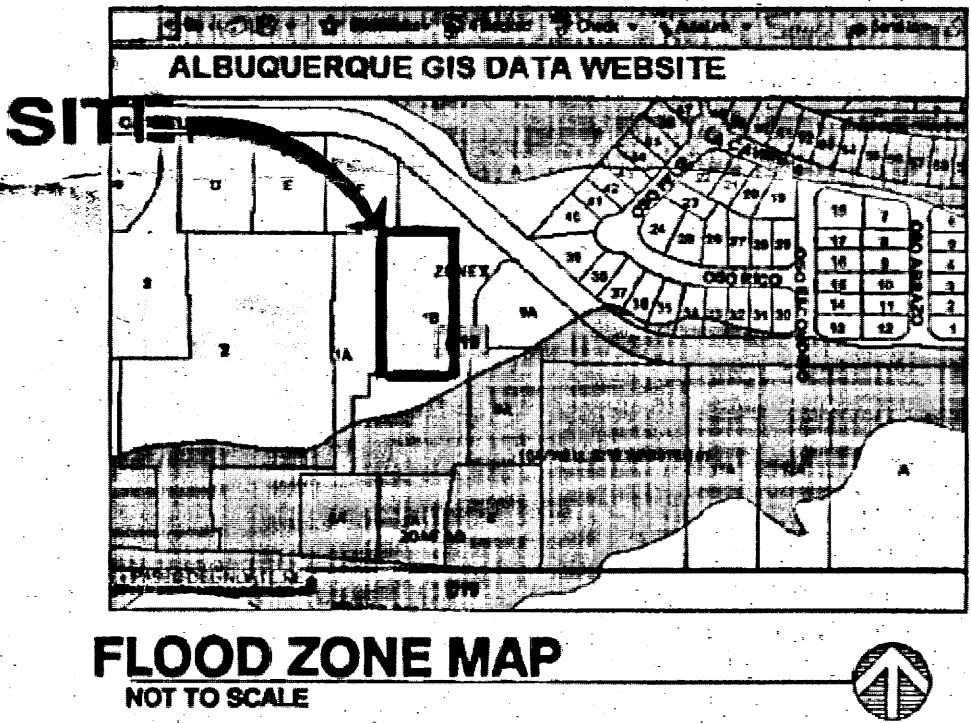
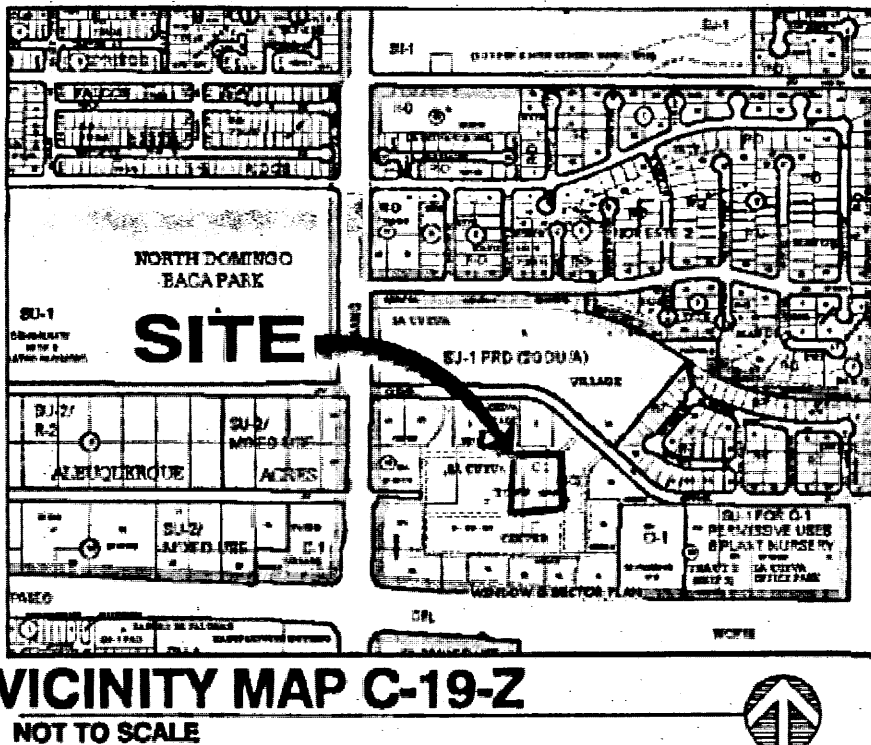


LEGEND

5031.05 FC	PROPOSED SPOT ELEVATION
5031.55 TC	
FL = 5031.05	EXISTING SPOT ELEVATION
---	EXISTING CONTOURS
---	PROPOSED CONTOURS

La Cueva Town Center BIG 5

- I. PURPOSE AND SCOPE
The purpose of this drainage plan is to present the existing and proposed drainage management plans for the Big 5 Sporting Goods store at the La Cueva Town Center. The site has been masterplanned by Tierra West with the grading and drainage plan completed in 1999 and as-built in April of 2000. The datum of the original grading and drainage plan and the survey completed are different and the change is approximately 2.6'.
- II. SITE DESCRIPTION AND HISTORY
This site is almost completely developed per the approved Site Development Plan. There are a few outlots that still remain as well as the portion of the site to be developed as the Big 5 Sporting Goods Store. The previous grading and drainage plan showed a much larger store than the proposed 10,000 retail store. A portion of the prior building pad will still be available for a future building to the east of the proposed development.
- III. COMPUTATIONAL PROCEDURES
Hydrologic analysis was performed utilizing the design criteria found in the COA-DPM Section 22.2 released in June 1997.
- IV. PRECIPITATION
The 100-yr. 6-hr duration storm was used as the design storm for this analysis. This site is within Zone 2 as identified in the DPM Section 22.2. Tables within the section were used to establish the 6-hr precipitation, excess precipitation and peak discharge.



V. EXISTING DRAINAGE CONDITIONS OVERVIEW
There is an approved Grading and Drainage Plan with information regarding the as-built conditions that was prepared by Tierra West in April of 2000. This plan shows an approximately 27,000 square foot building in the location of the proposed retail store. The site was designed to have a small swale in the driving lane on the south side of the building to convey and collect any runoff on the south side. A series of catch basins would then collect the runoff. It was then piped to the west via an 8" storm drain pipe. The final outlet of this collection system was into the ROW at Wyoming Boulevard N.E. and Paseo Del Norte. The runoff from the northern part of the proposed development was designed to convey storm water along the back sides of the buildings to a sump condition catch basin located on the access road from Carmel Avenue N.E.

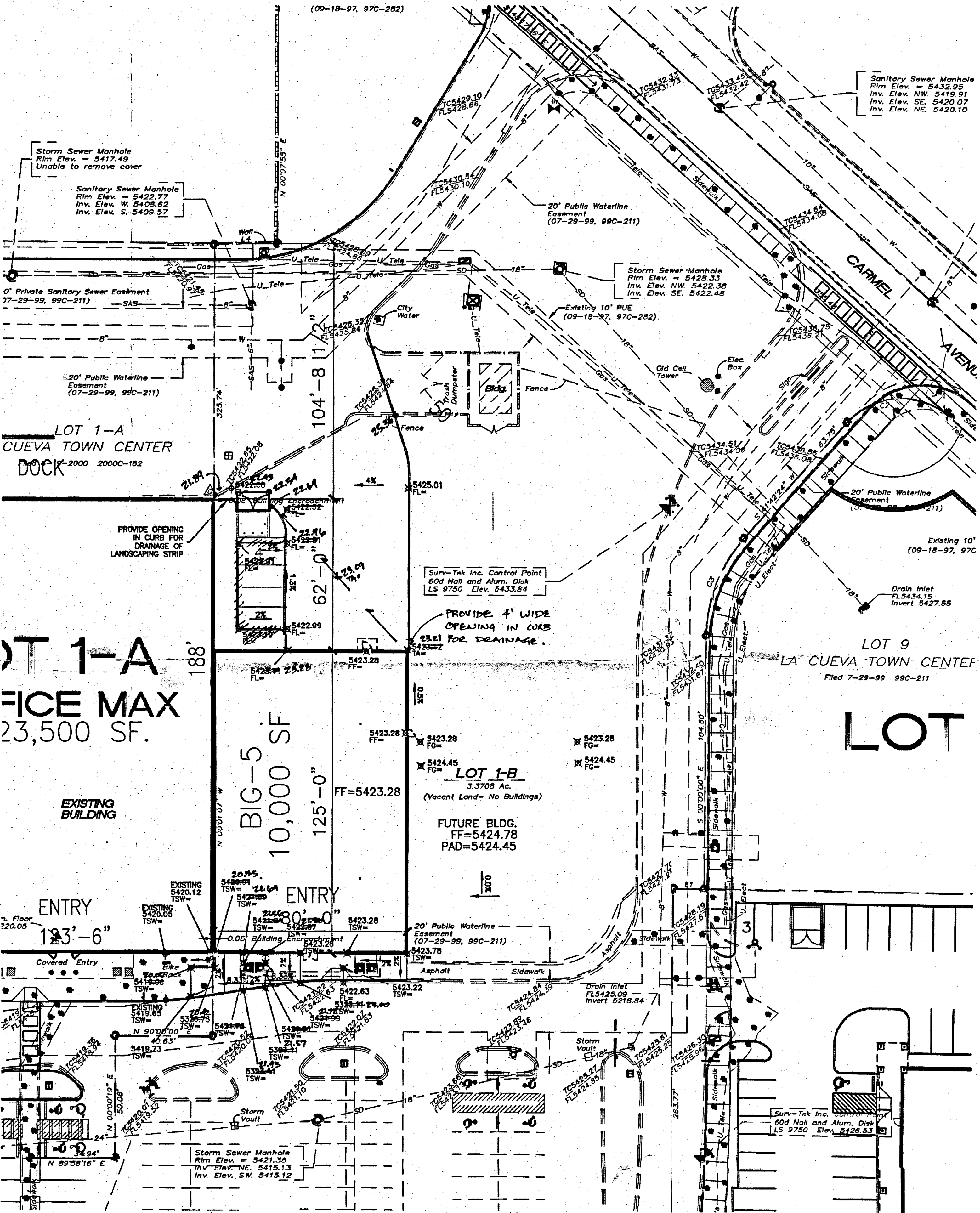
VI. DRAINAGE MANAGEMENT PLAN
The proposed development consists of a new 10,000 sf retail store for Big 5, a small parking/delivery area on the north side, as well as new sidewalks to connect to the existing roadways on the south side. The previously approved grading and drainage plan was designed for a building approximately 27,000sf. Because this building does not cover the entire available retail pad it should be anticipated that another building will be constructed on the remaining vacant portion. Because the site has been designed and approved for a larger facility, it is not necessary to check the downstream capacity of the storm drainage improvements. This development will generate less runoff than was masterplanned.

VII. CONCLUSIONS
The project is an infill project into a almost fully developed shopping center. A larger building was masterplanned for this site and the Big 5 retail store will generate less runoff than was expected when the site was masterplanned. The proposed development should not have any adverse affects to downstream storm drainage improvements.

Drainage Certification

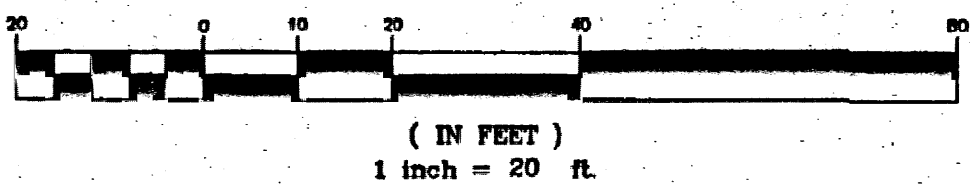
I, David A. Aube, NMPE 14221, of the firm The Hartman + Majewski Design Group, Inc. hereby certify that this project is in substantial compliance with and in accordance with the design intent of the Grading and Drainage plan approved plan dated 6-24-08. The record information that has been edited onto the original design documents when obtained by Steve Walker PS #6401 on 8-29-08. I further certify that I have personally visited the project site on 9-2-08 and have determined by visual inspection that the actual site conditions shown on this plan to be true and correct to the best of my knowledge and belief. This certification is submitted in support of a request for Permanent Certificate of Occupancy.

The record information presented hereon is not necessarily complete and intended only to verify substantial compliance of the drainage aspects of this project. Those relying on the record documents are advised to obtain independent verification of its accuracy before using it for any other purpose.



A3 SITE GRADING AND DRAINAGE PLAN

SCALE: 1"=20' GRAPHIC SCALE

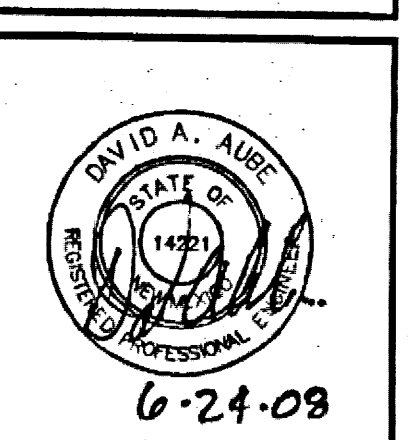


A1 OVERALL SITE GRADING AND DRAINAGE PLAN

SCALE: 1"=200'

REV	DATE	BY	REVISION

GEORGE RAINHART ARCHITECT AND ASSOCIATES PC
2525 SAN PEDRO N.E. SUITE 2-B
ALBUQUERQUE, NEW MEXICO 87110
PHONE (505) 884-9110 FAX (505) 837-9877



PROJECT TITLE	BIG 5 LA CUEVA TOWN CENTER
PROJECT MANAGER	JOB NO.
SHEET TITLE	OVERALL SITE PLAN

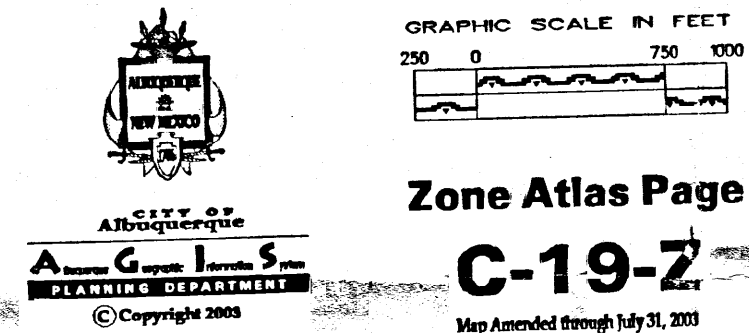
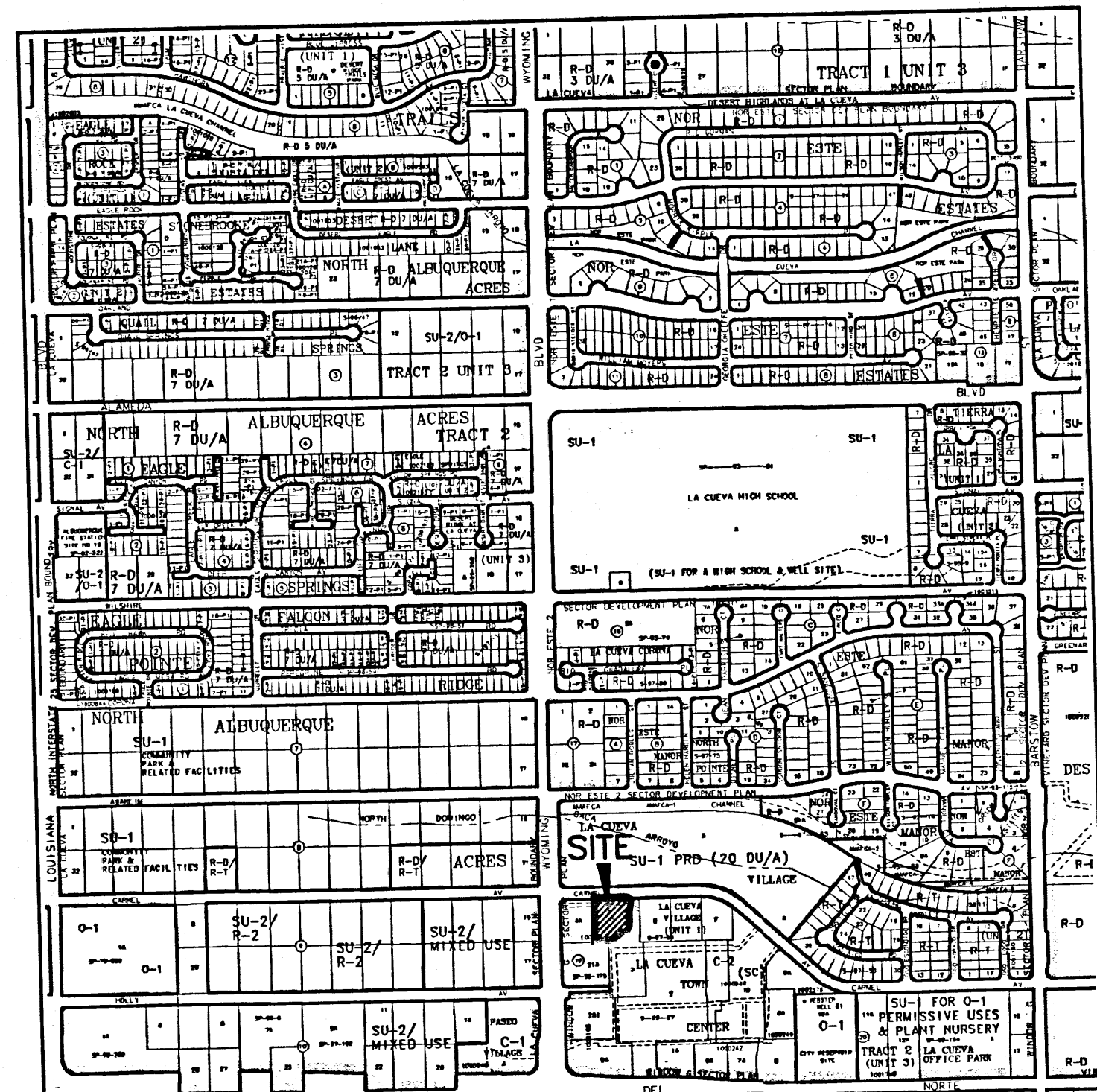
DATE:	4.22.08
SCALE:	1"=200'
SHEET NO.	CD.1

RECEIVED

SEP 04 2008

HYDROLOGY SECTION

VICINITY MAP (C-19-Z)



LEGEND

- 5565 — EXISTING INDEX CONTOURS @ 5' INTERVALS
- 65 — EXISTING INTERMEDIATE CONTOURS @ 1' INTERVALS
- 65 — PROPOSED CONTOURS @ 1.0' INTERVALS
- 65 — EXISTING SPOT ELEVATION
- 65 — PROPOSED SPOT ELEVATION
- 65 — FLOW LINE

- 65 — PROPOSED NEW CONCRETE SURFACING
- 65 — PROPOSED BUILDING
- 65 — STORM DRAIN MANHOLE

NEW LIGHT POLE

SPOT ELEVATION
UNLESS OTHERWISE INDICATED, SPOT ELEVATIONS ARE TO NATURAL GRADE

EA EDGE OF ASPHALT
TA TOP OF ASPHALT
TC TOP OF CURB / CONCRETE
FL FLOWLINE
TW TOP OF WALK OR WALL

— 65 — EXISTING STORM DRAIN LINE
— 65 — PROPOSED STORM DRAIN RELOCATION

REMOVED STORM DRAIN

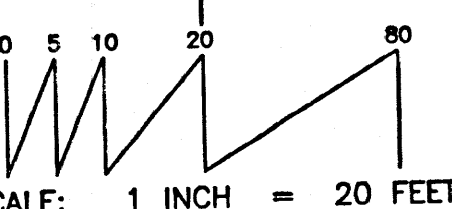
GRAVEL LINING
HOLD 5' WIDTH. SWALES MAY BE MEANDERED FOR SOFTER LANDSCAPING EFFECT.

NOTICE TO CONTRACTORS

1. An excavation/barricade permit will be required before beginning any work within the City of Albuquerque Right-of-way. An approved copy of these plans must be submitted at the time of application for these permits.
2. All work detailed on these plans to be done, except as otherwise stated or provided hereon, will be constructed in accordance with "City of Albuquerque Interim Standard Specification for Public Works Construction, 1986", latest revision.
3. Two working days prior to any excavation, the contractor must contact Line Locating Service, 260-1990, for location of existing utilities.
4. Prior to construction, the contractor will excavate and verify the horizontal and vertical locations of all construction. Should a conflict exist, the contractor will notify the Construction Engineer so that the conflict can be resolved with a minimum amount of delay.
5. The contractor will be responsible for performing soil density tests as required by the City of Albuquerque.
6. Owner shall be responsible for maintenance of sidewalk culverts and shall ensure proper operation of culverts at all times.

APPROVALS FOR	NAME	DATE	TITLE OF PROJECT
DESIGN: CITY HYDROLOGY			FOR: WINKELJOHN 7610 CARMEL AVE. NE
CONSTRUCTION: CONSTRUCTION ENGINEER			
ACCEPTANCE: CONSTRUCTION INSPECTOR			PROJECT NO. ZONE SHEET 1 OF 1 C-19

SCALE: 1 INCH = 20 FEET

EXISTING WHAT-A-BURGER
NOT A PART OF THIS APPLICATION

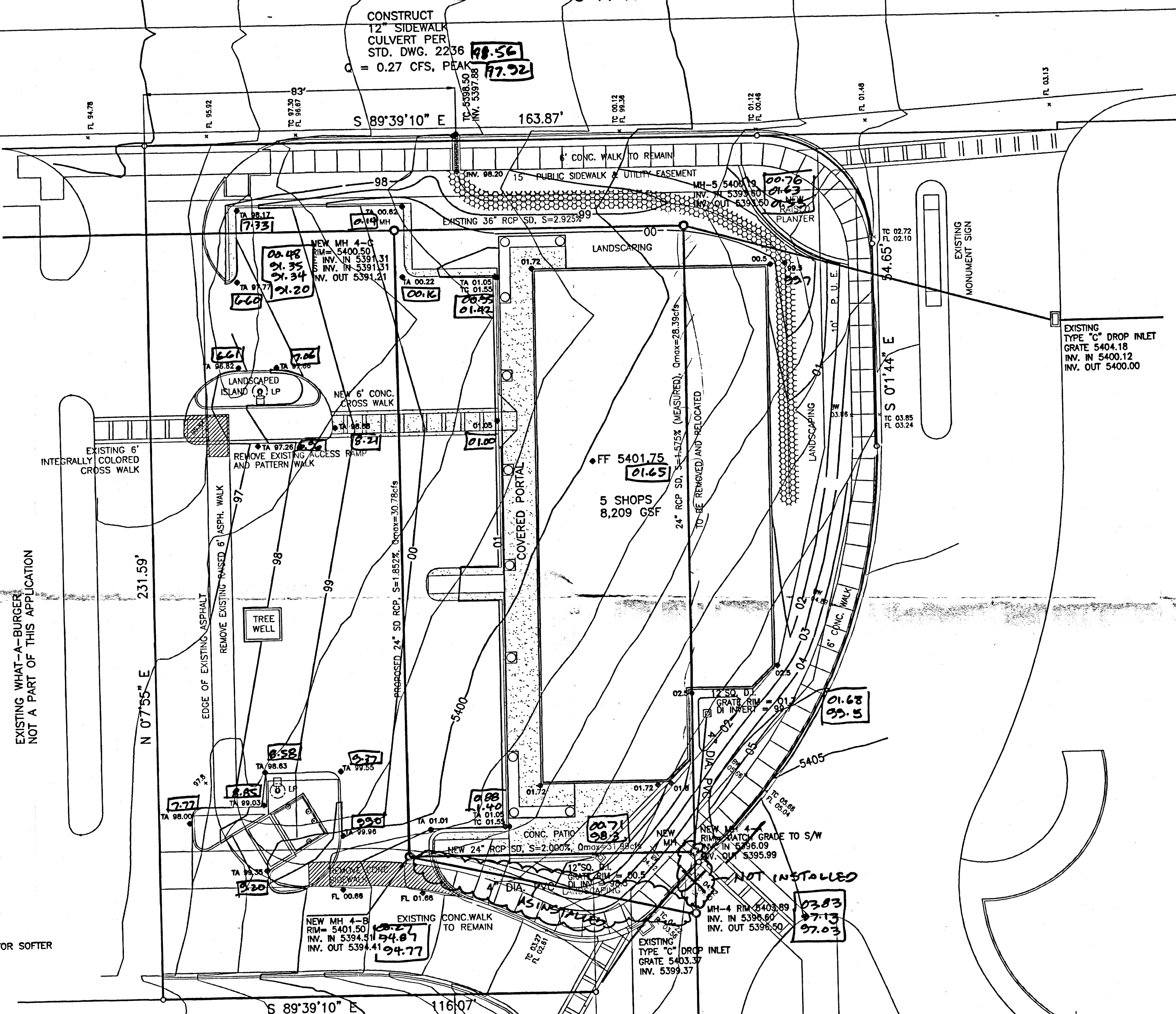
S-13-05

DRAINAGE CERTIFICATE
I, David Gatterman, NMPE 14920, of the firm of IGC ENGINEERING INC. hereby certify that this project has been graded and will drain in substantial compliance with and in accordance with the design intent of the approved plan dated 9.05.04. The record information edited onto the original design document has been obtained by Thomas D. Johnston, NMPS 14269, of the firm of WAYJOHN SURVEYING INC. I further certify that I have personally visited the project site on 5.12.05 and have determined by visual inspection that the survey data provided is representative of actual site conditions and is true and correct to the best of my knowledge and belief. This certification is submitted in support of a request for final Certificate of Occupancy. The record information presented hereon is not necessarily complete and intended only to verify substantial compliance of the grading and drainage aspects of this project. Those relying on this record document are advised to obtain independent verification of its accuracy before using it for any other purpose.

David D. Gatterman, NMPE 14920

APPROVALS	NAME	DATE
TRAFFIC		
INSPECTOR		
A.C.E./FIELD		

CARMEL AVENUE NE



I, DAVID GATTERMAN, NEW MEXICO REGISTERED PROFESSIONAL ENGINEER NO. 14920, DO HEREBY CERTIFY THAT I INSPECTED THIS SITE ON JULY 9, 2004, AND THAT, AS OF THAT DATE, THERE HAD BEEN NO RECENT ALTERATION OF GRADE OR EVIDENCE OF GRADING OPERATIONS ON THIS SITE.

DAVID GATTERMAN, NMPE NO. 14920

LEGAL DESCRIPTION/FLOOD NOTE

Lot numbered Nine-A (9-A), LA CUEVA TOWN CENTER, as the same is shown and designated on the Plat entitled "Lot 9-A, La Cueva Town Center and Lot 10-A, Block 20, Tract 2, Unit 3, North Albuquerque Acres", within the Elva Galtos Grant, Albuquerque, Bernalillo County, New Mexico, filed in the office of the County Clerk of Bernalillo County, New Mexico on March 24, 2003 in Map Book 2003C, page 74.
The above described property is located within Zone X (no hazard) Community Panel No. 350002 0141 E, dated Nov. 19, 2003, and is not located within a Special Flood Hazard Boundary indicated by FEMA Flood Insurance Rate Maps. Determination of Flood Hazard is by graphic plotting only.

DRAINAGE DATA

DRAINAGE DATA - 7610 Carmel Avenue, NE
THIS SITE LIES WITHIN PRECIPITATION ZONE 3

Condition	Storm Return Period, Table 4 (Years)	Treatment Type	Treatment Area (sq. ft.)	Excess Precip. Table A-8 (in.)	Peak Runoff Runoff Volume (cu. ft.)	Runoff Rate (cfs)
EXISTING	100	A	38,600	0.66	1.87	2,123.0
		B	0	0.92	2.60	0.0
		C	0	1.29	3.45	0.0
		D	2,154	2.36	5.02	423.6
EXISTING	10	A	38,600	0.19	0.58	611.2
		B	0	0.36	1.19	0.0
		C	0	0.62	2.00	0.0
		D	2,154	1.50	3.39	269.3
DEVELOPED	100	A	0	0.66	1.87	0.0
		B	17,866	0.92	2.60	1,369.7
		C	0	1.29	3.45	0.0
		D	22,888	2.36	5.02	4,501.3
DEVELOPED	10	A	0	0.19	0.58	0.0
		B	17,866	0.36	1.19	536.0
		C	0	0.62	2.00	0.0
		D	22,888	1.50	3.39	2,861.0
TOTAL (EXT)	100				2,546.6	1.9
	10				880.4	0.7
TOTAL (DEV)	100				5,871.0	3.7
	10				3,397.0	2.3

FLOW RATE WILL INCREASE BY 1.8 CFS AND 1.6 CFS FOR THE 100-YEAR AND 10 YEAR STORMS MAY BE EXPECTED. THE 6-HOUR RUNOFF VOLUMES WILL DECREASE BY 3324 CUBIC FEET FOR THE 100-YEAR STORM & 2517 CUBIC FEET FOR THE 10-YEAR STORM.

BENCH MARK

Benchmark is ACS Monument "16-D19", NGVD 1929 ELEVATION 5391.40, on aluminum disk, epoxied to top of concrete base of traffic light/street light station in traffic island, SW quadrant of Paseo del Norte and Wyoming Blvd. NE, on the SW corner of said concrete base.

DRAINAGE NOTES:

- ROOF DRAINAGE CONVEYED TO PARKING LOT VIA GUTTERS AND DOWNSPOUTS
- ALL ELEVATIONS GIVEN ARE TO TOP OF PROPOSED GRADE

PROPOSED DEVELOPMENT

SINGLE STORY COMMERCIAL BUILDING WITH REQUIRED LANDSCAPING AND ASPHALT PARKING AREAS WITH CONCRETE HEADER CURBING AND SIDEWALKS AS SHOWN.

OFFSITE FLOWS

THERE ARE NO OFFSITE FLOWS ENTERING THIS SITE.

STORMWATER ROUTING

SITE IS TO BE GRADED TO DIRECT SURFACE WATERS TO THE NORTHERLY AND WESTERLY SIDES. FREE DISCHARGE INTO CARMEL AVENUE RIGHT-OF-WAY AND ONTO ADJACENT TRACT TO WEST (AS COVERED IN LA CUEVA TOWN CENTER COVENANTS). ALL INTERIOR RUNOFF IS INTERCEPTED BY PRIVATE STORMWATER DRAIN SYSTEM WHICH FEEDS PUBLIC LINE AT SOUTHEAST CORNER OF INTERSECTION OF WYOMING BLVD. AND CARMEL AVE. NE. PUBLIC STORMWATER DRAIN IN WYOMING DISCHARGES INTO AN A.M.A. F.C.A. CHANNEL APPROX. 1/8 MILE NW OF SITE.
REFERENCES: 1) NORTH ALBUQUERQUE ACRES WINDOW "G" MASTER DRAINAGE PLAN DATED APRIL, 1999.
2) LA CUEVA TOWN CENTER BASIN MAP (C19/D11) PREPARED BY TERRA WEST LLC.

NOTE: PRIVATE STORMWATER COLLECTION SYSTEM REROUTING IS BEING CONSTRUCTED UNDER APPROVED EPC PROJECT NUMBER 1002945.

NOTICE TO CONTRACTOR

PROPOSED CONTOURS SHOWN ARE TO FINISH SURFACES AND ARE PROVIDED FOR THE PURPOSE OF SHOWING FLOW ROUTING.

CONTRACTOR IS RESPONSIBLE FOR THE ABATEMENT OF SEDIMENT ONTO ADJOINING PUBLIC RIGHTS-OF-WAY DURING CONSTRUCTION AND FOR THE REMOVAL OF ANY SEDIMENT DEPOSITED IN PUBLIC RIGHT-OF-WAY.

CONTRACTOR SHALL OBTAIN A "TOPSOIL DISTURBANCE PERMIT" PRIOR TO ANY GRADING OR CONSTRUCTION.

1. AN EXCAVATION/CONSTRUCTION PERMIT WILL BE REQUIRED BEFORE BEGINNING ANY WORK WITHIN CITY RIGHT-OF-WAY. AN APPROVED COPY OF THESE PLANS MUST BE SUBMITTED AT THE TIME OF APPLICATION FOR THIS PERMIT.
2. ALL WORK DETAILED ON THESE PLANS TO BE PERFORMED, EXCEPT AS OTHERWISE STATED OR PROVIDED HEREON, SHALL BE CONSTRUCTED IN ACCORDANCE WITH CITY OF ALBUQUERQUE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, 1986 EDITION, AS AMENDED THROUGH UPDATE #5.
3. TWO WORKING DAYS PRIOR TO ANY EXCAVATION, CONTRACTOR MUST CONTACT LINE LOCATING SERVICE 260-1990 FOR LOCATION OF EXISTING UTILITIES.
4. BACKFILL AND COMPACTION SHALL BE ACCORDING TO RESIDENTIAL STREET USE.
5. MAINTENANCE OF THESE FACILITIES SHALL BE THE RESPONSIBILITY OF THE OWNER(S) OF THE PROPERTY SERVED.

DRAINAGE AND GRADING PLAN

7610 CARMEL AVENUE, NE
LOT 4-B, LA CUEVA TOWN CENTER
FOR: MICHAEL WINKLEJOHN

TGC ENGINEERING, INC. (505) 266-7256
330 LOUISIANA BLVD. NE
ALBUQUERQUE, NM 87108
Fax: (505) 255-2887

MAY 16 2005
HYDROLOGY SECTION