

DRAINAGE PLAN

THE SUBJECT SITE IS LOCATED ON THE NORTHEAST CORNER OF RIO GRANDE BLVD. AND MOUNTAIN ROAD N.W. AS SHOWN ON PANEL 28 OF THE FEDERAL EMERGENCY MANAGEMENT AGENCY FLOOD BOUNDARY AND FLOODWAY MAP. THIS SITE IS NOT WITHIN A 100-YEAR DESIGNATED FLOOD HAZARD AREA. (THE SITE IS WITHIN THE DESIGNATED 500-YEAR BOUNDARY).

THE PLANNED IMPROVEMENTS TO THE SITE INCLUDE THE CONSTRUCTION OF AN ADDITION(S) TO THE EXISTING BUILDING (APPROX. 1,400 SF), NEW LANDSCAPING, AND NEW ASPHALT PAVING OF THE PROPOSED PARKING AREA. THE MAJORITY OF THE EXISTING CONCRETE PAVING WILL REMAIN IN PLACE. ONLY A PORTION OF THE WEST CONCRETE DRIVE ENTERING FROM MOUNTAIN WILL BE REMOVED AND REPLACED WITH NEW ASPHALT. THIS WILL SERVE TO FACILITATE DRAINAGE PATTERNS.

CURRENTLY, THE SITE HAS VERY LITTLE RELIEF ACROSS THE PROPERTY. DRAINAGE "SHEET FLOWS" ACROSS THE PARCEL AND EXITS THROUGH DRIVEPADS OR "SHEETS" ACROSS THE EXISTING CURB LINE. THE PURPOSE OF THIS PLAN IS TO MAINTAIN THOSE DRAINAGE PATTERNS. THIS PLAN CONSIDERS THIS SITE AND IN-FILL SITE AND AS SUCH, DISCHARGES ITS RUNOFF TO EXISTING STORM SEWER FACILITIES IN MOUNTAIN ROAD, JUST WEST OF THE SITE.

THE TOPOGRAPHY SHOWN WAS PROVIDED BY RIO GRANDE ENGINEERING AND SURVEYING INC. IN JANUARY 1995. A SUBSEQUENT FIELD INSPECTION PERFORMED BY THIS OFFICE REVEALED THAT ALL THE INFORMATION SHOWN IS CONSISTANT WITH THE ACTUAL CONDITIONS THAT EXIST IN THE FIELD.

CALCULATIONS

THE FOLLOWING CALCULATIONS WERE DEVELOPED USING THE CITY OF ALBUQUERQUE DPM SECTION 22.2

SITE CHARACTERISTICS:
 SITE LOCATION: ZONE 2
 PRECIPITATION: P = 2.35 inches

LAND TREATMENT:
 UNCOMPACTED SOIL - TREATMENT A
 LANDSCAPE - TREATMENT B
 COMPACTED SOIL - TREATMENT C
 BUILDINGS & PAVING - TREATMENT D

EXCESS PRECIPITATION:
 TREATMENT A E = 0.53 inches
 TREATMENT B E = 0.78 inches
 TREATMENT C E = 1.13 inches
 TREATMENT D E = 2.12 inches

PEAK DISCHARGE:
 TREATMENT A = 1.56 cfs/acre
 TREATMENT B = 2.28 cfs/acre
 TREATMENT C = 3.14 cfs/acre
 TREATMENT D = 4.70 cfs/acre

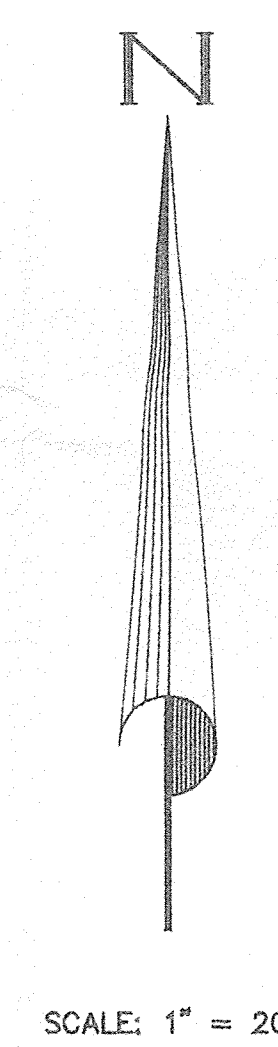
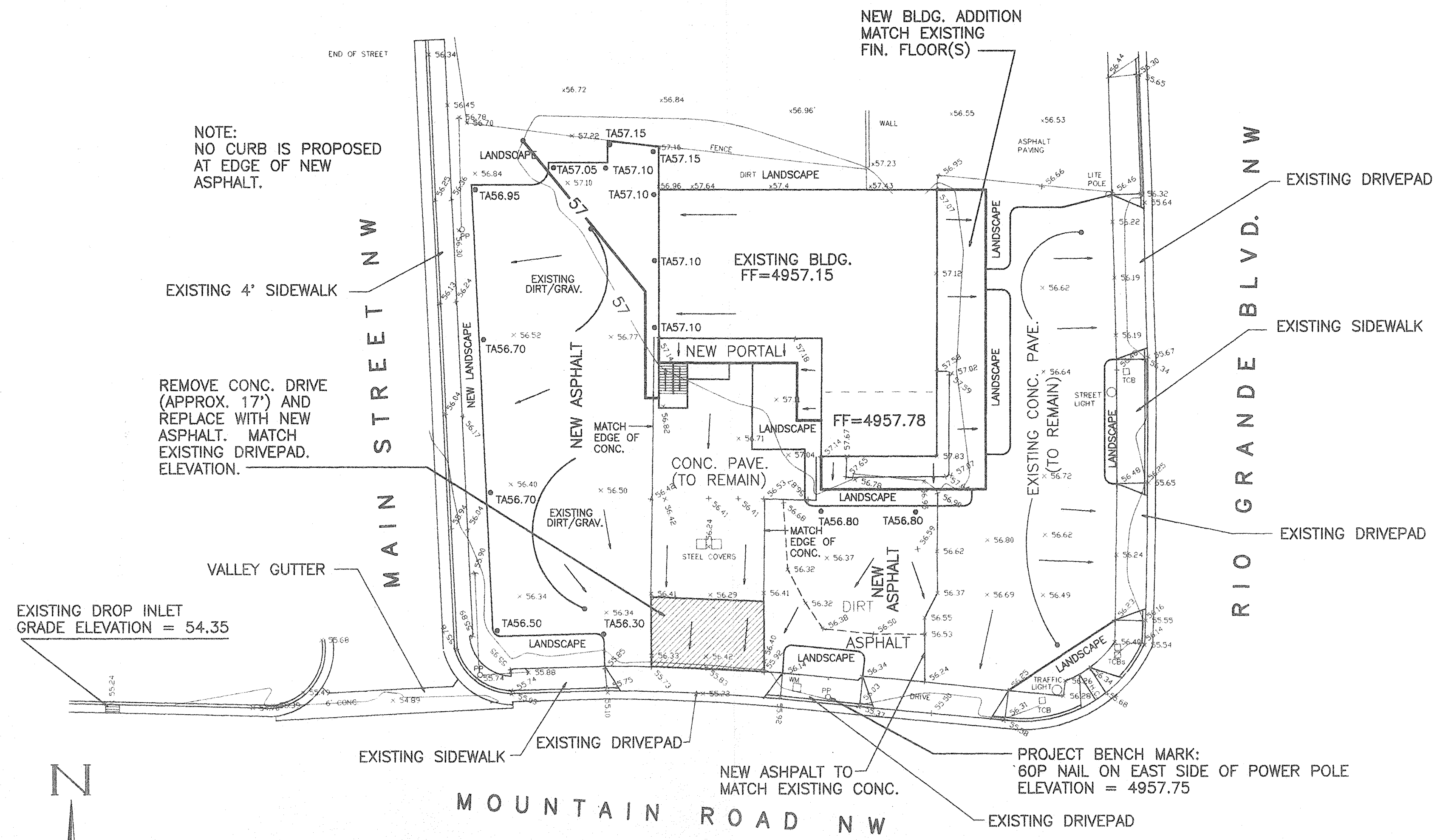
	EXISTING	PROPOSED
TOTAL AREA	= 0.445 AC.	
TREATMENT A	= 0.025 AC. = 5.6%	0.000 AC. = 0.0%
TREATMENT B	= 0.000 AC. = 0.0%	0.083 AC. = 18.7%
TREATMENT C	= 0.147 AC. = 33.0%	0.000 AC. = 0.0%
TREATMENT D	= 0.273 AC. = 61.4%	0.362 AC. = 81.3%

ONSITE - EXCESS PRECIPITATION & VOLUMETRIC RUNOFF:
 EXISTING RUNOFF:
 $WEIGHTED E = [(0.53)(0.025) + (1.13)(0.147) + (2.12)(0.273)]/0.445$
 $= 1.70 \text{ inches}$
 $V_{100-6hr} = (1.70)(0.445)/12 = 0.063 \text{ acre ft} = 2,746 \text{ cf}$

DEVELOPED RUNOFF:
 $WEIGHTED E = [(0.78)(0.083) + (2.12)(0.362)]/0.445$
 $= 1.87 \text{ inches}$
 $V_{100-6hr} = (1.87)(0.445)/12 = 0.069 \text{ acre ft} = 3,005 \text{ cf}$

ONSITE - PEAK DISCHARGE:
 EXISTING DISCHARGE:
 $Q_{100} = (1.56)(0.025) + (3.14)(0.147) + (4.70)(0.273) = 1.78 \text{ cfs}$
 DEVELOPED DISCHARGE:
 $Q_{100} = (2.28)(0.083) + (4.70)(0.362) = 1.89 \text{ cfs}$

RESULTS:
 DEVELOPED VOLUMETRIC RUNOFF:
 $3,005 - 2,746 = 259 \text{ cfs INCREASE IN RUNOFF VOLUME}$
 DEVELOPED PEAK DISCHARGE:
 $1.89 - 1.78 = 0.11 \text{ cfs INCREASE IN PEAK DISCHARGE}$



GENERAL NOTES

1. PRIOR TO ANY CONSTRUCTION, THE CONTRACTOR SHALL EXCAVATE AND VERIFY THE LOCATION OF ALL POTENTIAL OBSTRUCTIONS. SHOULD A CONFLICT EXIST, THE CONTRACTOR SHALL NOTIFY THE ENGINEER AS SOON AS POSSIBLE TO RESOLVE THE CONFLICT WITH A MINIMUM AMOUNT OF DELAY.
2. ALL WORK ON THIS PLAN SHALL BE PERFORMED IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE AND LOCAL LAWS, RULES AND REGULATIONS CONCERNING CONSTRUCTION SAFETY AND HEALTH.
3. IF ANY UTILITY LINES, PIPELINES, OR UNDERGROUND UTILITY LINES ARE SHOWN ON THESE DRAWINGS, THEY ARE SHOWN IN AN APPROXIMATE LOCATION ONLY, AND LINES MAY EXIST WHERE NONE ARE SHOWN, THE LOCATION IS BASED UPON INFORMATION PROVIDED BY THE UTILITY OWNER OR FROM EXISTING PLANS, AND THIS INFORMATION MAY BE INCOMPLETE, OR OBSOLETE AT THE TIME OF CONSTRUCTION. THE ENGINEER HAS NOT UNDERTAKEN ANY FIELD VERIFICATION OF THESE LOCATIONS, LINE SIZES OR MATERIAL TYPE, MAKES NO REPRESENTATION THERETO, AND ASSUMES NO RESPONSIBILITY OR LIABILITY THEREFOR. THE CONTRACTOR SHALL INFORM ITSELF OF THE LOCATION OF ANY UTILITY LINE, PIPELINE OR UNDERGROUND INSTALLATION IN OR NEAR THE AREA IN ADVANCE OF AND DURING ANY EXCAVATION WORK. THE CONTRACTOR IS FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES CAUSED BY ITS FAILURE TO LOCATE, IDENTIFY AND PRESERVE ANY AND ALL EXISTING UTILITIES, PIPELINES AND UNDERGROUND FACILITIES. IN PLANNING AND CONDUCTING EXCAVATIONS, THE CONTRACTOR SHALL COMPLY WITH ALL STATE STATUTES, MUNICIPAL AND LOCAL ORDINANCES, RULES AND REGULATIONS, IF ANY, PERTAINING TO THE LOCATION OF THESE LINES AND FACILITIES.
4. THE CONTRACTOR SHALL INSURE THAT NO SOIL ERODES FROM THE SITE INTO PUBLIC RIGHTS-OF-WAY OR ONTO PRIVATE PROPERTY. THIS CAN BE ACHIEVED BY CONSTRUCTING TEMPORARY BERMS AND BY WETTING THE SOIL TO KEEP IT FROM BLOWING.
5. THE CONTRACTOR SHALL OBTAIN ANY AND ALL PERMITS REQUIRED BY BERNALILLO COUNTY FOR THE COMPLETION OF THE WORK PRIOR TO BEGINNING CONSTRUCTION.

BENCH MARK

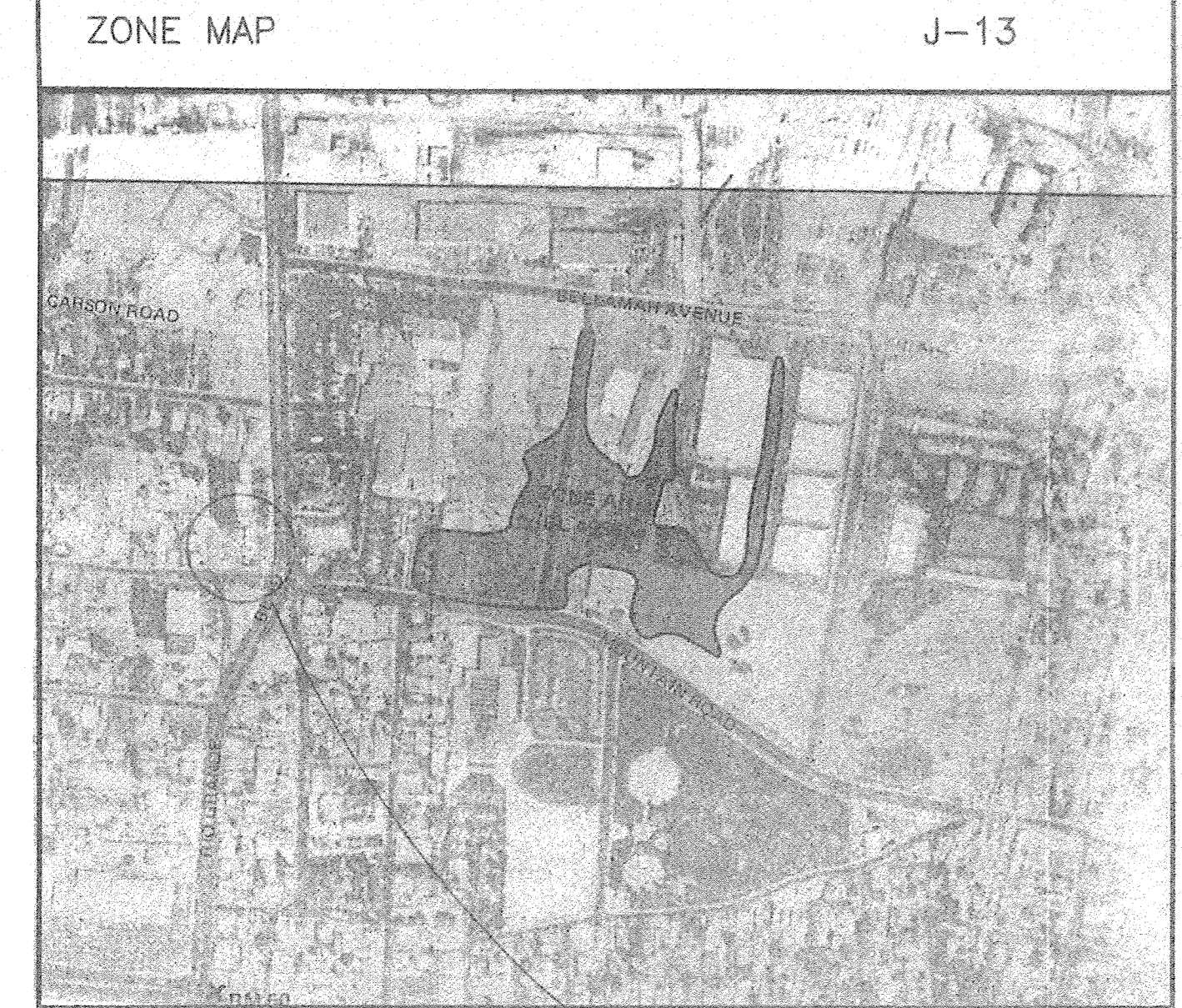
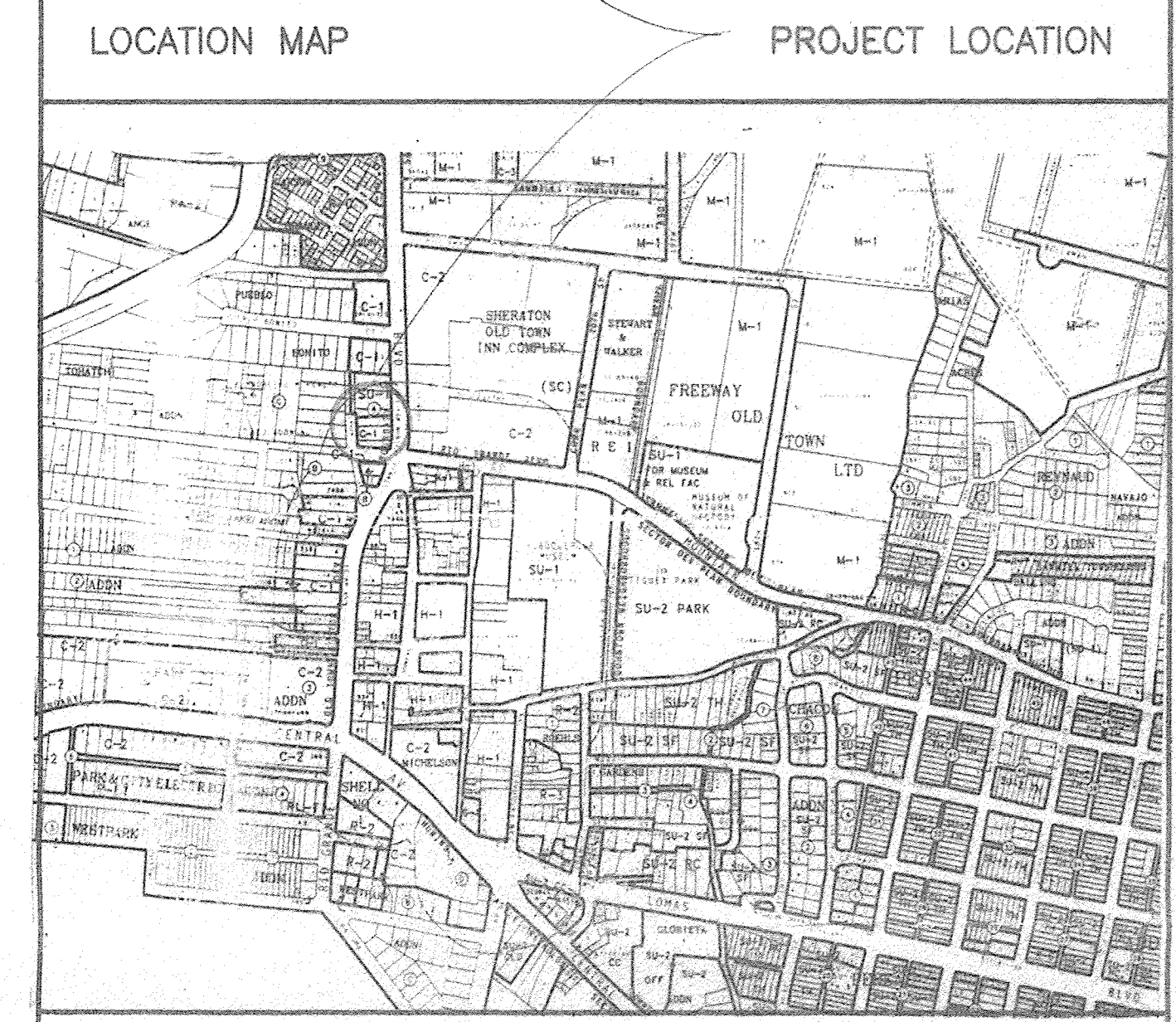
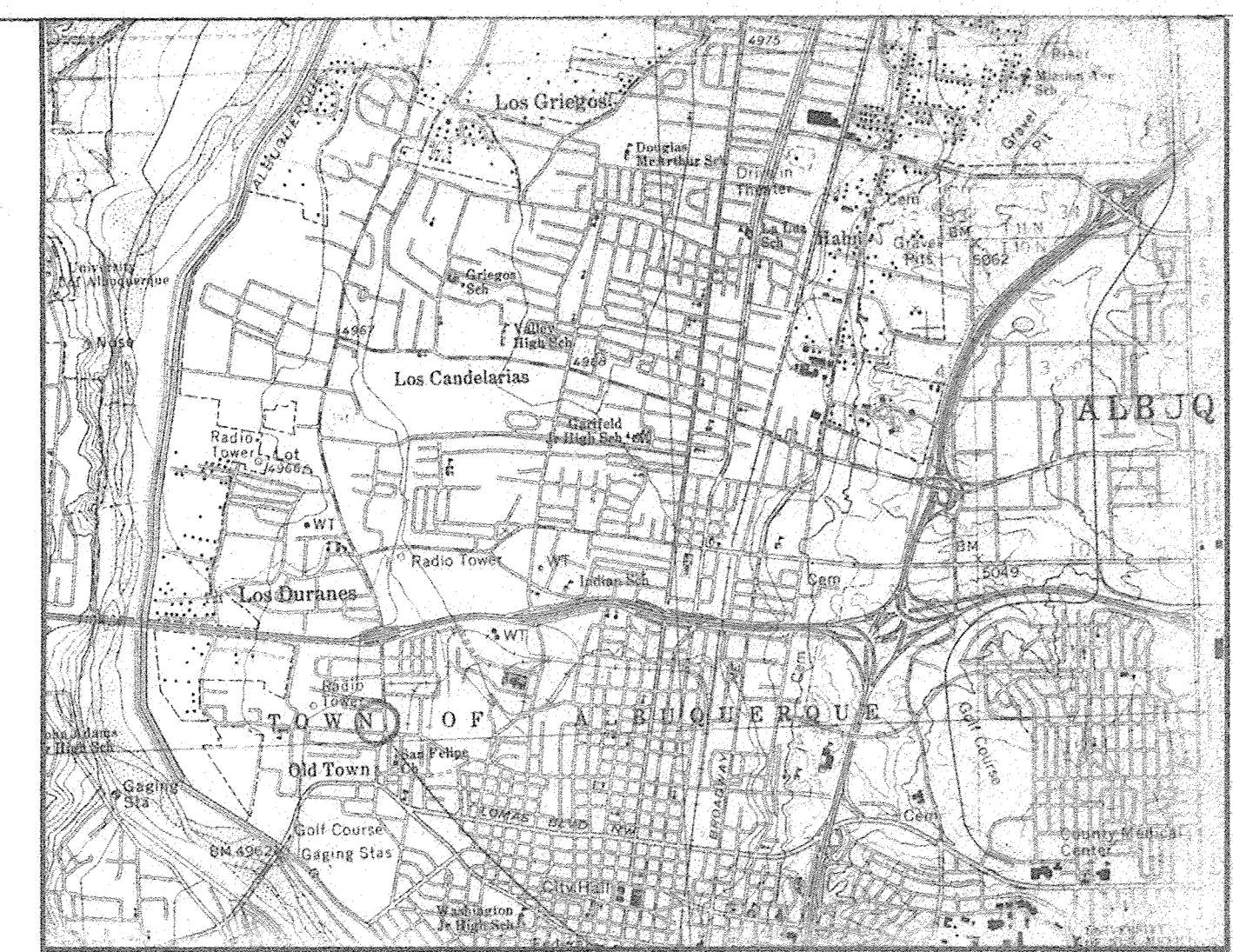
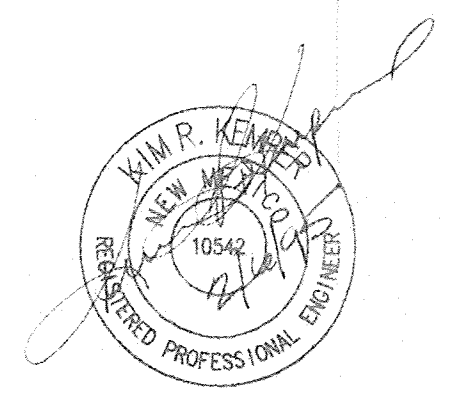
CITY OF ALBUQUERQUE CONTROL STATION "7-J13A", ACS BRASS CAP SET ON CURB AT THE NORTHEAST QUAD. OF THE INTERSECTION OF RIO GRANDE BLVD. AND MOUNTAIN ROAD N.W. ELEVATION 4956.15

GENERAL LEGEND

EXISTING CONTOUR	61
PROPOSED CONTOUR	61
PROPOSED SPOT ELEVATION	56.4
EXISTING SPOT ELEVATION	56.40
NEW HEADER CURB	
FLOW DIRECTION ARROW	
PROPOSED CONCRETE	
TOP OF CURB ELEVATION	TC
TOP OF SIDEWALK ELEVATION	TSW
FLOWLINE ELEVATION	FL
TOP OF ASPHALT ELEVATION	TA
TRAFFIC CONTROL BOX	TCB

LEGAL DESCRIPTION

A CERTAIN PARCEL OF LAND SITUATE WITHIN PROJECTED SECTION 18, TOWNSHIP 10 NORTH, RANGE 3 EAST, TOWN OF ALBUQUERQUE LAND GRANT, CITY OF ALBUQUERQUE, COUNTY OF BERNALILLO, STATE OF NEW MEXICO; COMPRISING A PORTION OF LOTS 3, 4 AND 5, BLOCK A, BEING THE SAME AS SHOWN AND DESIGNATED ON THE PLAT ENTITLED "JOHN M. MOORE REALTY COMPANY'S THIRD ADDITION TO THE CITY OF ALBUQUERQUE, N.M.", AS FILED IN THE OFFICE OF THE COUNTY CLERK OF BERNALILLO COUNTY, NEW MEXICO, ON JANUARY 25, 1907.



OGRADY TRADING COMPANY
 GRADING AND DRAINAGE PLAN

KEMPER-VAUGHAN
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Designed KRK Drawn SE Checked KRK Sheet 1 of 1

File O'GRADY Date FEBRUARY 1995