

## GRADING & DRAINAGE PLAN

THE PROPOSED RESIDENTIAL PROJECT IS LOCATED IN THE NORTH ALBUQUERQUE ACRES AREA OF THE FAR NORTHEAST HEIGHTS OF ALBUQUERQUE. THE GRADING AND 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 STRUCTURES
2. PROPOSED IMPROVEMENTS: A 4200 SF ASSISTED LIVING RESIDENCE, PRIVATE ASPHALT DRIVEWAY AND PARKING, NEW GRADE ELEVATIONS, WALL, AND LANDSCAPING IMPROVEMENTS.
3. CONTINUITY BETWEEN EXISTING AND PROPOSED ELEVATIONS.
4. QUANTIFICATION OF DEVELOPED FLOWS GENERATED BY THE IMPROVEMENTS WHICH CONTRIBUTE TO THE EXISTING FLOWS.

PRESENTLY, THE SITE IS UNDEVELOPED. THE SITE IS BOUNDED BY DEVELOPED PROPERTY TO THE EAST, KINLEY AVE. ON THE ADJACENT PROPERTY TO THE NORTH IS UNDEVELOPED AND VACANT. GLENDALE AVE. ON THE SOUTH IS A 24 FEET WIDE TEMPORARY ASPHALT SURFACE, CITY MAINTAINED MINOR STREET WITHOUT SIDEWALK OR CURB AND GUTTER. THE SITE TERRAIN SLOPES FROM EAST TO WEST AT ABOUT 3 TO 4% SLOPES.

THE SITE IS NOT WITHIN OR ADJACENT TO A DESIGNATED FEMA FLOOD HAZARD ZONE. DEVELOPED LOT RUNOFF WILL BE PERMITTED TO DRAIN DIRECTLY TO GLENDALE AVENUE ON THE SOUTH. HISTORICAL OUTFALL LOCATIONS WILL REMAIN UNCHANGED WITH DEVELOPMENT. FREE DISCHARGE OF PROJECT RUNOFF IS ACCEPTABLE SINCE IMMEDIATE DOWNSTREAM DRAINAGE FACILITIES DO EXIST. A PORTION OF SITE RUNOFF IS ROUTED THROUGH PROPOSED LANDSCAPING AS POINT RAINFALL.

## 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 RATES: Q=PEAK x AREA. "Peak Discharge Rates For Small Watersheds" VOLUMETRIC DISCHARGE: VOLUME = EWeighted x AREA  
P100 = 2.60 inches, Zone 3 Time of Concentration, TC = 10 Minutes  
DESIGN STORM: 100-YEAR/6-HOUR, 10-YEAR/6-HOUR [ ] = 10 YEAR VALUES

### EXISTING CONDITIONS - TWO LOTS

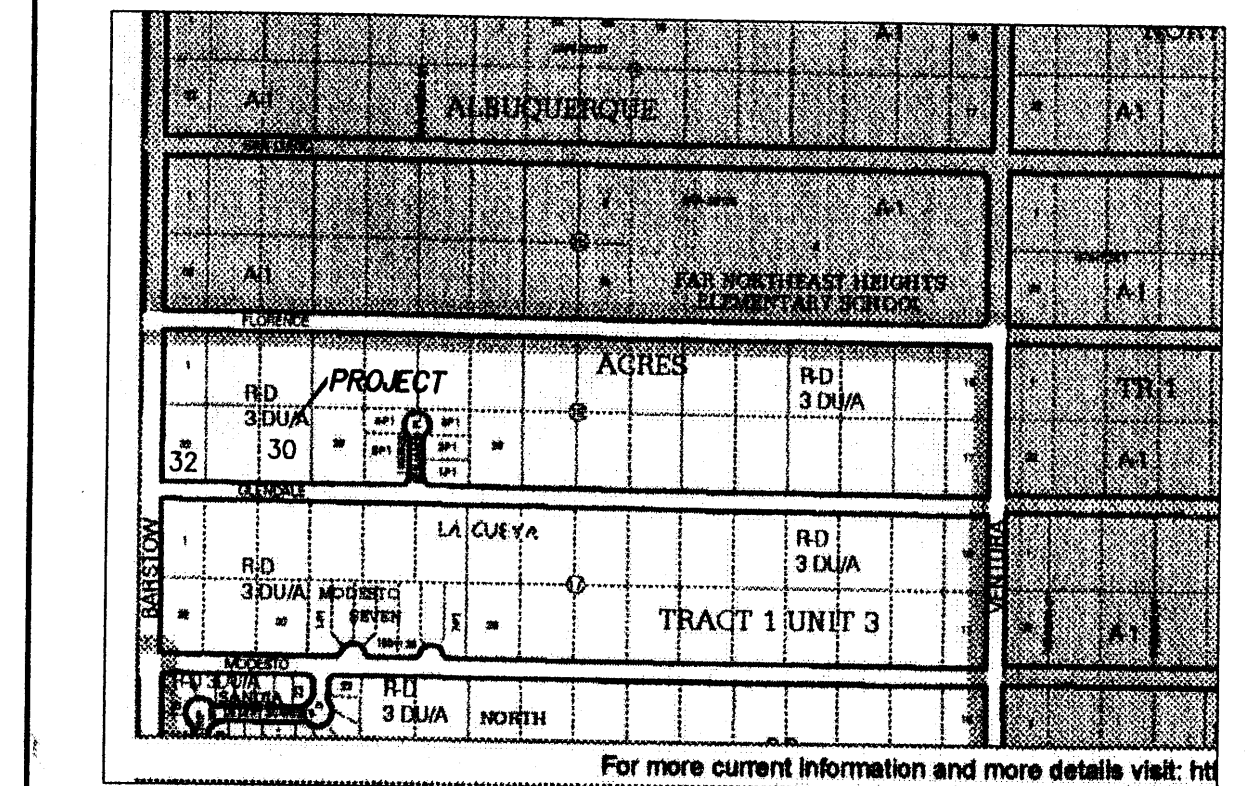
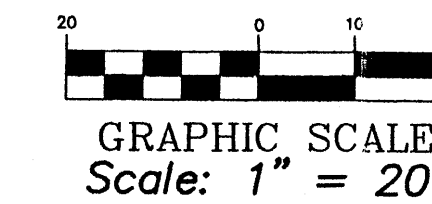
LOT AREA = 0.89 ACRES, WHERE EXCESS PRECIP. "W" = 0.66 in. [0.19]  
PEAK DISCHARGE, Q100 = 1.6 CFS [0.5], WHERE UNIT PEAK DISCHARGE = 1.9 CFS/AC. [0.6]  
THEREFORE: VOLUME 100 = 2132 CF [614]

### DEVELOPED CONDITIONS (Includes Paved Parking, LOT 30-B)

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

AREA	LAND TREATMENT	Q Peak	E
UNDEVELOPED	A	1.87[0.58]	0.66[0.19]
LANDSCAPING/POND	B	2.60[1.19]	0.92[0.36]
GRAVEL & COMPACTED SOIL	C	3.45[2.00]	1.29[0.62]
ROOF - PAVEMENT	D	5.02[3.39]	2.36[1.50]

THEREFORE: E Weighted = 1.64 in. [0.92] &  
Q100 = 1.7 CFS  
Q10 = 1.03 CFS  
VOLUME 100 = 2619 CF  
VOLUME 10 = 1469 CF



## VICINITY MAP

ZONE MAP: B - 20  
Scale: 1" = 625'

## 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, 7TH EDITION W/ 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.
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 HORIZONTAL TO 1 VERTICAL, 3:1.
8. NEW ASPHALT PAVEMENT SHALL CONSIST OF 2" ASPHALT CONCRETE OVER 8" COMPACTED WELL-GRADED, SUBGRADE, R-VALUE 40 OR > MATERIAL 95% PROCTOR, ASTM D-1557

## LEGEND

- CENTERLINE OF STREET
- EXIST. EDGE OF ROAD
- EXISTING POWER POLE
- EXISTING CONTOUR
- EXISTING EDGE OF ASPHALT
- NEW CONCRETE
- FACE TO FACE OF CURB
- NEW CURB & GUTTER
- NEW CONTOUR
- NEW LOT DESIGNATION
- FOUND SURVEY MONUMENT
- NEW SPOT ELEVATION

### LEGAL DESCRIPTION:

LOTS 30, 31 & 32, BLOCK 16, TRACT 1, UNIT 3, NORTH ALBUQUERQUE ACRES, FILED 9/10/31, BK. D-121.

### PROJECT BENCHMARK

ACS STATION 1-B20, AN ACS 1 3/4" ALUMINUM DISK STAMPED "ACS BM 1-B20", EPOXIED TO THE TOP OF CONCRETE POST LOCATED AT THE NE QUADRANT INTERSECTION OF MODESTO AND BARSTOW AVENUES NE, ELEVATION 5477.21 (NAVD 88)

### TOPOGRAPHIC SURVEY

COMPILED BY CLARK CONSULTING ENGINEERS, INC. FOR THE PROJECT. SURVEYS PERFORMED BY TERRAMETRICS OF NEW MEXICO, JUNE 2009

AUG 07 2009

<b>Clark Consulting Engineers</b>	
19 Ryan Road Edgewood, New Mexico 87015	
Tel: (505) 281-2444 Fax: (505) 281-2444	
DATE	REVISION
LOTS 30, 31, AND 32, BLOCK 16, TRACT 1, UNIT 3, NORTH ALBUQUERQUE ACRES	
<b>A GLENDALE DEVELOPMENT SITE DEVELOPMENT PLAN W/ Grading LOT 30 FOR MASTER HOMECRAFTERS, INC.</b>	
DESIGNED BY: PWC	DRAWN BY: CCE
CHECKED BY: PWC	DATE: 6JUN09
JOB #: Schiff_Glendale	FILE #: sdp
C1.0	

