

FIRM MAP
PANEL # 354

GRADING & DRAINAGE PLAN

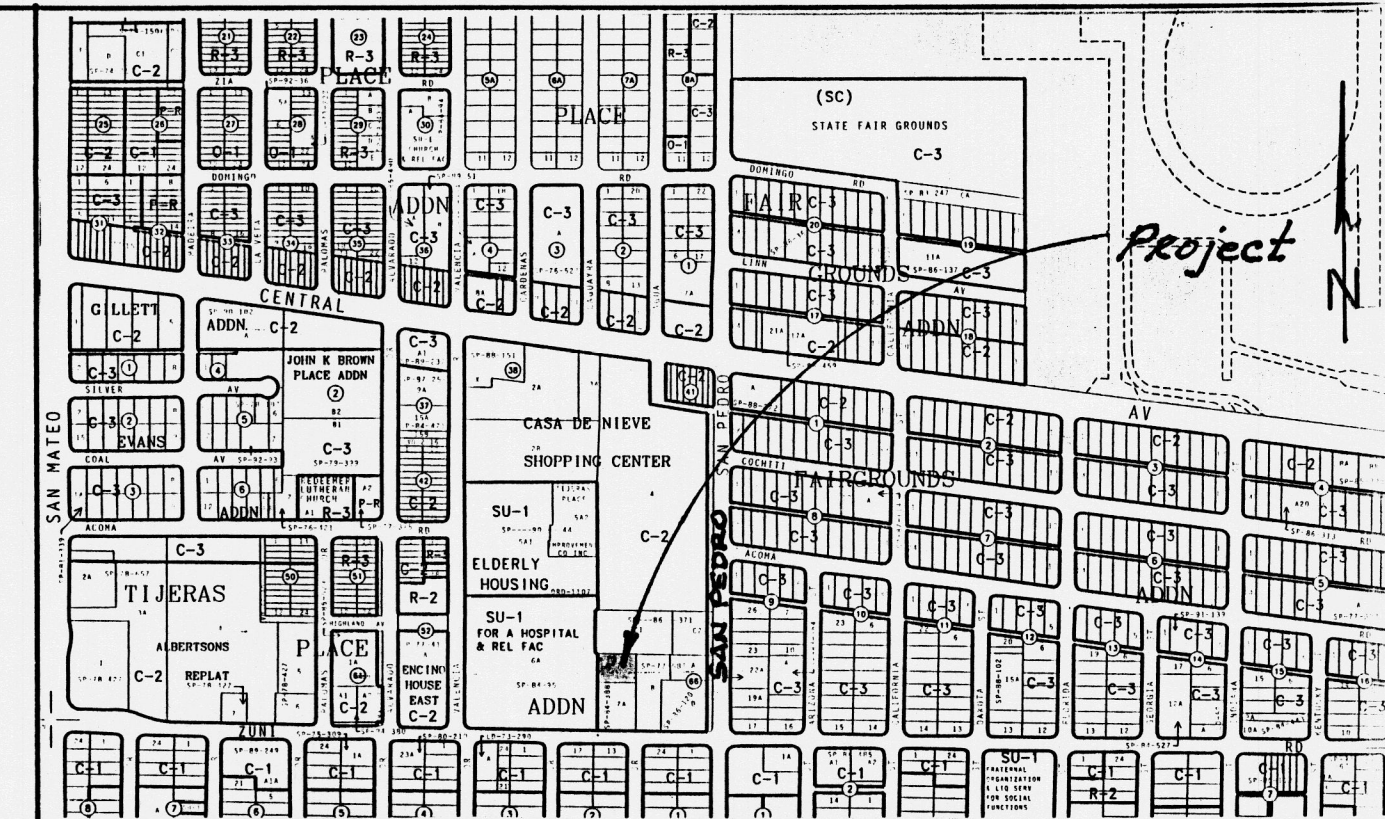
THE PROPOSED WAREHOUSE PROJECT IS LOCATED APPROXIMATELY 400 FEET WEST OF THE INTERSECTION OF SAN PEDRO AND ZUNI STREET. THE GRADING AND DRAINAGE SCHEME HEREON IS IN COMPLIANCE WITH THE BERNALILLO COUNTY FLOOD HAZARD ORDINANCE, NO. 88-46, AND THE CITY STORM DRAINAGE ORDINANCE. THE PLAN IS REQUIRED IN ORDER TO FACILITATE THE OWNER'S REQUEST FOR BUILDING PERMIT. THE PLAN SHOWS:

1. EXISTING CONTOURS, AND SPOT ELEVATIONS AND EXISTING DRAINAGE PATTERNS AND IMPROVEMENTS.
2. PROPOSED IMPROVEMENT: 3520 SF WAREHOUSE BUILDING, ASPHALT DRIVE/PARKING, CONCRETE FLAT WORK, NEW GRADE ELEVATIONS, REFUSE LOCATION, AND LANDSCAPING.
3. CONTINUITY BETWEEN EXISTING AND PROPOSED ELEVATIONS.
4. QUANTIFICATION OF DEVELOPED FLOWS GENERATED BY THE IMPROVEMENTS WHICH CONTRIBUTE TO THE EXISTING FLOWS.

PRESENTLY, 95% OF THE SITE IS COVERED WITH OLD ASPHALT SURFACING, AND USED AS OUTDOOR STORAGE OF VEHICLES FOR THE ADJACENT AUTOMOTIVE PAINT SHOP (MAACO). THE SITE IS BOUNDED BY A PAVED ALLEY TO THE WEST, AND A CAR WASH FACILITY ON THE SOUTH. LAND TO THE NORTH IS UNDEVELOPED. THE SITE FALLS APPROXIMATELY 1% FROM EAST TO WEST.

THE SITE IS IMPACTED BY MINOR SHEET FLOW FROM THE PAINT SHOP. THIS RUNOFF WILL BE ACCEPTED AND ALLOWED TO EITHER DRAIN THROUGH THE SITE, OR PONDED IN DEPRESSED LANDSCAPE AREAS. THE SITE HAS HISTORICALLY DRAINED TO THE NORTH VIA THE ALLEY TO AN EXISTING 54" STORM SEWER SYSTEM. SINCE THE SITE LIES WITHIN A ZONE X FLOOD PLAIN (AVERAGE DEPTH OF LESS THAN 1 FOOT) THE STRUCTURE IS SET 1 FOOT ABOVE THE MEAN EXISTING ELEVATION.

HISTORICAL OUTFALL LOCATIONS WILL REMAIN UNCHANGED WITH DEVELOPMENT. FREE DISCHARGE OF SITE RUNOFF IS ACCEPTABLE SINCE DOWNSTREAM CAPACITY EXISTS, AND THE PROPOSED DEVELOPMENT ACTUALLY DECREASES LOT RUNOFF. A PORTION OF SITE RUNOFF IS ROUTED THROUGH PROPOSED LANDSCAPING.



VICINITY MAP ZONE K-18 Scale: 1" = 750'

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, 6th 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. Asphalt Parking Area Shall Drain Directly To Existing Asphalt Alley.
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 Albuquerque, Spec. 1011, Native Seed Mix.
7. Maximum Site Grading Without Erosion Protection: 3 Horizontal To 1 Vertical, 3:1. All Dimensions To Face of Curb, Unless Noted Otherwise.

LEGEND

- Exist. Spot Elevation +24.0
- Exist. Contour -10
- New Spot Elevation 24.0
- New Contour -12
- New Swale
- Drainage Direction, Existing
- New Concrete Curb (0.5' Height)
- New P.C.C., Concrete
- Top of Asphalt, Existing TA
- Flowline FL
- Existing Power Pole PP
- Face of Curb/Face of Curb F-F
- Traffic Flow Direction
- Single Clean Out OSCO
- Double Clean Out DCO

Scale: 1" = 10'

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: $Q = \text{PEAK} \times \text{AREA}$. "Peak Discharge Rates For Small Watersheds" VOLUMETRIC DISCHARGE: $\text{VOLUME} = E_{\text{Weighted}} \times \text{AREA}$ $P_{100} = 2.60$ inches, Zone 3 Time of Concentration, $T_C = 10$ Minutes DESIGN STORM: 100-YEAR/6-HOUR, 10-YEAR/6-HOUR [] = 10 YEAR VALUES

EXISTING CONDITIONS

LOT AREA = 0.414 ACRES, WHERE EXCESS PRECIP. "A" = 0.66 in. [0.19], "D" = 2.36 in. [1.5] PEAK DISCHARGE: $Q_{100} = 2.01$ CFS [1.34], WHERE UNIT PEAK DISCHARGE "A" = 1.9 CFS/AC. [0.6] THEREFORE: $\text{VOLUME } 100 = 3419$ CF [2156] "D" = 5.02 CFS/AC. [3.39]

DEVELOPED CONDITIONS

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

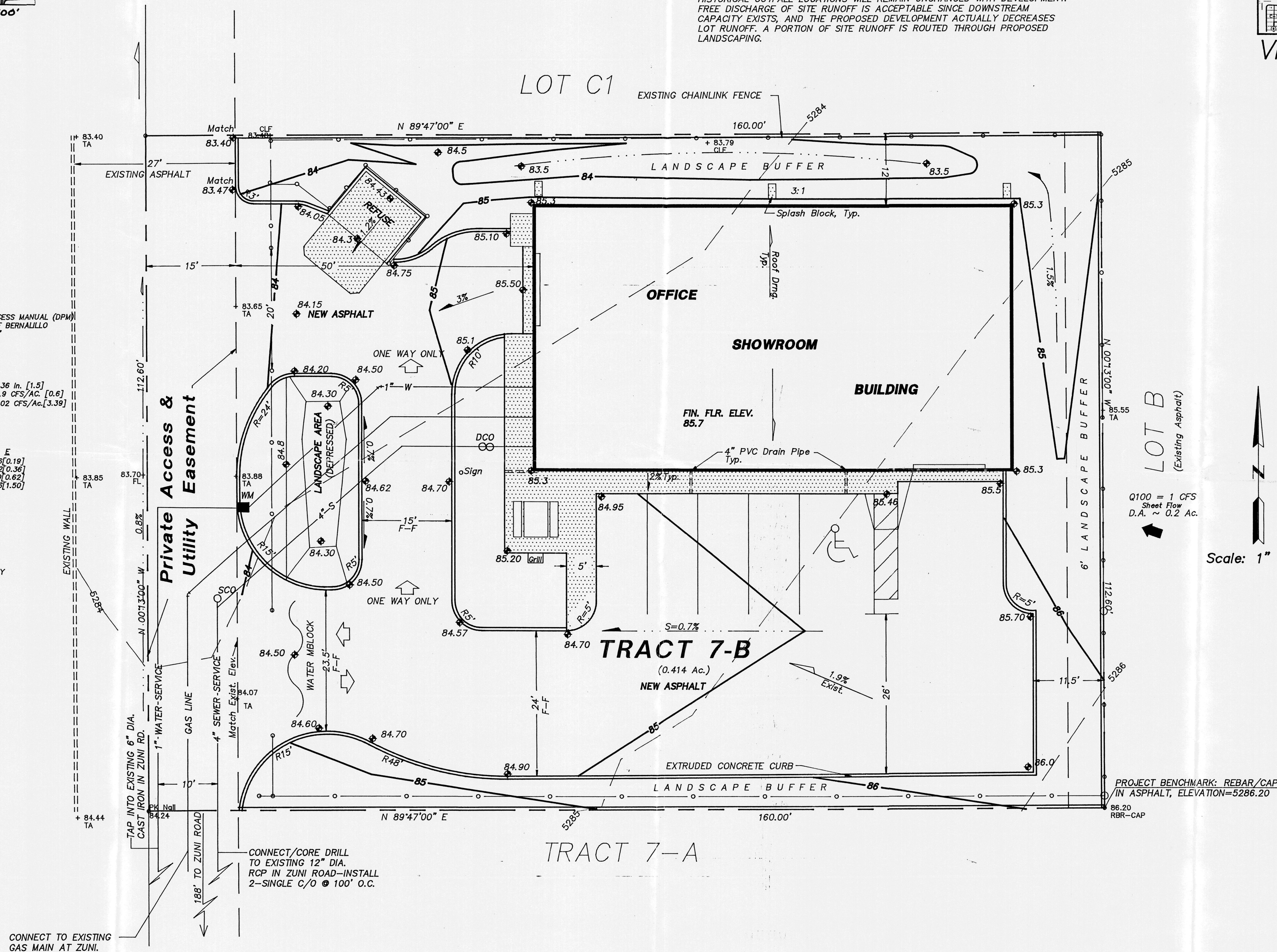
AREA	LAND TREATMENT	Q_{Peak}	E
UNDEVELOPED	— Ac.	1.97 [0.58]	0.66 [0.19]
LANDSCAPING — 10% SL	0.16 Ac.	2.60 [1.19]	0.92 [0.36]
COMPACTED SOIL & Slopes > 0.00 Ac.	C	3.45 [2.00]	1.29 [0.62]
ROOF — PAVEMENT	0.25 Ac.	5.02 [3.39]	2.36 [1.50]

THEREFORE: $E_{\text{Weighted}} = 1.78$ in. [1.05] & $Q_{100} = 1.67$ CFS

$Q_{10} = 1.03$ CFS VOLUME 100 = 2675 CF VOLUME 10 = 1578 CF

DOWNSTREAM ANALYSIS

THE EXISTING ALLEY SURFACE DRAINS TO THE NORTH INTO AN EXISTING 54" DIAMETER RCP STORM SEWER. FREE DISCHARGE IS ACCEPTABLE SINCE THE SYSTEM HAS CAPACITY DUE TO THE PROJECT TIME TO PEAK IS MUCH LESS THAN OVERALL TIME TO PEAK AND THE PROPOSED DEVELOPED FLOWS ACTUALLY DECREASE FROM THE HISTORIC. (DECREASE OF 0.3 CFS)



NOTE: THE CONTRACTOR SHALL SUBMIT A TRAFFIC CONTROL PLAN TO COA TRAFFIC SECTION FOR ALL WORK WITHIN THE ZUNI ROAD RIGHT-OF-WAY FOR APPROVAL PRIOR TO COMMENCING WORK.

I, PHILIP W. CLARK, A PROFESSIONAL ENGINEER LICENSED IN ACCORDANCE WITH THE LAWS OF THE STATE OF NEW MEXICO, DO HEREBY CERTIFY THAT I HAVE VISITED THE SITE SHOWN HEREON, AND THAT THE CONTOURS SHOWN REPRESENT THE EXISTING GROUND CONDITIONS, AND DO FURTHER CERTIFY THAT NO EARTHWORK OF ANY KIND, NOR ANY DISTURBANCE OF THE EXISTING GROUND HAS OCCURRED ON THIS SITE SINCE THE CONTOURS WERE DETERMINED.

PHILIP W. CLARK
SEP 05 2000
HYDROLOGY SECTION

PROJECT DATA

LEGAL DESCRIPTION

TRACT 7-B, TIJERAS PLACE ADDITION
Albuquerque, New Mexico

PROJECT BENCHMARK

Top of Rebar/Cap At the Southeast Property Corner, MSL Elevation = 5286.20

TOPOGRAPHIC DESIGN SURVEY

Compiled by Clark Consulting Engineers From Design Survey
By Automated Data Collecting Services, 6/23/00

		Clark Consulting Engineers 19 Ryan Road Edgewood, New Mexico 87015 Tele: (505) 281-2444 Fax: (505) 281-4444	
DATE	REVISION	TRACT 7-B, TIJERAS PLACE ADDITION	
		TYLER YOUNG WAREHOUSE	
		Grading & Drainage Plan	
DESIGNED BY: PWC	DRAWN BY: CCE	JOB #: T-YOUNG	1 of 1
CHECKED BY: PWC	DATE: 7/5/00	FILE #: G/D	