

CITY OF ALBUQUERQUE

Planning Department
Alan Varela, Director



Mayor Timothy M. Keller

December 14, 2022

Åsa Nilsson-Weber, P.E.
Isaacson & Arfman, P.A.
128 Monroe St. N.E.
Albuquerque, NM 87108

RE: 5504 Escondina Lane NW
Grading and Drainage Plan
Engineer's Stamp Date: 12/07/22
Hydrology File: F14D076E

Dear Ms. Nilsson-Weber:

Based upon the information provided in your submittal received 12/09/2022, the Grading & Drainage Plan is approved for Grading Permit (earthwork can get started for the earth pad on the house).

PRIOR TO BUILDING PERMIT:

1. Once the grading is complete, a pad certification (meaning that the earthwork is complete) will be required. Please include a site photo with the submittal. Also, at the time of pad certification approval, Hydrology will concurrently approve the Grading & Drainage Plan for Building Permit.

If you have any questions, please contact me at 924-3995 or rbrissette@cabq.gov.

Sincerely,

Renée C. Brissette

Renée C. Brissette, P.E. CFM
Senior Engineer, Hydrology
Planning Department



City of Albuquerque

Planning Department

Development & Building Services Division

DRAINAGE AND TRANSPORTATION INFORMATION SHEET

Project Title: 5505 Escondida Lane **Building Permit #** _____ **Hydrology File #** E15
DRB# _____ **EPC#** _____
Legal Description: Lot 7, Bosque Escondido **City Address OR Parcel** Escondido Lane NW

Applicant/Agent: Isaacson & Arfman, Inc. **Contact:** Fred C. Arfman or Bryan J. Bobrick
Address: 128 Monroe Street NE **Phone:** (505) 268-8828
Email: freda@iacivil.com
bryanb@iacivil.com

Applicant/Owner: _____ **Contact:** _____
Address: _____ **Phone:** _____
Email: _____

TYPE OF DEVELOPMENT: PLAT (#of lots) ☒ RESIDENCE DRB SITE ADMIN SITE: _____
RE-SUBMITTAL: YES ☒ NO

DEPARTMENT: TRANSPORTATION ☒ HYDROLOGY/DRAINAGE
Check all that apply:

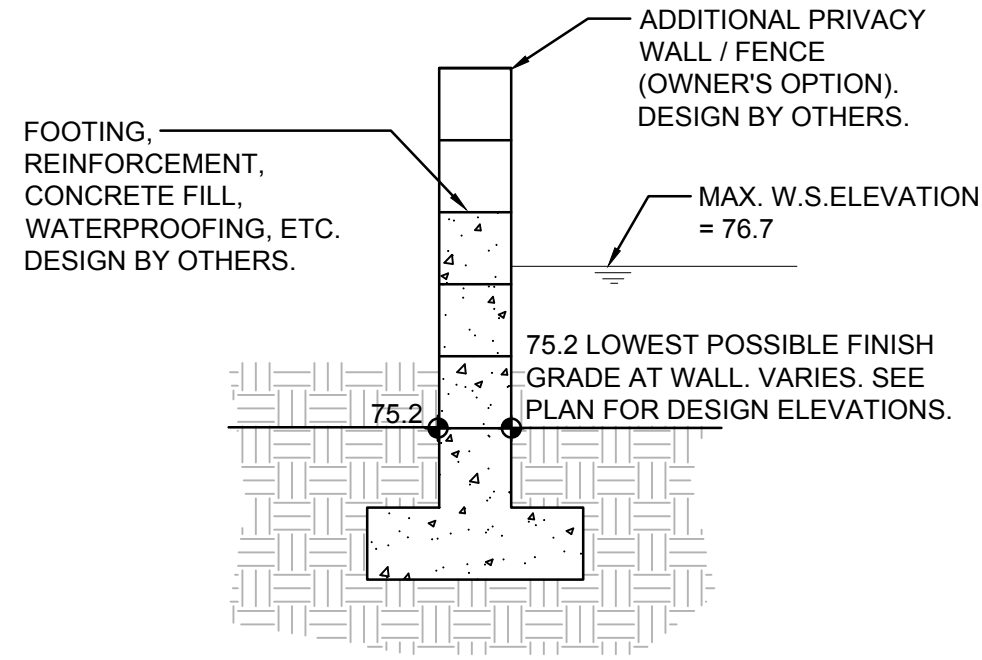
TYPE OF SUBMITTAL:

☐ ENGINEER/ARCHITECT CERTIFICATION
☐ PAD CERTIFICATION
☐ CONCEPTUAL G&D PLAN
☒ GRADING PLAN
☐ DRAINAGE REPORT
☐ DRAINAGE MASTER PLAN
☐ FLOOD PLAN DEVELOPMENT PERMIT APP.
☐ ELEVATION CERTIFICATE
☐ CLOMR/LOMR
☐ TRAFFIC CIRCULATION LAYOUT (TCL)
ADMINISTRATIVE
☐ TRAFFIC CIRCULATION LAYOUT FOR DRB
APPROVAL
☐ TRAFFIC IMPACT STUDY (TIS)
☐ STREET LIGHT LAYOUT
☐ OTHER (SPECIFY) _____
☐ PRE-DESIGN MEETING?

TYPE OF APPROVAL/ACCEPTANCE SOUGHT:

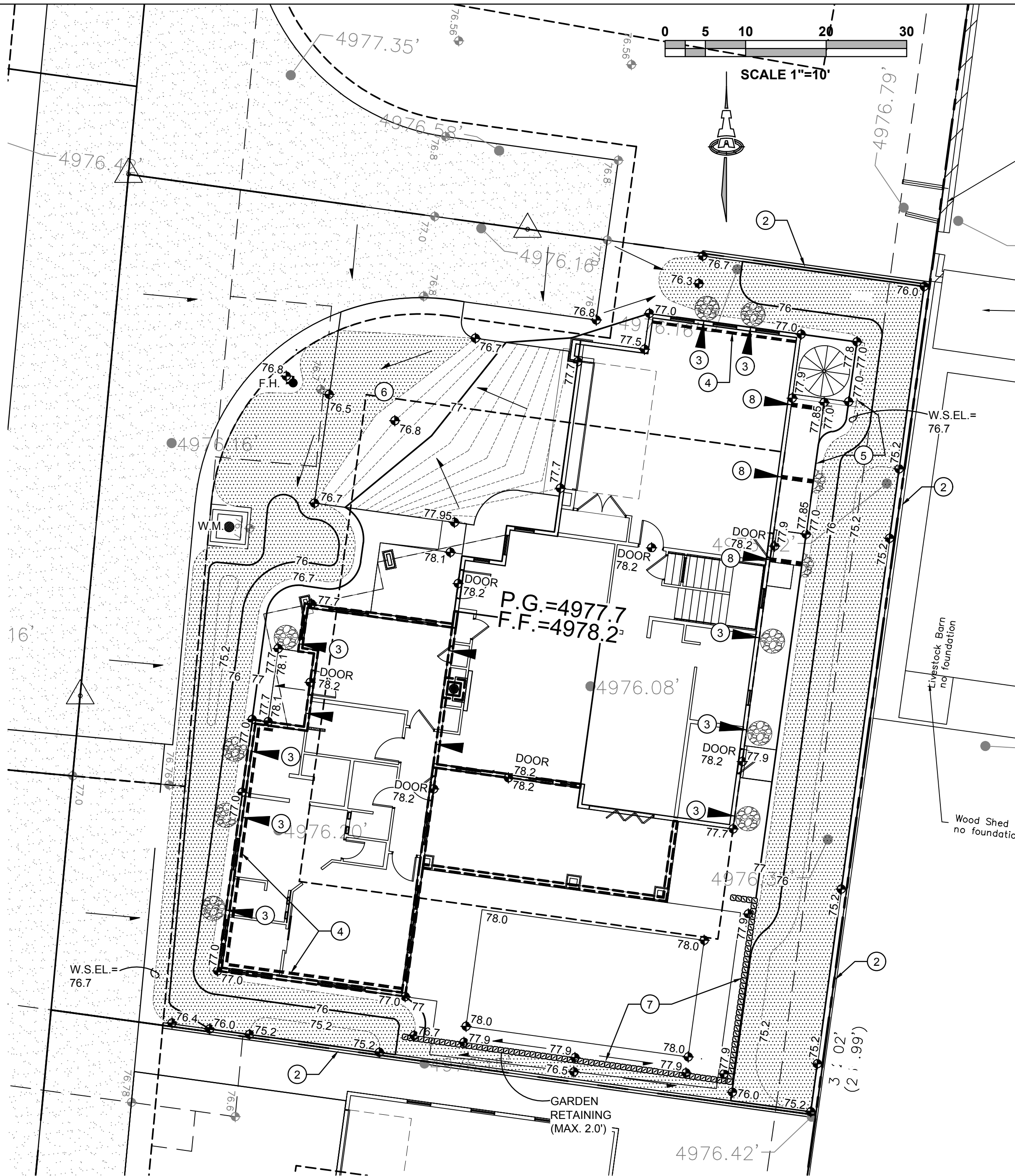
☒ BUILDING PERMIT APPROVAL
☐ CERTIFICATE OF OCCUPANCY
☐ CONCEPTUAL TCL DRB APPROVAL
☐ PRELIMINARY PLAT APPROVAL
☐ SITE PLAN FOR SUB'D APPROVAL
☐ SITE PLAN FOR BLDG PERMIT APPROVAL
☐ FINAL PLAT APPROVAL
☐ SIA/RELEASE OF FINANCIAL GUARANTEE
☐ FOUNDATION PERMIT APPROVAL
☐ GRADING PERMIT APPROVAL
☐ SO-19 APPROVAL
☐ PAVING PERMIT APPROVAL
☐ GRADING PAD CERTIFICATION
☐ WORK ORDER APPROVAL
☐ CLOMR/LOMR
☐ FLOOD PLAN DEVELOPMENT PERMIT
☐ OTHER (SPECIFY) _____

DATE SUBMITTED: December 7, 2022



NEW PROPERTY LINE WALLS

SCALE: N.T.S.



GENERAL NOTES

- PROPOSED SPOT AND CONTOUR ELEVATIONS SHOWN REPRESENT TOP OF FINISH MATERIAL (I.E. TOP OF PAVEMENT, TOP OF LANDSCAPING, ETC.). CONTRACTOR SHALL GRADE AND COMPACT SUBGRADE BASED ON ELEVATIONS SHOWN MINUS FINISH MATERIAL THICKNESSES.
- POND DESIGN PARAMETERS AND STORMWATER CONTROL MEASURES SHOWN ON THIS PLAN SHALL BE STRICTLY ADHERED TO FOR CERTIFICATION PURPOSES.
- POST-CONSTRUCTION MAINTENANCE FOR PRIVATE STORMWATER FACILITIES WILL BE THE RESPONSIBILITY OF THE FACILITIES OWNER. ENGINEER RECOMMENDS THAT OWNER INSPECT THE SITE YEARLY AND AFTER EACH RAINFALL TO IDENTIFY AREAS OF EROSION. ADD ADDITIONAL EROSION PROTECTION AS NEEDED.
- CONTRACTOR SHALL PROTECT THE ON-SITE INFILTRATION TRENCHES (IT').
- PER THE SUBDIVISION GRADING AND DRAINAGE PLAN, THE PROPOSED RESIDENCE SHALL POND STORMWATER WITHIN 10' OF THE RESIDENCE. OWNER SHALL COORDINATE WITH STRUCTURAL DESIGNER WITH REGARDS TO THE BUILDING & FOUNDATION REQUIREMENTS RELATING TO THE ADJACENT PONDING.
- FOR ENGINEER'S CERTIFICATION OF SUBSTANTIAL COMPLIANCE, CONTRACTOR SHALL PROVIDE AN AUTOCAD FORMAT AS-BUILT SURVEY PREPARED BY A LICENSED SURVEYOR WHICH INCLUDES THE FOLLOWING AS-BUILT INFORMATION:
 - FINISH FLOOR ELEVATION
 - SPOT ELEVATIONS AT EACH SPOT ELEVATION SHOWN ON THE APPROVED PLAN
 - TOP AND TOE LIMITS AND ELEVATIONS FOR PONDS TO ENSURE REQUIRED CAPACITY IS PROVIDED. NOTE: POND ELEVATIONS PROVIDED ON THIS PLAN ARE BASED ON FINISHED LANDSCAPE CONDITION. CONTRACTOR TO GRADE SITE TO ELEVATIONS SHOWN MINUS MATERIAL THICKNESSES.

KEYED NOTES

- NOT USED.
- NEW PRIVACY WALL. FINAL GRADES SHOWN AT BASE OF WALL ARE REQUIRED TO PROVIDE THE NECESSARY POND VOLUME AND TO PERMIT ON-SITE PONDING TO EQUALIZE. SEE SECTION THIS SHEET.
- ROOF DRAIN DISCHARGE: INSTALL EROSION PROTECTION (3" DIA ROCK SPLASHPAD, PRECAST CONCRETE SPLASHPAD, OR EQUAL) AT ALL CONCENTRATED ROOF DRAIN LOCATIONS.
 - ENGINEER RECOMMENDS INSTALLING 2" WIDE X 8" THICK 4" AVG. DIA. ANGULAR ROCK SVALUES TO PASS CONCENTRATED ROOF FLOW FROM SPLASHPADS TO POND BOTTOMS (OWNER'S OPTION). COORDINATE WITH LANDSCAPERS.
- EXTENDED STEMWALL TO ACHIEVE GRADES THIS AREA.
- TURNED DOWN CONCRETE EDGE TO ACHIEVE GRADES THIS AREA. COORDINATE WITH OWNER FOR GUARDRAIL (OWNER'S OPTION).
- GRADE DRIVEWAY PER PLAN TO DRAIN AS SHOWN. 1/10TH-FOOT CONTOURS SHOWN DASHED.
- GARDEN RETAINING WALL (RETAINING < 2.0') TO ACHIEVE GRADES SHOWN.
- ROOF DRAIN PIPED THROUGH CONCRETE WALK. INSTALL EROSION PROTECTION (3' X 1.5') SPLASHPAD, OR EQUAL.

BUILDING DESIGN NOTE

THE BUILDING PAD AREA SHALL BE PREPARED AND COMPACTED PER THE GEOTECHNICAL REPORT.

THE BUILDING AND SITE IMPROVEMENT DESIGN SHALL INCLUDE MEASURES TO ADDRESS PONDED STORM WATER WITHIN TEN FEET.

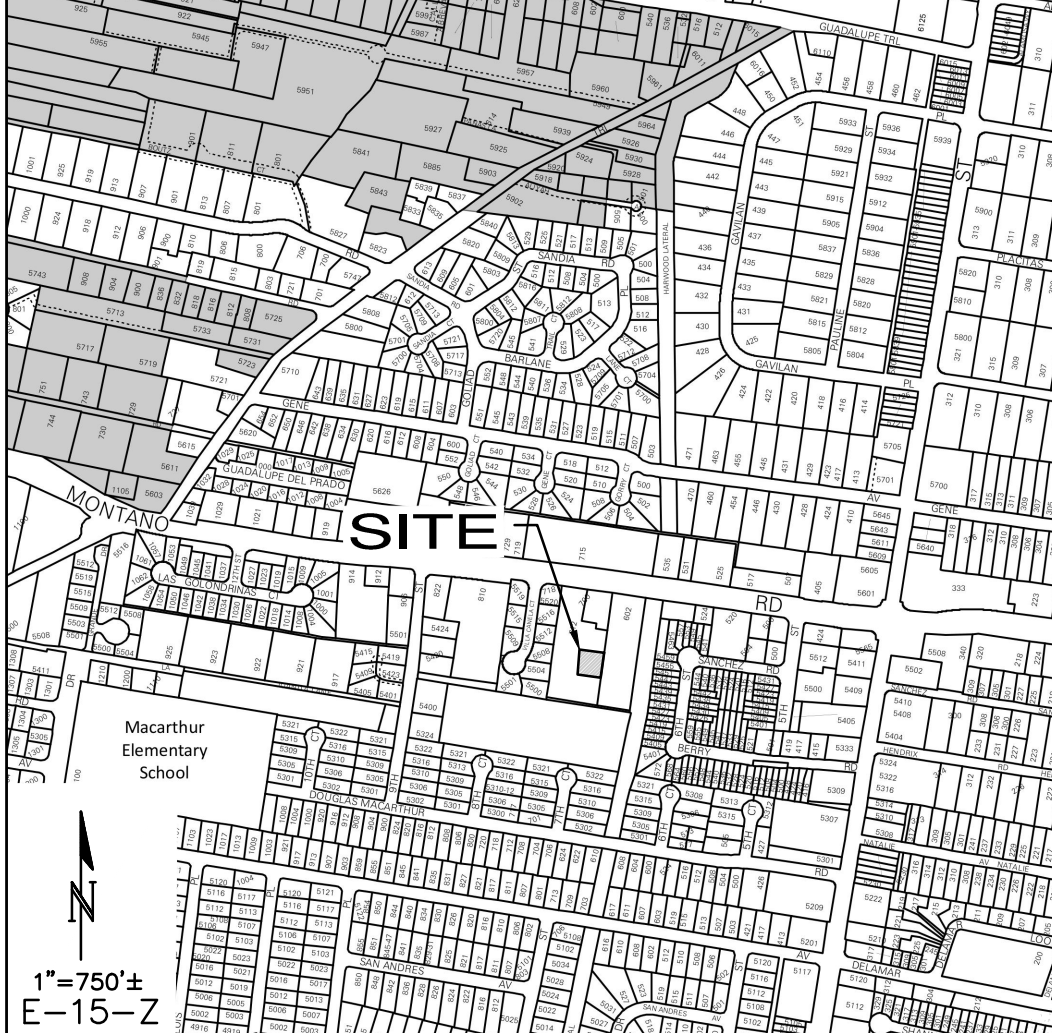
POND VOLUME CALCULATIONS

SITE SURFACE PONDING		
Contour	Area	Volume
76.7	2270	
76.0	1228	1224 CF
75.2	505	693 CF
POND VOLUME =		1918 CF

Volume of 100-yr, 10-day ponding required = 1,868 CF

TOTAL VOLUME PROVIDED = 1918 CF

VICINITY MAP F-14



PROJECT INFORMATION:

PROPERTY: THE SITE IS AN UNDEVELOPED RESIDENTIAL LOT AND IS BOUNDED TO THE WEST BY AN ACCESS ROAD, THE EAST BY A DEVELOPED RESIDENTIAL LOT, AND TO THE NORTH AND SOUTH BY AN UNDEVELOPED RESIDENTIAL LOT.

PROPOSED IMPROVEMENTS: THE PROPOSED IMPROVEMENTS INCLUDE A SINGLE FAMILY RESIDENCE WITH ACCESS DRIVE AND ASSOCIATED LANDSCAPING AND PONDING.

LEGAL: LOT 7 OF BOSQUE ESCONDIDO, BERNALILLO COUNTY, NM

AREA: 0.2344 ACRES

BENCHMARK: ACS MONUMENT DOUGLAS". ELEVATION = 4975.078 (NAVD 1988)

OFF-SITE: NO OFF-SITE DRAINAGE AFFECTS THIS PROPERTY.

FLOOD HAZARD: PER FEMA FIRM MAP #35001C0119G, EFFECTIVE DATE 09/26/2008, THE SITE IS LOCATED WITHIN FLOODZONE 'X' SHADED WHICH IS DEFINED AS AREAS WITH REDUCED FLOOD RISK DUE TO LEVEE.

DRAINAGE PLAN CONCEPT:

THE SITE IS PART OF THE BOSQUE ESCONDIDO SUBDIVISION APPROVED BY HYDROLOGY WITH A FLAT GRADING SCHEME AS FOLLOWS:

- PAD GRADE = 4977.7 (MIN). OVERFLOW ELEVATION 4976.67.
- EACH LOT IS REQUIRED TO STORE THE 100-YEAR 10-DAY VOLUME.
- ALL ROOF FLOW WILL BE DIRECTED TO THE STORMWATER RETENTION PONDS.
- WALLS WILL BE CONSTRUCTED ON THE PROPERTY LINES TO CONTAIN THE 100-YEAR 10-DAY MAXIMUM RETENTION VOLUME.
- SINCE ALL STORMWATER IS RETAINED ON THE PROPERTY, NO SEPARATE STORM WATER QUALITY VOLUME IS REQUIRED.

PROPOSED IMPERVIOUS AREA

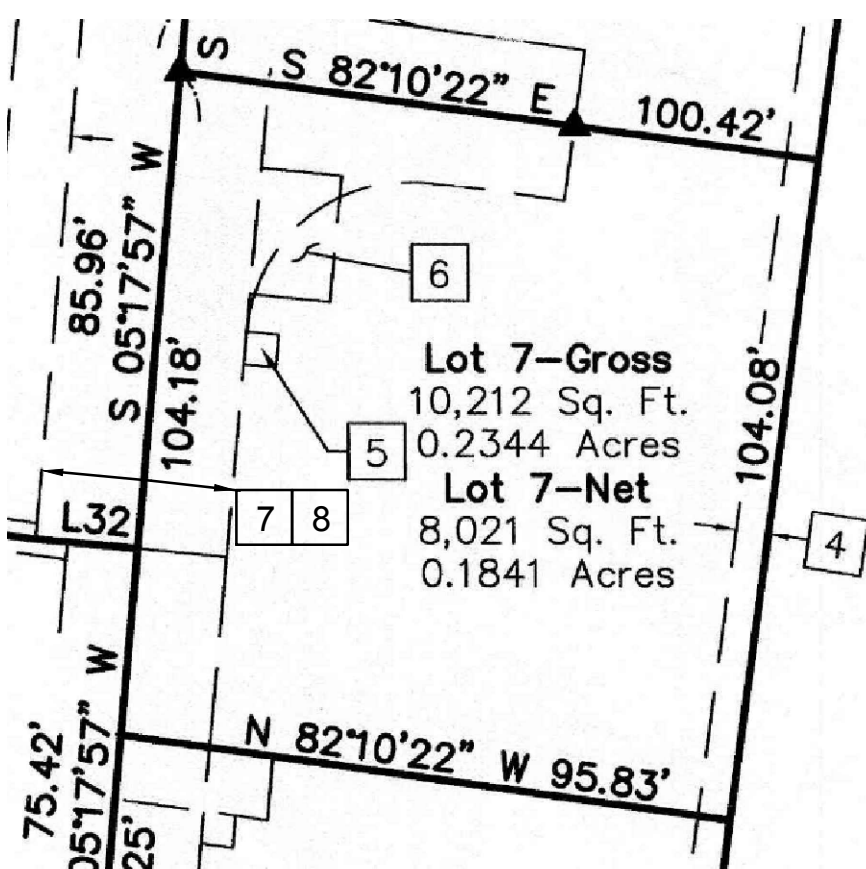
THE PROPOSED IMPERVIOUS AREA (SHOWN SHADED) = 5,044 SF INCLUDING PATIOS, WALKS, AND DRIVEWAY. THE STREET IS PERVIOUS WITH AGGREGATE BASE COURSE PAVING.

THE PROPOSED IMPERVIOUS AREA IS APPROXIMATELY 49% OF THE TOTAL PROPERTY AREA.

MASTER DRAINAGE PLAN CALCULATED 100-YEAR 10-DAY VOLUME FOR THIS LOT = 1,815 CF (BASED ON IMPERVIOUS AREA OF 4,595 SF).

THE REQUIRED 100-YEAR 10-DAY VOLUME INCREASES TO 1,902 CF BASED ON THE PROPOSED IMPERVIOUS AREA.

SEE POND VOLUME CALCULATIONS AT LEFT.



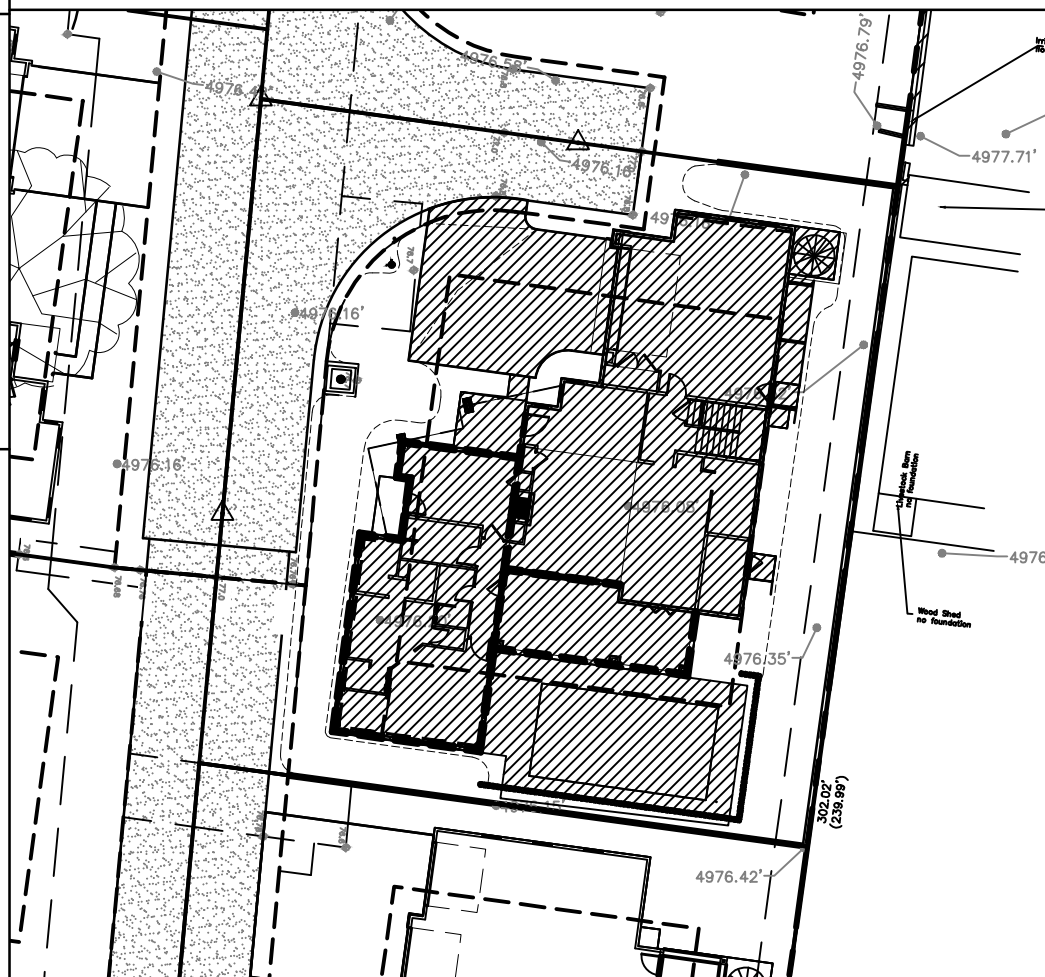
Easement Notes

- EXISTING 7' P.U.E. (1/7/2000, 2000C-7)
- EXISTING PRIVATE ACCESS EASEMENT FOR THE BENEFIT OF LOT 6-A-1 (1/7/2000, 2000C-7) SHOWN HEREON AS [Symbol]
- EXISTING 10' PNM JOINT ELECTRIC AND GAS EASEMENT (9/25/2002, PG. 2844, DOC. NO. 2002122889)
- PRIVATE 5' IRRIGATION LINE EASEMENT, BENEFITING LOTS 1-8 AND MAINTAINED BY THE UNDERLYING OWNER GRANTED WITH THE FILING OF THIS PLAT
- WATER METER EASEMENT GRANTED TO ABCWJA WITH THE FILING OF THIS PLAT
- FIRE HYDRANT EASEMENT GRANTED TO ABCWJA WITH THE FILING OF THIS PLAT
- PRIVATE ACCESS EASEMENT, BENEFITING LOTS 1-8 AND MAINTAINED BY THE UNDERLYING OWNER GRANTED WITH THE FILING OF THIS PLAT
- PUBLIC WATER AND SEWER EASEMENT GRANTED TO ABCWJA WITH THE FILING OF THIS PLAT
- 10' P.U.E. GRANTED WITH THE FILING OF THIS PLAT
- 20' PUBLIC WATERLINE EASEMENT GRANTED TO ABCWJA WITH THE FILING OF THIS PLAT

LEGEND

- 77 PROPOSED CONTOUR
- 76.6 PROPOSED SPOT ELEVATION
- Flow Direction
- FINISH FLOOR ELEVATION
- PAD GRADE ELEVATION
- RETENTION POND LIMITS

IMPERVIOUS AREA



HYDROLOGY CALCULATIONS

CALCULATIONS: Lot 7, Bosque Escondido : May 11, 2022	
Based on City of Albuquerque DMP, Article 6-2 Hydrology dated June 26, 2020	
100-YEAR, 6-HOUR CALCULATIONS	
AREA OF SITE:	10210 SF = 0.2344 ACRE
DEVELOPED FLOWS:	
Area A =	0 0%
Area B =	4145 41%
Area C =	1021 10%
Area D =	5044 49%
Total Area =	10210 100.0%
On-Site Weighted Excess Precipitation (100-Year, 6-Hour Storm)	
Weighted E =	$E_a A_a + E_b A_b + E_c A_c + E_d A_d$
Developed E =	1.58 in.
On-Site Volume of Runoff: V360 =	
Developed V360 =	1343 CF
On-Site Peak Discharge Rate: Qp = Q _{BA} A _A + Q _{BB} A _B + Q _{BC} A _C + Q _{BD} A _D / 43.560	
For Precipitation Zone 2	
Q _{BA} = 1.71	Q _{BC} = 3.05
Q _{BB} = 2.36	Q _{BD} = 4.34
Developed Q _p =	0.8 CFS

100-year 10-day Storm Volume	
V360 (from previous calculation)	1343
Area Treatment D (SF)	5044
Zone	2

For 100-year 10-Day Storms:
V10day = V360 + (Ad * (P10day - P360) 12" per foot)

V360	=	1343
Ad (SF)	=	5044
Zone	=	2
P10day	=	3.62
P360	=	2.29

V360	=	1343
+ imp. area	=	559
Total Volume (V10day)	=	1902

Isaacson & Arfman, Inc.
Civil Engineering Consultants

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Albuquerque, NM 87108
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NEW MEXICO
17631
LICENSED PROFESSIONAL ENGINEER
12/01/2022

Engineer

5504 Escondida Lane
Albuquerque NM, 87107

ISSUE: DESIGN REVIEW	PROJECT NUMBER: IA 2496	FILE:	DRAWN BY: BJB/ANW	CHECKED BY: ANW	DATE: 04-2022
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Description	No	Date
Grading & Drainage Plan		

SHEET TITLE

SHEET NUMBER

CG-101