City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

D17/D3K

KEN SCHULTZ
MAYOR

CLARENCE V. LITHGOW, CHIEF ADMINISTRATIVE OFFICER
DAN WEAKS, DEPUTY CAO PUBLIC SERVICES
FRED E. MONDRAGON, DEPUTY CAO DEVELOPMENT & ENTERPRISE SERVICES
RAY R. BACA, DEPUTY CAO PUBLIC SAFETY

September 22, 1989

CERTIFICATE OF COMPLETION AND ACCEPTANCE

Laura Milne
Journal Center Corporation
7777 Jefferson St. N.E.
Courtyard I
Albuquerque, NM 87109

RE: PROJECT NO. 3662, MASTHEAD STREET, (MAP NO. D-17)

Dear Ms. Milne:

This is to certify that the City of Albuquerque accepts Project No. 3662 as being completed according to approved plans and construction specifications. If all required right-of-ways and/or easements have been dedicated, the City of Albuquerque will accept for continuous maintenance all public infrastructure improvements constructed as part of Project No. 3662. If the required right-of-ways and/or easements have not been dedicated, the City of Albuquerque cannot accept the project for continuous maintenance and said maintenance will be the responsibility of the developer. When a final plat has been filed it will be the developer's responsibility to provide the Construction Management Division with a copy, at which time the City will fully accept Project No. 3662.

The project is described as follows:

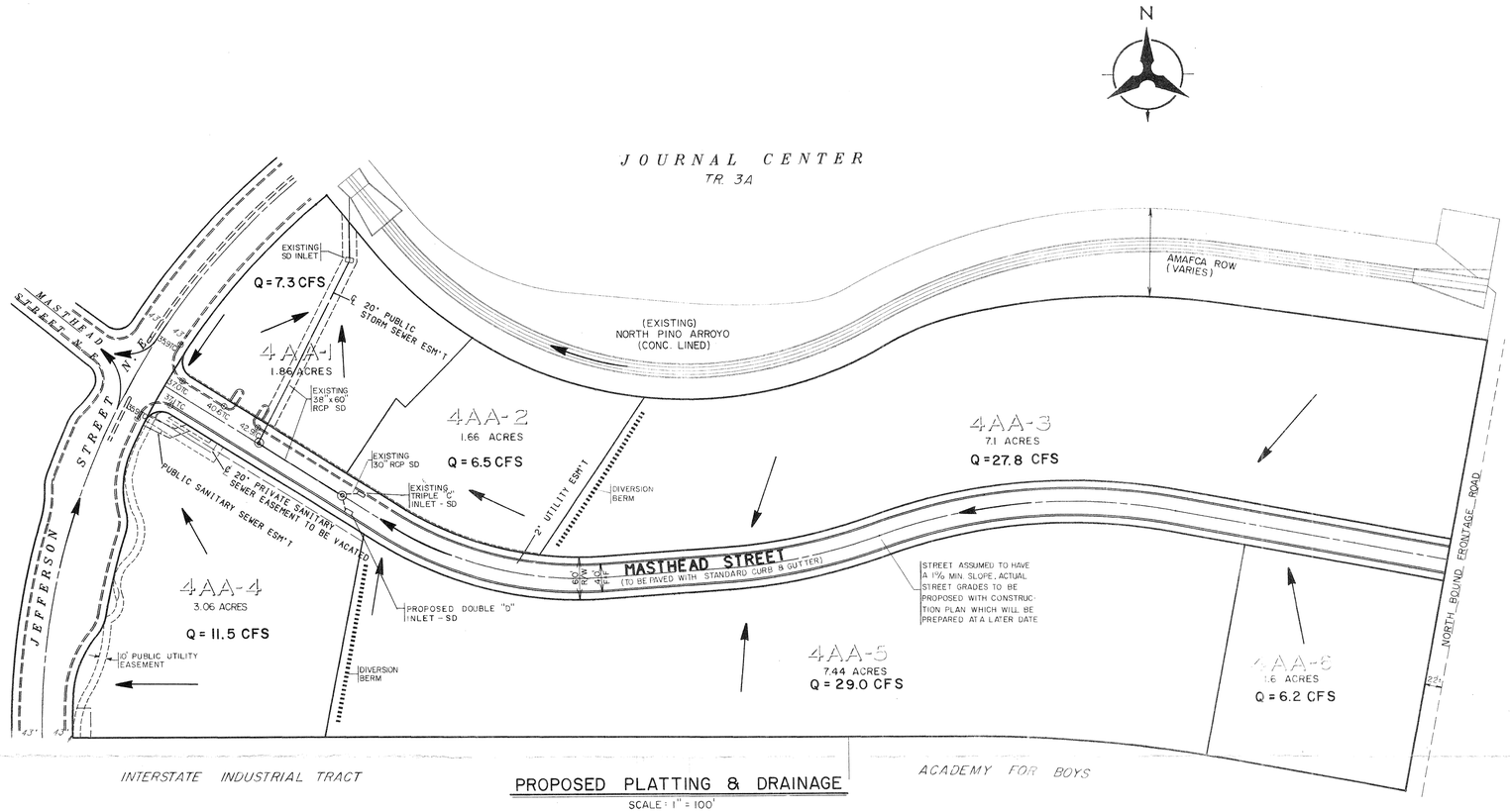
- Constructed Masthead St. from Jefferson St. to I-25 Frontage Rd. Installed twelve inch (12") and six inch (6") diameter waterlines and eight inch (8") diameter sanitary sewer line.

- The contractor's warranty begins the date of this letter and will be effective for a period of one (1) year.

Sincerely,

Russell B. Givler, P.E.
City Engineer
Construction Mgmt. Section
Engineering Group
Public Works Department

RBG:kt

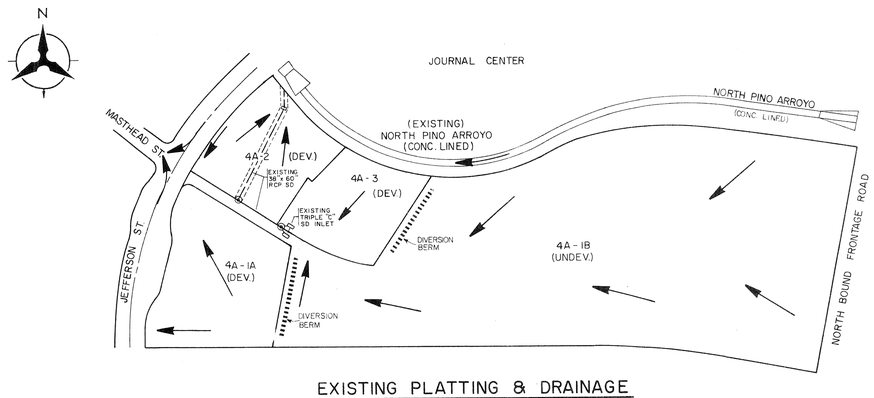


INTERSTATE INDUSTRIAL TRACT

ACADEMY FOR BOYS

PROPOSED PLATTING & DRAINAGE

SCALE: 1" = 100'



EXISTING PLATTING & DRAINAGE

SCALE: 1" = 200'

1. EXISTING FLOWS
   - A. TRACTS 4AA-3, 4AA-5, 4AA-6, AND MASTHEAD STREET
     - C = 0.40 (UNDEVELOPED LAND)
     - I = 4.7 IN/HR *
     - A TOTAL = 18.77 ACRES
     - Q = CIA = (0.40)(4.7)(18.77) = 35.3 CFS
   - B. TRACTS 4AA-1, 4AA-2, AND 4AA-4
     - C = 0.83 (REVISED FOR COA. HYDROLOGY ENGINEER)
     - I = 4.7 IN/HR *
     - A TOTAL = 6.58 ACRES
     - Q = (0.83)(4.7)(6.58) = 25.7 CFS
2. PROPOSED FLOWS
   - A. TRACTS 4AA-3, 4AA5, 4AA-6, AND MASTHEAD (ASSUMING ALL FLOW DIRECTED TO MASTHEAD STREET)
     - C = 0.83 (REVISED FOR COA HYDROLOGY ENGINEER)
     - I = 4.7 IN/HR *
     - A TOTAL = 18.77 ACRES
     - Q = (0.83)(4.7)(18.77) = 73.2 CFS
3. STORM INLETS
   - A. DOUBLE "D" INLET (REFERENCE DRAWINGS 2206 AND 2220 OF COA. STANDARD SPECIFICATIONS)
     - INLET AREA:
       - 12 OPENINGS @ 4 1/2" x 1 7/16" = 77.625 IN²
       - 4 OPENINGS @ 4 1/4" x 1 7/16" = 24.438 IN²
       - 20 OPENINGS @ 4 1/4" x 1 9/16" = 132.813 IN²
       - 60 OPENINGS @ 4 1/2 x 1 9/16" = 421.875 IN²
       - TOTAL INLET AREA = 4.56 FT² = 656.750 IN²
     - FLOW CAPACITY:
       - H = HEAD = CURB HEIGHT = 0.67 FT
       - $Q = CA\sqrt{2gH} = (0.6)(4.56)\sqrt{(2)(3.22)(0.67)}$
       - Q (ONE INLET) = 17.975 CFS
       - Q (DOUBLE "D") = 2(17.975) = 35.95 CFS
   - B. TRIPLE "C" INLET (REFERENCE DRAWINGS 2205 & 2220 OF COA. STANDARD SPECIFICATIONS)
     - Q (TRIPLE "C" INLET) = 3(17.975) = 53.93 CFS
     - Q TOTAL = 35.95 + 53.93 = 89.88 CFS
4. 30" R.C.P.
   - RIM ELEVATION = 43.36', INVERT ELEVATION = 38.36'
   - HEAD = 43.36 - 38.36 = 5.0'
   - $Q = CA\sqrt{2gH} = 0.6\left(\pi\left(\frac{15}{12}\right)^2\right)\sqrt{(2)(32.2)(5)}$
   - Q (30" R.C.P.) = 105.6 CFS

* FROM APPROVED DRAINAGE MANAGEMENT PLAN FOR JOURNAL CENTER

Purpose of Report

The purpose of this drainage report is for construction plans and preliminary/final plat.

Site Location

The exact location of Masthead Street is shown on the location map shown on this sheet.

Existing Conditions

Presently only two tracts along the proposed Masthead Street have been developed, 4AA-1 and 4AA-2, however, Santa Fe railroad building, Tract 4AA-4, is assumed built for this report. The Masthead/Jefferson Streets intersection and approximately 300 feet of the north half of the road were constructed for access from these tracts onto Jefferson Street. The remaining land is mostly undisturbed with native cover. There is landscaping along the north and south boundaries of Tracts 4AA-1, 4AA-2, 4AA-3, 4AA-4, 4AA-5, and 4AA-6.

Two triple "C" inlets were planned to convey runoff from Masthead Street to the North Pino Arroyo. These were designed and installed along with the partial paving of Masthead Street. The inlets were installed, one on each side of the road adjacent to Tract 4AA-2 and 4AA-4. The two triple "C" inlets and the outlets have been sized for the most conservative drainage estimates.

The SCS soil type for the site is Embudo and the hydrological soil group is Type B (see soil map included on plan). The flood insurance map, also included on the plan, indicates that flood areas do not exist within the site.

Proposed Conditions

The forty foot wide road from Jefferson Street to the West Frontage Road will be constructed for access purposes for all subsequent development adjacent to it. To leave open all future drainage design options, we have assumed that all developed property on either side of the road will flow directly into the road. With this assumption, the 100-year flow has been calculated to be 73.2 cfs. The street capacity, which was also calculated conservatively, has been calculated to be 97.2 cfs. The combination of the triple "C" and double "D" inlets have a capacity of 89.9 cfs. The 30" pipes connected to the inlets, have a capacity of 105.6 cfs. The 30" pipes are connected to one 38' x 60' arch pipe which has a capacity of 100 cfs.

The triple "C" and double "D" inlets will collect all street flows but the small portion west of the inlets. This runoff will discharge to Masthead Street west of Jefferson Street where it will be collected by existing rundowns and conveyed northward to the North Pino Arroyo.

The proposed drainage plan for Masthead Street generally follows the Drainage Management Plan for Journal Center of July, 1984.

* From Concrete Pipe Design Manual, prepared by American Concrete Pipe Association, June, 1980, Fig. 14, page 201.

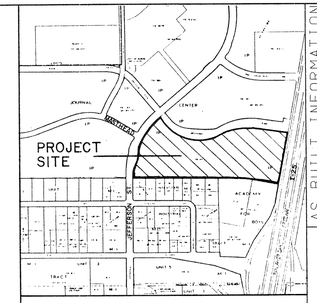
NOTE:
DISTURBANCE OF EXISTING GROUND SHALL BE LIMITED TO PROPOSED ROAD.

MASTHEAD STREET CAPACITY

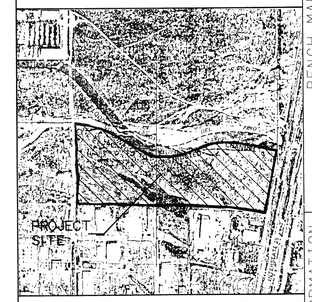
MANNINGS No.=0.170 SLOPE =.0100

POINT	DIST	ELEV	POINT	DIST	ELEV	POINT	DIST	ELEV
1	0.00	0.67	3	20.00	0.40	5	40.00	0.67
2	0.00	0.00	4	40.00	0.00			

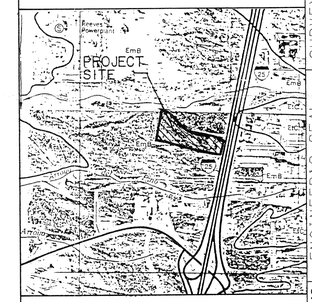
WSEL FT.	DEPTH INC	FLOW AREA SQ.FT.	FLOW RATE (CFS)	WETTED PER (FT)	FLOW VEL (FPS)	TOPWID
0.1	0.1	0.5	0.6	10.2	1.2	10.0
0.2	0.2	2.0	3.7	20.4	1.9	20.0
0.3	0.3	4.5	11.0	30.6	2.4	30.0
0.4	0.4	8.0	23.6	40.8	2.9	40.0
0.5	0.5	12.0	46.2	41.0	3.9	40.0
0.6	0.6	16.0	74.4	41.2	4.7	40.0
0.7	0.7	18.8	97.2	41.3	5.2	40.0



LOCATION MAP
ZONE ATLAS MAP NO. D-17



FLOOD INSURANCE MAP
REFERENCE: FLOOD INSURANCE STUDY (PANEL 9)



SOILS MAP
REFERENCE: SCS BERNALILLO COUNTY SOIL SURVEY (SHEET NO. 21)

APPROVED FOR DRAINAGE
12/9/88
DATE
SIGNATURE
Hydrology
TITLE

RECEIVED
DEC 09 1988
HYDROLOGY SECTION

SURVEY INFORMATION
BENCH MARKS
AS BUILT INFORMATION
4" ALUMINUM SURVEY CAP IN THE CENTERLINE INTERSECTION OF JEFFERSON STREET AND MASTHEAD STREET. SURVEY CAP IS STAMPED "CITY OF ALBUQUERQUE CENTERLINE MONUMENT, DO NOT DISTURB, P.L.S. # 2455 1982." ELEVATION = 5134.88'
FIELD NOTES
MICRO-FILM INFORMATION

NO. | DATE | REMARKS | BY
1 | 12/88 | ADDED DOUBLE "D" INLET | JMS

REVISIONS
DESIGN
DESIGNED BY LEM — DATE 10/88
DRAWN BY TG — DATE 10/88
CHECKED BY JT — DATE 10/88

ENGINEER'S SEAL
JAMES P. JORDAN
NEW MEXICO
10788
REGISTERED PROFESSIONAL ENGINEER
11/6/88

CITY OF ALBUQUERQUE

TITLE: MASTHEAD STREET
DRAINAGE PLAN

DRAWING NO.
MAP NO. D-17
SHEET 1 OF 1