County of Bernalillo

State of New Mexico

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2400 BROADWAY, S.E. ALBUQUERQUE, NEW MEXICO 87102 PUBLIC WORKS (505) 848-1500 MARK CARRILLO, ASSESSOR JUDY D. WOODWARD, CLERK IRA ROBINSON, PROBATE JUDGE JOE BOWDICH, SHERIFF ORLANDO VIGIL, TREASURER

May 18, 2000

Chris Weiss, P.E. C. L. Weiss Engineering, Inc. P. O. Box 97 Sandia Park, New Mexico 87047

RE: Grading and Drainage Plan for Lot 686, Sandia Heights South (C23/D59) (PWDN-990067) Submitted for Building Permit Approval, Engineer's Stamp Dated 4/13/00.

Dear Mr. Weiss:

Based on the information provided on April 20, 2000, the above referenced plan is approved for Building Permit release for Lot 686 Sandia Heights South.

As you are aware, the Engineer's Certification is required prior to the County performing the final inspection and prior to release of the Certificate of Occupancy for this residence.

If you have any questions, or if I may be of further assistance to you, please call me at 924-3982.

Sincerely,

Susan M. Calongne, P.E.

City/County Floodplain Administrator

c: Lisa Manwill, P.E., Albuquerque Metropolitan Arroyo Flood Control Authority Brad Catanach, P.E., Bernalillo County Public Works Division File

ZAPCIB

GRANT OF EASEMENT FLOODWAY AND STORM DRAINAGE WORKS

Grantor(s), being the owner(s) of the property described herein, for good and valuable consideration, the receipt of which is hereby acknowledged, hereby grants, bargains, sells and conveys to the ALBUQUERQUE METROPOLITAN ARROYO FLOOD CONTROL ALTHORITY, a political subdivision of the State of New Mexico, (AMAFCA), its successors and assigns, the permanent right and easement for drainage, flood control and the conveyance and storage of storm water, and for the construction, reconstruction, operation and maintenance of, and access to, such appurtenant facilities as may be necessary on, in, under, over and across the following described real estate:

The land in which the foregoing rights and easement are granted is described as

Bernalillo County, New Mexico, being more particularly described in Exhibit A attached hereto and incorporated herein by reference.

Except with the written approval of AMAFCA, no fence, wall, building, or other obstruction may be placed or maintained in said easement, and there shall be no alteration of the grades or contours in said easement. The granting of this easement shall not obligate AMAFCA to maintain any arroyo, drainage channel or other facility, nor shall this easement require AMAFCA to provide for the protection of property lying outside of the easement granted. AMAFCA shall only maintain property and/or improvements that it specifically agrees, by written agreement filed for public record, to maintain. Unless AMAFCA specifically so agrees to maintain property and/or improvements, all maintenance responsibility shall remain with the Grantor. Landscaping or maintenance work by the Grantor, within the easement hereby conveyed, shall not alter the present flowline, capacity, or permeability of the present flood way area, except in an emergency. If emergency work is performed, Grantor shall notify AMAFCA as soon as practical thereafter. AMAFCA will then determine if the emergency work can remain or must be removed or modified. Safe locations for structures built on lands adjacent to the easement described herein may be substantially outside of the described area.

TO HAVE AND TO HOLD the said right and easement for the uses and purposes aforesaid, unto AMAFCA, its successors and assigns, to run with the land forever. However, to the extent any portion of the above granted easement area is declared unnecessary for flood control or drainage by the Board of Directors of the Albuquerque Metropolitan Arroyo Flood Control Authority, said portion of the easement shall revert to the Grantor. Any such reversion shall be accomplished by way of a quitclaim deed to Grantor.

THERE IS RESERVED to the Grantors, their successors and assigns, the right to use said lands for open space and landscaping. Such open space and landscaping shall not

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Sheet 1 of 3 9HR - 5/3/00

interfere with the rights and easements hereby granted, may be permitted, provided that Grantor obtains AMAFCA's written licensed approval for such use, not to be unreasonably withheld. WITNESS our hands and seal this 3rd day of MAY, 19 GRANTORS: Janis H. Randall ACKNOWLEDGMENT FOR NATURAL PERSONS STATE OF NEW MEXICO)s.s. COUNTY OF BERNALILLO The foregoing instrument was acknowledged before me this 3rd day of MAY, Empale by James E. & James H. Randall. My commission expires: anglest 11,2000 ACKNOWLEDGMENT FOR CORPORATIONS/PARTNERSHIPS STATE OF NEW MEXICO)s.s. COUNTY OF BERNALILLO The foregoing instrument was acknowledged before me this ____ day of ______, 19____ by ______ of _____ My commission expires:

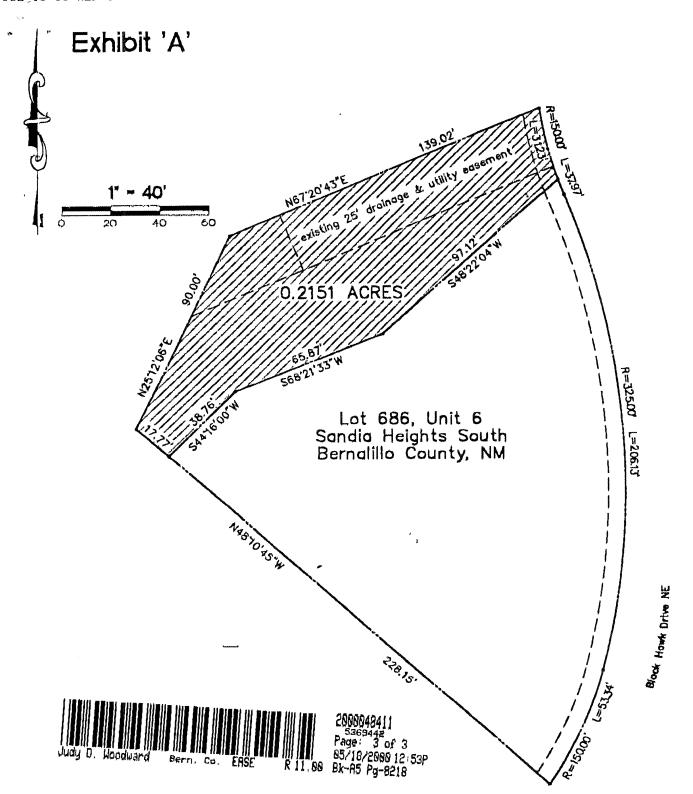
interfere with the rights and easements granted to AMAFCA. Other purposes, which will not



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(*), WP amméra PORMS Seasoment std wpd. June 1 1998

Sheet 2 of 3 8th



LEGAL DESCRIPTION

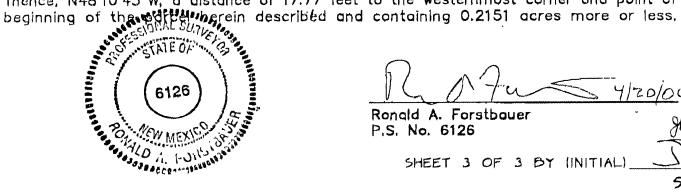
A certain parcel of land situate within the exterior boundaries of Lot 686 as the same is shown and designated on the plat entitled "SANDIA HEIGHTS SOUTH, UNIT 6, A SUBDIVISION IN BERNALILLO COUNTY, NEW MEXICO" filed in the Office of the County Clerk of Bernalillo County, New Mexico on January 03, 1973 in Volume D5, Follo 81 and being more particularly described by metes and bounds as follows:

Beginning at the westernmost corner of the parcel herein described, said corner being the identical westernmost corner of said Lot 686;

Thence, N25'12'06"E, a distance of 90.00 feet to a point; Thence, N67'20'43"E, a distance of 139.02 feet to the northernmost corner of the parcel herein described, being the identical northernmost corner said Lot 686, and a point on curve; Thence, Southeasterly, a distance of 31.23 feet along the arc of a curve bearing to the left (said are having a radius of 150.00 feet and a chord which bears \$13.54.54.E, a distance of 31.18 feet) to a point on curve and the easternmost corner of the parcel herein described;

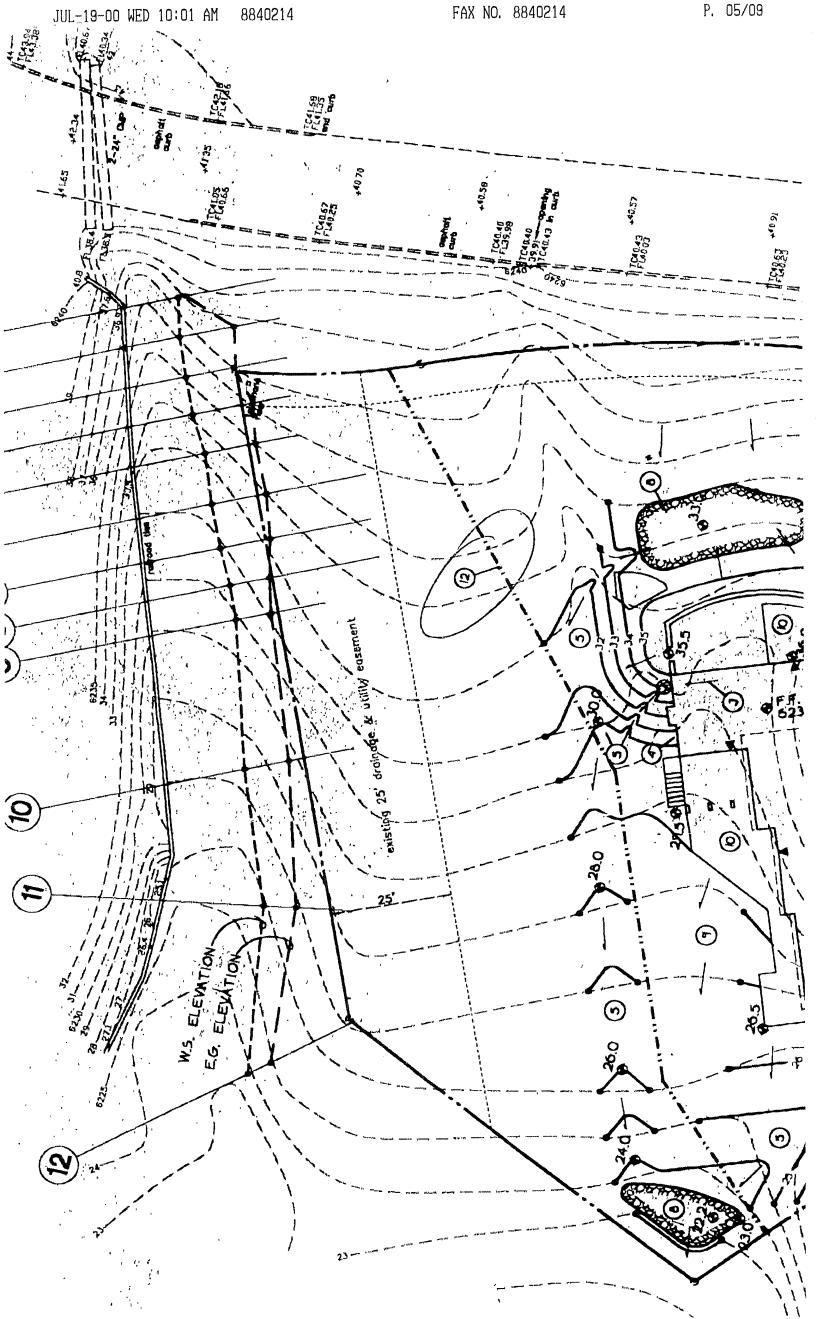
Thence, S48'22'04"W, a distance of 97.12 feet to a point; Thence, S68'21'33"W, a distance of 65.87 feet to a point; Thence, S44'16'00"W, a distance of 38.76 feet to a point;

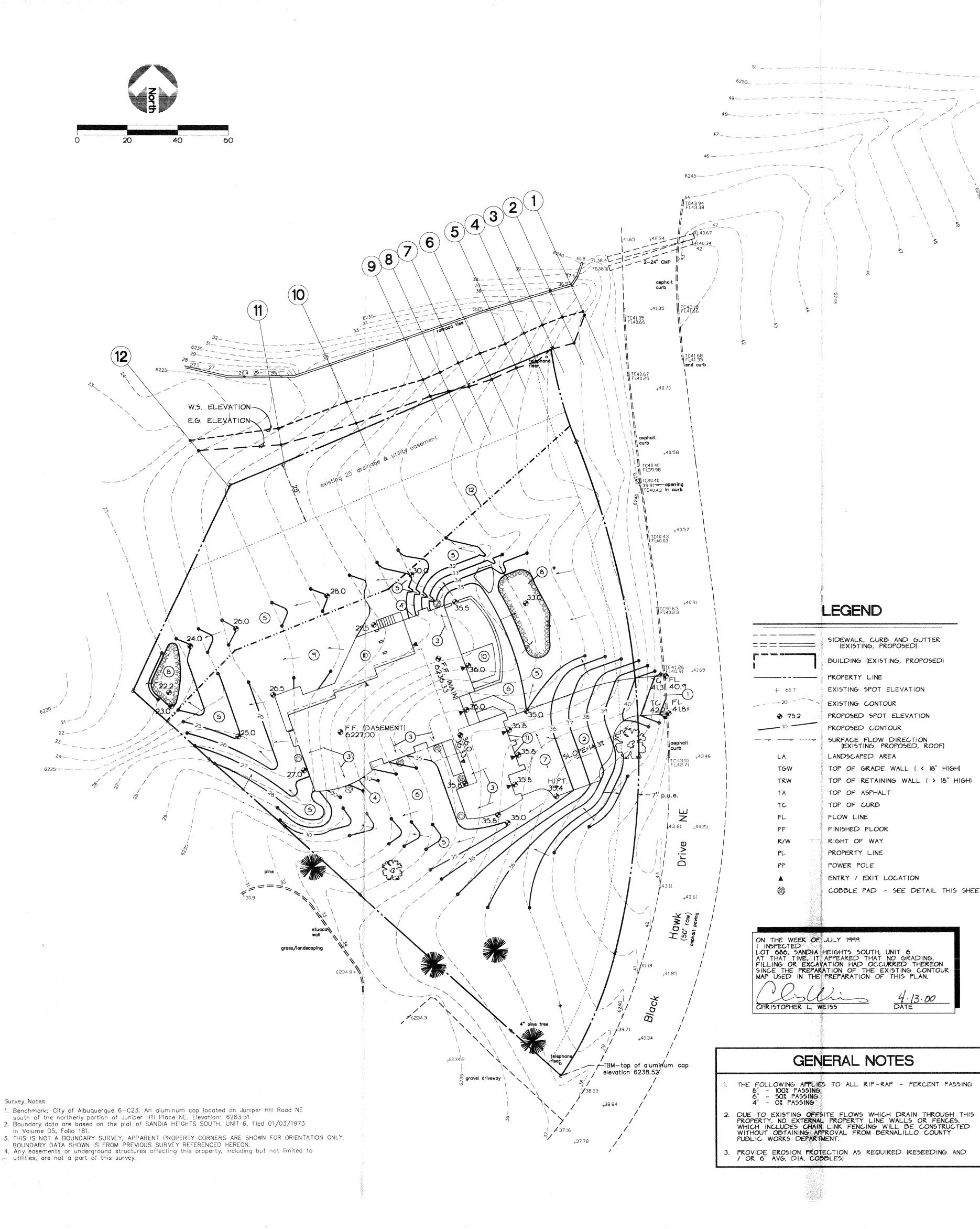
Thence, N4870'45"W, a distance of 17.77 feet to the westernmost corner and point of



Ronald A. Forstbauer P.S. No. 6126

SHEET 3 OF 3 BY (INITIAL)





SCOPE:
THE PROPOSED IMPROVEMENTS INCLUDE AN APPROXIMATELY 3,500 SF (APPROXIMATE FOOTPRINT) MULTI-STORY RESIDENTIAL CONSTRUCTION, WITH ASSOCIATED SITE IMPROVEMENTS.

THE PRESENT SITE IS AN UNDEVELOPED RESIDENTIAL PROPERTY WHICH SLOPES AT 7% - 14% TO THE WEST. BLACK HAWK DR. NE BORDERS THE PROPERTY TO THE EAST, DEVELOPED RESIDENTIAL PROPERTIES BORDER THE PROPERTY TO THE NORTH, WEST AND SOUTH NOTE: THE LA CUEVA ARROYO PASSES THROUGH THE NORTHERN PORTION OF THE PROPERTY WITHIN AN EXISTING DRAINAGE EASEMENT.

THE INTENT OF THIS PLAN IS TO SHOW:

LEGEND

SIDEWALK, CURB AND GUTTER (EXISTING, PROPOSED)

BUILDING (EXISTING, PROPOSED)

EXISTING SPOT ELEVATION

PROPOSED SPOT ELEVATION

SURFACE FLOW DIRECTION (EXISTING, PROPOSED, ROOF)

TOP OF GRADE WALL (< 18" HIGH) TOP OF RETAINING WALL (> 18" HIGH)

EXISTING CONTOUR

PROPOSED CONTOUR

LANDSCAPED AREA

TOP OF ASPHALT TOP OF CURB FLOW LINE

FINISHED FLOOR RIGHT OF WAY PROPERTY LINE POWER POLE

ENTRY / EXIT LOCATION

COBBLE PAD - SEE DETAIL THIS SHEET.

4.13.00 DATE

** GRADING RELATIONSHIPS BETWEEN THE EXISTING GROUND ELEVATIONS AND PROPOSED FINISHED ELEVATIONS IN ORDER TO FACILITATE POSITIVE DRAINAGE TO DESIGNATED DISCHARGE POINTS.

** THE EXTENT OF PROPOSED SITE IMPROVEMENTS, INCLUDING BUILDINGS, WALKS AND PAVEMENT.

** THE FLOW RATE/VOLUME OF RAINFALL RUNOFF ACROSS OR AROUND THESE IMPROVEMENTS AND METHODS OF HANDLING THESE FLOWS TO MEET BERNALILLO COUNTY REQUIREMENTS FOR DRAINAGE MANAGEMENT.

** THE RELATIONSHIP OF ON-SITE IMPROVEMENTS WITH EXISTING NEIGHBORING PROPERTY TO INSURE AN ORDERLY TRANSITION BETWEEN PROPOSED AND SURROUNDING GRADES.

DRAINAGE PLAN CONCEPT: THE PROPERTY IS A MODERATELY STEEP SITE WITH SLOPES WITHIN THE CONSTRUCTION AREA AVERAGING 12%. ALL ROOF FLOWS WILL BE DIRECTED WITHIN GRADED EARTH SWALES ITO BE COBBLED BY OWNER IN THE EVENT OF EROSION PROBLEMS) TO A PROPOSED STILLING BASIN LOCATED AT THE WEST PROPERTY CORNER AS SHOWN, EXTENDED STEMWALLS / RETAINING WALLS WILL BE UTILIZED THROUGHOUT THE CONSTRUCTION TO MINIMIZE GRADING OUTSIDE OF THE RESIDENCE. NOTE: THE INCREASE IN RUN-OFF DUE TO CONSTRUCTION IS 0.3 CFS (SEE CALCULATIONS).

LEGAL: LOT 686, UNIT 6, SANDIA HEIGHTS SOUTH, BERNALILLO COUNTY, NEW MEXICO.

SURVEYOR: FORSTBAUER SURVEYING CO. - RON FORSTBAUER - 268-2112

B.M.: CITY OF ALBUQUERQUE 6-C23, AN ALUMINUM CAP LOCATED ON JUNIPER HILL ROAD NE SOUTH OF THE NORTHERLY PORTION OF JUNIPER HILL PLACE NE. ELEVATION: 6283.51 (M.S.L.D.)

FLOOD HAZARD: PER FEMA BOUNDARY MAP \$11 AND FIRM MAP \$161 (SEE INSERT ON PLAN), THE NORTHERN PORTION OF THE SITE IS LOCATED WITHIN A FLOODZONE, AN EXISTING 25' DRAINAGE EASEMENT AS SHOWN, MORE THAN ACCOMMODATES THE 100 - YEAR STORM EVENT WITH THE MAJORITY OF THE FLOWS ON THE ADJACENT PROPERTY.

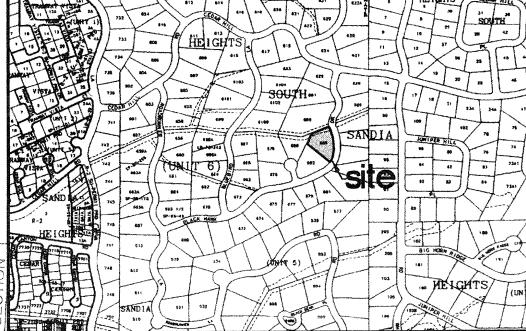
OFF-SITE DRAINAGE: PER FEMA MAP #11 ANALYSIS AND ON-SITE INSPECTION, OTHER THAN THE DESIGNATED FLOODZONE, MINIMAL OFF-SITE FLOWS FROM THE ROAD SHOULDER IMPACT THIS PROPERTY. SEE PLAN AND CALCULATIONS FOR ADDITIONAL INFORMATION.

EROSION CONTROL: THE CONTRACTOR IS RESPONSIBLE FOR RETAINING ON-SITE ALL SEDIMENT GENERATED DURING CONSTRUCTION BY MEANS OF TEMPORARY EARTH BERMS OR SILT FENCES AT THE LOW POINTS ON THE WEST PROPERTY LINE.

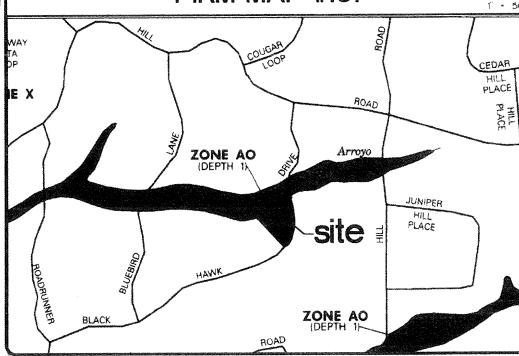
KEYNOTES

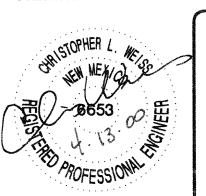
- (1) CONSTRUCT DRIVE ENTRANCE WITH 5" WATERBLOCK AS SHOWN. MATCH TOP OF ASPHALT FOR SMOOTH RIDING TRANSITION.
- (2) CONSTRUCT CRUSHER FINE DRIVE AT ELEVATIONS SHOWN.
- 3 DASHED ARROWS REPRESENT ROOF FLOWS. SEE ARCHITECTURAL FOR AREAS OF CONCENTRATED / UNCONCENTRATED ROOF FLOWS. CONSTRUCT EROSION PROTECTION PAD (PER DETAIL THIS SHEET) BELOW CANALE DRIP LINES WITHIN NATURAL AREAS TO MINIMIZE EROSION, SEE ARCH, PLANS FOR SPECIFIC CANALE LOCATIONS.
- 4 CONSTRUCT EXTENDED STEMWALLS / RETAINING STEMWALLS AS REQUIRED TO MAINTAIN FINISH GRADES AS SHOWN.
- (5) CONSTRUCT A GRADED SWALE TO CARRY CONCENTRATED FLOWS AWAY FROM BUILDING AS SHOWN. IN THE FUTURE, IF EROSION PROBLEMS OCCUR, OWNER SHALL CONSTRUCT 2' WIDE X 12" DEEP NATURAL LOOKING DRY STREAM BED PER DETAIL THIS SHEET. SEE GENERAL NOTES FOR EROSION PROTECTION NOTES.
- (6) YARD GRADING IS SHOWN FOR CONCEPTUAL DRAINAGE PURPOSES ONLY TO INDICATE GENERAL DRAINAGE PATH. SEE LANDSCAPE PLAN FOR DETAILED INFORMATION, PROVIDE EROSION PROTECTION AS NECESSARY.
- (7) HIGH POINT GRADE
- (8) CONSTRUCT 12" DEEP LANDSCAPED WATER HARVESTING / STILLING BASIN TO CAPTURE CONCENTRATED FLOWS, UTILIZE FOR LANDSCAPING AND RELEASE EXCESS AS SHEETFLOW. PROVIDE EROSION PROTECTION AS NECESSARY. OWNER TO MAINTAIN.
- (9) SITE WATER WILL BE PROVIDED BY LOCAL UTILITY COMPANY. SEPTIC SYSTEM TO BE LOCATED THIS AREA AND SHALL MEET DESIGN / LOCATION REQUIREMENTS PER THE DEPARTMENT OF ENVIRONMENTAL HEALTH OF THE COUNTY OF BERNALILLO. SEE ARCHITECTURAL FOR ADDITIONAL INFORMATION.
- (10) OUTDOOR PATIO SEE ARCHITECTURAL FOR ADD'L INFORMATION. (11) CONSTRUCT GARAGE DOOR WITH WATERTIGHT SEAL TO MINIMIZE POTENTIAL FOR STORM WATERS TO ENTER.
- (12) EXISTING FEMA FLOODPLAIN LIMITS. AN EASEMENT IS PROVIDED TO A.M.A.F.C.A. CONCURRENT WITH THIS SUBMITTAL BASED ON THIS FEMA FLOODPLAIN LIMIT LINE.

VICINITY MAP #C-23



FIRM MAP #161





Revisions

C.L. WEISS ENGINEERING, INC SANDIA PARK OFFICE

SANDIA PARK NM, 87047 (505) 281-1800 ALVARADO OFFICE 1100 ALVARADO DR. NI ALBUQUERQUE, NM 87110 1505) 266 - 3444

THIS DESIGN, CALCULATIONS, AND CONCEPTS ARE OWNED BY AND REMAIN THE PROPERTY OF C.L. WEISS ENGINEERING INC. AND NO PART THEREOF SHALL BE UTILIZED BY ANY PERSON, FIRM OR CORPORATION FOR ANY PURPOSE WHATSOEVER EXCEPT WITH THE WRITTEN PERMISSION OF CHRISTOPHER L. WEISS, P.E. (C)

LOT 686 - SANDIA HEIGHTS SOUTH

H. Barker

Drawn By: Checked By: Job Number: 1" = 20' BJB CLW

APRIL 2000

C-1

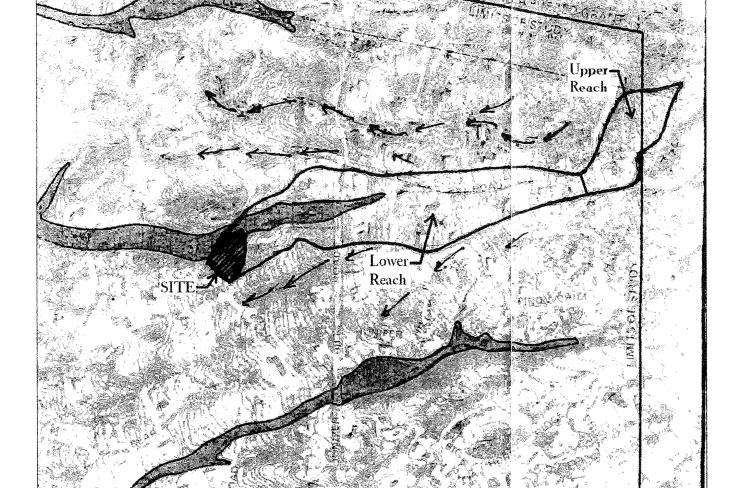
SH. 1 OF 1

Drainage and Grading Plan

26.89 0.046095 6.84 24.86 0.069602 6.35

6.35

OFF-SITE DRAINAGE BASIN



HEC-RAS SUMMARY TABLE										
STATION	Φ TOTAL (CF5)	MIN.CH.EL. (FT)	W.S.ELEV (FT)	CRIT.WS. (FT)	E.G.ELEV (FT)	E.G.SLOPE (FT/FT)	VEL CHNL. (FT/S)	FLOW AREA (SQ.FT.)	TOP WIDTH (FT)	FROUDE # CHL
1	53	35.00	36,66	36.66	37.09	0.010755	5.25	10.10	12.17	1.01
2	53	34.20	35.12	35.59	36 74	0.066782	PLGI	5.20	9.26	2.40
3	53	33.40	34.09	34.58	36.00	0.094732	11.10	4.77	9.84	2.81
4	53	32.60	33.16	33.63	35.09	0.112138	11.17	4.74	11.09	3.01
5	53	31.80	32.28	32.71	34.00	0.110902	K).52	5.04	12.83	2.96
6	53	31.00	31.43	31.81	32.99	0.112818	10.03	5.28	14.70	2.95
7	53	30.33	30.91	31.27	32.17	0.071673	5.87	5.87	13.61	2.42
8	53	29.67	30.41	30.77	31,61	0.061325	6.04	6.04	12,96	2.27
9	53	29.00	29.93	30.28	31.12	0.061492	6.04	6.04	13.01	2.27
10	53	27.00	27,41	27.75	28.70	0.092761	5.81	5.81	16.13	2.68
A CONTRACTOR OF THE PROPERTY O			***************************************	The second section of the second section secti	Control of the Contro					