

DRAINAGE INFORMATION SHEET

PROJECT TITLE: 12 UNIT APARTMENT BUILDING ZONE ATLAS/DRNG. FILE #: K-13 / 1022LEGAL DESCRIPTION: LOT 9-A BLOCK 42, RAYNOLDS ADDITIONCITY ADDRESS: 1116 Coal Av SWENGINEERING FIRM: LOVELADY & ASSOCIATESCONTACT: Frank LoveladyADDRESS: 7408 Morrow Ave.

PHONE: _____

OWNER: Keith/HallekCONTACT: Don KeithADDRESS 7116 Edwina Ct. NE 87110PHONE: 842-1780ARCHITECT: Patric GatesCONTACT: Pat GatesADDRESS: 8322 Zuni SE 87108PHONE: 265-6463SURVEYOR: HALL SURVEYINGCONTACT: Margaret HallADDRESS: 12805 Manual Blvd. NEPHONE: 292-6727

CONTRACTOR: _____

CONTACT: _____

ADDRESS: _____

PHONE: _____

PRE-DESIGN MEETING:

☒ YES☐ NO☒ COPY OF CONFERENCE RECAP
SHEET PROVIDED

DRB NO. _____

EPC NO. _____

PROJECT NO. _____

TYPE OF SUBMITTAL:

☐ DRAINAGE REPORT☒ DRAINAGE PLAN☐ CONCEPTUAL GRADING & DRAIN. PLAN☐ GRADING PLAN☐ EROSION CONTROL PLAN☐ ENGINEER'S CERTIFICATION

CHECK TYPE OF APPROVAL SOUGHT:

☐ SKETCH PLAT APPROVAL☐ PRELIMINARY PLAT APPROVAL☐ SITE DEVELOPMENT PLAN APPROVAL☐ FINAL PLAT APPROVAL☒ BUILDING PERMIT APPROVAL☐ FOUNDATION PERMIT APPROVAL☐ CERTIFICATE OF OCCUPANCY APPROVAL☐ ROUGH GRADING PERMIT APPROVAL☐ GRADING/PAVING PERMIT APPROVALDATE SUBMITTED: June 12, 1987BY: Frank D. Lovelady

Frank D. Lovelady

OTHER _____ (SPECIFY)



City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

Ken Schultz
Mayor

UTILITY DEVELOPMENT DIVISION
HYDROLOGY SECTION
(505) 768-2650

June 18, 1987

Frank Lovelady, P.E.
Lovelady & Associates
7408 Morrow Avenue, NE
Albuquerque, New Mexico 87110

RE: DRAINAGE PLAN FOR 12-PLEX APARTMENT BUILDING @ 12TH STREET &
COAL, SW (K-13/D22) ENGINEER'S STAMP DATED JUNE 15, 1987

Dear Frank:

Based on the information provided on your submittal of June 16, 1987, the above referenced plan is approved for Building Permit.

Please be advised that a separate permit is required for building within the City right-of-way.

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, C.E.
Engineering Assistant

cc: Becky Sandoval

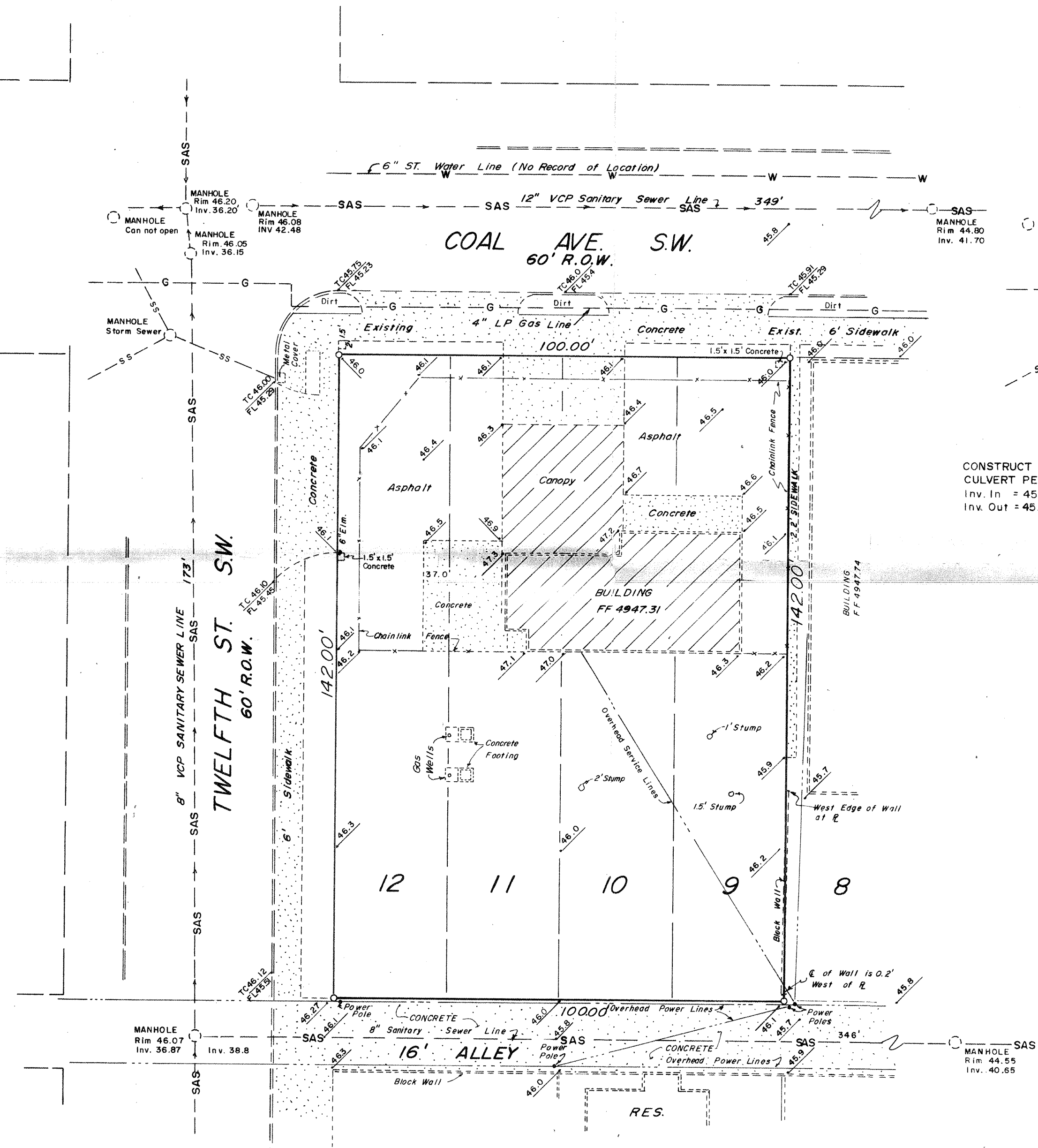
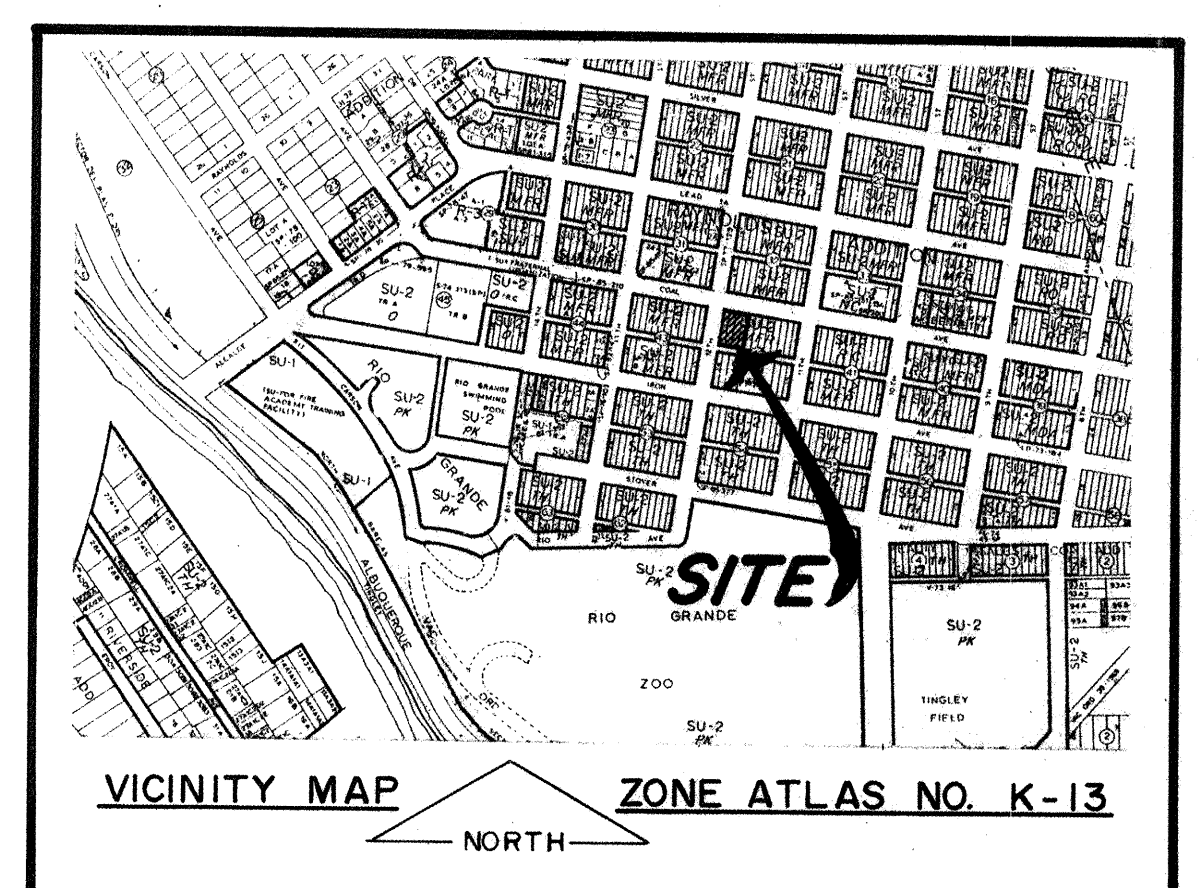
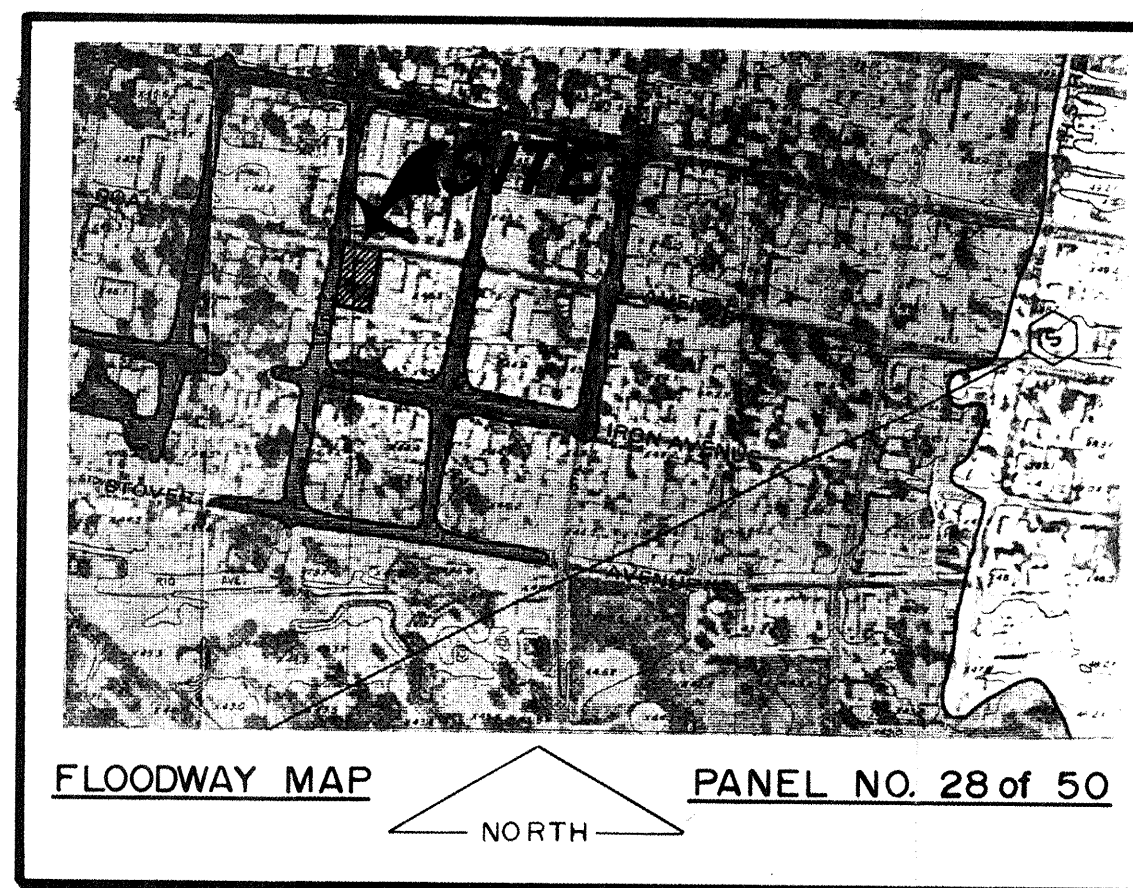
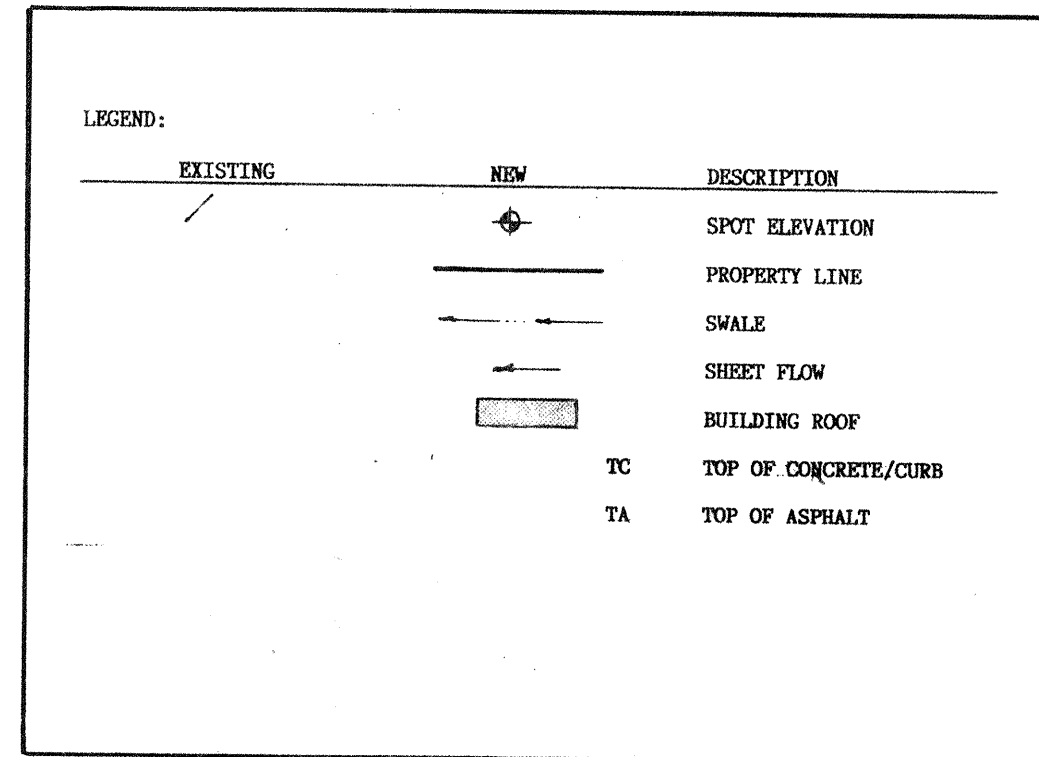
BJM/bsj

PUBLIC WORKS DEPARTMENT

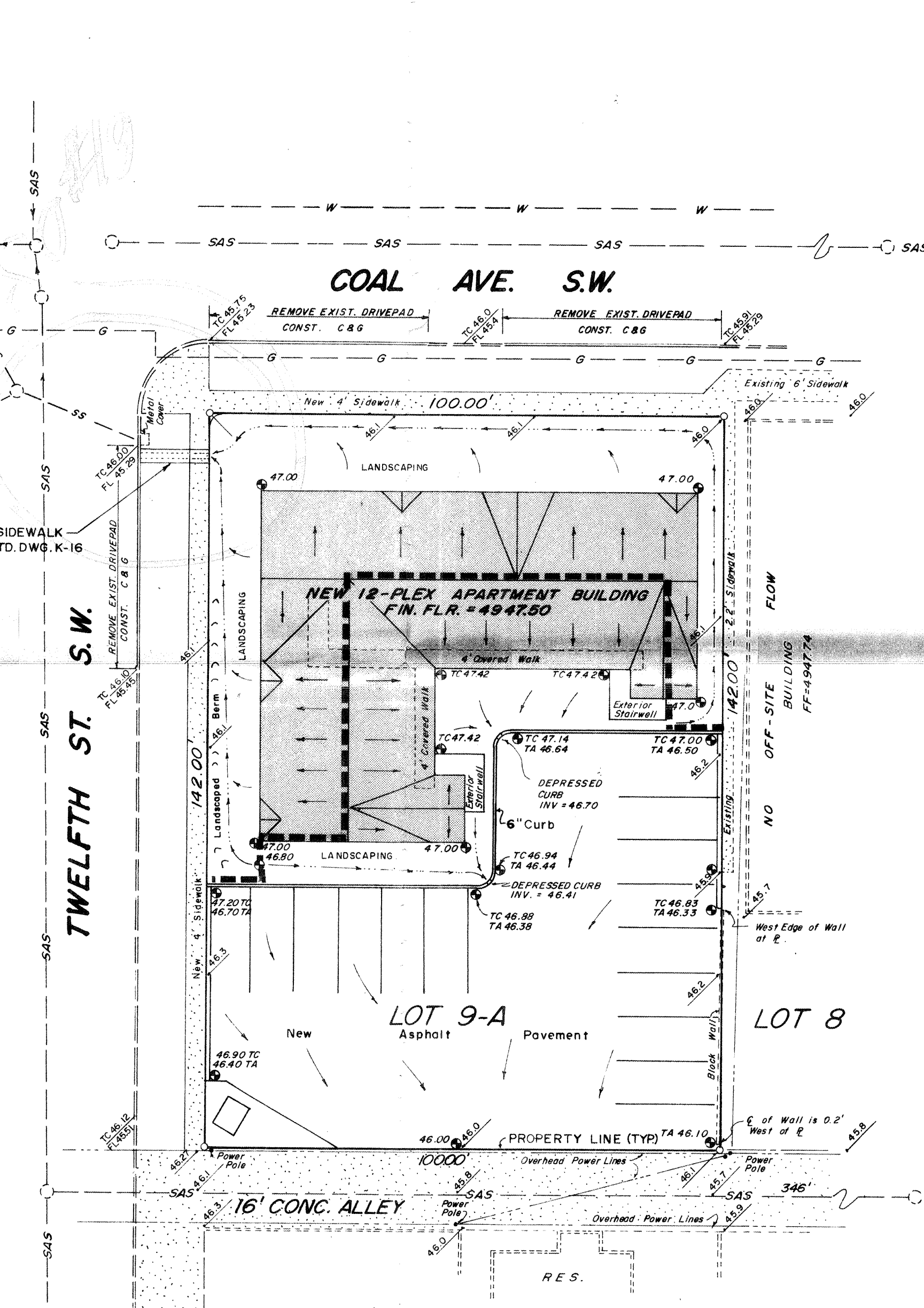
ENGINEERING GROUP

Walter Nickerson, P.E., City Engineer

Telephone (505) 768-2500



PLAN - EXISTING CONDITIONS
1" = 20'



PLAN - PROPOSED 12-PLEX GRADING AND DRAINAGE
1" = 20'

PRE-DESIGN CONFERENCE FINDINGS:

1. DRAINAGE PLAN PER D.P.M.
2. FREE DISCHARGE TO TWELFTH STREET. FREE DISCHARGE TO ALLEY IF ALLEY IS PAVED AND HAS CAPACITY.
3. NEED TO ELEVATE FINISHED FLOOR 2 FEET ABOVE GUTTER.
 - A. INFILL SITE.
 - B. BUILDING OVER AN IMPERVIOUS AREA.
 - C. STORM DRAIN IN IRON STREET IS 60 INCH DIAMETER.
4. NEED S.O. 19 TO PLACE SIDEWALK CULVERT ON TWELFTH STREET OR COAL AVENUE.

DRAINAGE COMMENTS:

1. THIS DRAINAGE PLAN CONFORMS TO THE REQUIREMENTS OF THE CITY OF ALBUQUERQUE DEVELOPMENT PROCESS MANUAL.
2. THE FINISHED FLOOR IS SET AT 2.0 FEET ABOVE THE FLOWLINE ELEVATION AT THE S.W. CORNER OF THE SITE.
3. UNCONTROLLED DISCHARGE IS WARRANTED FOR THIS SITE FOR THE FOLLOWING REASONS:
 - A. THE SITE IS AN INFILL SITE.
 - B. THE EXISTING SITE IS LARGELY IMPERVIOUS DUE TO EXISTING IMPROVEMENTS. THEREFORE, THE INCREASE IN RUNOFF WILL BE SLIGHT.
 - C. THE STORM SEWER IN IRON IS A 60" DIAMETER WHICH PROVIDES ADEQUATE DOWNSIDE CAPACITY.
4. AN S.O. 19 APPROVAL BLOCK IS PROVIDED ON THIS SHEET.

EROSION CONTROL PLAN:

DURING THE PERIOD THAT THE BUILDING IS UNDER CONSTRUCTION, PONDS, DIKES OR OTHER DRAINAGE IMPROVEMENTS SHALL BE EMPLOYED BY THE CONTRACTOR TO RETAIN THE EQUIVALENT OF THE 10-YEAR UNDEVELOPED VOLUME ON THE SITE AND PREVENT ANY SEDIMENTATION FROM ENTERING THE STREET RIGHT-OF-WAY.

**CITY OF ALBUQUERQUE
DRAINAGE FACILITIES WITHIN CITY RIGHT-OF-WAY
NOTICE TO CONTRACTOR**

1. 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.
2. ALL WORK DETAILED ON THESE PLANS TO BE PERFORMED, EXCEPT AS OTHERWISE STATED OR PROVIDED HEREON, SHALL BE CONSTRUCTED IN ACCORDANCE WITH STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, 1986.
3. TWO (2) WORKING DAYS PRIOR TO ANY EXCAVATION, CONTRACTOR MUST CONTACT LINE LOCATING SERVICE, 765-1234, FOR LOCATION OF EXISTING UTILITIES.
4. 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.
5. BACKFILL AND COMPACTION SHALL BE ACCORDING TO ARTERIAL STREET USE.
6. MAINTENANCE OF THESE FACILITIES SHALL BE THE RESPONSIBILITY OF THE OWNER OF THE PROPERTY SERVED.
7. THE ADDRESS OF THE PROPERTY SERVED IS 1116 COAL AVE., S.W.

APPROVALS:

DESIGN APPROVAL: *[Signature]* 9/18/87
HYDROLOGY SECTION DATE

INSPECTION APPROVAL: *[Signature]* 2-19-88
CONSTRUCTION SECTION DATE

ACCEPTANCE: *[Signature]*
CONSTRUCTION SECTION/PERMITS DATE

DRAINAGE CALCULATIONS

I. REFERENCES:

- A. CITY OF ALBUQUERQUE DEVELOPMENT PROCESS MANUAL (DPM) VOLUME 2, DESIGN CRITERIA, CHAPTER 22.
- B. FLOODWAY MAP, PANEL 28 OF 50, (FEMA), OCTOBER 14, 1983.
- C. SOIL SURVEY OF BERNALILLO COUNTY, NEW MEXICO, U.S. SOIL CONSERVATION SERVICE, JUNE, 1977.

II. ON-SITE RUNOFF CHARACTERISTICS:

A. UNDEVELOPED RUNOFF COEFFICIENT:

TYPE OF SURFACE	AREA	"C" VALUE	AREA ("C")
STREETS, DRIVES, WALKS	4442	0.95	4220
ROOFS	2058	0.90	1852
LAWNS & LANDSCAPING	7700	0.40	3080
UNDEVELOPED	14,200	0.326	9152
TOTAL AREA			
WEIGHTED "C" VALUE =	9152/14200=0.64		
PERCENT IMPERVIOUS =	46%		

B. DEVELOPED RUNOFF COEFFICIENT:

TYPE OF SURFACE	AREA	"C" VALUE	AREA ("C")
STREETS, DRIVES, WALKS	6415	0.95	6094
ROOFS	4338	0.90	3904
LAWNS & LANDSCAPING	3467	0.25	862
UNDEVELOPED	---	---	---
TOTAL AREA	14200		
WEIGHTED "C" VALUE =	10860/14200=0.76		
PERCENT IMPERVIOUS =	76%		

C. RAINFALL, 100-YR., 6-HR., (REF. A., PLATE 22.2 D-1)
R₆ = 2.25 INCHES

D. TIME OF CONCENTRATION: Ten (10) Minutes

E. RAINFALL INTENSITY, I (REF. A., PLATE 22.2 D-2)
I = R₆ 16.84 (T)^{-0.51} = (2.25) 16.84 (10)^{-0.51} = 4.76 IN/HR

F. SOIL TYPE (REF. I.C., SHEET NO. 30) Soil is Bt, Brazito Complex, Hydrologic Soil Group "A".

G. RUNOFF CURVE NUMBER (CN) (REF. I.A., PLATE 22.2 C-2)
UNDEVELOPED LAND USE: Commercial, CN=61
DEVELOPED LAND USE: Residential, CN=84

H. DIRECT RUNOFF, Q_p, INCHES (REF. I.A., PL. 22.2 C-4)
UNDEVELOPED Q_p = 0.3 IN. DEVELOPED Q_p = 1.0 IN.

III. ON-SITE PEAK DISCHARGE BY RATIONAL EQUATION:

A. EXISTING CONDITIONS:
Q₁₀₀ = 0.64 X 4.76 X 0.326 = 0.99 CFS
Q₁₀ = 0.657 X 0.99 = 0.65 CFS

B. DEVELOPED CONDITIONS:
Q₁₀₀ = 0.76 X 4.76 X 0.326 = 1.18 CFS
Q₁₀ = 0.657 X 1.18 = 0.78 CFS

IV. ON-SITE VOLUME BY S.C.S. METHOD:

A. EXISTING CONDITIONS:
V₁₀₀ = AREA (Q_p/12) = 14200 (0.3/12) = 355 CF
V₁₀ = 0.657 X 355 = 233 CF

B. DEVELOPED CONDITIONS:
V₁₀₀ = AREA (Q_p/12) = 14200 (1.0/12) = 1183 (12) = CF
V₁₀ = 0.657 X 1183 = 777 CF

BENCH MARK:

A.C.S. STATION 3-K13, LOCATED AT THE INTERSECTION OF 12TH STREET AND STOVER AVENUE IN THE S.W. QUADRANT OF THE INTERSECTION, A SQUARE CEMENTED ON TOP OF CONCRETE CURB AT THE WSW CURB RETURN. ELEVATION 4945.006 FEET.

TEMPORARY BENCH MARK IS THE SOUTHWEST CORNER OF THE METAL INLET COVER, ELEVATION = 4946.00 FEET.

LEGAL DESCRIPTION:

LOTS 9, 10, 11, AND 12, BLOCK 42, RAYMOND ADDITION, CITY OF ALBUQUERQUE, BERNALILLO COUNTY, NEW MEXICO.
NOTE: A REPLAT IS IN PROCESS AND WILL BE COMPLETED PRIOR SIGN-OFF BY HYDROLOGY.)

**GRADING AND DRAINAGE PLAN
12-PLEX APARTMENT BUILDING
12TH STREET & COAL AVENUE, S.W.
ALBUQUERQUE, NEW MEXICO**

P-42163 Madrid Const.

FRANK D. LOVELL
REGISTERED PROFESSIONAL ENGINEER
JUNE 15, 1987

RECEIVED
JUN 16 1987
HYDROLOGY SECTION