



## DEVELOPMENT REVIEW COMMITTEE

Tuesday, June 22, 2021, at 10:00 AM  
Court Room/Council Chambers (2nd Floor) and Online

### MEETINGS HELD IN PERSON & ONLINE

The public is invited to participate as outlined below:

- **In Person** – Meetings are held on the 2<sup>nd</sup> floor in the Court Room/Council Chambers at City Hall
- **YouTube Live** – Public meetings will be shown live on the Santaquin City YouTube Channel, which can be found at [https://www.youtube.com/channel/UCTzZT\\_yW2H2Hd-58M2\\_ddSw](https://www.youtube.com/channel/UCTzZT_yW2H2Hd-58M2_ddSw) or by searching for Santaquin City Channel on YouTube.

### ADA NOTICE

If you are planning to attend this Public Meeting and due to a disability need assistance in understanding or participating in the meeting, please notify the City Office ten or more hours in advance and we will, within reason, provide what assistance may be required.

## AGENDA

### NEW BUSINESS

#### 1. Orchard Hills II Final Subdivision Review

A final review of a 19-unit townhome development, which will include commercial spaces on the 5 units fronting Highland Drive. Located at approximately 120 E. and Highland Drive.

### MEETING MINUTES APPROVAL

2. June 8, 2021

### AJOURNMENT

## CERTIFICATE OF MAILING/POSTING

The undersigned duly appointed City Recorder for the municipality of Santaquin City hereby certifies that a copy of the foregoing Notice and Agenda was e-mailed to the Payson Chronicle, Payson, UT, 84651, posted on [www.santaquin.org](http://www.santaquin.org), as well as posted on the State of Utah's Public Notice Website.

BY:

K. Aaron Shirley, City Recorder

# ORCHARD HILLS TOWNHOMES II

## SITEPLAN

SANTAQUIN, UTAH COUNTY, UTAH

FINAL PLAN SET

JUNE 2021

### -SHEET INDEX-

#### SHEET SHEET NAME

- |    |                              |
|----|------------------------------|
| 1  | COVER & INDEX                |
| 2  | SITE PLAN                    |
| 3  | GRADING PLAN                 |
| 4A | DETAIL SHEET                 |
| 4B | DETAIL SHEET                 |
| 5  | FIRE PLAN                    |
| 6A | FINAL PLAT (1 OF 2)          |
| 6B | FINAL PLAT (2 OF 2)          |
| 7  | PHOTOMETRIC PLAN (BY OTHERS) |
| 8  | PHOTOMETRIC PLAN (BY OTHERS) |
| 9  | PHOTOMETRIC PLAN (BY OTHERS) |
| S1 | RECORD OF SURVEY (BY OTHERS) |
| L1 | LANDSCAPING PLAN (BY OTHERS) |

#### BOUNDARY DESCRIPTION:

COMMENCING AT A POINT WHICH LIES SOUTH 87°08'54" WEST ALONG THE SECTION LINE 1373.59 FEET & SOUTH 121.49 FEET FROM THE NORTH 1/4 CORNER OF SECTION 12, TOWNSHIP 10 SOUTH, RANGE 1 EAST, SALT LAKE BASE & MERIDIAN; THENCE SOUTH 10°34'55" EAST 376.33 FEET TO THE NORTHERLY BOUNDARY OF ORCHARD HILLS TOWNHOMES; THENCE SOUTH 65°50'33" WEST 219.78 ALONG SAID BOUNDARY LINE; THENCE NORTH 10°34'47" WEST 294.71 FEET ALONG 120 EAST ROAD RIGHT-OF-WAY BOUNDARY; THENCE NORTH 47°28'27" EAST 251.75 TO THE POINT OF BEGINNING. CONTAINING 1.71 ACRES OF LAND.

#### OVERALL PARKING TABLE

TOTAL # UNITS=36  
PARKING REQ'D=88  
PARKING PROVIDED=91  
GARAGE PARKING=55 (19)2-CAR (17)1-CAR  
STALLS=34

#### DENSITY TABLE

ZONING CLASSIFICATION=RC  
NUMBER OF UNITS=19  
ACREAGE=1.71 ACRES  
PARCEL SIZE SF=74,413  
BUILDING AREA SF=22,252  
PARKING LOT AREA SF=18,129  
LANDSCAPE AREA IN SF=33,326  
LANDSCAPE AREA BEHIND FRONT SETBACK SF=24,264

#### GENERAL NOTES

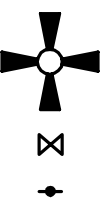
1. THE DEVELOPER AND THE GENERAL CONTRACTOR UNDERSTAND THAT IT IS HIS/HER RESPONSIBILITY THAT ALL IMPROVEMENTS INSTALLED WITHIN THIS DEVELOPMENT ARE CONSTRUCTED IN FULL COMPLIANCE WITH ALL STATE AND SANTAQUIN CITY CODES, ORDINANCES AND STANDARDS. THIS FACT DOES NOT RELIEVE THE DEVELOPER OR GENERAL CONTRACTOR FROM THE FULL COMPLIANCE WITH ALL MINIMUM STATE AND SANTAQUIN CITY CODES, ORDINANCES AND STANDARDS.
2. GARAGES TO BE 24'X24' WITH A 20' GARAGE DOOR TO COUNT AS 2 PARKING STALLS FOR PHASE 2.
3. NO PARKING WILL BE ALLOWED ALONG HIGHLAND DRIVE. CURB TO BE PAINTED RED.
4. UNITS 8-12 NEED TO BE FIRE SPRINKLERED. THE FDC NEEDS TO BE WITHIN 100 FT. OF THE FIRE HYDRANT.
5. ALL RECOMMENDATIONS MADE IN A PERTINENT GEOTECHNICAL REPORT/STUDY SHALL BE FOLLOWED EXPLICITLY DURING CONSTRUCTION OF BUILDING AND SITE IMPROVEMENTS.

#### NOTES

1. ALL UNITS TO BE ADA ADAPTABLE.
2. IF PROJECT IS TO BE SOLD AS CONDO UNITS, CONDOMINIUM PLAT, CC&R'S, AND HOA DOCS WILL BE REQUIRED TO BE APPROVED BY PLANNING COMMISSION.
3. SUBDIVISION IS LOCATED NEXT TO ACTIVE AGRICULTURE OPERATIONS.

#### LEGEND

LEGEND APPLIES TO ALL SHEETS



SECTION CORNER

EXISTING VALVE

EXISTING POWER POLE

PROPERTY BOUNDARY

CENTERLINE

RIGHT-OF-WAY LINE

LOT LINE

SECTION LINE

BUILDING SETBACK

EASEMENT

EXISTING DEED LINE

EDGE OF PAVEMENT

EXISTING OVER HEAD POWER

EXISTING GAS

EXISTING FENCE LINE

EXISTING DITCH

EXISTING SANITARY SEWER W/MANHOLE

PROPOSED IRRIGATION LINE

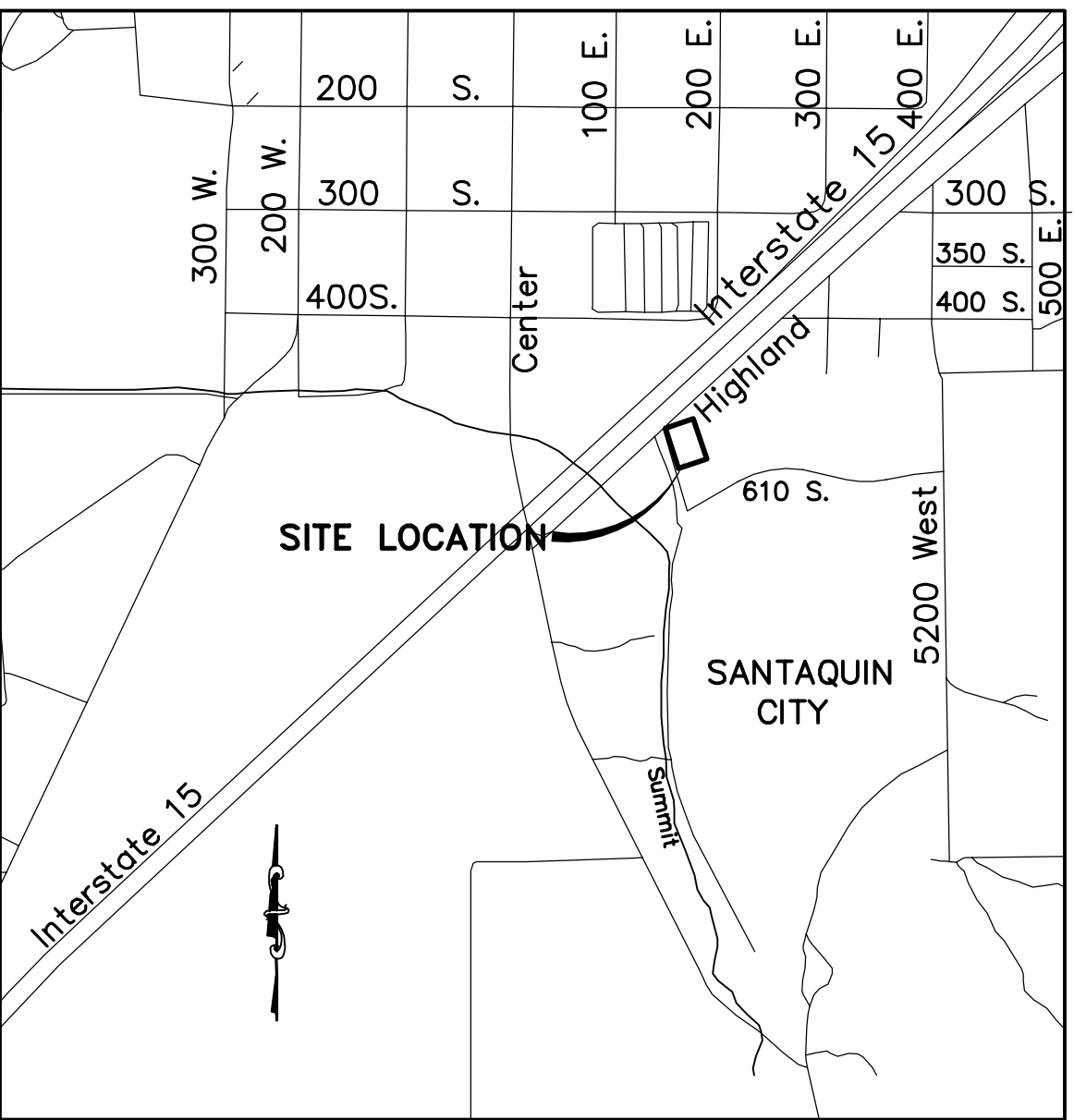
EXISTING CULINARY WATERLINE

EXISTING PRESSURIZED IRRIGATION

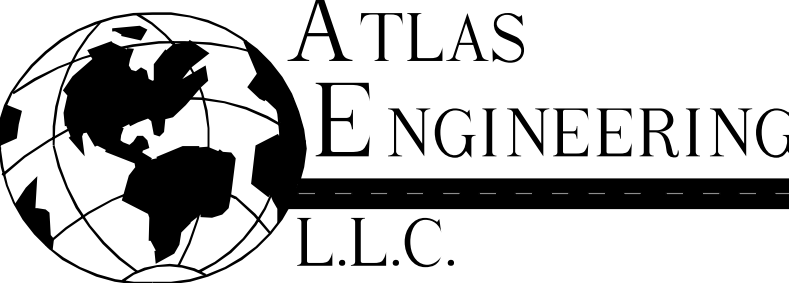
PROPOSED CULINARY WATERLINE

PROPOSED PRESSURIZED IRRIGATION

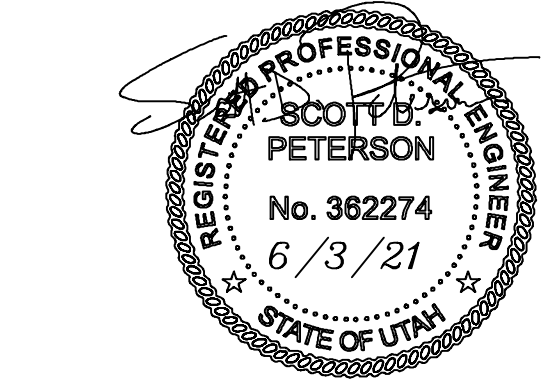
PROPOSED SEWER LINE



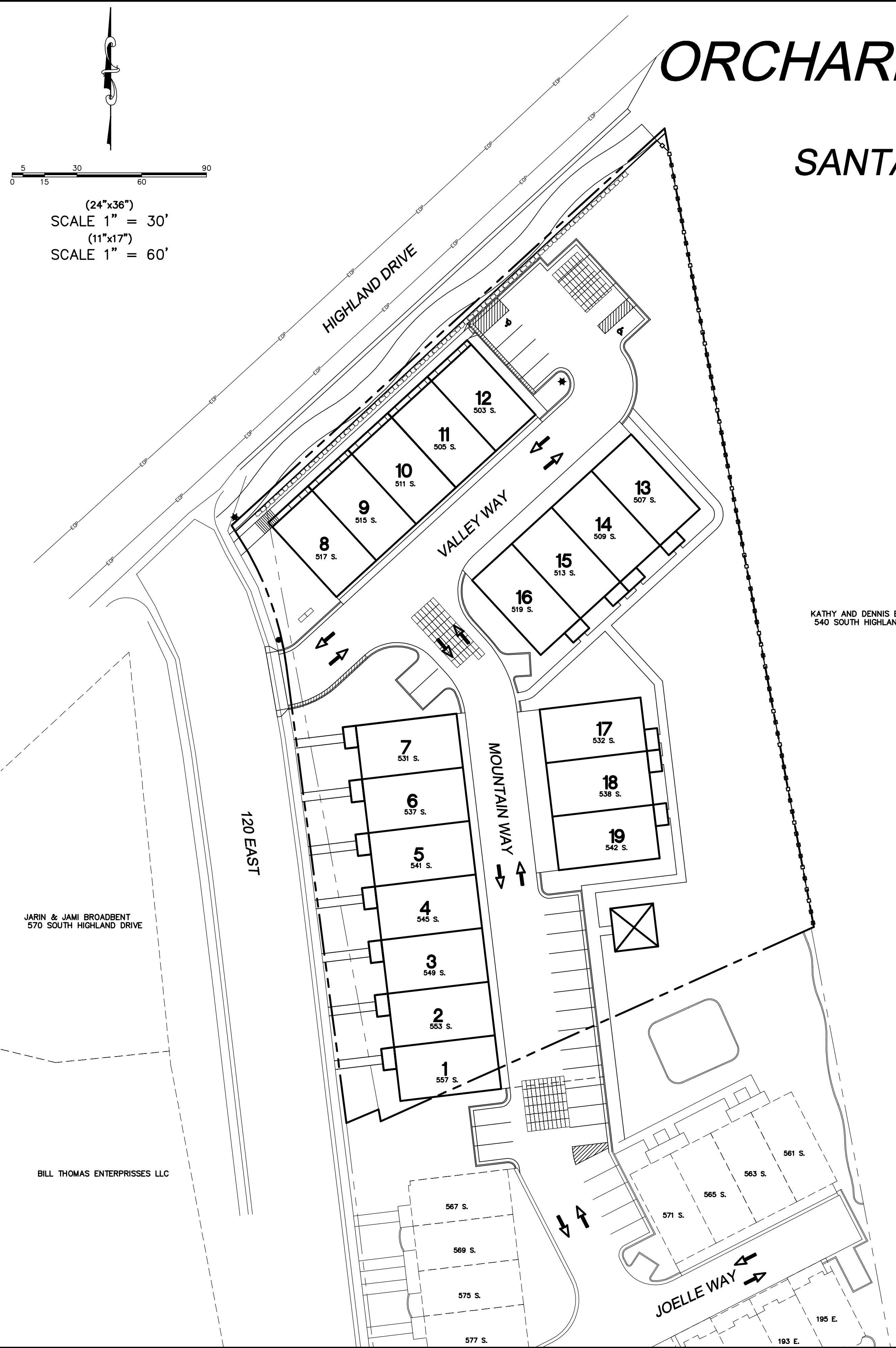
VICINITY MAP  
-NTS-

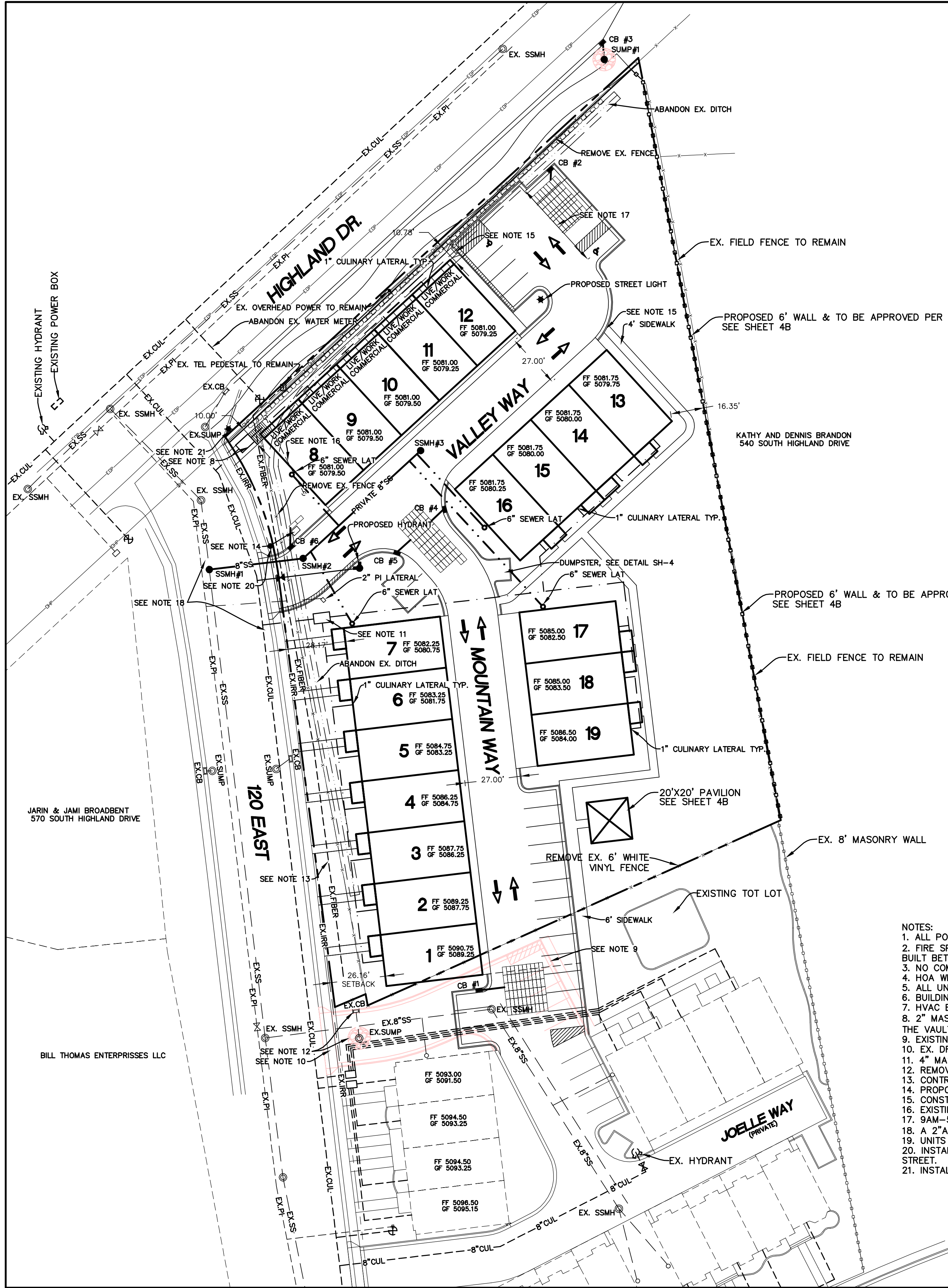


PHONE: 801-655-0566  
FAX: 801-655-0109  
946 E. 800 N. SUITE A  
SPANISH FORK, UT 84660



OWNER/DEVELOPER  
JOHN SMILEY  
391 NORTH MAIN  
SPANISH FORK, UT 84660



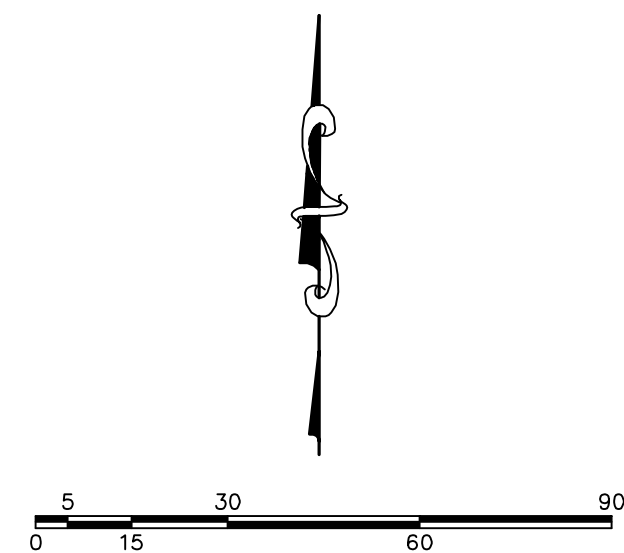


SEWER PROFILE

**DENSITY TABLE**  
ZONING CLASSIFICATION=RC  
NUMBER OF UNITS=19  
ACREAGE=1.71 ACRES  
ACREAGE TO BE DEDICATED FOR STREET ROW=706 SF (0.02 ACRES)  
PARCEL SIZE SF=74,413  
BUILDING AREA SF=22,252  
PARKING LOT AREA SF=18,129  
LANDSCAPE AREA IN SF=33,326  
LANDSCAPE AREA BEHIND FRONT SETBACK SF=24,264  
COMMERCIAL SF=3000 SF

**OVERALL PARKING TABLE**  
TOTAL # UNITS=36  
PARKING REQ'D=88  
PARKING PROVIDED=91  
GARAGE PARKING=55 (19)2-CAR (17)1-CAR  
STALLS=34

- NOTES:
1. ALL POWER TO BE INSTALLED UNDERGROUND.
  2. FIRE SPRINKLERS NOT REQUIRED. DESIGN WILL BE TOWNHOMES WITH FULL FIRE RATED SEPERATIONS (FOUNDATIONS TO ROOF) BUILT BETWEEN EACH UNIT.
  3. NO COMMON ATTIC SPACES.
  4. HOA WILL BE REQUIRED IF PROJECT IS NOT WHOLLY OWNED BY A SINGLE ENTITY.
  5. ALL UNITS TO HAVE EXTERIOR LIGHTING, ONE AT FRONT PORCH AND TWO ON GARAGE.
  6. BUILDINGS WILL REQUIRE APPROVAL BY SANTAQUIN CITY ARCHITECTURAL REVIEW COMMITTEE.
  7. HVAC EQUIPMENT TO SIT IN FRONT OF BUILDINGS AS SHOWN IN LANDSCAPE PLAN.
  8. 2" MASTER METER SERVICE LATERAL WILL NEED A CURB-STOP VALVE 1' BEHIND ROW PRIOR TO WATER METER MANIFOLD WITHIN THE VAULTS CONTAINING THE 1" CULINARY WATER METERS TYP.
  9. EXISTING CURB GUTTER, ASPHALT AND SIDEWALK TO BE REMOVED.
  10. EX. DRIVE APPROACH TO BE REMOVED AND CURB, GUTTER AND SIDEWALK TO BE INSTALLED.
  11. 4" MASTER METER SERVICE LATERAL PER SANTAQUIN CITY.
  12. REMOVE EXISTING CATCH BASIN, RELOCATE EXISTING SUMP TO SUMP#1.
  13. CONTRACTOR TO LOCATE EXISTING UNDERGROUND POWER. IT MAY NEED TO BE RELOCATED.
  14. PROPOSED MAILBOX LOCATION.
  15. CONST. ADA ACCESS RAMP PER SANTAQUIN CITY STANDARDS.
  16. EXISTING BILLBOARD TO BE REMOVED.
  17. 9AM-5PM COMMERCIAL PARKING ONLY.
  18. A 2" ASPHALT OVERLAY MUST BE PLACED 15' TO EITHER DIRECTION FROM THE PROPOSED ASPHALT CUTS.
  19. UNITS 8-12 NEED TO BE FIRE SPRINKLERED. THE FDC NEEDS TO BE WITHING 100 FT. OF THE FIRE HYDRANT.
  20. INSTALL STOP SIGN PER SANTAQUIN CITY STANDARDS. USE BLUE AND WHITE STREET SIGNS TO DESIGNATE IT IS A PRIVATE STREET.
  21. INSTALL STREET LIGHT PER SANTAQUIN CITY STANDARDS.



OWNER/DEVELOPER  
JOHN SMILEY  
391 NORTH MAIN  
SPANISH FORK, UT 84660

(24"x36")  
SCALE 1" = 30'  
(11"x17")  
SCALE 1" = 60'

ORCHARD HILLS TOWNHOMES II

SITE PLAN

SHEET NO. 2

ATLAS ENGINEERING L.L.C.

PHONE: 801-655-0566

FAX: 801-655-0109

946 E. 800 N. SUITE A

SPANISH FORK, UT 84660

REVISIONS

NO.	DATE	BY	DATE
12			
11			
10			
9			
8			
7			
6			
5			
4			
3			
2			
1			



- NOTES:
- 1. GARAGES TO HAVE 2% SLOPE MINIMUM.
  - 2. DUMPSTER ENCLOSURE TO MEET SANTAQUIN CITY STANDARDS. (MUST BE APPROVED BY THE ARCHITECTURAL REVIEW COMMITTEE.
  - 3. REMOVE EXISTING CATCH BASIN, RELOCATE EXISTING SUMP TO SUMP#1.

SHEET NO.  
**3**

GRADING PLAN

SANTAQUIN, UTAH

ORCHARD HILLS TOWNHOMES II

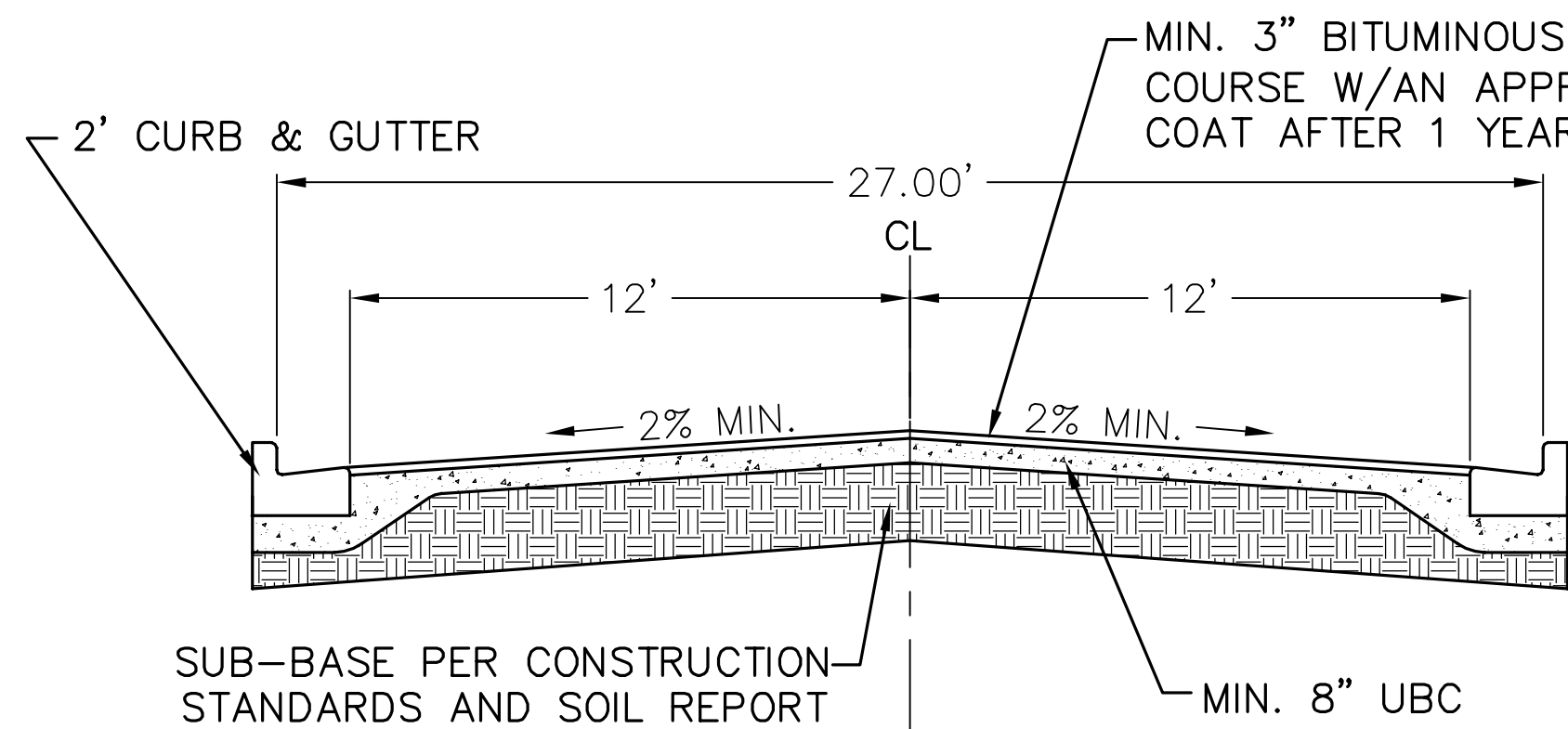
**ATLAS  
ENGINEERING  
L.L.C.**

PHONE: 801-655-0566  
FAX: 801-655-0109  
946 E. 800 N. SUITE A  
SPANISH FORK, UT 84660

NO.	REVISIONS	BY	DATE
12			
11			
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8			
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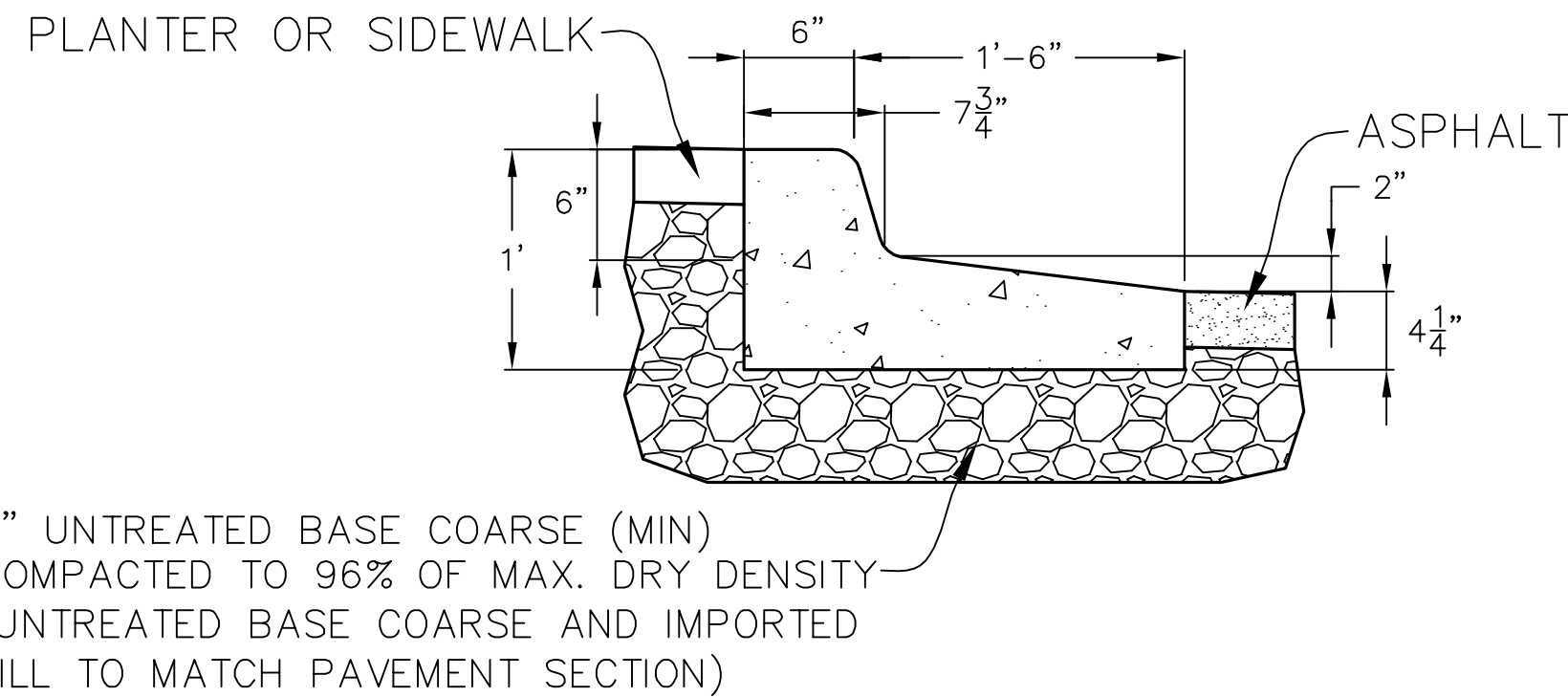
2/20/2020-006 Orchard Hills Ph2-CADD/PREL MINOR V03-GRADING.dwg 6/3/2021 9:53:07 AM MIT

12



## ROAD DETAIL

—NTS—

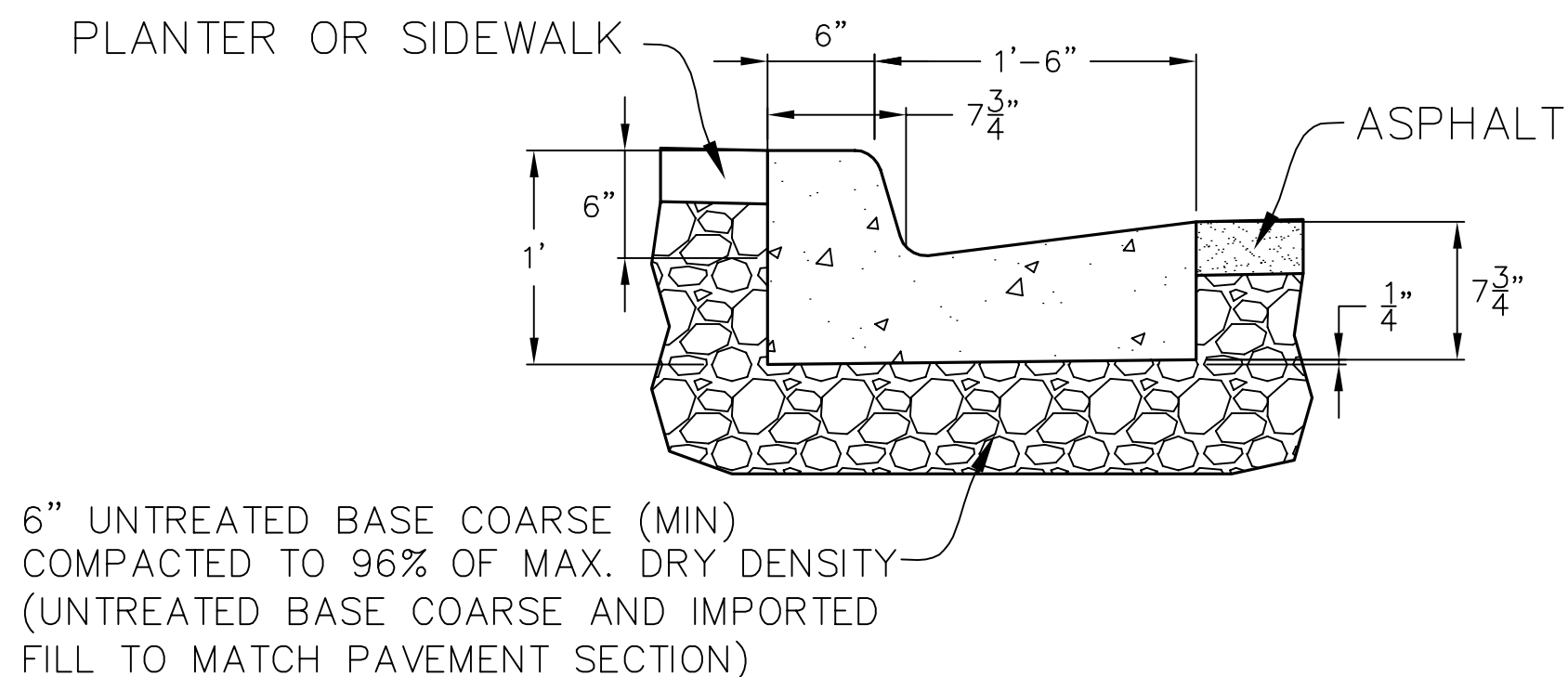


## 24" REVERSE LIP CURB & GUTTER

FOR USE IN PRIVATE STREETS

—NTS—

NOTE:  
PLACE CONTROL JOINTS  
AT 10 FOOT INTERVALS

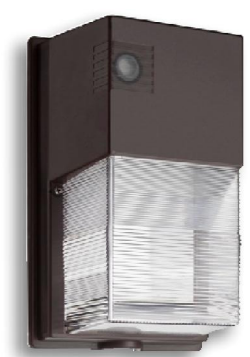


## 24" STANDARD CURB & GUTTER

FOR USE IN PRIVATE STREETS

—NTS—

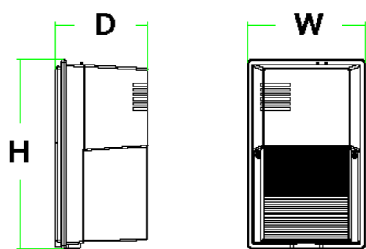
NOTE:  
PLACE CONTROL JOINTS  
AT 10 FOOT INTERVALS



## TWS LED LED Wall Luminaire

### Specifications

**Width:** 6-3/4" (17.2 cm)  
**Height:** 10-7/8" (27.7 cm)  
**Depth:** 5-5/16" (13.3 cm)  
**Weight:** 3.19 lbs (1.45 kg)



Catalog Number	
Notes	
Type	

Use the tab key to move over the page to see all interactive elements.

### Introduction

The popular TWS luminaire is now available with long-lasting, energy-efficient LED technology. Featuring a classic dayform, the TWS LED offers a traditional appearance and is powered by advanced LEDs.

The TWS LED luminaire is powerful yet energy efficient, capable of replacing up to a 70W HPS wall pack while saving up to 78% in energy costs. With long-life LEDs, the TWS LED eliminates frequent lamp and ballast replacements associated with traditional technologies.

### Ordering Information

EXAMPLE: TWS LED 1 50K 120 PE

TWSLED								
Series	Performance Package		Color Temperature		Voltage	Control Options	Finish	
TWSLED	1	1017 lumens	50K	5000K <sup>1</sup>	120	120V <sup>2</sup>	PE Photocell, button type	(Blank) Dark bronze

### Accessories

Ordered and shipped separately.

TWSWG Wire Guard

### NOTES

- Corrected color temperature (CCT) shown is nominal per ANSI C78:2008.
- 120V driver operates on 120V.

### FEATURES & SPECIFICATIONS

#### INTENDED USE

The TWS LED combines traditional wall pack design with high-output LEDs to provide an energy-efficient, low maintenance LED wall pack suitable for replacing up to 70W HPS fixtures. The traditional shape helps maintain building aesthetics when replacing only a portion of your building's wall packs. TWS LED is for outdoor applications such as personnel doors, loading areas, driveways and parking areas.

#### CONSTRUCTION

Back plate is die cast aluminum. Front cover is impact resistant polycarbonate which is fully gasketed. All electronics are protected in the upper housing. Housing is sealed against moisture and environmental contaminants.

#### FINISH

UV stabilized polycarbonate front cover has dark bronze color which provides superior resistance to corrosion and weathering and that can withstand extreme climate changes without cracking or peeling.

#### OPTICS

Protective polycarbonate lens covers the LEDs. Prismatic front cover and precision molded reflector for superior uniformity and future spacing. Light engine is available in 5000K (69 min. CRI).

#### ELECTRICAL

Light engine consists of two high-powered, long life, high efficacy LEDs mounted on an internal aluminum heat sink to maximize heat dissipation and promote long life (L70/100,000 hours at 40°C). Driver and integral photocell operate at 120V and are fully enclosed in the upper housing. There are no user serviceable parts.

#### INSTALLATION

Back housing easily mounts to any recessed junction box. With all electronics in upper housing the open lower section makes wiring easy. Mount on any vertical surface. Not recommended in applications where a sprayed stream of water can come in direct contact with polycarbonate lens.

#### LISTINGS

UL Certified to US and Canadian safety standards for wet-location mounting higher than 4 feet off the ground.

Rated for -40°C to 40°C ambient temperature.

#### WARRANTY

Five-year limited warranty. Full warranty terms located at [www.acuitybrands.com/CustomerResources/Terms\\_and\\_conditions.aspx](http://www.acuitybrands.com/CustomerResources/Terms_and_conditions.aspx).

Notes: Specifications are subject to change without notice. Actual performance may differ as a result of end-user environment and application.

### Performance Data

#### Lumen Output

Lumen values are from photometric tests performed in accordance with IESNA LM-79-08. Data is considered to be representative of the configurations shown, within the tolerances allowed by Lighting Facts. Actual performance may differ as a result of end user environment and application.

Performance Package	Driver Current (mA)	CCT	System Watts	50K (5000K, 62 TCS)				
				Lumens	E	U	G	LPW
1	900	5000K	19W	1,017	1	3	1	54

#### Lumen Ambient Temperature (LAT) Multipliers

Use these factors to determine relative lumen output for average ambient temperatures from 0-80°C (32-176°F).

Ambient	22°F	Lumen Multiplier
0°C	32°F	1.03
10°C	50°F	1.03
20°C	68°F	1.01
25°C	77°F	1.00
30°C	86°F	0.99
40°C	104°F	0.98

### Electrical Load

LED Package	Driver Current (mA)	System Watts	Current (A)
1	1000	19W	0.20 0.12 0.10 0.09

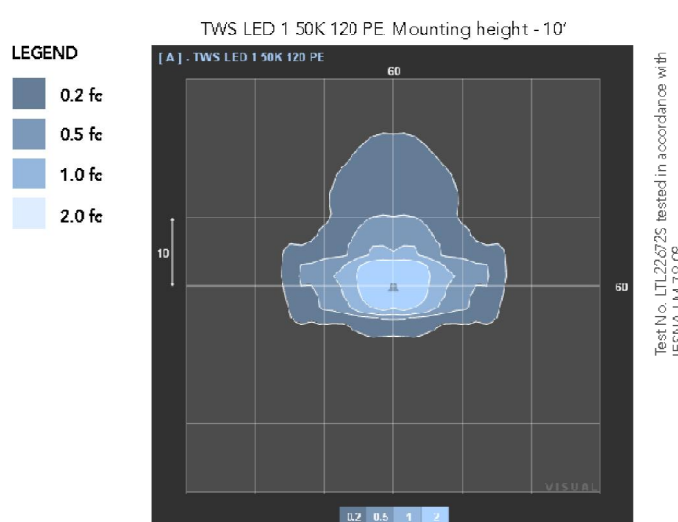
#### Projected LED Lumen Maintenance

Data references the extrapolated performance projected to a 40°C ambient based on 10,000 hours of LED testing tested per IESNA LM-80-08 and projected per IESNA TM-21-11.

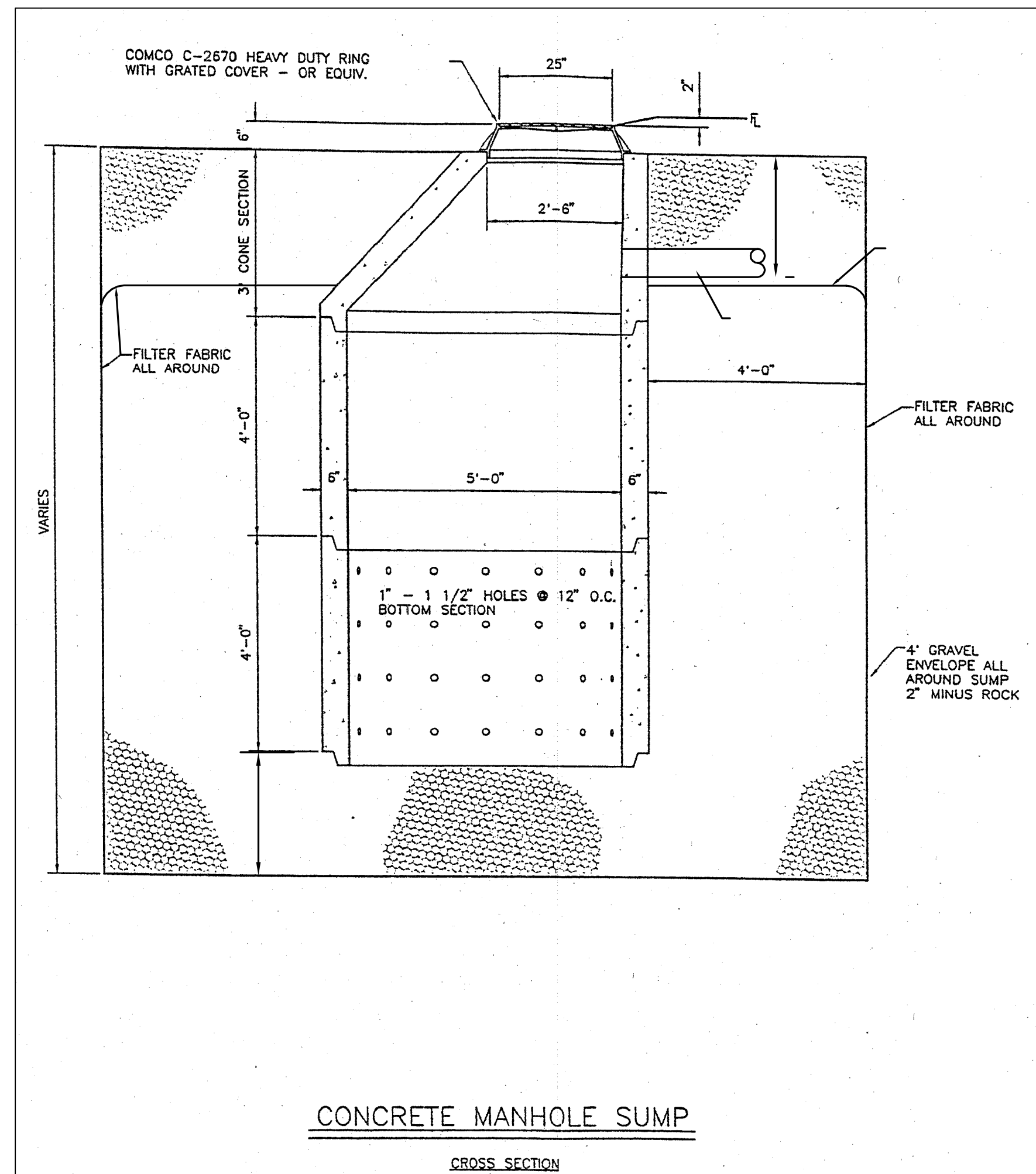
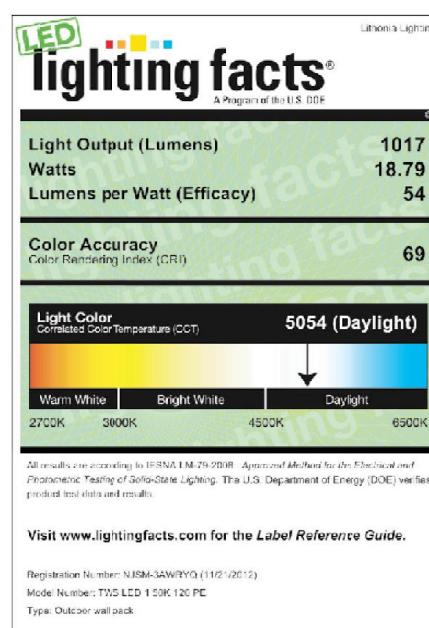
Operating Hours	0	25,000	50,000	55,000	100,000
Lumen Maintenance Factor	1.0	0.98	0.97	0.97	0.95

### Photometric Diagrams

To see complete photometric reports or download .ies files for this product, visit the Lithonia Lighting TWS LED homepage, listed in accordance with IESNA LM-79 and LM-80 standards.



### Lighting Facts Labels



SHEET NO.

4A

DETAIL SHEET

SANTAQUIN, UTAH

ORCHARD HILLS TOWNHOMES II

ATLAS  
ENGINEERING  
L.L.C.

PHONE: 801-855-0566  
FAX: 801-855-0109  
946 E. 800 N. SUITE A  
SPANISH FORK, UT 84660

6/13/2021 9:50:00 AM MDT

BY DATE

REVISIONS

DETAIL SHEET

6/13/2021

6/13/2021

6/13/2021

6/13/2021

6/13/2021

6/13/2021

6/13/2021

6/13/2021

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6/13/2021



One Lithonia Way • Conyers, Georgia 30012 • Phone: 800.279.8041 • Fax: 770.918.1209 • [www.lithonia.com](http://www.lithonia.com)  
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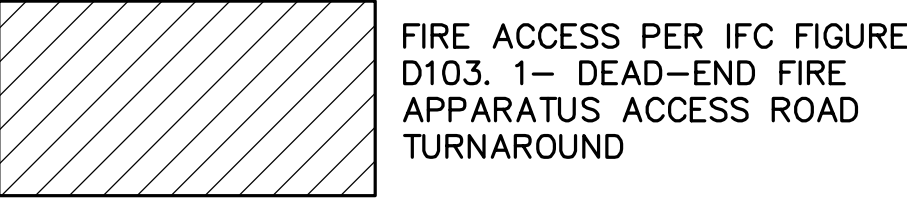
One Lithonia Way • Conyers, Georgia 30012 • Phone: 800.279.8041 • Fax: 770.918.1209 • [www.lithonia.com](http://www.lithonia.com)  
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TWS LED  
Rev: 01/09/14



20' x 20' Laminated Wood Forestview Pavilion Shown w/Asphalt Shingles

[illegible]



(24"x36")  
SCALE 1" = 30'

(11"x17")  
SCALE 1" = 60'

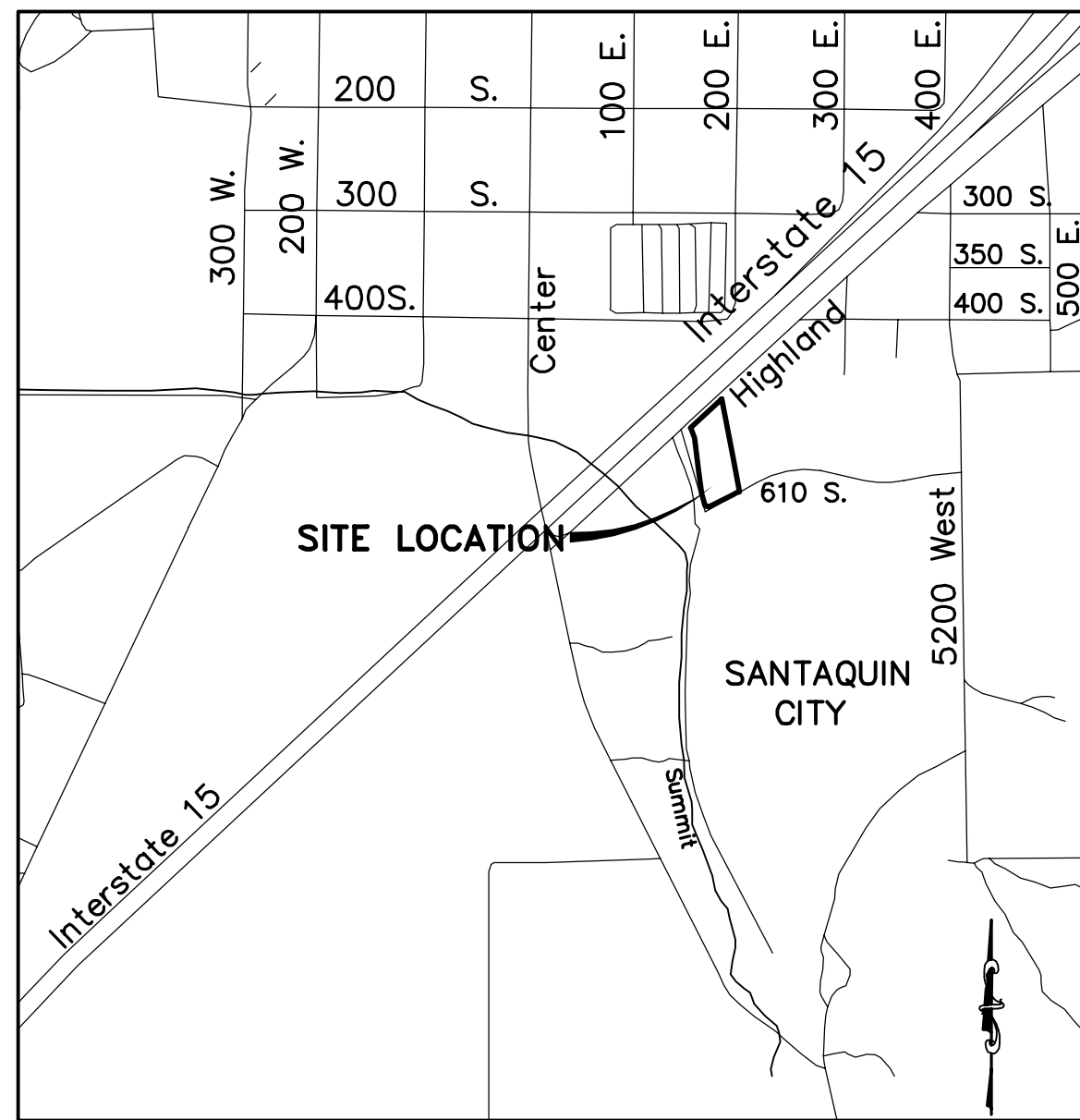
**ORCHARD HILLS TOWNSHOMES III**

**ATLAS  
ENGINEERING  
L.L.C.**

PHONE: 801-655-0566  
FAX: 801-655-0109  
946 E. 800 N. SUITE A  
SPANISH FORK, UT 84660

2/27/24 10:52 AM XBT

FIRE PLAN	SHEET NO.
	5



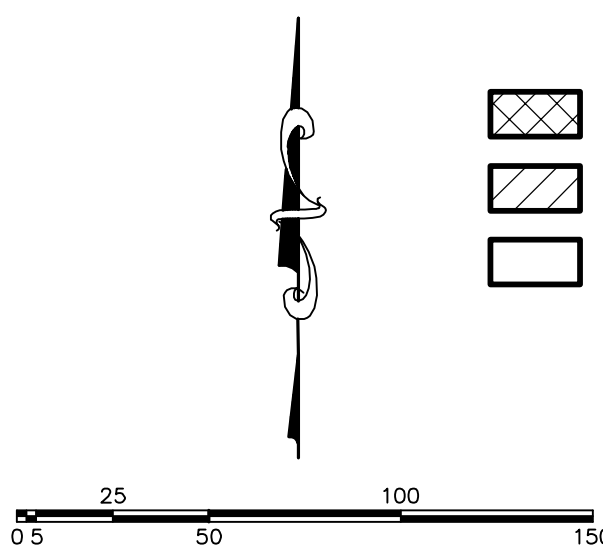
VICINITY MAP  
—NTS—

#### LEGEND

	FOUND BRASS CAP
	SET 5/8" IRON PIN
	CALCULATED POINT, NOT SET
	PROPERTY BOUNDARY
	RIGHT-OF-WAY LINE
	LOT LINE
	SECTION LINE
	EASEMENT
	CENTERLINE
	LOT NUMBERS
	ADDRESSES

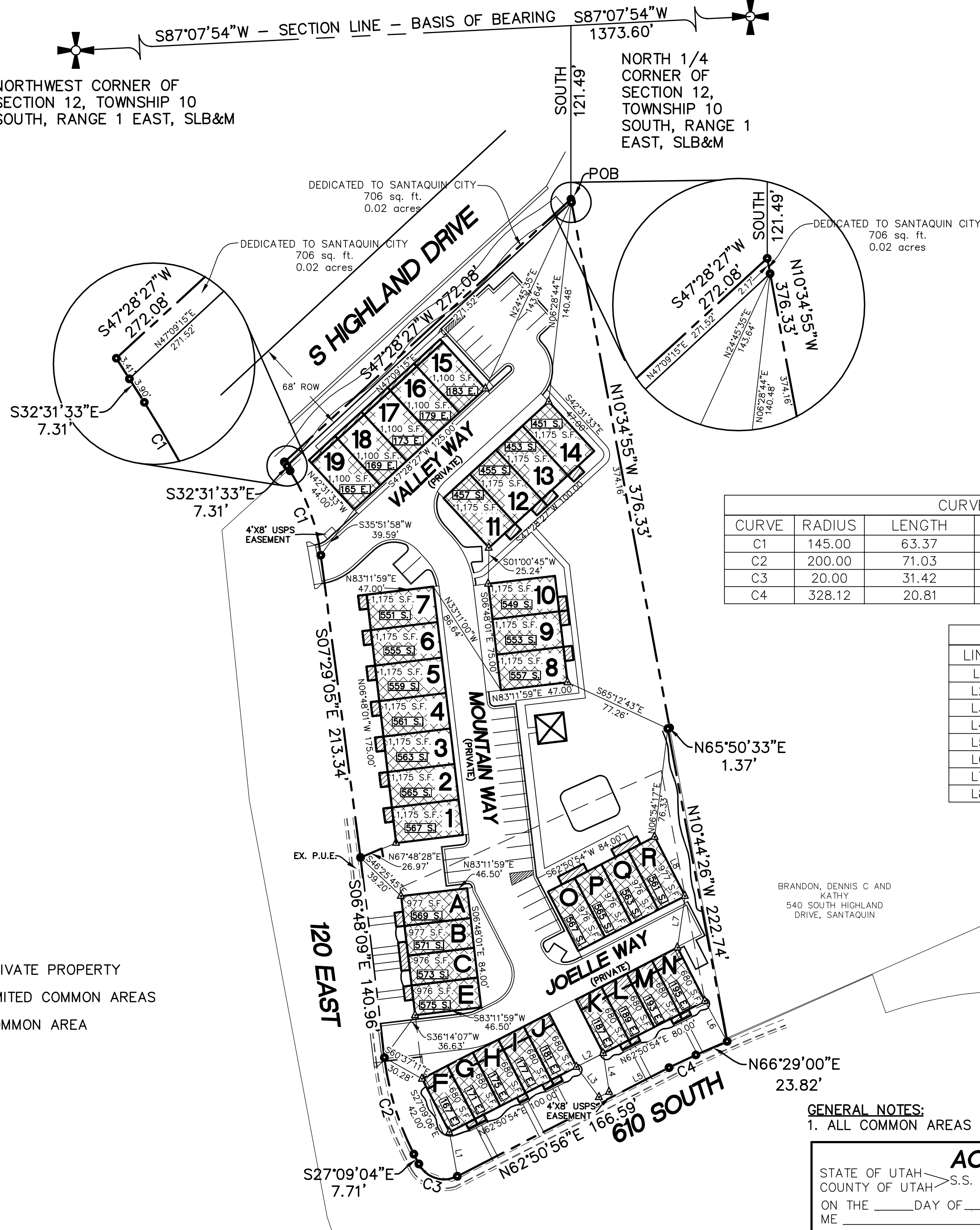
**ENGINEER CONTACT INFO:**  
ATLAS ENGINEERING  
PHONE: 801-655-0566  
FAX: 801-655-0109  
946 EAST 800 NORTH  
SUITE A  
SPANISH FORK, UT 84660

**SURVEYOR CONTACT INFO:**  
BARRY PRETTYMAN  
PHONE: 801-423-1040  
946 EAST 800 NORTH  
SUITE B  
SPANISH FORK, UTAH 84660



(24"x36")  
SCALE 1" = 50'  
(11"x17")  
SCALE 1" = 100'

NORTHWEST CORNER OF  
SECTION 12, TOWNSHIP 10  
SOUTH, RANGE 1 EAST, SLB&M



#### BOUNDARY DESCRIPTION

BEGINNING AT A POINT WHICH LIES S87°07'54"W 1373.60 FEET ALONG THE SECTION LINE AND SOUTH 121.49 FEET FROM THE NORTH 1/4 CORNER OF SECTION 12, TOWNSHIP 10 SOUTH, RANGE 1 EAST, SALT LAKE BASE AND MERIDIAN; AND RUNNING THENCE S47°28'27"W 272.08 FEET ALONG THE SOUTH LINE OF HIGHLAND DRIVE; THENCE ALONG THE EAST LINE OF 120 EAST STREET THE FOLLOWING THREE (3) COURSES TO WIT: (1) S32°31'33"E 7.31 FEET, (2) THENCE SOUTHEASTERLY 63.37 FEET ALONG THE ARC OF A 145.00 FOOT RADIUS CURVE TO THE RIGHT THROUGH THE CENTRAL ANGLE OF 25°02'28", THE CHORD BEARS S20°00'19"E 62.87 FEET, (3) THENCE S07°29'05"E 213.34; THENCE FOLLOWING THE EXISTING BOUNDARY OF ORCHARD HILLS TOWNHOMES THE FOLLOWING EIGHT (8) COURSES TO WIT: (1) S06°48'09"E 140.96 FEET, (2) SOUTHEASTERLY 71.03 FEET ALONG THE ARC OF A 200.00 FOOT RADIUS CURVE TO THE LEFT THROUGH A CENTRAL ANGLE OF 20°20'58", THE CHORD BEARS S16°58'37"E 70.66 FEET, (3) S27°09'04"E 7.71 FEET, (4) SOUTHEASTERLY 31.42 FEET ALONG THE ARC OF A 20.00 FOOT RADIUS CURVE TO THE LEFT THROUGH A CENTRAL ANGLE OF 90°01'24", THE CHORD BEARS S72°09'00"E 28.29 FEET, (5) N62°50'56"E 166.59 FEET, (6) NORTHEASTERLY 20.81 FEET ALONG THE ARC OF A 328.12 FOOT RADIUS CURVE TO THE RIGHT THROUGH A CENTRAL ANGLE OF 03°38'04", THE CHORD BEARS N64°40'03"E 20.81 FEET, (7) N66°29'00"E 23.82 FEET, (8) THENCE N10°44'26"W 222.74 FEET ALONG AN EXISTING FENCE; THENCE N65°50'33"E 1.37 FEET; THENCE N10°34'55"W 376.33 FEET ALONG AN EXISTING FENCE TO THE POINT OF BEGINNING. CONTAINING 2.92 ACRES OF LAND

CURVE TABLE					
CURVE	RADIUS	LENGTH	CHORD DIST.	CHORD BRG.	DELTA
C1	145.00	63.37	62.87	S 20°00'19" E	25°02'28"
C2	200.00	71.03	70.66	S 16°58'37" E	20°20'58"
C3	20.00	31.42	28.29	S 72°09'00" E	90°01'24"
C4	328.12	20.81	20.81	N 64°40'03" E	3°38'04"

LINE TABLE		
LINE	LENGTH	BEARING
L1	31.37	S 10°08'16" E
L2	21.03	N 62°51'04" E
L3	26.37	S 36°46'42" E
L4	27.39	S 08°48'35" E
L5	45.00	N 62°50'56" E
L6	32.18	S 28°50'32" E
L7	36.49	N 08°14'07" E
L8	46.50	N 27°09'06" W

#### GENERAL NOTES:

- ALL COMMON AREAS TO BE DEDICATED PUBLIC UTILITY EASEMENTS.

#### ACKNOWLEDGMENT

STATE OF UTAH >S.S.  
COUNTY OF UTAH >  
ON THE \_\_\_\_ DAY OF \_\_\_\_\_, A.D. 2021 PERSONALLY APPEARED BEFORE ME

THE SIGNERS OF THE FOREGOING DEDICATION WHO DULY ACKNOWLEDGED TO ME THAT THEY DID EXECUTE THE SAME.

NOTARY PUBLIC COMMISSIONED IN THE STATE OF UTAH

COMMISSION NUMBER/EXPIRES/PRINTED NAME

#### NOTE OF DECLARATION OF COVENANTS, CONDITIONS AND RESTRICTIONS

THIS PROJECT, WITH ITS LOTS, DWELLINGS AND COMMON AREAS ARE SUBJECT TO CERTAIN COVENANTS, CONDITIONS AND RESTRICTIONS AS CONTAINED IN THE DECLARATION OF COVENANTS, CONDITIONS AND RESTRICTIONS FOR ORCHARD HILLS TOWNHOMES P.U.D., WHICH ARE RECORDED IN THE OFFICES OF THE UTAH COUNTY RECORDER. SAID COVENANTS, CONDITIONS AND RESTRICTIONS ARE INTENDED TO RUN WITH THE LAND AND TO BE BINDING UPON ALL HEIRS, SUCCESSORS OR ASSIGNS OF THE DECLARANT IN ACCORDANCE WITH THE RECORDED DECLARATION.

#### SURVEYOR'S CERTIFICATE

I, BARRY L. PRETTYMAN DO HEREBY CERTIFY THAT I AM A PROFESSIONAL LAND SURVEYOR, AND THAT I HOLD CERTIFICATE NO. 166406 AS PRESCRIBED UNDER THE LAWS OF THE STATE OF UTAH. I FURTHER CERTIFY BY AUTHORITY OF THE OWNERS, I HAVE MADE A SURVEY OF SAID TRACT OF LAND SHOWN ON THIS PLAT AND DESCRIBED BELOW, AND HAVE SUBDIVIDED SAID TRACT OF LAND INTO LOTS, STREETS, AND EASEMENTS AND THAT THE SAME HAS BEEN CORRECTLY SURVEYED AND STAKED ON THE GROUND AS SHOWN ON THIS PLAT AND THAT THIS IS TRUE AND CORRECT.

SURVEYOR \_\_\_\_\_ DATE \_\_\_\_\_

#### OWNER'S DEDICATION

KNOW ALL MEN BY THESE PRESENTS THAT WE, ALL OF THE UNDERSIGNED OWNERS OF ALL THE PROPERTY DESCRIBED IN THE SURVEYOR'S CERTIFICATE HEREON AND SHOWN ON THIS MAP, HAVE CAUSED THE SAME TO BE SUBDIVIDED INTO LOTS, STREETS, AND EASEMENTS AND DO HEREBY DEDICATE THE STREETS AND OTHER PUBLIC AREAS AS INDICATED HEREON FOR PERPETUAL USE OF THE PUBLIC.

IN WITNESS WHEREOF WE HAVE HEREUNTO SET OUR HANDS THIS DAY OF \_\_\_\_\_ A.D. 2021.

OWNER: JOHN SMILEY OWNER: \_\_\_\_\_

OWNER: \_\_\_\_\_ OWNER: \_\_\_\_\_

OWNER: \_\_\_\_\_ OWNER: \_\_\_\_\_

OWNER: \_\_\_\_\_ OWNER: \_\_\_\_\_

OWNER: \_\_\_\_\_ OWNER: \_\_\_\_\_

OWNER: \_\_\_\_\_ OWNER: \_\_\_\_\_

OWNER: \_\_\_\_\_ OWNER: \_\_\_\_\_

OWNER: \_\_\_\_\_ OWNER: \_\_\_\_\_

OWNER: \_\_\_\_\_ OWNER: \_\_\_\_\_

#### ACCEPTANCE BY LEGISLATIVE BODY

THE CITY COUNCIL OF SANTAQUIN CITY, COUNTY OF UTAH, APPROVES THIS SUBDIVISION AND HEREBY ACCEPTS THE DEDICATION OF ALL STREETS, EASEMENTS, AND OTHER PARCELS OF LAND INTENDED FOR PUBLIC PURPOSES FOR THE PERPETUAL USE OF THE PUBLIC THIS \_\_\_\_ DAY OF \_\_\_\_\_ A.D. 2021

APPROVED BY MAYOR \_\_\_\_\_

APPROVED  
ENGINEER (SEE SEAL)

ATTEST  
CLERK-RECORDER

#### ORCHARD HILLS TOWNHOMES PLAT 'B'

BEING AN AMENDMENT OF  
ORCHARD HILLS TOWNHOMES  
SANTAQUIN CITY, UTAH COUNTY, UTAH  
A RESIDENTIAL SUBDIVISION

LOCATED IN THE NORTH 1/4 CORNER OF SECTION 12, TOWNSHIP 10 SOUTH, RANGE 1 EAST, SALT LAKE BASE AND MERIDIAN, UTAH COUNTY, UTAH.

**SHEET 1 OF 2**

SURVEYOR'S SEAL

NOTARY PUBLIC  
SEAL

CLERK-RECORDER  
SEAL

#### DOMINION ENERGY COMPANY

DOMINION ENERGY APPROVES THIS PLAT SOLELY FOR THE PURPOSE OF CONFIRMING THAT THE PLAT CONTAINS PUBLIC UTILITY EASEMENTS. DOMINION ENERGY MAY REQUIRE OTHER EASEMENTS IN ORDER TO SERVE THIS DEVELOPMENT. THIS APPROVAL DOES NOT CONSTITUTE ABROGATION OR WAIVER OF ANY OTHER EXISTING RIGHTS, OBLIGATIONS OR LIABILITIES PROVIDED BY LAW OR EQUITY. THIS APPROVAL DOES NOT CONSTITUTE ACCEPTANCE, APPROVAL OR ACKNOWLEDGEMENT OF ANY TERMS CONTAINED IN THE PLAT. INCLUDING THOSE SET FORTH IN THE OWNERS DEDICATION AND THE NOTES AND DOES NOT CONSTITUTE A GUARENTEE OF PARTICULAR TERMS OF NATURAL GAS SERVICE. FOR FURTHER INFORMATION PLEASE CONTACT DOMINION ENERGY'S RIGHT-OF-WAY DEPARTMENT AT 1-800-366-8532.

APPROVED \_\_\_\_\_

DOMINION ENERGY REPRESENTATIVE

Z:\2020\20-006 Orchard Hills Ph2\CADD\PRELIMINARY\FINAL

#### CENTURYLINK APPROVAL

APPROVED THIS \_\_\_\_ DAY OF \_\_\_\_\_, A.D. 2021.

CENTURYLINK REPRESENTATIVE

#### CENTRACOM APPROVAL

APPROVED THIS \_\_\_\_ DAY OF \_\_\_\_\_, A.D. 2021.

CENTRACOM REPRESENTATIVE

PLAT.dwg 6/3/2021 10:00:49 AM MDT

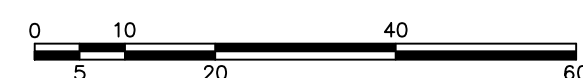
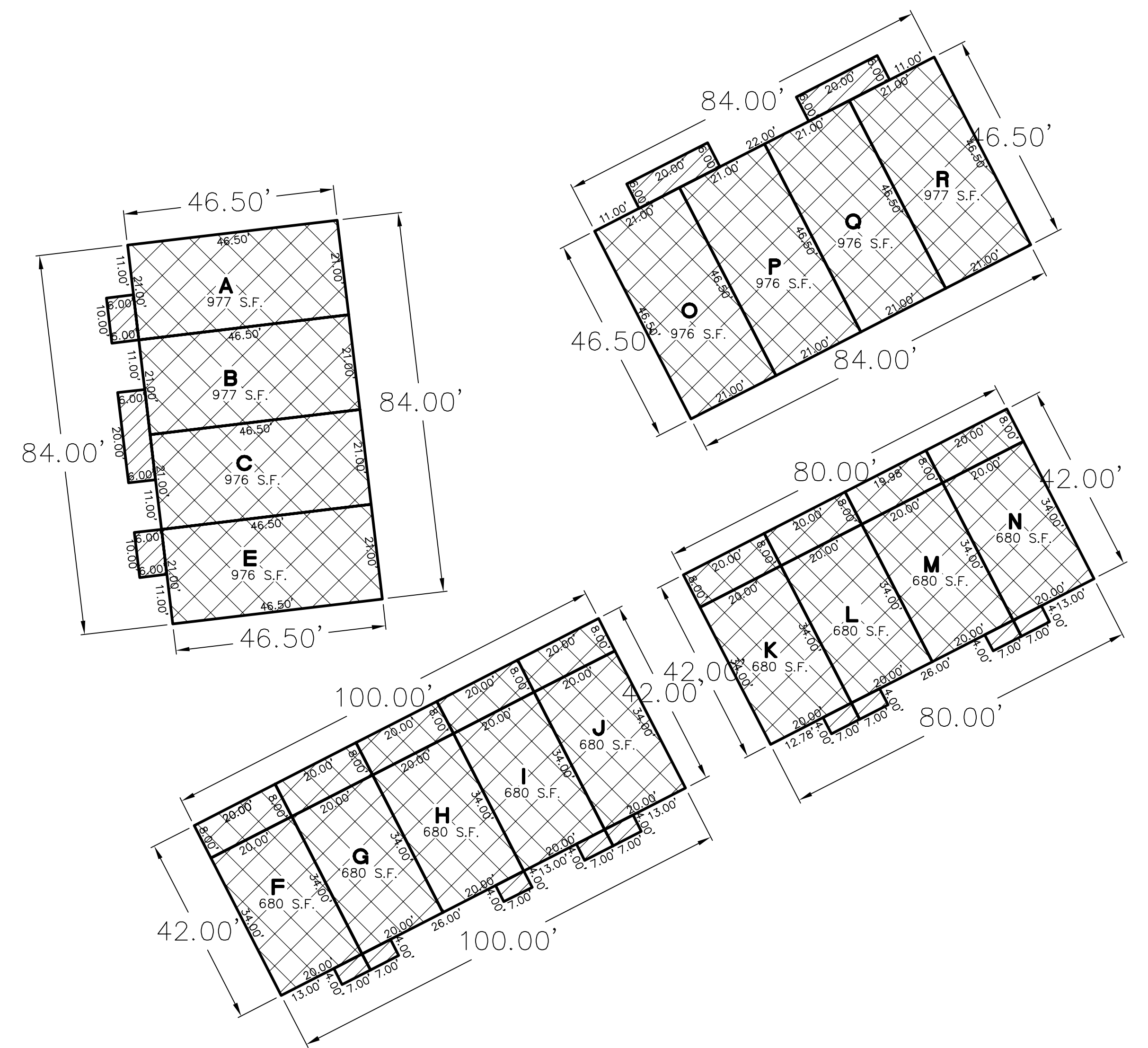
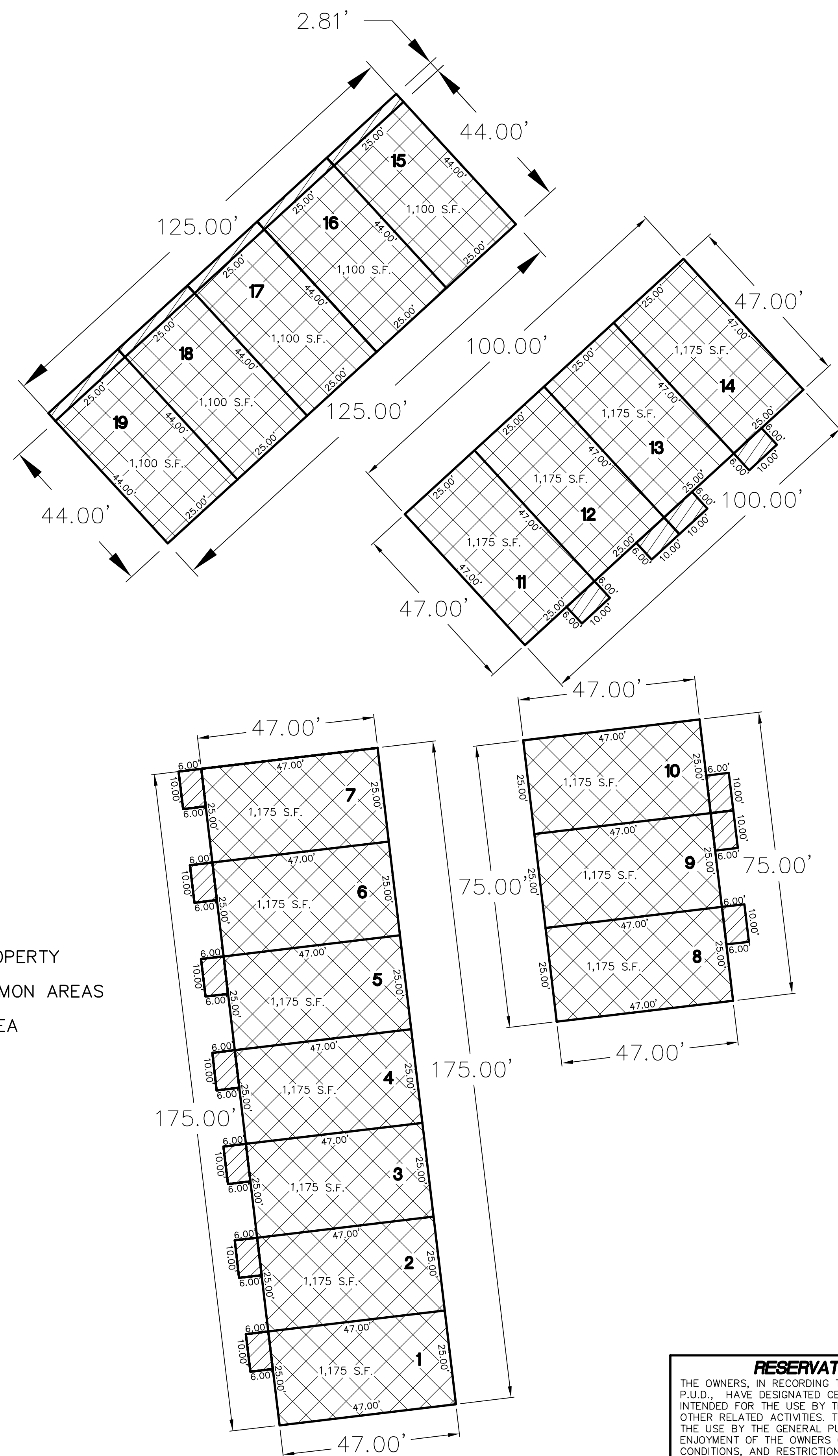
#### CONVEYANCE OF COMMON AREAS TO ASSOCIATION

THE UNDERSIGNED OWNER IN RECORDING THIS PLAT, HAS DESIGNATED CERTAIN AREAS OF THE LAND AS PRIVATE DRIVEWAYS, STREETS, LIMITED COMMON AREAS AND OTHER COMMON AREAS INTENDED FOR THE USE BY MEMBERS OF ORCHARD HILLS TOWNHOMES P.U.D. HOMEOWNERS ASSOCIATION, THEIR GUESTS AND INVITEES. SUCH AREAS ARE FOR THE USE AND ENJOYMENT BY THE OWNERS OF LOTS OR DWELLINGS IN THE ORCHARD HILLS TOWNHOMES PROJECT AS MORE FULLY DESCRIBED IN THE DECLARATION OF COVENANTS CONDITIONS AND RESTRICTIONS APPLICABLE TO THIS PROJECT AND RECORDED WITH THIS PLAT.

#### ROCKY MOUNTAIN POWER APPROVAL

APPROVED THIS \_\_\_\_ DAY OF \_\_\_\_\_, A.D. 2021.

ROCKY MOUNTAIN POWER REPRESENTATIVE



-24"x36"-  
SCALE 1" = 20'  
-11"x17"-  
SCALE 1" = 40'

#### RESERVATION OF COMMON AREAS

THE OWNERS, IN RECORDING THIS PLAT ORCHARD HILLS TOWNHOMES P.U.D., A UTAH P.U.D., HAVE DESIGNATED CERTAIN AREAS OF LAND AS PRIVATE AND COMMON AREAS INTENDED FOR THE USE BY THE OWNERS OF SAID P.U.D. FOR INGRESS, RECREATION AND OTHER RELATED ACTIVITIES. THE DESIGNATED AREAS ARE NOT DEDICATED HEREBY FOR THE USE BY THE GENERAL PUBLIC, BUT ARE RESERVED FOR THE COMMON USE AND ENJOYMENT OF THE OWNERS OF SAID P.U.D., SAID DECLARATION OF COVENANTS, CONDITIONS, AND RESTRICTIONS IS HEREBY INCORPORATED AND MADE A PART OF THIS PLAT AND BECOMES EFFECTIVE UPON THE DATE THAT THIS PLAT IS RECORDED IN THE OFFICIAL RECORDS OF UTAH COUNTY, UTAH.

#### UTILITY DEDICATION

THE OWNERS OF THE PARCEL OF LAND WHICH IS SHOWN ON THIS PLAT OF ORCHARD HILLS TOWNHOMES P.U.D., A UTAH P.U.D., DO CONSENT TO THE PREPARATION AND RECORDATION OF THIS PLAT AND DO HEREBY OFFER AND CONVEY TO SANTAQUIN CITY, ALL PUBLIC UTILITY AGENCIES AND THEIR SUCCESSORS AND ASSIGNS A PERMANENT EASEMENT AND RIGHT-OF-WAY AS SHOWN BY THE AREA MARKED "PUBLIC UTILITIES EASEMENT" (P.U.E.) AND "PRIVATE STREET" ON THIS PLAT FOR THE CONSTRUCTION AND MAINTENANCE OF SUBTERRANEAN ELECTRICAL, TELEPHONE, NATURAL GAS, SEWER AND WATER LINES AND APPURTANCES, TOGETHER WITH THE POINT OF ACCESS THERETO.

#### ORCHARD HILLS TOWNHOMES PLAT 'B'

BEING AN AMENDMENT OF  
ORCHARD HILLS TOWNHOMES  
SANTAQUIN CITY, UTAH COUNTY, UTAH  
A RESIDENTIAL SUBDIVISION


LOCATED IN THE NORTH 1/4 CORNER OF SECTION 12, TOWNSHIP 10 SOUTH, RANGE 1 EAST,  
SALT LAKE BASE AND MERIDIAN, UTAH COUNTY, UTAH.

SHEET 2 OF 2



ABBREVIATIONS INDEX							
#	NUMBER	DC	DIRECT CURRENT	KW	KILOWATT	PT	POTENTIAL TRANSFORMER
1Ø	PHASE	DISP	DISPOSAL	LRA	LOCKED ROTOR AMPS	PV	PHOTOVOLTAC
1Ø	SINGLE PHASE	DYR	DRYER	LTG	LIGHTING	PVC	POLYVINYL CHLORIDE
2P	TWO-POLE	DW	DISHWASHER	MTV	MASTER ANTENNA TELEVISION	(R)	RELOCATE
3Ø	THREE PHASE	DWG	DRAWING	MAX	MAXIMUM	RECQ	RECEIPLACE
4P	FOUR-POLE	EC	EMPTY CONDUIT	MB	MAIN BUS	REF	REFRIGERATOR
AC	ALTERNATING CURRENT	EM	EMERGENCY	MCB	MAIN CIRCUIT BREAKER	REQ	REQUIRED
AF	ABOVE FINISHED FLOOR	EMG	EMERGENCY GENERATOR	MCC	MOTOR CONTROL CENTER	RLA	RATED LOAD AMPS
AFG	ABOVE FINISHED GRADE	EMT	ELECTRICAL METALLIC TUBING	MCM	1000 CIRCULAR MILLS	RMS	ROOT MEAN SQUARE
AFP	ARC FAULT PROTECTOR	EPO	EMERGENCY POWER OFF	MH	MANHOLE	SE	SERVICE ENTRANCE
AHJ	AUTHORITY HAVING JURISDICTION	EW	ELECTRIC WATER COOLER	MIC	MICROPHONE	SPD	SURGE PROTECTION DEVICE
AI	AMP INTERRUPTING CURRENT (SYMMETRICAL)	EWH	ELECTRIC WATER HEATER	MIN	MINIMUM	SPEC	SPECIFICATION
AL	ALUMINUM	EXTG	EXISTING	MLO	MAIN LUGS ONLY	SPKR	SPEAKER
AM	AMPS METER	(F)	FUTURE	MNF	MANUFACTURER	SS	SELECTOR SWITCH
AMP	AMPERE	FA	FIRE ALARM	MTG	MOUNTING	SW	SWITCH
ANN	ANNUNCIATOR	FACP	FIRE ALARM CONTROL PANEL	MTR	MOTOR	SWBD	SWITCHBOARD
ATS	AUTOMATIC TRANSFER SWITCH	FC	FOOT CANDLE	NW	MICROWAVE	SWGR	SWITCHGEAR
AUX	AUXILIARY	FLA	FULL LOAD AMPS	(N)	NEW	TB	TELEPHONE TERMINAL BOARD
AWG	AMERICAN WIRE GAUGE	FT	FOOT	N/A	NOT APPLICABLE	TBC	TELEPHONE TERMINAL CABINET
BC	BARE COPPER	FRZ	FREEZER	NC	NORMALLY CLOSED	TV	TELEVISION
BFG	BELOW FINISH GRADE	FS	FUSED SWITCH	NEMA	NATIONAL ELECTRICAL CODE	TV	TYPE
C	CONDUIT	GFAF	DUAL FUNCTION GFCI/AFCI CIRCUIT BREAKER	NFC	NATIONAL FIRE CODE	UG	UNDERGROUND
CAB	CABINET	GFCI	GROUND FAULT CIRCUIT INTERRUPTER	NFPA	NATIONAL FIRE PROTECTION ASSOCIATION	UNO	UNLESS NOTED OTHERWISE
CATB	COMMUNITY ANTENNA TELEVISION	GFP	GROUND-FAULT EQUIPMENT PROTECTION	NFS	NOT FUSED SWITCH	UPS	UNINTERRUPTIBLE POWER SUPPLY
CATV	CABLE TELEVISION	GRC	GROUND FAULT PROTECTOR	NIC	NOT IN CONTRACT	V	VOLT (KV-KILOVOLT)
CFCI	CONTRACTOR FURNISHED CONTRACTOR INSTALLED	GRD	GROUND	NL	NIGHT LIGHT	VA/R	VOLT-AMPS/REACTIVE
CKT	CIRCUIT	HP	HORSE POWER	NO	NORMALLY OPEN	VM	VOLT METER
CKL	CELLING	HZ	HERTZ	NTS	NOT TO SCALE	W	WATTS
CNTR	CONTRACTOR	IG	ISOLATED GROUND	OFCI	OWNER FURNISHED CONTRACTOR INSTALLED	W/	WITH
CO	CONVENIENCE OUTLET	IMC	INTERMEDIATE METALLIC CONDUIT	OFOW	OWNER FURNISHED OWNER INSTALLED	WASH	WASHER
CRT	COMPUTER TERMINAL	IN	INCH	OS&Y	OUTSIDE SCREW AND YOKE	WH	WATHOUR
CRT	CURRENT TRANSFORMER	J-BOX	JUNCTION BOX	PB	PUSH BUTTON	W/O	WITHOUT
CU	COPPER	KV	KILOVOLT	PF	PUSH BUTTON	WP	WEATHER PROOF
C/W	CONDUIT WITH	KVA	KILOVOLT AMPERES	PH	POWER FACTOR	XFMR	TRANSFORMER
(D)	DEMOLISH/DELETE	KVAR	KILOVOLT AMPERES	PFL	PHASE FAILURE RELAY	XFMR-SW	TRANSFORMER SWITCH
DB		KV	KILOVOLT	PNL	PANEL	XP	EXPOSURE PROOF

NOTE: THIS IS A TYPICAL ABBREVIATION LIST. NOT ALL ABBREVIATIONS MAY BE USED ON THIS PROJECT.



**ROYAL ENGINEERING**

1857 S. EAST BAY BLVD.  
 ELECTRONIC  
 PHONE 801.375.2228


Item 1.

PROV. UTILITY  
 PROVO, UT  
 FAX 801.375.2228

THESE DOCUMENTS ARE INFORMATIONAL ONLY. THE INFORMATION CONTAINED HEREIN IS UNCLASSIFIED EXCEPT WHERE SHOWN OTHERWISE. THE INFORMATION CONTAINED HEREIN IS UNCLASSIFIED EXCEPT WHERE SHOWN OTHERWISE. THE INFORMATION CONTAINED HEREIN IS UNCLASSIFIED EXCEPT WHERE SHOWN OTHERWISE.

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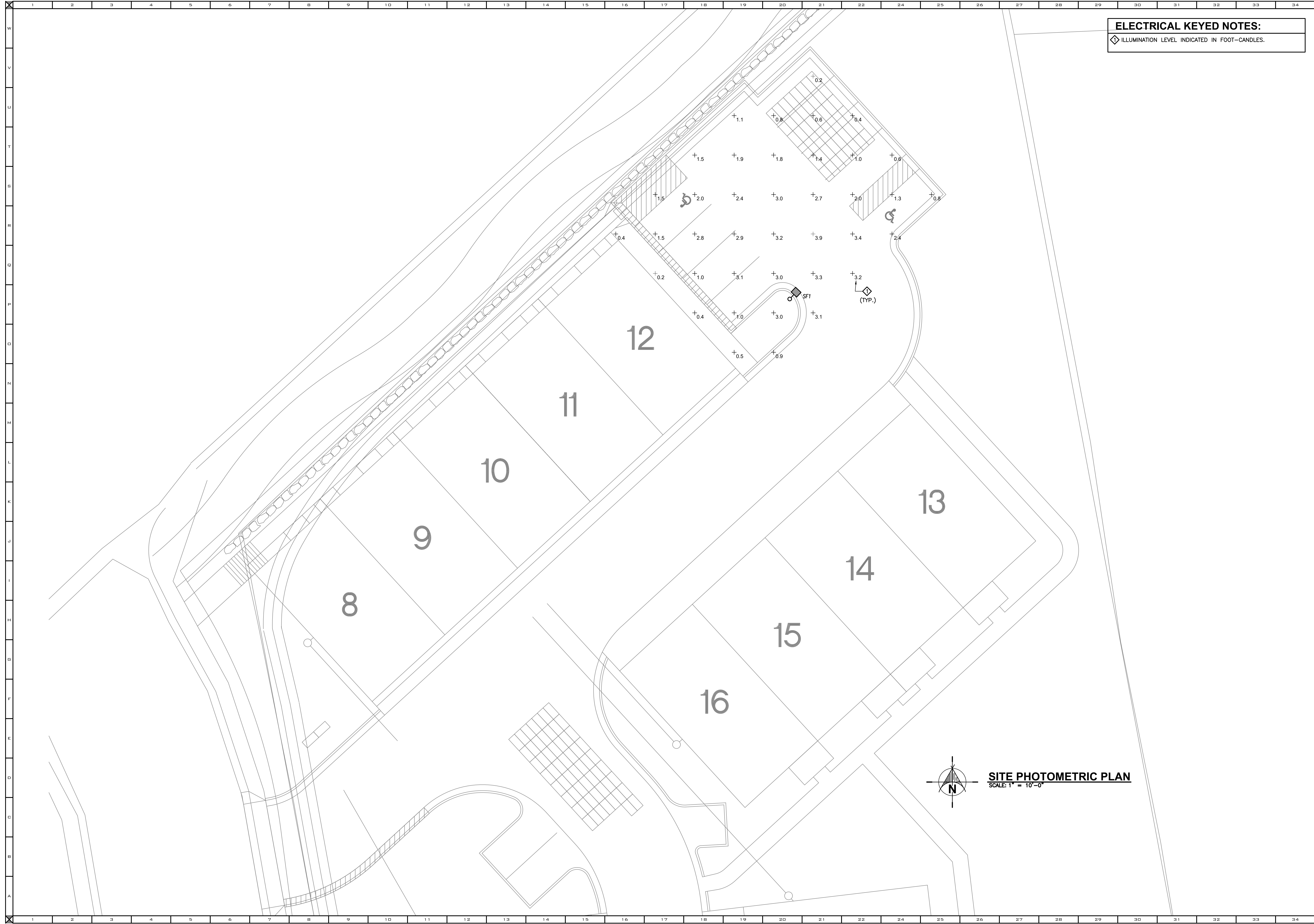
UNCLASSIFIED EXCEPT WHERE SHOWN OTHERWISE. THE INFORMATION CONTAINED HEREIN IS UNCLASSIFIED EXCEPT WHERE SHOWN OTHERWISE. THE INFORMATION CONTAINED HEREIN IS UNCLASSIFIED EXCEPT WHERE SHOWN OTHERWISE.



STATE OF UTAH

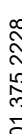
# ORCHARD HILLS TOWNHOMES

DRAWING TITLE: <b>ELECTRICAL COVERSHEET</b>	
DRAWN BY: <b>CC</b>	CHECKED BY: <b>RB</b>
DATE PLOTTED: <b>05/24/2021</b>	
PROJECT #: <b>J21147.00</b>	
<b>E0.0</b>	
11	

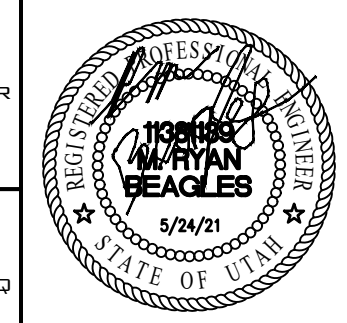


**ELECTRICAL KEYED NOTES:**

1 ILLUMINATION LEVEL INDICATED IN FOOT-CANDLES.

T	J	V	W
 <div style="display: inline-block; vertical-align: middle;"> <h1 style="margin: 0;">ROYAL</h1> <p style="margin: 0;">ENGINEERING</p> </div>			
ELECTRICAL			
1837 S. EAST BAY BLVD.			
PHONE: 801.375.2222			
MECHANICAL			
PROVO, UTAH			
FAX: 801.375.2222			

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REVISIONS:

# ORCHARD HILLS TOWNHOMES

DRAWING TITLE:  
SITE  
PHOTOMETRIC  
PLAN

DRAWN BY:	CHECKED BY:
CC	RB

DATE PLOTTED:  
05/24/2021

PROJECT #:	J21147.00
------------	-----------

E1.0

SITE LIGHTING FIXTURE SCHEDULE												
FIXT	FIXTURE						LAMPS		POLE			REMARKS
#	MANUFACTURER	CATALOG #	VOLTS	#POLE	WATTS	MOUNTING	TYPE	QTY/FIXT.	MANUFACTURER	HEIGHT	CATALOG #	
SF1	MCGRAW-EDISON (OR APPROVED EQUAL)	GLEON-AF-02-LED-E-1-T3	120	1	113	POLE	LED	-	LITHONIA GARDCO MCGRAW SPAULDING LTG  OMT UNITED LSI	20'-0"	SSS 20 4C SSS-20-4-11 SSS-4A20-SFXXX SSS-20-40-1-1"-SCBA ZAX-4-4-HS-PC-BC RPSQ-20-4-11 4SQBX-S11G-20-X-4BC	

Project		Catalog #		Type	
Prepared by		Notes		Date	



**McGraw-Edison**  
GLEON Galleon

Area / Site Luminaire

### Typical Applications

Outdoor • Parking Lots • Walkways • Roadways • Building Areas

## Product Certifications



## Product Features



Connected Systems

- WaveLinx
- Enlighted

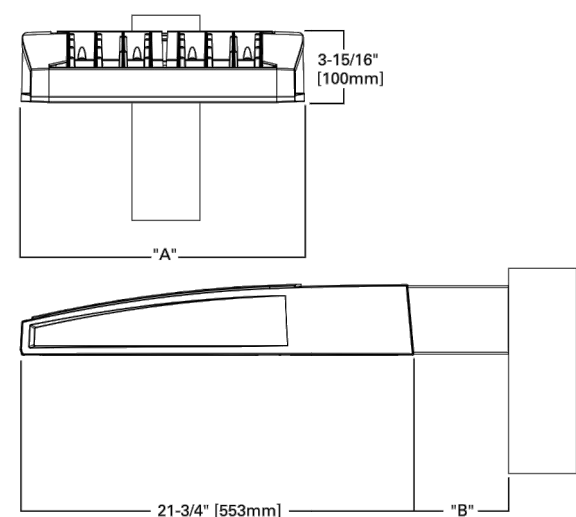
 **Interactive Menu**

- **Ordering Information** page 2
- **Mounting Details** page 3
- **Optical Distributions** page 4
- **Product Specifications** page 4
- **Energy and Performance Data** page 4
- **Control Options** page 9

## Quick Facts

- Lumen packages range from 4,200 - 80,800 (34W - 640W)
- Efficacy up to 156 lumens per watt

### Dimensional Details



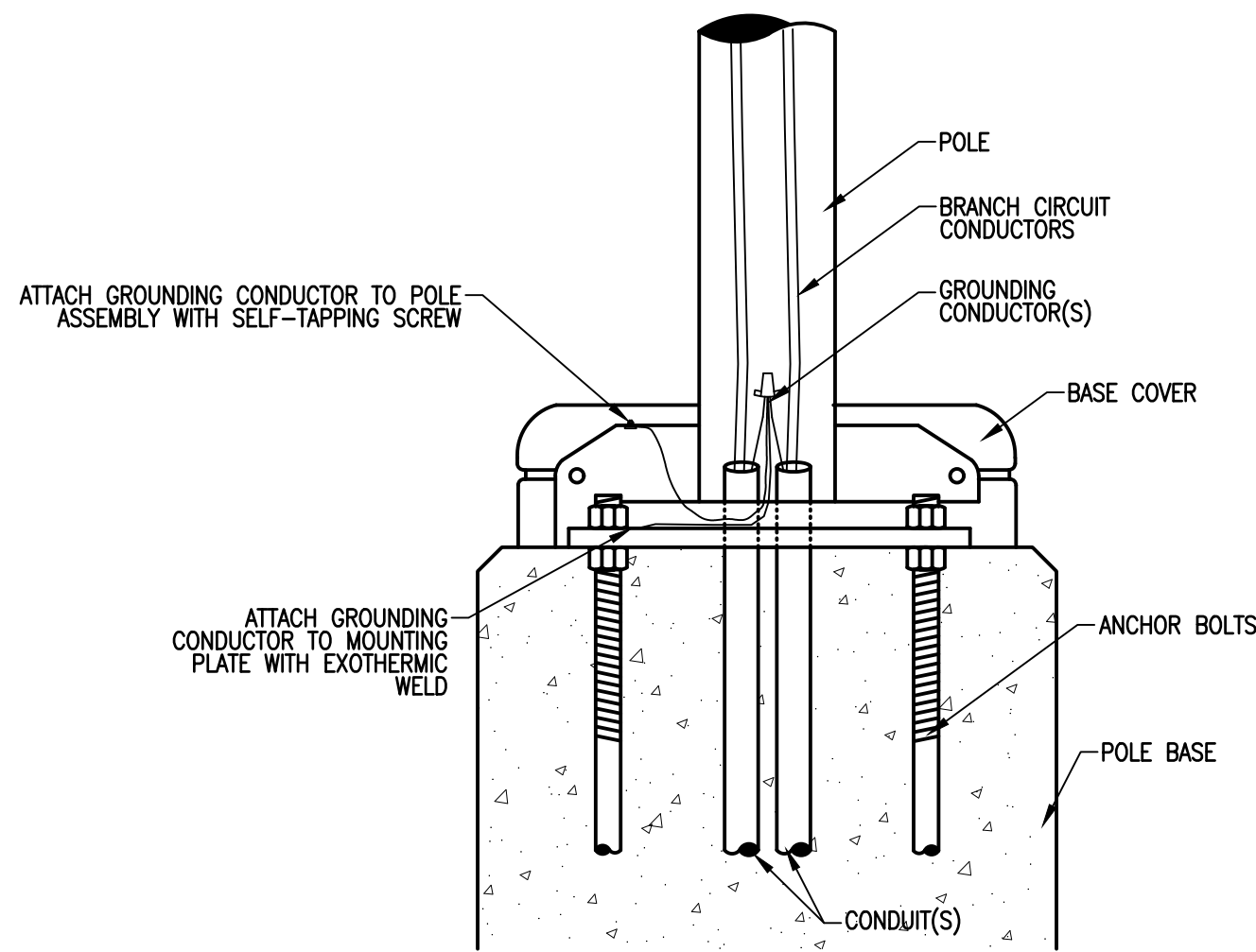
Number of Light Squares	"A" Width	"B" Standard Arm Length	"C" Extended Arm Length¹	"D" Quick Mount Arm Length	"E" Quick Mount Extended Arm Length
1-4	15-1/2"	7"	10"	10-5/8"	16-9/16"
5-6	21-5/8"	7"	10"	10-5/8"	16-9/16"
7-8	27-5/8"	7"	13"	10-5/8"	—
9-10	33-3/4"	7"	16"	—	—

**NOTES:**  
 1. For all selection requirements and additional line art, see Mounting Details Section.

**NOTES:**  
For arm selection requirements and additional line art, see Mounting Details section.

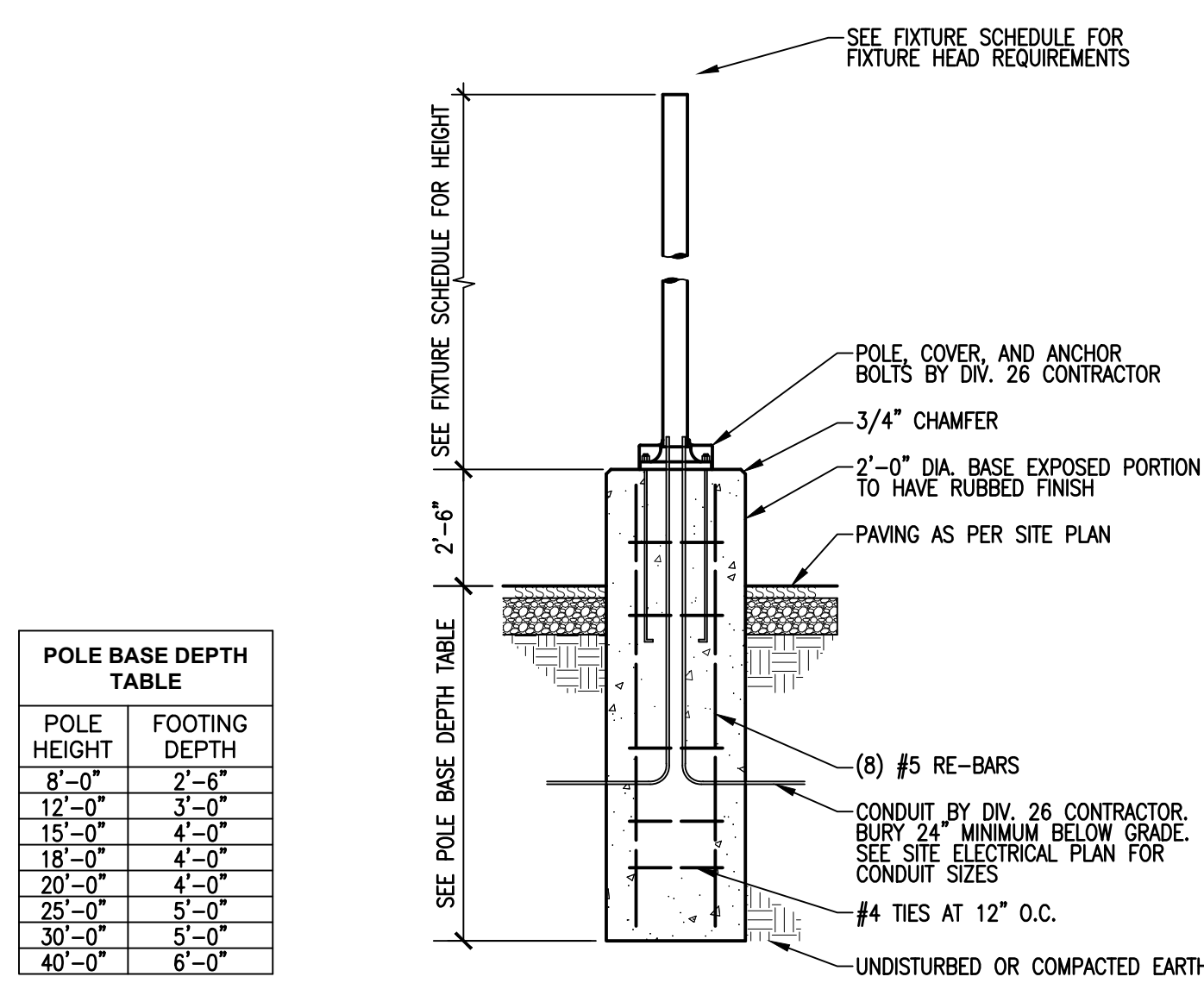


PS500020EN page 1  
April 12, 2021 1:45 PM



### POLE LIGHT GROUNDING DETAIL

SCALE: NTS

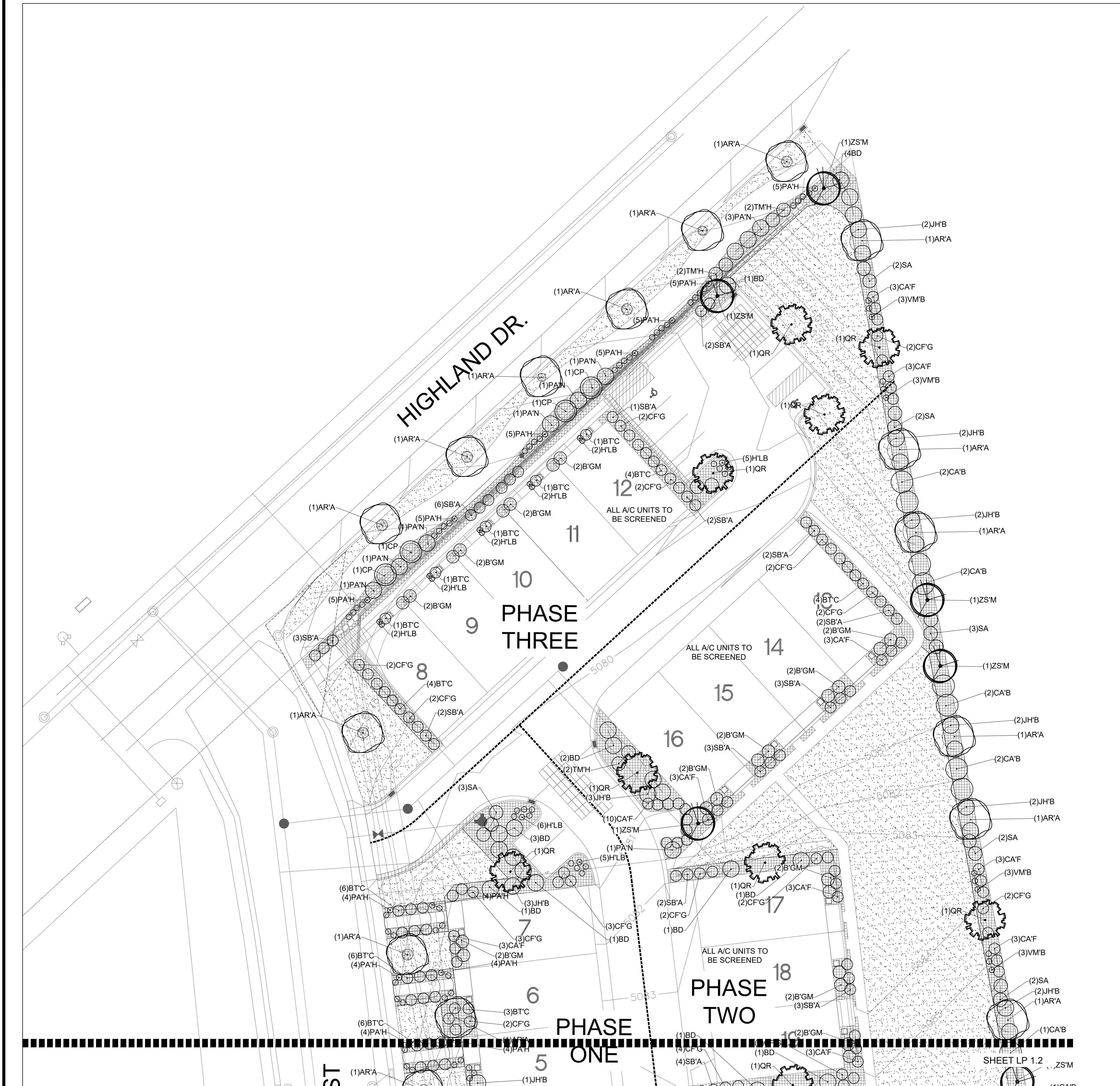


POLE HEIGHT	FOOTING DEPTH
8'-0"	2'-6"
12'-0"	3'-0"
15'-0"	4'-0"
18'-0"	4'-0"
20'-0"	4'-0"
25'-0"	5'-0"
30'-0"	5'-0"
40'-0"	6'-0"

## POLE BASE DETAIL

SCALE: NTS





TREE LEGEND (TOTAL PLANT COUNT)

SYMBOL	BOTANICAL NAME	COMMON NAME	QTY.	SIZE	HYDROZONE	SPECIAL NOTES
ZS'M	ZELKOVA SERRATA 'MUSASHINO'	MUSASHINO COLUMNAR ZELKOVA	8	2" CAL.	LOW	
CP	PRUNUS X CERASIFERA	CHERRY PLUM	4	2" CAL.	MODERATE	
AR'A	ACER RUBRUM 'ARMSTRONG'	ARMSTRONG RED MAPLE	21	2" CAL.	LOW	
QR	QUERCUS ROBUR 'FASTIGIATA'	COLUMNAR ENGLISH OAK	11	2" CAL.	LOW	

SHRUB LEGEND

SYMBOL	BOTANICAL NAME	COMMON NAME	QTY.	SIZE	HYDROZONE	SPECIAL NOTES
B'GM	BUXUS X 'GREEN MOUNTAIN'	GREEN MOUNTAIN BOXWOOD	26	5 GAL.	MODERATE	
BTC	BERBERIS THUNBERGII 'CRIMSON PYGMY'	CRIMSON PYGMY DWARF JAPANESE BARBERRY	68	1 GAL.	LOW	
JH'B	JUNIPERUS HORIZONTALIS 'BLUE CHIP'	BLUE CHIP JUNIPER	20	1 GAL.	LOW	
CA'B	CORNUS ALBA 'BAILHALO'	IVORY HALO DOGWOOD	10	5 GAL.	MODERATE	
BD	BUDDLEJA DAVIDII	BUTTERFLY BUSH	17	5 GAL.	HIGH	
PA'N	PICEA ABIES 'NIDIFORMIS'	NEST NORWAY SPRUCE	10	5 GAL.	HIGH	
SB'A	SPIREA X BUMALDA 'ANTHONY WATERER'	ANTHONY WATERER SPIREA	36	1 GAL.	LOW	
TMH	TAXUS X MEDIA 'DENSIFORMIS'	DENSE SPREADING YEW	8	5 GAL.	MODERATE	
SA	SYMPHORICARPUS ALBUS	COMMON SNOWBERRY	23	5 GAL.	HIGH	
CF'G	CARAGANA FRUTEX 'GLOBOSA'	GLOBE PEASHRUB	45	5 GAL.	MODERATE	

GRASSES LEGEND

SYMBOL	BOTANICAL NAME	COMMON NAME	QTY.	SIZE	HYDROZONE	SPECIAL NOTES
CA'F	CALAMAGROSTIS A. 'FOERSTER'	FOERSTER FEATHER GRASS	43	1 GAL.	HIGH	
PA'H	PENNISETUM APOLCUROIDES 'HAMELN'	HAMELN DWARF FOUNTAIN	30	1 GAL.	HIGH	

PERENNIAL LEGEND

SYMBOL	BOTANICAL NAME	COMMON NAME	QTY.	SIZE	HYDROZONE	SPECIAL NOTES
HLB	HEMEROCALLIS X 'LITTLE BUSINESS'	LITTLE BUSINESS DAYLILY	45	1 GAL.	HIGH	
VMB	VINCA MINOR 'BOWLES'	COMMON PERIWINKLE	16	1 GAL.	HIGH	

SITE MATERIALS

SYMBOL	SITE MATERIAL	QUANTITY	SPECIAL NOTES
	3/4" OQUIRRH GRAVEL 3" DEPTH (DOWN 5 OZ. WEED BARRIER FABRIC TO BE INSTALLED IN ALL PLANTER AREAS)	10,511 SQ. FT. (97.3 CU. YD)	LOCATED WHERE SPECIFIED
	LAWN (SOD) AREA	25,711 SQ. FT.	DROUGHT TOLERANT VARIETY SEE NOTE BELOW
	BROWN BARK MULCH	142 SQ. FT.	LOCATED IN TREE RINGS

ISSUE DATE		PROJECT NUMBER	PLAN INFORMATION
11-04-2020		UT20039	
NO.	REVISION	DATE	
1	XXXX	XX-XX-XX	
2			
3			
4			
5			
6			
7			

BLUE STAKES OF UTAH  
UTILITY NOTIFICATION CENTER, INC.  
1-800-662-4111  
www.bluestakes.org

N

0' 10' 20' 40' 80'

GRAPHIC SCALE: 1" = 20'

# ORCHARD HILLS TOWNHOMES

## 120 EAST AND HIGHLAND DR SANTAQUIN, UTAH

DEVELOPER / PROPERTY OWNER / CLIENT	
Developer / Property Owner:	ORCHARD HILLS TOWNHOMES 95 WEST 200 NORTH #2 SPANISH FORK, UT 84660
Client / Engineer:	ATLAS ENGINEERING 95 WEST 200 NORTH #2 SPANISH FORK, UT 801-655-0566

PKJ  
DESIGN GROUP  
Landscape Architecture • Planning & Visualization

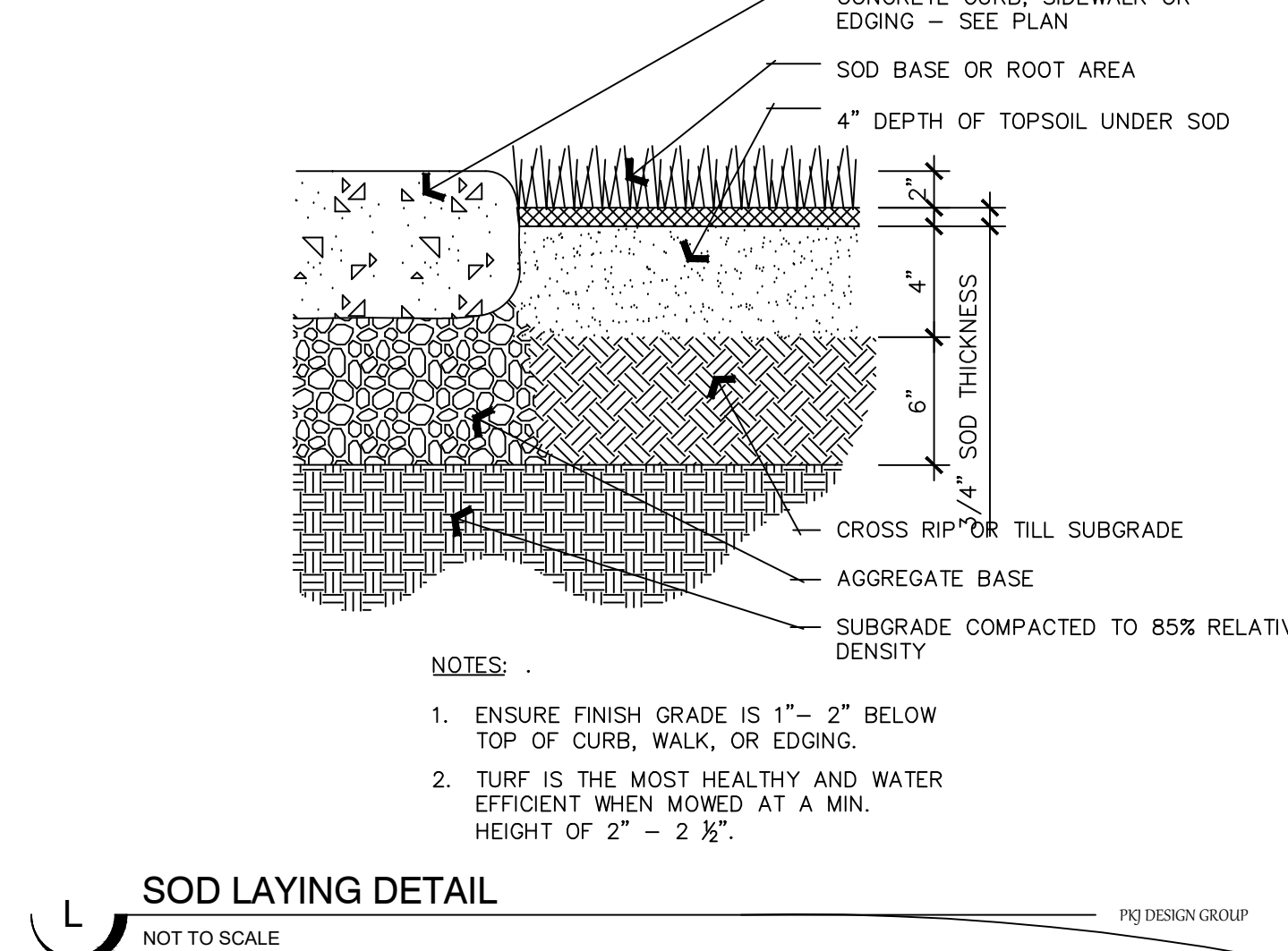
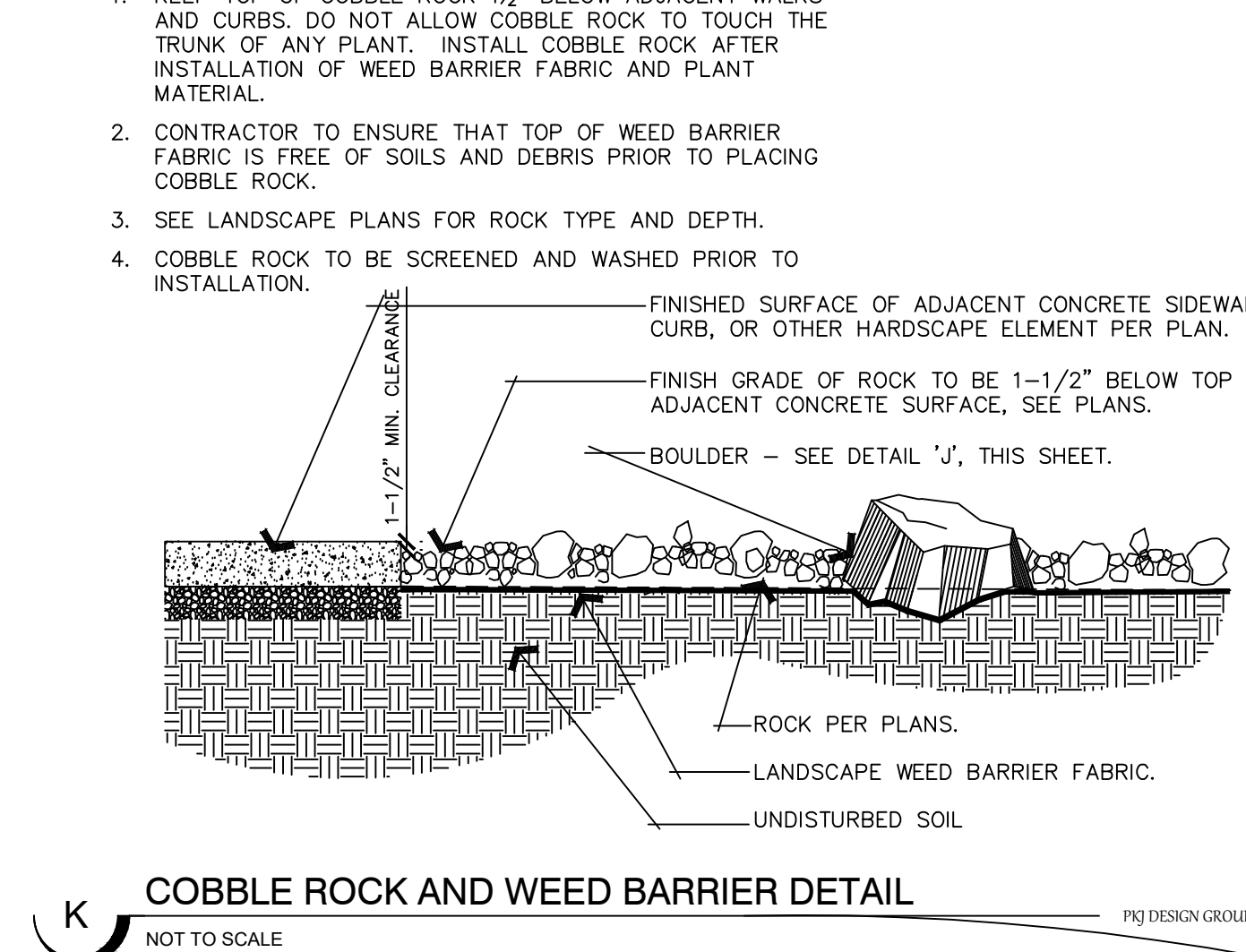
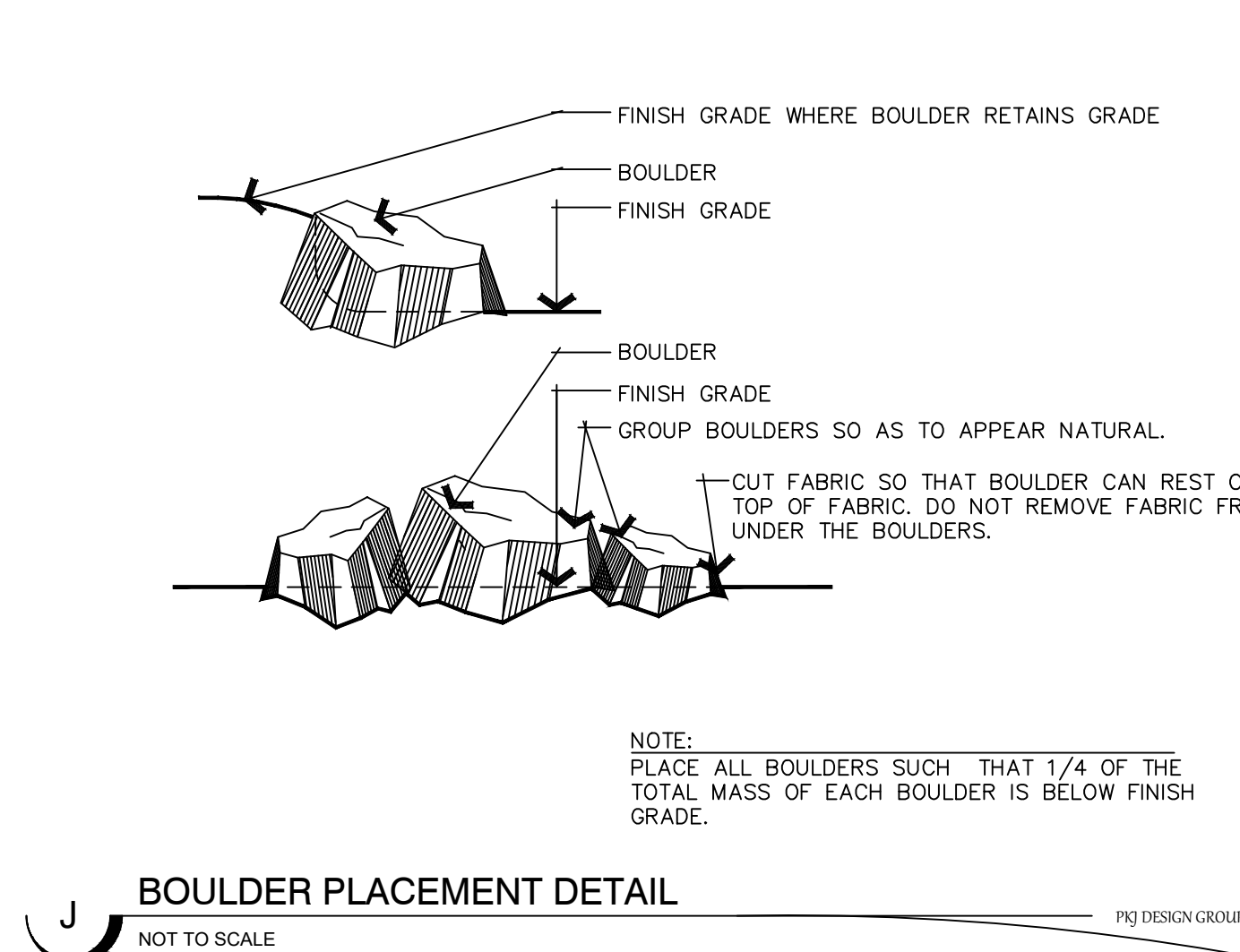
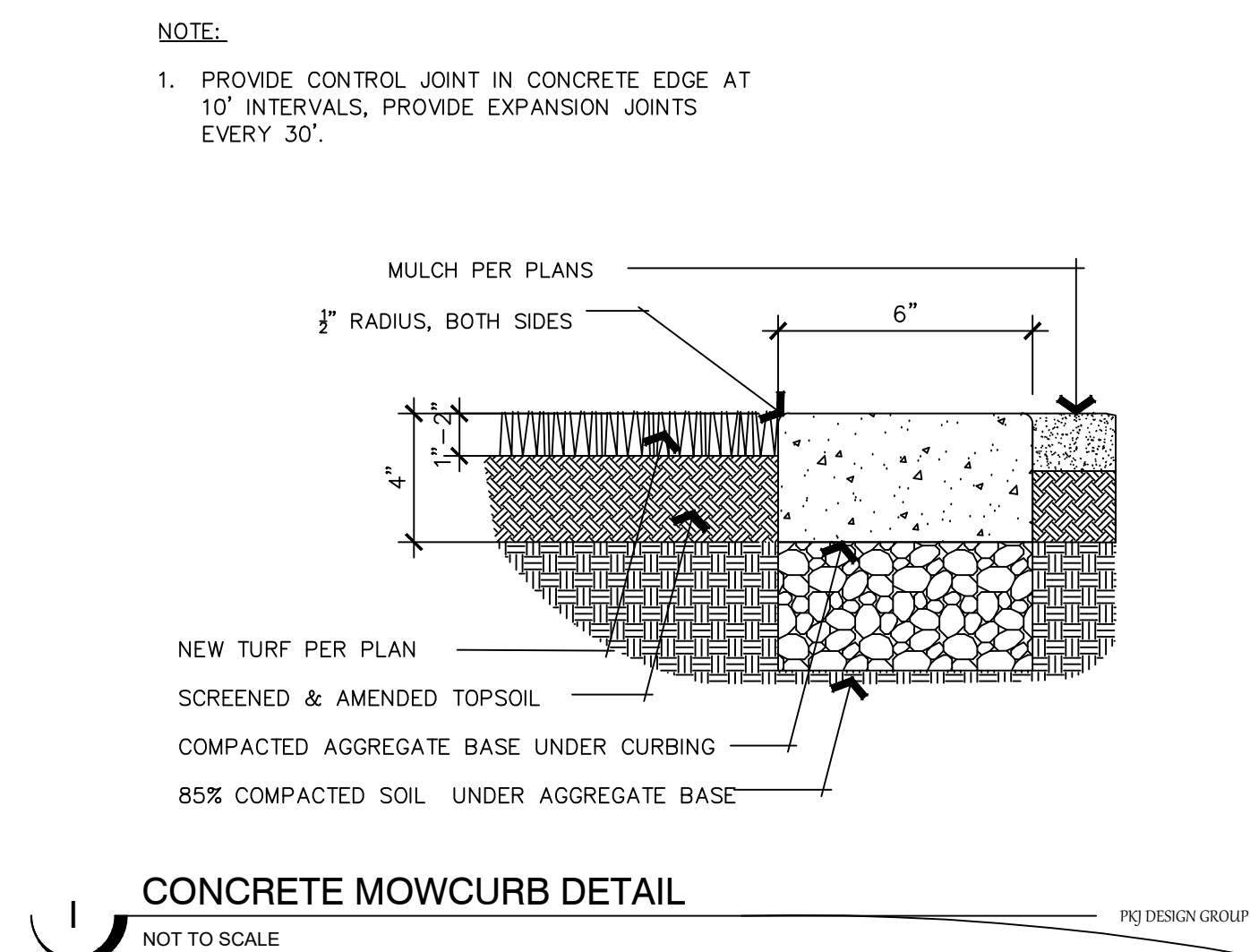
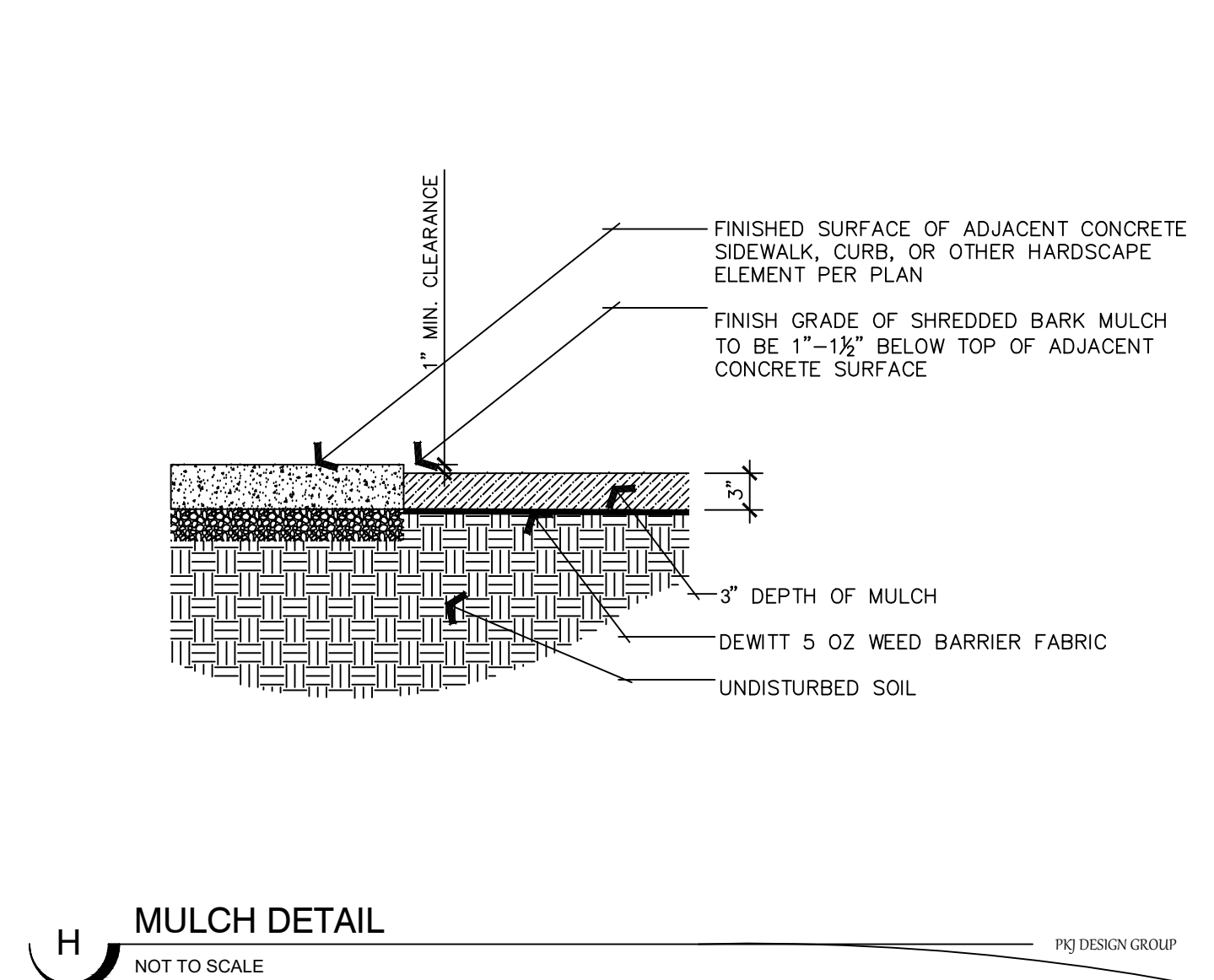
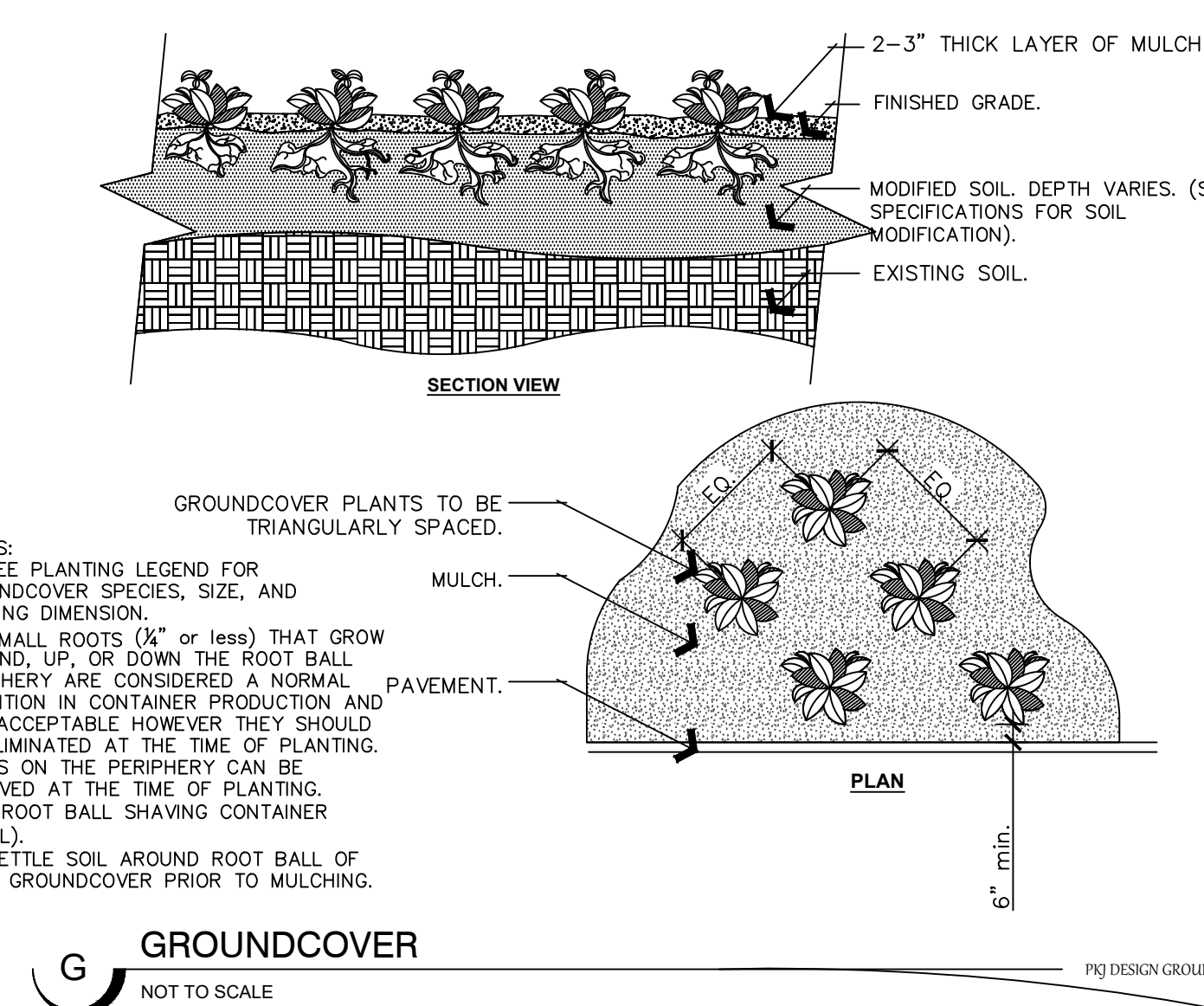
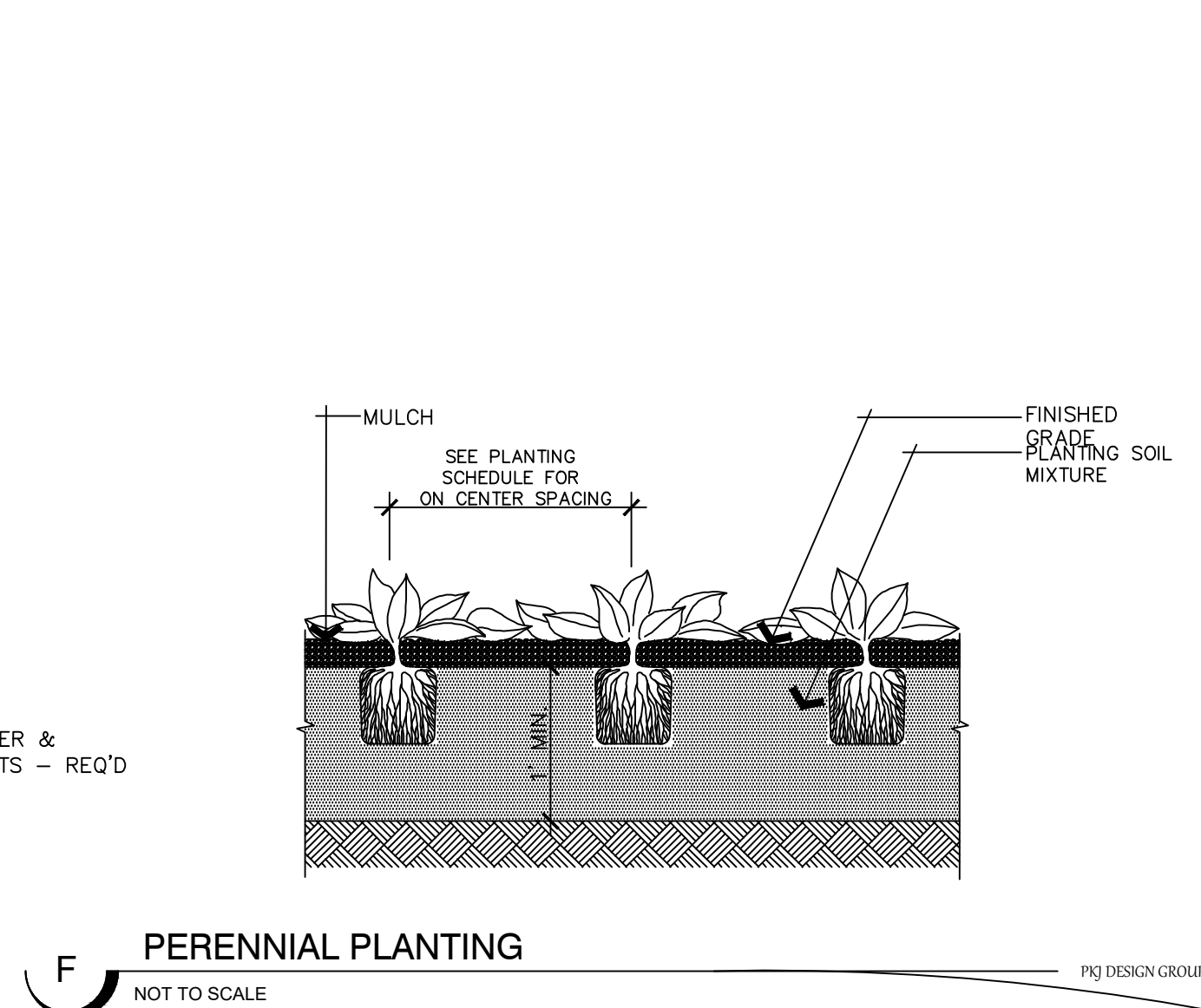
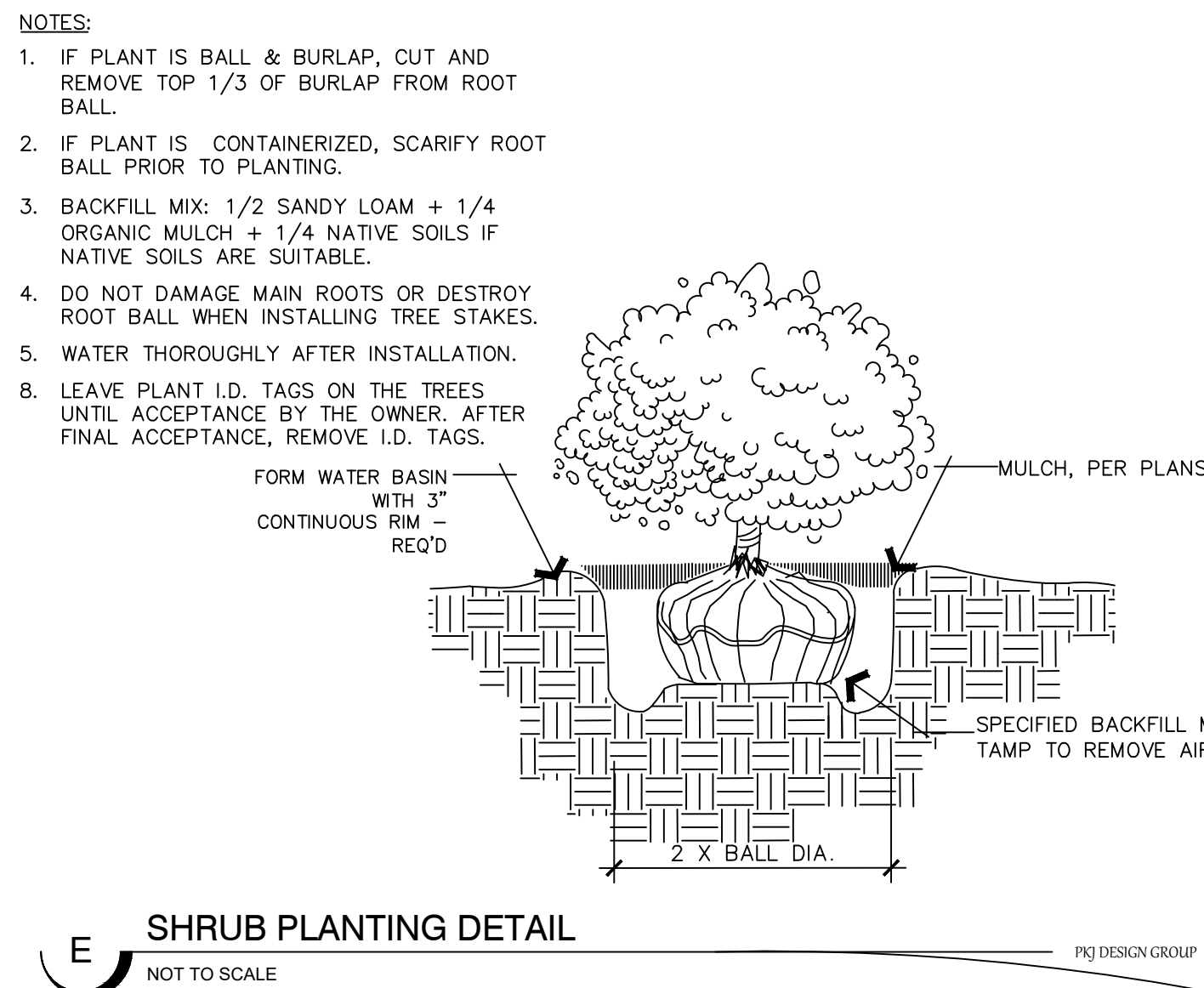
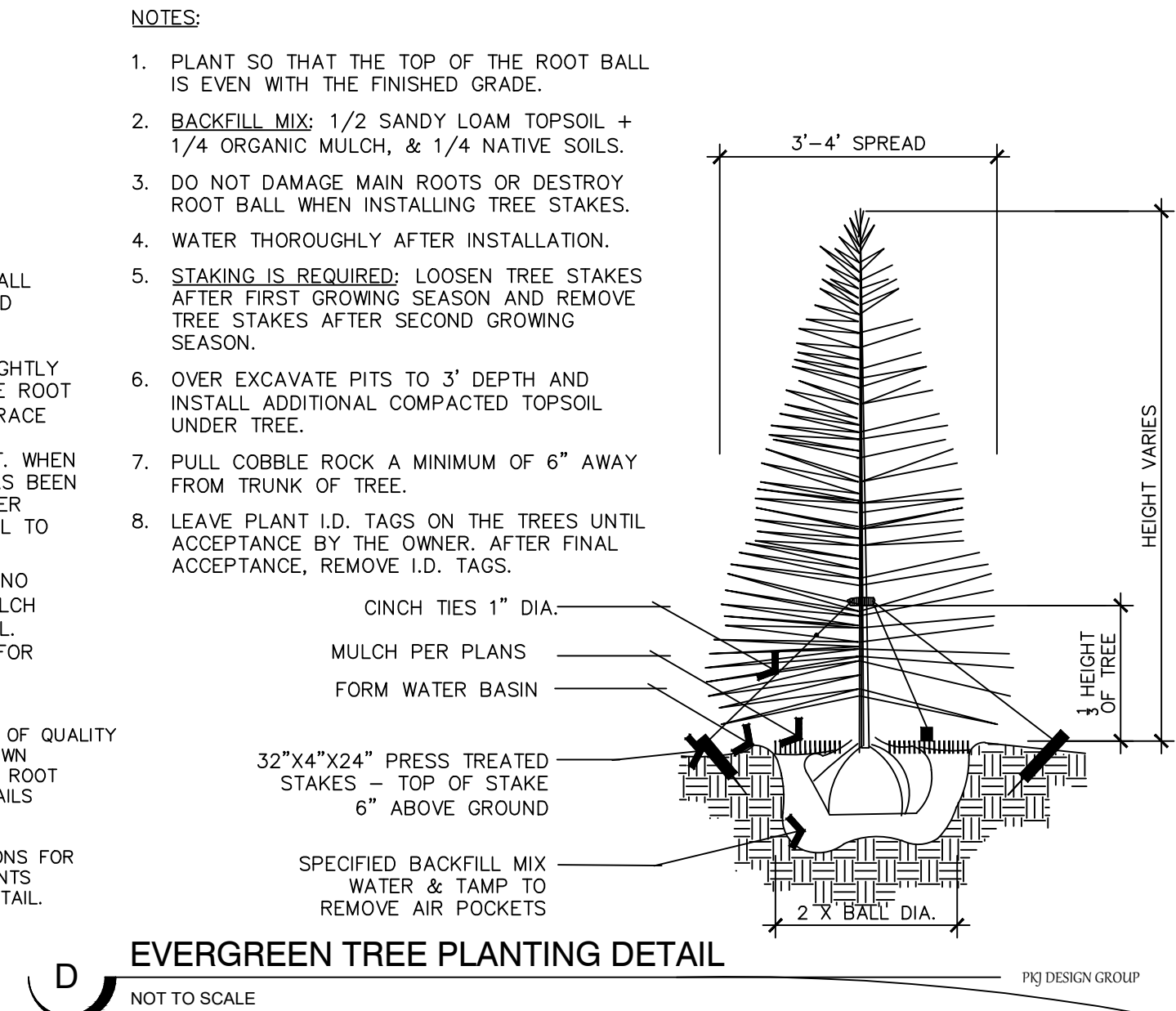
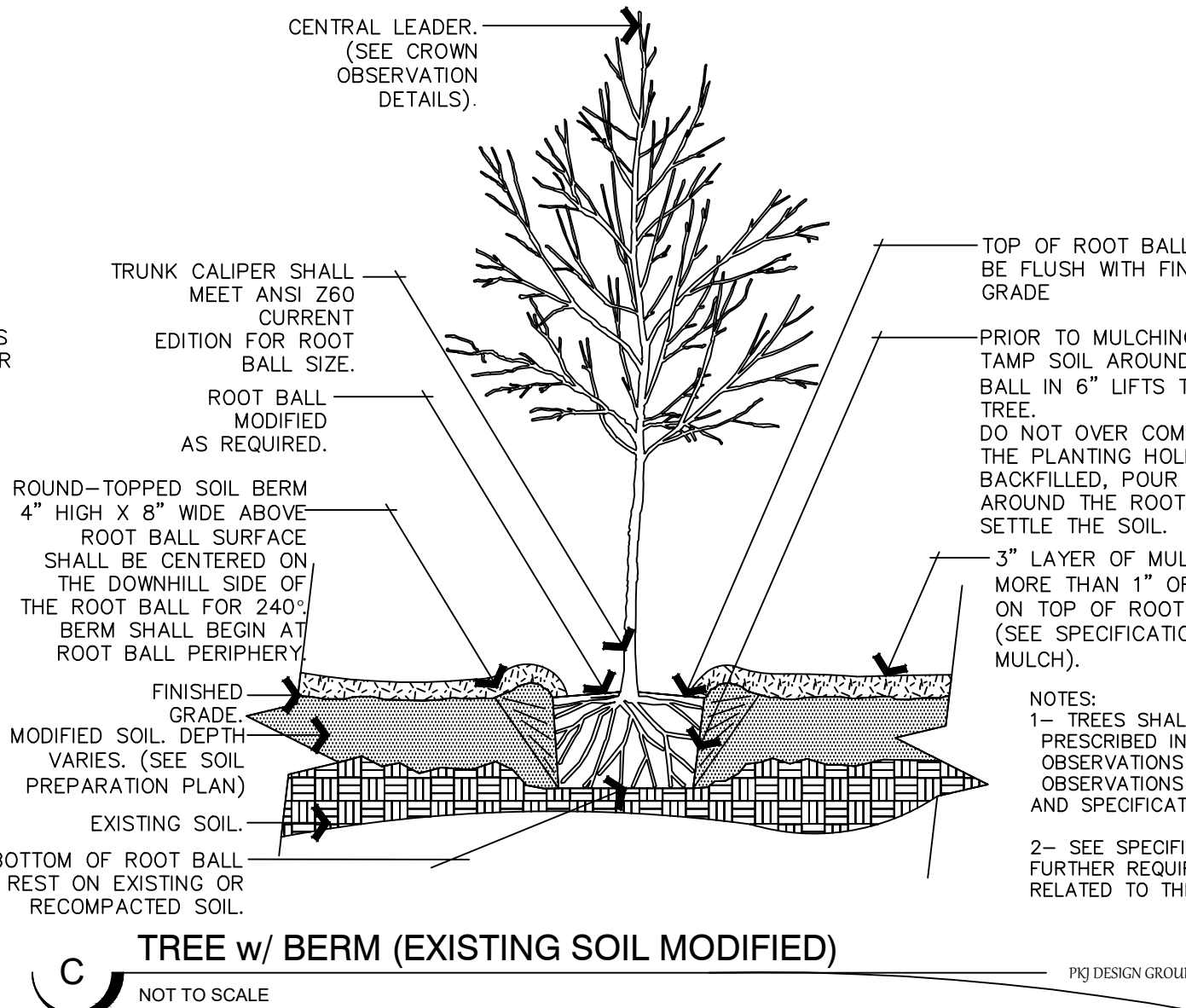
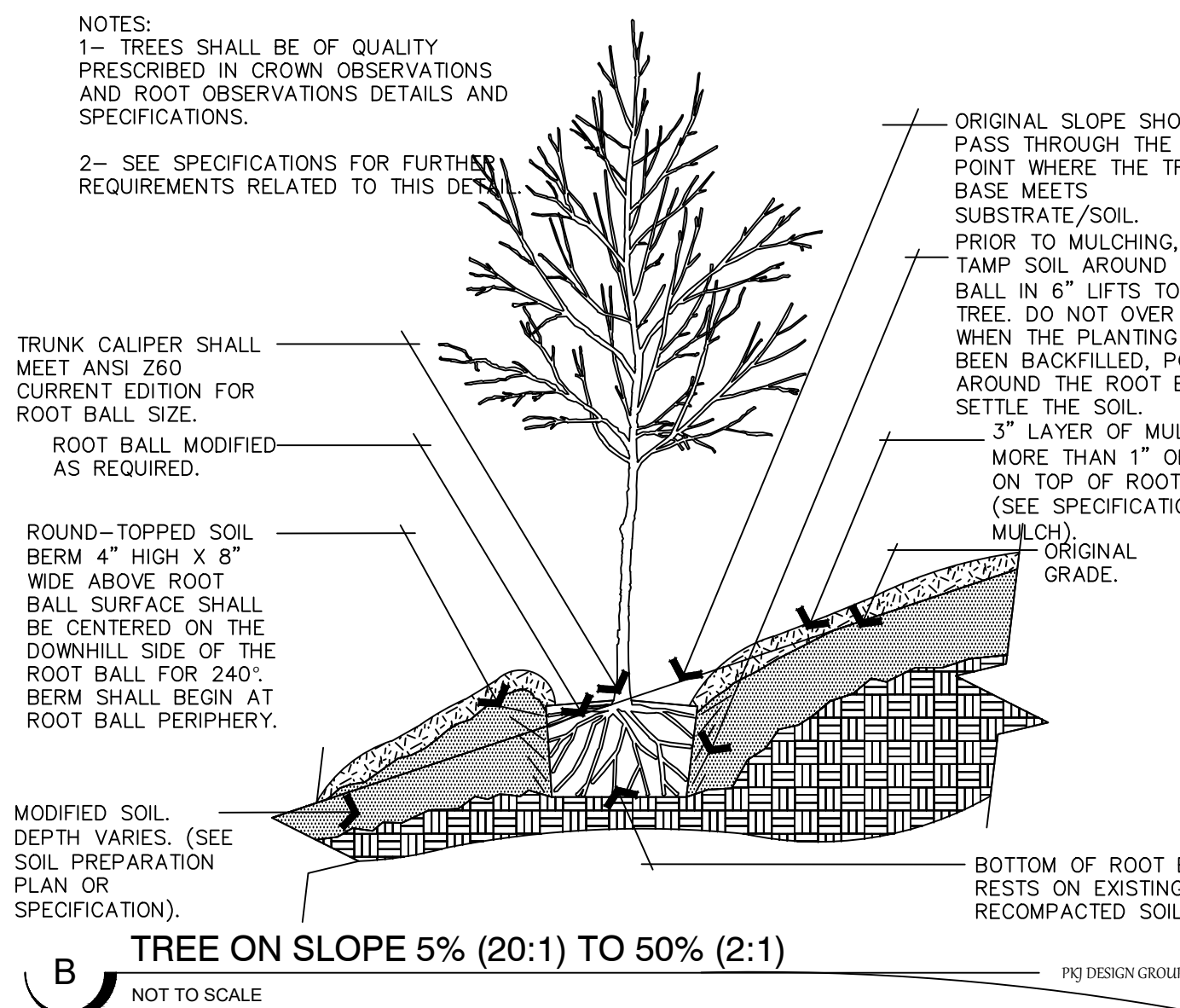
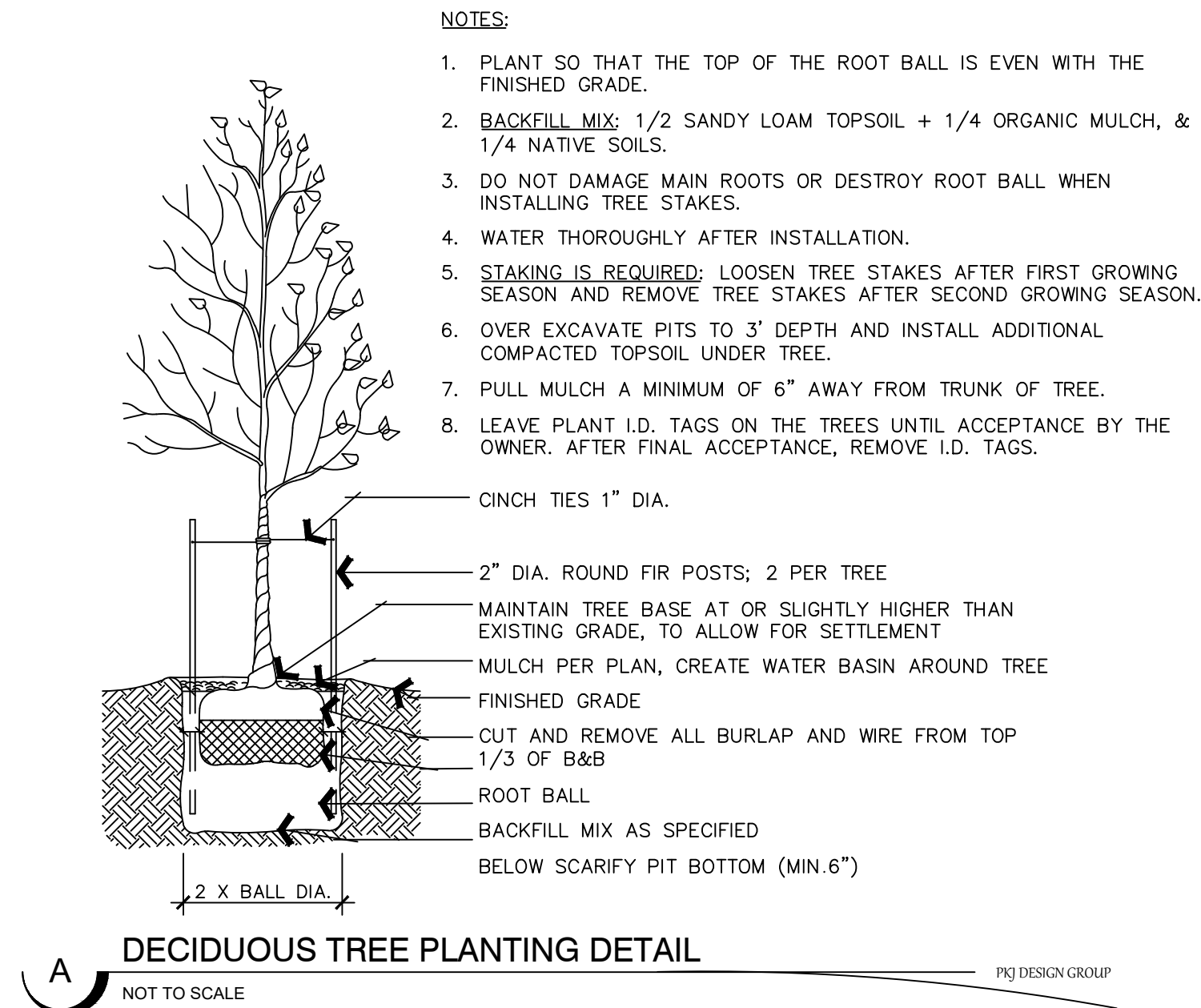
3450 N. TRIUMPH BLVD. SUITE 102  
LEHI, UTAH 84043 (801) 960-2698  
www.pkjdesigngroup.com

JTA  
Landscape Architect  
No. 12345  
Exp. 12/31/2024  
STATE OF UTAH

PM: JTA  
DRAWN: KBA  
CHECKED: TM  
PLOT DATE: 11/4/2020

LANDSCAPE PLAN  
PRELIMINARY PLANS NOT  
FOR CONSTRUCTION  
LP-101





ISSUE DATE			PROJECT NUMBER			PLAN INFORMATION			PROJECT INFORMATION			DEVELOPER / PROPERTY OWNER / CLIENT			LANDSCAPE ARCHITECT / PLANNER			LICENSE STAMP		
11-04-2020			UT20039									ORCHARD HILLS TOWNHOMES 95 WEST 200 NORTH #2 SPANISH FORK, UT 84660			ATLAS ENGINEERING 95 WEST 200 NORTH #2 SPANISH FORK, UT 801-655-0566			PKJ DESIGN GROUP Landscape Architecture • Planning & Visualization 3450 N. TRIUMPH BLVD, SUITE 102 LEHI, UTAH 84043 (801) 960-2698 www.pkjdesigngroup.com		
NO. 11-04-2020			REVISION XXXX			DATE XX-XX-XX												PM: JTA DRAWN: KBA CHECKED: TM PLOT DATE: 11/4/2020		
2			3			4			5			6			7			LANDSCAPE PLAN		
																		PRELIMINARY PLANS NOT FOR CONSTRUCTION		
																		LP-501		

# ORCHARD HILLS PH 2

## SPANISH FORK, UTAH

### IRRIGATION SPECIFICATIONS

#### IRRIGATION SPECIFICATIONS

##### PART 1 - GENERAL

###### 1.1 SUMMARY

Work to be done includes all labor, materials, equipment and services required to complete the Project irrigation system as indicated on the Construction Drawings, and as specified herein. Includes but is not limited to: Furnishing and installing underground and above ground sprinkler system complete with any accessories necessary for proper function and operation of the system. All plant material on the Project shall be irrigated. Removal and disposal of any existing sprinkler system components are not to be saved, which are disturbed during the construction process. Restoration of any altered or damaged existing landscape to original state and condition.

###### 1.2 SYSTEM DESCRIPTION

A. Design of Irrigation Components: Locations of irrigation components on Construction Drawings may be approximate. Piping, sleeving and/or other components shown on Construction drawings may be shown schematically for graphic clarity and demonstration of component groupings and separations. All irrigation components shall be placed in landscaped areas, with the exception of pipe and wire in sleeving under hardscapes. Actual routing of pipe, wire or other components may be altered due to site conditions not accounted for in the design process.

B. Construction requirements: Actual placement may vary as required to achieve a minimum of 100% coverage without overspray onto hardscape, buildings or other features.

C. Layout of Irrigation Components: During layout and staking, consult with Owner Approved Representative (hereafter referred to as OAR) to verify proper placement of irrigation components and to provide Contractor recommendations for changes, where revisions may be advisable. Small or minor adjustments to system layout are permissible to avoid existing field obstructions such as utility boxes or street light poles. Contractor shall place remote control valves in groups as practical to economize on quantity of manifold isolation valves. Quick coupler valves shall be placed with manifold groups and protected by manifold isolation valves. Quick coupler valves are shown on Construction Documents in approximate locations.

###### 1.3 DEFINITIONS

A. Water Supply: Secondary water piping and components, furnished and installed by others to provide irrigation water to this Project, including but not limited to: firelines, spools, shut off valves, corporation stop valves, water meters, pressure regulation valves, and piping upstream of (or prior to) the Point of Connection.

B. Point of Connection: Location where the Contractor shall tie into the water supply. May require filter, saddle, nipples, spools, isolation valves or Stop and Waste valve for landscape irrigation needs and use.

C. Main Line Piping: Pressurized piping downstream of the Point of Connection to provide water to remote control valves and quick couplers. Normally under constant pressure.

D. Lateral Line Piping: Circuit piping downstream of remote control valves to provide water to sprinkler heads, sprinkler heads, drip systems or bubblers.

###### 1.4 REFERENCES

A. The following standards will apply to the work of this Section:

- a. ASTM-American Society for Testing and Materials
- b. IA - The Irrigation Association: Main BMP Document, Landscape Irrigation Scheduling and Water Management Document

###### 1.5 SUBMITTALS

A. At least thirty (30) days prior to ordering of any materials, the Contractor shall provide manufacturer catalog cut sheet and current printed specifications for each element or component of the irrigation system. Submittals shall be in three ring binders or other similar bound form. Provide five copies of submittals to OAR for distribution. Place cover or index sheet indicating order in submittal document. No material shall be ordered, delivered or any work preceded in the field until the required submittals have been reviewed in its entirety and stamped approved. Delivered material shall match the approved samples.

B. Operation and Maintenance Manual:

- a. At least thirty (30) days prior to final inspection, the Contractor shall provide Operation and Maintenance manual to OAR, containing:
  - i. Manufacturer catalog cut sheet and current printed specifications for each element or component of the irrigation system.
  - ii. Parts list for each operating element of the system
  - iii. Manufacturer printed literature on operation and maintenance of operating elements of the system.
- iv. Section listing instructions for overall system operation and maintenance. Include directions for Spring Start-up and Winterization.
- b. Project Record Copy
  - i. Maintain at project site one copy of all project documents clearly marked "Project Record Copy". Mark any deviation in material installation on Construction drawings. Maintain and update drawing at least weekly. Project Record Copy to be available to OAR on demand.
  - ii. Completed Project As-Built Drawings

- 1. Prior to final inspection, prepare and submit to OAR accurate as-built drawings
- 2. Show detail and dimension changes made during installation. Show significant details and dimensions that were not shown in original Contract Documents.
- 3. Field dimension locations of sleeving, points of connection, main line piping, wiring runs not contained in main line pipe trenches, valves and valve boxes, quick coupler valves.
- 4. Dimensions are to be taken from permanent constructed surfaces, features, or finished edges located at or above finished grade.
- 5. Controller Map: upon completion of system, place in each controller a color coded copy of the area that controller services: indicating zone number, type of plant material and location on project that zone services. Laminate map with heat shrink clear plastic.

###### 1.6 QUALITY ASSURANCE

- A. Acceptance: Do not install work of this section prior to acceptance by OAR of area to receive such work.
- B. Regulatory Requirements: All work and materials shall be according to any and all rules, regulations or codes, whether they are State or Local laws and ordinances. Contract documents, drawings or specifications may not be construed or interpreted to permit work or materials not conforming to the above codes.
- C. Adequate Water Supply: Water supply to this Project exists, installed by others. Connections to these supply lines shall be by this Contractor. Verify that proper connection is available to supply line and is of adequate size. Verify that secondary connection components may be installed if necessary. Perform static pressure test prior to commencement of work. Notify OAR in writing of problems encountered prior to proceeding.

D. Workmanship and Materials:

- a. It is the intent of this specification that all material herein specified and shown on the construction documents shall be of the highest quality available and meeting the requirements specified.
- b. All work shall be performed in accordance with the best standards of practice relating to the trade.

E. Contractor Qualifications:

- a. Contractor shall provide document or resume including at least the following items:
  - i. That Contractor has been installing sprinklers on commercial projects for five previous consecutive years.
  - ii. Contractor is licensed to perform Landscape and Irrigation construction in the State of this Project.
  - iii. Contractor is bondable for the work to be performed.
- iv. References of five projects of similar size and scope completed within the last five years. Three of the projects listed shall be local.
- v. Listing of suppliers where materials will be obtained for use on this Project.
- vi. Project site Foreman or Supervisor has at least five consecutive years of commercial irrigation installation experience. This person shall be a current Certified Irrigation Contractor in good standing as set forth by the

Irrigation Association. This person shall be on Project site at least 75% of each working day.

vii. Evidence that Contractor currently employs workers in sufficient quantities to complete Project within time limits that are established by the Contract.

viii. All General laborers or workers on the Project shall be previously trained and familiar with sprinkler installation and have a minimum of one-year experience. Those workers performing tasks related to PVC pipe shall have certificates designated below.

###### 1.7 DELIVERY-STORAGE-HANDLING

A. During delivery, installation and storage of materials for Project, all materials shall be protected from contamination, damage, vandalism, and prolonged exposure to sunlight. All material stored at Project site shall be neatly organized in a compact arrangement and storage shall not disrupt Project Owner or other trades on Project site. All material to be installed shall be handled by Contractor with care to avoid breakage or damage. Damaged materials attributed to Contractor shall be replaced with new at Contractor's expense.

###### 1.8 SEQUENCING

A. Perform site survey, research utility records, contact utility location services. The Contractor shall familiarize himself with all hazards and utilities prior to work commencement. Install sleeving prior to installation of concrete, paving or other permanent site elements. Irrigation system Point of Connection components, backflow prevention and pressure regulation devices shall be installed and operational prior to all downstream components. All main lines shall be thoroughly flushed of all debris prior to installation of any sprinkler heads.

###### 1.9 WARRANTY

A. Contractor shall provide one year Warranty. Warranty shall cover all materials, workmanship and labor. Warranty shall include filling and/or repairing depressions or replacing turf or other plantings due to settlement of irrigation trenches or irrigation system elements. Valve boxes, sprinklers or other components settles from original finish grade shall be restored to proper grade. Irrigation system shall have been adjusted to provide proper, adequate coverage of irrigated areas.

###### 1.10 OWNER'S INSTRUCTION

A. After system is installed, inspected, and approved, instruct Owner's Representatives in complete operation and maintenance procedures. Coordinate instruction with references to previously submitted Operation and Maintenance Manual.

###### 1.11 MAINTENANCE

A. Furnish the following items to Owner's Representative:

- a. Two quick coupler keys with hose swivels.
- b. One of each type or size of quick coupler valve and remote control valve. Five percent of total quantities used of each sprinkler and sprinkler nozzle.
- B. Provide the following services:
  - a. Winterize entire irrigation system installed under this contract. Winterize by 'blow-out' method using compressed air. Compressor shall be capable of minimum of 175 CFM. This operation shall occur at the end of first growing season after need for plant irrigation but prior to freezing. Compressor shall be capable of evacuation system of all water pressure regulation device. Compressor shall be regulated to not more than 60 PSI. Start up system the following spring after danger of freezing has passed. Contractor shall train Owner's Representative in proper start-up and winterization procedure.

##### PART 2 - PRODUCTS

###### 2.1 GENERAL NOTES

A. Contractor shall provide materials to be used on this Project. Contractor shall not remove any material purchased for this Project from the Project Site, nor mix Project materials with other Contractor owned materials. Owner retains right to purchase and provide project material.

###### 2.2 POINT OF CONNECTION

A. The Contractor shall connect onto existing irrigation or water main line as needed for Point(s) of Connection. Contractor shall install new main line as indicate.

###### 2.3 CONNECTION ASSEMBLY

A. Secondary water shall be used on this Project. Install filter and RPZ as needed.

###### 2.4 CONTROL SYSTEM

- A. Power supply to the Irrigation controller shall be provided for by this Contract.
- B. Controller shall be as specified in the drawings. Controller shall be surge protected.
  - a. Installation of wall-mount controllers: Irrigation contractor shall be responsible for this task. Power configuration for wall-mount controllers shall be 120 VAC unless otherwise noted.
  - b. Locate Controller(s) in general location shown on Construction drawings. Coordinate power supply and breaker allocation with electrical contractor. Contractor shall be responsible for all power connections to Controllers, whether they are wall mount or pedestal mount. Contractor shall coordinate with electrical or other Project trades as needed to facilitate installation of power to controllers.
- C. Wires connecting the remote control valves to the irrigation controller are single conductors, type PE. Wire construction shall incorporate a solid copper conductor and polyethylene (PE) insulation with a minimum thickness of 0.045 inches. The wires shall be UL listed for direct burial in irrigation systems and be rated at a minimum of 30 VAC. Paige Electric Co., LP specification number P7079D.
  - a. A minimum of 24" of additional wire shall be left at each valve, each splice box and at each controller.
  - b. Common wire shall be white in color, 12 gauge. Control wire shall be red in color, 14 gauge. Spare wire shall be looped within each valve box of the grouping it is to service.
- D. RCV wire splicing connectors shall be 3M brand OBY or DBR. Wire splicing between controller and valves shall be avoided if at all possible. Any wire splices shall be contained within a valve box. Splices within a valve box that contains no control valves shall be stamped "WIRE SPLICE" or "WS" on box lid.

- a. A minimum of 24" of additional wire shall be left at each valve, each splice box and at each controller.
- b. Common wire shall be white in color, 12 gauge. Control wire shall be red in color, 14 gauge. Spare wire shall be looped within each valve box of the grouping it is to service.

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###### 2.5 SLEEVING

A. Contractor shall be responsible to protect existing underground utilities and components. Sleeving minimum size shall be 2". Sleeving 2" through 4" in size shall be S/40 PVC solvent weld. Sleeving 6" and larger shall be CL 200 PVC gasketed. Sleeve diameter shall be at least two times the diameter of the pipe within the sleeve. Sleeves shall be extended 6" minimum beyond walk or edge of pavement. Wire or cable shall not be installed in the same sleeve as piping, but shall be installed in separate sleeves. Sleeve ends on sleeve sizes 4" and larger shall be capped with integral corresponding sized PVC slip cap, pressure fit, until used, to prevent contamination. Sleeves shall be installed at appropriate depths for main line pipe or lateral pipe.

###### 2.6 MAIN LINE PIPE

- A. All main line pipe 4" and larger shall be Class 200 gasketed bell end. All main line pipe 3" in size and smaller shall be Schedule 40 PVC solvent weld bell end.
  - a. Maximum flows allowed through main line pipe shall be:

3/4"	8 GPM
1"	12 GPM
1-1/2"	30 GPM
2"	53 GPM
2-1/2"	75 GPM
3"	110 GPM
4"	180 GPM
  - b. Main line pipe shall be buried with 24" cover

###### 2.7 MAIN LINE FITTINGS

A. All main line fittings 3" and larger shall be gasketed ductile iron material. All ductile iron fittings having change of

direction shall have proper concrete thrust block installed. All main line fittings smaller than 3" in size shall be Schedule 80 PVC.

###### 2.8 ISOLATION VALVES

- A. Isolation valves 3" and larger shall be Watertous brand model 2500 cast iron gate valve, resilient wedge, push on type, with 2" square operating nut. Place sleeve of 6" or larger pipe over top of valve vertically and then extend to grade. Place 10" round valve box over sleeve at grade.
- B. Isolation valves 2-1/2" and smaller shall be Apollo brand 70 series brass ball valves, contained in a Carson Standard size valve box. Valves shall be installed with S/80 PVC TOE Nipples on both sides of the valve. Valve shall be placed so that the handle is vertical toward the top of the valve box in the 'off' position.

###### 2.9 MANIFOLDS

A. Action Manifold fittings shall be used to create unions on both sides of each control valve, allowing the valve to be removed from the box without cutting piping. Valves shall be located in boxes with ample space surrounding them to allow access for maintenance and repair. Where practical, group remote control valves in close proximity, and protect each grouping with a manifold isolation valve as shown in details. Manifold Main Line (or Sub-Main Line) and all manifold components and isolation valves shall be at least as large as the largest diameter lateral served by the respective manifold.

###### 2.10 REMOTE CONTROL VALVES

A. Remote control valves shall be as specified on the drawings. Remote control valves shall be located separately and individually in separate control boxes.

###### 2.11 MANUAL CONTROL VALVES

A. Quick coupler valve shall be attached to the manifold sub-main line using a Lasco G175212 swing joint assembly with snap-lock outlet and brass stabilizer elbow. Quick coupler valve shall be placed within a Carson 10" round valve box. Top of quick coupler valve cover shall allow for complete installation of valve box lid, but also allow for insertion and operation of key. Base of quick coupler valve and top of quick coupler swing joint shall be encased in 1/4" gravel. Contractor shall not place quick coupler valves further than 200 feet apart, to allow for spot watering or supplemental irrigation of new plant material. Quick coupler valve at POC shall not be eliminated or relocated.

###### 2.12 LATERAL LINE PIPE

A. All lateral piping shall be Schedule 40 PVC, solvent weld, and bell end. Lateral pipe shall be buried with 12-18" of cover typically. Lateral pipe shall be 3/4", 1", 1 1/4", 1 1/2" or 2" in size as indicated on Construction Drawings.

###### 2.13 LATERAL LINE FITTINGS

A. All lateral line fittings shall be S/40 PVC

###### 2.14 Spray Sprinklers

A. Spray head sprinklers shall be as specified on the drawings. Nozzles shall be as specified on the drawings.

###### 2.15 VALVE BOXES

A. Carson valve boxes shall be used on this project. Sizes are as directed in these Specifications, detail sheets or plan sheets. Valve boxes shall be centered over the control valve or element they cover. Valve box shall be sized large enough to allow ample room for services access, removal or replacement of valve or element. Valve box shall be set to flush to finish grade of topsoil or barked areas. Contractor shall provide extensions or stack additional valve boxes as necessary to bring valve box pit to proper grade.

###### 2.16 IMPORT BACKFILL

A. All main line pipe, lateral line pipe and other irrigation elements shall be bedded and backfilled with clean soil, free of rocks 1" and larger. Contractor shall furnish and install additional backfill material as necessary due to rocky conditions. Trenches and other elements shall be compacted and/or water settled to eliminate settling. Debris from trenching operations un-usable for fill shall be removed from project and disposed of properly by Contractor.

###### 2.17 OTHER PRODUCTS

A. Substitution of equivalent products is subject to the OAR's approval and must be designated as accepted in writing.

- a. The Contractor shall provide materials to make the system complete and operational.

##### PART 3 - EXECUTION

###### 3.1 PREPARATION

A. Contractor shall repair or replace work damaged by irrigation system installation. If damaged work is new, replacement or the original installer of that work shall perform repairs. The existing landscape of this Project shall remain in place. Contractor shall protect and work around existing plant material. Coordination of trench and valve locations shall be laid out the OAR prior to any excavation occurring. Plant material deemed damaged by the OAR shall be replaced with new plant material at Contractor's expense. Contractor shall not cut existing tree roots larger than 2" to install this Project. Route pipe, wire and irrigation elements around tree canopy drip line to minimize damage to tree roots. Contractor shall have no part of existing system used by other portions of site landscape without water for without water for more than 24 hours at a time.

###### 3.2 TRENCHING AND BACKFILLING

A. Pulling of pipe shall not be permitted on this project. Over excavate trenches both in width and depth. Ensure base of trench is rock or debris free to protect pipe and wire. Grade trench base to ensure flat, even support of piping. Backfill with clean soil or import material. Contractor shall backfill no less than 2" around entire pipe with clean, rock free fill. Main line piping and fittings shall not be backfilled until OAR has inspected and pipe has passed pressure testing. Perform balance of backfill operation to eliminate any settling.

###### 3.3 SLEEVING

A. Sleeve all piping and wiring that pass under paving or hardscape features. Wiring shall be placed in separate sleeving from piping. Sleeves shall be positioned relative to structures or obstructions to allow for pipe or wire within to be removed if necessary.

###### 3.4 GRADES AND DRAINAGE

A. Place irrigation pipe and other elements at uniform grades. Winterization shall be by evacuation with compressed air. Automatic drains shall not be installed on this Project. Manual drains shall only be installed at POC where designated on Construction Drawings.

###### 3.5 PVC PIPE

- A. Install pipe to allow for expansion and contraction as recommended by pipe manufacturer.
- B. Install main line pipes with 18" of cover, lateral line pipes with 12" of cover.
- C. Drawings show diagrammatic or conceptual location of piping - Contractor shall install piping to minimize change of direction, avoid placement under large trees or large shrubs, avoid placement under hardscape features.
- D. Plastic pipe shall be cut squarely. Burrs shall be removed. Spigot ends of pipes 3" and larger shall be beveled.
- E. Pipe shall not be glued unless ambient temperature is at least 50 degrees F. Pipe shall not be glued in rainy conditions unless properly tented. All solvent weld joints shall be assembled using IPS 711 glue and P70 primer according to manufacturer's specification, no exceptions. All workers performing glue operations shall provide evidence of certification. Glued main line pipe shall cure a minimum of 24 hours prior to being energized. Lateral lines shall cure a minimum of 2 hours prior to being energized and shall not remain under constant pressure unless cured for 24 hours.
- F. Appropriate thrust blocking shall be performed on fittings 3" and larger. All threaded joints shall be wrapped with Teflon tape or paste unless directed by product manufacturer or sealing by o-ring.

###### 3.6 CONTROLLERS

- A. All grounding for pedestal controllers shall be as directed by controller manufacturer and ASIC guidelines, not to exceed a resistance reading of 5 OHMs.
- B. Locate controllers in protected, inconspicuous places, when possible. Coordinate location of pedestal controllers with Landscape Architect to minimize visibility.
- C. Coordinate location of wall mount controllers with building or electrical Contractor to facilitate electrical service and future maintenance needs. Wall mount shall be securely fastened to surface. If exterior mounted, wall mount controllers shall have electrical service wire and field control wire in separate, appropriate sized weatherproof electrical conduit, PVC pipe shall not be used.
- D. Wire under hardscape surfaces shall be placed continuously in conduit. Contractor shall be responsible to coordinate

sleeving needs for conduit or sweeps elbows from exterior to interior of building.

E. Pedestal controllers shall be placed upon VIT-Strong Box Quick Pad as per manufacturer's recommendations. Controllers shall be oriented such that Owner's Representative maintenance personnel may access easily and perform field system tests efficiently.

F. Place Standard valve box at base of controller or nearby to allow for three to five feet of slack field control wire to be placed at each controller. This Contractor shall provide conduit access if needed for Electrical Contractor. Electrical supply and installation, as well as hook-up to controller shall be by this Contractor.

###### 3.7 VALVES

- A. Isolation valves, remote control valves, and quick coupler valves shall be installed according to manufacturer recommendation and Contract Specifications and Details.
- B. Valve boxes shall be set over valves so that all parts of the valve can be reached for service.
- C. Valve box and lid shall be set to be flush with finished grade. Only o ne remote control valve may be installed in a Carson 1419124 box. Place a minimum of 4" of 1/4" washed gravel beneath valve box for drainage. Bottom of remote control valve shall be a minimum of 2" above gravel.

###### 3.8 SPRINKLER HEADS

- A. No sprinkler shall be located closer than 6" to walls, fences, or buildings.
- B. Heads adjacent to walks, curbs, or paths shall be located at grade and 2" away from hardscape.
- C. Control valves shall be opened and fully flush lateral line pipe and swing joints prior to installation of sprinklers.
- D. Spray heads shall be installed and flushed again prior to installation of nozzles.
- E. Contractor shall be responsible for adjustment if necessary due to grade changes during landscape construction.

###### 3.9 FIELD QUALITY CONTROL

- A. Main line pipes shall not be backfilled or accepted until the system has been tested for 2 hours at 100 psi.
- B. Main line pressure test shall include all pipe and components from the point of connection to the upstream side of remote control valves. Test shall include all manifold components under constant pressure. Piping may be tested in sections that can be isolated.
- C. Contractor shall provide pressurized water pump to increase or boost pressure where existing static pressure is less than 100 psi.
- D. Schedule testing with OAR 48 hours in advance for approval.
- E. Leaks or defects shall promptly be repaired or rectified at the Contractors expense and retested until able to pass testing.
- F. Grounding resistance at pedestal controller shall also be tested and shall not exceed 5 OHMs.

###### 3.10 ADJUSTMENT

- A. Sprinkler heads shall be adjusted to proper height when installed. Changes in grade or adjustment of head height after installation shall be considered a part of the original contract and at Contractor's expense.
- B. Adjust all sprinkler heads for arc, radius, proper trim and distribution to cover all landscaped areas that are to be irrigated.
- C. Adjust sprinklers so they do not water buildings, structures, or other hardscape features.
- D. Adjust run times of station to meet needs of plant material the station services.


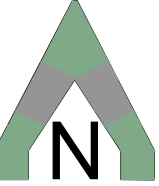





###### 3.11 CLEANING

- A. Contractor shall be responsible for cleanliness of jobsite. Work areas shall be swept cleanly and picker up daily.
- B. Open trenches or hazards shall be protected with yellow caution tape.
- C. Contractor is responsible for removal and disposal of trash and debris generated as a result of this Project.
- D. OAR shall perform periodic as well as a final cleanliness inspection.
- E. Contractor shall leave Project in at least a 'broom clean' condition.

END OF SECTION



## 1.5" MAINLINE ROUTING ,CONTROLLER AND P.O.C. LOCATION OVERVIEW

ISSUE DATE			PROJECT NUMBER	PLAN INFORMATION		PROJECT INFORMATION	DEVELOPER / PROPERTY OWNER / CLIENT		LANDSCAPE ARCHITECT / PLANNER	LICENSE STAMP	DRAWING INFO	
11/4/2020			UT20039				Developer / Property Owner:				PLOT: KBA DRAWN: KBA CHECKED: JTA PLOT DATE: 11/4/2020	
NO.	REVISION	DATE					Building Architect / Engineer:				<b>PRELIMINARY PLANS NOT FOR CONSTRUCTION</b>	
1							ORCHARD HILLS TOWNHOMES 95 WEST 200 NORTH #2 SPANISH FORK, UT 84660		ATLAS ENGINEERING 95 WEST 200 NORTH #2 SPANISH FORK, UT 801-655-0566		IR 100	
2												
3												
4												
5												
6												
7												



IRRIGATION LEGEND

SYMBOL	MANUFACTURER—MODEL NUMBER	PAT.	RD.	PSI	GPM							
Q	T	H	TT	TQ	F							
◆	RAINBIRD RD04-S-PRS POP UP SPRAY 5 SERIES	Q.T.H.F	5'	30	.10	.15	20	na	na	.40		
◆	RAINBIRD RD04-S-PRS POP UP SPRAY 8 U-SERIES	Q.T.H.F	8'	30	.28	.35	52	na	na	1.05		
◆	RAINBIRD RD04-S-PRS POP UP SPRAY 10 U-SERIES	Q.T.H.F	10'	30	.39	.53	79	na	na	1.58		
◆	RAINBIRD RD04-S-PRS POP UP SPRAY 12 U-SERIES	Q.T.H.F	12'	30	.65	.87	1.30	1.74	1.95	2.60		
◆	RAINBIRD RD04-S-PRS POP UP SPRAY 15 U-SERIES	Q.T.H.F	15'	30	.92	1.23	1.85	2.48	2.78	3.70		
◆	RAINBIRD RD04-S-PRS POP UP SPRAY 15 SST	SST	15'	30	1.21							
◆	RAINBIRD RD04-S-PRS POP UP SPRAY 15 EST	EST	15'	30	.61							
◆	RAINBIRD 5000 SERIES MPR NOZZLES	Q.T.H.F	varies	30	varies	varies	varies	na	na	varies		
◆	RAINBIRD 8005 SERIES #8, #14, #26 NOZZLES	Q.T.H.F	65'	30	6.6	12.6	24.3	na	na	varies		
Ⓢ	CONTROLLER: RAINBIRD ESP-LXD CONTROLLER WITH LMR REMOTE KIT, CONTRACTOR TO ADJUST LOCATION WITH OWNER PRIOR TO CONSTRUCTION.											
DEC	VALVE DECODER (AT ALL VALVE GROUPINGS) INSTALL PER MANUFACTURER'S SPEC.											
L	LIGHTNING ARRESTER (AT ALL VALVE GROUPINGS) INSTALL PER MANUFACTURER'S SPEC.											
Ⓢ	MASTER VALVE											
Ⓢ	FLOW SENSOR											
Ⓢ	RAINBIRD WR2-RC WIRELESS RAIN SHUT OFF DEVICE											
Ⓢ	POINT OF CONNECTION (SECONDARY WATER) SEE PLAN FOR SIZE											
Ⓢ	2" T SUPER AMIAD PLASTIC FILTER - INSTALL PER MANUFACTURE'S RECOMMENDATIONS (130 MICRON)											
Ⓢ	QUICK COUPLER: RAINBIRD 44LRC INSTALL PER MANUFACTURER'S SPEC. 10" RND. VALVE BOX. SEE DETAIL											
Ⓢ	ISOLATION BALL VALVE - LINE SIZED INSTALL PER MANUFACTURER'S SPEC.											
Ⓢ	REMOTE CONTROL VALVE: RAINBIRD PESB-NP-PRS-D AUTOMATIC CONTROL VALVE (SIZE AS NOTED ON PLAN)											
Ⓢ	JUMBO BOX-PURPLE LID											
Ⓢ	DRIP CONTROL ZONE KIT: RAINBIRD XCZ-(PER PLAN)-PRBR-COM MED FLOW (SIZE AS NOTED ON PLAN)											
*	DRIP CONNECTION: PROVIDE DRIP IRRIGATION TO ALL TREES, SHRUBS AND PERENNIALS IN PLANTER AREAS											
-----	SUB-MAINLINE: SCHEDULE 40 PVC WITH SCHEDULE 80 FITTINGS, 1.5" DIAMETER 24" MIN. COVER											
-----	LATERAL LINE: SCHEDULE 40 PVC WITH SCH. 40 FITTINGS. SEE PIPE SIZING CHART											
-----	DRIP LINE: RAINBIRD XFSP-09-18-100 OR EQUIVALENT											
-----	CLASS 200 SLEEVE PER PLAN											
NOT SHOWN	14 GAU SO SO COPPER SINGLE STRAND CONTROL WIRE. INSTALL PER MANUFACTURER'S SPEC.											
NOT SHOWN	PROVIDE 2 WIRE LOOP SYSTEM.											

DRIP ZONE

	TYPE	PART NUMBER	EMITTER FLOW	EMITTER SPACING	ROW SPACING	ROW SPACING
	XFSP DRIPLINE	XFSP-09-18	.9 GPH	18"	18"	18-21 IN.
	TOTAL DRIP ZONE FLOW		20 GPM	TIME TO APPLY 1/4" OF WATER		23
	MAX. LATERAL LENGTH OF TUBING		350 FT	REQUIRED NUMBER OF STAKES		500
	TOTAL LENGTH OF ZONE DRIPLINE		2,000 FT (varies per plan)	NUMBER OF FLUSH POINTS		2
	APPLICATION RATE		64 IN. / HR	SUGGESTED HEADER & FOOTER PIPE SIZE		CLASS 200 1.25"
*NUMBERS MAY CHANGE DUE TO SIZE OF DRIP ZONE PER PLAN						

90 Day Establishment Period Irrigation Schedule (April, May, June)

Type	Sun	Mon	Tues	Wed	Thurs	Fri	Sat	Operating Pressure
Turf	15 min	15 min	15 min	15 min	15 min	15 min	15 min	30 psi
Shrubs	25 min	0	25 min	0	25 min	0	25 min	40 psi

Note: Begin irrigation 4:00 am, only 1 cycle per day.

Regular Irrigation Schedule (see Seasonal Differential Chart)

Type	Sun	Mon	Tues	Wed	Thurs	Fri	Sat	Operating Pressure
Turf	15 min	15 min	15 min	15 min	15 min	15 min	15 min	30 psi
Shrubs	45 min	0	45 min	0	45 min	0	45 min	40 psi

Note: Begin irrigation 4:00 am, only 1 cycle per day.

Seasonal Differential

Type	April	May	June	July	August	Sept	October
Turf	10 min	10 min	10 min	10 min	10 min	10 min	10 min
Shrubs	30 min	30 min	45 min	45 min	45 min	30 min	30 min

IRRIGATION NOTES

- ALL CONNECTIONS ARE SECONDARY WATER AND SHOULD BE NOTED AS SUCH. THEREFORE ALL PARTS MUST MEET SECONDARY WATER STANDARDS.
- ALL PIPE TO BE SCHEDULE 40 PVC PIPE. NO POLY PIPE SHALL BE INCLUDED. FITTINGS UP TO 1.1/2" MUST BE SCHEDULE 40 OR BETTER. FITTINGS LARGER THAN 1.1/2" MUST BE SCHEDULE 80 OR BETTER.
- CONTRACTOR SHALL HAVE ALL UTILITIES BLUE STAKED PRIOR TO DIGGING. ANY DAMAGE TO THE UTILITIES SHALL BE REPAIRED AT THE EXPENSE OF THE CONTRACTOR WITH NO ADDITIONAL COST TO THE OWNER.
- PLACE ALL IRRIGATION IN LANDSCAPE AREAS AND ON THE PROPERTY OF THE OWNER.
- MODIFY LOCATION OF IRRIGATION COMPONENTS TO AVOID PLACING TREES, SHRUBS AND OTHER SITE ELEMENTS DIRECTLY OVER PIPE, PER PLANS. DO NOT LOCATE VALVE BOXES IN LAWN AREAS UNLESS DIRECTED TO BY LANDSCAPE ARCHITECT.
- CONTRACTOR SHALL INSTALL A 1" THREADED TEE WITH 1" THREADED PLUG AT POINT OF CONNECTION IN ORDER TO BLOW OUT THE SYSTEM WITH AN AIR COMPRESSOR EACH FALL.
- CONTRACTOR SHALL USE ONLY COMMERCIAL GRADE IRRIGATION PRODUCTS AND IS RESPONSIBLE FOR ENSURING ACCURATE COUNTS AND QUANTITIES OF ALL IRRIGATION MATERIALS FOR BIDDING AND INSTALLATION PURPOSES.
- INSTALL DRIP IRRIGATION PER DETAILS. CONTRACTOR SHALL MAKE ADJUSTMENTS AS NECESSARY.
- CONTRACTOR SHALL PROVIDE AND INSTALL SLEEVES FOR ALL PIPES AND WIRES UNDER PAVEMENT AND SIDEWALKS. SLEEVES SHALL BE 2 SIZES LARGER THAN PIPE INSIDE. ALL WIRE SHALL BE IN SEPARATE SLEEVES (NOT SHOWN). ALL CONTROL WIRE SHALL BE INSTALLED IN CLASS 200 PIPE. PLACE JUNCTION BOXES WHERE NECESSARY TO MINIMIZE LONG RUNS OR AT DIRECTIONAL CHANGES.
- WATER LINES AND ELECTRICAL LINES MUST NOT SHARE CONDUITS. ALL WIRE CONNECTIONS MUST BE CONTAINED IN VALVE BOX WITH 3' OF EXTRA WIRE. WIRE TO BE CONNECTED TO MAIN LINE PIPE WHERE POSSIBLE WITH TAPE AT 25' INTERVALS. SLACK IN CONTROL WIRES REQUIRED AT EVERY CHANGE OF DIRECTION. WIRES MUST HAVE SEPARATE COLORS FOR COMMON, CONTROL, AND SPARE. MINIMUM 1 SPARE WIRE FOR EVERY 6 VALVES. ALL CONTROL WIRES TO BE INSULATED 14 GAUGE COPPER. ALL SPARE WIRES MUST "HOME RUN" TO CONTROLLER AND SPARE WIRES AVAILABLE AT ALL VALVE MANIFOLDS AND CLUSTERS.
- ALL SLEEVES INSTALLED SHALL BE DUCT TAPED TO PREVENT DIRT OR OTHER DEBRIS ENTERING PIPE. ALL SLEEVES SHALL BE IDENTIFIED BY WOOD OR PVC STAKES AND BE SPRAY PAINTED WITH MARKING PAINT. REMOVE STAKES ONCE IRRIGATION SYSTEM IS COMPLETE.
- IRRIGATION SYSTEM MUST CONTAIN CHECK VALVES TO PREVENT LOW POINT DRAINAGE.
- CONTRACTOR SHALL MATCH PRECIPITATION RATES AS MUCH AS POSSIBLE FOR ALL LANDSCAPED AREAS. OVERHEAD IRRIGATION MUST HAVE A MINIMUM DU (DISTRIBUTION UNIFORMITY) OF 60%.
- IRRIGATION CONTRACTOR SHALL PRESSURE TEST MAINLINE FOR LEAKS PRIOR TO BACKFILLING.
- MAIN LINES SHALL BE 18" DEEP MIN. AND LATERAL LINES 12" DEEP MIN. NO ROCK GREATER THAN 1/2" DIAMETER SHALL BE ALLOWED IN TRENCHES. TRENCHING BACKFILL MATERIAL SHALL BE COMPACTED TO PROPER FINISHED GRADE.
- ALL WORK SHALL BE IN ACCORDANCE WITH APPLICABLE CITY AND/OR COUNTY CODES. THE CONTRACTOR SHALL APPLY AND PAY FOR ALL NECESSARY PERMITS.
- IRRIGATION INSTALLATION TO COMPLY WITH APPLICABLE CITY SPECIFICATIONS AND DRAWINGS.
- ACTUAL INSTALLATION OF IRRIGATION SYSTEM MAY VARY SOMEWHAT FROM PLANS. THE CONTRACTOR IS RESPONSIBLE TO MAKE ADJUSTMENTS AS NEEDED TO ENSURE PROPER COVERAGE OF ALL LANDSCAPED AREAS.
- CONTRACTOR SHALL INSTALL IRRIGATION SYSTEM WITH HEAD TO HEAD COVERAGE IN ALL TURF AREAS. USE VAN AND/OR U-SERIES NOZZLES AS NECESSARY TO PROVIDE PROPER COVERAGE AND TO KEEP WATER OFF OF BUILDINGS AND HARDSCAPES.
- POWER TO CONTROLLER TO BE PROVIDED BY OWNER. OWNER TO SPECIFY EXACT LOCATION OF CONTROLLER. INSTALL PER MANUFACTURERS INSTRUCTIONS. CONTRACTOR SHALL INSTALL A RAIN SENSOR WITH CONTROLLER UNLESS OTHERWISE DIRECTED BY OWNER OR L.A.
- INVESTIGATE TO MAKE SURE THAT THE IRRIGATION SYSTEM IS, IN FACT, BEING CONNECTED TO A SECONDARY SYSTEM. IF IT IS NOT CONNECTED TO SECONDARY, CONTACT THE OWNER AND LANDSCAPE ARCHITECT TO COORDINATE PROVISION AND INSTALLATION OF A BACKFLOW PREVENTOR.
- LATERAL LINES SHALL BE NO SMALLER THAN 3/4". LANDSCAPE CONTRACTOR TO ENSURE THE FOLLOWING PIPE SIZES DO NOT EXCEED THE SUGGESTED GPM LISTED BELOW:

3/4"	8 GPM
1"	12 GPM
1-1/2"	30 GPM
2"	53 GPM
2-1/2"	75 GPM
3"	110 GPM
4"	180 GPM

VALVE ID TAG

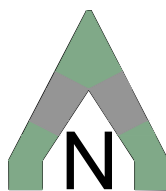
CONTROL NUMBER  
VALVE NUMBER  
GALLONS PER MINUTE  
NOTE:  
1. VALVE ID TAGS ARE LOCATED NEAR VALVES IN THE ORDER THE VALVES APPEAR ON THE DRAWING

A1  
1.0 18  
55

ISSUE DATE		PROJECT NUMBER
11/4/2020		UT20039
O.	REVISION	DATE



BLUE STAKES OF UTAH  
UTILITY NOTIFICATION CENTER, INC.  
1-800-662-4111  
www.bluestakes.org



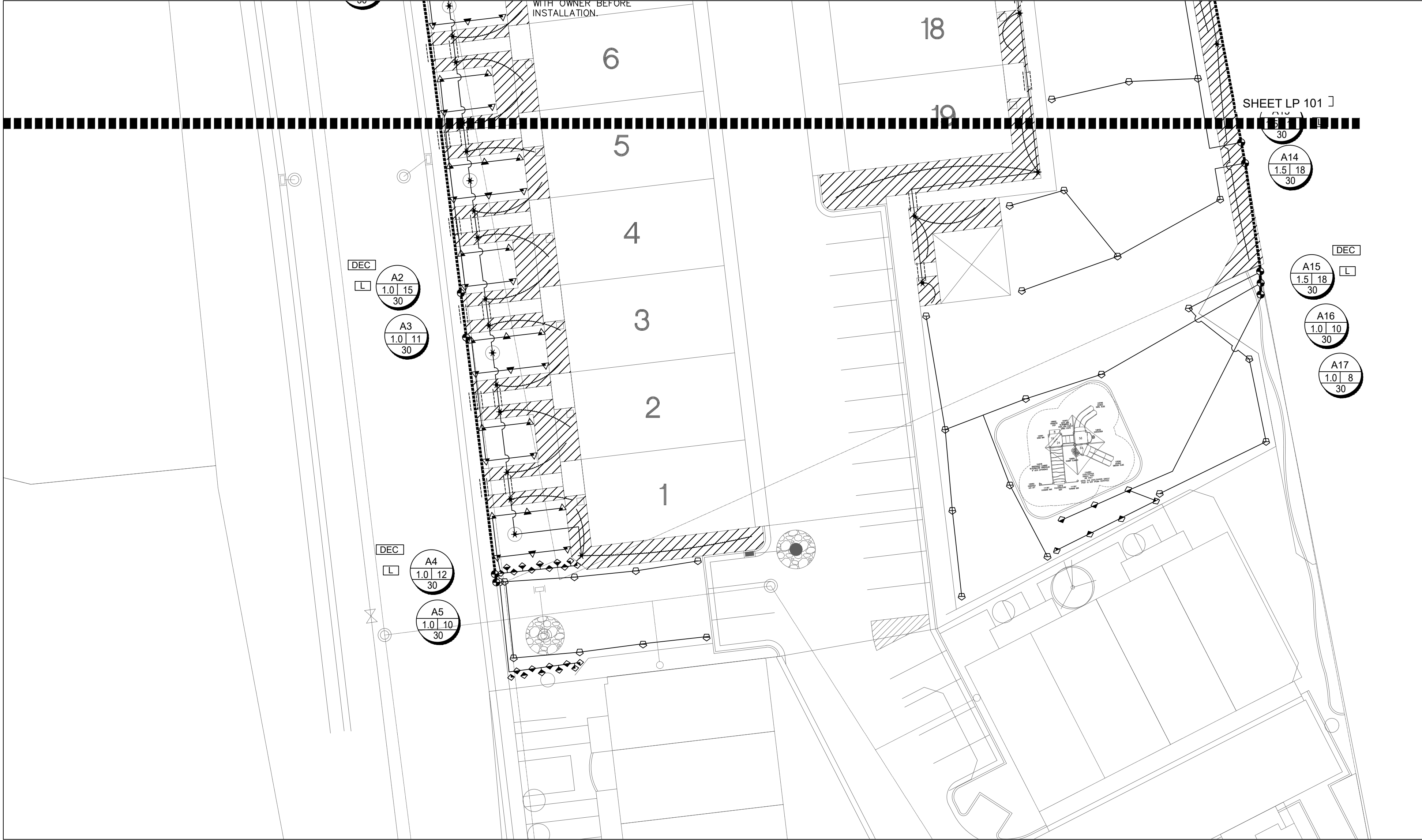
0' 10' 20' 40' 80'  
GRAPHIC SCALE: 1" = 20'

# ORCHARD HILLS TOWNHOMES

## 120 EAST AND HIGHLAND DR SANTAQUIN, UTAH

DEVELOPER / PROPERTY OWNER / CLIENT	LANDSCAPE ARCHITECT / PLANNER
Developer / Property Owner:  ORCHARD HILLS TOWNHOMES 95 WEST 200 NORTH #2 SPANISH FORK, UT 84660	 3450 N. TRIUMPH BLVD. SUITE 102 LEHI, UTAH 84043 (801) 960-2698 www.pkjdesigngroup.com
Building Architect / Engineer:  ATLAS ENGINEERING 95 WEST 200 NORTH #2 SPANISH FORK, UT 801-655-0566	

LICENSE STAMP	DRAWING INFO
 IRREGULAR LANDSCAPE ARCHITECT JEREMY AINSWORTH 812812-12/31/2021 11/04/2020 STATE OF UTAH	PM: KBA DRAWN: KBA CHECKED: JTA PLOT DATE: 11/4/2020
IRRIGATION PLAN	
PRELIMINARY PLANS NOT FOR CONSTRUCTION	
IR 101	



IRRIGATION LEGEND

SYMBOL	MANUFACTURER—MODEL NUMBER	PAT.	RD.	PSI	GPM							
Q	T	H	TT	TQ	F							
◆	RAINBIRD RD04-S-PRS POP UP SPRAY 5 SERIES	Q.T.H.F	5'	30	.10	.15	20	na	na	.40		
◆	RAINBIRD RD04-S-PRS POP UP SPRAY 8 U-SERIES	Q.T.H.F	8'	30	.28	.35	52	na	na	1.05		
◆	RAINBIRD RD04-S-PRS POP UP SPRAY 10 U-SERIES	Q.T.H.F	10'	30	.39	.53	79	na	na	1.58		
◆	RAINBIRD RD04-S-PRS POP UP SPRAY 12 U-SERIES	Q.T.H.F	12'	30	.65	.87	1.30	1.74	1.95	2.60		
◆	RAINBIRD RD04-S-PRS POP UP SPRAY 15 U-SERIES	Q.T.H.F	15'	30	.92	1.23	1.85	2.48	2.78	3.70		
◆	RAINBIRD RD04-S-PRS POP UP SPRAY 15 SST	SST	15'	30	1.21							
◆	RAINBIRD RD04-S-PRS POP UP SPRAY 15 EST	EST	15'	30	.61							
◆	RAINBIRD 5000 SERIES MPR NOZZLES	Q.T.H.F	varies	30	varies	varies	varies	na	na	varies		
◆	RAINBIRD 8005 SERIES #8, #14, #26 NOZZLES	Q.T.H.F	65'	30	6.6	12.6	24.3	na	na	varies		
⬢	CONTROLLER: RAINBIRD ESP-LXD CONTROLLER WITH LMR REMOTE KIT, CONTRACTOR TO ADJUST LOCATION WITH OWNER PRIOR TO CONSTRUCTION.											
⬢	VALVE DECODER (AT ALL VALVE GROUPINGS) INSTALL PER MANUFACTURER'S SPEC.											
⬢	LIGHTNING ARRESTER (AT ALL VALVE GROUPINGS) INSTALL PER MANUFACTURER'S SPEC.											
⬢	MASTER VALVE											
⬢	FLOW SENSOR											
⬢	RAINBIRD WR2-RC WIRELESS RAIN SHUT OFF DEVICE											
⬢	POINT OF CONNECTION (SECONDARY WATER) SEE PLAN FOR SIZE											
⬢	2" T SUPER AMIAD PLASTIC FILTER - INSTALL PER MANUFACTURE'S RECOMMENDATIONS (130 MICRON)											
⬢	QUICK COUPLER: RAINBIRD 44LRC INSTALL PER MANUFACTURER'S SPEC. 10" RND. VALVE BOX. SEE DETAIL											
⬢	ISOLATION BALL VALVE - LINE SIZED INSTALL PER MANUFACTURER'S SPEC.											
⬢	REMOTE CONTROL VALVE: RAINBIRD PESB-NP-PRS-D AUTOMATIC CONTROL VALVE (SIZE AS NOTED ON PLAN)											
⬢	JUMBO BOX-PURPLE LID											
⬢	DRIP CONTROL ZONE KIT: RAINBIRD XCZ-(PER PLAN)-PRBR-COM MED FLOW (SIZE AS NOTED ON PLAN)											
⬢	DRIP CONNECTION: PROVIDE DRIP IRRIGATION TO ALL TREES, SHRUBS AND PERENNIALS IN PLANTER AREAS											
⬢	SUB-MAINLINE: SCHEDULE 40 PVC WITH SCHEDULE 80 FITTINGS, 1.5" DIAMETER 24" MIN. COVER											
⬢	LATERAL LINE: SCHEDULE 40 PVC WITH SCH. 40 FITTINGS. SEE PIPE SIZING CHART											
⬢	DRIP LINE: RAINBIRD XFSP-09-18-100 OR EQUIVALENT											
⬢	CLASS 200 SLEEVE PER PLAN											
⬢	WIRE CHASE, SIZE TO BE TWICE THE DIAMETER OF THE WIRE BUNDLE WITHIN 1.1/4" DIAMETER MINIMUM											
⬢	14 GAUGE SOLID COPPER SINGLE STRAND CONTROL WIRE. INSTALL PER MANUFACTURER'S SPEC.											
⬢	PROVIDE 2 WIRE LOOP SYSTEM.											

DRIP ZONE

TYPE	PART NUMBER	EMITTER FLOW	EMITTER SPACING	ROW SPACING	ROW SPACING
XFSP DRIPLINE	XFSP-09-18	.9 GPH	18"	18"	18-21 IN.
TOTAL DRIP ZONE FLOW	20 GPM	TIME TO APPLY 1/4" OF WATER	23		
MAX. LATERAL LENGTH OF TUBING	350 FT	REQUIRED NUMBER OF STAKES	500		
TOTAL LENGTH OF ZONE DRIPLINE	2,000 FT (varies per plan)	NUMBER OF FLUSH POINTS	2		
APPLICATION RATE	64 IN. / HR	SUGGESTED HEADER & FOOTER PIPE SIZE	CLASS 200 1.25"		

\*NUMBERS MAY CHANGE DUE TO SIZE OF DRIP ZONE PER PLAN

90 Day Establishment Period Irrigation Schedule (April, May, June)

Type	Sun	Mon	Tues	Wed	Thurs	Fri	Sat	Operating Pressure
Turf	15 min	15 min	15 min	15 min	15 min	15 min	15 min	30 psi
Shrubs	25 min	0	25 min	0	25 min	0	25 min	40 psi

Note: Begin irrigation 4:00 am, only 1 cycle per day.

Regular Irrigation Schedule (see Seasonal Differential Chart)

Type	Sun	Mon	Tues	Wed	Thurs	Fri	Sat	Operating Pressure
Turf	15 min	15 min	15 min	15 min	15 min	15 min	15 min	30 psi
Shrubs	45 min	0	45 min	0	45 min	0	45 min	40 psi

Note: Begin irrigation 4:00 am, only 1 cycle per day.

Seasonal Differential

	April	May	June	July	August	Sept	October
Turf	10 min	10 min	10 min	10 min	10 min	10 min	10 min
Shrubs	30 min	30 min	45 min	45 min	45 min	30 min	30 min

IRRIGATION NOTES

- ALL CONNECTIONS ARE SECONDARY WATER AND SHOULD BE NOTED AS SUCH. THEREFORE ALL PARTS MUST MEET SECONDARY WATER STANDARDS.
- ALL PIPE TO BE SCHEDULE 40 PVC PIPE. NO POLY PIPE SHALL BE INCLUDED. FITTINGS UP TO 1.1/2" MUST BE SCHEDULE 40 OR BETTER. FITTINGS LARGER THAN 1.1/2" MUST BE SCHEDULE 80 OR BETTER.
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- MODIFY LOCATION OF IRRIGATION COMPONENTS TO AVOID PLACING TREES, SHRUBS AND OTHER SITE ELEMENTS DIRECTLY OVER PIPE, PER PLANS. DO NOT LOCATE VALVE BOXES IN LAWN AREAS UNLESS DIRECTED TO BY LANDSCAPE ARCHITECT.
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- IRRIGATION SYSTEM MUST CONTAIN CHECK VALVES TO PREVENT LOW POINT DRAINAGE.
- SPACE ALL SPRAY HEADS 2" AWAY FROM ANY HARDSCAPE.
- CONTRACTOR SHALL MATCH PRECIPITATION RATES AS MUCH AS POSSIBLE FOR ALL LANDSCAPED AREAS. OVERHEAD IRRIGATION MUST HAVE A MINIMUM DU (DISTRIBUTION UNIFORMITY) OF 60%.
- IRRIGATION CONTRACTOR SHALL PRESSURE TEST MAINLINE FOR LEAKS PRIOR TO BACKFILLING.
- MAIN LINES SHALL BE 18" DEEP MIN. AND LATERAL LINES 12" DEEP MIN. NO ROCK GREATER THAN 1/2" DIAMETER SHALL BE ALLOWED IN TRENCHES. TRENCHING BACKFILL MATERIAL SHALL BE COMPACTED TO PROPER FINISHED GRADE.
- ALL WORK SHALL BE IN ACCORDANCE WITH APPLICABLE CITY AND/OR COUNTY CODES. THE CONTRACTOR SHALL APPLY AND PAY FOR ALL NECESSARY PERMITS.
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3/4"	8 GPM
1"	12 GPM
1-1/2"	30 GPM
2"	53 GPM
2-1/2"	75 GPM
3"	110 GPM
4"	180 GPM

VALVE SIZE  
PSI AT LAST  
HEAD IN ZONE

A1	1.0	18	55
----	-----	----	----

VALVE ID TAG

CONTROLLER NUMBER  
VALVE NUMBER

GALLONS PER MINUTE

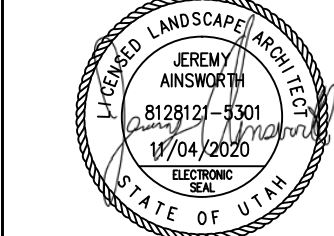
NOTE:  
1. VALVE ID TAGS ARE LOCATED NEAR VALVES IN THE ORDER THE VALVES APPEAR ON THE DRAWING

# ORCHARD HILLS TOWNHOMES

## 120 EAST AND HIGHLAND DR SANTAQUIN, UTAH

ORCHARD HILLS TOWNHOMES  
95 WEST 200 NORTH #2  
SPANISH FORK, UT 84660

ATLAS ENGINEERING  
95 WEST 200 NORTH #2  
SPANISH FORK, UT  
801-655-0566



IRRIGATION PLAN

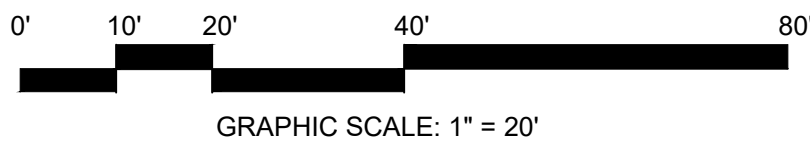
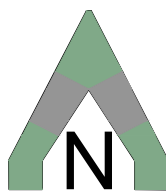
PRELIMINARY PLANS NOT  
FOR CONSTRUCTION

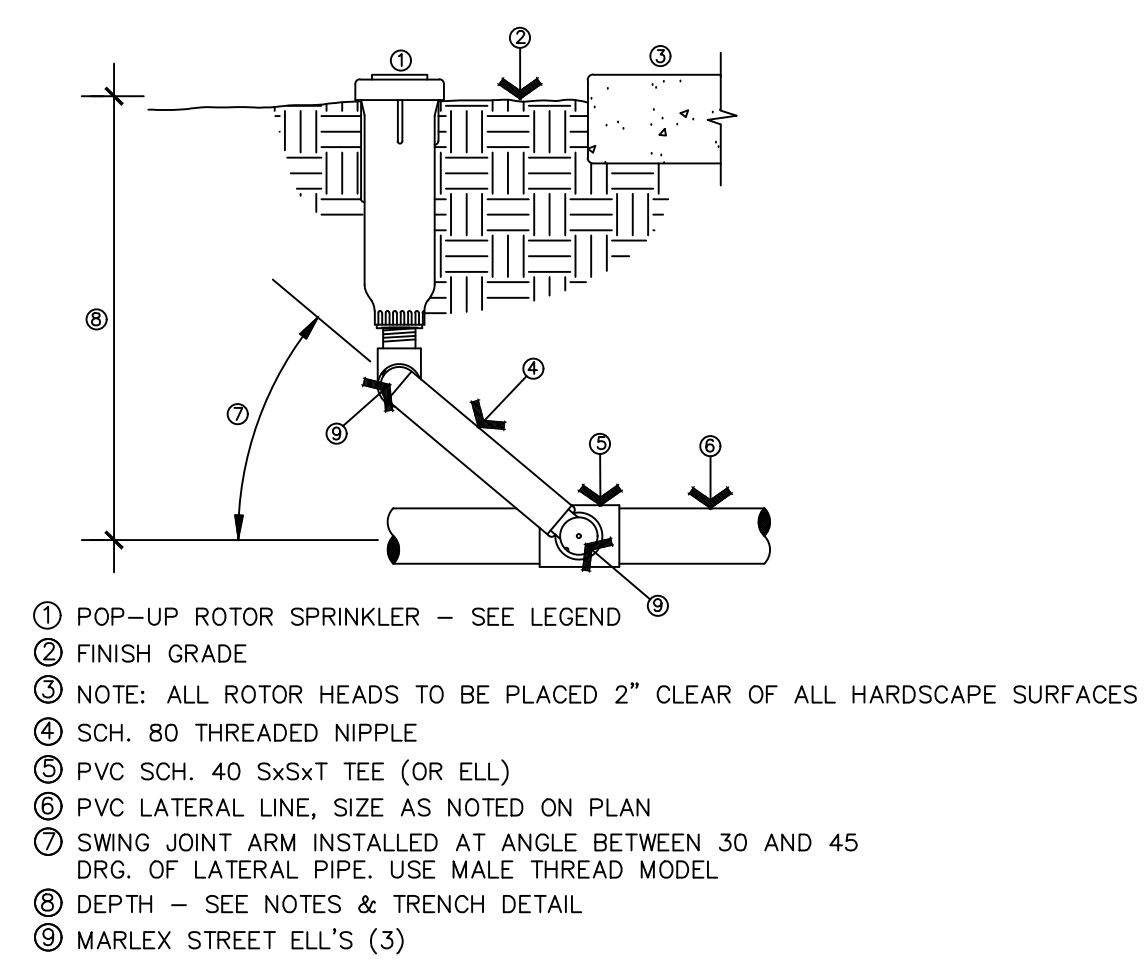
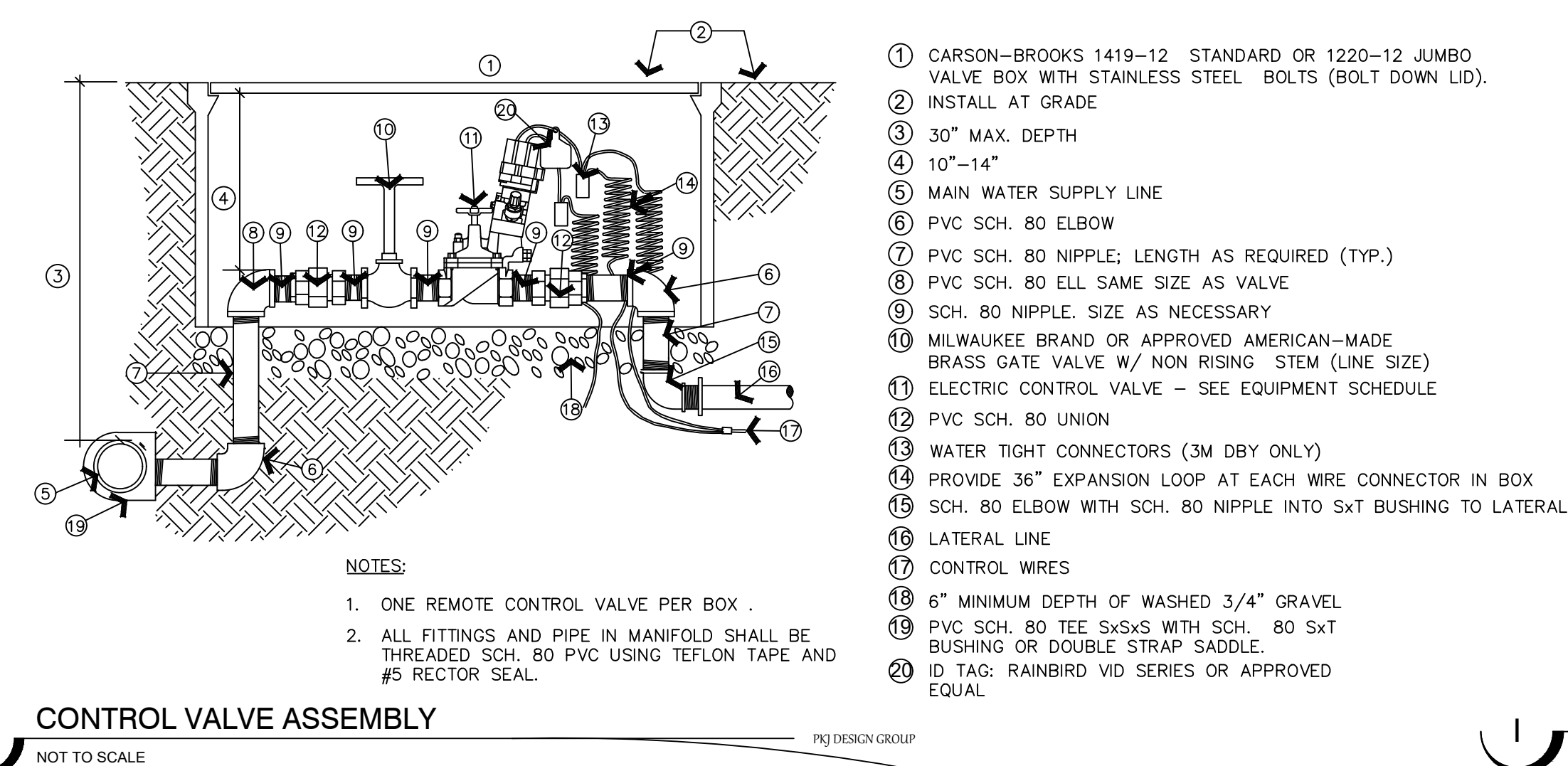
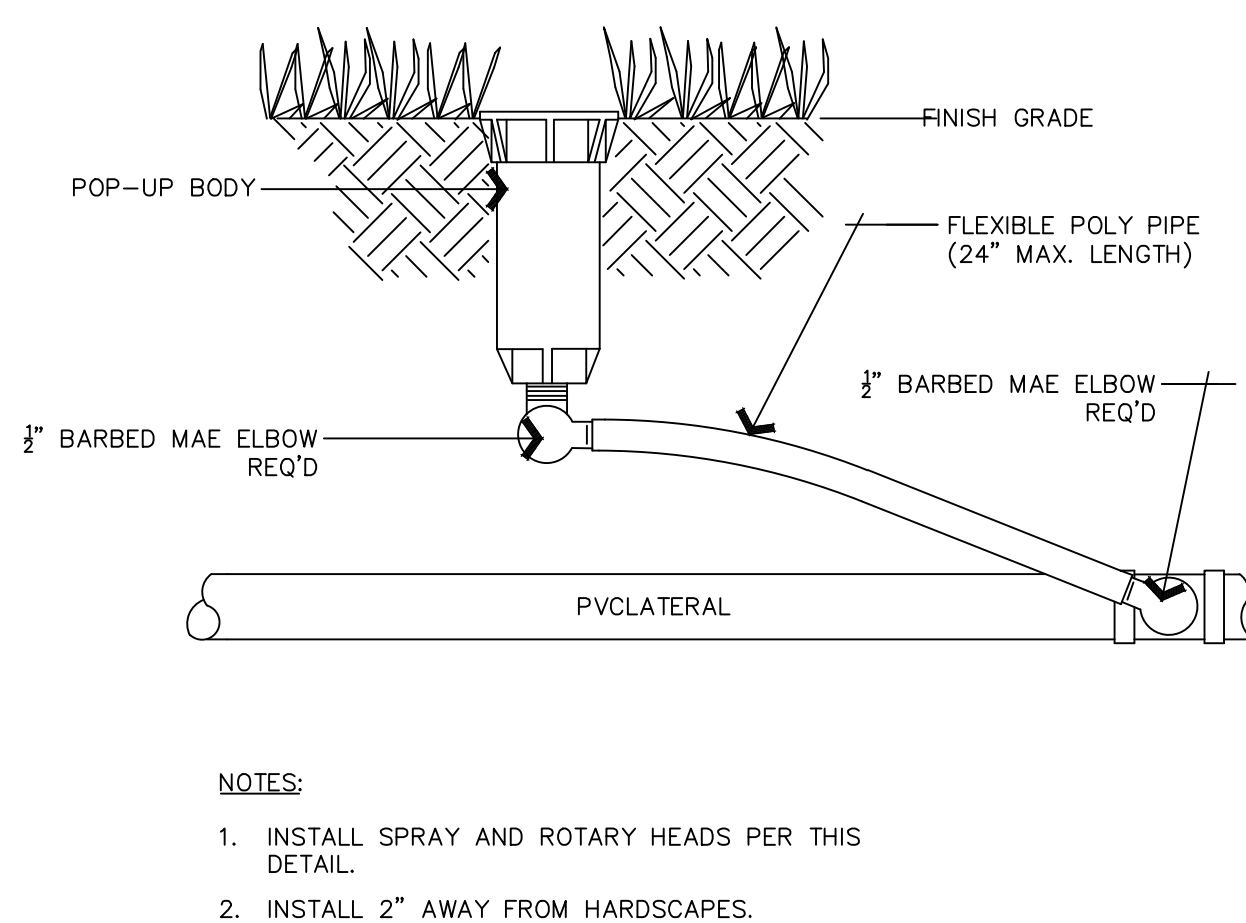
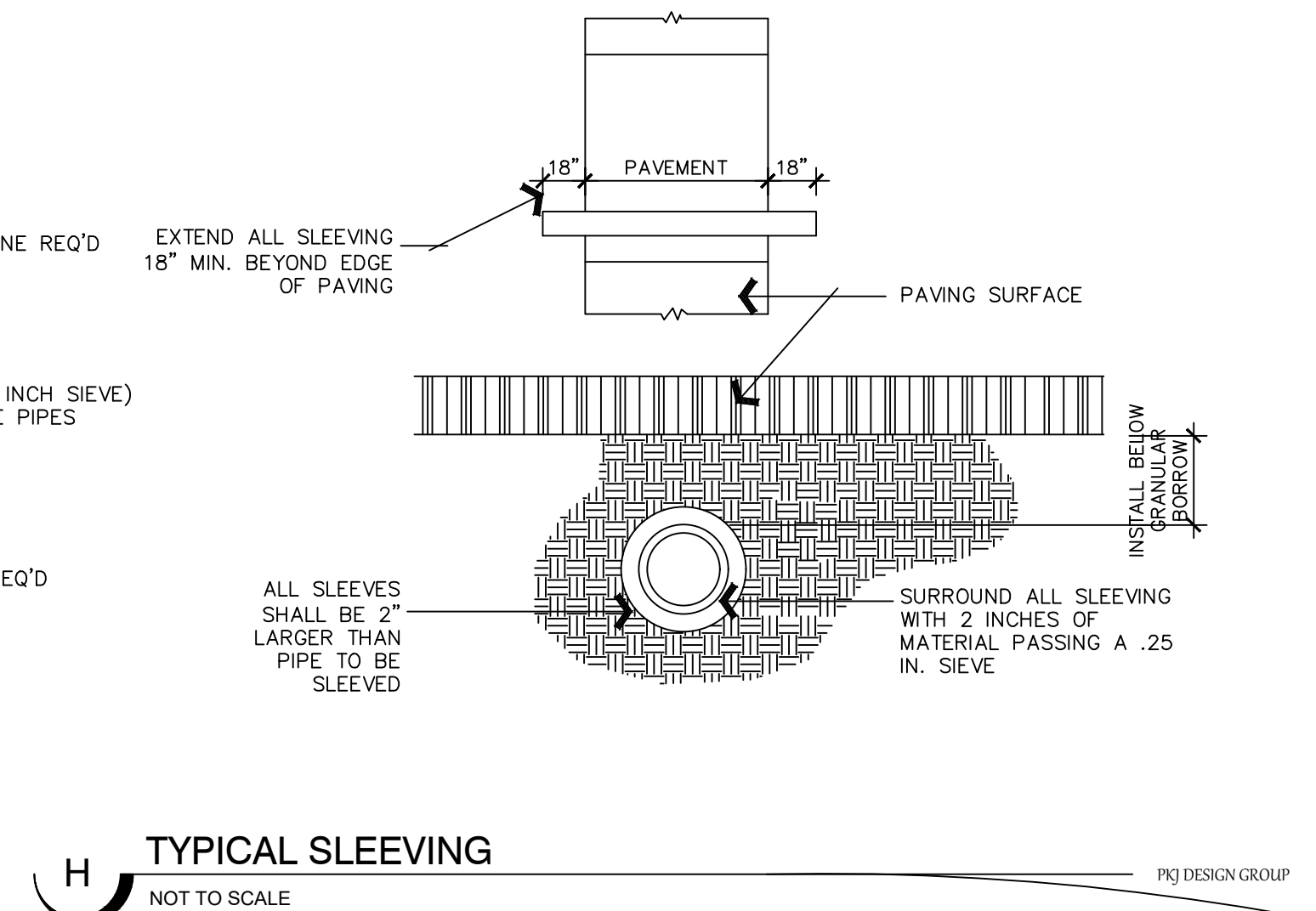
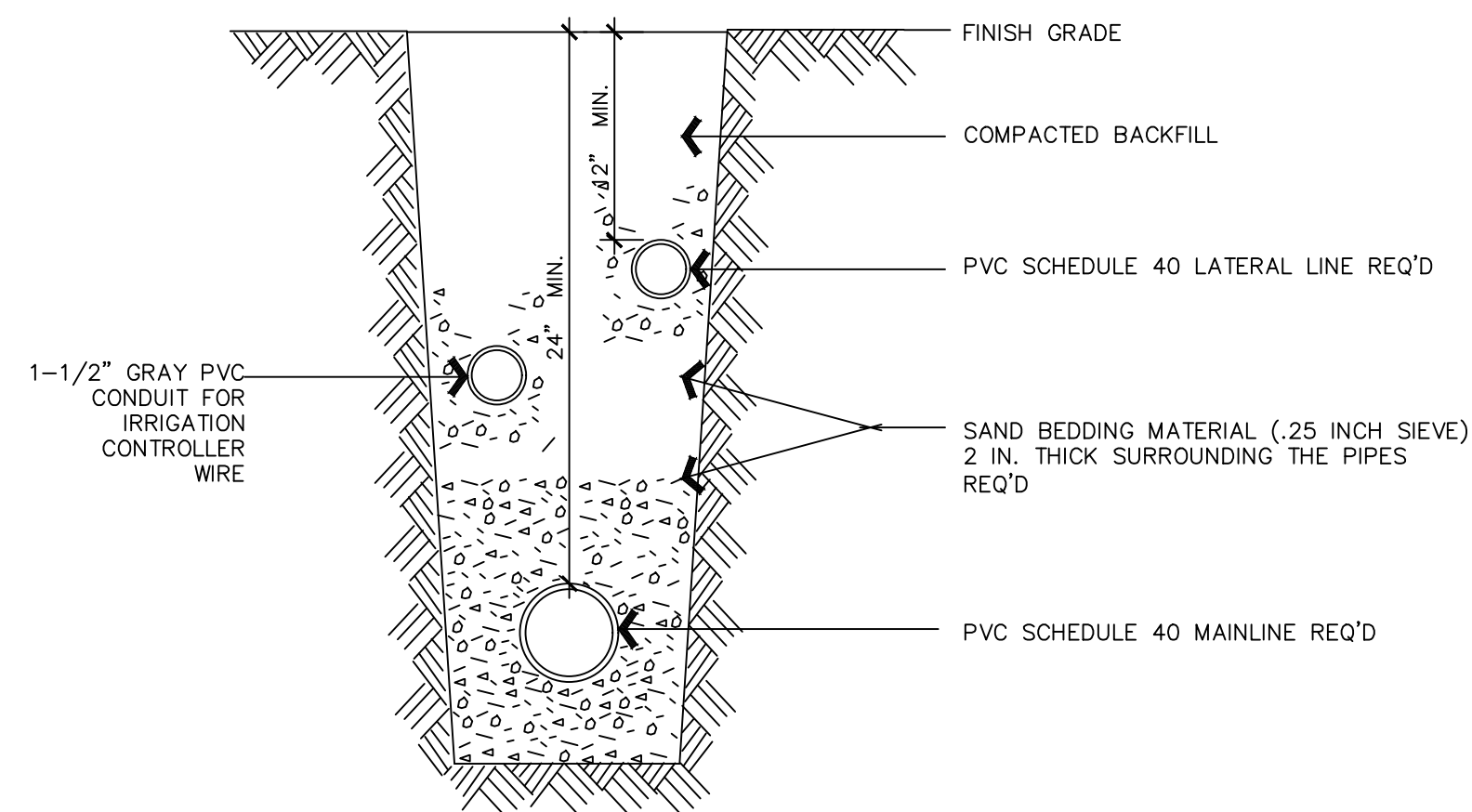
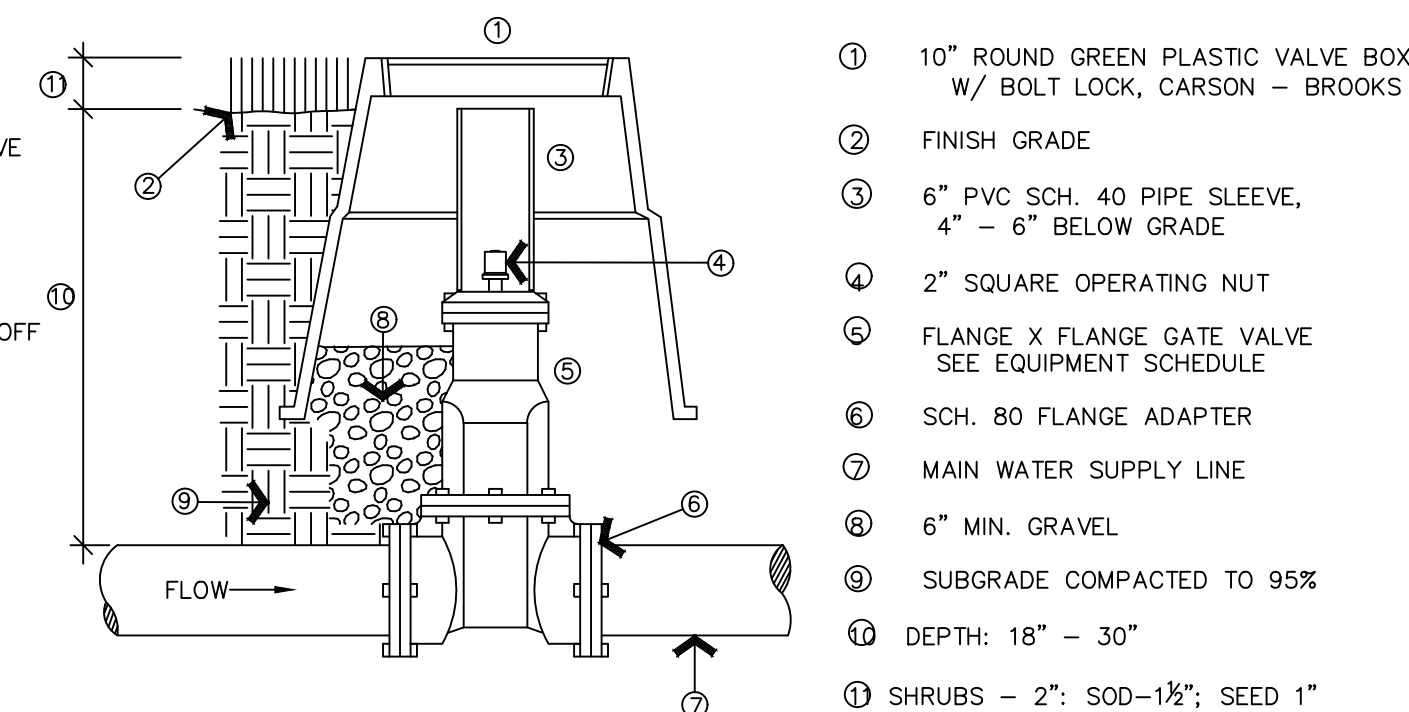
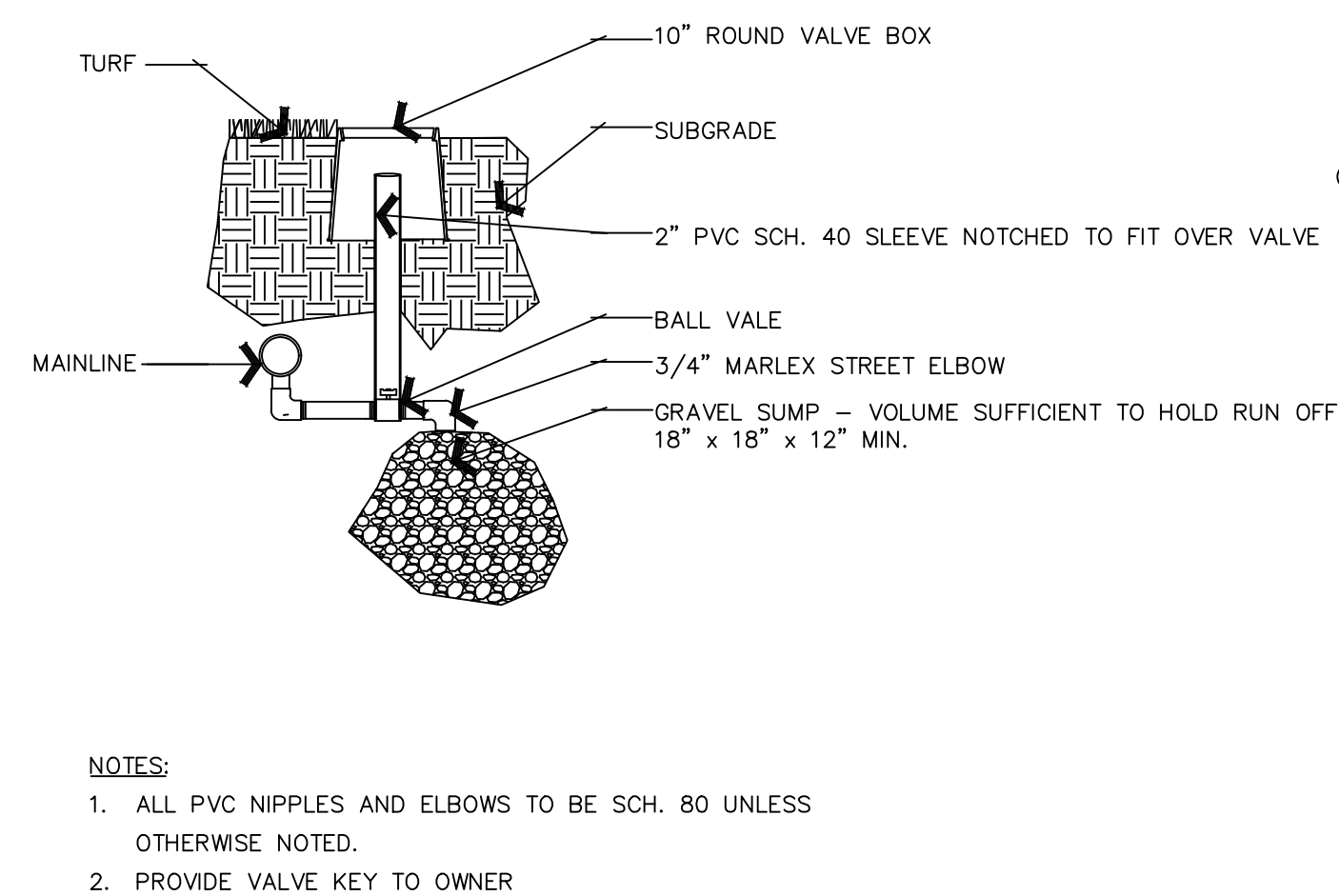
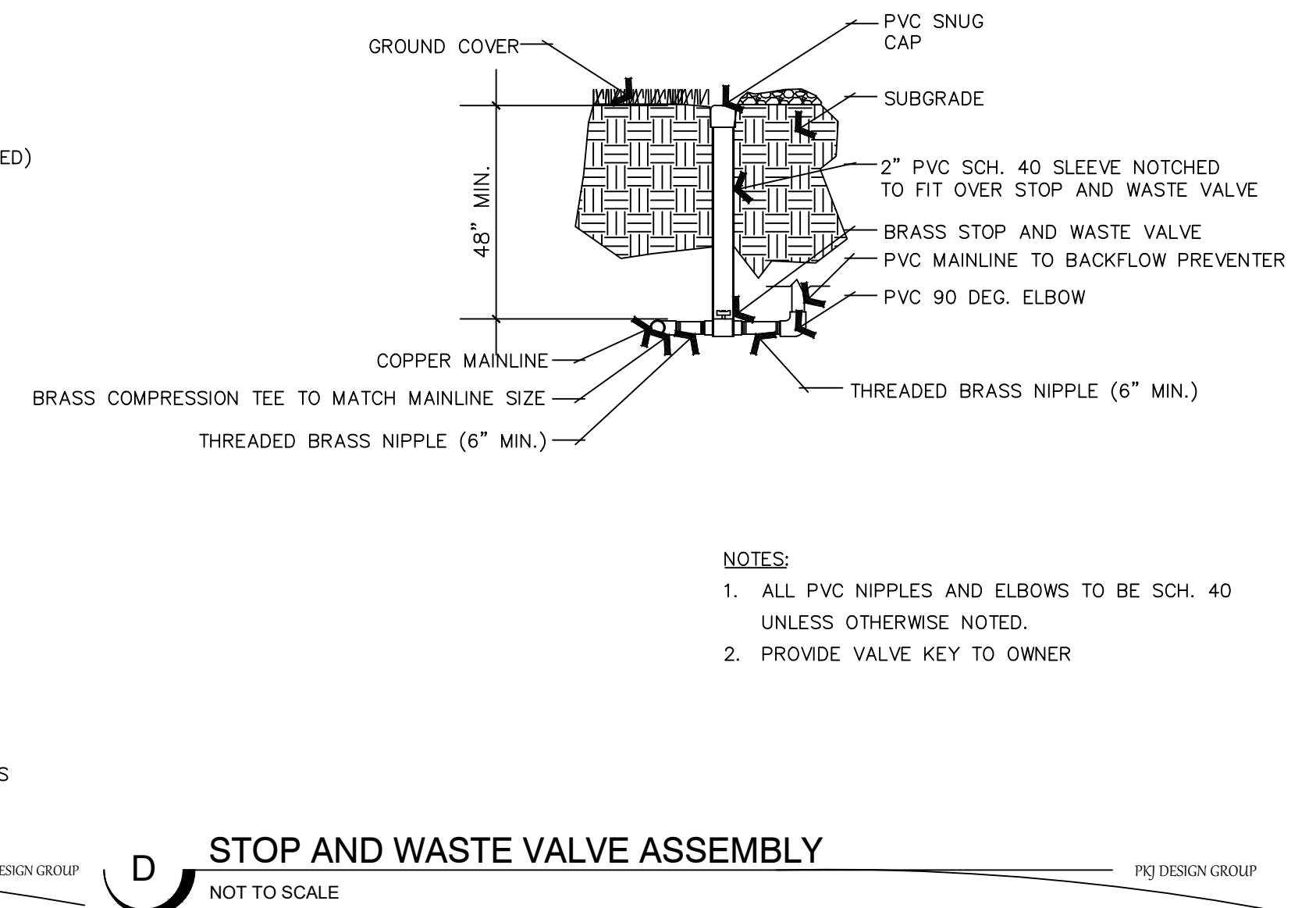
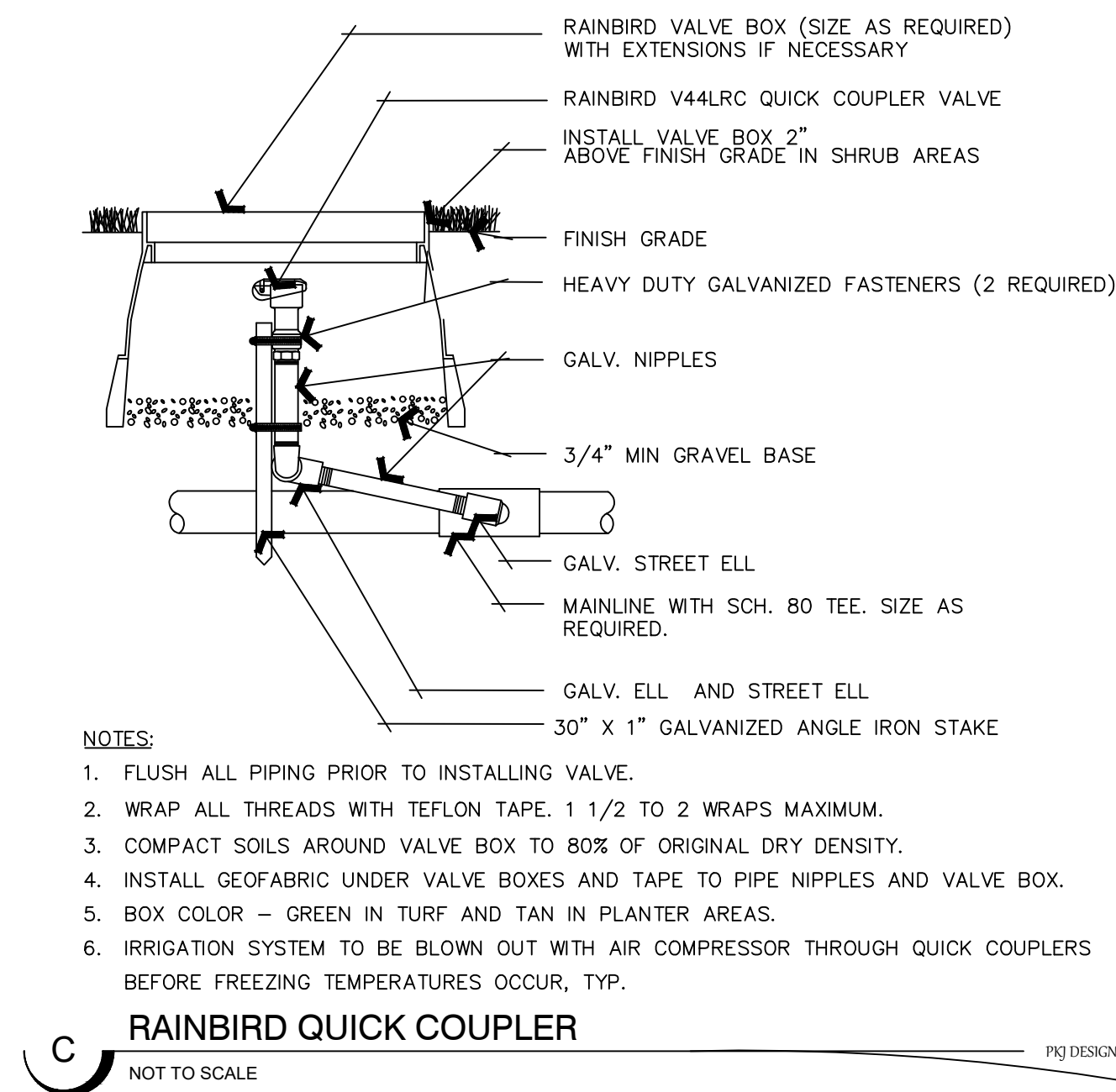
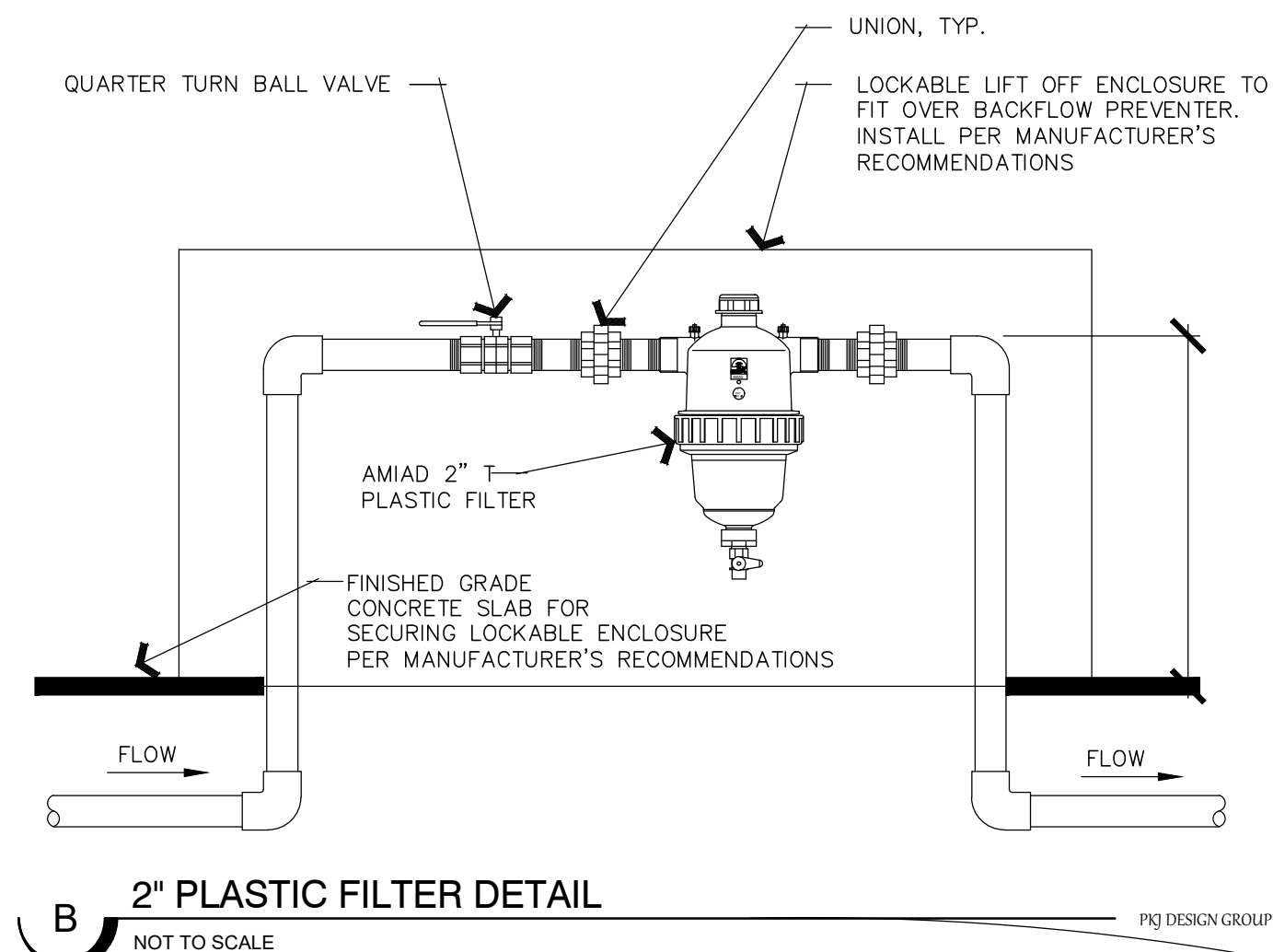
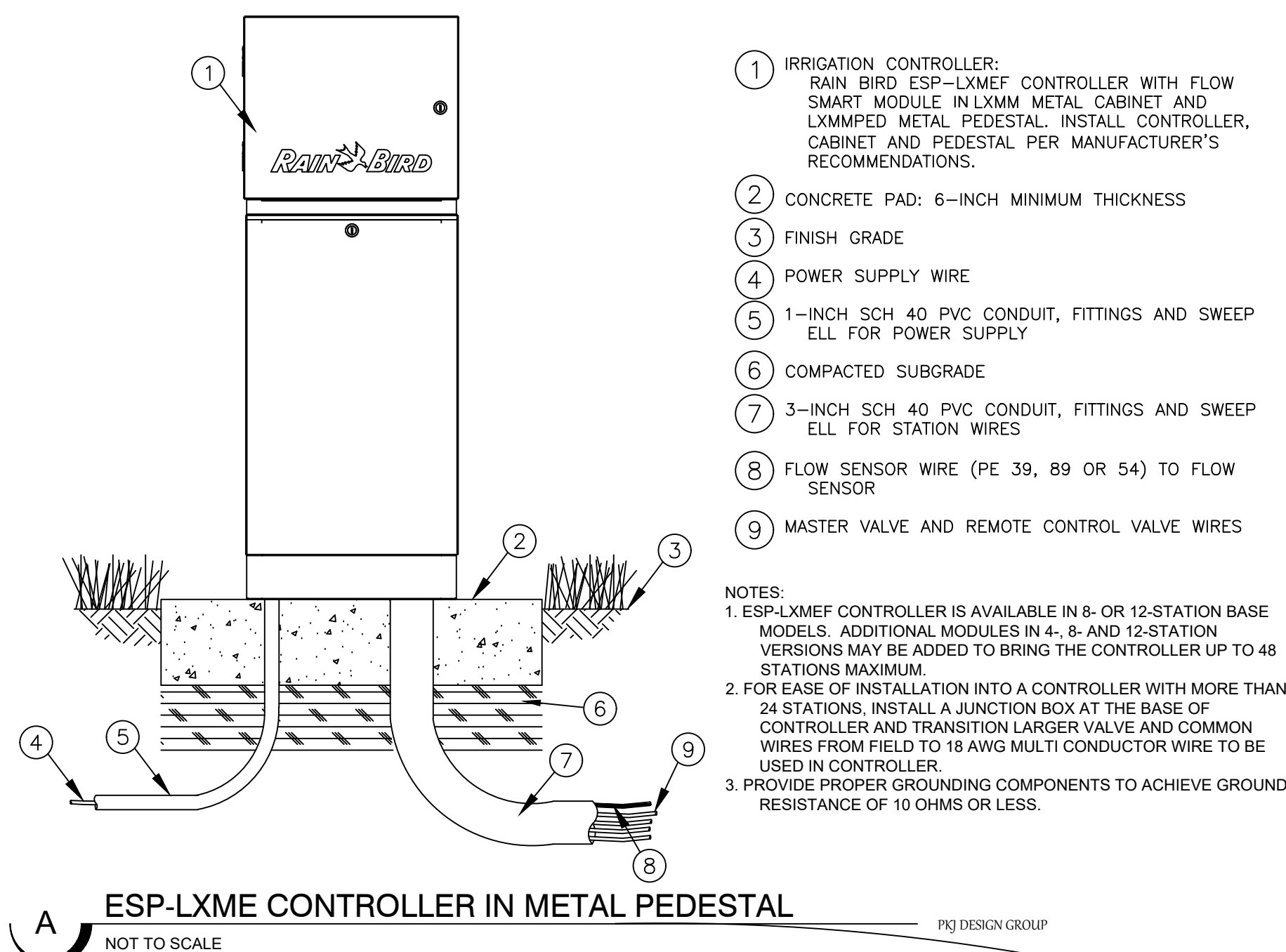
IR 102

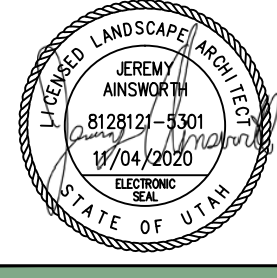
ISSUE DATE	PROJECT NUMBER	PLAN INFORMATION	PROJECT INFORMATION	DEVELOPER / PROPERTY OWNER / CLIENT	LANDSCAPE ARCHITECT / PLANNER	LICENSE STAMP	DRAWING INFO
11/4/2020	UT20039			Developer / Property Owner:			PM: KBA DRAWN: KBA CHECKED: JTA PLOT DATE: 11/4/2020
NO.	REVISION	DATE					
1							
2							
3							
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5							
6							
7							



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ISSUE DATE			PROJECT NUMBER			PLAN INFORMATION			PROJECT INFORMATION			DEVELOPER / PROPERTY OWNER / CLIENT			LANDSCAPE ARCHITECT / PLANNER			LICENSE STAMP			DRAWING INFO		
11/4/2020			UT20039									Developer / Property Owner:			ORCHARD HILLS TOWNHOMES 95 WEST 200 NORTH #2 SPANISH FORK, UT 84660						PM: KBA DRAWN: KBA CHECKED: JTA PLOT DATE: 11/4/2020		
NO.			REVISION			DATE																	
1																							
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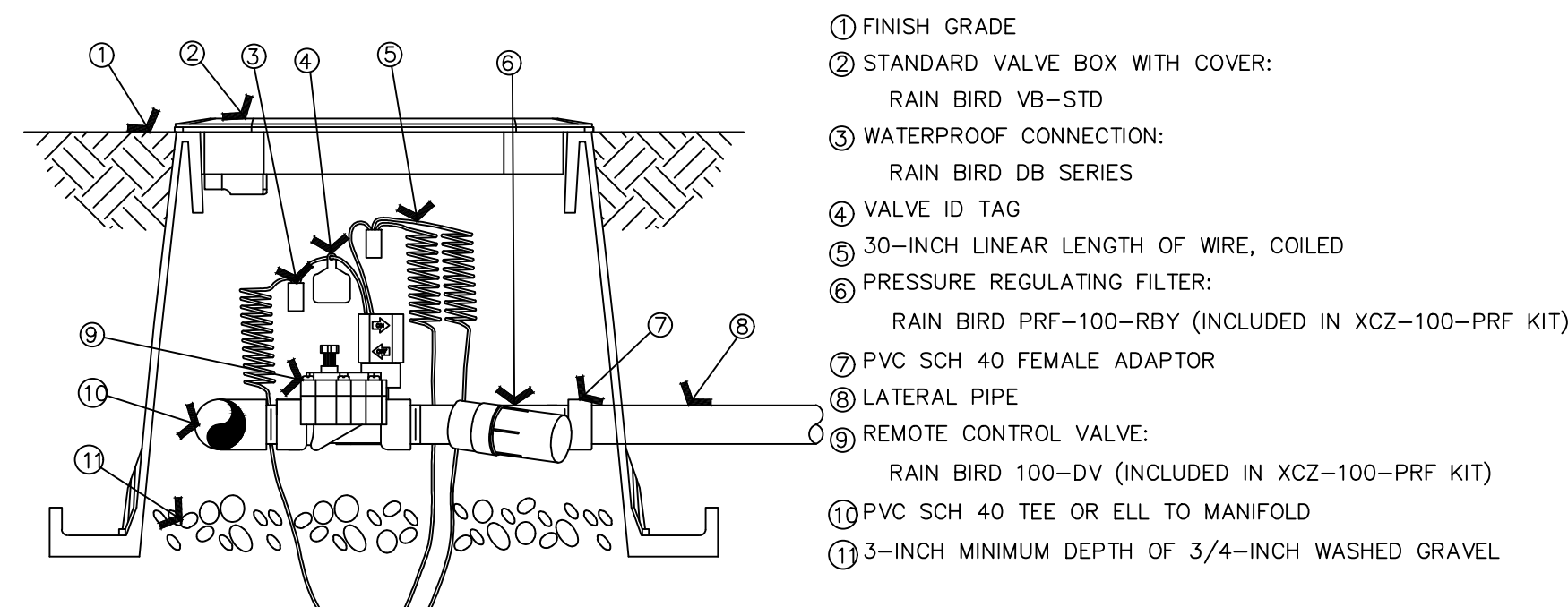


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# ORCHARD HILLS TOWNHOMES

## 120 EAST AND HIGHLAND DR SANTAQUIN, UTAH

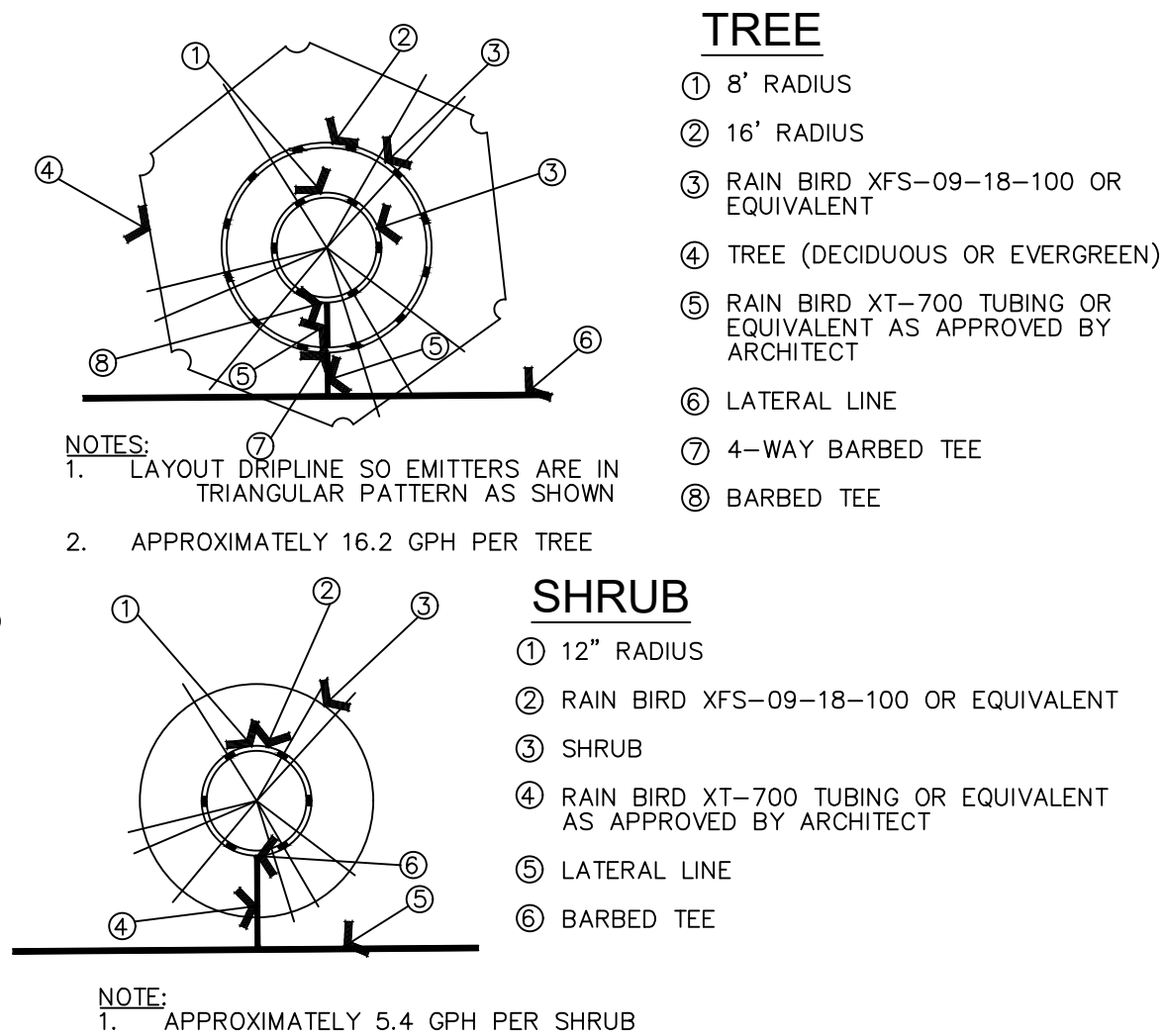
DEVELOPER / PROPERTY OWNER / CLIENT			LANDSCAPE ARCHITECT / PLANNER			LICENSE STAMP			DRAWING INFO		
Developer / Property Owner:			ORCHARD HILLS TOWNHOMES 95 WEST 200 NORTH #2 SPANISH FORK, UT 84660						PM: KBA DRAWN: KBA CHECKED: JTA PLOT DATE: 11/4/2020		
Building Architect / Engineer:			ATLAS ENGINEERING 95 WEST 200 NORTH #2 SPANISH FORK, UT 801-655-0566						<b>IRRIGATION DETAILS</b> <b>PRELIMINARY PLANS NOT FOR CONSTRUCTION</b> <b>IR 501</b>		



L DRIP CONTROL VALVE ASSEMBLY

NOT TO SCALE

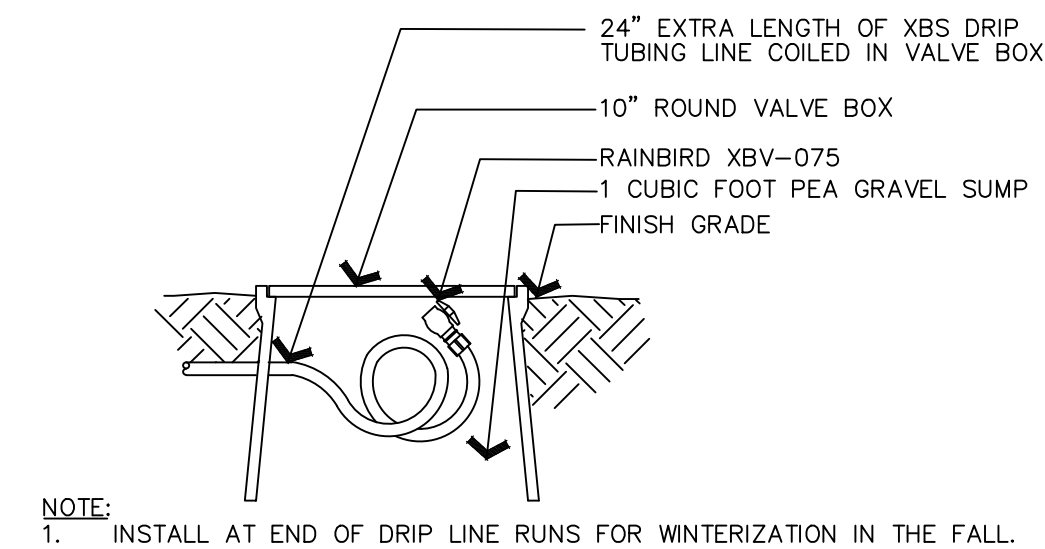
PKG DESIGN GROUP



M DRIP IRRIGATION - IN LINE EMITTERS

NOT TO SCALE

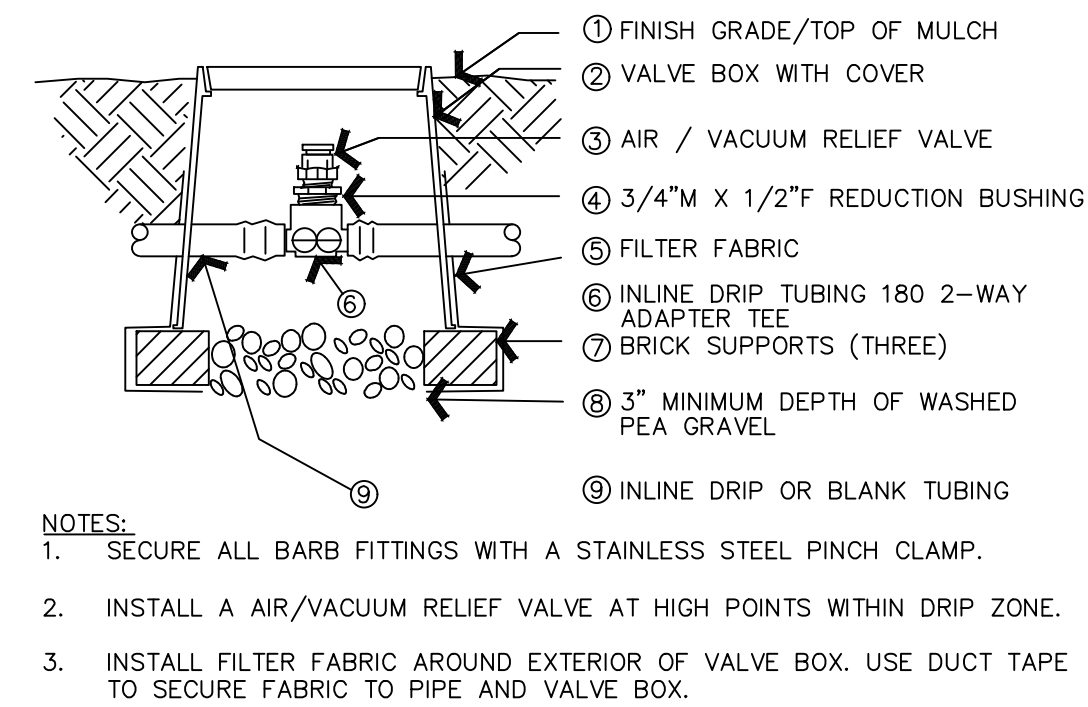
PKG DESIGN GROUP



N FLUSH CAP BOX

NOT TO SCALE

PKG DESIGN GROUP

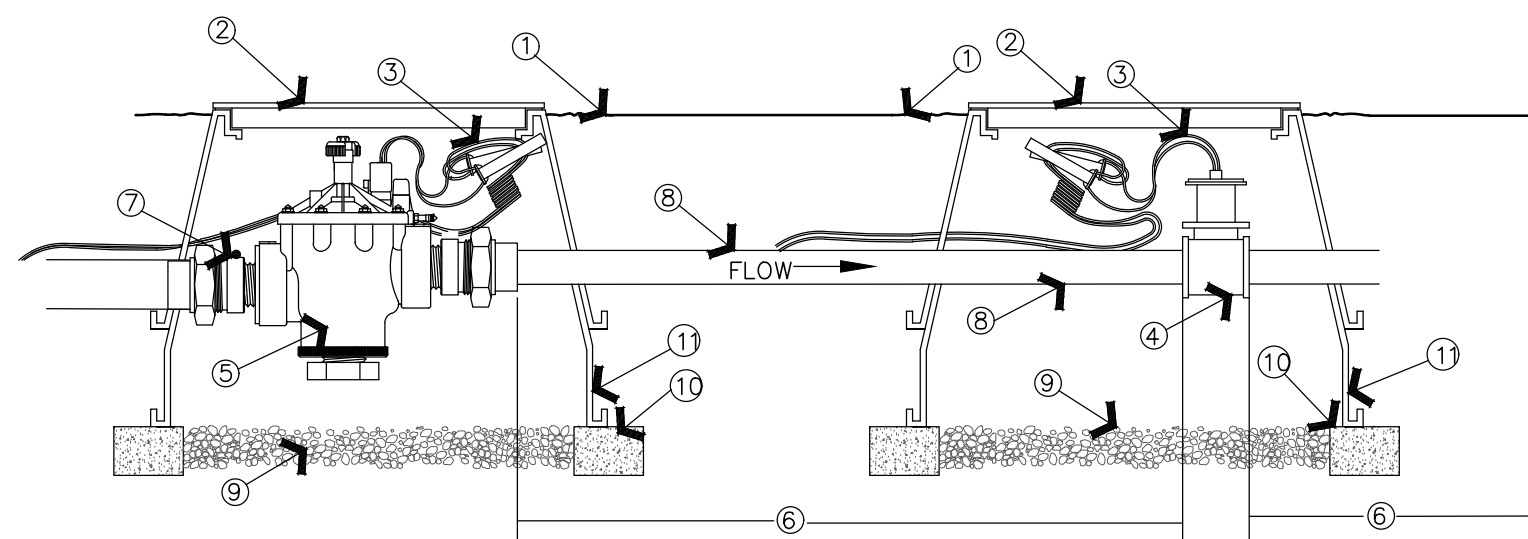


O DRIP AIR/VACUUM RELIEF VALVE ASSEMBLY

NOT TO SCALE

PKG DESIGN GROUP

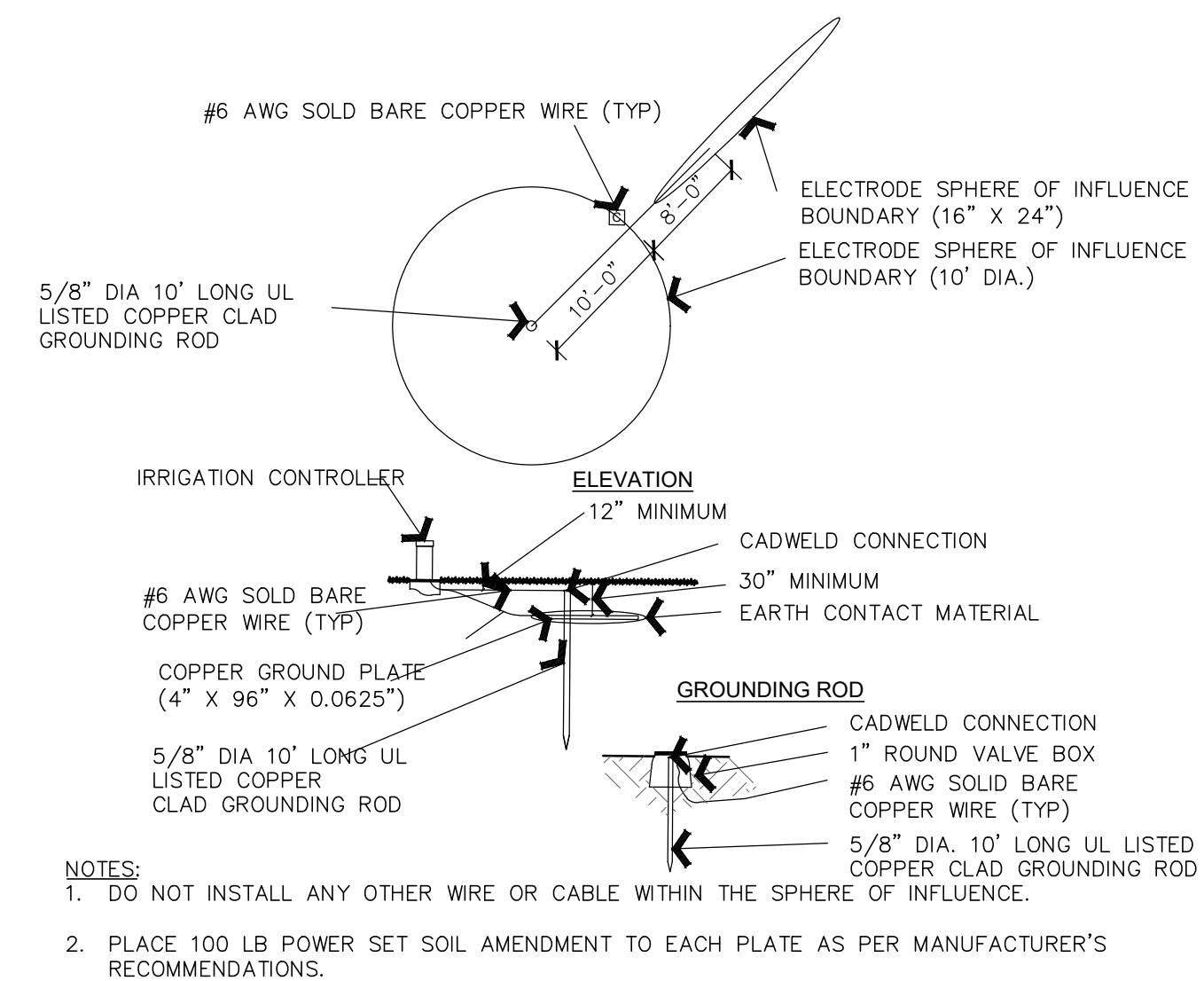
- 1 FINISH GRADE  
2 GREEN VALVE BOX AND COVER  
3 CONTROL WIRES WITH 12" MIN. SERVICE COIL AND WATERPROOF WIRE SPLICE CONNECTORS -  
4 FLOW SENSOR PER IRRIGATION LEGEND  
5 RAIN BIRD PESB SERIES MASTER VALVE  
6 STRAIGHT PIPE REQUIRED: MINIMUM 10x PIPE DIAMETER UPSTREAM & MINIMUM 5x PIPE DIAMETER DOWNSTREAM  
7 UNIONS  
8 PVC MAINLINE - LENGTH AS REQUIRED  
9 6" DEPTH OF WASHED 3/4" GRAVEL  
10 CONTINUOUS BRICK SUPPORTS  
11 VALVE BOX EXTENSIONS REQUIRED



P MASTER VALVE &amp; FLOW SENSOR

NOT TO SCALE

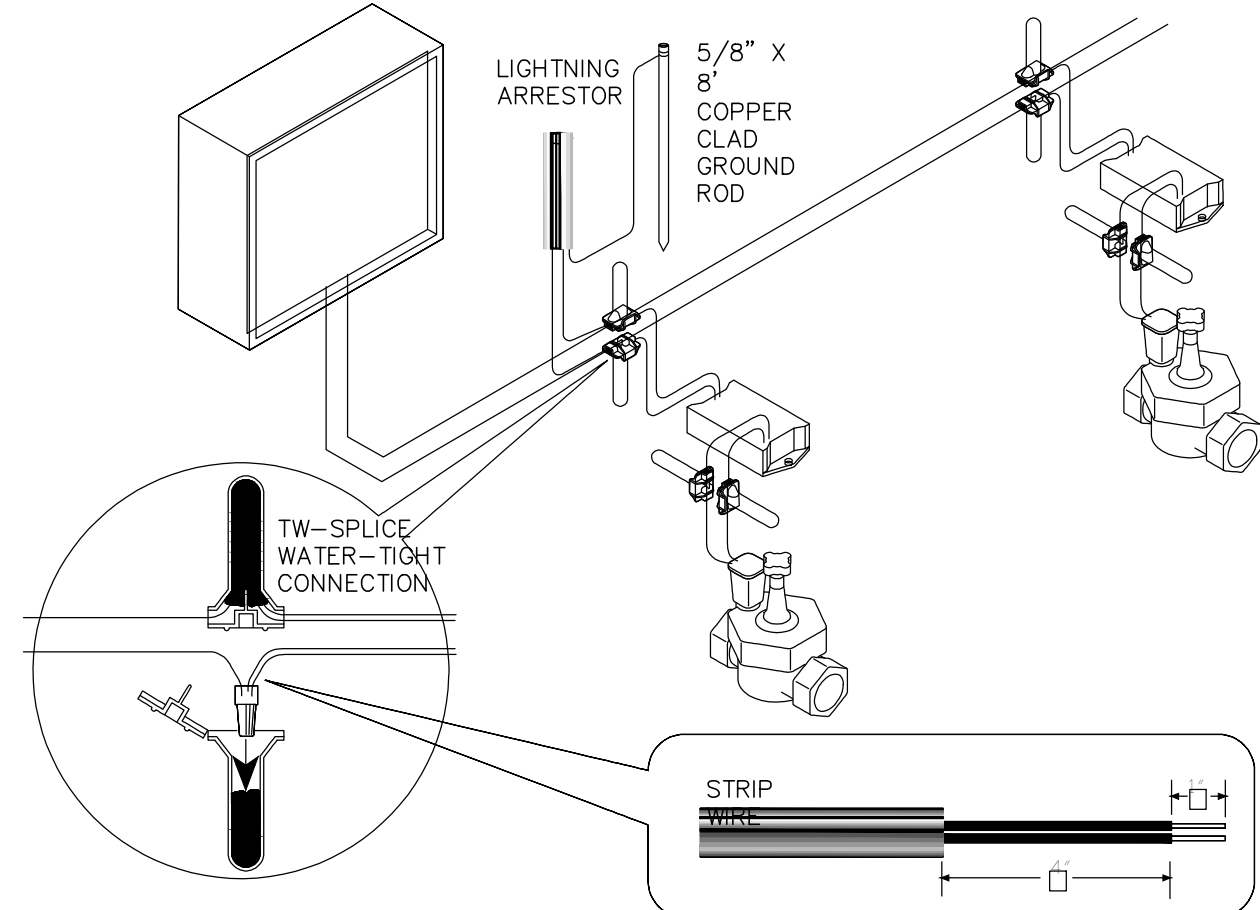
PKG DESIGN GROUP



Q GROUNDING DETAIL

NOT TO SCALE

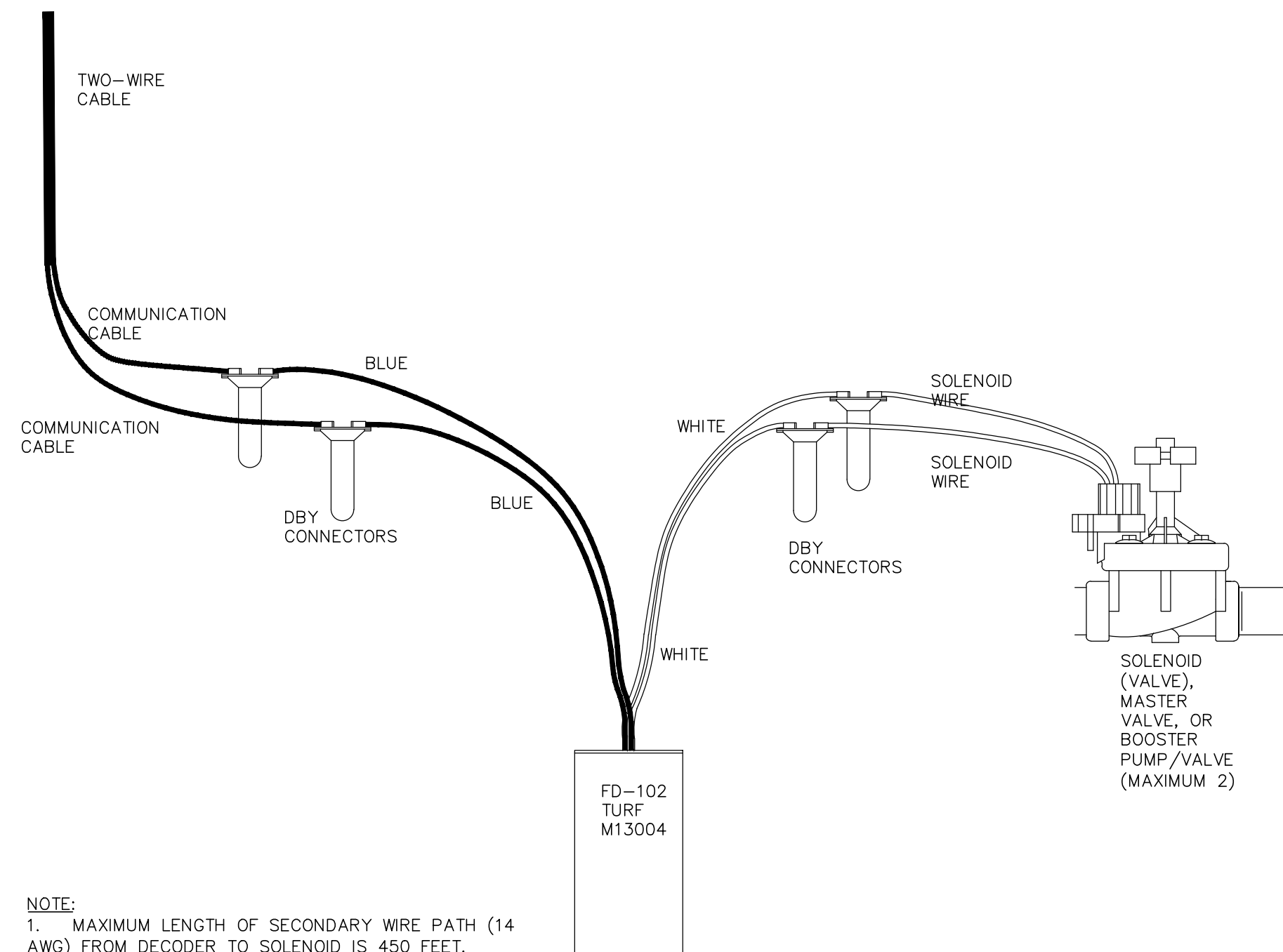
PKG DESIGN GROUP



R 2-WIRE CONNECTION

NOT TO SCALE



PKG DESIGN GROUP



S DECODER WIRING

NOT TO SCALE

PKG DESIGN GROUP

ISSUE DATE			PROJECT NUMBER		PLAN INFORMATION		PROJECT INFORMATION		DEVELOPER / PROPERTY OWNER / CLIENT		LANDSCAPE ARCHITECT / PLANNER		LICENSE STAMP	
11/4/2020			UT20039						Developer / Property Owner:		ORCHARD HILLS TOWNHOMES 95 WEST 200 NORTH #2 SPANISH FORK, UT 84660			
NO.			REVISION		DATE				Building Architect / Engineer:		ATLAS ENGINEERING 95 WEST 200 NORTH #2 SPANISH FORK, UT 801-655-0566			
1													PM: KBA DRAWN: KBA CHECKED: JTA PLOT DATE: 11/4/2020	
2													<b>PRELIMINARY PLANS NOT FOR CONSTRUCTION</b> <b>IR 502</b>	
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