

VEHICLE PARKING CALCS
1 space per 4 persons
Seating Capacity = 228 persons
250 divided by 4 = 57 spaces

BICYCLE PARKING CALCS
1 bike rack per 20 vehicle spaces
57 spaces divided by 20 = 2.85 bike spaces

CHURCH CAPACITY: 250

PARKING SPACES	REQUIRED	PLANNED
HANDICAPPED SPACES	4	4
BICYCLES	4	4

TOTAL TRACT AREA: 32,256 SQUARE FEET
PARKING-DRIVEWAY AREA: 18,400 SQUARE FEET
LANDSCAPE AREA: REQUIRED - 3,680 SQUARE FEET
ACTUAL - 8,040 SQUARE FEET

NOTE: PARKING SPACE 15 CONVERTED TO TRASH CONTAINER SPACE.

LEGAL: PORTION OF TRACT 281, WITHIN THE ATRISCO GRANT, ALBUQUERQUE, BERNALILLO COUNTY, NEW MEXICO.
DRB CASE NO. DRB-87-0425
EPC CASE NO. Z-86-80-1

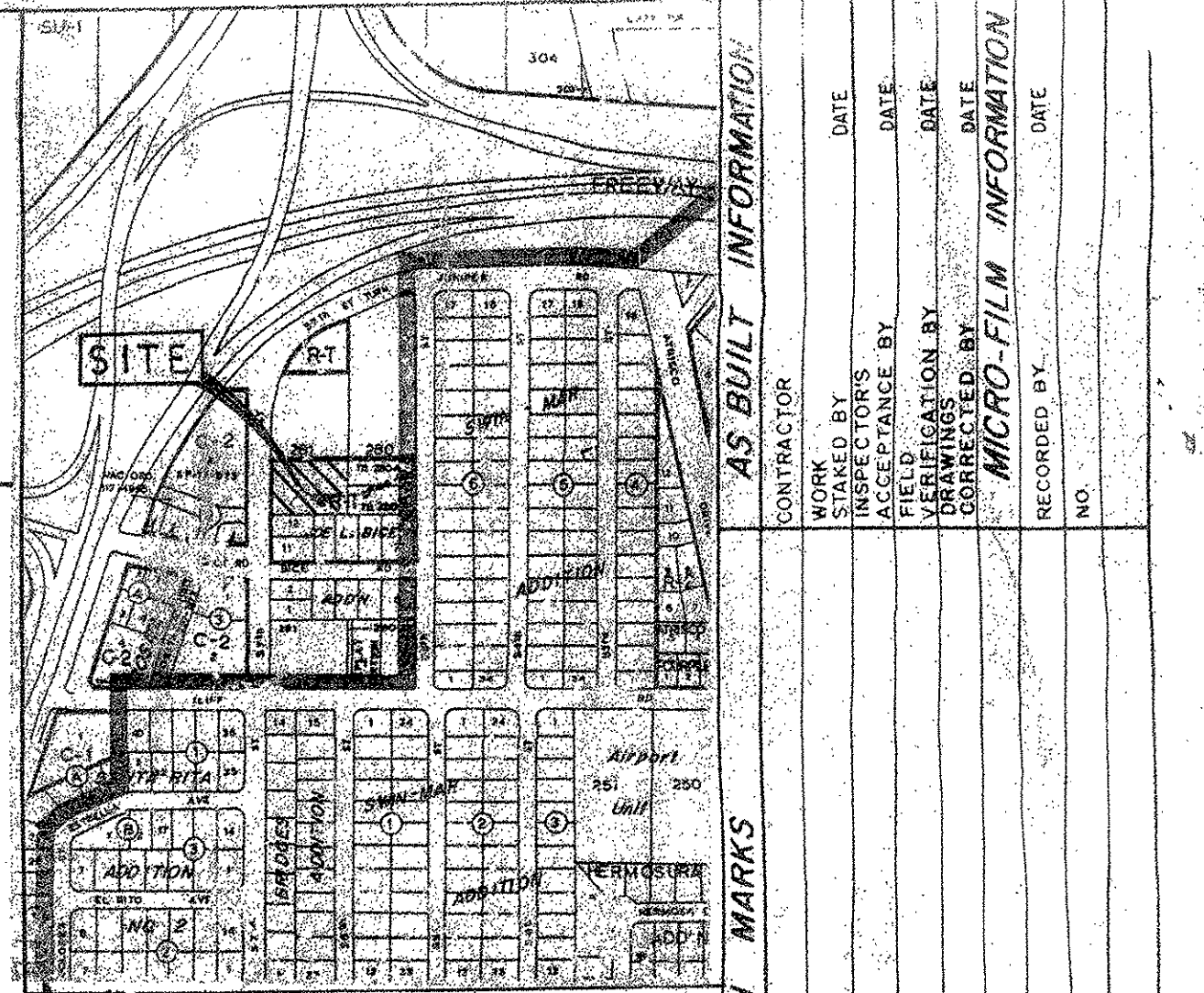
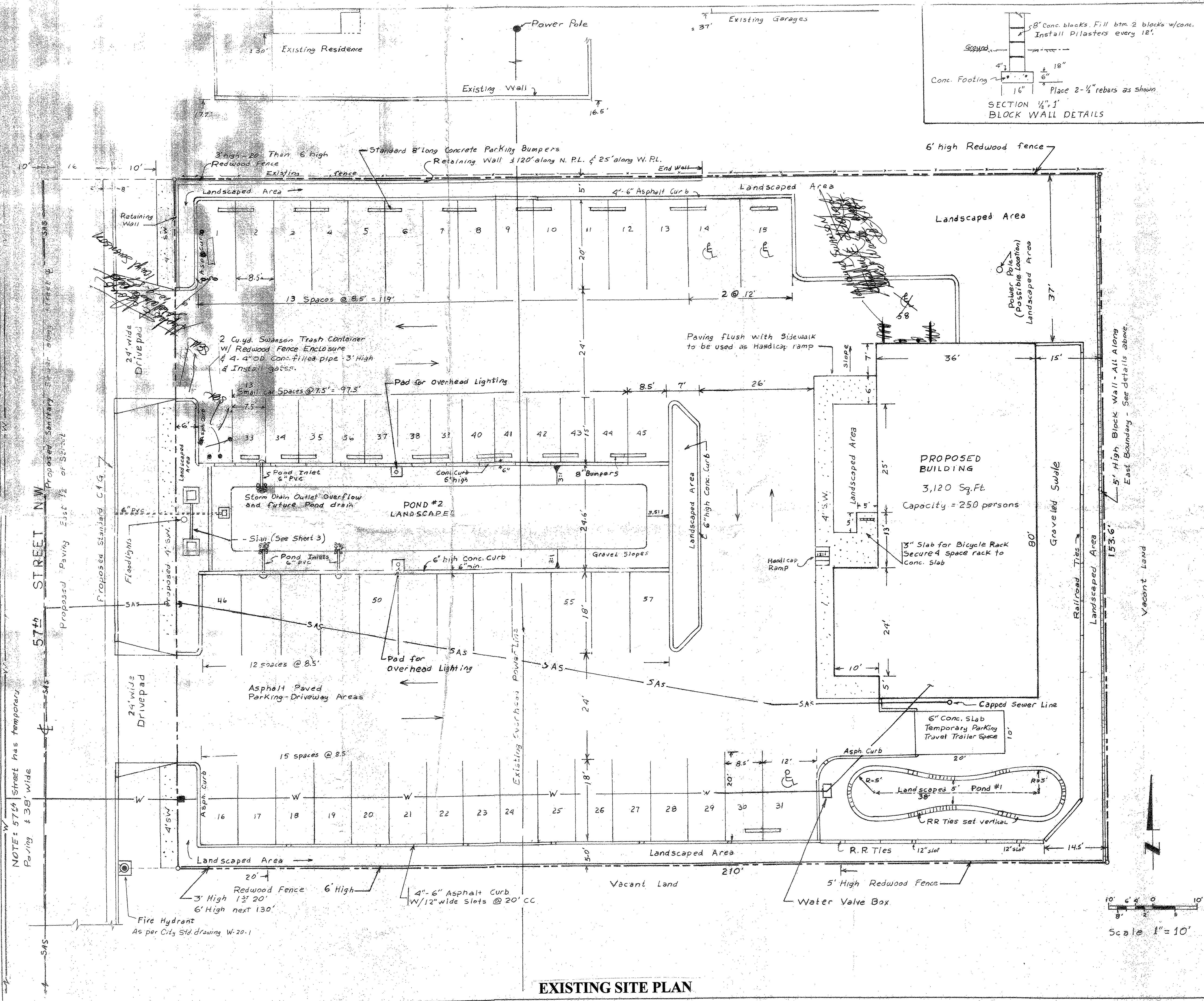
DESIGN REVIEW BOARD APPROVAL

ENGINEER'S SEAL	SURVEY INFORMATION	FIELD NOTES	CONTRACTOR	AS BUILT INFORMATION
NO.	NO.	NO.	NO.	NO.
BY	BY	BY	BY	BY
DATE	DATE	DATE	DATE	DATE

TITLE: SITE DEVELOPEMENT PLAN
GENERAL ASSEMBLY CHURCH OF ALBUQUERQUE, N.M.

APPROVALS	ENGINEER	DATE	APPROVALS	ENGINEER	DATE
City Engineer			Liquid Waste		
A.C.E.-Design			Traffic		
A.C.E.-Hydrology			Water		

DRAWING NO. MAP NO. SHEET 1 OF 5



AS BUILT INFORMATION

CONTRACTOR	DATE
STAKED BY	DATE
ACCEPTANCE BY	DATE
FIELD INFORMATION BY	DATE
DRAWINGS CORRECTED BY	DATE
MICRO-FILM INFORMATION	DATE
RECORDED BY	DATE

BENCH MARKS

FIELD NOTES

CHURCH CAPACITY: 250

	REQUIRED	PLANNED
PARKING SPACES	42	57
HANDICAPPED SPACES	3	4
BICYCLES	4	4

TOTAL TRACT AREA: 32,256 SQUARE FEET
 PARKING-DRIVEWAY AREA: 18,400 SQUARE FEET
 LANDSCAPE AREA: REQUIRED- 3,680 SQUARE FEET
 ACTUAL- 4,040 SQUARE FEET

NOTE: PARKING SPACE 32 CONVERTED TO TRASH CONTAINER SPACE.

LEGAL: PORTION OF TRACT 281, WITHIN THE ATRISCO GRANT, ALBUQUERQUE, BERNALILLO COUNTY, NEW MEXICO.
 DRB CASE NO. DRB-87-0425
 EPC CASE NO. 2-86-80-1
 DESIGN REVIEW BOARD APPROVAL

AS SUBMITTED TO AND APPROVED BY THE DESIGN REVIEW BOARD ON JULY 28, 1987. APPROVED AS TO REQUIREMENT.

ENGINEER'S SEAL

PLANNING DEPARTMENT DATE 7-28-87
 UTILITIES DEPARTMENT DATE 7-28-87
 TRAFFIC ENGINEERING DATE 07/28/87
 CITY ENGINEERING DATE
 PARKS AND RECREATION DEPARTMENT DATE

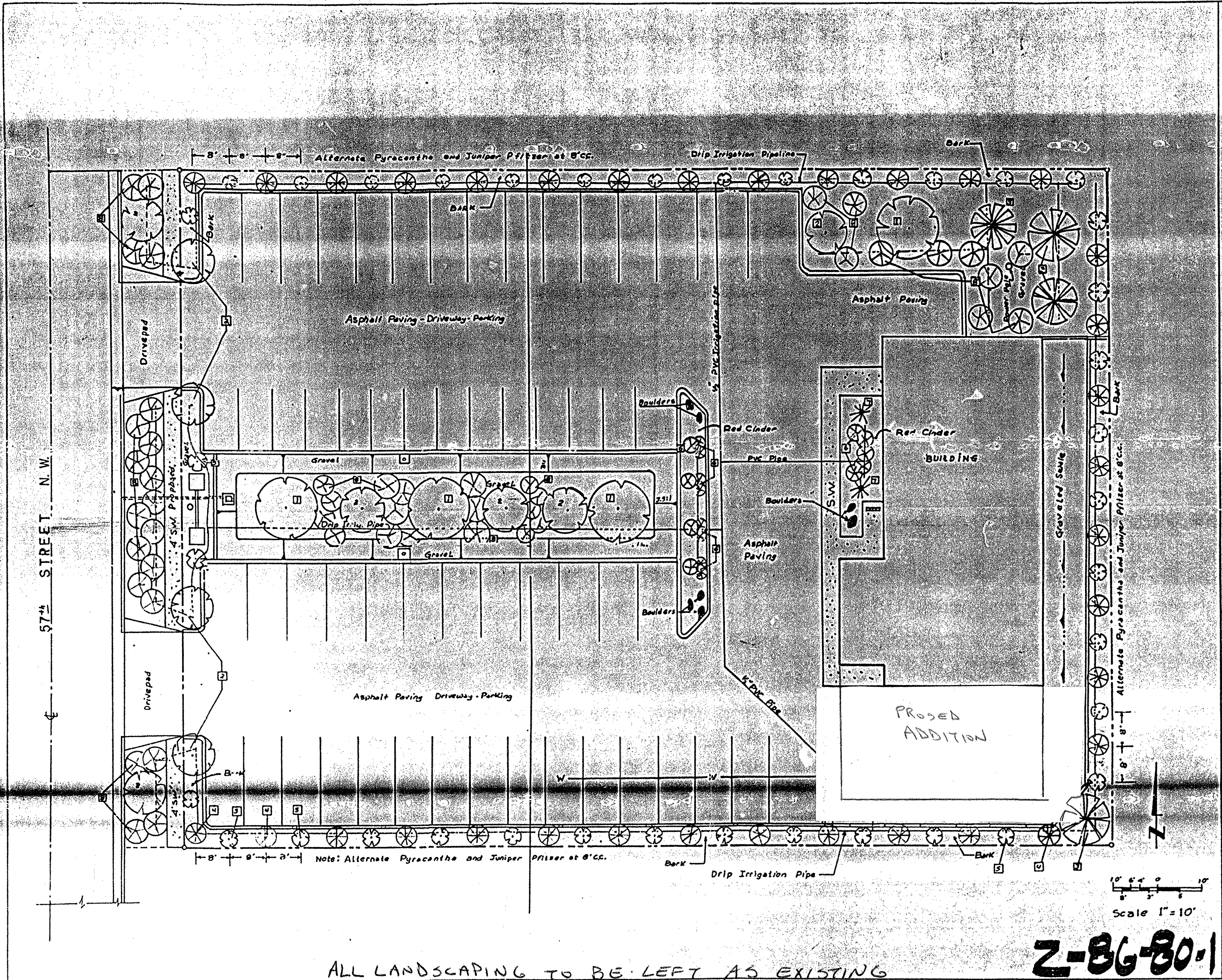
NO.	DATE	REMARKS
1		3-87 E.Limited North Single parking reduced 5m. Dec. parking

DESIGNED BY RAR DATE 1-87
 DRAWN BY RAR DATE 1-87
 CHECKED BY DATE

TITLE: SITE DEVELOPEMENT PLAN
JEHOVAH'S WITNESSES
KINGDOM HALL WESTSIDE CONGREGATION

APPROVALS	ENGINEER	DATE	APPROVALS	ENGINEER	DATE
City Engineer			Liquid Waste		
A.C.E.-Design			Traffic		
A.C.E.-Hydrology			Water		

DRAWING NO. MAP NO. SHEET 2 OF 5



Legal:
 Portion of Tract 281
 within Town of Alameda Grant
 Albuquerque, Bernalillo County
 New Mexico

Address:
 1700 57th Street, N.W.

AREAS

Total Tract Area = 22,256'²
 Parking-Driveway Area = 18,400'²
 Landscaping Area Required = 3,680'²
 Landscaping Area Planned = 4,048'²
 Ratio Landscaping to Parking = 1:1:1
 REVISED LANDSCAPING AREA = 28,408'

- PLANTING LEGEND**
- 1. Cottonless Cottonwood 2'-6" ea.
 - 2. Red Leaf Plum 2" 11 ea.
 - 3. Piñon Tree 5' 4 ea.
 - 4. Juniper-Pfitzer 5sq. 34 ea.
 - 5. Pyracantha 5sq. 38 ea.
 - 6. Bar Harbor 5sq. 17 ea.
 - 7. Yucca 5sq. 2 ea.
 - 8. Creeping Juniper 5sq. 46 ea.

TITLE: LANDSCAPING PLAN
 JEHOVAH'S WITNESSES
 KINGDOM HALL WESTSIDE CONGREGATION

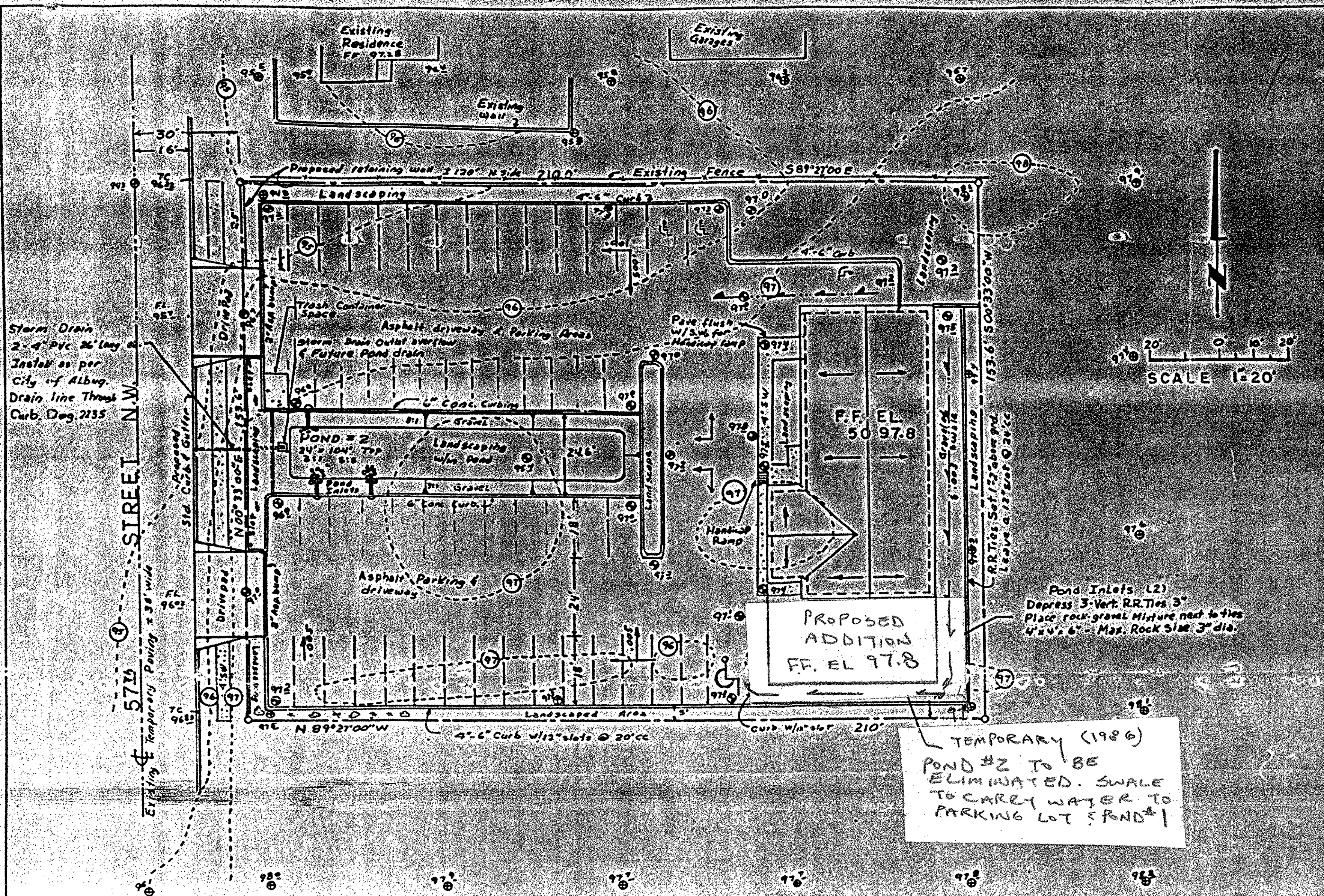
APPROVALS	ENGINEER	DATE	APPROVALS	ENGINEER	DATE
City Engineer			Liquid Waste		
A.C.E.-Design			Traffic		
A.C.E.-Hydrology			Water		

DRAWING NO. _____ MAP NO. _____ SHEET 3 OF 5

ALL LANDSCAPING TO BE LEFT AS EXISTING

LANDSCAPING TO BE MAINTAINED BY OWNERS

Z-86-80-1



Legal: Portion of Tract 281 Within Town of Arroyo Grant Albuquerque, Bernalillo County New Mexico

Address: 1046 57th Street N.W.

VICINITY MAP ZONE ATLAS H II

DRAINAGE AND GRADING PLAN

The following items concerning the drainage and grading plan for the Jehovah's Witnesses, West Side Congregation, Kingdom Hall are contained hereon: 1. Vicinity Map 2. Drainage Plan 3. Grading Plan 4. Calculations 5. Erosion Control Plan.

A church building with parking areas, landscaping areas and combination ponding and landscaping areas are being planned at this site. The Tract is located east of 57th Street N.W. and north of Rice Road N.W. and is shown as Portion of Tract 281 on the Zone Atlas Map No. M-11. The building will be located toward the rear, east side of the Tract. Driveway-parking areas will be located toward the front with landscaping around the perimeter of the Tract. In the ponding areas and at other locations, within the Tract.

At present this Tract is undeveloped. It is bounded on the north by a residential lot with a house and garage in place. The lot is at a lower elevation and therefore no runoff comes in from there. To the east and south is undeveloped land, extending to 55th Street on the east and to Rice Road on the south. Some runoff enters this Tract from both sides. To the west is 57th Street, which is at a lower elevation and therefore no runoff comes in from this side. At present, 57th Street has temporary paving and no curb and gutter. Proposed improvements, show the planned grades, elevations, a 32 feet wide street and a note that a storm drain is needed which would drop into the existing concrete lined ditch along the south side of I-40.

This Tract does not lie in a flood plain, does not lie adjacent to any natural or artificial water course and does not have any drainage easements attached to the property at this time.

Existing conditions indicate minimal runoff into and away from this Tract. It and the land to the east and the south have low areas, relatively flat grades and where flows are ponded or intercepted. The soils are sandy, being "B" hydrologic soil condition, with high permeability rates and therefore slow runoff rates. Estimated 100 year volume of runoff from this tract is 1020 cu.ft.. The 100 year volume of runoff estimated from the land east and south is 2300 cu.ft.. Actual volumes are probably lower because ponding areas were not taken into consideration. The runoff occurs as overland flow with no defined channels. The off-site flows will be allowed to enter this tract, as they have in the past, by leaving slots in any curbs or walls installed along the east and south sides of the property.

The parking-driveways planned, will be paved with asphalt and will be graded so that the runoff flows into the temporary pond located in the middle of the center parking areas. This pond will store the runoff volume from the 100 year rain produced from the paved areas and from part of the building roof. Runoff from the remaining area will flow in a swale graded to flow south into another small temporary pond on the south side of the building. Both ponding areas will be landscaped with trees, bushes, grass and/or mulching materials.

Until 57th Street is improved, sometime in the future, and a storm drain system is installed, the 100 year runoff volume will be stored in the temporary ponds. In the future, after the improvements are installed, the ponds can be filled-in and runoff allowed to flow into the street and to the planned storm drain.

The grading plan shows existing contours, proposed grades as indicated by spot elevations, swales with direction of flow, pond locations and also the need for a retaining wall at the northwest corner of the Tract. The retaining wall will hold fill material needed to raise the planned parking area to an elevation high enough to slope toward the ponding area.

The erosion control plan consists of the following:

- Existing site conditions to remain basically the same until the parking-driveway areas are graded to final grades for paving. A minimum of rough grading will be done during construction of the building. Soil materials needed for the building slab grade will be taken from the property area.
- When enclosures to the property are built, they will be graded to include shallow swales sloped toward the ponding areas. The swales will direct runoff and the associated sediment to the ponds and away from the street.
- The planned retaining wall will be built during the early stages of construction. The wall will help to retain any runoff and sediment that may flow toward the southwest corner, the low area, of the tract.

LEGEND

- Property boundary lines
- Existing contour lines
- Existing spot elevations
- Proposed spot elevations
- Proposed swales
- Proposed sidewalks

CALCULATIONS

HYDROLOGY: (Used Rational Formula for Q_{100} & SCS Procedures for Volume $_{100}$)
 Total Area of Tract = 32,256 sq ft = 0.740 Acs.
 100yr. 6 hr. rain = 2.2" (Plate 22.2 D-1) 10yr factor = 0.657
 $I = 2.18$ (Plate 22.2 D-2) Intensity $I = 4.75$ (6hr. Vol. X I)
 Soils: MWA - Madurez-Wink Association - Gently sloping
 "B" Hydrologic Soils Group (SCS Standard Soil Survey of Bernalillo Co)

UNDEVELOPED: $C = 0.40$ $CN = 70$ (range fair condition)
 runoff Vol. = 0.38" (Plate 22.2 C-4)
 $Q_{100} = C \cdot I \cdot A = 0.4 \cdot 4.75 \cdot 0.740 = 1.41$ c.f.s.
 Volume = $(R \cdot 12) \cdot DA = (0.38 \cdot 12) \cdot (32,256 \text{ sq ft}) = 1,021$ cu.ft.

DEVELOPED:

	Area	CN	C x Area	Area	CN	C x Area
Impervious	2,165 sq ft	98	212,170	0.0028	1949	0.95
Pervious	3,235 sq ft	61	197,335	0.25	809	1.725
Totals	5,400 sq ft		409,505		2,758	2,683
Composite CN	$409,505 \div 5,400 = 75.8$ use 74					
Composite C	$2,758 \div 5,400 = 0.51$					
R	0.70 (Plate 22.2 C-4) $R = 1.2$					
$Q_{100} = C \cdot I \cdot A = 0.51 \cdot 4.75 \cdot 0.740 = 1.79$ c.f.s.						
Vol. $_{100} = (R \cdot 12) \cdot DA = (0.70 \cdot 12) \cdot (3,400) = 2,856$ cu.ft.						
$Q_{100} = 0.71 \cdot 4.75 \cdot 0.617 = 2.25$ c.f.s.						
$Vol. = (1.2 \cdot 12) \cdot (2,256) = 3,248$ cu.ft.						

Storage Capacity: Pond #1 = 336 cu.ft. Pond #2 = 2,952 cu.ft.

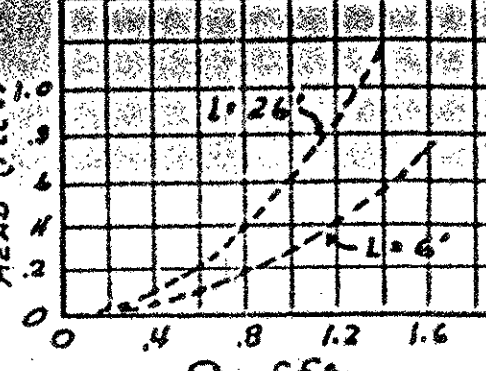
OFFSITE:
 Area (East & South) = 72,350 sq ft = 1.641 Acs. (Area Undeveloped)
 $Q_{100} = C \cdot I \cdot A = 0.4 \cdot 4.75 \cdot 1.641 = 3.14$ c.f.s.
 Vol. $_{100} = (R \cdot 12) \cdot A = (0.38 \cdot 12) \cdot 72,350 = 3,291$ cu.ft.

HYDRAULICS

Half Street 57.00' 4' Crown
 (From Plate 22.3 D-1)
 $d = 0.2' \quad Q = 0.4$ c.f.s.
 $d = 0.3' \quad Q = 1.55$ c.f.s.

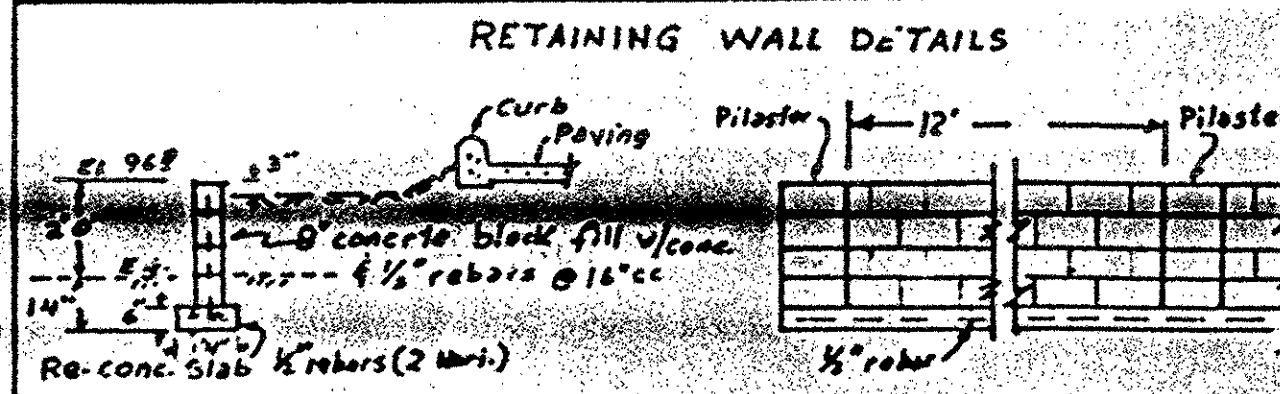
Storm Drain Outlet Spillway
 $L = 4.5'$ Assume $H = 0.2'$ $C = 3.3$
 $Q = C \cdot L \cdot H^3 = 1.33$ c.f.s.

Pipe: 6" PVC
 $A = 0.196$ sq ft

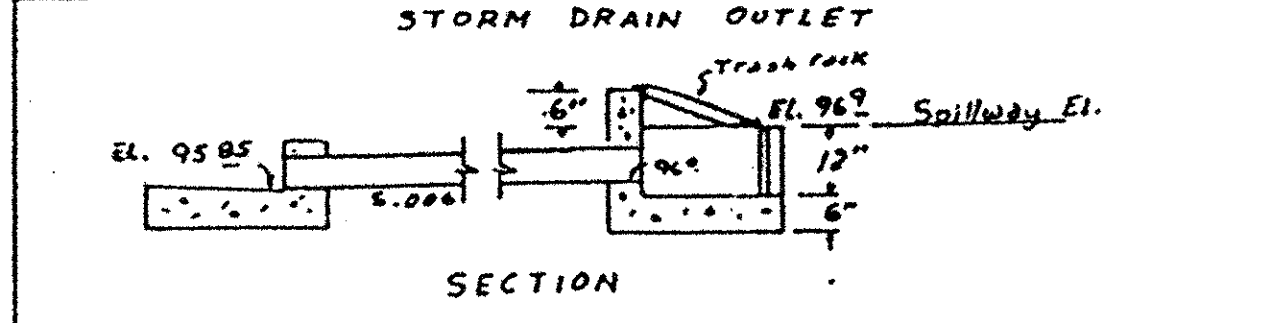


Used: $H = K_p \cdot L \cdot \frac{Q^2}{2g} + K_e \cdot \frac{V^2}{2g}$

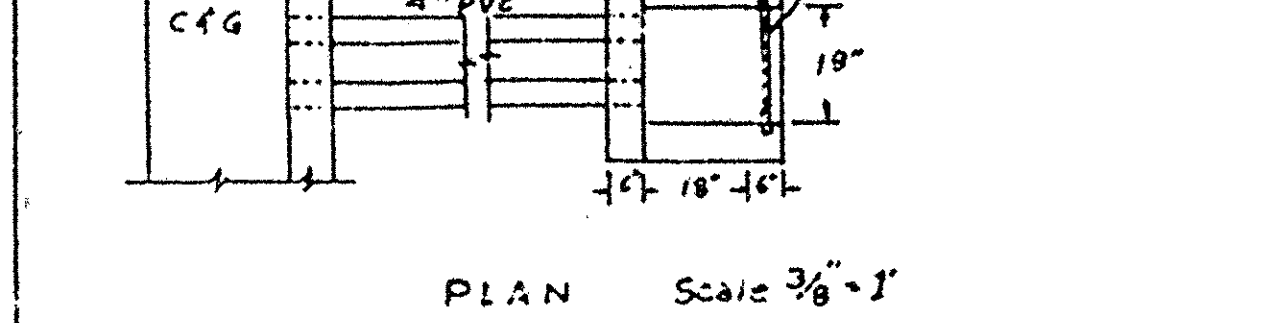
WHEN: $K_p = 0.03783$
 $K_e = 0.5$



SECTION Scale 1/4" = 1'



SECTION



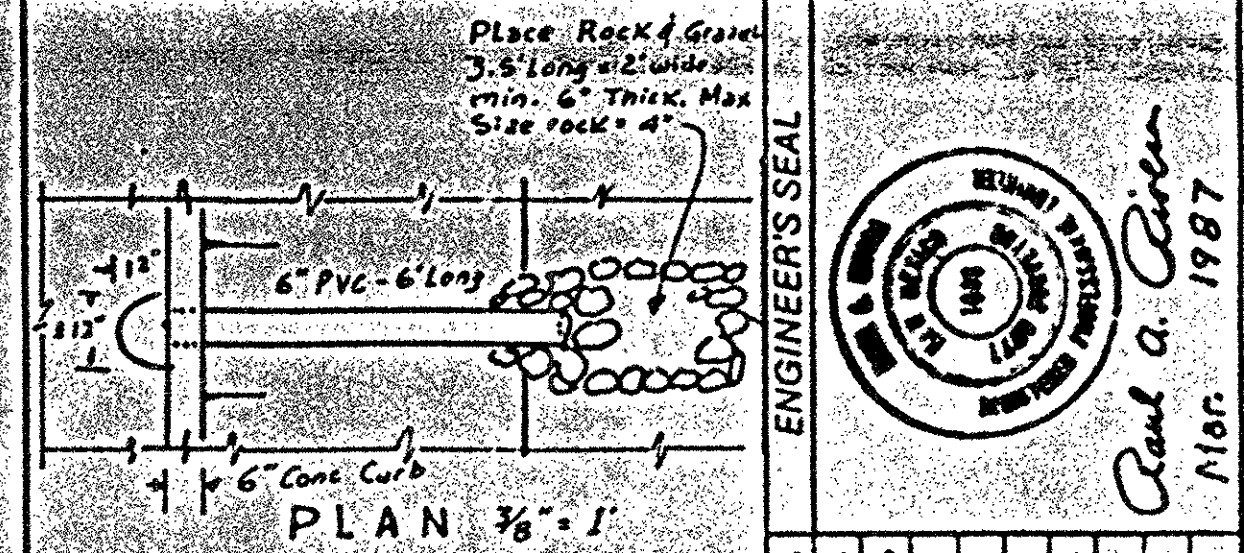
PLAN Scale 3/8" = 1'

AS BUILT INFORMATION

CONTRACTOR	DATE
City of Albuquerque, S.W. 2nd Fl. 505 F. 83	
Inspector	
Field Engineer	
Field Inspector	
Field Engineer	
Field Inspector	
Field Engineer	
Field Inspector	
Field Engineer	
Field Inspector	

FIELD NOTES

NO.	BY	DATE
1	RRR	7/8/87
2	RRR	7/8/87
3	RRR	7/8/87



SECTION INLETS POND #2

REVISIONS

NO.	DATE	REMARKS
1	7/8/87	From City of Albuquerque, S.W. 2nd Fl. 505 F. 83
2	7/8/87	Change in E. Cor. After E.L. 2' above
3	7/8/87	Corrected Curb Elevation & Elevation

DESIGNED BY: RRR DATE: 12/86
 DRAWN BY: RRR DATE: 12/86
 CHECKED BY: RRR DATE: 12/86

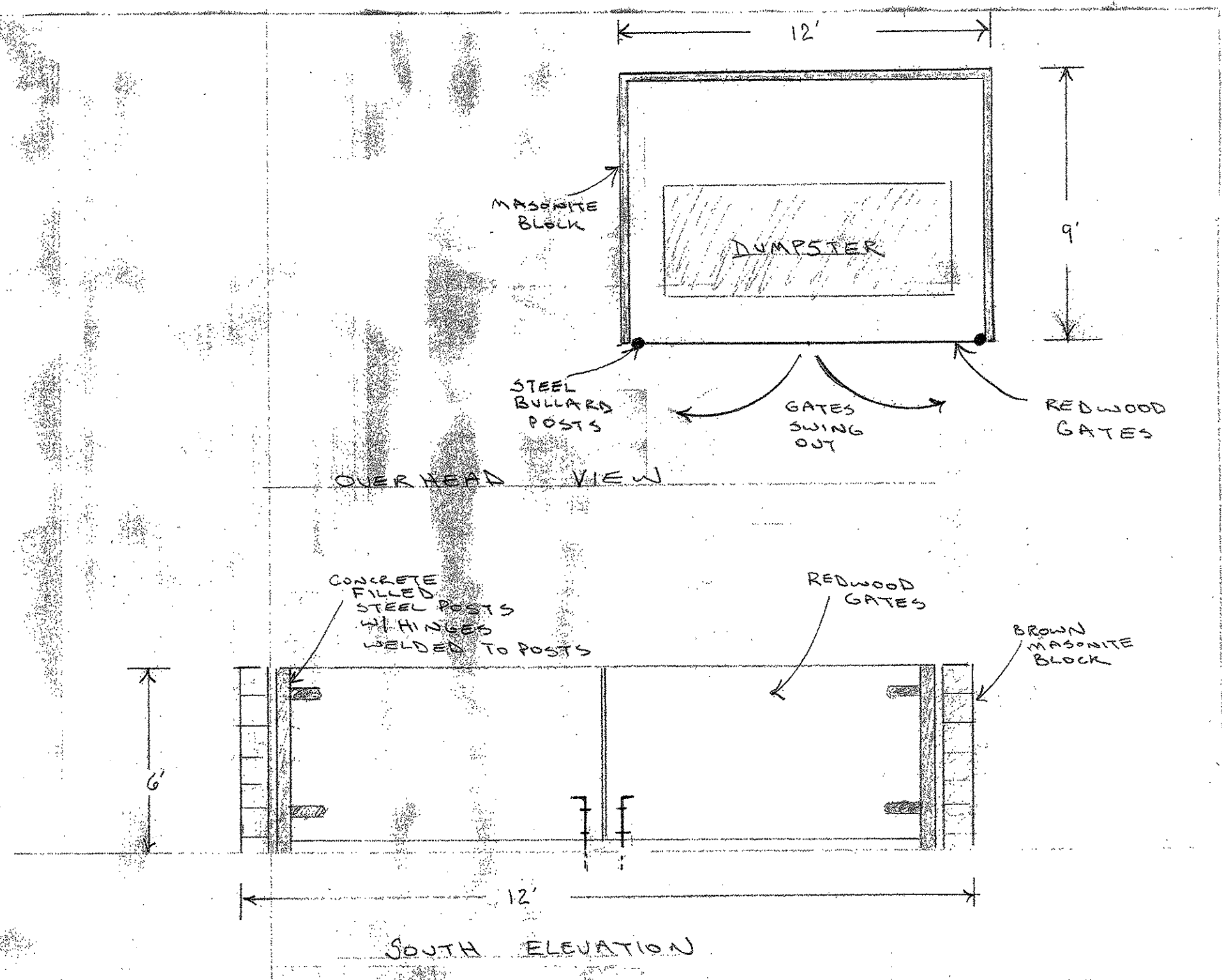
CITY OF ALBUQUERQUE MUNICIPAL DEVELOPMENT DEPARTMENT ENGINEERING DIVISION

TITLE: DRAINAGE AND GRADING PLAN - JEHOVAH'S WITNESSES KINGDOM HALL WEST CONGREGATION

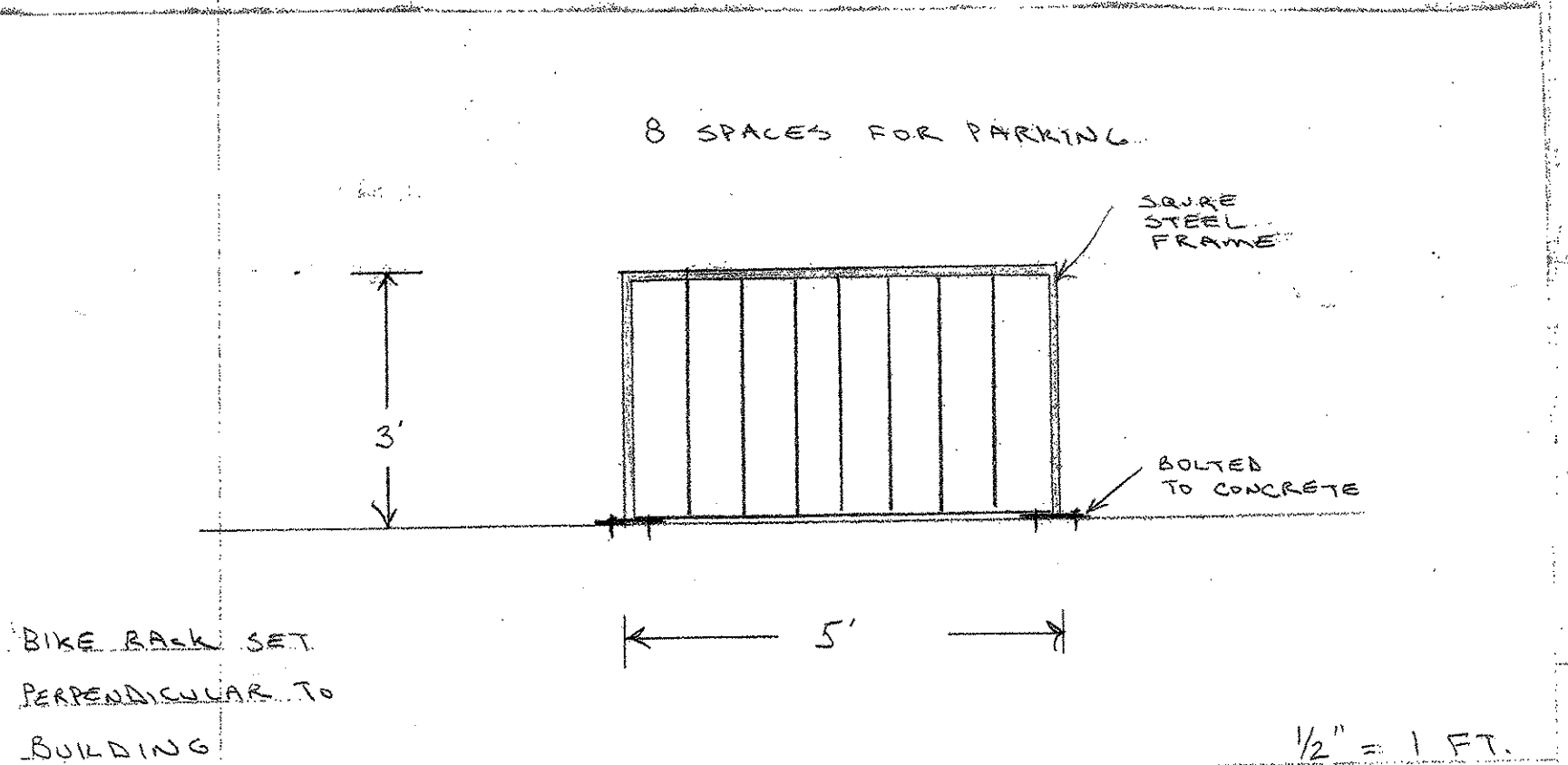
APPROVALS	ENGINEER	DATE	APPROVALS	ENGINEER	DATE
City Engineer			Liquid Waste		
A.C.E. - Design			Traffic		
A.C.E. - Hydrology			Water		

DRAWING NO. MAP NO. SHEET 4 OF 5

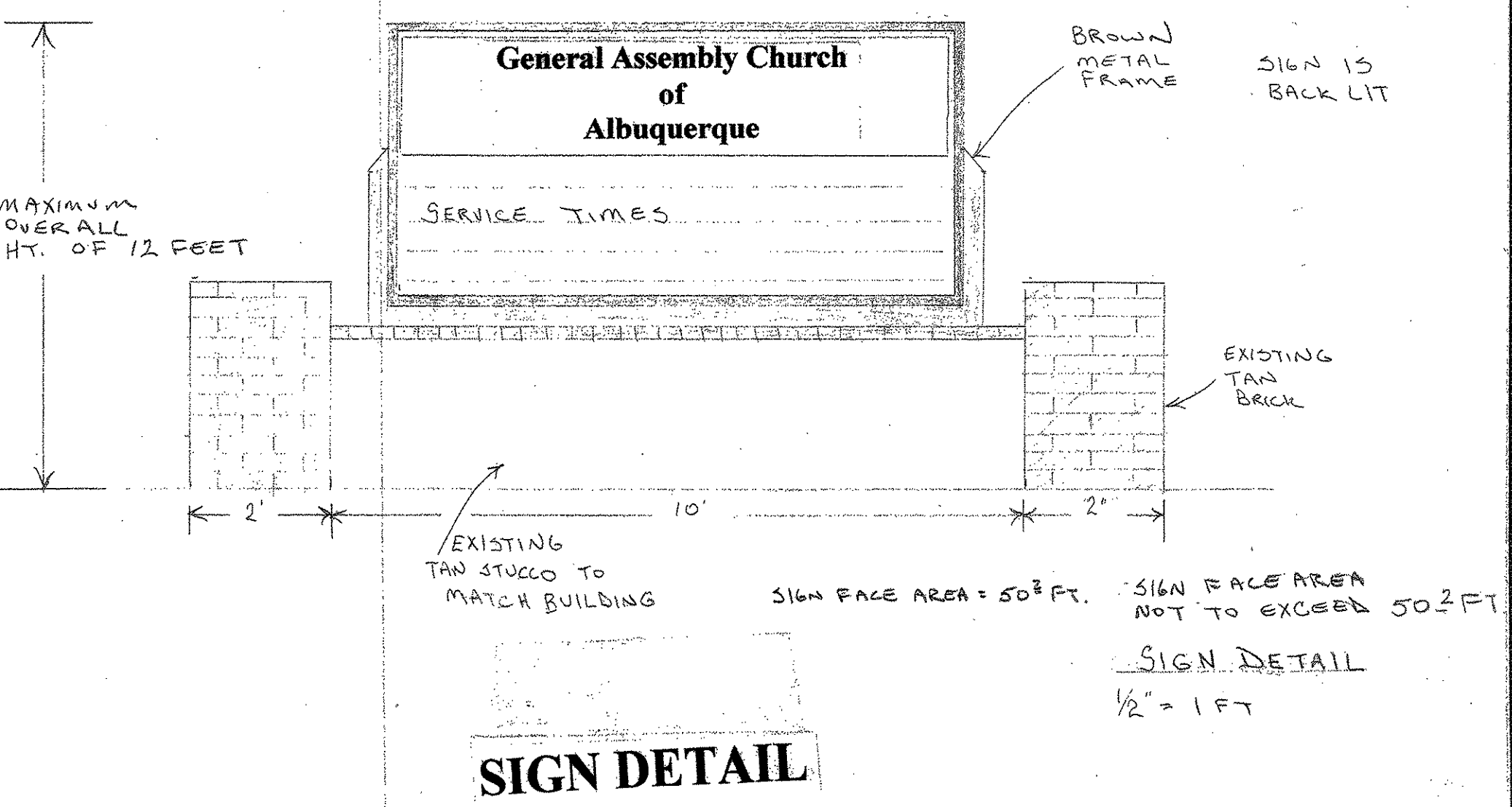
2-36-80-1



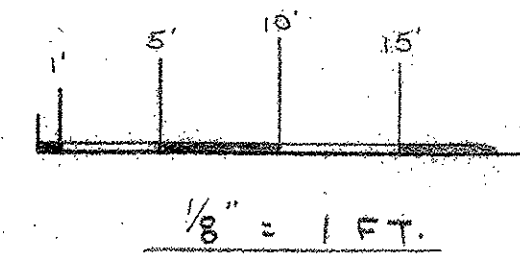
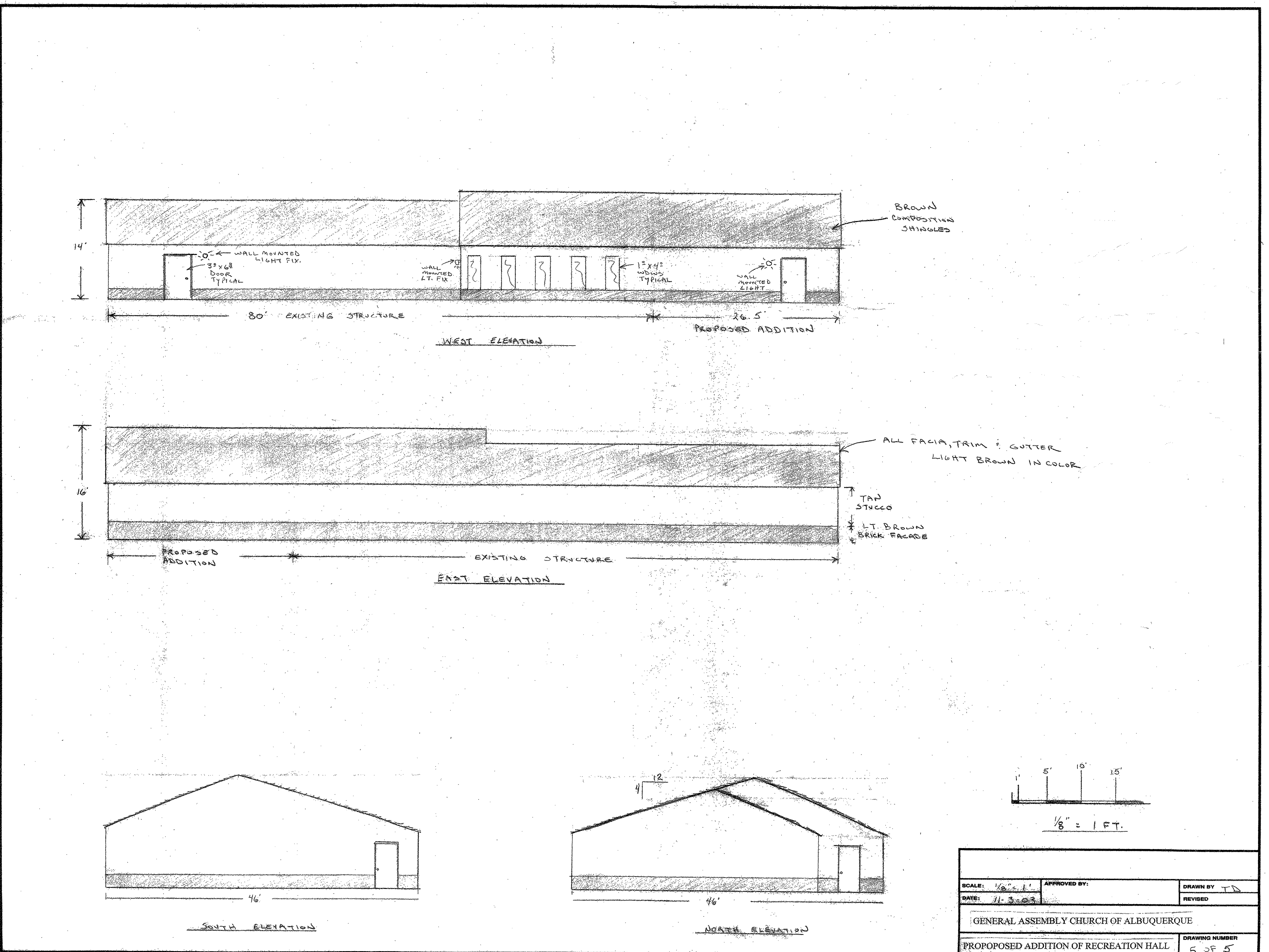
DUMPSTER ENCLOSURE DETAIL



BICYCLE RACK DETAIL



SIGN DETAIL



SCALE: 1/8" = 1'	APPROVED BY:	DRAWN BY: TD
DATE: 11-3-03		REVISED:
GENERAL ASSEMBLY CHURCH OF ALBUQUERQUE		
PROPOSED ADDITION OF RECREATION HALL	DRAWING NUMBER: 5 OF 5	