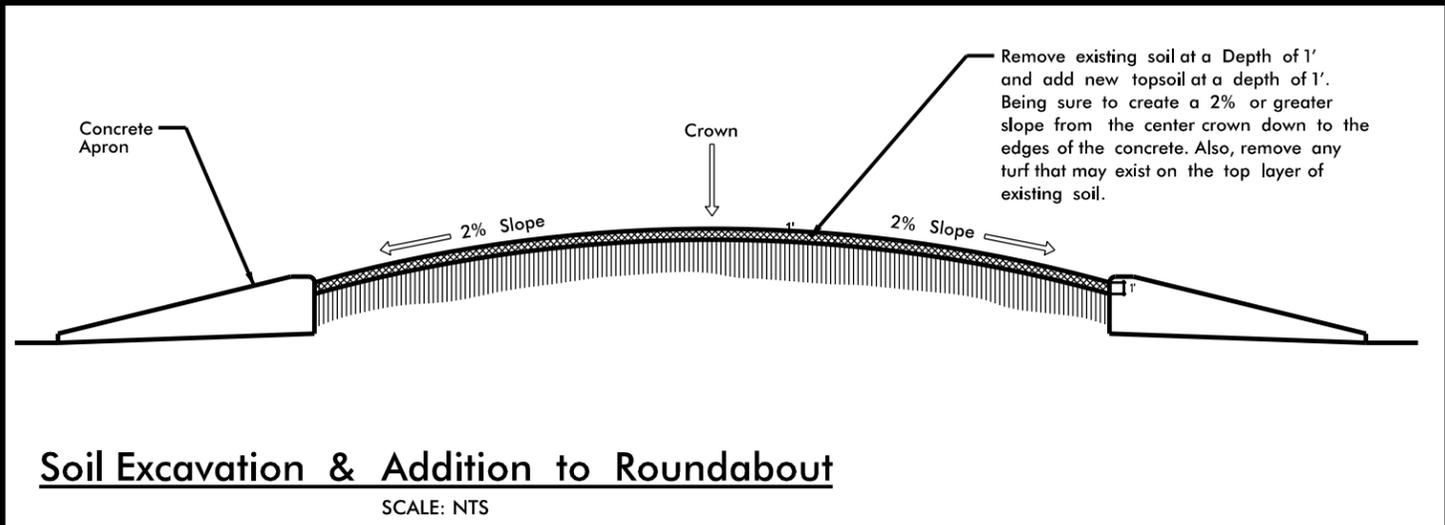
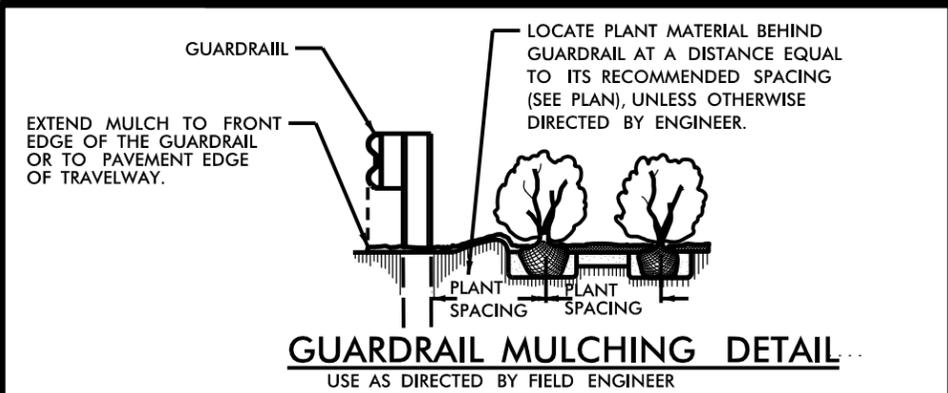
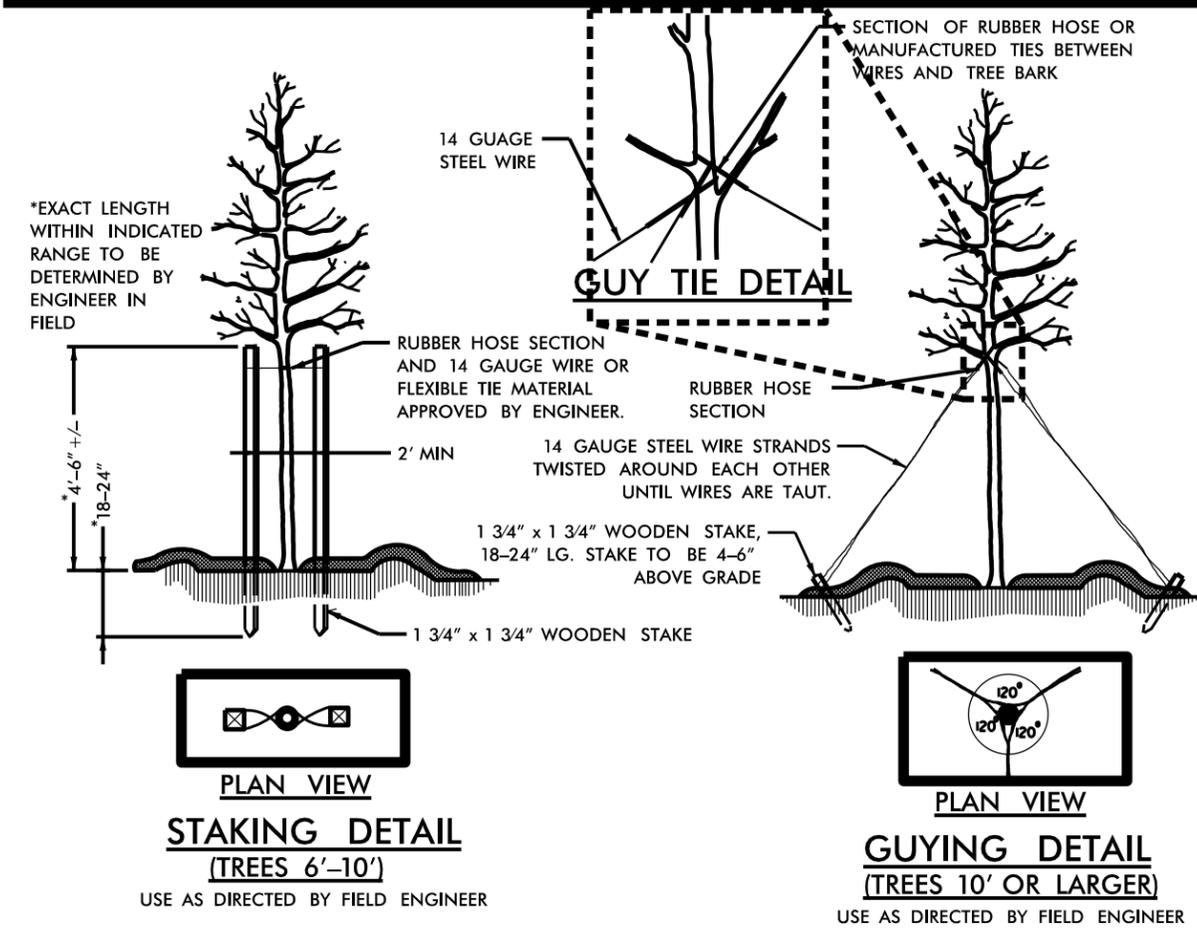


- NOTES:**
- SCHEDULE FOR PLANT HOLE SIZE: PLANT HOLE WIDTH (X) TO BE TWICE THE ROOT BALL SIZE OR CONTAINER DIAMETER.
 - SEE STANDARD SPECIFICATIONS FOR PLANT BED FUMIGATION AND HERBICIDAL TREATMENT.
 - APPLY FERTILIZER AT PLANTING TIME IN THE FORM OF A SLOW RELEASE PELLET OR TABLET. APPLY AT RATE RECOMMENDED BY MANUFACTURER. BOTH RATE AND FORMULATION MUST BE APPROVED BY FIELD ENGINEER PRIOR TO APPLICATION.
 - REMOVE WIRE BASKET AND FOLD BURLAP BACK FROM TOP OF ROOT BALL BEFORE BACKFILLING IS COMPLETE.
 - ALL PRUNING TO FOLLOW STANDARD ARBORICULTURAL PRACTICES AS SPECIFIED BY INTERNATIONAL SOCIETY OF ARBORICULTURE.
 - DO NOT ATTEMPT TO STRAIGHTEN A TREE THAT HAS BEEN PLANTED AT AN ANGLE WITH THE USE OF STAKING OR GUYING. DIG TREE AND REPLANT TO UPRIGHT POSITION.



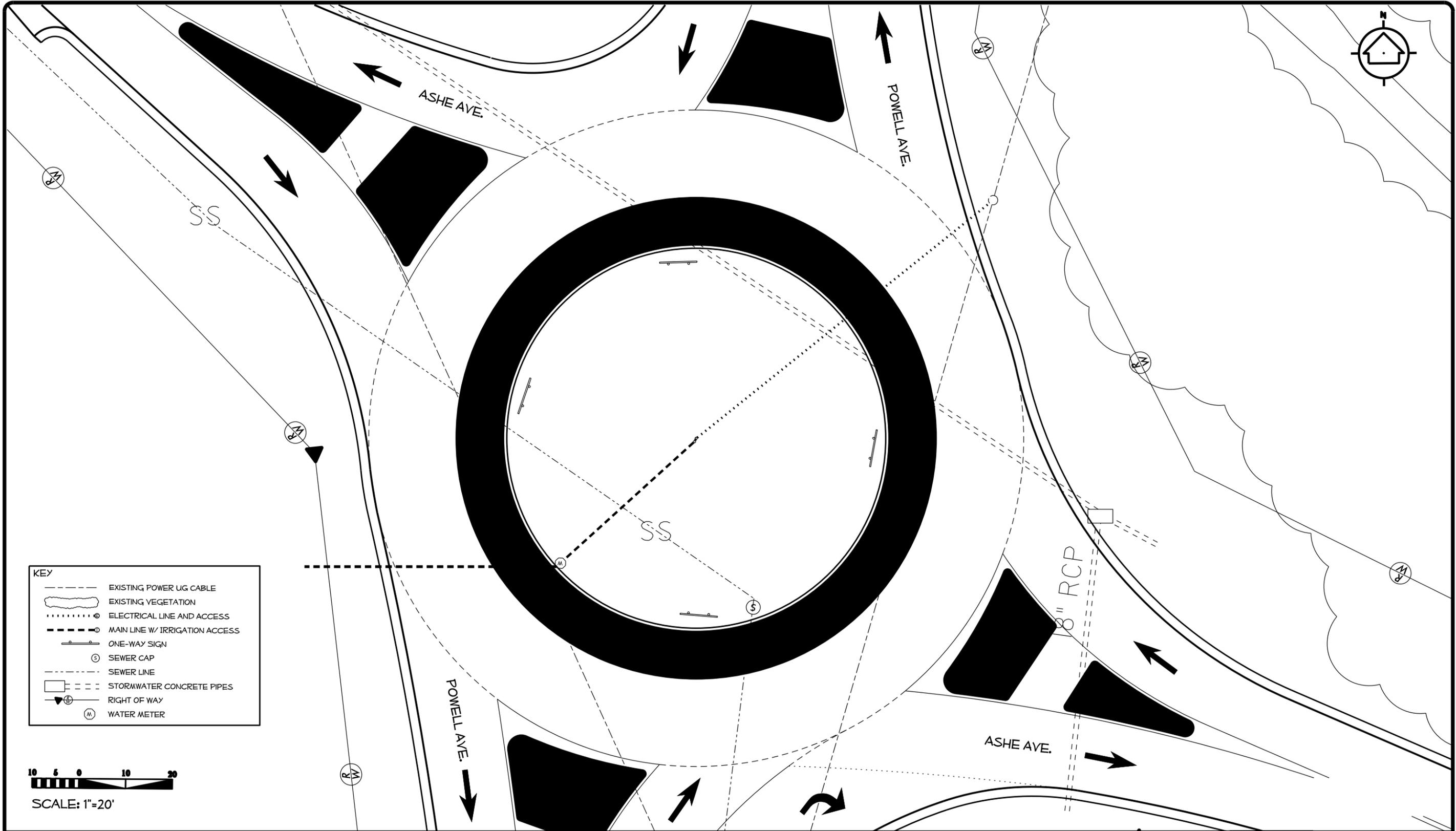
North Carolina Department of Transportation
 Roadside Environmental Unit
 Landscape Design & Development Section

Dunn Roundabout
 Harnett County

PROJECT TITLE:

Plans Drawn By:
 Kyle Cooper
 Scale:
 AS NOTED
 Date:
 02 / 09 / 15
 Sheet Description:

I.P.#
 W-5501
 Sheet #
 L-2



KEY	
	EXISTING POWER UG CABLE
	EXISTING VEGETATION
	ELECTRICAL LINE AND ACCESS
	MAIN LINE W/ IRRIGATION ACCESS
	ONE-WAY SIGN
	SEWER CAP
	SEWER LINE
	STORMWATER CONCRETE PIPES
	RIGHT OF WAY
	WATER METER

10 5 0 10 20
 SCALE: 1"=20'

\$\$\$\$\$SYTIME\$\$\$\$\$
 \$\$\$SERNAME\$\$\$\$\$



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 LANDSCAPE DESIGN & DEVELOPMENT
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DUNN ROUNDABOUT
 HARNETT COUNTY
 CONTRACT #: 33920.1.1

REV. DESIGNER
Kyle Cooper

SHEET DESCRIPTION:	PREL DESIGN DATE: JAN. 2015
	CHECKED BY & DATE:
	FINAL DESIGN DATE: FEB. 2015

EXISTING UTILITIES PLAN
LANDSCAPE PLAN SHEET



T.I.P. # W-5501
WBS # 33920.1.1
FED I.D. #
SHEET NO: TOTAL SHEET NO:
L-3 10



ASHE AVE.

POWELL AVE.

- 3.5' WIDE MULCH BORDER
- 2- HELLER'S JAPANESE HOLLY
- 1-FRIDGE TREE
- 5- DOUBLE RED KNOCKOUT ROSE
- 7- POPCORN DRIFT ROSE

REMOVE EXISTING SOIL AT A DEPTH OF 1' AND ADD NEW TOP SOIL (WEED FREE) AT A DEPTH OF 1' THROUGHOUT THE ENTIRE CIRCLE

57-POPCORN DRIFT ROSE

2-DYNAMITE CRAPE MYRTLE

27-DOUBLE RED KNOCKOUT ROSE

32-HELLER'S JAPANESE HOLLY

126- WHITE CLOUD MUHLY GRASS

89-PINK MUHLY GRASS

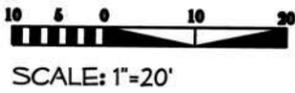
NOTE:

*REMOVE TOP LAYER OF EXISTING SOIL AT A DEPTH OF 1 FOOT FROM THE ENTIRE INNER CIRCLE OF THE ROUNDABOUT AND REPLACE WITH SCREENED HIGH QUALITY TOP SOIL (WEED FREE). GRADE THE NEW SOIL SO THAT THERE IS A CROWN AT THE CENTER POINT OF THE CIRCLE THAT SLOPES AT A 2% OR GREATER TOWARDS THE INNER CONCRETE EDGE OF THE ROUNDABOUT, SO THAT ADEQUATE DRAINAGE IS PROVIDED. SEE DETAIL ON SHEET L-2

*ALL GRADING AND PLANT BED LAYOUTS MUST BE APPROVED BY ROADSIDE ENGINEER BEFORE PLANTING. ENGINEER MUST APPROVE ANY PLANT BED CHANGES AS WELL.

KEY

	EXISTING POWER UG CABLE
	EXISTING VEGETATION
	ONE-WAY SIGN
	SEWER CAP
	WATER METER



KEY	BOTANICAL NAME	COMMON NAME	FURNISH	SIZE	REMARKS
CY	CHIONANTHUS VIRGINICUS	FRINGE TREE	B&B	5-6'	AS SHOWN
IH	ILEX CRENATA 'HELLER'	HELLER'S JAPANESE HOLLY	#3 CONT.	18-24"	4' O.C.
LD	LAGERSTROEMIA INDICA	DYNAMITE CRAPE MYRTLE	B&B	5-6'	3-4 STEMS
MC	MUHLENBERGIA CAPILLARIS	PINK MUHLY GRASS	#3 CONT.	18-24"	3' O.C.
AW	MUHLENBERGIA CAPILLARIS 'WHITE CLOUD'	WHITE MUHLY GRASS	#3 CONT.	18-24"	3' O.C.
RA	ROSA 'NOVAROSP'	POPCORN DRIFT ROSE	#3 CONT.	8-12"	2.5' O.C.
RR	ROSA X RADTKO'	DOUBLE RED KNOCKOUT ROSE	#3 CONT.	18-24"	4' O.C./ 3 CANES

POWELL AVE.

ASHE AVE.

\$\$\$\$\$SYTIME\$\$\$\$\$
 \$\$\$SERVTIME\$\$\$



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DUNN ROUNDABOUT
 HARNETT COUNTY
 CONTRACT #: 33920.1.1

REV. DESIGNER

PREL. DESIGN DATE:	JAN. 2015
CHECKED BY & DATE:	
FINAL DESIGN DATE:	FEB. 2015

ENHANCEMENT PLAN
 LANDSCAPE PLAN SHEET



T.I.P. #	W-5501
WBS #	33920.1.1
FED. I.D. #	
SHEET NO.:	L-4
TOTAL SHEET NO.:	10



- REMOVE EXISTING SOIL AT A DEPTH OF 1' AND ADD NEW TOP SOIL (WEED FREE) AT A DEPTH OF 1' THROUGHOUT THE ENTIRE CIRCLE
- 57-POPCORN DRIFT ROSE
- 2-DYNAMITE CRAPE MYRTLE
- 27-DOUBLE RED KNOCKOUT ROSE
- 32-HELLER'S JAPANESE HOLLY
- 126- WHITE CLOUD MUHLY GRASS
- 89-PINK MUHLY GRASS

- 3.5' WIDE MULCH BORDER
- 21- HELLER'S JAPANESE HOLLY
- 1-FRINGE TREE
- 5- DOUBLE RED KNOCKOUT ROSE
- 7- POPCORN DRIFT ROSE

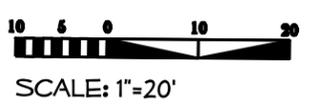
NOTE:

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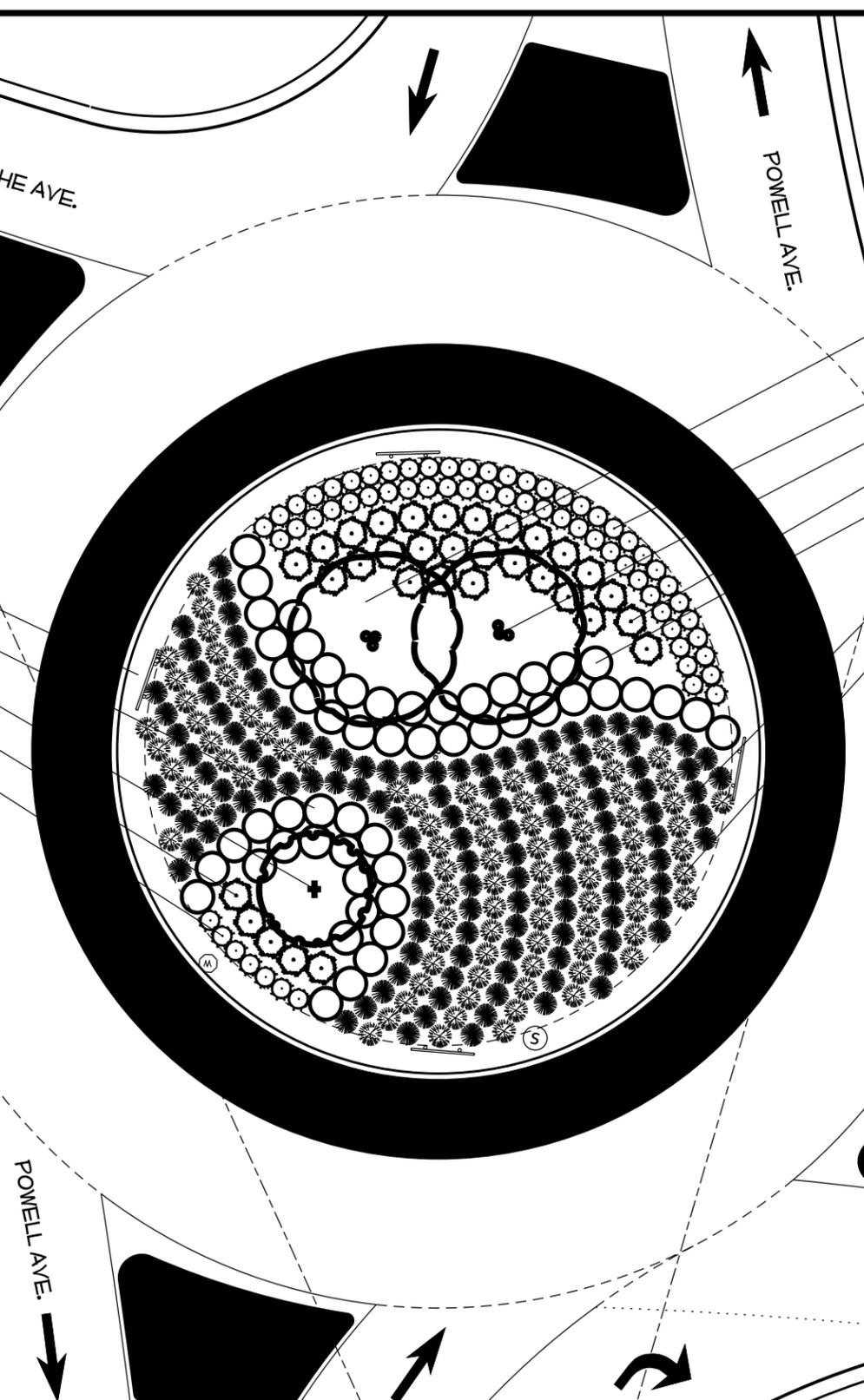
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KEY

	EXISTING POWER UG CABLE
	EXISTING VEGETATION
	ONE-WAY SIGN
	SEWER CAP
	WATER METER



KEY	BOTANICAL NAME	COMMON NAME	FURNISH	SIZE	REMARKS
CY	CHIONANTHUS VIRGINICUS	FRINGE TREE	B&B	5-6'	AS SHOWN
IH	ILEX CRENATA 'HELLER'	HELLER'S JAPANESE HOLLY	#3 CONT.	18-24"	4' O.C.
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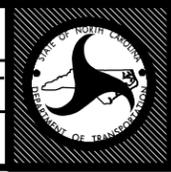
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DUNN ROUNDABOUT
 HARNETT COUNTY
 CONTRACT #: 33920.1.1

REV. DESIGNER
Kyle Cooper

PREL DESIGN DATE:	JAN. 2015
CHECKED BY & DATE:	
FINAL DESIGN DATE:	FEB. 2015

PLANTING PLAN
 LANDSCAPE PLAN SHEET



T.I.P. # W-5501
WBS # 33920.1.1
FED I.D. #
SHEET NO: L-5
TOTAL SHEET NO: 10



NOTE:

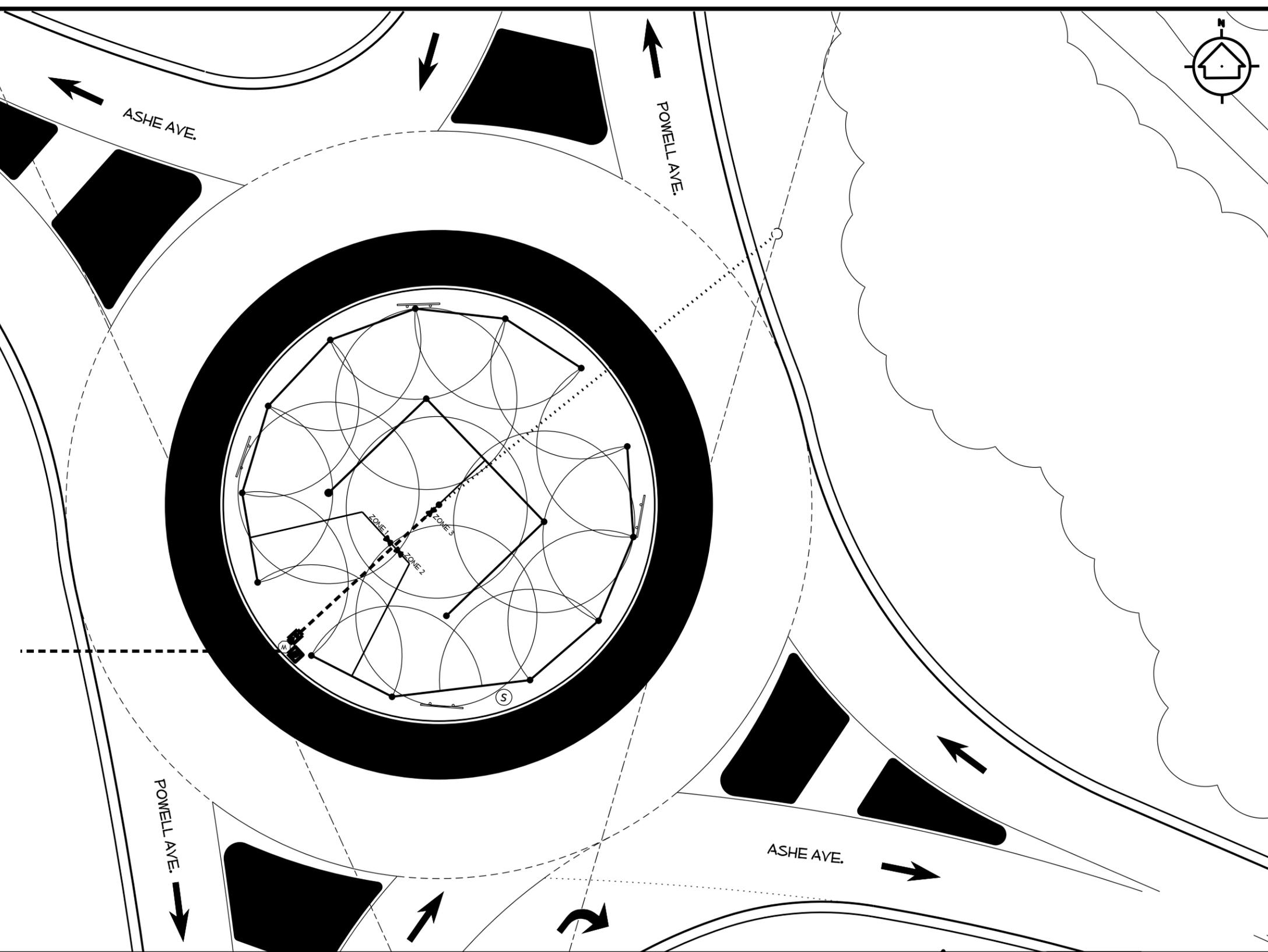
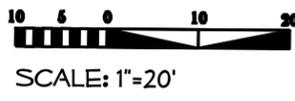
*ALL IRRIGATION CONTRACTORS MUST BE A LICENSED TO PERFORM WORK ASSOCIATED WITH CONSTRUCTION OR CONTRACTING OF IRRIGATION SYSTEMS. (NC G.S. 89G)

*ALL HEADS SHOULD BE FITTED WITH SPRINKLER ADJUSTABLE ALUMINUM RISERS 6" TO 30" TO ENSURE APPROPRIATE SPRAY COVERAGE. RISERS MAY BE REMOVED ONCE PLANTS HAVE ADEQUATELY MATURED AND ROOTS ARE ESTABLISHED (MUST BE APPROVED BY ROADSIDE ENGINEER).

* REFER TO IRRIGATION NOTES SHEET FOR MATERIAL SPECS. (SHEET L-7)

KEY

- BACKFLOW
- EXISTING POWER UG CABLE
- EXISTING VEGETATION
- BATTERY CONTROLLER
- ELECTRICAL LINE AND ACCESS
- EXISTING MAIN LINE
- 1" LATERAL LINE
- IRRIGATION POP-UP HEAD LOCATION
- ONE-WAY SIGN
- SEWER CAP
- SPRAY RADIUS
- VALVE
- EXISTING WATER METER



\$\$\$\$\$SYTIME\$\$\$\$\$
 \$\$\$SERNAME\$\$\$\$\$



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DUNN ROUNDABOUT
 HARNETT COUNTY
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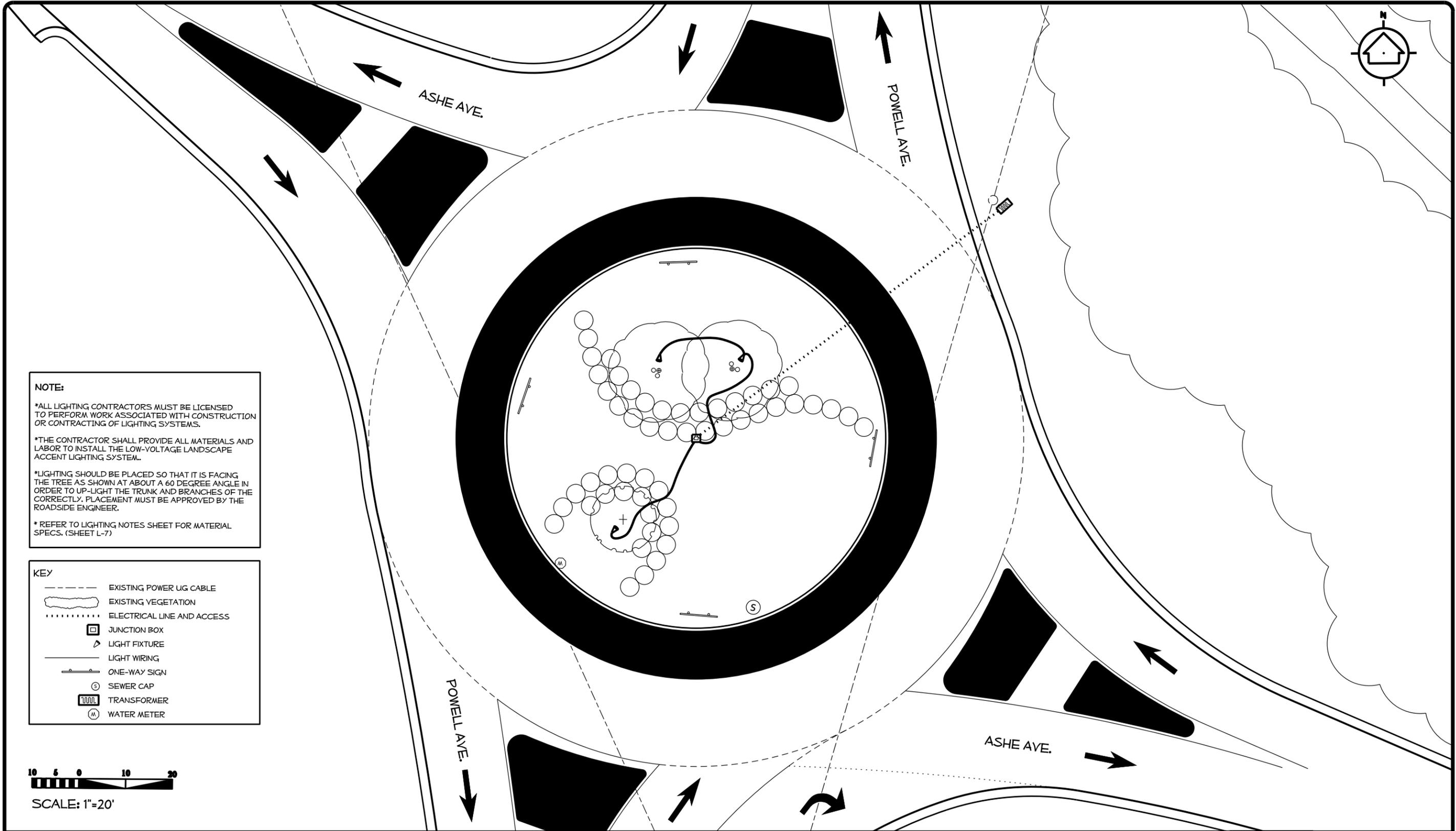
REV. DESIGNER
Kyle Cooper

PREL DESIGN DATE:	JAN. 2015
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IRRIGATION PLAN
 LANDSCAPE PLAN SHEET



T.I.P. # W-5501
WBS # 33920.1.1
FED I.D. #
SHEET NO: TOTAL SHEET NO:
L-6 10

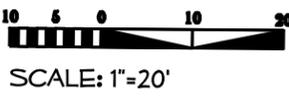


NOTE:

- *ALL LIGHTING CONTRACTORS MUST BE LICENSED TO PERFORM WORK ASSOCIATED WITH CONSTRUCTION OR CONTRACTING OF LIGHTING SYSTEMS.
- *THE CONTRACTOR SHALL PROVIDE ALL MATERIALS AND LABOR TO INSTALL THE LOW-VOLTAGE LANDSCAPE ACCENT LIGHTING SYSTEM.
- *LIGHTING SHOULD BE PLACED SO THAT IT IS FACING THE TREE AS SHOWN AT ABOUT A 60 DEGREE ANGLE IN ORDER TO UP-LIGHT THE TRUNK AND BRANCHES OF THE CORRECTLY. PLACEMENT MUST BE APPROVED BY THE ROADSIDE ENGINEER.
- *REFER TO LIGHTING NOTES SHEET FOR MATERIAL SPECS. (SHEET L-7)

KEY

	EXISTING POWER UG CABLE
	EXISTING VEGETATION
	ELECTRICAL LINE AND ACCESS
	JUNCTION BOX
	LIGHT FIXTURE
	LIGHT WIRING
	ONE-WAY SIGN
	SEWER CAP
	TRANSFORMER
	WATER METER



\$\$\$\$\$SYTIME\$\$\$\$\$
 \$\$\$SERNAME\$\$\$\$\$



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DUNN ROUNDABOUT
 HARNETT COUNTY
 CONTRACT #: 33920.1.1

REV. DESIGNER
Kyle Cooper

PREL DESIGN DATE:	JAN. 2015
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LIGHTING PLAN
 LANDSCAPE PLAN SHEET



T.I.P. # W-5501
WBS # 33920.1.1
FED I.D. #
SHEET NO: L-7 TOTAL SHEET NO: 10

IRRIGATION NOTES & LEGEND

*IRRIGATION CONTRACTOR MUST BE LICENSED BY THE BOARD UNDER CHAPTER (2008-177, S.1; 2013-383, S.3)

HEADS: (MAY BE OF COMPARABLE MANUFACTURE AND PERFORMANCE TO BRAND NAMED)

- - HUNTER SERIES PRO-SPRAY PROS-12 POP UP - 12" POP UP SPRINKLER HEAD FITTED WITH PRO ADJUSTABLE 17A SERIES SPRAY NOZZLE
- ALL HEADS WITH A 12" POP UP STROKE, IF INSTALLED WITH LESS THAN 1/3 OF THE SPRINKLER BODY EXPOSED ABOVE GRADE, SHALL BE INSTALLED ON POLYETHYLENE FLEX SWING JOINTS POLY PIPE FITTED WITH (3/8" INSERT BY 1/2" M.P.T. AND /OR 3/8" INSERT BY 1/4" M.P.T.) ELBOWS. IF GREATER THAN 1/3 OF THE SPRINKLER BODY IS EXPOSED THEN THE 12" POP UP HEAD SHALL BE MOUNTED ON A SCHEDULE 40 PVC PIPE RISER AS DESCRIBED BELOW IN RELATION TO MOUNTING SHRUB HEAD MODELS. IN MOUNTING 12" POP UP HEADS ON SHRUBS TYPE RISERS CARE SHALL BE TAKEN TO INSTALL THE HEAD IN SUCH A MANNER THAT SURROUNDING PLANT MATERIAL (PLANNED OR EXISTING) WILL HIDE THE BODY OF THE SPRINKLER.
- ALL POP UP IRRIGATION HEADS DESIGNED ADJACENT TO CURBS OR PAVEMENT SHALL BE INSTALLED WITH A CLEARANCE OF 1/2" FROM THE EDGES OF ALL PAVED AREAS TO PROVIDE FOR EDGING AND MAINTENANCE OPERATIONS. HEADS INSTALLED ON SHRUB RISERS OR WITH THE TOP OF THE HEAD MORE THAN 1/2" ABOVE GRADE SHALL BE INSTALLED WITH A MINIMUM 6" CLEARANCE FROM PAVED AREAS.
- ALL THREADED PIPE CONNECTIONS SHALL BE ASSEMBLED USING TEFLON THREAD SEALING TAPE.

PIPE

- ▬ - DENOTES ROUTES OF PR 200 PVC LATERAL PIPING. SIZE OF LATERAL PIPING SHALL BE AS NOTED BELOW. MINIMUM DEPTH OF COVER OVER LATERAL PIPING TO BE 12"

LATERAL PIPING SIZING SCHEDULE;
SUMMATION OF GALLONAGE DEMAND ON THE PARTICULAR BRANCHES OF PIPE WITHIN A CONTROL SECTION SHALL BE DETERMINED BY USING THE GPM FOR A NOZZLE BASED ON A 75 PSI BASE OF HEAD PRESSURE AND FULL RADIUS AT THAT PRESSURE AS REPORTED IN THE HUNTER 2013 IRRIGATION PRODUCTS CATALOG. PIPE SIZES FOR THE LATERALS SHALL BE AS FOLLOWS:

ZERO TO FIFTEEN GPM ACCUMULATED FLOW USE 1" PR 200 PVC PIPE GREATER THAN FIFTEEN UP TO THIRTY-FIVE GPM USE 1" PR 200 PVC PIPE FRICTION LOSS ALLOWANCES FOR THIS PROJECT HAVE BEEN DETERMINED USING THE ABOVE FLOW RANGES AND DEMANDS

- ■ - DENOTES ROUTE OF EXISTING MAIN LINE PIPING.
- SIZE OF PIPE TO BE 1/2" IN MINIMUM OR USE EXISTING LINE IF AVAILABLE
- DEPTH OF MAINLINE PIPING TO BE 18" MINIMUM
- PIPING SHALL BE PR 200 SOLVENT WELD PVC PIPE WITH SCHEDULE 40 PVC SOLVENT WELD FITTING UNLESS OTHERWISE NOTED.
- ALL PIPING RUNS SHALL BE "SNAKED" IN THE TRENCH DURING INSTALLATION TO PREVENT EXCESSIVE STRAIN DUE TO THERMAL EXPANSION OR CONTRACTION.
- THE CONTRACTOR SHALL TAKE ALL PRECAUTIONS NECESSARY TO AVOID DAMAGING PLANTINGS (INCLUDING ROOTS) DURING INSTALLATION OF THE IRRIGATION SYSTEM AND SHALL COORDINATE HIS EFFORTS WITH THE LANDSCAPE CONTRACTOR SO AS TO OPTIMIZE THE EFFICIENCY AND THE AESTHETIC QUALITY OF THE INSTALLATION

VALVES: (MAY BE OF COMPARABLE MANUFACTURE AND PERFORMANCE TO BRAND NAMED)

- ▶ ◀ - LOCATION OF ELECTRIC 24 V.A.C. REMOTE CONTROL VALVE WITH FLOW CONTROL FEATURE (MODEL # TPFV100DC SOLENOIDS).
- ALL IN-LINE REMOTE CONTROL VALVES SHALL BE INSTALLED IN CARSON VALVE BOXES WITH LIDS MOUNTED AT GRADE LEVEL. SINGLE VALVES MAY BE INSTALLED IN CARSON MODEL #910-1 VALVE BOX WITH #910-2 COVER, WHILE MULTIPLE VALVES (UP TO, TWO 1" VALVES OR ONE, 1-1/2" SHALL BE INSTALLED IN CARSON MODEL #1419-1 BOX WITH #1419-2 COVER

BACK FLOW PREVENTION

- ⊠ - DENOTES THE LOCATION OF REDUCED PRESSURE BACK FLOW PREVENTER ASSEMBLY WHICH SHALL BE THE RESPONSIBILITY OF THE IRRIGATION CONTRACTOR. THE BACK FLOW SHALL BE 1" IN SIZE. THE BACK FLOW ASSEMBLY SHALL BE INSTALLED DOWNSTREAM OF THE IRRIGATION METER AS SHOWN ON THE LAYOUT. THE UNIT MUST BE INSTALLED IN ACCORDANCE WITH ALL LOCAL AND STATE CODE REQUIREMENTS AND SHALL HAVE AN APPROVED COVER.

WATER SUPPLY

- (M) - CONTRACTOR SHALL TAP EXISTING WATER METER (1")
- DENOTES THE LOCATION OF THE EXISTING IRRIGATION METER.

THE METER IS 1" IN SIZE. SINCE THE WATER SUPPLY FOR THE SYSTEM SHALL BE POTABLE WATER, THE CONTRACTOR WILL BE REQUIRED TO INSTALL BACK FLOW PREVENTION DEVICE WHICH WILL BE LOCATED DOWNSTREAM OF THE IRRIGATION METER AS NOTED ON PLAN.
THIS IRRIGATION SYSTEM SHALL BE CAPABLE OF DELIVERING 33 GPM MINIMUM WITH ONE CONTROL STATION OPERATING AT A TIME AT 75 PSI AT THE BASE OF THE HEAD FOR OPTIMUM PERFORMANCE OF THE IRRIGATION SYSTEM.

CONTROLLER: (MAY BE OF COMPARABLE MANUFACTURE AND PERFORMANCE TO NAMED BRAND)

- [B] - LOCATION OF IRRIGATION BATTERY CONTROLLER. THE CONTROLLER SHALL BE CUSTOM COMMAND (DDCWP-6-9V SERIES) SOLID STATE UNIT APPROXIMATE LOCATION SHOWN ON THE PLAN
BATTERY OPERATED CONTROLLER IS TO BE PLACED IN CARSON VALVE BOXES MODEL #910-1VALVE WITH #910-2 COVER

THE LANDSCAPE AND HARDSCAPE

THE IRRIGATION SYSTEM IS DISPLAYED SCHEMATIC IN NATURE. THE IRRIGATION CONTRACTOR MAY BE REQUIRED TO MAKE MINOR ADJUSTMENTS IN THE FIELD. THESE MINOR ADJUSTMENTS SHALL BE MADE AT NO ADDITIONAL COST TO THE OWNER BUT SHALL BE MADE ONLY AFTER NOTIFICATION IS MADE TO OWNER. (NC DOT)
- THE CONTRACTOR SHALL FAMILIARIZE HIMSELF WITH THE SITE SO THAT HE IS AWARE OF ANY SPECIAL CONDITIONS WHICH EXIST THAT MAY AFFECT HIS BID PROPOSAL AND SHALL THEREAFTER BE RESPONSIBLE FOR ALL COST INCURRED BY HIMSELF IN RELATION TO THE INSTALLATION.

LIGHTING NOTES & LEGEND

LOW VOLTAGE LIGHT FIXTURE: (MAY BE OF COMPARABLE MANUFACTURE AND PERFORMANCE TO NAMED BRAND)

- ⚡ - DENOTES THE LOCATION OF EACH DABMAR LV203 DIRECTIONAL SPOT LIGHT WITH HOOD (50 WATT MAXIMUM).
- FIXTURE SHOULD BE LOW VOLTAGE AND IN A BROWN OR BLACK COLOR WITH LED BULBS .
- STAKES OF THE SAME COLOR SHOULD BE PROVIDED FOR IN-GROUND STABILIZATION.
- CONTRACTOR SHALL PROVIDE AND INSTALL SPECIFIED FIXTURES, LAMPS, STAKES AND MOUNT AS NOTED ON THE LANDSCAPE LIGHTING PLANS. ALL WATTAGES AND BEAM SPREADS AS DETAILED ON THE LIGHTING DESIGN. FINAL ADJUSTMENT OF THE SYSTEM IS THE RESPONSIBILITY OF THE CONTRACTOR AT THE DISCRETION THE ENGINEER. FINAL ADJUSTMENT WILL BE DONE AT NO ADDITIONAL EXPENSE TO THE CLIENT. ALL LAMPS SHALL OPERATE IN THE ACCEPTABLE RANGE OF BETWEEN 10.8 TO 12 VOLTS. IDEAL OPERATING VOLTAGE IS 11.5 VOLTS. IF REQUIRED, CONTRACTOR SHALL DEMONSTRATE IN THE FIELD THE OPERATING VOLTAGES OF THE SYSTEM TO THE THE ENGINEER.

WIRING

- - DENOTES THE LOCATION OF #12 GAUGE 2-CONDUCTOR LIGHTING CABLE.

LOW VOLTAGE JUNCTION BOX: (MAY BE OF COMPARABLE MANUFACTURE AND PERFORMANCE TO NAMED BRAND)

- - LOCATION OF LOW VOLTAGE JUNCTION BOX.
- ELECTRICAL JUNCTION BOX / SPIDER SPLICE AND RECORD TAG; THE BELOW GRADE BOX SHALL BE NEMA RATED FOR UNDERGROUND USE AND SIZED TO HOUSE ALL WIRING AND RECORD TAGS. CONTRACTOR SHALL INCLUDE WITHIN EACH JUNCTION BOX / SPIDER SPLICE A TAG NOTING EACH AS BUILT WIRE RUN TO AND FROM THE BOX.. THE TAG SHALL BE CONSTRUCTED OF NON-DEGRADABLE WATERPROOF MATERIAL. NOTATION ON EACH TAG CAN BE STAMPED AND/OR WRITTEN IN LEGIBLE WATERPROOF INK. AS-BUILT RECORDS SHALL INDICATE OFF-GRADE INFORMATION, THE WIRE RUN NUMBER, TRANSFORMER NUMBER, LAMP INSTALLED, AND THE INDIVIDUAL NUMBERED FIXTURE ON THE WIRE RUN AND TOTAL FIXTURES ON THE WIRE RUNS. THE AS-BUILT RECORD TAGS WILL INSURE THAT THE LONG-TERM MAINTENANCE OF THE SYSTEM IS CARRIED OUT FOLLOWING THE ORIGINAL DESIGN OF THE SYSTEM.

LOW VOLTAGE TRANSFORMER: (MAY BE OF COMPARABLE MANUFACTURE AND PERFORMANCE TO NAMED BRAND)

- ⊞ - LOCATION OF 12-VOLT TRANSFORMER WITH DIGITAL TIMER AND DUSK-TO-DAWN SENSOR.
- PROVIDE AND INSTALL 12-VOLT (150 WATT) UL LISTED TRANSFORMER. TRANSFORMER SHALL BE MOUNTED FOLLOWING SPECIFICATIONS IN THE TRANSFORMER STAND DETAIL DRAWING. TRANSFORMER INSTALLATION SHALL INCLUDE ROMEX STRAIN RELIEF CONNECTORS ON ALL SECONDARY WIRING ENTERING THE TRANSFORMER. SHOULD CONTRACTOR CHOOSE TO INSTALL HARD PIPE CONDUIT, A VALVE BOX SHALL BE PLACED DIRECTLY UNDER TRANSFORMER WHERE HARD PIPE CONDUIT WILL TERMINATE. VALVE BOX WILL ALLOW SLACK WIRE COLLECTION POINT TO ALLOW FUTURE SERVICING AND CLEANER INSTALLATION. TRANSFORMER CABINET SHALL BE CONSTRUCTED OF STAINLESS STEEL WITH MANUFACTURER APPLIED BLACK POWDER COATING TRANSFORMER SHALL INCLUDE QUICK CONNECT FEATURE TO ALLOW THE QUICK INSTALLATION OF A PHOTO CELL OR 20' REMOTE PHOTO CELL IF REQUIRED AT A LATER DATE. IF NOT ALREADY INCLUDED, TRANSFORMER SHALL INCLUDE PLUG POINT FOR TIMER OR X-10 UNIT FOR ON/OFF CONTROL. A PLUG IN, DIGITAL SETTINGS, MULTI-FUNCTION TIMER SHALL BE PROVIDED WITH EACH INSTALLED TRANSFORMER. TRANSFORMER SHALL INCLUDE 125 AMPERAGE RATED TERMINAL BLOCK SECONDARY FIELD WIRING CONNECTION POINT. NO WIRE NUT SECONDARY WIRING CONNECTIONS SHALL BE ALLOWED AT THE TRANSFORMER. ALL INTERNAL TRANSFORMER WIRING SHALL BE 140°C RATED HIGH TEMPERATURE TIN-COATED WIRE. NO INTERNAL WIRING LESS THAN 140°C TIN-COATED SHALL BE ALLOWED. TRANSFORMER SHALL BE CAPABLE OF LOADING 100% OF THE LOAD OF THE TRANSFORMER ON ANY OF THE SECONDARY FIELD TAPS 12V, 13V, 14V, 15V, 16V, 17V AND 18 VOLTS. TRANSFORMER SHALL HAVE VOLTAGE TAPS OF 12V, 13V, 14V, 15V, 16V, 17V AND 18 VOLTS. MOUNT TRANSFORMER BOX TO NOTED LOCATION AND AS DIRECTED/APPROVED BY THE ENGINEER.

GENERAL INFORMATION

- CONTRACTOR SHALL TAKE AMPERAGE READINGS ON ALL SECONDARY FIELD CIRCUIT WIRES WHEN DONE WITH THE INSTALLATION AND RECORD THE READINGS ON THE INSIDE OF THE TRANSFORMER COVER ON THE STICKER PROVIDED WITH A FINE POINT PERMANENT MARKER. CONTRACTOR SHALL BURY ALL SECONDARY WIRES A MIN. OF 8" DEPTH FROM SURFACE. CONTRACTOR SHALL SLEEVE ALL WIRES ENTERING PLANTING BEDS FROM TURF OR UNDER WALKS WITHIN PRE-INSTALLED 3" PVC. REVIEW LANDSCAPE PLANS, AND CONFIRM WITH THE ENGINEER, ON EXACT LOCATIONS OF SLEEVES . CONTRACTOR SHALL LEAVE ALL EXCESS FIXTURE WIRE AT THE FIXTURE TO ALLOW EASY FIELD ADJUSTMENT OF THE FIXTURE IF REQUIRED.



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DUNN ROUNDABOUT
HARNETT COUNTY
CONTRACT #: 33920.1.1

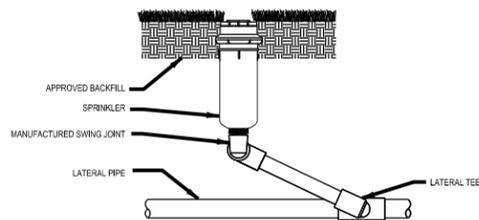
REV. DESIGNER
Kyle Cooper

SHEET DESCRIPTION:	PREL. DESIGN DATE: JAN. 2015
	CHECKED BY & DATE:
	FINAL DESIGN DATE: FEB. 2015

IRRIG./LIGHTING NOTES
LANDSCAPE PLAN SHEET



T.I.P. # W-5501	
WBS # 33920.1.1	
FED I.D. #	
SHEET NO: L-8	TOTAL SHEET NO: 10

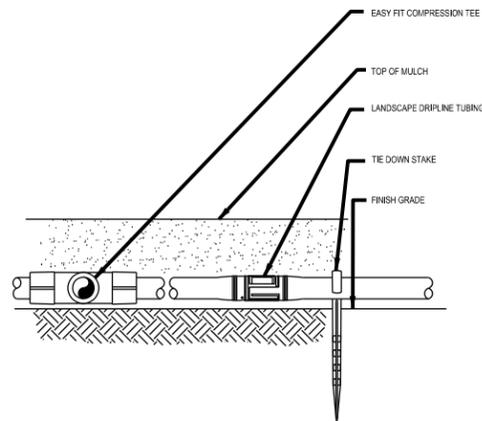


SECTION/ELEVATION
NOT TO SCALE

- SELECT DESIRED OPTION
- SUPER FLUNNY PIPE
 - SWING JOINT (SHOWN)
 - RISER

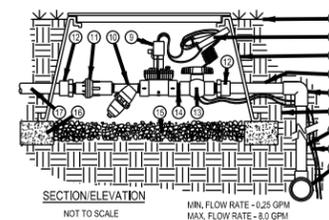
NOTES:
1. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
2. DO NOT SCALE DRAWINGS.
3. INSTALL SPRINKLER AT FINISHED GRADE.

LAWN SPRINKLERS: POP-UP (TYP)
SINGLE-STREAM SPRINKLER, SWING JOINT



NOTES:
1. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
2. DO NOT SCALE DRAWINGS.

LANDSCAPE DRIPLINE ON GRADE (TYP)
POTABLE SYSTEM (N.T.S.)

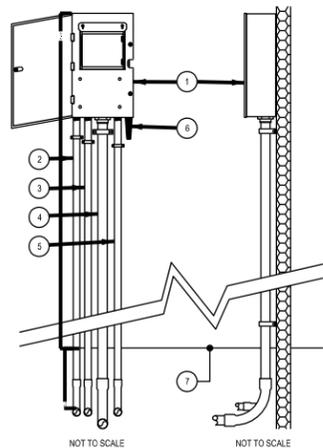


SECTION/ELEVATION
NOT TO SCALE

- LEGEND
- 1. LENGTH AS REQUIRED, 5-SCH 40 PVC ELL (SXS).
 - 2. 6-NATIVE SOIL PER SPECIFICATIONS.
 - 3. 7-CONTROL WIRES TO CONTROLLER.
 - 4. 8-PVC MAINLINE FITTING.
 - 4. 4-COMMON BRICKS (REQUIRED).
 - 17. LATERAL LINE TO DRIP SYSTEM.
 - (*) PARTS IN DRIP ZONE KIT.

NOTES:
1. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
2. DO NOT SCALE DRAWINGS.

DRIP ZONE KIT (TYP)



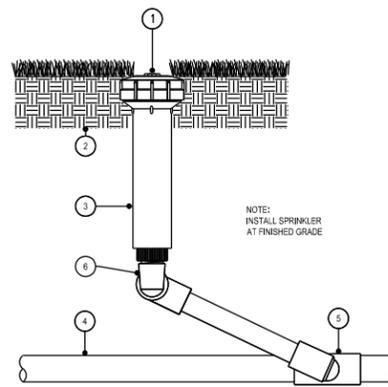
- 1. SMALL METAL CABINET WALL MOUNT IRRIGATION CONTROLLER. SEE PLAN FOR NUMBER OF STATIONS.
- 2. 1/2" CONDUIT FOR ELECTRICAL POWER PER LOCAL AND NATIONAL ELECTRICAL CODES. OPTIONAL 3/4" KNOCK-OUT IF LARGER CONDUITS ARE USED.
- 3. OPTIONAL 1/2" KNOCK-OUT FOR RAIN SENSOR WIRE.
- 4. 2" CONDUIT FOR REMOTE CONTROL WIRES AND MV OR PUMP START WIRES. OPTIONAL 3" KNOCK-OUT IF LARGER WIRES ARE USED. SECURE TO WALL WITH APPROPRIATE PIPE CLAMPS.
- 5. 3/4" KNOCK-OUT FOR EARTH GROUND WIRES.
- 6. MOUNTED NARROWBAND ANTENNA
- 7. FINISHED GRADE

NOTES:
1. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
2. DO NOT SCALE DRAWINGS.

CONTROLLER WALL MOUNT (TYP)
WALL-MOUNT CONTROLLER, METAL

LEGEND

- 1. MPR PLUS NOZZLE (SIZE PER PLAN)
- 2. APPROVED BACKFILL
- 3. SPRINKLER
- 4. LATERAL PIPE
- 5. LATERAL TEE
- 6. MANUFACTURED SWING JOINT

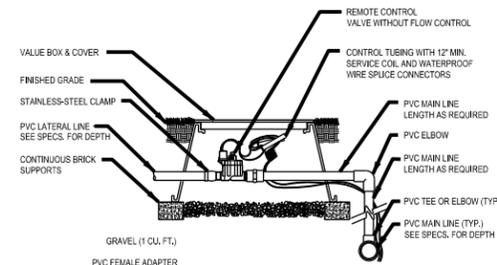


NOTE:
INSTALL SPRINKLER AT FINISHED GRADE

SECTION/ELEVATION
NOT TO SCALE

NOTES:
1. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
2. DO NOT SCALE DRAWINGS.

ROTOR SPRINKLER (TYP)
4 INCH POP-UP (SWING JOINT)



SECTION/ELEVATION
NOT TO SCALE

NOTES:
1. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
2. DO NOT SCALE DRAWINGS.

VALVES & BOX (TYP)
1" PLASTIC VALVE, M&B



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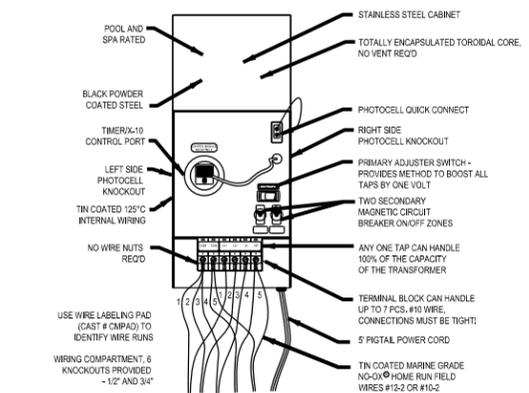
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IRRIGATION DEATILS
SPECS. SHEET



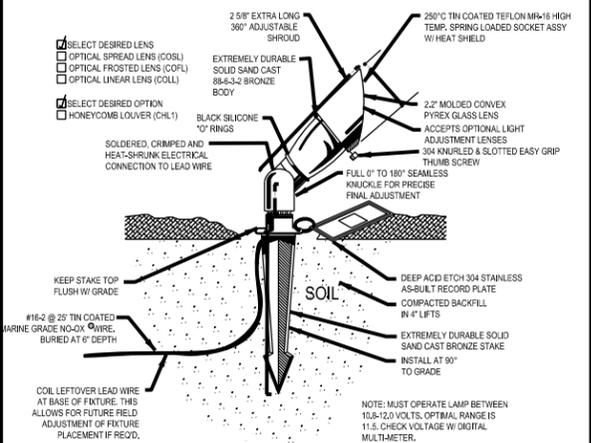
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TOTAL SHEET NO: 10



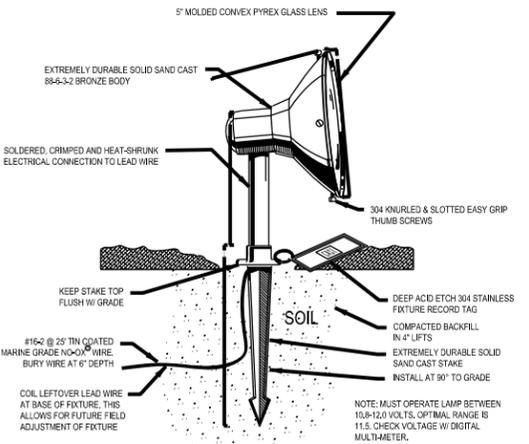
- NOTES:
1. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
 2. DO NOT SCALE DRAWINGS.
 3. ENSURE THAT HOME RUN WIRES ARE TIGHT IN THE TERMINAL BLOCKS. LOOSE POOR CONNECTIONS WILL MELT THE BLOCK AND DAMAGE THE TRANSFORMER.
 4. INCLUDES FIELD REPAIRABLE BREAKERS, TERMINAL, TIMERS AND PHOTOCELL.

MULTI-TAP TRANSFORMERS (TYP)



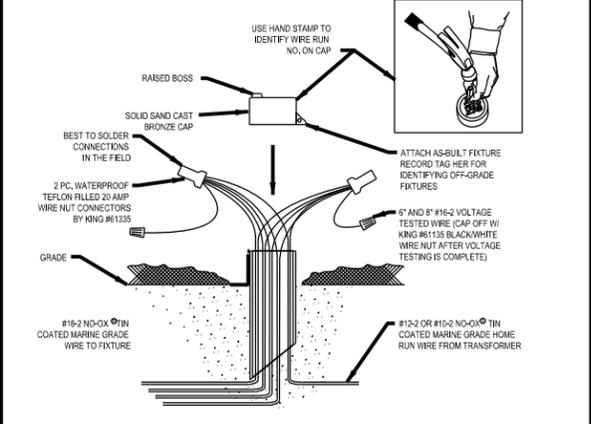
- NOTES:
1. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
 2. DO NOT SCALE DRAWINGS.
 3. MAX. LAMP RATING 50 WATT.
 4. USE ONLY COVERED MR-16 LAMPS, LAMP NOT INCLUDED.
 5. DO NOT MOUNT IN TREES.
 6. ALWAYS REFER TO PRODUCT INSTRUCTION SHEET PRIOR TO INSTALLATION.
 7. REFERENCE NUMBER 634202.

SPOT LIGHT FIXTURE



- NOTES:
1. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
 2. DO NOT SCALE DRAWINGS.
 3. MAX. LAMP RATING 50 WATT.
 4. INCLUDES WEDGE BASE NIPPON HALOGEN, 25 WATT LAMP.
 5. ALWAYS REFER TO PRODUCT INSTRUCTION SHEET PRIOR TO INSTALLATION.

WALL WASH LIGHT FIXTURE



- NOTES:
1. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
 2. DO NOT SCALE DRAWINGS.
 3. MAKE SURE TO TUG ON WIRES THAT ENTER WIRE NUT TO ENSURE SOLID CONNECTION. THE MOST COMMON FAILURE POINT ON A LIGHTING SYSTEM IS AT WIRE NUT.
 4. PLACE SPIDER SPLICE IN OUT OF THE WAY LOCATION TO AVOID DAMAGE BY MAINTENANCE EQUIPMENT.
 5. NOT GREASE FILLED WIRE NUTS CAN BE USED FOR ANY WIRE SPLICE.
 6. REFERENCE NUMBER 634421.

SPIDER SPLICE/ JUNCTION BOX



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LIGHTING DETAILS
 SPECS. SHEET



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