

# CITY OF ALBUQUERQUE

Planning Department  
Alan Varela, Director



Mayor Timothy M. Keller

April 28, 2022

Ron Hensley, PE  
THE Group  
300 Branding Iron Rd. SE  
Rio Rancho, NM 87124

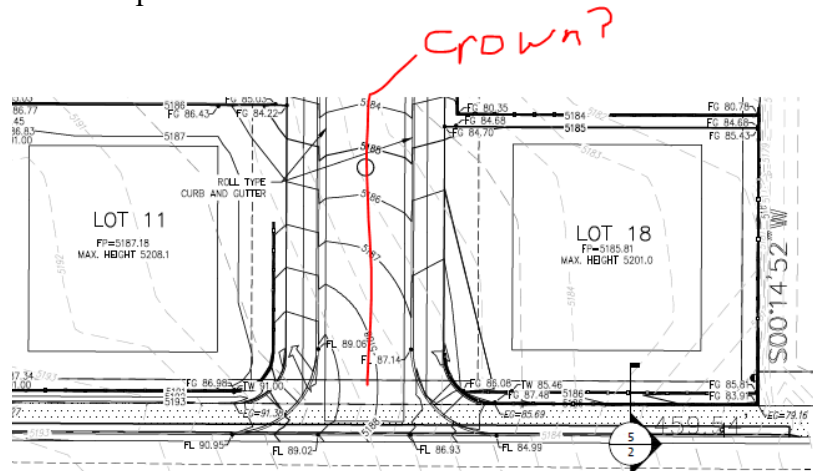
**RE: Mojave Ridge Subdivision**  
**6341 Mojave Rd. NW**  
**Grading and Drainage Plan**  
**Engineer's Stamp Date: 02/28/2022**  
**Hydrology File: E10D024**

Dear Mr. Hensley:

Based upon the information provided in your submittal received 03/31/2022, the Grading & Drainage Plan is **not** approved for Grading Permit. The following comments need to be addressed for approval of the above referenced project:

General Notes

1. Please provide details for the intersections. If this is a crowned section how do these contours match up? It seems based on contours this does not work correctly.



- a.
2. Please provide a detail/section for each roadway.
  3. Please include a cross section of the pond.

PO Box 1293

Albuquerque

NM 87103

[www.cabq.gov](http://www.cabq.gov)

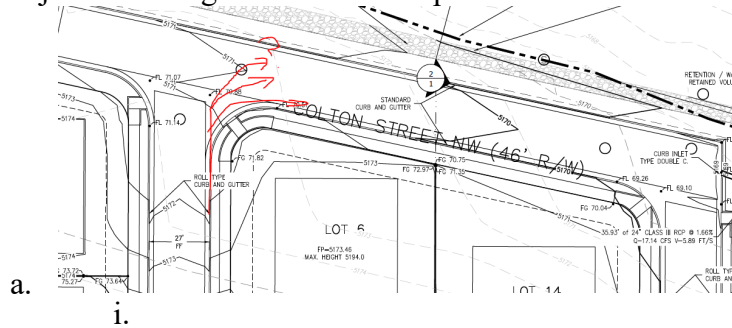
# CITY OF ALBUQUERQUE

*Planning Department*  
Alan Varela, Director

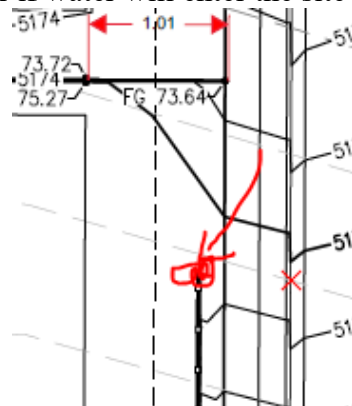


*Mayor Timothy M. Keller*

4. The geometry is interesting here. Will the water hydraulics work here? What is the velocity and can the water follow flow patterns? With a roll curb especially, will the water just run straight out? Please explain.



5. Please provide spot elevation at the downstream portion of the wall and ensure it is higher than point on street. Some lots seem the road is higher and without a detail, it is unclear if water will enter the site from the road or if it can drain properly.



6. Please show the property line on the sections for retaining walls. Ensure no footing crosses the property boundary. Is there a wall around all lots? It is not clear. Please clearly show if that is the case.
7. Please provide a match line separating the sheets for easy reference.
8. Please include quarter points.
9. Please include existing points for the existing roadway? Need survey information. What is the site tying into? Cannot know without this info.

# CITY OF ALBUQUERQUE

*Planning Department*  
Alan Varela, Director



*Mayor Timothy M. Keller*

As a reminder, 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.

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

PO Box 1293

Albuquerque

NM 87103

[www.cabq.gov](http://www.cabq.gov)



# City of Albuquerque

Planning Department

Development & Building Services Division

## DRAINAGE AND TRANSPORTATION INFORMATION SHEET (REV 11/2018)

**Project Title:** Mojave Ridge Subdivision **Building Permit #:** \_\_\_\_\_ **Hydrology File #:** E10D024  
**DRB#:** 2020-003484 **EPC#:** \_\_\_\_\_ **Work Order#:** \_\_\_\_\_  
**Legal Description:** LOTS 2 AND 3 BLOCK 12, VOLCANO CLIFFS SUBDV.  
**City Address:** 6341 MOJAVE RD NW

**Applicant:** THE Group **Contact:** Ron Hensley  
**Address:** 300 Branding Iron Rd. SE, Rio Rancho, NM 87124  
**Phone#:** 505-410-1622 **Fax#:** \_\_\_\_\_ **E-mail:** ron@thegroup.cc  
**Owner:** Clearbrook **Contact:** Scott Henry  
**Address:** 8801 Jefferson NE Bldg. A, ALBUQUERQUE, NM 87113  
**Phone#:** 505-858-1800 **Fax#:** \_\_\_\_\_ **E-mail:** scotth@stillbrooke.com

**TYPE OF SUBMITTAL:** ☒ PLAT (18# OF LOTS) ☐ RESIDENCE ☐ DRB SITE ☐ ADMIN SITE

IS THIS A RESUBMITTAL?: ☐ Yes ☒ No

**DEPARTMENT:** ☐ TRAFFIC/ TRANSPORTATION ☒ HYDROLOGY/ DRAINAGE

Check all that Apply:

### TYPE OF SUBMITTAL:

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

### 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:** 3/31/22 **By:** THE Group / Ron Hensley

COA STAFF:

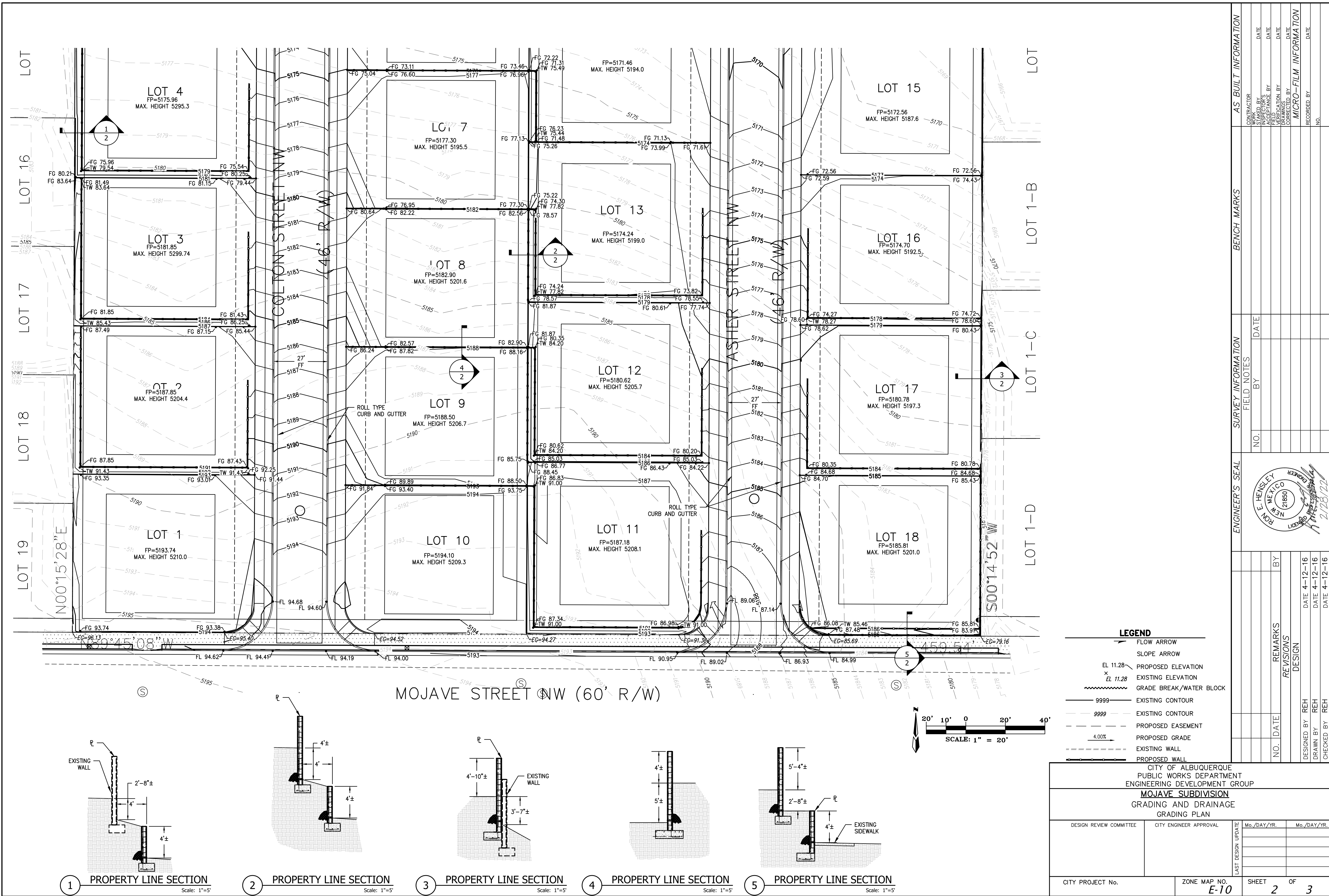
ELECTRONIC SUBMITTAL RECEIVED: \_\_\_\_\_

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



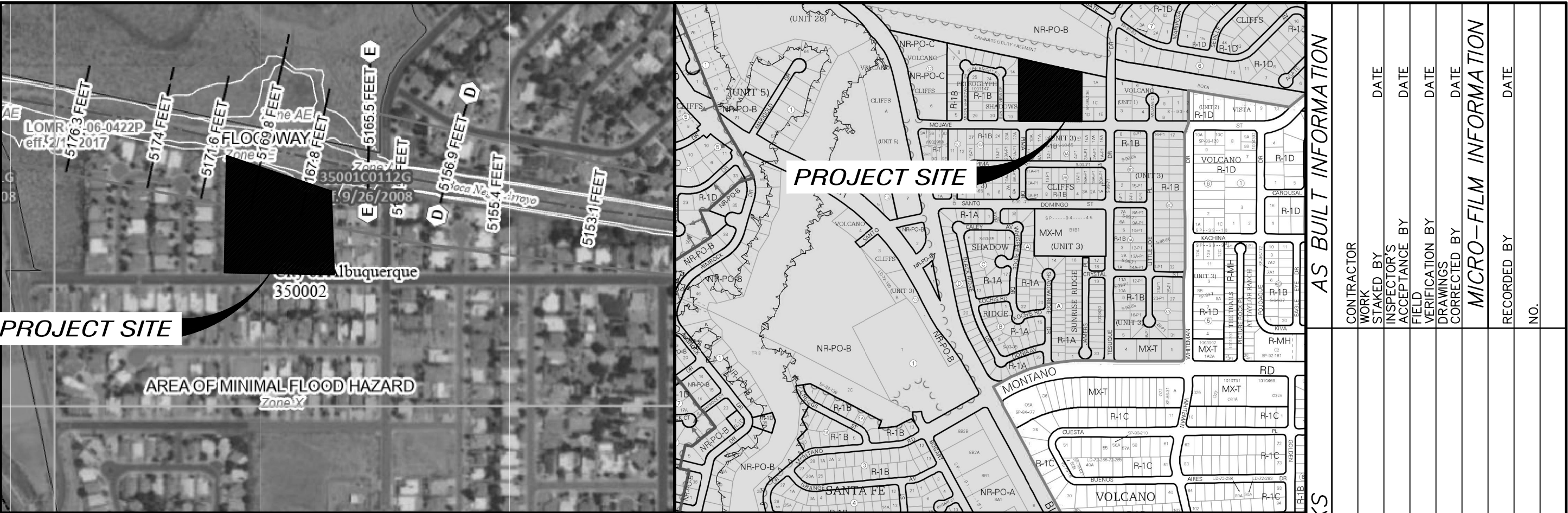
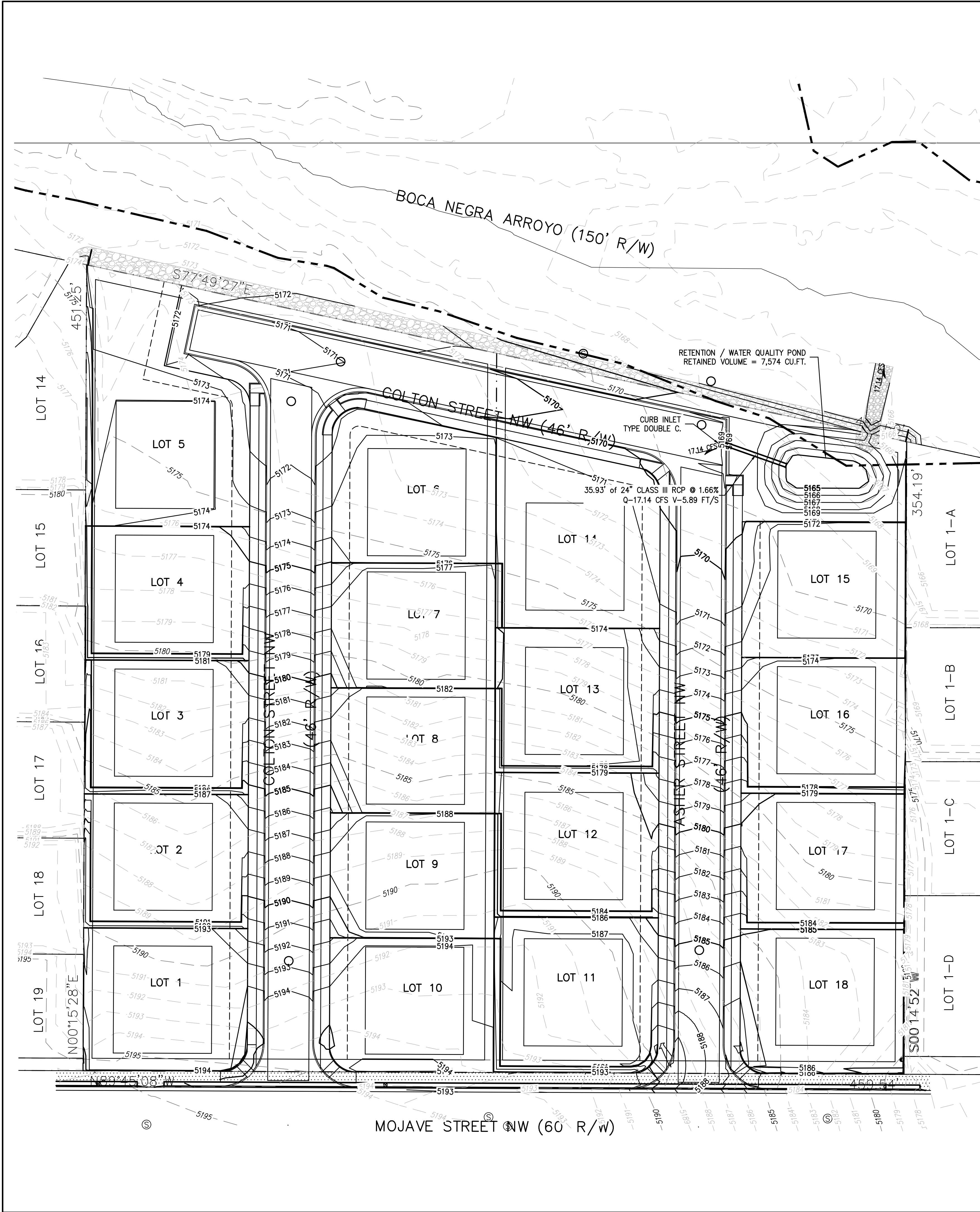






AS BUILT INFORMATION			
CONTRACTOR	DATE	INSPECTOR'S	DATE
STAKED BY	DATE	FIELD	DATE
VERIFICATION BY	DATE	CORRECTED BY	DATE
MICRO-FILM INFORMATION			
RECORDED BY	DATE	NO.	
BENCH MARKS			
SURVEY INFORMATION			
NO.	FIELD NOTES		DATE
	BY		
ENGINEER'S SEAL			
<div>RON E. HENSLEY NEW MEXICO 21850 ENGINEER 2/28/22</div>			
REVISIONS			
NO.	DATE	REMARKS	BY
DESIGN			
DESIGNED BY	REH	DATE 4-12-16	
DRAWN BY	REH	DATE 4-12-16	
CHECKED BY	REH	DATE 4-12-16	
CITY PROJECT No.		ZONE MAP NO.	SHEET 2 OF 3
		E-10	





FIRM MAP NO. 35001C0112G VICINITY MAP E-10-Z

LOCATION & DESCRIPTION

THE PROPOSED SITE IS 0.32 ACRES LOCATED ON THE NORTH SIDE OF MOJAVE ROAD AS SEEN ON THE VICINITY MAP.

FLOODPLAIN STATUS

THE CONSTRUCTION OF THIS PROJECT, AS SHOWN ON FEMA'S FLOOD INSURANCE RATE MAP 35001C0112G, DATED SEPTEMBER 26, 2008 IS NOT WITHIN FLOODPLAIN ZONE X WITH MINIMAL FLOOD HAZARD. AN EXHIBIT WITH THE SITE SHOWN ON THE FIRM PANEL IS INCLUDED ON THIS SHEET. THE SITE IS NOT WITHIN A FLOOD ZONE.

METHODOLOGY

EQUATIONS:  
WEIGHTED E = Ea\**A*a + Eb\**A*b + Ec\**A*c + Ed\**A*d / (Total Area)

FLOW = Qa \* *A*a + Qb \* *A*b + Qc \* *A*c + Qd \* *A*d

WHERE FOR 100-YEAR, 6-HOUR STORM(ZONE1)

Ea= 0.44 Qa= 1.29  
Eb= 0.87 Qb= 2.03  
Ec= 0.99 Qc= 2.87  
Ed= 1.97 Qd= 4.37

BASIN	AREA (sf)	TREATMENT A %	TREATMENT A sf	TREATMENT B %	TREATMENT B sf	TREATMENT C %	TREATMENT C sf	TREATMENT D %	TREATMENT D sf	WEIGHTED E	VOLUME (cu.-ft.)	FLOW (cfs)
EXISTING	185051	100%	185051	0%	0	0%	0	0%	0	0.7600	11720	8.88
PROPOSED	185051	0%	0	0%	0	54%	100738	46%	84313	2.1750	33541	17.14

PRECIPITATION

THE 100-YR 6-HR DURATION STORM WAS USED AS THE DESIGN STORM FOR THIS ANALYSIS. THIS SITE IS WITHIN ZONE 1 AS IDENTIFIED IN THE DEVELOPMENT PROCESS MANUAL, SECTION 6.

EXISTING DRAINAGE

THE SITE IS WITHIN THE NORTHWEST MESA AREA OF ALBUQUERQUE. THE SITE IS TO MAINTAIN HISTORIC DRAINAGE PATTERNS TO THE BOCA NEGRA ARROYO. THERE ARE NO FLOWS THAT ENTER THE SITE. THE HISTORIC DRAINAGE IS TO THE NE CORNER.

DEVELOPED CONDITION

THIS SITE WILL BE DEVELOPED AS A 18 SINGLE FAMILY HOMES WITH DEVELOPED RUNOFF ROUTED TO A RETENTION / OVERFLOW POND. THE CONDITIONS OF THE BOCA NEGRA ARROYO PER FEMA LOMR 16-06-0422P-350002 EFFECTIVE FEBRUARY 16, 2016.

SCOUR WALL CALCULATION  
PER AMAFCA SEDIMENT AND EROSION DESIGN GUIDE  
DEPTH

$y_s = y * (0.73 + 0.14 * n * Fr^2)$   $Fr = v/(gy)^{1/2}$

RIP-RAP PER HEC-11

$D_{50} > C_s * .001 * v^3 / y^{1/2}$   $C_s = (2.12 / (G_s - 1)^{3/2})$   $G_s = 2.91$   
 $D_{50} > 0.80 * .001 * 4.5^3 / 2.08^{1/2} = 0.05$  ft

SECTION 1  
v = 4.5 fps  
y = 3.33 ft.  
 $y_s = 3.33 * (0.73 + 0.14 * n * 0.43^2) = 2.71$  ft.

SECTION 2  
v = 4.5 fps  
y = 2.08 ft.  
 $y_s = 2.08 * (0.73 + 0.14 * n * 0.55^2) = 1.79$  ft.

SECTION 3  
v = 4.5 fps  
y = 2.18 ft.  
 $y_s = 2.18 * (0.73 + 0.14 * n * 0.53^2) = 1.86$  ft.

REQUIRED WATER QUALITY VOLUME

DRAINAGE AS DEPICTED ON THIS PLAN SHALL BE MAINTAINED.

HOA SHALL BE RESPONSIBLE FOR MAINTAINING WATER QUALITY RETENTION ON THE LOT IMMEDIATELY PRIOR TO DISCHARGE. THE VOLUME SHALL BE EQUAL TO: IMPERVIOUS AREA \* 0.42/12 IN CUBIC FEET.

IMPERVIOUS AREA = 84,313 SQ.FT.

REQUIRED VOLUME = 84,313 \* 0.42/12 = 2,951 CU.FT.  
VOLUME PROVIDED = 7,574 CU.FT.

AS BUILT INFORMATION			
CONTRACTOR	DATE	INSPECTOR'S	DATE
STAKED BY	DATE	FIELD	DATE
VERIFICATION BY	DATE	CORRECTED BY	DATE
MICRO-FILM INFORMATION			
RECORDED BY	DATE	NO.	
BENCH MARKS			
SURVEY INFORMATION			
FIELD NOTES	BY	DATE	
NO.			
ENGINEER'S SEAL			
REVISIONS			
NO.	DATE	REMARKS	BY
DESIGN			
DESIGNED BY	REH	DATE 4-12-16	
DRAWN BY	REH	DATE 4-12-16	
CHECKED BY	REH	DATE 4-12-16	
CITY OF ALBUQUERQUE PUBLIC WORKS DEPARTMENT ENGINEERING DEVELOPMENT GROUP MOJAVE SUBDIVISION GRADING AND DRAINAGE DRAINAGE PLAN			
DESIGN REVIEW COMMITTEE	CITY ENGINEER APPROVAL	Mo./DAY/YR.	Mo./DAY/YR.
CITY PROJECT No.		ZONE MAP NO. D-21	SHEET 3 OF 3