CITY OF ALBUQUERQUE

Planning Department
Brennon Williams, Interim Director

Mayor Timothy M. Keller

August 21, 2019

Diane Hoelzer, P.E.
Mark Goodwin & Associates
PO Box 90606
Albuquerque, NM 87199

RE: Ceja Vista Off-Site Unit 1
Grading & Drainage Plan and Drainage Report
Engineer's Stamp Date: 08/09/19
Hydrology File: P09D002F

Dear Ms. Hoelzer:

Based upon the information provided in your submittal received 08/09/2019 and 07/26/19, the Grading & Drainage Plan and Drainage Report is approved for Work Order.

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 (Dough Hughes, PE, jhughes@cabq.gov, 924-3420) 14 days prior to any earth disturbance.

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

PO Box 1293

Albuquerque

NM 87103

www.cabq.gov

PUBLIC SLOPE EASEMENT

DESCRIPTION

A PUBLIC SLOPE EASEMENT within TRACT RR–3–C–1, WESTLAND SOUTH, as the same is shown and designated on said plat filed for record in the office of the County Clerk of Bernalillo County, New Mexico, on September 19, 2018, in Plat Book 2018C, Page 124, and being more particularly described as follows:

BEGINNING at the northwest corner of the herein described Easement, from whence the AGRS Monument "TRANS" bears N 10°48'28" E, 7554.30 feet;

THENCE N 89°49'05" E, 35.00' feet to the northeast corner;

THENCE S 00°10'55" E, 787.91 feet to the southeast corner;

THENCE S 89°44'31" W, 44.96 feet to a point of curvature;

THENCE 47.16 feet along a curve to right, whose radius is 30.00 feet through a central angle of 90°04'34" and whose chord bears N 45°13'12" W, 42.45 feet to a point of tangency;

THENCE N 00°10'55" W, 590.00 feet to a point;

THENCE N 05°44'35" E, 96.87 feet to a point;

THENCE N 00°10'55" W, 41.62 feet to a point of curvature;

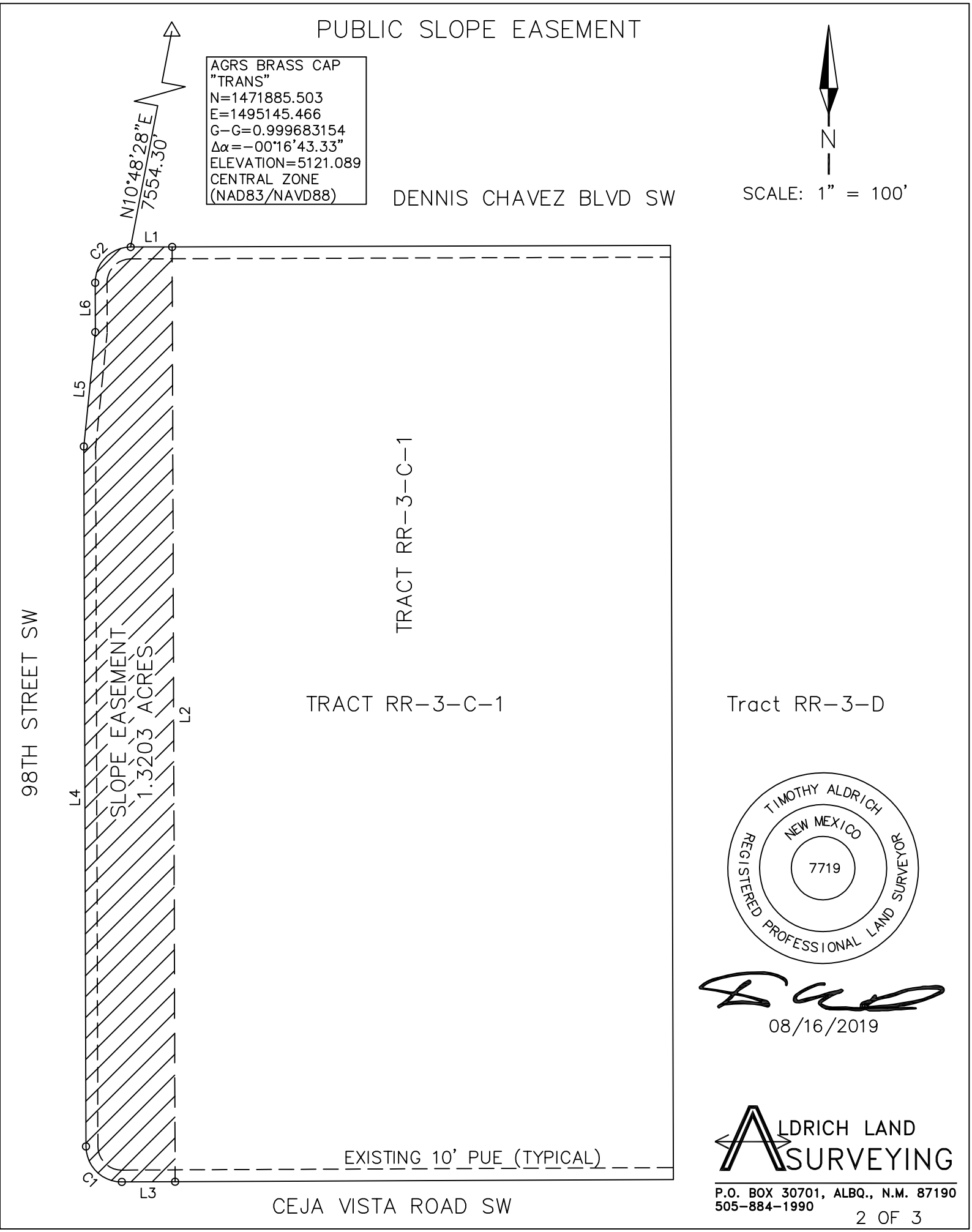
THENCE 47.12 feet along a curve to right, whose radius is 30.00 feet through a central angle of 90°00'00" and whose chord bears N 44°49'05" E, 42.43 feet to the point of beginning and containing 1.3203 acres more or less.

08/16/2019

EXHIBIT "A"

ALDRICH LAND SURVEYING
P.O. BOX 30701, ALBQ., N.M. 87190
505–884–1990

PUBLIC SLOPE EASEMENT



TIMOTHY ALDRICH
NEW MEXICO
7719
REGISTERED PROFESSIONAL LAND SURVEYOR

08/16/2019

ALDRICH LAND SURVEYING
P.O. BOX 30701, ALBQ., N.M. 87190
505-884-1990

PUBLIC SLOPE EASEMENT

LINE	BEARING	DISTANCE
L1	N 89°49'05" E	35.00'
L2	S 00°10'55" E	787.91'
L3	S 89°44'31" W	44.96'
L4	N 00°10'55" W	590.00'
L5	N 05°44'35" E	96.87'
L6	N 00°10'55" W	41.62'

CURVE	ARC LENGTH	RADIUS	DELTA ANGLE	CHORD BEARING	CHORD LENGTH
C1	47.16'	30.00'	90°04'34"	N 45°13'12" W	42.45'
C2	47.12'	30.00'	90°00'00"	N 44°49'05" E	42.43'

08/16/2019

EXHIBIT "A"

ALDRICH LAND SURVEYING
P.O. BOX 30701, ALBQ., N.M. 87190
505-884-1990

City of Albuquerque

Planning Department

Development & Building Services Division

DRAINAGE AND TRANSPORTATION INFORMATION SHEET (REV 6/2018)

Project Title: Ceja Vista Off-Site Unit 1 Building Permit #: _____ Hydrology File #: P09/D

DRB#: PR-2018-001345 EPC#: _____ Work Order#: _____

Legal Description: RR3-B-1 – RR3-C-1 Westland South

City Address: 10001 Ceja Vista Road SW, Albuquerque, NM

Applicant: Ceja Vista LLC Contact: Bill Allen

Address: 6330 Riverside Plaza Lane, Albuquerque, NM 87120

Phone#: 505-898-5051 Fax#: _____ E-mail: ballen@westpac.com

Other Contact: Mark Goodwin & Associates, PA Contact: Diane Hoelzer, PE

Address: PO BOX 90606, Albuquerque, NM 87199

Phone#: 505-828-2200 Fax#: _____ E-mail: Diane@goodwinengineers.com

TYPE OF DEVELOPMENT: 2 PLAT (# of lots) _____ RESIDENCE _____ DRB SITE _____ ADMIN SITE

IS THIS A RESUBMITTAL? X Yes _____ No

DEPARTMENT _____ TRANSPORTATION X HYDROLOGY/DRAINAGE

Check all that Apply:

TYPE OF SUBMITTAL:

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

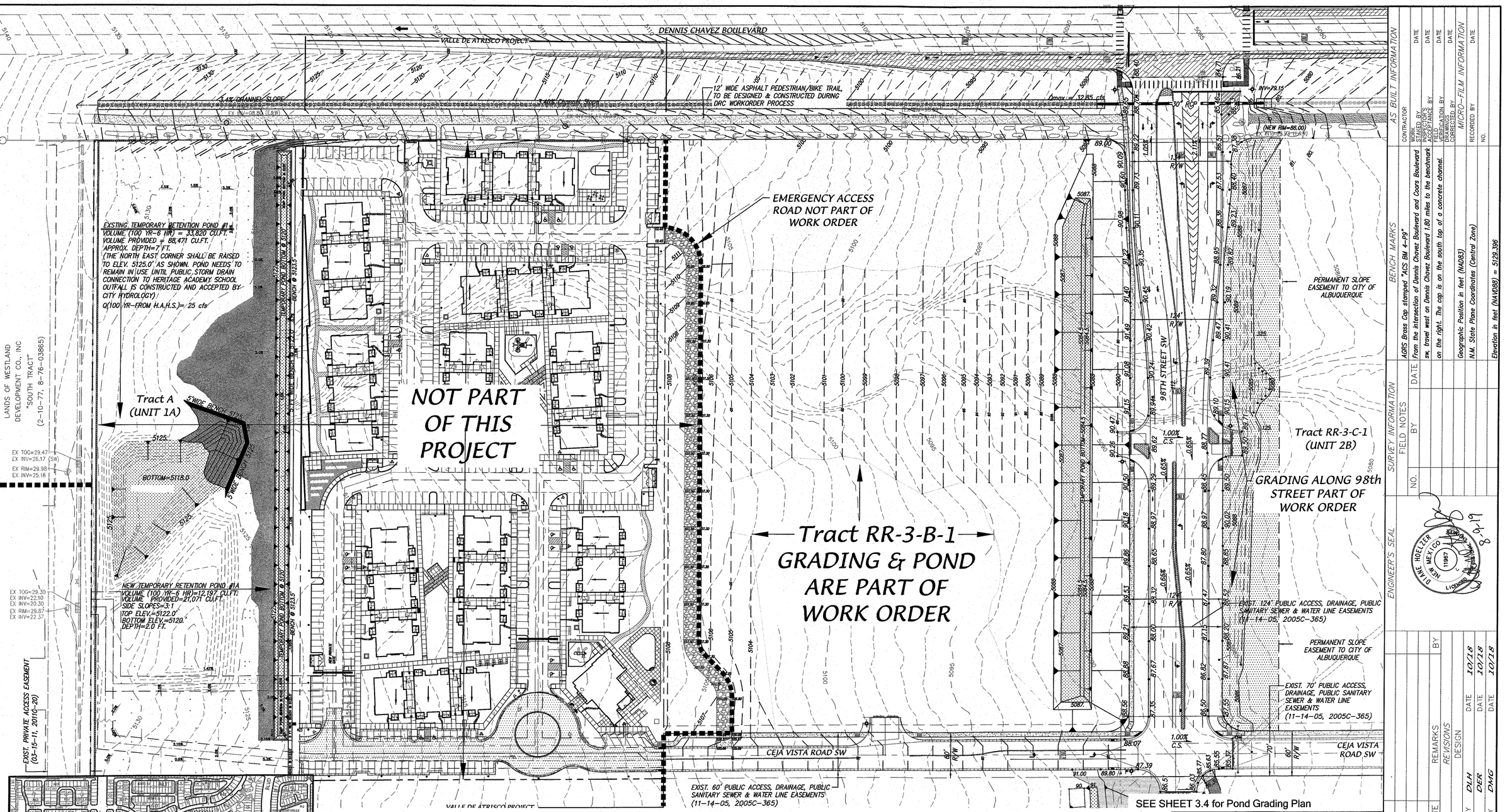
TYPE OF APPROVAL/ACCEPTANCE SOUGHT:

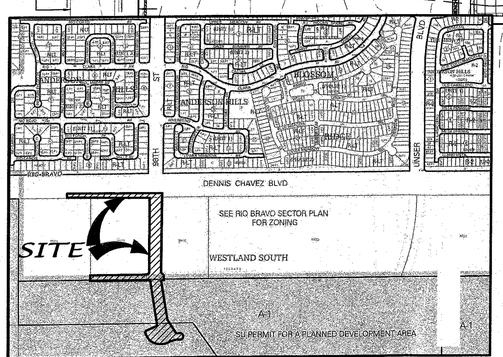
_____ BUILDING PERMIT APPROVAL
_____ CERTIFICATE OF OCCUPANCY
_____ PRELIMINARY PLAT APPROVAL
_____ SITE PLAN FOR SUB'D APPROVAL
_____ SITE PLAN FOR BLDG. PERMIT APPROVAL
_____ FINAL PLAT APPROVAL
_____ SIA/ RELEASE OF FINANCIAL GUARANTEE
_____ FOUNDATION PERMIT APPROVAL
_____ GRADING PERMIT APPROVAL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

DATE SUBMITTED: 8-9-19 By: Diane Hoelzer, PE

COA STAFF: ELECTRONIC SUBMITTAL RECEIVED: _____

FEE PAID: _____





VICINITY MAP (NTS)

ZONE ATLAS MAP P-9-Z

NOTES

1. CONTRACTOR MUST OBTAIN A TOPSOIL DISTURBANCE PERMIT FROM THE ENVIRONMENTAL HEALTH DIVISION PRIOR TO CONSTRUCTION.
2. CITY OF ALBUQUERQUE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, LATEST EDITION SHALL GOVERN ALL WORK.
3. THE CONTRACTOR SHALL CONFORM TO ALL CITY, COUNTY, STATE AND FEDERAL DUST CONTROL MEASURES AND REQUIREMENTS AND WILL BE RESPONSIBLE FOR PREPARING AND OBTAINING ALL NECESSARY APPLICATIONS AND APPROVALS.
4. THE CONTRACTOR SHALL ENSURE THAT NO SOIL ERODES FROM THE LOTS INTO PUBLIC RIGHT-OF-WAY. THIS CAN BE ACHIEVED BY CONSTRUCTING TEMPORARY BERMS AND WETTING THE SOIL TO KEEP IT FROM BLOWING.
5. THE EARTHWORK CONTRACTOR SHALL STOCKPILE ENOUGH MATERIAL ADJACENT TO RETAINING WALL LOCATIONS TO BE UTILIZED FOR WALL BACKFILL.
6. SITE DOES NOT LIE IN A 100 YEAR FLOOD ZONE.
7. ALL SITE WALLS SHALL CONFORM TO THE GENERAL HEIGHT AND DESIGN REGULATIONS CONTAINED IN SECTION 14-16-3-19 OF THE CITY ZONING CODE.
8. COMBINATION GARDEN WALL/RETAINING WALL CANNOT EXCEED 8 FEET. IF THE RETAINING WALL IS GREATER THAN 4 FEET, THE DEVELOPER CAN ADD 3:1 SLOPES IN BACKYARD OR A SECOND RETAINING WALL OFFSET FROM THE FIRST ONE.

LEGAL DESCRIPTION

TRACT RR-3-A, TRACT RR-3-B AND TRACT RR-3-C, WESTLAND SOUTH WITHIN THE TOWN OF ATRISCO GRANT, PROJECTED SECTION 9, TOWNSHIP 9 NORTH, RANGE 2 EAST, N.M.P.M., CITY OF ALBUQUERQUE, BERNALILLO COUNTY NEW MEXICO

NEW EASEMENTS

① NEW PUBLIC WATER LINE EASEMENT GRANTED TO A.B.C.W.U.A. WITH THIS PLAT.

② NEW PUBLIC DRAINAGE EASEMENT GRANTED TO THE CITY OF ALBUQUERQUE WITH THIS PLAT.

③ NEW PRIVATE ACCESS EASEMENT GRANTED TO TRACT RR-3-A-1 WITH THIS PLAT.

60' 30' 0 60' 120'

SCALE: 1" = 60'

F:\A16JOBS\A16044 Ceja Vista Multi Family Project Off-site\PLANS\PAVING\COA PLANS\A16044_ G&D_Work Order_2019.dwg, Last saved by: Diane, 8/8/19

AS BUILT INFORMATION

CONTRACTOR

WORK STARTED BY — DATE

INSPECTORS — DATE

ACCEPTANCE BY — DATE

VERIFICATION BY — DATE

DRAWINGS CORRECTED BY — DATE

MICRO-FILM INFORMATION

RECORDED BY — DATE

NO.

BENCH MARKS

AGRS Brass Cap stamped "ACS BM 4-P9"
From the intersection of Dennis Chavez Boulevard and Coors Boulevard sw, travel west on Dennis Chavez Boulevard 1.60 miles to the benchmark on the right. The cap is on the south top of a concrete channel.

Geographic Position in feet (NAD83)

N.M. State Plane Coordinates (Central Zone)

Elevation in feet (NAVD88) = 5129.396

SURVEY INFORMATION

FIELD NOTES

NO.	BY	DATE

ENGINEER'S SEAL

DIANE HOELTZER — NEW MEXICO — 11967 — LICENSED PROFESSIONAL ENGINEER

8-9-19

NO.	DATE	REMARKS	BY
		REVISIONS	
		DESIGN	

DESIGNED BY DLH — DATE 10/18

DRAWN BY DER — DATE 10/18

CHECKED BY DMG — DATE 10/18

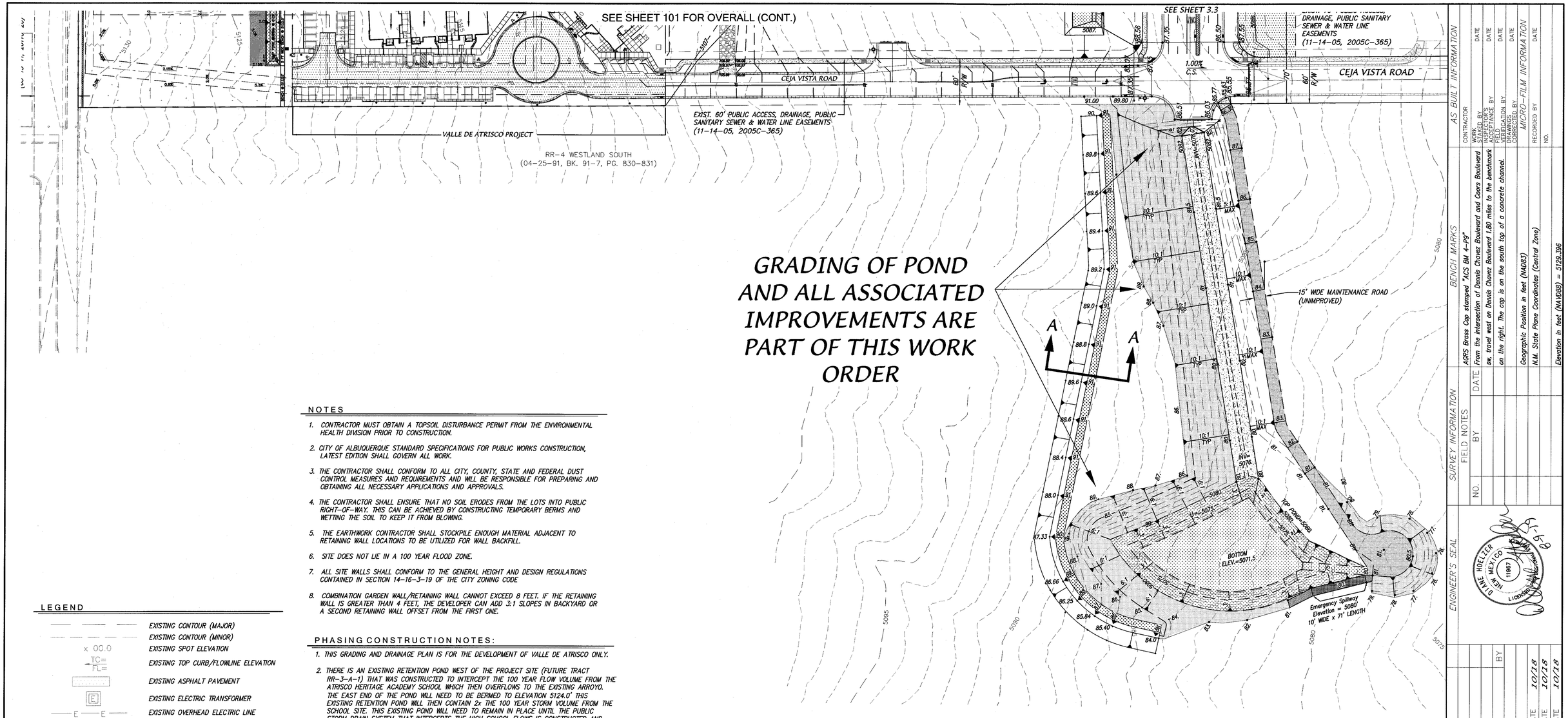
MARK GOODWIN & ASSOCIATES, P.A.
CONSULTING ENGINEERS
P.O. BOX 90606
ALBUQUERQUE, NEW MEXICO 87199
OFFICE (505) 828-2200, FAX (505) 797-9539

CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT

TITLE: Ceja Vista Off-sites Unit 1
98th Street Slope Grading Plan

DESIGN REVIEW COMMITTEE	CITY ENGINEER APPROVAL	LAST DESIGN UPDATE	MO./DAY/YR.	MO./DAY/YR.

CITY PROJECT NO.	ZONE MAP NO.	SHEET	OF
614193	P-9-Z	3.1	20



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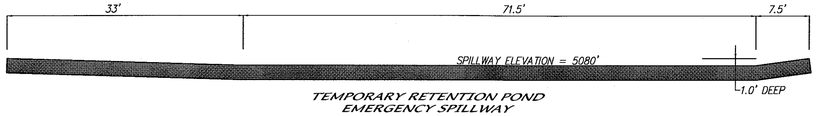
LEGEND

- EXISTING CONTOUR (MAJOR)
- EXISTING CONTOUR (MINOR)
- x 00.0 EXISTING SPOT ELEVATION
- TC= FL= EXISTING TOP CURB/FLOWLINE ELEVATION
- EXISTING ASPHALT PAVEMENT
- E EXISTING ELECTRIC TRANSFORMER
- E E EXISTING OVERHEAD ELECTRIC LINE
- EXISTING POWER POLE
- EXISTING LIGHT POLE
- EXISTING TRAFFIC SIGNAL PULLBOX
- EXISTING TELEPHONE MANHOLE
- EXISTING CATV PEDESTAL
- D EXISTING STORM DRAIN MANHOLE
- NEW STANDARD CURB & GUTTER
- NEW MOUNTABLE CURB & GUTTER
- NEW RIGHT-OF-WAY
- NEW CENTERLINE
- NEW LOT LINES
- NEW EASEMENTS
- NEW TOP OF WALL ELEVATION / NEW BOTTOM OF WALL ELEVATION
- NEW SPOT ELEVATIONS
- NEW FLOW DIRECTION
- NEW WATER BLOCK
- NEW RETAINING WALL (SEE NOTE 9)
- NEW GARDEN WALL
- 24" RCP NEW STORM DRAIN

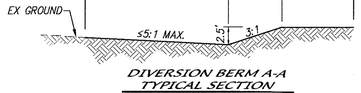
PHASING CONSTRUCTION NOTES:

1. THIS GRADING AND DRAINAGE PLAN IS FOR THE DEVELOPMENT OF VALLE DE ATRISCO ONLY.
2. THERE IS AN EXISTING RETENTION POND WEST OF THE PROJECT SITE (FUTURE TRACT RR-3-A-1) THAT WAS CONSTRUCTED TO INTERCEPT THE 100 YEAR FLOW VOLUME FROM THE ATRISCO HERITAGE ACADEMY SCHOOL WHICH THEN OVERFLOWS TO THE EXISTING ARROYO. THE EAST END OF THE POND WILL NEED TO BE BERMED TO ELEVATION 5124.0' THIS EXISTING RETENTION POND WILL THEN CONTAIN 2x THE 100 YEAR STORM VOLUME FROM THE SCHOOL SITE. THIS EXISTING POND WILL NEED TO REMAIN IN PLACE UNTIL THE PUBLIC STORM DRAIN SYSTEM THAT INTERCEPTS THE HIGH SCHOOL FLOWS IS CONSTRUCTED AND ACCEPTED BY THE CITY OF ALBUQUERQUE. THE PUBLIC STORM DRAIN SYSTEM WILL EXTEND EASTWARD THROUGH THE PROJECT SITE TO CEJA VISTA ROAD AND TO 98TH STREET, THEN SOUTH TO THE TEMPORARY POND.
3. ONCE THE PUBLIC STORM DRAIN IS ACCEPTED THE EXISTING RETENTION POND CAN BE REPLACED BY THE NEW RETENTION POND AS SHOWN ON THIS GRADING AND DRAINAGE PLAN.
4. THE RETENTION POND ON TRACT RR-3-B WILL PREVENT FLOWS FROM THIS TRACT FROM ENTERING THE FUTURE 98TH STREET PUBLIC ROW. THIS POND WILL REMAIN IN PLACE UNTIL THIS TRACT IS DEVELOPED.
5. THE PUBLIC STORM DRAIN AND TEMPORARY CHANNEL ARE DESIGNED TO CONVEY THE DEVELOPED CONDITION FLOWS FROM VALLE DE GASTRIC, TRACT RR-3-B, FUTURE TRACT RR-3-A-1, 98TH STREET AND CEJA VISTA ROAD.
6. THE TEMPORARY OFFSITE POND IS SIZED FOR DEVELOPED FLOWS ASSOCIATED WITH THE VALLE DE ATRISCO PROJECT ONLY WHICH INCLUDES 98TH STREET AND CEJA VISTA ROAD. AS TRACTS RR-3-B AND TRACT RR-3-A-1 DEVELOP THE OFFSITE RETENTION POND WILL BE MODIFIED AND ENLARGED TO RETAIN THESE ADDITIONAL STORM VOLUME.
7. THE FIRST FLUSH VOLUME FROM VALLE DE ATRISCO PROJECT WAS CALCULATED TO BE 8,155.7 CUBIC FEET. THIS VOLUME WILL BE STORED IN THE OFFSITE RETENTION POND. WHEN THE FUTURE DOWNSTREAM STORM DRAIN IS CONSTRUCTED THIS FIRST FLUSH VOLUME SHALL CONTINUE TO BE ACCOUNTED FOR IN ANY AND ALL FUTURE DESIGN REVISIONS TO THIS POND.
8. PRIOR TO CERTIFICATE OF OCCUPANCY, THE PUBLIC INFRASTRUCTURE SHALL BE CONSTRUCTED AND ACCEPTED BY THE CITY WHICH INCLUDES:

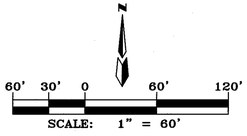
   98TH STREET & CEJA VISTA ROAD IMPROVEMENTS,
   PUBLIC STORM DRAIN FROM APS OUTFALL AT WEST PROPERTYLINE TO OUTFALL AT CEJA VISTA ROAD & 98TH STREET, TEMPORARY DRAINAGE CHANNEL & OFFSITE RETENTION POND.
9. TEMPORARY RETENTION POND #1 SHALL BE COMPLETED & APPROVED C.O.A. HYDROLOGY PRIOR TO CERTIFICATE OF OCCUPANCY FOR VALLE DE ATRISCO.
10. ALL PERIMETER RETAINING WALLS SHALL BE CONSTRUCTED SUCH THAT THE FOOTER SHALL REMAIN WITHIN PROJECT SITE AND NOT WITHIN ADJACENT RIGHT-OF-WAY OR PRIVATE PROPERTY.



TEMPORARY RETENTION POND
EMERGENCY SPILLWAY
(Qcap @ 1.0' DEPTH = 214.5 cfs)
(Q100 = 142 cfs) (DEPTH = 0.76')



DIVERSION BERM A-A
TYPICAL SECTION
SCALE: 1"=10'



SCALE: 1" = 60'

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AS BUILT INFORMATION
CONTRACTOR
WORK STAKED BY: DATE
INSPECTOR'S FIELD CHANGES BY DATE
FIELD VERIFICATION BY DATE
AS-BUILTS CORRECTED BY
MICRO-FILM INFORMATION
RECORDED BY DATE
NO.

BENCH MARKS
AGRS Brass Cap, stamped "ACS BM 4-99"
From the intersection of Dennis Chavez Boulevard and Coors Boulevard sw. travel west on Dennis Chavez Boulevard 1.80 miles to the benchmark on the right. The cap is on the south top of a concrete channel.
Geographic Position in feet (NAD83)
N.M. State Plane Coordinates (Central Zone)
Elevation in feet (NAVD88) = 5129.396

SURVEY INFORMATION
FIELD NOTES
NO. DATE BY

ENGINEER'S SEAL
DIANE HOELLER NEW MEXICO 11967 REGISTERED PROFESSIONAL ENGINEER
8-19-19

NO.	DATE	BY	REMARKS / REVISIONS	DATE
			DESIGN	10/18
		DLH		
		DER	DRAWN BY	10/18
		DMG	CHECKED BY	10/18

dmg MARK GOODWIN & ASSOCIATES, P.A.
CONSULTING ENGINEERS
P.O. BOX 90606
ALBUQUERQUE, NEW MEXICO 87199
OFFICE (505) 828-2200, FAX (505) 797-9539

CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT

TITLE: *Ceja Vista Off-Sites Unit 1*
Pond and Slope Grading Plan

DESIGN REVIEW COMMITTEE	CITY ENGINEER APPROVAL	LAST DESIGN UPDATE	MO./DAY/YR.	MO./DAY/YR.

CITY PROJECT NO.	ZONE MAP NO.	SHEET	OF
614193	P-9-Z	3.2	20

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City of Albuquerque

Planning Department

Development & Building Services Division

DRAINAGE AND TRANSPORTATION INFORMATION SHEET (REV 09/2015)

Project Title: Ceja Vista Unit 1A,1B,1C, 2A,2B,3 Building Permit #: _____ City Drainage #: P09 / D002E

DRB#: 1004428 EPC#: _____ Work Order#: 614193

Legal Description: RR 3-A - E

City Address: 10001 Ceja Vista Road SW, Albuquerque, NM

Engineering Firm: MARK GOODWIN & ASSOCIATES PA Contact: DIANE HOELZER, PE

Address: PO BOX 90606, ABQ, NM 87199

Phone#: 828-2200 Fax#: _____ E-mail: diane@goodwinengineers.com

Owner: Ceja Vista LLC Contact: Bill Allen

Address: 6330 Riverside Plaza Lane, Albuquerque, NM 87120

Phone#: 5058985051 Fax#: _____ E-mail: ballen@westpac.com

Architect: _____ Contact: _____

Address: _____

Phone#: _____ Fax#: _____ E-mail: _____

Other Contact: N/A Contact: _____

Address: _____

Phone#: _____ Fax#: _____ E-mail: _____

Check all that Apply:

DEPARTMENT:

x HYDROLOGY/ DRAINAGE
_____ TRAFFIC/ TRANSPORTATION
_____ MS4/ EROSION & SEDIMENT CONTROL

TYPE OF SUBMITTAL:

_____ ENGINEER/ ARCHITECT CERTIFICATION

_____ CONCEPTUAL G & D PLAN
_____ GRADING PLAN
_____ DRAINAGE MASTER PLAN
_____ DRAINAGE REPORT
_____ CLOMR/LOMR

_____ TRAFFIC CIRCULATION LAYOUT (TCL)
_____ TRAFFIC IMPACT STUDY (TIS)
_____ EROSION & SEDIMENT CONTROL PLAN (ESC)

X OTHER (SPECIFY) DRC PLANS SUPPL INFORMATION

IS THIS A RESUBMITTAL?: X Yes _____ No

CHECK TYPE OF APPROVAL/ACCEPTANCE SOUGHT:

_____ BUILDING PERMIT APPROVAL
_____ CERTIFICATE OF OCCUPANCY

_____ PRELIMINARY PLAT APPROVAL
_____ SITE PLAN FOR SUB'D APPROVAL
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_____ SO-19 APPROVAL
_____ PAVING PERMIT APPROVAL
_____ GRADING/ PAD CERTIFICATION
_____ WORK ORDER APPROVAL
_____ CLOMR/LOMR

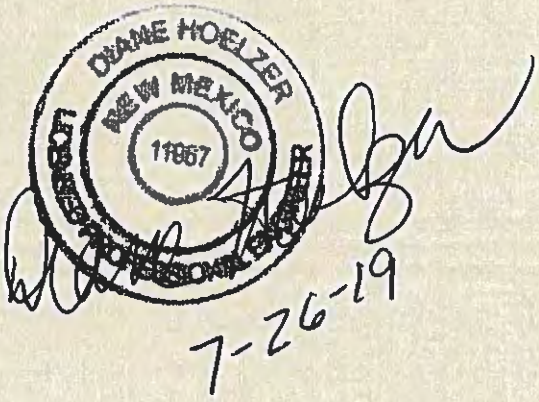
_____ PRE-DESIGN MEETING
_____ OTHER (SPECIFY) _____

DATE SUBMITTED: 7-26-19 By: DIANE HOELZER, PE

COA STAFF: ELECTRONIC SUBMITTAL RECEIVED: ___

Ceja Vista Offsites
(CPN 614193)

Storm Drain Analysis
and
Inlet Capacity Calcs.
For
DRC Plans



Prepared by
Mark Goodwin & Associates, P.A.

July 2019

Ceja Vista Offsites
DRC Plan Calculations

Table of Contents

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T1 Valle De Atrisco - Ceja Vista                                                0
T2 Onsite Storm Drain  File:VDA_PUBLIC1
T3 Retention Pond to High School Outfall SD
SO   1000.0005070.500  1                          5072.500
TS   1030.6005075.700  2       .014                                .000
R    1480.2005077.950  2       .014                                .000
TS   1490.2005078.000  3       .014                                .000
WX   1490.2005078.000  4
R    1525.1005078.900  4       .013                                .000  75.000 1
JX   1531.1005079.000  7  5  6.013    3.950    3.7305082.1005081.300   .0-90.0    .000
R    1612.6005081.400  7       .013                                .000 -15.000 1
JX   1618.6005081.500 10  8  9.013    1.730    1.7305084.8005084.800-90.0 90.0    .000
R    1915.5005091.000 10       .013                                .000    .000 1
JX   1921.5005091.500 12 11    .013   47.690         5091.500        90.0          .000
R    2210.3005098.080 12       .013                                .000    .000 1
JX   2216.3005098.130 15 13 14.013    2.630    2.6205103.1005103.100 70.0-70.0    .000
R    2350.3005101.250 15       .013                                .000    .000 1
JX   2356.3005101.300 17 16    .013   34.190         5103.000        -90.0         .000
R    2460.0505103.900 17       .013                                .000    .000 1
JX   2466.0505104.400 19 18    .013    4.630         5104.400        90.0          .000
R    2679.6505109.500 19       .013                                .000  10.000 1
JX   2685.6505110.000 21 20    .013   19.470         5110.000        50.0          .000
R    2958.3005115.200 21       .013                                .000 -90.000 1
R    3135.5505117.150 21       .013                                .000  90.000 1
R    3169.7305120.300 21       .013                                .000  90.000 1
SH   3169.7305120.300 21                          5120.300
CD   1  2   0    .000   1.000   15.000  .000  .000  -.05
CD   2  1   0    .000   4.000    5.000 3.000 3.000  -.05
CD   3  2   0    .000   6.000    5.500  .000  .000  -.05
CD   4  4   1    .000   3.500     .000  .000  .000   .00
CD   5  4   1    .000   1.500     .000  .000  .000   .00
CD   6  4   1    .000   1.500     .000  .000  .000   .00
CD   7  4   1    .000   3.500     .000  .000  .000   .00
CD   8  4   1    .000   1.500     .000  .000  .000   .00
CD   9  4   1    .000   1.500     .000  .000  .000   .00
CD  10  4   1    .000   3.500     .000  .000  .000   .00
CD  11  4   1    .000   3.000     .000  .000  .000   .00
CD  12  4   1    .000   3.000     .000  .000  .000   .00
CD  13  4   1    .000   1.500     .000  .000  .000   .00
CD  14  4   1    .000   1.500     .000  .000  .000   .00
CD  15  4   1    .000   3.000     .000  .000  .000   .00
CD  16  4   1    .000   2.500     .000  .000  .000   .00
CD  17  4   1    .000   3.000     .000  .000  .000   .00
CD  18  4   1    .000   1.500     .000  .000  .000   .00
CD  19  4   1    .000   2.500     .000  .000  .000   .00
CD  20  4   1    .000   2.000     .000  .000  .000   .00
CD  21  4   1    .000   2.000     .000  .000  .000   .00
Q            25.000    .0
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SDMH1E

Program Package Serial Number: 1454

WATER SURFACE PROFILE LISTING Date: 2-12-2019 Time: 8:32:15

Valle De Atrisco - Ceja Vista

Onsite Storm Drain File:VDA_PUBLIC1

Retention Pond to High School Outfall SD

Station	Invert Elev	Depth (FT)	Water Elev	Q (CFS)	Vel (FPS)	Vel Head	Energy Grd.El.	Super Elev	Critical Depth	Flow Top Width	Height/ Dia.-FT	Base Wt or I.D.	ZL	No Wth Prs/Pip
L/Elem	Ch Slope					SF Ave	HF	SE Dpth	Froude N	Norm Dp	"N"	X-Fall	ZR	Type Ch
1000.000	5070.500	.531	5071.031	147.37	18.57	5.35	5076.38	.00	1.44	15.00	1.000	15.000	.00	0 .0
TRANS STR	.1699					.0417	1.28	.53	4.50		.014	-.05	.00	RECTANG
1030.600	5075.701	1.761	5077.461	147.37	8.16	1.03	5078.50	.00	2.04	15.54	4.000	5.000	3.00	0 .0
7.565	.0050					.0051	.04	1.76	1.33	1.77	.014	-.05	3.00	TRAP
1038.165	5075.739	1.759	5077.498	147.37	8.18	1.04	5078.54	.00	2.04	15.53	4.000	5.000	3.00	0 .0
108.714	.0050					.0055	.59	1.76	1.34	1.77	.014	-.05	3.00	TRAP
1146.879	5076.283	1.705	5077.987	147.37	8.57	1.14	5079.13	.00	2.04	15.20	4.000	5.000	3.00	0 .0
50.401	.0050					.0062	.31	1.70	1.42	1.77	.014	-.05	3.00	TRAP
1197.281	5076.535	1.651	5078.187	147.37	8.99	1.26	5079.44	.00	2.04	14.88	4.000	5.000	3.00	0 .0
35.584	.0050					.0071	.25	1.65	1.51	1.77	.014	-.05	3.00	TRAP
1232.865	5076.713	1.600	5078.313	147.37	9.43	1.38	5079.69	.00	2.04	14.57	4.000	5.000	3.00	0 .0
28.674	.0050					.0081	.23	1.60	1.61	1.77	.014	-.05	3.00	TRAP
1261.539	5076.857	1.549	5078.406	147.37	9.89	1.52	5079.93	.00	2.04	14.27	4.000	5.000	3.00	0 .0
24.592	.0050					.0092	.23	1.55	1.71	1.77	.014	-.05	3.00	TRAP
1286.131	5076.980	1.500	5078.480	147.37	10.38	1.67	5080.15	.00	2.04	13.98	4.000	5.000	3.00	0 .0
21.842	.0050					.0105	.23	1.50	1.81	1.77	.014	-.05	3.00	TRAP
1307.973	5077.089	1.452	5078.542	147.37	10.88	1.84	5080.38	.00	2.04	13.69	4.000	5.000	3.00	0 .0
19.827	.0050					.0119	.24	1.45	1.93	1.77	.014	-.05	3.00	TRAP

Program Package Serial Number: 1454

WATER SURFACE PROFILE LISTING Date: 2-12-2019 Time: 8:32:15

Valle De Atrisco - Ceja Vista

Onsite Storm Drain File:VDA_PUBLIC1

Retention Pond to High School Outfall SD

Station	Invert Elev	Depth (FT)	Water Elev	Q (CFS)	Vel (FPS)	Vel Head	Energy Grd.El.	Super Elev	Critical Depth	Flow Top Width	Height/ Dia.-FT	Base Wt or I.D.	ZL	No Wth Prs/Pip
L/Elem	Ch Slope					SF Ave	HF	SE Dpth	Froude N	Norm Dp	"N"	X-Fall	ZR	Type Ch
1327.800	5077.188	1.406	5078.594	147.37	11.41	2.02	5080.62	.00	2.04	13.41	4.000	5.000	3.00	0 .0
18.260	.0050					.0136	.25	1.41	2.05	1.77	.014	-.05	3.00	TRAP
1346.061	5077.280	1.361	5078.640	147.37	11.97	2.22	5080.87	.00	2.04	13.14	4.000	5.000	3.00	0 .0
16.989	.0050					.0155	.26	1.36	2.18	1.77	.014	-.05	3.00	TRAP
1363.049	5077.365	1.317	5078.681	147.37	12.55	2.45	5081.13	.00	2.04	12.87	4.000	5.000	3.00	0 .0
15.922	.0050					.0177	.28	1.32	2.32	1.77	.014	-.05	3.00	TRAP
1378.971	5077.444	1.274	5078.718	147.37	13.17	2.69	5081.41	.00	2.04	12.62	4.000	5.000	3.00	0 .0
15.003	.0050					.0202	.30	1.27	2.46	1.77	.014	-.05	3.00	TRAP
1393.974	5077.520	1.232	5078.751	147.37	13.81	2.96	5081.71	.00	2.04	12.37	4.000	5.000	3.00	0 .0
14.196	.0050					.0230	.33	1.23	2.62	1.77	.014	-.05	3.00	TRAP
1408.170	5077.590	1.191	5078.782	147.37	14.48	3.26	5082.04	.00	2.04	12.12	4.000	5.000	3.00	0 .0
13.475	.0050					.0263	.35	1.19	2.79	1.77	.014	-.05	3.00	TRAP
1421.645	5077.658	1.152	5078.810	147.37	15.19	3.58	5082.39	.00	2.04	11.89	4.000	5.000	3.00	0 .0
12.822	.0050					.0300	.38	1.15	2.96	1.77	.014	-.05	3.00	TRAP
1434.467	5077.722	1.114	5078.835	147.37	15.93	3.94	5082.78	.00	2.04	11.66	4.000	5.000	3.00	0 .0
12.224	.0050					.0342	.42	1.11	3.15	1.77	.014	-.05	3.00	TRAP
1446.692	5077.783	1.076	5078.859	147.37	16.71	4.34	5083.19	.00	2.04	11.43	4.000	5.000	3.00	0 .0
11.672	.0050					.0390	.46	1.08	3.35	1.77	.014	-.05	3.00	TRAP

Program Package Serial Number: 1454

WATER SURFACE PROFILE LISTING Date: 2-12-2019 Time: 8:32:15

Valle De Atrisco - Ceja Vista
Onsite Storm Drain File:VDA_PUBLIC1
Retention Pond to High School Outfall SD

Station / L/Elem	Invert Elev / Ch Slope	Depth (FT)	Water Elev	Q (CFS)	Vel (FPS)	Vel Head / SF Ave	Energy Grd.El. / HF	Super Elev / SE Dpth	Critical Depth / Froude N	Flow Top Width / Norm Dp	Height/Dia.-FT / "N"	Base Wt or I.D. / X-Fall	ZL / ZR	No Wth Prs/Pip / Type Ch
1458.364	5077.841	1.040	5078.881	147.37	17.53	4.77	5083.65	.00	2.04	11.22	4.000	5.000	3.00	0 .0
11.159	.0050					.0446	.50	1.04	3.57	1.77	.014	-.05	3.00	TRAP
1469.522	5077.897	1.005	5078.902	147.37	18.38	5.25	5084.15	.00	2.04	11.00	4.000	5.000	3.00	0 .0
10.677	.0050					.0509	.54	1.00	3.79	1.77	.014	-.05	3.00	TRAP
1480.200	5077.950	.971	5078.921	147.37	19.28	5.77	5084.69	.00	2.04	10.80	4.000	5.000	3.00	0 .0
TRANS STR	.0050					.0455	.45	.97	4.04		.014	-.05	3.00	TRAP
1490.200	5078.000	1.392	5079.392	147.37	19.28	5.77	5085.16	.00	2.82	5.50	6.000	5.500	.00	0 .0
WALL EXIT														
1490.200	5078.000	2.760	5080.760	147.37	18.11	5.09	5085.85	.00	3.38	2.86	3.500	.000	.00	1 .0
34.900	.0258					.0228	.79	2.76	1.89	2.63	.013	.00	.00	PIPE
1525.100	5078.900	2.803	5081.703	147.37	17.84	4.94	5086.65	.00	3.38	2.80	3.500	.000	.00	1 .0
JUNCT STR	.0167					.0252	.15	2.80	1.83		.013	.00	.00	PIPE
1531.100	5079.000	2.433	5081.433	139.69	19.57	5.95	5087.38	.00	3.35	3.22	3.500	.000	.00	1 .0
81.500	.0294					.0275	2.24	2.43	2.32	2.39	.013	.00	.00	PIPE
1612.600	5081.400	2.471	5083.871	139.69	19.24	5.75	5089.62	.00	3.35	3.19	3.500	.000	.00	1 .0
JUNCT STR	.0167					.0285	.17	2.47	2.25		.013	.00	.00	PIPE
1618.600	5081.500	2.324	5083.824	136.23	20.09	6.27	5090.09	.00	3.34	3.31	3.500	.000	.00	1 .0
134.037	.0320					.0286	3.83	2.32	2.47	2.28	.013	.00	.00	PIPE

MH9

MH8

Program Package Serial Number: 1454

WATER SURFACE PROFILE LISTING Date: 2-12-2019 Time: 8:32:15

Valle De Atrisco - Ceja Vista
Onsite Storm Drain File:VDA_PUBLIC1
Retention Pond to High School Outfall SD

Station / L/Elem	Invert Elev / Ch Slope	Depth (FT)	Water Elev	Q (CFS)	Vel (FPS)	Vel Head / SF Ave	Energy Grd.El. / HF	Super Elev / SE Dpth	Critical Depth / Froude N	Flow Top Width / Norm Dp	Height/Dia.-FT / "N"	Base Wt or I.D. / X-Fall	ZL / ZR	No Wth Prs/Pip / Type Ch
1752.637	5085.790	2.423	5088.213	136.23	19.17	5.71	5093.92	.00	3.34	3.23	3.500	.000	.00	1 .0
62.936	.0320					.0255	1.60	2.42	2.28	2.28	.013	.00	.00	PIPE
1815.573	5087.803	2.532	5090.335	136.23	18.28	5.19	5095.52	.00	3.34	3.13	3.500	.000	.00	1 .0
38.445	.0320					.0228	.88	2.53	2.09	2.28	.013	.00	.00	PIPE
1854.018	5089.033	2.650	5091.683	136.23	17.43	4.72	5096.40	.00	3.34	3.00	3.500	.000	.00	1 .0
25.886	.0320					.0205	.53	2.65	1.90	2.28	.013	.00	.00	PIPE
1879.904	5089.861	2.781	5092.643	136.23	16.62	4.29	5096.93	.00	3.34	2.83	3.500	.000	.00	1 .0
17.995	.0320					.0186	.33	2.78	1.72	2.28	.013	.00	.00	PIPE
1897.899	5090.437	2.929	5093.366	136.23	15.84	3.90	5097.26	.00	3.34	2.59	3.500	.000	.00	1 .0
12.043	.0320					.0170	.21	2.93	1.53	2.28	.013	.00	.00	PIPE
1909.943	5090.822	3.103	5093.925	136.23	15.10	3.54	5097.47	.00	3.34	2.22	3.500	.000	.00	1 .0
5.557	.0320					.0161	.09	3.10	1.32	2.28	.013	.00	.00	PIPE
1915.500	5091.000	3.338	5094.338	136.23	14.40	3.22	5097.56	.00	3.34	1.47	3.500	.000	.00	1 .0
JUNCT STR	.0833					.0168	.10	3.34	1.00		.013	.00	.00	PIPE
1921.500	5091.500	6.142	5097.643	88.54	12.53	2.44	5100.08	.00	2.84	.00	3.000	.000	.00	1 .0
288.800	.0228					.0176	5.09	6.14	.00	2.18	.013	.00	.00	PIPE
2210.300	5098.080	4.773	5102.854	88.54	12.53	2.44	5105.29	.00	2.84	.00	3.000	.000	.00	1 .0
JUNCT STR	.0083					.0166	.10	4.77	.00		.013	.00	.00	PIPE

MH7

MH6

Program Package Serial Number: 1454

WATER SURFACE PROFILE LISTING Date: 2-12-2019 Time: 8:32:15

Valle De Atrisco - Ceja Vista
Onsite Storm Drain File:VDA_PUBLIC1
Retention Pond to High School Outfall SD

Station	Invert Elev	Depth (FT)	Water Elev	Q (CFS)	Vel (FPS)	Vel Head	Energy Grd.El.	Super Elev	Critical Depth	Flow Top Width	Height/ Dia.-FT	Base Wt or I.D.	ZL	No Wth Prs/Pip
L/Elem	Ch Slope					SF Ave	HF	SE Dpth	Froude N	Norm Dp	"N"	X-Fall	ZR	Type Ch
2216.300	5098.130	5.384	5103.514	83.29	11.78	2.16	5105.67	.00	2.80	.00	3.000	.000	.00	1 .0
134.000	.0233					.0156	2.09	5.38	.00	2.06	.013	.00	.00	PIPE
2350.300	5101.250	4.461	5105.711	83.29	11.78	2.16	5107.87	.00	2.80	.00	3.000	.000	.00	1 .0
JUNCT STR	.0083					.0105	.06	4.46	.00		.013	.00	.00	PIPE
2356.300	5101.300	7.288	5108.587	49.10	6.95	.75	5109.34	.00	2.28	.00	3.000	.000	.00	1 .0
103.750	.0251					.0054	.56	7.29	.00	1.44	.013	.00	.00	PIPE
2460.050	5103.900	5.287	5109.187	49.10	6.95	.75	5109.94	.00	2.28	.00	3.000	.000	.00	1 .0
JUNCT STR	.0833					.0086	.05	5.29	.00		.013	.00	.00	PIPE
2466.050	5104.400	4.518	5108.918	44.47	9.06	1.27	5110.19	.00	2.22	.00	2.500	.000	.00	1 .0
147.710	.0239					.0118	1.74	4.52	.00	1.54	.013	.00	.00	PIPE
2613.760	5107.927	2.807	5110.734	44.47	9.06	1.27	5112.01	.00	2.22	.00	2.500	.000	.00	1 .0
HYDRAULIC JUMP														
2613.760	5107.927	1.672	5109.599	44.47	12.74	2.52	5112.12	.00	2.22	2.35	2.500	.000	.00	1 .0
22.454	.0239					.0181	.41	1.67	1.84	1.54	.013	.00	.00	PIPE
2636.214	5108.463	1.729	5110.192	44.47	12.27	2.34	5112.53	.00	2.22	2.31	2.500	.000	.00	1 .0
17.883	.0239					.0164	.29	1.73	1.73	1.54	.013	.00	.00	PIPE
2654.097	5108.890	1.807	5110.697	44.47	11.70	2.13	5112.82	.00	2.22	2.24	2.500	.000	.00	1 .0
11.708	.0239					.0146	.17	1.81	1.58	1.54	.013	.00	.00	PIPE

MH5

MH4A

Program Package Serial Number: 1454

WATER SURFACE PROFILE LISTING Date: 2-12-2019 Time: 8:32:15

Valle De Atrisco - Ceja Vista

Onsite Storm Drain File:VDA_PUBLIC1

Retention Pond to High School Outfall SD

Station / L/Elem	Invert Elev / Ch Slope	Depth (FT)	Water Elev	Q (CFS)	Vel (FPS)	Vel Head / SF Ave	Energy Grd.El. / HF	Super Elev / SE Dpth	Critical Depth / Froude N	Flow Top Width / Norm Dp	Height/Dia.-FT / "N"	Base Wt or I.D. / X-Fall	ZL / ZR	No Wth Prs/Pip / Type Ch
2665.805	5109.170	1.892	5111.062	44.47	11.16	1.93	5112.99	.00	2.22	2.14	2.500	.000	.00	1 .0
7.710	.0239					.0132	.10	1.89	1.44	1.54	.013	.00	.00	PIPE
2673.515	5109.354	1.985	5111.339	44.47	10.64	1.76	5113.10	.00	2.22	2.02	2.500	.000	.00	1 .0
4.571	.0239					.0119	.05	1.99	1.30	1.54	.013	.00	.00	PIPE
2678.086	5109.463	2.090	5111.553	44.47	10.14	1.60	5113.15	.00	2.22	1.85	2.500	.000	.00	1 .0
1.564	.0239					.0109	.02	2.09	1.16	1.54	.013	.00	.00	PIPE
2679.650	5109.500	2.216	5111.716	44.47	9.67	1.45	5113.17	.00	2.22	1.59	2.500	.000	.00	1 .0
JUNCT STR	.0833					.0114	.07	2.22	1.00		.013	.00	.00	PIPE
2685.650	5110.000	3.014	5113.014	25.00	7.96	.98	5114.00	.00	1.76	.00	2.000	.000	.00	1 .0
163.691	.0191					.0122	2.00	3.01	.00	1.35	.013	.00	.00	PIPE
2849.341	5113.122	2.164	5115.287	25.00	7.96	.98	5116.27	.00	1.76	.00	2.000	.000	.00	1 .0
HYDRAULIC JUMP														
2849.341	5113.122	1.372	5114.494	25.00	10.88	1.84	5116.33	.00	1.76	1.86	2.000	.000	.00	1 .0
3.167	.0191					.0184	.06	1.37	1.72	1.35	.013	.00	.00	PIPE
2852.508	5113.183	1.372	5114.555	25.00	10.88	1.84	5116.39	.00	1.76	1.86	2.000	.000	.00	1 .0
62.422	.0191					.0174	1.08	1.37	1.72	1.35	.013	.00	.00	PIPE
2914.929	5114.373	1.433	5115.806	25.00	10.37	1.67	5117.48	.00	1.76	1.80	2.000	.000	.00	1 .0
23.977	.0191					.0155	.37	1.43	1.58	1.35	.013	.00	.00	PIPE

MH4

Valle De Atrisco - Ceja Vista
Onsite Storm Drain File:VDA_PUBLIC1
Retention Pond to High School Outfall SD

Station / L/Elem	Invert Elev / Ch Slope	Depth (FT)	Water Elev	Q (CFS)	Vel (FPS)	Vel Head / SF Ave	Energy Grd.El. / HF	Super Elev / SE Dpth	Critical Depth / Froude N	Flow Top Width / Norm Dp	Height/Dia.-FT / "N"	Base Wt or I.D. / X-Fall	ZL / ZR	No Wth Prs/Pip / Type Ch
2938.906	5114.831	1.500	5116.331	25.00	9.89	1.52	5117.85	.00	1.76	1.73	2.000	.000	.00	1 .0
12.705	.0191					.0140	.18	1.50	1.44	1.35	.013	.00	.00	PIPE
2951.611	5115.073	1.573	5116.646	25.00	9.43	1.38	5118.03	.00	1.76	1.64	2.000	.000	.00	1 .0
6.689	.0191					.0126	.08	1.57	1.31	1.35	.013	.00	.00	PIPE
2958.300	5115.200	1.655	5116.855	25.00	8.99	1.26	5118.11	.00	1.76	1.51	2.000	.000	.00	1 .0
.075	.0110					.0120	.00	1.66	1.17	1.76	.013	.00	.00	PIPE
2958.375	5115.201	1.655	5116.856	25.00	8.99	1.26	5118.11	.00	1.76	1.51	2.000	.000	.00	1 .0
27.059	.0110					.0126	.34	1.66	1.17	1.76	.013	.00	.00	PIPE
2985.434	5115.499	1.573	5117.072	25.00	9.43	1.38	5118.45	.00	1.76	1.64	2.000	.000	.00	1 .0
22.072	.0110					.0139	.31	1.57	1.31	1.76	.013	.00	.00	PIPE
3007.506	5115.741	1.500	5117.241	25.00	9.89	1.52	5118.76	.00	1.76	1.73	2.000	.000	.00	1 .0
18.738	.0110					.0155	.29	1.50	1.44	1.76	.013	.00	.00	PIPE
3026.243	5115.947	1.433	5117.380	25.00	10.37	1.67	5119.05	.00	1.76	1.80	2.000	.000	.00	1 .0
16.649	.0110					.0174	.29	1.43	1.58	1.76	.013	.00	.00	PIPE
3042.893	5116.130	1.372	5117.502	25.00	10.88	1.84	5119.34	.00	1.76	1.86	2.000	.000	.00	1 .0
14.920	.0110					.0195	.29	1.37	1.72	1.76	.013	.00	.00	PIPE
3057.812	5116.294	1.315	5117.609	25.00	11.41	2.02	5119.63	.00	1.76	1.90	2.000	.000	.00	1 .0
13.633	.0110					.0219	.30	1.32	1.87	1.76	.013	.00	.00	PIPE

MH 3

Valle De Atrisco - Ceja Vista
Onsite Storm Drain File:VDA_PUBLIC1
Retention Pond to High School Outfall SD

Station / L/Elem	Invert Elev / Ch Slope	Depth (FT)	Water Elev	Q (CFS)	Vel (FPS)	Vel Head / SF Ave	Energy Grd.El. / HF	Super Elev / SE Dpth	Critical Depth / Froude N	Flow Top Width / Norm Dp	Height/Dia.-FT / "N"	Base Wt or I.D. / X-Fall	ZL / ZR	No Wth Prs/Pip / Type Ch
3071.445	5116.444	1.262	5117.707	25.00	11.97	2.22	5119.93	.00	1.76	1.93	2.000	.000	.00	1 .0
12.544	.0110					.0247	.31	1.26	2.03	1.76	.013	.00	.00	PIPE
3083.989	5116.583	1.212	5117.794	25.00	12.55	2.45	5120.24	.00	1.76	1.95	2.000	.000	.00	1 .0
11.609	.0110					.0279	.32	1.21	2.19	1.76	.013	.00	.00	PIPE
3095.599	5116.710	1.164	5117.875	25.00	13.16	2.69	5120.56	.00	1.76	1.97	2.000	.000	.00	1 .0
10.928	.0110					.0316	.35	1.16	2.36	1.76	.013	.00	.00	PIPE
3106.527	5116.831	1.120	5117.951	25.00	13.81	2.96	5120.91	.00	1.76	1.99	2.000	.000	.00	1 .0
10.210	.0110					.0358	.37	1.12	2.55	1.76	.013	.00	.00	PIPE
3116.737	5116.943	1.077	5118.020	25.00	14.48	3.26	5121.28	.00	1.76	1.99	2.000	.000	.00	1 .0
9.664	.0110					.0405	.39	1.08	2.74	1.76	.013	.00	.00	PIPE
3126.401	5117.049	1.037	5118.086	25.00	15.19	3.58	5121.67	.00	1.76	2.00	2.000	.000	.00	1 .0
9.149	.0110					.0460	.42	1.04	2.95	1.76	.013	.00	.00	PIPE
MH 2														
3135.550	5117.150	.999	5118.149	25.00	15.93	3.94	5122.09	.00	1.76	2.00	2.000	.000	.00	1 .0
.570	.0922					.0487	.03	1.00	3.17	.83	.013	.00	.00	PIPE
3136.120	5117.203	1.002	5118.205	25.00	15.86	3.91	5122.11	.00	1.76	2.00	2.000	.000	.00	1 .0
6.778	.0922					.0455	.31	1.00	3.15	.83	.013	.00	.00	PIPE
3142.897	5117.827	1.041	5118.868	25.00	15.12	3.55	5122.42	.00	1.76	2.00	2.000	.000	.00	1 .0
5.436	.0922					.0401	.22	1.04	2.93	.83	.013	.00	.00	PIPE

Program Package Serial Number: 1454

WATER SURFACE PROFILE LISTING Date: 2-12-2019 Time: 8:32:15

Valle De Atrisco - Ceja Vista

Onsite Storm Drain File:VDA_PUBLIC1

Retention Pond to High School Outfall SD

Station / L/Elem	Invert Elev / Ch Slope	Depth (FT)	Water Elev	Q (CFS)	Vel (FPS)	Vel Head / SF Ave	Energy Grd.El. / HF	Super Elev / SE Dpth	Critical Depth / Froude N	Flow Top Width / Norm Dp	Height/Dia.-FT / "N"	Base Wt or I.D. / X-Fall	ZL / ZR	No Wth Prs/Pip / Type Ch
3148.333	5118.328	1.081	5119.409	25.00	14.42	3.23	5122.64	.00	1.76	1.99	2.000	.000	.00	1 .0
4.413	.0922					.0354	.16	1.08	2.72	.83	.013	.00	.00	PIPE
3152.746	5118.735	1.124	5119.859	25.00	13.75	2.93	5122.79	.00	1.76	1.98	2.000	.000	.00	1 .0
3.659	.0922					.0313	.11	1.12	2.53	.83	.013	.00	.00	PIPE
3156.405	5119.072	1.168	5120.240	25.00	13.11	2.67	5122.91	.00	1.76	1.97	2.000	.000	.00	1 .0
3.015	.0922					.0276	.08	1.17	2.35	.83	.013	.00	.00	PIPE
3159.420	5119.350	1.216	5120.566	25.00	12.50	2.43	5122.99	.00	1.76	1.95	2.000	.000	.00	1 .0
2.519	.0922					.0245	.06	1.22	2.18	.83	.013	.00	.00	PIPE
3161.939	5119.582	1.266	5120.848	25.00	11.92	2.21	5123.05	.00	1.76	1.93	2.000	.000	.00	1 .0
2.079	.0922					.0217	.05	1.27	2.01	.83	.013	.00	.00	PIPE
3164.019	5119.773	1.320	5121.094	25.00	11.36	2.00	5123.10	.00	1.76	1.89	2.000	.000	.00	1 .0
1.719	.0922					.0193	.03	1.32	1.86	.83	.013	.00	.00	PIPE
3165.738	5119.932	1.377	5121.309	25.00	10.83	1.82	5123.13	.00	1.76	1.85	2.000	.000	.00	1 .0
1.383	.0922					.0172	.02	1.38	1.71	.83	.013	.00	.00	PIPE
3167.121	5120.059	1.439	5121.498	25.00	10.33	1.66	5123.15	.00	1.76	1.80	2.000	.000	.00	1 .0
1.089	.0922					.0154	.02	1.44	1.57	.83	.013	.00	.00	PIPE
3168.210	5120.160	1.506	5121.666	25.00	9.85	1.51	5123.17	.00	1.76	1.72	2.000	.000	.00	1 .0
.803	.0922					.0138	.01	1.51	1.43	.83	.013	.00	.00	PIPE

Valle De Atrisco - Ceja Vista
Onsite Storm Drain File:VDA_PUBLIC1
Retention Pond to High School Outfall SD

Station	Invert Elev	Depth (FT)	Water Elev	Q (CFS)	Vel (FPS)	Vel Head	Energy Grd.El.	Super Elev	Critical Depth	Flow Top Width	Height/ Dia.-FT	Base Wt or I.D.	ZL	No Wth Prs/Pip
L/Elem	Ch Slope					SF Ave	HF	SE Dpth	Froude N	Norm Dp	"N"	X-Fall	ZR	Type Ch
3169.013	5120.234	1.580	5121.814	25.00	9.39	1.37	5123.18	.00	1.76	1.63	2.000	.000	.00	1 .0
.521	.0922					.0125	.01	1.58	1.29	.83	.013	.00	.00	PIPE
3169.534	5120.282	1.663	5121.945	25.00	8.95	1.24	5123.19	.00	1.76	1.50	2.000	.000	.00	1 .0
.196	.0922					.0114	.00	1.66	1.16	.83	.013	.00	.00	PIPE
3169.730	5120.300	1.761	5122.061	25.00	8.53	1.13	5123.19	.00	1.76	1.30	2.000	.000	.00	1 .0

SCHOOL CONNECT

Channel Report

Inlet 6.1 and 6.2

Hydraflow Express Extension for Autodesk® AutoCAD® Civil 3D® by Autodesk, Inc.

Tuesday, Sep 25 2018

Ceja Vista Road at Valle De Atrisco Entrance (32'FF)

User-defined

Invert Elev (ft)	= 100.00
Slope (%)	= 0.80
N-Value	= 0.013

Calculations

Compute by:	Known Q
Known Q (cfs)	= 5.23

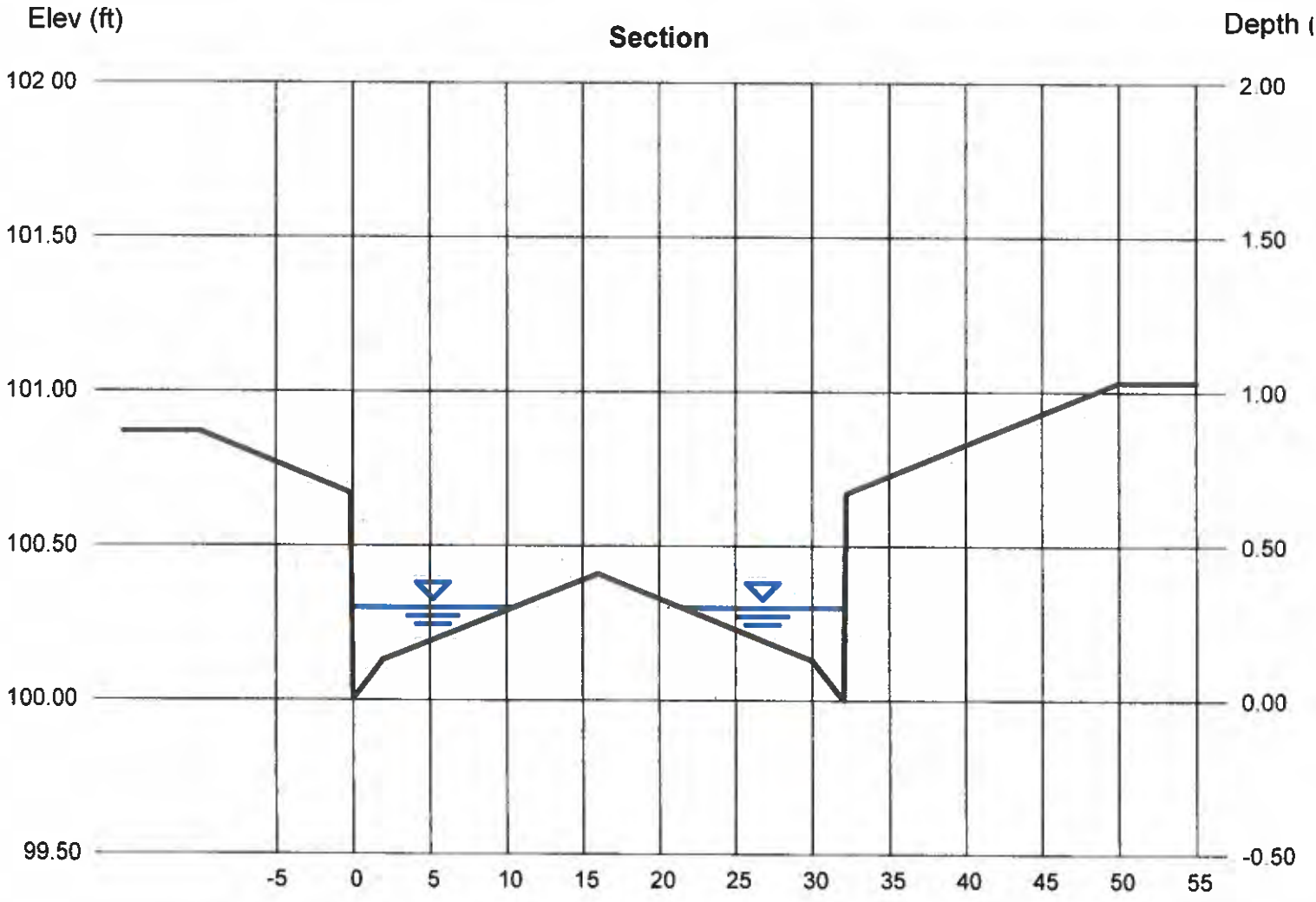
Highlighted

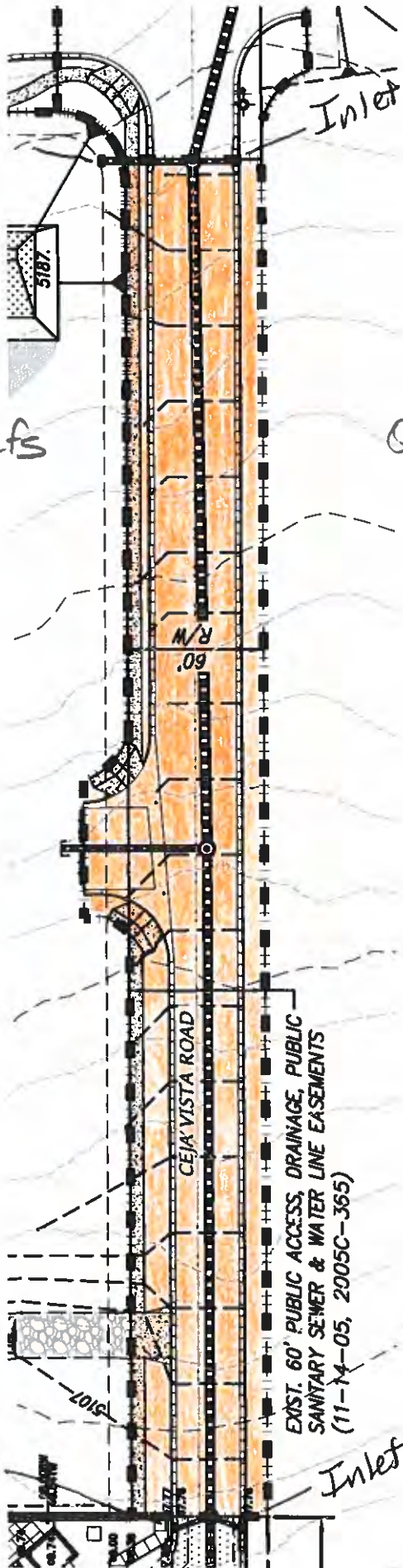
Depth (ft)	= 0.30
Q (cfs)	= 5.230
Area (sqft)	= 2.41
Velocity (ft/s)	= 2.17
Wetted Perim (ft)	= 21.63
Crit Depth, Yc (ft)	= 0.32
Top Width (ft)	= 21.15
EGL (ft)	= 0.37

(Sta, El, n)-(Sta, El, n)...

(-10.00, 100.87)-(2.00, 100.13, 0.013)-(16.00, 100.41, 0.013)-(30.00, 100.13, 0.013)-(32.00, 100.00, 0.013)-(32.17, 100.67, 0.013)-(50.00, 101.03, 0.013)

5.23 cfs = Q100
- 4.40 cfs = Q intercept
0.83 cfs = bypass





SUB-BASIN 506.0
AREA = 36808 SF
= 0.8450 AcFt
= 0.00132 sq.mi
Q_{100} = 3.46 cfs

Q_{INLET} = 1.73 cfs

Q_{INET} = 1.73 cfs (Inlet 8.1 & 8.2

OR

Q_{100} = 3.46 cfs
Q_{bypass} = 0.83 cfs
4.29 cfs.
-4.29 cfs (Inlet 8.1 or 8.2

Channel Report

Inlet 8 and 8.2 (w/ 0.83 cfs bypass from Inlet 6.1 + 6.2)

Hydraflow Express Extension for Autodesk® AutoCAD® Civil 3D® by Autodesk, Inc. Thursday, Jul 25 2019

Ceja Vista Road at 98th Street

User-defined

Invert Elev (ft)	= 100.00
Slope (%)	= 3.22
N-Value	= 0.013

Calculations

Compute by:	Known Q
Known Q (cfs)	= 4.29

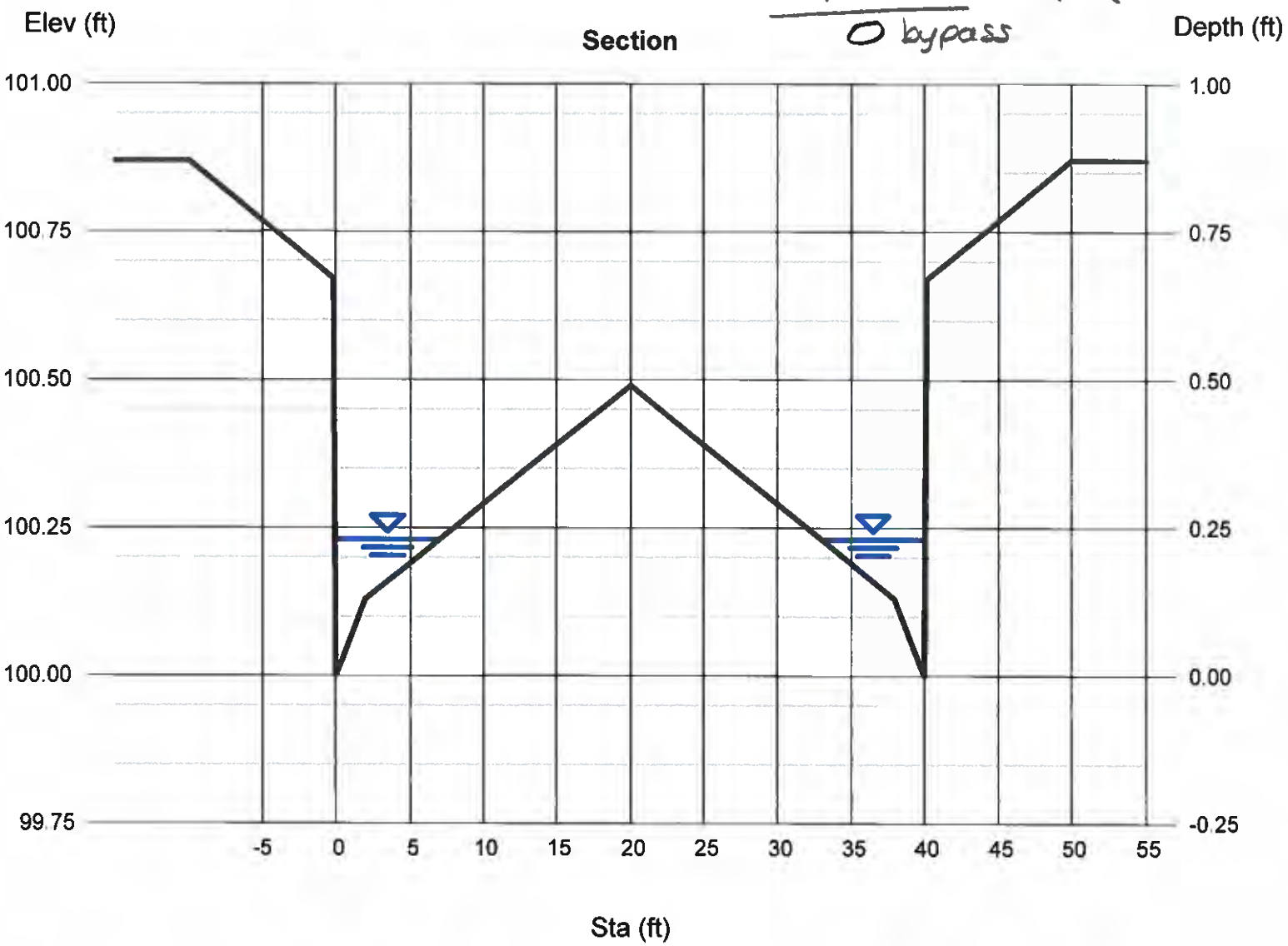
Highlighted

Depth (ft)	= 0.23
Q (cfs)	= 4.290
Area (sqft)	= 1.17
Velocity (ft/s)	= 3.66
Wetted Perim (ft)	= 14.49
Crit Depth, Yc (ft)	= 0.30
Top Width (ft)	= 14.12
EGL (ft)	= 0.44

(Sta, El, n)-(Sta, El, n)...

(-10.00, 100.87)-(2.00, 100.13, 0.013)-(20.00, 100.49, 0.013)-(38.00, 100.13, 0.013)-(40.00, 100.00, 0.013)-(40.17, 100.67, 0.013)-(50.00, 100.87, 0.013)

$Q_{100} = 3.46$ cfs
$Q_{bypass} = 0.83$
4.29 cfs
−4.40 $Q_{intercept}$ (8.1 & 8.2)
0 bypass



Channel Report

Inlet 8.1 and 8.2

Hydraflow Express Extension for Autodesk® AutoCAD® Civil 3D® by Autodesk, Inc. Thursday, Jul 25 2019

Ceja Vista Road at 98th Street

User-defined

Invert Elev (ft)	= 100.00
Slope (%)	= 3.22
N-Value	= 0.013

Calculations

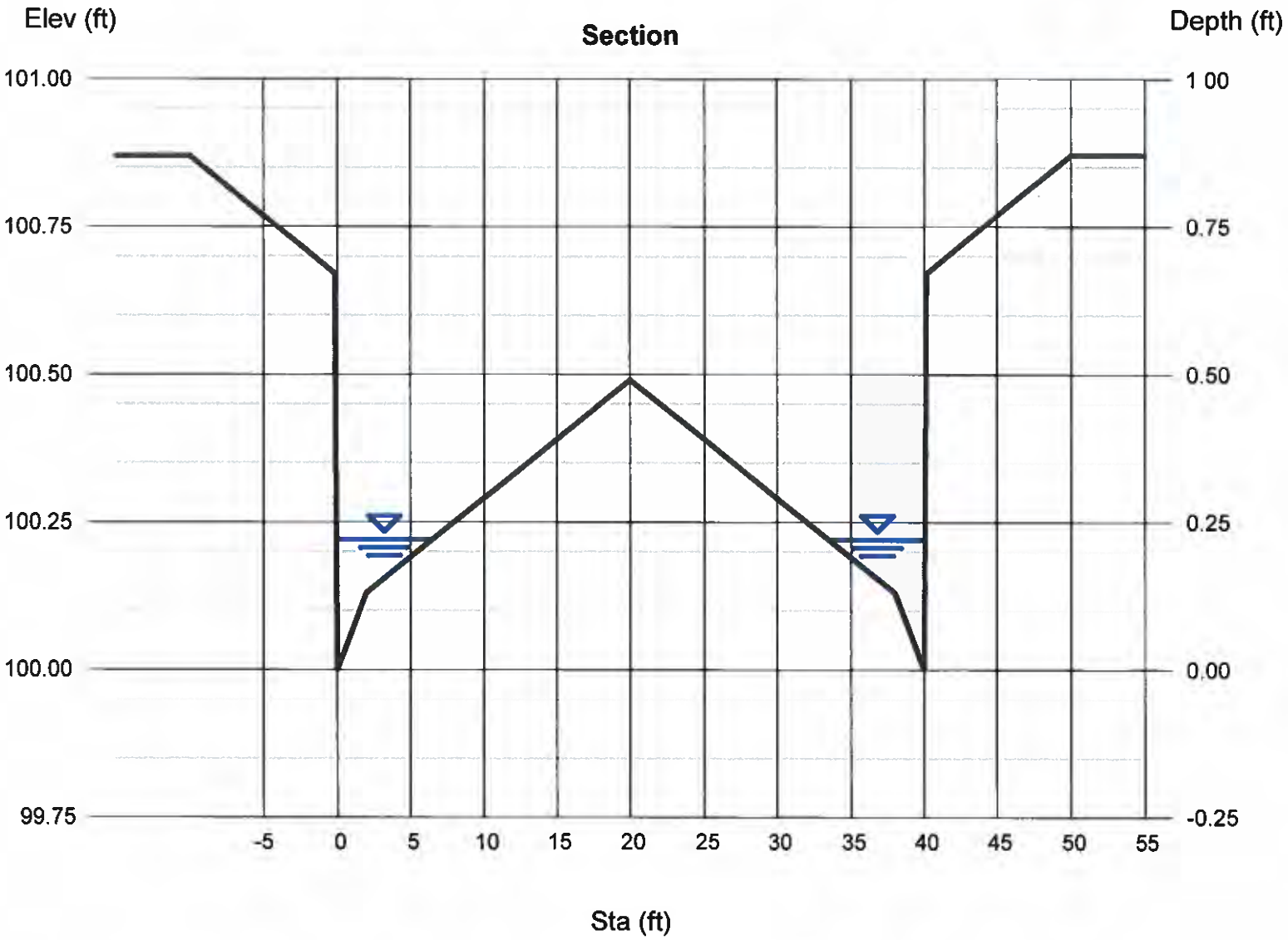
Compute by:	Known Q
Known Q (cfs)	= 3.46

Highlighted

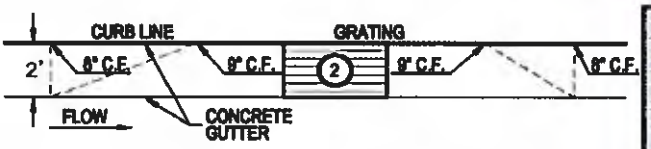
Depth (ft)	= 0.22
Q (cfs)	= 3.460
Area (sqft)	= 1.04
Velocity (ft/s)	= 3.34
Wetted Perim (ft)	= 13.46
Crit Depth, Yc (ft)	= 0.28
Top Width (ft)	= 13.11
EGL (ft)	= 0.39

(Sta, El, n)-(Sta, El, n)...

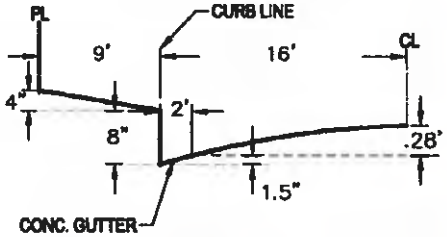
(-10.00, 100.87)-(2.00, 100.13, 0.013)-(20.00, 100.49, 0.013)-(38.00, 100.13, 0.013)-(40.00, 100.00, 0.013)-(40.17, 100.67, 0.013)-(50.00, 100.87, 0.013)



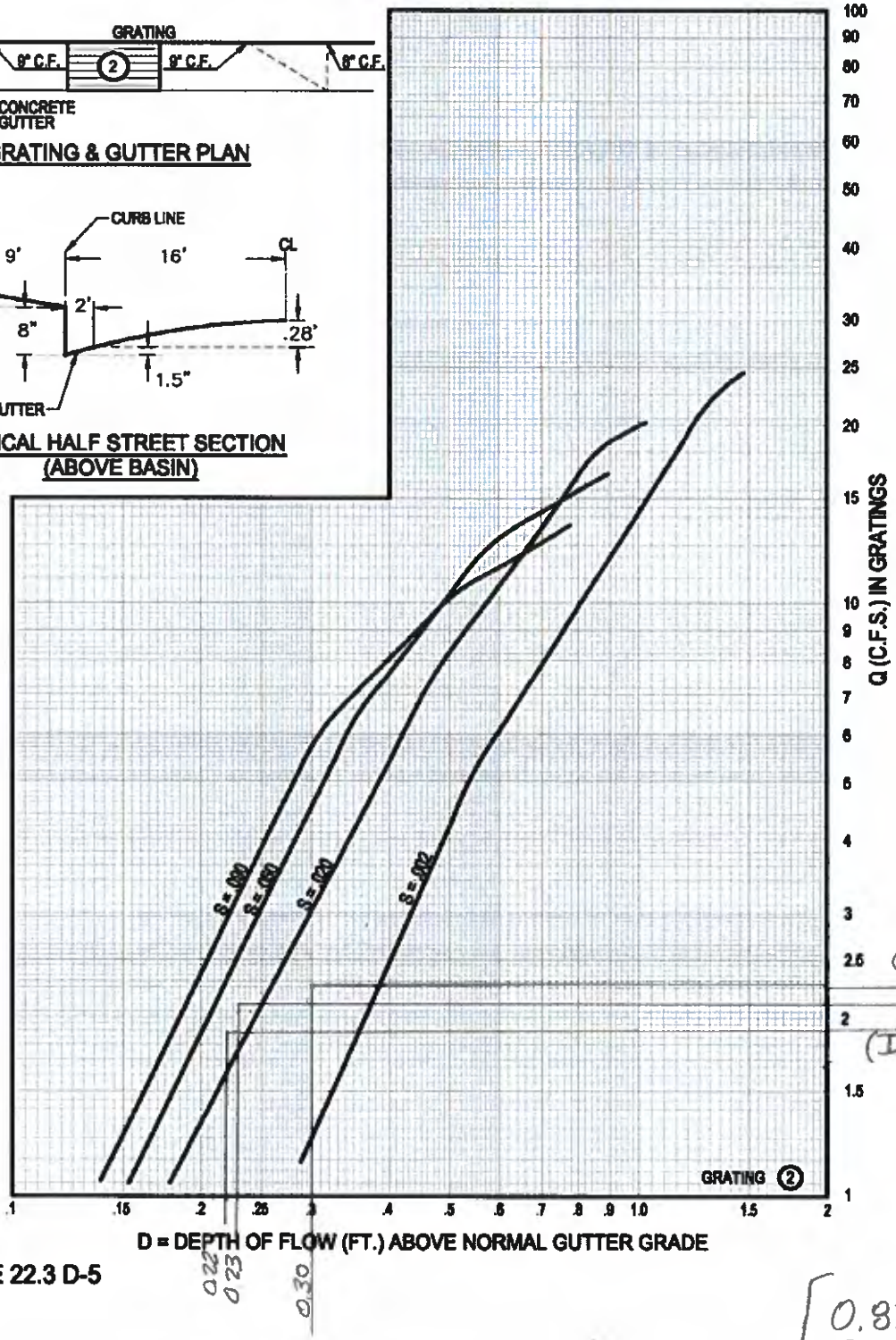
GRATING CAPACITIES FOR TYPE "A", "C" AND "D"



GRATING & GUTTER PLAN



TYPICAL HALF STREET SECTION (ABOVE BASIN)



(Inlet 6.1 & 6.2)
2.2 cfs

(Inlet 8.1 & 8.2)
Qin = 1.9 cfs
Qa = 1.73 cfs

0.22
0.23
0.30

PLATE 22.3 D-5

0.83 cfs
Bypass

Channel Report

Inlet 9.1

Hydraflow Express Extension for Autodesk® AutoCAD® Civil 3D® by Autodesk, Inc. Monday, Sep 17 2018

98th Street Westside Inlet

User-defined

Invert Elev (ft)	= 100.00
Slope (%)	= 0.66
N-Value	= 0.013

Calculations

Compute by:	Known Q
Known Q (cfs)	= 1.89

Highlighted

Depth (ft)	= 0.28
Q (cfs)	= 1.890
Area (sqft)	= 1.00
Velocity (ft/s)	= 1.89
Wetted Perim (ft)	= 9.79
Crit Depth, Yc (ft)	= 0.29
Top Width (ft)	= 9.57
EGL (ft)	= 0.34

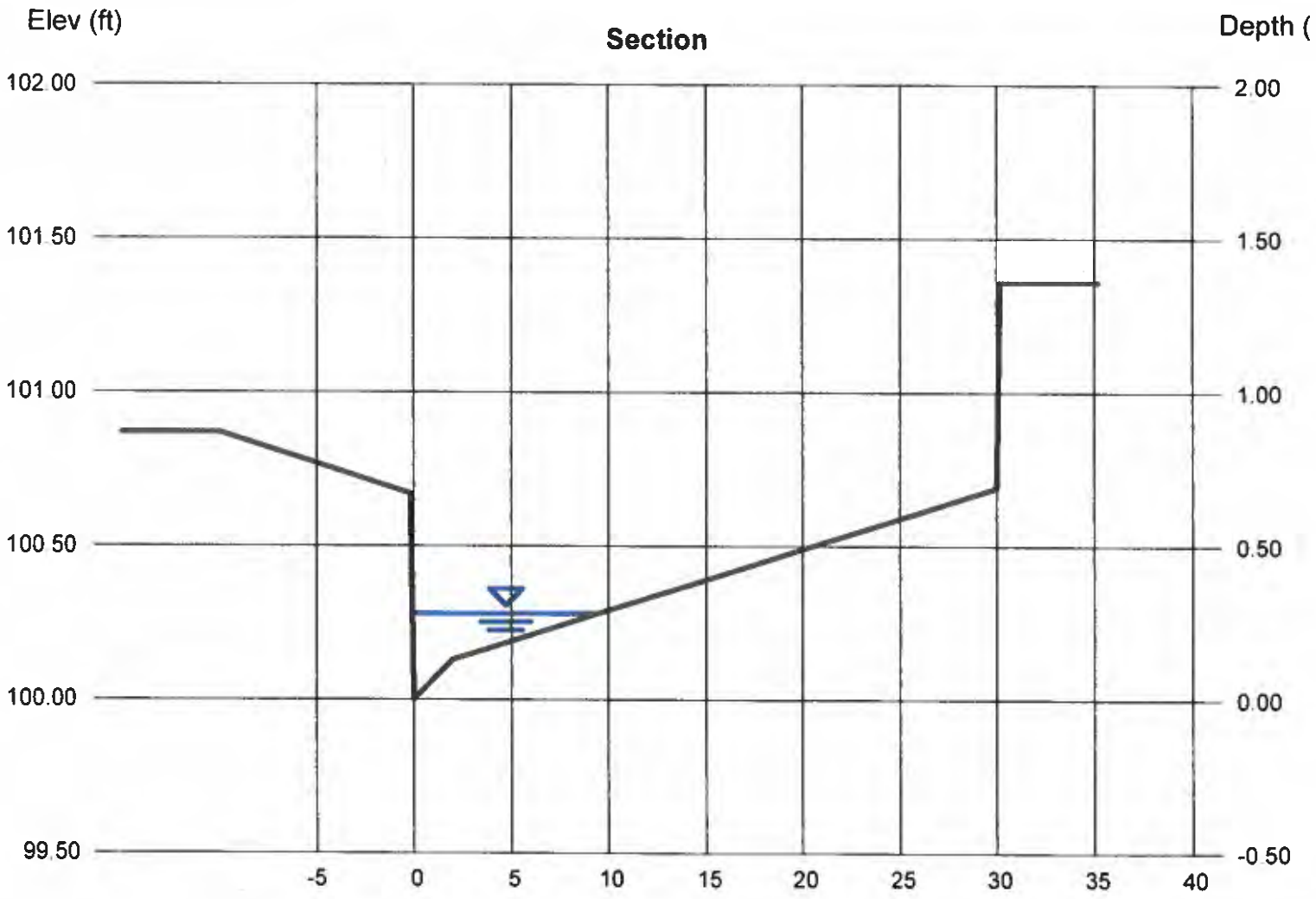
(Sta, El, n)-(Sta, El, n)...

(-10.00, 100.87)-(2.00, 100.13, 0.013)-(30.00, 100.69, 0.013)-(30.17, 101.36, 0.013)

Q_{100} 1.89cfs

$Q_{intercept}$ = 1.70 cfs

Q_{bypass} = 0.19 cfs



Channel Report

Inlet 9.2

Hydraflow Express Extension for Autodesk® AutoCAD® Civil 3D® by Autodesk, Inc.

Monday, Sep 17 2018

98th Street Eastside Inlet

User-defined

Invert Elev (ft)	= 100.00
Slope (%)	= 0.66
N-Value	= 0.013

Calculations

Compute by:	Known Q
Known Q (cfs)	= 4.29

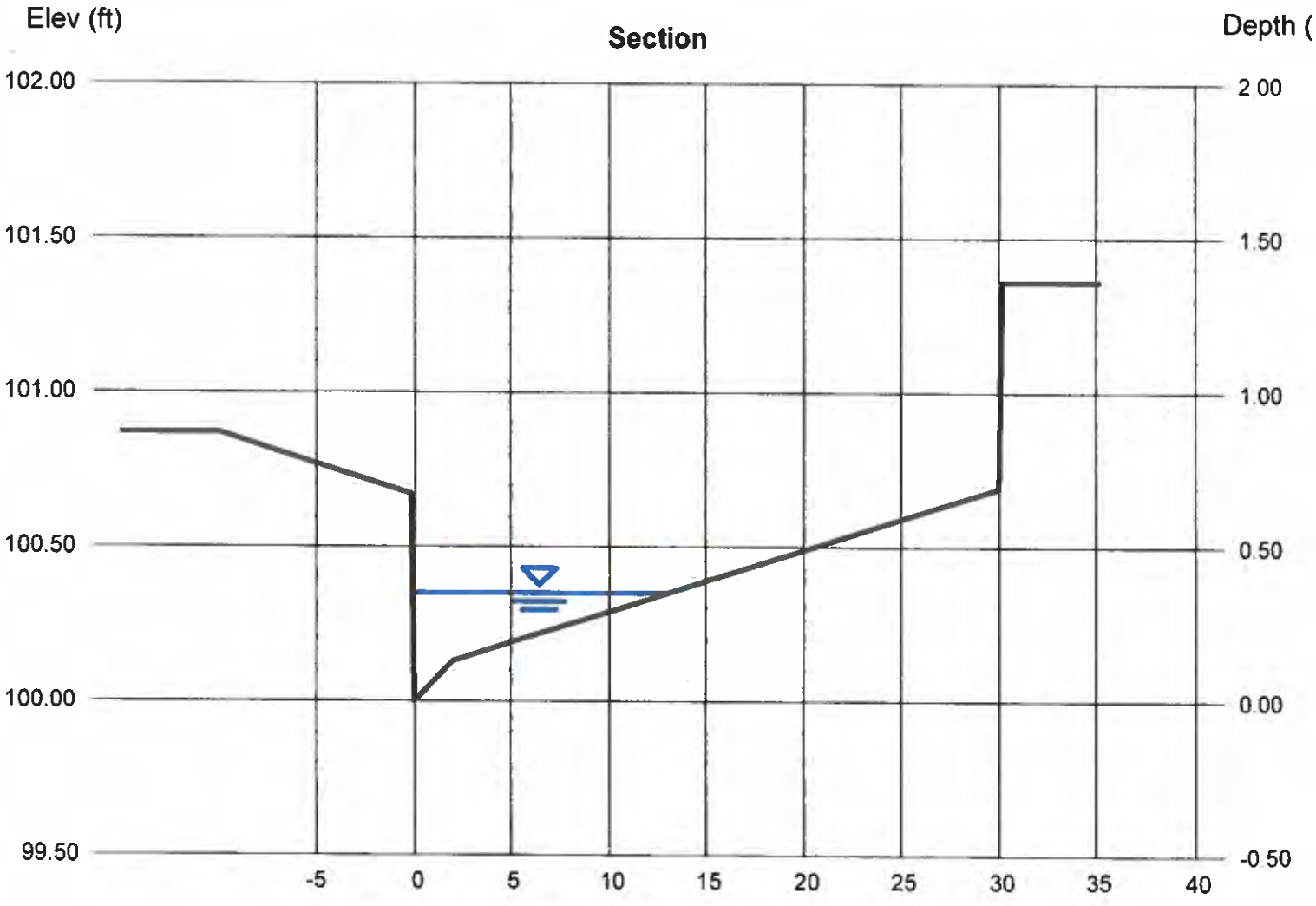
(Sta, El, n)-(Sta, El, n)...

(-10.00, 100.87)-(2.00, 100.13, 0.013)-(30.00, 100.69, 0.013)-(30.17, 101.36, 0.013)

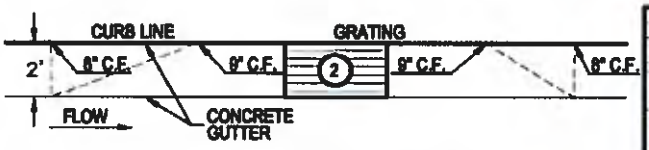
Highlighted

Depth (ft)	= 0.35
Q (cfs)	= 4.290
Area (sqft)	= 1.80
Velocity (ft/s)	= 2.39
Wetted Perim (ft)	= 13.37
Crit Depth, Yc (ft)	= 0.37
Top Width (ft)	= 13.09
EGL (ft)	= 0.44

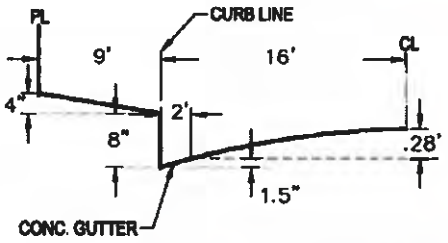
4.29 cfs Q100
-2.70 cfs Intercept
1.59 cfs bypass



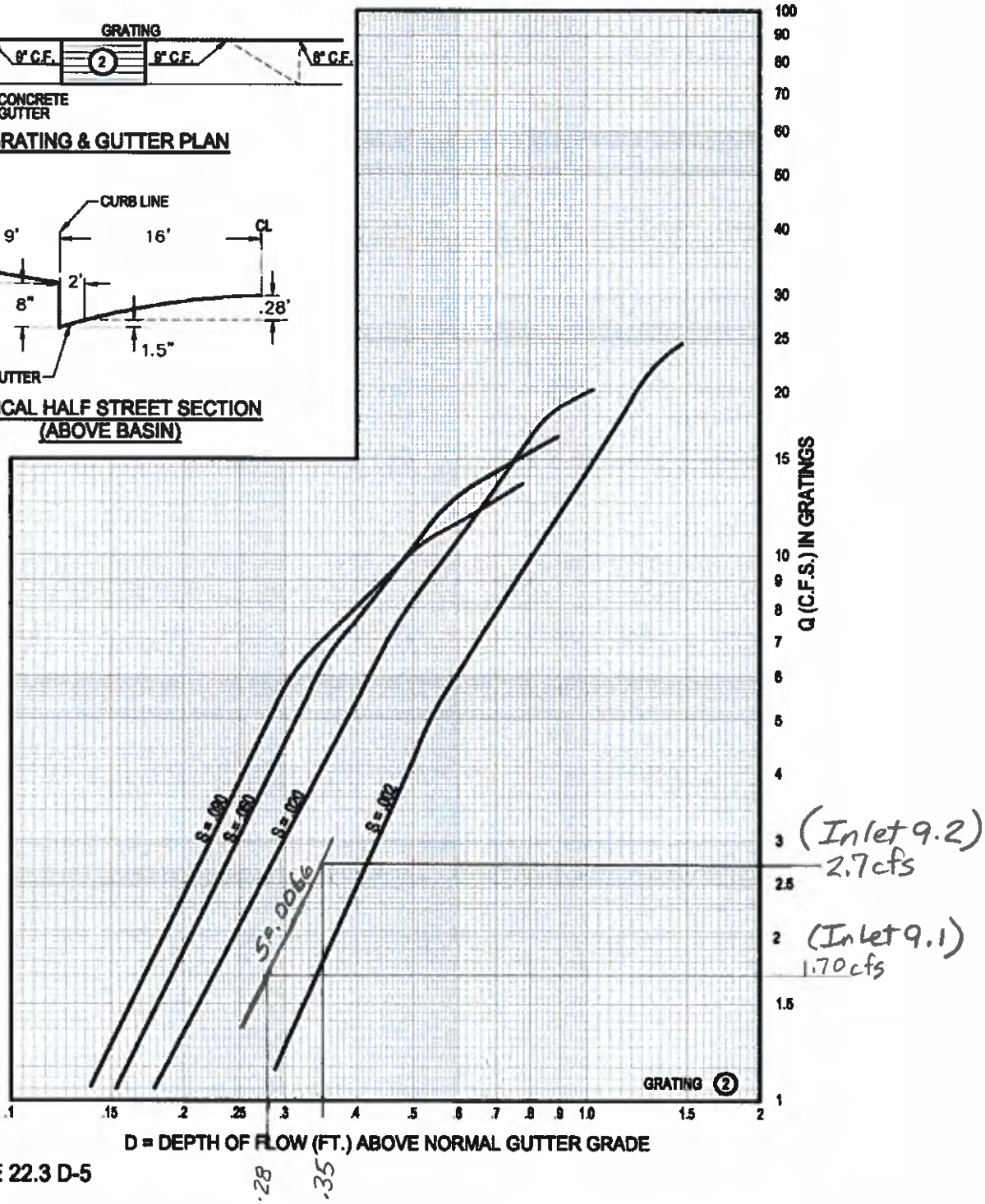
GRATING CAPACITIES FOR TYPE "A", "C" AND "D"



GRATING & GUTTER PLAN



TYPICAL HALF STREET SECTION (ABOVE BASIN)



(Inlet 9.2) 2.7cfs

(Inlet 9.1) 1.70cfs

PLATE 22.3 D-5

87/182

CALCULATIONS FOR SUMP INLET # 9.3
98th Street- South End
Ceja Vista Offsite Improvements

Capacity is measured by the weir equation at the lip of the gutter assuming an allowable ponding elevation equal to the lowest adjacent right of way elevation. The length of the double grate facing the street is 6.5' and the maximum depth is 0.725' at the lip of the gutter. The sides are each 2' long and the average depth is 0.892'. These depths assume an 8" curb with right of way 9' behind the curb for an additional depth of 0.18' above the top of curb. From the weir equation:

FOR SINGLE 'C' INLET

*Front Q cap = (3.0) x (3.0') x (0.725) **1.5 = 5.56 cfs*

*Sides Q cap = (3.0) x (4.0') x (0.892) **1.5 = 10.11 cfs*

Total Q cap = 5.56 cfs + 10.11 cfs = 15.67 cfs

The 100 year flow to the sump at south end of 98th street is 3.28 cfs.

The 100 year flow to the sump at south end of 98th street has a capacity for 15.67 cfs. Assuming a 50% clogging factor, this capacity is reduced to 7.83 cfs.

The single C inlet has a safety factor above 2.

SDMH 1E
RIM 29.87
INV 22.37
GRATE
STA 3169.70
INV 5120.30
TOG 29.30
STA 3135.55
SDMH 2
98TH STREET
"OR"
Q = 47.69 cfs
NEW 36" RCP STUB
NEW 24" RCP
NEW 30" RCP
NEW 36" RCP
NEW 42" RCP
NEW 8" SAS
NEW 8" SAS STUB
18" RCP
8" WL
CEJA VISTA ROAD SW
TRACT RR-4
WESTLAND SOUTH
(04-25-91, BK. 91-7, PG. 830-831)
TEMPORARY POND BOTTOM @ 5120
STA 2958.30
SDMH 3
RIM 22.50
STA 2685.65
STA 2679.65
SDMH 4
RIM = 5116.
INV 5110.
INV 5109.5
STA 2466.05
STA 2460.05
RIM = 5113.37
STA 2356.3
STA 2350.3
RIM 109.81
STA 2216.3
STA 2210.3
RIM = 108.41
1921.50 91.5
1915.50 91.0
STA 1618.6 81.50
1612.6 81.40
RIM = 5089.0
STA 1525.1 78.9
1531.1 79.0
LAT 1 82.1
LAT 2 81.3
RIM 86.50
STA 1490.2
INV = 5078.0
STA 1480.2
INV = 5077.95
STA 1030.6
INV = 5075.70
STA 1000.
POND BOTTOM= 70.5
Emergency Spillway

FDC — FIRE DEPARTMENT CONNECTION, RE: CONCEPTUAL UTILITY PLAN

PIV — POST INDICATOR VALVE, RE: CONCEPTUAL UTILITY PLAN

FIRE HYDRANT
(1) PUBLIC GATE VALVE
(1) PRIVATE GATE VALVE

WATER METER SERVICE (SIZE VARIES)

PRIVATE ACCESS EASEMENT (FOR THE BENEFIT OF TRACT RR-3-A-1)

TEMPORARY PUBLIC TURNAROUND EASEMENT

OFFSITE AREA = 881,504 SF
20.24 ACRES
0.03162 SQ.MI.

NOTES

1. ELECTRONIC MARKER SPHERES (EMS) WILL BE PLACED ACCORDING TO SECTION 170 OF THE CITY OF ALBUQUERQUE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, 1986 EDITION AS REVISED THROUGH UPDATE #9.
2. ALL WATER SERVICES ARE IN WATER PRESSURE ZONE 2WR.
3. ALL STORMDRAIN INLETS TO BE CONSTRUCTED PER COA STD. DWGS NO'S. 2201, 2202, 2203, 2205, 2206, 2207 2215, 2217 & 2220.
4. ALL STORMDRAIN MANHOLES TO BE CONSTRUCTED PER COA STD. DWG NO. 2102
5. WHERE MOUNTABLE CURBS ARE INSTALLED, WATER METER BOX LIDS SHALL BE HEAVY DUTY AS PER COA STD. DWG NO. 2369.
6. ALL WATERLINE MATERIAL SHALL CONSIST OF C-900 DR 18 PIPE UNLESS SPECIFIED OTHERWISE ON P & P SHEETS.
7. DO NOT INSTALL STEPS IN ANY SANITARY SEWER MANHOLES.
8. ALL BACKFILL COMPACTION ON ALL WATERLINE AND SANITARY SEWER INSTALLATION SHALL BE TO 95% MAXIMUM DENSITY.
9. SEE SHEET 8 FOR WATER AUTHORITY REVISED "WATER VALVE BOX" DETAIL.

RESTRAINED JOINT LENGTH FOR BENDS, VALVES, DEAD ENDS (FT.)					
PIPE SIZE	90°	45°	22.5°	11.25°	VALVE
6"	17'	7'	–	–	46'
8"	22'	9'	4'	2'	60'
10"	26'	11'	5'	3'	72'
12"	30	12'	6'	3'	85'

DENNIS CHAVEZ BLVD

PUBLIC WATERLINE
THIS PROJECT

NEW 13' WIDE DRAINAGE CHANNEL (THIS PROJECT)

NOT A PART (FUTURE)

ONSITE WATERLINE BUILT WITH CPN #614194

VALLE DE ATRISCO (CPN #614194)

Tract RR-3-A-1 (UNIT 1A)

Tract RR-3-A-2 (UNIT 1B)

Tract RR-3-B (UNIT 1C)

Tract G (UNIT 2A)

98TH STREET SW

CEJA VISTA ROAD SW

NEW PRV STATION BUILT WITH THIS PROJECT CPN 614193

CPN #614193
CPN #614194

WATERLINE BUILT WITH CPN #614194

STORM DRAIN BUILT WITH CPN #614194

PUBLIC WATERLINE AND PUBLIC STORM DRAIN BUILT WITH CPN #614194

THIS PROJECT #614193

TRACT RR-4
WESTLAND SOUTH
(A-25-91, BK. 91-7, PG. 830-831)

WATER VALVE SHUT-OFF PLAN

1. CONTRACTOR SHALL MAKE SHUT OFF REQUEST ONLINE AT http://abcwua.org/content/view/463/729/
2. VALVES SHALL ONLY BE OPERATED BY WATER AUTHORITY EMPLOYEES.
3. NON PRESSURE CONNECTION AT #1 SHUT OFF VALVE #1A.
4. NON PRESSURE CONNECTION AT #2 SHUT OFF VALVE #2A.

LENGTH OF RESTRAINED PIPE ON EACH SIDE OF THE BEND.		
RESTRAINED JOINT LENGTHS FOR REDUCERS (FT.)		
PIPE SIZE	LARGE SIDE	SMALL SIDE
12" X 8"	45'	–
12" X 6"	62'	–
10" X 6"	44'	–
8" X 6"	25'	–
RESTRAINED JOINT LENGTH FOR TEES (FT.)		
PIPE SIZE	RUN	BRANCH
12"x12"x12"	18'	3'
12"x12"x10"	18'	4'
12"x12"x8"	12'	3'
10"x10"x10"	15'	5'
8"x8"x8"	13'	3'
6"x6"x6"	10'	2'

LEGEND

- EXISTING CHAIN LINK/WIRE FENCE
- EXISTING CURB & GUTTER
- EXISTING WATERLINE
- EXISTING SAS
- EXISTING STORM DRAIN
- NEW MOUNTABLE CURB & GUTTER
- NEW STANDARD CURB & GUTTER
- NEW SIDEWALK
- NEW RIGHT-OF-WAY
- NEW CENTERLINE
- NEW LOT LINES
- NEW EASEMENTS
- NEW RETAINING WALL
- NEW STORM DRAIN
- NEW STORM DRAIN MH
- NEW WATERLINE
- NEW WATER METERS
- NEW TEE
- NEW VALVE
- NEW FIRE HYDRANT
- NEW SAS
- NEW SAS MH
- NEW SAS SERVICES
- NEW STREET LIGHT
- NEW LOT ADDRESS
- NEW WATERLINE REDUCER

SCALE: 1" = 60'

AS BUILT INFORMATION
CONTRACTOR — DATE
WORK STARTED BY — DATE
WORK COMPLETED — DATE
ACCEPTANCE BY — DATE
FIELD VERIFICATION BY — DATE
DRAWINGS CORRECTED BY — DATE
MICRO-FILM INFORMATION
RECORDED BY — DATE
NO.

BENCH MARKS
AGRS Brass Cap stamped "ACS BM 4-P9" From the intersection of Dennis Chavez Boulevard and Coors Boulevard sw, travel west on Dennis Chavez Boulevard 1.80 miles to the Benchmark on the right. The cap is on the south top of a concrete channel.
Geographic Position in feet (NAD83)
N.M. State Plane Coordinates (Central Zone)
Elevation in feet (NAVD88) = 5129.396

SURVEY INFORMATION
FIELD NOTES
NO. | BY | DATE

ENGINEER'S SEAL
JAMES HOELZER — NEW MEXICO — 17801 — REGISTERED PROFESSIONAL ENGINEER
7/26/19

NO.	DATE	REMARKS	BY
		REVISIONS	
		DESIGN	
DESIGNED BY	DLH	DATE	06/18
DRAWN BY	DER	DATE	06/18
CHECKED BY	DMG	DATE	06/18

dmg
MARK GOODWIN & ASSOCIATES, P.A.
CONSULTING ENGINEERS
P.O. BOX 90606
ALBUQUERQUE, NEW MEXICO 87199
OFFICE (505) 828-2200, FAX (505) 797-9539

CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT

TITLE:
CEJA VISTA OFF-SITES UNIT 1 MASTER UTILITY PLAN

DESIGN REVIEW COMMITTEE	CITY ENGINEER APPROVAL	LAST DESIGN UPDATE	MO./DAY/YR.	MO./DAY/YR.

CITY PROJECT NO.	ZONE MAP NO.	SHEET	OF
614193	P-9-Z	11	20

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