

City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

Ken Schultz Mayor

UTILITY DEVELOPMENT DIVISION **HYDROLOGY SECTION** (505) 768-2650

May 21, 1987

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

RE: DRAINAGE PLAN FOR DAWSON APARTMENTS

(K-19/D84) ENGINEERS STAMP DATED MAY 12, 1987

Dear Frank:

Based on the information provided on your submittal of May 13, 1987, the above referenced plan is approved for Building Permit.

Please be advised that the Building Permit will not be issued until an approved copy of the replat is received by our office for our files.

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

Cordially,

Bernie J. Montoya.

Engineering Assistant

BJM/bsj

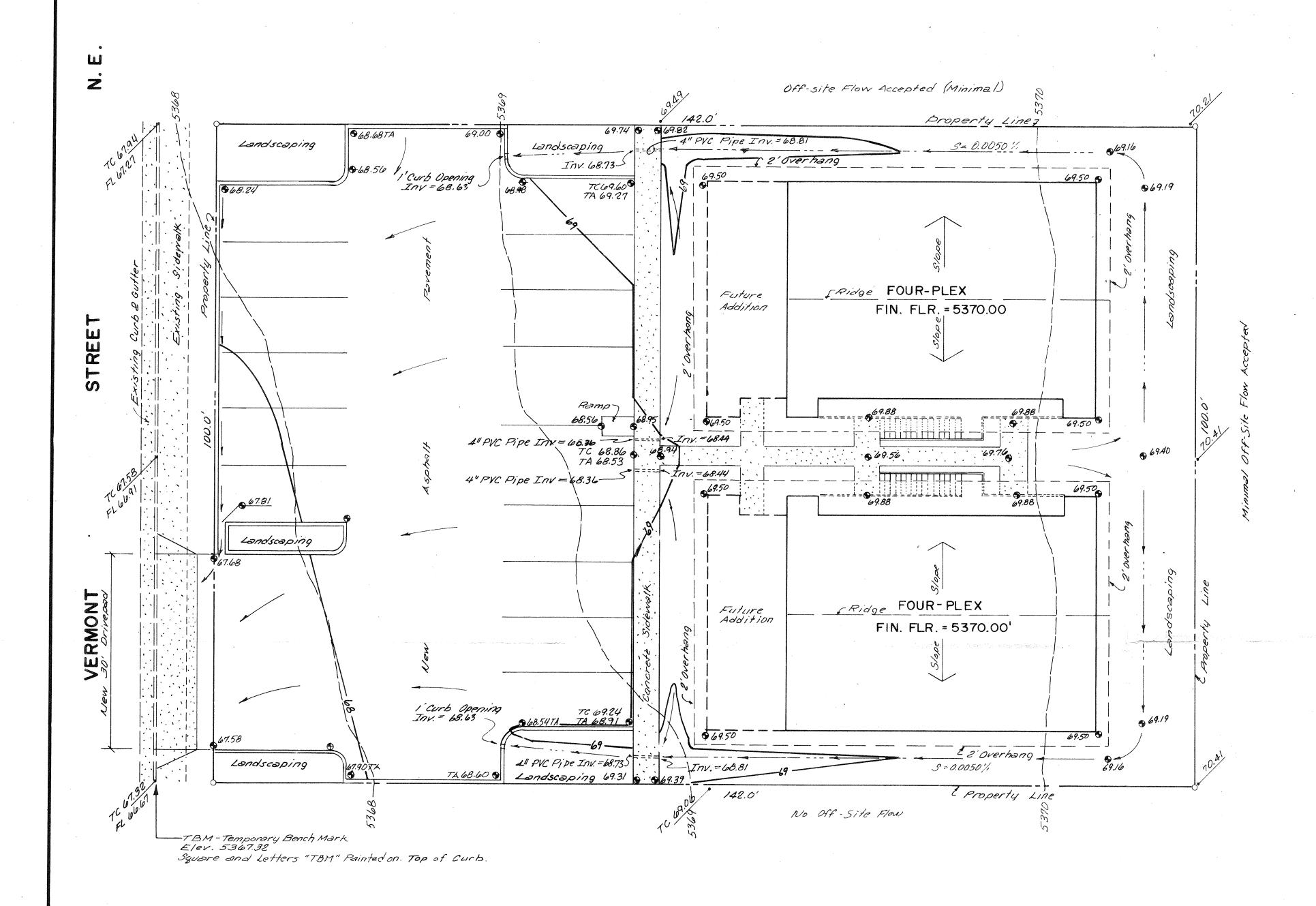
PUBLIC WORKS DEPARTMENT

ENGINEERING GROUP

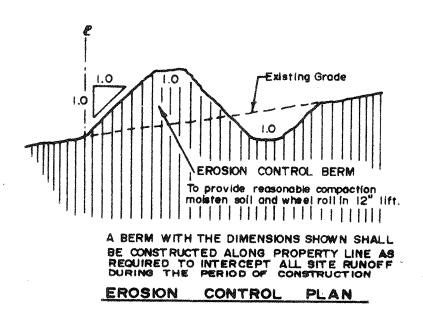
Telephone (505) 768-2500

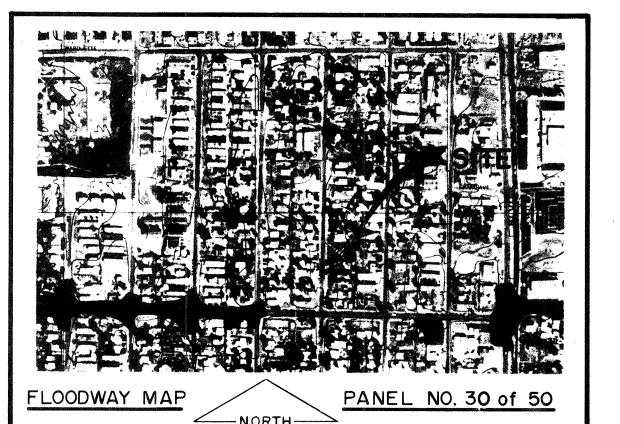
Walter Nickerson, P.E., City Engineer

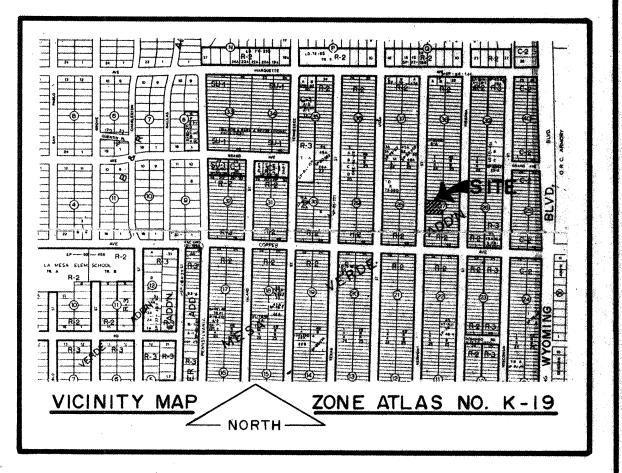
PROJECT TITLE: DAWSON APARTMENTS ZO	NE ATLAS/DRNG. FILE #: K-19/D-84
LEGAL DESCRIPTION: Lots 11, 12, 13,a	nd 14, Block 27, Mesa Verde Add'n.
CITY ADDRESS:	
ENGINEERING FIRM: Lovelady & Associate	s <u>CONTACT: Frank Lovelady</u>
ADDRESS: 7408 Morrow Ave.NE 87110	PHONE: 883-7973
OWNER: Mr Dawson	CONTACT: Rick Bennett
ADDRESS 1118 Park SW	PHONE: 242-1859 .
ARCHITECT: Rick Bennett	CONTACT: Rick Bennett
ADDRESS: 1118 Park Ave. SW	PHONE: 242-1859
surveyor: Lovelady & Assoc.	CONTACT: Frank Lovelady
ADDRESS:	PHONE:
CONTRACTOR:	CONTACT:
ADDRESS:	PHONE:
PRE-DESIGN MEETING:	the state of the s
X YES	DRB NO
NO	EPC NO.
COPY OF CONFERENCE RECAP S. EET PROVIDED	PROJECT NO. HYDROLOGY SECTION
TYPE OF SUBMITTAL:	CHECK TYPE OF APPROVAL SOUGHT:
DRAINAGE REPORT	SKETCH PLAT APPROVAL
X DRAINAGE PLAN	PRELIMINARY PLAT APPROVAL
CONCEPTUAL GRADING & DRAIN. PLAN	SITE DEVELOPMENT PLAN APPROVAL
GRADING PLAN	FINAL PLAT APPROVAL
EROSION CONTROL PLAN	X BUILDING PERMIT APPROVAL
ENGINEER'S CERTIFICATION	FOUNDATION PERMIT APPROVAL
	CERTIFICATE OF OCCUPANCY APPROVAL
	ROUGH GRADING PERMIT APPROVAL
DATE SUBHITTED: May 13, 1987	GRADING/PAVING PERMIT APPROVAL
BY: Tranh D. Lovelady	OTHER(SPECIFY)
Frank D. Lovelady, P.E. Rev. 11/84	3



GRADING AND DRAINAGE PLAN SCALE | | = 10'





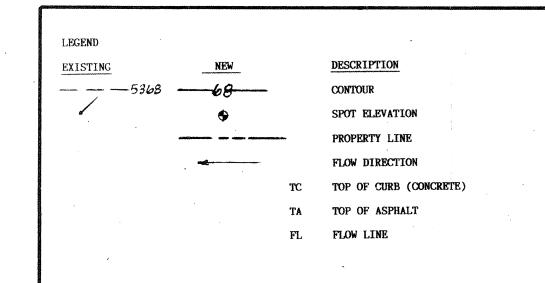


PRE-DESIGN CONFERENCE FINDINGS:

- 1. DRAINAGE PLAN PER D.P.M. REQUIREMENTS PRIOR TO BUILDING PERMIT SIGN-
- 2. REPLAT, AGREEMENTS OR PRIVATE EASEMENTS FOR CROSS-LOT-LINE DRAINAGE.
- 3. EXISTING 30" R.C.P. SYSTEM WITH CATCH BASINS AT THE INTERSECTION OF VERMONT AND COPPER, N.E.
- 4. SITE NOT LOCATED WITHIN A DESIGNATED FLOOD ZONE, BUT DOES CONTRIBUTE TO A DOWNSTREAM FLOODING PROBLEM.
- 5. FREE DISCHARGE SEEMS APPROPRIATE. ENGINEER MUST ADDRESS:
- A. INFILL SITE.
- B. BASIN IS MOSTLY DEVELOPED WITH A FEW SCATTERED VACANT LOTS.
- C. WILL RUN-OFF ENTER THE DOWNSTREAM FACILITY?

DRAINAGE COMMENTS:

- THIS DRAINAGE PLAN CONFORMS TO THE REQUIREMENTS SET FORTH IN THE CITY OF ALBUQUERQUE DEVELOPMENT PROCESS MANUAL.
- A REPLAT IS PRESENTLY IN PROCESS:
- SITE DRAINAGE FLOWS SOUTH IN VERMONT STREET TOWARD COPPER AVENUE WHERE IT IS PICKED UP BY A 30-INCH DIAMETER R.C.P. STORM SEWER, SPECIFICALLY BY A SINGLE "C" INLET AT THE WNW CURB RETURN OF COPPER AVENUE AND VERMONT STREET,
- THE SITE IS NOT LOCATED WITHIN A DESIGNATED FLOOD ZONE BUT DOES CON-TRIBUTE TO A DOWNSTREAM FLOODING PROBLEM. THE FAIRGROUNDS DETENTION FACILITY MAY HAVE CONTRIBUTED TO ALLEVIATION OF THE FLOODING PROBLEM ON COPPER AVENUE.
- FREE DISCHARGE IS WARRANTED BECAUSE OF THE FOLLOWING:
- A. THE SITE IS AN INFILL SITE.
- B. THE BASIN IS MOSTLY DEVELOPED WITH A FEW SCATTERED VACANT LOTS.
- C. RUNOFF WILL ENTER THE FACILITY ON COPPER AVENUE.



CONSTRUCTION NOTES:

- 1. TWO (2) WORKING DAYS PRIOR TO ANY EXCAVATION, CONTRACTOR MUST CONTACT LINE LOCATING SERVICE AT 765-1234 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 AMOUNT OF DELAY.
- ALL WORK ON THIS PROJECT SHALL BE PERFORMED IN ACCORDANCE WITH APPLIC-ABLE FEDERAL, STATE, AND LOCAL LAWS, RULES, AND REGULATIONS CONCERNING CONSTRUCTION SAFETY AND HEALTH.
- ALL CONSTRUCTION WITHIN CITY RIGHT-OF-WAY SHALL BE PERFORMED IN AC-CORDNACE WITH APPLICABLE CITY OF ALBUQUERQUE STANDARDS AND PROCEDURES.

DRAINAGE CALCULATIONS

- A. CITY OF ALBUQUERQUE DEVELOPMENT PROCESS MANUAL (DPM)
- VOLUME 2, DESIGN CRITERIA, CHAPTER 22. B. FLOODWAY MAP, PANEL 30 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:

I. REFERENCES:

- A. UNDEVELOPED RUNOFF COEFFICIENT: "C"VALUE AREA("C") STREETS, DRIVES, WALKS
- LAWNS & LANDSCAPING UNDEVELOPED 14200 = 0.326 SFTOTAL AREA WEIGHTED "C" VALUE = 0.40
- PERCENT IMPERVIOUS = 0% B. DEVELOPED'RUNOFF COEFFICIENT:
- AREA("C") TYPE OF SURFACE 0.95 5710 STREETS, DRIVES, WALKS 0.90 LAWNS & LANDSCAPING 3410 0.25 WEIGHTED "C" VALUE = 19850 / 14200 = 0.76PERCENT IMPERVIOUS = 76%
- RAINFALL, 100-YR., 6-HR.: (REF. A., PLATE 22.2 D-1) $R_6 = 2.4$ INCHES
- D. TIME OF CONCENTRATION: 10 MINUTES.
- E. RAINFALL INTENSITY, I (REF. A., PLATE 22.2 D-2) $I=R_6X6.84X(T_6)^{-0.51}=(2.4)6.84(10)^{-0.51}=5.07IN/HR$
- F. SOIL TYPE (REF. I.C., SHEET NO. 31) SOIL IS TgB, TIJERAS
- G. RUNOFF CURVE NUMBER (CN)-(REF.I.A., PLATE 22.2 C-2) UNDEVELOPED LAND USE: OPEN SPACES, FAIR, CN = 79 DEVELOPED LAND USE: RESIDENTIAL; BUILDINGS AND ASPHALT PAVEMENT, CN = 98; LANDSCAPING, CN = 61 WEIGHTED CN = (10790X98 + 3401X61)/14200 = 89H. DIRECT RUNOFF, Q_D, INCHES (REF. I.A., PL. 22.2 C-4)

UNDEVELOPED $Q_D = 0.80$ IN. DEVELOPED $Q_D = 1.4$ IN. III. ON-SITE PEAK DISCHARGE BY RATIONAL EQUATION:

- A. EXISTING CONDITIONS:
- $Q_{100} = 0.40 \text{ X } 5.07 \text{ X } 0.326 = 0.66 \text{ CFS}$ $Q_{10} = 0.657 \times 0.66 = 0.43 \text{ CFS}$
- B. DEVELOPED CONDITIONS:
- $Q_{100} = 0.76 \text{ X } 5.07 \text{ X } 0.326 = 1.26 \text{ CFS}$ $Q_{10} = 0.657 \text{ X } 1.26 = 0.83 \text{ CFS}$

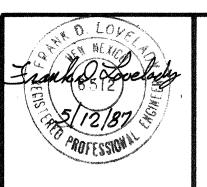
IV. ON-SITE VOLUME BY S.C.S. METHOD: A. EXISTING CONDITIONS:

- $V_{100} = AREA (Q_D/12) = 14200 (0.80/12) = 947 CF$
- $V_{10} = 0.657 \times 947 = 622 \text{ CF}$
- B. DEVELOPED CONDITIONS:
- $V_{100} = AREA (Q_D/12) = 14200(1.4/12) = 1657 CF$ $V_{10} = 0.657 \times 1657 = 1089 \text{ CF}$

LEGAL DESCRIPTION:

LOTS 11, 12, 13, AND 14, BLOCK 27, MESA VERDE ADDITION.

Bench Mark - A.C.S. Station 10-K19 Located At The Intersection of Pennsylvania Street and Copper Avenue, N.E. A square "I" Chiseled in top of concrete curb at The ESE Return Elev. 5347.449 Feet.



GRADING AND DRAINAGE PLAN DAWSON APARTMENTS

MAY 13 1987