



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

ROY COOPER
GOVERNOR

JAMES H. TROGDON, III
SECRETARY

March 14, 2018

Addendum No. 1

RE: Contract # C204076
WBS # 38389.3.3
F. A. # BRSTP-0059(005)
Cumberland County (B-4491)
Bridge #22 Over I-95 Business/US-301 On NC-59

March 20, 2018 Letting

To Whom It May Concern:

Reference is made to the plans and proposal form furnished to you on this project.

The following revision has been made to the Structure plans:

Sheet No.	Revisions
S-24	Revised the quantity within the Bill of Material for the Concrete Parapet

Please void the above listed sheet in your plans and staple the revised sheet thereto.

The following revisions have been made to the Roadway plans:

Sheet No.	Revisions
UO-1	Revised the list of Utility Owners
U0-2 thru UO-8	Revised to label the Utility Owners names

Please void the above listed sheets in your plans and staple the revised sheets thereto.

The following revisions have been made to the proposal:

Page No.	Revisions
Proposal Cover	Note added that reads "Includes Addendum No. 1 Dated 03-14-2018".
G-1	Revised the completion date within the project special provisions entitled "Contract Time and Liquidated Damages" and "Intermediate Contract Time Number 1 and Liquidated Damages"

Mailing Address:
NC DEPARTMENT OF TRANSPORTATION
CONTRACT STANDARDS AND DEVELOPMENT
1591 MAIL SERVICE CENTER
RALEIGH, NC 27699-1591

Telephone: (919) 707-6900
Fax: (919) 250-4127
Customer Service: 1-877-368-4968

Location:
1020 BIRCH RIDGE DR.
RALEIGH, NC 27610

Website: www.ncdot.gov

Page No.	Revisions
G-6	Revised the list of parcels in the project special provision entitled "Delay In Right Of Entry"
G-7	Revised the percentages within the project special provision entitled "Schedule of Estimated Completion Progress"
UC-1 thru UC-5	Revised the project special provisions for "Utility Construction" to update them to 2018 Standard Specifications
UbO-1 and UbO-2	Revised the dates for utility moves within the project special provision entitled "Utilities By Others"

Please void the above listed pages in your proposal and staple the revised pages thereto.

The contract will be prepared accordingly.

Sincerely,

DocuSigned by:

 F81B6038A47A442...
 Ronald E. Davenport, Jr., PE
 State Contract Officer

RED/jag
 Attachments

cc: Mr. Lamar Sylvester, PE
 Mr. Greg Burns, PE
 Mr. Ron Hancock, PE
 Mr. Jon Weathersby, PE
 Mr. Ken Kennedy, PE
 Ms. Lori Strickland
 Project File (2)

Mr. Ray Arnold, PE
 Ms. Theresa Canales, PE
 Mr. Mike Gwyn
 Ms. Jaci Kincaid
 Ms. Penny Higgins
 Mr. Mitchell Dixon

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH, N.C.

PROPOSAL

INCLUDES ADDENDUM No. 1 DATED 03-14-2018

DATE AND TIME OF BID OPENING: **MARCH 20, 2018 AT 2:00 PM**

CONTRACT ID C204076
WBS 38389.3.3

FEDERAL-AID NO. BRSTP-0059(005)
COUNTY CUMBERLAND
T.I.P. NO. B-4491
MILES 1.087
ROUTE NO. NC 59
LOCATION BRIDGE #22 OVER I-95BUS/US-301 ON NC-59.

TYPE OF WORK GRADING, DRAINAGE, PAVING, AND STRUCTURE.

NOTICE:

ALL BIDDERS SHALL COMPLY WITH ALL APPLICABLE LAWS REGULATING THE PRACTICE OF GENERAL CONTRACTING AS CONTAINED IN CHAPTER 87 OF THE GENERAL STATUTES OF NORTH CAROLINA WHICH REQUIRES THE BIDDER TO BE LICENSED BY THE N.C. LICENSING BOARD FOR CONTRACTORS WHEN BIDDING ON ANY NON-FEDERAL AID PROJECT WHERE THE BID IS \$30,000 OR MORE, EXCEPT FOR CERTAIN SPECIALTY WORK AS DETERMINED BY THE LICENSING BOARD. BIDDERS SHALL ALSO COMPLY WITH ALL OTHER APPLICABLE LAWS REGULATING THE PRACTICES OF ELECTRICAL, PLUMBING, HEATING AND AIR CONDITIONING AND REFRIGERATION CONTRACTING AS CONTAINED IN CHAPTER 87 OF THE GENERAL STATUTES OF NORTH CAROLINA. NOTWITHSTANDING THESE LIMITATIONS ON BIDDING, THE BIDDER WHO IS AWARDED ANY FEDERAL - AID FUNDED PROJECT SHALL COMPLY WITH CHAPTER 87 OF THE GENERAL STATUTES OF NORTH CAROLINA FOR LICENSING REQUIREMENTS WITHIN 60 CALENDAR DAYS OF BID OPENING.

BIDS WILL BE RECEIVED AS SHOWN BELOW:

THIS IS A ROADWAY & STRUCTURE PROPOSAL

5% BID BOND OR BID DEPOSIT REQUIRED

PROJECT SPECIAL PROVISIONS**GENERAL****CONTRACT TIME AND LIQUIDATED DAMAGES:**

(8-15-00) (Rev. 12-18-07)

108

SP1 G07 A

The date of availability for this contract is **April 30, 2018**, except that work in jurisdictional waters and wetlands shall not begin until a meeting between the DOT, Regulatory Agencies, and the Contractor is held as stipulated in the permits contained elsewhere in this proposal. This delay in availability has been considered in determining the contract time for this project.

The completion date for this contract is **December 28, 2020**.

Except where otherwise provided by the contract, observation periods required by the contract will not be a part of the work to be completed by the completion date and/or intermediate contract times stated in the contract. The acceptable completion of the observation periods that extend beyond the final completion date shall be a part of the work covered by the performance and payment bonds.

The liquidated damages for this contract are **Two Hundred Dollars (\$ 200.00)** per calendar day. These liquidated damages will not be cumulative with any liquidated damages which may become chargeable under Intermediate Contract Time Number 1.

INTERMEDIATE CONTRACT TIME NUMBER 1 AND LIQUIDATED DAMAGES:

(7-1-95) (Rev. 2-21-12)

108

SP1 G13 A

Except for that work required under the Project Special Provisions entitled *Planting, Reforestation* and/or *Permanent Vegetation Establishment*, included elsewhere in this proposal, the Contractor will be required to complete all work included in this contract and shall place and maintain traffic on same.

The date of availability for this intermediate contract time is **April 30, 2018**.

The completion date for this intermediate contract time is **July 1, 2020**.

The liquidated damages for this intermediate contract time are **Two Thousand Dollars (\$ 2,000.00)** per calendar day.

Upon apparent completion of all the work required to be completed by this intermediate date, a final inspection will be held in accordance with Article 105-17 and upon acceptance, the Department will assume responsibility for the maintenance of all work except *Planting, Reforestation* and/or *Permanent Vegetation Establishment*. The Contractor will be responsible for and shall make corrections of all damages to the completed roadway caused by his planting operations, whether occurring prior to or after placing traffic through the project.

DELAY IN RIGHT OF ENTRY:

(7-1-95)

108

SP1 G22 B

The Contractor will not be allowed right of entry to the following parcels prior to the listed dates unless otherwise permitted by the Engineer.

<u>Parcel No.</u>	<u>Property Owner</u>	<u>Date</u>
40	J.G. Horner	06/30/2018
43	High Family Properties, LLC	06/30/2018
47	Jason Dan Moore	06/30/2018
52	Raymond W. Thomas	06/30/2018
53	Michael Jones	06/30/2018

MAJOR CONTRACT ITEMS:

(2-19-02)

104

SP1 G28

The following listed items are the major contract items for this contract (see Article 104-5 of the *2018 Standard Specifications*):

Line #	Description
8	Borrow Excavation
41	Asphalt Concrete Base Course, Type B25.0C
42	Asphalt Concrete Intermediate Course, Type I19.0C

SPECIALTY ITEMS:

(7-1-95)(Rev. 1-17-12)

108-6

SP1 G37

Items listed below will be the specialty items for this contract (see Article 108-6 of the *2018 Standard Specifications*).

Line #	Description
77-85	Guardrail
86-94	Fencing
98-108	Signing
125-135	Long-Life Pavement Markings
136	Removable Tape
145	Permanent Pavement Markers
149-164	Utility Construction
165-193	Erosion Control
194-229	Signals/ITS System

FUEL PRICE ADJUSTMENT:

(11-15-05) (Rev. 2-18-14)

109-8

SP1 G43

Revise the 2018 Standard Specifications as follows:

Page 1-83, Article 109-8, Fuel Price Adjustments, add the following:

The base index price for DIESEL #2 FUEL is \$ 2.2321 per gallon. Where any of the following are included as pay items in the contract, they will be eligible for fuel price adjustment.

The pay items and the fuel factor used in calculating adjustments to be made will be as follows:

Description	Units	Fuel Usage Factor Diesel
Unclassified Excavation	Gal/CY	0.29
Borrow Excavation	Gal/CY	0.29
Class IV Subgrade Stabilization	Gal/Ton	0.55
Aggregate Base Course	Gal/Ton	0.55
Sub-Ballast	Gal/Ton	0.55
Asphalt Concrete Base Course, Type _____	Gal/Ton	2.90
Asphalt Concrete Intermediate Course, Type _____	Gal/Ton	2.90
Asphalt Concrete Surface Course, Type _____	Gal/Ton	2.90
Open-Graded Asphalt Friction Course	Gal/Ton	2.90
Permeable Asphalt Drainage Course, Type _____	Gal/Ton	2.90
Sand Asphalt Surface Course, Type _____	Gal/Ton	2.90
Aggregate for Cement Treated Base Course	Gal/Ton	0.55
Portland Cement for Cement Treated Base Course	Gal/Ton	0.55
__ " Portland Cement Concrete Pavement	Gal/SY	0.245
Concrete Shoulders Adjacent to __ " Pavement	Gal/SY	0.245

SCHEDULE OF ESTIMATED COMPLETION PROGRESS:

(7-15-08) (Rev. 5-16-17)

108-2

SP1 G58

The Contractor's attention is directed to the Standard Special Provision entitled *Availability of Funds Termination of Contracts* included elsewhere in this proposal. The Department of Transportation's schedule of estimated completion progress for this project as required by that Standard Special Provision is as follows:

<u>Fiscal Year</u>		<u>Progress (% of Dollar Value)</u>
2018	(7/01/17 - 6/30/18)	12% of Total Amount Bid
2019	(7/01/18 - 6/30/19)	56% of Total Amount Bid
2020	(7/01/19 - 6/30/20)	32% of Total Amount Bid

The Contractor shall also furnish his own progress schedule in accordance with Article 108-2 of the 2018 Standard Specifications. Any acceleration of the progress as shown by the Contractor's progress schedule over the progress as shown above shall be subject to the approval of the Engineer.

Project: B-4491

UC-1

County: Cumberland

PROJECT SPECIAL PROVISIONS
Utility Construction



Technical Services of North Carolina, Inc.
701 Corporate Center Drive, Suite 475
Raleigh, NC 27607-5238
Project Number. 60531340 B-4491
March 13, 2018



**DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED**

Revise the 2018 Standard Specifications as follows:

Page 15-1, Sub-article 1500-2 Cooperation with the Utility Owner, paragraph 2:
add the following sentences:

The utility owner is the Fayetteville Public Works Commission. The contact person is Misty Manning and she can be reached by phone at 910-223-4736.

Page 15-2, Sub-article 1500-9 Placing Pipelines into Service,
add the following sentence:

Obtain approval from the Fayetteville PWC prior to placing a new water line into service. Use backflow prevention assemblies for temporary connections to isolate new water lines from existing water line. A representative from PWC shall witness all tests performed on their water and sewer facilities.

Page 15-4, Sub-article 1505-3(E), Thrust Restraint, third paragraph
Replace the paragraph with:

Use joint restraint methods, such as integral restraining bells and spigots, restraining retainer glands, or restraining gaskets. Use factory restraint for all pipes larger than 12". Use concrete reaction backing and thrust collars only where joint restraint is impractical with the approval of the Engineer.

Page 15-6, Sub-article 1510-3 (A), General
In the fifth paragraph, replace the words "36" to 42" of cover" with "a minimum of 42" of cover."

Page 15-6, Sub-article 1510-3 (B), Testing and Sterilization
Replace the third paragraph with:

Project: B-4491

UC-2

County: Cumberland

PROJECT SPECIAL PROVISIONS
Utility Construction

Perform tests using clean water and provide certified results demonstrating no loss of pressure when pressurized at 200 ± 5 psi for 2 hours.

Page 15-6, Sub-article 1510-3 (B), Testing and Sterilization:

Replace the sixth paragraph (beginning at line 39) with the following:

Sterilize water lines in accordance with the requirements of NCDENR, Section 1003 of the North Carolina Rules Governing Public Water supply and AWWA 601A and C651 Section 4.4.3, the Continuous Feed Method (most recent editions). Contractor shall fully cooperate with the utility owner's representative to coordinate and schedule the testing. Contractor shall provide a chlorine solution with between 50 parts per million and 100 parts per million in the initial feed. Solid sterilization agent is not allowed. The chlorine solution shall remain in contact with all interior surfaces for 24 hours. If the chlorine level drops below 10 parts per million during a 24 hour period, Contractor shall flush line with fresh water from an approved source, refill with fresh chlorine solution, and repeat for 24 hours. The Public Works Commission will sample water from the pipes and test the water in their laboratory. Do not place the water lines into service until tests performed by the Public Works Commission are satisfactory. The disinfection shall be repeated until tests indicate the absence of pollution for at least two (2) full days.

Operate all valves and controls to assure thorough sterilization. During the flushing period, open and close each fire hydrant several times as necessary to completely flush the hydrant and lines. Provide all chlorinating equipment, sterilization solution, taps, corporation stops, and blow-offs necessary to complete testing and sterilization. If any disruption to the disinfection process occurs, or if any repair procedure is necessary, then the disinfection process shall start over.

Page 15-6, Sub-article 1510-3 (B), Testing and Sterilization

Add the following paragraph:

The Public Works Commission will sample water from the pipes and test the water in their laboratory. Do not place the water lines into service until tests performed by the Public Works Commission are satisfactory.

Project: B-4491

UC-3

County: Cumberland

PROJECT SPECIAL PROVISIONS
Utility Construction

Page 15-7, Sub-article 1515-2 Materials,

replace paragraph beginning “Double check valves...” with the following:

Double Check valves (DCV) and Reduced Pressure Zone principal (RPZ) backflow prevention assemblies shall be listed on the PWC list of approved backflow devices.

Page 15-7, sub-article 1515-2 Materials,

Add the following paragraph:

Use Type K copper tubing for all one-inch water services installed or relocated. Use a continuous run, without splices, from the corporation stop to the meter for all water services installed or relocated.

Page 15-8, sub-article 1515-3(B) Meters,

Add the following paragraph:

Connect or reconnect meter to the customer’s plumbing using brass fittings.

Page 15-8, sub-article 1515-3(E) Line Stops,

Add the following paragraph:

Do not use line stops without the authorization of the Engineer and the owner.

Page 15-11, Sub-article 1520-3(A)(2) Testing, line 21,

replace the second paragraph with the following:

Test all gravity sewer lines for leakage using the air test. Perform line and grade testing and deflection testing on all gravity sewer lines.

Project: B-4491

UC-4

County: Cumberland

PROJECT SPECIAL PROVISIONS
Utility Construction

Page 15-12, Sub-article 1520-3(A)(2)(c) Air Test,
Replace Table 1520-1 with:

AIR TEST TIME			
Pipe Dia (in)	Minimum time (minutes)	Length for Min Time (ft)	Time for Longer Length (sec)
4	3:46	597	0.380L
6	5:40	398	0.854L
8	7:34	298	1.520L
10	9:26	239	2.374L
12	11:20	199	3.418L
15	14:10	159	5.342L
18	17:00	133	7.692L
21	19:50	114	10.470L
24	22:40	99	13.674L
27	25:30	88	17.306L
30	28:20	80	21.366L
33	31:10	72	25.852L
36	34:00	66	30.768L

Page 15-14, Article 1525-3 Construction Methods,
Replace the fifth paragraph with:

The invert channel shall be constructed of brick and mortar, in accordance with the Public Works Commission Standard Details. Precast inverts are not allowed. The invert channel shall be smooth and semicircular in shape conforming to the inside of the connecting sewer section. Changes in direction of flow shall be made with a smooth curve as large as a radius as the size of the manhole will permit without a decrease in flow velocity. Changes in size and grade of the channel shall be made gradually and evenly. The invert channel walls shall be constructed to three quarters (3/4) of the height of the crown of the outlet sewer and in such a manner not to obstruct maintenance, inspection or flow in the sewers. The inverts shall have a minimum slope of one (1) percent across the bottom of the manhole. A shelf shall be provided on each side of any manhole invert channel. Inverts in manholes with standing water will not be acceptable. The shelf shall be sloped not less than 1:12 (min) and no more than 2:12 (max). The bottom of the boot for the new sewer main or lateral shall be set one inch above existing shelf unless otherwise indicated.

Project: B-4491

UC-5

County: Cumberland

PROJECT SPECIAL PROVISIONS
Utility Construction

Page 15-16, sub-article 1530-3(A) Abandoning Pipe,
Add the following paragraph:

Remove valves, or close valves and remove the top of the valve box to an elevation 2 ft below the roadway subgrade or finished grade, and backfill.

Owner and Owner's Requirements:

The existing water mains to be relocated are owned by the Fayetteville Public Works Commission. The Contractor shall provide access for the owner's representatives to all phases of construction. The owner shall be notified two weeks prior to commencement of any work and one week prior to service interruption. Only authorized personnel of the owner shall operate valves in the existing water distribution system or sanitary sewer collection system.

PROJECT SPECIAL PROVISIONS
Utilities by Others

Michael Baker INTERNATIONAL	Michael Baker Engineering, Inc. 8000 Regency Parkway, Suite 600 Cary, North Carolina 27518 Phone: 919-463-5488 Fax: 919-463-5490
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General:

The following utility companies have facilities that will be in conflict with the construction of this project:

- A) Duke Energy – Power (Distribution)
- B) South River EMC – Power (Distribution)
- C) CenturyLink – Communications
- D) Time Warner Cable – Communications
- E) EarthLink - Communications

The conflicting facilities of these concerns will be adjusted prior to the date of availability, unless otherwise noted and are therefore listed in these special provisions for the benefit of the Contractor. All utility work listed herein will be done by the utility owners. All utilities are shown on the plans from the best available information.

The Contractor’s attention is directed to Article 105-8 of the 2018 Standard Specifications.

Utilities Requiring Adjustment:

Utility relocations are shown on the Utilities by Others Plans.

- A) Duke Energy – Power (Distribution)
 - 1) Duke Energy will install new utility poles, aerial lines, and underground cables within the project limits.
 - 2) Duke Energy’s relocation work will be completed by January 15, 2019.
 - 3) Contact person for Duke Energy is JB Jones at 910-206-1966.

- B) South River EMC – Power (Distribution)
 - 1) South River EMC will install new utility poles and aerial lines within the project limits.
 - 2) South River EMC’s relocation work will be completed by June 19, 2018.
 - 3) Contact person for South River EMC is Andrew Smith at 910-237-3169.

PROJECT SPECIAL PROVISIONS

Utilities by Others

C) CenturyLink – Communications

- 1) CenturyLink will install buried cables and abandon facilities within the project limits.
- 2) CenturyLink's relocation work will be completed by October 21, 2018.
- 3) Contact person for CenturyLink is Kevin Goodwin at 910-366-2142.

D) Time Warner Cable – Communications

- 1) Time Warner Cable will install aerial cables on Duke Energy's new utility poles, install buried cables and abandon facilities within the project limits.
- 2) Time Warner Cable's relocation work will be completed by February 15, 2019.
- 3) Contact person for Time Warner Cable is Tommy Roberts at 919-920-7409.

E) EarthLink – Communications

- 1) EarthLink will lower their existing fiber at -SRB1- Sta. 12+94, 11.88' Right.
- 2) EarthLink's relocation work will be completed by April 19, 2018.
- 3) Contact person for EarthLink is Don Fradel at 919-863-7081.

BILL OF MATERIALS

BAR NO.	SIZE	TYPE	LENGTH	WEIGHT	BAR NO.	SIZE	TYPE	LENGTH	WEIGHT
*A1	3/27	5	STR 47'-5"	16172	*A177	4	5	STR 44'-8"	186
A2	3/27	5	STR 47'-3"	16115	*A178	4	5	STR 45'-3"	189
*A101	2	5	STR 2'-10"	6	*A179	4	5	STR 45'-10"	191
*A102	2	5	STR 3'-11"	8	*A180	4	5	STR 46'-4"	193
*A103	2	5	STR 5'-0"	10	*A181	4	5	STR 46'-11"	196
*A104	2	5	STR 6'-1"	13	A201	2	5	STR 2'-10"	6
*A105	2	5	STR 7'-3"	15	A202	2	5	STR 3'-11"	8
*A106	2	5	STR 8'-4"	17	A203	2	5	STR 5'-0"	10
*A107	2	5	STR 9'-5"	20	A204	2	5	STR 6'-1"	13
*A108	2	5	STR 10'-6"	22	A205	2	5	STR 7'-3"	15
*A109	2	5	STR 11'-7"	24	A206	2	5	STR 8'-4"	17
*A110	2	5	STR 12'-9"	27	A207	2	5	STR 9'-5"	20
*A111	2	5	STR 13'-10"	29	A208	2	5	STR 10'-6"	22
*A112	2	5	STR 14'-11"	31	A209	2	5	STR 11'-7"	24
*A113	2	5	STR 16'-1"	34	A210	2	5	STR 13'-10"	29
*A114	2	5	STR 17'-2"	36	A211	2	5	STR 14'-11"	31
*A115	2	5	STR 18'-3"	38	A212	2	5	STR 16'-1"	34
*A116	2	5	STR 19'-4"	40	A213	2	5	STR 17'-2"	36
*A117	2	5	STR 20'-6"	43	A214	2	5	STR 18'-3"	38
*A118	2	5	STR 21'-7"	45	A215	2	5	STR 19'-4"	40
*A119	2	5	STR 22'-8"	47	A216	2	5	STR 20'-6"	43
*A120	2	5	STR 23'-9"	50	A217	2	5	STR 21'-7"	45
*A121	2	5	STR 24'-11"	52	A218	2	5	STR 22'-8"	47
*A122	2	5	STR 26'-0"	54	A219	2	5	STR 23'-9"	50
*A123	2	5	STR 27'-1"	56	A220	2	5	STR 24'-11"	52
*A124	2	5	STR 28'-2"	59	A221	2	5	STR 26'-0"	54
*A125	2	5	STR 29'-4"	61	A222	2	5	STR 27'-1"	56
*A126	2	5	STR 30'-5"	63	A223	2	5	STR 28'-2"	59
*A127	2	5	STR 31'-6"	66	A224	2	5	STR 29'-4"	61
*A128	2	5	STR 32'-7"	68	A225	2	5	STR 30'-5"	63
*A129	2	5	STR 33'-9"	70	A226	2	5	STR 31'-6"	66
*A130	2	5	STR 34'-10"	73	A227	2	5	STR 32'-7"	68
*A131	2	5	STR 35'-11"	75	A228	2	5	STR 33'-9"	70
*A132	2	5	STR 37'-0"	77	A229	2	5	STR 34'-10"	73
*A133	2	5	STR 38'-2"	80	A230	2	5	STR 35'-11"	75
*A134	2	5	STR 39'-3"	82	A231	2	5	STR 37'-0"	77
*A135	2	5	STR 40'-4"	84	A232	2	5	STR 38'-2"	80
*A136	2	5	STR 41'-5"	86	A233	2	5	STR 39'-3"	82
*A137	2	5	STR 42'-7"	89	A234	2	5	STR 40'-4"	84
*A138	2	5	STR 43'-8"	91	A235	2	5	STR 41'-5"	86
*A139	2	5	STR 44'-9"	93	A236	2	5	STR 42'-7"	89
*A140	2	5	STR 45'-10"	96	A237	2	5	STR 43'-8"	91
*A141	2	5	STR 47'-0"	98	A238	2	5	STR 44'-9"	93
*A142	2	5	STR 48'-1"	100	A239	2	5	STR 45'-10"	96
*A143	2	5	STR 49'-2"	103	A240	2	5	STR 47'-0"	98
*A144	2	5	STR 50'-3"	105	A241	2	5	STR 48'-1"	100
*A145	2	5	STR 51'-5"	107	A242	2	5	STR 49'-2"	103
*A146	2	5	STR 52'-6"	110	A243	2	5	STR 50'-3"	105
*A147	2	5	STR 53'-7"	112	A244	2	5	STR 51'-5"	107
*A148	2	5	STR 54'-8"	114	A245	2	5	STR 52'-6"	110
*A149	2	5	STR 55'-10"	116	A246	2	5	STR 53'-7"	112
*A150	2	5	STR 56'-11"	119	A247	2	5	STR 54'-8"	114
*A151	2	5	STR 58'-0"	121	A248	2	5	STR 55'-10"	116
*A152	2	5	STR 59'-1"	123	A249	2	5	STR 55'-10"	116
*A153	2	5	STR 31'-5"	131	A250	2	5	STR 56'-11"	119
*A154	2	5	STR 31'-12"	134	A251	2	5	STR 58'-0"	121
*A155	2	5	STR 32'-7"	136	A252	2	5	STR 59'-1"	123
*A156	2	5	STR 33'-1"	138	A253	2	5	STR 31'-3"	65
*A157	2	5	STR 33'-8"	140	A254	2	5	STR 31'-10"	67
*A158	2	5	STR 34'-3"	143	A255	2	5	STR 32'-5"	69
*A159	2	5	STR 34'-9"	145	A256	2	5	STR 32'-11"	71
*A160	2	5	STR 35'-4"	147	A257	2	5	STR 33'-6"	73
*A161	2	5	STR 35'-10"	149	A258	2	5	STR 34'-1"	75
*A162	2	5	STR 36'-5"	152	A259	2	5	STR 34'-7"	77
*A163	2	5	STR 37'-0"	154	A260	2	5	STR 35'-2"	79
*A164	2	5	STR 37'-6"	156	A261	2	5	STR 35'-8"	81
*A165	2	5	STR 38-1"	159	A262	2	5	STR 36-0"	83
*A166	2	5	STR 38-8"	161	A263	2	5	STR 36-7"	85
*A167	2	5	STR 39-2"	163	A264	2	5	STR 37-1"	87
*A168	2	5	STR 39-9"	166	A265	2	5	STR 37-8"	89
*A169	2	5	STR 40-3"	168	A266	2	5	STR 38-3"	91
*A170	2	5	STR 40-10"	170	A267	2	5	STR 38-9"	93
*A171	2	5	STR 41-5"	173	A268	2	5	STR 39-4"	95
*A172	2	5	STR 41-11"	175	A269	2	5	STR 39-10"	97
*A173	2	5	STR 42-6"	177	A270	2	5	STR 40-5"	99
*A174	2	5	STR 43-1"	180	A271	2	5	STR 41-0"	101
*A175	2	5	STR 43-7"	182	A272	2	5	STR 41-6"	103
*A176	2	5	STR 44-2"	184					

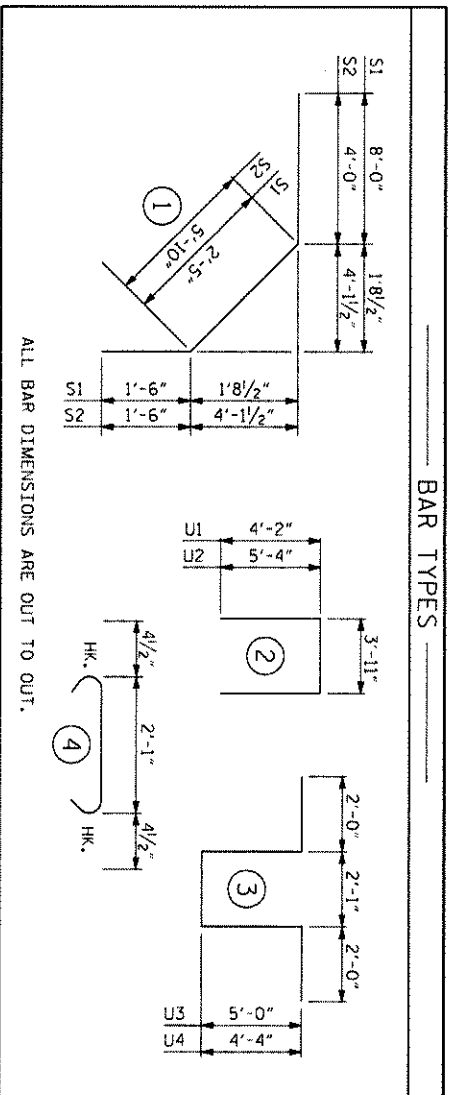
REINFORCING STEEL 32125 LBS.
EPOXY COATED REINF. STEEL 78632 LBS.

BILL OF MATERIALS FOR PARAPET & END POSTS

BAR NO.	SIZE	TYPE	LENGTH	WEIGHT
*B8	1/2	5	STR 24'-8"	3088
*B9	4/8	5	STR 13'-6"	563
*B10	4/8	5	STR 10'-4"	431
*E1	8	7	STR 3'-2"	52
*E2	8	7	STR 3'-8"	60
*E3	8	7	STR 4'-2"	68
*E4	8	7	STR 4'-8"	76
*E5	8	7	STR 5'-0"	82
*S4	3/60	5	STR 5'-7"	2096
*S5	3/60	5	STR 6'-10"	2566
*S6	3/2	5	STR 3'-8"	122

CLASS AA CONCRETE CU VDS. 52
TOTAL LIN. FT. OF CONCRETE PARAPET 376.39

BAR TYPES



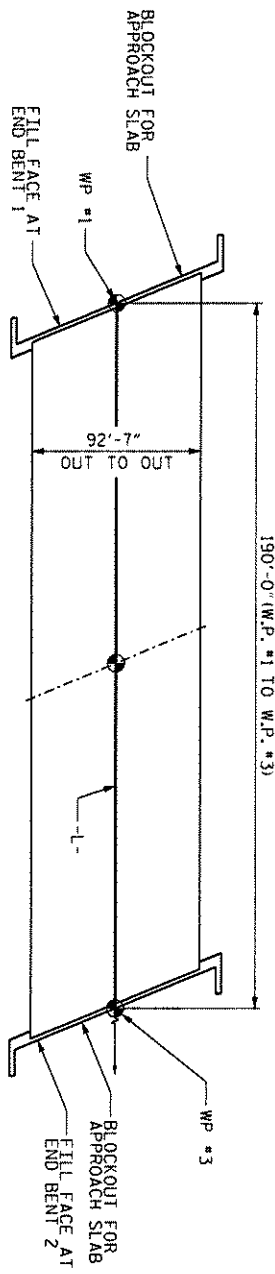
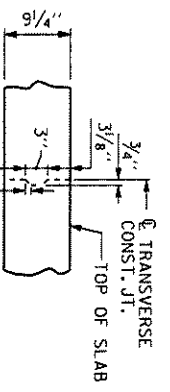
SUPERSTRUCTURE BILL OF MATERIAL

CLASS	REINFORCING STEEL (LBS.)	EPOXY COATED REINFORCING STEEL (LBS.)
POUR #1	250.5	
POUR #2	237.9	
POUR #3	57.0	
POUR #4	188.1	
TOTAL	733.5	32125

† POUR #4 QUANTITY INCLUDES UPPER POUR OF WINGS AND INTEGRAL END BENT.
* QUANTITIES FOR PARAPET, END POSTS, AND CONCRETE MEDIAN ARE NOT INCLUDED.

TRANSVERSE CONSTRUCTION JOINT DETAIL

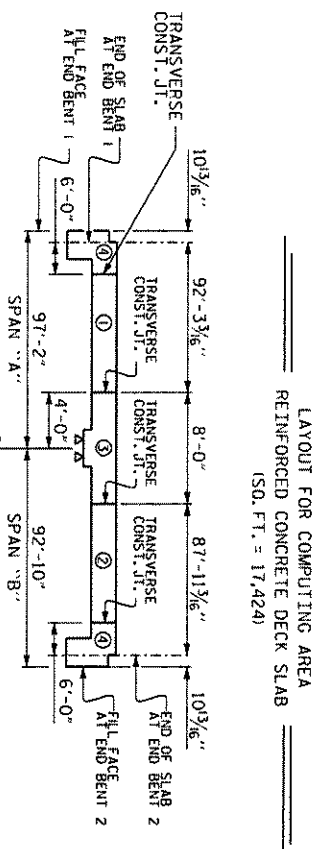
NOTE: REINFORCING STEEL IN SLAB NOT SHOWN. LONGITUDINAL REINFORCING STEEL SHALL BE CONTINUOUS THRU JOINT.



POURING SEQUENCE

(CONTINUOUS FOR LIVE LOAD)

KEY: @ = INDICATES POUR NUMBER



BILL OF MATERIAL

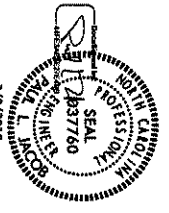
GROOVING BRIDGE FLOORS

APPROACH SLABS	4263	SO. FT.
BRIDGE DECK	16373	SO. FT.
TOTAL	20636	SO. FT.

DRAWN BY: A. CHILKEPALLI
CHECKED BY: P. JACOB
DESIGN ENGINEER OF RECORD: P. JACOB

DATE: 01/2018
DATE: 01/2018
DATE: 01/2018

motoff & nichol
INCORPORATED
918-781-4626
NC LICENSE NO. F-0105



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

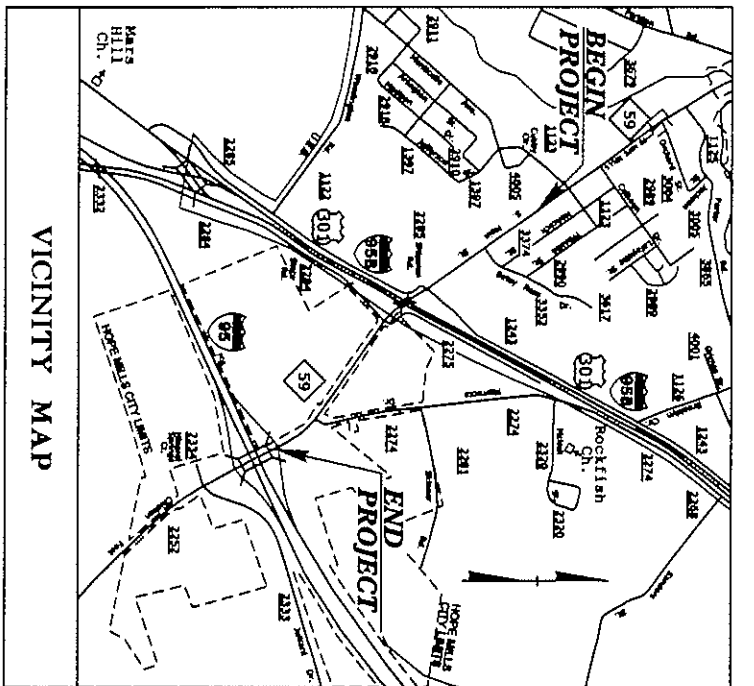
PROJECT NO. B-4491
CUMBERLAND COUNTY
STATION: 55+88.11

REVISIONS

NO.	BY	DATE	NO.	BY	DATE
1	MJR	03/2018	2		

SHEET NO. S-24
TOTAL SHEETS 35

TIP PROJECT: B-4491

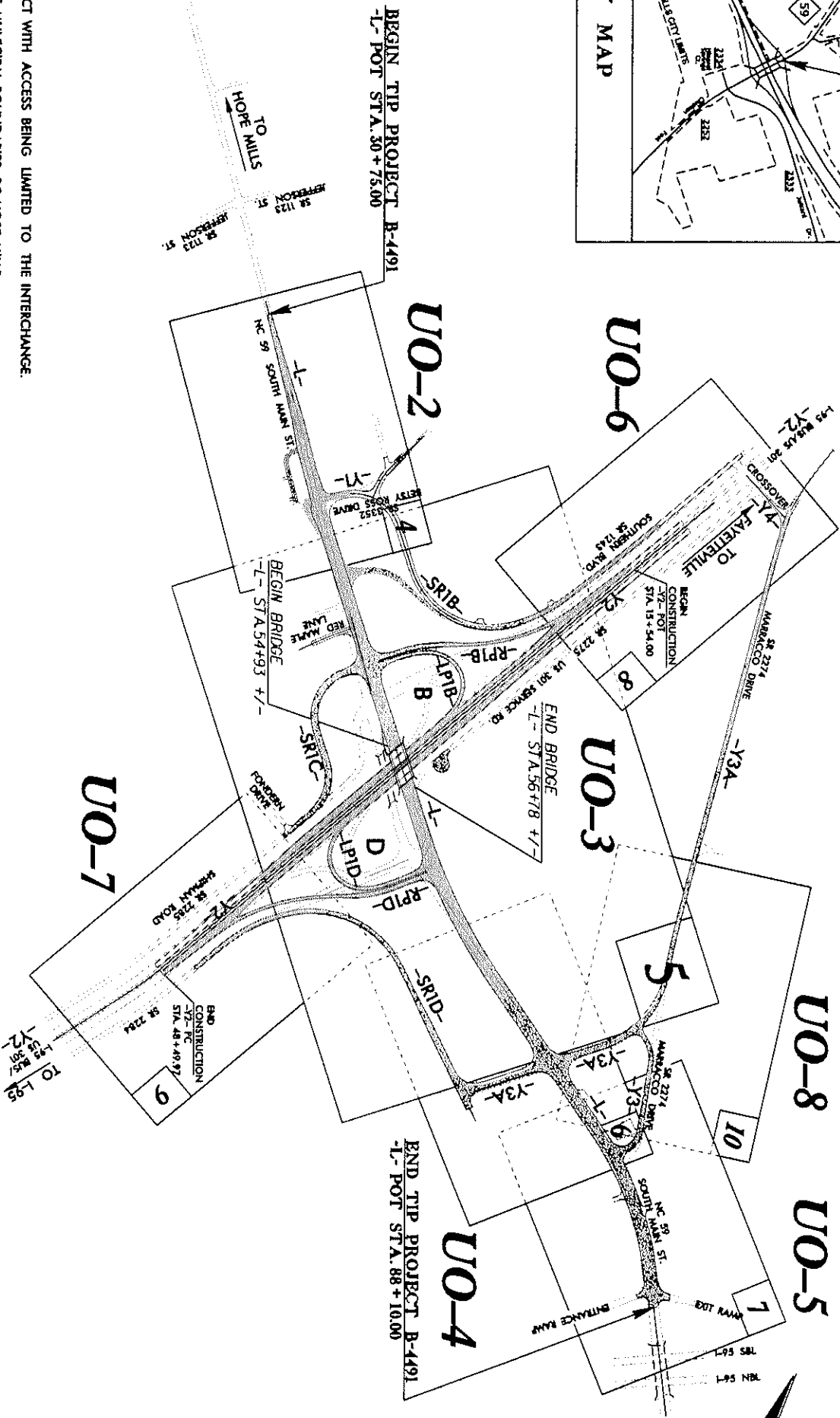


STATE OF NORTH CAROLINA
 DIVISION OF HIGHWAYS

UTILITIES BY OTHERS PLANS CUMBERLAND COUNTY

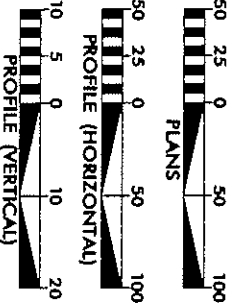
LOCATION: BRIDGE NO. 22 OVER I-95 BUSINESS / US 301 ON NC 59
 TYPE OF WORK: POWER DISTRIBUTION AND TELEPHONE RELOCATION

UO-8 UO-5



NOTE: THIS IS A CONTROLLED-ACCESS PROJECT WITH ACCESS BEING LIMITED TO THE INTERCHANGE.
 A PORTION OF THIS PROJECT IS WITHIN THE MUNICIPAL BOUNDARIES OF HOPE MILLS.

GRAPHIC SCALES



INDEX OF SHEETS

SHEET NO.:	DESCRIPTION:
UO-1	TITLE SHEET
UO-2 THRU UO-8	UBO PLAN SHEETS

UTILITY OWNERS WITH CONFLICTS

- (A) POWER (DISTRIBUTION) - DUKE ENERGY
- (B) POWER (DISTRIBUTION) - SOUTH RIVER EMC
- (C) COMMUNICATIONS - CENTURYLINK
- (D) COMMUNICATIONS - TIME WARNER CABLE
- (E) COMMUNICATIONS - EARTHLINK

PREPARED IN THE OFFICE OF:
Michael Baker
 INTERNATIONAL

Michael Baker Engineering, Inc.
 9900 Parkway Parkway, Suite 800
 Cary, NC 27518
 919-453-5488

Brandt Crews
 PROJECT UTILITY COORDINATOR

Christine Newsome
 PROJECT UTILITY TECHNICIAN



DIVISION OF HIGHWAYS
 UTILITIES UNIT
 155 MAIL SERVICES CENTER
 RALEIGH, NC 27699-3555
 PHONE (919) 717-4499
 FAX (919) 281-4251

Bo Hemphill, PE
 UTILITIES REGIONAL ENGINEER

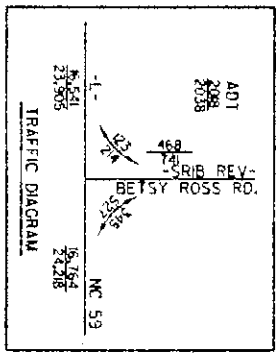
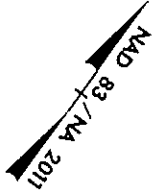
Nehal Howard
 UTILITIES ENGINEER

Kyle Pleasance
 UTILITIES AREA COORDINATOR

Dyann Morris
 UTILITIES COORDINATOR

NOTE:
 ALL UTILITY WORK SHOWN ON THIS SHEET IS DONE BY OTHERS. NO PAYMENT WILL BE MADE TO THE CONTRACTOR FOR UTILITY WORK SHOWN ON THIS SHEET.

T.I.P. NO.	SHEET NO.
B-4491	UO-1

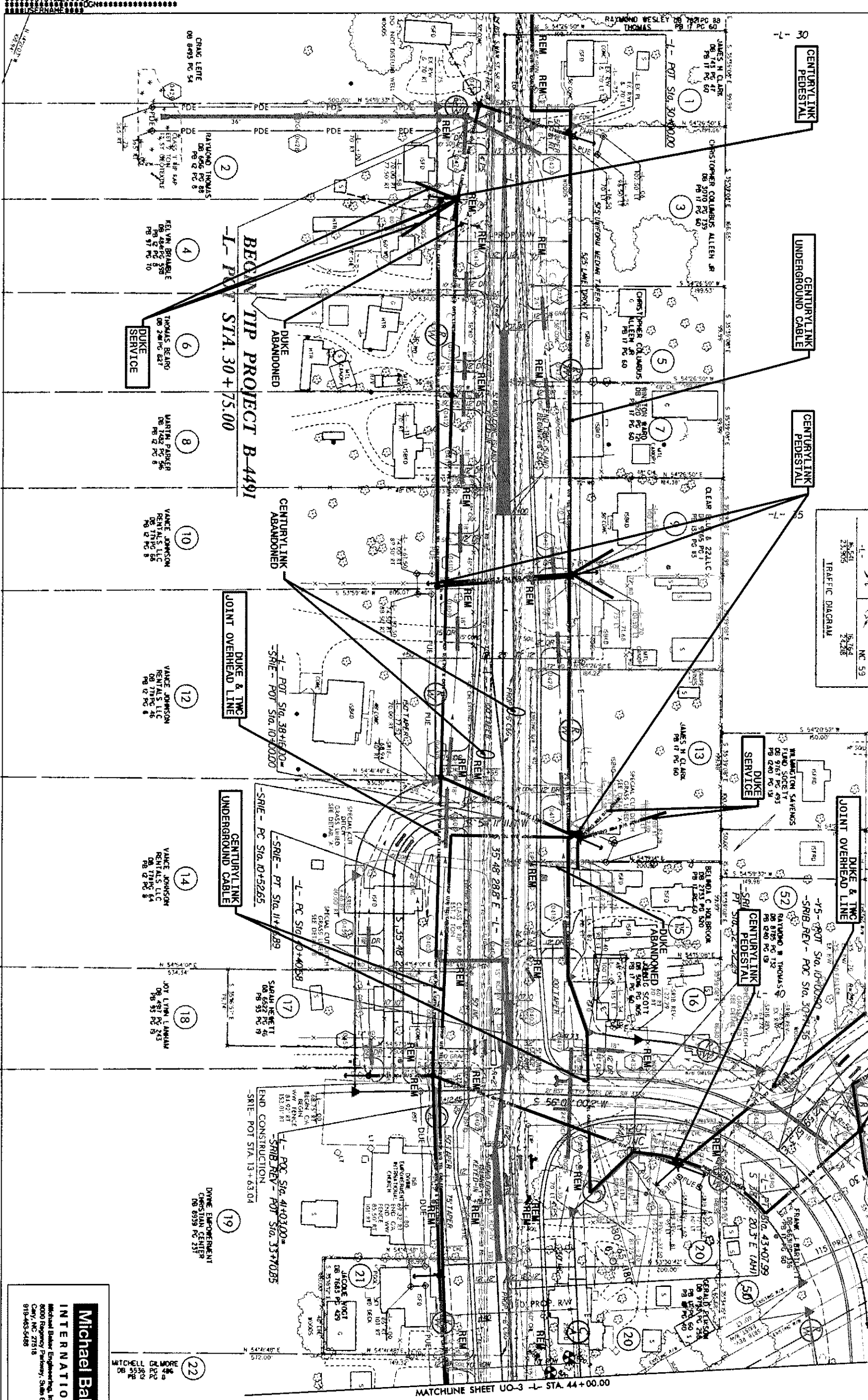


DAVID STEIGLAND
DB 17-40 PC 55
DB 17 PC 60

MACHEAL JONES
DB 17-40 PC 55
DB 17 PC 60

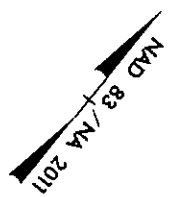
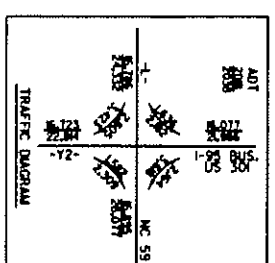
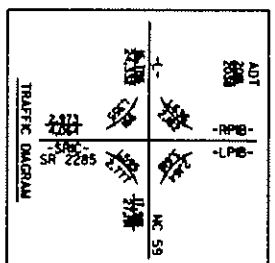
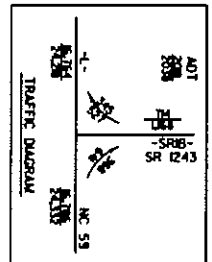
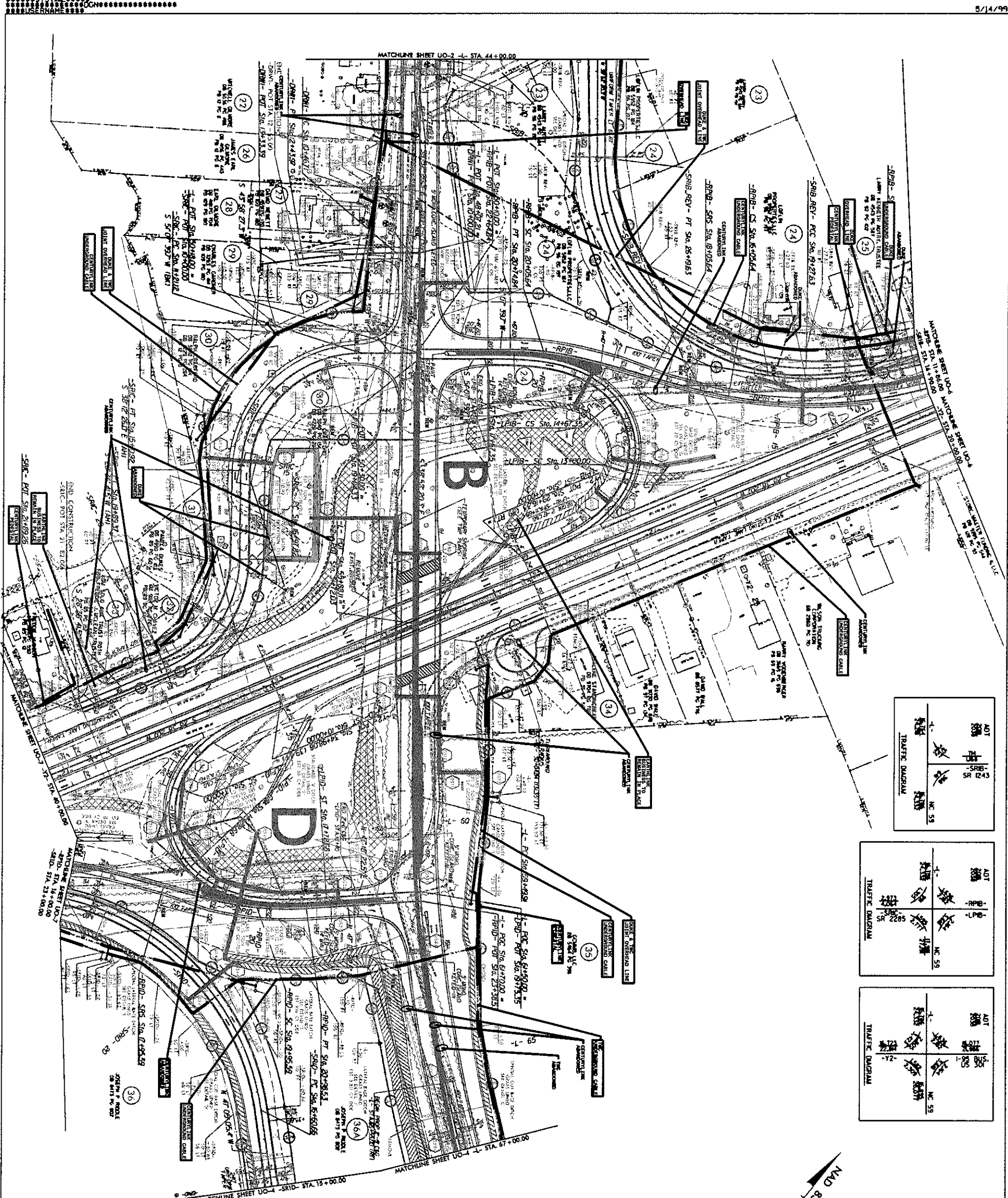
NOTE:
ALL UTILITY WORK SHOWN ON THIS SHEET WILL BE DONE BY OTHERS. NO PAYMENT WILL BE MADE TO THE CONTRACTOR FOR UTILITY WORK SHOWN ON THIS SHEET.

UTILITIES BY OTHERS
PROJECT REFERENCE NO. B-4491
SHEET NO. UO-2
THIS SHEET CORRESPONDS TO R07-4



MATCHLINE SHEET UO-3 -L- STA. 44+00.00

Michael Baker International
Michael Baker Engineering, Inc.
8000 Roperway Parkway, Suite 600
Cary, NC 27515
919-463-5488



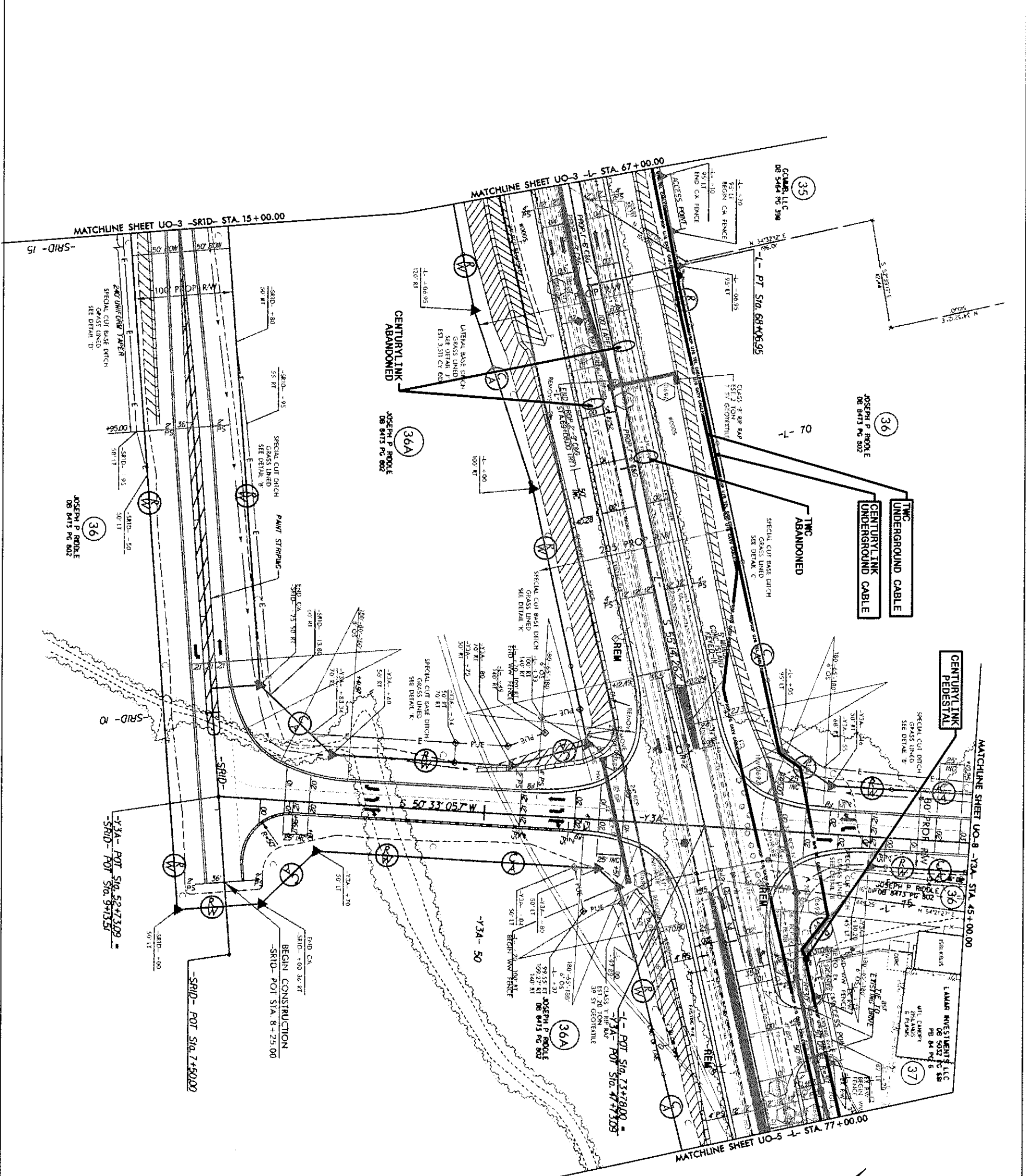
NOTE:
ALL UTILITY WORK SHOWN ON THIS SHEET WILL BE DONE BY OTHERS. NO PAYMENT WILL BE MADE TO THE CONTRACTOR FOR UTILITY WORK SHOWN ON THIS SHEET.

UTILITIES BY OTHERS

PROJECT REFERENCE NO.	SHEET NO.
B-4491	UO-3
THIS SHEET CORRESPONDS TO R07-5	

Michael Baker INTERNATIONAL
 Michael Baker Engineering, Inc.
 8000 Regency Parkway, Suite 600
 Cary, NC 27516
 919-403-5488

*****SYTIME*****
 *****DCN*****
 *****USFRNAME*****



NOTE:
 ALL UTILITY WORK SHOWN ON THIS SHEET WILL BE DONE BY OTHERS. NO PAYMENT WILL BE MADE TO THE CONTRACTOR FOR UTILITY WORK SHOWN ON THIS SHEET.

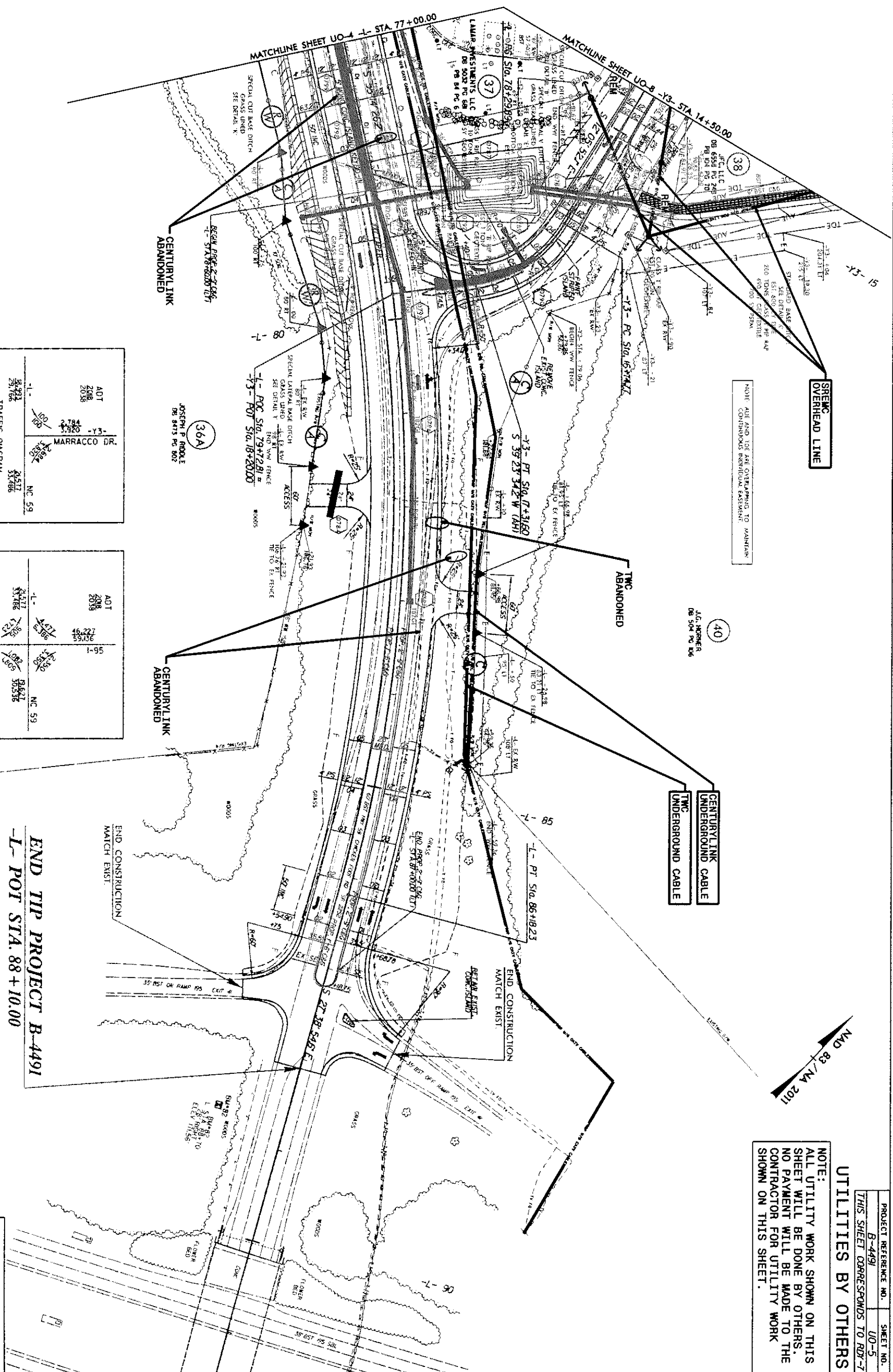
UTILITIES BY OTHERS

PROJECT REFERENCE NO.	SHEET NO.
B-4491	UO-4
THIS SHEET CORRESPONDS TO R07-6	



Michael Baker
INTERNATIONAL
 Michael Baker Engineering, Inc.
 8000 Rappahannock Parkway, Suite 800
 Cary, NC 27515
 919-403-6408

*****SYTIME*****
*****DCN*****



NOTE: SEE AND TOE ARE OVERLAPPING TO MAINTAIN CONTINUOUS REINFORCED BASEMENT.

UTILITIES BY OTHERS

NOTE:
ALL UTILITY WORK SHOWN ON THIS SHEET WILL BE DONE BY OTHERS. NO PAYMENT WILL BE MADE TO THE CONTRACTOR FOR UTILITY WORK SHOWN ON THIS SHEET.



ADT	2008	2008	2008
ADT	2008	2008	2008
-1- MARRACCO DR. -13-			
ADT	2008	2008	2008
ADT	2008	2008	2008
TRAFFIC DIAGRAM			

ADT	2008	2008	2008
ADT	2008	2008	2008
-1- MARRACCO DR. -13-			
ADT	2008	2008	2008
ADT	2008	2008	2008
TRAFFIC DIAGRAM			

END TIP PROJECT B-4491
-1- POT STA. 88+10.00

PROJECT REFERENCE NO. B-4491
SHEET NO. UO-5
THIS SHEET CORRESPONDS TO R07-7

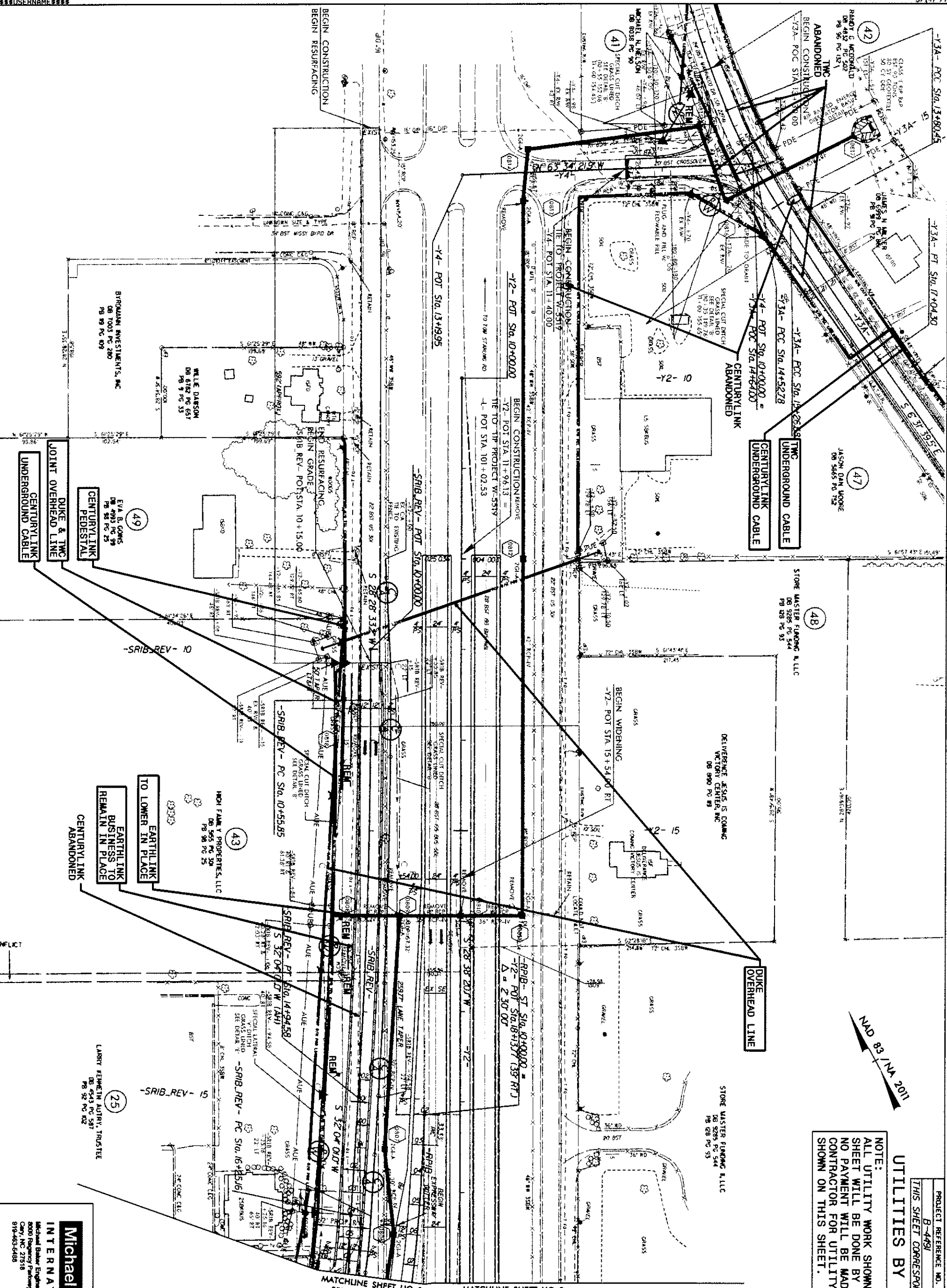
Michael Baker INTERNATIONAL
Michael Baker Engineering, Inc.
8000 Regency Parkway, Suite 800
Cary, NC 27519
919-443-5488

UTILITIES BY OTHERS

NOTE:
ALL UTILITY WORK SHOWN ON THIS SHEET WILL BE DONE BY OTHERS. NO PAYMENT WILL BE MADE TO THE CONTRACTOR FOR UTILITY WORK SHOWN ON THIS SHEET.

PROJECT REFERENCE NO. B-4491
SHEET NO. UO-6

THIS SHEET CORRESPONDS TO R07-8

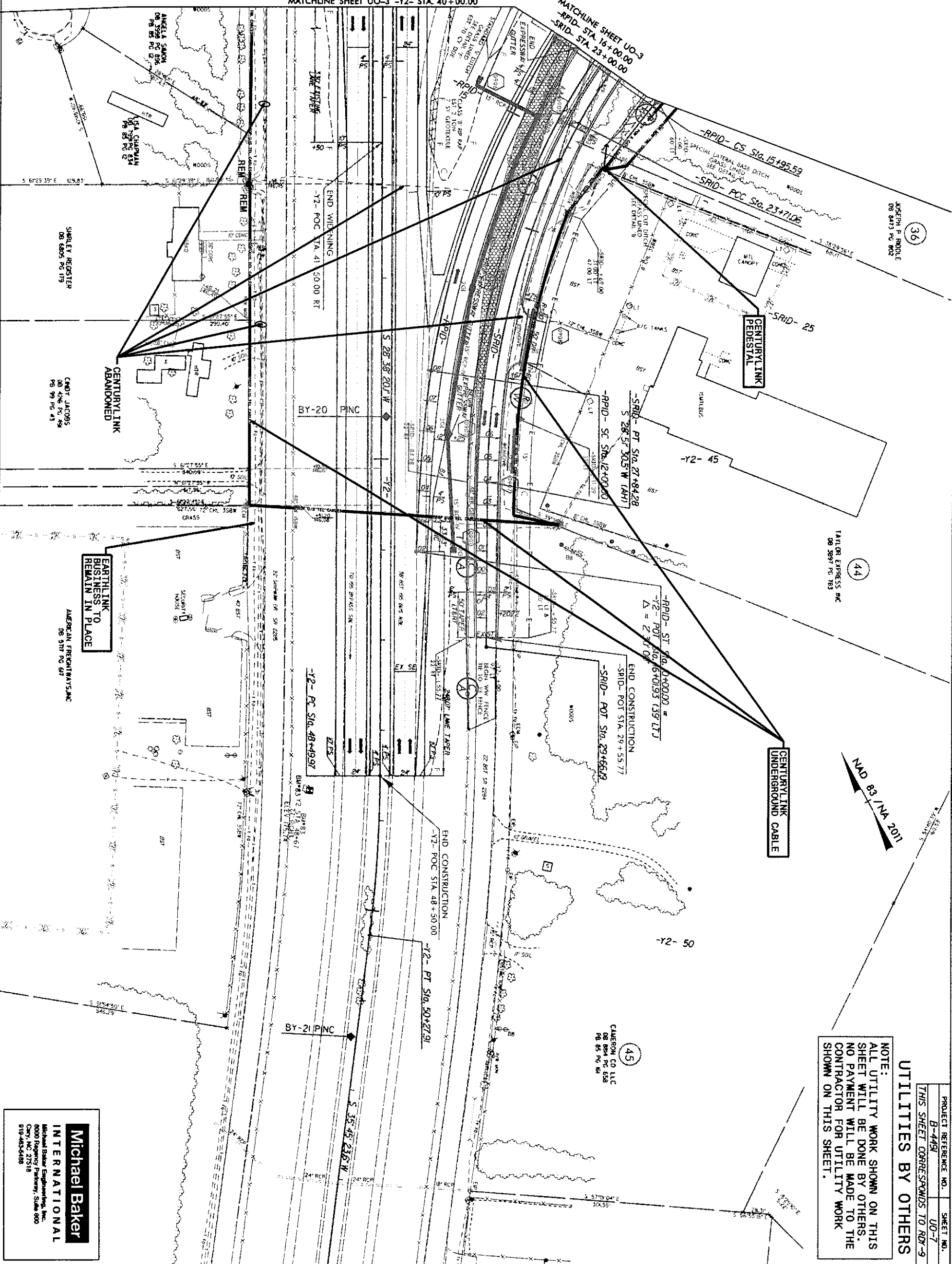


Michael Baker INTERNATIONAL
Michael Baker Engineering, Inc.
2000 Roperway Parkway, Suite 800
Cary, NC 27518
919-463-6488

DATE PLOTTED: 5/14/99
DRAWN BY: J. B. BROWN
CHECKED BY: J. B. BROWN
SCALE: AS SHOWN
SHEET NO.: UO-7
PROJECT NO.: B-4497

MATCHLINE SHEET UO-3 -Y2- STA. 40+00.00

MATCHLINE SHEET UO-3
-RPID- STA. 18+00.00
-SRID- STA. 23+00.00

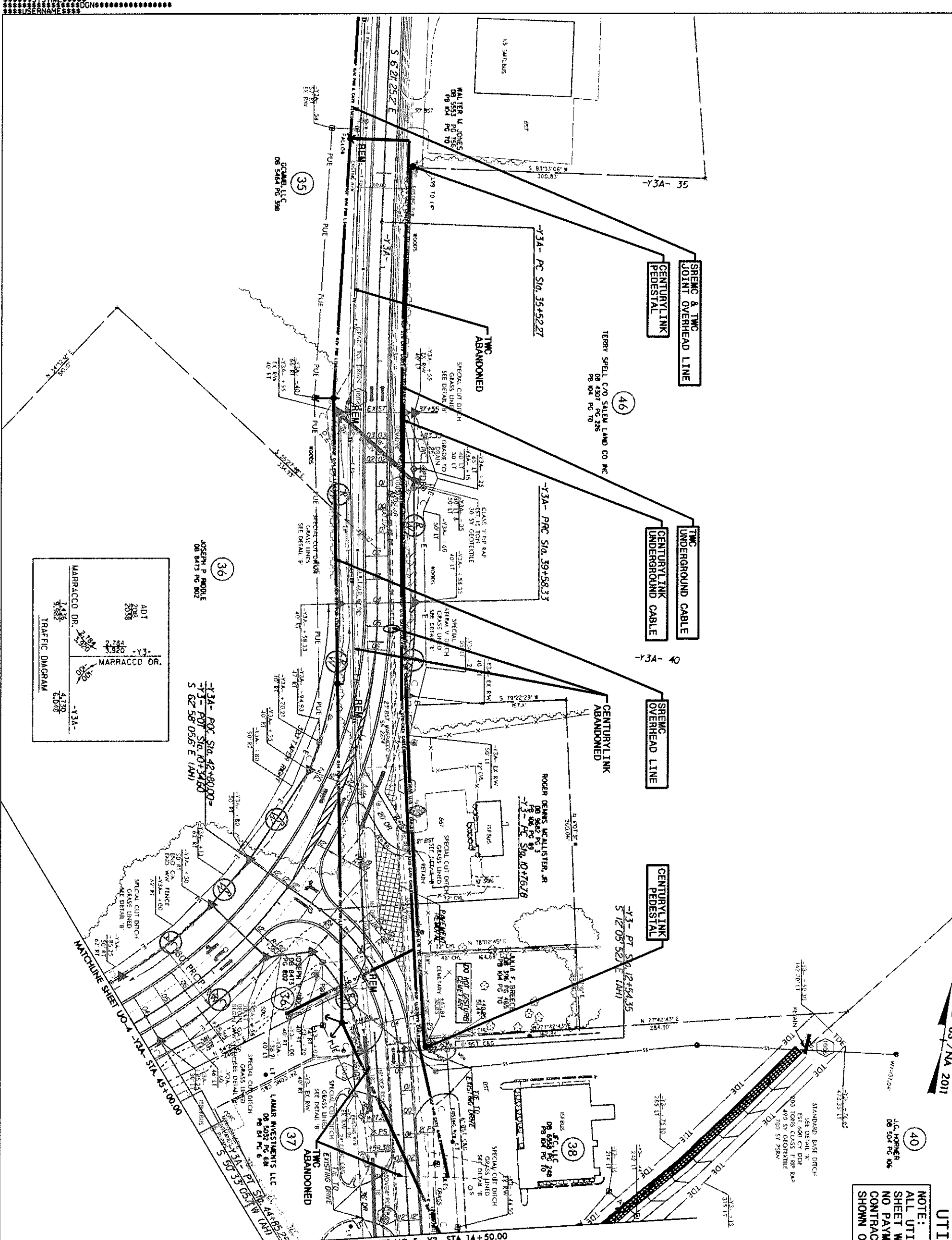


NOTE:
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UTILITIES BY OTHERS

PROJECT REFERENCE NO.	SHEET NO.
B-4497	UO-7
THIS SHEET CORRESPONDS TO ROR-9	

Michael Baker INTERNATIONAL
Michael Baker Engineering, Inc.
8000 Regency Parkway, Suite 800
Cary, NC 27518
919-463-4488

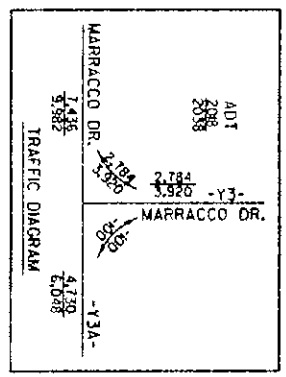


NAD 83 / NA 2011

UTILITIES BY OTHERS

NOTE:
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PROJECT REFERENCE NO.	SHEET NO.
B-4491	UO-8
THIS SHEET CORRESPONDS TO R/W-10	



Michael Baker International
Michael Baker Engineering, Inc.
2000 Regency Parkway, Suite 500
Cary, NC 27518
919-465-5888