with a base course material and is currently being used for a parking lot. The runoff from these offsite basins in indicated in the hydrology calculations on this sheet.

PROPOSED CONDITIONS

The proposed project would consist of a new commercial building, handicapped parking space, a concrete apron, trash enclosure, and concrete sidewalk around the building. The finish floor elevation will be set high enough to promote positive drainage away from the building foundation. A drainage swale and proposed first flush/retention pond will be constructed on the site as indicated on the grading and drainage plan for accommodate the first flush volume required by ordinance. The retention pond will also be sized large enough to retain the increased flows above the allowable discharge values identified in the NAA DMP. The maximum land treatments allowable for free discharge in the NAA DMP are as follows; 43% LT A, 20% LT B, 20% LT C, and 17% LT D. The hydrology table on this sheet provides a summary of the allowable discharge volume and peak flow rate as per the NAA DMP.

CONCLUSIONS

When developed as indicated on the grading and drainage plan, the increased runoff from the site is estimated at 0.21 cfs, and 784 cf during the 100-year event. The increase in runoff from the allowable values indicated in the NAA DMP are 0.95 cfs and 1830 cubic feet. The first flush pond volume required for the project estimated at 167 cf. The proposed retention pond is designed to accommodate over 2400 cf, which is well above the retention volume required per the NAA DMP for this site. The offsite drainage basin that impacts the site (Basin OS-2) will drain into a proposed offsite ponding area to be constructed by the adjacent landowner. This storm water control should have been construed with the recent development of this land when base course surfacing was added. This ponding area will alleviate the potential impacts of the offsite runoff on the site.

GENERAL NOTES:

- 1. EXISTING TOPOGRAPHIC DATA SHOWN ON THESE PLANS WAS PROVIDED BY THE OWNERS. MILLER ENGINEERING CONSULTANTS HAS UNDERTAKEN NO FIELD VERIFICATION OF THIS INFORMATION.
- 2. NOT USED
- 3. THE CONTRACTOR IS RESPONSIBLE FOR ALL TEMPORARY SEDIMENT AND EROSION CONTROL DEVICES DURING THE CONSTRUCTION PHASE.
- 4. CONTRACTOR SHALL OBTAIN A GRADING PERMIT FROM THE CITY OF ALBUQUERQUE, PRIOR TO ANY GRADING OR CONSTRUCTION.
- 5. TWO WORKING DAYS PRIOR TO ANY EXCAVATION CONTRACTOR MUST CONTACT LINE LOCATING SERVICE 260-1990 FOR LOCATION OF EXISTING UTILITIES.
- 6. ALL EMBANKMENTS SHALL BE PLACED AND COMPACTED IN LIFTS OF MAXIMUM OF 8". THE EMBANKMENTS SHALL BE WETTED AND COMPACTED TO 95% OPTIMUM DENSITY PER ASTM D1557 AND 95% UNDER ALL STRUCTURES INCLUDING DRIVEWAYS AND PARKING LOTS.
- 7. THE CONTRACTOR SHALL FIELD VERIFY LOCATION AND SIZE OF ALL UTILITIES PRIOR TO CONSTRUCTION.
- 8. ALL WORK PERFORMED SHALL COMPLY WITH THE REQUIREMENTS OF THE CITY OF ALBUQUERQUE STORM DRAINAGE REGULATIONS. ALL WORK PERFORMED SHALL COMPLY WITH THE REQUIREMENTS OF THE CITY OF ALBUQUERQUE "GRADING AND DRAINAGE DESIGN REQUIREMENTS AND POLICIES FOR LAND DEVELOPMENT."
- 9. THE OWNER, CONTRACTOR AND/OR BUILDER SHALL COMPLY WITH ALL APPROPRIATE LOCAL, STATE AND FEDERAL REGULATIONS AND REQUIREMENTS.
- 10. THE CONTRACTOR SHALL TAKE ALL APPROPRIATE AND REASONABLE MEASURES TO PREVENT SEDIMENT OR POLLUTANT LADEN STORM WATER FROM EXITING THE SITE DURING CONSTRUCTION. STORMWATER MAY BE DISCHARGED IN A MANNER, WHICH COMPLIES WITH THE APPROVED GRADING AND DRAINAGE PLAN.

- 11. THE CONTRACTOR SHALL TAKE ALL APPROPRIATE MEASURES TO PREVENT THE MOVEMENT OF CONSTRUCTION RELATED SEDIMENT, DUST, MUD, POLLUTANTS, DEBRIS, WASTE, ETC FROM THE SITE BY WIND, STORM FLOW OR ANY OTHER METHOD EXCLUDING THE INTENTIONAL, LEGAL TRANSPORTATION OF SAME IN A MANNER ACCEPTABLE BY THE CITY.
- 12. THE CONTRACTOR SHALL NOT DISTURB AREAS OUTSIDE THE AREAS SHOWN AS "SLOPE LIMITS" ON THE GRADING AND DRAINAGE PLAN.
- 13. SEE ARCHITECTURAL DRAWINGS FOR SIDEWALK AND HANDICAPPED RAMPS, DETAILS AROUND THE BUILDING.
- 14. THE CONTRACTOR SHALL CONTACT THE PROJECT ENGINEER FOR CLARIFICATION IF THERE ARE ANY SPOT ELEVATIONS ON THE GRADING AND DRAINAGE PLAN WHICH APPEAR TO BE AMBIGUOUS OR DO NOT MEET THE INTENT OF THE GRADING AND DRAINAGE PLAN.
- 15. THE CONTRACTOR SHALL CONTACT THE PROJECT ENGINEER FOR CLARIFICATION IF THERE ARE SIDEWALKS OR CONCRETE FLATWORK WHICH DOES NOT MEET ADA ACCESSIBILITY REQUIREMENTS. ALL SIDEWALKS SHALL HAVE A MAXIMUM CROSS SLOPE OF 2.0%, ALL SIDEWALKS SHALL HAVE A MAXIMUM LONGITUDINAL SLOPE OF 5.0%, AND ALL RAMPS SHALL HAVE A MAXIMUM LONGITUDINAL SLOPE OF 15:1.
- 16. ALL SIDEWALKS AND CONCRETE FLATWORK SHALL HAVE A MINIMUM OF 0.5% SLOPE. CONTRACTOR SHALL CONTACT PROJECT ENGINEER IF THERE ARE SIDEWALKS OR CONCRETE FLATWORK WHICH DO NOT MEET THIS REQUIREMENT.
- 17. THE CONTRACTOR SHALL SUBMIT MATERIAL SUBMITTALS, CUT SHEETS AND SHOP DRAWINGS FOR ALL CIVIL RELATED ITEMS FOR REVIEW PRIOR TO CONSTRUCTION.
- 18. THIS PROJECT SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CITY OF ALBUQUERQUE STANDARD SPECIFICATIONS (UPDATE 8, AMENDMENT 1)
- 19. ALL EXISTING MANHOLES, VALVES AND METERS SHALL BE ADJUSTED TO NEW FINISH GRADE.

SURES TED ETC R E BY

8000 Pennsylvania Circle NE Albuquerque, New Mexico (505) 254-2232

(505) 881-2990 Fax

CHARLIE M. OTERO

ARCHITECT

Architecture / Construction Management Services

DRAINAGE DATA

			HYDROL	LOGY					
Precipitation Z	one 3 - 100-y	ear Storm		P(360) =	2.6	in	P(1440) =	3.1	in
	Basin	L	and Treatn	nent Factor	S				
Basin	Area	Α	В	С	D	Ew	V(100-6)	V(100-24)	Q(100)
	(Ac)		(Acres	s)		(in)	(af)	(af)	(cfs)
Existing Condition	tions								
Site	0.87	0.00	0.00	0.73	0.15	1.47	0.106	0.112	3.23
OS-1	1.68	0.00	0.00	1.68	0.00	1.29	0.181	0.181	5.80
OS-2	1.29	0.00	0.00	1.29	0.00	1.29	0.139	0.139	4.45
NAA DMP Mas	ster Plan - All	owable Dis	charge						
Site	0.87	0.38	0.17	0.17	0.15	1.13	0.082	0.088	2.49
Proposed Conditions									
Site	0.87	0.00	0.00	0.59	0.28	1.63	0.118	0.130	3.44
Total	0.87								3.44

$\Delta V = 0.130$	_	0.088AF	=	.042AF	=	1830	CF
_							

 $\triangle Q = 3.44 - 2.49 = .95 \text{ CFS}$

	Pond R	ating Table	
	Po	nd #2	
Pond Rating Ta	able	Splillway	Crest = 36.5
Side Slope	2:1		
Depth	Area	Volume	Cum Volume
(ft)	(sq ft)	(cubic fet)	(cubic feet)
34.5	925	0	0
35.5	1200	1063	1063
36.5 1500		1350	2413
Pond Invert		34.5	
Spillway Crest		36.5	
WSE (First Flush)		34.7	
WSE (100-year))	36.5	

FIRST FLUSH CALCULATIONS

SIT

VFF = (0.34 IN *5880 SF)/12

VFF = 167 CF

VOLUME PROVIDED = 266 CF

OFFSITE BASINS OS-1 AND OS-2

VFF = OCF (NO IMPERVIOUS AREA)

SPILLWAY CALCULATIONS

Worksheet for Spillway	/ Pona #1	
Project Description		
Flow Element:	Broad Crested Weir	
Solve For:	Discharge	
Input Data		
Headwater Elevation:	37.00	ft
Crest Elevation:	36.50	ft
Tailwater Elevation:	36.70	ft
Crest Surface Type:	Gravel	
Crest Breadth:	5.00	ft
Crest Length:	5.00	ft
Results		
Discharge:	4.76	ft³/s
Headwater Height Above Crest:	0.50	ft
Tailwater Height Above Crest:	0.20	ft
Weir Coefficient:	2.69	US
Submergence Factor:	1.00	
Adjusted Weir Coefficient:	2.69	US
Flow Area:	2.50	ft²
Velocity:	1.90	ft/s
Wetted Perimeter:	6.00	ft
Top Width:	5.00	ft



Description

Barlow Shop 6205 Wilshire Ave. N.E

HYDROLOGY REPORT

Project number	020-007
Date	02-04-2020
Drawn by	MEC
Checked by	VAM

C-100

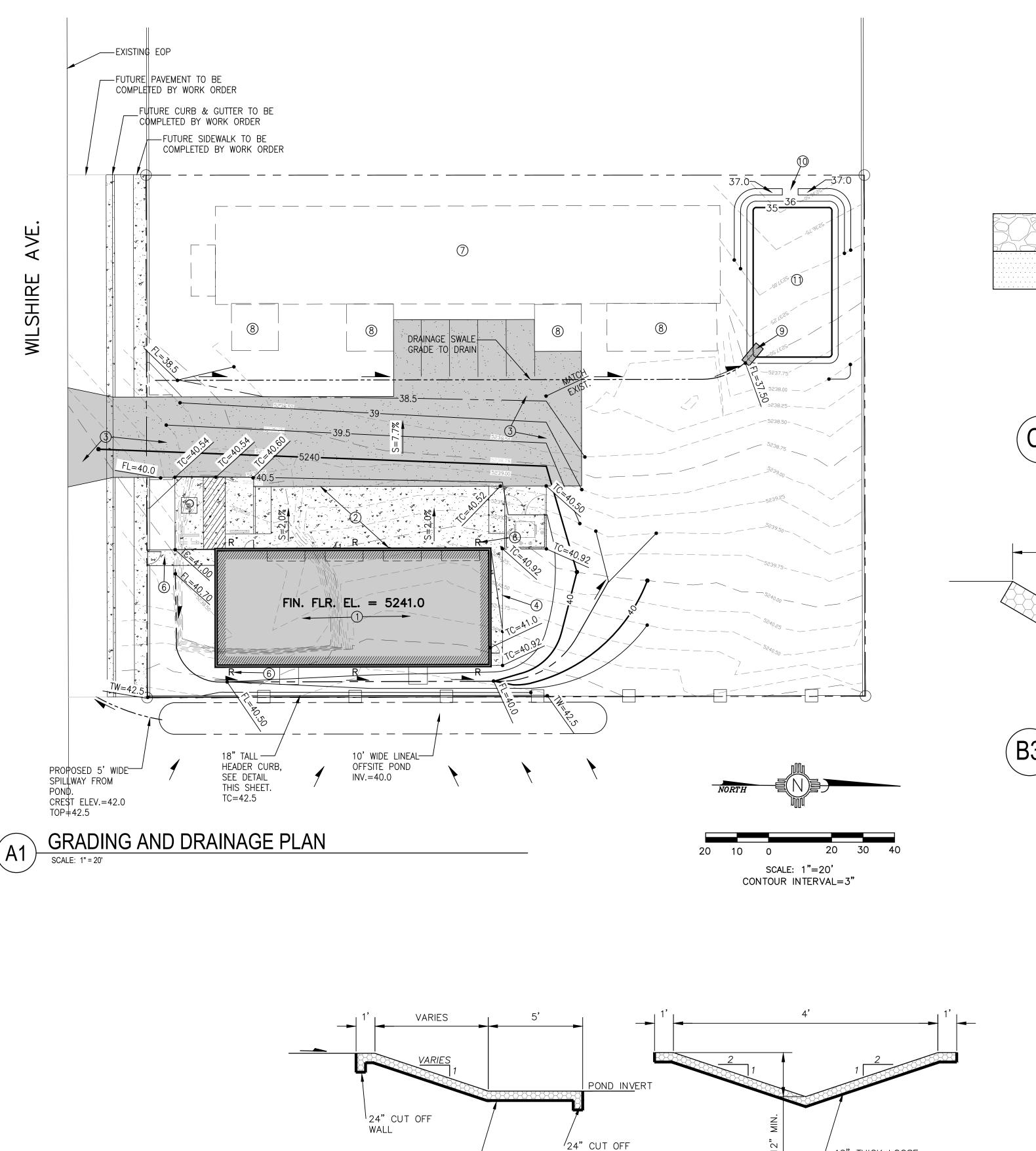
As indicated

Scale

MILLER ENGINEERING CONSULTANTS

Engineers • Planners

FLOOD ZONE MAP: 35001C0356H

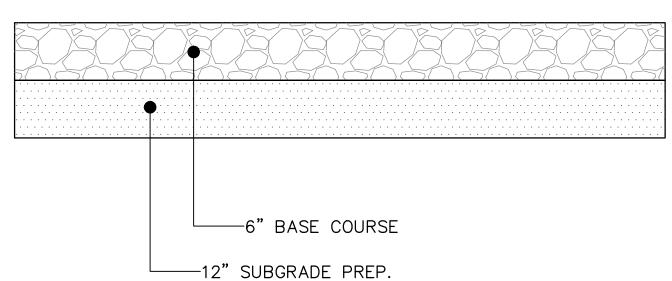


WALL

12" THICK LOOSE
RIP RAP WITH FILTER FABRIC

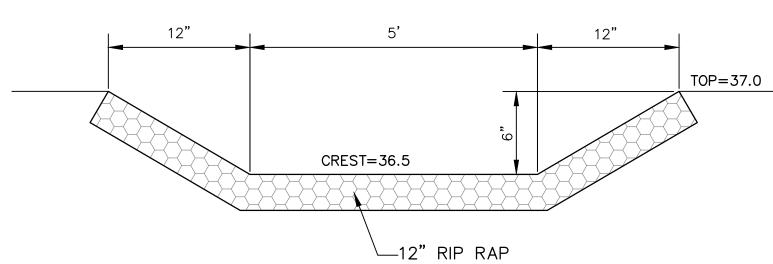
<u>PROFILE</u>

RIP RAP RUNDOWN DETAIL



C3 TYPICAL BASE COURSE DETAIL

SCALE: NOT TO SCALE

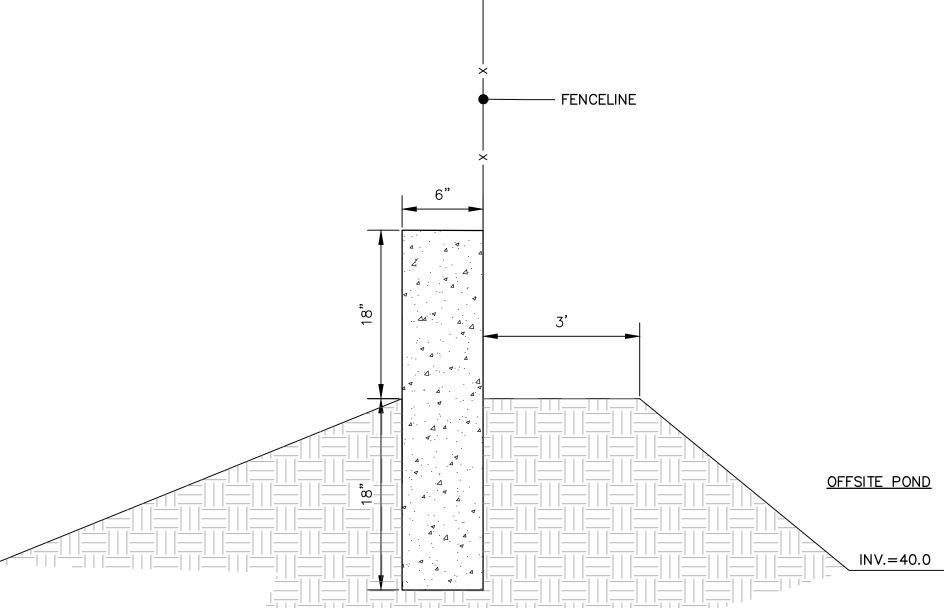


B3 SPILLWAY DETAIL

SCALE: NOT TO SCALE

12" THICK LOOSE RIP RAP WITH FILTER FABRIC

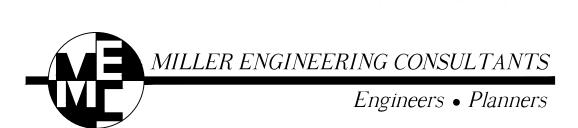
<u>SECTION</u>



TYPICAL HEADER WALL DETAIL

SCALE: NOT TO SCALE





CHARLIE M. OTERO
ARCHITECT

8000 Pennsylvania Circle NE Albuquerque, New Mexico (505) 254-2232 (505) 881-2990 Fax

Architecture / Construction Management Services

KEYED NOTES:

LEGEND:

TCON

INV

TBC TOP OF BASE COURSE

TOP OF CURB

TOP OF GRATE

TA TOP OF ASPHALT

FLOW ARROW

1. NEW PREFABRICATED METAL BUILDING

2. NEW REINFORCED CONCRETE PAD, SEE ARCH. DWGS. FOR SECTIONS AND DETAILS.

PROPOSED SPOT ELEVATIONS (FINISHED GRADE)

GRADE BREAK-HIGH POINT

PROPOSED MAJOR CONTOUR
PROPOSED MINOR CONTOUR
EXISTING MAJOR CONTOUR
EXISTING MINOR CONTOUR

STORM DRAIN LINE

TOP OF CUT SLOPE

MATCH EXISTING ELEVATIONS

SWALE

TOP OF CONCRETE

FLOW LINE, CURB

FINISH GRADE

INVERT

3. NEW 6" BASE COURSE SURFACING, SEE THIS SHEET FOR PAVEMENT SECTION.

4. 4' WIDE CONCRETE SIDEWALK.

5. NOT USED.

6. ROOF DRAIN LOCATIONS (TYPICAL).

7. EXISTING WAREHOUSE.

8. EXISTING CONCRETE SLAB.

9. INSTALL NEW RIP RAP RUNDOWN, SEE DETAIL THIS SHEET.

10. 5' WIDE SPILLWAY, CREST=36.5.

11. POND #1 30' X 50' X 2' DEEP RETENTION POND.
INV.=34.5
CREST SPILLWAY=36.5
TOP=37.0

No. Description Date

Barlow Shop 6205 Wilshire Ave. N.E.

GRADING AND DRAINAGE PLAN

 Project number
 020-007

 Date
 02-04-2020

 Drawn by
 MEC

 Checked by
 VAM

Scale

C-101

As indicated

ents\Charlie Otero\BARLOW G & D\ACAD\Sheets\BARLOW-GRADING.dwg, 2/^