CITY OF ALBUQUERQUE

July 26, 2005

Mario G. Juarez-Infante, P.E.
Wilson and Company, Inc.
4900 Lang Ave. NW
Albuquerque, NM 87109

Re: Cibola High School – Tennis Courts Upgrade, 1510 Ellison Dr. NW, Grading and Drainage Plan - Engineer's Stamp dated 7-15-05 (A13 – D4)

Dear Mr. Juarez-Infante,

Based upon the information provided in your submittal dated 7-18-05, the above referenced plan is approved for Grading Permit & Paving Permit. Please provide Certified As-builts at the completion of this project for the file.

If you have any questions, you can contact me at 924-3990.

Sincerely,

Phillip J. Lovato, E.I., C.F.M.
Engineering Associate, Hydrology,
Development and Building Services,
Planning Department

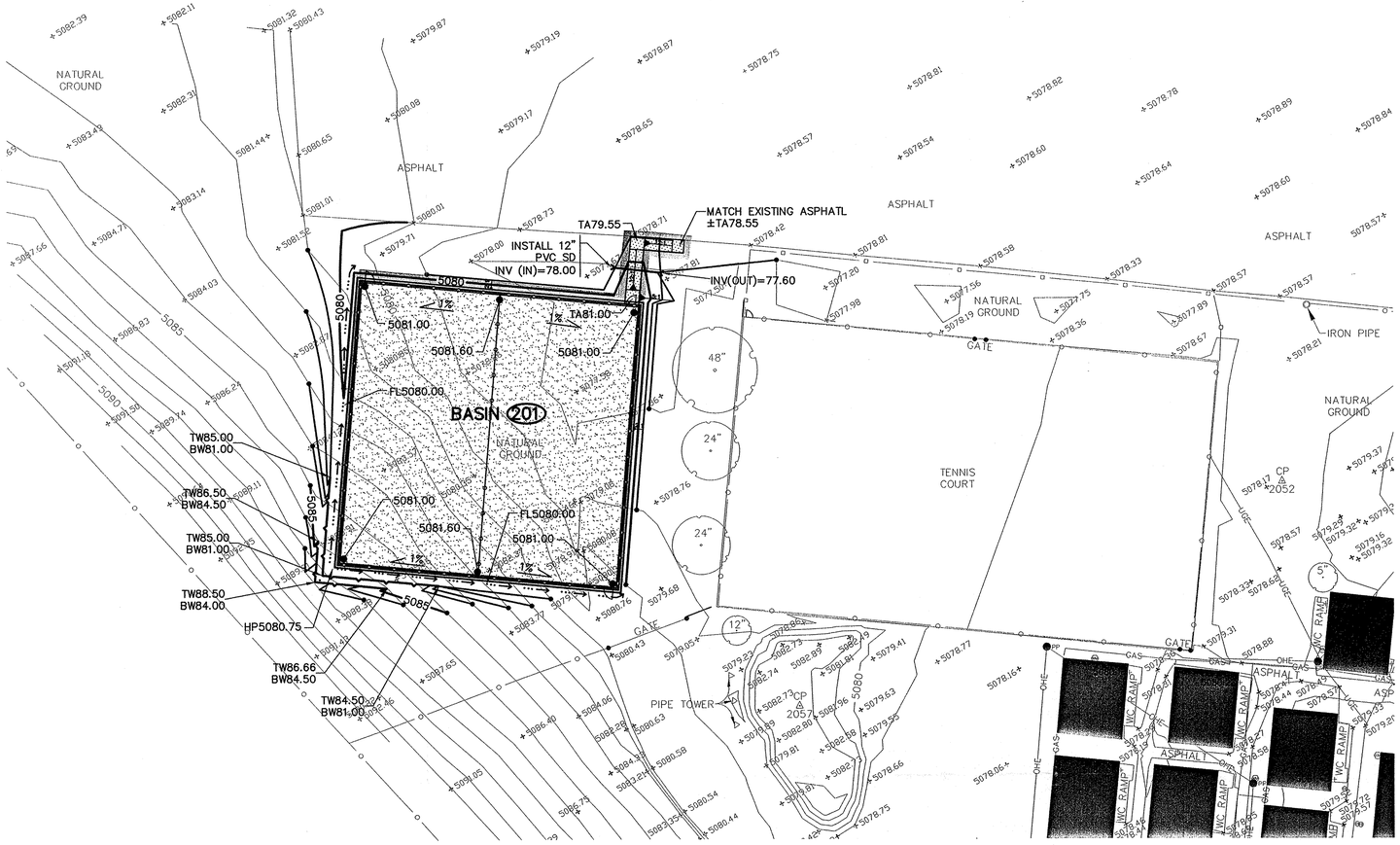
cc: file

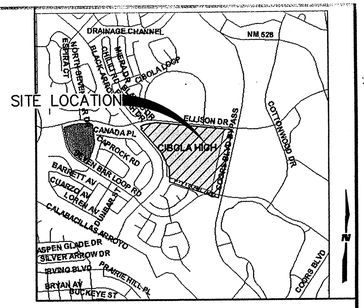
P.O. Box 1293

Albuquerque

New Mexico 87103

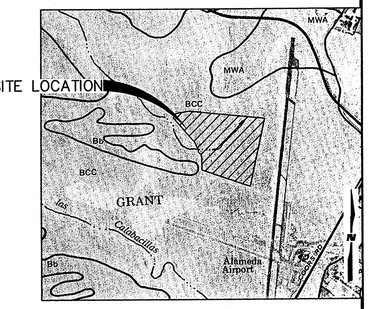
www.cabq.gov





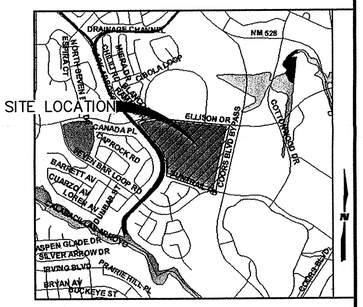
LOCATION MAP

ZONE ATLAS MAP NO. A-13/B-13



SOILS MAP

REFERENCE: SCS BERNALILLO COUNTY SOIL SURVEY SHEET NO. 10



FLOOD INSURANCE MAP

REFERENCE: FLOOD INSURANCE STUDY PANEL 108

LEGEND

5070	EXISTING INDEX CONTOUR		PROPOSED BASIN BOUNDARY
	EXISTING INTERMEDIATE CONTOUR	5070	PROPOSED INDEX CONTOUR
× 5359.15	EXISTING SPOT ELEVATION		PROPOSED RETAINING WALL
—P—	OVERHEAD POWER		PROPOSED FENCE
C.O	CLEANOUT		PROPOSED FLOWLINE
WM	WATER METER	5081.00	PROPOSED SPOT ELEVATION
—E—	UNDERGROUND ELECTRIC	TW	TOP OF WALL ELEVATION
		BW	BOTTOM OF WALL ELEVATION
PP	POWER POLE	TA	TOP OF ASPHALT ELEVATION
—O—	EXISTING CHAINLINK FENCE		PROPOSED CONCRETE
CP 400 △	LOCAL CONTROL POINT		PROPOSED ASPHALT

Site Location: Cibola High School is located at 1510 Ellison Drive NW, Albuquerque, NM 87114. The scope of work consists of constructing tennis courts and walkways.

Methodology: Section 22.2 of the City of Albuquerque DPM was followed to calculate design flows. The procedure in Part A, for 40 acre or smaller basins, was followed using the 100-year, 24-hour storm event frequency. The site is located in Zone 1 as designated in Table A-1. Peak discharges were computed using the Rational Method, QP = CiA (ft3/s).

Existing Conditions: The existing topography near the project site slopes northeast, draining towards a large detention pond on the eastern boundary of the school site. Slopes vary from 3% to 10%, with isolated slopes at 1:1. Areas not affected by proposed changes are not considered in this report. The area is not located within a flood zone.

The Soil Survey of Bernalillo County and Parts of Sandoval and Valencia Counties, New Mexico, designates the existing soil as Bluepoint loamy fine sand, 1 to 9 percent slopes, with a small area of Bluepoint fine sand, hummocky. The Bluepoint series is described as a deep, somewhat excessively drained soil comprised mostly of fine sand. The surface layer is pale brown loamy fine sand about 8 inches thick. The underlying layer is pale brown loamy sand to a depth of 20 inches and light yellowish brown loamy sand to a depth of 60 inches or more. Water erosion hazard is low, while wind erosion hazard is severe. These soils have been formed in sandy alluvial and aeolian sediments on alluvial fans and terraces, with slopes ranging from 1 to 9 percent. The Bluepoint Series fits within Hydrologic Group "A", implying low runoff potential.

Proposed Conditions: The purpose of this Grading & Drainage Plan is to secure grading and building permits for the construction of the tennis courts and walkways. Because the proposed construction will have a minimal impact on overall drainage considerations for this site, only the increase in runoff is calculated in this report. Proposed construction will add 0.369 acres of impervious surface, which is classified as land treatment type D. This area is represented by Basin 201 above.

Additional runoff contributed by this area during the 100-year storm can be calculated as follows:

Find: Qp Given: A = 0.369 acres
C = 0.93 ✓
i = 4.70 in/hr.-(for Zone 1, west of the Rio Grande)

Qp = CiA
Qp = 1.61 cfs

The volume that this area contributes to the pond during a 100-year, 24-hour storm is calculated as:

Find: V1440 Given: ED = 1.97 in
A = 0.369 acres
P(6-hour) = 2.20 in
P(day) = 2.66 in

V1440 = (ED*A)/(12in/ft) + A*(P(day) − P(6-hour))/(12 in/ft)
V1440 = 0.0747 acre-feet

The small increase in the peak 100-year flow will be directed north, eventually draining to the large detention pond on the school property on the corner of Coors Blvd. and Ellison Rd. These increases in both peak flow and volume are inconsequential for a pond of this size, and will not affect its ability to safely contain the design storm.

GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
1 inch = 30 ft.

LEGAL DESCRIPTION

LOT 6, BLOCK 9, SUBD: PARADISE HEIGHTS UNIT 1

BENCH MARK

AN ACS ALUMINUM DISK STAMPED "ACS BM, 2-A13" EPOXIED TO TOP OF CONCRETE CURB AT THE SOUTH-SOUTHEAST QUADRANT OF VISTA DEL SOL DR. AND VISTA DEL SOL COURT, NW
ELEVATION=5121.119

APS

ALBUQUERQUE PUBLIC SCHOOLS

APS

WILSON & COMPANY
SUITE 100
RIO RANCHO, NEW MEXICO
87124
(505) 898-8021
www.wilsonco.com

CIBOLA HIGH SCHOOL TENNIS COURTS UPGRADE

GRADING & DRAINAGE PLAN

REVISIONS	NO.	DATE	REMARKS	BY

MARIO G. JUAREZ JR. NEW MEXICO 15340 REGISTERED PROFESSIONAL ENGINEER 7/15/05

DESIGN	CPD	WCEA NO.	X5218058	DATE	JULY 2005
DRAWN	AJM	PROJECT NO.	N/A	SHEET NO.	5 OF 7
CHECK	MJI				

RECEIVED JUL 18 2005 HYDROLOGY SECTION

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