INDEX TO SHEETS

DURA BILT
PRODUCTS, INC.
4808 JEFFERSON N.E.
ALBUQUERQUE N.M. 87109
(505) 883-9100
DESIGN/BUILDERS
LICENSE NO. 3044

JOB NO.: 88-129
DATE: 6/28/88
CONTRACT DATE:
DRAWN BY: BWD
REVISIONS:

AESHT1

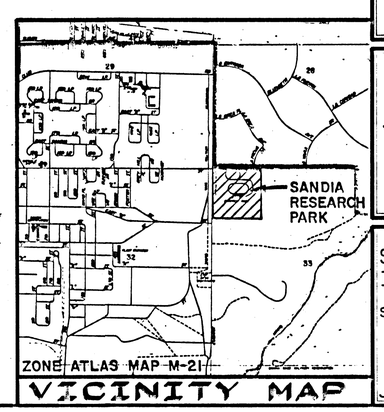
SIGNATURE BLOCK Z-80-96-2
DEVELOPEMENT REVIEW BOARD

I CERTIFY THAT THIS AREA IS ZONED SU-1 AND THIS PLAN IS CONSISTENT WITH THE SPECIFIC DEVELOPMENT PLAN APPROVED BY THE ENVIRONMENTAL PLANNING COMMISSION ON SEPTEMBER 18, 1986.
DRB-88-505

CITY PLANNER	11/3/88 DATE
CITY ENGINEER	10/31/88 DATE
TRAFFIC ENGINEER	10/7/88 DATE
WATER RESOURCES ENGINEER	10-4-88 DATE
PARKS AND RECREATION	10-4-88 DATE

SANDIA RESEARCH PARK
ALLIANCE ELECTRONICS
10,510 RESEARCH AVENUE S. E.
ALBUQUERQUE, NEW MEXICO 87123

M21-D5C



VICINITY MAP

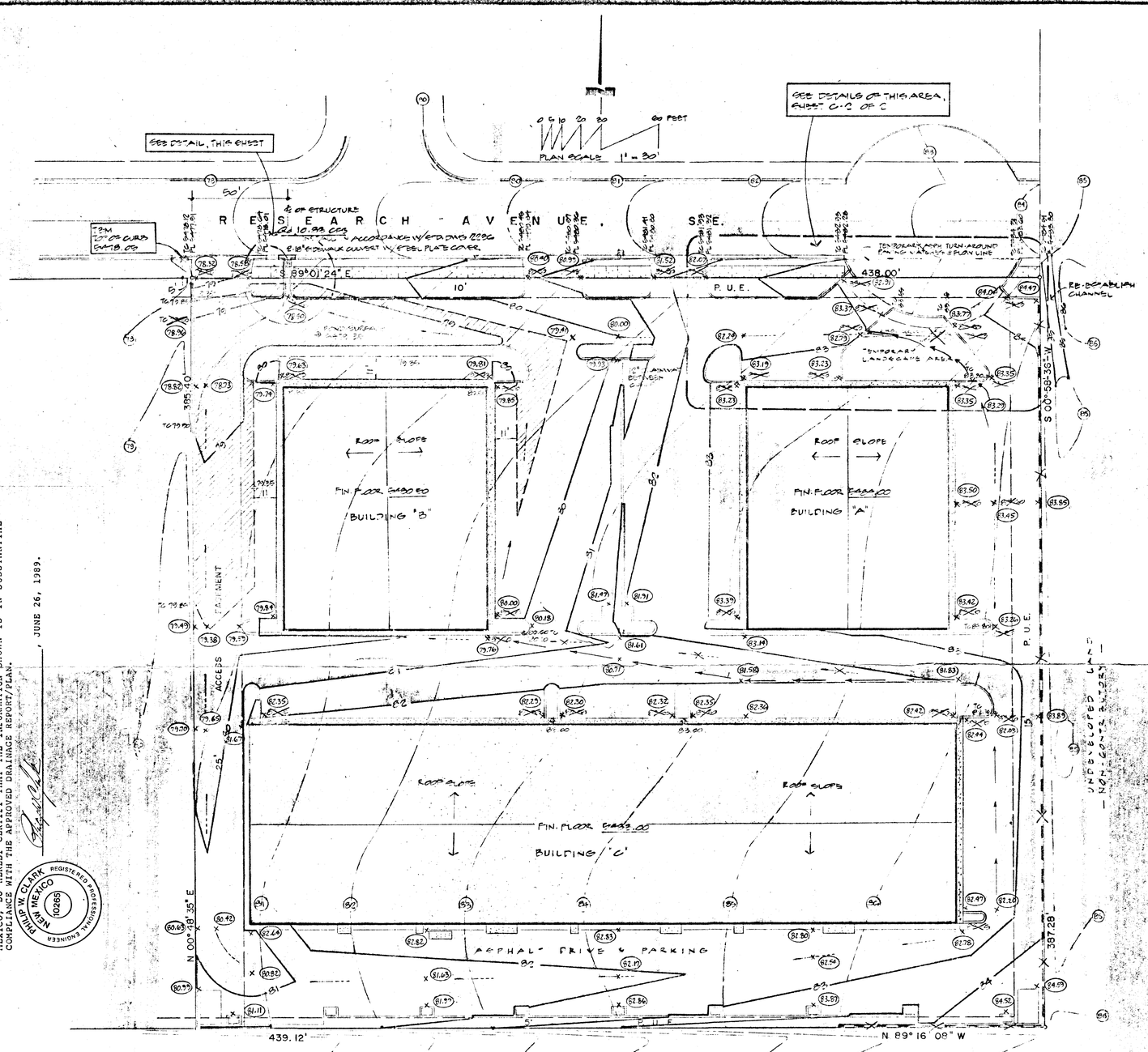
SITE PLAN, INDEX TO SHEETS
SHEET NO. 1
JOB NO: 88-129 OF 6

SITE PLAN
1" = 20'

SCALE: 1"=20'

RESEARCH AVENUE S.E.

- POSSIBLE ACCESS CONFIGURATION IN THE EVENT THE CULDSAC IS REMOVED BY VACATION PER THE SUBDIVISION ORDINANCE



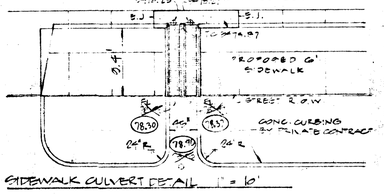
I, PHILIP W. CLARK, REGISTERED PROFESSIONAL ENGINEER, IN THE STATE OF NEW MEXICO, DO HEREBY CERTIFY THAT THE INFORMATION SHOWN IS IN SUBSTANTIAL COMPLIANCE WITH THE APPROVED DRAINAGE REPORT/PLAN.

JUNE 26, 1989.

PHILIP W. CLARK NEW MEXICO 10265 REGISTERED PROFESSIONAL ENGINEER

○ = FIELD AS-BUILT ELEV.

REMOVE & REPLACE TWO STONES, CURB & GUTTER INSTALL DOUBLE 18' SIDEWALK DRAIN CULVERT W/ STEEL PLATE TOP IN ACCORDANCE W/ STD DWG. 2236



SIDEWALK CULVERT DETAIL 1" = 10'

ASPHALT 10'

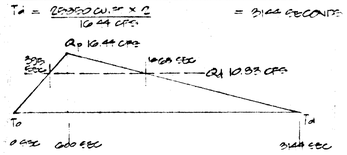
APPROVALS	NAME	DATE
HYDROLOGY/DESIGN		
INSPECTOR/DESIGN		
CONST / ACPT.		

NOTICE TO CONTRACTOR

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 "STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION 1986".
3. Two working days prior to any excavation, contractor must contact Line Locating Service, 765-1234, for location of any existing utilities.
4. Prior to construction, the contractor shall excavate and verify the horizontal and vertical locations of all obstructions. Should a conflict exist, the contractor shall notify the engineer so that the conflict can be resolved with a minimum of delay.
5. Backfill and compaction shall be according to RESIDENTIAL street use.
6. Maintenance of this facility shall be the responsibility of the owner served.

REQUIRED DETENTION

$T_d = \frac{23000 \text{ CU.FT} \times C}{16.44 \text{ CFS}}$ = 3148 SECONDS



VOLUME RELEASED FOR DURATION

$= (1073 \text{ SEC} \times 10.99 \text{ CFS}) + \left[\frac{(3148 - 1073) \text{ SEC}}{2} \times 10.99 \text{ CFS}\right]$

$= 22993 \text{ CF}$

$23830 \text{ CUFT} - 22993 \text{ CU FT}$ = 837 CU FT

A_o = 19.60

$A_o - A_1$ = 19.00, AREA = 3800 SQ FT

$Vol = \frac{3800 \text{ FT}^2 \times 1.5 \text{ FT}}{3}$ = 1900 FT^3

$A_1 - A_2$ = 19.35 AREA = 10000 SQ FT

$Vol = \frac{(10000 \times 3800 + 10000 + 3800) \times .25}{3}$ = 5426 FT^3

TOTAL VOLUME DETAINED @ ELEV 5479.35 = 23076 CU.FT

OVERFLOW RELEASED TO RESEARCH AVENUE THROUGH WEST DRIVEPAD

BENCH MARK

1.120 SQUARE ☐ CHISELED ON TOP OF CONCRETE BASE OF METALLIC PAVERLINE PYLON

ELEV. 5469.798

"BM

TOP OF CURB 5.0 FEET WEST OF WEST PROPERTY CORNER

ELEV. 5478.05

LEGEND

CONTOUR INTERVAL ONE-FOOT (1.0')

(80) — EXISTING CONTOUR

—80— PROPOSED CONTOUR

+80.0 EXISTING SPOT ELEVATION

•80.00 PROPOSED SPOT ELEVATION

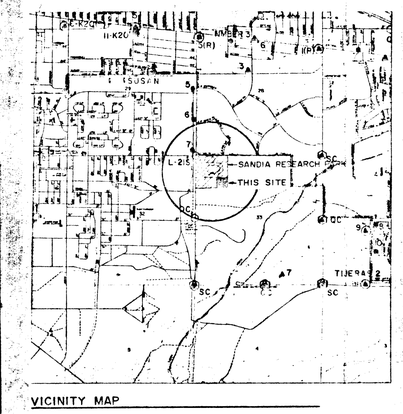
RETAINING WALL — HEIGHT EXCEEDS 1.33'

— — — FLOW LINE

MAXIMUM EXTENT OF DETENTION BASIN DURING 100-YR. RAINFALL

PROPOSED SPOT ELEVATIONS AND CONTOURS AS SHOWN ARE TO FINISHED SURFACES. CONTRACTOR SHALL DETERMINE APPROPRIATE SUBGRADES.

CONTRACTOR IS RESPONSIBLE FOR ABATEMENT OF SEDIMENT RELEASED ONTO ADJOINING PRIVATE PROPERTIES AND PUBLIC STREETS DURING CONSTRUCTION.



VICINITY MAP

DATA

AREA OF SITE	3.89 ACRES (169440.80 FT)
SLOPE AS GRADED	1.5%
TIME OF CONCENTRATION	10 MINUTES
100-YR, 6 HOUR RAINFALL	2.3 INCHES
INTENSITY $(6.84 \times T_c^{-.51} \times 2.3 \text{ IN}) =$	4.86 IN/HR

EXISTING CONDITIONS

ENTIRE SITE HAS BEEN GRADED IN GENERAL CONFORMANCE WITH GRADING & DRAINAGE PLAN FOR SANDIA RESEARCH PARK. SLOPE IS CONSTANT FROM SOUTHEAST TO NORTHWEST. NO ARTIFICIAL IMPROVEMENTS, PAVING OR LANDSCAPING EXIST. VEGETATION IS LIMITED TO SPARSE NATIVE GROWTH

C = .40

$Q_{100} = .40 \times 4.86 \text{ IN/HR} \times 3.89 \text{ AC}$ = 7.56 CFS PEAK

$Q_{10} = .65 \text{ T } Q_{100}$ = 4.91 CFS

PROPOSED DEVELOPMENT

THREE SINGLE-STORY COMMERCIAL BUILDINGS, ASPHALT DRIVE AND PARKING, CONCRETE WALKS, LANDSCAPING AREAS.

ROOF AREA	36%	C	= .96
PAVEMENT	56.5%	C	= .90
LANDSCAPING	7.5%	C	= .25

NOTE: PERCENTAGE EXCLUDES TEMPORARY ARRANGEMENT OF LANDSCAPING AT 5TREET TURN AROUND.

$C_{AVG} = (.36 \times .96) + (.57 \times .90) + (.08 \times .25)$ = .87

$Q_{100} = 8.9 \times 4.86 \text{ IN/HR} \times 3.89 \text{ AC.}$ = 16.44 CFS PEAK

$Q_{10} = .65 \text{ T } Q_{100}$ = 10.90 CFS

UPSTREAM CONTRIBUTORY AREAS

NONE. LAND OF PUBLIC SERVICE COMPANY ADJOINING ON SOUTH 1.5± TWO AND ONE-HALF FEET (2.5') LOWER. FLOWS FROM LAND ADJOINING TO EAST ARE INTERCEPTED, ACCORDING TO APPROVED GRADING & DRAINAGE PLAN (FEBRUARY 1989) TO BE INTERCEPTED BY A SWALE GRADED ALONG EAST PROPERTY LINE ON ADJOINING LAND FLOWS WOULD BE DIRECTED TO IMPROVED STREET

• RECENT DISTRIBUTION OF SOIL ASSOCIATED WITH CONSTRUCTION OF NEW ST. TURN AROUND HAS BLOCKED THIS ROUTE CHANNEL SHOULD BE RE-GRADED.

DISPOSAL ROUTING

CATCHMENT FOR THE DEVELOPMENT IS LOCATED AT THE SE CORNER OF INTERSECTION OF RESEARCH AVENUE AND EUBANK BOULEVARD, SE. APPROVED REPORT ALLOWS A DIRECT DISCHARGE OF 3.42 CFS PER ACRE. 3.89 AC x 3.42 CFS = 13.30 CFS ALLOWABLE

DIRECT RUNOFF VOLUME

COMPOSITE S.C.S CURVE NUMBER (30.5% IMPERVIOUS)

$(.305 \times 98) + (.075 \times 61.80 \text{ GROUP 'B'}) \approx 89$

DIRECT RUNOFF = 1.83 IN

$3.89 \text{ AC} \times \frac{1.83 \text{ IN.}}{12} = .59 \text{ AC FT} =$ 25830 CU FT

RELEASE TO STREET WILL BE VIA 2-18' SIDEWALK CULVERTS.

SECTION, 1.5' x .5' = .75 SQ FT

SLOPE = .020 FT/FT.

n = .013

$V = \frac{1.486}{.013} \times \left(\frac{.75}{2.5}\right)^{.667} \times .020$ = 7.22 FT/SEC

$Q_d = 7.22 \text{ FT/SEC} \times .75 \text{ FT}^2 \times 2$ = 10.83 CFS

DESCRIPTION OF PROPERTY

LOT - 3
BLOCK - 4
SANDIA RESEARCH PARK
ALBUQUERQUE, NEW MEXICO

RESEARCH AVENUE, SE

ALLIANCE ELECTRONICS

PREPARED FOR

DURA-BUILT PRODUCTS

RECEIVED
JUN 29 1989
HYDROLOGY SECTION

OCTOBER 1988

HALL ENGINEERING COMPANY INC.
ENGINEERING • SURVEYING • PLANNING • CONSTRUCTION
6840 2ND ST., N.W., SUITE 306 • ALBUQUERQUE, NEW MEXICO 87107
PHONE: (505) 345-1064

SHEET C-1 OF 2

10-20-88