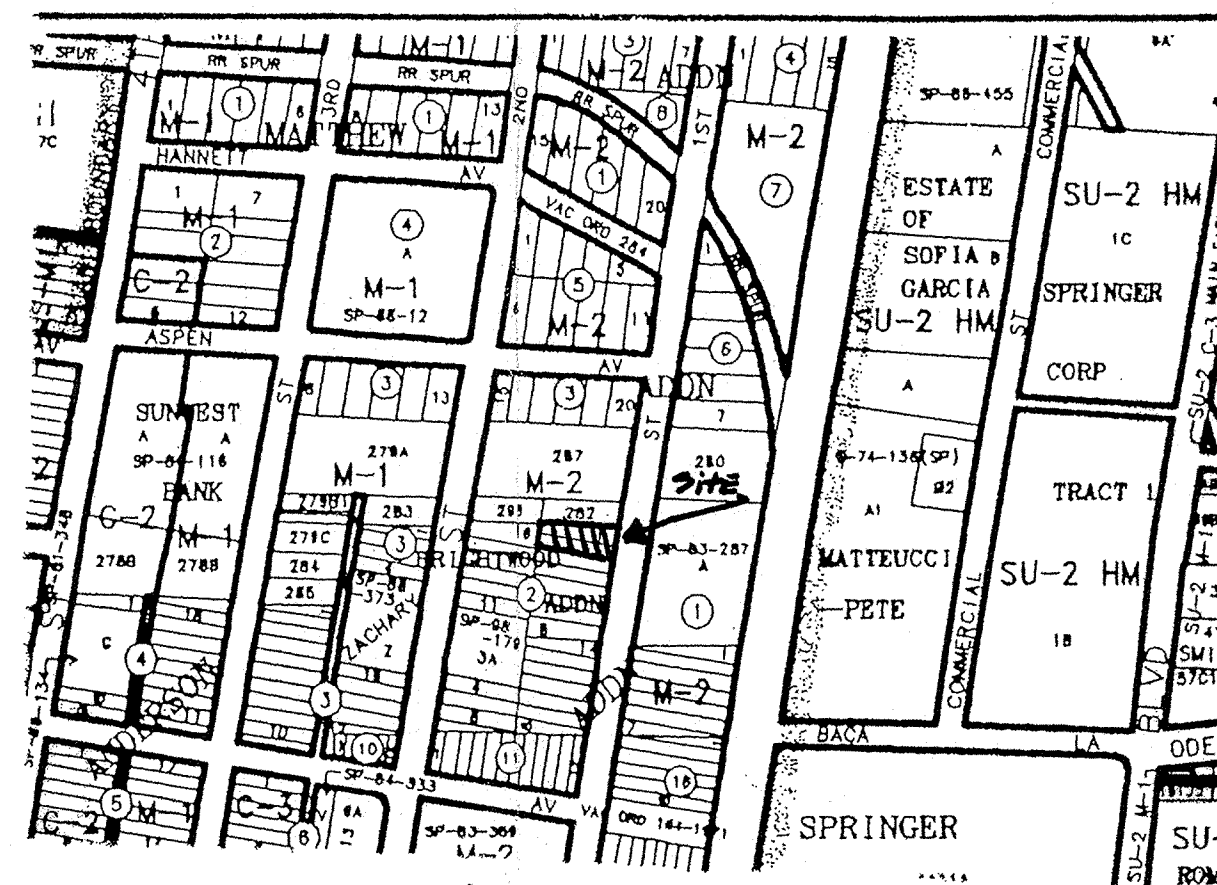


# GRADING AND DRAINAGE

SCALE: 1"=10'



ARE LOTS 2+1  
THE SAME?  
OWNER?



J-14-Z

FIRST STREET N.W.  
RIGHT-OF-WAY VARIES (60'±)

Ⓢ SANITARY  
SEWER  
MANHOLE

## GRADING/DRAINAGE PLAN

THE FOLLOWING ITEMS CONCERNING LOTS 1 AND 2  
BRIGHTWOOD ADDITION ARE CONTAINED HEREON:

1. VICINITY MAP
2. DRAINAGE CALCULATIONS

### ANDERSON WAREHOUSE - LOTS 1 AND 2

WAREHOUSE BUILDING AREA	= 0.0743 ACRES (3230 SF)
LANDSCAPE AREA	= 0.0230 ACRES (1002 SF)
PARKING/ASPHALT AREA	= 0.0767 ACRES (3348 SF)
TOTAL SITE	= 0.1740 ACRES (7580 SF)

PRECIPITATION: 360 = 2.35 IN.  
1440 = 2.75 IN.  
10DA = 3.95 IN.

EXCESS PRECIPITATION:	PEAK DISCHARGE:
TREATMENT A 0.53 IN.	1.56 CFS/AC.
TREATMENT B 0.78 IN.	2.28 CFS/AC.
TREATMENT C 1.13 IN.	3.14 CFS/AC.
TREATMENT D 2.12 IN.	4.70 CFS/AC.

EXISTING CONDITIONS:	PROPOSED CONDITIONS:
TREATMENT A 0 AC.	0 AC.
TREATMENT B 0 AC.	0 AC.
TREATMENT C 0.1740 AC.	0.1510 AC.
TREATMENT D 0 AC.	0.0230 AC.

### EXISTING EXCESS PRECIPITATION:

WEIGHTED E =  $[0.53 (0.00) + 0.78 (0.00) + 1.13 (0.1740) + 2.12 (0.00)] / 0.1740$  AC.  
= 1.13 IN.  
V100 -360 =  $1.13 (0.1740) / 12 = 0.0164$  ACFT = 714 CFS

### EXISTING PEAK DISCHARGE:

Q100 =  $1.58 (0.00) + 2.28 (0.00) + 3.14 (0.1740) + 4.70 (0.00)$   
= 2454 CFS

### PROPOSED EXCESS PRECIPITATION:

WEIGHTED E =  $[0.53 (0.00) + 0.78 (0.00) + 1.13 (0.1510) + 2.12 (0.0230)] / 0.1740$  AC.  
= 1.261 IN.  
V100 -360 =  $1.216 (1.740) / 12 = 0.0183$  ACFT = 800 CFS  
V100 -1440 =  $0.19 + 0.734 \times (2.75 - 2.35) / 12 = 0.0024$  ACFT = 206 CFS  
V100 -1440 =  $0.19 + 0.734 \times (3.85 - 2.35) / 12 = 0.0636$  ACFT = 2771 CFS

### BENCHMARK:

THE BASIS OF ELEVATIONS IS A BENCHMARK 34-1/4, THE PUBLISHED ELEVATION OF WHICH IS 468.268. SAID BENCHMARK IS LOCATED AT THE NORTH-EAST QUADRANT OF THE INTERSECTION OF FOURTH ST. NW AND CONSTITUTION NW.

### EROSION CONTROL MEASURES

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MANAGEMENT OF STORM RUN-OFF DURING CONSTRUCTION. HE/SHE SHALL ASSURE THAT THE FOLLOWING MEASURES ARE TAKEN:
  1. ADJACENT PROPERTY SHALL BE PROTECTED AT ALL TIMES BY TEMPORARY BERMS, DIKES, SWALES, AND OTHER TEMPORARY GRADING AS REQUIRED TO PREVENT STORM RUN-OFF FROM LEAVING THE SITE AND ENTERING ADJACENT PROPERTY.
  2. ADJACENT PUBLIC RIGHT-OF-WAY SHALL BE PROTECTED AT ALL TIMES FROM STORM WATER RUN-OFF FROM THE SITE. NO SEDIMENT BEARING WATER SHALL BE PERMITTED TO ENTER THE PUBLIC STREETS.
  3. DUE TO AN INCREASE IN LANDSCAPED AREA A SUBSTANTIAL REDUCTION IN RUNOFF IS EXPECTED.

### EXISTING CONDITIONS

AS SHOWN BY THE VICINITY MAP, THE SITE CONTAINS 0.1755 ACRES AND IS LOCATED WEST OF FIRST STREET. THE SITE HAS BEEN GRADDED TO DRAIN FROM EAST TO WEST. ACCORDING TO THE FLOOD INSURANCE RATE MAP (ALL ASPHALT), DATED SEPTEMBER 20, 1996, THE SITE IS NOT LOCATED WITHIN A DESIGNATED FLOOD ZONE.

### PROPOSED CONDITIONS

AS SHOWN BY THE GRADING/DRAINAGE PLAN, THE PROJECT WILL CONSIST OF ONE WAREHOUSE BUILDING TOTALING 3228 SQ. FT. ALONG WITH ASSOCIATED PAVED PARKING AND LANDSCAPED AREAS. A MASTER DRAINAGE PLAN WAS PREPARED BY BONHAMMAN-HOUSTON, IN FEBRUARY OF 1998. ON-SITE RUN-OFF WILL TRAVEL ON FIRST STREET AND INTO INLETS WHICH DRAIN INTO A COMMON POND PROVIDED BY THE MASTER DRAINAGE PLAN (TRACT A). THE CALCULATIONS WHICH APPEAR HEREON, ANALYZE THE EXISTING AND PROPOSED CONDITIONS FOR THE 100-YEAR, 6-HOUR EVENT. THE PROCEDURE FOR 40 ACRES AND SMALLER BASINS, AS SET FORTH IN THE REVISION OF SECTION 22.2 HYDROLOGY OF THE DEVELOPMENT PROCESS MANUAL VOLUME II, DESIGN CRITERIA DATED 1997, HAS BEEN USED TO QUANTIFY THE PEAK RATE OF DISCHARGE AND VOLUME OF RUN-OFF GENERATED.

### DOWN STREAM CONDITIONS

PER THE APPROVED MASTER DRAINAGE PLAN, FREE DISCHARGE HAS BEEN ALLOWED INTO A COMMON POND PROVIDED BY THE *OWNER?*

EXISTING CONTOURS IN PARENTHESIS.

PROPOSED CONTOURS



DESIGN COLLABORATIVE  
THE ART AND SCIENCE OF MODERN BUILDINGS

JOB TITLE:

ANDERSON WAREHOUSE

REVISION:

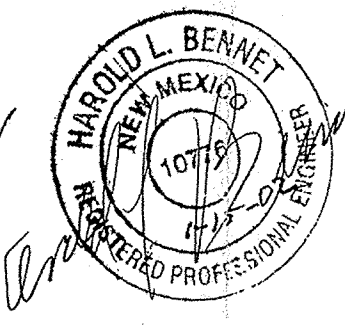
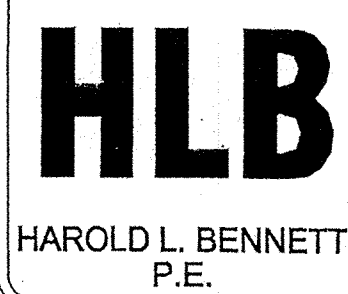
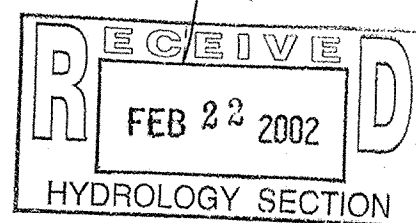
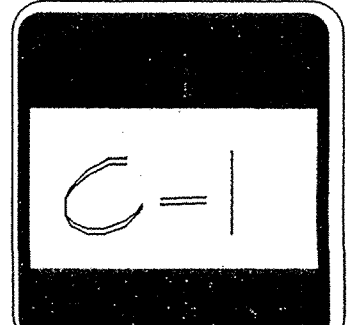
FILE NAME JOB NO. DATE

01/01/02 AND-C-1 10/5/01

SHEET TITLE:

GRADING AND DRAINAGE PLAN

REFC



NEED 25' OF CONTOURS AND PROPERTY OUTSIDE SITE  
NOT GOOD ENOUGH INFORMATION

WHERE IS YOUR PROPERTY BOUNDARY?

WHERE ARE THE INLETS ON 1ST?  
PLEASE PROVIDE MASTER PLAN OR BASIN MAP OF IT