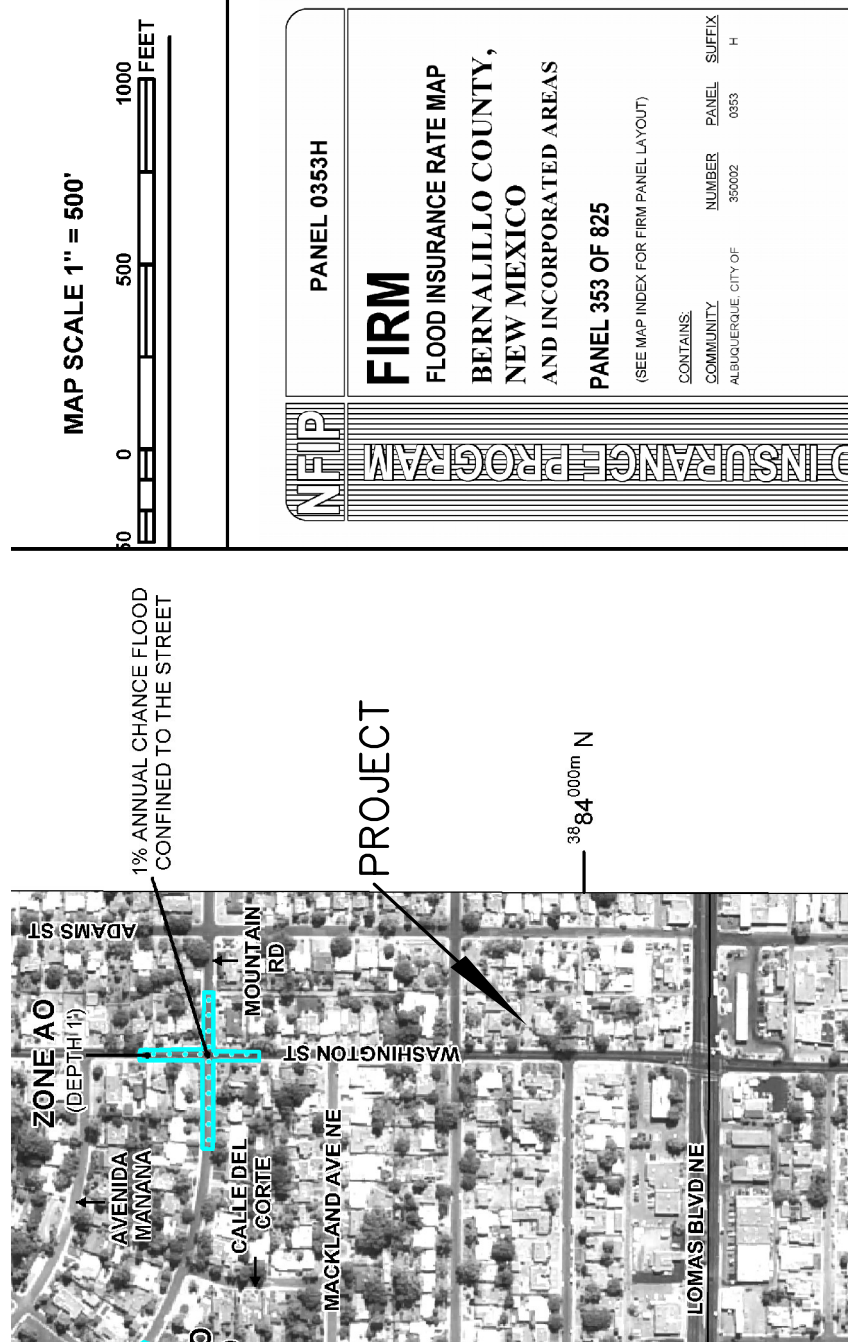


FIRM MAP  
PANEL # 353 H

SUBJECT PROPERTY IS NOT IN FLOOD HAZARD ZONE.

## CALCULATIONS

DESIGN CRITERIA

HYDROLOGIC METHODS PER SECTION 22.2, HYDROLOGY OF THE DEVELOPMENT PROCESS MANUAL (DPM), REVISED JANUARY 1993 FOR CITY OF ALBUQUERQUE ADOPTED BY THE COUNTY OF BERNALILLO  
DISCHARGE RATE:  $Q = Q_{PEAK} \times AREA$ , "Peak Discharge Rates For Small Watersheds"  
VOLUMETRIC DISCHARGE:  $VOLUME = Q_{PEAK} \times AREA$   
TIME OF CONCENTRATION:  $TC = 10 \text{ Minutes}$   
DESIGN STORM: "100-YEAR 6-HOUR, 10-YEAR 6-HOUR [ ] = 10 YEAR VALUES"

**EXISTING CONDITIONS — LOT 9**  
TOTAL AREA = 0.15 ACRES, WHERE EXCESS PRECIP. 'W' = 1.47 in. [0.80]  
PEAK DISCHARGE, Q100 = 0.55 CFS [0.33], WHERE UNIT PEAK DISCHARGE 'W' = 3.6 CFS/AC. [2.2]  
THEREFORE: VOLUME 100 = 800 CF [436]  
66% 'C', 34% 'D'

## DEVELOPED CONDITIONS

DETERMINE LAND TREATMENTS, PEAK DISCHARGE AND VOLUMETRIC DISCHARGE FOR STUDY AREA

| AREA | LAND TREATMENT | $\bar{Q}$ | $\bar{Q}_{Peak}$ | $\bar{E}$   |
|------|----------------|-----------|------------------|-------------|
| —    | Ac             | A         | 1.56 [0.38]      | 0.53 [0.13] |
| 0.03 | Ac (20%)       | B         | 2.28 [0.95]      | 0.78 [0.28] |
| 0.04 | Ac (26%)       | C         | 3.14 [1.71]      | 1.13 [0.52] |
| 0.08 | Ac (53%)       | D         | 4.70 [3.14]      | 2.12 [1.34] |

THEREFORE:  $E_{\text{Weighted}} = 1.57 \ln[0.91]$  &  
 $Q100 = 0.57 \text{ CFS}$  VOLUME 100 = 855 CF  
 $Q10 = 0.34 \text{ CFS}$  VOLUME 10 = 495 CF

RECOMMEND : ROUTE INCREASE DUE TO NEW DEVELOPMENT THROUGH SOFT LANDSCAPING

## GRADING & DRAINAGE PLAN

THE RESIDENTIAL APARTMENT PROJECT IS LOCATED IN THE NEW YEAR ADDITION OF ALBUQUERQUE APPROXIMATELY 3 MILES EAST OF THE DOWNTOWN CORE OF ALBUQUERQUE, NM. THE GRADING & DRAINAGE SCHEME HEREON IS IN COMPLIANCE WITH THE BERNALILLO COUNTY FLOOD HAZARD ORDINANCE, NO.88-46, AND THE CITY STORM DRAINAGE ORDINANCE. THE PLAN IS REQUIRED IN ORDER TO FACILITATE THE OWNER'S REQUEST FOR BUILDING PERMIT. THE PLAN SHOWS:

1. EXISTING CONTOURS, AND SPOT ELEVATIONS AND EXISTING DRAINAGE PATTERNS AND EXISTING IMPROVEMENTS: RESIDENCE AND OUT BUILDING, PARKING AREAS INCLD. FLATWORK.
2. PROPOSED IMPROVEMENTS: 1254 SF BUILDING COMPLEX, NEW CONCRETE PARKING, NEW GRADE ELEVATIONS FLATWORK AND LANDSCAPING.
3. CONTINUITY BETWEEN EXISTING AND PROPOSED ELEVATIONS.
4. QUANTIFICATION AND ACCEPTANCE OF UPSTREAM OFF-SITE FLOWS WHICH CONTRIBUTE TO THE DEVELOPED FLOWS GENERATED BY THE IMPROVEMENTS.

## LEGEND

- EXIST. SPOT ELEVATION  
 EXIST. CONTOUR  
 NEW SPOT ELEVATION  
 NEW CONTOUR  
 NEW SWALE  
 DRAINAGE DIRECTION, EXISTING  
 NEW CONCRETE CURB  
 (0.5' HEIGHT)  
 NEW P.C.C., CONCRETE  
 TOP OF CURB, EXISTING  
 FLOWLINE  
 EXISTING POWER POLE  
 FACE OF CURB / FACE OF  
 WATER BLOCK

THE PURPOSE OF THE PLAN IS TO ESTABLISH CRITERIA FOR CONTROLLING STORM RUNOFF AND EROSION, AND ESSENTIALLY ALLOWING HISTORIC FLOWS TO CONTINUE TO DRAIN THROUGH THE PROPERTY. PRESENTLY, THE SITE IS BOUNDED ON THE NORTH BY RESIDENTIAL, AND ON THE SOUTH AND EAST BY DEVELOPED PROPERTY. WASHINGTON STREET, ON THE WEST IS PAVED WITH CURB, GUTTER, AND SIDEWALK, AND IS MAINTAINED BY THE CITY OF ALBUQUERQUE. THE SITE CURRENTLY DRAINS AT 1'-2% FROM EAST TO WEST.

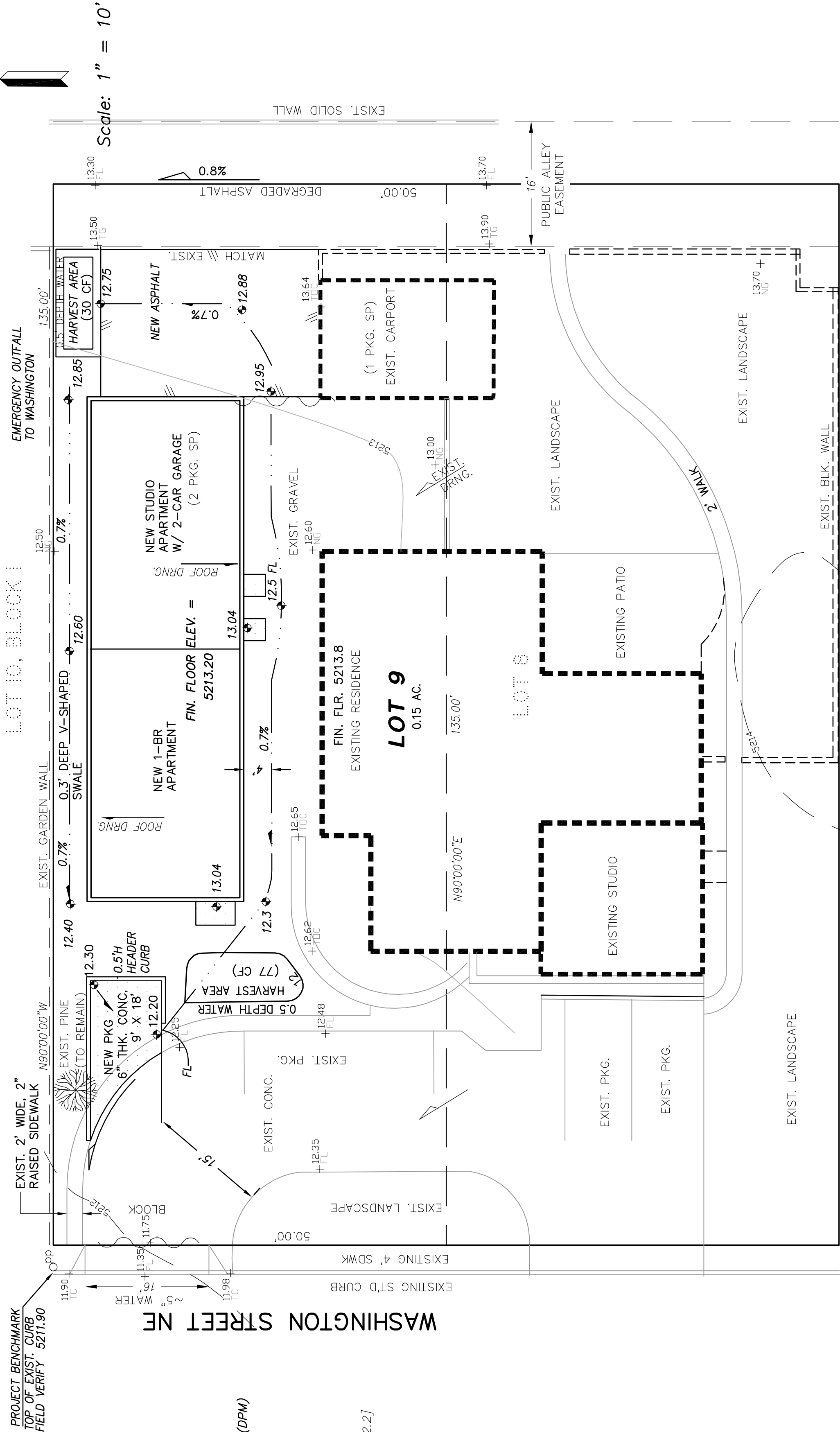
HISTORICAL SITE RUNOFF OUTFALL LOCATIONS WILL REMAIN UNCHANGED. SINCE THE STREET & DRIVEWAY IS IMPROVED NO GRADING IS PROPOSED WITHIN THE CITY R.O.W. FREE DISCHARGE OF DEVELOPED FLOW IS ACCEPTABLE SINCE THE TOTAL INCREASE OF DEVELOPED FLOW IS MINIMAL, AND CAPACITY EXISTS DOWNSTREAM.

THE SITE IS NOT IMPACTED BY ANY SIGNIFICANT OFF-SITE DRAINAGE FLOWS. TOTAL SITE RUNOFF IS MITIGATED BY ROUTING TO THE EXISTING AND NEW LANDSCAPE AREAS AS INDICATED IN THE CALCS. SEE PLAN.

# VICINITY MAP

## NOTES

1. ALL WORK WITHIN THE RIGHT-OF-WAY SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CITY OF ALBUQUERQUE STANDARD SPECS. FOR PUBLIC WORKS CONSTRUCTION, 1986 EDITION W/8 UPDATES.
2. AN EXCAVATION/CONSTRUCTION PERMIT IS REQUIRED BEFORE BEGINNING ANY WORK WITHIN CITY R.O.W. AN APPROVED COPY OF THIS PLAN MUST BE SUBMITTED AT THE TIME OF APPLICATION.
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. ALL LANDSCAPING AREA SHALL BE SOFT-LINED WITH NATIVE VEGETATION AND/OR GRAVEL. ASPHALT PARKING AREA SHALL DRAIN DIRECTLY TO EXISTING CURB CUTS.
5. CONTRACTOR SHALL ENSURE THAT NO SITE SOILS/SEDIMENT OR SILT ENTER THE RIGHT-OF-WAYS DURING CONSTRUCTION.
6. REVEGETATE ALL AREAS DISTURBED DUE TO CONSTRUCTION PER CITY OF ALBUQ. SPEC. 1011, NATIVE SEED MIX.
7. MAXIMUM SITE GRADING WITHOUT EROSION PROTECTION: 3:1 HORIZONTAL TO 1 VERTICAL, 3:1. ALL DIMENSIONS TO FACE OF CURB, UNLESS NOTED OTHERWISE.



## PROJECT DATA

**LEGAL DESCRIPTION**  
LOTS 8 & 9, BLOCK 1, NEW YEAR ADDITION ALBUQUERQUE,  
BERNALILLO COUNTY, NEW MEXICO

## PROJECT BENCHMARK

TOP OF CURB AT THE PROJECT NORTHWEST CORNER MSL ELEVATION = 5211.90, AS TIED FROM COA 1-3/4" DIAMETER ALUM. DISK SET IN WEST MEDIAN CURB, 9\_J17, MSL, NAVD 88, 5210.96, LOCATED AT THE INTERSECTION OF LOMAS BLVD. AND WASHINGTON STREET.

TOPOGRAPHIC DESIGN SURVEY

COMPILED BY CLARK CONSULTING ENGINEERS, DATE JUNE 30 2013, FROM  
DATA COLLECTED UNDER THE DIRECTION OF PHILIP W. TURNER, P.S. OF  
TERRAMETRICS OF NEW MEXICO.

