

APPENDIX C

KYTC Traffic Forecast

(April 29, 2013)

Executive Summary

Traffic Forecast Report Boone County Construct New Ramp near Mall Rd. Item No. 06-0409.00

Prepared for:



Prepared by:
Daniel Hulker
Division of Planning
Kentucky Transportation Cabinet
April 29, 2013

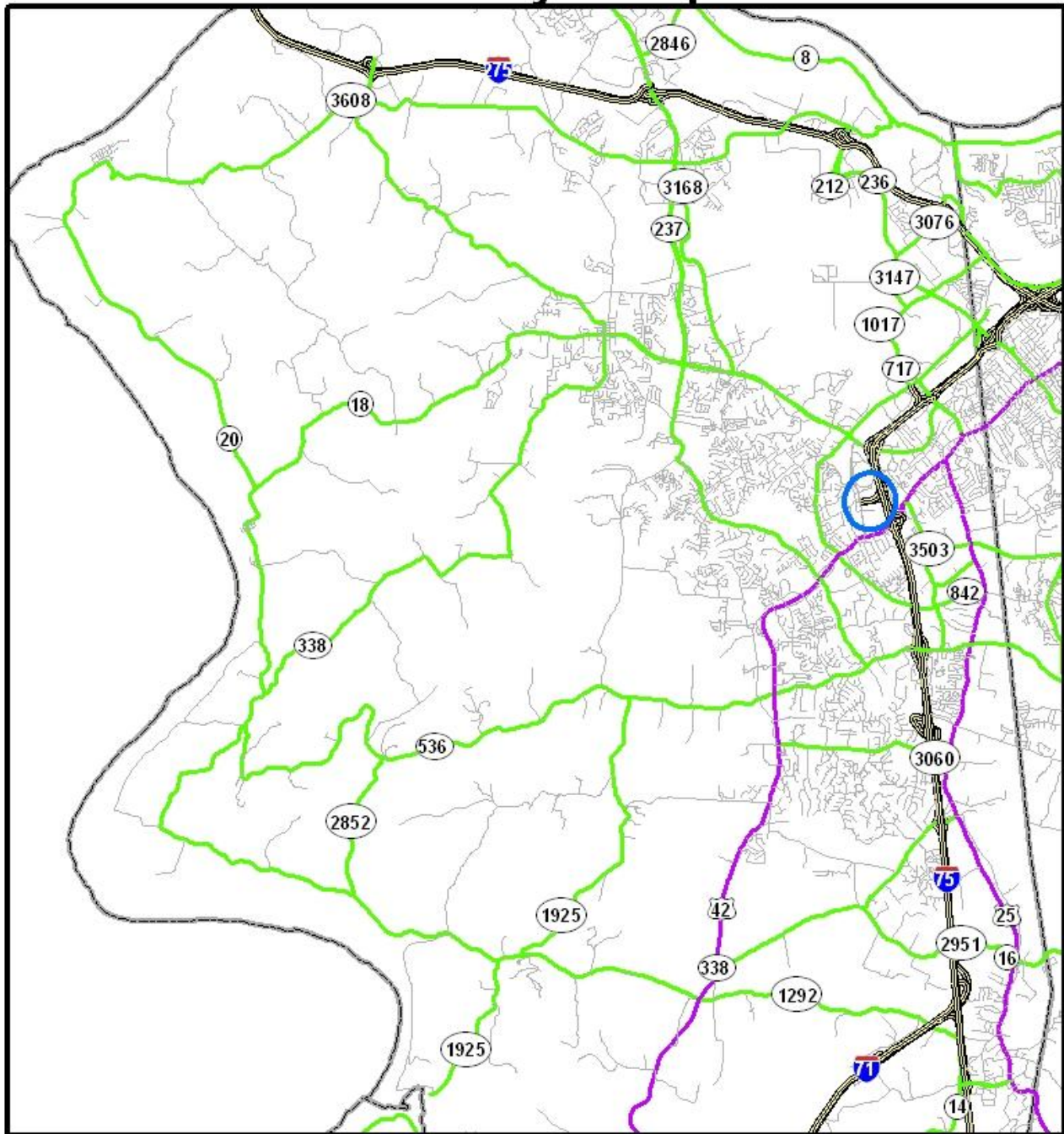
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Commonly Used Abbreviations and their Descriptions

ADT	Average Daily Traffic	Without any adjustment
DHV	Design Hour Volume	30 th highest hour of a <u>year</u>
ESAL	Equivalent Single Axle Load	A measure of traffic's impact on roadway
%T	Truck Percentage	The percentage of trucks to total volume
FC	Functional Class	Refers to a road's importance
GR	Growth Rate	A value normally compounded annually
PHF	Peak Hour Factor	Considers a 15 minute spike in an hourly count
K-Factor	K-30 th hour Factor	DHV divided by ADT (DHV/ADT)
D-Factor	Directional Factor	Percentage of dominant flow to total
MP	Mile Point	Miles increase easterly and northerly
ATR	Automatic Traffic Recorder	A permanent & continuous recording station
KYSTM	Kentucky Statewide Model	A computerized representation of KY roads

Vicinity Map



<p>N</p> <p>LEGEND</p> <p> Project Site Location: I-75 Ramp</p>	<p>Boone County Construct additional Ramp on I-75 near Exit 180A Item # 06-0409.00</p>	  <p>0 1 2 4 Miles</p>
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Traffic Forecast Executive Summary

Boone County: Construct New Ramp near Mall Rd.

Item No. 06-0409.00

FORECAST SUMMARY

The project calls for the construction of a new ramp connecting Mall Rd. to the southbound I-75 collector-distributor. This forecast includes a build as well as a no-build scenario. Special counts were requested for this forecast. In addition, the OKI MPO model was used in conjunction with the counts to forecast the build scenarios.

FORECAST TYPE

The following types of forecasts were developed:

- 2012 and 2040 ADT and DHV values
- 2012 and 2040 Daily and Design Hour No-Build Turn Movements
- 2012 and 2040 Daily and Design Hour Build Alternate Turn Movements
- 20-year ESALs
- 2012 and 2040 Build Truck Percentages.

CURRENT-YEAR VOLUMES

Current year no-build volumes were based upon recent class counts as well as the special counts done for this forecast. These counts are shown in the count maps on pages 9-12.

The build scenario utilized the OKI traffic model to generate a volume for the new ramp. The existing counts were used to create a chart that revealed ramp volumes for the forecast area. Then the OKI model was used to forecast diversionary percentages of the area. These percentages were then applied to existing counts to add or subtract traffic volume. The ramp volume was then calculated as the difference of the collector-distributor volume segments before and after it merges into the collector-distributor.

DESIGN-YEAR/GROWTH FACTORS

The design year growth factors were dictated by the OKI model. The OKI model has 2012 and 2035 analysis years with build and no build scenarios. The traffic growth rates were used to determine the rate of growth for each scenario. The total annual growth rate for traffic in the area is 1 %. Although Boone County is expected to grow at a rate of 2 %, the area in question is nearly built out. A growth rate of 1 % was applied to the area to increase traffic to the design year.

DESIGN HOUR FACTORS

The design hour volume was calculated from the special volume counts that were done for this forecast as well as from the turning movements.

TRUCK PERCENTAGE

Since this ramp is a new route, truck percentages were calculated using functional class averages for Urban Interstates. A current year truck percentage of 18.7 percent was used. Although Interstate 75 is a coal route, this ramp does not include coal trucks.

ESALs

ESAL values were calculated through the ESAL spreadsheet. FC averages were calculated from the 2007 aggregated ESAL report generated by the Kentucky Transportation Center in collaboration with the Transportation Cabinet and were used to estimate the 20-yr ESALs.

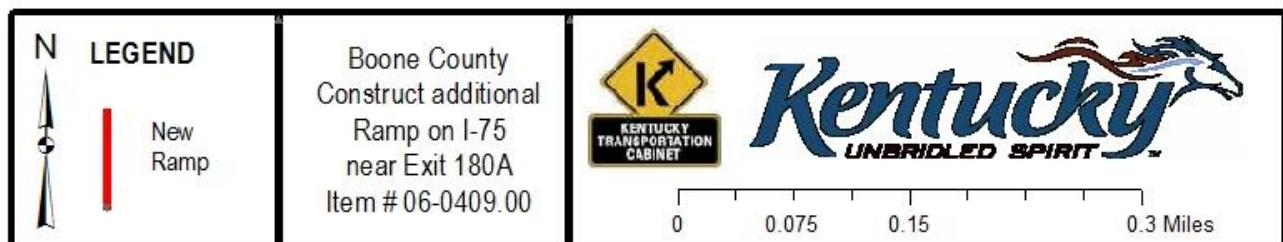
TURN MOVEMENTS

Seven turn movements were counted at various intersections in the area. They are displayed on the count maps on page 13.

COUNT VARIABILITY

Class counts and turning movements exhibit a variability of up to 20% on a day-to-day basis. In the no-build vs build scenarios, some of the class counts and turning movements that show a difference may be due to variance in the actual turn movement counts or subsequent traffic balancing and not directly a result of the new ramp. When comparing the build and no-build scenarios, differences of less than 20% should not be considered significant in regards to any delay analysis.

Summary Map



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FORECAST OF EQUIVALENT SINGLE AXLE LOAD ACCUMULATIONS (20-year)

ROUTE ID:

County	Boone
Road Name	New Ramp from Mall Rd
Functional Class	11 - Urban Interstate
Project Description	Add New Ramp to I-75 Mall Rd Interchange
Scenario	Build
Segment Description	Same

Date	04/26/13
Forecaster	Daniel Hulker
MARS No.	N/A
Item No.	06-0409.00
Route No.	I-75
Beg. MP	N/A
End MP	N/A
T.F. No.	TF 12-008
No. of Lanes	1
1 or 2 way	1

REFERENCES:

Previous Forecasts	None
Traffic Volume	See Page 3
Milepoint	N/A
Truck Percent	Functional Class Average
Milepoint	N/A
ESAL Information	2007 Aggregated ESALS
Growth Rate	1.00%

K-Factor Value	9.0%
K-Factor Source	See Page 3
PHF	0.9

Full Route Unique Identifier	N/A
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TRAFFIC PARAMETERS:

		Present Year 2012	Growth Rate	Construction Year 2020	Median Year 2030	Design Year 2040
Volume	(AADT)	4300	1%	4700	5100	5700
Percent Trucks	(%T)	18.7%	1%	20%	22%	25%
Number of Trucks		800	2%	940	1100	1400
Percent Trucks Hauling Coal	(%CT)	0%	0%	0%	0%	0%
<i>Non-Coal Trucks:</i>						
Axles/Truck	(A/T)	4.500	0.5%	4.683	4.923	5.100
ESALs/Axle	(ESAL/A)	0.270	2%	0.316	0.386	0.470
<i>Coal Trucks:</i>						
Axles/Truck	(A/CT)	0	0%	0.000	0.000	0.000
ESALs/Axle	(ESAL/CA)	0	0%	0.000	0.000	0.000

ESAL CALCULATIONS:

SEE ATTACHED ESAL CALCULATION SHEET

Design ESALs in Critical Lane

14,700,000

General Comments:

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Add New Ramp to I-75 Mall Rd Interchange

Year	ADT	Car %	Truck %	Cars	Trucks	CT%	AX/T	ESAL/AX	AX/CT	ESAL/CA	LDF	ESALs
2020	4,656	79.8%	20.2%	3713	943	0.00%	4.50	0.32	0	0	1.000	496,694
2021	4,703	79.5%	20.5%	3741	962	0.00%	4.50	0.32	0	0	1.000	516,587
2022	4,750	79.3%	20.7%	3769	981	0.00%	4.50	0.33	0	0	1.000	537,284
2023	4,797	79.1%	20.9%	3796	1001	0.00%	4.50	0.34	0	0	1.000	558,817
2024	4,845	78.9%	21.1%	3824	1021	0.00%	4.50	0.34	0	0	1.000	581,220
2025	4,894	78.7%	21.3%	3852	1042	0.00%	4.50	0.35	0	0	1.000	604,529
2026	4,943	78.5%	21.5%	3880	1062	0.00%	4.50	0.36	0	0	1.000	628,780
2027	4,992	78.3%	21.7%	3908	1084	0.00%	4.50	0.36	0	0	1.000	654,012
2028	5,042	78.1%	21.9%	3936	1106	0.00%	4.50	0.37	0	0	1.000	680,263
2029	5,093	77.9%	22.1%	3965	1128	0.00%	4.50	0.38	0	0	1.000	707,575
2030	5,143	77.6%	22.4%	3993	1150	0.00%	4.50	0.39	0	0	1.000	735,992
2031	5,195	77.4%	22.6%	4021	1174	0.00%	4.50	0.39	0	0	1.000	765,558
2032	5,247	77.2%	22.8%	4050	1197	0.00%	4.50	0.40	0	0	1.000	793,948
2033	5,299	77.0%	23.0%	4078	1221	0.00%	4.50	0.40	0	0	1.000	809,810
2034	5,352	76.7%	23.3%	4106	1246	0.00%	4.50	0.40	0	0	1.000	825,989
2035	5,406	76.5%	23.5%	4135	1271	0.00%	4.50	0.40	0	0	1.000	842,493
2036	5,460	76.3%	23.7%	4163	1296	0.00%	4.50	0.40	0	0	1.000	859,327
2037	5,514	76.0%	24.0%	4192	1322	0.00%	4.50	0.40	0	0	1.000	876,499
2038	5,570	75.8%	24.2%	4221	1349	0.00%	4.50	0.40	0	0	1.000	894,015
2039	5,625	75.5%	24.5%	4249	1376	0.00%	4.50	0.40	0	0	1.000	911,882
2040	5,682	75.3%	24.7%	4278	1404	0.00%	4.50	0.40	0	0	1.000	930,107
												5-yr ESALs 2,800,000
												10-yr ESALs 6,200,000
												15-yr ESALs 10,200,000
												20-yr ESALs 14,700,000

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HISTORICAL POPULATION SUMMARY

	1960	1970	1980	1990	2000	2010	60 - 70	70 - 80	80 - 90	90 - 00	00 - 10
Population	3,038,156	3,220,711	3,660,334	3,686,892	4,041,769	4,339,367	Change	Change	Change	Change	Change
Kentucky	-	32,812	45,842	57,589	85,991	118,811	6.0%	13.6%	0.7%	9.6%	7.4%
Boone Co	-	-	-	-	-	-	-	39.7%	25.6%	49.3%	38.2%

Sources: US Bureau of the Census; Kentucky State Data Center

FUTURE POPULATION PROJECTIONS SUMMARY

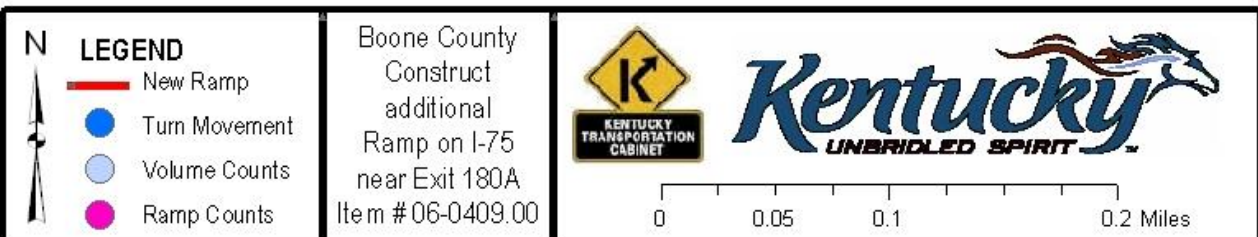
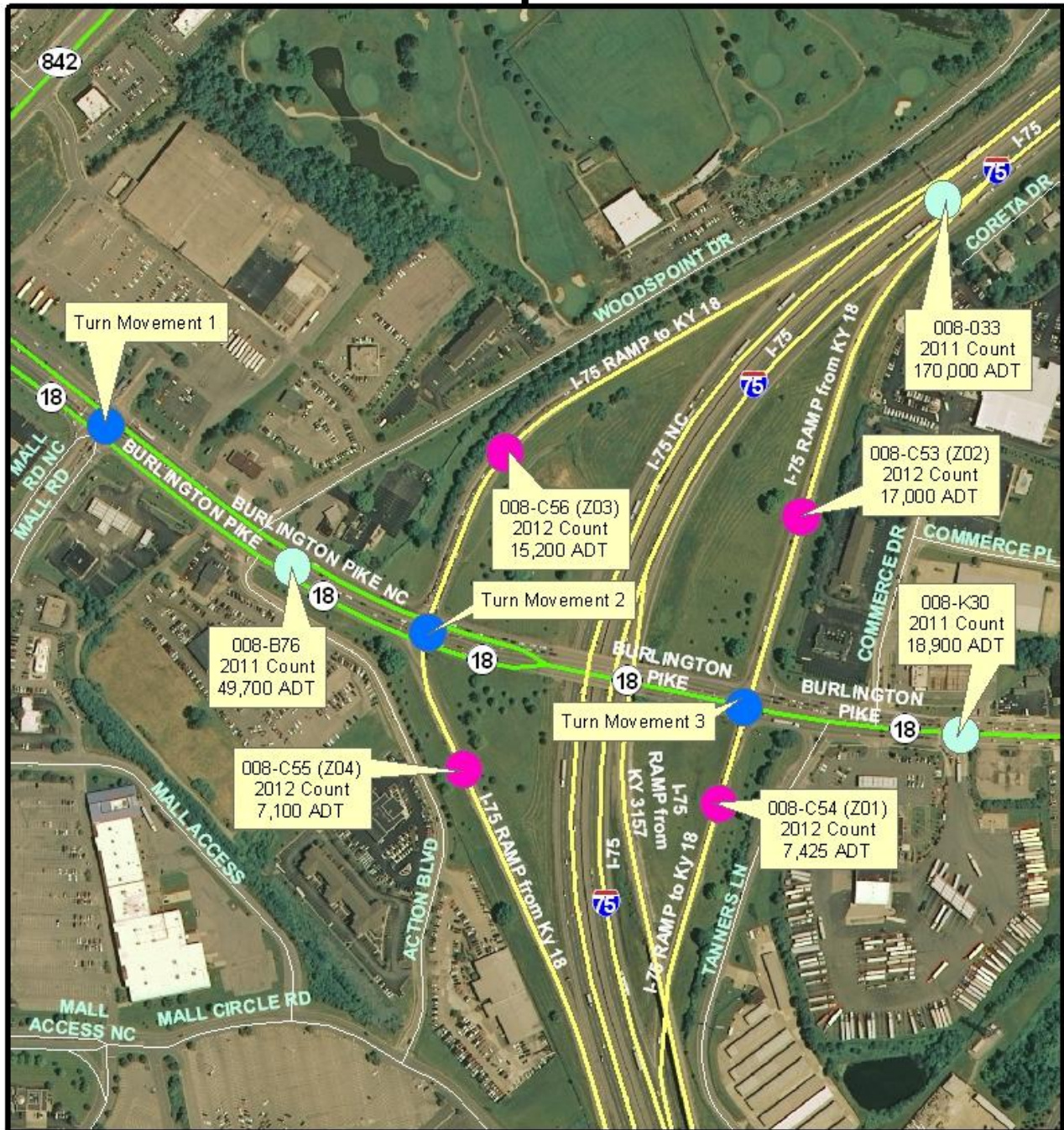
	2010	2015	2020	2025	2030	2035	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35
Projection	4,339,367	4,506,569	4,669,801	4,838,370	5,001,748	5,147,274	Change	Change	Change	Change	Change
Kentucky	118,811	137,072	153,545	170,000	186,373	202,240	3.9%	3.6%	3.6%	3.4%	2.9%
Boone Co	-	-	-	-	-	-	15.4%	12.0%	10.7%	9.6%	8.5%

Sources: US Bureau of the Census; Kentucky State Data Center

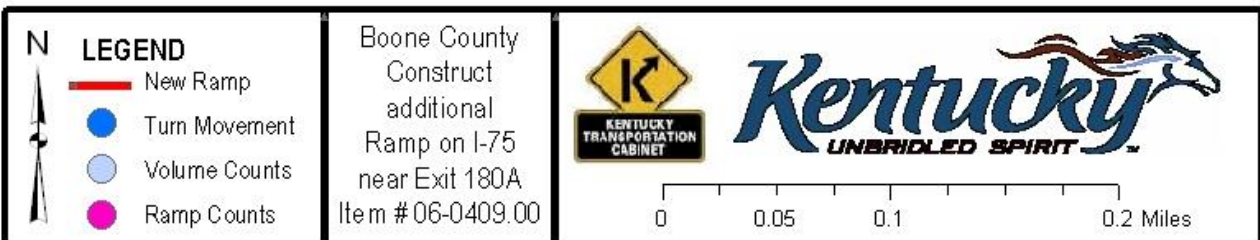
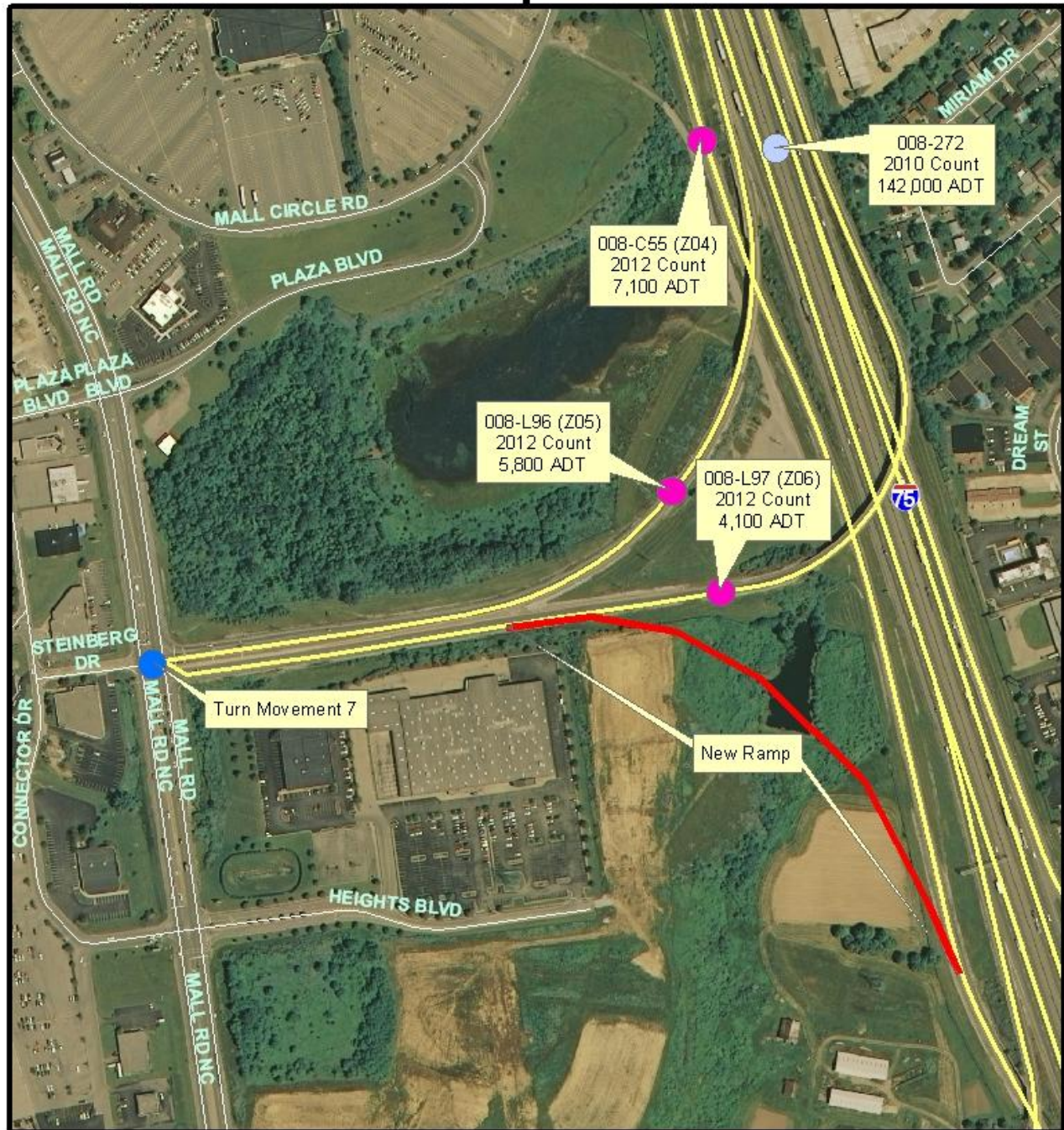
ANNUAL POPULATION GROWTH RATES FROM HISTORICAL DATA AND PROJECTIONS

	60 - 70	70 - 80	80 - 90	90 - 00	05 - 10	10 - 15	15 - 20	20 - 25	25 - 30	10 - 30	10 - 35
GR	0.59%	1.29%	0.07%	0.92%	0.76%	0.71%	0.71%	0.67%	0.58%	0.55%	0.69%
Kentucky	-	3.40%	2.31%	4.09%	2.90%	2.30%	2.06%	1.86%	1.65%	1.81%	2.15%
Boone Co	-	-	-	-	-	-	-	-	-	-	-

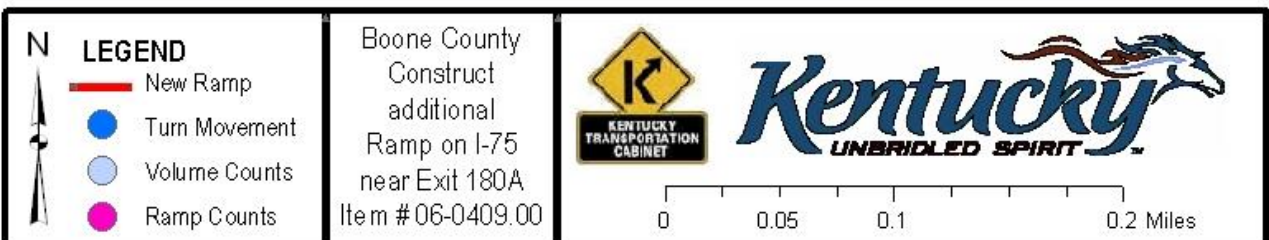
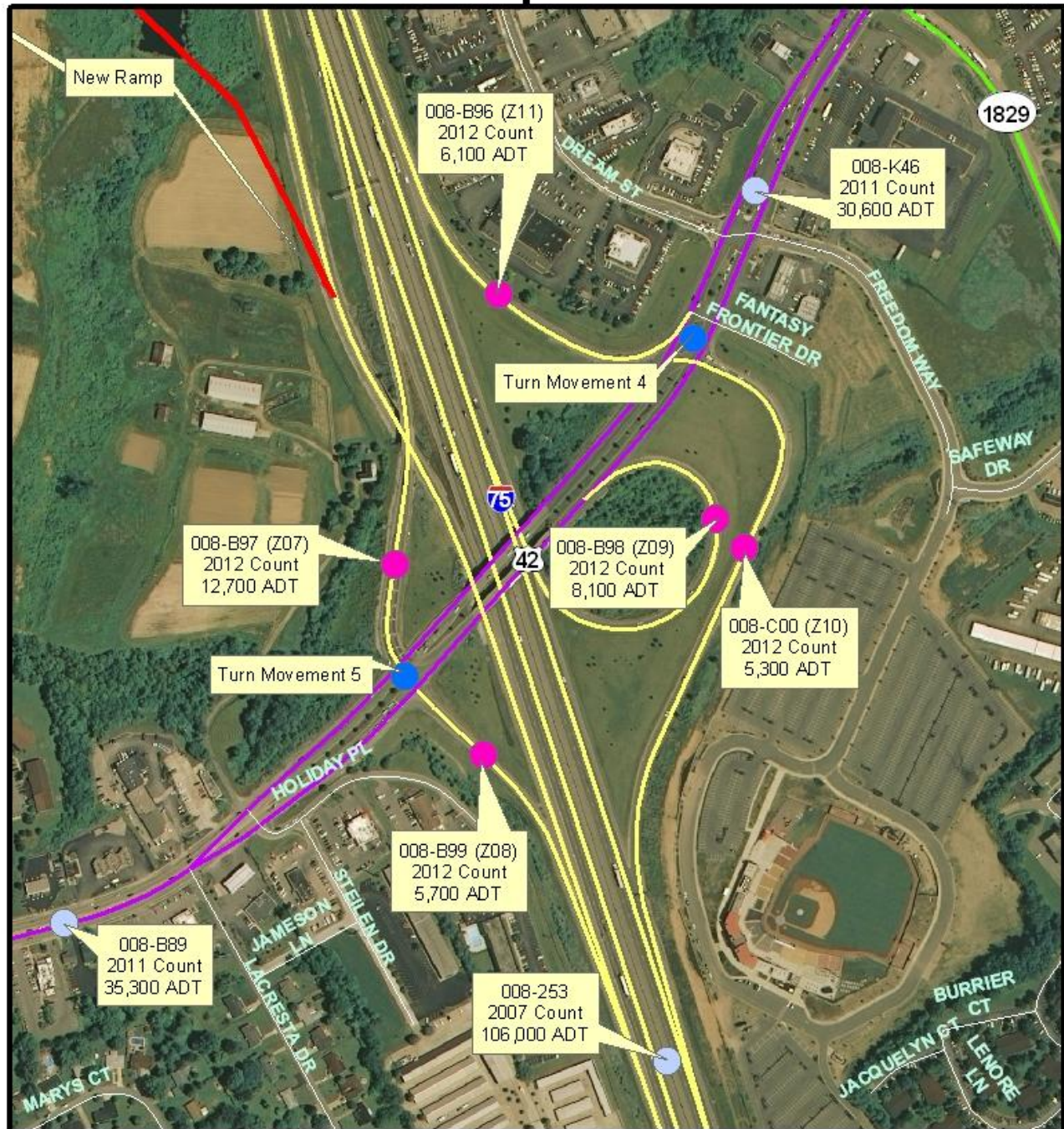
Volume and Special Counts 1



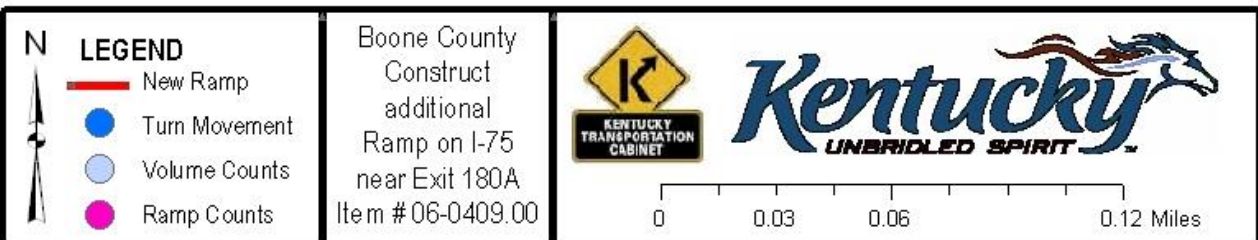
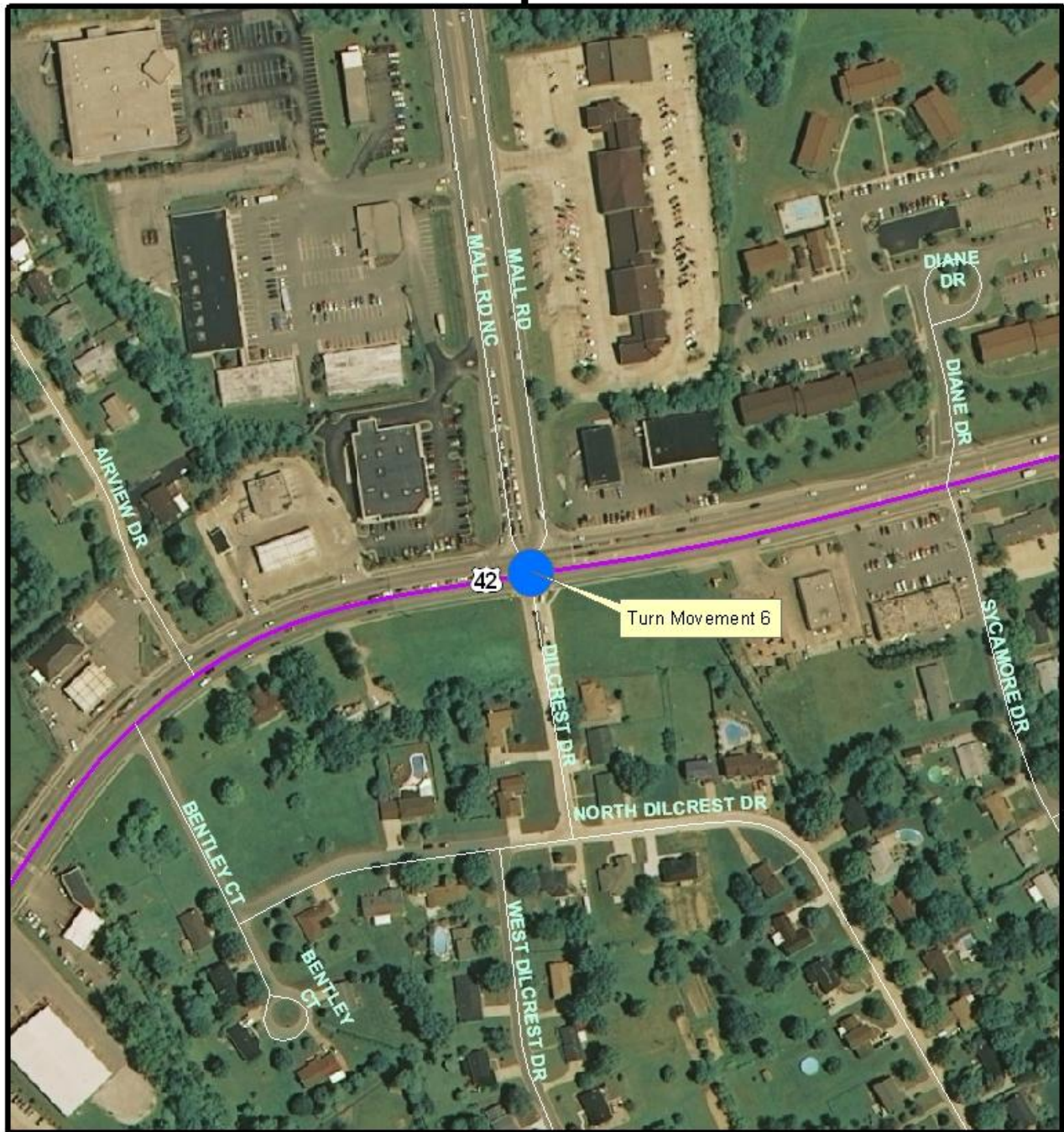
Volume and Special Counts 2



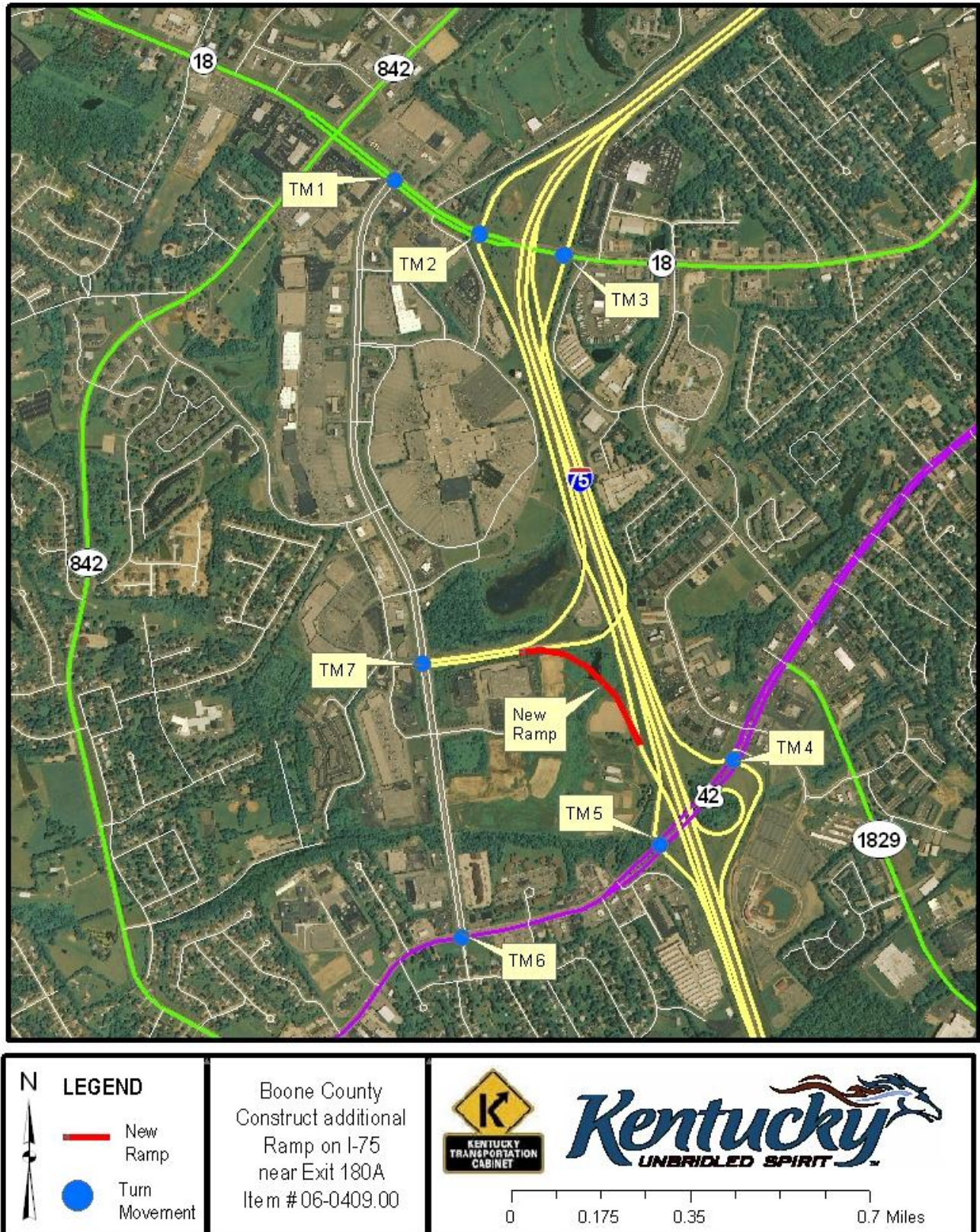
Volume and Special Counts 3



Volume and Special Counts 4



Turn Movements



No-Build Turn Movements 2012

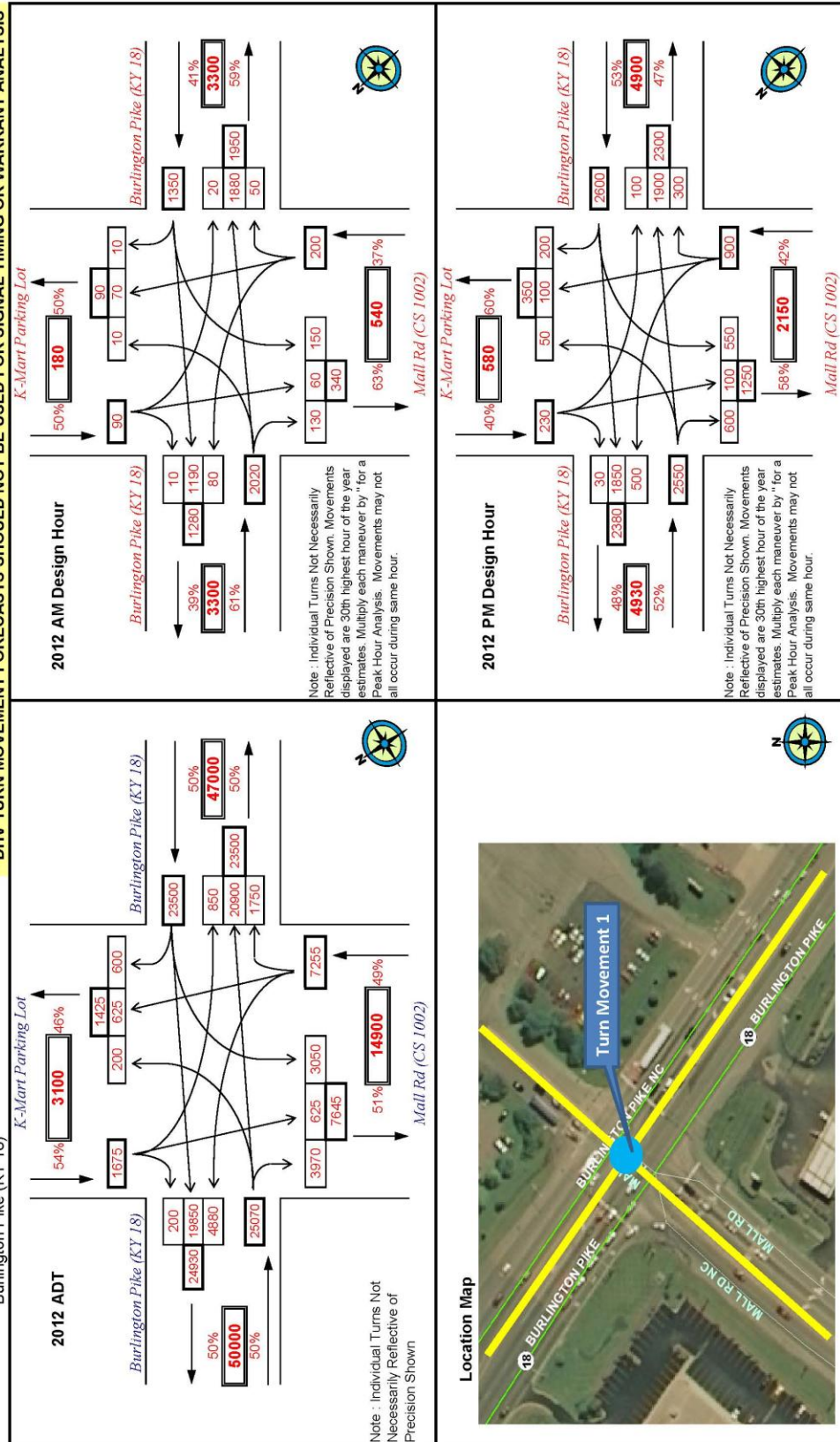
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Boone County: Construct New Ramp near Mall Rd.
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NOTE: K-Factors, Directional Distributions, and Peak Hour Factors were determined from a 2012 Turning Movement Count. AM and PM DHVs represent 30th highest hour estimates for each turn maneuver.

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 ITEM NUMBER: 06-0409.00
 MARS NUMBER: N/A
 REQUEST DATE: 5/15/2012
 ANALYST: Daniel Hulker
 SCENARIO: 2012 ADT and Design Hour Volumes
 INTERSECTION: Mall Rd (CS 1002), K-Mart Parking Lot, and Burlington Pike (KY 18)

Turn Movement 1 No Build 2012

****DHV TURN MOVEMENT FORECASTS SHOULD NOT BE USED FOR SIGNAL TIMING OR WARRANT ANALYSIS**

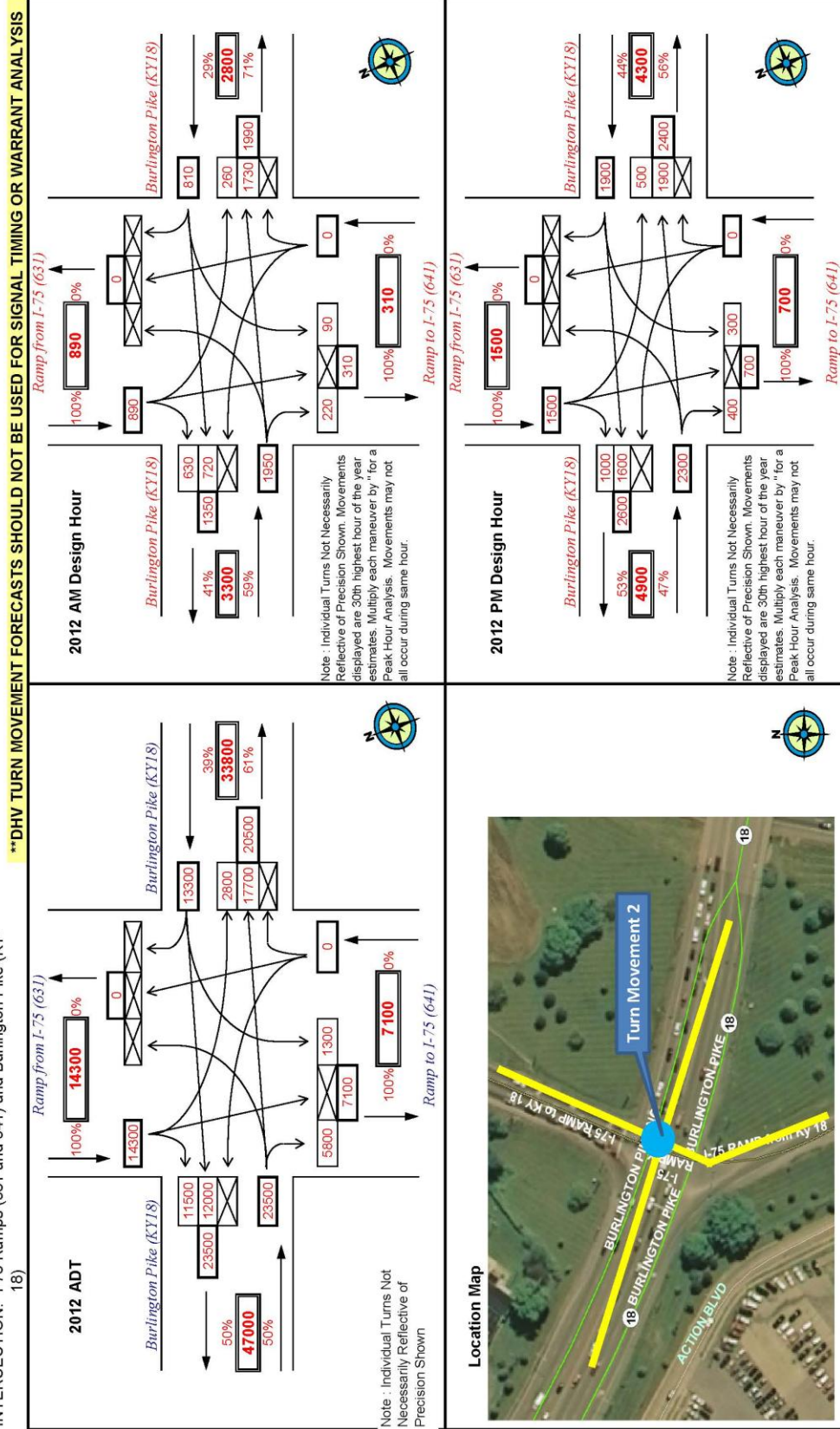


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Turn Movement 2 No Build 2012



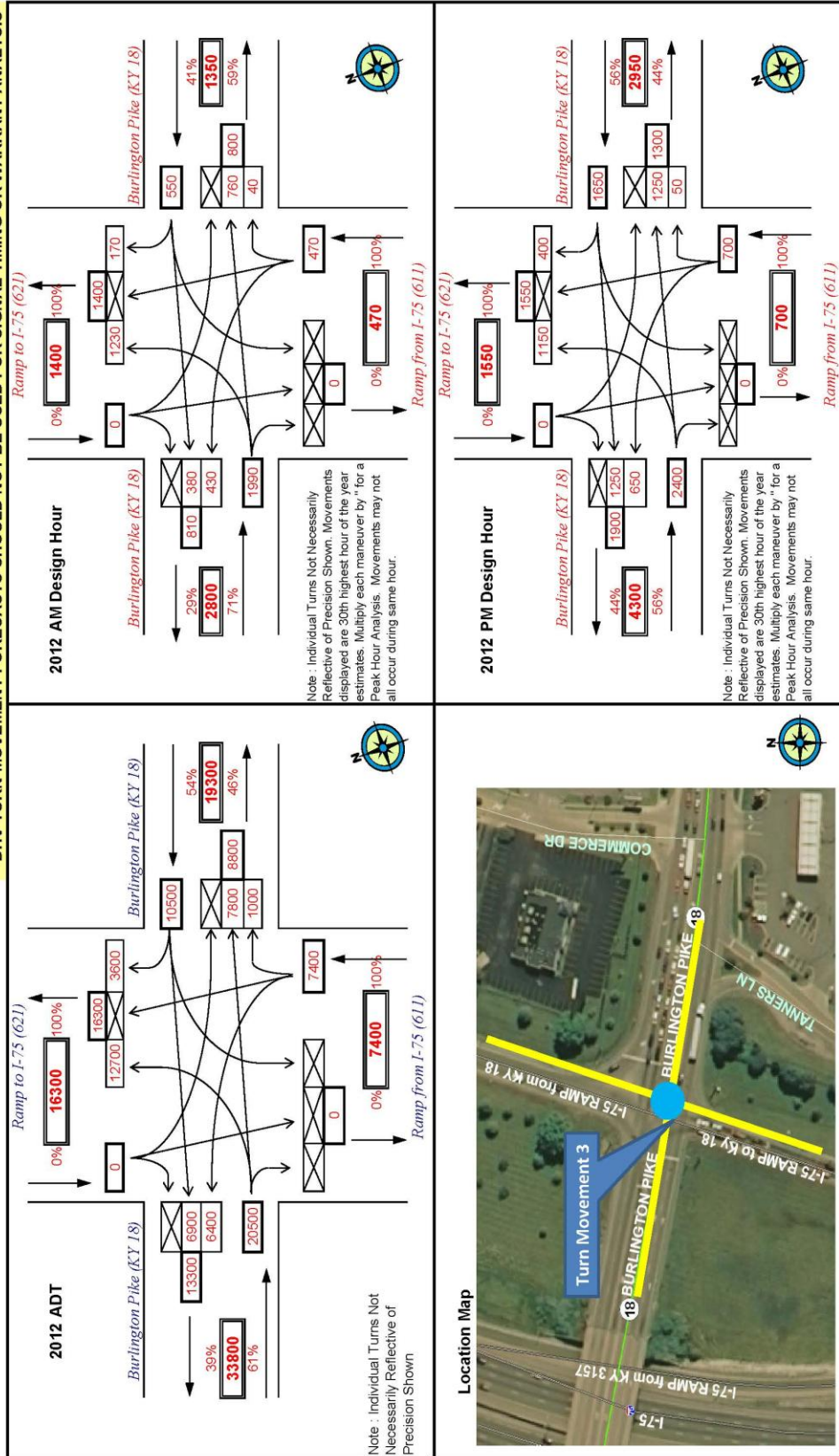
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Turn Movement 3 No Build 2012

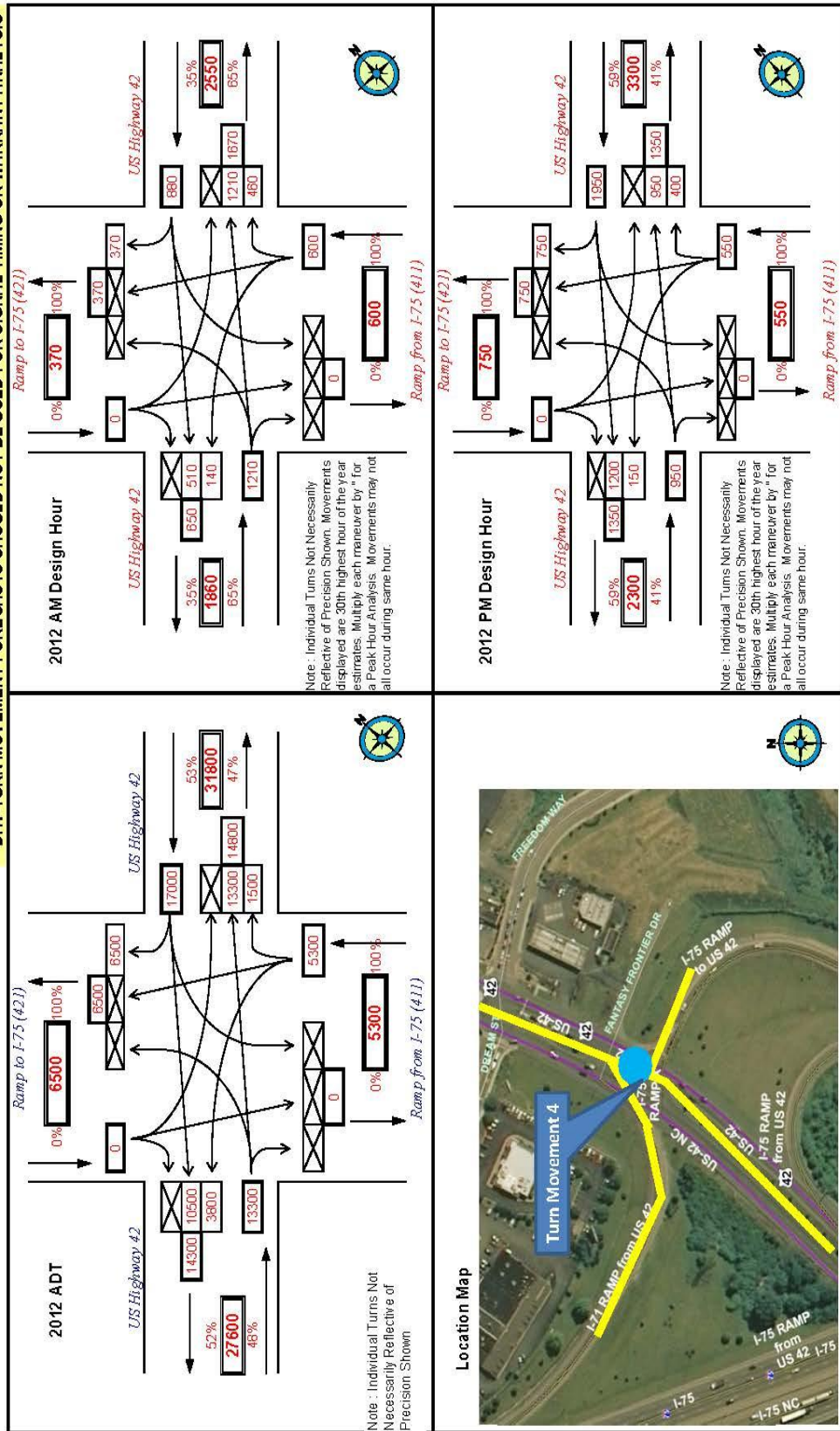
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ANALYST: Daniel Hukler
SCENARIO: 2012 ADT and Design Hour Volumes
INTERSECTION: I-75 Ramps (411, 421) and US Highway 42

Turn Movement 4 No Build 2012

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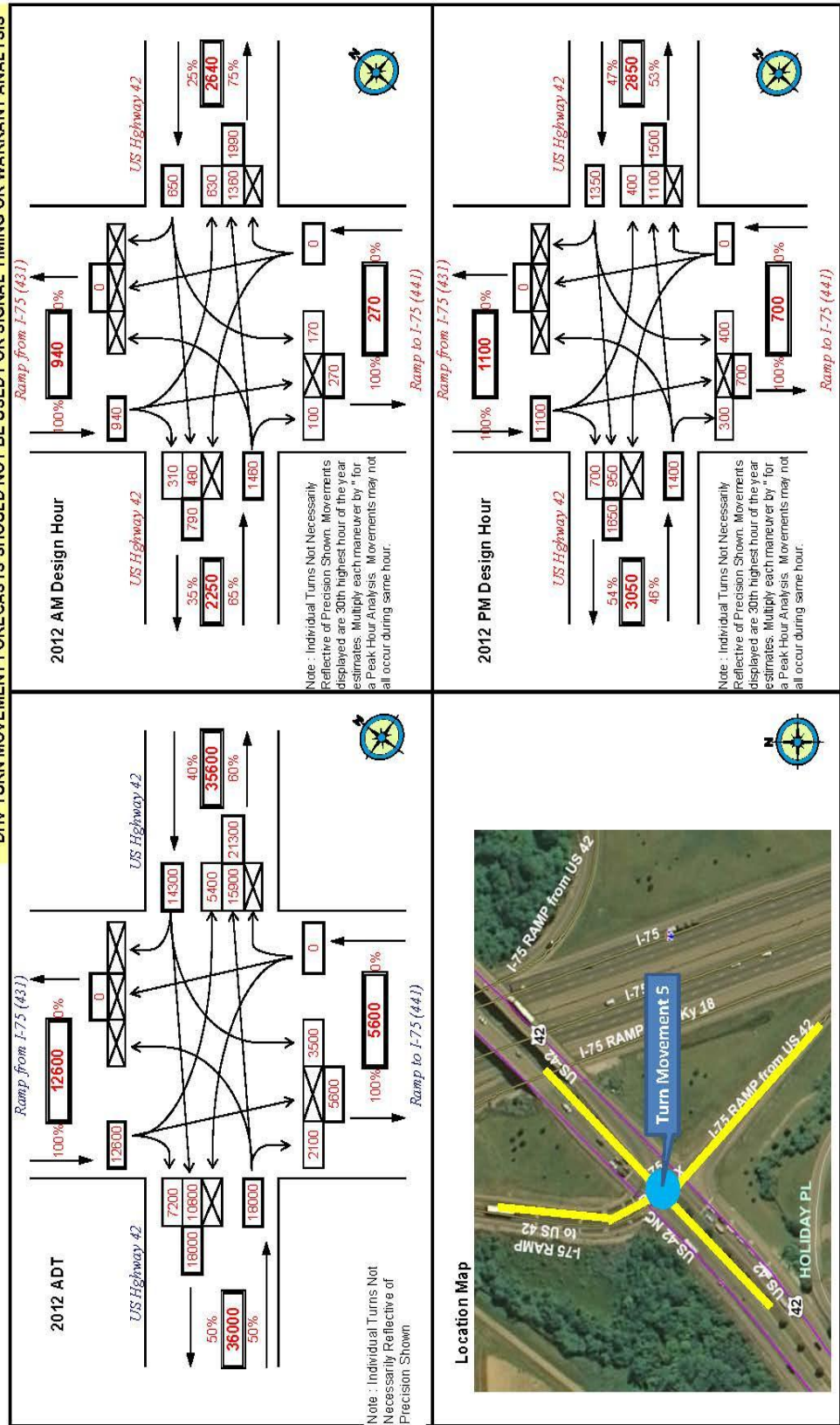
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Turn Movement 5 No Build 2012

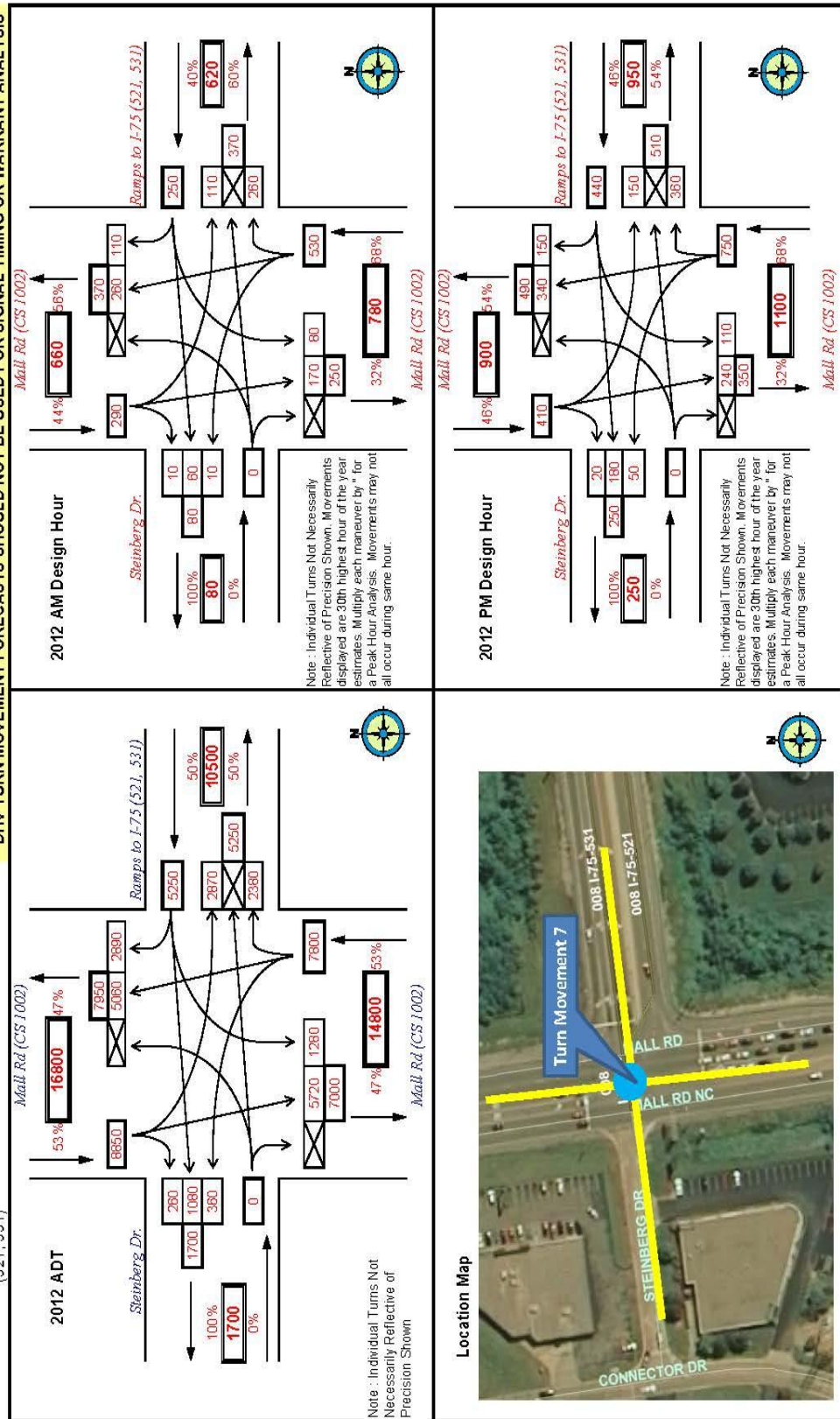
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SCENARIO: 2012 ADT and Design Hour Volumes
INTERSECTION: Mall Rd (CS 1002), Steinberg Dr, and I-75
(521, 531)

Turn Movement 7 No Build 2012

***DHV TURN MOVEMENT FORECASTS SHOULD NOT BE USED FOR SIGNAL TIMING OR WARRANT ANALYSIS



No-Build Turn Movements 2040

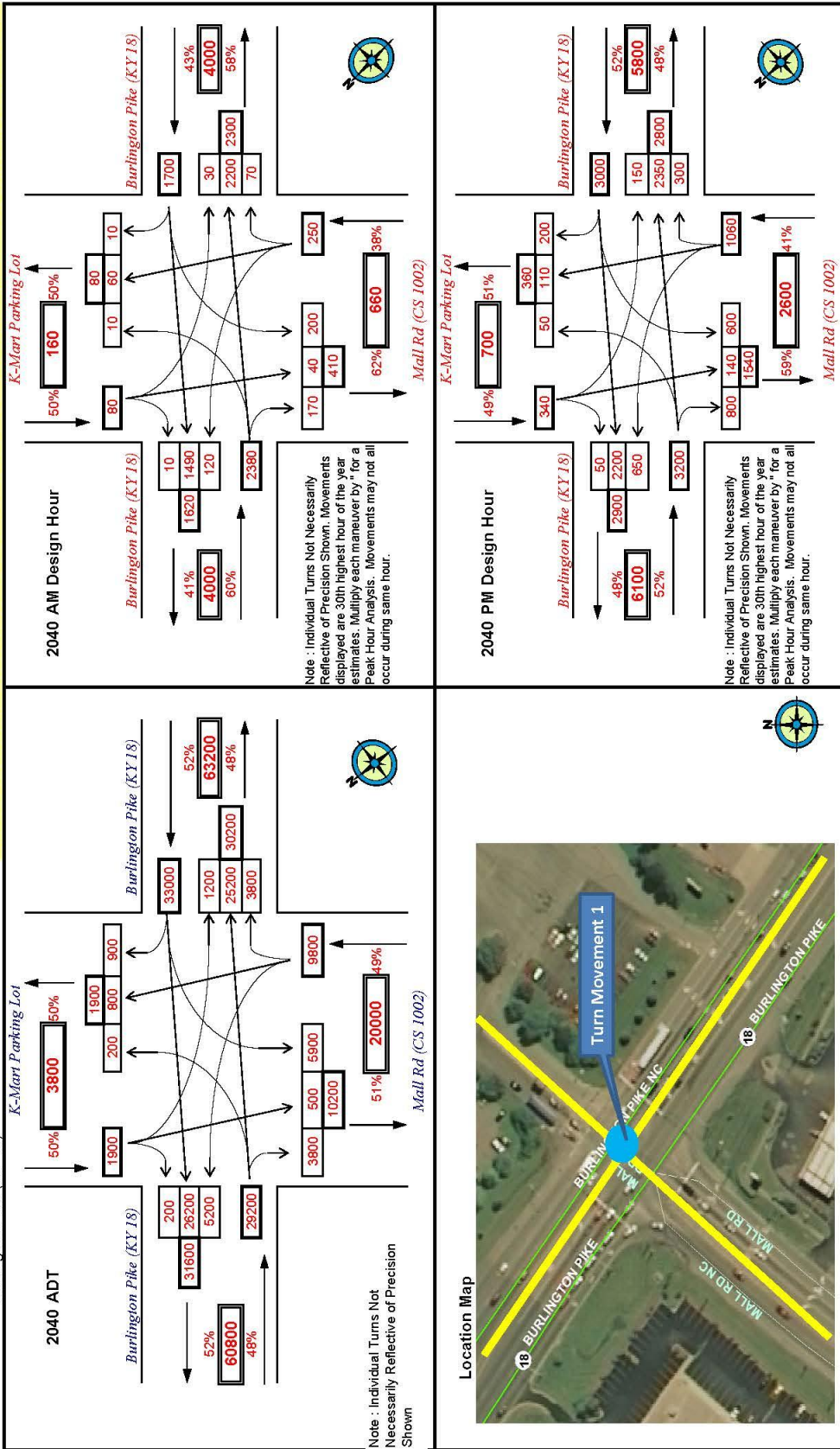
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 REQUEST DATE: 41044
 ANALYST: Daniel Hulker
 SCENARIO: 2040 ADT and Design Hour Volumes
 INTERSECTION: Mall Rd (CS 1002), K-Mart Parking Lot, and Burlington Pike (KY 18)

Turn Movement 1 No Build 2040

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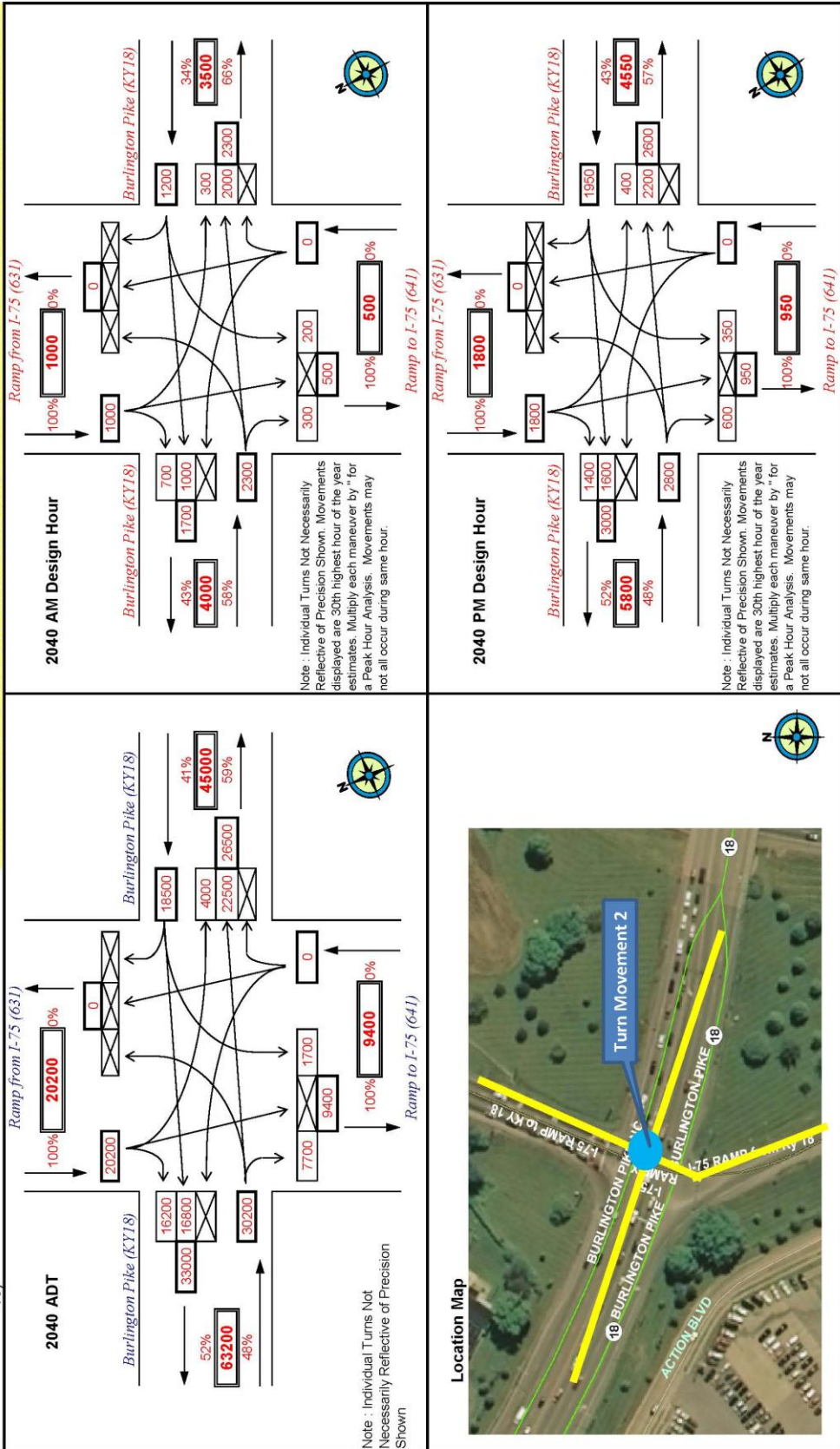
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 REQUEST DATE: 4/10/44
 ANALYST: Daniel Hulker
 SCENARIO: 2040 ADT and Design Hour Volumes
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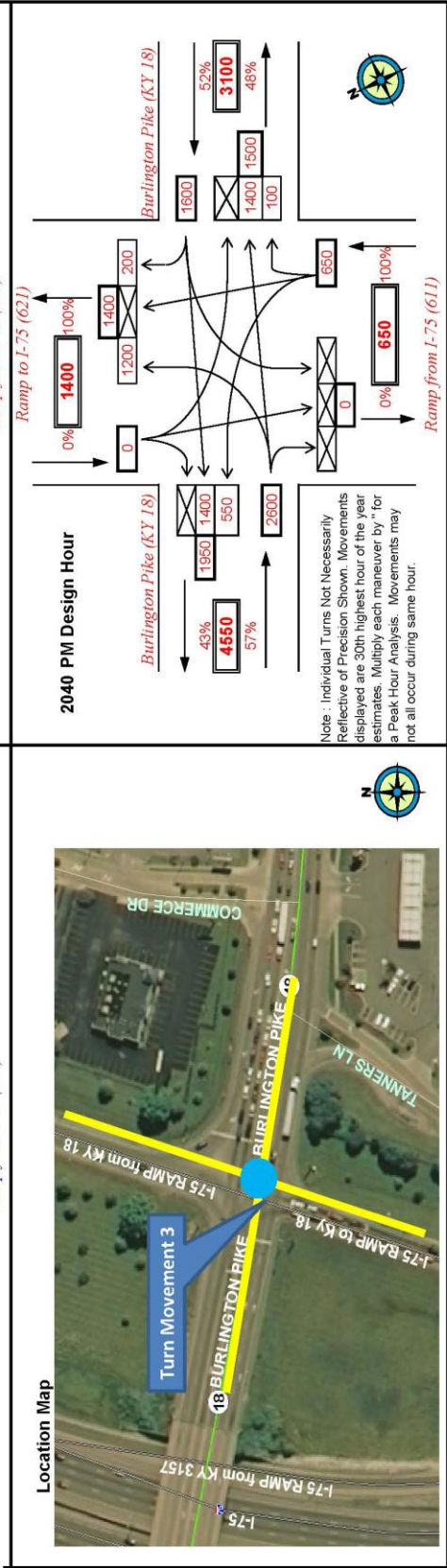
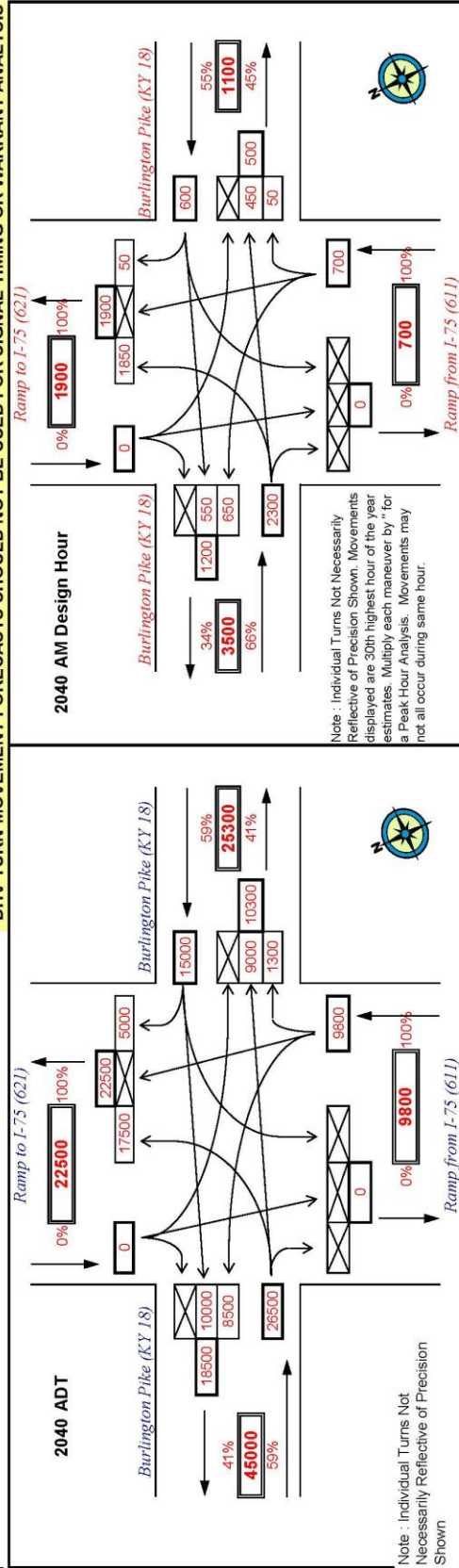
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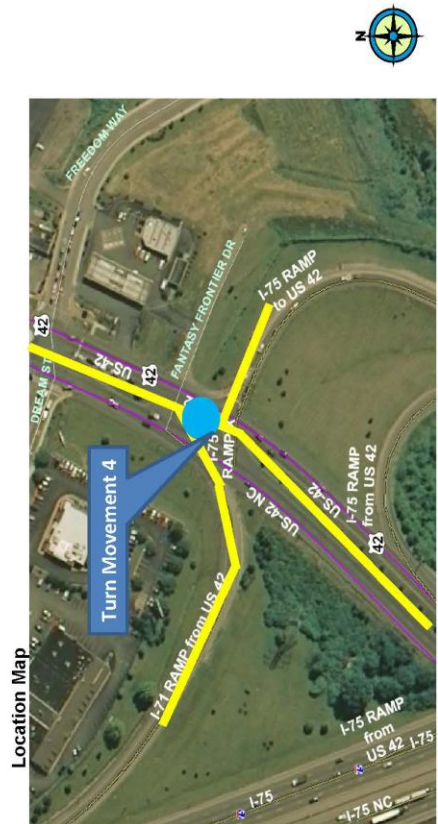
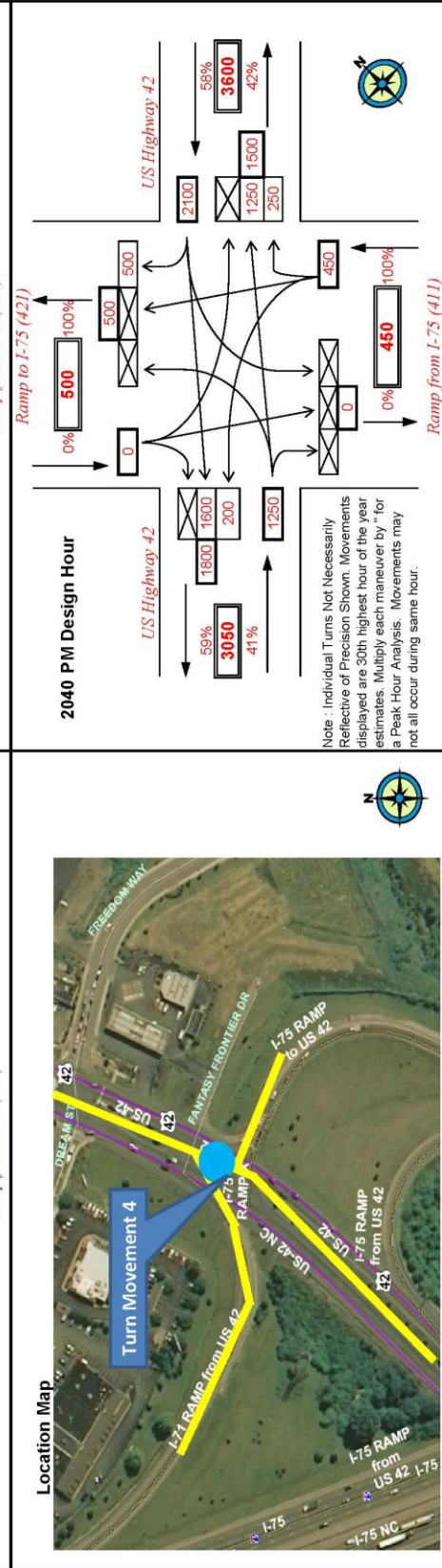
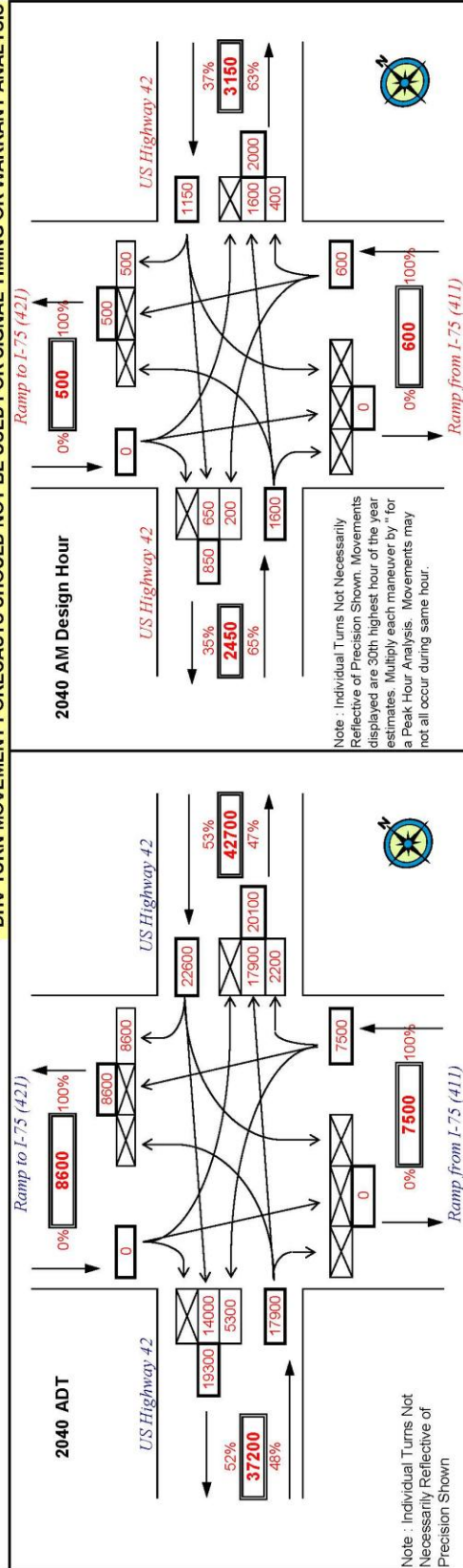


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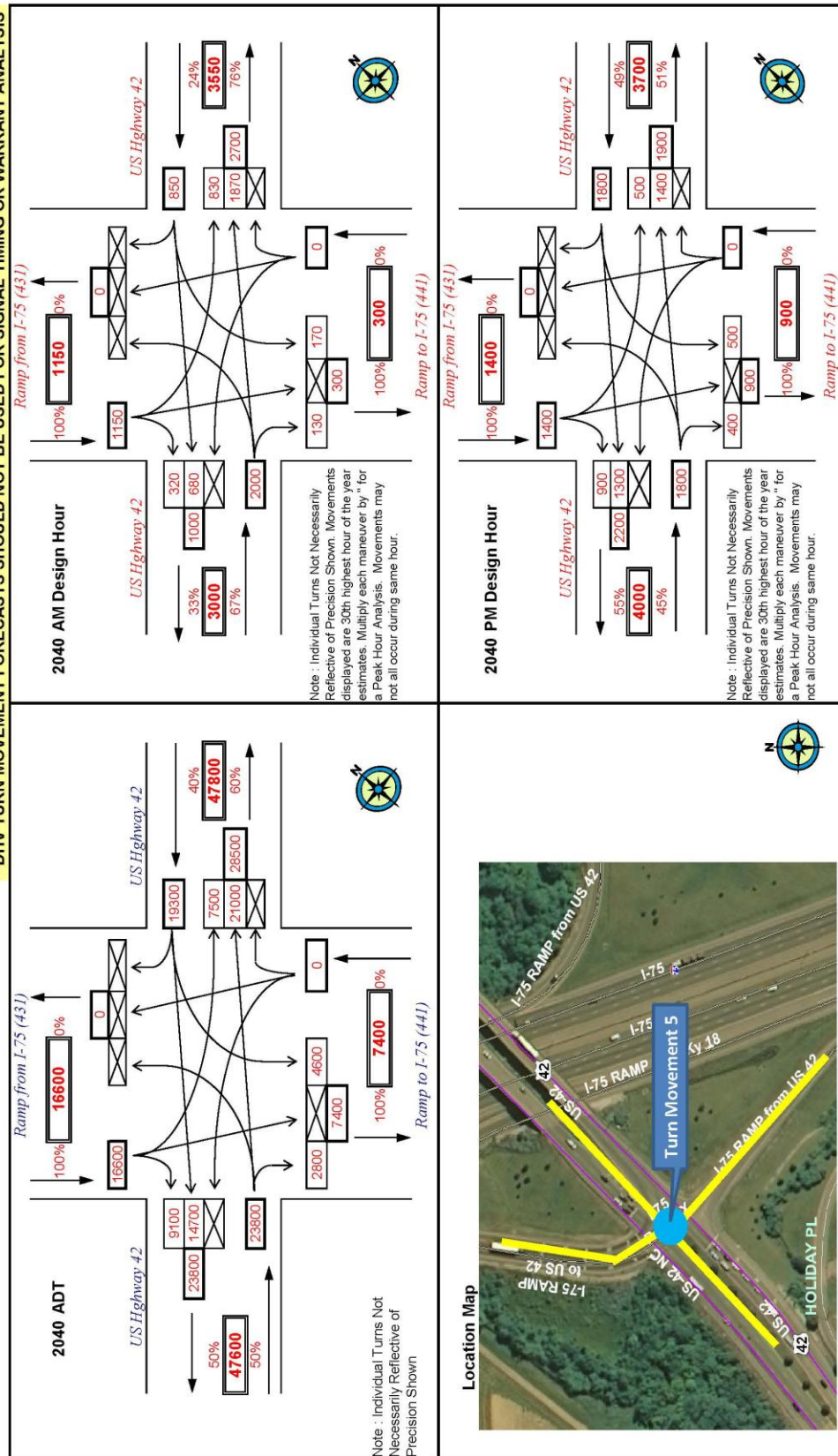


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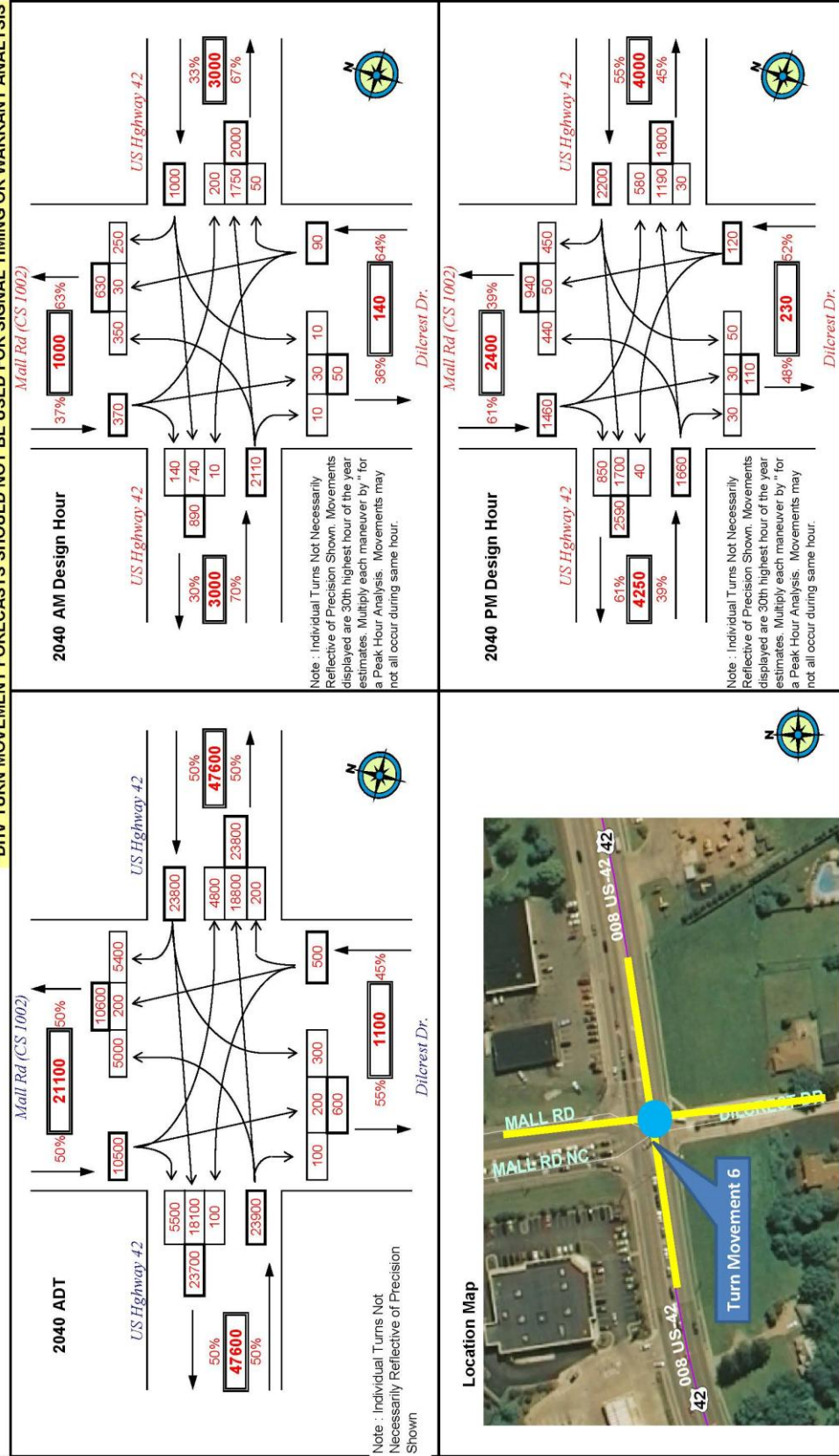
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 SCENARIO: 2040 ADT and Design Hour Volumes
 INTERSECTION: Mall Rd (CS 1002), Dilcrest Dr, and US Highway 42

Turn Movement 6 No Build 2040

****DHV TURN MOVEMENT FORECASTS SHOULD NOT BE USED FOR SIGNAL TIMING OR WARRANT ANALYSIS**



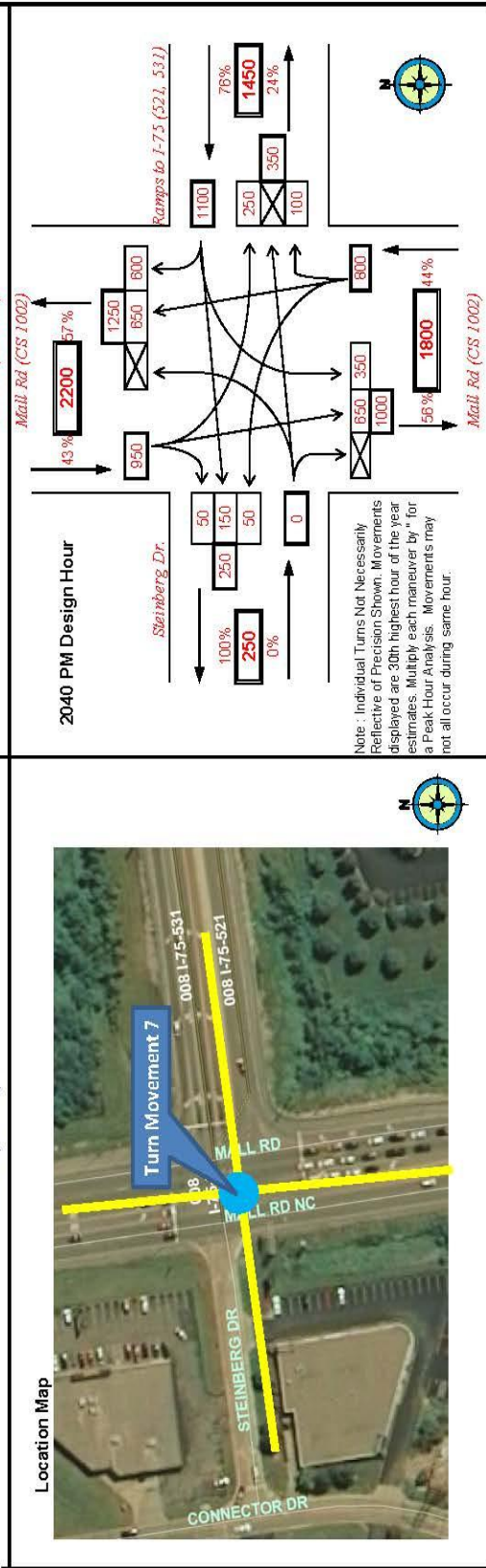
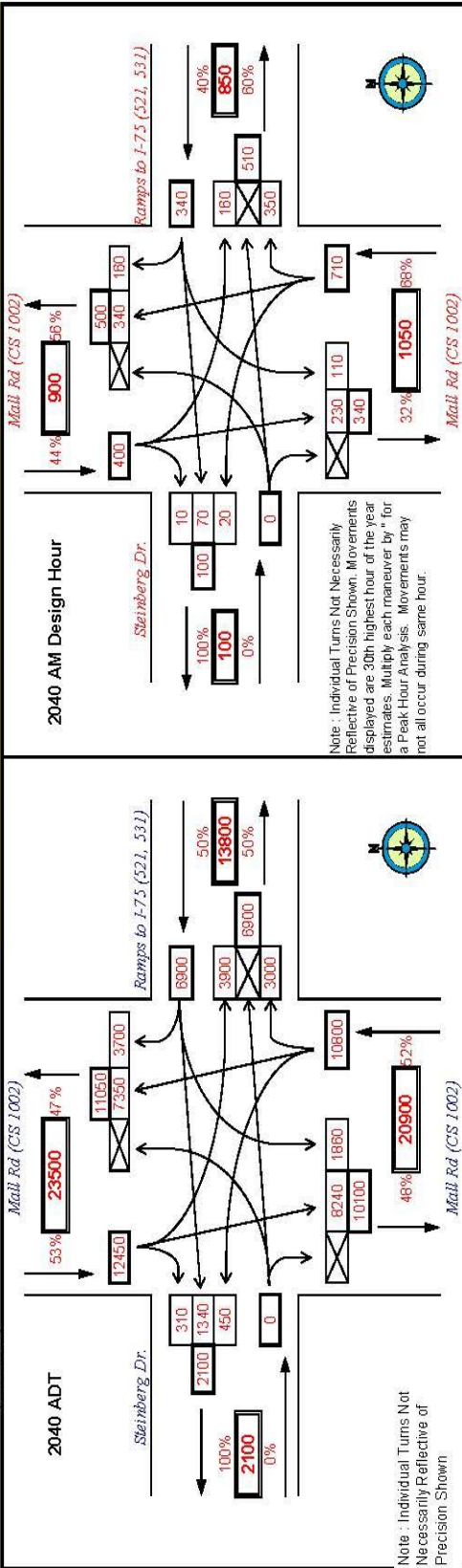
Traffic Forecast Technical Report
Boone County: Construct New Ramp near Mall Rd.
Item No. 06-0409.00

NOTE: K-Factors, Directional Distributions, and Peak Hour Factors were determined from a 2012 Turning Movement Count. AM and PM DHVs represent 30th highest hour estimates for each turn maneuver.

PROJECT: Construct new Ramp from Mall Rd to I-75
 ITEM NUMBER: 06-0409.00
 MARS NUMBER: N/A
 REQUEST DATE: 4/10/44
 ANALYST: Daniel Hulker
 SCENARIO: 2040 ADT and Design Hour Volumes
 INTERSECTION: Mall Rd (CS 1002), Steinberg Dr, and I-75 Ramps (521, 531)

Turn Movement 7 No Build 2040

****DHV TURN MOVEMENT FORECASTS SHOULD NOT BE USED FOR SIGNAL TIMING OR WARRANT ANALYSIS****



Build Turn Movements 2012

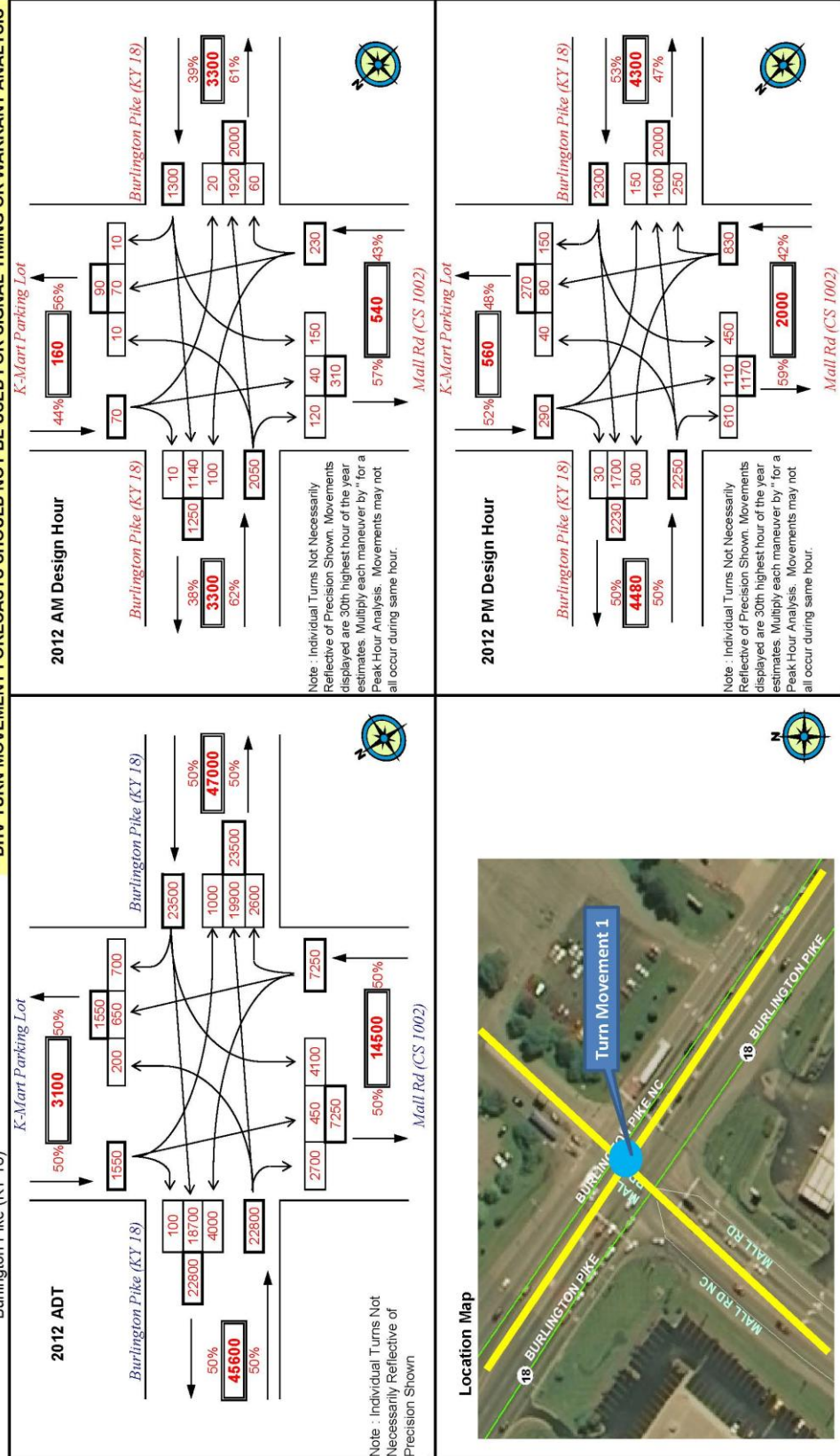
Traffic Forecast Technical Report
Boone County: Construct New Ramp near Mall Rd.
Item No. 06-0409.00

PROJECT: Construct new Ramp from Mall Rd to I-75
 ITEM NUMBER: 06-0409.00
 MARS NUMBER: N/A
 REQUEST DATE: 5/15/2012
 ANALYST: Daniel Hulker
 SCENARIO: 2012 ADT and Design Hour Volumes
 INTERSECTION: Mall Rd (CS 1002), K-Mart Parking Lot, and Burlington Pike (KY 18)

NOTE: K-Factors, Directional Distributions, and Peak Hour Factors were determined from a 2012 Turning Movement Count. AM and PM DHVs represent 30th highest hour estimates for each turn maneuver.

Turn Movement 1 Build 2012

****DHV TURN MOVEMENT FORECASTS SHOULD NOT BE USED FOR SIGNAL TIMING OR WARRANT ANALYSIS**



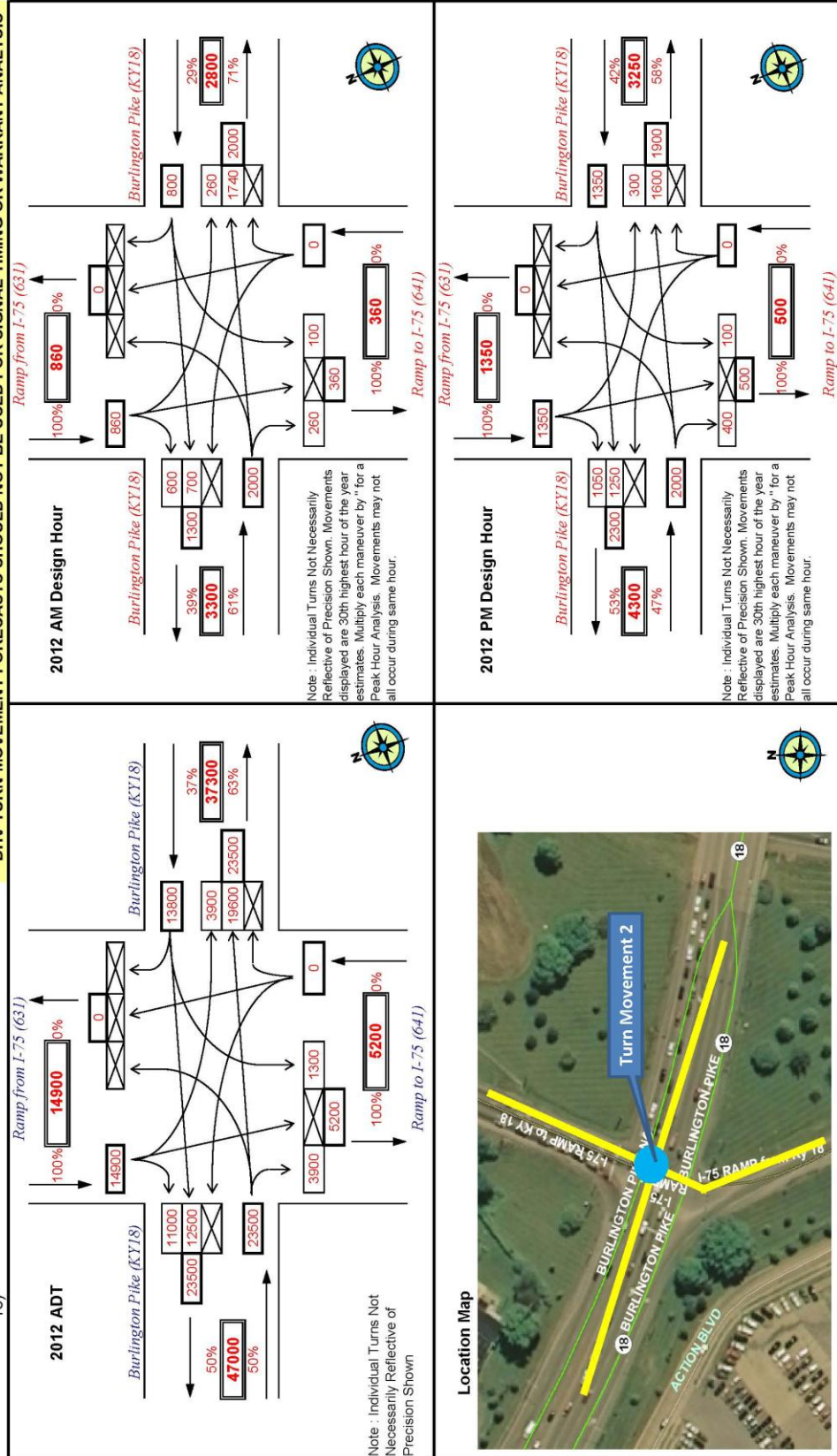
Traffic Forecast Technical Report
Boone County: Construct New Ramp near Mall Rd.
Item No. 06-0409.00

NOTE: K-Factors, Directional Distributions, and Peak Hour Factors were determined from a 2012 Turning Movement Count. AM and PM DHVs represent 30th highest hour estimates for each turn maneuver.

PROJECT: Construct new Ramp from Mall Rd to I-75
 ITEM NUMBER: 06-0409.00
 MARS NUMBER: N/A
 REQUEST DATE: 5/15/2012
 ANALYST: Daniel Hulker
 SCENARIO: 2012 ADT and Design Hour Volumes
 INTERSECTION: I-75 Ramps (631 and 641) and Burlington Pike (KY-18)

Turn Movement 2 Build 2012

****DHV TURN MOVEMENT FORECASTS SHOULD NOT BE USED FOR SIGNAL TIMING OR WARRANT ANALYSIS**



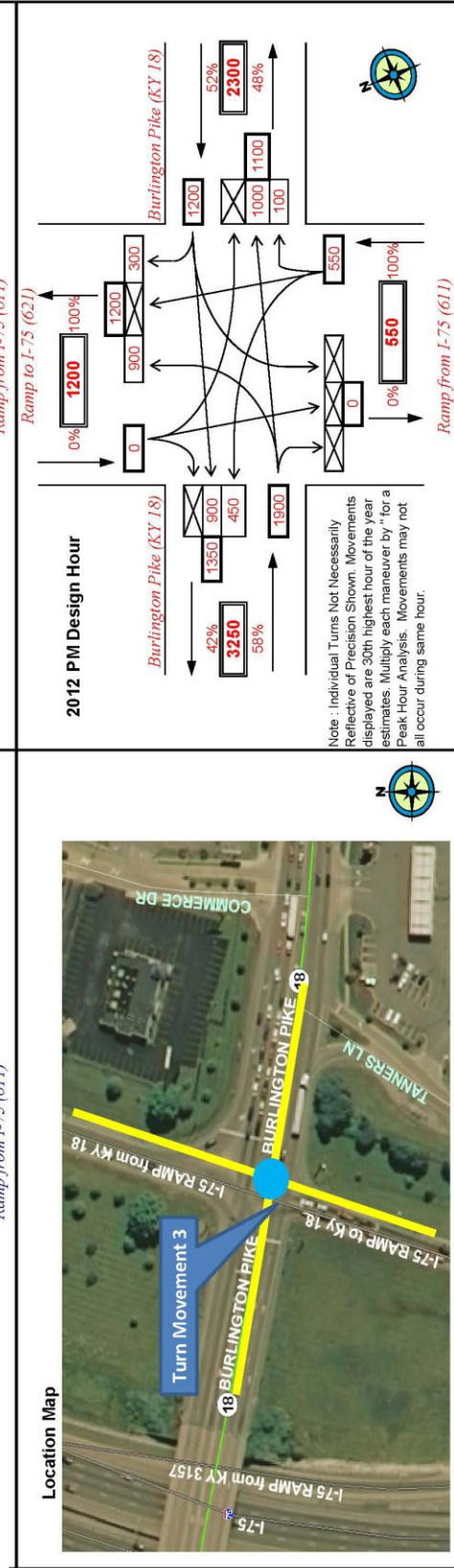
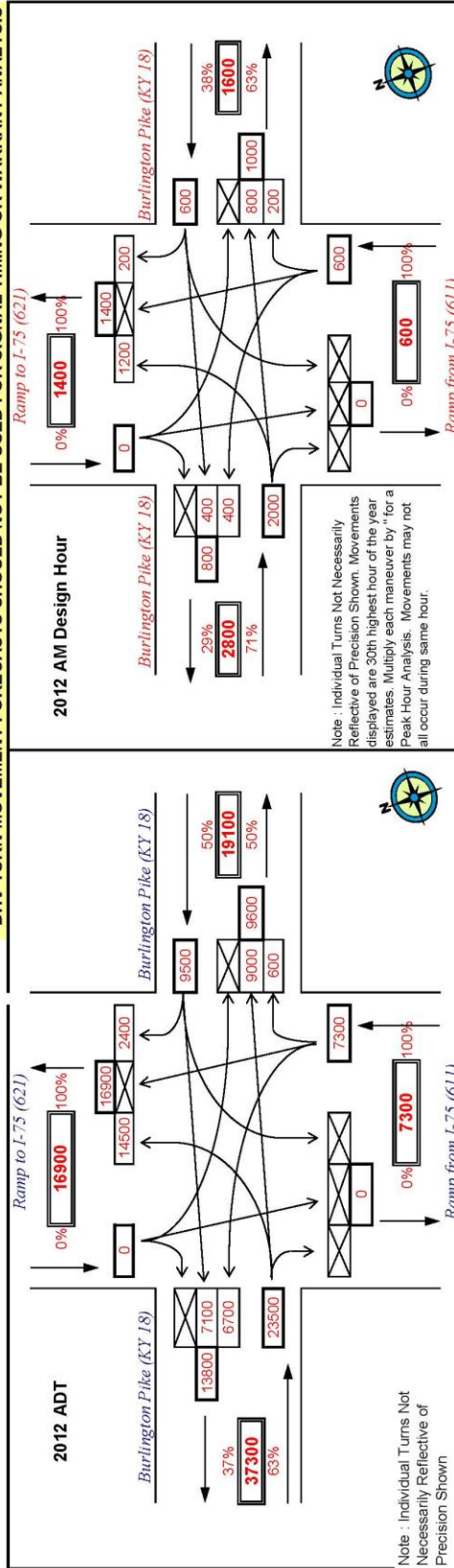
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Boone County: Construct New Ramp near Mall Rd.
Item No. 06-0409.00

NOTE: K-Factors, Directional Distributions, and Peak Hour Factors were determined from a 2012 Turning Movement Count. AM and PM DHVs represent 30th highest hour estimates for each turn maneuver.

PROJECT: Construct new Ramp from Mall Rd to I-75
 ITEM NUMBER: 06-0409.00
 MARS NUMBER: N/A
 REQUEST DATE: 5/15/2012
 ANALYST: Daniel Hulker
 SCENARIO: 2012 ADT and Design Hour Volumes
 INTERSECTION: I-75 Ramps (611, 621) and Burlington Pike (KY 18)

Turn Movement 3 Build 2012

****DHV TURN MOVEMENT FORECASTS SHOULD NOT BE USED FOR SIGNAL TIMING OR WARRANT ANALYSIS**

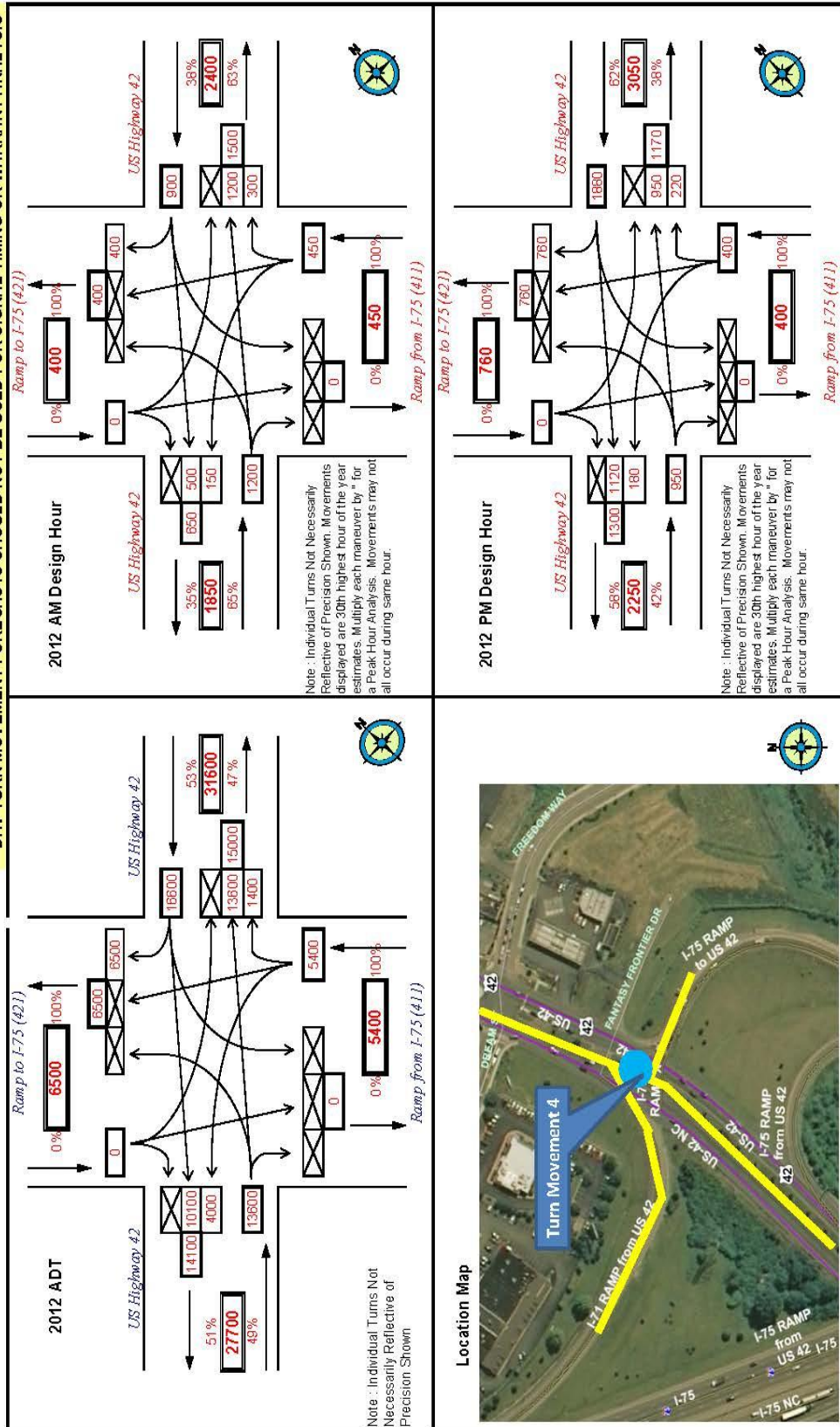


PROJECT: Construct new Ramp from Mall Rd to I-75
ITEM NUMBER: 06-0409.00
MARS NUMBER: N/A
REQUEST DATE: 5/15/2012
ANALYST: Daniel Hulker
SCENARIO: 2012 ADT and Design Hour Volumes
INTERSECTION: I-75 Ramps (411, 421) and US Highway 42

NOTE: K-Factors, Directional Distributions, and Peak Hour Factors were determined from a 2012 Turning Movement Count. AM and PM DHV's represent 30th highest hour estimates for each turn maneuver.

Turn Movement 4 Build 2012

***DHV TURN MOVEMENT FORECASTS SHOULD NOT BE USED FOR SIGNAL TIMING OR WARRANT ANALYSIS



****DHW TURN MOVEMENT FORECASTS SHOULD NOT BE USED FOR SIGNAL TIMING OR WARRANT ANALYSIS**

PROJECT: Construct new Ramp from Mall Rd to I-75
ITEM NUMBER: 06-0409.00
MARS NUMBER: N/A
REQUEST DATE: 5/15/2012
ANALYST: Daniel Hukler
SCENARIO: 2012 ADT and Design Hour Volumes
INTERSECTION: I-75 Ramps (431, 441) and US Highway 42



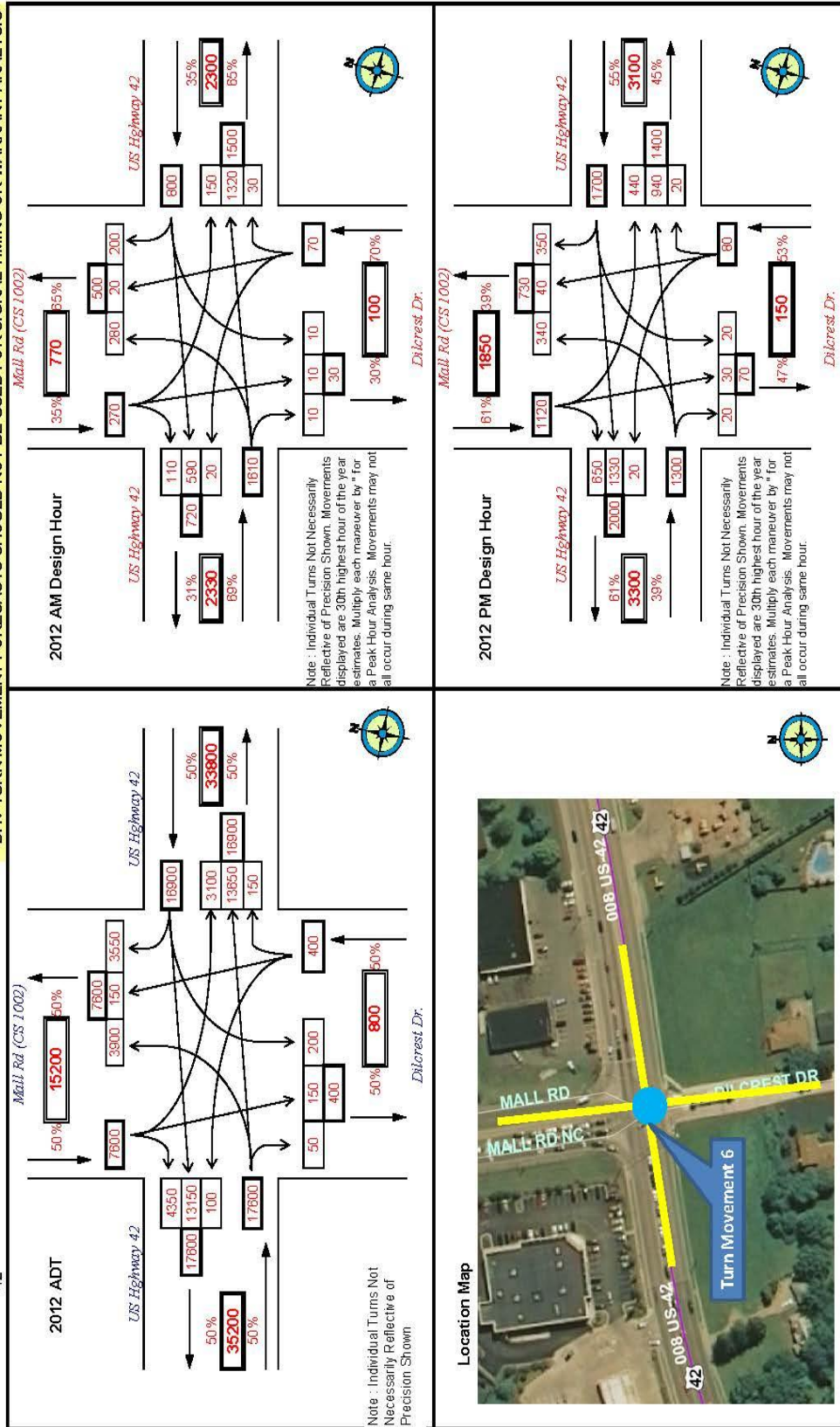
Traffic Forecast Technical Report
Boone County: Construct New Ramp near Mall Rd.
Item No. 06-0409.00

NOTE: K-Factors, Directional Distributions, and Peak Hour Factors were determined from a 2012 Turning Movement Count. AM and PM DHVs represent 30th highest hour estimates for each turn maneuver.

PROJECT: Construct new Ramp from Mall Rd to I-75
 ITEM NUMBER: 06-0409.00
 MARS NUMBER: N/A
 REQUEST DATE: 5/15/2012
 ANALYST: Daniel Hülker
 SCENARIO: 2012 ADT and Design Hour Volumes
 INTERSECTION: Mall Rd (CS 1002), Dilcrest Dr, and US Highway 42

Turn Movement 6 Build 2012

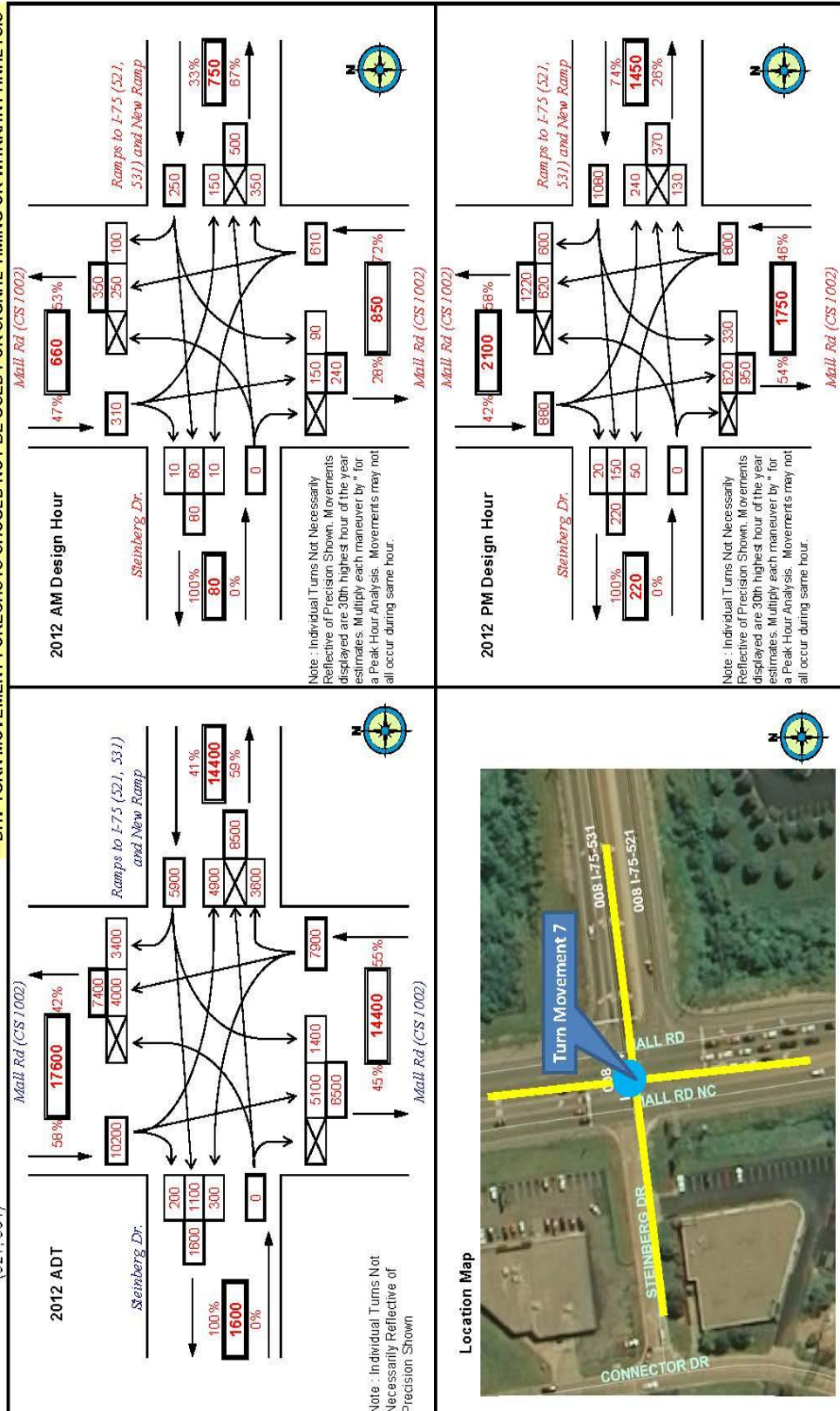
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PROJECT: Construct new Ramp from Mall Rd to I-75
ITEM NUMBER: 06-0409.00
MARS NUMBER: N/A
REQUEST DATE: 5/15/2012
ANALYST: Daniel Hulker
SCENARIO: 2012 ADT and Design Hour Volumes
INTERSECTION: Mall Rd (CS 1002), Steinberg Dr, and I-75 Ramps (521, 531)

Turn Movement 7 Build 2012

***DHV TURN MOVEMENT FORECASTS SHOULD NOT BE USED FOR SIGNAL TIMING OR WARRANT ANALYSIS



Build Turn Movements 2040

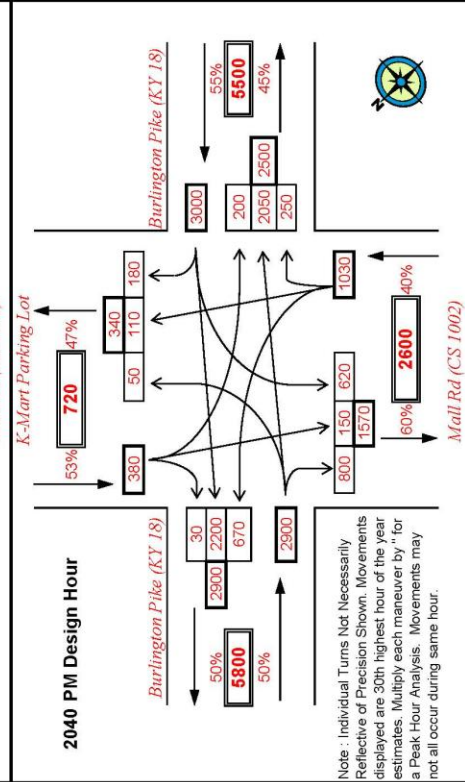
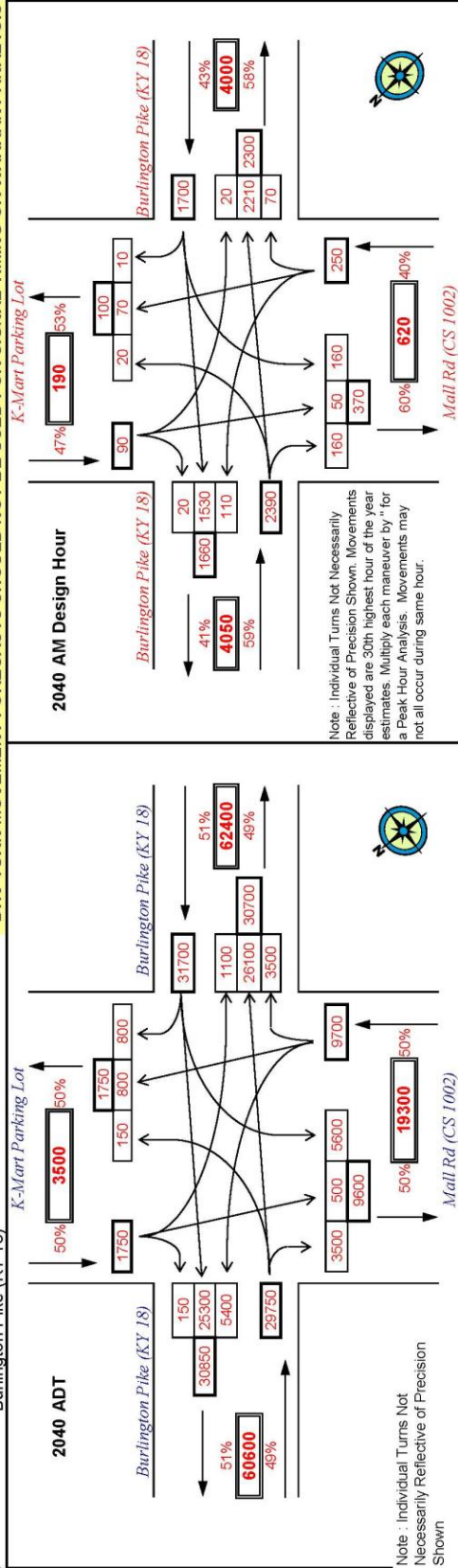
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Boone County: Construct New Ramp near Mall Rd.
Item No. 06-0409.00

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PROJECT: Construct new Ramp from Mall Rd to I-75
 ITEM NUMBER: 06-0409.00
 MARS NUMBER: N/A
 REQUEST DATE: 4/10/44
 ANALYST: Daniel Hulker
 SCENARIO: 2040 ADT and Design Hour Volumes
 INTERSECTION: Mall Rd (CS 1002), K-Mart Parking Lot, and Burlington Pike (KY 18)

Turn Movement 1 Build 2040

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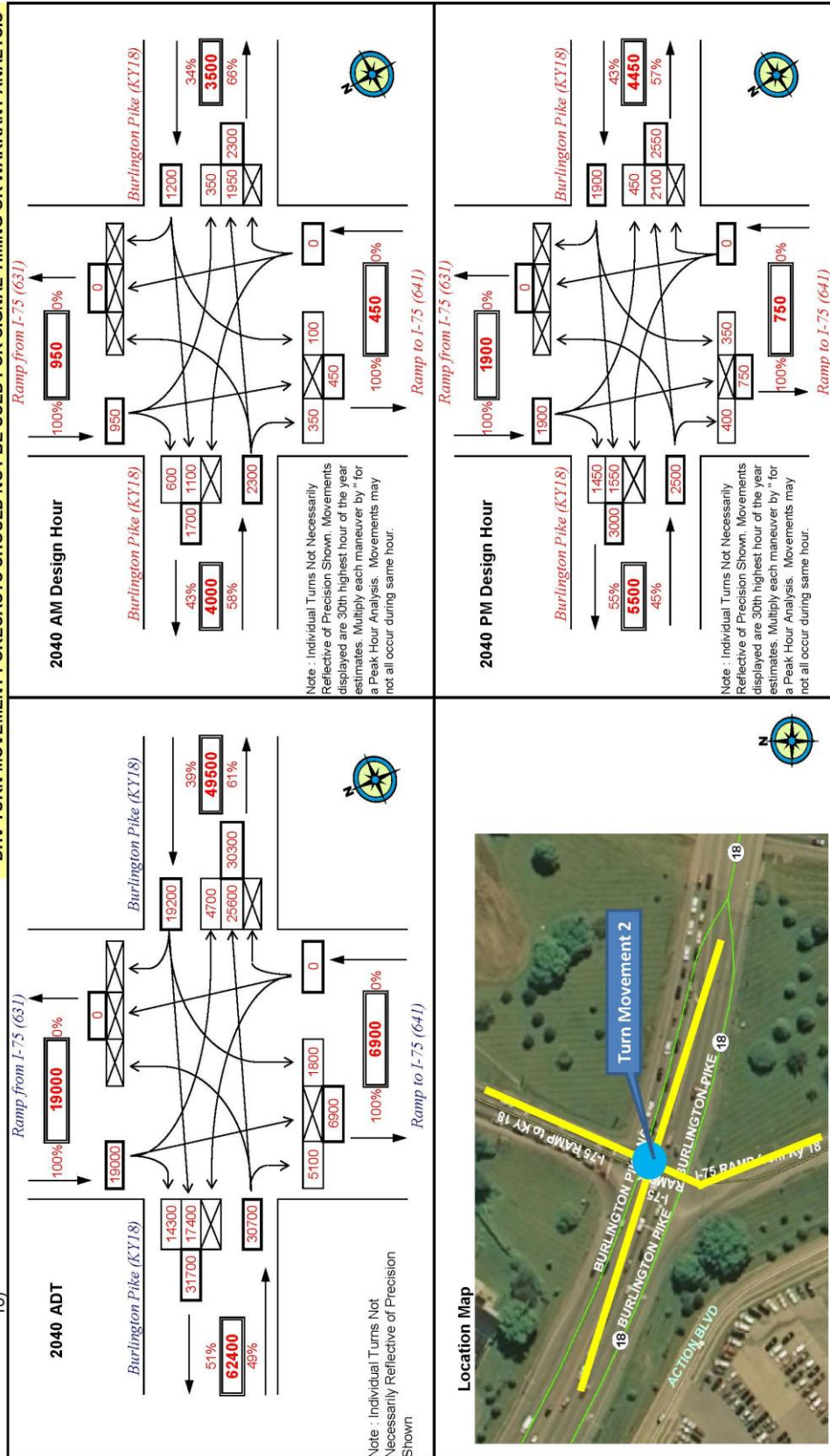


NOTE: K-Factors, Directional Distributions, and Peak Hour Factors were determined from a 2012 Turning Movement Count. AM and PM DHVs represent 30th highest hour estimates for each turn maneuver.

PROJECT: Construct new Ramp from Mall Rd to I-75
ITEM NUMBER: 06-0409.00
MARS NUMBER: N/A
REQUEST DATE: 41044
ANALYST: Daniel Hulker
SCENARIO: 2040 ADT and Design Hour Volumes
INTERSECTION: I-75 Ramps (631 and 641) and Burlington Pike (KY-18)

Turn Movement 2 Build 2040

****DHV TURN MOVEMENT FORECASTS SHOULD NOT BE USED FOR SIGNAL TIMING OR WARRANT ANALYSIS**



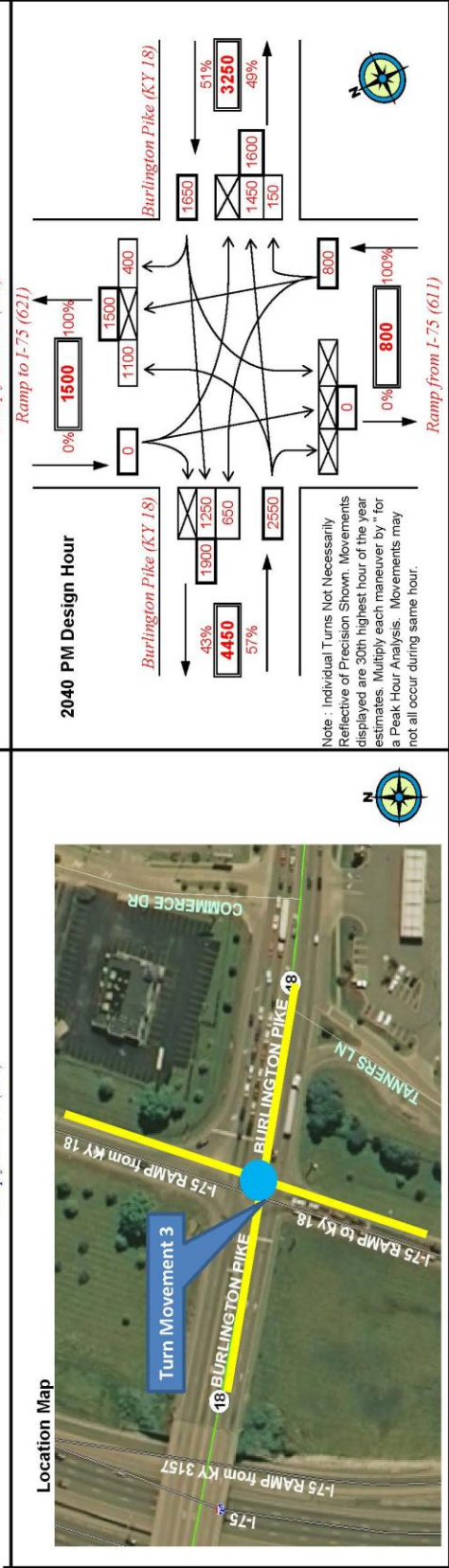
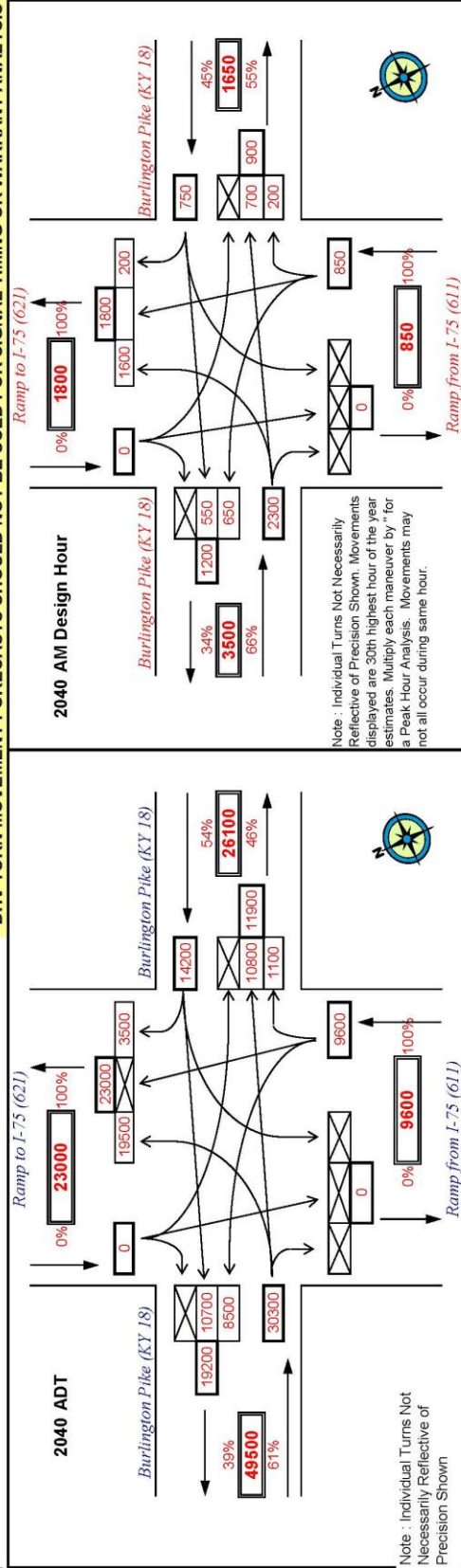
Traffic Forecast Technical Report
Boone County: Construct New Ramp near Mall Rd.
Item No. 06-0409.00

NOTE: K-Factors, Directional Distributions, and Peak Hour Factors were determined from a 2012 Turning Movement Count. AM and PM DHVs represent 30th highest hour estimates for each turn maneuver.

PROJECT: Construct new Ramp from Mall Rd to I-75
 ITEM NUMBER: 06-0409.00
 MARS NUMBER: N/A
 REQUEST DATE: 41044
 ANALYST: Daniel Hulker
 SCENARIO: 2040 ADT and Design Hour Volumes
 INTERSECTION: I-75 Ramps (611, 621) and Burlington Pike (KY 18)

Turn Movement 3 Build 2040

****DHV TURN MOVEMENT FORECASTS SHOULD NOT BE USED FOR SIGNAL TIMING OR WARRANT ANALYSIS**



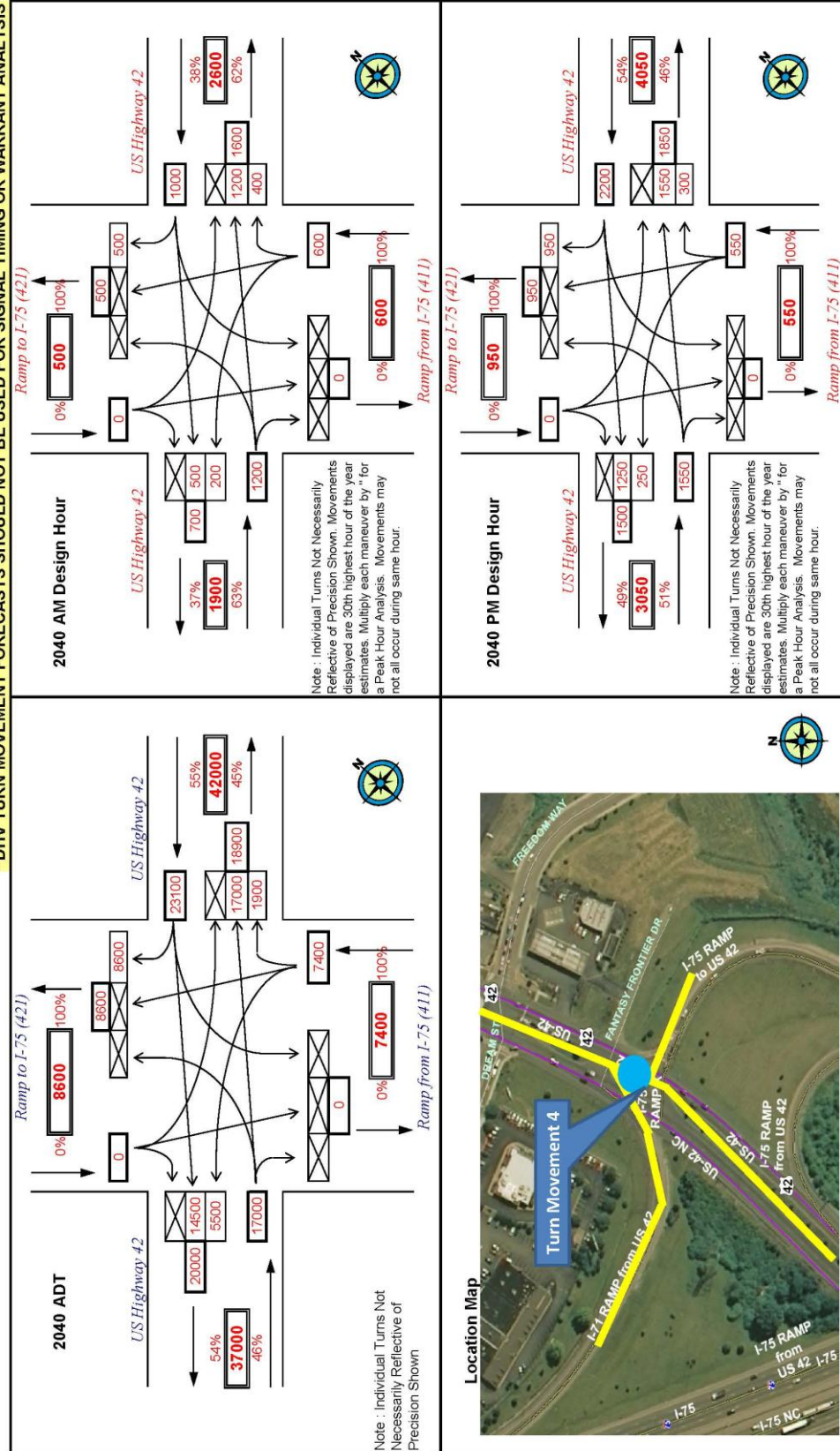
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 Boone County: Construct New Ramp near Mall Rd.
 Item No. 06-0409.00

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 MARS NUMBER: N/A
 REQUEST DATE: 41044
 ANALYST: Daniel Hulker
 SCENARIO: 2040 ADT and Design Hour Volumes
 INTERSECTION: I-75 Ramps (411, 421) and US Highway 42

Turn Movement 4 Build 2040

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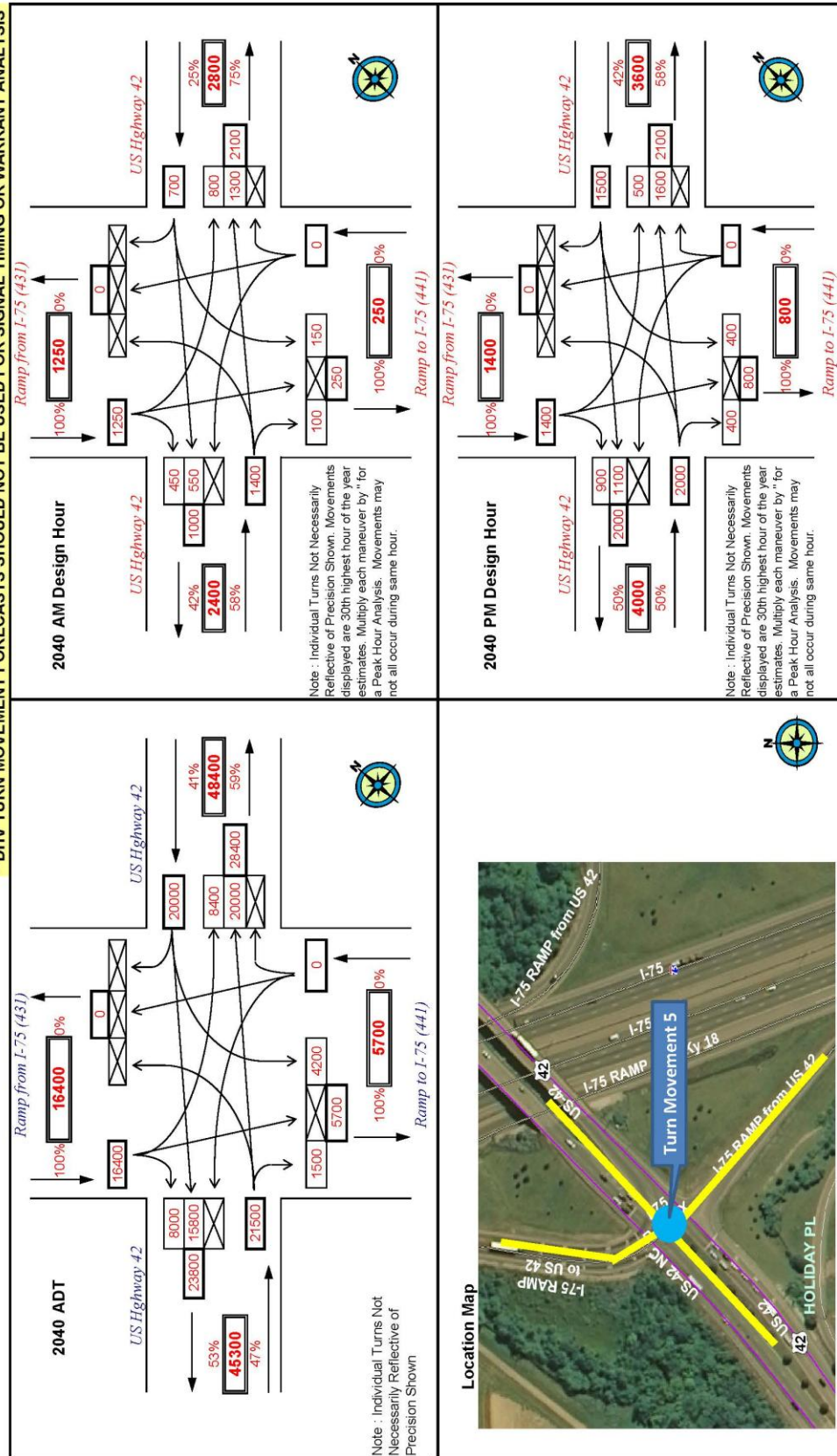
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Boone County: Construct New Ramp near Mall Rd.
Item No. 06-0409.00

PROJECT: Construct new Ramp from Mall Rd to I-75
 ITEM NUMBER: 06-0409.00
 MARS NUMBER: N/A
 REQUEST DATE: 4/10/44
 ANALYST: Daniel Hulker
 SCENARIO: 2040 ADT and Design Hour Volumes
 INTERSECTION: I-75 Ramps (431, 441) and US Highway 42

NOTE: K-Factors, Directional Distributions, and Peak Hour Factors were determined from a 2012 Turning Movement Count. AM and PM DHVs represent 30th highest hour estimates for each turn maneuver.

Turn Movement 5 Build 2040

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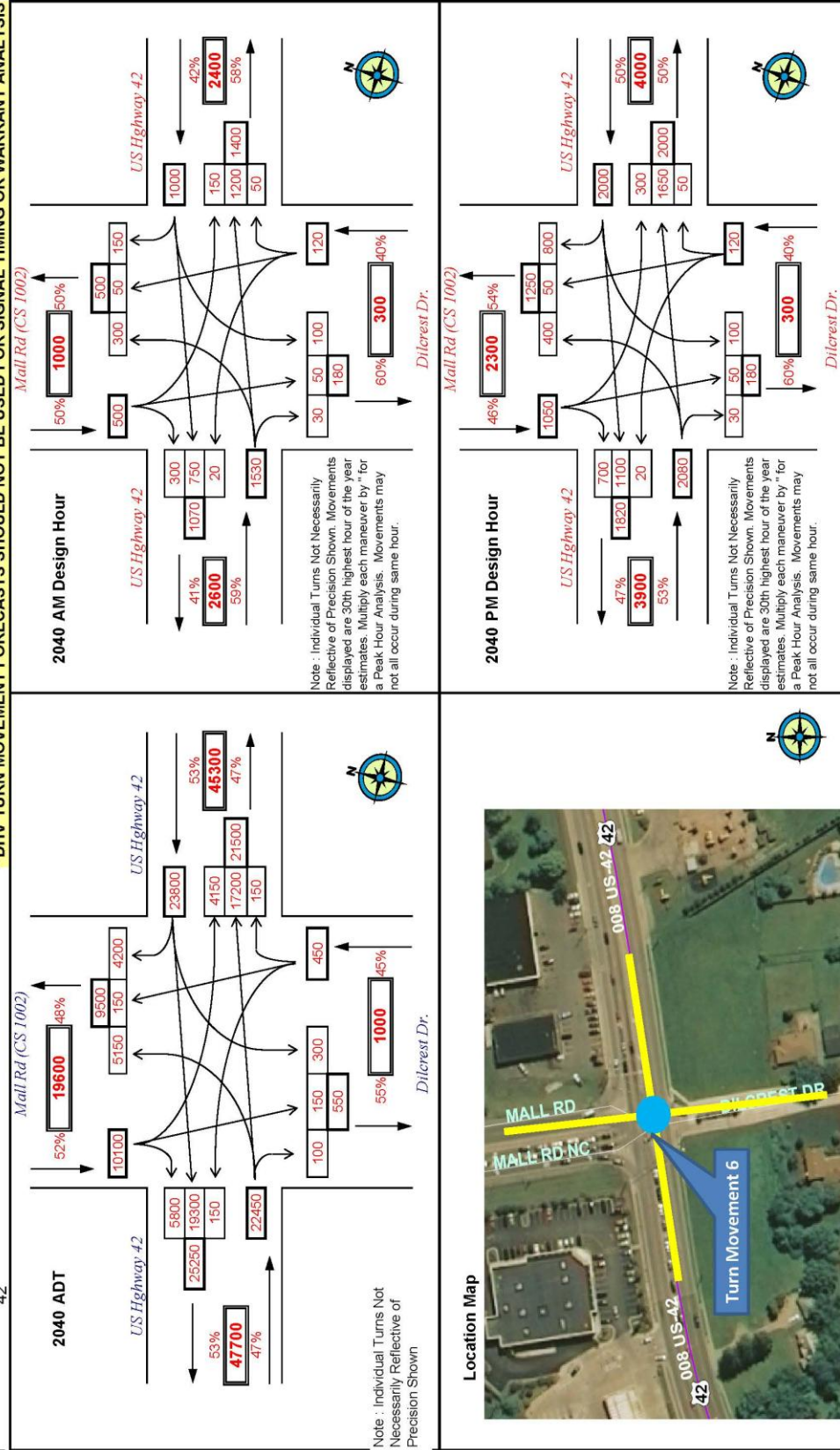


NOTE: K-Factors, Directional Distributions, and Peak Hour Factors were determined from a 2012 Turning Movement Count. AM and PM DHVs represent 30th highest hour estimates for each turn maneuver.

PROJECT: Construct new Ramp from Mall Rd to I-75
ITEM NUMBER: 06-0409.00
MARS NUMBER: N/A
REQUEST DATE: 41044
ANALYST: Daniel Hulker
SCENARIO: 2040 ADT and Design Hour Volumes
INTERSECTION: Mall Rd (CS 1002), Dilcrest Dr, and US Highway 42

Turn Movement 6 Build 2040

***DHV TURN MOVEMENT FORECASTS SHOULD NOT BE USED FOR SIGNAL TIMING OR WARRANT ANALYSIS**



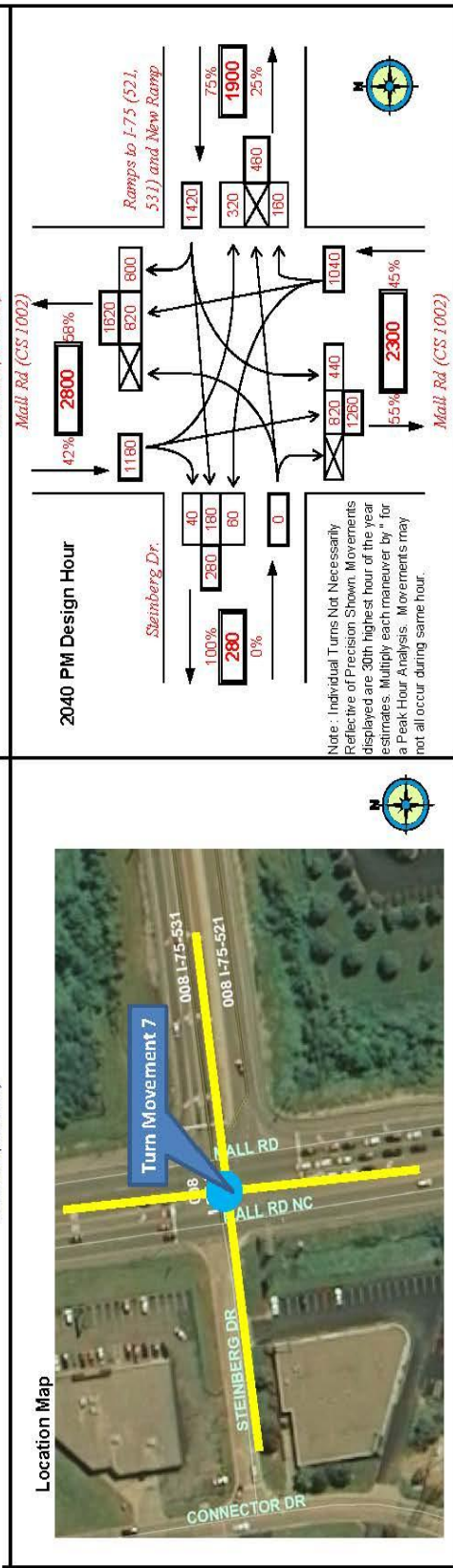
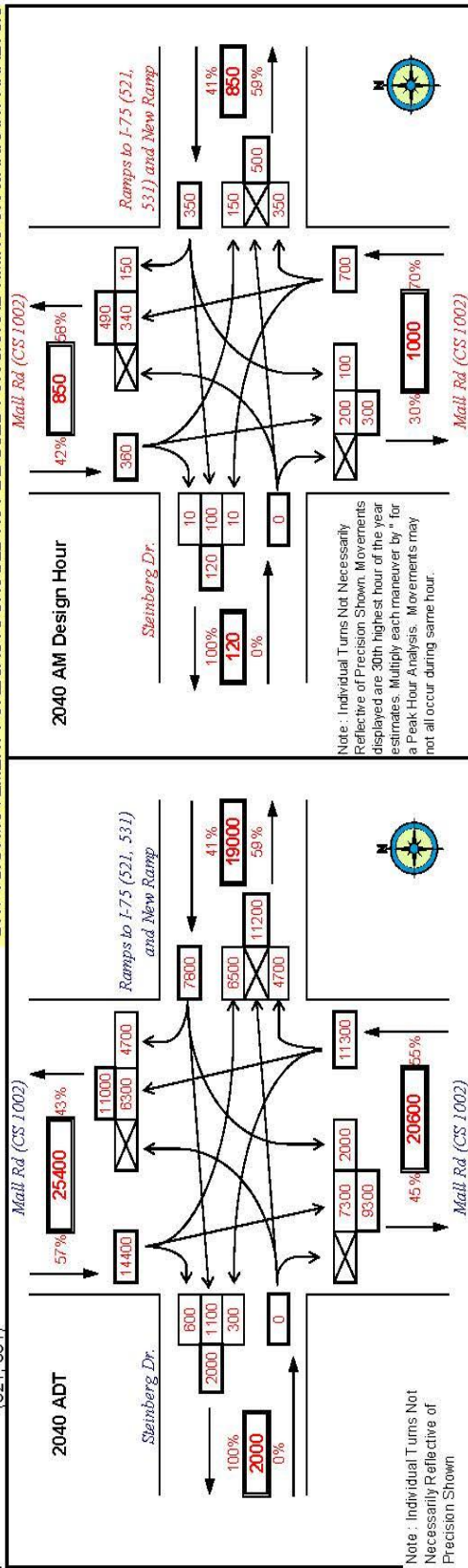
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Boone County: Construct New Ramp near Mall Rd.
Item No. 06-0409.00

NOTE: K-Factors, Directional Distributions, and Peak Hour Factors were determined from a 2012 Turning Movement Count. AM and PM DHVs represent 30th highest hour estimates for each turn maneuver.

PROJECT: Construct new Ramp from Mall Rd to I-75
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 MARS NUMBER: N/A
 REQUEST DATE: 4/10/44
 ANALYST: Daniel Hulker
 SCENARIO: 2040 ADT and Design Hour Volumes
 INTERSECTION: Mall Rd (CS 1002), Steinberg Dr, and I-75 Ramps (521, 531)

Turn Movement 7 Build 2040

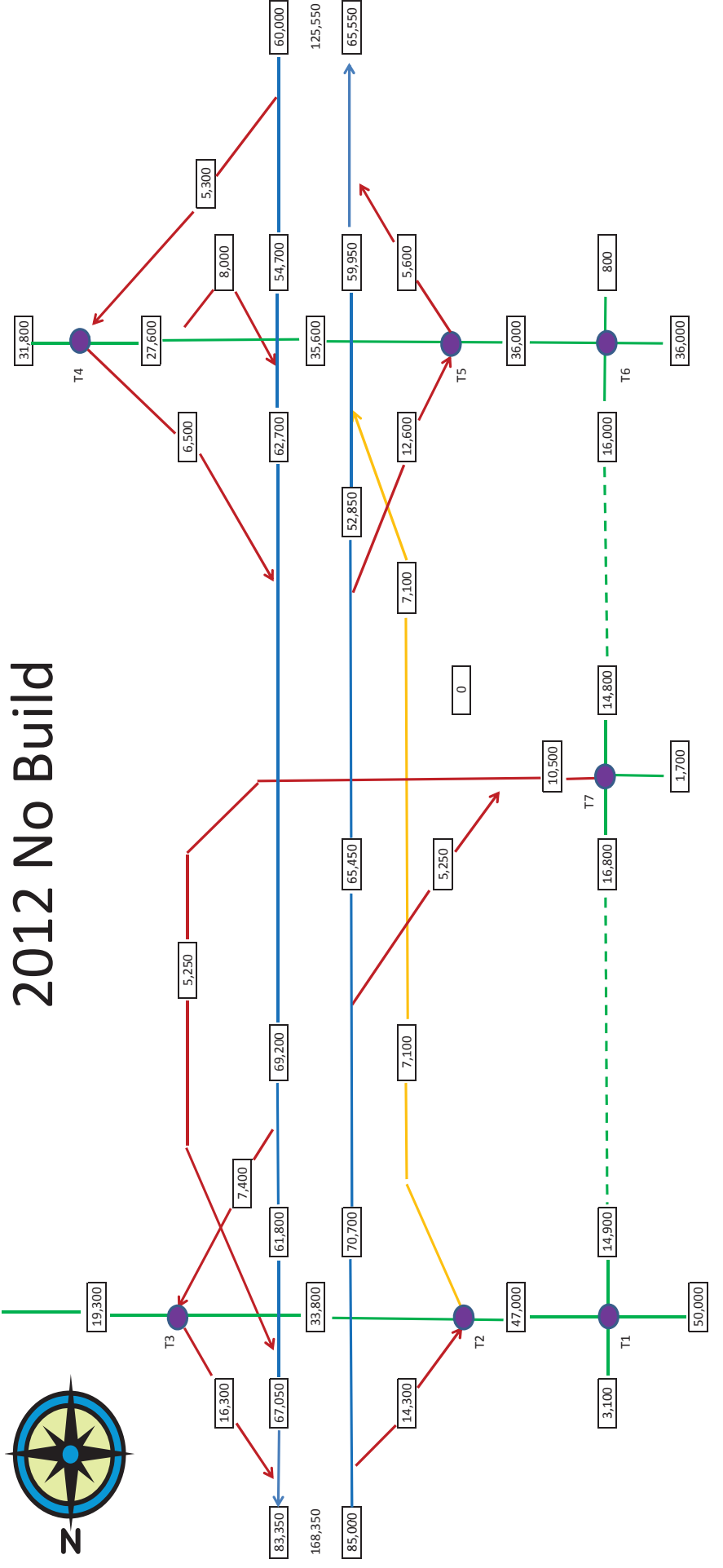
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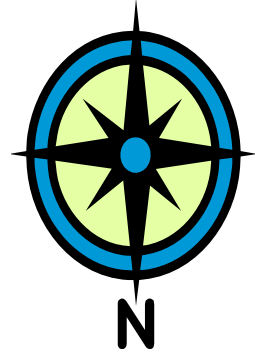


Corridor Charts



2012 No Build





2040 No Build

