

**TENNESSEE DEPARTMENT OF TRANSPORTATION
PLANNING DIVISION**

PROJECT NO.: 79I040-S1-011 ROUTE: I-40
COUNTY: SHELBY CITY: MEMPHIS
PROJECT PIN NUMBER: 130352.00
PROJECT DESCRIPTION: FROM LEVEE STREET OVERHEAD BRIDGE [L.M. 4.65] TO
HOLLYWOOD STREET OVERHEAD BRIDGE [L.M. 7.50]
[1] I-40 AVERAGE TRAFFIC DATA

DIVISION REQUESTING:

MAINTENANCE ☐ PAVEMENT DESIGN ☐
PROJECT MANAGEMENT ☐ STRUCTURES ☐
PROG. DEVELOPMENT & ADM. ☐ SURVEY & ROADWAY DESIGN ☒
PUBLIC TRANS. & AERO. ☐ TRAFFIC SIGNAL DESIGN ☐
OTHER ☐
YEAR PROJECT PROGRAMMED FOR CONSTRUCTION: 2026
PROJECTED LETTING DATE: 2026

TRAFFIC ASSIGNMENT:

[1]

BASE YEAR		DESIGN YEAR					DESIGN ROADWAY % TRUCKS		DESIGN AVERAGE DAILY LOADS	
AADT	YEAR	AADT	DHV	%	YEAR	DIR.DIST.	DHV	AADT	FLEX	RIGID
90,800	2026	99,870	9,987	10	2046	60-40	7	10	2,198	3,445

REQUESTED BY: NAME CHRISTIAN CANADY, PE DATE 4/4/25
DIVISION REGION IV PROJECT DEVELOPMENT
ADDRESS 300 BENCHMARK PLACE
JACKSON TN 38301

REVIEWED BY: ASHLIE BEVAN Ashlie Bevan DATE 4/7/2025
TRANSPORTATION PROG. SUPERVISOR
SUITE 1000, JAMES K. POLK BUILDING

APPROVED BY: TONY ARMSTRONG Tony Armstrong DATE 4/7/2025
TRANSPORTATION MANAGER 2
SUITE 1000, JAMES K. POLK BUILDING

COMMENTS:

FURNISH THE 2026-2046 TRAFFIC DATA AND ADL's FOR AN EIGHT LANE INTERSTATE

THIS TRAFFIC IS BASED ON 2024 CYCLE AND RAMP COUNTS. THE DESIGN YEAR
TRAFFIC IS BASED ON GROWTH RATE FROM THE MEMPHIS MPO COMPUTER
ASSIGNMENT MODEL. ADL's ARE INCLUDED.

DHV'S ARE NOT REQUIRED FOR SIDE ROADS LESS THAN 1000 AADT.

NOTE: FOR BRIDGE REPLACEMENT PROJECTS, ADLs ARE NOT REQUIRED FOR ADTs OF 1000 OR LESS AND
PERCENTAGE OF TRUCKS OF 7% OR LESS.

SEE ATTACHMENTS FOR TURNING MOVEMENTS AND/OR OTHER DETAILS.

(REV. 4/1/25)

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Interstate

Pavement Structural Design

Calculation of Equivalent Daily 18 Kip Single Axle Loads

Type Vehicle		ADT (No. Counted)	Flexible		Rigid	
			18-kip Factor	ADL	18-kip Factor	ADL
Pass. cars and motorcycles (1-2)		64,827	0.001	65	0.001	65
Pick-up, Panel, Van (3)		20,973	0.004	84	0.005	105
Sing. Unit	Buses (4)	371	0.300	111	0.300	111
	2-axle, 6-tire (5)	1,382	0.170	235	0.170	235
	3-axle or more (6-7)	319	0.700	223	1.000	319
	4-axle (8)	338	0.700	237	0.780	264
Comb.	5-axle or more (9-13)	7,125	1.100	7,838	1.780	12,683
Totals (2036 AADT)		95,335		8,792		13,781

Suggested Percentages of Trucks in Design Lane

	4 Lane	6 Lane	8 Lane
5,000 or less ADT	90%	75%	70%
5,000 - 10,000 ADT	80%	70%	65%
10,000 - 15,000 ADT	75%	65%	60%
15,000 - 20,000 ADT	75%	65%	55%
20,000 - 30,000 ADT	70%	60%	50%
30,000 Plus ADT	65%	60%	50%

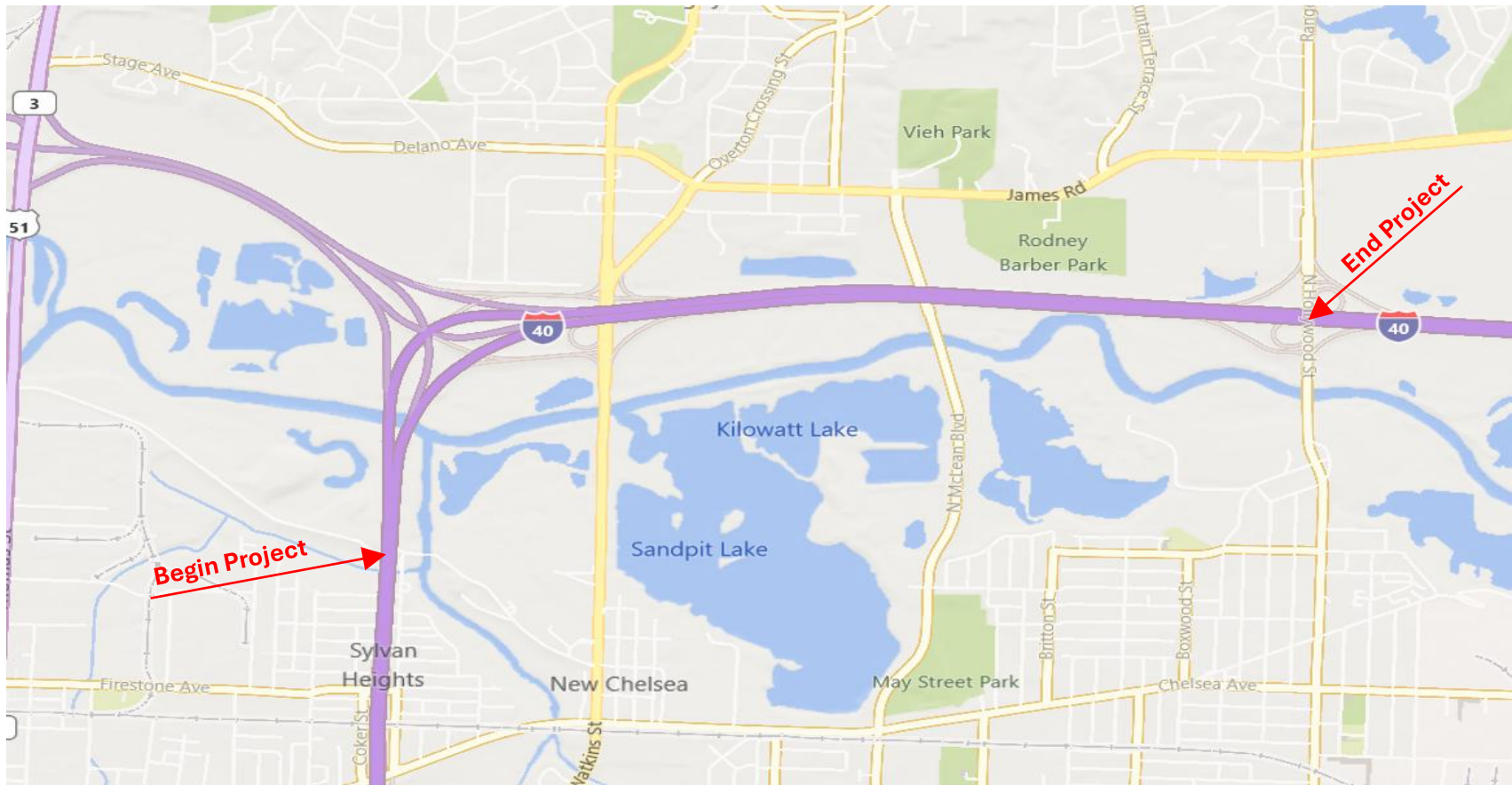
No. of Lanes: 8

% Trucks in Design Lane: 50%

ADL in Design Lane:

FLEX:	0.5	X	0.50	X	8792.4	=	2,198
RIGID:	0.5	X	0.50	X	13781.1	=	3,445

ADL Calculations By: TONY ARMSTRONG Date: 4/7/2025
Reviewed By: Ashlie Bevan Date: 4/7/2025
[REV. 6-12-24]



Shelby County

Memphis

I-40

From L.M. 4.65 to L.M. 7.50

AADT

