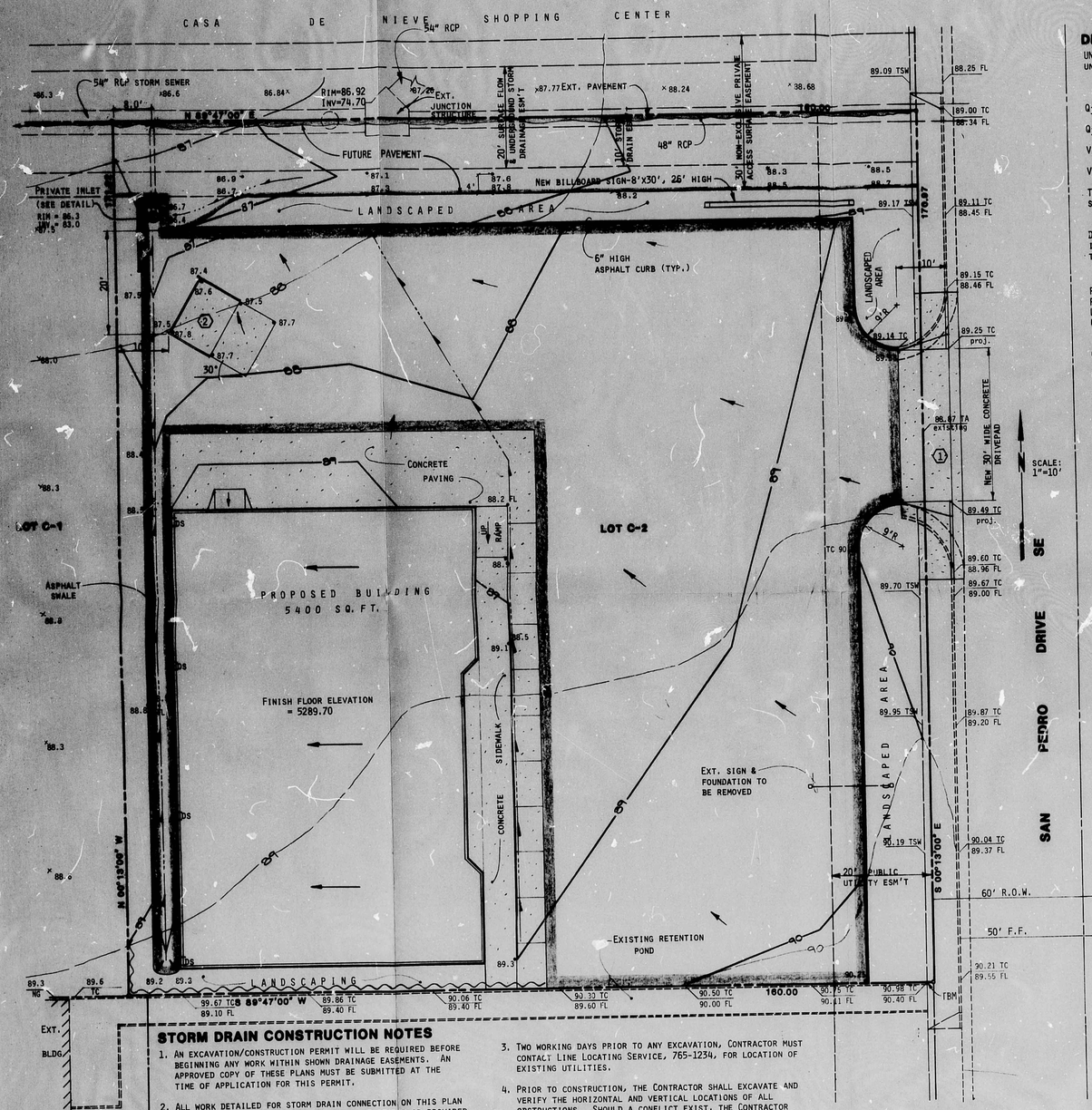
HYDROLOGY K18/D10a 1 PLAN

K18/D10a

1 Plan

CITY OF ALBUQUERQUE



STORM DRAIN CONSTRUCTION NOTES

1. AN EXCAVATION/CONSTRUCTION PERMIT WILL BE REQUIRED BEFORE BEGINNING ANY WORK WITHIN SHOWN DRAINAGE EASEMENTS. AN APPROVED COPY OF THESE PLANS MUST BE SUBMITTED AT THE TIME OF APPLICATION FOR THIS PERMIT.
2. ALL WORK DETAILED FOR STORM DRAIN CONNECTION ON THIS PLAN TO BE PERFORMED, EXCEPT AS OTHERWISE STATED OR PROVIDED FOR HEREON, SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE INTERIM STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION 1985.
3. TWO WORKING DAYS PRIOR TO ANY EXCAVATION, CONTRACTOR MUST CONTACT LINE LOCATING 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 OBSTRUCTIONS. 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.

DRAINAGE CALCULATIONS

UNDEVELOPED CONDITIONS: THIS SITE IS PRESENTLY UNDEVELOPED WITH THE FOLLOWING CHARACTERISTICS:

AREA = 27,360 SQ.FT. = 0.6281 ACRES
C = 0.40 D = 2.35"
I = (2.35)(2.16) = 5.08"/HR

Q_{100} = (0.40)(5.08)(0.6281) = 1.3 CFS

Q_{10} = (1.3)(0.657) = 0.9 CFS

V_{100} = (0.40)(2.35/12)(27,360) = 2,143 CU.FT.

V_{10} = (2,143)(0.657) = 1,408 CU.FT.

THESE UNDEVELOPED STORM WATERS WOULD HISTORICALLY SHEET FLOW OFF THE SITE, TO THE NORTH & WEST.

DEVELOPED CONDITIONS: THE PROPOSED DEVELOPMENT IS A 5400 SQ.FT. RETAIL STORE. THE BALANCE OF THE SITE WILL BE ASPHALT PARKING AND LANDSCAPING.

TYPE	%	C	TOTAL
ROOF	20	0.90	0.18
PARKING	57	0.95	0.54
LANDSCAPING	9	0.25	0.02
UNDEVELOPED	14	0.40	0.06
		C =	0.80

Q_{100} = (0.80)(5.08)(0.6281) = 2.6 CFS

Q_{10} = (2.6)(0.657) = 1.7 CFS

V_{100} = (0.80)(0.196)(27,360) = 4,290 CU.FT.

V_{10} = (4,290)(0.657) = 2,819 CU.FT.

DRAINAGE SWALE

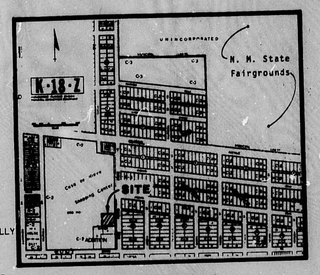
CAPACITY OF 5' WIDE, 0.4' DEEP ASPHALT SWALE (12' FROM INLET) BY MANNING EQUATION IS 3.9 CFS ASSUMING N=0.013, s=0.04'/, AND FREEBOARD EQUAL TO 0.2 FEET.

LEGEND

- EXISTING CONTOUR
- PROPOSED CONTOUR
- EXISTING SPOT ELEV.
- PROPOSED SPOT ELEV.
- EXT. TOP OF CURB / FLOWLINE ELEV.
- ROOF DOWNSPOUT LOCATION
- EDGE OF ASPHALT PAVING W/ASPHALT CURB
- IMPERVIOUS BOUNDARY (SEE NOTE 6)

KEYED NOTES

1. EXISTING DRIVEPAD TO BE REMOVED AND REBUILT AS SHOWN. REMOVE SIDEWALK TO CLEAN SAW JOINT AND REPLACE PER CITY STANDARD.
2. CONSTRUCT REFUSE BIN ENCLOSURE PER CURRENT CITY STANDARDS.

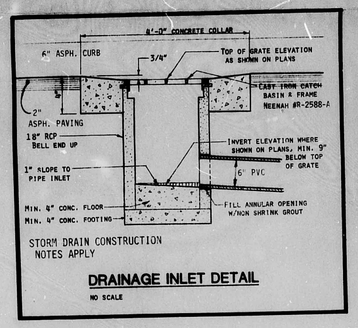


VICINITY MAP

NOTES

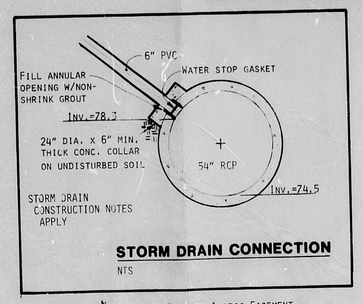
1. LEGAL DESCRIPTION: LOT C-2, LAND OF TIJERAS PLACE IMPROVEMENT CO., INC.
2. BENCHMARK(S): UNM-A57, A 2½" BRASS CAP SET IN CONCRETE CURB ON THE NORTH SIDE OF CENTRAL AVE., 83'± WEST OF LAGUAYRA DR. ELEVATION: 5286.84

   TEMPORARY BENCHMARK: A SPOT PAINTED ON THE SIDEWALK ONE FOOT WEST OF THE SOUTHEAST PROPERTY CORNER. ELEVATION: 5290.40
3. SITE SURVEYS (TOPOGRAPHICAL & BOUNDARY) BY WILSON & COMPANY, JULY 1, 1986.
4. SITE IS NOT WITHIN THE 100 YEAR FLOODPLAIN AS SHOWN ON PANEL 30 OF THE FEMA FLOOD MAPS.
5. SOILS: FROM THE SCS SOIL SURVEY OF BERNALILLO COUNTY, THIS WINK-EMBUDO COMPLEX SOIL IS IN HYDROLOGIC SOIL GROUP "B".
6. IMPERVIOUS BOUNDARY TO BE 30 MIL THICK PLASTIC SHEET INSTALLED TO A 3 FOOT DEPTH EXTENDING UPWARD TO WITHIN 3" OF FINISHED GRADE.



DRAINAGE INLET DETAIL

NO SCALE



STORM DRAIN CONNECTION

NTS

RECEIVED OCT 15 1986 HYDROLOGY SECTION

8-15-86
8-26-86
9-8-86

10-14-86: PRIVATE ACCESS EASEMENT FUTURE PAVEMENT GRADES ADDED.

8-26-86: SPECIAL ORDER 19 INFORMATION ADDED.

9-8-86: STORM DRAIN CONNECTION DETAIL CLARIFIED.

Date 8/15/86
Drawn by SWM
Checked FDT

Isaacson & Arfman, P.A.
CONSULTING ENGINEERING ASSOCIATES
Albuquerque, New Mexico

DRAINAGE & GRADING PLAN

AUTO SHACK #3
SAN PEDRO DR. NE
ALBUQUERQUE, N.M.

Sheet 1 of 1

CITY OF ALBUQUERQUE
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