



City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

November 4, 1993

David J. Larrow, P.E.
Holmes & Narver Inc.
6501 Americas Pkwy NE, Ste 700
Albuquerque, N.M. 87110

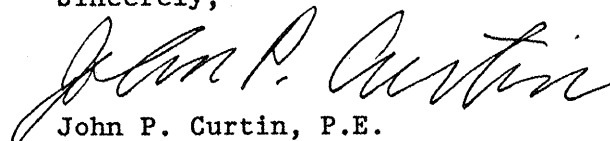
RE: ENGINEER'S CERTIFICATION FOR SALT STORAGE FAC @ S D MAINT FAC (K-20/D10A)
RECEIVED NOVEMBER 4, 1993 FOR CERTIFICATE OF OCCUPANCY APPROVAL
ENGINEER'S STAMP DATED 11-4-93

Dear Mr. Larrow:

Based on the information included in the submittal referenced above, City Hydrology releases the Certificate of Occupancy for this project.

If I can be of further assistance, You may contact me at 768-2727.

Sincerely,



John P. Curtin, P.E.
Civil Engineer/Hydrology

xc: Alan Martinez
Dean Wall

WPHYD/3600/jpc

DRAINAGE INFORMATION SHEET

Salt Storage Addition ③

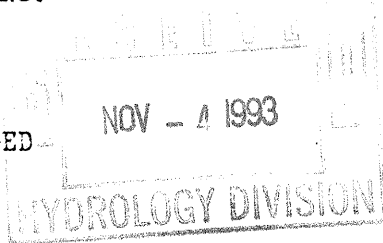
PROJECT TITLE: Storm Drain Maintenance Facility ZONE ATLAS/DRNG. FILE #: K-20 / 010A
 DRB #: NA EPC #: NA WORK ORDER #: NA
 LEGAL DESCRIPTION: Tract A, Block 3, Buena Ventura Subdivision
 CITY ADDRESS: Central Ave & Garcia St. NE 9805 Central Ave NE
 ENGINEERING FIRM: Holmes & Narver Inc. CONTACT: Joe Almers
6501 Americas Pkwy NE, Ste 700
 ADDRESS: City 87110 PHONE: 889-4151
 OWNER: City of Albuq., Street Maintenance Div. CONTACT: W. Dean Wall
 ADDRESS: Piño Yards PHONE: 857-8037
 ARCHITECT: _____ CONTACT: _____
 ADDRESS: _____ PHONE: _____
 SURVEYOR: _____ CONTACT: _____
 ADDRESS: _____ PHONE: _____
 CONTRACTOR: _____ CONTACT: _____
 ADDRESS: _____ PHONE: _____

TYPE OF SUBMITTAL:

- ☐ DRAINAGE REPORT
☐ DRAINAGE PLAN
☐ CONCEPTUAL GRADING & DRAINAGE PLAN
☐ GRADING PLAN
☒ EROSION CONTROL PLAN
☒ ENGINEER'S CERTIFICATION
☐ OTHER

PRE-DESIGN MEETING:

- ☐ YES
☐ NO
☐ COPY PROVIDED



CHECK TYPE OF APPROVAL SOUGHT:

- ☐ SKETCH PLAT APPROVAL
☐ PRELIMINARY PLAT APPROVAL
☐ S. DEV. PLAN FOR SUB'D. APPROVAL
☐ S. DEV. PLAN FOR BLDG. PERMIT APPROVAL
☐ SECTOR PLAN APPROVAL
☐ FINAL PLAT APPROVAL
☐ FOUNDATION PERMIT APPROVAL
☒ BUILDING PERMIT APPROVAL
☒ CERTIFICATE OF OCCUPANCY APPROVAL
☐ GRADING PERMIT APPROVAL
☐ PAVING PERMIT APPROVAL
☐ S.A.D. DRAINAGE REPORT
☐ DRAINAGE REQUIREMENTS
☐ OTHER _____ (SPECIFY)

DATE SUBMITTED: 10-28-93 / 11-4-93BY: David J Larrow David J Larrow



City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

August 9, 1993

David J. Larrow, P.E.
Holmes & Narver Inc.
6501 Americas Pkwy NE, Ste 700
Albuquerque, N.M. 87110

RE: GRADING & DRAINAGE PLAN FOR SALT STORAGE ADD'N @ S D MAINT FAC (K-20/D10A)
RECEIVED AUGUST 9, 1993 FOR BUILDING PERMIT APPROVAL
ENGINEER'S STAMP DATED AUGUST 6, 1993

Dear Mr. Larrow:

Based on the information included in the submittal referenced above, City Hydrology APPROVES this project for Building Permit.

Include the Drainage & Grading plan in the set of construction document that you submit for Building Permit.

Engineer's Certification of grading & drainage per DPM checklist is required for this project.

If I can be of further assistance, you may contact me at 768-2727.

Sincerely,


John P. Curtin, P.E.
PWD/Hydrology

xc: Alan Martinez

WPHYD+3600

PUBLIC WORKS DEPARTMENT



City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

September 15, 1992

Joe Almers
Holmes & Narver Inc.
6501 Americas Pkwy NE, Ste 700
Albuquerque, N.M. 87110

RE: DRAINAGE REPORT FOR SALT STORAGE ADD'N @ S D MAINT FAC (K-20/D10A)
RECEIVED SEPTEMBER 9, 1992 FOR WORK ORDER & BUILDING PERMIT APPROVAL
STAMPED & DATED AUGUST 31, 1992

Dear Mr. Almers:

Based on the information included in the submittal referenced above, the Work Order & Building Permit for this project is approved by City Hydrology.

The Drainage & Grading plan must be included in the set of construction document that you submit for Building Permit.

If I can be of further assistance, you may contact me at 768-2727.

Sincerely,


John P. Curtin, P.E.
PWD/Hydrology

xc: Alan Martinez
Roger Green

WPHYD+3600

PUBLIC WORKS DEPARTMENT

CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT



INTER-OFFICE CORRESPONDENCE

March 12, 1992

ENGINEERING GROUP

TO: DRAINAGE FILE, K-20/D-10, Hamilton Test Facility
FROM: John Curtin - Project Manager, Public Works/Hydrology
SUBJECT: APPROVAL OF AMENDED DRAINAGE PLAN

A handwritten signature in cursive script, appearing to read "John Curtin", is written over the typed name in the "FROM:" line.

The Amended Drainage Plan was reviewed during the during the Design Review Process. It was approved June 3, 1991.

Old areas 2 & 3 have been combined into a new area 2. Old ponds 2 & 3 have been replaced by a new pond at the northwest corner of the property.

The Amended Drainage Plan has been designed to the criteria that the runoff rate of the 100 year developed condition equals the 5 year undeveloped condition. The difference between the developed and undeveloped runoff volume shall be provided for using detention ponding.

xc: Project File #4276.90

DRAINAGE REPORT FOR
SALT STORAGE BUILDING
AT STORM DRAIN FACILITY
ON EAST CENTRAL AVENUE

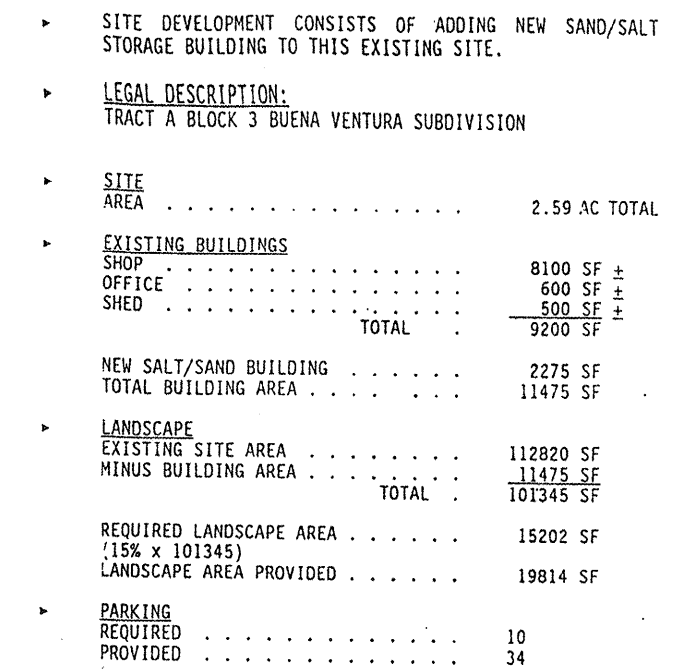
SUMMARY

The existing Storm Drain Maintenance Facility is fully developed in accordance with the Amended Drainage Plan dated April, 1991.

It is proposed to locate the salt storage building in the northeast corner of the paved area. All roof drainage will drain east of the new building along the existing pavement and to the existing detention pond.

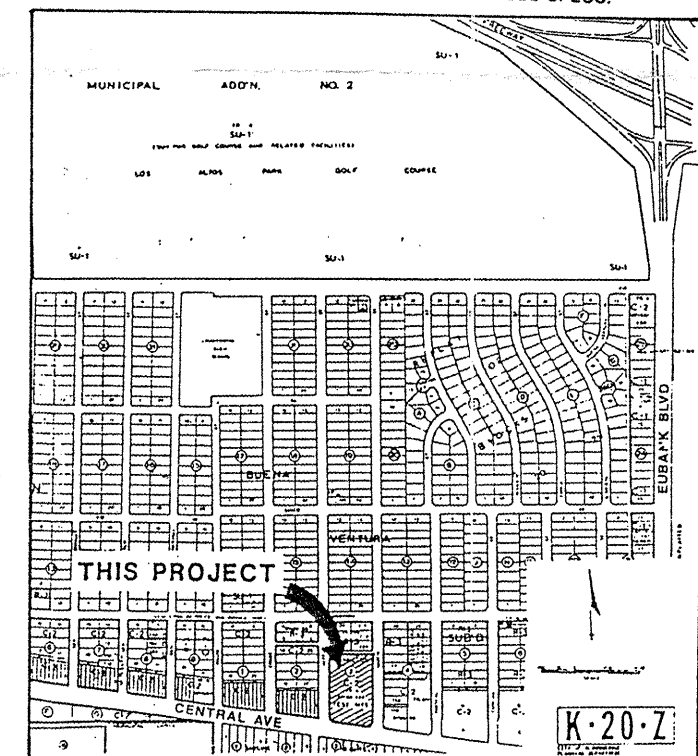
The only change from the existing drainage pattern will be that the pavement replacement strips along the north and east sides of the building will drain at one percent (1%) away from the building. This improvement will not materially change the existing drainage pattern.

GENERAL INFORMATION



EXISTING TREES

NEW TREES FRAXINUS AMERICANA 'AUTUMN PURPLE'
(AUTUMN PURPLE ASH)
(MIN. 8 FEET HIGH PLANTING SIZE.
PROVIDE NEW IRRIGATION BY AUTOMATIC
SPRINKLER SYSTEM - SEE SPEC.)



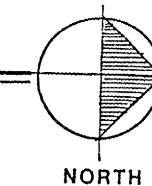
AUG - 9 1993

CITY OF ALBUQUERQUE PUBLIC WORKS DEPARTMENT ENGINEERING GROUP				
TITLE: EAST CENTRAL/WEST CENTRAL SALT STORAGE FACILITY EAST CENTRAL SITE PLAN				
APPROVALS	ENGINEER	DATE	APPROVALS	ENGINEER
DRC CHAIRMAN	<i>M. J. [Signature]</i>	10-28-92	WATER	<i>M/A R/W</i>
TRANSPORTATION	<i>M. J. [Signature]</i>	10-28-92	WASTE WATER	<i>M/A R/W</i>
HYDROLOGY	<i>[Signature]</i>	10-27-92		
PARKS & REC				
DRAWING NO.	4344.90	MAP NO.	K 20	SHEET OF
				C-10 20

SCALE: 1" = 20' - 0"

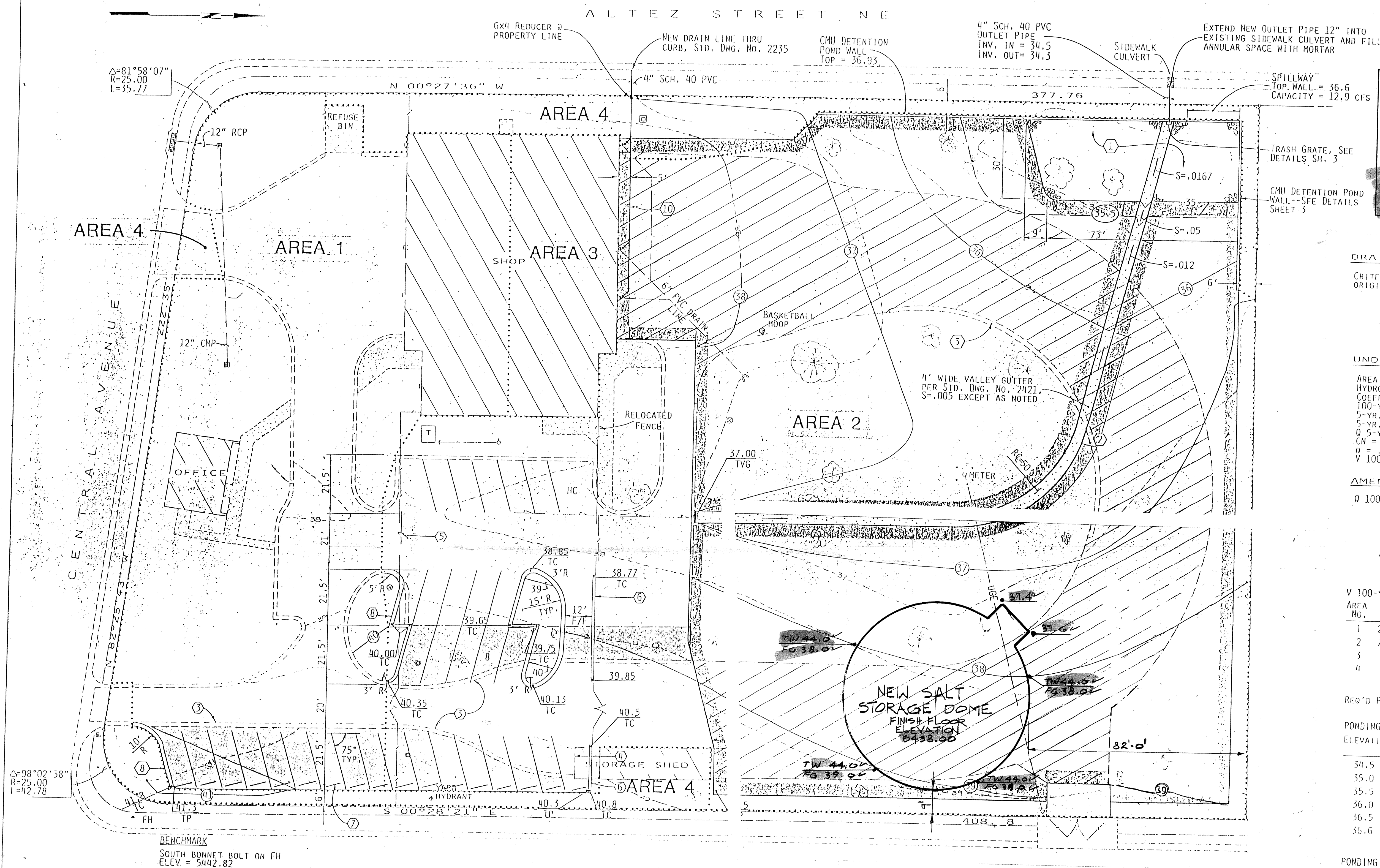
1. REMOVE EXISTING ASPHALT PAVEMENT UNDER THE NEW BUILDING LOCATION. PERFORM PAVEMENT PATCHING AS NECESSARY.

LEGEND
TW TOP OF WALL
FG FINISH GRADE



Larson
8-6-93

20697 JOB NO. 2778.00



ENGINEER'S CERTIFICATION

I HEREBY CERTIFY THAT THE FINAL CONSTRUCTION IS IN
SUBSTANTIAL COMPLIANCE WITH THE APPROVED
DRAINAGE PLAN. AS NOTED ON THE PLAN THE FINISH
GRADE ELEVATIONS MATCH THE DESIGN ELEVATIONS.

DRAINAGE CRITERIA

CRITERIA SHALL CONFORM TO THE CRITERIA USED FOR THE ORIGINAL DRAINAGE PLAN AS FOLLOWS:

1. 100-YR. DEVELOPED RUNOFF RATE SHALL NOT EXCEED THE 5-YR. UNDEVELOPED RUNOFF RATE
2. DETENTION PONDING SHALL BE PROVIDED FOR THE DIFFERENCE BETWEEN THE 6-HR. DEVELOPLD AND UNDEVELOPED RUNOFF VOLUME

UNDEVELOPED CONDITIONS

AREA = 113,024 SQ. FT. (2.59 AC.)
HYDROLOGIC SOIL GROUP B
COEFFICIENT OF RUNOFF, C = 0.34
100-YR. 6-HR. RAINFALL = 2.40"
5-YR. 6-HR. RAINFALL = 2.40 x 0.541 = 1.3"
5-YR. RAINFALL INTENSITY = 1.30 x 2.11 = 2.74"/HR.
Q 5-YR. = CIA = .34 x 2.74 x 2.59 = 2.41 CFS
C = .70
n = .45"
V 100-YR. = QA = .45 ÷ .12 x 113,024 = 4238 CU. FT.

AMENDED DEVELOPED CONDITIONS

Q 100-YR. RATES:

AREA 1, CONTROLLED DISCHARGE (UNCHANGED) =	.97 CFS
AREA 2, CONTROLLED DISCHARGE, 4" OUTLET PIPE (FOR 2.1" HEAD)	= .70 CFS
AREA 3, FREE DISCHARGE	= .43 CFS
Q = CIA = .90 x 5.06 x .095	= .30 CFS
AREA 4, FREE DISCHARGE	= 2.40 CFS
Q = CIA = .35 x 5.06 x .17	= .30 CFS

OK

V 100-YR. CALCULATIONS:

AREA NO.	AREA (SF)	IMPERVIOUS PERCENT	CN	α (IN.)	VOLUME (CU. FT.)
1	27,511	64	87	1.25	2,866
2	74,173	94	96	1.95	12,053
3	4,112	100	100	2.40	822
4	7,228	15	74	.55	<u>531</u>
					16,072

REQ'D PONDING: $16,072 - 4,238 = 11,834$ CU. FT.

PONDING VOLUME CALCULATIONS (AREA 2)

ELEVATION	AREA (SF)	AVG. AREA (SF)	DEPTH (FT)	VOLUME (CF)
34.5	0	--	--	--
35.0	2,880	1,440	.5	720
35.5	3,780	3,330	.5	1,665
36.0	6,900	5,340	.5	2,670
36.5	13,380	10,140	.5	5,070
36.6	14,940	14,160	.1	1,416
				11,541 cu. ft.

PONDING AVAILABLE

AREA 1 (ORIGINAL PLAN UNCHANGED) = 1,736 SQ. FT.
 AREA 2 = 11,541 "
 13,277, "
 OK > 11,384 "

HIN
Holmes & Narver

CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT
ENGINEERING GROUP

EAST CENTRAL/WEST CENTRAL
SALT STORAGE FACILITY
EAST CENTRAL AMENDED DRAINAGE

APPROVALS	ENGINEER	DATE	APPROVALS	ENGINEER	DATE
D.H.C. Chair	<i>[Signature]</i>	10-28-92	Water	MA RWK	10-27-92
Trans. Dev.	<i>[Signature]</i>	10-28-92	Waste Water	N/A RWK	10-27-92
Hydrology	<i>[Signature]</i>	10-27-92			

PROJECT NO.	4344.90	MAP NO.	K20	SHEET OF	R-4 20
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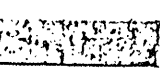
David J. Larrow
10-28-93

AMENDED DRAINAGE PLAN

NEW SALT STORAGE BUILDING IMPROVEMENTS

1. ALL ROOF DRAINAGE WILL FLOW TO THE WEST SIDE OF OF THE BUILDING.
2. THESE IMPROVEMENTS DO NOT MATERIALLY CHANGE THE EXISTING DRAINAGE PATTERN.

LEGEND

41.3 TP	TOP OF PAVEMENT GRADE
41.8 TC	TOP OF CURB GRADE
37.00 TVG	TOP OF VALLEY GUTTER GRADE
	EXISTING ASPHALT TO BE REMOVED
	NEW 2" ASPHALTIC CONCRETE PAVEMENT
	NEW 4" ASPHALTIC CONCRETE PAVEMENT (BORDER ONLY)