CITY OF ALBUQUERQUE



Richard J. Berry, Mayor

April 18, 2017

Verlyn A. Miller, P.E. Mark Goodwin & Associates PO Box 90606 Albuquerque, NM, 87199

RE: Family Dollar Store / 4th St. NW

Grading Plan and Drainage Report

Stamp Date: 4/6/17

Hydrology File: H14D107

Dear Mr. Miller:

PO Box 1293

Based upon the information provided in your submittal received 4/10/2017, the Grading Plan and Drainage Report **is not** approved for Building Permit. The following comments need to be addressed for approval of the above referenced project:

Albuquerque

Sheet C-100:

New Mexico 87103

www.cabq.gov

- 1. Under the existing conditions, it is mentioned that the site is part of an existing master plan. It would have been helpful if you had provided the master drainage plan for information only. That being said, it appears that the proposed water harvest basin 1 on the master drainage plan is bigger and a different shape than what was built as shown on C-101. Please clarify that the volume required and shown in the master drainage plan is being provided for in the as-built basin.
- 2. Since basin "A" is part of basin "2" of the master drainage plan, it is confusing when trying to compare these two basins since you do not include the existing impervious from the existing adjacent tract in the drainage calculations. Please provide this existing drainage information. A note under the drainage data will suffice.

Sheet C-101:

- 3. Please provide the flowlines for all the proposed concrete channels at both ends (the roof drain and the outfall).
- 4. Please provide the toe elevations for the proposed rip rap rundown.

CITY OF ALBUQUERQUE



Richard J. Berry, Mayor

- 5. Under Keyed Notes, #18 the invert elevation is stated as 60.0. However, the existing harvest area has a top elevation is 66.0 and the pond is 3.5 depth, so shouldn't the invert elevation be shown as 62.5 instead of 60.0?
- 6. Under Keyed Notes, there are two #18s. Please renumber the last five numbers and also change the corresponding numbers on the plan.
- 7. Please provide the flowline elevation of the start of the proposed valley gutter.
- 8. Please provide the existing flowline elevation of the existing concrete channel where the proposed valley gutter will connect.
- 9. Please provide the TC & TA for the corner of the proposed parking near the existing concrete rundown.
- 10. It appears that the above proposed parking corner is over the existing concrete rundown. If this parking spot is needed, then the existing concrete rundown will have to be replaced or relocated to avoid the construction conflict. Please clarify.
- 11. Please provide the top and bottom elevation on the shown contours of the existing water harvest basin.

Albuquerque

PO Box 1293

Sheet C-501:

New Mexico 87103

1. It appears that Detail A3-Earthened Swale Detail is not used in this project. Please either just remove it or place an "X" over the detail.

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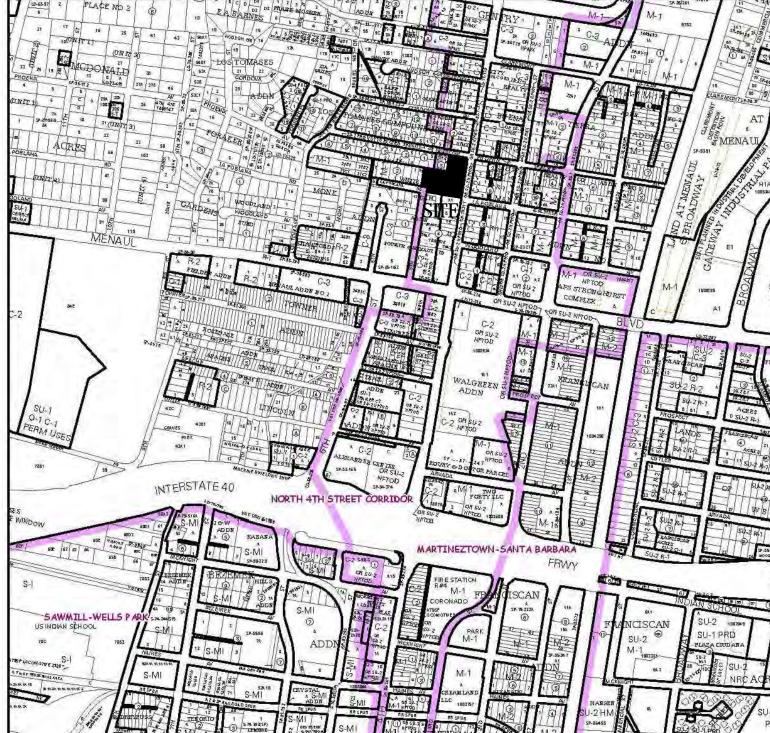
If you have any questions, please contact me at 924-3995 or rbrissette@cabq.gov.

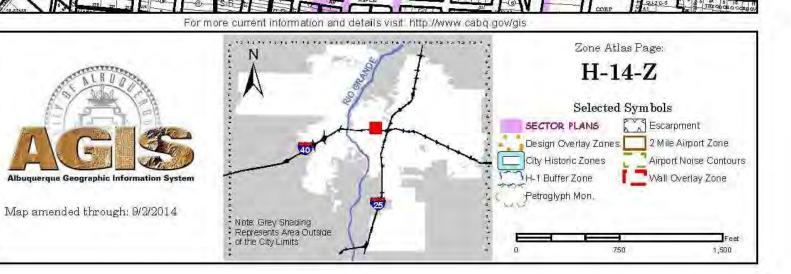
Sincerely,

Reneé C. Brissette, P.E. Senior Engineer, Hydrology

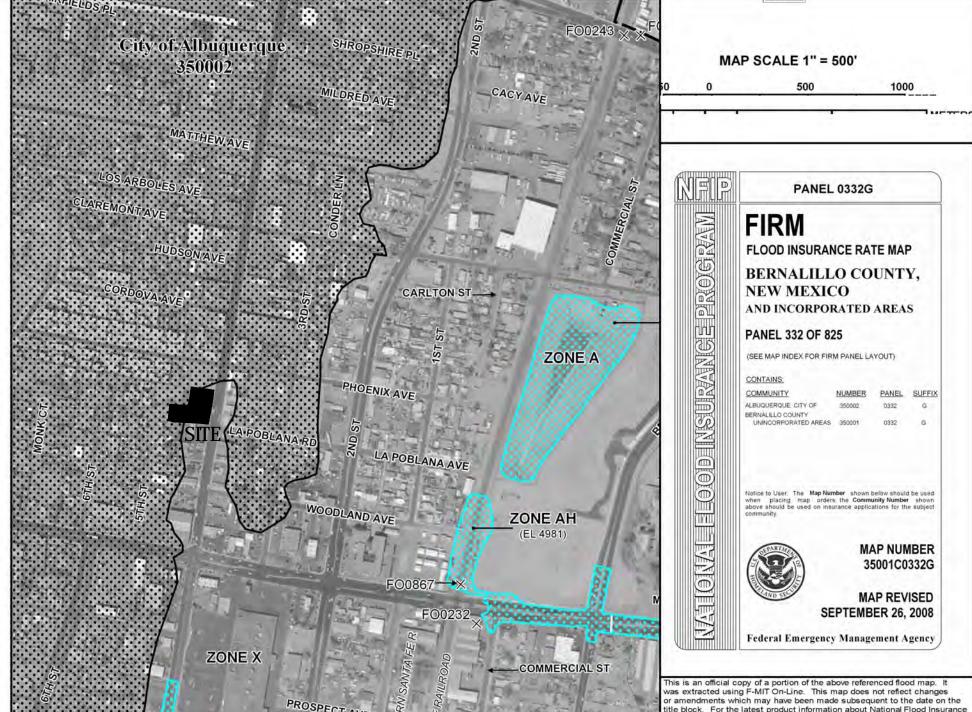
Rence C. Bressett

Planning Department









SITE LOCATION

THE SITE FOR THE PROPOSED SITE FOR THE FAMILY DOLLAR STORE PROJECT IS AN APPROXIMATE 1-ACRE SITE LOCATED ON 4TH STREET NORTH OF MENAUL BOULEVARD. THE SITE IS BOUND ON THE SOUTH SIDE BY THE NEWLY CONSTRUCTED ADVANCED AUTO PARTS STORE, ON THE NORTH SIDE BY PHOENIX AVENUE, AND ON THE EAST SIDE BY 4TH STREET.

EXISTING ON SITE CONDITIONS

THE SITE IS CURRENTLY UNDEVELOPED AND CONSISTS OF NATIVE DIRT WITH SPARSE VEGETATION. HISTORICALLY, THE SITE CONTAINED AN OLD CAR WASH FACILITY AND ASSOCIATED PARKING. THE CAR WASH AND OTHER IMPROVEMENTS ON THE SITE WERE DEMOLISHED APPROXIMATELY 2-YEARS AGO TO MAKE WAY FOR FUTURE DEVELOPMENT. THE SITE MAY BE ACCESSED VIA 4TH STREET ON THE EAST SIDE OF THE SITE. A DRAINAGE EVALUATION OF THIS PROPERTY WAS COMPLETED AS A PART OF A DRAINAGE MASTER PLAN SUBMITTED TO THE CITY OF ALBUQUERQUE (H14D041) WITH THE ADVANCED AUTO PROJECT LOCATED IMMEDIATELY SOUTH OF THE SITE.

PROPOSED CONDITIONS

THE PROPOSED DEVELOPMENT WILL BE A FAMILY DOLLAR STORE WITH A PROPOSED 8320 SQUARE FOOT COMMERCIAL BUILDING, ASSOCIATED PARKING, AND OTHER RELATED IMPROVEMENTS. THE PROPOSED DEVELOPMENT WILL BE GRADED AND DRAINED IN ACCORDANCE WITH THE APPROVED MASTER PLAN FOR THIS SITE, WHICH WAS APPROVED BY THE CITY OF ALBUQUERQUE ON SEPTEMBER 21. 2015. THE PROPOSED PARKING LOT AREA WILL BE GRADED TO DRAIN INTO THE EXISTING WATER HARVEST FEATURE LOCATED WEST OF THE PROJECT SITE. RUNOFF FROM THE PROPOSED BUILDING WILL DISCHARGE TO THE NORTH SIDE OF THE BUILDING THROUGH FOUR ROOF DRAINS AND INTO A PROPOSED WATER HARVEST AREA LOCATED NORTH OF THE BUILDING. THE EXISTING AND PROPOSED DRAINAGE CALCULATIONS FOR THIS PROJECT ARE SUMMARIZED IN THE TABLES PROVIDED BELOW.

OFFSITE FLOWS

THERE ARE NO SIGNIFICANT OFFSITE FLOWS THAT DISCHARGE THROUGH THIS

CONCLUSION

ALL GRADING AND DRAINAGE IMPROVEMENTS FOR THIS PROJECT ARE DESIGNED IN ACCORDANCE WITH THE ASSUMPTIONS STATED IN THE APPROVED DRAINAGE MASTER PLAN FOR THIS SITE. RUNOFF FROM THE PARKING LOT AREA WILL DISCHARGE WEST INTO THE EXISTING WATER HARVEST AREA WHILE RUNOFF FROM THE PROPOSED BUILDING WILL DISCHARGE NORTH INTO A PROPOSED WATER HARVEST AREA.

THE PROPOSED LAND TREATMENTS AND ANTICIPATED RUNOFF FROM THIS SITE WHEN DEVELOP IS LESS THAN THAT SPECIFIED IN THE APPROVED MATER PLAN. THE FIRST FLUSH REQUIREMENT FOR THIS DEVELOPMENT IS ESTIMATED AT 775 CUBIC FEET. THE EXISTING WATER HARVEST AREA LOCATED WEST OF THE SITE AND THE PROPOSED WATER HARVEST AREA LOCATED NORTH OF THE BUILDING WILL PROVIDE ADEQUATE STORAGE TO SATISFY THE FIRST FLUSH REQUIREMENTS AND TO ALLEVIATE IMPACTS TO DOWNSTREAM PROPERTIES. THE WEST WATER HARVEST AREA IS DESIGNED FOR THE 100-YEAR, 10-DAY VOLUME WHILE THE NORTH WATER HARVEST AREA IS DESIGNED FOR THE 100 YEAR, 24 HOUR VOLUME. THE VOLUME OF THE EXISTING WATER HARVEST AREA IS ESTIMATED AT 0.420 ACRE FEET. THE VOLUME PROVIDED FOR THE NORTH WATER HARVEST AREAS IS ESTIMATED AT 0.069 ACRE FEET.

Precipitation Zone 2 - 100-year Storm

Precipitation Zone 2 - 10-year Storm

0.000

Area

Area

Basin

Basin

Existing Conditions

Total 1.029

Proposed Conditions

C 0.029

Total 1.029

Existing Conditions

Total 1.029

Total 1.029

Proposed Conditions

DRAINAGE DATA

2.33 in

P(1440) =

P(1440) =

2.75 in

Ew | V(100-6) | V(100-24) | Q(100) | V(100-10 day)

0.097 | 3.231 |

0.172 4.247

(cfs)

1.694

0.108

(cfs)

3.231

0.065

0.097

0.085

0.005

0.237

(af)

0.065

0.004

(af)

0.097

0.002

0.097 3.231

0.104 2.691

Ew | V(10-6) | V(10-24) | Q(10)

P(360) =

1.029 0.000 0.000 1.029 0.000 1.130 0.097

0.000 | 0.000 | 0.120 | 0.440 | 1.91 | 0.089

0.000 | 0.000 | 0.240 | 0.200 | 1.58 | 0.058

0.000 | 0.000 | 0.018 | 0.011 | 1.51 | 0.004

0.000 | 0.000 | 0.120 | 0.440 | 1.164 | 0.054

0.240 0.200 0.893 0.033

P(360) =

1.029 0.000 0.000 1.029 0.000 1.130 0.097

Land Treatment Factors

(Acres)

0.000

C 0.029 0.000 0.000 0.018 0.011 0.831 0.002

Land Treatment Factors

(Acres)

GENERAL NOTES:

- 1. EXISTING TOPOGRAPHIC DATA SHOWN ON THESE PLANS WAS PROVIDED BY WAYJOHN SURVEYING, INC. MILLER ENGINEERING CONSULTANTS HAS UNDERTAKEN NO FIELD VERIFICATION OF THIS INFORMATION.
- 2. ACS STA A-438 BENCH MARK THE TOP OF A STAINLESS STEEL ROD SET BENEATH A 5-1/2" NGS ACCESS COVER STAMPED "A-438 1984" SET FLUSH WITH THE GROUND. LOCATED IN THE NORTHWEST QUADRANT OF MENAUL BOULEVARD AND THE A.T. & S.F. RAILROAD TRACKS INTERSECTION. ELEV. 4975.35 (NAVD 1988)

TBM FOUND 1/2" REBAR WITH CAP "LS 11463" ELEV. 4965.21

- 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
- 5. TWO WORKING DAYS PRIOR TO ANY EXCAVATION CONTRACTOR MUST CONTACT LINE LOCATING SERVICE 260-1990 FOR LOCATION OF EXISTING UTILITIES.
- 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. MAINTENANCE OF THESE FACILITIES SHALL BE THE RESPONSIBILITY OF THE OWNER(S) OF THE PROPERTY SERVED.
- 8. THE CONTRACTOR SHALL FIELD VERIFY LOCATION AND SIZE OF ALL UTILITIES PRIOR TO CONSTRUCTION.
- APPROX. HALF OF SUBJECT PROPERTY IS LOCATED WITHIN ZONE X (SOUTH EASTERN 3/4 OF 4TH STREET FRONTAGE). THE REMAINING WESTERN AND NORTHERN PORTION OF THE PROPERTY IS LOCATED IN ZONE X (500 YEAR) DESIGNATING AREAS DETERMINED TO BE OUTSIDE THE 100-YEAR FLOOD PLANE ACCORDING TO THE FLOOD INSURANCE RATE MAP, ALBUQUERQUE, NEW MEXICO AND UNINCORPORATED AREAS PER MAP NO 35001C 0332G.
- 10. 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."
- 11. THE OWNER, CONTRACTOR AND/OR BUILDER SHALL COMPLY WITH ALL APPROPRIATE LOCAL, STATE AND FEDERAL REGULATIONS AND REQUIREMENTS.

- 12. 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.
- 13. 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.
- 14. THE CONTRACTOR SHALL NOT DISTURB AREAS OUTSIDE THE AREAS SHOWN AS "SLOPE LIMITS" ON THE GRADING AND DRAINAGE PLAN.
- 15. SEE ARCHITECTURAL DRAWINGS FOR SIDEWALK AND HANDICAPPED RAMPS, DETAILS AROUND THE BUILDING.
- 16. 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.
- 17. 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.
- 18. 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.
- 19. THE CONTRACTOR SHALL SUBMIT MATERIAL SUBMITTALS, CUT SHEETS AND SHOP DRAWINGS FOR ALL CIVIL RELATED ITEMS FOR REVIEW PRIOR TO CONSTRUCTION.
- 20. THIS PROJECT SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CITY OF ALBUQUERQUE STANDARD SPECIFICATIONS (UPDATE 8, AMENDMENT 1)
- 21. ALL EXISTING MANHOLES, VALVES AND METERS SHALL BE ADJUSTED TO NEW FINISH GRADE.

SPECIAL ORDER 19 DRAINAGE FACILITIES WITHIN THE CITY RIGHT-OF-WAY NOTICE TO CONTRACTOR

1) AN EXCAVATION PERMIT WILL BE REQUIRED BEFORE BEGINNING ANY WORK

- WITHIN CITY RIGHT-OF-WAY. 2) ALL WORK DETAILED ON THESE PLANS TO BE PERFORMED, EXCEPT AS OTHERWISE STATED OR PROVIDED FOR HERON, SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CITY OF ALBUQUERQUE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, 1986 EDITION AS REVISED THROUGH UPDATE #7
- 3) TWO WORKING DAYS PRIOR TO ANY EXCAVATION, THE CONTRACTOR MUST CONTACT NEW MEXICO ONE CALL 260-1990, FOR LOCATION OF EXISTING
- 4) PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL EXCAVATE AND VERIFY THE HORIZONTAL AND VERTICAL LOCATIONS OF ALL CONSTRUCTIONS. SHOULD A CONFLICT EXIST, THE CONTRACTOR SHALL NOTIFY THE ENGINEER SO THAT THE CONFLICT CAN BE RESOLVED WITH A MINIMUM AMOUNT OF DELAY.
- 5) BACK FILL 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 SHALL BE PERFORMED ON A 24 HOUR BASIS.

WATER HARVEST VOLUMES

	WATER	HARVES1	AREA 2 pro	oposed	
Pond Rating Table					
Side Slope		3:1		11	
Depth	Area		Volume	Cum Volume	
(ft)	(sq ft)	(ac)	(ac-ft)	(ac-ft)	
66.5	5767	0.132	0.000	0.000	
67	6230	0.143	0.069	0.069	spillway
67.5	6710	0.154	0.074	0.143	top of pond

CONSULTANT

DWNER:

ARCHITECT:

Architect: Clint Wilsey clint.wilsey@gmail.com

505 280-0043

DRAWN BY: CJW PERMIT SET

FAMILY DOLLAR STORE

2801 4th St. NW Albuquerque, NM

MILLER ENGINEERING CONSULTANTS

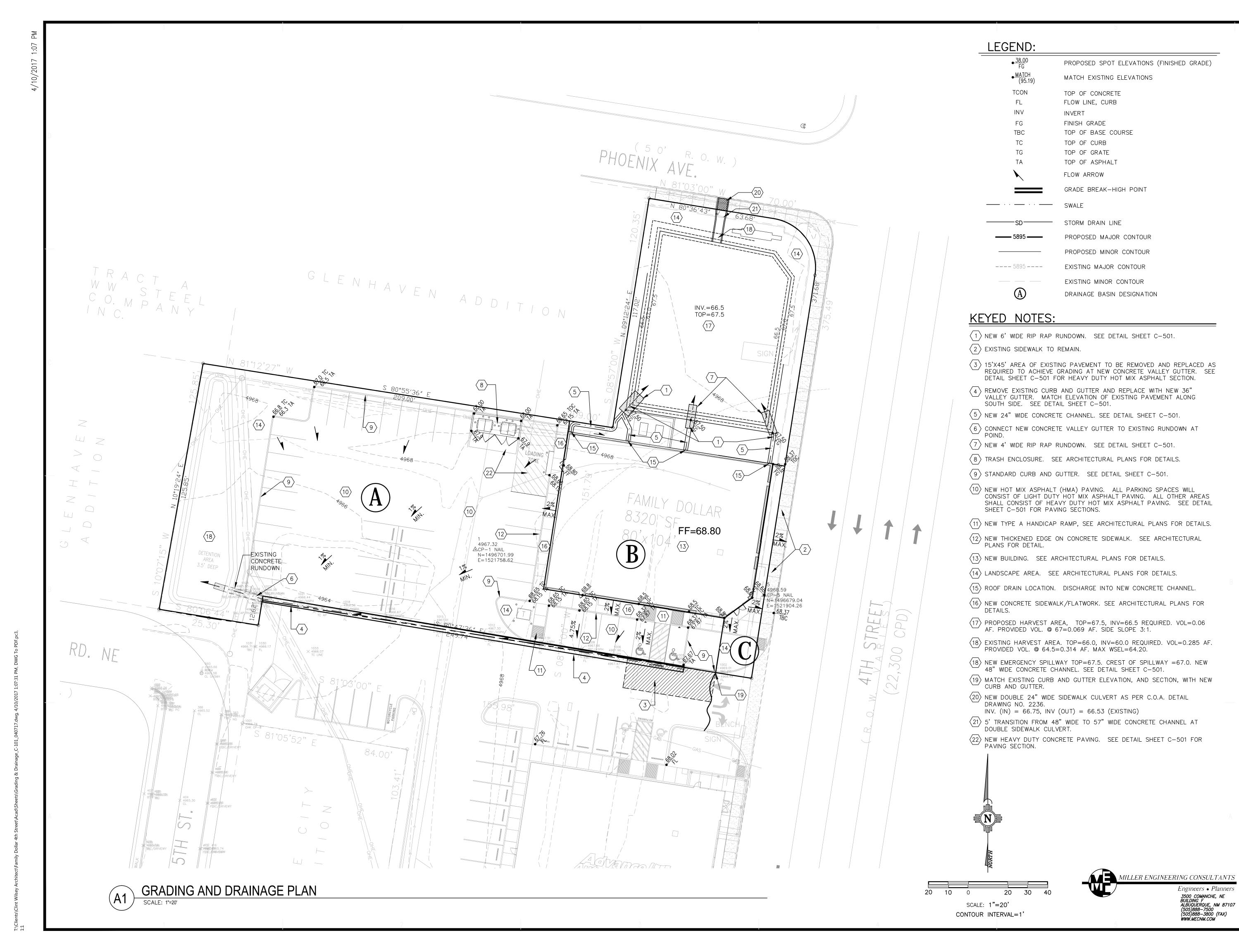
Engineers • Planners

3500 COMANCHE, NE BUILDING F ALBUQUERQUE, NM 87107 (505)888-7500 (505)888-3800 (FAX)

3/1/17 DATE: SHEET TITLE:

GRADING AND DRAINAGE REPORT

C-100



Architect:
Clint Wilsey
clint.wilsey@gmail.com
505 280-0043

DRAWN BY: CJW

ISSUE: PERMIT SET

STORE

SHEET TITLE:

DATE:

2801 4th St. NW

Albuquerque, NM

GRADING AND

PRELIMINARY

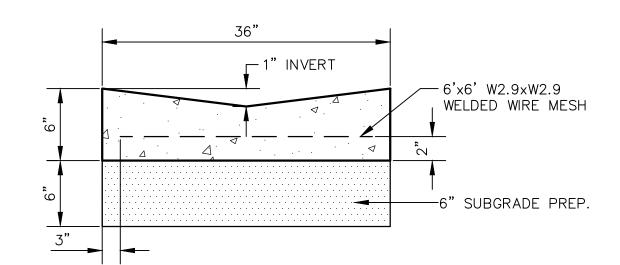
DRAINAGE PLAN

C-101

3/1/17

PORTLAND CEMENT CONCRETE PAVING SECTION

NOTE: CONTRACTOR WILL PROVIDE A JOINT PATTERN LAYOUT TO THE ENGINEER FOR REVIEW PRIOR TO CONSTRUCTION.



CONCRETE VALLEY GUTTER DETAIL HEAVY DUTY HOT MIX ASPHALT PAVING SECTION

VARIES 4" HOT MIX ASHPALT ——6" BASE COURSE —12" SUBGRADE PREP.

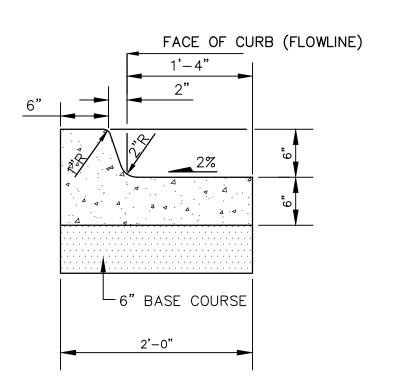
LIGHT DUTY HOT MIX ASPHALT PAVING SECTION

——6" BASE COURSE

——12" SUBGRADE PREP.

└──3" HOT MIX ASHPALT

VARIES



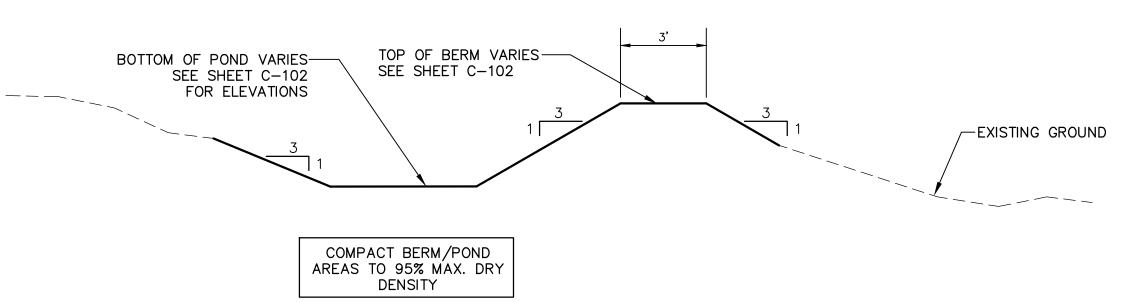
TYPICAL CURB AND GUTTER



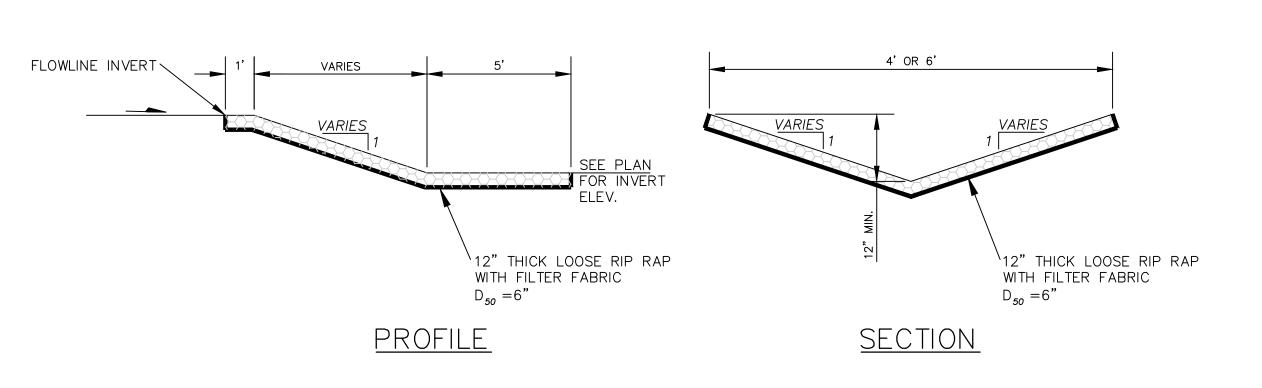
CONCRETE CHANNEL DETAIL SCALE: NOT TO SCALE

24" OR 48"

- #4 REBAR, 12" O.C.E.W.







RIP RAP RUNDOWN DETAIL TYPE "A"

EARTHENED SWALE DETAIL

SWALE FILL DETAIL SCALE: NONE

MILLER ENGINEERING CONSULTANTS

Engineers • Planners Engineers • Planners

3500 COMANCHE, NE
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ALBUQUERQUE, NM 87107
(505)888-7500
(505)888-3800 (FAX)
WWW.MECNM.COM

FAMILY DOLLAR STORE

PERMIT SET

2801 4th St. NW Albuquerque, NM

CONSULTANT

□WNER:

ARCHITECT:

Architect:

Clint Wilsey

505 280-0043

DRAWN BY: CJW

clint.wilsey@gmail.com

DATE:

SHEET TITLE: MISCELLANEOUS **DETAILS**

C-501

3/1/17