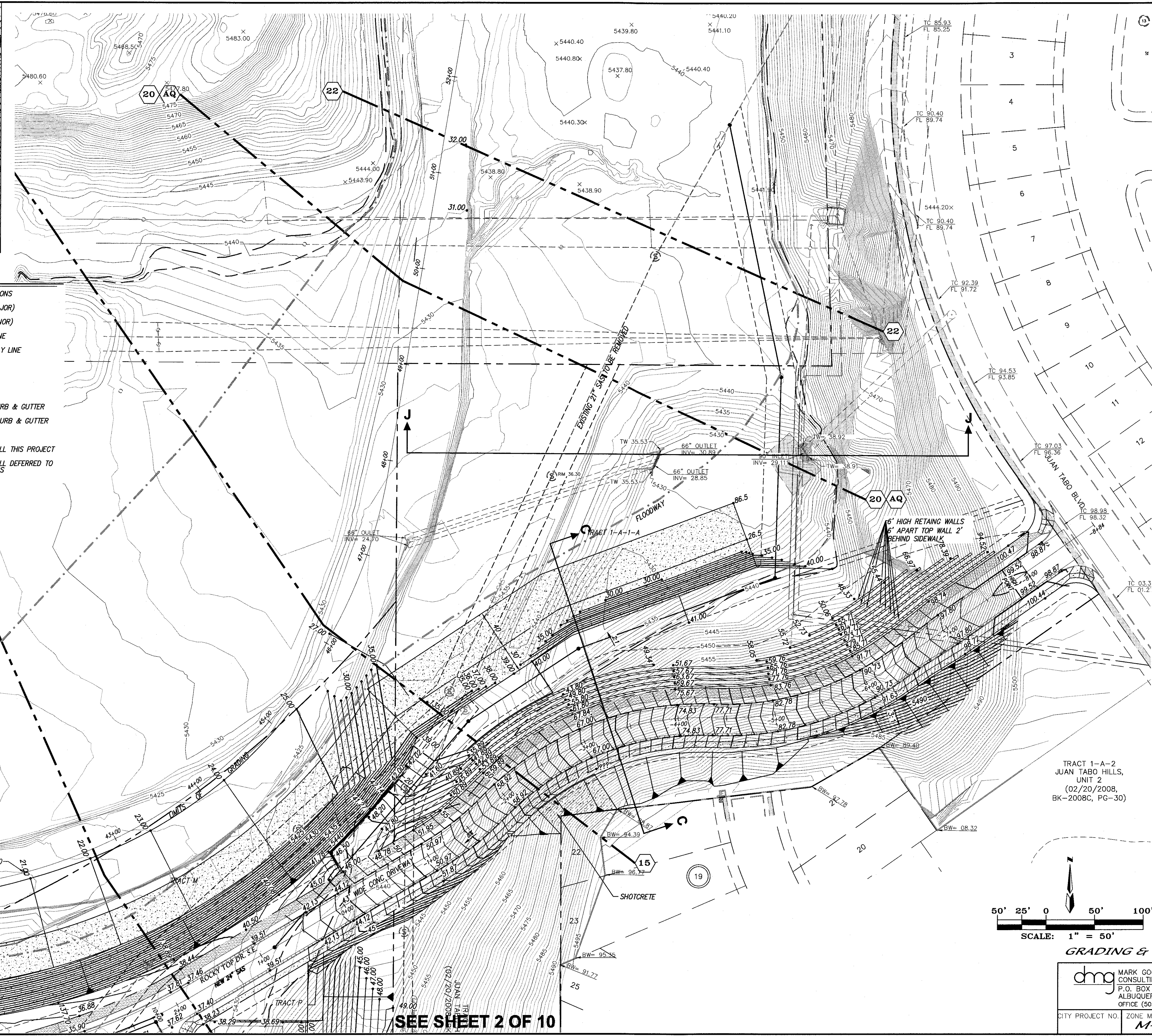
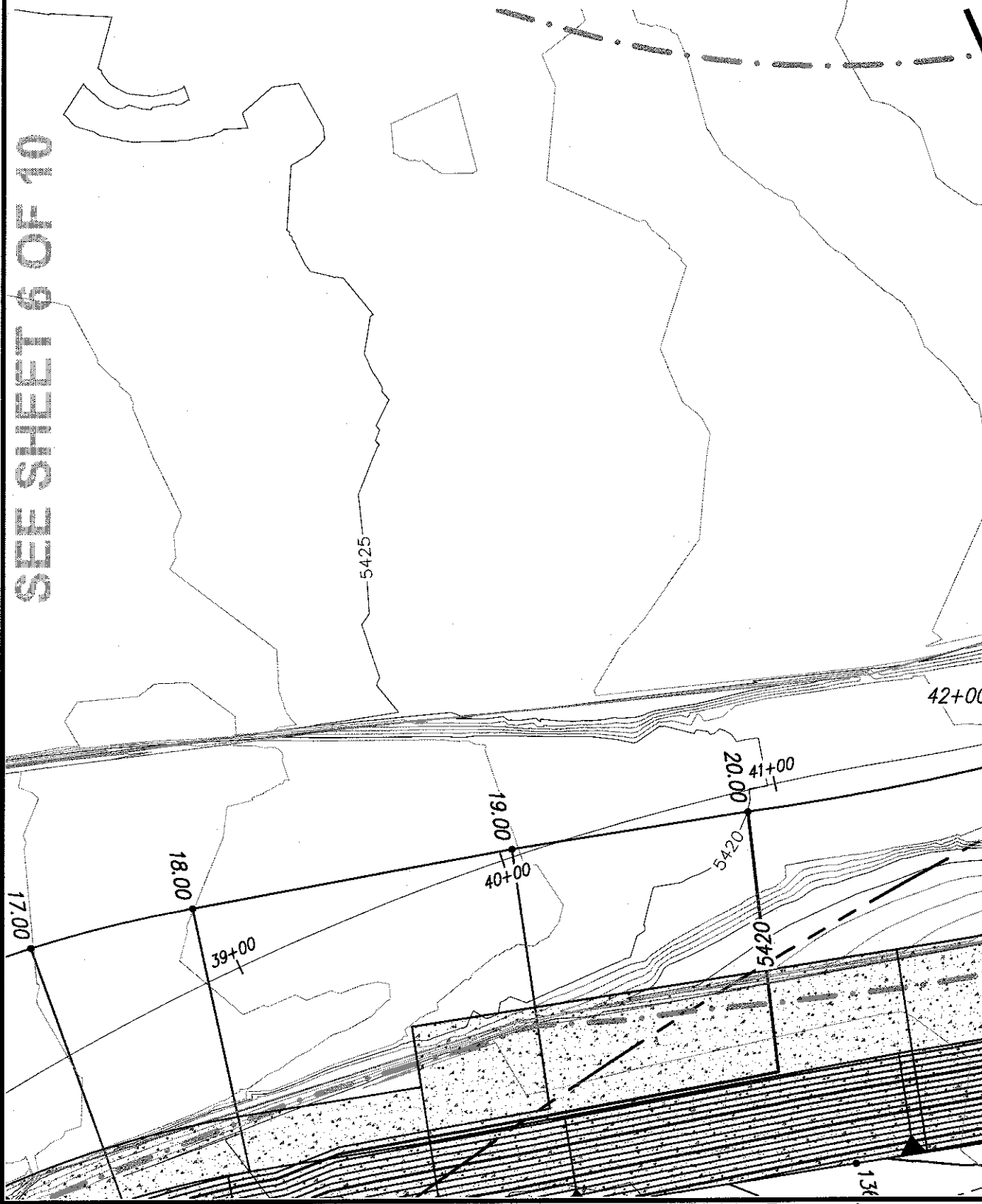


VICINITY MAP ZONE MAP: M-21

LEGEND

	EXIST. HANDRAIL		NEW SPOT ELEVATIONS
	EXIST. CONCRETE CURB		NEW CONTOUR (MAJOR)
	EXIST. CONCRETE/SIDEWALK		NEW CONTOUR (MINOR)
	EXIST. WALL OR HEADWALK		NEW BOUNDARY LINE
	EXIST. TOP CURB/FLOWLINE		NEW RIGHT-OF-WAY LINE
	EXIST. SPOT ELEV.		NEW LOT LINE
	EXIST. GUY WIRE		NEW CENTERLINE
	EXIST. MONITOR WELL		NEW EASEMENT
	EXIST. OVERHEAD ELECTRIC		NEW STANDARD CURB & GUTTER
	EXIST. POWER POLE		NEW MOUNTABLE CURB & GUTTER
	EXIST. SANITARY SEWER MANHOLE		NEW SIDEWALK
	EXIST. STORM DRAIN MANHOLE		NEW RETAINING WALL THIS PROJECT
	EXIST. WATER VALVE		NEW RETAINING WALL DEFERRED TO THE HOME BUILDERS
	EXIST. WATER METER		

	LIMITS 100 YEAR FLOOD PLAIN
	LIMITS 500 YEAR FLOOD PLAIN
	LIMITS OF FLOODWAY
	LIMITS AO ZONE
	BLOCK NUMBER IDENTITY

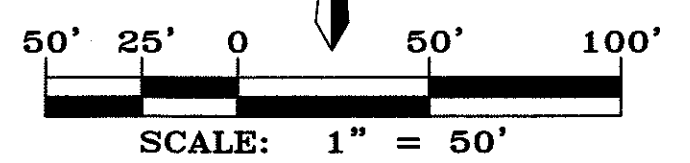


AS BUILT INFORMATION	
CONTRACTOR	WORK ORDER NO.
INSPECTOR'S ACCEPTANCE BY DATE	DATE
VERIFICATION BY DATE	DATE
DRAWINGS BY DATE	DATE
COMPILED BY DATE	DATE
MICRO-FILM INFORMATION	RECORDED BY DATE
	NO.

SURVEY INFORMATION	
FIELD NOTES	NO.
DATE	BY

ENGINEER'S SEAL	
DESIGNED BY	DATE
DRAWN BY	DATE
CHECKED BY	DATE

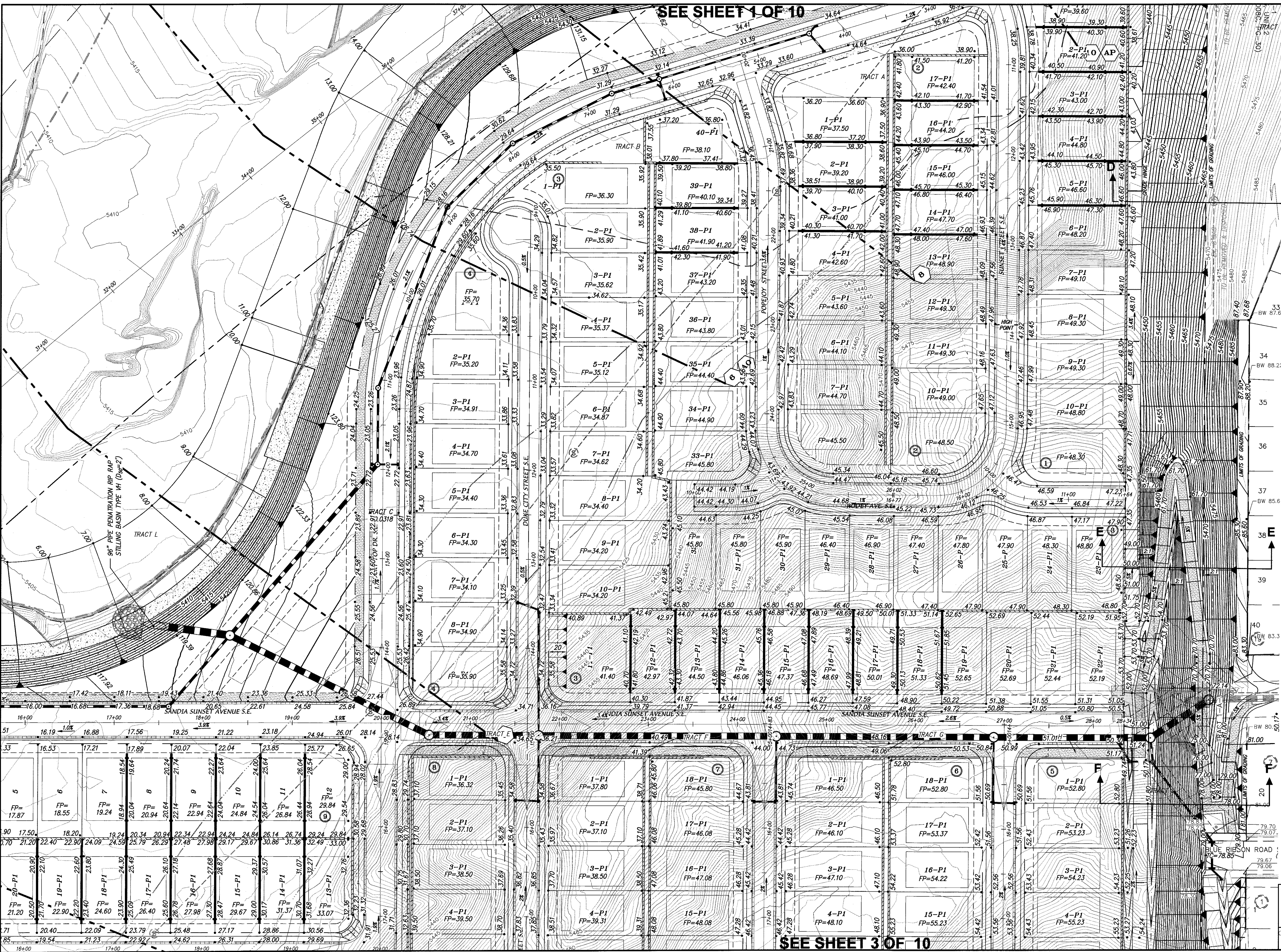
REVISIONS	
NO.	DATE
1	06/14
2	06/14
3	06/14



GRADING & DRAINAGE PLAN

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

CITY PROJECT NO. ZONE MAP NO. SHEET OF
 M-21-Z 1 10



SEE SHEET 1 OF 10

SEE SHEET 3 OF 10

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

SURVEY INFORMATION	
FIELD NOTES	NO.
BY	DATE

ENGINEER'S SEAL	
DATE	BY
REVISIONS	REMARKS
DESIGNED BY	DATE
DRAWN BY	DATE
CHECKED BY	DATE

SCALE: 1" = 50'

GRADING & DRAINAGE PLAN

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CITY PROJECT NO. _____ ZONE MAP NO. _____ SHEET OF _____
M-21-Z 2 10

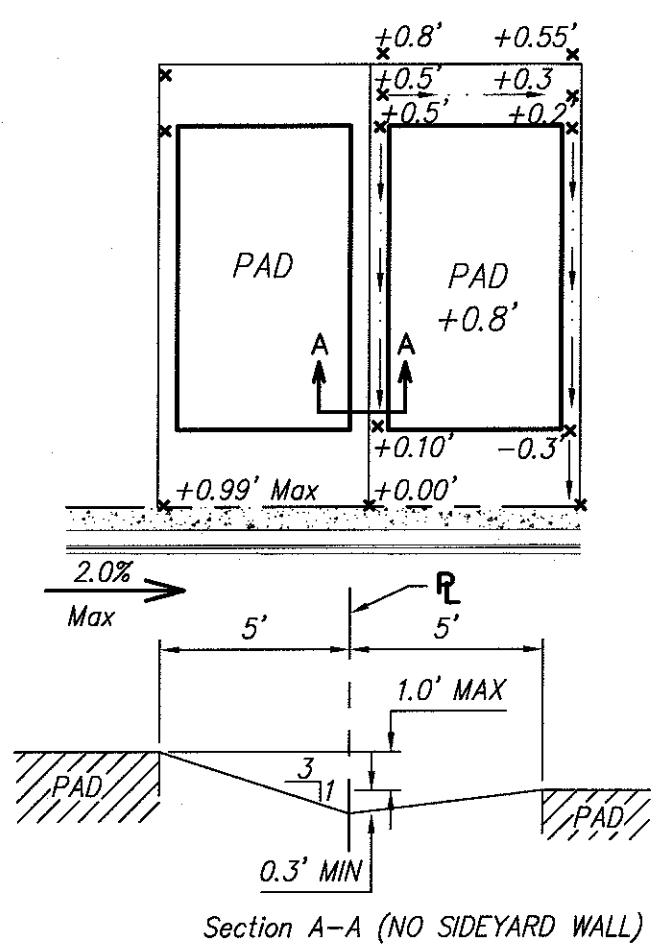
GRADING NOTES:

1. THE CONTRACTOR(S) MUST COMPLY WITH NPDES TEMPORARY CONSTRUCTION REQUIREMENTS AND OBTAIN A PERMIT. CONTRACTOR SHALL ALSO PROVIDE A COPY OF THE APPLICATION FOR PERMIT AND NOTICE OF TERMINATION TO THE OWNER.
2. THE CONTRACTOR(S) IS RESPONSIBLE FOR PREPARING AND MAINTAINING A SWPPP FOR THE DURATION OF INFRASTRUCTURE CONSTRUCTION AND UNTIL THE CITY OF ALBUQUERQUE ACCEPTS THE PUBLIC INFRASTRUCTURE. CONTRACTOR SHALL PROVIDE THE OWNER WITH A COPY OF THE SWPPP AT THE BEGINNING OF THE PROJECT AND AT THE TIME OF NOTICE OF TERMINATION.
3. THE CONTRACTOR(S) IS RESPONSIBLE FOR CONSTRUCTING AND MAINTAINING EROSION CONTROLS FOR THE DURATION OF THE CONSTRUCTION OF THE PUBLIC INFRASTRUCTURE AND FOR THE REMOVAL OF THE EROSION CONTROLS WHERE DIRECTED TO DO SO BY THE OWNER AT THE TIME OF NOTICE OF TERMINATION.
4. THE CONTRACTOR IS RESPONSIBLE FOR CONSTRUCTION STAKING AND IS TO PROVIDE AN AS-BUILT SURVEY CERTIFIED BY A REGISTERED PROFESSIONAL SURVEYOR TO THE OWNER UPON COMPLETION OF THE CONSTRUCTION. THE EARTHWORK CONTRACTOR IS TO PROVIDE EARTHWORK SURVEY, AND THE WALL BUILDER IS TO PROVIDE WALL SURVEY.
5. EARTHWORK CONTRACTOR SHALL PREPARE ROUGH SUBGRADE FOR THE RETAINING WALL CONSTRUCTION AND PROVIDE SUFFICIENT BACKFILL MATERIAL STOCKPILED ON THE HIGH SIDE OF EACH WALL FOR THE WALL BUILDER TO COMPLETELY BACKFILL THE WALLS.
6. RETAINING WALLS ARE SHOWN FOR GRADING PURPOSES ONLY. RETAINING WALL DESIGN IS TO BE PERFORMED BY OTHERS, AND SHALL BE SUBMITTED TO THE CITY OF ALBUQUERQUE FOR REVIEW, APPROVAL, PERMIT, AND INSPECTION.
7. EARTHWORK CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE GEOTECHNICAL INVESTIGATION BY GEOTEST, INC. DATED JUNE 29, 2012.
8. TOPOGRAPHIC AND BOUNDARY SURVEY ARE BY ALDRICH LAND SURVEYING NOVEMBER 2011.
9. BENCHMARK USED IS AGRS BRASS CAP STAMPED "7-M21" HAVING AN ELEVATION OF 5498.07 (NGVD29).
10. FEMA SPECIAL FLOOD HAZARD ZONE ON THIS PROPERTY AS SHOWN ON LOMR CASE NO. 13-06-1053P EFFECTIVE JUNE 17, 2013.

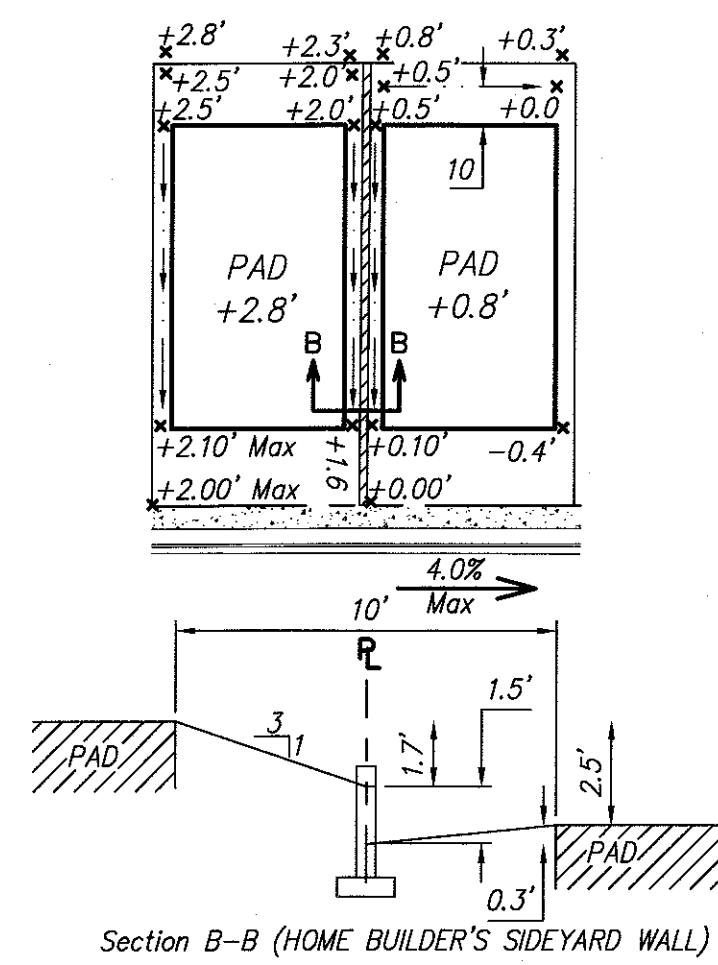
FLOOD PLAIN LEGEND

- LIMITS 100 YEAR FLOOD PLAIN
- LIMITS 500 YEAR FLOOD PLAIN
- LIMITS OF FLOODWAY
- LIMITS AO ZONE

TYPICAL LOT GRADING W/O SIDYARD WALL



TYPICAL LOT GRADING WITH SIDYARD WALL

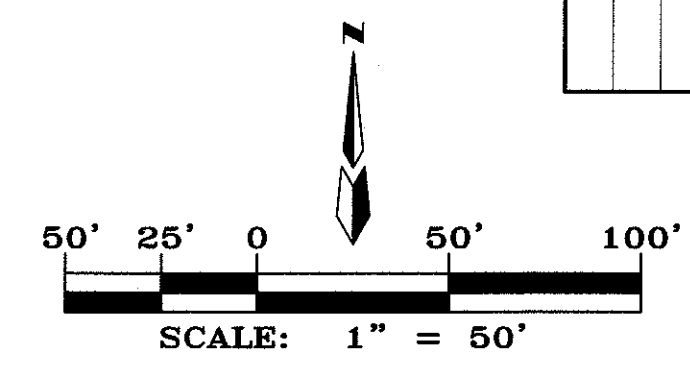


SEE SHEET 6 OF 10



SEE SHEET 4 OF 10

SEE SHEET 2 & 3 OF 10

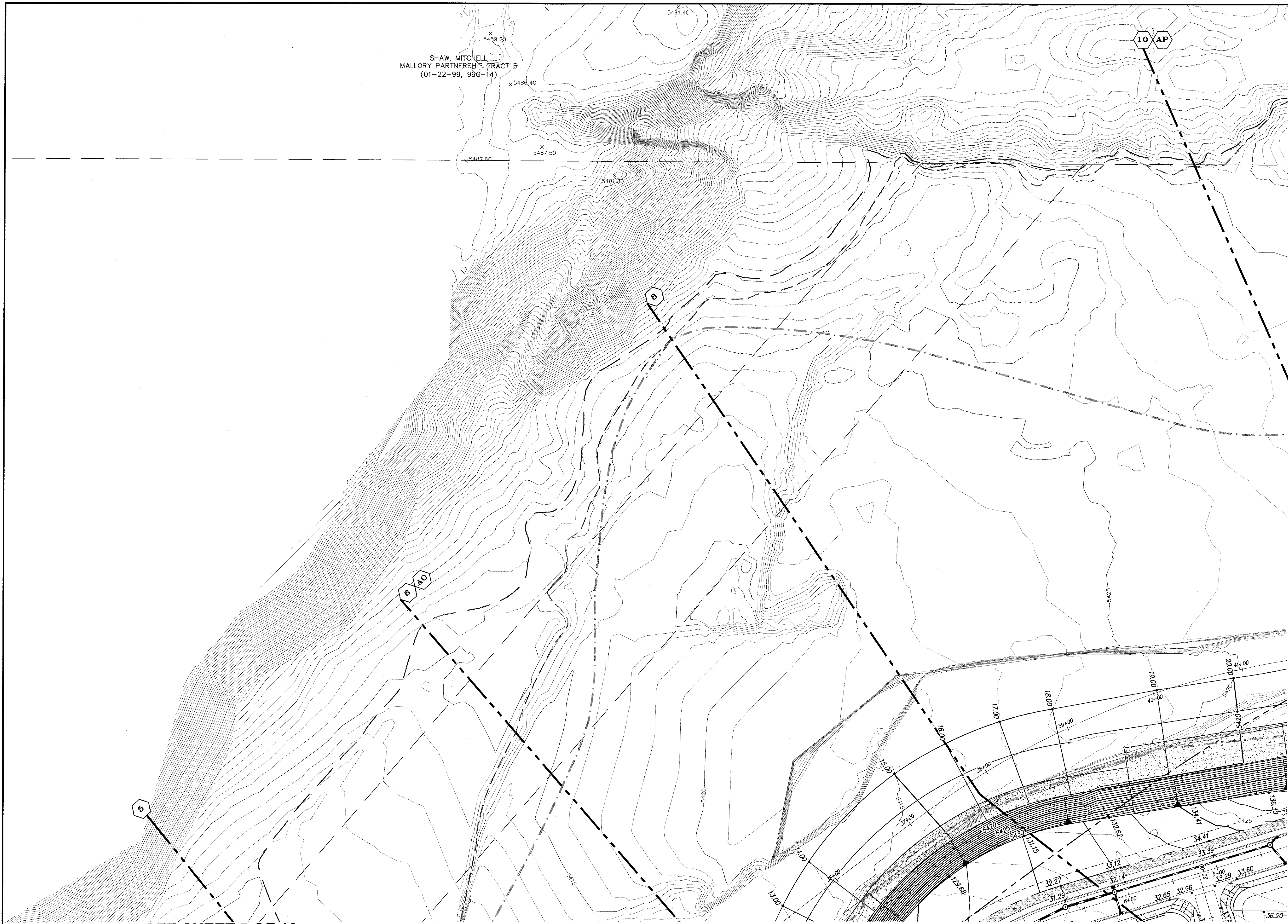


GRADING & DRAINAGE PLAN

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CITY PROJECT NO. _____ ZONE MAP NO. **M-21-Z** SHEET OF **5 10**

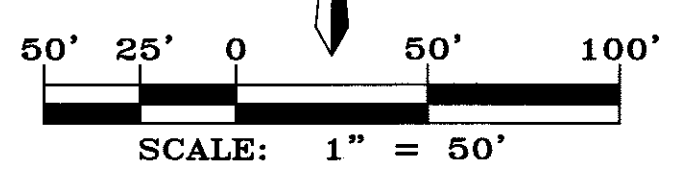
ENGINEER'S SEAL		SURVEY INFORMATION		AS-BUILT INFORMATION	
	DATE	NO.	NO.	DATE	NO.
	DATE	NO.	NO.	DATE	NO.
REVISIONS	REMARKS	BY	DATE	BY	DATE
DESIGN	DESIGN	JDH	06/14	ACH	06/14
DRAWN BY	DRAWN BY	ACH	06/14	DMG	06/14
CHECKED BY	CHECKED BY	DMG	06/14		
BENCH MARKS		CONTRACTOR		MICRO-FILM INFORMATION	
STATION 5-M22 IS LOCATED 8.7 M. SE OF DOWNTOWN ALBUQUERQUE ON THE EAST SIDE OF THE MUNICIPAL LIMITS LINE IN THE FOUR HILLS SUBDIVISION AREA. STATION IS 600 FT. EAST OF MUNICIPAL LIMITS LINE, 77.9' SE OF POWER POLE #327 & 66.0' NW OF POWER POLE #60. STATION IS A STANDARD ACS BRASS DISK SET IN A CONCRETE MONUMENT IN THE GROUND. STATION IS STAMPED "5-M22". X= 1,564,863.207, Y= 1,475,762.595, (NAD 83), Z= 5597.919 (NAD 1989).		WORK STAKED BY		CORRECTED BY	
		DATE		DATE	
		DATE		DATE	
		DATE		DATE	
		DATE		DATE	
		DATE		DATE	
		DATE		DATE	



SHAW, MITCHELL
MALLORY PARTNERSHIP TRACT B
(01-22-99, 99C-14)

SEE SHEET 5 OF 10

SEE SHEET 1 OF 10



GRADING & DRAINAGE PLAN

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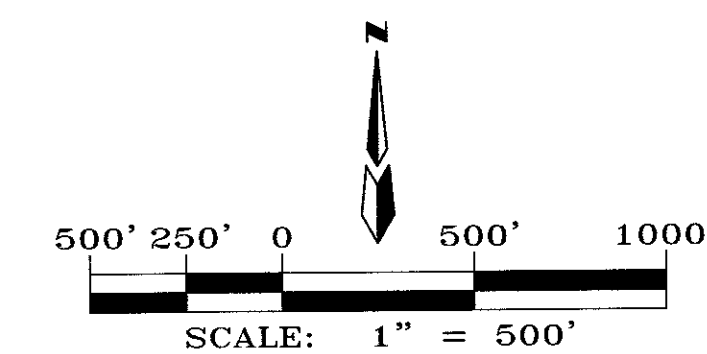
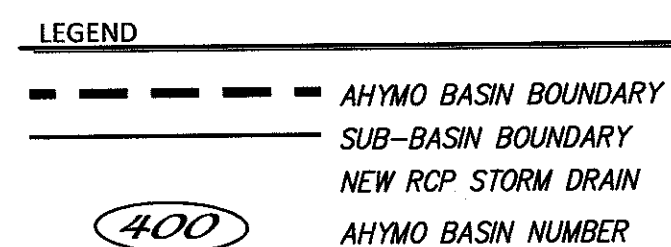
CITY PROJECT NO. ZONE MAP NO. SHEET OF
M-21-Z 6 10

ENGINEER'S SEAL		SURVEY INFORMATION		BENCH MARKS		AS BUILT INFORMATION		
	NO. DATE REVISIONS DESIGN	NO.	BY	STATION "5-A22" IS LOCATED 8.7 M. SE OF DOWNTOWN ALBUQUERQUE ON THE EAST SIDE OF THE MUNICIPAL LIMITS LINE IN THE FOUR HILLS SUBDIVISION AREA. STATION IS 600 FT. EAST OF MUNICIPAL LIMITS LINE, 77.9' SE OF POWER POLE #327 & 166.0' NW OF POWER POLE #60. STATION IS A STANDARD ACS BRASS DISK SET IN A CONCRETE MONUMENT IN THE GROUND. STATION IS STAMPED "5-A22". X= 1,584,263.207, Y= 1,475,762.585, (NAD 83). Z= 5597.719 (NAVD 1989).	CONTRACTOR	RECORDED BY	DATE	NO.
		DESIGNED BY <i>JDH</i> DATE <i>06/14</i> DRAWN BY <i>ACH</i> DATE <i>06/14</i> CHECKED BY <i>DMG</i> DATE <i>06/14</i>	FIELD NOTES NO. BY	WORK STARTED BY INSPECTOR'S FIELD CHANGE BY VERIFICATION BY CORRECTED BY MICRO-FILM INFORMATION	CONTRACTOR WORK STARTED BY INSPECTOR'S FIELD CHANGE BY VERIFICATION BY CORRECTED BY MICRO-FILM INFORMATION			



Table 1: HYDROLOGY SUMMARY TABLE

AHYMO BASIN ID	Location	AREA		Ground Cover (%)				Q ₁₀₀ (cfs)		Water Quality Volume (Ac-Ft)	
		(Ac)	(Sq mi)	A	B	C	D	Increment	Increment	Sub Total	
100	Four Hills	89.10	0.13922	8	18	35	38.7	328.22	1.3218	1.3218	
101	Juan Tabo Hills	66.80	0.10438	0	19	39	42	282.50	1.0755	1.0755	
200	Four Hills	9.00	0.01406	0	20	40	40	37.61	0.1390	1.4598	
201	Kirtland	76.30	0.01828	100	0	0	0	27.94	0.0300	0.0696	
203	Juan Tabo Hills	42.50	0.06641	0	22	45	33	172.59	0.5378	1.6131	
300	Juan Tabo Hills	22.30	0.03484	0	14	29	57	99.75	0.4873	2.1004	
400	JTH Estates	77.70	0.12141	0	9	41	50	343.61	1.4893	1.4893	
TOTALS:		383.70	0.50					1291.92		5.05	



**JUAN TABO HILLS ESTATES
DRAINAGE BASIN MAP**

dmg MARK GOODWIN & ASSOCIATES, P.A.
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CITY PROJECT NO. ZONE MAP NO. SHEET OF
M-21-Z 7 10

ENGINEER'S SEAL		SURVEY INFORMATION		BENCH MARKS		AS BUILT INFORMATION		
NO.	DATE	BY	DATE	CONTRACTOR	WORK STARTED BY	DATE	DATE	
				STATION "5-422" IS LOCATED 8.7 M. SE OF DOWNTOWN ALBUQUERQUE ON THE EAST SIDE OF THE MUNICIPAL LIMITS LINE IN THE FOUR HILLS SUBDIVISION AREA. STATION IS 600 FT. EAST OF MUNICIPAL LIMITS LINE. 77.9' SE OF POWER POLE #837 & 186.0' NW OF POWER POLE #80. STATION IS A STANDARD ACS BRASS DISK SET IN A CONCRETE MONUMENT IN THE GROUND. STATION IS STAMPED "5-422". X= 1,584,263.207, Y= 1,475,762.265, (MAD 83), Z= 5597.219 (MAD 1988).	CONTRACTOR	WORK STARTED BY	DATE	DATE
					ACCEPTANCE BY	DATE	DATE	
					FIELD ASSESSMENT BY	DATE	DATE	
					DRAWINGS BY	DATE	DATE	
					CORRECTED BY	DATE	DATE	
					MICRO-FILM INFORMATION	RECORDED BY	DATE	
						NO.	NO.	

ENGINEER'S SEAL

 JAMES D. HUGHES
 10222
 2-22-2016

REVISIONS
 NO. DATE REMARKS BY
 DESIGN DATE 06/14
 DRAWN BY ACH DATE 06/14
 CHECKED BY DMG DATE 06/14

