

PANEL #35001C0341 D

HYDROLOGY SECTION

1000 8 0 VON

SCALE: 1' = 500'

GRADING AND DRAINAGE PLAN

THE CHURCH FACILITY PROJECT IS LOCATED IN THE SOUTHWEST VALLEY AREA OF BERNALILLO COUNTY, 2 MILES SOUTH OF THE DOWNTOWN CORE OF ALBUQUERQUE. THE GRADING & DRAINAGE SCHEME HEREON IS IN COMPLIANCE WITH THE BERNALILLO COUNTY FLOOD HAZARD ORDINANCE, NO. 88-46, AND STORM DRAINAGE ORDINANCE NO. 96-5. THE PLAN IS REQUIRED IN ORDER TO FACILITATE THE OWNER'S REQUEST FOR BUILDING PERMIT. THE PLAN SHOWS:

- 1. EXISTNG CONTOURS, SPOT ELEVATIONS AND EXISTING DRAINAGE PATTERNS AND IMPROVEMENTS (Existing Residence, and Assembly Hall, And Fencing)
- 2. PROPOSED IMPROVEMENTS: NEW 5000 SF ASPHALT PARKING LOT AND TURNOUT, NEW GRADE ELEVATIONS, AND RETENTION PONDING.
- 3. CONTINUITY BETWEEN EXISTING AND PROPOSED ELEVATIONS. 4. QUANTIFICATION AND ACCEPTANCE OF UPSTREAM OFF-SITE FLOWS WHICH CONTRIBUTE TO THE DEVELOPED FLOWS GEN-ERATED BY THE IMPROVEMENTS.

THE PURPOSE OF THE PLAN IS TO ESTABLISH CRITERIA FOR CON-TROLLING STORM RUNOFF AND EROSION, AND ESSENTIALLY ALLOWING HISTORIC FLOWS TO CONTINUE TO DRAIN THROUGH THE PROPERTY. PRESENTLY, THE SITE IS BOUNDED ON THE NORTH AND EAST BY THE PAVED COUNTY ROADWAY, MONTROSE PLACE, DEVELOPED RESIDENTIAL

> Existing CMU -Blk. Wall, Typ.

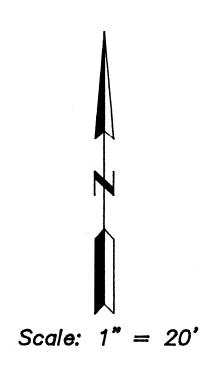
PROPERTY IS ADJACENT ON THE WEST. ISLETA BOULEVARD IS A TWO-LANE PAVED ROADWAY ON THE SOUTH WITHIN A 60 FEET WIDE RIGHT-OF-WAY.

> - SEE WALL SECTION ARCHITECTURAL

THE SITE IS GENERALLY FLAT TYPICAL OF VALLEY AREAS. OFF SITE IRRIGATION FLOWS ENTER THE SITE ON THE SOUTHERN PORTION OF THE SITE, AND ARE QUANTIFIED ON THE PLAN .

THE SITE IS ENCUMBERED BY A DESIGNATED, ZONE X, FEMA FLOODPLAIN. (Subject to Less Than 1 Foot Flood Depth)

HISTORICAL SITE RUNOFF OUTFALL LOCATIONS WILL REMAIN UNCHANGED. RETENTION OF STORM RUN-OFF, DEVELOPED FLOWS IS REQUIRED SINCE DOWNSTREAM CAPACITY IS LIMITED TO HISTORIC FLOWS.



LEGEND

EXIST. SPOT ELEVATION	+24.0
EXIST. CONTOUR	10
NEW SPOT ELEVATION	♦ 09.0
NEW CONTOUR	80
EXIST. EDGE OF ROAD	===:
NEW SWALE	
WATER BLOCK	\sim
DRAINAGE DIRECTION	
FLOWLINE	FL
EDGE OF GRAVEL	EG
EXISTING POWER POLE	O PP
EXISTING EDGE OF ASPHALT	EA
FIRE HYDRANT	-φ
TELEPHONE BOX	\Diamond
WATER METER	OWM

NOTES

- 1. CONSTRUCT ALL IMPROVEMENTS WITHIN THE COUNTY RIGHT-OF-WAY IN ACCORDANCE WITH THE "NMSH&T DEPT. STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION".
- 2. REVEGETATE ALL AREAS DISTURBED DUE TO CONSTRUCTION, INCLUDING BOTTOM OF POND PER THE FOLLOWING, OR APPROVED EQUAL: 35% SIDEOATS GRAMA 12% GALLETA

VICINITY MAP

MAP M-13

- 26% BLUE GRAMA 6% SAND DROPSEED 18% INDIAN RICE GRASS 3% PURPLE THREE AWN
- 3. MAXIMUM SITE GRADING WITHOUT EROSION PROTECTION: 3 HORIZONTAL TO 1 VERTICAL, 3:1.
- 4. CONTACT HOSS FOSTER @ 2400 SOUTH BROADWAY FOR
- REQUIRED ACCESS PERMIT. (COUNTY PUBLIC WORKS DIVISION) 5. ASPHALT PARKING SECTION SHALL CONSIST OF 2" DEPTH ASPHALT, TYPE B,

OVER 4" COMPACTED AGGREGATE BASE COURSE. (ASTM 1557)

PROJECT DATA

LEGAL DESCRIPTION

TRACT 1, LITTLE GARDENS ADDITION BERNALILLO COUNTY, NEW MEXICO.

PROJECT BENCHMARK

FINISH FLOOR ELEV. OF EXISTING ASSEMBLY HALL TOP OF CONCRETE = 4940.5, As Tied From ACS Monument & WSW Corner of Arenal and Isleta. 9-M12, (Elev. 4940.91)

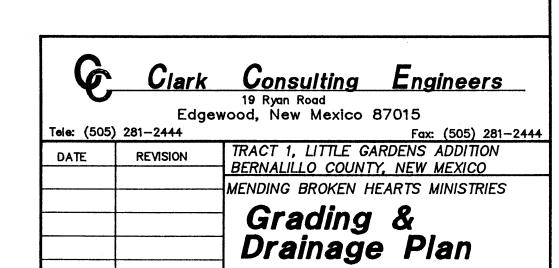
DESIGNED BY: PWC | DRAWN BY; CCE | JOB #: NORRIS

CHECKED BY: PWC DATE: 10/21/00 FILE # G/D

TOPOGRAPHIC SURVEY

COMPILED FROM SURVEY PERFORMED BY CLARK CONSULTING ENGINEERS DATED, OCTOBER 2000.





OF 1



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 = 2.2 Inches, Zone 1 Time of Concentration, TC = 10 Minutes DESIGN STORM: 100-YEAR/6-HOUR, 10-YEAR/6-HOUR Where [] = 10 YEAR VALUES

LOT AREA = 0.50 ACRES, WHERE EXCESS PRECIP. 'Composite' =1.0 in. [0.48] PEAK DISCHARGE, Q100 = 1.32 CFS [0.7], WHERE UNIT PEAK DISCHARGE 'Weighted'= 2.65 CFS/AC. [1.2] THEREFORE: VOLUME 100 = 1815 CF [871]

DEVELOPED CONDITIONS

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

	AREA	LAND TREATM'T	Q Peak	£
UNDEVELOPED / POND	0.05 Ac.(10%)	A	1.29[0.24]	0.40[0.00
LANDSCAPING	0.10 Ac.(20%)	B	2.03[0.76]	0.67[0.2
GRAVEL & COMPACTED SOIL	0.12 Ac.(24%)	C	2.87[1.49]	0.99[0.4
ROOF - PAVEMENT	0.23 Ac.(46%)	D	4.40[2.90]	1.97[1.24

E_{Weighted} = 1.33 In.[0.73] & Q100 = 1.62 CFSQ10 = 0.9 CFS

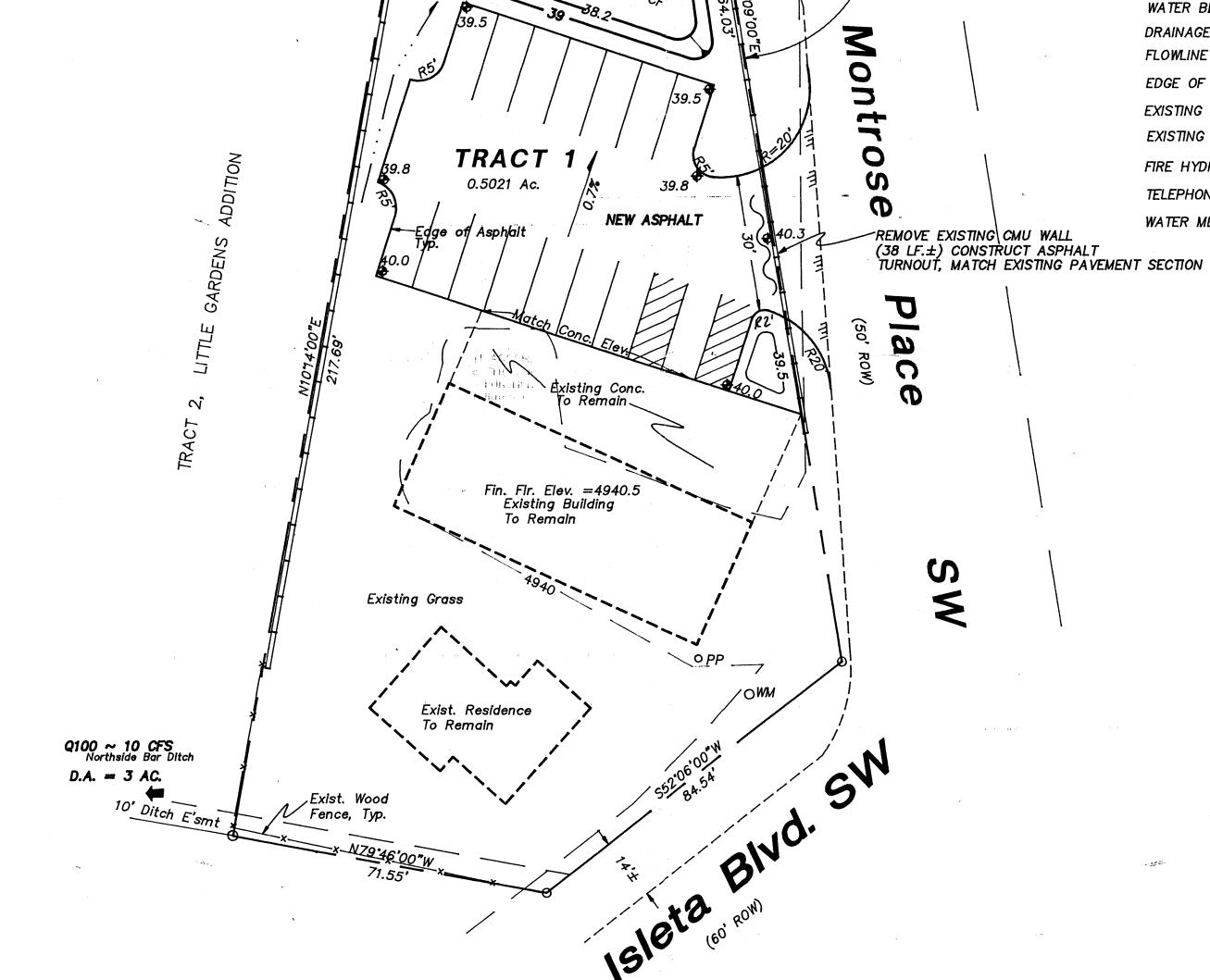
VOLUME 100 = 2414 CF VOLUME 10 = 1325 CF

DETERMINE POND SIZE

STORAGE VOLUME (Required) = Volume Generated By New Improvements 10-Day

=5000 SF X 1.97 In. /12 + 1.47 In.(5000)/12 = 1433 CF NOTE: NO COMPENSATORY DISPLACEMENT OF VOLUME IS REQUIRED SINCE THE

PROPOSED PARKING LOT WILL BE CONSTRUCTED AT OR BELOW GRADE.



_ L Exist Edge of Asp.____

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