TRAFFIC FORECASTING FOR THE INTEL FACILITY





OTDMUG, AUTUMN 2022

TRAFFIC FORECASTING FOR THE INTEL FACILITY

- On January 21, 2022, Intel announced that it has selected the Licking County portion of the New Albany International Business Park as the location for a \$20 billion+ chip manufacturing project.
- ODOT started the preliminary traffic modeling work in September 2021 and will certify Phase 1 design traffic this Fall.





OUTLINE

- Preliminary Traffic Forecasting
- Traffic Modeling for CT Development
- CT Development
- Final Thoughts



PRELIMINARY TRAFFIC FORECASTING

- o Phase 1
 - Site FTE = 3,500
 - Construction Workers = 5,000 (between 4,000 and 6,000)
- Full Build (4 Phases)
 - Site FTE = 3,500 x 4 = 14,000
 - Supplier FTE = 7,000 (west of the Site)
- "Quick and dirty" LOS analysis for proposed roadway improvement







OUTLINE

- Preliminary Traffic Forecasting
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TRAFFIC MODELING FOR CT DEVELOPMENT

MORPC's 3C Activity-based Model

- Intel Phase 1 only (Land Use Assumption) But including Construction Traffic for Opening Year Build(Worst Scenario)
- o Base Year 2021
- Opening Year 2025
- Design Year 2045
- No Build and Build Network Alternatives





TAZ SPLITS

- \circ Split TAZ for the Intel Site
- Create an extra TAZ (2109) to separate
 Construction traffic from the Intel Traffic
- Whenever splitting a TAZ, remember to split MAZ if needed





UPDATE ZONAL SE DATA FOR INTEL SITE

BASE Year ZSED Update

- \circ QCEW 2020Q1 data for the study area
- Three Data Centers
 - \circ Amazon Web Service
 - o 310, 000 sq ft
 - o 52 employees
 - Meta(Facebook) Data Center
 - o 2,500,000 sq ft
 - o 150 employees
 - o Google Cloud Data Center
 - o 275,000 sq ft
 - 20 employees
- Amazon Fulfillment Center (in operation 2024)
 - **700,000 sq ft**
 - 1,000 employees





• Intel Site (Phase 1)

Job Type	NAICS code	Number
Semiconductor Manufacturing	33	1,500
Professional/Scientific/Tech	54	1,500
Contract Workers	56	1,500

• Construction

Job Type	NAICS code	Number
Construction for Phase 2	23	7,000



- Phase 1 Land Use Development from <u>New Albany Technology</u> <u>Manufacturing District Traffic</u> <u>Study, March 25, 2022</u>
 - Mink Unspecific (Warehousing/Data Center)
 - Section 5 (Warehousing Dragonfly Suppliers)
 - Section 7 (Warehousing/Data Center)
 - o 2,175 new employees in total
- Added to MORPC 2025/2045
 Forecasts

Tab	le 1 – Background Zone N	lon-Pass-By Ti	rip Gener	ation S	Summary		
Section	Land Has	Size	AM P	eak	PM I	Peak	Weekday
(Phases Applied)	Land Use	(SF GFA) ²	Entry	Exit	Entry	Exit	Entry/Exit
Mink Unencoified	150 - Warehousing	1,900,000	194	<mark>58</mark>	71	183	1520
(Dhase 1 & Full Build)	160 - Data Center	1,000,000	68	56	31	73	495
(Phase 1 & Full Bullu)		Total	262	114	102	156	2015
Section 1	150 - Warehousing	2,700,000	268	80	98	252	2152
(Full Build)	160 - Data Center	1,800,000	126	103	58	135	891
		Total	394	183	156	387	3043
Standard	820 - Shopping	500.000	266	162	570	617	9459
Development-	Center (500k SF)	500,000	200	105	370	017	9439
Section 2		Total	266	163	570	617	9459
(Full Build)		Total	200	100	0/0	017	,107
Sections 3, 4, & 5	150 - Warehousing	3,750,000	365	109	133	343	2982
(Full Build)		Total	365	109	133	343	2982
Section 5	150 - Warehousing	1,500,000	157	47	58	149	1204
(Phase 1)		Total	157	47	58	149	1204
Section 6	150 - Warehousing	700,000				1.1	
(Full Build)	160 - Data Center	500,000				-	Start Land
(141124114)		Total	DEL	AWARE	OUNTY		- T
Section 7	150 - Warehousing	500,000	A State Party	HARLEN	4	L. 7.	
(Phase 1)	160 - Data Center	350,000	The Color			$\int f''$	Property of the second second
(1 1100 1)		Total					/
Section 7	150 - Warehousing	500,000		Plain To	wnship		TANDARD
(Full Build)	160 - Data Center	350,000			grave Lat		Bag
· ·····		Total			1	7	
Section 8	150 - Warehousing	1,200,000		1000	1		Station 1
(Full Build)	160 - Data Center	800,000	1	-			Station3
()		Total					Seeting 7
Section 9	150 - Warehousing	1,500,000			N/PDUhes	realified	Control 10
(Full Build)		Total	1070	and the	0		AMS12
Sections 11 & 12	150 - Warehousing	4,000,000	- ANN	11			Section 71
(Full Build)		Total	er a	THE P			
			-	1		Powe	Grid ANNE
			~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~		Star Charles		
		1	City of I	low Albany			



- Intel Workers
  - Add 3,000 new households to the region
  - Chosen TAZs:
    - Top 6 school districts
    - HH income >= \$95,000
  - $\circ$  "Near" (New Albany-Plain) = 1,000
  - **"Far" = 2,000**
- Just a wishful "compensation" on the household side
- No mechanism in the model to <u>control</u> workers' workplace and the place of residence





### • Place of Residence of Modeled Intel Workers - a futile attempt!





Refine Model Networks:

- Split TAZs
- Add more roadways
- Adjust centroid connectors
- Update link attributes
  - o LANES/WIDTH
  - o **POSTSPD**
  - IXTYPE
  - TURNLANE
  - MEDTURN
  - FACTYPE







Refine Model Networks based on Assignment Results





- Select-Link
- Save Path File



Mode Show Paths

Origin 326

ters 🚺

Trac (0)

Dest 250

Sets 1

15 | Traffic Forecasting for the Intel Facility



Display Factors ... Save 🔽 Post Path Cost 🗌 Isochrome

Clear Close

20,25

Single Color

Save Path to File

List Path Traces

Increment



16 | Traffic Forecasting for the Intel Facility









18 | Traffic Forecasting for the Intel Facility



### **BASE YEAR MODEL VALIDATION - COUNTS**

- Update Counts in the Network Ο
  - Process MS2 counts using 0 SDE_VT.xlsm
- **Count Balancing** Ο
  - TOD-specific counts along SR 161 Ο
  - By vehicle class (car/truck) Ο



SDE Volume Tool (Version 1.1: Added "Note" tab and functionality of automatically exporting ABC nodes to the count tabs, rather than asking using to copy and paste manually. Use this tool to import traffic volumes to this sheet, convert them into SDE tool required format, and export to a CSV file.



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## BASE YEAR MODEL VALIDATION - SUBAREA STATS

COUNTS vs	5. MODE	EL VOLU	JME			Validation	L			Z:\projec	ts\Slice	e\Assignm	ents_Jun	c\MOR2	1BAS
By Facility Type	e - Validati	ion Statisti	cs												
WEEKDAY - 24	Hours &	by Period													
Sub Area												Indicates			
												In Range			
												Out of Range			
Daily	Observed	l Traffic				Modeled T	Taffic			Abs Diff	Percent	Difference			
Facility Type	# Links	Count	Count VMT	Count %	Count VMT %	Volume	Model VMT	Volume %	Model VMT %	Volume	Volume	VMT	Max. % VMT	% RMSE	
Interstate	2	165,984	88,517	8%	10%	156,252	82,533	8%	10%	-9,732	-6%	-7%	7%	11%	
2 Expressway	12	296,536	236,617	15%	27%	231,654	179,077	12%	22%	-64,882	-22%	-24%	10%	23%	
3 Ramp	77	605,924	224,644	30.2%	26%	622,129	226,279	32.5%	28%	16,205	3%	1%	15%	32%	
Arterial	92	689,994	210,091	34%	24%	665,165	208,306	35%	26%	-24,829	-4%	-1%	10%	26%	
i Collector	64	169,034	82,675	8%	9%	169,608	75,633	9%	9%	574	0%	-9%	15%	48%	Ř
) Local	54	78,175	35,101	4%	4%	68,317	29,007	4%	4%	-9,858	-13%	-17%	15%	70%	
Total	301	2,005,647	877,645			1,913,124	800,836			-92,523	-4.6%	-8.8%	3%	33%	
	Observed	l Traffic				Modeled T	Taffic			Abs Diff	Percent	Difference			-1
Area Type	# Links	Count	Count	Count %	Count VMT 05	Volume	Model VMT	Volume %	Model	Volume	Volume	VMT	Max.	% RMSE	14
Rural	112	318,508	280,238	16%	32%	284,070	231,992	15%	29%	-34,438	-11%	-17%	30 1111	53%	- Han
2 Suburban	144	1,181,786	447,016	59%	51%	1,101,259	413,046	58%	52%	-80,527	-7%	-8%		31%	
) Urban	45	505,353	150,391	25%	17%	527,795	155,797	28%	19%	22,442	4%	4%		23%	
CBD	0	0	0	0%	0%	0	0	0%	0%	0	#DIV/0!	#DIV/0!		0%	1
Total	301	2,005,647	877,645			1,913,124	800,836			-92,523	-4.6%	-8.8%		33%	





### BASE YEAR MODEL VALIDATION - ODME

### Simulation Demand Estimation Tool

- 4 Time-Of-Day Periods Ο
- **Regional Matrix Estimation** Ο
  - ODME (Analyst Drive) Ο
- Trip Length Frequency Ο
  - Check evidence of matrix distortion  $\cap$





### BASE YEAR MODEL VALIDATION - ODME CONT.

8%

### Trip Length Frequency - before and after (AM for illustration)

### Average Trip Length in Region

	Initial Distance (mile)	Estimated Distance (mile)	Estimated over Initial Distance	Initial Time (minute)	Estimated Time (minute)	Estimated over Initial Time
Auto	12.20	12.39	102%	8.45	8.67	103%
Truck	16.79	16.91	101%	13.97	14.00	100%

### **Coincidence Ratio in Region**

	Distance	Time			
	(mile)	(minute)			
Auto	0.99	0.98			
Truck	0.97	0.97			

### **Ratios of Estimated and Seed Non-Zero OD**

Αι	ito	Truck			
Greater than	Less than	Greater than	Less than		
XLOBND	XUPBND	XLOBND	XUPBND		
0.97	1.00	0.94	1.00		



Frequency of Auto Trips by Travel Time for Regi

Frequency of Auto Trips by Travel Distance for Region



%Initial
 %Estimated

### BASE YEAR MODEL VALIDATION - SUBAREA STATS: ODME

COUNTS v	s. MODE	EL VOLU	JME			Validation	L			Z:\projec	ts\Slice	\Assignm	ents_Jun	c\MOR	21BASE_odme
By Facility Typ	e - Validati	ion Statisti	cs												
WEEKDAY - 24	Hours & l	by Period													
Sub Area												Indicates			
												In Range			
												Out of Range			
Daily	Observed	l Traffic				Modeled T	Traffic			Abs Diff	Percent	Difference			
Facility Type	# Links	Count	Count VMT	Count %	Count VMT %	Volume	Model VMT	Volume %	Model VMT %	Volume	Volume	VMT	Max. % VMT	% RMSE	
1 Interstate	2	165,984	88,517	8%	10%	173,977	92,516	9%	10%	7,993	5%	5%	7%	7%	
2 Expressway	12	296,536	236,617	15%	27%	297,180	236,880	15%	27%	644	0%	0%	10%	1%	
3 Ramp	77	605,924	224,644	30.2%	26%	614,440	228,001	30.2%	26%	8,516	1%	1%	15%	7%	
4 Arterial	92	689,994	210,091	34%	24%	700,103	213,376	34%	24%	10,109	1%	2%	10%	7%	
5 Collector	64	169,034	82,675	8%	9%	168,842	80,168	8%	9%	-192	0%	-3%	15%	17%	
6 Local	54	78,175	35,101	4%	4%	78,548	34,420	4%	4%	373	0%	-2%	15%	24%	
Total	301	2,005,647	877,645			2,033,091	885,360			27,444	1.4%	0.9%	3%	9%	
	Observed	l Traffic				Modeled T	Taffic			Abs Diff	Percent	Difference			
Area Type	# Links	Count	Count	Count %	Count VMT %	Volume	Model VMT	Volume %	Model	Volume	Volume	VMT	Max.	% PMSE	
1 Rural	112	318,508	280,238	16%	32%	319,058	277,771	16%	31%	550	0%	-1%	70 1111	12%	
2 Suburban	144	1,181,786	447,016	59%	51%	1,196,351	453,572	59%	51%	14,565	1%	1%		8%	
3 Urban	45	505,353	150,391	25%	17%	517,681	154,017	25%	17%	12,328	2%	2%		7%	
4 CBD	0	0	0	0%	0%	0	0	0%	0%	0	#DIV/0!	#DIV/0!		0%	
Total	301	2,005,647	877,645			2,033,091	885,360			27,444	1.4%	0.9%		9%	

23 | Traffic Forecasting for the Intel Facility



Sub Area			Z:\projects\Slice\Assignments_Junc\MOR21BASE_odme	
ALL COUNTS - VO	L GROUP (base	ed on Counts)		
DAILY				
/olume (Count)	Model	Max		
Group	%RMSE	%RMSE	%RMSE by Volume Group - Daily	
)-499	42.39%	200%	,	
500-1,499	39.54%	100%	250%	
,500-2,499	18.34%	62%		
.,500-3,499	11.55%	54%		
,500-4,499	9.94%	48%	Max %RMSE	
,500-5,499	7.11%	45%	200%	-
,500-6,999	8.29%	42%		
,000-8,499	8.63%	39%		
,500-9,999	6.89%	36%		
0,000-12,499	3.94%	34%	150%	
2,500-14,999	8.74%	31%		
5,000-17,499	3.02%	30%		
7,500-19,999	1.35%	28%		
20,000-24,999	4.78%	26%		
25,000-34,999	1.26%	24%		
5,000-54,999	1.67%	21%		
5,000-74,999	0.00%	18%		
5,000-120,000	7.25%	12%		
			50%	
				4
			500 100 100 100 100 100 100 100 100 100	10,000





# FUTURE YEAR FORECASTING - FUTURE NETWORKS

### No Build

- Local Road Phase 1
  Improvements
- o US-62/SR-161 IOS
- SR-161/Little Turtle
  Alt 3B
- US-62/Beech Left
  Turn Addition
- SR-161/Mink
  Interchange
  Upgrade





## FUTURE YEAR FORECASTING - FUTURE NETWORKS

### Build

- SR-161 Widening one lane addition on SR-161 in each direction
  - WB from US-62/SR-161 interchange and continue to I-270 NB ramp and end at I-270/SR-3 interchange
  - EB from SR-161 CD from I-270 to US-62/SR-161 interchange





## FUTURE YEAR FORECASTING - TRIP TABLE ADJUSTMENT

se Year
se Year

- SDE Tool Forecast Pivoting
  - NCHRP255 at individual cell level
  - NCHRP255 at row/column marginal level
  - o **Fratar**
- Factor the Intel auto trips to match the traffic profile provided by MacKenzie (by TOD and Direction)
- Separate Intel truck traffic/Construction traffic to a new user class (route prohibiting)

				Final Re	ecommended	l Profile				
Start Time	15-min %	44,000	Enter	Exit		Start Time	15-min %	44,000	Enter	Exit
12:00 AM	0.145%	64				12:00 PM	2.082%	916		
12:15 AM	0.053%	23				12:15 PM	2.187%	962		
12:30 AM	0.092%	41				12:30 PM	1.924%	846		
12:45 AM	0.119%	52				12:45 PM	1.884%	829		
1:00 AM	0.092%	41				1:00 PM	1.805%	794		
1:15 AM	0.066%	29				1:15 PM	1.647%	725		
1:30 AM	0.145%	64				1:30 PM	1.318%	580		
1:45 AM	0.079%	35				1:45 PM	1.318%	580		
2:00 AM	0.066%	29				2:00 PM	1.278%	562		
2:15 AM	0.119%	52				2:15 PM	1.436%	632		
2:30 AM	0.158%	70				2:30 PM	0.712%	313	131	182
2:45 AM	0.066%	29				2:45 PM	0.909%	400	122	278
3:00 AM	0.132%	58				3:00 PM	0.946%	416	97	319
3:15 AM	0.040%	17				3:15 PM	0.978%	430	82	349
3:30 AM	0.040%	17				3:30 PM	1.145%	504	104	400
3:45 AM	0.079%	35				3:45 PM	1.473%	648	97	551
4:00 AM	0.079%	35				4:00 PM	2.377%	1,046	78	968
4:15 AM	0.053%	23				4:15 PM	3.211%	1,413	83	1330
4:30 AM	0.145%	64				4:30 PM	1.997%	879	93	786
4:45 AM	0.356%	157				4:45 PM	2.013%	886	89	797
5:00 AM	0.538%	237	207	30		5:00 PM	2.047%	901	67	834
5:15 AM	1.049%	461	432	29		5:15 PM	1.937%	852	64	788
5:30 AM	1.981%	872	842	29		5:30 PM	1.702%	749	61	687
5:45 AM	2.247%	988	928	60		5:45 PM	1.525%	671	94	577
6:00 AM	1.037%	456	402	54		6:00 PM	1.317%	579	71	509
6:15 AM	1.051%	463	387	76		6:15 PM	1.108%	488	88	400
6:30 AM	1.486%	654	568	86		6:30 PM	1.673%	736		
6:45 AM	1.967%	866	788	78		6:45 PM	1.594%	702		
7:00 AM	2.118%	932	859	74		7:00 PM	1.581%	696		
7:15 AM	2.897%	1,275	1,112	162		7:15 PM	1.344%	591		
7:30 AM	2.354%	1,036	882	154		7:30 PM	0.949%	417		
7:45 AM	2.322%	1,022	760	262		7:45 PM	1.120%	493		
8:00 AM	2.180%	959	680	279		8:00 PM	0.988%	435		
8:15 AM	1.539%	677	529	148		8:15 PM	0.698%	307		
8:30 AM	1.537%	676	563	113		8:30 PM	0.527%	232		
8:45 AM	1.482%	652	544	108		8:45 PM	0.540%	238		
9:00 AM	0.909%	400				9:00 PM	0.567%	249		
9:15 AM	0.922%	406				9:15 PM	0.343%	151		
9:30 AM	0.909%	400				9:30 PM	0.303%	133		
9:45 AM	1.120%	493				9:45 PM	0.158%	70		
10:00 AM	0.870%	383				10:00 PM	0.198%	87		
10:15 AM	0.975%	429				10:15 PM	0.264%	116		
10:30 AM	0.909%	400				10:30 PM	0.211%	93		
10:45 AM	0.791%	348				10:45 PM	0.211%	93		
11:00 AM	1.199%	528				11:00 PM	0.158%	70		
11:15 AM	1.370%	603				11:15 PM	0.198%	87		
11:30 AM	1.673%	736				11:30 PM	0.198%	87		
11:45 AM	2.293%	1,009				11:45 PM	0.053%	23		
						D. T	400.000			

## FUTURE YEAR FORECASTING - TRAFFIC ASSIGNMENT

- Select Link on 28 Segments for Weaving Analysis
- Multi-class assignment for route prohibiting policy (EXCLUDEGRP in PATHLOAD)
- Remember to simplify the model TMV DBF file for easy reference when using NCHRP 255 (i.e., recalculate Total Volumes)

SL#	Description	Link/Node
	1 SR-161 EB, e.o. I-270	SL1='L=106474-103924'
	2 I-270 SB to SR-161 EB Ramp	SL2='L=102379-106603'
	3 I-270 NB to SR-161 EB Ramp	SL3='L=106605-106603'
	4 SR-161 EB to Sunbury Rd (SPUI)	SL4='L=103924-101047'
	5 SR-161 EB-CD to Sunbury Rd (Loop Off-Ramp)	SL5='L=106480-107421'
	6 SR-161 EB-CD to Little Turtle Way	SL6='L=102423-102536 L=205091-205093'
	7 SR-161 EB, e.o. Little Turtle Way	SL7='L=102425-102535'
	8 SR-161 WB, e.o. Little Turtle Way	SL8='L=102428-102534'
	9 Little Turtle Way to SR-161 WB On-Ramp	SL9='L=102537-102432'
1	10 Sunbury Road to SR-161 WB (Loop On-Ramp)	SL10='L=107424-102403'
1	11 Sunbury Road to SR-161 WB (SPUI)	SL11='L=106482-106479 L=106863-106479'
1	12 SR-161 WB to Sunbury Road (SPUI)	SL12='L=101045-102414'
1	13 SR-161 WB, e.o. I-270	SL13='L=103923-106477'
1	14 SR-161 WB to I-270 SB Ramp	SL14='L=107665-106484'
1	15 SR-161 WB to I-270 NB Ramp	SL15='L=106481-101051'
1	16 I-270 SB-CD at SR-3	SL16='L=106597-101034'
1	17 I-270 SB-Mainline at SR-3	SL17='L=106591-101034'
1	18 I-270 SB to SR-161	SL18='L=100542-102379'
1	19 I-270 SB-Mainline at SR-161	SL19='L=100542-106472'
1	20 SR-161 EB-CD, e.o. Sunbury Road	SL20='L=106480-102413'
1	21 Sunbury Road to SR-161 EB (SPUI)	SL21='L=102420-101046'
1	22 SR-161 EB-Mainline at Sunbury Road	SL22='L=103924-101046'
1	23 SR-161 EB-Mainline, w.o. Little Turtle Way	SL23='L=102595-102425'
	24 SR-161 EB-Mainlin to Dublin-Granville Rd (new ramp)	SL24='L=102595-205092'
	25 SR-161 WB-CD, e.o. Sunbury Road	SL25='L=106485-102403'
1	26 SR-161 WB-Mainline, e.o. Sunbury Road	SL26='L=101045-103923'
1	27 Intel Site	SL27='N=1576 N=2113'
1	28 Construction Site	SL28='N=2109'



### FUTURE YEAR FORECASTING - TRAFFIC ASSIGNMENT





### FUTURE YEAR FORECASTING - TRAFFIC ASSIGNMENT



30 | Traffic Forecasting for the Intel Facility



### OUTLINE

- Preliminary Traffic Forecasting
- Traffic Modeling for CT Development
- CT Development
- Final Thoughts



Condition	Year	Roadway Geometry	Traffic Volumes				
No-Build	Opening (2025)	Existing	Background + Intel Employees				
	Design <mark>(</mark> 2045)	Existing	Background + Intel Employees				
Build (Phase 1)	Opening (2025)	Proposed	Background + Intel Employees + Intel Construction Employees				
	Design <mark>(</mark> 2045)	Proposed	Background + Intel Employees				

*All scenarios include the construction of the Intel site and the proposed local roadway improvements around the site



# CERTIFIED TRAFFIC

### Seven (7) Model Assignments

- 2021 Base Year (Base)
- 2025 Opening Year w.o. Construction
  - No Build Network (ON)
  - Build Network (OB)
- 2025 Opening Year w. Construction
  - No Build Network (ONC)
  - Build Network (OBC)
- 2045 Design Year w.o. Construction
  - No Build Network (DN)
  - Build Network (DB)

### Three (3) Sets of NCHRP Spreadsheets

- $\odot$   $\,$  2025 NB / 2045 NB  $\,$ 
  - Base (Column 6)
  - **ON (8a)**
  - DN (8)
- 2045 Build
  - Base (6)
  - ON & OB (8a & 8b)
  - **DB (8)**
- 2025 Build w. Construction
  - **Base (6)**
  - ONC & OBC (8a & 8b)



2															ļ
3	USER INPUT								Note: when	you enter op	oen year you	will usually enter b	build and no b	ouild so that p	re-open interp
4	OPTIONAL INPUT								lf you only h	ave one (sa	y you just wa	nt to establish a th	nird interpolat	ion point due	to an LU char
5	5 FINAL REFINED FORECAST								Open Year	Open Year	BUILD				
6	COL		COL	OLCOLCOL		COL	COL	COL	COL	COL	COL	COL	COL	COL	COL
7		1	2	3	3.5	4	5	6 ا	8a	8b	8 丿	17	18	19	20
8						near base m	odel	2021	2025		0	2025	2025	growth	factors
9		Road/Link	lin D	ax R	se S	count year	count data	Ab	Af-ON	Af-OB	Af-D	opening year	design yr	opening yr	design yea
10	(east leg)	SR 161 WB	0.5	2	Disa	2022	3247	3241.68	4194.84	4225.65		3968	3968	1.222	1.222
11	(north leg)	Mink Street	0.5	2	Disa	2022	416	450.45	1950.39	1951.56		1264	1264	3.039	3.039
12	(west leg)	SR 161 EB	0.5	2	Disa	2022	3478	3438.63	4313.01	4385.55		4189	4189	1.204	1.204
13	(south leg)	Mink Street	0.5	2	Disa	2022	539	761.67	1395.42	1358.37		887	887	1.646	1.646
20	Total						7680				ļ				
21	There are hidder	rows if you want more ro	ads i	n yo	ur in	tersection/se	creenline				There are I	hidden columns f	for opening	year model ı	esults if you
22		Year													ļ
23	Model Base	2021													
24	Model Opening (op	2025	if Yo	=Yb	then	also must = Y	'c (col4)								
25	Model Forecast	k	mus	t be	> Yb										
26	Project Opening	2025													
27	Project Design	2025													
_				•	•										



## **CERTIFIED TRAFFIC**

71	Model Pe	Model Period to Hour Factor				Example Model Period Factors				Opening Year AM Mink Street					
72	0.390				Hourly	1.00			Total Tur	n Volumes		iviii iix			1
73					Daily	0.09			rotar rai	in volumos					Δ
74					OMS PM	0.26		_							7
75					OMS AM	0.39						Ļ	1		N
76			Ab	Af-ON	Af-OB	Af-D 1	Туре 🚺					-	-		
77	E LEG	LT (S)	321	240	239	E	вотн 🧗	_				30	220		
78	E LEG	THRU (W)	5408	5947	6025	E	BOTH	_					<u>+</u>		
79	E LEG	RT (N)	9	1214	1205	Ν	MODEL	_							
82															
83								_							
84	N LEG	LT (E )	29	170	192	Ν	MODEL	_							
85	N LEG	THRU (S)	591	962	883	Ν	MODEL	_				~~	*		
86	N LEG	RT (W)	164	419	510	Ν	MODEL	_	m			90 11(0 11(0 11(0	540		ш
89								_	ш	←	3 010	J L L	2600	3.250 🖛	>
90									61		0,010	* * *	V 110	- ;	01
91	W LEG	LT (N)	104	720	729	Ν	MODEL		5	-	4 000	🔺	↑ ↑	1 470 ->	1
92	W LEG	THRU (E)	2451	3149	3139	E	BOTH	_	SI	-	1,820	330	000	1,470	SF
93	W LEG	RT (S)	181	283	276	E	BOTH	_		1		130 -	2 68		
96								_				•			
97								_							
98	SLEG	LT (W)	509	541	565	E	BOTH								
99	S LEG	THRU (N)	257	1516	1485	Ν	MODEL		<b>NM</b>						
100	S LEG	RT (E)	93	35	35	E	вотн						_		
103												20	80		
118												9	œ		
119		Year							T				*		
120	Model Base	2021	2021 Note: reenter model years but not project years									*	1		
121	Model Opening (opt)	2025	2025 it is not required that the turn mvt volume model years												
122	Model Forecast	Model Forecast match the link volu				el years		_							
123	Project Opening	2025						_							
124	Project Design	2025										Mink	Street		

35 | Traffic Forecasting for the Intel Facility



### OUTLINE

- Preliminary Traffic Forecasting
- Traffic Modeling for CT Development
- CT Development
- Final Thoughts



### FINAL THOUGHTS

- Modelers' "Normal" Tasks
- Potential 3C Model Features for Intel-Like Developments
- Workplace of Construction Workers
- $\circ$  Land Use Future around the Intel site, central Ohio, and the State
- Multi-Modal Focus



### QUESTIONS



Last updated 9/9/2022



38 | Traffic Forecasting for the Intel Facility