130538

LEGAL DESCRIPTION

LOTS 31-34, BLOCK 6, EAST CENTRAL BUSINESS ADDITION (TO BE PLATTED INTO LOT 34-A)

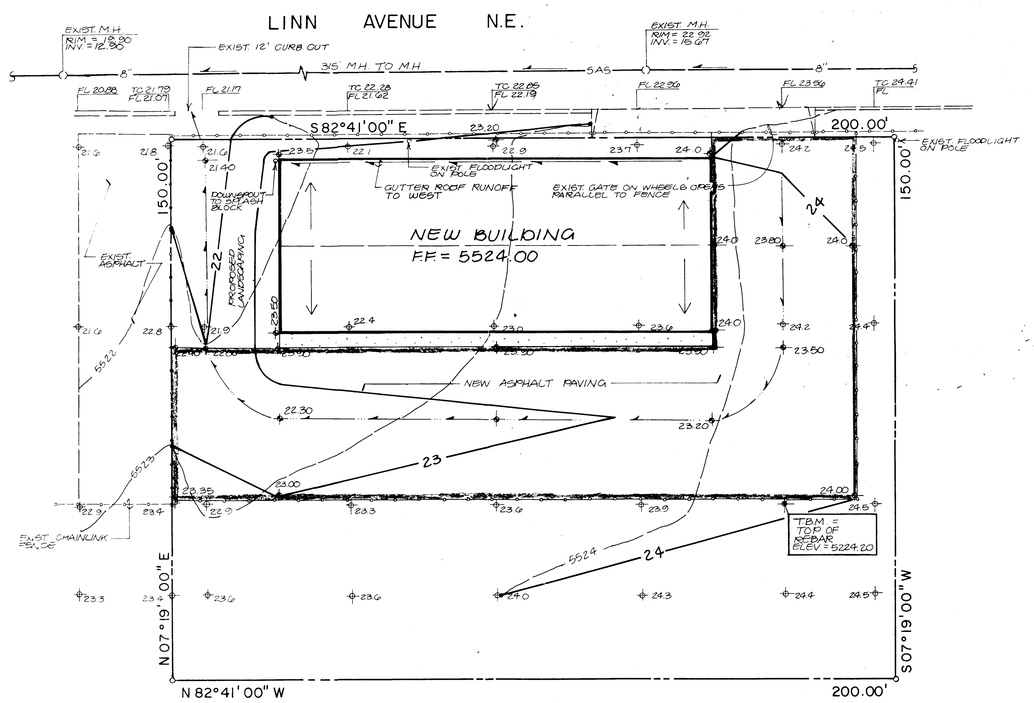
PROJECT BENCHMARK

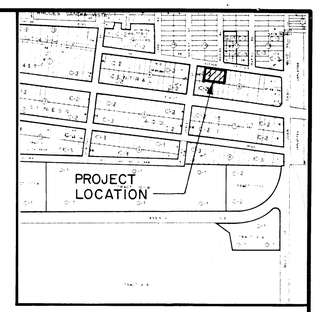
THE STATION MARK IS A STANDARD ACS BRASS TABLET STAMPED "I-21 RESET 1974", CEMENTED IN A DRILL HOLE IN TOP CONC. CURB OF THE MEDIAN STRIP. IT IS FLUSH W/ THE TOP OF CURB. THE STATION IS ON THE MEDIAN STRIP OF CENTRAL AVE., 5 FT. NORTH OF THE ℄ OF THE STREET, AND IT IS 81 FT. WEST OF THE ℄ OF JUAN TABO BLVD.
ELEVATION: 5534.543 FT. (M.S.L.D.)

LEGEND

- EXISTING SPOT ELEVATION
- PROPOSED SPOT ELEVATION
- 6523 EXISTING CONTOUR
- 53 PROPOSED CONTOUR
- EXISTING FENCE
- PROPOSED FENCE
- PROPOSED CONCRETE
- PROPOSED ASPHALT

SCALE: 1" = 20'





VICINITY MAP
SCALE: 1" = 800'

L-21

CONSTRUCTION NOTES

1. TWO (2) WORKING DAYS PRIOR TO ANY EXCAVATION, CONTRACTOR MUST CONTACT LINE LOCATING SERVICE 765-1234, 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 UNDERTAKEN NO FIELD VERIFICATION OF THE LOCATION, DEPTH, SIZE, OR TYPE OF EXISTING UTILITY LINES, PIPELINES, OR UNDERGROUND UTILITY LINES, MAKES NO REPRESENTATION PERTAINING THERETO, AND ASSUMES NO RESPONSIBILITY OR LIABILITY THEREFOR. 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.

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.

DRAINAGE PLAN

The following items concerning the Schreiner RV Grading and Drainage Plan are contained hereon:

1. Vicinity Map
2. Grading Plan
3. Calculations

The site, as shown by the Vicinity Map, is located on the south side of Linn Avenue N.E. between Shirley Street N.E. and Juan Tabo Boulevard N.E. At present, the site is undeveloped with much of the surrounding area already developed commercially. The proposed improvements will constitute the construction of improvements within an infill area.

As shown by Panel 37 of the Federal Emergency Management Agency Flood Boundary and Floodway Map, dated October 14, 1983, this site does not lie within a designated flood hazard zone. Furthermore, this site does not appear to contribute runoff to an existing flood hazard area. Due to the fact that this is an infill site, that this site does not contribute runoff to an existing flood hazard and the negligible increase in runoff demonstrated by the calculations, the free discharge of runoff from this site is appropriate.

The Grading Plan shows 1) existing and proposed grades indicated by spot elevations and contours at 1'0" intervals, 2) continuity between existing and proposed grades, and 3) the limit and character of the proposed improvements. At present, this site generally drains from southeast to northwest discharging its runoff into Linn Avenue N.E. Offsite flows from Linn Avenue N.E. are not anticipated due to the fact that there is no designated flooding within that street and the street has been developed with curb and gutter. The property to the east slopes toward Linn Avenue, therefore, does not generate any appreciable runoff which might impact this site. The site to the west is topographically lower than the site, therefore, does not contribute any offsite flows. The property which lies to the south of the site is topographically higher and contributes offsite runoff in the form of sheet flow. The area generating this runoff is approximately the same size as this site. Because of that, the offsite flows have been estimated from that undeveloped property to be equivalent to the existing runoff generated by this site. These offsite flows will be accepted along the property line and conveyed through the site and discharged to Linn Avenue N.E. Linn Avenue N.E. is the historic point of runoff for that offsite runoff. In addition, the property from which this runoff originates is currently owned by the developer of this property. As shown by this plan, the runoff generated by the proposed improvements will be directed to an existing 12' wide curb opening along the south side of Linn Avenue N.E. This will allow the runoff from the site to be discharged into the street. This is an existing drainage pattern which will be maintained through the development of this property. Runoff generated onsite will be conveyed within the new asphalt paving and discharged to a landscaped area, thereby serving to mitigate the runoff generated by the more frequent events as well as nuisance flows. At present, the site consists of four lots each measuring 50' in width x 150' in depth. These lots will be combined through a replat to be approved by the Development Review Board into a single tract of land.

The Calculations which appear hereon analyze both the existing and developed conditions for the 100-year, 6-hour rainfall event. The Rational Method has been used to quantify the peak rate of discharge while the SCS Method has been used to quantify the volume of runoff generated. Both Methods have been used in accordance with the City of Albuquerque Development Process Manual, Volume II, coupled with the Mayor's Emergency Rule adopted January 14, 1986. As shown by these calculations, the proposed improvements will result in a net increase in peak runoff of approximately 1.0 cfs.

CALCULATIONS

Ground Cover Information

From SCS Bernalillo County Soil Survey,
Plate 32: EmB - Embudo Complex
Hydrologic Soil Group: B
Existing Pervious CN = 70 (DPM Plate 22.2 C-2
Pasture or Range Land: fair condition)
Developed Pervious CN = 70 (DPM Plate 22.2 C-2
Pasture or Range Land: fair condition)

Time of Concentration/Time to Peak

$T_c = 0.0078\ L^{0.77}/S0.385$ (Kirpich Equation)

$T_p = T_c = 10$ min.

Point Rainfall

$P_6 = 2.46$ in. (DPM Plate 22.2 D-1)

Rational Method

Discharge: Q = CiA

where C varies
$i = P_6\ (6.84)\ T_c^{-0.51} = 5.20$ in/hr
$P_6 = 2.46$ in (DPM Plate 22.2D-1)
$T_c = 10$ min (minimum)
A = area, acres

SCS Method

Volume: V = 3630(DRO) A

Where DRO = Direct runoff in inches
A = area, acres

Existing Condition

A_{total} = 20,000 sf = 0.46 Ac
C = 0.40 (Weighted average per Emergency Rule, 1/14/86)
Q_{100} = CiA = 0.40(5.20)(0.46) = 1.0 cfs
Composite CN = 70 (DPM Plate 22.2 C-2)
DRO = 0.5 in (DPM Plate 22.2 C-4)
V_{100} = 3630 (DRO)A = 830 cf

Developed Condition

A_{total} = 20,000 sf = 0.46 Ac
Roof area = 5,760 sf (0.29)
Paved area = 10,450 sf (0.52)
Unpaved area = 3,790 sf (0.19)
C = 0.83 (Weighted average per Emergency Rule, 1/14/86)
Q_{100} = CiA = 0.83(5.20)(0.46) = 2.0 cfs
% impervious = 81%
Composite CN = 93 (DPM Plate 22.2 C-2)
DRO = 1.8 in (DPM Plate 22.2 C-4)
V_{100} = 3630 (DRO)A = 3,000 cf

Comparison

ΔQ_{100} = 2.0 - 1.0 = 1.0 cfs (increase)
ΔV_{100} = 3000 - 830 = 2170 cf (increase)

JEFFREY G. MORTENSEN NEW MEXICO 8547 REGISTERED PROFESSIONAL ENGINEER

RECEIVED DEC 27 1989 HYDROLOGY SECTION

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GRADING & DRAINAGE PLAN

SCHREINER R-V

DESIGNED BY J.G.M.
DRAWN BY R.A.R.
APPROVED BY J.G.M.

NO.	DATE	BY	REVISIONS

JOB NO. 891203
DATE 12/89
SHEET 1 OF 1