H15-D43

2 PLANS

December 17, 1986

City of Albuquerque
Albuquerque, New Mexico

Attn: Hydrology Department

Re: 404 Cutler, N.E.

To Whom It May Concern,

It is my intention to maintain the asphalt curbs surrounding the parking lot as needed to comply with the drainage plan as submitted to the city.

I also hold the City of Albuquerque harmless for any water damage to the street that may result from any excess water runoff due to improper maintenance of the asphalt curbs.

Sincerely,

Joseph M. Taglialegami

JT/de

CITY OF ALBUQUERQUE

ALBUQUERQUE, NEW MEXICO

INTER-OFFICE CORRESPONDENCE

REF. NO._____

October 1, 1986

TO: H.R. Orr, Jr., Principal Engineer/Construction, Construction Division

FROM: Fred J. Aguirre, Hydrologist; Engineering Division/PWD

SUBJECT: PRIVATE DRAINAGE FACILITIES WITHIN PUBLIC RIGHTS-OF-WAY/EASEMENT
CLIFFORD INDUSTRIAL PARK, LOT 36A (C-17/D1A1); TAGG OFFICE/WAREHOUSE (H-15/D43); TURNER BRANCH LAW OFFICE (H-13/D18)

Transmitted herewith, is a copy of the approved drainage plan for the referenced projects incorporating the S.O. 19 design.

In accordance with the new process, this plan is being submitted to you for permitting and inspection. Please provide this section with a signed-off copy per the signature block upon construction and acceptance by your office.

As you are aware, the signed-off S.O. 19 is required by this office for Certificate of Occupancy release; hence your expeditious processing of this plan would be greatly appreciated and would avoid any unnecessary delay in the release of the Certificate of Occupancy.

Thank you for your cooperation, and if you should have any questions and/or comments regarding the process, please feel free to call me at 768-2650.

FJA/bsj

Enclosures

FILE COPY

City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

HYDROLOGY SECTION
123 Central NW, Albuquerque, NM 87102
(505) 766-7644

August 25, 1986

John Armstrong
Armstrong Engineering
609 McKnight, NW
Albuquerque, New Mexico 87102

RE: REVISED DRAINAGE PLAN FOR TAGG OFFICE & WAREHOUSE
(H-15/D43) REVISION DATE AUGUST 22, 1986

Dear John:

Based on the information provided on your August 22, 1986 resubmittal, the above referenced drainage plan along with the "Drainage Facilities Within City Right-of-Way" design is approved for Building Permit

Please attach a copy of this approved 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 766-7644.

Cordially,

Bernie J. Montoya

Bernie J. Montoya, C.E.
Engineering Assistant

BJM/bsj

FILE COPY

City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

HYDROLOGY SECTION
123 Central NW, Albuquerque, NM 87102
(505) 766-7644

August 21, 1986

John Armstrong
Armstrong Engineering
609 McKnight, NW
Albuquerque, New Mexico 87102

RE: REVISED DRAINAGE PLAN FOR TAGG OFFICE & WAREHOUSE
(H-15/D43) REVISION DATE AUGUST 15, 1986

Dear John:

Based on the information provided on your August 20, 1986 submittal, the above referenced drainage plan is approved for Building Permit

Please attach a copy of this approved plan, along with the appropriately approved copy of the Drainage Facilities Within City Right-of-Way document, to the construction sets prior to sign-off by Hydrology.

If I can be of further assistance, please feel free to call me at 766-7644.

Cordially,

Bernie J. Montoya

Bernie J. Montoya, C.E.
Engineering Assistant

BJM/bsj

DRAINAGE INFORMATION SHEET

PROJECT TITLE: Tagg Office & Warehouse ZONE ATLAS/DRNG. FILE #: H-15 / D43
LEGAL DESCRIPTION: TAGG TRACT Block 4-D Franciscan Acres
CITY ADDRESS: 404 Cutler NE

ENGINEERING FIRM: Armstrong Engineering CONTACT: John Armstrong
ADDRESS: 609 McKnight NW PHONE: 243-1604
OWNER: Mike Tagg CONTACT: Mike Tagg
ADDRESS: 404 Cutler NE PHONE: 247-2970
ARCHITECT: Richard Millard CONTACT: Richard Millard
ADDRESS: 8444 Chambers Ct NE PHONE: 822-8888
SURVEYOR: Mike Paisano CONTACT: Mike Paisano
ADDRESS: PHONE: 898-8152
CONTRACTOR: CONTACT:
ADDRESS: PHONE:

PRE-DESIGN MEETING:
X YES Phone w/ Billy Goolsby
___ NO
___ COPY OF CONFERENCE RECAP SHEET PROVIDED

DRB NO. ___
EPC NO. ___
PROJ. NO. ___

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HYDROLOGY SECTION

TYPE OF SUBMITTAL:
___ DRAINAGE REPORT
X DRAINAGE PLAN
___ CONCEPTUAL GRADING & DRAINAGE PLAN
X 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
X BUILDING PERMIT APPROVAL
___ FOUNDATION PERMIT APPROVAL
___ CERTIFICATE OF OCCUPANCY APPROVAL
___ ROUGH GRADING PERMIT APPROVAL
___ GRADING/PAVING PERMIT APPROVAL
___ OTHER ___ (SPECIFY)

DATE SUBMITTED: 8/18/86
BY: [signature], P.E.

DRAINAGE CALCULATIONS FOR TAGG TRACT

The development is on the east 100 feet of the tract, located at the southwest corner of Edith Blvd. and Cutler Ave. NE (Zone Atlas H-15). This portion of the parcel is presently undeveloped. SCS Soil Survey Map #31 classifies the soil as GF, hydrologic group "B". The proposed building roof drains to the paved parking area to the east. Due to downstream flooding it is proposed to detain runoff in shallow ponding areas of the east parking lot. The north and south ponds will have a controlled outfall to Cutler and Edith respectively. Pond requirements comply with the "Development Process Manual" Chapter 22. Controlled outlets are through city standard "K-15" 4"Ø pipes.

Total area of development = 14670 ft^2
Six Hour-100 year precipitation = 2.23 in
Time of Concentration = 10 min
Rainfall Intensity i=4.7 in/hr

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HYDROLOGY SECTION

8/15/86

North Drainage Area

Area = 6500 ft² (½ roof + parking area north of high-point - See plan)

Area is 66% impervious CN = 86 (plate 22.3 C-3)
(assumes pervious CN = 62)

Rational "C" factor = $[(2200)(0.25)+(4300)(0.95)]/6500 = 0.71$

$Q_P = (0.71)(4.7)(6500/43560) = 0.50$ cfs

Required Pond Volume = 32 ft³ (see attached hydrograph - "SCS")

Pond Volume as shown on plan:
Pond Area = 1220 ft²
depth = 0.50 ft
Vol = $(1220)(0.50)/2 = 305$ ft³ >> 32 ft³ ok

South Drainage Area

Area = 8170 ft²

Area is 94% impervious CN = 96 (plate 22.3 C-3)

Rational "C" factor $[(500)(0.25)+(7670)(0.95)]/8170 = 0.91$

$Q_P = (0.91)(4.7)(8170/43560) = 0.80$ cfs

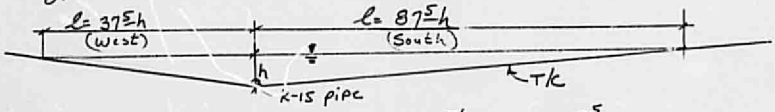
Required Pond Volume = 200 ft³ (see attached hydrograph)

Pond Volume as shown on plan:
Pond Area = 1181 ft²
depth = 0.50 ft
Vol = $(1181)(0.50)/2 =$ 295 ft³ > 200 ft³ ok

Emergency Spillways

North Area: weir over top of curb

$Q_p = 0.50$ cfs



$Q_p = C\ell h^{3/2} = (2.80)(37.5h + 87.5h)\,h^{3/2} = 350h^{2.5} = 0.50$

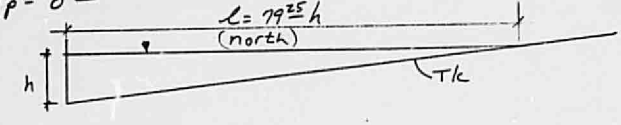
$\Rightarrow h = 0.07$ ft $\equiv$ Elev 4991.00 (or 0.25 ft below FF)

$\ell_{(west)} = (37.5)(0.07) = 2.7$ ft (See plan for location)

$\ell_{(South)} = (87.5)(0.07) = 6.1$ ft (See plan for location)

South Area:

$Q_p = 0.80$

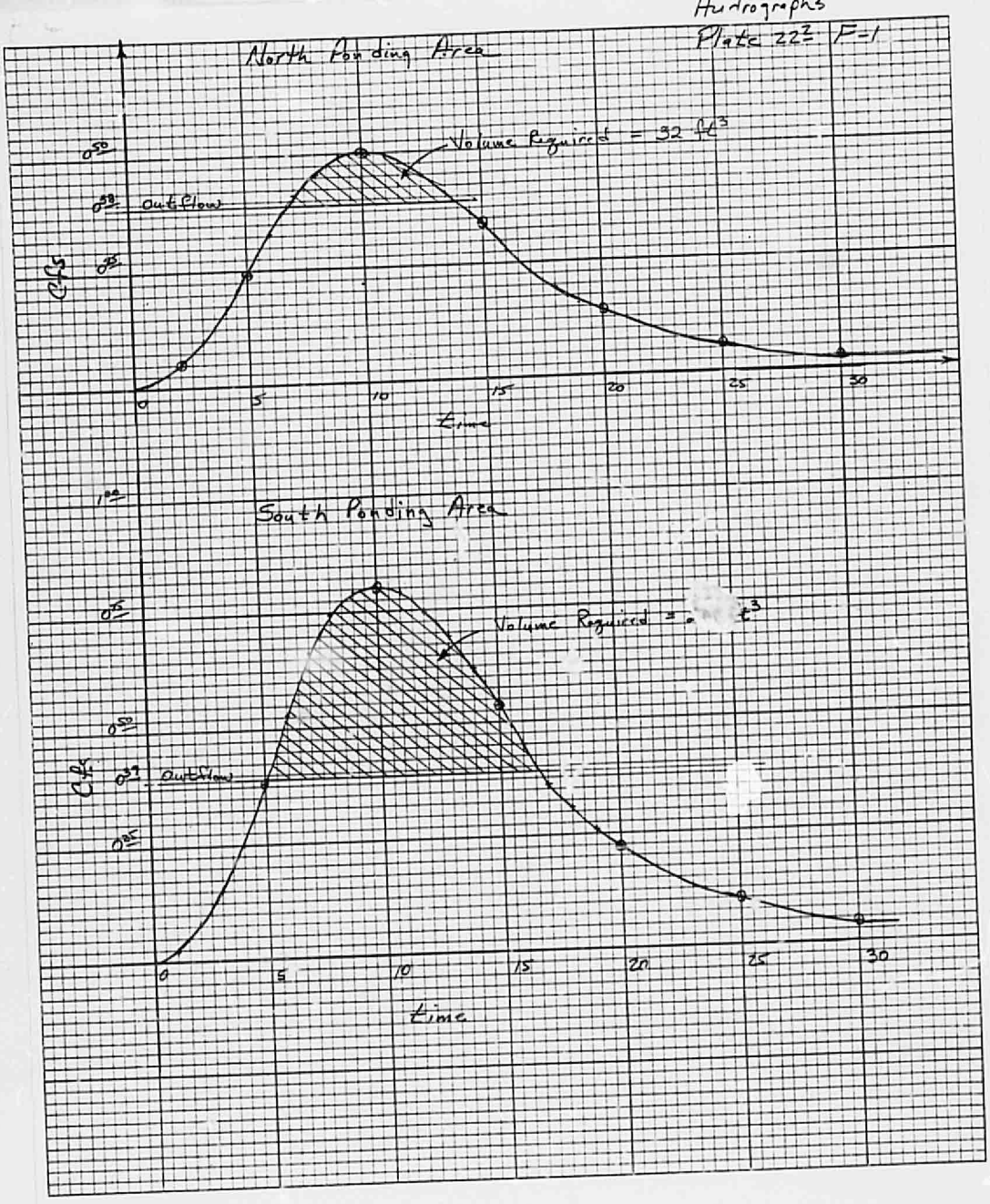


$Q_p = (2.80)(79.25h)\,h^{3/2} = 221.9\,h^{2.5}$

$\Rightarrow h = 0.11$ ft $\Rightarrow$ Elev $= 4990.67$ (or 0.58 ft below FF)

$\ell_{(north)} = (79.25)(0.11) = 8.7$ ft (See plan for location)

Hydrographs
Plate 22.2 F-1



FILE COPY

City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

August 13, 1986

John Armstrong
Armstrong Engineering
609 McKnight, NW
Albuquerque, New Mexico 87102

RE: DRAINAGE PLAN FOR TAGG OFFICE & WAREHOUSE
(H-15/D43) RECEIVED AUGUST 11, 1986

Dear John:

A preliminary review of your submittal for Building Permit approval has shown that the following information is lacking for this section to begin the review process:

INFORMATION NEEDED

1. Recompute your developed, undeveloped flow rates using the attached emergency rule criteria.

2. Copy of filed replat of Lots 65 & 66.

PLAN DRAWING

1. Please include the legal description within the plan drawing.

2. Please indicate the limits of the 100 year W.S. elevation, also indicate the elevation.

3. Indicate your emergency spillway elevation for incase the 4" pipes do not function.

Please provide this information so that we may process your request as expediently as possible.

Cordially,

Bernie J. Montoya

Bernie J. Montoya, C.E.
Engineering Assistant

BJM/bsj

H15/D43

INFORMATION SHEET

PROJECT TITLE Tagg - Office Warehouse TYPE OF SUBMITTAL Drainage Plan

ZONE ATLAS PAGE NO. H-15 CITY ADDRESS 404 Cutler NE

LEGAL DESCRIPTION Tagg Tract (formerly lots 65 & 66) Franciscan Acres

ENGINEERING FIRM Armstrong Engineering CONTACT John Armstrong

ADDRESS 609 McKnight NW PHONE 243-1604

OWNER Mike Tagg CONTACT Same

ADDRESS 404 Cutler NE PHONE 247-2970

ARCHITECT Dick Millard CONTACT Same

ADDRESS 8444 Chambers Ct NE PHONE 822-8888

SURVEYOR Mike Paisano CONTACT Same

ADDRESS _____ PHONE _____

CONTRACTOR _____ CONTACT _____

ADDRESS _____ PHONE _____

PRE-DESIGN MEETING:

X YES Phone w/ Billy G.
___ NO
___ COPY OF CONFERENCE RECAP SHEET PROVIDED

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HYDROLOGY SECTION

PLEASE CHECK TYPE OF APPROVAL EXPECTED WITH THIS SUBMITTAL:

___ SKETCH PLAT APPROVAL
___ PRELIMINARY PLAT APPROVAL
___ SITE DEVELOPMENT PLAN APPROVAL
___ FINAL PLAT APPROVAL
X BUILDING PERMIT APPROVAL
___ CERTIFICATE OF OCCUPANCY APPROVAL
___ ROUGH GRADING PERMIT APPROVAL
___ GRADING/PAVING PERMIT APPROVAL
___ OTHER _____ (SPECIFY)

DATE SUBMITTED: 8/08/86

BY: John Armstrong

NOTICE OF EMERGENCY RULE

Pursuant to Article XI, Chapter 7 of the Revised Ordinances of Albuquerque, 1974:

I Ken Schultz, Mayor of the City of Albuquerque have determined that there are urgent and compelling reasons to modify certain rules contained in the Development Process Manual relating to the Minimum Standards for the Design of Subdivisions.

This modification of rules is necessary to preclude possible inaccuracies and inconsistencies in the application of certain design criteria for the design of drainage management and flood control systems within the platting and planning jurisdiction of the City of Albuquerque.

I therefore declare that the following modifications to the Development Process Manual of the City of Albuquerque shall become effective immediately:

Volume II, of the Development Process Manual shall be modified as follows:

Chapter 22, Page 7 Delete part C.1.

Chapter 22, Page 8 Remove page 8 - Plate 22.2 C-1 and delete all reference to it.

Chapter 22, Page 17 Delete part E.2 and add the following:

"C" values for use in the Rational formula should be taken from textbook and handbook references. City staff will review and evaluate composite "C" values based on the following surface types and associated values:

Surface Type	"C" Value
streets, drives, walks	0.95
roofs	0.90
lawns and landscaping	0.25
undeveloped	0.40

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HYDROLOGY SECTION

Volume and hydrograph determinations will be done according to part C.2. page 7, and part F page 19, regardless of watershed size, except where an existing approved Master Plan has used the Rational Method for these determinations.

Chapter 22, Page 18 Remove page 18 - Plate 22.2 E-1 and delete all reference to it.

Additional modifications may be incorporated into the next periodic update of the Development Process Manual.

For further information regarding this matter contact the City Engineer at telephone number 768-2500 or by mail at City/County Government Center, One Civic Plaza, Municipal Development Department, Engineering Division, 5th floor, 87103.

Ken Schultz, Mayor /Date 1/14/86

TO BE PUBLISHED IN THE ALBUQUERQUE JOURNAL AND ALBUQUERQUE TRIBUNE ON 2/19/86.
Date

DRAINAGE CALCULATIONS FOR TAGG TRACT

The development is on the east 100 feet of the tract, located at the southwest corner of Edith Blvd. and Cutler Ave. NE (Zone Atlas H-15). This portion of the parcel is presently undeveloped. SCS Soil Survey Map #31 classifies the soil as GF, hydrologic group "B". The proposed building roof drains to the paved parking area to the east. Due to downstream flooding it is proposed to detain runoff in shallow ponding areas of the east parking lot. The north and south ponds will have a controlled outfall to Cutler and Edith respectively. Pond requirements comply with the "Development Process Manual" Chapter 22. Controlled outlets are through city standard "K-15" 4"Ø pipes.

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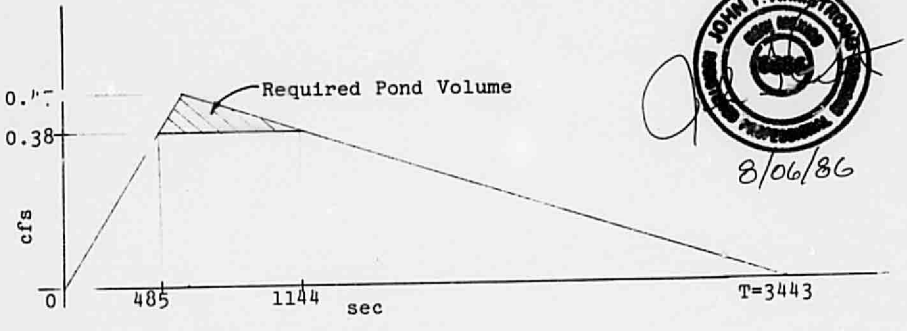
Six Hour-100 year precipitation = 2.23 in
Time of Concentration = 10 min
Rainfall Intensity i=4.7 in/hr

RECEIVED
AUG 11 1986
HYDROLOGY SECTION

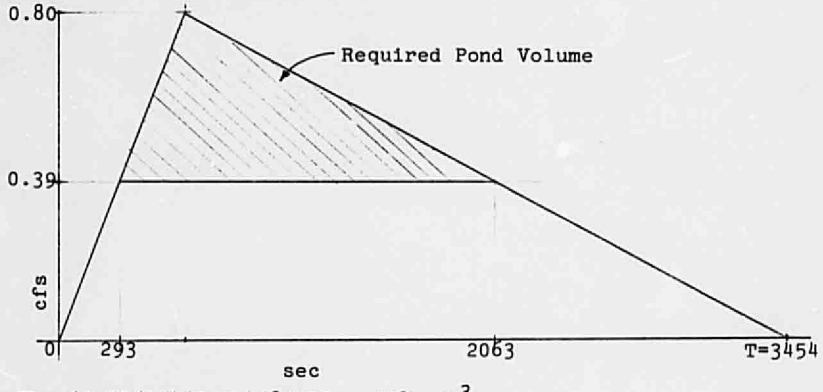
North Drainage Area

Area = 6500 ft^2 (½ roof + parking area north of high point-see plan)
Pervious = 2200 ft^2
= Area is 66% impervious, C=0.67 (plate 22.2 DPM)
Developed q_p = (0.67)(4.7)(6500/43560) = 0.47 cfs
Outflow: 4" pipe analyzed as orifice
Coefficient c = 0.6
h= 0.80 ft
Area of pipe = 0.09ft^2
q = (0.60)(0.09)[(2)(32.2)(0.80)]^{½} = 0.38cfs



$V = (2.23/12)(0.67)(6500) = 809\ ft^3$
$T = 2V/q_p = 3443$ sec
Required Pond Volume = $[(1144 - 485)/2][0.47 - 0.38] = 30\ ft^2$
Area of Pond as shown = $1220\ ft^2$
Maximum depth = 0.50 ft
Volume = $(1220)(0.50)/2 = 305\ ft^3$ ok

South Drainage Area
Area = $8170\ ft^2$
Pervious = $500\ ft^2$
= Area is 94% impervious, C=0.91 (plate 22.2 DPM)
Developed $q_p = (0.91)(4.7)(8170/43560) = 0.80$ cfs
Outflow: 4" pipe analyzed as orfice
Coefficient c = 0.6
h = 0.88
$q = (0.60)(0.09)[(2)(32.2)(0.88)]^{\frac{1}{2}} = 0.39$ cfs



$V = (2.23/12)(0.91)(8170) = 1382\ ft^3$
$T = 2V/q_p = 3454$ sec
Required Pond Volume = $[(2063 - 293)/2][0.80 - 0.39] = 363\ ft^2$
Area of Pond as shown = $(1181)(0.64)/2 = 378\ ft^2$ ok