## **BOARD OF SUPERVISORS**

## **MADISON COUNTY, MISSISSIPPI**

Department of Engineering Tim Bryan, P.E., PTOE, County Engineer 3137 South Liberty Street, Canton, MS 39046 Office (601) 855-5582 FAX (601) 859-5857

### **MEMORANDUM**

June 2, 2025

To: Casey Brannon, Supervisor, District I Trey Baxter, Supervisor, District II Gerald Steen, Supervisor, District III Karl Banks, Supervisor, District IV Paul Griffin, Supervisor, District V

From: Tim Bryan, P.E., PTOE County Engineer

Re: Telepak Networks/D.B.A. Cspire Utility Permit County Road Name, Cane Creek Road

The Engineering Department recommends approval for Cspire to construct fiber-optic internet utility, by method of directional bore, within the right of way of Cane Creek Road as shown on the attached plans

Revised: 2/14/2019



## PERMIT APPLICATION FOR THE CONSTRUCTION OR ADJUSTMENT OF A UTILITY WITHIN COUNTY ROAD RIGHT-OF-WAY

<u> Utility Information:</u>	Utility Name:			
Address:			City/State/Zip:	
Contact Person:			Contact's Phone:	
Project Information:				se Appendix 1 for additional descriptions,
Beginning Location:				
Length of Project:	Sec	tion:	_ Township:	Range:
Description of Work: _				
Check Box if Appendix	x 1 is to be included as a	part of this Appli	cation	

Whereas the above stated Utility makes application to the **Madison County Board of Supervisors** for a Construction Permit. Attached hereto are drawings and plans for the construction of the above facilities located within Madison County owned public rights-of-way. Once stamped by the Madison County Engineering Department, these plans shall not be changed or altered without written approval of the County Engineer, or his representative. A copy of the approved permit and plans shall be on-site at all times during construction.

The Applicant Utility shall comply with all policies, procedures and construction practices as outlined in *A Policy for The Accommodation of Utility Facilities within the Right-of-Way of all Public County Roads* (hereinafter referred to as the "Policy"), as adopted on November 1, 2005, by the **Madison County Board of Supervisors**, and which is hereby made a part of this Application Agreement.

If facilities are to be located within the Rights-of-Way of the County-Federal or State Aid System, Applicant Utility also agrees to comply with applicable provisions of *S.O.P. No. SA II-2-8, Accommodation of Utilities on Rights-of-Way,* issued by the State Aid Engineer and dated July 1, 2005.

The Applicant Utility understands and agrees that, except as herein granted, no right, title, claim, or easement to said road right-of-way is granted by the issuance of this permit. If this Utility is listed in the general provisions of the Policy, it will be adjusted to comply with same without cost to the County, unless the variance from the Policy has been approved by the granting of the Permit pursuant to this Application.

The Applicant Utility further understands that the Utility's engineering, plant, or other personnel will be responsible for the staking and construction supervision of the work set out above and as shown on the attached plans. If work impacts traffic in any way, the appropriate traffic control shall be installed per the *Manual of Uniform Traffic Control Devices*, Latest Edition.

The Applicant Utility understands that the County Engineer, or his representative, may issue a Stop Work Order at any time if it is deemed that site conditions are not suitable for construction or if any of the requirements of this permit are not being met.

Many County Roads have variable Rights-of-Way and/or no Right-of-Way at all and are maintained under a Prescriptive Easement. It is the sole responsibility of the Applicant Utility to verify the existence and limits of public rights-of-way. If none exists, it is the

responsibility of the Applicant Utility to acquire an easement for their Facilities from the applicable property owner(s). Madison County in no way verifies the limits of Right-of-Way as shown on the permit application.

The Applicant Utility shall be responsible for all future maintenance and repair of the facilities installed under this permit. The Applicant Utility shall make future adjustments to, or relocate, the facilities located within road or highway right-of-way when required for road or highway widening or other road or highway construction at no cost to Madison County. The Applicant Utility shall relocate said utilities within sixty (60) days of notification by County by registered mail, return receipt requested, unless otherwise designated by the County Engineer. Further, any maintenance, repair, or construction shall be done in such a manner as to occasion no unreasonable interference with the normal flow and safety to traffic and at the expense of the utility company. When reasonable care has been taken to locate said utility facilities within the right-of-way, the Applicant Utility understands that any damages caused by routine maintenance and construction by County forces shall be borne by the Applicant Utility.

The Applicant Utility further agrees to indemnify and hold Madison County harmless for any and all claims, accidents, damages, liabilities and expenses occasioned wholly, or in part, by any act or omission of applicant, its agents or employees. In case County shall, without fault on its own part, be made a party to any litigation commenced by or against applicant, then applicant shall protect and hold County harmless, and shall pay all costs, expenses and reasonable attorney's fees incurred or paid by County in connection with said litigation.

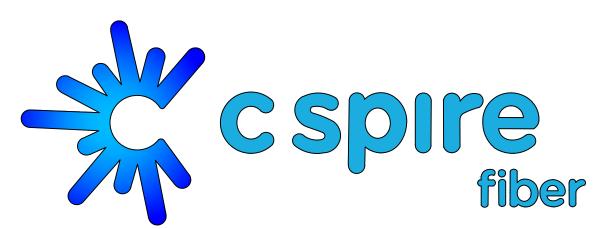
All underground facilities shall be installed at a depth equal to or greater than 48" below the lowest adjacent grade.

All pipes carrying liquid shall be encased under County maintained roads.

WITNESS the signature of the Applicant th	nis the day of	, 20
	Ву:(Арр	JSlo
	(App	licant Signature)
	Title:	
	tility named in this application. The Madison County consulting Engineer as the Applicant. Utility Compar	
•	reviewed this application and determined e requirements of <i>A Policy for The Accommods</i> .	odation of Utility Facilities within
	By: By Tim Bryan a	at 9:09 am, Jun 12, 2025
AGREED TO AND APPROVED BY:	Tim B	ryan, P.E. ty Engineer
 Madison County Board President	Date:	
ENTERED INTO THE MINUTES OF THE	BOARD OF SUPERVISORS OF MADISON	COUNTY, MISSISSIPPI ON THIS
DAY OF	, 20	

## Appendix 1

County Road Name:				
Beginning Location:		Ending Location:		
Length of Project:	Section:	Township:	Range:	
Description of Work:				
County Road Name:				
Beginning Location:		Ending Location:		
Length of Project:	Section:	Township:	Range:	
Description of Work:				
County Road Name:				
Beginning Location:		Ending Location:		
Length of Project:	Section:	Township:	Range:	
Description of Work:				
County Road Name:				
Beginning Location:		Ending Location:		
Length of Project:	Section:	Township:	Range:	
Description of Work:				
County Road Name:				
Beginning Location:		Ending Location:		
Length of Project:	Section:	Township:	Range:	
Description of Work:				



## **GRAND OAKS**

CITY OF FLORA MADISON COUNTY, MISSISSIPPI 05/20/25



## PERMITS REQUIRED

CITY:

N/A YES

COUNTY:

MDOT: N/A

FEDERAL: N/A RAILROAD: N/A

PRIVATE R/W: N/A

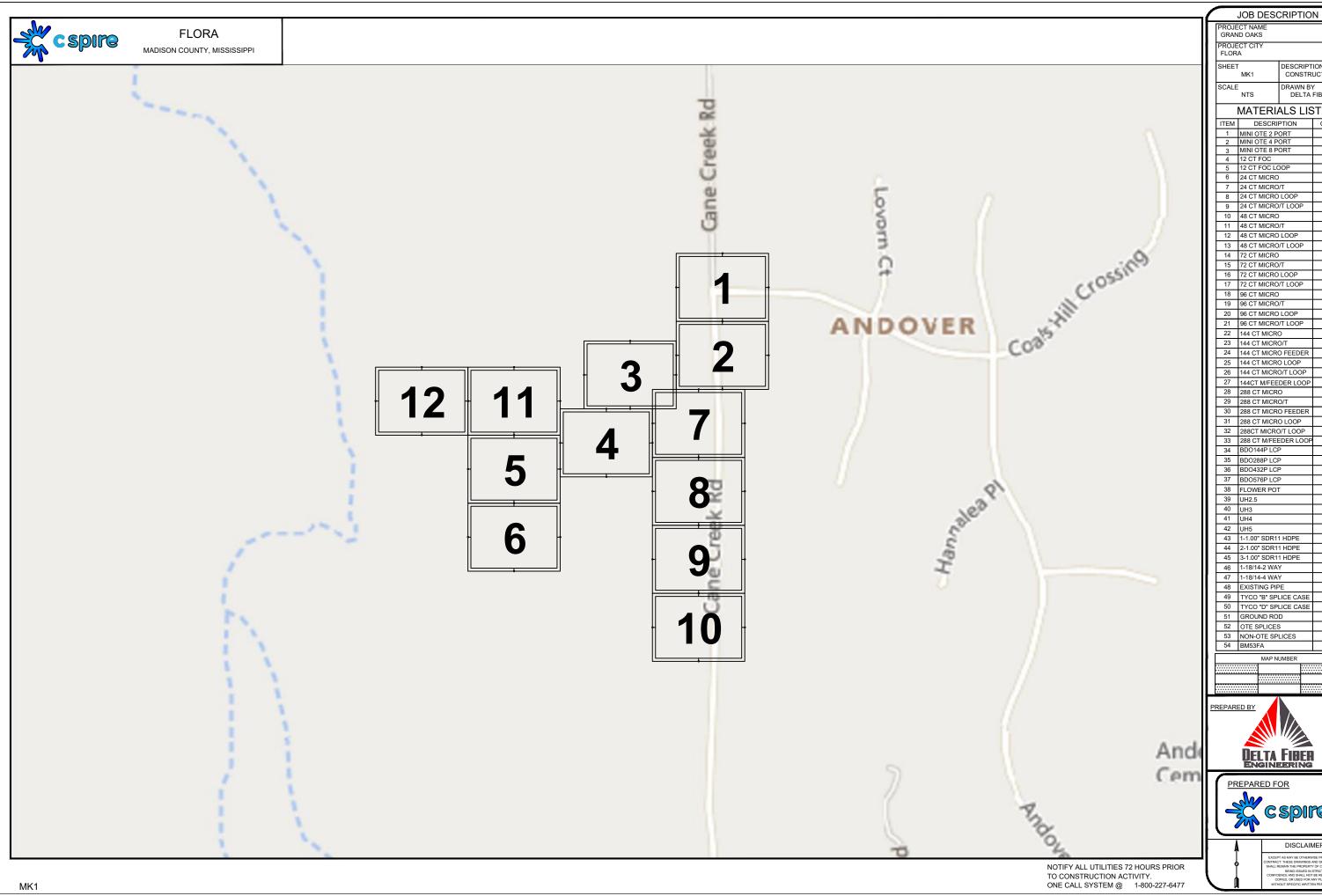
MISC: N/A

HOUSE COUNT

OCCUPIED: 13 VACANT: 0 TOTAL: 13

MILEAGE 0.81 LOTS PER MILE 16.05 PREPARED BY:





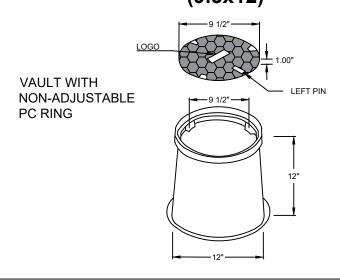
DESCRIPTION CONSTRUCTION DRAWN BY DELTA FIBER MATERIALS LIST ITEM DESCRIPTION QTY. DELTA FIBER ENGINEERING cspire DISCLAIMER



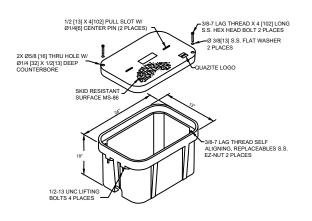
FLORA

MADISON COUNTY

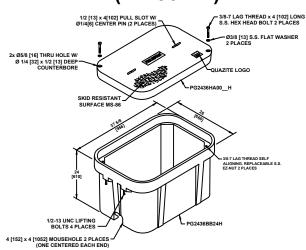
# FLOWER POT (9.5x12)



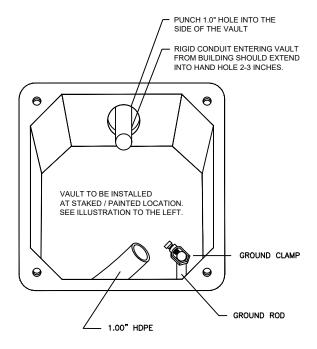
# UH-2.5 (13x24x18)



## UH-3 (24x36x24)

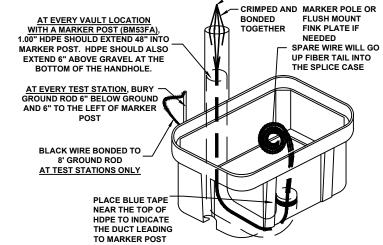


## TYPICAL VAULT HAND HOLE INSTALLATION PROCEDURES AT BUILDING ENTRIES



VAULT INSTALLATION LOCATION WILL BE MARKED BY A STAKE AND/OR PAINT. CSPIRE/ OSP WILL INSTALL CONDUIT 8" UNDERGROUND TO DESIRABLE VAULT LOCATION.

## TYPICAL VAULT INSTALLATION



PIGTAILS ARE TO BE INSTALLED AT TEST STATION (T.S.) ONLY.

HANDHOLES ARE TO BE INSTALLED A MINIMUM OF THREE FEET FROM ANY UTILITY OR POWER POLE.

### BOXES (Nestable)

DESCRIPTION

VAULT 24x36x24

VAULT 13x24x18

VAULT (ROUND) 9.5x12

DIMENSIONS ARE IN INCHES OR MILLIMETERS IN BRACKETS UNLESS OTHERWISE NOTED.

DESIGN/TEST

LOAD#

20,000 LBS

20.000 LBS

20,000 LBS

#### NOTES:

- 1. THIS ASSEMBLY IS RATED FOR A STATIC DESIGN LOAD OF 15,000 LBS. [66,720 N] OVER A 10 [254] X 10 [254] AREA AND MUST PASS A MIN. STATIC TEST LOAD OF 20,00 LBS.
- 2. ALL ENCLOSURES, BOXES AND COVERS, ARE REQUIRED TO CONFORM TO ALL TEST PROVISIONS OF ANSI/SCTE 77 2007 "SPECIFICATION FOR UNDERGROUND ENCLOSURE INTEGRITY" AS MANUFACTURED BY QUAZITE OR EQUIVALENT WITH TELEPAK NETWORK'S ENGINEER'S SIGNED APPROVAL. THE COVERS MUST BE RATED FOR TIER 15 APPLICATIONS AND BOXES RATED FOR TIER 22 APPLICATIONS AND IN NO ASSEMBLY CAN THE COVER DESIGN LOAD EXCEED THE DESIGN LOAD OF THE BOX. ALL COMPONENTS IN AN ASSEMBLY (BOX & COVER) ARE MANUFACTURED USING MATCHED SURFACE TOOLING. ALL COVERS ARE REQUIRED TO HAVE A MINIMUM COEFFICIENT OF FRICTION OF 0.50 IN ACCORDANCE WITH ASTM C 1028 AND HAVE ITER 15 AND "TELEPAK NETWORKS 800-342-3716" EMBOSSED ON THE TOP SURFACE. ALL COVER BOLTS TO BE SELF-CLEANING AUGER BOLT

ALL CABLE WILL BE PLACED BY METHOD OF DIRECTIONAL BORE MIN 2' OFF ROW OR EASEMENT @ 42" DOC UNLESS OTHERWISE NOTED.

NOTIFY ALL UTILITIES 72 HOURS PRIOR TO CONSTRUCTION ACTIVITY. ONE CALL SYSTEM @ 1-800-227-6477

	JOB DESC	CRIPTIO	N	
	CT NAME			
	GRAND OAKS PROJECT CITY			
FLOR				
SHEE	Г	DESCRIPT	ION	
т	YPICALS	CONSTR	UCTION	
SCALE		DRAWN BY		
	NTS	DELTA	FIBER	
	MATERIA	ALS LIS	ST.	
ITEM	DESCRI	PTION	QTY.	
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3	MINI OTE 4 P MINI OTE 8 P			
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8	24 CT MICRO			
9	24 CT MICRO			
10	48 CT MICRO	)		
11	48 CT MICRO			
12	48 CT MICRO			
13	72 CT MICRO			
15	72 CT MICRO			
16	72 CT MICRO	LOOP		
17	72 CT MICRO			
18	96 CT MICRO			
19 20	96 CT MICRO			
21	96 CT MICRO			
22	144 CT MICR			
23	144 CT MICR	O/T		
24	144 CT MICR			
25	144 CT MICR			
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28	288 CT MICR			
29	288 CT MICR			
30	288 CT MICR			
31	288 CT MICR			
32	288CT MICRO 288 CT M/FEI			
34	BDO144P LCI			
35	BDO288P LCI	Р		
36	BDO432P LCI			
37	BDO576P LCI			
38 39	FLOWER POTUH2.5	1		
40	UH3			
41	UH4			
42	UH5			
43 44	1-1.00" SDR1 2-1.00" SDR1			
44	3-1.00" SDR1			
46	1-18/14-2 WA			
47	1-18/14-4 WA			
48	EXISTING PIF			
49 50	TYCO "B" SP			
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52	OTE SPLICES			
53	NON-OTE SP			
54	BM53FA			
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FLORA
MADISON COUNTY

## **SYMBOLS KEY**

			PROPERTY LINE ———
DIRECTIONAL BORE ————————————————————————————————————	RAILROAD TRACKS		EDGE OF PAVEMENT —EOP——EOP—
AERIAL CABLE	AUXILLARY TRACKS	50'	BACK OF CURB ——BOC——BOC——WHITE LINE ——WII ——WII ——WII ——WII ——BOC——BOC——BOC——BOC——BOC——BOC——BOC——BO
PLOW OR BURIED CABLE	CENTERLINE		RIGHT-OF-WAY LINE — — — — — — — — — — — — — — — — — — —
DIRECTIONAL BORE 5" HDPE	WOOD LINE		NGHT-OF-WAT LINE
PVC OR SPLIT PVC CONDUIT	DITCH LINE		TAX DISTRICT BOUNDARY
ASTMA 139 GRADE B STEEL	TOD 07 01 005		51762A
JACK AND BORE	TOP OF SLOPE  TOE OF SLOPE	TOP OF SLOPE	\(\lambda 2" \rangle
CORE BORE		TOE OF SLOPE	PROBE (DEPTH AS INDACATED)
EXISTING TELEPAK CABLE	AERIAL UTILITY (ELECTRIC)  UNDERGROUND UTILITY (TELEPHONE)	E (15")	P.T.F.
	(PARTIAL CAPSULE INDICATES COVER DEPTH IN INCHES)	CAUTION CAUTION CAUTION	PERMIT TRACKING FORM IDENTIFIER 187
HANDHOLE	CAUTION NOTES	GAS X-ING WATER X-ING	
HANDHOLE (CABLE IN HDPE)	WATER VALVE	Ø M	DELTA FIBER TYPICAL LINETYPES
HH (CABLE IN PVC CONDUIT)	WATER METER	<b>H</b>	DELIA FIBER I TPICAL LINE I TPES
	GAS VALVE	<b>◇</b>	1-1.00 HDPE (1)1.00 HDPE (1)1.00 HDPE (1)1.00 HDPE (1)1.00 HDPE (1)1.00 HDPE (1)1.00 HDPE
HANDHOLE (CABLE IN GSP CONDUIT)	FIRE HYDRANT	- <b>¢</b>	2-1.00 HDPE ——(2)1.00 HDPE ——(2)1.00 HDPE ——(2)1.00 HDPE ——(2)1.00 HDPE ——(3)1.00
FLOWER POT	STORM DRAIN	<b>===</b>	18/14 4 WAY — 18
MANHOLE (CABLE IN HDPE)	STORM DIVAIN	<del></del>	18/14 2 WAY — 18
WANTOLL (CABLE INTIDEL)	SEWER MANHOLE	<u>s</u>	EXIST PIPE — EXIST
MANHOLE (CABLE IN PVC CONDUIT)	CULVERT	>	12CT FOC12CT FOC12CT FOC
MANHOLE (CABLE IN BSP/GSP CONDUIT)			24CT MICRO         —24CT MICRO         —24CT MICRO         —24CT MICRO         —48CT MICRO
H-FRAME	BOX CULVERT		72CT MICRO — 72CT
BORE PIT	CITY, COUNTY OR STATE BOUNDARY LINE	<b></b>	96CT MICRO — 144CT M
LIGHTNING ADDECTOR	B B CDOSSING SIGNAL	PLISH BRACE 30'-5-84	144CT MICRO         144CT MICRO         144CT MICRO         144CT MICRO         144CT MICRO         288CT MICRO
LIGHTNING ARRESTOR DIGHTNING ARRESTOR	R.R. CROSSING SIGNAL حوجي	PUSH BRACE PB	
AC/DC FILTER PROTECTION  AC/DC FILTER PROTECTION	R.R. SIGNAL ARM	JOINT USE POLE	24CT MICRO/T24CT MICRO-T24CT MICRO-T24CT MICRO-T48CT MICRO-T48CT MICRO-T48CT MICRO-T48CT MICRO-T48CT MICRO-T
ALUMINUM HUB STYLE MARKER	U/G TRANSFORMER	TELEPHONE POLE	72CT MICRO/T72CT MICRO-T72CT MICRO-T72CT MICRO-T
STEEL MARKER	<del></del>		96CT MICRO/T — 96CT MICRO-T — 96CT MICRO-T — 96CT MICRO-T — 144CT MICRO-T — 14
STEEL WARREN	STREET/SIGNAL LIGHT O	CONCRETE POLE 🔘	288CT MICRO/T — 288CT MICRO-T
FLAT COMPOSOLITE MARKER	PARKING METER $ riangle$	STEEL POLE S	RIGHT OF WAY — RW — — — — — — —
TUBULAR MARKER •	STEEL/WOOD POST 0	POWER POLE X	DRIVEWAY ———
•	SIGN		
RIGHT-OF-WAY MARKER	·	TRANSFORMER POLE 🔀	EDGE OF PAVEMENT ————————————————————————————————————
RIGHT-OF-WAY PIN	FENCE LINE	I.	DROPS TO HOUSES — — — — — — — — —
15 (15)	TELEPHONE/CATV PED	GROUND WIRE	AERIAL IMAGES
MILE POST MARKER NOTE: DASHED = (NOT FOUND IN FIELD)	TREE		PROPERTY LINE ————————————————————————————————————
(13.12.1.1.125 (13.1.33.15.11.125)	визн 💥	BOND AND GROUND B&G	UTILITY EASEMENT — — — UTILESMT — — UTILESMT
			SIDEWALK —

GRAND OAKS PROJECT CITY FLORA SHEET DESCRIPTION CONSTRUCTION LEGEND SCALE DRAWN BY NTS DELTA FIBER MATERIALS LIST ITEM DESCRIPTION QTY. 1 MINI OTE 2 PORT
2 MINI OTE 2 PORT
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4 12 CT FOC
5 12 CT FOC LOOP
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7 24 CT MICRO/T 8 24 CT MICRO LOOP 9 24 CT MICRO/T LOOP 10 48 CT MICRO 22 144 CT MICRO 23 144 CT MICRO/T 24 144 CT MICRO FEEDER 24 144 CT MICRO FEEDER
25 144 CT MICRO LOOP
26 144 CT MICRO/T LOOP
27 144CT M/FEEDER LOOP
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39 UH2.5
40 UH3
41 UH4
42 UH5 43 1-1.00" SDR11 HDPE 44 2-1.00" SDR11 HDPE 45 3-1.00" SDR11 HDPE 46 1-18/14-2 WAY 47 1-18/14-4 WAY 48 EXISTING PIPE
49 TYCO "B" SPLICE CASE 50 TYCO "D" SPLICE CASE 51 GROUND ROD 52 OTE SPLICES
53 NON-OTE SPLICES
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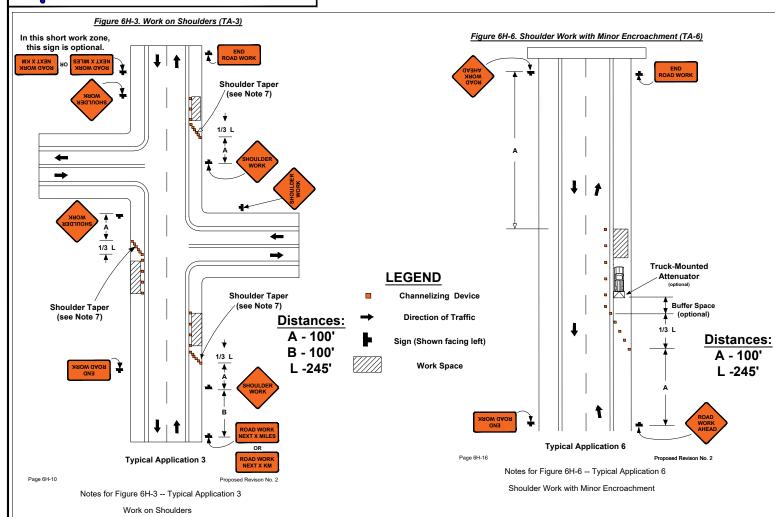
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ALL CABLE WILL BE PLACED BY METHOD OF DIRECTIONAL BORE MIN 2' OFF ROW OR EASEMENT @ 42" DOC UNLESS OTHERWISE NOTED.



FLORA

MADISON COUNTY



## **CONSTRUCTION SIGNS**

## FLUORESCENT ORANGE SHEETING SHALL BE USED ON ALL CONSTRUCTION AND TRAFFIC CONTROL SIGNS







NOTE:
W20-1 SIGNS ARE REQUIRED
WHEN SHOULDER WORK IS
PERFORMED WITH MINOR
ENCROACHMENT TO TRAVEL
LANE OR FLAGGING
OPERATIONS. SEE TCP-2,
FIGURE 6H-6.

DISTANCE BETWEEN SIGNS						
ROAD TYPE A B C						
URBAN (35 MPH OR LESS)	100 FT.	100 FT.	100 FT.			
URBAN (40 - 70 MPH)	350 FT.	350 FT.	350 FT.			
RURAL	500 FT.	500 FT.	500 FT.			
EXPRESSWAY / FREEWAY	1000 FT.	1500 FT.	2640 FT.			

#### NOTES:

- 1. ALL TRAFFIC CONTROL DEVICES ON THIS PROJECT SHALL COMPLY WITH PART VI OF THE MUTCD (LATEST EDITION).
- SIGNS ARE ONLY REQUIRED WHILE CONTRACTOR IS WORKING. THEY SHALL BE INSTALLED PRIOR TO WORK COMMENCING EACH DAY AND REMOVED WHEN WORK IS COMPLETED AT THE END OF THE DAY.
- 3. SIGNS MAY BE MOUNTED ON TRIPODS. THE LOCATION AND SPACING OF SIGNS, AS SHOWN ON THESE TRAFFIC CONTROL PLANS, ARE APPROXIMATE AND MAY BE ADJUSTED AS NECESSARY TO FIT FIELD CONDITIONS.
- 4. CHANNELIZING DEVICES ARE NOT SHOWN ON THIS PLAN, BUT ARE REQUIRED AROUND ACTIVE WORK ZONES (SEE TCP-2).

## **WORK ON SHOULDERS**

#### GUIDANCE:

 A SHOULDER WORK sign should be placed on the left side of the roadway for a divided or one-way street only if the left shoulder is affected.

#### OPTION:

- 2. The workers symbol signs may be used instead of SHOULDER WORK signs.
- The SHOULDER WORK AHEAD sign on an intersecting roadway may be omitted where drivers emerging from that roadway will encounter another advance warning sign prior to this activity area.
- 4. For short-duration operations of 60 minutes or less, all signs and channelizing devices may be eliminated if a vehicle with activated rotating lights or strobe lights is used.
- 5. Vehicle hazard warning signals may be used to supplement rotating lights or strobe lights.

#### STANDARD:

- 6. Vehicle hazard warning signals shall not be used instead of the vehicle's rotating lights or strobe lights.
- 7. When paved shoulders having a width of 2.4 m (8ft) or more are closed, at least one advance warning sign shall be used. In addition, channelizing devices shall be used to close the shoulder in advance to delineate the beginning of the work space and direct vehicular traffic to remain within the traveled way.

SHOULDER WORK WITH MINOR ENCROACHMENT

- 1. All lanes should be a minimum of 3 m (10ft) in width as measured to the near face of the channelizing devices.
- The treatment shown should be used on a minor road having low speeds. For higher-speed traffic conditions, a lane closure should be used.

### OPTION:

**GUIDANCE:** 

- For short-term use on low-volume, low-speed roadways with vehicular traffic that does not include longer and wider heavy commercial vehicles, a minimum lane width of 2.7 m (9ft) may be used.
- 4. Where the opposite shoulder is suitable for carrying vehicular traffic and of adequate width, lanes may be shifted by use of closely spaced channelizing devices, provided that the minimum lane width of 3 m (10ft) is maintained.
- 5. Additional advance warning may be appropriate, such as ROAD NARROWS sign.

- 6. Temporary traffic barriers may be used along with the work space.
- 7. The shadow vehicle may be omitted if a taper and channelizing devices are used.
- 8. A truck-mounted attenuator may be used on the shadow vehicle.
- For short-duration work, the taper and channelizing devices may be omitted if a shadow vehicle with activated rotating lights or strobe lights is used.
- $10.\ Vehicle\ hazard\ warning\ signals\ may\ be\ used\ to\ supplement\ rotating\ lights\ or\ strobe\ lights.$

#### STANDARD:

11. Vehicle hazard warning signals shall not be used instead of the vehicle's rotating lights or strobe lights.

JOB DESCRIPTION GRAND OAKS PROJECT CIT FLORA SHEET DESCRIPTION TRAFFIC CONTROL TC1 SCALE DRAWN BY DELTA FIBER MATERIALS LIST DESCRIPTION QTY. 1 MINI OTE 2 PORT 2 MINI OTE 4 PORT 3 MINI OTE 8 PORT 4 12 CT FOC 5 12 CT FOC LOOF 6 24 CT MICRO 7 24 CT MICRO/T 8 24 CT MICRO LOOP 9 24 CT MICRO/T LOOP 10 48 CT MICRO 11 48 CT MICRO/T 12 48 CT MICRO LOOP 13 48 CT MICRO/T LOOP 14 72 CT MICRO 15 72 CT MICRO/T 16 72 CT MICRO LOOP 17 72 CT MICRO/T LOOP 18 96 CT MICRO 19 96 CT MICRO/T 20 96 CT MICRO LOOP 21 96 CT MICRO/T LOOP 22 144 CT MICRO 23 144 CT MICRO/T 24 144 CT MICRO FEEDER 25 144 CT MICRO LOOP 26 144 CT MICRO/T LOOP 27 144CT M/FEEDER LOOF 28 288 CT MICRO 29 288 CT MICRO/T 30 288 CT MICRO FEEDER 31 288 CT MICRO LOOP 32 288CT MICRO/T LOOP 33 288 CT M/FEEDER LOO 34 BDO144P LCP 35 BDO288P LCP 36 BDO432P LCP 37 BDO576P LCP 38 FLOWER POT 39 UH2.5 40 UH3 41 UH4 42 UH5 43 1-1.00" SDR11 HDPE 44 2-1.00" SDR11 HDPE 45 3-1.00" SDR11 HDPE 46 1-18/14-2 WAY 47 1-18/14-4 WAY 48 EXISTING PIPE 49 TYCO "B" SPLICE CASE 50 TYCO "D" SPLICE CASE 51 GROUND ROD 52 OTE SPLICES 53 NON-OTE SPLICES 54 BM53FA

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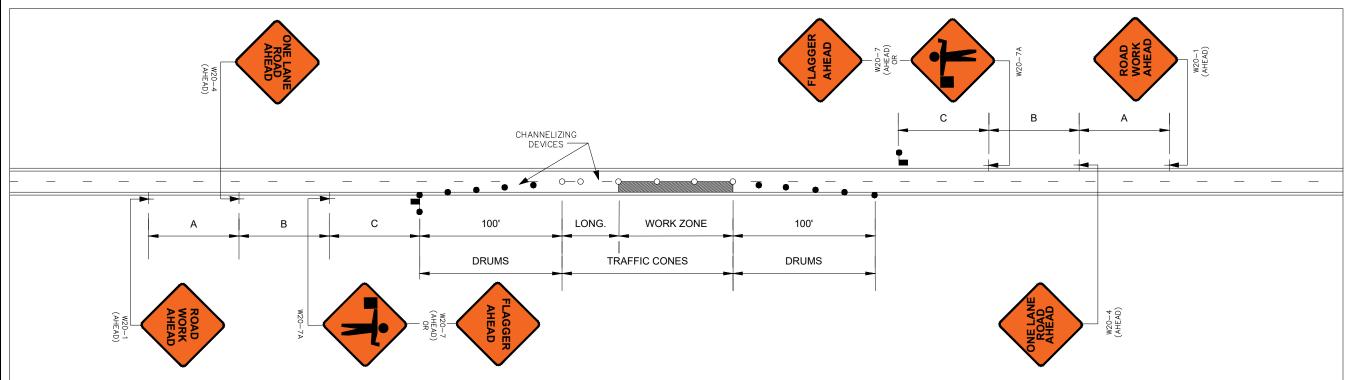
NOTIFY ALL UTILITIES 72 HOURS PRIOR TO CONSTRUCTION ACTIVITY.

ONE CALL SYSTEM @ 1-800-227-6477



## **FLORA**

MADISON COUNTY



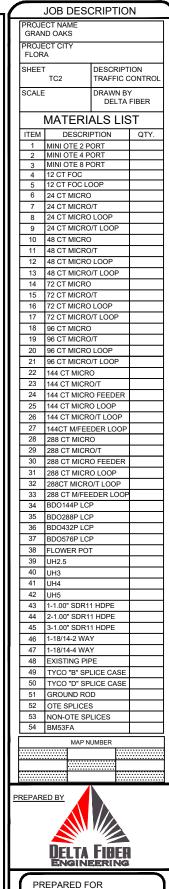
### **GENERAL NOTES:**

1. THE LOCATION OF CHANNELIZING DEVICES AND THE WORK AREA LAYOUT SHALL BE BASED ON THE CRITERIA IN THE FOLLOWING TABLE. FLAGGER STATIONS SHALL BE LOCATED SUCH THAT APPROACHING VEHICLES WILL HAVE SUFFICIENT DISTANCE TO STOP. VALUES IN STOPPING SIGHT DISTANCE COLUMN MAY BE USED AS A MINIMUM FOR THIS DISTANCE.

POSTED SPEED AND/OR DESIGN SPEED	MAXIMUM CHANNELIZING DEVICE SPACING (ft)		LONGITUDINAL BUFFER SPACE	STOPPING SIGHT
mph	TAPER	ALONG LANE LINE & WORK ZONE	(ft)	DISTANCE
25	20	50	55	155
30	20	60	85	200
35	20	70	120	250
40	20	80	170	305
45	20	90	220	360
50	20	100	280	425
55	20	110	335	495
60	20	120	415	570
65	20	130	485	645

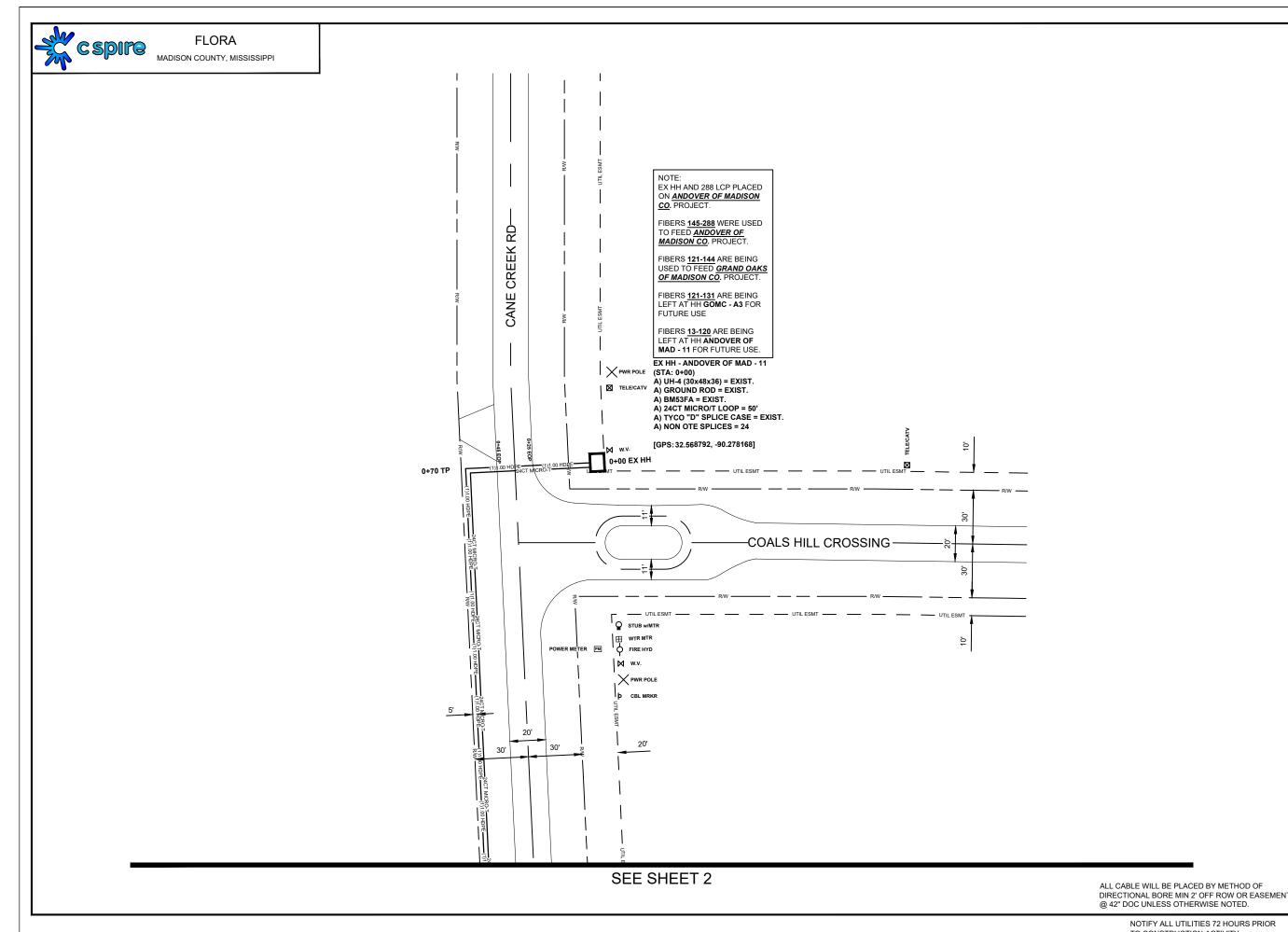
NOTE: BUFFER SPACE MAY BE ADJUSTED AS NEEDED ACCORDING TO ROADWAY GEOMETRY TO MEET SIGHT DISTANCE REQUIREMENTS, AS DIRECTED BY THE ENGINEER.

- 2. ALL CHANNELIZING DEVICES SHALL BE A MINIMUM OF 28" IN HEIGHT.
- 3. DIAMOND SHAPED TRAFFIC CONTROL SIGNS SHALL BE A MINIMUM OF 36" x 36" AND BLACK COPY ON FLUORESCENT ORANGE SHEETING.
- 4. WHEN WORK ZONE IS NO LONGER NEEDED, ALL SIGNS SHALL BE COVERED OR REMOVED AND ALL CHANNELIZING DEVICES SHALL BE MOVED TO THE SHOULDER EDGE.
- 5. ADDITIONAL FLAGGERS MAY BE NEEDED AS DIRECTED BY THE ENGINEER.
- 6. WHEN WORK IS REQUIRED AT NIGHT, FLAGGER STATIONS SHALL BE ILLUMINATED.
- 7. CHANNELIZING DEVICE TYPES FOR: A. APPROACH AND EXIT TAPERS - RETROREFLECTIVE PLASTIC DRUMS B. ALONG LANE LINE AND WORK ZONE - TRAFFIC CONES (28" HEIGHT)
- 8. ALL TRAFFIC CONTROL ITEMS SHOWN ON THIS SHEET WILL NOT BE MEASURED FOR SEPARATE PAYMENT. THIS WORK SHALL BE INCLUDED IN THE PRICE BID FOR MAINTENANCE OF TRAFFIC.



DISCLAIMER

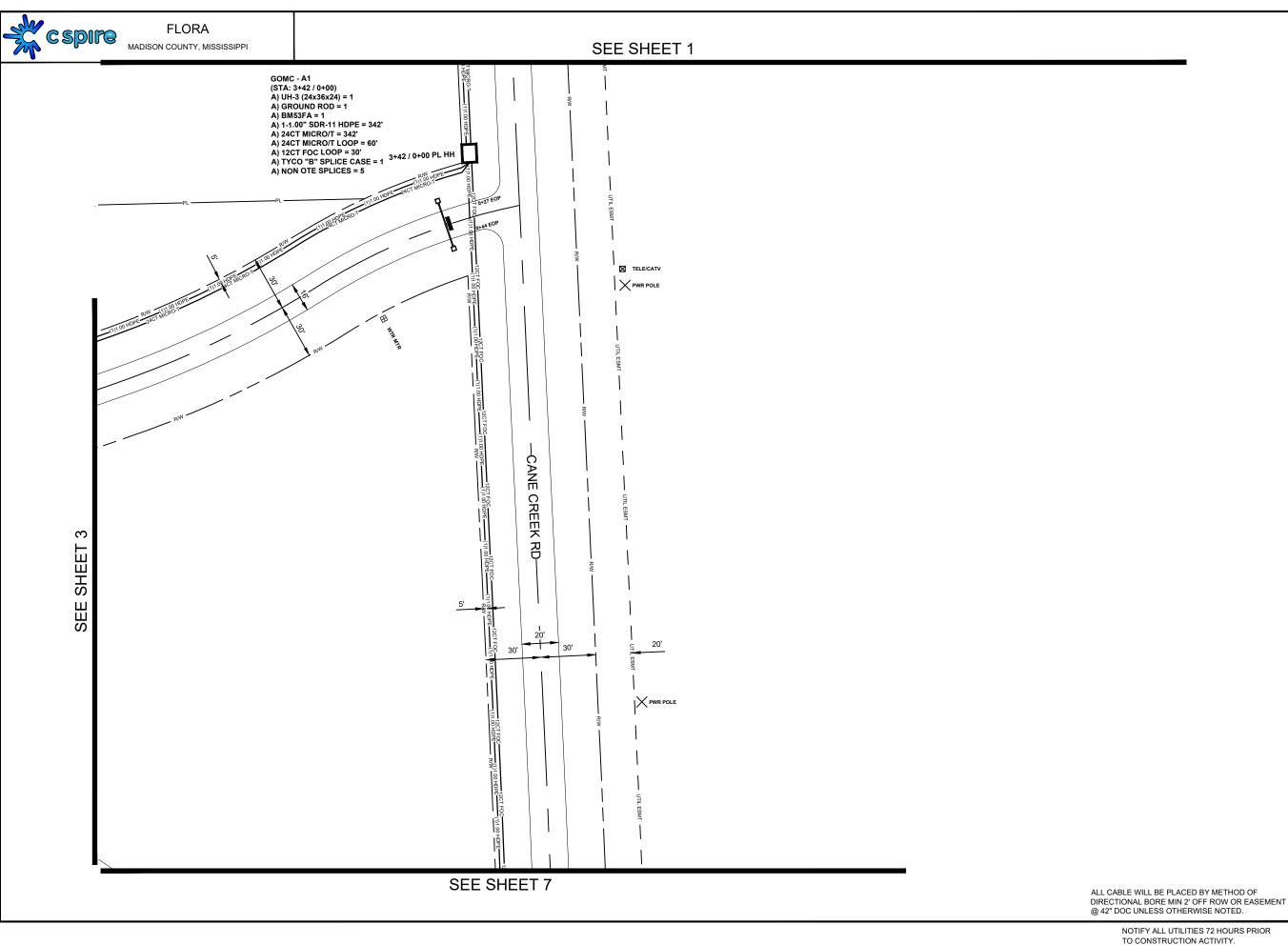
NOTIFY ALL UTILITIES 72 HOURS PRIOR TO CONSTRUCTION ACTIVITY. ONE CALL SYSTEM @ 1-800-227-6477



JOB DESCRIPTION GRAND OAKS PROJECT CITY FLORA SHEET DESCRIPTION CONSTRUCTION 001 SCALE DRAWN BY 1"=50' DELTA FIBER MATERIALS LIST ITEM DESCRIPTION QTY. 1 MINI OTE 2 PORT
2 MINI OTE 4 PORT
3 MINI OTE 8 PORT
4 12 CT FOC
5 12 CT FOC LOOP
6 24 CT MICRO
7 24 CT MICRO
7 24 CT MICRO 8 24 CT MICRO LOOP 9 24 CT MICRO/T LOOP 10 48 CT MICRO 11 48 CT MICRO/T 12 48 CT MICRO LOOP 13 48 CT MICRO/T LOOP 14 72 CT MICRO 15 72 CT MICRO/T 16 72 CT MICRO LOOP 17 72 CT MICRO/T LOOP 18 96 CT MICRO/T 19 96 CT MICRO/T 20 96 CT MICRO LOOP 21 96 CT MICRO/T LOOP 22 144 CT MICRO 23 144 CT MICRO/T 24 144 CT MICRO FEEDER 25 144 CT MICRO LOOP 26 144 CT MICRO/T LOOP 27 144CT M/FEEDER LOOP 28 288 CT MICRO 29 288 CT MICRO/T 30 288 CT MICRO FEEDER 31 288 CT MICRO LOOP 32 288CT MICRO/T LOOP 33 288 CT M/FEEDER LOO 34 BDO144P LCP 35 BDO288P LCP 36 BDO432P LCP 37 BDO576P LCP 38 FLOWER POT 39 UH2.5 40 UH3 41 UH4 42 UH5 43 1-1.00" SDR11 HDPE 44 2-1.00" SDR11 HDPE 45 3-1.00" SDR11 HDPE 46 1-18/14-2 WAY 47 1-18/14-4 WAY 48 EXISTING PIPE 49 TYCO "B" SPLICE CASE 50 TYCO "D" SPLICE CASE 51 GROUND ROD 52 OTE SPLICES
53 NON-OTE SPLICES
54 BM53FA





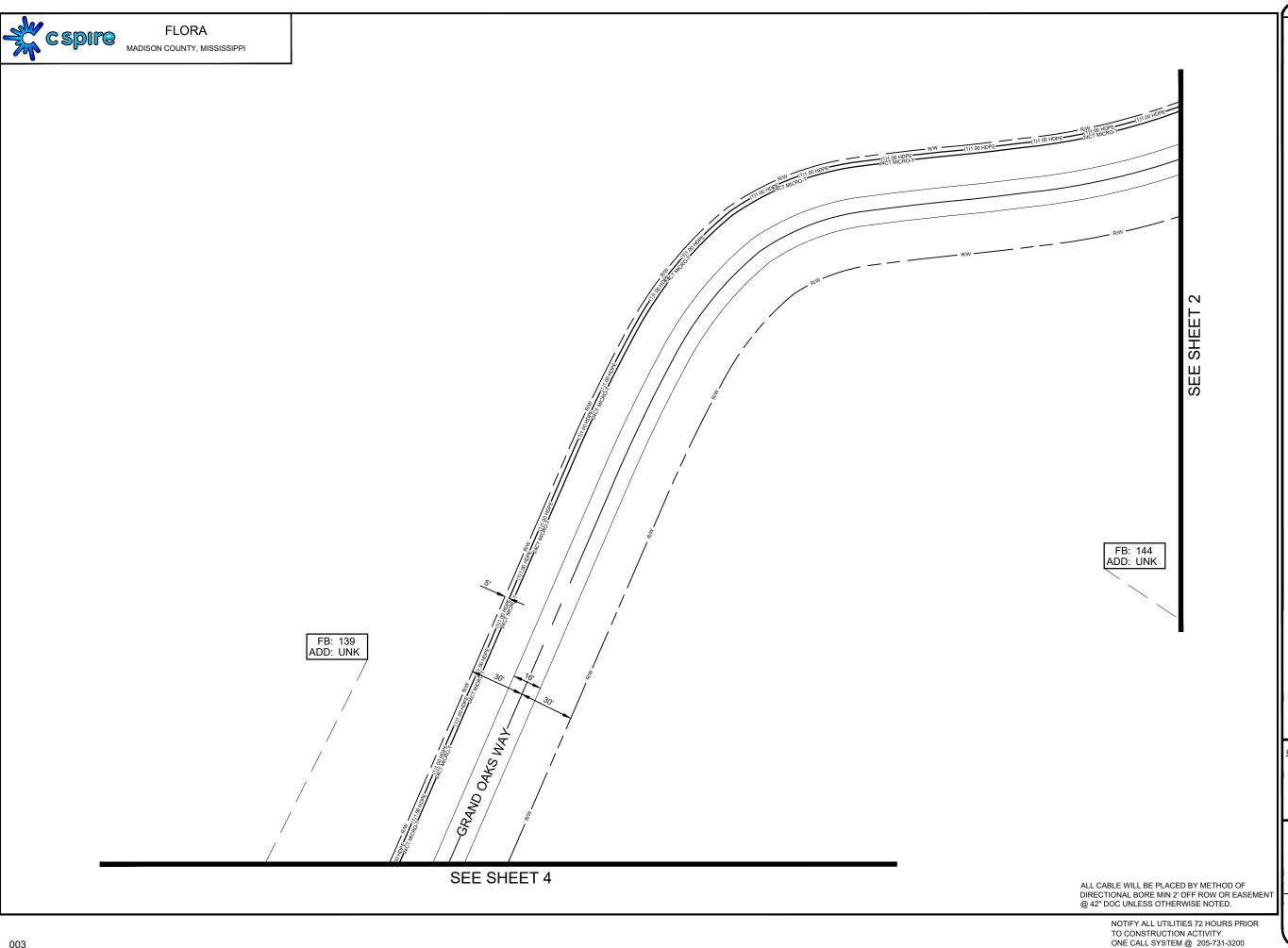


JOB DESCRIPTION GRAND OAKS PROJECT CITY FLORA SHEET DESCRIPTION CONSTRUCTION 002 SCALE DRAWN BY 1"=50' DELTA FIBER MATERIALS LIST ITEM DESCRIPTION QTY. 1 MINI OTE 2 PORT
2 MINI OTE 2 PORT
3 MINI OTE 8 PORT
4 12 CT FOC
5 12 CT FOC LOOP
6 24 CT MICRO 7 24 CT MICRO/T 342 8 24 CT MICRO LOOP 9 24 CT MICRO/T LOOP 10 48 CT MICRO 11 48 CT MICRO/T 12 48 CT MICRO LOOP 13 48 CT MICRO/T LOOP 14 72 CT MICRO 15 72 CT MICRO/T 16 72 CT MICRO LOOP 17 72 CT MICRO/T LOOP 18 96 CT MICRO/T 19 96 CT MICRO/T 20 96 CT MICRO LOOP 21 96 CT MICRO/T LOOP 22 144 CT MICRO 23 144 CT MICRO/T 24 144 CT MICRO FEEDER 25 144 CT MICRO LOOP 26 144 CT MICRO/T LOOP 27 144CT M/FEEDER LOOP 28 288 CT MICRO 29 288 CT MICRO/T 30 288 CT MICRO FEEDER 31 288 CT MICRO LOOP 32 288CT MICRO/T LOOP 33 288 CT M/FEEDER LOOP 34 BDO144P LCP 35 BDO288P LCP 36 BDO432P LCP 37 BDO576P LCP 38 FLOWER POT 39 UH2.5 40 UH3 41 UH4 42 UH5 43 1-1.00" SDR11 HDPE 342 44 2-1.00" SDR11 HDPE 45 3-1.00" SDR11 HDPE 46 1-18/14-2 WAY 47 1-18/14-4 WAY 48 EXISTING PIPE 49 TYCO "B" SPLICE CASE 50 TYCO "D" SPLICE CASE 51 GROUND ROD 52 OTE SPLICES
53 NON-OTE SPLICES
54 BM53FA





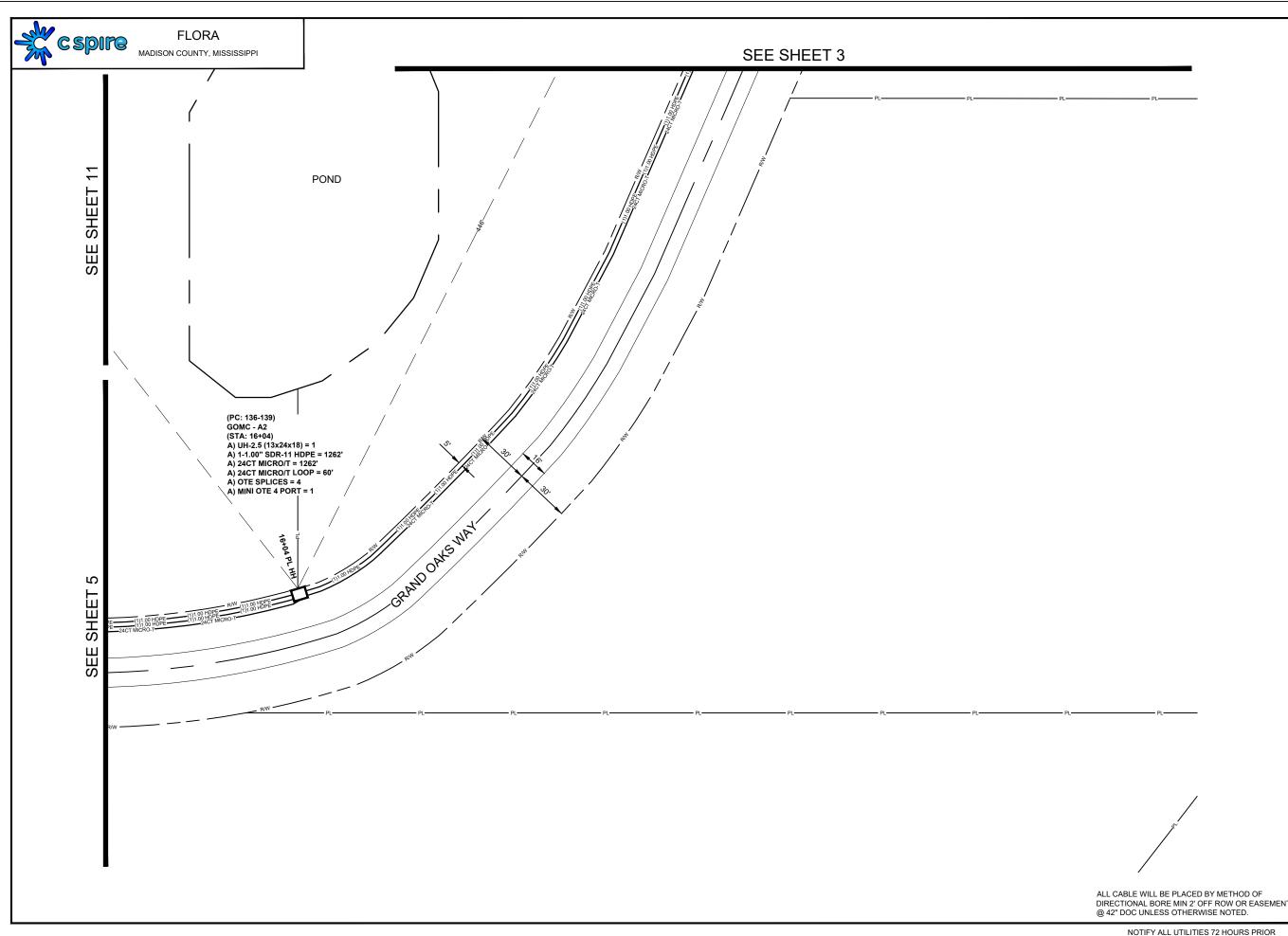
DISCLAIMER



JOB DESCRIPTION GRAND OAKS FLORA SHEET DESCRIPTION CONSTRUCTION 003 SCALE DRAWN BY 1"=50' DELTA FIBER MATERIALS LIST ITEM DESCRIPTION QTY. 1 MINI OTE 2 PORT
2 MINI OTE 4 PORT
3 MINI OTE 8 PORT
4 12 CT FOC
5 12 CT FOC LOOP
6 24 CT MICRO/T
7 24 CT MICRO/T 8 24 CT MICRO LOOP 9 24 CT MICRO/T LOOP 10 48 CT MICRO 11 48 CT MICRO/T 12 48 CT MICRO LOOP 13 48 CT MICRO/T LOOP 14 72 CT MICRO 15 72 CT MICRO/T 16 72 CT MICRO LOOP 17 72 CT MICRO/T LOOP 18 96 CT MICRO 19 96 CT MICRO/T 20 96 CT MICRO LOOP 21 96 CT MICRO/T LOOP 22 144 CT MICRO 23 144 CT MICRO/T 24 144 CT MICRO FEEDER 25 144 CT MICRO LOOP 26 144 CT MICRO/T LOOP 27 144CT M/FEEDER LOOP 28 288 CT MICRO 29 288 CT MICRO/T 30 288 CT MICRO FEEDER 31 288 CT MICRO LOOP 32 288CT MICRO/T LOOP 33 288 CT M/FEEDER LOO 34 BDO144P LCP 35 BDO288P LCP 36 BDO432P LCP 37 BDO576P LCP 38 FLOWER POT 39 UH2.5 40 UH3 41 UH4 42 UH5 43 1-1.00" SDR11 HDPE 44 2-1.00" SDR11 HDPE 45 3-1.00" SDR11 HDPE 46 1-18/14-2 WAY 47 1-18/14-4 WAY 48 EXISTING PIPE 49 TYCO "B" SPLICE CASE 50 TYCO "D" SPLICE CASE 51 GROUND ROD 52 OTE SPLICES
53 NON-OTE SPLICES
54 BM53FA







JOB DESCRIPTION GRAND OAKS PROJECT CITY FLORA SHEET DESCRIPTION CONSTRUCTION 004 SCALE DRAWN BY 1"=50' DELTA FIBER MATERIALS LIST ITEM DESCRIPTION QTY. 1 MINI OTE 2 PORT
2 MINI OTE 4 PORT
3 MINI OTE 8 PORT
4 12 CT FOC
5 12 CT FOC LOOP
6 24 CT MICRO/T
7 24 CT MICRO/T 1262 8 24 CT MICRO LOOP 9 24 CT MICRO/T LOOP 10 48 CT MICRO 11 48 CT MICRO/T 12 48 CT MICRO LOOP 13 48 CT MICRO/T LOOP 14 72 CT MICRO 15 72 CT MICRO/T 16 72 CT MICRO LOOP 17 72 CT MICRO/T LOOP 18 96 CT MICRO/T 19 96 CT MICRO/T 20 96 CT MICRO LOOP 21 96 CT MICRO/T LOOP 22 144 CT MICRO 23 144 CT MICRO/T 24 144 CT MICRO FEEDER 25 144 CT MICRO LOOP 26 144 CT MICRO LOOP 27 144CT M/FEEDER LOOP 28 288 CT MICRO 29 288 CT MICRO/T 30 288 CT MICRO FEEDER 31 288 CT MICRO LOOP 32 288CT MICRO/T LOOP 33 288 CT M/FEEDER LOO 34 BDO144P LCP 35 BDO288P LCP 36 BDO432P LCP 37 BDO576P LCP 38 FLOWER POT 39 UH2.5 40 UH3 41 UH4 42 UH5 43 1-1.00" SDR11 HDPE 1262 44 2-1.00" SDR11 HDPE 45 3-1.00" SDR11 HDPE 46 1-18/14-2 WAY 47 1-18/14-4 WAY 48 EXISTING PIPE 49 TYCO "B" SPLICE CASE 50 TYCO "D" SPLICE CASE 51 GROUND ROD 52 OTE SPLICES
53 NON-OTE SPLICES
54 BM53FA

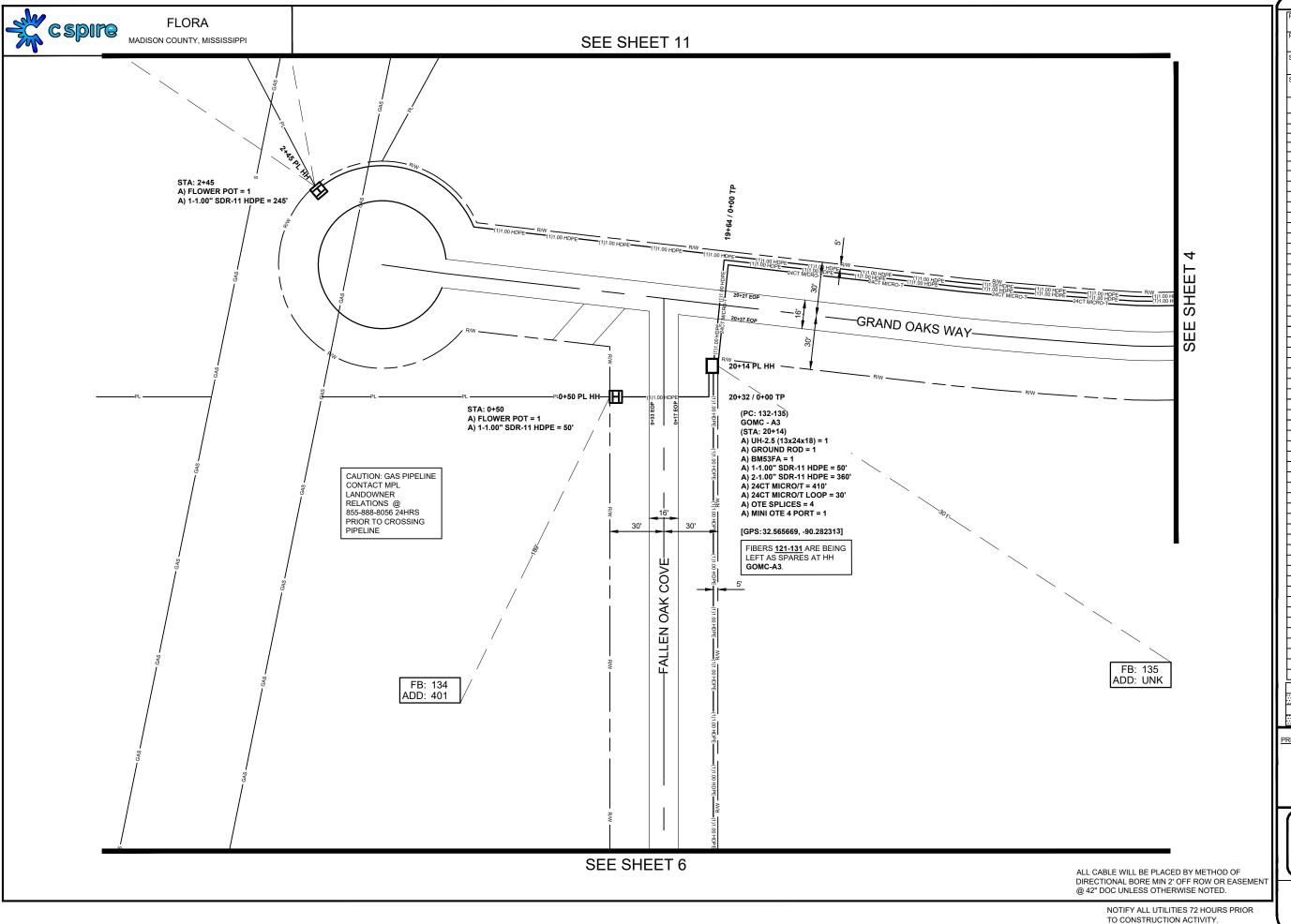
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DELTA FIBER ENGINEERING

PREPARED FOR

DISCLAIMER

TO CONSTRUCTION ACTIVITY.



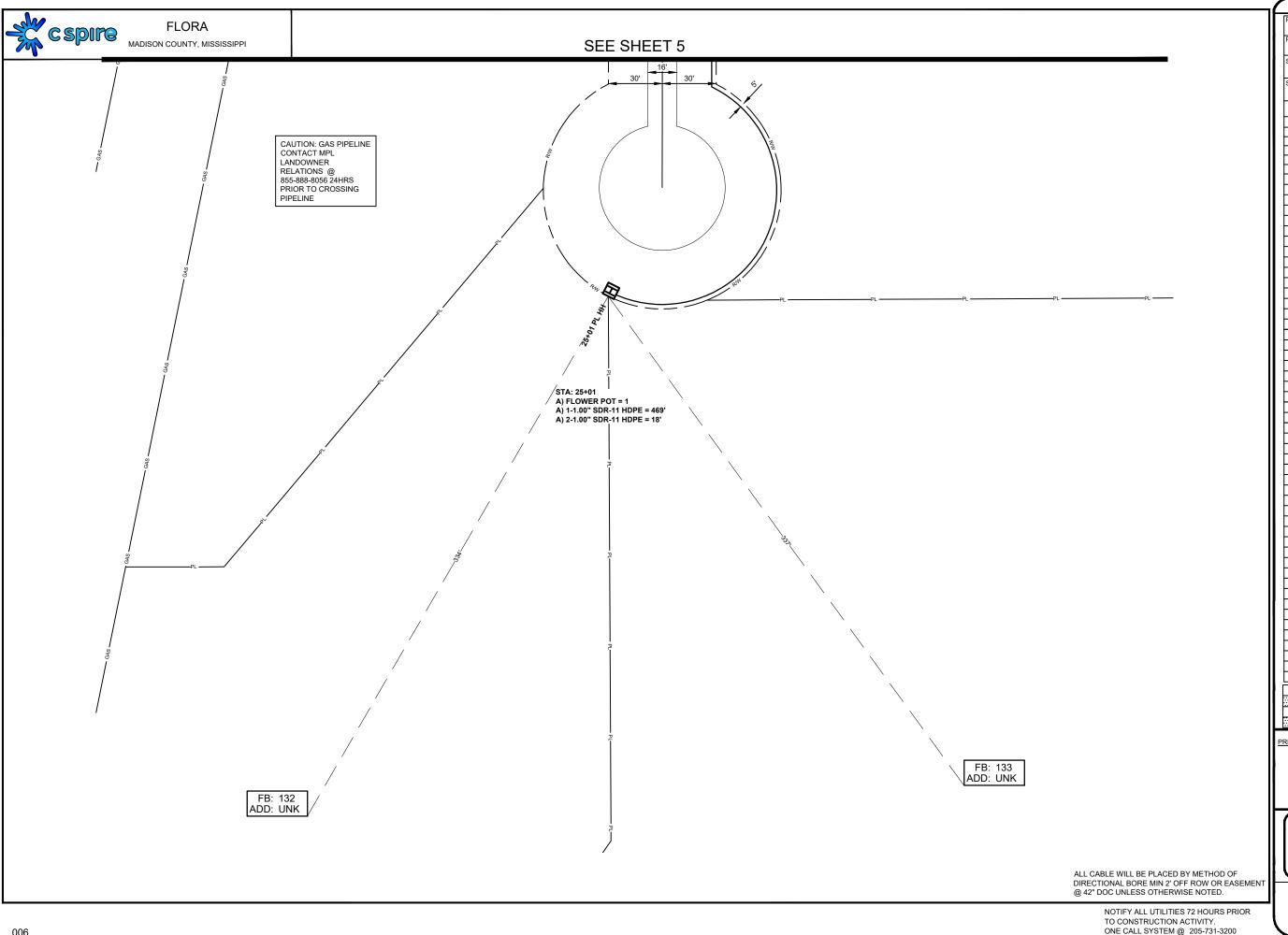
JOB DESCRIPTION GRAND OAKS FLORA SHEET DESCRIPTION CONSTRUCTION 005 SCALE DRAWN BY 1"=50' DELTA FIBER MATERIALS LIST ITEM DESCRIPTION QTY. 1 MINI OTE 2 PORT
2 MINI OTE 4 PORT
3 MINI OTE 8 PORT
4 12 CT FOC
5 12 CT FOC LOOP
6 24 CT MICRO 7 24 CT MICRO/T 410 8 24 CT MICRO LOOP 9 24 CT MICRO/T LOOP 10 48 CT MICRO 11 48 CT MICRO/T 12 48 CT MICRO LOOP 13 48 CT MICRO/T LOOP 14 72 CT MICRO 15 72 CT MICRO/T 16 72 CT MICRO LOOP 17 72 CT MICRO/T LOOP 18 96 CT MICRO 19 96 CT MICRO/T 20 96 CT MICRO LOOP 21 96 CT MICRO/T LOOP 22 144 CT MICRO 23 144 CT MICRO/T 24 144 CT MICRO FEEDER 25 144 CT MICRO LOOP 26 144 CT MICRO/T LOOP 27 144CT M/FEEDER LOOP 28 288 CT MICRO 29 288 CT MICRO/T 30 288 CT MICRO FEEDER 31 288 CT MICRO LOOP 32 288CT MICRO/T LOOP 33 288 CT M/FEEDER LOO 34 BDO144P LCP 35 BDO288P LCP 36 BDO432P LCP 37 BDO576P LCP 38 FLOWER POT 39 UH2.5 40 UH3 41 UH4 42 UH5 43 1-1.00" SDR11 HDPE 345 44 2-1.00" SDR11 HDPE 360 45 3-1.00" SDR11 HDPE 46 1-18/14-2 WAY 47 1-18/14-4 WAY 48 EXISTING PIPE 49 TYCO "B" SPLICE CASE 50 TYCO "D" SPLICE CASE 51 GROUND ROD 52 OTE SPLICES 53 NON-OTE SPLICES 54 BM53FA





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JOB DESCRIPTION GRAND OAKS PROJECT CITY FLORA SHEET DESCRIPTION CONSTRUCTION 006 SCALE DRAWN BY 1"=50' DELTA FIBER MATERIALS LIST ITEM DESCRIPTION QTY. 1 MINI OTE 2 PORT
2 MINI OTE 4 PORT
3 MINI OTE 8 PORT
4 12 CT FOC
5 12 CT FOC LOOP
6 24 CT MICRO/T
7 24 CT MICRO/T 8 24 CT MICRO LOOP 9 24 CT MICRO/T LOOP 10 48 CT MICRO 11 48 CT MICRO/T 12 48 CT MICRO LOOP
13 48 CT MICRO/T LOOP
14 72 CT MICRO 15 72 CT MICRO/T 16 72 CT MICRO LOOP 17 72 CT MICRO/T LOOP 17 72 CT MICRO/T LOOP

18 96 CT MICRO

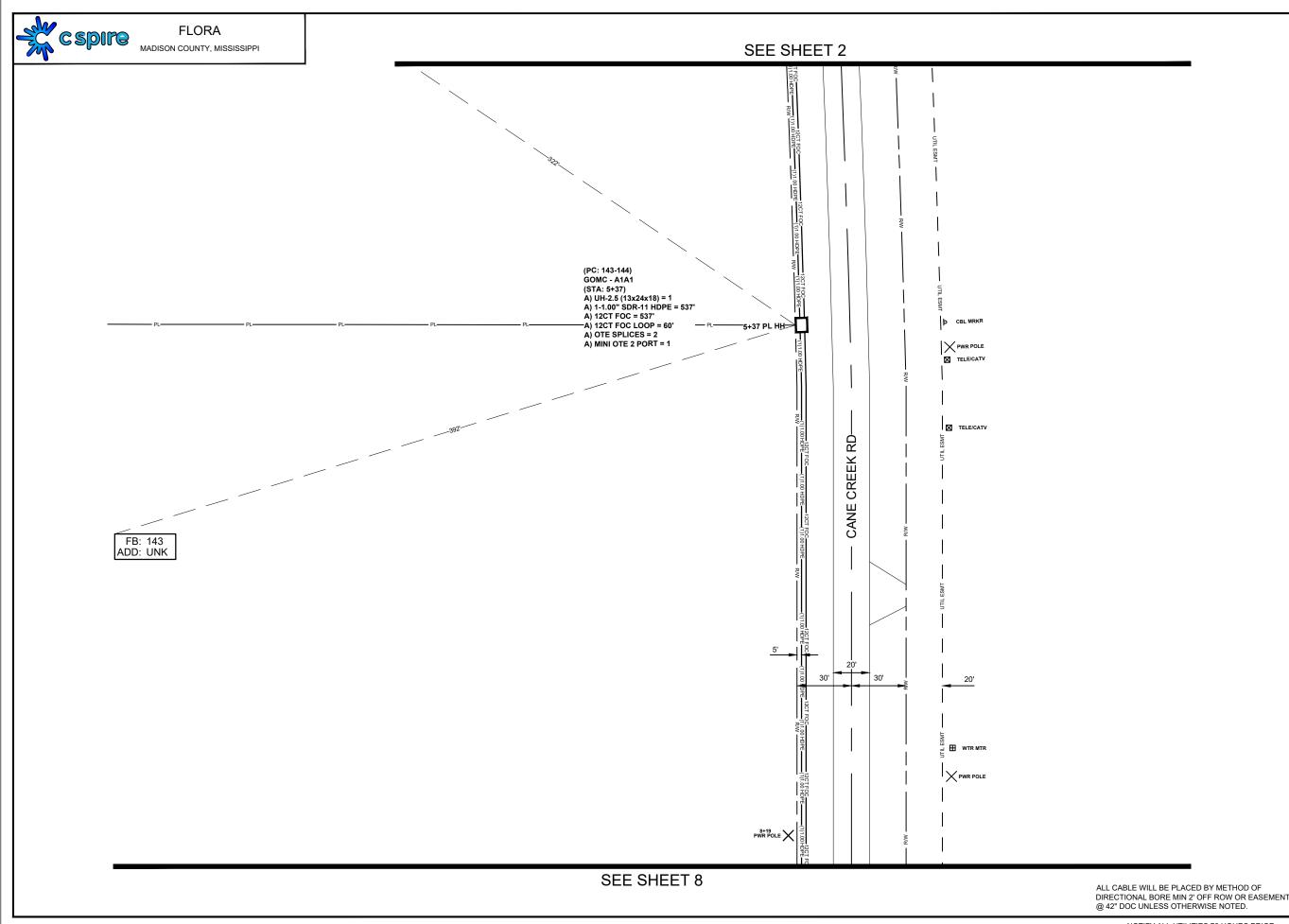
19 96 CT MICRO/T

20 96 CT MICRO/T LOOP

21 96 CT MICRO/T LOOP 22 144 CT MICRO 23 144 CT MICRO/T 24 144 CT MICRO FEEDER 25 144 CT MICRO LOOP 26 144 CT MICRO LOOP 27 144CT M/FEEDER LOOP 28 288 CT MICRO 29 288 CT MICRO/T 30 288 CT MICRO FEEDER 31 288 CT MICRO LOOP 32 288CT MICRO/T LOOP 33 288 CT M/FEEDER LOOP 34 BDO144P LCP 35 BDO288P LCP 36 BDO432P LCP 37 BDO576P LCP 37 BDG576P LCP
38 FLOWER POT
39 UH2.5
40 UH3
41 UH4
42 UH5 43 1-1.00" SDR11 HDPE 469 44 2-1.00" SDR11 HDPE 45 3-1.00" SDR11 HDPE 46 1-18/14-2 WAY 47 1-18/14-4 WAY 48 EXISTING PIPE
49 TYCO "B" SPLICE CASE 50 TYCO "D" SPLICE CASE 51 GROUND ROD 52 OTE SPLICES
53 NON-OTE SPLICES
54 BM53FA





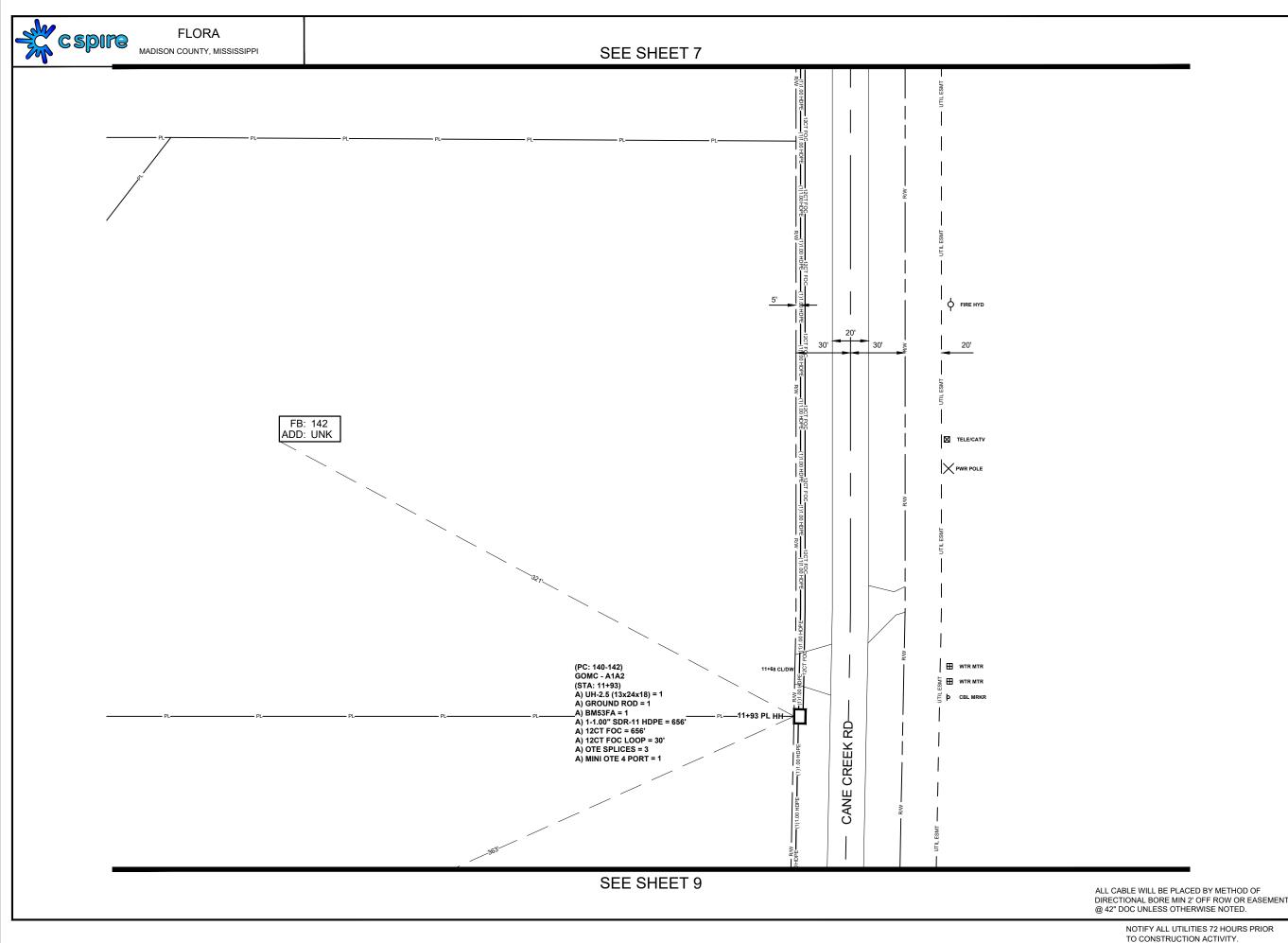


PROJECT NAME GRAND OAKS PROJECT CITY FLORA SHEET DESCRIPTION CONSTRUCTION 007 DRAWN BY SCALE 1"=50' DELTA FIBER MATERIALS LIST ITEM DESCRIPTION QTY. 1 MINI OTE 2 PORT
2 MINI OTE 4 PORT
3 MINI OTE 8 PORT
4 12 CT FOC
5 12 CT FOC LOOP
6 24 CT MICRO/T
7 24 CT MICRO/T 8 24 CT MICRO LOOP 9 24 CT MICRO/T LOOP 10 48 CT MICRO 11 48 CT MICRO/T 12 48 CT MICRO LOOP 13 48 CT MICRO/T LOOP 14 72 CT MICRO 15 72 CT MICRO/T 16 72 CT MICRO LOOP 17 72 CT MICRO/T LOOP 18 96 CT MICRO/T 19 96 CT MICRO/T 20 96 CT MICRO LOOP 21 96 CT MICRO/T LOOP 22 144 CT MICRO 23 144 CT MICRO/T 24 144 CT MICRO FEEDER 25 144 CT MICRO LOOP 26 144 CT MICRO LOOP 27 144CT M/FEEDER LOOP 28 288 CT MICRO 29 288 CT MICRO/T 30 288 CT MICRO FEEDER 31 288 CT MICRO LOOP 32 288CT MICRO/T LOOP 33 288 CT M/FEEDER LOO 34 BDO144P LCP 35 BDO288P LCP 36 BDO432P LCP 37 BDO576P LCP 37 BDG576P LCP
38 FLOWER POT
39 UH2.5
40 UH3
41 UH4
42 UH5 43 1-1.00" SDR11 HDPE 537 44 2-1.00" SDR11 HDPE 45 3-1.00" SDR11 HDPE 46 1-18/14-2 WAY 47 1-18/14-4 WAY 48 EXISTING PIPE
49 TYCO "B" SPLICE CASE 50 TYCO "D" SPLICE CASE 51 GROUND ROD 52 OTE SPLICES
53 NON-OTE SPLICES
54 BM53FA

JOB DESCRIPTION







GRAND OAKS PROJECT CITY FLORA SHEET DESCRIPTION CONSTRUCTION 008 DRAWN BY SCALE 1"=50' DELTA FIBER MATERIALS LIST ITEM DESCRIPTION QTY. 1 MINI OTE 2 PORT
2 MINI OTE 4 PORT
3 MINI OTE 8 PORT
4 12 CT FOC
5 12 CT FOC LOOP
6 24 CT MICRO/T
7 24 CT MICRO/T 8 24 CT MICRO LOOP 9 24 CT MICRO/T LOOP 10 48 CT MICRO 11 48 CT MICRO/T 12 48 CT MICRO LOOP 13 48 CT MICRO/T LOOP 14 72 CT MICRO 15 72 CT MICRO/T 16 72 CT MICRO LOOP 17 72 CT MICRO/T LOOP 18 96 CT MICRO/T 19 96 CT MICRO/T 20 96 CT MICRO LOOP 21 96 CT MICRO/T LOOP 22 144 CT MICRO 23 144 CT MICRO/T 24 144 CT MICRO FEEDER 25 144 CT MICRO LOOP 26 144 CT MICRO LOOP 27 144CT M/FEEDER LOOP 28 288 CT MICRO 29 288 CT MICRO/T 30 288 CT MICRO FEEDER 31 288 CT MICRO LOOP 32 288CT MICRO/T LOOP 33 288 CT M/FEEDER LOO 34 BDO144P LCP 35 BDO288P LCP 36 BDO432P LCP 37 BDO576P LCP 37 BDG576P LCP
38 FLOWER POT
39 UH2.5
40 UH3
41 UH4
42 UH5 43 1-1.00" SDR11 HDPE 656 44 2-1.00" SDR11 HDPE 45 3-1.00" SDR11 HDPE 46 1-18/14-2 WAY 47 1-18/14-4 WAY 48 EXISTING PIPE 49 TYCO "B" SPLICE CASE 50 TYCO "D" SPLICE CASE 51 GROUND ROD 52 OTE SPLICES
53 NON-OTE SPLICES
54 BM53FA

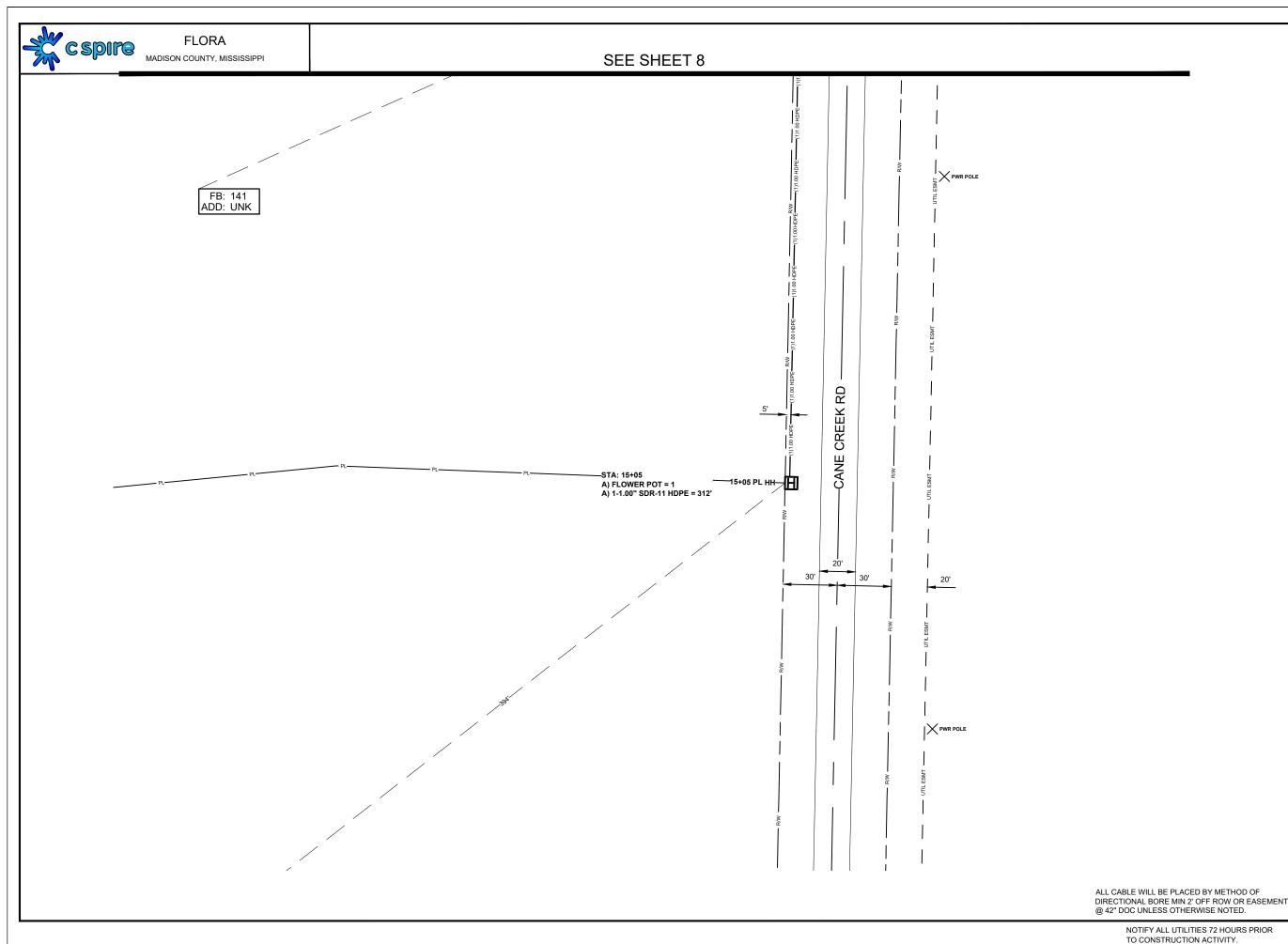
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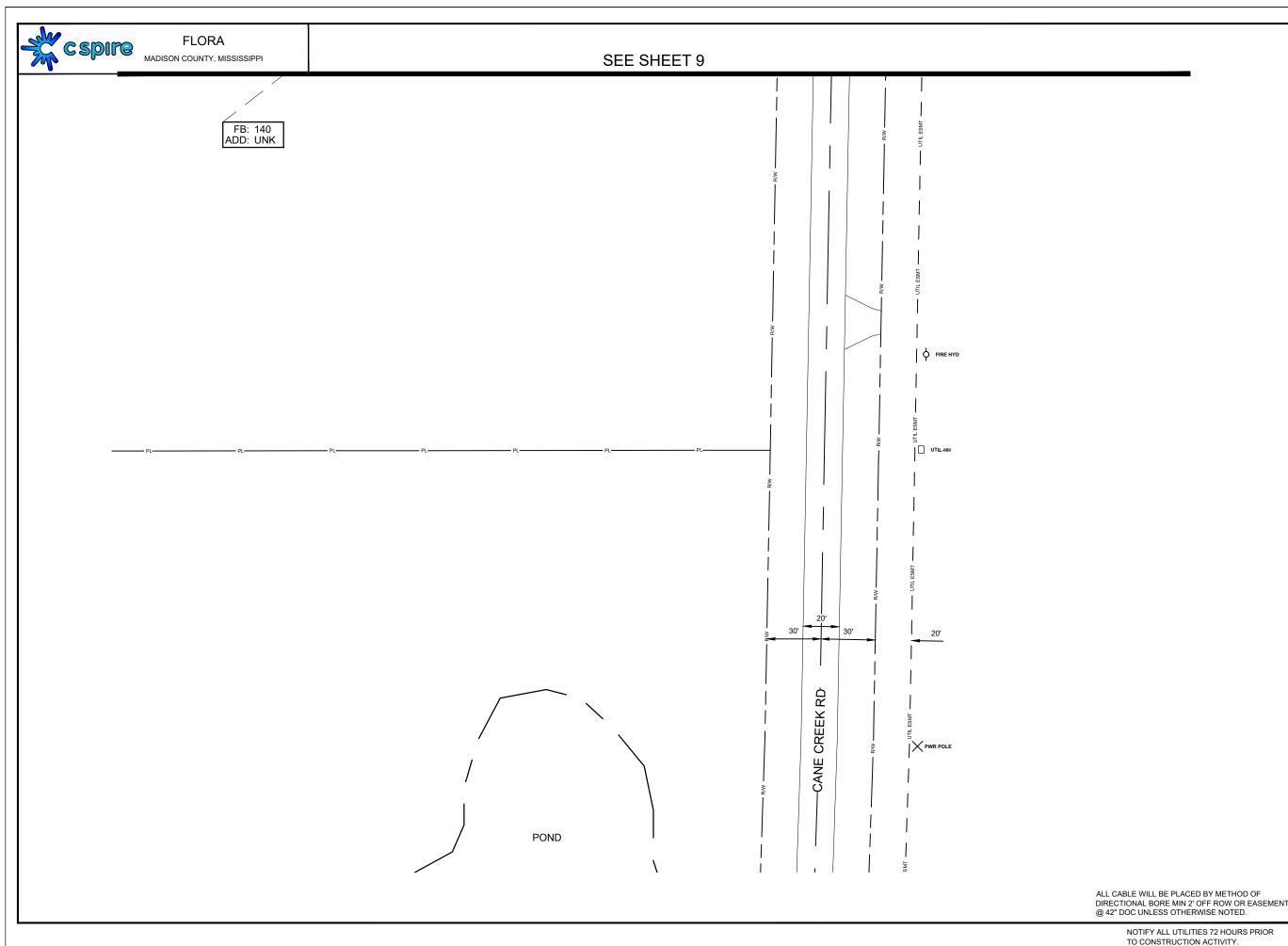


JOB DESCRIPTION GRAND OAKS PROJECT CITY FLORA SHEET DESCRIPTION CONSTRUCTION 009 DRAWN BY SCALE 1"=50' DELTA FIBER MATERIALS LIST ITEM DESCRIPTION QTY. 1 MINI OTE 2 PORT
2 MINI OTE 2 PORT
3 MINI OTE 8 PORT
4 12 CT FOC
5 12 CT FOC LOOP
6 24 CT MICRO/T
7 24 CT MICRO/T 8 24 CT MICRO LOOP 9 24 CT MICRO/T LOOP 10 48 CT MICRO 11 48 CT MICRO/T 12 48 CT MICRO LOOP
13 48 CT MICRO/T LOOP
14 72 CT MICRO 15 72 CT MICRO/T 16 72 CT MICRO LOOP 17 72 CT MICRO/T LOOP 18 96 CT MICRO/T 19 96 CT MICRO/T 20 96 CT MICRO LOOP 21 96 CT MICRO/T LOOP 22 144 CT MICRO 23 144 CT MICRO/T 24 144 CT MICRO FEEDER 25 144 CT MICRO LOOP 26 144 CT MICRO LOOP 27 144CT M/FEEDER LOOP 28 288 CT MICRO 29 288 CT MICRO/T 30 288 CT MICRO FEEDER 31 288 CT MICRO LOOP 32 288CT MICRO/T LOOP 33 288 CT M/FEEDER LOOP 34 BDO144P LCP 35 BDO288P LCP 36 BDO432P LCP 37 BDO576P LCP 37 BDG576P LCP
38 FLOWER POT
39 UH2.5
40 UH3
41 UH4
42 UH5 43 1-1.00" SDR11 HDPE 312 44 2-1.00" SDR11 HDPE 45 3-1.00" SDR11 HDPE 46 1-18/14-2 WAY 47 1-18/14-4 WAY 48 EXISTING PIPE 49 TYCO "B" SPLICE CASE 50 TYCO "D" SPLICE CASE 51 GROUND ROD 52 OTE SPLICES
53 NON-OTE SPLICES
54 BM53FA





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JOB DESCRIPTION GRAND OAKS PROJECT CITY FLORA SHEET DESCRIPTION CONSTRUCTION 010 SCALE DRAWN BY 1"=50' DELTA FIBER MATERIALS LIST ITEM DESCRIPTION QTY. 1 MINI OTE 2 PORT
2 MINI OTE 4 PORT
3 MINI OTE 8 PORT
4 12 CT FOC
5 12 CT FOC LOOP
6 24 CT MICRO/T
7 24 CT MICRO/T 8 24 CT MICRO LOOP 9 24 CT MICRO/T LOOP 10 48 CT MICRO 11 48 CT MICRO/T
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39 UH2.5
40 UH3
41 UH4
42 UH5 43 1-1.00" SDR11 HDPE 44 2-1.00" SDR11 HDPE 45 3-1.00" SDR11 HDPE 46 1-18/14-2 WAY 47 1-18/14-4 WAY 48 EXISTING PIPE 49 TYCO "B" SPLICE CASE 50 TYCO "D" SPLICE CASE 51 GROUND ROD 51 GROUND ROD
52 OTE SPLICES
53 NON-OTE SPLICES
54 BM53FA

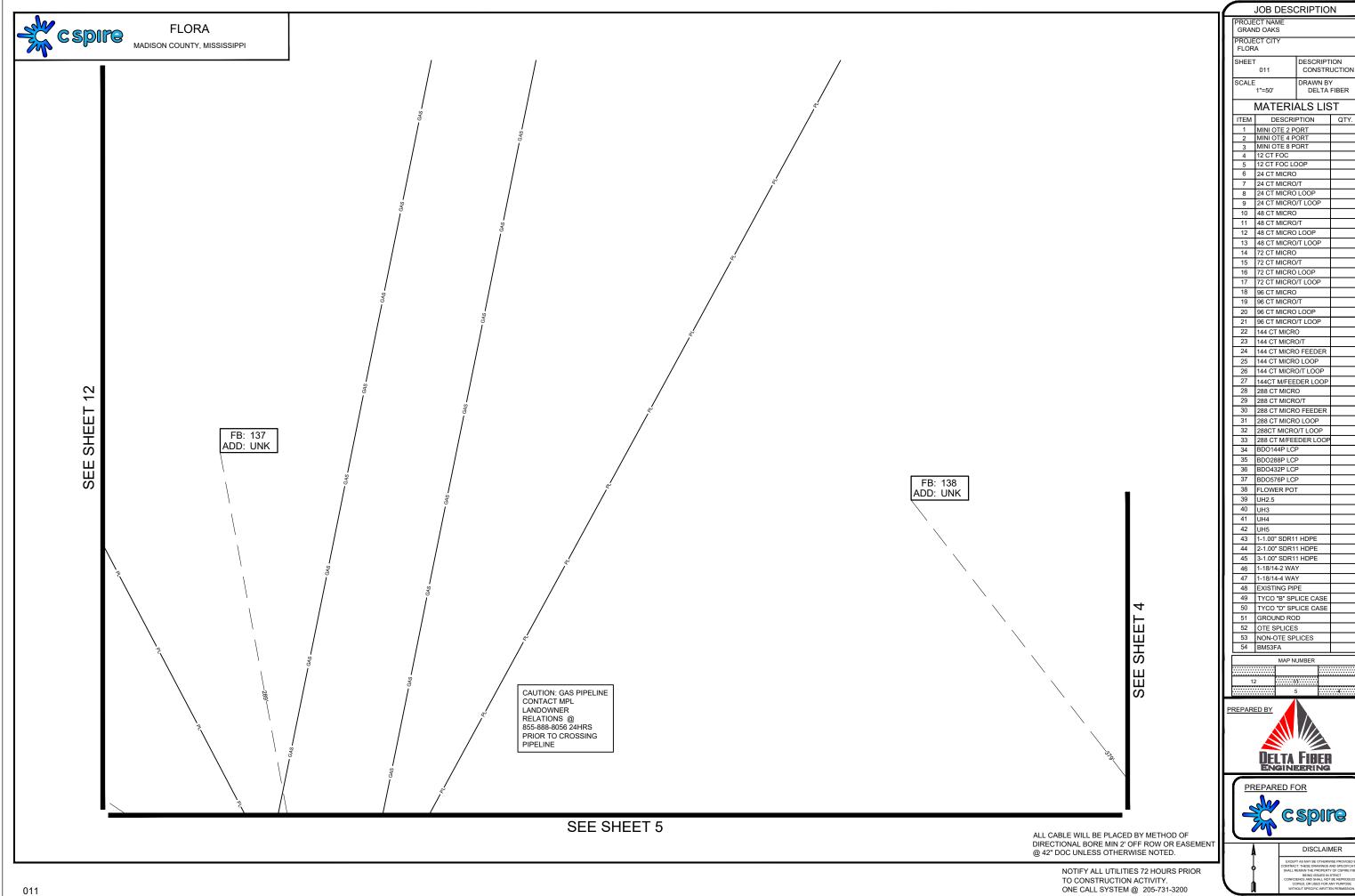


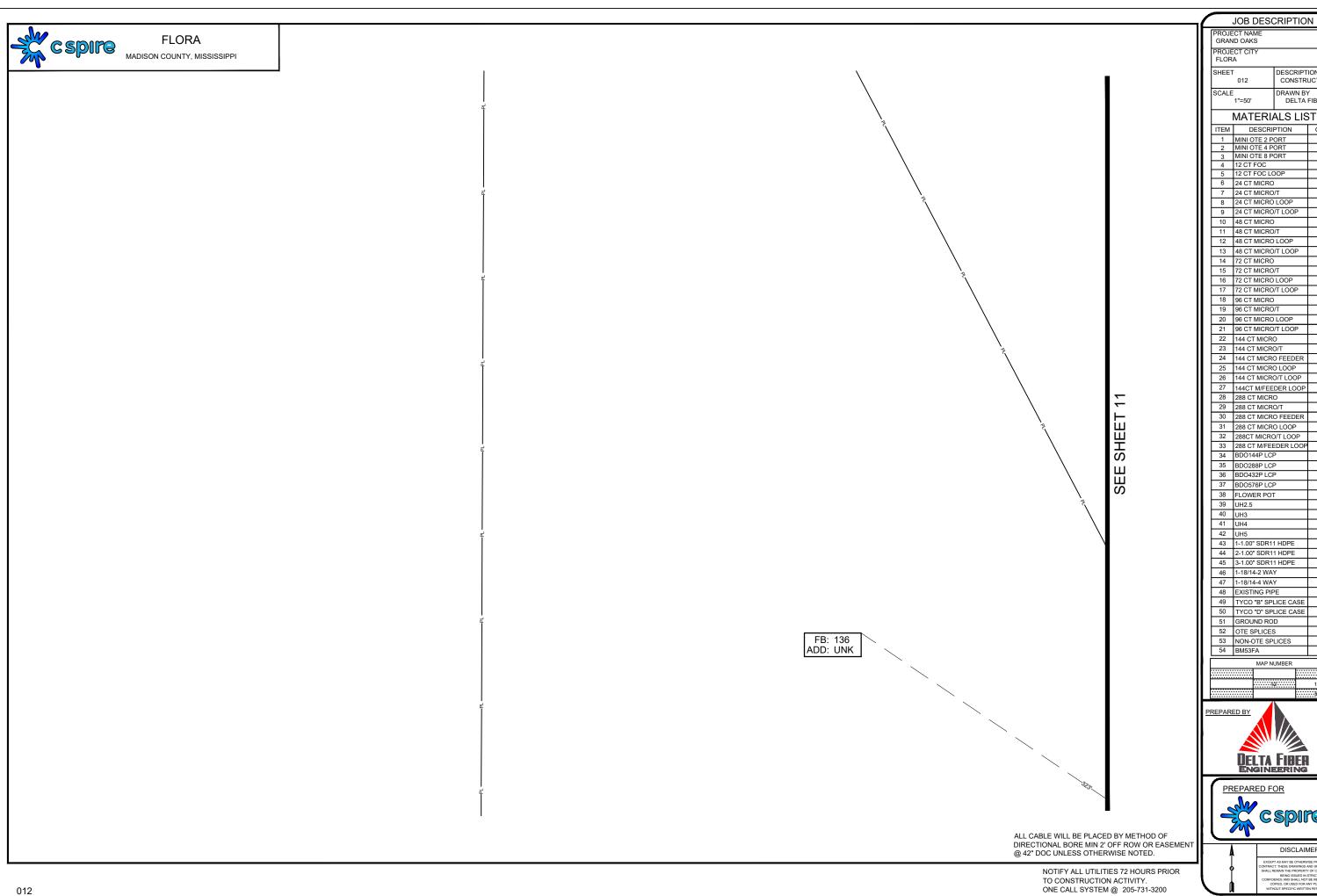


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DESCRIPTION CONSTRUCTION DRAWN BY DELTA FIBER MATERIALS LIST ITEM DESCRIPTION QTY. 9 24 CT MICRO/T LOOP 13 48 CT MICRO/T LOOP 14 72 CT MICRO 17 72 CT MICRO/T LOOP 17 72 CT MICRO/T LOOP

18 96 CT MICRO

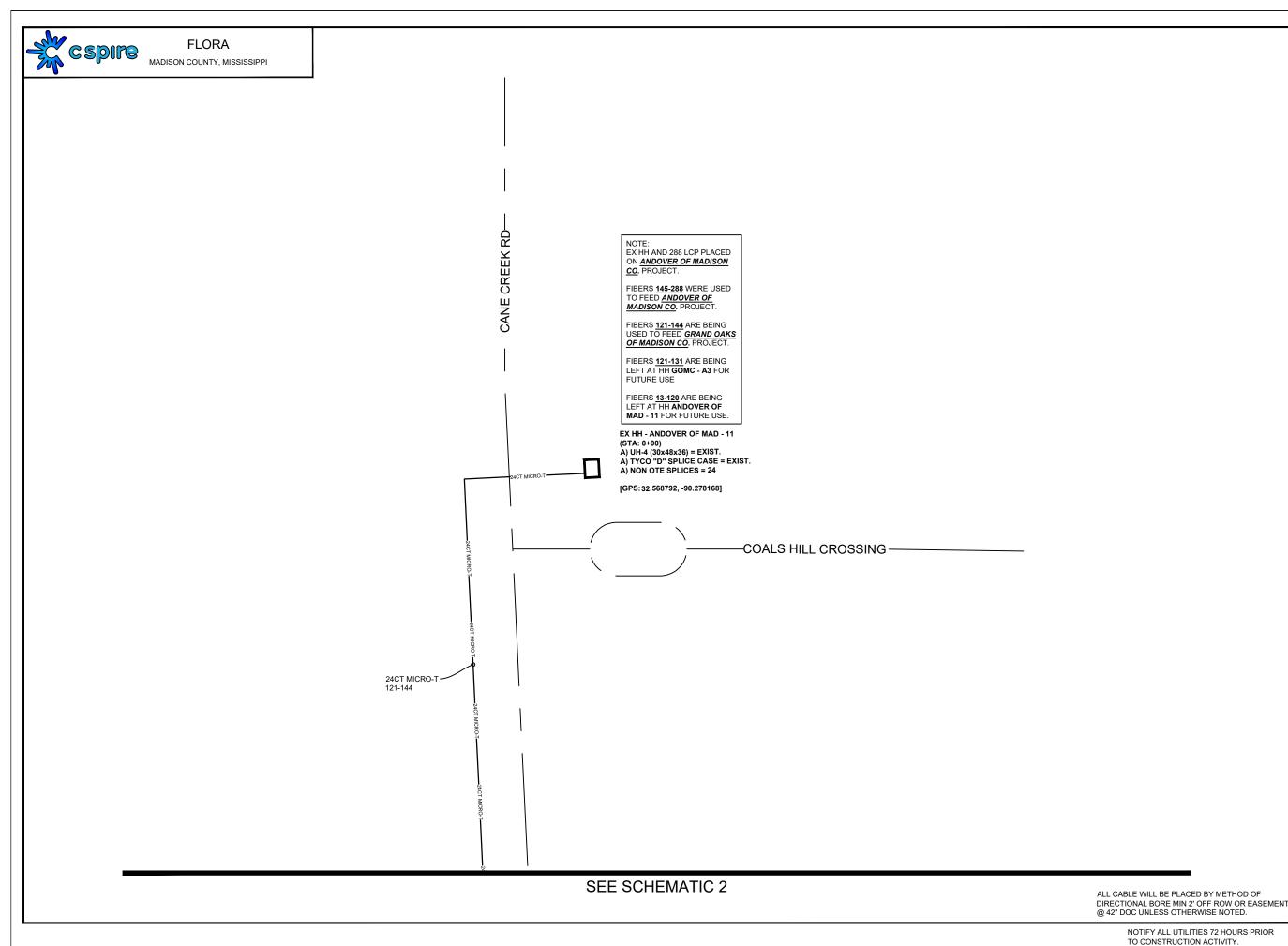
19 96 CT MICRO/T

20 96 CT MICRO/T LOOP

21 96 CT MICRO/T LOOP 24 144 CT MICRO FEEDER 25 144 CT MICRO LOOP 26 144 CT MICRO LOOP 27 144CT M/FEEDER LOOP 28 288 CT MICRO 29 288 CT MICRO/T 30 288 CT MICRO FEEDER 31 288 CT MICRO LOOP 32 288CT MICRO/T LOOP 33 288 CT M/FEEDER LOOP 43 1-1.00" SDR11 HDPE 44 2-1.00" SDR11 HDPE 45 3-1.00" SDR11 HDPE 48 EXISTING PIPE
49 TYCO "B" SPLICE CASE 50 TYCO "D" SPLICE CASE







JOB DESCRIPTION GRAND OAKS FLORA SHEET DESCRIPTION CONSTRUCTION SCHEMATIC 001 SCALE DRAWN BY DELTA FIBER MATERIALS LIST ITEM DESCRIPTION QTY. 1 MINI OTE 2 PORT
2 MINI OTE 4 PORT
3 MINI OTE 8 PORT
4 12 CT FOC
5 12 CT FOC LOOP
6 24 CT MICRO/T
7 24 CT MICRO/T 8 24 CT MICRO LOOP 9 24 CT MICRO/T LOOP 10 48 CT MICRO 11 48 CT MICRO/T 12 48 CT MICRO LOOP
13 48 CT MICRO/T LOOP
14 72 CT MICRO 15 72 CT MICRO/T 16 72 CT MICRO LOOP 17 72 CT MICRO/T LOOP 18 96 CT MICRO/T 19 96 CT MICRO/T 20 96 CT MICRO LOOP 21 96 CT MICRO/T LOOP 22 144 CT MICRO 23 144 CT MICRO/T 24 144 CT MICRO FEEDER 25 144 CT MICRO LOOP 26 144 CT MICRO LOOP 27 144CT M/FEEDER LOOP 28 288 CT MICRO 29 288 CT MICRO/T 30 288 CT MICRO FEEDER 31 288 CT MICRO LOOP 32 288CT MICRO/T LOOP 33 288 CT M/FEEDER LOOP 34 BDO144P LCP 35 BDO288P LCP 36 BDO432P LCP 37 BDO576P LCP 37 BDO5/6P LCP
38 FLOWER POT
39 UH2.5
40 UH3
41 UH4
42 UH5 43 1-1.00" SDR11 HDPE 44 2-1.00" SDR11 HDPE 45 3-1.00" SDR11 HDPE 46 1-18/14-2 WAY 47 1-18/14-4 WAY 48 EXISTING PIPE
49 TYCO "B" SPLICE CASE 50 TYCO "D" SPLICE CASE 51 GROUND ROD 52 OTE SPLICES
53 NON-OTE SPLICES
54 BM53FA

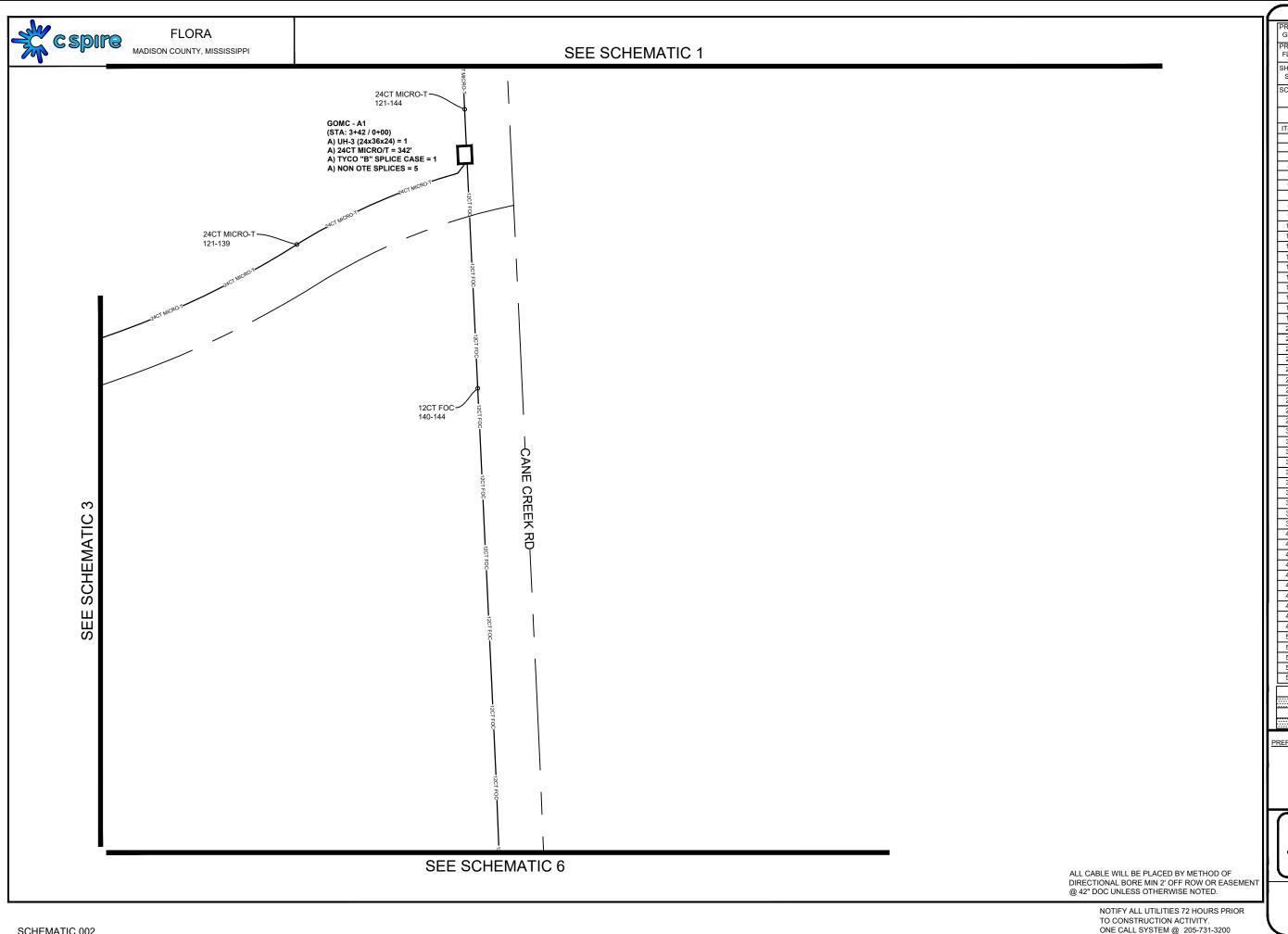
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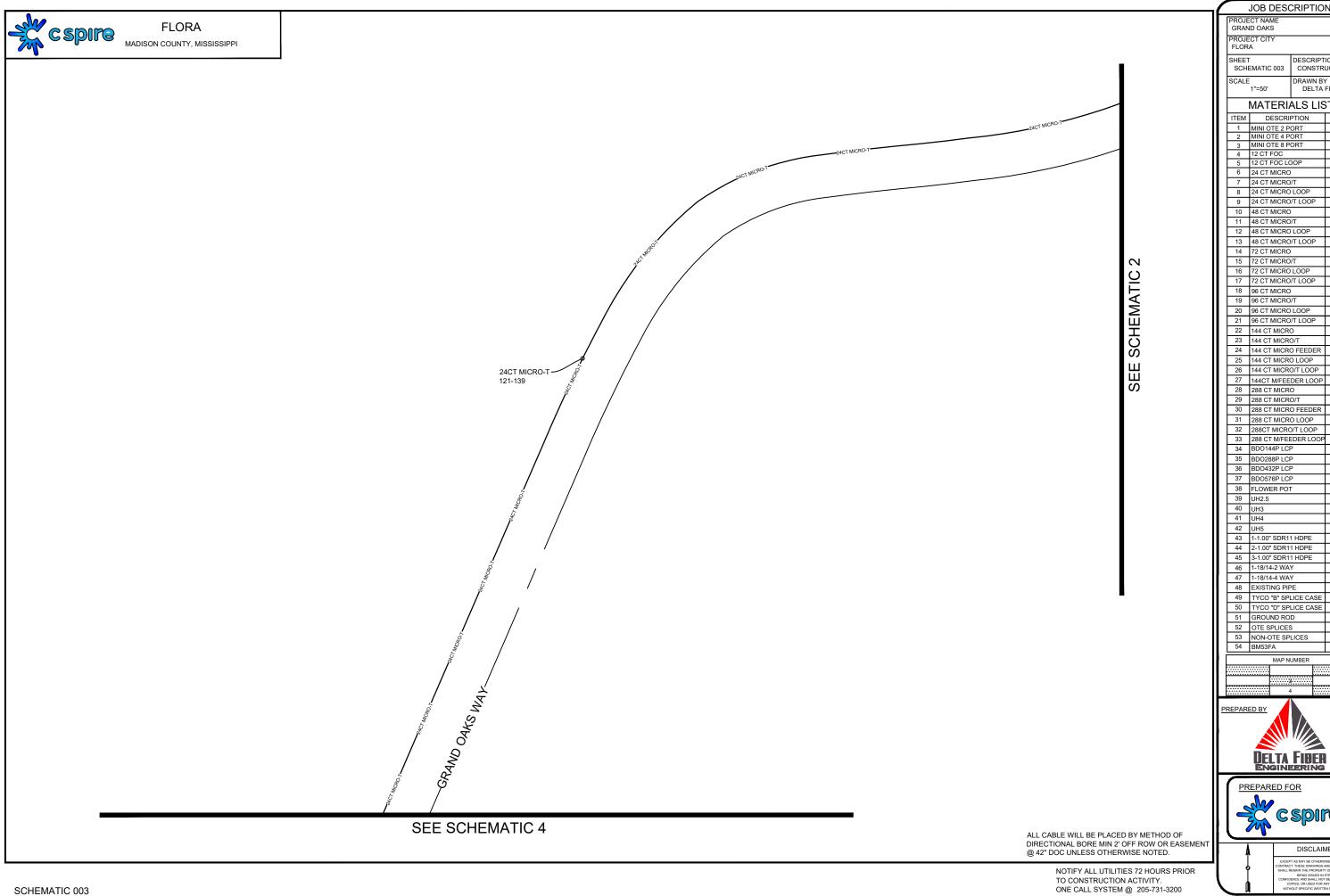


JOB DESCRIPTION PROJECT NAME GRAND OAKS FLORA SHEET DESCRIPTION CONSTRUCTION SCHEMATIC 002 SCALE DRAWN BY 1"=50' DELTA FIBER MATERIALS LIST ITEM DESCRIPTION QTY. 1 MINI OTE 2 PORT
2 MINI OTE 4 PORT
3 MINI OTE 8 PORT
4 12 CT FOC
5 12 CT FOC LOOP
6 24 CT MICRO/T
7 24 CT MICRO/T 8 24 CT MICRO LOOP 9 24 CT MICRO/T LOOP 10 48 CT MICRO 11 48 CT MICRO/T 12 48 CT MICRO LOOP 13 48 CT MICRO/T LOOP 14 72 CT MICRO 15 72 CT MICRO/T 16 72 CT MICRO LOOP 17 72 CT MICRO/T LOOP 18 96 CT MICRO/T 19 96 CT MICRO/T 20 96 CT MICRO LOOP 21 96 CT MICRO/T LOOP 22 144 CT MICRO 23 144 CT MICRO/T 24 144 CT MICRO FEEDER 25 144 CT MICRO LOOP 26 144 CT MICRO LOOP 27 144CT M/FEEDER LOOP 28 288 CT MICRO 29 288 CT MICRO/T 30 288 CT MICRO FEEDER 31 288 CT MICRO LOOP 32 288CT MICRO/T LOOP 33 288 CT M/FEEDER LOO 34 BDO144P LCP 35 BDO288P LCP 36 BDO432P LCP 37 BDO576P LCP 37 BDG576P LCP
38 FLOWER POT
39 UH2.5
40 UH3
41 UH4
42 UH5 43 1-1.00" SDR11 HDPE 44 2-1.00" SDR11 HDPE 45 3-1.00" SDR11 HDPE 46 1-18/14-2 WAY 47 1-18/14-4 WAY 48 EXISTING PIPE
49 TYCO "B" SPLICE CASE 50 TYCO "D" SPLICE CASE 51 GROUND ROD 52 OTE SPLICES
53 NON-OTE SPLICES
54 BM53FA

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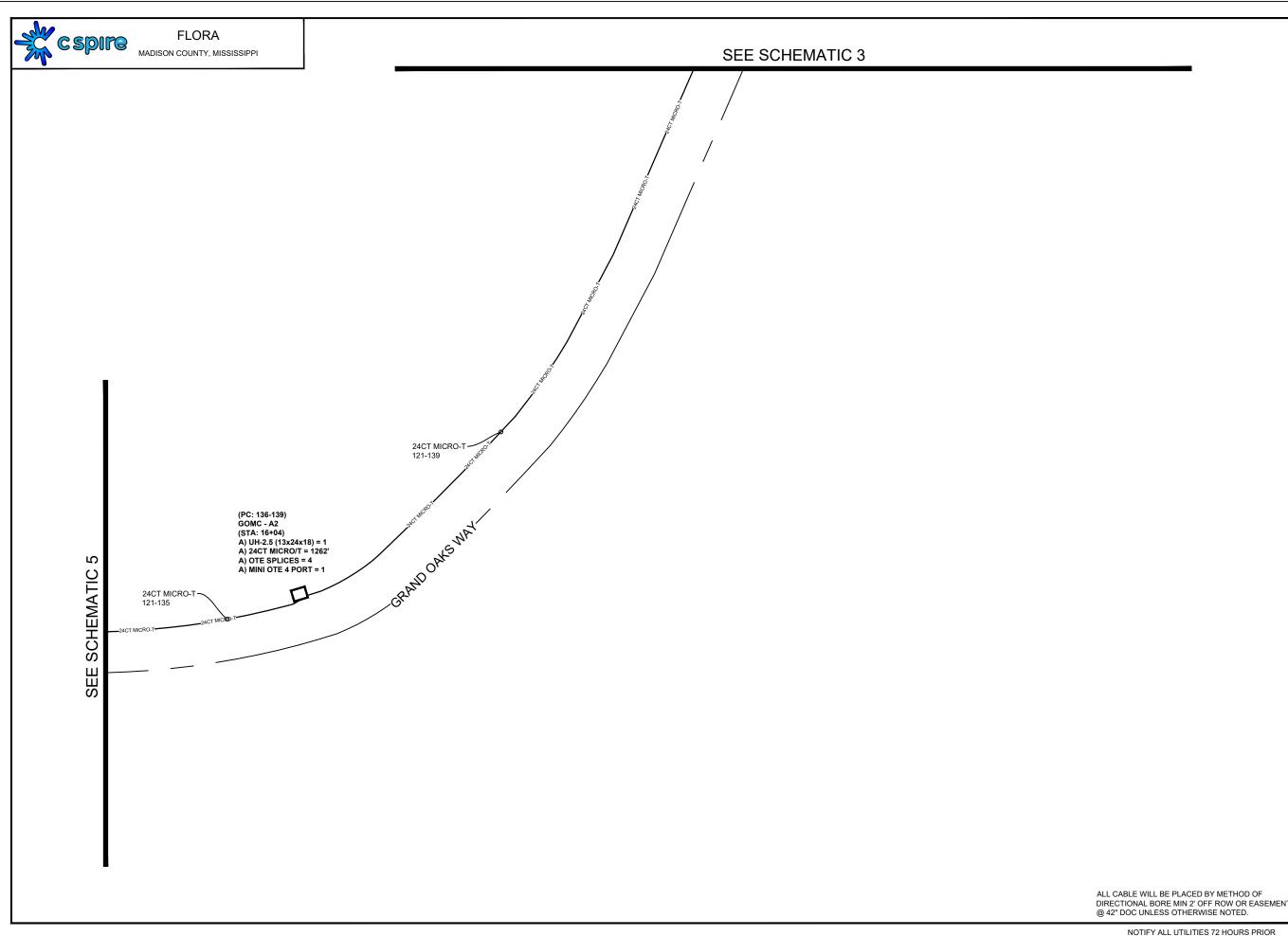






JOB DESCRIPTION DESCRIPTION CONSTRUCTION SCHEMATIC 003 DRAWN BY DELTA FIBER MATERIALS LIST ITEM DESCRIPTION QTY. 1 MINI OTE 2 PORT
2 MINI OTE 4 PORT
3 MINI OTE 8 PORT
4 12 CT FOC
5 12 CT FOC LOOP
6 24 CT MICRO/T
7 24 CT MICRO/T 8 24 CT MICRO LOOP 9 24 CT MICRO/T LOOP 10 48 CT MICRO 11 48 CT MICRO/T 12 48 CT MICRO LOOP 13 48 CT MICRO/T LOOP 14 72 CT MICRO 15 72 CT MICRO/T 16 72 CT MICRO LOOP 17 72 CT MICRO/T LOOP 18 96 CT MICRO/T 19 96 CT MICRO/T 20 96 CT MICRO LOOP 21 96 CT MICRO/T LOOP 22 144 CT MICRO 23 144 CT MICRO/T 24 144 CT MICRO FEEDER 25 144 CT MICRO LOOP 26 144 CT MICRO LOOP 27 144CT M/FEEDER LOOP 28 288 CT MICRO 29 288 CT MICRO/T 30 288 CT MICRO FEEDER 31 288 CT MICRO LOOP 32 288CT MICRO/T LOOP 32 288CT MICRO/T LOOP 33 288 CT M/FEEDER LOOF 34 BDO144P LCP 35 BDO288P LCP 36 BDO432P LCP 37 BDO576P LCP 37 BDO5/6P LCP
38 FLOWER POT
39 UH2.5
40 UH3
41 UH4
42 UH5 43 1-1.00" SDR11 HDPE 44 2-1.00" SDR11 HDPE 45 3-1.00" SDR11 HDPE 46 1-18/14-2 WAY 47 1-18/14-4 WAY 48 EXISTING PIPE
49 TYCO "B" SPLICE CASE 50 TYCO "D" SPLICE CASE 51 GROUND ROD 52 OTE SPLICES
53 NON-OTE SPLICES
54 BM53FA





JOB DESCRIPTION GRAND OAKS PROJECT CITY FLORA SHEET DESCRIPTION CONSTRUCTION SCHEMATIC 004 SCALE DRAWN BY 1"=50' DELTA FIBER MATERIALS LIST ITEM DESCRIPTION QTY. 1 MINI OTE 2 PORT
2 MINI OTE 4 PORT
3 MINI OTE 8 PORT
4 12 CT FOC
5 12 CT FOC LOOP
6 24 CT MICRO/T
7 24 CT MICRO/T 8 24 CT MICRO LOOP 9 24 CT MICRO/T LOOP 10 48 CT MICRO 11 48 CT MICRO/T 12 48 CT MICRO LOOP
13 48 CT MICRO/T LOOP
14 72 CT MICRO 15 72 CT MICRO/T 16 72 CT MICRO LOOP 17 72 CT MICRO/T LOOP 17 72 CT MICRO/T LOOP

18 96 CT MICRO

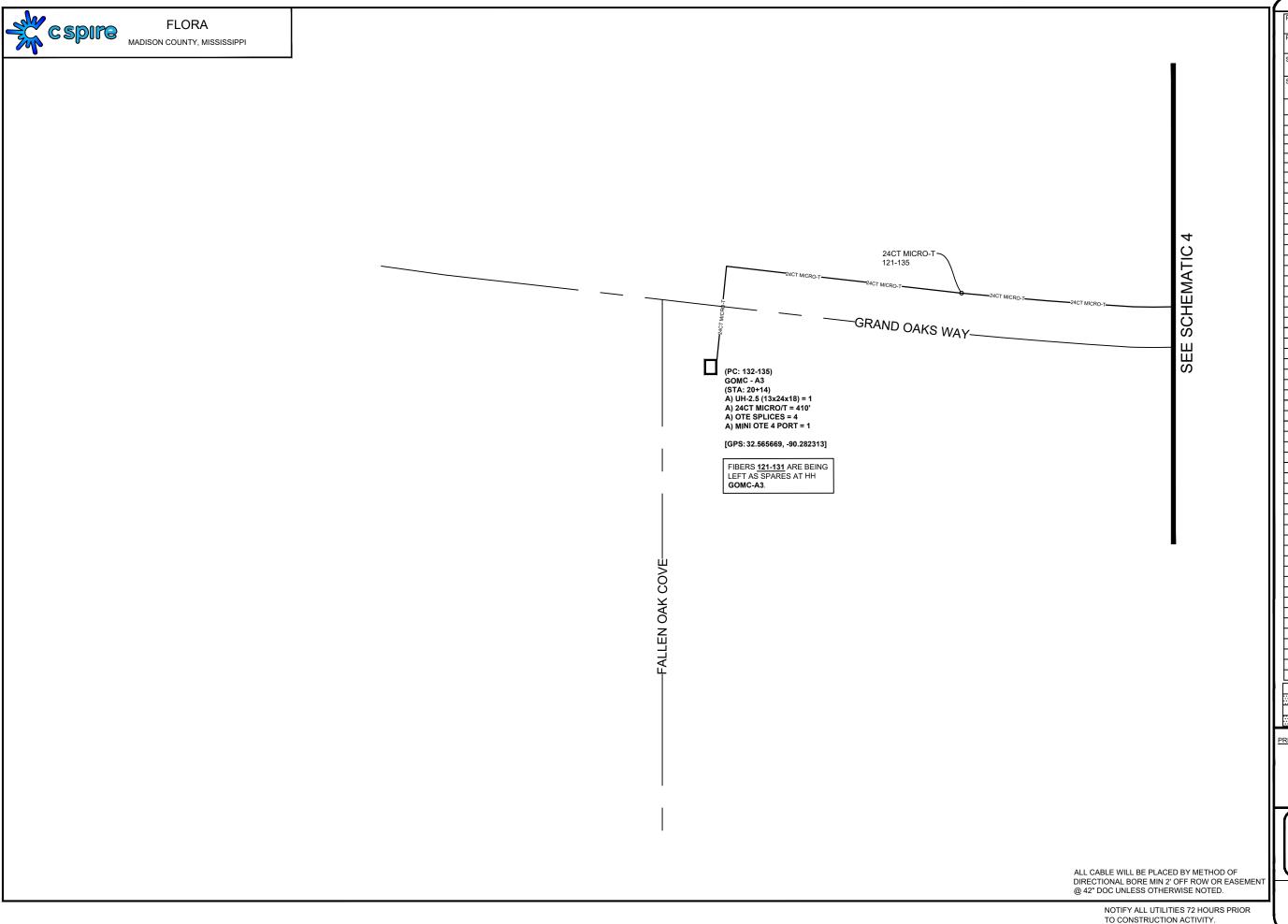
19 96 CT MICRO/T

20 96 CT MICRO/T LOOP

21 96 CT MICRO/T LOOP 22 144 CT MICRO 23 144 CT MICRO/T 24 144 CT MICRO FEEDER 25 144 CT MICRO LOOP 26 144 CT MICRO LOOP 27 144CT M/FEEDER LOOP 28 288 CT MICRO 29 288 CT MICRO/T 30 288 CT MICRO FEEDER 31 288 CT MICRO LOOP 32 288CT MICRO/T LOOP 33 288 CT M/FEEDER LOOP 34 BDO144P LCP 35 BDO288P LCP 36 BDO432P LCP 37 BDO576P LCP 37 BDG576P LCP
38 FLOWER POT
39 UH2.5
40 UH3
41 UH4
42 UH5 43 1-1.00" SDR11 HDPE 44 2-1.00" SDR11 HDPE 45 3-1.00" SDR11 HDPE 46 1-18/14-2 WAY 47 1-18/14-4 WAY 48 EXISTING PIPE 49 TYCO "B" SPLICE CASE 50 TYCO "D" SPLICE CASE 51 GROUND ROD 52 OTE SPLICES
53 NON-OTE SPLICES
54 BM53FA

PREPARED BY DELTA FIBER ENGINEERING



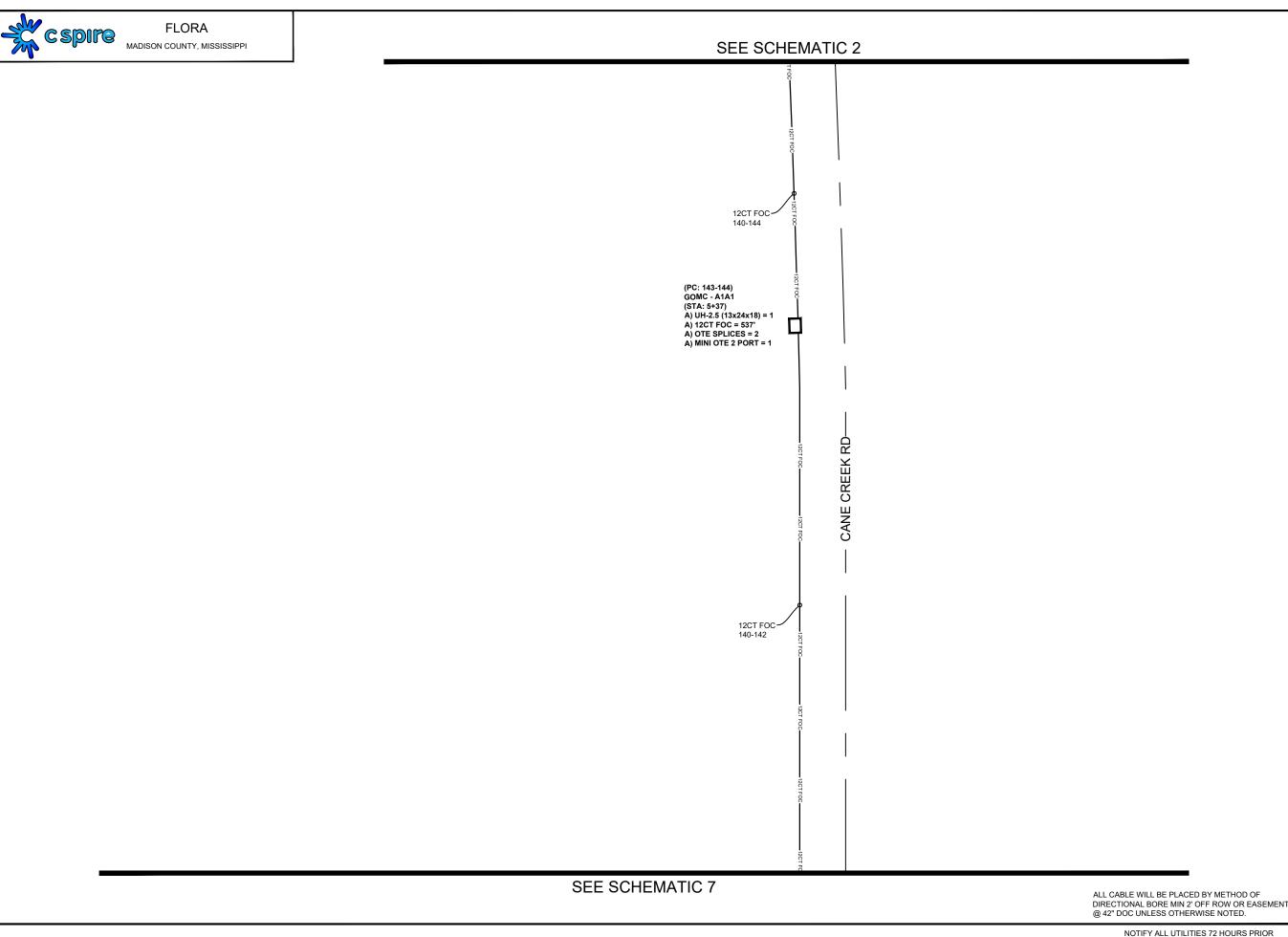


JOB DESCRIPTION GRAND OAKS FLORA SHEET DESCRIPTION CONSTRUCTION SCHEMATIC 005 SCALE DRAWN BY 1"=50' DELTA FIBER MATERIALS LIST ITEM DESCRIPTION QTY. 1 MINI OTE 2 PORT
2 MINI OTE 4 PORT
3 MINI OTE 8 PORT
4 12 CT FOC
5 12 CT FOC LOOP
6 24 CT MICRO/T
7 24 CT MICRO/T 8 24 CT MICRO LOOP 9 24 CT MICRO/T LOOP 10 48 CT MICRO 11 48 CT MICRO/T 12 48 CT MICRO LOOP 13 48 CT MICRO/T LOOP 14 72 CT MICRO 15 72 CT MICRO/T 16 72 CT MICRO LOOP 17 72 CT MICRO/T LOOP 18 96 CT MICRO/T 19 96 CT MICRO/T 20 96 CT MICRO LOOP 21 96 CT MICRO/T LOOP 22 144 CT MICRO 23 144 CT MICRO/T 24 144 CT MICRO FEEDER 25 144 CT MICRO LOOP 26 144 CT MICRO LOOP 27 144CT M/FEEDER LOOP 28 288 CT MICRO 29 288 CT MICRO/T 30 288 CT MICRO FEEDER 31 288 CT MICRO LOOP 32 288CT MICRO/T LOOP 33 288 CT M/FEEDER LOOP 34 BDO144P LCP 35 BDO288P LCP 36 BDO432P LCP 37 BDO576P LCP 38 FLOWER POT 39 UH2.5 40 UH3 41 UH4 42 UH5 43 1-1.00" SDR11 HDPE 44 2-1.00" SDR11 HDPE 45 3-1.00" SDR11 HDPE 46 1-18/14-2 WAY 47 1-18/14-4 WAY 48 EXISTING PIPE
49 TYCO "B" SPLICE CASE 50 TYCO "D" SPLICE CASE 51 GROUND ROD 52 OTE SPLICES
53 NON-OTE SPLICES
54 BM53FA 11





DISCLAIMER



PROJECT NAME GRAND OAKS PROJECT CITY FLORA SHEET DESCRIPTION CONSTRUCTION SCHEMATIC 006 SCALE DRAWN BY 1"=50' DELTA FIBER MATERIALS LIST ITEM DESCRIPTION QTY. 1 MINI OTE 2 PORT
2 MINI OTE 4 PORT
3 MINI OTE 8 PORT
4 12 CT FOC
5 12 CT FOC LOOP
6 24 CT MICRO/T
7 24 CT MICRO/T 8 24 CT MICRO LOOP 9 24 CT MICRO/T LOOP 10 48 CT MICRO 11 48 CT MICRO/T 12 48 CT MICRO/T 12 48 CT MICRO LOOP 13 48 CT MICRO/T LOOP 14 72 CT MICRO 15 72 CT MICRO/T 16 72 CT MICRO LOOP 17 72 CT MICRO/T LOOP 17 72 CT MICRO/T LOOP

18 96 CT MICRO

19 96 CT MICRO/T

20 96 CT MICRO/T LOOP

21 96 CT MICRO/T LOOP 22 144 CT MICRO 23 144 CT MICRO/T 24 144 CT MICRO FEEDER 25 144 CT MICRO LOOP 26 144 CT MICRO LOOP 27 144CT M/FEEDER LOOP 28 288 CT MICRO 29 288 CT MICRO/T 30 288 CT MICRO FEEDER 31 288 CT MICRO LOOP 32 288CT MICRO/T LOOP 33 288 CT M/FEEDER LOOP 34 BDO144P LCP 35 BDO288P LCP 36 BDO432P LCP 37 BDO576P LCP 37 BDG576P LCP
38 FLOWER POT
39 UH2.5
40 UH3
41 UH4
42 UH5 43 1-1.00" SDR11 HDPE 44 2-1.00" SDR11 HDPE 45 3-1.00" SDR11 HDPE 46 1-18/14-2 WAY 47 1-18/14-4 WAY 48 EXISTING PIPE 49 TYCO "B" SPLICE CASE 50 TYCO "D" SPLICE CASE 51 GROUND ROD 52 OTE SPLICES
53 NON-OTE SPLICES
54 BM53FA

JOB DESCRIPTION

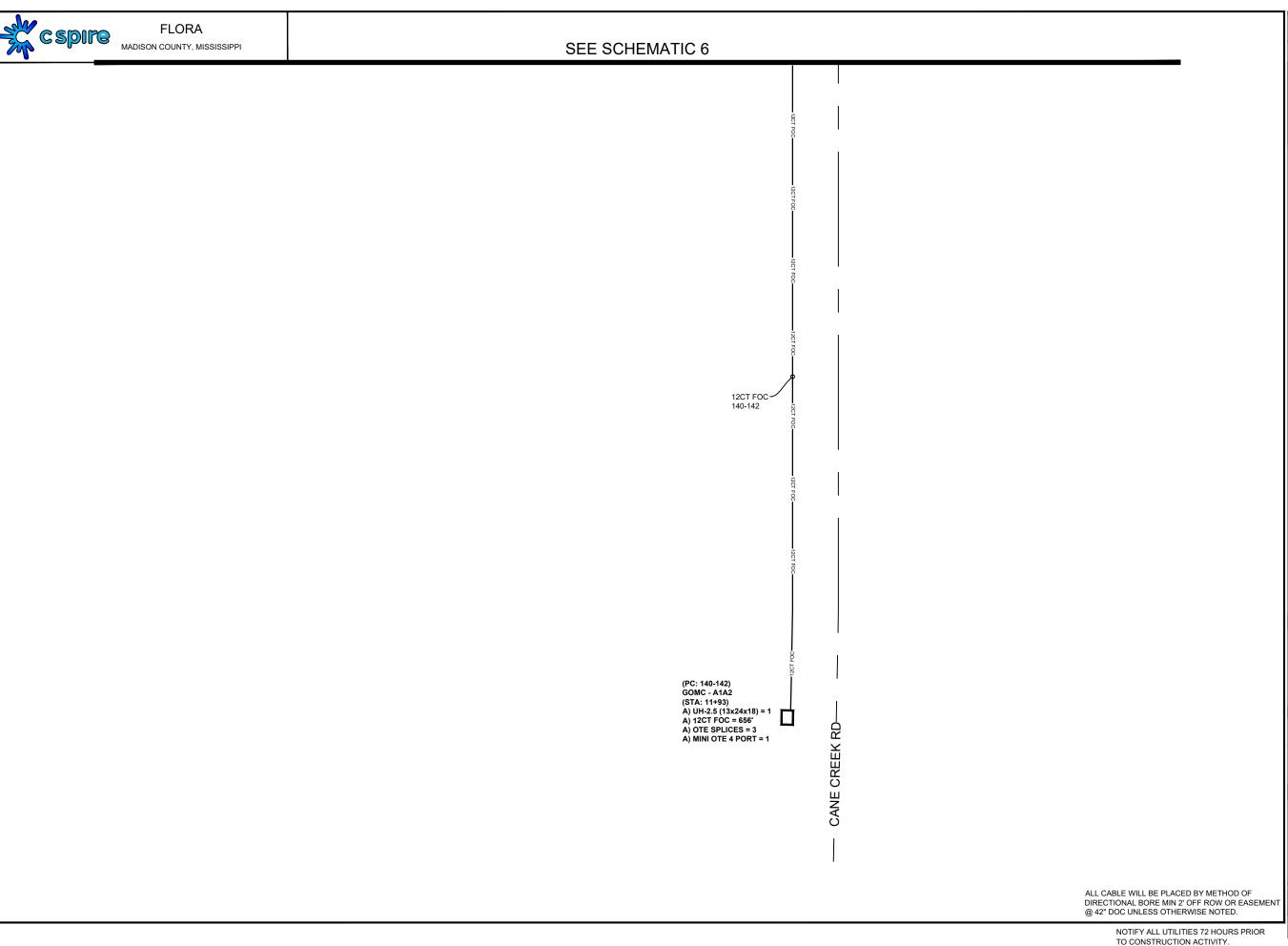
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JOB DESCRIPTION GRAND OAKS PROJECT CITY FLORA SHEET DESCRIPTION CONSTRUCTION SCHEMATIC 007 SCALE DRAWN BY 1"=50' DELTA FIBER MATERIALS LIST ITEM DESCRIPTION QTY. 1 MINI OTE 2 PORT
2 MINI OTE 2 PORT
3 MINI OTE 8 PORT
4 12 CT FOC
5 12 CT FOC LOOP
6 24 CT MICRO/T
7 24 CT MICRO/T 8 24 CT MICRO LOOP 9 24 CT MICRO/T LOOP 10 48 CT MICRO 11 48 CT MICRO/T 12 48 CT MICRO/T 12 48 CT MICRO LOOP 13 48 CT MICRO/T LOOP 14 72 CT MICRO 15 72 CT MICRO/T 16 72 CT MICRO LOOP 17 72 CT MICRO/T LOOP 17 72 CT MICRO/T LOOP

18 96 CT MICRO

19 96 CT MICRO/T

20 96 CT MICRO/T LOOP

21 96 CT MICRO/T LOOP 22 144 CT MICRO 23 144 CT MICRO/T 24 144 CT MICRO FEEDER 25 144 CT MICRO LOOP 26 144 CT MICRO LOOP 27 144CT M/FEEDER LOOP 28 288 CT MICRO 29 288 CT MICRO/T 30 288 CT MICRO FEEDER 31 288 CT MICRO LOOP 32 288CT MICRO/T LOOP 33 288 CT M/FEEDER LOOP 34 BDO144P LCP 35 BDO288P LCP 36 BDO432P LCP 37 BDO576P LCP 37 BDG576P LCP
38 FLOWER POT
39 UH2.5
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42 UH5 43 1-1.00" SDR11 HDPE 44 2-1.00" SDR11 HDPE 45 3-1.00" SDR11 HDPE 46 1-18/14-2 WAY 47 1-18/14-4 WAY 48 EXISTING PIPE 49 TYCO "B" SPLICE CASE 50 TYCO "D" SPLICE CASE

51 GROUND ROD
52 OTE SPLICES
53 NON-OTE SPLICES
54 BM53FA

MAP NUMBER
6
6

51 GROUND ROD





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