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Morganton Rd. Cliffdale Rd. Cliffdale Rd. Graham Rd. Graham Rd. Graham Rd. Graham Rd. Graham Rd. Graham Rd.

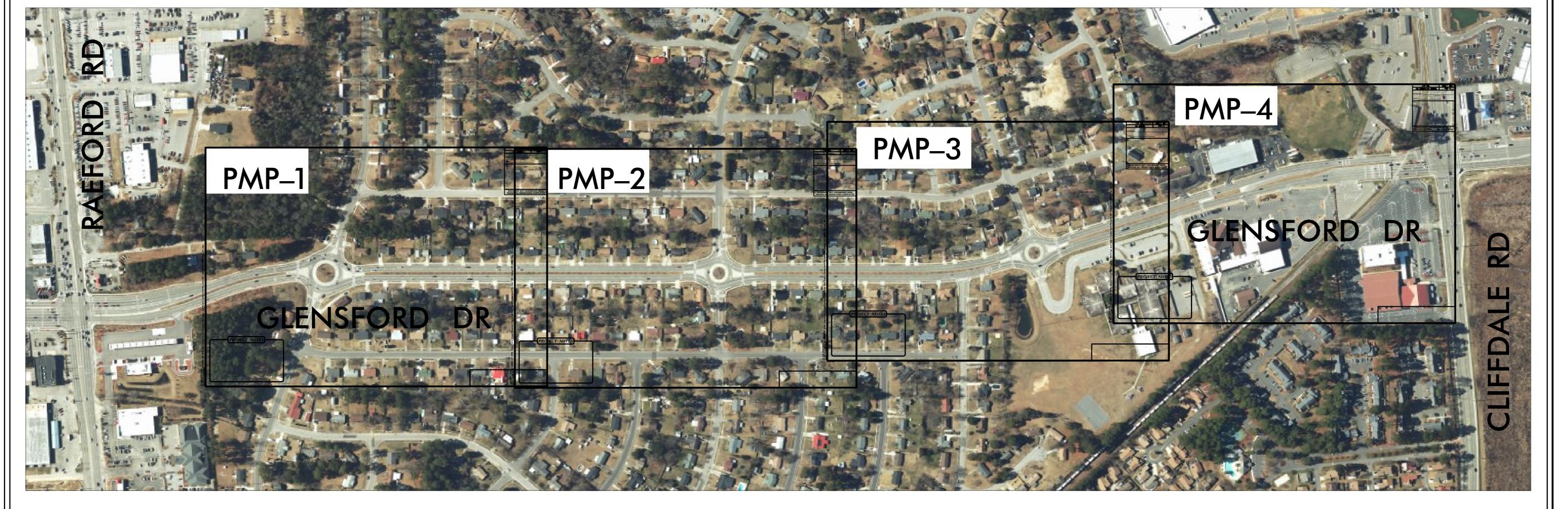
STATE OF NORTH CAROLINA DIVISION OF HIGHWAYS

CUMBERLAND COUNTY

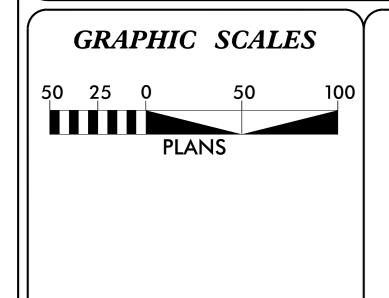
LOCATION: GLENSFORD DRIVE AT BEREAN BAPTIST ACADEMY
AND AT CHAMBERSBURG ROAD. GLENSFORD DRIVE
FROM RAEFORD ROAD TO CLIFFDALE ROAD
TYPE OF WORK: INSTALL RECTANGULAR RAPID FLASHING
BEACONS WITH REFUGE ISLAND
PAVEMENT MARKING AND SIGNING IMPROVEMENTS.

STATE	STATE PROJECT REFERENCE NO.		SHEET NO.	TOTAL SHEETS	
N.C.	HS-2	006N &	0	1	
STAT	E PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION		ION
493	312.1.18	1596(005)	F	IS-2006	N PE
493	312.1.19	1596(006)	F	IS-2006	O PE
493	312.3.18	1596(005)	HS-	-2006N	CONST
493	312.3.19	1596(006)	HS-	20060	CONST
			<u> </u>		
			<u> </u>		





DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED



PROJECT LENGTH

Prepared in the Office of: DIVISION OF HIGHWAYS 431 Transportation Dr. Fayettville NC, 28301

2024 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:

N/A

LETTING DATE:

JULY 17, 2024

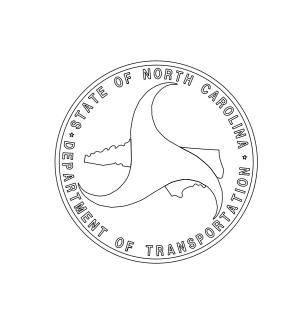
ALEX HENDERSON

PROJECT DESIGN ENGINEER

JOHN GAUTHIER
PROJECT ENGINEER

P.E.
SIGNATURE:

SIGNATURE:





PROJECT REFERENCE NO. SHEET NO. HS-2006N/HS-20060 SIGN-1

STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

SIGNING AND PAVEMENT MARKING PLAN CUMBERLAND COUNTY

LOCATION: GLENSFORD DRIVE, FAYETTEVILLE, NC

ROADWAY STANDARD DRAWING

THE FOLLOWING ROADWAY STANDARDS AS APPEAR IN "ROADWAY STANDARD DRAWINGS" - PROJECT SERVICES UNIT - N.C. DEPARTMENT OF TRANSPORTATION - RALEIGH, N.C., DATED JANUARY 2024 ARE APPLICABLE TO THIS PROJECT AND BY REFERENCE HEREBY ARE CONSIDERED A PART OF THESE PLANS:

<u>STD. NO</u> .	<u>TITLE</u>
903.10	GROUND MOUNTED SIGN SUPPORTS
904.10	ORIENTATION OF GROUND MOUNTED SIGNS
904.50	MOUNTING OF TYPE 'D', 'E' AND 'F' SIGNS ON 'U' CHANNEL POSTS
910.20	SCHOOL MARKED AND UNMARKED CROSSWALKS / SPEED REDUCTION REQUIREMENTS
1205.01	PAVEMENT MARKINGS - LINE TYPES AND OFFSETS
1205.02	PAVEMENT MARKINGS - TWO-LANE AND MULTILANE ROADWAYS
1205.07	PAVEMENT MARKINGS - PEDESTRIAN CROSSWALKS
1205.08	PAVEMENT MARKINGS - SYMBOLS AND WORD MESSAGES
1205.09	PAVEMENT MARKINGS - PAINTED ISLANDS
1205.10	PAVEMENT MARKINGS - SCHOOL AREAS
1205.14	PAVEMENT MARKINGS - ROUNDABOUTS
1250.01	RAISED PAVEMENT MARKERS - INSTALLATION SPACING
1264.01	OBJECT MARKERS - TYPES
1264.02	OBJECT MARKERS - INSTALLATION

		SUMMARY OF QUANTITIES		
ITEM NO.		ITEM DESCRIPTION	QUANTITY	UNIT
DESC. NO.	SECT. NO.			
4025000000 4025000000 4072000000 4096000000 4102000000 4155000000 4685000000 4695000000 4695000000	901 903 904 904 907 1205 1205 1205	CONTRACTOR FURNISHED, TYPE D SIGN CONTRACTOR FURNISHED, TYPE E SIGN SUPPORTS, 3 LB STEEL U-CHANNEL SIGN ERECTION, TYPE D SIGN ERECTION, TYPE E DISPOSAL OF SIGN SYSTEM, U-CHANNEL WHITE SOLID LANE LINE (4", 90 MILS) 10 FT. WHITE SKIP (4", 90 MILS) WHITE GORELINE (8", 90 MILS) WHITE DIAGONAL (8", 90 MILS)	99 88 165 24 16 10 765 10 367 203	S.F S.F L.F EA. EA. L.F. L.F.
4891000000 4725000000 4725000000 4725000000 4720000000	1205 1205 1205 1205 1205	WHITE CROSSWALK LINE (24", 90 MILS) 24" YIELD LINE TRIANGLES (90 MILS) COMBO.LEFT/STRAIGHT ARROW(90 MILS) COMBO.RIGHT/STRAIGHT ARROW(90 MILS) ALPHANUMERIC CHAR. (90MILS)	72 32 6 6 75	L.F. EA. EA. EA.

GENERAL NOTES

SIGNING

- . SIGNS FURNISHED BY CONTRACTOR.
- . ALL TYPE 'D' SIGNS SHALL BE MOUNTED ON TWO U-CHANNEL POSTS UNLESS OTHERWISE INDICATED ON THE PLANS.
- . IF REMOVAL OR RELOCATION OF SIGNS ON PRIVATE STREET (NON-STATE MAINTAINED) IS REQUIRED DUE TO CONSTRUCTION, THE CONTRACTOR SHALL INFORM THE ENGINEER. THE WORK WILL BE COMPLETED BY OTHERS.
- . WHEN NOT STATIONED OR DIMENSIONED ON PLANS, ALL $^{\prime}\text{E}^{\prime}$ AND $^{\prime}\text{F}^{\prime}$ SIGNS SHALL BE FIELD LOCATED BY THE ENGINEER
- . ALL EXISTING SIGNS ON "U" CHANNEL POST WITHIN THE PROJECT LIMITS SHALL BE RETAINED UNLESS OTHERWISE NOTED ON PLANS.
- . WHEN EXISTING SIGNS ARE REMOVED AND INSTALLED ON NEW SUPPORTS, THE RE-ERECTION SHALL IMMEDIATELY FOLLOW THE REMOVAL.
- . THE BACKGROUND FOR TYPE E & F SIGNS SHALL BE TYPE C REFLECTIVE SHEETING.

PAVEMENT MARKINGS

THE FOLLOWING GENERAL NOTES APPLY AT ALL TIMES FOR THE DURATION OF THE CONSTRUCTION PROJECT, EXCEPT WHEN OTHERWISE NOTED IN THE PLAN, OR DIRECTED BY THE ENGINEER.

A) INSTALL PAVEMENT MARKINGS AND PAVEMENT MARKERS ON THE EXISTING SURFACE AS FOLLOWS:

ROAD NAME MARKING MARKER
GLENSFORD DRIVE THERMOPLASTIC PERMENENT RAISED

- B) TIE PROPOSED PAVEMENT MARKING LINES TO EXISTING PAVEMENT MARKING LINES.
- C) REMOVE/REPLACE ANY CONFLICTING/DAMAGED PAVEMENT MARKINGS AND MARKERS.
- D) PASSING ZONES WILL BE DETERMINED IN THE FIELD AND MUST BE APPROVED BY THE ENGINEER.
- E) UNLESS OTHERWISE SPECIFIED, HEATED-IN-PLACE THERMOPLASTIC MAY BE USED IN LIEU OF EXTRUDED THERMOPLASTIC FOR STOP BARS, SYMBOLS, CHARACTERS AND DIAGONALS. IF HEATED-IN-PLACE IS USED, IT SHALL BE PAID FOR USING THE EXTRUDED THERMOPLASTIC PAY ITEM.

INDEX

SHEET NO. DESCRIPTION

SIGN-1 TITLE SHEET

SIGN-2 E ANF F SHEET

SIGN-3 SIGN DESIGNS SHEET

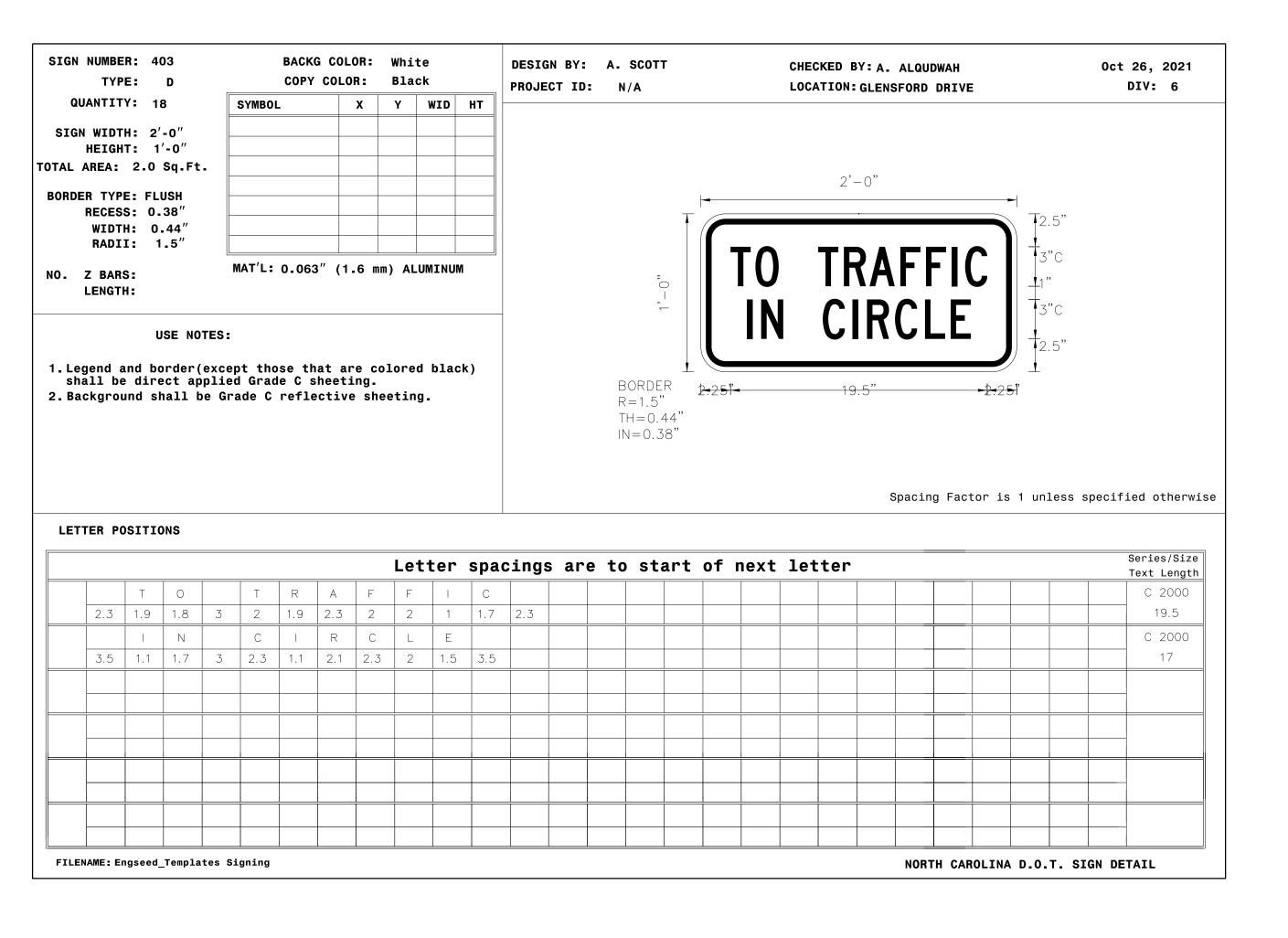
SIGN-4 THRU 6 SIGNING PLAN SHEETS

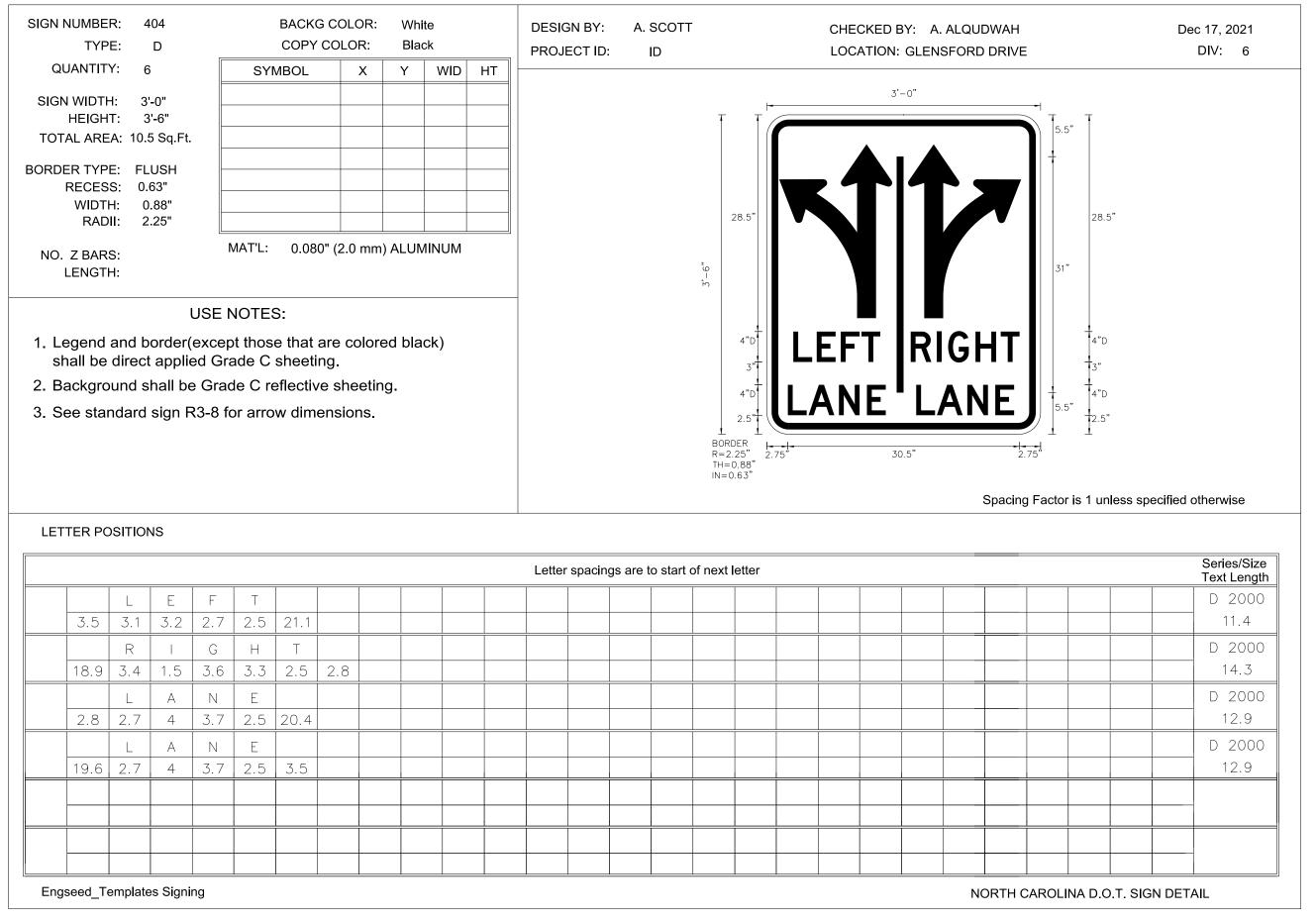
PMP 1 THRU 4 PAVEMENT MARKING PLAN SHEETS

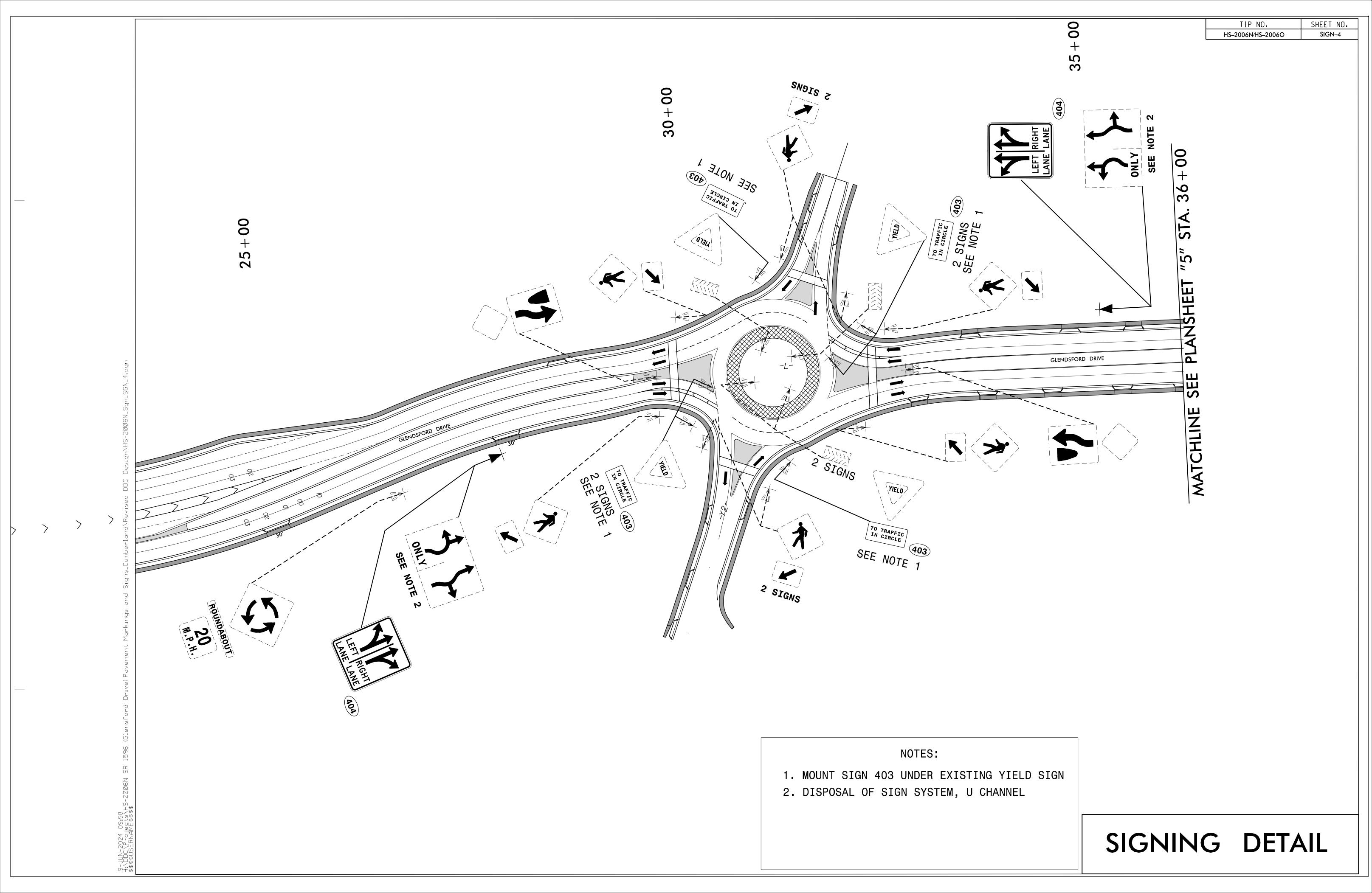
		PROJEC HS - 2	T REFERENCE NO. SHEET NO. SIGN-2
401) QUANTITY REQ'D -8-			
36 X 36			
36 X 36 S1-1			
FLUORESCENT YELLOW GREEN SHEETING			
ONE "U" POSTS PER SIGN			
QUANTITY REQ'D -4-			
24 X 12 W16-7			
FLUORESCENT YELLOW GREEN SHEETING			
MOUNT BELOW SIGN 401 IN 4 INSTALLATIONS			
ONE "U" POSTS PER SIGN			
405 QUANTITY REQ'D -4-			
0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0			
24 X 12 W16-7			
FLUORESCENT YELLOW GREEN SHEETING			
MOUNT BELOW SIGN 401 IN 4 INSTALLATIONS ONE "II" DOOES BED SIGN			
ONE "U" POSTS PER SIGN			
X			
1 1 1 1 1 1 1 1 1 1 1 1 1 1			
		TYPE "E'	CTCNC
		ITE E	STUNS

PROJECT REFERENCE NO. SHEET NO.

HS-2006N/HS-20060 SIGN-3

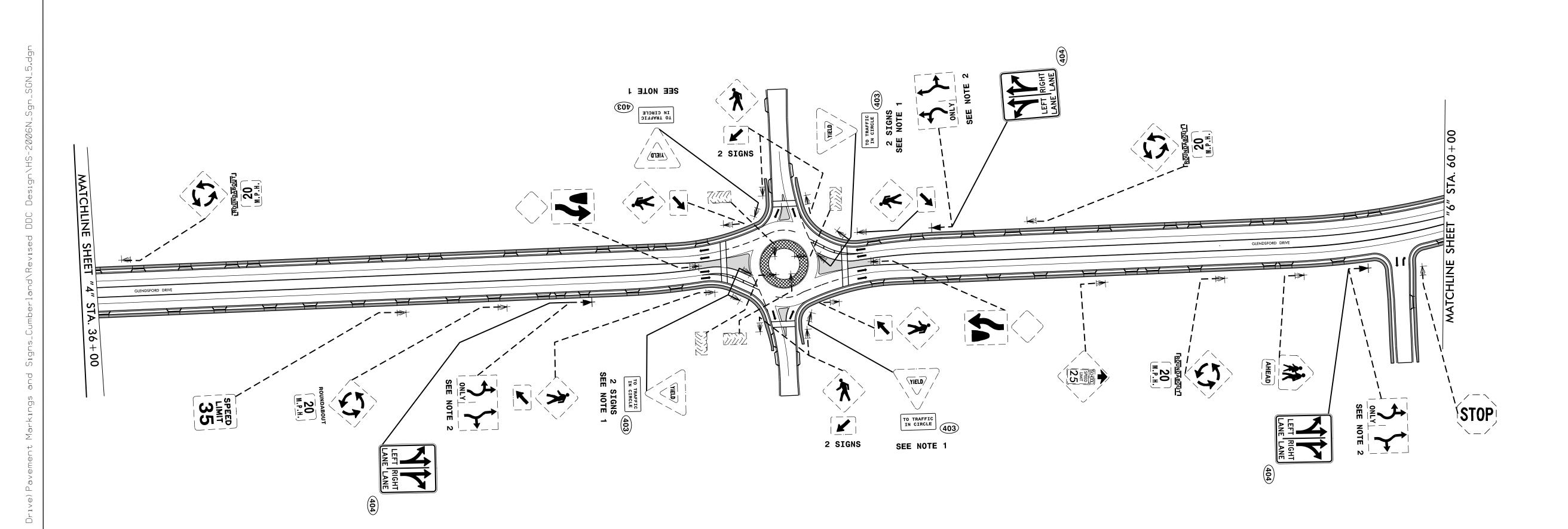






 TIP NO.
 SHEET NO.

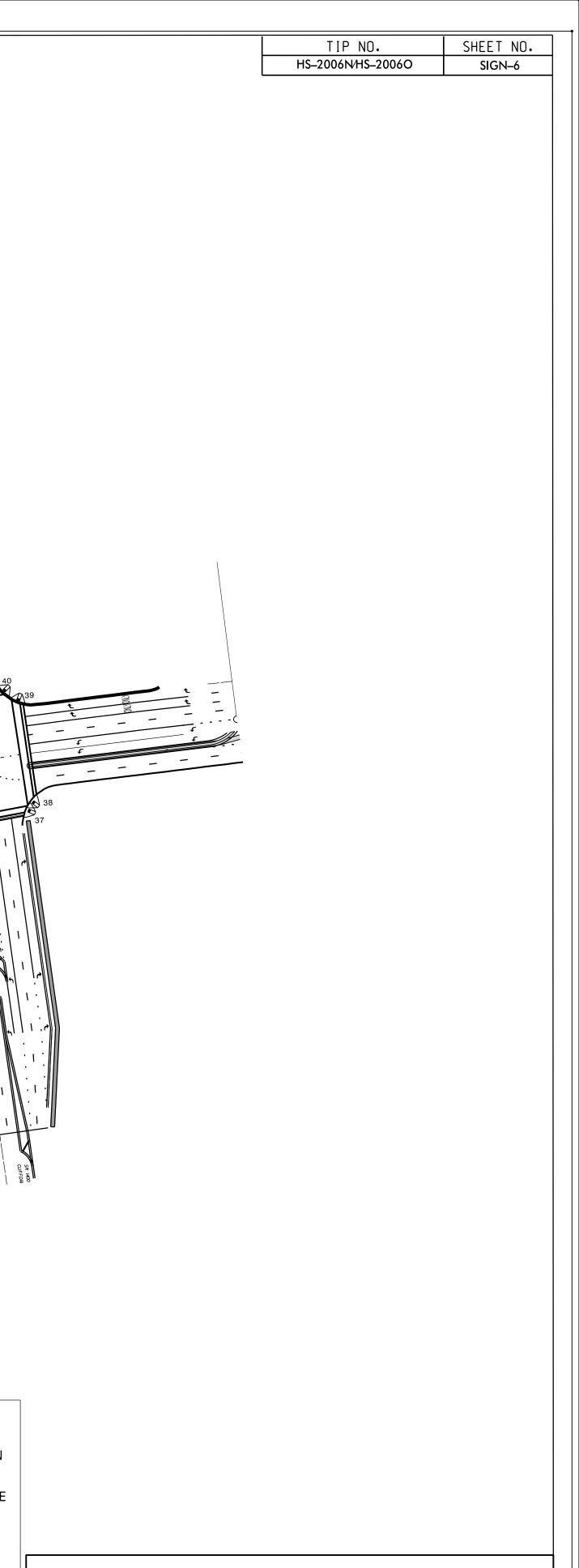
 HS-2006N/HS-2006O
 SIGN-5



NOTES:

- 1. MOUNT SIGN 403 UNDER EXISTING YIELD SIGN
- 2. DISPOSAL OF SIGN SYSTEM, U CHANNEL

SIGNING DETAIL

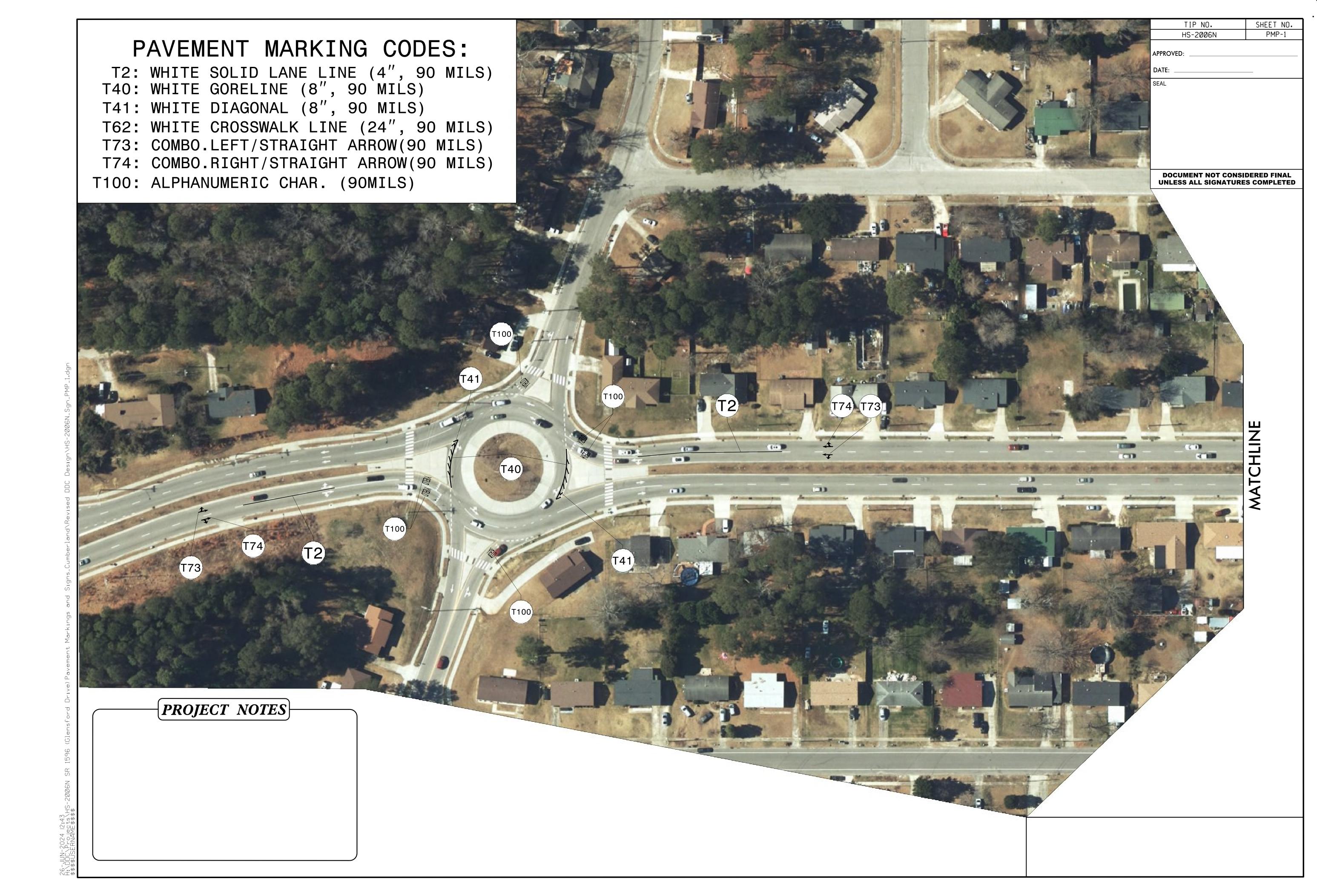


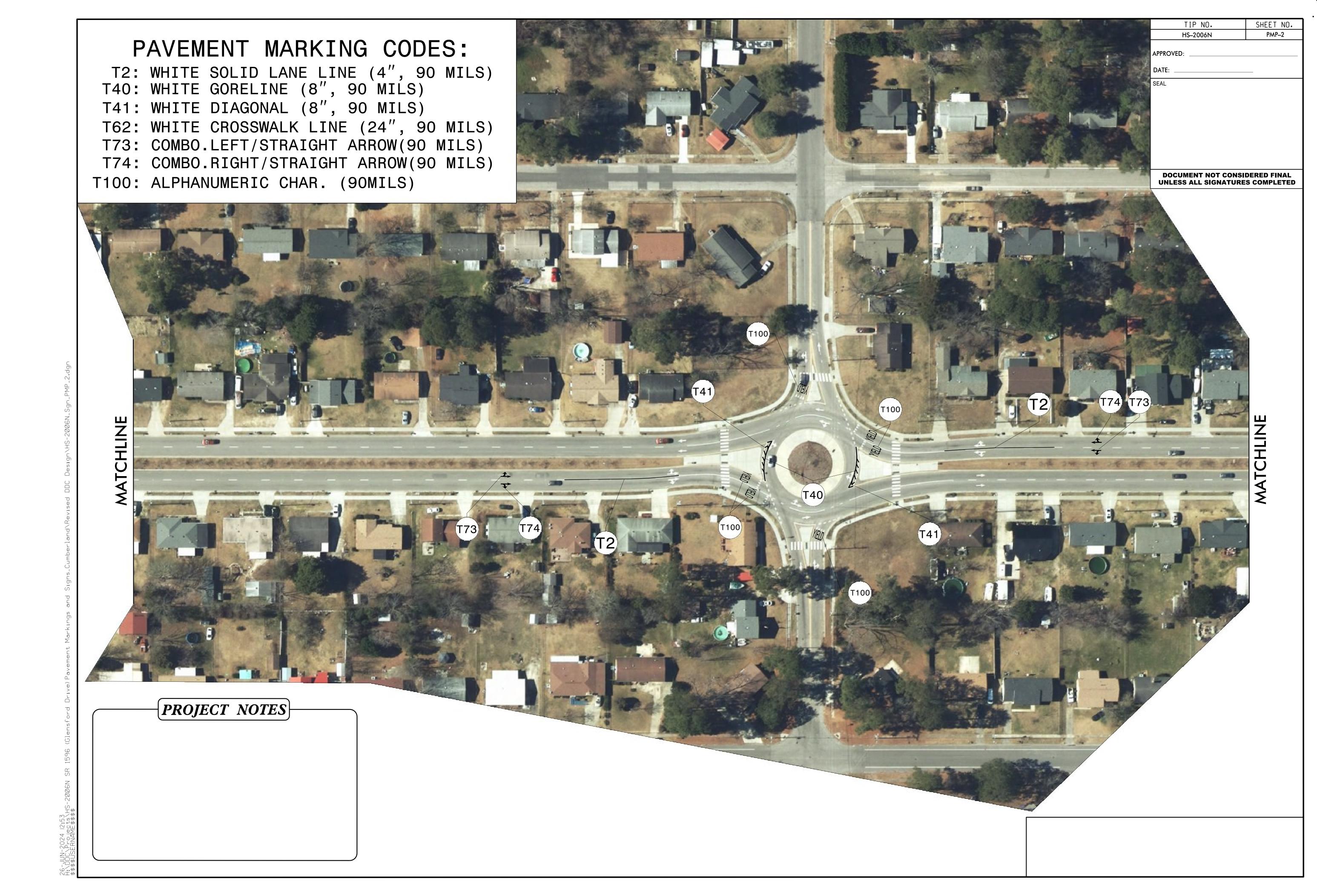
NOTES:

- 1. MOUNT SIGN 403 UNDER EXISTING YIELD SIGN
- 2. DISPOSAL OF SIGN SYSTEM, U CHANNEL
- 3. RRFB TO BE INSTALLED. BOTH SIGNS WILL BE MOUNTED ON THE SAME SUPPORT AS THE RRFB. REFER TO SHEET SIG 1.3 AND SIGNALS SPECIAL PROVISIONS IN THE CONTRACT

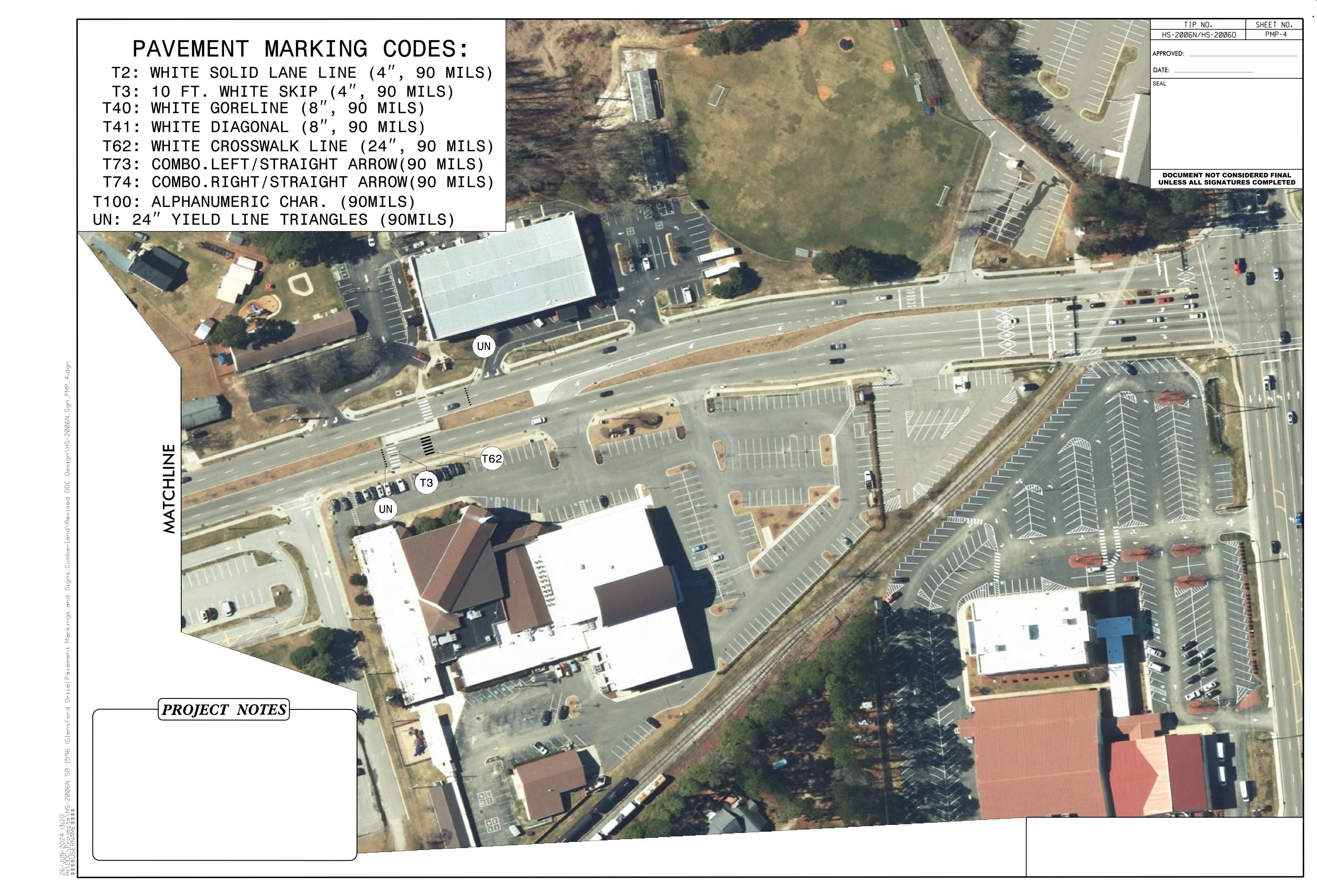
PAVEMENT MARKING CODES: T62: WHITE CROSSWALK LINE (24", 90 MILS)

SIGNING DETAIL

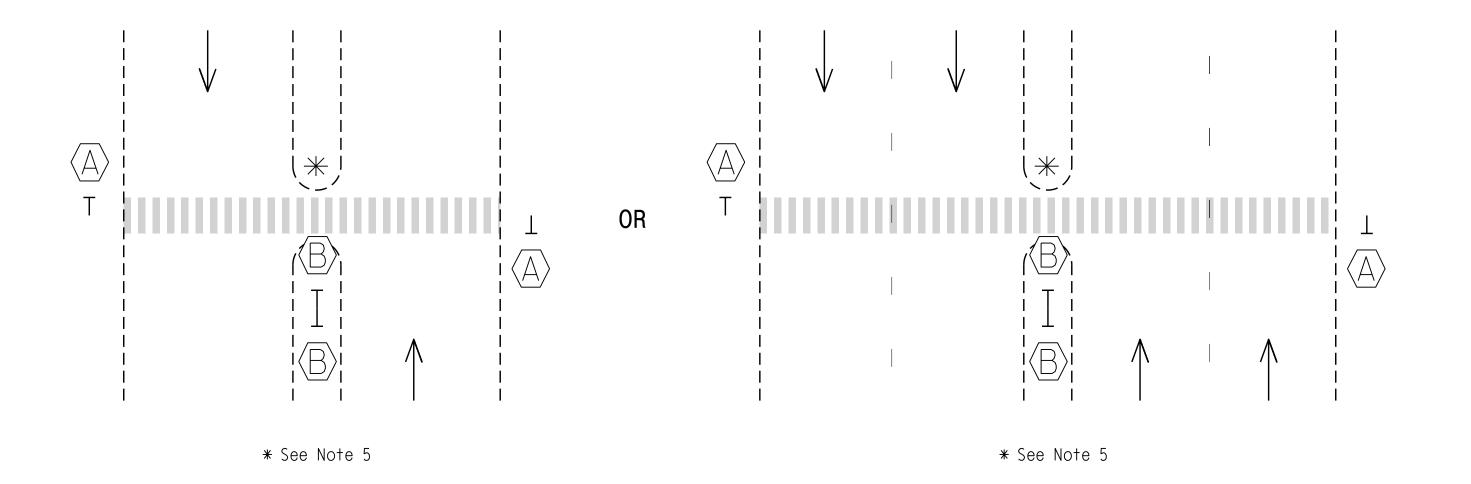








Two or Multi-Lanes, Divided



<u>Notes</u>

- 1. Design the RRFB in accordance with the 2009 MUTCD Interim Approval 21 -- Rectangular Rapid-Flashing Beacons at Crosswalks. The RRFB unit associated with a post-mounted sign and plaque should be located between the pedestrian crossing warning (W11-2) sign and the supplemental downward diagonal arrow plaque (W16-7p).
- 2. If sight distance approaching the crosswalk is deemed insufficient, a supplemental RRFB with an "AHEAD" (W16-9P) plaque may be installed on that approach in advance of the crosswalk.
- 3. When practical, the RRFB and mounting post on the right side of the road shall be mounted on the approach side of the crosswalk closest to approaching traffic.
- 4. When practical, the RRFB and mounting post on the left side of the road may be mounted on the back of the post for the opposing approach.
- 5. A RRFB on the left side of the roadway or in the median may be individually mounted on the approach side of the crosswalk closest to approaching traffic, or, when practical, may be mounted back to back on the same post and mounted on either side of the crosswalk in the median.
- 6. Locate push button sign (R10-25) and push button to face crosswalk, even if it is mounted on the back side of the sign.
- 7. All RRFB units associated with a given crosswalk (including those with an advance crossing sign) shall, when actuated, simultaneously commence operation of their rapid-flashing indications and shall cease operation simultaneously.

Timing of RRFBs

When actuated, the two yellow indications in each RRFB unit shall flash in a rapidly flashing sequence.

The RRFB shall flashing sequence shall provide enough time for pedestrians to cross from curb to curb. It is recommened to be a minimum of 7 seconds plus the crossing distance (D) divided by 3.5 feet/per sec., rounded up to the next whole second:

Flash Time (sec.) = 7 + D/3.5

RRFBs shall provide 75 flashing sequences per minute. During each 800-millisecond flashing sequence, the left and right RRFB indications shall operate using the following sequence:

- The RRFB indication on the left-hand side shall be illuminated for approximately 50 milliseconds. Both RRFB indications shall be dark for approximately 50 milliseconds.
- The RRFB indication on the right-hand side shall be illuminated for approximately 50 milliseconds. Both RRFB indications shall be dark for approximately 50 milliseconds.
- The RRFB indication on the left-hand side shall be illuminated for approximately 50 milliseconds. Both RRFB indications shall be dark for approximately 50 milliseconds.
- The RRFB indication on the right-hand side shall be illuminated for approximately 50 milliseconds. Both RRFB indications shall be dark for approximately 50 milliseconds.
- Both RRFB indications shall be illuminated for approximately 50 milliseconds. Both RRFB indications shall be dark for approximately 50 milliseconds.
- Both RRFB indications shall be illuminated for approximately 50 milliseconds. Both RRFB indications shall be dark for approximately 250 milliseconds.

Prepared in the Offices of:

Nobility and Section

Offices of:

Offices of

Garner, NC 27529

DOCUMENT NOT CONSIDERED
FINAL UNLESS ALL
SIGNATURES COMPLETED

SEAL

SEAL

O26486

Docusigned by:

12/19/2022

Standard Drawing for Rectangular Rapid Flashing Beacon