CITY OF
Albuquerque

Public Works Department

Martin J. Chávez, Mayor

Robert E. Gurulé, Director

February 26, 1997

Fred Arfman
Isaacson & Arfman
128 Monroe St. NE
Albuquerque, New Mexico 87108

RE: ENGINEER CERTIFICATION FOR EDDLEMAN INDUSTRIES (C17-D13C)
CERTIFICATION STATEMENT DATED 2/20/97

Dear Mr. Arfman:

Based on the information provided on your February 21, 1997 resubmittal, Engineer Certification for the above referenced site is acceptable.

If I can be of further assistance, please feel free to contact me at 924-3986.

C: Andrew Garcia
File

Sincerely

Bernie J. Montoya CE
Engineering Associate

CITY OF
Albuquerque

Public Works Department

Martin J. Chávez, Mayor

Robert E. Gurulé, Director

February 14, 1997

Fred Arfman
Isaacson & Arfman
128 Monroe St. NE
Albuquerque, New Mexico 87108

RE: ENGINEER CERTIFICATION FOR EDDLEMAN INDUSTRIES (C17-D13C)
CERTIFICATION STATEMENT DATED 2/12/97

Dear Mr. Arfman:

Based on the information provided on your February 13, 1997 submittal, Engineer Certification for the above referenced site is not acceptable for the following reasons:

1. Please identify on the legend the as-built designation.

2. Copy of the green tag for the SO19 construction.

If I can be of further assistance, please feel free to contact me at 924-3986.

C: Andrew Garcia
File

Sincerely

Bernie J. Montoya

Bernie J. Montoya CE
Engineering Associate

DRAINAGE INFORMATION SHEET

PROJECT TITLE: EDDLEMAN INDUSTRIES ZONE ATLAS/DRNG. FILE #: C-17/D13C

DRB #: 95-475 EPC #: _____ WORK ORDER #: _____

LEGAL DESCRIPTION: TR 14-A-1, LOOP INDUSTRIAL DISTRICT

CITY ADDRESS: 8330 JEFFERSON ST. N.E

ENGINEERING FIRM: ISAACSON & ARFMAN CONTACT: FRED C. ARFMAN

ADDRESS: 128 MONROE ST NE PHONE: 268-8828

OWNER: EDDLEMAN INDUSTRIES CONTACT: RUSS MERRILL, PRES

ADDRESS: 1239-A BELLAMAH NW PHONE: 766-9499

ARCHITECT: DEKKER/PERICH & ASSOC. CONTACT: STEVE PERICH

ADDRESS: 6501 AMERICAS PKWY PHONE: 888-3111

SURVEYOR: ALDRICH LAND SURVEYING CONTACT: TIM ALDRICH

ADDRESS: _____ PHONE: 884-1990

CONTRACTOR: STAR CONSTRUCTION CONTACT: CLAY GOODEN

ADDRESS: 8352-B CORONADO PHONE: 823-1100

TYPE OF SUBMITTAL:

____ DRAINAGE REPORT

__ DRAINAGE PLAN

____ CONCEPTUAL GRADING & DRAINAGE PLAN

__ GRADING PLAN

____ EROSION CONTROL PLAN

(X) ENGINEER'S CERTIFICATION

____ OTHER

PRE-DESIGN MEETING:

____ YES

____ NO

____ COPY PROVIDED

RECEIVED
FEB 21 1997
HYDROLOGY SECTION

CHECK TYPE OF APPROVAL SOUGHT:

____ SKETCH PLAT APPROVAL

____ PRELIMINARY PLAT APPROVAL

____ S. DEV. PLAN FOR SUB'D. APPROVAL

____ S. DEV. PLAN FOR BLDG. PERMIT APPROVAL

____ SECTOR PLAN APPROVAL

____ FINAL PLAT APPROVAL

____ FOUNDATION PERMIT APPROVAL

__ BUILDING PERMIT APPROVAL

(X) CERTIFICATE OF OCCUPANCY APPROVAL

__ GRADING PERMIT APPROVAL

____ PAVING PERMIT APPROVAL

____ S.A.D. DRAINAGE REPORT

____ DRAINAGE REQUIREMENTS

____ OTHER _____ (SPECIFY)

DATE SUBMITTED: 02.20.97

BY: FRED C. ARFMAN, P.E.

FOR: ISAACSON & ARFMAN, P.A.

CITY OF
Albuquerque

November 22, 1996

Martin J. Chávez, Mayor

Fred Arfman
Isaacson & Arfman
128 Monroe St. NE
Albuquerque, NM 87108

RE: REVISED DRAINAGE PLAN FOR SUPPLEMENTAL OFFSITE GRADING FOR EDDLEMAN INDUSTRIES (C17-D13C) ENGINEER'S STAMP DATED 11/4/96.

Dear Mr. Arfman:

Based on the information provided on your November 19, 1996 resubmittal, I will need a copy of the plan signed off by AMAFCA for the work proposed within their Right-of-Way, before I can approve the supplemental plan.

If I can be of further assistance, please feel free to contact me at 768-2667.

Sincerely,

Bernie J. Montoya, CE
Engineering Associate

BJM/dl

c: Andrew Garcia
File

CITY OF
Albuquerque

July 18, 1996

Martin J. Chávez, Mayor

Fred Arfman
Isaacson & Arfman
128 Monroe St. NE
Albuquerque, NM 87108

RE: DRAINAGE PLAN FOR EDDLEMAN INDUSTRIES (C17-D13C)
ENGINEER'S STAMP DATED 6/29/96.

Dear Mr. Arfman:

Based on the information provided on your July 1, 1996 submittal, listed are some concerns that will need to be addressed:

1. Modification of the existing catch basin will need to be coordinated through D.R.C.
2. Your narrative pertaining to the remaining flow rate for Basin A is unclear, 10.4 cfs is a substantial amount to detain and spill over-the proposed 4" pvc pipe will not drain 10.4cfs. Please clarify.
3. Hydraulic on all the storm systems proposed, inlets, pipes, run downs, etc.
4. What type of sediment and erosion control do you propose on Basin B? Your footprint identifies grading within this area. A sediment pond will probably be needed to assure that no sediment is deposited onto the street.

If I can be of further assistance, please feel free to contact me at 768-2667.

Sincerely,

Bernie J. Montoya, CE
Engineering Associate

BJM/dl

c: Andrew Garcia
File

CITY OF
Albuquerque

August 20, 1996

Martin J. Chávez, Mayor

Fred Arfman
Isaacson & Arfman
128 Monroe St. NE
Albuquerque, NM 87108

RE: REVISED DRAINAGE PLAN FOR EDDLEMAN INDUSTRIES (C17-D13C)
REVISION DATED 8/14/96.

Dear Mr. Arfman:

Based on the information provided on your August 14, 1996 resubmittal, the above referenced site is approved for Building Permit.

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

A separate permit is required for construction within City Right-of-Way. A copy of this approval letter must be on hand when applying for the excavation permit.

Prior to Certificate of Occupancy release, Engineer Certification per the D.P.M. checklist will be required.

If I can be of further assistance, please feel free to contact me at 768-2667,

Sincerely,

Bernie J. Montoya, CE
Engineering Associate

BJM/dl

c: Andrew Garcia
Arlene Portillo
File

ISAACSON & ARFMAN, P.A.

Consulting Engineering Associates

Thomas O. Isaacson, PE & LS • Fred C. Arfman, PE
Scott M. McGee, PE

August 13, 1996

Mr. Bernie J. Montoya, C.E.
Hydrology Division
Public Works Department
City of Albuquerque
P.O. Box 1293
Albuquerque, NM 87103

RE: Eddleman Industries (C17-D13C)

Dear Mr. Montoya:

A revised Grading & Drainage Plan for the above referenced project has been updated to reflect the final site modifications and to address some of your comments found on your July 18, 1996 correspondence. Those comments and our responses to each are listed below:

1. *Modification of the existing catch basin will need to be coordinated through D.R.C.*

   The D.R.C. has reviewed the preliminary plans for the public drainage and roadway modifications and for the masterplan water/fire protection line from Jefferson Street to the 6" stub to the east. The proposed catch basin modification at the south entrance is shown on the plans.

2. *Your narrative pertaining to the remaining flow rate for Basin A is unclear, 10.4 cfs is a substantial amount to detain and spill over - the proposed 4" PVC pipe will not drain 10.4 cfs. Please clarify.*

   That portion of the plan between the private onsite catch basin and the main entrance has been modified to eliminate the small landscaped pond (not required as part of the drainage solution). A six-foot wide PCC rundown from the low point of the parking lot to Jefferson Street is achieved via a triple cell sidewalk culvert capable of conveying the Q_{100} flow rate of 10.4 cfs.

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Support hydraulic calculations for Jefferson Street are found attached (Drain Calculation No. 1). The six-foot wide rundown is analyzed as shown on Drain Calculation No. 2. The maximum flow depth is reached at 0.26 ft with a corresponding 6.7 fps. The rundown transitions into a City standard double cell sidewalk culvert at the right-of-way line. Each cell will convey 5.2 cfs at the peak of the 100-year event and achieve a maximum flow depth of 0.36 feet in each cell (Drain Calculation No. 3).

3. *Hydraulic on all the storm systems proposed, inlets, pipes, rundowns, etc.*

Prior to the storm waters reaching the concrete rundown mentioned above, a City Standard Type "C" double catch basin will pull off 10 cfs. This catch basin is situated perpendicular to the existing public catch basin in Jefferson Street. The connection is via a 12" PVC pipe per DRC requirement. The connection will require a 7.5% slope to achieve a carrying capacity of 10 cfs (See Drainage Calculation No. 4). The design is shown on the subject drainage plan with the appropriate notes and approval box.

Southerly Entry Road: This paved and curbed roadway conveys those storm waters generated from Basin B. Assuming the half of the future phase development is allowed to discharge onto this roadway. Therefore, a total of 22 cfs was used as a runoff datum. The roadway has a flow carrying capacity of 22.9 cfs at a depth of 0.20 ft (See Drainage Calculation No. 5).

4. *What type of sediment and erosion control do you propose on Basin B? Your footprint identifies grading within this area. A sediment pond will probably be needed to assure that no sediment is deposited onto the street.*

The undeveloped portion of the site adjacent to Jefferson Street is programmed as a future phase for offices and related facilities. Future developer should be required to develop and submit a supplemental grading/drainage plan which conforms to the subject plan.

The two acre (±) parcel shall be shaped to control a majority of the storm waters generated and directing them via berms and ditches to a desiltation pond situated at the northeast corner of Jefferson Street and the south entry road. The pond detention volume is computed at 5800 cu.ft. and the volume is released to Jefferson Street via a 4" pipe drain (City Standard). The support calculations are found on Drainage Calculation No. 6 (attached).

We believe that the final evolution of this plan provides for the safe and acceptable handling of the projected storm water flows and is supported by the hydraulic and hydrological calculation presented above.

Very truly yours,

ISAACSON & ARFMAN, P.A.

Fred C. Arfman, P.E.

FCA/rtl

Attachments

Rectangular Channel Analysis & Design
Open Channel - Uniform flow

Worksheet Name:

Description: JEFFERSON ST (24' WIDE, 1.65%)

Solve For Discharge

Given Constant Data;

Bottom Width..... 24.00
Mannings 'n'..... 0.017
Channel Slope..... 0.0165
Channel Depth..... 0.25 (AVG.) 0.57 @ FL

Variable Input Data	Minimum	Maximum	Increment By

Bottom Width ft	Mannings 'n'	Channel Slope ft/ft	Channel Depth ft	COMPUTED Channel Discharge cfs	COMPUTED Velocity fps
24.00	0.017	0.0165	0.25 AVG.	26.37	4.40

Open Channel Flow Module, Version 3.43 (c)
Haestad Methods, Inc. * 37 Brookside Rd * Waterbury, Ct 06708

D.C. # 1

Rectangular Channel Analysis & Design
Open Channel - Uniform flow

Worksheet Name:

Description: 6' wide pcc rundown

Solve For Depth

Given Constant Data;

Bottom Width.....	6.00
Mannings 'n'.....	0.012
Channel Slope.....	0.0200
Channel Discharge..	10.40

Variable Input Data	Minimum	Maximum	Increment By

Bottom Width ft	Mannings 'n'	Channel Slope ft/ft	COMPUTED Channel Depth ft	Channel Discharge cfs	COMPUTED Velocity fps
6.00	0.012	0.0200	0.26	10.40	6.72

Open Channel Flow Module, Version 3.43 (c)
Haestad Methods, Inc. * 37 Brookside Rd * Waterbury, Ct 06708

D.C.# 2

Rectangular Channel Analysis & Design
Open Channel - Uniform flow

Worksheet Name:

Description: 2' wide pcc rundown

Solve For Depth

Given Constant Data;

Bottom Width.....	2.00
Mannings 'n'.....	0.012
Channel Slope.....	0.0200
Channel Discharge..	5.20

Variable Input Data	Minimum	Maximum	Increment By

Bottom Width ft	Mannings 'n'	Channel Slope ft/ft	COMPUTED Channel Depth ft	Channel Discharge cfs	COMPUTED Velocity fps
2.00	0.012	0.0200	0.36	5.20	7.22

Open Channel Flow Module, Version 3.43 (c)
Haestad Methods, Inc. * 37 Brookside Rd * Waterbury, Ct 06708

D.C. #3

Circular Channel Analysis & Design
Solved with Manning's Equation

Open Channel - Uniform flow

Worksheet Name:

Description: 12" PVC

Solve For Full Flow Capacity

Given Constant Data;

Diameter.....	1.00
Slope.....	0.0750
Mannings n.....	0.012
Discharge.....	10.57

Variable Input Data	Minimum	Maximum	Increment By

			COMPUTED	COMPUTED	COMPUTED	COMPUTED
Diameter ft	Channel Slope ft/ft	Mannings 'n'	Discharge cfs	Depth ft	Velocity fps	Capacity Full cfs
1.00	0.0750	0.012	10.57	1.00	13.46	10.57

Open Channel Flow Module, Version 3.43 (c)
Haestad Methods, Inc. * 37 Brookside Rd * Waterbury, Ct 06708

D.C. #4

Rectangular Channel Analysis & Design
Open Channel - Uniform flow

Worksheet Name: EDDLEMAN

Description: ENTRY ROAD (24' WIDE, 2.6%)

Solve For Discharge

Given Constant Data;

Bottom Width.....	24.00
Mannings 'n'.....	0.017
Channel Slope.....	0.0260
Channel Depth.....	0.20

Variable Input Data	Minimum	Maximum	Increment By

Bottom Width ft	Mannings 'n'	Channel Slope ft/ft	Channel Depth ft	COMPUTED Channel Discharge cfs	COMPUTED Velocity fps
24.00	0.017	0.0260	0.20	22.88	4.77

Open Channel Flow Module, Version 3.43 (c)
Haestad Methods, Inc. * 37 Brookside Rd * Waterbury, Ct 06708

D.C. #5