

SUBJECT PROPERTY IS NOT ADJACENT TO A FLOOD HAZARD ZONE.

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

FIRM MAP PANEL # 342 G

GRADING & DRAINAGE PLAN

THE MANUFACTURED HOUSING RETAIL PROJECT IS LOCATED IN THE BROADWAY INDUSTRIAL CENTER OF ALBUQUERQUE APPROXIMATELY 2 MILES SOUTH OF THE DOWNTOWN CORE OF ALBUQUERQUE, NM. THE GRADING & 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:

A FORMER APPROVED AND GRADED SITE

- EXISTING CONTOURS, AND SPOT ELEVATIONS AND EXISTING DRAINAGE PATTERNS AND EXISTING IMPROVEMENTS, INCLUDING EXISTING RETAINING WALLS AND PAD SITE
- PROPOSED IMPROVEMENTS: 2400 SF TOTAL BUILDING STRUCTURE, NEW CONCRETE DRIVEPAD AND PARKING, NEW GRADE ELEVATIONS, FLATWORK AND LANDSCAPING.
- CONTINUITY BETWEEN EXISTING AND PROPOSED ELEVATIONS.
- 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 AND EROSION, AND ESSENTIALLY ALLOWING HISTORIC FLOWS TO CONTINUE TO DRAIN THROUGH THE PROPERTY. PRESENTLY, THE SITE IS BOUNDED ON THE EAST BY OFFICE/WAREHOUSE USE AND TO THE WEST VACANT LAND. SAN JOSE AVE & BETHEL AVE ON THE NORTH AND SOUTH ARE PAVED WITH CURB AND GUTTER, AND MAINTAINED BY THE CITY OF ALBUQUERQUE. THE SITE CURRENTLY DRAINS AT 1-2% FROM EAST TO WEST.

HISTORICAL SITE RUNOFF OUTFALL LOCATIONS WILL REMAIN UNCHANGED. SINCE BOTH STREETS ARE IMPROVED ONLY MINIMAL GRADING (DRIVEPAD RECONSTRUCTION) IS PROPOSED WITHIN THE CITY R.O.W. FREE DISCHARGE OF DEVELOPED FLOW IS ACCEPTABLE SINCE THE TOTAL INCREASE OF DEVELOPED FLOW IS MINIMAL, AND CAPACITY EXISTS DOWNSTREAM.

THE SITE IS NOT IMPACTED ADVERSELY BY ANY OFF-SITE DRAINAGE FLOWS.

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: $VOLUME = E_{WEIGHTED} \times AREA$
 $P100 = 2.35$ Inches, Zone 2 Time of Concentration, $TC = 10$ Minutes
DESIGN STORM: 100-YEAR/6-HOUR, 10-YEAR/6-HOUR [] = 10 YEAR VALUES

EXISTING CONDITIONS

TOTAL AREA = 0.65 ACRES, WHERE EXCESS PRECIP. 'W' = 1.13 In. [0.52]
PEAK DISCHARGE, $Q100 = 2.02$ CFS [1.1], WHERE UNIT PEAK DISCHARGE 'W' = 3.1CFS/AC. [1.7]
THEREFORE: $VOLUME 100 = 2666$ CF [1227]

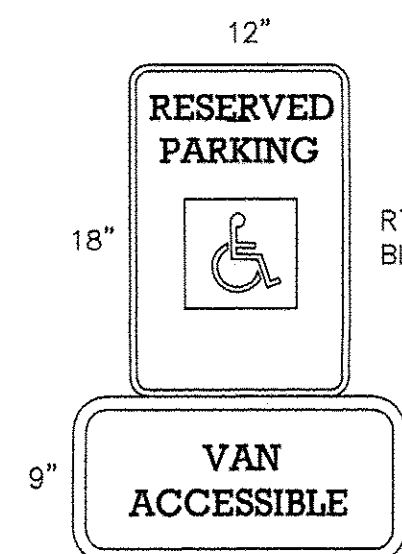
DEVELOPED CONDITIONS

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

	AREA	LAND TREATMENT	Q Peak	E
UNDEVELOPED	--- Ac.	A	1.56[0.38]	0.53[0.13]
LANDSCAPING	0.10 Ac.(16%)	B	2.28[0.95]	0.78[0.28]
GRAVEL & COMPACTED SOIL	0.38 Ac.(58%)	C	3.14[1.71]	1.13[0.52]
ROOF - PAVEMENT	0.17 Ac.(26%)	D	4.70[3.14]	2.12[1.34]
	0.65 Ac.			

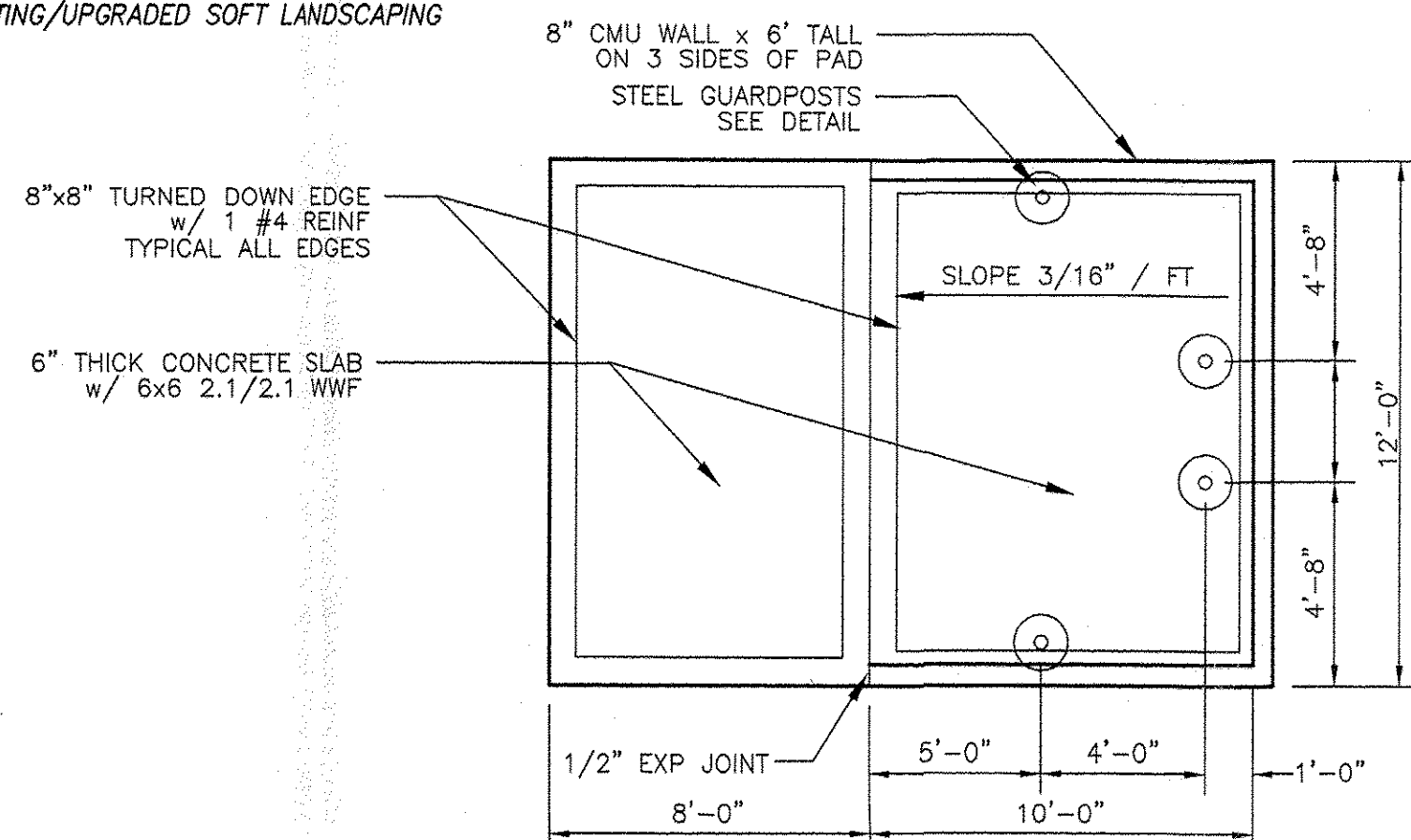
THEREFORE: $E_{WEIGHTED} = 1.33$ In.[0.70] &
 $Q100 = 2.22$ CFS VOLUME 100 = 3138 CF
 $Q10 = 1.28$ CFS VOLUME 10 = 1652 CF

RECOMMEND : ROUTE DEVELOPED RUNOFF THROUGH EXISTING/UPGRADED SOFT LANDSCAPING INCLUDING DEPRESSED LANDSCAPING



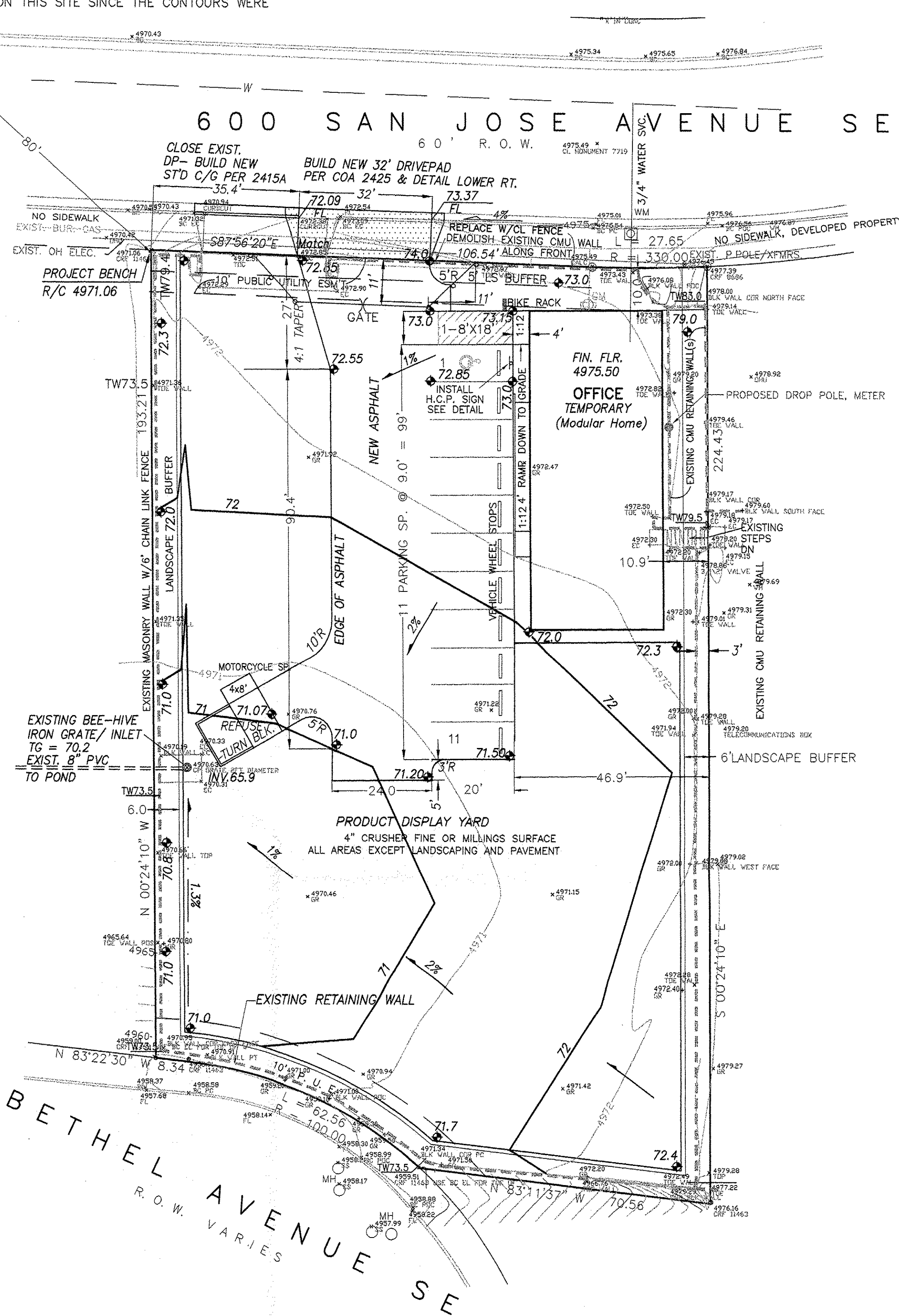
HANDICAP PARKING SIGNS

NTS

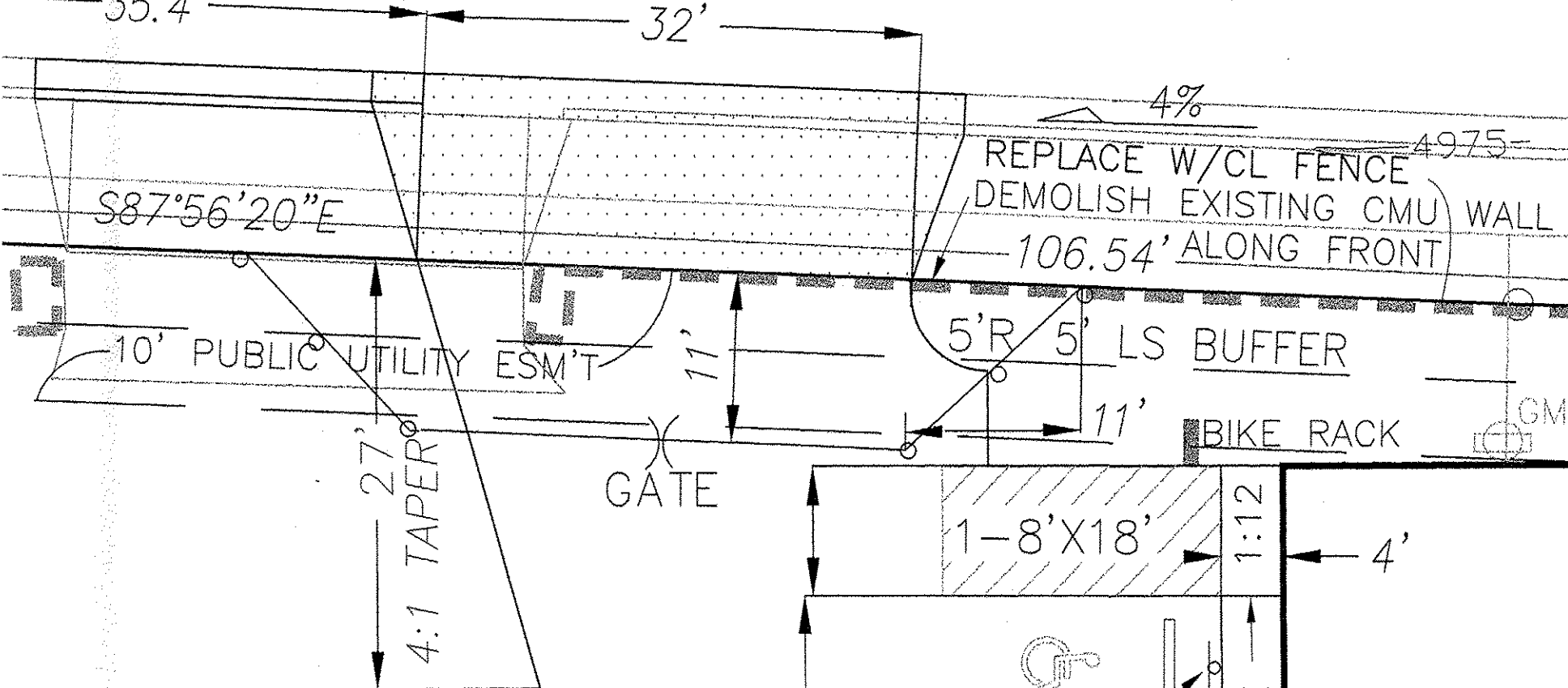


REFUSE ENCLOSURE PLAN

SCALE: NTS

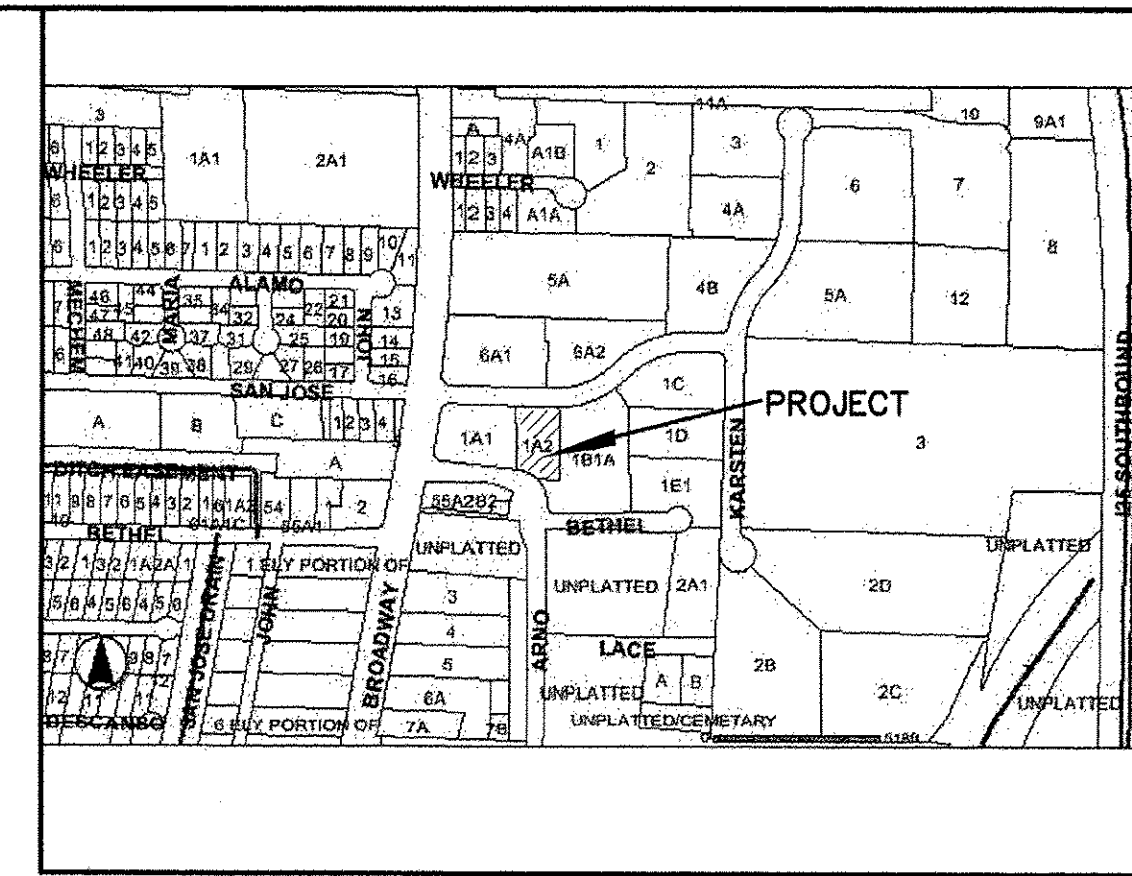


BUILD NEW C/G PER 2415A 35.4'
BUILD NEW 32' DRIVEPAD PER COA 2425 & DETAIL LOWER RT. 32'



ENTRANCE DETAIL

SCALE: 1" = 10'



VICINITY MAP ZONE M-14

NOTES

- ALL WORK WITHIN THE RIGHT-OF-WAY SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CITY OF ALBUQUERQUE STANDARD SPECS. FOR PUBLIC WORKS CONSTRUCTION, 1986, 8TH UPDATE.
- 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 NEW CURB CUT OR SDWK CULVERT
- 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.
- TRAFFIC ELEMENTS SHOWN SHALL BE CONSTRUCTED FROM THIS SHEET, AND REQUIRED FOR CERTIFICATE OF OCCUPANCY. A TEMPORARY C.O. IS NO LONGER PERMITTED.
- 12:1 MAXIMUM RAMP, AND INSTALL HANDRAIL PER ADAAG. INSTALL 18" X 4" TACTILE PATTERN RAISED TRUNCATED DOMES AT LANDINGS (2). PER ANSI-A117.1 2006 & ADAAG.

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 CURB, EXISTING	TC
FLOWLINE	FL
EXISTING POWER POLE	o
FACE OF CURB/FACE OF CURB	F-F

PROJECT DATA

LEGAL DESCRIPTION

LOT 1A-2, BROADWAY INDUSTRIAL CENTER, UNIT 2
ALBUQUERQUE, BERNALILLO COUNTY, NEW MEXICO

PROJECT BENCHMARK

TOP OF REBAR/CAP AT THE PROJECT NORTHWEST CORNER MSL
ELEVATION = 4971.06 AS DETERMINED BY GLOBAL POSITIONING AND STATE PLANE COORDINATES (TRIMBLE)

TOPOGRAPHIC DESIGN SURVEY

PROVIDED BY THE SURVEY OFFICE UNDER THE DIRECTION OF ANTHONY HARRIS, N.M.P.S., DATED SEPTEMBER 2012

PARKING CALCULATIONS

2400/200 = 12 SPACES
10% BUS RTE DEDUCT ~ 1 SP.
TOTAL REQUIRED = 11 SPACES, INCLUDING 1 HC, + 2 BICYCLE SPACES

Clark Consulting Engineers	
19 Ryan Road Edgewood, New Mexico 87015	
Tel: (505) 281-2444 Fax: (505) 281-2444	
DATE	REVISION
LOT 1A-2, BROADWAY INDUSTRIAL CENTER, U2 ALBUQUERQUE, BERNALILLO COUNTY, NEW MEXICO	
600 SAN JOSE AVE, SE PREMIER MANUFACTURED HOMES Grading & Drainage Plan w/ Traffic Circulation L/O	
DESIGNED BY: PWC	DRAWN BY: CCE
CHECKED BY: PWC	DATE: 9/14/12
JOB #: OMLOR	FILE #: G/D
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