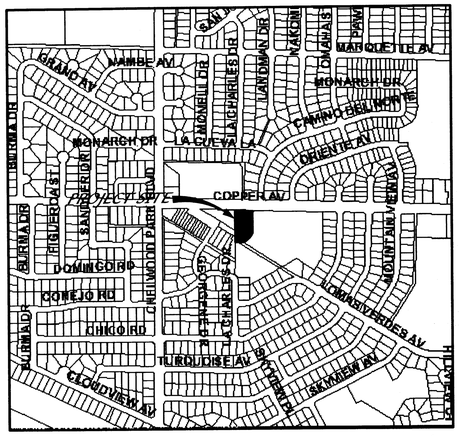
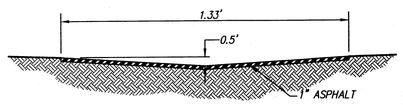


LOCATION MAP

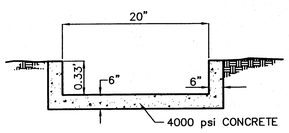
ZONE ATLAS ~~H-10~~ K-22

SCALE: NONE



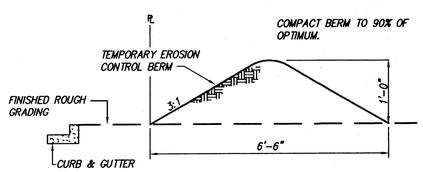
VALLEY GUTTER SECTION

N.T.S.



CONCRETE CHANNEL SECTION

N.T.S.

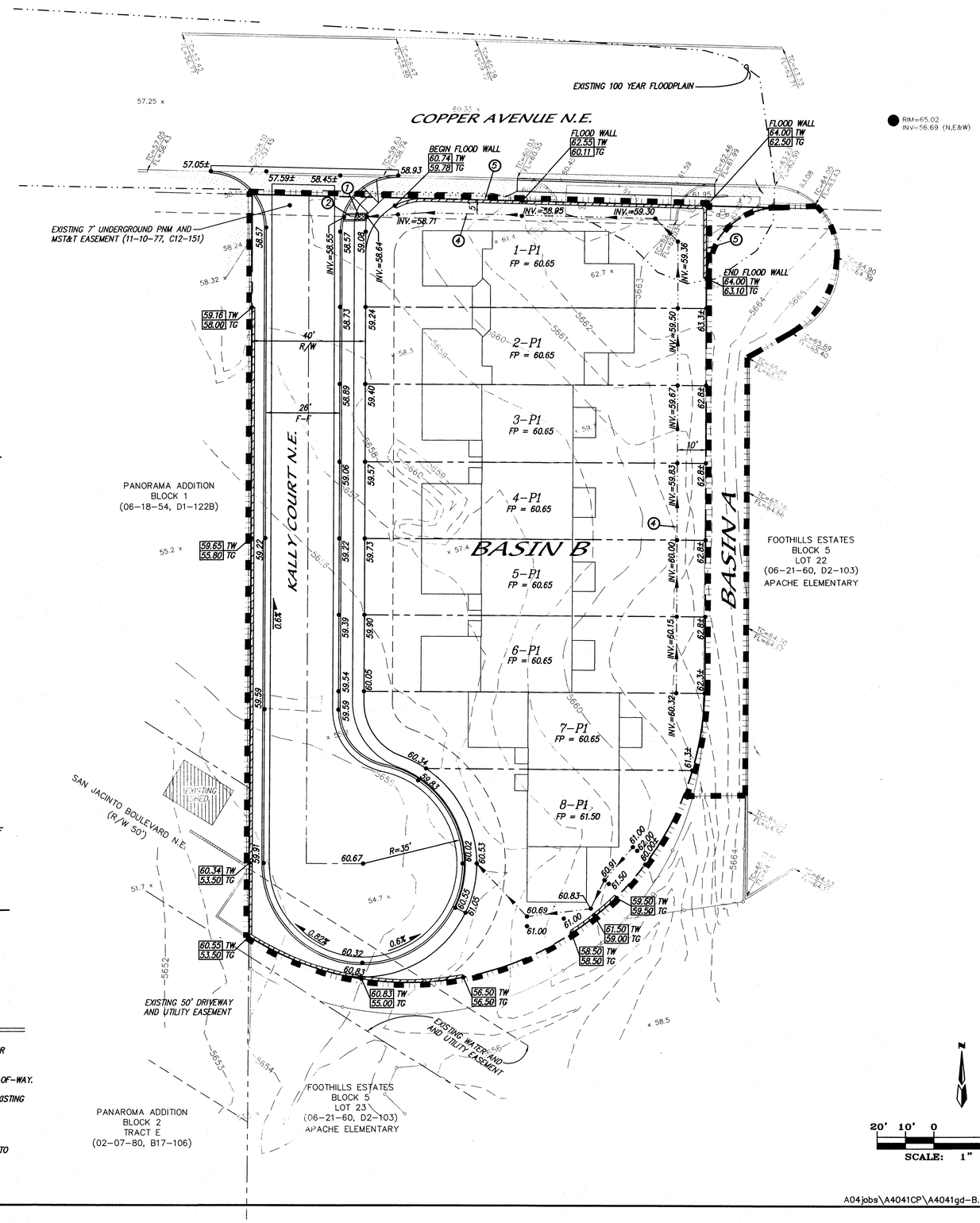


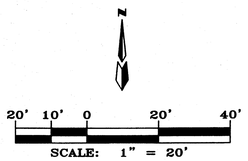
EROSION CONTROL BERM DETAIL

N.T.S.

EROSION CONTROL NOTES

1. CONTRACTOR IS RESPONSIBLE FOR OBTAINING A TOPSOIL DISTURBANCE PERMIT PRIOR TO BEGINNING WORK.
2. CONTRACTOR IS RESPONSIBLE FOR KEEPING ALL SEDIMENT OUT OF EXISTING RIGHT-OF-WAY.
3. CONTRACTOR IS RESPONSIBLE FOR CLEANING UP ANY SEDIMENT THAT GETS INTO EXISTING RIGHT-OF-WAY.
4. EROSION CONTROL BERMS ARE REQUIRED AROUND THE ENTIRE SITE.
5. ALL EROSION CONTROL BERMS MUST BE IN PLACE AND ENGINEER CERTIFIED PRIOR TO BUILDING PERMIT RELEASE.





A04jobs\A4041CP\A4041gd-B.dwg\09-20-04\DER

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 AND WETTING THE SOIL TO KEEP IT FROM BLOWING
5. THE EARTHWORK CONTRACTOR SHALL STOCKPILE ENOUGH MATERIAL ADJACENT TO RETAINING WALL LOCATIONS TO BE UTILIZED FOR WALL BACKFILL.

NOTES

5660	EXISTING CONTOUR (MAJOR)
5661	EXISTING CONTOUR (MINOR)
TC= FL=	EXISTING TOP CURB ELEVATION EXISTING FLOWLINE ELEVATION
x 00.00	EXISTING SPOT ELEVATION
	EXISTING CONCRETE CURB
	EXISTING CONCRETE/SIDEWALK
	EXISTING WALL OR HEAD WALL
	EXISTING SIGN
	EXISTING CHAIN LINK FENCE
	EXISTING SANITARY SEWER MANHOLE
	EXISTING WATER VALVE
	EXISTING FIRE HYDRANT
	EXISTING TELEPHONE PEDESTAL
	PROPOSED CURB & GUTTER
FP = 60.65	PROPOSED FINISHED PAD ELEVATION
INV.=60.00	PROPOSED INVERT ELEVATION
59.90	PROPOSED SPOT ELEVATION
60.83 TW 55.00 TG	PROPOSED TOP WALL ELEVATION PROPOSED TOP GROUND ELEVATION
0.6%	PROPOSED SLOPE
	PROPOSED VALLEY GUTTER

KEYED NOTES

1. 20" WIDE SIDEWALK CULVERT PER C.O.A. STANDARD DWG #2236.
2. 20" WIDE X 0.33' HIGH CONCRETE CHANNEL PER DETAIL THIS SHEET.
4. NEW VALLEY GUTTER PER DETAIL THIS SHEET.
5. STRUCTUAL DESIGN OF FLOOD WALL BY OTHERS.

AS BUILT INFORMATION

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

MICRO-FILM INFORMATION

	DATE
RECORDED BY	
NO.	

BENCH MARKS

SURVEY INFORMATION

FIELD NOTES

NO.	BY	DATE

ENGINEER'S SEAL

NO.	DATE	REMARKS	BY

REVISIONS

		DATE
DESIGNED BY	DMG	07/04
DRAWN BY	DER	07/04
CHECKED BY	DMG	07/04

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

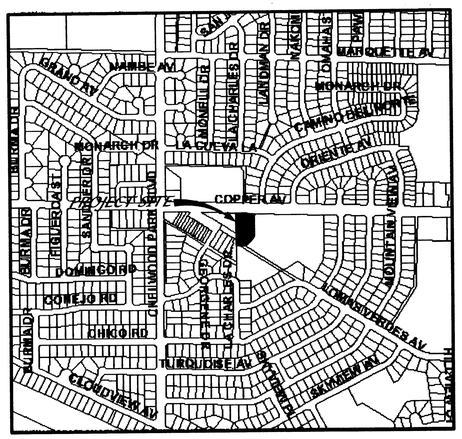
TITLE:

COPPER PARK SUBDIVISION GRADING & DRAINAGE PLAN

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

CITY PROJECT NO.	ZONE MAP NO.	SHEET	OF
	K-22-Z	1	1

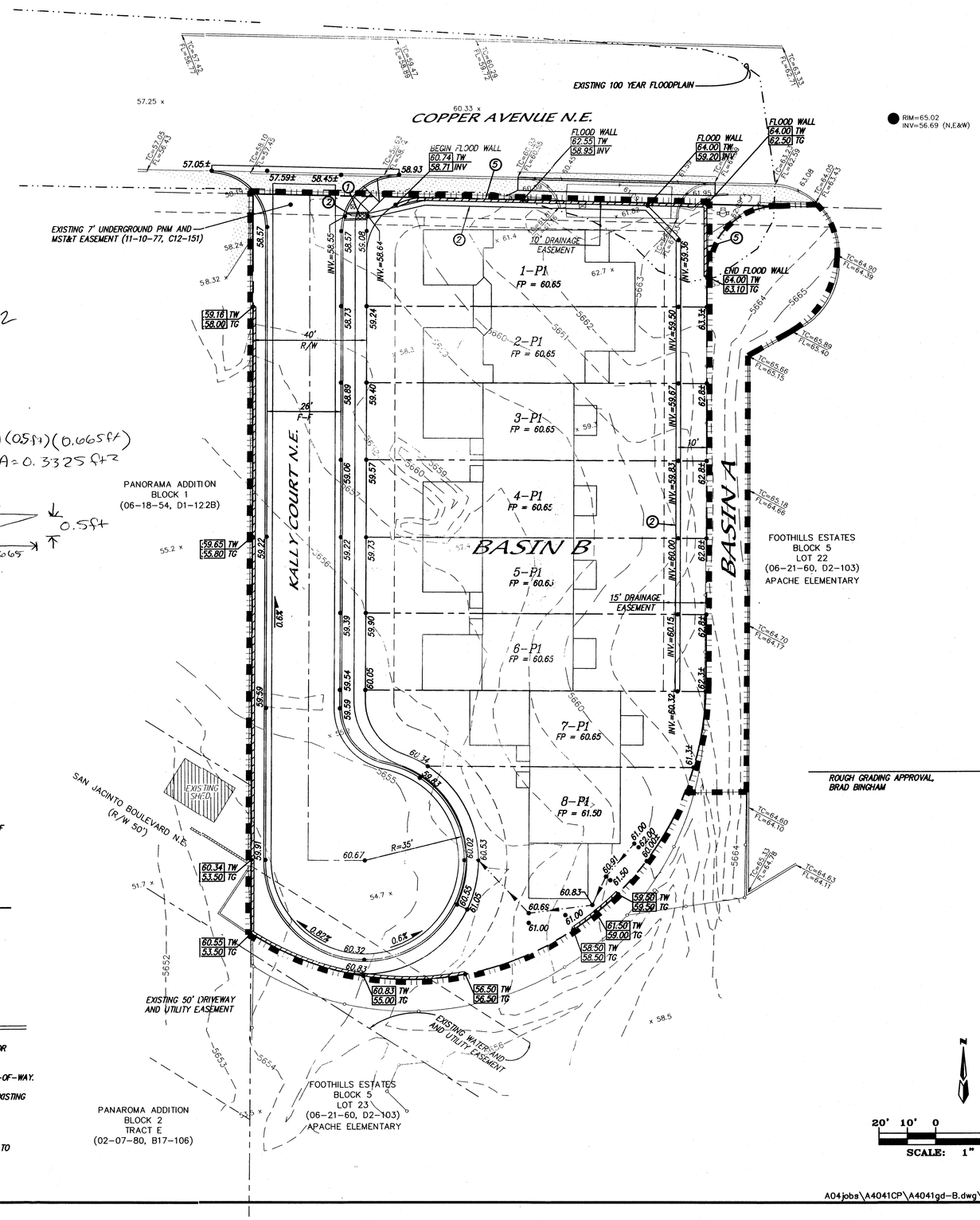
F:\A04JOBS\A4041CP\A4041gd-B.dwg, 9/21/2004 2:21:54 PM, PLOTTED BY: DER



LOCATION MAP

ZONE ATLAS K-22

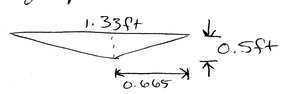
SCALE: NONE

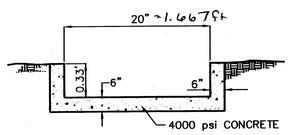


Calc of channel capacity?

prev design $A = 2(\frac{1}{2})(0.55ft)(0.665ft)$

$A = 0.3325\ ft^2$





CONCRETE CHANNEL SECTION

N.T.S.

$A = (0.33ft)(20in)\left(\frac{1ft}{12in}\right)$

$A = 0.55\ ft^2$

$R = \frac{A}{WP} = \frac{0.55ft^2}{0.33 + 1.667 + 0.33}$

$R = \frac{0.55}{2.33} = 0.236$

Assume S still = 0.006

Assume n = 0.012 (finished concrete)

$Q = \frac{1.49}{n} A R^{2/3} S^{1/2}$

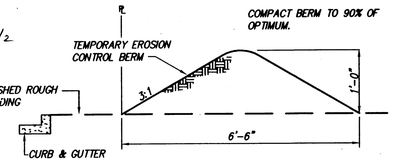
$Q = \frac{1.49}{0.012}(0.55)(0.236)^{2/3}(0.006)^{1/2}$

$Q = 2.02\ cfs$

if unfinished concrete, n = 0.014

$Q = 1.73\ cfs$

$Q_{req} = 0.93\ cfs$



EROSION CONTROL BERM DETAIL

N.T.S.

EROSION CONTROL NOTES

1. CONTRACTOR IS RESPONSIBLE FOR OBTAINING A TOPSOIL DISTURBANCE PERMIT PRIOR TO BEGINNING WORK.
2. CONTRACTOR IS RESPONSIBLE FOR KEEPING ALL SEDIMENT OUT OF EXISTING RIGHT-OF-WAY.
3. CONTRACTOR IS RESPONSIBLE FOR CLEANING UP ANY SEDIMENT THAT GETS INTO EXISTING RIGHT-OF-WAY.
4. EROSION CONTROL BERMS ARE REQUIRED AROUND THE ENTIRE SITE.
5. ALL EROSION CONTROL BERMS MUST BE IN PLACE AND ENGINEER CERTIFIED PRIOR TO BUILDING PERMIT RELEASE.

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 AND WETTING THE SOIL TO KEEP IT FROM BLOWING
5. THE EARTHWORK CONTRACTOR SHALL STOCKPILE ENOUGH MATERIAL ADJACENT TO RETAINING WALL LOCATIONS TO BE UTILIZED FOR WALL BACKFILL.

NOTES

5660	EXISTING CONTOUR (MAJOR)
5661	EXISTING CONTOUR (MINOR)
TC= / FL=	EXISTING TOP CURB ELEVATION / EXISTING FLOWLINE ELEVATION
x 00.00	EXISTING SPOT ELEVATION
	EXISTING CONCRETE CURB
	EXISTING CONCRETE/SIDEWALK
	EXISTING WALL OR HEAD WALL
	EXISTING SIGN
	EXISTING CHAIN LINK FENCE
	EXISTING SANITARY SEWER MANHOLE
	EXISTING WATER VALVE
	EXISTING FIRE HYDRANT
	EXISTING TELEPHONE PEDESTAL
	PROPOSED CURB & GUTTER
FP = 60.65	PROPOSED FINISHED PAD ELEVATION
INV.=60.00	PROPOSED INVERT ELEVATION
59.90	PROPOSED SPOT ELEVATION
60.83 TW / 55.00 TG	PROPOSED TOP WALL ELEVATION / PROPOSED TOP GROUND ELEVATION
0.6%	PROPOSED SLOPE
	PROPOSED VALLEY GUTTER

KEYED NOTES

1. 20" WIDE SIDEWALK CULVERT PER C.O.A. STANDARD DWG #2236.
2. 20" WIDE X 0.33' HIGH CONCRETE CHANNEL PER DETAIL THIS SHEET.
5. STRUCTUAL DESIGN OF FLOOD WALL BY OTHERS.

ROUGH GRADING APPROVAL, BRAD BINGHAM ± 1 FT.

SCALE: 1" = 20'

A04jobs\A4041CP\A4041gd-B.dwg\10-27-04\DER RHE

AS BUILT INFORMATION: CONTRACTOR / WORK STAKED BY / INSPECTOR / DATE / FIELD VERIFICATION BY / DATE / DRAWINGS CORRECTED BY / DATE / MICRO-FILM INFORMATION / RECORDED BY / DATE / NO.

BENCH MARKS: ACS STATION "9-C18" TO REACH STATION FROM INT. OF I-40 & LOUISIANA BOULEVARD, GO NORTH ON LOUISIANA 5.8 MI. TO WILSHIRE AVE., THEN GO WEST 0.5 MI. TO SAN PEDRO & STATION IS ON LEFT. STATION IS STANDARD ACS ALUMINUM CAP STAMPED "9-C18 1985" AND IS RIMTED TO A 2 1/2" ALUMINUM TUBE WITH CAP PROJECTING 0.05 FT. BELOW GROUND. X = 402,255.61, Y = 1,521,435.09, ELEV. = 5212.47 (NAVD88)

SURVEY INFORMATION: FIELD NOTES

NO.	BY	DATE

ENGINEER'S SEAL: AMY D. MEGE, NEW MEXICO, 15534, LICENSED PROFESSIONAL ENGINEER

NO.	DATE	REMARKS	BY
		REVISIONS	

DESIGN: DESIGNED BY DMG DATE 07/04; DRAWN BY DER DATE 07/04; CHECKED BY DMG DATE 07/04

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

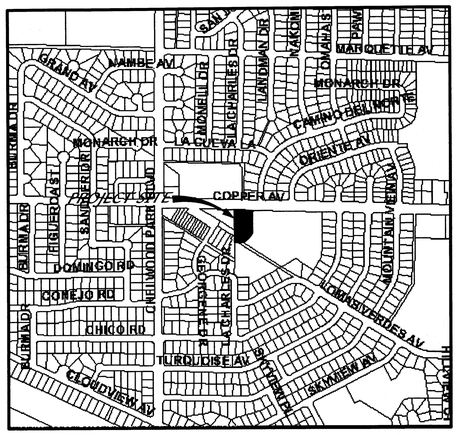
TITLE: COPPER PARK SUBDIVISION GRADING & DRAINAGE PLAN

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

RECEIVED OCT 27 2004 HYDROLOGY SECTION

CITY PROJECT NO.	ZONE MAP NO.	SHEET	OF
	K-22-Z	1	1

F:\A04JOBS\A4041CP\A4041gd-B.dwg, Model, 10/27/2004 3:46:03 PM, Nadjp



LOCATION MAP

ZONE ATLAS H-10

SCALE: NONE

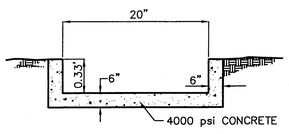
COPPER PARK SUBDIVISION
DRAINAGE CERTIFICATION

I, Diane Hoelzer, NMPE 11967, 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 10/27/2004. 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 2/9/06 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.

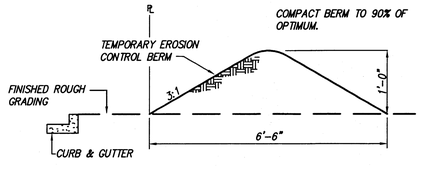
Diane Hoelzer 5-23-06
DIANE HOELZER NMPE 11967

DIANE L. HOELZER NEW MEXICO 11967 REGISTERED PROFESSIONAL ENGINEER



CONCRETE CHANNEL SECTION

N.T.S.

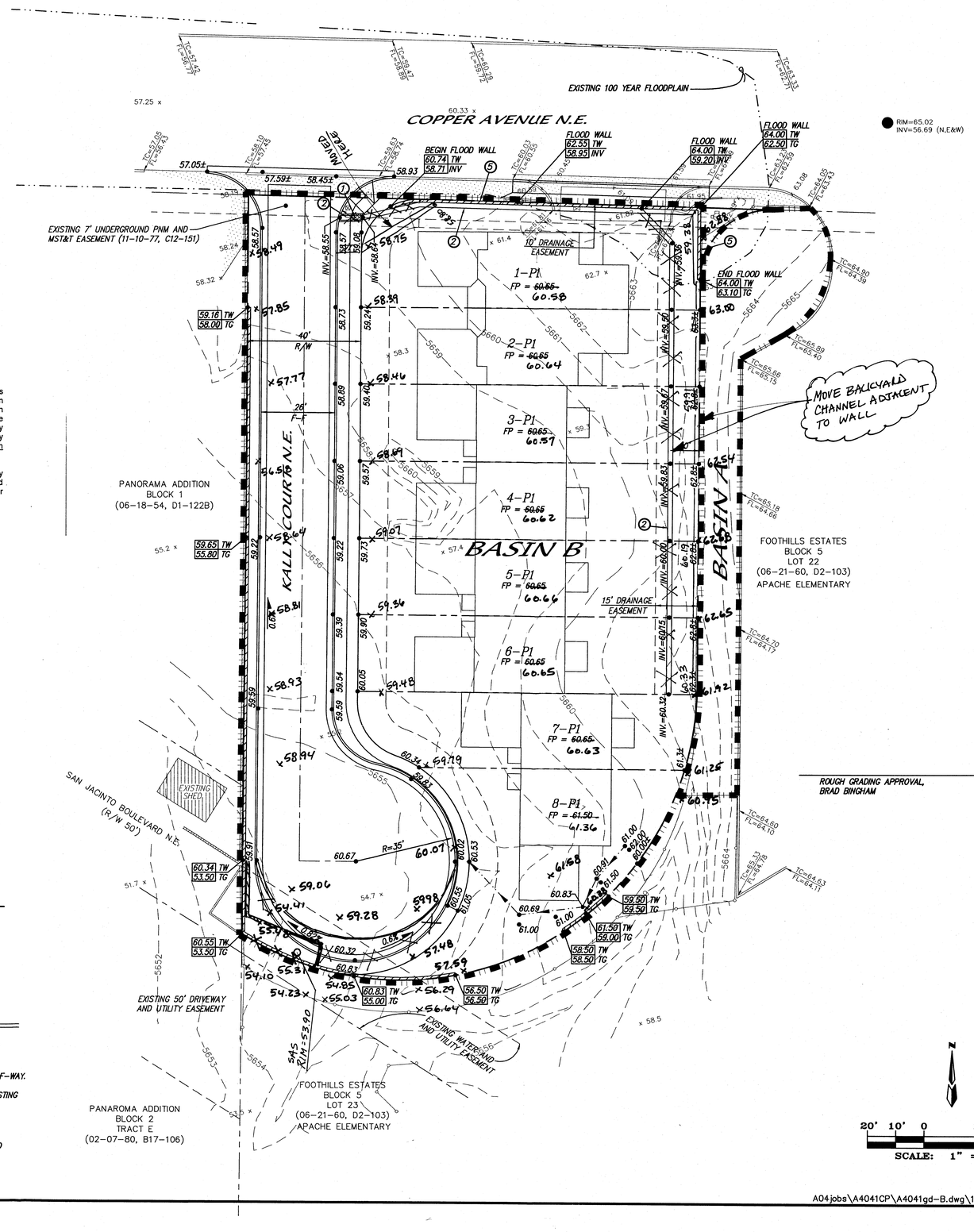


EROSION CONTROL BERM DETAIL

N.T.S.

EROSION CONTROL NOTES

1. CONTRACTOR IS RESPONSIBLE FOR OBTAINING A TOPSOIL DISTURBANCE PERMIT PRIOR TO BEGINNING WORK.
2. CONTRACTOR IS RESPONSIBLE FOR KEEPING ALL SEDIMENT OUT OF EXISTING RIGHT-OF-WAY.
3. CONTRACTOR IS RESPONSIBLE FOR CLEANING UP ANY SEDIMENT THAT GETS INTO EXISTING RIGHT-OF-WAY.
4. EROSION CONTROL BERMS ARE REQUIRED AROUND THE ENTIRE SITE.
5. ALL EROSION CONTROL BERMS MUST BE IN PLACE AND ENGINEER CERTIFIED PRIOR TO BUILDING PERMIT RELEASE.



ROUGH GRADING APPROVAL, BRAD BINGHAM ± 1 FT.

N

20' 10' 0 20' 40'

SCALE: 1" = 20'

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 AND WETTING THE SOIL TO KEEP IT FROM BLOWING
5. THE EARTHWORK CONTRACTOR SHALL STOCKPILE ENOUGH MATERIAL ADJACENT TO RETAINING WALL LOCATIONS TO BE UTILIZED FOR WALL BACKFILL.

NOTES

5660	EXISTING CONTOUR (MAJOR)
5661	EXISTING CONTOUR (MINOR)
TC= / FL=	EXISTING TOP CURB ELEVATION / EXISTING FLOWLINE ELEVATION
x 00.00	EXISTING SPOT ELEVATION
	EXISTING CONCRETE CURB
	EXISTING CONCRETE/SIDEWALK
	EXISTING WALL OR HEAD WALL
	EXISTING SIGN
	EXISTING CHAIN LINK FENCE
	EXISTING SANITARY SEWER MANHOLE
	EXISTING WATER VALVE
	EXISTING FIRE HYDRANT
	EXISTING TELEPHONE PEDESTAL
	PROPOSED CURB & GUTTER
FP = 60.65	PROPOSED FINISHED PAD ELEVATION
INV.=60.00	PROPOSED INVERT ELEVATION
59.90	PROPOSED SPOT ELEVATION
60.83 TW / 55.00 TG	PROPOSED TOP WALL ELEVATION / PROPOSED TOP GROUND ELEVATION
0.6%	PROPOSED SLOPE
	PROPOSED VALLEY GUTTER

KEYED NOTES

1. 20" WIDE SIDEWALK CULVERT PER C.O.A. STANDARD DWG #2236.
2. 20" WIDE X 0.33' HIGH CONCRETE CHANNEL PER DETAIL THIS SHEET.
5. STRUCTUAL DESIGN OF FLOOD WALL BY OTHERS.

AS BUILT INFORMATION

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

BENCH MARKS

ACS STATION "9-C18" TO REACH STATION FROM INT. OF I-40 & LOUISIANA BOULEVARD, GO NORTH ON LOUISIANA 5.8 MI. TO WILSHIRE AVE., THEN GO WEST 0.5 MI. TO SAN PEDRO & STATION IS ON LEFT. STATION IS STANDARD ACS ALUMINUM CAP STAMPED "9-C18, 1985" AND IS RIVETED TO A 2 1/2" ALUMINUM TUBE WITH CAP PROJECTING 0.05 FT. BELOW GROUND.
X = 402,255.61, Y = 1,521,435.09, ELEV. = 5232.47 (NAVD88)

SURVEY INFORMATION

FIELD NOTES

NO.	BY	DATE

ENGINEER'S SEAL

ANTHONY L. D. NIEBES NEW MEXICO 15394 LICENSED PROFESSIONAL ENGINEER 07/04

NO.	DATE	REMARKS	BY
		REVISIONS	

		DATE
DESIGNED BY	DMG	07/04
DRAWN BY	DER	07/04
CHECKED BY	DMG	07/04

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

RECEIVED MAY 24 2006 HYDROLOGY SECTION

TITLE:

COPPER PARK SUBDIVISION GRADING & DRAINAGE PLAN

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

CITY PROJECT NO.	ZONE MAP NO.	SHEET	OF
	K-22-Z	1	1

A04jobs\A4041CP\A4041gd-B.dwg\10-27-04\DER NHE

E:\A04JOBS\A4041CP\A4041gd-B.dwg, Model, 10/27/2004 3:46:03 PM, Nsjip