DRAINAGE INFORMATION SHEET

PROJECT TITLE: UPS Grading, Drainage & Paving Improvements ZONE ATLAS/DRNG. FILE #: G-16 / D220

DRB #: N/A EPC #: N/A WORK ORDER #: N/A

LEGAL DESCRIPTION: Mexalb Tract 1 and Hahn Parcel (Parcel 1)

CITY ADDRESS: 2401 Comanche Rd. NE, Albuquerque, NM 87107

ENGINEERING FIRM: Easterling & Associates, Inc. CONTACT: R.P. Bohannan

ADDRESS: 5643 Paradise Blvd. NW Albuquerque, NM 87114 PHONE: 898-8021

OWNER: United Parcel Service CONTACT: Ron Andreas

ADDRESS: 2401 Comanche Rd. NE Albuquerque, NM 87107 PHONE: 888-1218

ARCHITECT: N/A CONTACT:

ADDRESS: PHONE:

SURVEYOR: GeoSurveys CONTACT: Rick Fenel

ADDRESS: 500 Cirtulo Floretta NW Albuquerque, NM 87107 PHONE: 344-5330

CONTRACTOR: Universal Constructors CONTACT: Gilbert Luna

ADDRESS: P.O. Box 6008, Sta B Albuquerque, NM 87197 PHONE: 884-0400

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

RECEIVED
MAR 27 1991
HYDROLOGY DIVISION

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 As-Built (SPECIFY)

DATE SUBMITTED: 3/26/91

BY: Ronald P. Bohannan

City of Albuquerque
P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

June 28, 1994

Richard Vaughn
Richard Vaughn & Associates
3700 Coors NW
Albuquerque, NM 87121

RE: DRAINAGE PLAN FOR A TRUCK WASH TERMINAL @ UNITED PARCEL SERVICE (G16-D20) ENGINEER'S STAMP DATED 6/21/94.

Dear Mr. Vaughn:

Based on the information provided on your June 22, 1994 submittal, the above referenced site is approved for Building Permit.

Please attach a copy of this approved plan to the construction sets prior to sign-off by Hydrology.

Please be advised that any further development within the U.P.S. parcel will require an updated Master Drainage Plan.

If I can be of further assistance, please feel free to contact me at 768-2667.

Sincerely,

Bernie J Montoya

Bernie J. Montoya, CE
Engineering Associate

BJM/dl/WPHYD/8622

c: Andrew Garcia
Vera Davis
File

DRAINAGE INFORMATION SHEET

PROJECT TITLE: UNITED PARCEL SERVICE ALBUQ HUB IMPROVEMENTS ZONE ATLAS/DRNG. FILE #: G-16 Z/D20

DRB #: _____ EPC #: _____ WORK ORDER #: _____

LEGAL DESCRIPTION: LANDS OF MEXALB CORPORATION PLATS C19-171 + D7-22

CITY ADDRESS: 2401 COMANCHE NE

ENGINEERING FIRM: RICHARD VAUGHN ASSOC. CONTACT: DICK VAUGHN

ADDRESS: 3700 COORS NW PHONE: 831-4511

OWNER: UNITED PARCEL SERVICE, VERA DAVIS CONTACT: VERA DAVIS

ADDRESS: 4101 McEWEN, SUITE 600 DALLAS, TX 75244 PHONE: (214) 788-7724

ARCHITECT: NIMS CALVANI CONTACT: JOHN LAYMAN

ADDRESS: 525 SAN PEDRO NE PHONE: 268-6954

SURVEYOR: ESA CONSTRUCTION CONTACT: ANDY LEE

ADDRESS: 3435 GIRARD NE PHONE: 884-2171

CONTRACTOR: ESA CONSTRUCTION CONTACT: ANDY LEE

ADDRESS: 3435 GIRARD NE PHONE: 884-2171

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

JUN 22 1994

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
- ____ SUBDIVISION CERTIFICATION
- ____ OTHER _____ (SPECIFY)

DATE SUBMITTED: 6/22/94

BY: Andy Lee

City of Albuquerque
P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

August 19, 1991

R.P. Bohannan
Easterling & Associates, Inc.
5643 Paradise Boulevard, NW
Albuquerque, New Mexico 87114

RE: ENGINEER'S CERTIFICATION FOR UPS GRADING, DRAINAGE & PAVING IMPROVEMENTS DATED MARCH 26, 1991 (G-16/D20)

Dear Mr. Bohannan:

The as-built drainage plan received on March 27, 1991 is in accordance with our pre-design, hence, your submittal is approved.

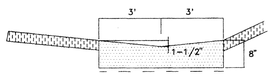
The appropriate site drainage discharge points to the proposed SAD 216 drainage improvements will be determined during final design of SAD drainage improvements. The final approval of the connection to the SAD storm drain will be through the City Engineer's office (Hydrology Division) and through the SAD Engineer.

Should you have any questions, please call me at 768-2650.

Cordially,

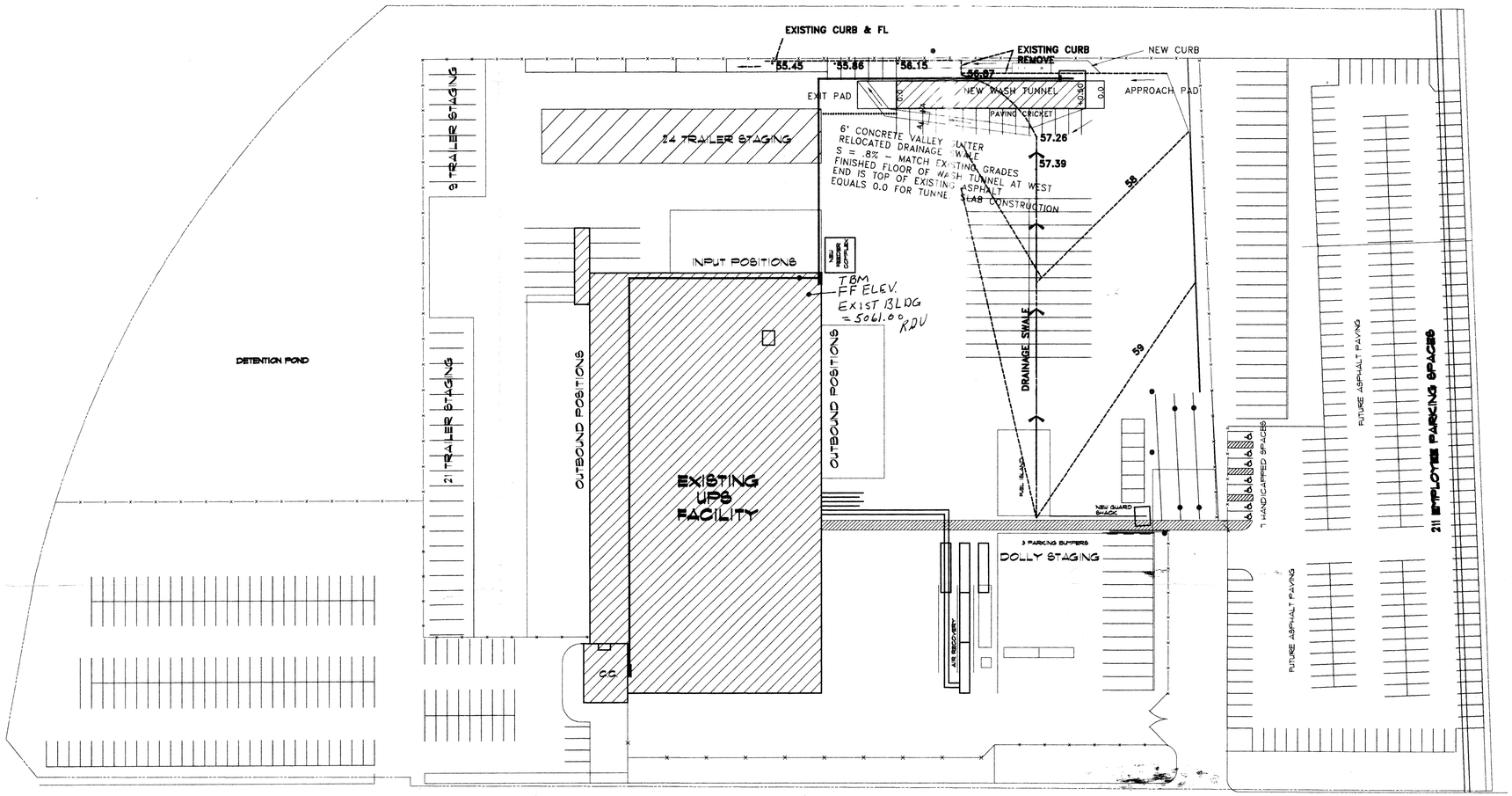
Fred J. Aguirre, P.E.
Hydrologist

FJA/bsj
(WP+2857)



SECTION A-A
VALLEY GUTTER

MAINTENANCE NOTES:
1. EXISTING DRAINAGE APPROVED 12/14/90 FOR PAVING IMPROVEMENT PROJECT.
2. REVISED DRAINAGE THIS PROJECT RELOCATES SWALE TO ACCOMMODATE NEW BUILDING.
3. NEW CURB ALONG FENCE ALLOWS DRAINAGE BEHIND BUILDING.
4. IMPROVEMENTS ON THIS PLAN DO NOT REVISE 1990 FLOW PATTERNS, RUNOFF, AND VOLUME CALCULATIONS AS COMPUTED BY EASTERLING & ASSOCIATES FOR THE "UPS GRADING, DRAINAGE & PAVING IMPROVEMENTS PROJECT"
5. EXISTING SWALE AND GRADES FROM AS-BUILT PLANS DATED 3/26/91



NORTH

GRADING PLAN
SITE PLAN

SCALE: 1"=50'-0"

KEYED NOTES

BUILDING CRITERIA

PROJECT:	UNITED PARCEL SERVICE ALBUQUERQUE HUB IMPROVEMENTS	
ADDRESS:	2701 PAN AMERICAN FREEWAY NE ALBUQUERQUE, NM	
OCCUPANCY TYPE:	FEEDER BUILDING	B-2
	WASH TUNNEL	B-1
	GUARD HOUSE	B-2
CONSTRUCTION TYPE:	FEEDER BUILDING	VN
	WASH TUNNEL	VN
	GUARD HOUSE	VN
BUILDING AREA:	FEEDER BUILDING	
	1st FLOOR	728 S.F.
	2nd FLOOR	728 S.F.
	SUB-TOTAL	1,456 S.F.
	WASH TUNNEL	3,400 S.F.
	GUARD HOUSE	168 S.F.
ALLOWABLE BUILDING AREA:	FEEDER BUILDING	8,000 S.F.
	WASH TUNNEL	8,000 S.F.
	GUARD HOUSE	8,000 S.F.

RICHARD G. VAUGHAN
NO. 3627
STATE OF NEW MEXICO
REGISTERED PROFESSIONAL ENGINEER
6-21-94

NIMS, CALVANI & ASSOCIATES, P.A.
ARCHITECTS • PLANNERS • AIA

ALBUQUERQUE
525 SAN PEDRO NE, SUITE 110
ALBUQUERQUE, NM 87108
(505) 255-6400

LAS CRUCES
1400 EL PASEO ROAD, SUITE A
LAS CRUCES, NM 88005
(505) 523-2000

ARCHITECT
STATE OF NEW MEXICO
ROBERT CALVANI
No. 1053
REGISTERED ARCHITECT

UNITED PARCEL SERVICE
ALBUQUERQUE HUB IMPROVEMENTS
FEEDER COMPLEX
ALBUQUERQUE, NEW MEXICO

SITE PLAN

JOB NUMBER: A94.20
DATE: 5/5/94
SHEET NUMBER: CS1.1

I HEREBY CERTIFY THAT I AM A REGISTERED PROFESSIONAL ENGINEER, THAT I HAVE INSPECTED THE SITE, AND THAT THE IMPROVEMENTS HAVE BEEN CONSTRUCTED IN ACCORDANCE WITH THE APPROVED PLANS WITH MINOR REVISIONS AS NOTED ON THESE AS-CONSTRUCTED PLANS.

Ronald P. Bohannan

R.P. BOHANNAN, P.E.
N.M.P.E. NO. 9814

DATE: 3/26/91

Ronald P. Bohannan 3/26/91

APPROPRIATE SITE DRAINAGE DISCHARGE POINTS TO THE PROPOSED SAD 216 DRAINAGE IMPROVEMENTS WILL BE DETERMINED DURING FINAL DESIGN OF SAD DRAINAGE IMPROVEMENTS. THE FINAL APPROVAL OF THE CONNECTION TO THE SAD 216 DRAIN DRAIN WILL BE THAN THE CITY'S ENGINEERS OFFICE (HYDROLOGY DIV) AND THEN THE SAD ENGINEER.

CONSTRUCT BERM IMPROVEMENTS SEE DETAIL ON SHEET 2 FOR IMPROVEMENTS IN THIS AREA

EXISTING OUTLET STRUCTURES

EXISTING DITCH

AREA 3

AREA 4
(EXISTING ASPHALT)

AREA 5
(EXISTING POND)

EXISTING RETENTION / DETENTION POND

I-25 EAST FRONTAGE ROAD

EXISTING BUILDING

CONSTRUCT CONCRETE CURB & CONSTRUCT EXTRUDED ASPHALT CURB

CONSTRUCT 3" GRAVEL SURFACE

LAYOUT AND STRIPE TRUCK PARKING STALLS PER UPS PLAN & SPECIFICATIONS

CONSTRUCT 3" ASPHALT PAVING WITHIN AREA 1 (ASPHALT) APPROX. 7450 S.Y.

TBM TOP OF GAS ISLAND 5060.75

EXIST EDGE OF PVMT

AREA 1
(ASPHALT)

SAWCUT HEADER CURB 4' WIDE AND DOWN TO PROPOSED GRADE PROPOSED INV = 59.09

CONSTRUCT 6' WIDE CONC. SWALE SEE DETAIL THIS SHEET

REMOVE & DISPOSE OF EXIST. FRENCH DRAIN BACKFILL W/ CLEAN FILL COMPACTED TO 95% ASTM D-1557

AREA 2
(ASPHALT)

EXISTING BLDG.

ADDITIONAL PAVING

GUARD STATION

CONSTRUCT 2" ASPHALT PAVING WITHIN AREA 2 (ASPHALT) APPROX. 2290 S.Y.

CONSTRUCT 3" GRAVEL SURFACE

EXISTING DITCH

CONSTRUCT GRAVEL SURFACING WITHIN AREA 3 (GRAVEL) APPROX. 8640 S.Y.

AREA 3
(GRAVEL)

REMOVE EXIST. GUARD POSTS & BACKFILL POST HOLES (APPROX. 25 E.A.)

EXISTING FENCE

ADDITIONAL PAVING

COMMANCHE BLVD.

Scale 1"=40' (40 20 0 40 80 Feet)

3' 3' 1-1/2" 8" SUBGRADE 95% COMPACTION ASTM D-1557 8"

SECTION A-A

#4 AT 24" O.C. WELDED WIRE MESH 6"x6"x6 GA. PER COA STD. DWG. 2420.

Q100 (6HR) RUNOFF VOLUME EXISTING CONDITION = 73,503 CF
Q100 (6HR) RUNOFF VOLUME WITH PROPOSED ADDITIONAL PAVING = 81,997 CF

EXISTING POND VOLUME
DETENTION (ABOVE OUTLET WEIR ELEV (5050.85) = 57,002 CF
RETENTION (BELOW OUTLET WEIR ELEV (5050.85) = 26,858 CF

TOTAL 83,860 CF

VOLUME CALCULATIONS

PROJECT UPS

JOB NO. 2852 BY DLS DATE 12-12-90 CHECKED BY RPB DATE 12-12-90

SCALE _____ FACTOR _____

ELEVATION	IN²	FT²	FT³	INDIVIDUAL ACRE FEET	CUMULATIVE ACRE FEET
5048.65	Ø	Ø			
			980	.022	.022
5049.00	3.5	5,600			
			10,000	.230	.252
5050.0	9.0	14,400			
			18,680	.429	.681
5051.0	14.35	22,960			
			25,080	.576	1.257
5052.0	17.0	27,200			
			29,120	.669	1.926
5053.0	19.40	31,040			
					(83,897 c.f.)

NOTES:

1. Refer to sheet 2 for pavement sections.
2. Trim (sawcut) and remove and dispose of approximately 1' of existing asphalt at all existing pavement edges abutting proposed paving. Tack edge for new paving connection.
3. This plan does not show all existing improvements and utilities. Contractor shall locate and prevent damage to existing improvements and utilities.
4. For compaction purposes, site soils are considered cohesive.
5. Refer to legend sheet 2 of 2.

Approval of this interim drainage plan is based on the understanding that ultimate drainage improvements will be designed and constructed with SAD 216. If the SAD does not occur prior to future expansion, additional drainage improvements may be required.

APPROVAL: PAVING PERMIT

Date 2/14/91

LEGAL DESCRIPTION: LANDS OF MEXALB CORPORATION (PLATS C19-171 & D7-22)

BENCHMARK INFORMATION: WEST FRONTAGE ROAD OF I-25 .5 MILES SOUTH OF MONTANO ROAD. NM SHC STA. I-25-20 ELEV= 5079.46

JAN 22 1991

NO.	REVISIONS	BY	DATE

UPS GRADING, DRAINAGE & PAVING IMPROVEMENTS

RONALD P. BOHANNAN 9814 12/14/90 REGISTERED PROFESSIONAL ENGINEER

EASTERLING & ASSOCIATES, INC.
CONSULTING ENGINEERS
5643 Paradise Blvd. N.W.
Albuquerque, New Mexico 87114

Designed: DLS	Drawn: MES	Checked: RPB	Sheet 1
Job No.: 2852	Date: DEC., 1990		of 2

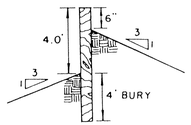
LEGEND

DESCRIPTION	NEW	EXISTING
CONTOURS	5094	5094
SPOT ELEVATIONS	⊘ 5088	⊕ 5088
DRAINAGE AREA BOUNDARY		
DRAINAGE DIVIDE		
WATER BLOCK		
DIRECTION OF FLOW		
ASPHALT PAVING	ASPHALT	ASPHALT
LANDSCAPING	L.S.	L.S.
RETAINING WALL		
GARDEN WALL		
SWALE		
PROPERTY LINE		
FENCE	x x	x x
CATCH BASIN		
STORM DRAIN M.H. & LINE	36"SD	36"SD
SANITARY SEWER M.H. & LINE	8"SAS	8"SAS
FIRE HYDRANT & WATER LINE	6"W	6"W
REDUCERS		
WATER VALVES	GATE | BUTTERFLY	GATE | BUTTERFLY
WATER CONNECTIONS	CROSS TEE BEND CAP	CROSS TEE BEND CAP
WATER JOINTS	CONCRETE	CONCRETE
CONCRETE		
GAS LINE	G	G
UNDERGROUND TELEPHONE	UT	UT
CABLE TELEVISION	CT	CT
POWER/TELEPHONE POLE	P.P.	P.P.
UNDERGROUND ELECTRICAL	UE	UE
CURB ELEVATION	TC 5088.28 FL 5087.78	TC 5088.28 FL 5087.78
HYDROLOGICAL ANALYSIS PT.		
DETAIL REFERENCE		
KEYED NOTES		
C.O.A. DETAIL REFERENCE		
CURVE OR COORDINATE REFERENCE INFO.		
PHASE BOUNDARY		

I HEREBY CERTIFY THAT I AM A REGISTERED PROFESSIONAL ENGINEER, THAT I HAVE INSPECTED THE SITE, AND THAT THE IMPROVEMENTS HAVE BEEN CONSTRUCTED IN ACCORDANCE WITH THE APPROVED PLANS WITH MINOR REVISIONS AS NOTED ON THESE AS-CONSTRUCTED PLANS.

Ronald P. Bohannan 3/26/91

R.P. BOHANNAN, P.E.
N.M.P.E. NO. 9814
DATE: 3/22/91

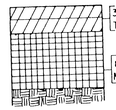


SECTION B-B (R.R. TIE RETAINING WALL)

GENERAL NOTES FOR GRADING AND DRAINAGE

1. AN EXCAVATION/CONSTRUCTION PERMIT MAY BE REQUIRED BEFORE BEGINNING ANY WORK WITHIN CITY RIGHT-OF-WAY. AN APPROVED COPY OF THESE PLANS MUST BE SUBMITTED AT THE TIME OF APPLICATION FOR THIS PERMIT.
2. ALL WORK DETAILED ON THESE PLANS, EXCEPT AS OTHERWISE STATED OR PROVIDED HEREON, SHALL BE CONSTRUCTED IN ACCORDANCE WITH UPS PROJECT SPECIFICATIONS.
3. TWO WORKING DAYS PRIOR TO ANY EXCAVATION, CONTRACTOR MUST CONTACT LINE LOCATING SERVICE, 260-1990, 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 THE CONFLICT CAN BE RESOLVED WITH A MINIMUM AMOUNT OF DELAY.
5. BACKFILL COMPACTION SHALL BE 95% ASTM 1557.
6. ALL UTILITIES AND UTILITY SERVICE LINES SHALL BE INSTALLED PRIOR TO PAVING.
7. DISPOSAL OF ALL WASTE MATERIAL SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
8. **OWNERSHIP OF DOCUMENTS:** THIS DOCUMENT, AND THE IDEAS AND DESIGNS INCORPORATED HEREIN, AS AN INSTRUMENT OF PROFESSIONAL SERVICE, IS THE PROPERTY OF **EASTERLING & ASSOCIATES, INC.**, AND IS NOT TO BE USED, IN WHOLE OR IN PART, FOR ANY OTHER PROJECT WITHOUT THE WRITTEN AUTHORIZATION OF **EASTERLING & ASSOCIATES, INC.**
9. **CONSTRUCTION SAFETY:** THESE DRAWINGS DO NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY WHICH SHALL REMAIN THE CONTRACTOR'S RESPONSIBILITY.
10. **EROSION CONTROL:** THE SITE WILL BE FULLY DEVELOPED IMMEDIATELY. EROSION PROBLEMS GENERATED BY PHASED DEVELOPMENT WILL NOT, THEREFORE, BE A PROBLEM.
11. **CONSTRUCTION PHASE:** THE CONTRACTOR SHALL EXERCISE REASONABLE CARE DURING CONSTRUCTION TO PREVENT THE MOVEMENT OF SEDIMENT FROM THE SITE INTO THE STREET. LOOSE SOIL STOCKPILES IN THE STREET DURING UTILITY CONNECTION ACTIVITIES SHALL BE PROTECTED FROM BEING CARRIED DOWNSTREAM BY FLOWING WATER IN THE STREET.

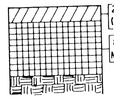
AREA 1



3" PLANT MIX BITUMINOUS PVMT (PMBP) TYPE I GRADE B (TWO 1-1/2" COURSES)

8" COMPACTED SUBGRADE (95% ASTM D-1557, WITH MOISTURE CONTENT OPTIMUM ± 2%)

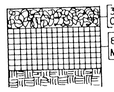
AREA 2



2" PMBP TYPE I GRADE B (ONE 2" COURSE)

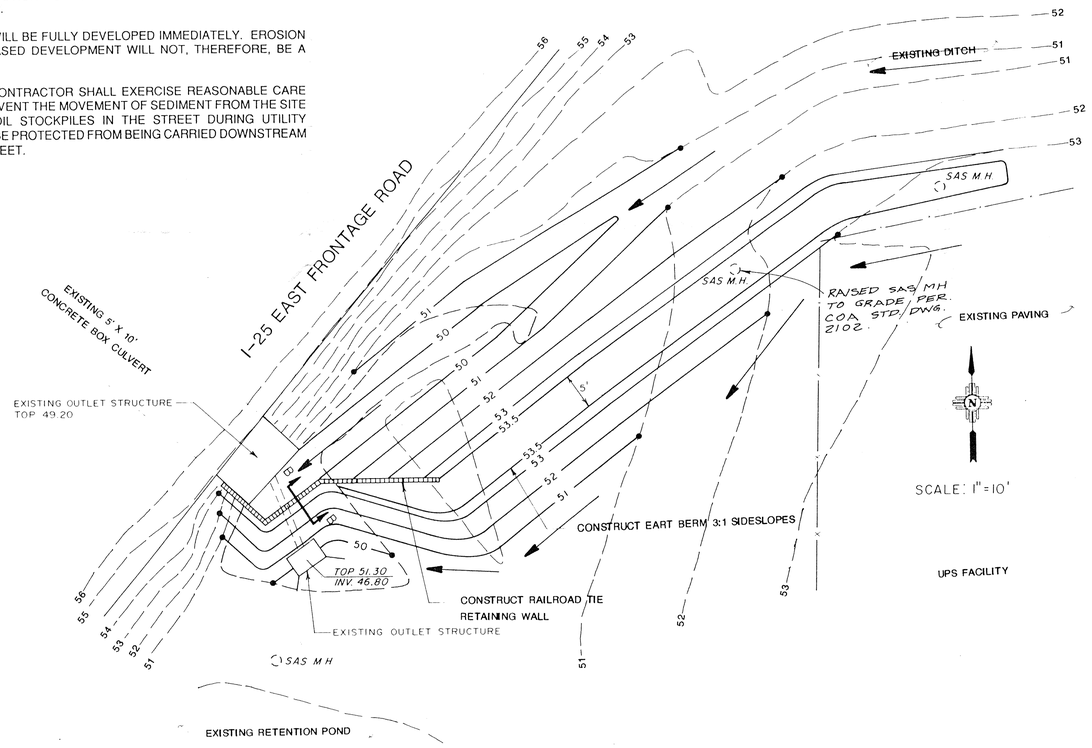
8" COMPACTED SUBGRADE (95% ASTM D-1557, WITH MOISTURE CONTENT OPTIMUM ± 2%)

AREA 3



3" AGGREGATE BASE COURSE CLASS II-B COMPACTED TO 95% ASTM D-1557

8" COMPACTED SUBGRADE (95% ASTM D-1557, WITH MOISTURE CONTENT OPTIMUM ± 2%)



BERM IMPROVEMENTS DETAIL

HYDROLOGY

TABLE 1 - RAINFALL DEPTHS (INCHES) FOR ZONE 2

DURATION	RETURN PERIOD 100 YEAR	50 YEAR	25 YEAR	10 YEAR	5 YEAR	2 YEAR
1 HOUR	2.81	2.61	1.61	1.34	1.14	0.87
6 HOUR	2.35	2.12	1.88	1.57	1.33	1.02
24 HOUR	2.75	2.48	2.28	1.83	1.56	1.19
6 DAY	3.38	2.97	2.64	2.28	1.87	1.43
10 DAY	3.95	3.56	3.16	2.63	2.24	1.71

TABLE 2 - BASIN LAND TREATMENT SUMMARY

BASIN I.D.	DESCRIPTION	AREA (ACRES)	LAND TREATMENT CLASSIFICATION (% OF TOTAL) A	B	C	D	TOTAL
1	EXISTING	1.68	0.0%	0.0%	100.0%	0.0%	100.0%
2	EXISTING	0.40	0.0%	0.0%	100.0%	0.0%	100.0%
3	EXISTING	3.66	0.0%	0.0%	100.0%	0.0%	100.0%
4	EXISTING	6.94	0.0%	0.0%	0.0%	100.0%	100.0%
5	EXISTING	1.43	100.0%	0.0%	0.0%	0.0%	100.0%
1A	PROPOSED	1.68	0.0%	0.0%	0.0%	100.0%	100.0%
2A	PROPOSED	0.40	0.0%	0.0%	0.0%	100.0%	100.0%
3A	PROPOSED	3.66	0.0%	0.0%	100.0%	0.0%	100.0%
4A	PROPOSED	6.94	0.0%	0.0%	0.0%	100.0%	100.0%
5A	PROPOSED	1.43	100.0%	0.0%	0.0%	0.0%	100.0%

TABLE 8 - 2 YEAR EVENT SUMMARY FOR ALL BASINS

BASIN I.D.	DESCRIPTION	AREA (ACRES)	PEAK DISCHARGE (CFS)	6 HOUR VOLUME (AC-FT)	24 HOUR VOLUME (AC-FT)	4 DAY VOLUME (AC-FT)	10 DAY VOLUME (AC-FT)
1	EXISTING	1.6985	1.01	0.0169	0.0169	0.0169	0.0169
2	EXISTING	0.4023	0.29	0.0040	0.0040	0.0040	0.0040
3	EXISTING	3.6562	2.19	0.0360	0.0360	0.0360	0.0360
4	EXISTING	6.9485	14.30	0.4164	0.5160	0.6549	0.8181
5	EXISTING	1.4252	0.86	0.0012	0.0012	0.0012	0.0012
1A	PROPOSED	1.6985	3.47	0.1811	0.1254	0.1589	0.1985
2A	PROPOSED	0.4023	0.99	0.0289	0.0359	0.0455	0.0568
3A	PROPOSED	3.6562	2.19	0.0360	0.0360	0.0360	0.0360
4A	PROPOSED	6.9485	14.30	0.4164	0.5160	0.6549	0.8181
5A	PROPOSED	1.4252	0.86	0.0012	0.0012	0.0012	0.0012

TABLE 9 - 10 YEAR EVENT SUMMARY FOR ALL BASINS

BASIN I.D.	DESCRIPTION	AREA (ACRES)	PEAK DISCHARGE (CFS)	6 HOUR VOLUME (AC-FT)	24 HOUR VOLUME (AC-FT)	4 DAY VOLUME (AC-FT)	10 DAY VOLUME (AC-FT)
1	EXISTING	1.6985	3.25	0.0604	0.0604	0.0604	0.0604
2	EXISTING	0.4023	0.93	0.0173	0.0173	0.0173	0.0173
3	EXISTING	3.6562	7.86	0.1318	0.1318	0.1318	0.1318
4	EXISTING	6.9485	24.80	0.7395	0.8888	1.1810	1.3618
5	EXISTING	1.4252	1.83	0.0238	0.0238	0.0238	0.0238
1A	PROPOSED	1.6985	5.86	0.1783	0.2157	0.2672	0.3281
2A	PROPOSED	0.4023	1.67	0.0518	0.0618	0.0765	0.0939
3A	PROPOSED	3.6562	7.86	0.1318	0.1318	0.1318	0.1318
4A	PROPOSED	6.9485	24.80	0.7395	0.8888	1.1810	1.3618
5A	PROPOSED	1.4252	1.83	0.0238	0.0238	0.0238	0.0238

TABLE 10 - 100 YEAR EVENT SUMMARY FOR ALL BASINS

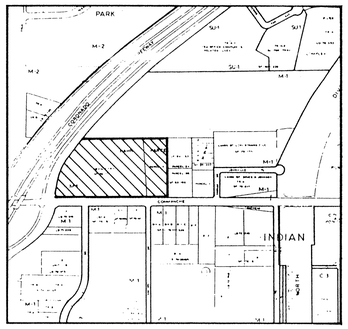
BASIN I.D.	DESCRIPTION	AREA (ACRES)	PEAK DISCHARGE (CFS)	6 HOUR VOLUME (AC-FT)	24 HOUR VOLUME (AC-FT)	4 DAY VOLUME (AC-FT)	10 DAY VOLUME (AC-FT)
1	EXISTING	1.6985	5.81	0.1320	0.1320	0.1320	0.1320
2	EXISTING	0.4023	1.66	0.0378	0.0378	0.0378	0.0378
3	EXISTING	3.6562	12.61	0.2864	0.2864	0.2864	0.2864
4	EXISTING	6.9485	35.81	1.1683	1.3997	1.7178	2.0937
5	EXISTING	1.4252	2.68	0.0629	0.0629	0.0629	0.0629
1A	PROPOSED	1.6985	8.69	0.2836	0.3397	0.4159	0.5092
2A	PROPOSED	0.4023	2.49	0.0812	0.0973	0.1194	0.1455
3A	PROPOSED	3.6562	12.61	0.2864	0.2864	0.2864	0.2864
4A	PROPOSED	6.9485	35.81	1.1683	1.3997	1.7178	2.0937
5A	PROPOSED	1.4252	2.68	0.0629	0.0629	0.0629	0.0629

SOILS INFORMATION FROM SOIL SURVEY U.S.D.A., S.C.S.

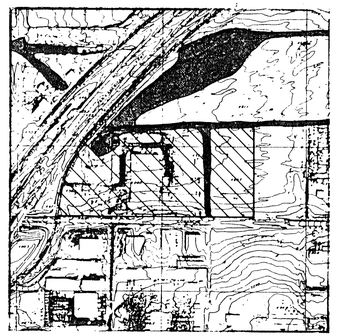
SOIL SERIES AND MAP SYMBOLS	DEGREE AND KIND OF LIMITATIONS FOR: SEPTIC TANK ABSORPTION FIELDS	SEWAGE LAGOONS	SHALLOW EXCAVATIONS	DWELLINGS WITHOUT BASEMENTS	SANITARY LANDFILL (TRENCH TYPE)	LOCAL ROAD AND STREETS	SUITABILITY AS SOURCE OF: ROAD FILL	SAND	GRAVEL	TOPSOIL	SOIL FEATURES AFFECTING: POND RESERVOIR AREAS	DIKES, LEVEES, AND OTHER EMBANKMENTS	HYDROLOGIC SOIL GROUP
Embudo: EmB, EtC	Slight	Severe: seepage.	Moderate: small stones.	Slight	Severe: seepage.	Slight	Good	Poor: excess fines.	Poor: excess fines.	Poor: small stones.	Seepage	Piping; compressible	B
Wink: WaB, WeB, WM	Slight	Severe: seepage.	Slight	Slight	Severe: seepage.	Slight	Fair: low strength.	Unsuited	Unsuited	Good	Seepage	Piping; erodes easily.	B

2 2 1994

VICINITY MAP ZONE ATLAS MAP NO.



FLOOD HAZARD MAP & OFF-SITE FLOWS FROM F.E.M.A.



SOILS MAP SOIL SURVEY U.S.D.A., S.C.S.

NO.	REVISIONS	BY	DATE

UPS GRADING, DRAINAGE & PAVING IMPROVEMENTS

RONALD P. BOHANNAN 9814 REGISTERED PROFESSIONAL ENGINEER 3/26/91

EASTERLING & ASSOCIATES, INC.
CONSULTING ENGINEERS
5643 Paradise Blvd. N.W.
Albuquerque, New Mexico 87114

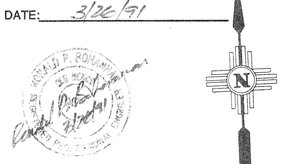
Designed: DLS	Drawn: MES	Checked: RPB	Sheet 2
Job No.: 2852	Date: DEC., 1990		of 2

I HEREBY CERTIFY THAT I AM A REGISTERED PROFESSIONAL ENGINEER, THAT I HAVE INSPECTED THE SITE, AND THAT THE IMPROVEMENTS HAVE BEEN CONSTRUCTED IN ACCORDANCE WITH THE APPROVED PLANS WITH MINOR REVISIONS AS NOTED ON THESE AS-CONSTRUCTED PLANS.

Ronald P. Bohannan

R.P. BOHANNAN, P.E.
N.M.P.E. NO. 9814

DATE: 3/26/91



Scale 1"=40' — 40 20 0 40 80 Feet

CONSTRUCT BERM IMPROVEMENTS SEE DETAIL ON SHEET 2 FOR IMPROVEMENTS IN THIS AREA

EXISTING OUTLET STRUCTURES

APPROPRIATE SITE DRAINAGE DISCHARGE POINTS TO THE PROPOSED SAD 216 DRAINAGE IMPROVEMENTS WILL BE DETERMINED DURING FINAL DESIGN OF SAD DRAINAGE IMPROVEMENTS. THE FINAL ALIGNMENT OF THE CONNECTION TO THE TAO STORM DRAIN WILL BE SUBJECT TO THE CITY'S ENGINEERS OFFICE (HYDROLOGY DIV) AND THAT OF THE SAD ENGINEER.

EXISTING DITCH

AREA 3

CONSTRUCTED CONCRETE CURB
CONSTRUCT EXTRUDED ASPHALT CURB

CONSTRUCT 3" GRAVEL SURFACE

LAYOUT AND STRIPE TRUCK PARKING STALLS PER UPS PLAN & SPECIFICATIONS

AREA 4
(EXISTING ASPHALT)

AREA 5
(EXISTING POND)

EXISTING RETENTION / DETENTION POND

I-25 EAST FRONTAGE ROAD

CONSTRUCT 3" ASPHALT PAVING WITHIN AREA 1 (ASPHALT) APPROX. 7450 S.Y.

TBM
TOP OF GAS ISLAND 5060.75

EXIST. EDGE OF PVMT

AREA 1
(ASPHALT)

SAWCUT HEADER CURB 4' WIDE AND DOWN TO PROPOSED GRADE
PROPOSED INV. = 59.09

EXISTING

BUILDING

CONSTRUCT 6' WIDE CONC SWALE SEE DETAIL THIS SHEET

REMOVE & DISPOSE OF EXIST. FRENCH DRAIN. BACKFILL W/ CLEAN FILL COMPACTED TO 95% ASTM D-1557

AREA 2
(ASPHALT)

EXISTING BLDG.

ADDITIONAL PAVING

GUARD STATION

CONSTRUCT 2" ASPHALT PAVING WITHIN AREA 2 (ASPHALT) APPROX. 2290 S.Y.

CONSTRUCT 3" GRAVEL SURFACE

EXISTING DITCH

EXISTING FENCE

CONSTRUCTED CONCRETE CURB
CONSTRUCT EXTRUDED ASPHALT CURB

CONSTRUCT GRAVEL SURFACING WITHIN AREA 3 (GRAVEL) APPROX. 9840 S.Y.

AREA 3
(GRAVEL)

REMOVE EXIST. GUARD POSTS & BACKFILL POST HOLES (APPROX. 25 EA.)

ADDITIONAL PAVING

COMMANCHE BLVD.

3' 3' 1-1/2" 8"
8" SUBGRADE 95% COMPACTION ASTM D-1557

SECTION A-A

#4 AT 24" O.C. WELDED WIRE MESH 6"x6"x6.6A. PER. COA STD. DWG. 2420.

RECEIVED
MAR 27 1991
HYDROLOGY DIVISION

Q100 (6HR) RUNOFF VOLUME EXISTING CONDITION = 73,503 CF
Q100 (6HR) RUNOFF VOLUME WITH PROPOSED ADDITIONAL PAVING = 81,997 CF

EXISTING POND VOLUME
DETENTION (ABOVE OUTLET WEIR ELEV (5050.85) = 57,002 CF
RETENTION (BELOW OUTLET WEIR ELEV (5050.85) = 26,858 CF

TOTAL 83,860 CF

VOLUME CALCULATIONS

PROJECT UPS

JOB NO. 2852 BY DLS DATE 12-12-90 CHECKED BY RPB DATE 12-12-90

SCALE FACTOR

ELEVATION	IN²	FT²	FT³	INDIVIDUAL ACRE FEET	CUMULATIVE ACRE FEET
5048.65	Ø	Ø			
5049.00	3.5	5,6ØØ	98Ø	.022	.022
5050.0	9.0	14,4ØØ	1Ø,ØØØ	.230	.252
5051.0	14.35	22,96Ø	18,68Ø	.429	.681
5052.0	17.Ø	27,2ØØ	25,Ø8Ø	.576	1.257
5053.0	19.40	31,Ø4Ø	29,12Ø	.669	1.926
					(83,897 c.f.)

NOTES:

1. Refer to sheet 2 for pavement sections.
2. Trim (sawcut) and remove and dispose of approximately 1' of existing asphalt at all existing pavemant edges abutting proposed paving. Tack edge for new paving connection.
3. This plan does not show all existing improvements and utilities. Contractor shall locate and prevent damage to existing improvements and utilities.
4. For compaction purposes, site soils are considered cohesive.
5. Refer to legend sheet 2 of 2.

Include your As-built elevation on your existing trench

Approval of this interim drainage plan is based on the understanding that ultimate drainage improvements will be designed and constructed with SAD 216. If the SAD does not occur prior to future expansion, additional drainage improvements may be required.

APPROVAL: PAVING PERMIT

Fred J. Squires 12/14/90
Date

LEGAL DESCRIPTION: LANDS OF MEXALB CORPORATION (PLATS C19-171 & D7-22)

BENCHMARK INFORMATION: WEST FRONTAGE ROAD OF I-25 .5 MILES SOUTH OF MONTANO ROAD. NM SHC STA. I-25-20 ELEV= 5079.46

NO.	REVISIONS	BY	DATE

UPS GRADING, DRAINAGE & PAVING IMPROVEMENTS

EASTERLING & ASSOCIATES, INC.
CONSULTING ENGINEERS
5643 Paradise Blvd. N.W.
Albuquerque, New Mexico 87114

Designed: DLS	Drawn: MES	Checked: RPB	Sheet 1
Job No: 2852	Date: DEC., 1990		of 2

LEGEND

DESCRIPTION	NEW	EXISTING
CONTOURS	5094	5094
SPOT ELEVATIONS	⊕ 5088	⊕ 5088
DRAINAGE AREA BOUNDARY		
DRAINAGE DIVIDE		
WATER BLOCK		
DIRECTION OF FLOW		
ASPHALT PAVING	ASPHALT	ASPHALT
LANDSCAPING	L.S.	L.S.
RETAINING WALL		
GARDEN WALL		
SWALE		
PROPERTY LINE		
FENCE	x x	x x
CATCH BASIN		
STORM DRAIN M.H. & LINE	36"SD	36"SD
SANITARY SEWER M.H. & LINE	8"SAS	8"SAS
FIRE HYDRANT & WATER LINE	6"W	6"W
REDUCERS		
WATER VALVES	GATE BUTTERFLY	GATE BUTTERFLY
WATER CONNECTIONS	CROSS TEE BEND CAP	CROSS TEE BEND CAP
WATER JOINTS	concrete	concrete
CONCRETE	G	G
GAS LINE	UT	UT
UNDERGROUND TELEPHONE	CT	CT
CABLE TELEVISION	P.P.	P.P.
POWER/TELEPHONE POLE	UE	UE
UNDERGROUND ELECTRICAL	TC 5088.28 FL 5087.78	TC 5088.28 FL 5087.78
CURB ELEVATION		
HYDROLOGICAL ANALYSIS PT.		
DETAIL REFERENCE		
KEYED NOTES		
C.O.A. DETAIL REFERENCE		
CURVE OR COORDINATE REFERENCE INFO.		
PHASE BOUNDARY		

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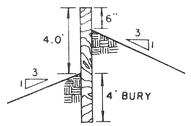
Ronald P. Bohannan

R.P. BOHANNAN, P.E.
N.M.P.E. NO. 9814

DATE: 3/26/91



SECTION B-B (R.R. TIE RETAINING WALL)

GENERAL NOTES FOR GRADING AND DRAINAGE

1. AN EXCAVATION/CONSTRUCTION PERMIT MAY BE REQUIRED BEFORE BEGINNING ANY WORK WITHIN CITY RIGHT-OF-WAY. AN APPROVED COPY OF THESE PLANS MUST BE SUBMITTED AT THE TIME OF APPLICATION FOR THIS PERMIT.
2. ALL WORK DETAILED ON THESE PLANS, EXCEPT AS OTHERWISE STATED OR PROVIDED HEREON, SHALL BE CONSTRUCTED IN ACCORDANCE WITH UPS PROJECT SPECIFICATIONS.
3. TWO WORKING DAYS PRIOR TO ANY EXCAVATION, CONTRACTOR MUST CONTACT LINE LOCATING SERVICE, 260-1990, 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 THE CONFLICT CAN BE RESOLVED WITH A MINIMUM AMOUNT OF DELAY.
5. BACKFILL COMPACTION SHALL BE 95% ASTM 1557.
6. ALL UTILITIES AND UTILITY SERVICE LINES SHALL BE INSTALLED PRIOR TO PAVING.
7. DISPOSAL OF ALL WASTE MATERIAL SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
8. **OWNERSHIP OF DOCUMENTS:** THIS DOCUMENT, AND THE IDEAS AND DESIGNS INCORPORATED HEREIN, AS AN INSTRUMENT OF PROFESSIONAL SERVICE, IS THE PROPERTY OF **EASTERLING & ASSOCIATES, INC.**, AND IS NOT TO BE USED, IN WHOLE OR IN PART, FOR ANY OTHER PROJECT WITHOUT THE WRITTEN AUTHORIZATION OF **EASTERLING & ASSOCIATES, INC.**
9. **CONSTRUCTION SAFETY:** THESE DRAWINGS DO NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY WHICH SHALL REMAIN THE CONTRACTOR'S RESPONSIBILITY.
10. **EROSION CONTROL:** THE SITE WILL BE FULLY DEVELOPED IMMEDIATELY. EROSION PROBLEMS GENERATED BY PHASED DEVELOPMENT WILL NOT, THEREFORE, BE A PROBLEM.
11. **CONSTRUCTION PHASE:** THE CONTRACTOR SHALL EXERCISE REASONABLE CARE DURING CONSTRUCTION TO PREVENT THE MOVEMENT OF SEDIMENT FROM THE SITE INTO THE STREET. LOOSE SOIL STOCKPILES IN THE STREET DURING UTILITY CONNECTION ACTIVITIES SHALL BE PROTECTED FROM BEING CARRIED DOWNSTREAM BY FLOWING WATER IN THE STREET.

AREA 1

3" PLANT MIX BITUMINOUS PVM'T (PMBP) TYPE I GRADE B (TWO 1-1/2" COURSES)

8" COMPACTED SUBGRADE (95% ASTM D-1557, WITH MOISTURE CONTENT OPTIMUM ± 2%)

AREA 2

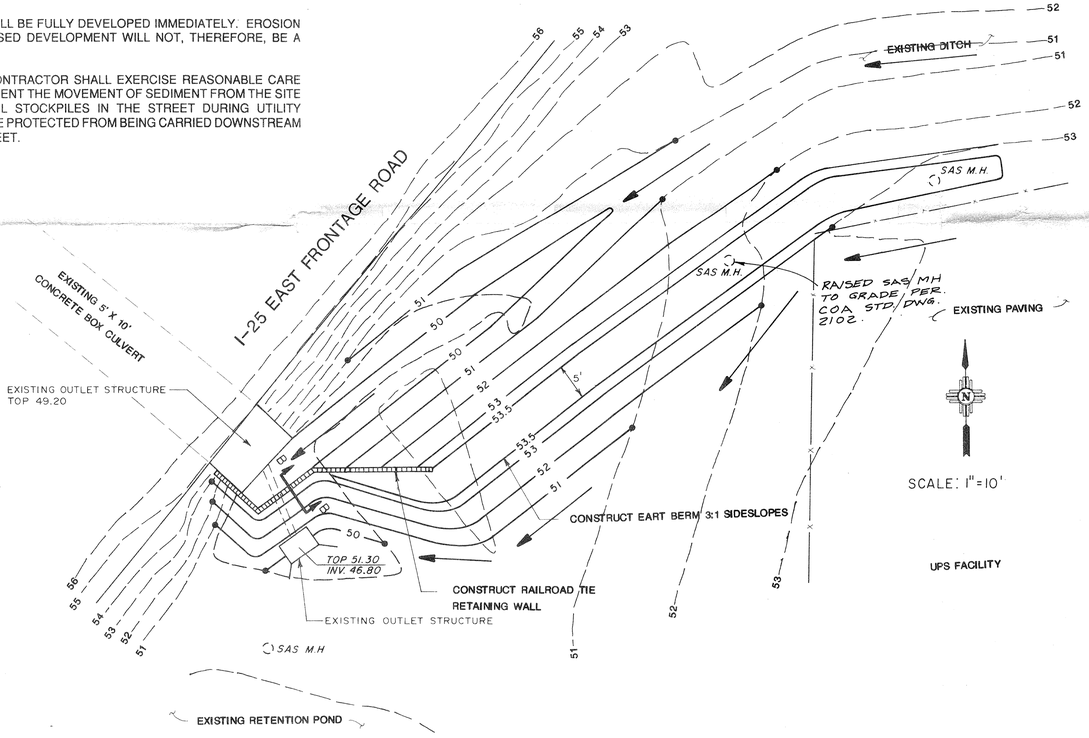
2" PMBP TYPE I GRADE B (ONE 2" COURSE)

8" COMPACTED SUBGRADE (95% ASTM D-1557, WITH MOISTURE CONTENT OPTIMUM ± 2%)

AREA 3

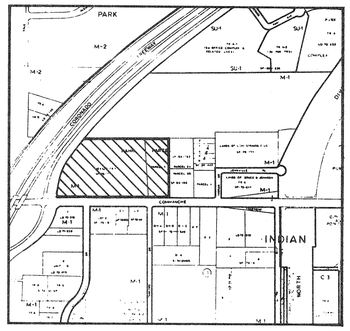
3" AGGREGATE BASE COURSE CLASS II-B COMPACTED TO 95% ASTM D-1557

8" COMPACTED SUBGRADE (95% ASTM D-1557, WITH MOISTURE CONTENT OPTIMUM ± 2%)

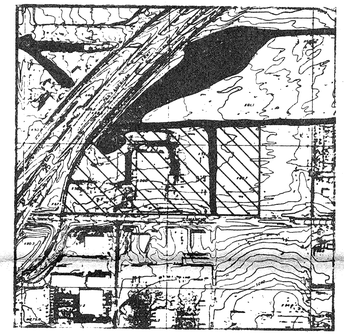


BERM IMPROVEMENTS DETAIL

VICINITY MAP ZONE ATLAS MAP NO.

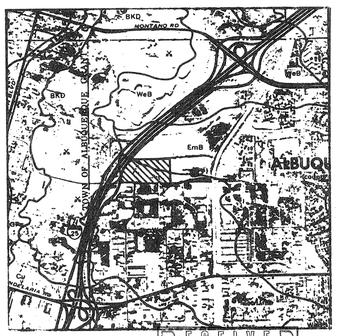


FLOOD HAZARD MAP & OFF-SITE FLOWS FROM F.E.M.A.



SCALE: 1" = 500'

SOILS MAP SOIL SURVEY U.S.D.A., S.C.S.



SCALE: 1"=2000'

HYDROLOGY

TABLE 1 - RAINFALL DEPTHS (INCHES) FOR ZONE 2

DURATION	RETURN PERIOD 100 YEAR	50 YEAR	25 YEAR	10 YEAR	5 YEAR	2 YEAR
1 HOUR	2.01	1.81	1.61	1.34	1.14	0.87
6 HOUR	2.35	2.12	1.88	1.57	1.33	1.02
24 HOUR	2.75	2.48	2.20	1.83	1.56	1.19
4 DAY	3.38	2.97	2.64	2.28	1.97	1.43
10 DAY	3.95	3.56	3.16	2.63	2.24	1.71

TABLE 2 - BASIN LAND TREATMENT SUMMARY

BASIN I.D.	DESCRIPTION	AREA (ACRES)	LAND TREATMENT CLASSIFICATION (% OF TOTAL) A	B	C	D	TOTAL
1	EXISTING	1.68	0.0%	0.0%	100.0%	0.0%	100.0%
2	EXISTING	0.48	0.0%	0.0%	100.0%	0.0%	100.0%
3	EXISTING	3.66	0.0%	0.0%	100.0%	0.0%	100.0%
4	EXISTING	6.94	0.0%	0.0%	0.0%	100.0%	100.0%
5	EXISTING	1.43	100.0%	0.0%	0.0%	0.0%	100.0%
1A	PROPOSED	1.68	0.0%	0.0%	0.0%	100.0%	100.0%
2A	PROPOSED	0.48	0.0%	0.0%	0.0%	100.0%	100.0%
3A	PROPOSED	3.66	0.0%	0.0%	100.0%	0.0%	100.0%
4A	PROPOSED	6.94	0.0%	0.0%	0.0%	100.0%	100.0%
5A	PROPOSED	1.43	100.0%	0.0%	0.0%	0.0%	100.0%

TABLE 8 - 2 YEAR EVENT SUMMARY FOR ALL BASINS

BASIN I.D.	DESCRIPTION	AREA (ACRES)	PEAK DISCHARGE (CFS)	6 HOUR VOLUME (AC-FT)	24 HOUR VOLUME (AC-FT)	4 DAY VOLUME (AC-FT)	10 DAY VOLUME (AC-FT)
1	EXISTING	1.6845	1.01	0.0169	0.0169	0.0169	0.0168
2	EXISTING	0.4823	0.29	0.0048	0.0048	0.0048	0.0048
3	EXISTING	3.6562	2.19	0.0366	0.0366	0.0366	0.0365
4	EXISTING	6.9485	14.30	0.4164	0.5168	0.6549	0.8181
5	EXISTING	1.4252	0.86	0.0012	0.0012	0.0012	0.0012
1A	PROPOSED	1.6845	3.47	0.1811	0.1254	0.1589	0.1985
2A	PROPOSED	0.4823	0.99	0.0209	0.0359	0.0455	0.0568
3A	PROPOSED	3.6562	2.19	0.0366	0.0366	0.0366	0.0366
4A	PROPOSED	6.9485	14.30	0.4164	0.5168	0.6549	0.8181
5A	PROPOSED	1.4252	0.86	0.0012	0.0012	0.0012	0.0012

TABLE 9 - 10 YEAR EVENT SUMMARY FOR ALL BASINS

BASIN I.D.	DESCRIPTION	AREA (ACRES)	PEAK DISCHARGE (CFS)	6 HOUR VOLUME (AC-FT)	24 HOUR VOLUME (AC-FT)	4 DAY VOLUME (AC-FT)	10 DAY VOLUME (AC-FT)
1	EXISTING	1.6845	3.25	0.0684	0.0684	0.0684	0.0684
2	EXISTING	0.4823	0.93	0.0173	0.0173	0.0173	0.0173
3	EXISTING	3.6562	7.06	0.1318	0.1318	0.1318	0.1318
4	EXISTING	6.9485	24.80	0.7345	0.8888	1.1818	1.3518
5	EXISTING	1.4252	1.83	0.0238	0.0238	0.0238	0.0238
1A	PROPOSED	1.6845	5.85	0.1783	0.2157	0.2672	0.3281
2A	PROPOSED	0.4823	1.67	0.0518	0.0518	0.0705	0.0929
3A	PROPOSED	3.6562	7.06	0.1318	0.1318	0.1318	0.1318
4A	PROPOSED	6.9485	24.80	0.7345	0.8888	1.1818	1.3518
5A	PROPOSED	1.4252	1.83	0.0238	0.0238	0.0238	0.0238

TABLE 10 - 100 YEAR EVENT SUMMARY FOR ALL BASINS

BASIN I.D.	DESCRIPTION	AREA (ACRES)	PEAK DISCHARGE (CFS)	6 HOUR VOLUME (AC-FT)	24 HOUR VOLUME (AC-FT)	4 DAY VOLUME (AC-FT)	10 DAY VOLUME (AC-FT)
1	EXISTING	1.6845	5.81	0.1328	0.1328	0.1328	0.1328
2	EXISTING	0.4823	1.66	0.0378	0.0378	0.0378	0.0378
3	EXISTING	3.6562	12.61	0.2864	0.2864	0.2864	0.2864
4	EXISTING	6.9486	35.81	1.1683	1.3997	1.7178	2.0937
5	EXISTING	1.4252	2.68	0.0629	0.0629	0.0629	0.0629
1A	PROPOSED	1.6845	8.69	0.2836	0.3397	0.4169	0.5082
2A	PROPOSED	0.4823	2.49	0.0812	0.0973	0.1194	0.1455
3A	PROPOSED	3.6562	12.61	0.2864	0.2864	0.2864	0.2864
4A	PROPOSED	6.9485	35.81	1.1683	1.3997	1.7178	2.0937
5A	PROPOSED	1.4252	2.68	0.0629	0.0629	0.0629	0.0629

SOILS INFORMATION FROM SOIL SURVEY U.S.D.A., S.C.S.

SOIL SERIES AND MAP SYMBOLS	DEGREE AND KIND OF LIMITATIONS FOR: SEPTIC TANK ABSORPTION FIELDS	SEWAGE LAGOONS	SHALLOW EXCAVATIONS	DWELLINGS WITHOUT BASEMENTS	SANITARY LANDFILL (TRENCH TYPE)	LOCAL ROAD AND STREETS	SUITABILITY AS SOURCE OF: ROAD FILL	SAND	GRAVEL	TOPSOIL	SOIL FEATURES AFFECTING: POND RESERVOIR AREAS	DIKES, LEVEES, AND OTHER EMBANKMENTS	HYDROLOGIC SOIL GROUP
Embudo: EmB, EtC	Slight	Severe: seepage.	Moderate: small stones.	Slight	Severe: seepage.	Slight	Good	Poor: excess fines.	Poor: excess fines.	Poor: small stones.	Seepage	Piping; compressible	B
Wink: WaB, WeB, WM	Slight	Severe: seepage.	Slight	Slight	Severe: seepage.	Slight	Fair: low strength.	Unsuited	Unsuited	Good	Seepage	Piping; erodes easily.	B

RECEIVED
MAR 27 1991
HYDROLOGY DIVISION

NO.	REVISIONS	BY	DATE

UPS GRADING, DRAINAGE & PAVING IMPROVEMENTS

RONALD P. BOHANNAN NEW MEXICO 9814 REGISTERED PROFESSIONAL ENGINEER

EASTERLING & ASSOCIATES, INC.
CONSULTING ENGINEERS
5643 Paradise Blvd. N.W.
Albuquerque, New Mexico 87114

Designed: DLS	Drawn: MES	Checked: RPB	Sheet 2
Job No: 2852	Date: DEC., 1990		of 2

I HEREBY CERTIFY THAT I AM A REGISTERED PROFESSIONAL ENGINEER, THAT I HAVE INSPECTED THE SITE, AND THAT THE IMPROVEMENTS HAVE BEEN CONSTRUCTED IN ACCORDANCE WITH THE APPROVED PLANS WITH MINOR REVISIONS AS NOTED ON THESE AS-CONSTRUCTED PLANS.

Ronald P. Bohannan

R.P. BOHANNAN, P.E.
N.M.P.E. NO. 9814

DATE: 3/26/91

RONALD P. BOHANNAN — NEW MEXICO — 9814 — REGISTERED PROFESSIONAL ENGINEER — Date 3/26/91

CONSTRUCT BERM IMPROVEMENTS SEE DETAIL ON SHEET 2 FOR IMPROVEMENTS IN THIS AREA

EXISTING OUTLET STRUCTURES

Scale 1"=40' — 40 20 0 40 80 Feet

APPROPRIATE SITE DRAINAGE DISCHARGE POINTS TO THE PROPOSED SAD 216 DRAINAGE IMPROVEMENTS WILL BE DETERMINED DURING FINAL DESIGN OF SAD DRAINAGE IMPROVEMENTS. THE FINAL APPROVAL OF THE CONNECTION TO THE SAD STORM DRAIN WILL BE MADE BY THE CITY ENGINEER DESIGEE (HYDROLOGY DIV.) AND SHALL BE AT THE SAD ENGINEER.

EXISTING DITCH

AREA 3

CONSTRUCTED CONCRETE CURB ~~CONSTRUCT EXTRUDED ASPHALT CURB~~

CONSTRUCT 3" GRAVEL SURFACE

100' RADIUS

LAYOUT AND STRIPE TRUCK PARKING STALLS PER UPS PLAN & SPECIFICATIONS

AREA 4
(EXISTING ASPHALT)

CONSTRUCT 3" ASPHALT PAVING WITHIN AREA 1 (ASPHALT) APPROX. 7450 S.Y.

CONSTRUCT GRAVEL SURFACING WITHIN AREA 3 (GRAVEL) APPROX. 9640 S.Y.

I-25 EAST FRONTAGE ROAD

AREA 5
(EXISTING POND)

EXISTING RETENTION / DETENTION POND

TBM
TOP OF GAS ISLAND 5060.75

EXIST EDGE OF PVMT

AREA 1
(ASPHALT)

CONSTRUCT 3" GRAVEL SURFACE

EXISTING DITCH

AREA 3
(GRAVEL)

REMOVE EXIST. GUARD POSTS & BACKFILL POST HOLES (APPROX. 25 EA.)

EXISTING

BUILDING

SAWCUT HEADER CURB 4' WIDE AND DOWN TO PROPOSED GRADE PROPOSED INV. = 59.09

CONSTRUCT 6' WIDE CONC. SWALE SEE DETAIL THIS SHEET

EXISTING FENCE

REMOVE & DISPOSE OF EXIST. FRENCH DRAIN. BACKFILL W/ CLEAN FILL COMPACTED TO 95% ASTM D-1557

AREA 2
(ASPHALT)

EXISTING BLDG.

ADDITIONAL PAVING

GUARD STATION

CONSTRUCT 2" ASPHALT PAVING WITHIN AREA 2 (ASPHALT) APPROX. 2290 S.Y.

ADDITIONAL PAVING

COMMANCHE BLVD.

3' 3' 1-1/2" 8"
8" SUBGRADE 95% COMPACTION ASTM D-1557
#4 AT 24" O.C. WELDED WIRE MESH 6"x6"x6 GA. PER COA STD. DWG. 2420.
SECTION A-A

Q100 (6HR) RUNOFF VOLUME EXISTING CONDITION = 73,503 CF
Q100 (6HR) RUNOFF VOLUME WITH PROPOSED ADDITIONAL PAVING = 81,997 CF

EXISTING POND VOLUME
DETENTION (ABOVE OUTLET WEIR ELEV (5050.85) = 57,002 CF
RETENTION (BELOW OUTLET WEIR ELEV (5050.85) = 26,858 CF

TOTAL 83,860 CF

VOLUME CALCULATIONS

PROJECT UPS

JOB NO. 2852 BY DLS DATE 12-12-90 CHECKED BY RPB DATE 12-12-90

SCALE _____ FACTOR _____

ELEVATION	IN²	FT²	FT³	INDIVIDUAL ACRE FEET	CUMULATIVE ACRE FEET
5048.65	Ø	Ø			
5049.00	3.5	5,600	980	.022	.022
5050.0	9.0	14,400	10,000	.230	.252
5051.0	14.35	22,960	18,680	.429	.681
5052.0	17.0	27,200	25,080	.576	1.257
5053.0	19.40	31,040	29,120	.669	1.926
					(83,897 cf.)

NOTES:

1. Refer to sheet 2 for pavement sections.
2. Trim (sawcut) and remove and dispose of approximately 1' of existing asphalt at all existing pavemant edges abutting proposed paving. Tack edge for new paving connection.
3. This plan does not show all existing improvements and utilities. Contractor shall locate and prevent damage to existing improvements and utilities.
4. For compaction purposes, site soils are considered cohesive.
5. Refer to legend sheet 2 of 2.

Approval of this interim drainage plan is based on the understanding that ultimate drainage improvements will be designed and constructed with SAD 216. If the SAD does not occur prior to future expansion, additional drainage improvements may be required.

APPROVAL: PAVING PERMIT

Frank J. Esquivel 12/14/90
Date

RECEIVED
MAR 27 1991
HYDROLOGY DIVISION

NO.	REVISIONS	BY	DATE

UPS GRADING, DRAINAGE & PAVING IMPROVEMENTS

RONALD P. BOHANNAN — NEW MEXICO — 9814 — REGISTERED PROFESSIONAL ENGINEER — 12/14/90

EASTERLING & ASSOCIATES, INC.
CONSULTING ENGINEERS
5643 Paradise Blvd. N.W.
Albuquerque, New Mexico 87114

Designed: DLS	Drawn: MES	Checked: RPB	Sheet 1
Job No: 2852	Date: DEC., 1990		of 2

LEGAL DESCRIPTION: LANDS OF MEXALB CORPORATION (PLATS C19-171 & D7-22)

BENCHMARK INFORMATION: WEST FRONTAGE ROAD OF I-25 .5 MILES SOUTH OF MONTANO ROAD. NM SHC STA. I-25-20 ELEV= 5079.46

LEGEND

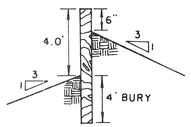
DESCRIPTION	NEW	EXISTING
CONTOURS	5094	5094
SPOT ELEVATIONS	⊕ 5088	⊕ 5088
DRAINAGE AREA BOUNDARY		
DRAINAGE DIVIDE		
WATER BLOCK		
DIRECTION OF FLOW		
ASPHALT PAVING	ASPHALT	ASPHALT
LANDSCAPING	L.S.	L.S.
RETAINING WALL		
GARDEN WALL		
SWALE		
PROPERTY LINE		
FENCE	x x	x x
CATCH BASIN		
STORM DRAIN M.H. & LINE	36"SD	36"SD
SANITARY SEWER M.H. & LINE	8"SAS	8"SAS
FIRE HYDRANT & WATER LINE	6"W	6"W
REDUCERS		
WATER VALVES	GATE |ø| BUTTERFLY	GATE |ø| BUTTERFLY
WATER CONNECTIONS	CROSS TEE BEND CAP	CROSS TEE BEND CAP
WATER JOINTS	CONCRETE	CONCRETE
CONCRETE		
GAS LINE	G	G
UNDERGROUND TELEPHONE	UT	UT
CABLE TELEVISION	CT	CT
POWER/TELEPHONE POLE	P.P.	P.P.
UNDERGROUND ELECTRICAL	UE	UE
CURB ELEVATION	TC 5088.28 FL 5087.78	TC 5088.28 FL 5087.78
HYDROLOGICAL ANALYSIS PT.		
DETAIL REFERENCE		
KEYED NOTES	5	5
C.O.A. DETAIL REFERENCE	Z	Z
CURVE OR COORDINATE REFERENCE INFO.	2	2
PHASE BOUNDARY		

I HEREBY CERTIFY THAT I AM A REGISTERED PROFESSIONAL ENGINEER, THAT I HAVE INSPECTED THE SITE, AND THAT THE IMPROVEMENTS HAVE BEEN CONSTRUCTED IN ACCORDANCE WITH THE APPROVED PLANS WITH MINOR REVISIONS AS NOTED ON THESE AS-CONSTRUCTED PLANS.

Ronald P. Bohannan

R.P. BOHANNAN, P.E.
N.M.P.E. NO. 9814

DATE: 3/26/91



SECTION B-B (R.R. TIE RETAINING WALL)

HYDROLOGY

TABLE 1 - RAINFALL DEPTHS (INCHES) FOR ZONE 2

DURATION	RETURN PERIOD 100 YEAR	50 YEAR	25 YEAR	10 YEAR	5 YEAR	2 YEAR
1 HOUR	2.01	1.81	1.61	1.34	1.14	0.87
6 HOUR	2.35	2.12	1.88	1.57	1.33	1.02
24 HOUR	2.75	2.48	2.20	1.83	1.56	1.19
4 DAY	3.38	2.97	2.64	2.20	1.87	1.43
10 DAY	3.95	3.56	3.16	2.63	2.24	1.71

TABLE 2 - BASIN LAND TREATMENT SUMMARY

BASIN I.D.	DESCRIPTION	AREA (ACRES)	LAND TREATMENT CLASSIFICTION (% OF TOTAL) A	B	C	D	TOTAL
1	EXISTING	1.68	0.0%	0.0%	100.0%	0.0%	100.0%
2	EXISTING	0.48	0.0%	0.0%	100.0%	0.0%	100.0%
3	EXISTING	3.66	0.0%	0.0%	100.0%	0.0%	100.0%
4	EXISTING	6.94	0.0%	0.0%	0.0%	100.0%	100.0%
5	EXISTING	1.43	100.0%	0.0%	0.0%	0.0%	100.0%
1A	PROPOSED	1.68	0.0%	0.0%	0.0%	100.0%	100.0%
2A	PROPOSED	0.48	0.0%	0.0%	0.0%	100.0%	100.0%
3A	PROPOSED	3.66	0.0%	0.0%	100.0%	0.0%	100.0%
4A	PROPOSED	6.94	0.0%	0.0%	0.0%	100.0%	100.0%
5A	PROPOSED	1.43	100.0%	0.0%	0.0%	0.0%	100.0%

TABLE 8 - 2 YEAR EVENT SUMMARY FOR ALL BASINS

BASIN I.D.	DESCRIPTION	AREA (ACRES)	PEAK DISCHARGE (CFS)	6 HOUR VOLUME (AC-FT)	24 HOUR VOLUME (AC-FT)	4 DAY VOLUME (AC-FT)	10 DAY VOLUME (AC-FT)
1	EXISTING	1.6985	1.81	0.0169	0.0169	0.0169	0.0169
2	EXISTING	0.4823	0.29	0.0048	0.0048	0.0048	0.0048
3	EXISTING	3.6562	2.19	0.0366	0.0366	0.0366	0.0366
4	EXISTING	6.9485	14.38	0.4164	0.5168	0.6549	0.8181
5	EXISTING	1.4252	0.86	0.0012	0.0012	0.0012	0.0012
1A	PROPOSED	1.6985	3.47	0.1811	0.1254	0.1589	0.1985
2A	PROPOSED	0.4823	0.99	0.0289	0.0359	0.0455	0.0568
3A	PROPOSED	3.6562	2.19	0.0366	0.0366	0.0366	0.0366
4A	PROPOSED	6.9485	14.38	0.4164	0.5168	0.6549	0.8181
5A	PROPOSED	1.4252	0.86	0.0012	0.0012	0.0012	0.0012

TABLE 9 - 10 YEAR EVENT SUMMARY FOR ALL BASINS

BASIN I.D.	DESCRIPTION	AREA (ACRES)	PEAK DISCHARGE (CFS)	6 HOUR VOLUME (AC-FT)	24 HOUR VOLUME (AC-FT)	4 DAY VOLUME (AC-FT)	10 DAY VOLUME (AC-FT)
1	EXISTING	1.6985	3.25	0.0304	0.0304	0.0304	0.0304
2	EXISTING	0.4823	0.93	0.0173	0.0173	0.0173	0.0173
3	EXISTING	3.6562	7.06	0.1310	0.1310	0.1310	0.1310
4	EXISTING	6.9485	24.88	0.7345	0.8888	1.1810	1.3518
5	EXISTING	1.4252	1.83	0.0238	0.0238	0.0238	0.0238
1A	PROPOSED	1.6985	5.86	0.1783	0.2157	0.2672	0.3291
2A	PROPOSED	0.4823	1.67	0.0518	0.0618	0.0765	0.0939
3A	PROPOSED	3.6562	7.06	0.1310	0.1310	0.1310	0.1310
4A	PROPOSED	6.9485	24.88	0.7345	0.8888	1.1810	1.3518
5A	PROPOSED	1.4252	1.83	0.0238	0.0238	0.0238	0.0238

TABLE 10 - 100 YEAR EVENT SUMMARY FOR ALL BASINS

BASIN I.D.	DESCRIPTION	AREA (ACRES)	PEAK DISCHARGE (CFS)	6 HOUR VOLUME (AC-FT)	24 HOUR VOLUME (AC-FT)	4 DAY VOLUME (AC-FT)	10 DAY VOLUME (AC-FT)
1	EXISTING	1.6985	5.81	0.1328	0.1328	0.1328	0.1328
2	EXISTING	0.4823	1.66	0.0378	0.0378	0.0378	0.0378
3	EXISTING	3.6562	12.61	0.2864	0.2864	0.2864	0.2864
4	EXISTING	6.9485	35.81	1.1683	1.3997	1.7178	2.0937
5	EXISTING	1.4252	2.68	0.0629	0.0629	0.0629	0.0629
1A	PROPOSED	1.6985	8.69	0.2836	0.3397	0.4169	0.5082
2A	PROPOSED	0.4823	2.49	0.0812	0.0973	0.1194	0.1455
3A	PROPOSED	3.6562	12.61	0.2864	0.2864	0.2864	0.2864
4A	PROPOSED	6.9485	35.81	1.1683	1.3997	1.7178	2.0937
5A	PROPOSED	1.4252	2.68	0.0629	0.0629	0.0629	0.0629

GENERAL NOTES FOR GRADING AND DRAINAGE

1. AN EXCAVATION/CONSTRUCTION PERMIT MAY BE REQUIRED BEFORE BEGINNING ANY WORK WITHIN CITY RIGHT-OF-WAY. AN APPROVED COPY OF THESE PLANS MUST BE SUBMITTED AT THE TIME OF APPLICATION FOR THIS PERMIT.
2. ALL WORK DETAILED ON THESE PLANS, EXCEPT AS OTHERWISE STATED OR PROVIDED HEREON, SHALL BE CONSTRUCTED IN ACCORDANCE WITH UPS PROJECT SPECIFICATIONS.
3. TWO WORKING DAYS PRIOR TO ANY EXCAVATION, CONTRACTOR MUST CONTACT LINE LOCATING SERVICE, 260-1990, 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 THE CONFLICT CAN BE RESOLVED WITH A MINIMUM AMOUNT OF DELAY.
5. BACKFILL COMPACTION SHALL BE 95% ASTM 1557.
6. ALL UTILITIES AND UTILITY SERVICE LINES SHALL BE INSTALLED PRIOR TO PAVING.
7. DISPOSAL OF ALL WASTE MATERIAL SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
8. **OWNERSHIP OF DOCUMENTS:** THIS DOCUMENT, AND THE IDEAS AND DESIGNS INCORPORATED HEREIN, AS AN INSTRUMENT OF PROFESSIONAL SERVICE, IS THE PROPERTY OF **EASTERLING & ASSOCIATES, INC.**, AND IS NOT TO BE USED, IN WHOLE OR IN PART, FOR ANY OTHER PROJECT WITHOUT THE WRITTEN AUTHORIZATION OF **EASTERLING & ASSOCIATES, INC.**
9. **CONSTRUCTION SAFETY:** THESE DRAWINGS DO NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY WHICH SHALL REMAIN THE CONTRACTOR'S RESPONSIBILITY.
10. **EROSION CONTROL:** THE SITE WILL BE FULLY DEVELOPED IMMEDIATELY. EROSION PROBLEMS GENERATED BY PHASED DEVELOPMENT WILL NOT, THEREFORE, BE A PROBLEM.
11. **CONSTRUCTION PHASE:** THE CONTRACTOR SHALL EXERCISE REASONABLE CARE DURING CONSTRUCTION TO PREVENT THE MOVEMENT OF SEDIMENT FROM THE SITE INTO THE STREET. LOOSE SOIL STOCKPILES IN THE STREET DURING UTILITY CONNECTION ACTIVITIES SHALL BE PROTECTED FROM BEING CARRIED DOWNSTREAM BY FLOWING WATER IN THE STREET.

AREA 1

3" PLANT MIX BITUMINOUS PVM'T (PMBP) TYPE I GRADE B (TWO 1-1/2" COURSES)

8" COMPACTED SUBGRADE (95% ASTM D-1557, WITH MOISTURE CONTENT OPTIMUM ± 2%)

AREA 2

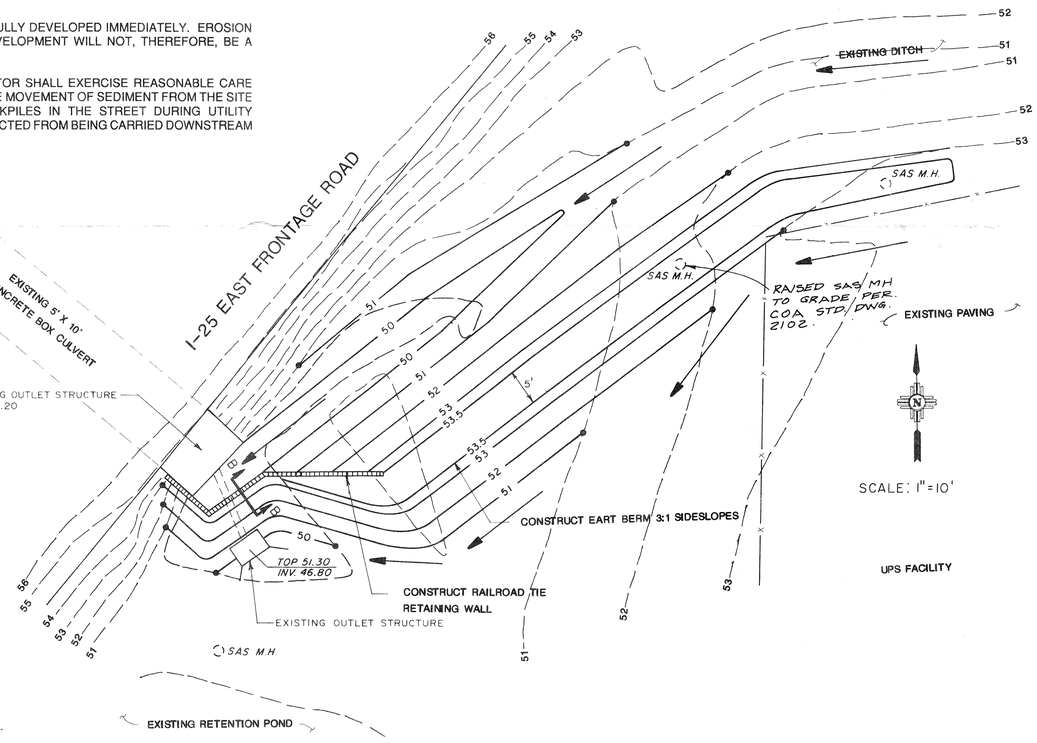
2" PMBP TYPE I GRADE B (ONE 2" COURSE)

8" COMPACTED SUBGRADE (95% ASTM D-1557, WITH MOISTURE CONTENT OPTIMUM ± 2%)

AREA 3

3" AGGREGATE BASE COURSE CLASS II-B COMPACTED TO 95% ASTM D-1557

8" COMPACTED SUBGRADE (95% ASTM D-1557, WITH MOISTURE CONTENT OPTIMUM ± 2%)

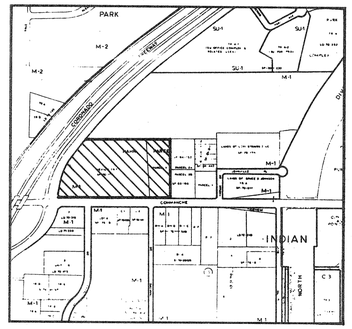


BERM IMPROVEMENTS DETAIL

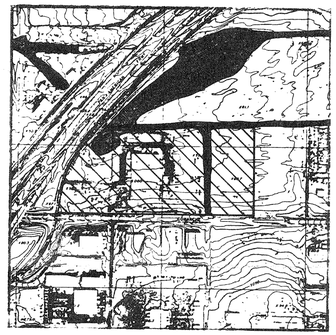
SOILS INFORMATION FROM SOIL SURVEY U.S.D.A., S.C.S.

SOIL SERIES AND MAP SYMBOLS	DEGREE AND KIND OF LIMITATIONS FOR: SEPTIC TANK ABSORPTION FIELDS	SEWAGE LAGOONS	SHALLOW EXCAVATIONS	DWELLINGS WITHOUT BASEMENTS	SANITARY LANDFILL (TRENCH TYPE)	LOCAL ROAD AND STREETS	SUITABILITY AS SOURCE OF: ROAD FILL	SAND	GRAVEL	TOPSOIL	SOIL FEATURES AFFECTING: POND RESERVOIR AREAS	DIKES, LEVEES, AND OTHER EMBANKMENTS	HYDROLOGIC SOIL GROUP
Embudo: EmB, EtC	Slight	Severe: seepage.	Moderate: small stones.	Slight	Severe: seepage.	Slight	Good	Poor: excess fines.	Poor: excess fines.	Poor: small stones.	Seepage	Piping; compressible	B
Wink: WaB, WeB, WM	Slight	Severe: seepage.	Slight	Slight	Severe: seepage.	Slight	Fair: low strength.	Unsuited	Unsuited	Good	Seepage	Piping; erodes easily.	B

VICINITY MAP ZONE ATLAS MAP NO.

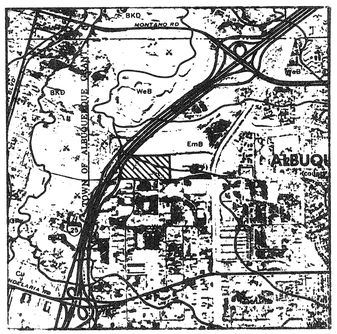


FLOOD HAZARD MAP & OFF-SITE FLOWS FROM F.E.M.A.



SCALE: 1" = 500'

SOILS MAP SOIL SURVEY U.S.D.A., S.C.S.



RECEIVED
MAR 27 1991
HYDROLOGY DIVISION

NO.	REVISIONS	BY	DATE

UPS GRADING, DRAINAGE & PAVING IMPROVEMENTS

EASTERLING & ASSOCIATES, INC.
CONSULTING ENGINEERS
5643 Paradise Blvd. N.W.
Albuquerque, New Mexico 87114

Designed:	Drawn:	Checked:	Sheet
DLS	MES	RPB	2
Job No: 2852	Date: DEC., 1990		of 2