CITY OF ALBUQUERQUE



Timothy M. Keller, Mayor

January 16, 2018

Craig Hagelgantz, P.E. ABQ Engineering Inc. 8102 Menaul Blvd NE, Suite D Albuquerque, NM, 87120

RE: All-Rite Construction Warehouse

Grading and Drainage Plan Stamp Date: 12/19/17 Hydrology File: K09D042

Dear Mr. Hagelgantz:

PO Box 1293 Based upon the information provided in your resubmittal received 01/16/2018, the Grading

Plan is approved for Building Permit, SO-19 Permit, and for action by the DRB on the Site

Plan for Building Permit.

Albuquerque Please attach a copy of this approved plan in the construction sets for Building Permit

processing. Prior to Certificate of Occupancy release, Engineer Certification per the DPM

checklist will be required.

NM 87103

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

www.cabq.gov

Sincerely,

Renée C. Brissette, P.E. CFM Senior Engineer, Hydrology

Renée C Brissette

Planning Department



12/19/17

Renee C. Brissette, P.E. CFM Senior Engineer, Hydrology Planning Department

RE: All-Rite Construction Warehouse Grading and Drainage Plan Stamp

Date: 12/09/17

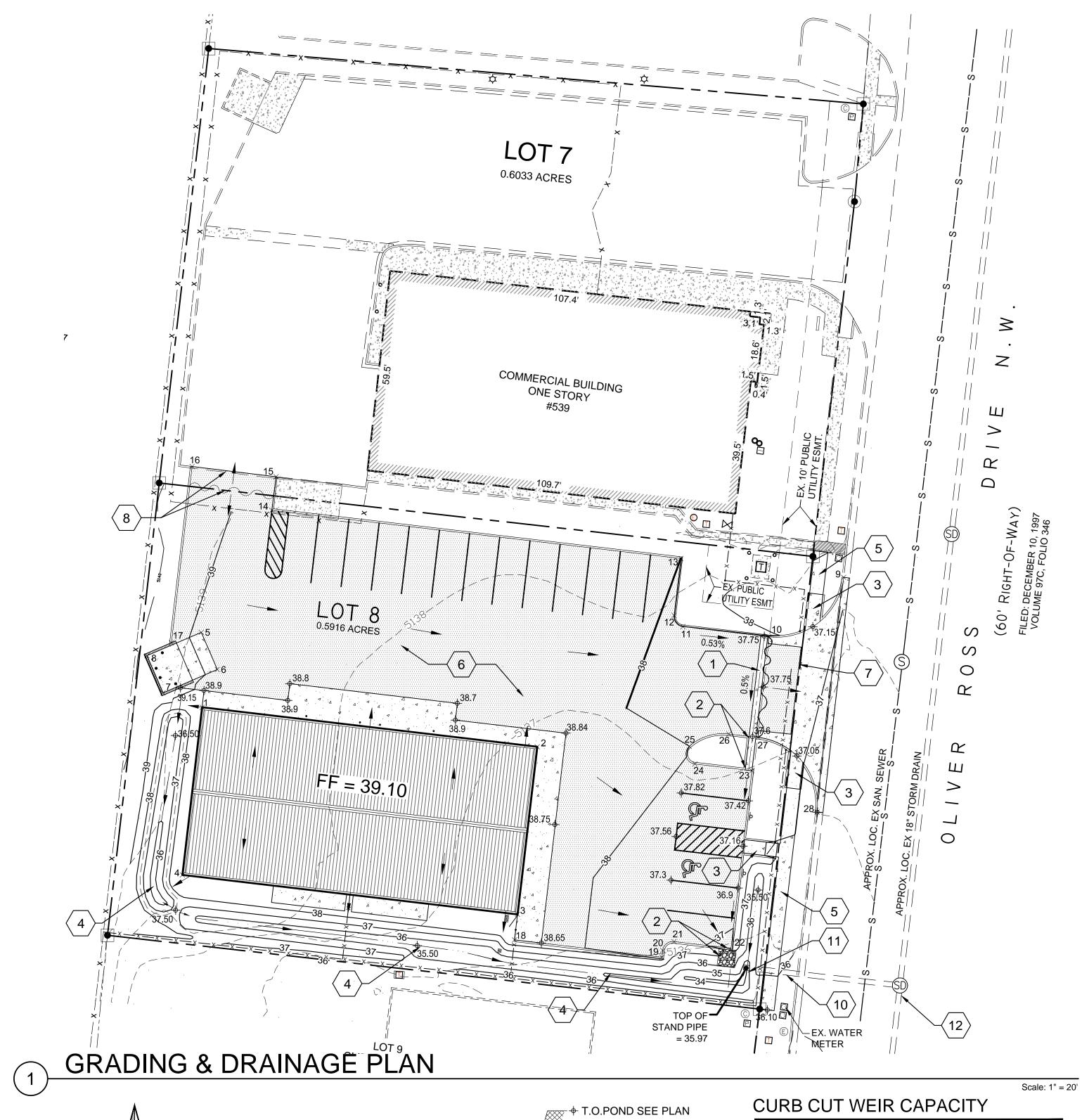
Hydrology File: K09D042

The following is a response to your hydrology comments on the submittal plans. The item numbers below refer to your comments:

- 1. Effective date has been added to the FIRM information. Refer to sheet C-101 dated 12/19/17.
- 2. Water block per COA Paving Detail No. 2426 at the driveway has been updated on grading plan. Refer to sheet C-101 dated 12/19/17.
- 3. First flush drainage has been routed through the first flush ponding area and will be discharged into existing storm drainage system in Oliver Ross Drive. Refer to sheet C-101.
- 4. Offsite discharge has been limited to 0.48cfs per master drainage plan. Refer to keyed note #11 on sheet C-101 dated 12/19/17.
- 5. Offsite discharge has been limited to 0.48cfs per master drainage plan and will discharge into the existing 18" CMP stub out per master plan. Refer to keyed note #11 on sheet C-101 dated 12/19/17.

Please contact me if there's additional information we need to provide.

Sincerely, Craig Hagelgantz PE ABQ Engineering Inc.



JIMMY CARTER s...98---54 WEST MIDDLE SCHOOL NNEL IP PROJECT LOCATION OCATION MAP FIRM MAP (ZONE ATLAS MAP K-9-Z) SCALE: NONE **KEYED NOTES**

DESCRIPTION

BLDG COR

BLDG COR

BLDG COR

BLDG COR

DUMPSTER PAD

DUMPSTER PAD

DUMPSTER PAD

DUMPSTER PAD

PT-FC

PC-3'R

PT-FC

FC-COR PKG

END CURB

END PAVEMENT

BEGIN CURB

END CURB

FC-COR

PC-3'R

PT-FC

END CURB-2' CURB CUT

COR PKG

PC-3'R

PCC-15'R

PT-FC

PC-20'R

PT-MATCH EX CURB

POINT TABLE

1485802.55 | 1496929.98

1485790.88 | 1497029.29

1485752.89 | 1496924.14

1485824.77 | 1496929.74

1485813.75 | 1496934.49

1485806.83 | 1496918.41

1485817.85 | 1496913.67

| 1485823.47 | 1497097.91

1485826.46 | 1497072.47

| 1485829.79 | 1497069.84

1485846.67 | 1497071.83

1485730.50 | 1497066.50

1485790.99 | 1497074.38

NOTE: ALL ELEVATIONS ARE FLOWLINE UNLESS OTHERWISE NOTED.

14 5138.90 1485860.91 1496950.66

15 MATCH EX 1485870.87 1496951.92

16 | MATCH EX | 1485873.90 | 1496927.02

18 | 5138.80 | 1485733.65 | 1497022.56

19 5137.33 1485728.51 1497066.26

21 5137.19 1485733.13 1497069.83

22 | 5136.80 | 1485730.64 | 1497086.65 |

23 | 5137.55 | 1485783.78 | 1497092.90

24 | 5137.95 | 1485785.76 | 1497076.02

26 5137.70 1485794.65 1497086.07

27 5137.68 1485793.64 1497094.67

28 MATCH EX 1485771.52 1497112.21

MATCH EX | 1485841.07 | 1497120.12 | PC-20'R-MATCH EX CURB

1485821.69 | 1496920.88 | END CURB @ DUMPSTEF

POINT # | ELEVATION | NORTHING | EASTING

3 | 5139.00 | 1485741.22 | 1497023.45

5139.00

5139.00

5139.00

5138.90

5139.25

5139.25

10 5137.83

11 5137.88

12 5137.91

13 | 5138.00 |

5139.20

5138.00

20 5137.28



- CONSTRUCT 30 LF ALLEY GUTTER PER COA STD DWG 2415A @ 0.5%.
- 2. CONSTRUCT 2' WIDE CURB CUT FOR DRAINAGE. CONSTRUCT A 5'x 5' RIPRAP PAD FOR EROSION CONTROL AT OUTFALL INTO POND..

CONSTRUCT ACCESSIBLE SIDEWALK

- RAMP PER DETAIL 5/C-501 AND COA STD. DWG. 2426.
- CONSTRUCT RETENTION PONDING AREA FOR FIRST FLUSH. TOP POND = 5136.0, BOTTOM POND = 5134.0 VOLUME PROVIDED FOR FIRST FLUSH = 760 CF
- DETAILS 6/C-501.

- 6. INSTALL ASPHALT PAVEMENT. SEE **DETAIL 7/C-501.** CONSTRUCT CONCRETE DRIVEPAD PER COA STD. DWG. 2426.
 - TOP OF WATER BLOCK = EXISTING FL ELEV. + 0.5 FT.

CABQ ELECTRONIC STAMP

- 10. EXISTING 18" CMP STUB OUT FROM STREET (FILED VERIFY LOCATION AND
- 11. 8" PVC-SCH40 STAND PIPE POND DRAIN (PERFORATED ABOVE GRADE) WITH 4" PVC-SCH40 REDUCER W PIPE INTO EXISTING 18" CMP STUBOUT. SEE DETAIL THIS SHEET.
- 5. CONSTRUCT CONCRETE SIDEWALK PER 12. EXISTING STORM DRAIN IN STREET.

DRAINAGE NARRATIVE

THIS SITE IS LOCATED ON THE WEST SIDE OF OLIVER ROSS DRIVE NORTH WEST, AND IS LOT 8 WITH IN BLOCK 3 OF THE CLIFFORD WEST BUSINESS PARK IN ALBUQUERQUE, NM AND CONTAINS APPROXIMATELY 0.592 ACRES. THIS SITE IS LOCATED ON FIRM MAP NO. 35002, PANEL 0328J EFFECTIVE DATE 11/04/16 WHICH INDICATES THE ENTIRE SITE IS LOCATED IN ZONE X, AND THAT NO PORTION OF THE SITE IS LOCATED WITHIN A 100 YEAR FLOOD PLAIN.

THE PRE DEVELOPED SITE IS A VACANT LOT. THE UNDEVELOPED DRAINAGE PATTERN IS SHEET FLOW DIRECTED TOWARD THE SOUTH EAST CORNER TO THE LOT AND ONTO OLIVER ROSS DRIVE AND THEN DOWN THE STREET TO THE SOUTH AND INTO AN EXISTING STORM DRAIN SYSTEM AT THE INTERSECTION OF OLIVER ROSS DRIVE NW AND BLUEWATER ROAD NW.

THE SCOPE OF THIS DEVELOPMENT IS, AN ASPHALT PARKING LOT, PROPOSED BUILDING, AND SIDEWALKS WILL BE ADDED TO THE SITE AS SHOWN ON PLAN. THE DIRECTION AND DESTINATION OF THE HISTORIC DRAINAGE PATTERNS WILL BE PRESERVED. THE ADDITION OF AN ONSITE RETENTION PONDING TO CAPTURE AND RETAIN THE "FIRST FLUSH" RUNOFF PER COA DRAINAGE ORDINANCE WILL BE LOCATED IN THE AREAS WEST OF THE PROPOSED BUILDING, THE REMAINING VOLUME FROM THE 90TH PERCENTILE STORM EVENT (100 YEAR, 10 DAY) WILL MAINTAIN HISTORIC DRAINAGE PATTERNS AND AS DESCRIBED ABOVE IN THE PRE DEVELOPED CONDITIONS (SEE CALCULATIONS). DUE TO THE DEVELOPED CONDITIONS, WITH THE FIRST FLUSH RETAINING POND AND SIDEWALK DRAINAGE OUTLET ONTO OLIVER ROSS DRIVE, THE DEVELOPED OFFSITE DISCHARGE RATE IS WITHIN THE ALLOWABLE DEVELOPED OFFSITE FLOW RATE (0.48 CFS) AS DESCRIBED IN THE DRAINAGE MASTER PLAN FOR CLIFFORD WEST BUSINESS PARK DATED 9/12/97 (COA #K-9/D23).

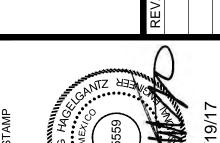
ONSITE DRAINAGE RETENTION

FIRST FLUSH STORAGE REQUIRED BY COA HYDROLOGY:

PROVIDE STORAGE FOR FIRST FLUSH RUNOFF PER SECTION 22 OF DPM USE 0.1 - 0.44 = 0.34 IN, PER COA HYDROLOGY FIRST FLUSH (IN) APPLIED OVER IMPERVIOUS AREAS (ACRES): THEREFORE 0.34/12 x 0.445 x 43560 = 550 CF FIRST FLUSH PONDING AREA REQD. = 550 CF < 760 CF PROVIDED (SEE NOTE 4)

DRAINAGE CALCULATIONS

Hydrology Calculations				
DPM - Volume 2, October 2008				
Section 22.2.Hydrology				
Precipitation Zone	1			
100 year-6hr Depth, P (360)	2.20			
100 year-24hr Depth, P (1440)	2.66			
Treatment Area	Α	В	С	D
Excess Precipitation Factors	0.44	0.67	0.99	1.97
Peak Discharge Factors	1.29	2.03	2.87	4.37
Land Treatment Area	Acres	Existing	Allowable	Proposed
Type "D" (Impervious, Roof, Drive way, Ect.)		0.000		0.445
Type "C" (Compacted Soil, Unpaved Parking)		0.592		0.000
Type "B" (Landscape Areas)		0.000		0.147
Type "A" (Undeveloped)		0.000		0.000
Total (Acres)		0.592		0.592
Excess Precipitation E (in)		0.99		1.65
Volume (360), acre-ft		0.049		0.081
Volume (1440), acre-ft		0.066		0.098
Q (360), cfs		1.698	0.480	2.242
Q (1440), cfs		1.579		2.085



DO NOT SCALE DRAWINGS CONTRACTOR TO VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS- NOTIFY **ENGINEER/ARCHITECT OF ANY** DISCREPANCIES PRIOR TO **BEGINNING CONSTRUCTION**

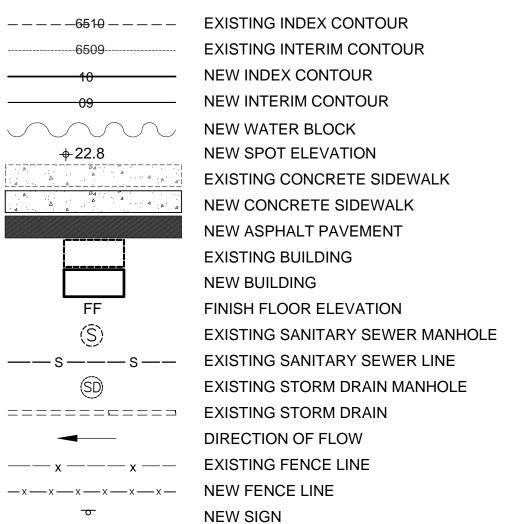
I WAREHOUSE VE NW 87121 E CONSTRUCT 519 OLIVER ROSS ALBUQUERQUE,

SHEET TITLE **GRADING &** DRAINAGE PLAN

SHEET NUMBER

C-101

LEGEND



♦ T.O.PIPE 35.97' → B.O.P 34.00' PIPE SEALER -REDUCER PIPE INV. IN = 29.50' + EXIST. INV. = 28.00' + (FIELD VERIFY)

POND STAND PIPE DRAIN W/ REDUCER

SEE KEYED NOTE 9 AND PLAN FOR LOCATIONS OF CURB CUT $Q = C L H^3/2 = 2.5 X 2 X .667^3/2 = 2.72 cfs > Q360 = 2.42 cfs$

REDUCER ORIFICE CAPACITY

SEE KEYED NOTE 11 AND PLAN FOR LOCATIONS OF POND PIPE DRAIN

4" PVC SCH40 INSIDE DIA = 4.026" USE 90% FULL --> A = Pi (3.6/2/12)^2 = 0.071 SF

 $Q = 0.6xAx(2gH)^1/2 = 0.6 X (0.071) X (2x32.2x1.97)^1/2 = 0.48 cfs <= Qallow = 0.48 cfs$