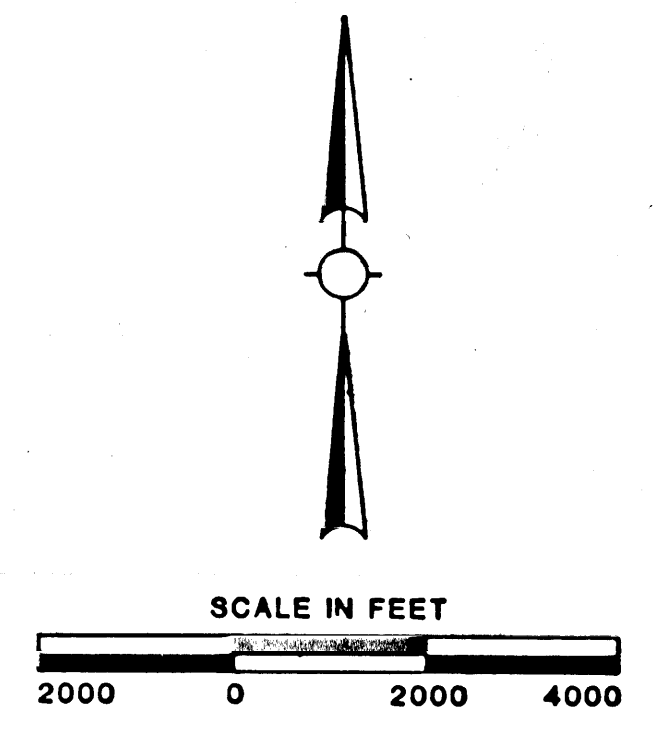
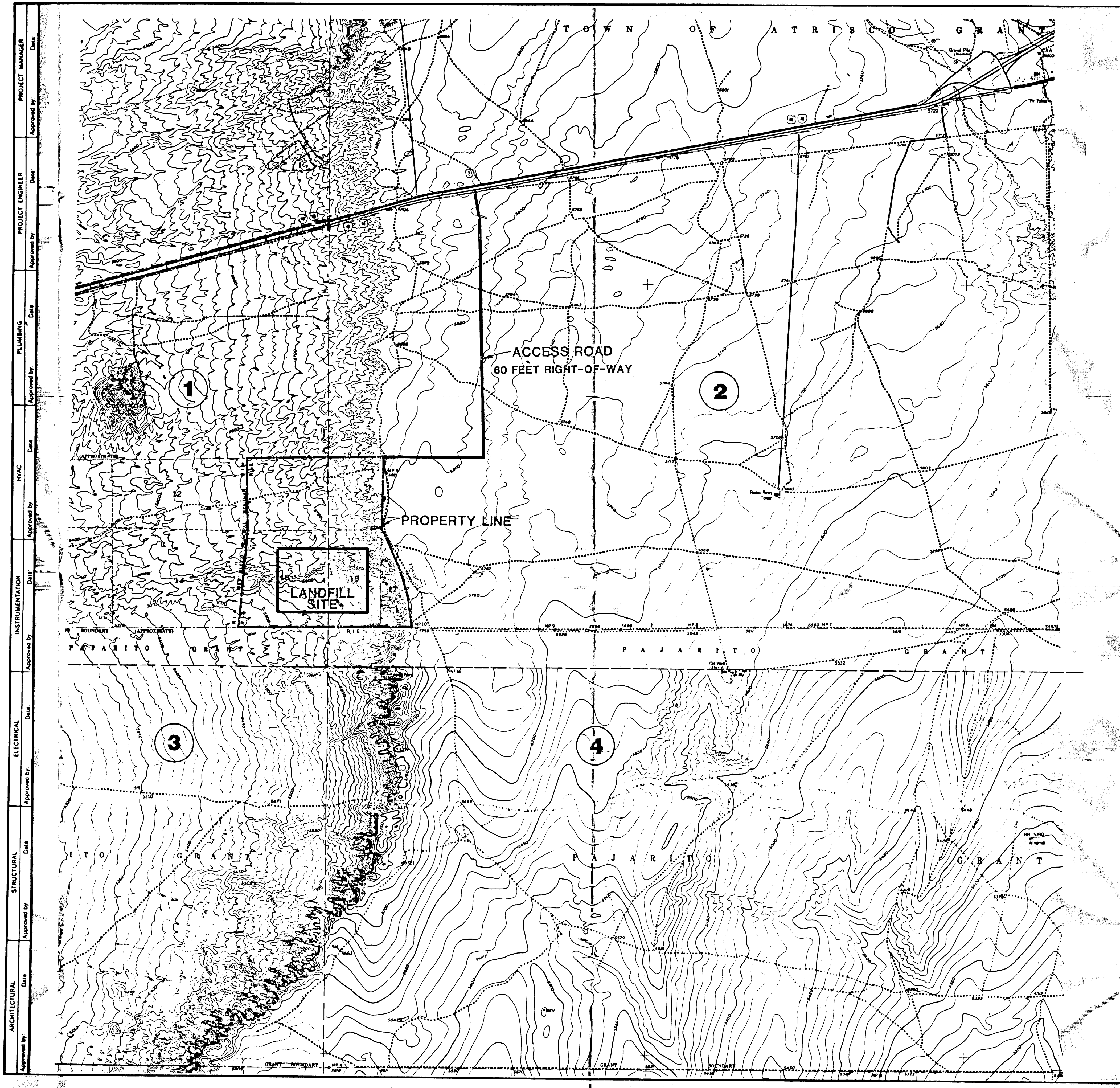




LEGEND

- PROPERTY LINE
- LANDFILL SITE BOUNDARY

USGS MAPS

- 1 LA MESITA NEGRA, N.M. 1954 (PHOTO REVISED 1971)
- 2 LA MESITA NEGRA SE, N.M. 1954 (PHOTO REVISED 1967 & 1973)
- 3 DALIES NW, N.M. 1952
- 4 WIND MESA, N.M. 1952 (PHOTO REVISED 1967)

PROPOSED CERRO COLORADO LANDFILL
SITE DEVELOPMENT AND OPERATIONS PLAN
CITY OF ALBUQUERQUE

ATTACHMENT 1
TOPOGRAPHIC MAP

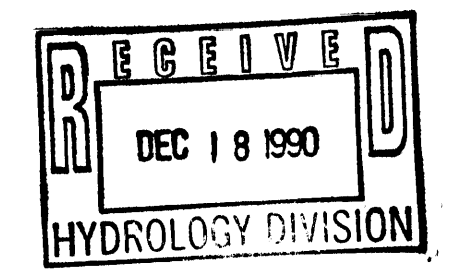
Date	Checked	Revision

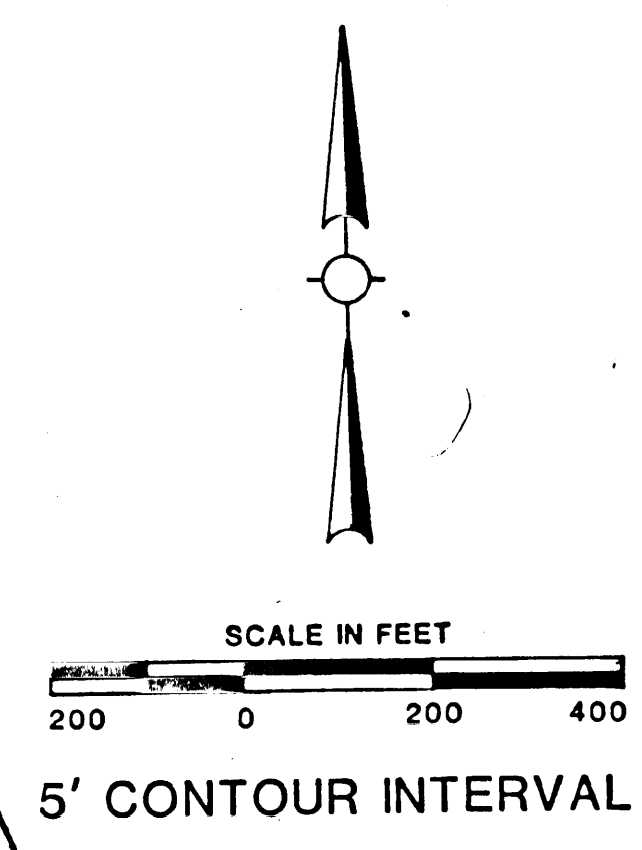
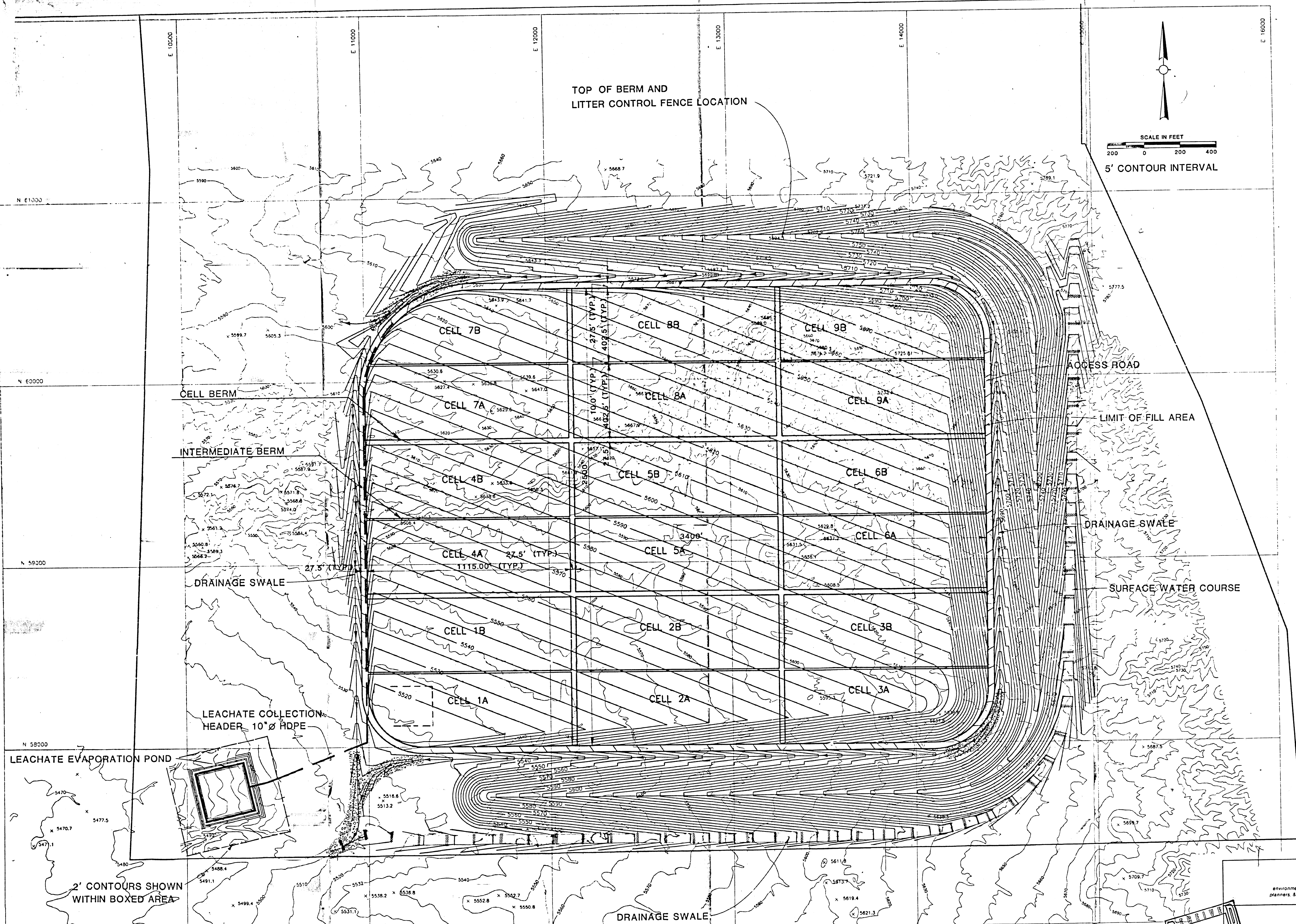
Designed by: _____	Date: SEPT. 21, 1989
Drawn by: _____	
Checked by: _____	
Approved by: _____	Scale: 1" = 2000'

CAMP DRESSER & McKEE INC.
2400 LOUISIANA BLVD. N.E.
AMERICAN FINANCIAL CENTER #5
SUITE 740
ALBUQUERQUE, NEW MEXICO



SHEET NO.
1





- LEGEND**
- RIP RAP
 - 5' BASE GRADE CONTOUR
 - 10' EXISTING CONTOUR
 - SURFACE WATER FLOW

ATTACHMENT 2

AS BUILT INFORMATION		BENCH MARKS		SURVEY INFORMATION		ENGINEER'S SEAL		REVISIONS		BY	
DATE	NO.	DATE	NO.	DATE	NO.	DATE	NO.	DATE	NO.	DATE	NO.

CDM
environmental engineers, scientists,
planners, & management consultants

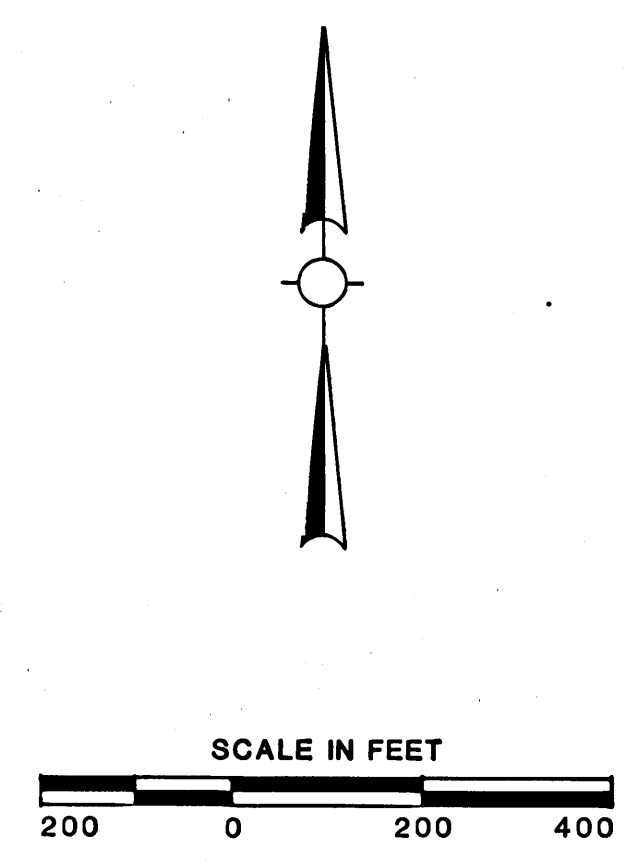
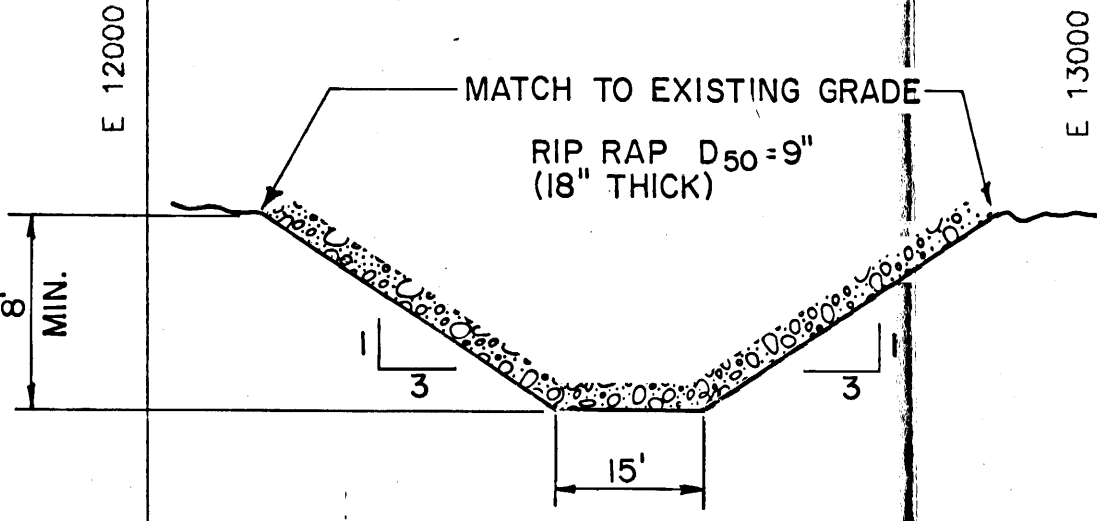
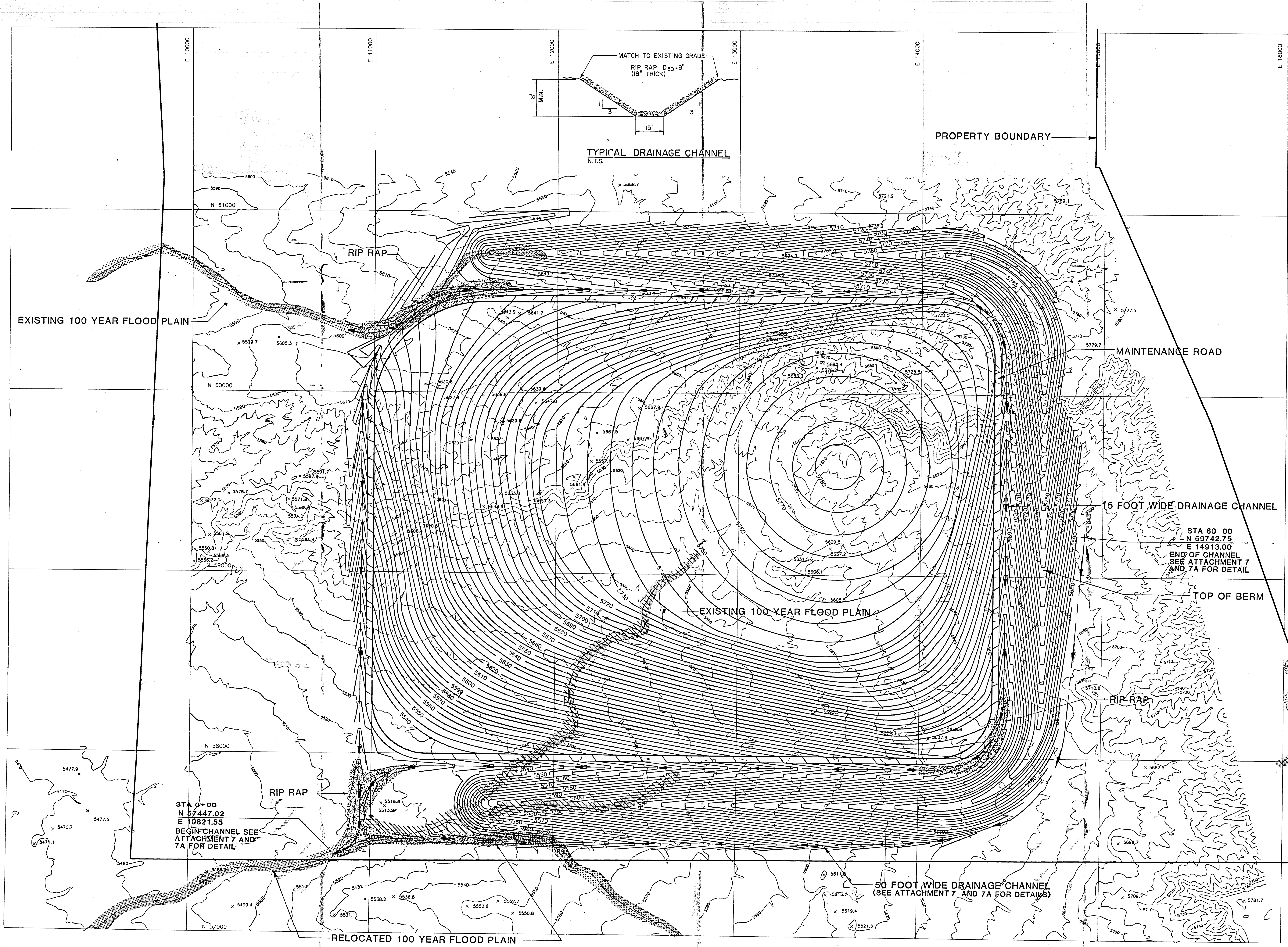
**CITY OF ALBUQUERQUE
SOLID WASTE
MANAGEMENT DEPARTMENT**

**CERRO COLORADO
MUNICIPAL SANITARY LANDFILL MASTERPLAN FACILITIES
INITIAL SITE GRADING PLAN**

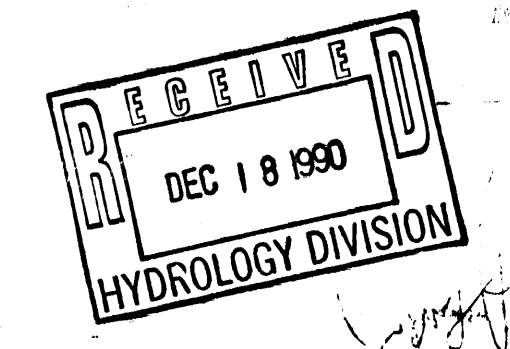
APPROVALS	ENGINEER	DATE	APPROVALS	ENGINEER	DATE

DRAWING NO. MAP NO. SHEET OF

GRADING SHALL PROCEED PROGRESSIVELY WITH EACH CELL CONSTRUCTED AND DEVELOPED BEGINNING WITH CELL NO. 1.

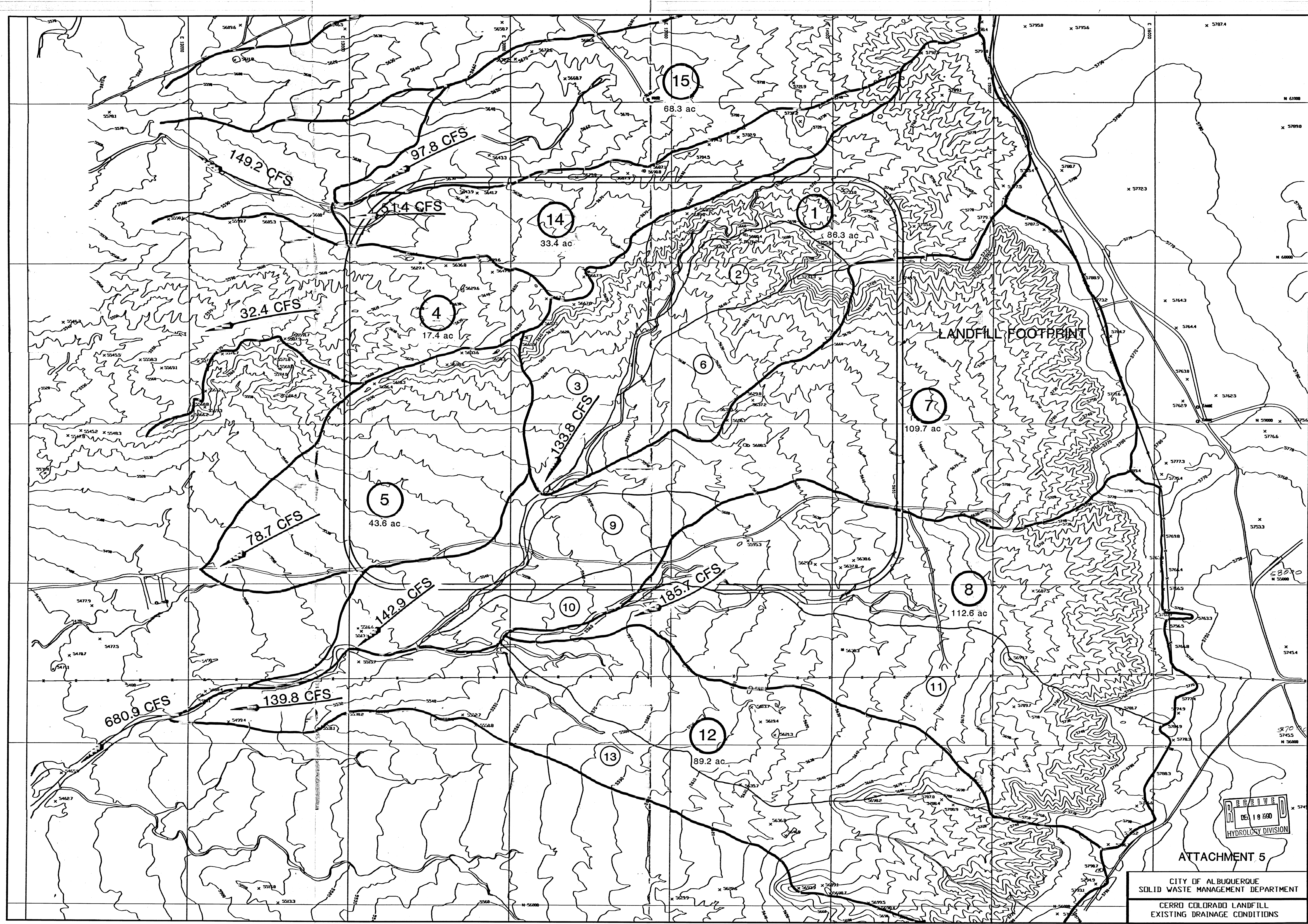


- LEGEND**
- 5720 — FINAL 5' CONTOUR
 - 5740 — EXISTING 10' CONTOUR
 - >— SURFACE WATER FLOW
 - [Stippled Area] RIP RAP
 - [Hatched Area] EXISTING FLOOD PLAN TO REMAIN
 - [Dashed Area] FLOOD PLAN ELIMINATED BY CONSTRUCTION



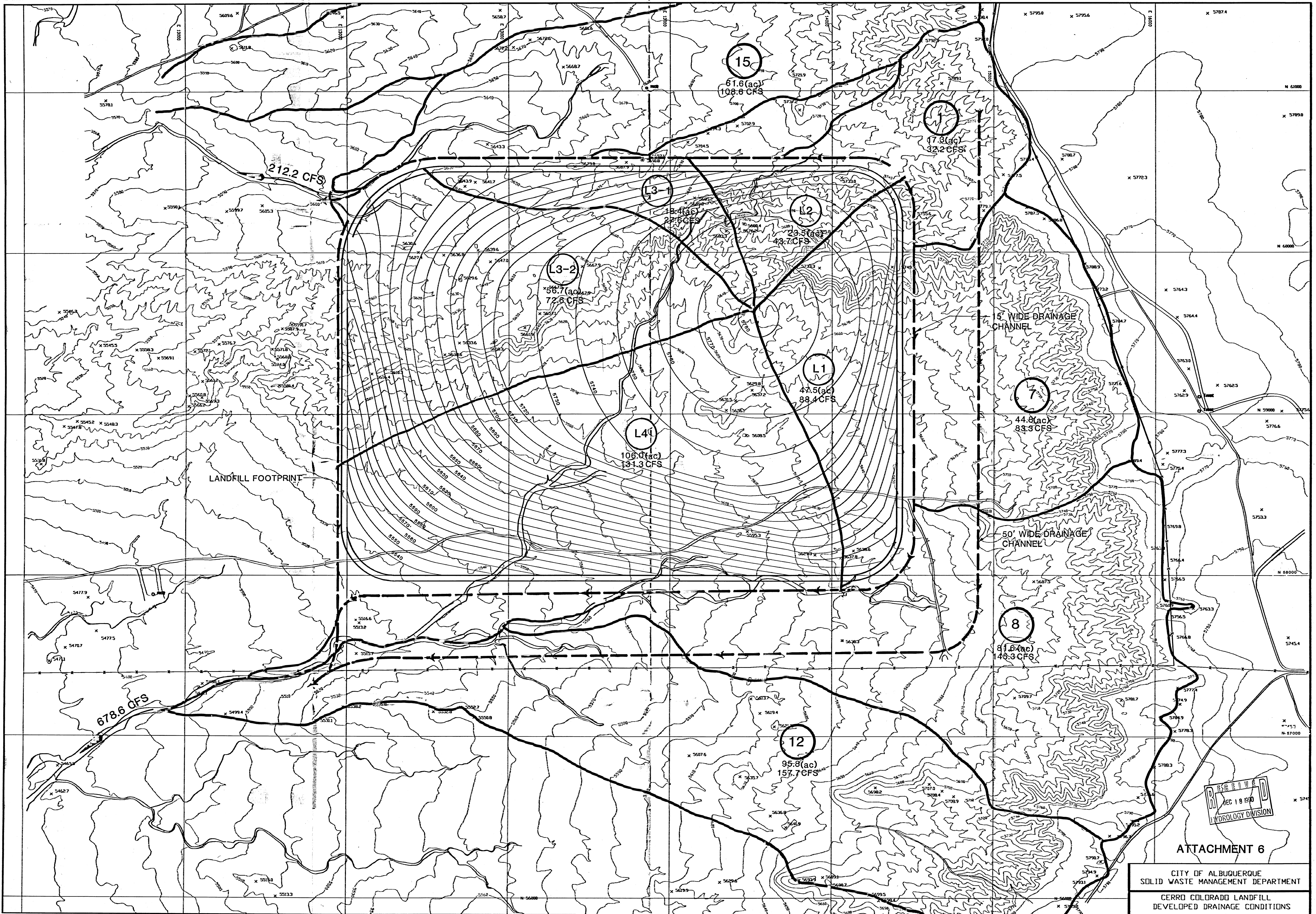
ATTACHMENT 3

PROPOSED CERRO COLORADO LANDFILL SITE DEVELOPMENT AND OPERATIONS PLAN CITY OF ALBUQUERQUE			
FINAL GRADING PLAN			
Designed by: _____		Date: _____	
Drawn by: _____		Scale: 1" = 200'	
Checked by: _____		SHEET NO. _____	
Approved by: _____		CAMP DRESSER & MCKEE INC. 2400 LOUISIANA BLVD., N.E. AMERICAN FINANCIAL CENTER #5 SUITE 740 ALBUQUERQUE, NEW MEXICO environmental engineers, scientists, planners, & management consultants	



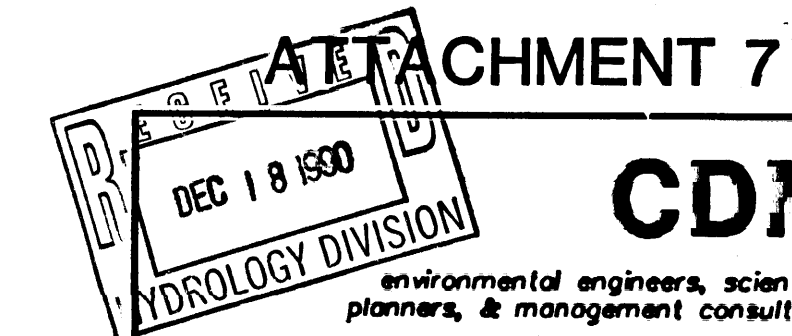
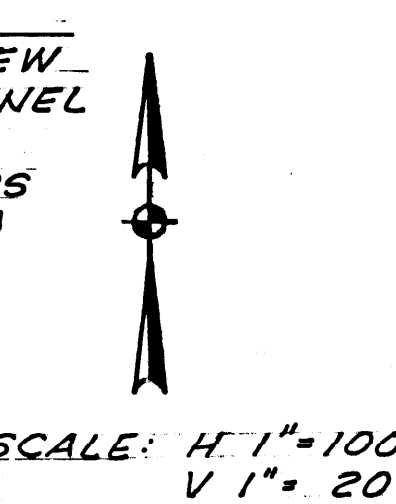
ATTACHMENT 5

CITY OF ALBUQUERQUE
SOLID WASTE MANAGEMENT DEPARTMENT
CERRO COLORADO LANDFILL
EXISTING DRAINAGE CONDITIONS

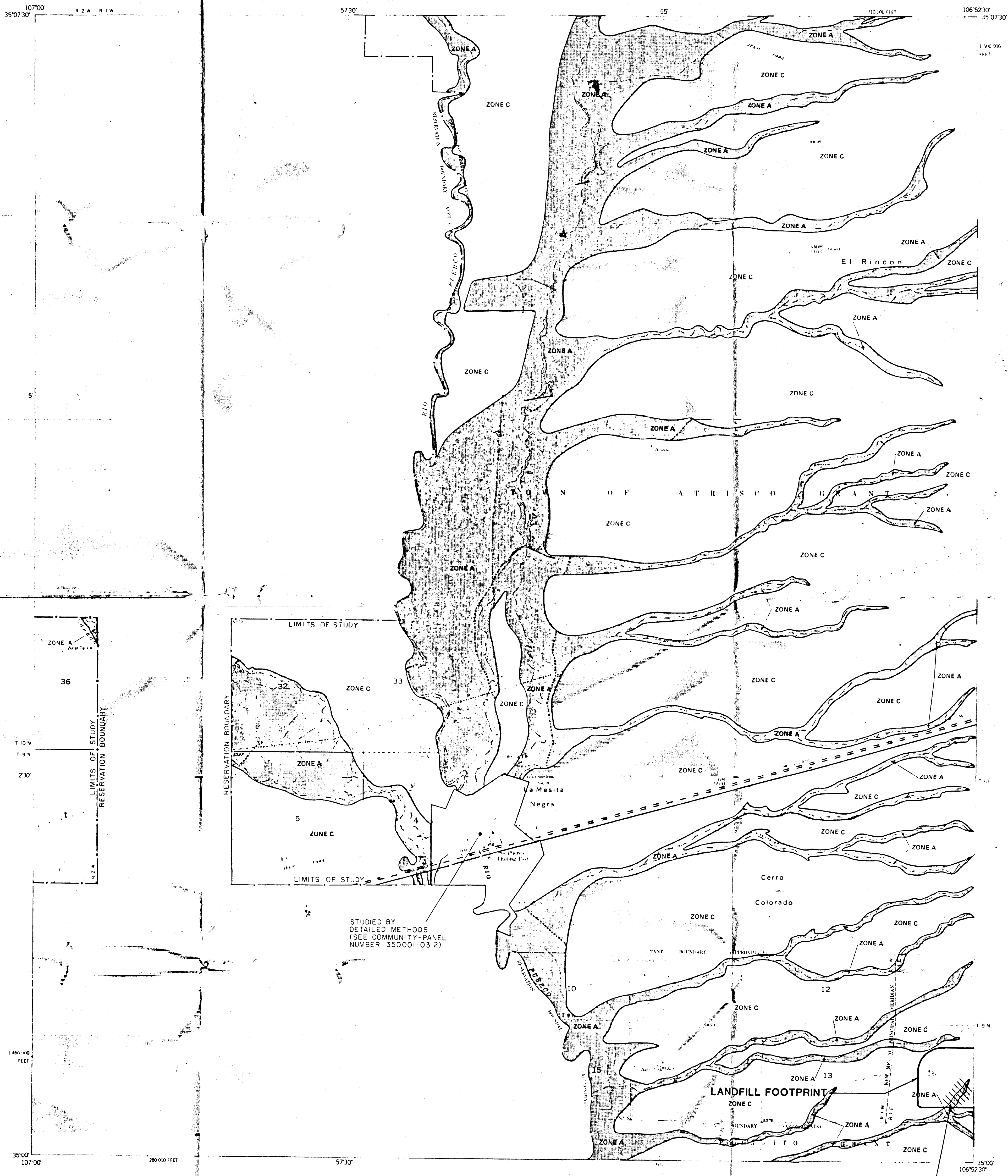


ATTACHMENT 6

CITY OF ALBUQUERQUE
SOLID WASTE MANAGEMENT DEPARTMENT
CERRO COLORADO LANDFILL
DEVELOPED DRAINAGE CONDITIONS

[illegible]

CITY OF ALBUQUERQUE					
SOLID WASTE MANAGEMENT DEPARTMENT					
PHASE III CONSTRUCTION					
TITLE: CERRO COLORADO MUNICIPAL SANITARY LANDFILL MASTERPLAN FACILITIES					
DRAINAGE CHANNEL B - PLAN AND PROFILE - 1					
APPROVALS	ENGINEERS	DATE	APPROVALS	ENGINEERS	DATE
D.R.C. Chair					
Trans. Dev.					
Utility Dev.					
DRAWING NO. 3957		MAP NO. P-2		SHEET OF	



KEY TO MAP

500-Year Flood Boundary ——— ZONE B
 100-Year Flood Boundary ——— ZONE B
 Zone Designations* ——— ZONE B
 100-Year Flood Boundary ——— ZONE B
 500-Year Flood Boundary ——— ZONE B
 Base Flood Elevation Line With Elevation In Feet** ——— 573
 Base Flood Elevation In Feet Where Uniform Within Zone** (EL 987)
 Elevation Reference Mark RM7 x
 River Mile M1.5
 **Referenced to the National Geodetic Vertical Datum of 1929

***EXPLANATION OF ZONE DESIGNATIONS**

ZONE

A Areas of 100-year flood; base flood elevations and flood hazard factors not determined.

A0 Areas of 100-year shallow flooding where depths are between one (1) and three (3) feet; average depths of inundation are shown, but no flood hazard factors are determined.

AH Areas of 100-year shallow flooding where depths are between one (1) and three (3) feet; base flood elevations are shown, but no flood hazard factors are determined.

A1 A30 Areas of 100-year flood; base flood elevations and flood hazard factors determined.

A99 Areas of 100-year flood to be protected by flood protection system under construction; base flood elevations and flood hazard factors not determined.

B Areas between limits of the 100-year flood and 500-year flood; or certain areas subject to 100-year flooding with average depths less than one (1) foot or where the contributing drainage area is less than one square mile; or areas protected by levees from the base flood. (Medium shading)

C Areas of minimal flooding. (No shading)

D Areas of undetermined, but possible, flood hazards.

V Areas of 100-year coastal flood with velocity (wave action); base flood elevations and flood hazard factors not determined.

V1 V30 Areas of 100-year coastal flood with velocity (wave action); base flood elevations and flood hazard factors determined.

NOTES TO USER

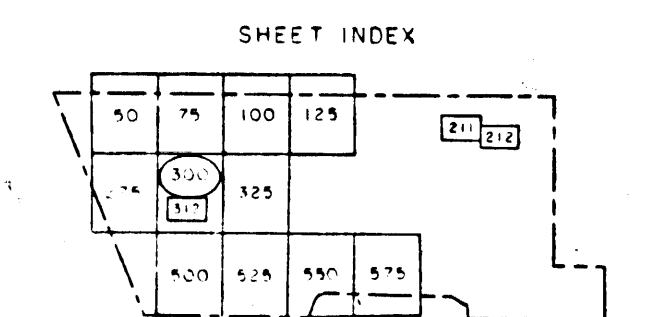
Certain areas not in the special flood hazard areas (zones A and V) may be protected by flood control structures.

This map is for flood insurance purposes only; it does not necessarily show all areas subject to flooding in the community or all planimetric features outside special flood hazard areas.

For adjoining map panels, see separately printed Index To Map Panels.

INITIAL IDENTIFICATION:
 DECEMBER 20, 1974
FLOOD HAZARD BOUNDARY MAP REVISIONS:
 SEPTEMBER 5, 1977

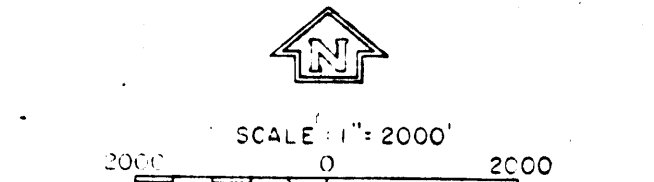
FLOOD INSURANCE RATE MAP EFFECTIVE:



REFER TO ADJOINING MAPS

Refer to the FLOOD INSURANCE RATE MAP EFFECTIVE date shown on this map to determine when actuarial rates apply to structures in the zones where elevations or depths have been established.

To determine if flood insurance is available in this community, contact your insurance agent, or call the National Flood Insurance Program at (800) 638-6620.



NATIONAL FLOOD INSURANCE PROGRAM

FIRM
FLOOD INSURANCE RATE MAP

BERNALILLO COUNTY, NEW MEXICO
 (UNINCORPORATED AREAS)

PANEL 300 OF 825
 (SEE MAP INDEX FOR PANELS NOT PRINTED)

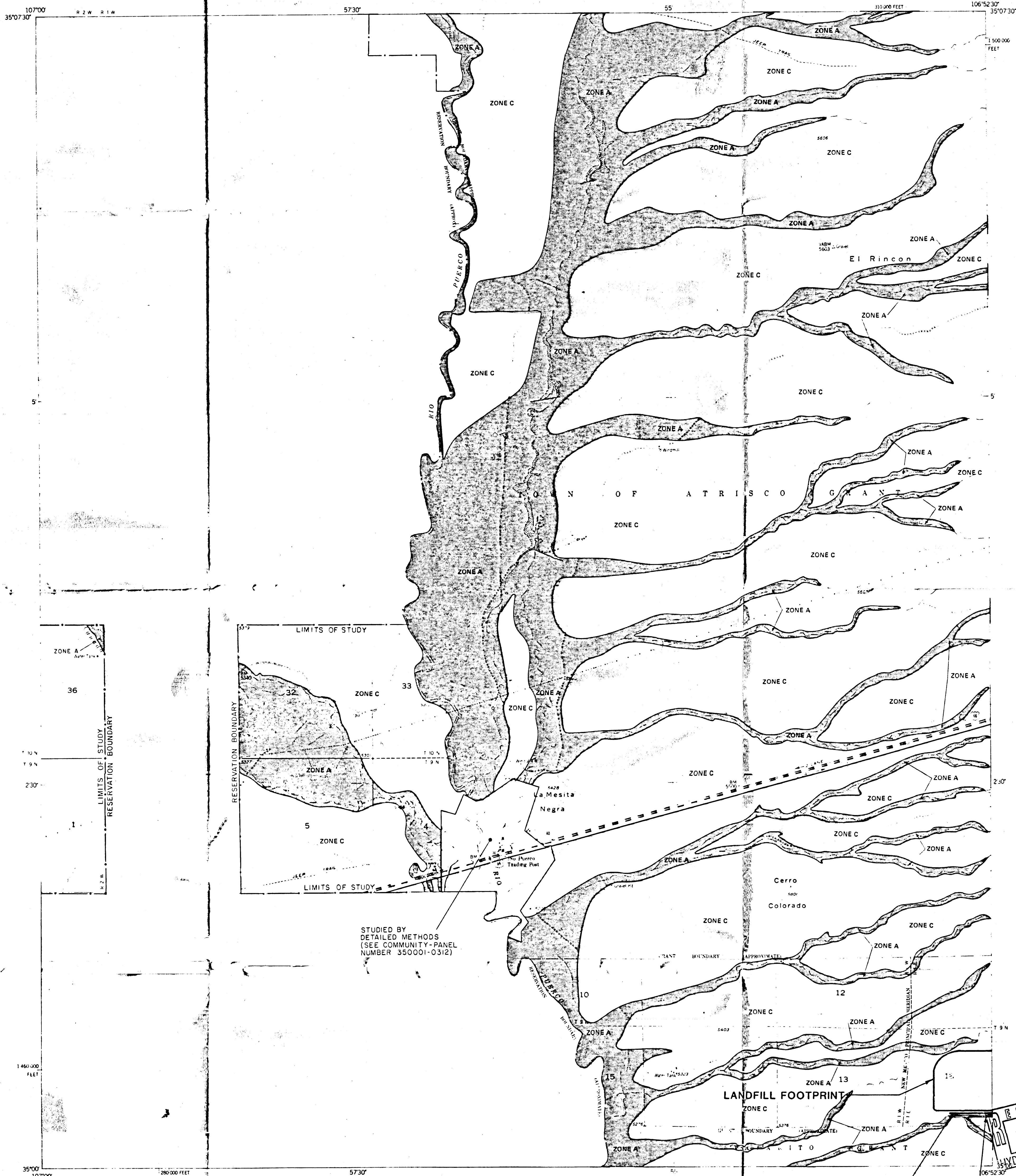
ATTACHMENT 8
EXISTING FIRM

COMMUNITY-PANEL NUMBER
 350001 0300

EFFECTIVE DATE:

Federal Emergency Management Agency

RECEIVED
DEC 18 1990
HYDROLOGY DIVISION



KEY TO MAP

500-Year Flood Boundary ——— ZONE B

100-Year Flood Boundary ——— ZONE B

Zone Designations*

100-Year Flood Boundary ——— ZONE B

500-Year Flood Boundary ——— ZONE B

Base Flood Elevation Line With Elevation In Feet** ——— 573

Base Flood Elevation In Feet Where Uniform Within Zone** (EL 987)

Elevation Reference Mark RM7 x

River Mile M1.5

**Referenced to the National Geodetic Vertical Datum of 1929

***EXPLANATION OF ZONE DESIGNATIONS**

ZONE	EXPLANATION
A	Areas of 100-year flood; base flood elevations and flood hazard factors not determined.
A0	Areas of 100-year shallow flooding where depths are between one (1) and three (3) feet; average depths of inundation are shown, but no flood hazard factors are determined.
AH	Areas of 100-year shallow flooding where depths are between one (1) and three (3) feet; base flood elevations are shown, but no flood hazard factors are determined.
A1-A30	Areas of 100-year flood; base flood elevations and flood hazard factors determined.
A99	Areas of 100-year flood to be protected by flood protection system under construction; base flood elevations and flood hazard factors not determined.
B	Areas between limits of the 100-year flood and 500-year flood; or certain areas subject to 100-year flooding with average depths less than one (1) foot or where the contributing drainage area is less than one square mile; or areas protected by levees from the base flood. (Medium shading)
C	Areas of minimal flooding. (No shading)
D	Areas of undetermined, but possible, flood hazards.
V	Areas of 100-year coastal flood with velocity (wave action); base flood elevations and flood hazard factors not determined.
V1-V30	Areas of 100-year coastal flood with velocity (wave action); base flood elevations and flood hazard factors determined.

NOTES TO USER

Certain areas not in the special flood hazard areas (zones A and V) may be protected by flood control structures.

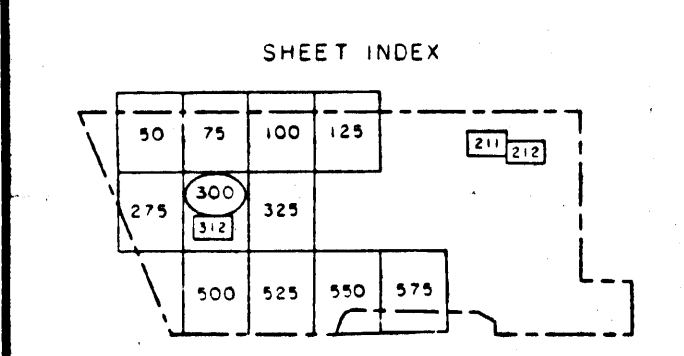
This map is for flood insurance purposes only; it does not necessarily show all areas subject to flooding in the community or all planimetric features outside special flood hazard areas.

For adjoining map panels, see separately printed Index To Map Panels.

INITIAL IDENTIFICATION:
DECEMBER 20, 1974

FLOOD HAZARD BOUNDARY MAP REVISIONS:
SEPTEMBER 6, 1977

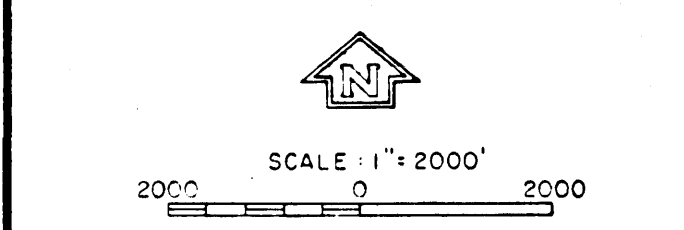
FLOOD INSURANCE RATE MAP EFFECTIVE:



MATCH LINE TO ADJOINING MAPS

Refer to the FLOOD INSURANCE RATE MAP EFFECTIVE date shown on this map to determine when actuarial rates apply to structures in the zones where elevations or depths have been established.

To determine if flood insurance is available in this community, contact your insurance agent, or call the National Flood Insurance Program at (800) 638-6620.



NATIONAL FLOOD INSURANCE PROGRAM

FIRM FLOOD INSURANCE RATE MAP

BERNALILLO COUNTY, NEW MEXICO (UNINCORPORATED AREAS)

PANEL 300 OF 825 (SEE MAP INDEX FOR PANELS NOT PRINTED)

ATTACHMENT 9 NEW FIRM

COMMUNITY-PANEL NUMBER 350001 0300

EFFECTIVE DATE:

RECEIVED DEC 18 1990 HYDROLOGY DIVISION

Federal Emergency Management Agency

GENERAL NOTES

- 1. ALL SUBGRADE, BACKFILL AND EMBANKMENT SHALL BE COMPACTED TO 90% (MODIFIED PROCTOR) IN NON-STRUCTURAL AREAS, AND 95% (MODIFIED PROCTOR) IN STRUCTURAL AREAS.
- 2. CONTRACTOR TO REFERENCE FOUNDATION PLAN AND SOILS REPORT FOR RECOMMENDATIONS ON FOUNDATION EARTHWORK AND CONCRETE SECTIONS.
- 3. THE CONTRACTOR IS RESPONSIBLE FOR PROTECTING THE EXISTING UTILITY LINES WITHIN THE CONSTRUCTION AREA.

KEYED NOTES

- 1. LOCATION OF BURIED ELECTRIC LINE IS APPROXIMATE. DEPTH OF BURY IS UNKNOWN.
- 2. PROPOSED BUILDING FOUNDATION BOUNDARY, FF=5619, SEE SHEET S1 FOR DETAILS.
- 3. EXISTING CONCRETE FOUNDATION TO REMAIN.
- 4. PROPOSED DRAINAGE PATH, CONTRACTOR SHALL GRADE TO DRAIN RUNOFF AWAY FROM FOUNDATION, SEE SECTION #1 THIS SHEET FOR DETAILS.

DRAINAGE PLAN

EXECUTIVE SUMMARY

THIS PROJECT, LOCATED AT THE INTERMEDIATE PROCESSING FACILITY (CERRO COLORADO LANDFILL), CONSISTS OF NEW CONSTRUCTION OF A 7370 SF, SINGLE STORY, METAL BUILDING TO HOUSE GLASS RECYCLING EQUIPMENT. THE SITE IS DEVELOPED AND THE NEW BUILDING IS AN ADDITION TO THE EXISTING FACILITY WHICH WILL ENCLOSE AN EXISTING CONCRETE PAD. THE PURPOSE OF THIS DRAINAGE PLAN IS TO OBTAIN BUILDING PERMIT APPROVAL.

PROJECT DESCRIPTION

AS SHOWN ON THE VICINITY MAP, THE SITE IS LOCATED 4 MILES WEST OF PASEO DEL VOLCAN ALONG I-40, AND 2 MILES SOUTH ON SHELLEY ROAD. THE SITE IS CURRENTLY ZONED A-1, SU-PERMIT. AS SHOWN BY PANEL 300 OF 825 OF THE NATIONAL FLOOD INSURANCE PROGRAM FLOOD INSURANCE RATE MAPS, BERNALILLO COUNTY, NEW MEXICO, AND INCORPORATED AREAS, DATED NOVEMBER 19, 2003, THIS SITE LIES WITHIN DESIGNATED FLOOD HAZARD ZONE X. ZONE X IS CHARACTERIZED BY AREAS WITHIN THE 500-YR FLOOD, AREAS OF 100-YR FLOOD WITH AVERAGE DEPTHS OF LESS THAN 1 FOOT OR WITH DRAINAGE AREAS LESS THAN 1 SQUARE MILE AND AREAS PROTECTED BY LEVEES FROM 100-YR FLOOD.

EXISTING CONDITIONS AND DRAINAGE PATTERNS

THE SITE IS RELATIVELY FLAT WITH SLOPES LESS THAN 4%. THE SITE DRAINS FROM THE EAST TO WEST. LAND TREATMENT IS PREDOMINATELY 'C', SOIL COMPACTED BY HUMAN ACTIVITY, WITH IMPERVIOUS AREAS 'D' OCCURRING AT THE EXISTING IPF CONCRETE PAD AND AT AN EXISTING SMALL OFFICE BUILDING.

DEVELOPED CONDITIONS AND DRAINAGE PATTERNS

THE PROPOSED BUILDING WILL ENCLOSE THE EXISTING IPF CONCRETE PAD. THEREFORE, THE IMPERVIOUS AREA FOR THE DRAINAGE BASIN AS A WHOLE INCREASES BY 14%. THE AREA AROUND THE PERIMETER OF THE BUILDING WILL BE GRADED TO SLOPE AWAY FROM THE FOUNDATION AND TIEING TO EXISTING GROUND. GRADING AT THE NORTHEAST CORNER OF THE BUILDING WILL INCLUDE A CUT INTO THE EXISTING EMBANKMENT AT A 3:1 SLOPE. ROOF DRAINS ON THE NEW BUILDING WILL DISCHARGE ON THE WEST SIDE OF THE BUILDING. SITE GRADING WILL BE LIMITED TO THE AREA IN THE VICINITY OF THE NEW BUILDING. THE OVERALL DRAINAGE PATTERN FOR THE SITE WILL REMAIN UNCHANGED.

CALCULATIONS

REFERENCE: THE CITY OF ALBUQUERQUE DEVELOPMENT PROCESS MANUAL, SECTION 22.2, HYDROLOGY, 1997 REVISION

BERNALILLO COUNTY PRECIPITATION ZONE: 1

DRAINAGE BASIN AREA = 1.24 ACRES

EXISTING CONDITIONS

LAND TREATMENT AREAS: 'C' (1.06 ACRES), 'D' (0.18 ACRES)

PEAK DISCHARGE (TABLE A-9):

$Q_p(2-yr) = (1.06 \text{ ACRE}) \cdot (0.47 \text{ CFS/ACRE}) + (0.18 \text{ ACRE}) \cdot (1.69 \text{ CFS/ACRE}) = 0.80 \text{ CFS}$

$Q_p(10-yr) = (1.06 \text{ ACRE}) \cdot (1.49 \text{ CFS/ACRE}) + (0.18 \text{ ACRE}) \cdot (2.89 \text{ CFS/ACRE}) = 2.10 \text{ CFS}$

$Q_p(100-yr) = (1.06 \text{ ACRE}) \cdot (2.87 \text{ CFS/ACRE}) + (0.18 \text{ ACRE}) \cdot (4.37 \text{ CFS/ACRE}) = 3.83 \text{ CFS}$

DEVELOPED CONDITIONS

LAND TREATMENT AREAS: 'C' (1.05 ACRES), 'D' (0.21 ACRES)

PEAK DISCHARGE (TABLE A-9):

$Q_p(2-yr) = (1.05 \text{ ACRE}) \cdot (0.47 \text{ CFS/ACRE}) + (0.21 \text{ ACRE}) \cdot (1.69 \text{ CFS/ACRE}) = 0.85 \text{ CFS}$

$Q_p(10-yr) = (1.05 \text{ ACRE}) \cdot (1.49 \text{ CFS/ACRE}) + (0.21 \text{ ACRE}) \cdot (2.89 \text{ CFS/ACRE}) = 2.17 \text{ CFS}$

$Q_p(100-yr) = (1.05 \text{ ACRE}) \cdot (2.87 \text{ CFS/ACRE}) + (0.21 \text{ ACRE}) \cdot (4.37 \text{ CFS/ACRE}) = 3.93 \text{ CFS}$

CONCLUSION

THE NEW BUILDING PROPOSED FOR THE IPF SITE WILL NOT SIGNIFICANTLY CHANGE THE HYDROLOGIC CONDITION FOR THE SITE. THE SMALL INCREASE IN IMPERVIOUS AREA WILL INCREASE RUNOFF FROM HISTORIC RATES BY APPROXIMATELY 6% FOR THE 2-YR STORM EVENT, 3% FOR THE 10-YR STORM EVENT, AND 2.5% FOR THE 100-YR STORM EVENT.

LEGEND

PROPOSED

EXISTING

DESCRIPTION

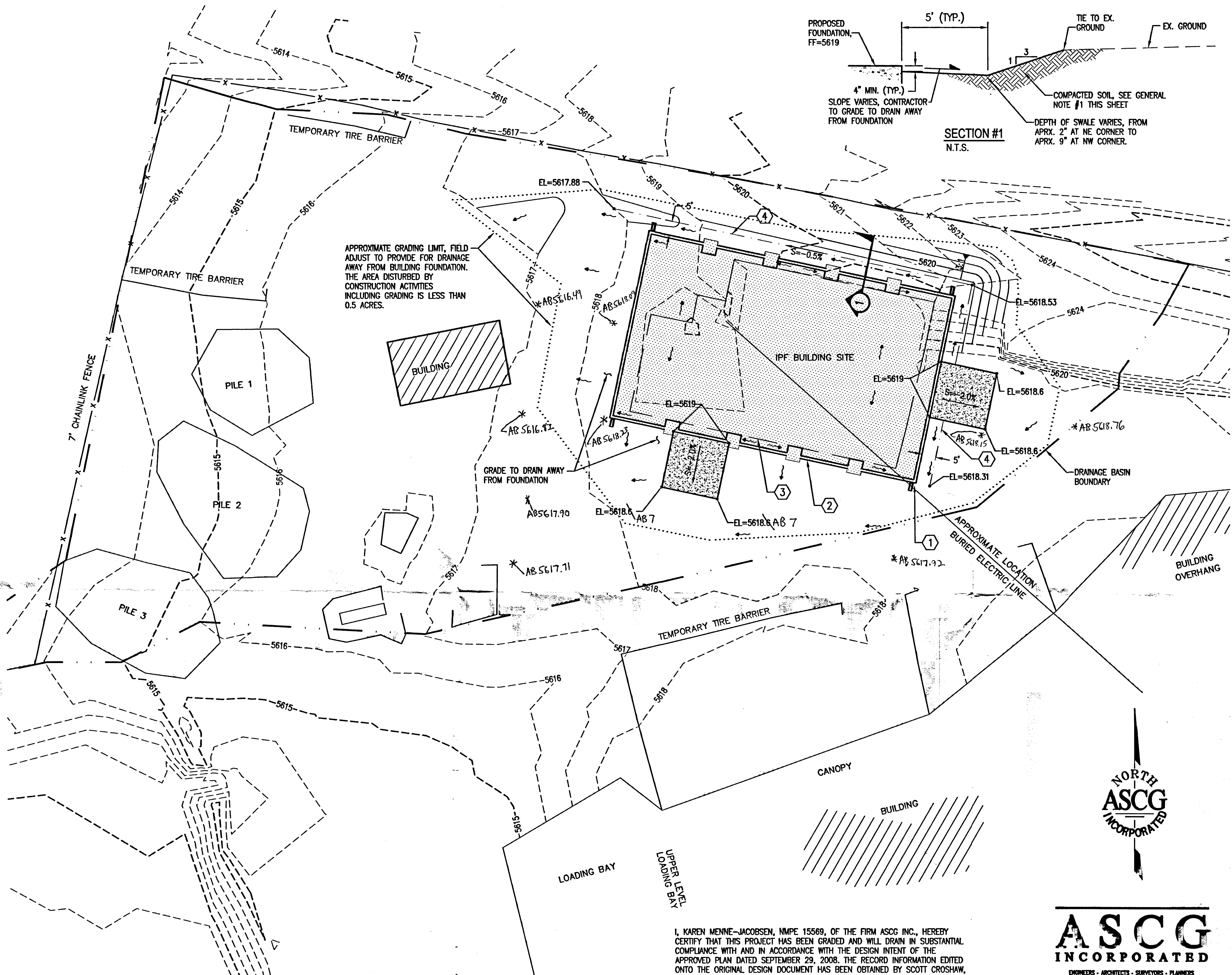
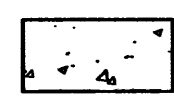
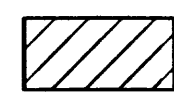
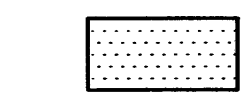
CONTOUR

BUILDING

CONCRETE

FLOW ARROW

DRAINAGE BASIN BOUNDARY



ADDRESS: 18000 CERRO COLORADO RD., ALBUQUERQUE, NM 87121

RECORD DRAWING

Date 4/20/2009
These drawings have been revised based on field data and every reasonable attempt has been made to depict construction as actually performed.

DRAINAGE PLAN

SCALE: 1"=20'

I, KAREN MENNE-JACOBSEN, NMPE 15569, OF THE FIRM ASCG INC., HEREBY CERTIFY THAT THIS PROJECT HAS BEEN GRADED AND WILL DRAIN IN SUBSTANTIAL COMPLIANCE WITH AND IN ACCORDANCE WITH THE DESIGN INTENT OF THE APPROVED PLAN DATED SEPTEMBER 29, 2008. THE RECORD INFORMATION EDITED ONTO THE ORIGINAL DESIGN DOCUMENT HAS BEEN OBTAINED BY SCOTT CROSHAW, NMPS 14733, OF THE FIRM WILSON & COMPANY. I FURTHER CERTIFY THAT I HAVE PERSONALLY VISITED THE PROJECT SITE ON FEBRUARY 6, 2009, AND HAVE DETERMINED BY VISUAL INSPECTION THAT THE SURVEY DATA PROVIDED IS REPRESENTATIVE OF ACTUAL SITE CONDITIONS AND IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. THIS CERTIFICATION IS SUBMITTED IN SUPPORT OF A REQUEST FOR A CERTIFICATION OF OCCUPANCY.

THE RECORD INFORMATION PRESENTED HEREON IS NOT NECESSARILY COMPLETE AND INTENDED ONLY TO VERIFY SUBSTANTIAL COMPLIANCE OF THE GRADING AND DRAINAGE ASPECTS OF THIS PROJECT. THOSE RELYING ON THIS RECORD DOCUMENT ARE ADVISED TO OBTAIN INDEPENDENT VERIFICATION OF ITS ACCURACY BEFORE USING IT FOR ANY OTHER PURPOSE.

Karen Menne-Jacobsen
KAREN MENNE-JACOBSEN, NMPE 15569
4-20-09
DATE

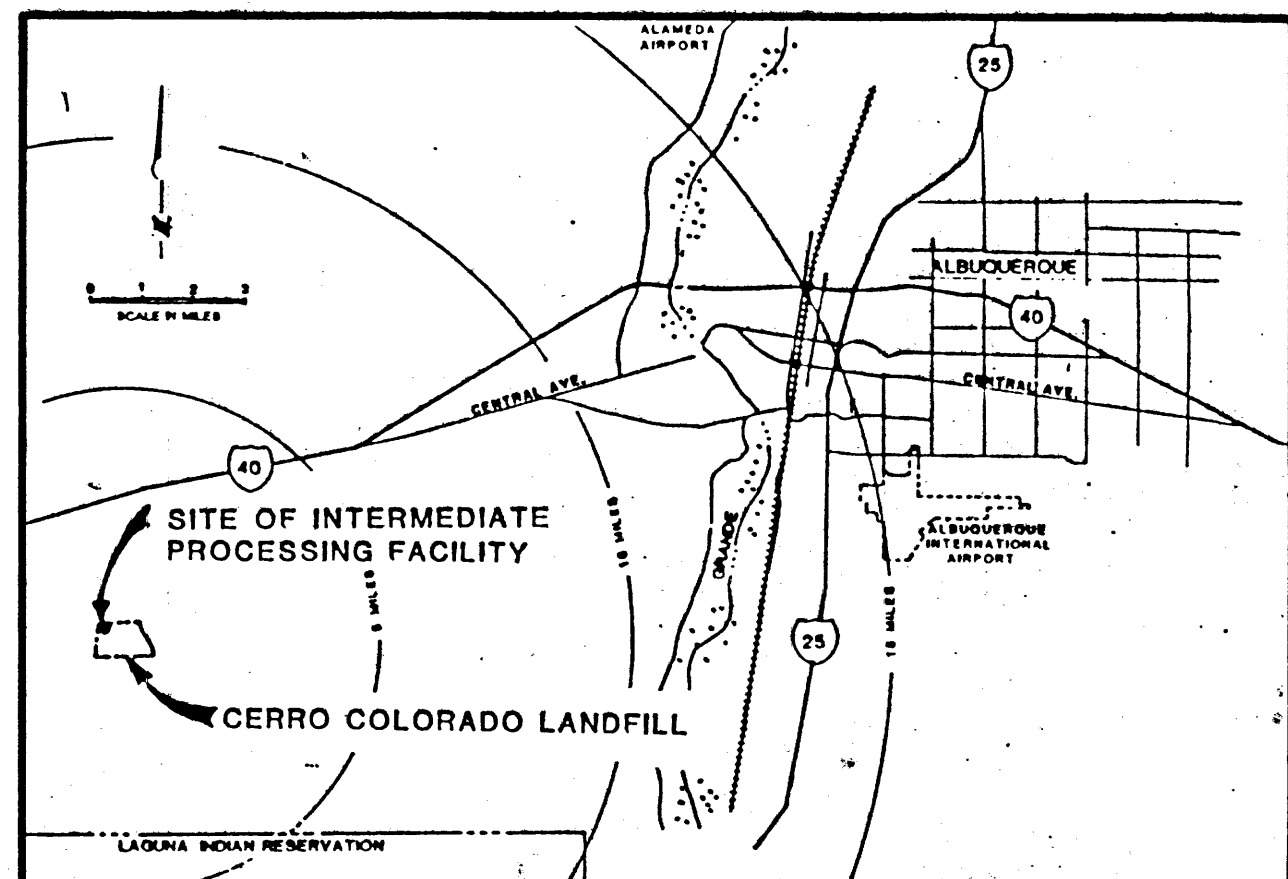
Rec
4-20-09
Address



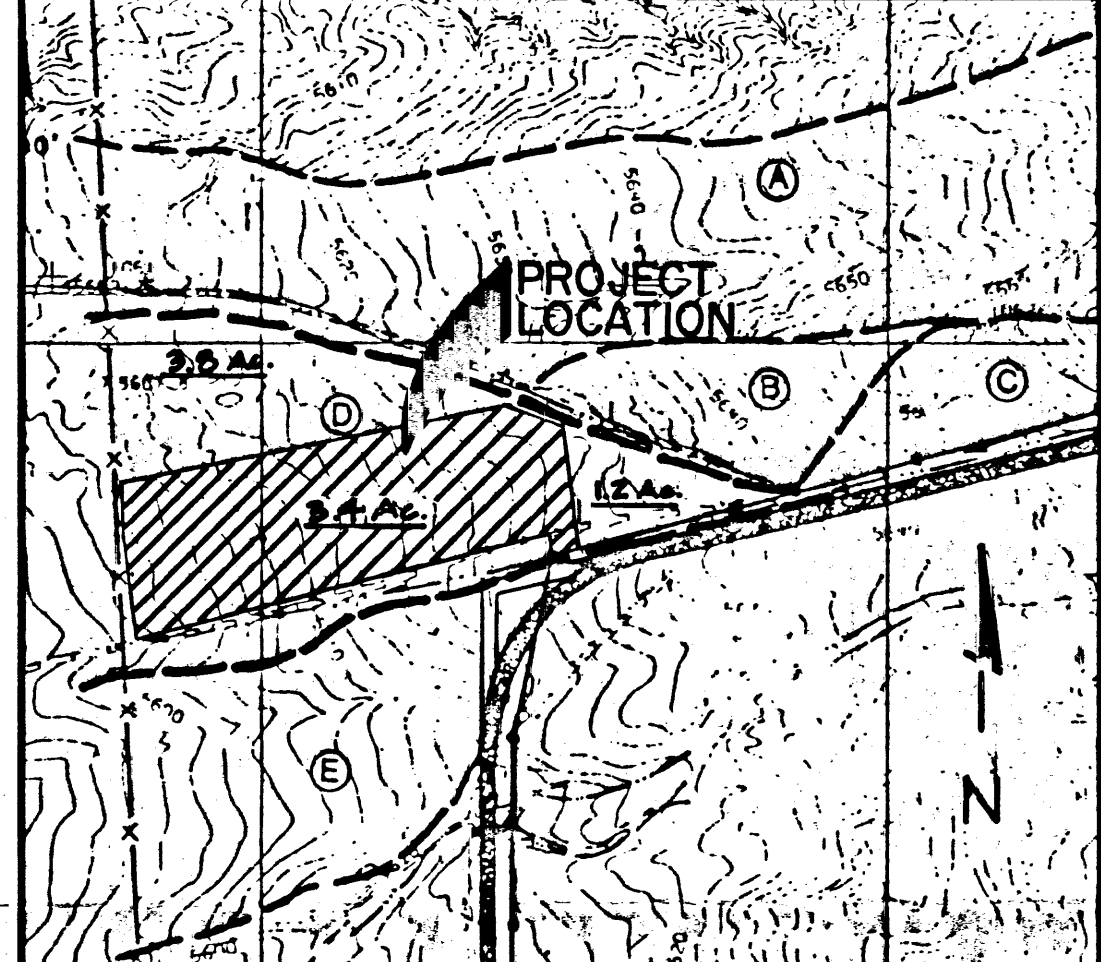
5501 AMERICAS PARKWAY NE, SUITE 400
ALBUQUERQUE, NEW MEXICO 87110-5372
PHONE 505.247.0294 • FAX 505.242.4845

AS BUILT INFORMATION				BENCH MARKS				SURVEY INFORMATION				ENGINEERS SEAL			
CONTRACTOR	WORK	STACKED BY	DATE	NO.	DATE	NO.	DATE	NO.	DATE	NO.	DATE				
ACCEPTED BY	FIELD	ACCEPTANCE	DATE	NO.	DATE	NO.	DATE	NO.	DATE	NO.	DATE				
MICRO-FILM INFORMATION				REMARKS				DESIGNED BY				DRAWN BY			
RECORDED BY				DATE				CHECKED BY				DATE			

CITY OF ALBUQUERQUE PUBLIC WORKS DEPARTMENT CAPITAL IMPLEMENTATION PROGRAM			
TITLE: DRAINAGE PLAN			
Design Review Committee	City Engineer Approval	Mo./Day/Yr.	Mo./Day/Yr.
Last Design Update			
City Project No.	Zone Map No.	Sheet	Of
7396.01	P-1	4	4



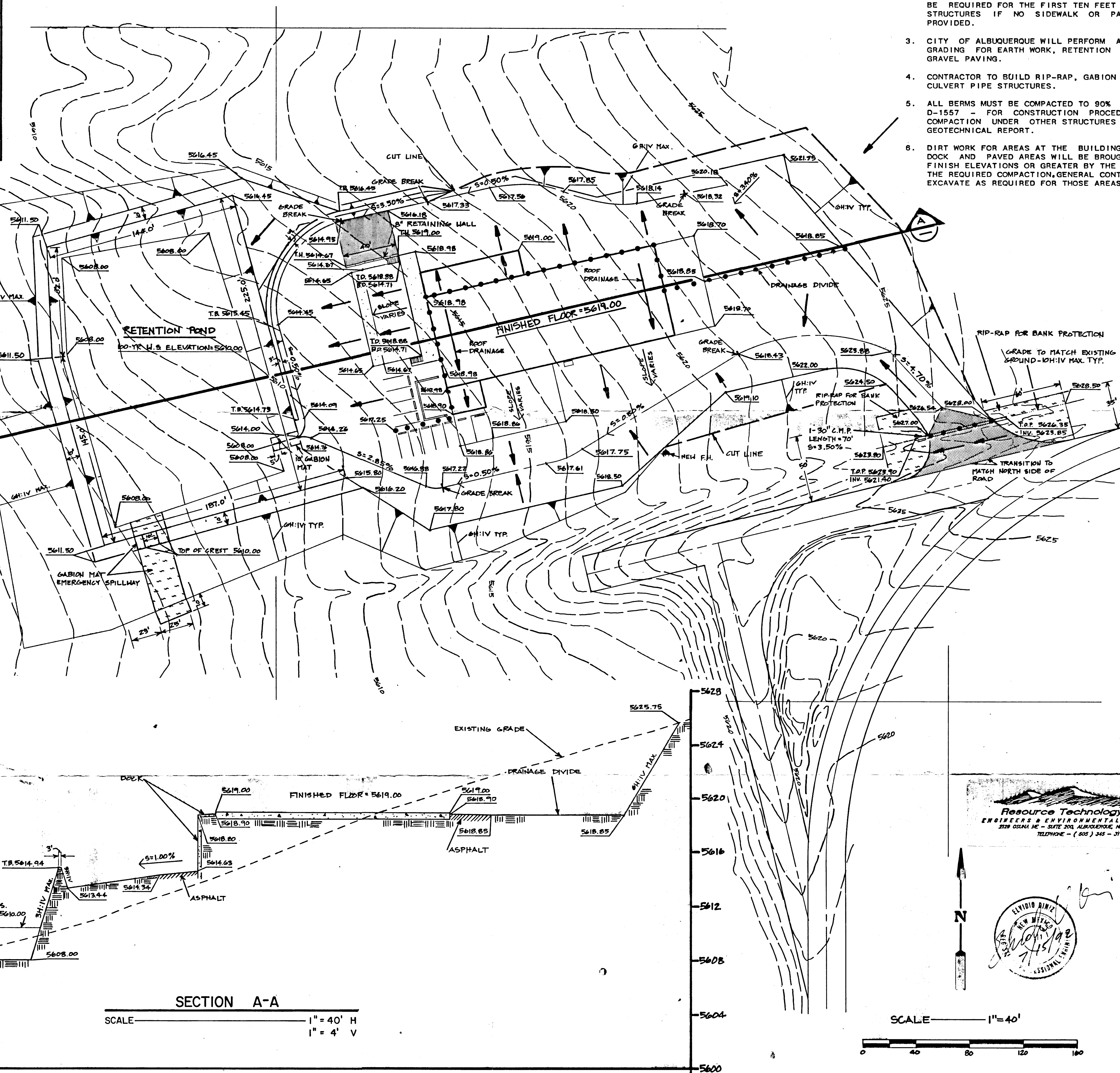
VICINITY MAP P-2-Z N.T.S.



DRAINAGE BASINS AS PER (C.D.M.)

ABBREVIATIONS	
T.W.	TOP OF WALL
T.B.	TOP OF BERM
T.D.	TOP OF DOCK
B.D.	BOTTOM OF DOCK
F.F.	FINISHED FLOOR
T.O.P.	TOP OF PIPE
INV.	INVERT OF PIPE
C.M.P.	CORRUGATED METAL PIPE

LEGEND	
	TRANSITION
	FLOW DIRECTION
	EXISTING ELEVATION
	PROPOSED ELEVATION
	EXISTING CONTOURS
	DRAINAGE DIVIDE
	SLOPE INDICATOR
	RETAINING WALL
	RIP-RAP OR GABION MAT



GENERAL NOTES

1. ALL RIP-RAP (d 50 = 6") AND ALL GABION MATS REQUIRE 6" GRAVEL FILTER.
2. REFER TO GEOTECHNICAL REPORT "GEOTECHNICAL INVESTIGATION CERRO COLORADO INTERMEDIATE PROCESSING FACILITY, PREPARED BY VINYARD AND ASSOCIATES, INC., JULY 6, 1992" FOR EARTH WORK PREPARATION AND GRADING PROCEDURES. IN PARTICULAR A MINIMUM FOUR PERCENT SLOPE WILL BE REQUIRED FOR THE FIRST TEN FEET AWAY FROM STRUCTURES IF NO SIDEWALK OR PAVEMENT IS PROVIDED.
3. CITY OF ALBUQUERQUE WILL PERFORM ALL FINISH GRADING FOR EARTH WORK, RETENTION POND, AND GRAVEL PAVING.
4. CONTRACTOR TO BUILD RIP-RAP, GABION MAT, AND CULVERT PIPE STRUCTURES.
5. ALL BERMS MUST BE COMPACTED TO 90% PER ASTM D-1557 - FOR CONSTRUCTION PROCEDURES AND COMPACTION UNDER OTHER STRUCTURES REFER TO GEOTECHNICAL REPORT.
6. DIRT WORK FOR AREAS AT THE BUILDING, LOADING DOCK AND PAVED AREAS WILL BE BROUGHT UP TO FINISH ELEVATIONS OR GREATER BY THE CITY. AT THE REQUIRED COMPACTION, GENERAL CONTRACTOR TO EXCAVATE AS REQUIRED FOR THOSE AREAS.

GENERAL NOTES

Site Description:
Present - The site is currently undeveloped with growth of native grasses. It slopes from the east to the west with approximately 18 feet of relief across the extent of the proposed development.

Proposed - The project site will be developed for an intermediate processing facility (recycling center) with some landscaping and unpaved parking. Proposed design will allow on-site and upstream off-site runoff to be discharged into a retention pond via weirs in the unpaved parking lot. The volume of the pond is designed to retain a 10-day storm with 1.5 ft. of freeboard. The pond will have an emergency spillway weir located on the south side.

Flood Hazard Zone: Zone C
Soil Type: BMD - Blueprint - Hydrologic Soil Group "A"
Previous Drainage Report: A drainage report titled "Drainage Study, Intermediate Processing Facility, Cerro Colorado Landfill, Camp Dresser and McKee (CDM), February 1992 was used to obtain the area of the drainage basin (D) in which the project site is located.

On-Site Drainage Area: Rectangular shaped site consisting of 148,104 sq ft = 3.4 acres
Off-Site Contributing Drainage: There is some off-site drainage with an area of 0.2 acres reaching the project site from the east. Proposed design will drain this runoff to the proposed retention pond located on the west side of the site. However, the additional area (located north and west of the project site) within off-site basin D (CDM, February 1992) is 3.8 acres and the runoff from this area was also included in the pond volume requirements.

HYDROLOGY
Precipitation Zone 1 (DPM Figure A)
Six Hour Rainfall Depth from NOAA Atlas 2, Volume IV:
10-Year = 1.5 inches
100-Year = 2.2 inches
Peak Rainfall Intensity:
10-Year = 3.1 inches/hour
100-Year = 4.7 inches/hour

Land Treatments:
Total Drainage Basin Area = 8.4 acres; proposed development area = 3.4 acres of which 0.1 acres will be landscaped; contributing off-site area = 1.2 acres; non-contributing drainage area = 3.8 acres

Existing Conditions: Land Treatment A = 100% = 8.4 acres (Total Drainage Basin D)
Developed Conditions: Land Treatment A = 59% = 6.0 acres (Total Drainage Basin D) (Off-site Basin (contributing and non-contributing))
Land Treatment B = 2% = 0.1 acres (Landscaped)
Land Treatment D = 39% = 3.3 acres (Building and Parking Lot)

Excess Precipitation (DPM Table 8)

	10-yr.	100-yr.
Zone 1 Land Treatment A	0.08	0.44
Zone 1 Land Treatment B	0.08	0.44
Zone 1 Land Treatment D	1.24	1.97

Peak Discharge per Land Treatment (DPM Table 9)
Existing Conditions:
10-Year = Land Treatment A = 0.24 cfs/acre
100-Year = Land Treatment A = 1.29 cfs/acre
Developed Conditions:
10-Year = Land Treatment A = 0.24 cfs/acre
Land Treatment B = 0.78 cfs/acre
Land Treatment D = 2.89 cfs/acre
100-Year = Land Treatment A = 1.29 cfs/acre
Land Treatment B = 2.03 cfs/acre
Land Treatment D = 4.37 cfs/acre

Results for Total Area of 8.4 ac.

8-hr Volume Computation	Existing Conditions	Developed Conditions
Run-off Volume (cu ft)	2,439	15,388
10-Year	13,418	31,828
100-Year		
Peak Discharge (cfs)	2.0	10.8
10-Year	10.8	21.1
100-Year		

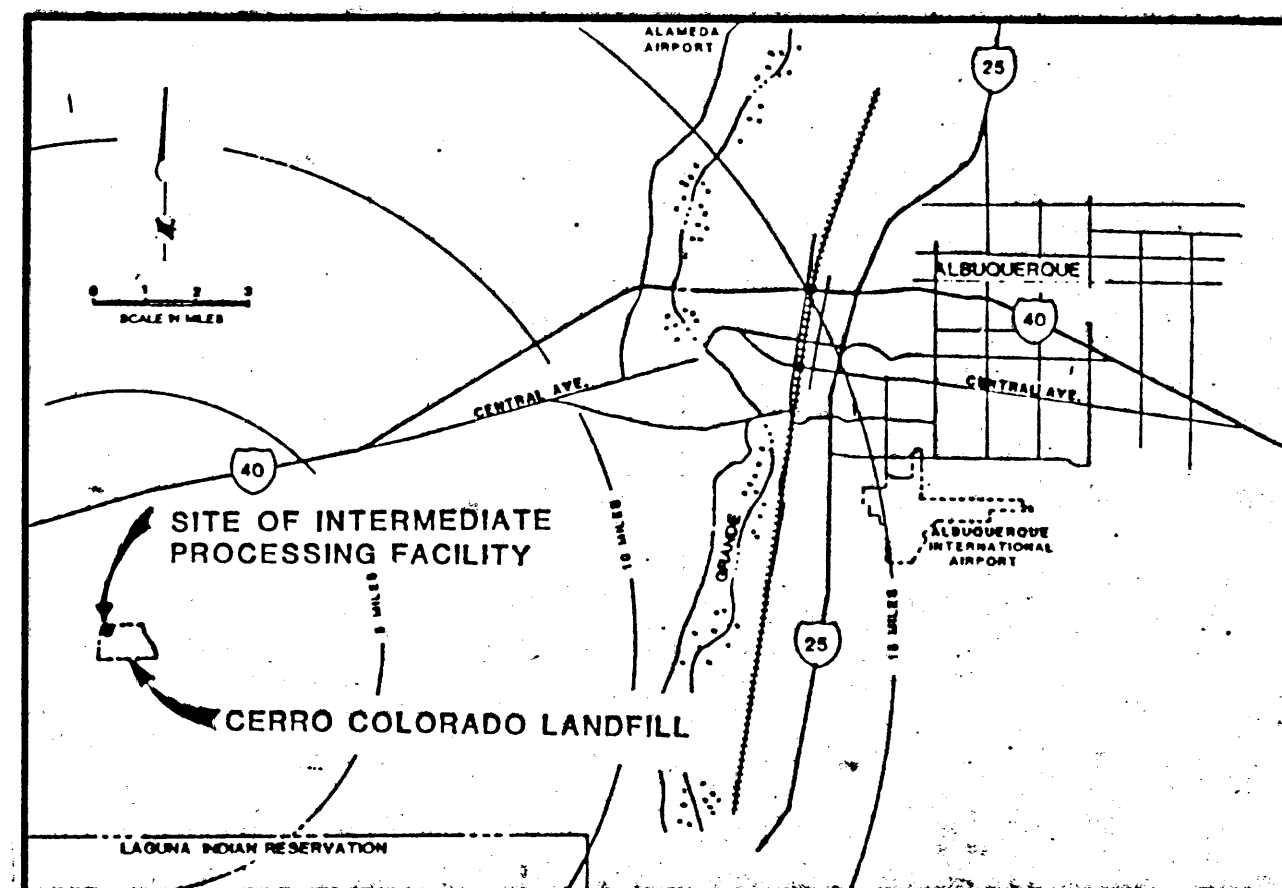
10-day 100-yr Volume Computation
100-yr 8-hr runoff volume for developed conditions = 31,828 cu ft
The proposed retention pond for the project site will retain runoff for 10 days, and will also be responsible for retaining off-site drainage that occurs along the east side.
Per DPM Equation (9) for 10-day storms
Volume 10-days = Volume 8-hr (ac-ft) + Land Treatment D area * (10-day depth (in.)) - (8-hour depth (in.)) / 12 in./ft
= 0.73 ac-ft + 3.3 acres * (3.87 in. - 2.20 in.) / 12 in./ft = 1.13 ac-ft.

Total Volume Required = 1.13 ac-ft
Pond Computations
At elevation 5605.00, Area = 24,602 sq ft
At elevation 5610.00, Area = 28,555 sq ft
Volume of Pond =
2/3 * ((24,602 sq ft + 28,555 sq ft) * ((24,602 sq ft + 28,555 sq ft) / 12) = 1.12
Total Pond Volume Provided = 83,109 cu ft = 1.22 ac-ft
Design - the pond with a 2-ft depth and 2M:1V side slopes, provide 1.5 ft of freeboard. Therefore, the proposed retention pond has been designed to retain 1.22 ac-ft.
Weir Computations (emergency spillway for pond)
Peak Discharge 100-yr = 21.1 cfs; assume L = 10 ft. and C = 2.6
H = (Q / C * L) ^ (2/3)
H = (21.1 cfs / 2.6 * 10 ft) ^ (2/3) = 0.88 ft
Use a gabion mat 1 ft. thick and 10ft. wide as the weir section. The gabion mat must extend to 10 ft. beyond the toe of the dike forming the pond.

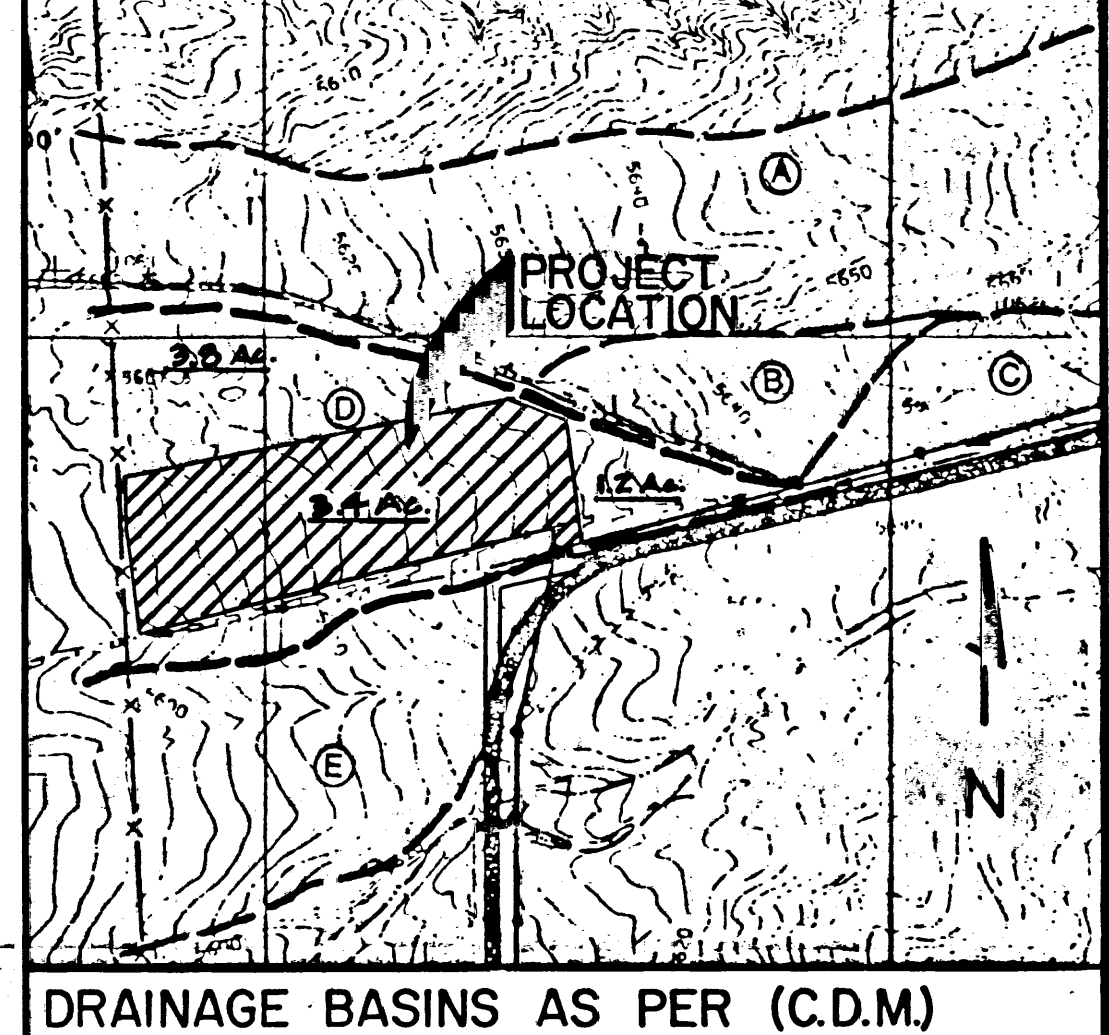
Resource Technology, Inc.
ENGINEERS & ENVIRONMENTAL SCIENTISTS
3020 GLENVIEW NE - SUITE 200 ALBUQUERQUE, NEW MEXICO 87113
TELEPHONE - (505) 345-3116



CITY OF ALBUQUERQUE PUBLIC WORKS DEPARTMENT ENGINEERING GROUP		HYDROLOGY DIVISION	
TITLE: CERRO COLORADO INTERMEDIATE PROCESSING FACILITY CONCEPTUAL GRADING AND DRAINAGE PLAN			
APPROVALS	ENGINEER	DATE	APPROVALS
DRC CHAIRMAN			WATER
TRANSPORT.			WASTE WATER
HYDROLOGY			
PROJECT NO.	MAP NO.	SHEET	OF
	P-2-Z	1	1



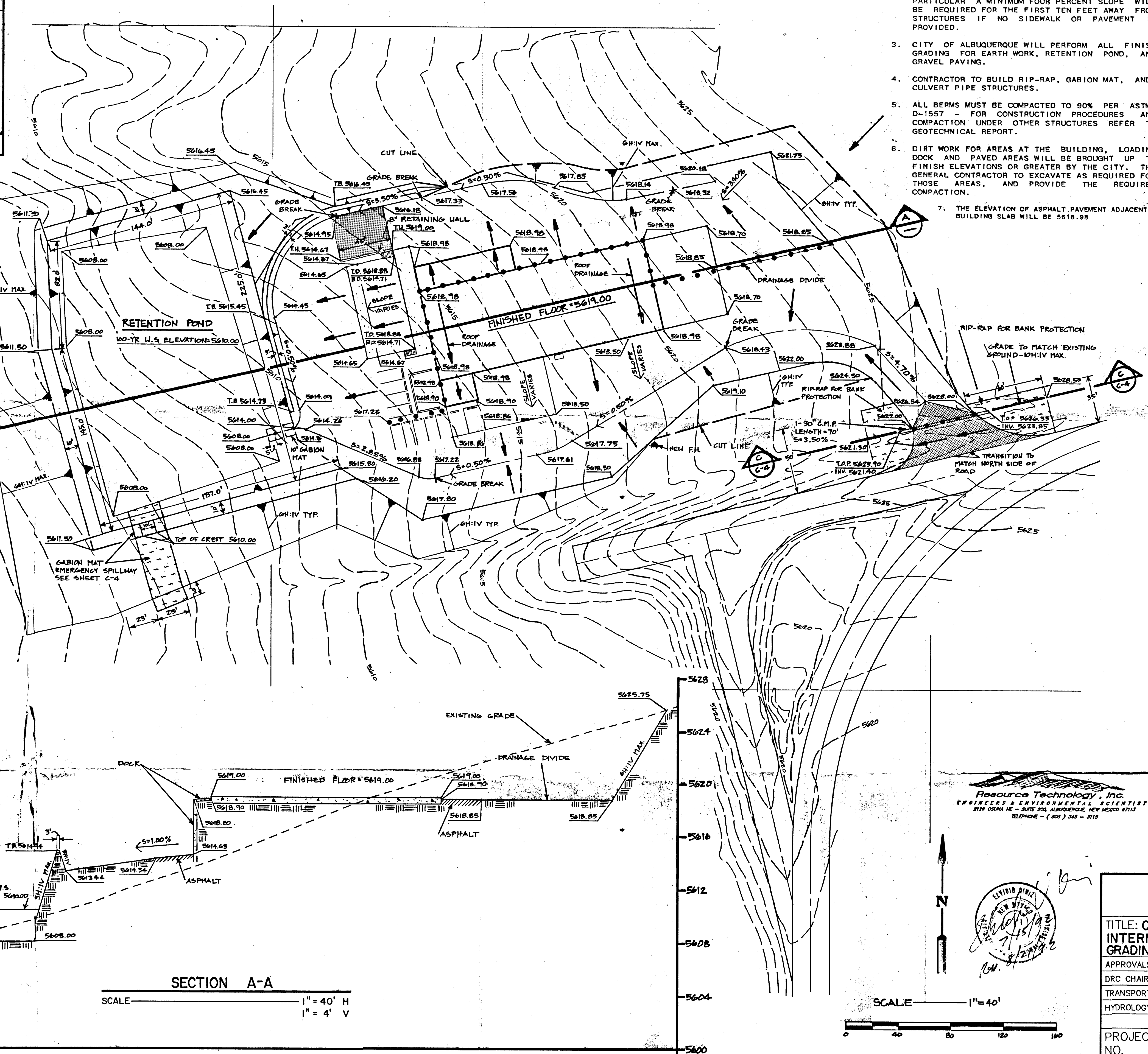
VICINITY MAP P-2-Z N.T.S.



DRAINAGE BASINS AS PER (C.D.M.)

ABBREVIATIONS	
T.W.	TOP OF WALL
T.B.	TOP OF BERM
T.D.	TOP OF DOCK
B.D.	BOTTOM OF DOCK
F.F.	FINISHED FLOOR
T.O.P.	TOP OF PIPE
INV.	INVERT OF PIPE
C.M.P.	CORRUGATED METAL PIPE

LEGEND	
	TRANSITION
	FLOW DIRECTION
	EXISTING ELEVATION
	PROPOSED ELEVATION
	EXISTING CONTOURS
	DRAINAGE DIVIDE
	SLOPE INDICATOR
	RETAINING WALL
	RIP-RAP OR GABION MAT



SECTION A-A
SCALE 1" = 40' H
1" = 4' V

GENERAL NOTES

- ALL RIP-RAP (d 50 = 6") AND ALL GABION MATS REQUIRE 6" GRAVEL FILTER.
- REFER TO GEOTECHNICAL REPORT "GEOTECHNICAL INVESTIGATION CERRO COLORADO INTERMEDIATE PROCESSING FACILITY, PREPARED BY VINYARD AND ASSOCIATES, INC., JULY 6, 1992" FOR EARTH WORK PREPARATION AND GRADING PROCEDURES. IN PARTICULAR A MINIMUM FOUR PERCENT SLOPE WILL BE REQUIRED FOR THE FIRST TEN FEET AWAY FROM STRUCTURES IF NO SIDEWALK OR PAVEMENT IS PROVIDED.
- CITY OF ALBUQUERQUE WILL PERFORM ALL FINISH GRADING FOR EARTH WORK, RETENTION POND, AND GRAVEL PAVING.
- CONTRACTOR TO BUILD RIP-RAP, GABION MAT, AND CULVERT PIPE STRUCTURES.
- ALL BERMS MUST BE COMPACTED TO 90% PER ASTM D-1557 FOR CONSTRUCTION PROCEDURES AND COMPACTION UNDER OTHER STRUCTURES REFER TO GEOTECHNICAL REPORT.
- DIRT WORK FOR AREAS AT THE BUILDING, LOADING DOCK AND PAVED AREAS WILL BE BROUGHT UP TO FINISH ELEVATIONS OR GREATER BY THE CITY. THE GENERAL CONTRACTOR TO EXCAVATE AS REQUIRED FOR THOSE AREAS, AND PROVIDE THE REQUIRED COMPACTION.
- THE ELEVATION OF ASPHALT PAVEMENT ADJACENT TO BUILDING SLAB WILL BE 5618.98

GENERAL NOTES

Site Description:
Present - The site is currently undeveloped with growth of native grasses. It slopes from the east to the west with approximately 18 feet of relief across the extent of the proposed development.
Proposed - The project site will be developed for an intermediate processing facility (recycling center). The site will be landscaped and paved parking. Proposed design will allow on-site and upstream off-site runoff to discharge into a retention pond via swales in the unpaved parking lot. The volume of the pond is designed to retain a 10-day storm with 1.5 ft. of freeboard. The pond will have an emergency spillway weir located on the south side.

Flood Hazard Zone: Zone C
Soil Type: BMD - Bluepoint - Hydrologic Soil Group "A"
Previous Drainage Report: A drainage report titled "Drainage Study, Intermediate Processing Facility, Cerro Colorado Landfill, Camp Dresser and Moore (CDM), February 1992" was used to obtain the area of the drainage basin (D) in which the project site is located.

On-Site Drainage Area: Rectangular shaped site consisting of 148,104 sq ft = 3.4 acres
Off-Site Contributing Drainage: There is some off-site drainage with an area of 1.2 acres reaching the project site from the east. Proposed design will drain this runoff to the proposed retention pond located on the west side of the site. However, to be conservative, the additional area (located north and west of the project site) within off-site basin D (CDM, February 1992) is 3.8 acres and the runoff from this area was also included in the pond volume requirements.

HYDROLOGY
Precipitation Zone 1 (DPM Figure A)
Six Hour Rainfall Depth from NOAA Atlas 2, Volume IV:
10-Year = 1.8 inches
100-Year = 2.3 inches
Peak Rainfall Intensity:
10-Year = 3.1 inches/hour
100-Year = 4.7 inches/hour
Land Treatments: Total Drainage Basin Area = 8.4 acres; proposed development area = 3.4 acres of which 0.1 acres will be landscaping contributing off-site area = 1.2 acres; non-contributing drainage area = 3.8 acres
Existing Conditions: Land Treatment A = 100% = 8.4 acres (Total Drainage Basin D)
Developed Conditions: Land Treatment A = 58% = 5.0 acres (Total Drainage Basin D) (Off-site Basin, contributing and non-contributing)
Land Treatment B = 2% = 0.1 acres (landscaping)
Land Treatment D = 39% = 3.3 acres (Building and Parking Lot)

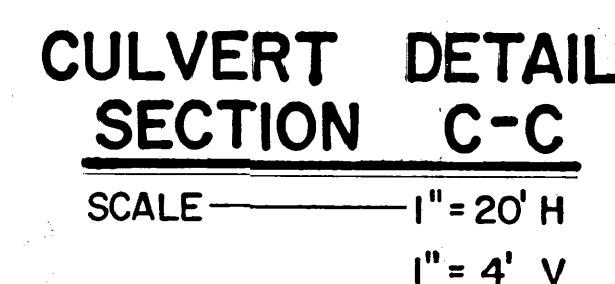
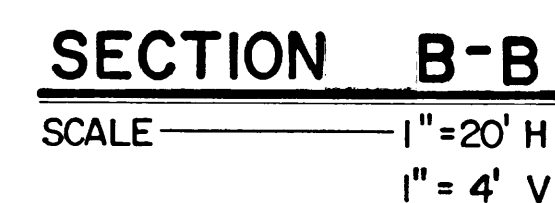
Excess Precipitation (DPM Table 8)
Zone 1 Land Treatment A = 0.22 in./yr.
Zone 1 Land Treatment B = 0.22 in./yr.
Zone 1 Land Treatment D = 1.24 in./yr.

Peak Discharge per Land Treatment (DPM Table 9)
Existing Conditions:
10-Year = Land Treatment A = 0.24 cfs/acre
100-Year = Land Treatment A = 1.29 cfs/acre
Developed Conditions:
10-Year = Land Treatment A = 0.24 cfs/acre
Land Treatment B = 0.76 cfs/acre
Land Treatment D = 2.89 cfs/acre
100-Year = Land Treatment A = 1.89 cfs/acre
Land Treatment B = 2.03 cfs/acre
Land Treatment D = 4.37 cfs/acre

Results for Total Area of 8.4 ac:
8-hr Volume Computation
Run-off Volume (cu ft)
10-Year = 2,438
100-Year = 31,828
Peak Discharge (cfs)
10-Year = 2.0
100-Year = 10.8
10-day 100-yr Volume Computation
100-yr 8-hr runoff volume for developed conditions = 31,828 cu ft
= 0.73 ac-ft
The proposed retention pond for the project site will retain runoff for 10 days, and will also be responsible for retaining off-site drainage that occurs along the east side.
Per DPM Equation (9) for 10-day storms
Volume 10-days = Volume 8-hr (ac-ft) + Land Treatment D area * (10-day depth (in.)) - (8-hour depth (in.)) / 12 in./ft
= 0.73 ac-ft + 3.3 acres * (3.67 in. - 2.20 in.) / 12 in./ft
= 1.13 ac-ft
Total Volume Required = 1.13 ac-ft
Pond Computations
At elevation 5606.00, Area = 24,602 sq ft
At elevation 5610.00, Area = 28,558 sq ft
Volume of Pond =
2/3 * ((24,602 sq ft + 28,558 sq ft) * ((24,602 sq ft + 28,558 sq ft) / 2)) * 1/2
Total Pond Volume Provided = 53,109 cu ft
= 1.22 ac-ft
Design the pond with a 2-ft depth and 3H:1V side slopes; provide 1.5 ft of freeboard. Therefore, the proposed retention pond has been designed to retain 1.22 ac-ft.
Weir Computations (Emergency Spillway for Pond)
Peak Discharge 100-yr = 21.1 cfs; assume L = 10 ft, and C = 2.5
H = (Q / C * L) * 2/3
H = (21.1 cfs / 2.5 * 10 ft) * .67
H = 0.88 ft
Use a gabion mat 1 ft. thick and 10ft. wide as the weir section. The gabion mat must extend to 10 ft. beyond the toe of the dike forming the pond.

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TELEPHONE - (505) 343-3115

CITY OF ALBUQUERQUE PUBLIC WORKS DEPARTMENT ENGINEERING GROUP					
TITLE: CERRO COLORADO INTERMEDIATE PROCESSING FACILITY CONCEPTUAL GRADING AND DRAINAGE PLAN					
APPROVALS	ENGINEER	DATE	APPROVALS	ENGINEER	DATE
DRC CHAIRMAN			WATER		
TRANSPORT.			WASTE WATER		
HYDROLOGY					
PROJECT NO.	4362	MAP NO.	P-2-Z	SHEET	OF 3

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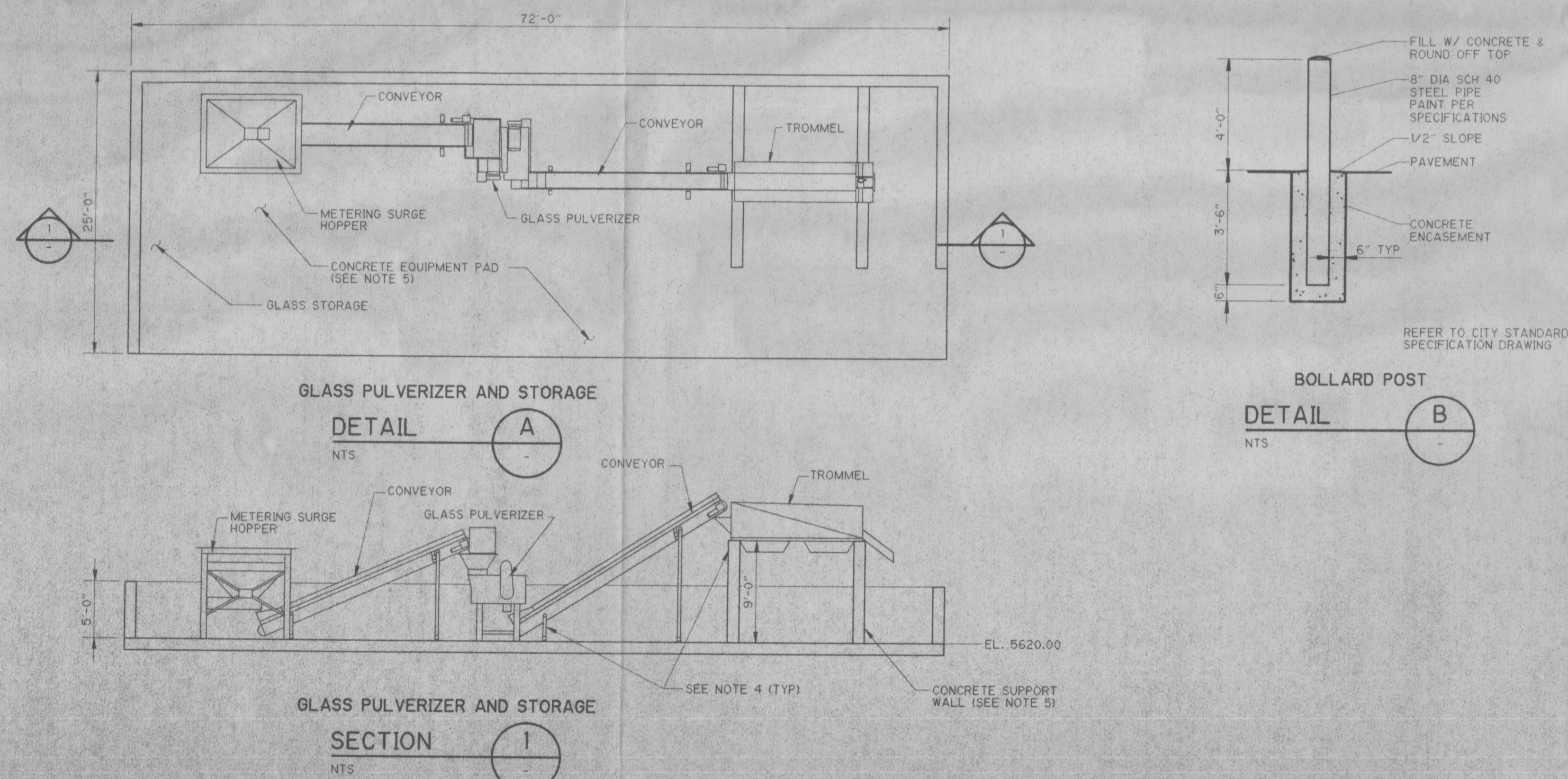
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CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT
ENGINEERING GROUP

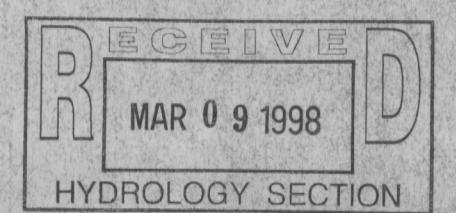
TITLE: CERRO COLORADO
INTERMEDIATE PROCESSING FACILITY
DETAILS

APPROVALS	ENGINEER	DATE	APPROVALS	ENGINEER	DATE
DRC CHAIRMAN			WATER		
TRANSPORT.			WASTE WATER		
HYDROLOGY					

PROJECT NO.	MAP NO.	SHEET	OF
4362	P-2-Z	3	3



1. CONTRACTOR SHALL GRADE AND SLOPE AREA AROUND THE GLASS PULVERIZER TO ALLOW SURFACE DRAINAGE.
2. CONTRACTOR SHALL KEEP IN MIND THAT THE CITY PLANS TO PREPARE AND APPLY AN ASPHALT SURFACE TO THE AREA SURROUNDING THE BUILDING AFTER THIS PROJECT IS COMPLETE. THE CONTRACTOR SHALL REMOVE ALL EXISTING CURB, SIDEWALK, AND PAVEMENT STRUCTURES CAUSED BY THE CONTRACTORS OPERATIONS PRIOR TO PROJECT COMPLETION.
3. EXISTING CONDITIONS ARE BASED ON "AS-BUILT" DRAWINGS PROVIDED BY GAYLESLKY BENSON ARCHITECTS, P.C. ALL DIMENSIONS AND EQUIPMENT LAYOUT SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO FABRICATION OF ALL EQUIPMENT AND STRUCTURES.
4. CONTRACTOR SHALL FASTEN EQUIPMENT TO THE CONCRETE SLAB AND SUPPORT WALLS AS RECOMMENDED BY THE MANUFACTURER.
5. SEE SHEET S-3 FOR STRUCTURAL DESIGN OF THE CONCRETE SLAB, EQUIPMENT SUPPORT, WALLS AND RETAINING WALLS.
6. CONTRACTOR SHALL INSTALL CONCRETE APRONS AT BOTH SOUTH ROLL-UP DOORS. APRONS SHALL BE INSTALLED AND COORDINATED WITH EXISTING COMPACTION UNIT AND STORAGE CONTAINER IN THIS AREA.
7. CONTRACTOR SHALL RESTORE DISTURBED HANDICAPPED AND REGULAR PARKING SPACE TO ITS ORIGINAL CONDITION PRIOR TO COMPLETION.
8. CONTRACTOR TO INSTALL 16" x 24" REINFORCED CONCRETE PAD BELOW THE STORAGE SHED AS REQUIRED BY THE MANUFACTURER. CONTRACTOR SHALL REPAIR ASPHALT SURROUNDING THE SHED TO HAVE A UNIFORM SURFACE.

[illegible]

CDM Camp Dresser & McKee Inc.
consulting
engineering
construction
operations

121 TIJERAS BOULEVARD N.E.
SUITE 1000
ALBUQUERQUE, NEW MEXICO 87102
(505) 243-3200

CITY OF ALBUQUERQUE
SOLID WASTE MANAGEMENT DEPARTMENT
INTERMEDIATE PROCESSING FACILITY (IPF) EXPANSION
CERRO COLORADO MUNICIPAL SANITARY LANDFILL
SITE PLAN AND CIVIL DETAILS

Design Review Committee	City Engineer Approval	Lead Design Update	Mo:06/27/17	Mo:06/27/17
City Project No.	Zone Map No.	Sheet	Of	
5659.90	P-2-Z	C-1	3	26