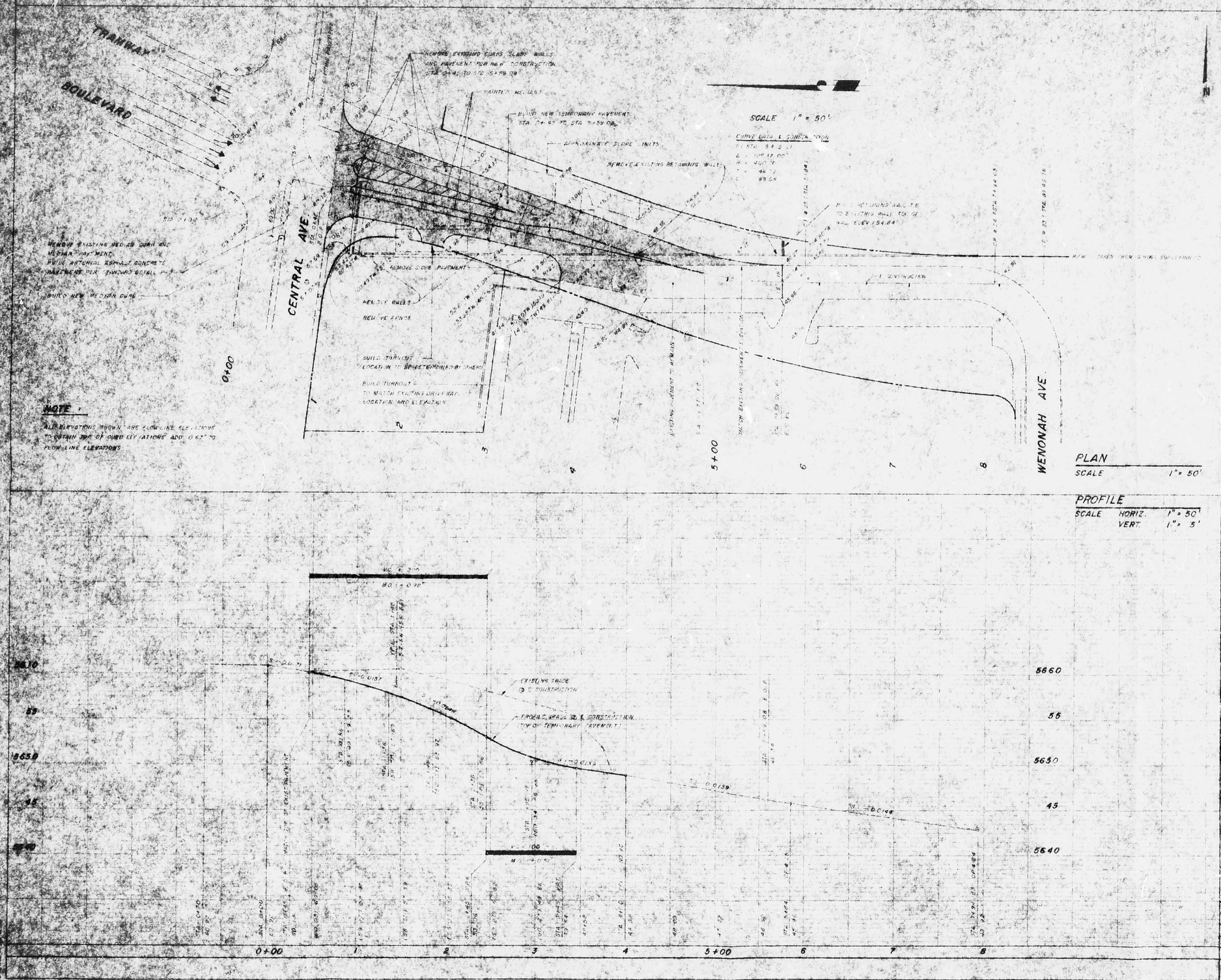
HYDROLOGY

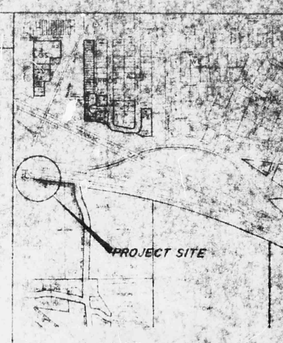
L22/D33C
TWO PLANS

L 22/D33C

2 PLANS

CITY OF ALBUQUERQUE
THIS MICROIMAGE IS THE BEST POSSIBLE REPRODUCTION DUE TO THE POOR QUALITY OF THE ORIGINAL DOCUMENT





LOCATION MAP
L-23-Z

TYPICAL SECTION

NOTES:

1. EXISTING POWER, TELEPHONE AND STREET LIGHTING TO BE MOVED BY OTHERS
2. EXISTING TRAFFIC SIGNALS TO BE ADJUSTED BY THE CITY OF ALBUQUERQUE
3. TEMPORARY PAVEMENT SECTION SHALL CONFORM TO STANDARD DETAIL P-8
4. MANHOLE AND VALVE BOX REBUILDING SHALL CONFORM TO STANDARD DETAIL P-4

AS BUILT INFORMATION

BENCH MARKS

SURVEY INFORMATION
FIELD NOTES
NO. BY DATE

ENGINEER'S SEAL

NO.	DATE	REMARKS	BY
		REVISIONS	

DESIGN DATE
DRAWN BY DATE
CHECKED BY DATE

CITY OF ALBUQUERQUE

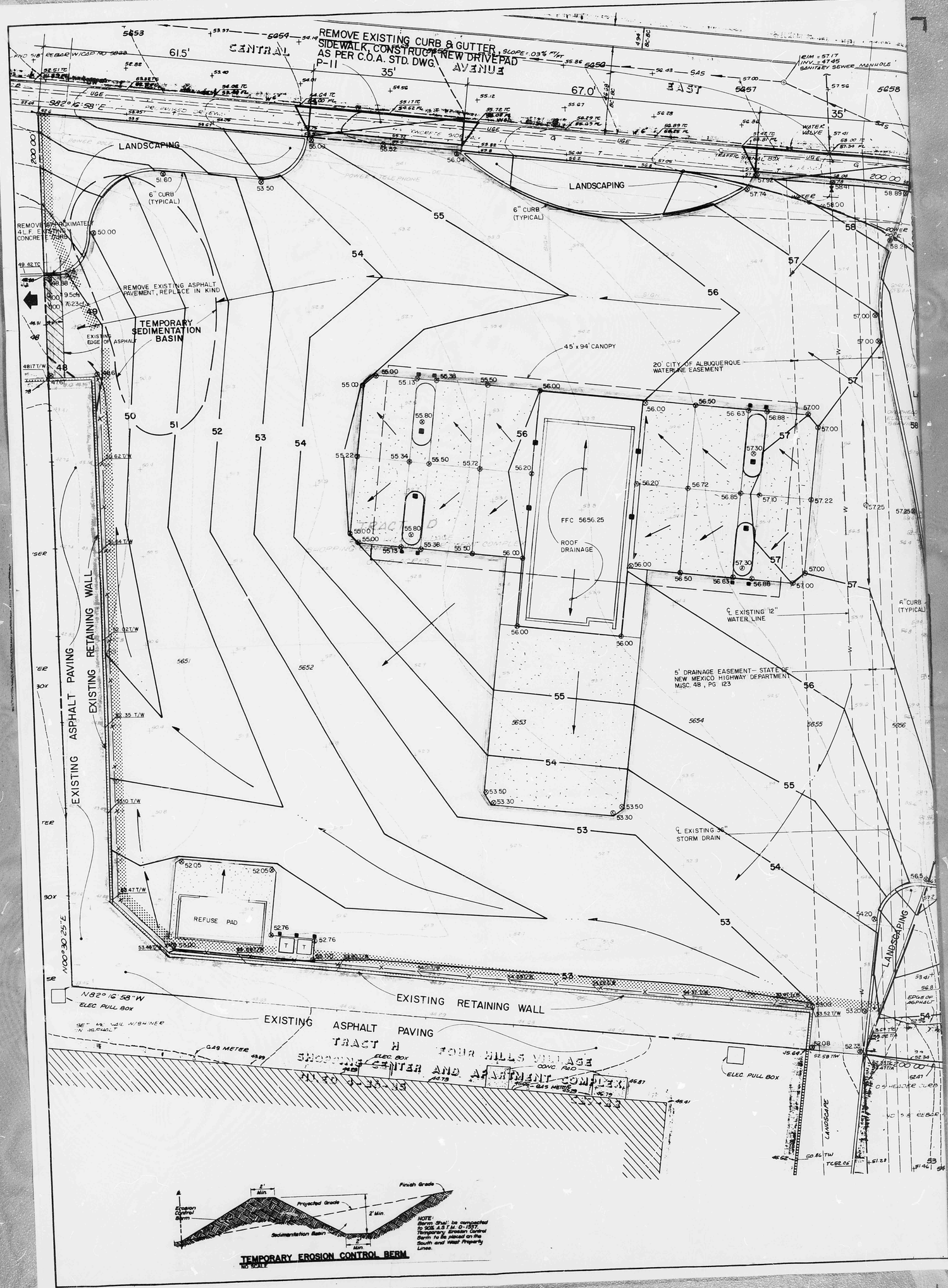
TITLE: TEMPORARY TRAMWAY EXTENSION
CENTRAL AVE TO WENONAH AVE

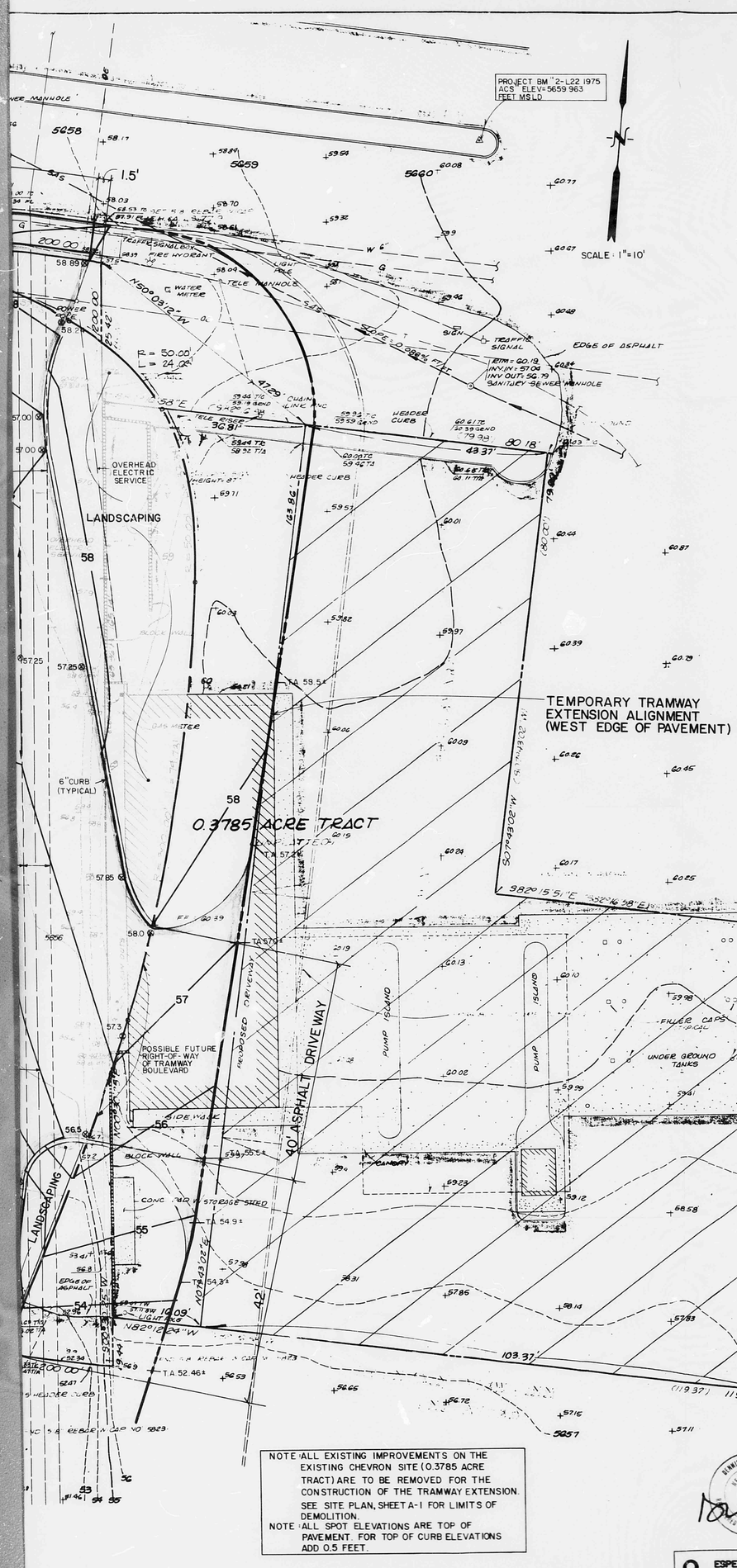
APPROVALS	ENGINEER	DATE	APPROVALS	ENGINEER	DATE
City Engineer			Liquid Waste		
A.C.E.- Design			Traffic		
A.C.E.- Hydrology			Water		

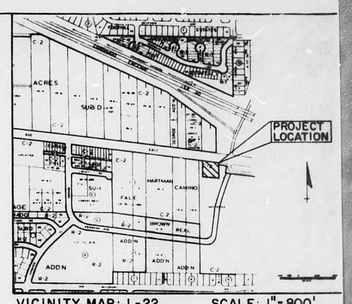
DRAWING NO | MAP NO L-23-Z | SHEET 1 OF 1

L22/D33C

PLAN SHOT IN TWO SECTIONS.







GRADING AND DRAINAGE PLAN

The Grading and Drainage Plan shown hereon provides the necessary information for the construction of the required improvements for the Chevron Service Station #7-5666 project. The site is to be developed as a full service gas station.

The site contains approximately 1.0 acre and is presently partially developed. The site is bounded by Central Avenue SE on the north, the future Tramway extension on the east, and the Four Hills Village Shopping Center on the south and west. Presently, the site drains to the west into the existing paved access road. The site was rough graded as a result of the development of the Four Hills Village Shopping Center. This site is programmed to drain westward into the facilities provided by the shopping center. (Reference: Drainage Report for Four Hills Village Shopping Center, prepared by Espey, Huston and Associates, Inc., March 1985) A storm sewer with drop inlets is provided on the shopping center site which drains to an existing detention pond. This pond drains at a controlled rate of 7.8 cfs into Cochiti Road. No offsite flows enter the site from the north, south or west. Minimal offsite flows enter the site from the east, but future improvements to this site and the future Tramway extension will prevent minimal offsite flows from impacting the site.

As shown by Plate 37 of 50 of the Floodway maps, this site does not lie within a designated flood hazard zone.

As shown by the plan, all runoff will be routed overland to the facilities provided by the Four Hills Village Shopping Center, as outlined in the above referenced report. Drainage easements exist to allow for conveyance of stormwater through the shopping center site. The plan also shows the preliminary alignment and grades for the Tramway extension. It must be noted that the purpose of this project is to relocate the existing Chevron Service Station to allow for the construction of the Tramway extension. Therefore, all existing improvements on the present Chevron site will be removed.

Temporary erosion control measures will be required during the construction phase. It is proposed that a ditch-dike system be placed along the south and west boundaries of the site (adjacent to the existing retaining wall) with a sedimentation pond to be located near the existing access road to prevent the release of sediment to downstream properties and drainage facilities. The location of these measures is noted on the plan along with necessary details.

The calculations shown below analyze the existing and developed conditions for the 100-year/6-hour duration storm falling over the project site. The design criteria for this analysis is outlined in the Development Process Manual, Volume II, Chapter 22.

CALCULATIONS

Ground Cover Information

Soil Type: Embudo Tijeras Complex

Hydrologic Group "B"

Existing Pervious CN = 70 (pasture or range land - fair condition)

Developed Pervious CN = 69 (open spaces - fair condition)

Rainfall

P_6 = 2.50 in.

Time of Concentration

T_c = 10 min.

Existing Condition

Site Area = 1.0 ac = 43,560 SF

% Impervious = 7%

Composite CN = 72

DRO = 0.6 in.

$q_p = 45.4\ A/T_c = 4.5$ cfs/in

$Q_{100} = DRO \times q_p = 2.7$ cfs

$V_{100} = 3630 \times DRO \times A = 2178$ CF

Developed Condition

Site Area = 1.0 ac = 43,560 SF

% Impervious = 93%

Composite CN = 96

DRO = 2.1 in.

$q_p = 45.4\ A/T_c = 4.54$ cfs/in

$Q_{100} = DRO \times q_p = 9.5$ cfs

$V_{100} = 3630 \times DEO \times A = 7623$ CF

LEGAL DESCRIPTION

Tract D, Four Hills Village Shopping Center and Apartment Complex (C27-22)

PROPERTY ADDRESS

13300 Central Avenue SE

PROJECT BENCHMARK

The station is located at the intersection of Central Avenue SE and Tramway Road on the center median on the west side. Station is 101.5 feet west of the centerline of Tramway Road and 5.5 feet north of the centerline of Central Avenue. Station is stamped "2-L22 1975 ACS". Elevation = 5659.963 feet MSLD.

TOPOGRAPHY

The topography and survey information shown on this plan is a result of survey by Espey, Huston and Associates, Inc. dated February 13, 1986.

LEGEND

- SWALE
- DIRECTION OF FLOW
- PROPOSED ELEVATION
- EXISTING ELEVATION
- WEST EDGE OF PVMT. (TEMPORARY TRAMWAY EXTEN. ALIGNMENT)
- 5657 EXISTING CONTOURS
- 54 PROPOSED CONTOURS
- PROPOSED CONCRETE
- X X X EXISTING 6' CEDAR FENCE
- TEMPORARY EROSION CONTROL BERM

NOTE: ALL EXISTING IMPROVEMENTS ON THE EXISTING CHEVRON SITE (0.3785 ACRE TRACT) ARE TO BE REMOVED FOR THE CONSTRUCTION OF THE TRAMWAY EXTENSION. SEE SITE PLAN, SHEET A-1 FOR LIMITS OF DEMOLITION.

NOTE: ALL SPOT ELEVATIONS ARE TOP OF PAVEMENT. FOR TOP OF CURB ELEVATIONS ADD 0.5 FEET.

DENNIS A. LORENZ — NEW MEXICO — REGISTERED PROFESSIONAL ENGINEER

06-02-86

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Engineering & Environmental Consultants
5801 INDIAN SCHOOL ROAD NE SUITE 204
ALBUQUERQUE, NEW MEXICO 87110
PHONE (505) 255-1635

Chevron U.S.A. Inc.

REVISIONS

CHEVRON STATION #7-5666
13300 CENTRAL AVE. S.E.
ALBUQUERQUE, NEW MEXICO

SCALE: 1"=10' DATE: 5-29-86
DR. T.S. CH. D.L. APP. D.L.

L22/D33C

EHA JOB # 7603-05

C-1