

# CITY OF ALBUQUERQUE

Planning Department  
Alan Varela, Director



Mayor Timothy M. Keller

July 28, 2022

David Soule, P.E.  
Rio Grande Engineering  
P.O. Box 93924  
Albuquerque, NM 87199

**RE: 1500 Candelaria NE**  
**Grading and Drainage Plan**  
**Engineer's Stamp Date: 06/08/2022**  
**Hydrology File: H15D007A**

Dear Mr. Soule:

Based upon the information provided in your submittal received 06/13/2022, the Grading and Drainage Plan is approved for Building Permit and SO-19 Permit. Please attach a copy of this approved plan in the construction sets for Building Permit processing along with a copy of this letter.

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](mailto:jhughes@cabq.gov), 924-3420) 14 days prior to any earth disturbance.

NM 87103

[www.cabq.gov](http://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](mailto: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](mailto: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 (REV 6/2018)

**Project Title:** 1500 CANDELARIA NE **Building Permit #:** \_\_\_\_\_ **Hydrology File #:** \_\_\_\_\_

**DRB#:** \_\_\_\_\_ **EPC#:** \_\_\_\_\_ **Work Order#:** \_\_\_\_\_

**Legal Description:** LOT 2, SUNDT'S INDUSTRIAL AREA SUBDIVISION

**City Address:** 1500 CANDELARIA NE

**Applicant:** \_\_\_\_\_ **Contact:** \_\_\_\_\_

**Address:** \_\_\_\_\_

**Phone#:** \_\_\_\_\_ **Fax#:** \_\_\_\_\_ **E-mail:** \_\_\_\_\_

**Other Contact:** RIO GRANDE ENGINEERING **Contact:** DAVID SOULE

**Address:** PO BOX 93924 ALB NM 87199

**Phone#:** 505.321.9099 **Fax#:** 505.872.0999 **E-mail:** david@riograndeengineering.com

**TYPE OF DEVELOPMENT:** \_\_\_\_\_ PLAT \_\_\_\_\_ RESIDENCE \_\_\_\_\_ DRB SITE ☒ ADMIN SITE

Check all that Apply:

### DEPARTMENT:

☒ HYDROLOGY/ DRAINAGE  
☐ TRAFFIC/ TRANSPORTATION

### TYPE OF SUBMITTAL:

☐ ENGINEER/ARCHITECT CERTIFICATION  
☐ PAD CERTIFICATION  
☐ CONCEPTUAL G & D PLAN  
☒ GRADING PLAN  
☐ DRAINAGE REPORT  
☐ DRAINAGE MASTER PLAN  
☐ FLOODPLAIN DEVELOPMENT PERMIT APPLIC  
☐ ELEVATION CERTIFICATE  
☐ CLOMR/LOMR  
☐ TRAFFIC CIRCULATION LAYOUT (TCL)  
☐ TRAFFIC IMPACT STUDY (TIS)  
☐ STREET LIGHT LAYOUT  
☐ OTHER (SPECIFY) \_\_\_\_\_  
☐ PRE-DESIGN MEETING?

IS THIS A RESUBMITTAL?: \_\_\_\_\_ Yes ☒ No

### 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:** \_\_\_\_\_ **By:** \_\_\_\_\_

COA STAFF:

ELECTRONIC SUBMITTAL RECEIVED: \_\_\_\_\_

FEE PAID: \_\_\_\_\_

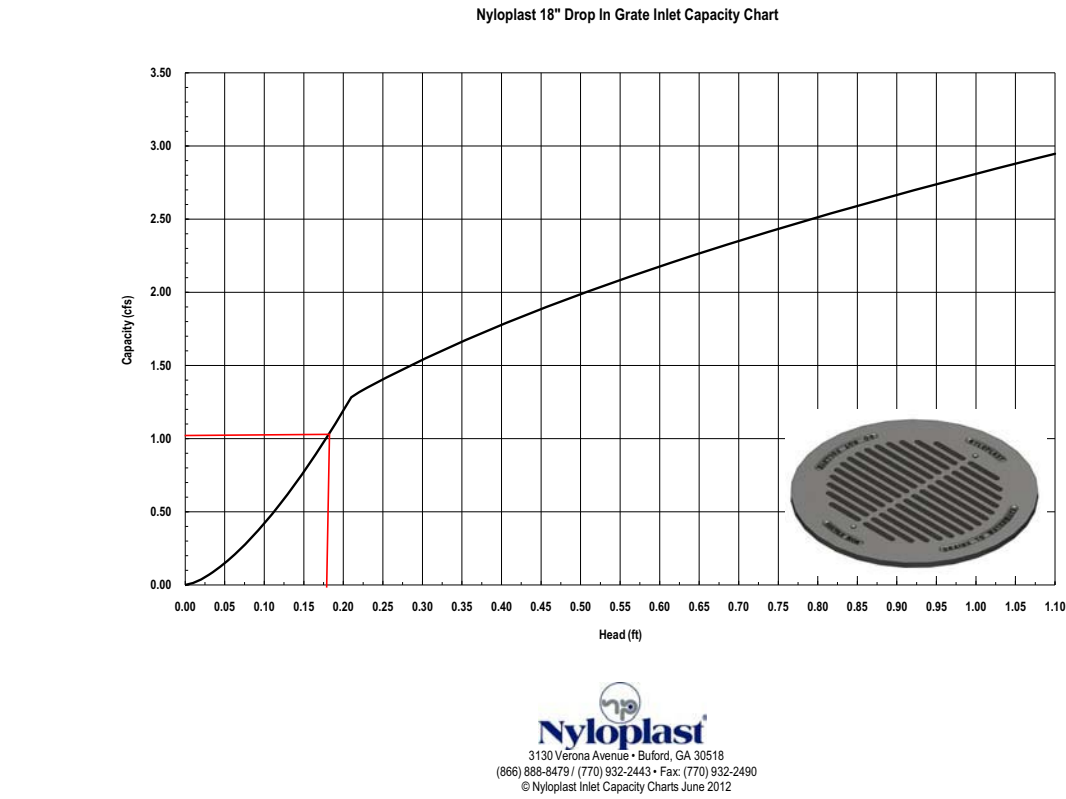


Weighted E Method													
Basin	Area (sf)	Area (acres)	Treatment A % T (acres)	Treatment B % T (acres)	Treatment C % T (acres)	Treatment D (acres)	100-Year, 6-hr.			100 yr 10-DAY			
							Weighted E (ac-ft)	Volume (ac-ft)	Flow cfs	Volume (ac-ft)			
EXISTING	84834.00	1.948	0%	0%	0.000	5%	0.097	95%	1.850	2.265	0.368	8.33	0.614
PROPOSED	84834.00	1.948	0%	0%	0.000	7%	0.136	93%	1.811	2.239	0.363	8.28	0.605
SUB BASIN INLET A	10740.00	0.247	0%	0%	0.000	0%	0.000	100%	0.247	2.330	0.048	1.07	0.081
SUB BASIN INLET B	10229.00	0.235	0%	0%	0.000	12%	0.028	88%	0.207	2.174	0.043	0.98	0.070

Equations:													
Weighted E = Ea*Aa + Eb*Ab + Ec*Ac + Ed*Ad / (Total Area)													
Volume = Weighted D * Total Area													
Flow = Qa * Aa + Qb * Ab + Qc * Ac + Qd * Ad													
Where for 100-year, 6-hour storm(zone2)													
Ea= 0.62													
Eb= 0.8													
Ec= 1.03													
Ed= 2.33													
Qa= 1.71													
Qb= 2.36													
Qc= 3.05													
Qd= 4.34													

Developed Conditions	REDEVELOPED AREA FOR FIRST FLUSH	10229.00	X (0.26/12) =	222 CUBIC FEET
	EXISTING DISCHARGE	8.33 CFS		
	PROPOSED DISCHARGE	8.28 CFS		

This site is an existing fully developed lot. The site is allowed free discharge to Candelaria with drainage file H15-D7A. The current site appears to partially drain to candelaria, yet paving has been done blocking a portion of this flow. The site currently has large shallow ponding area in the rear yard. The improvements are located within a fully paved area, therefore no increase in storm water is created. A storm drain is proposed to correct the drainage issues caused by improper paving in the past. The site retains 248 cubic feet for water quality



### STAGE/STORAGE VOLUME CALCULATIONS

ACTUAL ELEV.	DEPTH (FT)	AREA SF	VOLUME PER UNIT	VOLUME SUMULATIVI	VOLUME AC-FT	Q (CFS)
39.00	0.00	69.00	0	0	0.0000	0.00
40.00	0.00	427.00	248.00	248	0.0057	0.06
41.00	0.50	1281.00	1263.92	1511.92	0.035	2.67

Orifice Equation  
 $Q = CA \sqrt{2gh}$

C = 0.6  
Diameter (in) 12  
Area (in<sup>2</sup>)= 0.785398163  
g = 32.2  
H (ft) = Depth of water above center of orifice  
Q (CFS)= Flow

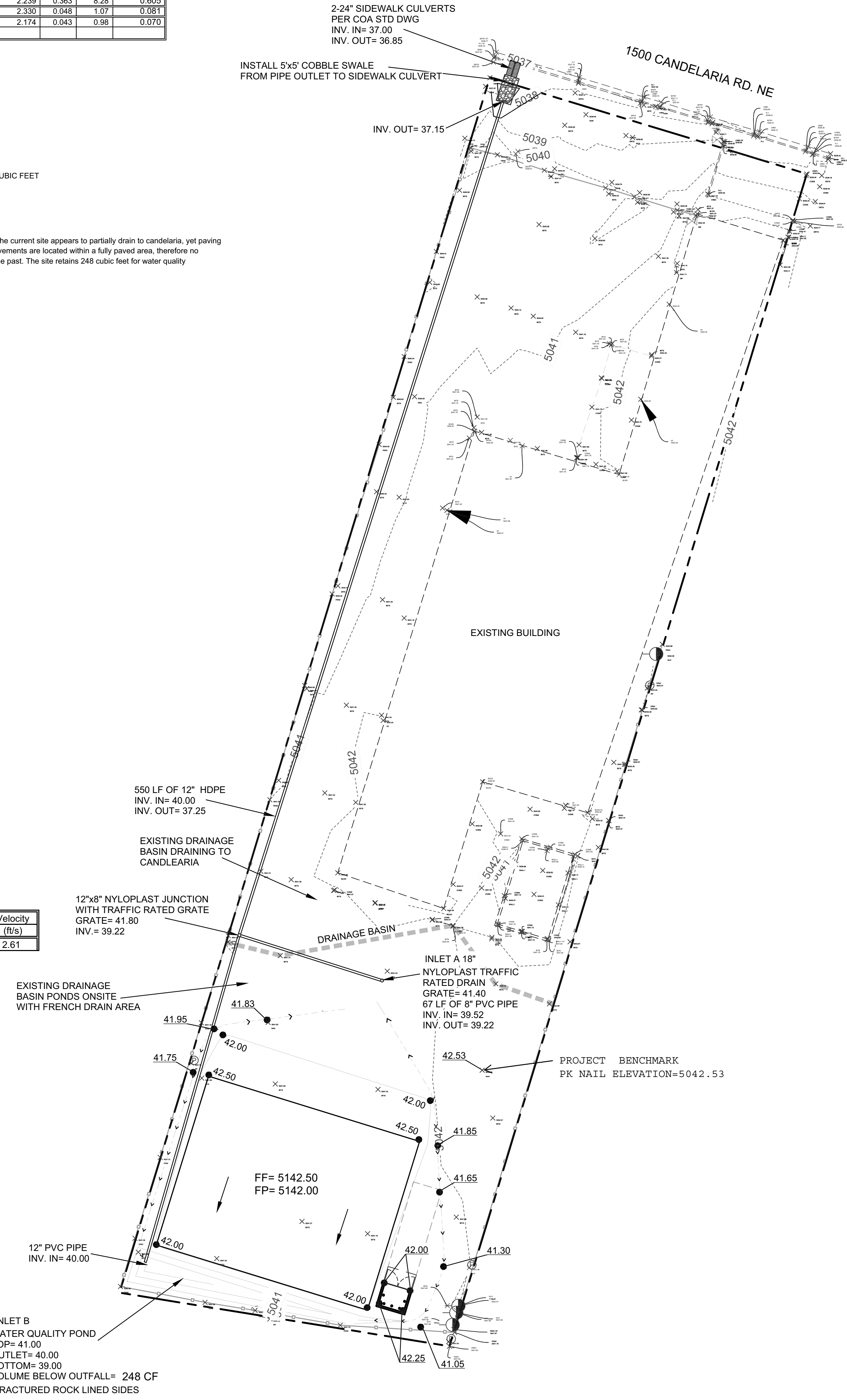
### Pipe Capacity

Pipe	D (in)	Slope (%)	Area (ft <sup>2</sup> )	R	Q Provided (cfs)	Q Required (cfs)	Velocity (ft/s)
culvert	12	0.5	0.79	0.25	2.74	2.05	2.61

Manning's Equation:  
 $Q = 1.49/n * A * R^{2/3} * S^{1/2}$

A = Area  
R = D/4  
S = Slope  
n = 0.012

**CAUTION:**  
EXISTING UTILITIES ARE NOT SHOWN.  
IT SHALL BE THE SOLE RESPONSIBILITY  
OF THE CONTRACTOR TO CONDUCT ALL  
NECESSARY FIELD INVESTIGATIONS PRIOR  
TO ANY EXCAVATION TO DETERMINE THE  
ACTUAL LOCATION OF UTILITIES & OTHER  
IMPROVEMENTS.

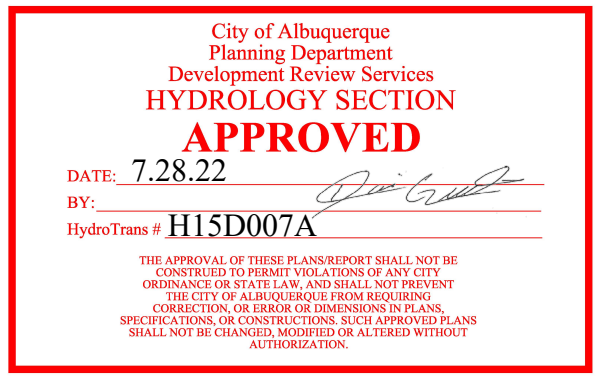


### EROSION CONTROL NOTES:

1. CONTRACTOR IS RESPONSIBLE FOR OBTAINING A TOPSOIL DISTURBANCE PERMIT PRIOR TO BEGINNING WORK.
2. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING RUN-OFF ON SITE DURING CONSTRUCTION.
3. CONTRACTOR IS RESPONSIBLE FOR CLEANING ALL SEDIMENT THAT GETS INTO EXISTING RIGHT-OF-WAY.
4. REPAIR OF DAMAGED FACILITIES AND CLEANUP OF SEDIMENT ACCUMULATIONS ON ADJACENT PROPERTIES AND IN PUBLIC FACILITIES IS THE RESPONSIBILITY OF THE CONTRACTOR.
5. ALL EXPOSED EARTH SURFACES MUST BE PROTECTED FROM WIND AND WATER EROSION PRIOR TO FINAL ACCEPTANCE OF ANY PROJECT.
6. Side slopes need to be stabilized with Native Grass Seed (per City Spec 1012) with Aggregate Mulch or equal (Must satisfy the "Final Stabilization criteria" CGP 2.2.14.b.).

### Private Drainage Facilities within City Right-of-Way Notice to Contractor (Special Order 19 ~ "SO-19")

1. Build sidewalk culvert per COA STD DWG 2236. Work is permitted and inspected by DMD Construction Services Division.
2. An excavation permit will be required before beginning any work within City Right-Of-Way.
3. All work on this project shall be performed in accordance with applicable federal, state and local laws, rules and regulations concerning construction safety and health.
4. Prior to any excavation, the contractor must contact **New Mexico One Call**, dial "811" [or (505) 260-1990] for the location of existing utilities.
5. Prior to construction, the contractor shall excavate and verify the locations of all obstructions. Should a conflict exist, the contractor shall notify the engineer so that the conflict can be resolved with a minimum amount of delay.
6. Backfill compaction shall be 95%.
7. Maintenance of the facility shall be the responsibility of the owner of the property being served.
8. Work on arterial streets may be required on a 24-hour basis.
9. For excavation and barricading inspections, contact DMD Construction Services Division.



### LEGEND

- XXXX----- EXISTING CONTOUR
- XXXX----- EXISTING INDEX CONTOUR
- XXXX----- PROPOSED CONTOUR
- XXXX----- PROPOSED INDEX CONTOUR
- + XXXX EXISTING SPOT ELEVATION
- XXXX PROPOSED SPOT ELEVATION
- BOUNDARY
- ADJACENT BOUNDARY
- ===== EXISTING CURB AND GUTTER
- FLOW LINE IN ASPHALT
- DRAINAGE BASIN
- COBBLE SWALE



ENGINEER'S SEAL	<b>DAHL PLUMBING</b> <b>1500 CANDELARIA RD NE</b>	DRAWN BY DEM
	<b>GRADING AND DRAINAGE PLAN</b>	DATE 6-7-22
6/8/22	 <b>Rio Grande Engineering</b> P.O. BOX 53924 ALBUQUERQUE, NM 87199 (505) 321-9099	1500 CANDELARIA RD NE.DWG
DAVID SOULE P.E. #14522		SHEET # C1
		JOB #