HYDROLOGY

K17/D53
1 PLAN

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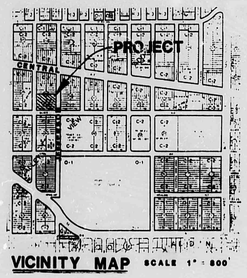
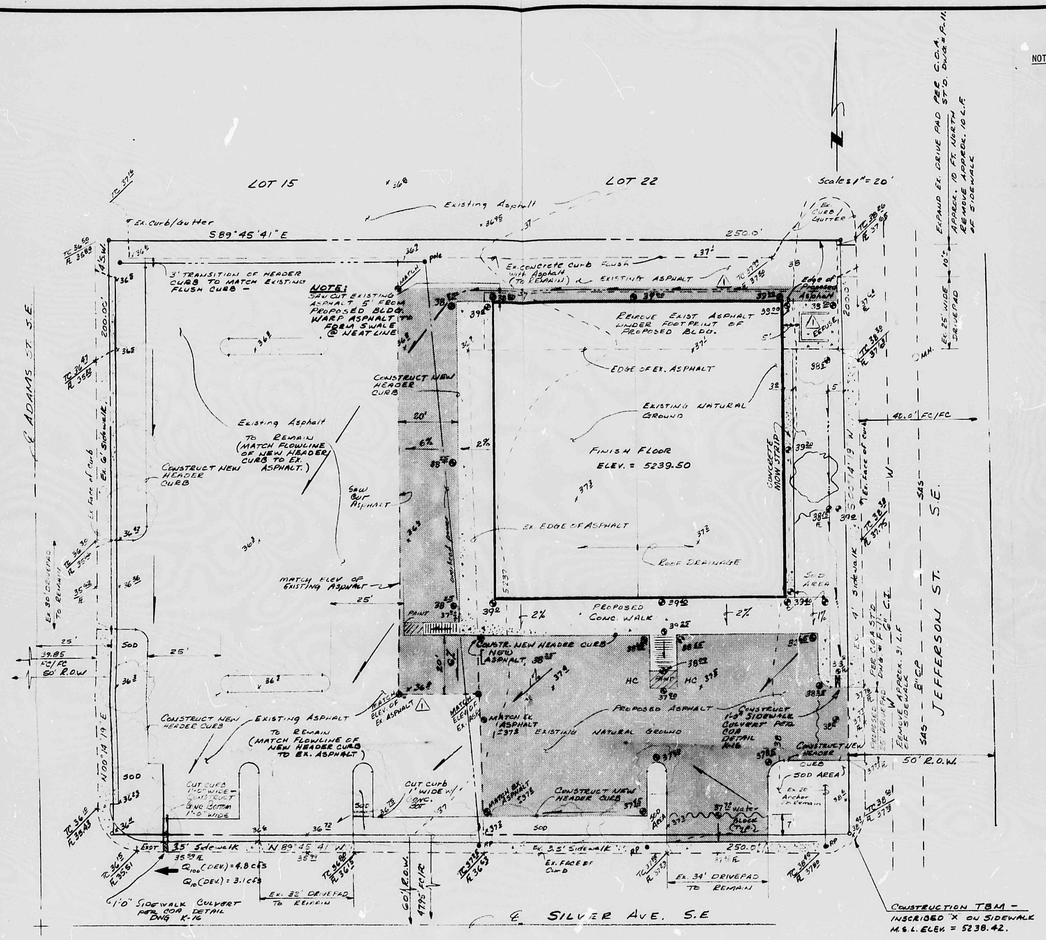
1 PLAN

CITY OF ALBUQUERQUE



VICINITY MAP SCALE 1" = 800'



GRADING & DRAINAGE PLAN

The purpose of this plan/report is to establish the criteria for controlling surface storm run-off and to study the hydrologic affects of the proposed drainage/grading and infrastructure improvements to the project. Additionally, this plan is prepared to facilitate building permit approval. The site is presently described as lots 16 through 23 and lots 24 through 31, BL. 29, Valley View Addition, Albuquerque, New Mexico.

The site is within an established urban area, an "infill" site. The existing Highland Detention Facility has removed the historical 100-yr. floodplains that existed downstream. As a result, this site has been granted "free discharge" of storm run-off, by the City of Albuquerque, Utility Development-Hydrology Section. This plan is presented using hydrologic procedures as outlined in Chapter 22, Vol. II, of the Development Process Manual.

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 City of Albuquerque Interim Standard Specifications for Public Works Construction 1985.
3. Two working days prior to any excavation, contractor must contact Line Location Service, 765-1234, for location of existing utilities.
4. Prior to construction, the contractor shall excavate and verify the horizontal and vertical locations of all constructions. Should a conflict exist, the contractor shall notify the engineer so that the conflict can be resolved with a minimum amount of delay.
5. Backfill compaction shall be according to residential street use.
6. Maintenance of these facilities shall be the responsibility of the Owner of the property served.

PRIVATE DRAINAGE FACILITIES WITHIN CITY RIGHT-OF-WAY

DESIGN APPROVAL [signature] 6-29-87
Hydrology Section Date

INSPECTION APPROVAL [signature] 11-26-87
Traffic Engineering Date

ACCEPTANCE [signature] 1-12-88
Construction Mgt. Div. Date

ROUTE AS-BUILT DWG. TO MAPS & RECORDS
ROUTE I-COPY OF AS-BUILT TO HYDROLOGY SECTION

NOTES:

1. The grading and drainage plan was prepared from a plat of survey and topographic map compiled by Hall Surveying Company, dated May, 1987.
2. The contractor will insure that while under construction, erosion control measures will be implemented--no sediments shall be permitted to leave the site.
3. Underlying soils associated with this site are the Embudo-Tijeras Complex, Type "B", as classified by the Soil Conservation Service.
4. Benchmark:
   Elevations shown are referenced from A.C.S. Brass Cap Station "5-K17", located in the nose of the median of Central Ave., 44.6 feet East of the centerline of Washington St., Elevation = 5233.23 feet.
5. Legal Description:
   Lots 16 thru 31, Block 29 Valley View Addition, Albuquerque, New Mexico.
6. Existing asphalt areas shall remain. Contractor will fill existing cracks and seal coat.
7. Property Address: 4501 Silver Avenue, S.E.

CALCULATIONS

I. DESIGN CRITERIA

Discharge - Rational Method - Q = CIA

Volume - SCS Method - Vol. = R x A

'C'(L.S.) = 0.25, 'C'(Imperv.) = 0.95, 'C'(undev.) 0.40

$i = P6.84TC^{-0.51}$, $TC = 0.0078L^{0.77} \div S^{0.385}$

P_{100} = 2.3 in., P_{10} = 1.51 in.

Site Area = 1.15 acres

II. EXISTING CONDITIONS

Paved area = 0.67 ac., Dirt area = 0.48 ac.

TC = 10 min. 'CC' = 0.72 CN = 80

I_{100} = 4.86 in./hr. I_{10} = 3.19 in./hr.

Q_{100} = 4 c.f.s. Q_{10} = 2.6 c.f.s.

$Vol._{100} = .8(1.15)\frac{43560}{12} = 3340$ c.f.

III. PROPOSED CONDITIONS

Landscape Area = 0.17 Ac. Imperv. Area = 0.98 Ac.

'CC' = 0.85, TC = 10 min., CN = 90

Q_{100} = 4.75 c.f.s. Q_{10} = 3.12 c.f.s.

$Vol._{100} = 1.3(1.15)\frac{43560}{12} = 5427$ c.f.

LEGEND

EXISTING CONTOUR --- 38 ---

EXISTING SPOT ELEV. x 57.1

EXISTING CONCRETE SANITARY SEWER --SAS--

EXISTING CAST IRON WATERLINE --W--

PROPERTY LINE

PROPOSED SPOT ELEV. ⊕ 38.2

PROPOSED SWALE

DIRECTION OF FLOW

PROPOSED ASPHALT

RECEIVED JUN 1 0 1987 HYDROLOGY SECTION

MARK L. HALLEMEYER NEW MEXICO 6982 REGISTERED PROFESSIONAL ENGINEER

Bell Galyardt Associates architects engineers surveyors

PAUL'S SUPERMARKET, INC.
ALBUQUERQUE, NM

GRADING AND DRAINAGE PLAN

DATE 15 June, 1987
DESIGNED PJC
DRAWN PJC
CHECKED
COMM. NO. 87160C

SHEET 1/1
REVISIONS
#2 26 Jun 87

K17/D53

CITY OF ALBUQUERQUE
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