

ADVANCE PLANNING REPORT & INTERCHANGE STUDY

*STATE ROUTE 475 AT
PELLISSIPPI PARKWAY (SR 162)
AND STATE ROUTE 62
(INCLUDING HARDIN VALLEY
AND SOLWAY INTERCHANGES)*



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ENGINEERING

For the
Tennessee Department of
Transportation
Planning Division

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* includes sheets 1A, 4A, 6A, 6B, 6C, 6D, 7A, 8A, 8B

CHAPTER 1

INTRODUCTION

A. Purpose of the Study

The purpose of this study is to determine the need and justification of providing an interchange at proposed SR-475 and SR-162 (Pellissippi Parkway) and proposed SR-475 and SR-62. The study also addresses impacts on the interchanges at SR-162 and SR-62 along with SR-162 and Hardin Valley Road.

The objective of this study is to determine the current and future needed improvements, analyze traffic conditions, develop proposed layouts for the project, calculate construction costs for the alternates, and identify potential environmental, historical, and cultural concerns.

B. Description of Project Location

The proposed project is in a rural area of western Knox County and is located along the proposed alignment of SR-475 at SR-162 and SR-62. The distance between the proposed interchanges at SR-475/SR-162 and SR-475/SR-62 is approximately 1.30± miles. There are also two existing interchanges, Solway and Hardin Valley Road, on SR-162 that are approximately 2.10± miles apart. A description of roadways in the project area is as follows:

SR-162 (Pellissippi Parkway)

SR-162 currently consists of a four-lane, semi-access controlled facility with a grass median and approximately 180' of right-of-way. It has several median left turns and local roads that cross at grade throughout the project area. The posted speed limit is 55 miles per hour.

SR 62

SR-62 consists of two-lanes with a posted speed of 55 miles per hour. This facility has no access control and approximately 60' of total right-of-way. The existing SR-62 and SR-162 interchange is directional but does not provide a turning movement from Westbound SR-62 to Eastbound SR-162. This movement is currently made by a median U-turn on SR-62/162 just west of the existing Solway Interchange.

Hardin Valley Road

Hardin Valley Road to the north of SR-162 is currently a four-lane road with a grass median and approximately 100' of right-of-way. To the south of SR-162 it is a two-lane road with approximately 80' of right-of-way. The existing interchange at SR-162 is a "flopped diamond" with the ramps located in the two eastern quadrants. The posted speed for Hardin Valley Road is 55 miles per hour.

Solway Road

Solway Road is a local two-lane road that provides residential access from Hardin Valley Road and from several points along SR-162. The posted speed limit for this local road is 45 miles per hour.

Rather Road & Coward Mill Road

Rather Road and Coward Mill Road are local two-lane roads on the north side of Pellissippi Parkway and provide residential access to and from SR-162. These roads have a posted speed limit of 35 miles per hour.

C. Background

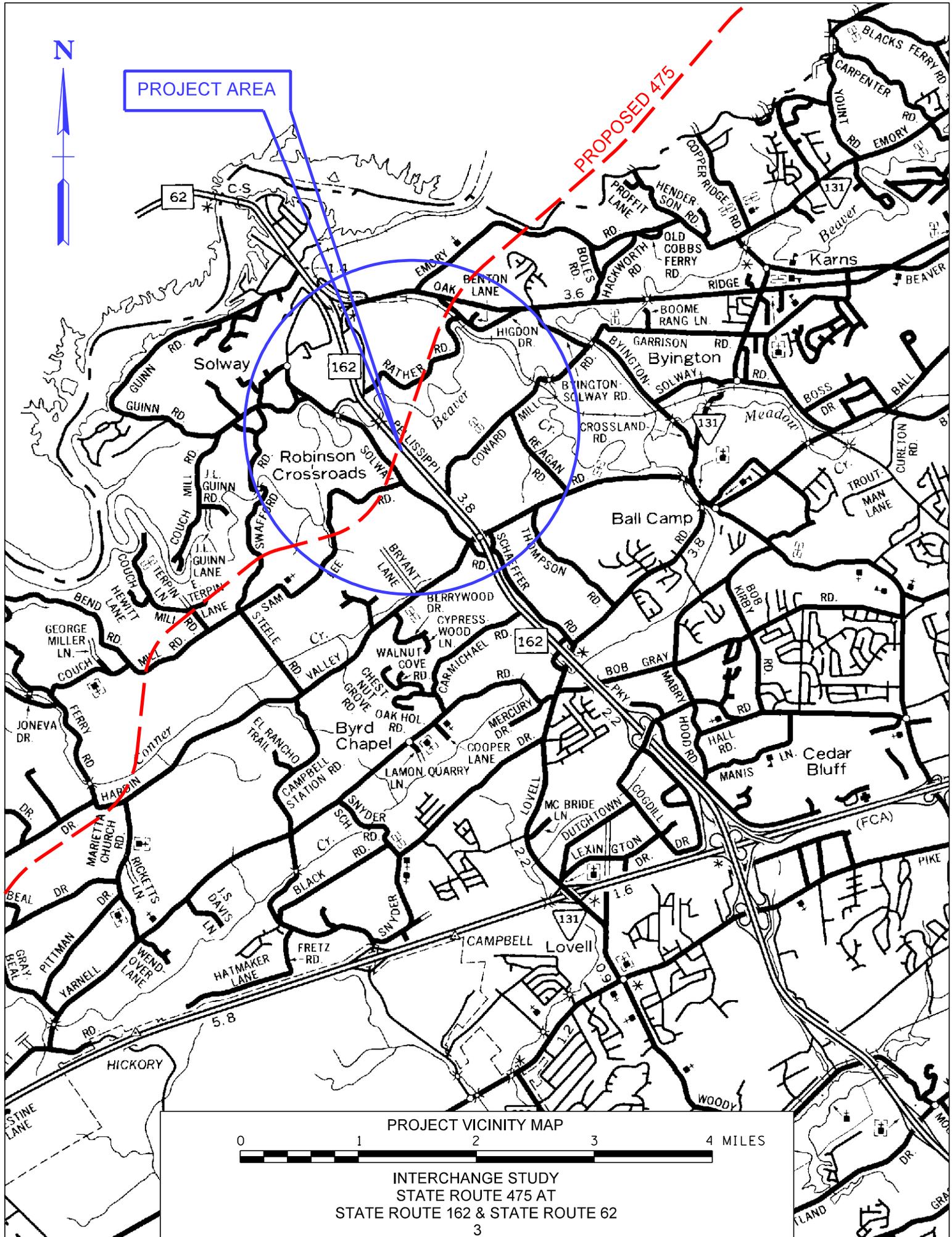
A planning study has been completed for the proposed SR-475 by the Tennessee Department of Transportation. The study outlines the alignment from I-40/I-75 1 mile north of US 70 to just north of Brushy Valley Road on I-75. The proposed roadway has a design speed of 70 miles per hour and is a four-lane facility with 12' lanes and a 52' divided median. The interchange at SR-475/SR 162 would provide direct access to the interstate and reduce the total amount of cars traveling SR-162 through a business district to gain access to the interstate.

D. Relationship To Previous Planning Studies

The existing SR-162 (Pellissippi Parkway) is a four-lane facility with a divided median. An APR has been completed to widen Pellissippi Parkway to six-lanes and eliminate local access. The report realigns several local roads that currently cross at-grade to be grade separated, while also implementing bike paths throughout the project area. The study determines the feasibility of providing full control access along SR-162 from SR-62 to Dutchtown Road.

The interchange at SR-162 and SR-62 currently does not provide all movements to SR-162. An interchange modification study was completed and provided an initial solution and an ultimate solution. The initial solution was to block the median turn from occurring within the interchange. To provide for the missing movement a median U-Turn could be made at the next median turn, located by the shopping center, to the north of the interchange on SR-62. The ultimate design will add a ramp to the interchange with a fly-over above the existing interchange.

A study to reconstruct the interchange at Hardin Valley Road and SR-162 was undertaken to improve the traffic conditions with minimal right-of-way acquired. The study proposes a single point urban interchange (SPUI) with SR-162 traveling above Hardin Valley Road. This interchange will have dual left turn lanes to SR-162 and from SR-162. The study details construction cost for the improvements to the interchange.



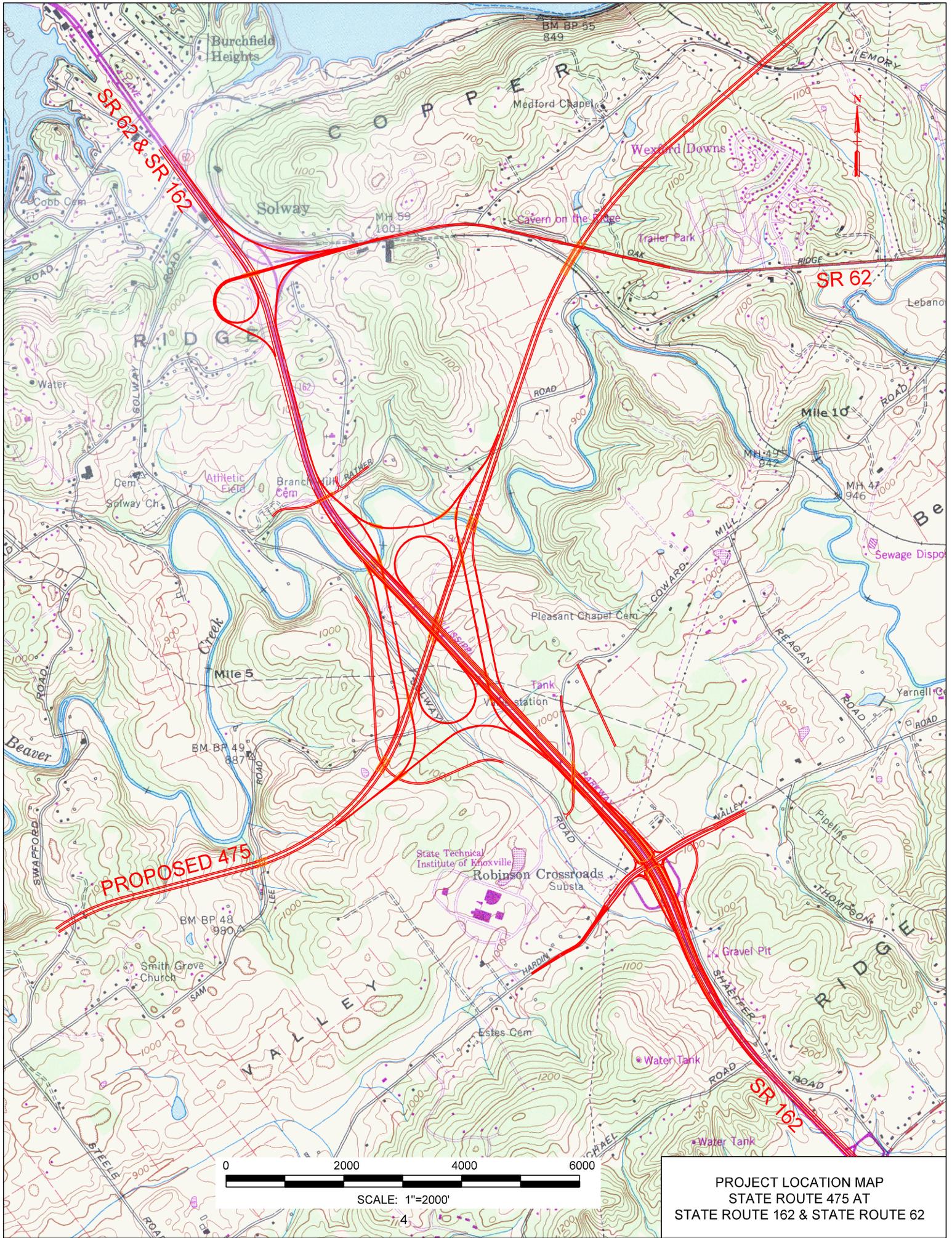
PROJECT AREA

PROPOSED 475

PROJECT VICINITY MAP



INTERCHANGE STUDY
 STATE ROUTE 475 AT
 STATE ROUTE 162 & STATE ROUTE 62



PROPOSED 475

SR 62 & SR 162

SR 62

SR 162



PROJECT LOCATION MAP
STATE ROUTE 475 AT
STATE ROUTE 162 & STATE ROUTE 62

CHAPTER 2

PRELIMINARY PLANNING DATA

A. Land Use

Land use in the project area is primarily rural with open agricultural (pastureland) and scattered residential and commercial development. The area contains churches, schools, and several retail and commercial businesses that use SR-162 and SR-62 for access.

The Pellissippi State Technical Community College is located to the northwest of the Hardin Valley/SR-162 Interchange. Access to the college is gained from Solway Road and Hardin Valley Road.

There is also a small commercial development located to the northeast of the Hardin Valley/SR-162 Interchange. The development gains access from Hardin Valley Road and has several more sites available for potential development.

The railroad that crosses SR-62 continues along the south of SR-62 to the east of the project area. Beaver Creek and three unnamed tributaries (blue line on USGS maps) are crossed by proposed SR-475 within the project area.

B. Traffic Served

The traffic forecasting for SR-475, SR-62, SR-162, and Hardin Valley Road was preformed by the Tennessee Department of Transportation. Traffic forecasting was projected for two scenarios, with an interchange at SR-475/SR-62 and without an interchange at SR-475/SR-62. Each of these forecasts was preformed for the base year (2008) and the design year (2028) in the project area. The traffic information is contained in Appendix A.

The base year (2008) traffic volumes for the routes with an interchange at SR-475/SR-62 are 30,850 ADT on SR-475, while SR-162 is 61,800 ADT, SR-62 is 11,800 ADT, and Hardin Valley Road is 17,600 ADT. The design year (2028) traffic volumes for the project area with the same interchange configurations are 58,650 ADT on SR-475, while SR-162 is 92,900 ADT, SR-62 is 16,500 ADT, and Hardin Valley Road is 28,150 ADT.

The base year (2008) traffic volumes for the routes without an interchange at SR-475/SR-62 are 30,850 ADT on SR-475, while SR-162 is 61,800 ADT, SR-62 is 11,450 ADT, and Hardin Valley Road is 17,600 ADT. The design year (2028) traffic volumes for the project area with the same interchange configurations are 58,650 ADT on SR-475, while SR-162 is 92,900 ADT, SR-62 is 15,900 ADT, and Hardin Valley Road is 28,150 ADT.

C. Proposed Improvement

There were seven different alternates presented for the SR-475/162 interchange along with two alternates at SR-475/SR-62 and three alternates at SR-62/SR-162. The Hardin Valley Road Interchange was determined from a previous study to be a Single Point Urban Interchange (SPUI). The alternates at SR-475/SR-162 are multilevel directional interchanges with 16' ramp lanes and 8' shoulders. The SR-162/SR-62 interchange had three alternates, two trumpets and a directional interchange, that provides all needed movements. The diamond interchange at SR-475/SR-62 was determined not to provide any additional benefit to the surrounding community. Impacts to the access of the Cherokee Caverns were considered to be great with the proposed interchange. The interchange had two alternates consisting of a diamond configuration and a diamond with a loop ramp. All interchange alternates originally presented can be found in Appendix C along with construction cost estimates for the alternates selected for further review.

Solway Interchange

The selected alternate will reconstruct the existing interchange to provide movements in all directions. SR-162 will be widened to be six-lanes with a 52' median and SR-62 will remain as it is currently. The proposed interchange will construct a trumpet providing the missing movement from SR-62 westbound to SR-162 southbound. The westbound portion of SR-162 will be realigned to run with the existing eastbound section of SR-162. The ramps from westbound SR-162 to eastbound SR-62 and from Westbound SR-62 to Westbound SR-62/162 will remain as they are currently.

Pellissippi Interchange

The selected Pellissippi alternate is a two-level directional interchange with loop ramps in the northwest and southeast quadrant of the interchange. The loop ramps have a design speed of 40 miles per hour while the other ramps are designed for 55 miles per hour. Due to the high volume of traffic projected on SR-162 a C-D road was designed to confine the turning movements. The C-D road will have a slower speed to accommodate merging with the loop ramps, while allowing the merging traffic more time to reach the traveling speed of SR-162. The southbound C-D road will begin just east of the Solway Interchange and continue past the Hardin Valley Interchange. The northbound C-D Road will begin east of Hardin Valley Road and continue to just east of the Solway Interchange. The C-D road is a two-lane road with 12' lanes and a 12' shoulder with a barrier wall separating the roadways. Utilizing the C-D Road allows SR-162 to remain two-lanes in each direction from Hardin Valley Road through the SR-475 interchange.

Hardin Valley Interchange

The proposed Hardin Valley Interchange was determined from a previous study to be a Single Point Urban Interchange (SPUI). The existing Hardin Valley Road will be widened to six-lanes with dual left turn lanes to accommodate the number of cars turning. The right-turn movement will be required to yield to thru traffic on Hardin Valley Road. The proposed interchange configuration will relocate the existing Schaeffer Road to align with the local road on the opposing side of Hardin Valley Road.

CHAPTER 3

ENGINEERING INVESTIGATIONS

A. Traffic Operation

An analysis was conducted to determine the impacts of an interchange on the proposed SR-475 along with the interchanges within the project area. The operation analysis is shown in a chart located in Appendix B. The operation analysis provides a Level of Service (LOS) at each merging, diverging, and segment location for the base year (2008) and the design year (2028) traffic projections.

The Base Year (2008) assumes a six-lane Pellissippi Parkway facility outside of SR-475 and Hardin Valley Road Interchanges since a planning project has been completed and projected traffic volumes would exceed the maximum lane capacity. The eastbound portion of SR-162 operates at a Level of Service “B” or better during the AM and PM Peak period at each analyzed location. The westbound portion of SR-162 operates at a Level of Service “C” or better during the AM and PM Peak period. The Eastbound C-D Road operates at a Level of Service “B” or better for the AM Peak period at each merge and diverge point. The PM Peak period also operates at a Level of Service “B” or better at each merge and diverge point. The Westbound C-D Road operates at a Level of Service “B” or better during the AM Peak period. The PM Peak also has a Level of Service “B” or better at each decision point along the roadway. The entrance and exit points on Northbound SR-475 all function at a Level of Service “B” or better during the AM and PM Peaks. The same can be seen on Southbound SR-475 with all decision points operating at a Level of Service “B” or better. The Solway Interchange has two ramps that operate below a Level of Service “C” during either the AM or PM Peak. The decline in level of service is due to the higher traffic volume within the merge and diverge segments.

The Design Year (2028) assumes the same design criteria but increases the traffic to its projected values. The eastbound portion of SR-162 operates at a Level of Service “C” or better during the AM and PM Peak period except at the ends of the project where a Level of Service “D” occurs during the PM Peak. The westbound portion of SR-162 operates at a Level of Service “C” or better during the AM and PM Peak period except at the ends of the project where a Level of Service “D” occurs during the AM Peak. The Eastbound C-D Road operates at a Level of Service “C” or better during the AM and PM Peak period. The Westbound C-D Road also operates at a Level of Service “C” or better during the AM and PM Peak periods. The Northbound SR-475 has a Level of Service “C” or better during the AM Peak period. The PM Peak period has one merge point and segment with a Level of Service “D” but all other decision points are above a Level of Service “C”. The southbound SR-475 decision points are above a Level of Service “B” with the exception of the on ramp from the eastbound C-D Road which has a Level of Service “C” during the AM Peak period. Another problem area is the segment to the North of SR-475 it has a Level of Service “D” due to the segment almost at lane capacity. The Solway Interchange has the same level of service evaluation as the base year calculations during the AM and PM Peak periods.

The signalized intersection on Hardin Valley Road is a three-phase cycle with dual left turn lanes in each direction. There are three thru lanes in both directions of Hardin Valley Road and a deceleration lane provided for the right turns from Hardin Valley. The intersection operates at an overall Level of Service “B” during 2008 peak periods but falls to a LOS “C” during the 2028 peak periods.

B. Cost

The total estimated construction cost for each alternate is detailed on pages 10-12. The cost for improving the Solway Interchange is estimated at \$7,600,000. The selected directional interchange at SR-162 and SR-475 is estimated at \$45,000,000. This estimate includes the C-D Roads and the modifications of cross roads intersecting SR-162, but does not include costs for mainline SR-475. The cost of reconstructing the Hardin Valley Interchange and building the C-D Roads thru the interchange is estimated to cost \$13,000,000. There were no cost estimates for right-of-way and utility relocation while the SR-475 project is being studied for feasibility.

C. Environmental Concerns

Formal environmental studies have not been conducted for this study. However, previous field reviews, provided by the Tennessee Department of Transportation, identified a cave near the SR-62 and SR-475 off ramp. Field reviews for this study were cancelled until further notice as requested by the Department of Transportation but some information was gathered from previous studies about environmentally sensitive areas.

The Pellissippi State Technical Community College is located in the northwest quadrant of the Hardin Valley Road Interchange. It was noted in a previous study that the college is planning expansion in the future. A soccer field complex is also located in the northwest quadrant of the Hardin Valley Road Interchange. A previous study determined that impacts could be minimized with a single point urban interchange (SPUI) configuration.

Further studies will be necessary to determine any historic, archeological, or ecological impacts of constructing an interchange at SR-162.

COST DATA SHEET (Itemized Cost Estimates)

9/8/2003

PROJECT: Knox County - I-475
Solway Interchange

<u>Right-of-Way</u>	Number	Rate	Costs
Lands, Improvements, and Damages	Acres=		\$0
Incidentals	Tracts=		\$0
Relocation Payments	Residences=		\$0
	Businesses=		\$0
	Non-Profits=		\$0
	Total Right-of-Way Costs		\$0
<u>Utility Relocation</u>			
Reimbursable			\$0
Non-Reimbursable			\$0
Total Adjustment Cost			\$0
<u>Construction</u>			
Clear and Grubbing			\$29,000
Earthwork			\$1,020,000
Pavement Removal			\$65,000
Drainage (Includes Erosion Control)			\$100,000
Structures			\$1,420,000
Railroad Crossing or Separation			\$0
Paving			\$3,060,000
Retaining Walls			\$0
Maintenance of Traffic			\$150,000
Topsoil			\$71,000
Seeding			\$50,000
Sodding			\$0
Signing			\$100,000
Lighting			\$80,000
Signalization			\$0
Fence			\$20,000
Guardrail			\$24,000
Rip Rap of Slope Protection			\$0
Other Construction Items (8.5%)			\$405,000
Mobilization			\$326,000
10% Eng. And Const.			\$659,000
Total Construction Cost			\$6,920,000
Preliminary Engineering (10%)			\$659,000
TOTAL INTERCHANGE ADDITIONAL COST			\$7,600,000

COST DATA SHEET (Itemized Cost Estimates)

9/8/2003

PROJECT: Knox County - I-475
Pellissippi Interchange Alternate "A"

<u>Right-of-Way</u>	Number	Rate	Costs
Lands, Improvements, and Damages	Acres=		\$0
Incidentals	Tracts=		\$0
Relocation Payments	Residences=		\$0
	Businesses=		\$0
	Non-Profits=		\$0
	Total Right-of-Way Costs		\$0
<u>Utility Relocation</u>			
Reimbursable			\$0
Non-Reimbursable			\$0
Total Adjustment Cost			\$0
<u>Construction</u>			
Clear and Grubbing			\$276,000
Earthwork			\$12,000,000
Pavement Removal			\$20,000
Drainage (Includes Erosion Control)			\$450,000
Structures			\$9,100,000
Railroad Crossing or Separation			\$0
Paving			\$11,100,000
Retaining Walls			\$300,000
Maintenance of Traffic			\$125,000
Topsoil			\$200,000
Seeding			\$125,000
Sodding			\$0
Signing			\$300,000
Lighting			\$250,000
Signalization			\$0
Fence			\$103,500
Guardrail			\$266,000
Rip Rap of Slope Protection			\$0
Other Construction Items (8.5%)			\$2,169,000
Mobilization			\$2,300,000
10% Eng. And Const.			\$3,679,000
Total Construction Cost			\$36,785,000
Preliminary Engineering (10%)			\$3,679,000
TOTAL INTERCHANGE ADDITIONAL COST			\$40,500,000
TOTAL CONTROLLED ACCESS ADDITIONAL COST			\$4,500,000
TOTAL INTERCHANGE COST			\$45,000,000

COST DATA SHEET (Itemized Cost Estimates)

9/8/2003

PROJECT: Knox County - I-475
Hardin Valley Interchange

<u>Right-of-Way</u>		Number	Rate	Costs
Lands, Improvements, and Damages	Acres=			\$0
Incidentals	Tracts=			\$0
Relocation Payments	Residences=			\$0
	Businesses=			\$0
	Non-Profits=			\$0
	Total Right-of-Way Costs			\$0

<u>Utility Relocation</u>				
Reimbursable				\$0
Non-Reimbursable				\$0
Total Adjustment Cost				\$0

<u>Construction</u>				
Clear and Grubbing				\$44,000
Earthwork				\$450,000
Pavement Removal				\$20,000
Drainage (Includes Erosion Control)				\$200,000
Structures				\$2,700,000
Railroad Crossing or Separation				\$0
Paving				\$6,120,000
Retaining Walls				\$960,000
Maintenance of Traffic				\$100,000
Topsoil				\$70,000
Seeding				\$50,000
Sodding				\$0
Signing				\$90,000
Lighting				\$75,000
Signalization				\$125,000
Fence				\$40,000
Guardrail				\$18,000
Rip Rap of Slope Protection				\$0
Other Construction Items (8.5%)				\$711,000
Mobilization				\$244,000
10% Eng. And Const.				\$1,177,000
Total Construction Cost				\$11,773,000

Preliminary Engineering (10%) **\$1,177,000**

TOTAL INTERCHANGE ADDITIONAL COST \$13,000,000

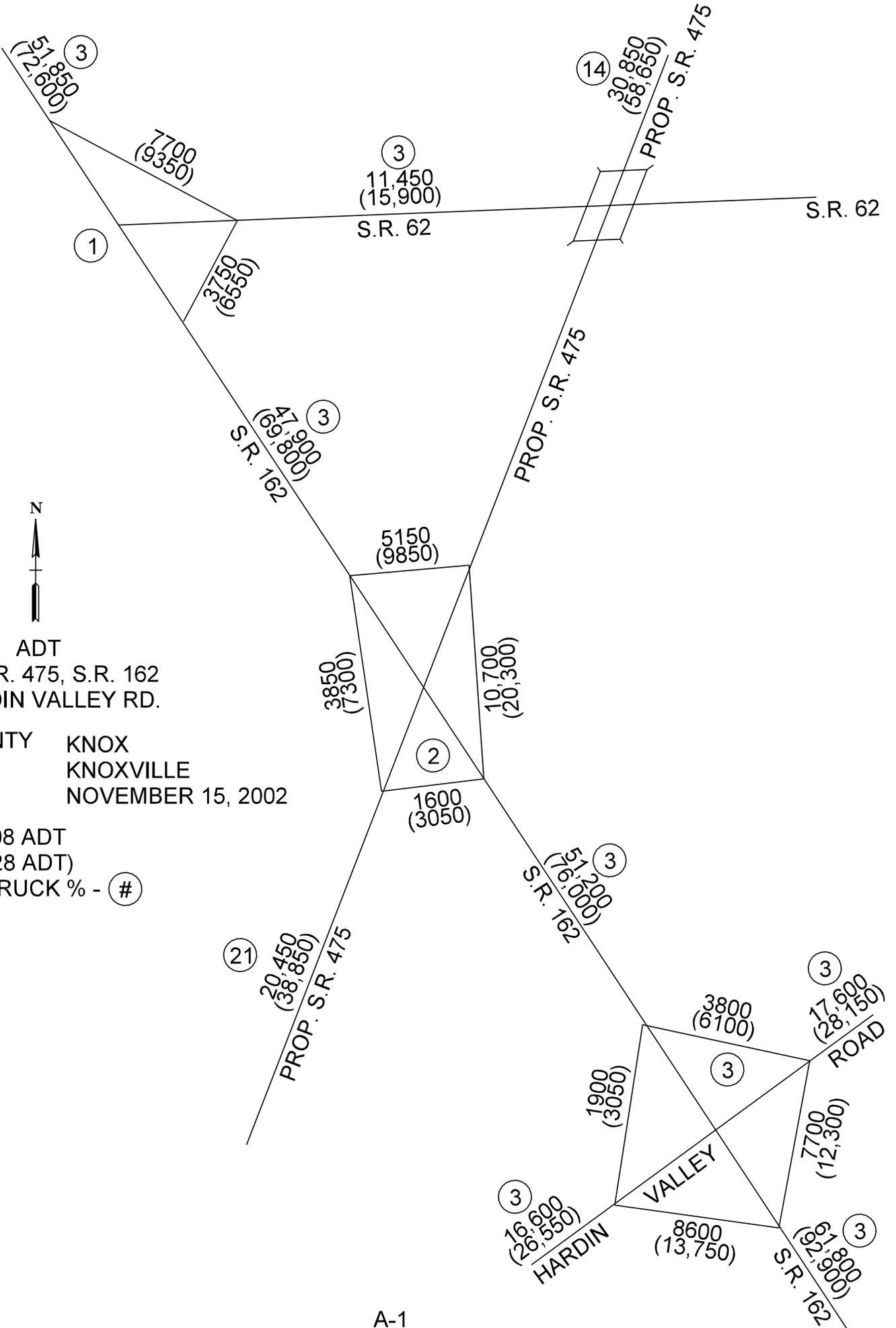
CHAPTER 4

SUMMARY AND CONCLUSIONS

The preceding study was conducted to evaluate current and future traffic operations on SR-475 along with the surrounding roadways within the project area. The proposed interchange improvements will increase the operating performance of SR-162 and maintain the proposed conditions on SR-475. The selected interchange configurations are combined with the plans of widening the existing SR-162 to provide a network that meets present and future traffic projections.

APPENDIX A

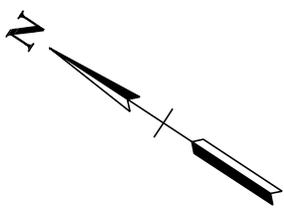
PROJECTED TRAFFIC VOLUMES



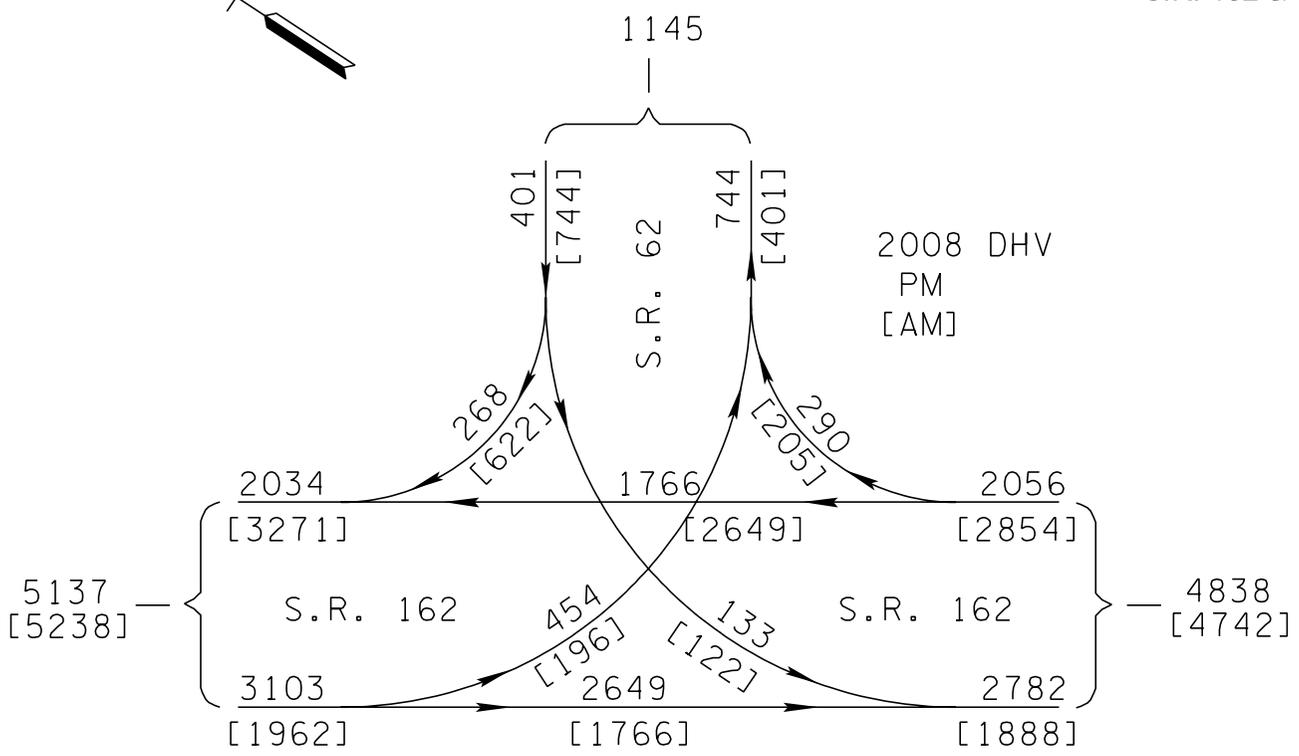
ADT
FOR S.R. 475, S.R. 162
& HARDIN VALLEY RD.

COUNTY KNOX
CITY KNOXVILLE
DATE NOVEMBER 15, 2002

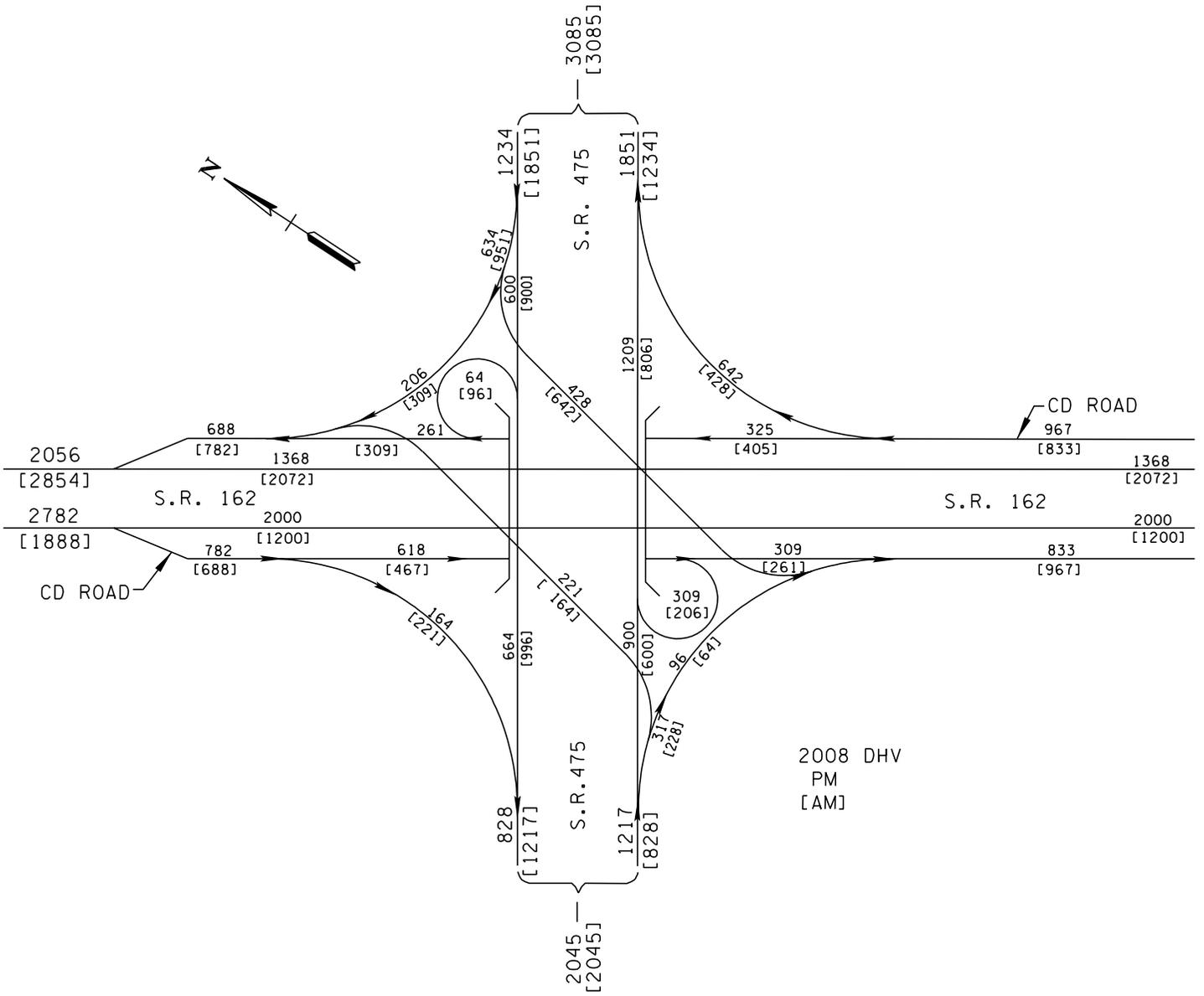
2008 ADT
(2028 ADT)
ADT TRUCK % - (#)



2008 DHV
 COUNTY KNOX
 CITY KNOXVILLE
 ROUTE S.R. 162 & S.R. 62

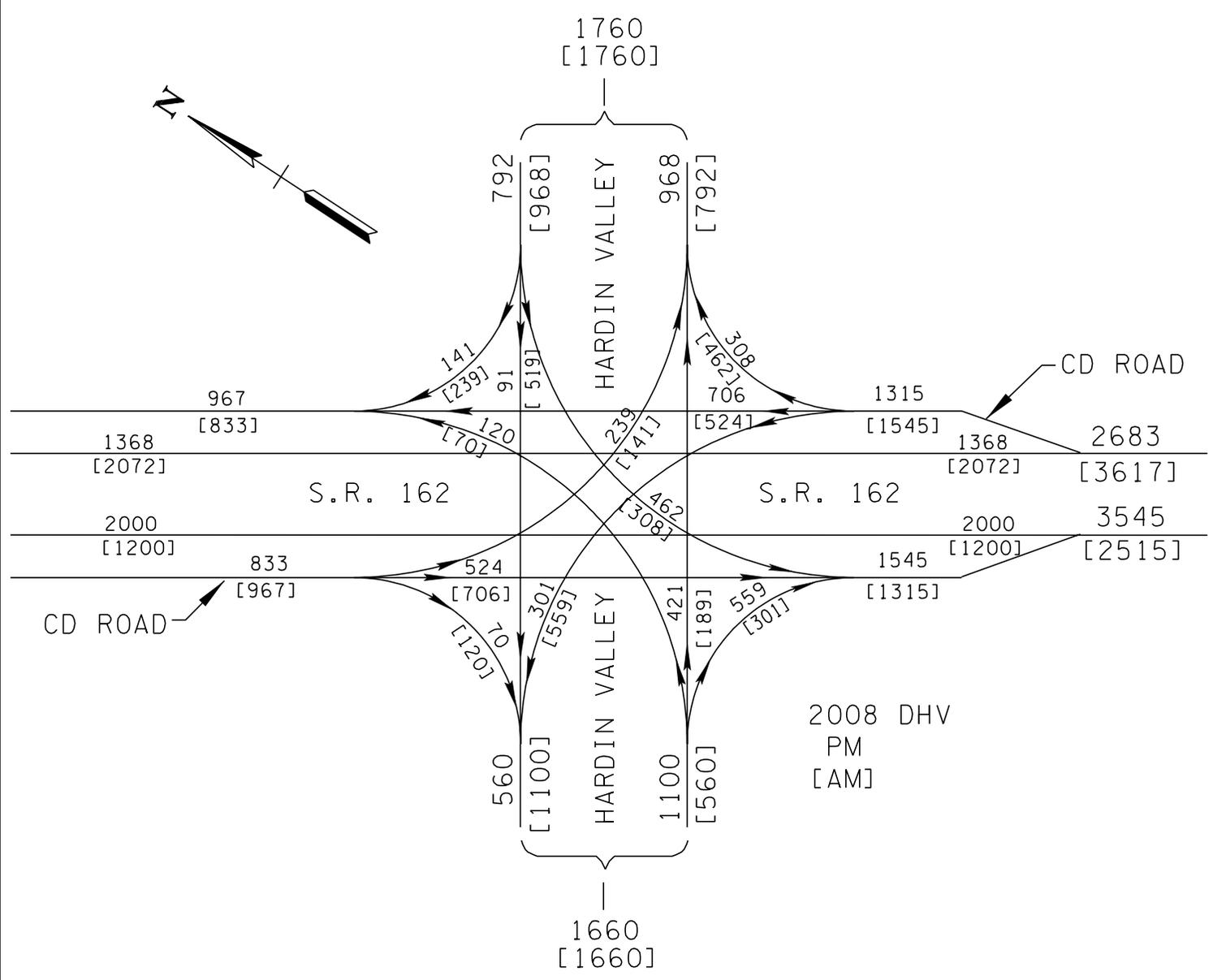


2008 DHV
 COUNTY KNOX
 CITY KNOXVILLE
 ROUTE S.R. 475 & S.R. 162



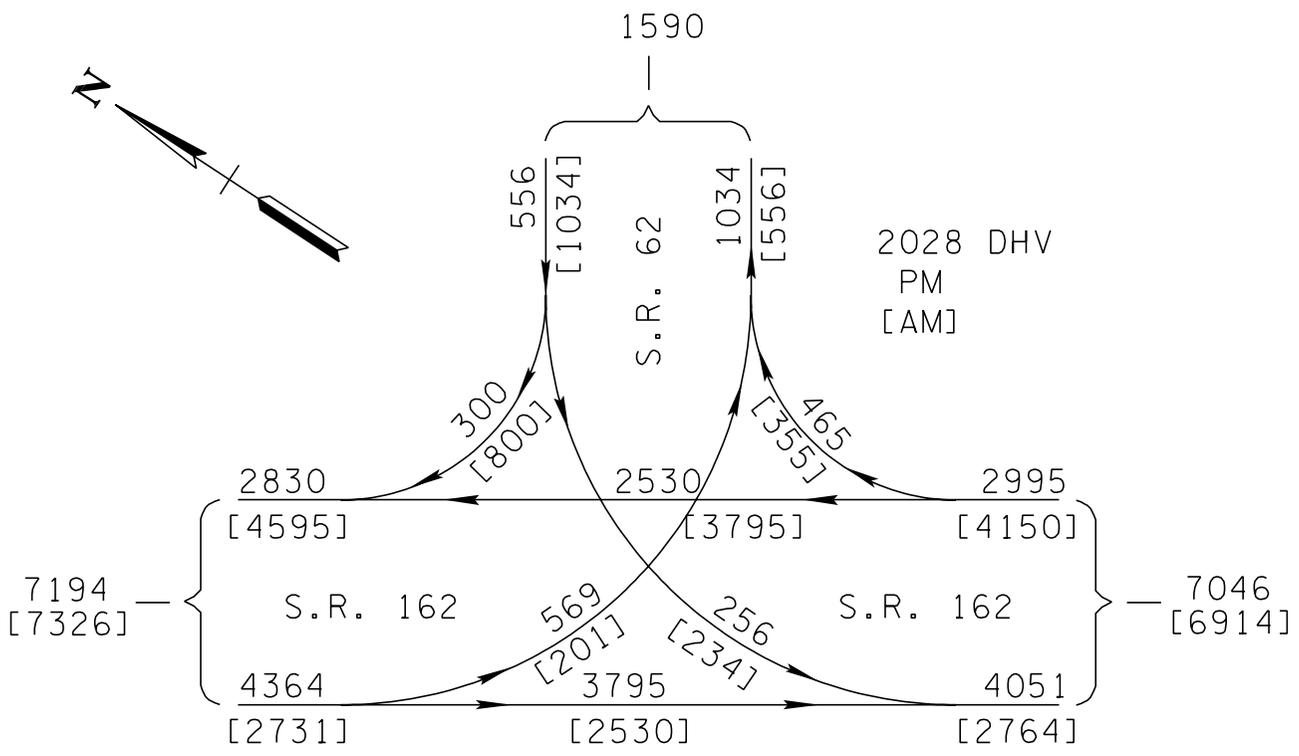
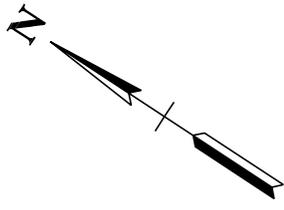
2008 DHV
 PM
 [AM]

2008 DHV
 COUNTY KNOX
 CITY KNOXVILLE
 ROUTE S.R. 162 & HARDIN VALLEY



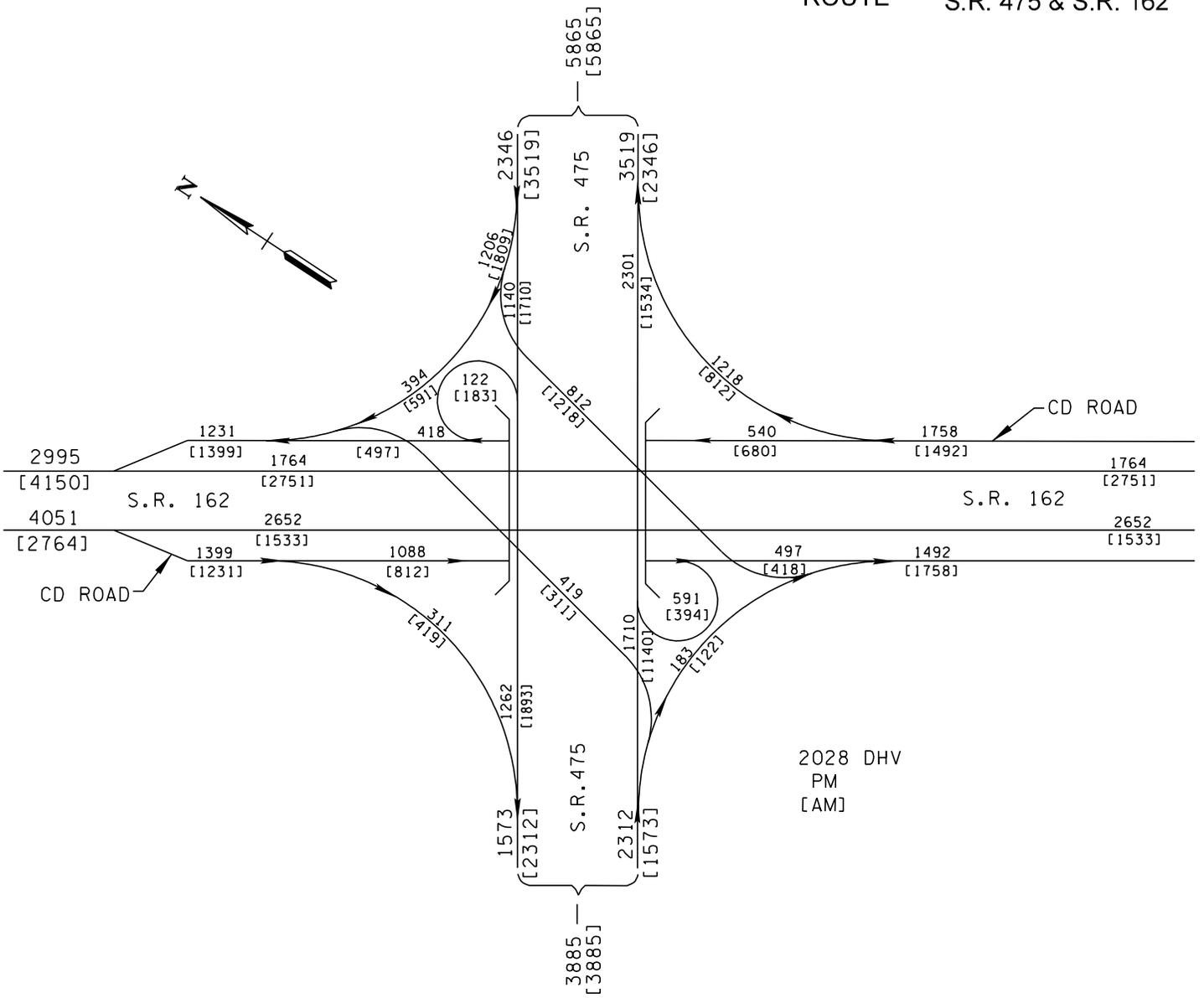
2008 DHV
 PM
 [AM]

2028 DHV
 COUNTY KNOX
 CITY KNOXVILLE
 ROUTE S.R. 162 & S.R. 62



2028 DHV

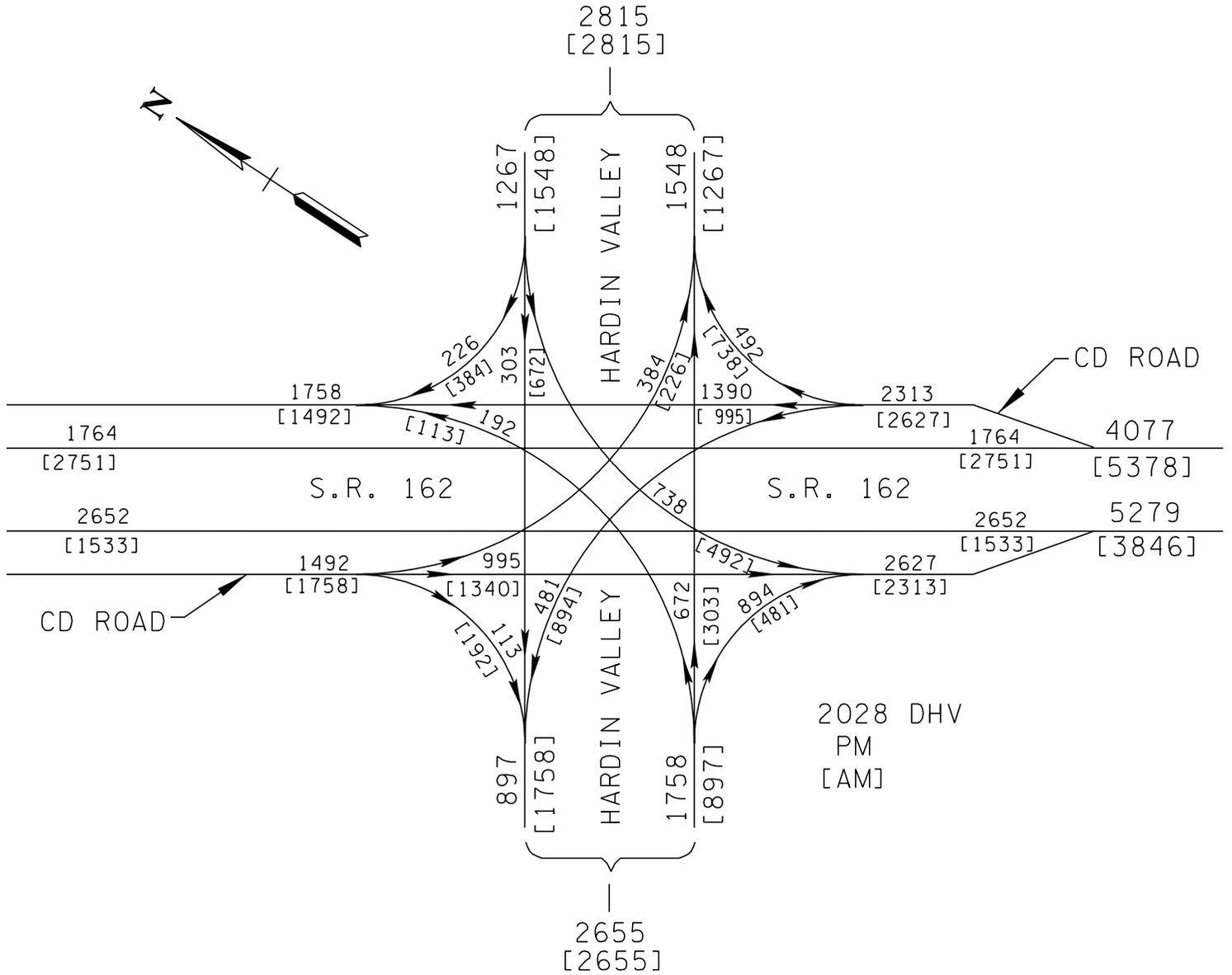
COUNTY KNOX
CITY KNOXVILLE
ROUTE S.R. 475 & S.R. 162



2028 DHV
PM
[AM]

2028 DHV

COUNTY KNOX
CITY KNOXVILLE
ROUTE S.R. 162 & HARDIN VALLEY



APPENDIX B

LEVEL OF SERVICE ANALYSIS CHARTS & LANE ASSIGNMENT DIAGRAMS

AM PEAK

Location ID	Location Description	Section Type	# of Lanes (Existing)	# of Lanes (Proposed)	Base Year (2008)		Design Year (2028)	
					Proposed		Proposed	
					Volume	LOS	Volume	LOS
Eastbound SR-162								
1	SR-162	Segment	2	3	1962	B	2731	C
2	SR-162 to SR-62	Diverge			196	B	201	B
3	SR-62 to SR-162	Merge			122	A	234	A
4	SR-162	Segment	2	3	1888	A	2764	B
5	SR-162 to C-D Road	Diverge			688	A	1231	A
6	SR-162	Segment	2	2	467	A	812	A
7	SR-162 from C-D Road	Merge			1315	A	2313	B
8	SR-162	Segment	2	3	2515	B	3846	C
Westbound SR-162								
9	SR-162	Segment	2	3	3617	C	5378	D
10	SR-162 to C-D Road	Diverge			1545	A	2627	B
11	SR-162	Segment	2	2	2072	B	2627	C
12	SR-162 from C-D Road	Merge			309	A	497	B
13	SR-162	Segment	2	3	2381	B	3248	C
14	SR-162 from Ramp	Merge			473	A	902	B
15	SR-162	Segment	2	3	2854	B	4150	C
16	SR-162 to SR-62	Diverge			205	A	355	A
17	SR-162	Segment	2	3	2649	B	3795	C
18	SR-162 from SR-62	Merge			622	C	800	C
19	SR-162	Segment	2	3	3271	C	4595	D
Eastbound SR-162 C-D Road								
20	C-D Road to Ramp	Diverge			221	A	419	B
21	C-D Road	Segment	N/A	2	467	A	812	A
22	C-D Road to Ramp	Diverge			206	A	394	A
23	C-D Road	Segment	N/A	2	261	A	418	A
24	C-D Road from Ramp	Merge			1006	A	1340	A
25	C-D Road	Segment	N/A	2	967	B	1758	C
26	C-D Road to Ramp	Diverge			261	B	418	B
27	C-D Road	Segment	N/A	2	706	A	1340	B
28	C-D Road from Ramp	Merge			609	A	973	B
29	C-D Road	Segment	N/A	2	1315	B	2313	C
Westbound SR-162 C-D Road								
30	C-D Road	Segment	N/A	2	1545	B	2627	C
31	C-D Road to Ramp	Diverge			1021	A	1635	A
32	C-D Road	Segment	N/A	2	524	A	995	A
33	C-D Road from Ramp	Merge			309	A	497	B
34	C-D Road	Segment	N/A	2	833	A	1492	B
35	C-D Road to Ramp	Diverge			428	A	812	B
36	C-D Road	Segment	N/A	2	405	A	680	A
37	C-D Road to Ramp	Diverge			96	A	183	A
38	C-D Road	Segment	N/A	1	309	A	497	A

AM PEAK

Location ID	Location Description	Section Type	# of Lanes (Existing)	# of Lanes (Proposed)	Base Year (2008)		Design Year (2028)	
					Proposed		Proposed	
					Volume	LOS	Volume	LOS
Northbound SR-475								
39	SR-475	Segment	2	2	828	A	1573	B
40	SR-475 to Ramp	Diverge			228	A	433	B
41	SR-475	Segment	2	2	600	A	1140	B
42	SR-475 from Ramp	Merge			206	A	394	B
43	SR-475	Segment	2	2	806	A	1534	B
44	SR-475 from Ramp	Merge			428	B	812	C
45	SR-475	Segment	2	2	1234	B	2346	C
Southbound SR-475								
46	SR-475	Segment	2	2	1851	C	3519	D
47	SR-475 to Ramp	Diverge			951	A	1809	B
48	SR-475	Segment	2	2	900	A	1710	B
49	SR-475 from Ramp	Merge			96	B	183	B
50	SR-475	Segment	2	2	996	A	1893	B
51	SR-475 from Ramp	Merge			221	B	419	C
52	SR-475	Segment	2	2	1217	B	2312	C
Eastbound SR-62								
53	SR-62 from Ramp	Merge			205	B	355	B
54	SR-62	Segment	1	1	401	B	556	B
Westbound SR-62								
55	SR-62	Segment	1	1	744	C	1034	C
56	SR-62 to Ramp	Diverge			622	B	800	C
Northbound Hardin Valley Road								
57	Hardin Valley Road	Segment	1	2	560	A	897	A
58	Hardin Valley Road	Intersection	2	3	189	B	303	C
59	Hardin Valley Road	Segment	2	2	792	A	1267	A
Southbound Hardin Valley Road								
60	Hardin Valley Road	Segment	2	2	968	A	1548	B
61	Hardin Valley Road	Intersection	2	3	519	B	672	C
62	Hardin Valley Road	Segment	1	2	1100	B	1758	B

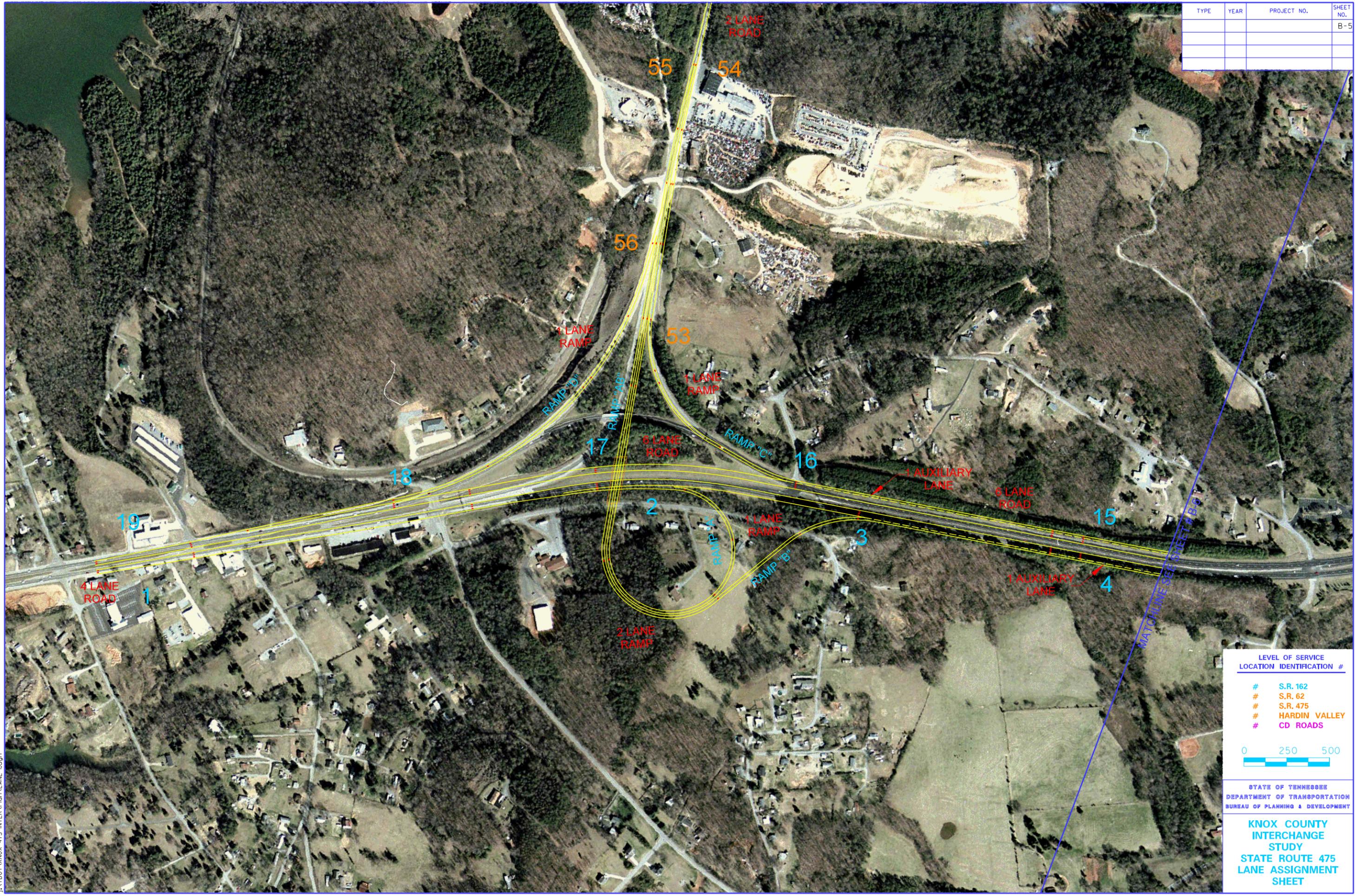
PM PEAK

Location ID	Location Description	Section Type	# of Lanes (Existing)	# of Lanes (Proposed)	Base Year (2008)		Design Year (2028)	
					Proposed		Proposed	
					Volume	LOS	Volume	LOS
Eastbound SR-162								
1	SR-162	Segment	2	3	3103	C	4364	D
2	SR-162 to SR-62	Diverge			454	C	569	C
3	SR-62 to SR-162	Merge			133	A	256	A
4	SR-162	Segment	2	3	2782	B	4051	C
5	SR-162 to C-D Road	Diverge			782	A	2652	A
6	SR-162	Segment	2	2	2000	C	2652	C
7	SR-162 from C-D Road	Merge			1545	B	2652	B
8	SR-162	Segment	2	3	3545	C	5279	D
Westbound SR-162								
9	SR-162	Segment	2	3	2683	C	4077	C
10	SR-162 to C-D Road	Diverge			1315	A	2313	B
11	SR-162	Segment	2	2	1368	B	1764	B
12	SR-162 from C-D Road	Merge			261	A	418	A
13	SR-162	Segment	2	3	1629	B	2182	B
14	SR-162 from Ramp	Merge			427	A	813	A
15	SR-162	Segment	2	4	2056	B	2995	B
16	SR-162 to SR-62	Diverge			290	A	465	A
17	SR-162	Segment	2	3	1766	B	2530	B
18	SR-162 from SR-62	Merge			268	B	300	B
19	SR-162	Segment	2	3	2034	B	2830	B
Eastbound SR-162 C-D Road								
20	C-D Road to Ramp	Diverge			164	B	311	B
21	C-D Road	Segment	N/A	2	618	A	1088	A
22	C-D Road to Ramp	Diverge			309	A	591	A
23	C-D Road	Segment	N/A	2	309	A	497	A
24	C-D Road from Ramp	Merge			524	A	995	A
25	C-D Road	Segment	N/A	2	833	A	1492	B
26	C-D Road to Ramp	Diverge			309	A	497	A
27	C-D Road	Segment	N/A	2	524	A	995	A
28	C-D Road from Ramp	Merge			1021	A	1632	B
29	C-D Road	Segment	N/A	2	1545	B	2627	C
Westbound SR-162 C-D Road								
30	C-D Road	Segment	N/A	2	1315	B	2313	C
31	C-D Road to Ramp	Diverge			609	A	973	A
32	C-D Road	Segment	N/A	2	706	A	1390	B
33	C-D Road from Ramp	Merge			261	A	418	B
34	C-D Road	Segment	N/A	2	967	A	1758	B
35	C-D Road to Ramp	Diverge			642	A	1218	A
36	C-D Road	Segment	N/A	2	325	A	540	A
37	C-D Road to Ramp	Diverge			64	A	122	A
38	C-D Road	Segment	N/A	1	261	A	418	A

PM PEAK

Northbound SR-475								
39	SR-475	Segment	2	2	1217	A	2312	C
40	SR-475 to Ramp	Diverge			317	A	602	B
41	SR-475	Segment	2	2	900	A	1710	B
42	SR-475 from Ramp	Merge			309	B	591	B
43	SR-475	Segment	2	2	1209	A	2301	C
44	SR-475 from Ramp	Merge			642	B	1218	D
45	SR-475	Segment	2	2	1851	B	3519	D
Southbound SR-475								
46	SR-475	Segment	2	2	1234	A	2346	C
47	SR-475 to Ramp	Diverge			634	A	1206	A
48	SR-475	Segment	2	2	600	A	1140	A
49	SR-475 from Ramp	Merge			64	B	122	B
50	SR-475	Segment	2	2	664	A	1262	A
51	SR-475 from Ramp	Merge			164	B	311	B
52	SR-475	Segment	2	2	828	A	1573	B
Eastbound SR-62								
53	SR-62 from Ramp	Merge			290	B	465	B
54	SR-62	Segment	1	1	744	C	1034	C
Westbound SR-62								
55	SR-62	Segment	1	1	401	B	556	B
56	SR-62 to Ramp	Diverge			268	B	300	B
Northbound Hardin Valley Road								
57	Hardin Valley Road	Segment	1	2	1100	A	1758	B
58	Hardin Valley Road	Intersection	2	3	421	B	672	C
59	Hardin Valley Road	Segment	2	2	968	A	1548	B
Southbound Hardin Valley Road								
60	Hardin Valley Road	Segment	2	2	792	A	1267	B
61	Hardin Valley Road	Intersection	2	3	91	B	303	C
62	Hardin Valley Road	Segment	1	2	560	A	897	A

TYPE	YEAR	PROJECT NO.	SHEET NO.
			B-5



LEVEL OF SERVICE
LOCATION IDENTIFICATION #

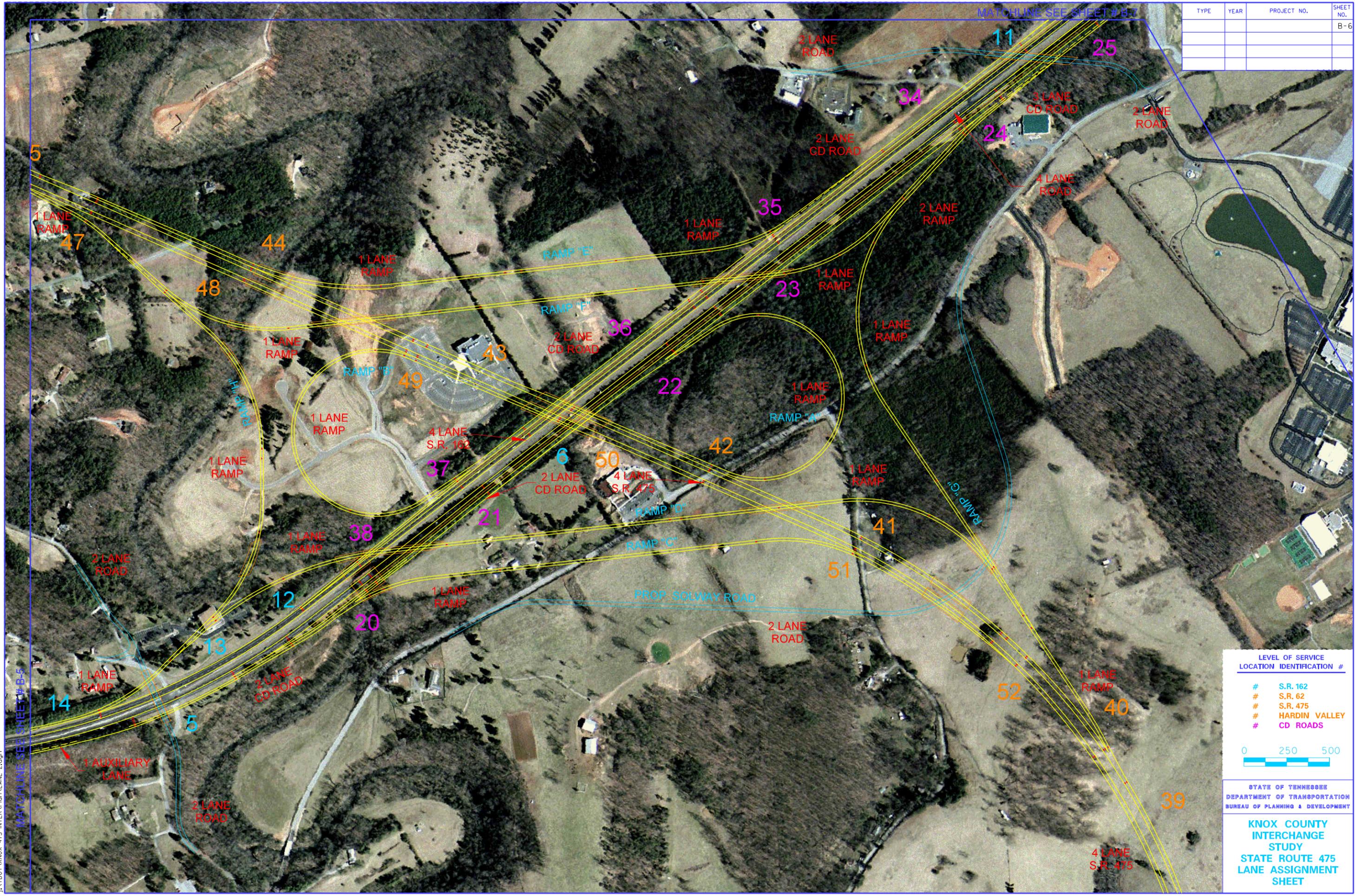
- # S.R. 162
- # S.R. 62
- # S.R. 475
- # HARDIN VALLEY CD ROADS

0 250 500

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

KNOX COUNTY INTERCHANGE STUDY
STATE ROUTE 475 LANE ASSIGNMENT SHEET

TYPE	YEAR	PROJECT NO.	SHEET NO.
			B-6



LEVEL OF SERVICE
LOCATION IDENTIFICATION #

- # S.R. 162
- # S.R. 62
- # S.R. 475
- # HARDIN VALLEY CD ROADS
- # CD ROADS

0 250 500

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

KNOX COUNTY INTERCHANGE STUDY
STATE ROUTE 475
LANE ASSIGNMENT SHEET

09/08/2003 J:\TDOT\KNOX-475-INTER\Plan\LANE-2.dgn

MATCHLINE SEE SHEET # B-5

MATCHLINE SEE SHEET # B-7

TYPE	YEAR	PROJECT NO.	SHEET NO.
			B-7



LEVEL OF SERVICE
LOCATION IDENTIFICATION #

- # S.R. 162
- # S.R. 62
- # S.R. 475
- # HARDIN VALLEY CD ROADS

0 250 500

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

KNOX COUNTY INTERCHANGE STUDY
STATE ROUTE 475 LANE ASSIGNMENT SHEET

APPENDIX C

ALTERNATE INTERCHANGES CONSIDERED

(WITH SELECTIVE COST)

























COST DATA SHEET (Itemized Cost Estimates)

9/8/2003

PROJECT: Knox County - I-475
Solway Interchange

<u>Right-of-Way</u>		Number	Rate	Costs
	Lands, Improvements, and Damages	Acres=		\$0
	Incidentals	Tracts=		\$0
	Relocation Payments	Residences=		\$0
		Businesses=		\$0
		Non-Profits=		\$0
		Total Right-of-Way Costs		\$0
<u>Utility Relocation</u>	Reimbursable			\$0
	Non-Reimbursable			\$0
	Total Adjustment Cost			\$0
<u>Construction</u>	Clear and Grubbing			\$29,000
	Earthwork			\$1,020,000
	Pavement Removal			\$65,000
	Drainage (Includes Erosion Control)			\$100,000
	Structures			\$1,420,000
	Railroad Crossing or Separation			\$0
	Paving			\$3,060,000
	Retaining Walls			\$0
	Maintenance of Traffic			\$150,000
	Topsoil			\$71,000
	Seeding			\$50,000
	Sodding			\$0
	Signing			\$100,000
	Lighting			\$80,000
	Signalization			\$0
	Fence			\$20,000
	Guardrail			\$24,000
	Rip Rap of Slope Protection			\$0
	Other Construction Items (8.5%)			\$405,000
	Mobilization			\$326,000
	10% Eng. And Const.			\$659,000
	Total Construction Cost			\$6,920,000
Preliminary Engineering (10%)				\$659,000
TOTAL INTERCHANGE ADDITIONAL COST				\$7,600,000

COST DATA SHEET (Itemized Cost Estimates)

9/8/2003

PROJECT: Knox County - I-475
Pellissippi Interchange Alternate "A"

<u>Right-of-Way</u>	Number	Rate	Costs
Lands, Improvements, and Damages	Acres=		\$0
Incidentals	Tracts=		\$0
Relocation Payments	Residences=		\$0
	Businesses=		\$0
	Non-Profits=		\$0
	Total Right-of-Way Costs		\$0
<u>Utility Relocation</u>			
Reimbursable			\$0
Non-Reimbursable			\$0
Total Adjustment Cost			\$0
<u>Construction</u>			
Clear and Grubbing			\$276,000
Earthwork			\$12,000,000
Pavement Removal			\$20,000
Drainage (Includes Erosion Control)			\$450,000
Structures			\$9,100,000
Railroad Crossing or Separation			\$0
Paving			\$11,100,000
Retaining Walls			\$300,000
Maintenance of Traffic			\$125,000
Topsoil			\$200,000
Seeding			\$125,000
Sodding			\$0
Signing			\$300,000
Lighting			\$250,000
Signalization			\$0
Fence			\$103,500
Guardrail			\$266,000
Rip Rap of Slope Protection			\$0
Other Construction Items (8.5%)			\$2,169,000
Mobilization			\$2,300,000
10% Eng. And Const.			\$3,679,000
Total Construction Cost			\$36,785,000
Preliminary Engineering (10%)			\$3,679,000
TOTAL INTERCHANGE ADDITIONAL COST			\$40,500,000
TOTAL CONTROLLED ACCESS ADDITIONAL COST			\$4,500,000
TOTAL INTERCHANGE COST			\$45,000,000

COST DATA SHEET (Itemized Cost Estimates)

9/8/2003

PROJECT: Knox County - I-475
Pellissippi Interchange Alternate "B"

<u>Right-of-Way</u>		Number	Rate	Costs
Lands, Improvements, and Damages	Acres=			\$0
Incidentals	Tracts=			\$0
Relocation Payments	Residences=			\$0
	Businesses=			\$0
	Non-Profits=			\$0
	Total Right-of-Way Costs			\$0

<u>Utility Relocation</u>				
Reimbursable				\$0
Non-Reimbursable				\$0
Total Adjustment Cost				\$0

<u>Construction</u>				
Clear and Grubbing				\$236,000
Earthwork				\$24,480,000
Pavement Removal				\$20,000
Drainage (Includes Erosion Control)				\$450,000
Structures*				\$17,000,000
Railroad Crossing or Separation				\$0
Paving				\$7,600,000
Retaining Walls				\$400,000
Maintenance of Traffic				\$100,000
Topsoil				\$400,000
Seeding				\$275,000
Sodding				\$0
Signing				\$300,000
Lighting				\$250,000
Signalization				\$0
Fence				\$95,000
Guardrail				\$297,000
Rip Rap of Slope Protection				\$0
Other Construction Items (8.5%)				\$2,967,000
Mobilization				\$3,700,000
10% Eng. And Const.				\$5,487,000
Total Construction Cost				\$64,057,000

Preliminary Engineering (10%) **\$5,487,000**

TOTAL INTERCHANGE ADDITIONAL COST **\$69,500,000**

* 120/SQ FT USED FOR HIGH LEVEL STRUCTURES

COST DATA SHEET (Itemized Cost Estimates)

9/8/2003

PROJECT: Knox County - I-475
Pellissippi Interchange Alternate "C"

<u>Right-of-Way</u>	Number	Rate	Costs
Lands, Improvements, and Damages	Acres=		\$0
Incidentals	Tracts=		\$0
Relocation Payments	Residences=		\$0
	Businesses=		\$0
	Non-Profits=		\$0
	Total Right-of-Way Costs		\$0
<u>Utility Relocation</u>			
Reimbursable			\$0
Non-Reimbursable			\$0
Total Adjustment Cost			\$0
<u>Construction</u>			
Clear and Grubbing			\$246,000
Earthwork			\$18,000,000
Pavement Removal			\$20,000
Drainage (Includes Erosion Control)			\$450,000
Structures*			\$15,000,000
Railroad Crossing or Separation			\$0
Paving			\$7,800,000
Retaining Walls			\$250,000
Maintenance of Traffic			\$100,000
Topsoil			\$250,000
Seeding			\$150,000
Sodding			\$0
Signing			\$300,000
Lighting			\$250,000
Signalization			\$0
Fence			\$95,000
Guardrail			\$306,000
Rip Rap of Slope Protection			\$0
Other Construction Items (8.5%)			\$2,398,000
Mobilization			\$2,600,000
10% Eng. And Const.			\$4,562,000
Total Construction Cost			\$48,215,000
Preliminary Engineering (10%)			\$4,562,000
TOTAL INTERCHANGE ADDITIONAL COST			\$53,000,000

* 120/SQ FT USED FOR HIGH LEVEL STRUCTURES

COST DATA SHEET (Itemized Cost Estimates)

9/8/2003

PROJECT: Knox County - I-475
Hardin Valley Interchange

<u>Right-of-Way</u>		Number	Rate	Costs
Lands, Improvements, and Damages	Acres=			\$0
Incidentals	Tracts=			\$0
Relocation Payments	Residences=			\$0
	Businesses=			\$0
	Non-Profits=			\$0
	Total Right-of-Way Costs			\$0

<u>Utility Relocation</u>				
Reimbursable				\$0
Non-Reimbursable				\$0
Total Adjustment Cost				\$0

<u>Construction</u>				
Clear and Grubbing				\$44,000
Earthwork				\$450,000
Pavement Removal				\$20,000
Drainage (Includes Erosion Control)				\$200,000
Structures				\$2,700,000
Railroad Crossing or Separation				\$0
Paving				\$6,120,000
Retaining Walls				\$960,000
Maintenance of Traffic				\$100,000
Topsoil				\$70,000
Seeding				\$50,000
Sodding				\$0
Signing				\$90,000
Lighting				\$75,000
Signalization				\$125,000
Fence				\$40,000
Guardrail				\$18,000
Rip Rap of Slope Protection				\$0
Other Construction Items (8.5%)				\$711,000
Mobilization				\$244,000
10% Eng. And Const.				\$1,177,000
Total Construction Cost				\$11,773,000

Preliminary Engineering (10%) **\$1,177,000**

TOTAL INTERCHANGE ADDITIONAL COST \$13,000,000

COST DATA SHEET (Itemized Cost Estimates)

9/8/2003

PROJECT: Knox County - I-475
SR 62 Interchange

<u>Right-of-Way</u>	Number	Rate	Costs
Lands, Improvements, and Damages	Acres=		\$0
Incidentals	Tracts=		\$0
Relocation Payments	Residences=		\$0
	Businesses=		\$0
	Non-Profits=		\$0
	Total Right-of-Way Costs		\$0
<u>Utility Relocation</u>			
Reimbursable			\$0
Non-Reimbursable			\$0
Total Adjustment Cost			\$0
<u>Construction</u>			
Clear and Grubbing			\$38,000
Earthwork			\$1,800,000
Pavement Removal			\$0
Drainage (Includes Erosion Control)			\$19,000
Structures			\$1,100,000
Railroad Crossing or Separation			\$0
Paving			\$4,300,000
Retaining Walls			\$100,000
Maintenance of Traffic			\$50,000
Topsoil			\$71,000
Seeding			\$50,000
Sodding			\$0
Signing			\$100,000
Lighting			\$80,000
Signalization			\$40,000
Fence			\$32,000
Guardrail			\$56,000
Rip Rap of Slope Protection			\$0
Other Construction Items (8.5%)			\$573,000
Mobilization			\$675,000
10% Eng. And Const.			\$841,000
Total Construction Cost			\$9,084,000
Preliminary Engineering (10%)			\$841,000
TOTAL INTERCHANGE ADDITIONAL COST			\$9,900,000

APPENDIX D

MINUTES OF MEETINGS

Preliminary Scheme Review Minutes
SR-475 Interchanges at Pellissippi Parkway and SR 62
Knox County, Tennessee
December 16, 2002

A scheme review meeting was held in the 4th floor conference room of the James K. Polk Building in Nashville, Tennessee beginning at 10:00 a.m. on December 16, 2002. The following persons were in attendance:

Michael Agnew	TDOT Design	(615) 741-4446
Matthew Ashby	TDOT Planning	(615) 741-6743
Charlie Graves	TDOT Planning	(615) 741-6410
Mark Doctor	FHWA	(615) 781-5788
Leigh Ann Tribble	FHWA	(615) 781-5760
Tom Love	TDOT	(615) 741-5364
Steve Putney	HNTB	(615) 778-0817
Bobby Garland	TDOT	(615) 253-2521
Henry Pate	TDOT	(615) 741-3351
Todd Knuckey	HNTB	(615) 778-0817
Clifford F. Stewart	TDOT Design	(615) 741-4726
Steve Allen	TDOT Traffic Planning	(615) 741-2208
Jerry Moorhead	TDOT Planning	(615) 741-3629
Bill Hart	TDOT Planning	(615) 741-3688
Ron Baker	TDOT Planning	(615) 253-2432
Mike Russell	TDOT Region 1	(865) 594-2334
Harry Moore	TDOT Region 1	(865) 594-2710
Todd Kemp	Palmer Engineering	(615) 297-8957
David Lindeman	Palmer Engineering	(859) 744-1218

After discussing various issues relating to the proposed project and presenting seven possible interchange combination schemes, the attendees narrowed the interchange alternates down to three interchange alternates at Pellissippi, a trumpet at Solway, and a diamond at SR 62. The project team decided that the three Pellissippi interchanges should be further studied to determine the construction cost of each before deciding which should be carried forward to traffic analysis with the other two interchanges.

The three Pellissippi interchanges selected for further study were the fully directional interchange with no loop ramps shown as Alternate 1, Alternate 2 which included one 40 MPH loop ramp from the westbound Pellissippi to the southbound SR 475, and the partial cloverleaf shown as Alternate 5 with the same loop ramp as in Alternate 2 and the opposite loop ramp from eastbound Pellissippi to northbound SR 475. The only change from the Alternate 5 as shown is that the loop ramp design speeds should be increased from 35 MPH to 40 MPH. Single exits should be utilized from the Pellissippi for both the directional and loop ramps.

Once construction costs have been determined for these three interchanges, a follow-up meeting will be held to determine which interchanges to carry forward. Many comments were made during the meeting, the most significant of which were as follows:

1. A 52 foot median should be used on the Pellissippi Parkway to meet new standards.
2. Harry Moore should be sent ramp grades and sections for the diamond interchange at SR 62 for review concerning cave impacts. Access to the cave will need to be relocated.
3. Traffic simulations will be developed for each interchange that contains loop ramps separately for the next meeting. Following that meeting, the simulations for each interchange will be merged for the final alternate combinations to be presented in the study.
4. The possibility of building a loop ramp in the SW quadrant of the SR 62 interchange to stay completely off the cave was discussed. In order to use this loop ramp, SR 62 would have to be raised 15-20 feet to provide clearance over the railroad. The team felt that a tight diamond ramp would work better since it would not require raising the SR 62 grade.
5. The Pellissippi Parkway should be studied with full access control through these interchanges. Alternative access should be shown for property owners.
6. The Hardin Valley interchange should be studied as it currently is constructed. An APR has been prepared showing a single point urban interchange there in the future.

If you have any questions or comments regarding these minutes, please feel free to call.

Final Scheme Review Minutes
SR-475 Interchanges at Pellissippi Parkway and SR 62
Knox County, Tennessee
February 14, 2002

A scheme review meeting was held in the 18th floor conference room of the James K. Polk Building in Nashville, Tennessee beginning at 9:30 a.m. on February 14, 2002. The following persons were in attendance:

Michael Agnew	TDOT Design	(615) 741-4446
Matthew Ashby	TDOT Planning	(615) 741-6743
Mark Doctor	FHWA	(615) 781-5788
Leigh Ann Tribble	FHWA	(615) 781-5760
Tom Love	TDOT	(615) 741-5364
Henry Pate	TDOT	(615) 741-3351
Clifford F. Stewart	TDOT Design	(615) 741-4726
Steve Allen	TDOT Traffic Planning	(615) 741-2208
Jerry Moorhead	TDOT Planning	(615) 741-3629
Bill Hart	TDOT Planning	(615) 741-3688
Ron Baker	TDOT Planning	(615) 253-2432
Dudley Daniel	TDOT Functional Design	(615) 741-7458
Mike Russell	TDOT Region 1	(865) 594-2334
Todd Kemp	Palmer Engineering	(615) 297-8957
David Lindeman	Palmer Engineering	(859) 744-1218
Stephen Sewell	Palmer Engineering	(859) 744-1218

In a previous meeting three interchange alternates were selected at Pellissippi Parkway, a trumpet at Solway, and a diamond at SR 62. It was determined at the February 14 meeting that Alternate "A" should be carried forward at the Pellissippi Parkway Interchange. It was also determined that there will not be an interchange at SR 62 and improvements will be done to the existing Solway Interchange. The reasoning for eliminating the SR 62 interchange is the additional cost, possible environmental impacts to the cave, eliminating railroad issues, and located to close to Pellissippi Parkway Interchange.

There were traffic simulations presented at the Pellissippi Parkway Interchange "A" and "C" along with Solway and SR 62. These simulations showed that each interchange did not have any congestion problems.

Many comments were made during the meeting, the most significant of which were as follows:

1. A discussion of widening SR 475 from 4 lanes to 6 lanes or possibly going to a wider median for future widening to inside. A decision from Mr. Ziegler may need to be sought.

2. Harry Moore comments about the cave site located beside the SR 62 Ramp involved concern to environmental issues and access as presented in a letter read by Matt Ashby.
3. Merging traffic simulations into one complete network for the final alternate to be presented in the study.
4. The Hardin Valley interchange should be merged with our existing study to determine what ramps will need to be adjusted. The APR shows a single point urban interchange there in the future.

If you have any questions or comments regarding these minutes, please feel free to call.

APPENDIX E

PROPOSED FUNCTIONAL LAYOUTS

Index Of Sheets

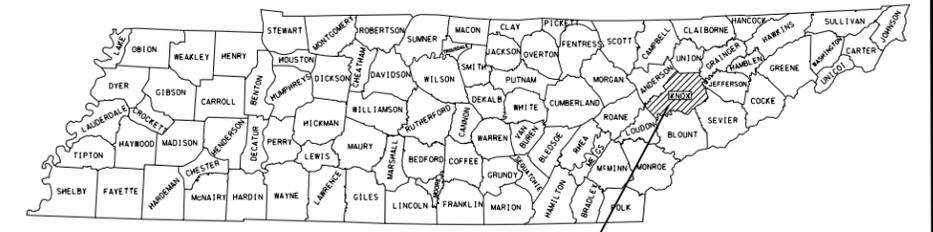
SHEET NO.	DESCRIPTION
1	TITLE SHEET
1A	LAYOUT SHEET
2	TYPICAL SECTION
3-10	PROPOSED LAYOUTS

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING AND DEVELOPMENT

TENN.	YEAR	SHEET NO.
	2003	1
FED. AID PROJ. NO.		
STATE PROJ. NO.		

KNOX COUNTY
INTERCHANGE STUDY
STATE ROUTE 475 AT
STATE ROUTE 162 & STATE ROUTE 62
(INCLUDING HARDIN VALLEY
AND SOLWAY INTERCHANGES)

STATE HIGHWAY NO. 475 F.A.H.S. NO.



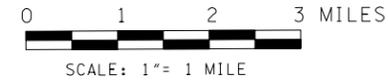
PROJECT LOCATION



SPECIAL NOTES

PROPOSALS MAY BE REJECTED BY THE COMMISSIONER IF ANY OF THE UNIT PRICES CONTAINED THEREIN ARE OBVIOUSLY UNBALANCED, EITHER EXCESSIVE OR BELOW THE REASONABLE COST ANALYSIS VALUE.

THIS PROJECT TO BE CONSTRUCTED UNDER THE STANDARD SPECIFICATIONS OF THE TENNESSEE DEPARTMENT OF TRANSPORTATION DATED MARCH 1, 1995 AND ADDITIONAL SPECIFICATIONS AND SPECIAL PROVISIONS CONTAINED IN THE PLANS AND IN THE PROPOSAL CONTRACT



TDOT ROAD SP. SV. 2 _____
DESIGNER _____ CHECKED BY _____
P.E. NO. _____

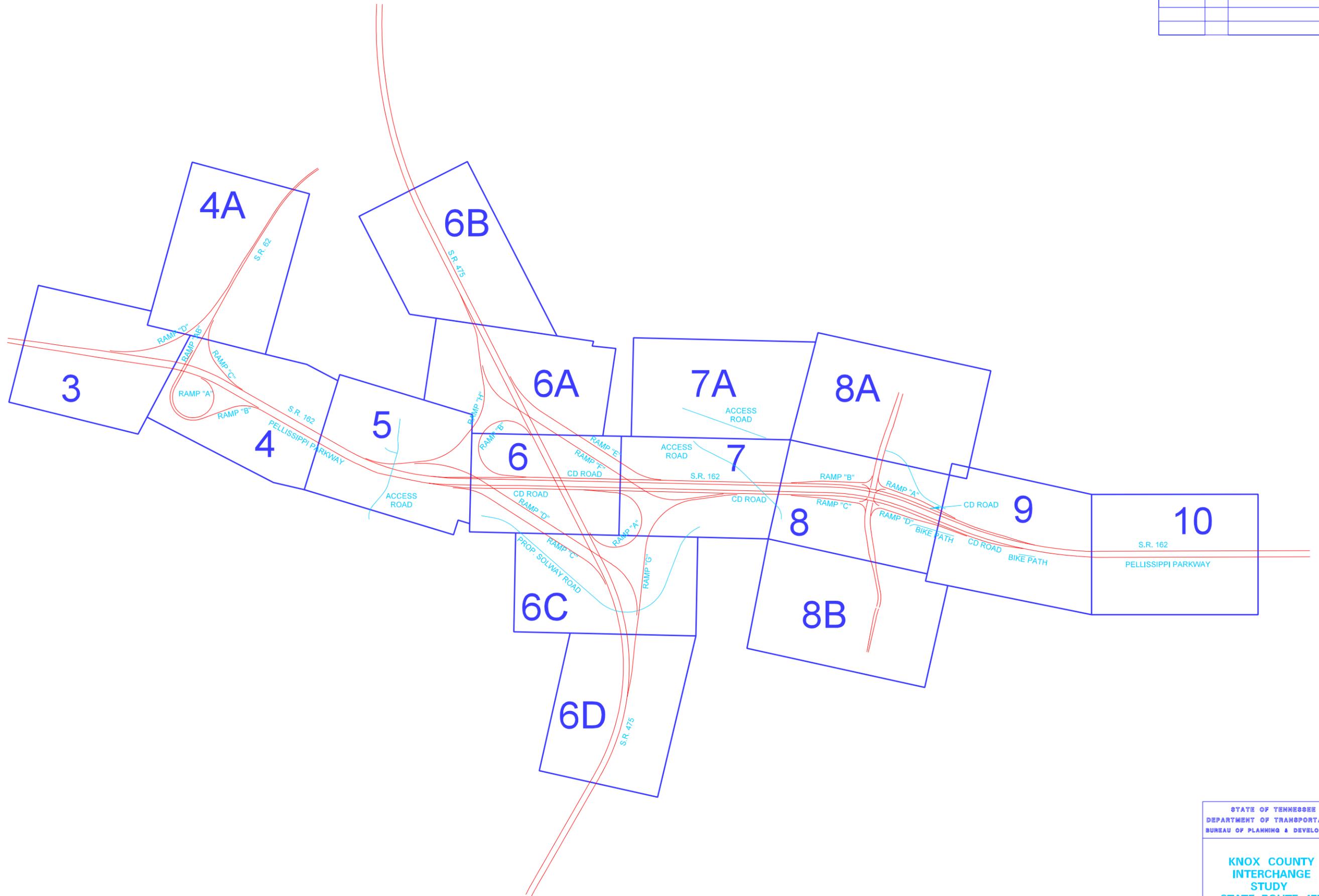
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ADT ()	
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T (DHV)	%
V	MPH

APPROVED: _____
DIRECTOR, DESIGN DIVISION
DATE: _____
APPROVED: _____
COMMISSIONER

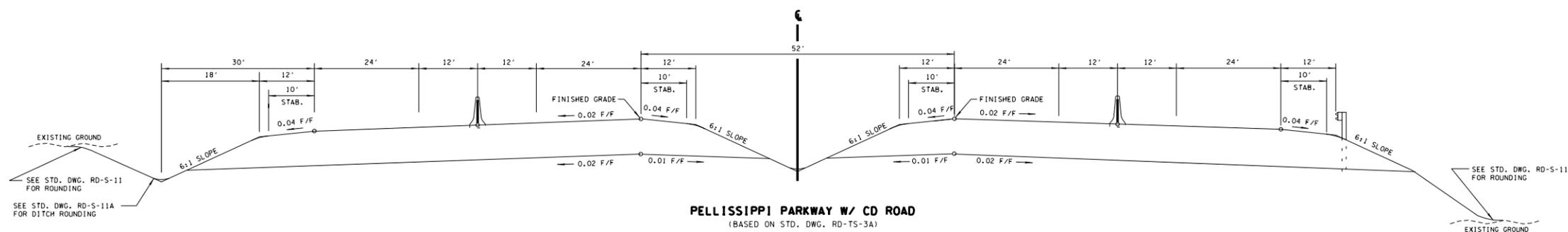
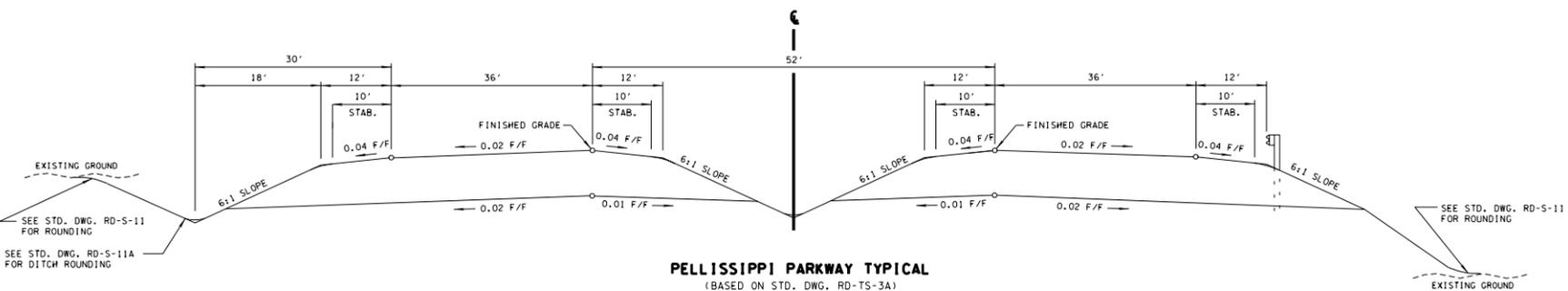
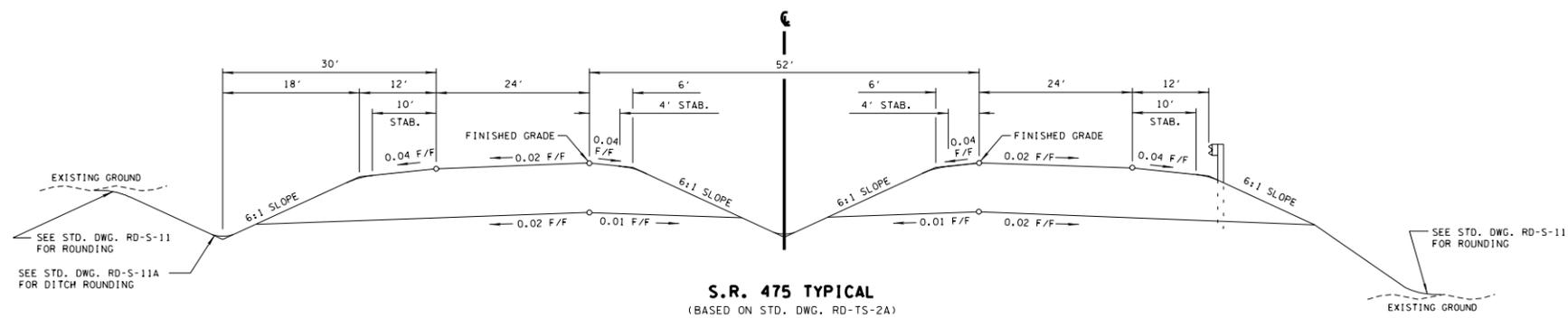
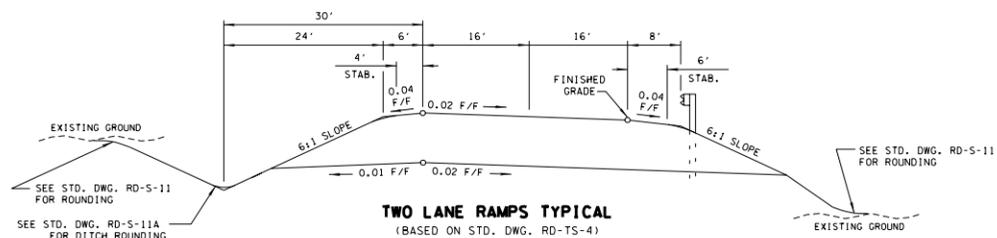
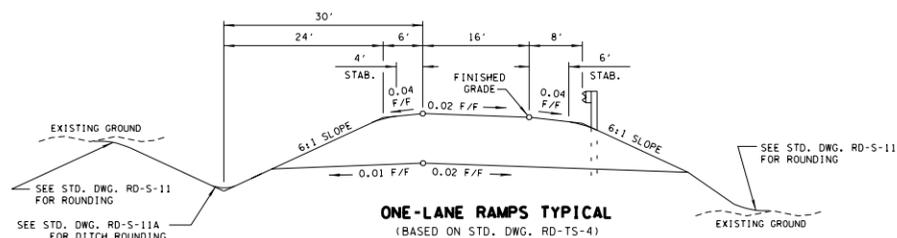
U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
APPROVED: _____
DIVISION ADMINISTRATOR DATE



TYPE	YEAR	PROJECT NO.	SHEET NO.
			1A



TYPE	YEAR	PROJECT NO.	SHEET NO.
			2



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

KNOX COUNTY
INTERCHANGE
STUDY
STATE ROUTE 475

TYPICAL SECTION

TYPE	YEAR	PROJECT NO.	SHEET NO.
			3

MATCHLINE SEE SHEET #4A



LEGEND

- LANE LINE
- BARRIER WALL
- STRUCTURE
- RETAINING WALL
- PROP. R/W
- - - - EXIST. R.W



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

KNOX COUNTY
INTERCHANGE STUDY
STATE ROUTE 475

09/08/2003
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TYPE	YEAR	PROJECT NO.	SHEET NO.
			4



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STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION
 BUREAU OF PLANNING & DEVELOPMENT

KNOX COUNTY
 INTERCHANGE
 STUDY
 STATE ROUTE 475

TYPE	YEAR	PROJECT NO.	SHEET NO.
			4A



09/08/2003
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STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION
 BUREAU OF PLANNING & DEVELOPMENT

KNOX COUNTY
 INTERCHANGE
 STUDY
 STATE ROUTE 475



TYPE	YEAR	PROJECT NO.	SHEET NO.
			5



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STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION
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KNOX COUNTY
 INTERCHANGE
 STUDY
 STATE ROUTE 475

TYPE	YEAR	PROJECT NO.	SHEET NO.
			6



MATCHLINE SEE SHEET #5

MATCHLINE SEE SHEET #7

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

KNOX COUNTY
INTERCHANGE STUDY
STATE ROUTE 475

TYPE	YEAR	PROJECT NO.	SHEET NO.
			6A



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STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION
 BUREAU OF PLANNING & DEVELOPMENT

KNOX COUNTY
 INTERCHANGE
 STUDY
 STATE ROUTE 475

TYPE	YEAR	PROJECT NO.	SHEET NO.
			6B



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STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION
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KNOX COUNTY
 INTERCHANGE
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TYPE	YEAR	PROJECT NO.	SHEET NO.
			6C

MATCHLINE SEE SHEET #6



MATCHLINE SEE SHEET #6D



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

KNOX COUNTY
INTERCHANGE STUDY
STATE ROUTE 475

TYPE	YEAR	PROJECT NO.	SHEET NO.
			6D



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STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION
 BUREAU OF PLANNING & DEVELOPMENT

KNOX COUNTY
INTERCHANGE
STUDY
STATE ROUTE 475

TYPE	YEAR	PROJECT NO.	SHEET NO.
			7



MATCHLINE SEE SHEET #6

MATCHLINE SEE SHEET #8

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

KNOX COUNTY
INTERCHANGE STUDY
STATE ROUTE 475

MATCHLINE SEE SHEET #7A

MATCHLINE SEE SHEET #6C

TYPE	YEAR	PROJECT NO.	SHEET NO.
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MATCHLINE SEE SHEET #7

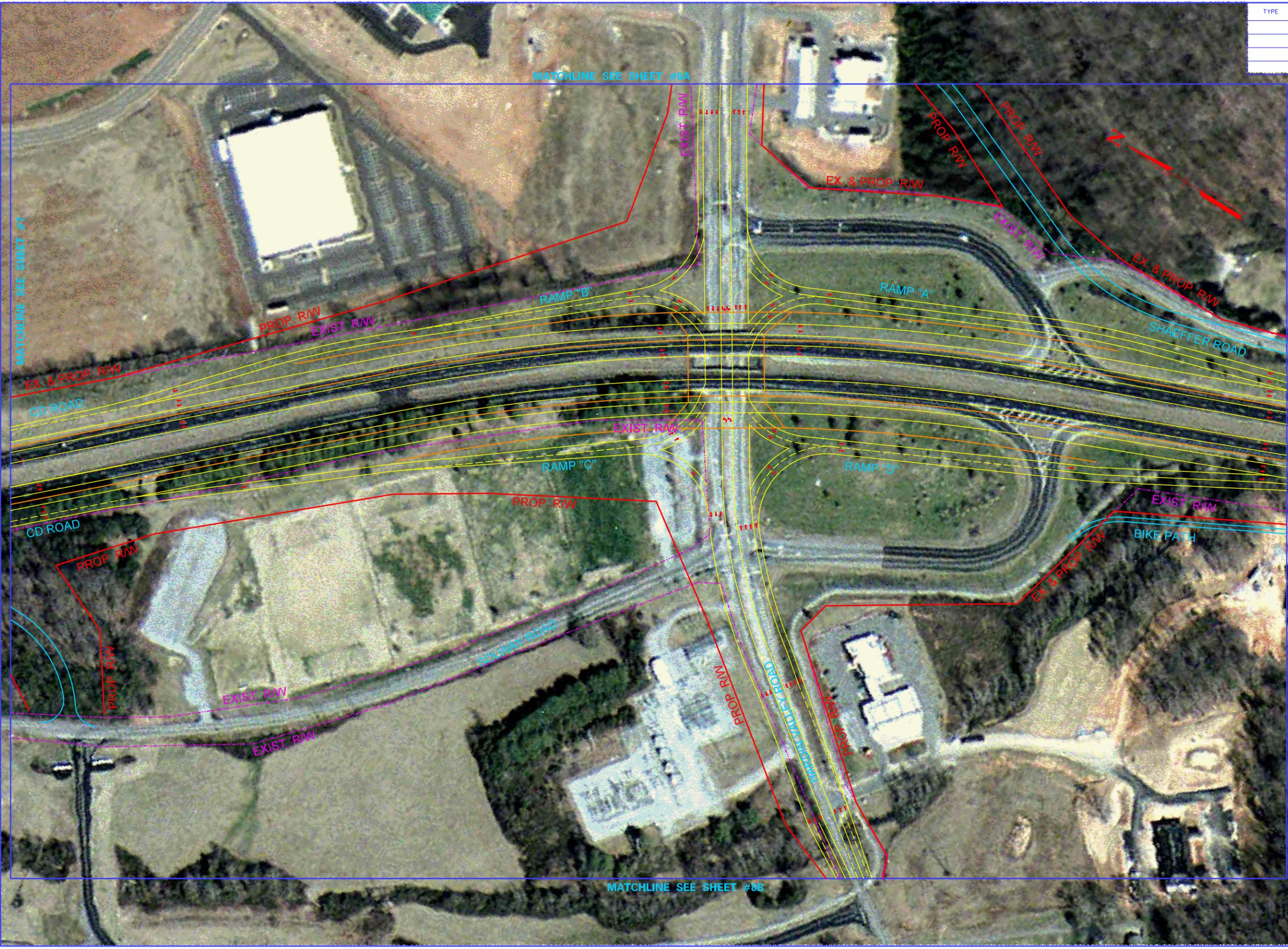
MATCHLINE SEE SHEET #8A



STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION
 BUREAU OF PLANNING & DEVELOPMENT

KNOX COUNTY
 INTERCHANGE
 STUDY
 STATE ROUTE 475

TYPE	YEAR	PROJECT NO.	SHEET NO.
			8



09/08/2003
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STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION
 BUREAU OF PLANNING & DEVELOPMENT

KNOX COUNTY
INTERCHANGE STUDY
STATE ROUTE 475

TYPE	YEAR	PROJECT NO.	SHEET NO.
			8A



MATCHLINE SEE SHEET #8



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

KNOX COUNTY
INTERCHANGE STUDY
STATE ROUTE 475

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TYPE	YEAR	PROJECT NO.	SHEET NO.
			8B

MATCHLINE SEE SHEET #8



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

KNOX COUNTY
INTERCHANGE STUDY
STATE ROUTE 475

TYPE	YEAR	PROJECT NO.	SHEET NO.
			9



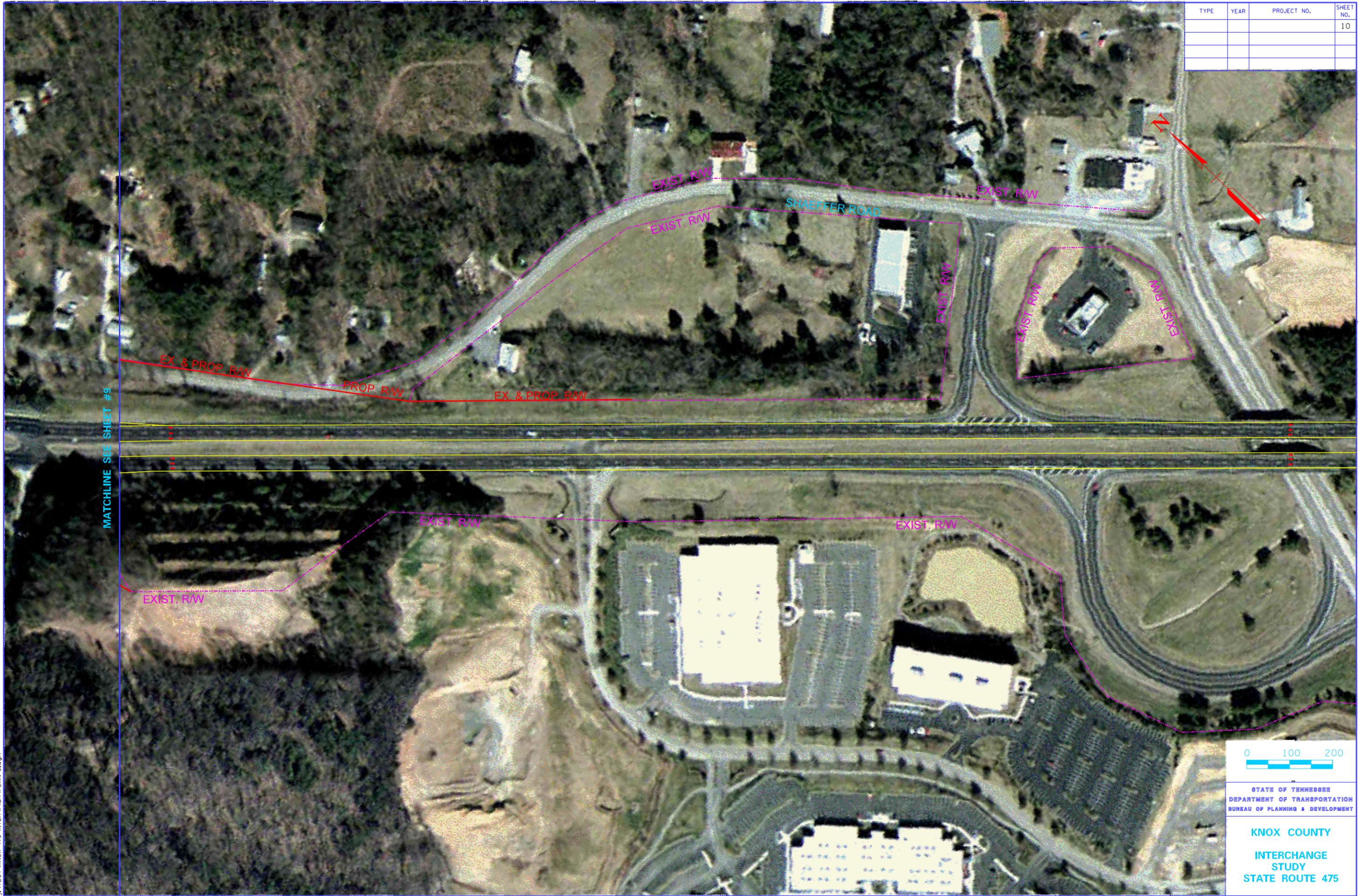
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STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION
 BUREAU OF PLANNING & DEVELOPMENT

KNOX COUNTY
INTERCHANGE
STUDY
STATE ROUTE 475

TYPE	YEAR	PROJECT NO.	SHEET NO.
			10



MATCHLINE SEE SHEET #9



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

KNOX COUNTY
INTERCHANGE STUDY
STATE ROUTE 475