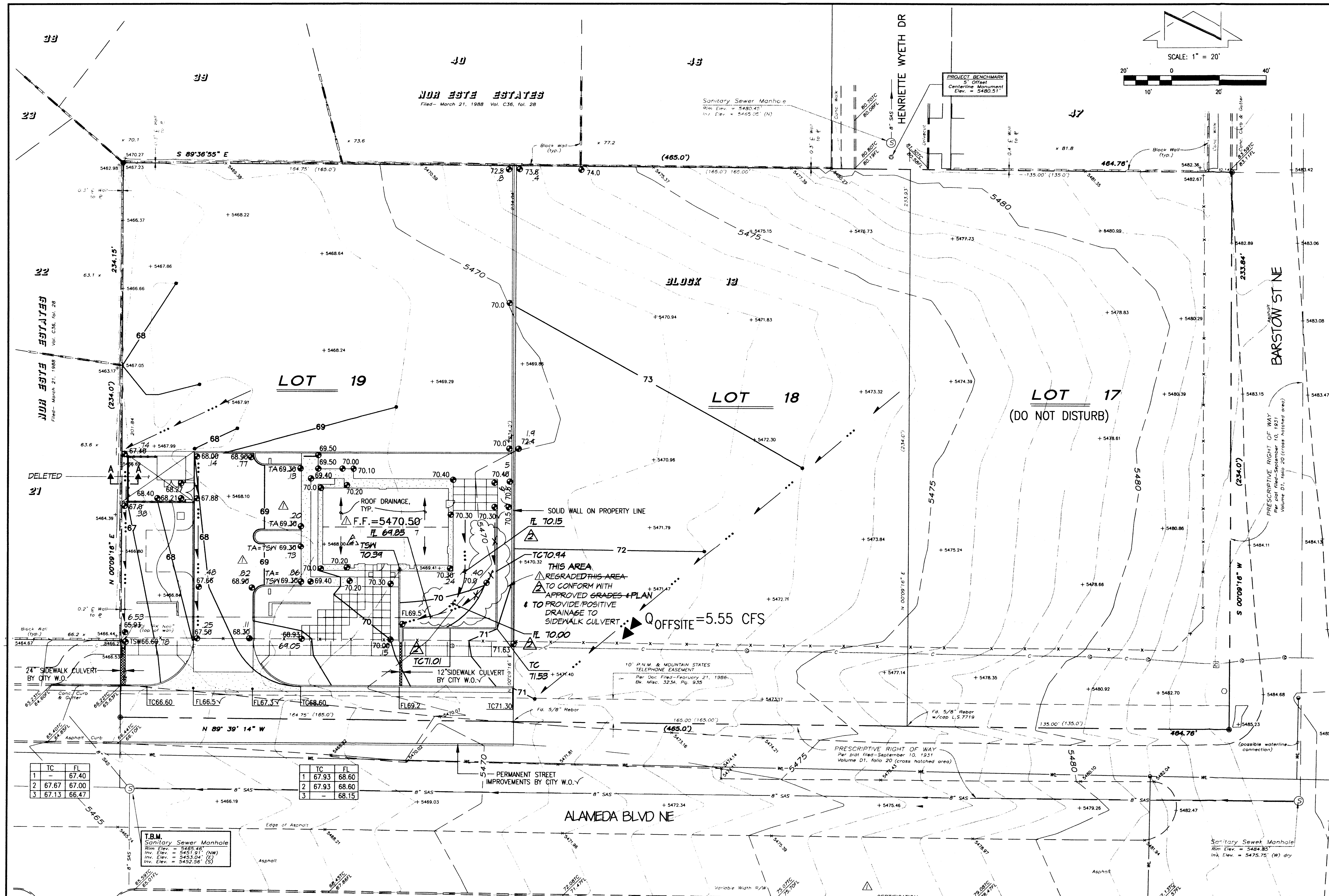

	TC	FL
1	-	67.40
2	67.67	67.00
3	67.13	66.47

	TC	FL
1	67.93	68.60
2	67.93	68.60
3	-	68.15

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, staging area, 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.

LEGEND

- POWER POLE
- LIGHT
- WATER VALVE
- FIRE HYDRANT
- UTILITY PEDESTAL
- TRAFFIC CONTROL BOX
- TREE
- WATER METER
- TRANSFORMER
- CABLE TV SPOT
- CABLE TV PEDESTAL
- SANITARY SEWER MANHOLE
- BARBWIRE FENCE
- CABLE TELEVISION
- WATER LINE
- EXISTING CONTOUR
- + 5471.47 EXISTING SPOT ELEVATION
- 49 PROPOSED CONTOUR
- 49.50 PROPOSED SPOT ELEVATION
- PROPOSED DIRECTION OF FLOW
- PROPOSED CONCRETE
- 70.36 .24 AS-BUILT ELEVATION
- ✓ AS-BUILT=AS-DESIGNED ELEVATION
- FL 69.85 AS-BUILT ELEVATION

CERTIFICATION

AS INDICATED BY THE AS-BUILT INFORMATION SHOWN HEREON, THIS PROJECT HAS BEEN GRADED AND DRAINED IN SUBSTANTIAL COMPLIANCE WITH THE APPROVED PLAN. THE PARKING SPACE GRADES HAVE BEEN CONSTRUCTED STEEPER THAN DESIGNED AND THEREFORE MAY NOT SATISFY ADA CRITERIA, HOWEVER, THIS WILL NOT ADVERSELY AFFECT THE DRAINAGE OF THE SITE; THIS CERTIFICATION DOES NOT ADDRESS ADA COMPLIANCE. THE ALAMEDA BOULEVARD N.E. WORK (WHICH INCLUDES THE SIDEWALK CULVERTS) WAS CONSTRUCTED BY CITY WORK ORDER AND ACCEPTED BY THE CITY ON AUGUST 12, 1998. ONE DISCREPANCY IS NOTED, HOWEVER, THE LANDSCAPED AREA AT THE SOUTHEAST CORNER OF THE BUILDING REQUIRES REGRADING TO CONFORM WITH THE APPROVED PLAN. IT IS BASED UPON THIS EVALUATION OF AS-CONSTRUCTED CONDITIONS THAT ISSUANCE OF A TEMPORARY CERTIFICATE OF OCCUPANCY IS HEREBY RECOMMENDED. CORRECTIONS AND RECERTIFICATION WILL BE REQUIRED FOR ISSUANCE OF A PERMANENT CERTIFICATE OF OCCUPANCY. THE AS-BUILT INFORMATION SHOWN HEREON HAS BEEN OBTAINED BY ME OR UNDER MY DIRECT SUPERVISION AND IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

JEFFREY G. MORTENSEN, NMPE 8547 — 08-25-98 DATE

JEFFREY G. MORTENSEN NEW MEXICO 8547 REGISTERED PROFESSIONAL ENGINEER

05-19-97 09/20/98

SEE SHEET A-4 FOR RECERTIFICATION

NOTE:

THIS IS NOT A BOUNDARY SURVEY. APPARENT PROPERTY CORNERS ARE SHOWN FOR ORIENTATION ONLY. BOUNDARY AND TOPOGRAPHIC DATA ARE TAKEN FROM A TOPOGRAPHIC SURVEY PREPARED BY RUSS P. HUGG DATED DECEMBER 19, 1996.

PROJECT BENCHMARK

5' OFFSET CENTERLINE MONUMENT OF HENRIETTE WYETH DR. N.E. AS SHOWN ON THE DRAWING. ELEVATION = 5480.51 FEET (M.S.L.D.)

T.B.M.

TOP OF RIM ELEVATION OF SANITARY SEWER MANHOLE AS SHOWN ON THE DRAWING. ELEVATION = 5465.46 FEET (M.S.L.D.)

LEGAL DESCRIPTION

LOTS 17, 18, AND 19, BLOCK 13, TRACT 2, UNIT 3 NORTH ALBUQUERQUE ACRES

SEP 21 1998

File Path: | Plot Date: 09-15-1998
File Name: 97008622.DWG | Plot Time: 1:23 pm

JEFF MORTENSEN & ASSOCIATES, INC.
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ALBUQUERQUE NEW MEXICO 87109
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970086 B6

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8201 ALAMEDA BLVD. N.E., ALBUQUERQUE, N M 87122

SANDERS ROGERS ARCHITECTS, P.C. Architecture Landscape Architecture Interior Design
301 GOLD AVENUE S.W. SUITE 202 ALBUQUERQUE N.M. 87102 (505) 247-1168 FAX (505) 247-0262

SHEET TITLE: GRADING PLAN

PROPERTY NUMBER	REVISIONS	
DEVELOPMENT NUMBER SEM96-01	AS-BUILT AND CERTIFY	
DRAWN BY: ACAD / CHECKED BY: J.G.M.	VERIFY AND RECERTIFY	08/98

sheet A-3 of

DRAINAGE PLAN

The following items concerning the Church of Jesus Christ of Latter Day Saints, Alameda Boulevard Project are contained hereon:

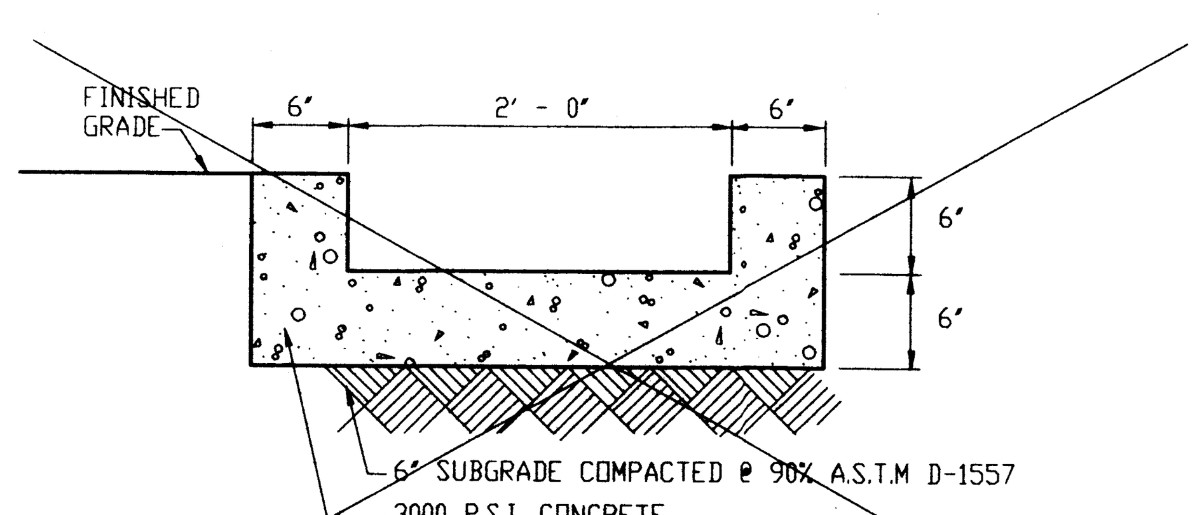
1. Vicinity Map 2. Watershed Map 3. Grading Plan 4. Calculations

As shown by the Vicinity Map, the site is generally located at the northwest corner of the intersection of Alameda Boulevard N.E. and Barstow Street N.E. At present, the site is undeveloped. Lots 17, 18 and 19, as shown on the Grading Plan, are under the ownership of the Church of Jesus Christ of Latter Day Saints. Only Lot 19 is proposed for development. Grading is required on Lot 18. Lot 17 is specified "Do Not Disturb".

As shown by Panel 141 of 825 of the National Flood Insurance Program Flood Insurance Rate Maps published by F.E.M.A. for the County of Bernalillo, New Mexico, and Incorporated Areas, dated September 20, 1996, this site does not lie within a designated flood hazard zone. Runoff generated by this site drains from east to west onto Alameda Boulevard. From this point, runoff flows in a westerly direction to be intercepted by a public storm drain at the intersection of Wyoming Boulevard N.E. and Alameda Boulevard N.E. From this point, flows are diverted to the La Cueva Arroyo which lies to the north. This site lies within the La Cueva Arroyo Watershed. The La Cueva Arroyo represents the outfall for this site. The development of Tierra La Cueva Unit 1, which lies immediately across the street from this site to the south (Hydrology File No. C19/D9) establishes this concept of free discharge to Alameda Boulevard N.E. The above referenced plan demonstrates downstream capacity and the suitability of discharging the runoff from this site to the La Cueva Arroyo via Alameda Boulevard N.E.

The Grading Plan shows: 1) existing grades and improvements as shown on the Topographic Survey prepared by SurvTek dated December 19, 1996, 2) proposed grades indicated by spot elevations and contours at 1'0" intervals, 3) the limit and character of the proposed improvements, 4) proposed paving improvements within Alameda Boulevard N.E. to be constructed by City Work Order and 5) continuity between existing and proposed grades. As shown by this Plan, the proposed improvements consist of the construction of a building, along with associated paving and landscaping on Lot 19. The rear portion of the lot is to remain undeveloped. The westerly portion of Lot 18 will be regraded to direct offsite flows to Alameda Boulevard N.E. and hence avoid establishing the precedent for draining that lot through the rear portion of Lot 19 which may represent a restriction on the development of Lot 18 at a future date. As stated above, the runoff from Lot 19 will be directed to the southerly portion of the site where it will be discharged via two sidewalk culverts. Offsite flows from the east are being interrupted by the development of the Pico La Cueva Subdivision, currently under construction. Minimal flows originate on Lots 17 and 18 and flow in a westerly direction toward Lot 19. It will be redirected to the southeast corner of Lot 19 to ultimately discharge to Alameda Boulevard N.E. Under this Plan, offsite flows will not enter Lot 19 due to the fact that a solid wall will be constructed along the common lot line between Lots 18 and 19. Following upstream development, these offsite flows will be eliminated by directing developed runoff into the La Cueva Arroyo directly or indirectly via Barstow Street N.E. This is the concept previously established for development in North Albuquerque Acres whereby the north/south streets serve as drainage diversions to collect and divert upstream flows to the nearest arroyo within the respective watersheds. Lots 17 and 18, as they develop, will discharge developed runoff directly to Alameda Boulevard N.E. unless downstream capacity is demonstrated within Henriette Wyeth Drive N.E.

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. Offsite Basin Calculations have been performed for only the existing condition in recognition of the future Barstow Street diversion once the upstream properties develop responsibly. As shown by these calculations, there is no appreciable increase in runoff due to the proposed development. A slight increase in runoff volume is calculated with a negligible decrease in peak discharge.



SECTION A-A (DELETED)

SCALE: 1" = 1' - 0"

LOT 19 CALCULATIONS

Site Characteristics

1. Precipitation Zone = 3
2. $P_{6,100} = P_{360} = 2.60$ in.
3. Total Area (A_T) = 38,610 sf/0.89 ac
4. Existing Land Treatment

Treatment	Area (sf/ac)	%
C	38,610/0.89	100

5. Developed Land Treatment

Treatment	Area (sf/ac)	%
B	20,850/0.48	54
C	8,110/0.19	21
D	9,650/0.22	25

Existing Condition

1. Volume

$$E_W = (E_A A_A + E_B A_B + E_C A_C + E_D A_D)/A_T$$
$$E_W = (1.29)(0.89)/0.89 = 1.29 \text{ in.}$$
$$V_{100} = (E_W/12)A_T$$
$$V_{100} = (1.29/12)0.89 = 0.09 \text{ ac.ft.; } 4{,}170 \text{ cf}$$

2. Peak Discharge

$$Q_p = Q_{PA}A_A + Q_{PB}A_B + Q_{PC}A_C + Q_{PD}A_D$$
$$Q_p = Q_{100} = (3.45)(0.89) = 3.07 \text{ cfs}$$

Developed Condition

1. Volume

$$E_W = (E_A A_A + E_B A_B + E_C A_C + E_D A_D)/A_T$$
$$E_W = (0.92)(0.48)+(1.29)(0.19)+(2.36)(0.22)/0.89 = 1.35 \text{ in.}$$
$$V_{100} = (E_W/12)A_T$$
$$V_{100} = (1.35/12)0.89 = 0.10 \text{ ac.ft.; } 4{,}380 \text{ cf}$$

2. Peak Discharge

$$Q_p = Q_{PA}A_A + Q_{PB}A_B + Q_{PC}A_C + Q_{PD}A_D$$
$$Q_p = Q_{100} = (2.60)(0.48)+(3.45)(0.19)+(5.02)(0.22) = 3.00 \text{ cfs}$$

Comparison

1. $\Delta V_{100} = 0.10 - 0.09$ ac.ft. $= 0.01$ ac.ft.; 190 cf (increase)
2. $\Delta Q_{100} = 3.07 - 3.00$ cfs $= 0.07$ cfs (decrease)

LOTS 17 & 18 CALCULATIONS

Site Characteristics

1. Precipitation Zone = 3
2. $P_{6,100} = P_{360} = 2.60$ in.
3. Total Area (A_T) = 70,180 sf; 1.61 ac.
4. Existing Land Treatment

Treatment	Area (sf/ac)	%
C	70,180/1.61	100

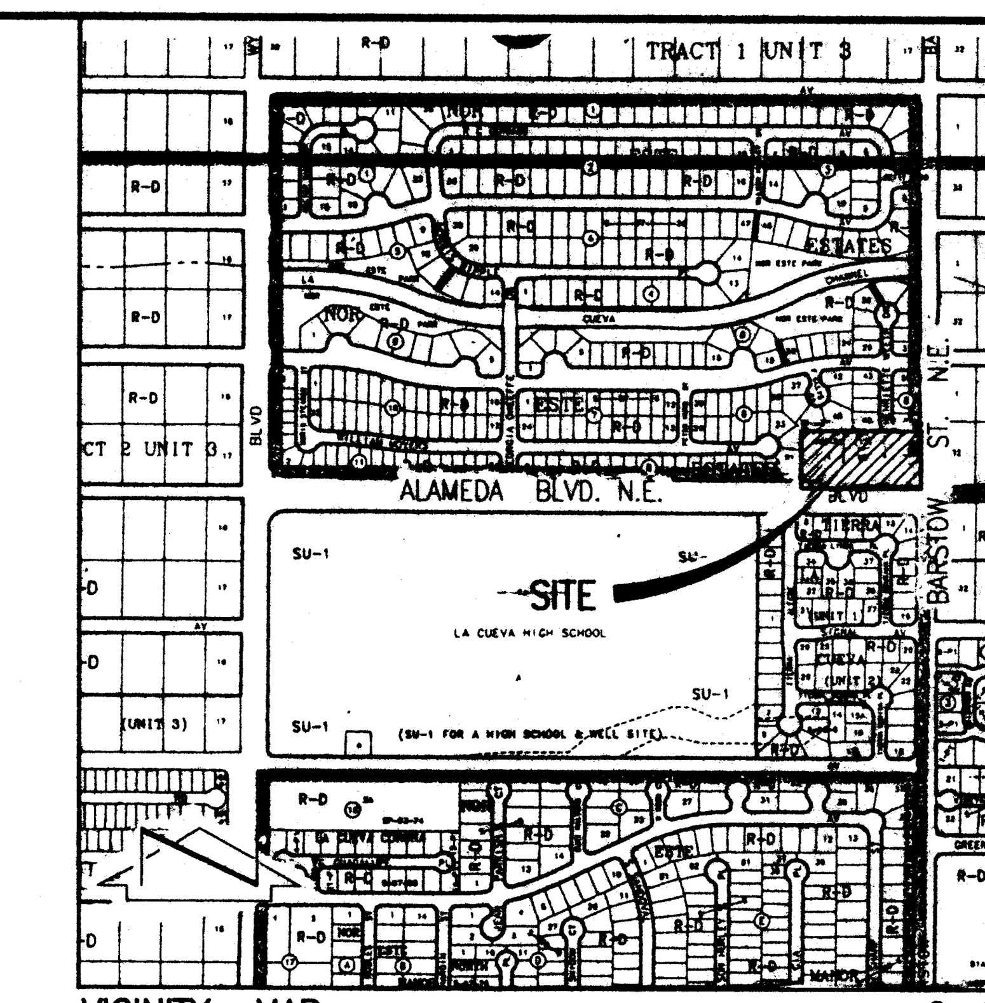
Existing Condition

1. Volume

$$E_W = (E_A A_A + E_B A_B + E_C A_C + E_D A_D)/A_T$$
$$E_W = (1.29)(1.61)/1.61 = 1.29 \text{ in.}$$
$$V_{100} = (E_W/12)A_T$$
$$V_{100} = (1.29/12)1.61 = 0.17 \text{ ac.ft.; } 7{,}540 \text{ cf}$$

2. Peak Discharge

$$Q_p = Q_{PA}A_A + Q_{PB}A_B + Q_{PC}A_C + Q_{PD}A_D$$
$$Q_p = Q_{100} = (3.45)(1.61) = 5.55 \text{ cfs}$$



VICINITY MAP C-19

SCALE: 1" = 750'±

△ CERTIFICATION

AS INDICATED BY THE AS-BUILT INFORMATION SHOWN HEREON, THIS PROJECT HAS BEEN GRADED AND DRAINED IN SUBSTANTIAL COMPLIANCE WITH THE APPROVED PLAN. THE PARKING SPACE GRADES HAVE BEEN CONSTRUCTED STEEPER THAN DESIGNED AND THEREFORE MAY NOT SATISFY ADA CRITERIA, HOWEVER, THIS WILL NOT ADVERSELY AFFECT THE DRAINAGE OF THE SITE; THIS CERTIFICATION DOES NOT ADDRESS ADA COMPLIANCE. THE ALAMEDA BOULEVARD N.E. WORK (WHICH INCLUDES THE SIDEWALK CULVERTS) WAS CONSTRUCTED BY CITY WORK ORDER AND ACCEPTED BY THE CITY ON AUGUST 12, 1998. ONE DISCREPANCY IS NOTED, HOWEVER, THE LANDSCAPED AREA AT THE SOUTHEAST CORNER OF THE BUILDING REQUIRES REGRADING TO CONFORM WITH THE APPROVED PLAN. IT IS BASED UPON THIS EVALUATION OF AS-CONSTRUCTED CONDITIONS THAT ISSUANCE OF A TEMPORARY CERTIFICATE OF OCCUPANCY IS HEREBY RECOMMENDED. CORRECTIONS AND RECERTIFICATION WILL BE REQUIRED FOR ISSUANCE OF A PERMANENT CERTIFICATE OF OCCUPANCY. THE AS-BUILT INFORMATION SHOWN HEREON HAS BEEN OBTAINED BY ME OR UNDER MY DIRECT SUPERVISION AND IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

JEFFREY G. MORTENSEN, NMPE 8547 — [seal: JEFFREY G. MORTENSEN, NEW MEXICO, 8547, REGISTERED PROFESSIONAL ENGINEER] — 08-25-98 DATE

△2 RECERTIFICATION

AS INDICATED BY THE AS-BUILT INFORMATION SHOWN HEREON, THIS PROJECT HAS BEEN GRADED AND DRAINED IN SUBSTANTIAL COMPLIANCE WITH THE APPROVED PLAN. ALL CORRECTIONS NOTED IN THE AUGUST 25, 1998 CERTIFICATION FOR TEMPORARY CERTIFICATE OF OCCUPANCY HAVE BEEN SATISFIED. IT IS BASED UPON THIS EVALUATION OF AS-CONSTRUCTED AND AS CORRECTED CONDITIONS THAT ISSUANCE OF A PERMANENT CERTIFICATE OF OCCUPANCY IS HEREBY RECOMMENDED. THE AS-BUILT INFORMATION SHOWN HEREON HAS BEEN OBTAINED BY ME OR UNDER MY DIRECT SUPERVISION AND IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

JEFFREY G. MORTENSEN, NMPE 8547 — [seal: JEFFREY G. MORTENSEN, NEW MEXICO, 8547, REGISTERED PROFESSIONAL ENGINEER] — 09-20-98 DATE

[seal: JEFFREY G. MORTENSEN, NEW MEXICO, 8547, REGISTERED PROFESSIONAL ENGINEER] 05-19-97

JMA
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970081B6

REVISIONS		
△	DRAINAGE CERTIFICATION	08/98
△2	VERIFY AND RECERTIFY	09/98

PROPERTY NUMBER: ....

DEVELOPMENT NUMBER: SEM96-01

DRAWN BY: ACAD CHECKED BY: J.G.M.

SHEET TITLE: DRAINAGE PLAN AND CALCULATIONS

The CHURCH of JESUS CHRIST of LATTER-DAY SAINTS

8201 ALAMEDA BLVD. N.E., ALBUQUERQUE, N M 87122

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301 GOLD AVENUE S.W. SUITE 202 ALBUQUERQUE N.M. 87102 (505) 247-1168 FAX (505) 247-0262

sheet A-4 of

File Path: E:\DATA\ACAD\97008\ Plot Date: 09-15-1998
File Name: 97008D2.DWG Plot Time: 2:47 pm