DRAINAGE INFORMATION SHEET

PROJECT TITLE: Prairie Dog Ridge ZONE ATLAS/DRNG. FILE #: G-23/D2B1

LEGAL DESCRIPTION: Glenwood Hills South, Unit 4, Tract 1

CITY ADDRESS: Comanche & Tramway NE

ENGINEERING FIRM: D. Mark Goodwin & Associates CONTACT: Mark Goodwin

ADDRESS: PO Box 90606 87199 PHONE: 828-2200

OWNER: Scott Garrett CONTACT: Same

ADDRESS: 4100 Prospect NE PHONE: 888-4811

ARCHITECT: N/A CONTACT:

ADDRESS: PHONE:

SURVEYOR: D. Mark Goodwin & Associates CONTACT: Richard Borgel

ADDRESS: PO Box 90606 87199 PHONE: 828-2200

CONTRACTOR: Sundance Mechanical CONTACT: Burr Dickinson

ADDRESS: PHONE: 345-2694

PRE-DESIGN MEETING

X YES

___ NO

___ COPY OF CONFERENCE RECAP SHEET PROVIDED

DRB NO. ___

EPC NO. ___

PROJ. NO. ___

TYPE OF SUBMITTAL:

___ DRAINAGE REPORT

___ DRAINAGE PLAN

___ CONCEPTUAL GRADING & DRAINAGE PLAN

___ GRADING PLAN

___ EROSION CONTROL PLAN

X ENGINEER'S CERTIFICATION

RECEIVED JAN 6 1993 HYDROLOGY

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 APPROVAL

X OTHER Release of Financial Guarantee SPECIFY

DATE SUBMITTED: 1/6/93

BY: Mark Goodwin

Mark Goodwin, P.E.

City of Albuquerque
P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

December 3, 1992

PROJECT ACCEPTANCE LETTER

Mike Mechienbier
Sundance Mechanical
5920 Midway Pk Pl. N.E.
Albuquerque, NM 87109

RE: PRAIRIE DOG RIDGE, PROJECT NO. 4483.90

Dear Mr. Mechienbier:

The above referenced project has been completed according to the plans and specifications. The project consisted of the installation of 1,600 l.f. of eight inch (8") PVC waterline and 90 l.f. of RCP storm sewer line, all of which included service laterals for the subject subdivision. Also, constructed concrete sidewalks, curbs and gutter, and asphalt paved roadways in the subject subdivision.

The City of Albuquerque accepts the referenced project as a whole and the contractual correction period began September 29, 1992. The correction period on this project is for one (1) year.

Sincerely,

Russell B. Givler

Russell B. Givler, P.E.
City Engineer
Public Works Department

RBG:tjp

RECEIVED
DEC 3 1992
D. MARK GOODWIN
& ASSOCIATES, P.A.

12-3-92
Copy to Mark Goodwin Associates
Copy to Skip 12-3-92

City of Albuquerque
P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

June 11, 1992

Mark Goodwin, P.E.
D. Mark Goodwin & Associates
Post Office Box 90606
Albuquerque, New Mexico 87199

RE: DRAINAGE REPORT FOR PRAIRIE DOG RIDGE (G-23/D2B1)
ENGINEER'S STAMP DATED JUNE 2, 1992

Dear Mr. Goodwin:

Based on the information received May 18, 1992, the plan is approved for Preliminary Plat approval. This department also signed-off on the Rough Grading permit on June 3, 1992.

Please be advised that prior to sign-off on the work order drawings, the infrastructure list should be amended at DRB to include Certification of Grading.

Also, prior to sign-off on the Final Plat financial guarantees must be executed with DRC. Please add the five foot wide private easements to those lots that need to accept offsite flows on the plat.

If you should have any questions, please do not hesitate to call me at 768-2650.

Cordially,

Gilbert Aldaz, P.E. & P.S.
Civil Engineer/Hydrology

wp+3309

dmg D. Mark Goodwin & Associates, P.A.
Consulting Engineers and Surveyors
P.O. BOX 90606, ALBUQUERQUE, NM 87199
(505) 828-2200

RECEIVED
MAY 18 1992
HYDROLOGY DIVISION

May 18, 1992

Mr. Gilbert Aldaz
Hydrology Department
City of Albuquerque
PO Box 1293
Albuquerque, NM 87103

Re: Prairie Dog Ridge Subdivision (G-23/D2B1)

Dear Mr. Aldaz:

Attached, please find a revised Grading Plan and supporting calculations for the referenced project. We offer the following:

- Building pads and elevations have been defined as requested.
- Rear yards will drain to the street via side yard swales. Roofs will also drain to street.
- We acknowledge that standard curb and gutter is 8" high.
- Spot elevations outside of boundary at every lot corner have been provided.
- The easement is also a utility easement and has been coordinated at DRB.

It also came out at DRB that several property owners adjacent to our project on the east have knocked holes in their walls to illegally drain their rear yards. In lieu of going through another of these situations, our client agreed to plat a private drainage easement and construct a concrete swale to convey these nuisance flows. This submittal reflects this agreement.

Since we feel that we have addressed all concerns with this revision, we hereby request Rough Grading Permit approval. If you still have concerns, please call us and we will work with you to resolve them.

Sincerely,

D. MARK GOODWIN AND ASSOCIATES, P.A.

Mark Goodwin

Mark Goodwin, P.E.

DMG:kaw

DRAINAGE INFORMATION SHEET

PROJECT TITLE: Prairie Dog Ridge ZONE ATLAS/DRNG. FILE #: G-23 /D2B1

LEGAL DESCRIPTION: Glenwood Hills South, Unit 4, Tract 1

CITY ADDRESS: Comanche & Tramway NE

ENGINEERING FIRM: D. Mark Goodwin & Associates CONTACT: Mark Goodwin

ADDRESS: PO Box 90606 87199 PHONE: 828-2200

OWNER: Scott Garrett CONTACT: Same

ADDRESS: 4100 Prospect NE PHONE: 888-4811

ARCHITECT: N/A CONTACT:

ADDRESS: PHONE:

SURVEYOR: D. Mark Goodwin & Associates CONTACT: Richard Borgel

ADDRESS: PO Box 90606 87199 PHONE: 828-2200

CONTRACTOR: CONTACT:

ADDRESS: PHONE:

PRE-DESIGN MEETING

X YES

___ NO

___ COPY OF CONFERENCE RECAP SHEET PROVIDED

DRB NO. ___

EPC NO. ___

PROJ. NO. ___

TYPE OF SUBMITTAL:

___ DRAINAGE REPORT

___ 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

X FINAL PLAT APPROVAL

___ BUILDING PERMIT APPROVAL

___ FOUNDATION PERMIT APPROVAL

___ CERTIFICATE OF OCCUPANCY APPROVAL

X ROUGH GRADING PERMIT APPROVAL

___ GRADING/PAVING PERMIT APPROVAL

___ OTHER ___ SPECIFY

RECEIVED
MAY 18 1992
HYDROLOGY DIVISION

DATE SUBMITTED: 5/18/92

BY: Mark Goodwin

Mark Goodwin, P.E.

City of Albuquerque
P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

April 28, 1992

Mark Goodwin, P.E.
D. Mark Goodwin & Assoc.
P.O. Box 90606
Albuquerque, NM 87199

RE: DRAINAGE REPORT FOR PRAIRIE DOG RIDGE, RECEIVED APRIL 14, 1992 FOR PRELIMINARY PLAT AND ROUGH GRADING PERMIT APPROVAL, (G-23/D2B1)

Dear Mr. Goodwin:

Based on the information provided the following comments need to be addressed prior to the above requested approvals:

1. Building Pad Envelopes and finish floor elevations need to be shown.

2. How will the rear yard drainage get to the street? Are you proposing side yard swales? All roof drainage will need to be directed to the street.

3. Sheet 3 of 3 identifies a 6 inch curb, Standard Curb and Gutter is 8 inches?

4. Please provide additional spot elevations imediately outside of the property line.

5. The storm drain easement should encumber only one property owner.

If you should have any questions, please do not hesitate to call me at 768-2650.

Cordially,

Gilbert Aldaz, P.E. & P.S.
Civil Engineer/Hydrology

wp+3309

DRAINAGE INFORMATION SHEET

PROJECT TITLE: Prairie Dog Ridge ZONE ATLAS/DRNG. FILE #: G-23

LEGAL DESCRIPTION: Glenwood Hills South, Unit 4, Tract 1

CITY ADDRESS: Comanche & Tramway NE

ENGINEERING FIRM: D. Mark Goodwin & Associates CONTACT: Mark Goodwin

ADDRESS: PO Box 90606 87199 PHONE: 828-2200

OWNER: Scott Garrett CONTACT: Same

ADDRESS: 4100 Prospect NE PHONE: 888-4811

ARCHITECT: N/A CONTACT:

ADDRESS: PHONE:

SURVEYOR: D. Mark Goodwin & Associates CONTACT: Richard Borgel

ADDRESS: PO Box 90606 87199 PHONE: 828-2200

CONTRACTOR: CONTACT:

ADDRESS: PHONE:

PRE-DESIGN MEETING

X YES

___ NO

___ COPY OF CONFERENCE RECAP SHEET PROVIDED

DRB NO.

EPC NO.

PROJ. NO.

3309

TYPE OF SUBMITTAL:

X DRAINAGE REPORT

___ DRAINAGE PLAN

___ CONCEPTUAL GRADING & DRAINAGE PLAN

X GRADING PLAN

___ EROSION CONTROL PLAN

___ ENGINEER'S CERTIFICATION

CHECK TYPE OF APPROVAL SOUGHT:

___ SKETCH PLAT APPROVAL

X PRELIMINARY PLAT APPROVAL

___ SITE DEVELOPMENT PLAN APPROVAL

___ FINAL PLAT APPROVAL

___ BUILDING PERMIT APPROVAL

___ FOUNDATION PERMIT APPROVAL

___ CERTIFICATE OF OCCUPANCY APPROVAL

X ROUGH GRADING PERMIT APPROVAL

___ GRADING/PAVING PERMIT APPROVAL

___ OTHER ___ SPECIFY

RECEIVED

APR 14 1992

DATE SUBMITTED: 4/13/92

BY: Mark Goodwin

Mark Goodwin, P.E.

Amend Infrastructure List ~~w/~~ for Certification

APPROVED w/ Condition std C&G from PC to PT @ SE Corner of Subdivision. The [illegible]ding is based on securing a zoning variance otherwise contractor will need to regrade site

City of Albuquerque
P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

January 7, 1993

Mark Goodwin, P.E.
D. Mark Goodwin & Associates
Post Office Box 90606
Albuquerque, New Mexico 87199

RE: DRAINAGE REPORT FOR PRAIRIE DOG RIDGE (G-23/D2B1)
ENGINEER'S STAMP DATED JANUARY 6, 1993

Dear Mr. Goodwin:

Based on the information received January 6, 1993, the plan is acceptable for Engineer's Certification. With this letter, you meet the requirements of financial guarantee release as defined on the infrastructure list.

If you should have any questions, please do not hesitate to call me at 768-2650.

Cordially,

Gilbert Aldaz, P.E. & P.S.
Civil Engineer/Hydrology

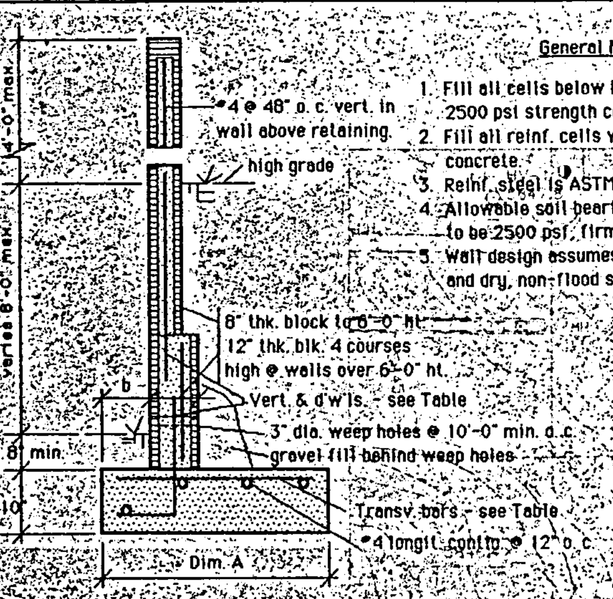
xc: Lynda Michelle DeVanti, DRC
wp+3309
File

PUBLIC WORKS DEPARTMENT

Walter H. Nickerson, Jr., P.E.
Assistant Director Public Works

ENGINEERING GROUP

Telephone (505) 768-2500



SECTION

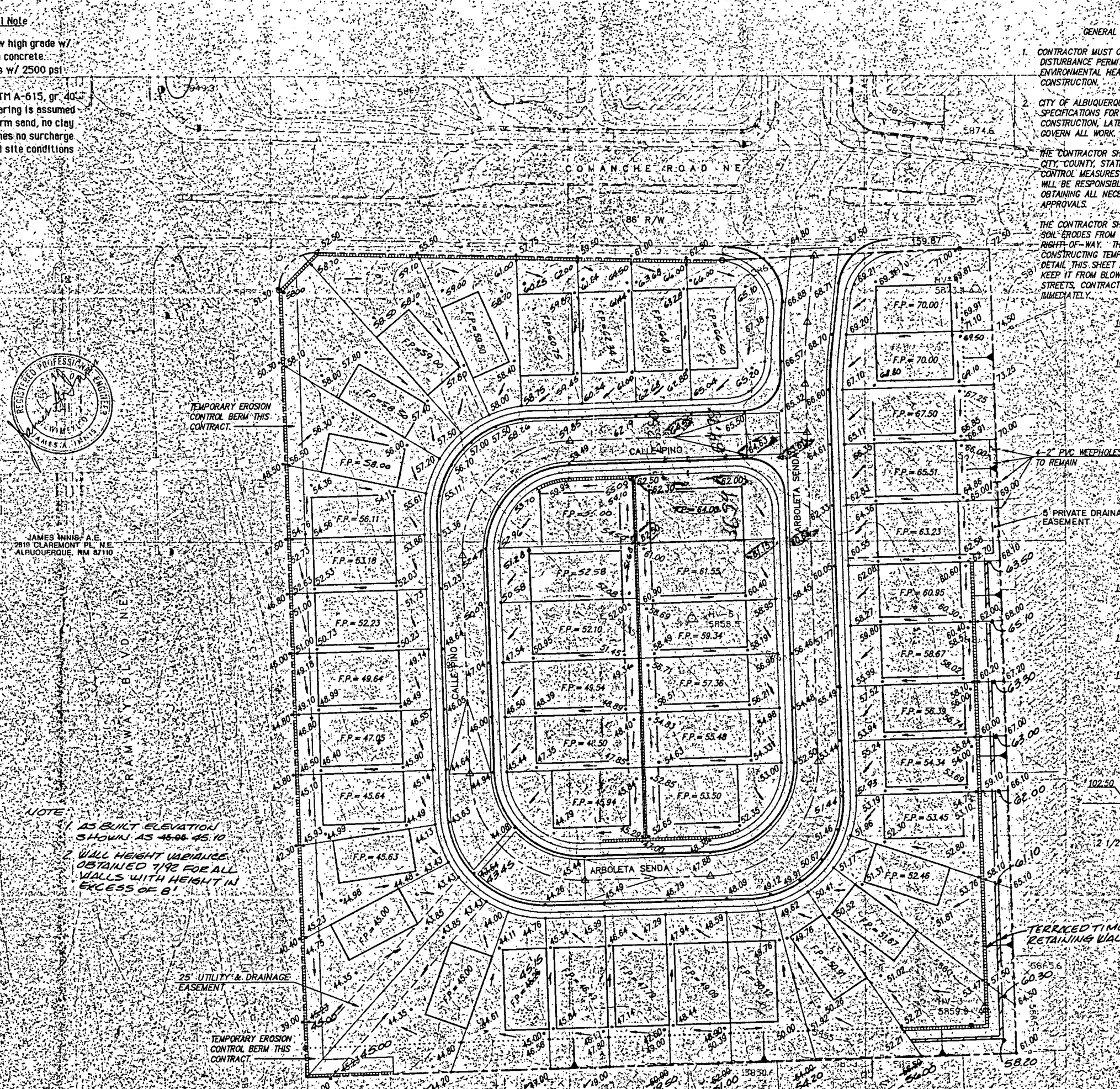
General Note

1. Fill all cells below high grade w/ 2500 psi strength concrete.
2. Fill all reinf. cells w/ 2500 psi concrete.
3. Reinf. steel is ASTM A-615, gr. 40.
4. Allowable soil bearing is assumed to be 2500 psf, firm sand, no clay.
5. Wall design assumes no surcharge and dry, non-flood site conditions.

Dimension & Reinf. Table

Ht.	Dim. A	b	Vert. & D'w'ls.	F'tg. Transverse
3'-0"	1'-8"	4"	#4 @ 32" o.c.	#3 @ 16" o.c.
4'-0"	2'-3"	5"	#4 @ 24" o.c.	#3 @ 24" o.c.
5'-0"	2'-8"	6"	#4 @ 24" o.c.	#4 @ 24" o.c.
6'-0"	3'-4"	8"	#5 @ 16" o.c.	#4 @ 16" o.c.
7'-0"	4'-0"	10"	#5 @ 16" o.c.	#4 @ 16" o.c.
8'-0"	4'-4"	1'-2"	#5 @ 16" o.c.	#4 @ 16" o.c.

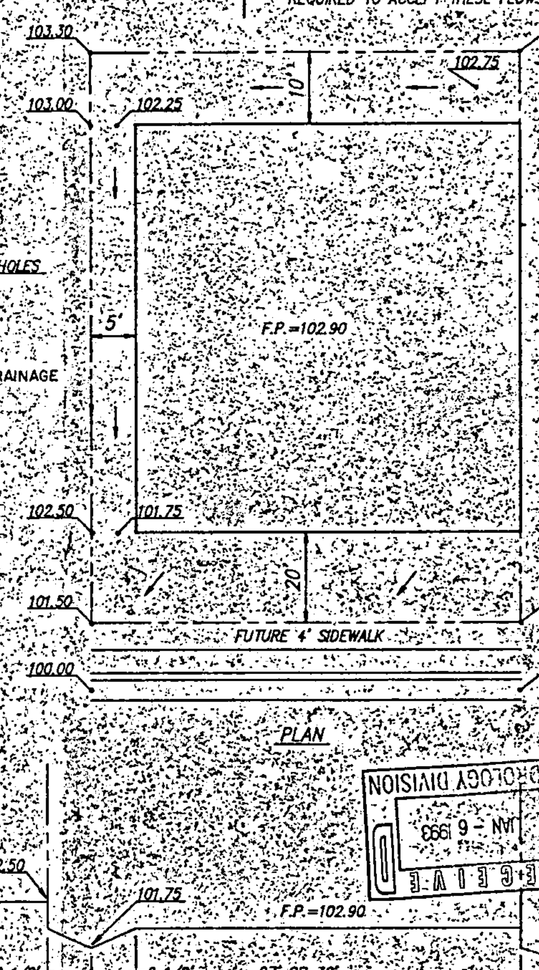
RETAINING WALL DETAIL



NOTE:
1) AS BUILT ELEVATION SHOWN AS 46.08 & 45.10
2) WALL HEIGHT VARIANCE OBTAINED 7/92 FOR ALL WALLS WITH HEIGHT IN EXCESS OF 8'.

GENERAL NOTES

1. CONTRACTOR MUST OBTAIN A TOPSOIL DISTURBANCE PERMIT FROM THE ENVIRONMENTAL HEALTH DIVISION PRIOR TO CONSTRUCTION.
2. CITY OF ALBUQUERQUE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, LATEST EDITION, SHALL GOVERN ALL WORK.
3. THE CONTRACTOR SHALL CONFORM TO ALL CITY, COUNTY, STATE, AND FEDERAL DUST CONTROL MEASURES AND REQUIREMENTS AND WILL BE RESPONSIBLE FOR PREPARING AND OBTAINING ALL NECESSARY APPLICATIONS AND APPROVALS.
4. THE CONTRACTOR SHALL ENSURE THAT NO SOIL ERODES FROM THE LOTS INTO PUBLIC RIGHT-OF-WAY. THIS CAN BE ACHIEVED BY CONSTRUCTING TEMPORARY BERMS AS PER DETAIL THIS SHEET AND WETTING THE SOIL TO KEEP IT FROM BLOWING. IF SOIL ERODES INTO STREETS, CONTRACTOR WILL CLEAN IMMEDIATELY.
5. EARTHWORK CONTRACTOR IS TO COORDINATE WITH THE RETAINING WALL CONTRACTOR TO ENSURE ENOUGH MATERIAL IS STOCKPILED FOR WALL BACKFILL.
6. THREE EXISTING SIGNS ON-SITE ARE TO REMAIN.
7. SEVERAL SMALL TREES ADJACENT TO EAST BOUNDARY SHALL BE REMOVED; INCIDENTAL TO EARTHWORK.
8. RETAINING WALLS IN EXCESS OF 8' IN HEIGHT REQUIRE A ZONING VARIANCE FROM THE OVERALL HEIGHT RESTRICTIONS OF THE COMPREHENSIVE ZONING CODE. APPROVAL OF THIS PLAN, INCLUDING WALLS HIGHER THAN 8', IS CONTINGENT UPON APPROVAL OF SUCH A VARIANCE FROM THE ZONING HEARING EXAMINER.
9. WEEPHOLES DRAINING REAR YARD PONDS FROM LOTS 4 AND 5, GLENWOOD HILLS, UNIT 4, ONTO LOTS 4 AND 5, BLOCK 1 OF THIS PROJECT, ARE TO REMAIN AS IS - LOTS 4 AND 5 ARE REQUIRED TO ACCEPT THESE FLOWS.



TYPICAL LOT LAYOUT

N.T.S.

EROSION CONTROL BERM DETAIL

N.T.S.

AS BUILT INFORMATION

CONTRACTOR Sundance Mech. DATE 10/92
WORK STAKED BY MGA DATE 11/92
ACCEPTANCE BY MGA DATE 11/92
VERIFICATION BY MGA DATE 11/92
DRAWINGS CORRECTED BY MGA DATE 11/92
MICRO-FILM INFORMATION
RECORDED BY: DATE
NO.

BENCH MARKS

THE STATION IS A 3 1/4" ALUMINUM TABLET SET IN CONCRETE INSIDE A STEEL MONUMENT BOX AT THE MEDIAN NOSE. STATION IS STAMPED "ACS 2-G23 1984" TO REACH THE STATION FROM CENTRAL AVE., TRAVEL NORTH ON TRAMWAY BLVD. APPROX. 3.3 MILES. LOCATED AT THE INTERSECTION OF TRAMWAY BLVD. AND CANDELARIA ROAD.
X=426,140.55; Y=1,497,438.88; Z=5799.00

SURVEY INFORMATION

FIELD NOTES
NO. BY DATE
932 MCA 4/92

ENGINEER'S SEAL

NO.	DATE	REMARKS	BY

DESIGN		DATE	4/92
DESIGNED BY	DMG	DATE	4/92
DRAWN BY	STAFF	DATE	4/92
CHECKED BY	DMG		

Gilbert Otero 06-03-92
APPROVED FOR ROUGH GRADING ±1' DATE

dmg D. MARK GOODWIN & ASSOCIATES, P.A.
CONSULTING ENGINEERS & SURVEYORS
P.O. BOX 90606
ALBUQUERQUE, NEW MEXICO 87199
(505) 828-2200

CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT
ENGINEERING GROUP

TITLE PRAIRIE DOG RIDGE SUBDIVISION
GRADING PLAN

APPROVALS	ENGINEER	DATE	APPROVALS	ENGINEER	DATE
DRC CHAIRMAN	Roger L. Brown	6-24-92	WATER	[illegible]	6-15-92
TRANSPORTATION	[illegible]	6-15-92	WASTE WATER	[illegible]	
HYDROLOGY	[illegible]	6-19-92			

I hereby certify that the information contained on this drawing has been revised in accordance with information furnished by the Contractor, Sundance Mechanical, Inc., and by the Surveyor, D. Mark Goodwin and Associates, and reflects the construction as actually accomplished. This plan as constructed is in close compliance with the Approved Plan, with particular emphasis on the retaining wall locations and height, and earthwork grading.
Mark Goodwin 1/6/93
Mark Goodwin, NMPE 8948

SCALE: 1" = 40'

PDS GRADE

PROJECT NO.	MAP NO.	SHEET	OF
4483.90	G23	3	10

City of Albuquerque
P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

June 21, 1993

Joseph T. Taylor
3659 Arboleta Senda NE
Albuquerque, N.M. 87111

RE: DRAINAGE COMPLAINT AT 3659 ARBOLETA SENDA NE
PRAIRIE DOG RIDGE SUBDIVISION (G-23/D2B1)

Dear Mr. Taylor:

Attached is a letter from the Mark Goodwin expressing the Contractor's view of the situation. As you can see, he paints a very different picture. I do not have the authority to judge which of you is right and which is to blame.

I recommend that you work with the Contractor to develop a solution that is acceptable to both of you. If you end up taking this to court, I believe that the only ones who will benefit will be the lawyers.

Sincerely,

John P. Curtin

John P. Curtin, P.E.
Civil Engineer/Hydrology

xc: Mark Goodwin, DMG & Assoc.
Skip Hines, S.H. Co.
Scott Garret, Prairie View Homes

WPHYD+3309;jpc

D. Mark Goodwin & Associates, P.A.
Consulting Engineers and Surveyors
P.O. BOX 90606, ALBUQUERQUE, NM 87199
(505) 828-2200

John C.

June 14, 1993

Mr. John Curtin
Hydrology Department
City of Albuquerque
P.O. Box 1293
Albuquerque, NM 87199

Re: Drainage Complaint, 3659 Arboleta Senda, Prairie Dog Ridge Subdivision

Dear Mr. Curtin:

On behalf of S.H. Co., Mr. Skip Hines, Prairie View Homes and Mr. Scott Garrett, we wish to respond to your letter of June 4, 1993 to Mr. Hines concerning complaints by Joseph Taylor.

Per the Engineer's Certification, the lot was graded per the approved plan including the rear and side yard swales. During the course of home construction, the swales were destroyed. Because of the urgency to move in on the part of Mr. Taylor, the landscaping was placed in a hurry and was not properly graded back to its' original condition. The home builder, S.H. Co., acknowledges this and on March 25, 1993, he sent a crew to the site to remedy the situation. Mr. Taylor would not allow access to the area so that repairs could be made. He is now complaining about the condition yet will not allow it to be remedied. My clients wish to know how the City wishes them to deal with this. Please let us know if you come up with an equitable solution.

Sincerely,

D. MARK GOODWIN AND ASSOCIATES, P.A.

Mark Goodwin

Mark Goodwin, P.E.

DMG:smr

xc: Skip Hines, S.H. Co.
Scott Garrett, Prairie View Homes

RECEIVED
JUN 17 1993
HYDROLOGY DIVISION

COMPLAINT FORM

PUBLIC WORKS DEPARTMENT
UTILITY DEVELOPMENT DIVISION
HYDROLOGY SECTION
768-2650

Complainant: Joesph T. Taylor Phone #: 294-9959

Address/Location: 3659 Arboleda Senda NE

Complaint: Water Drains into House Contractor wont fix grading. Wants someone to look at it.

Referred to: John Curtin

Investigation-Comments: Runoff drains ~~to th~~ From the center of the lot to front & back. Back yard drains to the neighbors Lot to the west.

Vertical curve in Calle Pino raises the street about 2ft. above side yard swale.

Pierpont Co Skip Hines Contractor

Follow-up: Letter mailed to:
Skip Hines - Contractor
Scott Garrett - Developer
Mark Goodwin - Consultant
Joseph T. Taylor - Owner

Resolved by: John P. Curtin Date: 6-4-93

ZONE ATLAS/DRAINAGE FILE NO.: G-23/D261

COMPLAINT FILE NO.:

DATE COMPLAINT RECEIVED: 5-25-93

COMPLAINT FORM

PUBLIC WORKS DEPARTMENT
UTILITY DEVELOPMENT DIVISION
HYDROLOGY SECTION
768-2650

Complainant: Joesph T. Taylor Phone #: 294-9959
Address/Location: 3659 Arboleda Senda NE

Complaint: Water Drains into House. Contractor wont fix grading. Wants someone to look at it.

Referred to: John Curtin

Investigation-Comments: Runoff drains ~~to th~~ From the center of the lot to front & back. Back yard drains to the neighbors Lot to the west.

Vertical curve in Calle Pino raises the street about 2ft. above side yard swale.

Pierpont Co Skip Hines Contractor

Follow-up: Letter mailed to:
Skip Hines - Contractor
Scott Garrett - Developer
Mark Goodwin - Consultant
Joseph T. Taylor - Owner

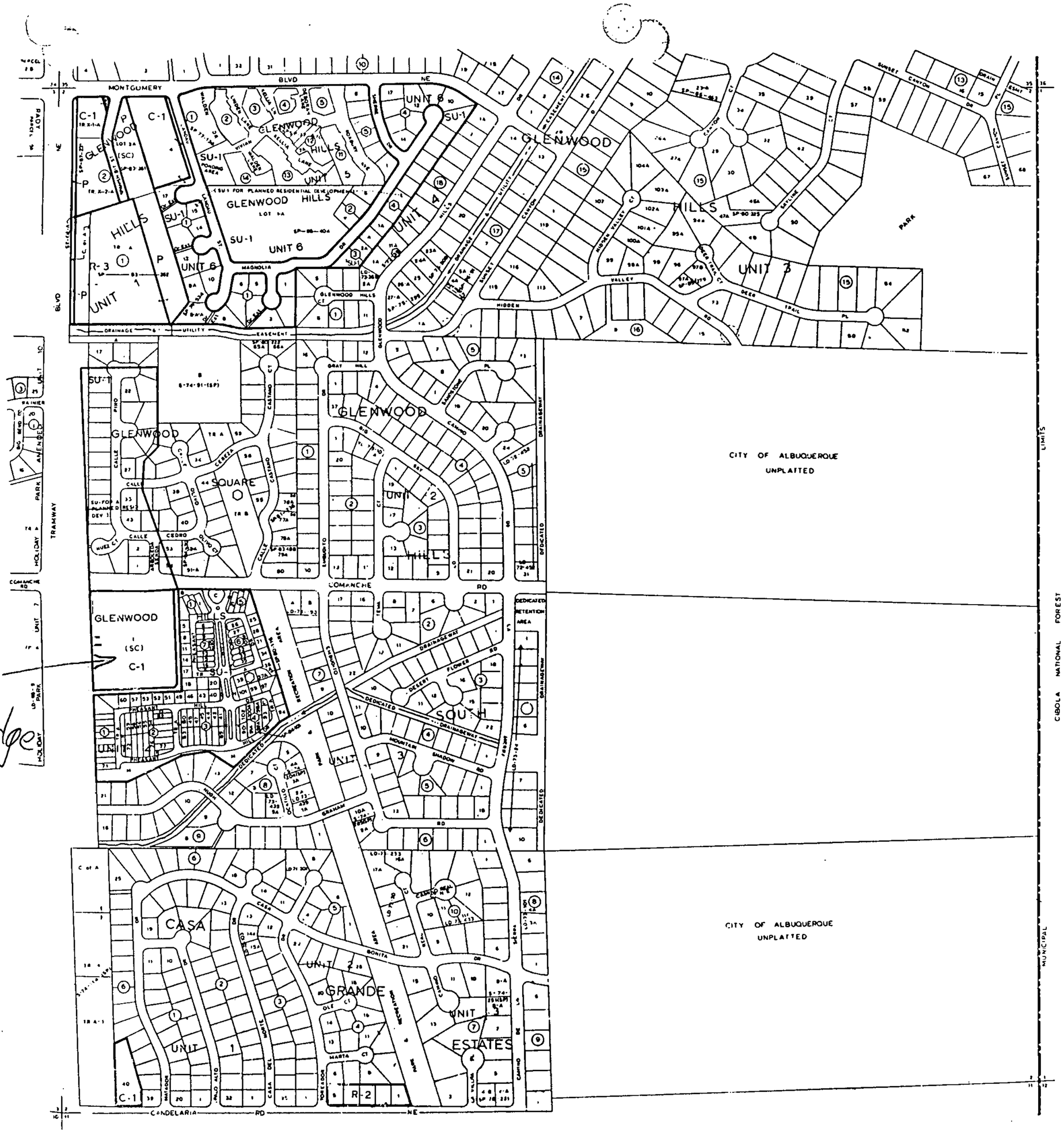
Resolved by: John P. Curtin Date: 6-4-93

ZONE ATLAS/DRAINAGE FILE NO.: G-23/D261

COMPLAINT FILE NO.:

DATE COMPLAINT RECEIVED: 5-25-93

Joesph T. Taylor
3659 Arbolata
Senda NE
Prairie Dog Ridge
Comanche & Tramway
Tract 1 Unit 4
Glenwood Hills South
Calle Pino & Arbelatz Senda
~~6208 Montgomery 884-3500~~



Prarie Dog Ridge

LEGAL DESCRIPTION
T 10 N
R 4 E
SEC 2

UNIFORM PROPERTY CODE
1-023-060

MAP AMENDED THROUGH
AUGUST 1991

G-23-Z

ALBUQUERQUE PLANNING DIVISION
MUNICIPAL DEVELOPMENT DEPARTMENT

3659 Arboleda Senda
Facing West

Backyard
Facing East

Perforated Pipe Drain
next to house.

I do not have a problem with the grades that Hall Surveying has established. Our concerns are not the finish floor elevations nor if there is any ponding taking place.

The two main concerns which the City of Albuquerque Drainage Ordinance stresses are: 1) to promote the public health, safety, and general welfare, and 2) to minimize public and private losses due to flooding by provisions designed and found within the approved subdivision drainage documents.

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

Cordially,

Bernie J. Montoya

Bernie J. Montoya, C.E.
Engineering Assistant

xc: Kevin J. McCready, Myers & Oliver
Colonial Homes
Lori Apt
Dan Malenaric

BJM/bsj
(WP+75)

City of Albuquerque
P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

June 4, 1993

Skip Hines
Hines Corporation
6757 Academy Rd NE
Albuquerque, N.M. 87109

RE: DRAINAGE COMPLAINT AT 3659 ARBOLETA SENDA NE
PRAIRIE DOG RIDGE SUBDIVISION (G-23/D2B1)

Dear Mr. Hines:

On June 2, 1993 I answered a complaint at 3659 Arboleta Senda where I observed the following:

1. Developed run-off is not routed according to the approved drainage plan certified by Mark Goodwin. The plan routes the run-off from the backyard to Arboleta Senda in front. Currently there is a ridge at the middle of the lot that forces the run-off from the backyard into the neighboring lot to the west.

2. The side lot swale does not appear to have been graded. The owner has installed a perforated pipe drain on the north side of the house to prevent run-off from the side lot from entering the house.

Comparison of the drainage plan to the profile for Calle Pino indicates that the back of sidewalk should be approximately three feet higher than the flowline of the side lot swale at the V.P.I. This may have encouraged the creation of the ridge. Attached is a copy of the approved drainage plan and a copy of the profile for Calle Pino. I have highlighted the elevations that I believe are important to this complaint.

If I can be of further assistance, You may contact me at 768-2727.

Sincerely,

John P. Curtin

John P. Curtin, P.E.
Civil Engineer/Hydrology

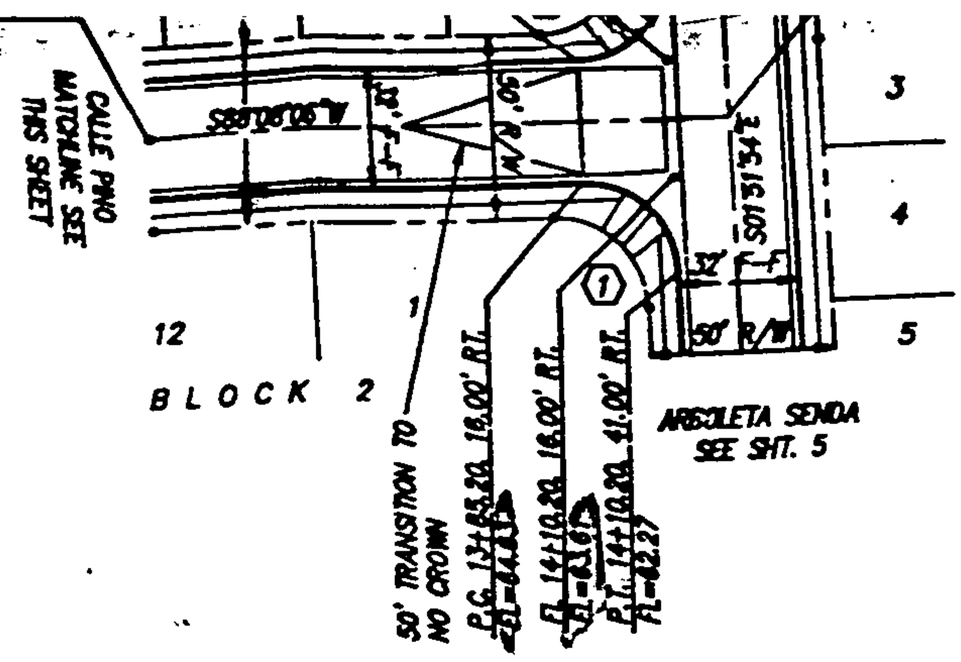
xc: Scott Garrett
Mark Goodwin
Joseph T. Taylor

WPHYD+3309;jpc

+45.70, 19.37' LT.
8.26

12+85.81, 16.00' LT.
9.53

A. 12+65.81, CL CALLE PINO



FL	ELEV.
1	64.04
2	63.45
3	62.86

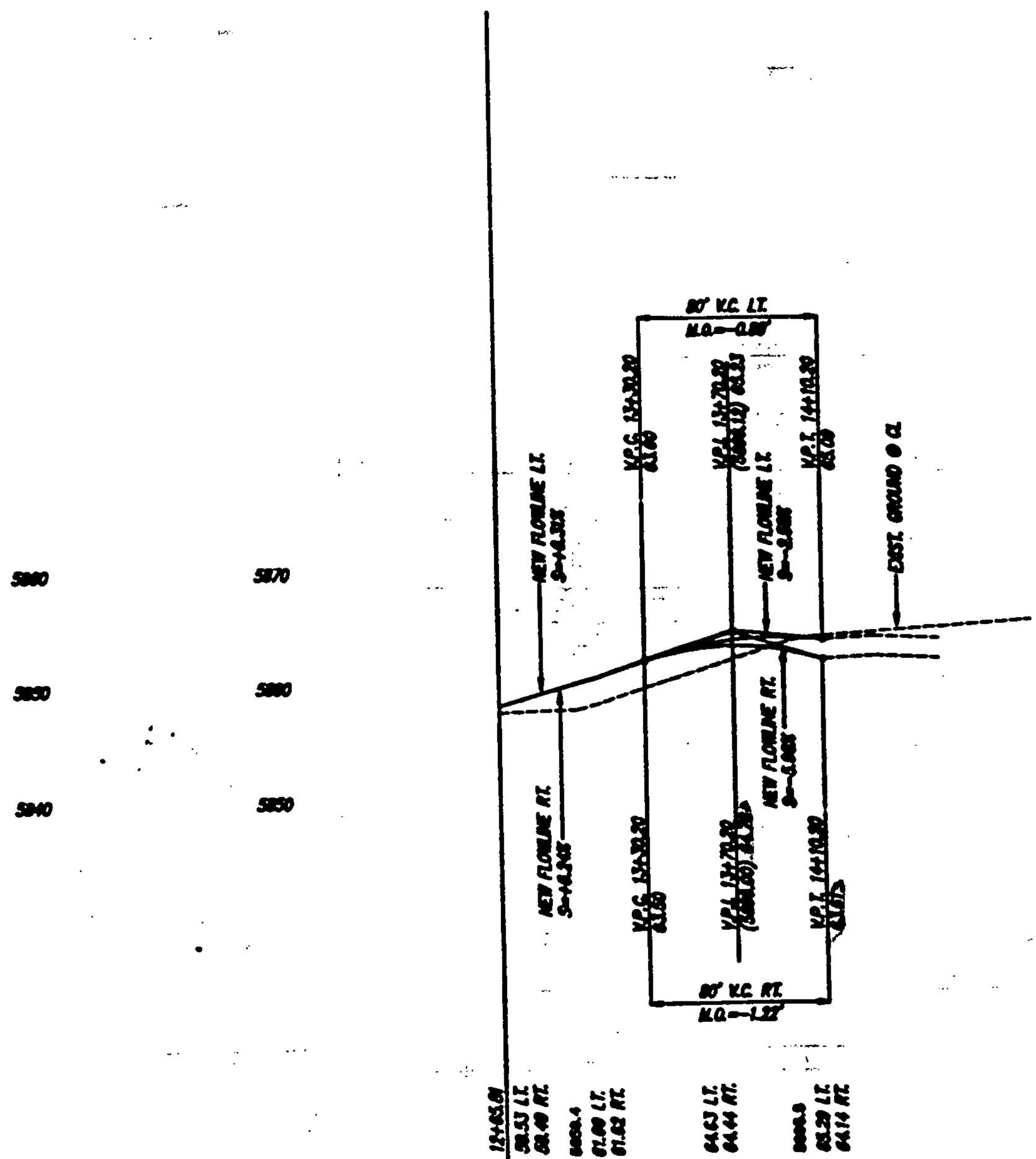
CURVE DATA (DISCRIBES FACE OF CURB)

(1) Δ=90°00'00"	(2) Δ=90°00'00"
R=25.00'	R=25.00'
T=25.00'	T=25.00'
L=39.27'	L=39.27'

SCALE:
HORIZ. 1"
VERT. 1"

CALLE P

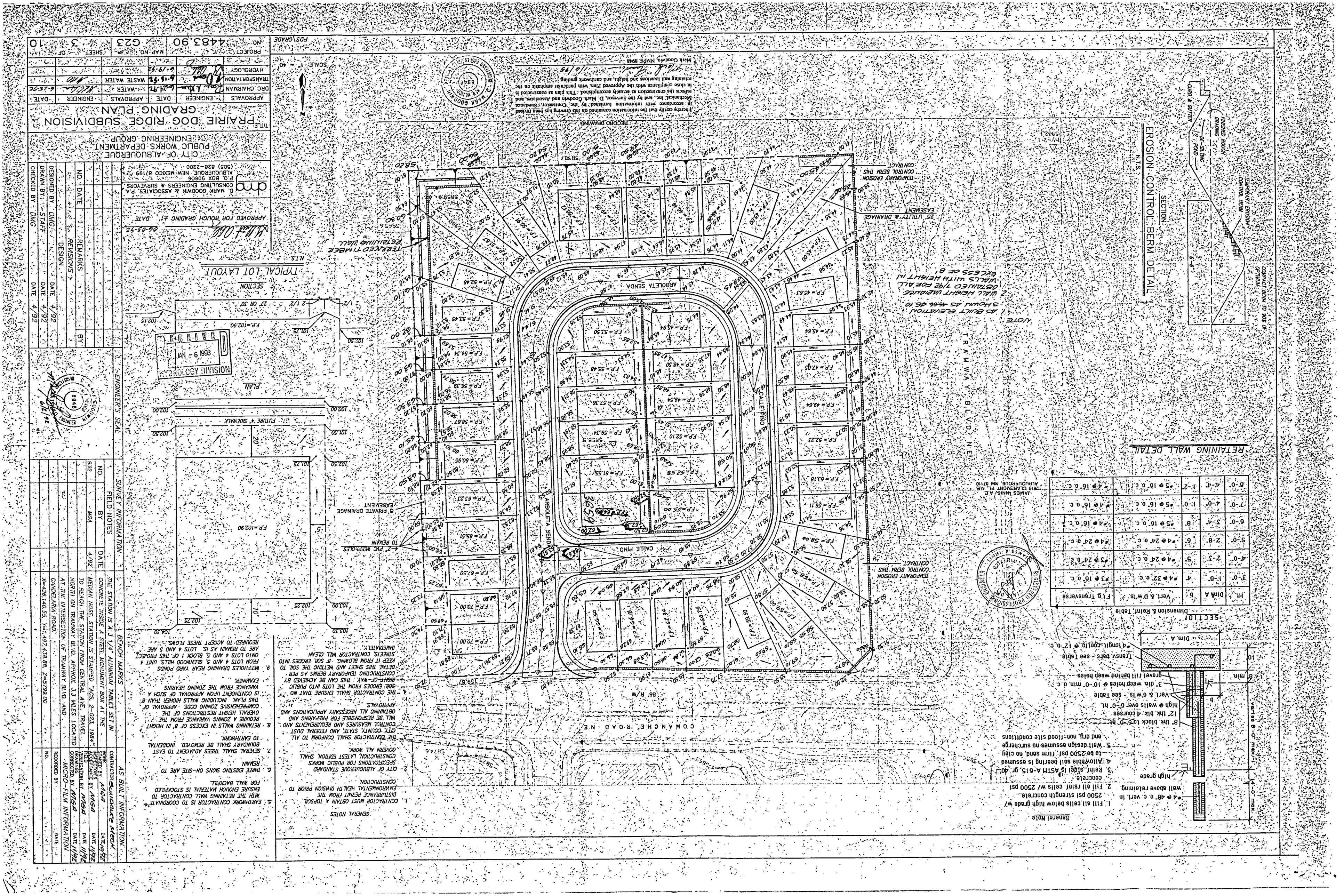
P.C. STA. 12+65.81 T



RECORD DRAWI

I hereby certify that the information contained
in accordance with information furnished
Mechanical, and by the surveyor, D. Mark Geo
the construction as actually accomplished. Th
compliance with the Approved Plan.

Mark Gaughan, PE/PS #


GENERAL NOTES
1. CONTRACTOR MUST OBTAIN A TDPSOIL DISTURBANCE PERMIT FROM THE ENVIRONMENTAL HEALTH DIVISION PRIOR TO CONSTRUCTION.
2. CITY OF ALBUQUERQUE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, LATEST EDITION, SHALL GOVERN ALL WORK.
3. THE CONTRACTOR SHALL CONFORM TO ALL CITY, COUNTY, STATE AND FEDERAL DUST CONTROL MEASURES AND REQUIREMENTS AND OBTAINING ALL NECESSARY APPLICATIONS AND APPROVALS.
4. THE CONTRACTOR SHALL ENSURE THAT NO SOIL GOODS FROM THE LOTS INTO PUBLIC RIGHT-OF-WAY. THIS CAN BE ACHIEVED BY CONSTRUCTING TEMPORARY BERMS AS PER DETAIL THIS SHEET AND WETTING THE SOIL TO KEEP IT FROM BLOWING. IF SOIL ERODES INTO STREETS, CONTRACTOR WILL CLEAN IMMEDIATELY.
5. EARTHWORK CONTRACTOR IS TO COORDINATE WITH THE RETAINING WALL CONTRACTOR TO ENSURE ENOUGH MATERIAL IS STOCKPILED FOR WALL BACKFILL.
6. THREE EXISTING SIGNS ON-SITE ARE TO REMAIN.
7. SEVERAL SMALL TREES ADJACENT TO EAST BOUNDARY SHALL BE REMOVED. INCIDENTAL TO EARTHWORK.
8. RETAINING WALLS IN EXCESS OF 8' IN HEIGHT REQUIRE A ZONING VARIANCE FROM THE COMPREHENSIVE ZONING CODE. APPROVAL OF OVERALL HEIGHT RESTRICTIONS OF THE THIS PLAN, INCLUDING WALLS HIGHER THAN 8' IS CONTINGENT UPON APPROVAL OF SUCH A VARIANCE FROM THE ZONING HEARING EXAMINER.
9. WEEPHOLES DRAINING REAR YARD PONDS FROM LOTS 4 AND 5, GLENWOOD HILLS, UNIT 4 ONTO LOTS 4 AND 5, BLOCK 1 OF THIS PROJECT ARE TO REMAIN AS IS. LOTS 4 AND 5 ARE REQUIRED TO ACCEPT THESE FLOWS.
SURVEY INFORMATION
FIELD NOTES
THE STATION IS A 3 1/4" ALUMINUM TABLET SET IN CONCRETE INSIDE A STEEL MONUMENT BOX AT THE MEDIAN NOSE. STATION IS STAMPED "ACS, 2-023, 1984"
TO REACH THE STATION FROM CENTRAL AVE., TRAVEL NORTH ON TRAMWAY BLVD. APPROX. 3.3 MILES. LOCATED AT THE INTERSECTION OF TRAMWAY BLVD. AND CANDELARIA ROAD.
X=426,140.55, Y=1,487,438.88, Z=5799.00
BENCH MARKS
AS BUILT INFORMATION
CONTRACTOR
WORK STAKED BY
ACCEPTANCE BY
DATE
FIELD VERIFICATION BY
DRAWINGS CORRECTED BY
MICRO-FILM INFORMATION
RECORDED BY
DATE
NO.
ENGINEER'S SEAL
REVISIONS
NO. DATE REMARKS BY
DESIGNED BY DMG
DRAWN BY STAFF
CHECKED BY DMG
DESIGN DATE 4/92
DATE 4/92
DATE 4/92
APPROVED FOR ROUGH GRADING
CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT
ENGINEERING GROUP
PRAIRIE DOG RIDGE SUBDIVISION
GRADING PLAN
APPROVALS
ENGINEER
DATE
APPROVALS
ENGINEER
DATE
DRC CHAIRMAN
WATER
WASTE WATER
TRANSPORTATION
HYDROLOGY
PROJECT NO. 4483.90
MAP NO. G23
SHEET 3 OF 10
SCALE 1" = 40'
TYPICAL LOT LAYOUT
SECTION
PLAN
FUTURE 4' SIDEWALK
TEMPORARY EROSION CONTROL BERM THIS CONTRACT
TEMPORARY EROSION CONTROL BERM THIS CONTRACT
TEMPORARY EROSION CONTROL BERM THIS CONTRACT
TEMPORARY EROSION CONTROL BERM THIS CONTRACT
RETAINING WALL
25' UTILITY & DRAINAGE EASEMENT
5' PRIVATE DRAINAGE EASEMENT
CONANCHE ROAD NE
ARBOLETA SENDA
CALLE PINO
TRAMWAY BLVD. NE
86' R/W
RECORD DRAWING
I hereby certify that the information contained on this drawing has been revised in accordance with information furnished by the Contractor, Sundance Mechanical Inc. and by the Surveyor, D. Mark Goodwin and Associates, and that the construction as actually accomplished at the site conforms to the Approved Plan, with particular emphasis on the retaining wall locations and heights, and contours grading.
D. Mark Goodwin, NMPE 8948
RECEIVED
JAN - 6 1993
HYDROLOGY DIVISION
EROSION CONTROL BERM DETAIL
SECTION
FINISHED ROADWAY GRADING
RE-SILTING POND
COVER & GUTTER
TEMPORARY EROSION CONTROL BERM
RETAINING WALL DETAIL
Dimension & Reinf. Table
Vert. & D.W.'s
Trans. bars
Gravel fill behind weep holes
3" dia. weep holes @ 10'-0" min. o.c.
Vert. & D.W.'s - see Table
High @ walls over 6'-0" ht.
12" thk. blk. 4 courses
6" thk. block to 6'-0" ht.
Cantilever 8'-0" max.
4'-0" max.
High grade
Reinf. steel is ASTM A-615, gr. 40
Allowable soil bearing is assumed to be 2500 psf. firm sand, no clay
Well design assumes no surcharge and dry, non-flood site conditions
General Note
1. Fill all cells below high grade w/ well above reinforcing
2. Fill all reinf. cells w/ 2500 psi concrete
3. Reinf. steel is ASTM A-615, gr. 40
4. Allowable soil bearing is assumed to be 2500 psf. firm sand, no clay
5. Well design assumes no surcharge and dry, non-flood site conditions
JAMES W. HINES A.E.
2810 CLARAMONT PL. NE
ALBUQUERQUE, NM 87110
JAMES W. HINES
REGISTERED PROFESSIONAL ENGINEER
STATE OF NEW MEXICO
ENGINEER'S SEAL

[redacted]

MARK GOODWIN & ASSOCIATES
CONSULTING ENGINEERS

DRAINAGE REPORT

FOR

Prairie Dog Ridge Subdivision

APR 1 4 1992

Prepared for:

Hines - Garrett Partnership
4100 Prospect NE
Albuquerque, NM 87110

April 1992

D. MARK GOODWIN
NEW MEXICO
8948
REGISTERED PROFESSIONAL ENGINEER
4/9/92

D. MARK GOODWIN & ASSOCIATES

APR 1 4 1995

PURPOSE

The purpose of this report is to present the drainage management plan for final plat and work order approval. All applicable ordinances and the Development Process Manual were utilized to prepare this plan. Due to the site area less than 30 acres, the rational method was employed.

EXISTING CONDITIONS

The project comprises an area of 5.58 acres at the southeast quadrant of Comanche Road and Tramway Boulevard in the northeast heights. The site is further bounded by the Pheasant Hill residential development on the east and south. (See the attached Vicinity Map.) The existing plat designation is Glenwood Hills South, Unit 4, Tract 1.

The site is relatively steep, having an average slope of six percent falling from northeast to southwest. Vegetative cover is medium, and the soils are mostly disintegrated granites typical of the northeast area. On-site runoff sheet flows to the west into the Tramway Boulevard park. Here, it is collected in a storm drain system in the park area. No off-site flows enter this site, nor does the site lie within a flood hazard zone.

The design of the storm drain system adjacent to Tramway Boulevard apparently took this site into consideration. The manhole near the southwest corner has a stub-out provided for this site. Determination of the adequacy of this line is a part of this report. A design analysis was not available concerning this line.

HYDROLOGIC ANALYSIS

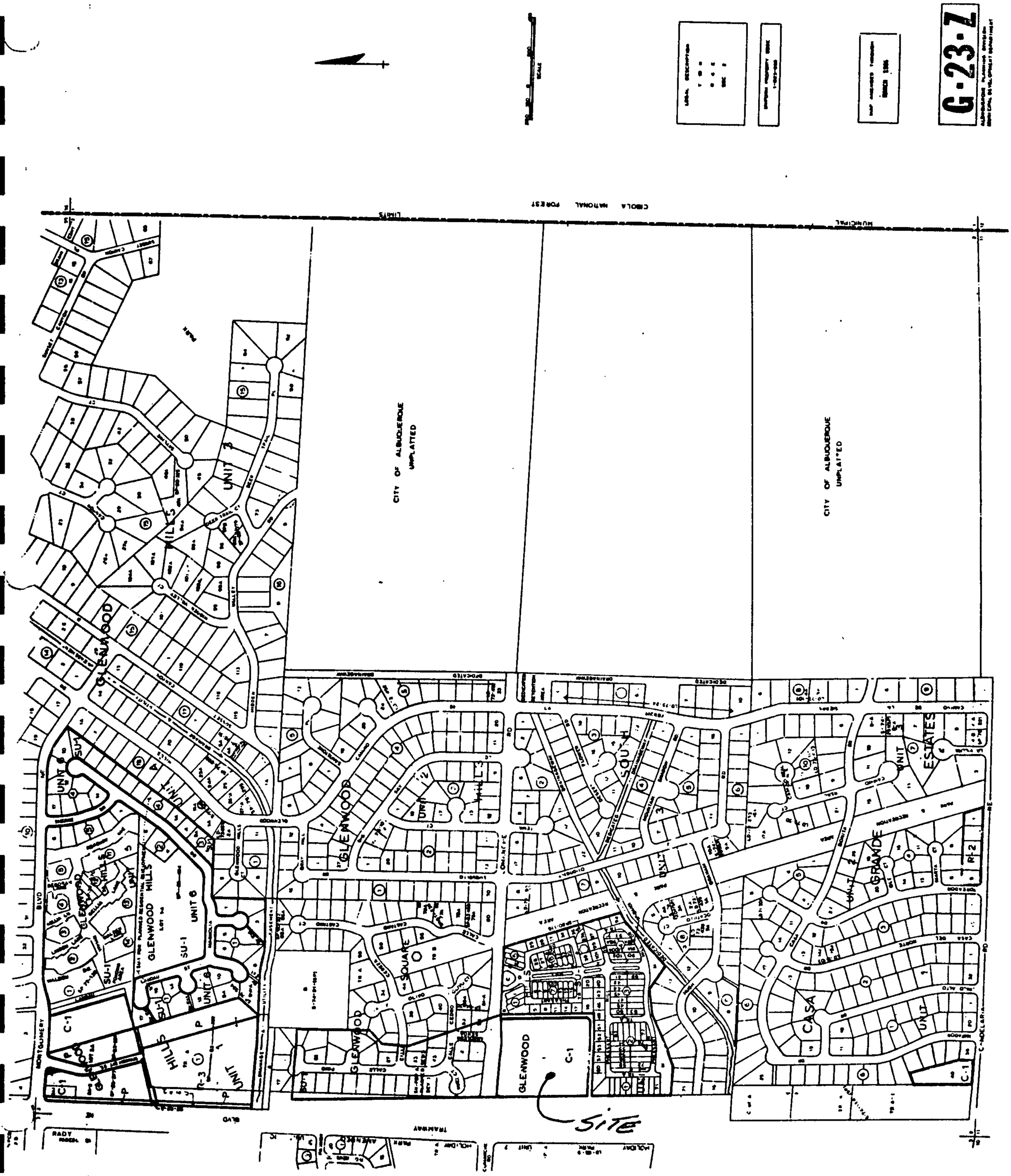
Due to the relative small drainage basins associated with this project, the Rational Method was utilized for this study. All of the pertinent methods and calculations are located in the appendix of this report.

PROPOSED MANAGEMENT PLAN

As a developed site, this plan proposes to discharge stormwater runoff at one location into an existing storm drain system that conveys flows to the improved Embudito Arroyo. We propose to discharge the flows from this project via an underground system to the existing system.

A design analysis for the existing storm drain constructed with Tramway Boulevard was not available for review. Therefore, this report performed an analysis to verify the capacity of the existing line. Three small drainage basins upstream of this site contribute flows to the line:

1. 750 L.F. of Tramway north of Comanche
2. 900 L.F. of Comanche east of Tramway
3. A 5.2 acre residential area north of Comanche and east of Tramway



VICINITY MAP

Total developed flows from these areas equaled 33 cfs. Even though these flows would peak later than this site, we combined them all for a measure of conservatism. The on-site developed flow rate will equal 20 cfs. Per the calculations in the appendix, total anticipated flows will be 53 cfs while the system has a capacity of 112 cfs. We analyzed the system for a length of 600 feet downstream of our project to 200 feet above. We feel that based upon this analysis, free discharge is in order.

This plan proposes to utilize two "A" inlets and a single "C" inlet in a sump condition in a small knuckle within the subdivision to collect on-site runoff. The capacity of these inlets is 24 cfs while the design rate is 20 cfs. Conveyance to the existing storm drain would be via 24-inch RCP located in a platted drainage and utility easement. The appropriate calculations can be found in the appendix.

INTERIM EROSION CONTROL

As indicated on the Grading Plan, a temporary earthen berm will be placed adjacent to the southwest corner of the project to prevent uncontrolled discharge of stormwaters during construction.

CONCLUSIONS

The proposed 47-lot Prairie Dog Ridge residential subdivision can be readily accommodated by the existing storm drain by implementation of this plan. It has been adequately shown by this plan that there is available capacity for this site. It has also been shown that the internal conveyance system is sufficient and meets all current City requirements.

D. MARK GOODWIN & ASSOCIATES, P.A.
CONSULTING ENGINEERS & SURVEYORS

PROJECT Prairie Dog
SUBJECT Drainage
BY MG DATE 4/8/92
CHECKED _____ DATE _____
SHEET 1 OF ____

We propose to discharge developed flows from our site directly to existing storm drain west of this site adjacent to Tramway.

Per the As-Built Dwgs. for the storm drain we are near the head of the system so there will be minimal flows upstream to contend with. The system is a short one - terminating at the Embudito Channel approx. 800' south of this site.

The storm drain upstream from this site picks up flows from 3 points:

1. 50' of Tramway N. of Comanche : Basin A
2. A 5.2 Ac. Residential Subdivision : Basin B
3. 900' of Comanche : Basin C

We will determine these flows and add onto check adequacy of the system. We will use the Rational Method for all calculations.

P(100-6) = 2.55 in.

Determine Composite "C":

Basin A:

Streets, walks	0.95	1.24	1.18
Undeveloped	0.40	2.20	.88
		3.44	2.06

Composite "C" = 0.60

D. MARK GOODWIN & ASSOCIATES, P.A.
CONSULTING ENGINEERS & SURVEYORS

PROJECT Prairie Dog
SUBJECT Drainage
BY MG DATE 4/9/92
CHECKED _____ DATE _____
SHEET 2 OF ____

Composite "C" for residential Basin B based on past calculations for like areas = 0.53

Composite "C" for Comanche Basin C + Basin A = 0.60

On-site Developed

* Streets, walks	0.95	1.62	1.54
Roofs (1800 ft²/home)	0.90	1.94	1.75
Landscaped	0.25	2.02	0.51
		5.58	3.80

Composite "C" = 0.68

* 32' street, 4' sw, 47 cu 20x20 drives, 200 ft² patios

Time of Concentration for all Basins is certainly less than 10 min, so we will use 10 min.

$I(100-C) = 2.55(6.24)10^{-.51} = 5.39$ in/hr.

BASIN A = Q = 0.60(5.39)(3.44) = 11 cfs
BASIN B Q = 0.53(5.39)(5.2) = 15 cfs
BASIN C Q = 0.60(5.39)(2.23) = 7 cfs
ON-SITE Q = 0.68(5.39)(5.58) = 20 cfs

Per the attached storm drain HGL calculations, there is adequate capacity for discharge from our site.

We now need to determine our inlet requirements and outlet pipe size.

Inlet will be placed in a sump condition with a six inch curb. — 8" Curb reqd.

Per the attached nomograph for a 2% slope, 0.5 H, Q(grate) = 8 cfs. We will provide:

1 - A
1 - Single C
1 - A

> Q(total) = 24 cfs > 20 cfs

Since inlets are in a sump, we will not space inlets.

Min. Catch Basin depth: $V = 1.33 + 1.2 \frac{v^2}{2g} + d$

From attached nomograph with min. slope = 0.5%

$v = 8.5$ fps

$d = 1.4'$ > $V = 1.33 + 1.2\left(\frac{8.5^2}{64.4}\right) + 1.4 = 4.07'$ say $4.10'$

HYDRAULIC REPORT FOR

Prairie Dog Ridge Subd.

Existing Storm Drain

Capacity Analysis

Run date: 04-08-1992
File: mark2.ST3

Return Period = 5 Yrs
Rainfall file: Your_County

LINE 1 / Q = 53.0 / HT = 42 / WID = 42 / N = .015 / L = 262 / JLC = 1

1 / Outfall

	HGL	DEPTH	INVERT	VEL	EGL	T WID	COVER	AREA
DNSTRM	18.76	20.56	17.05	11.32	20.75	41.99	N/A	4.68
UPSTRM	23.11	20.56	21.40	11.32	25.10	41.99	4.1	4.68

Drainage area (ac)	= 0	Slope of invert (%)	= 1.660
Runoff coefficient	= 0	Slope energy grade line (%)	= 1.660
Time of conc (min)	= 4	Critical depth (in)	= 26.74
Inlet time (min)	= 0	Req'd length curb inlet (ft)	= 48.6
Intensity (in/hr)	= 0.00	Req'd grate area (sf)	= 13.9
Cumulative C*A	= 0.0	Depth at inlet opening (in)	= 6
Flow contrib (cfs)	= 53	Confluence angle (deg)	= 0
Default Q (cfs)	= 53	Natural ground elev (ft)	= 29
Line capac. (cfs)	= 112.4	Line storage (cuft)	= 1227

LINE 2 / Q = 53.0 / HT = 42 / WID = 42 / N = .015 / L = 235 / JLC = 1

2 / DNLN = 1

	HGL	DEPTH	INVERT	VEL	EGL	T WID	COVER	AREA
DNSTRM	25.10	42.00	21.40	5.51	25.57	0.00	4.1	9.62
UPSTRM	27.64	26.79	25.41	8.18	28.68	40.37	4.59	6.48

Drainage area (ac)	= 0	Slope of invert (%)	= 1.706
Runoff coefficient	= 0	Slope energy grade line (%)	= 1.323
Time of conc (min)	= 3	Critical depth (in)	= 26.74
Inlet time (min)	= 0	Req'd length curb inlet (ft)	= 48.6
Intensity (in/hr)	= 0.00	Req'd grate area (sf)	= 13.9
Cumulative C*A	= 0.0	Depth at inlet opening (in)	= 6
Flow contrib (cfs)	= 53	Confluence angle (deg)	= 0
Default Q (cfs)	= 53	Natural ground elev (ft)	= 33.5
Line capac. (cfs)	= 113.9	Line storage (cuft)	= 1891

LINE 3 / Q = 33.0 / HT = 36 / WID = 36 / N = .015 / L = 260 / JLC = 1

3 / DNLN = 2

	HGL	DEPTH	INVERT	VEL	EGL	T WID	COVER	AREA
DNSTRM	28.68	36.00	25.41	4.67	29.02	0.00	5.09	7.07
UPSTRM	35.44	22.00	33.61	7.29	36.27	35.10	5.38	4.53

Drainage area (ac)	= 0	Slope of invert (%)	= 3.154
Runoff coefficient	= 0	Slope energy grade line (%)	= 2.788
Time of conc (min)	= 1	Critical depth (in)	= 21.97
Inlet time (min)	= 0	Req'd length curb inlet (ft)	= 30.2
Intensity (in/hr)	= 0.00	Req'd grate area (sf)	= 8.7
Cumulative C*A	= 0.0	Depth at inlet opening (in)	= 6
Flow contrib (cfs)	= 33	Confluence angle (deg)	= 0
Default Q (cfs)	= 33	Natural ground elev (ft)	= 42
Line capac. (cfs)	= 102.6	Line storage (cuft)	= 1507

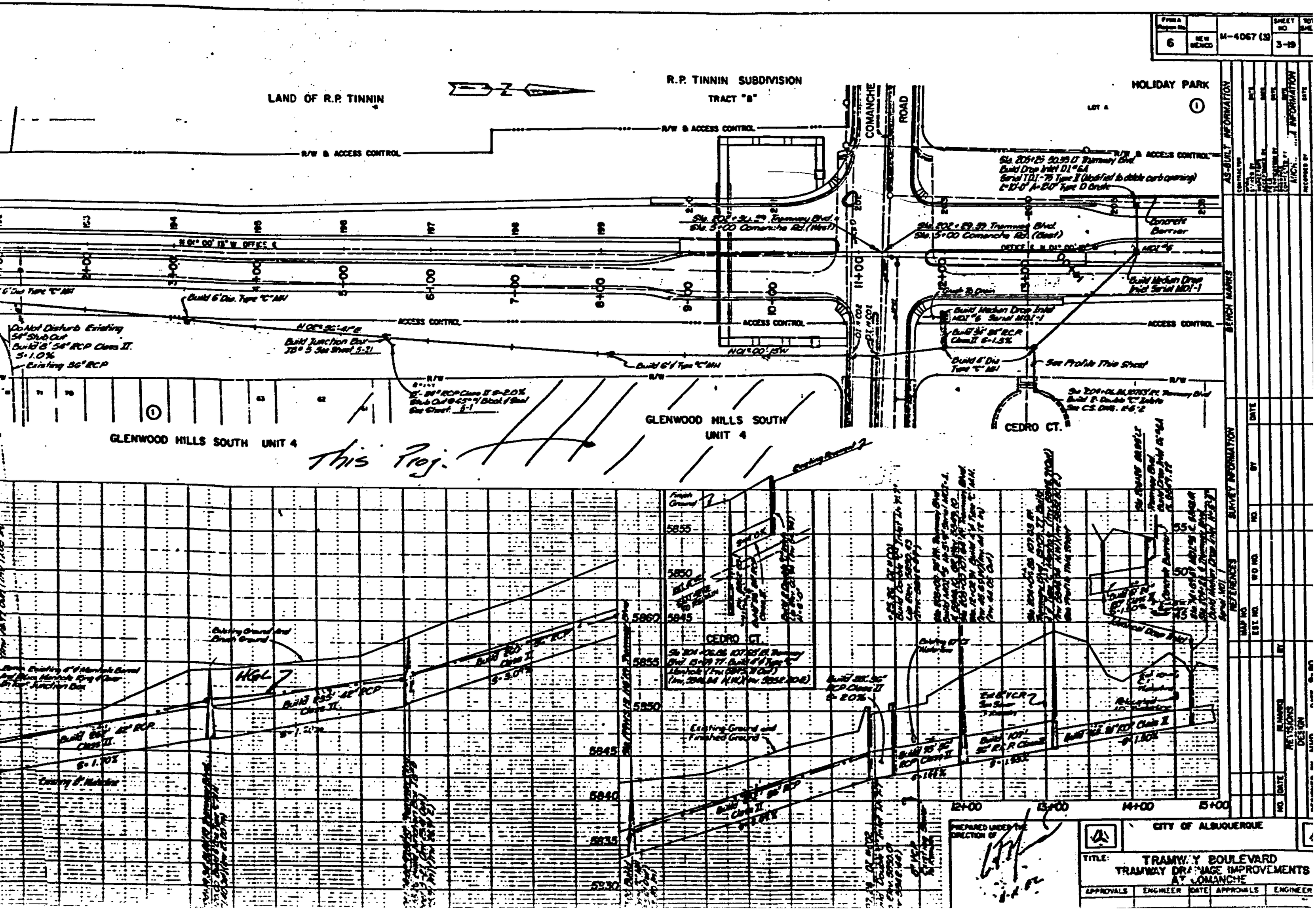
LINE 4 / Q = 33.0 / HT = 36 / WID = 36 / N = .015 / L = 232 / JLC = 1

4 / DNLN = 3

	HGL	DEPTH	INVERT	VEL	EGL	T WID	COVER	AREA
DNSTRM	36.27	31.91	33.61	4.92	36.65	21.55	5.38	6.70
UPSTRM	45.10	22.00	42.44	7.29	45.92	35.10	4.56	4.53

Drainage area (ac)	= 0	Slope of invert (%)	= 3.806
Runoff coefficient	= 0	Slope energy grade line (%)	= 3.644
Time of conc (min)	= 0	Critical depth (in)	= 21.97
Inlet time (min)	= 0	Req'd length curb inlet (ft)	= 30.2
Intensity (in/hr)	= 0.00	Req'd grate area (sf)	= 8.7
Cumulative C*A	= 0.0	Depth at inlet opening (in)	= 6
Flow contrib (cfs)	= 33	Confluence angle (deg)	= 0
Default Q (cfs)	= 33	Natural ground elev (ft)	= 50
Line capac. (cfs)	= 112.8	Line storage (cuft)	= 1303

FHWA Region No.			SHEET NO.	TOT. SHE
6	NEW MEXICO	M-4067 (3)	3-19	



AS-BUILT INFORMATION

BENCH MARKS

SURVEY INFORMATION

REFERENCES

REMARKS

REVISIONS

DESIGN

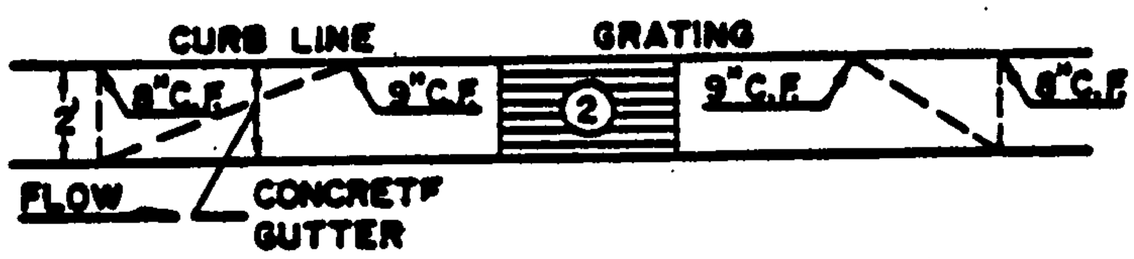
PREPARED UNDER THE DIRECTION OF

CITY OF ALBUQUERQUE

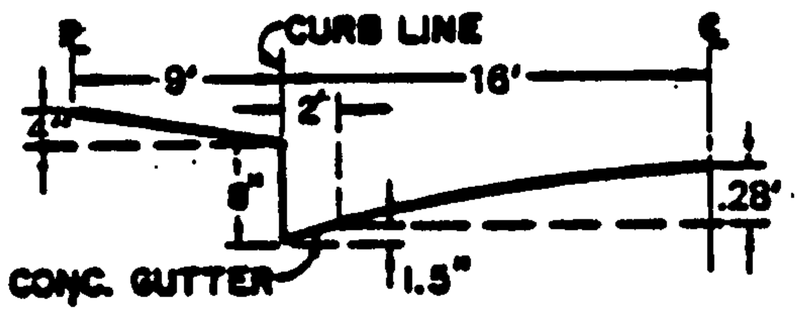
TITLE: TRAMWAY BOULEVARD
TRAMWAY DRAINAGE IMPROVEMENTS
AT COMANCHE

APPROVALS	ENGINEER	DATE	APPROVALS	ENGINEER

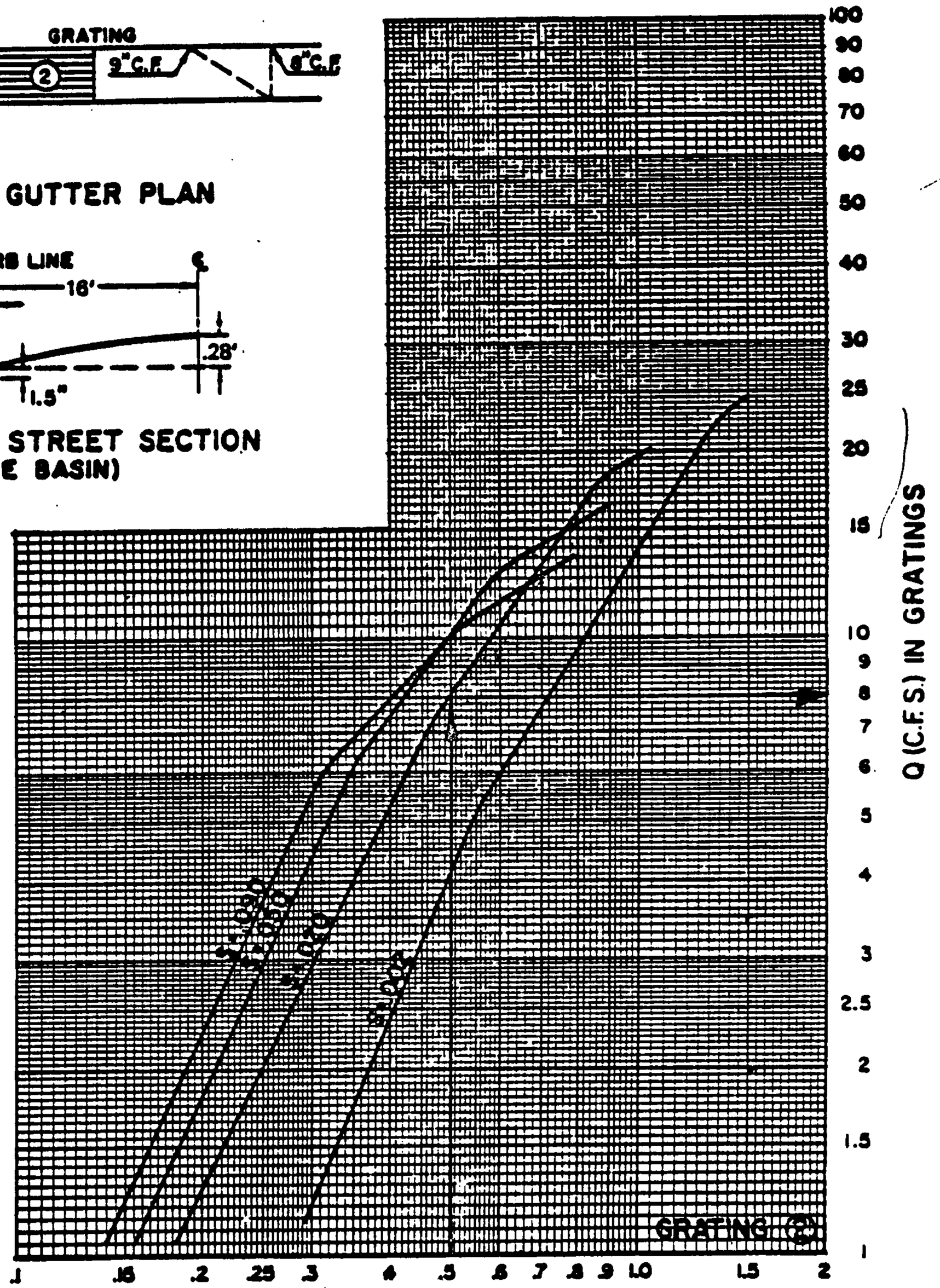
GRATING CAPACITIES FOR TYPE "A", "C" and "D"

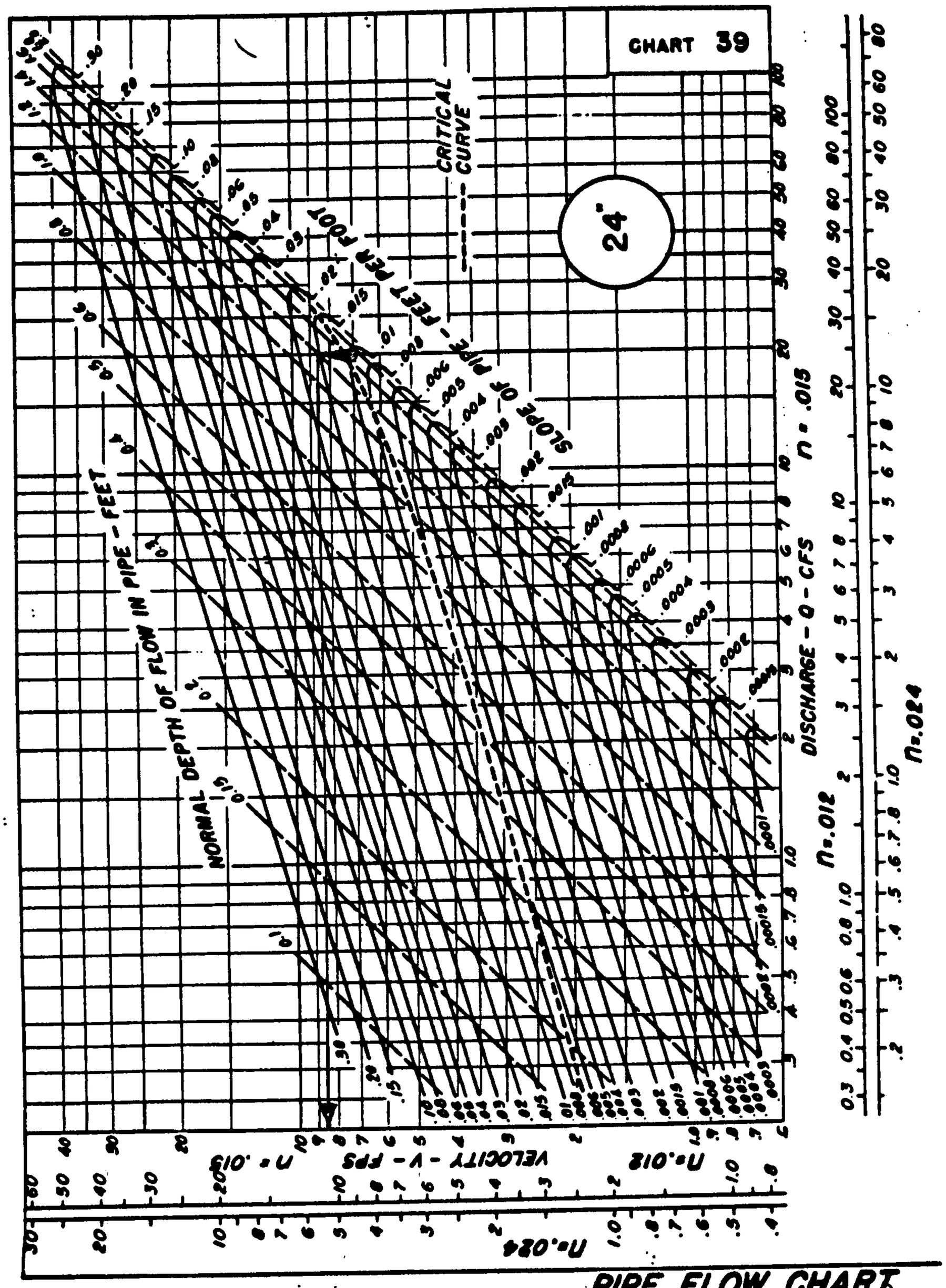


GRATING & GUTTER PLAN



TYPICAL HALF STREET SECTION
(ABOVE BASIN)





PIPE FLOW CHART
24-INCH DIAMETER