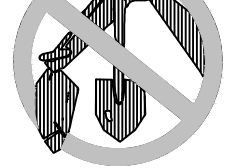


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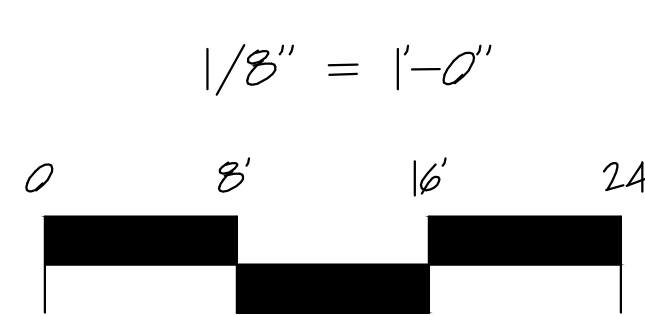
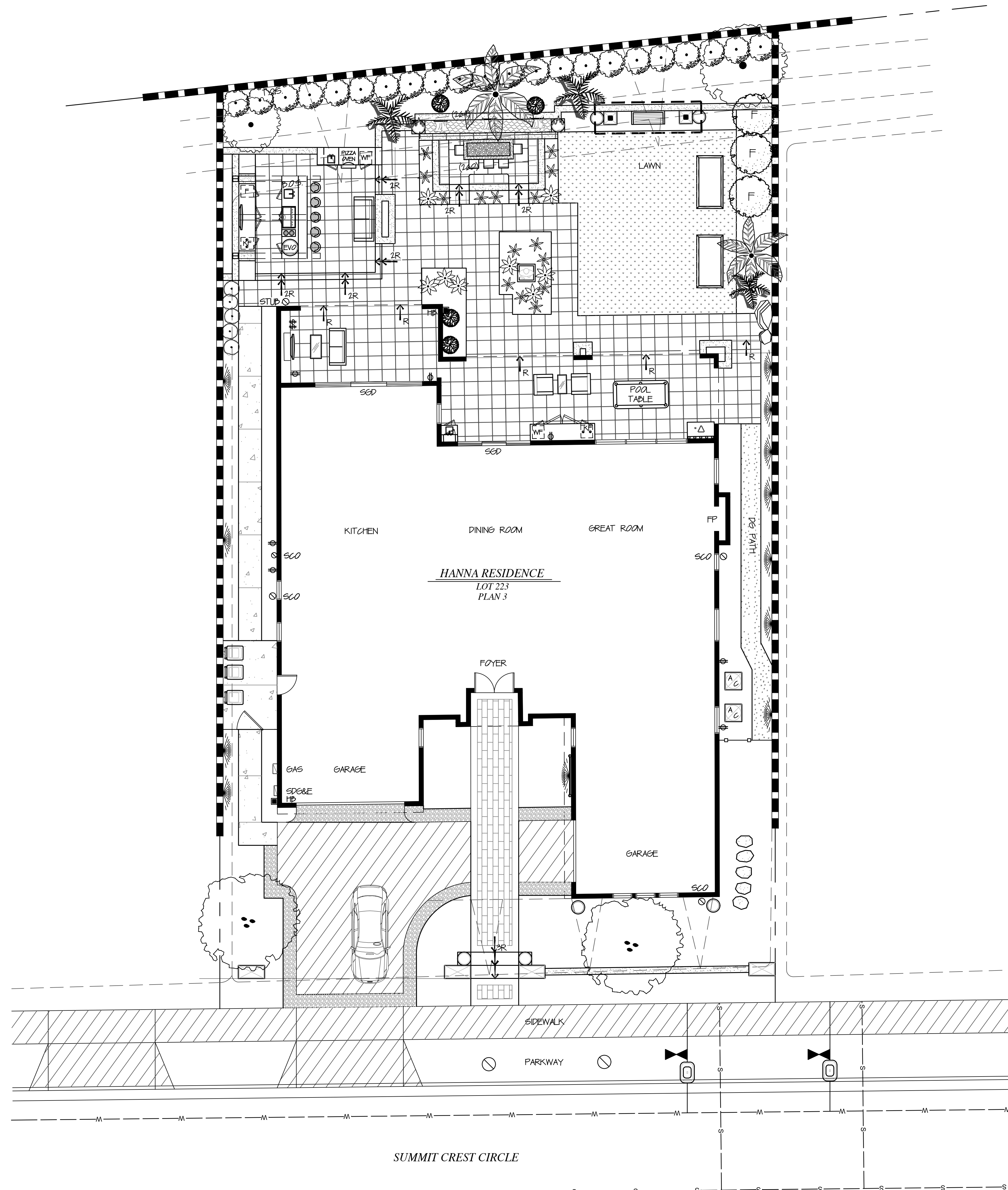


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UNDERGROUND SERVICE ALERT OF SOUTHERN CALIFORNIA

NOTE TO CONTRACTOR

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NOT FOR CONSTRUCTION

LANDSCAPE CONCEPT PLAN



LANDSCAPE CONCEPT PLAN

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PHONE:

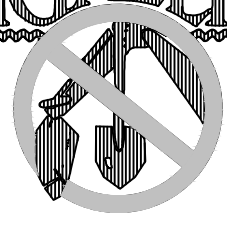
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DRAWN: NM  
DRAFTER: AP  
DATE: 03/02/2020  
SCALE: 1/8" = 1'-0"  
JOB NAME: HANNA  
SHEET: 1.0  
SHEETS

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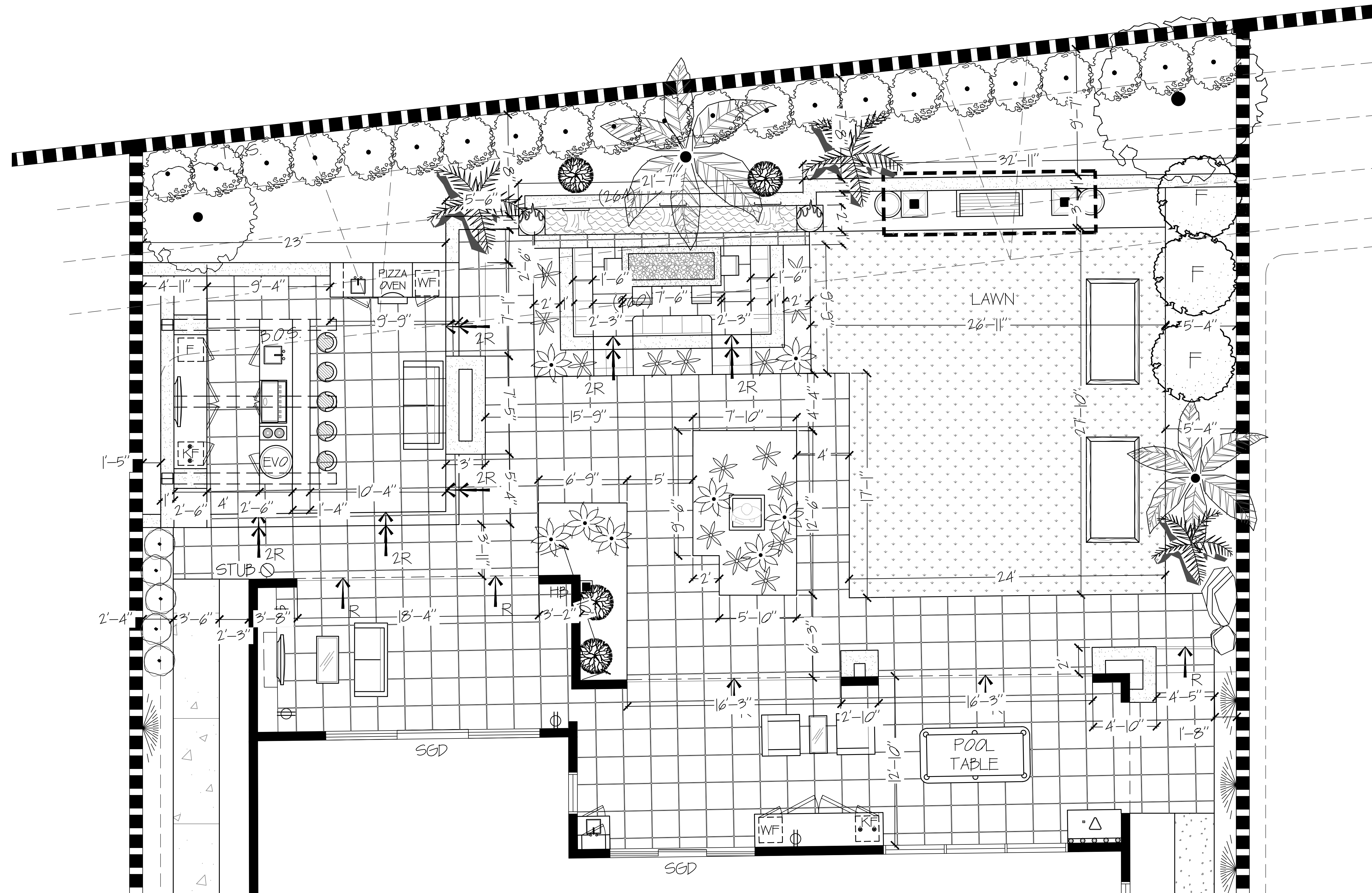


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BACKYARD DIMENSION PLAN

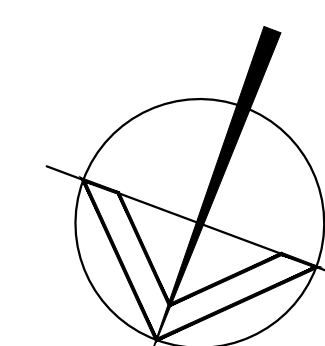
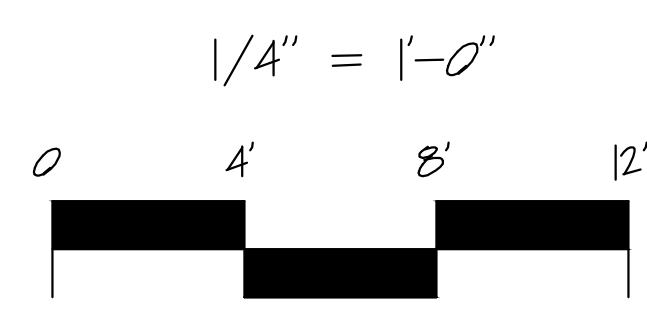
PROJECT NAME:

PHONE:

NICK MARTIN Landscape Architect, Inc. 3173 Willow Tree Lane Escondido, CA 92027 P: (760) 533-1717 E: nick@nicklandscape.com



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BACKYARD DIMENSION PLAN



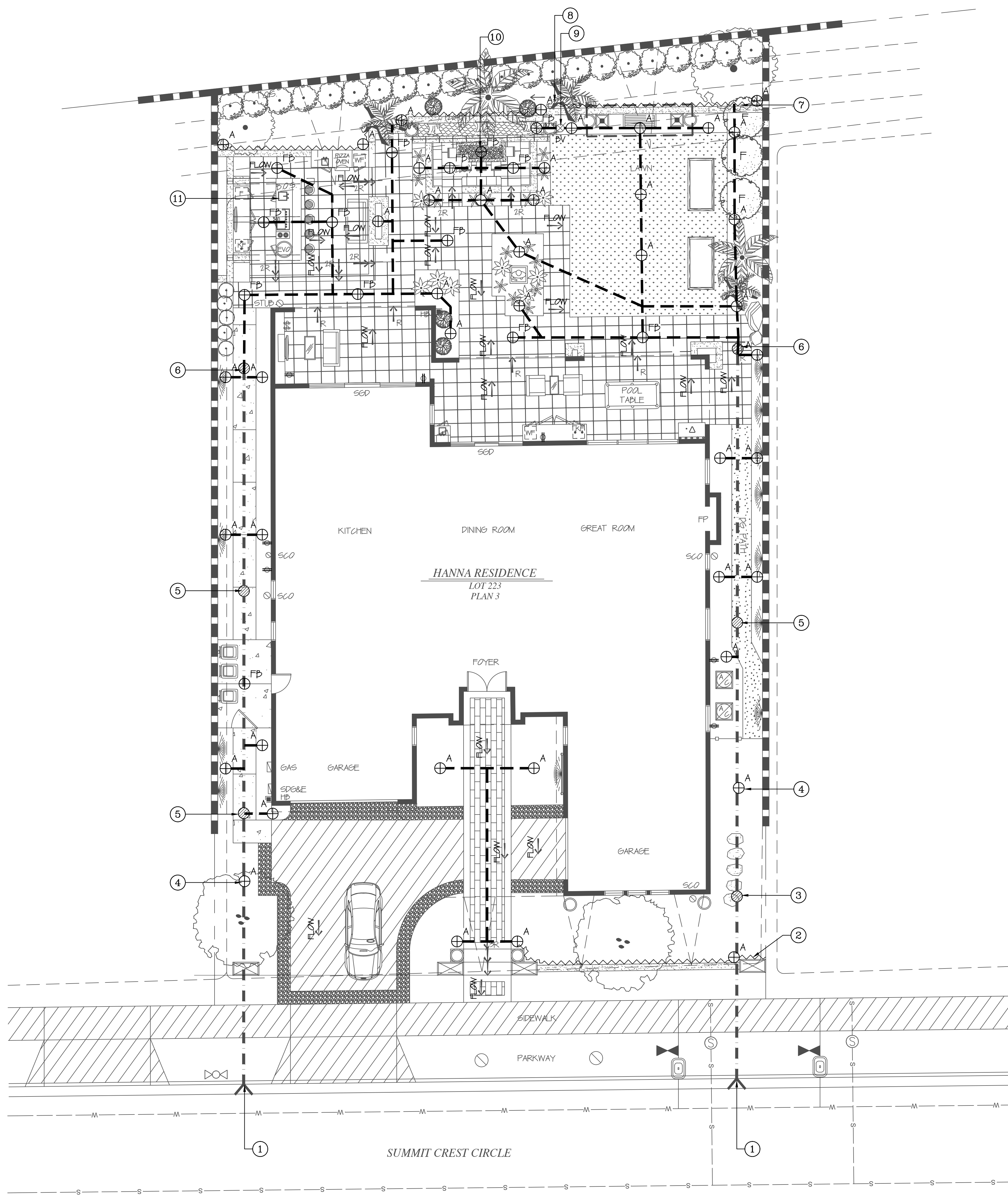
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**DRAINAGE LEGEND**

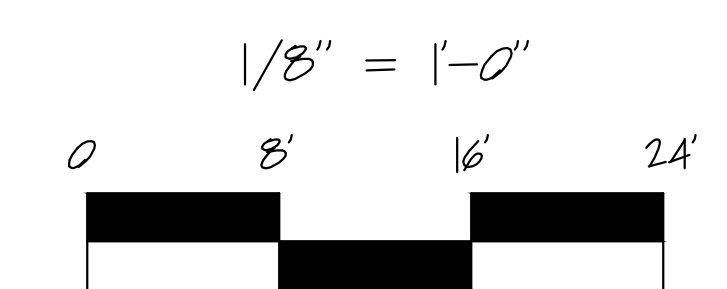
SYMBOL	DESCRIPTION
A	NDS ATRILUM GRATE
F	NDS FLAT GRATE
B	BRASS GRATE
C	CHROME GRATE
⊕	ROUND GRATE (BRASS OR CHROME)
⊗	EXISTING DRAIN TO REMAIN
⊙	DRAIN CONNECTED TO SEWER LINE PER CODE
---	EXISTING DRAIN LINE
---	4" DIAMETER 60# RIGID CONDUIT DRAIN LINE (SIZE INDICATED ON PLAN). USE OF FLEX DRAIN LINE NOT PERMITTED.
---	TYPICAL DAYLIGHT
FP	TYPICAL FRENCH DRAIN TO BE INSTALLED BEHIND RETAINING WALL(S) PER CITY STANDARDS / SPECIFICATIONS PIPE TO BE PERFORATED AT _____ DIAMETER AND WRAPPED WITH FABRIC. BACKFILL TRENCH WITH GRAVEL.
2%	TYPICAL CROSS SLOPE
---	CMU STRUCTURAL RETAINING WALL TO BE CONSTRUCTED IN LOCATION PER PLAN. WALL IS 9'-0" OR HIGHER AND WILL REQUIRE A SAN DIEGO COUNTY PERMIT. CONTRACTOR TO APPLY STUCCO FINISH TO MATCH COLOR AND TEXTURE OF HOME STUCCO. ALL RETAINING WALLS WILL INCLUDE A FRENCH DRAIN SYSTEM. WALL HEIGHTS SHALL NOT EXCEED 5'-0" ABOVE ADJACENT GRADE.
---	FREESTANDING CMU SCREEN WALL (NON-PERMIT) APPLY FINISH TO MATCH HOME HEIGHT MAY VARY (REFER TO SHEET L / )
---	EXISTING CMU WALL

**GENERAL NOTES**

- MINIMUM TREE SEPARATION DISTANCE:**  
IMPROVEMENT MINIMUM DISTANCE TO STREET TREES
- TRAFFIC SIGNALS (STOP SIGNS) 10'-0"
  - UNDERGROUND UTILITY LINES 5'-0"
  - ABOVE GROUND UTILITY STRUCTURES 10'-0"
  - DRIVEWAYS (ENTRIES) 10'-0"
  - INTERSECTIONS (INTERSECTING CURB LINES OF TWO STREETS) 25'-0"
- BEFORE START OF ANY EXCAVATION OR TRENCHING IN LOCATION ON PROJECT SITE, CONTRACTOR SHALL VERIFY LOCATIONS OF ALL UNDERGROUND UTILITIES. CONTACT UNDERGROUND SERVICE ALERT FOR LOCATION OF RIGHT-OF-WAY UTILITIES AT (800) 227-2469 AND PROPERTY OWNER FOR ON-SITE UTILITIES A MINIMUM OF 48 WORKING HOURS PRIOR TO START OF ANY EXCAVATION. DO NOT COMMENCE ANY EXCAVATION UNTIL UTILITIES HAVE BEEN LOCATED.
  - CONTRACTOR TO VERIFY ALL PROPERTY LINES, EASEMENTS, AND SETBACKS IN THE FIELD PRIOR TO INSTALLATION OF WORK. IF THESE CONDITIONS EFFECT DESIGN LAYOUT, PLEASE CALL LANDSCAPE ARCHITECT NICK MARTIN PRIOR TO THE START OF CONSTRUCTION AT (760) 533-1717.
  - COORDINATE LOCATION OF ALL UNDERGROUND UTILITIES AND STORM DRAINS WITH NEW TREE LOCATIONS AND MECHANICAL / ELECTRICAL FACILITIES REFER TO LANDSCAPE, PLUMBING, AND ELECTRICAL DRAWINGS FOR ADDITIONAL INFO.
  - PROTECT IN PLACE ALL EXISTING IMPROVEMENTS, STRUCTURES, AND UNDERGROUND UTILITIES TO REMAIN.
  - INSTALL ROOT BARRIERS TO ALL TREES WITHIN 5- FEET OF UTILITIES, HARDSCAPE, ETC.

**DRAINAGE PLAN KEYNOTES #**

- EXISTING CURB CORES & DRAINAGE SYSTEM TRUNK LINES TO REMAIN & BE UTILIZED. CHECK SYSTEM TO ENSURE PROPER FUNCTION & THAT IT IS CLEAR OF DEBRIS.
- INSTALL FRENCH DRAIN BEHIND RETAINING WALL IN FRONT YARD. CONNECT TO EXISTING DRAINAGE SYSTEM TRUNK LINE.
- EXISTING DRAIN TO REMAIN & BE UTILIZED. CHANGE OUT ATRILUM GRATE TO MATCH PROPOSED ATRILUM GRATES IF IT ALREADY DOES NOT.
- INSTALL DRAINS PER LEGEND & SPECIFICATIONS ON L3.0.
- EXISTING DRAIN TO BE DEMOLISHED & CAPPED. ENSURE COMPLETE SEAL POINT OF CONNECTION FOR BACKYARD MAINLINE. DEMOLISH EXISTING DRAIN & CONNECT TO EXISTING MAINLINE.
- INSTALL FRENCH DRAIN ALONG BACKYARD RETAINING WALL. ADD COLLECTION AREA DRAINS PER PLAN & CONNECT TO DRAINAGE SYSTEM.
- DIVERGENCE POINT FOR PROPOSED FRENCH DRAIN. THE FRENCH DRAIN IS SEPARATED INTO (2) SECTIONS, BOTH FLOWING IN OPPOSITE DIRECTIONS AT THIS POINT.
- INSTALL MANUAL BALL VALVE FOR WATERFALL SLUMP DRAINAGE DURING SEASONAL CLEANING. CONCEAL BALL VALVE FROM VIEW AS MUCH AS POSSIBLE. CONNECT TO DRAINAGE SYSTEM FOR DISCHARGE.
- INSTALL DRAIN IN FIRE PIT TO PREVENT PONDING/ACCUMULATION.
- SEE L4.0 FOR ALL PERMITTED UTILITIES, INCLUDING SEWER.



NOT FOR CONSTRUCTION

**DRAINAGE PLAN**

**DRAINAGE PLAN**

PROJECT NAME: \_\_\_\_\_  
PHONE: \_\_\_\_\_

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DRAWN	NM
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SCALE	1/8" = 1'-0"
JOB NAME	HANNA
SHEET	L/2.0
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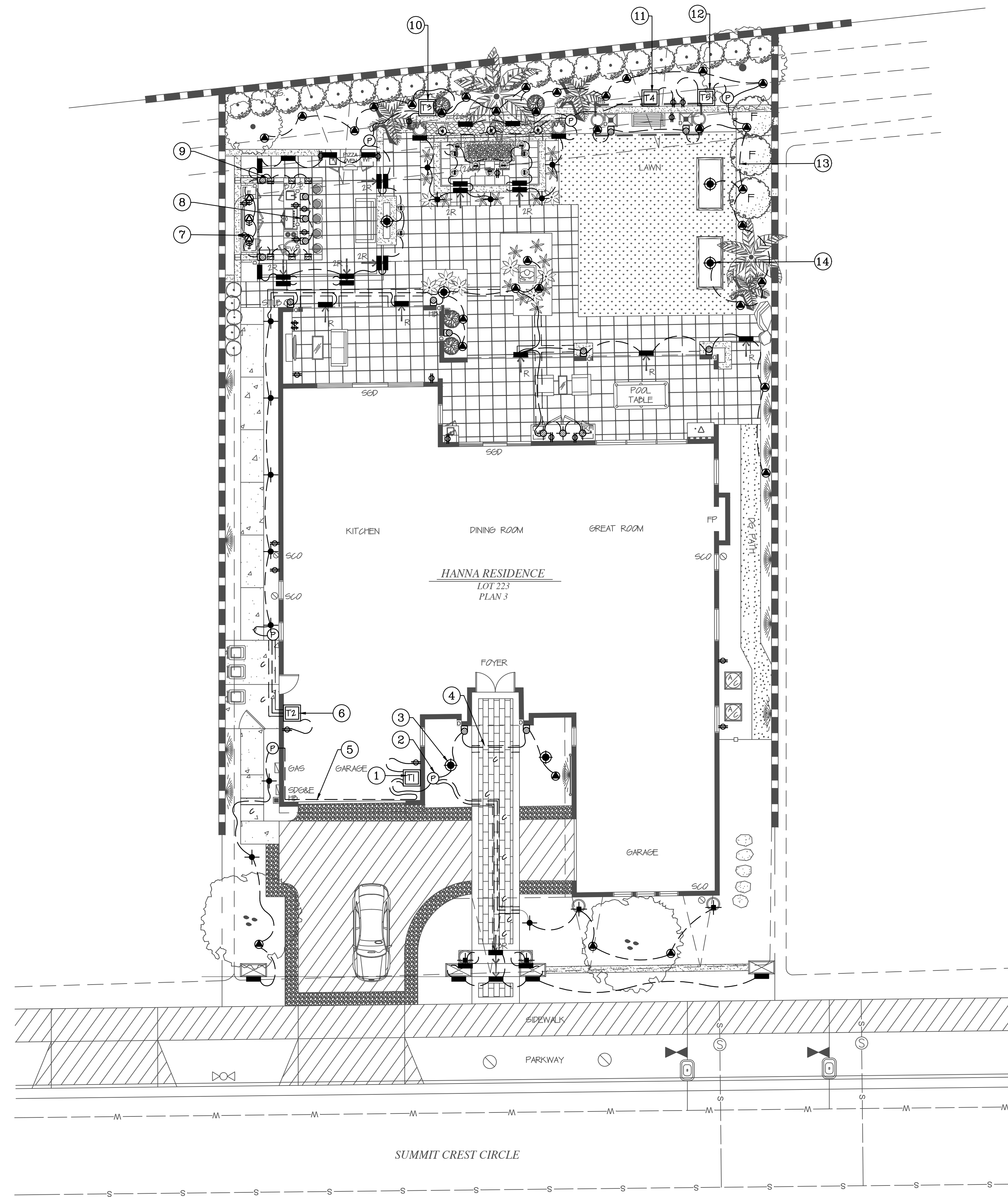
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**LIGHTING PLAN KEYNOTES**

1. INSTALL POWER RIVER T1 IN INSIDE OF GARAGE WALL PER SPECIFICATIONS ON L41. CONNECT TO GFCI DUPLEX OUTLET. RUN INPUT LEAD TO PRIMARY HOME BOX PER PLAN. INSTALL IN-USE COVER.
2. INSTALL PRIMARY HOME BOX PER SPECIFICATIONS ON L41. INSTALL IN-LINE FUSE TYPICAL.
3. INSTALL LIGHTS PER LEGEND & SPECIFICATIONS ON L41 & L42. TYPICAL.
4. INSTALL SCH40 CHASE LINE UNDER ALL HARDSCAPE CROSS-OVERS. INSTALL AS NEEDED TYPICAL.
5. INSTALL OVERHEAD CONDUIT INSIDE GARAGE & CONNECT TO PRIMARY HOME BOX PER PLAN & SPECIFICATIONS ON L41.
6. INSTALL POWER DRIVER T2 IN INSIDE OF GARAGE WALL. CONNECT TO GFCI DUPLEX OUTLET & RUN INPUT LEAD TO PRIMARY HOME BOX PER PLAN. INSTALL IN-USE COVER.
7. INSTALL OVERHEAD LED LIGHT FIXTURES TO LIGHT COUNTER TOP. FIXTURES T.D.D.
8. INSTALL COSMO SCENCE UNDER BAR TOP AT EQUAL INTERVALS. BEAM GOES UP & DOWN FOR FULL VERTICAL WASH. INSTALL BETWEEN BAR STOOLS & PER SPECIFICATIONS ON L42. TYPICAL.
9. INSTALL TRANSPORTER ON BLACK-OPS MOUNT. PAINT TO MATCH COVER BEAMS. LIGHTS MOUNT ON UNDERSIDE OF SUPPORT BEAM & BEAM FOCUSES UP TO LIGHT UNDERSIDE OF BIO-CLIMATIC SHADE COVER. TYPICAL.
10. INSTALL POWER DRIVER T3 ON BACKSIDE OF RETAINING WALL SO THAT IT IS NOT VISIBLE. CONNECT TO GFCI DUPLEX OUTLET & RUN INPUT LEAD TO PRIMARY HOME BOX PER PLAN. INSTALL IN-USE COVER. THIS PRIMARY HOME BOX HAS (2) RUNS.
11. INSTALL POWER DRIVER T4 ON BACKSIDE OF RETAINING WALL SO THAT IT IS NOT VISIBLE. CONNECT TO GFCI DUPLEX OUTLET & RUN INPUT LEAD TO PRIMARY HOME BOX. INSTALL IN-USE COVER. THIS PRIMARY HOME BOX HAS (3) RUNS.
12. INSTALL POWER DRIVER T5 ON BACKSIDE OF RETAINING WALL SO THAT IT IS NOT VISIBLE. CONNECT TO GFCI DUPLEX OUTLET & RUN INPUT LEAD TO PRIMARY HOME BOX. INSTALL IN-USE COVER. THIS PRIMARY HOME BOX HAS (2) RUNS.
13. INSTALL DIRECT BURIAL WIRE PER SPECIFICATIONS ON L41 & L42. TYPICAL.
14. INSTALL ENHANCER LED LIGHT FIXTURES ON 40" STEMS & PER SPECIFICATIONS ON L42. TYPICAL.

**LIGHTING PLAN GENERAL NOTES**

1. ALL NEW GFCI DUPLEX OUTLETS MUST BE INSTALL BY LICENSED CA ELECTRICIAN.
2. ALL WORK WILL BE DONE PER CODE, AS APPLICABLE.

**LIGHTING PLAN LEGEND**

SYM	DESCRIPTION
T	WALL MOUNTED WEATHER-PROOF 120V TRANSFORMER
P	PRIMARY HOME BOX FOR ALL DEVICE STORAGE/ RUN JUNCTION
⊕	120V GFCI QUADPLEX OUTLET REQUIRED FOR TRANSFORMERS
⊕	ENHANCER FIXTURE ON STOUT
⊕	STAKE PER PLAN KEYNOTES
⊕	PATHFINDER FIXTURE ON SPIKE
⊕	STAKE PER PLAN KEYNOTES
⊕	WATERFALL LIGHT FIXTURE ON BASE PER PLAN KEYNOTES
⊕	ATLAS FIXTURE MOUNTED UNDER WALL/COLUMN CAP
⊕	EDISON AMBASSADOR W/ ANGLED TOP PER PLAN KEYNOTES
⊕	MILLENNIUM FIXTURE ON STAND-OFF PER PLAN KEYNOTES
⊕	COSMO-DUAL FIXTURE W/ M1
⊕	SCENCE BASE PER PLAN KEYNOTES
⊕	TRANSPORTER FIXTURE ON M1
⊕	BLACKOPS PER PLAN KEYNOTES
⊕	EDISON HORIZON W/ RING PER PLAN KEYNOTES

LIGHTING PLAN

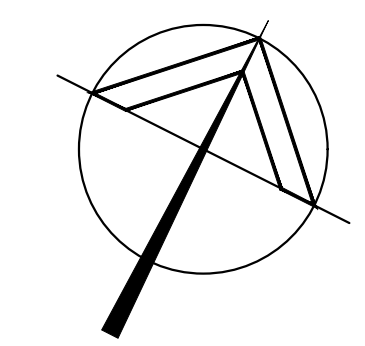
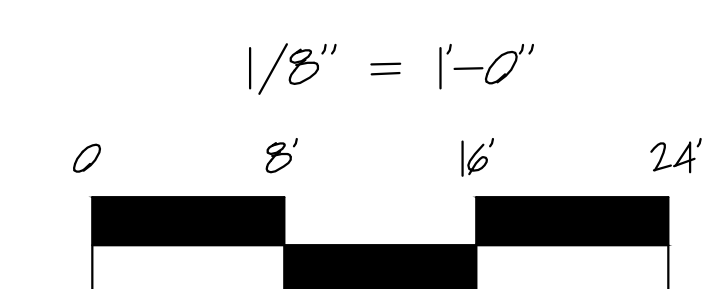
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PHONE:

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LIGHTING PLAN

DRAWN	NM
DRAFTER	AP
DATE	03/17/2010
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JOB NAME	HANNA
SHEET	
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SHEETS	

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**POWER SPECIFICATIONS**

1. INSTALL 120V GFCI QUADPLEX OUTLET AT MAXIMUM 5' FROM ALL PRIMARY HOME BOXES. ALL OUTLETS MUST BE INSTALLED BY A CALIFORNIA LICENSED ELECTRICIAN. ALL WORK TO BE DONE PER CODE.
2. INSTALL IN-USE COVER ON ALL OUTLETS W/ A TRANSFORMER INSTALLED. INSTALL W/ SUPPLIED HARDWARE TO FASTEN REAR HOUSING & WEATHER GASKET TO OUTLET FACE. ATTACH FRONT COVER WHEN FINISHED.
3. WALL MOUNTED TRANSFORMER TO BE MOUNTED MINIMUM 12" ABOVE FINISHED GRADE WHEN POSSIBLE. INSTALL W/ SUPPLIED HARDWARE IN REQUIRED ORIENTATION FOR LAYOUT & SPACE.
4. INSTALL IN-LINE FUSE BETWEEN ALL TRANSFORMERS & POWER OUTLETS. INSTALL FUSE ASSEMBLY INSIDE PRIMARY HOME BOX IN-USE COVER WHEN POSSIBLE. FUSE HOUSING IS WEATHER-PROOF.
5. INSTALL PRIMARY HOME BOX MAXIMUM 50' FROM TRANSFORMER. PRIMARY HOME BOXES CAN FEED MAXIMUM 10 SECONDARY HOME BOXES FEEDS, 30 FIXTURES, OR A COMBINATION OF BOTH WHERE 10 FIXTURES EQUAL 1 FEED. INSTALL PRIMARY HOME BOX BURIED AT MINIMUM 6" BELOW FINISHED GRADE FROM BOTTOM OF HOME BOX.
6. INSTALL SECONDARY HOME BOXES MAXIMUM 50' FROM PRIMARY HOME BOX BASE. INSTALL MAXIMUM 10 RUNS PER UNIT, OR 30 FIXTURES MAXIMUM. EACH RUN TO BE MAXIMUM 120' IN LENGTH FROM SECONDARY HOME BOX.
7. ALL WIRE RUNS CAN BE LAID IN MULTIPLE CONFIGURATIONS. 30' DIRECT BURIAL LEADS CAN BE DAISY CHAINED, OR RUN WITH DUAL LEADS, FEEDING (2) ALTERNATE FIXTURES FROM (1) SOURCE FIXTURE. ALL BURIED RUNS TO BE INSTALLED MINIMUM 6" BELOW FINISHED GRADE/FOOTINGS.

**MOUNTING SPECIFICATIONS**

1. INSTALL ALL M1 MOUNTS WITH PROVIDED HARDWARE.
2. STAKE MOUNTS MAY NEED AUGER TO INSTALL PROPERLY IN COMPACTED SOIL.
3. UTILIZE LARGER OPTION FOR STAKE MOUNTS WHENEVER UTILIZING IN HIGH TRAFFIC AREAS.
4. PATH LIGHTS TO BE MOUNTED MINIMUM 3" FROM EDGE OF PATH.
5. ENHANCER & POLYNESIAN LIGHTS TO BE MOUNTED MINIMUM 5' FROM EDGE OF AREA BEING LIT.
6. ATLAS LIGHTS MOUNT UNDER STEP TREADS, WALL CAPS, OR OTHER FINISH SURFACE COVERING.

**INSTALLATION LAYOUT ORDERED STEPS**

1. UNPACK & UN-BAG ALL FIXTURES IN ORDER PACKAGE.
2. ATTACH ALL STAKES TO FIXTURES WITH LOCK N' LOAD SYSTEM.
3. DIG INSTALLATION TRENCHES AT MINIMUM 6" BELOW FINISHED GRADE/FOOTINGS.
4. PLACE FIXTURES, WITH INSTALLED 30' LOOP IN PLAN SPECIFIED LOCATIONS.
5. LOCATE & INSTALL ALL PRIMARY & SECONDARY HOME BOXES AT PLAN SPECIFIED LOCATIONS.
6. PLAN WILL DICTATE WIRE METHOD. IF NO METHOD IS SHOWN, DETERMINE THE BEST LEAD ROUTING BY USING 10-11-12 RULE. SEE NEXT SECTION.
7. MAKE ALL ELECTRICAL CONNECTIONS TO FIXTURES & HOME/SECONDARY BOXES.
8. MOUNT TRANSFORMER & IN-USE COVER IN SPECIFIED LOCATION. GFCI OUTLETS SHOULD BE RUN PRIOR TO INSTALLATION DAY BY LICENSED CALIFORNIA ELECTRICIAN.
9. ONCE ALL SPLICES & CONNECTIONS ARE MADE ALL WIRE TO BE BURIED IN TRENCH.

**10-11-12 RULE**

1. THE FOUNDATION OF THE 10-11-12 RULE: (10) FIXTURES AT 12 FEET ON AVERAGE, OR 120 FEET TOTAL, WILL GET YOU 11 VOLTS TO THE LED.
2. THE RULE IS DETERMINED BY A TOTAL OF 50 FEET OF 14-2 WIRE, OR 75 FEET OF 12-2, DISTANCE FROM THE LED POWER TO ALL HOME BOXES, THEN A TOTAL OF 120 FEET OF FIXTURE WIRE, 18-2, FROM HOME BOX TO LAST FIXTURE, DOUBLE THE DISTANCE OF THE 14-2 TO 100 FEET, GIVING YOU 5-11-12. COMBINE BOTH METHODS FOR COMPLETION OF ANY LAYOUT.
3. FIXTURE TO FIXTURE DAISY CHAIN & MULTI-LEAD CONFIGURATION ACCEPTABLE TOGETHER, (1) FIXTURE CAN FEED (2) OTHER FIXTURES.
4. USE ANY & ALL LEFT OVER WIRE FROM THE SUPPLIED 50 FEET FROM THE LED POWER DRIVER TO ADD MULTIPLE HOME/SECONDARY BOXES.

**INSTALLATION KEY FOCUS AREAS**

1. VOLTAGE DROP - UTILIZE MANUFACTURER'S WORKSHEET TO VERIFY ALL RUNS.
2. CORROSION - SEE MANUFACTURER'S INSTALL INSTRUCTIONS FOR MAXIMUM PREVENTION.
3. MOISTURE MIGRATION & WATER INTRUSION - SEE MANUFACTURER'S INSTALL INSTRUCTIONS.
4. CONNECTIONS - UTILIZE PROVIDED CONNECTORS FOR MAXIMUM CONNECTION LONGEVITY.
5. GLARE - SEE MANUFACTURER'S INSTALL INSTRUCTIONS FOR GLARE MINIMIZATION TECHNIQUES.
6. LIGHTING DESIGN - SEE MANUFACTURER'S DESIGN INSTALLATION INSTRUCTIONS.
7. FUTURE CONSIDERATIONS - CONSIDER PROJECT PHASING & DESIGN TO ALLOW FUTURE ADDITIONS.

**GENERAL LIGHTING NOTES**

1. THIS LIGHTING PLAN IS SOLELY INTENDED FOR LANDSCAPE LIGHTING INSTALLATION PURPOSES. INSTALLATION CONTRACTOR SHALL BE LEVEL 1 LIGHTING CLUB CERTIFIED BY LIFETIME LIGHTING. ALL LIGHTING FIXTURES AND POWER DRIVERS ARE TO BE INSTALLED PER MANUFACTURER SPECIFICATIONS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO MAINTAIN COMPLIANCE WITH THE NATIONAL ELECTRIC CODE (CURRENT EDITION) AND ALL LOCAL BUILDING SAFETY CODES AND ORDINANCES APPLICABLE FOR PROJECT.
  2. ALL LIGHTING FIXTURES ARE SHOWN IN APPROXIMATE LOCATION, UNLESS OTHERWISE NOTED. THE CONTRACTOR SHALL FIELD VERIFY THE ACTUAL PLACEMENT OF EACH FIXTURE UPON COMPLETION OF LANDSCAPE INSTALLATION.
  3. ALL PATH LIGHTS TO BE INSTALLED AT A MINIMUM OF 18" FROM ANY HARDSCAPE, BUILDINGS, OR FOOTINGS.
  4. ALL PRIMARY/SECONDARY HOME BOXES ARE TO BE LABELED AND INSTALLED COMMON SENSE PLANTER/LANDSCAPE AREAS 2' ABOVE FINISHED GRADE, MINIMUM, OR IN A READILY ACCESSIBLE AREA THAT DOES NOT OBSTRUCT PATHWAYS, DRAINAGE SWALES, PIPES, OR COMMON AREAS.
  5. ALL FIXTURE WIRE RUNS SHALL BE LABELED AND INSTALLED AT A MINIMUM DEPTH OF 6". ALL FIXTURE LEAD WIRES SHALL BE INSTALLED AT A MINIMUM DEPTH OF 6".
  6. IN ORDER TO MINIMIZE FUTURE POTENTIAL WIRE RUN ISSUES, ALL WIRE RUNS SHALL BE INSTALLED PARALLEL AND ADJACENT TO HARDSCAPE SUCH AS PATHS, WALKS, DRIVEWAYS, FOOTINGS AND WALLS.
  7. THE CONTRACTOR INSTALLING THE FIXTURES IS RESPONSIBLE FOR INSTALLING SCH40 CONDUIT CHASE SLEEVES UNDER THE HARDSCAPE SURFACES, USING A MINIMUM 1-INCH PVC PIPE, OR PER PLAN.
  8. CUT THE WIRE LEADS FROM THE SPECIFIED RUNS TO FIT THE SPECIFIED RUNS. UTILIZE REMAINING WIRE FOR LEAD EXTENSIONS IN OTHER AREAS OF THE INSTALLATION. LEAVE 6" OF EXCESS WIRE AT THE HOME BOX TO EASE MAINTENANCE & INSTALLATION. LEAVE 3" AT EACH FIXTURE FOR EASE OF INSTALLATION.
  9. ALL WIRE RUN SPLICES SHALL BE INSTALLED IN APPROVED PRIMARY/SECONDARY HOME BOXES WITH PROVIDED CONNECTIONS.
  10. ALL EXTERIOR 120-VOLT ELECTRICAL OUTLETS SHALL BE GFCI PROTECTED AS PER NATIONAL ELECTRICAL CODE, AND ARE TO BE INSTALLED BY A LICENSED CALIFORNIA ELECTRICIAN IF NOT EXISTING.
  11. ALL POWER DRIVERS PLUGGED INTO AN OUTDOOR RECEPTACLE SHALL HAVE AN IN-USE COVER. CONTRACTOR SHALL INSTALL TAYMAC TYPE COVERS AT ALL OUTLETS NOT UTILIZED BY POWER DRIVERS.
  12. ALL PLUG-IN POWER DRIVERS ARE TO HAVE A "MOISTURE DRIP LOOP" IN THE POWER CORD.
  13. ALL EXPOSED CONDUITS SHALL BE PAINTED TO MATCH EXISTING CONDITIONS, OR PER PLAN.
  14. ALL WIRE UTILIZED IS TO BE FROM MANUFACTURER. WIRE IS PROPRIETARY AND IS REQUIRED FOR PROPER SYSTEM OPERATION AND FIXTURE FUNCTION.
  15. ALL EXPOSED WIRES ARE TO BE PROTECTED AND PAINTED.
  16. THE INSTALLING CONTRACTOR IS RESPONSIBLE FOR ADJUSTING THE FIXTURES AT NIGHT TO HELP ELIMINATE GLARE AND TO ENSURE OPTIMUM LIGHTING EFFECT. SEE MANUFACTURER INSTALLATION DETAILS FOR GLARE MINIMIZATION AND LIGHT DIMMING TECHNIQUES.
  17. THE GLARE CONTROL KIT SHALL CONSIST OF A ROTATIONAL SHROUD, FROSTED, LINEAR AND SPREAD LENS AND A HEX LOUVER TO MINIMIZE GLARE UP TO A 30 DEGREE ANGLE. SEE MANUFACTURER INSTALLATION DETAILS FOR PROPER ADJUSTMENTS.
  18. A FROSTED LENS SHALL BE USED IN ANY DOWN LIGHT THAT IS PLACED UNDER 12" IN HEIGHT TO MINIMIZE GLARE.
- \*FOR ANY QUESTIONS, PLEASE CONTACT LIFETIME LIGHTING AT (760) 304-8183.  
LIFETIME LIGHTING - 280 TRADE ST. SAN MARCOS, CA 92078 SALES@DIRECTLCL.COM

**LIGHTING CONTRACTOR GENERAL NOTES**

1. LANDSCAPE CONTRACTOR TO MAINTAIN 10' MINIMUM SETBACK FROM POOL WATERLINE TO ALL LOW VOLTAGE LIGHTING FIXTURES PER CODE. CONTRACTOR TO COORDINATE WITH HOME OWNER FOR ALL LOCATIONS OF CONDUITS UNDER PAVEMENT FOR FUTURE UPGRADES AND MAINTENANCE PURPOSES. ALL CODE ELECTRICAL WORK TO BE PERFORMED BY A LICENSED CALIFORNIA ELECTRICIAN.
2. UPON COMPLETION OF INSTALLATION CONTRACTOR SHALL VERIFY THAT ALL FIXTURES ARE PROPERLY VOLTED PER MANUFACTURER STANDARDS.
3. UPON COMPLETION OF INSTALLATION, CONTRACTOR SHALL VERIFY THAT ALL TRANSFORMERS ARE WITHIN THE MAXIMUM ALLOWABLE AMPERAGE LOAD PER MANUFACTURER STANDARDS.

**FIXTURE FINISH OPTIONS**

1. ALL SELECTIONS TO BE APPROVED BY OWNER.
2. NOT ALL FINISHES ARE AVAILABLE FOR ALL FIXTURES. PLEASE REFER TO THE MANUFACTURER SPECIFICATION SHEET FOR EACH PRODUCT UTILIZED TO ENSURE FINISH IS OFFERED.
3. UTILIZE NUMBER CODE FOR INDICATE FIXTURE FINISH.



**CREATOR FIXTURES**

- \_\_\_ CREATOR
- \_\_\_ GURADSMAN
- \_\_\_ SENTRY
- \_\_\_ STORM-TROOPER
- \_\_\_ SENTINEL
- \_\_\_ MILLENIUM
- \_\_\_ SKYLAR
- \_\_\_ SPECTRUM

**EXPANDER FIXTURES**

- \_\_\_ EXPANDER
- \_\_\_ TRANSPORTER
- \_\_\_ SKYLINER-TACTICLE
- \_\_\_ SKYLINER-GRAND

**AREA LIGHTING FIXTURES**

- \_\_\_ PATHFINDER-18"
- \_\_\_ PATHFINDER-20"
- \_\_\_ PATHFINDER-24"
- \_\_\_ ENHANCER-24"
- \_\_\_ ENHANCER-36"
- \_\_\_ ENHANCER-48"
- \_\_\_ ENHANCER-60"
- \_\_\_ POLYNESIAN-24"
- \_\_\_ POLYNESIAN-36"
- \_\_\_ POLYNESIAN-48"
- \_\_\_ POLYNESIAN-60"
- \_\_\_ PRISM-18"
- \_\_\_ PRISM-24"
- \_\_\_ PRISM-30"

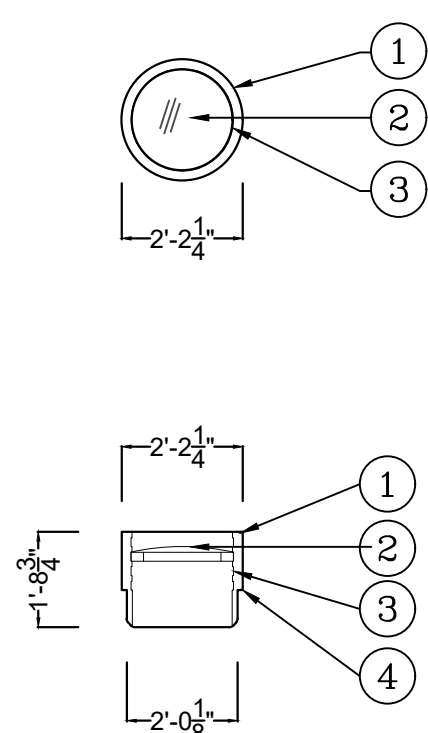
**ROCK LIGHT FIXTURES**

- \_\_\_ QUANTOM
- \_\_\_ TROJAN1
- \_\_\_ TROJAN3
- \_\_\_ AREA ROCK-24" POLE

**EDISON FIXTURES**

- \_\_\_ EDISON-ANGLED
- \_\_\_ EDISON-FLAT
- \_\_\_ EDISON-AMBASSADOR-ANGLED
- \_\_\_ EDISON-AMBASSADOR-FLAT
- \_\_\_ EDISON-ARIES
- \_\_\_ EDISON-ARIES-RING
- \_\_\_ EDISON-ARRAY
- \_\_\_ EDISON-ARRAY-RING
- \_\_\_ EDISON-HORIZON
- \_\_\_ EDISON-HORIZON-RING
- \_\_\_ EDISON-OMEGA
- \_\_\_ EDISON-OMEGA-RING
- \_\_\_ ROCKET LIGHT
- \_\_\_ MODIFIER

**LS02 FIXTURE FINISHES**



**FIXTURE KEYNOTES**

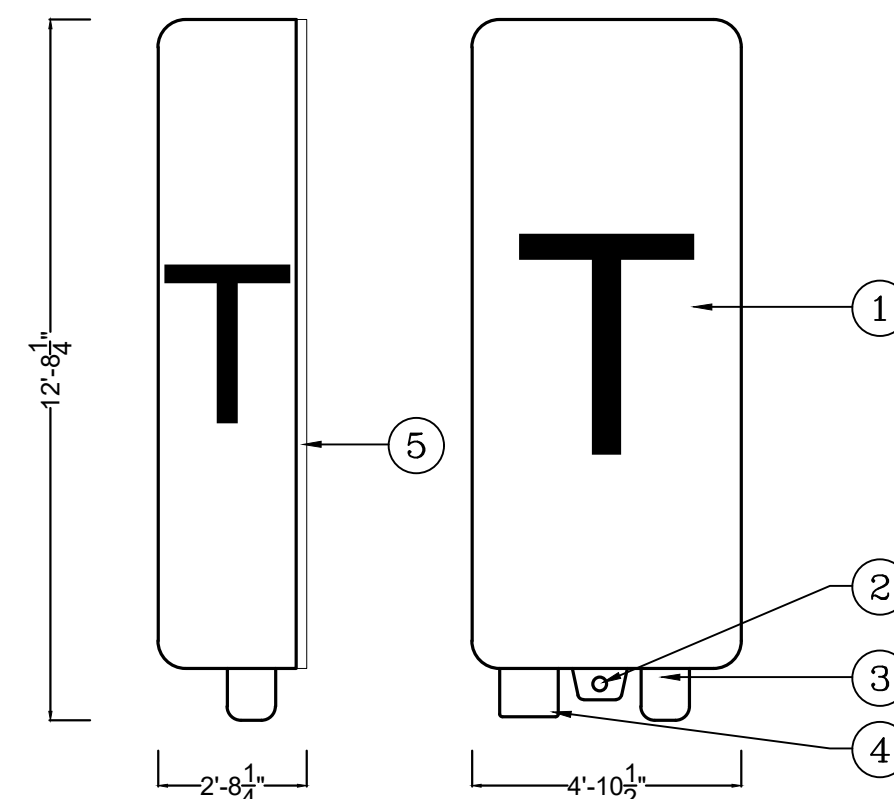
1. SILICONE LENS SEAT LOCATED INSIDE FIXTURE CAN.
2. REPLACEABLE, EXCLUSIVE CONVEXED LENS TO ELIMINATE BUILD UP.
3. (4) MULTI-POINT ADJUSTABILITY CHANNELS TO ALTER LIGHT SPREAD & EFFECT. USE MULTIPLE LENSES W/ MULTIPLE CONFIGURATIONS TO ACHIEVE DESIRED EFFECTS SUCH AS DIMMING.
4. LENS SEAT LOCATING STOP COLLAR.

NOT TO SCALE

**LS09 ADJUSTABLE LENS SEAT SPECIFICATIONS**

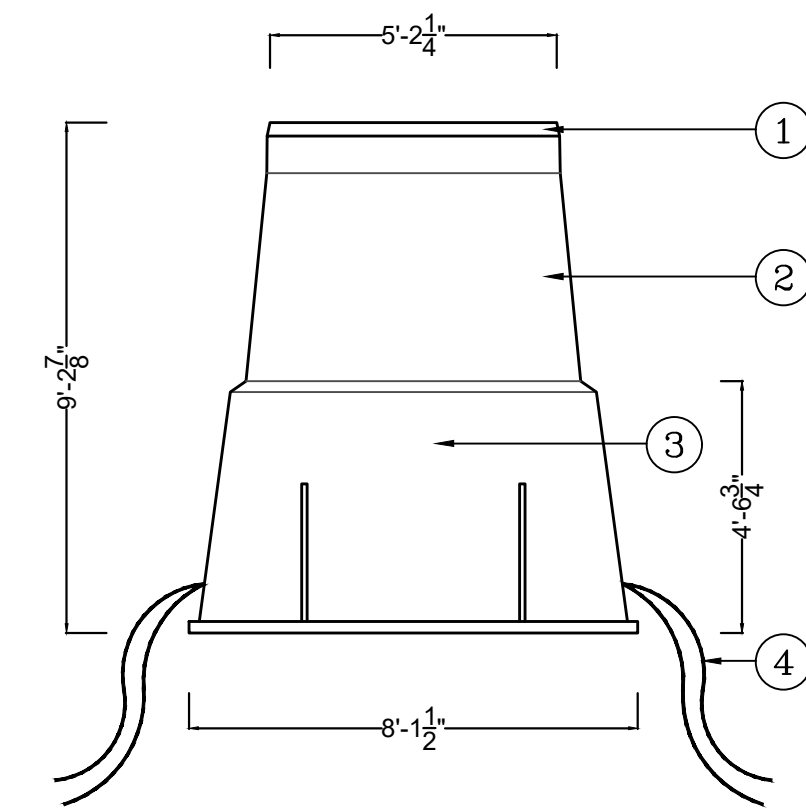
**FIXTURE KEYNOTES**

1. REMOVABLE WEATHER-PROOF SEALED HOUSING.
2. MOUNTING POINT. CAN BE MOUNTED IN ANY POSITION.
3. 5' INPUT LEAD FOR POWER.
4. OUTPUT LEAD FOR POWER.
5. MOUNTING SURFACE SEAT/SEAL.



NOT TO SCALE

**LS03 WALL MOUNTED POWER DRIVER SPECIFICATIONS**

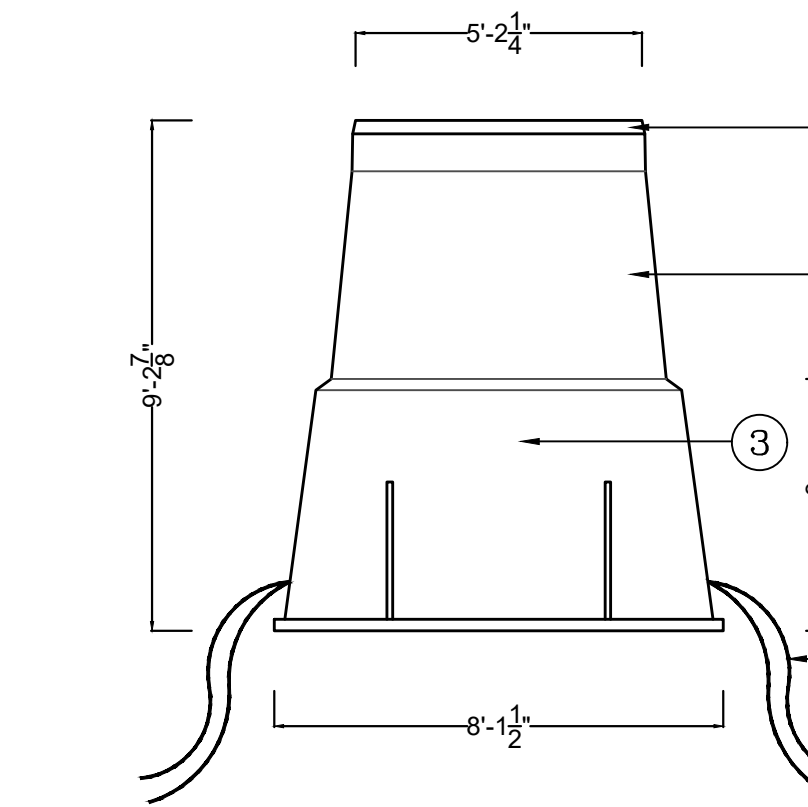


**FIXTURE KEYNOTES**

1. REMOVABLE WEATHER-PROOF LID.
2. UPPER PORTION OF WEATHER-PROOF HOUSING. THIS PORTION TO REMAIN ABOVE GROUND.
3. LOWER PORTION OF WEATHER-PROOF HOUSING. THIS PORTION TO BE BURIED.
4. INPUT/OUTPUT HOLES ON BOTH SIDES OF HOUSING. NO WIRE INCLUDED. 10 RUNS/30 FIXTURES, MAX.

NOT TO SCALE

**LS05 SECONDARY HOME BOX SPECIFICATIONS**

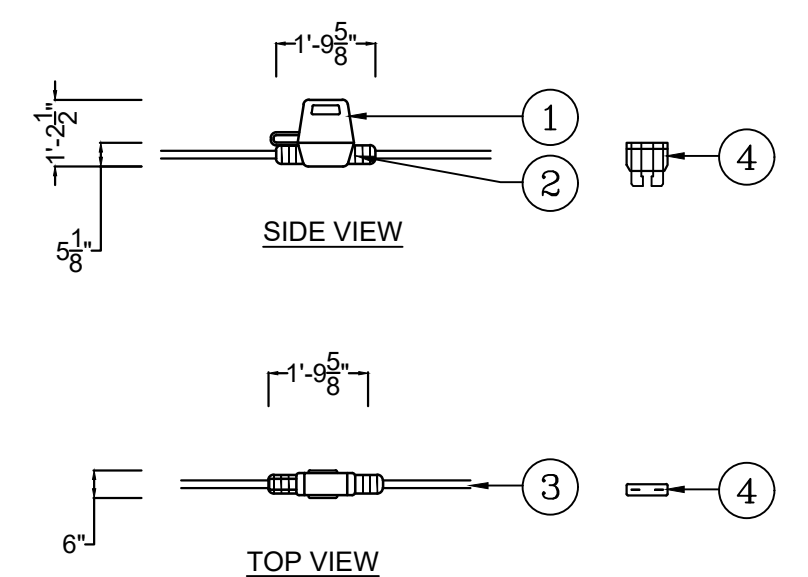


**FIXTURE KEYNOTES**

1. REMOVABLE WEATHER-PROOF LID.
2. UPPER PORTION OF WEATHER-PROOF HOUSING. THIS PORTION TO REMAIN ABOVE GROUND.
3. LOWER PORTION OF WEATHER-PROOF HOUSING. THIS PORTION TO BE BURIED.
4. INPUT/OUTPUT HOLES ON BOTH SIDES OF HOUSING. NO WIRE INCLUDED. 10 SECONDARY HOME BOX LEADS/30 FIXTURES, MAX.

NOT TO SCALE

**LS04 PRIMARY HOME BOX SPECIFICATIONS**



**FIXTURE KEYNOTES**

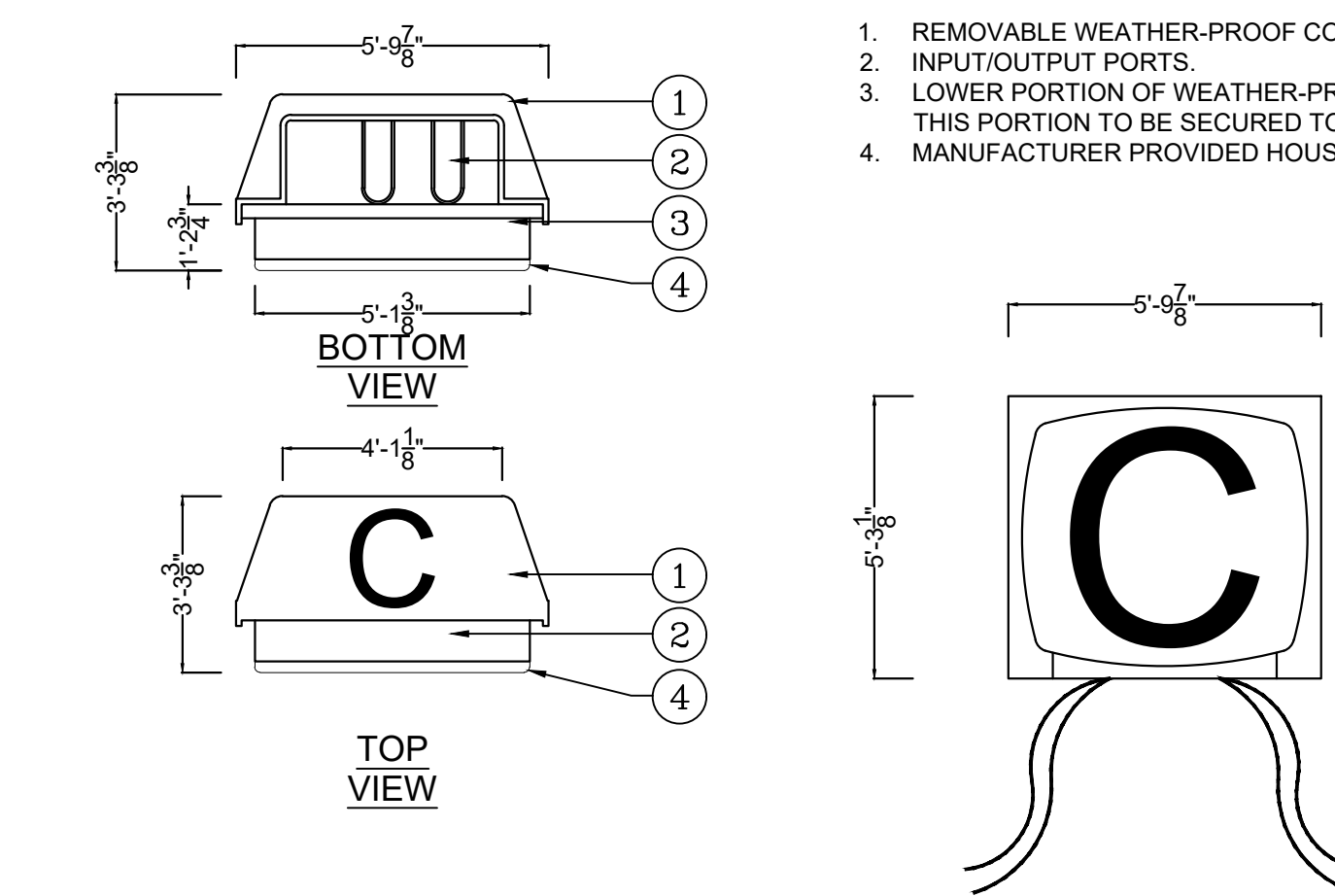
1. UPPER WEATHER-PROOF HOUSING.
2. LOWER WEATHER-PROOF HOUSING W/ LEADS.
3. 12V/24V PROVIDED LEADS.
4. INCLUDED STANDARD BLADE FUSE SIZED FOR TRANSFORMER.

NOT TO SCALE

**LS06 IN-LINE FUSE ASSEMBLY SPECIFICATIONS**

**FIXTURE KEYNOTES**

1. REMOVABLE WEATHER-PROOF COVER PLATE.
2. INPUT/OUTPUT PORTS.
3. LOWER PORTION OF WEATHER-PROOF HOUSING. THIS PORTION TO BE SECURED TO OUTLET FACE.
4. MANUFACTURER PROVIDED HOUSING SEAL.

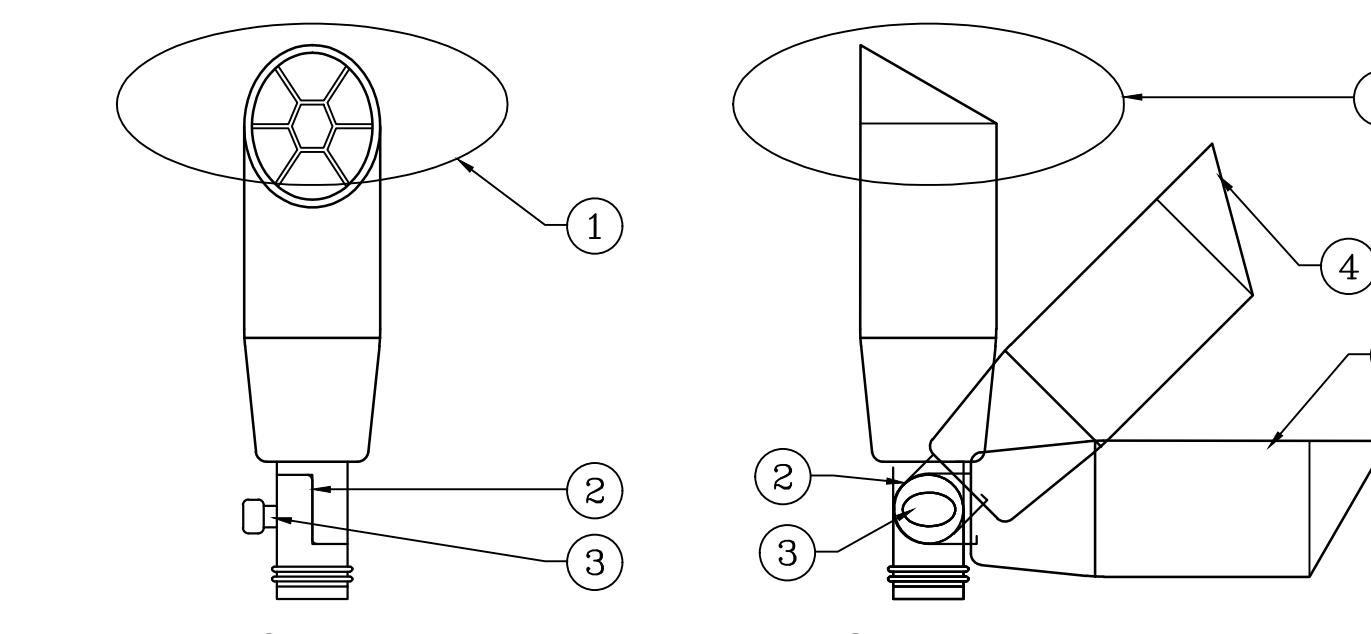


NOT TO SCALE

**LS07 IN-USE COVER SPECIFICATIONS**

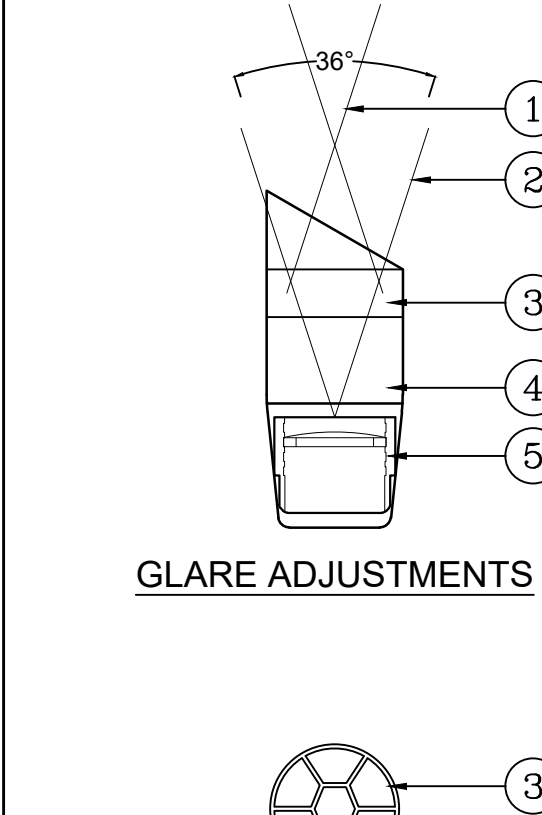
**FIXTURE KEYNOTES**

1. ENTIRE FIXTURE SWIVELS AT 360° FOR UNLIMITED AXIAL ADJUSTMENT FOR GLARE MINIMIZATION.
2. HINGE POINT FOR LOAD N' LOCK MOUNT.
3. LOOSEN POSITION SECURING THUMB ADJUSTER THREADED PIN ENOUGH TO DISENGAGE MICRO-ADJUST LOCKING SPLINED SURFACE.
4. FIXTURE HAS 180° ADJUSTMENT IN HINGE FOR ANGLE TUNING.
5. LIMIT AT EITHER SIDE OF HINGE MOVEMENT.



NOT TO SCALE

**LS08 LOCK N' LOAD KNUCKLE SPECIFICATIONS**

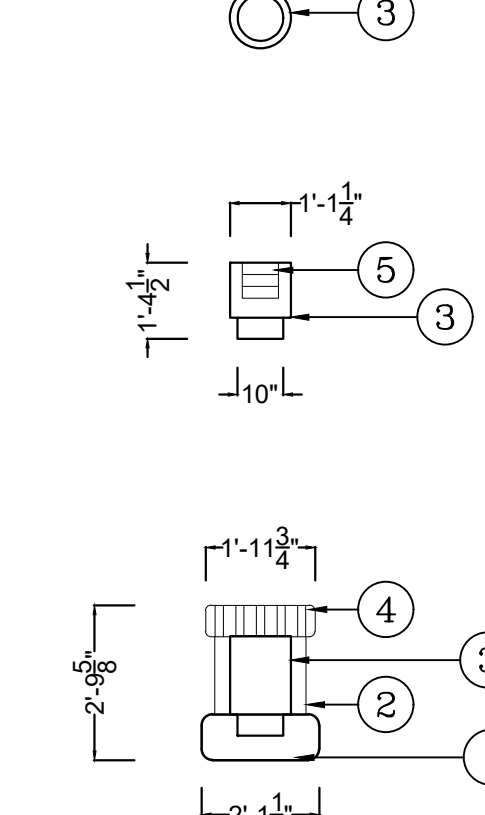


**FIXTURE KEYNOTES**

1. ADJUSTED LIGHT BEAM SPREAD W/ HEX LOUVER. HEX LOUVER COMES PRE-INSTALLED BY MANUFACTURER.
2. BEAM SPREAD W/O HEX LOUVER. BEAM SPREAD MAINTAINS 36°, THE EYE LINE LEVEL OF THE THROW IS ELEVATED ABOVE STANDARD VIEWING LEVEL.
3. PRE-INSTALLED HEX LOUVER FOR GLARE MINIMIZATION.
4. HOUSING FOR CREATOR FIXTURE WHERE BULB, LENS, & HEX LOUVER ARE LOCATED.
5. FURTHER GLARE MINIMIZATION CAN BE ACHIEVED BY ADJUSTING THE LOCATION OF THE LENS IN THE LENS HOUSING. FROSTED LENSES MAY ALSO BE STACKED TO TUNE LIGHT OUTPUT TO DESIRED LEVEL.

NOT TO SCALE

**LS10 GLARE MINIMIZATION SPECIFICATIONS**



**FIXTURE KEYNOTES**

1. LOWER BRASS BASE W/ ATTACHMENT MECHANISM.
2. CLEAR/FROSTED LENS TUBE.
3. BLINDER ATTACHMENT FOR CONTROLLING SPREAD/THROUGH-EYE-LINE. INCLUDED W/ ALL AREA/PATH FIXTURES.
4. UPPER GLASS TOPPER GASKET/SEAT.
5. MANUFACTURER SCORED REMOVABLE PANELS. REMOVE AS NEEDED TO ADJUST BRIGHTNESS & EYE-LINE GLARE. SIZED FOR FIXTURE. INCLUDED W/ ALL USEABLE FIXTURES.

NOT TO SCALE

**LS11 BULB HOUSING W/ BLINDER SPECIFICATIONS**

**LS01 NOTES & SPECIFICATIONS**

LIGHTING SPECIFICATIONS

PROJECT NAME: \_\_\_\_\_ PHONE: \_\_\_\_\_

NICK MARTIN  
Landscape Architect, Inc.  
3173 Willow Tree Lane  
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E: nick@nicklandscape.com

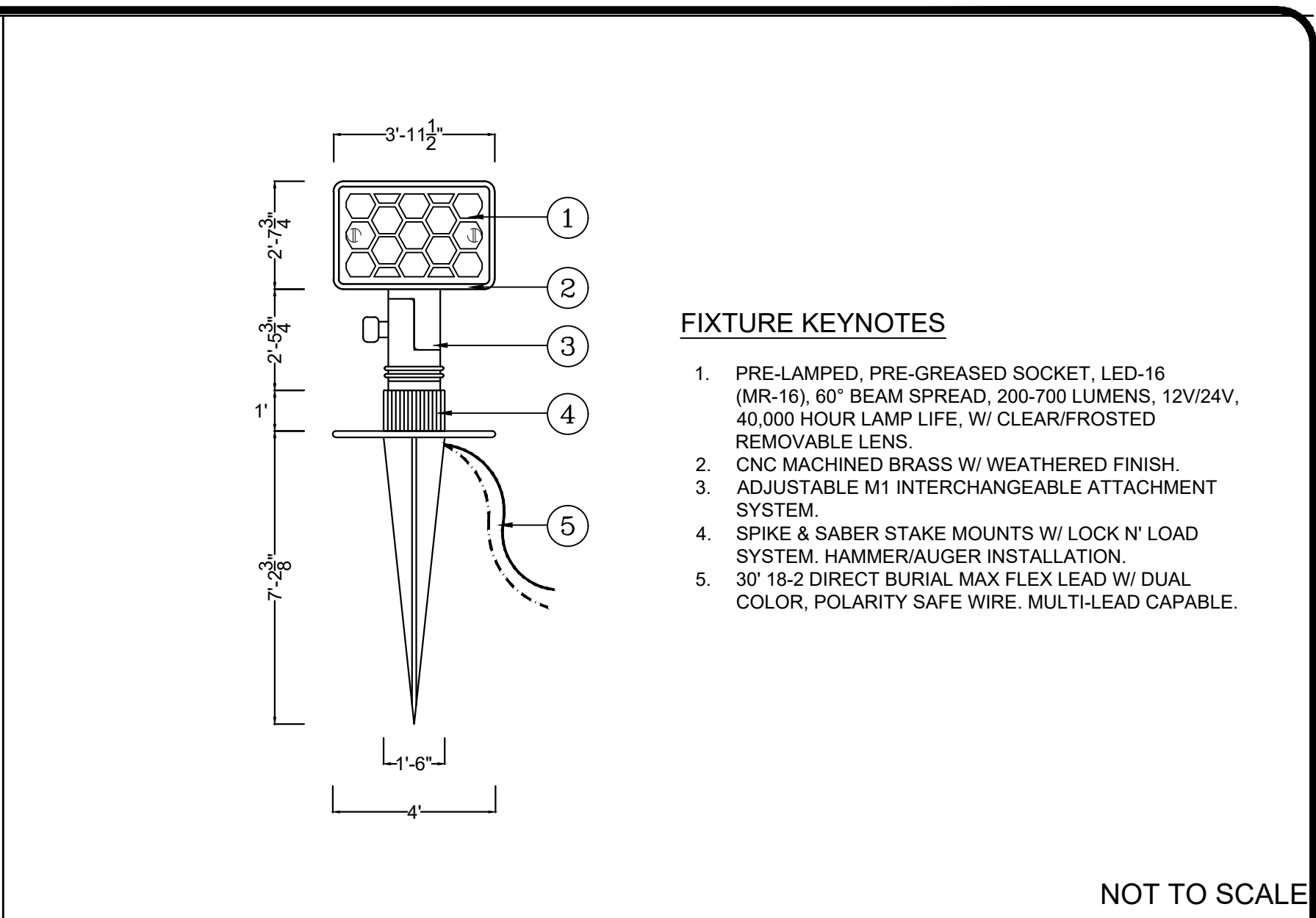
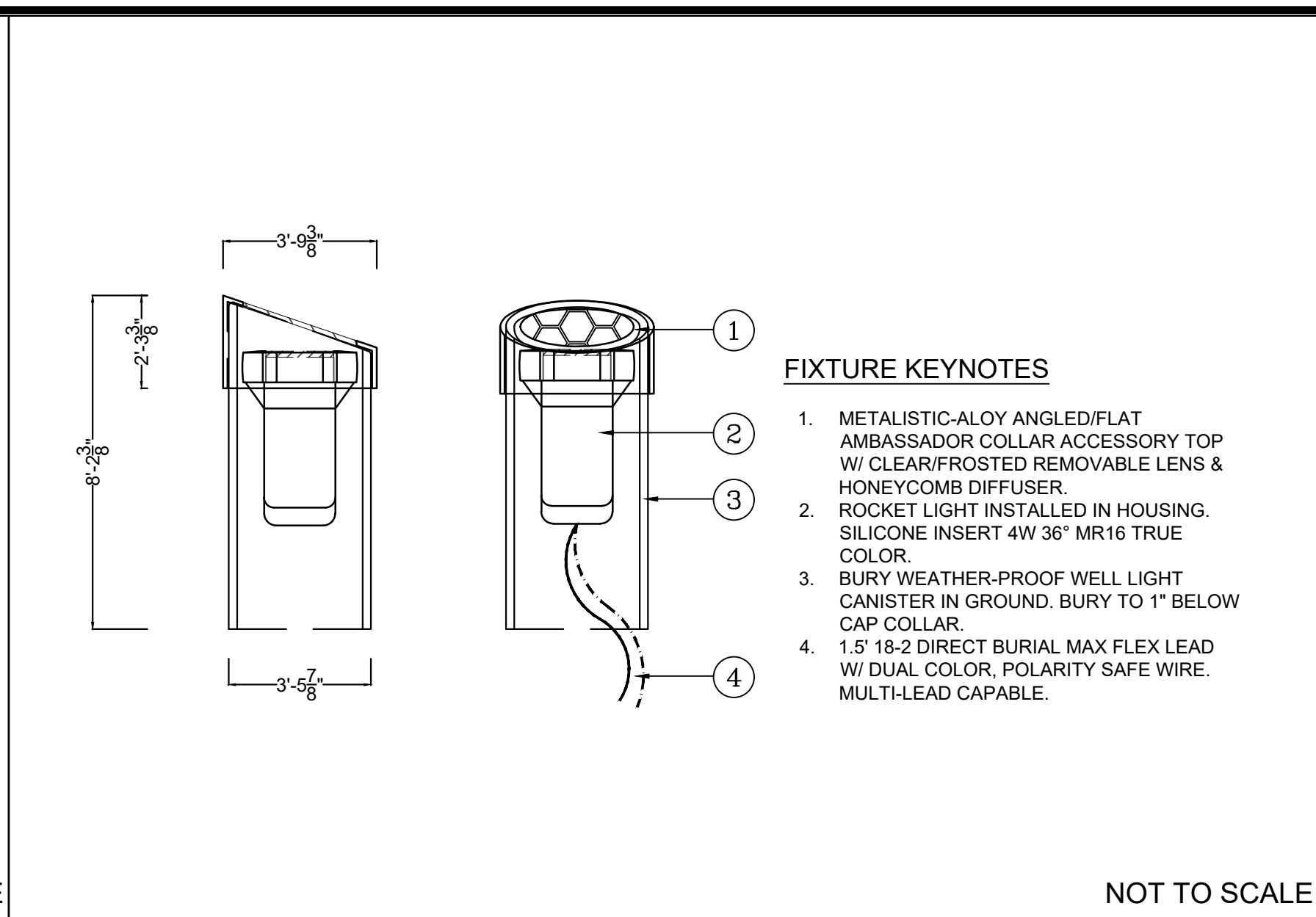
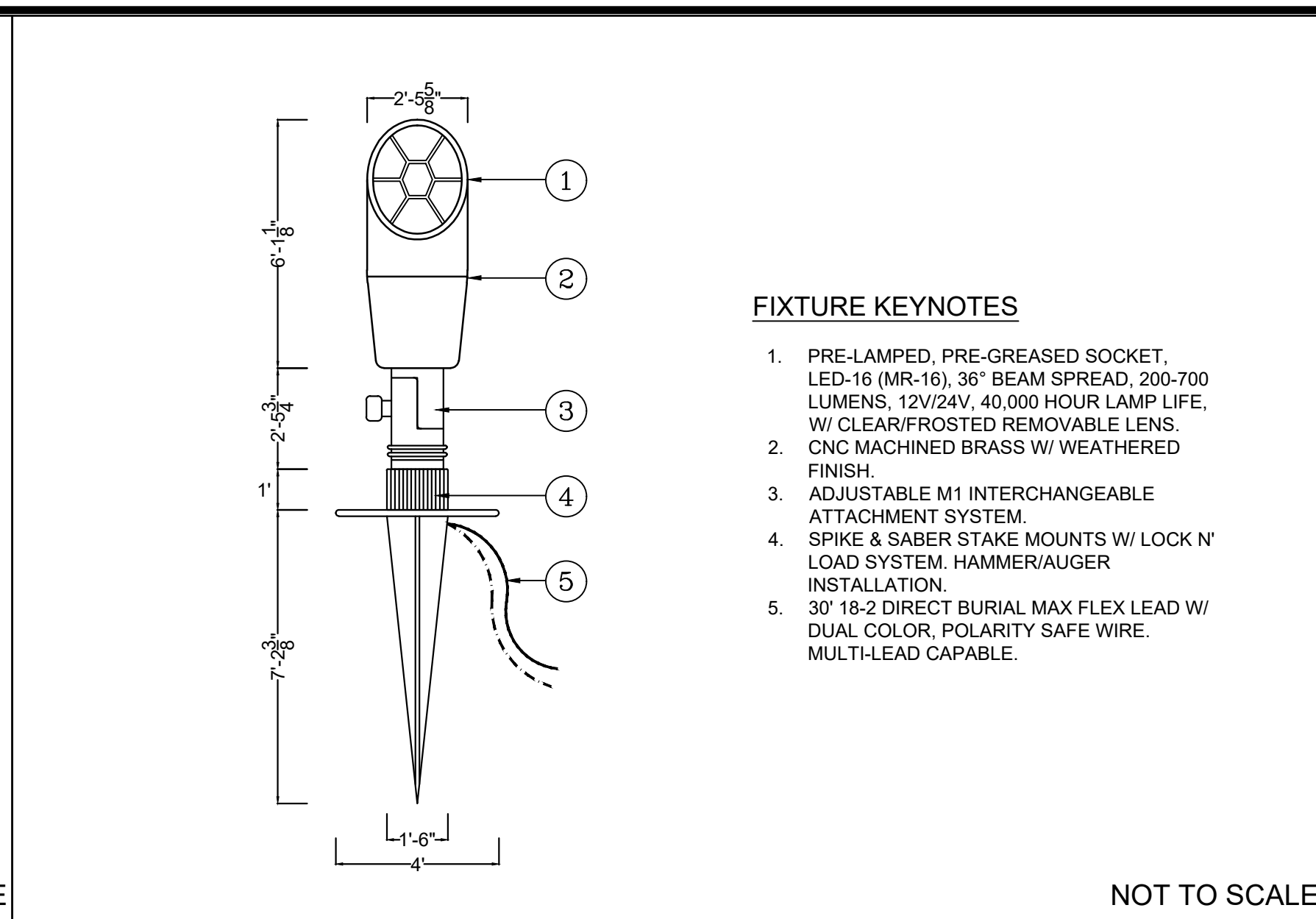
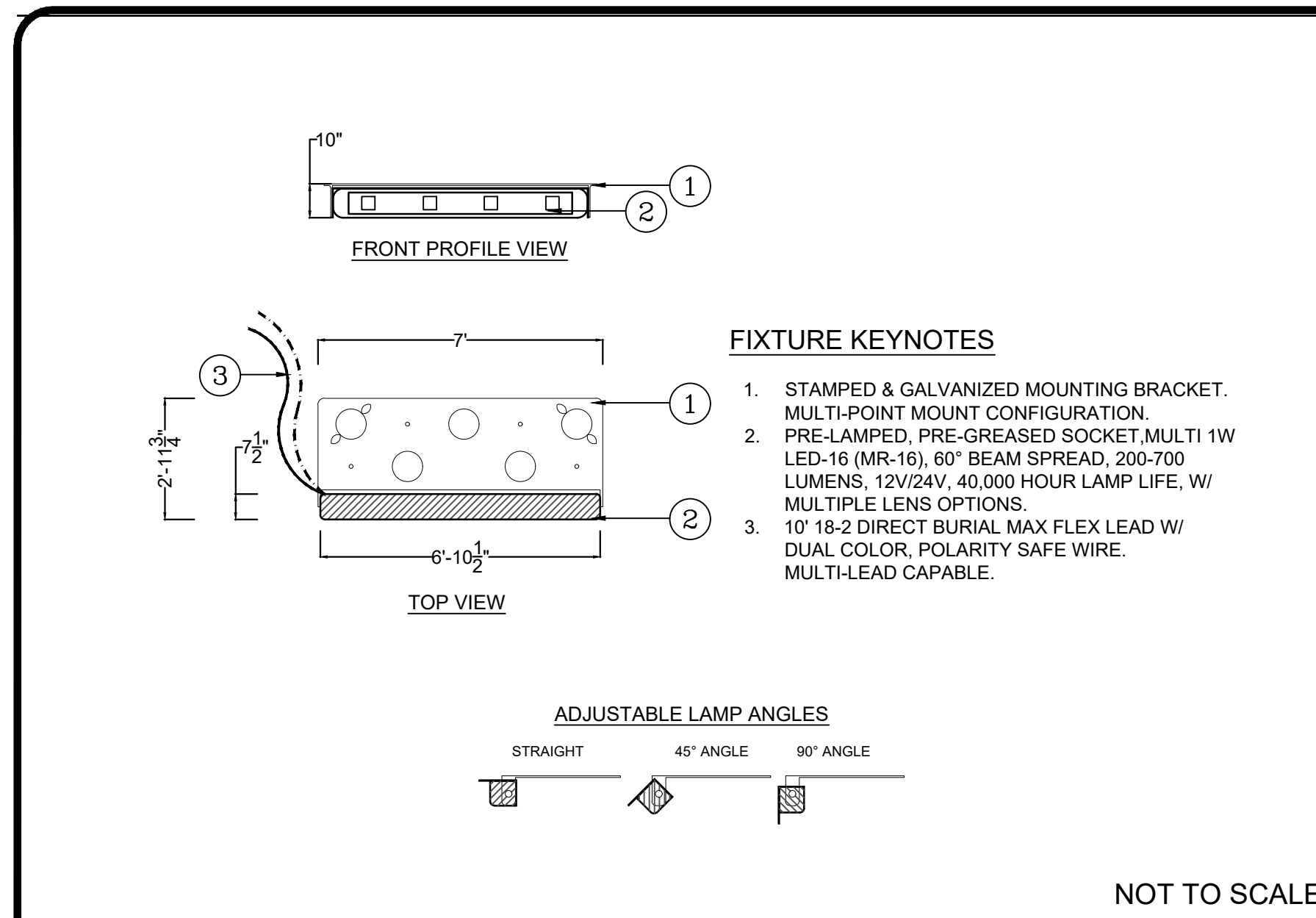


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DRAFTER: AP  
DATE: 01/25/2020  
SCALE: \_\_\_\_\_  
JOB NAME: HANNA  
SHEET: \_\_\_\_\_  
L/41 SHEETS

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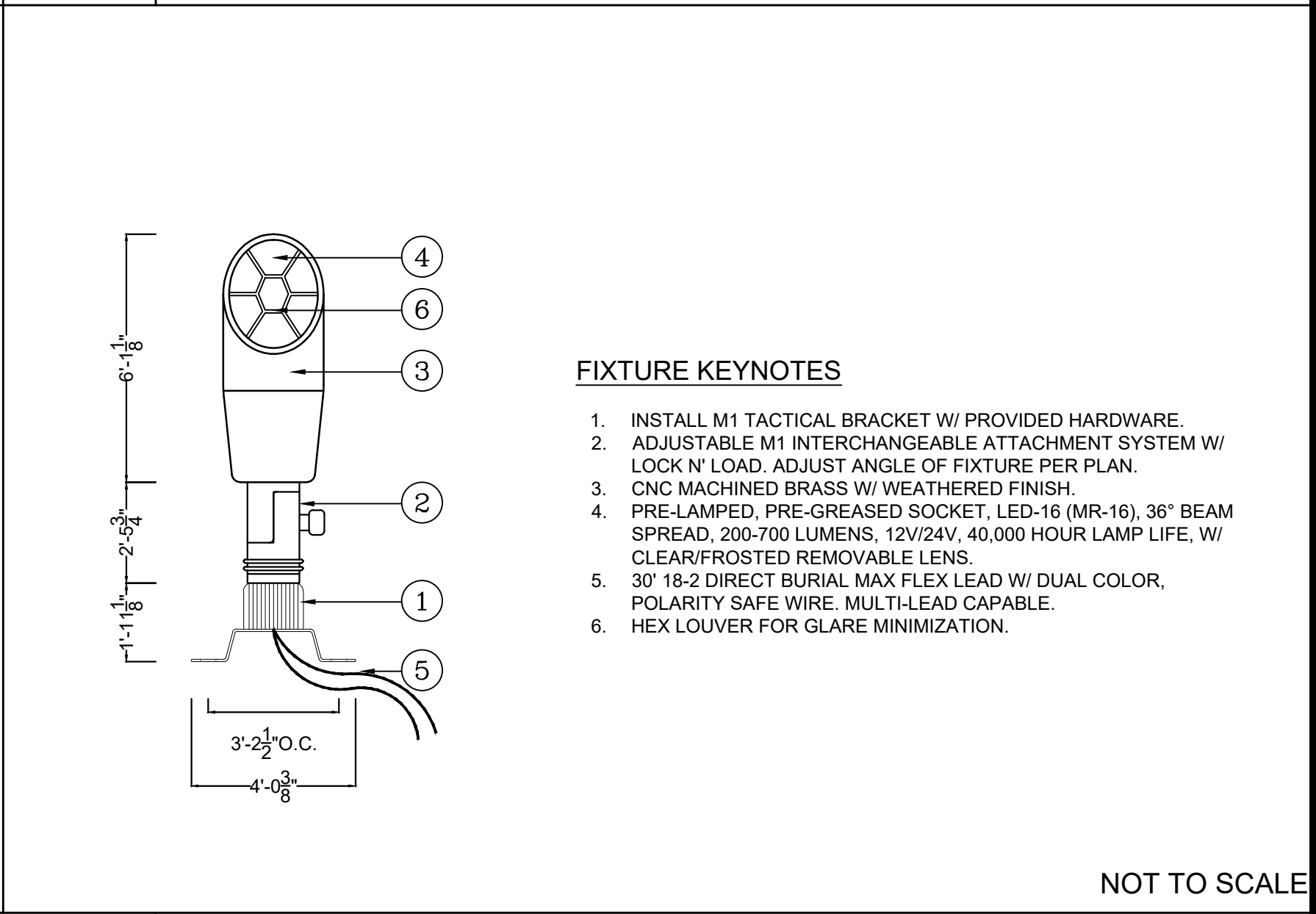
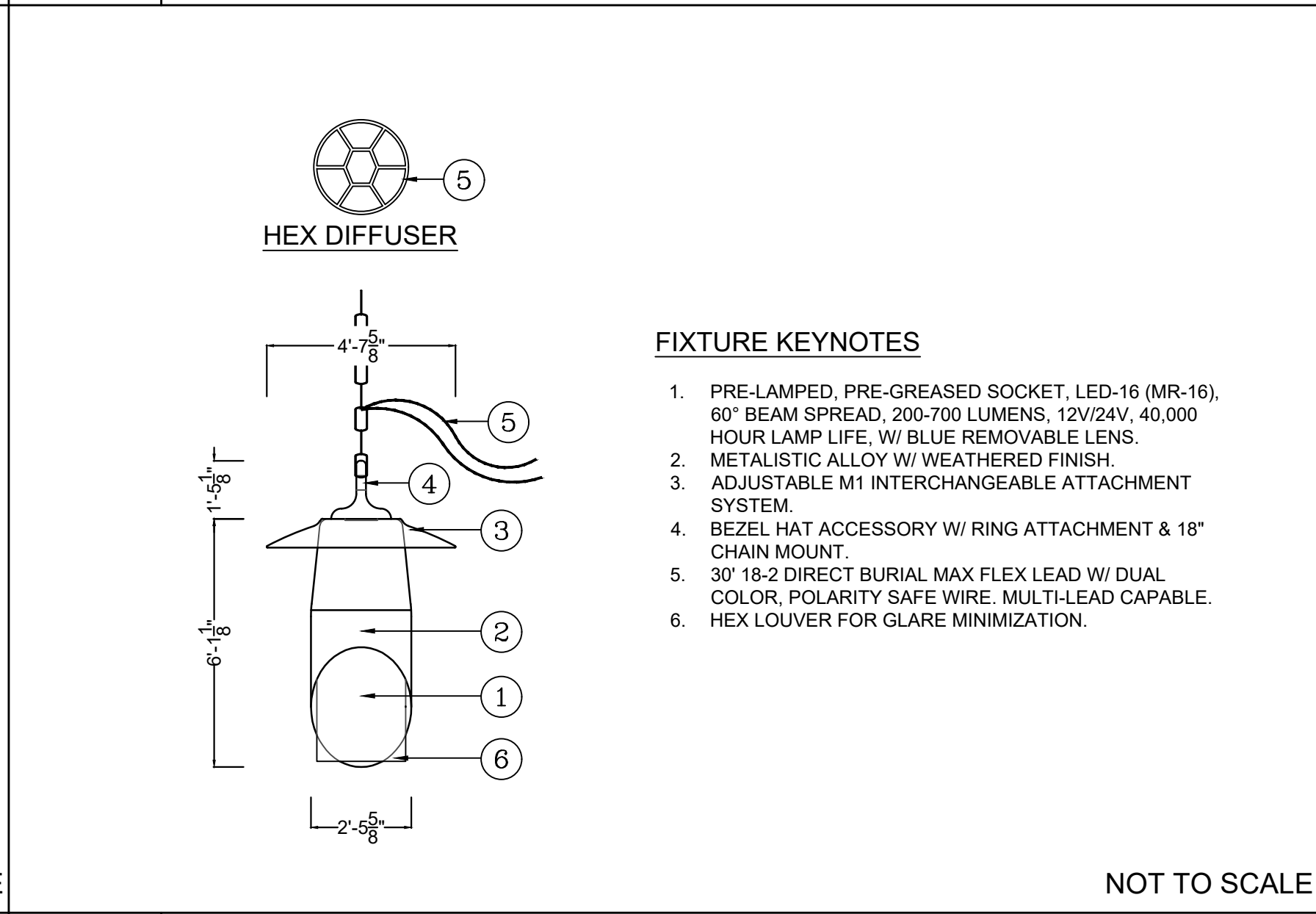
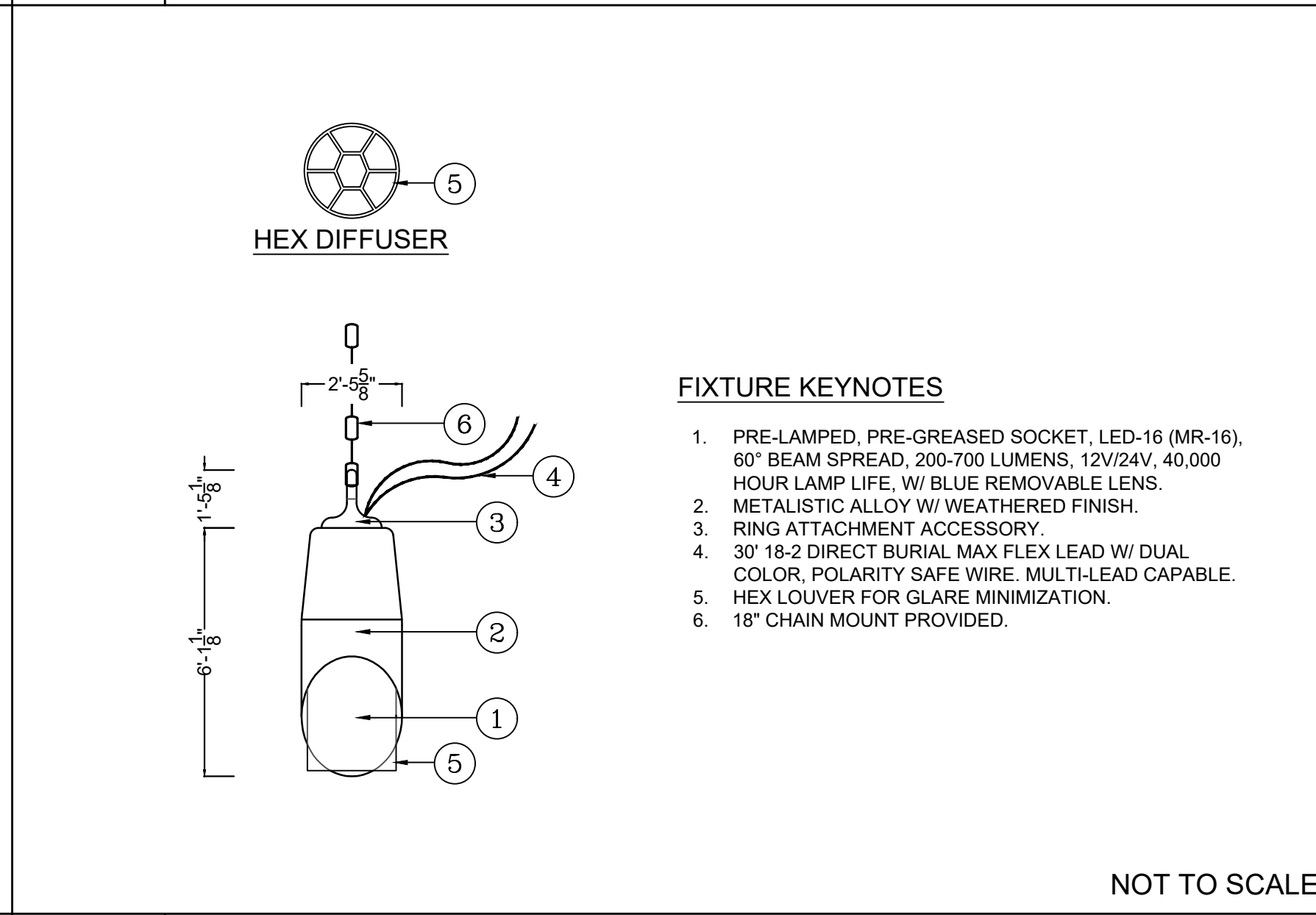
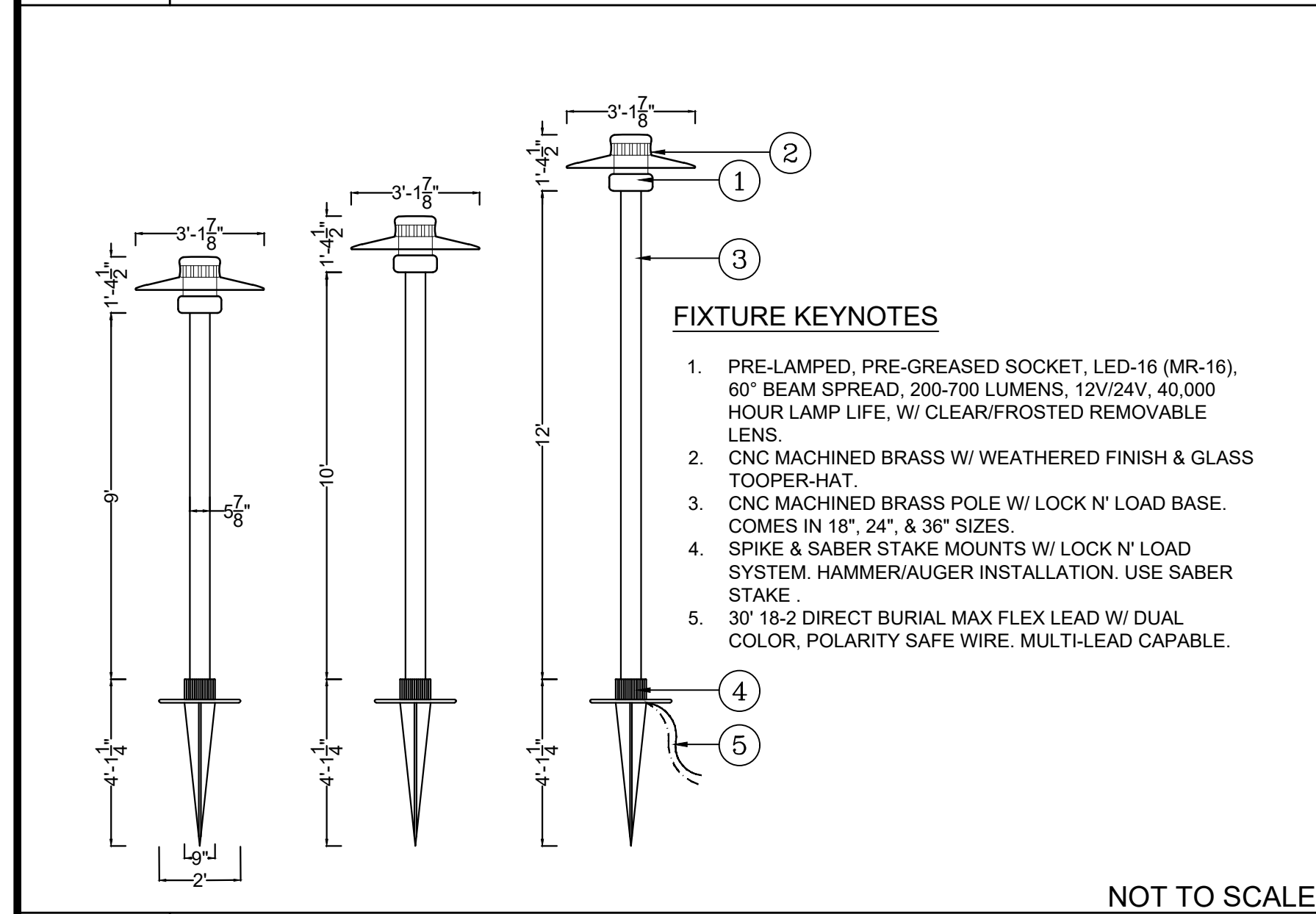


LS12 ATLAS 6 SPECIFICATIONS

LS13 CREATOR SPECIFICATIONS

LS14 EDISON AMBASSADOR - ANGLED SPECIFICATIONS

LS15 EXPANDER SPECIFICATIONS

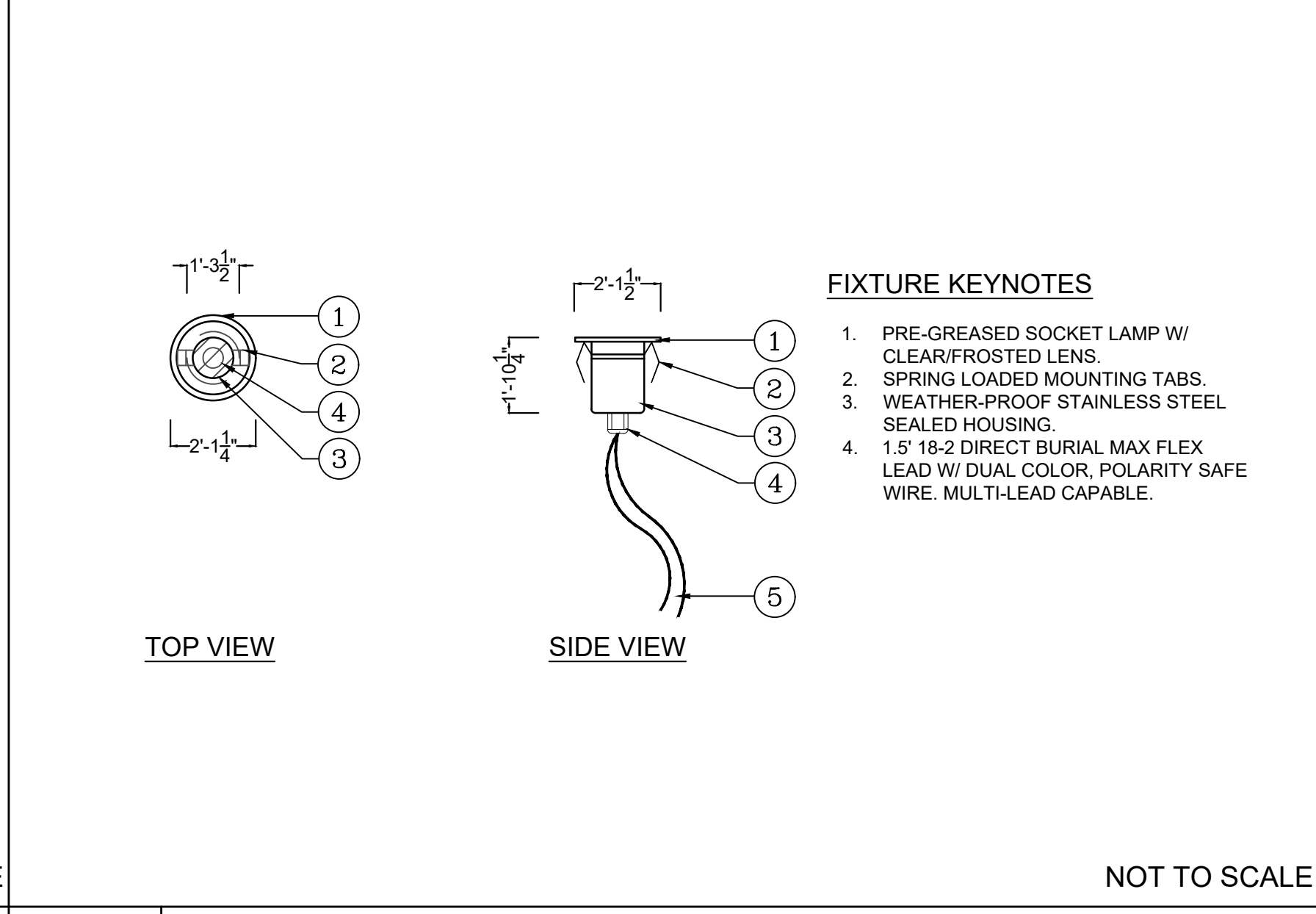
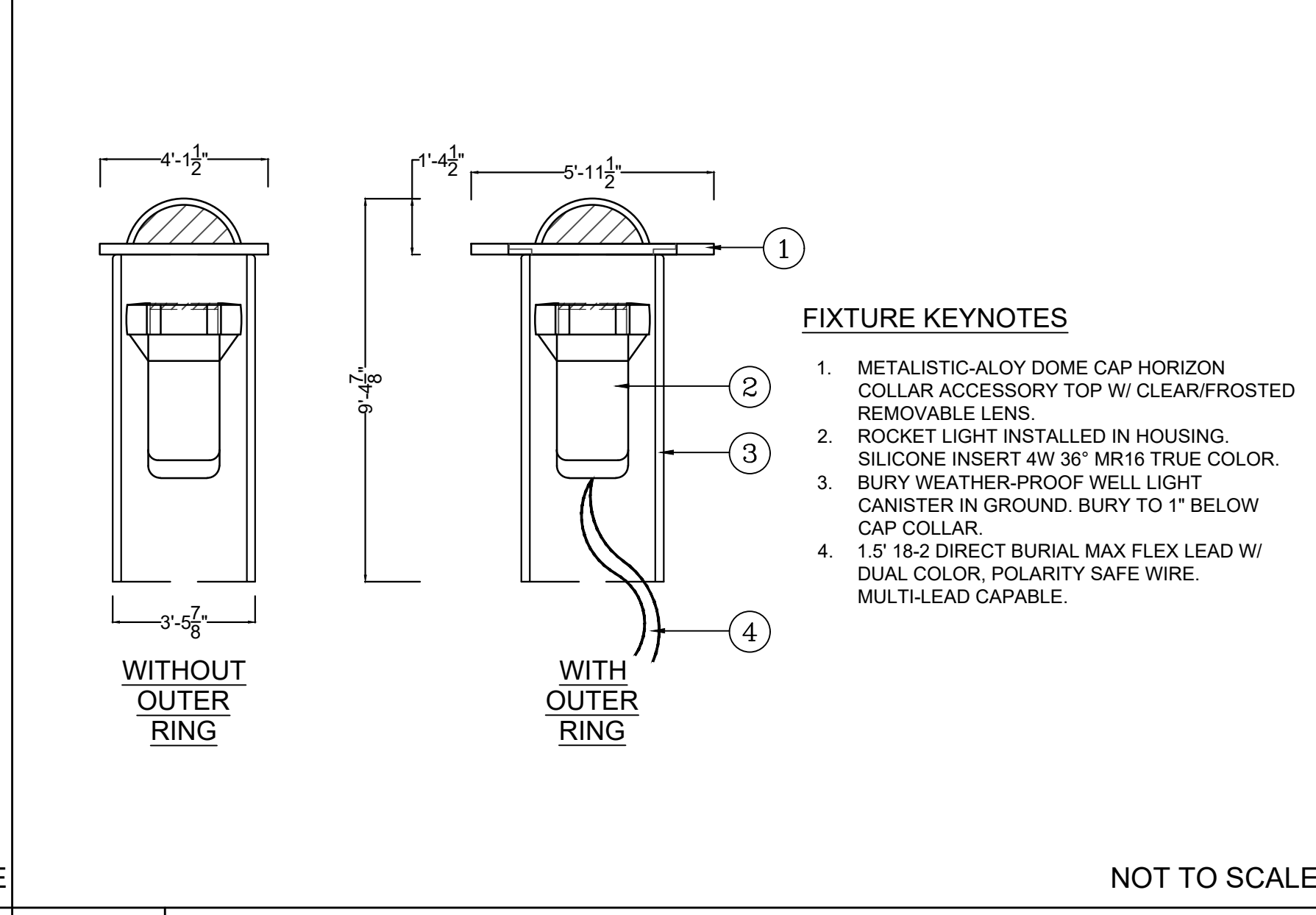
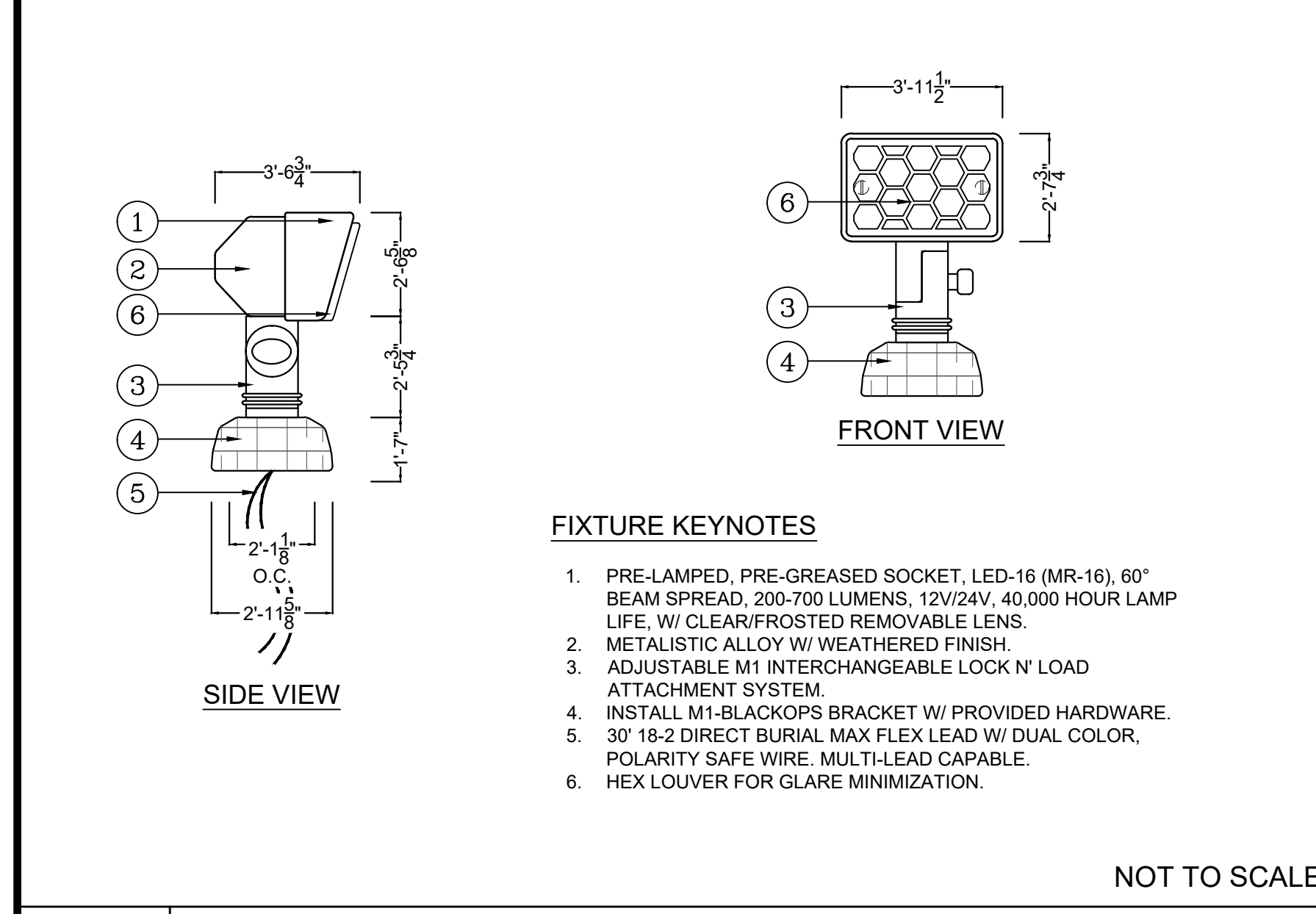


LS16 PATHFINDER SPECIFICATIONS

LS17 SKYLAR SPECIFICATIONS

LS18 SPECTRUM SPECIFICATIONS

LS19 GUARDSMAN SPECIFICATIONS



**LIGHTING GENERAL NOTES:**

1. THIS PLAN IS INTENDED FOR LANDSCAPE LIGHTING PURPOSES ONLY. INSTALLATION CONTRACTOR SHALL BE **LITE CERTIFIED**. ALL LIGHTING FIXTURES AND TRANSFORMERS SHALL BE INSTALLED PER MANUFACTURER'S SPECIFICATIONS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO MAINTAIN COMPLIANCE WITH THE NATIONAL ELECTRIC CODE (CURRENT EDITION) AND ALL LOCAL BUILDING SAFETY CODES AND ORDINANCES.
2. FIXTURES ARE SHOWN IN APPROXIMATE LOCATION. THE CONTRACTOR SHALL FIELD VERIFY THE ACTUAL PLACEMENT OF EACH FIXTURE UPON COMPLETION OF LANDSCAPE INSTALLATION.
3. ALL PATH LIGHTS TO BE INSTALLED AT A MINIMUM OF 18" FROM ANY SIDEWALK OR STRUCTURE.
4. ALL HUBS SHALL BE LABELED AND INSTALLED PRIMARILY IN PLANTER AREAS 2" ABOVE FINISHED GRADE; OR IN A READILY ACCESSIBLE AREA THAT DOES NOT OBSTRUCT PATHWAYS, DRAINAGE SWALES OR COMMON AREAS.
5. ALL "HOME RUN" WIRE SHALL BE LABELED AND INSTALLED AT A MINIMUM DEPTH OF 6". ALL FIXTURE LEAD WIRES SHALL BE INSTALLED AT A MINIMUM DEPTH OF 6". IN ORDER TO MINIMIZE FUTURE DISTURBANCE, ALL WIRE RUNS SHALL BE INSTALLED PARALLEL AND ADJACENT TO HARD SURFACES SUCH AS SIDEWALKS, DRIVEWAYS AND WALLS.
7. THE INSTALLING CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING SLEEVES UNDER THE HARDSCAPE SURFACES, USING A MINIMUM 1-INCH PVC PIPE.
8. CONTRACTOR SHALL NOT CUT THE WIRE LEADS FROM THE FIXTURES. LEAVE EXCESS WIRE AT THE FIXTURE WHEN AND A MINIMUM OF 2' AT EACH HUB.
9. ALL UNDERGROUND SPLICES SHALL BE INSTALLED IN APPROVED IN-GROUND HUBS WITH WATER-TIGHT CONNECTIONS.
10. ALL EXTERIOR 120-VOLT ELECTRICAL OUTLETS SHALL BE GFI PROTECTED AS PER NATIONAL ELECTRICAL CODE.
11. ALL TRANSFORMERS PLUGGED INTO AN OUTDOOR RECEPTACLE SHALL HAVE AN "IN USE" COVER. CONTRACTOR SHALL INSTALL TAYMAC TYPE COVERS AT ALL OUTLETS.
12. ALL PLUG-IN TRANSFORMERS SHALL HAVE A "DRIP LOOP" IN THE POWER CORD.
13. ALL EXPOSED CONDUITS SHALL BE PAINTED TO MATCH SURROUNDINGS.
14. ALL WIRE SHALL CONFORM TO ASTM B-49 AND B-115 STANDARDS; 99% PURE PVC PLASTIC MIXED WITH THE LATEST IN UV INHIBITORS, 99.5% PURE COPPER.
15. ALL EXPOSED WIRES SHALL BE PROTECTED AND PAINTED.
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17. THE GLARE CONTROL KIT SHALL CONSIST OF A ROTATIONAL SHROUD, FROSTED, LINEAR AND SPREAD LENS AND A HEX LOUVER TO MINIMIZE GLARE UP TO A 45 DEGREE ANGLE.
18. A FROSTED LENS SHALL BE USED IN ANY DOWN LIGHT THAT IS PLACED UNDER 12" IN HEIGHT.

\*FOR ANY QUESTIONS, PLEASE CONTACT UNIQUE LIGHTING SYSTEMS AT (800) 955-4831.

LS20 TRANSPORTER SPECIFICATIONS

LS21 EDISON HORIZON SPECIFICATIONS

LS22 MARINER SPECIFICATIONS

**WIRING METHODS & LIMITS**

CABLE SIZING	MAXIMUM RATED WATTS	UNIQUE RECOMMENDS	MAXIMUM RATED AMPS	MAXIMUM ALLOWED AMPS	LENGTH OF HOME RUN WIRE**
#14/2	180 WATTS	144 WATTS	15 AMPS	12 AMPS	N/A
#12/2	240 WATTS	192 WATTS	20 AMPS	16 AMPS	0-200 FEET
#10/2	360 WATTS	192 WATTS*	30 AMPS	24 AMPS	200-400 FEET
#8/2	480 WATTS	192 WATTS*	40 AMPS	25 AMPS	OVER 400 FEET

\*NATIONAL ELECTRICAL CODE LIMITS SECONDARY RUNS TO 25 AMPS  
\*\*BASED ON USING APPROXIMATELY 192 WATTS

**NOTICE OF QUALIFICATIONS & INSPECTIONS**

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- UPON COMPLETION OF INSTALLATION, CONTRACTOR SHALL VERIFY THAT ALL TRANSFORMERS ARE WITHIN THE MAXIMUM ALLOWABLE AMPERAGE LOAD PER MANUFACTURER STANDARDS.

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LANDSCAPE CONTRACTOR TO MAINTAIN 10' MINIMUM SETBACK FROM POOL WATERLINE TO ALL LOW VOLTAGE LIGHTING FIXTURES PER CODE. CONTRACTOR TO COORDINATE WITH HOME OWNER FOR ALL LOCATIONS OF CONDUITS UNDER PAVEMENT FOR FUTURE UPGRADES AND MAINTENANCE PURPOSES ALL CODE ELECTRICAL WORK TO BE PERFORMED BY A LICENSED CALIFORNIA ELECTRICIAN.

**Do Not Leave Your Job Site Without Checking "THE CRITICAL 3"**

1. CHECK THE VOLTAGE AT THE HUB OR THE FIRST FIXTURE. MAKE SURE TO SET THE HUB AT 12 VOLTS.
2. CHECK THE AMPERAGE FOR ALL SECONDARY WIRES. MAKE SURE THAT YOU DO NOT EXCEED MAXIMUM ALLOWABLE AMPS FOR THE WIRE SIZE.
3. CHECK THE AMPERAGE AT THE TRANSFORMER. MAKE SURE THAT YOU DO NOT EXCEED THE MAXIMUM ALLOWABLE AMPS ON THE LABEL POSTED ON THE TRANSFORMER.

280 TRADE STREET-UNIT B  
SAN MARCOS, CA 92078  
P-(760)304-8183

STANDING THE TEST OF TIME

WWW.LIFETIMELIGHTINGSYSTEMS.COM

**LIGHTING GENERAL NOTES:**

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LS23 WIRE SIZING

LS24 CONTRACTOR NOTES

LS25 DISTRIBUTOR INFORMATION

LS26 GENERAL NOTES

LIGHTING SPECIFICATIONS

PROJECT NAME:  
PHONE:

**NICK MARTIN**  
Landscape Architect, Inc.  
3173 Willow Tree Lane  
Escondido, CA 92027  
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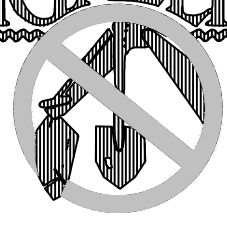
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DRAFTER	AP
DATE	01/23/2020
SCALE	
JOB NAME	HANNA
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SHEETS





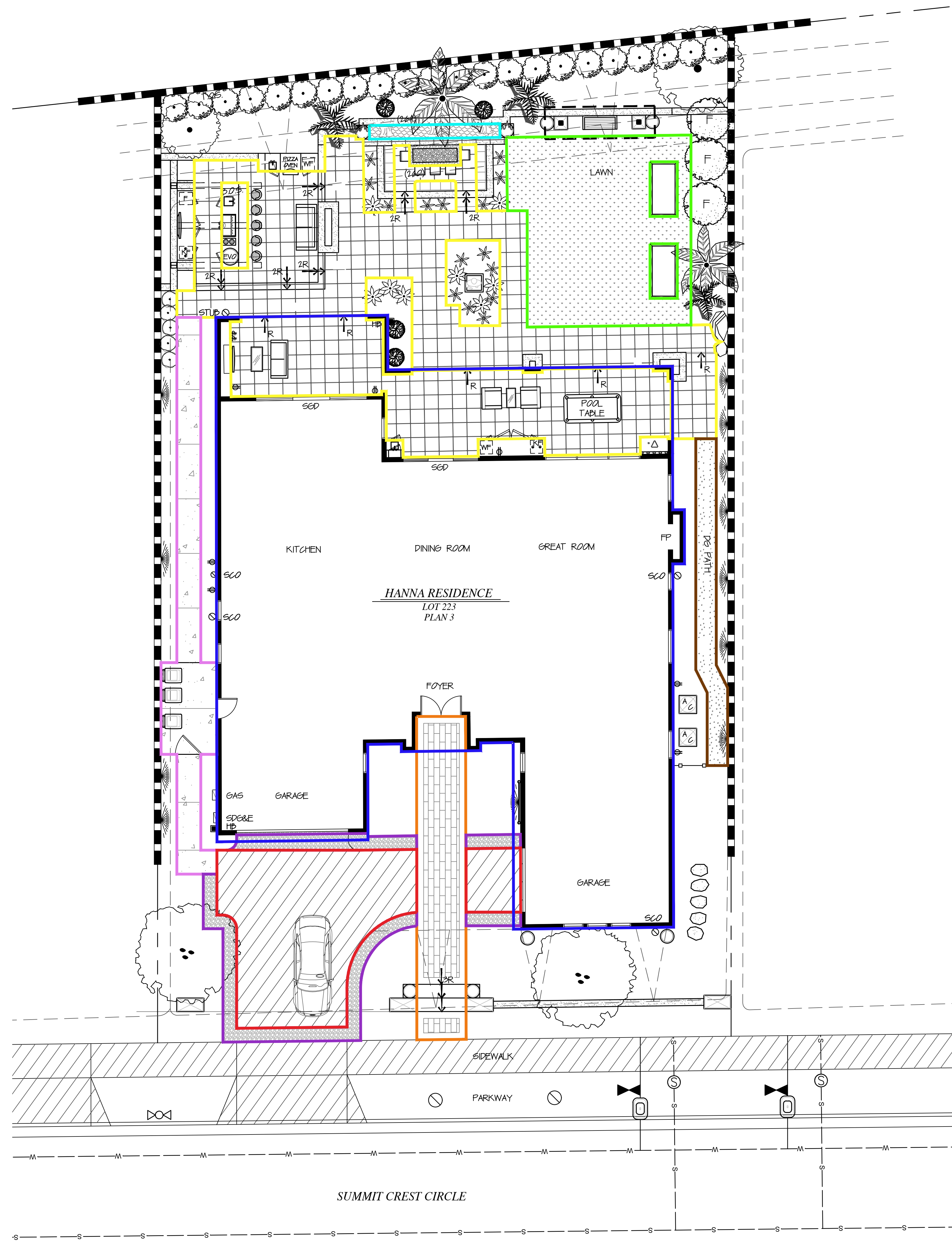


DIAL TOLL FREE:  
(800) 227-5429  
AT LEAST TWO DAYS  
BEFORE YOU DIG

UNDERGROUND SERVICE ALERT OF SOUTHERN CALIFORNIA

**NOTE TO CONTRACTOR**

THIS PLAN IS DIAGRAMMATIC ONLY. THE INTENT IS TO PORTRAY LANDSCAPE INFORMATION ONLY. THESE PLANS DO NOT PROVIDE DETAILED SOLUTIONS TO ALL LANDSCAPE RELATED PROBLEMS. THESE DRAWINGS ARE NOT APPROVED FOR CONSTRUCTION UNLESS SIGNED ABOVE BY THE LANDSCAPE ARCHITECT, AND APPROVED BY THE OWNER, AND SEALS THE LOCAL BUILDING AND PLANNING DEPARTMENT APPROVAL STAMPS AND A BUILDING PERMIT HAS BEEN OBTAINED. MINOR ADJUSTMENTS IN LAYOUT OR FINISH ELEVATIONS MAY OCCUR DUE TO FIELD CONDITIONS OR AT THE DISCRETION OF THE OWNER. THE CONTRACTOR IS TO BE RESPONSIBLE FOR OBTAINING ALL PERMITS AND PLAN APPROVALS THROUGH THE PERTINENT BUILDING DEPARTMENTS PRIOR TO CONSTRUCTION. REPORT ANY DISCREPANCIES OR QUESTIONS TO THE LANDSCAPE ARCHITECT OR OWNER PRIOR TO INSTALLATION OF WORK. LANDSCAPE ARCHITECT, P.L.A. 908, MAY BE REACHED AT: (760) 939-1111.



**IMPERMEABLE HARDSCAPE MATERIALS**

- EXISTING CONCRETE DRIVEWAY TO REMAIN  
643 SQ. FT.
- ROOF SURFACE AREA  
4246 SQ. FT.
- TILE PATIOS TO MATCH EXISTING INTERIOR OF HOME  
740 SQ. FT. (COVERED)/1203 SQ. FT. (UNCOVERED)  
1943 SQ. FT. (TOTAL)
- SAN DIEGO BUFF W/ MEDIUM BROOM FINISH CONCRETE  
357 SQ. FT.
- MIRAGE PORCELAIN TILE  
COLOR/STYLE: TBD  
37 SQ. FT. (COVERED)/304 SQ. FT. (UNCOVERED)  
341 SQ. FT. (TOTAL)
- DECOMPOSED GRANITE  
COLOR/STYLE: TBD  
145 SQ. FT.
- SODDED LAWN  
TYPE: TBD  
636 SQ. FT.
- CHIP-SEAL BAND  
COLOR/STYLE: TBD  
39 SQ. FT. (COVERED)/189 SQ. FT. (UNCOVERED)  
228 SQ. FT. (TOTAL)
- WATER SURFACE  
BACKYARD FOUNTAIN  
39 SQ. FT.

TOTAL SQ. FT. = 7,581 (IMPERVIOUS)

NOTE: "MAXIMUM ALLOWABLE" = 10,000 SQ. FT. FOR NEW & EXISTING IMPERMEABLE SURFACES TO AVOID A STORM WATER MANAGEMENT PERMIT

**AREA TAKE-OFF PLAN**

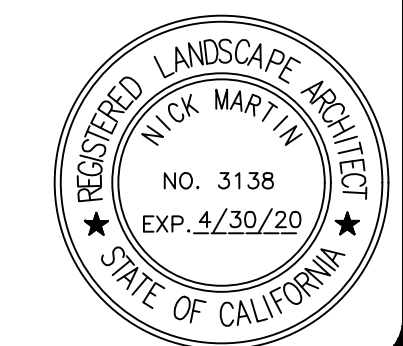
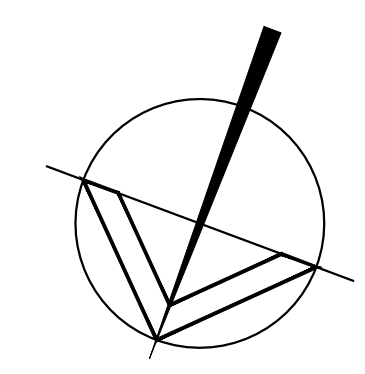
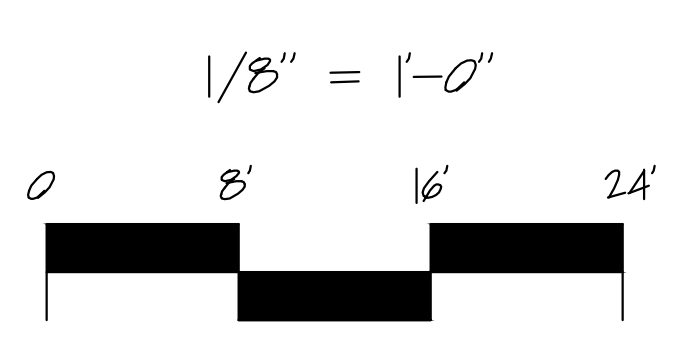
PROJECT NAME:  
PHONE:

**NICK MARTIN**  
Landscape Architect, Inc.  
3173 Willow Tree Lane  
Escondido, CA 92027  
P: (760) 533-1717  
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DRAWN: NM  
DRAFTER: AP  
DATE: 03/12/2020  
SCALE: 1/8" = 1'-0"  
JOB NAME: HANNA  
SHEET: L/15.0  
OF 15 SHEETS

NOT FOR CONSTRUCTION  
**AREA TAKE-OFF PLAN**



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IRRIGATION LEGEND

SYM.	MANUF.	MODEL NO.	DESCRIPTION	NOZZLE	MAX. RADIUS	GPM	ARC	PSI	PRECIP. RATE	DETAIL
●	HUNTER	PRO5-04-FRS40-CV	ALL SHRUB HEADS TO BE 12" POP-UPS FOR USE IN PLANTING BEDS. TURF AREAS TO BE 4" POP-UPS. POP-UP HEADS TO BE USED FOR ALL TURF AREAS, AND AREAS ADJACENT TO HARDSCAPE. FEATURES SHORT RADIUS SPRINKLERS LESS THAN 9' PRESS.	MPR005R-20 MPR005R-20	6' 17'	17 33	30 180	30 40	30 20	A
○	HUNTER	PRO5-04-FRS40-CV	ALL SHRUB HEADS TO BE 12" POP-UPS FOR USE IN PLANTING BEDS. TURF AREAS TO BE 4" POP-UPS. POP-UP HEADS TO BE USED FOR ALL TURF AREAS, AND AREAS ADJACENT TO HARDSCAPE. FEATURES SHORT RADIUS SPRINKLERS LESS THAN 9' PRESS.	MPR005R-20 MPR005R-20	17' 17'	33 42	180 180	40 40	20 31	A
○	HUNTER	PRO5-04-FRS40-CV	MP1000 NOZZLE ON 40 PSI REGULATED POP UP	MP1000-30 MP1000-310 MP1000-360	8'-5" 8'-5" 8'-10"	15 48 75	30 210-270 360	40 40 40	30 30 30	C
⊕	HUNTER	PRO5-04-FRS40-CV	MP LEFT STRIP	MPL0555	4' x 14'	19	N/A	40		C
⊕	HUNTER	PRO5-04-FRS40-CV	MP END STRIP	MPE0555	4' x 14'	19	N/A	40		C
⊕	HUNTER	PRO5-04-FRS40-CV	MP SIDE STRIP	MPS0555	4' x 28'	38	N/A	40		C
⊕	HUNTER	PRO5-04-FRS40-CV-MP1000-360	MP ROTATOR HEAD ON 12" RISER		15'	127		30	20	C
⊕	HUNTER	1-10-00-CV-115R	SHRUB ROTOR ON RISER		25'	15		50	46	C
⊕	HUNTER	1000 A-F	MULTI-STREAM BUBBLER NOZZLE	MSBN-500/501	15'/1'	50	3'-4'	30		D
—	HUNTER	PLD	LANDSCAPE DRIP LINE					30		SHEET L/16

IRRIGATION PLAN KEYNOTES (#)

- EXISTING DEVELOPER INSTALLED IRRIGATION AREAS IN FRONT YARD TO REMAIN. ENSURE ALL EXISTING SYSTEMS ARE FUNCTIONAL. REPAIR AS NEEDED. TYPICAL POINT OF CONNECTION TO TIE INTO EXISTING MAINLINE. FIELD VERIFY LOCATION. EXISTING HUNTER CONTROLLER TO BE UTILIZED. INSTALL SST & ET SENSORS PER MANUFACTURER SPECIFICATIONS.
- INSTALL SCH40 CHASE LINE UNDER ALL HARDSCAPE. TYPICAL.
- INSTALL FLUSH VALVES AT LOW POINTS OF ALL DRIP RUNS. TYPICAL.
- INSTALL HUNTER SUB-DRIP RUNS PER SPECIFICATIONS ON L82. TYPICAL.
- INSTALL VALVE REMOTE CONTROL VALVES & GATE VALVE MANIFOLDS PER SPECIFICATIONS ON L81 & L82.
- INSTALL BUBBLER HEADS IN PLANTED URNS FOR BRQ WALL.
- INSTALL HUNTER POP-UP HEADS ON REAR SLOPE PER SPECIFICATIONS ON L81.
- INSTALL HOSE BID FOR GARDEN AREA USE.
- EXISTING REGIONAL UTILITY WATER METER & BACKFLOW PREVENTER TO REMAIN & BE UTILIZED.

IRRIGATION PLAN

IRRIGATION KEY

- HUNTER 1/4"-1" REMOTE CONTROL VALVES (RCVs) TO BE INSTALLED IN UNDERGROUND IRRIGATION BOXES IN INCONSPICUOUS LOCATIONS WITHIN PLANTING BEDS. NOTE THAT SIZE OF VALVES MAY VARY PER DEMAND. RCVs INCLUDE PRESSURE REGULATING ADJUSTMENT (PER VALVE) FOR FINE TUNING DESIGN PRESSURE AT EACH VALVE STATION. NOTE THAT VALVE STATION DESIGNATION INDICATES SIZE OF VALVE.
- TYPICAL SCHEDULE 40 MAINLINE TO BE TRENCHED AND INSTALLED PER DETAIL. SIZE OF MAINLINE TO VARY PER THIS PLAN. MAINLINES HAVE BEEN SIZED TO ALLOW FOR A MINIMUM OF (2) SIMULTANEOUS VALVE STATION RUNS (OR MORE) WHILE MAINTAINING A VELOCITY OF 5' PER SECOND OR LESS.
- TYPICAL HUNTER 1/4"-1/2" VALVE (LINE SIZE) TO BE INSTALLED BEFORE EACH IRRIGATION MANIFOLD.
- TYPICAL HOSE BID TO BE INSTALLED APPROXIMATE PER PLAN AND AT OWNER APPROVED LOCATIONS PER DETAIL. REFER TO DETAIL.
- INSTALL SCH. 40 MAINLINE (SIZE PER PLAN) INSIDE 2x DIAMETER GLASS 3/8 SLEEVE UNDER VEHICULAR PAVEMENT AREAS (TYPICAL SYMBOL).
- INSTALL 2-STATION HUNTER L-CORE (L-602-M) IRRIGATION CONTROLLER ON WALL OF GARAGE PER MANUFACTURER'S INSTRUCTIONS. OBTAIN APPROVAL FROM OWNER FOR EXACT MOUNTING LOCATION IN GARAGE (OWNER TO PROVIDE ELECTRICAL SERVICE OUTLET). CONTRACTOR TO PROGRAM CONTROLLER(S) FOR PROPER IRRIGATION COVERAGE OF ALL PLANTING ZONES. PRIOR TO FINAL WALK THROUGH, REFER TO IRRIGATION SHEETS L/15 & L/16 FOR ADDITIONAL SPECIFICATIONS.
- SOLAR SYNC (SOLARSYN-SEN) ET/RAIN SENSOR. INSTALL PER MANUFACTURER'S SPECIFICATIONS AND IN OWNER APPROVED LOCATION.

NOTES

- IRRIGATION SYSTEM CONTRACTOR WARRANTIES, REFER TO L/15 & L/16 SHEET IRRIGATION SPECIFICATIONS AND/OR MANUFACTURER'S WARRANTIES.
- ALL MAINLINE ANGLES TO OCCUR IN PLANTING BEDS, WHERE POSSIBLE, TO ALLOW FOR CONVENIENT REPAIR SHOULD IT BE REQUIRED.
- TYPICAL CLASS 200 LATERAL LINES TO BE SIZED 50 AS NOT TO EXCEED 5-FEET PER SECOND VELOCITY. LATERALS UNDER PAVEMENT TO BE SCHEDULE 40 AND SLEEVED PER DETAIL.
- USE POP-UP IRRIGATION HEADS ADJACENT TO ALL SIDEWALKS, PATHWAYS, PATIOS, STEPS AND OTHER HIGH TRAFFIC ZONES. INCLUDE IN THIS CONTRACT.
- ADD IN-LINE CHECK VALVES AS NEEDED TO ELIMINATE LOW HEAD DRAINAGE. REFER TO IRRIGATION LEGEND.

NOTE: INCLUDE CONCRETE THRUST BLOCKING FOR ALL JUNCTIONS OF MAINLINE INCLUDING TEES, ELBOWS AND ANGLES (PER DETAIL). CONNECT SINK TO EXISTING UNDERGROUND SEWER LINE. LOCATION OF SEWER LINE POINT OF CONNECTION TO BE VERIFIED IN THE FIELD. PRIOR TO COMMENCEMENT OF WORK, ALL WORK SHALL CONFORM TO ALL PREVAILING MUNICIPAL CODES. MINIMUM PIPE TYPE SHALL BE CLASS 200 FOR LATERAL LINES AND SCH. 40 PVC PIPE FOR MAINLINES UNDER 2" IN SIZE AND CLASS 3/8 FOR MAINLINE PIPE 2" AND OVER. ALL HEADS WITH LOW HEAD DRAINAGE SHALL HAVE CHECK VALVES INSTALLED TO PREVENT EROSION.

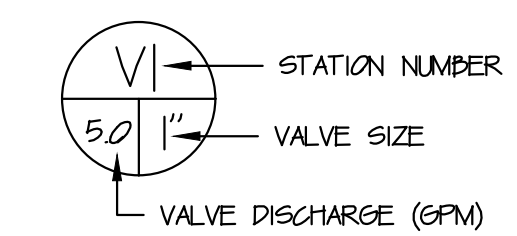
FLOW RATE TABLE

PIPE DIAMETER	+GPM RANGE
5"	66-95
2 1/2"	45-65
2"	29-44
1 1/2"	22-28
1 1/4"	19-21
1"	9-12
3/4"	5/8
1/2"	0-4

VALVE SIZE TABLE

VALVE SIZE	GPM
2"	33-60
1 1/2"	23-38
1 1/4"	19-28
1"	0-18

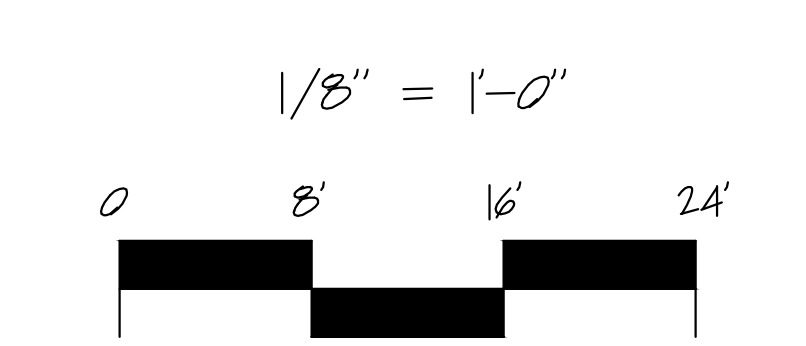
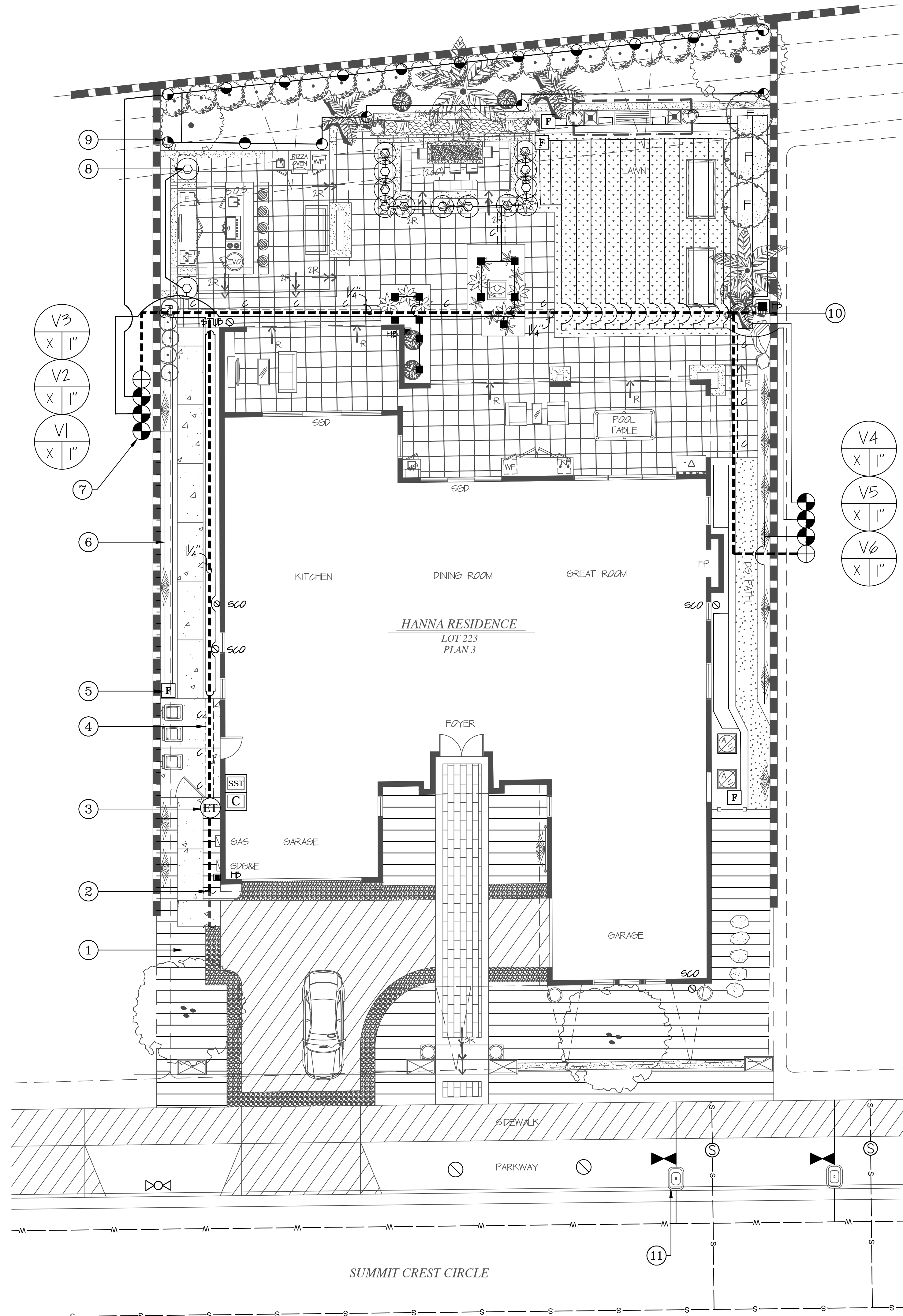
REFER TO THIS CHART WHEN SIZING LATERAL LINE IN PLANTERS WHERE HEAD LAYOUT REVISION IS REQUIRED. PVC LATERAL LINE 1/2" AND SMALLER TO BE SCHEDULE 40 1" AND LARGER TO BE CLASS 3/8.



- MAXIMUM VELOCITY 5' PER SECOND
- ALL LATERAL LINES TO BE SCH. 40 PIPE

GENERAL IRRIGATION NOTES:

- ALL MAINLINE ANGLES TO OCCUR IN PLANTING BEDS, WHERE POSSIBLE, TO ALLOW FOR CONVENIENT REPAIR SHOULD IT BE REQUIRED.
- TYPICAL CLASS 200 LATERAL LINES TO BE SIZED 50 AS NOT TO EXCEED 5-FEET PER SECOND VELOCITY. LATERALS UNDER PAVEMENT TO BE SCHEDULE 40 AND SLEEVED PER DETAIL.
- USE POP-UP IRRIGATION HEADS ADJACENT TO ALL SIDEWALKS, PATHWAYS, PATIOS, STEPS AND OTHER HIGH TRAFFIC ZONES. INCLUDE IN THIS CONTRACT.
- ADD IN-LINE CHECK VALVES AS NEEDED TO ELIMINATE LOW HEAD DRAINAGE. REFER TO IRRIGATION LEGEND.
- INCLUDE CONCRETE THRUST BLOCKING FOR ALL JUNCTIONS OF MAINLINE INCLUDING TEES, ELBOWS AND ANGLES (PER DETAIL).
- MINIMUM PIPE TYPE SHALL BE CLASS 200 FOR LATERAL LINES AND SCH. 40 PVC PIPE FOR MAINLINES UNDER 2" IN SIZE AND CLASS 3/8 FOR MAINLINE PIPE 2" AND OVER.
- ALL HEADS WITH LOW HEAD DRAINAGE SHALL HAVE CHECK VALVES INSTALLED TO PREVENT EROSION.



NOT FOR CONSTRUCTION  
IRRIGATION PLAN



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DRAWN: NM  
DRAFTER: AP  
DATE: 03/25/2020  
SCALE: 1/8" = 1'-0"  
JOB NAME: HANNA  
SHEET: L/18.0  
OF 18.0 SHEETS



# IRRIGATION LEGEND

SYM.	MANUF.	MODEL NO.	DESCRIPTION	NOZZLE	MAX. RADIUS	GPM	ARC	PSI	PRECIP. RATE	DETAIL
■	HUNTER	PRO5-06-PRS90-CV	ALL SHRUB HEADS TO BE 12" POP-UPS FOR USE IN PLANTING BEDS. TURF AREAS TO BE 6" POP-UPS. POP-UP HEADS TO BE USED FOR ALL TURF AREAS, AND AREAS ADJACENT TO HARDSCAPE FEATURES. SHORT RADIUS SPRINKLERS LESS THAN 9' PRS90.	MP800SR-90	6'	17	90	30	90	A
●	HUNTER	PRO5-06-PRS40-CV		MP800SR-180	6'	33	180	30	88	A
●	HUNTER	PRO5-06-PRS40-CV		MP800SR-90	10'	23	90	40	83	A
●	HUNTER	PRO5-06-PRS40-CV		MP800SR-180	10'	42	180	40	81	A
●	HUNTER	PRO5-06-PRS40-CV	MP1000 NOZZLE ON 40 PSI REGULATED POP UP	MP1000-90	8'-15"	19	90	40	39	C
●	HUNTER	PRO5-06-PRS40-CV		MP1000-210	8'-15"	43	210-270	40	39	C
●	HUNTER	PRO5-06-PRS40-CV		MP1000-360	8'-15"	75	360	40	39	C
▬	HUNTER	PRO5-06-PRS40-CV	MP LEFT STRIP	MPLCS515	4' x 14'	19	N/A	40		C
▬	HUNTER	PRO5-06-PRS40-CV	MP END STRIP	MPECS515	4' x 14'	19	N/A	40		C
▬	HUNTER	PRO5-06-PRS40-CV	MP SIDE STRIP	MPS5930	4' x 28'	38	N/A	40		C
①	HUNTER	PRO5-00-PRS40-CV-MP1000-360	MP ROTATOR HEAD ON 12" RISER		18'	127		30	88	C
②	HUNTER	1-10-00-CV-15SR	SHRUB ROTOR ON RISER		25'	15		50	46	C
⬢	HUNTER	1300 A-F	MULTI-STREAM PUBLER NOZZLE	MSBN-50Q/50H	15'/1"	50	3-4	30		D
▬	HUNTER	FLD	LANDSCAPE DRIP LINE					30		SHEET L/16

\*NOTE: INSTALL CHECK VALVES INTO ALL HEADS AT MID & TOE OF SLOPE

SYM.	MANUF.	MODEL NO.	DESCRIPTION	COMMENTS	DETAIL
▬	HUNTER	PRO-AVD	ATMOSPHERIC VACUUM BREAKER	LINE SIZE	F
▬	HUNTER	I-CORE	6-42 STATIONS (MODULAR)	WALL MOUNT IN GARAGE	G
RC	HUNTER	ICR	REMOTE CONTROL SYSTEM (OPTIONAL)	INSTALL REMOTE HOOKUP UNIT ON CONTROLLER 1/2 MILE RANGE, (4) AA BATTERY	N/A
ET	HUNTER	ET SYSTEM	SENSOR ARRAY INCLUDES SOLAR RADIATION, RELATIVE HUMIDITY, TEMPERATURE, & RAIN GAUGE WITH OPTIONAL ANEMOMETER	INSTALL PER MANUFACTURER'S INSTRUCTIONS	H
⊗	HUNTER	PRO-ASV/ PRO-AVD	REDUCED PRESSURE BACKFLOW DEVICE WITH PRESSURE REGULATOR	EXISTING ON-SITE, DO NOT BID	I
⊗	HUNTER	IBV-101G	1/2" AUTOMATIC MASTER GATE VALVE	INSTALL PER MANUFACTURER'S INSTRUCTIONS	J
HP	N/A	HOSE BID	ON RISER	3/4" DIAMETER	N/A
●	HUNTER	ICV GLOBE VALVE	REMOTE CONTROL VALVE INSTALLED IN BOX UNDER GROUND W/ PRESSURE REGULATING MODULE FOR EACH VALVE	ICV GLOBE VALVE (SIZE PER PLAN)	L
F	HUNTER	HFS FLOW SENSOR	AT 1/2" SIZE W SENSOR ASSEMBLY (HFS) INSTALL DOWNSTREAM OF MASTER VALVE	INSTALL PER MANUFACTURER'S INSTRUCTIONS	M

## IRRIGATION SPECIFICATIONS

### 1. SCOPE OF WORK:

The contractor shall provide all labor, tools, and machinery necessary to install a complete irrigation system as shown on the plans and/or specified herein. The completed irrigation system shall provide 100% coverage in a total functioning manner.

### 2. GENERAL REQUIREMENTS:

**A. Dimension Verification:** All scaled dimensions are approximate. Before proceeding with any work, the contractor shall carefully check and verify all dimensions, spacing of irrigation spray heads, location of valves, backflow preventers, and point of connection. Any deviation from plans must have the approval of owner's representative or landscape architect.

**B. Finish Grade Verification:** The contractor shall inspect the site and check all finish grades within the work area in order to insure the proper soil coverage as specified of irrigation system pipes.

**C. Water Supply:** The contractor shall verify and be familiar with the source of water supply to the irrigation system as indicated on the drawings.

**D. Permits and Fees:** The contractor shall apply and pay for all necessary permits and fees required in the pursuit of his work as required by the governing codes.

**E. Governing Regulation:** All local municipal and state laws, rules, and regulations governing or relating to any portion of this work are hereby incorporated into and made a part of these specifications and their provisions shall be carried out by the irrigation contractor.

**F. Diagrammatic Design:** This design is diagrammatic. All pipes, valves, etc. shown within paved areas are for design clarification only and shall be installed in planting areas where possible.

**G. Site Problems:** The irrigation contractor shall not willfully install the irrigation system as indicated on drawings if the contractor discovers underground utilities, obstructions or vague property lines (etc.). All questions shall be posed to the owner or Nick Martin landscape architect.

### 3. MATERIALS:

**A. Irrigation Materials:** Irrigation materials and equipment shall be of type, size, and location as noted and indicated on the drawings. Unless permission to change is granted from the landscape architect or owner's representative, materials are to be new, and in perfect condition. No deviations from the specifications shall be allowed unless approved by owner's representative or landscape architect. The decision of the landscape architect shall be final in the determination of the quality of the materials.

### 4. INSTALLATION:

**A. Excavation:** The contractor shall verify exact locations of all existing subsurface utilities (mech. and electrical) prior to excavation. Any utilities, A.C. paving, concrete work, etc. destroyed or damaged by any work under this contract shall be repaired or replaced at the contractor's expense.

**B. Depth of Trenches:** Depth of trenches shall be sufficient to provide minimum cover at top of pipe as indicated on drawings, usually 18" for mains and 12" for lateral piping. Trench backfill shall be free of material that will damage irrigation pipe or equipment. In the event of backfill settlement, the contractor shall perform required repairs at his own cost. The contractor shall not place detrimental subsoil in the top 6" of backfill.

**C. Sleeving:** All mainline and lateral lines shall be sleeved with P.V.C. schedule 40 twice the diameter of the sleeved line where it passes under paved areas.

**D. Joining Pipe:** The contractor is responsible to be familiar with the methods of assembling, joining, and installing the various types of pipe to be used. He will adhere in strict accordance of the manufacturer's recommended procedures.

**E. Backflow Preventer:** The backflow prevention device specified herein shall be verified with local plumbing and health codes. In the event of any conflict on the device or installation methods, the landscape architect will be notified.

**F. Automatic Valves:** All automatic valves shall be located within shrub areas and installed in green valve BOXes, one valve per BOX, with 4 inches of pea gravel beneath the valve. Gate valves shall be located in separate valve BOXes.

**G. Automatic Controllers:** Automatic controllers shall be size and type as noted and installed where indicated on irrigation plan. Contractor to verify location and electrical supply with owner. Control wires shall be sleeved in electrical conduit to mainline. The 120 volt service to controller shall be by owner.

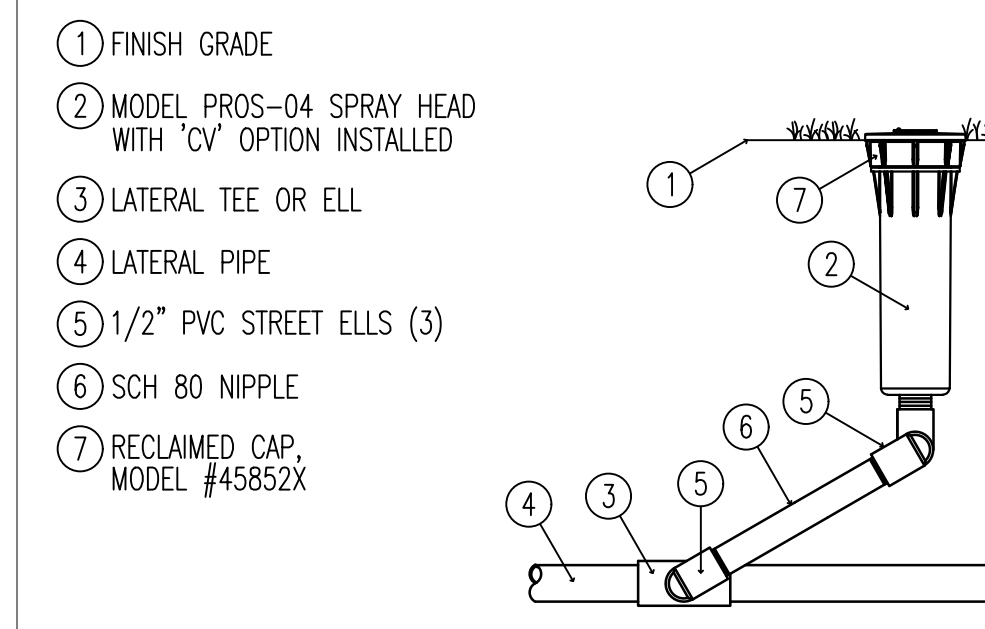
**H. Check Valves:** Check valves shall be used where indicated and where necessary to prevent water flow from lower elevation heads when system is turned off.

**I. Irrigation Spray Heads:** All irrigation spray heads shall be set perpendicular to finish grade unless otherwise specified. The irrigation contractor shall adjust all irrigation heads and valves for optimum coverage with minimum overspray onto walks, driveways, streets, walls, etc. All irrigation equipment not otherwise detailed or specified shall be installed as per manufacturer's recommendations and specifications.

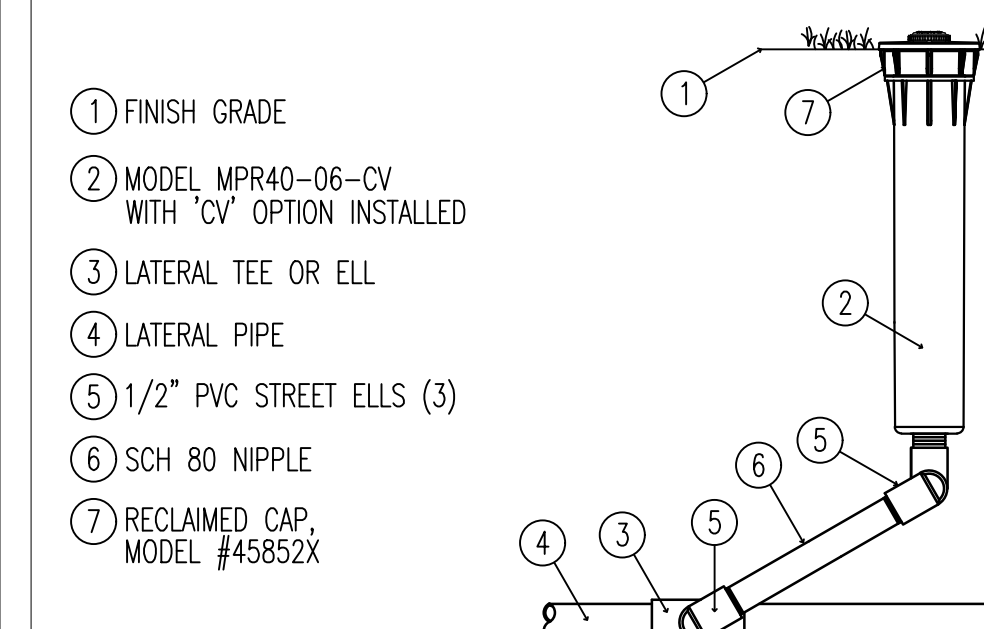
**J. Wires:** All wire shall be ANG-UF direct burial type and all splices and connections shall be made with pen-tite connectors or equal. Each valve on a controller shall have a separate wire color. All wires shall be installed with two (2) feet of excess wire (coiled) at the end of each wire run.

### 5. TESTS:

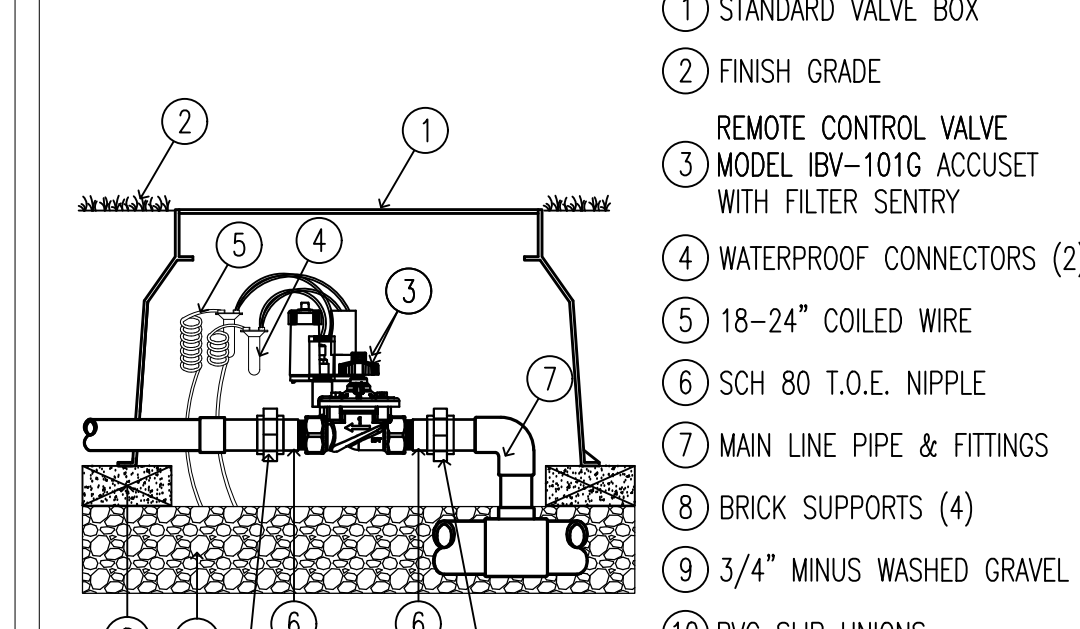
**A. Pressure / flow verification:** The irrigation system design is based on a minimum operating pressure of 30-40 psi and a maximum flow demand that will vary per irrigation system design. The irrigation contractor shall verify water pressures prior to construction. Report any differences between the water pressure indicated on the drawings and the actual pressure reading at the point of connection, if this discrepancy hinders the performance of the irrigation system.



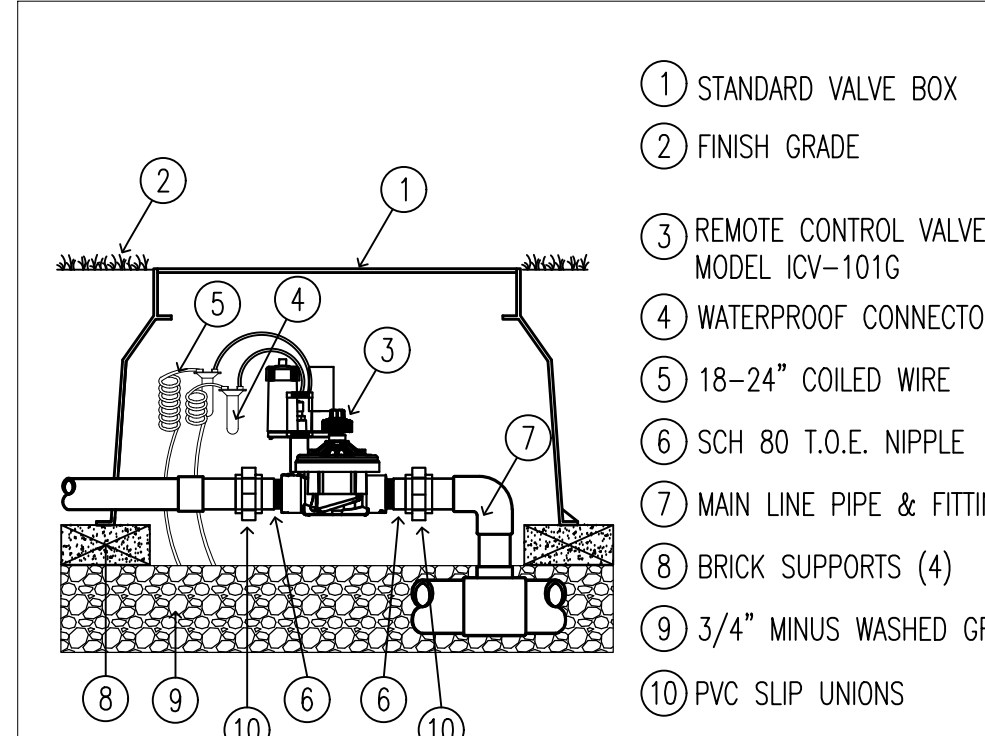
**B PROS-04-CV SPRAY HEAD**  
N.T.S. Hunter IRRIGATION DETAIL



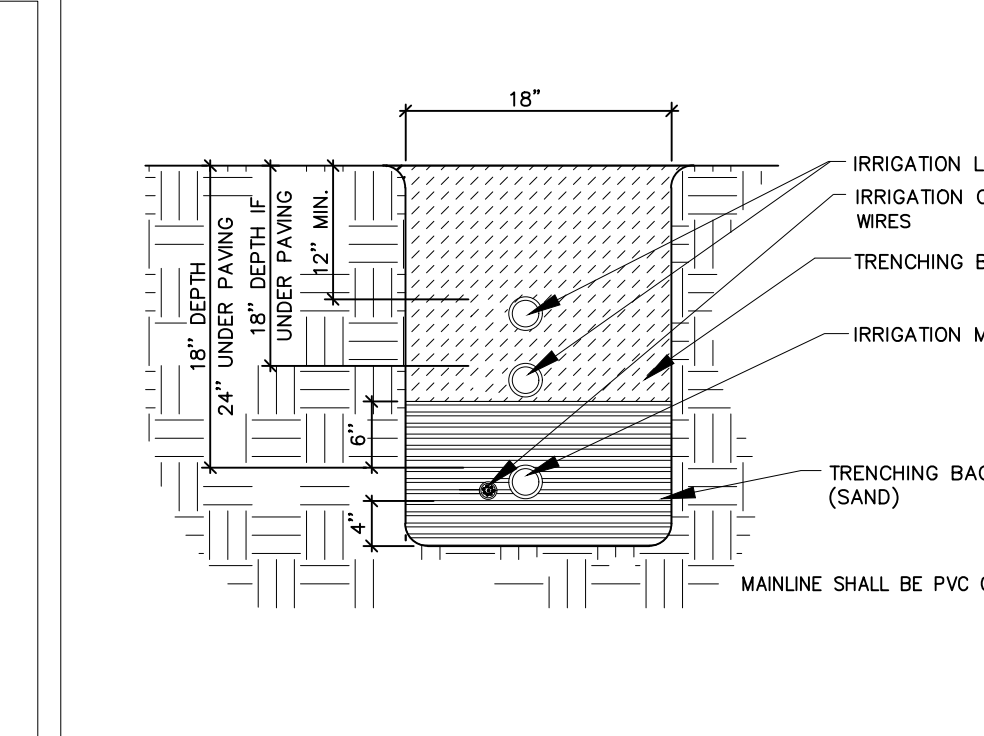
**C MPR40-06-CV MP ROTATOR SPRINKLER**  
N.T.S. Hunter IRRIGATION DETAIL



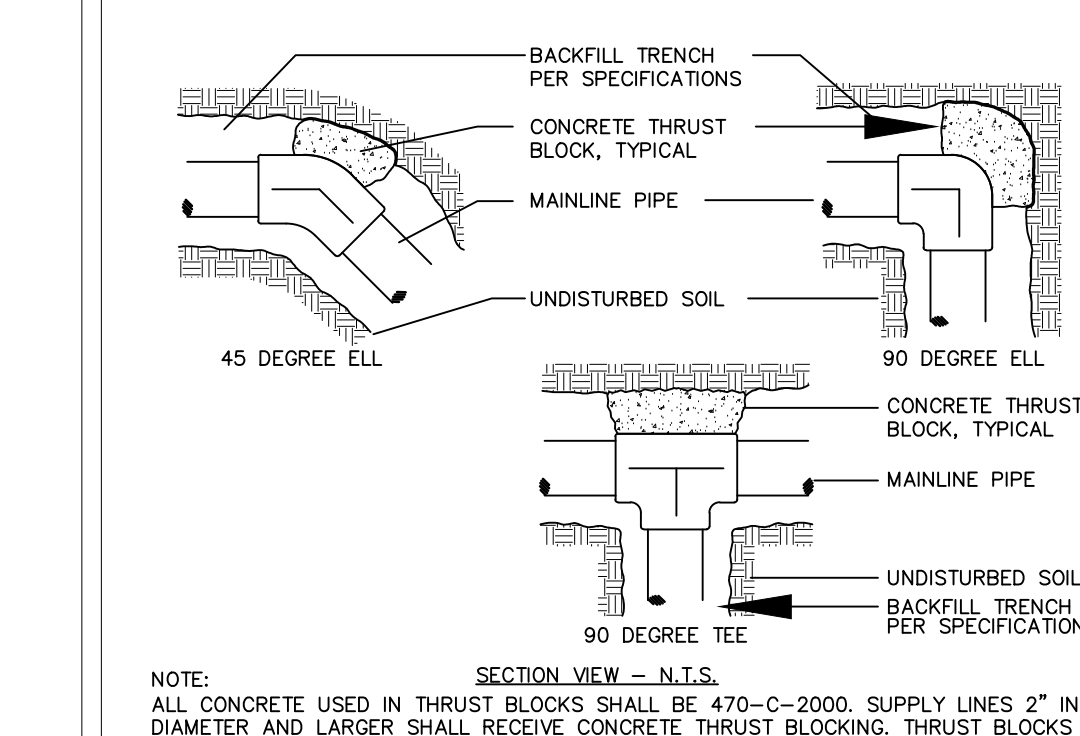
**J IBV 1\"/>**



**L ICV 1\"/>**



**M TRENCH**  
N.T.S.



**N THRUST BLOCKS**  
N.T.S.

**B. Pressure Tests:** Prior to backfilling trenches: All mainlines in the system shall be capped and pressure tested at 125 psi for a period of four (4) hours. Any leaks found shall be corrected by removing the leaking pipe and / or fitting and installing new material in its place. All laterals shall be pressure tested at design pressure for one hour. The contractor shall not allow nor cause any of his work to be covered until it has been inspected, tested and approved by the owner's authorized representative.

**C. Coverage Test:** When the irrigation system is completed (and before planting is begun), the contractor in the presence of the owner's representative, shall test the coverage of water afforded to the lawn and planting areas as complete and adequate. The contractor shall furnish all materials and perform all work required to correct any inadequacies of coverage disclosed.

### 6. CLEAN-UP:

**A. Scope and frequency:** After all installation operations have been completed, remove all trash, excess soil and rubbish from the property. All scars, ruts or other marks in the area caused by this work shall be repaired and the ground left in a neat and orderly condition throughout the site. The contractor shall pick-up all trash resulting from this work no less than each Friday before leaving the site, once a week and/or last working day each week. All trash shall be removed completely from the site.

### 7. GUARANTEE:

**A. Scope:** The entire irrigation system shall be guaranteed by the contractor as to material and workmanship including setting of backfilled areas below grade for a period of one (1) year following the date of final acceptance of the work. If within one year from the date of completion, settling occurs and adjustments in pipes, valves, irrigation heads, sod, or paving is necessary to bring to the proper level of the permanent grades, the contractor as part of the work under this contract, shall make all adjustments without extra costs to the owner. This includes the complete restoration of all damaged planting, paving, or other improvements of any kind.

**B. Responsibility:** Should any operational difficulties in connection with the irrigation system develop within the specified guarantee period which is in the opinion of the landscape architect due to inferior material and/or workmanship said difficulties shall be immediately corrected by contractor to the satisfaction of the landscape architect at no additional cost to the owner including any and all other damage caused by such defects.

**C. Controller operation:** The contractor shall provide the owner a listing of all irrigation stations and areas covered in sequence. This shall take the form of a typed 8-1/2" x 11" sheet with acetate cover. This will be provided to the owner during final walk-through. Contractor will also demonstrate to the owner how to program and operate the controller.

### GENERAL IRRIGATION NOTES:

ALL MAINLINE ANGLES TO OCCUR IN PLANTING BEDS, WHERE POSSIBLE, TO ALLOW FOR CONVENIENT REPAIR SHOULD IT BE REQUIRED.

TYPICAL 1/2" CLASS 200 LATERAL LINES TO BE SIZED SO AS NOT TO EXCEED 5-FEET PER SECOND VELOCITY. LATERALS UNDER PAVEMENT TO BE SCHEDULE 40 AND SLEEVED PER DETAIL.

USE POP-UP IRRIGATION HEADS ADJACENT TO ALL SIDEWALKS, PATHWAYS, PATIOS, STEPS AND OTHER HIGH TRAFFIC ZONES. INCLUDE IN THIS CONTRACT.

ADD IN-LINE CHECK VALVES AS NEEDED TO ELIMINATE LOW HEAD DRAINAGE. REFER TO IRRIGATION LEGEND.

NOTE: INCLUDE CONCRETE THRUST BLOCKING FOR ALL JUNCTIONS OF MAINLINE INCLUDING TEES, ELBOWS AND ANGLES (PER DETAIL).

MINIMUM PIPE TYPE SHALL BE CLASS 200 FOR LATERAL LINES AND SCH. 40 PVC PIPE FOR MAINLINES UNDER 2" IN SIZE AND CLASS 315 FOR MAINLINE PIPE 2" AND OVER.

ALL HEADS WITH LOW HEAD DRAINAGE SHALL HAVE CHECK VALVES INSTALLED TO PREVENT EROSION

### IRRIGATION EFFICIENCY VALUES

DRIP (D) = 0.80  
ROTOR (R) = 0.70  
SPRAY (S) = 0.55

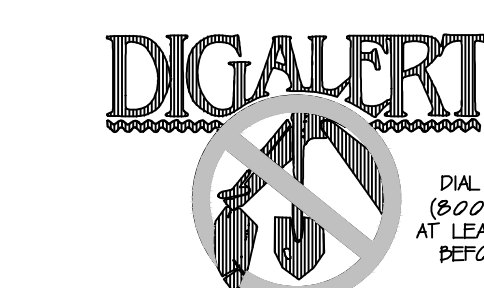
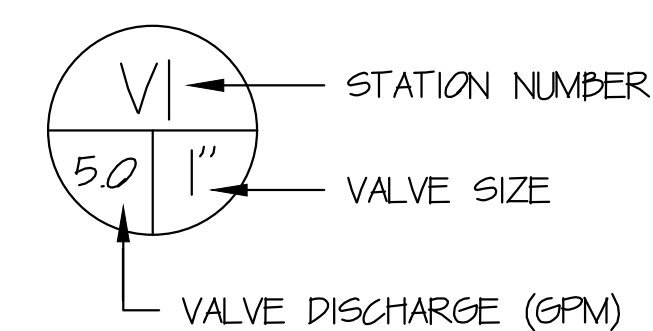
### VALVE SIZE TABLE

VALVE SIZE	GPM
2"	33-60
1 1/2"	23-38
1 1/4"	19-28
1"	0-18

### FLOW RATE TABLE

PIPE DIAMETER	*GPM RANGE
3"	66-95
2 1/2"	45-65
2"	29-44
1 1/2"	22-28
1 1/4"	13-21
1"	9-12
3/4"	5/8
1/2"	0-4

\* MAXIMUM VELOCITY 5' PER SECOND  
\* ALL LATERAL LINES TO BE SCH. 40 PIPE



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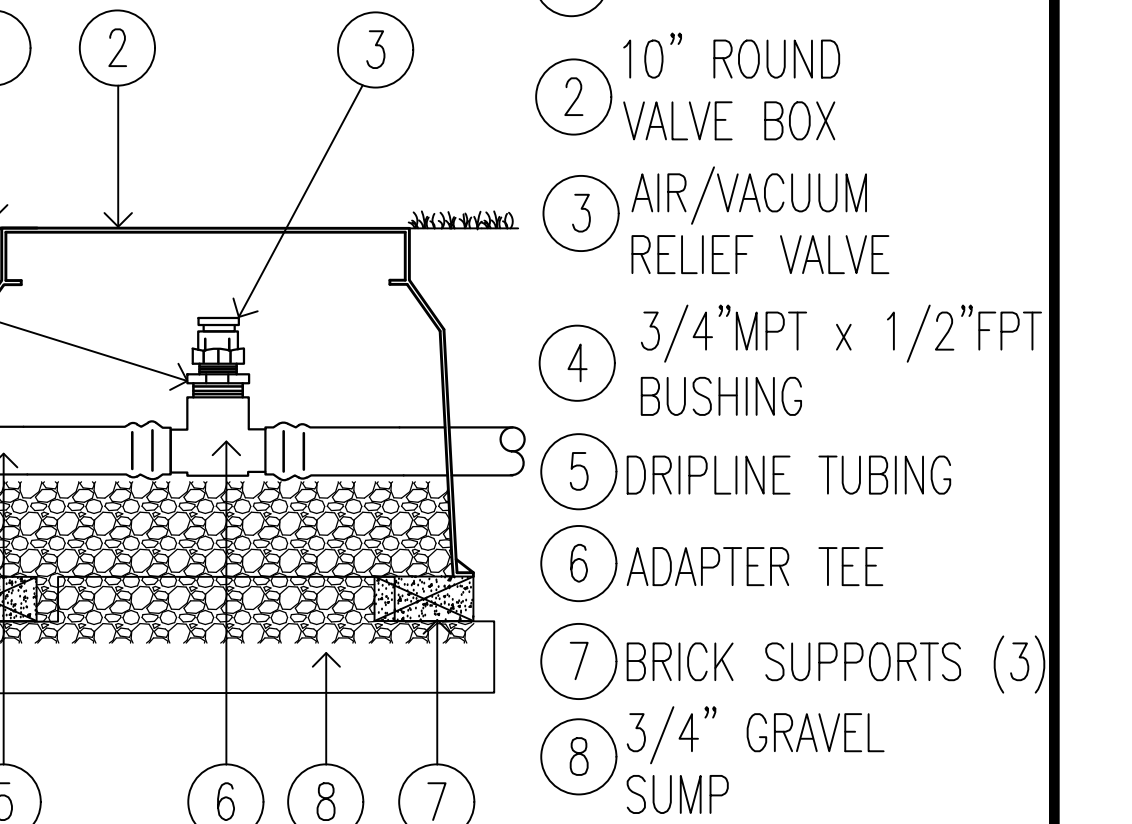
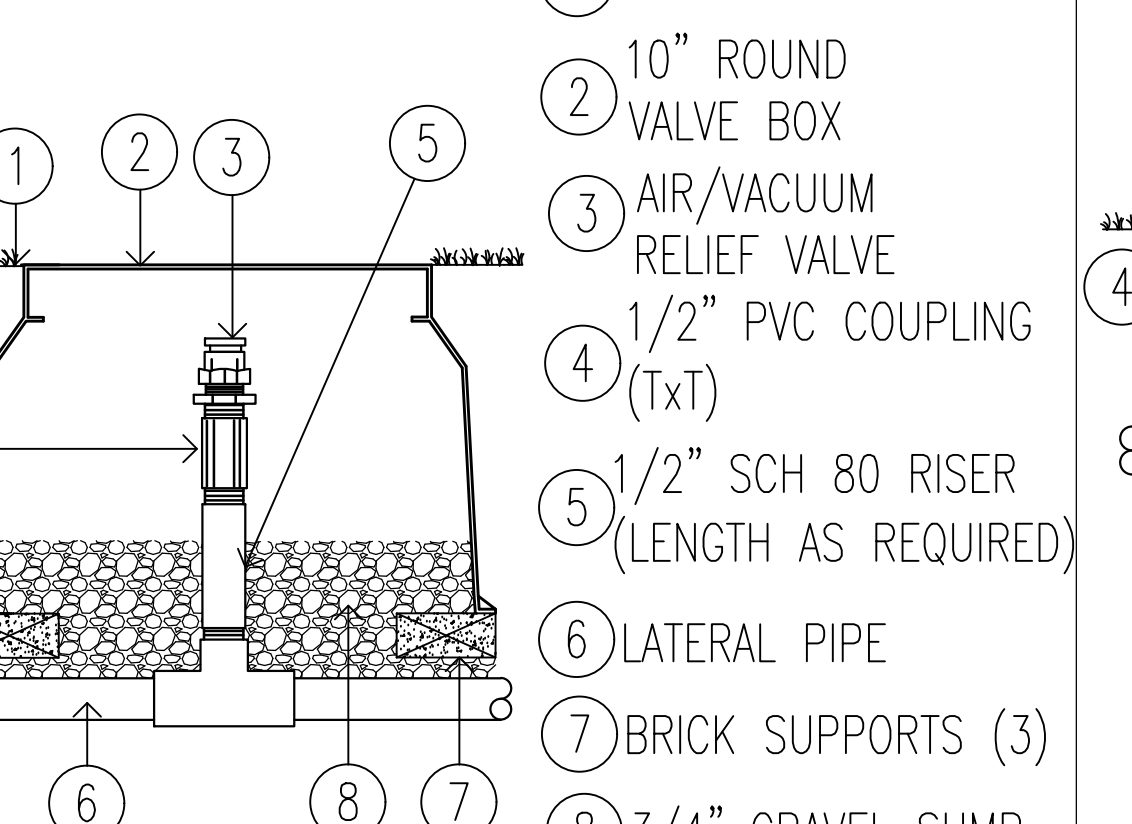
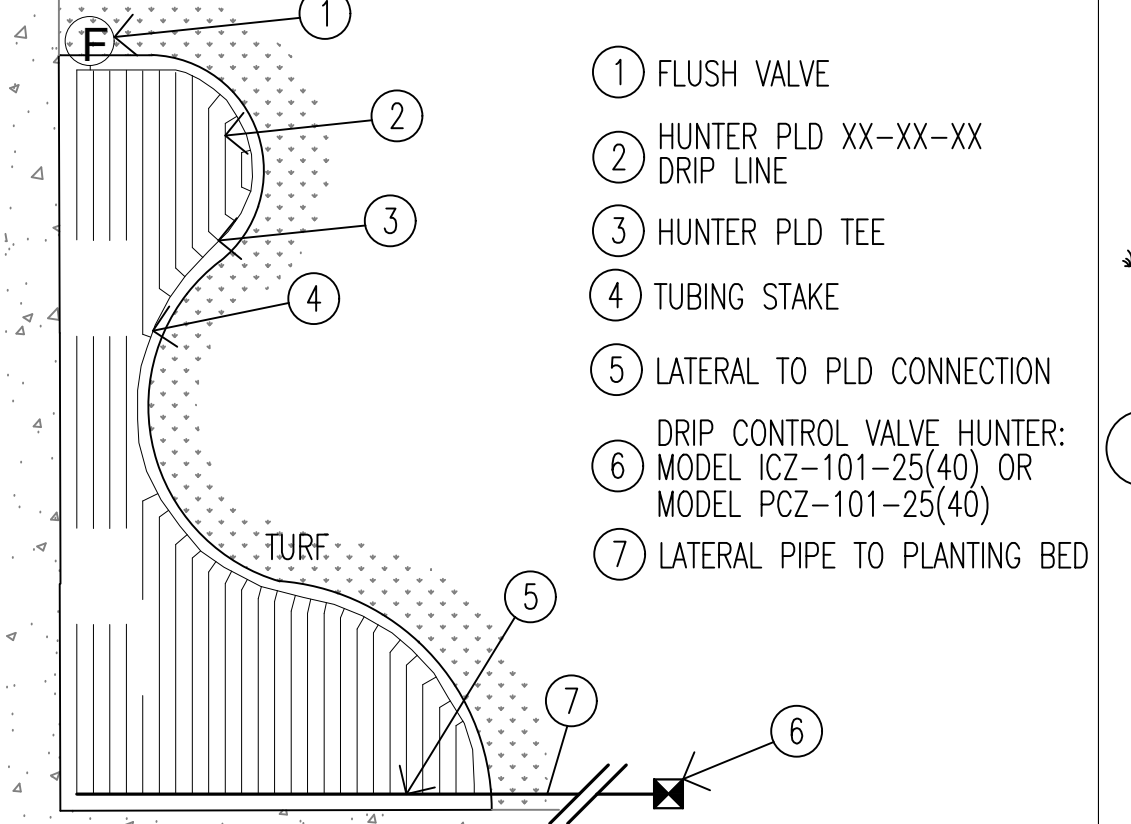
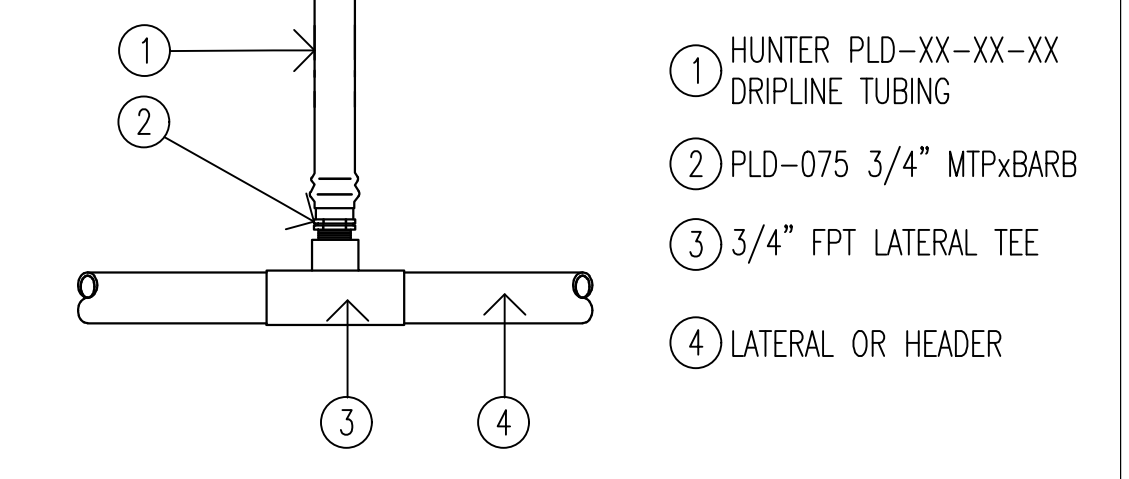
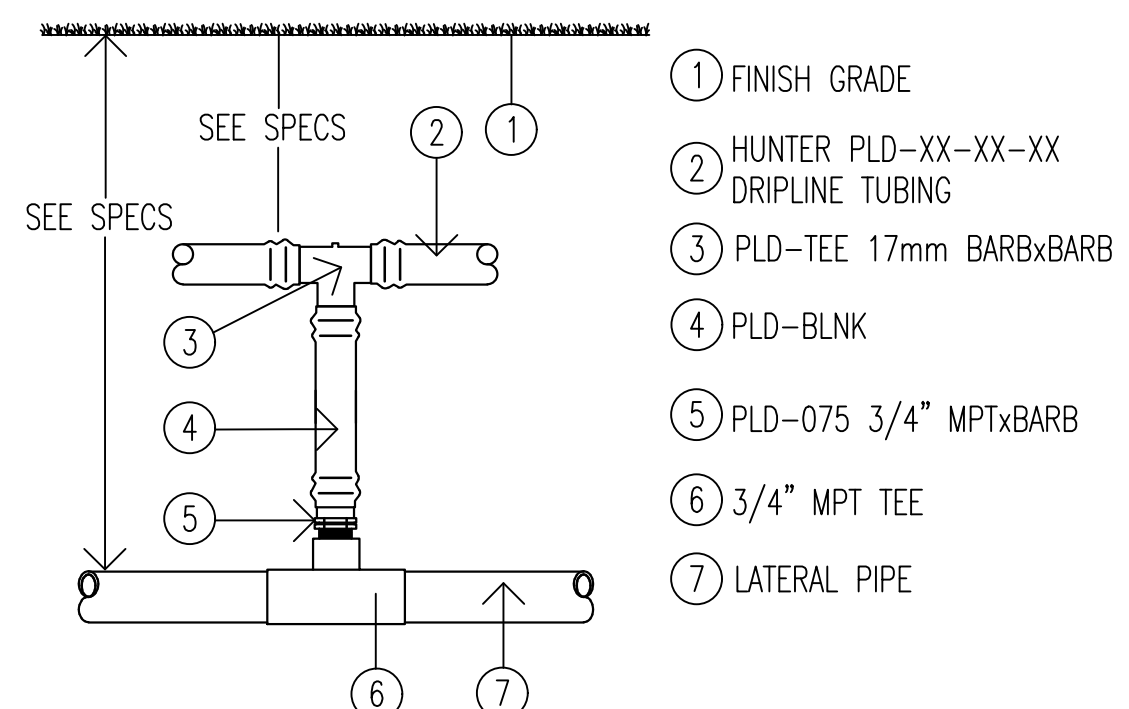
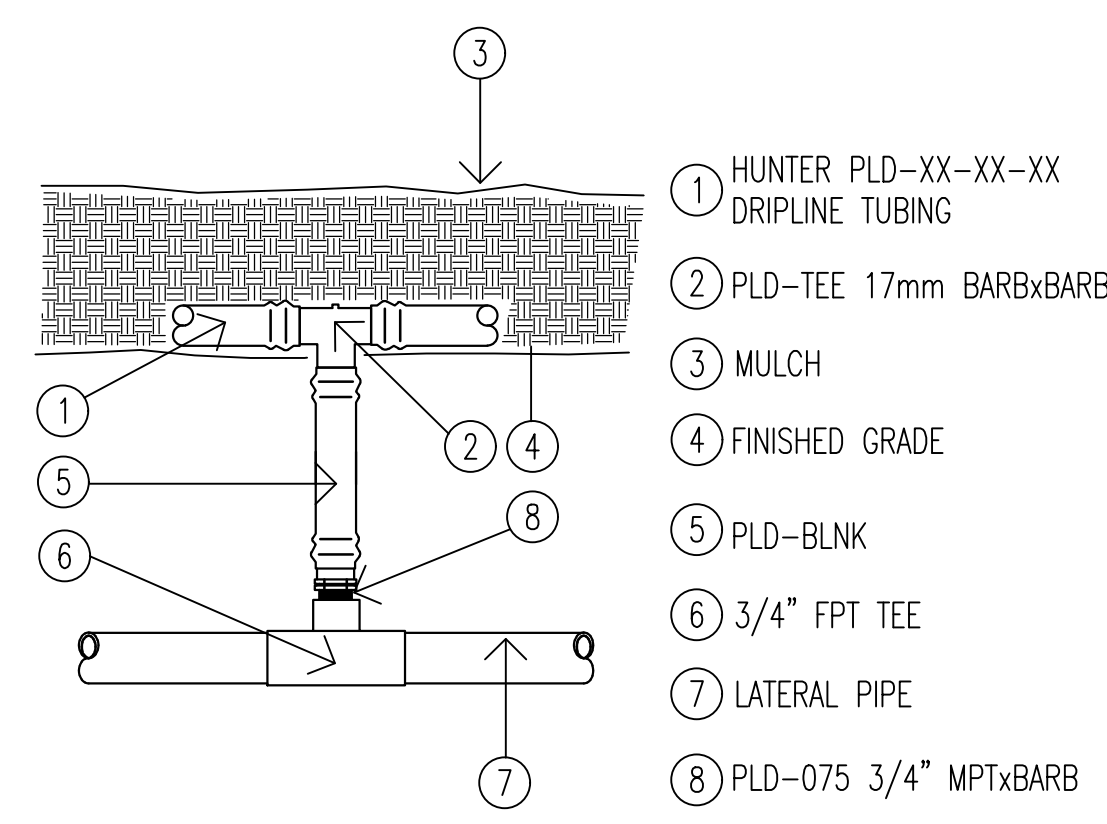
PROJECT NAME:  
PHONE:

**NICK MARTIN**  
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E: nmt@nicklandscape.com



DRAWN	NM
DRAFTER	AP
DATE	01/29/2020
SCALE	
JOB NAME	HANNA
SHEET	
L/8	
SHEETS	





**1 START CONNECTION ABOVE GRADE**  
NOT TO SCALE

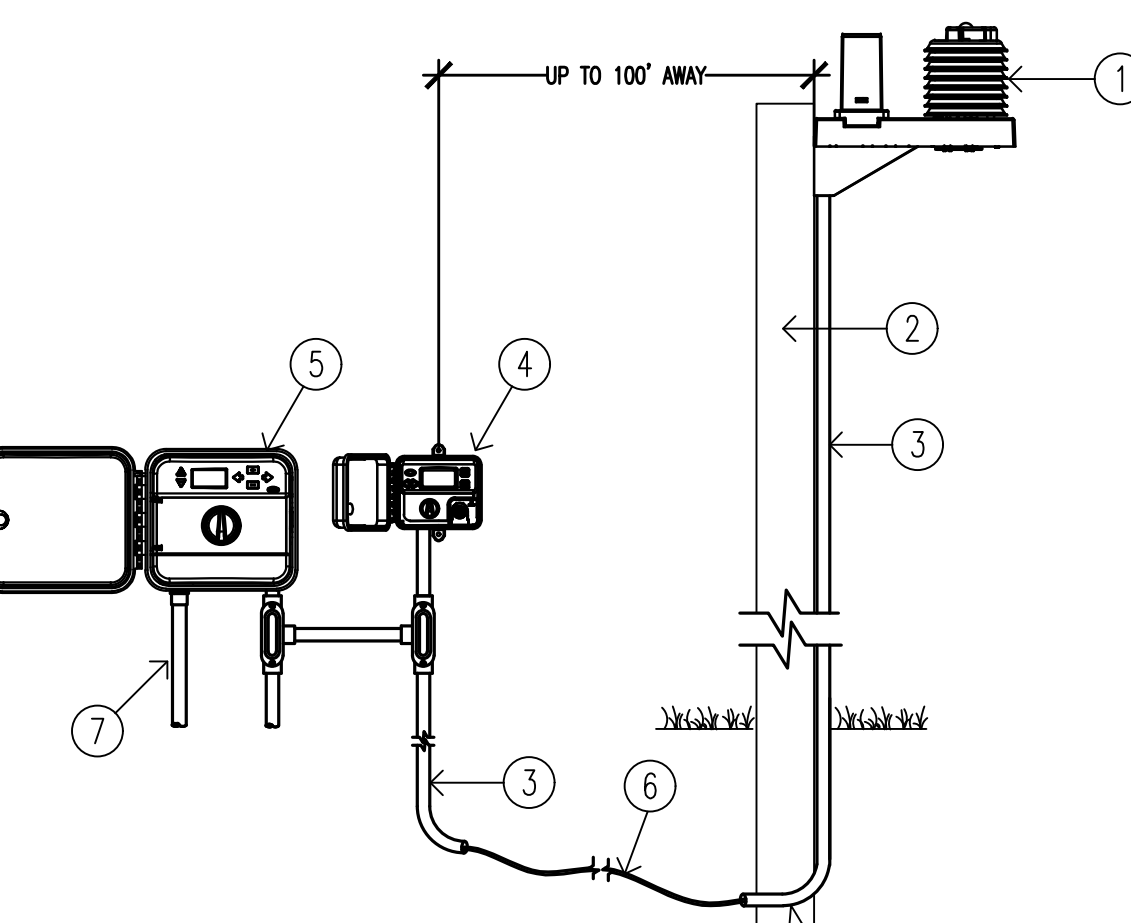
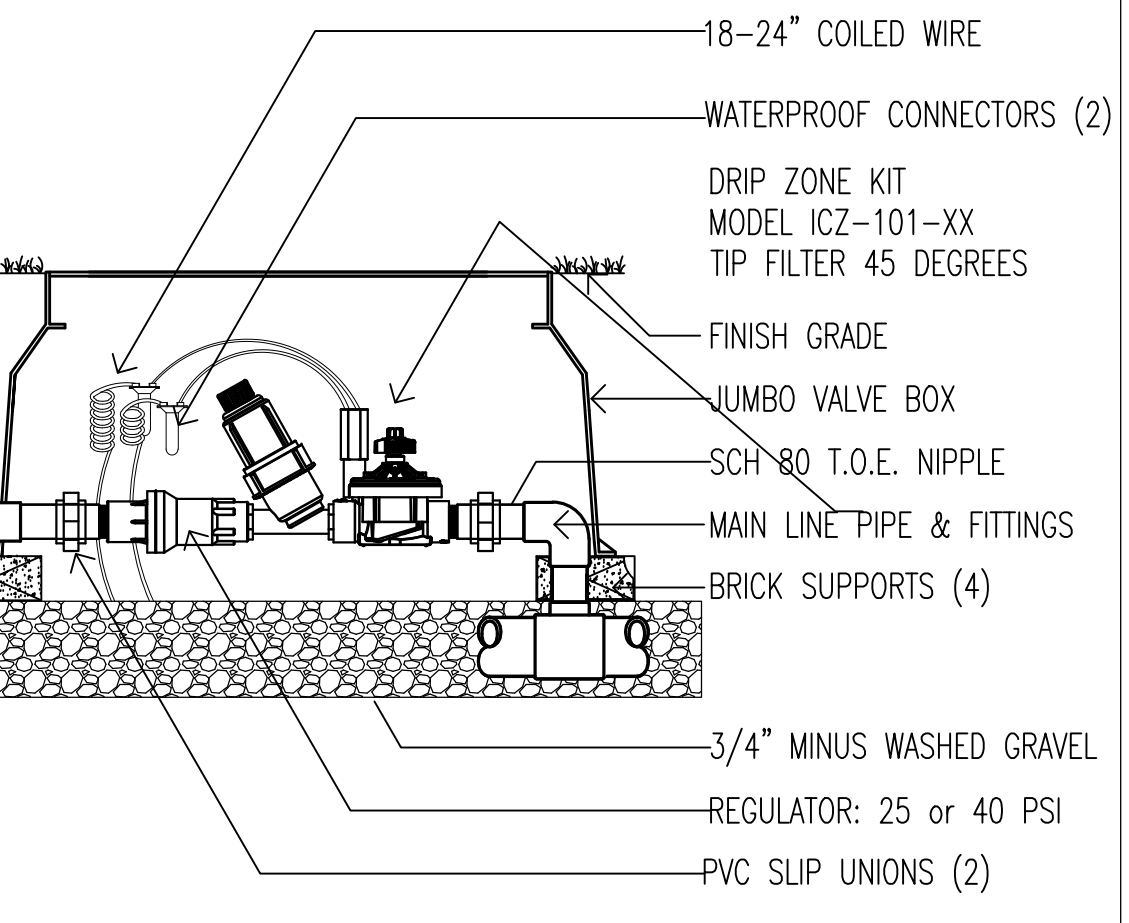
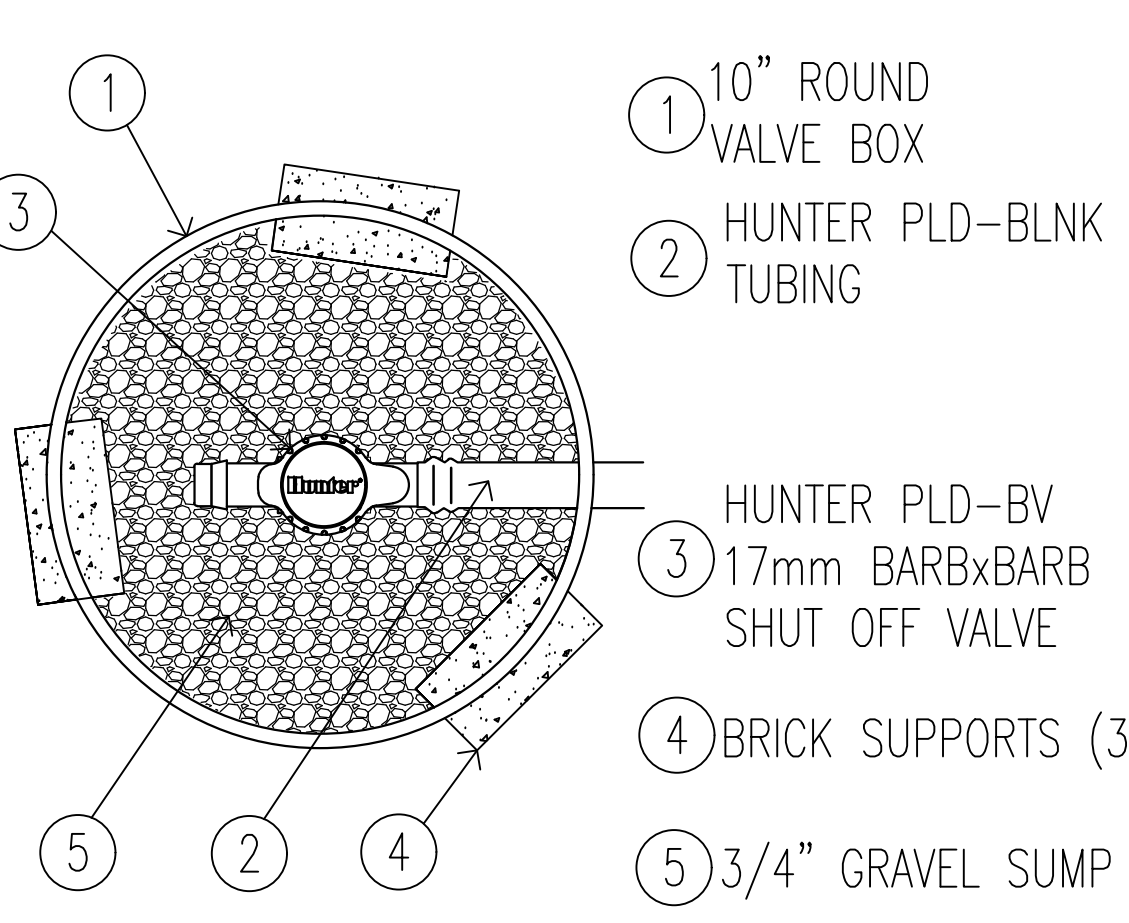
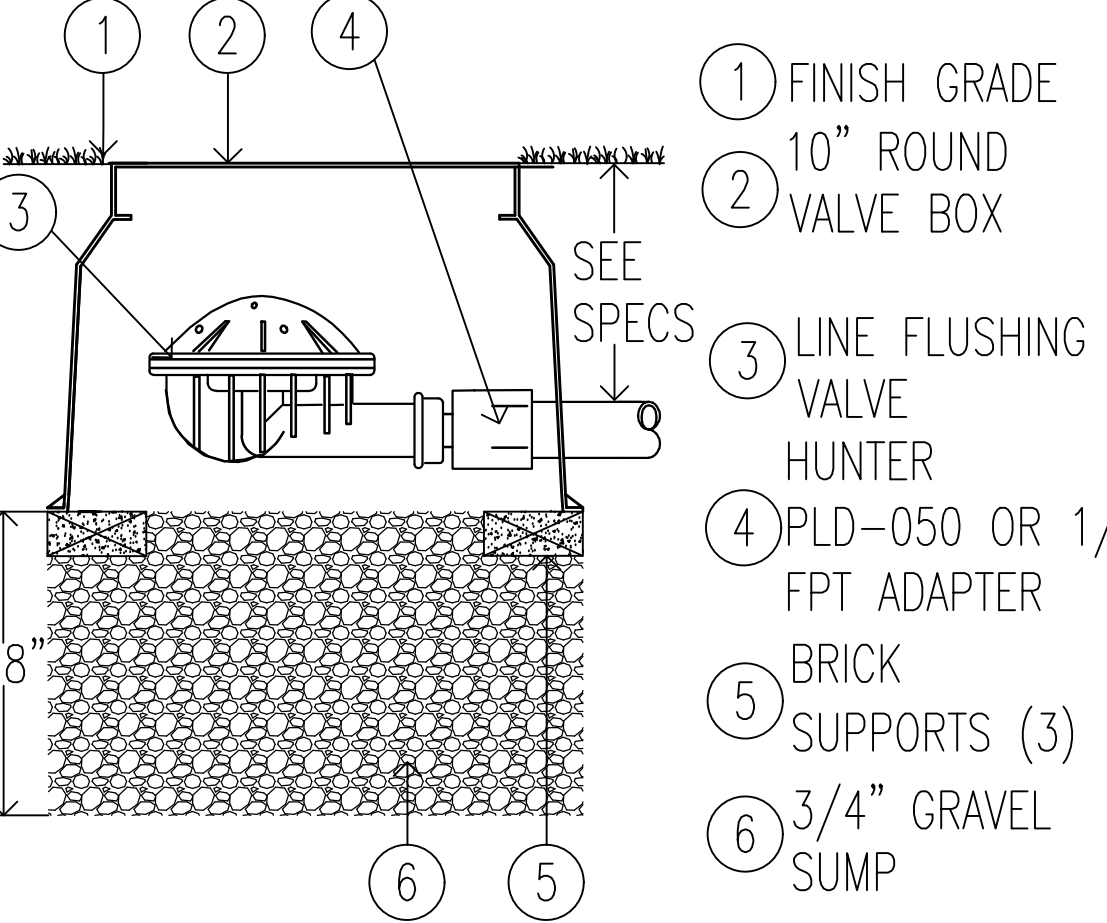
**2 START CONNECTION BELOW GRADE**  
NOT TO SCALE

**3 START CONNECTION ABOVE GRADE**  
SCALE: 1.5" = 1'-0"

**4 PLANTING BED**  
NOT TO SCALE

**5 AIR RELIEF PVC RISER**  
SCALE: 1.5" = 1'-0"

**6 AIR RELIEF TUBING**  
SCALE: 1.5" = 1'-0"



**7 FLUSH VALVE AUTOMATIC**  
SCALE: 1.5" = 1'-0"

**8 MANUAL FLUSH VALVE**  
SCALE: 1.5" = 1'-0"

**9 DRIP CONTROL ZONE**  
SCALE: 1.5" = 1'-0"

**C ET SYSTEM**  
SCALE: 1" = 1'-0"

**SPECIFICATIONBUILDER**

MODEL	FLOW	SPACING	LENGTH
PLD	0.4 0.6 1.0	12" 18" 24"	100' 250' 1,000'
PLD	0.4	12	250

**PLD - 04 - 12 - 250**

HUNTER PLD PROFESSIONAL LANDSCAPE DRIP LINE

FULL SPECIFICATIONS & DETAILS AVAILABLE AT:  
HUNTER INDUSTRIES  
W: HUNTERINDUSTRIES.COM

**HUNTER SUB-DRIP INSTALLATION NOTES**

- DRIP IRRIGATION TUBING IS TO BE INSTALLED A MINIMUM OF 3" BELOW FINISHED GRADE (MINERAL SOIL) & THE APPLICATION OF BARK MULCH, D.G., &/OR ROCK MULCH OVER THE TOP OF FINISHED GRADE. SLOPE STEEPER THAN 4:1 WILL NOT HAVE DRIP LINE SYSTEMS UNLESS OTHERWISE NOTED. REFER TO IRRIGATION PLAN.
- ALL DRIP SYSTEMS WILL BE WIRED INTO THE IRRIGATION CONTROLLER & PROGRAMMED PROPERLY FOR THE ZONE, THE SEASON, & WEATHER CONDITIONS.
- ALL DRIP SYSTEM ZONES WILL INCLUDE A MANUAL SHUT-OFF BALL VALVE AT THE VALVE MANIFOLD LOCATIONS.
- INSTALLATION OF FLUSH VALVES & AIR RELEASE VALVES WILL BE MANDATORY.
- PRESSURE TEST THE SYSTEM & CHECK FOR LEAKS PRIOR TO BACKFILLING ALL TRENCHES.
- DO NOT RUN DRIP LINE UNDER CONCRETE FOOTINGS, BOLDERS, OR OTHER OBSTRUCTIONS.
- ALL TRESS WILL INCLUDE A LOOP SYSTEM TO EQUIVALENT TO THE DRIP LINE DIAMETER OF EACH TREE.

**NOTE TO CONTRACTOR:**

- ADJUST PRESSURE AT EACH INDIVIDUAL VALVE STATION
- EACH INDIVIDUAL RCV MAY BE ADJUSTED INDEPENDENTLY. REGULATE PRESSURE AT REDUCED BACKFLOW PREVENTER TO APPROXIMATELY 95 PSI FOR MINIMUM 30 PSI AT WORST CASE SCENARIO HEAD. THE PRESSURE REGULATOR IN THE HOME MUST BE ADJUSTED INDEPENDENTLY.

**PLD MAXIMUM LINE LENGTH CHART**

FLOW RATE	0.4 GPH			0.6 GPH			1.0 GPH		
	Emitter Spacing	Maximum Lateral Length (ft)		Emitter Spacing	Maximum Lateral Length (ft)		Emitter Spacing	Maximum Lateral Length (ft)	
Pressure (Psi)	12"	18"	24"	12"	18"	24"	12"	18"	24"
15.0	344	475	594	190	251	325	141	193	240
20.0	479	660	823	279	384	479	203	283	354
25.0	509	703	879	331	459	574	243	339	427
30.0	535	742	928	354	490	614	259	361	453
35.0	584	808	1010	390	542	679	289	401	502
40.0	627	858	1085	420	590	735	312	432	541
45.0	646	894	1119	456	607	761	322	447	561
50.0	689	957	1200	472	654	819	344	482	606

\*Maximum single lateral length at 0% slope

MODELS	SPACING	LENGTH	OPTIONS
PLD-04 = 0.4 GPH Flow	12 = 12"	100 = 100'	(blank) = No option
PLD-06 = 0.6 GPH Flow	18 = 18"	250 = 250'	R = Reclaimed
PLD-10 = 1.0 GPH Flow	24 = 24"	1K = 1,000'	
PLD-BLNK = Blank			

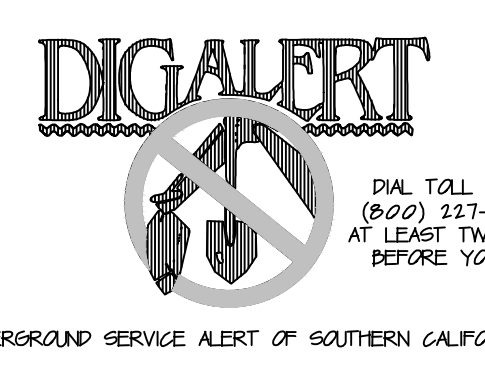
**IRRIGATION SPECIFICATIONS**

PROJECT NAME: \_\_\_\_\_  
PHONE: \_\_\_\_\_

**NICK MARTIN**  
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DRAWN: NM  
DRAFTER: AP  
DATE: 01/23/2020  
SCALE:  
JOB NAME: HANNA  
SHEET:  
1/18.2  
SHEETS



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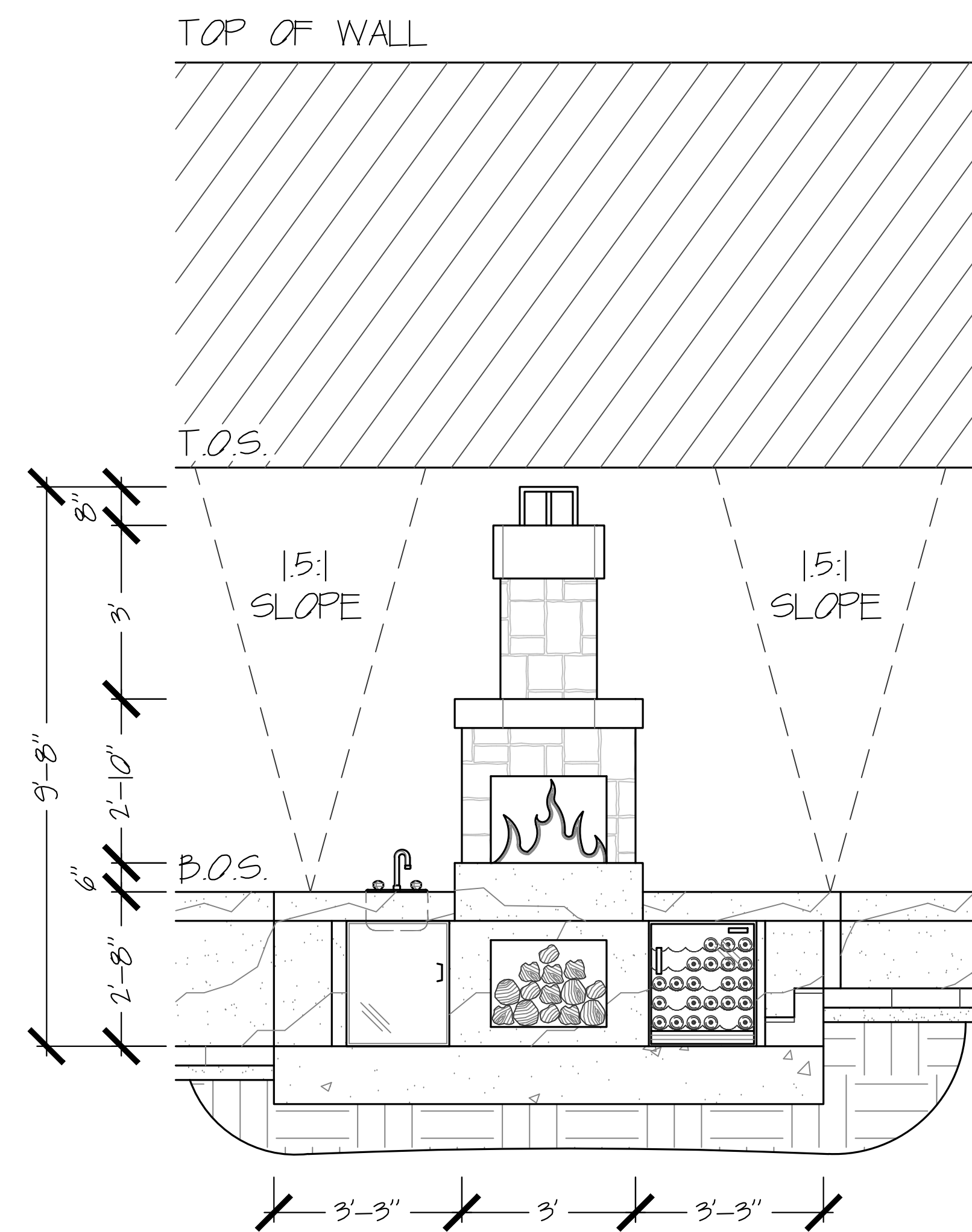


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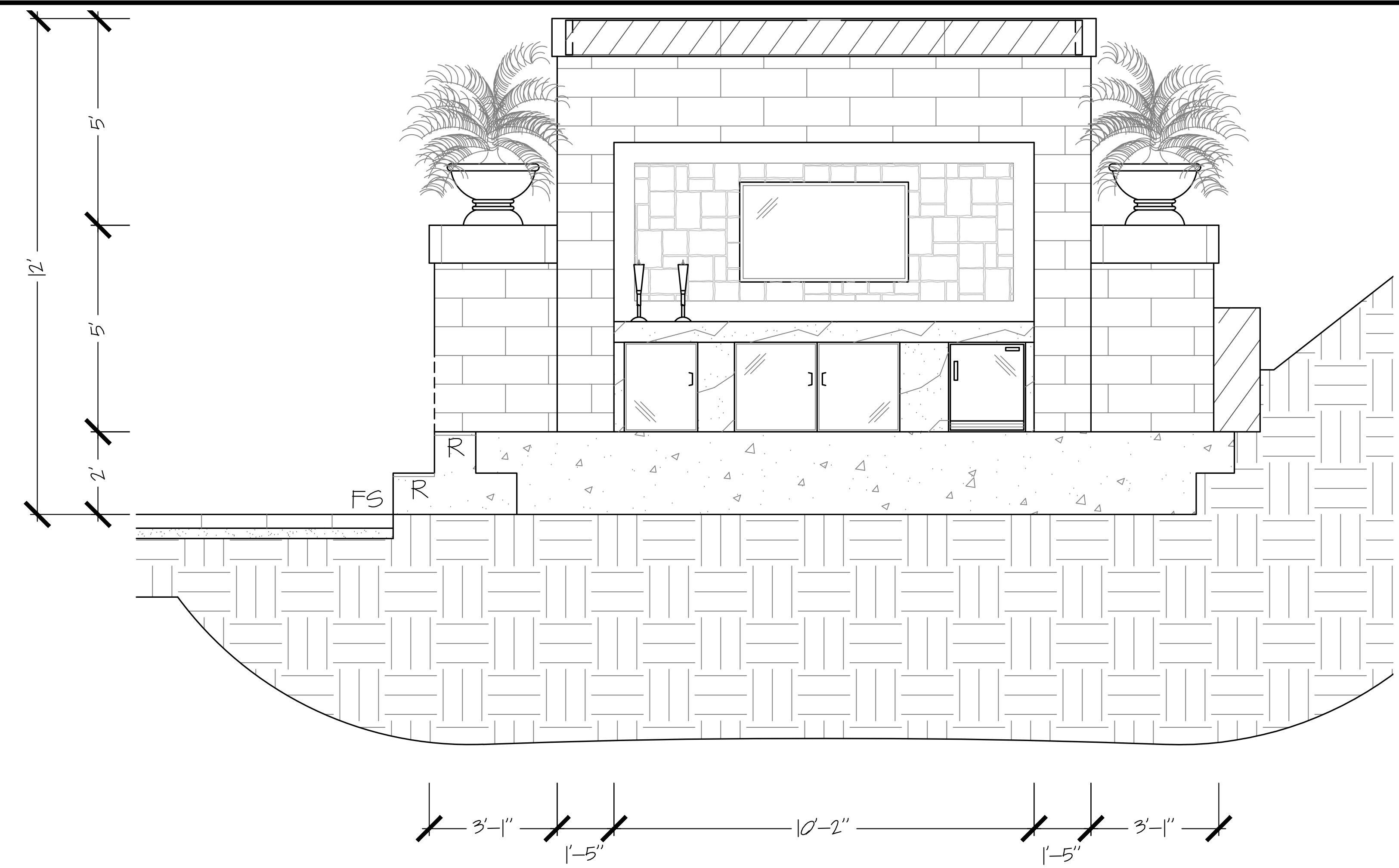






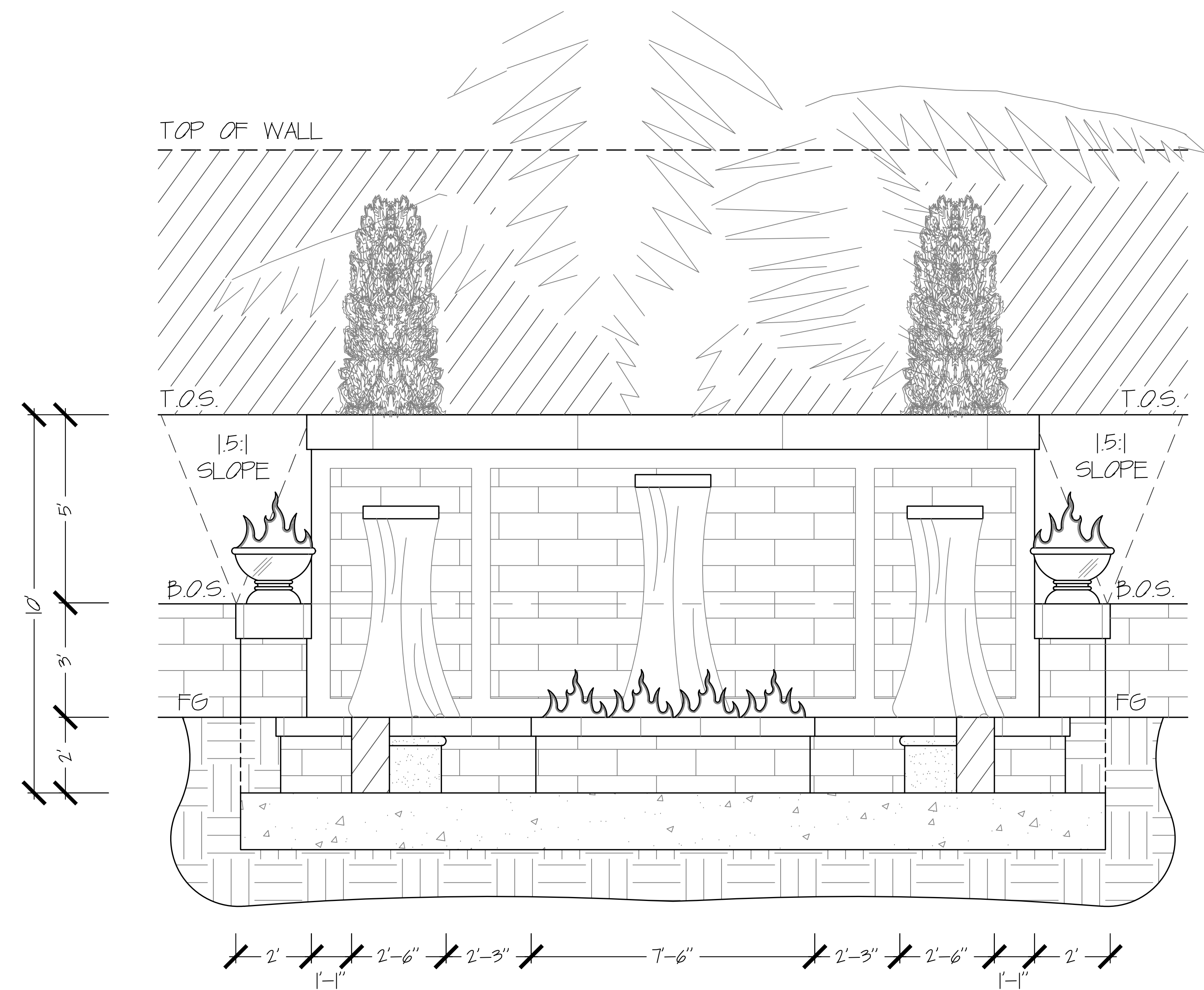
OUTDOOR PIZZA OVEN COUNTER ELEVATION

SCALE: 1/2"=1'-0"



OUTDOOR KITCHEN ELEVATION

SCALE: 1/2"=1'-0"



OUTDOOR KITCHEN ELEVATION

SCALE: 1/2"=1'-0"

SITE  
DETAILS

PROJECT NAME:

PHONE:

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DRAWN	NM
DRAFTER	AP
DATE	03/12/2010
SCALE	1/2"=1'-0"
JOB NAME	HANNA
SHEET	

1/9  
SHEETS

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