

City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

April 15, 1993

Jeff Mortensen
Jeff Mortensen & Associates
6010-B Midway Park Blvd. NE
Albuquerque, NM 87109

RE: REVISED DRAINAGE PLAN FOR DOUG & MARGARET'S HEALTH GYM (H17-D65)
REVISION DATED 4/13/93.

Dear Mr. Mortensen:

Based on the information provided on your April 13, 1993 resubmittal, the above referenced site is approved for S.O. 19.

Please be advised that a separate permit is required for construction within City Right-of-Way. A copy of this approval letter must be on hand when applying for the excavation permit.

Also, prior to Certificate of Occupancy release, the following will be required.

1. concurrence from AMAFCA for grading within their Right-of-Way.
2. Engineer Certification per the D.P.M. checklist.

If I can be of further assistance, please feel free to contact me at 768-2667.

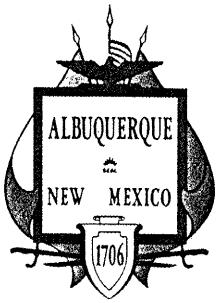
Sincerely,


Bernie J. Montoya, CE
Engineer Associate

BJM/d1/WPHYD/7689

xc: Alan Martinez
Darlene Saavedra
File

PUBLIC WORKS DEPARTMENT



City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

June 22, 1993

Jeff Mortensen
Jeff Mortensen & Associates
6010-B Midway Park Blvd. NE
Albuquerque, NM 87109

RE: ENGINEER CERTIFICATION FOR DOUG & MARGARET'S HEALTH GYM (H17-D65)
CERTIFICATION STATEMENT DATED 6/16/93.

Dear Mr. Mortensen:

Based on the information provided on your June 17, 1993 submittal,
certification for the above referenced site is acceptable.

Please be advised that the Certificate of Occupancy will not be released until
the following approvals are provided:

1. Concurrence from AMAFCA that the work performed within their
Right-of-Way is acceptable.
2. Concurrence from Street Maintenance that the S.O. 19 has been
inspected and accepted.

If I can be of further assistance, please feel free to contact me at 768-2667.

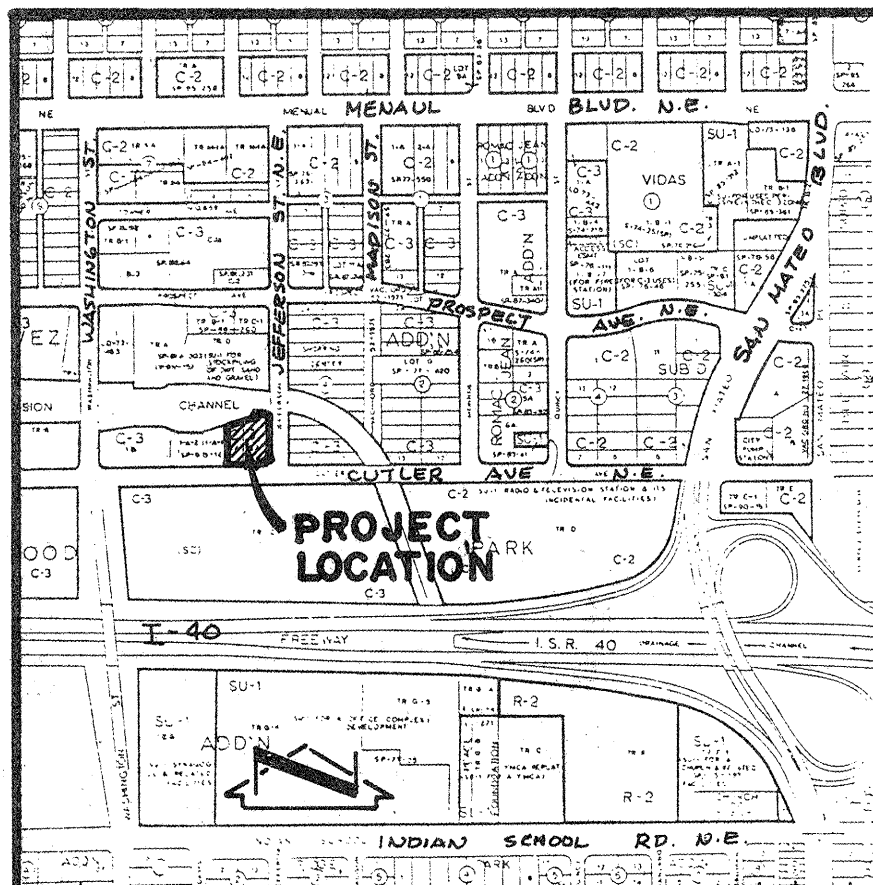
Sincerely,

Bernie J. Montoya, CE
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PUBLIC WORKS DEPARTMENT



VICINITY MAP
SCALE: 1" = 800' (APPROX.)

LEGAL DESCRIPTION
TRACTS 2-A AND 3-A OF THE TIMOTHY CHAVEZ ADDITION, ALBUQUERQUE, NEW MEXICO.

PROJECT BENCHMARK
STATION IS AMAFCA BRASS TABLET STAMPED "NDC 19-B1" SET ON A CONCRETE POST PROJECTING 0.8 FEET ABOVE THE GROUND. THE STATION IS LOCATED AT THE WASHINGTON STREET BRIDGE OVER THE AMAFCA NORTH DIVERSION CHANNEL, 42.5 FEET S.W. OF THE S.W. HEADWALL OF BRIDGE, 14.5 FEET EAST OF GUARD RAIL.
TRIGONOMETRIC ELEVATION = 5163.4 FEET

T.B.M.
TOP OF WALL ELEVATION AS SHOWN ON DRAWING BELOW.
ELEVATION = 5166.39 FEET (MSLD)

△ DRAINAGE CERTIFICATION

As indicated by the as-built information shown hereon, this project has been constructed in substantial conformance with the approved Grading and Drainage Plan. Visual observation combined with the review of the as-built information indicates that the site has been constructed to drain in the manner set forth by the design drawing. It is based upon this conclusion that as-built information of the private onsite improvements for Certificate of Occupancy is recommended.

Jeffrey G. Mortensen
Professional Engineer
New Mexico
8547
06-16-93
Date

LEGEND

- EXIST. SPOT ELEVATION
- EXIST. CONTOUR
- PROPOSED SPOT ELEVATION
- PROPOSED CONTOUR
- EXIST. SLOPE
- PROPOSED FLOWLINE
- PROPOSED CONCRETE
- PROPOSED ASPHALT
- TC TOP OF CURB / TOP OF CONC.
- TA TOP OF ASPHALT
- FL FLOWLINE
- TW TOP OF WALL

DRAINAGE PLAN

The following items concerning Doug & Margaret's Health Gym Drainage Plan are contained hereon:

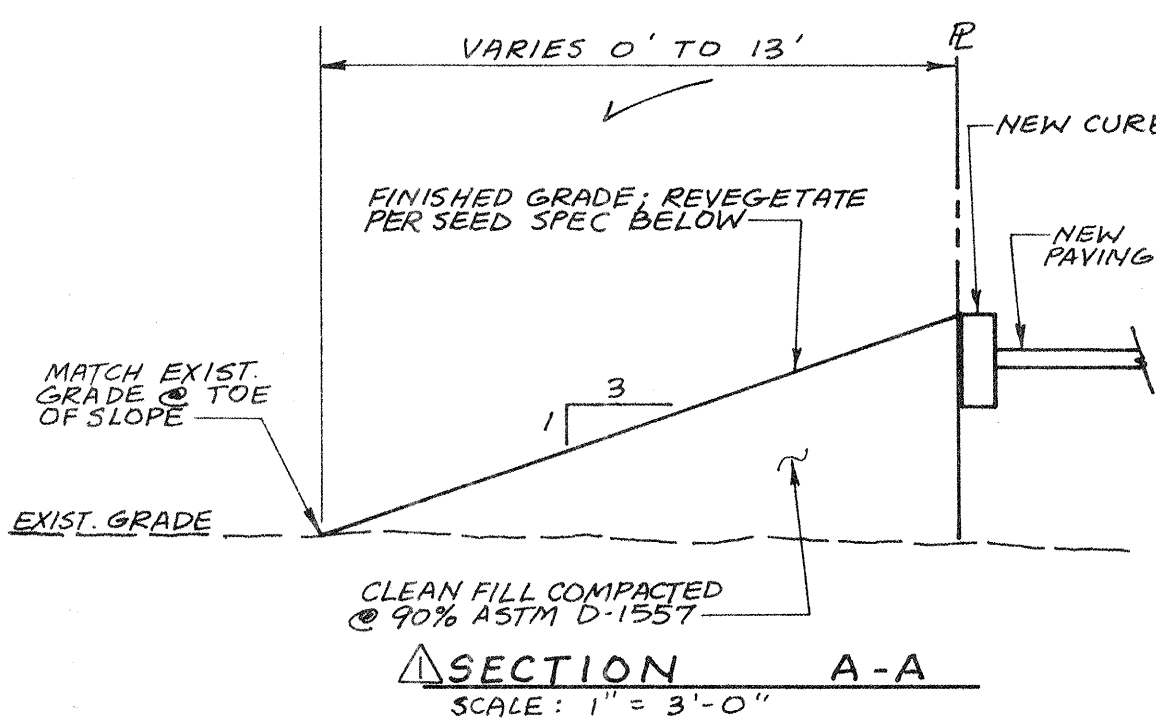
- Vicinity Map
- Grading Plan
- Calculations

As shown by the Vicinity Map, the site is located at the northwest corner of the intersection of Cutler Avenue N.E. and Jefferson Street N.E. At present, the site is undeveloped. The site is bounded on the west by existing commercial development and by the AMAFCA Embudo Diversion Channel on the north. The site currently slopes from southeast to northwest toward the Embudo Diversion Channel.

As shown by Panel 23 of 50 of the National Flood Insurance Program Flood Insurance Rate Maps for the City of Albuquerque dated October 14, 1983, this site does not lie within a designated flood hazard zone. The above referenced panel does identify that the 100-year flood is confined to the constructed channel (i.e., Embudo Diversion Channel). The Embudo Diversion Channel crosses beneath Jefferson Street N.E. at the northeast corner of the site. The crossing represents a sump condition in Jefferson Street N.E. Review of the City of Albuquerque Drainage Facilities Maps, Map Grid H-17S, indicates the presence of storm inlets within this sump area. The presence of those inlets has been confirmed through visual observation of existing site conditions. The storm inlets discharge directly to the Embudo Diversion Channel.

The Grading Plan shows 1) existing and proposed grades indicated by spot elevations and contours at 1'0" intervals, 2) the limit and character of the existing improvements, 3) the limit and character of the proposed improvements, and 4) continuity between existing and proposed grades. As stated above, the site currently drains from southeast to northwest toward the Embudo Diversion Channel. From this point, the drainage path is ill-defined. Discharging developed runoff in this historic path would create erosion and associated complications. Because of this, the developed runoff from this site is being diverted to Jefferson Street N.E. The developed runoff will discharge via a new driveway into the street at the northeast corner of the site. From this point, the runoff will flow in a northerly direction within the roadway to enter the storm inlets referenced above. Due to the fact that this is an infill site, combined with the proximity of the site to public storm drain improvements, the free discharge of runoff from this site to the public right-of-way is appropriate.

The Calculations which appear hereon analyze both the existing and developed conditions for the 100-year, 6-hour rainfall event. The peak discharge has been calculated using the Rational Method, while the SCS Method has been used to calculate the volume of runoff generated. Both Methods have been used in accordance with the City of Albuquerque Development Process Manual, Volume II, combined with the Mayor's Emergency Rule dated January 14, 1986. As shown by these calculations, a relatively minor increase in runoff is anticipated due to the proposed construction.



△ CALCULATIONS

Ground Cover Information

From SCS Bernalillo County Soil Survey, Plate 31: Cut and fill land
Hydrologic Soil Group: A
Existing Pervious CN = 54 (DPM Plate 22.2 C-2)
Pasture or Range Land: fair condition
Developed Pervious CN = 39 (DPM Plate 22.2 C-2)
Open Spaces: good condition

Time of Concentration/Time to Peak

$T_c = 0.0078 L^{0.77} / S^{0.385}$ (Kirpich Equation)

$T_p = T_c = 10$ min.

Point Rainfall

$P_6 = 2.25$ in. (DPM Plate 22.2 D-1)

Rational Method

Discharge: $Q = C i A$

Where C varies

$i = P_6(6.84)T_c^{-0.51} = 4.76$ in/hr
 $P_6 = 2.25$ in (DPM Plate 22.2 D-1)
 $T_c = 10$ min (minimum)
 $A =$ area, acres

SCS Method

Volume: $V = 3630(DRO)A$

Where DRO = Direct runoff in inches
 $A =$ area, acres

Existing Condition

$A_{total} = 32,670$ sf = 0.75 Ac
 $C = 40$ (Weighted average per Emergency Rule, 1/14/86)
 $Q_{100} = C i A = 0.40(4.76)(0.75) = 1.4$ cfs
 $\%$ impervious = 0-%
Composite CN = 54 (DPM Plate 22.2 C-3)
DRO = 0.1 in (DPM Plate 22.2 C-4)
 $V_{100} = 3630 (DRO)A = 272$ cf

Developed Condition

$A_{total} = 32,670$ sf = 0.75 Ac
Roof area = 10,450 sf (0.32)
Paved area = 19,120 sf (0.55)
Landscaped area = 4,100 sf (0.13)
 $C = 0.84$ (Weighted average per Emergency Rule, 1/14/86)
 $Q_{100} = C i A = 0.84(4.76)(0.75) = 3.0$ cfs
 $\%$ impervious = 84 %
Composite CN = 88 (DPM Plate 22.2 C-3)
DRO = 1.25 in (DPM Plate 22.2 C-4)
 $V_{100} = 3630 (DRO)A = 3403$ cf

Comparison

$\Delta Q_{100} = 3.0 - 1.4 = 1.6$ cfs (increase)
 $\Delta V_{100} = 3403 - 272 = 3131$ cf (increase)

△ VEGETATION FOR EROSION CONTROL

All areas disturbed by grading and/or other construction activity shall be seeded for erosion control immediately following the completion of rough grading and subsequent disturbance. The following specifications shall apply.

1. SEED RATE:

Species	Pure Live Seed (lbs/acre)*
Blue Grama	6.0
Giant Dropseed	2.0
Sand Dropseed	1.0
Indian Ricegrass	5.0
Sideoats Grama	6.0
TOTAL:	20.0

* Rates apply to drilled seed. Double rates listed if seed is broadcast.

2. SEED APPLICATION:

- Flat areas - cultivate area to produce an acceptable, friable seed bed, then drill seed to a depth of 1/4 to 1/2 inches.
- Slopes 3:1 or greater - hand broadcast and cultivate into top 1/4 to 1/2 inch of soil.

3. FERTILIZER:

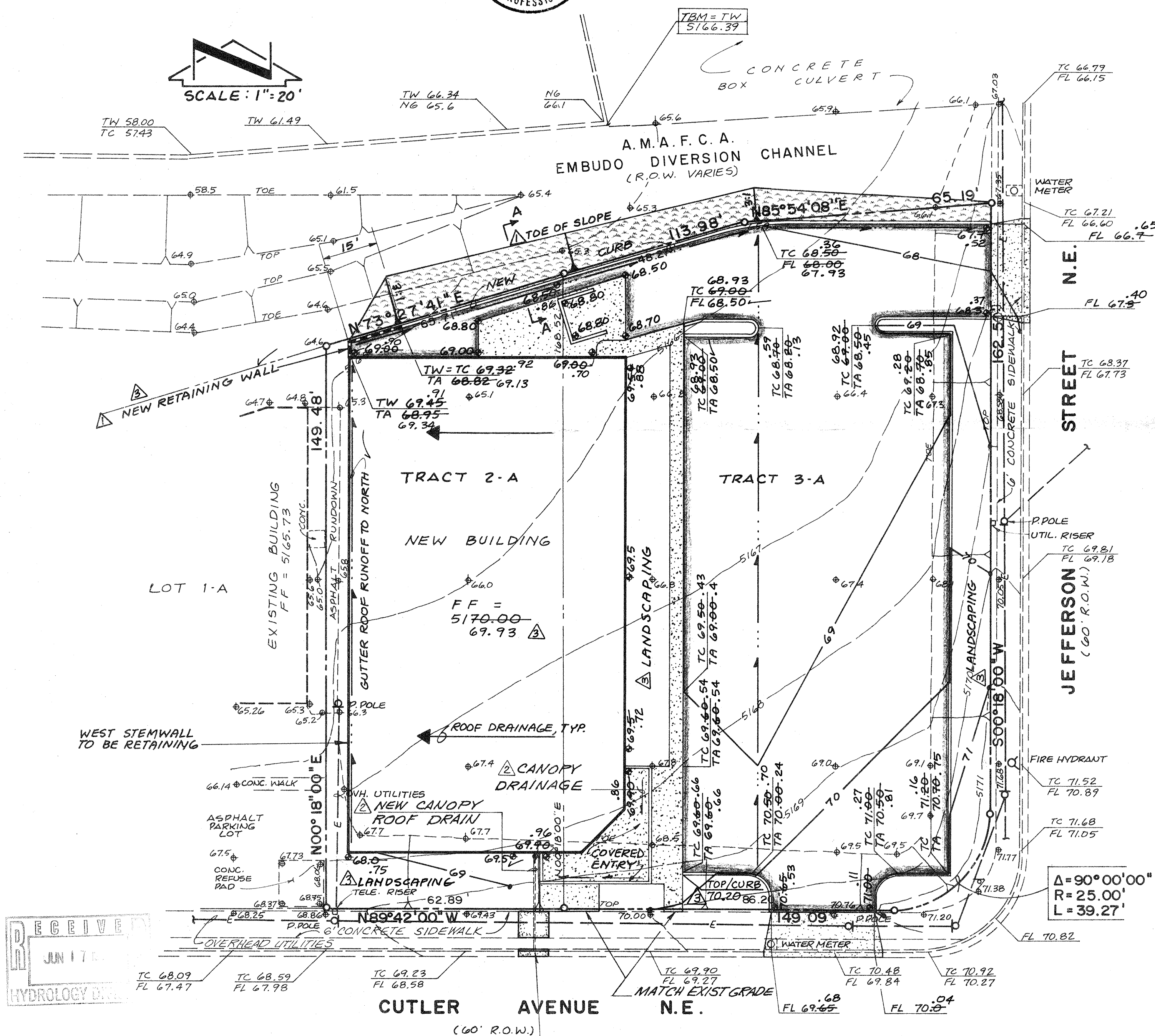
16-20-0 @ 200 lbs. per acre applied simultaneously with seed.

4. MULCH:

5,000 lbs. hay mulch per acre. Hay mulch shall be crimped into the soil so as not to exceed 2 inches in depth.

5. WATERING SCHEDULE:

CONTRACTOR shall maintain a wet seed bed for a period of at least 6 weeks following seeding.



APPROVAL FOR COMPLETED CONSTRUCTION:
AMAFCA
DATE

JMA
JEFF MORTENSEN & ASSOCIATES, INC.
6010-B MIDWAY PARK BLVD. N.E.
ALBUQUERQUE, NEW MEXICO 87109
ENGINEERS & SURVEYORS (505)345-4250

GRADING & DRAINAGE PLAN
DOUG & MARGARET'S HEALTH GYM
(A.K.A. LIBERTY GYM)

Jeffrey G. Mortensen
Professional Engineer
New Mexico
8547
01-16-93
04-13-93

Construction Notes:

- Two (2) working days prior to any excavation, contractor must contact New Mexico One Call System, 260-1990, for location of existing utilities.
- Prior to construction, the contractor shall excavate and verify the horizontal and vertical location of all potential obstructions. Should a conflict exist, the contractor shall notify the engineer so that the conflict can be resolved with a minimum amount of delay.
- All work on this project shall be performed in accordance with applicable federal, state and local laws, rules and regulations concerning safety and health.
- All construction within public right-of-way shall be performed in accordance with applicable city of Albuquerque standards and Procedures.
- If any utility lines, pipelines, or underground utility lines are shown on these drawings, they are shown in an approximate manner only, and such lines may exist where none are shown. If any such existing lines are shown, the location is based upon information provided by the owner of said utility, and the information may be incomplete, or may be obsolete by the time construction commences. The engineer has undertaken no field verification of the location, depth, size, or type of existing utility lines, pipelines, or underground utility lines, makes no representation pertaining thereto, and assumes no responsibility or liability therefor. The contractor shall inform itself of the location of any utility line, pipeline, or underground utility line in or near the area of the work in advance of and during excavation work. The contractor is fully responsible for any and all damage caused by its failure to locate, identify and preserve any and all existing utilities, pipelines, and underground utility lines. In planning and conducting excavation, the contractor shall comply with state statutes, municipal and local ordinances, rules and regulations, if any, pertaining to the location of these lines and facilities.

- The design of planters and landscaped areas is not part of this plan. All planters and landscaped areas adjacent to the building(s) shall be provided with positive drainage to avoid any ponding adjacent to the structure. For construction details, refer to landscaping plan.

Erosion Control Measures:

- The contractor shall ensure that no soil erodes from the site into public right-of-way or onto private property. This can be achieved by constructing temporary berms at the property lines and wetting the soil to keep it from blowing.
- The contractor shall promptly clean up any material excavated within the public right-of-way so that the excavated material is not susceptible to being washed down the street.
- The contractor shall secure "topsoil disturbance permit" prior to beginning construction.

△ CONSTRUCTION NOTES (CONT.) :

- An Excavation/Construction Permit will be required before beginning any work within City right-of-way. An approved copy of these plans must be submitted at the time of application for this permit.
- Backfill compaction shall be according to ARTERIAL street use.
- Maintenance of these facilities shall be the responsibility of the owner of the property served.

APPROVALS	NAME	DATE
A.C.E. / DESIGN		
INSPECTOR		
A.C.E. / FIELD		

DESIGNED BY	NO.	DATE	BY	REVISIONS	JOB NO.
J.G.M.	1	01/93	JGM	OFFSITE GRADING IN AMAFCA R.O.W.	920632
S.G.H.	2	04/93	JGM	ADD ROOF DRAIN & S.O. #19 INFORMATION	DATE 10 - 1992
J.G.M.	3	05/93	JGM	AS-BUILT & CERTIFY	SHEET 1 OF 1