

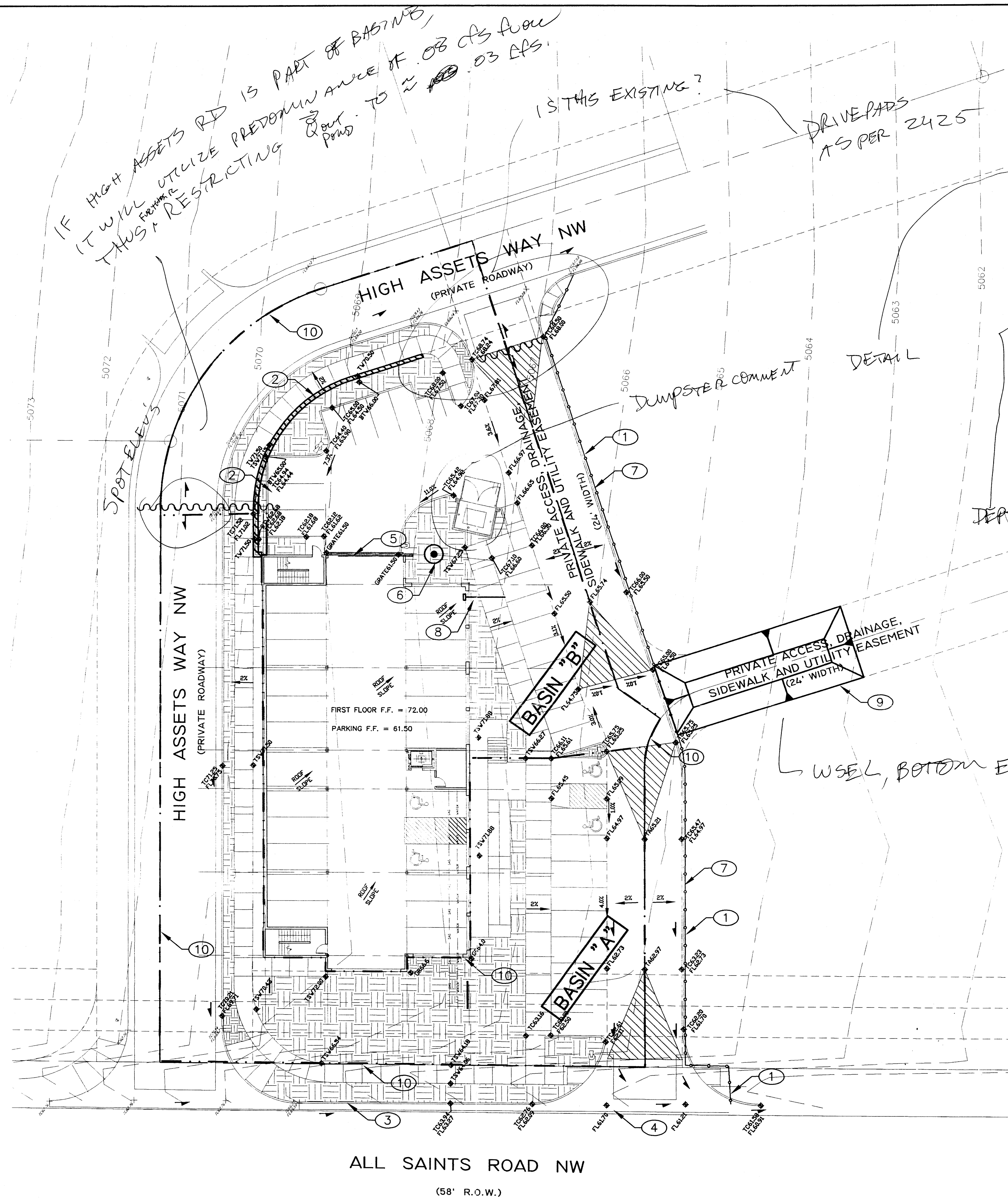
SILT FENCE DETAIL

SCALE: 3/8" = 1'-0"

SHOW BASIN BOUNDARY
LINE TYPE IN LEGEND

WHERE IS THE R?

BENCHMARK USED?



CONSTRUCTION NOTES:

- 1 PROVIDE SILT FENCE PER DETAIL SHOWN ON THIS SHEET ALONG PERIMETER OF ENTIRE CONSTRUCTION SITE. CONTRACTOR SHALL MAINTAIN SILT FENCE THROUGHOUT CONSTRUCTION UNTIL SUCH TIME THAT FINAL INSPECTION PERFORMED BY CITY OF ALBUQUERQUE OR PERMANENT STABILIZATION HAS BEEN ESTABLISHED.
- 2 CONSTRUCT RETAINING WALL PER GRADES SHOWN.
- 3 CONSTRUCT STANDARD CURB AND GUTTER PER CITY STD DWG. 2415A.
- 4 CONSTRUCT 6' WIDE VALLEY GUTTER PER CITY STD. DWG. #2420
- 5 CONSTRUCT TRENCH GRATE → DETAIL
- 6 CONSTRUCT SUMP PUMP IN 6 FOOT ROUND MANHOLE, FLOWS TO BE PUMPED TO STREET LEVEL.
- 7 CONSTRUCT TEMPORARY ASPHALT CURB FOR EROSION PROTECTION.
- 8 ROOF LEADER WITH CANALE CONNECTED INTO SIDEWALK CURB.
- 9 CONSTRUCT DETENTION POND FOR POND VOLUME OF 3,315CF.
- 10 DRAINAGE BASIN BOUNDARY.

DEPTH / ELEV. 3" HOW DISCHARGE PIPE SIZE & LOC.
HOW WILL IT BE LIMITED TO .08 CFS?
PROVIDE PUMP DETAIL / HEAD CURVE

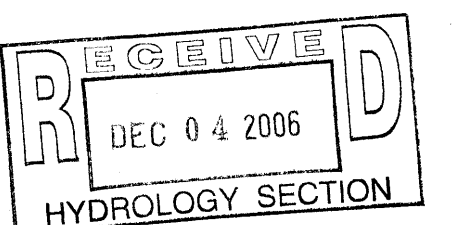
369pm

LEGEND			
— 53.60 —	NEW CONTOUR GRADE	~~~~~	NEW GRADE BREAK
— 5062 —	EXISTING CONTOUR GRADE	~~~~~	EXISTING GRADE ELEVATION
→	DRAINAGE FLOW DIRECTION	GR56.0	NEW GRADE ELEVATION
TC62.50	NEW TOP OF CURB ELEVATION	FL55.3	FLOWLINE GRADE ELEVATION
FL62.00	NEW FLOWLINE OF CURB ELEVATION	TW62.50	NEW TOP OF WALL ELEVATION
TA60.11	NEW TOP OF ASPHALT ELEVATION	FF=56.30	NEW FINISH FLOOR ELEVATION
TSW61.87	NEW TOP OF SIDEWALK ELEVATION		
▲	DRAINAGE SWALE		

UTILITY PRECAUTIONS

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* Contours for All Saints?



GRADING AND DRAINAGE PLAN

SCALE: 1" = 10'

	DRAINAGE AND GRADING PLAN FOR LOT 2-A-1-B-2-B-2 ALBUQUERQUE WEST, UNIT 2	DATE/REVISIONS:
	Applied Engineering & Surveying, Inc. 1605 BLAIR DRIVE NE ALBUQUERQUE, NEW MEXICO 87112 PH: (505)237-1456	SHEET NUMBER: 1

DRAINAGE PLAN

THE FOLLOWING ITEMS CONCERNING A Mixed Use Condo/Commercial Property LOCATED IN LOT 2-A-1-B-2-B-2, ALBUQUERQUE WEST, UNIT 2, ALBUQUERQUE, NEW MEXICO. GRADING AND DRAINAGE PLAN ARE CONTAINED HEREON:

- 1. DRAINAGE CALCULATIONS
- 2. VICINITY MAP (C-13)
- 3. FLOOD INSURANCE RATE MAP 35001C0116D

EXISTING CONDITIONS

AS SHOWN BY THE VICINITY MAP, THE SITE IS LOCATED EAST OF EAGLE RANCH ROAD NW AND NORTH OF ALL SAINTS DRIVE NW, SEE ATTACHED VICINITY MAP (C-13). THE PARCEL'S LEGAL DESCRIPTION IS LOT 2-A-1-B-2-B-2, ALBUQUERQUE WEST, UNIT 2 IN THE CITY OF ALBUQUERQUE. THE PROPERTY IS BOUNDED ON THE SOUTH BY ALL SAINTS DRIVE NW, ON THE WEST AND NORTH BY HIGH ASSETS WAY NW AND ON THE EAST BY A NEW PRIVATE ROADWAY EASEMENT. THIS SITE CONTAINS APPROXIMATELY 0.80ACRES. THIS TRACT OF LAND IS CURRENTLY UNDEVELOPED WITH NATIVE VEGETATION.

THIS SITE SLOPES FROM AN EAST TO WEST DIRECTION AT APPROXIMATELY A 4 PERCENT GRADE. THIS SITE LIES WITHIN THE ALBUQUERQUE WEST UNIT 2 MASTER PLAN PREPARED BY ISAACSON & ARFMAN. THIS MASTER PLAN REQUIRES A LIMITED RELEASE RATE FOR EACH OF THE LOTS AS THEY DEVELOP. THE FLOW FROM THIS SITE WILL DRAIN TO AN EXISTING MASTER PLANNED POND LOCATED AT THE EAST END OF ALL SAINTS DRIVE NW.

THE SITE IS CURRENTLY NOT IN A DESIGNATED 100-YEAR FLOODPLAIN PER FIRM MAP 35001C0116D

PROPOSED CONDITIONS

AS SHOWN BY THE PLAN, THE PROJECT CONSISTS OF A COND/COMMERCIAL DEVELOPMENT WITH 3 STORIES AND A PARKING GARAGE BELOW GRADE. THE PLAN WILL ALSO CONSIST OF PAVED PARKING SPACES, SIDEWALKS AND LANDSCAPING AND IS TO BE PROVIDED PER CITY ZONING REQUIREMENTS.

THE PLAN SHOWS PROPOSED ELEVATIONS REQUIRED TO PROPERLY DRAIN THE SITE PER THE DRAINAGE REQUIREMENTS OF THIS DEVELOPMENT. THIS SITE IS REQUIRED TO BE RESTRICTED TO A RELEASE RATE OF 1.59CFS/AC. SINCE THIS SITE CONTAINS APPROXIMATELY 0.80 ACRES, THIS SITE IS RESTRICTED TO A TOTAL RELEASE RATE OF 1.27CFS FOR THIS SITE. THE PLAN FOR DRAINAGE OF THIS SITE IS TO DEVELOP TWO DRAINAGE BASINS WITHIN THIS SITE DESIGNATED AS DRAINAGE BASIN "A" AND BASIN "B". IT IS PROPOSED TO ALLOW DRAINAGE BASIN "A" TO FREE DISCHARGE TO ALL SAINTS ROAD WITH A RELEASE RATE OF 1.19CFS. IT IS PROPOSED TO RESTRICT BASIN "B" TO A NET RELEASE RATE OF 0.08 CFS AND CONSTRUCT A DETENTION POND WITHIN THE ROAD EASEMENT TO THE EAST. SINCE THE OWNER OF THIS SITE OWNS THE PROPERTY TO THE EAST, THE OWNER WILL REMOVE THIS TEMPORARY DETENTION POND IN THE FUTURE WHEN HE DEVELOPS THE TRACT TO THE EAST AND WILL CONSTRUCT A PERMANENT DETENTION POND AT THE EAST END OF THE EASTERN TRACT OF LAND IN THE FUTURE TO CONTAIN THE FLOWS FROM BOTH DEVELOPMENTS.

A TRENCH GRATE WILL BE REQUIRED AT THE ENTRY OF THE DRIVEWAY INTO THE PARKING GARAGE. A SUMP PUMP WILL BE REQUIRED TO CONVEY THESE FLOWS FROM THE TRENCH DRAIN UP TO STREET LEVEL AND DISCHARGE INTO DRAINAGE BASIN "B".

THE ROOF DRAINAGE WILL BE DRAINED THROUGH ROOF CANALES AND DOWNSPOUTS AND WILL BE REQUIRED TO DRAIN INTO BASIN "B" AS PART OF THIS DEVELOPMENT.

THE CALCULATIONS WHICH APPEAR HEREON, ANALYZE BOTH THE EXISTING AND DEVELOPED CONDITIONS FOR THE 100-YEAR, 6 HOUR RAINFALL RUNOFF FOR PEAK FLOWS AND STORM DURATION FOR VOLUME REQUIREMENTS. THE PROCEDURE FOR 40 ACRE AND SMALLER BASINS AS SET FORTH IN THE REVISION OF SECTION 22.7 HYDROLOGY OF THE DEVELOPMENT PROCESS MANUAL, VOLUME 2, DESIGN CRITERIA, DATED JANUARY 1993. THIS D.P.M. PROCEDURE IS USED FOR ANALYZING ONSITE FLOWS.

DOWNSTREAM CAPACITY

A REVIEW OF THE MASTER DRAINAGE PLAN FOR THIS SITE INDICATES A LIMITED RELEASE RATE IS REQUIRED IN ORDER TO MEET THE DOWNSTREAM CAPACITY REQUIREMENTS. AS PREVIOUSLY MENTIONED DETENTION PONDING WILL BE REQUIRED WITH THIS DEVELOPMENT AND THE DEVELOPMENT TO THE EAST IN ORDER TO MEET THE REQUIRED RELEASE RATES.

OFFSITE FLOWS

HIGH ASSETS ROAD NW CONVEYS OFFSITE FLOWS AROUND THIS SITE. NO OFFSITE FLOWS IMPACT THIS SITE.

EROSION CONTROL

THE CONTRACTOR WILL BE REQUIRED TO PROVIDE SILT FENCES AROUND THE PROPOSED CONSTRUCTION AREAS TO MINIMIZE SEDIMENT INTO THE PUBLIC ROADWAYS OR ALLEYS. CONTRACT WILL BE REQUIRED TO PROTECT THE EXISTING INLET WITH SEDIMENT CONTROL MEASURES IN ORDER TO MINIMIZE SEDIMENT FROM ENTERING THIS INLET.

DRAINAGE CALCULATIONS

1. PRECIPITATION ZONE = 1

2. DESIGN STORM = DEPTH (INCHES) AT 100-YEAR STORM
6-HOUR = 2.20 INCHES
24-HOUR = 2.66 INCHES
10 DAY = 3.67 INCHES

3. PEAK DISCHARGE (CFS/ACRE) FOR 100-YEAR, ZONE 2, TABLE A-9:
Q = 1.29 CFS/ACRE SOIL UNCOMPACTED "A"
Q = 2.03 CFS/ACRE LANDSCAPED "B"
Q = 2.87 CFS/AC COMPACTED SOIL "C"
Q = 4.37 CFS/ACRE IMPERVIOUS AREA "D"
FOR WATERSHEDS LESS THAN OR EQUAL TO 40 ACRES

4. EXCESS PRECIPITATION, E (INCHES), 6 HOUR STORM, ZONE 2, TABLE A-8:
E = 0.44 INCHES SOIL UNCOMPACTED "A"
E = 0.67 INCHES LANDSCAPED "B"
E = 0.99 INCHES COMPACTED SOIL "C"
E = 1.97 INCHES IMPERVIOUS AREA "D"

5. EXISTING CONDITIONS ONSITE:
EXISTING TOTAL AREA OF SITE = 0.80ACRES
TREATMENT "A" AREA = 0.80ACRES

TREATMENT	AREA (ACRES)
A	0.80
B	0
C	0
D	0

Q (EXISTING-6HR) = (1.29 X 0.80)
= 1.03CFS (6HR) EXISTING ONSITE FLOW
V (EXISTING-6HR) = (0.44 X 0.80) / 12
= 0.03AC-FT = 1,278CF EXISTING ONSITE VOLUME

6. PROPOSED CONDITIONS ONSITE:
DRAINAGE BASIN "A"
PROPOSED AREA OF BASIN "A" = 0.31ACRES
SIDEWALK AREA = 1,349 + 1,155SF = 2,504SF = 0.06AC
ASPHALT AREA = 4,950 + 2,935SF = 7,885SF = 0.18AC
TYPE (TREATMENT "D") AREA = 0.06 + 0.18AC = 0.24AC
LANDSCAPE AREA = 3,081SF = 0.07AC
TYPE (TREATMENT "B") AREA = 0.07AC

TREATMENT	AREA (ACRES)
A	0
B	0.07
C	0
D	0.24

Q (PROPOSED) = (2.03 X 0.07) + (4.37 X 0.24)
= 1.19CFS (6HR) PROPOSED ONSITE FLOW FOR DRAINAGE BASIN "A" WHICH WILL FLOW INTO ALL SAINTS ROAD AND INTO EXISTING MASTER PLAN DETENTION POND.

V (EXISTING-6HR) = (0.67 X 0.07) + (1.97 X 0.24) / 12
= 0.04AC-FT = 1,887CF PROPOSED ONSITE VOLUME FOR DRAINAGE BASIN "A" WHICH WILL FLOW INTO ALL SAINTS ROAD AND INTO EXISTING MASTER PLAN DETENTION POND.

7. PROPOSED CONDITIONS ONSITE:
DRAINAGE BASIN "B"
PROPOSED AREA OF BASIN "A" = 0.49ACRES
SIDEWALK AREA = 1,742SF = 0.04AC
ASPHALT AND CONCRETE AREAS = 9,148SF = 0.21AC
BUILDING ROOF AREA = 8,712SF = 0.20
TYPE (TREATMENT "D") AREA = 0.04 + 0.20 + 0.21AC = 0.45AC
LANDSCAPE AREA = 1,742SF = 0.04AC
TYPE (TREATMENT "B") AREA = 0.04AC

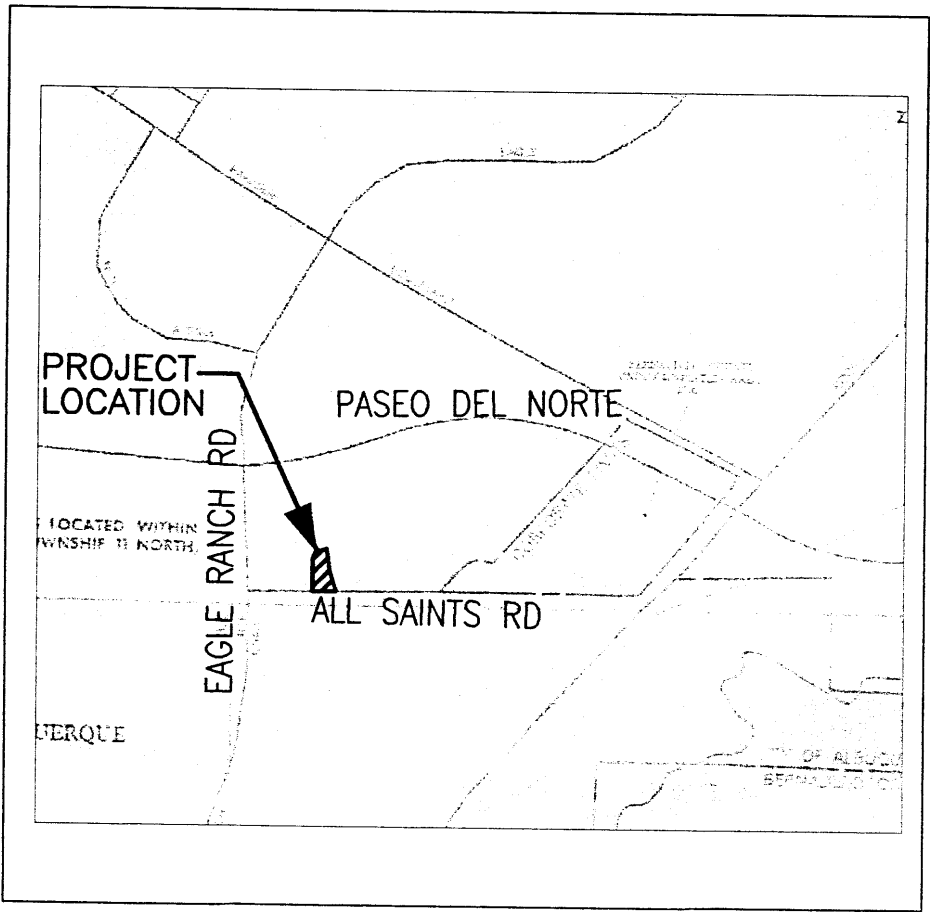
TREATMENT	AREA (ACRES)
A	0
B	0.04
C	0
D	0.45

Q (PROPOSED) = (2.03 X 0.04) + (4.37 X 0.45)
= 2.04CFS (6HR) PROPOSED ONSITE FLOW FOR DRAINAGE BASIN "B" INTO TEMPORARY DETENTION POND PROPOSED WITHIN DRAINAGE AND ROADWAY EASEMENT.
Q (ALLOWED RELEASE RATE) = 1.27 - 1.19CFS = 0.08CFS

V (EXISTING-6HR) = ((0.67 X 0.04) + (1.97 X 0.45)) / 12
= 0.08AC-FT = 3,315CF PROPOSED ONSITE VOLUME FOR DRAINAGE BASIN "B" INTO TEMPORARY DETENTION POND PROPOSED WITHIN DRAINAGE AND ROADWAY EASEMENT.

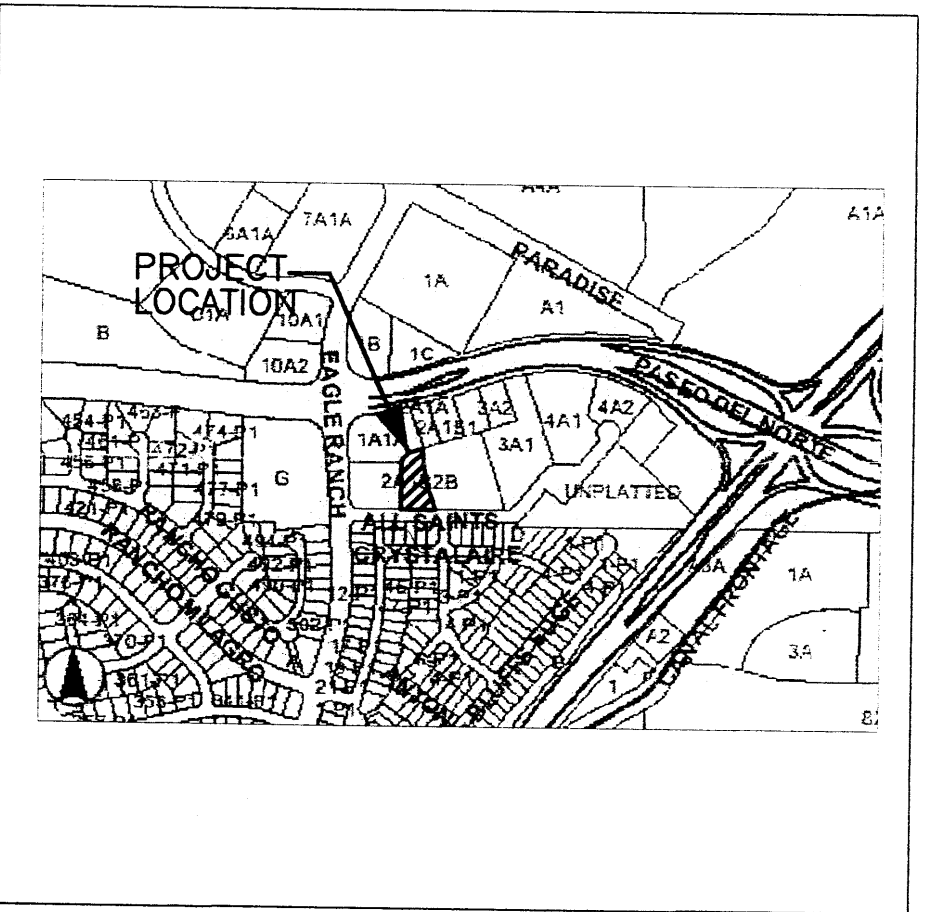
8. SIZE TEMPORARY DETENTION POND FOR DRAINAGE BASIN "B":
USE TOP WIDTH = 24 FEET (EASEMENT WIDTH)
2:1 SIDESLOPES PROPOSED SINCE TEMPORARY POND
USE 4 FOOT DEPTH OF POND
BOTTOM WIDTH = 8 FEET
VOLUME REQUIRED = 3,315CF
AVERAGE LENGTH OF POND = 52 FEET
TOP LENGTH OF POND = 52' + 8' = 60'
BOTTOM LENGTH OF POND = 52' - 8' = 44'
VOLUME PROVIDED = ((24' + 8') / 2 X (60' + 44') / 2) X 4' = 3,328CF
VOLUME PROVIDED = 3,328CF > 3,315CF VOLUME REQUIRED **OK**

THIS POND IS ALL OF THE VOLUME GEN. BY BASIN B @ 2.04 CFS. DOES NOT INCLUDE V. DISCHARGED @ .08 CFS (202 FT³)



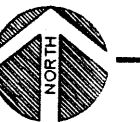
FIRM MAP 35001C0116D

SCALE: N.T.S.



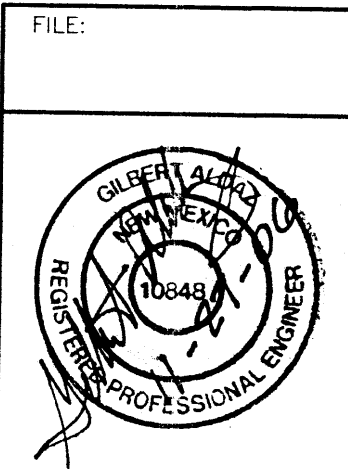
VICINITY MAP C-13

SCALE: N.T.S.



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DRAINAGE AND GRADING PLAN FOR LOT 2-A-1-B-2-B-2 ALBUQUERQUE WEST, UNIT 2

Applied Engineering & Surveying, Inc.
1605 BLAIR DRIVE NE
ALBUQUERQUE, NEW MEXICO 87112
PH: (505)237-1456

DATE/REVISIONS:

SHEET NUMBER: