

# TREE MITIGATION, LANDSCAPE, AND IRRIGATION PLANS

# LAKE HILLS SHOPPING CENTER

## CITY OF HOWIE IN THE HILLS, FLORIDA

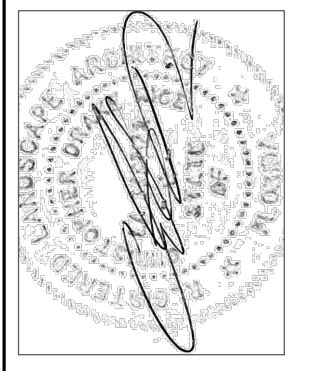
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Christopher  
D Rice

Digitally signed by  
Christopher D Rice  
Date: 2025.01.13  
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 CHRISTOPHER D. RICE LA8666-7122

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LANDSCAPE PLANS  
COVER SHEET

DRAWING TITLE

REV.	DESCRIPTION	DATE	PROJECT ADDRESS	OWNER NAME AND ADDRESS

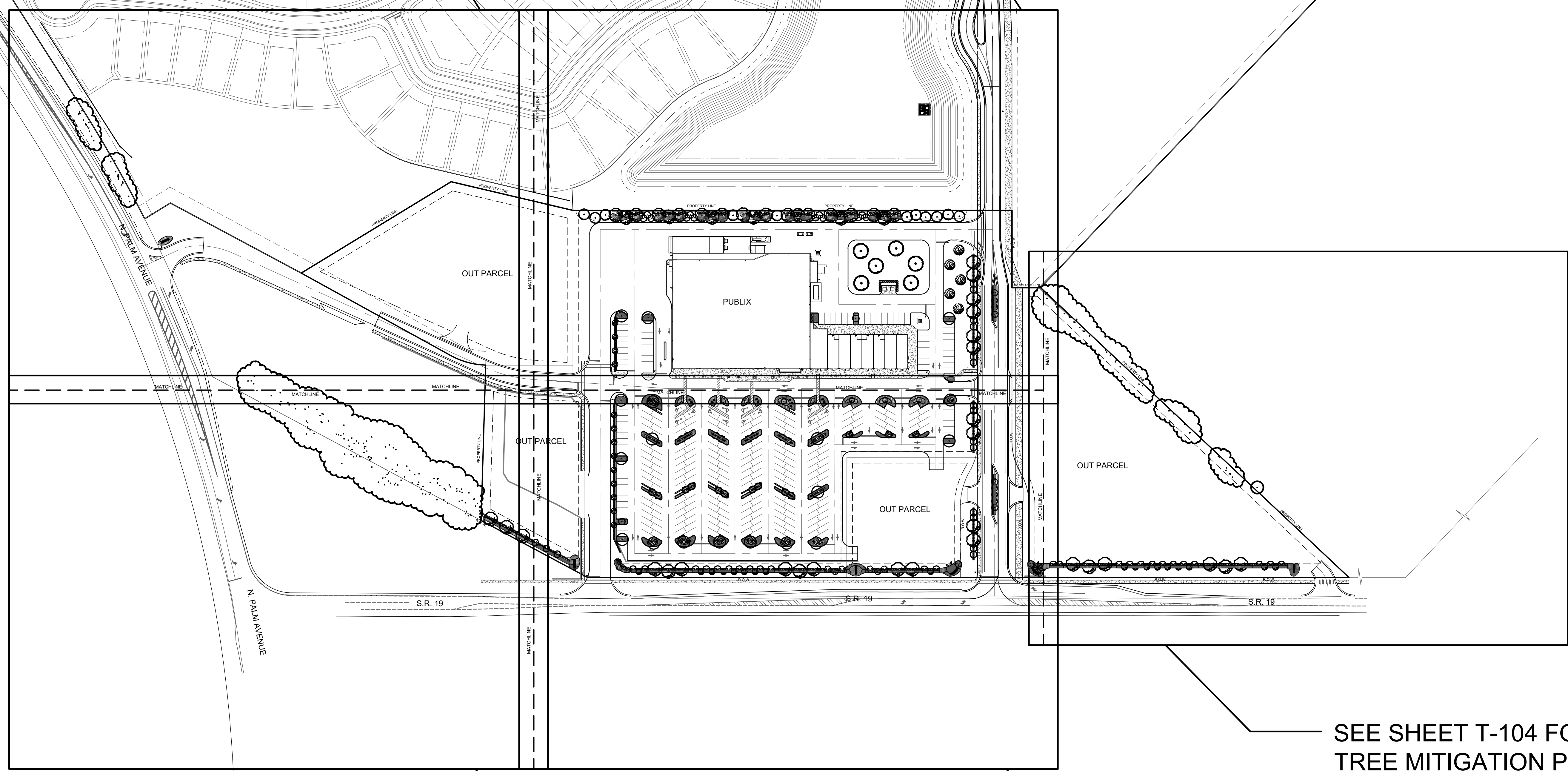
PROJECT NO.	24-091
PHASE	80% CONSTRUCTION DOC
SCALE	NTS
FILE NAME	
DRAWN BY	CDR
CHECKED BY	CDR
DATE	01-08-25

**C-100**

LAKE HILLS SHOPPING CENTER

SEE SHEET T-100 FOR  
TREE MITIGATION PLAN  
SEE SHEET L-100 FOR  
LANDSCAPE PLAN  
SEE SHEET I-100 FOR  
IRRIGATION PLAN

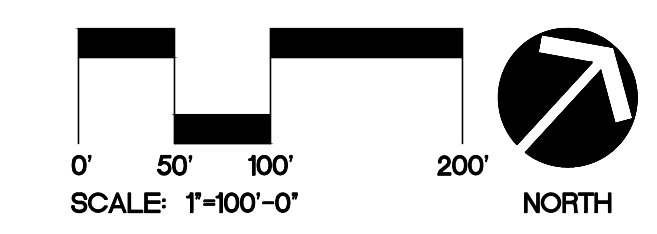
SEE SHEET T-102 FOR  
TREE MITIGATION PLAN  
SEE SHEET L-102 FOR  
LANDSCAPE PLAN  
SEE SHEET I-102 FOR  
IRRIGATION PLAN



SEE SHEET T-101 FOR  
TREE MITIGATION PLAN  
SEE SHEET L-101 FOR  
LANDSCAPE PLAN  
SEE SHEET I-101 FOR  
IRRIGATION PLAN

SEE SHEET T-103 FOR  
TREE MITIGATION PLAN  
SEE SHEET L-103 FOR  
LANDSCAPE PLAN  
SEE SHEET I-103 FOR  
IRRIGATION PLAN

SEE SHEET T-104 FOR  
TREE MITIGATION PLAN  
SEE SHEET L-104 FOR  
LANDSCAPE PLAN  
SEE SHEET I-104 FOR  
IRRIGATION PLAN



LAKE HILLS SHOPPING CENTER

REV.	DESCRIPTION	DATE	PROJECT ADDRESS
24-091	800' CONSTRUCTION DOC		

OWNER NAME AND ADDRESS

DRAWING TITLE

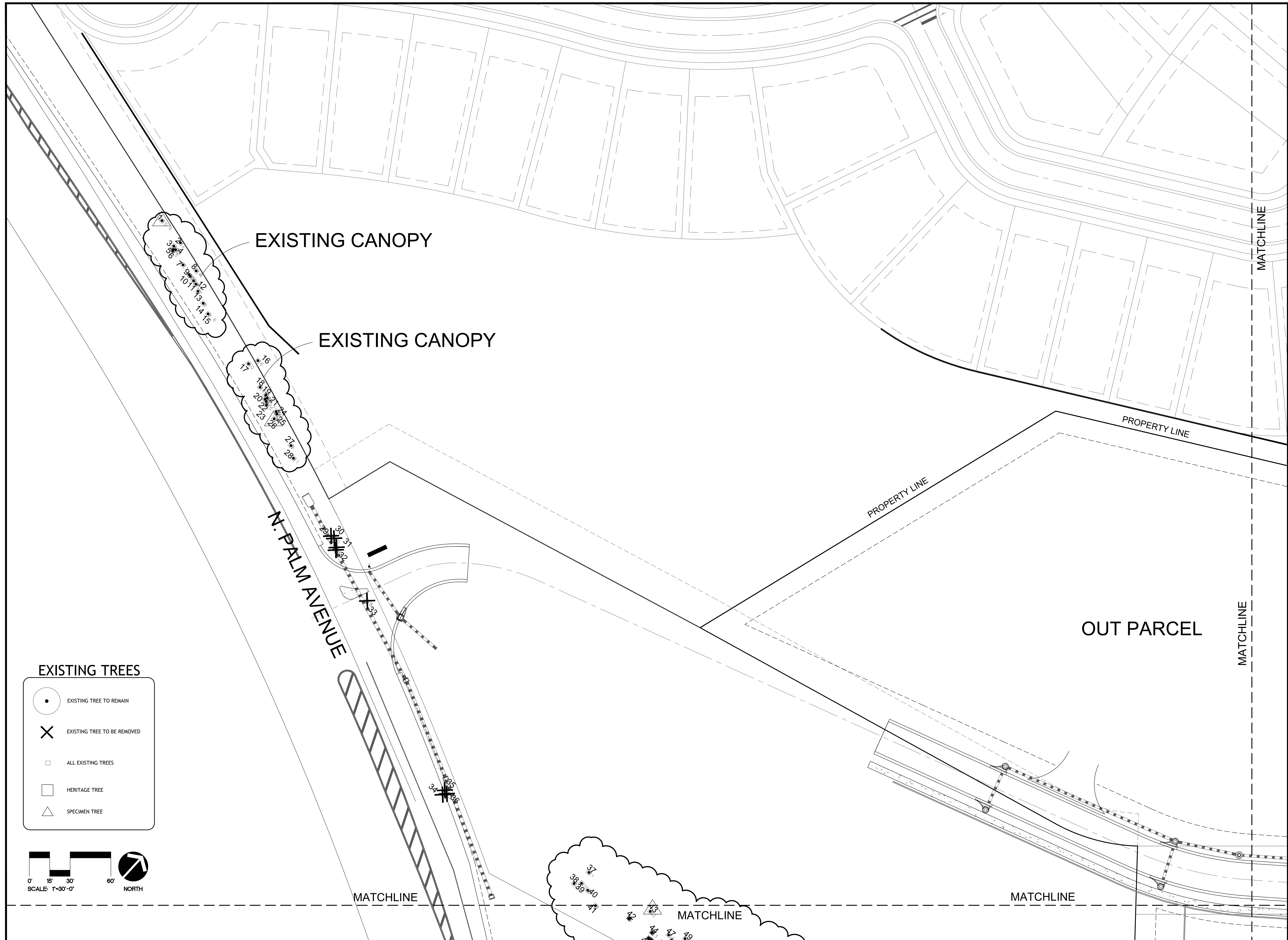
MASTER KEY PLAN

CONSULTANTS

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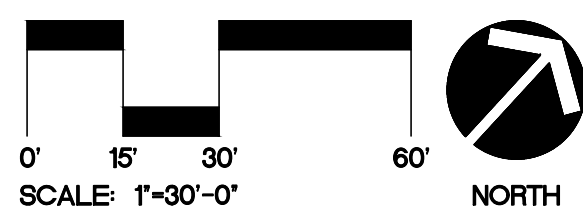
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 STATE OF FLORIDA LICENSE NO. 14866-7122  
 IN PARTIALLY A.S. REGISTERED AS ARCHITECT

K-100



**EXISTING TREES**

- EXISTING TREE TO REMAIN
- EXISTING TREE TO BE REMOVED
- ALL EXISTING TREES
- HERITAGE TREE
- SPECIMEN TREE



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PROJECT NO. 24-091

PHASE 80% CONSTRUCTION DOC

SCALE 1"=30'-0"

FILE NAME

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PROJECT ADDRESS

OWNER NAME AND ADDRESS

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**LAKE HILLS SHOPPING CENTER**

**TREE MITIGATION PLAN**

**T-100**

MATCHLINE

MATCHLINE

MATCHLINE

OUT PAR

EXISTING CANOPY

PROPERTY LINE

MATCHLINE


N. PALM AVENUE

S.R. 19


MATCHLINE

**EXISTING TREES**

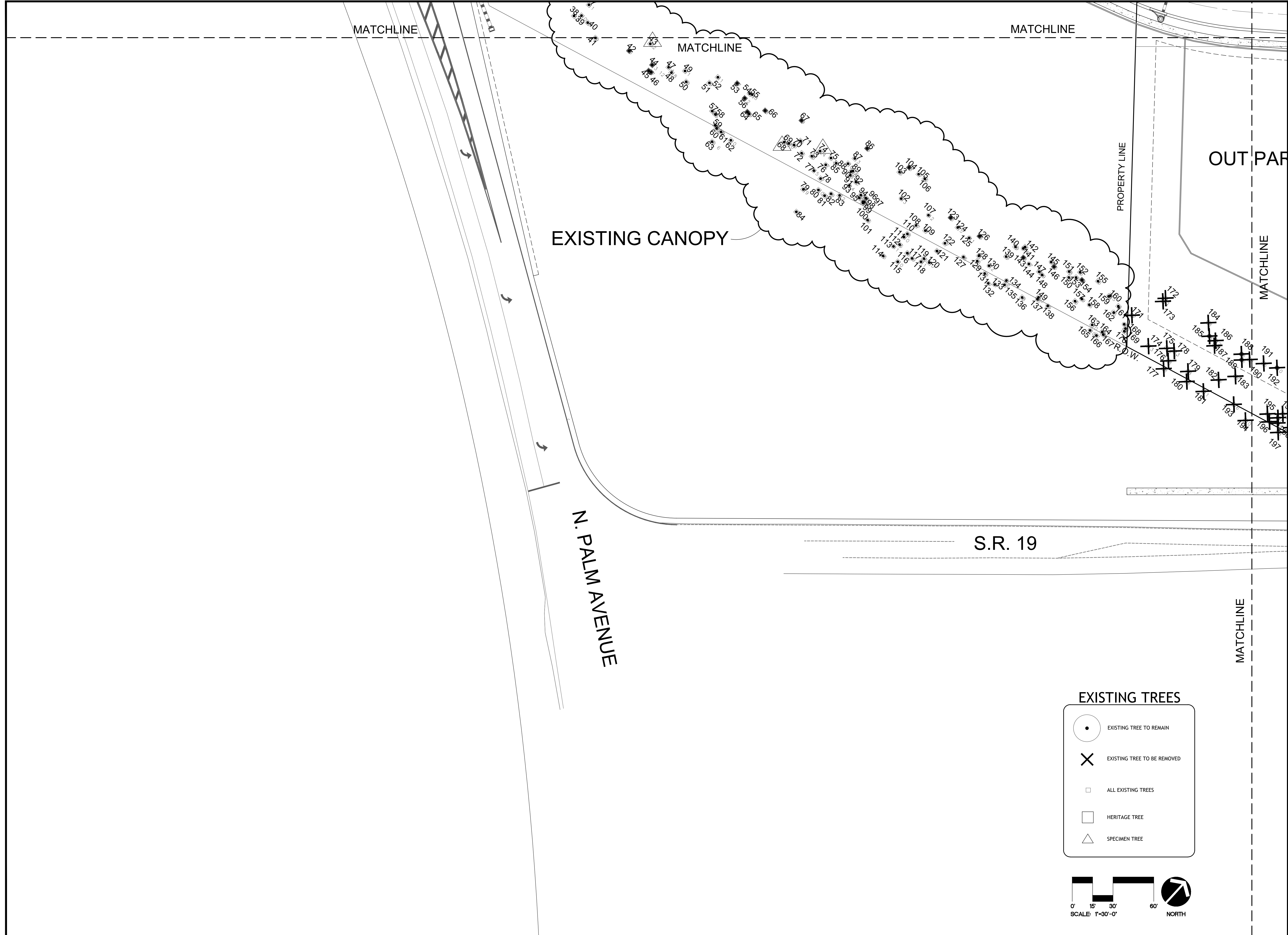
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-  EXISTING TREE TO BE REMOVED
-  ALL EXISTING TREES
-  HERITAGE TREE
-  SPECIMEN TREE



SCALE: 1"=30'-0"



NORTH



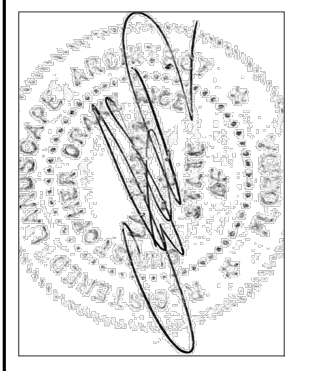
LAKE HILLS SHOPPING CENTER

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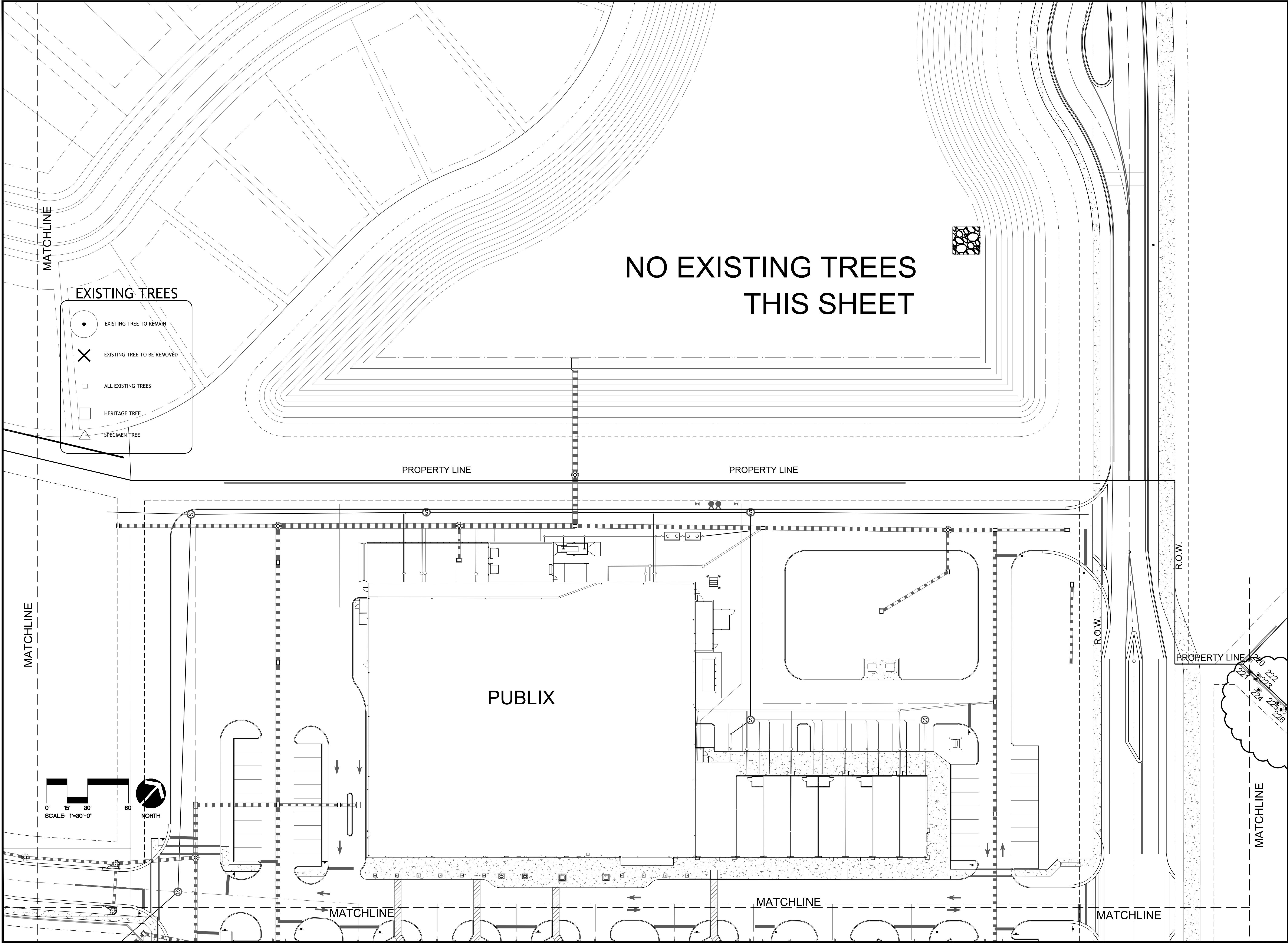


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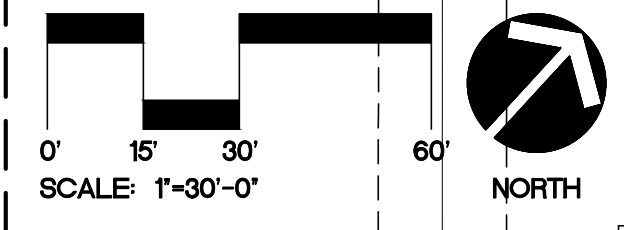
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**EXISTING TREES**

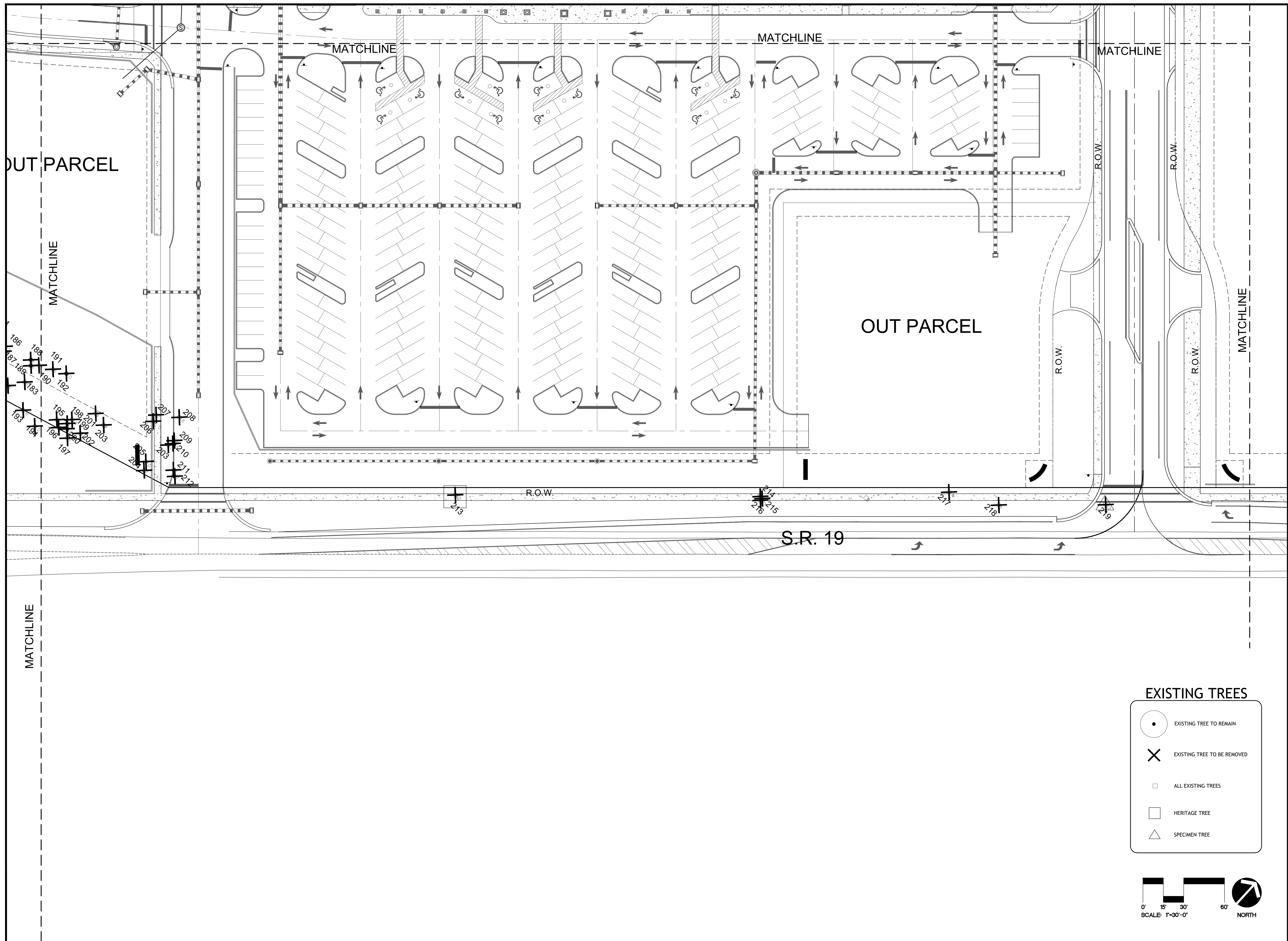
- EXISTING TREE TO REMAIN
- EXISTING TREE TO BE REMOVED
- ALL EXISTING TREES
- HERITAGE TREE
- SPECIMEN TREE

**NO EXISTING TREES  
THIS SHEET**




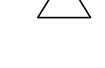


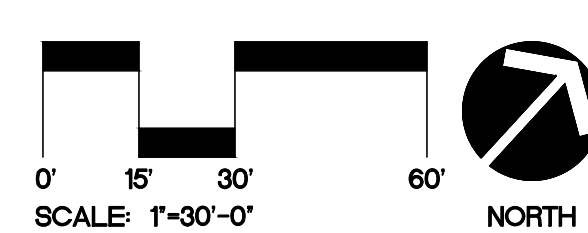
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	<small>CHRISTOPHER D. RICE</small> <small>LA8666-7122</small>
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DRAWING TITLE	
<p style="text-align: center;"><b>TREE MITIGATION PLAN</b></p>	
PROJECT NO. 24-091	PROJECT ADDRESS
PHASE 80% CONSTRUCTION DOC	OWNER NAME AND ADDRESS
SCALE 1"=30'-0"	
FILE NAME	CDR
DRAWN BY	CDR
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DATE 01-08-25	
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LAKE HILLS SHOPPING CENTER



**EXISTING TREES**

-  EXISTING TREE TO REMAIN
-  EXISTING TREE TO BE REMOVED
-  ALL EXISTING TREES
-  HERITAGE TREE
-  SPECIMEN TREE

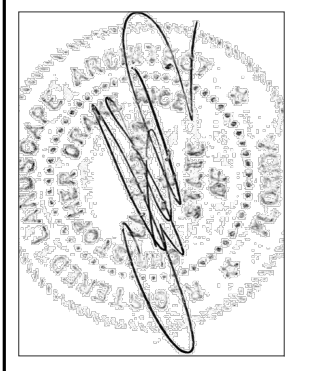


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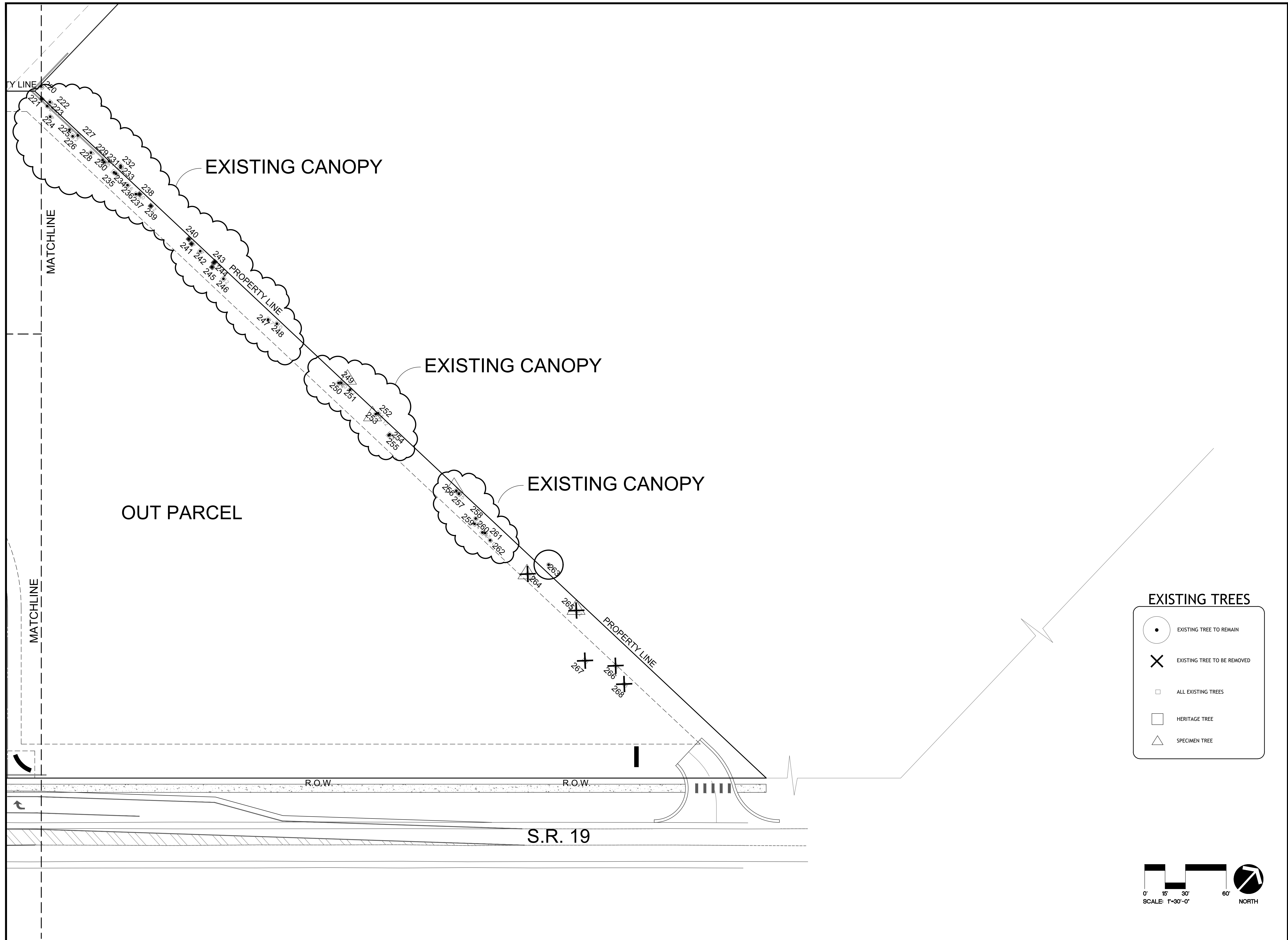
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PHASE	80% CONSTRUCTION DOC							
SCALE	1"=30'-0"							
FILE NAME								
DRAWN BY								
CHECKED BY								
DATE								

T-103

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CHRISTOPHER D. RICE    LA8666-7122



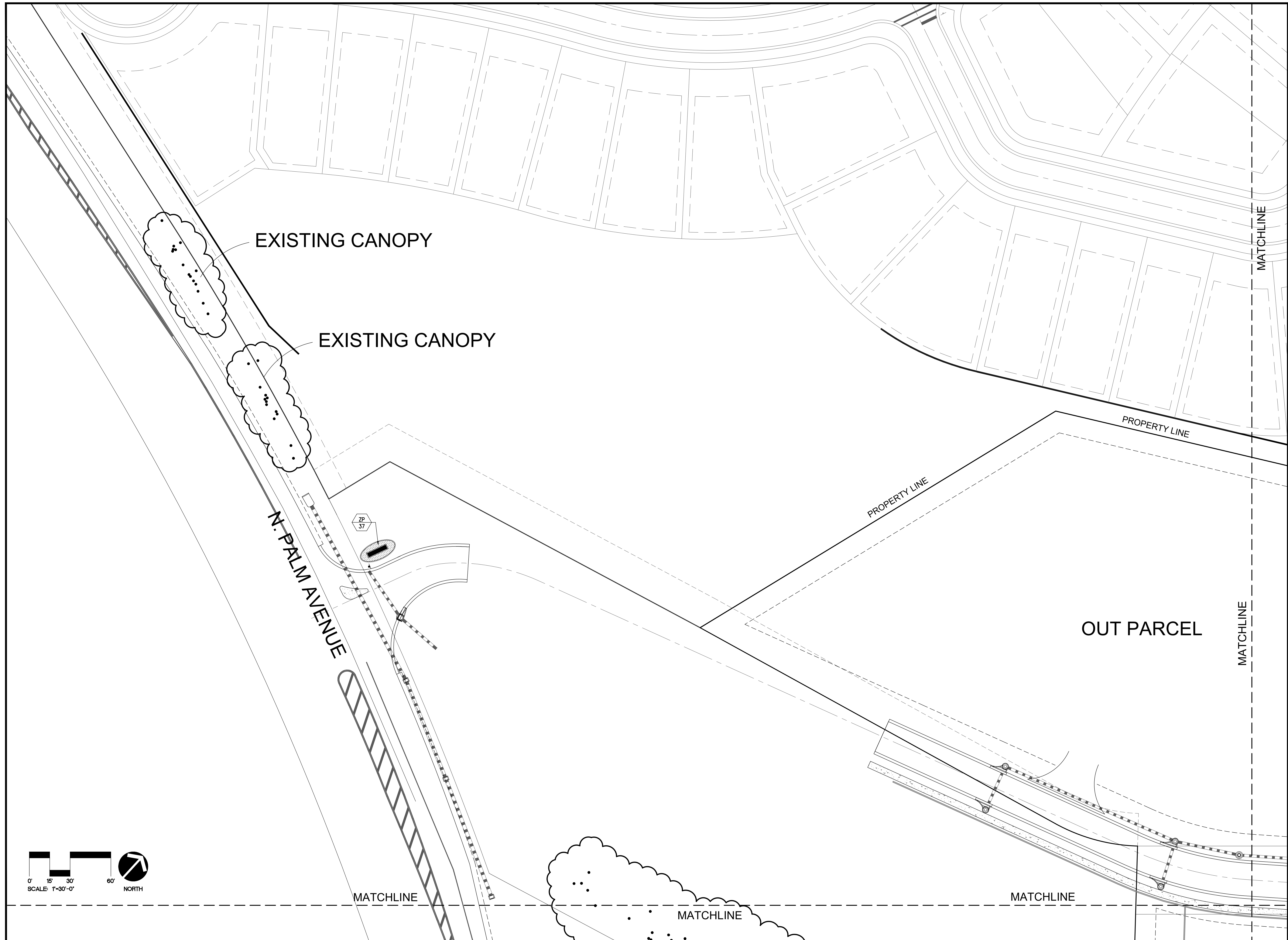
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PROJECT NO. 24-091	REV.	DESCRIPTION	DATE	PROJECT ADDRESS	DRAWING TITLE	SIGNATURE AND DATED SEAL
PHASE 80% CONSTRUCTION DOC					TREE MITIGATION PLAN	CONSULTANTS
SCALE 1"=30'-0"						
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DRAWN BY						
CHECKED BY						
DATE						
						OWNER NAME AND ADDRESS

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		CONSULTANTS
DRAWING TITLE		LANDSCAPE PLAN
PROJECT NO.	24-091	PROJECT ADDRESS
PHASE	80% CONSTRUCTION DOC	OWNER NAME AND ADDRESS
SCALE	1"=30'-0"	
FILE NAME		
DRAWN BY	CDR	
CHECKED BY	CDR	
DATE	01-08-25	

L-100

MATCHLINE

MATCHLINE

MATCHLINE

OUT PAR

EXISTING CANOPY

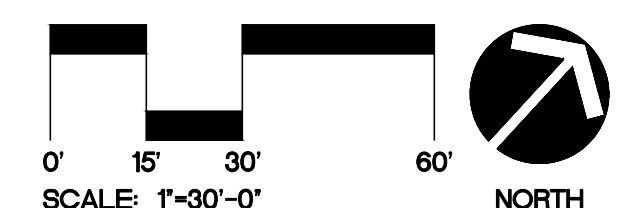
PROPERTY LINE

MATCHLINE

N. PALM AVENUE

S.R. 19

MATCHLINE



LAKE HILLS SHOPPING CENTER

PROJECT NO. 24-091

PHASE 80% CONSTRUCTION DOC

SCALE 1"=30'-0"

FILE NAME

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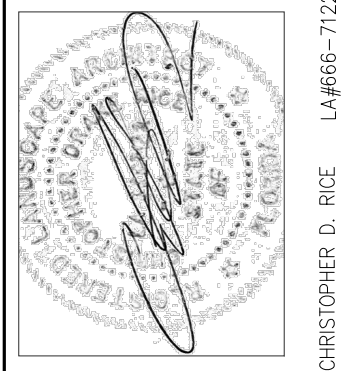
DATE 01-08-25

DRAWING TITLE

LANDSCAPE PLAN

CONSULTANTS

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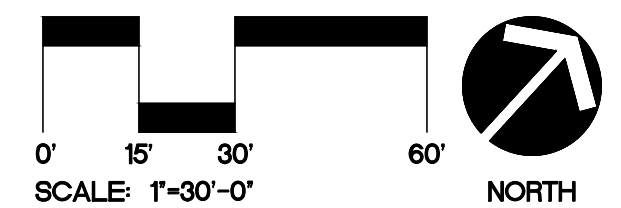
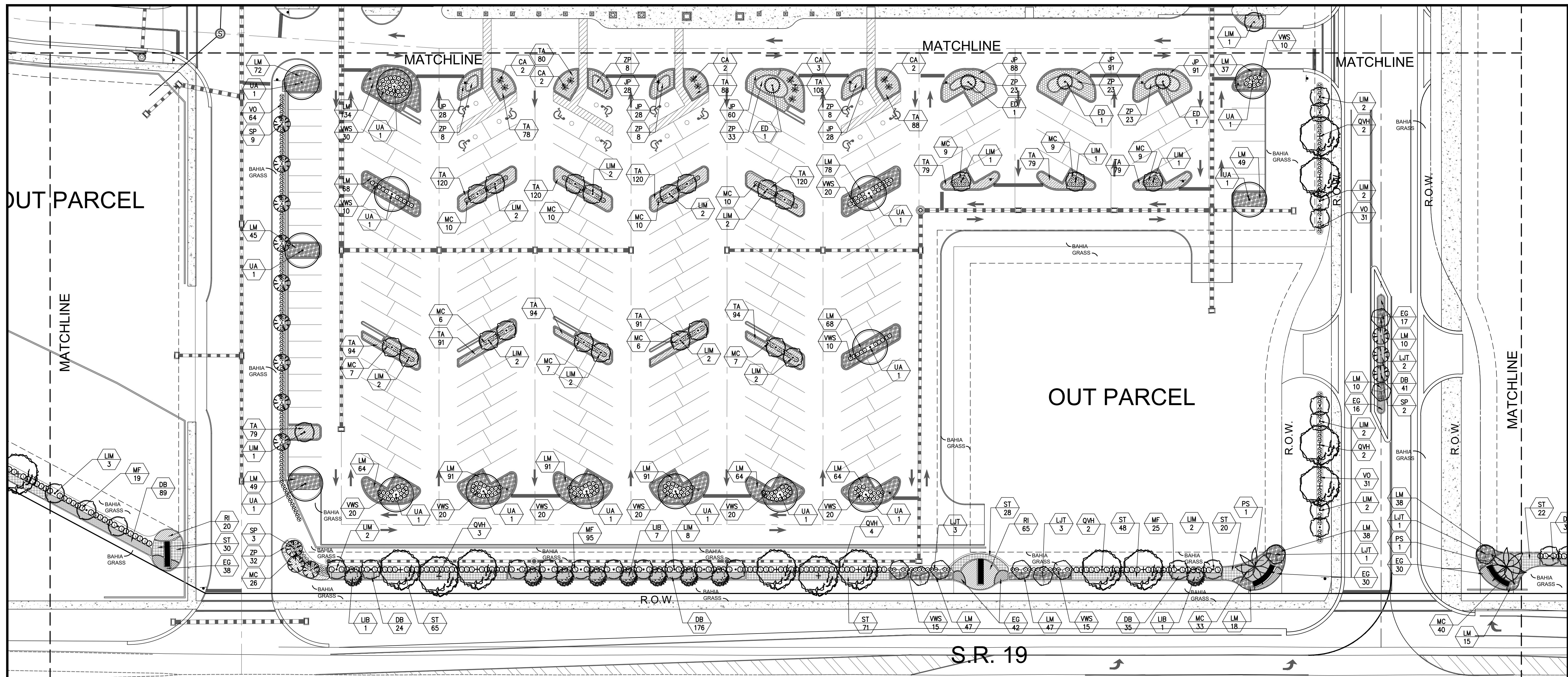


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L-101





L-103

PROJECT NO.	24-091
PHASE	80% CONSTRUCTION DOC
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FILE NAME	
DRAWN BY	CDR
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DATE	01-08-25

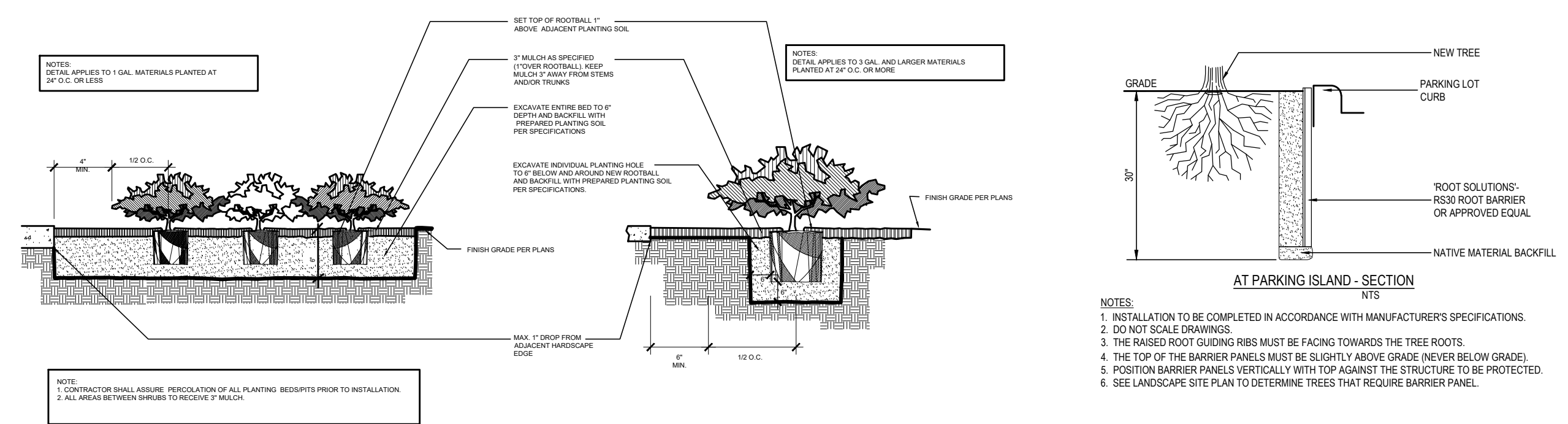
DRAWING TITLE  
 LANDSCAPE PLAN

CONSULTANTS  
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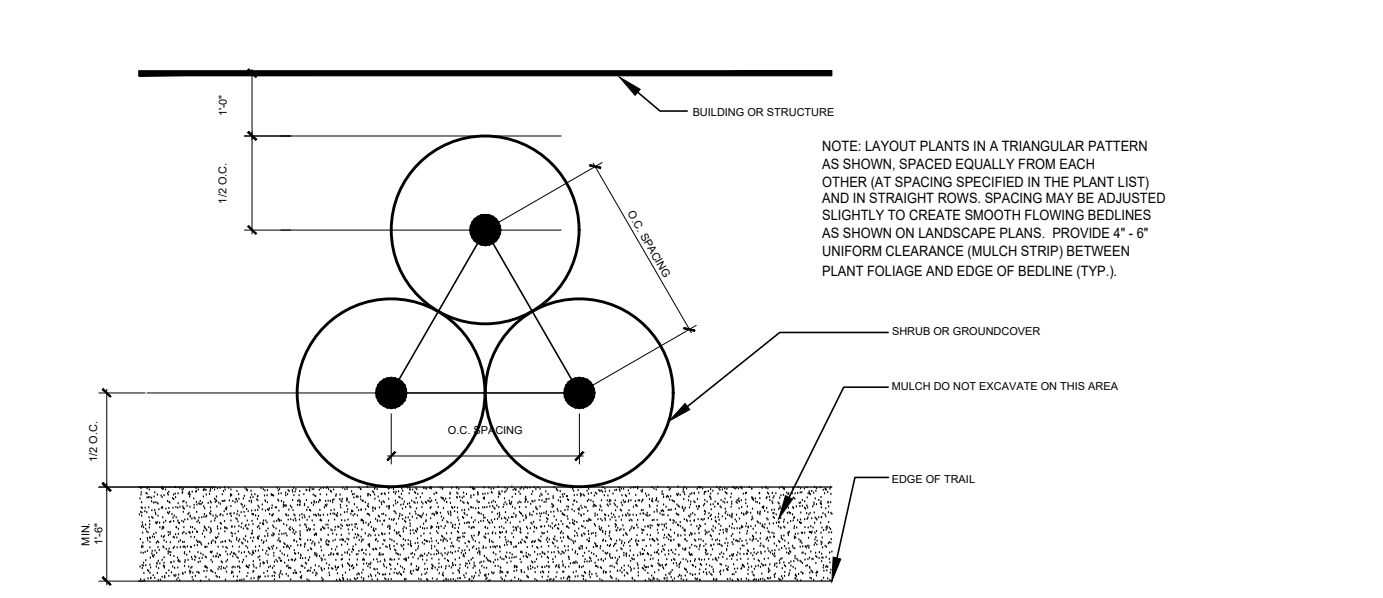


PLANT LIST					
SYMBOL	QUANTITY	BOTANICAL NAME	COMMON NAME	DESCRIPTION	WATER USE / NATIVE
<b>CANOPY TREES</b>					
AR	5	ACER RUBRUM 'FLORIDA FLAME'	RED MAPLE	12'-14' HT. X 6' SPRD.; 4" CAL.; FULL	SPACE AS SHOWN GUY
ED	4	ELAEOCARPUS DECIPIENS	JAPANESE BLUEBERRY	10'-12" HT. X 4'-5' SPRD.; 3" CAL., FULL	SPACE AS SHOWN GUY
JVS	11	JUNIPERUS VIRGINIANA	SOUTHERN RED CEDAR	12'-14' HT.; 6' SPRD.; 4" CAL.,	FULL TO GROUND GUY
LIB	18	LAGERSTROEMIA INDICA 'BLACK DIAMOND'	BLACK DIAMOND CREPE MYRTLE	10'-12' HT., 4'-5' SPRD., 2" CAL.; MULTI-TRUNK	SPACE AS SHOWN GUY
LIM	78	LAGERSTROEMIA INDICA 'MUSKOGEE'	LAVENDER CREPE MYRTLE	10'-12' HT., 4'-5' SPRD., 3" CAL.; STANDARD TRUNK	SPACE AS SHOWN GUY
LJT	12	LIGUSTRUM JAPONICUM	LIGUSTRUM TREE	8' X 8'; 2.5" CAL.; MULTI-TRUNK, SPECIMEN FORM	SPACE AS SHOWN GUY
PS	2	PHOENIX SYLVESTRIS	WILD DATE PALM	12' CT. STRAIGHT TRUNK; SPECIMEN FORM	SPACE AS SHOWN GUY
QV	9	QUERCUS VIRGINIANA	LIVE OAK	12'-14' HT X 6'-8' SPR., 4" CAL.	SPACE AS SHOWN GUY
QVH	46	QUERCUS VIRGINIANA 'HIGHRISE'	LIVE OAK	13'-15' HT X 5'-6' SPR.; 4" CAL.	SPACE AS SHOWN GUY
SP	20	SABAL PALMETTO	CABBAGE PALM	ALL @ 14' C.T.; STRAIGHT TRUNKS	SPACE AS SHOWN GUY
UA	18	ULMAS AMERICANA 'ALLEE'	AMERICAN ELM	12'-14' HT X 6'-8' SPRD.; 4" CAL.; FULL	SPACE AS SHOWN GUY
<b>SHRUBS</b>					
CA	11	CRINUM ASIATICUM	CRINUM LILY	36" HT., 36" SPRD., FULL, 7 GAL.	AS SHOWN
MC	199	MUHLENBERGIA CAPILLARIS	PINK MUHLY GRASS	30" O.A.; FULL; 3 GAL.	30" O.C.
MF	428	MYRCIANTHES FRAGRANS	SIMPSON'S STOPPER	36" HT. X 36" SPRD.; FULL; 7 GAL.	36" O.C.
MF1	20	MYRCIANTHES FRAGRANS	SIMPSON'S STOPPER	48" HT. X 48" SPRD.; FULL; 10 GAL.	36" O.C.
ST	750	SCHEFLERA ARBORICOLA 'TRINETTE'	DWARF VARIEGATED SCHEFLERA	24" HT X 24" SPRD.; 3 GAL.; FULL	30" O.C.
VO	226	VIBURNUM ODORATISSIMUM	SWEET VIBURNUM	28" HT X 28" SPRD.; FULL; 3 GAL.	30" O.C.
VWS	243	VIBURNUM OBOVATUM 'MRS. SHILLER'S DELIGHT'	DWARF WALTER'S VIBURNUM	24" HT., 24" SPRD., FULL, 3 GAL.	30" O.C.
<b>GROUNDCOVER</b>					
DB	681	DIETES BICOLOR	YELLOW AFRICAN IRIS	18" HT. X 15" SPRD., FULL, 3 GAL.	24" O.C.
EG	271	EVOLVULUS GLOMERATUS	BLUE DAZE	8" O.A., FULL, 1 GAL.	18" O.C.
JP	442	JUNIPERUS CHINENSIS 'PARSONII'	PARSON'S JUNIPER	12" HT. X 15" SPRD., FULL.; 3 GAL.	24" O.C.
LM	1,497	LIRIOPE MUSCARI 'EMERALD GODDESS'	BORDER GRASS	12" HT. X 15" SPRD.; FULL; 1 GAL.	24" O.C.
RI	85	RHAPHIOLEPIS INDICA 'ALBA'	DWARF INDIAN HAWTHORN	15" HT. X 15" SPRD., FULL, 3 GAL.	24" O.C.
TA	1,832	TRACHELOSPERMUM ASIATICUM 'MINIMA'	ASIATIC JASMINE	12" SPRD., MIN. 10 RUNNERS, 1 GAL.	18" O.C.
ZP	454	ZAMIA PUMILA	COONTIE	24" O.A., FULL, 3 GAL.	30" O.C.
<b>SOD</b>					
	SEE PLANS	PASPALUM NOTATUM 'ARGENTINE'	ARGENTINE BAHIA	SOLID, FREE OF PESTS AND DISEASES	FIELD VERIFY QTY.
<b>MULCH</b>					
	SEE	MINI PINE BARK NUGGETS	MINI PINE BARK NUGGETS	FREE OF DIRT AND DEBRIS	FIELD VERIFY QTY.

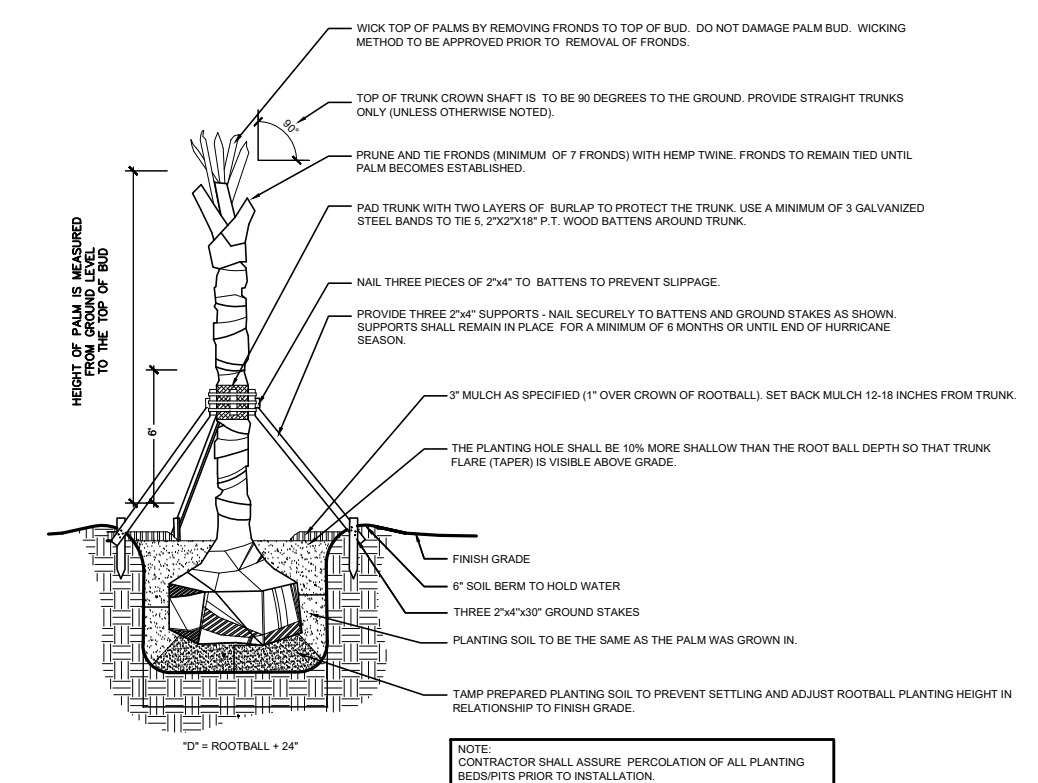


1 GROUNDCOVER AND SHRUB PLANTING DETAIL NOT TO SCALE

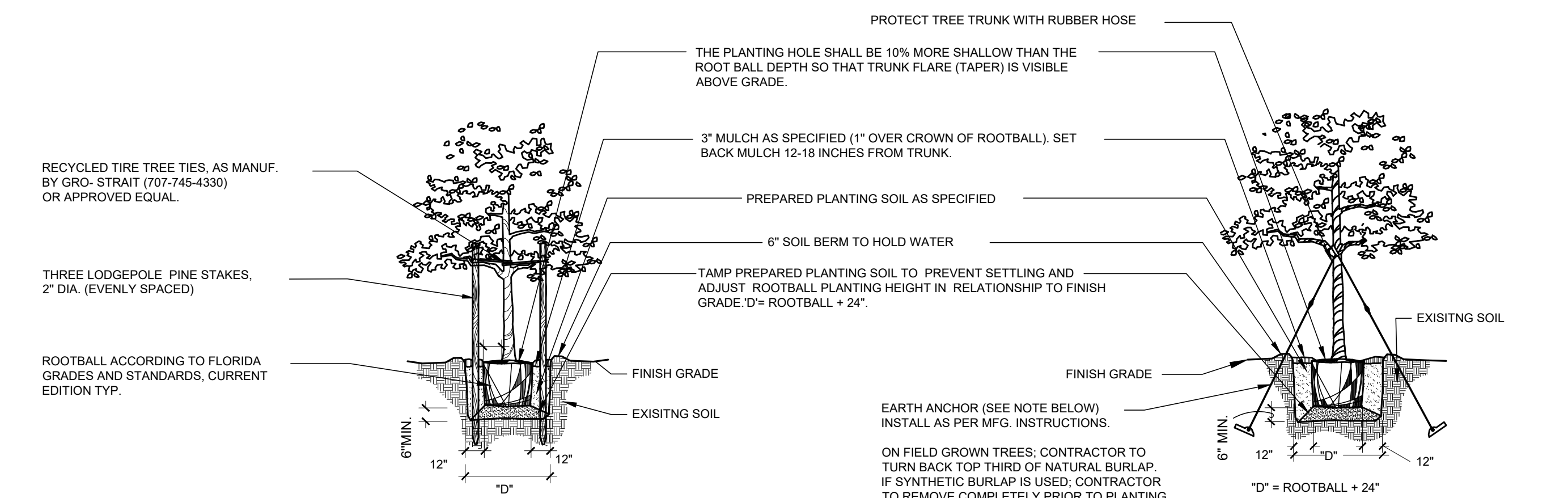
2 LINEAR ROOT BARRIER PLACEMENT NOT TO SCALE



3 SHRUB SPACING DETAIL NOT TO SCALE



4 PALM TREE PLANTING DETAIL NOT TO SCALE



5 SMALL TREE PLANTING DETAIL NOT TO SCALE

6 LARGE TREE PLANTING DETAILS NOT TO SCALE

**LANDSCAPE PLANTING AND CONTRACTOR NOTES:**

- ALL PLANTS MUST BE HEALTHY, VIGOROUS MATERIAL FREE OF PESTS AND DISEASES.
- CONTRACTOR TO INSTALL 60" DEEP ROOT BARRIER AT ALL PARKING LOT ISLANDS. SEE DETAIL SHEET L-500.
- ALL PLANTS SHALL BE FLORIDA NO. 1 OR BETTER, AS GRADED IN FLORIDA GRADES AND STANDARDS FOR NURSERY PLANTS.
- ALL PLANTS ARE SUBJECT TO APPROVAL BY THE LANDSCAPE ARCHITECT AND OWNER BEFORE, DURING, AND AFTER INSTALLATION.
- ALL SINGLE-TRUNKED TREES SHALL BE STRAIGHT TRUNKED WITH ONE CENTRAL LEADER AND HAVE A FULL DENSE CROWN.
- ALL TREES SHALL BE STAKED AND GUYED AS SHOWN IN PLANTING DETAILS.
- ALL MULCH PLANTING AREAS SHALL BE A MINIMUM OF 3" IN DEPTH.
- ALL PLANTING AREAS SHALL HAVE A MINIMUM OF 3" TOPSOIL.
- ALL TREES SHALL BE FREE OF OPEN WOUNDS AND WOUND SCARS IN THE CLEAR TRUNK AREA.
- ANY SYNTHETIC BURLAP AND/OR WIRE BASKETS MUST BE TOTALLY REMOVED PRIOR TO INSTALLATION OF PLANT MATERIAL. IF NATURAL BURLAP IS USED, IT MAY BE TURNED DOWN 1/3 OF THE ROOTBALL.
- TREES SHALL NOT BE PLACED WITHIN 7' OF ANY FIRE PROTECTION EQUIPMENT AND NOT WITHIN 5' OF ANY UTILITIES.
- TREES SHALL NOT BE PLACED WHERE THEY WILL OBSCURE ANY VIEWS TO TRAFFIC, PEDESTRIANS OR SIGNAGE. CONTRACTOR TO FIELD ADJUST TREE LOCATIONS TO AVOID CONFLICTS. IF PLANTING IS QUESTIONABLE, CONTRACTOR TO CONTACT LANDSCAPE ARCHITECT OR OWNER'S REPRESENTATIVE TO DISCUSS RELOCATION.
- CONTRACTOR SHALL TAKE CARE TO PROTECT ALL TREES AND LANDSCAPING MATERIAL WITHIN PROJECT LIMITS AS WELL AS EXISTING TREES IMMEDIATELY ADJACENT TO PROJECT LIMITS. IF THE EXISTING LANDSCAPE, TREES OR OTHER RELATED MATERIALS ARE IMPACTED DURING LANDSCAPE INSTALLATION THEN THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL REPLACEMENTS, AS WELL AS ALL OTHER ASPECTS OF REMEDIATION INCLUDING BUT NOT LIMITED TO: TREES, SHRUBS, GROUNDCOVERS, SOD, AND ANY OTHER MATERIALS IMPACTED BY CONSTRUCTION.
- SOIL CONDITIONS MAY VARY THROUGHOUT THE SITE AND CONTRACTOR TO SHALL PROVIDE PROPER EQUIPMENT FOR PROPER EXCAVATION.
- CONTRACTOR SHALL INCLUDE THE COSTS OF EXCAVATION, DISPOSAL OF EXCESS MATERIALS, BACKFILL, SOIL AMENDMENTS, SPECIAL BED PREPARATION, MULCH, TREE STAKING AND GUYING, FERTILIZER, WATERING FOR PLANT ESTABLISHMENT, SITE CLEAN-UP AND MAINTENANCE WITHIN BID NUMBER.
- CONTRACTOR SHALL SOD ALL DAMAGED GRASS AREAS DISTURBED DURING CONSTRUCTION. SEE LANDSCAPE SPECIFICATIONS FOR SOD INSTALLATION.
- THE LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING, IN FULL, ALL LANDSCAPE PLANTING AREAS, UNTIL THE JOB IS ACCEPTED IN FULL BY THE OWNER. "IN FULL" MEANS WATERING, PEST CONTROL, MULCHING, MOWING, FERTILIZING AND RESETTING TREES THAT ARE OUT OF PLUMB.
- THE LANDSCAPE CONTRACTOR SHALL COMPLETELY GUARANTEE ALL INSTALLED PLANT MATERIAL FOR A PERIOD OF ONE CALENDAR YEAR BEGINNING ON THE DATE OF 100% COMPLETION. ANY AND ALL REQUIRED PLANT REPLACEMENTS SHALL BE MADE PROMPTLY AND AT NO ADDITIONAL COST TO THE OWNER.
- THE LANDSCAPE CONTRACTOR SHALL STAKE THE LOCATIONS OF ALL PLANT MATERIAL AND PLANTING BED LINES FOR REVIEW BY THE LANDSCAPE ARCHITECT AND OWNER.
- THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFICATION OF ALL WRITTEN PLANT QUANTITIES PRIOR TO INITIATION OF THE WORK. IN THE EVENT THAT THE PLANS CONTRADICT THE PLANT LIST, THE PLANS SHALL RULE.
- THE LANDSCAPE CONTRACTOR SHALL BE FAMILIAR WITH AND ACCEPT THE EXISTING SITE CONDITIONS PRIOR TO INITIATION OF THE WORK. ANY VARIATION FROM THE SPECIFIED WORK SHALL BE THE RESPONSIBILITY OF THE LANDSCAPE CONTRACTOR.
- THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING ALL UNDERGROUND UTILITIES, DRAINAGE STRUCTURES, CURBS, SIDEWALKS, AND ANY OTHER OBJECTS WHICH MIGHT BE DAMAGED DURING THE WORK.
- THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE TO MAKE ANY AND ALL NECESSARY REPAIRS TO DAMAGE CAUSED BY HIS WORK AT NO ADDITIONAL COST TO THE OWNER OR LANDSCAPE ARCHITECT.
- THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS, AND FOLLOWING ALL APPLICABLE LOCAL CODES PERTAINING TO THE PROJECT DURING THE COURSE OF THEIR WORK.

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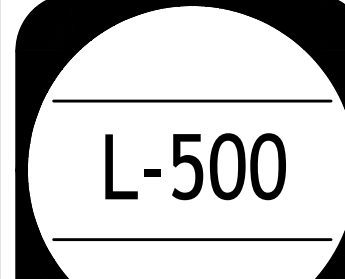
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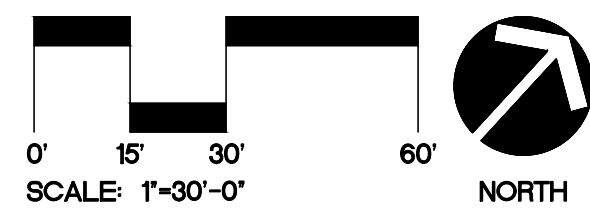
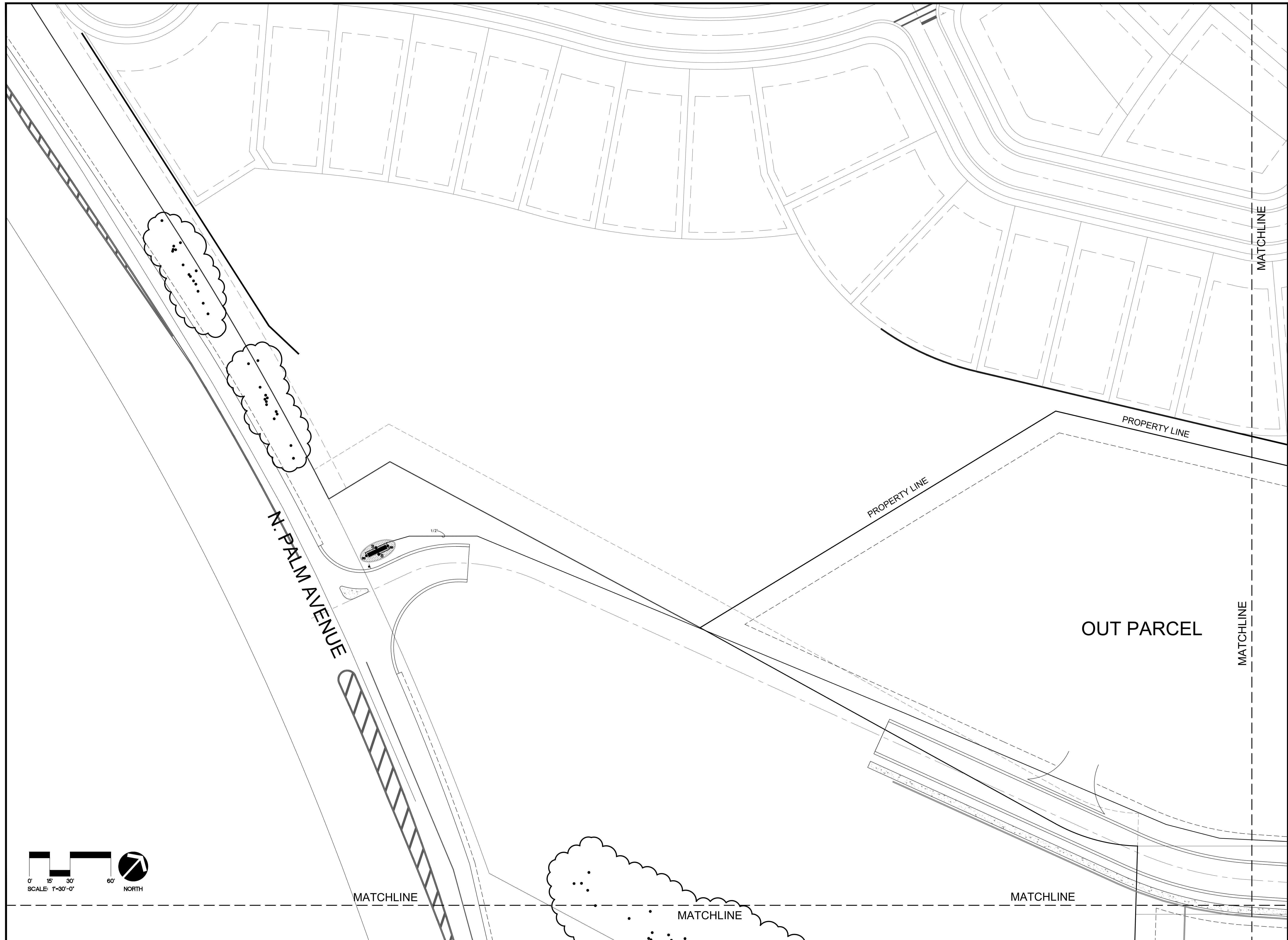
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PROJECT ADDRESS  
 OWNER NAME AND ADDRESS

DRAWING TITLE  
 CONSULTANTS  
 SIGNATURE AND DATED SEAL

DATE 01-08-25





**LAKE HILLS SHOPPING CENTER**

<b>PROJECT NO.</b> 24-091	<b>REV.</b>	<b>DESCRIPTION</b>	<b>DATE</b>	<b>PROJECT ADDRESS</b>	<b>DRAWING TITLE</b>	<b>SIGNATURE AND DATED SEAL</b>
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<b>SCALE</b> 1"=30'-0"						
<b>FILE NAME</b>						
<b>DRAWN BY</b>						
<b>CHECKED BY</b>						
<b>DATE</b> 01-08-25						

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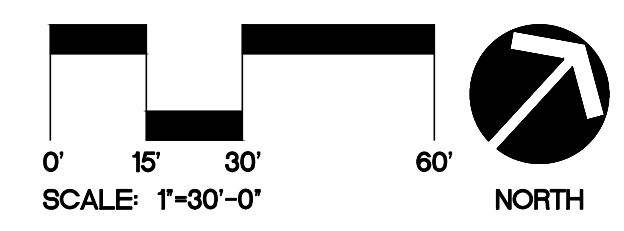
PROPERTY LINE

MATCHLINE

N. PALM AVENUE

S.R. 19

MATCHLINE



LAKE HILLS SHOPPING CENTER

PROJECT NO. 24-091

PHASE 80% CONSTRUCTION DOC

SCALE 1"=30'-0"

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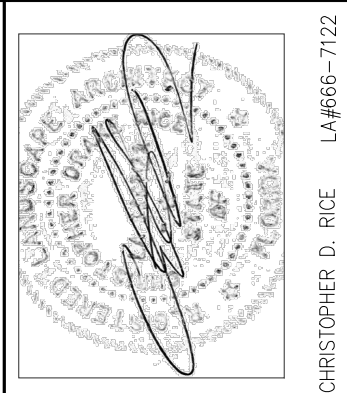
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DRAWING TITLE

IRRIGATION PLAN

CONSULTANTS

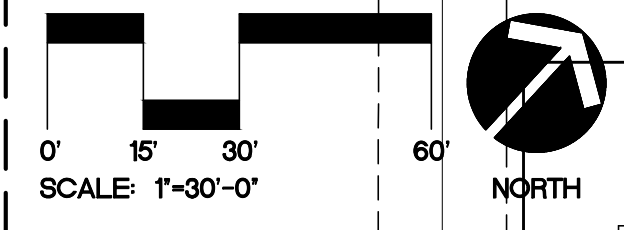
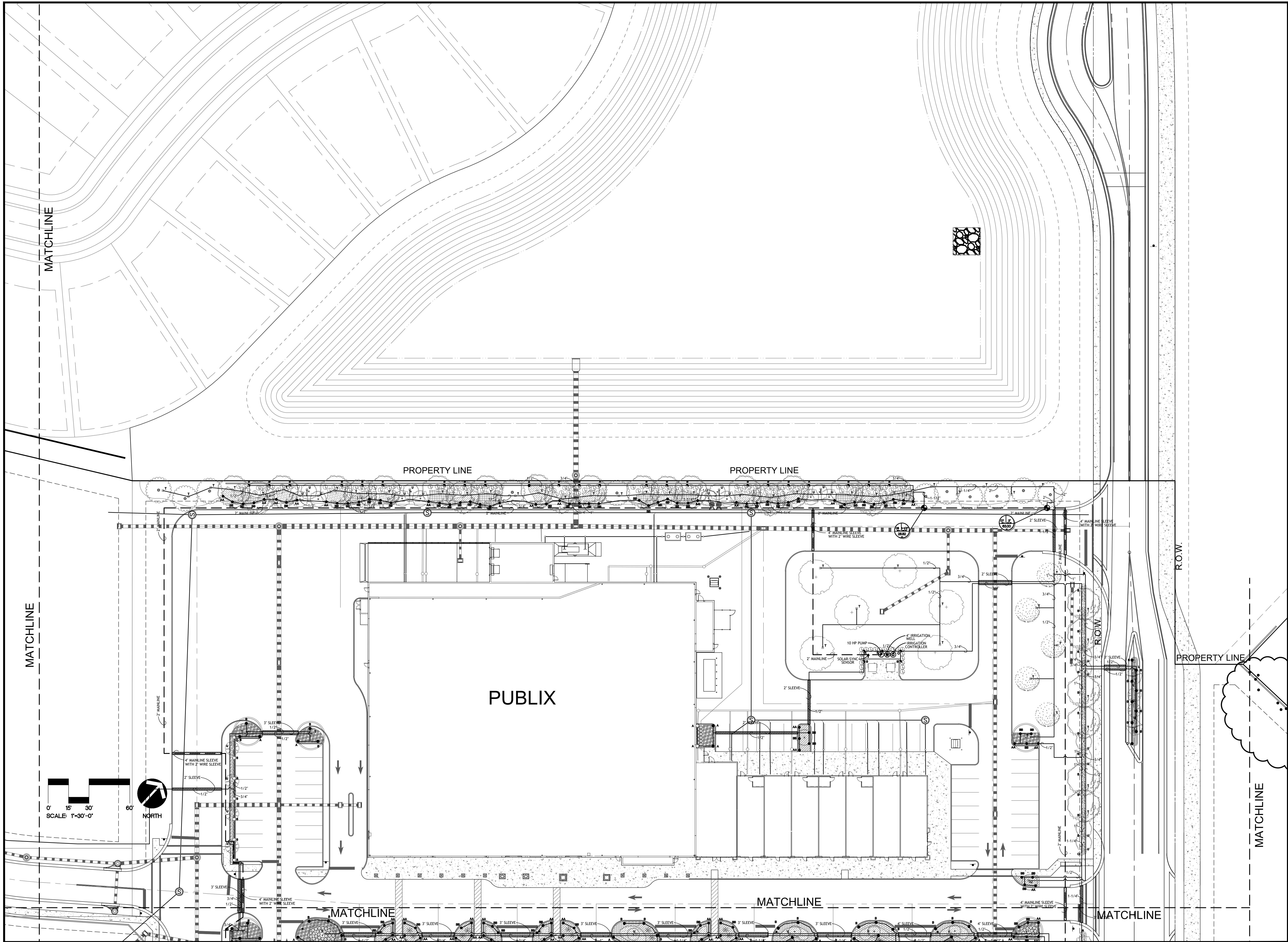
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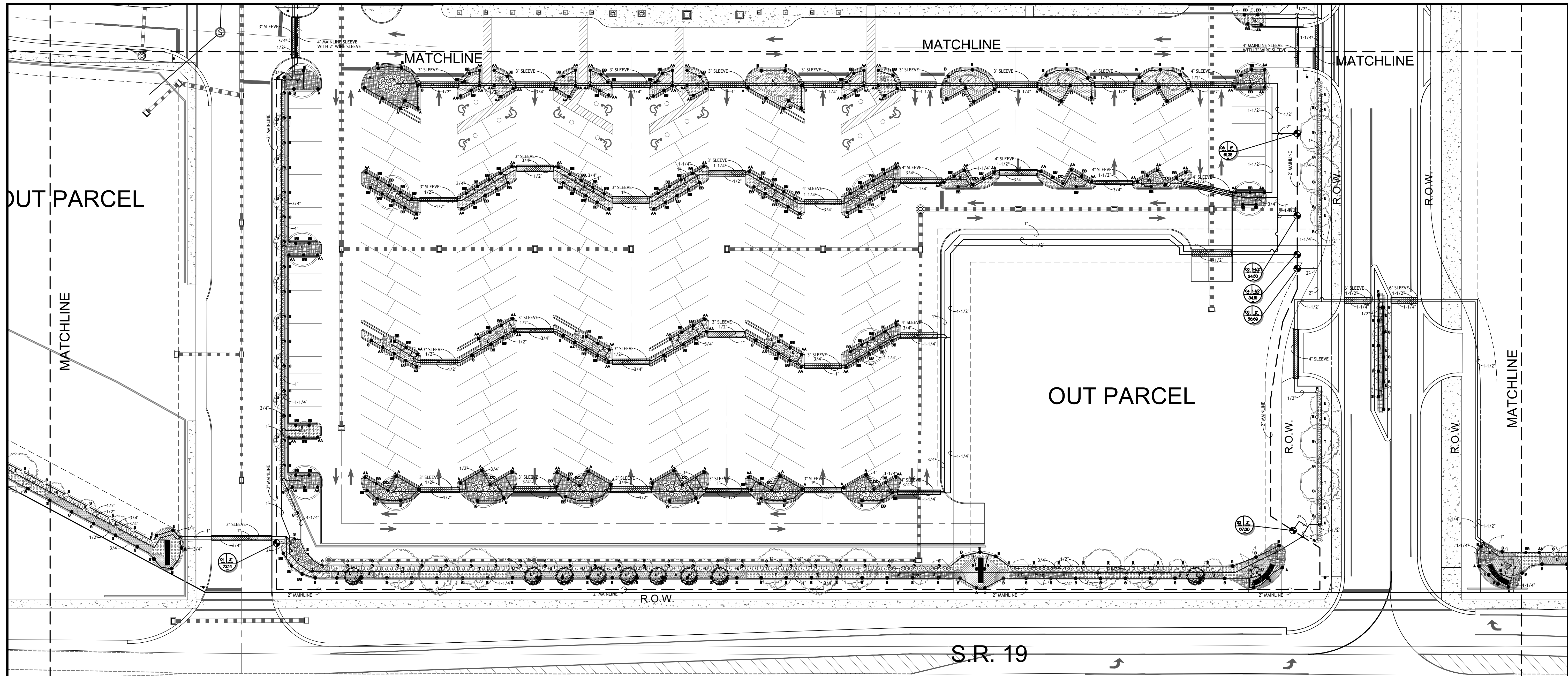
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<b>LAKE HILLS SHOPPING CENTER</b>	
DRAWING TITLE	CONSULTANTS
<b>IRRIGATION PLAN</b>	
PROJECT NO. 24-091	REV. DESCRIPTION / DATE
PHASE 80% CONSTRUCTION DOC	PROJECT ADDRESS
SCALE 1"=30'-0"	OWNER NAME AND ADDRESS
FILE NAME	DRAWN BY JY
CHECKED BY	DATE 01-08-25
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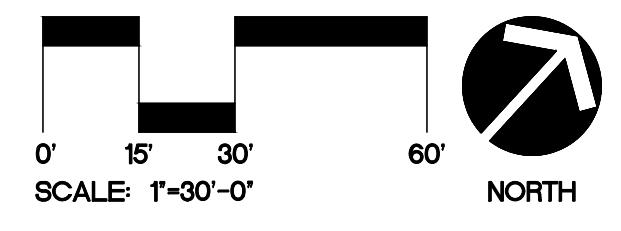
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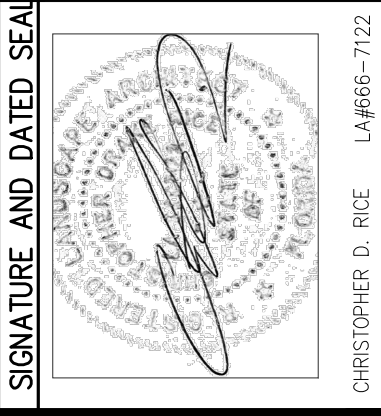
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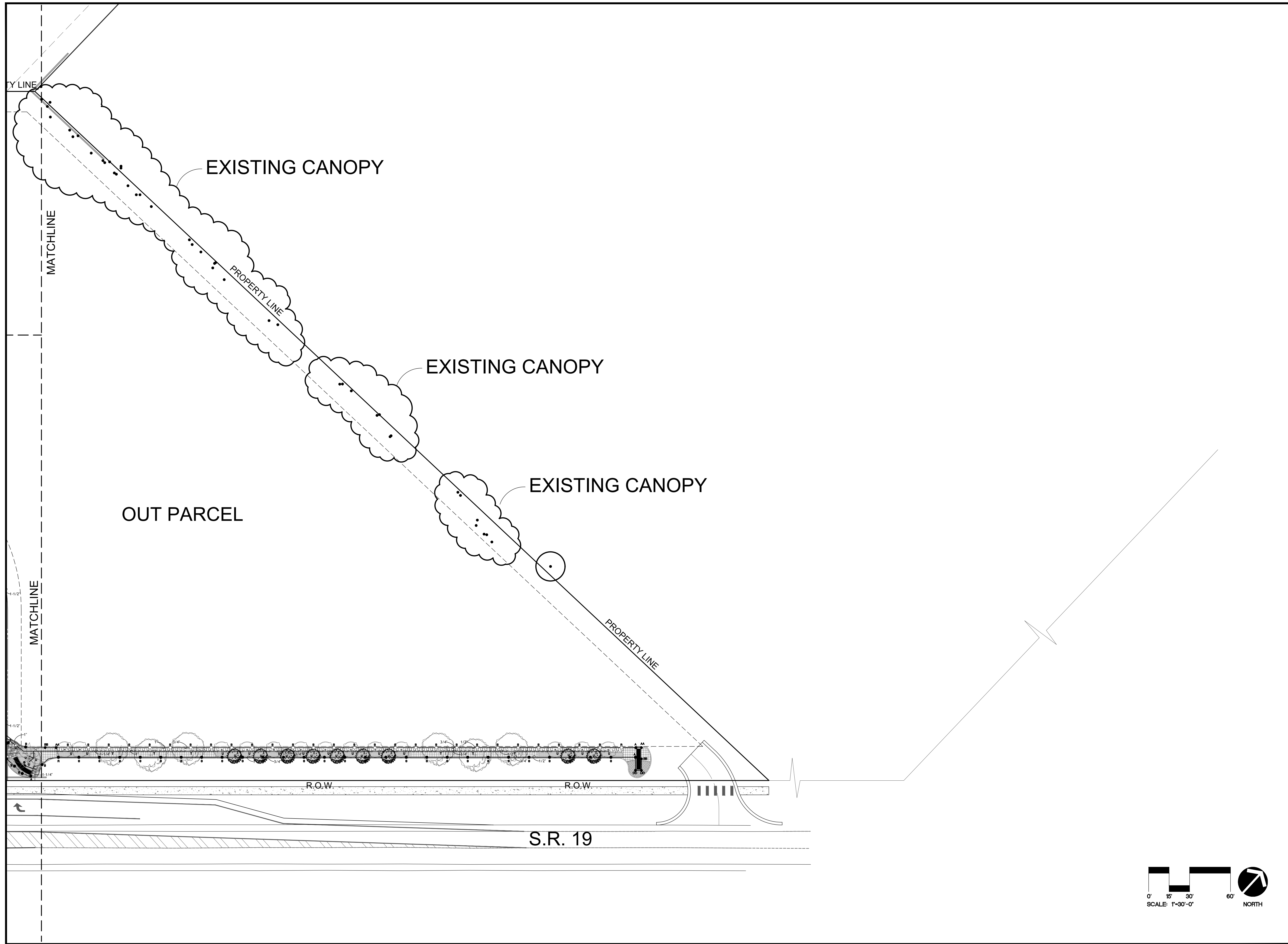


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IRRIGATION PLAN

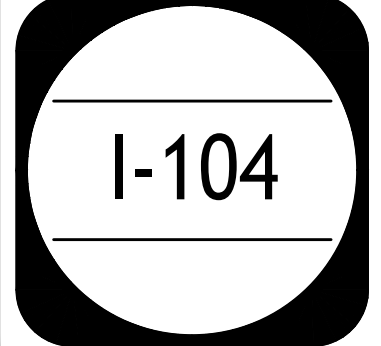
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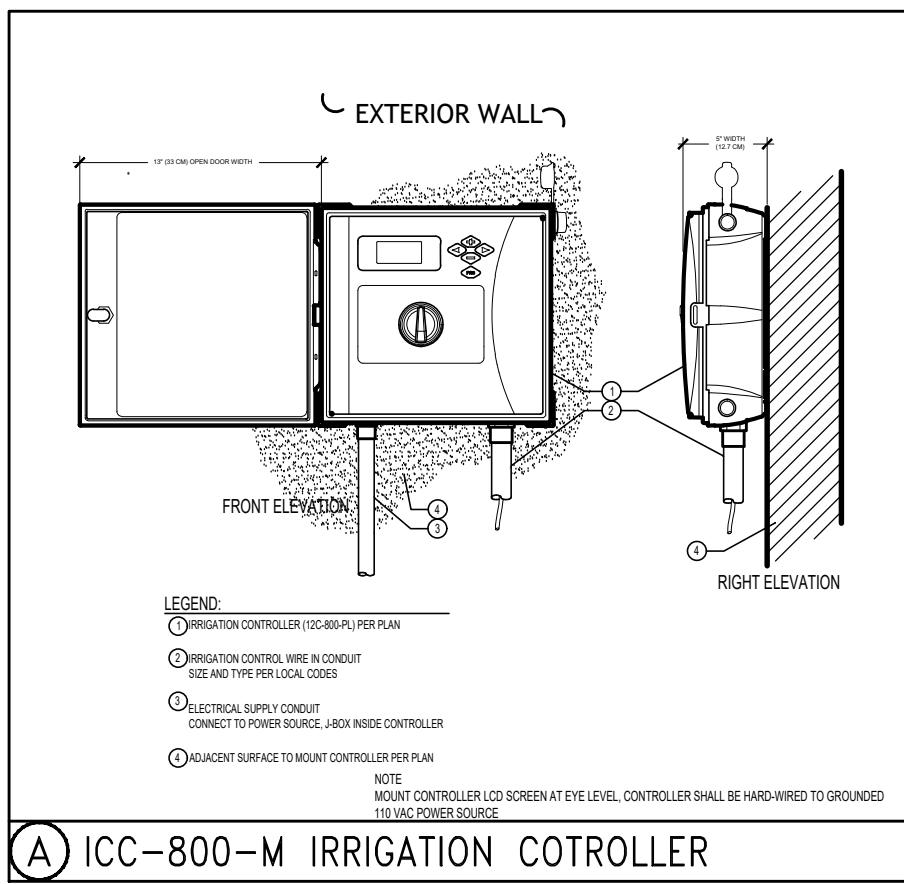
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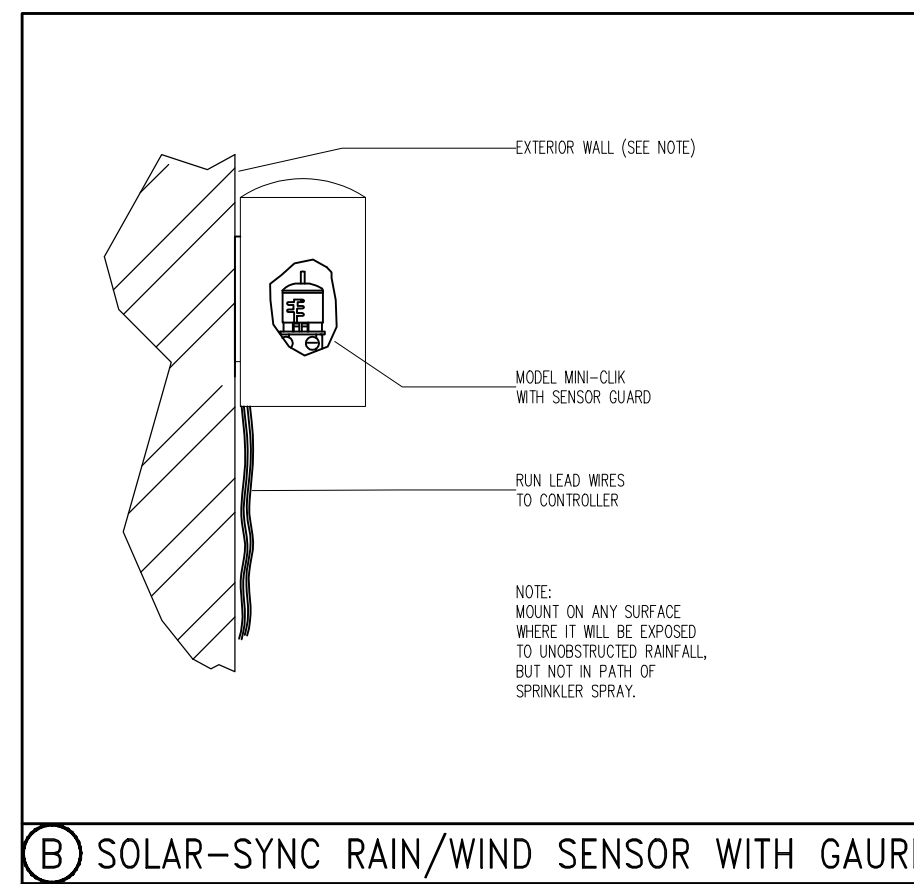
LAKE HILLS SHOPPING CENTER

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REV.	DESCRIPTION   DATE   PROJECT ADDRESS   OWNER NAME AND ADDRESS

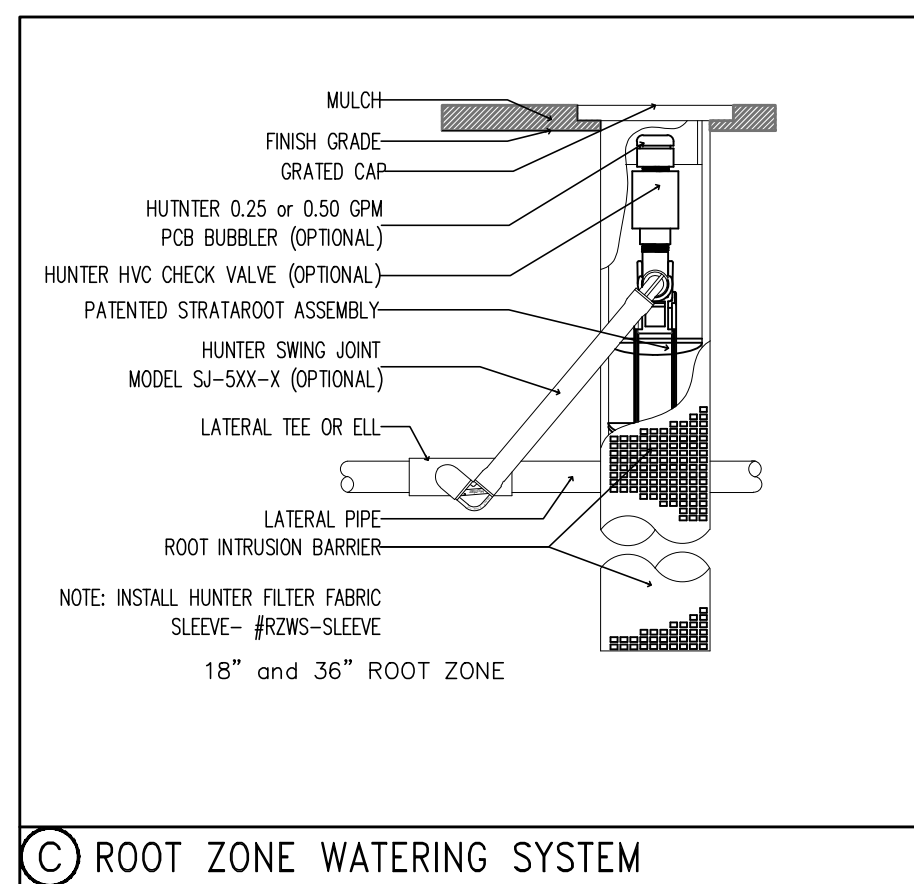




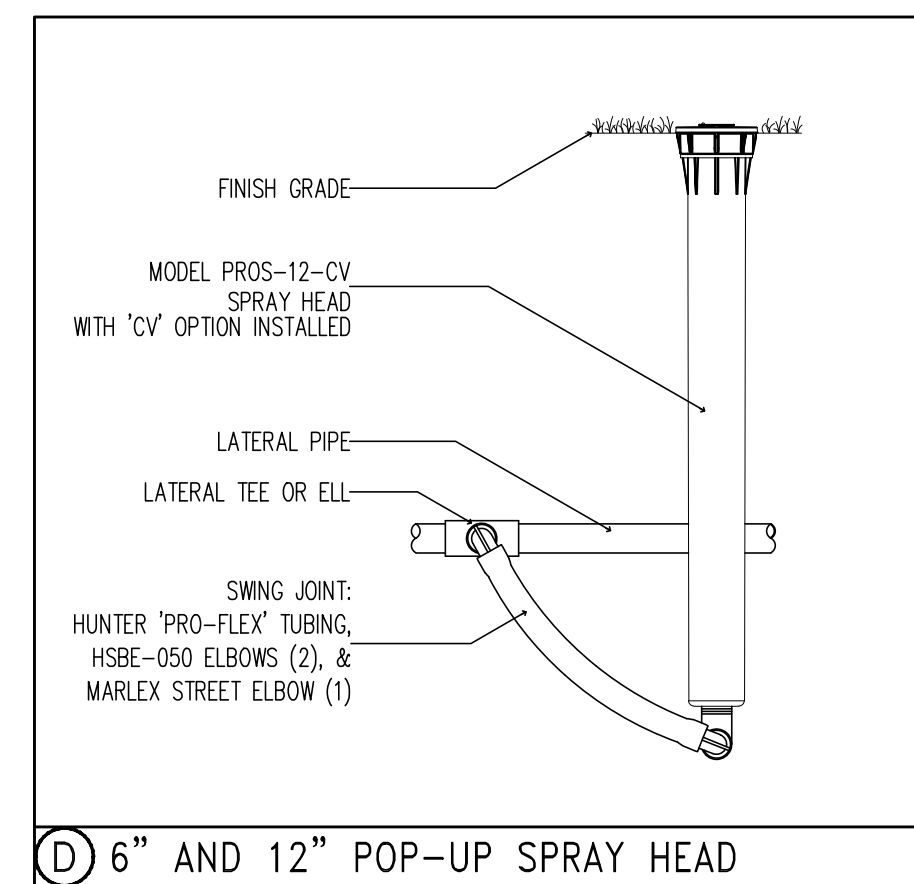
A) ICC-800-M IRRIGATION CONTROLLER



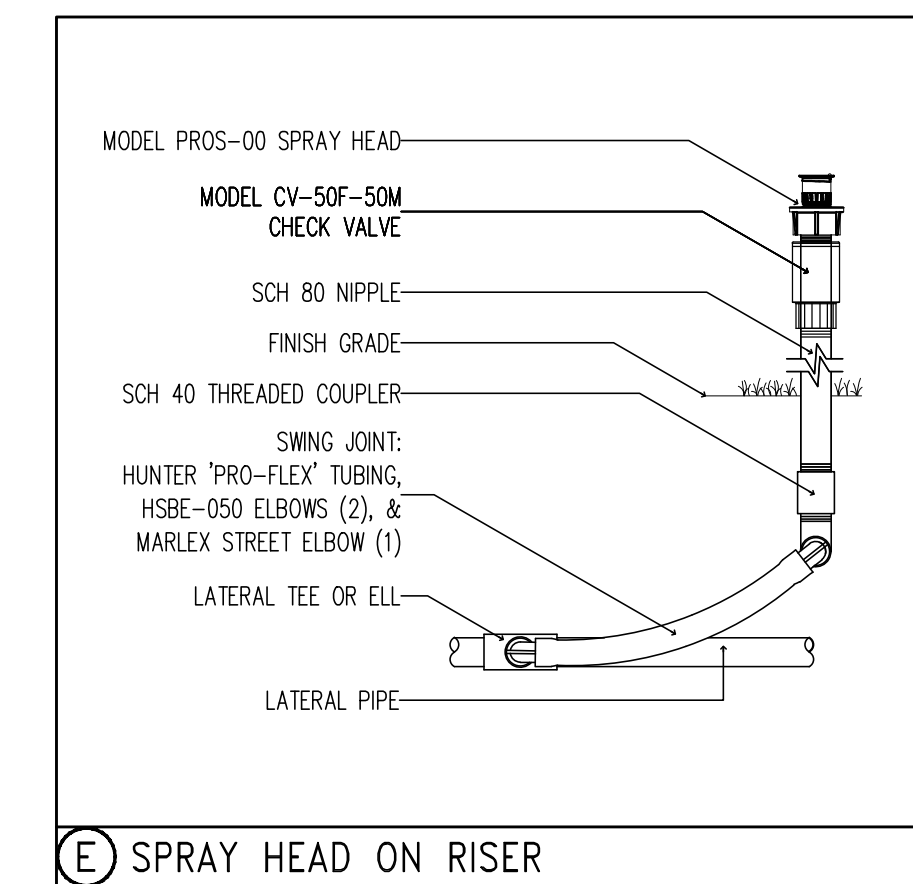
B) SOLAR-SYNC RAIN/WIND SENSOR WITH GAURD



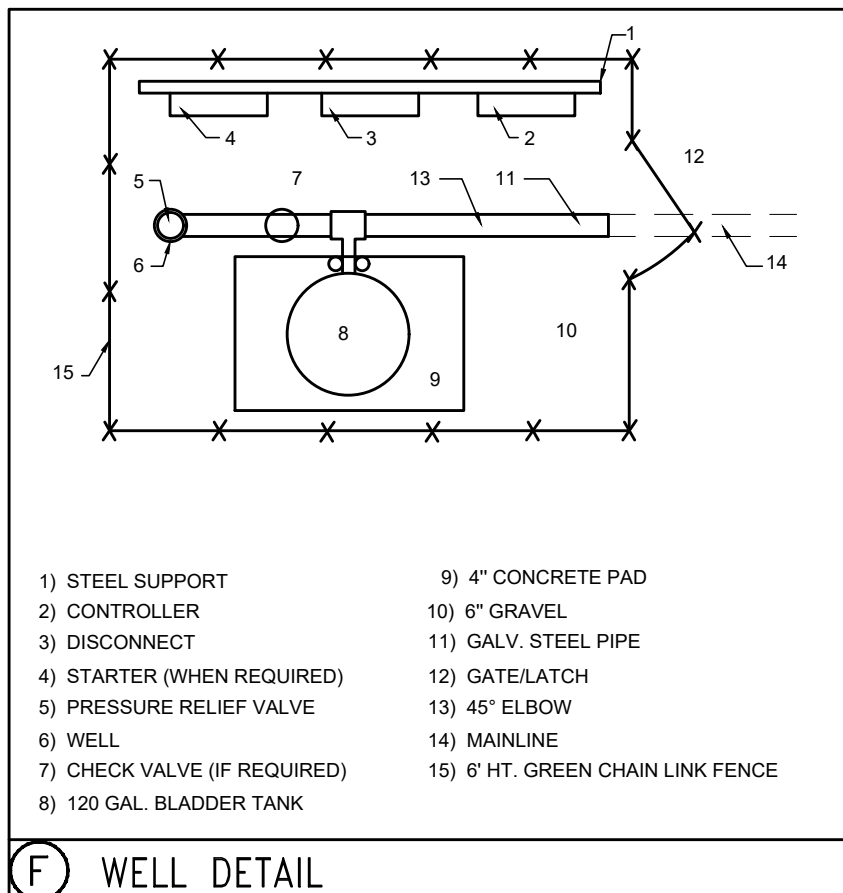
C) ROOT ZONE WATERING SYSTEM



D) 6" AND 12" POP-UP SPRAY HEAD



E) SPRAY HEAD ON RISER



F) WELL DETAIL

**WELL SPECIFICATIONS**

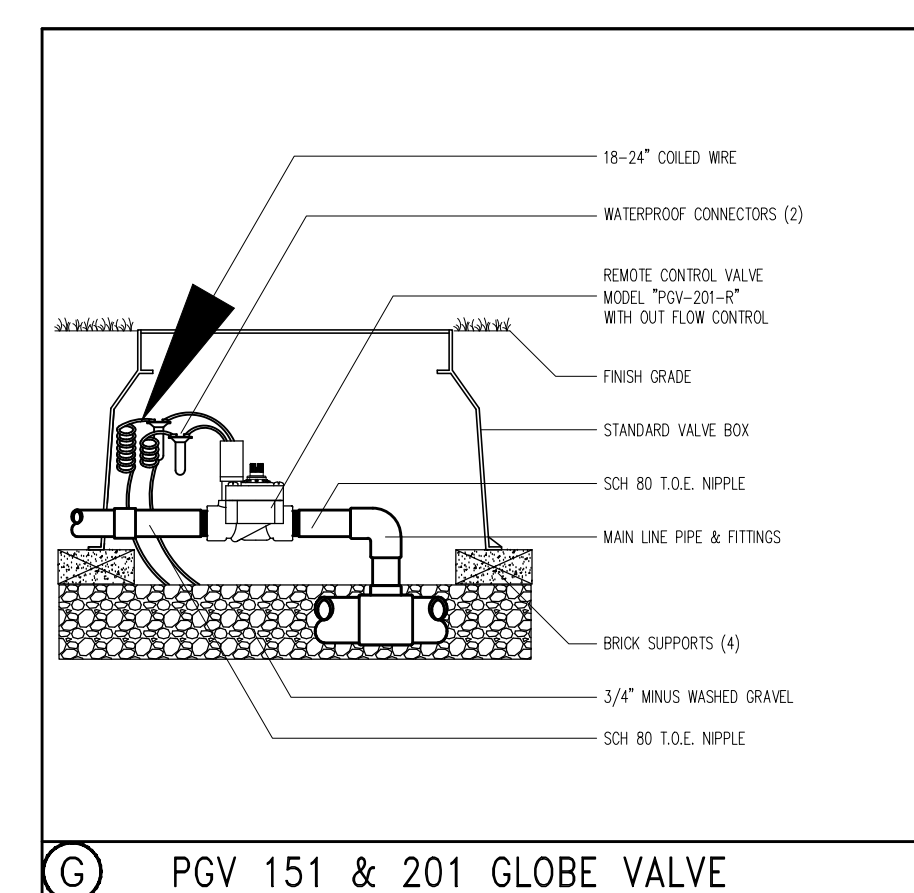
**PART 1 - WELL**  
 1.1 THE CONTRACTOR SHALL DRIVE OR DRILL ONE 4" DEEP WELL FOR THE OPERATION OF THE IRRIGATION SYSTEM. THE WELL SHALL PRODUCE 100 GALLONS PER MINUTE WITH NOT MORE THAN A 5 FOOT PUMPING DRAWDOWN.  
 1.2 THE WELL SHALL BE INSTALLED AS PER STATE AND LOCAL CODE REGULATIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL FEES AND PERMITS REQUIRED TO DRILL THE WELL OR WELLS.

**PART 2 - PUMP**  
 2.1 THE CONTRACTOR SHALL FURNISH AND INSTALL ONE 10.0 HP SUBMERSIBLE PUMP IN THE WELL. THE PUMP SHALL BE CAPABLE OF PRODUCING 100 GALLONS PER MINUTE AT 2x D.H. (TOTAL DYNAMIC HEAD). THE D.H. IS AT GROUND LEVEL. THE PUMP OR PUMPS SHALL BE INSTALLED USING THE FOLLOWING EQUIPMENT AND MATERIALS. ALL EQUIPMENT MAY NOT BE LISTED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FURNISHING AND INSTALLING ALL NECESSARY EQUIPMENT FOR THE OPERATION OF THE WELL PUMP AND ITS CONNECTION TO THE IRRIGATION SYSTEM.  
 A) 4 X 2 INCH SANITARY WELL SEAL  
 B) GALVANIZED DROP PIPE, SIZE AS REQUIRED  
 C) SUBMERSIBLE PUMP CABLE  
 D) ALL NECESSARY GALVANIZED FITTINGS THAT ARE REQUIRED FOR THE CONNECTION OF THE SYSTEM ABOVE GROUND PIPE SHALL BE GALVANIZED STEEL  
 E) ALL NECESSARY ELECTRICAL WIRE, SWITCHES AND CONDUIT  
 F) ISOLATION VALVE  
 G) SILENT CHECK VALVE  
 H) MAGNETIC STARTER FOR THREE PHASE SYSTEM, SIZE AS REQUIRED  
 I) ABOVE GROUND CHECK VALVE, WHERE REQUIRED BY CODE

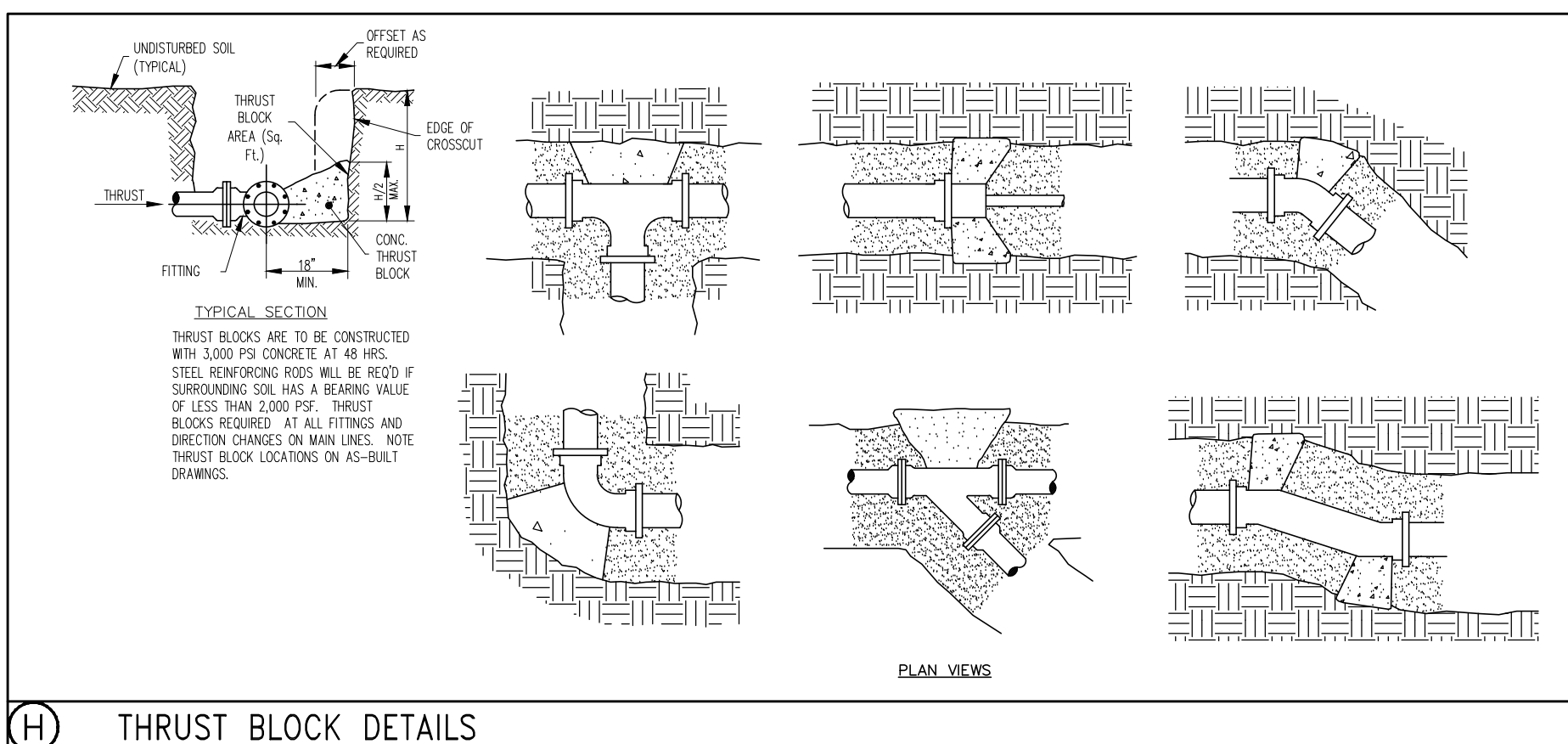
**PART 3 - NOTES**  
 3.1 THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION AND CONNECTION OF ALL THE ABOVE EQUIPMENT AND THE CONNECTION TO THE IRRIGATION SYSTEM.  
 3.2 POWER FOR THE OPERATION OF THE WELL PUMP SHALL BE SUPPLIED TO A JUNCTION BOX AT THE WELL LOCATION BY OTHERS, UNLESS NOTED OTHERWISE ON THE PLAN. COORDINATE ALL POWER REQUIREMENTS WITH THE OWNER OR GENERAL CONTRACTOR.

**PART 4 - WELL TESTING**  
 4.1 BEFORE SETTING THE PUMP THE WELL DRILLER SHALL PROVIDE A BORING REPORT AND WATER QUALITY ANALYSIS TO THE LANDSCAPE ARCHITECT FOR HIS OR HER APPROVAL.  
 4.2 BEFORE SETTING THE PUMP THE WELL DRILLER SHALL NOTIFY THE LANDSCAPE ARCHITECT OF THE STATIC WATER LEVEL. TO DETERMINE IF THE PUMP CAN PROVIDE THE PROPER G.P.M. AND P.S.I. FOR THE OPERATION OF THE IRRIGATION SYSTEM.

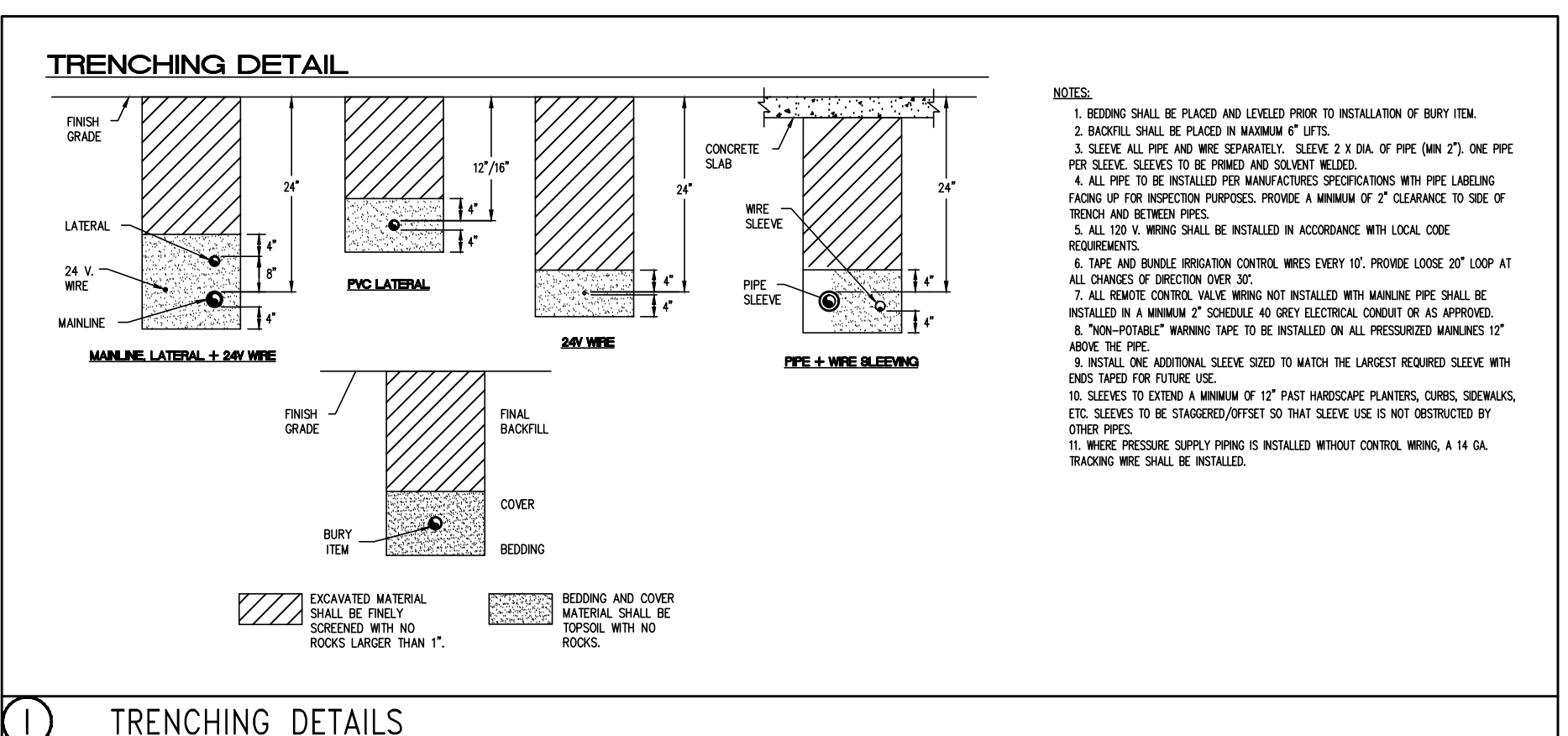
**PART 5 - SITE CONDITIONS**  
 5.1 THE WELL DRILLER SHALL BE RESPONSIBLE TO VISIT THE SITE AND BECOME FAMILIAR WITH THE ON-SITE LOCATION OF THE WELL. IT SHALL BE HIS RESPONSIBILITY TO NOTIFY THE OWNER IF HE FEELS THE LOCATION SHOULD BE MOVED. THE OWNER SHALL NOT BE RESPONSIBLE TO PAY FOR ANY WELL OR PART OF A WELL THAT DOES NOT MEET THE FULL INTENT OF THESE SPECIFICATIONS.



G) PGV 151 & 201 GLOBE VALVE



H) THRUST BLOCK DETAILS



I) TRENCHING DETAILS

**WATER SCHEDULE FOR COMMON AREA**

WATER SCHEDULE					
ZONE #	WATER TYPE	WATERING TIME (MIN)*	GAL. PER MINUTE	GAL. PER WATERING	PRECIP. IN INCHES
1	SHRUBS	20	72.14	1442.8	0.43
2	BUBBLER	15	67	1005	0.43
3	SHRUBS	20	56.69	1133.8	0.43
4	SHRUBS	20	34.81	696.2	0.43
5	BUBBLER	15	24.5	367.5	0.43
6	SHRUBS	20	61.38	1227.6	0.43
7	BUBBLER	15	63	945	0.43
8	SHRUBS	20	28.82	576.4	0.43
<b>TOTAL</b>		<b>145</b>	<b>408.34</b>	<b>7394.3</b>	
<b>WATERING SCHEDULE</b>		<b>14788.6 GAL / WEEK - SUMMER (MAR 15-OCT 14 (2 TIMES /WEEK))</b>			
<b>SCHEDULE USAGE</b>		<b>7394.3 GAL / WEEK - WINTER (OCT 15-MAR 14 (1 TIME/WEEK))</b>			
<b>CALCULATIONS</b>		<b>576755.4 GAL / YEAR (78 WATERINGS PER YEAR)</b>			
		<b>403728.78 GAL / YEAR W/ 30% REDUCTION FOR SOLAR-SYN</b>			

\*ZONE RUN TIMES SHOWN ARE FOR AFTER PLANT ESTABLISHMENT PERIOD (90 DAYS).

**IRRIGATION NOTES**

- REFER TO THE LANDSCAPE PLANS WHEN TRENCHING TO AVOID TREES AND SHRUBS.
- ALL MAINLINE PIPING SHALL BE BURIED TO A MINIMUM DEPTH OF 18" OF COVER. ALL LATERAL PIPING SHALL BE BURIED TO A MINIMUM DEPTH OF 12" OF COVER.
- ALL POP-UP ROTORS AND SPRAY HEADS SHALL BE INSTALLED USING AN 18" P.V.C. FLEX PIPE CONNECTION. DO NOT USE FUNNY PIPE.
- ADJUST ALL NOZZLES TO REDUCE WATER WASTE ON HARD SURFACES AND BUILDING WALLS.
- THROTTLE ALL VALVES ON SHRUB LINES AS REQUIRED TO PREVENT FOGGING.
- ALL CONTROL WIRE SPLICES SHALL BE MADE IN VALVE BOXES USING SNAP-TITE CONNECTORS AND SEALANT.
- THE CONTRACTOR SHALL PREPARE AN AS-BUILT DRAWING ON A REPRODUCIBLE PAPER (SEPIA OR MYLAR) SHOWING ALL INSTALLED IRRIGATION. A MYLAR OR SEPIA OF THE ORIGINAL PLAN MAY BE OBTAINED FROM THE LANDSCAPE ARCHITECT FOR A FEE. THE DRAWING SHALL LOCATE ALL MAINLINE AND VALVES BY SHOWING EXACT MEASUREMENTS FROM HARD SURFACES.
- ALL VALVES, GATE VALVES AND QUICK COUPLERS SHALL BE INSTALLED IN VALVE BOXES.
- ANY PIPING SHOWN OUTSIDE THE PROPERTY LINE OR RUNNING OUTSIDE A LANDSCAPE AREA IS SHOWN THERE FOR CLARITY ONLY. ALL LINES SHALL BE INSTALLED ON THE PROPERTY AND INSIDE THE LANDSCAPE AREAS.
- THE EXACT HEIGHT OF ANY 12" POP-UP THAT IS SHOWN IN A SHRUB BED SHALL BE DETERMINED BY THE LANDSCAPE ARCHITECT IN THE FIELD.
- THE CONTRACTOR SHALL EXERCISE CARE SO AS NOT TO DAMAGE ANY EXISTING UTILITIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE IMMEDIATE REPAIRS AND COST OF ANY DAMAGE CAUSED BY HIS WORK.
- ALL WORK SHALL BE GUARANTEED FOR ONE YEAR FROM THE DATE OF FINAL ACCEPTANCE AGAINST ALL DEFECTS IN EQUIPMENT AND WORKMANSHIP.
- CONTRACTOR TO USE MIN. OF 12 GAUGE WIRE FOR ALL COMMON WIRES AND 14 GAUGE WIRE FOR ALL CONTROL WIRES. CONTRACTOR ALSO TO PROVIDE 3 SPARE CONTROL WIRES FOR ANY FUTURE USE.
- CONCRETE THRUST BLOCKS ARE TO BE UTILIZED AT ALL MAINLINE DIRECTION CHANGES.
- ALL IRRIGATION SHOWN ON PLANS IS SCHEMATIC AND DOES NOT REFLECT ALL FITTINGS AND APPURTENANCES WHICH SHALL BE INCLUDED TO PROVIDE A FULLY FUNCTIONAL IRRIGATION SYSTEM CAPABLE OF PROVIDING 100 PERCENT COVERAGE WITH A 50 PERCENT OVERLAP.

SYMBOL	DESCRIPTION	QUANTITIES
□	HUNTER INDUSTRIES RZWS WITH PCN .50 AND 1.00 GPM BUBBLER	225
●	12" POP-UP SPRAY - HUNTER IND. 'PROS-12-PRS40' BODY W/MP1000 NOZZLES	200
●	12" POP-UP SPRAY - HUNTER IND. 'PROS-12-PRS40' BODY W/MP800 NOZZLES	296
○	6" POP-UP SPRAY - HUNTER IND. 'PROS-06-PRS40' BODY W/MP1000 NOZZLES	86
●	24" POP-UP SPRAY - HUNTER IND. 'PROS-00-PRS40' RISER W/MP1000 NOZZLES	75
⊕	HUNTER 'ICV-FS-AS-40' SERIES ELECTRIC VALVE WITH ACCU-SET PRESSURE REGULATOR 2" + 1-1/2"	8
C	HUNTER 'ICC-800' CONTROLLER, 8 STATION UNIT WITH 'ICM-800' EXPANSION MODULE INSTALL WITH A SOLAR-SYNC SENSOR AND BY-PASS BOX. GROUND WITH AN 8' COPPER CLAD ROD.	1
⊕	HUNTER SOLAR-SYNC SENSOR	1
W	4" IRRIGATION WELL	1
P	10 HP PUMP TO PROVIDE A MINIMUM 100 GPM AT 60 PSI	1
---	LATERAL LINE - SCH 40 PVC - SIZE PER PLAN	SEE PLAN
---	2" MAINLINE - SCH 40 PVC SIZE PER PLAN	SEE PLAN
---	SLEEVING - SCH. 40 PVC MIN. DEPTH OF 24"	SEE PLAN

J) EQUIPMENT LIST FOR COMMON AREA

**SPRAY NOZZLE CHART**

TYPE	SYM	NOZZLE	NOZZLE PATTERN	GPM
MP1000 8-15' radius	A	MAROON	90° ADJUSTABLE ARC	.21
	B	MAROON	180° ADJUSTABLE ARC	.42
	C	LT. BLUE	210° ADJUSTABLE ARC	.49
	D	LT. BLUE	270° ADJUSTABLE ARC	.63
	E	OLIVE	360° ARC	.84
MP2000 13-21' radius	F	BLACK	90° ADJUSTABLE ARC	.43
	G	BLACK	180° ADJUSTABLE ARC	.77
	H	GREEN	210° ADJUSTABLE ARC	.86
	I	GREEN	270° ADJUSTABLE ARC	1.10
	J	RED	360° ARC	1.48
MP3000 22-30' radius	K	BLUE	90° ADJUSTABLE ARC	.86
	L	BLUE	180° ADJUSTABLE ARC	1.82
	M	YELLOW	210° ADJUSTABLE ARC	2.12
	N	YELLOW	270° ADJUSTABLE ARC	2.73
	O	GRAY	360° ARC	3.64
STRIPS & CORNERS	P	TURQUOISE	45°-105° ADJUSTABLE ARC	.45
	Q	IVORY	5x15 LEFT STRIP	.22
	R	COPPER	5x15 RIGHT STRIP	.22
	S	BROWN	5x30 SIDE STRIP	.44
	T	PCN10	0.50 GPM FLOOD BUBBLER	.50
BUBBLERS AND MICRO-SPRAYS	U	PCN50	1.00 GPM FLOOD BUBBLER	1.00
	V	SR-4Q	90° WITH 4 RADIUS	.22
	W	SR-4H	180° WITH 4 RADIUS	.44
	AA	ORANGE	90° ADJUSTABLE ARC	.23
	BB	ORANGE	180° ADJUSTABLE ARC	.42
MP800 6-12' radius	CC	ORANGE	210° ADJUSTABLE ARC	.43
	DD	GREEN	360° ARC	.78

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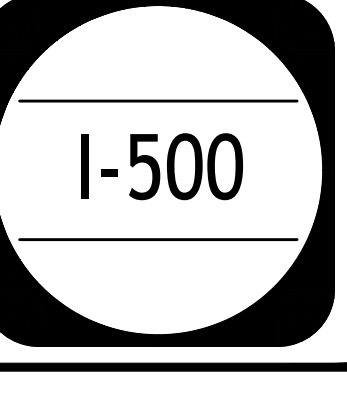
IRRIGATION DETAILS AND WATER SCHEDULE

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