

#### MASTER GRADING/ DRAINAGE PLAN

THE FOLLOWING ITEMS CONCERNING (654 55TH STREET S.W.) LOTS (361-A-361-F, REPLAT OF LOTS 361-363 RIO GRANDE HEIGTHS ADDITION, BERNALIILO COUNTY, ALBUQUERQUE, NEW MEXICO) ARE CONTAINED

#### EXISTING CONDITIONS

AS SHOWN BY THE VICINITY MAP, THE SITE CONTAINS 0.344 ACRES MORE OR LESS, AND IS LOCATED NORTH OF THE INTERSECTION OF DOLORES S.W. AND 55TH STREET S.W. ON THE EAST SIDE OF 55TH STREET S.W. CURRENTLY 161-A. PROPOSED LOTS 361-B THROUGH 361-F ARE VACANT WITH TH TERRAIN SLOPING FROM EAST TO WEST. THERE ARE NO OFF-SITE FLOWS ENTERING THE SITES FROM ANY DIRECTION. ACCORDING TO THE FLOOD INSURANCE RATE MAPS, PANEL 0329E, REVISED NOVEMBER 19, 2003, THIS SITE IS NOT LOCATED WITHIN A DESIGNATED FLOOD ZONE.

AS SHOWN BY THE GRADING/DRAINAGE PLAN, THE PROJECT WILL CONSIST OF SIX TOWNHOUSES TOTALLING 8,514 SQ. FT. ALONG WITH FRONT CONCRETE DRIVEPADS AND ASSOCIATED LANDSCAPED AREAS. THE MASTER GRADING/DRAINAGE PLAN PROPOSES TO DRAIN ALL THE DEVELOPED RUN-OFF TO THE WEST AND ONTO 55TH STREET S.W. VIA THE PROPOSED DRIVEPADS. THIS SITE IS AN IN-FILL SITE WITH DEVELOPMENT ALREADY ALL AROUND. EACH LOT WILL BE A STAND ALONE PROJECT. EACH LOT WILL GENERATE AN INCREASE OF 0.05 CFS. THE CALCULATIONS CONTAINED HEREON, ANALYZE BOTH THE EXISTING AND THE DEVELOPED CONDITIONS FOR THE 100-YEAR, 6-HOUR RAINFALL EVENT. THE PROCEDURE FOR 40 ACRES AND SMALLER BASINS, AS SET FORTH IN THE REVISION OF SECTION 22.2, HYDROLOGY OF THE DEVELOPMENT PROCESS MANUEL, VOLUME II, DESIGN CRITERIA DATED 1997, HAS BEEN USED TO QUANTIFY THE PEAK RATE OF DISCHARGE AND VOLUME

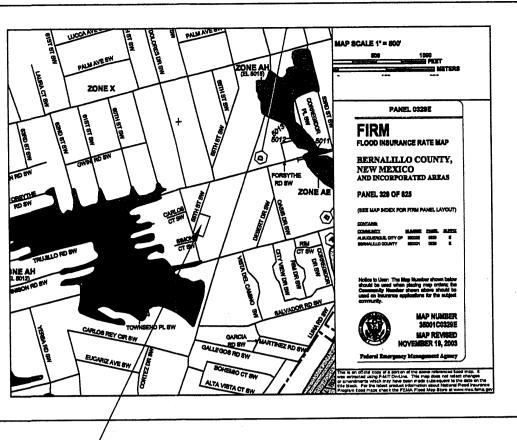
#### NOTE TO CONTRACTOR

- An excavation/construction permit will be required before beginning any work within the City right—of—way. Approved copy of this plan must be submitted at the time of application for permit. All work detailed in this plan to be performed, except as otherwise stated or provided hereon, shall be constructed in accordance with City of Albuquerque Standard Specification for Public Works Construction.
- Two working days prior to any excavation, contractor must contact line locating Services (760—1990) for locating existing sub—surface
- 4. Prior to construction, the contractor shall excavate and verify the horizonal and vertical location of all potential constructions; Should a conflict exist, the contractor shall notify the engineer so that the conflict can be resolved with a minimum amount of delay to the subject project.
- Backfill compaction shall be according to commercial use or soils report(s) recommendations.
- 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.
- Maintenance of this facilities shall be the responsibility of the owner of the property it serves

#### EROSION CONTROL MEASURES

THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR MANAGEMENT OF STORM RUN-OFF DURING CONSTRUCTION, HE SHALL ASSURE THAT THE FOLLOWING MEASURES ARE . THE CONTRACTOR SHALL IMMEDIATELY AND THOROUGHLY REMOVE ANY OR ALL SEDIMENT WITHIN THE PUBLIC STREETS THAT HAVE BEEN EROOED FROM THE SITE AND DEPOSITED THERE.

Small



PROJECT AREA = 0.05739 ac. -MASTER DRAINAGE FOR PLAN FOR ABEL ARAGON TOWNHOUSES

PRECIPITATION: 360 = 2.35 in. 1440 = 2.75 in.

10day = 3.95 in.EXCESS PRECIPITATION:

1.56 cfs/ac. TREATMENT A 0.53 in. 2.28 cfs/ac. TREATMENT B 0.78 in. 3.14 cfs/ac. TREATMENT C 1.13 in. 4.70 cfs/ac.

TREATMENT D 2.12 in. PROPOSED CONDITIONS: TREATMENT A 0 ac.

0.02116 ac. TREATMENT B 0 ac. TREATMENT C 0.05739 ac. 0 ac.

#### EXISTING EXCESS PRECIPITATION:

Weighted E = (0.53)x(0.00)+(0.78)x(0.00)+(1.13)x(0.06)+(2.12)x(0.00)/0.06 ac.= 1.13 in. V100-360 = (1.13)x(0.06)/12 = 0.005404 ac-ft = 235 CF

PEAK DISCHARGE:

#### EXISTING PEAK DISCHARGE:

Q100 = (1.56)x(0.00)+(2.28)x(0.00)+(3.14)x(0.06)+(4.70)x(0.00)=0.18 CFS

#### PROPOSED EXCESS PRECIPITATION:

Weighted E = (0.53)x(0.00)+(0.78)x(0.02)+(1.13)x(0.00)+(2.12)x(0.04)/0.06 ac.

### V100-360 = (1.63)x(0.06)/12.0 = 0.007776 ac-ft = 339 CF

V100-10day = (0.01)+(0.04)x(3.95-2.35)/12 = 0.012607 ac-ft = 549 CF

V100-1440 = (0.01)+(0.04)x(2.75-2.35)/12 = 0.008984 ac-ft = 391 CF

#### PROPOSED PEAK DISCHARGE:

Q100 = (1.56)x(0.00) + (2.28)x(0.02) + (3.14)x(0.00) + (4.70)x(0.04) = 0.23 CFS cfsINCREASE 0.23 CFS - 0.18 CFS = 0.05 CFS

> TOTAL CFS FOR THE SIX LOTS 1.38 CFS TOTAL CFS INCREASE FOR THE SIX LOTS 0.30 CFS



LEGAL DESCRIPTION

LOTS NUMBERED 361-A THRU 361-F RIO GRANDE HEIGHTS ADDITION BERNALILLO COUNTY, ALBUQUERQUE NEW MEXICO.

### BENCHMARK:

ELEVATIONS ARE BASED ON CITY OF ALBUQUERQUE STATION No. "NM-45-4A", LOCATED AT THE INTERSECTION OF BRIDGE BLVD. AND TOWER RD.S.W

GRADING & DRAINAGE PLAN

CONCRETE DRIVEWAY

5014.27 TC 5013.61 FL

5013.45 FL

T.B.M. CENTER SAS MANHOLE

5013.98 TC 3

N 15 º06'0Ò'

ELEVATION: 5013.29

/ WOOD SLAT FENCE

XXXXXX

FEBRUARY 2006 REVISIONS

MASTER DRAINAGE ABEL ARAGON 55TH STRE ALBUQUERQUE,

ABBREVIATION LEGEND

TOP OF CONC PAD TOP OF CURB TOP OF ASPHALT TOP OF BERM FINISHED GRADE FINISHED FLOOR

lalevations on

BOC = BACK OF CURB = DRIVECUT DRAINAGE INLET

= EDGE OF ASPHALT = EDGE OF CONCRETE

= HIGH POINT

= GROUND

EXISTING SPOT ELEVATION

Scale |''=10'-0''

EXISTING CONTOUR

DESIGN CONTOUR

PROPERTY LINE

EASEMENT LINE

FLOW DIRECTION

EXISTING SPOT ELEVATION

PROPOSED SPOT ELEVATION

16.20 TC

96.46,

= FLOW LINE = FENCE POST

TA

TB

- FG

- FF

**LOT AREA DATA** -3880 S.F. **COMMERCIAL PARKING -**-2862 S.F. PROPOSED LANDSCAPING @ > 15%-

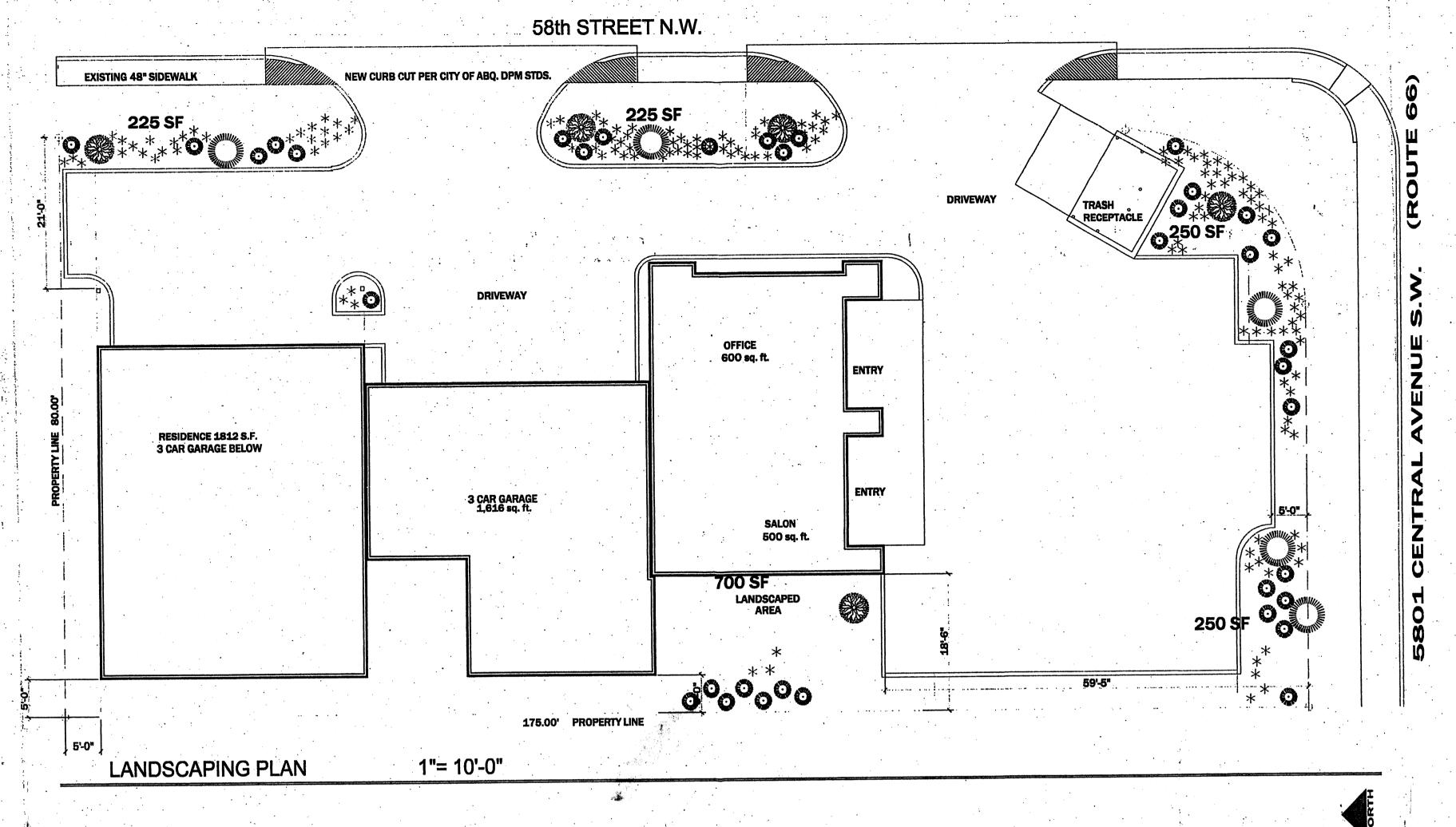
TRAFFIC CERTIFICATION SUBSTANTIAL COMPLIANCE WITH AND IN ACCORDANCE WITH THE DESIGN INTENT OF THE DRB, AA OR TCL APPROVED PLAN DATED DESIGN DOCUMENT HAS BEEN OBTAINED BY myself OF THE FIRM <u>'CCE'</u>. I FURTHER CERTIFY THAT I HAVE PERSONALLY VISITED THE PROJECT SITE ON <u>4-19-07</u> AND HAVE DETERMINED VISUAL INSPECTION THAT THE SURVEY DATA PROVIDED IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. THIS CERTIFICATION IS SUBMITTED IN SUPPORT OF A REQUEST FOR <u>Ortificate of Occupancy</u>.

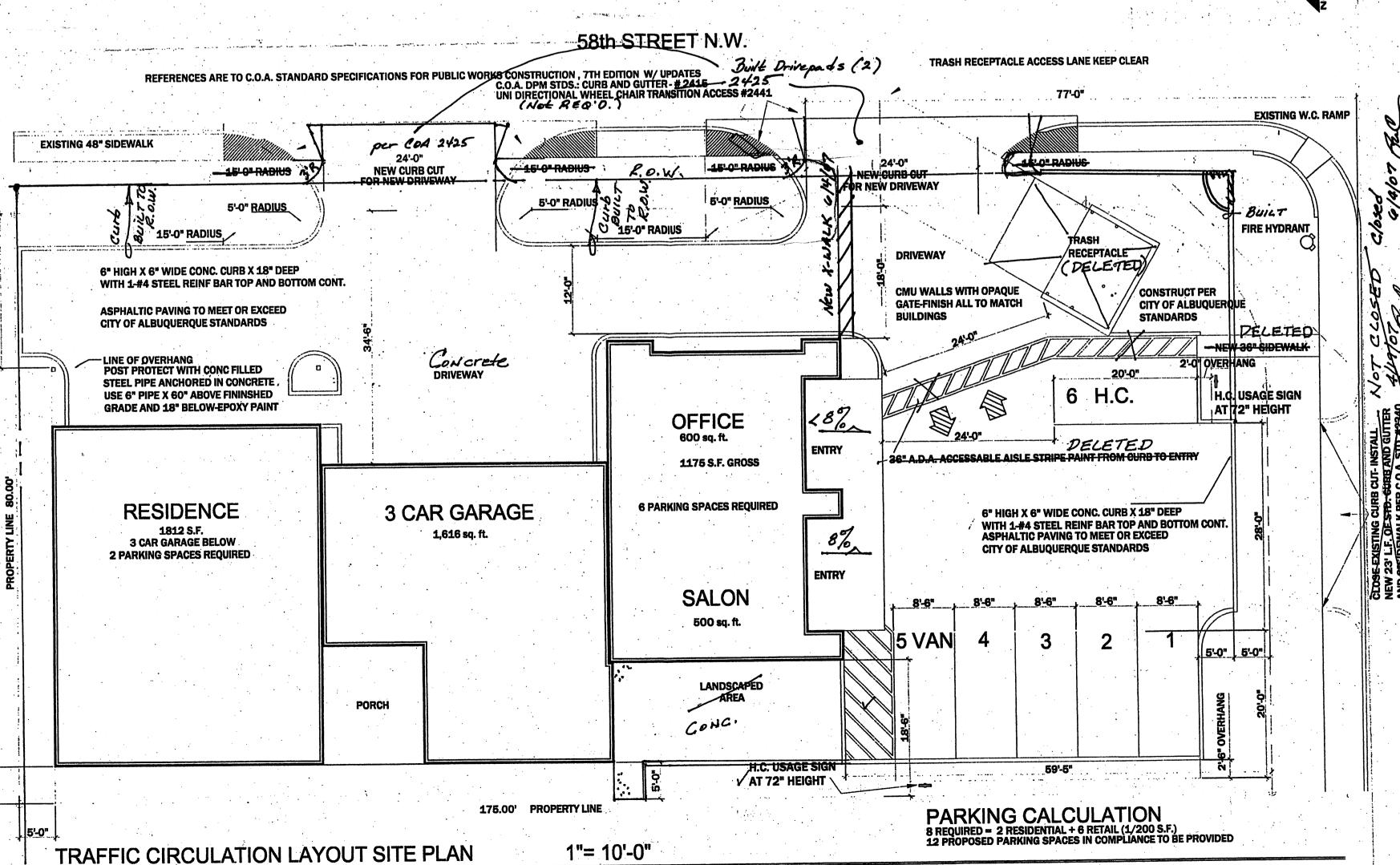
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CODE DESIGN DATA RESIDENCE				
OCCUPANCY GROUP	R3/U			
TYPE OF CONSTRUCTION	VB			
GROSS FLOOR AREA 2500 S.F RES./800	S.F GAR.			
FLOOR DESIGN LOAD: 40# LIVE + 12# D.L.				
ROOF LOAD: 20# LIVE LOAD - 40# TOTAL DESIGN	LOAD			
CONCRETE STRENGTH @ 28 DAYS: 3000 PSI				

CODE DESIGN DATA 3 CAR	GARAGE
OCCUPANCY GROUP	S-2 (C)
TYPE OF CONSTRUCTION	VB
GROSS FLOOR AREA	1375 S.F.
MAXIMUM ALLOWABLE FLOOR AREA:	3009 S.F.
OCCUPANT LOAD: NONE	
MAX. WIND SPEED: 90 MPH, 16.1 PSF ACTUAL WALL RESISTANCE AT MIDSPAN: 2	1 PSF
ROOF LOAD: 20# LIVE LOAD - 40# TOTAL	DESIGN LOAD
CONCRETE STRENGTH @ 28 DAYS: 3000	PSI

CODE DESIGN DATA SALON	
OCCUPANCY GROUP	В
TYPE OF CONSTRUCTION	VB
GROSS FLOOR AREA	1180 S.F.
MAXIMUM ALLOWABLE FLOOR AREA:	9000 S.F.
OCCUPANT LOAD: 6	
MAX. WIND SPEED: 90 MPH, 16.1 PSF ACTUAL WALL RESISTANCE AT MIDSPAN: 21	PSF
ROOF LOAD: 20# LIVE LOAD - 40# TOTAL :	DESIGN LOAD
CONCRETE STRENGTH @ 28 DAYS: 3000 P	SI





**LEGAL DESCRIPTION** 

LOT 32B TORRES ADDITION

5801 CENTRAL AVENUE N.W.

ZONED C2 WITH CONDITIONAL USE GRANTED FOR RESIDENCE

ZA PAGE K11

LANDSCAPE NOTES

**IRRIGATION BY AUTOMATIC BUBBLER SYSTEM ON** TIMER. LANDSCAPED AREAS TO BE DEPRESSED AND SLOPED TO LIVE PLANT MATERIAL TO HARVEST RAINFALL.

TYPICAL GROUNDCOVER TO BE SEEDED NATIVE **GRASSES-BUFFALO AND BLUE GRAMMA. BROWN** 2"- 3" ROCK AS OPTIONAL **ALTERNATIVE OR USED** WITH GRASSES.



STREET TREE- CURLEAF MOUNTAIN MAHOGONY(cercocarpe ledifolius)15 GALLON MIN. SPECIMEN

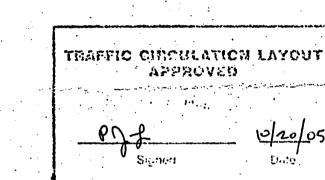


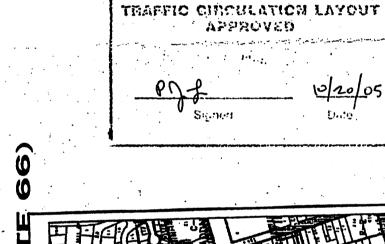
**CHAMISA AS FLOWERING** 

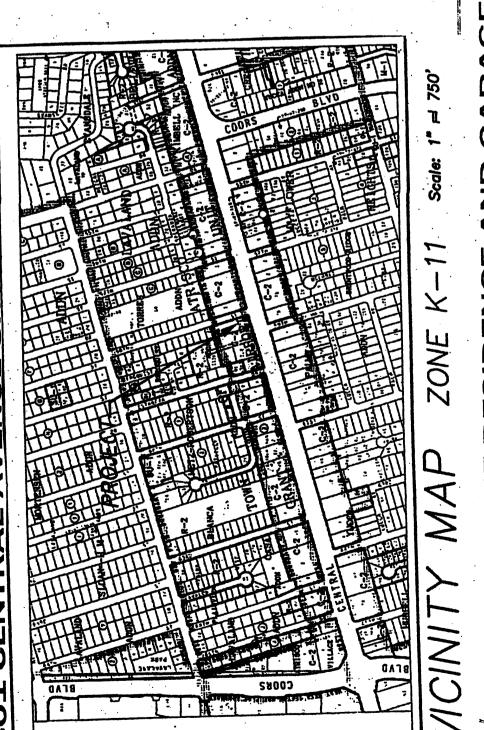
SPREADING GROUND COVER -ICE PLANT - (delosperma nubrgenum) 4" POT MIN.
REMAINING SOIL AREA TO BE SEEDED WITH NATIVE RANGE GRASSES- WORK INTO AND ROLLER TAMP SOIL, USE BLUE GRAMMA/ BUFFALOGRASS BASED MIX HAND WATER PLANTS TILL ESTABLISHED.



**EXISTING STREET TREES VARIOUS TYPES 3" CALIPER MIN** TREAT TO A NICE FERTILIZER TABLET







JUN 0 4 2007 HYDROLOGY SECTION:

SHEET

10.70.5 DEL PAUL JACK 321-2267

FIRM MAP REF. PANEL # 35001C0329

CALCULATIONS

VOLUMETRIC DISCHARGE: VOLUME = EWeighted x AREA
P100 = 2.20 Inches, Zone 1 Time of Concentration, TC = 10 Minutes
DESIGN STORM: 100-YEAR/6-HOUR, 10-YEAR/6-HOUR [ ] = 10 YEAR VALUES

DETERMINE LAND TREATMENTS, PEAK DISCHARGE AND VOLUMETRIC DISCHARGE

EXISTING PERIMETER 58TH STREET DRAINS TO THE SOUTH, THEN EAST ALONG CENTRAL WITHIN THE UNDERGROUND STORM SEWER

THIS FACILITY HAS CAPACITY AND THE PROJECT TIME TO PEAK IS MUCH LESS

THAN OVERALL BASIN TIME TO PEAK & INCREASE DUE TO DEVELOPMENT IS

0.00 Ac.(0%)

0.03 Ac.(9%)

0.04 Ac.(12%)

0.25 Ac.(79%)

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"

LOT AREA = 0.32 ACRES, WHERE EXCESS PRECIP. 'C' =0.99 In. [0.44]......HARD PAN DIRT PEAK DISCHARGE, Q100 = 0.93 CFS [0.5], WHERE UNIT PEAK DISCHARGE 'C' = 2.87 CFS/AC. [1.49] THEREFORE: VOLUME 100 = 1150 CF [511]

VOLUME 100 = 1998 CF VOLUME 10 = 1208 CF 0.49[0.08]

0.67[0.22]

0.99[0.44]

1.97[1.24]

1.29[0.24]

2.03[0.76]

2.87[1.49]

DESIGN CRITERIA

EXISTING CONDITIONS

DEVELOPED CONDITIONS

FOR STUDY AREA

UNDEVELOPED/POND

ROOF - PAVEMENT

GRAVEL & COMPACTED SOIL

DOWNSTREAM ANALYSIS

THEREFORE: E<sub>Weighted</sub> = 1.72 In.[1.04] &

MINIMAL. (INCREASE FROM THE EXISTING. (.35±CFS)

Q100 = 1.28 CFS Q10 = 0.81 CFS

LANDSCAPING

# GRADING & DRAINAGE PLAN

THE PROPOSED COMMERCIAL/RESIDENTIAL PROJECT IS LOCATED IN THE NORTHWEST AREA OF ALBUQUERQUE ON WEST CENTRAL AVENUE SOUTH OF INTERSTATE 40/EAST OF COORS ROAD. 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:

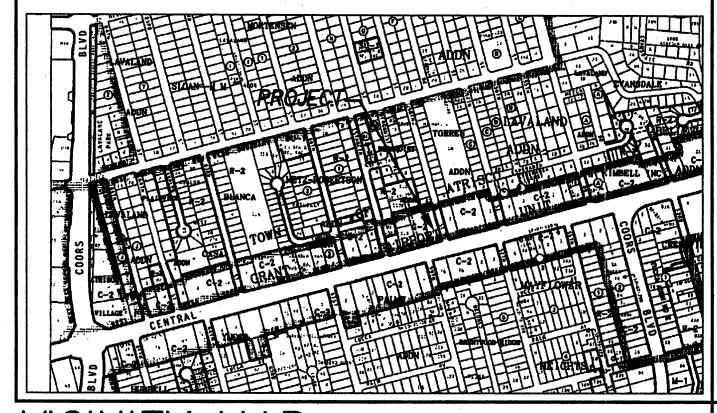
1. EXISTING CONTOURS, AND SPOT ELEVATIONS AND EXISTING DRAINAGE PATTERNS AND IMPROVEMENTS.
2. PROPOSED IMPROVEMENT: 1100 SF COMMERCIAL + 1800 RESIDENTIAL BUILDING(S). ASPHALT DRIVE/PARKING, CONCRETE FLAT WORK, NEW GRADE

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, PAD SURFACE WITH SPARSE VEGETATION.
THE SITE IS BOUNDED BY DEVELOPED COMMERCIAL PROPERTY, AND FALLS AT APPROXIMATELY 2% FROM THE NORTHWEST TO SOUTHEAST.
CENTRAL AVENUE IS A PRINCIPAL ARTERIAL WITH 4 LANES. WITH CURB.

CENTRAL AVENUE IS A PRINCIPAL ARTERIAL WITH 4 LANES, WITH CURB, GUTTER AND ATTACHED SIDEWALK. SITE RUNOFF WILL BE ALLOWED TO EITHER DRAIN THROUGH THE SITE, AND/OR PONDED IN DEPRESSED LANDSCAPE AREAS. THE SITE HAS HISTORICALLY DRAINED TO THE SOUTHEAST VIA SHEET FLOW.

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, AND COMPLIES WITH THE OVERALL MASTER DRAINAGE PLAN. A PORTION OF SITE RUNOFF IS ROUTED THROUGH PROPOSED LANDSCAPING.

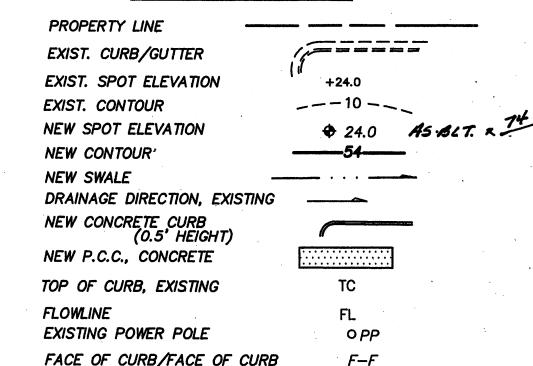


VICINITY MAP ZONE K-11 Scale: 1" ≠ 750'

# 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, ITH 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 PROPOSED DRIVEWAY CUTS.
  - 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.

# <u>LEGEND</u>



I, PHILIP W. CLARK, NMPE 10265, OF 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 7/26/05 THE RECORD INFORMATION EDITED ONTO THE
ORIGINAL DESIGN DOCUMENT HAS BEEN OBTAINED BY ME OR UNDER MY DIRECT
SUPERVISION AS SUPPLEMENTAL DATE OF THE ORIGINAL TOPOGRAPHIC SURVEY
PREPARED BY A GREEN OF THE ORIGINAL TOPOGRAPHIC SURVEY
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Philip W. Clark,, NMPE 10265

A STATE

PARTIE TO THE STATE OF THE STAT

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



1/26/2005

# PROJECT DATA

ZONED, C-1

LEGAL DESCRIPTION

LOT 32B TORRES ADDITION
ALBUQUERQUE, BERNALILLO COUNTY, NEW MEXICO

PROJECT BENCHMARK

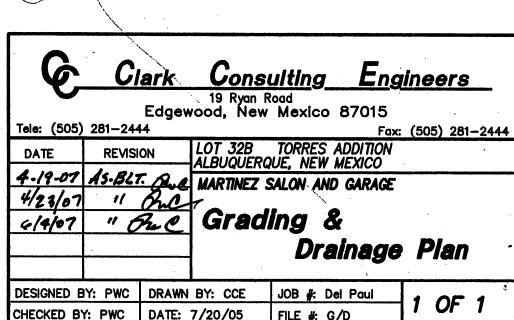
TOP OF CURB, MARKED BY NAIL/SHINER LOCATED AT THE NORTHEAST CORNER OF PROPERTY, MSL ELEVATION = 5070.68. (TIED FROM ACS BRASS CAP NM448—C1, MSL=5074.03, NGVD1929 SEE PLAN).

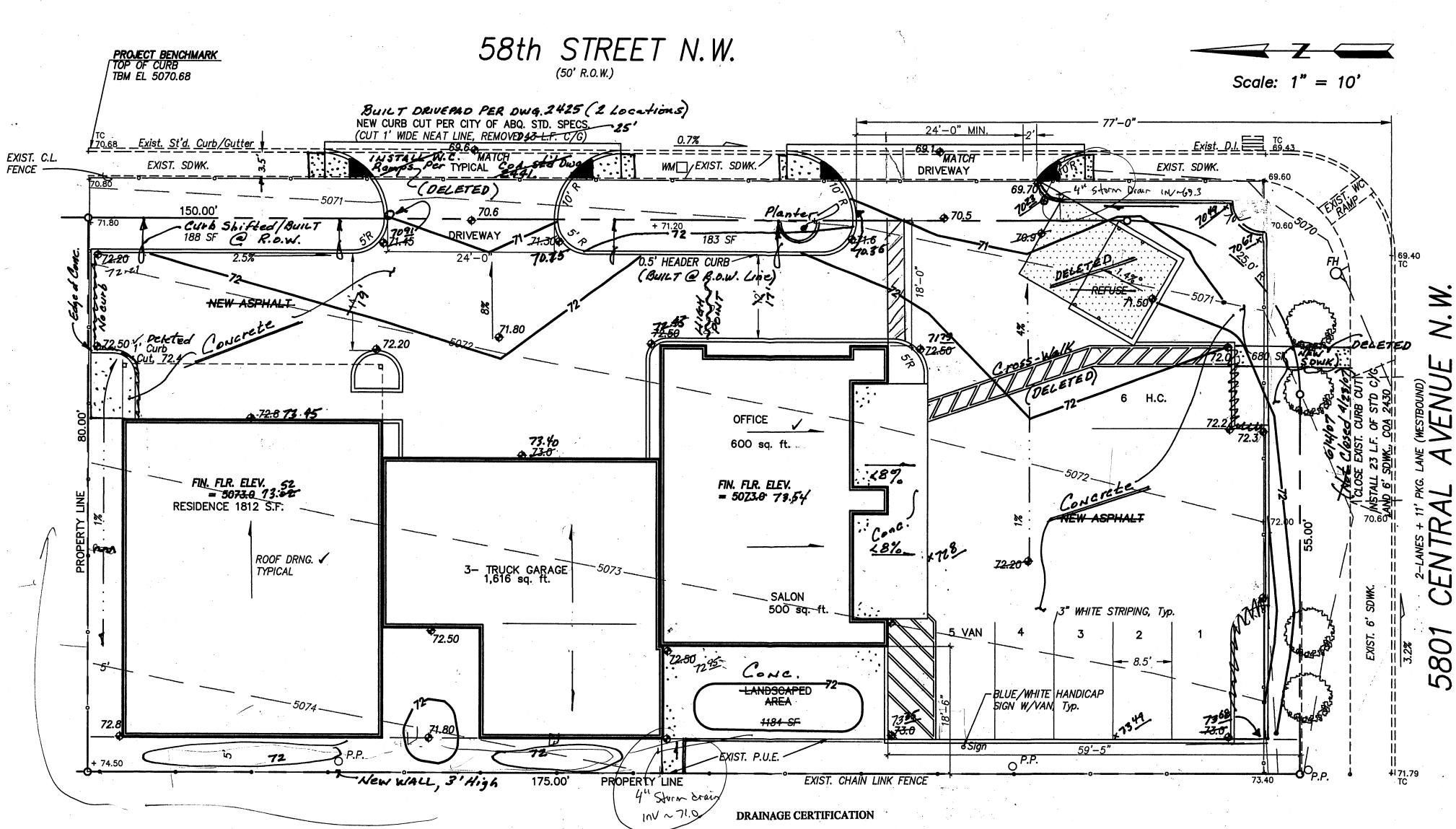
TOPOGRAPHIC DESIGN SURVEY

PERFORMED BY CLARK CONSULTING ENGINEERS ON 7/22/05.

HYDROLOGY SECTION

JUN 04 2007





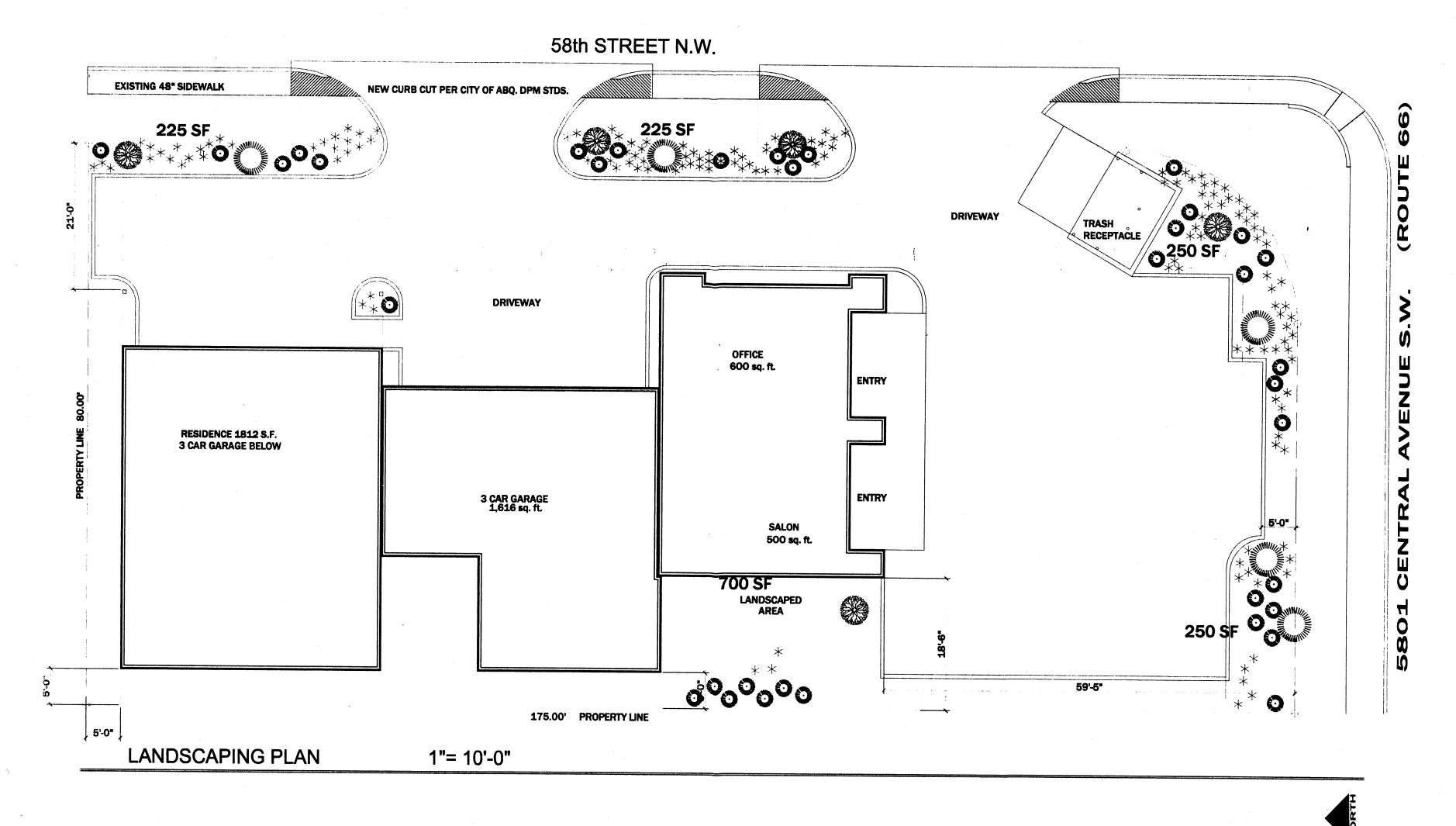
ENERGY CALC	
N.M.E.C.C. COM	
ADDRESS	
ROOF/SELENS	1. Philip W. Clark, NMPE 10265, OF THE FIRM
CATHEBRAL	Cherk Consulting Eng'rs, HEREBY CERTIFY THAT THIS PROJECT IS IN
SKYLIGHT	CIRCIANTIAL COMPLIANCE WITH AND IN ACCORDANCE IN
TOTALS	SUBSTANTIAL COMPLIANCE WITH AND IN ACCORDANCE WITH THE
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WINDOWS	10 30/05. THE RECORD INFORMATION EDITED ONTO THE ORIGINAL
DOORS	DESIGN DOCUMENT HAS BEEN OBTAINED BY myself OF THE
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OPAQUE WALL	VISITED THE PROJECT SITE ON 4-19-07 AND HAVE DETERMINED
TOTALS	BY VISUAL INSPECTION THAT THE SURVEY DATA PROVIDED IS
FLOOR	REPRESENTATIVE OF ACTUAL SITE CONDITIONS AND IS TRUE AND
UNHEATED: P-	CODDECT TO THE DECT OF MY WHOMEN TO CO
HEATED: R-6	CERTIFICATION IS SUBMITTED IN SUBDERS OF A STREET
TOTAL WEEK	CERTIFICATION IS SUBMITTED IN SUPPORT OF A REQUEST FOR
сомренете	Certificate of Occupancy.
OVERALL TOTAL	
IOIAL	THE RECORD INFORMATION PRESENTED HEREON IS NOT NECESSARILY
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	(10265)
	Und the state of t
	Signature of Engineer Retrought

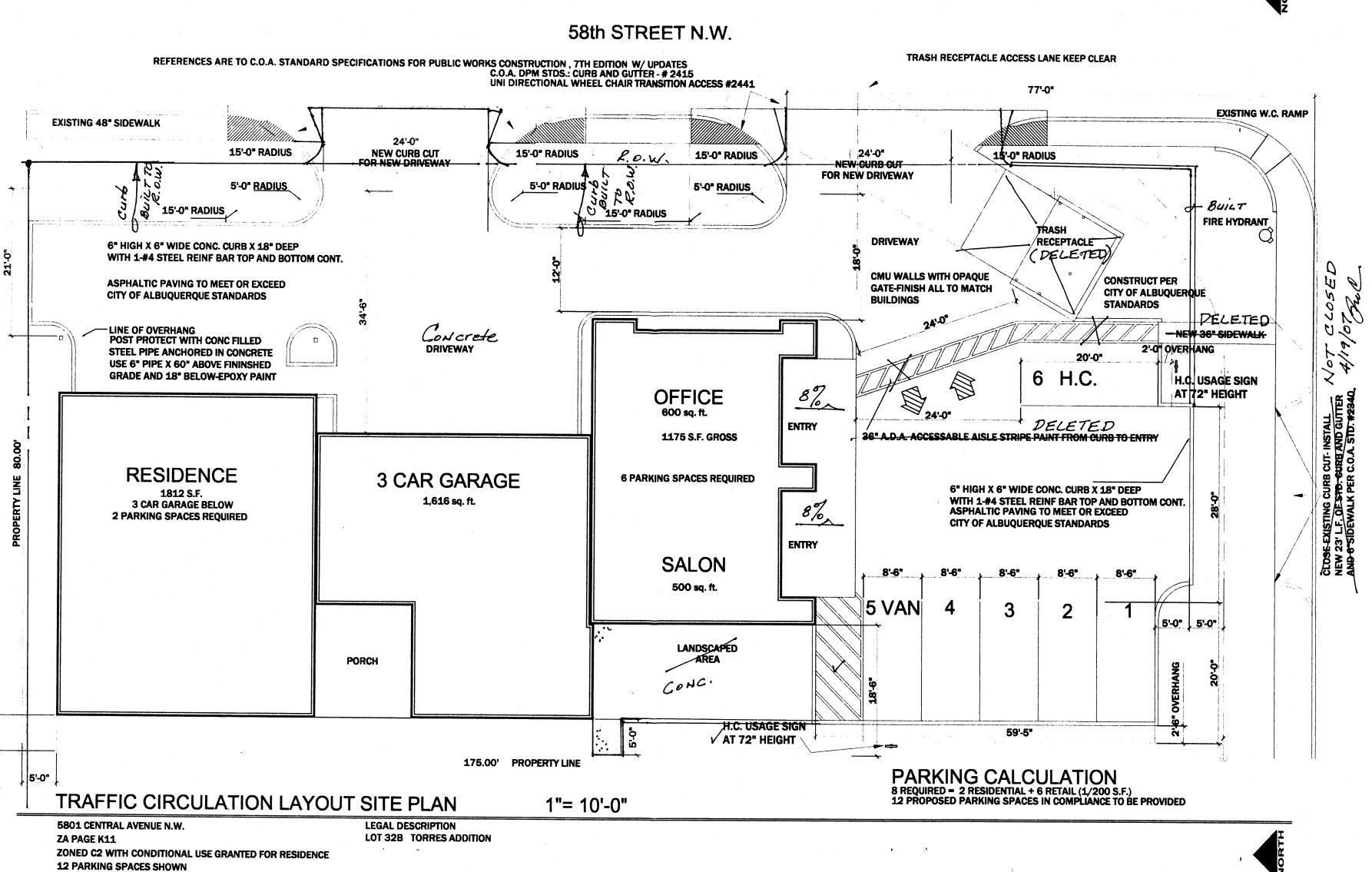
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TYPE OF CONSTRUCTION				VE	<del></del>
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FLOOR DESIGN LOAD: 40# LI					· · · · · · · · · · · · · · · · · · ·
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CONCRETE STRENGTH @ 28	DAYS:	300	0 PSI		
				·	

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#### LANDSCAPE NOTES

**IRRIGATION BY AUTOMATIC BUBBLER SYSTEM ON** TIMER. LANDSCAPED **AREAS TO BE DEPRESSED** AND SLOPED TO LIVE **PLANT MATERIAL TO** HARVEST RAINFALL

TYPICAL GROUNDCOVER TO BE SEEDED NATIVE **GRASSES- BUFFALO AND BLUE GRAMMA. BROWN** 2"- 3" ROCK AS OPTIONAL **ALTERNATIVE OR USED** WITH GRASSES.

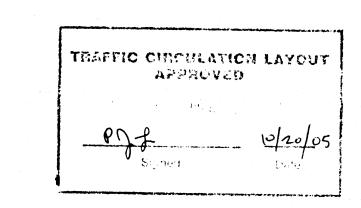
STREET TREE- CURLEAF MOUNTAIN MAHOGONY(cercocarpus iedifolius)15 GALLON MIN. SPECIMEN

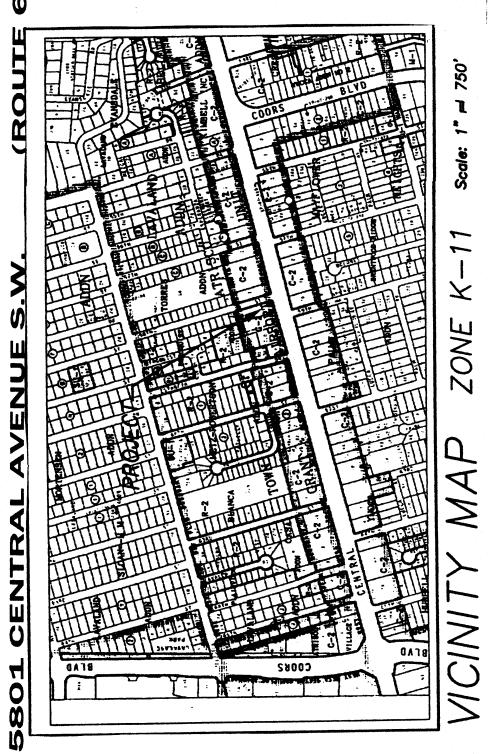
CHAMISA AS FLOWERING SHRUB- CHAMISA (CHRYSOTHAMUS NASEOUSUS) 5 GALLON

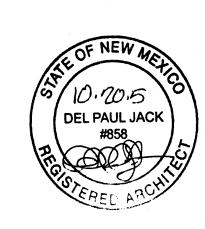
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**EXISTING STREET TREES VARIOUS TYPES 3" CALIPER MIN** 

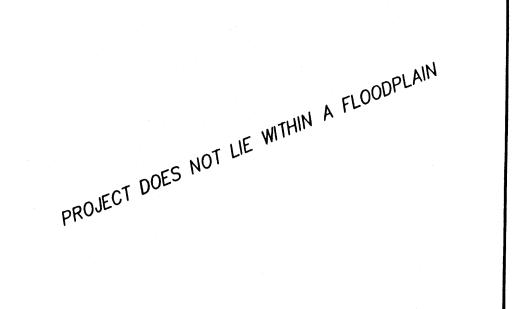
TREAT TO A NICE FERTILIZER TABLET







SHEET



FIRM MAP REF. PANEL # 35001C0329

# GRADING & DRAINAGE PLAN

THE PROPOSED COMMERCIAL/RESIDENTIAL PROJECT IS LOCATED IN THE NORTHWEST AREA OF ALBUQUERQUE ON WEST CENTRAL AVENUE SOUTH OF INTERSTATE 40/EAST OF COORS ROAD. 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: 1100 SF COMMERCIAL + 1800 RESIDENTIAL BUILDING(S), ASPHALT DRIVE/PARKING, CONCRETE FLAT WORK, NEW GRADE

ELEVATIONS, REFUSE LOCATION, AND LANDSCAPING.

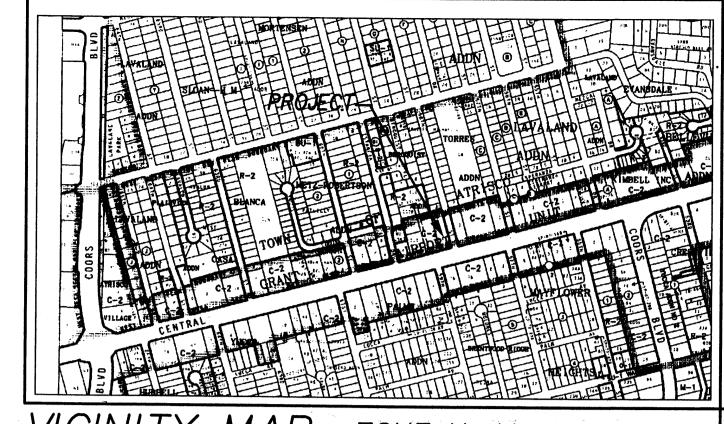
3. CONTINUITY BETWEEN EXISTING AND PROPOSED ELEVATIONS.

4. QUANTIFICATION OF DEVELOPED FLOWS GENERATED BY THE IMPROVEMENTS WHICH CONTRIBUTE TO THE EXISTING FLOWS.

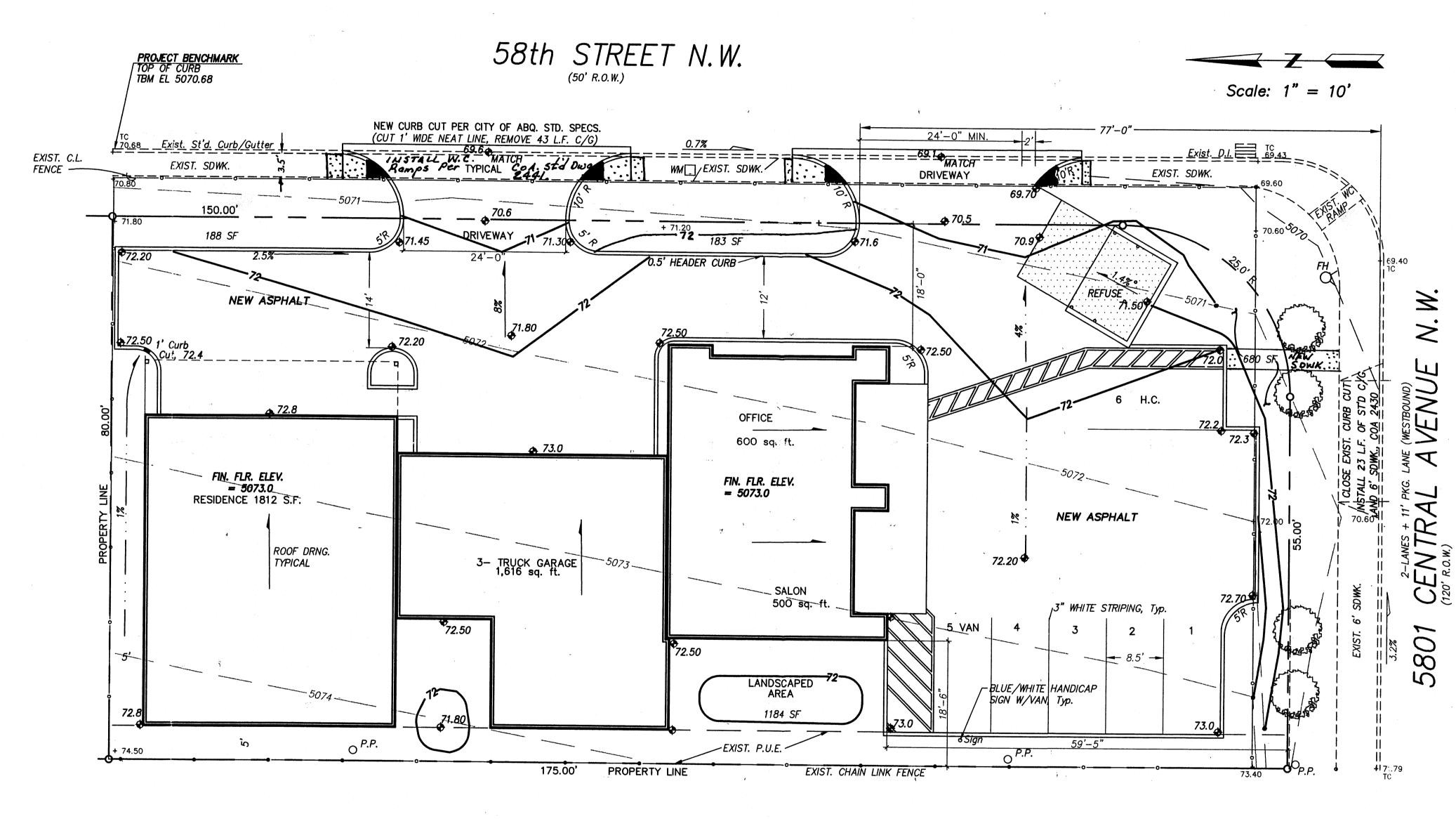
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PRESENTLY, THE SITE IS A DIRT, PAD SURFACE WITH SPARSE VEGETATION. THE SITE IS BOUNDED BY DEVELOPED COMMERCIAL PROPERTY, AND FALLS AT APPROXIMATELY 2% FROM THE NORTHWEST TO SOUTHEAST. CENTRAL AVENUE IS A PRINCIPAL ARTERIAL WITH 4 LANES, WITH CURB, GUTTER AND ATTACHED SIDEWALK. SITE RUNOFF WILL BE ALLOWED TO EITHER DRAIN THROUGH THE SITE, AND/OR PONDED IN DEPRESSED LANDSCAPE AREAS. THE SITE HAS HISTORICALLY DRAINED TO THE SOUTHEAST WA SHEET

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, AND COMPLIES WITH THE OVERALL MASTER DRAINAGE PLAN. A PORTION OF SITE RUNOFF IS ROUTED THROUGH PROPOSED LANDSCAPING.



VICINITY MAP ZONE K-11 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 PROPOSED DRIVEWAY CUTS.
- 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.

# LEGEND

PROPERTY LINE	
EXIST. CURB/GUTTER	16=====
EXIST. SPOT ELEVATION	( <sub>1</sub> / +24.0
EXIST. CONTOUR	10
NEW SPOT ELEVATION	<b>4</b> 24.0
NEW CONTOUR	<del>54</del>
NEW SWALE	
DRAINAGE DIRECTION, EXISTING	
NEW CONCRETE CURB (0.5' HEIGHT)	
NEW P.C.C., CONCRETE	
TOP OF CURB, EXISTING	TC
FLOWLINE	FL
EXISTING POWER POLE	0 <i>PP</i>
FACE OF CURB/FACE OF CURB	F-F

# 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 = EWeighted x AREA
P100 = 2.20 Inches, Zone 1 Time of Concentration, TC = 10 Minutes
DESIGN STORM: 100-YEAR/6-HOUR, 10-YEAR/6-HOUR [] = 10 YEAR VALUES

#### EXISTING CONDITIONS

LOT AREA = 0.32 ACRES, WHERE EXCESS PRECIP. 'C' =0.99 In. [0.44]......HARD PAN DIRT PEAK DISCHARGE, Q100 = 0.93 CFS [0.5], WHERE UNIT PEAK DISCHARGE 'C' = 2.87 CFS/AC. [1.49] THEREFORE: VOLUME 100 = 1150 CF [511]

#### DEVELOPED CONDITIONS

DETERMINE LAND TREATMENTS, PEAK DISCHARGE AND VOLUMETRIC DISCHARGE

	AREA	LAND TREATM'T	Ω <sub>Peak</sub>	E
UNDEVELOPED/POND	0.00 Ac.(0%)	A	1.29[0.24]	0.49[0.08]
LANDSCAPING	0.03 Ac. (9%)	В	2.03[0.76]	0.67[0.22]
GRAVEL & COMPACTED SOIL	0.04 Ac.(12%)	C	2.87[1.49]	0.99[0.44]
ROOF - PAVEMENT	0.25 Ac.(79 <b>%</b> ) 0.32 Ac.	D	4.40[2.90]	1.97[1.24]

#### Q10 = 0.81 CFS **DOWNSTREAM ANALYSIS**

EXISTING PERIMETER 58TH STREET DRAINS TO THE SOUTH, THEN EAST ALONG CENTRAL WITHIN THE UNDERGROUND STORM SEWER THIS FACILITY 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. (.35±CFS)

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







#### ZONED, C-1

#### LEGAL DESCRIPTION

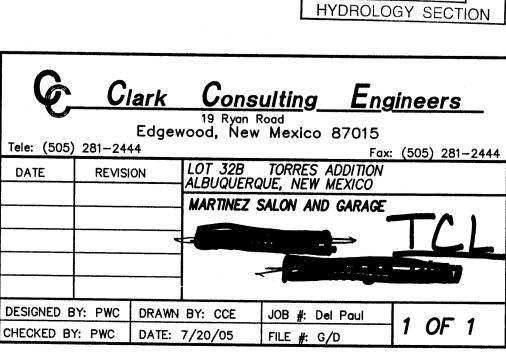
LOT 32B TORRES ADDITION
ALBUQUERQUE, BERNALILLO COUNTY, NEW MEXICO

#### PROJECT BENCHMARK

TOP OF CURB, MARKED BY NAIL/SHINER LOCATED AT THE NORTHEAST CORNER OF PROPERTY, MSL ELEVATION = 5070.68. (TIED FROM ACS BRASS CAP NM448-C1, MSL=5074.03, NGVD1929 SEE PLAN).

TOPOGRAPHIC DESIGN SURVEY

PERFORMED BY CLARK CONSULTING ENGINEERS ON 7/22/05.



Fritial TCL

AUG 03 2005

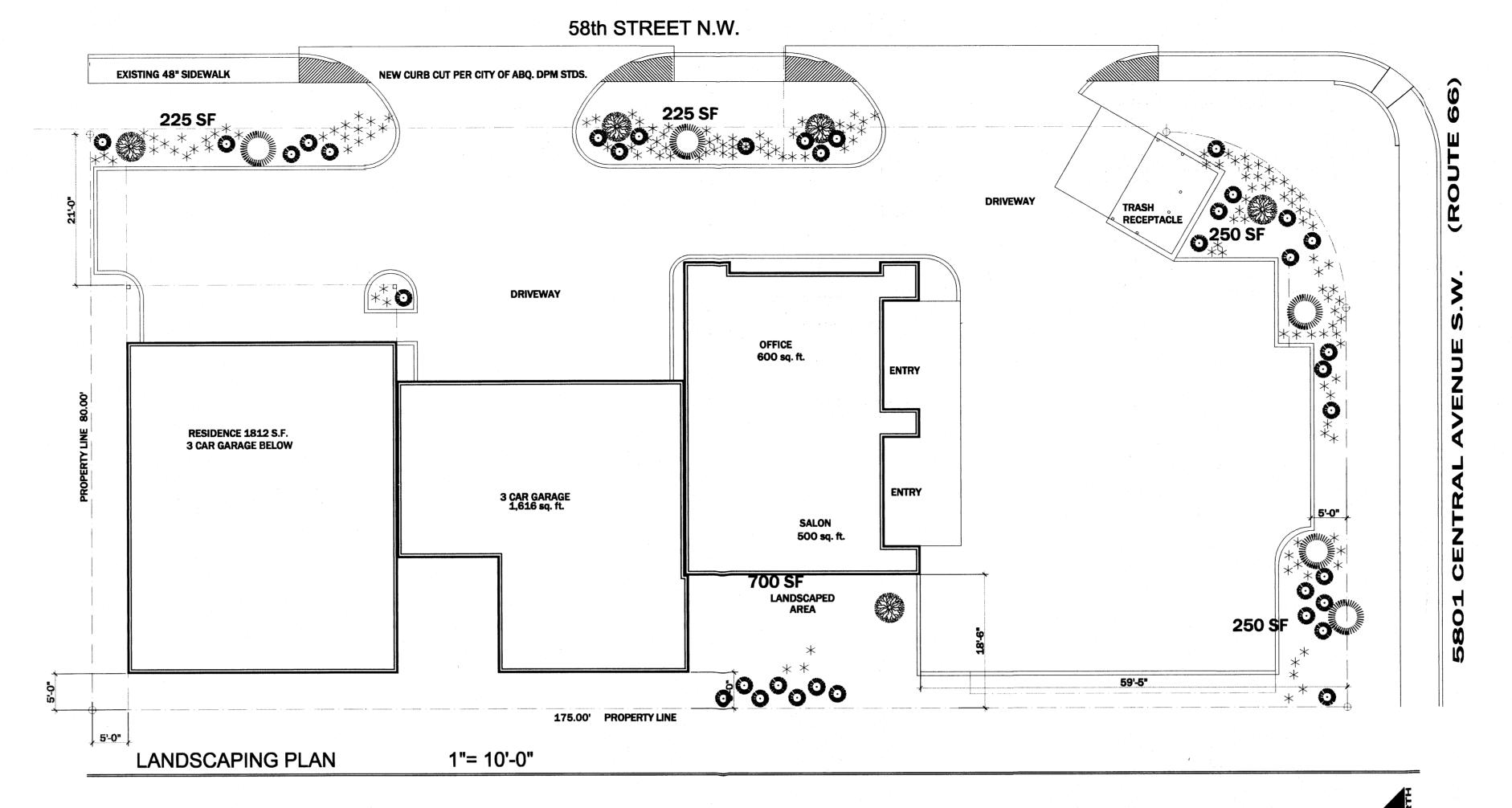
LOT AREA DATA	
GROSS LOT AREA:	— 28,229 S.F.
AREA OF BUILDINGS:	——5855 S.F.
MAINTAINED RIGHT OF WAY LANDSCAL	PING-1664 S.F.
COMMERCIAL PARKING —————	3880 S.F.
PROPOSED LANDSCAPING @ > 15%—	——2862 S.F.

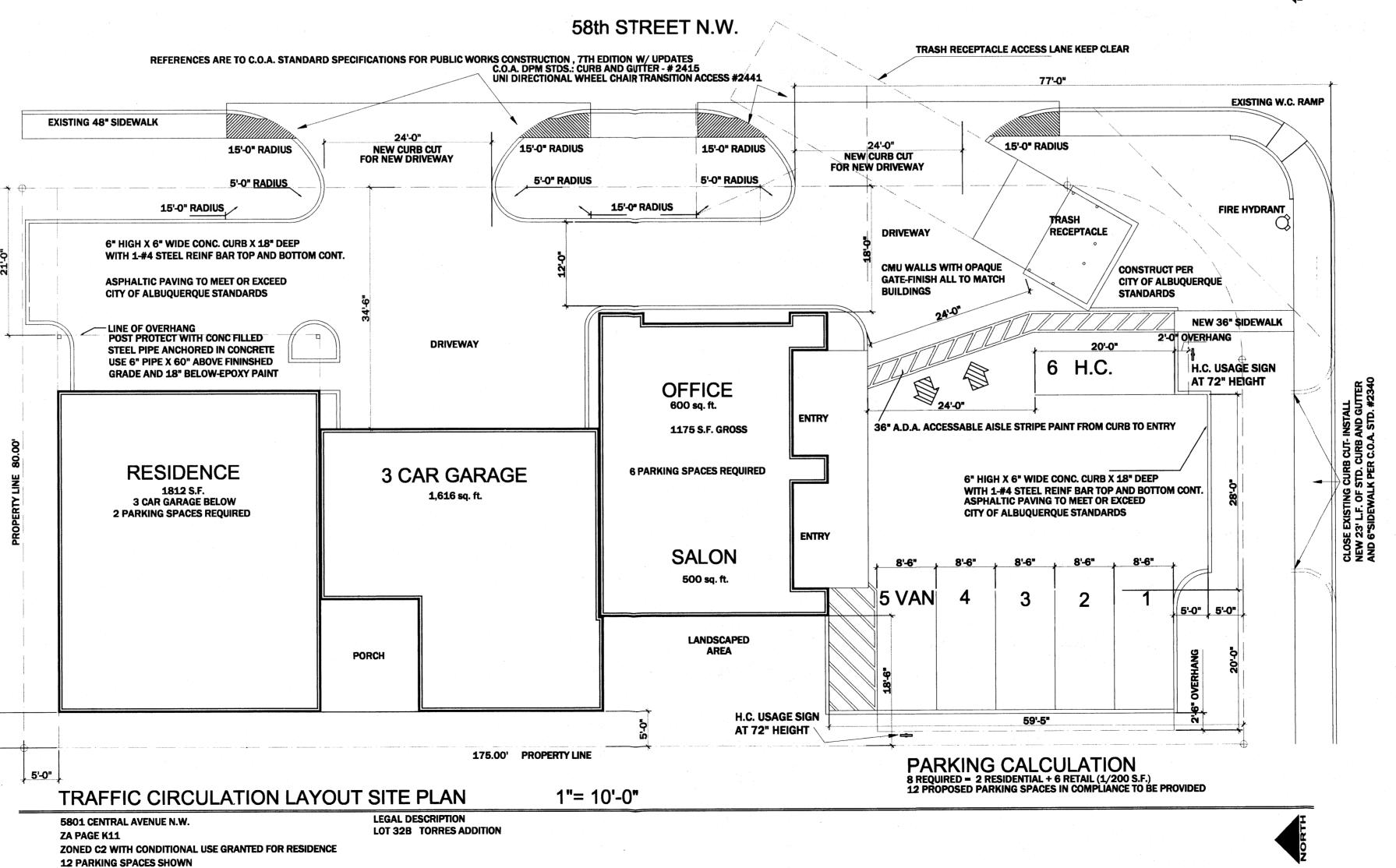
ADDRESS			-	CODE V	ALUES MPARISOI	N
ROOF/CEILING	AREA	R VALUE	AREAx1/R VAL.	AREA	U VALUE	RESUL
CEILING	1100sf	39.1	28.13	1100sf	.034	37.4
CATHEDRAL			4			
SKYLIGHT		:				
TOTALS			28.13			37.4
WALL	AREA	R VALUE	AREAx1/R VAL.	AREA	U VALUE	RESUL
WINDOWS	440	1.56	285.05	440	.64	281.6
DOORS	20	.56	35.7	20	.39	7.8
GROSS WALL	1150	21.5				
OPAQUE WALL	710	21.5	33.01	710	.15	106.5
TOTALS			350.76			395.9
FLOOR			R=6			R=6
JNHEATED: R=4						
HEATED: R-6						
TOTAL HOUSE	ROOF		28.13			37.4
OOMIT OILLIO	WALLS		350.76			395.9
OVERALL TOTAL			378.89	(COMPLIES)		433.3
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				<u> </u>		

CODE DESIGN DATA RESIDENCE	
OCCUPANCY GROUP	R3/U
TYPE OF CONSTRUCTION	VB
GROSS FLOOR AREA 2500 S.F RES./80	0 S.F GAR
FLOOR DESIGN LOAD: 40# LIVE + 12# D.L.	
ROOF LOAD: 20# LIVE LOAD - 40# TOTAL DESIG	3N LOAD
CONCRETE STRENGTH @ 28 DAYS: 3000 PSI	

CODE DESIGN DATA 3 CAR GARAGE	
OCCUPANCY GROUP	S-2 (C)
TYPE OF CONSTRUCTION	VB
GROSS FLOOR AREA	1375 S.F.
MAXIMUM ALLOWABLE FLOOR AREA:	3009 S.F.
OCCUPANT LOAD: NONE	
MAX. WIND SPEED: 90 MPH, 16.1 PSF ACTUAL WALL RESISTANCE AT MIDSPAN: 21 PSF	
ROOF LOAD: 20# LIVE LOAD - 40# TOTAL	DESIGN LOAD
CONCRETE STRENGTH @ 28 DAYS: 3000 P	SI

CODE DESIGN DATA SALON		
OCCUPANCY GROUP	В	
TYPE OF CONSTRUCTION	VB	
GROSS FLOOR AREA	1180 S.F.	
MAXIMUM ALLOWABLE FLOOR AREA:	9000 S.F.	
OCCUPANT LOAD: 6		
MAX. WIND SPEED: 90 MPH, 16.1 PSF ACTUAL WALL RESISTANCE AT MIDSPAN: 21 PSF		
ROOF LOAD: 20# LIVE LOAD - 40# TOTAL I	DESIGN LOAD	
CONCRETE STRENGTH @ 28 DAYS: 3000 P	SI	





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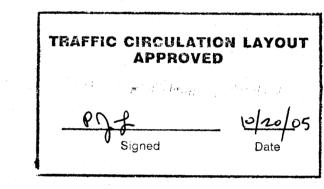


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DEL PAUL JACK
#858

