

FIRM MAP PANEL # 359 F

GRADING & DRAINAGE PLAN

THE PROPOSED WAREHOUSE PROJECT IS LOCATED IN A DEVELOPED BUSINESS PARK IN THE SOUTHEAST AREA OF ALBUQUERQUE OFF JUAN TABO BLVD. IMMEDIATELY SOUTH OF CENTRAL AVENUE. 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 IMPROVEMENTS: 1500 SF WAREHOUSE BUILDING, CONCRETE FLAT WORK, NEW GRADE ELEVATIONS, 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 A DIRT, "HARD-PAN" SURFACE PRIMARILY WITHOUT VEGETATION. THE SITE IS BOUNDED BY DEVELOPED THOUGH VACANT COMMERCIAL ZONED PROPERTY. THE SITE FALLS APPROXIMATELY 1% FROM SOUTHEAST TO NORTHWEST.

PRIMARY ACCESS TO THE SITE IS FROM COCHITI ROAD AND WILL REMAIN SO. SITE RUNOFF WILL BE ALLOWED TO DRAIN THROUGH THE SITE, OR PONDED IN DEPRESSED LANDSCAPE AREAS. THE SITE HAS HISTORICALLY DRAINED TO THE NORTHWEST.

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: $Q = OPEAK \times AREA$, "Peak Discharge Rates For Small Watersheds"
VOLUMETRIC DISCHARGE: $VOLUME = E_{weighted} \times AREA$
 $P_{100} = 2.90$ inches, Zone 4 Time of Concentration, TC = 10 Minutes
DESIGN STORM: 100-YEAR/6-HOUR, 10-YEAR/6-HOUR [] = 10 YEAR VALUES

EXISTING CONDITIONS

LOT AREA = 0.16 ACRES, WHERE EXCESS PRECIP. "Composite" = 1.48 in. [0.73]
PEAK DISCHARGE, $Q_{100} = 0.6$ CFS [0.4] WHERE UNIT PEAK DISCHARGE $C = 3.73$ CFS/AC. [2.26]
THEREFORE: VOLUME 100 = 648 CF [424]

DEVELOPED CONDITIONS

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

AREA	LAND TREATMENT	Q_{Peak}	E
UNDEVELOPED	A	2.20 [0.87]	0.80 [0.28]
LANDSCAPING	B	2.92 [1.45]	1.08 [0.46]
COMPACTED SOIL & Slopes >	C	3.73 [2.26]	1.48 [0.73]
ROOF - PAVEMENT	D	5.23 [3.57]	2.64 [1.69]

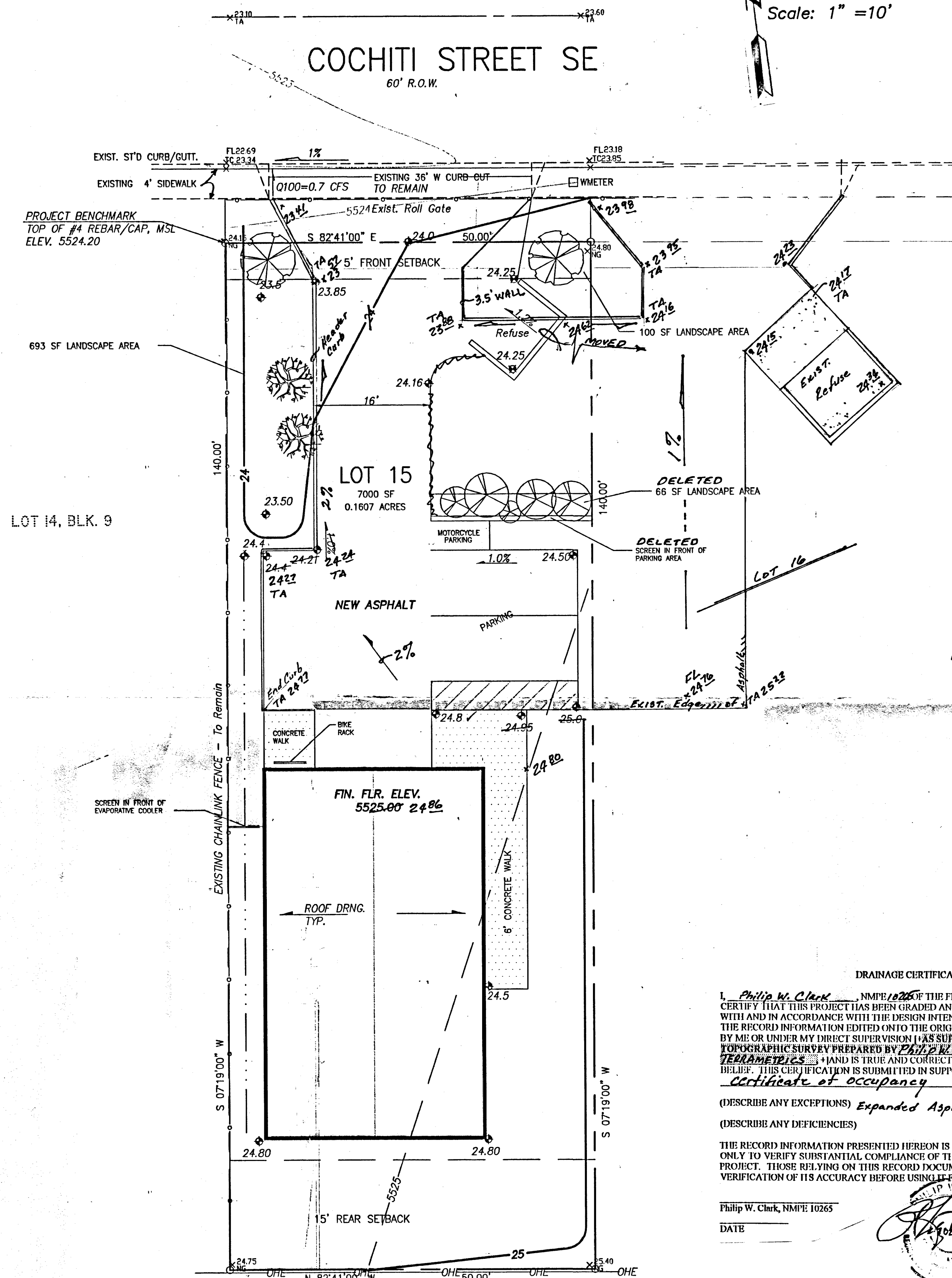
THEREFORE: $E_{weighted} = 2.04$ in. [1.21] &
 $Q_{100} = 0.71$ CFS
 $Q_{10} = 0.45$ CFS

DOWNSTREAM ANALYSIS

THE SITE HISTORICALLY, AND AS DEVELOPED WILL OUTFALL RUN-OFF TO THE NORTH TO COCHITI ROAD

FREE DISCHARGE IS ACCEPTABLE SINCE THE DOWNSTREAM STORM DRAINAGE FACILITIES HAVE CAPACITY. THE PROJECT TIME TO PEAK IS MUCH LESS THAN OVERALL BASIN TIME TO PEAK & INCREASE DUE TO DEVELOPMENT IS NEGLIGIBLE. (INCREASE FROM THE EXISTING. (10±CFS)

A PORTION OF DEVELOPED RUNOFF WILL BE ROUTED TO AND/OR THROUGH REQUIRED LANDSCAPING.



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

Scale: 1" = 10'

VICINITY MAP ZONE L-21 Scale: 1" = 750'

NOTES

1. ANY WORK WITHIN THE RIGHT-OF-WAY SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CITY OF ALBUQUERQUE STANDARD SPECS. FOR PUBLIC WORKS CONSTRUCTION, 7TH EDITION W/ AMEND. 1
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. CONTRACTOR SHALL ENSURE THAT NO SITE SOILS/SEDIMENT OR SILT ENTER THE RIGHT-OF-WAYS DURING CONSTRUCTION.
5. 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 P.C.C., CONCRETE	
TOP OF CURB, EXISTING	TC
FLOWLINE	FL
FACE OF CURB/FACE OF CURB	F-F
Top of Asphalt	TA

DRAINAGE CERTIFICATION

I, Philip W. Clark, NMPE 10265 of the firm Clark Consulting Engineers, HEREBY CERTIFY THAT THIS PROJECT HAS BEEN GRADED AND WILL DRAIN IN SUBSTANTIAL COMPLIANCE WITH AND IN ACCORDANCE WITH THE DESIGN INTENT OF THE APPROVED PLAN DATED 8/5/06. THE RECORD INFORMATION EDITED ONTO THE ORIGINAL DESIGN DOCUMENT HAS BEEN OBTAINED BY ME OR UNDER MY DIRECT SUPERVISION HAS SUPPLEMENTAL DATA TO THE ORIGINAL TOPOGRAPHIC SURVEY PREPARED BY TERRAMETRICS, NMPS 02290 OF THE FIRM TERRAMETRICS. I AND IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. THIS CERTIFICATION IS SUBMITTED IN SUPPORT OF A REQUEST FOR Certificate of Occupancy.

(DESCRIBE ANY EXCEPTIONS) Expanded Asphalt & Refuse to Owner's LOT 16
(DESCRIBE ANY DEFICIENCIES)

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

Philip W. Clark, NMPE 10265

DATE

PROJECT DATA

LEGAL DESCRIPTION (Existing Platting)

LOT 15, BLOCK 9, EAST CENTRAL BUSINESS ADDITION
ALBUQUERQUE, NEW MEXICO

PROJECT BENCHMARK

TOP OF NUMBER 4 REBAR/CAP AT THE PROJECT MARKED NORTHWEST PROPERTY CORNER, MSL ELEVATION = 5524.20
(THE FROM ACS 1-121, LOCATED IN THE MEDIAN OF CENTRAL AVE. 81' WEST OF THE JUAN TABO INTERSECTION)

TOPOGRAPHIC DESIGN SURVEY

COMPILED BY CLARK CONSULTING ENGINEERS FROM DESIGN SURVEY PERFORMED BY TERRAMETRICS OF NEW MEXICO, 8/2006

Clark Consulting Engineers		19 Ryan Road Edgewood, New Mexico 87015	
Tel: (505) 281-2444		Fax: (505) 281-2444	
DATE	REVISION	LOT 15, BLOCK 9, EAST CENTRAL BUS. ADDITION	
11/6/07	As-Built	LEVAN WAREHOUSE	
		11508 COCHITI ROAD, SE	
		Grading & Drainage	
		Plan	
DESIGNED BY: PWC	DRAWN BY: CCE	JOB #: Levon_GD	1 OF 1
CHECKED BY: PWC	DATE: 7/31/06	FILE #: G/D	

GENERAL NOTES

DESIGN CRITERIA

- All work shall conform to the 2003 International Building Code.
 - Live loads:
 - Roof load 20 psf
 - Floor load 40 psf
 - Seismic zone 2b requirements
 - Wind loading 75 mph, exposure C
 - Cast in place concrete:
 - Compressive strength of cast in place concrete 3000 psi at 28 days
 - Reinforcing steel shall be ASTM A-615 Grade 60 #5 and larger, Grade 40 #4 and smaller.
 - Wood
 - Unless otherwise noted on drawings lumber shall be No. 2 Ponderosa Pine with allowable repetitive use fiber bending stress of 975 psi, single use fiber bending stress of 850 psi, and elastic modulus of 1500000 psi.
 - Where Hem-Fir is specified on plans it shall be No. 1 with allowable repetitive use fiber bending stress of 1200 psi, single use fiber bending stress of 1200 psi, and elastic modulus of 1500000 psi.
 - Micro-Lam lumber shall satisfy the following design values:
 - Bending (F_b) = 2600 psi
 - Horizontal shear (F_v) = 285 psi
 - Modulus of elasticity (E) = 1800000 psi
 - Compression perpendicular to grain = 650 psi
 - Compression parallel to grain (F_c) = 2460 psi
- Drilling or notching of Micro-Lam lumber is not allowed.
- Design Soil bearing pressure 1500 psf with footings placed on natural ground and slab placed on engineered compacted fill.

CONSTRUCTION CRITERIA

- Lap reinforcing bars 32 diameters unless otherwise noted.
- Construction joints location and type shall have prior approval by Engineer.
- Fill material shall consist of soils that conform to the following characteristics:

Sieve Size (Square openings)	Percent Passing by weight
3 inch	100
No. 4	50-100
No. 200	10-40

The plasticity index of the material shall not exceed 10. Testing shall be in conformance with ASTM D 423 and 424 for P.I. and D-1557 for density.
- Where slabs are placed on fill the native soil shall be scarified to a minimum depth of 12 inches, watered as necessary to bring the moisture content as close as possible to optimum moisture content, and compacted to 95% of maximum density. Fill shall be spread in loose depth layers not exceeding 8 in. watered and compacted. Moisture content at the time of compaction shall be 2% below optimum moisture or higher. A minimum density of 95% of maximum density shall be obtained. Optimum moisture content and maximum density for each soil type shall be determined in accordance with ASTM D 1557.
- Contractor is responsible for any temporary bracing required to hold structural elements in place until work is complete.
- Contractor shall coordinate slab openings with Mechanical and Electrical drawings. (Mechanical and Electrical openings are not shown on Structural drawings.)
- All conditions shown on the plan shall be field verified by the contractor. If discrepancies exist they shall be brought to the attention of the Architect and Engineer before work proceeds.

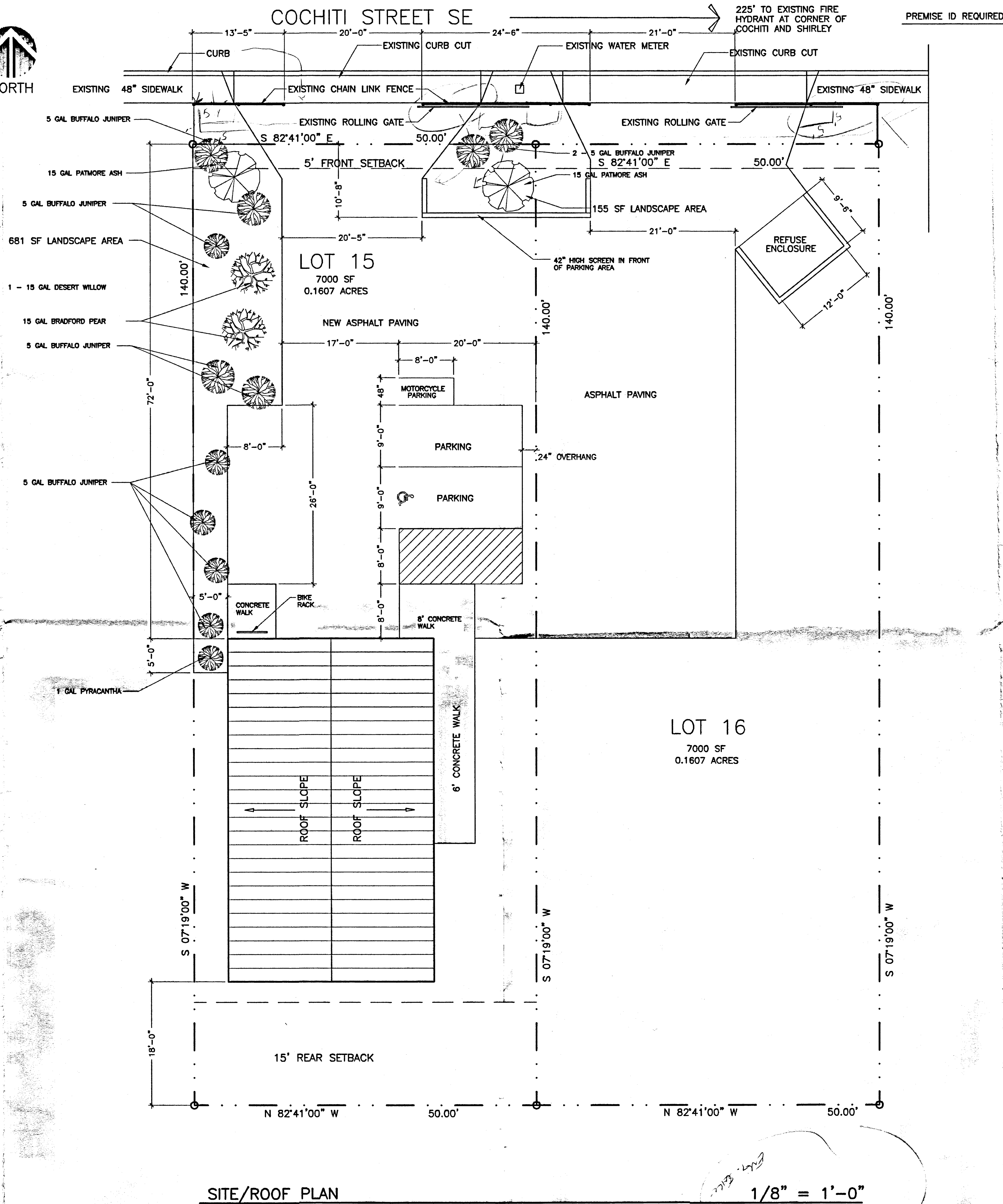


VICINITY MAP

NTS



NORTH



SITE/ROOF PLAN

1/8" = 1'-0"

DRAWING INDEX	
A 1	SITE/ROOF PLAN
A 2	FOUNDATION PLAN/DETAILS
A 3	FLOOR PLAN
A 4	ELEVATIONS
S 1	STEEL BUILDING PLANS
S 2	STEEL BUILDING PLANS
S 3	STEEL BUILDING PLANS
S 4	STEEL BUILDING PLANS
P 1	PLUMBING LAYOUT PLAN
ME 1	MECHANICAL & ELECTRICAL LAYOUT PLANS

ADDRESS	
11508 COCHITI STREET SE	
ALBUQUERQUE, NEW MEXICO 87123	

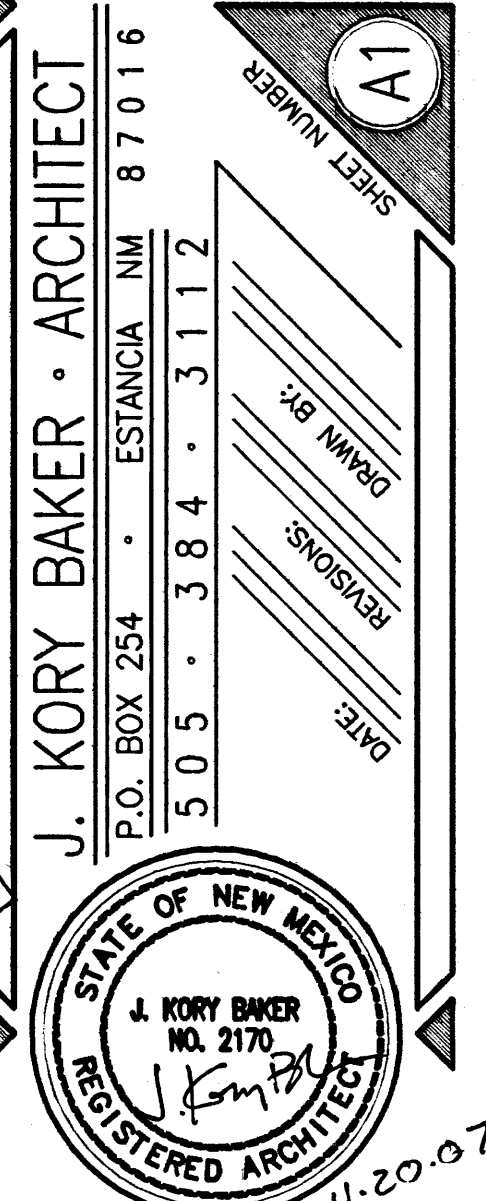
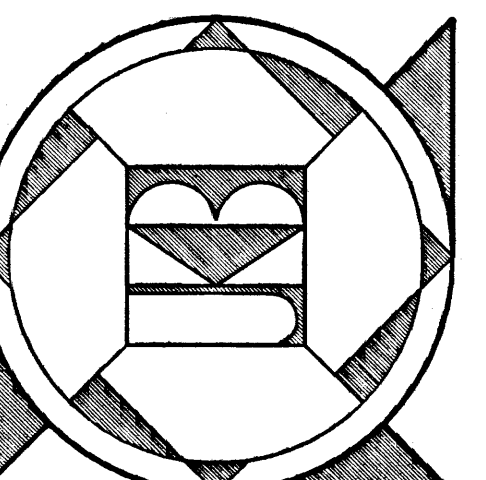
OWNER	
LEVANCO, LLC	
808 KIVA DRIVE SE	
ALBUQUERQUE, NM 87123	

BUILDING DATA	
BUILDING	TOTAL 1500 S.F.
OCCUPANT LOAD	3
OCCUPANCY GROUP	S-2
TYPE OF CONSTRUCTION	VB

SITE DATA	
ZONING: C-3	ZONE ATLAS PAGE: L-21-Z
PARKING REQUIRED: 1 SPACE PER 2000 SF OF LEASABLE AREA	1500 SF = 1 SPACE
PARKING PROVIDED:	2 SPACES INCLUDING 1 VAN ACCESSIBLE HANDICAPPED SPACE
LANDSCAPE AREA REQUIRED:	GROSS SITE AREA = 7000 SF BUILDING AREA = 1500 SF NET SITE AREA = 5500 SF 15% OF NET AREA = 825 SF REQUIRED
LANDSCAPE AREA PROVIDED:	836 SF

CODES & RESTRICTIONS	
THE BUILDING SHALL BE CONSTRUCTED IN STRICT ACCORDANCE WITH THE FOLLOWING:	
<ul style="list-style-type: none"> 2003 INTERNATIONAL BUILDING CODE ALL APPLICABLE CODES AND REGULATIONS OF THE CITY OF ALBUQUERQUE AND THE STATE OF NEW MEXICO 	

LEGAL DESCRIPTION	
LOT 15, BLOCK 9, LOT 16, EAST CENTRAL BUSINESS ADDITION, CITY OF ALBUQUERQUE, BERNALILLO COUNTY, NEW MEXICO	



LEVANCO BUILDING
ALBUQUERQUE • NEW MEXICO

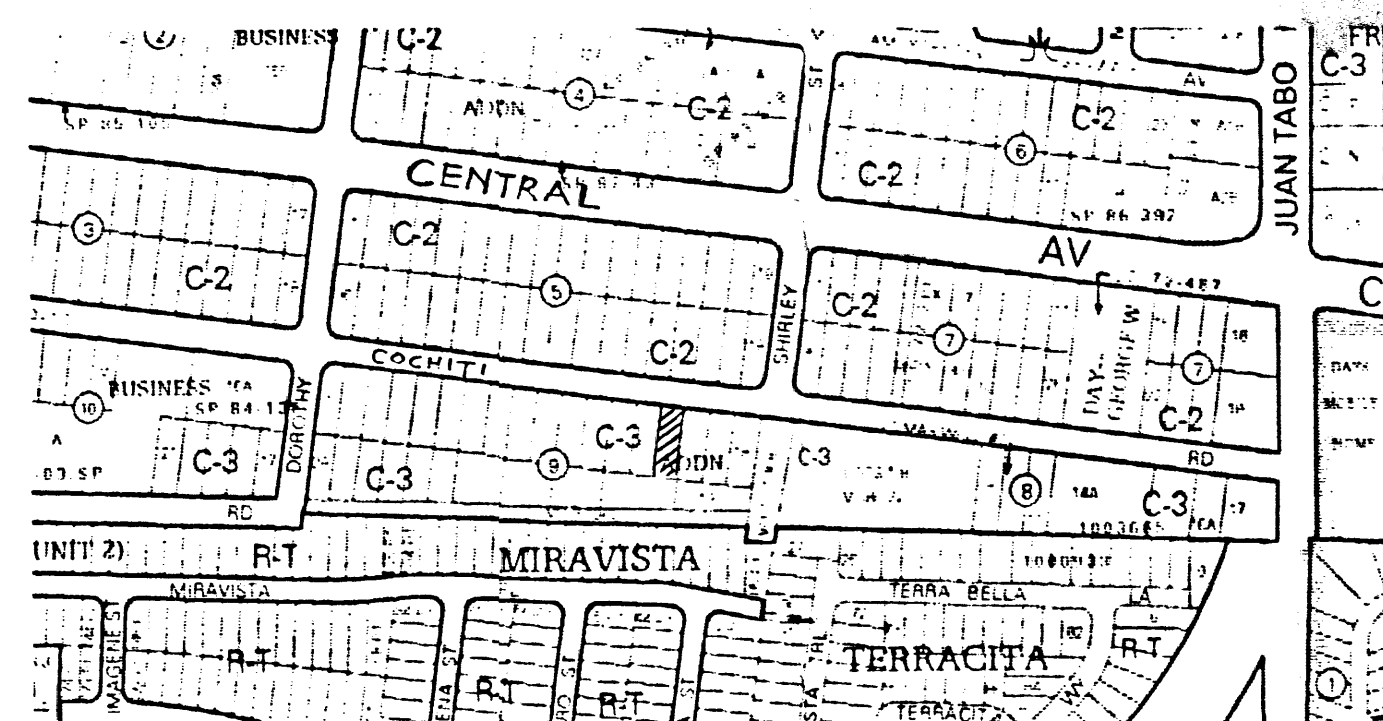
GENERAL NOTES

DESIGN CRITERIA

- All work shall conform to the 2003 International Building Code.
Live loads:
Roof load 20 psf
Floor load 40 psf
Seismic zone 2b requirements
Wind loading 75 mph, exposure C
- Cast in place concrete:
a. Compressive strength of cast in place concrete 3000 psi at 28 days
b. Reinforcing steel shall be ASTM A-615 Grade 60 #5 and larger, Grade 40 #4 and smaller.
- Wood
a. Unless otherwise noted on drawings lumber shall be No. 2 Ponderosa Pine with allowable repetitive use fiber bending stress of 975 psi, single use fiber bending stress of 850 psi, and elastic modulus of 1500000 psi.
b. Where Hem-Fir is specified on plans it shall be No. 1 with allowable repetitive use fiber bending stress of 1200 psi, single use fiber bending stress of 1200 psi, and elastic modulus of 1500000 psi.
c. Micro-Lam lumber shall satisfy the following design values:
Bending (F_b) = 2600 psi
Horizontal shear (F_v) = 285 psi
Modulus of elasticity (E) = 1800000 psi
Compression perpendicular to grain = 650 psi
Compression parallel to grain (F_c) = 2460 psi
Drilling or notching of Micro-Lam lumber is not allowed.
- Design Soil bearing pressure 1500 psf with footings placed on natural ground and slab placed on engineered compacted fill.

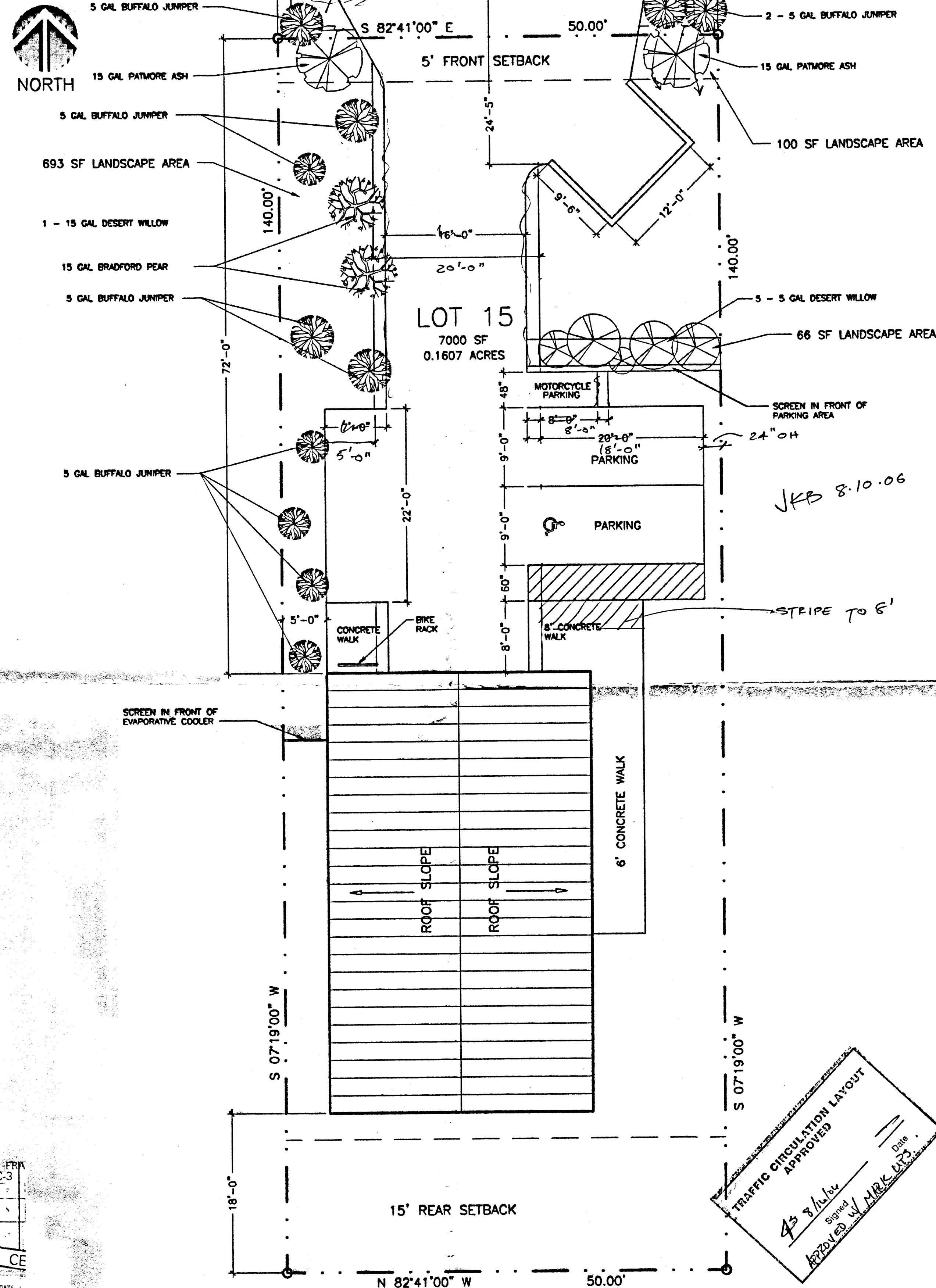
CONSTRUCTION CRITERIA

- Lap reinforcing bars 32 diameters unless otherwise noted.
- Construction joints location and type shall have prior approval by Engineer.
- Fill material shall consist of soils that conform to the following characteristics:
Sieve Size Percent Passing
(Square openings) by weight
3 inch 100
No. 4 50-100
No. 200 10-40
The plasticity index of the material shall not exceed 10.
Testing shall be in conformance with ASTM D 423 and 424 for P.I. and D-1557 for density.
- Where slabs are placed on fill the native soil shall be scarified to a minimum depth of 12 inches, watered as necessary to bring the moisture content as close as possible to optimum moisture content, and compacted to 95% of maximum density.
Fill shall be spread in loose depth layers not exceeding 8 in. watered and compacted. Moisture content at the time of compaction shall be 2% below optimum moisture or higher.
A minimum density of 95% of maximum density shall be obtained.
Optimum moisture content and maximum density for each soil type shall be determined in accordance with ASTM D 1557.
- Contractor is responsible for any temporary bracing required to hold structural elements in place until work is complete.
- Contractor shall coordinate slab openings with Mechanical and Electrical drawings. (Mechanical and Electrical openings are not shown on Structural drawings.)
- All conditions shown on the plan shall be field verified by the contractor. If discrepancies exist they shall be brought to the attention of the Architect and Engineer before work proceeds.



VICINITY MAP

NTS



SITE/ROOF PLAN

1/8" = 1'-0"

225' TO EXISTING FIRE HYDRANT AT CORNER OF COCHITI AND SHIRLEY

PREMISE ID REQUIRED

DRAWING INDEX	
A 1A	TRANSPORTATION SITE PLAN
A 1	SITE/ROOF PLAN
A 2	FOUNDATION PLAN/DETAILS
A 3	FLOOR PLAN
A 4	ELEVATIONS
S 1	STEEL BUILDING PLANS
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ADDRESS	
11508 COCHITI STREET SE	
ALBUQUERQUE, NEW MEXICO 87123	

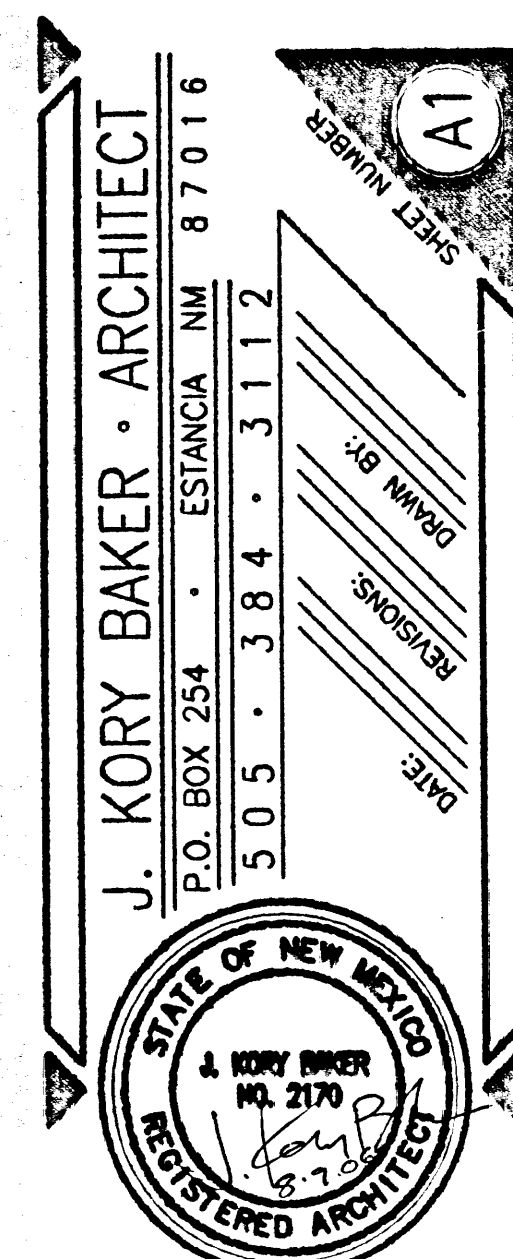
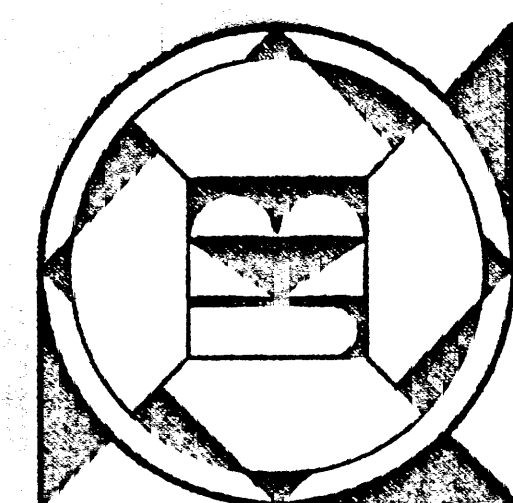
OWNER	
LEVANCO, LLC	
808 KIVA DRIVE SE	
ALBUQUERQUE, NM 87123	

BUILDING DATA	
BUILDING	TOTAL 1500 S.F.
OCCUPANT LOAD	3
OCCUPANCY GROUP	S-2
TYPE OF CONSTRUCTION	VB

SITE DATA	
ZONING: C-3	ZONE ATLAS PAGE: L-21-Z
PARKING REQUIRED: 1 SPACE PER 2000 SF OF LEASABLE AREA	1500 SF = 1 SPACE
PARKING PROVIDED:	2 SPACES INCLUDING 1 VAN ACCESSIBLE HANDICAPPED SPACE
LANDSCAPE AREA REQUIRED:	GROSS SITE AREA = 7000 SF BUILDING AREA = 1500 SF NET SITE AREA = 5500 SF 15% OF NET AREA = 825 SF REQUIRED
LANDSCAPE AREA PROVIDED:	859 SF

CODES & RESTRICTIONS	
THE BUILDING SHALL BE CONSTRUCTED IN STRICT ACCORDANCE WITH THE FOLLOWING:	
• 2003 INTERNATIONAL BUILDING CODE	
• ALL APPLICABLE CODES AND REGULATIONS OF THE CITY OF ALBUQUERQUE AND THE STATE OF NEW MEXICO	

LEGAL DESCRIPTION	
LOT 15, BLOCK 9 EAST CENTRAL BUSINESS ADDITION CITY OF ALBUQUERQUE BERNALILLO COUNTY, NEW MEXICO	



LEVANCO BUILDING
ALBUQUERQUE, NEW MEXICO

GENERAL NOTES

DESIGN CRITERIA

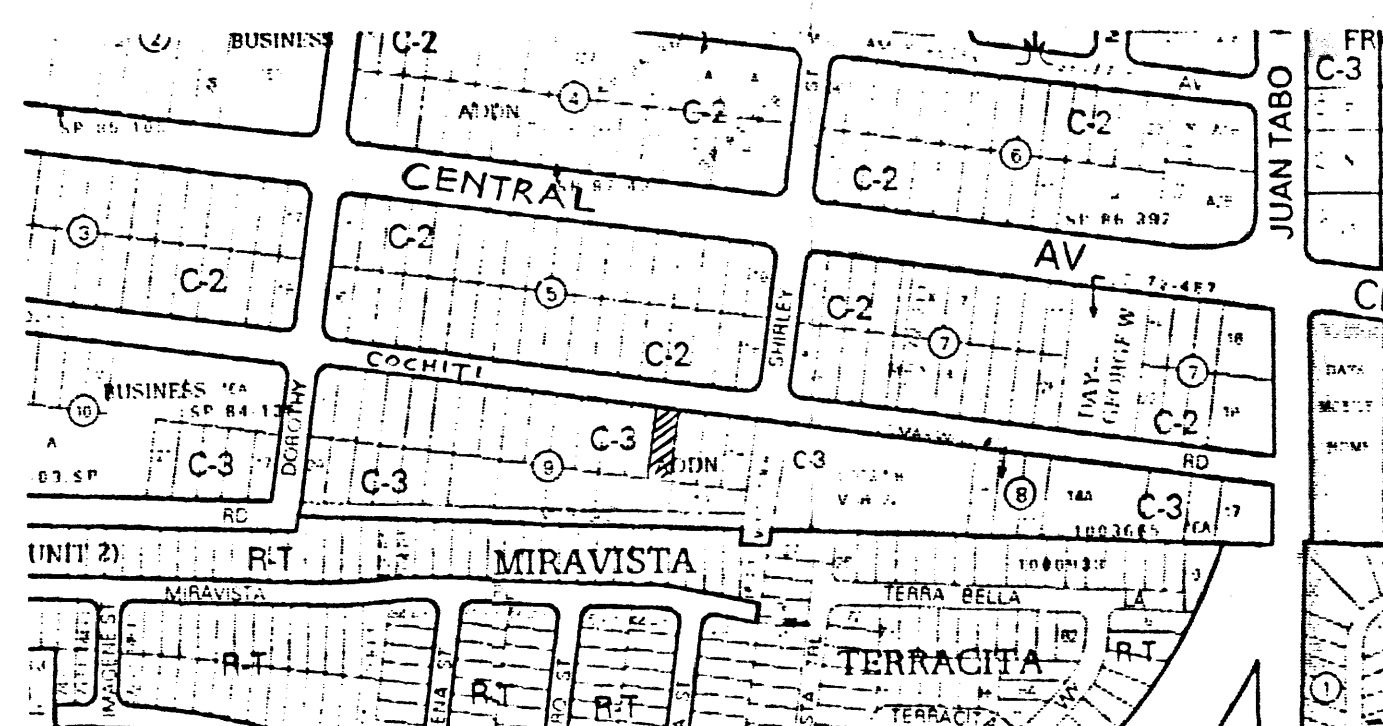
- All work shall conform to the 2003 International Building Code.
 - Live loads:
 - Roof load 20 psf
 - Floor load 40 psf
 - Seismic zone 2b requirements
 - Wind loading 75 mph, exposure C
- Cast in place concrete:
 - Compressive strength of cast in place concrete 3000 psi at 28 days
 - Reinforcing steel shall be ASTM A-615 Grade 60 #5 and larger, Grade 40 #4 and smaller.
- Wood
 - Unless otherwise noted on drawings lumber shall be No. 2 Ponderosa Pine with allowable repetitive use fiber bending stress of 975 psi, single use fiber bending stress of 850 psi, and elastic modulus of 1500000 psi.
 - Where Hem-Fir is specified on plans it shall be No. 1 with allowable repetitive use fiber bending stress of 1200 psi, single use fiber bending stress of 1200 psi, and elastic modulus of 1500000 psi.
 - Micro-Lam lumber shall satisfy the following design values:
 - Bending (Fb) = 2600 psi
 - Horizontal shear (Fv) = 285 psi
 - Modulus of elasticity (E) = 1800000 psi
 - Compression perpendicular to grain = 650 psi
 - Compression parallel to grain (Fc) = 2460 psi
- Design Soil bearing pressure 1500 psf with footings placed on natural ground and slab placed on engineered compacted fill.
 - Drilling or notching of Micro-Lam lumber is not allowed.

CONSTRUCTION CRITERIA

- Lap reinforcing bars 32 diameters unless otherwise noted.
- Construction joints location and type shall have prior approval by Engineer.
- Fill material shall consist of soils that conform to the following characteristics:

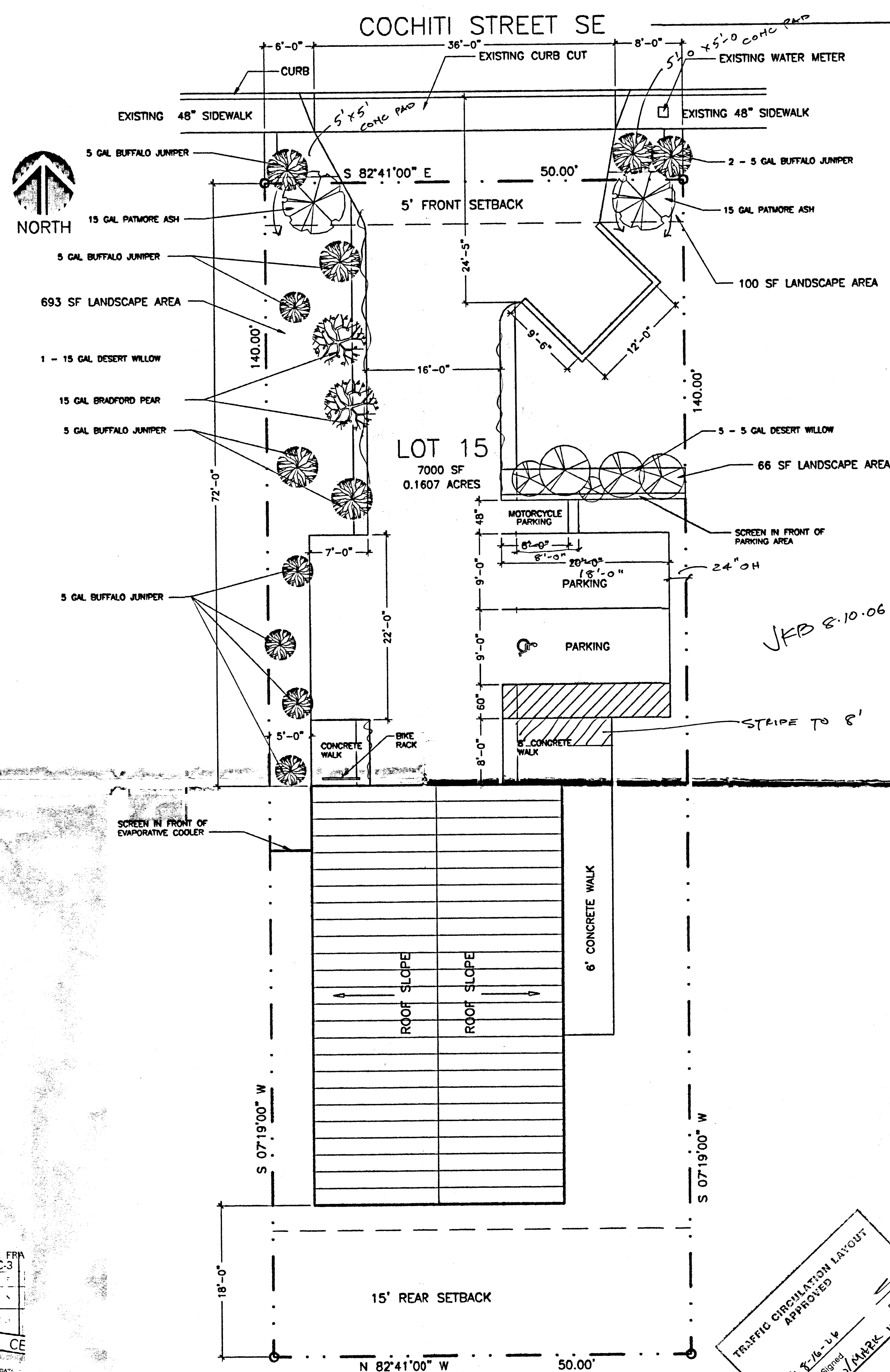
Sieve Size (Square openings)	Percent Passing by weight
3 inch	100
No. 4	50-100
No. 200	10-40

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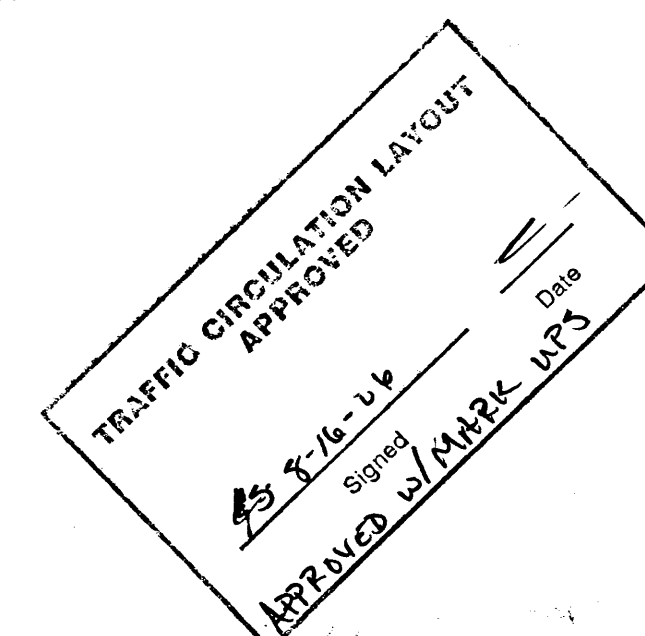
VICINITY MAP

NTS



SITE/ROOF PLAN

1/8" = 1'-0"



DRAWING INDEX	
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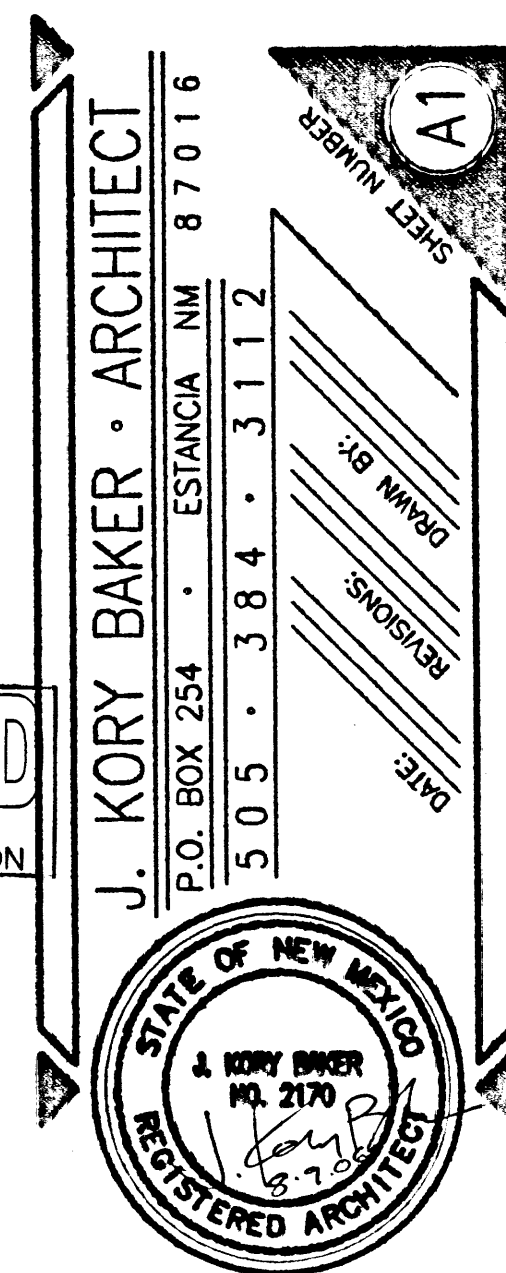
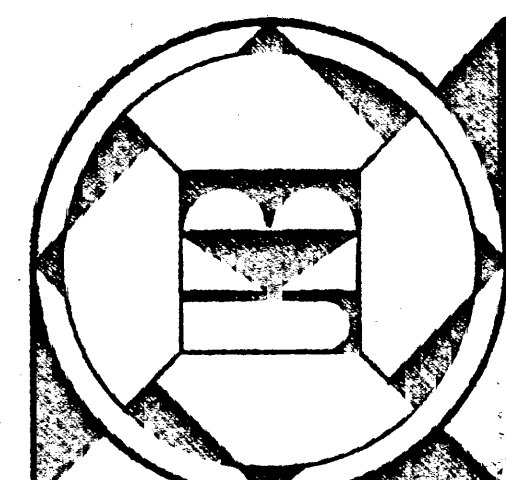
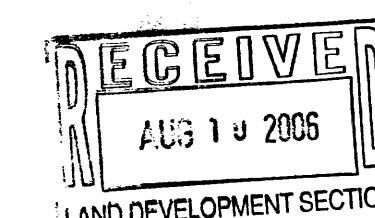
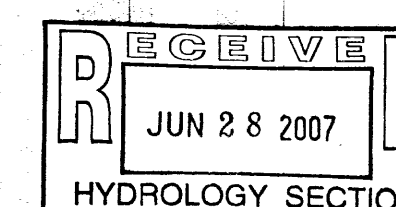
OWNER	
LEVANCO, LLC	
808 KIVA DRIVE SE	
ALBUQUERQUE, NM 87123	

BUILDING DATA	
BUILDING	TOTAL 1500 S.F.
OCCUPANT LOAD	3
OCCUPANCY GROUP	S-2
TYPE OF CONSTRUCTION	VB

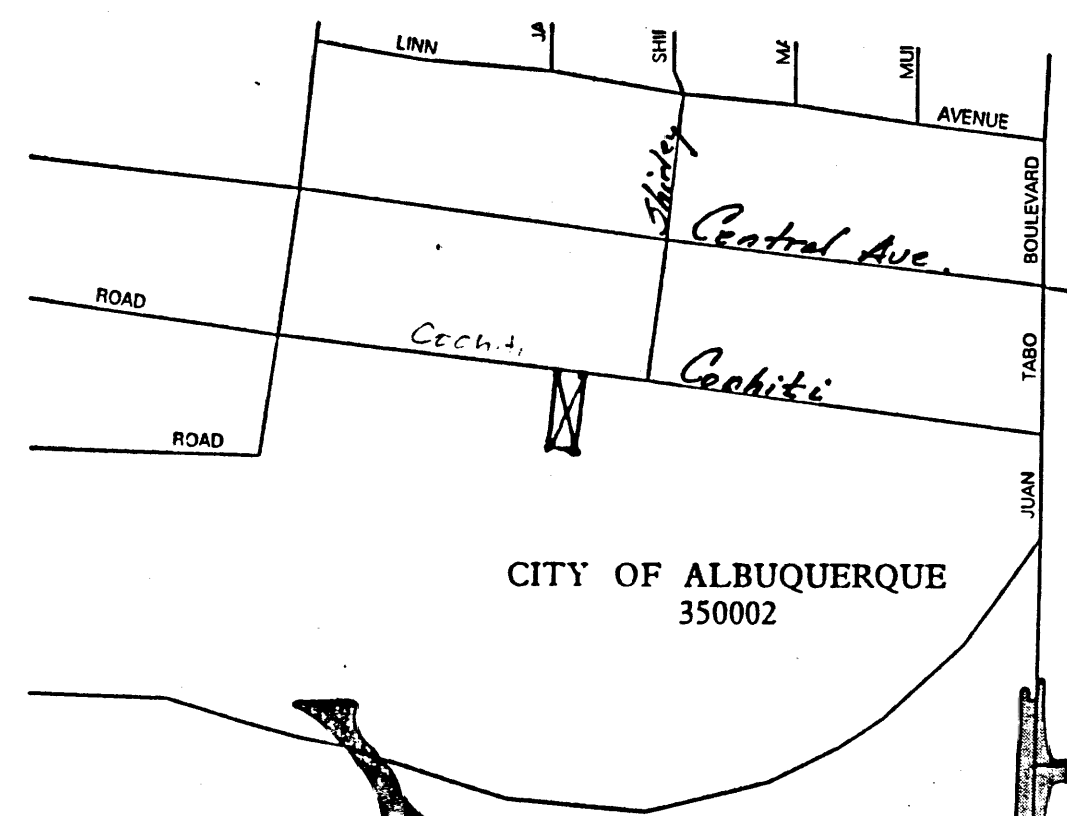
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LANDSCAPE AREA PROVIDED: 859 SF	

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LEGAL DESCRIPTION	
LOT 15, BLOCK 9 EAST CENTRAL BUSINESS ADDITION CITY OF ALBUQUERQUE BERNALILLO COUNTY, NEW MEXICO	



LEVANCO BUILDING
ALBUQUERQUE • NEW MEXICO



FIRM MAP PANEL # 359 F

GRADING & DRAINAGE PLAN

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1. EXISTING CONTOURS, AND SPOT ELEVATIONS AND EXISTING DRAINAGE PATTERNS, AND IMPROVEMENTS.
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 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 A DIRTY, "HARD-PAN" SURFACE PRIMARILY WITHOUT VEGETATION. THE SITE IS BOUNDED BY DEVELOPED THOUGH VACANT COMMERCIAL ZONED PROPERTY. THE SITE FALLS APPROXIMATELY 1% FROM SOUTHEAST TO NORTHWEST.

PRIMARY ACCESS TO THE SITE IS FROM COCHITI ROAD AND WILL REMAIN SO. SITE RUNOFF WILL BE ALLOWED TO DRAIN THROUGH THE SITE, OR PONDED IN DEPRESSED LANDSCAPE AREAS. THE SITE HAS HISTORICALLY DRAINED TO THE NORTHWEST.

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: $Q = \text{PEAK} \times \text{AREA}$ "Peak Discharge Rates For Small Watersheds"
VOLUMETRIC DISCHARGE: $\text{VOLUME} = E_{\text{weighted}} \times \text{AREA}$
 $P_{100} = 2.90$ inches, Zone 4 Time of Concentration, $T_C = 10$ Minutes
DESIGN STORM: 100-YEAR/6-HOUR, 10-YEAR/6-HOUR [] = 10 YEAR VALUES

EXISTING CONDITIONS

LOT AREA = 0.16 ACRES, WHERE EXCESS PRECIP. "Composite" = 1.48 in. [0.73]
PEAK DISCHARGE, $Q_{100} = 0.6 \text{ CFS}$ [0.4] WHERE UNIT PEAK DISCHARGE "C" = 3.73 CFS/AC. [2.26]
THEREFORE: $\text{VOLUME } 100 = 0.48 \text{ CF}$ [0.24]

DEVELOPED CONDITIONS

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

AREA	LAND TREATMENT	100 YR	10 YR	100 YR	10 YR
UNDEVELOPED	Ac.	A	2.20(0.87)	0.80(0.28)	
LANDSCAPING	Ac.	B	2.92(1.45)	1.08(0.46)	
COMPACTED SOIL & Slopes >	Ac.	C	3.73(2.26)	1.48(0.73)	
ROOF - PAVEMENT	Ac.	D	5.29(3.57)	2.64(1.69)	

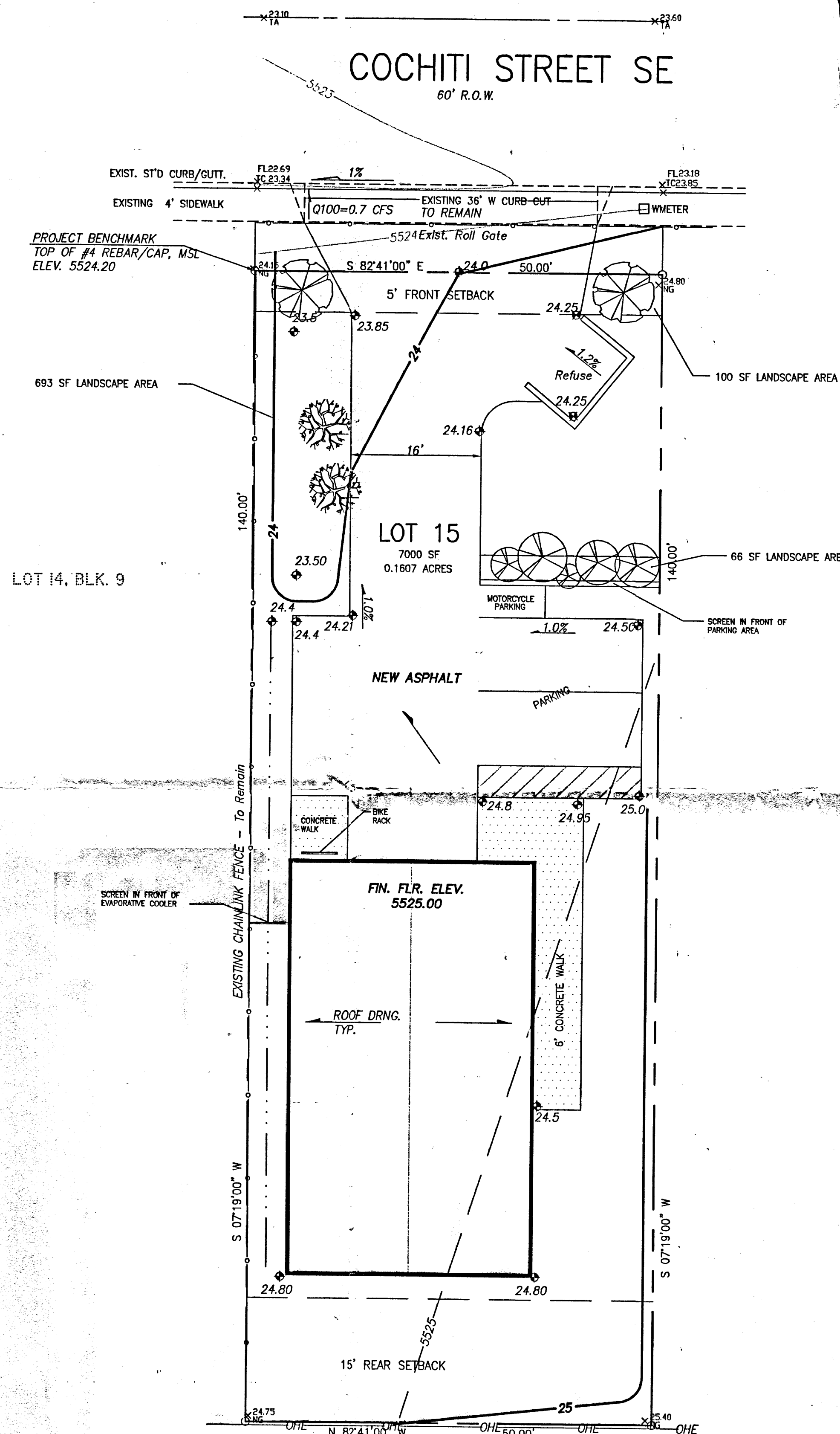
THEREFORE: $E_{\text{weighted}} = 2.04 \text{ in.} [1.21] \times$
 $Q_{100} = 0.71 \text{ CFS}$
 $Q_{10} = 0.45 \text{ CFS}$

DOWNSTREAM ANALYSIS

THE SITE HISTORICALLY, AND AS DEVELOPED WILL OUTFALL RUN-OFF TO THE NORTH TO COCHITI ROAD

FREE DISCHARGE IS ACCEPTABLE SINCE THE DOWNSTREAM STORM DRAINAGE FACILITIES HAVE CAPACITY. THE PROJECT TIME TO PEAK IS MUCH LESS THAN OVERALL BASIN TIME TO PEAK & INCREASE DUE TO DEVELOPMENT IS NEGLIGIBLE. (INCREASE FROM THE EXISTING. (1.0±CFS)

A PORTION OF DEVELOPED RUNOFF WILL BE ROUTED TO AND/OR THROUGH REQUIRED LANDSCAPING.



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
Professional Engineer
No. 10285

PROJECT DATA

LEGAL DESCRIPTION (Existing Platting)

LOT 15, BLOCK 9, EAST CENTRAL BUSINESS ADDITION
ALBUQUERQUE, NEW MEXICO

PROJECT BENCHMARK

TOP OF NUMBER 4 REBAR/CAP AT THE PROJECT MARKED NORTHWEST PROPERTY CORNER, MSL ELEVATION = 5524.20
(TIE FROM ACS 1-L21, LOCATED IN THE MEDIAN OF CENTRAL AVE. 81' WEST OF THE JUAN TABO INTERSECTION)

TOPOGRAPHIC DESIGN SURVEY

COMPILED BY CLARK CONSULTING ENGINEERS FROM DESIGN SURVEY PERFORMED BY TERRAMETRICS OF NEW MEXICO, 8/2006

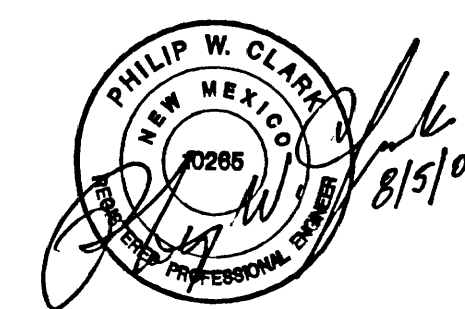
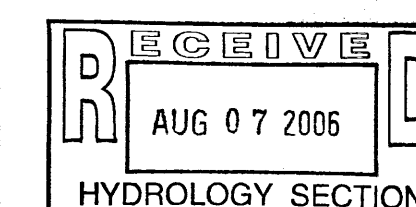
VICINITY MAP ZONE L-21 Scale: 1" = 750'

NOTES

1. ANY WORK WITHIN THE RIGHT-OF-WAY SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CITY OF ALBUQUERQUE STANDARD SPECS. FOR PUBLIC WORKS CONSTRUCTION, 7TH EDITION W/ AMEND. 1
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. CONTRACTOR SHALL ENSURE THAT NO SITE SOILS/SEDIMENT OR SILT ENTER THE RIGHT-OF-WAYS DURING CONSTRUCTION.
5. 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 P.C.C., CONCRETE	▨
TOP OF CURB, EXISTING	TC
FLOWLINE	FL
FACE OF CURB/FACE OF CURB	F-F



Clark Consulting Engineers 19 Ryan Road Edgewood, New Mexico 87015 Tel: (505) 281-2444 Fax: (505) 281-2444	
DATE	REVISION
LOT 15, BLOCK 9, EAST CENTRAL BUS. ADDITION LEVAN WAREHOUSE 11508 COCHITI ROAD, SE Grading & Drainage Plan	
DESIGNED BY: PWC	DRAWN BY: CCE
CHECKED BY: PWC	DATE: 7/31/06
JOB #: LEVAN_GD	FILE #: C/D
1 OF 1	