

CITY OF ALBUQUERQUE

Planning Department
Brennon Williams, Director



Mayor Timothy M. Keller

December 30, 2020

Fred C. Arfman, P.E.
Isaacson & Arfman, P.A.
128 Monroe St. N.E
Albuquerque, NM 87108

**RE: Albuquerque RV & Boat Storage
2201 Vista Oriente St. NW
Second Revised Grading and Drainage Plan
Engineer's Stamp Date: 12/04/20
Hydrology File: H10D030**

Dear Mr. Arfman:

PO Box 1293

Based upon the information provided in your submittal received 12/14//2020, the Second Revised Grading & Drainage Plan is approved for Building Permit and SO-19 Permit.

Albuquerque

Please attach a copy of this approved plan in the construction sets for Building Permit processing along with a copy of this letter. Prior to approval in support of Permanent Release of Occupancy by Hydrology, Engineer Certification per the DPM checklist will be required.

NM 87103

As a reminder, if the project total area of disturbance (including the staging area and any work within the adjacent Right-of-Way) is 1 acre or more, then an Erosion and Sediment Control (ESC) Plan and Owner's certified Notice of Intent (NOI) is required to be submitted to the Stormwater Quality Engineer (Doug Hughes, PE, jhughes@cabq.gov, 924-3420) 14 days prior to any earth disturbance.

www.cabq.gov

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

Sincerely,

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 (REV 11/2018)

Project Title: Albuquerque RV & Boat Storage **Building Permit #:** _____ **Hydrology File #:** H09D030
DRB#: _____ **EPC#:** _____ **Work Order#:** _____
Legal Description: Tract 1, Ladera Business Park, Unit 2
City Address: 2201 Vista Oriente Street NW - Albuquerque, NM 87129

Applicant: Isaacson & Arfman, PA **Contact:** Fred C. Arfman or
Bryan J. Bobrick
Address: 128 Monroe Street NE - Albuquerque, NM 87108
Phone#: (505) 268-8828 **Fax#:** _____ **E-mail:** freda@iacivil.com
bryanb@iacivil.com
Owner: Ladera Enterprises, LLC **Contact:** _____
Address: _____
Phone#: _____ **Fax#:** _____ **E-mail:** _____

TYPE OF SUBMITTAL: _____ PLAT (____# OF LOTS) _____ RESIDENCE _____ DRB SITE ☒ ADMIN SITE

IS THIS A RESUBMITTAL?: ☒ Yes _____ No

DEPARTMENT: _____ TRAFFIC/ TRANSPORTATION _____ HYDROLOGY/ DRAINAGE

Check all that Apply:

TYPE OF SUBMITTAL:

☒ ENGINEER/ARCHITECT CERTIFICATION
____ PAD CERTIFICATION
____ CONCEPTUAL G & D PLAN
☒ GRADING PLAN
____ DRAINAGE MASTER PLAN
____ DRAINAGE REPORT
____ FLOODPLAIN DEVELOPMENT PERMIT APPLIC
____ ELEVATION CERTIFICATE
____ CLOMR/LOMR
____ TRAFFIC CIRCULATION LAYOUT (TCL)
____ TRAFFIC IMPACT STUDY (TIS)
____ OTHER (SPECIFY) _____
____ PRE-DESIGN MEETING?

TYPE OF APPROVAL/ACCEPTANCE SOUGHT:

☒ BUILDING PERMIT APPROVAL
____ CERTIFICATE OF OCCUPANCY
____ 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
____ FLOODPLAIN DEVELOPMENT PERMIT
____ OTHER (SPECIFY) _____

DATE SUBMITTED: December 14, 2020 **By:** Fred C. Arfman

COA STAFF:

ELECTRONIC SUBMITTAL RECEIVED: _____

FEE PAID: _____



S.O.19 : NOTICE TO CONTRACTORS

APPROVAL	NAME	DATE
INSPECTOR		

PRIVATE DRAINAGE FACILITIES WITHIN CITY RIGHT-OF-WAY

1	AN EXCAVATION PERMIT WILL BE REQUIRED BEFORE BEGINNING ANY WORK WITHIN CITY RIGHT OF WAY.
2	ALL WORK ON THIS PROJECT SHALL BE PERFORMED IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE AND LOCAL LAWS, RULES AND REGULATIONS CONCERNING CONSTRUCTION SAFETY AND HEALTH.
3	TWO WORKING DAYS PRIOR TO ANY EXCAVATION, THE CONTRACTOR MUST CONTACT NEW MEXICO ONE CALL, DIAL 811 [OR (505) 260 1990] FOR THE LOCATION OF EXISTING UTILITIES.
4	PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL EXCAVATE AND VERIFY THE LOCATIONS OF ALL OBSTRUCTIONS. SHOULD A CONFLICT EXIST, THE CONTRACTOR SHALL NOTIFY THE ENGINEER SO THAT THE CONFLICT CAN BE RESOLVED WITH A MINIMUM AMOUNT OF DELAY.
5	BACKFILL COMPACTION SHALL BE ACCORDING TO TRAFFIC / STREET USE.
6	MAINTENANCE OF THE FACILITY SHALL BE THE RESPONSIBILITY OF THE OWNER OF THE PROPERTY BEING SERVED.
7	WORK ON ARTERIAL STREETS MAY BE REQUIRED ON A 24 HOUR BASIS.
8	CONTRACTOR MUST CONTACT AUGIE ARMIJO AT (505) 857 8607 AND CONSTRUCTION COORDINATION AT 924 3416 TO SCHEDULE AN INSPECTION.

KEYED NOTES

KEYED NOTES ARE REFERENCED ON SHEETS CG-101 AND CG-102. NOT ALL NOTES ARE USED ON EACH SHEET.

- CONSTRUCT ENTRANCE DRIVES, CONCRETE VALLEY GUTTER, PUBLIC SIDEWALK, AND ADA COMPLIANT RAMPS PER COA STD. DETAILS AND SPECIFICATIONS. SEE CP-101 FOR ADDITIONAL INFORMATION.
- CONSTRUCT NEW PAVING AT ELEVATIONS SHOWN. SEE CP-101 FOR ADDITIONAL INFORMATION FOR MATERIAL, EXTENTS, JOINTS, AND PAVING SECTIONS.
- CONSTRUCT 6" HIGH CURB (HEADER OR MEDIAN CURB AND GUTTER - OWNER'S OPTION). NOTE: ENGINEER RECOMMENDS MEDIAN CURB AND GUTTER FOR CONCENTRATED FLOWPATHS.
- CONSTRUCT 2' WIDE CONC. ALLEY GUTTER. SEE CG-501 FOR SECTION.
- SEE CG-501 FOR SECTIONS THROUGH EAST, WEST AND NORTH PROPERTY LINES.
- 0.5' DESIGN CONTOURS ARE SHOWN DASHED WHERE NECESSARY TO CLARIFY GRADING CONCEPT.
- BUILDING AND OVERHEAD CANOPY ROOF DISCHARGE DIRECTION. (OWNER'S OPTION - ENGINEER RECOMMENDS CONCRETE SPLASHPAD FOR CONCENTRATED ROOF DISCHARGE TO ASPHALT PAVEMENT.) SEE BUILDING PLANS FOR SPECIFIC ROOF DISCHARGE INFORMATION.
- PROVIDE 2' WIDE OPENING(S) IN CURB TO PASS FLOW. INSTALL 4'X4'X8" DEEP ROCK EROSION PROTECTION AT CURB

OPENINGS.

9. CONSTRUCT STORMWATER QUALITY RETENTION POND AT ELEVATIONS AND VOLUMES SHOWN. ALL STORMWATER QUALITY PONDING VOLUMES REQUIRE VERIFICATION AS PART OF AS-BUILT ENGINEER'S CERTIFICATION PROCEDURE. PONDS WHICH DO NOT PROVIDE THE REQUIRED VOLUME WILL BE CORRECTED AT CONTRACTOR'S EXPENSE.

10. CONSTRUCT PERIMETER RETAINING/PRIVACY WALLS TO ACHIEVE GRADE DIFFERENCE SHOWN. SEE ARCHITECTURAL FOR DETAILS. ADDITIONAL WALL HEIGHT, FOOTING, GUARDRAIL, REINFORCING, ETC. NO STRUCTURE OR FOOTING MAY BE CONSTRUCTED ON ADJACENT PROPERTIES WITHOUT ADJACENT PROPERTY OWNER PERMISSION.

TRW=HIGH SIDE GRADE + 6" OR AS NOTED

ADDITIONAL WALL. SEE ARCHITECTURAL

BRW=LOW SIDE GRADE OR AS NOTED

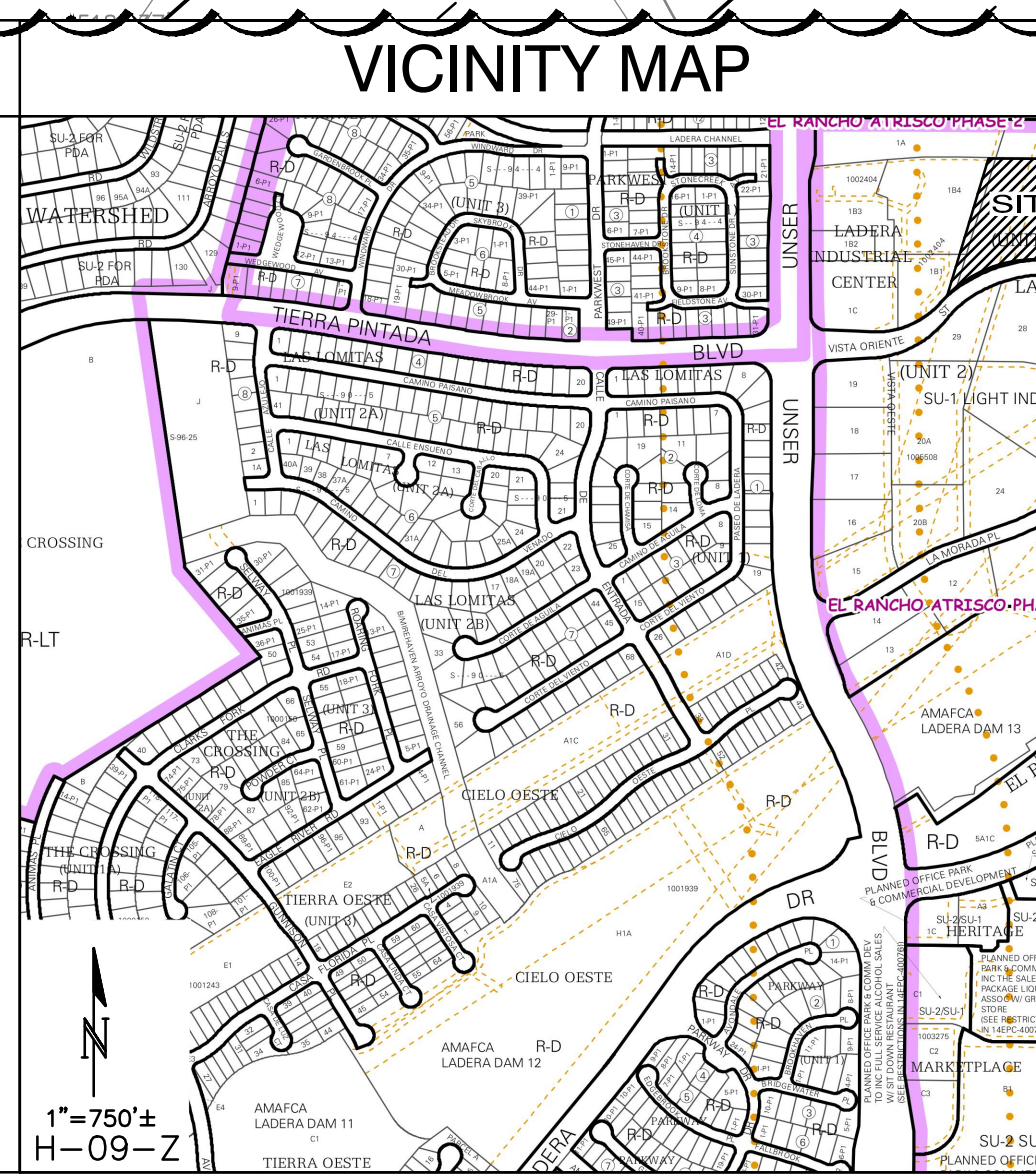
11. SEE CG-102 FOR ENLARGED PLAN OF OUTFALL TO VISTA ORIENTE STREET NW.

12. SEE CG-501 FOR ROCK EROSION PROTECTION DETAIL.

13. UNIT SIDE DOOR. COORDINATE GRADE TRANSITION WITH OWNER.

LEGEND

• 5105.85'	EXISTING SPOT ELEVATION
— 5110 —	EXISTING CONTOUR
— 12 —	PROPOSED CONTOUR (1' INCREMENT)
— 10.5 —	PROPOSED CONTOUR (0.5' INCREMENT)
◆ 08.9	PROPOSED SPOT ELEVATION
→	FLOW ARROW
[Pattern]	PROPOSED STORMWATER QUALITY RETENTION POND LIMITS
→	ROOF / CANOPY DISCHARGE DIRECTION
~~~~~	GRADE BREAK
[Pattern]	EROSION CONTROL (TO EXTENTS SHOWN)
==	PERIMETER RETAINING WALL (>16" RETAINING)
==	PERIMETER WALL (<16" RETAINING)



**ABQ RV & BOAT STORAGE**  
LADERA ENTERPRISES LLC

**GRADING & DRAINAGE PLAN 1 OF 2**

Date:	No. Revision:	Date:	Job No.
05-17-19	1 SITE PLAN REVISIONS	04/20/20	2278
	2 SITE PLAN REVISIONS	12/02/20	

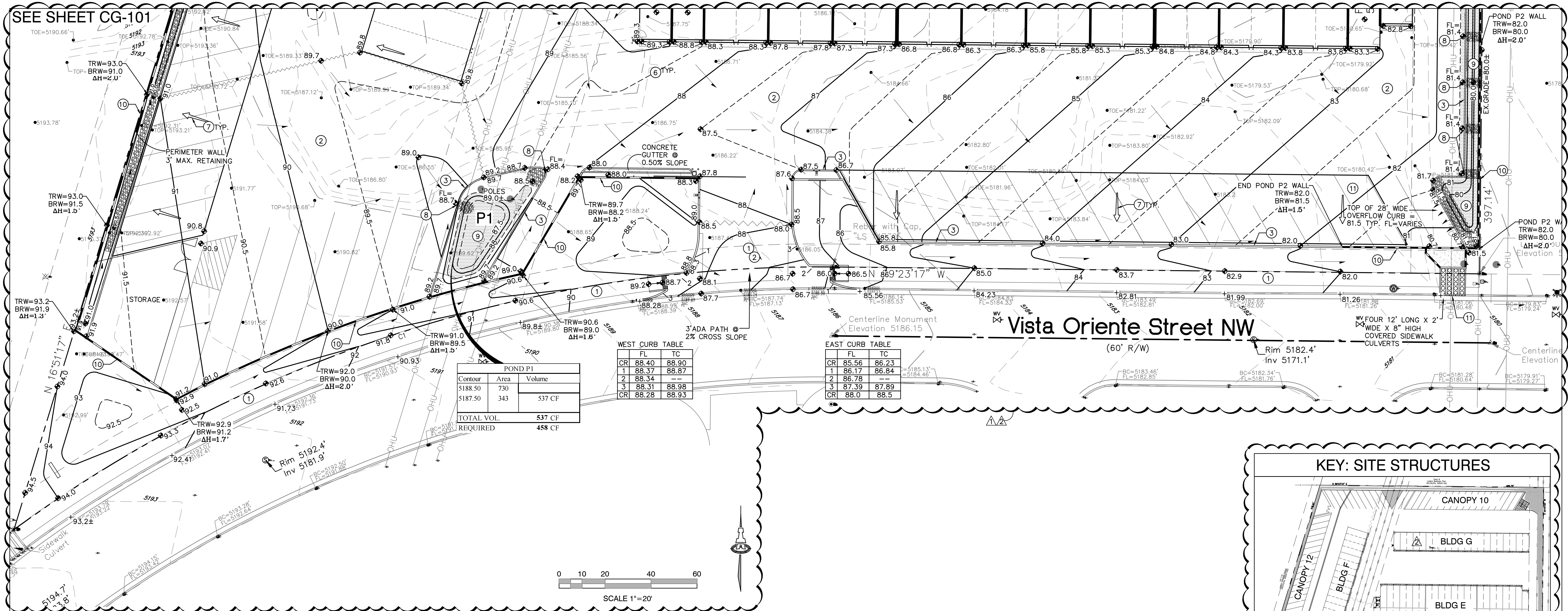
Drawn By: BJB  
Ckd By: FCA

**CG-101**  
SH. OF

ISAACSON & ARFMAN, P.A.  
Consulting Engineering Associates  
128 Monroe Street N.E.  
Albuquerque, New Mexico 87108  
Ph. 505-268-8828 www.isaacson.com

2278 CG-101.dwg Dec 02, 2020

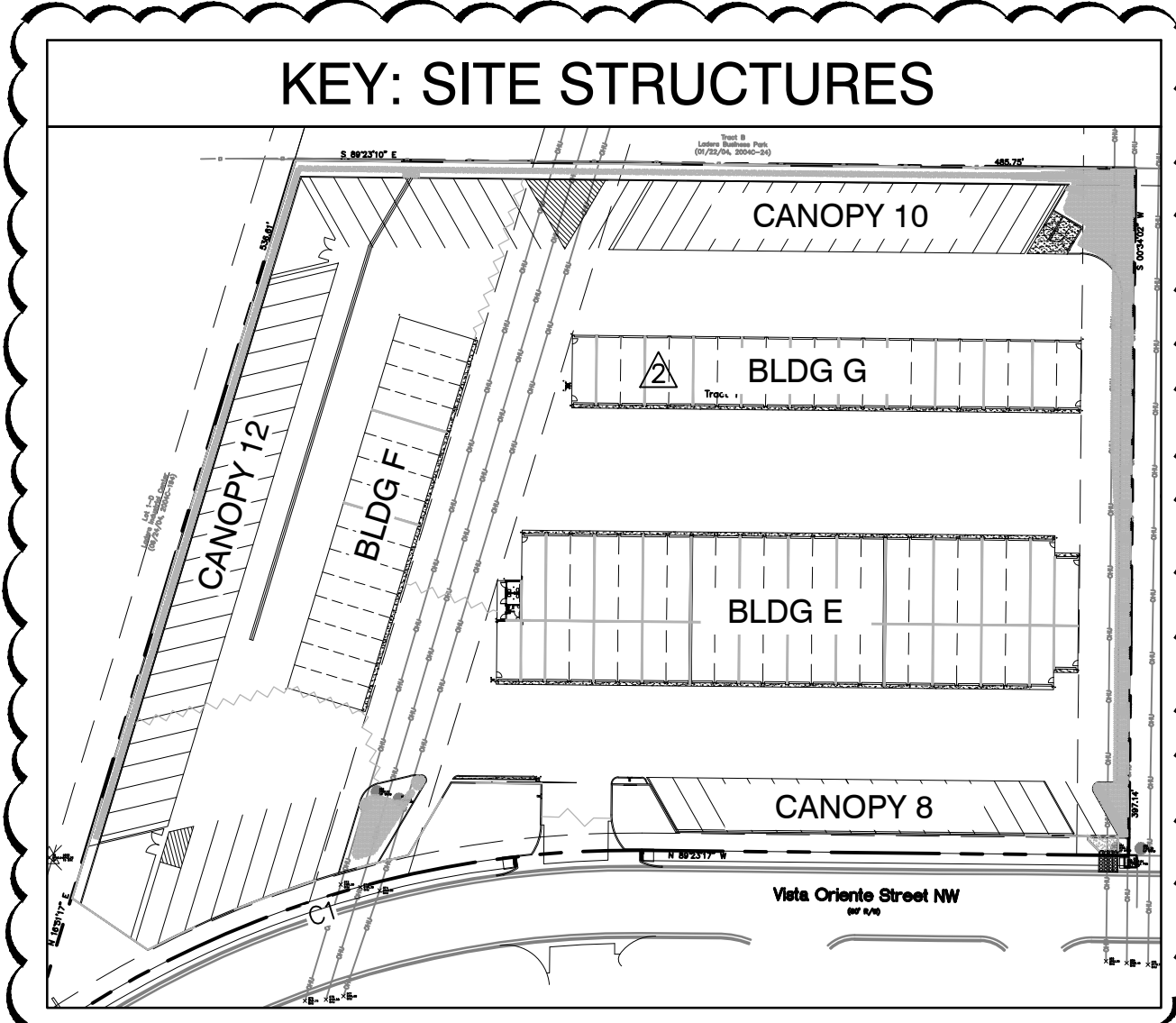
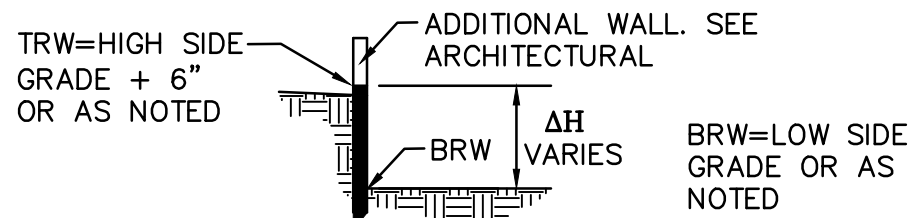
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POND P1		
Contour	Area	Volume
5188.50	730	
5187.50	343	537 CF
TOTAL VOL.		537 CF
REQUIRED		458 CF

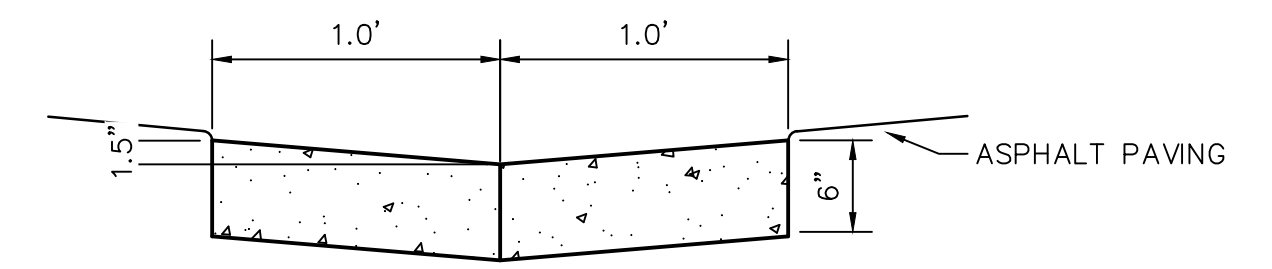
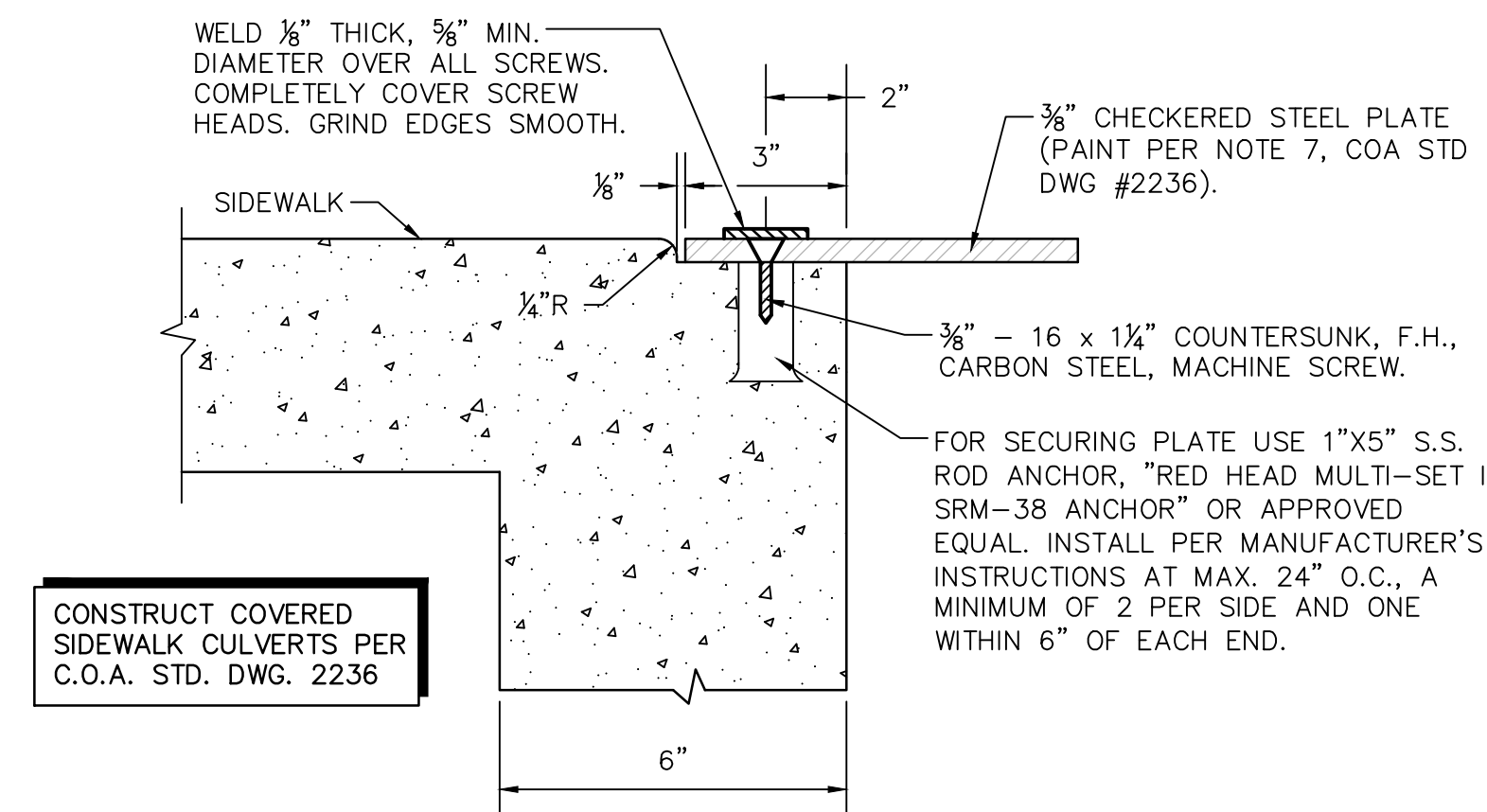
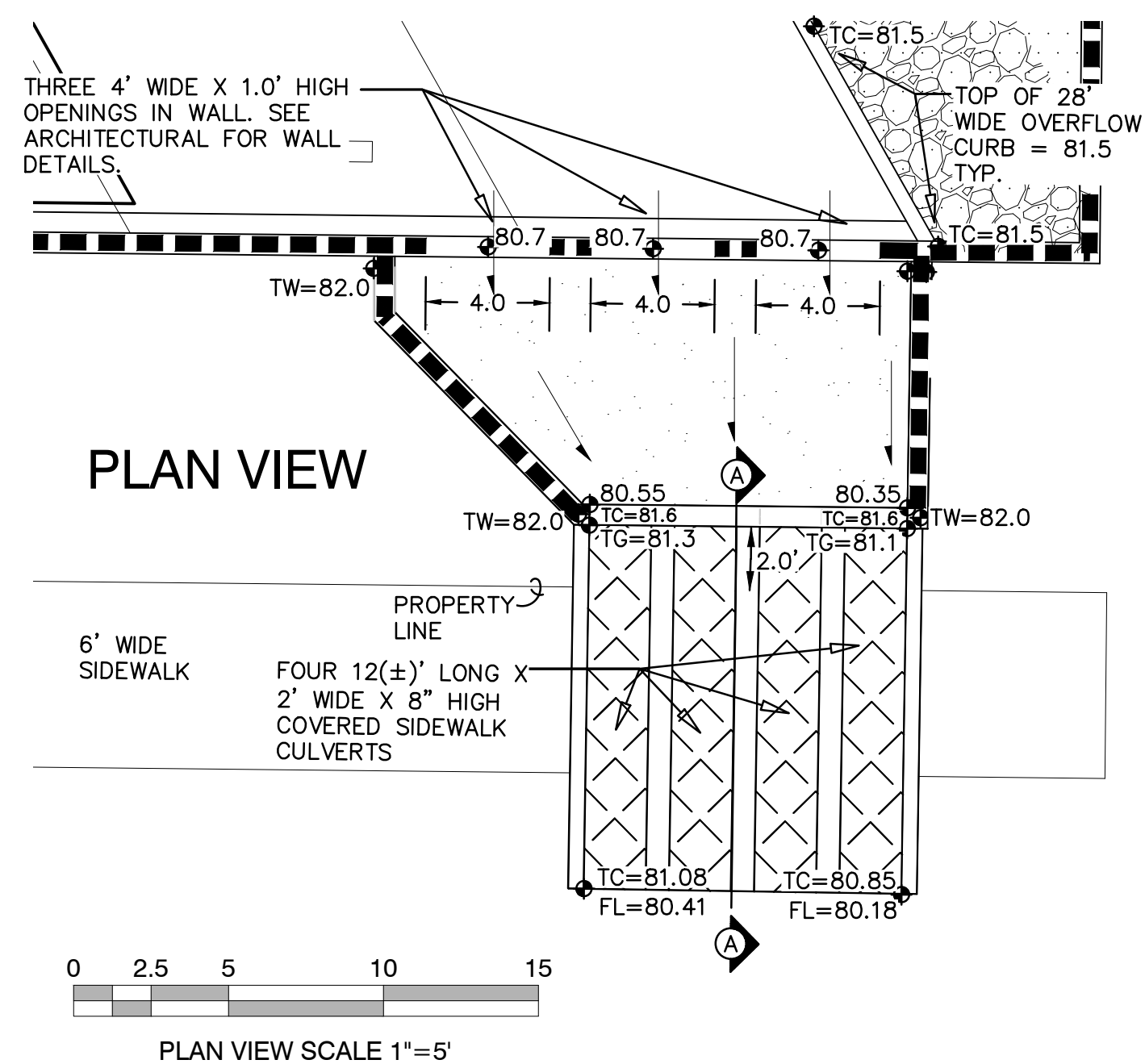
	FL	TC
CR	88.40	88.90
1	88.37	88.87
2	88.34	--
3	88.31	88.98
CR	88.28	88.93

	FL	TC
CR	85.56	86.23
1	86.17	86.84
2	86.78	--
3	87.39	87.89
CR	88.0	88.5



LEGEND		KEYED NOTES		PROJECT DATA	
	<p>• 5105.65' EXISTING SPOT ELEVATION</p> <p>— 5110 — EXISTING CONTOUR</p> <p>— 12 — PROPOSED CONTOUR (1' INCREMENT)</p> <p>— 10.5 — PROPOSED CONTOUR (0.5' INCREMENT)</p> <p>◆ 08.9 PROPOSED SPOT ELEVATION</p> <p>→ FLOW ARROW</p> <p>[Pattern] PROPOSED STORMWATER QUALITY RETENTION POND LIMITS</p> <p>← ROOF / CANOPY DISCHARGE DIRECTION</p> <p>~~~~~ GRADE BREAK</p> <p>[Pattern] EROSION CONTROL (TO EXTENTS SHOWN)</p> <p>== == == PERIMETER RETAINING WALL (&gt;16" RETAINING)</p> <p>== == == PERIMETER WALL (&lt;16" RETAINING)</p>	<p>KEYED NOTES ARE REFERENCED ON SHEETS CG-101 AND CG-102. NOT ALL NOTES ARE USED ON EACH SHEET.</p> <ol style="list-style-type: none"> <li>CONSTRUCT ENTRANCE DRIVES, CONCRETE VALLEY GUTTER, PUBLIC SIDEWALK, AND ADA COMPLIANT RAMPS PER COA STD. DETAILS AND SPECIFICATIONS. SEE CP-101 FOR ADDITIONAL INFORMATION.</li> <li>CONSTRUCT NEW PAVING AT ELEVATIONS SHOWN. SEE CP-101 FOR ADDITIONAL INFORMATION FOR MATERIAL, EXTENTS, JOINTS, AND PAVING SECTIONS.</li> <li>CONSTRUCT 6" HIGH CURB (HEADER OR MEDIAN CURB AND GUTTER - OWNER'S OPTION). NOTE: ENGINEER RECOMMENDS MEDIAN CURB AND GUTTER FOR CONCENTRATED FLOWPATHS.</li> <li>CONSTRUCT 2' WIDE CONC. ALLEY GUTTER. SEE CG-501 FOR SECTION.</li> <li>SEE CG-501 FOR SECTIONS THROUGH EAST, WEST AND NORTH PROPERTY LINES.</li> <li>0.5' DESIGN CONTOURS ARE SHOWN DASHED WHERE NECESSARY TO CLARIFY GRADING CONCEPT.</li> <li>BUILDING AND OVERHEAD CANOPY ROOF DISCHARGE DIRECTION. (OWNER'S OPTION - ENGINEER RECOMMENDS CONCRETE SPLASHPAD FOR CONCENTRATED ROOF DISCHARGE TO ASPHALT PAVEMENT.) SEE BUILDING PLANS FOR SPECIFIC ROOF DISCHARGE INFORMATION.</li> <li>PROVIDE 2' WIDE OPENING(S) IN CURB TO PASS FLOW. INSTALL 4'X4'X8" DEEP ROCK EROSION PROTECTION AT CURB</li> </ol>	<p>OPENINGS.</p> <ol style="list-style-type: none"> <li>CONSTRUCT STORMWATER QUALITY RETENTION POND AT ELEVATIONS AND VOLUMES SHOWN. ALL STORMWATER QUALITY PONDING VOLUMES REQUIRE VERIFICATION AS PART OF AS-BUILT ENGINEER'S CERTIFICATION PROCEDURE. PONDS WHICH DO NOT PROVIDE THE REQUIRED VOLUME WILL BE CORRECTED AT CONTRACTOR'S EXPENSE.</li> <li>CONSTRUCT PERIMETER RETAINING/PRIVACY WALLS TO ACHIEVE GRADE DIFFERENCE SHOWN. SEE ARCHITECTURAL FOR DETAILS, ADDITIONAL WALL HEIGHT, FOOTING, GUARDRAIL, REINFORCING, ETC. NO STRUCTURE OR FOOTING MAY BE CONSTRUCTED ON ADJACENT PROPERTIES WITHOUT ADJACENT PROPERTY OWNER PERMISSION.</li> </ol>		<p><b>PROPERTY:</b> THE SITE IS A 5.22 ACRE, UNDEVELOPED PROPERTY LOCATED WITHIN C.O.A. VICINITY MAP H-09. THE SITE IS BOUND TO THE LADERA CHANNEL, TO THE WEST AND EAST BY UNDEVELOPED LAND, AND TO THE SOUTH BY VISTA ORIENTE ST NW.</p> <p><b>PROPOSED IMPROVEMENTS:</b> THE PROPOSED IMPROVEMENTS INCLUDE SELF STORAGE BUILDINGS AND OUTDOOR RV STORAGE WITH ASSOCIATED ASPHALT PAVED ACCESS, PARKING AND LANDSCAPING.</p> <p><b>PROPERTY ADDRESS:</b> 2201 VISTA ORIENTE ST. NW, ALBUQUERQUE, 87120</p> <p><b>LEGAL:</b> TRACT 1, LADERA BUSINESS PARK, UNIT 2, CITY OF ALBUQUERQUE, BERNALILLO CNTY, NM.</p> <p><b>BENCHMARK:</b> BRASS CAP STAMPED "2-H9, 1980", ON THE WEST MESA UNDER POWER LINES RUNNING NE/SW, 0.2 MI. NORTH OF LADERA DR. NW, 111FT. WEST OF THE CENTERLINE OF UNSER BLVD., IN THE MIDDLE OF A SET OF POWERPOLES.</p> <p><b>OFF-SITE FLOW:</b> NO OFF-SITE DRAINAGE IMPACTS THIS PROPERTY.</p> <p><b>FLOOD HAZARD:</b> PER BERNALILLO COUNTY FIRM MAP #35001C0326J, THE SITE IS LOCATED WITHIN FLOODZONE 'X' DESIGNATED AS AREAS DETERMINED TO BE OUTSIDE 500-YEAR FLOODPLAIN.</p> <p><b>DRAINAGE FOR THIS TRACT WAS INCLUDED IN THE LADERA BUSINESS PARK MASTER DRAINAGE REPORT (MDR) BY MARK GOODWIN &amp; ASSOCIATES DATED 11-21-02. PER THE MDR, THIS PROPERTY (DESIGNATED AS BASIN B-1) IS PERMITTED FREE DISCHARGE.</b></p> <p><b>ENGINEER:</b> FRED C. ARFMAN: NMPE 7322 - ISAACSON &amp; ARFMAN, PA 128 MONROE NE 87108 - (505) 268-8828</p> <p><b>SURVEYOR:</b> WILL PLOTNER JR: NMPS NO. 14271 - CARTESIAN SURVEYS INC P.O. BOX 44414 RIO RANCHO, NM 87174 - (505) 891-0244</p>

		<b>ISAACSON &amp; ARFMAN, P.A.</b> Consulting Engineering Associates 128 Monroe Street N.E. Albuquerque, New Mexico 87108 Ph. 505-268-8828    www.iaacivill.com
<i>[Handwritten: 7322]</i> <i>[Stamp: RECEIVED 06-18-19]</i> <i>[Stamp: 04-24-2020]</i> <i>[Stamp: 12-04-2020]</i>		2278 CG-101.dwg                  Dec. 02, 2020
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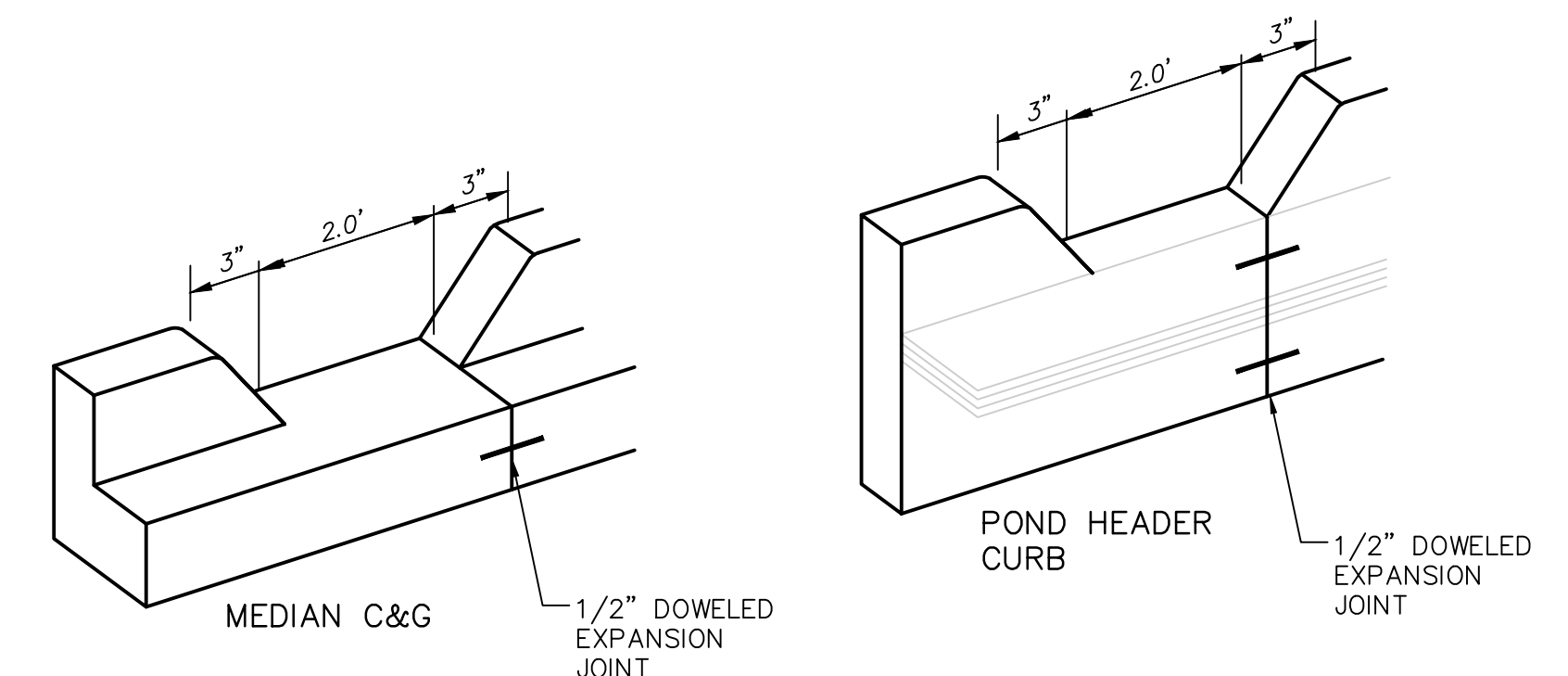


### GENERAL NOTES

1. EDGES SHALL BE SHAPED WITH A 3/8" EDGING TOOL.
2. CONSTRUCTION CONTROL JOINTS AT 6' O.C. MAX.
3. SEALED 1/2" EXPANSION JOINTS AT 48' O.C. MAX.
4. EDGE OF ASPHALT PAVING TO BE 1/2" ABOVE EDGE OF CONCRETE (TYP).

## CONCRETE ALLEY GUTTER

SCALE: N.T.S.
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### GENERAL NOTES

1. EDGES NOT SPECIFICALLY DIMENSIONED SHALL BE SHAPED WITH A 3/8" EDGING TOOL.

**ORIFICE EQUATION - 2' WIDE CURB OPENING**

The Orifice Equation is used to calculate the Flow at the opening of a Channel

$$Q = C^*A \left( 2 * g * h \right)^{0.5}$$

Where

Q	=	2.71	cfs	
C	=	0.6		
A	=	1.125	sq.ft.	
g	=	32.2	ft/sec ²	
h	=	0.25	ft	depth of flow at opening from the center of culvert

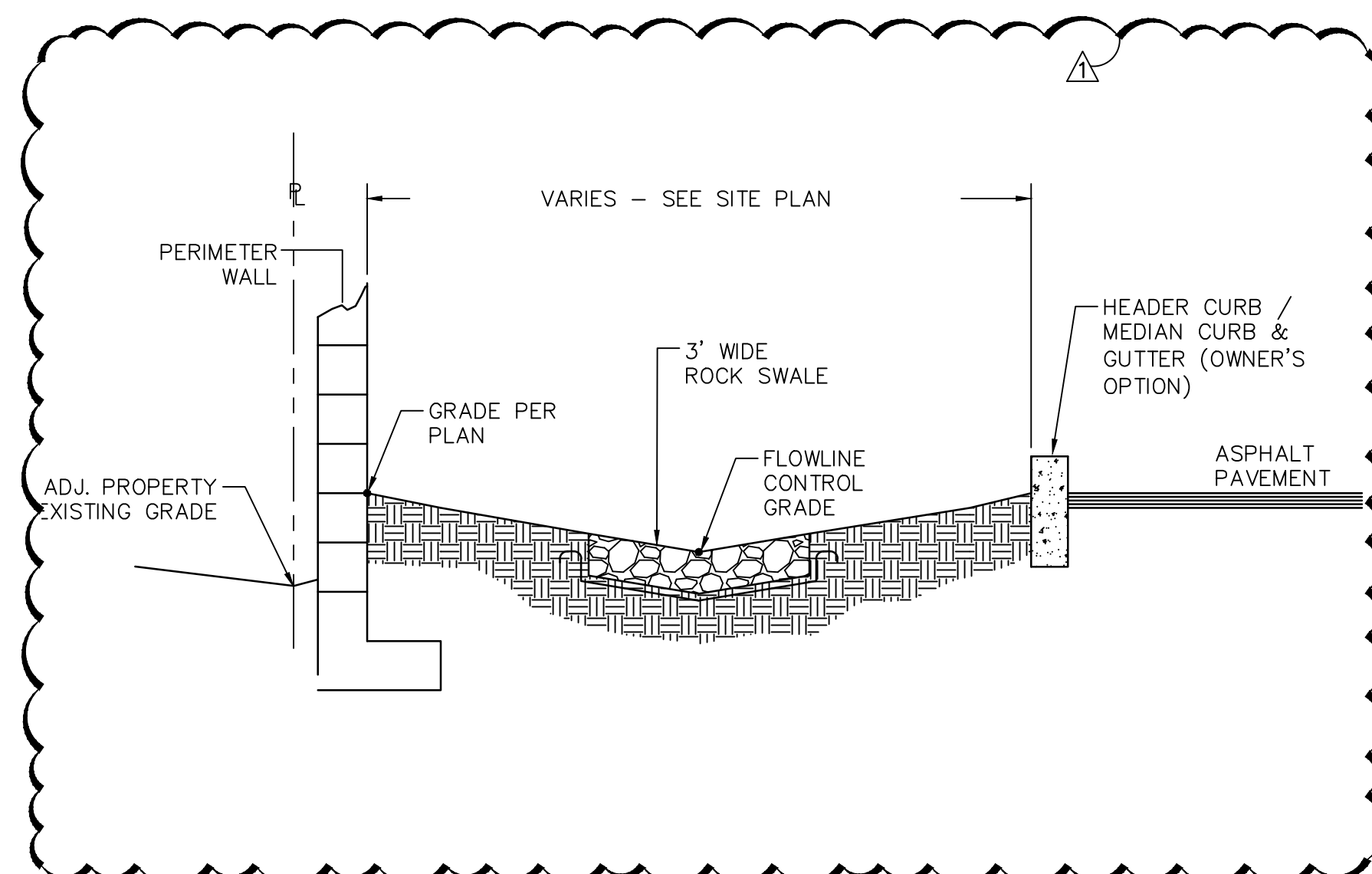
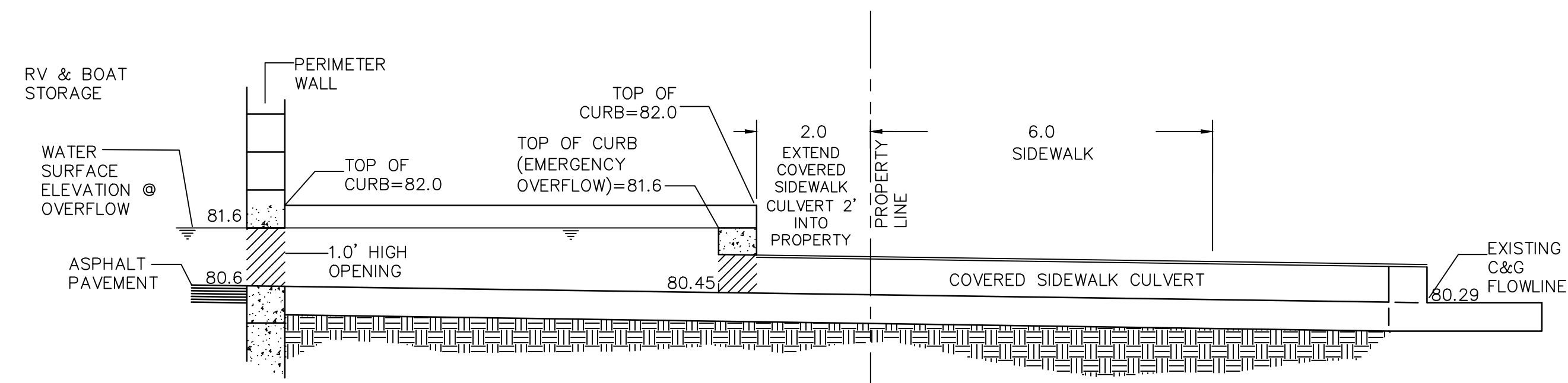
Curb Height	0.5
Opening area	1.125

## STORMWATER OUTFALL STRUCTURE TO VISTA ORIENTE

SCALE: N.T.S.

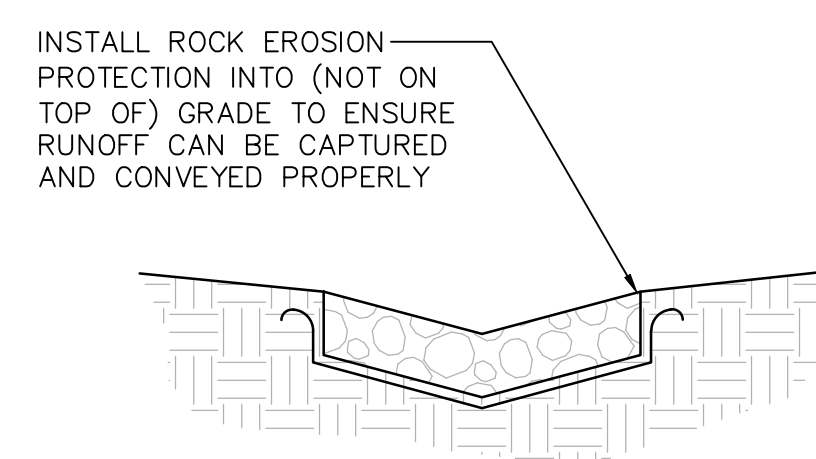
## TYPICAL CURB OPENING

SCALE: N.T.S.
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SECTION: WEST AND NORTH PROPERTY LINE

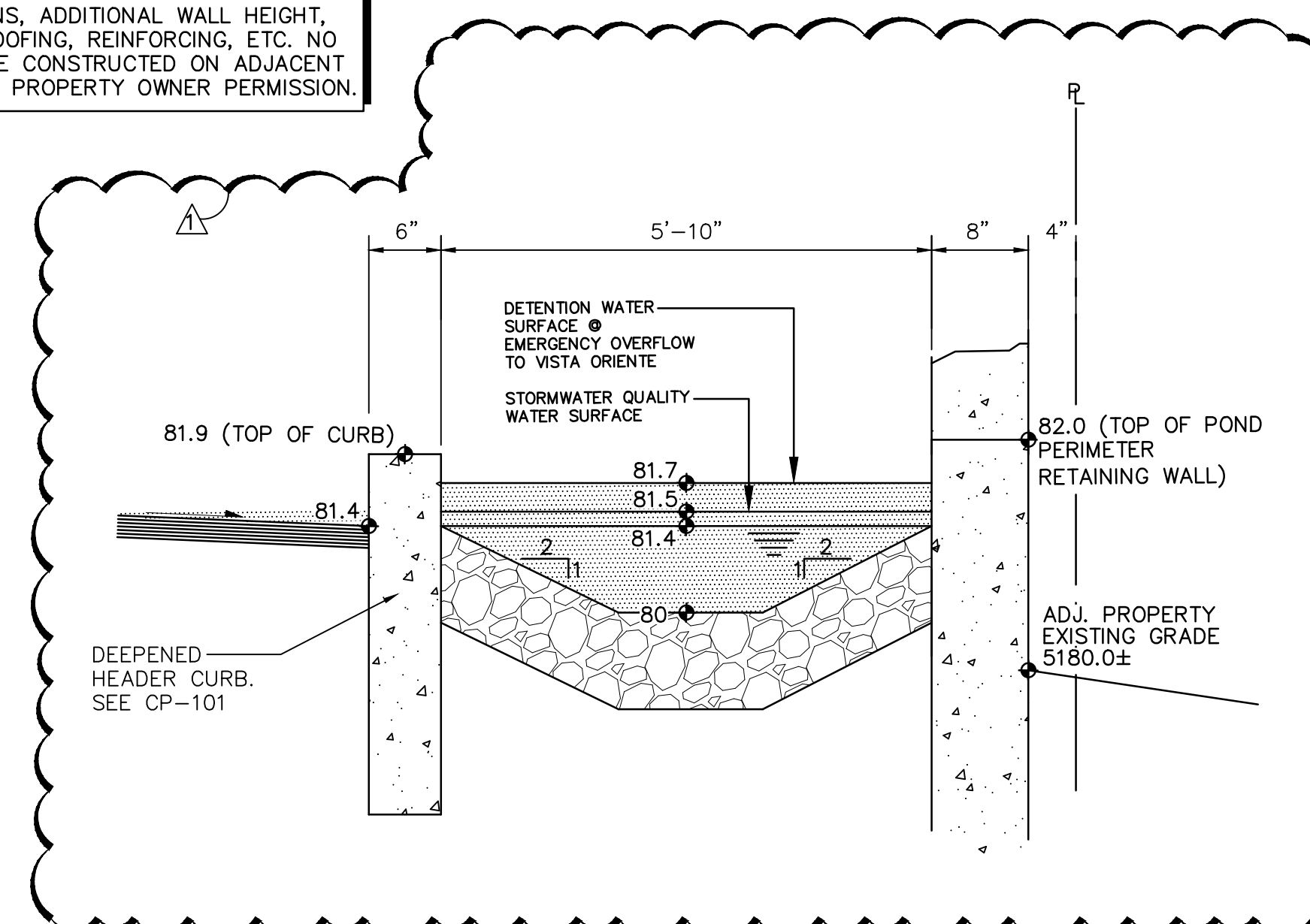
SCALE: N.T.S.



- ALL EROSION PROTECTION TO BE 8" DEEP, 4" AVG. DIA. ANGULAR FACED ROCK.
- PLACE GEOTEX 501 NON-WOVEN GEOTEXTILE (O.E.) BENEATH ALL EROSION PROTECTION
- ROCK SWALES TO BE 3' WIDE, 6" DEPRESSED

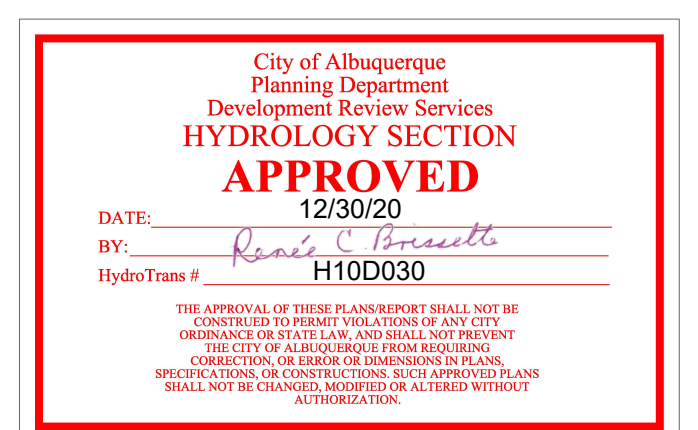
## ROCK EROSION PROTECTION

SCALE: N.T.S.



## SECTION: EAST STORMWATER QUALITY POND

SCALE: N.T.S.



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**ABQ RV &  
BOAT STORAGE**  

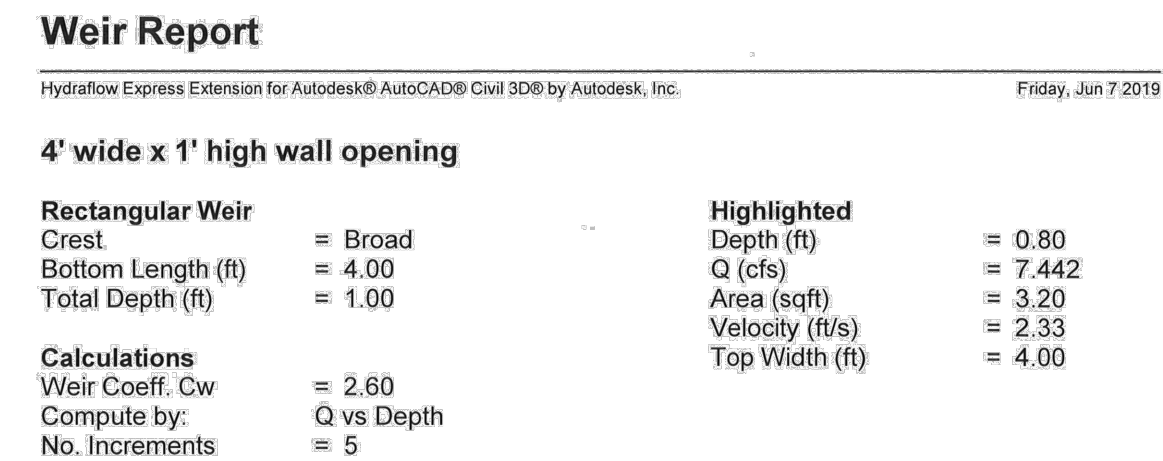

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**LADERA ENTERPRISES LLC**

## GRADING & DRAINAGE DETAILS

Date:	No.	Revision:	Date:	Job No.
05-17-19	1	SITE PLAN REVISIONS	04/20/20	2278
Drawn By:	2	SITE PLAN REVISIONS	12/02/20	CG-501
BJB				
Ckd By:				SH. OF
FCA				

## WEIR CALCULATIONS



4' wide x 1' high wall opening

Depth (ft)

2.00

1.50

1.00

0.50

0.00

-0.50

0 0.5 1 1.5 2 2.5 3 3.5 4 4.5 5

Length (ft)

— Weir — W.S.

BASINS 5 AND 6 FREE DISCHARGE TO  
VISTA ORIENTE STREET. 1,360 CF  
REQUIRED.

Hydrowell Express Extension for Autodesk® AutoCAD® Civil 3D® by Autodesk, Inc.		Friday, Jun 7 2019	
<b>Interior 28' Wide Curb Weir</b>			
<b>Rectangular Weir</b>		<b>Highlighted</b>	
Crest	= Broad	Depth (ft)	= 0.44
Bottom Length (ft)	= 28.00	Q (cfs)	= 21.00
Total Depth (ft)	= 1.00	Area (sqft)	= 11.22
		Velocity (ft/s)	= 1.72
		Top Width (ft)	= 28.00
<b>Calculations</b>			
Weir Coeff. Cw	= 2.60		
Compute by	Known Q		
Known Q (cfs)	= 21.00		

**Interior 28' Wide Curb Weir**

Depth (ft) 2.00 1.50 1.00 0.50 0.00 -0.50

Length (ft) 0 5 10 15 20 25 30 35 40

— Weir — W.S.



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## DRAINAGE CALCULATIONS

Date:	No.	Revision:	Date:	Job No.
05-17-19	1	SITE PLAN REVISIONS	04/20/20	2278
Drawn By:	2	SITE PLAN REVISIONS	12/02/20	CG-502
BJB				
Ckd By:				
FCA				SH. OF