

GENERAL:

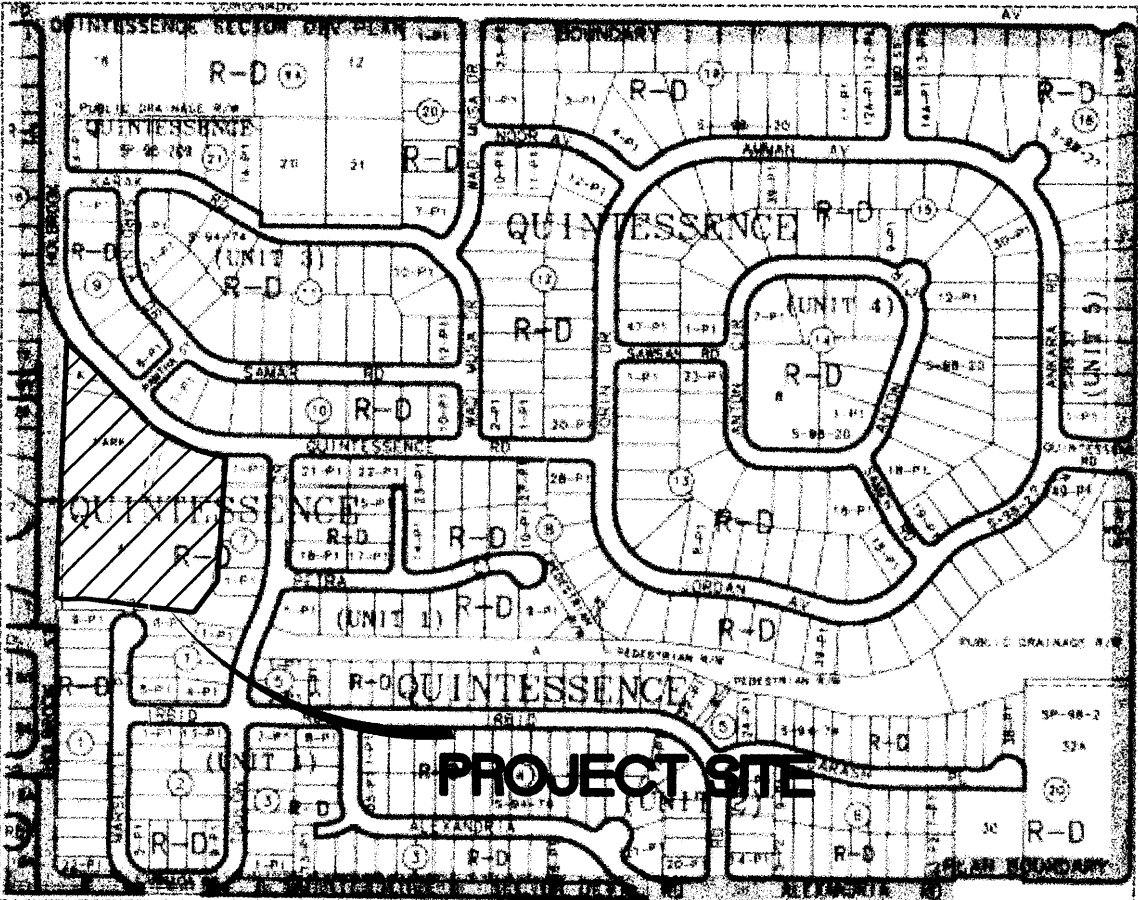
Smith Engineering Company (SEC) has been retained by Consensus Planning (CP) to provide the grading plan for the Quintessence Park. The park will be constructed for the City of Albuquerque Parks department. The proposed park site is 4.5 acres in size and will include improvements of a grassed play area, a small skate park, playground areas and sidewalks. The site is located off of Quintessence Road within the Quintessence subdivision just west of Eubank Boulevard. The zone atlas map is D-21-Z.

HYDROLOGIC ANALYSIS:

The project area is located in the City of Albuquerque in Bernalillo County, on the northeast 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 the drainage basin limits and include Quintessence Road to the north, existing block walls to the east and south and the detention basin embankment to the west. The site is in Precipitation Zone 3. 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 currently serves as a detention basin and is owned and operated by the City of Albuquerque. The ground slopes from north to south and is covered by sparse vegetation. The current land use is Type C. Several storm systems drain to a surge structure located on the south side of the pond and the detention basin will surge to a water surface elevation of 5632.90 (per the as-builts for the detention basin project). The peak flow generated from the park area is 15.53 cfs and the volume of runoff is 0.48 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 below. Areas that do not receive new treatment will remain natural landscaped areas. 41% 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 15.88 cfs (an increase of 0.33 cfs) and the volume of runoff is 0.52 acre-feet (an increase of 0.04 acre-feet). The bottom of the existing detention basin will be regarded slightly, however, the increase in the peak runoff and the volume generated by the proposed improvements is negligible and will have a negligible impact on the design volume and water surface elevation.



ONSITE BASIN HYDROLOGY - EXISTING CONDITIONS						
BASIN	AREA (ACRES)	LAND USE AREA (ACRES)				EXISTING VOLUME 100-YR (AC-FT)
		A	B	C	D	
TOTAL SITE	4.50	0	0	4.5	0	0.48
						15.53

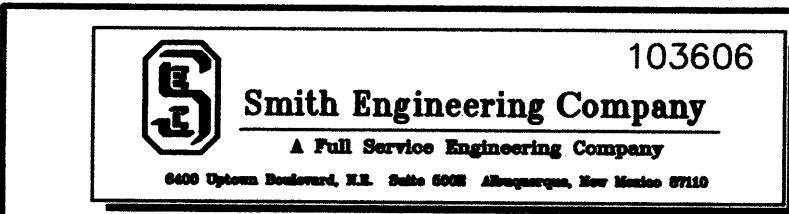
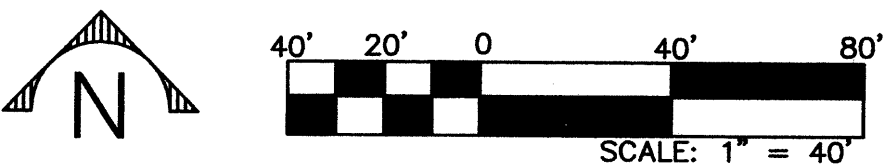
ONSITE BASIN HYDROLOGY - DEVELOPED CONDITIONS						
BASIN	AREA (ACRES)	LAND USE AREA (ACRES)				DEVELOPED VOLUME 100-YR (AC-FT)
		A	B	C	D	
TOTAL SITE	4.50	0	1.06	2.64	0.80	0.52
						15.88

KEYED NOTES:

- 1 CONSTRUCT 2' WIDE CURB CUT TO ALLOW FLOW TO LANDSCAPED AREA.
- 2 CONSTRUCT 4' WIDE SIDEWALK CULVERT. INV. N=34.10, INV. S=34.08.
- 3 CONSTRUCT DRAINAGE SWALE AT SLOPE = 0.0075 FT/FT
- 4 CONSTRUCT DRAINAGE SWALE AT SLOPE = 0.014 FT/FT
- 5 CONSTRUCT DRAINAGE SWALE AT SLOPE = 0.007 FT/FT
- 6 BOTTOM OF LANDSCAPE AREA AT ELEV. = 34.50
- 7 RPCC RETAINING WALL

LEGEND

- BASIN BOUNDARY
- FLOW ARROW
- TA TOP OF ASPHALT
- FL FLOW LINE
- TOG TOP OF GRATE
- TSW TOP OF SIDEWALK
- TOGR TOP OF GROUND
- DRAINAGE SWALE
- PROPOSED SPOT ELEV. 34.50
- PROPOSED TOPO 34
- EXISTING TOPO 5640
- BREAKLINE



CITY OF ALBUQUERQUE DEPARTMENT OF MUNICIPAL DEVELOPMENT PARK AND MEDIAN DESIGN DIVISION	
TITLE: QUINTESSENCE PARK HYDROLOGY PLAN	
Design Review Committee	City Engineer Approval
City Project No. 716291	Zone Map No. D-21
Sheet 5	Of 16

ENGINEER'S SEAL		SURVEY INFORMATION		AS BUILT INFORMATION	
NO. DATE		FIELD NOTES		CONTRACTOR	
11599 09/03		STEVE TOLER		BERNALILLO	
REMARKS		DATE		STATION NAME: 5-D21	
DESIGN		7/03		STATE: NM	
DRAWN BY		DATE		COUNTY: BERNALILLO	
CHECKED BY		DATE		ESTABLISHING AGENCY: ACS	
		DATE		STANDARD BRASS CAP IN CONCRETE. EAST OF GIDDINGS/	
		DATE		HOLBROOK INTERSECTION; 84.7 FEET EAST OF CL OF	
		DATE		HOLBROOK AVE, NE BEHIND 9601 SAN FRANCISCO NE.	
		DATE		VERIFICATION BY	
		DATE		CORRECTED BY	
		DATE		SPIRIT LEVEL ELEVATION = 5650.685	
		DATE		MICRO-FILM INFORMATION	
		DATE		RECORDED BY	
		DATE		NO.	