117

DEVELOPMENT & BUILDING SERVICE CENTER
ONE STOP SHOP
600 SECOND ST. N.W.
ATTENTION: Mesa Reprographics
505-924-3900

Records Withdrawal Form

Project No. H-17/D84 **Date:** 5-16-06

Project Title: Netherwood Commons

(a. File) b. Mylars c. Redlines/Comments

d. Other _____

Requested by: Marco Ortiz Tierra West **Phone No.:** 858-3106
Name and Company

Comments:
Copy entire Drainage Report that is binded
"Drainage Report for Netherwood Commons"

Anticipated Return Date: _____

I hereby accept full responsibility for the security of the above noted records/plans until return receipt acknowledgement is completed. Records/plans will be returned to the Development and Building Services Center on or before the indicted anticipated return date.

Delivery Picked Up By:

Name: MIKE MARTIN **Organization:** MESA
Print

Signed: M martin **Date:** MAY 16 06

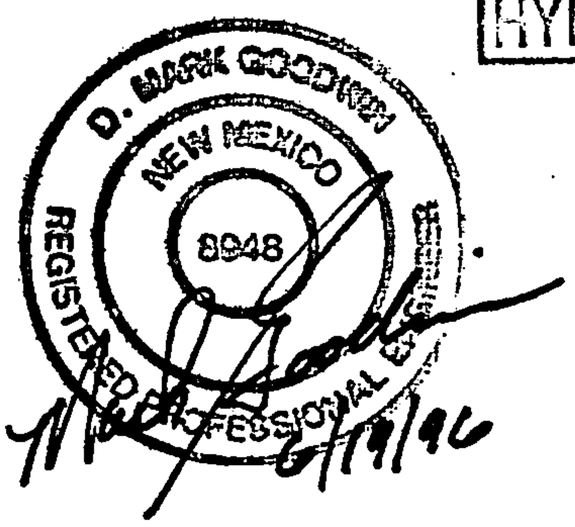
Office Use Only

Return Acknowledged:

Received By: Andrew Simms **Date:** 5/17/06
Print

262-2046

DRAINAGE REPORT
for
NETHERWOOD COMMONS



June 1996

EXISTING CONDITIONS

This site comprises an area of 5.6487 acres of undeveloped property on the north side of Indian School Road west of San Mateo approximately 500 feet. It is bounded on the north by I-40, on the east by a Church of Christ and on the west by a YMCA. No off-site flows from the north, east or west enter the site.

Significant off-site, public runoff enters the property from Indian School Road on the south. These flows are generated from primarily established, residential areas south of Indian School comprising an area of 24.5 acres. Per the attached calculations, the peak discharge from this area will be 95 cfs. These flows currently enter the site through a depressed curb opening and run overland to a 42" RCP culvert at the northwest end then into the Coronado Channel in I-40. There appears to be no easements for this condition at this time.

The site does not lie within a 100 Year Flood Zone.

PROPOSED PLAN

As the attached Grading and Drainage Plan indicates, we propose to collect the 95 cfs off-site flows in curb inlets at Indian School Road and convey these flows via an underground 36 inch storm drain to the existing 42 inch culvert at I-40. This construction would be accomplished with a Work Order prior to obtaining the Certificate of Occupancy. The two storm drains would be connected by way of a combination junction box/drop inlet constructed at the end of the existing 42 inch culvert. The inlet portion would collect the roadside drainage discharging at that point. We would gain NMSH&TD approval as part of the Work Order process.

The on-site generated runoff is anticipated to be 24 cfs. These flows will be routed through the parking areas to the north end of the project where they will be discharged via 3 curb inlets to the new 36 inch storm drain.

As shown by this plan, both on-site and off-site runoff will be adequately handled.

CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT
UTILITY DEVELOPMENT DIVISION/HYDROLOGY SECTION

PRE-DESIGN CONFERENCE

DRAINAGE FILE/ZONE ATLAS PAGE NO.: H17 DATE: 6-14-96

EPC NO.: _____ DRB NO.: _____ ZONE: C2 > 5 ACRES.

SUBJECT: Netherwood commons

STREET ADDRESS: _____

LEGAL DESCRIPTION: TRACT F2 Netherwood Pond Addn.

APPROVAL REQUESTED:

_____	PRELIMINARY PLAT	_____	FINAL PLAT
_____	SITE DEVELOPMENT PLAN	X	BUILDING PERMIT
_____	GRADING/PAVING PERMIT	_____	OTHER

WHO	REPRESENTING
ATTENDANCE: MARK GOODWIN	
FRED J. AGUIRRE	

FINDINGS:

- AN APPROVED DRAINAGE REPORT IS REQUIRED FOR BUILDING PERMIT SIGN-OFF. APPROVAL OF THE BUILDING PERMIT WILL REQUIRE THE INTERCEPTION OF THE OFF-SITE FLOWS VIA A STORM DRAIN (PUBLIC) TO THE EXISTING OUTFALL WITH HIGHWAY DEPT'S APPROVAL. A PUBLIC EASEMENT IS REQUIRED FOR THE PROPOSED STORM DRAIN.
- APPROVAL OF THE C.O WILL REQUIRE THE CONSTRUCTION AND ACCEPTANCE OF THE STORM DRAIN.
- ENGINEER'S CERTIFICATION IS REQUIRED FOR C.O. APPROVAL.
- CHECK WITH PLANNING FOR SITE PLAN REQUIREMENT

The undersigned agrees that the above findings are summarized accurately and are only subject to change if further investigation reveals that they are not reasonable or that they are based on inaccurate information.

SIGNED:	[signature]	SIGNED:	Mark Goodwin
TITLE:		TITLE:	
DATE:	6-14-96	DATE:	6/14/96

****NOTE**** **PLEASE PROVIDE A COPY OF THIS PRE-DESIGN FORM WITH THE DRAINAGE SUBMITTAL.**


MOCK
PL
SUNNINGDALE
CT
AVE
5220
5210
MONROE CT
MONROE
QUINCY
MANZANO
DR
Site
E 399,000
N 1,492,0C
N 1,49
5230
X 2.8

```
START                TIME=0.0

*****   HYDROGRAPH FOR PISTO OFFICE PARK BETWEEN INDIAN SCHOOL
*****   AND I-40, 700' WEST OF SAN MATEO. THE ON-SITE AND OFFSITE
*****   PROPOSED IMPROVEMENTS CONTRIBUTING TO THE CORONADO CHANNEL

RAINFALL             TYPE=1 RAIN QUARTER=0.0 IN
                     RAIN ONE=2.01 IN RAIN SIX=2.35 IN
                     RAIN DAY=2.75 IN DT=0.03333 HR

*HYDROGRAPH FOR OFF-SITE BASIN
COMPUTE NM HYD       ID=1 HYD NO=101.1 AREA=0.0383092 SQ MI
                     PER A=0.00 PER B=30.00 PER C=5.00 PER D=65.00
                     TP=0.1333 HR MASS RAINFALL=-1
PRINT HYD            ID=1 CODE=1

*HYDROGRAPH FOR ON-SITE BASIN
COMPUTE NM HYD       ID=2 HYD NO=101.2 AREA=0.00875 SQ MI
                     PER A=0.00 PER B=15.00 PER C=5.00 PER D=80.00
                     TP=0.1333 HR MASS RAINFALL=-1
PRINT HYD            ID=2 CODE=1

FINISH
```

PISTO.OUT

AHYMO PROGRAM (AHYMO194) - AMAFCA Hydrologic Model - January, 1994
RUN DATE (MON/DAY/YR) = 06/19/1996
START TIME (HR:MIN:SEC) = 09:09:11 USER NO.= M_GOODWN.I01
INPUT FILE = PISTO.DAT

START TIME=0.0

***** HYDROGRAPH FOR PISTO OFFICE PARK BETWEEN INDIAN SCHOOL

***** AND I-40, 700' WEST OF SAN MATEO. THE ON-SITE AND OFFSITE

***** PROPOSED IMPROVEMENTS CONTRIBUTING TO THE CORONADO CHANNEL

RAINFALL TYPE=1 RAIN QUARTER=0.0 IN

RAIN ONE=2.01 IN RAIN SIX=2.35 IN

RAIN DAY=2.75 IN DT=0.03333 HR

COMPUTED 6-HOUR RAINFALL DISTRIBUTION BASED ON NOAA ATLAS 2 - PEAK AT 1.40 HR.

DT = .033330 HOURS END TIME = 5.999400 HOURS

.0000	.0016	.0033	.0049	.0066	.0084	.0102
.0120	.0139	.0158	.0178	.0199	.0219	.0241
.0263	.0286	.0309	.0333	.0358	.0384	.0411
.0439	.0467	.0497	.0529	.0561	.0596	.0631
.0669	.0709	.0751	.0807	.0866	.0930	.1066
.1371	.1840	.2514	.3434	.4644	.6186	.8106
1.0449	1.2624	1.3533	1.4300	1.4982	1.5602	1.6174

1.6704	1.7200	1.7664	1.8102	1.8514	1.8904	1.9273
1.9622	1.9953	2.0268	2.0566	2.0850	2.0915	2.0976
2.1033	2.1088	2.1140	2.1191	2.1239	2.1285	2.1329
2.1373	2.1414	2.1454	2.1494	2.1531	2.1568	2.1604
2.1639	2.1673	2.1706	2.1739	2.1771	2.1802	2.1832
2.1862	2.1891	2.1919	2.1947	2.1975	2.2002	2.2028
2.2054	2.2080	2.2105	2.2130	2.2154	2.2178	2.2202
2.2225	2.2248	2.2270	2.2293	2.2315	2.2336	2.2358
2.2379	2.2399	2.2420	2.2440	2.2460	2.2480	2.2500
2.2519	2.2538	2.2557	2.2576	2.2594	2.2612	2.2631
2.2648	2.2666	2.2684	2.2701	2.2718	2.2735	2.2752
2.2769	2.2785	2.2802	2.2818	2.2834	2.2850	2.2866
2.2881	2.2897	2.2912	2.2928	2.2943	2.2958	2.2973
2.2987	2.3002	2.3017	2.3031	2.3045	2.3060	2.3074
2.3088	2.3102	2.3115	2.3129	2.3143	2.3156	2.3169
2.3183	2.3196	2.3209	2.3222	2.3235	2.3248	2.3261
2.3273	2.3286	2.3298	2.3311	2.3323	2.3335	2.3348
2.3360	2.3372	2.3384	2.3396	2.3408	2.3419	2.3431
2.3443	2.3454	2.3466	2.3477	2.3488	2.3500	

*HYDROGRAPH FOR OFF-SITE BASIN

COMPUTE NM HYD ID=1 HYD NO=101.1 AREA=0.0383092 SQ MI

PER A=0.00 PER B=30.00 PER C=5.00 PER D=65.00

TP=0.1333 HR MASS RAINFALL=-1

K = .072649HR TP = .133300HR K/TP RATIO = .545000 SHA
PE CONSTANT, N = 7.106420

UNIT PEAK = 98.310 CFS UNIT VOLUME = .9993 B = 526.
28 P60 = 2.0100

AREA = .024901 SQ MI IA = .10000 INCHES INF = .04000
INCHES PER HOUR

RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - D
T = .033330

K = .128567HR TP = .133300HR K/TP RATIO = .964497 SHA
PE CONSTANT, N = 3.662865
UNIT PEAK = 33.398 CFS UNIT VOLUME = .9998 B = 332.
03 P60 = 2.0100
AREA = .013408 SQ MI IA = .47857 INCHES INF = 1.19000
INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - D
T = .033330

PRINT HYD ID=1 CODE=1

PARTIAL HYDROGRAPH 101.10

RUNOFF VOLUME = 1.66241 INCHES = 3.3965 ACRE-FEET
PEAK DISCHARGE RATE = 95.47 CFS AT 1.500 HOURS BASIN AREA =
.0383 SQ. MI.

*HYDROGRAPH FOR ON-SITE BASIN

COMPUTE NM HYD ID=2 HYD NO=101.2 AREA=0.00875 SQ MI

PER A=0.00 PER B=15.00 PER C=5.00 PER D=80.00

TP=0.1333 HR MASS RAINFALL=-1

K = .072649HR TP = .133300HR K/TP RATIO = .545000 SHA
PE CONSTANT, N = 7.106420
UNIT PEAK = 27.636 CFS UNIT VOLUME = .9990 B = 526.
28 P60 = 2.0100
AREA = .007000 SQ MI IA = .10000 INCHES INF = .04000

INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - D
T = .033330

K = .125927HR TP = .133300HR K/TP RATIO = .944690 SHA
PE CONSTANT, N = 3.742298
UNIT PEAK = 4.4322 CFS UNIT VOLUME = .9972 B = 337.
61 P60 = 2.0100
AREA = .001750 SQ MI IA = .46250 INCHES INF = 1.14500
INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - D
T = .033330

PRINT HYD ID=2 CODE=1

PARTIAL HYDROGRAPH 101.20

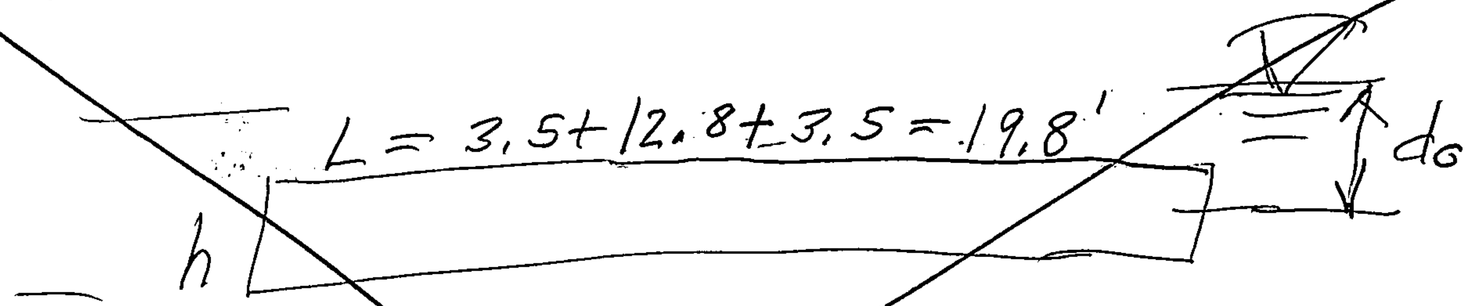
RUNOFF VOLUME = 1.86327 INCHES = .8695 ACRE-FEET
PEAK DISCHARGE RATE = 23.86 CFS AT 1.500 HOURS BASIN AREA =
.0088 SQ. MI.

FINISH

NORMAL PROGRAM FINISH END TIME (HR:MIN:SEC) = 09:09:12

Indian School

$Q_{10} = \frac{2}{3} Q_{100} = 63$ cfs



$h = 10\frac{3}{4}'' - \frac{3}{4}'' - 3\frac{1}{2} = 6\frac{1}{2}'' = .54'$

$d_o = .90 - .17 - .54/2 = .46'$

$A_g = 4(4.7) = 18.8$ sf $\quad d = .73'$

$Q = .67(18.8)\sqrt{62.4(.73')} + .67(.54)20.3\sqrt{62.4(.46)}$

$= 81.4 + 39.3 = 120.7$ cfs

$Q_{100} = 95$ cfs $\quad d_o = .12 + .90 - .27 = .75$

$h = .54'$ $\quad L = 19.8'$ $\quad A_g = 4(4.7) = 18.8$ sf

$d = (.90 + .54)/2 + .12 = .84'$

$Q = 0.67(18.8)\sqrt{64.4(.84)} + .67(.54).19.8\sqrt{64.4(.75)}$

$= 192.6 + 49.8 = 142$ cfs

If Grate is 50% Clogged

$Q = 92(50\%) + 50 = 96$ cfs

D. Mark Goodwin & Associates, P.A.
Consulting Engineers and Surveyors

PROJECT Netherwood
SUBJECT Drainage
BY MG DATE 6/21/96
CHECKED _____ DATE _____
SHEET 1 OF ____

We need to determine preliminary storm drain size for 95 cfs off-site. Assume open channel flow for now & then refine once detailed layout is performed. Average slope in parking lot is 5%.

Per attached Nomograph, 36" SD will work with a V= 18 fps ±

Now we need to determine # of inlets:

On-site 24 cfs will be collected in a sump 0.5' deep so inlets will operate as weirs:

$Q = CLH^{3/2}$ $C = 2.9$ $H^{3/2} = 0.35$

$\Rightarrow L = 24'$ $L \simeq 3' + 2' + 2' = 7'$

L for Single C = ~~3'-11" + 2'-6" + 2'-6"~~ = 8.91'

Double C = 2 + 6.4 + 2 = 10.4

Need 3 - Single "C" on-site

OFF-SITE 95 cfs will be in a sump 1.0' deep

$H^{3/2} = 1$

$L = 33'$

L for Single "A" = ~~2'-11" + 3'-6"~~ 6.42 + 2 + 2 = 10.42'

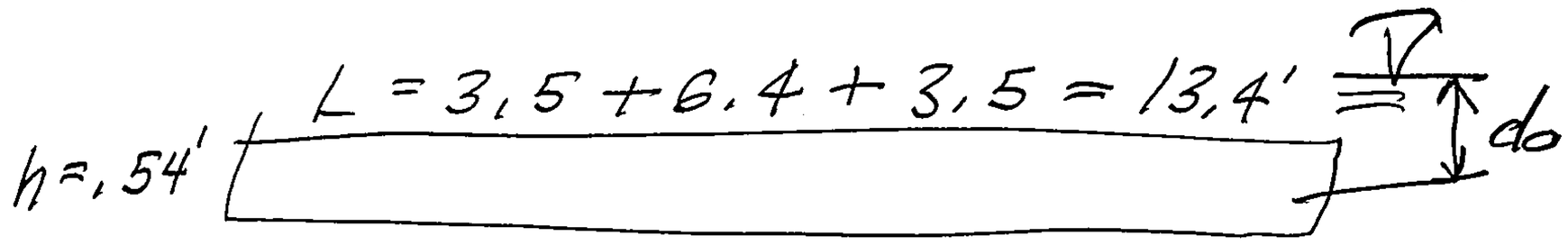
Need 4 - Type "A" @ Indian School

Double "A" w/ Wings Both sides

$L \simeq$ 3.5 + 2 + 6.4 + 2 + 3.5 = 17.4'

3.5 + 1 + 6.4 + 1 + 3.5 = 15.4

Double A in Parking Lot



$do = .90 - .27 = .63'$

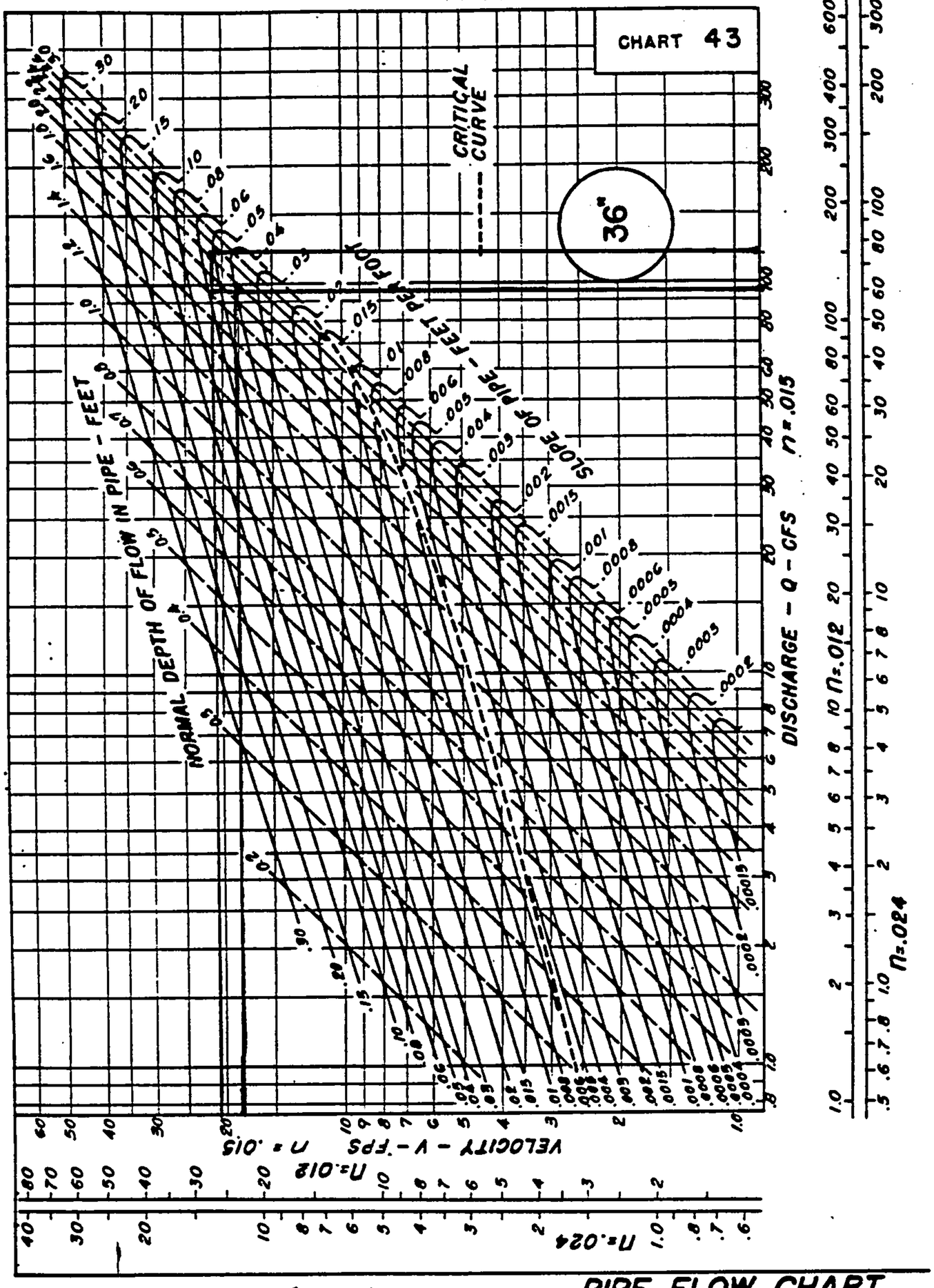
$Ag = 2(4.7) = 9.4 sf$ $d = (.90 + .54)/2 = .72'$

Assume Grate 50% clogged

$Ag = 9,4\,(50\%) = 4,7 sf$

$$Q = .67(4.7)\sqrt{64.4(.72)} + .67(.54)13,4\sqrt{64.4(.63)}$$

$$= 21.4 cfs + 30.9 = 52 cfs$$



PIPE FLOW CHART
36-INCH DIAMETER

HYDRAULIC REPORT FOR

NETHERWOOD COMMONS

PUBLIC STORM DRAIN

Run date: 07-08-1996
File:

Return Period = 100 Yrs
Rainfall file: Your_County

LINE 1 / Q = 119.0 / HT = 36 / WID = 36 / N = .013 / L = 30.08 / JLC = .25

1 / Outfall

depth in 42" RCP (85% Full)

	HGL	DEPTH	INVERT	VEL	EGL	T WID	COVER	AREA
DNSTRM	185.39	35.48	182.43	16.88	189.81	8.61	1.84	7.05
UPSTRM	186.33	36.00	183.03	16.84	190.73	0.00	1.24	7.07

Drainage area (ac)	= 0	Slope of invert (%)	= 1.995
Runoff coefficient	= 0	Slope energy grade line (%)	= 3.037
Time of conc (min)	= 4	Critical depth (in)	= 35.48
Inlet time (min)	= 0	Req'd length curb inlet (ft)	= 7.4
Intensity (in/hr)	= 0.00	Req'd grate area (sf)	= 12.8
Cumulative C*A	= 0.0	Depth at inlet opening (in)	= 36
Flow contrib (cfs)	= 119	Confluence angle (deg)	= 0
Default Q (cfs)	= 119	Natural ground elev (ft)	= 187.27
Line capac. (cfs)	= 94.2	Line storage (cuft)	= 212

LINE 2 / Q = 95.0 / HT = 36 / WID = 36 / N = .013 / L = 99.41 / JLC = .25

2 / DNLN = 1

	HGL	DEPTH	INVERT	VEL	EGL	T WID	COVER	AREA
DNSTRM	187.43	36.00	183.08	13.44	190.23	0.00	1.19	7.07
UPSTRM	189.44	36.00	185.07	13.44	192.25	0.00	2.27	7.07

Drainage area (ac)	= 0	Slope of invert (%)	= 2.002
Runoff coefficient	= 0	Slope energy grade line (%)	= 2.029
Time of conc (min)	= 4	Critical depth (in)	= 34.96
Inlet time (min)	= 0	Req'd length curb inlet (ft)	= 5.9
Intensity (in/hr)	= 0.00	Req'd grate area (sf)	= 10.2
Cumulative C*A	= 0.0	Depth at inlet opening (in)	= 36
Flow contrib (cfs)	= 95	Confluence angle (deg)	= 0
Default Q (cfs)	= 95	Natural ground elev (ft)	= 190.35
Line capac. (cfs)	= 94.4	Line storage (cuft)	= 703

LINE 3 / Q = 95.0 / HT = 36 / WID = 36 / N = .013 / L = 91.57 / JLC = .25

3 / DNLN = 2

	HGL	DEPTH	INVERT	VEL	EGL	T WID	COVER	AREA
DNSTRM	190.15	36.00	185.12	13.44	192.95	0.00	2.23	7.07
UPSTRM	192.01	36.00	188.00	13.44	194.81	0.00	10.75	7.07

Drainage area (ac)	= 0	Slope of invert (%)	= 3.145
Runoff coefficient	= 0	Slope energy grade line (%)	= 2.029
Time of conc (min)	= 3	Critical depth (in)	= 34.96
Inlet time (min)	= 0	Req'd length curb inlet (ft)	= 5.9
Intensity (in/hr)	= 0.00	Req'd grate area (sf)	= 10.2
Cumulative C*A	= 0.0	Depth at inlet opening (in)	= 36
Flow contrib (cfs)	= 95	Confluence angle (deg)	= 15
Default Q (cfs)	= 95	Natural ground elev (ft)	= 201.75
Line capac. (cfs)	= 118.3	Line storage (cuft)	= 647

LINE 4 / Q = 95.0 / HT = 36 / WID = 36 / N = .013 / L = 300.68 / JLC = .25

4 / DNLN = 3

	HGL	DEPTH	INVERT	VEL	EGL	T WID	COVER	AREA
DNSTRM	192.71	36.00	188.05	13.44	195.51	0.00	10.69	7.07
UPSTRM	198.81	36.00	194.54	13.44	201.61	0.00	10.35	7.07

Drainage area (ac)	= 0	Slope of invert (%)	= 2.158
Runoff coefficient	= 0	Slope energy grade line (%)	= 2.029
Time of conc (min)	= 2	Critical depth (in)	= 34.96
Inlet time (min)	= 0	Req'd length curb inlet (ft)	= 5.9
Intensity (in/hr)	= 0.00	Req'd grate area (sf)	= 10.2
Cumulative C*A	= 0.0	Depth at inlet opening (in)	= 36
Flow contrib (cfs)	= 95	Confluence angle (deg)	= 0
Default Q (cfs)	= 95	Natural ground elev (ft)	= 207.89
Line capac. (cfs)	= 98.0	Line storage (cuft)	= 2125

LINE 5 / Q = 95.0 / HT = 36 / WID = 36 / N = .013 / L = 75.08 / JLC = .25

---

5 / DNLN = 4

	HGL	DEPTH	INVERT	VEL	EGL	T WID	COVER	AREA
DNSTRM	199.51	36.00	194.59	13.44	202.32	0.00	10.3	7.07
UPSTRM	201.04	36.00	196.09	13.44	203.84	0.00	10.71	7.07

Drainage area (ac)	= 0	Slope of invert (%)	= 1.998
Runoff coefficient	= 0	Slope energy grade line (%)	= 2.029
Time of conc (min)	= 1	Critical depth (in)	= 34.96
Inlet time (min)	= 0	Req'd length curb inlet (ft)	= 5.9
Intensity (in/hr)	= 0.00	Req'd grate area (sf)	= 10.2
Cumulative C*A	= 0.0	Depth at inlet opening (in)	= 36
Flow contrib (cfs)	= 95	Confluence angle (deg)	= 52
Default Q (cfs)	= 95	Natural ground elev (ft)	= 209.8
Line capac. (cfs)	= 94.3	Line storage (cuft)	= 531

LINE 6 / Q = 95.0 / HT = 36 / WID = 36 / N = .013 / L = 188.06 / JLC = .25

---

6 / DNLN = 5

	HGL	DEPTH	INVERT	VEL	EGL	T WID	COVER	AREA
DNSTRM	201.74	36.00	196.14	13.44	204.54	0.00	10.66	7.07
UPSTRM	205.55	36.00	200.00	13.44	208.36	0.00	3.85	7.07

Drainage area (ac)	= 0	Slope of invert (%)	= 2.053
Runoff coefficient	= 0	Slope energy grade line (%)	= 2.029
Time of conc (min)	= 0	Critical depth (in)	= 34.96
Inlet time (min)	= 0	Req'd length curb inlet (ft)	= 5.9
Intensity (in/hr)	= 0.00	Req'd grate area (sf)	= 10.2
Cumulative C*A	= 0.0	Depth at inlet opening (in)	= 36
Flow contrib (cfs)	= 95	Confluence angle (deg)	= 90
Default Q (cfs)	= 95	Natural ground elev (ft)	= 206.85
Line capac. (cfs)	= 95.6	Line storage (cuft)	= 1329

LINE 7 / Q = 95 47.5 / HT = 36 24 / WID = 36 24 / N = .013 / L = 34.44 / JLC = 0

7 / DNLN = 6

	HGL	DEPTH	INVERT	VEL	EGL	T WID	COVER	AREA
DNSTRM	206.26	24.00	200.00	15.12	209.81	0.00	4.85	3.14
UPSTRM	207.78	24.00	201.00	15.12	211.33	0.00	3	3.14

Drainage area (ac)	= 0	Slope of invert (%)	= 2.904
Runoff coefficient	= 0	Slope energy grade line (%)	= 4.411
Time of conc (min)	= 0	Critical depth (in)	= 23.78
Inlet time (min)	= 0	Req'd length curb inlet (ft)	= 1.9
Intensity (in/hr)	= 0.00	Req'd grate area (sf)	= 4.4
Cumulative C*A	= 0.0	Depth at inlet opening (in)	= 48
Flow contrib (cfs)	= 47.5	Confluence angle (deg)	= 0
Default Q (cfs)	= 47.5	Natural ground elev (ft)	= 206
Line capac. (cfs)	= 38.5	Line storage (cuft)	= 108

CITY OF
Albuquerque

P.O. Box 1293 Albuquerque, NM 87103

August 6, 1996

Martin J. Chávez, Mayor

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

RE: GRADING & DRAINAGE PLAN FOR NETHERWOOD COMMONS (H-17/D84)
RECEIVED JULY 22, 1996 FOR BUILDING PERMIT
ENGINEER'S STAMP DATED 7/19/96

Dear Mr. Goodwin:

Based on the information included in the submittal referenced above, City Hydrology accepts the grading & drainage plan for Building Permit.

Include a copy of the grading & drainage plan, dated 7/19/96, in the set of construction documents that will be submitted to Code Administration for the Building Permit.

Engineer's Certification of grading & drainage per DPM checklist must be accepted by City Hydrology before any Certificate of Occupancy will be released.

If you have any questions about this project, You may contact me at 768-2727.

Sincerely,

John P. Curtin

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

c: Andrew Garcia
Fred Aguirre
Tony Pisto, 1620 Central SE 87106

CITY OF
Albuquerque

P.O. Box 1293 Albuquerque, NM 87103

July 15, 1996

Martin J. Chávez, Mayor

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

RE: DRAINAGE REPORT FOR NETHERWOOD COMMONS (H-17/D84)
RECEIVED JUNE 21, 1996 FOR BUILDING PERMIT
ENGINEER'S STAMP DATED 6/19/96

Dear Mr. Goodwin:

Based on the information included in the submittal referenced above, City Hydrology has the following comments that must be addressed:

For Building Permit: Include an erosion control plan and the concrete swale detail on the Grading & Drainage Plan. A "topsoil disturbance permit" must be obtained prior to construction.

For Work Order: Submit final design calculations for the storm drain. Indian School is a minor arterial. Check 10 year criteria. Consider using Type "A" inlets with double grates & wings on both sides at sump or sag conditions. Storm drain will require a drainage easement. Obtain a permit from NMSHTD for work in their right of way.

If you have any questions about this project, You may contact me at 768-2727.

Sincerely,

John P. Curtin

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

c: Andrew Garcia
Fred Aguirre
Tony Pisto, 1620 Central SE 87106

CITY OF
Albuquerque
Public Works Department

Martin J. Chávez, Mayor

Robert E. Gurulé, Director

May 1,1997

Mark Goodwin PE
Mark Goodwin & Associates PA
P.O. Box 90606
Albuquerque, New Mexico 87199

RE: ENGINEER CERTIFICATION FOR NETHERWOOD COMMONS (H17-D84)
CERTIFICATION STATEMENT DATED 4/23/97

Dear Mr. Goodwin:

Based on the information provided on your April 24,1997 submittal, Engineer Certification for the above referenced site is not acceptable for the following reasons:

1. Pad elevations must be shown to full mean sea level designation.

2. Concurrence from the Highway Department for work done within their R/W.

3. Copy of the letter of acceptance for the work order items.

4. More as-built spot elevation within the parking areas.

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
Associate Engineer

CITY OF
Albuquerque

City of Albuquerque

P. O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103
PUBLIC WORKS DEPARTMENT

September 9, 1997

CERTIFICATE OF WORK ORDER COMPLETION

Sadler Southwest
P.O. Box 21640
Albuquerque, NM 87154

Re: Netherwood Park Addition Unit 1 PROJECT NO. 5612.81 (MAP NO. H-17)

Dear Sir:

This is to certify that the City of Albuquerque accepts Project No. 5612.81 as being completed according to approved plans and construction specifications. Please be advised this certificate of completion shall only become effective upon final plat approval and filing in the office of the Bernalillo County Clerk's Office.

The project is described as follows:

- Project consisted of widening of street from twenty four feet to forty feet. Curb and gutter was constructed at south side of roadway. One type "A" drop inlet constructed at west end of project (Sta 1+43.26) along with 18" RCP storm drain tied into new type "E" 4' Dia manhole. Storm drain manhole is jointed to existing RCP stub out. Concrete box culvert allowing drainage into north diversion channel. Adjustment of two sanitary sewer manholes, stations 3+15.26 and station 4+98.29 relocation of one fire hydrant station 4+47.15 to station 4+32. Curb and gutter, 4' sidewalk and driveways of 9 foot width at south side of Cutler Avenue.

The contractor's correction period began the date of this letter and is effective for a period of one (1) year.

CITY OF
Albuquerque

City of Albuquerque

P. O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103
PUBLIC WORKS DEPARTMENT

July 7, 1997

CERTIFICATE OF WORK ORDER COMPLETION

Anthony Pisto
1620 Central SE
Albuquerque, NM 87106

RE: NETHERWOOD COMMONS, UNIT/PHASE 1- PROJECT NO. 551381 (MAP NO. H-17)

Dear Sir:

This is to certify that the City of Albuquerque accepts Project No. 551381 as being completed according to approved plans and construction specifications. Please be advised this certificate of completion shall only become effective upon final plat approval and filling in the office of the Bernalillo County Clerk's Office.

The project is described as follows:

- Sidewalk, curb and gutter, asphalt removal and replacement occurred on the north side of Indian School Road, a the project address, 5001 Indian School.

- Chainlink fence removal and reinstallation occurred at Interstate 40, where the storm new storm sewer was connected to the existing.

- 18" RCP was used to connect the catch basins at he north end of the property into the larger 36" storm drain system

- 24" RCP was used to connect the catch basins at the north end of the property into the larger 36" storm drain system.

- 36" RCP was used between the 4-double A catch basins along the north side of Indian School Road.

- 4-Double A catch basins were placed along the north side of Indian School Road. The other 2-Double A basins were placed along the north side of the owner's property line, at the northwest corner of the parking lot.

- 1-Double C catch basin was placed alon the north side of the owner's property line, at he northwest corner of the parking lot.

- 1-Double D catch basin was placed where the new storm drainage system (Work Order 551381) tied into the existing storm drainage system located between the owner's property and Interstate 40.

- Manholes were located along the 36" RCP storm drainage system between Indian School and Interstate 40.

The contractor's correction period began the date of this letter and is effective for a period of one (1) year.

Sincerely,

Russell B. Givler, P.E.
Chief Construction Engineer,
Public Works Department

cc:

Mark Goodwin & Assoc.
TLC Plumbing
Fred Aguirre, Hydrology, PWD
Tina Pohl, Engineering Group, PWD
Terri Martin, Engineering Group, PWD
Martin Barker, Materials Testing Lab
Linda Adamsko, Special Assessments, DFM
Sam Hall, Water Systems, PWD
Jim Fink, Liquid Waste, PWD
Dean Wall, Street Maintenance, PWD
Jack McDonough, Water/Wastewater Group, PWD
Ray Chavez, Traffic Engineering, PWD
Josie Jaramillo, New Meter Sales, Finance Group, PWD
Richard Zamora, Maps and Records, PWD
John Ewing, Risk Management
f/Project No. 551381
f/Readers
f/Warranty:Contract

5021 India School

CITY OF
Albuquerque
Public Works Department
June 18, 1997

Martin J. Chávez, Mayor

Robert E. Gurulé, Director

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

RE: NETHERWOOD COMMONS (H17-D84). ENGINEER'S CERTIFICATION FOR CERTIFICATE OF OCCUPANCY. ENGINEER'S CERTIFICATION DATED 5-10-97.

Dear Mr. Goodwin:

Based on the information provided on your June 10, 1997 submittal, the above referenced project is approved for Certificate of Occupancy.

If I can be of further assistance, please feel free to contact me at 924-3984.

Sincerely,

Lisa Ann Manwill, P.E.
Engineering Assoc./Hyd.

c: Andrew Garcia
File

New Mexico
State Highway and Transportation Department

I N T R A - D E P A R T M E N T A L C O R R E S P O N D E N C E

SUBJECT: Netherwood Commons
Indian School and I-40

Date: 06/12/97

TO: Kathy Trujillo
District Three Traffic Engineer

File Ref:

FROM: Raymunda A. Van Hoven
Drainage Engineer

Attention of:

I have reviewed the as-builts for the subject development and concur with the construction of the storm drain connection. The construction of the drop inlet connection to the 42" culvert is hereby approved.

xc: Steve Harris, DO#3
Julian Vigil, DO#3

Post-It® Fax Note 7671	Date 12 Jun / # of pages ▶ 1
To Roger Martinez	From Kathy Trujillo
Co./Dept.	Co.
Phone #	Phone # 841-2761
Fax # 727-9539	Fax #

CERTIFICATE OF SUBSTANTIAL COMPLIANCE

I, Mark Goodwin, PE of the firm of Mark Goodwin and Associates, PA

a Registered Professional Engineer in the State of New Mexico, and Project Engineer for the construction of the following facilities:

Netherwood Commons, Public Storm Drain

Project No.: 551381 Sheets 1-3

Including:

X Storm Drain

_____ Sanitary Sewer

_____ Water

_____ Curb and Gutter

_____ Paving

as constructed by T.L.C. of Albuquerque, NM under contract to Pebbles Ltd. of Albuquerque, NM, the Developer; do hereby certify that the facilities noted above have been inspected by me or under by direct supervision and have been constructed in substantial compliance with the City of Albuquerque Public Works Contract No. 551381 contract documents and the construction drawings noted above to the best of my knowledge and belief.

Respectfully Submitted,

Mark Goodwin 5/13/97

Signature Date

D. MARK GOODWIN NEW MEXICO 8948 REGISTERED PROFESSIONAL ENGINEER

Attachments:

_____ Potability Tests
X Test Reports
X As Built Drawings
X Inspection Reports
X Final Estimate
_____ Manhole Data Sheets
_____ Valve Data Sheets

Work Order Date: February 19, 1997

FINAL INSPECTION DATE: April 2, 1997

INP 1175