HYDROLOGY

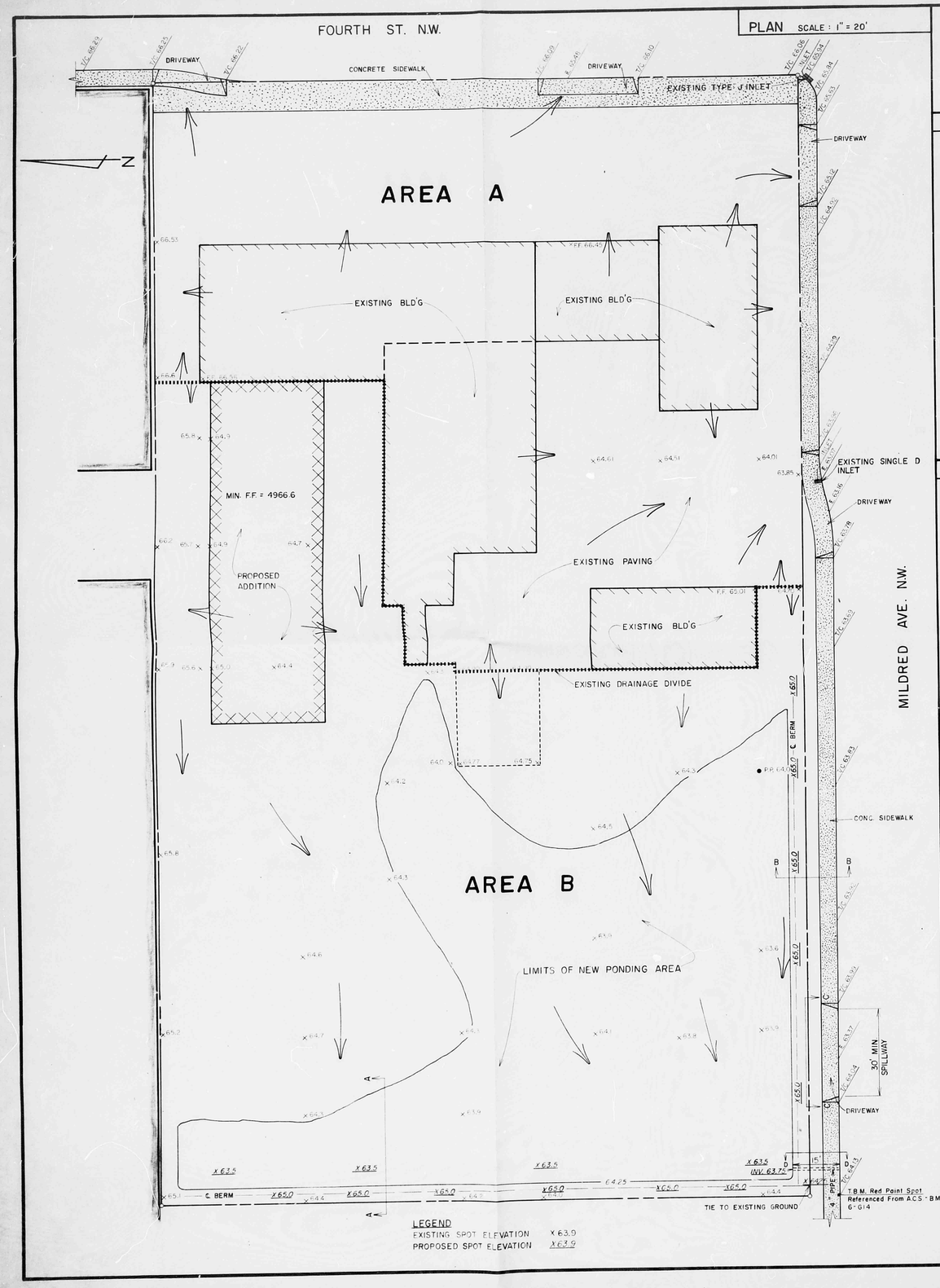
G14/D19

G14 / D19

J.W. BREWER

TIRE Co.

1 PLAN

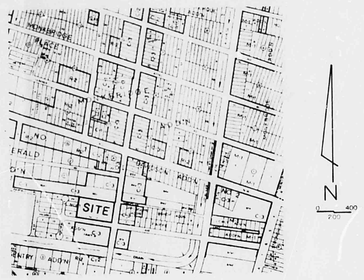


GRADING & DRAINAGE PLAN

J. W. BREWER TIRE CO. - 4TH ST. N.W

APRIL 1985 ZONE ATLAS G-14

VICINTY MAP *From ABQ. ZONE ATLAS G-14*

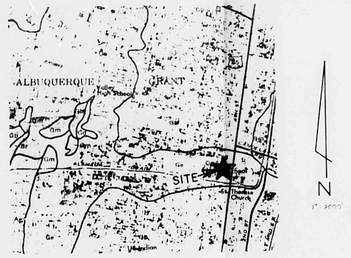


ZONE ATLAS G-14

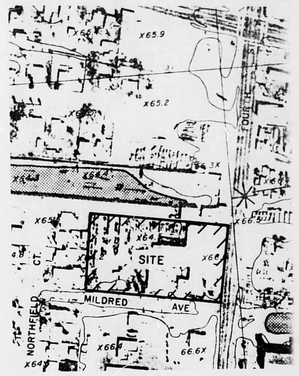
LEGAL DESCRIPTION:

TRACT 'A' NORTHFIELDS ADDITION ALBUQUERQUE, NEW MEXICO

SOILS MAP *From Soil Survey, Bernalillo County - USDA, SCS*



FLOOD HAZARD MAP *From ABQ. Master Drainage Study*



SOILS INFORMATION

Soil series and map symbols	Degree and kind of limitations for—					Suitability as source of—					Soil features affecting—		Hydrologic soil group
	Septic tank absorption fields	Sewage lagoons	Shallow excavations	Dwellings without basements	Sanitary landfill (trench type)[1]	Local road and streets	Road fill	Sand	Gravel	Topsoil	Pond reservoir areas	Dikes, levees, and other embankments	
*Gila: GA, Gb, Ge, GH. For Hantz part of GH, see Hantz series.	Moderate: percs slowly.	Moderate: seepage.	Slight	Slight	Slight	Moderate: low strength.	Fair: low strength.	Poor: excess fines.	Poor: excess fines.	Good	Seepage	Piping	B

DESCRIPTION:

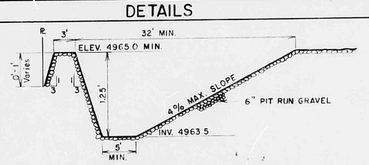
Ge—Gila clay loam. This level soil is in the irrigated Rio Grande Valley. It has a profile similar to that described as representative of the series, but the surface layer differs in texture and is about 10 inches thick. In about 1 percent of the mapped area this soil is moderately saline, and in about 0.5 percent it is moderately alkali affected. Slopes are 0 to 1 percent.

Included with this soil in mapping are small areas of a Gila soil that has a sandy clay loam surface layer and areas of Armijo fine sandy loam.

Runoff is slow, and the hazard of water erosion is slight.

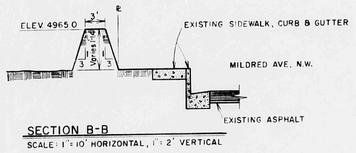
This soil is used for irrigated alfalfa, row crops, and pasture. It is also used for wildlife habitat and community development. Irrigated capability unit I.

DETAILS



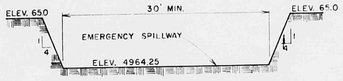
SECTION A-A

SCALE: 1"=10' HORIZONTAL, 1"=1' VERTICAL



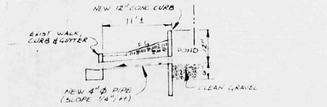
SECTION B-B

SCALE: 1"=10' HORIZONTAL, 1"=2' VERTICAL



SECTION C-C

SCALE: 1"=10' HORIZONTAL, 1"=1' VERTICAL



NOTE: DRAIN PIPE THRU CURB SHALL BE BUILT TO CITY STD. A-15

SECTION D-D

1"=10' HORIZ 1"=2' VERT.

HYDROLOGY & HYDRAULICS

The 2.2 acre site is located on the NW corner of Mildred Avenue NW and Fourth Street NW. The eastern 0.95 acres is currently fully developed and nearly 100% impervious. That area drains directly to Fourth Street where a catch basin on the corner (see plan) collects the runoff. No change is anticipated in that situation.

The proposed 5000 square foot building addition will drain to the west into the existing gravelled storage yard and be conveyed to its southwest corner. Runoff will be detained there and released at a rate less than 0.3 cfs into the north gutter of Mildred Ave. through a 4" diameter pipe. Berms along the west and south property lines will direct runoff to the detention pond as well as reducing the potential for the entrance into the site of some of the runoff that eminates from Mildred Ave. A 30' wide emergency spillway will direct flows onto Mildred Ave. in the event of an outlet failure or a storm larger than the design storm.

Completion of the planned Fourth Street storm drain improvements will reduce the potential for runoff leaving Mildred Ave. and entering the site.

AREA B = 1.25 AC

		100 yr		10 yr		2 yr	
Rainfall =		2.2"		1.45"		.98"	
i		4.7"/hr		3.2"/hr		2.2"/hr	
		Vol ft^3	Q cfs	Vol ft^3	Q cfs	Vol ft^3	Q cfs
Undeveloped	CN=85 C=.85	4315	5.0	1817	3.4	772	2.4
Developed*	CN=87 C=.90	4633	5.3	2043	3.6	908	2.5

* Flows Currently leaving site from 0.95 Ac Development

Q_{100} = 4.2 cfs

Vol_{100} = 5862 ft^3

HYDRAULICS

Pipe: C=.6 H=.5 $Q=CA\sqrt{2gh}$ = 0.3 cfs
A=.087 ft^2

Weir: C=3.0 H=.75 $Q=CLH^{3/2}$ = 11.7 cfs
L=30

NOTE: There is currently NO runoff leaving the site from Area B or entering the site from the north or west.

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

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6629 PARADISE BLVD. NW • ABQ. NM 87114 • (505) 898-8021

G14/D19

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