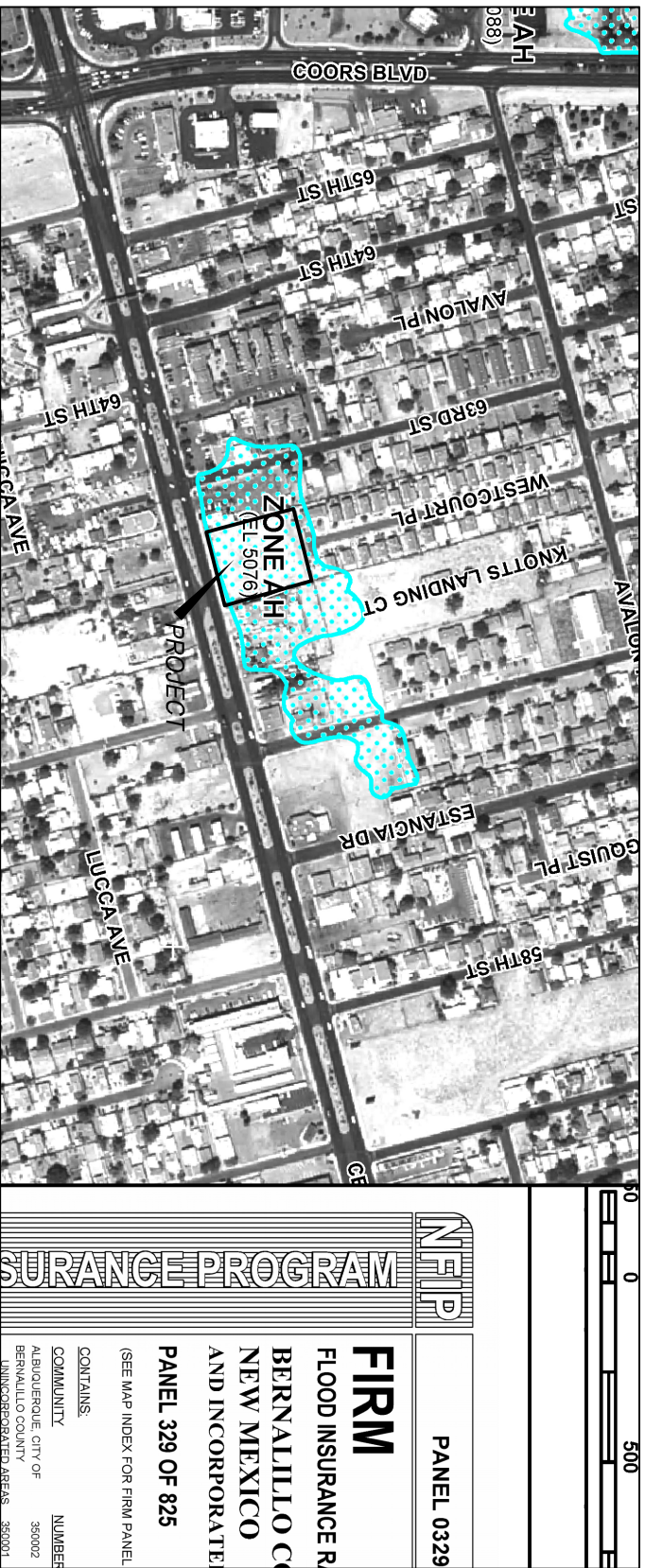


ORTHO-PHOTO, DATED 11-1-2015



SITE DOES LIE IN SPHA PANEL # 329 H

GRADING & DRAINAGE PLAN

THE COMMERCIAL RETAIL PROJECT IS LOCATED IN THE WEST CENTRAL AREA OF ALBUQUERQUE, APPROXIMATELY 3 MILES WEST OF THE DOWNTOWN CORE OF ALBUQUERQUE, NM. THE GRADING & DRAINAGE SCHEME HEREON IS IN COMPLIANCE WITH THE BERNILLO ALLU COUNTY FLOOD HAZARD ORDINANCE, NO.88-46, AND THE ORDER FOR FLOOD DAMAGE REDUCTION. 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 EXISTING IMPROVEMENTS, INCLUDING PREVIOUSLY DEVELOPED LOT
2. PROPOSED IMPROVEMENTS: 12,400 SF OFFICE-RETAIL BLDG ON-SITE PARKING, NEW GRADE ELEVATIONS, FLATWORK AND LANDSCAPING
3. CONTINUITY BETWEEN EXISTING AND PROPOSED ELEVATIONS
4. QUANTIFICATION AND ACCEPTANCE OF UPSTREAM OFF-SITE FLOWS WHICH CONTRIBUTE TO THE DEVELOPED FLOWS GENERATED BY THE IMPROVEMENTS.

THE PURPOSE OF THE PLAN IS TO ESTABLISH CRITERIA FOR CONTROLLING STORM RUNOFF FROM THE PROJECT AND ASSURE THAT THE PROPOSED IMPROVEMENTS WILL BE IN COMPLIANCE WITH THE CITY OF ALBUQUERQUE'S FLOOD HAZARD ORDINANCE, NO.88-46, AND THE ORDER FOR FLOOD DAMAGE REDUCTION. THE PLAN IS REQUIRED IN ORDER TO FACILITATE THE OWNER'S REQUEST FOR BUILDING PERMIT. THE PLAN SHOWS:

CALCULATIONS

DESIGN CRITERIA
HYDROLOGIC METHODS PER SECTION 22.2, HYDROLOGY OF THE DEVELOPMENT PROCESS MANUAL (DPM) REISED JANUARY 1993 FOR CITY OF ALBUQUERQUE, ADOPED BY THE COUNTY OF BERNILLO DISCHARGE RATE: 0.04 CFS/AC X AREA. Peak discharge rates for small watersheds DISCHARGE RATE: 0.04 CFS/AC. TYPICAL DISCHARGE RATE: 0.04 CFS/AC. DESIGN STORM: 100-YEAR/6-HOUR, 10-YEAR/6-HOUR [] = 10 YEAR VOLUMES
EXISTING CONDITIONS (PREVIOUSLY DEVELOPED)
TOTAL AREA = 1.2 ACRES, WHERE EXCESS PRECIP. 'C' = 0.99 in. [0.44"] PEAK DISCHARGE, Q100 = 3.5 CFS [1.9], WHERE UNIT PEAK DISCHARGE 'N' = 2.9 CFS/AC. [1.5] THEREFORE: VOLUME 100 = 4312 CF [1916]

DEVELOPED CONDITIONS

DETERMINE LAND TREATMENTS, PEAK DISCHARGE AND VOLUMETRIC DISCHARGE FOR STUDY AREA				
AREA	LAND TREATMENT	g Peak	E	
UNDEVELOPED	0.0XX AC.(XX%)	1.29[0.24]	0.49[0.08]	
LANDSCAPING / Harvest	0.20 AC.(17%)	2.03[0.24]	0.67[0.22]	
GRAVEL & COMPACTED SOIL	0.0 AC.(0%)	2.87[1.49]	0.99[0.44]	
ROOF - PAVEMENT	1.0 AC.(83%)	4.49[2.90]	1.97[1.24]	
	1.2 AC.			
THEREFORE: E _{Weighted}	= 1.75 in. [1.07"]			
Q100 = 4.81 CFS				
Q10 = 3.10 CFS				
		VOLUME 100 = 7623 CF		
		VOLUME 10 = 4660 CF		

RECOMMEND: ROUTE DEVELOPED RUNOFF THROUGH EXISTING/UPGRADED SOFT LANDSCAPING INCLUDING DEPRESSED LANDSCAPING STRIP ALONG PARKING AS SHOWN

(CENTRAL BASIN TO CURVERT=0.08 AC. OR ~3.5 CFS...SEE ABOVE)

PHILIP W. CLARK NMPE #10265

- NOTICE TO CONTRACTORS - "50-19 PERMIT"**
Private drainage facilities within city R.O.W.
1. ALL EXCAVATION/CONSTRUCTION SHALL BE REQUIRED BEFORE BEGINNING ANY WORK WITHIN CITY RIGHT-OF-WAY
 2. ALL WORK DETAILED ON THESE PLANS TO BE PERFORMED IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE, AND LOCAL LAWS, RULES AND REGULATIONS
 3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE CITY OF ALBUQUERQUE AND THE COUNTY OF BERNILLO
 4. PRIOR TO CONSTRUCTION THE CONTRACTOR SHALL EXCAVATE AND VERIFY THE HORIZONTAL AND VERTICAL LOCATIONS OF ALL EXISTING UTILITIES
 5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE CITY OF ALBUQUERQUE AND THE COUNTY OF BERNILLO
 6. MAINTENANCE OF THESE FACILITIES SHALL BE THE RESPONSIBILITY OF THE OWNER
 7. WORK ON ARTERIAL STREETS SHALL BE PERFORMED ON A 24-HR. BASIS
 8. CONSTRUCTION COORDINATION AT 924-3416 TO SCHEDULE AN INSPECTION

APPROVAL	NAME (STREET MAINTENANCE)	DATE

SIZE OUTLET: $Q = CA\sqrt{2gh}$ where: C = 0.7, g = 32 f/s²
 $Q = 2.8$ CFS
A = 0.625 SF, H=0.625'

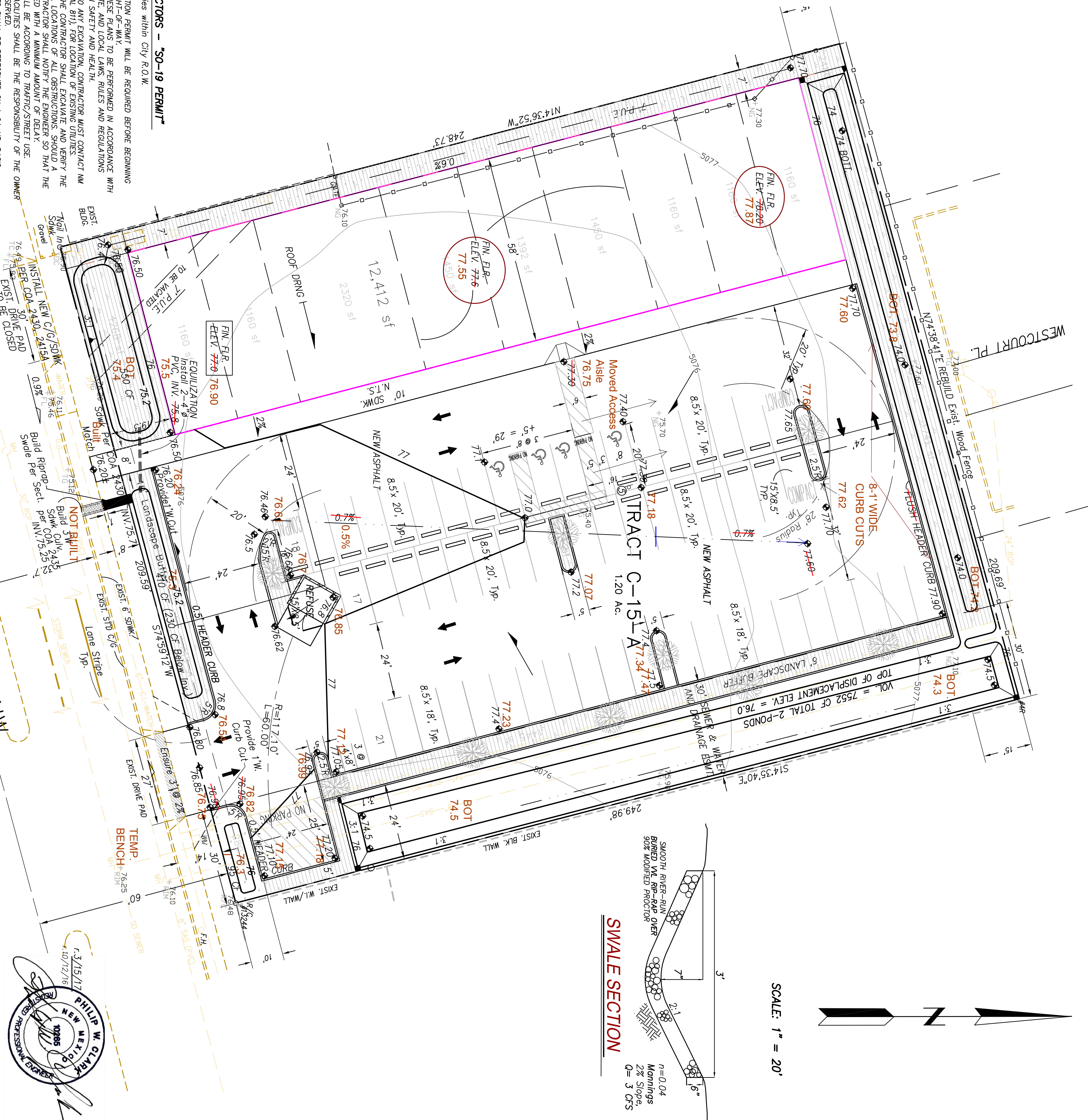
USE 2" WIDE CURVERT MIN.

CHECK EPA FIRST-FLUSH RETAINED
 $1.2 AC \times 43560 SF \times 0.37/12 = 1612 CF$
TOTAL RETAINED ON-SITE: 1675 CF, 4 AREAS

6205 CENTRAL AVE NW
(100' R.O.W.)
EXISTING Displaced Volume = (Area of 5076 Contour + 0) / 2 x depth =
= (25082 SF + 0) / 2 x 0.6' = 7525 CF
DISPLACEMENT VOL. = AREA OF 76 CONTOUR = 2150 SF] 2' DEPTH, N. POND
AREA OF 74 CONTOUR = 634 SF] 1.6' DEPTH, E. POND
AREA OF 76 CONTOUR = 2243 SF] 1.6' DEPTH, E. POND
THEREFORE TOTAL OF 2-PONDS VOL. = 7552 CF

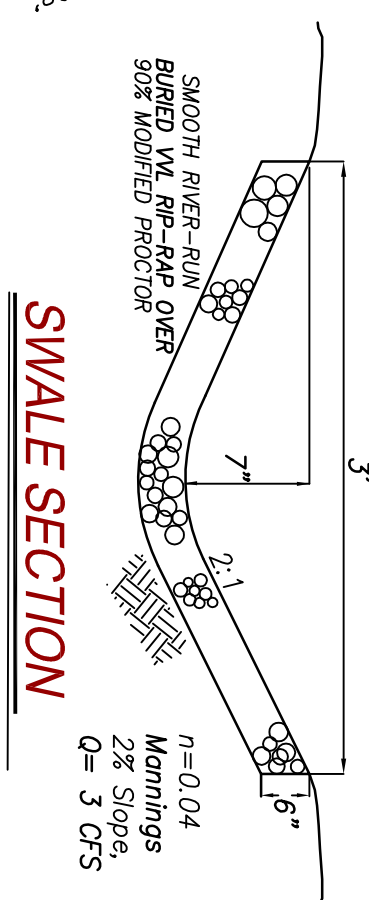
AS-BUILT
THEREFORE TOTAL OF 2-PONDS VOL. = 7552 CF

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 SIGNIFICANT EARTHWORK KIND, NOR MAJOR DISTURBANCE OF THE EXISTING GROUND HAS OCCURRED ON THIS SITE SINCE THE CONTOURS WERE DETERMINED.

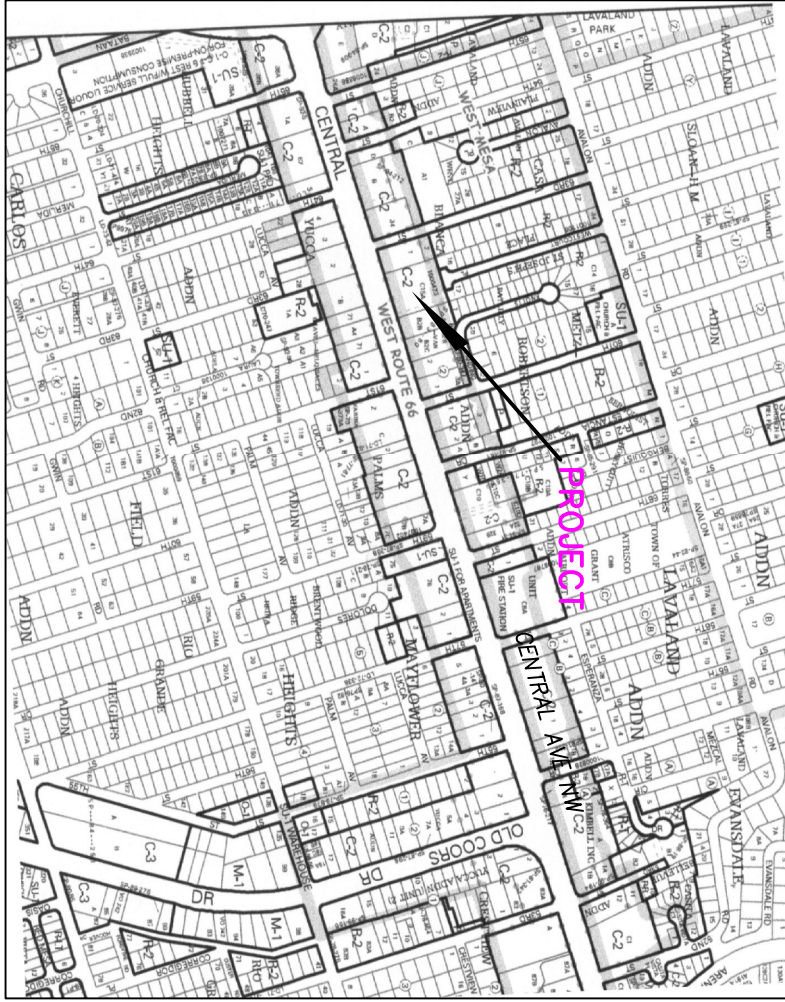


SCALE: 1" = 20'

SWALE SECTION



VICINITY MAP ZONE K-11



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, 1986 EDITION W/ 9 UPDATES.
2. AN EXCAVATION/CONSTRUCTION PERMIT IS REQUIRED BEFORE BEGINNING ANY WORK WITHIN CITY R.O.W. ANY 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.
5. CONTRACTOR SHALL ENSURE THAT NO SITE SOILS/SEDIMENT OR SILT ENTER THE RIGHT-OF-WAYS DURING CONSTRUCTION.
6. REVEGETATE ALL AREAS DISTURBED DUE TO CONSTRUCTION PER CITY OF ALBUQ. SPEC. 1012. NATIVE SEED MIX. REFER TO & SEE EROSION & SEDIMENT CONTROL PLAN.
7. MAXIMUM SITE GRADING WITHOUT EROSION PROTECTION: 3' HORIZONTAL TO 1' VERTICAL, 5:1. ALL DIMENSIONS TO FACE OF CURB, UNLESS NOTED OTHERWISE.

LEGEND

EXIST. SPOT ELEVATION	+24.0	AS-BUILT 74.5
EXIST. CONTOUR	10	
NEW SPOT ELEVATION	+24.0	
NEW CONTOUR	10	
NEW SWALE		
DRAINAGE DIRECTION, EXISTING		
NEW P.C.C., CONCRETE		
TOP OF CURB, EXISTING	TC	
FLOWLINE	FL	
EXISTING POWER POLE	P	
FACE OF CURB/FACE OF CURB	F-F	
HIGH POINT	HP	

PROJECT DATA

LEGAL DESCRIPTION
LOT C-15A, BLOCK 2, TOWN OF ATRISCO GRANT
ALBUQUERQUE, BERNILLO COUNTY, NEW MEXICO

PROJECT BENCHMARK
TOP OF REBAR/CAP #13244 AT THE SOUTHEAST CORNER NSL ELEVATION = 5076.48 AS TIED FROM COA 3-1/4" DIAMETER ALUM DISK, ACS 18 4TH NAD 88 WSL ELEV. 5076.47, LOCATED AT THE ENVE CURB RETURN OF 63TH ST. AND CENTRAL AVE.

TOPOGRAPHIC DESIGN SURVEY
PROVIDED BY ALPHA PRO SURVEYING, SUPPLEMENTED BY CLARK CONSULTING ENGINEERS UNDER DIRECTION OF GARY E. GRITSKO, N.M.P.S., DATED APRIL 2016

Clark Consulting Engineers
19 Ryan Road
Edgewood, New Mexico 87015
Cell: (505) 264-6042

DESIGNED BY: PMC	DRAWN BY: CCE	CJOB #: BURK-CONSUE	1 OF 1
CHECKED BY: PMC	DATE: 4/20/16	FILE #: C/O	
DATE: 10-12-16	ADDER: GARY GRITSKO	6205 CENTRAL AVE NW	
DATE: 3/15/17	ADDER: GARY GRITSKO	RETAIL SUITES	
		Grading & Drainage Plan	