CITY OF ALBUQUERQUE

August 10, 2006

J. Graeme Means, P.E.
Jeff Mortensen & Assoc., Inc.
6010-B Midway Park Blvd. NE
Albuquerque, NM 87109

Re: Rich Court Grading Plan

Engineer's Stamp dated 7-25-06 (C20/D44)

Dear Mr. Means,

Based upon the information provided in your submittals dated 7-25-06 and 8-8-06, the above referenced plan is approved for Preliminary Plat action by the DRB. Once that board approves the grading plan, please submit a mylar copy for my signature in order to obtain a Rough Grading Permit.

This project requires a National Pollutant Discharge Elimination System (NPDES) permit. If you have any questions feel free to call the Municipal Development Department Hydrology Section at 768-3654 (Charles Caruso).

If you have any questions, you can contact me at 924-3695.

Sincerely,

Curtis A. Cherne, E.I.
Engineering Associate, Planning Dept.
Development and Building Services

BLB

C: file
Brad Bingham
Charles Caruso, DMD

P.O. Box 1293

Albuquerque

New Mexico 87103

www.cabq.gov

2005.070.4

DRAINAGE AND TRANSPORTATION INFORMATION SHEET

(REV. 1/28/2003rd)

PROJECT TITLE: Rich Court ZONE ATLAS/DRNG. FILE #: C-20/D44
DRB #: _____ EPC #: _____ WORK ORDER #: _____

LEGAL DESCRIPTION: _____
CITY ADDRESS: Alameda Blvd NE

ENGINEERING FIRM:	Jeff Mortensen & Assoc., Inc.	CONTACT:	Graeme Means, PE 13676
ADDRESS:	6010-B Midway Park Blvd. NE	PHONE:	(505) 345-4250
CITY, STATE:	Albuquerque, NM	ZIP CODE:	87109
OWNER:	Llave Homes	CONTACT:	Bob Keeran
ADDRESS:	PO Box 93642	PHONE:	856-4076
CITY, STATE:	Albuquerque, NM	ZIP CODE:	87199
ARCHITECT:		CONTACT:	
ADDRESS:		PHONE:	
CITY, STATE:		ZIP CODE:	
SURVEYOR:	JMA	CONTACT:	Chuck Cala, PS 11184
ADDRESS:		PHONE:	
CITY, STATE:		ZIP CODE:	
CONTRACTOR:	Not Selected	CONTACT:	
ADDRESS:		PHONE:	
CITY, STATE:		ZIP CODE:	

TYPE OF SUBMITTAL:
- ___ DRAINAGE REPORT
- ___ DRAINAGE PLAN 1st SUBMITTAL, ***REQUIRES TCL or equal***
- ___ DRAINAGE PLAN RESUBMITTAL
- ___ CONCEPTUAL GRADING & DRAINAGE PLAN
- ___ GRADING PLAN
- ___ EROSION CONTROL PLAN
- ___ ENGINEER'S CERTIFICATION (HYDROLOGY)
- ___ CLOMR/LOMR
- ___ TRAFFIC CIRCULATION LAYOUT (TCL)
- ___ ENGINEER'S CERTIFICATION (TCL)
- ___ ENGINEER'S CERTIFICATION (DRB APPR. SITE PLAN)
- X OTHER - **Supplemental Information**

CHECK TYPE OF APPROVAL SOUGHT:
- ___ SIA/FINANCIAL GUARANTEE RELEASE
- X PRELIMINARY PLAT APPROVAL
- ___ S. DEV. PLAN FOR SUB'D APPROVAL
- ___ S. DEV. PLAN FOR BLDG. PERMIT APPROVAL
- ___ SECTOR PLAN APPROVAL
- X FINAL PLAT APPROVAL
- ___ FOUNDATION PERMIT APPROVAL
- ___ BUILDING PERMIT APPROVAL
- ___ CERTIFICATE OF OCCUPANCY (PERM.)
- ___ CERTIFICATE OF OCCUPANCY (TEMP.)
- X GRADING PERMIT APPROVAL
- ___ PAVING PERMIT APPROVAL
- X WORK ORDER APPROVAL
- ___ OTHER (SPECIFY)

WAS A PRE-DESIGN CONFERENCE ATTENDED:
- ___ YES
- X NO
- ___ COPY PROVIDED

RECEIVED
AUG 08 2006
HYDROLOGY SECTION

DATE SUBMITTED: 08/08/06 BY: J. Graeme Means

Requests for approvals of Site Development Plans and/or Subdivision Plats shall be accompanied by a drainage submittal. The particular nature, location and scope of the proposed development defines the degree of drainage detail. One or more of the following levels of submittal may be required based upon the following:

1. **Conceptual Grading and Drainage Plan**: Required for approval of Site Development Plans greater than five (5) acres and Sector Plans.
2. **Drainage Plans**: Required for building permits, grading permits, paving permits and site plans less than five (5) acres.
3. **Drainage Report**: Required for subdivisions containing more than ten (10) lots or constituting five (5) acres or more.

DRAINAGE REPORT

I. EXECUTIVE SUMMARY AND INTRODUCTION

THE PROPOSED DEVELOPMENT IS LOCATED IN THE LA CUEVA SECTOR PLAN AREA OF NORTH ALBUQUERQUE ACRES. THE DRAINAGE OUTFALL FOR THE SITE IS TO AN EXISTING PUBLIC DRAINAGE CHANNEL CONSTRUCTED BY CPN 7519.82 THAT WAS SIZED FOR THIS DISCHARGE. OFFSITE FLOWS ASSOCIATED WITH THE LA CUEVA ARROYO IMPACT THE SITE. THE SITE LIES WITHIN A DESIGNATED FLOOD HAZARD ZONE AND A LETTER OF MAP REVISION FROM FEMA WILL BE REQUESTED UPON COMPLETION OF THE LA CUEVA ARROYO CHANNEL BY THE SAME DEVELOPER UNDER A SEPARATE CONTRACT (CPN 757781). A LARGE PART OF THE SITE (TRACT A) WILL REMAIN UNDEVELOPED AT THIS TIME DUE TO PHASED LA CUEVA CHANNEL CONSTRUCTION AND THE IMPENDING REALIGNMENT OF ALAMEDA BLVD NE. THE PURPOSE OF THIS DRAINAGE REPORT IS TO OBTAIN PRELIMINARY PLAT, ROUGH GRADING, FINAL PLAT, AND WORK ORDER APPROVALS.

II. PROJECT DESCRIPTION:

AS SHOWN BY VICINITY MAP C-20 AT RIGHT, THE SITE IS LOCATED IN NORTH ALBUQUERQUE ACRES ON THE NORTH SIDE OF ALAMEDA BLVD NE, BETWEEN BARSTOW STREET NE AND VENTURA STREET NE. THE SITE LIES ADJACENT TO THE LA CUEVA ARROYO, THE DOWNSTREAM REACH OF WHICH IS CURRENTLY UNDER CONSTRUCTION FOR PERMANENT CHANNELIZATION BY A SEPARATE PROJECT BY THE SAME DEVELOPER. THE SITE IS UNDEVELOPED. THE SITES TO THE NORTH AND WEST ARE DEVELOPED RESIDENTIALLY. THE SITES TO THE SOUTH AND EAST ARE UNDEVELOPED. THE EXISTING LEGAL DESCRIPTION IS LOTS 25-27, BLOCK 3, NORTH ALBUQUERQUE ACRES, TRACT 3, UNIT 3. THE SITE IS CURRENTLY ZONED R-D (3 DU/GROSS ACRE) BY THE LA CUEVA SECTOR PLAN. AS SHOWN BY PANEL 141 OF 825 OF THE NATIONAL FLOOD INSURANCE PROGRAM FLOOD INSURANCE RATE MAPS, BERNALILLO COUNTY, NEW MEXICO, AND INCORPORATED AREAS, DATED NOVEMBER 19, 2003, A LARGE PORTION OF THE SITE LIES WITHIN A DESIGNATED FLOOD HAZARD ZONE (AO, DEPTH 2) ASSOCIATED WITH THE LA CUEVA ARROYO.

III. BACKGROUND DOCUMENTS

THE FOLLOWING IS A LIST OF DOCUMENTS RELATED TO THE SITE AND SURROUNDING AREA. THIS LIST MAY NOT BE INCLUSIVE, HOWEVER, REPRESENTS A SUMMARY OF RELEVANT PLANS AND DOCUMENTS KNOWN TO THE ENGINEER AT THE TIME OF PLAN PREPARATION.

A. FINAL NORTH ALBUQUERQUE ACRES MASTER DRAINAGE PLAN PREPARED FOR THE CITY OF ALBUQUERQUE BY RTI DATED OCTOBER, 1998. THE SUBJECT SITE LIES WITH BASIN 111.3 WHICH ASSUMED RESIDENTIAL DEVELOPMENT WITH AN OUTFALL TO THE LA CUEVA ARROYO VIA SD-25 IN BARSTOW.
B. CONSTRUCTION PLANS FOR ESTRADA COURT SUBDIVISION BY RIO GRANDE ENGINEERING DATED 8/28/2005 (CPN 751982). THESE PLANS ADDRESS THE SUBDIVISION TO THE NORTH THAT IS CURRENTLY UNDER CONSTRUCTION AND PROVIDES A PUBLIC DRAINAGE CHANNEL THAT IS THE OUTFALL FOR THE RICH COURT SUBDIVISION.
C. CONSTRUCTION PLANS FOR LA CUEVA ARROYO CHANNEL IMPROVEMENTS BY RIO GRANDE ENGINEERING (CPN 757781). THESE PLANS ADDRESS THE PERMANENT CHANNELIZATION OF THE DOWNSTREAM PORTION OF THE LA CUEVA ARROYO TO BARSTOW STREET NE AND INCLUDE A TEMPORARY RIP-RAP LINED DIVERSION BERM ALONG THE EAST EDGE OF THE RICH COURT SITE. THIS PROJECT IS CURRENTLY UNDER CONSTRUCTION AND WILL PROTECT RICH COURT FROM THE HAZARD OF FLOODING.

THE PROPOSED CONSTRUCTION DRAINING DIRECTLY AND FREELY TO EXISTING PUBLIC DRAINAGE IMPROVEMENTS AS PROPOSED AND DESCRIBED HEREIN IS IN ACCORDANCE WITH THE POLICIES AND REQUIREMENTS OF THE ABOVE LISTED DOCUMENTS.

IV. EXISTING CONDITIONS:

THE SITE IS UNDEVELOPED WITH A SPARSE GROUND COVER OF NATIVE VEGETATION. THERE IS EVIDENCE OF RECENT DISTURBANCE FROM NEARBY CONSTRUCTION. THE SITE SLOPES FROM SOUTHEAST TO NORTHWEST. A CMU WALL HAS BEEN CONSTRUCTED ALONG THE NORTH PROPERTY LINE BY THE SAME DEVELOPER FOR THE ESTRADA COURT SUBDIVISION (REFERENCE B). A PUBLIC DRAINAGE CHANNEL WAS ALSO CONSTRUCTED BY THE ESTRADA COURT PROJECT AND THERE ARE NUMEROUS WALL OPENINGS IN THE AFOREMENTIONED CMU WALL. OFFSITE FLOWS ENTER THE SITE FROM THE LA CUEVA ARROYO. BASED ON REFERENCE A, THE 100-YEAR PEAK FLOW RATE ASSOCIATED WITH THE ARROYO IS BETWEEN 3094 CFS AND 3048 CFS. THE LA CUEVA CHANNEL, CURRENTLY UNDER CONSTRUCTION, IS DESIGNED TO ACCEPT AND CONFINE THESE FLOWS.

V. DEVELOPED CONDITIONS

THE PROJECT WILL BE PHASED. THE FIRST 6 LOTS WILL BE AS SHOWN BY THIS PROPOSAL. A SEPARATE SUBMITTAL WILL ADDRESS FUTURE EXPANSION TO THE EAST THAT WILL REQURE EXTENSION OF THE LA CUEVA CHANNEL AND OFFICIAL ESTABLISHMENT OF THE ALAMEDA REALIGNMENT. AS SHOWN BY THE GRADING PLAN ON SHEET 2, THE PROPOSED LOTS WILL DRAIN INTERNALLY VIA SURFACE FLOW TO A PROPOSED PUBLIC DRAINAGE CHANNEL THAT WILL OUTLET TO THE PUBLIC DRAINAGE CHANNEL RECENTLY CONSTRUCTED BY THE ESTRADA COURT PROJECT. THE DOWNSTREAM AND ADJACENT LA CUEVA CHANNEL IMPROVEMENTS ARE CURRENTLY BEING CONSTRUCTED BY SEPARATE WORK ORDER AND WILL BE MAINTAINED BY AMAFCA.
A PERIMETER WALL IS PROPOSED AS SHOWN. THE DEVELOPER WILL CONSTRUCT THE WALL AND IT WILL RETAIN NO MORE THAN 18 INCHES AT ANY LOCATION. THE INTENT OF THE PLAN IS TO BLEND IN WITH EXISTING GRADES TO THE MAXIMUM EXTENT POSSIBLE.

VI. GRADING PLAN

THE GRADING PLAN ON SHEET 2 SHOWS: 1) EXISTING GRADES INDICATED BY CONTOURS AT 1 FT, 0 IN INTERVALS FROM THE MAY 9, 2006 TOPOGRAPHIC AND BOUNDARY SURVEY CONDUCTED BY THIS OFFICE, NMPS 11184, 2) PROPOSED GRADES INDICATED BY PAD ELEVATIONS, SPOT ELEVATIONS, TOP OF CURB ELEVATIONS AND FLOWLINES, 3) THE LIMIT AND CHARACTER OF THE EXISTING IMPROVEMENTS AS SHOWN BY THE AFOREMENTIONED SURVEY AND SUPPLEMENTED WITH PROPOSED CHANNEL IMPROVEMENTS TAKEN FROM THE PLANS BY RIO GRANDE ENGINEERING, AND 4) THE LIMIT AND CHARACTER OF THE PROPOSED IMPROVEMENTS

VII. CALCULATIONS

THE CALCULATIONS, WHICH APPEAR HEREON, ANALYZE BOTH THE EXISTING AND DEVELOPED CONDITIONS FOR THE 100-YEAR, 6-HOUR RAINFALL EVENT. THE PROCEDURE FOR 40-ACRE AND SMALLER BASINS, AS SET FORTH IN THE REVISION OF SECTION 22.2, HYDROLOGY OF THE DEVELOPMENT PROCESS MANUAL, VOLUME 2, DESIGN CRITERIA, DATED JANUARY, 1993, HAS BEEN USED TO QUANTIFY THE PEAK RATE OF DISCHARGE AND VOLUME OF RUNOFF GENERATED. AS DEMONSTRATED BY THE CALCULATIONS, THERE WILL BE AN INCREASE ATTRIBUTABLE TO DEVELOPMENT. MANNING'S EQUATION WAS USED TO EVALUATE THE PROPOSED PUBLIC DRAINAGE CHANNEL.

VIII CONCLUSIONS

1) THE PROPOSED SITE IMPROVEMENTS AND DRAINAGE CONCEPT ARE CONSISTENT WITH THE DEVELOPMENT CRITERIA ESTABLISHED BY PREVIOUSLY APPROVED PLANS FOR NORTH ALBUQUERQUE ACRES AND THE LA CUEVA ARROYO.
2) DEVELOPED RUNOFF FROM THIS SITE WILL DRAIN FREELY TO EXISTING PERMANENT DOWNSTREAM PUBLIC STORM DRAINAGE IMPROVEMENTS SIZED FOR THIS DISCHARGE.
3) THERE ARE NO DRAINAGE RELATED DPM DESIGN VARIANCES, OR DRAINAGE COVENANTS ANTICIPATED AT THIS TIME.
4) A LOMR WILL BE REQUIRED TO ELIMINATE THE EXISTING FLOOD HAZARD ZONE UPON COMPLETION OF THE LA CUEVA CHANNEL IMPROVEMENTS.

CALCULATIONS

SITE CHARACTERISTICS

1. PRECIPITATION ZONE = 3
2. $P_{6,100} = P_{360} = 2.60$
3. TOTAL PROJECT AREA (A_T) = 114,354 SF
   2.63 AC
4. EXISTING LAND TREATMENT
   A. BASIN 114,354 SF = 2.63 AC

TREATMENT	AREA (SF/AC)	%
B	57,054 / 1.31	50
C	57,300/ 1.32	50

5. DEVELOPED LAND TREATMENT
   A. BASIN 114,354 SF = 2.63 AC

TREATMENT	AREA (SF/AC)	%
B	24,227 / 0.56	21
C	24,227 / 0.56	21
D	65,900 / 1.51	58

EXISTING CONDITION

A. BASIN

1. VOLUME

$E_W = (E_AA_A+E_BA_B+E_CA_C+E_DA_D)/A_T$

$E_W = ((1.31*0.92)+(1.32*1.29))/2.63 = 1.11$ IN

$V_{100} = (E_W/12)A_T = (1.11/12)2.63 = 0.2433$ AC-FT =10,580 CF

2. PEAK DISCHARGE

$Q_P = Q_{PA}A_A + Q_{PB}A_B + Q_{PC}A_C + Q_{PD}A_D$

$Q_P = Q_{100} = (1.31*2.6))+(1.32*3.45) = 8.0$ CFS

DEVELOPED CONDITION

A. BASIN

1. VOLUME

$E_W = (E_AA_A+E_BA_B+E_CA_C+E_DA_D)/A_T$

$E_W = ((0.56*0.92)+(0.56*1.29)+(1.51*2.36))/2.63 = 1.83$ IN

$V_{100} = (E_W/12)A_T = (1.83/12)2.63 = 0.4011$ AC-FT= 17,440 CF

2. PEAK DISCHARGE

$Q_P = Q_{PA}A_A + Q_{PB}A_B + Q_{PC}A_C + Q_{PD}A_D$

$Q_P = Q_{100} = (0.56*2.6)+(0.56+3.45)+(1.51*5.02) = 11.0$ CFS

COMPARISON

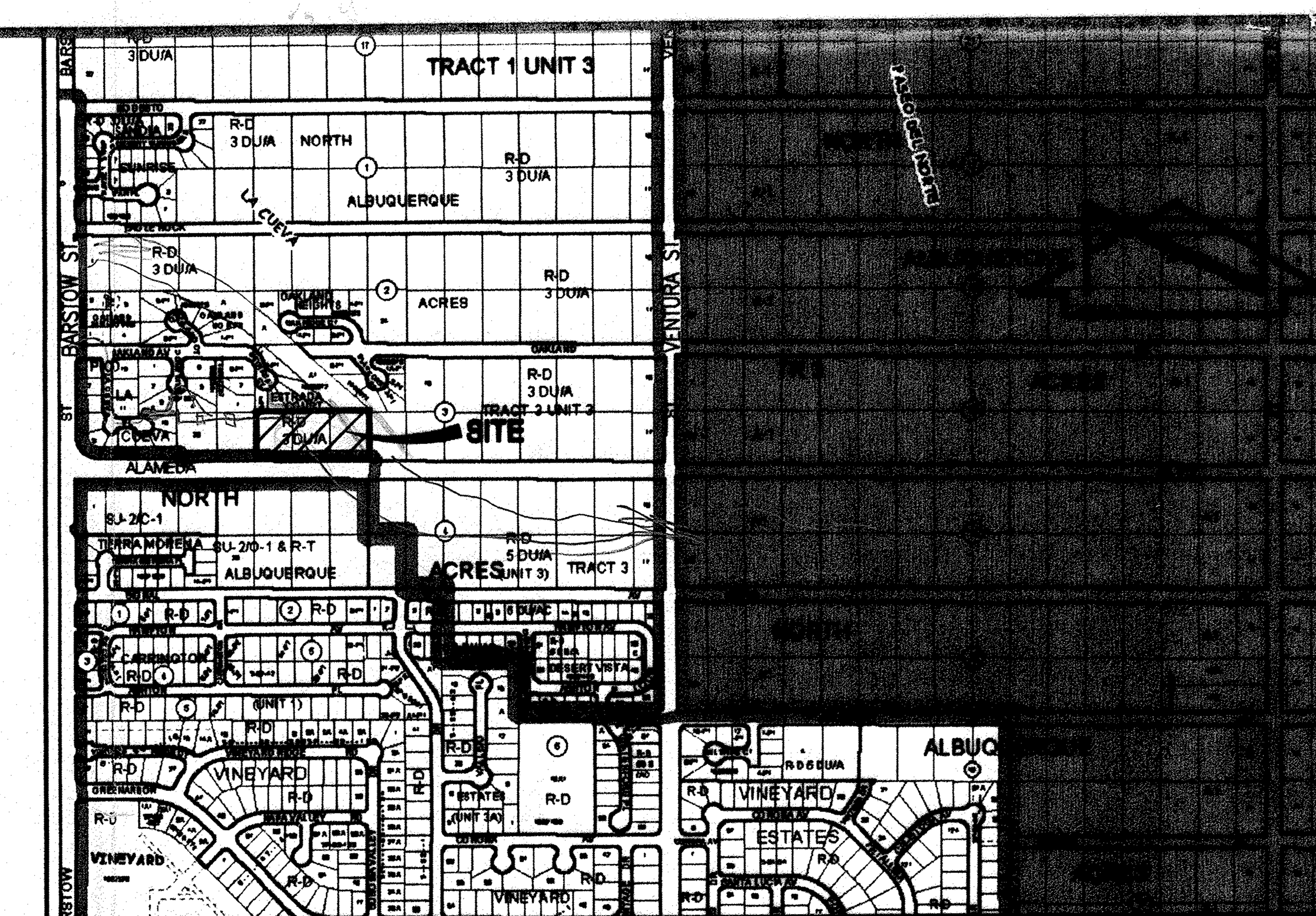
A. BASIN

1. VOLUME

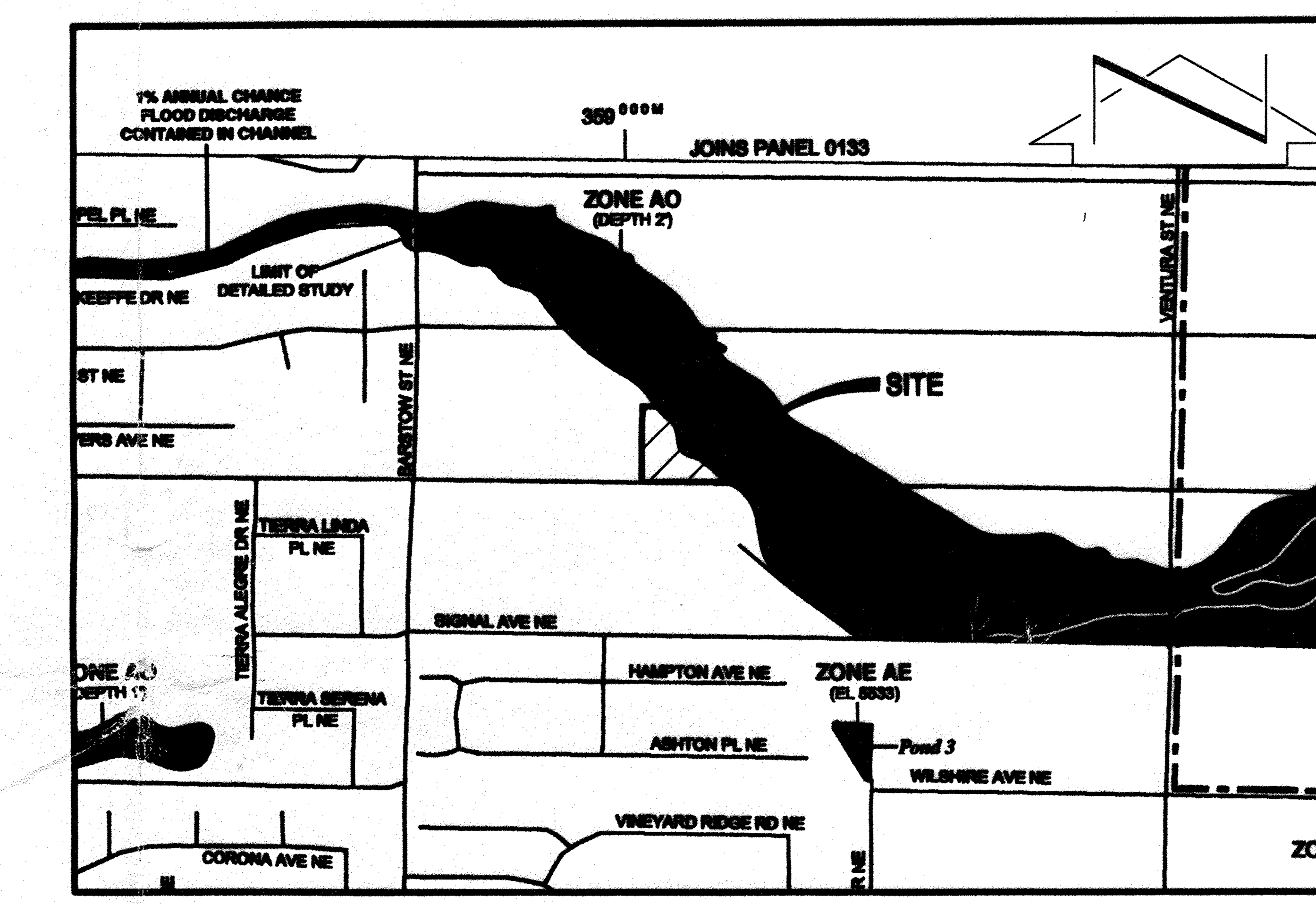
$\Delta V_{100} = 17{,}440-10{,}580 = 6{,}860$ CF (INCREASE)

2. PEAK DISCHARGE

$\Delta Q_{100} = 11.0-8.0 = 3.0$ CFS (INCREASE)



VICINITY MAP C-20
SCALE: 1" = 750'±



F.I.R.M. PANEL 141 OF 825
SCALE: 1" = 500'±

LEGAL DESCRIPTION

LOTS 25-27, BLOCK 3, NORTH ALBUQUERQUE ACRES, TRACT 3, UNIT 3

PROJECT BENCHMARK

AN ACS 1 3/4" ALUMINUM DISK STAMPED "ACS BM, 11-C19" EPOXIED TO TOP OF A CONCRETE CURB LOCATED AT THE NNW RETURN OF BARSTOW ST. AND OAKLAND AVENUE N.E.
ELEVATION = 5480.97 FEET (NGVD 1929)

T.B.M.

T.B.M. #1
A SPIKE WITH JMA RED CAP LOCATED APPROXIMATELY 114 FEET NORTH OF THE NORTH EDGE OF ALAMEDA BLVD. N.E. AND APPROXIMATELY 80 FEET EAST OF A CMU WALL AS SHOWN ON SHEET 2.
ELEVATION = 5515.76 FEET

T.B.M. #2
A SPIKE WITH JMA RED CAP LOCATED NORTH OF THE SITE AS SHOWN ON SHEET 2.
ELEVATION = 5522.79 FEET

INDEX OF DRAWINGS

J. GRAEME MEANS NEW MEXICO 13676 REGISTERED PROFESSIONAL ENGINEER
7/25/2006

RECEIVED JUL 25 2006 HYDROLOGY SECTION

DRB PROJECT # ____________

JEFF MORTENSEN & ASSOCIATES, INC.
6010-B MIDWAY PARK BLVD. N.E.
ALBUQUERQUE NEW MEXICO 87109
ENGINEERS SURVEYORS (505) 345-4250
FAX: 505 345-4254 ESTABLISHED 1977

COVER SHEET, VICINITY MAP, FIRM, INDEX OF DRAWINGS AND DRAINAGE REPORT
RICH COURT

DESIGNED BY G.M./J.D.S.
DRAWN BY JLP
APPROVED BY J.G.M.

NO.	DATE	BY	REVISIONS

JOB NO. 2005.070.4
DATE 07-2006
SHEET 1 OF 4

File Path: E:\DATA\ACAD14\2005.070.4\ | Plot Date: 07-24-2006
File Name: 50704CV.DWG | Plot Time: 4:28 pm

KEYED NOTES

EXISTING EASEMENT

1. TEMPORARY PUBLIC DRAINAGE EASEMENT GRANTED BY DOCUMENT FILED 04-19-2005, BOOK A95, PAGE 3821, DOC. #2005053982

NEW EASEMENTS

2. PUBLIC UTILITY EASEMENT
3. 6' PUBLIC DRAINAGE EASEMENT
4. PUBLIC ROADWAY EASEMENT (TO BE VACATED AT A LATER DATE UPON DEDICATED RE-ALIGNMENT OF ALAMEDA BOULEVARD N.E.)
6. PRIVATE DRAINAGE EASEMENT

VACATED RIGHT-OF-WAY

5. FORMER ALAMEDA BOULEVARD N.E. STREET RIGHT-OF-WAY, PUBLIC ROADWAY EASEMENT (TO BE VACATED AT A LATER DATE UPON DEDICATED RE-ALIGNMENT OF ALAMEDA BOULEVARD N.E.)

SCALE: 1" = 20'

PROJECT BENCHMARK

AN ACS 1 3/4" ALUMINUM DISK STAMPED "ACS BM, 11-C19" EPOXIED TO TOP OF A CONCRETE CURB LOCATED AT THE NNW RETURN OF BARSTOW ST. AND OAKLAND AVENUE N.E.
ELEVATION = 5480.97 FEET (NGVD 1929)

T.B.M.

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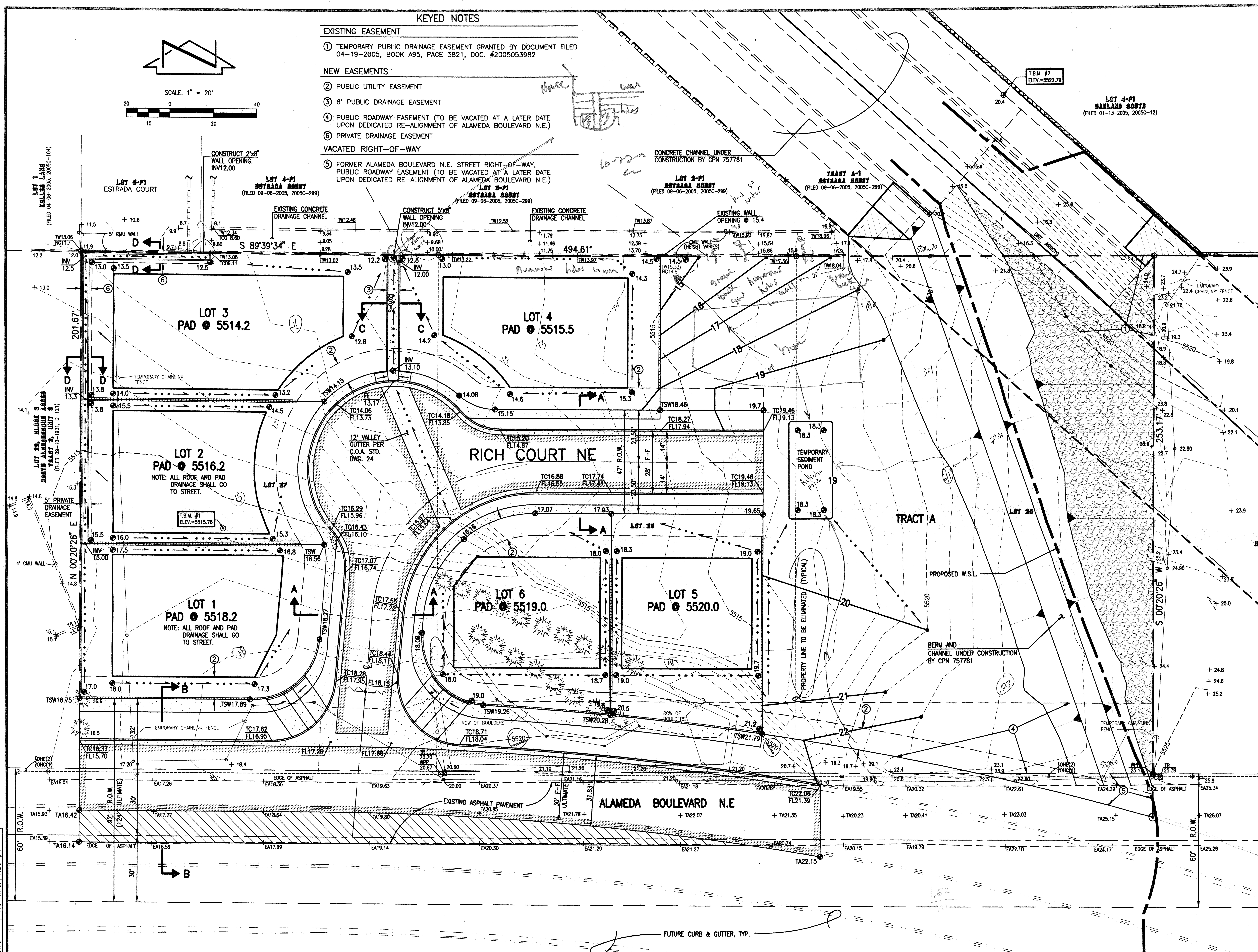
A SPIKE WITH JMA RED CAP LOCATED APPROXIMATELY 114 FEET NORTH OF THE NORTH EDGE OF ALAMEDA BLVD. N.E. AND APPROXIMATELY 80 FEET EAST OF A CMU WALL AS SHOWN HEREON.

ELEVATION = 5515.76 FEET

T.B.M. #2
A SPIKE WITH JMA RED CAP LOCATED NORTH OF THE SITE AS SHOWN HEREON.
ELEVATION = 5522.79 FEET

LEGEND

CMU	CONCRETE MASONRY UNIT
EA	EDGE OF ASPHALT
NG	NATURAL GROUND
OHC(1)	OVERHEAD COMMUNICATION (NO. OF LINES)
OHE(2)	OVERHEAD ELECTRIC (NO. OF LINES)
TA	TOP OF ASPHALT
TR	TELEPHONE RISER
TW	TOP OF WALL
WPP	WOOD POWER POLE
+ 19.6	EXISTING SPOT ELEVATION
	EXISTING CONTOUR
	EXISTING CONIFEROUS TREE
	PROPOSED ASPHALT PAVEMENT
	PROPOSED CONCRETE
	PROPOSED TEMPORARY PAVEMENT
	PERIMETER WALL
	RIP-RAP (BY CPN 757781)



THIS IS NOT A BOUNDARY SURVEY. APPARENT PROPERTY CORNERS ARE SHOWN HEREON FOR ORIENTATION PURPOSES ONLY. BOUNDARY AND TOPOGRAPHIC DATA SHOWN HEREON IS FROM A SURVEY DATED 5/09/06 BY THIS OFFICE, NMPS 11184. PROPOSED LOTS AND EASEMENTS ARE FROM THE PRELIMINARY PLAT PREPARED BY THIS OFFICE, NMPS 11184.

J. GRAEME MEANS, NEW MEXICO, 13676, REGISTERED PROFESSIONAL SURVEYOR — 7/25/2006

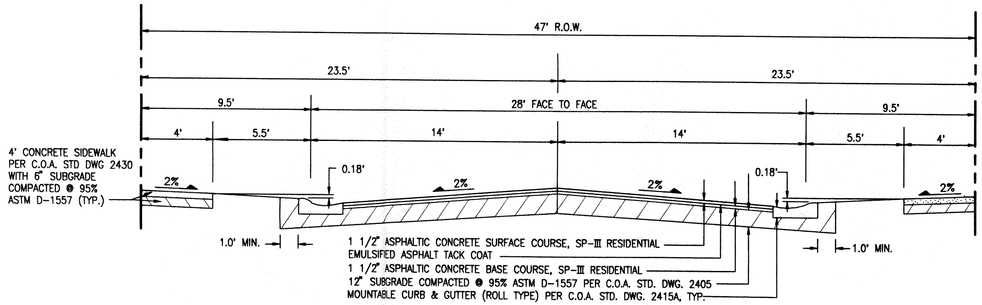
RECEIVED JUL 25 2006 HYDROLOGY SECTION

JEFF MORTENSEN & ASSOCIATES, INC. 6010-B MIDWAY PARK BLVD. N.E. ALBUQUERQUE, NEW MEXICO 87109 ENGINEERS, SURVEYORS (505) 345-4250 FAX: 505 345-4254, ESTABLISHED 1977	APPROVED FOR ROUGH GRADING / CITY HYDROLOGY / DATE	**GRADING PLAN RICH COURT**	DESIGNED BY J.D.S./G.M.; DRAWN BY S.G.H.; APPROVED BY G.M.

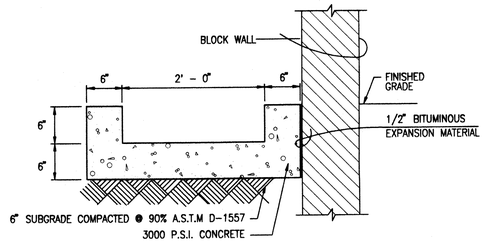
NO.	DATE	BY	REVISIONS

JOB NO. 2005.070.4
DATE 07-2006
SHEET 2 OF 4

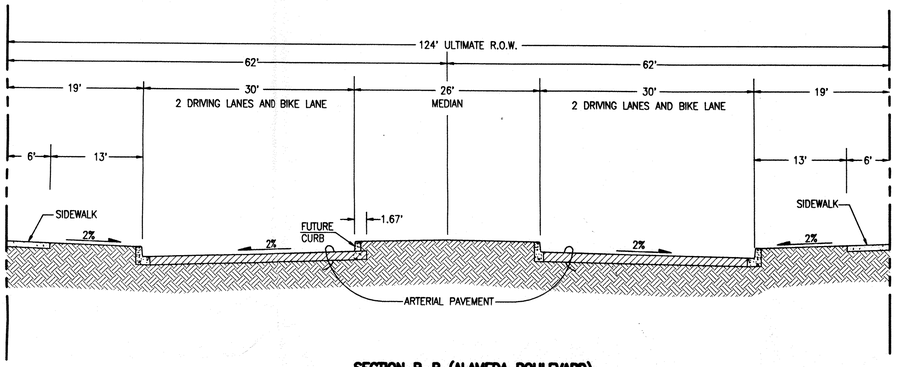
File Path: | Plot Date: 07-24-2006
File Name: 50704GR.DWG | Plot Time: 4:29 pm



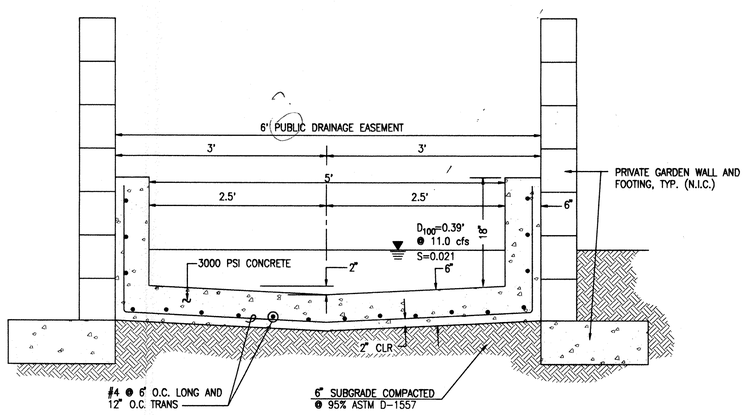
SECTION A-A (RICH COURT)
SCALE: 1" = 4'



SECTION D-D
SCALE: 1" = 1' - 0"



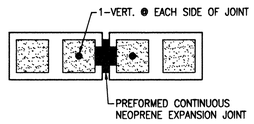
SECTION B-B (ALAMEDA BOULEVARD)
SCALE: 1" = 10' HORIZONTAL
1" = 4' VERTICAL



SECTION C-C
SCALE: 1"=1'-0"
NOTE: REFER TO C.O.A. STD. DWG. 2260 FOR GENERAL NOTES AND CONSTRUCTION NOTES (TYPE "B" LINING)

RETAINING WALL NOTES:

1. 8"X8"X16" CMU OF UBC STD. 24-4 OR 24-5.
2. USE KNOCK-OUT BOND BEAM BLOCK AT 4'-0" MAX C.C., VERTICALLY, AND 1 #4 CONTINUOUS.
3. FILL ALL BLOCK VOIDS WITH 3000 PSI CONCRETE.
4. REINFORCING TO BE INTERMEDIATE GRADE STEEL. fs=20,000 psi
5. IN LIEU OF CONTINUOUS KNOCK-OUT BOND BEAMS, CONTRACTOR MAY INSTALL DUR-O-WALL REINFORCING EVERY SECOND COURSE.
6. SPLICE SHALL BE 40 BAR DIA. MINIMUM FOR VERTICAL BARS. ALL OTHER SHALL BE 20 BAR DIA. MINIMUM.
7. CONCRETE FILL SHALL BE 21 DAYS OLD OR ACHIEVE 70% OF DESIGN STRENGTH PRIOR TO BACKFILLING.
8. INSTALL MASONRY CONTROL JOINTS PER TYPICAL DETAIL AT UNIFORM SPACINGS OF 20' (MIN.) TO 24' (MAX.).



TYPICAL MASONRY CONTROL JOINT DETAIL
SCALE: 1" = 1'- 0"

GENERAL NOTES:

1. ALL WORK DETAILED ON THESE PLANS TO BE PERFORMED UNDER CONTRACT SHALL, EXCEPT AS OTHERWISE STATED OR PROVIDED FOR HEREON, BE CONSTRUCTED IN ACCORDANCE WITH THE CITY OF ALBUQUERQUE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION – 1986, UPDATE 7.
2. TWO (2) WORKING DAYS PRIOR TO ANY EXCAVATION, CONTRACTOR MUST CONTACT NEW MEXICO ONE CALL SYSTEM, 260-1990 FOR LOCATION OF EXISTING UTILITIES.
3. IF ANY UTILITY LINES, PIPELINES, OR UNDERGROUND UTILITY LINES ARE SHOWN ON THESE DRAWINGS, THEY ARE SHOWN IN AN APPROXIMATE MANNER ONLY, AND SUCH LINES MAY EXIST WHERE NONE ARE SHOWN. IF ANY SUCH EXISTING LINES ARE SHOWN, THE LOCATION IS BASED UPON INFORMATION PROVIDED BY THE OWNER OF SAID UTILITY, AND THE INFORMATION MAY BE INCOMPLETE, OR MAY BE OBSOLETE BY THE TIME CONSTRUCTION COMMENCES. THE ENGINEER HAS CONDUCTED ONLY PRELIMINARY INVESTIGATION OF THE LOCATION, DEPTH, SIZE, OR TYPE OF EXISTING UTILITY LINES, PIPELINES, OR UNDERGROUND UTILITY LINES. THIS INVESTIGATION IS NOT CONCLUSIVE, AND MAY NOT BE COMPLETE, THEREFORE, MAKES NO REPRESENTATION PERTAINING THERETO, AND ASSUMES NO RESPONSIBILITY OR LIABILITY THEREFORE. THE CONTRACTOR SHALL INFORM ITSELF OF THE LOCATION OF ANY UTILITY LINE, PIPELINE, OR UNDERGROUND UTILITY LINE IN OR NEAR THE AREA OF THE WORK IN ADVANCE OF AND DURING EXCAVATION WORK. THE CONTRACTOR IS FULLY RESPONSIBLE FOR ANY AND ALL DAMAGE CAUSED BY ITS FAILURE TO LOCATE, IDENTIFY AND PRESERVE ANY AND ALL EXISTING UTILITIES, PIPELINES, AND UNDERGROUND UTILITY LINES. IN PLANNING AND CONDUCTING EXCAVATION, THE CONTRACTOR SHALL COMPLY WITH STATE STATUTES, MUNICIPAL AND LOCAL ORDINANCES, RULES AND REGULATIONS, IF ANY, PERTAINING TO THE LOCATION OF THESE LINES AND FACILITIES.
4. SHOULD A CONFLICT EXIST BETWEEN THESE PLANS AND ACTUAL FIELD CONDITIONS, THE CONTRACTOR SHALL PROMPTLY NOTIFY THE ENGINEER IN WRITING SO THAT THE CONFLICT CAN BE RESOLVED WITH A MINIMUM AMOUNT OF DELAY FOR ALL PARTIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL INTERPRETATIONS IT MAKES WITHOUT FIRST CONTACTING THE ENGINEER AS REQUIRED ABOVE.
5. THE CONTRACTOR SHALL MAINTAIN ACCESS TO ADJACENT PROPERTIES DURING CONSTRUCTION.
6. ALL WORK ON THIS PROJECT SHALL BE PERFORMED IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE AND LOCAL LAWS, RULES AND REGULATIONS CONCERNING SAFETY AND HEALTH.
7. THE CONTRACTOR SHALL ENSURE THAT NO SOIL ERODES FROM THE SITE INTO PUBLIC RIGHT-OF-WAY OR ONTO PRIVATE PROPERTY.
8. THE CONTRACTOR SHALL PROMPTLY CLEAN UP ANY MATERIAL EXCAVATED WITHIN THE PUBLIC RIGHT-OF-WAY SO THAT THE EXCAVATED MATERIAL IS NOT SUSCEPTIBLE TO BEING WASHED DOWN THE STREET.
9. WHEN APPLICABLE, THE CONTRACTOR SHALL SECURE "TOPSOIL DISTURBANCE PERMIT" PRIOR TO BEGINNING CONSTRUCTION. AN EXCAVATION PERMIT IS REQUIRED FOR ALL WORK WITHIN PUBLIC RIGHT-OF-WAY.
10. A DISPOSAL SITE FOR ALL EXCESS EXCAVATION MATERIAL (CONTAMINATED OR OTHERWISE), ASPHALTIC PAVING, CONCRETE PAVING, ETC. SHALL BE OBTAINED BY THE CONTRACTOR IN COMPLIANCE WITH APPLICABLE REGULATIONS. ALL COSTS INCURRED IN OBTAINING A DISPOSAL SITE AND IN HAUL THERETO SHALL BE CONSIDERED INCIDENTAL TO CONSTRUCTION, THEREFORE, NO SEPARATE PAYMENT SHALL BE MADE.
11. A BORROW SITE FOR IMPORT MATERIAL SHALL BE OBTAINED BY THE CONTRACTOR IN COMPLIANCE WITH APPLICABLE REGULATIONS. ALL COSTS INCURRED IN OBTAINING A BORROW SITE AND IN HAUL THERETO SHALL BE CONSIDERED INCIDENTAL TO CONSTRUCTION, THEREFORE, NO SEPARATE PAYMENT SHALL BE MADE.
12. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SAFELY OBTAINING THE REQUIRED COMPACTION. THE CONTRACTOR SHALL SELECT AND USE METHODS WHICH SHALL NOT BE INJURIOUS OR DAMAGING TO THE EXISTING FACILITIES AND STRUCTURES WHICH SURROUND THE WORK AREAS.
13. THE CONTRACTOR SHALL CONFINE HIS WORK WITHIN THE CONSTRUCTION LIMITS IN ORDER TO PRESERVE THE EXISTING IMPROVEMENTS AND SO AS NOT TO INTERFERE WITH THE OPERATIONS OF THE EXISTING FACILITIES.
14. ALL DIMENSIONS AND RADII OF CURB, CURB RETURNS, AND WALLS ARE SHOWN TO THE FACE OF CURB AND/OR WALL.
15. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL EXCAVATE AND VERIFY THE HORIZONTAL AND VERTICAL LOCATION OF ALL POTENTIAL OBSTRUCTIONS. SHOULD A CONFLICT EXIST, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IN WRITING SO THAT THE CONFLICT CAN BE RESOLVED WITH A MINIMUM AMOUNT OF DELAY.
16. ALL FILL SHALL BE FREE FROM VEGETATION, DEBRIS, AND OTHER DELETERIOUS MATERIALS.
17. ALL FILL SHALL BE COMPACTED TO A MINIMUM OF 95% ASTM D-1557 UNLESS A GREATER COMPACTION REQUIREMENT IS OTHERWISE SPECIFIED. ALL EARTHWORK FOR BUILDING PADS SHALL BE PERFORMED IN ACCORDANCE WITH THE STRUCTURAL AND GEOTECHNICAL SPECIFICATIONS WHERE AVAILABLE.
18. ALL EXISTING UTILITIES ENCOUNTERED WITHIN THE WORK LIMITS SHALL BE ADJUSTED TO GRADE AND SHALL BE CONSIDERED INCIDENTAL TO CONSTRUCTION.
19. THE PAD ELEVATIONS SHOWN HEREON ARE FOR ROUGH GRADING PURPOSES.
20. FINISHED FLOOR ELEVATIONS MAY VARY FROM THE PAD ELEVATIONS AND WILL BE DETERMINED AS A FUNCTION OF INDIVIDUAL HOUSE DESIGN.
21. FINISHED FLOOR ELEVATIONS SHOULD BE ESTABLISHED AT A MINIMUM OF FOUR INCHES ABOVE PAD ELEVATIONS; DEVIATIONS FROM THESE GUIDELINES MUST BE BASED ON THE RECOMMENDATIONS AND/OR DESIGN OF A COMPETENT DESIGN PROFESSIONAL.
22. CROSS-LOT DRAINAGE WILL ONLY BE PERMITTED AS SHOWN ON THE GRADING PLAN.
23. WALLS SHALL BE CONSTRUCTED BY THE DEVELOPER PRIOR TO DRAINAGE CERTIFICATION FOR FINANCIAL GUARANTY RELEASE. A SEPARATE PLAN REVIEW AND PERMIT PROCESS IS REQUIRED FOR ALL RETAINING AND GARDEN WALLS.
24. THE FINISHED GRADING OF EACH LOT SHALL BE ACCOMPLISHED BY THE LOT OWNER OR ITS BUILDER. ALL DEVELOPED RUNOFF SHALL BE DIRECTED TO THE STREETS.
25. MAXIMUM UNPROTECTED SLOPES SHALL BE 3:1; MINIMUM SLOPES SHALL BE 1%.
26. ROUGH GRADING TOLERANCES SHALL BE ± 0.1 FT FOR BUILDING PADS AND STREETS AND ± 0.33' FOR ALL OTHER GRADING PROVIDED THE GRADES MEET THE INTENT OF THIS GRADING PLAN.
27. UNDER FEDERAL LAW, THE OPERATOR(S) OF CONSTRUCTION SITES WHERE 1 OR MORE ACRES ARE DISTURBED MUST SUBMIT A NOTICE OF INTENT (N.O.I.) TO OBTAIN COVERAGE UNDER AN NPDES STORM WATER CONSTRUCTION GENERAL PERMIT.
28. **CAUTION: THESE DRAWINGS DO NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY WHICH SHALL REMAIN THE RESPONSIBILITY OF THE CONTRACTOR. ALL EXCAVATION, TRENCHING AND SHORING ACTIVITIES MUST BE CARRIED-OUT IN ACCORDANCE WITH OSHA 29 CFR 1926, SUBPART P-EXCAVATIONS.**

J. GRAEME MEANS, NEW MEXICO (13676), REGISTERED PROFESSIONAL ENGINEER
7/25/2006

RECEIVED
JUL 25 2006
HYDROLOGY SECTION

DRB PROJECT #____

File Path: E:\WORK\WORK\507045A\
File Name: 507045D.DWG
Plot Date: 07-21-2006
Plot Time: 09:11 am

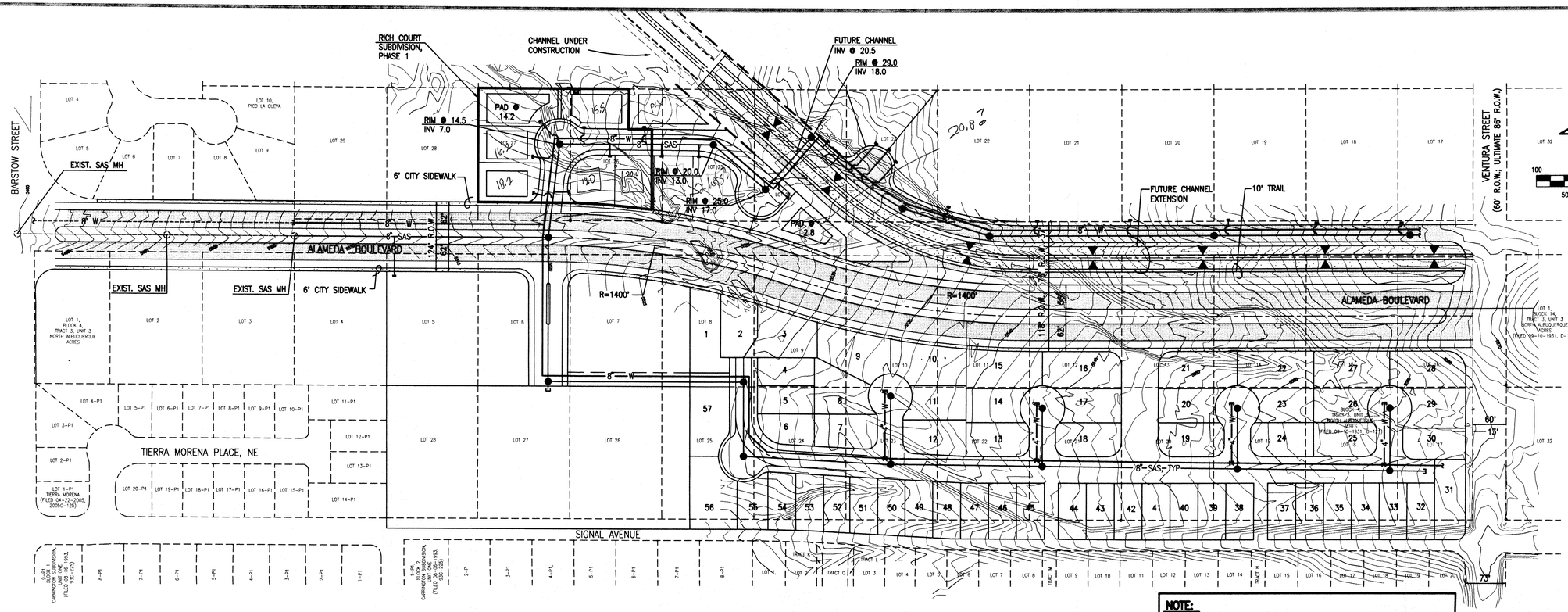
JEFF MORTENSEN & ASSOCIATES, INC.
6010-B MIDWAY PARK BLVD. N.E.
ALBUQUERQUE □ NEW MEXICO 87109
ENGINEERS □ SURVEYORS (505) 345-4250
FAX 505 345-4254 □ ESTABLISHED 1977

SECTIONS, DETAILS AND GENERAL NOTES
RICH COURT

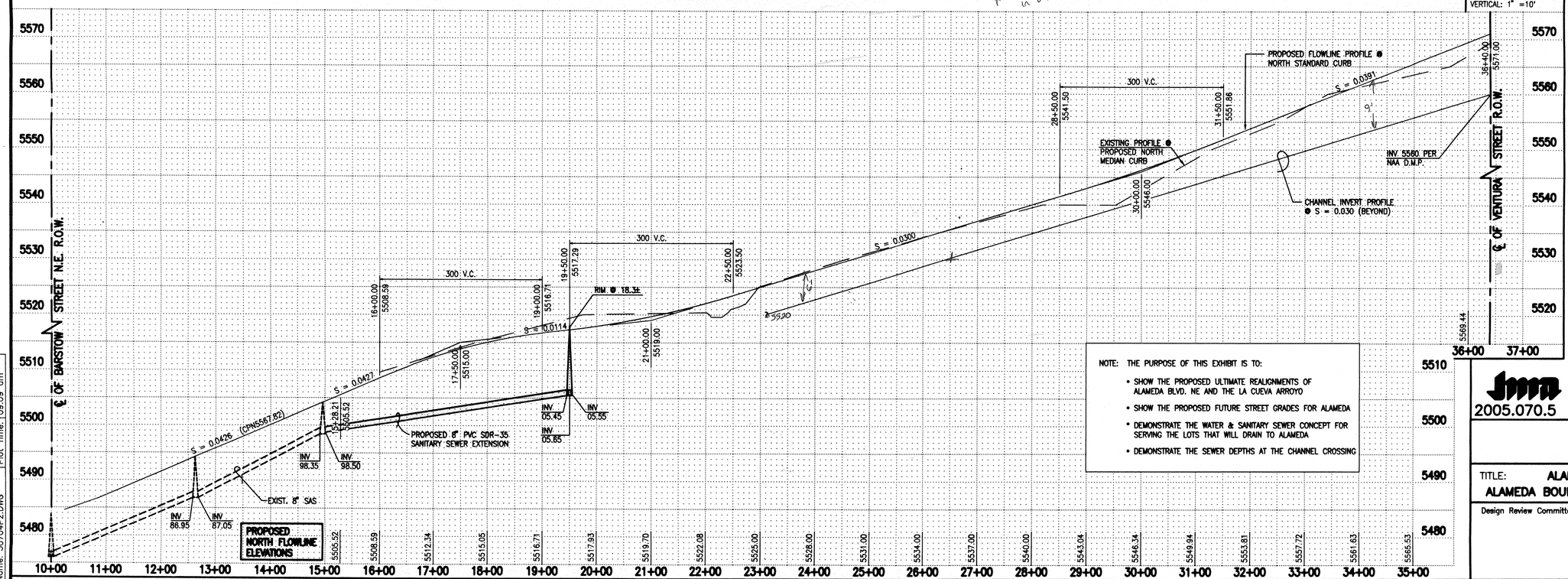
DESIGNED BY G.M./J.D.S.
DRAWN BY J.L.P.
APPROVED BY J.G.M.

NO.	DATE	BY	REVISIONS

JOB NO. 2005.070.4
DATE 07-2006
SHEET 3 OF 4



ALAMEDA BLVD N.E.



NOTE:
THIS IS NOT A BOUNDARY SURVEY. EXISTING LOTTING IS REPRESENTED FROM RECORD PLATTING AND IS SHOWN FOR ORIENTATION PURPOSES ONLY. EXISTING TOPOGRAPHY IS FROM CPN 757781, LA CUEVA CHANNEL. PROPOSED LOTTING IS CONCEPTUAL AND REPRESENTS A POSSIBLE DEVELOPMENT SCENARIO.

SCALE:
HORIZONTAL: 1" = 100'
VERTICAL: 1" =10'

NOTE: THE PURPOSE OF THIS EXHIBIT IS TO:

- SHOW THE PROPOSED ULTIMATE REALIGNMENTS OF ALAMEDA BLVD. NE AND THE LA CUEVA ARROYO
- SHOW THE PROPOSED FUTURE STREET GRADES FOR ALAMEDA
- DEMONSTRATE THE WATER & SANITARY SEWER CONCEPT FOR SERVING THE LOTS THAT WILL DRAIN TO ALAMEDA
- DEMONSTRATE THE SEWER DEPTHS AT THE CHANNEL CROSSING

elevation for Rich Ct pad 28 max height in Lot 35

AS BUILT INFORMATION
CONTRACTOR — DATE
STAKED BY — DATE
INSPECTION'S COMPLETE BY — DATE
FIELD VERIFICATION BY — DATE
DRAWING CORRECTED BY — DATE
MICRO-FILM INFORMATION
RECORDED BY — DATE

BENCH MARKS
N/A

SURVEY INFORMATION
FIELD NOTES

NO.	BY	DATE
	N/A	

ENGINEER'S SEAL
JEFFREY MELNIS — NEW MEXICO — REGISTERED PROFESSIONAL ENGINEER
PRELIMINARY

NO.	DATE	REMARKS	BY
		Revisions	
		DESIGN	
		Designed By	G.M./JDS
		Drawn By	J.L.P.
		Checked By	G.M.

Date 05-2006
Date 05-2006
Date 06-2006

JEFF MORTENSEN & ASSOCIATES, INC.
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ALBUQUERQUE ☐ NEW MEXICO 87109
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☐ FAX 505 345-4254 ☐ ESTABLISHED 1977

2005.070.5

CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT
ENGINEERING DEVELOPMENT GROUP

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TITLE: **ALAMEDA BLVD NE PLAN AND PROFILE**
ALAMEDA BOULEVARD/LA CUEVA ARROYO ALIGNMENT STUDY

Design Review Committee	City Engineer Approval	Last Design Update	Mo./Day/Yr.	Mo./Day/Yr.

City Project No. | Zone Map No. C-20 | Sheet 4 Of 4

File Path: E:\WORK\ALAMEDA\ | Plot Date: 07-21-2006
File Name: 50704P2.DWG | Plot Time: 08:09 am