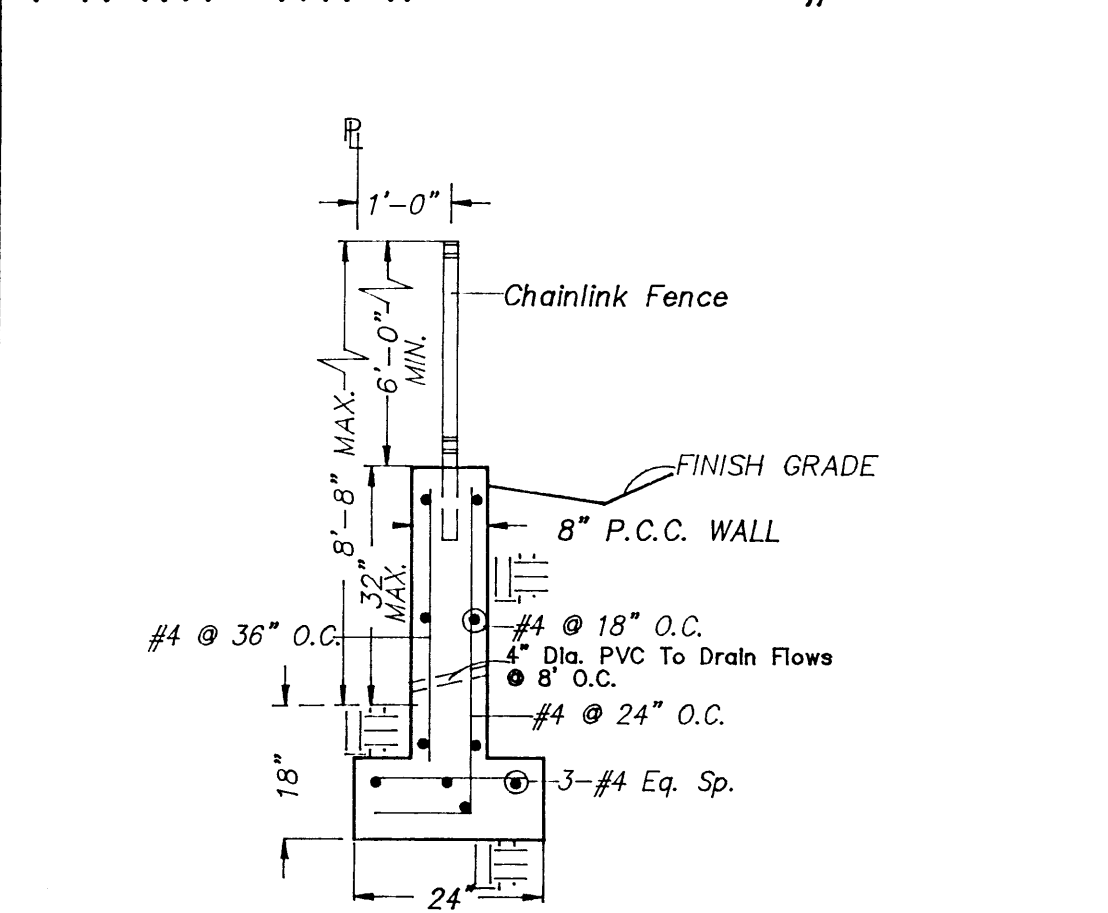


RECEIVED
MAR 21 2002
PVD/DESIGN REVIEW

FIRM MAP PANEL # 354



PERIMETER WALL - SECTION
NO SCALE

GRADING & DRAINAGE PLAN

THE PROPOSED RETAIL SALES PROJECT IS LOCATED IN THE SOUTHEAST AREA OF ALBUQUERQUE ON LOUISIANA BLVD. BETWEEN BELL AND TRUMBULL AVENUES. THE GRADING AND DRAINAGE SCHEME HEREON IS IN COMPLIANCE WITH THE BERNALILLO COUNTY FLOOD HAZARD ORDINANCE, NO.88-46, AND THE CITY STORM DRAINAGE ORDINANCE. THE PLAN IS REQUIRED IN ORDER TO FACILITATE THE OWNER'S REQUEST FOR BUILDING PERMIT. THE PLAN SHOWS:

1. EXISTING CONTOURS, AND SPOT ELEVATIONS AND EXISTING DRAINAGE PATTERNS AND IMPROVEMENTS.
2. PROPOSED IMPROVEMENT: 4500 SF RETAIL-SALES BUILDING, ASPHALT DRIVE/PARKING, CONCRETE FLAT WORK, NEW GRADE ELEVATIONS, REFUSE LOCATION, AND LANDSCAPING.
3. CONTINUITY BETWEEN EXISTING AND PROPOSED ELEVATIONS.
4. QUANTIFICATION OF DEVELOPED FLOWS GENERATED BY THE IMPROVEMENTS WHICH CONTRIBUTE TO THE EXISTING FLOWS.

PRESENTLY, THE SITE IS A DIRT, "HARD-PAN" SURFACE WITH SPARSE VEGETATION. THE SITE IS BOUNDED BY A PUBLIC, GRAVEL SURFACED ALLEY ON THE WEST, AND DEVELOPED COMMERCIAL FACILITIES ARE ADJACENT ON THE SOUTH AND NORTH. THE SITE FALLS APPROXIMATELY 1% FROM SOUTH TO NORTH.

THE SITE IS ADJACENT TO A FEMA A01 (1' DEPTH) FLOOD HAZARD ZONE, WHICH IS CONTAINED WITHIN THE LOUISIANA BOULEVARD RIGHT-OF-WAY. LOUISIANA BLVD. IS A PRINCIPAL ARTERIAL WITH 5 LANES, WITH CURB, GUTTER AND ATTACHED SIDEWALK. SITE RUNOFF WILL BE ALLOWED TO EITHER DRAIN THROUGH THE SITE, OR PONDING IN DEPRESSED LANDSCAPE AREAS. THE SITE HAS HISTORICALLY DRAINED TO THE NORTH VIA THE EXISTING ALLEY THEN WEST ON BELL ST. SINCE THE SITE LIES WITHIN A ZONE AO FLOOD PLAIN (AVERAGE DEPTH OF LESS THAN 1 FOOT) THE STRUCTURE IS SET 1 FOOT ABOVE THE MEAN EXISTING ELEVATION IN LOUISIANA.

HISTORICAL DOWNSTREAM OUTFALL LOCATIONS WILL REMAIN UNCHANGED WITH DEVELOPMENT. FREE DISCHARGE OF SITE RUNOFF IS ACCEPTABLE SINCE DOWNSTREAM CAPACITY EXISTS WITH THE MINIMAL INCREASE DUE TO DEVELOPMENT. A PORTION OF SITE RUNOFF IS ROUTED THROUGH PROPOSED LANDSCAPING.

CALCULATIONS

DESIGN CRITERIA
HYDROLOGIC METHODS PER SECTION 22.2, HYDROLOGY OF THE DEVELOPMENT PROCESS MANUAL (DPM) REVISED JANUARY 1993 FOR CITY OF ALBUQUERQUE, ADOPTED BY THE COUNTY OF BERNALILLO
DISCHARGE RATES: $Q = Q_{PEAK} \times AREA$, Peak Discharge Rates For Small Watersheds
VOLUMETRIC DISCHARGE: $VOLUME = E_{WEIGHTED} \times AREA$
 $P_{100} = 2.60$ inches, Zone 3
Time of Concentration, $T_C = 10$ Minutes
DESIGN STORM: 100-YEAR/6-HOUR, 10-YEAR/6-HOUR [] = 10 YEAR VALUES

EXISTING CONDITIONS
LOT AREA = 0.49 ACRES, WHERE EXCESS PRECIP. "C" = 1.29 in. [0.62]
PEAK DISCHARGE: $Q_{100} = 1.7$ CFS [0.33], WHERE UNIT PEAK DISCHARGE "C" = 3.45 CFS/AC. [1.0]
THEREFORE: $VOLUME_{100} = 2295$ CF [1103]

DEVELOPED CONDITIONS
DETERMINE LAND TREATMENTS, PEAK DISCHARGE AND VOLUMETRIC DISCHARGE FOR STUDY AREA

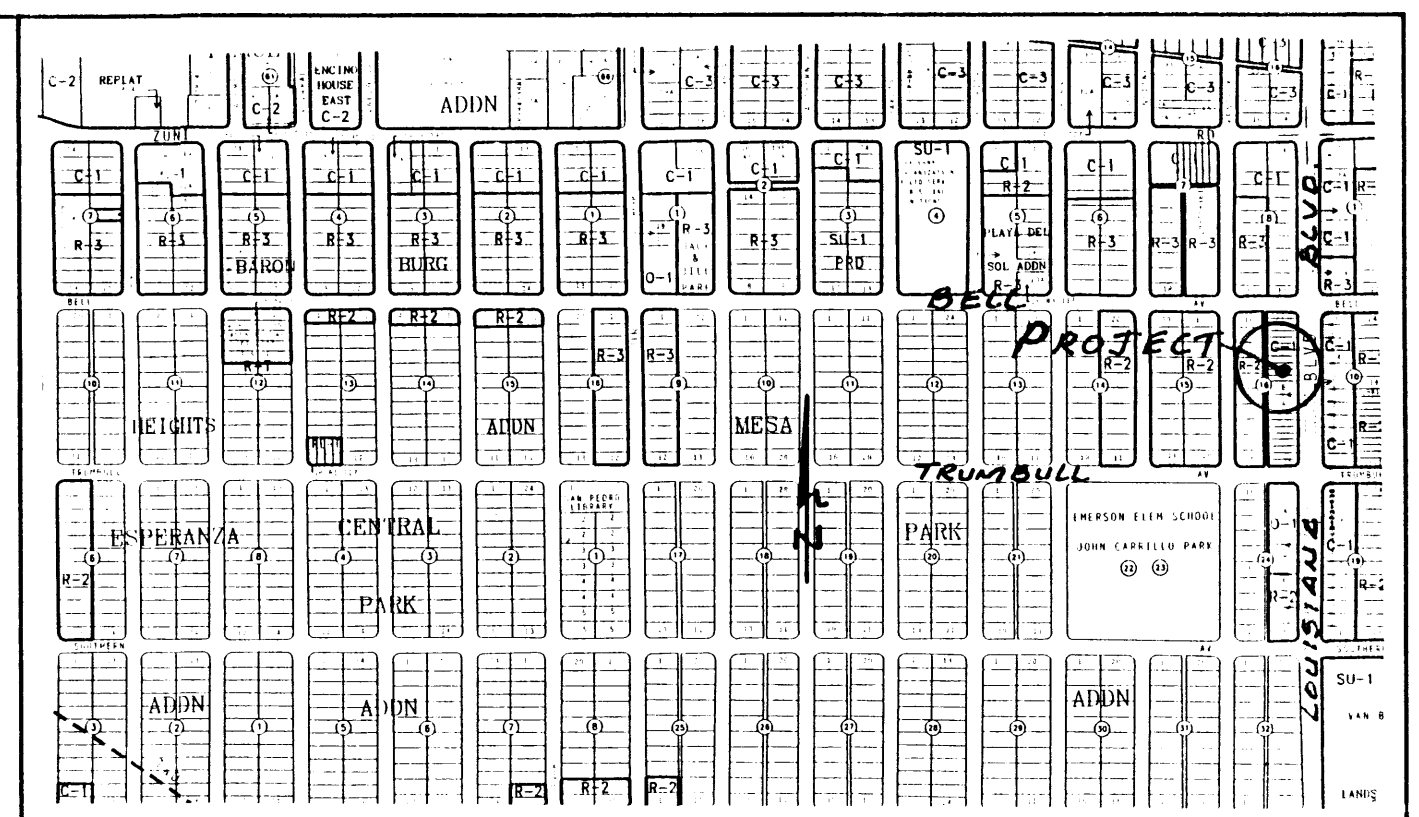
	AREA	LAND TREATMENT	Q Peak	E
UNDEVELOPED	Ac.	A	1.67[0.58]	0.66[0.19]
LANDSCAPING	0.06 Ac.	B	2.60[1.19]	0.92[0.36]
COMPACTED SOIL & Slopes >	0.07 Ac.	C	3.45[2.00]	1.29[0.62]
ROOF - PAVEMENT	0.36 Ac.	D	5.02[3.39]	2.36[1.50]
	0.49 Ac.			

THEREFORE: $E_{WEIGHTED} = 2.03$ in. [1.23] &
 $Q_{100} = 2.2$ CFS
 $Q_{10} = 1.4$ CFS
VOLUME 100 = 3610 CF
VOLUME 10 = 2196 CF

DOWNSTREAM ANALYSIS
THE EXISTING ALLEY SURFACE DRAINS TO THE NORTH, THEN WEST ON BELL AVE. FREE DISCHARGE IS ACCEPTABLE SINCE THE OVERALL BASIN HAS CAPACITY AND THE PROJECT TIME TO PEAK IS MUCH LESS THAN OVERALL BASIN TIME TO PEAK & INCREASE DUE TO DEVELOPMENT IS MINIMAL. (INCREASE FROM THE EXISTING. (.5±CFS))

LANDSCAPE CALCULATIONS:		PARKING CALCULATIONS:	
REQUIRED LANDSCAPED AREA:		REQUIRED FOR:	
GROSS LOT AREA:	21,434 SF	RETAIL	4500 GSF / 200 SF/SP = 22.5 SPACES
BUILDING FOOTPRINT:	-4500 GSF	10% REDUCTION (WITHIN 300' OF TRANSIT ROUTE)	
NET LOT AREA:	16,934 SF	TOTAL	20 SPACES
	x 15 %	ADA ACCESSIBLE (VANS INCLUDED)	2 TOTAL
REQUIRED AREA:	2,540 GSF	ACTUAL PROVIDED:	21 SPACES
PROVIDED	5,308 GSF		+ 1 OWNER SP.
WHERE:			
A=710' B=968' C=2400' D=1000' E=230'			

TRAFFIC CONTROL LAYOUT CERTIFICATION
NOTE: AS REQUIRED BY TRANSPORTATION DEVELOPMENT SECTION, AN AS-BUILT PLAN AND LETTER OF CERTIFICATION OF ALL APPROVED TRAFFIC ELEMENTS IS REQUIRED PRIOR TO ISSUANCE OF FINAL CERTIFICATE OF OCCUPANCY (C.O.). PLEASE CALL 924-3626, IN ORDER TO OBTAIN TEMPORARY C.O. CONFIRMATION FROM HYDROLOGY, SUPPORTING THIS REQUIREMENT WILL BE NEEDED PRIOR TO APPROVAL OF TRAFFIC CONTROL LAYOUT (TCL) BY TRANSPORTATION.



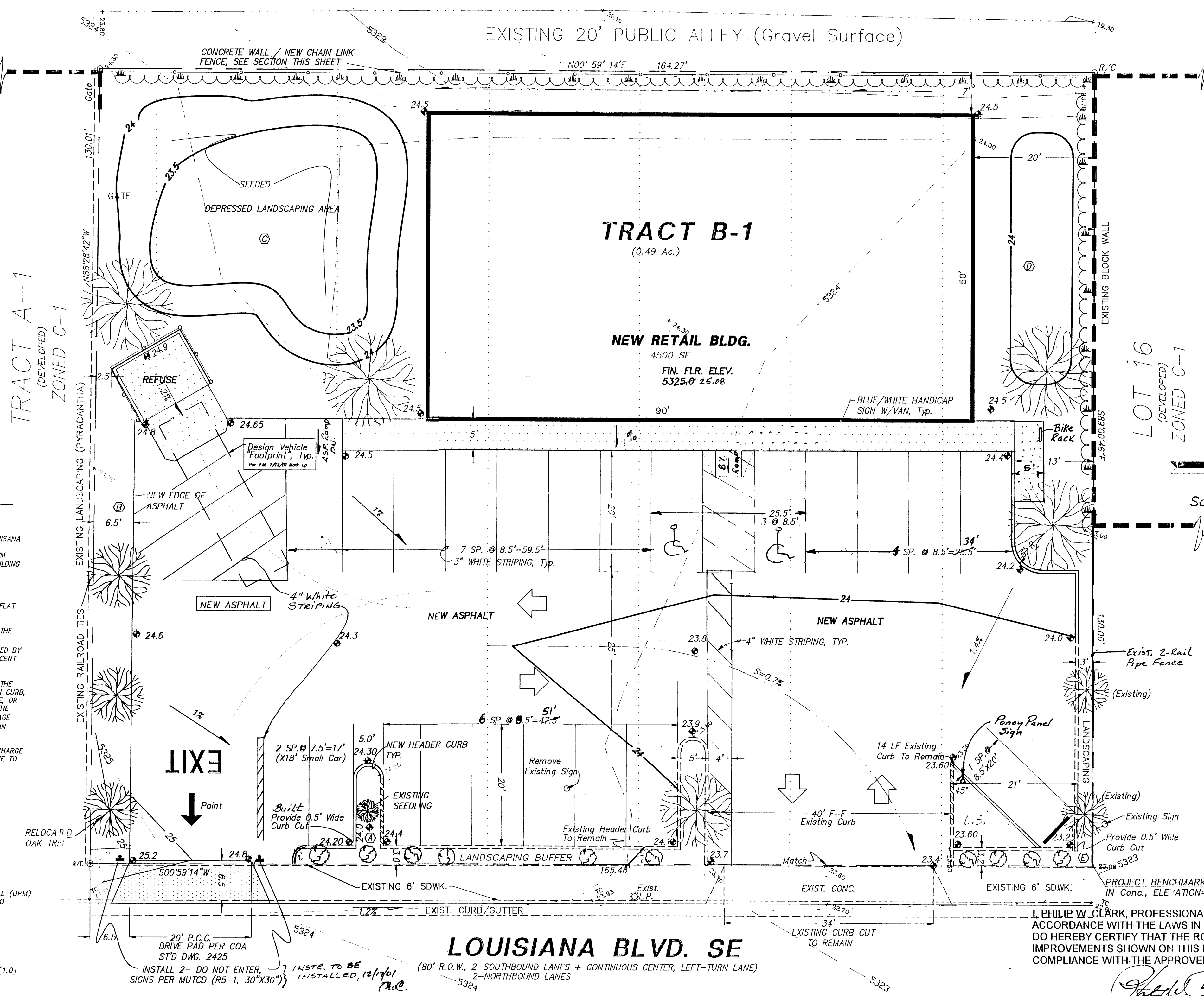
VICINITY MAP ZONE L-18 Scale: 1" = 750'

NOTES

1. ALL WORK WITHIN THE RIGHT-OF-WAY SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CITY OF ALBUQUERQUE STANDARD SPECS. FOR PUBLIC WORKS CONSTRUCTION, 6TH EDITION W/ UPDATES.
2. AN EXCAVATION/CONSTRUCTION PERMIT IS REQUIRED BEFORE BEGINNING ANY WORK WITHIN CITY R.O.W. AN APPROVED COPY OF THIS PLAN MUST BE SUBMITTED AT THE TIME OF APPLICATION.
3. ALL WORK ON THIS PROJECT SHALL BE PERFORMED IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE AND LOCAL LAWS, RULES, AND REGULATIONS CONCERNING CONSTRUCTION SAFETY AND HEALTH.
4. ALL LANDSCAPING AREA SHALL BE SOFT-LINED WITH NATIVE VEGETATION AND/OR GRAVEL ASPHALT PARKING AREA SHALL DRAIN DIRECTLY TO EXISTING CURB CUT.
5. LANDSCAPING IRRIGATION SYSTEM SHALL BE DRIP-TYPE. CONTRACTOR SHALL INSTALL SYSTEM PRIOR TO PLACEMENT OF PAVING.
6. CONTRACTOR SHALL ENSURE THAT NO SITE SOILS/SEDIMENT OR SILT ENTER THE RIGHT-OF-WAYS DURING CONSTRUCTION.
7. REVEGETATE ALL AREAS DISTURBED DUE TO CONSTRUCTION PER CITY OF ALBUQ. SPEC. 1011, NATIVE SEED MIX.
8. MAXIMUM SITE GRADING WITHOUT EROSION PROTECTION: 3 HORIZONTAL TO 1 VERTICAL, 3:1. ALL DIMENSIONS TO FACE OF CURB, UNLESS NOTED OTHERWISE.
9. INSPECTION BY TRANSPORTATION DEVELOPMENT SECTION OF CONSTRUCTION FOR CERTIFICATE OF OCCUPANCY (C.O.) WILL BE DONE FROM THIS SHEET.

LEGEND

- EXIST. SPOT ELEVATION +24.0
- EXIST. CONTOUR -10
- NEW SPOT ELEVATION +24.0
- NEW CONTOUR -12
- NEW SWALE
- DRAINAGE DIRECTION, EXISTING
- NEW CONCRETE CURB (0.5' HEIGHT)
- NEW P.C.C., CONCRETE
- TOP OF ASPHALT, EXISTING TA
- FLOWLINE FL
- EXISTING POWER POLE PP
- FACE OF CURB/FACE OF CURB F-F
- TRAFFIC FLOW DIRECTION
- LANDSCAPE AREA, SEE CALCS.
- RED LEAF OAK
- BLUE STAR JUNIPER
- PYRACANTHA



LOUISIANA BLVD. SE

(80' R.O.W., 2-SOUTHBOUND LANES + CONTINUOUS CENTER, LEFT-TURN LANE)
2-NORTHBOUND LANES

I, PHILIP W. CLARK, PROFESSIONAL ENGINEER, REGISTERED IN ACCORDANCE WITH THE LAWS IN THE STATE OF NEW MEXICO. DO HEREBY CERTIFY THAT THE ROADWAY, DRAINAGE, IMPROVEMENTS SHOWN ON THIS PLAN ARE IN SUBSTANTIAL COMPLIANCE WITH THE APPROVED PLAN.

PHILIP W. CLARK, P.E. #10265
PROJECT DATA

LEGAL DESCRIPTION (Concurrent Platting)

LOT B-1, BLOCK 16, MESA PARK ADDITION
Albuquerque, Bernalillo County, New Mexico

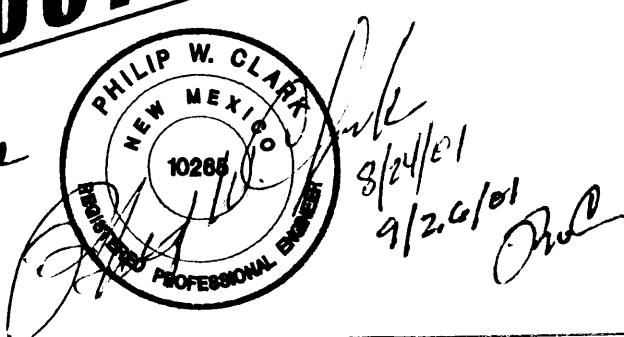
PROJECT BENCHMARK

Top of Concrete, A Chiseled Square in Back of Sidewalk @ NE Corner, M.S. Elevation = 5323.06
(Tied From ACS 6-L18, Located @ Trumbull/Louisiana)

TOPOGRAPHIC DESIGN SURVEY

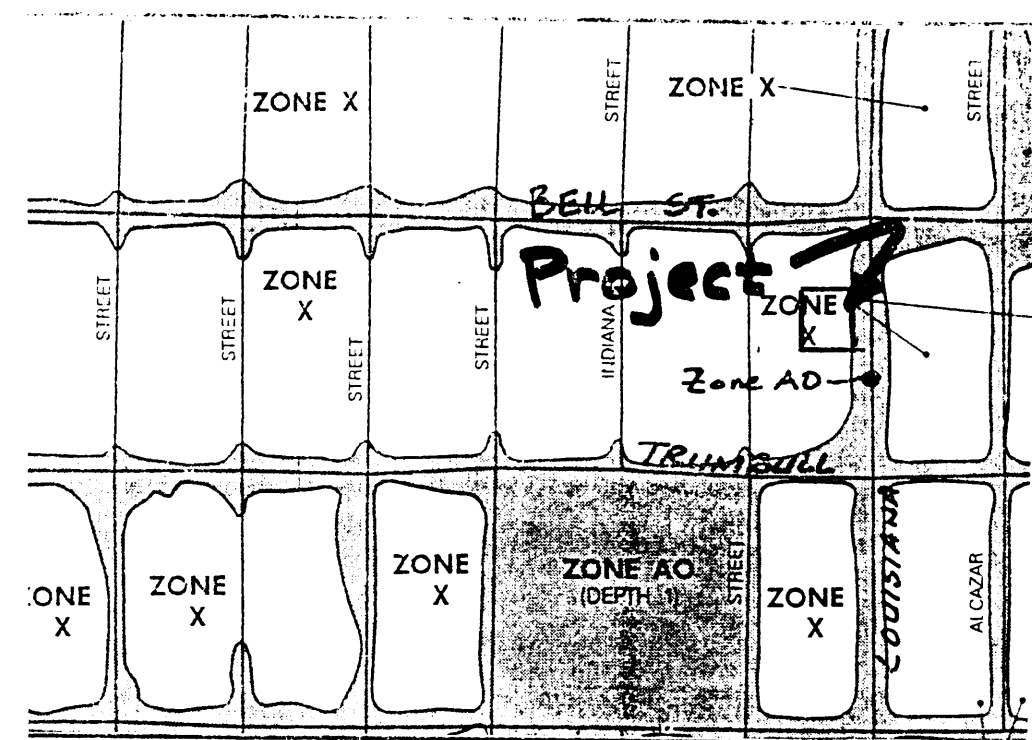
Compiled by Clark Consulting Engineers From Design Survey
Performed on, 6/11/01

AS-CONSTRUCTED
12-17-01 Rev.
Rev. 5-16-02 Rev.

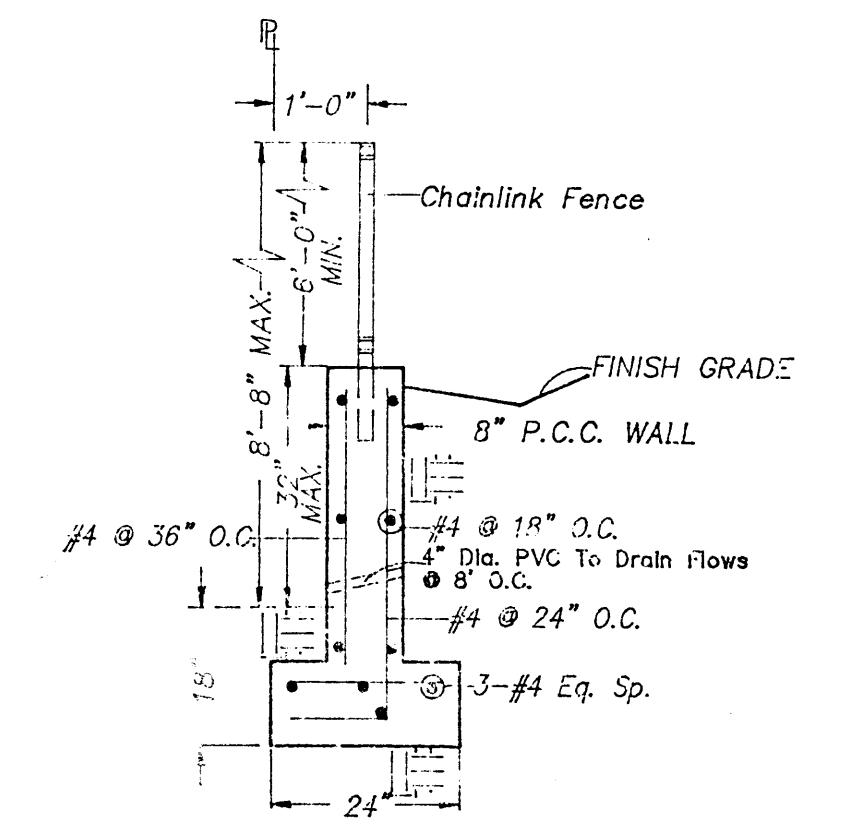


RECEIVED
MAR 21 2002
PVD/DESIGN REVIEW

Clark Consulting Engineers		19 Ryan Road Edgewood, New Mexico 87015	
Tel: (505) 281-2444		Fax: (505) 281-2444	
DATE	REVISION	LOTS B & 17-22, BLOCK 16, MESA PARK ADDITION	
7-26-01	ADDR. TRANSP. DEV. CMM TS.	CONVENIENT MOBILE HOME - RV SUPPLIES	
8-24-01	REVISE CURB	Site, Grading & Drainage Plan	
9/25/01	REVISE CURB		
DESIGNED BY: PWC	DRAWN BY: CCE	JOB #:	Cedr_Rldg
CHECKED BY: PWC	DATE: 5/10/01	FILE #:	G/D



RM MAP PANEL # 354



PERIMETER WALL - SECTION
NO SCALE

GRADING & DRAINAGE PLAN

THIS PROJECT IS LOCATED IN THE SOUTHEASTERN AREA OF ALBUQUERQUE ON LOUISIANA BLVD. BETWEEN TRUMBULL AVENUE AND THE COUNTY FLOOD HAZARD ORDINANCE, NO. 80-45, AND THE CITY STORM DRAINAGE PLAN IS REQUIRED IN ORDER TO FACILITATE THE OWNER'S REQUEST FOR BUILDING PERMITS.

EXISTING SPOT ELEVATIONS AND EXISTING DRAINAGE PATTERNS AND DRAINAGE DIRECTION. 4500 SF RETAIL SALES BUILDING, ASPHALT DRIVE/PARKING, CONCRETE FLAT REFUSE, REFUSE LOCATION AND LANDSCAPING. EXISTING AND PROPOSED ELEVATIONS. EXISTING AND PROPOSED ELEVATIONS. EXISTING AND PROPOSED ELEVATIONS.

THE SITE IS A DIRT, "HARD-PAN" SURFACE WITH SPARSE VEGETATION. THE SITE IS BOUNDED BY EXISTING RAILROAD TIES TO THE WEST, AND DEVELOPED COMMERCIAL FACILITIES ARE ADJACENT TO THE NORTH. THE SITE FALLS APPROXIMATELY 1% FROM SOUTH TO NORTH.

THE SITE IS ADJACENT TO A FEMA A01 (1' DEPTH) FLOOD HAZARD ZONE, WHICH IS CONTAINED WITHIN THE EXISTING RIGHT-OF-WAY. LOUISIANA BLVD. IS A PRINCIPAL ARTERIAL WITH 5 LANES, WITH CURB, SIDEWALK, AND BIKEWAY. THE SITE RUNOFF WILL BE ALLOWED TO EITHER DRAIN THROUGH THE SITE, OR TO THE EXISTING LANDSCAPE AREAS. THE SITE HAS HISTORICALLY DRAINED TO THE NORTH AND TIES TO THE EXISTING RAILROAD TIES. SINCE THE SITE LIES WITHIN A ZONE A01 FLOOD PLAIN (AVERAGE FLOOD DEPTH 1 FOOT) THE STRUCTURE IS SET 1 FOOT ABOVE THE MEAN EXISTING ELEVATION IN THE FLOOD PLAIN.

EXISTING DRAINAGE LOCATIONS WILL REMAIN UNCHANGED WITH DEVELOPMENT. FREE DISCHARGE IS ACCEPTABLE SINCE DRAINAGE CAPACITY EXISTS WITH THE MINIMAL INCREASE DUE TO DEVELOPMENT. SITE RUNOFF IS ROUTED THROUGH PROPOSED LANDSCAPING.

CALCULATIONS

SECTION 22.2, HYDROLOGY OF THE DEVELOPMENT PROCESS MANUAL (DPM) FOR THE CITY OF ALBUQUERQUE, ADOPTED BY THE COUNTY OF BERNALILLO. PEAK DISCHARGE RATES FOR SMALL WATERSHEDS. VOLUME = $E_{weighted} \times AREA$. TIME OF CONCENTRATION, $TC = 10$ MINUTES. 10-YEAR/6-HOUR [] = 10 YEAR VALUES.

4. PEAKS, WHERE EXCESS PRECIP. "C" = 1.29 IN. [0.62], 0.100" = 1.7 CFS [0.3], WHERE UNIT PEAK DISCHARGE "C" = 3.45 CFS/AC. [1.0], 1.00" = 2285 GFS [1103].

EXISTING TREATMENTS, PEAK DISCHARGE AND VOLUMETRIC DISCHARGE. AREA.

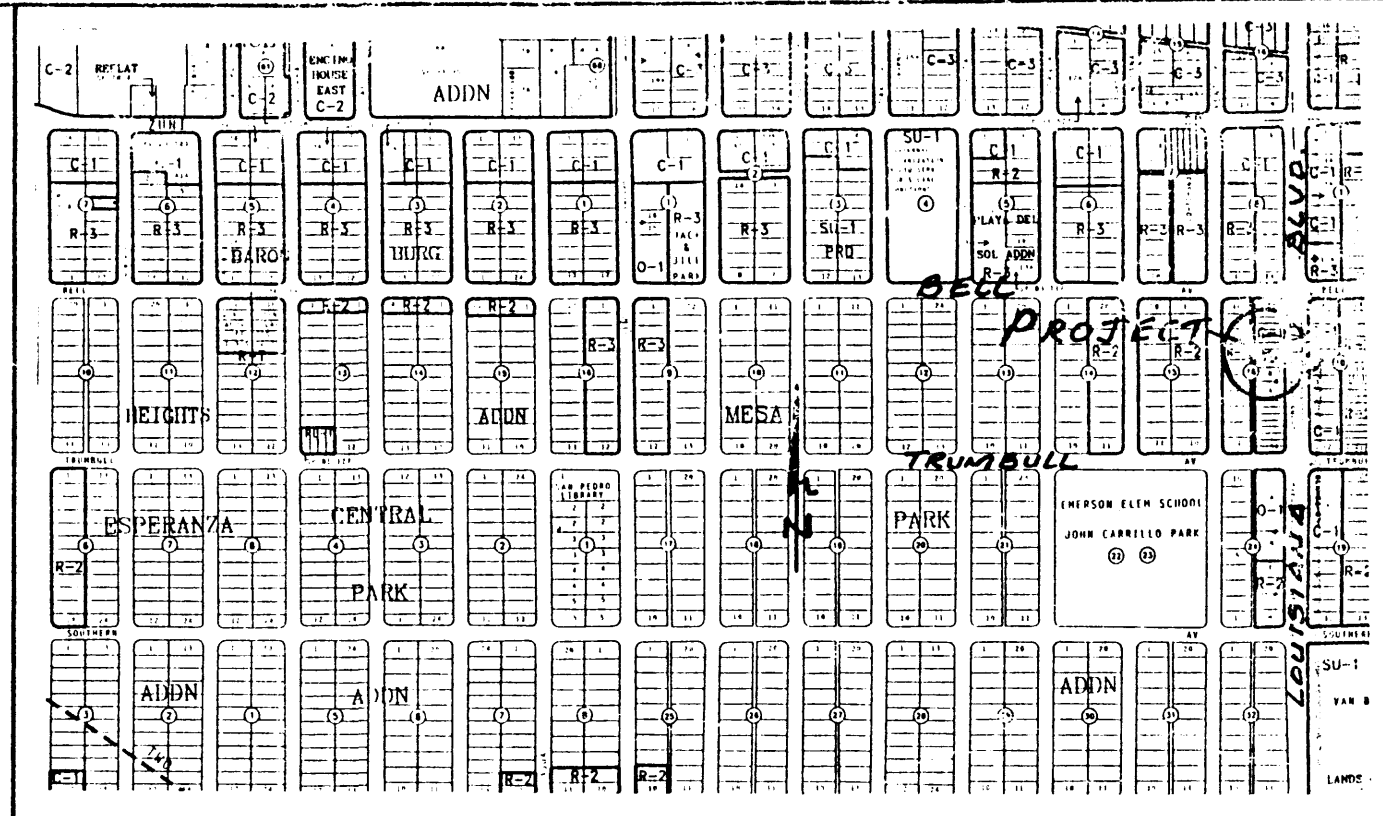
AREA	LAND TREATMENT	Q Peak	F
ING - 0.06 Ac.	A	1.87[0.58]	0.66[0.19]
D SOIL & Slopes > 0.07 Ac.	B	2.80[1.19]	0.92[0.36]
AVENIENT 0.36 Ac.	C	3.45[2.00]	1.29[0.62]
0.49 Ac.	D	5.02[3.39]	2.36[1.50]

$F_{weighted} = 2.03$ IN. [1.23] & $Q_{100} = 2.2$ CFS, VOLUME 100 = 3610 CF, $Q_{10} = 1.4$ CFS, VOLUME 10 = 2135 CF.

RAIN ANALYSIS. STORM ALLEY SURFACE DRAINS TO THE NORTH, THEN WEST ON E. FREE DISCHARGE IS ACCEPTABLE SINCE THE OVERALL BASIN CAPACITY AND THE PROJECT TIME TO PEAK IS MUCH LESS. OVERALL BASIN TIME TO PEAK & INCREASE DUE TO DEVELOPMENT IS (INCREASE FROM THE EXISTING, 5.4 CFS).

LANDSCAPE CALCULATIONS:		PARKING CALCULATIONS:	
REQUIRED LANDSCAPED AREA:		REQUIRED FOR:	
GROSS LOT AREA:	21,434 SF	RETAIL	4500 GSF / 200 SF/SP = 22.5 SPACES
BUILDING FOOTPRINT:	-4500 GSF	10% REDUCTION (WITHIN 300' OF TRANSIT ROUTE)	
NET LOT AREA:	16,934 SF	TOTAL	20 SPACES
x 15 %		ADA ACCESSIBLE (VANS INCLUDED)	2 TOTAL
REQUIRED AREA:	2,540 GSF	ACTUAL PROVIDED:	
PROVIDED	5,308 GSF	20 SPACES	
WHERE: A=710' B=968' C=2400' D=1000' E=230'			

TRAFFIC CONTROL LAYOUT CERTIFICATION
NOTE: AS REQUIRED BY TRANSPORTATION DEVELOPMENT SECTION, AN AS-BUILT PLAN AND LETTER OF CERTIFICATION OF ALL APPROVED TRAFFIC ELEMENTS IS REQUIRED PRIOR TO ISSUANCE OF FINAL CERTIFICATE OF OCCUPANCY (C.O.). PLEASE CALL, 924-3820, IN ORDER TO OBTAIN TEMPORARY C.O. CONFIRMATION FROM HYDROLOGY, SUPPORTING THIS REQUIREMENT WILL BE NEEDED PRIOR TO APPROVAL OF TRAFFIC CONTROL LAYOUT (TCL) BY TRANSPORTATION.



VICINITY MAP ZONE L-18 Scale: 1" = 750'

NOTES

- ALL WORK WITHIN THE RIGHT-OF-WAY SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CITY OF ALBUQUERQUE STANDARD SPECS. FOR PUBLIC WORKS CONSTRUCTION, 6TH EDITION W/ UPDATES.
- AN EXCAVATION/CONSTRUCTION PERMIT IS REQUIRED BEFORE BEGINNING ANY WORK WITHIN CITY R.O.W. AN APPROVED COPY OF THIS PLAN MUST BE SUBMITTED AT THE TIME OF APPLICATION.
- ALL WORK ON THIS PROJECT SHALL BE PERFORMED IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE AND LOCAL LAWS, RULES, AND REGULATIONS CONCERNING CONSTRUCTION SAFETY AND HEALTH.
- ALL LANDSCAPING AREA SHALL BE SOFT-LINED WITH NATIVE VEGETATION AND/OR GRAVEL ASPHALT PARKING AREA SHALL DRAIN DIRECTLY TO EXISTING CURB CUT.
- LANDSCAPING IRRIGATION SYSTEM SHALL BE DRIP-TYPE. CONTRACTOR SHALL INSTALL SYSTEM PRIOR TO PLACEMENT OF PAVING.
- CONTRACTOR SHALL ENSURE THAT NO SITE SOILS/SEDIMENT OR SILT ENTER THE RIGHT-OF-WAYS DURING CONSTRUCTION.
- REVEGETATE ALL AREAS DISTURBED DUE TO CONSTRUCTION PER CITY OF ALBUQ. SPEC. 1011, NATIVE SEED MIX.
- MAXIMUM SITE GRADING WITHOUT EROSION PROTECTION: 3 HORIZONTAL TO 1 VERTICAL, 3:1. ALL DIMENSIONS TO FACE OF CURB, UNLESS NOTED OTHERWISE.
- INSPECTION BY TRANSPORTATION DEVELOPMENT SECTION OF CONSTRUCTION FOR CERTIFICATE OF OCCUPANCY (C.O.) WILL BE DONE FROM THIS SHEET.

LEGEND

EXIST. SPOT ELEVATION	+24.0
EXIST. CONTOUR	-10
NEW SPOT ELEVATION	+24.0
NEW CONTOUR	-12
NEW SWALE	
DRAINAGE DIRECTION, EXISTING	TA
NEW CONCRETE CURB (0.5' HEIGHT)	FL
NEW P.C.C., CONCRETE	OPP
TOP OF ASPHALT, EXISTING	F-F
FLOWLINE	
EXISTING POWER POLE	
FACE OF CURB/FACE OF CURB	
TRAFFIC FLOW DIRECTION	
LANDSCAPE AREA, SEE CALCS.	
RED LEAF OAK	
BLUE STAR JUNIPER	
PYRACANTHA	

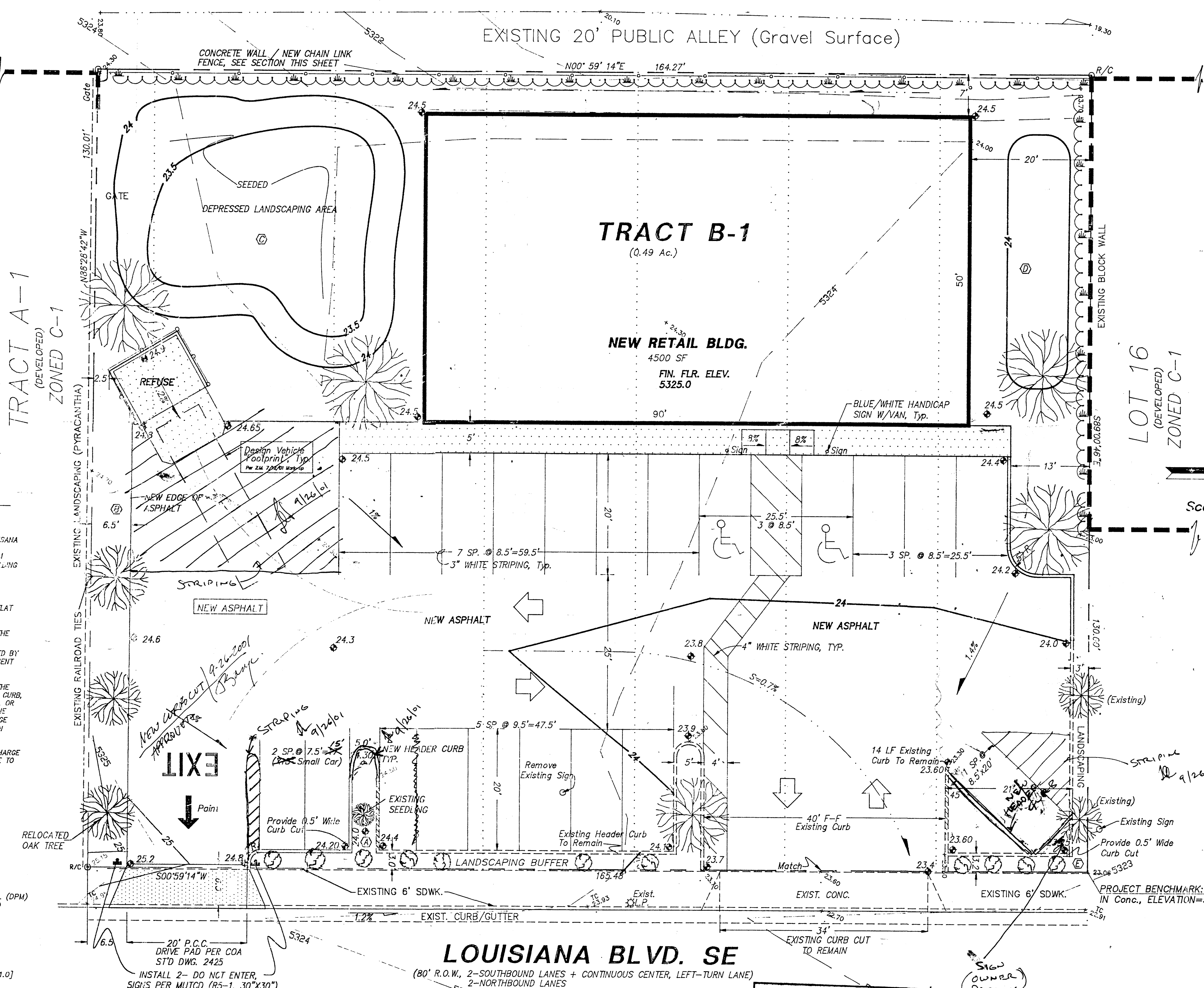
ALBUQUERQUE BUILDING & SAFETY

SEP 26 2001
HYDROLOGY SECTION
PLAN CHECK

PHILIP W. CLARK
NEW MEXICO
10265
9/26/01
9/26/01

DEC 1 8 2001

Clark Consulting Engineers		Hydrology Section	
19 Ryan Road Edgewood, New Mexico 87015		Fax: (505) 281-2444	
DATE	REVISION	LOTS B & 17-22, BLOCK 16, MESA PARK ADDITION	
7-26-01	ADDR. TRANSP. DEV. CMMTS.	CONVENIENT MOBILE HOME - R.V. SUPPLIES	
8-24-01	Revised Curb	Site, Grading & Drainage Plan	
9/26/01	per zoning		
DESIGNED BY: PWC	DRAWN BY: CCE	JOB #: Cdr_Ridg	1 OF 1
CHECKED BY: PWC	DATE: 5/10/01	FILE #: G/D	



LOUISIANA BLVD. SE

(80' R.O.W., 2-SOUTHBOUND LANES + CONTINUOUS CENTER, LEFT-TURN LANE)
2-NORTHBOUND LANES

TRAFFIC CIRCULATION LAYOUT APPROVED

9/26/01
Date

PROJECT DATA

LEGAL DESCRIPTION (Concurrent Platting)

LOT B-1, BLOCK 16, MESA PARK ADDITION
Albuquerque, Bernalillo County, New Mexico

PROJECT BENCHMARK

Top of Concrete, A Chiseled Square in Back of Sidewalk @ NE Corner, MSL Elevation = 5323.06
(Tied From ACS 6-118, Located @ Trumbull/Louisiana)

TOPOGRAPHIC DESIGN SURVEY

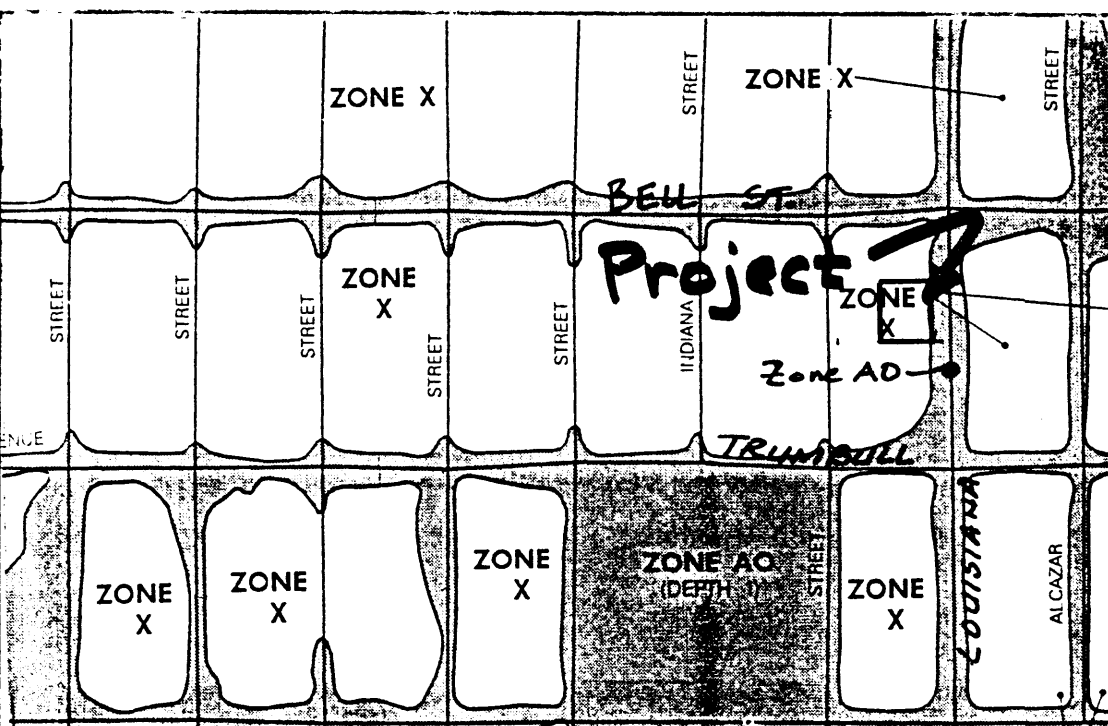
Compiled by Clark Consulting Engineers From Design Survey
Performed on, 6/11/01

I, PHILIP W. CLARK, A PROFESSIONAL ENGINEER LICENSED IN ACCORDANCE WITH THE LAWS OF THE STATE OF NEW MEXICO, DO HEREBY CERTIFY THAT I HAVE VISITED THE SITE SHOWN HEREON, AND THAT THE CONTOURS SHOWN REPRESENT THE EXISTING GROUND CONDITIONS, AND DO FURTHER CERTIFY THAT NO EARTHWORK OF ANY KIND, NOR ANY DISTURBANCE OF THE EXISTING GROUND HAS OCCURRED ON THIS SITE SINCE THE CONTOURS WERE DETERMINED.

Philip W. Clark
NMPE #10265

This site will be constructed per plan
9.26.01

FILE COPY
12/16/01
gc

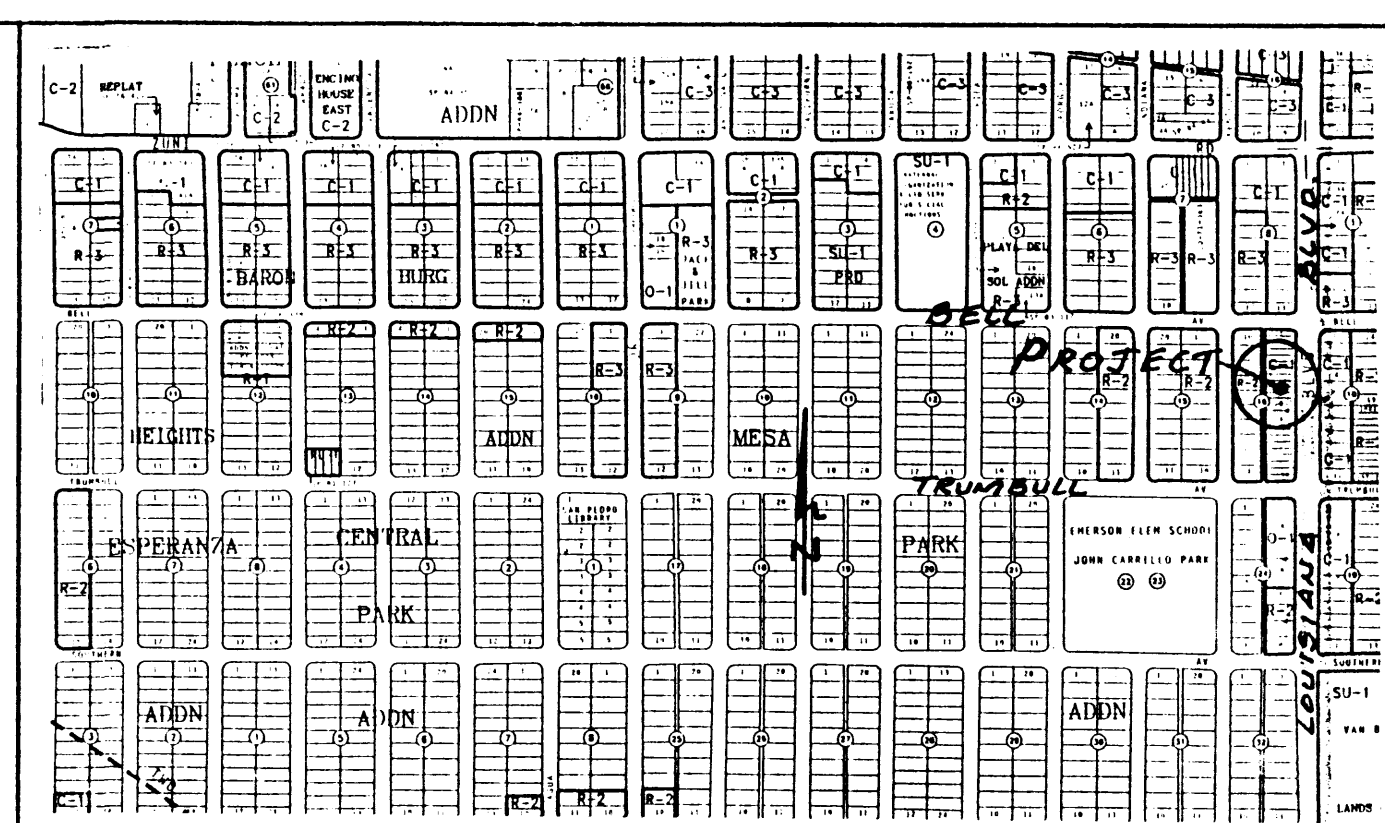


FIRM MAP PANEL # 354

LANDSCAPE CALCULATIONS:		PARKING CALCULATIONS:	
REQUIRED LANDSCAPED AREA:		REQUIRED FOR:	
GROSS LOT AREA:	21,434 SF	RETAIL	4500 GSF / 200 SF/SP = 22.5 SPACES
BUILDING FOOTPRINT:	-4500 GSF	10% REDUCTION (WITHIN 300' OF TRANSIT ROUTE)	
NET LOT AREA:	16,934 SF	TOTAL	
	x 15 %	20 SPACES	
REQUIRED AREA:	2,540 GSF	ADA ACCESSIBLE	
PROVIDED	5,308 GSF	(VANS INCLUDED) 1	
WHERE:		ACTUAL PROVIDED:	
A=710' B=968' C=2400' D=1000' E=230'		21 SPACES	
		+ 1 OWNER SP.	

TRAFFIC CONTROL LAYOUT CERTIFICATION

NOTE: AS REQUIRED BY TRANSPORTATION DEVELOPMENT SECTION, AN AS-BUILT PLAN AND LETTER OF CERTIFICATION OF ALL APPROVED TRAFFIC ELEMENTS IS REQUIRED PRIOR TO ISSUANCE OF FINAL CERTIFICATE OF OCCUPANCY (C.O.). PLEASE CALL, 924-3620, IN ORDER TO OBTAIN TEMPORARY C.O. CONFIRMATION FROM HYDROLOGY, SUPPORTING THIS REQUIREMENT WILL BE NEEDED PRIOR TO APPROVAL OF TRAFFIC CONTROL LAYOUT (TCL) BY TRANSPORTATION.



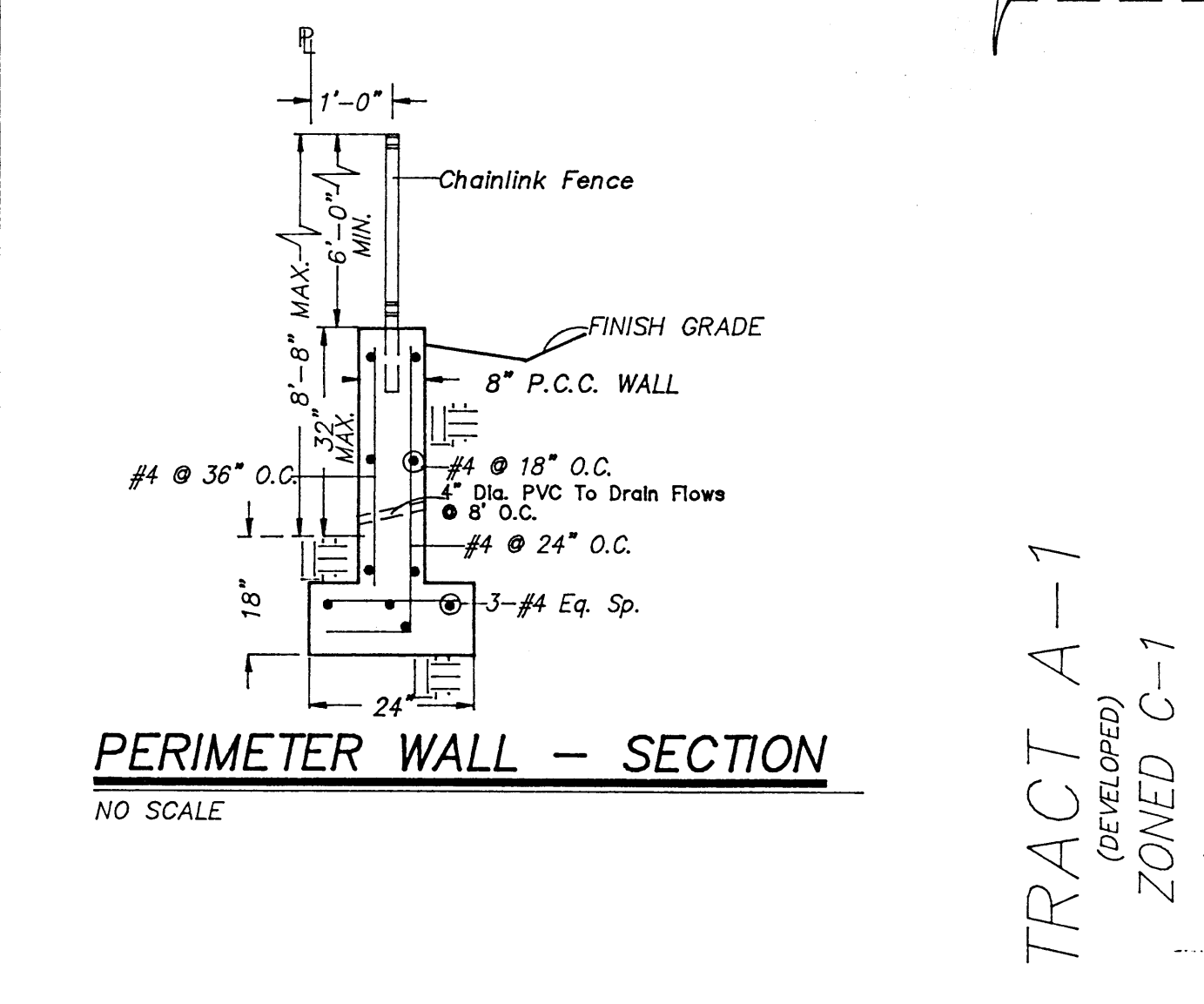
VICINITY MAP ZONE L-18 Scale: 1" = 750'

NOTES

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- CONTRACTOR SHALL ENSURE THAT NO SITE SOILS/SEDIMENT OR SILT ENTER THE RIGHT-OF-WAYS DURING CONSTRUCTION.
- REVEGETATE ALL AREAS DISTURBED DUE TO CONSTRUCTION PER CITY OF ALBUQ. SPEC. 1011, NATIVE SEED MIX.
- MAXIMUM SITE GRADING WITHOUT EROSION PROTECTION: 3 HORIZONTAL TO 1 VERTICAL, 3:1. ALL DIMENSIONS TO FACE OF CURB, UNLESS NOTED OTHERWISE.
- INSPECTION BY TRANSPORTATION DEVELOPMENT SECTION OF CONSTRUCTION FOR CERTIFICATE OF OCCUPANCY (C.O.) WILL BE DONE FROM THIS SHEET.

LEGEND

- EXIST. SPOT ELEVATION +24.0
- EXIST. CONTOUR 10
- NEW SPOT ELEVATION 24.0
- NEW CONTOUR 12
- NEW SWALE
- DRAINAGE DIRECTION, EXISTING
- NEW CONCRETE CURB (0.5' HEIGHT)
- NEW P.C.C., CONCRETE
- TOP OF ASPHALT, EXISTING TA
- FLOWLINE FL
- EXISTING POWER POLE OPP
- FACE OF CURB/FACE OF CURB F-F
- TRAFFIC FLOW DIRECTION
- LANDSCAPE AREA, SEE CALCS.
- RED LEAF OAK
- BLUE STAR JUNIPER
- PYRACANTHA



GRADING & DRAINAGE PLAN

THE PROPOSED RETAIL SALES PROJECT IS LOCATED IN THE SOUTHEAST AREA OF ALBUQUERQUE ON LOUISIANA BLVD. BETWEEN BELL AND TRUMBULL AVENUES. THE GRADING AND DRAINAGE SCHEME HEREON IS IN COMPLIANCE WITH THE BERNALILLO COUNTY FLOOD HAZARD ORDINANCE, NO.88-46, AND THE CITY STORM DRAINAGE ORDINANCE. THE PLAN IS REQUIRED IN ORDER TO FACILITATE THE OWNER'S REQUEST FOR BUILDING PERMIT. THE PLAN SHOWS:

- EXISTING CONTOURS, AND SPOT ELEVATIONS AND EXISTING DRAINAGE PATTERNS AND IMPROVEMENTS.
- PROPOSED IMPROVEMENT: 4500 SF RETAIL-SALES BUILDING, ASPHALT DRIVE/PARKING, CONCRETE FLAT WORK, NEW GRADE ELEVATIONS, REFUSE LOCATION, AND LANDSCAPING.
- CONTINUITY BETWEEN EXISTING AND PROPOSED ELEVATIONS.
- QUANTIFICATION OF DEVELOPED FLOWS GENERATED BY THE IMPROVEMENTS WHICH CONTRIBUTE TO THE EXISTING FLOWS.

PRESENTLY, THE SITE IS A DIRT, "HARD-PAN" SURFACE WITH SPARSE VEGETATION. THE SITE IS BOUNDED BY A PUBLIC, GRAVEL SURFACED ALLEY ON THE WEST AND DEVELOPED COMMERCIAL FACILITIES ARE ADJACENT ON THE SOUTH AND NORTH. THE SITE FALLS APPROXIMATELY 18' FROM SOUTH TO NORTH.

THE SITE IS ADJACENT TO A FEMA 401 (1' DEPTH) FLOOD HAZARD ZONE, WHICH IS CONTAINED WITHIN THE LOUISIANA BOULEVARD RIGHT-OF-WAY. LOUISIANA BLVD. IS A PRINCIPAL ARTERIAL WITH 5 LANES, WITH CURB, GUTTER AND ATTACHED SIDEWALK. SITE RUNOFF WILL BE ALLOWED TO EITHER DRAIN THROUGH THE SITE, OR POUNDED IN DEPRESSED LANDSCAPE AREAS. THE SITE HAS HISTORICALLY DRAINED TO THE NORTH VIA THE EXISTING ALLEY THEN WEST ON BELL ST. SINCE THE SITE LIES WITHIN A ZONE AO FLOOD PLAIN (AVERAGE DEPTH OF LESS THAN 1 FOOT) THE STRUCTURE IS SET 1 FOOT ABOVE THE MEAN EXISTING ELEVATION IN LOUISIANA.

HISTORICAL DOWNSTREAM OUTFALL LOCATIONS WILL REMAIN UNCHANGED WITH DEVELOPMENT. FREE DISCHARGE OF SITE RUNOFF IS ACCEPTABLE SINCE DOWNSTREAM CAPACITY EXISTS WITH THE MINIMAL INCREASE DUE TO DEVELOPMENT. A PORTION OF SITE RUNOFF IS ROUTED THROUGH PROPOSED LANDSCAPING.

CALCULATIONS

DESIGN CRITERIA
HYDROLOGIC METHODS PER SECTION 22.2, HYDROLOGY OF THE DEVELOPMENT PROCESS MANUAL (DPM) - USED JANUARY 1993 FOR CITY OF ALBUQUERQUE, ADOPTED BY THE COUNTY OF BERNALILLO
DISCHARGE RATE: Q=PEAK x AREA, "Peak Discharge Rates For Small Watersheds"
VOLUMETRIC DISCHARGE: VOLUME = EWEIGHTED x AREA
F100 = 2.60 Inches, Zone 3 Time of Concentration, TC = 10 Minutes
DESIGN STORM: 100-YEAR/6-HOUR, 10-YEAR/6-HOUR [] = 10 YEAR VALUES

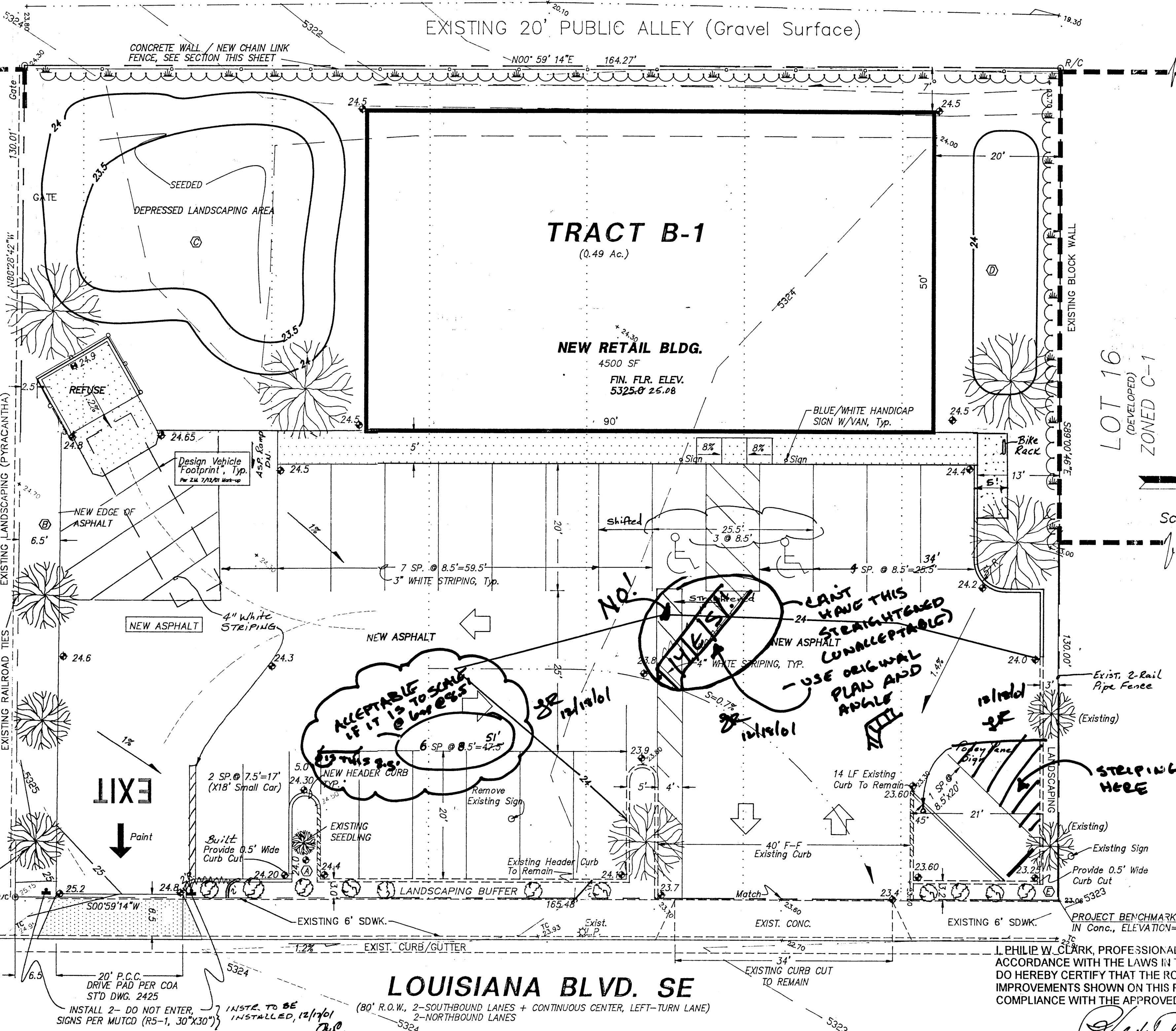
EXISTING CONDITIONS
LOT AREA = 0.49 ACRES, WHERE EXCESS PRECIP. "C" = 1.29 in. [0.62]
PEAK DISCHARGE: Q100 = 1.7 CFS [0.3] WHERE UNIT PEAK DISCHARGE "C" = 3.45 CFS/AC. [1.0]
THEREFORE: VOLUME 100 = 2295 CF [103]

DEVELOPED CONDITIONS
DETERMINE LAND TREATMENTS, PEAK DISCHARGE AND VOLUMETRIC DISCHARGE FOR STUDY AREA

AREA	LAND TREATMT	Q Peak	E
UNDEVELOPED	A	1.87[0.58]	0.66[0.19]
LANDSCAPING	B	2.60[1.18]	0.92[0.36]
COMPACTED SOIL & Slopes >	C	3.45[2.00]	1.29[0.62]
ROOF - PAVEMENT	D	5.02[3.39]	2.36[1.50]

THEREFORE: EWEIGHTED = 2.03 in. [1.23] &
Q100 = 2.2 CFS
Q10 = 1.4 CFS

DOWNSTREAM ANALYSIS
THE EXISTING ALLEY SUBSIST DRAINS TO THE NORTH, BUT WEST ON BELL AVE. FREE DISCHARGE IS ACCEPTABLE SINCE THE OVERALL BASIN HAS CAPACITY AND THE PROJECT TIME TO PEAK IS MUCH LESS THAN OVERALL BASIN TIME TO PEAK & INCREASE DUE TO DEVELOPMENT IS MINIMAL (INCREASE FROM THE EXISTING, .5secFS)



LOUISIANA BLVD. SE

(80' R.O.W., 2-SOUTHBOUND LANES + CONTINUOUS CENTER, LEFT-TURN LANE)

I, PHILIP W. CLARK, A PROFESSIONAL ENGINEER LICENSED IN ACCORDANCE WITH THE LAWS OF THE STATE OF NEW MEXICO, DO HEREBY CERTIFY THAT I HAVE VISITED THE SITE SHOWN HEREON, AND THAT THE CONTOURS SHOWN REPRESENT THE EXISTING GROUND CONDITIONS, AND DO FURTHER CERTIFY THAT NO EARTHWORK OF ANY KIND, NOR ANY DISTURBANCE OF THE EXISTING GROUND HAS OCCURRED ON THIS SITE SINCE THE CONTOURS WERE IN EXISTENCE.

Compiled by Clark Consulting Engineers from Design Survey
Performed on, 6/11/01

I, PHILIP W. CLARK, PROFESSIONAL ENGINEER, REGISTERED IN ACCORDANCE WITH THE LAWS IN THE STATE OF NEW MEXICO, DO HEREBY CERTIFY THAT THE ROADWAY, DRAINAGE, IMPROVEMENTS SHOWN ON THIS PLAN ARE SUBSTANTIAL COMPLIANCE WITH THE APPROVED PLAN.

PHILIP W. CLARK, P.E. #10235
PROJECT DATA

LEGAL DESCRIPTION (Concurrent Platting)
LOT B-1, BLOCK 16, MESA PARK ADDITION
Albuquerque, Bernalillo County, New Mexico

PROJECT BENCHMARK
Top of Concrete, A Chiseled Square in Back of Sidewalk @ NE Corner, M.S.L. Elevation = 5323.06 (Tied From ACS 6-L18, Located @ Trumbull/Louisiana)

TOPOGRAPHIC DESIGN SURVEY
Performed on, 6/11/01

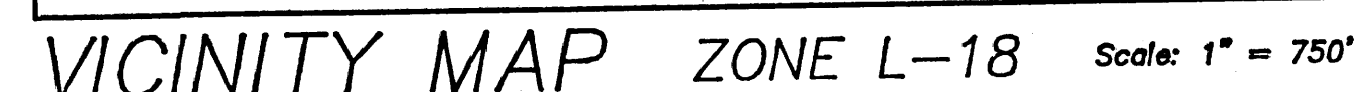
AS-CONSTRUCTED
12-17-01
9/20/01

Clark Consulting Engineers		19 Ryan Road Edgewood, New Mexico 87015	
Tel: (505) 281-2444		Fax: (505) 281-2444	
DATE	REVISION	LOTS B & 17-22, BLOCK 16, MESA PARK ADDITION	
7-26-01	ADDR. TRANSP. DEV. CMM.TS.	CONVENIENT MOBILE HOME - RV SUPPLIES	
8-24-01	Revise Curb per Eoning Plan	Site, Grading & Drainage Plan	
9/20/01	ADD		
DESIGNED BY: PWC	DRAWN BY: CCE	JOB #: Cdr_Rldg	1 OF 1
CHECKED BY: PWC	DATE: 5/10/01	FILE #: G/D	



TRAFFIC CONTROL LAYOUT CERTIFICATION

NOTE: AS REQUIRED BY TRANSPORTATION DEVELOPMENT SECTION, AN AS-BUILT PLAN AND LETTER OF CERTIFICATION OF ALL APPROVED TRAFFIC ELEMENTS IS REQUIRED PRIOR TO ISSUANCE OF FINAL CERTIFICATE OF OCCUPANCY (C.O.). PLEASE CALL 924-3620, IN ORDER TO OBTAIN TEMPORARY C.O. CONFIRMATION FROM HYDROLOGY. SUPPORTING THIS REQUIREMENT WILL BE NEEDED PRIOR TO APPROVAL OF TRAFFIC CONTROL LAYOUT (TCL) BY TRANSPORTATION.



NOTES

1. ALL WORK WITHIN THE RIGHT-OF-WAY SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CITY OF ALBUQUERQUE STANDARD SPECS. FOR PUBLIC WORKS CONSTRUCTION, 6TH EDITION W/ UPDATES.
2. AN EXCAVATION/CONSTRUCTION PERMIT IS REQUIRED BEFORE BEGINNING ANY WORK WITHIN CITY R.O.W. AN APPROVED COPY OF THIS PLAN MUST BE SUBMITTED AT THE TIME OF APPLICATION.
3. ALL WORK ON THIS PROJECT SHALL BE PERFORMED IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE AND LOCAL LAWS, RULES, AND REGULATIONS CONCERNING CONSTRUCTION SAFETY AND HEALTH.
4. ALL LANDSCAPING AREA SHALL BE SOFT-LINED WITH NATIVE VEGETATION AND/OR GRAVEL. ASPHALT PARKING AREA SHALL DRAIN DIRECTLY TO EXISTING CURB CUT.
5. LANDSCAPING IRRIGATION SYSTEM SHALL BE DRIP-TYPE. CONTRACTOR SHALL INSTALL SYSTEM PRIOR TO PLACEMENT OF PAVING.
6. CONTRACTOR SHALL ENSURE THAT NO SITE SOILS/SEDIMENT OR SILT ENTER THE RIGHT-OF-WAYS DURING CONSTRUCTION.
7. REVEGETATE ALL AREAS DISTURBED DUE TO CONSTRUCTION PER CITY OF ALBUQ. SPEC. 1011, NATIVE SEED MIX.
8. MAXIMUM SITE GRADING WITHOUT EROSION PROTECTION: 3 HORIZONTAL TO 1 VERTICAL, 3:1. ALL DIMENSIONS TO FACE OF CURB, UNLESS NOTED OTHERWISE.
9. INSPECTION BY TRANSPORTATION DEVELOPMENT SECTION OF CONSTRUCTION FOR CERTIFICATE OF OCCUPANCY (C.O.) WILL BE DONE FROM THIS SHEET.

LEGEND

EXIST. SPOT ELEVATION +24.0
 EXIST. CONTOUR -10
 NEW SPOT ELEVATION ∇ 24.0
 NEW CONTOUR -12
 NEW SWALE
 DRAINAGE DIRECTION, EXISTING
 NEW CONCRETE CURB
 (0.5' HEIGHT)
 NEW P.C.C., CONCRETE
 TOP OF ASPHALT, EXISTING
 FLOWLINE
 EXISTING POWER POLE
 FACE OF CURB/FACE OF CURB
 TRAFFIC FLOW DIRECTION
 LANDSCAPE AREA, SEE CALCS
 RED LEAF OAK
 BLUE STAR JUNIPER
 PYRACANTHA

GRADING & DRAINAGE PLAN

THE PROPOSED RETAIL SALES PROJECT IS LOCATED IN THE SOUTHEAST AREA OF ALBUQUERQUE ON LOUISIANA BLVD. BETWEEN BELL AND TRUMBULL AVENUES. THE GRADING AND DRAINAGE SCHEME HEREON IS IN COMPLIANCE WITH THE BERNALILLO COUNTY FLOOD HAZARD ORDINANCE, NO.89-46, AND THE CITY STORM DRAINAGE ORDINANCE. THE PLAN IS REQUIRED IN ORDER TO FACILITATE THE OWNER'S REQUEST FOR BUILDING PERMIT. THE PLAN SHOWS:

1. EXISTING CONTOURS, AND SPOT ELEVATIONS AND EXISTING DRAINAGE PATTERNS AND IMPROVEMENTS.
2. PROPOSED IMPROVEMENT: 4500 SF RETAIL--SALES BUILDING, ASPHALT DRIVE/PARKING, CONCRETE FLAT WORK, NEW GRADE ELEVATIONS, REFUSE LOCATION, AND LANDSCAPING.
3. CONTINUITY BETWEEN EXISTING AND PROPOSED ELEVATIONS.
4. QUANTIFICATION OF DEVELOPED FLOWS GENERATED BY THE IMPROVEMENTS WHICH CONTRIBUTE TO THE EXISTING FLOWS.
- PRESENTLY, THE SITE IS A DIRT, "HARD--PAN" SURFACE WITH SPARSE VEGETATION. THE SITE IS BOUNDED BY A PUBLIC, GRAVEL SURFACED ALLEY ON THE WEST AND DEVELOPED COMMERCIAL FACILITIES ARE ADJACENT TO THE NORTH AND EAST. THE SITE IS APPROXIMATELY 1/2 MILE FROM SOUTH TO NORTH.

THE SITE IS ADJACENT TO A FEMA A01 (1' DEPTH) FLOOD HAZARD ZONE, WHICH IS CONTAINED WITHIN THE LOUISIANA BOULEVARD RIGHT-OF-WAY. LOUISIANA BLVD. IS A PRINCIPAL ARTERIAL WITH 5 LANES, WITH CURBS, GUTTERS AND ATTACHED SIDEWALK. SITE RUNOFF WILL BE ALLOWED TO EITHER DRAIN THROUGH THE SITE, OR PONDED IN DEPRESSED LANDSCAPE AREAS. THE SITE HAS HISTORICALLY DRAINED TO THE NORTH VIA THE EXISTING ALLEY THEN WEST ON BELL ST. SINCE THE SITE LIES WITHIN A ZONE A0 FLOOD PLAIN (AVERAGE DEPTH OF LESS THAN 1 FOOT) THE STRUCTURE IS SET 1 FOOT ABOVE THE MEAN EXISTING ELEVATION IN THE FLOOD PLAIN.

HISTORICAL DOWNSTREAM OUTFALL LOCATIONS WILL REMAIN UNCHANGED WITH DEVELOPMENT. FREE DISCHARGE OF SITE RUNOFF IS ACCEPTABLE SINCE DOWNSTREAM CAPACITY EXISTS WITH THE MINIMAL INCREASE DUE TO DEVELOPMENT. A PORTION OF SITE RUNOFF IS ROUTED THROUGH PROPOSED LANDSCAPING.

CALCULATIONS

DESIGN CRITERIA

DESIGN CRITERIA
HYDROLOGY METHODS PER SECTION 22.2, HYDROLOGY OF THE DEVELOPMENT PROCESS MANUAL (DPM)
REVISED JANUARY 1993 FOR CITY OF ALBUQUERQUE, ADOPTED BY THE COUNTY OF BERNALILLO
DISCHARGE RATE: $Q = QPEAK \times AREA$, "Peak Discharge Rates For Small Watersheds"
VOLUMETRIC DISCHARGE: $VOLUME = E \times WEIGHTED \times AREA$
 $PT00 = 2.60$ inches, Zone 3 Time of Concentration, $TC = 10$ Minutes
 $100\text{-YEAR } 6\text{-HOUR } 10\text{-YEAR } 6\text{-HOUR } 1 = 10$ YEAR VALUES

EXISTING CONDITIONS

EXISTING CONDITIONS
 LOT AREA = 0.49 ACRES, WHERE EXCESS PRECIP. 'C' = 1.29 in. [0.62],
 PEAK DISCHARGE, Q100 = 1.7 CFS [0.3], WHERE UNIT PEAK DISCHARGE 'C' = 3.45 CFS/AC. [1.0]
 THEREFORE, VOLUME 100 = 2295 CF [1103]

DEVELOPED CONDITIONS

DEVELOPED CONDITIONS
DETERMINE LAND TREATMENTS, PEAK DISCHARGE AND VOLUMETRIC DISCHARGE
FOR STUDY AREA

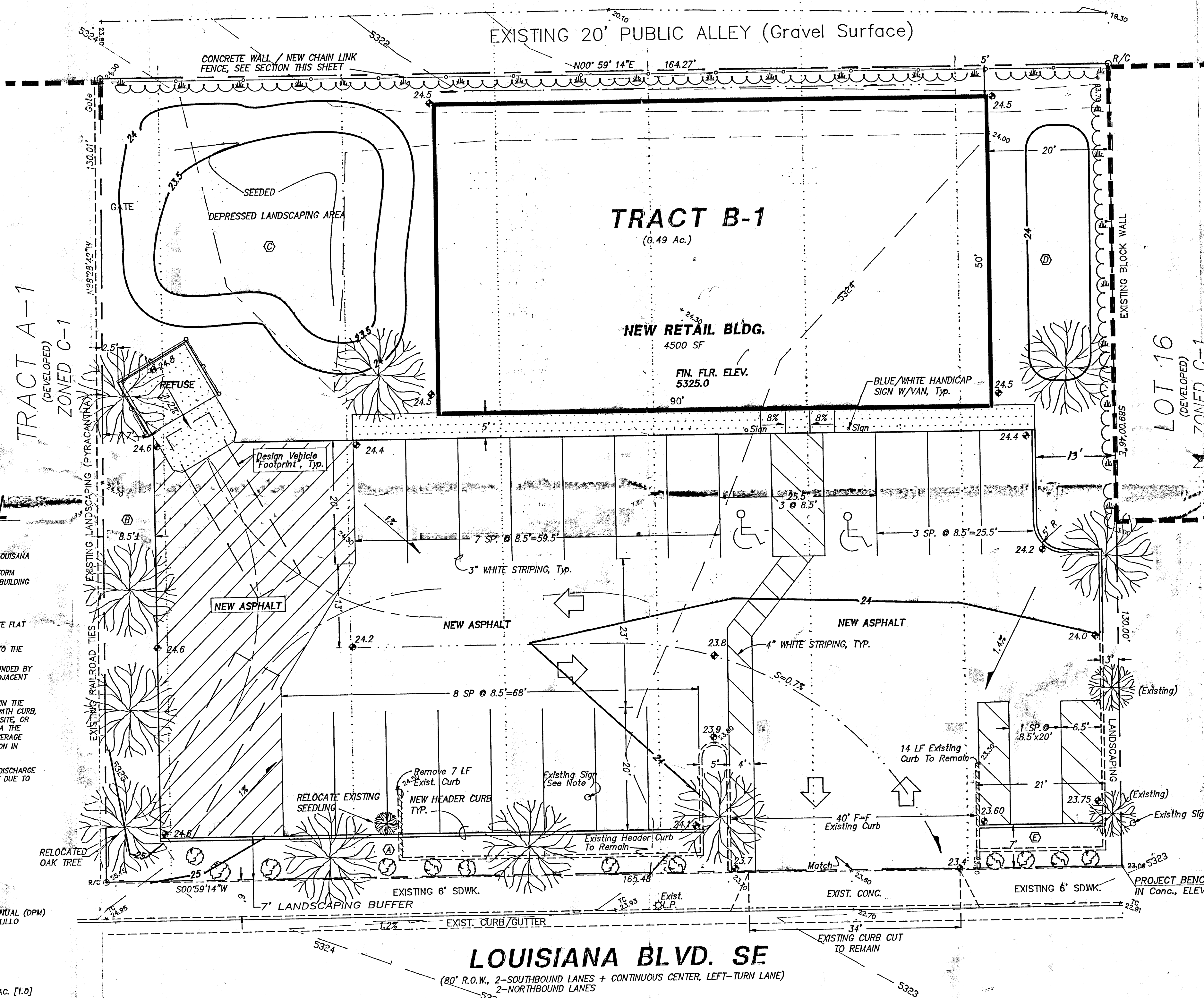
	AREA	LAND TREATMT	Q Peak	E
UNDEVELOPED	---- Ac.	A	1.87[0.58]	0.66[0.19]
LANDSCAPING -	0.06 Ac.	B	2.60[1.19]	0.92[0.36]
COMPACTED SOIL & Slopes >	0.07 Ac.	C	3.45[2.00]	1.29[0.62]
ROOF - PAVEMENT	0.36 Ac.	D	5.02[3.39]	2.36[1.50]
	0.49 Ac.			

THEREFORE: $E_{\text{Weighted}} = 2.03 \ln[1.23]$ &
 $Q_{100} = 2.2 \text{ CFS}$ VOLUME 100 = 3610 CF
 $Q_{10} = 1.4 \text{ CFS}$ VOLUME 10 = 2196 CF

DOWNSTREAM ANALYSIS

DOWNSTREAM ANALYSIS

THE EXISTING ALLEY SURFACE DRAINS TO THE NORTH, THEN WEST ON BELL AVE. FREE DISCHARGE IS ACCEPTABLE SINCE THE OVERALL BASIN HAS CAPACITY AND THE PROJECT TIME TO PEAK IS MUCH LESS THAN OVERALL BASIN TIME TO PEAK & INCREASE DUE TO DEVELOPMENT IS MINIMAL. (INCREASE FROM THE EXISTING. (.5±CFS)



PROJECT DATA

LEGAL DESCRIPTION (Concurrent Platting)

LOT B-1, BLOCK 16, MESA PARK ADDITION
Albuquerque, Bernalillo County, New Mexico

PROJECT BENCHMARK

PROJECT BENCHMARK
Top of Concrete, A Chiseled Square in Back of
Sidewalk @ NE Corner, MSL Elevation = 5323.06
(Tied From ACS 6-L18, Located @ Trumbull/Louisiana,

TOPOGRAPHIC DESIGN SURVEY

TOPOGRAPHIC DESIGN SURVEY
Compiled by Clark Consulting Engineers From Design Survey
Performed on, 6/11/01

I, PHILIP W. CLARK, A PROFESSIONAL ENGINEER LICENSED IN ACCORDANCE WITH THE LAWS OF THE STATE OF NEW MEXICO, DO HEREBY CERTIFY THAT I HAVE VISITED THE SITE SHOWN HEREON, AND THAT THE CONTOURS SHOWN REPRESENT THE EXISTING GROUND CONDITIONS, AND DO FURTHER CERTIFY THAT NO EARTHWORK OF ANY KIND, NOR ANY DISTURBANCE OF THE EXISTING GROUND HAS OCCURRED ON THIS SITE SINCE THE CONTOURS WERE DETERMINED.

PHILIP W. CLARK NMPE #10265 7/26/01

C *Clark Consulting Engineers*

19 Ryan Road
Edgewood, New Mexico 87015

Tel: (505) 281-2444 Fax: (505) 281-

DATE	REVISION	LOTS B & 17-22 BLOCK 16 MESA PARK ADD
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DATE	REVISION	LOIS D & 17 ZZ, DEGR 10, MESA PARK APT
7 26 21	1000 TRANSPO	CONCRETE MOBILE HOME BY SUPPLIER

7-26-01	ADDR. TRANSFER	CONVENIENT MOBILE HOME - RV SUPPLY
	DEV. CMM'TS.	

Page **Site Grading &**

SEKs, Grading & Drainage Plan

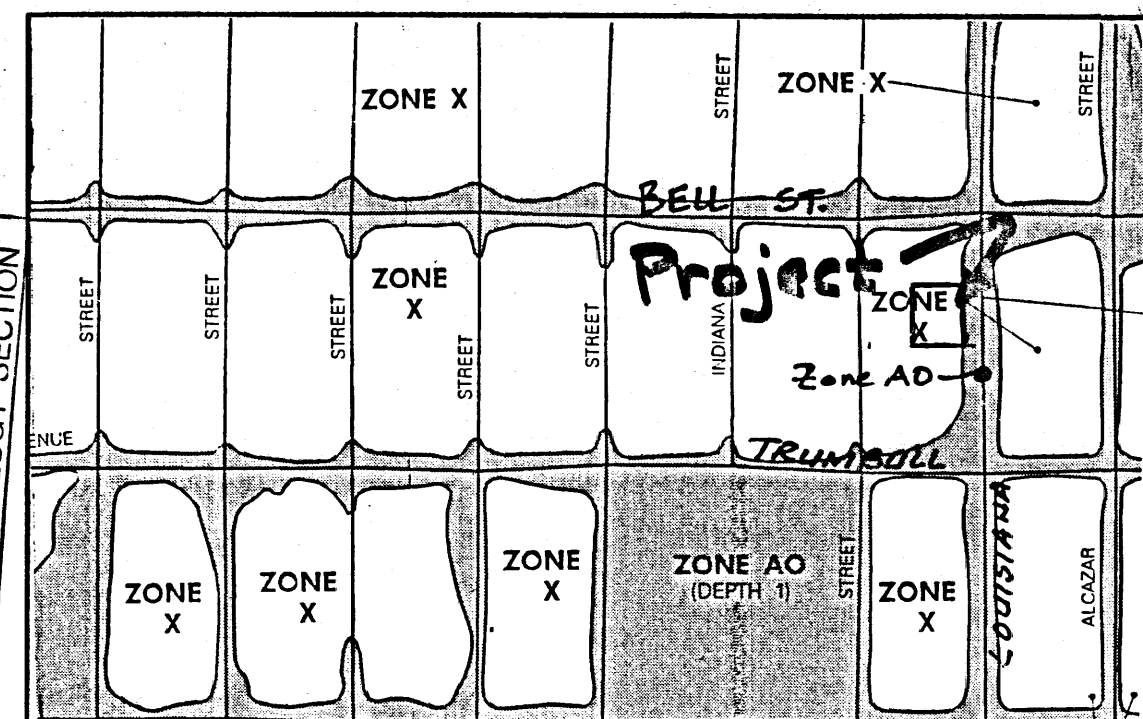
		Drainage Plan
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DESIGNED BY: RWC	DRAWN BY: GCF	JOB #: Cedr_Rldg	1 of 25
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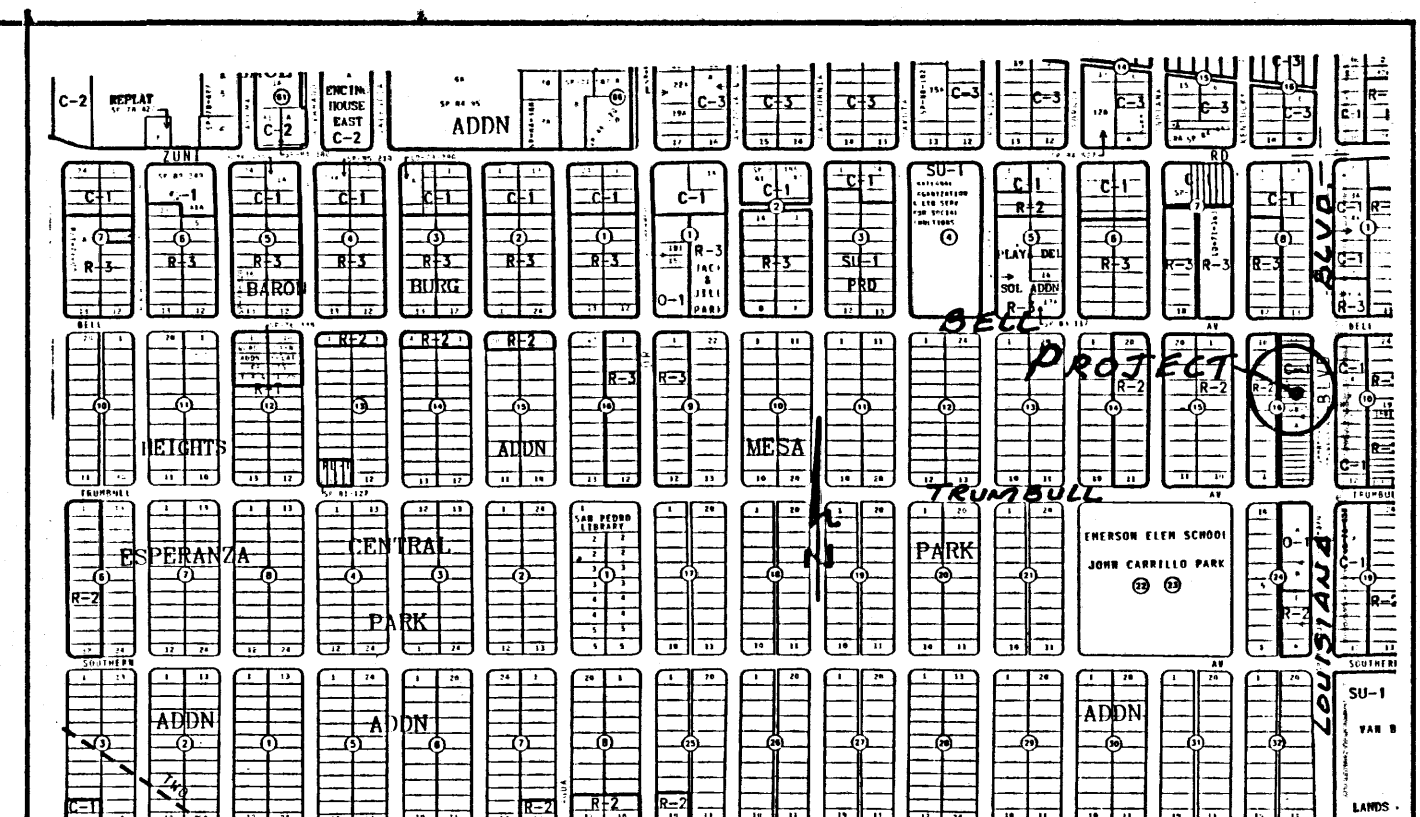
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CHECKED BY: PWC	DATE: 5/10/01	FILE #: G/D	

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RECEIVED JUL 06 2001 HYDROLOGY SECTION



LANDSCAPE CALCULATIONS:		PARKING CALCULATIONS:	
REQUIRED LANDSCAPED AREA:		REQUIRED FOR:	
GROSS LOT AREA:	21,434 SF	RETAIL	4500 GSF / 200 SF/SP = 22.5 SPACES
BUILDING FOOTPRINT:	-4500 GSF	10% REDUCTION (WITHIN 300' OF TRANSIT ROUTE)	
NET LOT AREA:	16,934 SF	TOTAL	
	x 15 %	21 SPACES	
REQUIRED AREA:	2,540 GSF	ADA ACCESSIBLE	
PROVIDED	5,308 GSF	(VANS INCLUDED 1)	
WHERE:		ACTUAL PROVIDED:	
A=710' B=968' C=2400' D=1000' E=230'		21 SPACES	



FIRM MAP PANEL # 354

VICINITY MAP ZONE L-18 Scale: 1" = 750'

NOTES

- ALL WORK WITHIN THE RIGHT-OF-WAY SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CITY OF ALBUQUERQUE STANDARD SPECS. FOR PUBLIC WORKS CONSTRUCTION, 6TH EDITION W/UPDATES.
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- ALL WORK ON THIS PROJECT SHALL BE PERFORMED IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE AND LOCAL LAWS, RULES, AND REGULATIONS CONCERNING CONSTRUCTION SAFETY AND HEALTH.
- ALL LANDSCAPING AREA SHALL BE SOFT-LINED WITH NATIVE VEGETATION AND/OR GRAVEL ASPHALT PARKING AREA SHALL DRAIN DIRECTLY TO EXISTING CURB CUT.
- LANDSCAPING IRRIGATION SYSTEM SHALL BE DRIP-TYPE. CONTRACTOR SHALL INSTALL SYSTEM PRIOR TO PLACEMENT OF PAVING.
- CONTRACTOR SHALL ENSURE THAT NO SITE SOILS/SEDIMENT OR SILT ENTER THE RIGHT-OF-WAYS DURING CONSTRUCTION.
- REVEGETATE ALL AREAS DISTURBED DUE TO CONSTRUCTION PER CITY OF ALBUQ. SPEC. 1011, NATIVE SEED MIX.
- MAXIMUM SITE GRADING WITHOUT EROSION PROTECTION: 3 HORIZONTAL TO 1 VERTICAL, 3:1. ALL DIMENSIONS TO FACE OF CURB, UNLESS NOTED OTHERWISE.

LEGEND

- EXIST. SPOT ELEVATION +24.0
EXIST. CONTOUR 10'
NEW SPOT ELEVATION 24.0
NEW CONTOUR 12'
NEW SWALE
DRAINAGE DIRECTION, EXISTING
NEW CONCRETE CURB (0.5' HEIGHT)
NEW P.C.C., CONCRETE
TOP OF ASPHALT, EXISTING TA
FLOWLINE FL
EXISTING POWER POLE PP
FACE OF CURB/FACE OF CURB F-F
TRAFFIC FLOW DIRECTION
LANDSCAPE AREA, SEE CALCS.
RED LEAF OAK
BLUE STAR JUNIPER
PYRACANTHA

PERIMETER WALL - SECTION

NO SCALE

GRADING & DRAINAGE PLAN

THE PROPOSED RETAIL SALES PROJECT IS LOCATED IN THE SOUTHEAST AREA OF ALBUQUERQUE ON LOUISIANA BLVD. BETWEEN BELL AND TRUMBULL AVENUES. THE GRADING AND DRAINAGE SCHEME HEREON IS IN COMPLIANCE WITH THE BERNALILLO COUNTY FLOOD HAZARD ORDINANCE, NO. 88-46, AND THE CITY STORM DRAINAGE ORDINANCE. THE PLAN IS REQUIRED IN ORDER TO FACILITATE THE OWNER'S REQUEST FOR BUILDING PERMIT. THE PLAN SHOWS:

- EXISTING CONTOURS, AND SPOT ELEVATIONS AND EXISTING DRAINAGE PATTERNS AND IMPROVEMENTS.
- PROPOSED IMPROVEMENT: 4500 SF RETAIL-SALES BUILDING, ASPHALT DRIVE/PARKING, CONCRETE FLAT WORK, NEW GRADE ELEVATIONS, REFUSE LOCATION, AND LANDSCAPING.
- CONTINUITY BETWEEN EXISTING AND PROPOSED ELEVATIONS.
- QUANTIFICATION OF DEVELOPED FLOWS GENERATED BY THE IMPROVEMENTS WHICH CONTRIBUTE TO THE EXISTING FLOWS.

PRESENTLY, THE SITE IS A DIRT, "HARD-PAN" SURFACE WITH SPARSE VEGETATION. THE SITE IS BOUNDED BY A PUBLIC, GRAVEL SURFACED ALLEY ON THE WEST, AND DEVELOPED COMMERCIAL FACILITIES ARE ADJACENT ON THE SOUTH AND NORTH. THE SITE FALLS APPROXIMATELY 1% FROM SOUTH TO NORTH.

THE SITE IS ADJACENT TO A FEMA A01 (1' DEPTH) FLOOD HAZARD ZONE, WHICH IS CONTAINED WITHIN THE LOUISIANA BOULEVARD RIGHT-OF-WAY. LOUISIANA BLVD. IS A PRINCIPAL ARTERIAL WITH 5 LANES, WITH CURB, GUTTER AND ATTACHED SIDEWALK. SITE RUNOFF WILL BE ALLOWED TO EITHER DRAIN THROUGH THE SITE, OR PONDED IN DEPRESSED LANDSCAPING AREAS. THE SITE HAS HISTORICALLY DRAINED TO THE NORTH VIA THE EXISTING ALLEY THEN WEST ON BELL ST. SINCE THE SITE LIES WITHIN A ZONE AO FLOOD PLAIN (AVERAGE DEPTH OF LESS THAN 1 FOOT) THE STRUCTURE IS SET 1 FOOT ABOVE THE MEAN EXISTING ELEVATION IN LOUISIANA.

HISTORICAL DOWNSTREAM OUTFALL LOCATIONS WILL REMAIN UNCHANGED WITH DEVELOPMENT. FREE DISCHARGE OF SITE RUNOFF IS ACCEPTABLE SINCE DOWNSTREAM CAPACITY EXISTS WITH THE MINIMAL INCREASE DUE TO DEVELOPMENT. A PORTION OF SITE RUNOFF IS ROUTED THROUGH PROPOSED LANDSCAPING.

CALCULATIONS

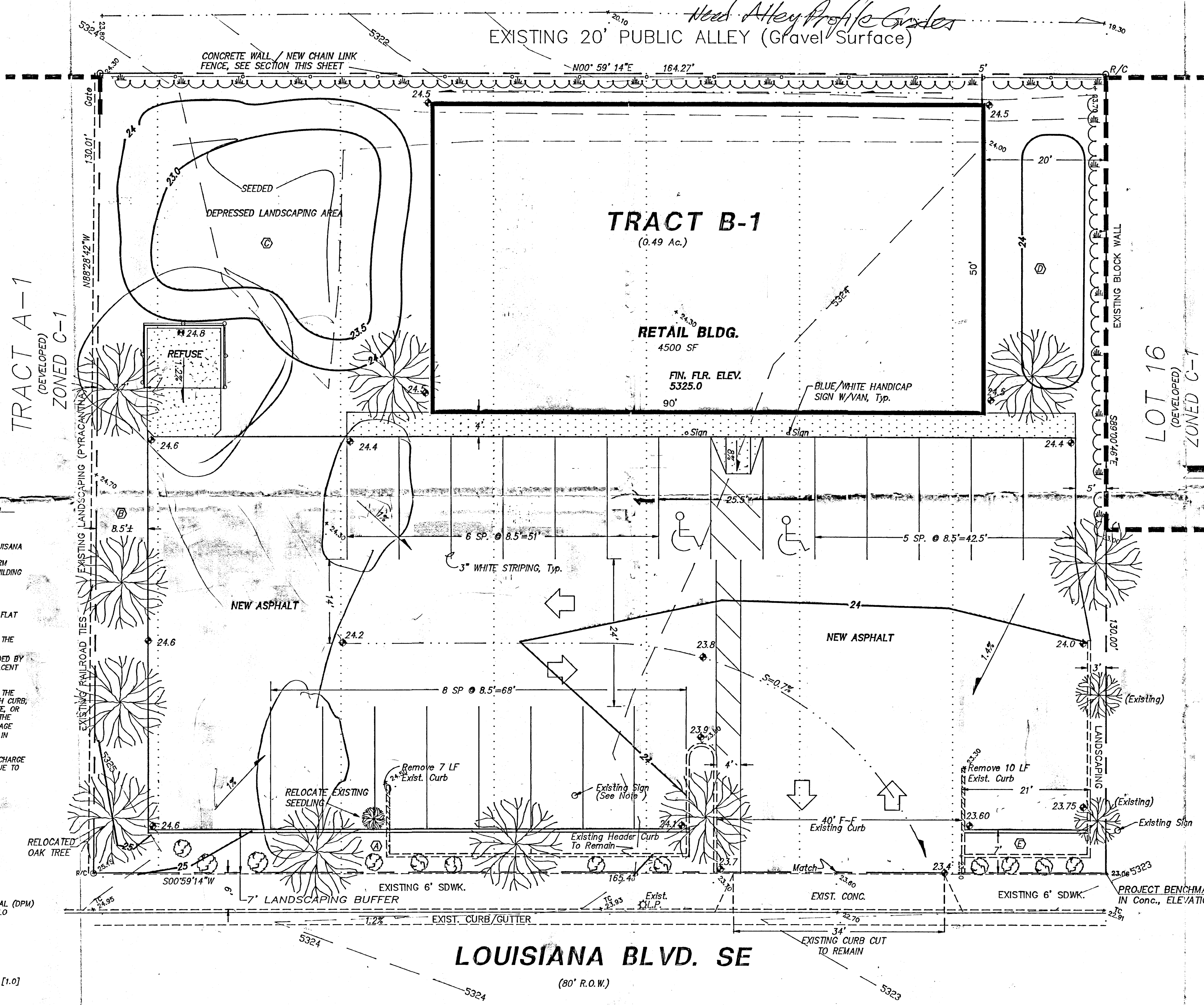
DESIGN CRITERIA
HYDROLOGIC METHODS PER SECTION 22.2, HYDROLOGY OF THE DEVELOPMENT PROCESS MANUAL (DPM) REVISED JANUARY 1993 FOR CITY OF ALBUQUERQUE, ADOPTED BY THE COUNTY OF BERNALILLO
DISCHARGE RATE: Q=QPEAK x AREA. "Peak Discharge Rates For Small Watersheds"
VOLUMETRIC DISCHARGE: VOLUME = E_{weighted} x AREA
P100 = 2.60 inches, Zone 3 Time of Concentration, TC = 10 Minutes
DESIGN STORM: 100-YEAR/6-HOUR, 10-YEAR/6-HOUR [] = 10 YEAR VALUES

EXISTING CONDITIONS
LOT AREA = 0.49 ACRES, WHERE EXCESS PRECIP. "C" = 1.29 in. [0.62]
PEAK DISCHARGE, Q100 = 1.7 CFS [0.3] WHERE UNIT PEAK DISCHARGE "C" = 3.45 CFS/AC. [1.0]
THEREFORE: VOLUME 100 = 2295 CF [1103]

DEVELOPED CONDITIONS	
DETERMINE LAND TREATMENTS, PEAK DISCHARGE AND VOLUMETRIC DISCHARGE FOR STUDY AREA	
AREA	LAND TREATMENT
UNDEVELOPED	A
LANDSCAPING	B
COMPACTED SOIL & Slopes >	C
ROOF - PAVEMENT	D
0.06 Ac.	A
0.07 Ac.	B
0.36 Ac.	C
0.49 Ac.	D

THEREFORE: E_{weighted} = 2.03 in. [1.23] &
Q100 = 2.2 CFS VOLUME 100 = 3610 CF
Q10 = 1.4 CFS VOLUME 10 = 2190 CF

DOWNSTREAM ANALYSIS
THE EXISTING ALLEY SURFACE DRAINS TO THE NORTH, THEN WEST ON BELL AVE. FREE DISCHARGE IS ACCEPTABLE SINCE THE OVERALL BASIN HAS CAPACITY AND THE PROJECT TIME TO PEAK IS MUCH LESS THAN OVERALL BASIN TIME TO PEAK & INCREASE DUE TO DEVELOPMENT IS MINIMAL (INCREASE FROM THE EXISTING: -5.6 CFS)



LOUISIANA BLVD. SE

(80' R.O.W.)

PROJECT DATA

LEGAL DESCRIPTION (Concurrent Platting)
LOT B-1, BLOCK 16, MESA PARK ADDITION
Albuquerque, Bernalillo County, New Mexico

PROJECT BENCHMARK
Top of Concrete, A Chiseled Square in Back of Sidewalk @ NE Corner, MSL Elevation = 5323.06
(Tied From ACS 6-118, Located @ Trumbull/Louisiana)

TOPOGRAPHIC DESIGN SURVEY
Compiled by Clark Consulting Engineers From Design Survey
Performed on, 6/11/01

I, PHILIP W. CLARK, A PROFESSIONAL ENGINEER LICENSED IN ACCORDANCE WITH THE LAWS OF THE STATE OF NEW MEXICO, DO HEREBY CERTIFY THAT I HAVE VISITED THE SITE SHOWN HEREON, AND THAT THE CONTOURS SHOWN REPRESENT THE EXISTING GROUND CONDITIONS, AND DO FURTHER CERTIFY THAT NO EARTHWORK OF ANY KIND, NOR ANY DISTURBANCE OF THE EXISTING GROUND HAS OCCURRED ON THIS SITE SINCE THE CONTOURS WERE DETERMINED.

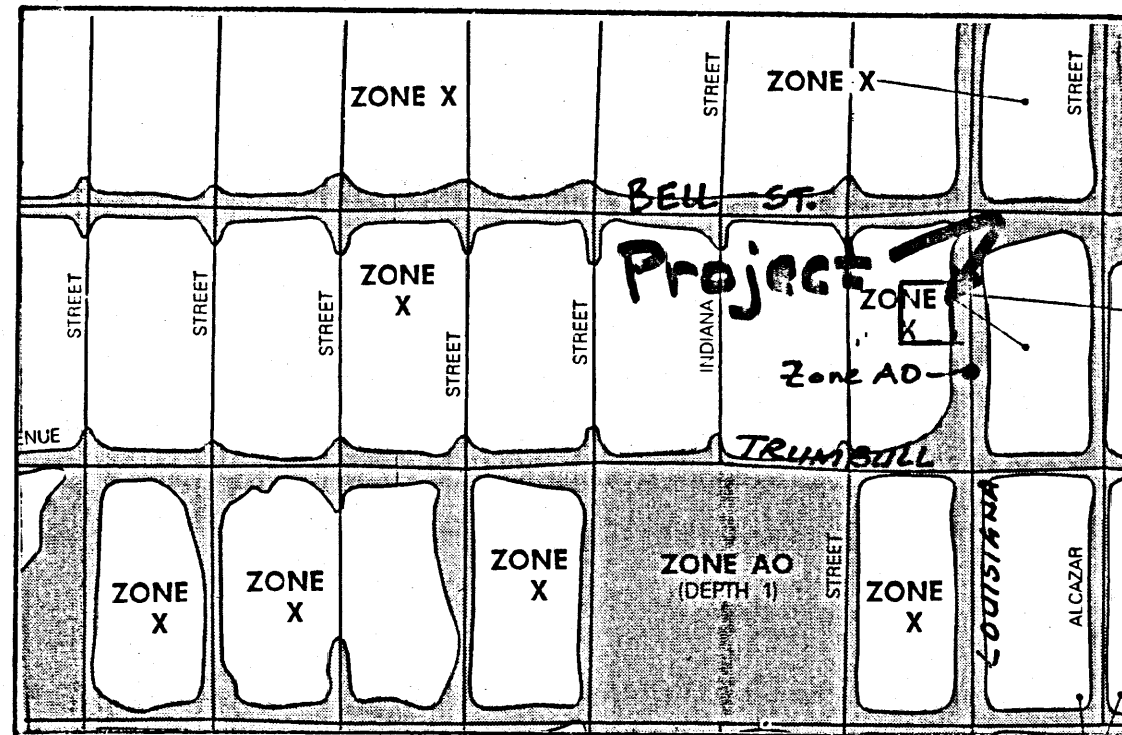
PHILIP W. CLARK
N.M.P.E. #10285

RECEIVED JUL 06 2001 HYDROLOGY SECTION

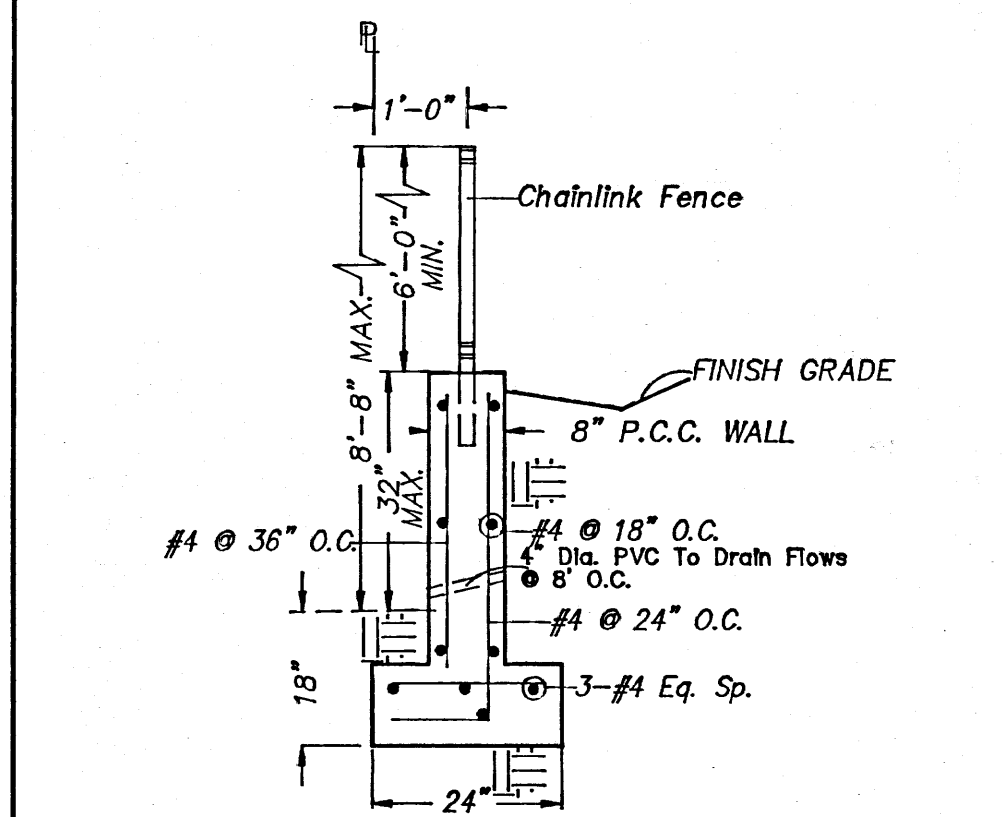
Clark Consulting Engineers
19 Ryan Road
Edgewood, New Mexico 87015
Tel: (505) 281-2444 Fax: (505) 281-2444

DATE	REVISION	LOTS B & 17-22, BLOCK 16, MESA PARK ADDITION
		CONVENIENT MOBILE HOME - RV SUPPLIES
		Site, Grading & Drainage Plan

DESIGNED BY: PWC DRAWN BY: CCE JOB #: Cedr_Rtdg
CHECKED BY: PWC DATE: 5/10/01 FILE #: G/D 1 OF 1



FIRM MAP PANEL # 354



PERIMETER WALL - SECTION
NO SCALE

GRADING & DRAINAGE PLAN

THE PROPOSED RETAIL SALES PROJECT IS LOCATED IN THE SOUTHEAST AREA OF ALBUQUERQUE ON LOUISIANA BLVD. BETWEEN BELL AND TRUMBULL AVENUES. THE GRADING AND DRAINAGE SCHEME HEREON IS IN COMPLIANCE WITH THE BERNALILLO COUNTY FLOOD HAZARD ORDINANCE, NO. 89-48, AND THE CITY STORM DRAINAGE ORDINANCE. THE PLAN IS REQUIRED IN ORDER TO FACILITATE THE OWNER'S REQUEST FOR BUILDING PERMIT. THE PLAN SHOWS:

- EXISTING CONTOURS, AND SPOT ELEVATIONS AND EXISTING DRAINAGE PATTERNS AND IMPROVEMENTS.
 - PROPOSED IMPROVEMENT: 4500 SF RETAIL-SALES BUILDING, ASPHALT DRIVE/PARKING, CONCRETE PLAT WORK, NEW GRADE ELEVATIONS, REFUSE LOCATION, AND LANDSCAPING.
 - CONTINUITY BETWEEN EXISTING AND PROPOSED ELEVATIONS.
 - QUANTIFICATION OF DEVELOPED FLOWS GENERATED BY THE IMPROVEMENTS WHICH CONTRIBUTE TO THE EXISTING FLOWS.
- PRESENTLY, THE SITE IS A DIRT, "HARD-PAN" SURFACE WITH SPARSE VEGETATION. THE SITE IS BOUNDED BY A PUBLIC, GRAVEL SURFACED ALLEY ON THE WEST, AND DEVELOPED COMMERCIAL FACILITIES ARE ADJACENT ON THE SOUTH AND NORTH. THE SITE FALLS APPROXIMATELY 1% FROM SOUTH TO NORTH.
- THE SITE IS ADJACENT TO A FEMA A01 (1' DEPTH) FLOOD HAZARD ZONE, WHICH IS CONTAINED WITHIN THE LOUISIANA BOULEVARD RIGHT-OF-WAY. LOUISIANA BLVD. IS A PRINCIPAL ARTERIAL WITH 8 LANES, WITH CURB, GUTTER AND ATTACHED SIDEWALK. SITE RUNOFF WILL BE ALLOWED TO EITHER DRAIN THROUGH THE SITE, OR POUNDED IN DEPRESSED LANDSCAPE AREAS. THE SITE HAS HISTORICALLY DRAINED TO THE NORTH VIA THE EXISTING ALLEY THEN WEST ON BELL ST. SINCE THE SITE LIES WITHIN A ZONE A0 FLOOD PLAIN (AVERAGE DEPTH OF LESS THAN 1 FOOT) THE STRUCTURE IS SET 1 FOOT ABOVE THE MEAN EXISTING ELEVATION IN LOUISIANA.
- HISTORICAL DOWNSTREAM OUTFALL LOCATIONS WILL REMAIN UNCHANGED WITH DEVELOPMENT. FREE DISCHARGE OF SITE RUNOFF IS ACCEPTABLE SINCE DOWNSTREAM CAPACITY EXISTS WITH THE MINIMAL INCREASE DUE TO DEVELOPMENT. A PORTION OF SITE RUNOFF IS ROUTED THROUGH PROPOSED LANDSCAPING.

CALCULATIONS

DESIGN CRITERIA
HYDROLOGIC METHODS PER SECTION 22.2, HYDROLOGY OF THE DEVELOPMENT PROCESS MANUAL (DPM) REVISED JANUARY 1993 FOR CITY OF ALBUQUERQUE, ADOPTED BY THE COUNTY OF BERNALILLO
DISCHARGE RATE: $Q = Q_{PEAK} \times AREA$, "Peak Discharge Rates For Small Watersheds"
VOLUMETRIC DISCHARGE: $VOLUME = E_{WEIGHTED} \times AREA$
 $PI100 = 2.80$ inches, Zone 3 Time of Concentration, $TC = 10$ Minutes
DESIGN STORM: 100-YEAR/6-HOUR, 10-YEAR/6-HOUR [] = 10 YEAR VALUES

EXISTING CONDITIONS
LOT AREA = 0.49 ACRES, WHERE EXCESS PRECIP. "C" = 1.29 in. [0.62]
PEAK DISCHARGE, $Q100 = 1.7$ CFS [0.3], WHERE UNIT PEAK DISCHARGE "C" = 3.45 CFS/AC. [1.0]
THEREFORE: $VOLUME 100 = 2295$ CF [1103]

DEVELOPED CONDITIONS
DETERMINE LAND TREATMENTS, PEAK DISCHARGE AND VOLUMETRIC DISCHARGE FOR STUDY AREA

AREA	LAND TREATMENT	Ω Peak	E
UNDEVELOPED	A	1.87[0.58]	0.66[0.19]
LANDSCAPING	B	2.60[1.19]	0.92[0.36]
COMPACTED SOIL & Slopes >	C	3.45[2.00]	1.28[0.62]
ROOF - PAVEMENT	D	5.02[3.39]	2.36[1.50]

THEREFORE: $E_{WEIGHTED} = 2.03$ in. [1.23] &
 $Q100 = 2.2$ CFS
 $Q10 = 1.4$ CFS

DOWNSTREAM ANALYSIS
THE EXISTING ALLEY SURFACE DRAINS TO THE NORTH, THEN WEST ON BELL AVE. FREE DISCHARGE IS ACCEPTABLE SINCE THE OVERALL BASIN HAS CAPACITY AND THE PROJECT TIME TO PEAK IS MUCH LESS THAN OVERALL BASIN TIME TO PEAK & INCREASE DUE TO DEVELOPMENT IS MINIMAL (INCREASE FROM THE EXISTING: ± 0.5 CFS)

LANDSCAPE CALCULATIONS:		PARKING CALCULATIONS:	
REQUIRED LANDSCAPED AREA:		REQUIRED FOR:	
GROSS LOT AREA:	21,434 SF	RETAIL:	4500 GSF / 200 SF/SP = 22.5 SPACES
BUILDING FOOTPRINT:	-4500 GSF	10% REDUCTION (WITHIN 300' OF TRANSIT ROUTE)	
NET LOT AREA:	16,934 SF		
x 15 %		TOTAL	21 SPACES
REQUIRED AREA:	2,540 GSF	ADA ACCESSIBLE	2 TOTAL
PROVIDED	5,308 GSF	(VANS INCLUDED)	1
WHERE:		ACTUAL PROVIDED:	21 SPACES
(A)=710' (B)=968' (C)=2400' (D)=1000' (E)=230'			

TRAFFIC CONTROL LAYOUT CERTIFICATION

NOTE: AS REQUIRED BY TRANSPORTATION DEVELOPMENT SECTION, AN AS-BUILT PLAN AND LETTER OF CERTIFICATION OF ALL APPROVED TRAFFIC ELEMENTS IS REQUIRED PRIOR TO ISSUANCE OF FINAL CERTIFICATE OF OCCUPANCY (C.O.). PLEASE CALL, 924-3620, IN ORDER TO OBTAIN TEMPORARY C.O. CONFIRMATION FROM HYDROLOGY, SUPPORTING THIS REQUIREMENT WILL BE NEEDED PRIOR TO APPROVAL OF TRAFFIC CONTROL LAYOUT (TCL) BY TRANSPORTATION.

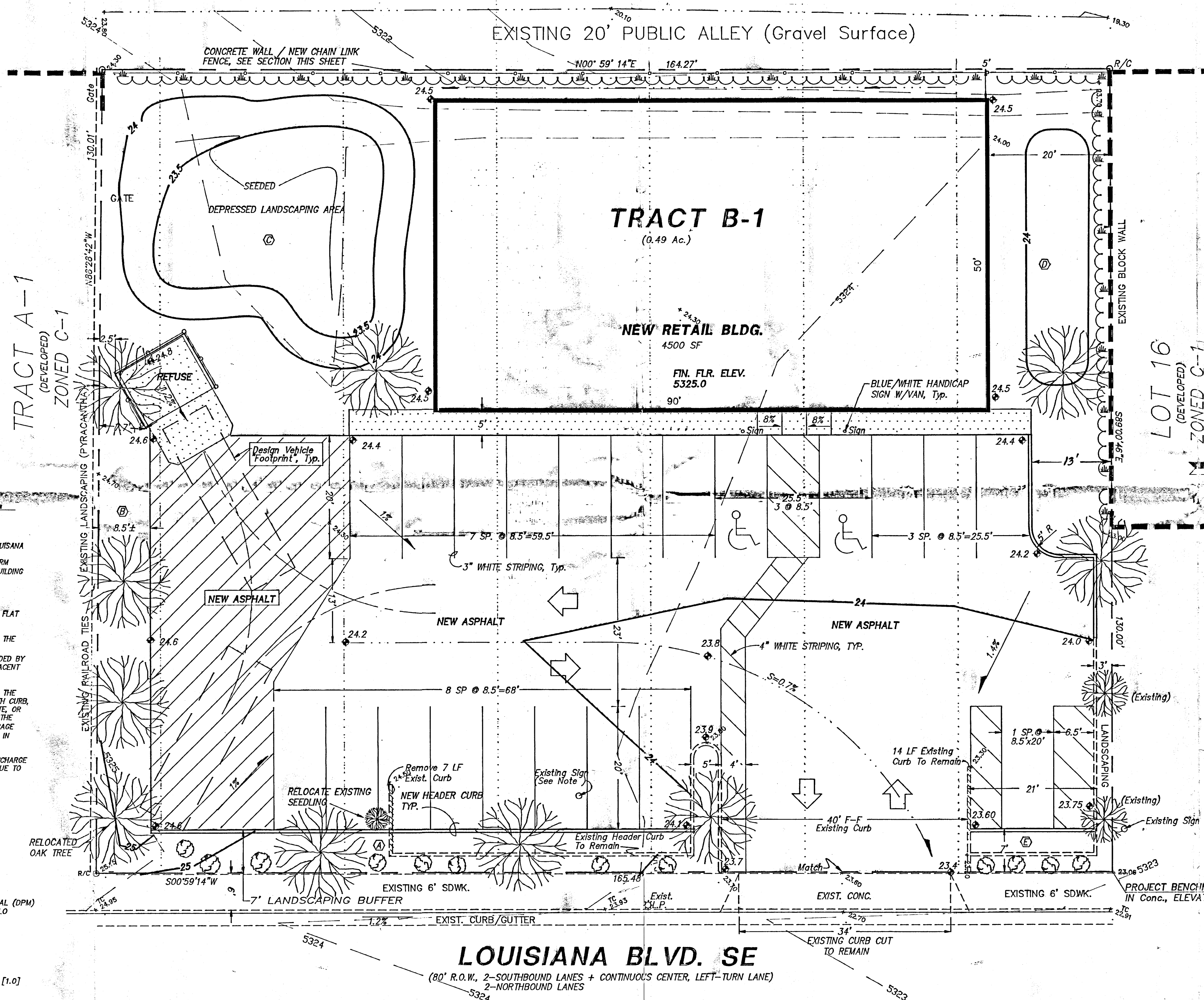
VICINITY MAP ZONE L-18 Scale: 1" = 750'

NOTES

- ALL WORK WITHIN THE RIGHT-OF-WAY SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CITY OF ALBUQUERQUE STANDARD SPECS. FOR PUBLIC WORKS CONSTRUCTION, 6TH EDITION W/ UPDATES.
- AN EXCAVATION/CONSTRUCTION PERMIT IS REQUIRED BEFORE BEGINNING ANY WORK WITHIN CITY R.O.W. AN APPROVED COPY OF THIS PLAN MUST BE SUBMITTED AT THE TIME OF APPLICATION.
- ALL WORK ON THIS PROJECT SHALL BE PERFORMED IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE AND LOCAL LAWS, RULES, AND REGULATIONS CONCERNING CONSTRUCTION SAFETY AND HEALTH.
- ALL LANDSCAPING AREA SHALL BE SOFT-LINED WITH NATIVE VEGETATION AND/OR GRAVEL. ASPHALT PARKING AREA SHALL DRAIN DIRECTLY TO EXISTING CURB CUT.
- LANDSCAPING IRRIGATION SYSTEM SHALL BE DRIP-TYPE. CONTRACTOR SHALL INSTALL SYSTEM PRIOR TO PLACEMENT OF PAVING.
- CONTRACTOR SHALL ENSURE THAT NO SITE SOILS/SEDIMENT OR SILT ENTER THE RIGHT-OF-WAYS DURING CONSTRUCTION.
- REVEGETATE ALL AREAS DISTURBED DUE TO CONSTRUCTION PER CITY OF ALBUQ. SPEC. 1011, NATIVE SEED MIX.
- MAXIMUM SITE GRADING WITHOUT EROSION PROTECTION: 3 HORIZONTAL TO 1 VERTICAL, 3:1. ALL DIMENSIONS TO FACE OF CURB, UNLESS NOTED OTHERWISE.
- INSPECTION BY TRANSPORTATION DEVELOPMENT SECTION OF CONSTRUCTION FOR CERTIFICATE OF OCCUPANCY (C.O.) WILL BE DONE FROM THIS SHEET.

LEGEND

- EXIST. SPOT ELEVATION +24.0
EXIST. CONTOUR -10
NEW SPOT ELEVATION 24.0
NEW CONTOUR -12
NEW SWALE
DRAINAGE DIRECTION, EXISTING
NEW CONCRETE CURB (0.5' HEIGHT)
NEW P.C.C., CONCRETE
TOP OF ASPHALT, EXISTING TA
FLOWLINE FL
EXISTING POWER POLE PP
FACE OF CURB/FACE OF CURB F-F
TRAFFIC FLOW DIRECTION
LANDSCAPE AREA, SEE CALCS.
RED LEAF OAK
BLUE STAR JUNIPER
PYRACANTHA



LOUISIANA BLVD. SE

(80' R.O.W., 2-SOUTHBOUND LANES + CONTINUOUS CENTER, LEFT-TURN LANE)
2-NORTHBOUND LANES

PROJECT DATA

LEGAL DESCRIPTION (Concurrent Platting)

LOT B-1, BLOCK 16, MESA PARK ADDITION
Albuquerque, Bernalillo County, New Mexico

PROJECT BENCHMARK

Top of Concrete, A Chiselled Square in Back of Sidewalk @ NE Corner, MSL Elevation = 5323.06
(Tied From ACS 6-118, Located @ Trumbull/Louisiana)

TOPOGRAPHIC DESIGN SURVEY

Compiled by Clark Consulting Engineers From Design Survey
Performed on, 6/11/01

Clark Consulting Engineers 19 Ryan Road Edgewood, New Mexico 87015 Tele: (505) 281-2444 Fax: (505) 281-2444	
DATE	REVISION
7-26-01	ADDR. TRANSP. DEV. CMM'TS.
LOTS B & 17-22, BLOCK 16, MESA PARK ADDITION	
CONVENIENT MOBILE HOME - RV SUPPLIES	
Site, Grading & Drainage Plan	
DESIGNED BY: PWC	DRAWN BY: CCE
CHECKED BY: PWC	DATE: 5/10/01
JOB #: Cdr_Rldg	FILE #: G/D
1 OF 1	

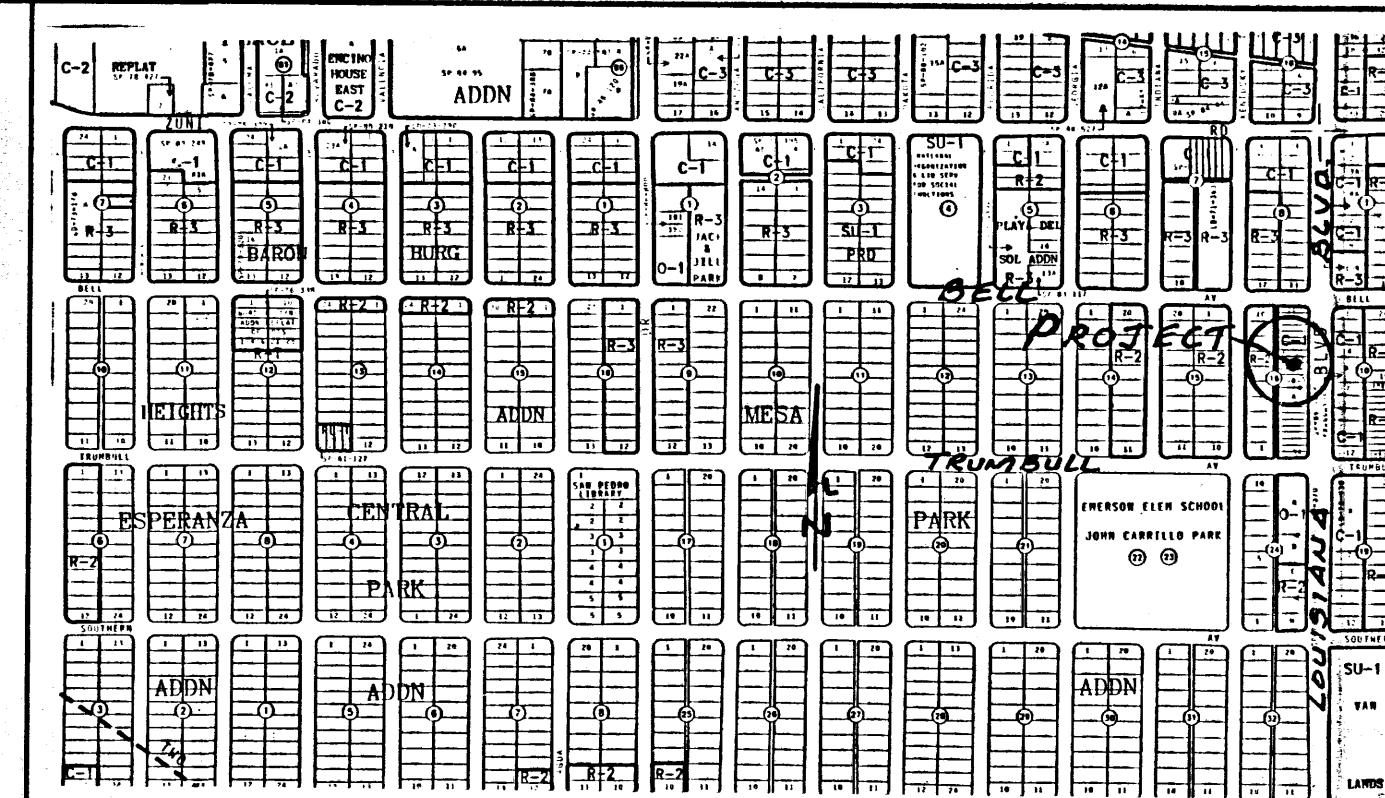
I, PHILIP W. CLARK, A PROFESSIONAL ENGINEER LICENSED IN ACCORDANCE WITH THE LAWS OF THE STATE OF NEW MEXICO, DO HEREBY CERTIFY THAT I HAVE VISITED THE SITE SHOWN HEREON, AND THAT THE CONTOURS SHOWN REPRESENT THE EXISTING GROUND CONDITIONS, AND DO FURTHER CERTIFY THAT NO EARTHWORK OF ANY KIND, NOR ANY DISTURBANCE OF THE EXISTING GROUND HAS OCCURRED ON THIS SITE SINCE THE CONTOURS WERE DETERMINED.

Philip W. Clark 7/26/01
PHILIP W. CLARK NMPE #10285

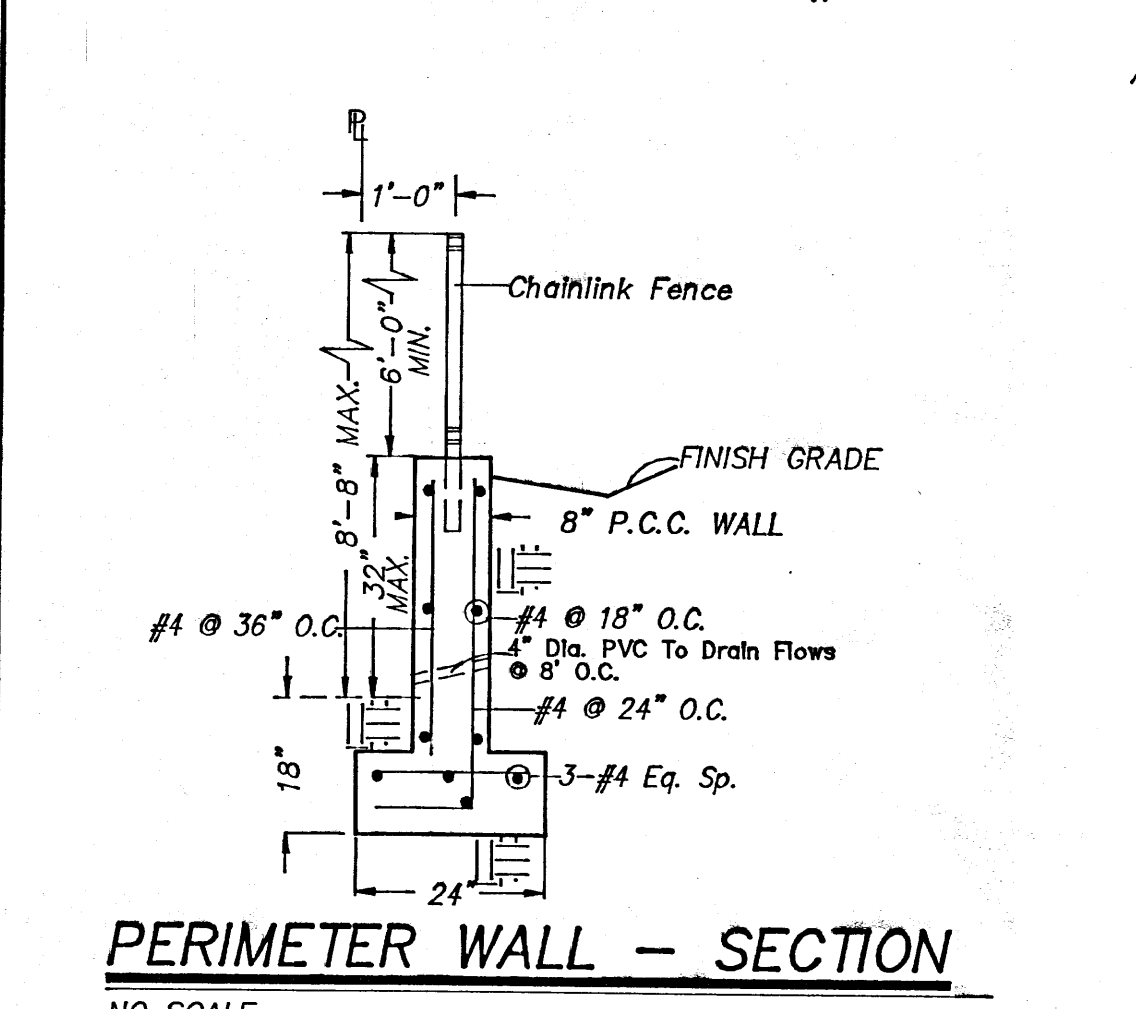
LANDSCAPE CALCULATIONS:		PARKING CALCULATIONS:	
REQUIRED LANDSCAPED AREA:		REQUIRED FOR:	
GROSS LOT AREA:	21,434 SF	RETAIL	4500 GSF / 200 SF/SP = 22.5 SPACES
BUILDING FOOTPRINT:	4500 GSF	10% REDUCTION (WITHIN 300' OF TRANSIT ROUTE)	
NET LOT AREA:	16,934 SF	TOTAL	20 SPACES
	x 15 %	ADA ACCESSIBLE (VANS INCLUDED)	2 TOTAL
REQUIRED AREA:	2,540 GSF	ACTUAL PROVIDED:	20 SPACES
PROVIDED	5,308 GSF		
WHERE:			
(A) = 710'	(B) = 968'	(C) = 2400'	(D) = 1000'
(E) = 230'			

TRAFFIC CONTROL LAYOUT CERTIFICATION

NOTE: AS REQUIRED BY TRANSPORTATION DEVELOPMENT SECTION, AN AS-BUILT PLAN AND LETTER OF CERTIFICATION OF ALL APPROVED TRAFFIC ELEMENTS IS REQUIRED PRIOR TO ISSUANCE OF FINAL CERTIFICATE OF OCCUPANCY (C.O.). PLEASE CALL, 924-3620, IN ORDER TO OBTAIN TEMPORARY C.O. CONFIRMATION FROM HYDROLOGY, SUPPORTING THIS REQUIREMENT WILL BE NEEDED PRIOR TO APPROVAL OF TRAFFIC CONTROL LAYOUT (TCL) BY TRANSPORTATION.



FIRM MAP PANEL # 354



GRADING & DRAINAGE PLAN

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3. CONTINUITY BETWEEN EXISTING AND PROPOSED ELEVATIONS.
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PRESENTLY, THE SITE IS A DIRT, "HARD-PAN" SURFACE WITH SPARSE VEGETATION. THE SITE IS BOUNDED BY A PUBLIC GRAVEL SURFACED ALLEY ON THE WEST, AND DEVELOPED COMMERCIAL FACILITIES ARE ADJACENT ON THE SOUTH AND NORTH. THE SITE FALLS APPROXIMATELY 1% FROM SOUTH TO NORTH.

THE SITE IS ADJACENT TO A FEMA A01 (1' DEPTH) FLOOD HAZARD ZONE, WHICH IS CONTAINED WITHIN THE LOUISIANA BOULEVARD RIGHT-OF-WAY. LOUISIANA BLVD. IS A PRINCIPAL ARTERIAL WITH 5 LANES, WITH CURB, GUTTER AND ATTACHED SIDEWALK. SITE RUNOFF WILL BE ALLOWED TO EITHER DRAIN THROUGH THE SITE, OR POOLED IN DEPRESSIONED LANDSCAPE AREAS. THE SITE HAS HISTORICALLY DRAINED TO THE NORTH VIA THE EXISTING ALLEY THEN WEST ON BELL ST. SINCE THE SITE LIES WITHIN A ZONE A0 FLOOD PLAIN (AVERAGE DEPTH OF LESS THAN 1 FOOT) THE STRUCTURE IS SET 1 FOOT ABOVE THE MEAN EXISTING ELEVATION IN LOUISIANA.

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CALCULATIONS

DESIGN CRITERIA

HYDROLOGIC METHODS PER SECTION 22.2, HYDROLOGY OF THE DEVELOPMENT PROCESS MANUAL (DPM) REVISED JANUARY 1993 FOR CITY OF ALBUQUERQUE, ADOPTED BY THE COUNTY OF BERNALILLO DISCHARGE RATE: $Q_{PEAK} \times AREA$. "Peak Discharge Rates For Small Watersheds"

VOLUMETRIC DISCHARGE: $VOLUME = E_{weighted} \times AREA$
 $P_{100} = 2.60$ inches, Zone 1 of Concentration, TC = 10 Minutes
 DESIGN STORM: 100-YEAR 6-HOUR, 10-YEAR 6-HOUR [] = 10 YEAR VALUES

EXISTING CONDITIONS

LOT AREA = 0.49 ACRES, WHERE EXCESS PRECIP. "C" = 1.29 in. [0.62]
 PEAK DISCHARGE: $Q_{100} = 1.7$ CFS [0.3], WHERE UNIT PEAK DISCHARGE "C" = 3.45 CFS/AC. [1.0]
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DEVELOPED CONDITIONS

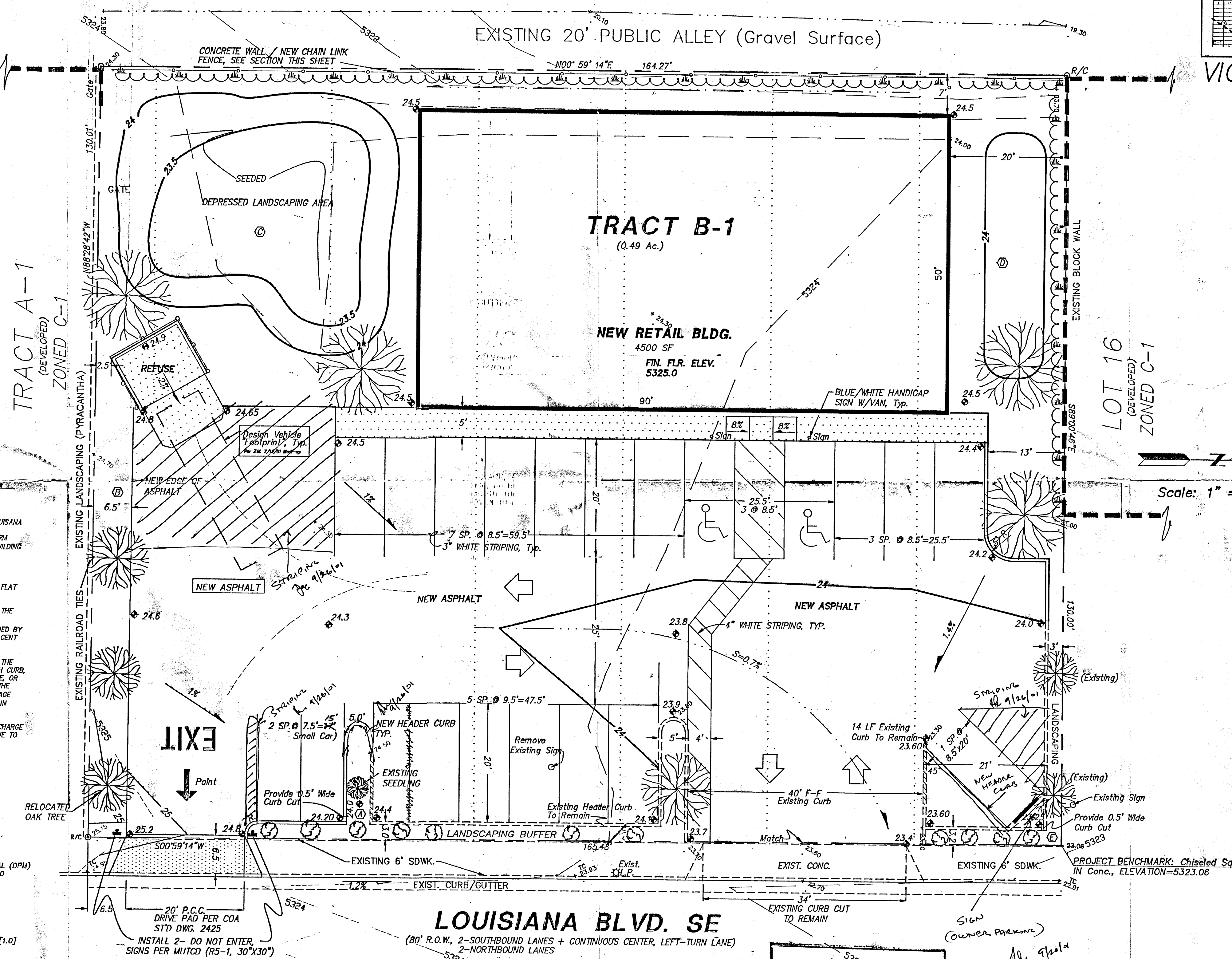
DETERMINE LAND TREATMENTS, PEAK DISCHARGE AND VOLUMETRIC DISCHARGE FOR STUDY AREA

AREA	LAND TREATMENT	Q_{Peak}	E
UNDEVELOPED	---	1.87 [0.58]	0.66 [0.19]
LANDSCAPING	A	2.60 [1.19]	0.92 [0.36]
COMPACTED SOIL & Slopes >	C	3.45 [2.00]	1.29 [0.62]
ROOF - PAVEMENT	D	5.02 [3.39]	2.36 [1.50]

THEREFORE: $E_{weighted} = 2.03$ in. [1.23] &
 $Q_{100} = 2.2$ CFS
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DOWNSTREAM ANALYSIS

THE EXISTING ALLEY SURFACE DRAINS TO THE NORTH, THEN WEST ON BELL AVE. FREE DISCHARGE IS ACCEPTABLE SINCE THE OVERALL BASIN HAS CAPACITY AND THE PROJECT TIME TO PEAK IS MUCH LESS THAN OVERALL BASIN TIME TO PEAK & INCREASE DUE TO DEVELOPMENT IS MINIMAL (INCREASE FROM THE EXISTING, .54 CFS)



VICINITY MAP ZONE L-18 Scale: 1" = 750'

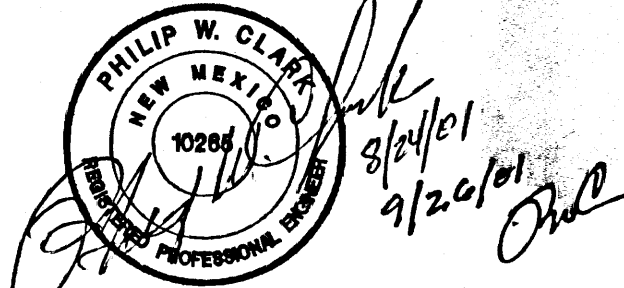
NOTES

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8. MAXIMUM SITE GRADING WITHOUT EROSION PROTECTION: 3 HORIZONTAL TO 1 VERTICAL, 3:1. ALL DIMENSIONS TO FACE OF CURB, UNLESS NOTED OTHERWISE.
9. INSPECTION BY TRANSPORTATION DEVELOPMENT SECTION OF CONSTRUCTION FOR CERTIFICATE OF OCCUPANCY (C.O.) WILL BE DONE FROM THIS SHEET.

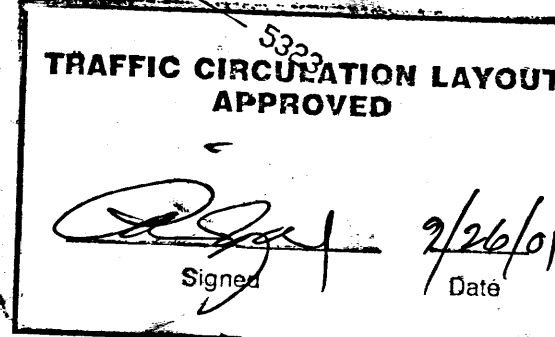
LEGEND

- EXIST. SPOT ELEVATION 424.0'
- EXIST. CONTOUR 10'
- NEW SPOT ELEVATION 24.0'
- NEW CONTOUR 12'
- NEW SWALE
- DRAINAGE DIRECTION, EXISTING
- NEW CONCRETE CURB (0.5' HEIGHT)
- NEW P.C.C., CONCRETE
- TOP OF ASPHALT, EXISTING
- FLOWLINE
- EXISTING POWER POLE
- FACE OF CURB/FACE OF CURB
- TRAFFIC FLOW DIRECTION
- LANDSCAPE AREA, SEE CALCS.
- RED LEAF OAK
- BLUE STAR JUNIPER
- PYRACANTHA

9/26/01, South of Approval of T.C.U.



[E187D062]
 709 Louisiana SE



PROJECT DATA

LEGAL DESCRIPTION (Concurrent Platting)

LOT B-1, BLOCK 16, MESA PARK ADDITION
 Albuquerque, Bernalillo County, New Mexico

PROJECT BENCHMARK

Top of Concrete, A Chiselled Square in Back of Sidewalk @ NE Corner, MSL Elevation = 5323.06 (Tied From ACS 6-L18, Located @ Trumbull/Louisiana)

TOPOGRAPHIC DESIGN SURVEY

Compiled by Clark Consulting Engineers From Design Survey Performed on, 6/11/01

Clark Consulting Engineers		19 Ryan Road Edgewood, New Mexico 87015	
Tele: (505) 281-2444		Fax: (505) 281-2444	
DATE	REVISION	LOTS B & 17-22, BLOCK 16, MESA PARK ADDITION	
7-26-01	ADDR. TRANSP. DEV. CMM'TS.	CONVENIENT MOBILE HOME - RV SUPPLIES	
8-24-01	Revise Curbs per zoning	Site, Grading & Drainage Plan	
9/26/01	Δ Δ Δ		
DESIGNED BY: PWC	DRAWN BY: CCE	JOB #: Cdr_Rldg	1 OF 1
CHECKED BY: PWC	DATE: 5/10/01	FILE #: G/D	

I, PHILIP W. CLARK, A PROFESSIONAL ENGINEER LICENSED IN ACCORDANCE WITH THE LAWS OF THE STATE OF NEW MEXICO, DO HEREBY CERTIFY THAT I HAVE VISITED THE SITE SHOWN HEREON, AND THAT THE CONTOURS SHOWN REPRESENT THE EXISTING GROUND CONDITIONS, AND DO FURTHER CERTIFY THAT NO EARTHWORK OF ANY KIND, NOR ANY DISTURBANCE OF THE EXISTING GROUND HAS OCCURRED ON THIS SITE SINCE THE CONTOURS WERE DETERMINED.

Philip W. Clark 9/26/01
 PHILIP W. CLARK N.M.P.E. #10265