

CITY OF ALBUQUERQUE

Planning Department
Brennon Williams, Director



Mayor Timothy M. Keller

August 6, 2021

Scott Eddings
Huitt-Zollars
333 Rio Rancho Blvd.
Rio Rancho, NM 87124

RE: **Mesa Del Sol Innovation Park
Montage Unit 6
Grading and Drainage Plan / Report
Engineers Stamp Date: None
(R16D003C)**

Mr. Eddings,

Based upon the information provided in your submittal received 6/28/2021, this plan cannot be approved for Preliminary Plat until the following comments are addressed.

PO Box 1293

Albuquerque

NM 87103

www.cabq.gov

1. The report and drawings submitted must be stamped and signed by NM registered Professional Engineer. The report had a stamp but no signature.
2. In reviewing the grades and basin information provided, the divide between Basins 50 and 60 at Alley E and Alley G is not clear. There is nothing to indicate than flows would actually make the turn from eastbound Alley E to northbound Alley G. Can you clarify this with spot elevations or a grade break at this point?
3. Inlet 3 shows the cumulative Q amount of Basins 20, 60 and 90 being captured at this point, but the road appears to be crowned and that only half of this flow would reach this inlet. The other half looks to be captured by the inlet on the other side of the street which flows to a separate pond. Is this inlet and pond sized to capture and contain this additional flow? Please check and revise.
4. I am concerned that Inlet 2 is placed to capture a cumulative 39.4 cfs from the remaining Basins which is carried here with on-street flows. Please demonstrate that there is capacity in the street to capture and contain these flows without leaving the ROW or flooding the street. You may need to demonstrate some of the contributing flows are also kept within the ROW without hampering vehicular traffic.

If you have any questions, please contact me at 924-3986 or earmijo@cabq.gov.

CITY OF ALBUQUERQUE

Planning Department
Brennon Williams, Director



Mayor Timothy M. Keller

Sincerely,

A handwritten signature in dark ink, appearing to read 'Ernest Armijo', is written over a faint, circular official stamp.

Ernest Armijo, P.E.
Principal Engineer, Planning Dept.
Development Review Services

PO Box 1293

Albuquerque

NM 87103

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City of Albuquerque

Planning Department
Development & Building Services Division

DRAINAGE AND TRANSPORTATION INFORMATION SHEET (REV 6/2018)

Project Title: Montage Unit 6 **Building Permit #:** _____ **Hydrology File #:** _____
DRB#: _____ **EPC#:** _____ **Work Order#:** _____
Legal Description: Tract A-1-A-3 Mesa del Sol Innovation Park
City Address: Vacant Land

Applicant: Cuesta Arriba LLC **Contact:** Tim McNaney
Address: 1301 Cuesta Arriba Ct NE, Suite A
Phone#: 505-433-5862 **Fax#:** _____ **E-mail:** tmcnaney@twilighthomesnm.com

Other Contact: Huitt-Zollars, Inc. **Contact:** Scott Eddings
Address: 333 Rio Rancho Blvd, Rio Rancho, NM 87124
Phone#: 505-235-7211 **Fax#:** _____ **E-mail:** seddings@huitt-zollars.com

TYPE OF DEVELOPMENT: ☒ (88) **PLAT (# of lots)** _____ **RESIDENCE** _____ **DRB SITE** _____ **ADMIN SITE** _____

IS THIS A RESUBMITTAL? _____ **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
☐ 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
☐ WORK ORDER APPROVAL
☐ CLOMR/LOMR
☐ FLOODPLAIN DEVELOPMENT PERMIT
☐ OTHER (SPECIFY) _____

DATE SUBMITTED: June 27, 2021 **By:** Scott Eddings

COA STAFF:

ELECTRONIC SUBMITTAL RECEIVED: _____

FEE PAID: _____



**MONTAGE UNIT 6 DEVELOPMENT
DRAINAGE STUDY**

CITY OF ALBUQUERQUE

PREPARED FOR:



PREPARED BY:

HUITT-ZOLIARS

**333 RIO RANCHO BLVD., SUITE 101
RIO RANCHO, NEW MEXICO 87124**

JUNE 2021

HZI Project No. R312703.01



Montage Unit 6 Development Drainage Study

I, Kevin K. Banks, being first duly sworn upon my oath, state that I am a registered professional engineer, qualified in civil engineering and that the accompanying report was prepared by me or under my supervision and is true and correct to the best of my knowledge and belief.





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INTRODUCTION

This drainage report addresses the proposed infrastructure required to convey the storm water runoff from the proposed development of Montage 6 located south west of the Bobby Foster Road and University Boulevard intersection. This project will create a residential development in sub basin V as shown on Exhibit 1 (Appendix C). Existing and proposed conditions have been analyzed to determine infrastructure requirements for the proposed development see Exhibit 2 (Appendix C).

FLOOD HAZARD ZONE

The proposed site does not lie within a flood zone as shown on Flood Insurance Rate Map Number 35001C0555H, dated August 16, 2012. See Appendix A for the FEMA Flood Insurance Rate Map Firmette.

RELATED REPORTS

This report references the Drainage Report for Mesa del Sol Residential Montage Unit 1 and 2 by Bohannon Huston, Inc., dated January 14, 2011 (MDS). That report provided analysis for this project site and the surrounding area. All hydrology calculations were completed for the 100-year, 6-hour storm.

JURISDICTIONS OF PUBLIC AGENCIES

This project is located entirely within the City of Albuquerque (CoA) Municipal Limits and is therefore within their jurisdiction and must comply with the City's development requirements.

METHODOLOGY

This drainage report follows procedures outlined in the Development Process Manual, by City of Albuquerque (DPM). This report will utilize AHYMO for hydrology modeling to match modeling from the MDS report. See Appendix B for the AHYMO input and output files. The precipitation data has been updated according to NOAA Atlas Point Precipitation Frequency Estimates (Appendix B).

EXISTING CONDITIONS

The project site is currently undeveloped and generally slopes from northwest to southeast towards an existing playa. A portion of Bobby Foster Road drains toward the project site. University Boulevard drains south towards the playa. Refer to the Proposed Conditions Basin Map in Appendix C for existing and proposed flow patterns.

A series of retention ponds exists at the eastern boundary of this project site to capture flows from the west. A series of detention ponds exists within the project site to capture developed flows from an existing residential subdivision and the proposed developments of this project.



PROPOSED CONDITIONS

The project site is proposed for residential development. Please refer to the Basin Map in Appendix C and Appendix B for basin characteristics including land treatment percentages, type of development, inlet capacity calculations and peak flow amounts.

This project is also located in MDS Basin V and proposed to be a single-family residential development which will drain west towards an existing retention pond that is sized to accept developed runoff from Basin V.

Refer to the table below for the flowrate for this proposed development in MDS sub basin V. Because the proposed flowrate, table below (See Appendix B) from this basin does not exceed the allowable flowrate, the existing retention ponds are not required to be revised with this project.

Basin ID	Allowable Q per <u>MDS</u> (CFS)	Actual Q (CFS)
V	71.7	69.2
	Allowable Volume per <u>MDS</u> (AC-FT)	Actual V (AC-FT)
	2.41	2.4

STORMWATER QUALITY

As part of compliance with the stormwater quality program implemented by the City of Albuquerque in cooperation with the EPA, the existing and proposed detention and retention ponds will serve as a dual use stormwater quality management and flood control device. With the utilization of the ponds, the stormwater released within the project limits will be effectively treated.

CONCLUSION

This report provides a conceptual design and analysis of proposed improvements to safely manage stormwater generated within the project site. In addition to stormwater management, this project will integrate techniques to improve stormwater quality. For a detailed design, please refer to the construction plans to be completed in conjunction with this drainage study.

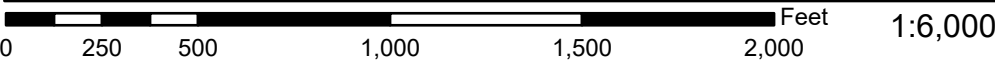
APPENDIX A

FEMA FLOOD INSURANCE RATE MAP

National Flood Hazard Layer FIRMMette



106°37'41"W 34°59'36"N



106°37'4"W 34°59'7"N

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS		Without Base Flood Elevation (BFE) Zone A, V, A99
		With BFE or Depth Zone AE, AO, AH, VE, AR
		Regulatory Floodway
OTHER AREAS OF FLOOD HAZARD		0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile Zone X
		Future Conditions 1% Annual Chance Flood Hazard Zone X
		Area with Reduced Flood Risk due to Levee. See Notes. Zone X
		Area with Flood Risk due to Levee Zone D
OTHER AREAS		NO SCREEN Area of Minimal Flood Hazard Zone X
		Effective LOMRs
		Area of Undetermined Flood Hazard Zone D
GENERAL STRUCTURES		Channel, Culvert, or Storm Sewer
		Levee, Dike, or Floodwall
OTHER FEATURES		20.2 Cross Sections with 1% Annual Chance Water Surface Elevation
		17.5 Cross Sections with 1% Annual Chance Water Surface Elevation
		Coastal Transect
		Base Flood Elevation Line (BFE)
		Limit of Study
		Jurisdiction Boundary
		Coastal Transect Baseline
MAP PANELS		Digital Data Available
		No Digital Data Available
		Unmapped



The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on **10/19/2020 at 5:51 PM** and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

APPENDIX B

NOAA Atlas Point Precipitation Frequency Estimates

And

AHYMO Files



NOAA Atlas 14, Volume 1, Version 5
Location name: Albuquerque, New Mexico,
USA*

Latitude: 34.9913°, Longitude: -106.6213°

Elevation: 5302.6 ft**

* source: ESRI Maps

** source: USGS



POINT PRECIPITATION FREQUENCY ESTIMATES

Sanja Perica, Sarah Dietz, Sarah Heim, Lillian Hiner, Kazungu Maitaria, Deborah Martin, Sandra Pavlovic, Ishani Roy, Carl Trypaluk, Dale Unruh, Fenglin Yan, Michael Yekta, Tan Zhao, Geoffrey Bonnin, Daniel Brewer, Li-Chuan Chen, Tye Parzybok, John Yarchoan

NOAA, National Weather Service, Silver Spring, Maryland

[PF tabular](#) | [PF graphical](#) | [Maps & aerials](#)

PF tabular

PDS-based point precipitation frequency estimates with 90% confidence intervals (in inches) ¹										
Duration	Average recurrence interval (years)									
	1	2	5	10	25	50	100	200	500	1000
5-min	0.179 (0.155-0.207)	0.232 (0.200-0.268)	0.310 (0.267-0.358)	0.370 (0.318-0.426)	0.453 (0.387-0.520)	0.516 (0.439-0.593)	0.583 (0.493-0.670)	0.654 (0.548-0.750)	0.748 (0.621-0.860)	0.823 (0.679-0.946)
10-min	0.272 (0.236-0.315)	0.352 (0.304-0.408)	0.472 (0.406-0.545)	0.563 (0.484-0.648)	0.689 (0.589-0.791)	0.786 (0.668-0.903)	0.888 (0.750-1.02)	0.995 (0.833-1.14)	1.14 (0.945-1.31)	1.25 (1.03-1.44)
15-min	0.338 (0.293-0.390)	0.437 (0.377-0.506)	0.585 (0.503-0.675)	0.698 (0.599-0.803)	0.854 (0.730-0.981)	0.974 (0.829-1.12)	1.10 (0.929-1.26)	1.23 (1.03-1.41)	1.41 (1.17-1.62)	1.55 (1.28-1.79)
30-min	0.455 (0.394-0.525)	0.589 (0.508-0.681)	0.787 (0.678-0.909)	0.940 (0.807-1.08)	1.15 (0.983-1.32)	1.31 (1.12-1.51)	1.48 (1.25-1.70)	1.66 (1.39-1.90)	1.90 (1.58-2.19)	2.09 (1.72-2.40)
60-min	0.563 (0.488-0.650)	0.729 (0.629-0.842)	0.974 (0.839-1.13)	1.16 (0.999-1.34)	1.42 (1.22-1.64)	1.62 (1.38-1.86)	1.83 (1.55-2.11)	2.06 (1.72-2.36)	2.35 (1.95-2.70)	2.59 (2.13-2.98)
2-hr	0.640 (0.553-0.753)	0.819 (0.705-0.964)	1.08 (0.930-1.27)	1.29 (1.11-1.51)	1.58 (1.34-1.84)	1.82 (1.53-2.11)	2.06 (1.73-2.40)	2.32 (1.93-2.69)	2.68 (2.20-3.11)	2.97 (2.42-3.45)
3-hr	0.678 (0.591-0.794)	0.862 (0.749-1.01)	1.13 (0.980-1.32)	1.34 (1.16-1.56)	1.63 (1.40-1.90)	1.87 (1.59-2.16)	2.12 (1.79-2.45)	2.38 (2.00-2.76)	2.75 (2.28-3.18)	3.05 (2.50-3.53)
6-hr	0.788 (0.688-0.915)	0.991 (0.868-1.15)	1.27 (1.12-1.48)	1.50 (1.31-1.73)	1.80 (1.56-2.08)	2.04 (1.76-2.35)	2.29 (1.96-2.64)	2.55 (2.17-2.93)	2.91 (2.45-3.35)	3.20 (2.67-3.69)
12-hr	0.875 (0.771-0.994)	1.10 (0.973-1.25)	1.39 (1.23-1.58)	1.62 (1.42-1.84)	1.93 (1.69-2.19)	2.17 (1.89-2.45)	2.42 (2.09-2.73)	2.67 (2.29-3.02)	3.01 (2.56-3.42)	3.29 (2.77-3.74)
24-hr	0.985 (0.879-1.11)	1.23 (1.10-1.39)	1.54 (1.37-1.74)	1.79 (1.59-2.01)	2.12 (1.88-2.38)	2.37 (2.09-2.66)	2.63 (2.32-2.95)	2.90 (2.54-3.24)	3.25 (2.83-3.65)	3.53 (3.06-3.96)
2-day	1.05 (0.938-1.17)	1.31 (1.18-1.46)	1.63 (1.46-1.82)	1.88 (1.69-2.09)	2.22 (1.98-2.47)	2.48 (2.21-2.76)	2.75 (2.44-3.05)	3.02 (2.67-3.35)	3.38 (2.97-3.76)	3.65 (3.20-4.07)
3-day	1.13 (1.03-1.24)	1.41 (1.28-1.55)	1.74 (1.58-1.91)	2.00 (1.82-2.19)	2.34 (2.13-2.57)	2.61 (2.36-2.86)	2.88 (2.60-3.15)	3.15 (2.83-3.45)	3.50 (3.14-3.84)	3.77 (3.37-4.14)
4-day	1.22 (1.12-1.32)	1.51 (1.39-1.64)	1.84 (1.70-2.00)	2.11 (1.95-2.28)	2.47 (2.27-2.67)	2.74 (2.52-2.96)	3.01 (2.76-3.25)	3.27 (2.99-3.54)	3.63 (3.31-3.92)	3.89 (3.54-4.22)
7-day	1.40 (1.30-1.52)	1.74 (1.61-1.88)	2.11 (1.95-2.28)	2.40 (2.22-2.59)	2.78 (2.57-2.99)	3.07 (2.83-3.30)	3.35 (3.08-3.60)	3.61 (3.33-3.89)	3.96 (3.64-4.26)	4.21 (3.85-4.54)
10-day	1.54 (1.43-1.67)	1.92 (1.77-2.07)	2.34 (2.17-2.52)	2.67 (2.48-2.87)	3.11 (2.88-3.34)	3.43 (3.17-3.69)	3.76 (3.47-4.03)	4.08 (3.75-4.38)	4.49 (4.12-4.83)	4.80 (4.38-5.16)
20-day	1.96 (1.81-2.12)	2.43 (2.25-2.63)	2.95 (2.73-3.18)	3.34 (3.10-3.59)	3.84 (3.55-4.12)	4.19 (3.88-4.50)	4.54 (4.19-4.87)	4.86 (4.48-5.21)	5.27 (4.85-5.65)	5.55 (5.11-5.96)
30-day	2.34 (2.17-2.52)	2.90 (2.69-3.12)	3.49 (3.24-3.74)	3.92 (3.64-4.20)	4.46 (4.13-4.77)	4.85 (4.48-5.18)	5.21 (4.82-5.57)	5.55 (5.12-5.93)	5.95 (5.49-6.36)	6.23 (5.74-6.66)
45-day	2.84 (2.64-3.04)	3.51 (3.27-3.76)	4.18 (3.90-4.47)	4.65 (4.34-4.97)	5.22 (4.88-5.58)	5.61 (5.24-5.99)	5.96 (5.57-6.35)	6.27 (5.85-6.67)	6.60 (6.17-7.02)	6.79 (6.37-7.22)
60-day	3.28 (3.06-3.53)	4.06 (3.78-4.36)	4.84 (4.51-5.18)	5.39 (5.03-5.77)	6.05 (5.64-6.47)	6.50 (6.07-6.95)	6.91 (6.45-7.39)	7.28 (6.79-7.78)	7.68 (7.18-8.21)	7.94 (7.43-8.48)

¹ Precipitation frequency (PF) estimates in this table are based on frequency analysis of partial duration series (PDS). Numbers in parenthesis are PF estimates at lower and upper bounds of the 90% confidence interval. The probability that precipitation frequency estimates (for a given duration and average recurrence interval) will be greater than the upper bound (or less than the lower bound) is 5%. Estimates at upper bounds are not checked against probable maximum precipitation (PMP) estimates and may be higher than currently valid PMP values. Please refer to NOAA Atlas 14 document for more information.

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MONTAGE UNIT 6 AHYHO INPUT FILE

```

START                TIME=0.0 CODE 0 LINES -6
LOCATION              Bernalillo
*S
*S   Montage Unit 6
*S
*S   HYMO PER JAN 1997 DPM REVISIONS
*S*****
RAINFALL             TYPE=-1 RAIN QUAR=0.0 RAIN ONE=1.83
                      RAIN SIX=2.29 RAIN DAY=2.63 DT=0.0
*S*****
*S*****
*S
*S   Montage Unit 6 Proposed Conditions
*S
*S*****
*S*****
*S-----
*S Fully Developed Site Therefore no Sediment Bulking
*S-----
*S COMPUTE Developed BASIN 10
COMPUTE NM HYD        ID=1 HYD=B10 AREA=0.0042 SQ MI
                      %A=0 %B=26 %C=26 %D=48 TP=-.1333 HR
                      MASS RAINFALL=-1
PRINT HYD             ID=1 CODE=1
*S-----
*S COMPUTE Developed BASIN 30
COMPUTE NM HYD        ID=3 HYD=B30 AREA=0.0004 SQ MI
                      %A=0 %B=0 %C=0 %D=100 TP=-.1333 HR
                      MASS RAINFALL=-1
PRINT HYD             ID=3 CODE=1
*S-----
*S Add Basins 10 and 30
ADD HYD               ID=5 HYD=SUM1 IDi=1 IDii=3
PRINT HYD             ID=5 CODE=1
*S-----
*S COMPUTE Developed BASIN 100
COMPUTE NM HYD        ID=4 HYD=B100 AREA=0.0015 SQ MI
                      %A=0 %B=29 %C=29 %D=42 TP=-.1333 HR
                      MASS RAINFALL=-1
PRINT HYD             ID=4 CODE=1
*S-----
*S Add Basin 100 and SUM 1
ADD HYD               ID=5 HYD=SUM2 IDi=5 IDii=4
PRINT HYD             ID=5 CODE=1
*S-----
*S COMPUTE Developed BASIN 40
COMPUTE NM HYD        ID=2 HYD=B40 AREA=0.0057 SQ MI
                      %A=0 %B=22 %C=22 %D=56 TP=-.1333 HR
                      MASS RAINFALL=-1
PRINT HYD             ID=2 CODE=1
*S-----
*S Add Basins 40 to SUM 2
ADD HYD               ID=5 HYD=SUM3 IDi=2 IDii=5
PRINT HYD             ID=5 CODE=1
*S-----
*S COMPUTE Developed BASIN 50
COMPUTE NM HYD        ID=2 HYD=B50 AREA=0.0007 SQ MI
                      %A=0 %B=29 %C=0 %D=71% TP=-.1333 HR
                      MASS RAINFALL=-1
PRINT HYD             ID=2 CODE=1
*S-----
*S Add Basins 50 to SUM 3
ADD HYD               ID=5 HYD=SUM4 IDi=2 IDii=5
PRINT HYD             ID=5 CODE=1
*S-----
*S COMPUTE Developed BASIN 80
COMPUTE NM HYD        ID=8 HYD=B80 AREA=0.0018 SQ MI
                      %A=0 %B=21 %C=21 %D=58 TP=-.1333 HR
                      MASS RAINFALL=-1
PRINT HYD             ID=8 CODE=1
*S-----
*S Add Basin 80 to SUM 4
ADD HYD               ID=5 HYD=SUM5 IDi=8 IDii=5
PRINT HYD             ID=5 CODE=1
*S-----
*S COMPUTE Developed BASIN 110
COMPUTE NM HYD        ID=1 HYD=B110 AREA=0.0025 SQ MI
                      %A=0 %B=29 %C=29 %D=42 TP=-.1333 HR
                      MASS RAINFALL=-1
PRINT HYD             ID=1 CODE=1
*S-----

```

MONTAGE UNIT 6 AHYHO INPUT FILE

```

*S
*S Total Flows to Inlet 2
*S
*S-----
*S Add Basin 110 to SUM 5
ADD HYD          ID=5 HYD=INL2 IDi=1 IDii=5
PRINT HYD        ID=5 CODE=1
*S-----
*S COMPUTE Developed BASIN 120
COMPUTE NM HYD   ID=1 HYD=B120 AREA=0.0014 SQ MI
                  %A=0 %B=29 %C=29 %D=42 TP=-.1333 HR
                  MASS RAINFALL=-1
PRINT HYD        ID=1 CODE=1
*S-----
*S COMPUTE Developed BASIN 70
COMPUTE NM HYD   ID=2 HYD=70 AREA=0.0065 SQ MI
                  %A=0 %B=25 %C=25 %D=50 TP=-.1333 HR
                  MASS RAINFALL=-1
PRINT HYD        ID=2 CODE=1
*S-----
*S
*S Total Flows to Inlet 1
*S
*S-----
*S Add Basin 120 to Basin 70
ADD HYD          ID=6 HYD=INL1 IDi=1 IDii=2
PRINT HYD        ID=6 CODE=1
*S-----
*S COMPUTE Developed BASIN 20
COMPUTE NM HYD   ID=1 HYD=B20 AREA=0.0029 SQ MI
                  %A=0 %B=28 %C=28 %D=44 TP=-.1333 HR
                  MASS RAINFALL=-1
PRINT HYD        ID=1 CODE=1
*S-----
*S COMPUTE Developed BASIN 60
COMPUTE NM HYD   ID=2 HYD=B20 AREA=0.0007 SQ MI
                  %A=0 %B=29 %C=0 %D=71 TP=-.1333 HR
                  MASS RAINFALL=-1
PRINT HYD        ID=2 CODE=1
*S-----
*S Add Basin 20 to Basin 60
ADD HYD          ID=5 HYD=SUM10 IDi=1 IDii=2
PRINT HYD        ID=5 CODE=1
*S-----
*S COMPUTE Developed BASIN 90
COMPUTE NM HYD   ID=1 HYD=B90 AREA=0.0015 SQ MI
                  %A=0 %B=29 %C=29 %D=42 TP=-.1333 HR
                  MASS RAINFALL=-1
PRINT HYD        ID=1 CODE=1
*S-----
*S Add Basins 20 and 60 Basin 90
ADD HYD          ID=5 HYD=INL3 IDi=5 IDii=1
PRINT HYD        ID=5 CODE=1
*S-----
FINISH

```

MONTAGE UNIT 6 AHYMO OUTPUT FILE

□(s16.67h8.5v0T□&l8D

```

AHYMO PROGRAM (AHYMO-S4)                - Version: S4.01a - Rel: 01a
  RUN DATE (MON/DAY/YR) = 06/24/2021
  START TIME (HR:MIN:SEC) = 10:12:08    USER NO.= AHYMO_Temp_User:20122010
  INPUT FILE = 6 Engineering\05 Design\05.13 Hydro\05.13.2 Hydrology\AHYMO\Montage 6
input.txt

```

```

START          TIME=0.0 CODE 0 LINES -6
LOCATION        Bernalillo
  Soil infiltration values (LAND FACTORS) for this location are not available.
  The following default values were used.
  Land Treatment   Initial Abstr.(in)   Unif. Infiltr.(in/hour)
      A             0.65                 1.67
      B             0.50                 1.25
      C             0.35                 0.83
      D             0.10                 0.04

```

```

*S
*S   Montage Unit 6
*S
*S   HYMO PER JAN 1997 DPM REVISIONS
*S*****
RAINFALL      TYPE=-1 RAIN QUAR=0.0 RAIN ONE=1.83
               RAIN SIX=2.29 RAIN DAY=2.63 DT=0.0

```

6-HOUR RAINFALL DIST. - BASED ON NOAA ATLAS 14 FOR CONVECTIVE AREAS (NM & AZ)

- D1 DT = 0.005000 HOURS END TIME = 6.000000 HOURS

```

*S*****
*S*****
*S
*S   Montage Unit 6 Proposed Conditions
*S
*S*****
*S*****
*S-----
*S Fully Developed Site Therefore no Sediment Bulking
*S-----
*S COMPUTE Developed BASIN 10
COMPUTE NM HYD      ID=1 HYD=B10 AREA=0.0042 SQ MI
                   %A=0 %B=26 %C=26 %D=48 TP=-.1333 HR
                   MASS RAINFALL=-1

```

```

K = 0.072649HR    TP = 0.133300HR    K/TP RATIO = 0.545000    SHAPE CONSTANT, N = 7.106428
UNIT PEAK = 7.9593 CFS    UNIT VOLUME = 0.9984    B = 526.28    P60 = 1.8300
AREA = 0.002016 SQ MI    IA = 0.10000 INCHES    INF = 0.04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = 0.005000

```

```

K = 0.118556HR    TP = 0.133300HR    K/TP RATIO = 0.889390    SHAPE CONSTANT, N = 3.98779
UNIT PEAK = 5.8059 CFS    UNIT VOLUME = 0.9975    B = 354.36    P60 = 1.8300
AREA = 0.002184 SQ MI    IA = 0.42500 INCHES    INF = 1.04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = 0.005000

```

PRINT HYD ID=1 CODE=1

HYDROGRAPH FROM AREA B10

```

RUNOFF VOLUME = 1.46852 INCHES = 0.3289 ACRE-FEET
PEAK DISCHARGE RATE = 9.64 CFS AT 1.530 HOURS BASIN AREA = 0.0042 SQ. MI.

```

```

*S-----
*S COMPUTE Developed BASIN 30
COMPUTE NM HYD      ID=3 HYD=B30 AREA=0.0004 SQ MI
                   %A=0 %B=0 %C=0 %D=100 TP=-.1333 HR
                   MASS RAINFALL=-1

```

MONTAGE UNIT 6 AHYMO OUTPUT FILE

K = 0.072649HR TP = 0.133300HR K/TP RATIO = 0.545000 SHAPE CONSTANT, N = 7.106428
 UNIT PEAK = 1.5792 CFS UNIT VOLUME = 0.9917 B = 526.28 P60 = 1.8300
 AREA = 0.000400 SQ MI IA = 0.10000 INCHES INF = 0.04000 INCHES PER HOUR
 RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = 0.005000

PRINT HYD ID=3 CODE=1

HYDROGRAPH FROM AREA B30

RUNOFF VOLUME = 2.03725 INCHES = 0.0435 ACRE-FEET
 PEAK DISCHARGE RATE = 1.15 CFS AT 1.525 HOURS BASIN AREA = 0.0004 SQ. MI.

*S-----
 *S Add Basins 10 and 30
 ADD HYD ID=5 HYD=SUM1 IDi=1 IDii=3
 PRINT HYD ID=5 CODE=1

HYDROGRAPH FROM AREA SUM1

RUNOFF VOLUME = 1.51786 INCHES = 0.3724 ACRE-FEET
 PEAK DISCHARGE RATE = 10.79 CFS AT 1.530 HOURS BASIN AREA = 0.0046 SQ. MI.

*S-----
 *S COMPUTE Developed BASIN 100
 COMPUTE NM HYD ID=4 HYD=B100 AREA=0.0015 SQ MI
 %A=0 %B=29 %C=29 %D=42 TP=-.1333 HR
 MASS RAINFALL=-1

K = 0.072649HR TP = 0.133300HR K/TP RATIO = 0.545000 SHAPE CONSTANT, N = 7.106428
 UNIT PEAK = 2.4873 CFS UNIT VOLUME = 0.9948 B = 526.28 P60 = 1.8300
 AREA = 0.000630 SQ MI IA = 0.10000 INCHES INF = 0.04000 INCHES PER HOUR
 RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = 0.005000

K = 0.118556HR TP = 0.133300HR K/TP RATIO = 0.889390 SHAPE CONSTANT, N = 3.987797
 UNIT PEAK = 2.3128 CFS UNIT VOLUME = 0.9938 B = 354.36 P60 = 1.8300
 AREA = 0.000870 SQ MI IA = 0.42500 INCHES INF = 1.04000 INCHES PER HOUR
 RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = 0.005000

PRINT HYD ID=4 CODE=1

HYDROGRAPH FROM AREA B100

RUNOFF VOLUME = 1.40290 INCHES = 0.1122 ACRE-FEET
 PEAK DISCHARGE RATE = 3.36 CFS AT 1.535 HOURS BASIN AREA = 0.0015 SQ. MI.

*S-----
 *S Add Basin 100 and SUM 1
 ADD HYD ID=5 HYD=SUM2 IDi=5 IDii=4
 PRINT HYD ID=5 CODE=1

HYDROGRAPH FROM AREA SUM2

RUNOFF VOLUME = 1.48954 INCHES = 0.4846 ACRE-FEET
 PEAK DISCHARGE RATE = 14.15 CFS AT 1.530 HOURS BASIN AREA = 0.0061 SQ. MI.

*S-----
 *S COMPUTE Developed BASIN 40

MONTAGE UNIT 6 AHYMO OUTPUT FILE

```

COMPUTE NM HYD          ID=2 HYD=B40 AREA=0.0057 SQ MI
                        %A=0 %B=22 %C=22 %D=56 TP=-.1333 HR
                        MASS RAINFALL=-1

K = 0.072649HR    TP = 0.133300HR    K/TP RATIO = 0.545000    SHAPE CONSTANT, N = 7.106428
UNIT PEAK = 12.602    CFS    UNIT VOLUME = 0.9990    B = 526.28    P60 = 1.8300
    AREA = 0.003192 SQ MI    IA = 0.10000 INCHES    INF = 0.04000 INCHES PER HOUR
    RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = 0.005000
  
```

```

K = 0.118556HR    TP = 0.133300HR    K/TP RATIO = 0.889390    SHAPE CONSTANT, N = 3.987797
UNIT PEAK = 6.6672    CFS    UNIT VOLUME = 0.9978    B = 354.36    P60 = 1.8300
    AREA = 0.002508 SQ MI    IA = 0.42500 INCHES    INF = 1.04000 INCHES PER HOUR
    RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = 0.005000
  
```

```
PRINT HYD          ID=2 CODE=1
```

HYDROGRAPH FROM AREA B40

```

RUNOFF VOLUME = 1.55602 INCHES = 0.4730 ACRE-FEET
PEAK DISCHARGE RATE = 13.57 CFS AT 1.530 HOURS BASIN AREA = 0.0057 SQ. MI.
  
```

```

*S-----
*S Add Basins 40 to SUM 2
ADD HYD          ID=5 HYD=SUM3 IDi=2 IDii=5
PRINT HYD        ID=5 CODE=1
  
```

HYDROGRAPH FROM AREA SUM3

```

RUNOFF VOLUME = 1.52163 INCHES = 0.9576 ACRE-FEET
PEAK DISCHARGE RATE = 27.73 CFS AT 1.530 HOURS BASIN AREA = 0.0118 SQ. MI.
  
```

```

*S-----
*S COMPUTE Developed BASIN 50
COMPUTE NM HYD          ID=2 HYD=B50 AREA=0.0007 SQ MI
                        %A=0 %B=29% C=0% D=71% TP=-.1333 HR
                        MASS RAINFALL=-1

K = 0.072649HR    TP = 0.133300HR    K/TP RATIO = 0.545000    SHAPE CONSTANT, N = 7.106428
UNIT PEAK = 1.9622    CFS    UNIT VOLUME = 0.9934    B = 526.28    P60 = 1.8300
    AREA = 0.000497 SQ MI    IA = 0.10000 INCHES    INF = 0.04000 INCHES PER HOUR
    RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = 0.005000
  
```

```

K = 0.131696HR    TP = 0.133300HR    K/TP RATIO = 0.987965    SHAPE CONSTANT, N = 3.573747
UNIT PEAK = 0.49597    CFS    UNIT VOLUME = 0.9704    B = 325.68    P60 = 1.8300
    AREA = 0.000203 SQ MI    IA = 0.50000 INCHES    INF = 1.25000 INCHES PER HOUR
    RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = 0.005000
  
```

```
PRINT HYD          ID=2 CODE=1
```

HYDROGRAPH FROM AREA B50

```

RUNOFF VOLUME = 1.68801 INCHES = 0.0630 ACRE-FEET
PEAK DISCHARGE RATE = 1.75 CFS AT 1.530 HOURS BASIN AREA = 0.0007 SQ. MI.
  
```

```

*S-----
*S Add Basins 50 to SUM 3
ADD HYD          ID=5 HYD=SUM4 IDi=2 IDii=5
PRINT HYD        ID=5 CODE=1
  
```

HYDROGRAPH FROM AREA SUM4

MONTAGE UNIT 6 AHYMO OUTPUT FILE

RUNOFF VOLUME = 1.53093 INCHES = 1.0206 ACRE-FEET
 PEAK DISCHARGE RATE = 29.48 CFS AT 1.530 HOURS BASIN AREA = 0.0125 SQ. MI.

*S-----

*S COMPUTE Developed BASIN 80

COMPUTE NM HYD ID=8 HYD=B80 AREA=0.0018 SQ MI
 %A=0 %B=21 %C=21 %D=58 TP=-.1333 HR
 MASS RAINFALL=-1

K = 0.072649HR TP = 0.133300HR K/TP RATIO = 0.545000 SHAPE CONSTANT, N = 7.106428
 UNIT PEAK = 4.1218 CFS UNIT VOLUME = 0.9969 B = 526.28 P60 = 1.8300
 AREA = 0.001044 SQ MI IA = 0.10000 INCHES INF = 0.04000 INCHES PER HOUR
 RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = 0.005000

K = 0.118556HR TP = 0.133300HR K/TP RATIO = 0.889390 SHAPE CONSTANT, N = 3.987797
 UNIT PEAK = 2.0097 CFS UNIT VOLUME = 0.9928 B = 354.36 P60 = 1.8300
 AREA = 0.000756 SQ MI IA = 0.42500 INCHES INF = 1.04000 INCHES PER HOUR
 RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = 0.005000

PRINT HYD ID=8 CODE=1

HYDROGRAPH FROM AREA B80

RUNOFF VOLUME = 1.57789 INCHES = 0.1515 ACRE-FEET
 PEAK DISCHARGE RATE = 4.34 CFS AT 1.530 HOURS BASIN AREA = 0.0018 SQ. MI.

*S-----

*S Add Basin 80 to SUM 4

ADD HYD ID=5 HYD=SUM5 IDi=8 IDii=5
 PRINT HYD ID=5 CODE=1

HYDROGRAPH FROM AREA SUM5

RUNOFF VOLUME = 1.53682 INCHES = 1.1721 ACRE-FEET
 PEAK DISCHARGE RATE = 33.82 CFS AT 1.530 HOURS BASIN AREA = 0.0143 SQ. MI.

*S-----

*S COMPUTE Developed BASIN 110

COMPUTE NM HYD ID=1 HYD=B110 AREA=0.0025 SQ MI
 %A=0 %B=29 %C=29 %D=42 TP=-.1333 HR
 MASS RAINFALL=-1

K = 0.072649HR TP = 0.133300HR K/TP RATIO = 0.545000 SHAPE CONSTANT, N = 7.106428
 UNIT PEAK = 4.1455 CFS UNIT VOLUME = 0.9969 B = 526.28 P60 = 1.8300
 AREA = 0.001050 SQ MI IA = 0.10000 INCHES INF = 0.04000 INCHES PER HOUR
 RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = 0.005000

K = 0.118556HR TP = 0.133300HR K/TP RATIO = 0.889390 SHAPE CONSTANT, N = 3.987797
 UNIT PEAK = 3.8546 CFS UNIT VOLUME = 0.9962 B = 354.36 P60 = 1.8300
 AREA = 0.001450 SQ MI IA = 0.42500 INCHES INF = 1.04000 INCHES PER HOUR
 RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = 0.005000

PRINT HYD ID=1 CODE=1

HYDROGRAPH FROM AREA B110

RUNOFF VOLUME = 1.40290 INCHES = 0.1871 ACRE-FEET
 PEAK DISCHARGE RATE = 5.59 CFS AT 1.535 HOURS BASIN AREA = 0.0025 SQ. MI.

MONTAGE UNIT 6 AHYMO OUTPUT FILE

```

*S-----
*S
*S Total Flows to Inlet 2
*S
*S-----
*S Add Basin 110 to SUM 5
ADD HYD          ID=5 HYD=INL2 IDi=1 IDii=5
PRINT HYD        ID=5 CODE=1

                                HYDROGRAPH FROM AREA INL2

RUNOFF VOLUME =      1.51687 INCHES      =      1.3591 ACRE-FEET
PEAK DISCHARGE RATE =      39.40 CFS AT 1.530 HOURS BASIN AREA = 0.0168 SQ. MI.

*S-----
*S COMPUTE Developed BASIN 120
COMPUTE NM HYD      ID=1 HYD=B120 AREA=0.0014 SQ MI
                    %A=0 %B=29 %C=29 %D=42 TP=-.1333 HR
                    MASS RAINFALL=-1

K = 0.072649HR      TP = 0.133300HR      K/TP RATIO = 0.545000      SHAPE CONSTANT, N = 7.106428
UNIT PEAK = 2.3215 CFS UNIT VOLUME = 0.9944 B = 526.28 P60 = 1.8300
AREA = 0.000588 SQ MI IA = 0.10000 INCHES INF = 0.04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = 0.005000

K = 0.118556HR      TP = 0.133300HR      K/TP RATIO = 0.889390      SHAPE CONSTANT, N = 3.987797
UNIT PEAK = 2.1586 CFS UNIT VOLUME = 0.9933 B = 354.36 P60 = 1.8300
AREA = 0.000812 SQ MI IA = 0.42500 INCHES INF = 1.04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = 0.005000

PRINT HYD          ID=1 CODE=1

                                HYDROGRAPH FROM AREA B120

RUNOFF VOLUME =      1.40290 INCHES      =      0.1047 ACRE-FEET
PEAK DISCHARGE RATE =      3.14 CFS AT 1.535 HOURS BASIN AREA = 0.0014 SQ. MI.

*S-----
*S COMPUTE Developed BASIN 70
COMPUTE NM HYD      ID=2 HYD=70 AREA=0.0065 SQ MI
                    %A=0 %B=25 %C=25 %D=50 TP=-.1333 HR
                    MASS RAINFALL=-1

K = 0.072649HR      TP = 0.133300HR      K/TP RATIO = 0.545000      SHAPE CONSTANT, N = 7.106428
UNIT PEAK = 12.831 CFS UNIT VOLUME = 0.9990 B = 526.28 P60 = 1.8300
AREA = 0.003250 SQ MI IA = 0.10000 INCHES INF = 0.04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = 0.005000

K = 0.118556HR      TP = 0.133300HR      K/TP RATIO = 0.889390      SHAPE CONSTANT, N = 3.987797
UNIT PEAK = 8.6397 CFS UNIT VOLUME = 0.9983 B = 354.36 P60 = 1.8300
AREA = 0.003250 SQ MI IA = 0.42500 INCHES INF = 1.04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = 0.005000

PRINT HYD          ID=2 CODE=1

                                OUTFLOW HYDROGRAPH REACH 70.00

RUNOFF VOLUME =      1.49040 INCHES      =      0.5167 ACRE-FEET
PEAK DISCHARGE RATE =      15.05 CFS AT 1.530 HOURS BASIN AREA = 0.0065 SQ. MI.

```

MONTAGE UNIT 6 AHYMO OUTPUT FILE

```
*S-----
*S
*S Total Flows to Inlet 1
*S
*S-----
*S Add Basin 120 to Basin 70
ADD HYD          ID=6 HYD=INL1 IDi=1 IDii=2
PRINT HYD        ID=6 CODE=1
```

HYDROGRAPH FROM AREA INL1

```
RUNOFF VOLUME =      1.47482 INCHES      =      0.6214 ACRE-FEET
PEAK DISCHARGE RATE =      18.19 CFS AT 1.530 HOURS BASIN AREA = 0.0079 SQ. MI.
```

```
*S-----
*S COMPUTE Developed BASIN 20
COMPUTE NM HYD      ID=1 HYD=B20 AREA=0.0029 SQ MI
                    %A=0 %B=28 %C=28 %D=44 TP=-.1333 HR
                    MASS RAINFALL=-1
```

```
K = 0.072649HR      TP = 0.133300HR      K/TP RATIO = 0.545000      SHAPE CONSTANT, N = 7.106428
UNIT PEAK = 5.0377 CFS UNIT VOLUME = 0.9974      B = 526.28      P60 = 1.8300
AREA = 0.001276 SQ MI IA = 0.10000 INCHES INF = 0.04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = 0.005000
```

```
K = 0.118556HR      TP = 0.133300HR      K/TP RATIO = 0.889390      SHAPE CONSTANT, N = 3.987797
UNIT PEAK = 4.3172 CFS UNIT VOLUME = 0.9966      B = 354.36      P60 =
1.8300
AREA = 0.001624 SQ MI IA = 0.42500 INCHES INF = 1.04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = 0.005000
```

```
PRINT HYD          ID=1 CODE=1
```

HYDROGRAPH FROM AREA B20

```
RUNOFF VOLUME =      1.42477 INCHES      =      0.2204 ACRE-FEET
PEAK DISCHARGE RATE =      6.54 CFS AT 1.530 HOURS BASIN AREA = 0.0029 SQ. MI.
```

```
*S-----
*S COMPUTE Developed BASIN 60
COMPUTE NM HYD      ID=2 HYD=B20 AREA=0.0007 SQ MI
                    %A=0 %B=29 %C=0 %D=71 TP=-.1333 HR
                    MASS RAINFALL=-1
```

```
K = 0.072649HR      TP = 0.133300HR      K/TP RATIO = 0.545000      SHAPE CONSTANT, N = 7.106428
UNIT PEAK = 1.9622 CFS UNIT VOLUME = 0.9934      B = 526.28      P60 = 1.8300
AREA = 0.000497 SQ MI IA = 0.10000 INCHES INF = 0.04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = 0.005000
```

```
K = 0.131696HR      TP = 0.133300HR      K/TP RATIO = 0.987965      SHAPE CONSTANT, N = 3.573747
UNIT PEAK = 0.49597 CFS UNIT VOLUME = 0.9704      B = 325.68      P60 = 1.8300
AREA = 0.000203 SQ MI IA = 0.50000 INCHES INF = 1.25000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = 0.005000
```

```
PRINT HYD          ID=2 CODE=1
```

HYDROGRAPH FROM AREA B20

```
RUNOFF VOLUME =      1.68801 INCHES      =      0.0630 ACRE-FEET
```

MONTAGE UNIT 6 AHYMO OUTPUT FILE

PEAK DISCHARGE RATE = 1.75 CFS AT 1.530 HOURS BASIN AREA = 0.0007 SQ. MI.

```
*S-----
*S Add Basin 20 to Basin 60
ADD HYD          ID=5 HYD=SUM10 IDi=1 IDii=2
PRINT HYD        ID=5 CODE=1
```

HYDROGRAPH FROM AREA SUM10

RUNOFF VOLUME = 1.47580 INCHES = 0.2834 ACRE-FEET
 PEAK DISCHARGE RATE = 8.29 CFS AT 1.530 HOURS BASIN AREA = 0.0036 SQ. MI.

```
*S-----
*S COMPUTE Developed BASIN 90
COMPUTE NM HYD   ID=1 HYD=B90 AREA=0.0015 SQ MI
                  %A=0 %B=29 %C=29 %D=42 TP=-.1333 HR
                  MASS RAINFALL=-1
```

K = 0.072649HR TP = 0.133300HR K/TP RATIO = 0.545000 SHAPE CONSTANT, N = 7.106428
 UNIT PEAK = 2.4873 CFS UNIT VOLUME = 0.9948 B = 526.28 P60 = 1.8300
 AREA = 0.000630 SQ MI IA = 0.10000 INCHES INF = 0.04000 INCHES PER HOUR
 RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = 0.005000

K=0.118556HR TP=0.133300HR K/TP RATIO=0.889390 SHAPE CONSTANT, N = 3.987797
 UNIT PEAK = 2.3128 CFS UNIT VOLUME = 0.9938 B = 354.36 P60 = 1.8300
 AREA = 0.000870 SQ MI IA = 0.42500 INCHES INF = 1.04000 INCHES PER HOUR
 RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = 0.005000

PRINT HYD ID=1 CODE=1

HYDROGRAPH FROM AREA B90

RUNOFF VOLUME = 1.40290 INCHES = 0.1122 ACRE-FEET
 PEAK DISCHARGE RATE = 3.36 CFS AT 1.535 HOURS BASIN AREA = 0.0015 SQ. MI.

```
*S-----
*S Add Basins 20 and 60 Basin 90
ADD HYD          ID=5 HYD=INL3 IDi=5 IDii=1
PRINT HYD        ID=5 CODE=1
```

HYDROGRAPH FROM AREA INL3

RUNOFF VOLUME = 1.45431 INCHES = 0.3956 ACRE-FEET
 PEAK DISCHARGE RATE = 11.65 CFS AT 1.530 HOURS BASIN AREA = 0.0051 SQ. MI.

```
*S-----
FINISH
```

NORMAL PROGRAM FINISH END TIME (HR:MIN:SEC) = 10:12:08
 □(s0p10h4099T□&l6D

MONTAGE UNIT 6 AHYHO SUMMARY FILE

(s16.67h8.5v0T&l8D
 AHYMO PROGRAM SUMMARY TABLE (AHYMO-S4) - Ver. S4.01a, Rel: 01a RUN DATE (MON/DAY/YR) =06/23/2021
 INPUT FILE = ngineering\05 Design\05.13 Hydro\05.13.2 Hydrology\AHYMO\Montage 6 input.txt USER NO.= AHYMO_Temp_User:20122010

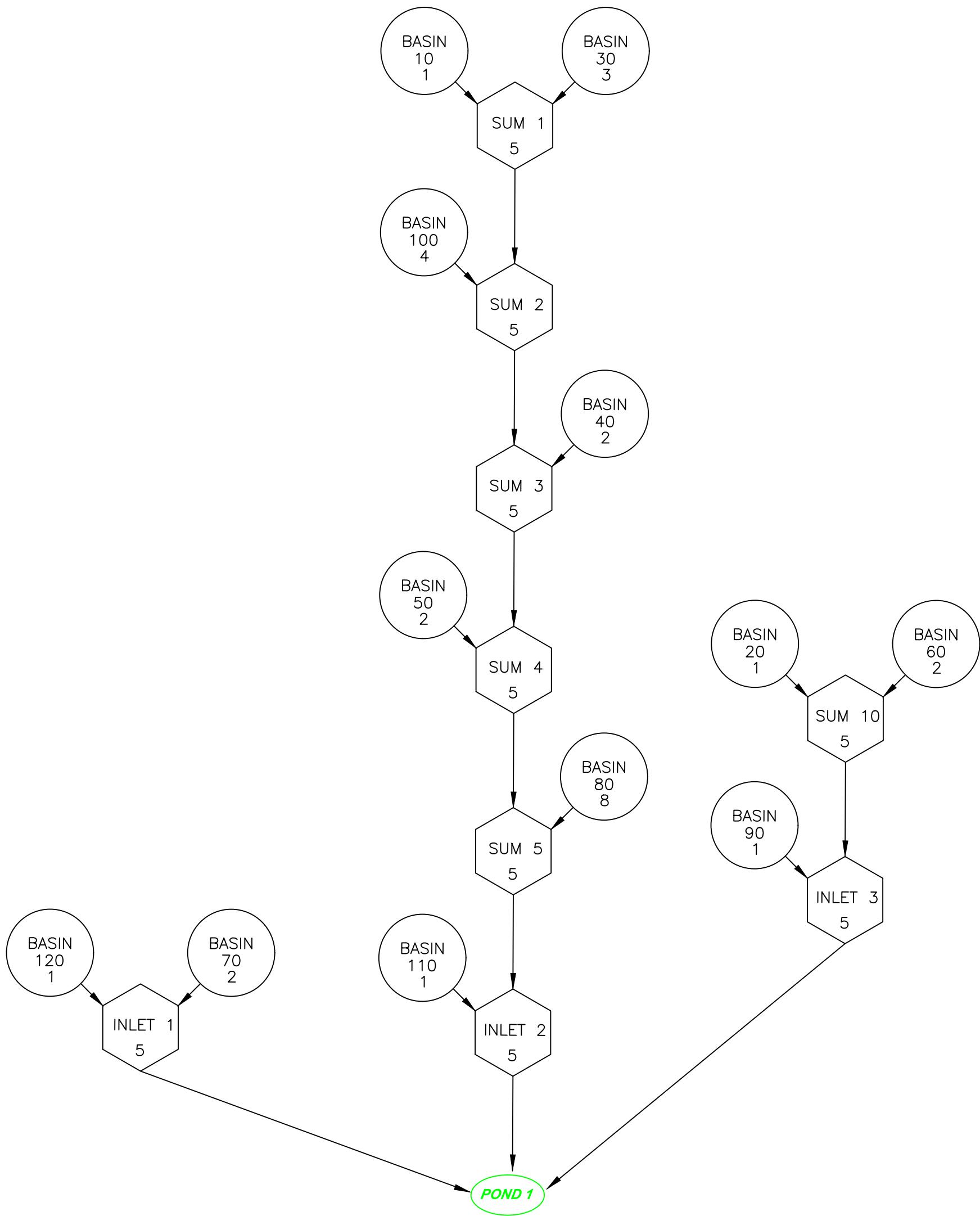
COMMAND	HYDROGRAPH IDENTIFICATION	FROM ID NO.	TO ID NO.	AREA (SQ MI)	PEAK DISCHARGE (CFS)	RUNOFF VOLUME (AC-FT)	RUNOFF (INCHES)	TIME TO PEAK (HOURS)	CFS PER ACRE	PAGE = 1 NOTATION
START										TIME= 0.00
LOCATION		DEFAULT								
*S										
*S	Montage Unit 6									
*S										
*S	HYMO PER JAN 1997 DPM REVISIONS									
*S	*****									
RAINFALL	TYPE= 1 NOAA 14									RAIN6= 2.290
*S	*****									
*S	*****									
*S										
*S	Montage Unit 6 Proposed Conditions									
*S										
*S	*****									
*S	*****									
*S	-----									
*S	Fully Developed Site Therefore no Sediment Bulking									
*S	-----									
*S	COMPUTE Developed BASIN 10									
COMPUTE NM HYD	B10	-	1	0.00420	9.64	0.329	1.46852	1.530	3.588	PER IMP= 48.00
*S	-----									
*S	COMPUTE Developed BASIN 30									
COMPUTE NM HYD	B30	-	3	0.00040	1.15	0.043	2.03725	1.525	4.497	PER IMP= 100.00
*S	-----									
*S	Add Basins 10 and 30									
ADD HYD	SUM1	1& 3	5	0.00460	10.79	0.372	1.51786	1.530	3.667	
*S	-----									
*S	COMPUTE Developed BASIN 100									
COMPUTE NM HYD	B100	-	4	0.00150	3.36	0.112	1.40290	1.535	3.499	PER IMP= 42.00
*S	-----									
*S	Add Basin 100 and SUM 1									
ADD HYD	SUM2	5& 4	5	0.00610	14.15	0.485	1.48954	1.530	3.625	
*S	-----									
*S	COMPUTE Developed BASIN 40									
COMPUTE NM HYD	B40	-	2	0.00570	13.57	0.473	1.55602	1.530	3.721	PER IMP= 56.00
*S	-----									
*S	Add Basins 40 to SUM 2									
ADD HYD	SUM3	2& 5	5	0.01180	27.73	0.958	1.52163	1.530	3.671	
*S	-----									
*S	COMPUTE Developed BASIN 50									
COMPUTE NM HYD	B50	-	2	0.00070	1.75	0.063	1.68801	1.530	3.913	PER IMP= 71.00
*S	-----									
*S	Add Basins 50 to SUM 3									
ADD HYD	SUM4	2& 5	5	0.01250	29.48	1.021	1.53093	1.530	3.685	
*S	-----									
*S	COMPUTE Developed BASIN 80									
COMPUTE NM HYD	B80	-	8	0.00180	4.34	0.151	1.57789	1.530	3.766	PER IMP= 58.00
*S	-----									
*S	Add Basin 80 to SUM 4									
ADD HYD	SUM5	8& 5	5	0.01430	33.82	1.172	1.53682	1.530	3.695	
*S	-----									
*S	COMPUTE Developed BASIN 110									
COMPUTE NM HYD	B110	-	1	0.00250	5.59	0.187	1.40290	1.535	3.492	PER IMP= 42.00
*S	-----									
*S										
*S	Total Flows to Inlet 2									
*S										
*S	-----									
*S	Add Basin 110 to SUM 5									
ADD HYD	INL2	1& 5	5	0.01680	39.40	1.359	1.51687	1.530	3.665	
*S	-----									
*S	COMPUTE Developed BASIN 120									
COMPUTE NM HYD	B120	-	1	0.00140	3.14	0.105	1.40290	1.535	3.501	PER IMP= 42.00
*S	-----									
*S	COMPUTE Developed BASIN 70									
COMPUTE NM HYD	70.00	-	2	0.00650	15.05	0.517	1.49040	1.530	3.619	PER IMP= 50.00
*S	-----									
*S										
*S	Total Flows to Inlet 1									
*S										

MONTAGE UNIT 6 AHYHO SUMMARY FILE

COMMAND	HYDROGRAPH IDENTIFICATION	FROM ID NO.	TO ID NO.	AREA (SQ MI)	PEAK DISCHARGE (CFS)	RUNOFF VOLUME (AC-FT)	RUNOFF (INCHES)	TIME TO PEAK (HOURS)	CFS PER ACRE	PAGE = 2 NOTATION
*S-----										
*S Add Basin 120 to Basin 70										
ADD HYD	INL1	1& 2	6	0.00790	18.19	0.621	1.47482	1.530	3.598	
*S-----										
*S COMPUTE Developed BASIN 20										
COMPUTE NM HYD	B20	-	1	0.00290	6.54	0.220	1.42477	1.530	3.523	PER IMP= 44.00
*S-----										
*S COMPUTE Developed BASIN 60										
COMPUTE NM HYD	B20	-	2	0.00070	1.75	0.063	1.68801	1.530	3.913	PER IMP= 71.00
*S-----										
*S Add Basin 20 to Basin 60										
ADD HYD	SUM10	1& 2	5	0.00360	8.29	0.283	1.47580	1.530	3.599	
*S-----										
*S COMPUTE Developed BASIN 90										
COMPUTE NM HYD	B90	-	1	0.00150	3.36	0.112	1.40290	1.535	3.499	PER IMP= 42.00
*S-----										
*S Add Basins 20 and 60 Basin 90										
ADD HYD	INL3	5& 1	5	0.00510	11.65	0.396	1.45431	1.530	3.570	
*S-----										
FINISH										

(s0p10h4099T&l6D

27MAR08 (GSF)
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Designed For:

TWILIGHT HOMES

MONTAGE 6
AHYMO SCHEMATIC

Designed By:

HUITT-ZOLLARS

Huitt-Zollars, Inc. Rio Rancho
333 Rio Rancho DR NE, Suite 101
Rio Rancho, New Mexico 87124
Phone (505) 892-5141 Fax (505) 892-3259

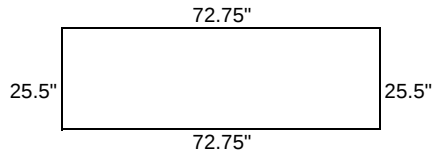
APPENDIX B EXHIBIT 3

Montage 6 Development Basin Summary - Developed Conditions											
Basin	Area (Acre)	Area (SQ MI)	Type of Development	Number of Lots	N (units/acre)	%A	%B	%C	%D	100-Year V (AC-FT)	100-Year Q (CFS)
10	2.7	0.0042	Single-Family Residential	13	4.9	0	26	26	49	0.33	9.6
20	1.9	0.0029	Single-Family Residential	8	4.2	0	28	28	44	0.22	6.5
30	0.3	0.0004	Single-Family Residential	1	N/A	0	0	0	100	0.04	1.2
40	3.6	0.0057	Single-Family Residential	21	5.8	0	22	22	55	0.47	13.6
50	0.4	0.0007	Park Parcel	1	0.0	0	29	0	71	0.06	1.8
60	0.4	0.0007	Park Parcel	1	2.3	0	42	0	58	0.06	1.8
70	4.2	0.0065	Single-Family Residential	19	4.5	0	27	27	46	0.52	15.1
80	1.2	0.0018	Single-Family Residential	7	6.0	0	21	21	57	0.15	4.3
90	1.0	0.0015	Single-Family Residential	4	4.2	0	29	29	42	0.11	3.4
100	0.9	0.0015	Single-Family Res. W/Park	9	9.6	0	29	29	42	0.11	3.4
110	1.6	0.0025	Single-Family Residential	8	4.9	0	29	29	42	0.19	5.6
120	0.9	0.0014	Single-Family Residential	4	4.4	0	29	29	42	0.11	3.1
19.1		0.0298	Total Inflow to Pond 1 =							2.38	69.2

Inlet Worksheet Double 'D'

Objective: Analyze capacity of a Double D Inlet

Grate Dimensions



**Net dimensions of open area of a single grate.
(Total Area less Area of Bars)

Weir Perimeter - Double 'D' = $2 \times 25.5" + 2 \times 72.75" = 16.375$ ft

Area of Orifice - Double 'D' = $25.5" \times (72.75") = 12.88$ sq ft

Calculate Orifice and Weir Flow into Grate at Design Depth (0.9 ft)

Orifice Equation	Weir Equation
$Q = 0.6 \times A \times (2 \times g \times h)^{1/2}$ Where $A = 12.880$ sq. ft. $g = 32.2$ ft ² /sec $h = 0.9$ ft Therefore $Q = 58.83439634$ cfs	$Q = 2.65 \times P \times H^{1/2}$ Where $P = 16.375$ ft $H = 0.9$ ft Therefore $Q = 41$ cfs

Weir Equation controls

Double "D" Inlet flow @ .1 below edge of pavement = 41 cfs

Apply 25% Clogging Factor to determine allowable design flow into inlet

$$41 \times 0.75 = 31 \text{ cfs}$$

Therefore Capacity of Double 'D' = 31 cfs.

APPENDIX C

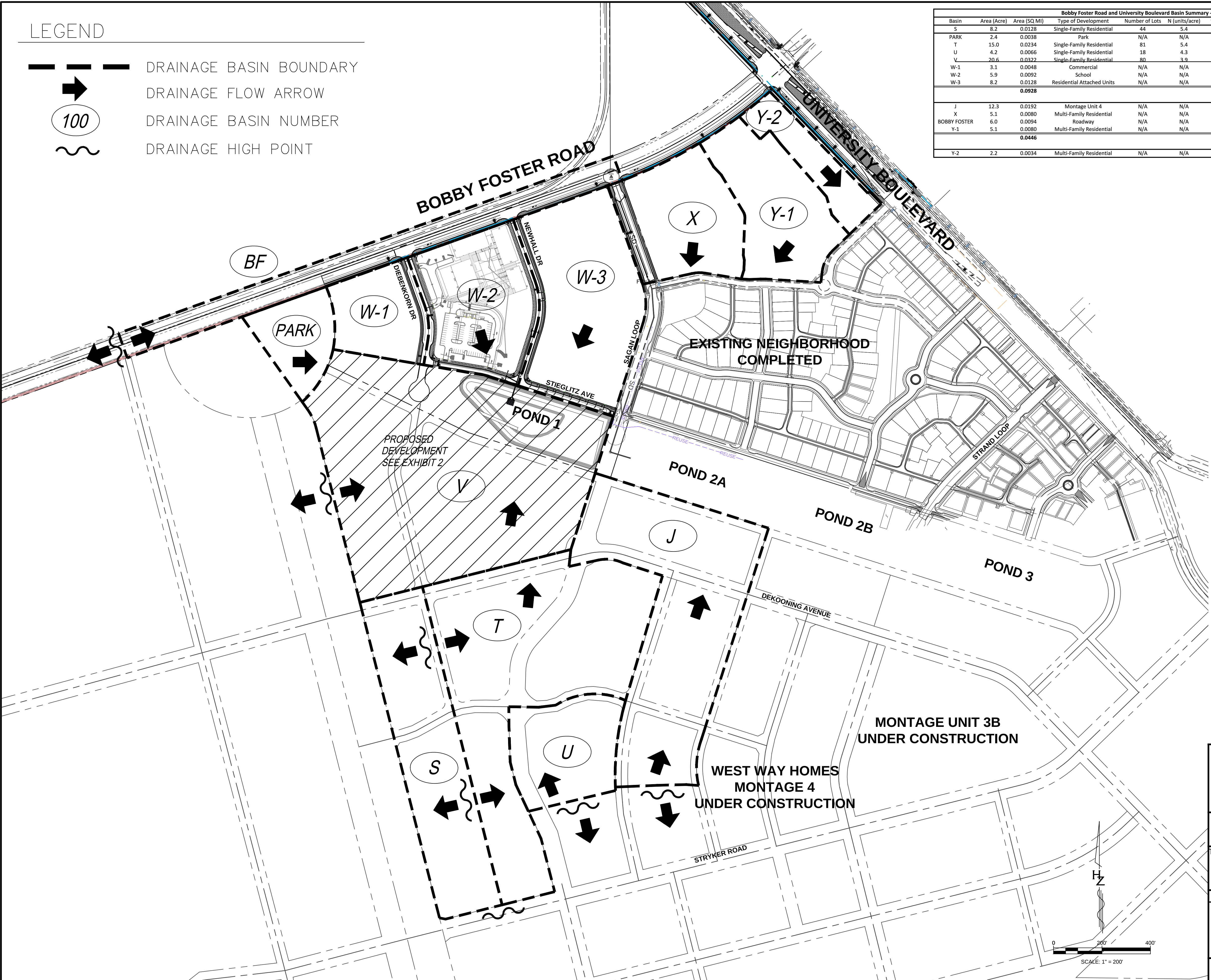
BASIN MAPS

LEGEND

- DRAINAGE BASIN BOUNDARY
- DRAINAGE FLOW ARROW
- 100

DRAINAGE BASIN NUMBER
- DRAINAGE HIGH POINT

Bobby Foster Road and University Boulevard Basin Summary - Developed Conditions											
Basin	Area (Acre)	Area (SQ MI)	Type of Development	Number of Lots	N (units/acre)	%A	%B	%C	%D	100-Year V (AC-FT)	100-Year Q (CFS)
S	8.2	0.0128	Single-Family Residential	44	5.4	0	24	24	52	1.03	29.9
PARK	2.4	0.0038	Park	N/A	N/A	0	46	47	7	0.21	7.1
T	15.0	0.0234	Single-Family Residential	81	5.4	0	24	24	52	1.89	54.7
U	4.2	0.0066	Single-Family Residential	18	4.3	0	28	28	44	0.50	14.9
V	20.6	0.0322	Single-Family Residential	80	3.9	0	28	28	42	2.41	71.7
W-1	3.1	0.0048	Commercial	N/A	N/A	0	5	5	90	0.49	13.2
W-2	5.9	0.0092	School	N/A	N/A	0	25	25	50	0.73	21.3
W-3	8.2	0.0128	Residential Attached Units	N/A	N/A	0	15	15	70	1.17	32.4
0.0928										Total Inflow to Pond 1 =	7.40
										Total Outflow from Pond 1 =	5.44
										45.3	
J	12.3	0.0192	Montage Unit 4	N/A	N/A	0	27	27	46	1.48	43.6
X	5.1	0.0080	Multi-Family Residential	N/A	N/A	0	15	15	70	0.73	20.3
BOBBY FOSTER	6.0	0.0094	Roadway	N/A	N/A	0	22	0	78	0.89	24.2
Y-1	5.1	0.0080	Multi-Family Residential	N/A	N/A	0	15	15	70	0.73	20.3
0.0446										Total Inflow to Pond 2A =	9.27
										Total Outflow from Pond 2A =	7.78
										14.9	
Y-2	2.2	0.0034	Multi-Family Residential	N/A	N/A	0	15	15	70	0.31	8.6

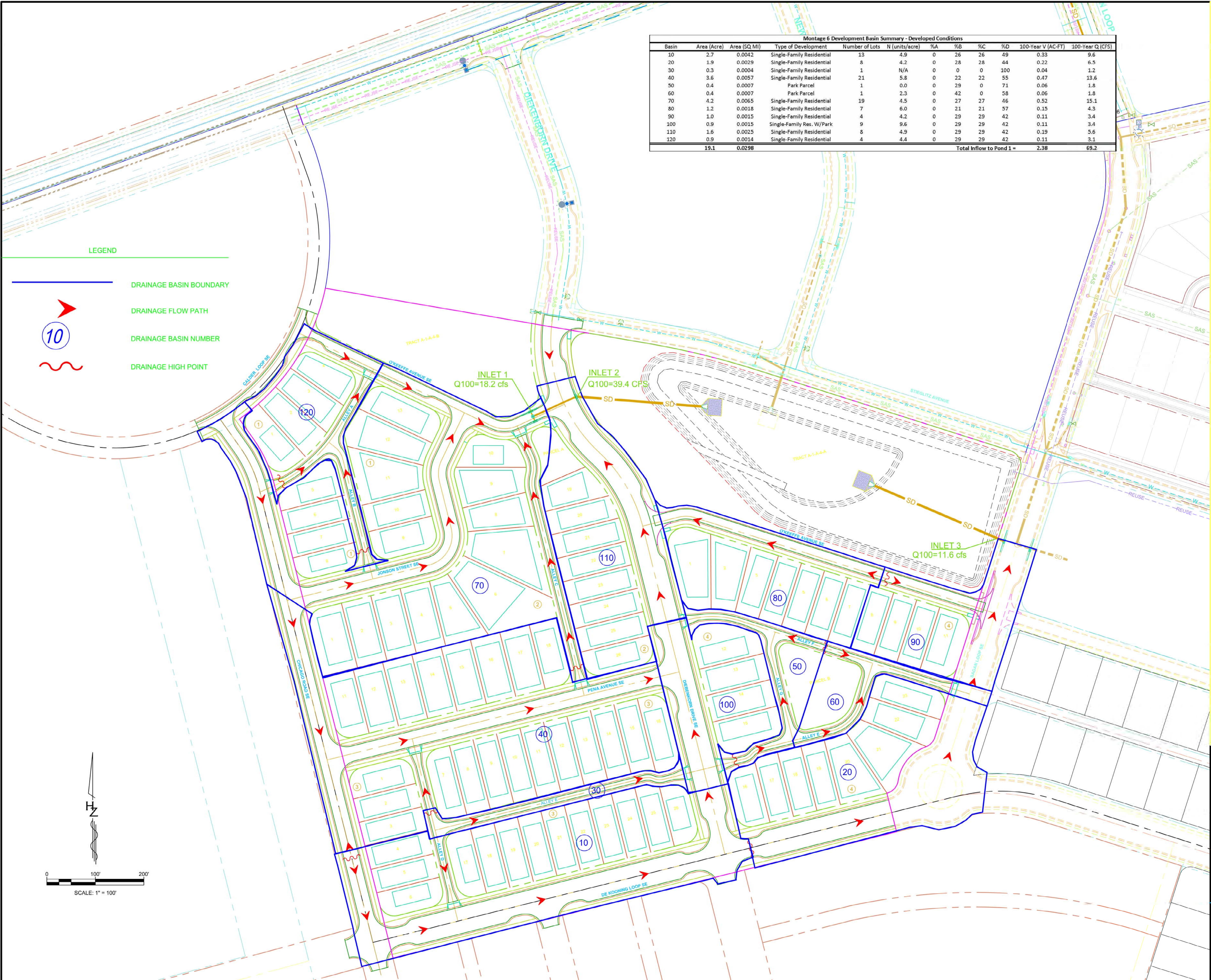


Designed By:
HUITT-ZOLLARS
Huitt-Zollars, Inc. Albuquerque
6501 Americas Pkwy NE, Suite 550
Albuquerque, New Mexico 87110
Phone (505) 883-8114 Fax (505) 883-5022

SC³ DEVELOPMENT
4020 Vassar Drive NE Suite I

TITLE: MONTAGE UNIT 6 TWILIGHT HOMES	
Design Review Committee	City Engineer
Last Update	
City Project No. 3935.81	
Zone Map No. R-15-Z, R-16-Z	
Sheet EX. 1	Of 1

Plotted: 6/23/2021 3:23:19 PM By: Banks, Kevin
Reviewed: 6/24/2021 - Montage 6 Engineering/05 Design/05.13 Hyd/05.13.2 Hydrology/PROPOSED CONDITIONS
Last Saved: 6/23/2021 3:22:26 PM, kbanks



Montage 6 Development Basin Summary - Developed Conditions											
Basin	Area (Acre)	Area (SQ MI)	Type of Development	Number of Lots	N (units/acre)	%A	%B	%C	%D	100-Year V (AC-FT)	100-Year Q (CFS)
10	2.7	0.0042	Single-Family Residential	13	4.9	0	26	26	49	0.33	9.6
20	1.9	0.0029	Single-Family Residential	8	4.2	0	28	28	44	0.22	6.5
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40	3.6	0.0057	Single-Family Residential	21	5.8	0	22	22	55	0.47	13.6
50	0.4	0.0007	Park Parcel	1	0.0	0	29	0	71	0.06	1.8
60	0.4	0.0007	Park Parcel	1	2.3	0	42	0	58	0.06	1.8
70	4.2	0.0065	Single-Family Residential	19	4.5	0	27	27	46	0.52	15.1
80	1.2	0.0018	Single-Family Residential	7	6.0	0	21	21	57	0.15	4.3
90	1.0	0.0015	Single-Family Residential	4	4.2	0	29	29	42	0.11	3.4
100	0.9	0.0015	Single-Family Res. W/Park	9	9.6	0	29	29	42	0.11	3.4
110	1.6	0.0025	Single-Family Residential	8	4.9	0	29	29	42	0.19	5.6
120	0.9	0.0014	Single-Family Residential	4	4.4	0	29	29	42	0.11	3.1
Total Inflow to Pond 1 =										2.38	69.2



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SC DEVELOPMENT
4020 Vassar Drive NE Suite I

PROPOSED CONDITIONS BASIN MAP
MONTAGE UNIT 6

Design Review Committee	City Engineer	Mr. Day	Mr. Day
Last Update			
City Project No.	Zone Map No.	Sheet	Of
3935.81	R-15-Z, R-16-Z		EXHIBIT 2

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Cut/Fill Summary

Name	Cut Factor	Fill Factor	2d Area	Cut	Fill	Net
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Totals			901641.60 Sq. Ft.	18983.52 Cu. Yd.	12388.73 Cu. Yd.	6594.79 Cu. Yd.<Cut>



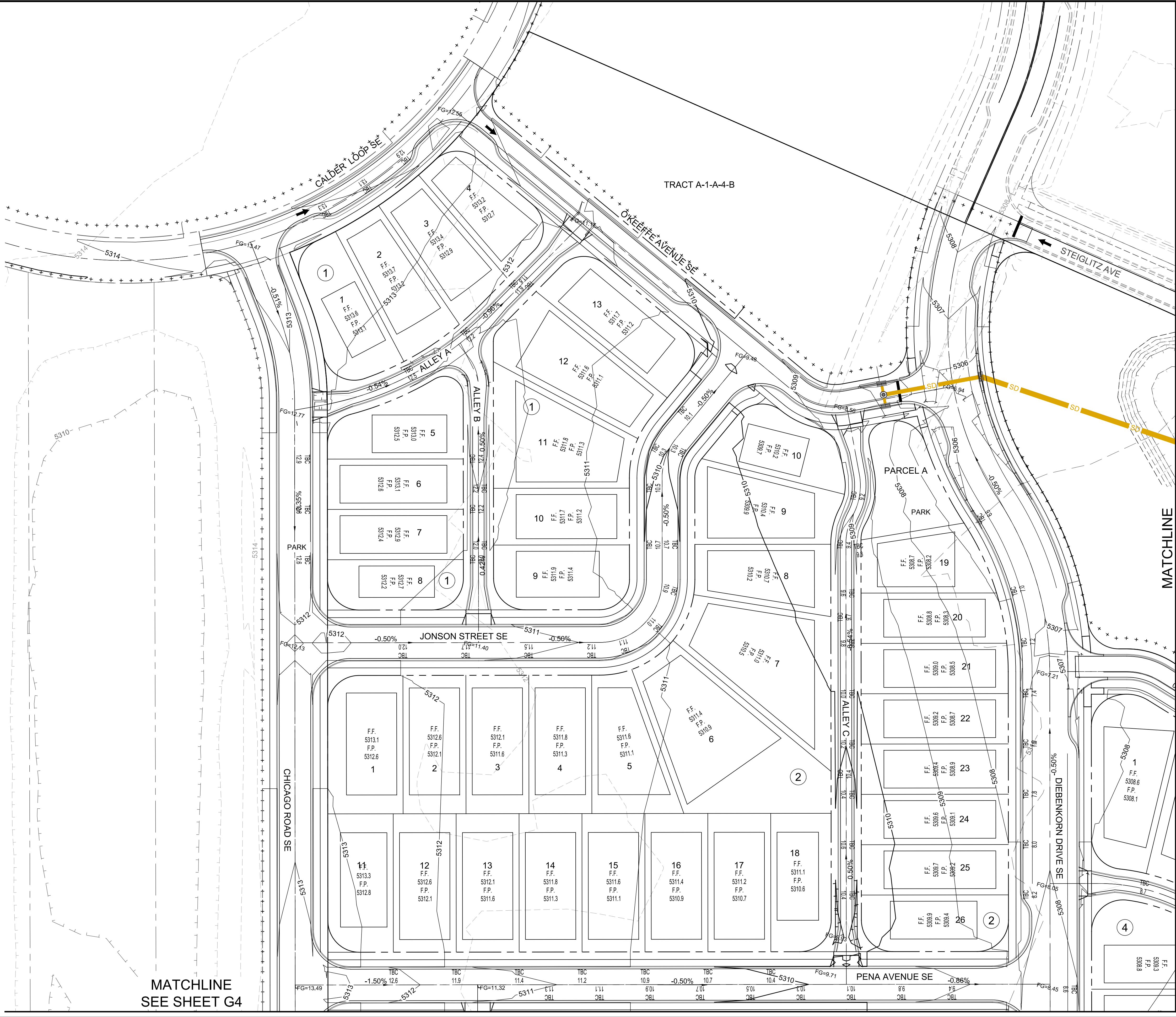
- GENERAL NOTES**
- ALL DISTURBED COMMERCIAL LOTS AND NON-RESIDENTIAL LOTS AREAS NOT PROPOSED TO BE IMPROVED SHALL BE STRAW CRIMPED W/ NATIVE SEEDING PER COA SPECIFICATION 1011 & 1012.
 - SEE PLAT FOR LOT DIMENSIONS.
 - SEE DETAIL X FOR TYPICAL LOT GRADING.
 - SEE SHEETS XX-XX FOR DIAGRAM & DETAILS OF WALLS RETAINING MORE THAN 18", AND PERIMETER WALLS.
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 - CONTRACTOR SHALL OBTAIN PERMISSION TO GRADE ON PRIVATE PROPERTY. CITY SHALL NOT BE RESPONSIBLE FOR CONTRACTOR TRESPASSING ON PRIVATE PROPERTY

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MONTAGE UNIT 6 TWILIGHT HOMES			
TITLE: GRADING COMPOSITE			
Design Review Committee		City Engineer	
	Last Update	Mo./Day/Yr.	Mo./Day/Yr.
City Project No.	Zone Map No.	Sheet	Of
XX	R-15-Z, R-16-Z	G1	-

ENGINEER'S SEAL				SURVEY INFORMATION		BENCH MARKS		AS BUILT INFORMATION	
PRELIMINARY NOT FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSES. FOR REVIEW ONLY. SCOTT A. EDINGS 12856 Date: 6/24/21 HUITT-ZOLLARS, INC. Consulting Engineers				FIELD NOTES		FOUND MONUMENT "15-112 1989" STANDARD 3 1/4" ALUMINUM DISC NEW MEXICO STATE PLANE COORDINATES (CENTRAL ZONE N.A.D. 1983) N=1,487,534.543 E=1,511,214.742 ELEV=4965.627 (NAVD 1988) GROUND TO GRID FACTOR=0.999885508 MAPPING ANGLE=0°14'53.77"		CONTRACTOR	
				NO.	DATE			WORK RECEIVED BY	DATE
				BY				INSPECTORS	DATE
				REVISIONS				ACCEPTANCE BY	DATE
				DESIGN				REJECTION BY	DATE
DESIGNED BY: JLM		DATE: June 24, 2021	DRAWINGS		DATE				
DRAWN BY: LRT		DATE: June 24, 2021	CORRECTED BY		DATE				
DWG NAME: 2GRAD COMP.dwg		PROJ.#: R313544.01	MICRO-FILM INFORMATION		RECORDED BY	DATE			
CHECKED BY: SAE		DATE: June 24, 2021	NO.		NO.				

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June 24, 2021

MATCHLINE
SEE SHEET G3

G2

GRADING SHEET INDEX

LEGEND

- EXIST. (INDEX) CONTOUR
- EXIST. (INTERMEDIATE) CONTOUR
- PROP. (INDEX) CONTOUR
- PROP. (INTERMEDIATE) CONTOUR
- WATER BLOCK
- NEW CURB & GUTTER
- FUTURE CURB & GUTTER
- XX.XXTP TOP OF PAVEMENT
- XX.XXTC TOP OF CURB ELEVATION
- XX.XXFL FLOW LINE ELEVATION
- XX.XXTOC TOP OF CONCRETE
- FLOW DIRECTION
- GRADING LIMITS
- SLOPE STABILIZATION

GENERAL NOTES

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- SEE DETAIL GX FOR TYPICAL LOT GRADING.
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SCALE: 1" = 40'



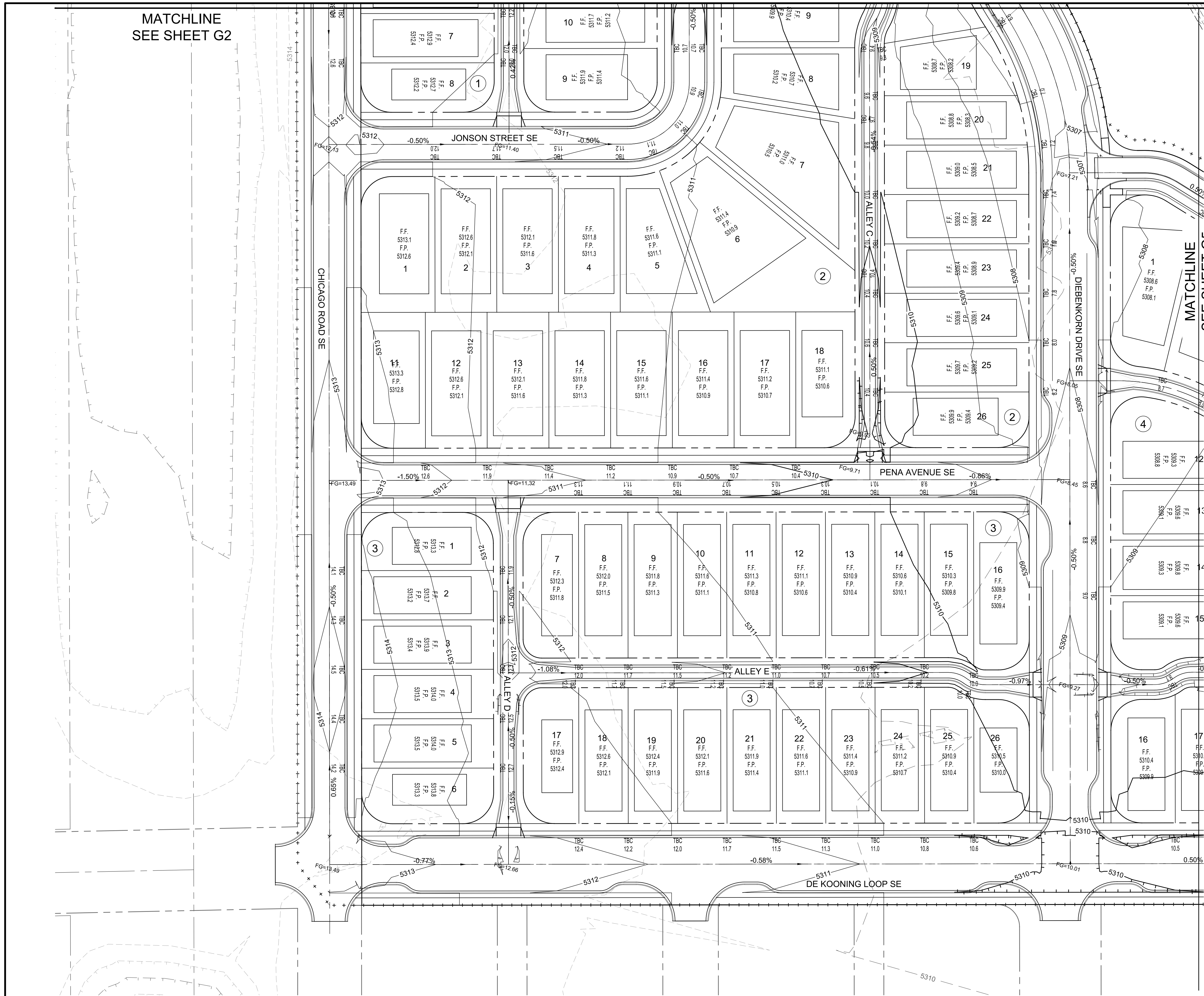
Designed By:

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MONTAGE UNIT 6 TWILIGHT HOMES

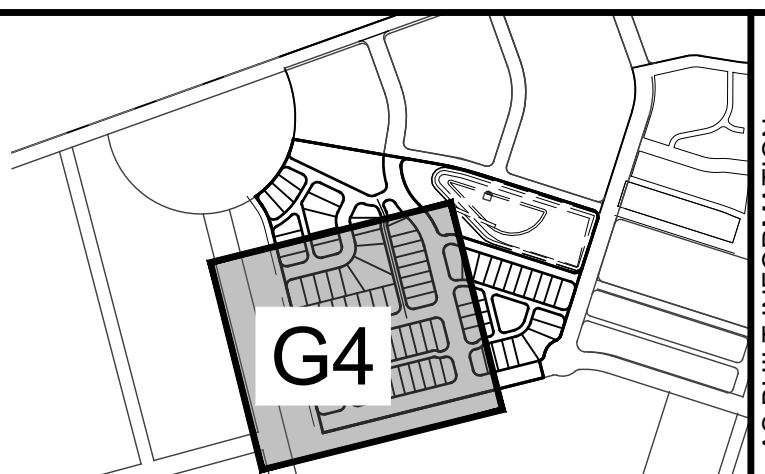
GRADING PLAN

Design Review Committee	City Engineer	Mo./Day/Yr.	Mo./Day/Yr.
City Project No.	Zone Map No.	Sheet	Of
XX	R-15-Z, R-16-Z	G2	-



MATCHLINE
SEE SHEET G2

MATCHLINE
SEE SHEET G5



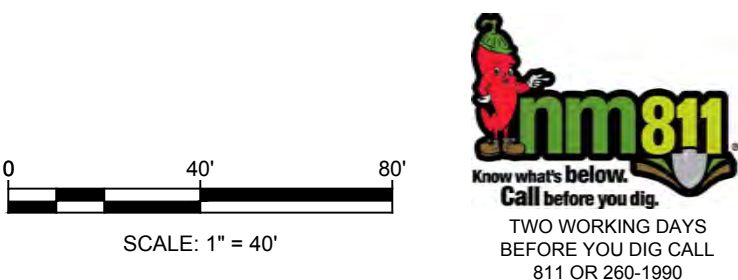
GRADING SHEET INDEX

LEGEND

- | | |
|--|--|
| | EXIST. (INDEX) CONTOUR |
| | EXIST. (INTERMEDIATE) CONTOUR |
| | PROP. (INDEX) CONTOUR |
| | PROP. (INTERMEDIATE) CONTOUR |
| | WATER BLOCK |
| | NEW CURB & GUTTER |
| | FUTURE CURB & GUTTER |
| | TOP OF PAVEMENT |
| | TOP OF CURB ELEVATION
FLOW LINE ELEVATION |
| | TOP OF CONCRETE |
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MONTAGE UNIT 6

TWILIGHT HOMES

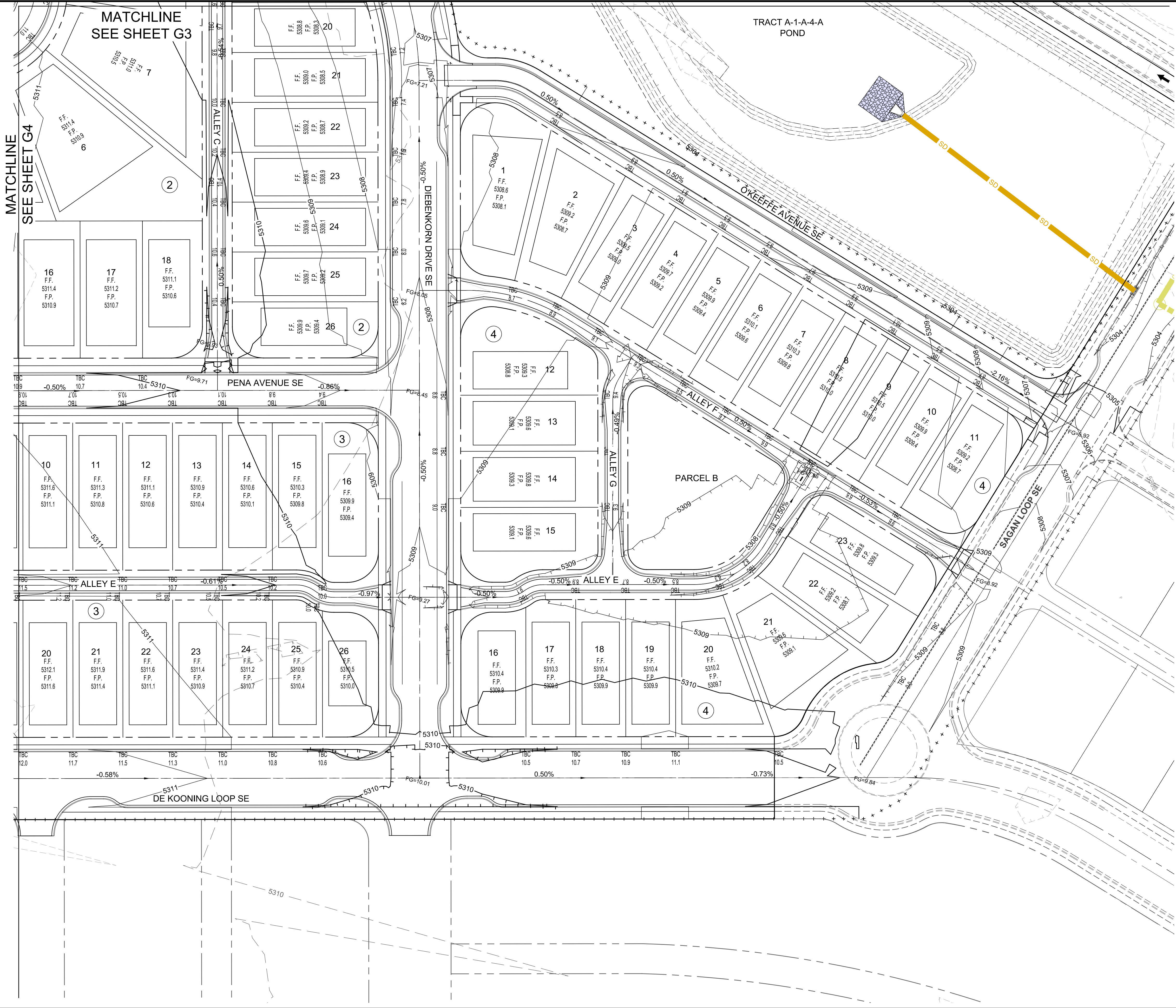
TITLE:

GRADING PLAN

Design Review Committee	City Engineer	Last Update	Mo./Day/Yr.	Mo./Day/Yr.
City Project No.	Zone Map No.		Sheet	Of
XX	R-15-Z, R-16-Z		G4	-

June 24, 2021

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LEGEND

- EXIST. (INDEX) CONTOUR
- EXIST. (INTERMEDIATE) CONTOUR
- PROP. (INDEX) CONTOUR
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0 60' 120'
SCALE: 1" = 60'

nm811
Know what's below.
Call before you dig.
TWO WORKING DAYS
BEFORE YOU DIG CALL
811 OR 280-1990

Designed By:

HUITT-ZOLLARS
Huitt-Zollars, Inc. Albuquerque
6501 Americas Pkwy NE, Suite 550
Albuquerque, New Mexico 87110
Phone (505) 883-8114 Fax (505) 883-5022

**MONTAGE UNIT 6
TWILIGHT HOMES**

TITLE:

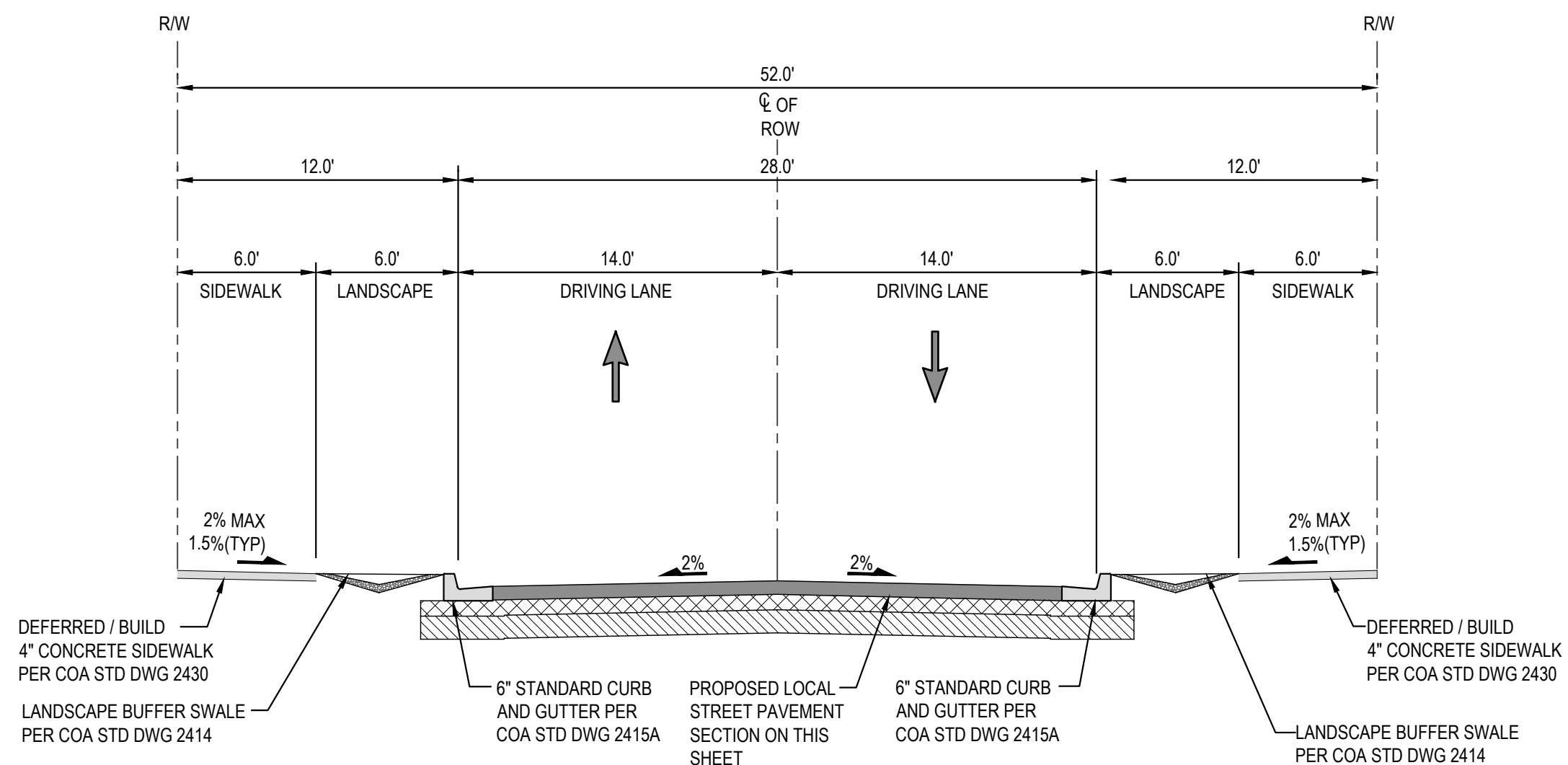
GRADING PLAN

Design Review Committee	City Engineer	Mo./Day/Yr.	Mo./Day/Yr.
City Project No.	Zone Map No.	Sheet	Of
XX	R-15-Z, R-16-Z	G5	-

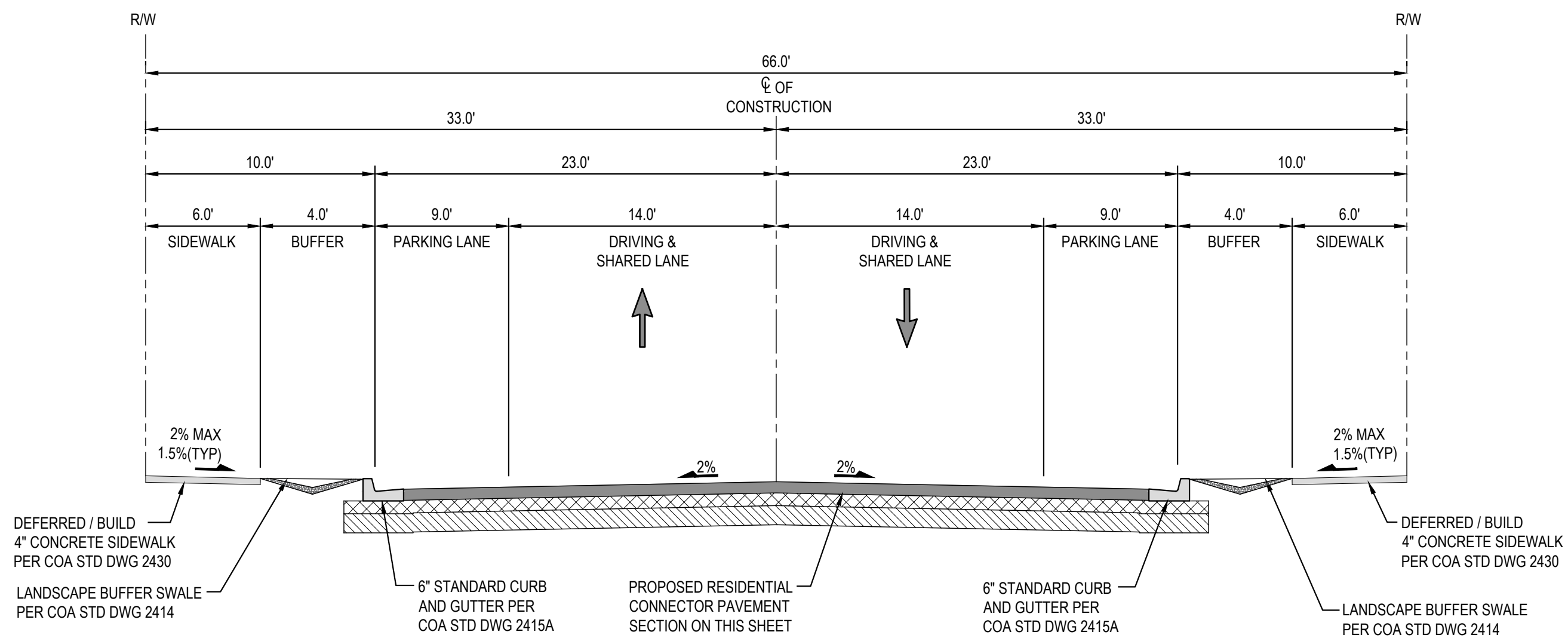
AS BUILT INFORMATION		BENCH MARKS		SURVEY INFORMATION		ENGINEER'S SEAL		REVISIONS		DESIGNED BY		DRAWN BY		CHECKED BY		MICRO-FILM INFORMATION	
CONTRACTOR	DATE	FOUND MONUMENT	DATE	FIELD NOTES	NO.	PRELIMINARY	NO.	DATE	BY	DATE	DATE	DATE	DATE	DATE	DATE	RECORDED BY	NO.
STANDARD 3 1/4" ALUMINUM DISC	NEW MEXICO STATE PLANE COORDINATES (CENTRAL ZONE NAD 83)	NOT FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSES. FOR REVIEW ONLY.	SCOTT A. EDINGS	12856	DATE: June 24, 2021	DATE: June 24, 2021	PROJ.#: R313544.01	DATE: June 24, 2021	DATE: June 24, 2021	DATE: June 24, 2021	DATE: June 24, 2021	DATE: June 24, 2021	DATE: June 24, 2021	DATE: June 24, 2021	DATE: June 24, 2021	GROUND TO GRID FACTOR=1.099885808	MAPPING ANGLE=0°14'53.77"

June 24, 2021

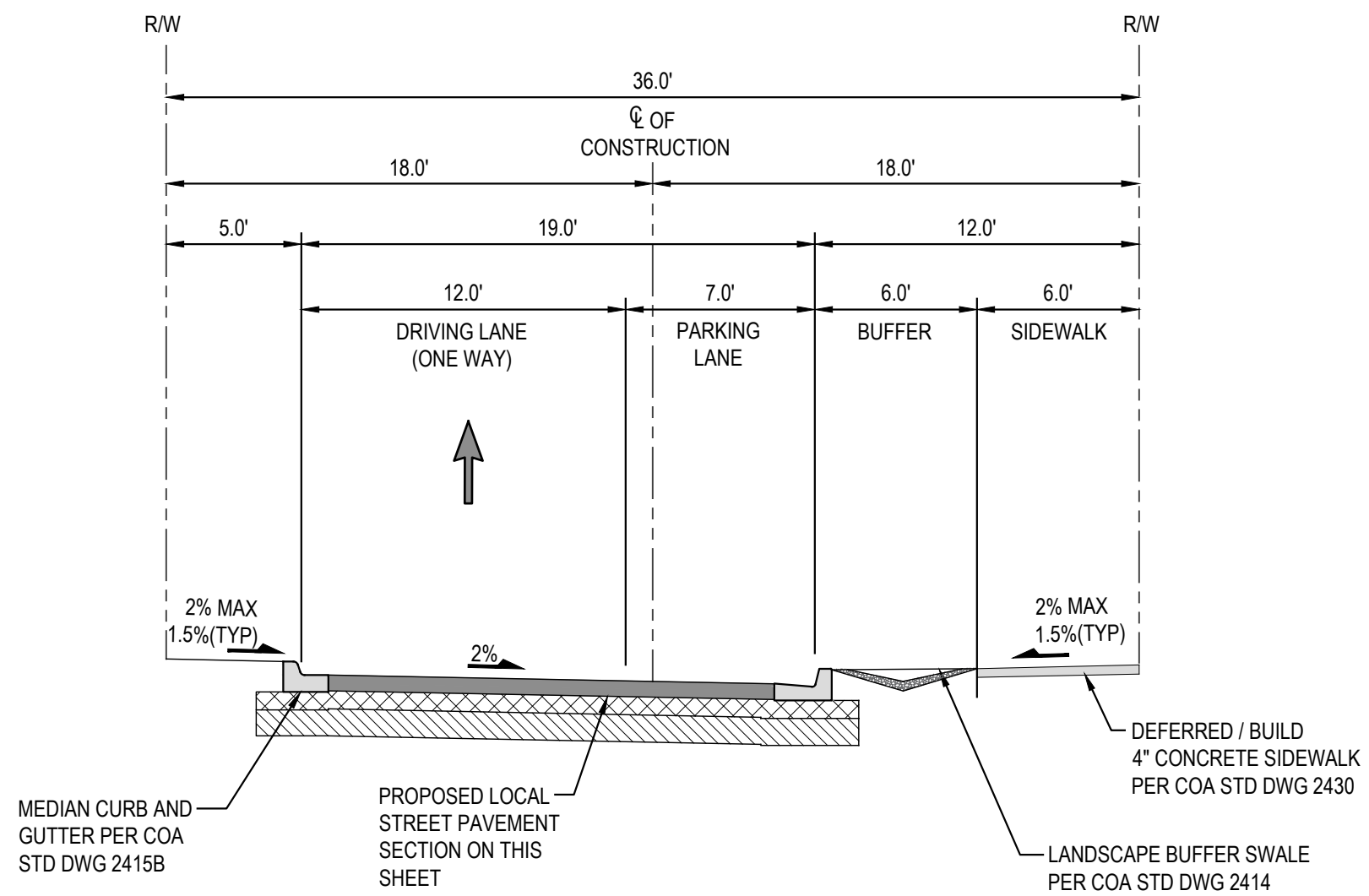
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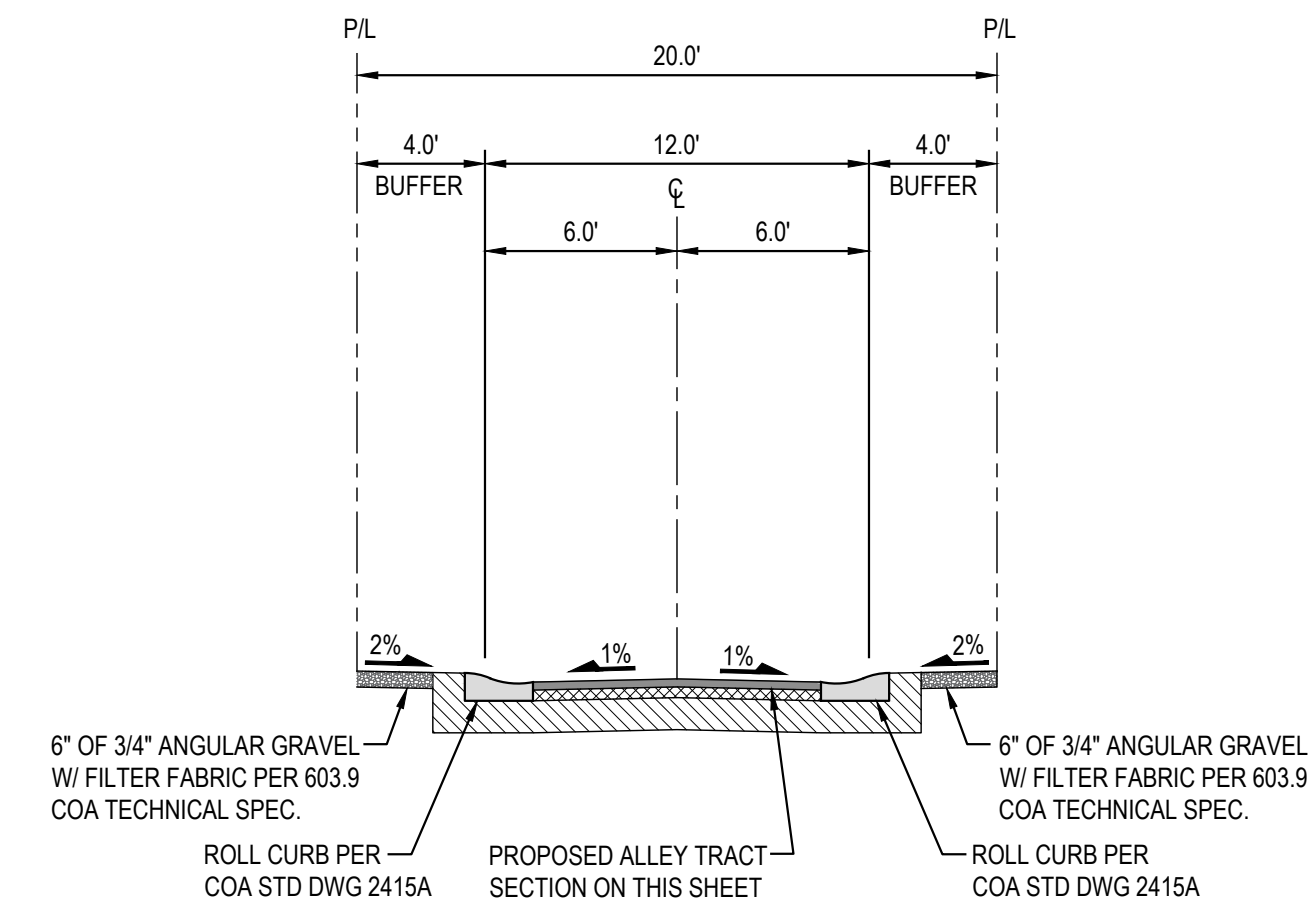
CHICAGO RD, JONSON ST & PENN AVE
SCALE: 1"=6' **A**



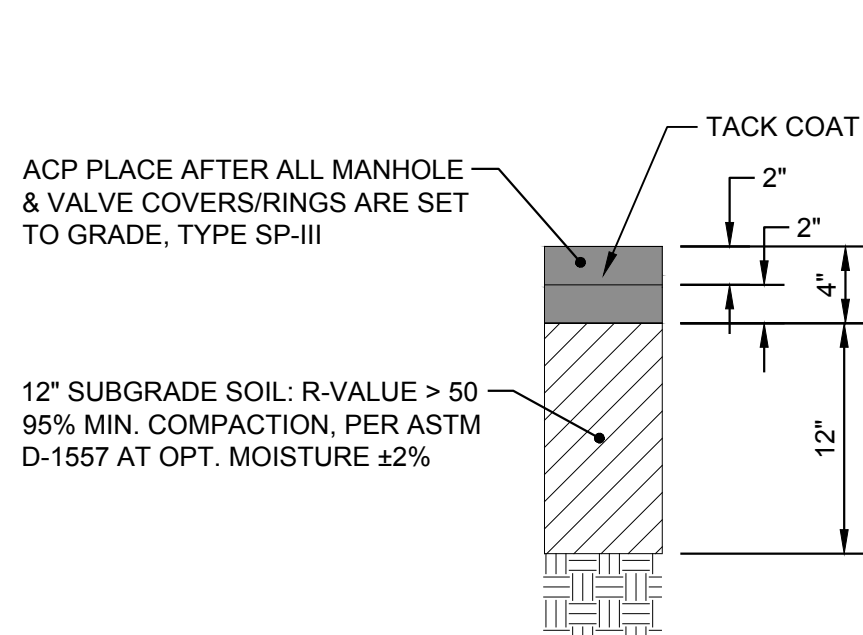
DIEBENKORN DR & DE KOONING LOOP
SCALE: 1"=6' **B**



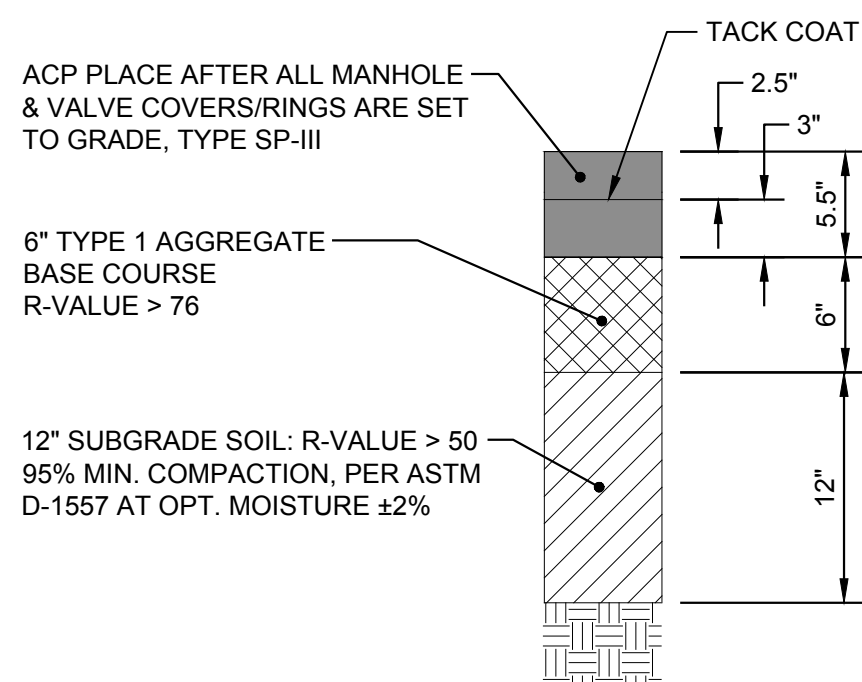
O'KEEFFE AVE & CALDER LOOP
SCALE: 1"=6' **C**



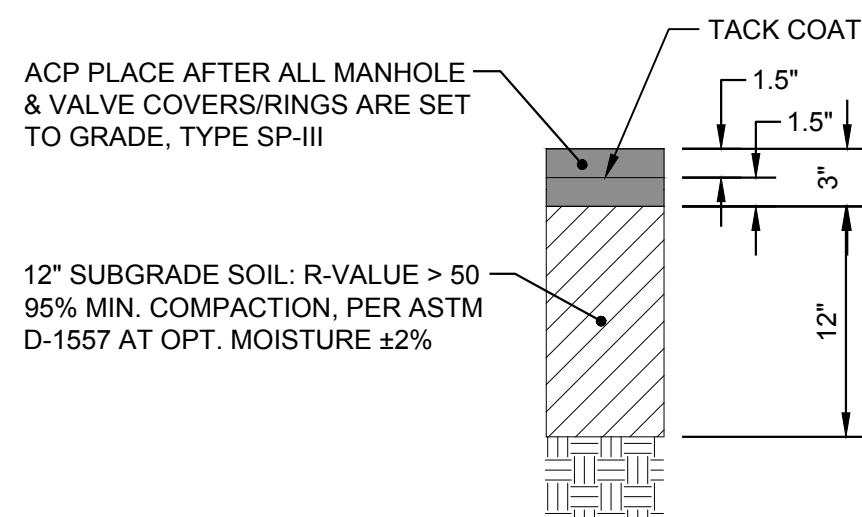
ALLEY TRACT (PRIVATE) - 20' ROW
SCALE: 1"=6' **D**



RESIDENTIAL LOCAL STREET
PAVEMENT SECTION (A & C)
CHICAGO ROAD
JONSON STREET
PENN AVENUE
O'KEEFFE AVENUE
DE KOONING LOOP



RESIDENTIAL CONNECTOR
PAVEMENT SECTION (B)
DIEBENKORN DRIVE
DE KOONING LOOP



ALLEY TRACTS (PRIVATE)
PAVEMENT SECTION (D)

AS BUILT INFORMATION				BENCH MARKS				SURVEY INFORMATION				ENGINEER'S SEAL			
CONTRACTOR	DATE	INSPECTOR	DATE	FOUND MONUMENT	STANDARD	3 1/4\"	ALUMINUM DISC	FIELD NOTES	BY	DATE	NO.	PRELIMINARY	NOT FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSES. FOR REVIEW ONLY.	NO.	DATE
STANLEY	DATE	INSPECTOR	DATE	NEW MEXICO STATE PLANE COORDINATES (CENTRAL ZONE NAD 1983)	N=1487 539.543	E=1511 214.742	ELEV=4666.827 (NAVD 1988)	SCOTT A. EDWARDS	12856	6/24/21	DATE: June 24, 2021	DESIGNED BY: JLM	DATE: June 24, 2021	PROJ.#: R319544.01	CHECKED BY: SAE
VERIFICATION BY	DATE	VERIFICATION BY	DATE	GROUND TO GRID FACTOR	0.99685508	MAPPING ANGLE	-0°14'53.77"					DATE: June 24, 2021	DATE: June 24, 2021	DATE: June 24, 2021	DATE: June 24, 2021
MICRO-FILM INFORMATION				MICRO-FILM INFORMATION				REVISIONS				REVISIONS			
RECORDED BY	DATE	RECORDED BY	DATE	REVISIONS	DATE	REVISIONS	DATE	REVISIONS	DATE	REVISIONS	DATE	REVISIONS	DATE	REVISIONS	DATE



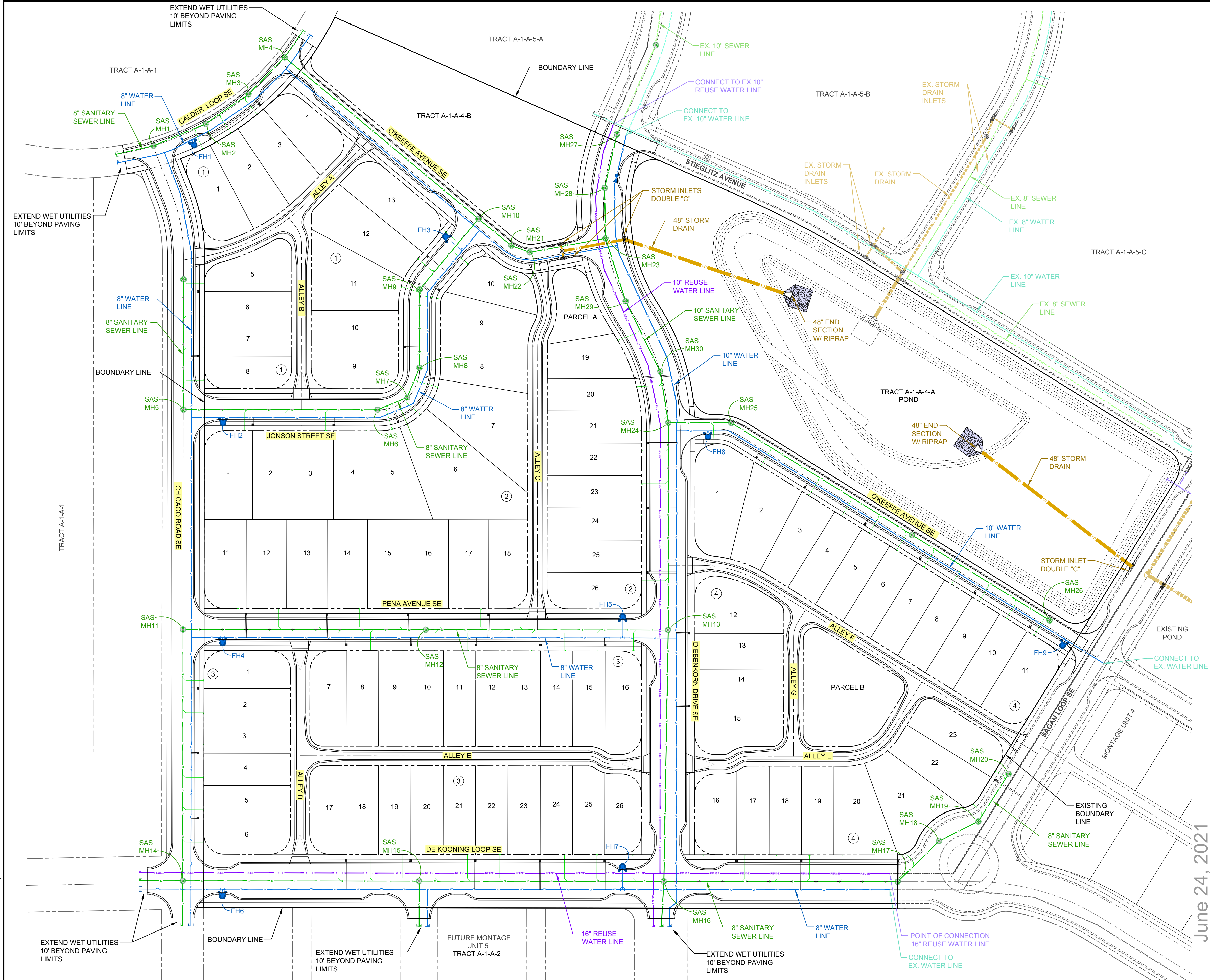
Designed By:
HUITT-ZOLLARS
Huitt-Zollars, Inc. Albuquerque
6501 Americas Pkwy NE, Suite 550
Albuquerque, New Mexico 87110
Phone (505) 883-8114 Fax (505) 883-5022

MONTAGE UNIT 6 TWILIGHT HOMES

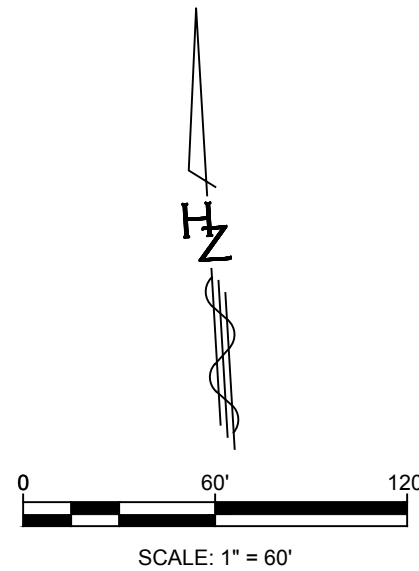
TITLE:			
TYPICAL SECTIONS			
Design Review Committee	City Engineer	Mo./Day/Yr.	Mo./Day/Yr.
Last Update			
City Project No.	Zone Map No.	Sheet	Of
XX	R-15-Z, R-16-Z	R1	-

June 24, 2021

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June 24, 2021



Designed By:
HUITT-ZOLLARS
Huitt-Zollars, Inc. Albuquerque
6501 Americas Pkwy NE, Suite 550
Albuquerque, New Mexico 87110
Phone (505) 883-8114 Fax (505) 883-5022

**MONTAGE UNIT 6
TWILIGHT HOMES**

UTILITY COMPOSITE

Design Review Committee	City Engineer	Mo./Day/Yr.	Mo./Day/Yr.
City Project No.	Zone Map No.	Sheet	Of
XX	R-15-Z, R-16-Z	U1	-

ENGINEER'S SEAL				SURVEY INFORMATION				BENCH MARKS				AS BUILT INFORMATION			
PRELIMINARY NOT FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSES. FOR REVIEW ONLY. SCOTT A. EDDINGS 12856 Date: 6/24/21 HUITT-ZOLLARS, INC. Consulting Engineers				FIELD NOTES				FOUND MONUMENT "15-12 1989"				CONTRACTOR			
				NO.		BY		DATE		STANDARD 3 1/4" ALUMINUM DISC		WORK STAMPED BY		DATE	
										NEW MEXICO STATE PLANE COORDINATES (CENTRAL ZONE N.A.D. 1983)		INSPECTORS FIELD CHECKED BY		DATE	
										N=1 487 534.543		DRAWINGS CORRECTED BY		DATE	
										E=1 511 214.742		ELEV=4965.627 (NAVD 1988)		MICRO-FILM INFORMATION	
DESIGNED BY: JLM				DATE: June 24, 2021				GROUND TO GRID FACTOR=0.999885508				RECORDED BY			
DRAWN BY: LRT				DATE: June 24, 2021				MAPPING ANGLE=0°14'33.77"				NO.			
DWG NAME: 8 UTIL COMP.dwg				PROJ #: R313544.01											
CHECKED BY: SAE				DATE: June 24, 2021											