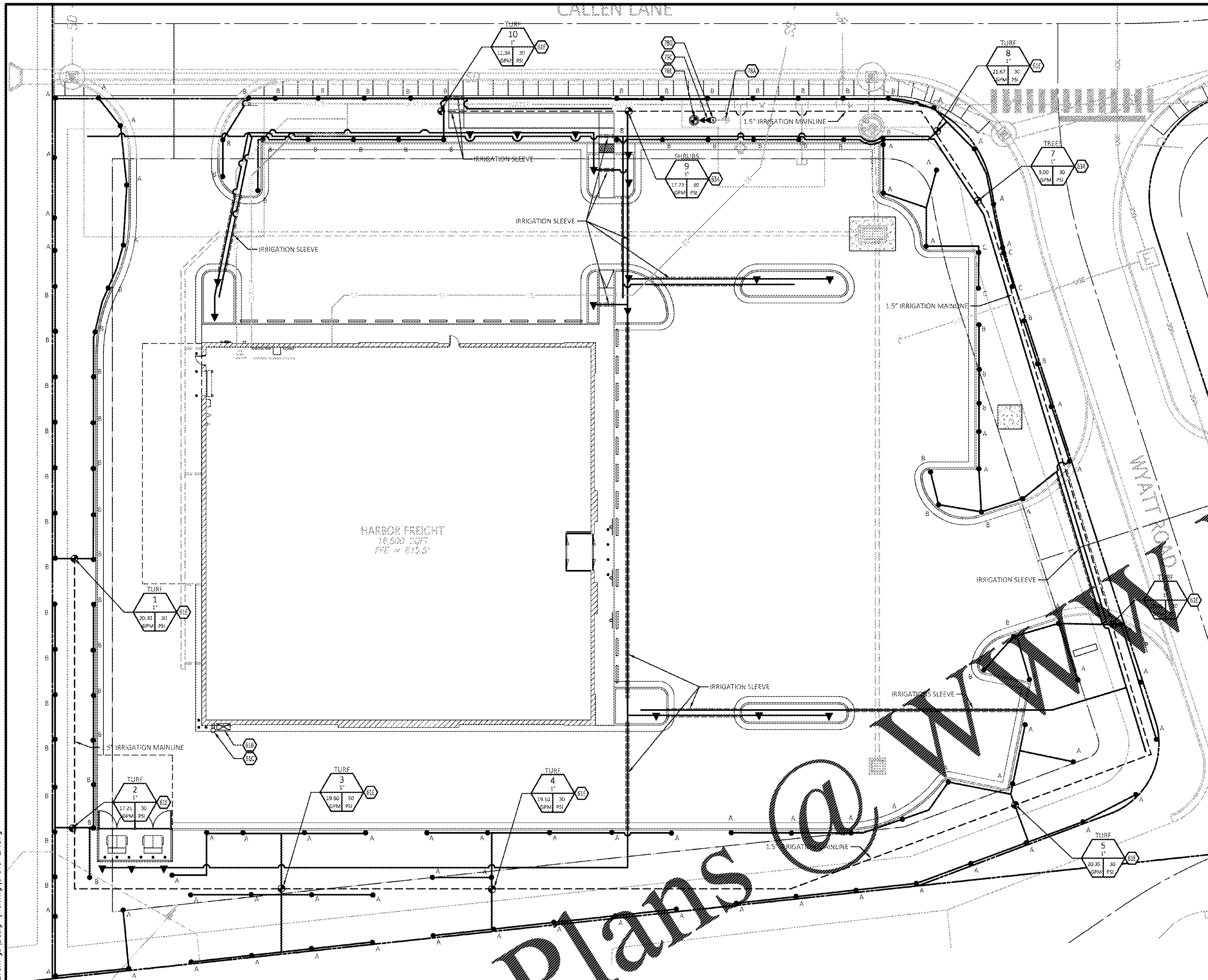


SITE BENCHMARK

SITE BENCHMARK

NUMBER	NORTHING (USSURVEY FOOT)	EASTING (USSURVEYFOOT)	ELEVATION (USSURVEYFOOT)	DESCRIPTION
8002	321,620.423	2,310,191.525	783.329	MAG A
8003	322,904.553	2,308,639.501	847.344	MAG B
8004	322,500.445	2,309,354.437	836.695	MAG C
8005	321,178.622	2,309,762.948	796.380	MAG D
8007	321,405.153	2,308,301.837	834.093	MAG E

#16 NAIL WITH MARKED WASHER LOCATED IN PAUL HUFF PKWY AND MOUSE CREEK RD NW AT COORDINATES LISTED ABOVE.

N

0 20' 30' 40'

SCALE IN FEET

811 Know what's **below.** **Call** before you dig.

GENERAL IRRIGATION NOTES

1. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING A COPY OF THE PROJECT SPECIFICATIONS PRIOR TO BIDDING. THE PROJECT SPECIFICATIONS ARE A PART OF THESE PLANS AND SHALL BE CONSULTED BY THE IRRIGATION CONTRACTOR. THE CONTRACTOR IS RESPONSIBLE FOR IMPLEMENTING WORK AS SPECIFIED IN THE PROJECT SPECIFICATIONS AND ON THE PLANS.
2. CONTRACTOR SHALL VERIFY ALL DIMENSIONS, ELEVATIONS, EQUIPMENT QUANTITIES, AND UTILITY LOCATIONS PRIOR TO BEGINNING WORK.
3. CONTRACTOR SHALL NOTIFY LANDSCAPE ARCHITECT OR LICENSED IRRIGATOR OF ANY DISCREPANCIES IN PLANS OR SPECIFICATIONS PRIOR TO BEGINNING OR CONTINUING WORK.
4. THE CONTRACTOR SHALL MAKE NO SUBSTITUTIONS, DELETIONS, OR ADDITIONS TO THIS PLAN WITHOUT APPROVAL OF THE LANDSCAPE ARCHITECT OR LICENSED IRRIGATOR.
5. ALL CONSTRUCTION SHALL CONFORM TO CITY, COUNTY, STATE, AND FEDERAL REQUIREMENTS. IT SHALL BE THE RESPONSIBILITY OF THE IRRIGATION CONTRACTOR TO ENSURE THAT ALL IRRIGATION EQUIPMENT MEETS GOVERNMENT REGULATIONS. CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR OBTAINING ANY NECESSARY PERMITS OR APPROVALS.
6. CONTRACTOR IS TO VERIFY ACTUAL AVAILABLE WATER PRESSURE BEFORE BEGINNING INSTALLATION. CONTRACTOR SHALL NOTIFY LANDSCAPE ARCHITECT OR LICENSED IRRIGATOR IF AVAILABLE WATER PRESSURE EXCEEDS 5 PSI HIGHER OR LOWER THAN THE DESIGN WATER PRESSURE OF 65 PSI.
7. IRRIGATION SYSTEMS CONNECTED TO POTABLE WATER SUPPLY, SHALL HAVE A BACKFLOW PREVENTER INSTALLED PER LOCAL REQUIREMENTS.
8. ANY EXISTING TREES TO REMAIN ARE TO BE PROTECTED FROM DAMAGE. DO NOT TRENCH OR EXCAVATE WITHIN THE CRITICAL ROOT ZONE OF ANY TREE.
9. SUPPLY LINE AND METER TO BE PROVIDED BY GENERAL CONTRACTOR. BACKFLOW PREVENTER TO BE PROVIDED BY IRRIGATION CONTRACTOR. IRRIGATION CONTRACTOR'S POINT OF CONNECTION TO BEGIN AFTER THE IRRIGATION WATER METER.
10. IRRIGATION CONTRACTOR SHALL REVIEW WINTERIZATION PROCEDURES FOR IRRIGATION SYSTEM WITH OWNERS REPRESENTATIVE.
11. IRRIGATION CONTRACTOR IS RESPONSIBLE FOR INSTALLING MANUAL DRAIN VALVES AT LOWEST POSSIBLE ELEVATION ON IRRIGATION MAIN SO AS TO PROVIDE POSITIVE DRAINAGE OF IRRIGATION MAIN DURING WINTER MONTHS, OR PROVIDE BLOWOUT ASSEMBLY.
12. ALL LATERAL LINES SHALL BE EQUIPPED WITH AUTOMATIC DRAIN VALVES AT LOW POINTS.
13. IRRIGATION CONTRACTOR SHALL COORDINATE CONTROLLER LOCATION WITH GENERAL CONTRACTOR. GENERAL CONTRACTOR SHALL PROVIDE (2) 1" ELECTRICAL CONDUITS FOR IRRIGATION CONTRACTOR'S POWER/DATA CONNECTION TO CONTROLLER. SEE ARCHITECTURAL ELECTRICAL PLAN FOR ELECTRICAL CONNECTION TO THE IRRIGATION CONTROLLER. IRRIGATION CONTRACTOR SHALL COORDINATE CONSTRUCTION OF IRRIGATION SYSTEM WITH GENERAL CONTRACTOR AND LANDSCAPE CONTRACTOR PRIOR TO COMMENCEMENT OF CONSTRUCTION.
14. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES, AND WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANIES AT LEAST 72 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS.
15. ALL BELOW GRADE LOW VOLTAGE WIRING CONNECTIONS SHALL BE INSTALLED PER WIRE CONNECTION DETAIL.
16. DO NOT INSTALL IRRIGATION AT PYLON / MONUMENT SIGN LOCATION UNTIL SIGN HAS BEEN INSTALLED.
17. LOCATION FOR IRRIGATION SYSTEM AS SHOWN IS FOR DRAWING PURPOSES ONLY. UNSLEEVED PIPES MAY BE SHOWN IN PAVEMENT AREAS FOR CLARITY ONLY. INSTALL THESE PIPES IN ADJACENT LANDSCAPE AREAS WHERE NECESSARY. CONTRACTOR SHALL VERIFY THE EXACT LOCATION IN FIELD PRIOR TO THE COMMENCEMENT OF CONSTRUCTION OF PROPOSED IRRIGATION SYSTEM. ALL PROPOSED IRRIGATION LINES AND EQUIPMENT SHALL BE INSTALLED WITHIN THE BOUNDARIES OF THE PROJECT SITE. CONTRACTOR SHALL NOTIFY LANDSCAPE ARCHITECT OR LICENSED IRRIGATOR IF THE DESIGN AS SHOWN IS NOT ACHIEVABLE.
18. MINIMUM COVER FROM TOP OF PIPING TO FINISHED GRADE SHALL BE AS PER DETAIL 64A.
19. IRRIGATION CONTRACTOR SHALL COORDINATE IRRIGATION INSTALLATION WITH PLANTING PLAN AND SITE CONDITIONS TO PROVIDE COMPLETE COVERAGE WITH MINIMUM OVERSPRAY. THE IRRIGATION CONTRACTOR SHALL MAKE MINOR ADJUSTMENTS TO ENSURE PROPER COVERAGE AT NO ADDITIONAL COST TO THE OWNER.
20. VALVE BOXES SHALL BE INSTALLED FLUSH WITH GRADE, SUPPORTED BY BRICKS IF NEEDED, WITH 3" OF CLEAN PEA GRAVEL LOCATED BELOW THE VALVE.
21. ALL MAIN LINE PIPING, NON-PRESSURE PIPING AND CONTROL WIRE SLEEVING SHALL BE INSTALLED IN SEPARATE SLEEVES. ALL LATERAL LINE PIPING UNDER PAVING SHALL BE PVC SHEDULE 40 AND SHALL BE INSTALLED PRIOR TO ANY HARDSCAPE MATERIAL. IRRIGATION CONTRACTOR TO PROVIDE SLEEVES BETWEEN 12" AND 15" BELOW GRADE AT ALL DRIVE ENTRANCES AND SIDEWALKS. MAINLINE SLEEVE SIZE SHALL BE A MINIMUM OF TWICE (2X) THE DIAMETER OF THE PIPE TO BE SLEEVED. CONTROL WIRE SLEEVES SHALL BE OF SUFFICIENT SIZE FOR THE REQUIRED NUMBER OF WIRES.
22. IT IS THE RESPONSIBILITY OF THE IRRIGATION CONTRACTOR TO FAMILIARIZE HIMSELF WITH ALL GRADE DIFFERENCES, LOCATION OF FENCES, RETAINING WALLS, AND UTILITIES. THE IRRIGATION CONTRACTOR SHALL REPAIR OR REPLACE ALL ITEMS DAMAGED BY HIS WORK. HE SHALL COORDINATE HIS WORK WITH OTHER CONTRACTORS FOR THE LOCATION AND INSTALLATION OF PIPE SLEEVES AND LATERALS THROUGH WALLS, UNDER ROADWAYS AND PAVING AND TIMING, ETC. REFER TO CIVIL ENGINEERING PLANS FOR GRADING, METHODS OF DRAINAGE, IRRIGATION METERS, AND BACKFLOW PREVENTION DEVICE LOCATION.
23. ALL IRRIGATION EQUIPMENT NOT OTHERWISE DETAILED OR SPECIFIED, SHALL BE INSTALLED AS PER MANUFACTURER'S RECOMMENDATIONS, DETAILS AND SPECIFICATIONS. ACCEPTABLE MANUFACTURERS INCLUDE RAINBIRD, HUNTER, TORO, OR NETAFIM
24. ANY DRIP SYSTEM PIPING IN PLANTING BEDS IS DIAGRAMMATIC. CONTRACTOR CAN ROUTE PIPING IN A FREEFORM MANNER (AVOIDING OBJECTS SUCH AS LIGHT POLES, TRANSFORMERS PADS, EQUIPMENT VAULTS, SUBSURFACE ROCK TOO LARGE TO REMOVE, ETC...) AS LONG AS ALL PLANT MATERIAL RECEIVES THE PROPER NUMBER OF EMITTERS PER SCHEDULE AND THE VINYL DISTRIBUTION TUBING DOES NOT EXCEED THE MAXIMUM DESIGN LENGTHS PER MANUFACTURER'S RECOMMENDATIONS.
25. UNLESS OTHERWISE REQUIRED, BACKFLOW PREVENTION DEVICES LESS THAN 2" SHALL BE PLACED IN A WIRE MESH BASKET ENCLOSURE AND PAINTED TO MATCH THE PRIMARY BUILDING COLORS. SEE CIVIL PLANS FOR LOCATION.
26. ALL JOINTS AND BENDS 2" OR LARGER SHALL HAVE CONCRETE THRUST BLOCKING. THRUST BLOCKING SHALL BE A MINIMUM OF 1 CUBIC FOOT OF CONCRETE. PIPE SHALL NOT BE ENCASED IN CONCRETE. SEE DETAIL 31C FOR THRUST BLOCKING.
27. CONTRACTOR WILL PROVIDE OWNER WITH A COMPLETE AND REPRODUCIBLE DRAWING OR IRRIGATION SYSTEM LAYOUT AS IT WAS INSTALLED. DRAWING SHOULD INCLUDE, BUT NOT BE LIMITED TO. LOCATIONS OF ZONES VALVES, MAIN, LATERAL AND DISTRIBUTION LINES, SLEEVES, WATER METER, BACKFLOW PREVENTION DEVICE, SENSORS AND CONTROLLER.
28. ALL LATERAL LINE SIZING SHALL REFER TO PIPE SCHEDULE ON THIS PLAN.

EXISTING LEGEND

	EASTING ELECTRIC	OHT	OVERHEAD TELEPHONE
	NORTHING	OHTV	OVERHEAD TV
	OVERHEAD	X"SS	SANITARY SEWER
	SOUTH OF SEWER	UGE	UNDERGROUND ELECTRIC
	TELEPHONE	UGE&T	UNDERGROUND ELECTRIC AND TELEPHONE
	UNDERGROUND WEST OR WATER	UGT	UNDERGROUND TELEPHONE
	PROPERTY LINE	UGTV	UNDERGROUND TV
	RIGHT OF WAY LINE	X"W	WATER
	STORM DRAIN	.5-10-11 50.5	TREE INFO .5 = DIAMETER OF TRUNK IN FEET 10 = HEIGHT OF TREE IN FEET 11 = CANOPY DIAMETER IN FEET 50.5 = ELEVATION AT BASE OF TREE
X"G	GAS		
OHE	OVERHEAD ELECTRIC		
OHE&T	OVERHEAD ELECTRIC AND TELEPHONE		

PROPOSED LEGEND

- BOUNDARY LINE/RIGHT OF WAY LINE
- STORM DRAIN
- X" LATERAL LINE WITH SIZE DESIGNATION
- X" MAIN LINE WITH SIZE DESIGNATION
- SLEEVING
- ZONE — ZONE DESIGNATION
- X" — VALVE SIZE
- PSI — DESIGN PRESSURE - POUNDS PER SQUARE INCH
- GPM — DESIGN DEMAND - GALLONS PER MINUTE

GENERAL IRRIGATION NOTES

A. SEE IRRIGATION NOTES SHEET FOR IRRIGATION NOTES AND DETAILS.

IRRIGATION NOTES

31C	THRUST BLOCKING (NOT SHOWN ON PLAN)
60A	SPRAY HEAD. SEE NOZZLE LIST FOR HEAD AND NOZZLE DESCRIPTION.
61B	CONTROLLER AND VALVES. RAINBIRD ESP-LX-12 STATIONS.
61C	RAIN SENSOR & FREEZE SENSOR.
61E	ELECTRIC VALVE AND BOX - PEB 100 (ZONE VALVE).
62C	MANUAL DRAIN VALVE (NOT SHOWN ON PLAN; INSTALL AT LOWEST POINT ON MAIN LINE).
62D	AUTOMATIC DRAIN VALVE (NOT SHOWN ON PLAN; INSTALL ON LOW AREAS AS NEEDED).
63A	1" DRIP VALVE ASSEMBLY. RAINBIRD XCZ-100-B-COM.
64B	MAIN LINE SHOWN HERE FOR DRAWING PURPOSES ONLY; CONTRACTOR SHALL INSTALL MAIN LINE ETC. WITHIN PROPERTY.
78A	1" IRRIGATION METER WITH 1.5" TYPE K COPPER SERVICE BY GENERAL CONTRACTOR. SEE CIVIL PLANS FOR EXACT LOCATION. (REFER TO CIVIL PLANS FOR LOCATION)
78C	CONDUIT FOR R.C.V. WIRES BY GENERAL CONTRACTOR. ROUTING TO CONTROL VALVES BY IRRIGATION CONTRACTOR. (NOT SHOWN ON PLAN; SEE NOTE D).
78E	MASTER CONTROL VALVE. RAINBIRD PEB-100 (1").
78G	1.5" ISOLATION VALVE. KING BROS INDUSTRIES (OR EQUAL). SIZE COMMERCIAL GRADE, SCHD 80 FULL-PORT
79C	BACK FLOW AND ENCLOSURE - 1" REDUCED BACKFLOW PREVENTER. PER STATE AND LOCAL CODES, WITH A LOCKABLE CAGE APPROVED BY OWNER.
79D	XERI-BIRD 8 OUTLET EMISSION DEVICE WITH PC-07 EMITTERS. 2 EMITTERS PER SHRUB

IRRIGATION DETAILS

61A	WIRE CONNECTION (NOT SHOWN ON PLAN. USE ON BELOW GRADE LOW VOLTAGE WIRING).
64A	IRRIGATION PIPE AND WIRE TRENCHING (NOT SHOWN ON PLAN).
79F	MULTI OUTLET EMITTER. - XBT-20-6 (2.0 GPH). 12 GPH PER TREE

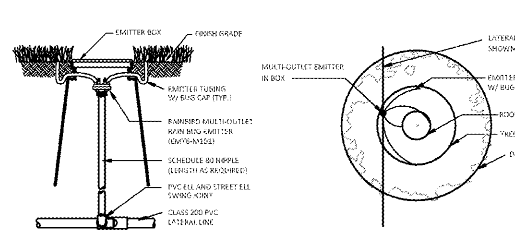
NOTE:
SEE ARCHITECTURAL PLANS FOR EXACT LOCATIONS AND DIMENSIONS OF PORCHES, RAMPS, VESTIBULE, SLOPED PAVING, TRUCK DOCKS, BUILDING UTILITY ENTRANCE LOCATIONS AND PRECISE BUILDING DIMENSIONS.

SPRINKLER NOZZLE LIST

KEY	QTY.	DESCRIPTION
A	71	1806-SAM-PRS-R-VAN24
B	67	1806-SAM-PRS-R-VAN18
C	4	1806-SAM-PRS-R-VAN14
D	8	1806-SAM-PRS-R-VAN SST/LCS/RCS

IRRIGATION PIPE SCHEDULE

PIPE SIZE	MAX. SAFE FLOW G.P.M.	
¾"	10	NOTE: IN SOME CASES, IRRIGATION PIPE SIZES SHOWN ON IRRIGATION PLANS ARE LARGER THAN THE SIZE SHOWN ON PIPE SCHEDULE DUE TO HYDRAULIC LOSSES. USE PIPE SIZES AS SHOWN ON IRRIGATION PLANS IF APPLICABLE.
1"	16	
1¼"	26	
1½"	35	
2"	55	
2½"	80	
3"	120	



PLAN

ALL EMITTER TUBING SHALL BE PLACED AS SHOWN ON PLAN WITH 2 OUTLETS LOCATED ON OPPOSITE EDGES OF THE ROOT BALL, AND 2 OUTLETS LOCATED ON OPPOSITE EDGES OF THE TREE SAUCER.

MULTI-OUTLET EMITTER 79F

N.T.S.

NO.	DATE	DESCRIPTION
1	7-22-2020	BULLETIN #2

REVISIONS

FOR BID PURPOSES ONLY

CEI PROJECT NO.	INITIAL DATE	DPOR	PM	DES	DRW
31313	7/22/20	JDG	JEH	CAG	CAG

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HARBOR FREIGHT TOOLS

WYATT RD.

CLEVELAND TN

IRRIGATION PLAN

REV DATE 7/22/20 REV - 1

SHEET NO. C8

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