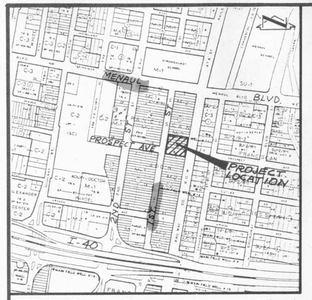
151070



VICINITY MAP H-14

SCALE: 1"=800' (APPROX.)

LEGAL DESCRIPTION

LOTS 18 THROUGH 24 AND LOT D, OF THE FRANCISCAN ADDITION.

PROJECT BENCHMARK

STATION MARK IS A STANDARD NMSHC BRASS CAP STAMPED "STA. NM47-13," SET IN TOP OF A CONC. POST PROJECTING 0.1 FT. ABOVE THE GROUND, LOCATED JUST SOUTH OF THE INTERSECTION OF MENAUL BLVD. NW AND SECOND ST. NW, IN THE MEDIAN STRIP OF SECOND ST.

ELEVATION = 4968.39 FT. (M.S.L.D.)

T.B.M.

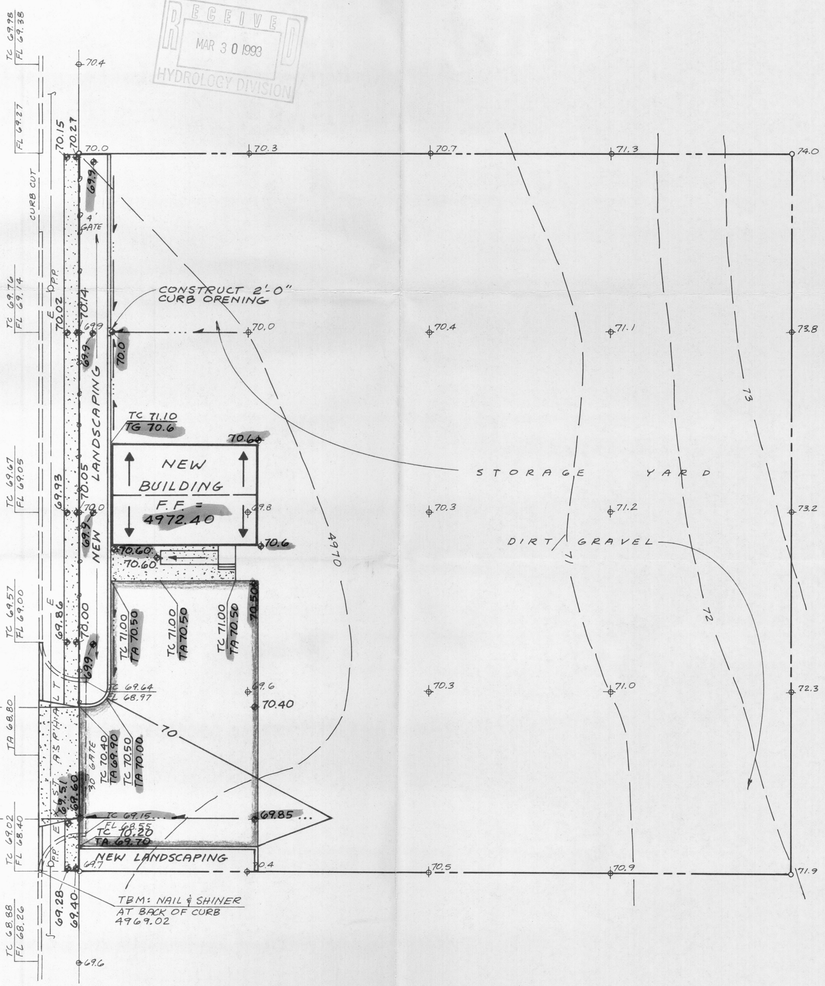
NAIL AND SHINER AT THE BACK OF CURB AT THE S.W. CORNER OF PROPERTY AS SHOWN BELOW.

ELEVATION = 4969.02 FT. (M.S.L.D.)

LEGEND

- EXIST. SPOT ELEVATION
- PROPOSED SPOT ELEVATION
- 70 EXIST. CONTOUR LINE
- 70 PROPOSED CONTOUR LINE
- PROPOSED FLOW LINE
- PROPOSED CONCRETE
- PROPOSED ASPHALT
- TC TOP OF CURB/TOP OF CONCRETE
- TA TOP OF ASPHALT
- TG TOP OF GRADE
- FL FLOWLINE

SCALE: 1"=20'



DRAINAGE PLAN

The following items concerning the Hausman Steel Drainage Plan are contained hereon:

1. Vicinity Map
2. Grading Plan
3. Calculations

As shown by the Vicinity Map, the site is located on the east side of First Street, just south of Menaul Boulevard N.W. At present, the site is a storage yard consisting of gravel and compacted dirt. It is the intent of this plan to construct a new building along with associated paved parking and landscaped areas.

As shown by Panel 22 of 50 of the National Flood Insurance Program Flood Insurance Rate Maps for the City of Albuquerque, New Mexico dated October 14, 1983, this site does not lie within a designated flood hazard zone. Further review of the mapping does not indicate any immediate downstream flooding concerns. The site currently free discharges its runoff to First Street N.W., from which point the runoff continues to flow in a southerly direction. The proposed development will not alter the existing drainage pattern.

The Grading Plan shows 1) existing grades indicated by spot elevations and contours at 1'0" intervals, 2) proposed grades indicated by spot elevations, 3) the limit and character of the existing improvements, 4) the limit and character of the proposed improvements, and 5) continuity between existing and proposed grades. At present, the site drains in a westerly direction toward First Street N.W. which drains to the south away from the site. The intent of this plan is to leave the approximate eastern two thirds of this lot in the existing condition. The proposed development will result in an increase of 0.2 cfs in the 100-year storm flow. With the introduction of a flowline leading to a two foot curb opening which outlets into the landscaped area fronting First Street N.W., the net increase in runoff will be negligible. The free discharge of runoff from this site is appropriate due to the fact this is a modification to an existing site within an infill area, the site does not lie within or adjacent to a designated flood hazard zone, the proposed drainage pattern is consistent with the existing drainage pattern, and the increase in developed runoff will be negligible.

The Calculations which appear hereon analyze the existing and developed conditions for the 100-year, 6-hour rainfall event. The Procedure for 40 Acre and Smaller basins as set forth in Section 22.2, Hydrology of the Development Process Manual Volume 2, Design Criteria, August 1991, has been used to calculate the peak discharge and the volume of runoff generated. As shown by these calculations, the increase in runoff generated by this site will be negligible. The proposed runoff scheme will be consistent with historic patterns in this infill area.

CALCULATIONS

Site Characteristics

1. Precipitation Zone: 2
2. $P_{6,100} = P_{360} = 2.35$ in.
3. Total Area (A_T) = 41,820 sf/0.96 ac
4. Existing Land Treatment

Treatment	Area (sf/ac)	%
C	41,820/0.96	100

5. Developed Land Treatment

Treatment	Area (sf/ac)	%
B	1,740/0.04	4
C	34,820/0.80	83
D	5,260/0.12	13

Existing Condition

1. Volume

$E_W = (E_A A_A + E_B A_B + E_C A_C + E_D A_D)/A_T$
$E_W = (1.13)(0.96)/(0.96) = 1.13$ in.
$V_{100} = (E_W/12)A_T$
$V_{100} = (1.13/12)(0.96) = 0.09$ ac-ft = 3,920 cf

2. Peak Discharge

$Q_p = Q_{pA} A_A + Q_{pB} A_B + Q_{pC} A_C + Q_{pD} A_D$
$Q_p = Q_{100} = (3.14)(0.96) = 3.0$ cfs

Developed Condition

1. Volume

$E_W = (E_A A_A + E_B A_B + E_C A_C + E_D A_D)/A_T$
$E_W = [(0.78)(0.04) + (1.13)(0.80) + (2.12)(0.12)]/(0.96)$
$= 1.24$ in.
$V_{100} = (E_W/12)A_T$
$V_{100} = (1.24/12)(0.96) = 0.10$ ac-ft = 4,356 cf

2. Peak Discharge

$Q_p = Q_{pA} A_A + Q_{pB} A_B + Q_{pC} A_C + Q_{pD} A_D$
$Q_p = Q_{100} = (2.28)(0.04) + (3.14)(0.80) + (4.70)(0.12) = 3.2$ cfs

Comparison

1. $\Delta V_{100} =$ 4,356 - 3,920 = 436 cf (increase)
2. $\Delta Q_{100} =$ 3.2 - 3.0 = 0.2 cfs (increase)

JEFFERY G. MORTENSEN NEW MEXICO 8547 REGISTERED PROFESSIONAL ENGINEER 3-29-93

Received Mar 30 1993

CONSTRUCTION NOTES:

1. Two (2) working days prior to any excavation, contractor must contact New Mexico One Call Service 266-1990, for location of existing utilities.
2. Prior to construction, the contractor shall excavate and verify the horizontal and vertical location of all potential obstructions. Should a conflict exist, the contractor shall notify the engineer in writing so that the conflict can be resolved with a minimum amount of delay.
3. All work on this project shall be performed in accordance with applicable federal, state and local laws, rules and regulations concerning construction safety and health.
4. All construction within public right-of-way shall be performed in accordance with applicable City of Albuquerque Standards and Procedures.
5. If any utility lines, pipelines, or underground utility lines are shown on these drawings, they are shown in an approximate manner only, and such lines may exist where none are shown. If any such existing lines are shown, the location is based upon information provided by the owner of said utility, and the information may be incomplete, or may be obsolete by the time construction commences. The engineer has conducted only preliminary investigation of the location, depth, size, or type of existing utility lines, pipelines, or underground utility lines. This investigation is not conclusive, and may not be complete, therefore, makes no representation pertaining thereto, and assumes no responsibility or liability therefore. The contractor shall inform itself of the location of any utility line, pipeline, or underground utility line in or near the area of the work in advance of and during excavation work. The contractor is fully responsible for any and all damage caused by its failure to locate, identify and preserve any and all existing utilities, pipelines, and underground utility lines. In planning and conducting excavation, the contractor shall comply with state statutes, municipal and local ordinances, rules and regulations, if any, pertaining to the location of these lines and facilities.
6. The design of planters and landscaped areas is not part of this plan. All planters and landscaped areas adjacent to the building(s) shall be provided with positive drainage to avoid any ponding adjacent to the structure. For construction details, refer to landscaping plan.

Erosion Control Measures

1. The contractor shall ensure that no soil erodes from the site into public right-of-way or onto private property. This can be achieved by constructing temporary berms at the property lines and wetting the soil to keep it from blowing.
2. The contractor shall promptly clean up any material excavated within the public right-of-way so that the excavated material is not susceptible to being washed down the street.
3. The contractor shall secure "Topsoil Disturbance Permit" prior to beginning construction.

JEFF MORTENSEN & ASSOCIATES, INC.
6010-B MIDWAY PARK BLVD. N.E.
ALBUQUERQUE, NEW MEXICO 87109
ENGINEERS & SURVEYORS (505)345-4250

GRADING & DRAINAGE PLAN

HAUSMAN STEEL

DESIGNED BY GM
DRAWN BY CEN
APPROVED BY JGM

NO.	DATE	BY	REVISIONS

JOB NO. 930161
DATE 03/93
SHEET 1 OF 1