LEGAL DESCRIPTION

LOT 22, BLOCK 2, TRACT 2, UNIT 3, NORTH ALBUQUERQUE ACRES
(7405 OAKLAND AVENUE N.E.)

PROJECT BENCHMARK

A STANDARD ACS BRASS TABLET, STAMPED "1-B19", SET IN TOP OF A CONCRETE POST PROJECTING 0.1 FT. ABOVE GROUND LOCATED IN THE NORTHEAST QUADRANT OF THE INTERSECTION OF WYOMING BLVD. N.E. AND MODESTO AVE. N.E.
ELEVATION = 5393 FT. (M.S.L.D.)

T.B.M.

RAILROAD SPIKE SET IN EAST FACE OF POWER POLE AT SOUTHWEST CORNER OF SITE.
ELEVATION = 5359.64 FT. (M.S.L.D.)

NOTE:
THIS IS NOT A BOUNDARY SURVEY. BOUNDARY INFORMATION SHOWN FOR THE PURPOSE OF QUANTIFYING SITE HYDROLOGY.

LEGEND

- W.P.P. O.H. ELECTRIC (2) O.H. TELEPHONE (1) — WOOD POWER POLE
- OVERHEAD ELECTRIC (NO. OF LINES)
- OVERHEAD TELEPHONE (NO. OF LINES)
- 5.25 — EXISTING SPOT ELEVATION
- 60.5 — EXISTING CONTOUR
- 62 — PROPOSED SPOT ELEVATION
- PROPOSED CONTOUR
- PROPOSED FLOWLINE
- ROOF DRAINAGE
- PROPOSED CONCRETE
- PROPOSED GRAVEL
- EXISTING DECIDUOUS TREE
- EXISTING SHRUB

SCALE: 1" = 20'

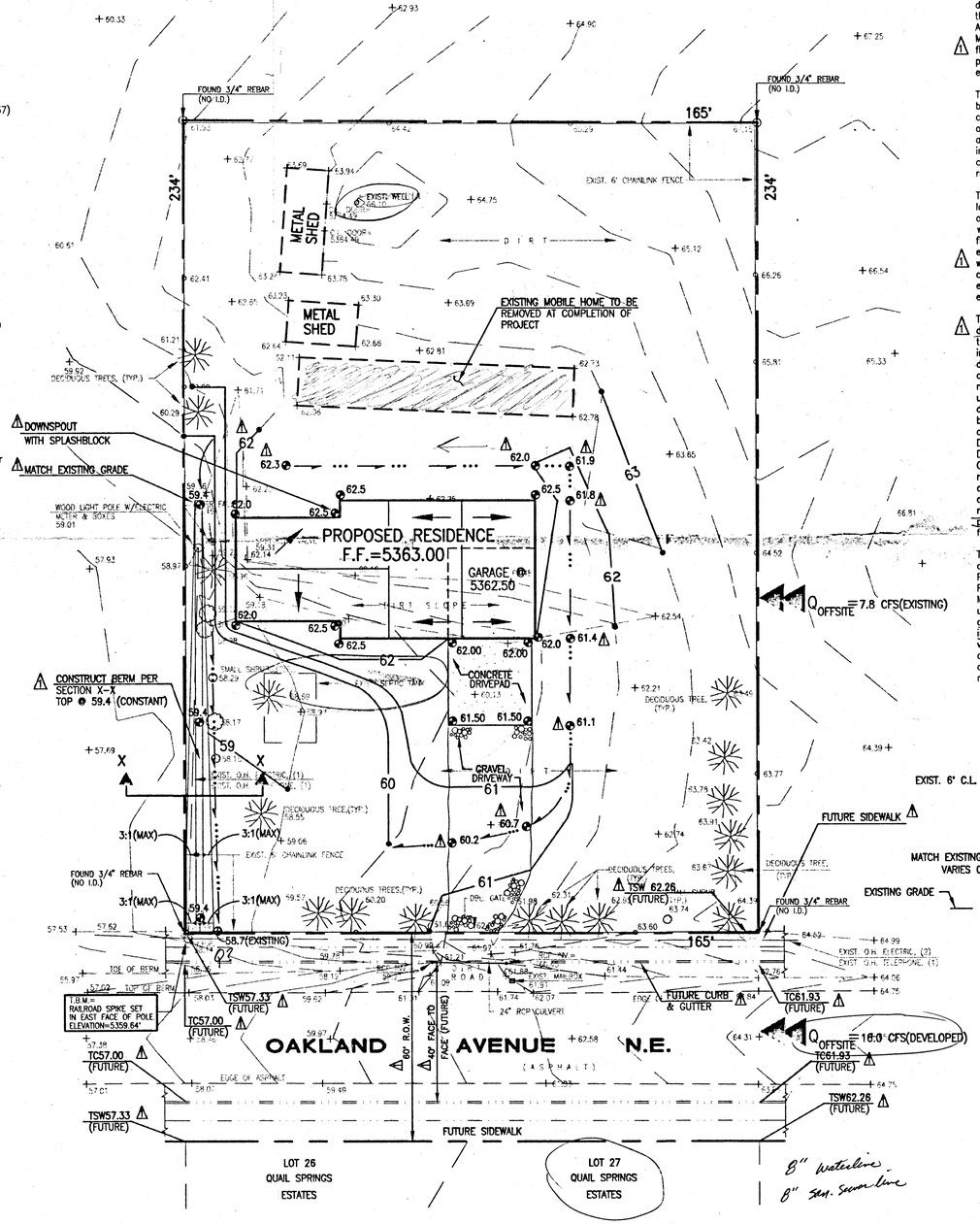
20' 0 40'
10' 20'

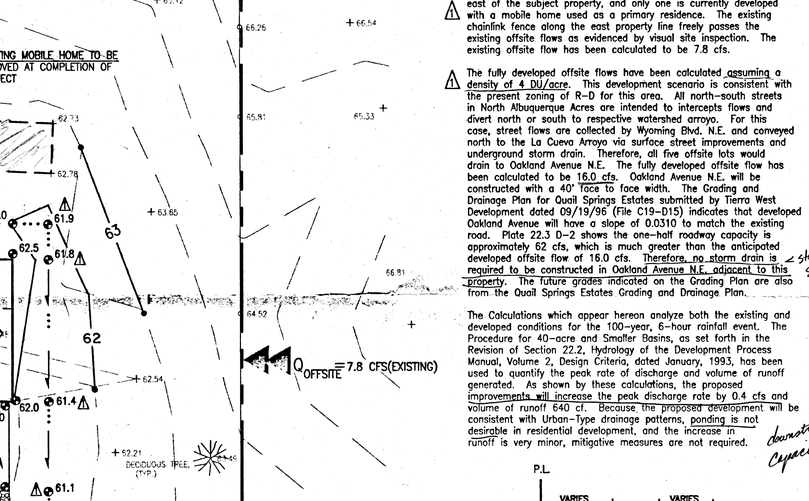
Construction Notes:

1. Two (2) working days prior to any excavation, contractor must contact New Mexico One Call System 260-1990 (Albuquerque Area), 1-800-321-ALERT(2537) (Statewide), for location of existing utilities.
2. 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 in writing so that the conflict can be resolved with a minimum amount of delay.
3. 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.
4. All construction within public right-of-way shall be performed in accordance with applicable City of Albuquerque Standards and Procedures.
5. 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 conducted only preliminary investigation of the location, depth, size, or type of existing utility lines, pipelines, or underground utility lines. This investigation is not conclusive, and may not be complete, therefore, 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.
6. 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.
7. Install splashblocks beneath all downspouts.

Erosion Control Measures:

1. The contractor shall ensure that no soil erodes from the site into public right-of-way or onto private property.
2. 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.
3. The contractor shall secure "Topsoil Disturbance Permit" prior to beginning construction.
4. Any areas of excess disturbance (traffic access, storage yard excavated material, etc.) shall be re-seeded according to C.O.A. Specification 1012 "Native Grass Seeding". This will be considered incidental to construction, therefore, no separate payment will be made.





SECTION X-X
SCALE: 1" = 3'

DRAINAGE PLAN

The following items concerning the Estill Residence Drainage Plan are contained hereon:

1. Vicinity Map
2. Watershed Map
3. Grading Plan
4. Calculations

As shown by the Vicinity Map, the site is located on Oakland Avenue N.E., approximately 0.3 mile west with the intersection of Wyoming Boulevard N.E. The site is currently developed residentially with two metal sheds and an existing mobile home.

As shown by Panel 10 of 50 of the National Flood Insurance Program Flood Insurance Rate Maps published by F.E.M.A. for the City of Albuquerque, New Mexico dated October 14, 1983, this site lies within a designated flood hazard zone (AO – depth 1). However, this site zone has effectively been removed by the construction of a soil cement dike. The soil cement dike, constructed as part of the Nor Este Subdivision,diverts runoff from the La Cueva Arroyo northward across Eagle Rock Avenue. As a result, the\soil cement dike provides flood protection; the only offsite flows received by this site are as shown on the Watershed Map. The City of Albuquerque and AMAFCA are committed to obtaining a LOMR (Letter of Map Revision) to FEMA for the purposes of revising a portion of the floodplain downstream of the Nor Este Subdivision. The LOMR pending is intended to remove the subject property from the existing floodplain.

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 shown by the Grading Plan, the proposed improvements consist of the construction of a new residence, concrete pad, and gravel driveway. At the completion of the new residence, the existing mobile home will be removed.

There are no offsite flows from the north and west because those lands are topographically lower. This site is not impacted by offsite flows from the south due to the presence of a bar ditch which lies along Oakland Avenue N.E. The site receives offsite flows from adjacent properties to the east. Five lots lie to the east of the subject property, and only one is currently developed with a mobile home used as a primary residence. The existing chainlink fence along the east property line freely passes the existing offsite flows as evidenced by visual site inspection. The existing offsite flow has been calculated to be 7.8 cfs.

The fully developed offsite flows have been calculated assuming a density of 4 DU/acre. This development scenario is consistent with the present zoning of R-D for this area. All north-south streets in North Albuquerque Acres are intended to intercepts flows and divert north or south to respective watershed arroyo. For this case, street flows are collected by Wyoming Blvd. N.E. and conveyed north to the La Cueva Arroyo via surface street improvements and underground storm drain. Therefore, all five offsite lots would drain to Oakland Avenue N.E. The fully developed offsite flow has been calculated to be 16.0 cfs. Oakland Avenue N.E. will be constructed with a 40' face to face width. The Grading and Drainage Plan for Quail Springs Estates submitted by Tierra West Development dated 09/19/96 (File C19-D15) indicates that developed Oakland Avenue will have a slope of 0.0310 to match the existing road. Plate 22.3 D-2 shows the one-half roadway capacity is approximately 62 cfs, which is much greater than the anticipated developed offsite flow of 16.0 cfs. Therefore, no storm drain is required to be constructed in Oakland Avenue N.E. adjacent to this property. The future grades indicated on the Grading Plan are also from the Quail Springs Estates Grading and Drainage Plan.

The Calculations which appear hereon analyze both the existing and developed conditions for the 100-year, 6-hour rainfall event. The Procedure for 40-acre and Smaller Basins, as set forth in the Revision of Section 22.2, Hydrology of the Development Process Manual, Volume 2, Design Criteria, dated January, 1993, has been used to quantify the peak rate of discharge and volume of runoff generated. As shown by these calculations, the proposed improvements will increase the peak discharge rate by 0.4 cfs and volume of runoff 640 cf. Because the proposed development will be consistent with Urban-Type drainage patterns, ponding is not desirable in residential development, and the increase in runoff is very minor, mitigative measures are not required.

JMA #960831

CALCULATIONS

Site Characteristics

I. Precipitation Zone = 3

II. $P_{6,100} = P_{360} = 2.60$ in.

III. Total Area (A_T) = 0.89 ac

IV. Existing Land Treatment

A. On-Site (A_T = 0.89 ac)

Treatment	Area (sf/ac)	%
A	27,160/0.63	70.3
B	5,200/0.12	13.5
C	4,500/0.10	11.7
D	1,750/0.04	4.5

B. Off-Site Basin (A_T = 4.44 ac)

Treatment	Area (sf/ac)	%
A	182,540/4.19	94.4
B	5,000/0.11	2.5
C	3,750/0.09	2.0
D	1,750/0.05	1.1

V. Developed Land Treatment

A. On-Site

Treatment	Area (sf/ac)	%
A	19,610/0.45	50.8
B	5,200/0.12	13.5
C	9,400/0.22	24.0
D	4,400/C.10	11.7

B. Off-Site Basin assuming 4 DU/acre – calculated per Table A-5, DPM Section 22.2 (A_T = 4.44 ac)

Treatment	Area (sf/ac)	%
B	111,960/2.58	56.0
D	81,080/1.86	42.0

VI. Existing Condition 4.44

A. On-Site

1. Volume

$E_W = (E_A A_A + E_B A_B + E_C A_C + E_D A_D)/A_T$

$E_W = (0.66(0.63)+0.92(0.12)+1.29(0.10) +2.36(0.04))/0.89 = 0.84$ in.

$V_{100} = (E_W/12)A_T$

$V_{100} = (0.84/12)0.89 = 0.0625$ ac.ft.; 2,720 cf

2. Peak Discharge

$Q_p = Q_{PA}A_A + Q_{PB}A_B + Q_{PC}A_C + Q_{PD}A_D$

$Q_p = Q_{100} = 1.87(0.63)+2.60(0.12) +3.45(0.10)+5.02(0.04) = 2.0$ cfs

B. Offsite Basin

1. Volume

$E_W = (E_A A_A + E_B A_B + E_C A_C + E_D A_D)/A_T$

$E_W = (0.66(4.19)+0.92(0.11)+1.29(0.09) +2.36(0.05))/4.44 = 0.70$ in.

$V_{100} = (E_W/12)A_T$

$V_{100} = (0.70/12)4.44 = 0.2590$ ac.ft.; 11,280 cf

2. Peak Discharge

$Q_p = Q_{PA}A_A + Q_{PB}A_B + Q_{PC}A_C + Q_{PD}A_D$

$Q_p = Q_{100} = 1.87(4.19)+2.60(0.11) +3.45(0.09)+5.02(0.05) = 7.8$ cfs

VII. Developed Condition

A. On-Site

1. Volume

$E_W = (E_A A_A + E_B A_B + E_C A_C + E_D A_D)/A_T$

$E_W = (0.66(0.45)+0.92(0.12)+1.29(0.22) +2.36(0.10))/0.89 = 1.04$ in.

$V_{100} = (E_W/12)A_T$

$V_{100} = (1.04/12)0.89 = 0.0771$ ac.ft.; 3,360 cf

2. Peak Discharge

$Q_p = Q_{PA}A_A + Q_{PB}A_B + Q_{PC}A_C + Q_{PD}A_D$

$Q_p = Q_{100} = 1.87(0.45)+2.60(0.12) +3.45(0.22)+5.02(0.10) = 2.4$ cfs

VIII. Comparison

Developed vs. Existing Conditions

Volume

1. $\Delta V_{100} = 3,360 - 2,720 = 640$ cf (increase)

Peak Discharge

2. $\Delta Q_{100} = 2.4 - 2.0 = 0.4$ cfs (increase)

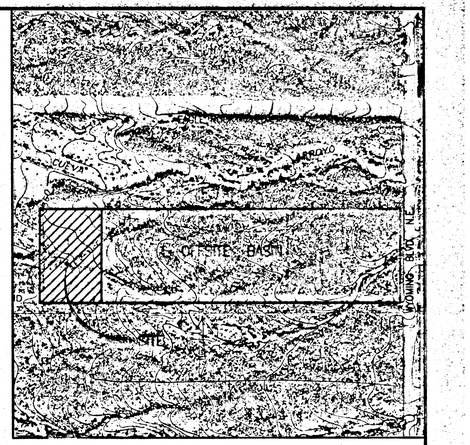
IX. Oakland Avenue N.E.

Roadway Capacity per Plate 22.2 D-2 of the D.P.M.

Assume: Roadway width = 40' face to face
Slope = 0.0310 ft/ft

Therefore: $Q_{capacity}$ for 1/2 roadway width = 62 cfs

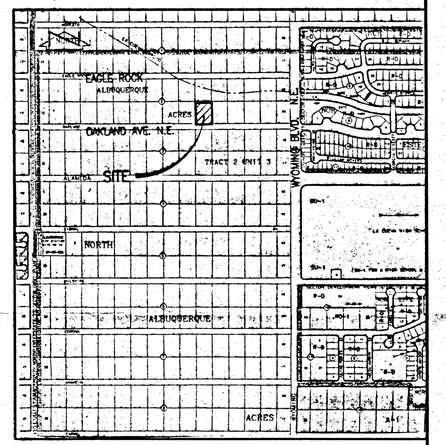
$Q_{capacity} = 62$ cfs >> 16 cfs = $Q_{developed\ offsite}$



WATERSHED/ORTHOTOPO MAP C-19

SCALE: 1" = 200'

NOTE: PHOTOGRAPH TAKEN MAY 15, 1973. NOR ESTE SUBDIVISION DIVERSION HAD NOT BEEN CONSTRUCTED AS OF THIS DATE.



VICINITY MAP C-19

SCALE: 1" = 750'±

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

GRADING AND DRAINAGE PLAN
ESTILL RESIDENCE

DESIGNED BY	G.R.B.
DRAWN BY	J.M.A.
APPROVED BY	J.G.M.

NO.	DATE	BY	REVISIONS
1	09/96	G.R.B.	SPOT ELEVATIONS, GRADES, DRAINAGE PLAN, CALCULATIONS.

JOB NO. 960831
DATE 08-1996
SHEET 1 OF 1

RECEIVED SEP 27 1996

C:\DATA\ACAD\DWG\960831G Thu Sep 26 13:25:33 1996 -JMC

LEGAL DESCRIPTION

LOT 22, BLOCK 2, TRACT 2, UNIT 3, NORTH ALBUQUERQUE ACRES
(7405 OAKLAND AVENUE N.E.)

PROJECT BENCHMARK

A STANDARD ACS BRASS TABLET, STAMPED "1-B19", SET IN TOP OF A CONCRETE POST PROJECTING 0.1 FT. ABOVE GROUND LOCATED IN THE NORTHEAST QUADRANT OF THE INTERSECTION OF WYOMING BLVD. N.E. AND MODESTO AVE. N.E.
ELEVATION = 5393 FT. (M.S.L.D.)

T.B.M.

RAILROAD SPIKE SET IN EAST FACE OF POWER POLE AT SOUTHWEST CORNER OF SITE.
ELEVATION = 5359.64 FT. (M.S.L.D.)

NOTE:
THIS IS NOT A BOUNDARY SURVEY; BOUNDARY INFORMATION SHOWN FOR THE PURPOSE OF QUANTIFYING SITE HYDROLOGY.

LEGEND

W.P.P.	WOOD POWER POLE
O.H. ELECTRIC (2)	OVERHEAD ELECTRIC (NO. OF LINES)
O.H. TELEPHONE (1)	OVERHEAD TELEPHONE (NO. OF LINES)
+ 67.25	EXISTING SPOT ELEVATION
60.5	EXISTING CONTOUR
62	PROPOSED SPOT ELEVATION
	PROPOSED CONTOUR
	PROPOSED FLOWLINE
	ROOF DRAINAGE
	PROPOSED CONCRETE
	PROPOSED GRAVEL
	EXISTING DECIDUOUS TREE
	EXISTING SHRUB

SCALE: 1" = 20'

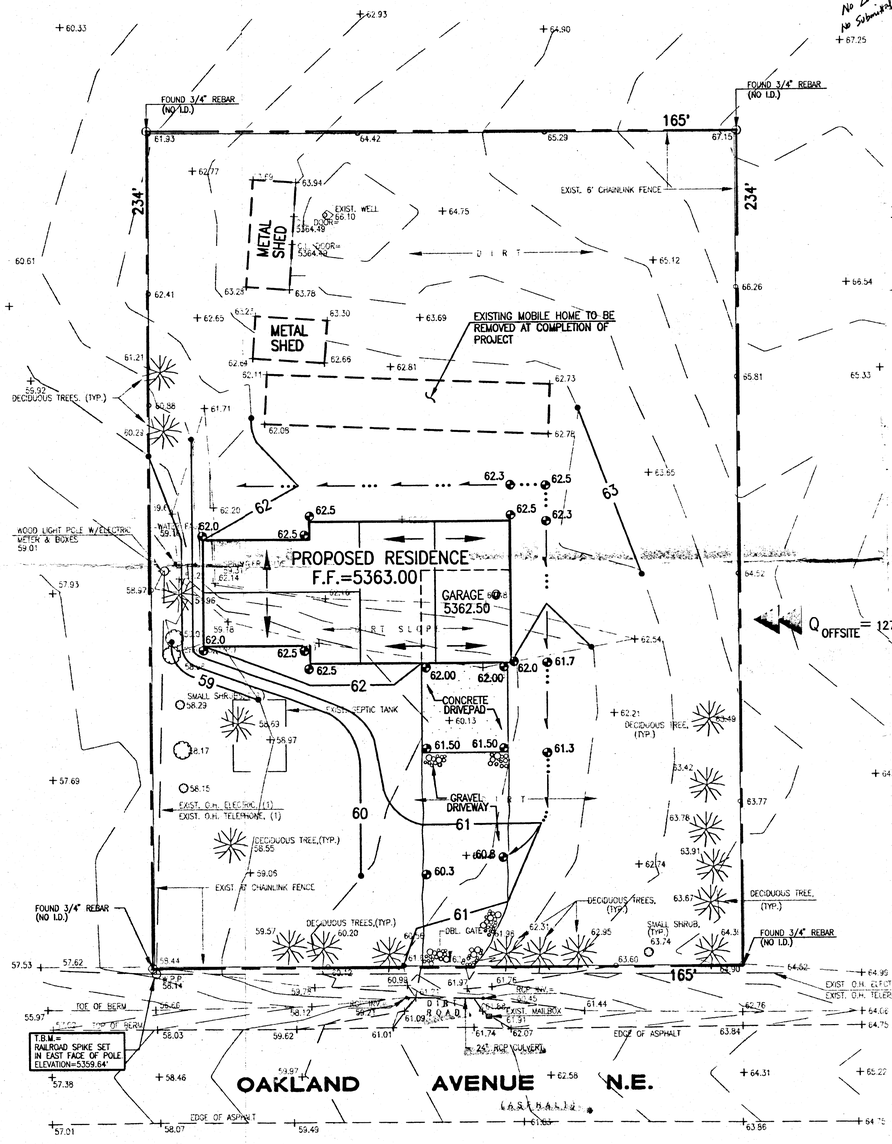
20' 0 40'
10' 20'

Construction Notes:

1. Two (2) working days prior to any excavation, contractor must contact New Mexico One Call System 260-1990 (Albuquerque Area), 1-800-321-ALERT(2537) (Statewide), for location of existing utilities.
2. 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 in writing so that the conflict can be resolved with a minimum amount of delay. The Contractor shall be responsible for all interpretations it makes without first contacting the Engineer as required above.
3. 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.
4. All construction within public right-of-way shall be performed in accordance with applicable City of Albuquerque Standards and Procedures.
5. 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 conducted only preliminary investigation of the location, depth, size, or type of existing utility lines, pipelines, or underground utility lines. This investigation is not conclusive, and may not be complete, therefore, 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.
6. 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:

1. The contractor shall ensure that no soil erodes from the site into public right-of-way or onto private property.
2. 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.
3. The contractor shall secure "Topsoil Disturbance Permit" prior to beginning construction.
4. Any areas of excess disturbance (traffic access, storage yard, excavated material, etc.) shall be re-seeded according to C.O.A. Specification 1012 "Native Grass Seeding". This will be considered incidental to construction, therefore, no separate payment will be made.



DRAINAGE PLAN

The following items concerning the Estill Residence Drainage Plan are contained hereon:

1. Vicinity Map
2. Watershed Map
3. Grading Plan
4. Calculations

As shown by the Vicinity Map, the site is located on Oakland Avenue N.E., approximately 0.3 mile west with the intersection of Wyoming Boulevard N.E. The site is currently developed residentially with two metal sheds and an existing mobile home.

As shown by Panel 10 of 50 of the National Flood Insurance Program Flood Insurance Rate Maps published by F.E.M.A. for the City of Albuquerque, New Mexico dated October 14, 1983, this site lies within a designated flood hazard zone (AO - depth:1). However, this site zone has effectively been removed by the construction of a soil cement dike. The soil cement dike, constructed as part of the Nor Este Subdivision,diverts runoff from the La Cueva Arroyo northward across Eagle Rock Avenue. As a result, the soil cement dike provides flood protection; the only offsite flows received by this site are as shown on the Watershed Map.

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 shown by the Grading Plan, the proposed improvements consist of the construction of a new residence, concrete pad, and gravel driveway. At the completion of the new residence, the existing mobile home will be removed from the site.

There are no offsite flows from the north and west because those lands are topographically lower. This site is not impacted by offsite flows from the south due to the presence of a bar ditch which lies along Oakland Avenue N.E. The site does receive offsite flows from the properties to the east. Five lots lie to the east of the subject property. Of these lots, one is currently developed with a mobile home used as a primary residence. The offsite flows calculated are based upon the assumption that all of the lots are fully developed. The developed conditions were calculated using the "Typical North Albuquerque Acres (N.A.A.) Development Scenario". This offsite flow has been calculated to be 12.7 cfs and will continue to be accepted. The existing chainlink fence along the east property line freely passes the offsite flows as evidenced by visual site inspection. These flows will be accepted and diverted to the south before resuming their historic drainage patterns.

The Calculations which appear hereon analyze both the existing and developed conditions for the 100-year, 6-hour rainfall event. The Procedure for 40-acre and Smaller Basins, as set forth in the Revision of Section 22.2, Hydrology of the Development Process Manual, Volume 2, Design Criteria, dated January, 1993, has been used to quantify the peak rate of discharge and volume of runoff generated. As shown by these calculations, the proposed improvements will cause an increase in runoff generated by this site. Because the proposed construction will result in discharge consistent with the Typical North Albuquerque Acres Development Scenario, mitigative measures are not required.

Water & Sewer Service?

Curb & gutter?

CALCULATIONS

Site Characteristics

I. Precipitation Zone = 3

II. $P_{6,100} = P_{360} = 2.60$ in.

III. Total Area (A_T) = 0.89 ac

IV. Existing Land Treatment

A. On-Site (A_T = 0.89 ac)

Treatment	Area (sf/ac)	%
A	27,160/0.63	70.3
B	5,200/0.12	13.5
C	4,500/0.10	11.7
D	1,750/0.04	4.5

B. Off-Site Basin (A_T = 4.44 ac)
(Assuming Typical N.A.A. Fully Developed Scenario)

Treatment	Area (sf/ac)	%
A	83,170/1.91	43.0
B	38,680/0.89	20.0
C	38,680/0.89	20.0
D	32,510/0.75	17.0

V. Developed Land Treatment

A. On-Site

Treatment	Area (sf/ac)	%
A	19,610/0.45	50.8
B	5,200/0.12	13.5
C	9,400/0.22	24.0
D	4,400/0.10	11.7

B. Typical N.A.A. Development Scenario (per ac)

Treatment	Area (sf/ac)	%
A	13,700/0.43	43.0
B	8,710/0.20	20.0
C	8,710/0.20	20.0
D	7,410/0.17	17.0

capacity? Culvert Capacity?

VI. Existing Condition

A. On-Site

1. Volume

$E_W = (E_AA_A+E_BA_B+E_CA_C+E_DA_D)/A_T$

$E_W = (0.66(0.63)+0.92(0.12)+1.29(0.10)+236(0.04))/0.89 = 0.84$ in.

$V_{100} = (E_W/12)A_T$

$V_{100} = (0.84/12)0.89 = 0.0625$ ac.ft.; 2,20 cf

2. Peak Discharge

$Q_p = Q_{PA}A_A + Q_{PB}A_B + Q_{PC}A_C + Q_{PD}A_D$

$Q_p = Q_{100} = 1.87(0.63)+2.60(0.12)+3.45(0.10)+5.02(0.04) = 2.0$ cfs

B. Offsite Basin

1. Volume

$E_W = (E_AA_A+E_BA_B+E_CA_C+E_DA_D)/A_T$

$E_W = (0.66(1.91)+0.92(0.89)+1.29(0.89)+2.36(0.75))/4.44 = 1.13$ in.

$V_{100} = (E_W/12)A_T$

$V_{100} = (1.13/12)4.44 = 0.4181$ ac.ft.; 18,210 cf

2. Peak Discharge

$Q_p = Q_{PA}A_A + Q_{PB}A_B + Q_{PC}A_C + Q_{PD}A_D$

$Q_p = Q_{100} = 1.87(1.91)+2.60(0.89)+3.45(0.89)+5.02(0.75) = 12.7$ cfs

VII. Developed Condition

A. On-Site

1. Volume

$E_W = (E_AA_A+E_BA_B+E_CA_C+E_DA_D)/A_T$

$E_W = (0.66(0.45)+0.92(0.12)+1.29(0.22)+2.36(0.10))/0.89 = 1.04$ in.

$V_{100} = (E_W/12)A_T$

$V_{100} = (1.04/12)0.89 = 0.0771$ ac.ft.; 3,360 cf

2. Peak Discharge

$Q_p = Q_{PA}A_A + Q_{PB}A_B + Q_{PC}A_C + Q_{PD}A_D$

$Q_p = Q_{100} = 1.87(0.45)+2.60(0.12)+3.45(0.22)+5.02(0.10) = 2.4$ cfs

B. Typical North Albuquerque Acres Development Scenario (Per Acre)

1. Volume

$E_W = (E_AA_A+E_BA_B+E_CA_C+E_DA_D)/A_T$

$E_W = (0.66(0.43)+0.92(0.20)+1.29(0.20)+2.36(0.17))/1.0 = 1.13$ in.

$V_{100} = (E_W/12)A_T$

$V_{100} = (1.13/12)1.0 = 0.0942$ ac.ft.; 4,100 cf

2. Peak Discharge

$Q_p = Q_{PA}A_A + Q_{PB}A_B + Q_{PC}A_C + Q_{PD}A_D$

$Q_p = Q_{100} = 1.87(0.43)+2.60(0.20)+3.45(0.20)+5.02(0.17) = 2.9$ cfs

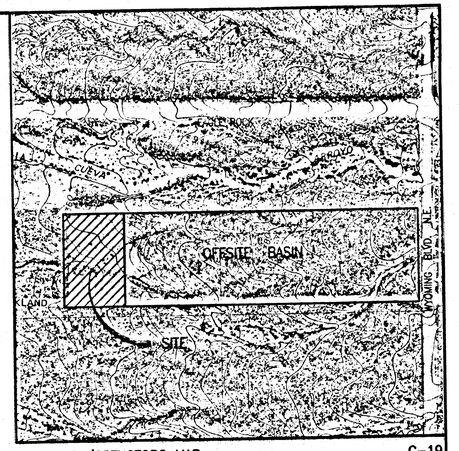
VIII. Comparison

A. Developed vs. Existing Conditions

1. $\Delta V_{100} = 3,360 - 2,720 = 640$ cf (increase)
2. $\Delta Q_{100} = 2.4 - 2.0 = 0.4$ cfs (increase)

B. Developed Condition vs. Typical N.A.A. Development Scenario

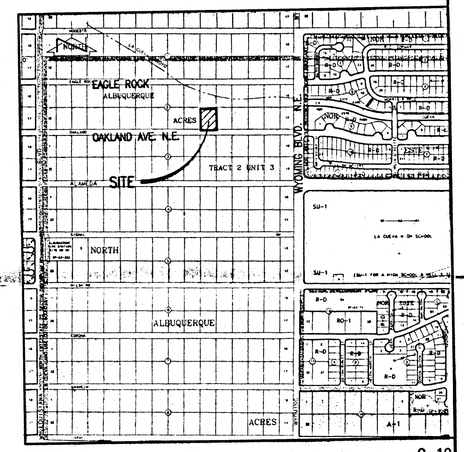
1. $\Delta V_{100} = 4,100 - 3,360 = 740$ cf (decrease)
2. $\Delta Q_{100} = 2.9 - 2.4 = 0.5$ cfs (decrease)



WATERSHED/ORTHOTOPO MAP C-19

SCALE: 1" = 200'

NOTE: PHOTOGRAPH TAKEN MAY 15, 1973. NOR ESTE SUBDIVISION DIVERSION HAD NOT BEEN CONSTRUCTED AS OF THIS DATE.



VICINITY MAP C-19

SCALE: 1" = 750'±

RECEIVED
AUG 16 1996
HYDROLOGY

JEFFREY G. MORTENSEN
NEW MEXICO
8547
REGISTERED PROFESSIONAL ENGINEER

08-15-96

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

GRADING AND DRAINAGE PLAN
ESTILL RESIDENCE

DESIGNED BY G.R.B.
DRAWN BY J.M.A.
APPROVED BY J.G.M.

NO.	DATE	BY	REVISIONS

JOB NO. 960831
DATE 08-1996
SHEET 1 OF 1

C:\DATA\ACADD\WS0831 Wed Aug 14 15:41:27 1996 -SSH