

# PRELIMINARY GRADING & DRAINAGE PLAN

## for

# ZEN ON BASELINE

6136 E. Baseline Road, Mesa 85206

### CITY OF MESA GENERAL NOTES

- ALL WORK AND MATERIALS SHALL CONFORM TO THE CURRENT UNIFORM STANDARD SPECIFICATIONS AND DETAILS FOR PUBLIC WORKS CONSTRUCTION AS FURNISHED BY THE MARICOPA ASSOCIATION OF GOVERNMENTS AND AS AMENDED BY THE CITY OF MESA. ALL WORK AND MATERIALS NOT IN CONFORMANCE WITH THESE AMENDED SPECIFICATIONS AND DETAILS ARE SUBJECT TO REMOVAL AND REPLACEMENT AT THE CONTRACTOR'S EXPENSE.
- SEPARATE RIGHT-OF-WAY PERMITS ARE REQUIRED FOR ALL PUBLIC UTILITIES, PUBLIC STREET IMPROVEMENTS, AND RIGHT-OF-WAY LANDSCAPING. FOR INFORMATION REGARDING AVAILABILITY AND COST OF RIGHT-OF-WAY PERMITS, CONTACT THE DEVELOPMENT SERVICES DEPARTMENT AT (480) 644-4273 OR AT [HTTP://WWW.MESAAZ.GOV/DEVSUSTAIN/CONSTRUCTIONPERMITS.ASPX](http://www.mesaaz.gov/devsustain/constructionpermits.aspx). THE CONTRACTOR SHALL OBTAIN ALL PERMITS REQUIRED UNLESS OTHERWISE NOTED. CONTRACTORS MUST HOLD THE APPROPRIATE CLASS OF LICENSE AND SHALL HAVE ON FILE WITH THE PERMIT SERVICES SECTION PROOF OF INSURANCE COVERAGE. PERMITS BECOME INVALID AND MUST BE UPDATED IF WORK HAS NOT BEGUN WITHIN NINETY (90) DAYS. PERMITS ALSO BECOME INVALID IF THE CONTRACTOR'S INSURANCE LAPSES OR IS VOIDED.
- TWENTY FOUR (24) HOURS PRIOR TO THE COMMENCEMENT OF ANY WORK, CONSTRUCTION OR INSTALLATIONS ASSOCIATED WITH THIS PERMIT, THE PERMITTEE SHALL NOTIFY CITY OF MESA ENGINEERING DEPARTMENT AT (480) 644-2251 OF INTENT TO BEGIN AND REQUEST/SCHEDULE PRELIMINARY FIELD REVIEW AT THE PROJECT SITE WITH THE CITY OF MESA ENGINEERING DEPARTMENT CONSTRUCTION INSPECTOR (CITY INSPECTOR). FAILURE TO PROVIDE PROPER INSPECTION NOTIFICATION AS PRESCRIBED ABOVE SHALL RESULT IN THIS PERMIT BECOMING INVALID AND WORK BEING STOPPED.
- CONTRACTOR'S SHALL COMPLY WITH THE REQUIREMENTS TO OBTAIN THE NECESSARY RIGHT-OF-WAY PERMITS AND SHALL COMPLY WITH THE RIGHT-OF-WAY PERMIT CONDITIONS AS FOUND ON THE BACK OF THE PERMIT FORM.
- THE CITY OF MESA PARKS & RECREATION DIVISION IS NOT REPRESENTED BY BLUE STAKE. WHEN THE CONTRACTOR EXCAVATES NEAR OR ADJACENT TO A CITY PARK, THE CONTRACTOR SHALL CONTACT THE PARKS & RECREATION ADMINISTRATION SECTION AT (480) 644-2354 TO REQUEST ASSISTANCE IN LOCATING ALL THEIR UNDERGROUND FACILITIES.
- THE CONTRACTOR SHALL OBTAIN AN EARTH-MOVING PERMIT FROM THE MARICOPA COUNTY ENVIRONMENTAL SERVICES DEPARTMENT AND SHALL COMPLY WITH ITS REQUIREMENTS FOR DUST CONTROL.
- THE ENGINEER HEREBY CERTIFIES AS EVIDENCED BY A PROFESSIONAL SEAL & SIGNATURE, THAT ALL AFFECTED UTILITY COMPANIES BOTH PUBLIC AND PRIVATE HAVE BEEN CONTACTED AND ALL EXISTING AND/OR PROPOSED UTILITY LINES AND OTHER RELATED INFORMATION HAVE BEEN TRANSFERRED ONTO THESE PLANS. THE ENGINEER OR ARCHITECT ALSO HEREBY CERTIFIES THAT ALL EXISTING AND/OR PROPOSED PUBLIC RIGHT-OF-WAY AND EASEMENTS HAVE BEEN CORRECTLY PLOTTED/SHOWN.
- THE ENGINEER, OR LAND SURVEYOR OF RECORD SHALL CERTIFY UPON COMPLETION OF CONSTRUCTION THAT PAGE 2 OF 7 PUBLIC IMPROVEMENTS (WATER AND SEWER UTILITIES, STORM SEWER, CONCRETE, PAVING, STREET LIGHTS, ETC.) HAVE BEEN INSTALLED AT THE LOCATIONS AND ELEVATIONS SHOWN ON THE APPROVED PLANS. ANY CHANGES SHALL BE REFLECTED ON \*AS-BUILT\*DRAWINGS PROVIDED BY THE ENGINEER TO THE CITY'S ENGINEERING DEPARTMENT.
- THE REGISTERED ENGINEER OR LAND SURVEYOR SHALL CERTIFY THAT THE MINIMUM HORIZONTAL AND VERTICAL SEPARATIONS BETWEEN UTILITIES WITHIN PUBLIC RIGHT-OF-WAY AND EASEMENTS HAVE BEEN MAINTAINED AS REQUIRED BY LAW OR POLICY.
- THE DEVELOPER SHALL PROVIDE ALL CONSTRUCTION STAKING FOR THE PROJECT.
- THE DEVELOPER OR THE ENGINEER IS RESPONSIBLE FOR ARRANGING FOR THE RELOCATION OR REMOVAL OF ALL UTILITIES OR FACILITIES THAT ARE IN CONFLICT WITH THE PROPOSED PUBLIC IMPROVEMENTS. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING THE RELOCATION OF ALL UTILITIES, POWER POLES, IRRIGATION DRY-UPS, RESETS REMOVALS BY OTHERS, ETC.
- THE CONTRACTORS SHALL LOCATE ALL UTILITIES PRIOR TO EXCAVATION AND AVOID DAMAGE TO SAME. CALL (602) 263-1100 FOR BLUE STAKE TWO WORKING DAYS PRIOR TO DIGGING. CALL SALT RIVER PROJECT FOR POLE BRACING, ELECTRIC SERVICE OR CONSTRUCTION SCHEDULING AT (602) 273-8888.
- WHEN GAS MAINS AND/OR SERVICES ARE EXPOSED, CONTACT THE CITY OF MESA AT (480) 644-2261 FOR INSPECTION OF THE EXPOSED PIPE AND COATING PRIOR TO BACKFILLING OF THE TRENCH.
- CONTRACTORS SHALL COMPLY WITH THE PROVISIONS FOR TRAFFIC CONTROL AND BARRICADING PER THE CURRENT CITY OF MESA TRAFFIC BARRICADE MANUAL.
- IF A FIRE HYDRANT IS NEEDED TO OBTAIN CONSTRUCTION WATER, THE CONTRACTOR SHALL OBTAIN A FIRE HYDRANT METER FROM PERMIT SERVICES AND PAY ALL APPLICABLE FEES AND CHARGES.
- IF DURING THE CONSTRUCTION OF A PUBLIC FACILITY, THE CONTRACTOR FAILS TO OR IS UNABLE TO COMPLY WITH A REQUEST OF THE CITY INSPECTOR, AND IT IS NECESSARY FOR CITY FORCES TO DO WORK THAT IS NORMALLY THE CONTRACTOR'S RESPONSIBILITY, THE CITY SHALL BE JUSTIFIED IN BILLING THE CONTRACTOR. EACH INCIDENT REQUIRING WORK BY CITY FORCES SHALL BE COVERED BY A SEPARATE BILLING AT THE CURRENT APPLICABLE RATES.
- THE CONTRACTOR IS ADVISED THAT DAMAGE TO PUBLIC SERVICES OR SYSTEMS AS A RESULT OF THIS PROJECT SHALL BE REPAIRED BY THE CONTRACTOR AND INSPECTED BY THE CITY INSPECTOR. UNLESS OTHERWISE APPROVED BY THE CITY, ALL REPAIRS SHALL BE DONE WITHIN 24 HOURS. THE CONTRACTOR IS ADVISED THAT ANY COSTS RELATED TO REPAIR OR REPLACEMENT OF DAMAGED PUBLIC SERVICES AND SYSTEMS AS A RESULT OF CONTRACTOR'S ACTIVITIES SHALL BE BORNE BY THE CONTRACTOR.

### FLOOD PLAIN STATEMENT

THIS PARCEL OF LAND LIES WITHIN FLOOD ZONE 'X' AS DESIGNATED BY THE FLOOD INSURANCE RATE MAP. ZONE 'X' HAS BEEN DETERMINED TO BE AN AREA THAT LIES OUTSIDE OF THE 100 YEAR AND 500 YEAR FLOODPLAIN. COMMUNITY - PANEL NUMBER: 04013 C 2990 M EFFECTIVE DATE: November 4, 2015

### OWNER

PACIFIC RIM PROPERTY INVESTMENTS, LTD.

23645 N. 83rd Place  
Scottsdale, AZ. 85255  
602-456-1917

Contact: Anthony Miachika

### RETENTION CALCULATIONS

#### VOLUME REQUIRED

$$Vr= C \times (D/12) \times A$$

C= WEIGHTED 'C' FOR EACH DRAINAGE AREA  
D= 2.2 INCHES (100YR STORM - 2 HR STORM)  
A= AREA IN ACRES (INCLUDING HALF STREET)  
A = SITE AREA, 6.919 ACRES, 301,412 SF  
A = OFFSITE AREA, (BASELINE ROAD), 28,806 SF  
A= 7.844 ACRES OR 341,679 SF

#### DRAINAGE AREA VOLUME

DRAINAGE AREA	ONSITE AREA	WEIGHTED 'C'	ONSITE VOL REQ	OFFSITE AREA	WEIGHTED 'C'	OFFSITE VOL REQ	TOTAL VOL REQ
BASELINE					0.95	5,008 cf	5,008 cf
DA 1	31050 sf	0.62	4,235 cf				4,235 cf
DA 2	23286 sf	0.43	2,203 cf				2,203 cf
						TOTAL 2	11,446 cf
DA 3	19125 sf	0.81	3,408 cf				3,408 cf
DA 4	74024 sf	0.69	11,237 cf				11,237 cf
DA 5	26624 sf	0.78	4,569 cf				4,569 cf
DA 6	22251 sf	0.81	3,965 cf				3,965 cf
DA 7	27438 sf	0.69	4,165 cf				4,165 cf
DA 8	77614 sf	0.59	10,074 cf				10,074 cf
total	301412 sf					5,008 cf	48,864 cf

#### VOLUME PROVIDED

##### RETENTION BASIN

$$(TOP\ AREA + BOTTOM\ AREA)/2 \times DEPTH$$

##### ZEN ON BASELINE VOLUME REQUIRED

	TOP AREA	BOTTOM AREA	BASIN DEPTH	BASIN VOLUME
BASIN 1	2,504	1,177	1.00	1,841 cf
BASIN 2	8,159	4,651	1.50	9,608 cf
		TOTAL BASIN 2		11,448 cf
BASIN 3	5,438	3,036	1.00	4,237 cf
BASIN 4	13,829	9,725	1.00	11,777 cf
BASIN 5	6,036	3,142	1.00	4,589 cf
BASIN 6	5,584	2,825	1.00	4,205 cf
BASIN 7	10,862	8,169	0.50	4,758 cf
BASIN 8a	2,968	135	3.00	4,655 cf
BASIN 8b	3,169	1,727	1.00	2,448 cf
BASIN 8c	3,579	368	2.00	3,947 cf
		TOTAL 8		11,050 cf
		TOTAL		52,019 cf

### SHEET INDEX

SHEET GD1  
SHEET GD2  
SHEET GD3  
SHEET GD4  
SHEET W5

#### COVER SHEET

P. GRADING AND DRAINAGE  
P. GRADING AND DRAINAGE  
DRAINAGE AREA MAP  
PRELIMINARY WATER PLAN

### LEGAL DESCRIPTION

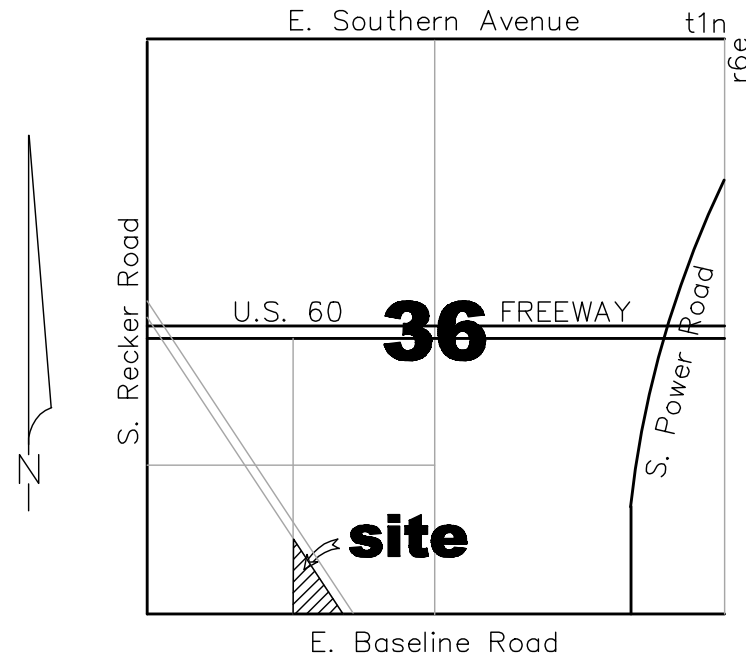
PARCEL NO. 1:  
THAT PART OF THE SOUTHWEST QUARTER OF SECTION 36, TOWNSHIP 1 NORTH, RANGE 6 EAST OF THE GILA AND SALT RIVER MERIDIAN, MARICOPA COUNTY, ARIZONA, DESCRIBED AS FOLLOWS:

TRACTS 1 AND 2, SANTA MARGUERITA CITRUS GROVE NO. 1, AS PER SURVEY RECORDED IN BOOK 44 OF MISCELLANEOUS RECORDS, PAGE 221;

EXCEPT THOSE PORTIONS CONVEYED TO FLOOD CONTROL DISTRICT OF MARICOPA COUNTY RECORDED IN RECORDING NO. 84-005732 AND THE CITY OF MESA, RECORDED IN RECORDING NO. 84-553613 AND IN RECORDING NO. 92-213027.

PARCEL NO. 2:  
THAT PORTION OF THE SOUTHWEST QUARTER OF SECTION 36, TOWNSHIP 1 NORTH, RANGE 6 EAST OF THE GILA AND SALT RIVER MERIDIAN, MARICOPA COUNTY, ARIZONA, DESCRIBED AS FOLLOWS:

BEGINNING AT A POINT 499.94 FEET NORTH AND 33.0 FEET EAST OF THE SOUTHWEST CORNER OF SAID SECTION 36;  
THENCE NORTH 89 DEGREES 00 MINUTES EAST ALONG THE SOUTH LINE OF TRACTS 5 AND 6, SANTA MARGUERITA CITRUS GROVES, NO. 1, ACCORDING TO THE PLAT OF SURVEY RECORDED IN BOOK 44 OF MISCELLANEOUS RECORDS, PAGE 221; RECORDS OF MARICOPA COUNTY, ARIZONA, A DISTANCE OF 1193.87 FEET TO A POINT ON THE SOUTHWESTERLY BOUNDARY OF THE RIGHT-OF-WAY FOR THE ROOSEVELT WATER CONSERVATION DISTRICT CANAL;  
THENCE NORTH 28 DEGREES 35 MINUTES 00 SECONDS WEST, ALONG SAID BOUNDARY, A DISTANCE OF 436.20 FEET;  
THENCE SOUTH 88 DEGREES 45 MINUTES 00 SECONDS WEST, ALONG THE NORTH LINE OF SAID TRACTS 5 AND 6, A DISTANCE OF 985.22 FEET TO A POINT 33.0 FEET EAST OF THE WEST LINE OF SAID SECTION 36;  
THENCE SOUTH 382.30 FEET TO THE POINT OF BEGINNING;  
EXCEPT THE WEST 858.01 FEET THEREOF.  
APN: 141-54-001A, 141-54-002D, 141-54-006E



### VICINITY MAP

### APN

141-54-001A  
141-54-002D  
141-54-006E

### SITE ADDRESS

6136 E. Baseline Road  
Mesa, AZ. 85206

### BENCH MARK

BRASS TAG TOP OF CURB NORTHEAST CORNER OF RECKER ROAD AND BASELINE ROAD.

ELEVATION: 1327.10

CITY OF MESA DATUM: NAVD88

### GROSS SITE AREA

341,678.61 square feet  
or  
7.844 acres

### NET SITE AREA

301,412.39 square feet  
or  
6.919 acres

### LEGEND

— S —	EXISTING SEWER LINE		EXISTING ELECTRICAL BOX
— W —	EXISTING WATER LINE		PROPOSED BLOWOFF VALVE
— E —	EXISTING ELECTRIC		PROPOSED REDUCER
— OHE —	EXISTING OVERHEAD ELECTRIC		PROPOSED THRUST BLOCK
— G —	EXISTING GAS LINE		SECTION CORNER
— T —	EXISTING UNDERGROUND TELEPHONE		SECTION LINE
— C —	EXISTING CABLE LINE		RIGHT-OF-WAY LINE
— IRR —	EXISTING IRRIGATION		FOUND CORNER 1/2" Rebar
— — —	EXISTING PROPERTY LINE		SET CORNER 1/2" Rebar
== == ==	EXISTING BLOCK WALL		BRASS CAP FLUSH
— X — X —	EXISTING BARBED WIRE FENCE		BRASS CAP IN HAND HOLE
— O — O —	EXISTING CHAINLINK FENCE		RECORDED
	EXISTING STORM DRAIN PIPE		MEASURED
	EXISTING SIGN		CALCULATED
	EXISTING WATER VALVE		BUILDING SETBACK LINE
	EXISTING FIRE HYDRANT		PUBLIC UTILITY EASEMENT
	EXISTING POWER POLE		INGRESS & EGRESS EASEMENT
	EXISTING GUY WIRE		RIGHT OF WAY
	EXISTING MAILBOX		SIGHT VISIBILITY EASEMENT
	EXISTING WATER METER		VISITOR PARKING SPACE.
	EXISTING AIR/VACUUM RELEASE VALVE		CAR POOL PARKING SPACE.
	EXISTING BLOWOFF VALVE		DELIVERY PARKING
	EXISTING CONC STANDPIPE		HANDICAP PARKING DESIGNATION.
	EXISTING TELEPHONE BOX		
	EXISTING SEWER MANHOLE		
	EXISTING POST INDICATOR VALVE		

B  
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BUCHLI ENGINEERS, INC.

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8550 East Lake Road - San Tan Valley, Arizona 85143

PRELIMINARY GRADING & DRAINAGE PLAN

for

ZEN ON BASELINE

6136 E. Baseline Road, Mesa 85206

JOB NO.

2018-03

SCALE:

1"=20'

DESIGNED BY:

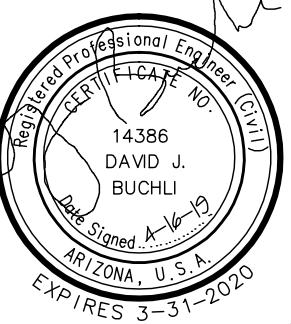
DJB

DRAWN BY:

DJB

DATE:

4-16-19

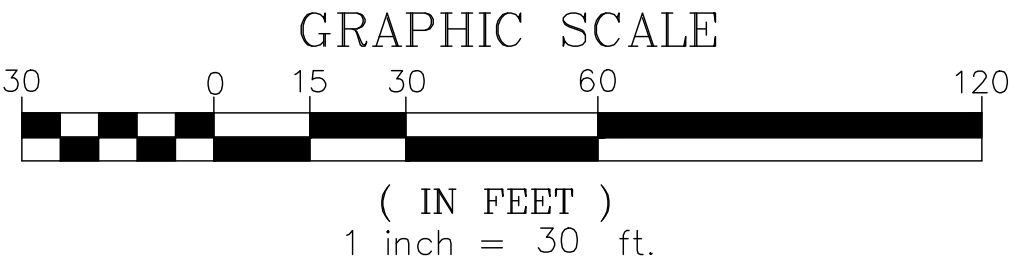


SHEET

GD1 OF 5

PRELIMINARY GRADING & DRAINAGE PLAN  
for  
ZEN ON BASELINE

6136 E. Baseline Road, Mesa 85206



MATCHLINE SEE SHEET 3

BASIN 3  
HW 34.00  
BOTT 33.00  
DEPTH 1.00'  
BASIN OUTFALL 34.00  
Vr = 3,408 cf  
Vp = 4,237 cf

BASIN 5  
HW 34.75  
BOTT 33.75  
DEPTH 1.00'  
BASIN OUTFALL 34.75  
Vr = 4,569 cf  
Vp = 4,589 cf

BASIN 6  
HW 34.65  
BOTT 33.65  
DEPTH 1.00'  
BASIN OUTFALL 34.65  
Vr = 3,965 cf  
Vp = 4,205 cf

BASIN 8  
HW 33.75  
BOTT 30.75  
DEPTH 3.00'  
BASIN OUTFALL 33.75  
Vr = 10,074 cf  
Vp = 11,050 cf

BASIN 2  
HW 33.12  
BOTT 31.62  
DEPTH 1.50'  
BASIN OUTFALL 33.12  
Vr = BASELINE 5,008 cf  
+AREA 1 4,235 cf  
+AREA 2 2,203 cf  
= 11,446 cf  
Vp = 9,608 cf

BASIN 1  
HW 33.12  
BOTT 32.12  
DEPTH 1.00'  
BASIN OUTFALL 33.12  
Vr = BASELINE 5,008 cf  
+AREA 1 4,235 cf  
+AREA 2 2,203 cf  
= 11,447 cf  
Vp = 1,841 cf

BASIN 7  
HW 34.60  
BOTT 34.10  
DEPTH 0.50'  
BASIN OUTFALL 34.60  
Vr = 4,165 cf  
Vp = 3,758 cf

E. BASELINE ROAD

LOW OUTFALL OF SITE 1331.69

BEI

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PRELIMINARY GRADING & DRAINAGE PLAN

ZEN ON BASELINE

6136 E. Baseline Road, Mesa 85206

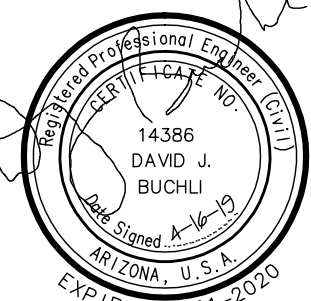
JOB NO.  
2018-03

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DESIGNED BY:  
DJB

DRAWN BY:  
DJB

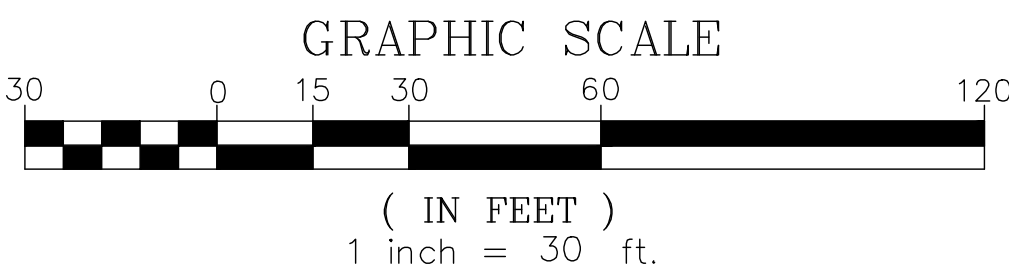
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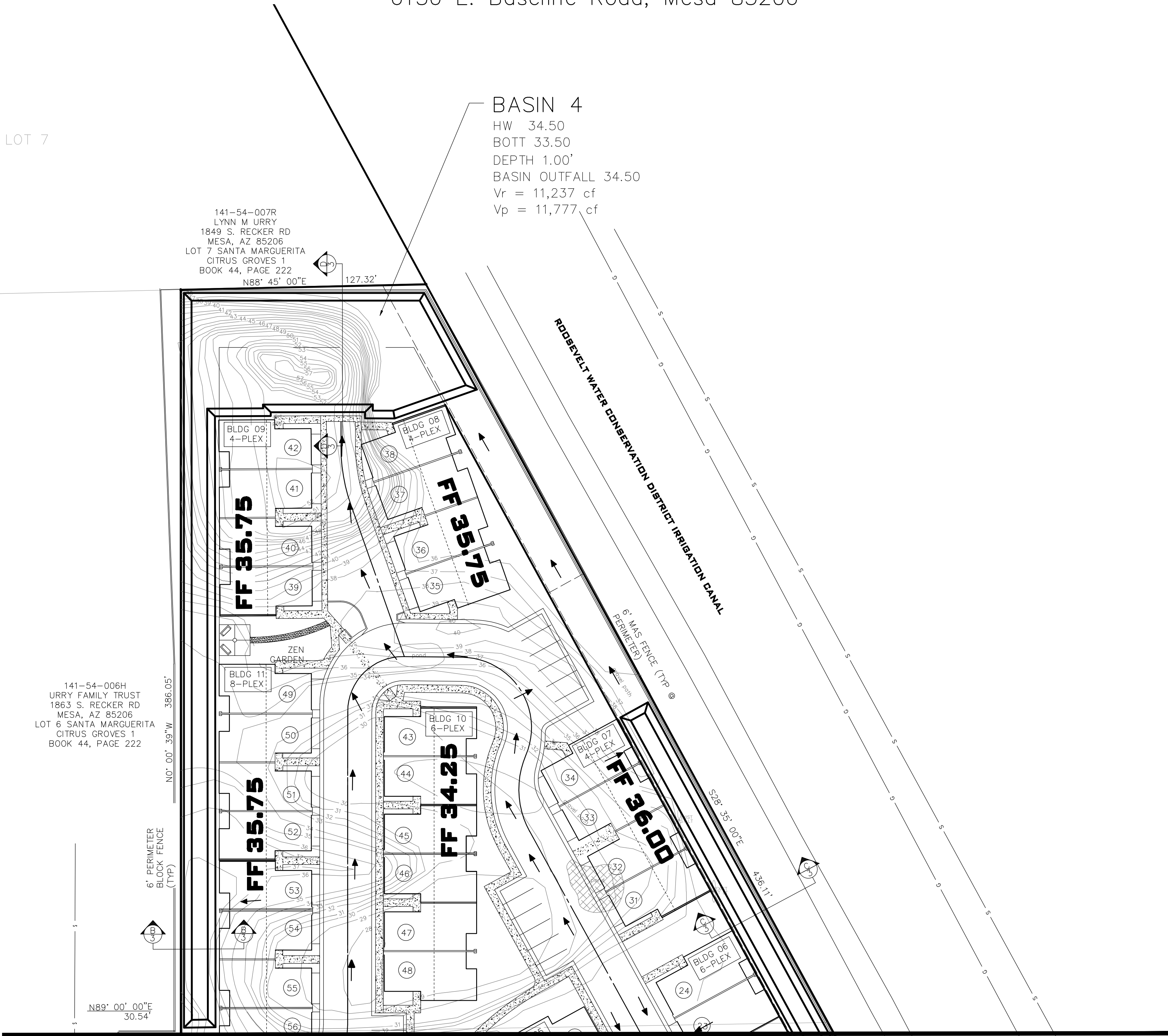
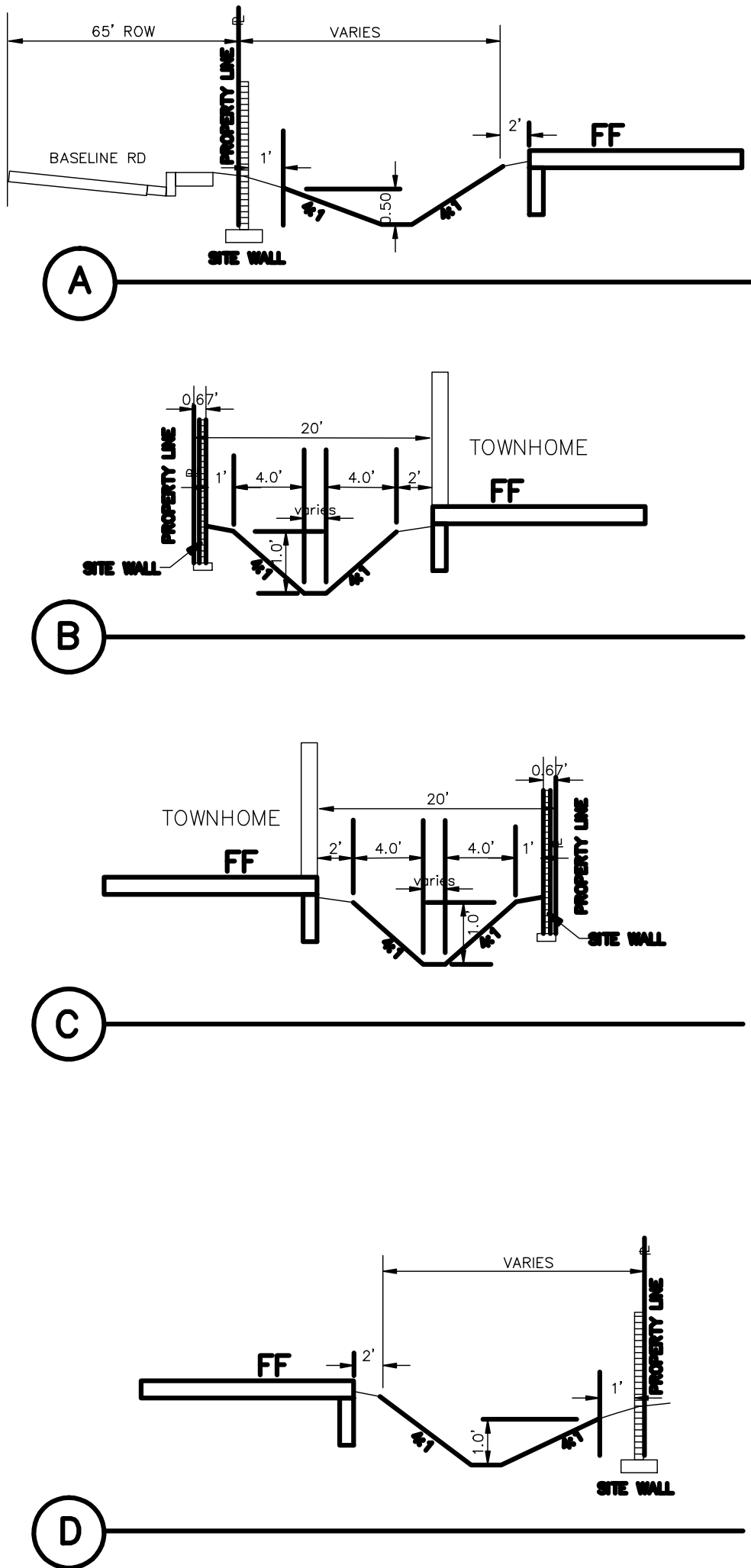
SHEET  
GD2 OF 5

PRELIMINARY GRADING & DRAINAGE PLAN  
for  
ZEN ON BASELINE

6136 E. Baseline Road, Mesa 85206



CROSS SECTIONS



B  
E  
I

BUCHLI ENGINEERS, INC.

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8550 East Lake Road - San Tan Valley, Arizona 85143

PRELIMINARY GRADING & DRAINAGE PLAN  
for

ZEN ON BASELINE

6136 E. Baseline Road, Mesa 85206

JOB NO.

2018-23

SCALE:

1"=30'

DESIGNED BY:

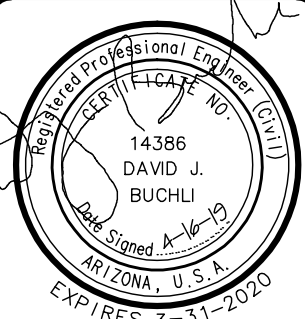
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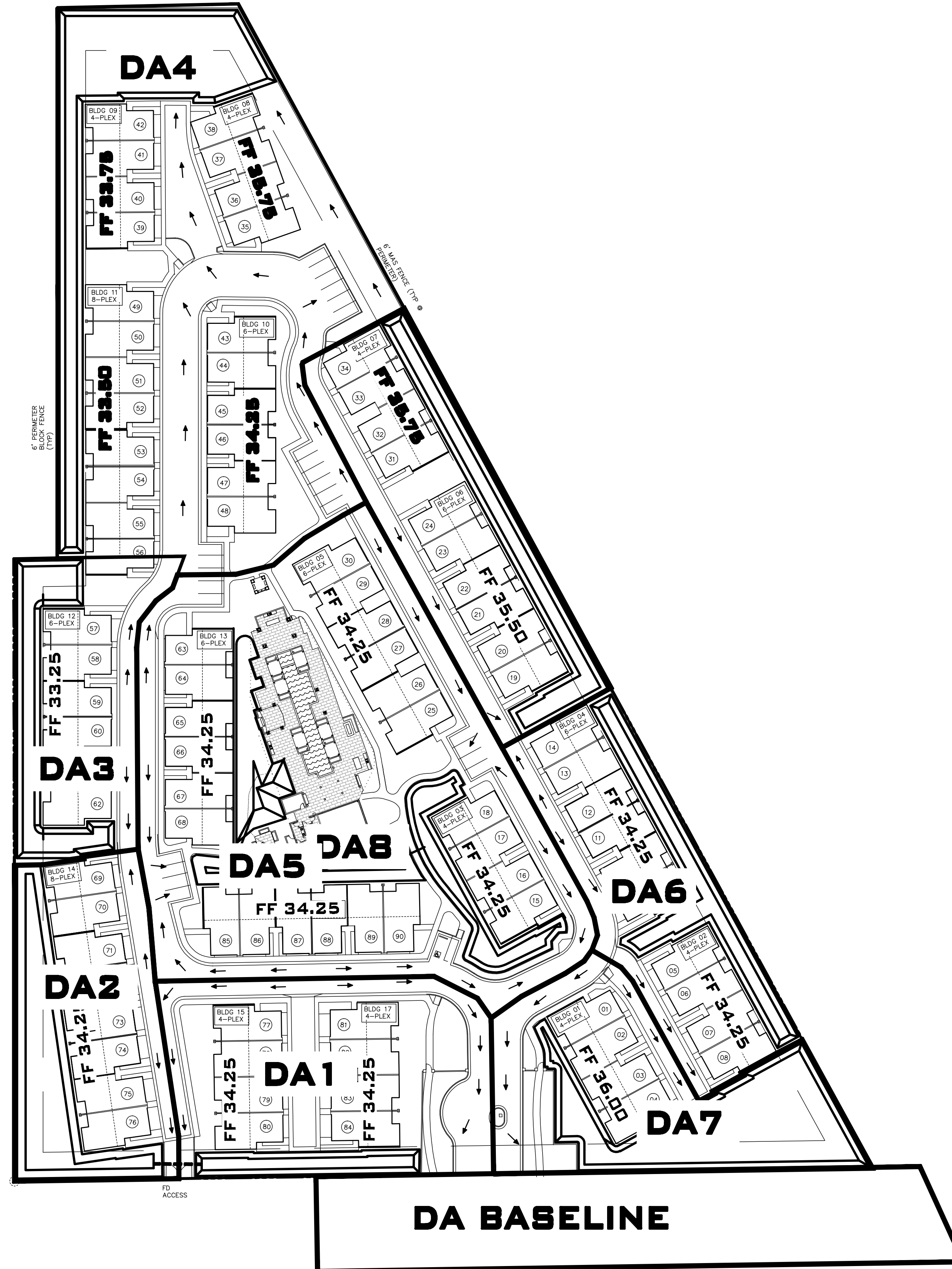
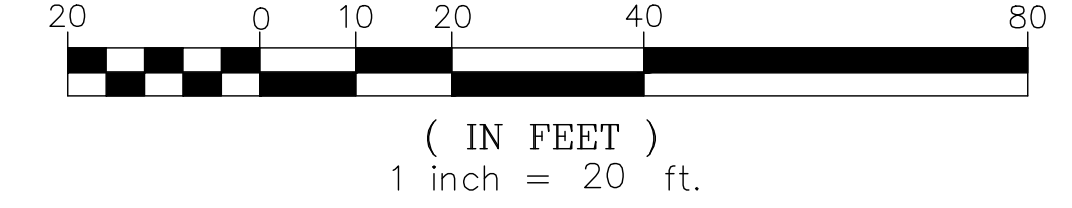
4-16-19



SHEET

GD3 OF 5

6136 E. Baseline Road, Mesa 85206



# BEI

**BUCHLI ENGINEERS, INC.**  
**CIVIL ENGINEERS**

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email: [davebuchi@gmail.com](mailto:davebuchi@gmail.com)  
web: [www.buchiengineers.com](http://www.buchiengineers.com)  
FAX: 480-760-2339 Phone 480-899-5143

# ZEN ON BASELINE

6136 E. Baseline Road, Mesa 85206

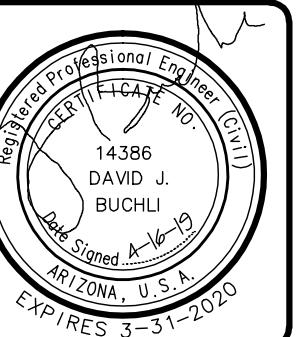
DB NO.  
2018-23

SCALE:  
 $1'' = 50'$

DESIGNED BY:  
**DJB**

DRAWN BY:  
DJB

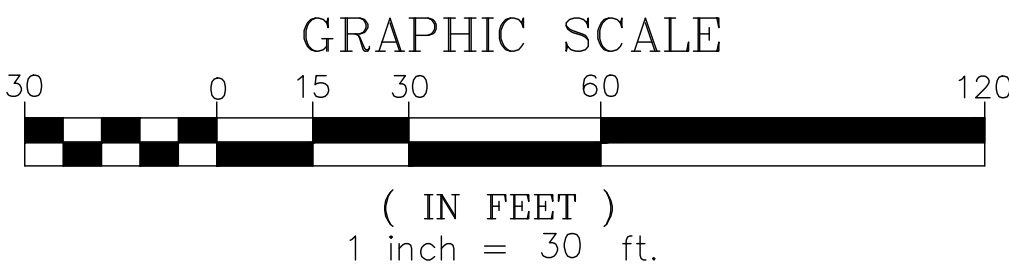
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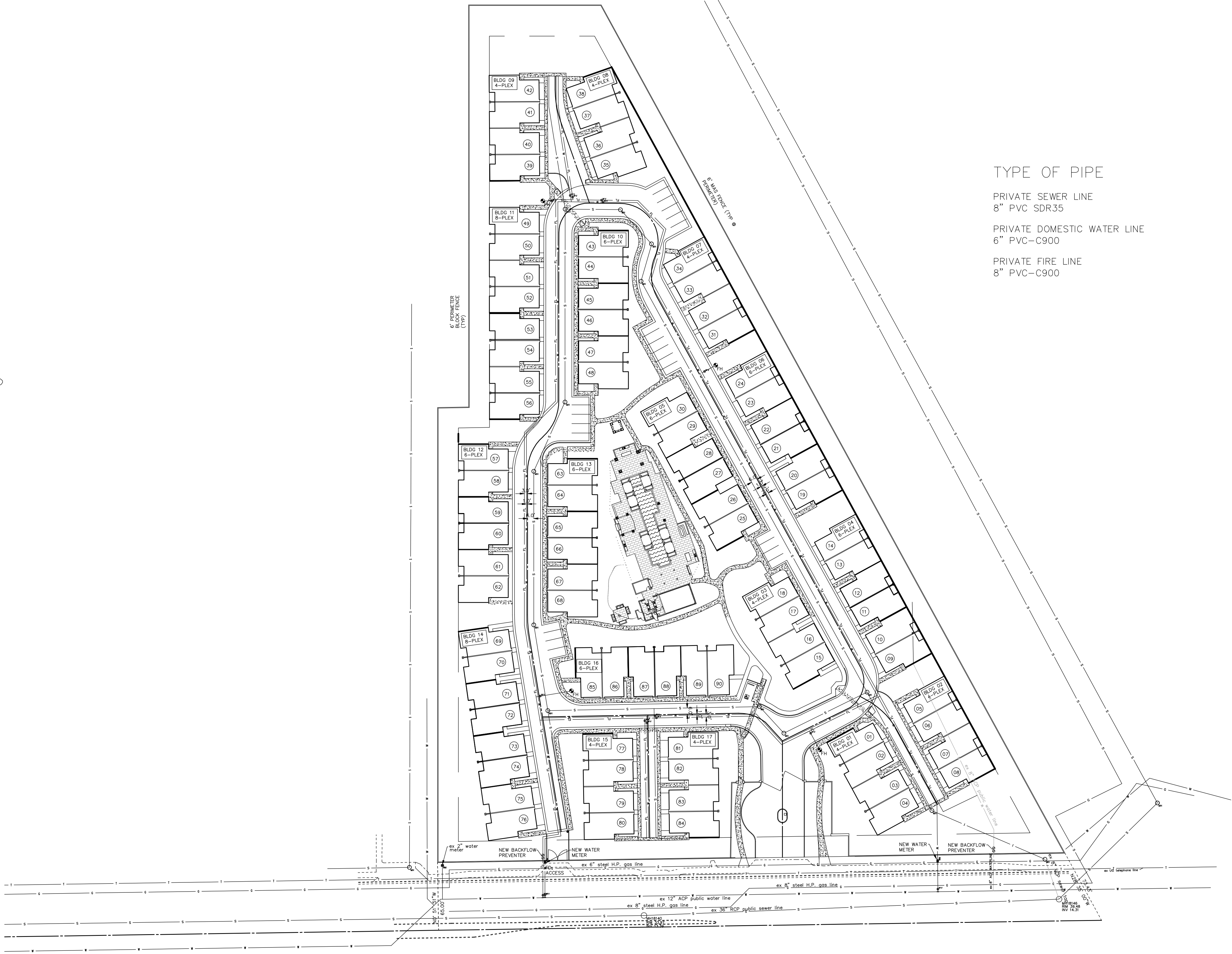
SHEET  
**GD4** OF **5**

**PRELIMINARY UTILITY PLAN**  
**for**  
**ZEN ON BASELINE**

6136 E. Baseline Road, Mesa 85206



ASSUMED



TYPE OF PIPE

PRIVATE SEWER LINE  
8" PVC SDR35

PRIVATE DOMESTIC WATER LINE  
6" PVC-C900

PRIVATE FIRE LINE  
8" PVC-C900

**B**  
**E**  
**I**

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PRELIMINARY UTILITY PLAN  
for  
**ZEN ON BASELINE**

6136 E. Baseline Road, Mesa 85206

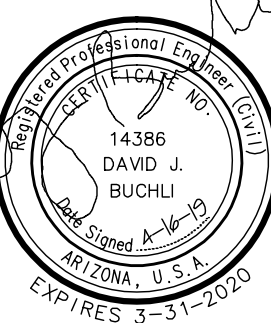
JOB NO.  
2018-23

SCALE:  
1"=30'

DESIGNED BY:  
DJB

DRAWN BY:  
DJB

DATE:  
4-16-19



SHEET  
**W5** OF **5**