

APPROVED FOR SITE PLAN REQUIREMENTS PER C.O.A.  
*Ellen Conner - Zoning Inspector* DATE: 8-11-93  
 CITY OF ALBUQUERQUE - ZONING DEPT.

**EROSION CONTROL MEASURES:**

- THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR MANAGEMENT FOR STORM RUN-OFF DURING CONSTRUCTION; HE SHALL INSURE THAT THE FOLLOWING MEASURES ARE TAKEN:
- ADJACENT PROPERTY SHALL BE PROTECTED AT ALL TIMES BY CONSTRUCTION OF BERMS, DIKES, SWALES, PONDS, AND OTHER TEMPORARY GRADING AS REQUIRED TO PREVENT STORM RUNOFF FROM LEAVING THE SITE AND ENTERING ADJACENT PROPERTIES.
  - ADJACENT PUBLIC RIGHT-OF-WAYS SHALL BE PROTECTED AT ALL TIMES FROM STORM WATER RUNOFF FROM THE SITE. NO SEDIMENT BEARING WATER SHALL BE PERMITTED TO ENTER PUBLIC STREETS.
  - THE CONTRACTOR SHALL IMMEDIATELY AND THOROUGHLY REMOVE ANY AND ALL SEDIMENT WITHIN PUBLIC STREETS THAT HAS BEEN ERODED FROM THE SITE AND DEPOSITED THERE.

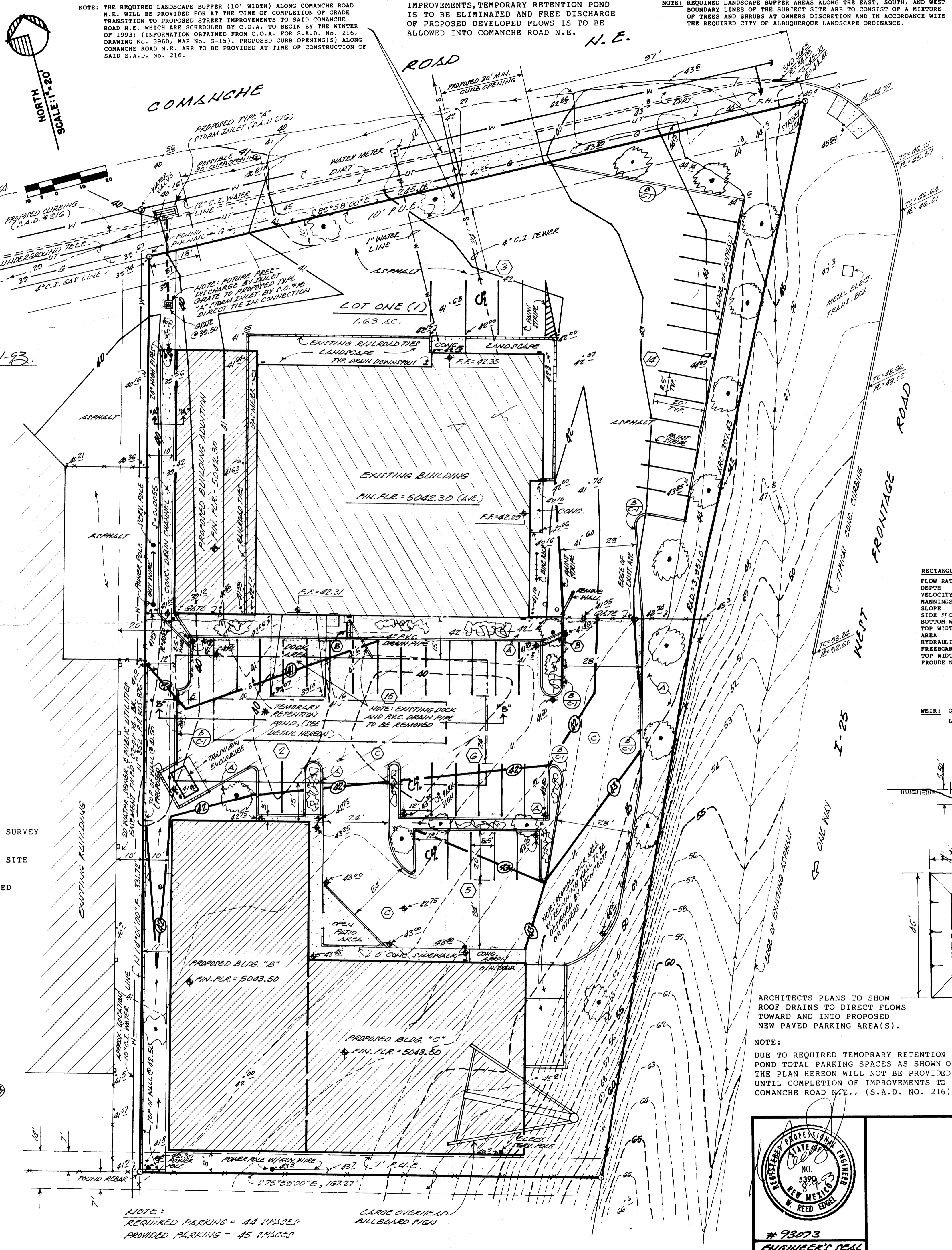
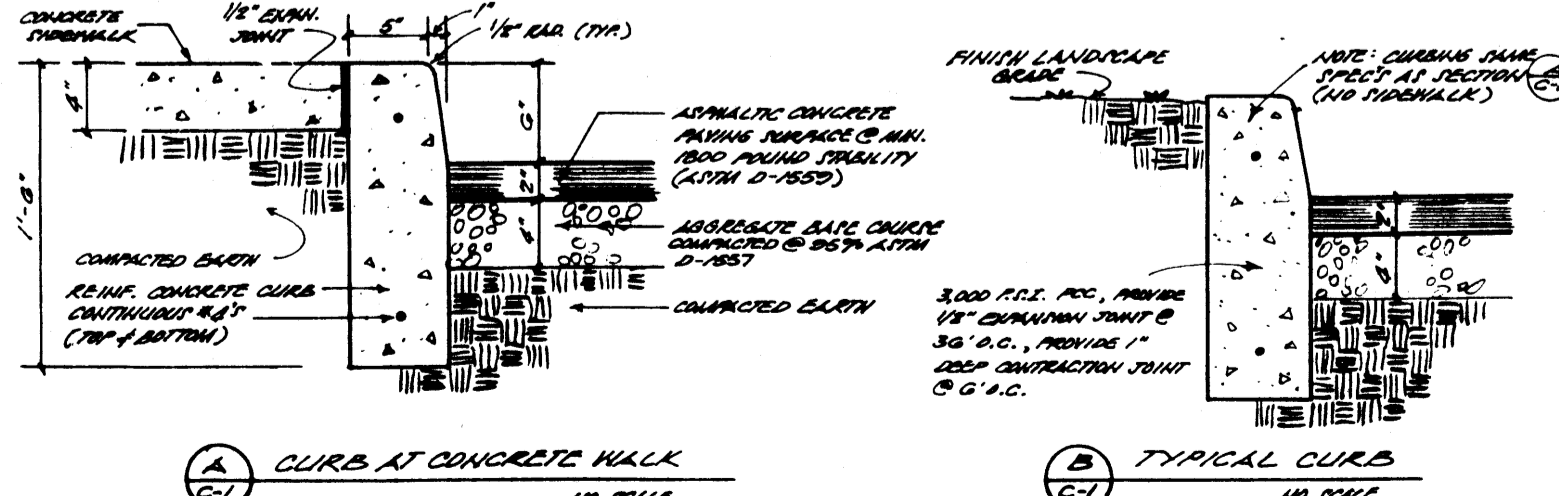
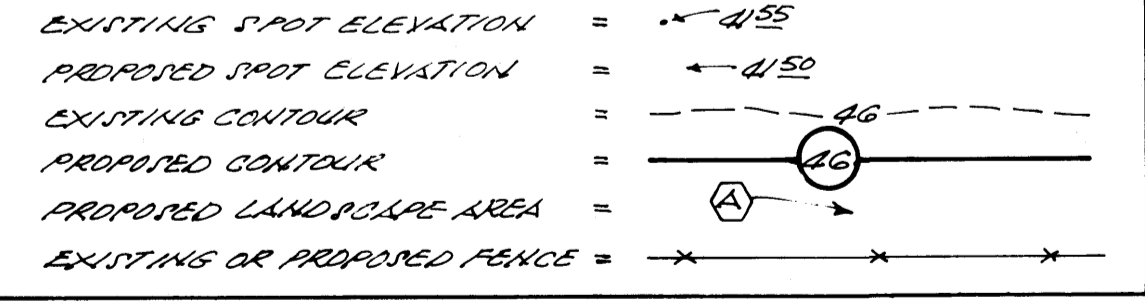
**CONSTRUCTION NOTES:**

- TWO (2) WORKING DAYS PRIOR TO ANY EXCAVATION, CONTRACTOR MUST CONTACT LINE LOCATING SERVICE AT 240-1090 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 OF DELAY.
- 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.
- ALL CONSTRUCTION WITHIN CITY RIGHT-OF-WAY SHALL BE PERFORMED IN ACCORDANCE WITH APPLICABLE CITY OF ALBUQUERQUE STANDARDS AND PROCEDURES.

**GENERAL NOTES:**

- NO PERIMETER BOUNDARY CORNERS HAVE BEEN FIELD ESTABLISHED PER THIS SURVEY OF THE SUBJECT PROPERTY.
- NO SEARCH HAS BEEN MADE FOR EASEMENTS OF RECORD WITHIN THE SUBJECT SITE OTHER THAN THOSE SHOWN ON THE PLAT OF RECORD.
- REFER TO "ARCHITECTURAL SITE PLAN" FOR FIELD LAYOUT OF THE PROPOSED IMPROVEMENTS.
- TOPOGRAPHY SURVEY OBTAINED BY "TRANSIT-STADIA" METHOD.

**LEGEND:**



NOTE: UPON COMPLETION OF COMANCHE ROAD N.E. IMPROVEMENTS, TEMPORARY RETENTION POND IS TO BE ELIMINATED AND PREE DISCHARGE OF PROPOSED DEVELOPED FLOWS IS TO BE ALLOWED INTO COMANCHE ROAD N.E.

NOTE: REQUIRED LANDSCAPE BUFFER ALONG THE EAST, SOUTH, AND WEST BOUNDARY LINES OF THE SUBJECT SITE ARE TO CONSIST OF A MIXTURE OF TREES AND SHRUBS AT OWNERS DISCRETION AND IN ACCORDANCE WITH THE REQUIRED CITY OF ALBUQUERQUE LANDSCAPE ORDINANCE.

**DRAINAGE COMMENTS:**  
 AS SHOWN ON THE VICINITY MAP HEREON, THE SUBJECT SITE IS LOCATED AT THE SOUTHWEST INTERSECTION OF COMANCHE ROAD N.E. AND THE WEST FRONTAGE ROAD OF I-25, IN THE CITY OF ALBUQUERQUE, BERNALILLO COUNTY, NEW MEXICO.  
 THE SUBJECT SITE, (1.) IS NOT LOCATED WITHIN A DESIGNATED FLOOD PLAIN. (SEE F.R.A. - PANEL 21 OF 50). (2.) DOES AT THE PRESENT TIME ACCEPT PUBLIC WATERS FROM RUNOFF CREATED BY SAID I-25 FRONTAGE ROAD AND PORTION OF AFOREMENTIONED COMANCHE ROAD N.E.; (3.) DOES ALSO ACCEPT FLOWS CREATED BY IMPROVEMENTS LOCATED ON THE PROPERTY LIVING IMMEDIATELY WEST OF AND ADJACENT TO THE SUBJECT SITE, (4.) DOES NOT CONTRIBUTE TO OFFSITE FLOWS OF ADJACENT PROPERTIES.  
 THE PROPOSED GRADING AND DRAINAGE PLAN WILL PROVIDE FOR A TEMPORARY RETENTION POND THAT WILL ACCOMMODATE RUNOFF CREATED BY THE EXISTING AND PROPOSED IMPROVEMENTS; THIS TEMPORARY POND SHALL BE ELIMINATED AND FILLED SO AS TO PROVIDE FOR ADDITIONAL ASPHALT PAVED PARKING AREA(S) AND/OR LANDSCAPE AREA(S). CALCULATIONS SHOWN HEREON FOR PONDING REQUIREMENTS CONSIDER TOTAL DEVELOPED CONDITIONS SHOWN ON THE PLAN HEREON.

**DRAINAGE CALCULATIONS:**  
 PER SECTION 22.2, HYDROLOGY OF THE DEVELOPMENT PROCESS MANUAL, VOLUME 2, DESIGN CRITERIA FOR THE CITY OF ALBUQUERQUE, NEW MEXICO, JANUARY 1993, AND PER BERNALILLO COUNTY STORM DRAINAGE ORDINANCE NO. 90-6.  
**SITE AREA:** 1.63 ACRES  
**PRECIPITATION ZONE:** ZONE TWO (2), TABLE A-1  
**PEAK INTENSITY:** IN./HR. AT  $T_c$  = TWELVE (12) MINUTES, 100-YR. = 50.5, TABLE A-10  
**"LAND TREATMENT METHOD"** FOR CALCULATION OF  $Q_p$ , TABLES A-8 & A-9  
**LAND TREATMENT FACTORS:** TABLE A-4

TREATMENT	AREA/ACRES	FACTOR	CFS
A	0.90	X 1.56	= 1.40
B	0.00	X 2.28	= 0.00
C	0.00	X 3.14	= 0.00
D	0.73	X 4.70	= 3.43

$Q_p = 4.83$  CFS

TREATMENT	AREA/ACRES	FACTOR	CFS
A	0.00	X 1.56	= 0.00
B	0.54	X 2.28	= 1.23
C	0.00	X 3.14	= 0.00
D	1.09	X 4.70	= 5.12

$Q_p = 6.35$  CFS  
 \*\*\*\* INCREASE = 1.52 CFS

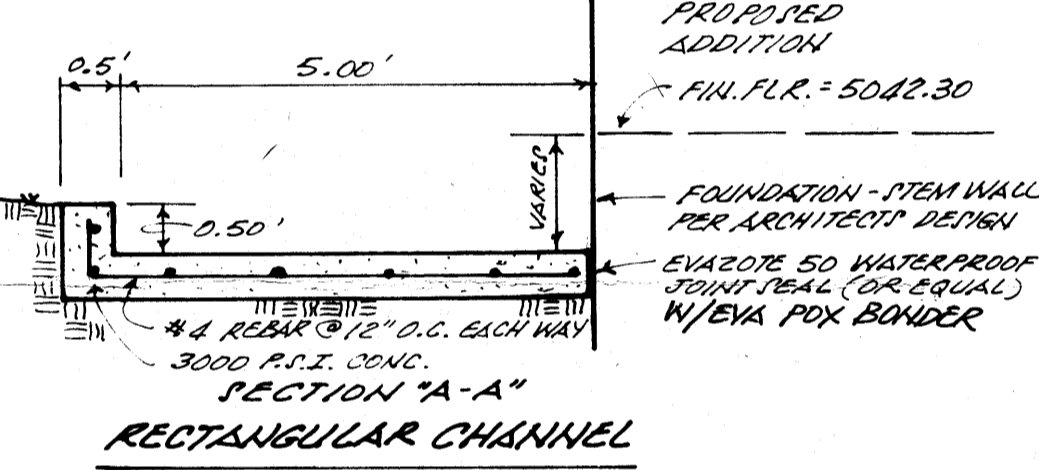
TREATMENT	AREA/ACRES	FACTOR	CFS
A	0.00	X 0.53	= 0.00
B	0.54	X 0.78	= 0.42
C	0.00	X 1.13	= 0.00
D	1.09	X 2.12	= 2.31

$E = 0.00 + 0.42 + 0.00 + 2.31 = 1.67$  INCHES

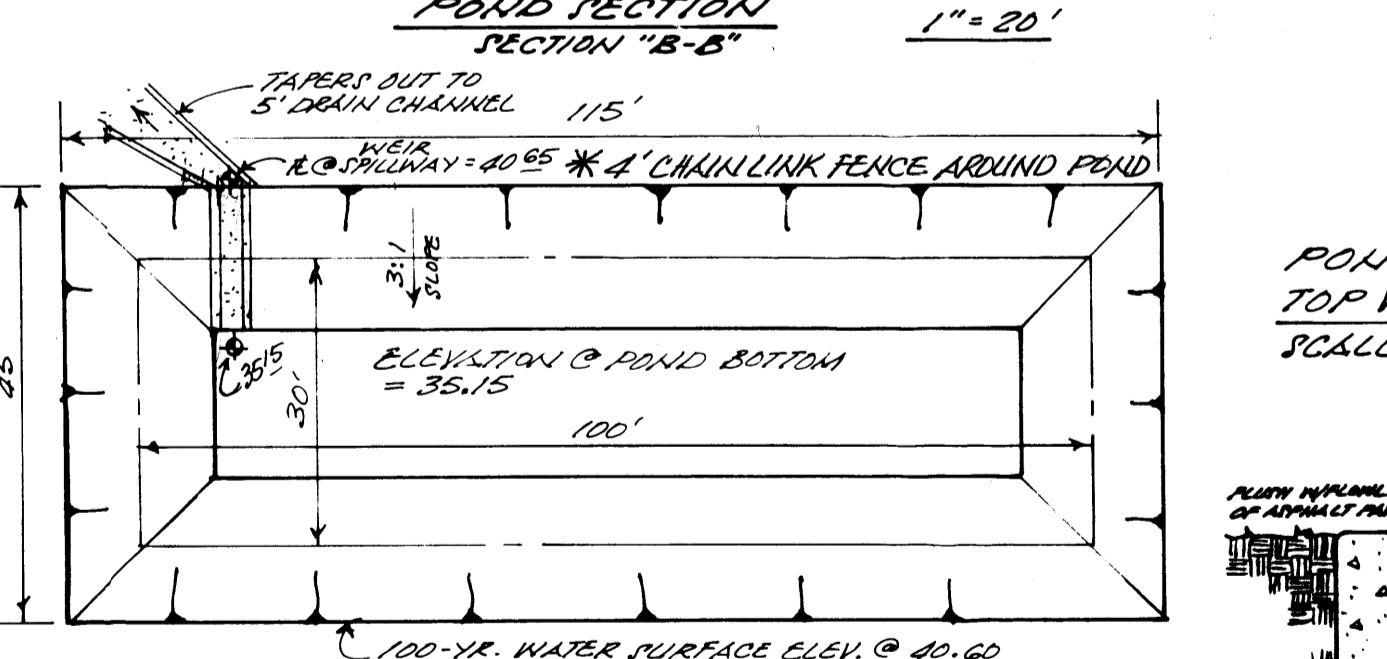
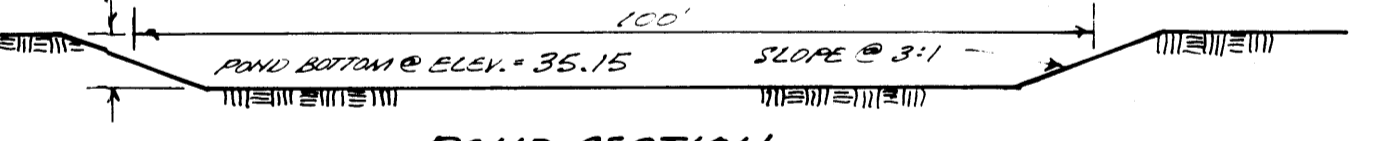
$V_{360} = 1.67 \times 1.65 = 0.23$  ACRE FEET  
 $0.23 \times 43,560.0 = 10,018.9$  CU. FT.  
 FOR TEN (10) DAY STORMS: ( $V_{10}$  DAYS)  
 $V_{10} = V_{360} + A_D \times (P_{10} - P_{360}) / 12 = AC. FT.$   
 $V_{10} = 0.23 + 1.09 \times (3.95 - 2.35) / 12 = 0.38$  AC. FT.  
 $0.38$  AC. FT.  $\times$   $43,560.0 = 16,552.8$  CU. FT. REQUIRED

**RECTANGULAR CHANNEL:**

FLOW RATE (cfs)	= 13.24041
DEPTH (ft)	= 0.5
VELOCITY (ft/sec)	= 5.296166
MANNINGS "n"	= 0.014
SLOPE (ft/ft)	= 8.000001E-03
SIDE SLOPE (H:V)	= 0:5
BOTTOM WIDTH (ft)	= 5
AREA (ft <sup>2</sup> )	= 2.5
HYDRAULIC RADIUS	= 0.4166667
FREEBORD	N/A
TOP WIDTH (WITH FREEBOARD)	= 5.0
FROUDE NUMBER	= 1.320538



**WEIR:**  $Q = CLH^{3/2}$  (WEIR EQUATION)  
 $L = \frac{Q}{CH^{3/2}} = \frac{6.4}{(2.68)(0.5)^{3/2}} = 2.50'$



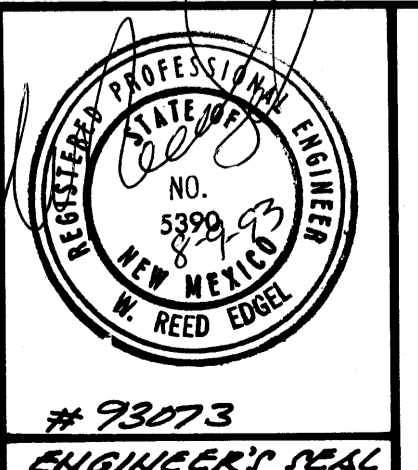
ARCHITECTS PLANS TO SHOW ROOF DRAINS TO DIRECT FLOWS TOWARD AND INTO PROPOSED NEW PAVED PARKING AREA(S).

NOTE:  
 DUE TO REQUIRED TEMPORARY RETENTION POND TOTAL PARKING SPACES AS SHOWN ON THE PLAN HEREON WILL NOT BE PROVIDED UNTIL COMPLETION OF IMPROVEMENTS TO COMANCHE ROAD N.E., (S.A.D. NO. 215).

NOTE: DEVELOPED FLOWS TO BE DIVERTED INTO TEMPORARY RETENTION POND.

**LEGAL DESCRIPTION:** LOT ONE (1), BLOCK ONE (1), COMAN INDUSTRIAL DISTRICT ADDITION, ALBUQUERQUE, BERNALILLO COUNTY, NEW MEXICO.

**BENCH MARK REFERENCE:** NMSHC STATION "I-25-21", M.S.L.D. ELEVATION = 5079.47; PROJECT BENCH MARK AS SHOWN ON PLAN HEREON.



**SITE PLAN**  
**GRADING & DRAINAGE PLAN**  
**DALE LAWSON DEVELOPMENT**  
**COMANCHE ROAD N.E. AT I-25**  
**ALBUQUERQUE, NEW MEXICO**  
**AUGUST, 1993**

NOTE:  
 REQUIRED PARKING = 44 SPACES  
 PROVIDED PARKING = 45 SPACES

LARGE OVERHEAD BILLBOARD HIGH