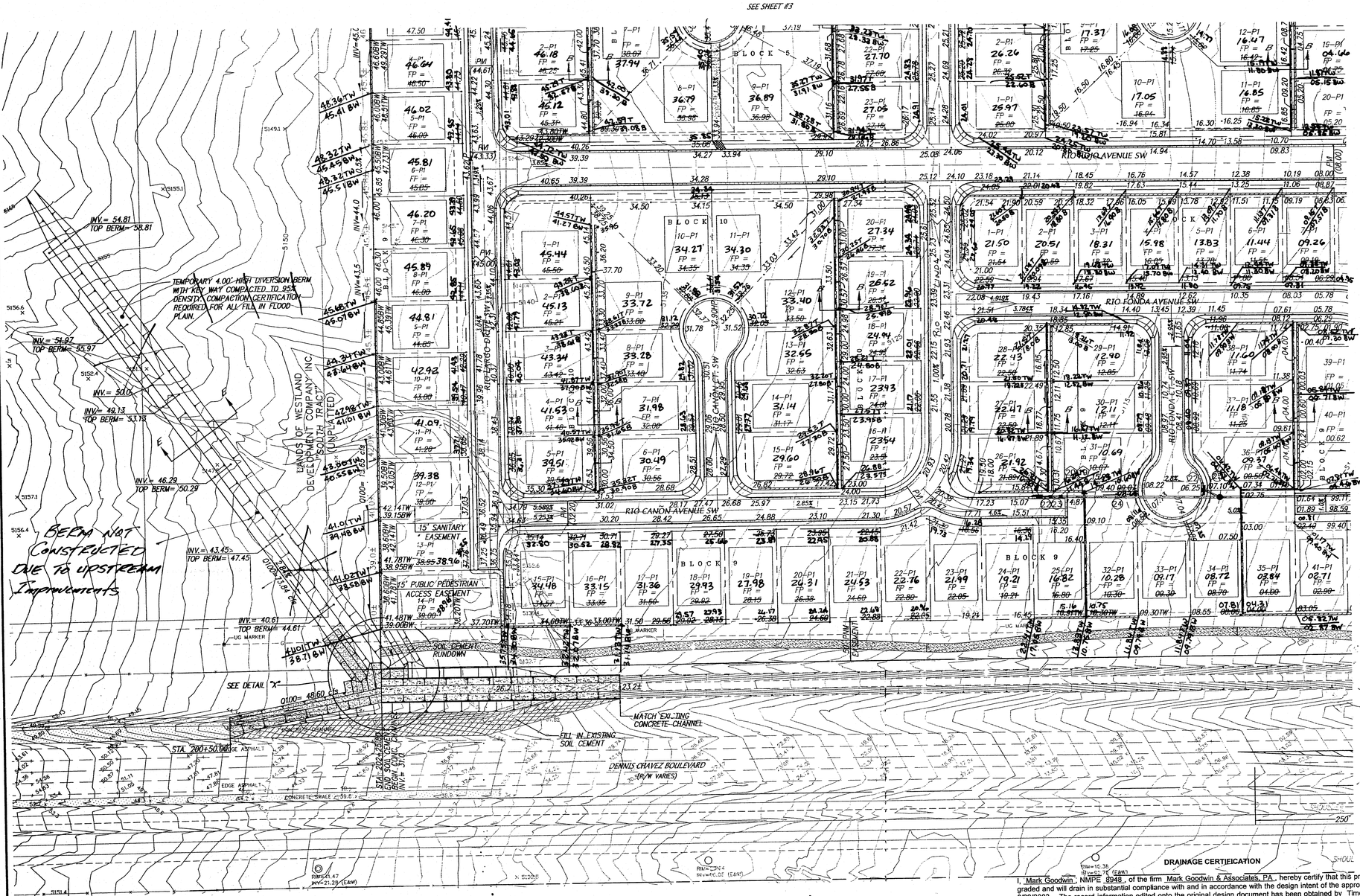
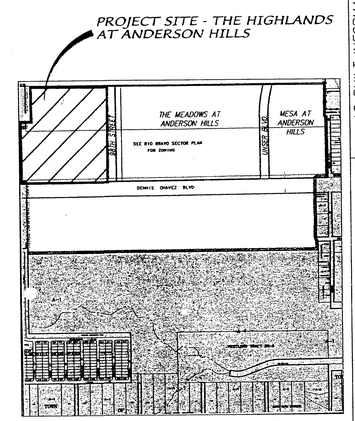




VICINITY MAP — ZONE ATLAS MAP P-9-Z

N.T.S.

NOTES

1. A PERIMETER CMU WALL WILL BE CONSTRUCTED AROUND THE ENTIRE SITE.

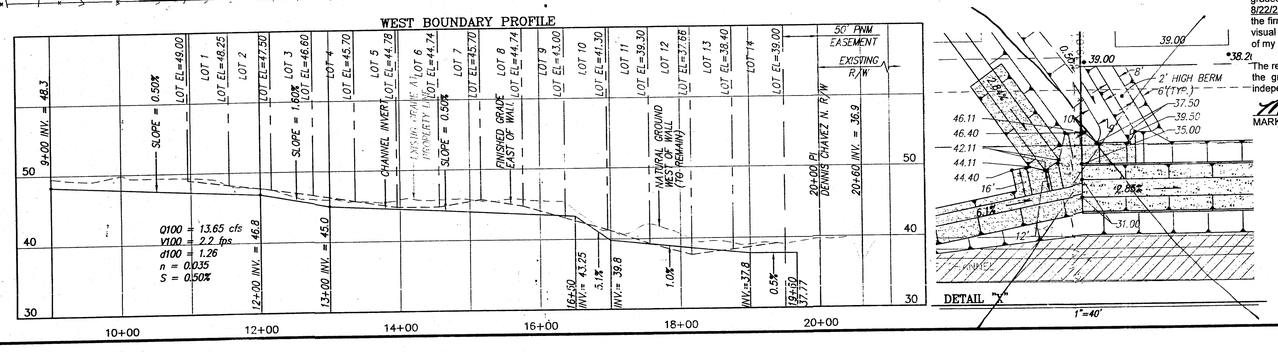
LEGEND

- PROPOSED STANDARD CURB & GUTTER
- PROPOSED MOUNTABLE CURB & GUTTER
- PROPOSED SIDEWALK
- 45.50 — PROPOSED SPOT ELEVATION
- FP = 50.0 — PROPOSED FINISHED PAD ELEVATION
- PROPOSED DIRECTION OF FLOW
- PROPOSED SLOPE
- PROPOSED RETAINING WALL
- PROPOSED GARDEN WALL
- PROPOSED PARK
- EXISTING PAVEMENT
- EXISTING CHANNEL
- STORM SEWER MANHOLE
- STORM SEWER
- INLETS

N

60' 30' 0 60' 120'

SCALE: 1" = 60'



DRAINAGE CERTIFICATION

I, Mark Goodwin, NMPE 8948, of the firm Mark Goodwin & Associates, PA, hereby certify that this project has been graded and will drain in substantial compliance with and in accordance with the design intent of the approved plan dated 8/22/2003. The record information edited onto the original design document has been obtained by Timothy Aldrich of the firm ALS, Inc. I further certify that I have personally visited the project site on 10/18/05, and have determined by visual inspection that the survey data provided is representative of actual site conditions and is true and correct to the best of my knowledge and belief. This certification is submitted in support of a request for Grading Certification approval.

The record information presented hereon is not necessarily complete and intended only to verify substantial compliance of the grading and drainage aspects of this project. Those relying on the record document are advised to obtain independent verification of its accuracy before using it for any other purpose.

MARK GOODWIN NMPE 8948

MARK GOODWIN NEW MEXICO 8948 LICENSED PROFESSIONAL ENGINEER 12/15/05

GRADING APPROVAL PER THIS PLAN ON LANDS OF WESTLAND DEVELOPMENT COMPANY, INC. "SOUTH TRACT" — DATE

APPROVED ROUGH GRADING ±18"

N/A

CITY HYDROLOGY — DATE

A2106ANH/DWG/2106-GD60-WEST 8-15-03 NHE RDQ DER

dmg MARK GOODWIN & ASSOCIATES, P.A.
CONSULTING ENGINEERS
P.O. BOX 90606
ALBUQUERQUE, NEW MEXICO 87199
(505) 828-2200, FAX (505) 797-9539

CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT

TITLE: THE HIGHLANDS AT ANDERSON HILLS GRADING & DRAINAGE PLAN

DESIGN REVIEW COMMITTEE	CITY ENGINEER APPROVAL	LAST DESIGN UPDATE	MO./DAY/YR.	MO./DAY/YR.

RECEIVED DEC 15 2005 HYDROLOGY SECTION

CITY PROJECT NO.	ZONE MAP NO.	SHEET	OF
	P-9	1	4

AS BUILT INFORMATION

BENCH MARKS

STATION "2-P10" IS LOCATED 4.9 MI. SW OF DOWNTOWN ALBUQUERQUE (FORMERLY RIO BRAVO). GO N. ON COORS 0.1 MI. TO FLORA VISTA AND GO WEST ON FLORA VISTA 0.5 MI. TO CONDERSHIRE. THEN GO S. ON CONDERSHIRE 0.4 MI. TO A POINT APPROX. 50 FT. W. OF THE STATION. STATION MARK IS AN ACS 3 1/4" ALUM. CAP STAMPED "2-P10, 1987" RIVETED TO A PIPE PROJECTING 0.25 FT ABOVE THE GROUND. X=1564349.24 (NAD 27) Z=4991 (NGVD 29).

CONTRACTOR	DATE
WORK STAKED BY	DATE
ACCEPTANCE BY	DATE
FIELD VERIFICATION BY	DATE
DRAWINGS CORRECTED BY	DATE
MICRO-FILM INFORMATION	
RECORDED BY	DATE
NO.	

SURVEY INFORMATION

FIELD NOTES

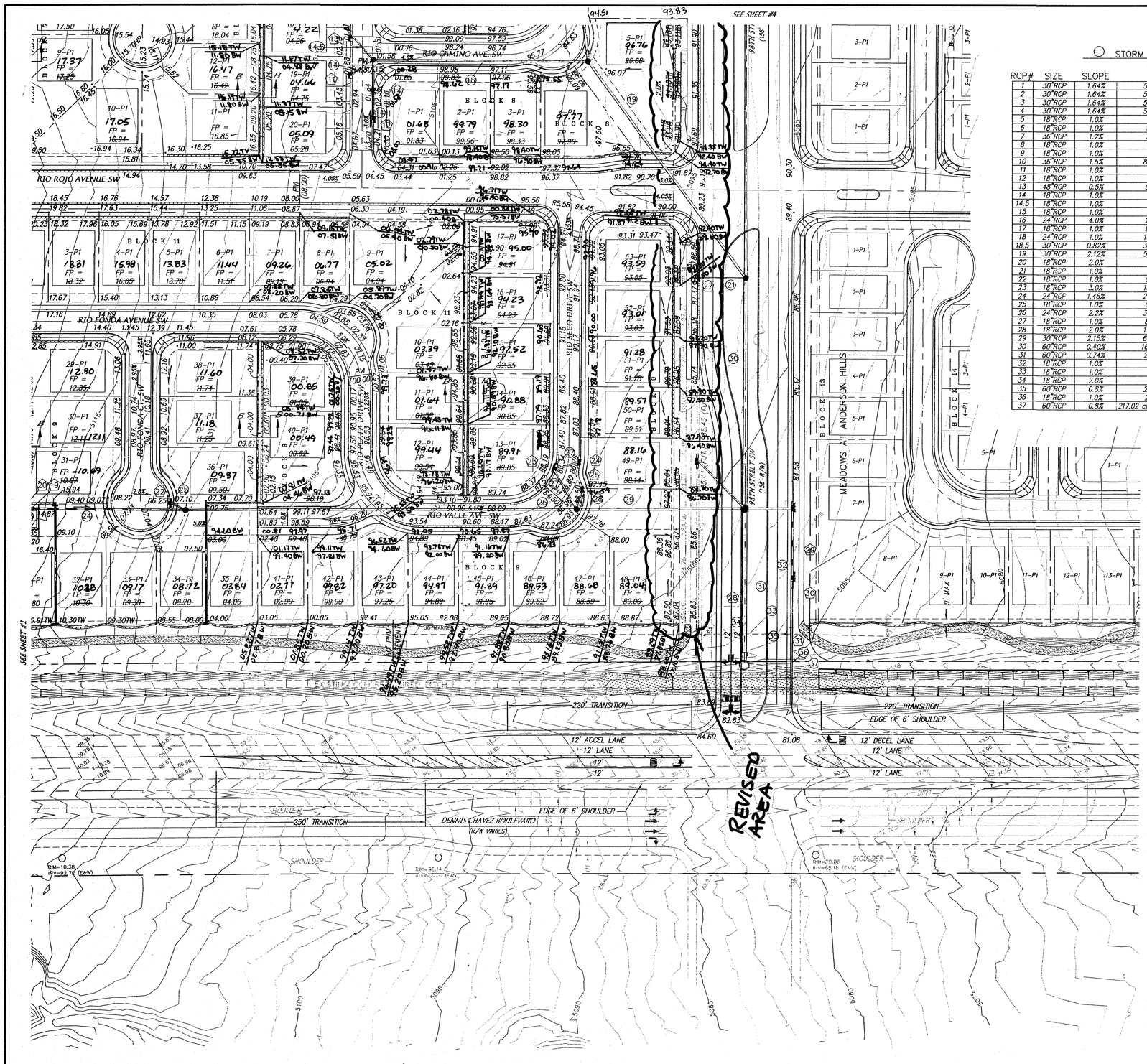
NO.	DATE	BY

ENGINEER'S SEAL

MARK GOODWIN NEW MEXICO 8948 LICENSED PROFESSIONAL ENGINEER 8-22-03

NO.	DATE	REMARKS	BY
		REVISIONS	

DESIGN		
DESIGNED BY	DLH	DATE 1/03
DRAWN BY	NHE	DATE 1/03
CHECKED BY	DMG	DATE 1/03



NOTES

STORM DRAIN TABLE

RCP#	SIZE	SLOPE	Q_{100}	V_{100}
1	30"RCP	1.64%	52.42 cfs	10.7 fps
2	30"RCP	1.64%	52.42 cfs	10.7 fps
3	30"RCP	1.64%	52.42 cfs	10.7 fps
4	30"RCP	1.64%	52.42 cfs	10.7 fps
5	18"RCP	1.0%	6.0 cfs	3.5 fps
6	18"RCP	1.0%	10.9 cfs	6.2 fps
7	36"RCP	1.2%	74.2 cfs	10.5 fps
8	18"RCP	1.0%	4.9 cfs	2.8 fps
9	18"RCP	1.0%	8.3 cfs	4.7 fps
10	36"RCP	1.5%	82.50 cfs	11.7 fps
11	18"RCP	1.0%	3.9 cfs	2.2 fps
12	18"RCP	1.0%	6.5 cfs	3.7 fps
13	48"RCP	0.5%	95.5 cfs	7.6 fps
14	18"RCP	1.0%	6.8 cfs	3.9 fps
14.5	18"RCP	1.0%	4.5 cfs	2.6 fps
15	18"RCP	1.0%	11.3 cfs	6.42 fps
16	24"RCP	4.0%	22.6 cfs	7.19 fps
17	18"RCP	1.0%	9.26 cfs	5.3 fps
18	24"RCP	1.0%	18.52 cfs	5.9 fps
18.5	30"RCP	0.82%	37.04 cfs	7.5 fps
19	30"RCP	2.12%	59.63 cfs	12.1 fps
20	18"RCP	2.0%	6.0 cfs	3.4 fps
21	18"RCP	1.0%	9.6 cfs	5.5 fps
22	18"RCP	1.0%	9.11 cfs	5.2 fps
23	18"RCP	3.0%	18.22 cfs	10.3 fps
24	24"RCP	1.46%	27.33 cfs	8.7 fps
25	18"RCP	1.0%	6.13 cfs	3.5fps
26	24"RCP	2.2%	33.46 cfs	10.7 fps
27	18"RCP	1.0%	8.86 cfs	5.0 fps
28	18"RCP	2.0%	17.72 cfs	10.0 fps
29	30"RCP	2.15%	60.05 cfs	12.2 fps
30	60"RCP	0.40%	164.73 cfs	8.4 fps
31	60"RCP	0.74%	210± cfs	10.7 fps
32	18"RCP	1.0%	4.2 cfs	2.4 fps
33	18"RCP	1.0%	7.0 cfs	4.2 fps
34	18"RCP	2.0%	3.6 cfs	2.0 fps
35	60"RCP	0.8%	216± cfs	11.0 fps
36	18"RCP	1.0%	2.02 cfs	1.15 fps
37	60"RCP	0.8%	217.02 cfs (from AHYMO)	11.06 fps

STORM DRAIN INLET TABLE

INLET #	TYPE	INV.	GRATE
1	A	–	–
2	A	–	–
3	C	–	–
4	C	–	–
5	A	–	–
6	C	–	–
7	C	–	–
8	C	–	–
9	C	–	–
10	C	–	–
11	A	–	–
12	A	–	–
13	A	–	–
14	C	–	–
15	A	–	–
16	DBL A (ST)	–	–
17	DBL A (ST)	–	–
18	A	–	–
19	C	–	–
20	C	–	–
21	DBL A (ST)	–	–
22	SGL A (DT)	–	–
23	SGL A (DT)	–	–
24	A	–	–
25	DBL C	–	–
26	A	–	–
27	C	–	–
28	SGL A (DT)	–	–
29	A	–	–
30	C	–	–
31	SGL A (DT)	–	–

DRAINAGE CERTIFICATION

I, Mark Goodwin, NMPE 8948, of the firm Mark Goodwin & Associates, PA, hereby certify that this project has been graded and will drain in substantial compliance with and in accordance with the design intent of the approved plan dated 1/23/04. The record information edited onto the original design document has been obtained by Timothy Aldrich of the firm ALS, Inc. I further certify that I have personally visited the project site on 10/18/05 and have determined by visual inspection that the survey data provided is representative of actual site conditions and is true and correct to the best of my knowledge and belief. This certification is submitted in support of a request for Grading Certification approval.

The record information presented hereon is not necessarily complete and intended only to verify substantial compliance of the grading and drainage aspects of this project. Those relying on the record document are advised to obtain independent verification of its accuracy before using it for any other purpose.

MARK GOODWIN NMPE 8948

D. MARK GOODWIN NEW MEXICO 8948 LICENSED PROFESSIONAL ENGINEER 12/19/05

N

60' 30' 0 60' 120'

SCALE: 1" = 60'

AS BUILT INFORMATION

CONTRACTOR WORK STAKED BY — DATE
INSPECTOR ACCEPTANCE — DATE
FIELD VERIFICATION BY — DATE
DRAWINGS CORRECTED BY — DATE

MICRO-FILM INFORMATION
RECORDED BY — DATE
NO.

BENCH MARKS

STATION "2-P10" IS LOCATED 4.9 MI. SW OF DOWNTOWN ALBUQUERQUE (FORMERLY RIO BRAVO), GO N. ON COORS 0.1 MI. TO FLORA VISTA AND GO WEST ON FLORA VISTA 0.5 MI. TO CONDERSHIRE, THEN GO S. ON CONDERSHIRE 0.4 MI. TO A POINT APPROX. 50 FT. W. OF THE STATION. STATION MARK IS AN ACS 3 1/4" ALUM. CAP STAMPED "2-P10, 1987" RIVETED TO A PIPE PROJECTING 0.25 FT ABOVE THE GROUND. X=.35841.13, Y=1464349.24 (NAD 27) Z=4991 (NGVD 29).

SURVEY INFORMATION

NO.	BY	DATE	FIELD NOTES

ENGINEER'S SEAL

DAVID MUELLER NEW MEXICO 7977 PROFESSIONAL ENGINEER 12-23-04

NO.	DATE	REMARKS	BY

REVISIONS

		DATE
DESIGNED BY	DLH	1/03
DRAWN BY	NHE	1/03
CHECKED BY	DMG	1/03

dmg MARK GOODWIN & ASSOCIATES, P.A.
CONSULTING ENGINEERS
P.O. BOX 90606
ALBUQUERQUE, NEW MEXICO 87199
(505) 828-2200, FAX (505) 797-9539

CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT

TITLE: THE HIGHLANDS AT ANDERSON HILLS GRADING & DRAINAGE PLAN

DESIGN REVIEW COMMITTEE | CITY ENGINEER APPROVAL | LAST DESIGN UPDATE | MO./DAY/YR. | MO./DAY/YR.

RECEIVED DEC 15 2005 HYDROLOGY SECTION

CITY PROJECT NO. | ZONE MAP NO. P-9 | SHEET 2 OF 4

A2106ANH/DWG/HIGHLANDS/2106-GD60-WEST 1-23-04 RDQ NHE

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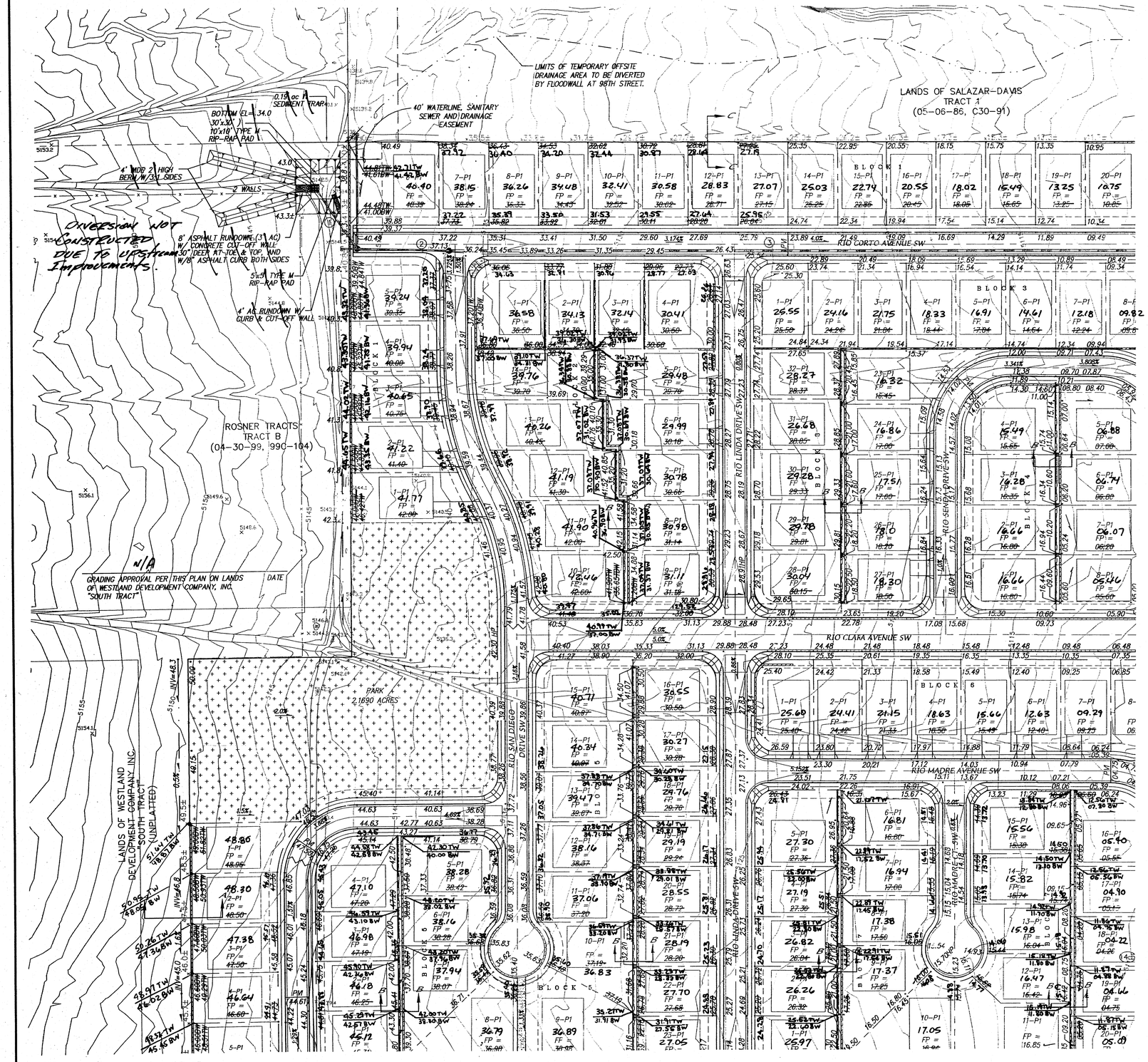


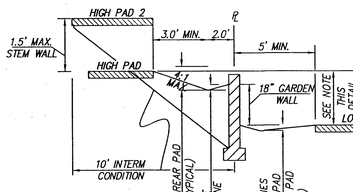
NOTES

NOTE:

USE RETAINING WALLS:
WHERE THE DIFFERENCE IN ELEVATION BETWEEN THE ADJACENT PADS IS 3.0' OR MORE A RETAINING WALL MUST BE CONSTRUCTED BETWEEN THE LOTS AS SHOWN ON THE PLAN AND THERE WILL BE NO PRIVATE DRAINAGE EASEMENT.

USE STEM WALLS:
WHERE THE DIFFERENCE IN ELEVATION BETWEEN THE ADJACENT PADS IS GREATER THAN 1.5' BUT LESS THAN 3.0', A STEM WALL SHALL BE CONSTRUCTED BY THE BUILDER ON THE "HIGH SIDE" OF LOT PAD.

FOR ALL SIDE YARDS:
EACH LOT OWNER MUST CONSTRUCT, OPERATE, AND MAINTAIN HIS OWN SEPARATE DRAINAGE SWALE ALL THE WAY TO THE STREET AND CROSS LOT DRAINAGE WILL BE PREVENTED BY SOME COMBINATION OF WALLS AND BERMS ON THE COMMON LOT LINE TO BE JOINTLY MAINTAINED BY BOTH LOT OWNERS.



*PAD TO PAD 1.5' ≥ 3.0', SECTION B-B
CONSTRUCT STEM WALL

NTS

*PAD TO PAD < 1.5', SECTION B-B
CONSTRUCT GARDEN WALL

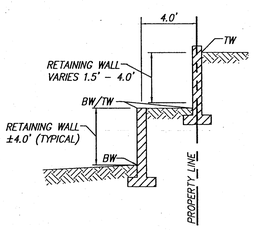
NTS

*PAD TO PAD > 3.0', SECTION B-B
CONSTRUCT RETAINING WALL

NTS

SIDEYARD DETAIL

N.T.S.



DOUBLE RETAINING WALL DETAIL

N.T.S.

DRAINAGE CERTIFICATION

I, Mark Goodwin, NMPE 8648, of the firm Mark Goodwin & Associates, P.A., hereby certify that this project has been graded and will drain in substantial compliance with the approved drainage plan for this project dated 8/22/2003. The record information edited onto the original design document has been obtained by Timothy Aldrich, of the firm ALS, Inc. I further certify that I have personally visited the project site on 10/18/05, and have determined by visual inspection that the survey data provided is representative of actual site conditions and is true and correct to the best of my knowledge and belief. This certification is submitted in support of a request for Grading Certification approval.

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MARK GOODWIN NMPE 8648

AS BUILT INFORMATION

CONTRACTOR		
WORK STAKED BY		DATE
INSPECTOR'S ACCEPTANCE BY		DATE
FIELD VERIFICATION BY		DATE
DRAWINGS CORRECTED BY		DATE

MICRO-FILM INFORMATION

RECORDED BY		DATE
NO.		

BENCH MARKS

STATION "2-P10" IS LOCATED 4.9 MI. SW OF DOWNTOWN ALBUQUERQUE (FORMERLY RIO BRAVO), GO N. ON COORS 0.1 MI. TO FLORA VISTA AND GO WEST ON FLORA VISTA 0.5 MI. TO CONDERSHIRE, THEN GO S. ON CONDERSHIRE 0.4 MI. TO A POINT APPROX. 50 FT. W. OF THE STATION. STATION MARK IS AN ACS 3 1/4" ALUM. CAP STAMPED "2-P10, 1987" RIVETED TO A PIPE PROJECTING 0.25 FT. ABOVE THE GROUND. X=3294113, Y=1463349.24 (NAD 27) Z=4991 (NGVD 29).

SURVEY INFORMATION

FIELD NOTES

NO.	BY	DATE

ENGINEER'S SEAL

STATE OF NEW MEXICO
MARK GOODWIN
12237
REGISTERED PROFESSIONAL ENGINEER
8-22-03

NO.	DATE	REMARKS	BY
		REVISIONS	

		DATE
DESIGNED BY	DLH	1/03
DRAWN BY	NHE	1/03
CHECKED BY	DWG	1/03

SCALE: 1" = 60'

dmg MARK GOODWIN & ASSOCIATES, P.A.
CONSULTING ENGINEERS
P.O. BOX 90606
ALBUQUERQUE, NEW MEXICO 87199
(505) 828-2200, FAX (505) 797-9539

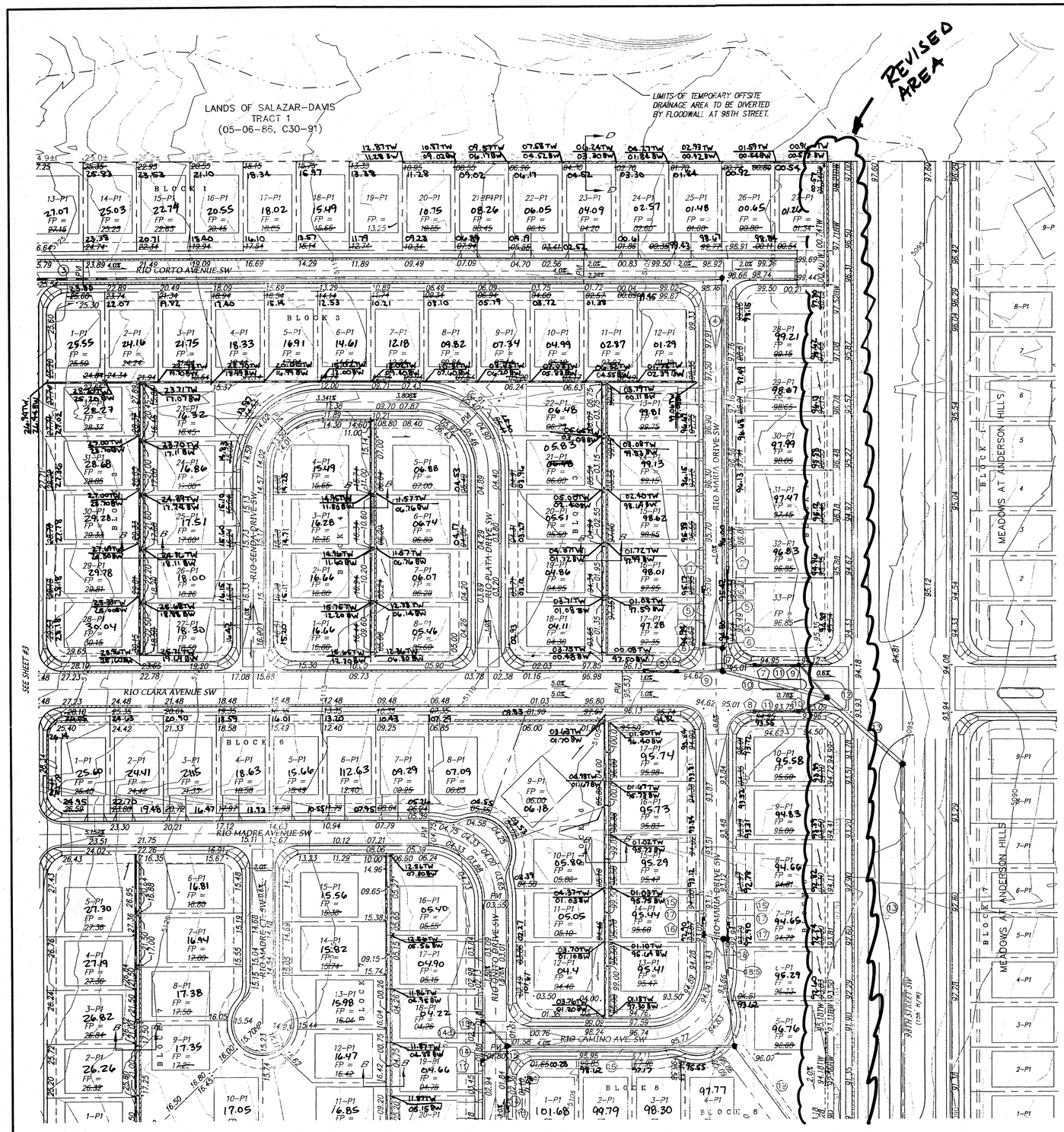
CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT

TITLE: THE HIGHLANDS AT ANDERSON HILLS
GRADING & DRAINAGE PLAN

DESIGN REVIEW COMMITTEE	CITY ENGINEER APPROVAL	LAST DESIGN UPDATE	MO./DAY/YR.	MO./DAY/YR.
			RECEIVED DEC 15 2005 HYDROLOGY SECTION	

CITY PROJECT NO.	ZONE MAP NO.	SHEET	OF
	P-9	3	4

A2106ANH/DWG/2106-GD60-WEST 8-22-03 RDQ DER NHE



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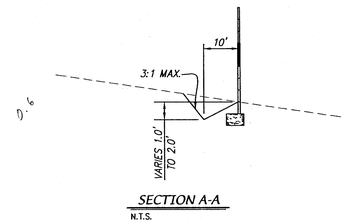
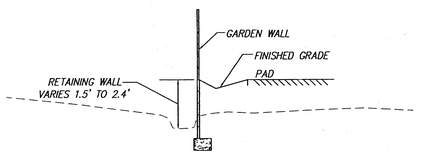
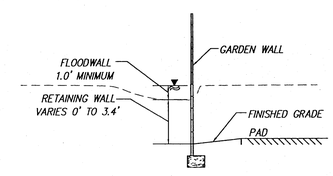


SECTION A-A
N.T.S.



SECTION C-C
N.T.S.



SECTION D-D
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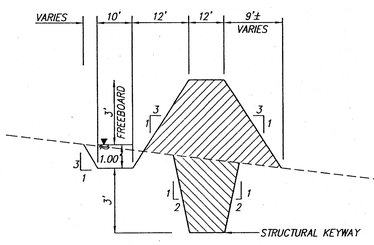

SECTION E-E
N.T.S.

DRAINAGE CERTIFICATION

I, Mark Goodwin, NMPE 8948, of the firm Mark Goodwin & Associates, P.A. hereby certify that this project has been graded and will drain in substantial compliance with and in accordance with the design intent of the approved plan dated 1/23/04. The record information edited onto the original design document has been obtained by J.Smolka Abstract, of the firm Terra Surveys, Inc. I have relied upon the accuracy of the survey data provided by Terra Surveys, Inc. and have also relied upon my own inspection that the survey data provided is representative of actual site conditions and is true and correct to the best of my knowledge and belief. This certification is submitted in support of a request for Grading Certification approval.

The record information presented hereon is not necessarily complete and intended only to verify substantial compliance of the improvements shown hereon with the approved design document. Those wishing to use the record document are advised to obtain independent verification of its accuracy before using it for any other purpose.

12/15/05

MARK GOODWIN NMPE 8948

N

SCALE: 1" = 60'

AS BUILT INFORMATION	
CONTRACTOR WORK STAKED BY	DATE
INSPECTOR'S ACCEPTANCE BY	DATE
VERIFICATION BY	DATE
RELOCATIONS CORRECTED BY	DATE
MICRO-FILM INFORMATION	
RECORDED BY	DATE
NO.	

BENCH MARKS

STATION "2-P10" IS LOCATED 4.9 MI. SW OF DOWNTOWN ALBUQUERQUE TO REACH STATION FROM INT. OF COORS AND DENNIS CHAVEZ BLVD. (FORMERLY RIO BRAVO), GO N. ON COORS 0.1 MI. TO FLORA VISTA AND GO WEST ON FLORA VISTA 0.5 MI. TO CONDERSHIRE, THEN GO S. ON CONDERSHIRE 0.4 MI. TO A POINT APPROX. 50 FT. W. OF THE STATION. STATION MARK IS AN ACS 3 1/4" ALUM. CAP STAMPED "2-P10, 1987" RIVETED TO A PIPE PROJECTING 0.25 FT. ABOVE THE GROUND. X=35841.13, Y=1464349.24 (NAD 27) Z=4991 (NGVD 29).

SURVEY INFORMATION

FIELD NOTES		
NO.	BY	DATE

ENGINEER'S SEAL

PAUL WALKER NEW MEXICO 10987 PROFESSIONAL ENGINEER 1-23-04

NO.	DATE	REMARKS	BY
		REVISIONS	

		DATE
DESIGNED BY	DLH	1/03
DRAWN BY	NHE	1/03
CHECKED BY	DMG	1/03

dmg MARK GOODWIN & ASSOCIATES, P.A.
CONSULTING ENGINEERS
P.O. BOX 90606
ALBUQUERQUE, NEW MEXICO 87199
(505) 828-2200, FAX (505) 797-9539

CITY OF ALBUQUERQUE
PUBLIC WORKS' DEPARTMENT

TITLE: THE HIGHLANDS AT ANDERSON HILLS GRADING & DRAINAGE PLAN

DESIGN REVIEW COMMITTEE	CITY ENGINEER APPROVAL	LAST DESIGN UPDATE	MO./DAY/YR.	MO./DAY/YR.

RECEIVED DEC 15 2005 HYDROLOGY SECTION

CITY PROJECT NO.	ZONE MAP NO.	SHEET	OF
	P-9	4	4

A2106ANH/DWG/HIGHLANDS/2106-GD60-WEST 1-23-04 RDQ DER NHE

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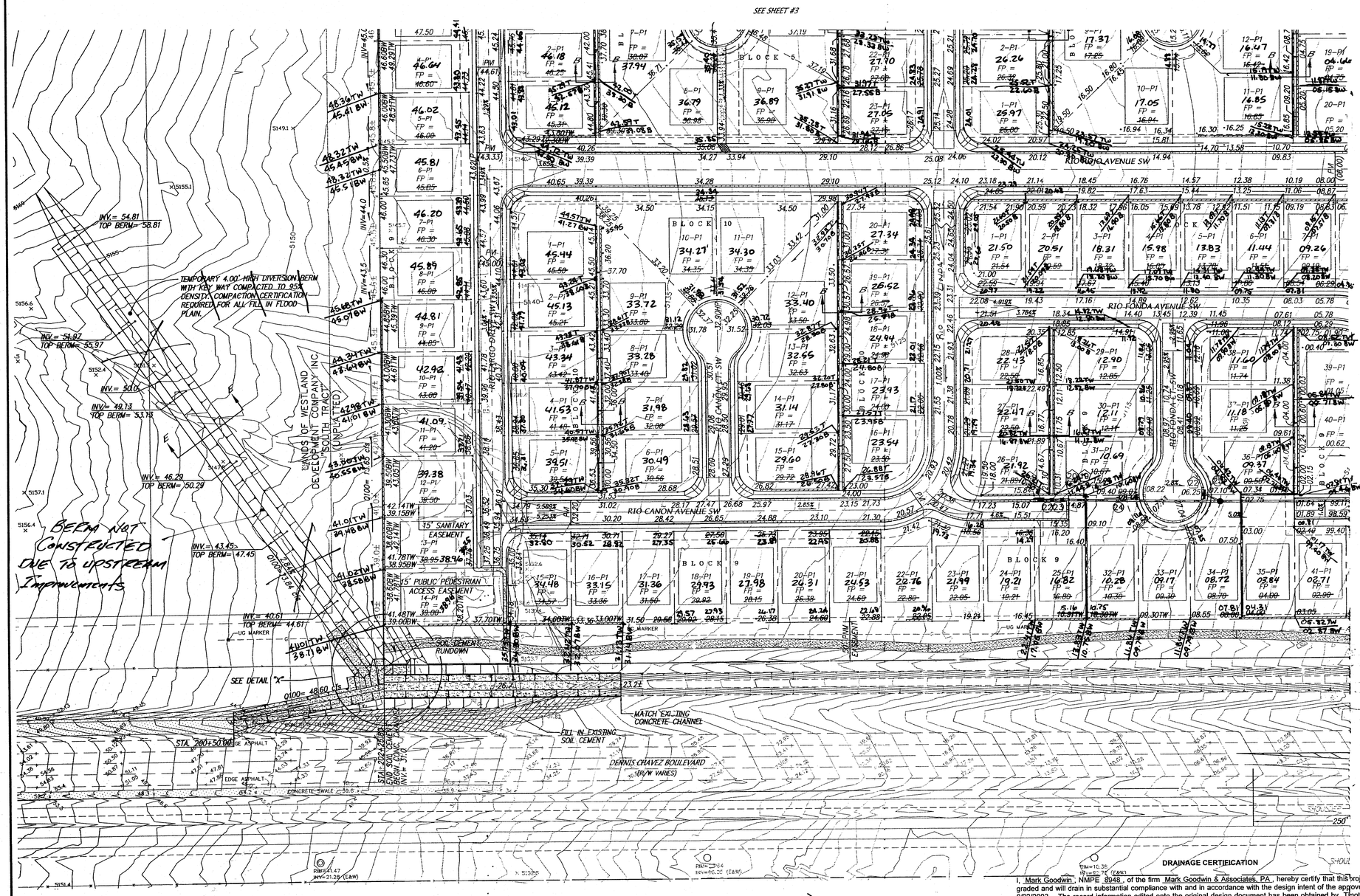
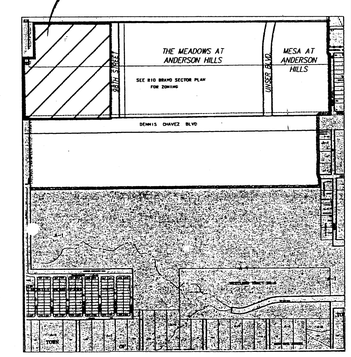




VICINITY MAP — ZONE ATLAS MAP P-9-Z

N.T.S.

NOTES

1. A PERIMETER CMU WALL WILL BE CONSTRUCTED AROUND THE ENTIRE SITE.

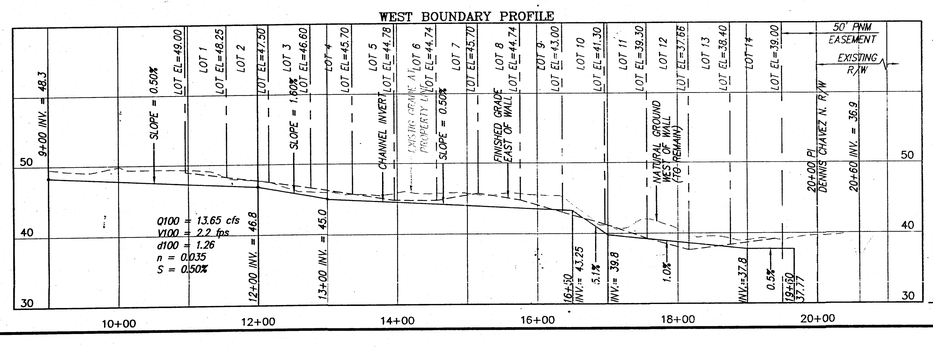
LEGEND

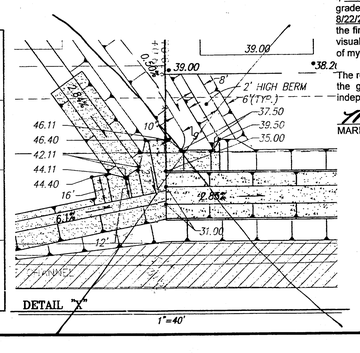
- PROPOSED STANDARD CURB & GUTTER
- PROPOSED MOUNTABLE CURB & GUTTER
- PROPOSED SIDEWALK
- .45.50 — PROPOSED SPOT ELEVATION
- FP = 50.0 — PROPOSED FINISHED PAD ELEVATION
- PROPOSED DIRECTION OF FLOW
- PROPOSED SLOPE
- PROPOSED RETAINING WALL
- PROPOSED GARDEN WALL
- PROPOSED PARK
- EXISTING PAVEMENT
- EXISTING CHANNEL
- STORM SEWER MANHOLE
- STORM SEWER
- INLETS

N

60' 30' 0 60' 120'

SCALE: 1" = 60'





DRAINAGE CERTIFICATION

I, Mark Goodwin, NMPE 8948, of the firm Mark Goodwin & Associates, P.A., hereby certify that this project has been graded and will drain in substantial compliance with and in accordance with the design intent of the approved plan dated 8/22/2003. The record information edited onto the original design document has been obtained by Timothy Aldrich of the firm ALS, Inc. I further certify that I have personally visited the project site on 10/18/05 and have determined by visual inspection that the survey data provided is representative of actual site conditions and is true and correct to the best of my knowledge and belief. This certification is submitted in support of a request for Grading Certification approval.

"The record information presented hereon is not necessarily complete and intended only to verify substantial compliance of the grading and drainage aspects of this project. Those relying on the record document are advised to obtain independent verification of its accuracy before using it for any other purpose.

MARK GOODWIN NMPE 8948 — DATE

D. MARK GOODWIN NEW MEXICO 8948 LICENSED PROFESSIONAL ENGINEER 12/15/05

GRADING APPROVAL PER THIS PLAN ON LANDS OF WESTLAND DEVELOPMENT COMPANY, INC. "SOUTH TRACT" — DATE

APPROVED ROUGH GRADING ±18"

N/A

CITY HYDROLOGY — DATE

dmg MARK GOODWIN & ASSOCIATES, P.A.
CONSULTING ENGINEERS
P.O. BOX 90606
ALBUQUERQUE, NEW MEXICO 87199
(505) 828-2200, FAX (505) 797-9539

CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT

TITLE: THE HIGHLANDS AT ANDERSON HILLS
GRADING & DRAINAGE PLAN

DESIGN REVIEW COMMITTEE	CITY ENGINEER APPROVAL	LAST DESIGN UPDATE	MO./DAY/YR.	MO./DAY/YR.
			RECEIVED DEC 15 2005 HYDROLOGY SECTION	

CITY PROJECT NO.	ZONE MAP NO.	SHEET	OF
	P-9	1	4

A2106ANH/DWG/2106-GD60-WEST 8-15-03 NHE RDQ DER

AS BUILT INFORMATION

CONTRACTOR	
WORK STAKED BY	DATE
FIELD TOPO BY	DATE
ACCEPTANCE BY	
FIELD VERIFICATION BY	DATE
DRAWINGS CORRECTED BY	DATE
MICRO-FILM INFORMATION	
RECORDED BY	DATE
NO.	

BENCH MARKS

STATION "2-P10" IS LOCATED 4.8 MI. SW OF DOWNTOWN ALBUQUERQUE (FORMERLY RIO BRAVO), GO N. ON COORS 0.1 MI. TO FLORA VISTA AND GO WEST ON FLORA VISTA 0.5 MI. TO CONDERSHIRE, THEN GO S. ON CONDERSHIRE 0.4 MI. TO A POINT APPROX. 50 FT. W. OF THE STATION. STATION MARK IS AN ACS 3 1/4" ALUM. CAP STAMPED "2-P10, 1987" RIVETED TO A PIPE PROJECTING 0.25 FT ABOVE THE GROUND. X=1568411.13, Y=1463349.24 (NAD 27) Z=4991 (NGVD 29)

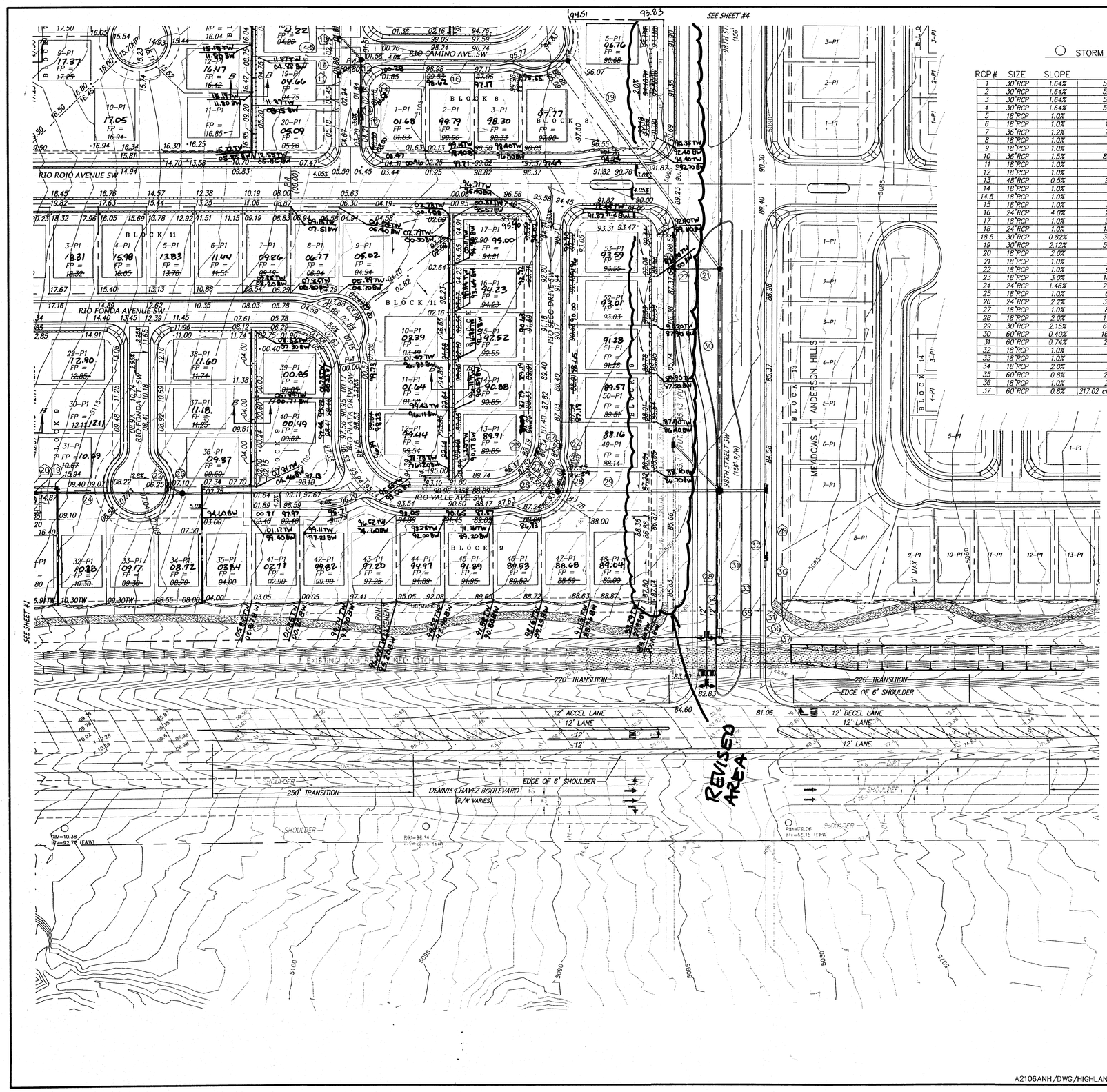
SURVEY INFORMATION

NO.	FIELD NOTES	BY	DATE

ENGINEER'S SEAL

NO.	DATE	REMARKS	BY
		REVISIONS	

		DATE
DESIGNED BY	DLH	1/03
DRAWN BY	NHE	1/03
CHECKED BY	DMG	1/03



NOTES

STORM DRAIN TABLE

RCP#	SIZE	SLOPE	Q_{100}	V_{100}
1	30"RCP	1.64%	52.42 cfs	10.7 fps
2	30"RCP	1.64%	52.42 cfs	10.7 fps
3	30"RCP	1.64%	52.42 cfs	10.7 fps
4	30"RCP	1.64%	52.42 cfs	10.7 fps
5	18"RCP	1.0%	6.0 cfs	3.5 fps
6	18"RCP	1.0%	10.9 cfs	6.2 fps
7	36"RCP	1.2%	74.2 cfs	10.5 fps
8	18"RCP	1.0%	4.9 cfs	2.8 fps
9	18"RCP	1.0%	8.3 cfs	4.7 fps
10	36"RCP	1.5%	82.50 cfs	11.7 fps
11	18"RCP	1.0%	3.9 cfs	2.2 fps
12	18"RCP	1.0%	6.5 cfs	3.7 fps
13	48"RCP	0.5%	95.5 cfs	7.6 fps
14	18"RCP	1.0%	6.8 cfs	3.9 fps
14.5	18"RCP	1.0%	4.5 cfs	2.6 fps
15	18"RCP	1.0%	11.3 cfs	6.42 fps
16	24"RCP	4.0%	22.6 cfs	7.19 fps
17	18"RCP	1.0%	9.26 cfs	5.3 fps
18	24"RCP	1.0%	18.52 cfs	5.9 fps
18.5	30"RCP	0.82%	37.04 cfs	7.5 fps
19	30"RCP	2.12%	59.63 cfs	12.1 fps
20	18"RCP	2.0%	6.0 cfs	3.4 fps
21	18"RCP	1.0%	9.6 cfs	5.5 fps
22	18"RCP	1.0%	9.11 cfs	5.2 fps
23	18"RCP	3.0%	18.22 cfs	10.3 fps
24	24"RCP	1.46%	27.33 cfs	8.7 fps
25	18"RCP	1.0%	6.13 cfs	3.5fps
26	24"RCP	2.2%	33.46 cfs	10.7 fps
27	18"RCP	1.0%	8.86 cfs	5.0 fps
28	18"RCP	2.0%	17.72 cfs	10.0 fps
29	30"RCP	2.15%	60.05 cfs	12.2 fps
30	60"RCP	0.40%	164.73 cfs	8.4 fps
31	60"RCP	0.74%	210± cfs	10.7 fps
32	18"RCP	1.0%	4.2 cfs	2.4 fps
33	18"RCP	1.0%	7.0 cfs	4.2 fps
34	18"RCP	2.0%	3.6 cfs	2.0 fps
35	60"RCP	0.8%	216± cfs	11.0 fps
36	18"RCP	1.0%	2.02 cfs	1.15 fps
37	60"RCP	0.8%	217.02 cfs (from AHYMO)	11.06 fps

STORM DRAIN INLET TABLE

INLET #	TYPE	INV.	GRATE
1	A	–	–
2	A	–	–
3	C	–	–
4	C	–	–
5	A	–	–
6	C	–	–
7	C	–	–
8	C	–	–
9	C	–	–
10	C	–	–
11	A	–	–
12	A	–	–
13	A	–	–
14	C	–	–
15	A	–	–
16	DBL A (ST)	–	–
17	DBL A (ST)	–	–
18	A	–	–
19	C	–	–
20	C	–	–
21	DBL A (ST)	–	–
22	SGL A (DT)	–	–
23	SGL A (DT)	–	–
24	A	–	–
25	DBL C	–	–
26	A	–	–
27	C	–	–
28	SGL A (DT)	–	–
29	A	–	–
30	C	–	–
31	SGL A (DT)	–	–

DRAINAGE CERTIFICATION

I, Mark Goodwin, NMPE 8948, of the firm Mark Goodwin & Associates, PA, hereby certify that this project has been graded and will drain in substantial compliance with and in accordance with the design intent of the approved plan dated 1/23/04. The record information edited onto the original design document has been obtained by Timothy Aldrich of the firm ALS, Inc. I further certify that I have personally visited the project site on 10/18/05 and have determined by visual inspection that the survey data provided is representative of actual site conditions and is true and correct to the best of my knowledge and belief. This certification is submitted in support of a request for Grading Certification approval.

The record information presented hereon is not necessarily complete and intended only to verify substantial compliance of the grading and drainage aspects of this project. Those relying on the record document are advised to obtain independent verification of its accuracy before using it for any other purpose.

MARK GOODWIN NMPE 8948

D. MARK GOODWIN NEW MEXICO 8948 REGISTERED PROFESSIONAL ENGINEER
12/19/05

N

60' 30' 0 60' 120'

SCALE: 1" = 60'

AS BUILT INFORMATION

CONTRACTOR		
WORK STAKED BY		
INSPECTOR'S ACCEPTANCE BY		DATE
FIELD VERIFICATION BY		DATE
DRAWINGS CORRECTED BY		DATE

MICRO-FILM INFORMATION

RECORDED BY	DATE
NO.	

BENCH MARKS

STATION "2-P10" IS LOCATED 4.9 MI. SW OF DOWNTOWN ALBUQUERQUE TO REACH STATION FROM INT. OF COORS AND DENNIS CHAVEZ BLVD. (FORMERLY RIO BRAVO), GO N. ON COORS 0.1 MI. TO FLORA VISTA AND GO WEST ON FLORA VISTA 0.5 MI. TO CONDERSHIRE, THEN GO S. ON CONDERSHIRE 0.4 MI. TO A POINT APPROX. 50 FT. W. OF THE STATION. STATION MARK IS AN ACS 3 1/4" ALUM. CAP STAMPED "2-P10, 1987" RIVETED TO A PIPE PROJECTING 0.25 FT. ABOVE THE GROUND. X=3541.13 Y=1454349.24 (NAD 27) Z=4991 (NGVD 29).

SURVEY INFORMATION

NO.	BY	DATE	FIELD NOTES

ENGINEER'S SEAL

NEW MEXICO REGISTERED PROFESSIONAL ENGINEER 8948 MARK GOODWIN 12-23-04

NO.	DATE	REMARKS	BY

REVISIONS

		DATE
DESIGNED BY	DLH	1/03
DRAWN BY	NHE	1/03
CHECKED BY	DMG	1/03

dmg MARK GOODWIN & ASSOCIATES, P.A.
CONSULTING ENGINEERS
P.O. BOX 90606
ALBUQUERQUE, NEW MEXICO 87199
(505) 828-2200, FAX (505) 797-9539

CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT

TITLE: THE HIGHLANDS AT ANDERSON HILLS
GRADING & DRAINAGE PLAN

DESIGN REVIEW COMMITTEE	CITY ENGINEER APPROVAL	LAST DESIGN UPDATE	MO./DAY/YR.	MO./DAY/YR.
			RECEIVED DEC 15 2005 HYDROLOGY SECTION	
CITY PROJECT NO.	ZONE MAP NO. P-9		SHEET 2 OF 4	

A2106ANH/DWG/HIGHLANDS/2106-GD60-WEST 1-23-04 RDQ NHE

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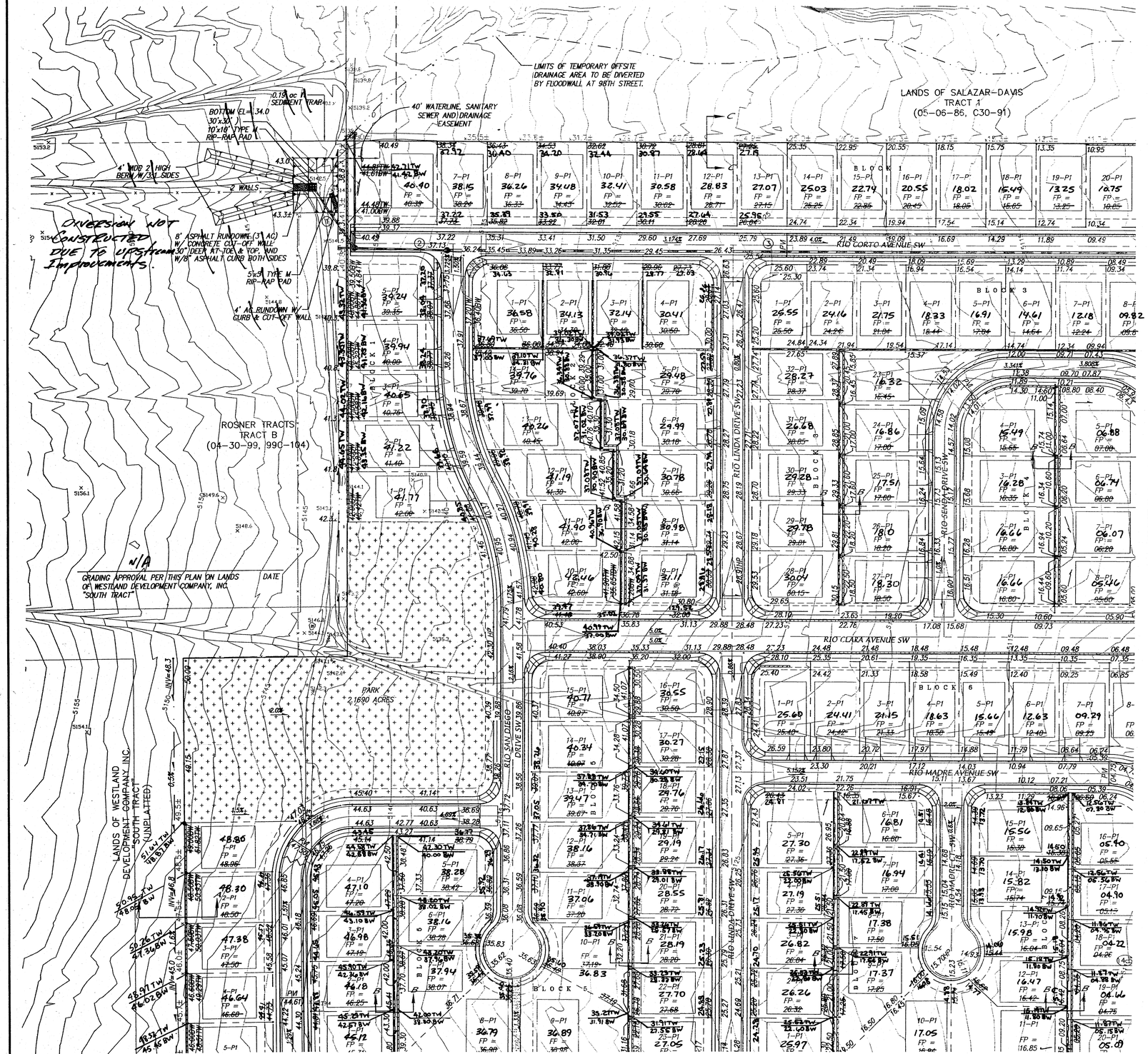


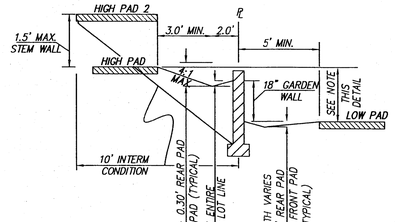
NOTES

NOTE:

USE RETAINING WALLS:
WHERE THE DIFFERENCE IN ELEVATION BETWEEN THE ADJACENT PADS IS 3.0' OR MORE A RETAINING WALL MUST BE CONSTRUCTED BETWEEN THE LOTS AS SHOWN ON THE PLAN AND THERE WILL BE NO PRIVATE DRAINAGE EASEMENT.

USE STEM WALLS:
WHERE THE DIFFERENCE IN ELEVATION BETWEEN THE ADJACENT PADS IS GREATER THAN 1.5' BUT LESS THAN 3.0', A STEM WALL SHALL BE CONSTRUCTED BY THE BUILDER ON THE "HIGH SIDE" OF LOT PAD.

FOR ALL SIDE YARDS:
EACH LOT OWNER MUST CONSTRUCT, OPERATE, AND MAINTAIN HIS OWN SEPARATE DRAINAGE SWALE ALL THE WAY TO THE STREET AND CROSS LOT DRAINAGE WILL BE PREVENTED BY SOME COMBINATION OF WALLS AND BERMS ON THE COMMON LOT LINE TO BE JOINTLY MAINTAINED BY BOTH LOT OWNERS.

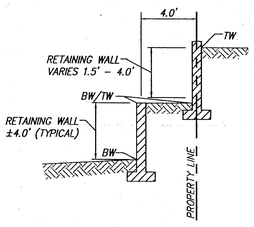


*PAD TO PAD 1.5' ≥ 3.0', SECTION B–B
CONSTRUCT STEM WALL
NTS

*PAD TO PAD < 1.5', SECTION B–B
CONSTRUCT GARDEN WALL
NTS

*PAD TO PAD > 3.0', SECTION B–B
CONSTRUCT RETAINING WALL
NTS

SIDEYARD DETAIL
N.T.S.



DOUBLE RETAINING WALL DETAIL
N.T.S.

DRAINAGE CERTIFICATION

I, Mark Goodwin, NMPE 8948, of the firm Mark Goodwin & Associates, P.A., hereby certify that this project has been graded and will drain in substantial compliance with and in the spirit and purpose of the drainage plan for this subdivision dated 8/22/2003. The record information edited onto the original design document has been obtained by Timothy Aldrich, of the firm ALS, Inc., and have determined by visual inspection that the survey data provided is representative of actual site conditions and conditions as-built to the best of my knowledge and belief. This certification is submitted in support of a request for Grading Certification approval.

The record information presented hereon is not necessarily complete and intended only to verify substantial compliance of the grading and drainage aspects of this project. Those relying on the record document are advised to obtain independent verification of its accuracy before using it for any other purpose.

MARK GOODWIN NMPE 8948

ENGINEER'S SEAL

MARK GOODWIN NEW MEXICO 12237 PROFESSIONAL ENGINEER

8-22-03

AS BUILT INFORMATION

CONTRACTOR	
WORK INSPECTORS	DATE
ACCEPTANCE BY	DATE
VERIFICATION BY	DATE
DRAWING CORRECTED BY	DATE
MICRO-FILM INFORMATION	
RECORDED BY	DATE
NO.	

BENCH MARKS

STATION "2-P10" IS LOCATED 4.9 MI. SW OF DOWNTOWN ALBUQUERQUE (FORMERLY RIO BRAVO), GO N. ON COORS 0.1 MI. TO FLORA VISTA, AND GO WEST ON FLORA VISTA 0.5 MI. TO CONDERSHIRE, THEN GO S. ON CONDERSHIRE 0.4 MI. TO A POINT APPROX. 50 FT. W. OF THE STATION. STATION MARK IS AN ACS 3 1/4" ALUM CAP STAMPED "2-P10, 1987" RIVETED TO A PIPE PROJECTING 0.25 FT ABOVE THE GROUND. X=35841.13, Y=1494349.24 (NAD 27) Z=4991 (NGVD 29).

SURVEY INFORMATION

FIELD NOTES

NO.	BY	DATE

NO.	DATE	REMARKS	BY
		REVISIONS	
		DESIGN	

DESIGNED BY	DLH	DATE 1/03
DRAWN BY	NHE	DATE 1/03
CHECKED BY	DMG	DATE 1/03

SCALE: 1" = 60'

dmg MARK GOODWIN & ASSOCIATES, P.A.
CONSULTING ENGINEERS
P.O. BOX 90606
ALBUQUERQUE, NEW MEXICO 87199
(505) 828-2200, FAX (505) 797-9539

CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT

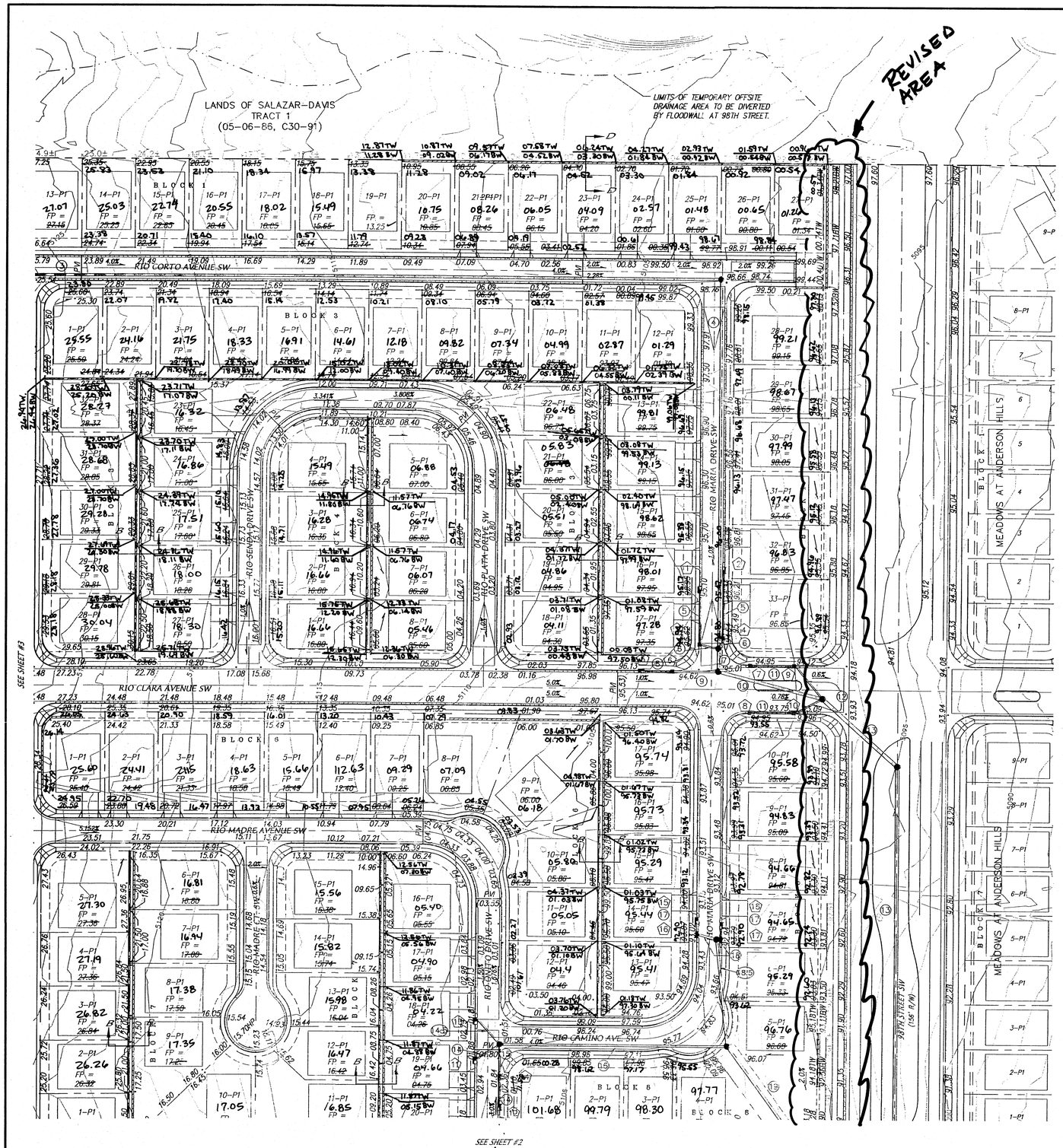
TITLE: THE HIGHLANDS AT ANDERSON HILLS
GRADING & DRAINAGE PLAN

DESIGN REVIEW COMMITTEE	CITY ENGINEER APPROVAL	LAST DESIGN UPDATE	MO./DAY/YR.	MO./DAY/YR.

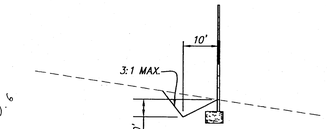
RECEIVED DEC 15 2005 HYDROLOGY SECTION

CITY PROJECT NO.	ZONE MAP NO.	SHEET	OF
	P-9	3	4

A2106ANH/DWG/2106-GD60-WEST 8-22-03 RDQ DER NHE



NOTES



SECTION A-A
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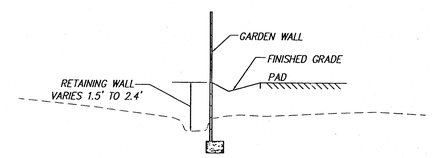

SECTION C-C
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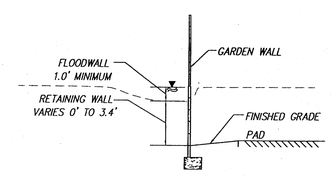

SECTION D-D
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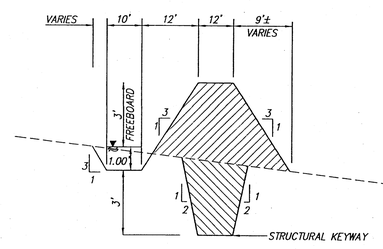

SECTION E-E
N.T.S.

DRAINAGE CERTIFICATION

I, Mark Goodwin, NMPE 8846, of the firm Mark Goodwin & Associates, P.A., hereby certify that this project has been graded and will drain in substantial compliance with and in accordance with the design intent of the approved plan dated 9/23/04. The approved plan has been based on topographic survey by Terra Firma Land Surveying, Inc., and the firm ALS, Inc. I further certify that I have personally visited the project site on 10/05/04 and have determined through inspection that the survey data provided is representative of actual site conditions and is true and correct to the best of my knowledge and belief. This certification is submitted in support of a request for Grading Certification approval.

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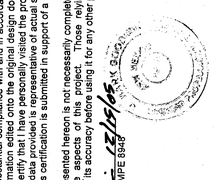
MARK GOODWIN NMPE 8846

12/19/05



1-23-04

N
60' 30' 0 60' 120'
SCALE: 1" = 60'

AS BUILT INFORMATION	
CONTRACTOR	
WORK STAKED BY	DATE
ACCEPTANCE BY	DATE
VERIFICATION BY	DATE
DRAWINGS CORRECTED BY	DATE
MICRO-FILM INFORMATION	
RECORDED BY	DATE
NO.	

BENCH MARKS

STATION "2-P10" IS LOCATED 4.9 MI. SW OF DOWNTOWN ALBUQUERQUE TO REACH, STATION FROM INT. OF COORS AND DENNIS CHAVEZ BLVD. (FORMERLY RIO BRAVO), GO N. ON COORS 0.1 MI. TO FLORA VISTA AND GO WEST ON FLORA VISTA 0.5 MI. TO CONDERSHIRE, THEN GO S. ON CONDERSHIRE 0.4 MI. TO A POINT APPROX. 50 FT. W. OF THE STATION. STATION MARK IS AN ACS 3 1/4" ALUM CAP STAMPED "2-P10, 1997" RIVETED TO A PIPE PROJECTING 0.25 FT ABOVE THE GROUND. X=35841.13, Y=1464349.24 (NAD 27) Z=4991 (NGVD 29).

SURVEY INFORMATION

FIELD NOTES		
NO.	BY	DATE

ENGINEER'S SEAL

NO.	DATE	REMARKS	BY
		REVISIONS	
		DESIGN	

		DATE
DESIGNED BY	DLH	1/03
DRAWN BY	NHE	1/03
CHECKED BY	DMG	1/03

dmg MARK GOODWIN & ASSOCIATES, P.A.
CONSULTING ENGINEERS
P.O. BOX 90606
ALBUQUERQUE, NEW MEXICO 87199
(505) 828-2200, FAX (505) 797-9539

CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT

TITLE: *THE HIGHLANDS AT ANDERSON HILLS GRADING & DRAINAGE PLAN*

DESIGN REVIEW COMMITTEE	CITY ENGINEER APPROVAL	LAST DESIGN UPDATE	MO./DAY/YR.	MO./DAY/YR.
			RECEIVED DEC 1 5 2005 HYDROLOGY SECTION	
CITY PROJECT NO.		ZONE MAP NO. P-9	SHEET 4	OF 4

A2106ANH/DWG/HIGHLANDS/2106-GD60-WEST 1-23-04 RDQ DER NHE

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Mark Goodwin & Associates Plotted by NHE