

CITY OF ALBUQUERQUE

Planning Department
Alan Varela, Director



Mayor Timothy M. Keller

June 17, 2022

Scott Eddings, PE
Huitt-Zollars
333 Rio Rancho Blvd
Rio Rancho, NM 87124

**RE: APD Crime Paving Improvements
5203 2nd St. NW
Grading and Drainage Plan
Engineer's Stamp Date: 6/16/2022
Hydrology File: F15D019A**

Dear Mr. Eddings:

Based upon the information provided in your submittal received 6/16/22, the 2nd Revised Grading and Drainage Plan is approved for Grading and Building Permit.

PO Box 1293

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.

Albuquerque

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 (Doug Hughes, PE, jhughes@cabq.gov, 924-3420) 14 days prior to any earth disturbance.

NM 87103

www.cabq.gov

Please provide Drainage Covenant for the stormwater quality ponds per Article 6-15(C) of the DPM prior to Permanent Release of Occupancy. Please submit an electronic file of the Covenant and Exhibit for completeness to Marion G. Velasquez at mgvelasquez@cabq.gov. Once the electronic file is approved for completeness, please submit the original copies along with the \$ **25.00** recording fee check made payable to Bernalillo County to Marion on the 4th floor of Plaza de Sol. Please note that Hydrology will need a pdf copy of the recorded Drainage Covenant prior to Hydrology's approval of Permanent Release of Occupancy.

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

Sincerely,

David G. Gutierrez, P.E.
Senior Engineer, Hydrology
Planning Department



City of Albuquerque

Planning Department

Development & Building Services Division

DRAINAGE AND TRANSPORTATION INFORMATION SHEET

Project Title: APD CRIME PAVING IMPROVEMENTS **Building Permit #** BP-2021-37278 **Hydrology File #** _____

DRB# _____ **EPC#** _____

Legal Description: Tract A Sanchez-Mel Lath & Plaster **City Address OR Parcel** 5203 Second St, NW

Applicant/Agent: Huitt-Zollars, Inc. **Contact:** Scott Eddings

Address: 333 Rio Rancho Blvd **Phone:** 505-235-7211

Email: seddings@huitt-zollars.com

Applicant/Owner: City of Albuquerque APD **Contact:** Stacy Herrera

Address: _____ **Phone:** 328-7471

Email: stacyherrera@cabq.gov

TYPE OF DEVELOPMENT: PLAT (#of lots) RESIDENCE DRB SITE ADMIN SITE:

RE-SUBMITTAL: YES NO

DEPARTMENT: TRANSPORTATION HYDROLOGY/DRAINAGE

Check all that apply:

TYPE OF SUBMITTAL:

- ENGINEER/ARCHITECT CERTIFICATION
- PAD CERTIFICATION
- CONCEPTUAL G&D PLAN
- GRADING PLAN
- DRAINAGE REPORT
- DRAINAGE MASTER PLAN
- FLOOD PLAN DEVELOPMENT PERMIT APP.
- ELEVATION CERTIFICATE
- CLOMR/LOMR
- TRAFFIC CIRCULATION LAYOUT (TCL) ADMINISTRATIVE
- TRAFFIC CIRCULATION LAYOUT FOR DRB APPROVAL
- TRAFFIC IMPACT STUDY (TIS)
- STREET LIGHT LAYOUT
- OTHER (SPECIFY)
- PRE-DESIGN MEETING?

TYPE OF APPROVAL/ACCEPTANCE SOUGHT:

- BUILDING PERMIT APPROVAL
- CERTIFICATE OF OCCUPANCY
- CONCEPTUAL TCL DRB APPROVAL
- 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
- FLOOD PLAN DEVELOPMENT PERMIT
- OTHER (SPECIFY) _____

DATE SUBMITTED: June 16, 2022

June 16, 2022

Mr. David G. Gutierrez, P.E.
Senior Engineer, Hydrology
City of Albuquerque Planning Department
PO Box 1293
Albuquerque, NM 87103

**RE: APD Crime Lab Paving Improvements
Hydrology File: F15D019A**

Dear Mr. Gutierrez,

Thank you for your review of the Grading and Drainage Plan with and Engineer's Stamp Date of 6/7/22.

Below is a list of your comments dated June 9, 2022h which are included in *italics* and our responses in **bold text**.

1. *Please use a 1:20 scale.*
Plan View Revised to 1:20.
2. *Please fade back the existing G&D copied over and make it clear with a note that it is present and is for informational purposes.*
Existing G&D faded and a note added in lower left hand corner of plan view.
3. *Please clearly define the basin boundary as the area defined for construction limits of the proposed G&D.*
Construction Limits labeled along boundary.
4. *Please provide a section of the pond and provide elevations (100 year storm, outlet elevation, SWQV elevation, bottom, etc...)*
Section A added on the right corner of the plan containing the requested information.
5. *Please Clearly*
No Response
6. *Please clarify elevation labels and illustrate outfall.*
Labels have been edited for clarity – pond does not discharge.
7. *Please clearly show keyed note 4.*
 - a. *Note 4 is obscured by hatching.*
Hatching is lightened and key note 4 is moved outside of pond.
 - b. *Are there calculations showing the wier opening? Please demonstrate how it will handle the flow going into the pond.*
Calculations Added.

- c. *Provide construction detail of rundown.*
Added reference to City Standard Drawing 2422 with construction note.
8. *Please clearly show a graphic of where pond will discharge.*
Pond does not discharge.
9. *Will there be a curb and gutter on this parking lot or simply edge of pavement? It is unclear the transition and if there is a flowline to get the flow to the rundown.*
Project includes an asphalt curb adjacent to the pond and a flowline within the pavement is now shown.
10. *Please provide benchmark coordinates and tie to the construction limits to the benchmark.*
Reference to City Benchmark provided on left side of plan tie not shown as City DMD did not authorize a project survey.
11. *Please include datum reference.*
Datum reference provided on left side of plan.
12. *Please note this is a retention pond but note where emergency outfall will be.*
Emergency outfall is back thru the existing parking plot to the west.

We greatly appreciate your time and consideration. Please contact me if you have any questions.

Sincerely,



Scott Eddings, P.E.
Project Engineer

PROPERTY
 THIS SITE IS A DEVELOPED APD SUB-STATION AND CENTRAL FACILITY LOCATED WITHIN THE CITY OF ALBUQUERQUE (ZONE MAP F-15). THE SITE IS BOUND TO THE EAST BY THE AT&SF RAILROAD, TO THE NORTH AND SOUTH BY COMMERCIAL REAL ESTATE AND TO THE WEST BY SECOND STREET.
FLOOD HAZARD
 PER THE FEMA MAP NUMBER 35001C0119G DATED SEPTEMBER 26, 2008 SHOWS THE SITE IS NOT LOCATED WITHIN FLOOD HAZARD ZONE X.
MASTER DRAINAGE PLAN
 PER THE APPROVED DRAINAGE MASTER PLAN PREPARED BY JMA, INC (NOVEMBER 1991), THE ALLOWABLE DISCHARGE FROM THE 13.3 ACRE SITE IS 5 CFS. A CITY OF ALBUQUERQUE PROJECT INSTALLED A 15-INCH STORM DRAIN TO THE ALAMEDA DRAIN TO THE WEST. A 10-INCH ORIFICE PLATE RESTRICTS THE DISCHARGE FROM THE SITE TO THE APPROVED RATE OF 5 CFS.
 THIS PLAN ALSO REFERENCES APD FORENSIC LAB MODULAR BUILDING ADDITIONAL GRADING AND DRAINAGE PLAN PREPARED BY ISAACSON & ARFMAN, P.A. DATED MARCH 11, 2011.
PROPOSED IMPROVEMENTS
 THIS PROJECT CONVERTS AN EXISTING VEHICLE STORAGE LOT CONSTRUCTED OF CRUSHER FINES TO AN ASPHALT PAVEMENT VEHICLE STORAGE LOT PLUS CONVERTS APPROXIMATELY 5 PARKING STALLS TO COVERED PARKING.
PROPOSED DRAINAGE CONDITIONS
 PROJECT IMPROVEMENTS MAINTAIN DRAINAGE PATTERNS AND FLOWS IN ACCORDANCE WITH THE EXISTING APPROVED DRAINAGE PLAN. THE NEW PAVEMENTS DISCHARGE INTO A NEW POND WHICH HAS ADEQUATE CAPACITY TO STORE TWICE THE 100-YEAR 6-HOUR STORM EVENT. POND REQUIREMENT IS 2 TIMES THE 100-YEAR 6-HOUR STORM IS 4,706 CUBIC FEET. POND VOLUME IS 4,731 CUBIC FEET AND INUNDATES THE NEW VEHICLE STORAGE PARKING LOT WITH 2-INCHES OF STORM WATER.
 THE NEW PARKING AREA DISCHARGES INTO POND 1 AT ANALYSIS POINT 1 AT A FLOW OF 1.36 CFS. A CONCRETE RUNDOWN 4' WIDE CONCRETE VALLEY GUTTER EXTENDS FROM THE ASPHALT PAVEMENT TO THE POND 1 BOTTOM. POND 1 DOES NOT OUTFALL.
STORM WATER QUALITY
 WATER QUALITY REQUIREMENTS TREATING THE PAVED AREAS.
 VOLUME = 11,208 SF * 0.26IN/12 = 243 CUBIC FEET
 A STORM WATER QUALITY POND IS PROVIDED EXCEEDING 243 CUBIC FT.

HYDROLOGY
Basin 100 AREA = 0.3 ac.
 NOAA Atlas 14
 Latitude 35.2649
 Longitude -106.6857
 PRECIPITATION:
 360 = 2.3 in.
 1440 = 3.21 in.
 10day = 4.33 in.

EXCESS PRECIPITATION:

TREATMENT A	0.62 in.	1.56 cfs/ac.
TREATMENT B	0.8 in.	2.28 cfs/ac.
TREATMENT C	1.03 in.	3.14 cfs/ac.
TREATMENT D	2.33 in.	4.70 cfs/ac.

EXISTING CONDITIONS:

TREATMENT A	0 ac.	0 ac.
TREATMENT B	0 ac.	0 ac.
TREATMENT C	0.3045 ac.	0.0472 ac.
TREATMENT D	0 ac.	0.2573 ac.

EXISTING EXCESS PRECIPITATION:

$$\text{Weighted E} = (0.62 \times 0.00) + (0.80 \times 0.00) + (1.03 \times 0.30) + (2.33 \times 0.00) = 0.30 \text{ ac.}$$

$$V_{100-360} = (1.03 \times 0.30) / 12 = 0.026136 \text{ ac-ft} = 1138 \text{ cf}$$

EXISTING PEAK DISCHARGE:

$$Q_{100} = (1.56 \times 0.00) + (2.28 \times 0.00) + (3.14 \times 0.30) + (4.70 \times 0.00) = 0.96 \text{ cfs}$$

PROPOSED EXCESS PRECIPITATION:

$$\text{Weighted E} = (0.62 \times 0.00) + (0.80 \times 0.00) + (1.03 \times 0.05) + (2.33 \times 0.26) = 2.13 \text{ in.}$$

$$V_{100-360} = (2.13 \times 0.30) / 12 = 0.054010 \text{ ac-ft} = 2353 \text{ cf}$$

$$V_{100-1440} = (0.05) + (0.26 \times 4.33 - 2.30) / 12 = 0.073522 \text{ ac-ft} = 3203 \text{ cf}$$

$$V_{100-10day} = (0.05) + (0.26 \times 4.33 - 2.30) / 12 = 0.097537 \text{ ac-ft} = 4249 \text{ cf}$$

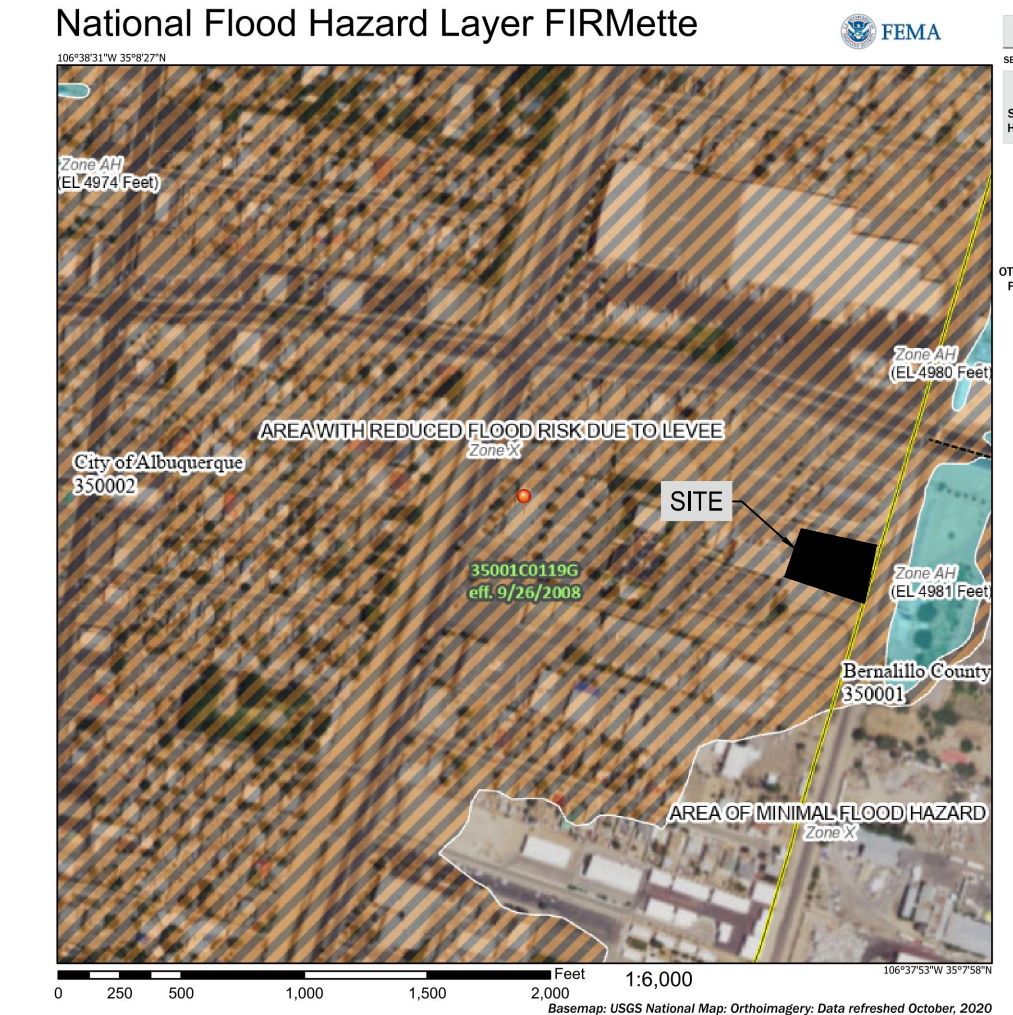
PROPOSED PEAK DISCHARGE:

$$Q_{100} = (1.56 \times 0.00) + (2.28 \times 0.00) + (3.14 \times 0.05) + (4.70 \times 0.26) = 1.36 \text{ cfs}$$

RESULTS
 1.36 - 0.96 = 0.40 cfs Increase in peak discharge
 2353 - 1138 = 1,214 cf PONDING REQUIREMENT

BENCHMARK
 A STANDARD NMDOT BRASS CAP LOCATED ON THE NORTH MEDIAN NOSE AT INTERSECTION OF 2ND ST. AND MONTANO ROAD STAMPED 'STA.NM47-8' ELEVATION= 4976.43

FIRMETTE



POND CALCULATIONS

5320 Second Street
 7-Jun-22
 pondvol.xls

Pond

Elevation	Area	Average Area	Volume	Accumulative Volume
	sf	sf	Cu-Ft	Cu-Ft
4971.0	150			
4972.0	550	350	350.000	350.000
4973.0	1015	783	782.500	1132.500
4974.0	1546	1281	1280.500	2063.000
4974.6	7350	2669	2668.800	4731.800

SURVEY
 GRADING PLAN IS BASED ON THE ENGINEER'S CERTIFICATION OF THE METROPOLITAN FORENSIC SERVICES CENTER GRADING PLAN PREPARED BY SCOTT MCGEE, NMPE NO 10519, DATED 3/21/02.

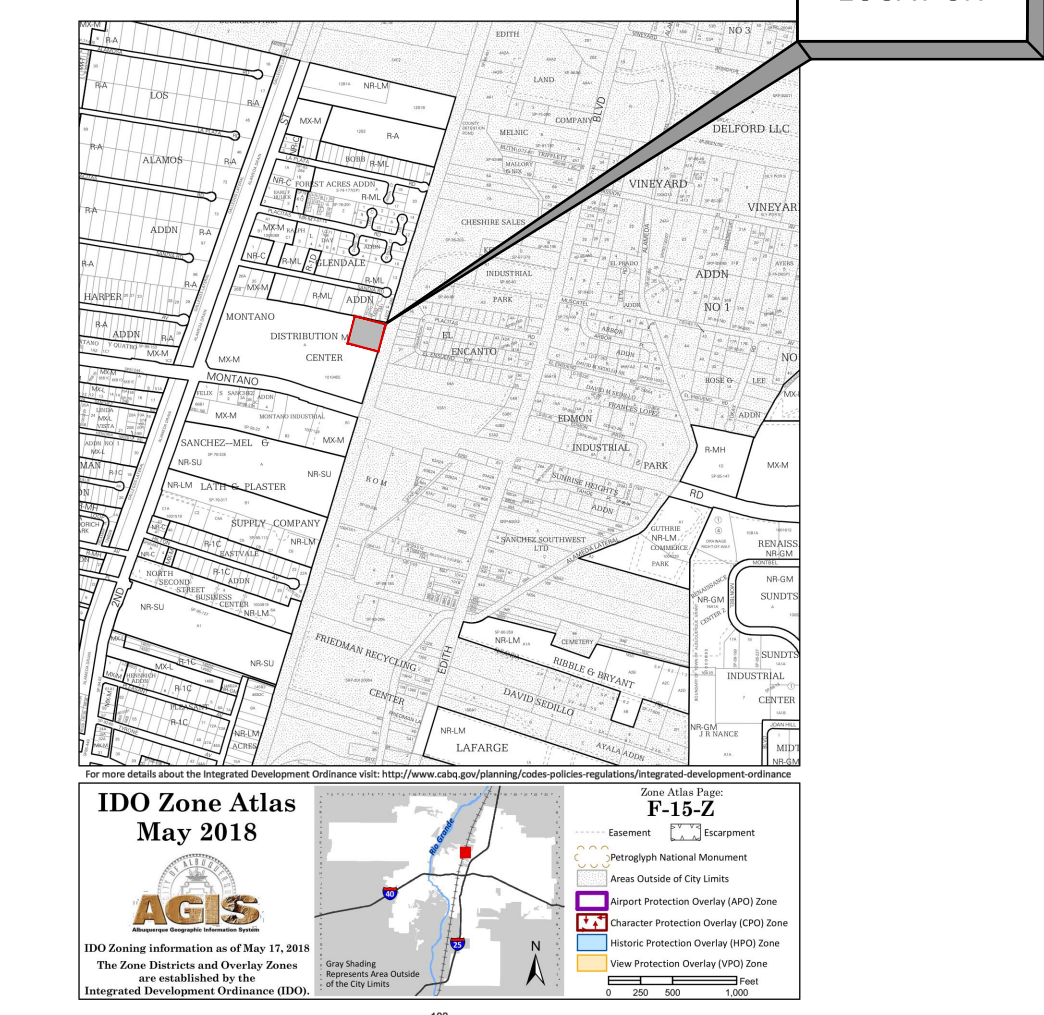
AREA OF DISTURBANCE IS 13,624 SF
 AN EROSION SEDIMENT CONTROL PLAN IS NOT REQUIRED.
 CONCRETE VALLEY GUTTER CAPACITY

Worksheet for Rectangular Channel - 1

Project Description	Formula	Value
Friction Method		
Scale/Fr		
Channel Slope		0.013
Normal Depth		0.0000 ft
Bottom Width		4.00 ft
Results		
Discharge		1.00 cfs
Flow Area		0.98 ft²
Wetted Perimeter		4.00 ft
Hydraulic Radius		0.24 ft
Top Width		4.00 ft
Critical Depth		0.58 ft
Critical Slope		0.0000 ft
Velocity		9.92 ft/s
Velocity Head		1.38 ft
Specific Energy		1.38 ft
Froude Number		0.02
Flow Type		Subcritical
GVF Input Data		
Channel Depth		0.00 ft
Length		0.00 ft
Number of Steps		0
GVF Output Data		
Upstream Depth		0.00 ft
Profile Description		
Downstream Velocity		99.99 ft/s
Upstream Velocity		99.99 ft/s
Channel Depth		0.00 ft
Channel Slope		0.0000 ft
Critical Slope		0.0000 ft

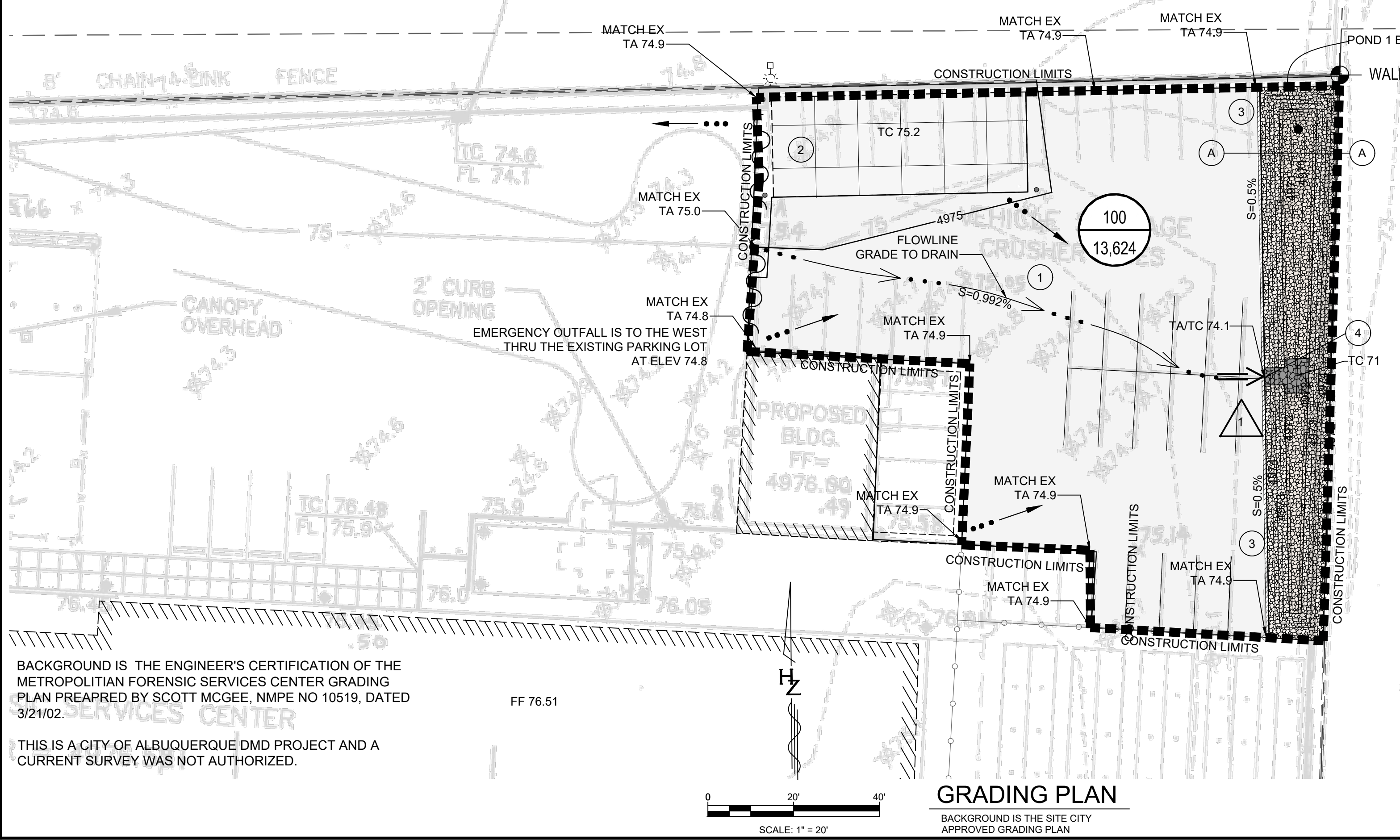
DEPTH OF FLOW IS APPROX. 0.5-INCHES WITHIN V.G.

ZONE ATLAS F-15-Z

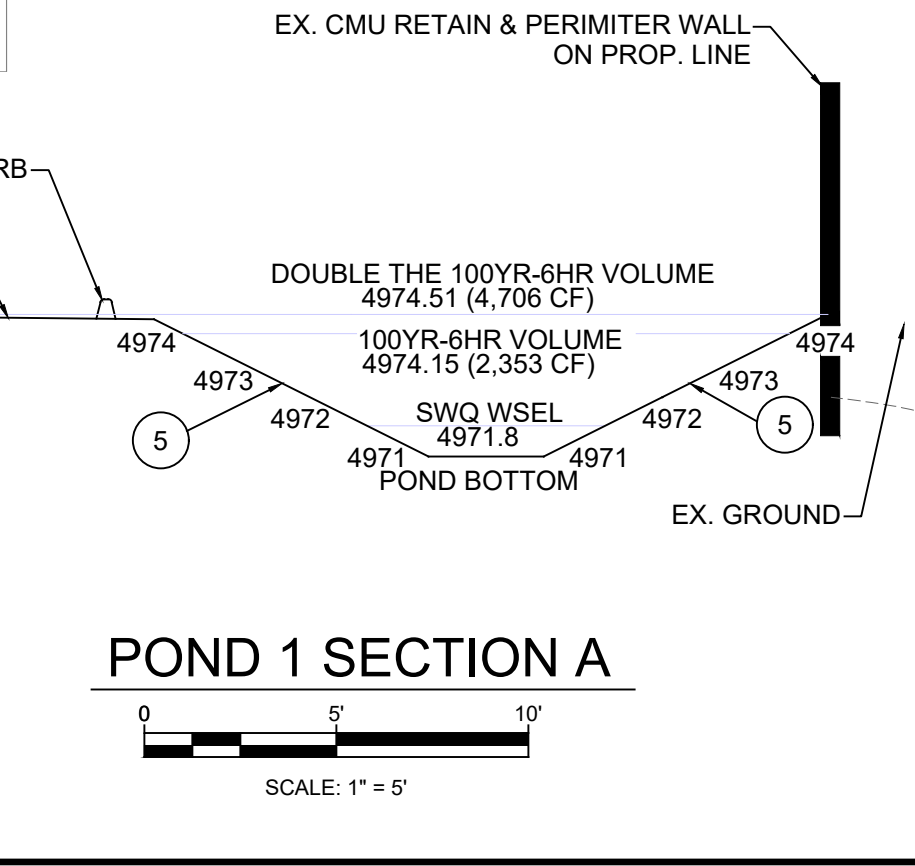


- CONSTRUCTION NOTES**
- 3-INCH ASPHALT PAVEMENT OVER PREPARED SG.
 - 6-INCH CONCRETE CONCRETE - COVERED PARKING.
 - ASPHALT CURB.
 - CONCRETE VALLEY 4' WIDE COA STD DWG 2422.
 - 2-INCH ANGULAR ROCK - 4-INCH DEEP OVER WOVEN FILTER FABRIC

- LEGEND**
- PROPOSED CONCRETE SIDEWALK
 - PROPOSED ASPHALT PAVEMENT
 - BASIN BOUNDARY
 - DISCHARGE LOCATION
 - FLOW DIRECTION
 - GRADE BREAK
 - LIMITS OF DISTURBANCE
 - BASIN ID
 - AREA (SF)
 - ANALYSIS POINT



City of Albuquerque
 Planning Department
 Development Review Services
HYDROLOGY SECTION
APPROVED
 DATE: 6.17.22
 BY: [Signature]
 HydroID: F15D019A



Designed By:
HUITT-ZOLLARS
 Huitt-Zollars, Inc. Albuquerque
 6501 Americas Pkwy NE, Suite 550
 Albuquerque, New Mexico 87110
 Phone (505) 883-8114 Fax (505) 883-5022

MEVACON, LLC
 APD CRIME LAB

GRADING PLAN

Design Review Committee	City Engineer	Mo./Day/Yr.	Mo./Day/Yr.
City Project No.	Zone Map No.	Sheet	Of
-	F-15-Z	4	12

AS BUILT INFORMATION		BENCH MARKS		SURVEY INFORMATION		ENGINEER'S SEAL	
CONTRACTOR	DATE	NO.	DATE	NO.	DATE	NO.	DATE
WORKED BY	DATE	NO. <td>DATE</td> <td>NO. <td>DATE</td> <td>NO. <td>DATE</td> </td></td>	DATE	NO. <td>DATE</td> <td>NO. <td>DATE</td> </td>	DATE	NO. <td>DATE</td>	DATE
INSPECTORS	DATE	NO. <td>DATE</td> <td>NO. <td>DATE</td> <td>NO. <td>DATE</td> </td></td>	DATE	NO. <td>DATE</td> <td>NO. <td>DATE</td> </td>	DATE	NO. <td>DATE</td>	DATE
ACCEPTANCE BY	DATE	NO. <td>DATE</td> <td>NO. <td>DATE</td> <td>NO. <td>DATE</td> </td></td>	DATE	NO. <td>DATE</td> <td>NO. <td>DATE</td> </td>	DATE	NO. <td>DATE</td>	DATE
DRAWING BY	DATE	NO. <td>DATE</td> <td>NO. <td>DATE</td> <td>NO. <td>DATE</td> </td></td>	DATE	NO. <td>DATE</td> <td>NO. <td>DATE</td> </td>	DATE	NO. <td>DATE</td>	DATE
VERIFICATION BY	DATE	NO. <td>DATE</td> <td>NO. <td>DATE</td> <td>NO. <td>DATE</td> </td></td>	DATE	NO. <td>DATE</td> <td>NO. <td>DATE</td> </td>	DATE	NO. <td>DATE</td>	DATE
MICRO-FILM INFORMATION	DATE	NO. <td>DATE</td> <td>NO. <td>DATE</td> <td>NO. <td>DATE</td> </td></td>	DATE	NO. <td>DATE</td> <td>NO. <td>DATE</td> </td>	DATE	NO. <td>DATE</td>	DATE
RECORDED BY	DATE	NO. <td>DATE</td> <td>NO. <td>DATE</td> <td>NO. <td>DATE</td> </td></td>	DATE	NO. <td>DATE</td> <td>NO. <td>DATE</td> </td>	DATE	NO. <td>DATE</td>	DATE

Plotted: 6/16/2022 7:47:44 PM. By: Eddings, Scott
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