

GENERAL:

Smith Engineering Company (SEC) has been retained by Consensus Planning (CP) to provide the grading plan for Kimbar Park. The park will be constructed for the City of Albuquerque Parks department. The proposed park site is 1.84 acres in size and will include improvements of a grassed play area, playground areas and sidewalks. The site is located off of Miami Road just north of I-40 freeway. The zone atlas map is H-10-2.

HYDROLOGIC ANALYSIS:

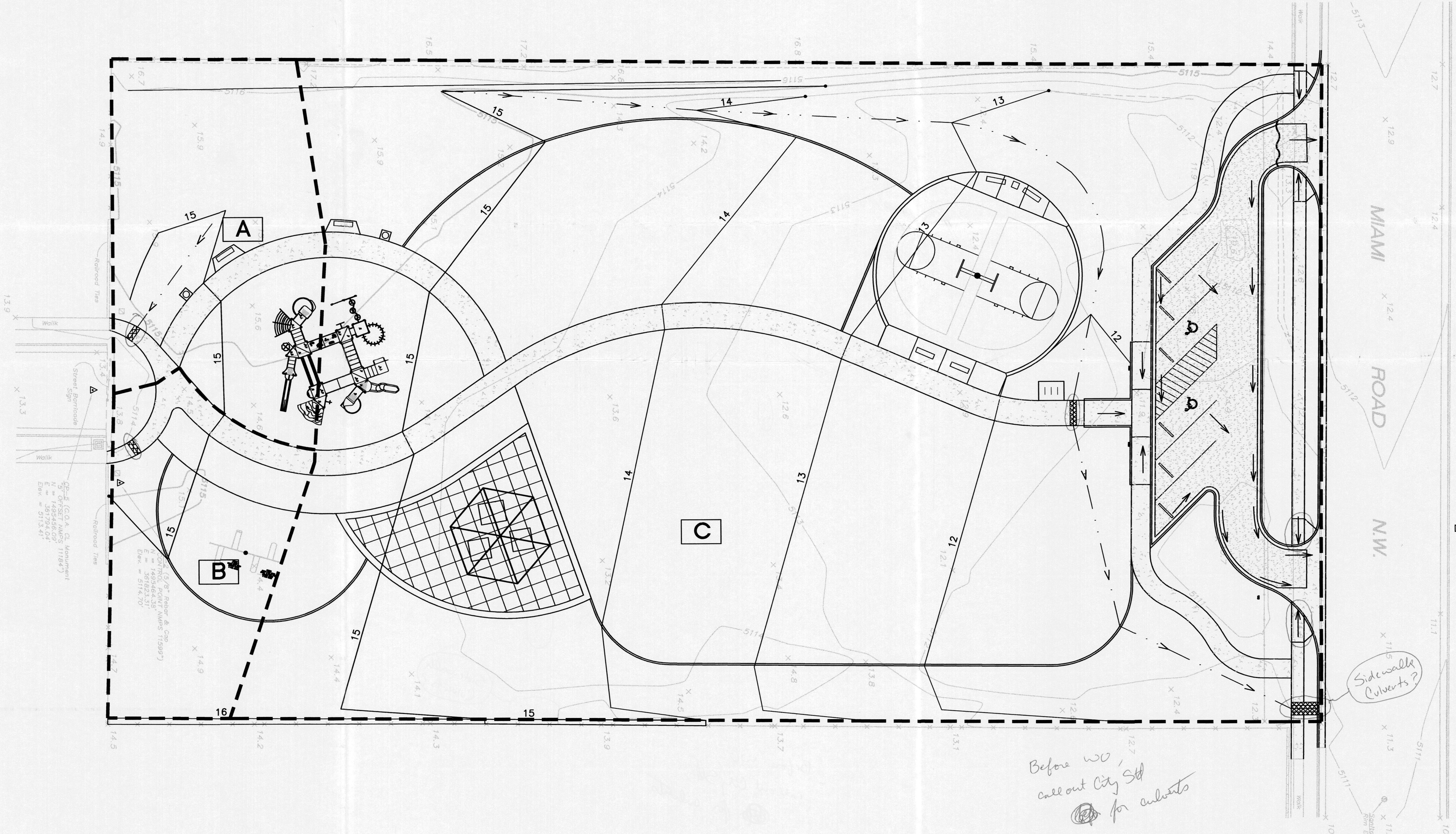
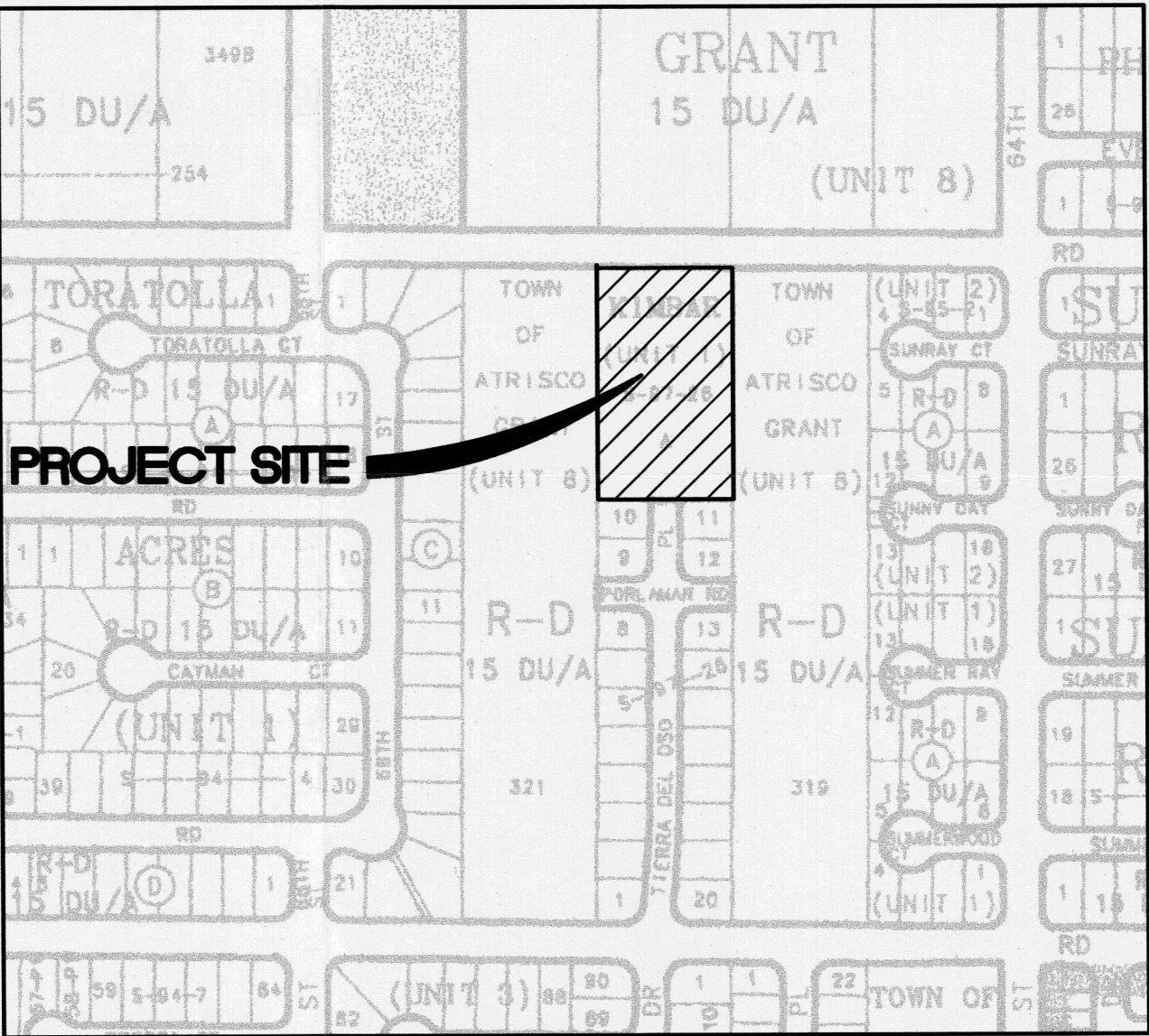
The project area is located in the City of Albuquerque in Bernalillo County on the west side of Albuquerque. The climate is considered semi-desert and is hot and dry. The COA Development process Manual (DPM) Section 22.2 was used to calculate the 100-Year, 6-Hour peak flows and runoff volumes for the project. The park limits are Miami Road to the north, a subdivision to the south and town of atrisco grant to the east and west of the park. The site is in Precipitation Zone 1. Tables A-8, A-10 and A-11 were used to calculate the peak runoff and volume of runoff. The design storm was the 100-Year, 6-hour storm.

Existing conditions: The existing park is currently undeveloped and is owned by the City of Albuquerque. The ground slopes from south to north and is covered by sparse vegetation. The current land use is Type C. The peak flow generated from the park area is 5.28 cfs and the volume of runoff is 0.15 acre-feet.

Proposed Conditions: The proposed development of the park will consist of grassed areas, sidewalks, play areas and landscaped areas. The change in land use is listed in the table to the right. Areas that do not receive new treatment will remain natural landscaped areas. 56% of the park land use will be changed from C to Type B or D. The peak flow generated from the revised land use of the park area is 5.53 cfs (an increase of 0.25 cfs) and the volume of runoff is 0.18 acre-feet (an increase of 0.03 acre-feet).

ONSITE BASIN HYDROLOGY – EXISTING CONDITIONS						
BASIN	AREA (ACRES)	LAND USE AREA (ACRES)				EXISTING VOLUME 100-YR (AC-FT)
		A	B	C	D	
TOTAL SITE	1.84	0	0	1.84	0	0.15
						5.28

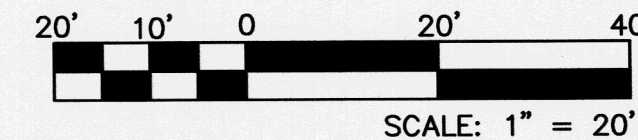
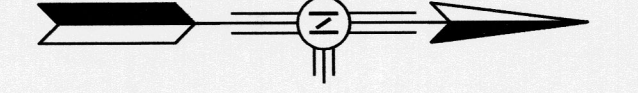
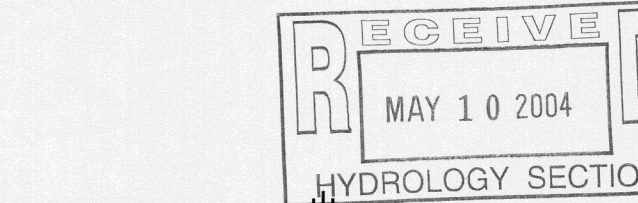
ONSITE BASIN HYDROLOGY – DEVELOPED CONDITIONS						
BASIN	AREA (ACRES)	LAND USE AREA (ACRES)				DEVELOPED VOLUME 100-YR (AC-FT)
		A	B	C	D	
A	0.16	0	0	0.10	0.06	0.02
B	0.12	0	0	0.11	0.01	0.01
C	1.55	0	0.54	0.59	0.42	0.15
						5.53



LEGEND

- A BASIN DESIGNATION
- BASIN BOUNDARY
- FLOW ARROW
- ~ BREAKLINE
- 5640 EXISTING TOPO
- 40 PROPOSED TOPO
- DRAINAGE SWALE

Sidewalk Culvert



103603  
**Smith Engineering Company**  
A Full Service Engineering Company  
6400 Optima Boulevard, N.E. Suite 5000 Albuquerque, New Mexico 87110

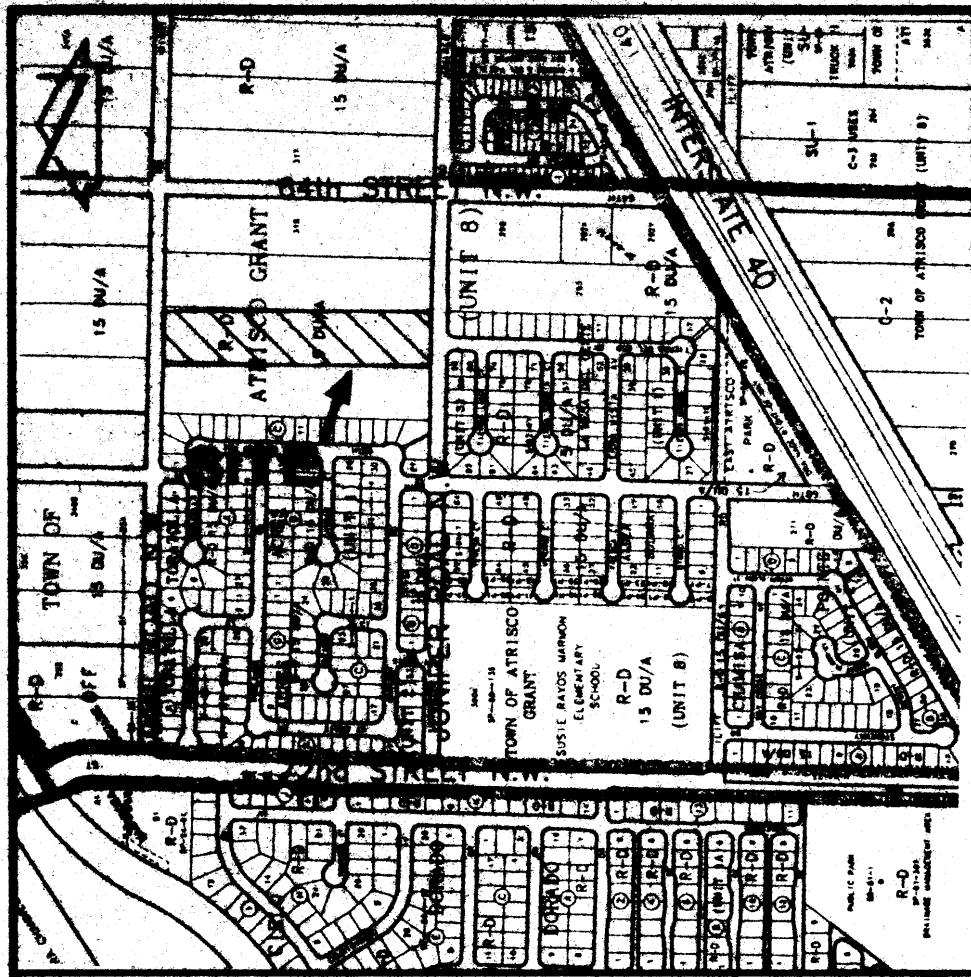
CITY OF ALBUQUERQUE  
PUBLIC WORKS DEPARTMENT  
ENGINEERING DEVELOPMENT GROUP

TITLE:  
**KIMBAR PARK  
HYDROLOGY**

Design Review Committee	City Engineer Approval	Last Design Update	No. / Day / Yr.	

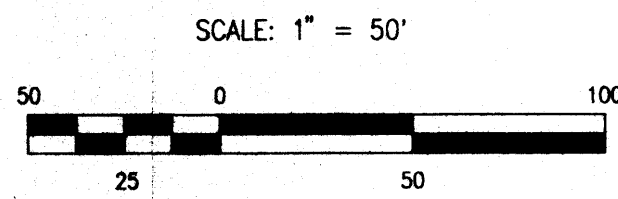
City Project No. XXXX	Zone Map No. H-10	Sheet No. 3 of 3	Drawing No. 3 of 3
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SURVEY INFORMATION		BENCH MARKS		AS BUILT INFORMATION	
FIELD NOTES	NO.	BY	DATE	CONTRACTOR	WORK STARTED BY
ENGINEER'S SEAL	NO.	BY	DATE	STATION NAME: 11-H11; STATE: NM; COUNTY: BERNALILLO	DATE
REVISIONS	NO.	DATE	BY	ESTABLISHING AGENCY: ACS	DATE
DESIGN	NO.	DATE	BY	ALUMINUM CAP RIVETTED TO A PIPE	DATE
MICRO-FILM INFORMATION	NO.	DATE	BY	LOCATED 0.12 MILES SOUTH OF CENTERLINE OF OURAY RD.	DATE



VICINITY MAP  
SCALE: 1" = 750'

H-10



### LEGAL DESCRIPTION

TRACT 320, TOWN OF ATRISCO GRANT, UNIT 8

NOTE: THIS IS NOT A BOUNDARY SURVEY. APPARENT PROPERTY CORNERS ARE SHOWN FOR INFORMATION ONLY. BOUNDARY DATA SHOWN HEREON HAS BEEN TAKEN FROM CERTIFICATE OF SURVEY PREPARED BY FRANKLIN E. WILSON, N.M.P.S. 6446 DATED NOVEMBER 16, 1995.

### PROJECT BENCHMARK

A STANDARD ACS BRASS TABLET STAMPED "2-H10 A - 1980", SET 0.2 FT. ABOVE THE GROUND. LOCATED 0.2 MILES SOUTH OF OURAY RD. N.W. ON WEST SIDE OF 64th ST. N.W. ELEVATION = 5279.899 FEET (M.S.L.D.)

### T.B.M. #1

"C" CHISELED ON TOP BACK OF CURB  
AS SHOWN ON SHEET  
ELEVATION = 5109.05' (M.S.L.D.)

### T.B.M. #2

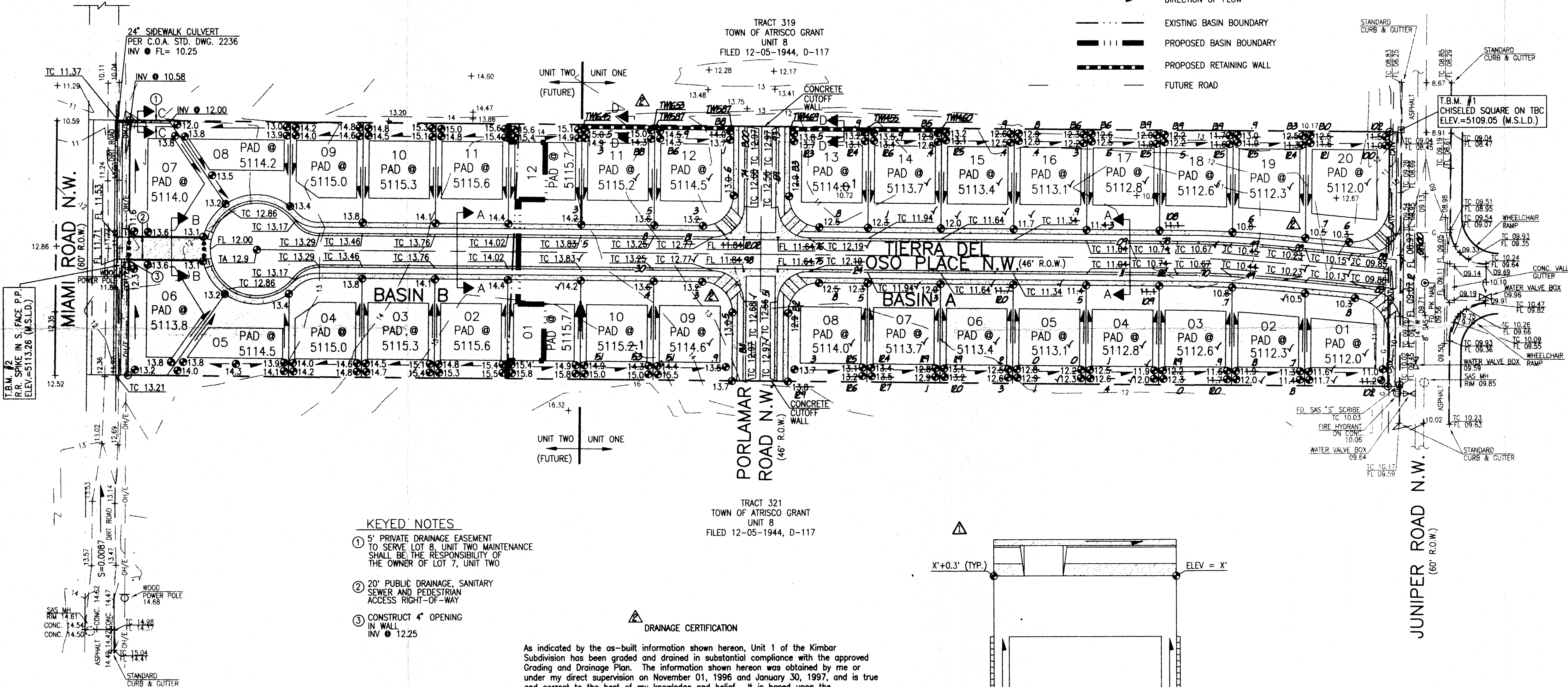
R.R. SPIKE IN SOUTH FACE OF POWER POLE  
AS SHOWN ON SHEET  
ELEVATION = 5113.28' (M.S.L.D.)

### LEGEND

TC	TOP OF CURB
FL	FLOW LINE
NG	NATURAL GROUND
TCO	TOP OF CONCRETE
TAE	TOP OF ASPHALT AT EDGE
TA	TOP OF ASPHALT
P.P.	POWER POLE
SAS	SANITARY SEWER
C	GAS LINE
CATV	CABLE TV
□	CURB SCRIBE
○	SAS MANHOLE
⊗	STORM MANHOLE
⊕	WATER VALVE BOX
○	FIRE HYDRANT
○	POWER POLE
+ 12.17	EXISTING SPOT ELEVATION
02.5	PROPOSED SPOT ELEVATION
— 12	EXISTING CONTOUR
— 12	PROPOSED CONTOUR
---	DIRECTION OF FLOW
---	EXISTING BASIN BOUNDARY
---	PROPOSED BASIN BOUNDARY
---	PROPOSED RETAINING WALL
---	FUTURE ROAD

### AS-BUILT LEGEND

BS	AS-BUILT ELEVATION
12.9	
12.0	AS-BUILT - AS-DESIGNED



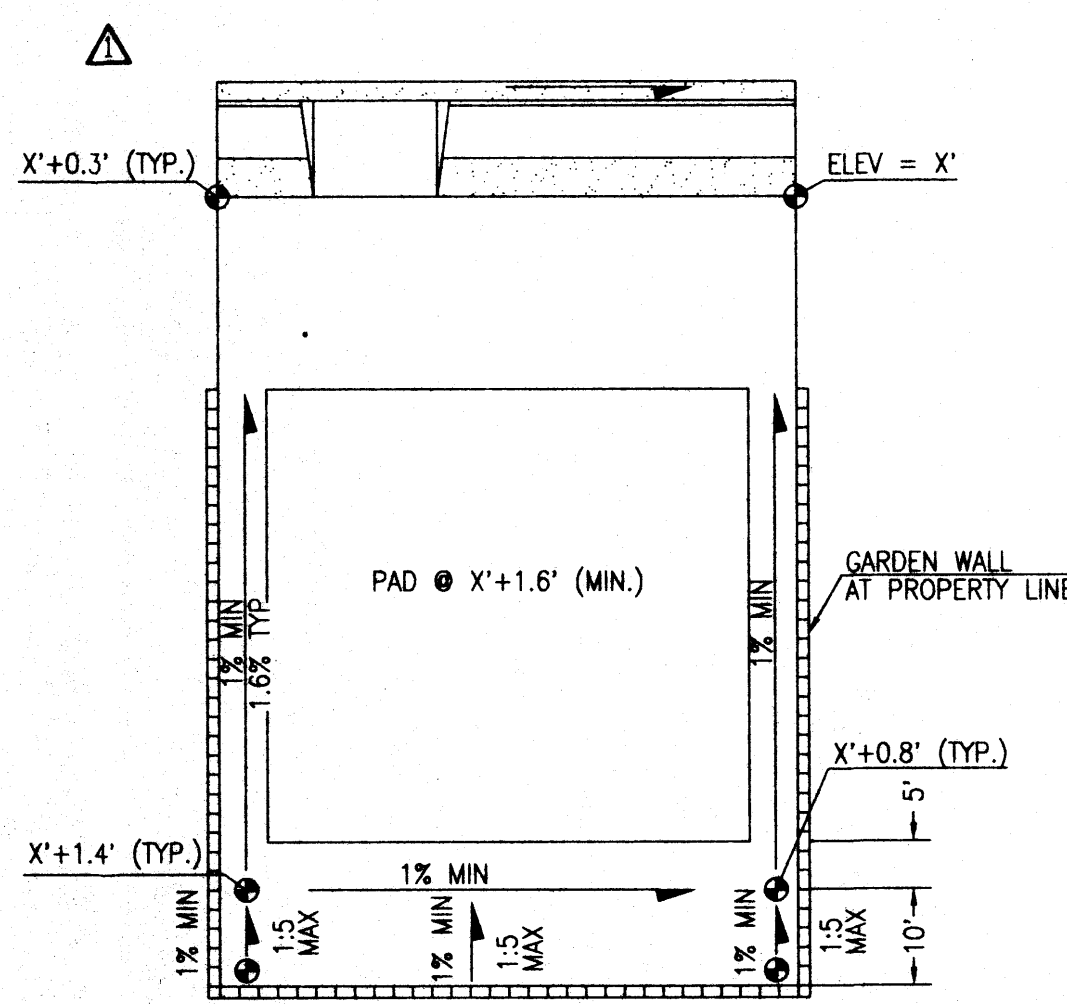
### KEYED NOTES

- 5' PRIVATE DRAINAGE EASEMENT TO SERVE LOT 8, UNIT TWO MAINTENANCE SHALL BE THE RESPONSIBILITY OF THE OWNER OF LOT 7, UNIT TWO
- 20' PUBLIC DRAINAGE, SANITARY SEWER AND PEDESTRIAN ACCESS RIGHT-OF-WAY
- CONSTRUCT 4" OPENING IN WALL INV. 12.25

### DRAINAGE CERTIFICATION

As indicated by the as-built information shown hereon, Unit 1 of the Kimbar Subdivision has been graded and drained in substantial compliance with the approved Grading and Drainage Plan. The information shown hereon was obtained by me or under my direct supervision on November 01, 1996 and January 30, 1997, and is true and correct to the best of my knowledge and belief. It is based upon the information presented hereon that all Financial Guarantees associated with Engineer's Certification be released.

Jeffrey G. Mortensen, N.M.P.E. 8547  
Date 02-04-97



TYPICAL LOT DRAINAGE DETAIL

SCALE: 1" = 20'

### GRADING NOTES/EROSION CONTROL MEASURES:

- ALL FILL SHALL BE COMPACTED TO A MINIMUM OF 90% ASTM D-1557; HOUSE PADS SHALL BE COMPACTED AT 95% ASTM D-1557.
- THE PAD ELEVATIONS SHOWN HEREON ARE FOR ROUGH GRADING PURPOSES.
- FINISHED FLOOR ELEVATIONS MAY VARY FROM THE PAD ELEVATIONS AND WILL BE DETERMINED AS A FUNCTION OF INDIVIDUAL HOUSE DESIGN.
- FINISHED FLOOR ELEVATIONS SHOULD BE ESTABLISHED AT A MINIMUM OF 6 INCHES ABOVE PAD ELEVATIONS; DEVIATIONS FROM THESE GUIDELINES MUST BE BASED ON THE RECOMMENDATIONS AND/OR DESIGN OF A COMPETENT DESIGN PROFESSIONAL.
- NO CROSS-LOT DRAINAGE WILL BE ALLOWED UNLESS PROVIDED FOR BY PRIVATE DRAINAGE EASEMENT.
- RETAINING WALLS SHALL BE CONSTRUCTED BY THE DEVELOPER.
- YARD (GARDEN) WALLS SHALL BE CONSTRUCTED BY THE LOT OWNER OR ITS BUILDER.
- THE FINISHED GRADING OF EACH LOT SHALL BE ACCOMPLISHED BY THE LOT OWNER OR ITS BUILDER. RUNOFF SHOULD BE DIRECTED TO THE STREETS OR OPEN SPACE AS SHOWN HEREON.
- MAXIMUM SLOPES SHALL BE 3:1; MINIMUM SLOPES SHALL BE 1%.
- TWO (2) WORKING DAYS PRIOR TO ANY EXCAVATION, CONTRACTOR MUST CONTACT NEW MEXICO ONE CALL SYSTEM, 260-1990 (ALBUQUERQUE AREA), 1-800-321-ALERT(2537) (STATEWIDE), FOR LOCATION OF EXISTING UTILITIES.
- IF ANY UTILITY LINES, PIPELINES, OR UNDERGROUND UTILITY LINES ARE SHOWN ON THESE DRAWINGS, THEY ARE SHOWN IN AN APPROXIMATE MANNER ONLY, AND SUCH LINES MAY EXIST WHERE NONE ARE SHOWN. IF ANY SUCH EXISTING LINES ARE SHOWN, THE LOCATION IS BASED UPON INFORMATION PROVIDED BY THE OWNER OF SAID UTILITY, AND THE INFORMATION MAY BE INCOMPLETE, OR MAY BE OBSOLETE BY THE TIME CONSTRUCTION COMMENCES. THE ENGINEER HAS CONDUCTED ONLY PRELIMINARY INVESTIGATION OF THE LOCATION, DEPTH, SIZE, OR TYPE OF EXISTING UTILITY LINES, PIPELINES, OR UNDERGROUND UTILITY LINES. THIS INVESTIGATION IS NOT CONCLUSIVE, AND MAY NOT BE COMPLETE, THEREFORE, MAKES NO REPRESENTATION PERTAINING THERETO, AND ASSUMES NO RESPONSIBILITY OR LIABILITY THEREFOR. THE CONTRACTOR SHALL INFORM ITSELF OF THE LOCATION OF ANY UTILITY LINE, PIPELINE, OR UNDERGROUND UTILITY LINE IN OR NEAR THE AREA OF THE WORK IN ADVANCE OF AND DURING EXCAVATION WORK. THE CONTRACTOR IS FULLY RESPONSIBLE FOR ANY AND ALL DAMAGE CAUSED BY ITS FAILURE TO LOCATE, IDENTIFY AND PRESERVE ANY AND ALL EXISTING UTILITIES, PIPELINES, AND UNDERGROUND UTILITY LINES. IN PLANNING AND CONDUCTING EXCAVATION, THE CONTRACTOR SHALL COMPLY WITH STATE STATUTES, MUNICIPAL AND LOCAL ORDINANCES, RULES AND REGULATIONS, IF ANY PERTAINING TO THE LOCATION OF THESE LINES AND FACILITIES.
- THE CONTRACTOR SHALL ENSURE THAT NO SOIL ERODES FROM THE SITE INTO PUBLIC RIGHT-OF-WAY OR ONTO PRIVATE PROPERTY.
- THE CONTRACTOR SHALL PROMPTLY CLEAN UP ANY MATERIAL EXCAVATED WITHIN THE PUBLIC RIGHT-OF-WAY SO THAT THE EXCAVATED MATERIAL IS NOT SUSCEPTIBLE TO BEING WASHED DOWN THE STREET.
- THE CONTRACTOR SHALL SECURE "TOPSOIL DISTURBANCE PERMIT" PRIOR TO BEGINNING CONSTRUCTION. AN EXCAVATION PERMIT IS REQUIRED FOR ALL WORK WITHIN PUBLIC RIGHT-OF-WAY.
- ANY AREAS OF EXCESS DISTURBANCE (TRAFFIC ACCESS, STORAGE YARD EXCAVATED MATERIAL, ETC.) SHALL BE RE-SEEDING ACCORDING TO C.O.A. SPECIFICATION 1012 "NATIVE-GRASS SEEDING". THIS WILL BE CONSIDERED INCIDENTAL TO CONSTRUCTION, THEREFORE, NO SEPARATE PAYMENT WILL BE MADE.
- 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.
- ALL CONSTRUCTION WITHIN PUBLIC RIGHT-OF-WAY SHALL BE PERFORMED IN ACCORDANCE WITH APPLICABLE CITY OF ALBUQUERQUE STANDARDS AND PROCEDURES.



JEFF MORTENSEN & ASSOCIATES, INC.  
6010-B MIDWAY PARK BLVD. NE  
ALBUQUERQUE, NM 87109  
ENGINEERS & SURVEYORS (C.S.) 345-4250

APPROVED FOR ROUGH GRADING  
ORIGINAL SIGNED BY  
LISA ANN MANHILL 02-13-96  
HYDROLOGY DATE

### GRADING AND DRAINAGE PLAN KIMBAR SUBDIVISION

DESIGNED BY	DATE	BY	REVISIONS	JOB NO.
G.M.	01/96	G.M.	ADD GARDEN WALLS	950975
T.N.T.	02/97	G.M.	DRAINAGE CERTIFICATION	DATE 02-1997
J.G.M.				SHEET 1 OF 1