

FILE COPY



City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

KEN SCHULTZ
MAYOR

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DAN WEAKS
DEPUTY CAO
PUBLIC SERVICES

FRED E. MONDRAGON
DEPUTY CAO
DEVELOPMENT & ENTERPRISE SERVICES

RAY R. BACA
DEPUTY CAO
PUBLIC SAFETY

August 7, 1989

James Nollenberger
Black & Veatch
1400 S. Potomac, Suite 200
Aurora, Colorado 80012

RE: REVISED DRAINAGE PLAN FOR THOMAS WELL NO. 5
(G-19/D22A) REVISION DATED JUNE 1, 1989

Dear Mr. Nollenberger:

Based on the information provided on your resubmittal of July 31, 1989,
the above referenced plan is approved for Building Permit.

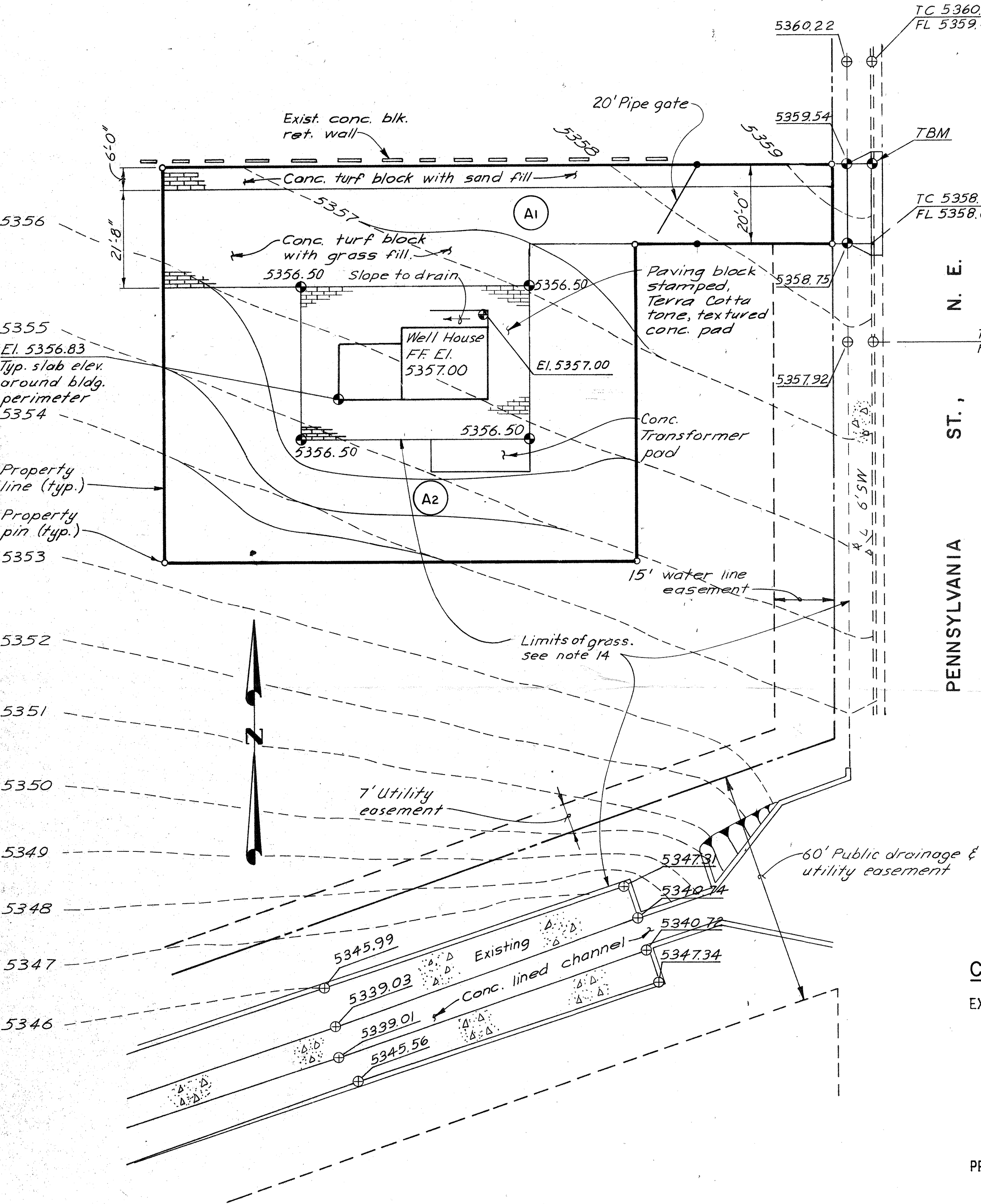
Please attach a copy of this plan to the construction sets prior to
sign-off by Hydrology.

If I can be of further assistance, please feel free to call me at
768-2650.

Cordially,

Bernie J. Montoya
Bernie J. Montoya, C.E.
Engineering Assistant

xc: Mike Mendoza
BJM/bsj
(WP+392)



THOMAS WELL NO. 5 DRAINAGE PLAN
1" = 20'

- NOTES
- AN EXCAVATION/CONSTRUCTION PERMIT WILL BE REQUIRED BEFORE BEGINNING ANY WORK WITHIN CITY RIGHT-OF-WAY. AN APPROVED COPY OF THESE DRAWINGS MUST BE SUBMITTED AT THE TIME OF APPLICATION FOR THE PERMIT.
 - ALL WORK DETAILED ON THESE DRAWINGS TO BE PERFORMED, EXCEPT AS OTHERWISE STATED OR PROVIDED HEREON, SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE "CITY OF ALBUQUERQUE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION - 1986 EDITION."
 - TWO WORKING DAYS PRIOR TO ANY EXCAVATION, CONTRACTOR MUST CONTACT LINE LOCATING SERVICE, 765-1234, FOR LOCATION OF EXISTING UTILITIES.
 - PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL EXCAVATE AND VERIFY THE HORIZONTAL AND VERTICAL LOCATIONS OF ALL OBSTRUCTIONS. SHOULD A CONFLICT EXIST, THE CONTRACTOR SHALL NOTIFY THE ENGINEER SO THAT THE CONFLICT CAN BE RESOLVED WITH A MINIMUM AMOUNT OF DELAY.
 - BACKFILL COMPACTION SHALL BE ACCORDING TO ARTERIAL STREET USE.
 - MAINTENANCE OF THE WELL HOUSE WILL BE BY THE WATER UTILITY DIVISION. MAINTENANCE OF THE GROUNDS WILL BE BY THE CITY OF ALBUQUERQUE PARKS AND RECREATION DEPARTMENT.
 - ALL UTILITIES AND UTILITY SERVICE LINES SHALL BE INSTALLED AND TESTED PRIOR TO TURF BLOCK INSTALLATION OR POURING OF THE STAMPED CONCRETE PAD.
 - DISPOSAL OF ALL WASTE MATERIAL SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AS SPECIFIED IN SECTION 6.14 OF THE GENERAL CONDITIONS IN THE CITY OF ALBUQUERQUE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION - 1986 EDITION.
 - CONSTRUCTION SAFETY: THESE DRAWINGS DO NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY WHICH SHALL REMAIN THE CONTRACTOR'S RESPONSIBILITY.
 - EROSION CONTROL: THE SITE WILL BE FULLY DEVELOPED IMMEDIATELY. EROSION PROBLEMS GENERATED BY PHASED DEVELOPMENT WILL NOT, THEREFORE, BE A PROBLEM.
 - CONSTRUCTION PHASE: THE CONTRACTOR SHALL EXERCISE REASONABLE CARE DURING CONSTRUCTION TO PREVENT THE MOVEMENT OF SEDIMENT FROM THE SITE INTO THE STREET. LOOSE SOIL STOCKPILES IN THE STREET DURING UTILITY CONNECTION ACTIVITIES SHALL BE PROTECTED BY THE CONTRACTOR FROM BEING CARRIED DOWNSTREAM BY FLOWING WATER IN THE STREET.

- EXISTING CONDITIONS:
- THE PROPOSED SITE IS CURRENTLY UNDEVELOPED. THERE IS NO OFF-SITE FLOW ENTERING THE SITE DUE TO THE 100-YEAR OR SMALLER STORM.
- DEVELOPED CONDITIONS:
- THERE WILL BE NO OFF-SITE FLOW ONTO THIS PROPERTY. DEVELOPED FLOW WILL BE DIRECTED ACROSS THE RECREATION DEPARTMENT PROPERTY AND INTO THE EXISTING DRAINAGE CHANNELS. THE STAMPED CONCRETE, TURF BLOCK, AND NATIVE GRASS WILL CONTROL EROSION.
 - THE LAWN SEED MIX WHICH WILL BE INSTALLED BY THE CITY PARKS & RECREATION DEPARTMENT WILL BE:
FALCON FESCUE
MANHATTAN PERENNIAL RYE
ADELPHI BLUE GRASS
AT 250 PLS LBS. PER ACRE
MIXING RATIO AT 1:1:1 BY WEIGHT
THE CONCRETE TURF BLOCK, STAMPED CONCRETE, AND SEEDED LAWN WILL CONTROL EROSION.

CALCULATED FLOWS

EXISTING CONDITIONS:

USE T MINIMUM = 10 MINUTES

$I = 2.5(6.84)(10)^{-51} = 5.28$ (100 YEAR FLOOD)

$A = 0.2755$ ACRES

$C = 0.35$

$Q = (5.28)(0.2755)(0.35) = 0.51$ CFS

PROPOSED CONDITIONS:

USE T MINIMUM = 10 MINUTES

$I = 5.28$ (100 YEAR FLOOD)

$Q_{TOTAL} = Q_1 + Q_2$

$Q_{TOTAL} = I (A_1 C_1 + A_2 C_2)$

$C_1 = 0.95$

$C_2 = 0.35$

$A_1 = \frac{(20')(170') + (11')(93') + (38')(58')}{43560} = 0.1521$ ACRE

$A_2 = 0.2755 - 0.1521 = 0.1234$ ACRES

$Q = 5.25 [(0.1521)(0.95) + (0.1234)(0.35)] = 0.99$ CFS

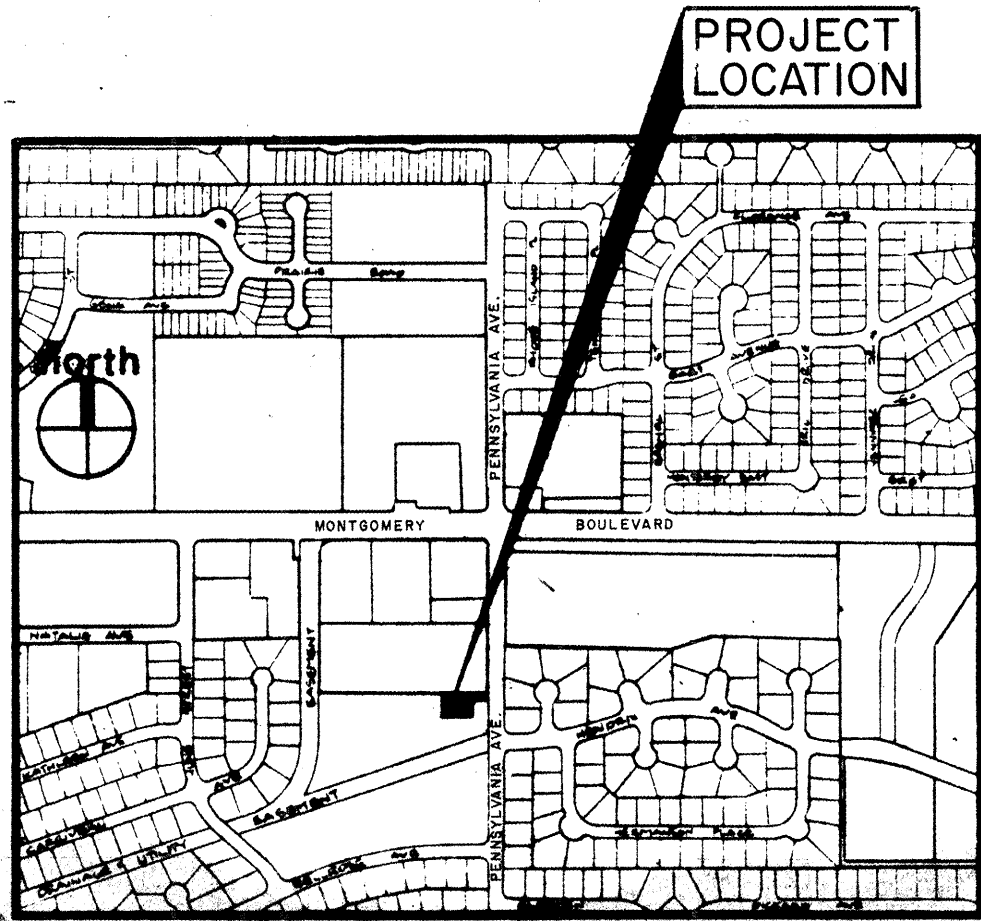
- SITE GRADING NOTES:
- PRIOR TO CONSTRUCTION, CONTRACTOR SHALL PHYSICALLY STAKE AND MARK THE DETERMINED LOCATIONS OF ALL UTILITY LINES AND VERIFY THEM WITH ALL PUBLIC UTILITIES. ANY DAMAGE TO THE EXISTING UTILITY LINES WILL BE THE RESPONSIBILITY OF THE CONTRACTOR.
 - PRIOR TO START OF GRADING, ALL ACTIVELY GROWING, EXISTING GRASSES AND WEEDS WITHIN THE LIMITS OF THE SITE SHALL BE TREATED WITH "ROUND UP" HERBICIDE TO COMPLETELY KILL ALL VEGETATION.
 - CONTRACTOR SHALL FIELD VERIFY THE TOTAL EXTENT OF WORK TO BE PERFORMED AND EXISTING CONDITIONS PRIOR TO BID.
 - CONTRACTOR SHALL ESTABLISH TWO PERMANENT BENCHMARKS PRIOR TO BEGINNING EARTHWORK. A SURVEYING LEVEL SHALL BE AVAILABLE AT ALL TIMES TO SPOT CHECK ELEVATIONS WHEN REQUESTED BY THE ENGINEER.
- SITE GRADING PROCEDURES:
- PRIOR TO INSTALLATION OF THE IRRIGATION SYSTEM, BY THE CITY, THE SITE SHALL BE ROUGH GRADED TO 1/10 OF ONE FOOT BY CONTRACTOR.
 - AFTER INSTALLATION OF THE IRRIGATION SYSTEM IS COMPLETE BY THE CITY, SOIL SHALL BE PREPARED IN ACCORDANCE WITH SPECIFICATIONS BY THE CONTRACTOR.
 - UPON COMPLETION OF TILLING, THE SITE WILL BE WATERED WITH THE IRRIGATION SYSTEM FOR A PERIOD OF SEVEN (7) DAYS. APPROXIMATELY 1"-2" OF WATER SHALL BE APPLIED EACH DAY FOR THE SEVEN (7) DAY PERIOD. AFTER THE COMPLETION OF THE SEVEN (7) DAY WATERING PERIOD, THE SITE SHALL BE ALLOWED TO DRY IN ORDER THAT FINE GRADING BY THE CONTRACTOR CAN BE ACCOMPLISHED.
 - FINE GRADING WILL BE PERFORMED BY THE CONTRACTOR TO ASSURE A CONSISTENTLY UNIFORM SURFACE, FREE OF RIDGES OR DEPRESSIONS. INSPECTION OF THE FINE GRADING SHALL BE PERFORMED BY THE ENGINEER PRIOR TO SEEDING AND PLANTING BY THE CITY. THE CONTRACTOR SHALL PROVIDE A SIGNED STATEMENT FROM A REGISTERED LAND SURVEYOR STATING THAT ALL SITE GRADING MEETS SPECIFIED GRADES.
- GENERAL:
- TEMPORARY BENCHMARK (TBM): CHISELED SQUARE IN BACK OF CURB AT NORTH PROPERTY LINE. ELEVATION 5359.34.

LEGEND

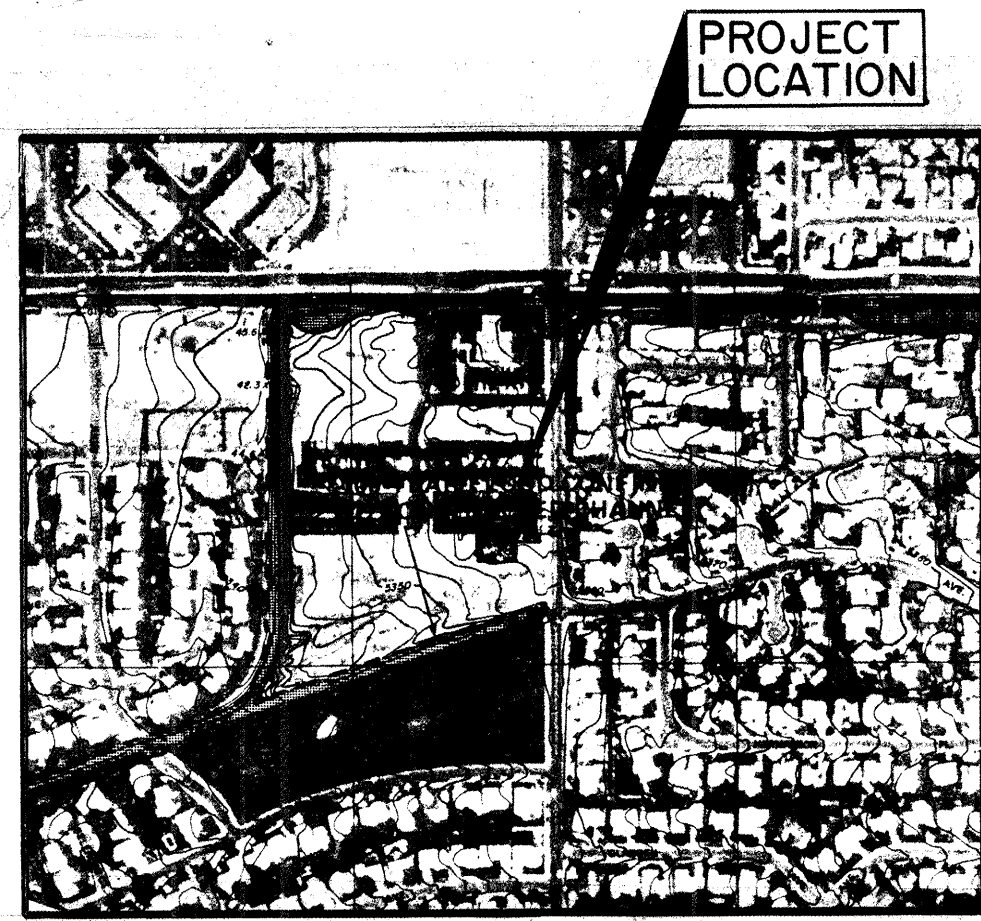
- EXIST. CURB AND GUTTER
- NEW BLOCK WALL
- EXIST. BLOCK WALL
- NEW CHAIN LINK FENCE
- EXIST. CHAIN LINK FENCE
- NEW CONTOUR LINES
- EXIST. CONTOUR LINES
- NEW SPOT ELEVATIONS
- EXIST. SPOT ELEVATIONS
- PROPERTY LINES (SIDE)
- PUBLIC EASEMENTS
- NOTE LEADERS
- MATCH LINES
- DIMENSION LINES
- SECTION CUT LINES
- NEW RESIDENTIAL PAVING
- EXIST. RESIDENTIAL PAVING
- NEW CONCRETE PAVING
- EXIST. CONCRETE PAVING
- RIGHT OF WAY LINES
- EXIST. FIELD FENCE

PROJECT INFORMATION

- FUNCTION: WELL STATION
- LOCATION: SOUTH OF THE INTERSECTION OF PENNSYLVANIA STREET AND MONTGOMERY BOULEVARD.
- LEGAL DESCRIPTION: TRACT B-2, BLOCK 15 OF STARDUST SKIES.
- ZONING ATLAS MAP: G-19-N
- TOTAL ACREAGE: 0.2755 ACRES
- TOTAL BUILDING AREA: 700 SQUARE FEET



VICINITY MAP
No Scale



FLOOD HAZARD MAP
AND OFFSITE FLOWS
No Scale

Black & Veatch
Engineers-Architects
BY PROJECT NO. 13222.010

CITY OF ALBUQUERQUE MUNICIPAL DEVELOPMENT DEPARTMENT ENGINEERING DIVISION					
TITLE: THOMAS WELL NO. 5 DRAINAGE PLAN					
APPROVALS	ENGINEER	DATE	APPROVALS	ENGINEER	DATE
City Engineer			Liquid Waste		
A.C.E. Design			Traffic		
A.C. E-Hydrology			Water		
Traffic Engr.					
COA PROJECT NO.	3676	MAP NO. G-19-N	SHEET 10	OF 49	