

# ENGINEER'S DRAINAGE CERTIFICATION

## A. EXECUTIVE SUMMARY

THE FOLLOWING DRAINAGE RELATED ITEMS ARE REQUIRED FOR FINANCIAL GUARANTY RELEASE FOR THIS PROJECT:

- 1) ENGINEER'S DRAINAGE CERTIFICATION OF THE DRB APPROVED GRADING AND DRAINAGE PLAN FOR VINEYARD ESTATES, UNIT IV-B.
- 2) CITY ACCEPTANCE OF OFFSITE DRAINAGE IMPROVEMENTS CONSTRUCTED BY AMAFCA UNDER CITY PROJECT # 693481.
- 3) LETTER OF MAP REVISION (LOMR).

THIS SUBMITTAL ADDRESSES ITEM 1 ONLY. ITEMS 1 AND 2 HAVE ALREADY BEEN ADDRESSED AS FOLLOWS: THE CITY ENGINEER ISSUED THE CERTIFICATE OF COMPLETION AND ACCEPTANCE FOR PROJECT # 693481 ON MAY 28, 2004, AND THE LOMR WAS ISSUED BY FEMA ON MARCH 23, 2004.

## B. CERTIFICATION

I, J. GRAEME MEANS, NMPE 13676, OF THE FIRM JEFF MORTENSEN & ASSOCIATES, INC., HEREBY CERTIFY THAT THIS PROJECT HAS BEEN GRADED AND DRAINED IN SUBSTANTIAL COMPLIANCE WITH AND IN ACCORDANCE WITH THE DESIGN INTENT OF THE DRB APPROVED PLAN DATED 08/28/2003. THE RECORD SURVEY ELEVATION INFORMATION EDITED ONTO THE ORIGINAL DESIGN DOCUMENT WAS OBTAINED IN FEBRUARY OF 2005 BY CHARLES G. CALA, NMPS 11184, ALSO OF THE FIRM JEFF MORTENSEN & ASSOCIATES, INC. I FURTHER CERTIFY THAT THE DATA PROVIDED IS REPRESENTATIVE OF ACTUAL SITE CONDITIONS AND IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. DUE TO GROUND DISTURBANCES ATTRIBUTABLE TO HOME, WALL, AND DRY UTILITY SITE CONSTRUCTION, SOME GRADES WERE OUT OF COMPLIANCE AT THE TIME OF THE GROUND SURVEY. THESE GRADES HAVE BEEN RESTORED TO SUBSTANTIAL COMPLIANCE AND VERIFIED BY FOLLOWUP VISUAL INSPECTIONS CONDUCTED BY THIS ENGINEER IN MARCH OF 2005. AS INDICATED BY THE LEGEND, THE GRADES VERIFIED BY ENGINEER'S VISUAL INSPECTION ARE CIRCLED AS OPPOSED TO THE GROUND SURVEY DATA SHOWN AS CORRECTED OR CHECKED. GRADES NOT CHECKED, CORRECTED, OR CIRCLED WERE NOT ABLE TO BE VERIFIED AT THE TIME OF CERTIFICATION DUE TO HOUSE FOOTING EXCAVATION OR OTHER PRIVATE CONSTRUCTION ACTIVITY. THIS CERTIFICATION IS SUBMITTED IN SUPPORT OF A REQUEST FOR FINANCIAL GUARANTY RELEASE.

THE FOLLOWING IS A BRIEF DESCRIPTION OF THE VARIOUS PROJECT ELEMENTS:

### 1) HOUSE PADS

THE HOUSE PAD ELEVATIONS WERE CERTIFIED BY CHARLES G. CALA, NMPS 11184 ON OCTOBER 28TH OF 2003. ALL PADS WERE VERIFIED PRIOR TO THE COMMENCEMENT OF HOME CONSTRUCTION AND THE GRADES WERE FOUND TO BE WITHIN 0.1 FEET OF THE APPROVED PLAN ELEVATION AND IN SUBSTANTIAL COMPLIANCE WITH THE DRB APPROVED PLAN.

### 2) LOT GRADES

LOT GRADES (FLOWLINES AND PROPERTY CORNERS) WERE VERIFIED BY GROUND SURVEY UPON COMPLETION OF INFRASTRUCTURE INSTALLATION. THOSE FOUND BY THE GROUND SURVEY TO MATCH THE DESIGN ELEVATION HAVE BEEN MARKED ON THE PLAN WITH A CHECK MARK. THOSE FOUND BY THE GROUND SURVEY TO BE OUTSIDE OF THE SPECIFIED CONSTRUCTION TOLERANCES, BUT STILL IN SUBSTANTIAL COMPLIANCE WITH THE DRB APPROVED GRADING AND DRAINAGE PLAN HAVE BEEN CORRECTED WITH THE ACTUAL RECORD ELEVATION NOTED.

AS A RESULT OF PRIVATE WALL CONSTRUCTION, HOME CONSTRUCTION, AND PUBLIC UTILITY INSTALLATIONS THAT FOLLOWED ROUGH GRADING, SOME OF THE REAR YARD GRADES AND SIDE YARD SWALES WERE FOUND TO BE OUT OF COMPLIANCE BY THE VERIFICATION SURVEY. IN THESE CASES, THE CORRECT GRADE WAS STAKED AT THE TIME OF THE VERIFICATION SURVEY, AND THE LOT GRADING WAS SUBSEQUENTLY RESTORED TO COMPLIANCE BY THE RESPONSIBLE PARTY AND VISUALLY INSPECTED BY THIS ENGINEER IN MARCH OF 2005 AND DETERMINED TO BE IN SUBSTANTIAL CONFORMANCE WITH THE GRADES AND WITH THE INTENT SET FORTH BY THE DRB APPROVED PLAN. IN THESE INSTANCES, THE GRADES HAVE BEEN CIRCLED AND HAVE NOT BEEN CORRECTED OR MARKED ON THE PLAN WITH A CHECK. THIS CERTIFICATION OF LOT GRADES REPRESENTS THE CONDITION OF THE LOTS AT THE TIME OF THE AFOREMENTIONED SURVEYS AND INSPECTIONS. CHANGES TO THE GRADES ATTRIBUTABLE TO SUBSEQUENT PRIVATE CONSTRUCTION ACTIVITIES ARE BEYOND OUR CONTROL, AND FINISHED GRADING FOR ALL LOTS SHALL BE RESTORED AND COMPLETED UPON DEVELOPMENT AND LANDSCAPING OF EACH LOT BY THEIR RESPECTIVE BUILDERS. THE FINISHED LOT ELEVATIONS AND SLOPES MUST CONFORM TO THE APPROVED PLAN.

### 3) PUBLIC INFRASTRUCTURE

THIS PROJECT INCLUDED PUBLIC AND PRIVATE CURB AND GUTTER, THAT WAS ACCOMPLISHED UNDER CITY PROJECT NO. 705283. AS INDICATED BY THE AS-BUILT DRAWINGS DATED 04-02-2004 AND ENGINEER'S CERTIFICATE OF SUBSTANTIAL COMPLIANCE DATED 05-13-2004 FOR THAT PROJECT (BY J.GRAEME MEANS, NMPE 13676, THESE ITEMS WERE FOUND TO BE IN SUBSTANTIAL COMPLIANCE WITH THE APPROVED PLAN.

### 4) LOT DEVELOPMENT

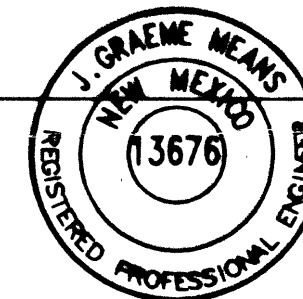
THIS PLAN ALSO IDENTIFIES THE LOTS UPON WHICH HOUSES HAVE BEEN COMPLETED OR ARE UNDER CONSTRUCTION AT THE TIME OF THIS CERTIFICATION. THE LOTS ARE SHOWN BY A CIRCLED "H?". AS PREVIOUSLY INDICATED, HOME CONSTRUCTION INCLUDES NUMEROUS ACTIVITIES THAT MAY DISRUPT SITE GRADING, PARTICULARLY FOOTING EXCAVATION, LANDSCAPING, WALL CONSTRUCTION, AND PRIVATE UTILITY INSTALLATION. CHANGES TO THE GRADES ATTRIBUTABLE TO SUBSEQUENT PRIVATE CONSTRUCTION ACTIVITIES ARE BEYOND OUR CONTROL, AND FINISHED GRADING FOR ALL LOTS SHALL BE RESTORED AND COMPLETED UPON DEVELOPMENT AND LANDSCAPING OF EACH LOT BY THEIR RESPECTIVE BUILDERS. THE FINISHED LOT ELEVATIONS AND SLOPES MUST CONFORM TO THE APPROVED PLAN.

### 5) RETAINING WALLS

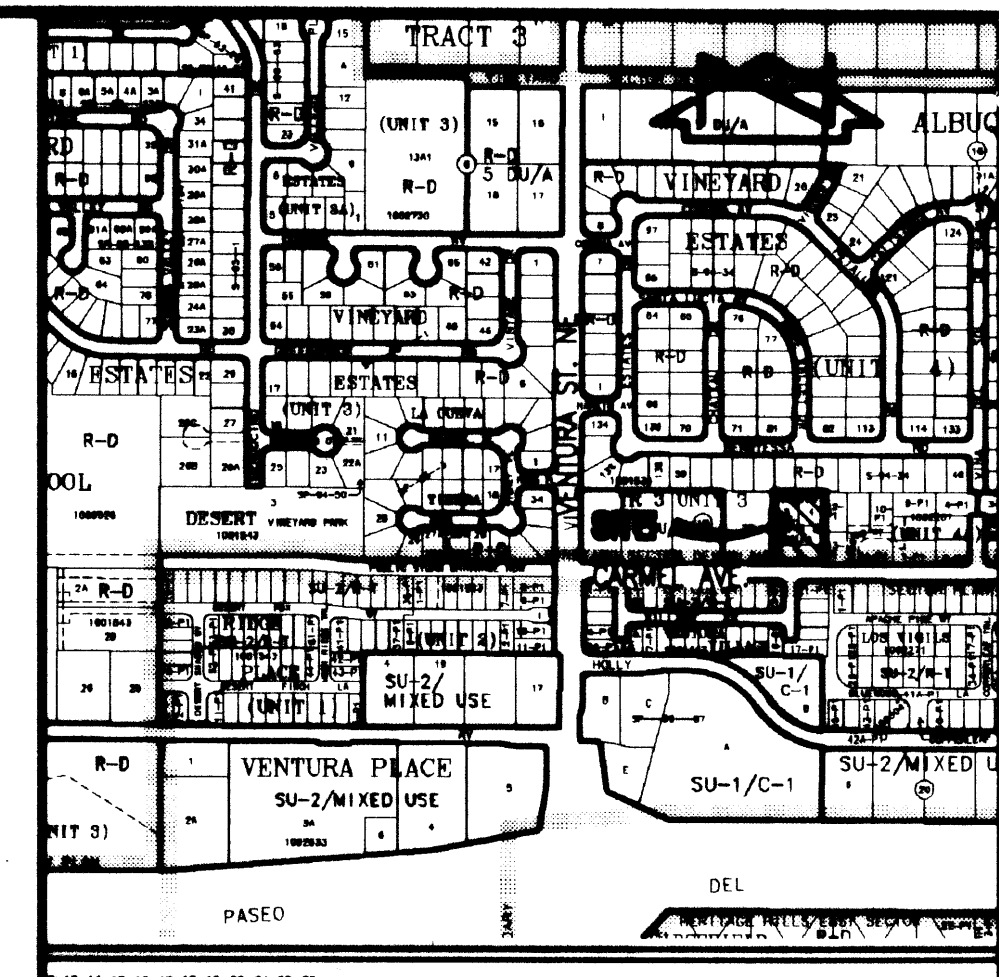
THIS PLAN IDENTIFIES LOCATIONS WHERE RETAINING WALL CONSTRUCTION WAS REQUIRED TO ACCOMPLISH THE DESIGN GRADES. AS DETERMINED BY A COMBINATION OF GROUND SURVEY, FIELD INSPECTION, AND EVALUATION RELATIVE TO THE PLAN GRADES, THE WALLS HAVE BEEN CONSTRUCTED IN A MANNER THAT WILL FACILITATE THE DESIGN GRADES AND ARE THEREFORE IN SUBSTANTIAL COMPLIANCE WITH THE APPROVED PLAN.

THIS CERTIFICATION EVALUATES GRADING AND DRAINAGE ISSUES ONLY AND DOES NOT ADDRESS COMPLIANCE WITH A.D.A. GUIDELINES. THE RECORD INFORMATION IS NOT NECESSARILY COMPLETE AND INTENDED ONLY TO VERIFY SUBSTANTIAL COMPLIANCE OF GRADING AND DRAINAGE ASPECTS OF THIS PLAN. THOSE RELYING ON THIS PLAN ARE ADVISED TO OBTAIN INDEPENDENT VERIFICATION OF ITS ACCURACY BEFORE USING IT FOR ANY OTHER PURPOSE.

*J. Graeme Means*  
J. GRAEME MEANS, NMPE 13676



03/09/2005  
DATE



VICINITY MAP  
SCALE: 1" = 750'

C-20

File Path: E:\WORK\2005\03-08-2005  
File Name: 30447CERT.DWG  
Plot Date: 03-08-2005  
Plot Time: 1:05 pm



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

## ENGINEER'S CERTIFICATION VINEYARD ESTATES, UNIT IV-B

DESIGNED BY	DRAWN BY	APPROVED BY	NEL	DATE	BY	REVISIONS	JOB NO.
G.M.		G.M.					2003.044.7
							DATE
							03-2005
							SHEET
							1A OF 2

DRB PROJECT # 1002933  
HYDROLOGY # C20/D49

## KEYED NOTES

## NEW EASEMENTS (TO BE GRANTED BY PLAT)

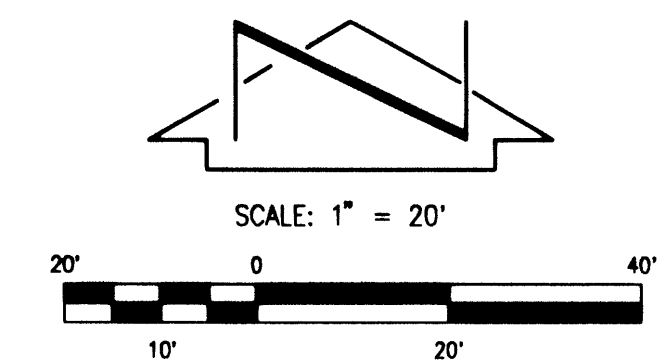
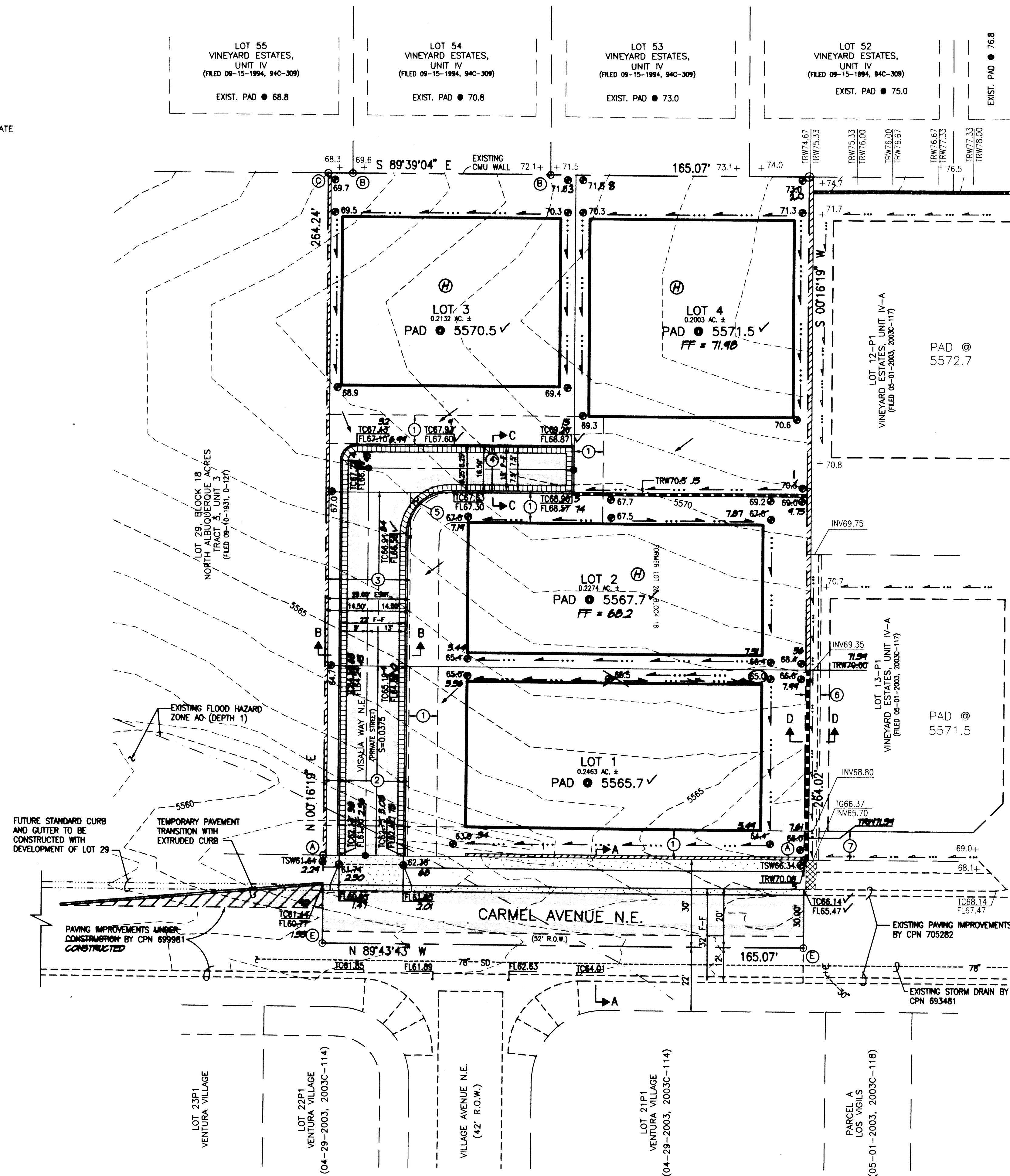
- ① 10' PUBLIC UTILITY EASEMENT.
- ② 29' PRIVATE ACCESS, PRIVATE STORM DRAINAGE, AND CITY OF ALBUQUERQUE PUBLIC WATER LINE AND PUBLIC SANITARY SEWER EASEMENTS SERVING LOTS 1, 2, 3 AND 4. MAINTENANCE OF THE PRIVATE EASEMENTS SHALL BE THE RESPONSIBILITY OF THE OWNERS OF LOTS 1, 2, 3 AND 4.
- ③ 29' PRIVATE ACCESS, PRIVATE STORM DRAINAGE, AND CITY OF ALBUQUERQUE PUBLIC WATER LINE AND PUBLIC SANITARY SEWER EASEMENTS SERVING LOTS 2, 3 AND 4. MAINTENANCE OF THE PRIVATE EASEMENTS SHALL BE THE RESPONSIBILITY OF THE OWNERS OF LOTS 2, 3 AND 4.
- ④ 16.50' PRIVATE ACCESS, PRIVATE STORM DRAINAGE, PRIVATE WATER LINE AND PRIVATE SANITARY SEWER EASEMENTS SERVING LOT 4. MAINTENANCE SHALL BE THE RESPONSIBILITY OF THE OWNERS OF LOTS 3 AND 4.
- ⑤ PRIVATE ACCESS AND PRIVATE STORM DRAINAGE EASEMENT SERVING LOTS 3 AND 4. MAINTENANCE SHALL BE THE RESPONSIBILITY OF THE OWNERS OF LOTS 2, 3 AND 4.

## EXISTING EASEMENTS - OFFSITE

- ⑥ 5' PRIVATE DRAINAGE EASEMENT GRANTED BY PLAT 2003C-117
- ⑦ 10' PUBLIC UTILITY EASEMENT GRANTED BY PLAT 2003C-117

## MONUMENTS

- A #5 REBAR, NO I.D., TAGGED W/WASHER STAMPED "NMPS 11184"
- B #5 REBAR W/CAP STAMPED "NEW MEXICO PS 11184"
- C #5 REBAR W/CAP STAMPED "NEW MEXICO PS 11184"
- D P.K. NAIL W/WASHER STAMPED "NMPS 11184"
- E CALCULATED POSITION, NO POINT SET.



## PROJECT BENCHMARK

ACS STATION "HEAVEN" (TIED TO PASEO DEL NORTE ROADWAY CONSTRUCTION IN 1999)  
PREVIOUS ELEVATION = 5378.79 FEET (NGVD 1929)

THIS BENCHMARK HAS BEEN USED TO PROVIDE UNIFORMITY BETWEEN THIS SURVEY AND THE PREVIOUS SURVEYS CONDUCTED FOR RELATED NORTH DOMINGO BACA ARROYO PROJECTS.

THE ELEVATION FOR ACS STATION "5-C20", AN ACS 1 3/4" ALUMINUM DISK STAMPED "ACS BM, 5-C20", EPOXYED TO THE TOP OF THE CONCRETE DROP INLET, AT THE NINE CURB RETURN IN THE NORTHEAST QUADRANT OF THE INTERSECTION OF VENTURA STREET AND ANAHEIM AVENUE N.E., BASED UPON THIS DATUM IS 5552.84 FEET (NGVD 1929). THE C.O.A. PUBLISHED ELEVATION IS 5552.71 FEET (NGVD 1929)

## LEGEND

+	EXISTING CONTOUR
●	EXISTING SPOT ELEVATION
—	PROPOSED SPOT ELEVATION
—	EXISTING FLOWLINE
—	PROPOSED FLOWLINE
—	DIRECTION OF FLOW
—	EXISTING RETAINING WALL
—	PROPOSED RETAINING WALL
—	GARDEN WALL
—	MOUNTABLE CURB
TC	TOP OF CURB
FL	FLOWLINE
INV	INVERT
TRW	TOP OF RETAINING WALL
TG	TOP OF GRATE
—	PROPOSED ASPHALT PAVEMENT
—	PROPOSED TEMPORARY PAVEMENT

THIS IS NOT A BOUNDARY SURVEY. APPARENT PROPERTY CORNERS ARE SHOWN HEREON FOR INFORMATION ONLY. BOUNDARY DATA IS TAKEN FROM THE PRELIMINARY PLAT FOR THIS PROJECT PREPARED BY THIS OFFICE. EXISTING TOPOGRAPHY SHOWN HEREON IS FROM A TOPOGRAPHIC SURVEY CONDUCTED BY THIS OFFICE 09/02/03. IMPROVEMENTS AND GRADES FOR VINEYARD ESTATES UNIT IV-A AND FOR VENTURA VILLAGE ARE TAKEN FROM THE APPROVED PLANS FOR THESE PROJECTS, CPN'S 705282 AND 699981, RESPECTIVELY, AND SHOWN AS EXISTING (CONSTRUCTION CURRENTLY IN PROGRESS).

## AS-BUILT LEGEND

- Ⓜ EXISTING HOME OR HOME UNDER CONSTRUCTION
- ✓ RECORD ELEVATION = DESIGN ELEVATION
- 67.8-2 RECORD ELEVATION
- ⑥5.0 GRADE NOT IN COMPLIANCE AT TIME OF FIELD SURVEY, BUT CORRECTED AND VERIFIED IN THE FIELD BY VISUAL INSPECTION.

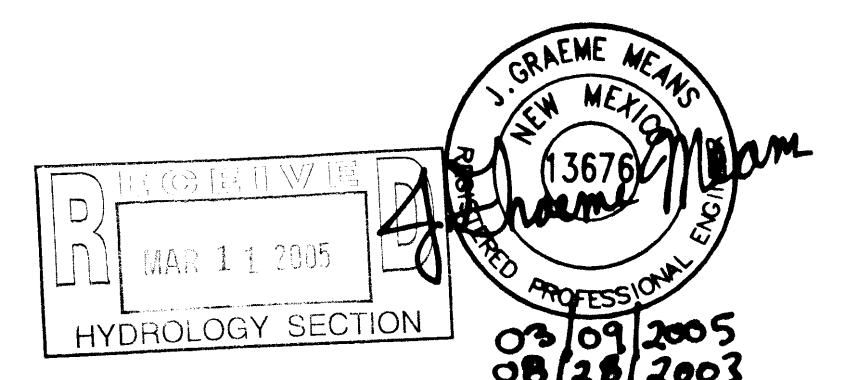


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# GRADING PLAN

## VINEYARD ESTATES, UNIT IV-B

DESIGNED BY	DATE	BY	REVISIONS	JOB NO.
G.M.	02/03	G.M.	ENGINEER'S CERTIFICATION	2003.044.3
DRAWN BY	DATE	BY	REVISIONS	DATE
S.G.H.				08-2003
APPROVED BY	DATE	BY	REVISIONS	SHEET
G.M.				1 OF 1





## I. EXECUTIVE SUMMARY

- A. VINEYARD ESTATES UNIT IV-B IS A PROPOSED RESIDENTIAL SUBDIVISION LOCATED WITHIN THE VINEYARD SECTOR PLAN AREA OF NORTH ALBUQUERQUE ACRES TO BE CONSTRUCTED BY HOECH REAL ESTATE CORPORATION (HREC).
- B. A PORTION OF THE SITE LIES WITHIN A FLOOD HAZARD ZONE ASSOCIATED WITH THE MAIN BRANCH OF THE NORTH DOMINGO BACA ARROYO (NDBA).
- C. IN ACCORDANCE WITH PREVIOUSLY APPROVED PLANS, THE DESIGNATED OUTFALL FOR THE SITE IS TO CARMEL AVENUE NE AND THE PERMANENT NDBA/CARMEL AVENUE STORM DRAINAGE IMPROVEMENTS CONTAINED THEREIN.
- D. AMAFCA HAS SUCCESSFULLY BID, AWARDED, AND IS APPROXIMATELY 98% COMPLETE WITH A CONTRACT TO CONSTRUCT THE PERMANENT NDBA/CARMEL AVENUE STORM DRAIN IMPROVEMENTS AS PART OF A COST SHARING AGREEMENT WITH HREC. THE STORM DRAIN PORTION OF THE PROJECT IS IN PLCAE AND PROVIDES THE OUTFALL FOR THE FREE DISCHARGE OF FULLY DEVELOPED RUNOFF FROM THIS SITE.
- E. AN APPROVED CLOWR WAS PREPARED SUPPORTING ELIMINATION OF THE UNDERLYING FLOOD HAZARD ZONE AS PART OF THE AFOREMENTIONED AMAFCA COST-SHARING AGREEMENT THAT ALSO INCLUDES A POST-CONSTRUCTION LOWR.
- F. DEVELOPED SITE RUNOFF WILL BE DIRECTED TO THE PROPOSED INTERNAL PRIVATE STREET AND WILL DRAIN TO CARMEL AVENUE NE WHICH IS SIZED FOR FREE DISCHARGE FROM THIS SITE.

## II. INTRODUCTION

PROPOSED LOTS 1 THROUGH 4 WILL BE SINGLE FAMILY DETACHED RESIDENTIAL HOMES CONSTRUCTED ON INDIVIDUALLY PLATTED LOTS. THE DEVELOPER IS HOECH REAL ESTATE CORPORATION (HREC). VISALIA WAY NE WILL BE A PRIVATE STUB DEAD END STREET.

THE SITE IS UNDEVELOPED. THIS PROJECT WILL CONSTRUCT ITS PERMANENT CARMEL AVENUE STREET FRONTAGE. THE UPSTREAM CARMEL FRONTAGE TO THE EAST WAS RECENTLY CONSTRUCTED BY HREC IN SUPPORT OF ITS LOS VIGILS AND VINEYARD ESTATES, UNIT IV-A PROJECTS. DEVELOPED RUNOFF FROM THIS SITE WILL BE COLLECTED WITHIN THE PROPOSED PRIVATE STREET THAT WILL DRAIN TO THE RECENTLY CONSTRUCTED PUBLIC 78" STORM DRAIN IN CARMEL.

THE RESPONSIBILITY AND FUNDING FOR THE CARMEL AVENUE STORM DRAIN EXTENSION AND POST-CONSTRUCTION LOWR ARE INCLUDED IN THE APPROVED COST-SHARING AGREEMENT FOR THE AMAFCA PROJECT WHICH WAS APPROXIMATELY 98% COMPLETE AT THE TIME THIS PLAN WAS PREPARED. THE PREVIOUSLY APPROVED CLOWR DRAINAGE REPORT FOR THE AMAFCA PROJECT SUPPORTED THE CARMEL STORM DRAIN EXTENSION, THE ELIMINATION OF THE UNDERLYING FLOODPLAIN, AND DEMONSTRATED DOWNSTREAM CAPACITY FOR THIS PROJECT. A DRAFT INFRASTRUCTURE LIST IS SUBMITTED WITH THIS REPORT. THIS SUBMITTAL IS MADE IN SUPPORT OF THE FOLLOWING APPROVALS:

- 1) DRB PRELIMINARY AND FINAL PLAT FOR VINEYARD ESTATES, UNIT IV-B
- 2) DRC APPROVAL FOR THE INFRASTRUCTURE PLANS TO BE SUBMITTED UPON PRELIMINARY PLAT APPROVAL
- 3) ROUGH GRADING APPROVAL

## III. PROJECT DESCRIPTION:

AS SHOWN HEREON BY VICINITY MAP C-20, THE SITE IS LOCATED IN THE NORTH ALBUQUERQUE ACRES AREA OF ALBUQUERQUE. THE SITE IS LOCATED EAST OF VENTURA ST. N.E. ON THE NORTH SIDE OF CARMEL AVE. N.E., AND LIES WITHIN THE VINEYARD SECTOR PLAN AREA. THE EXISTING LAND DESCRIPTION IS: LOT 28, BLOCK 18, TRACT 3, UNIT 3, NORTH ALBUQUERQUE ACRES. THE SITE IS ZONED R-D (5 DU/AC). THE PROPOSED DEVELOPMENT IS 4 UNITS ON 1 GROSS ACRES (4 DU/AC) AND IS CONSISTENT WITH THE EXISTING ZONINGS AND 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, REVISED 04/02/2002, THE SW CORNER OF THE SITE IS IMPACTED BY A DESIGNATED FLOOD HAZARD ZONE (AO, DEPTH 1) ASSOCIATED WITH THE NORTH DOMINGO BACA ARROYO. THE CLOWR SUPPORTING THIS PROJECT AND THE CARMEL/NDBA AMAFCA PROJECT ADDRESSED THE ELIMINATION OF THIS FLOODPLAIN AND WAS APPROVED BY FEMA. A POST-CONSTRUCTION LOWR WILL BE PREPARED AND SUBMITTED BY THIS OFFICE TO OFFICIALLY ELIMINATE THIS FLOOD HAZARD ZONE UPON COMPLETION OF THE PROPOSED CARMEL AVENUE STORM DRAIN PROJECT BY AMAFCA.

## IV. 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 WHICH ARE KNOWN TO THE ENGINEER AT THE TIME OF PLAN PREPARATION.

- A. THE "NORTH AND SOUTH DOMINGO BACA ARROYO AND PASEO DEL NORTE CORRIDOR DRAINAGE MANAGEMENT PLAN" PREPARED FOR AMAFCA BY RESOURCE TECHNOLOGY, INC. (RTI) DATED DECEMBER, 1991. THIS PLAN HAS BEEN ADOPTED BY AMAFCA AS A GUIDELINE FOR DRAINAGE MANAGEMENT WITHIN THIS AREA WHICH INCLUDES THE NORTH DOMINGO BACA ARROYO (NDBA). AMAFCA RESOLUTION 1992-3 DATED JANUARY 03, 1992 FORMALLY ADOPTED THIS PLAN WHICH IDENTIFIES THE EXTENSION OF PERMANENT DRAINAGE IMPROVEMENTS WITHIN THE NDBA CORRIDOR, AND ESTABLISHED DEVELOPED DRAINAGE BASIN BOUNDARIES WITHIN THE PLAN AREAS. AS SHOWN BY FIGURE 5-6 OF THIS PLAN, THE SUBJECT AREA IS IDENTIFIED TO DEVELOP RESIDENTIAL AND TO DRAIN TO FUTURE PERMANENT NDBA IMPROVEMENTS CONSTRUCTED WITHIN THE CARMEL CORRIDOR. THE PROPOSED DEVELOPMENT IS CONSISTENT WITH THIS CONCEPT.
- B. VINEYARD ESTATES UNIT IV GRADING AND DRAINAGE PLAN PREPARED BY JEFF MORTENSEN AND ASSOCIATES, INC. (JMA) DATED 09/23/1994 (CITY HYDROLOGY FILE C20/D3C). THIS PLAN SUPPORTED THE CONSTRUCTION OF THE VINEYARD ESTATES, UNIT IV SUBDIVISION TO THE NORTH (CITY PROJECT # 3391.94) AND ESTABLISHED THE CONCEPT WHEREBY THE LOTS FRONTING IN CARMEL WOULD HAVE FREE DISCHARGE TO FUTURE NORTH DOMINGO BACA CARMEL AVENUE STORM DRAIN IMPROVEMENTS. THE PROPOSED IMPROVEMENTS AND DRAINAGE CONCEPTS ARE CONSISTENT WITH THOSE IDENTIFIED THEREIN.
- C. MASTER DRAINAGE PLAN - NORTH ARROYO DE DOMINGO BACA, PREPARED BY JMA DATED 02/28/1996. THIS PLAN WAS SPECIFICALLY PREPARED FOR ALBUQUERQUE PUBLIC SCHOOLS (APS) TO SERVE AS A GUIDE IN IDENTIFYING PROPOSED IMPROVEMENTS TO THE NDB ARROYO BETWEEN THE UPPER AND LOWER NORTH DOMINGO BACA DAMS. THE PLAN ALSO PRESENTED ALIGNMENT, IMPROVEMENTS, OWNERSHIP, HYDROLOGY, PHASING, AND PARTICIPATION WITH MORE CURRENT INFORMATION AND IN GREATER DETAIL THAN THE RTI PLAN (REFERENCE A). THE PROPOSED IMPROVEMENTS ARE CONSISTENT WITH THOSE IDENTIFIED IN THAT PLAN.
- D. FINAL NORTH ALBUQUERQUE ACRES MASTER DRAINAGE PLAN PREPARED BY RTI FOR THE CITY OF ALBUQUERQUE DATED OCTOBER, 1998 AND HYDROLOGY REPORT FOR NORTH ALBUQUERQUE ACRES AND SANDIA HEIGHTS DRAINAGE STUDY PHASES I AND II PREPARED BY RTI FOR BERNALILLO COUNTY DATED NOVEMBER, 1998. THESE DRAINAGE MANAGEMENT PLANS SHARE A COMMON HYDROLOGIC AHYMO MODEL FOR THE NDB ARROYO BASIN WHICH WAS DEVELOPED BY MODIFYING THAT ORIGINALLY DEVELOPED BY RTI FOR AMAFCA IN THEIR 1991 REPORT (REFERENCE A). THESE REPORTS ARE CURRENT UPDATES TO THE ORIGINAL RTI PLAN AND THE PROPOSED IMPROVEMENTS AND DRAINAGE CONCEPT ARE CONSISTENT WITH THOSE IDENTIFIED THEREIN.
- E. REQUEST FOR CONDITIONAL LETTER OF MAP REVISION (CLOWR) FOR THE NORTH DOMINGO BACA ARROYO CARMEL AVENUE STORM DRAIN EXTENSION PREPARED BY JMA DATED 06/14/2002 AND APPROVED BY FEMA 11/08/2002 (FEMA CASE NUMBER 02-06-2145R). THIS CLOWR AND ASSOCIATED DRAINAGE REPORT WAS PREPARED TO SUPPORT THE PROPOSED COST SHARE PROJECT BY AMAFCA AND TO REMOVE THE ASSOCIATED FLOODPLAIN DESIGNATION FROM THE NDBA WEST OF A POINT MIDBLOCK BETWEEN HOLBROOK STREET AND EUBANK. IT SERVES AS A MASTER DRAINAGE PLAN FOR DEVELOPMENT IN THE NORTH DOMINGO BACA WATERSHED AND INCLUDED A PRELIMINARY DESIGN OF THE CARMEL STORM DRAIN AS.
- F. GRADING AND DRAINAGE PLAN FOR VENTURA VILLAGE DATED 11/25/2002 (DRB # 1001463) AND INFRASTRUCTURE PLANS (CPN 699981) BY CLARK CONSULTING ENGINEERS. THIS PROJECT, LOCATED AT THE SOUTHEAST CORNER OF VENTURA STREET AND CARMEL AVE, AND IMMEDIATELY DOWNSTREAM OF VINEYARD ESTATES, UNIT IV-B, IS FINANCIALLY RESPONSIBLE FOR CONSTRUCTING ITS CARMEL AVENUE PAVING FRONTAGE ON THE SOUTH SIDE OF CARMEL.
- G. CONSTRUCTION PLANS FOR THE NORTH DOMINGO BACA ARROYO CARMEL AVENUE STORM DRAIN EXTENSION PREPARED BY JMA DATED 10/07/2002 (CITY PROJECT NUMBER 693481). CONSTRUCTION OF THIS PROJECT BY AMAFCA WAS 98% COMPLETE AT THE TIME THIS REPORT WAS PREPARED. THIS CARMEL STORM DRAIN IS THE DEVELOPED DRAINAGE OUTFALL FOR THE PROPOSED IMPROVEMENTS AND THE VINEYARD ESTATES UNIT IV-B PROJECT RELIES UPON ITS CONSTRUCTION.
- H. GRADING AND DRAINAGE REPORT FOR VINEYARD ESTATES, UNIT IV-A PREPARED BY JMA DATED 12/16/2002 (DRB 1002207, CITY HYDROLOGY FILE C20/D34). THIS APPROVED REPORT SUPPORTS THE CONSTRUCTION OF A 14 LOT RESIDENTIAL SUBDIVISION, ALSO BY HREC, TO THE EAST OF THIS PROJECT. THESE PROJECTS WILL SHARE THE COMMON LOT LINE RETAINING WALL, AND THE DRAINAGE CONCEPT OF FREE DISCHARGE TO THE NORTH SIDE OF CARMEL AVENUE NE TO THE NDBA STORM DRAIN IS COMMON TO BOTH. THE VINEYARD ESTATES, UNIT IV-A PLAN INCLUDED A DOWNSTREAM STREET AND STORM DRAIN ANALYSIS OF CARMEL AVENUE IN THE FULLY DEVELOPED CONDITION THAT ALSO SUPPORTED THE DEVELOPMENT OF THE VINEYARD ESTATES UNIT IV-B AREA.

THE PROPOSED CONSTRUCTION OF RESIDENTIAL SINGLE FAMILY HOMES DRAINING DIRECTLY AND FREELY TO PERMANENT NORTH DOMINGO BACA ARROYO DRAINAGE IMPROVEMENTS AS PROPOSED AND DESCRIBED HEREIN IS CONSISTENT WITH AND IN ACCORDANCE WITH THE POLICIES AND REQUIREMENTS OF THE ABOVE LISTED DOCUMENTS, AND IS CONSISTENT WITH THE CONCEPTS PREVIOUSLY ESTABLISHED BY THE CITY AND AMAFCA FOR NORTH DOMINGO BACA ARROYO DEVELOPMENT.

## V. EXISTING CONDITIONS:

THE SITE IS UNDEVELOPED. CARMEL AVENUE NE TO THE SOUTH LIES TOPOGRAPHICALLY LOWER AND IS AN EXISTING UNDEVELOPED PUBLIC STREET. THE SOUTH HALF OF CARMEL IS CURRENTLY UNDER CONSTRUCTION AND WILL BE PAVED WITH PERMANENT CURB AND GUTTER AND HALF-WIDTH (SOUTH) PAVEMENT BY THE VENTURA VILLAGE PROJECT (REF. F). TO THE NORTH LIES VINEYARD ESTATES, UNIT IV, AN EXISTING DEVELOPED RESIDENTIAL SINGLE FAMILY SUBDIVISION. OFFSITE FLOWS DO NOT IMPACT THE SITE. THE PROPERTY TO THE WEST IS UNDEVELOPED.

## VI. DEVELOPED CONDITIONS

THE PROPOSED IMPROVEMENTS CONSIST OF 4 SINGLE FAMILY RESIDENTIAL HOMES. VISALIA WAY NE WILL BE A PRIVATE STREET. ALL LOTS WILL DRAIN TO CARMEL AVENUE NE VIA VISALIA WAY IN ACCORDANCE WITH THE GRADING PLAN ON SHEET 2. PERMANENT CARMEL AVENUE PAVING AND STORM DRAINAGE IMPROVEMENTS WILL BE CONSTRUCTED IN THE PROJECT FRONTAGE. ALTHOUGH NOT YET ACCEPTED, THE CARMEL AVENUE STORM DRAIN RECENTLY CONSTRUCTED BY AMAFCA BY CITY PROJECT # 693481 (REF. G) HAS BEEN SHOWN AS EXISTING. DOWNSTREAM STORM INLETS AND CARMEL AVENUE NE PAVING IMPROVEMENTS ARE CURRENTLY UNDER CONSTRUCTION BY VENTURA VILLAGE, CPN 699981 (REF. F). AS DEMONSTRATED BY THE CLOWR (REF E) SUPPORTING THE COST-SHARING PROJECT AND THIS DEVELOPMENT, THE CARMEL STORM DRAIN EXTENSION PROVIDES DOWNSTREAM CAPACITY FOR THE FREE DISCHARGE OF FULLY DEVELOPED RUNOFF FROM THIS SITE. A BASIN MAP AND STREET AND STORM DRAIN CALCULATIONS FOR CARMEL AVENUE NE WERE PROVIDED AS PART OF THE VINEYARD ESTATES, UNIT IV-A PROJECT (REF. H) TO ILLUSTRATE THE CARMEL AVENUE STREET HYDRAULICS AS REQUIRED TO CONFIRM THE ADEQUACY OF THE DOWNSTREAM SYSTEM.

A FEMA APPROVED CLOWR WAS PREPARED BY THIS OFFICE TO SUPPORT THE PROPOSED AMAFCA PROJECT, THIS PROJECT, AND TO SUPPORT ELIMINATION OF THE EXISTING FLOOD HAZARD ZONE IMPACTING THE SITE. A POST-CONSTRUCTION LOWR WILL BE PREPARED AND SUBMITTED BY THIS OFFICE UPON COMPLETION OF THE AMAFCA PROJECT. FLOOD INSURANCE MAY BE REQUIRED FOR ANY BUILDINGS CONSTRUCTED WITHIN THE FLOODPLAIN PRIOR TO FEMA APPROVAL OF THE LOWR.

## VII. GRADING PLAN

THE GRADING PLANS ON SHEET 2 OF THIS SUBMITTAL SHOWS: 1) EXISTING GRADES INDICATED BY SPOT ELEVATIONS AND CONTOURS AT 1'0" INTERVALS AS TAKEN FROM THE TOPOGRAPHIC SURVEY PREPARED BY JEFF MORTENSEN & ASSOCIATES, INC. DATED 09/18/2002, 2) PROPOSED GRADES AND DRAINAGE TRENDS INDICATED BY SPOT ELEVATIONS, HOUSE PAD ELEVATIONS, AND FLOWLINES 3) THE LIMIT AND CHARACTER OF THE EXISTING IMPROVEMENTS, 4) THE LIMIT AND CHARACTER OF THE PROPOSED IMPROVEMENTS, 5) THE EXISTING FLOODPLAIN LIMITS, 6) THE LIMIT AND CHARACTER OF EXISTING OFFSITE PUBLIC STORM DRAINAGE IMPROVEMENTS RECENTLY CONSTRUCTED BY AMAFCA, 7) THE LIMIT AND CHARACTER OF EXISTING UPSTREAM PAVING AND STORM DRAINAGE IMPROVEMENTS RECENTLY CONSTRUCTED BY THE VINEYARD ESTATES, UNIT IV-A PROJECT (REF. H), CPN 705282, AND 8) THE LIMIT AND CHARACTER OF PROPOSED CARMEL AVENUE PAVING IMPROVEMENTS TO BE CONSTRUCTED BY VENTURA VILLAGE, CPN 699981 (REF. F) AND CURRENTLY UNDER CONSTRUCTION.

## VIII. CALCULATIONS

THE CALCULATIONS, WHICH APPEAR HEREON, ANALYZE AND EVALUATE THE EXISTING AND DEVELOPED CONDITIONS FOR THE 100-YEAR, 6-HOUR RAINFALL EVENT. THE PEAK RATE OF DISCHARGE AND VOLUME OF RUNOFF GENERATED WAS DETERMINED IN ACCORDANCE WITH 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. AS WAS PREVIOUSLY DEMONSTRATED BY THE APPROVED CLOWR (REF. E) AND BY THE VINEYARD ESTATES, UNIT IV-A DRAINAGE REPORT (REF. H), THE PROPOSED CARMEL AVENUE STORM DRAIN IS SIZED FOR FREE DISCHARGE OF FULLY DEVELOPED RUNOFF FROM THIS SITE.

## IX. CONCLUSIONS

- A. THE PROPOSED SITE IMPROVEMENTS AND DRAINAGE CONCEPT ARE CONSISTENT WITH THE DEVELOPMENT CRITERIA ESTABLISHED BY PREVIOUSLY APPROVED PLANS FOR THIS SITE AND NDBA DEVELOPMENT.
- B. DEVELOPED RUNOFF FROM THIS SITE WILL DRAIN FREELY TO PERMANENT PUBLIC NDBA IMPROVEMENTS SIZED FOR THIS DISCHARGE, TO BE CONSTRUCTED BY AMAFCA, CITY PROJECT # 69348, FOR WHICH CONSTRUCTION WAS 98% COMPLETE AT THE TIME THIS PLAN WAS PREPARED.
- C. A SEPARATE DRAINAGE SUBMITTAL FOR CLOWR APPROVAL SUPPORTING THE AMAFCA PROJECT WAS ENDORSED BY THE CITY AND COUNTY FLOODPLAIN ADMINISTRATORS AND WAS APPROVED BY FEMA ON 11/08/2002.
- D. A POST-CONSTRUCTION LOWR SUBMITTAL SUPPORTING THE AMAFCA PROJECT WILL BE PREPARED BY THIS OFFICE UPON PROJECT COMPLETION FOR THE PURPOSES OF ELIMINATING THE UNDERLYING FLOODPLAIN.
- E. ALL PUBLIC AND PRIVATE INFRASTRUCTURE IMPROVEMENTS REQUIRED BY THIS PROPOSAL WILL BE PROVIDED FOR BY THE DRB ACTIONS SUBMITTED TO SUPPORT THIS PROJECT AND BY THE PROPOSED AMAFCA COST-SHARE PROJECT. THE INFRASTRUCTURE LIST WILL CLEARLY IDENTIFY WHICH IMPROVEMENTS ARE TO BE GUARANTEED BY THE DEVELOPER AND WHICH ARE GUARANTEED BY THE COST-SHARING AGREEMENT.
- F. THERE ARE NO DPM DESIGN VARIANCES REQUESTED AT THIS TIME, NOR ARE ANY PUBLIC EASEMENTS OR COVENANTS REQUIRED.

## CALCULATIONS

## I. PRECIPITATION ZONE = 3

$$II. P_{6,100} = P_{360} = 2.60 \text{ IN}$$

$$III. \text{TOTAL AREA } (A_T) = 1.00 \text{ AC (INCLUDES STREET FRONTAGE)}$$

## IV. LAND TREATMENTS

## A. EXISTING CONDITIONS

TREATMENT	AREA (AC)	%
A	0.70	70
C	0.30	30

## B. DEVELOPED CONDITIONS

TREATMENT	AREA (AC)	%
B	0.25	25
C	0.15	15
D	0.60	60

## V. EXISTING CONDITIONS

## A. VOLUME

$$E_w = (E_A A_A + E_B A_B + E_C A_C + E_D A_D) / A_T$$

$$V_{100} = (E_w / 12) A_T$$

$$E_w = [(0.66)(0.70) + (1.29)(0.30)] / 1.00 = 0.849 \text{ IN}$$

$$V_{100} = (0.849 / 12) 1.00 = 0.07 \text{ AC-FT} = 3.080 \text{ SF}$$

## B. PEAK DISCHARGE

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

$$Q_p = Q_{100} = (1.87)(0.70) + (3.45)(0.30) = 2.3 \text{ CFS}$$

## VI. DEVELOPED CONDITION

## A. VOLUME

$$E_w = (E_A A_A + E_B A_B + E_C A_C + E_D A_D) / A_T$$

$$E_w = [(0.92)(0.25) + (1.29)(0.15) + (2.36)(0.60)] / 1.00 = 1.84 \text{ IN}$$

$$V_{100} = (E_w / 12) A_T$$

$$V_{100} = (1.84 / 12) = 0.153 \text{ AC-FT} = 6.680 \text{ CF}$$

## B. PEAK DISCHARGE

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

$$Q_p = Q_{100} = (2.60)(0.25) + (3.45)(0.15) + (5.02)(0.60) = 4.2 \text{ CFS}$$

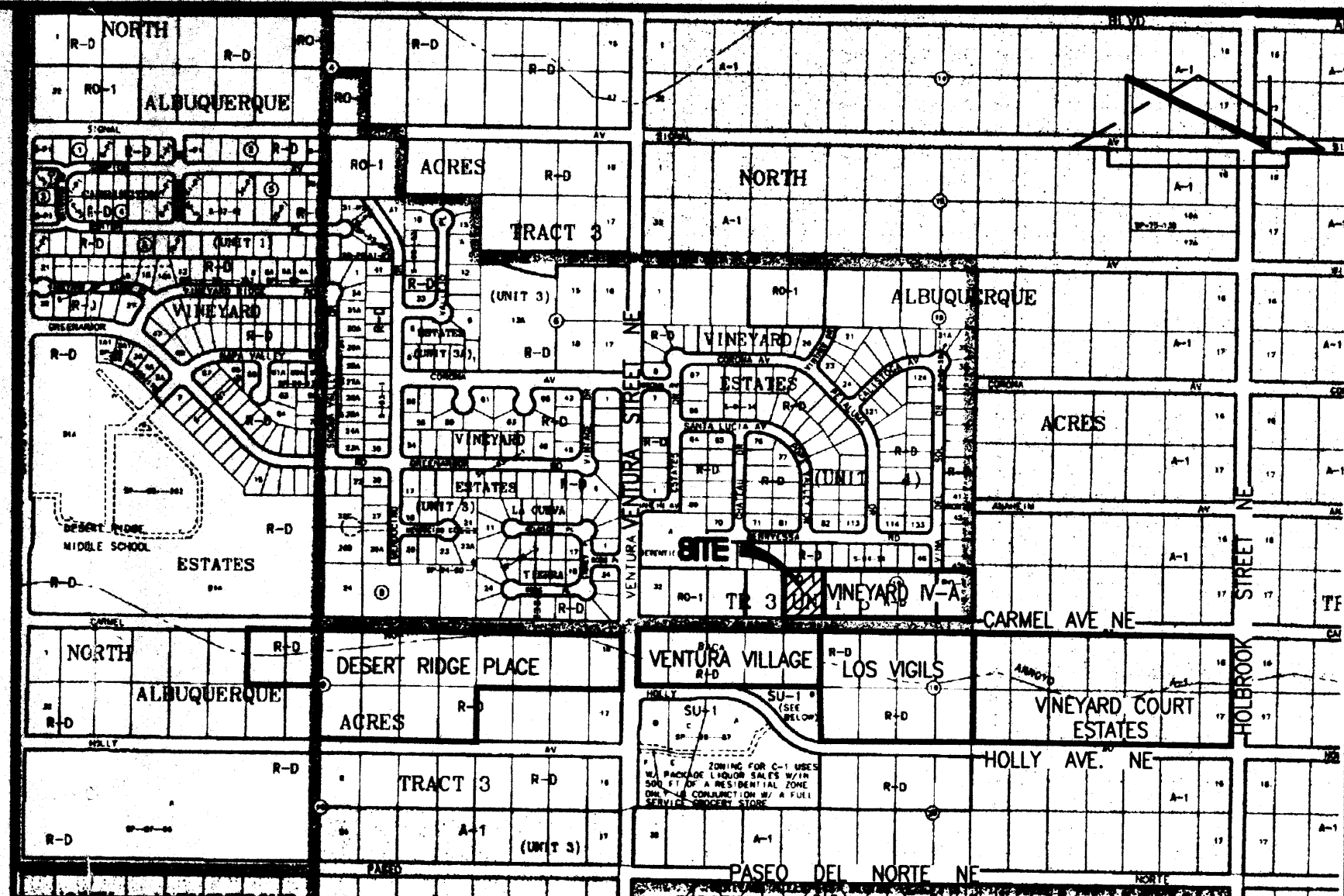
## VII. COMPARISON

$$\Delta V_{100} = 6.680 - 3.080 = 3.600 \text{ CF (INCREASE)}$$

$$\Delta Q_{100} = 4.2 - 2.3 = 1.9 \text{ CFS (INCREASE)}$$

## INDEX OF DRAWINGS

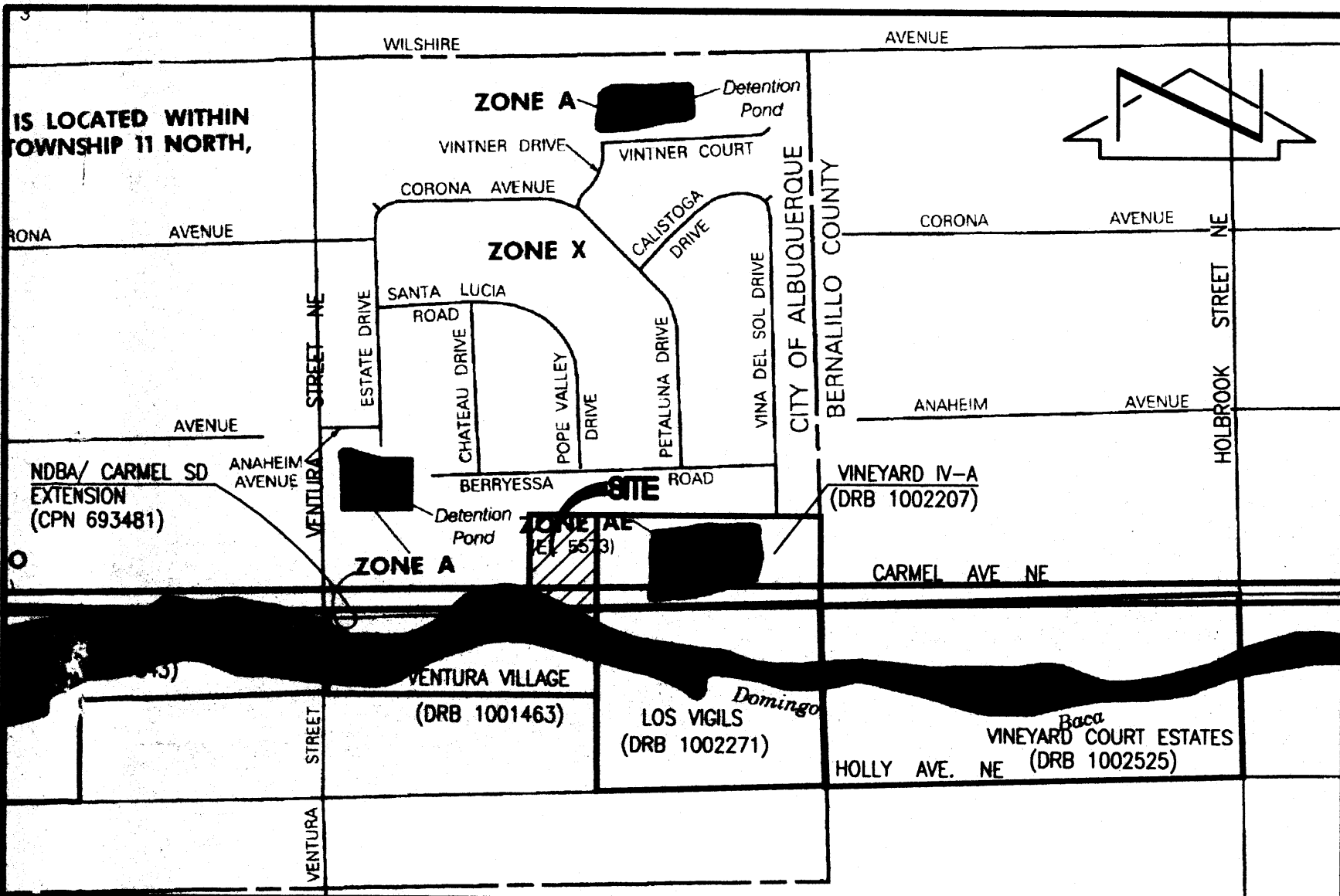
1. COVER SHEET, VICINITY MAP, FIRM, INDEX OF DRAWINGS, CALCULATIONS AND DRAINAGE REPORT
2. GRADING PLAN
3. SECTIONS, DETAILS, AND GENERAL NOTES



## VICINITY MAP

SCALE: 1" = 750'±

C-20



## F.I.R.M.

SCALE: 1" = 500'±

PANEL 141 OF 825

## LEGAL DESCRIPTION

LOTS 28, BLOCK 18, NORTH ALBUQUERQUE ACRES, TRACT 3, UNIT 3

## PROJECT BENCHMARK (NGVD 1929)

ACS STATION "HEAVEN" (TIED PRIOR TO PASEO DEL NORTE ROADWAY CONSTRUCTION IN 1999)  
PREVIOUS ELEVATION = 5378.79 FEET (NGVD 1929)

THIS BENCHMARK HAS BEEN USED TO PROVIDE CONSISTENCY BETWEEN THIS SURVEY AND SURVEYS PREVIOUSLY CONDUCTED FOR RELATED NORTH DOMINGO BACA ARROYO PROJECTS AND THEREFORE REPRESENTS THE "PROJECT DATUM" FOR THIS PROJECT.

NOTE: THE ELEVATION FOR ACS STATION "5-C20", AN ACS 1 3/4" ALUMINUM DISK STAMPED "ACS BM, 5-C20", EPOXYED TO THE TOP OF A STORM INLET, AT THE N.E. CURB RETURN IN THE NORTHEAST QUADRANT OF THE INTERSECTION OF VENTURA STREET AND ANAHEIM AVENUE N.E., BASED UPON THE "PROJECT DATUM" IS 5552.84 FEET (NGVD 29). THE C.O.A. PUBLISHED ELEVATION FOR "5-C20" IS 5552.71 FEET (NGVD 29) AND THEREFORE VARIES BY 0.13 FEET VERTICALLY FROM THE "PROJECT DATUM".

## T.B.M.

A #5 REBAR WITH CAP STAMPED "CONTROL PT NMPS 11184" SET NEAR THE NORTH SIDE OF THE CARMEL AVENUE N.E. RIGHT-OF-WAY NEAR THE SOUTHWEST CORNER OF THE EXISTING POND. ELEVATION = 5580.92 FEET (NGVD 1929)



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## COVER SHEET, VICINITY MAP, FIRM, INDEX OF DRAWINGS, CALCULATIONS AND DRAINAGE REPORT

## VINEYARD ESTATES, UNIT IV-B

DESIGNED BY	NO.	DATE	BY	REVISIONS	JOB NO.
G.M.					2003.044.3
DRAWN BY					DATE
S.G.H.					08-2003
APPROVED BY					SHEET
G.M.					1 OF 3



# KEYED NOTES

## NEW EASEMENTS (TO BE GRANTED BY PLAT)

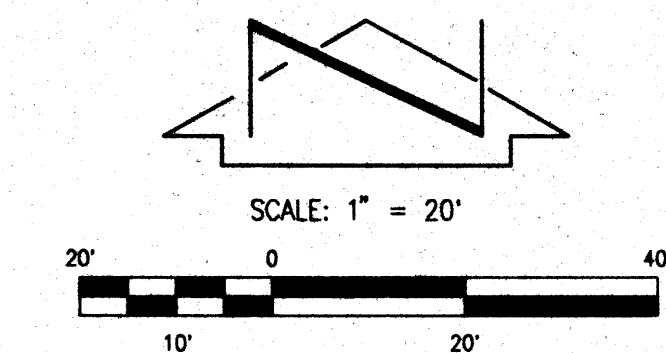
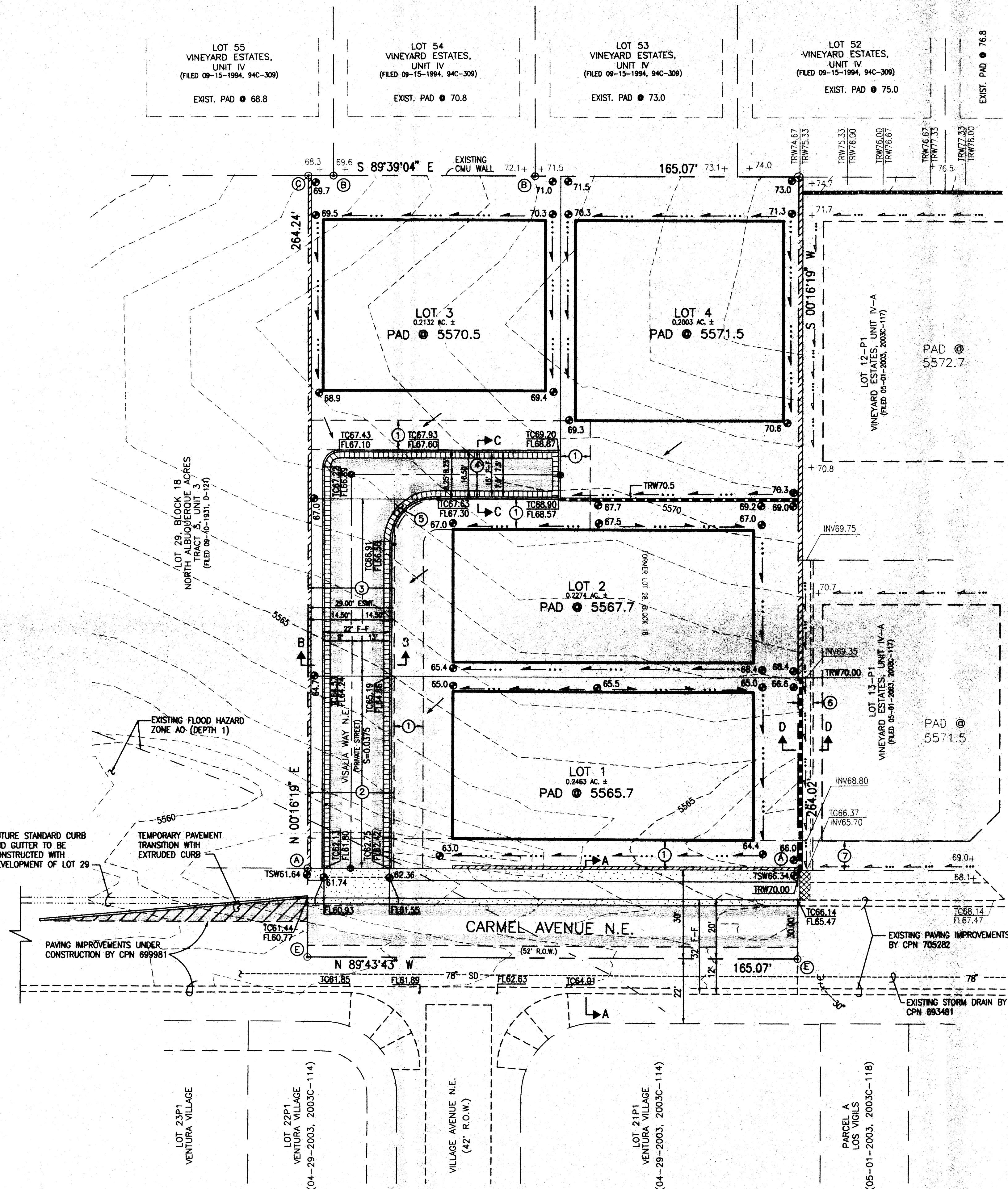
- ① 10' PUBLIC UTILITY EASEMENT.
- ② 29' PRIVATE ACCESS, PRIVATE STORM DRAINAGE, AND CITY OF ALBUQUERQUE PUBLIC WATER LINE AND PUBLIC SANITARY SEWER EASEMENTS SERVING LOTS 1, 2, 3 AND 4. MAINTENANCE OF THE PRIVATE EASEMENTS SHALL BE THE RESPONSIBILITY OF THE OWNERS OF LOTS 1, 2, 3 AND 4.
- ③ 29' PRIVATE ACCESS, PRIVATE STORM DRAINAGE, AND CITY OF ALBUQUERQUE PUBLIC WATER LINE AND PUBLIC SANITARY SEWER EASEMENTS SERVING LOTS 2, 3 AND 4. MAINTENANCE OF THE PRIVATE EASEMENTS SHALL BE THE RESPONSIBILITY OF THE OWNERS OF LOTS 2, 3 AND 4.
- ④ 16.50' PRIVATE ACCESS, PRIVATE STORM DRAINAGE, PRIVATE WATER LINE AND PRIVATE SANITARY SEWER EASEMENTS SERVING LOT 4. MAINTENANCE SHALL BE THE RESPONSIBILITY OF THE OWNERS OF LOTS 3 AND 4.
- ⑤ PRIVATE ACCESS AND PRIVATE STORM DRAINAGE EASEMENT SERVING LOTS 3 AND 4. MAINTENANCE SHALL BE THE RESPONSIBILITY OF THE OWNERS OF LOTS 2, 3 AND 4.

## EXISTING EASEMENTS - OFFSITE

- ⑥ 5' PRIVATE DRAINAGE EASEMENT GRANTED BY PLAT 2003C-117
- ⑦ 10' PUBLIC UTILITY EASEMENT GRANTED BY PLAT 2003C-117

## MONUMENTS

- A #5 REBAR, NO I.D., TAGGED W/WASHER STAMPED "NMP5 11184"
- B #5 REBAR W/CAP STAMPED "NEW MEXICO PS 11184"
- C #5 REBAR W/CAP STAMPED "NEW MEXICO PS 11184"
- D P.K. NAIL W/WASHER STAMPED "NMP5 11184"
- E CALCULATED POSITION, NO POINT SET.



## PROJECT BENCHMARK

ACS STATION "HEAVEN" (TIED TO PASEO DEL NORTE ROADWAY CONSTRUCTION IN 1999)  
PREVIOUS ELEVATION = 5378.79 FEET (NGVD 1929)  
THIS BENCHMARK HAS BEEN USED TO PROVIDE UNIFORMITY BETWEEN THIS SURVEY AND THE PREVIOUS SURVEYS CONDUCTED FOR RELATED NORTH DOMINGO BACA ARROYO PROJECTS.  
THE ELEVATION FOR ACS STATION "S-C20", AN ACS 1 3/4" ALUMINUM DISK STAMPED "ACS BM, S-C20", EPOXY TO THE TOP OF THE CONCRETE DROP INLET, AT THE NNE CURB RETURN IN THE NORTHEAST QUADRANT OF THE INTERSECTION OF VENTURA STREET AND ANAHEIM AVENUE N.E., BASED UPON THIS DATUM IS 5552.84 FEET (NGVD 1929). THE C.O.A. PUBLISHED ELEVATION IS 5552.71 FEET (NGVD 1929)

## LEGEND

---	EXISTING CONTOUR
• 74.0	EXISTING SPOT ELEVATION
• 75.55	PROPOSED SPOT ELEVATION
---	EXISTING FLOWLINE
---	PROPOSED FLOWLINE
---	DIRECTION OF FLOW
---	EXISTING RETAINING WALL
---	PROPOSED RETAINING WALL
---	GARDEN WALL
---	MOUNTABLE CURB
TC	TOP OF CURB
FL	FLOWLINE
INV	INVERT
TRW	TOP OF RETAINING WALL
TG	TOP OF GRATE
---	PROPOSED ASPHALT PAVEMENT
---	PROPOSED TEMPORARY PAVEMENT

THIS IS NOT A BOUNDARY SURVEY. APPARENT PROPERTY CORNERS ARE SHOWN HEREON FOR INFORMATION ONLY. BOUNDARY DATA IS TAKEN FROM THE PRELIMINARY PLAT FOR THIS PROJECT PREPARED BY THIS OFFICE. EXISTING TOPOGRAPHY SHOWN HEREON IS FROM A TOPOGRAPHIC SURVEY CONDUCTED BY THIS OFFICE 09/02/03. IMPROVEMENTS AND GRADES FOR VINEYARD ESTATES UNIT IV-A AND FOR VENTURA VILLAGE ARE TAKEN FROM THE APPROVED PLANS FOR THESE PROJECTS, CPN'S 705282 AND 699981, RESPECTIVELY, AND SHOWN AS EXISTING (CONSTRUCTION CURRENTLY IN PROGRESS).

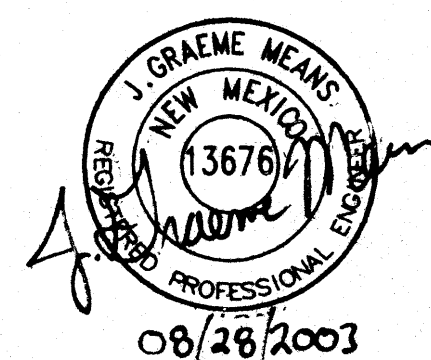
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Plot Time: 09:10 am



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## GRADING PLAN VINEYARD ESTATES, UNIT IV-B

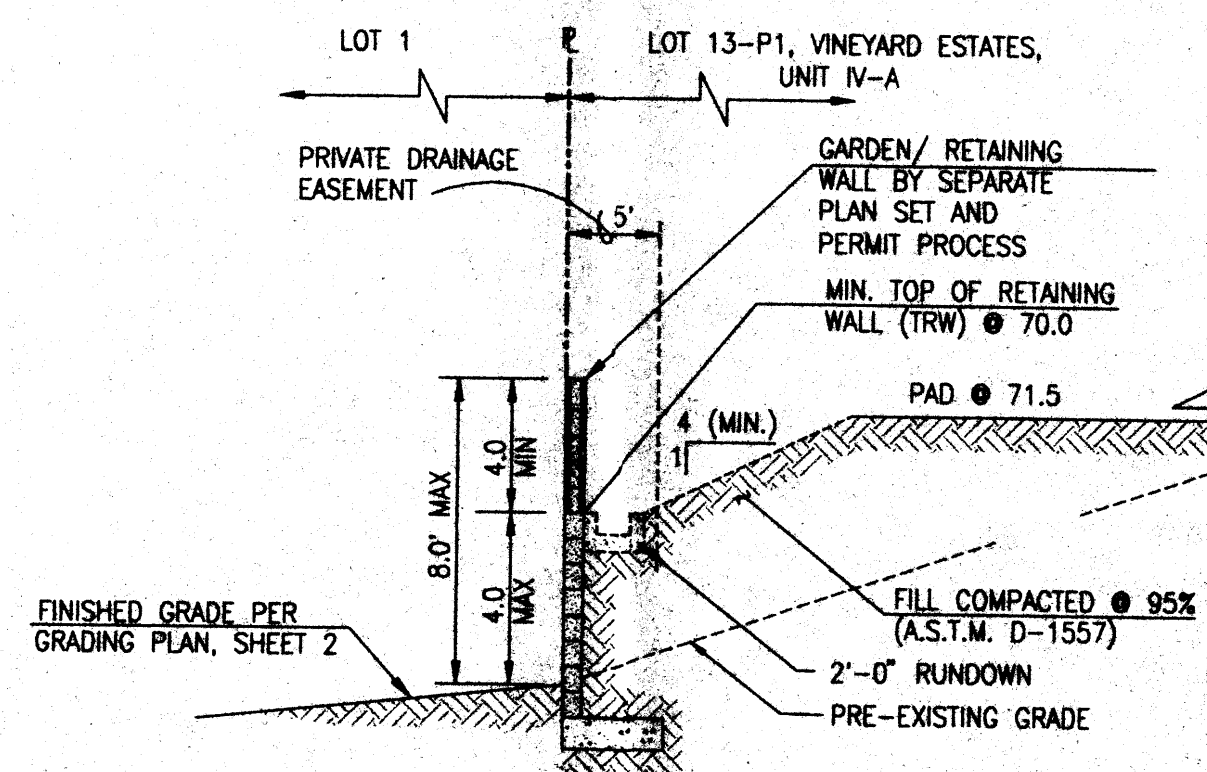
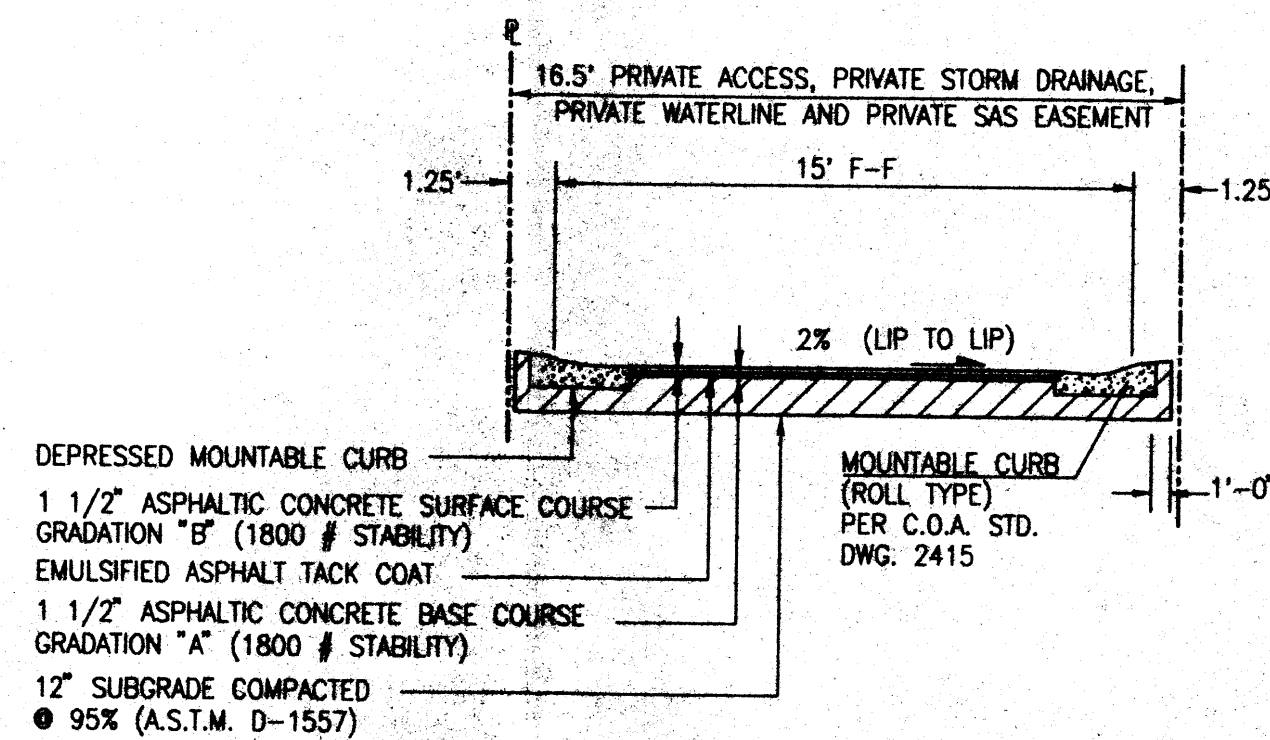
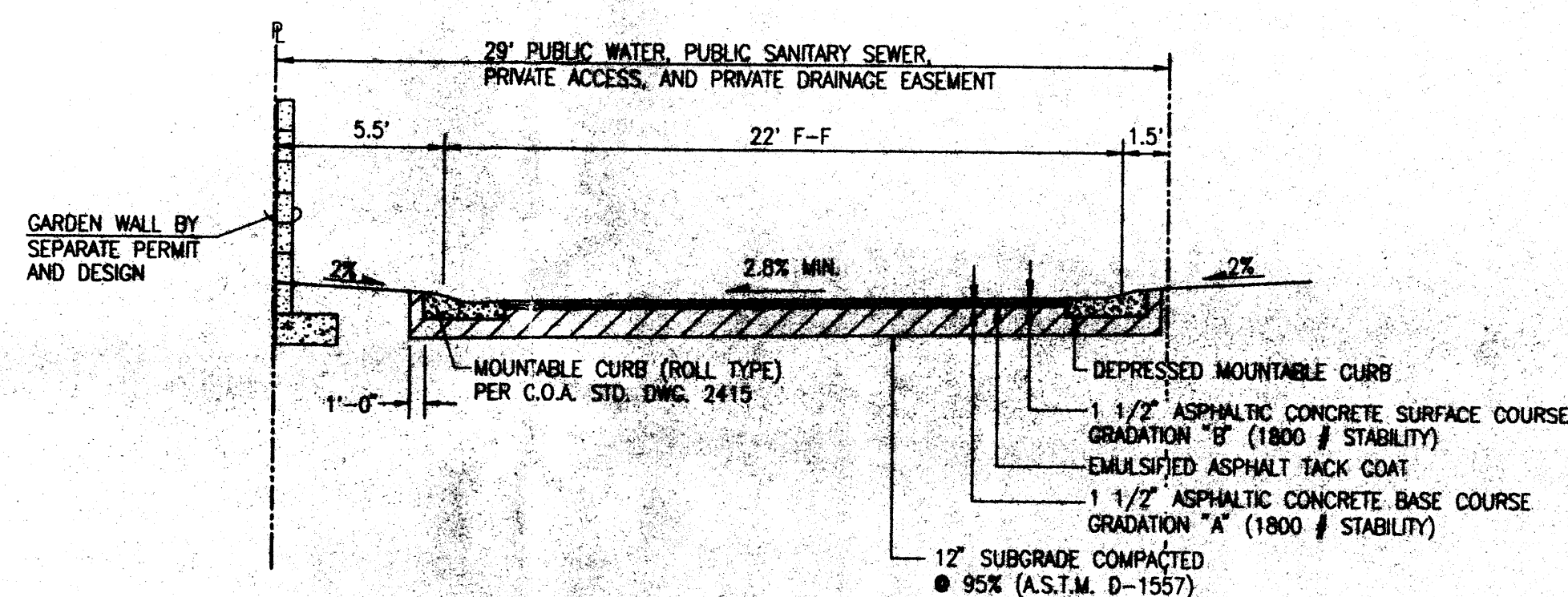
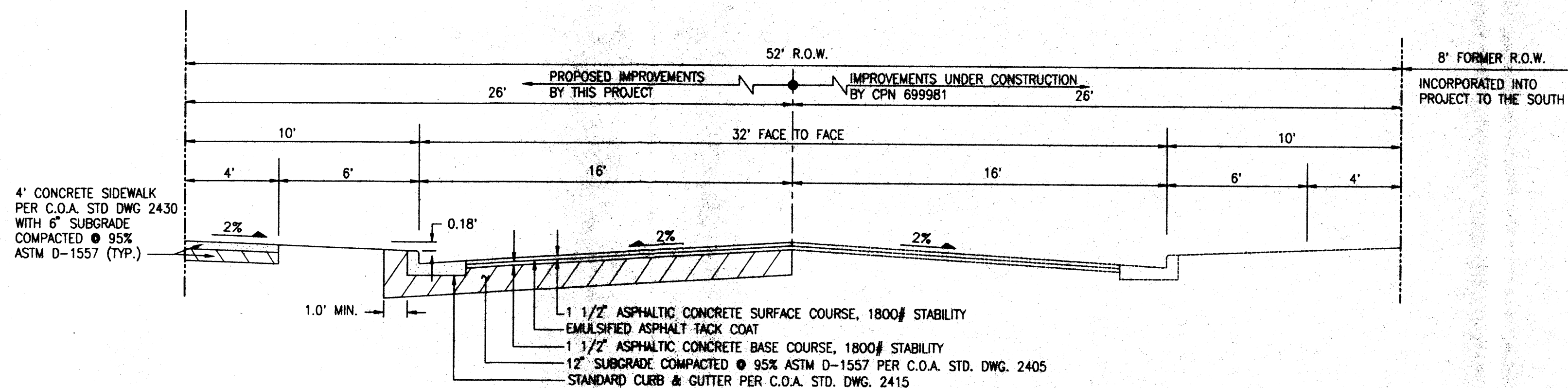
DESIGNED BY	G.M.	DATE	BY	REVISIONS	JOB NO.
DRAWN BY	S.G.H.				2003.044.3
APPROVED BY	G.M.				DATE 08-2003
					SHEET 2 OF 3





# GENERAL NOTES:

- 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 6.
- TWO (2) WORKING DAYS PRIOR TO ANY EXCAVATION, CONTRACTOR MUST CONTACT NEW MEXICO ONE CALL SYSTEM, 260-1990 FOR LOCATION OF EXISTING UTILITIES.
- 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 THEREFOR. 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.
- 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.
- THE CONTRACTOR SHALL MAINTAIN ACCESS TO ADJACENT PROPERTIES DURING CONSTRUCTION.
- ALL WORK ON THIS PROJECT SHALL BE PERFORMED IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE AND LOCAL LAWS, RULES AND REGULATIONS CONCERNING SAFETY AND HEALTH.
- THE CONTRACTOR SHALL ENSURE THAT NO SOIL ERODES FROM THE SITE INTO PUBLIC RIGHT-OF-WAY OR ONTO PRIVATE PROPERTY.
- 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.
- 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.
- 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.
- 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.
- 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.
- 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.
- ALL DIMENSIONS AND RADII OF CURB, CURB RETURNS, AND WALLS ARE SHOWN TO THE FACE OF CURB AND/OR WALL.
- 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.
- ALL FILL SHALL BE FREE FROM VEGETATION, DEBRIS, AND OTHER DELETERIOUS MATERIALS.
- 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.
- ALL EXISTING UTILITIES ENCOUNTERED WITHIN THE WORK LIMITS SHALL BE ADJUSTED TO GRADE AND SHALL BE CONSIDERED INCIDENTAL TO CONSTRUCTION.
- THE PAD ELEVATIONS SHOWN HEREON ARE FOR ROUGH GRADING PURPOSES.
- FINISHED FLOOR ELEVATIONS MAY VARY FROM THE PAD ELEVATIONS AND WILL BE DETERMINED AS A FUNCTION OF INDIVIDUAL HOUSE DESIGN.
- 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.
- CROSS-LOT DRAINAGE WILL NOT BE PERMITTED WITHOUT A DESIGNATED EASEMENT.
- RETAINING 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.
- 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.
- MAXIMUM UNPROTECTED SLOPES SHALL BE 3:1; MINIMUM SLOPES SHALL BE 1%.
- ROUGH GRADING TOLERANCES SHALL BE  $\pm 0.1$  FT FOR BUILDING PADS AND STREETS AND  $\pm 0.67'$  FOR ALL OTHER GRADING.
- 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. THIS FORM MUST BE FILED AT LEAST 48 HOURS PRIOR TO CONSTRUCTION.
- 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.



## SECTIONS, DETAILS, AND GENERAL NOTES VINEYARD ESTATES, UNIT IV-B

DESIGNED BY	NO.	DATE	BY	REVISIONS	JOB NO.
G.M.					2003.044.3
DRAWN BY					DATE
S.G.H.					08-2003
APPROVED BY					SHEET
G.M.					3 OF 3



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08/28/2003