APPENDIX A

ADVANCE PLANNING REPORT

STATE ROUTE 58/95
FROM I-40 TO THE FOUR LANE SECTION
NEAR WESTOVER DRIVE IN OAK RIDGE
ROANE COUNTY

PREPARED BY
TENNESSEE DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING AND DEVELOPMENT

Approved by: _____ 7-7-95
Director, Bureau of Planning and Development — Date

REVISION

Recommended by:	INITIALS	DATE	Recommended by:	INITIALS	DATE
TRANS. DIRECTOR PLANNING DIVISION	GAB	5/25/95	TRANS. DIRECTOR PLANNING DIVISION		
ENG. DIRECTOR DESIGN DIVISION		6/5/95	ENG. DIRECTOR DESIGN DIVISION		
ENG. DIRECTOR STRUCTURES DIVISION		6/6/95	ENG. DIRECTOR STRUCTURES DIVISION		
TRANS. DIRECTOR PROG. DEV. DIVISION		6/16/95	ENG. DIRECTOR PROG. DEV. DIVISION		
ASST. EXEC. DIRECTOR PLN. AND DEV.		6/28/95	ASST. EXEC. DIRECTOR PLN. AND DEV.		
ASST. EXEC. DIRECTOR PLAN. AND DEV.		6/16/95	ASST. EXEC. DIRECTOR PLAN. AND. DEV.		

PURPOSE OF STUDY

This study has been conducted in compliance with the Department's Accelerated Primary Highway Plan that was passed by the Legislature in 1986 as part of the "Urgent Highway Needs" listing. The SR-58 portion of the study is also included in the State's TIP. The purpose of this study is to evaluate the existing conditions of the sections of State Routes 58 and 95 from Interstate Route 40 to the four (4) lane section near Westover Drive to determine improvements needed to handle both present and future traffic demands. In addition, cost estimates for the improvements will be developed and a preliminary analysis of environmental concerns will be made.

DEFICIENCIES

Geometrics X Structures X Operational X R/R Crossing _____

Accident Rate .52 Statewide Average Rate 1.74

Other

PROPOSED IMPROVEMENT

The subject project has been divided into seven (7) sections for study and scheduling purposes. Improvements proposed for these sections of State Route 58/95 consist of reconstructing the existing two (2) lane facilities. Land use, environmental concerns, the existing roadway and the design year traffic projections were considered in determining the type typical cross sections appropriate for the subject highway. Due to the variables considered, the templates recommended vary at different locations between urban and 4 and 5 lane typicals to rural 4 lane divided typicals.

Section I (length 1.4±k - 0.9± mile) begins at the existing four lane section north of the I-40 and State Route 58 (Gallaher Road) Interchange and ends at Poplar Springs Road. The typical cross-section proposed for this section consists of 2 @7.2m (24') traffic lanes, a 3.6m (12') turn lane, 2 @ 3m (10') shoulders, 2 @ .6m (2') curbs and gutters and 2 @ 2.4m (8') grass plots within 30m (100') of right-of-way. A 65km (40mph) design speed is proposed for this improvement. There is presently 30m (100') of existing right-of-way therefore only slope easements will be necessary to construct this improvement.

It is felt that the 5-lane urban template, that is recommended for this section, is the most appropriate because of the existing development. There also exists the potential for further development.

Section II (Length 3.7±k - 2.3± miles), begins at Poplar Springs Road and ends 0.6±k (0.4 mile) south of the Clinch River. The proposal for this section is to widen the existing route to the left (northwest) side leaving the right side undisturbed. The left side widening is to avoid a blue line stream that parallels the highway on the right for approximately 490m (1,600'). The typical cross section proposed for this section consists of 2 @ 7.2m (24') traffic lanes, a 3.6m (12') turn lane, 2 @ 3.6m (12') shoulder with ditches within a minimum of 45m(150') of right-of-way. A 100 kmh (60 mph) design speed is proposed.

The template proposed is recommended because the area within the study section presents both rural and urban characteristics. Presently it is built up to a certain degree and there is the potential for more development. Because of the existing development and the probability of future development continuation of the 5-lane template, proposed in Study Section I, is warranted. Because this study section is more rural in nature than Study Section I a higher travel speed will be appropriate. In order to achieve a faster design speed and meet design standards for a five-lane typical the curbs and gutters, included in the Study Section I proposal, will have to be dropped and shoulders and ditches will be utilized.

Section III (Length 2.6±k - 1.6± miles), begins 0.6±k (0.4± mile) south of the Clinch River and ends 0.5±k (0.3± mile) north of Perimeter Road. The end terminus of this study section is located at one of the entrances to the Department of Energy's K-25 Plant. Portions of the K-25 facility are eligible for the National Register of Historical Places either as individual units or as a district. This has not been determined at this time. The proposal for this section is to transition the widening from the left of the existing roadway, as proposed for Section II, to the right side within the horizontal curve at the beginning of the study section. The typical cross section proposed from the beginning of the project to Perimeter Road consist of 2 @ 7.2m (24') traffic lanes, a 3.6m (12') flush median with barrier rail, 2 @ 3.6m (12') shoulders within a minimum of 45m (150') of right-of-way. From Perimeter Road to the end of the study section geometrics of the proposed typical are the same, however, the barrier rail will not be included in the median. A 100 kmh (60 mph) design speed is proposed. The Clinch River and Bear Creek Road Bridges will be widened to accommodate the proposed typical section. Modification of the existing interchange at Bear Creek Road is proposed. The proposal is to construct a half clover leaf type interchange on the north side of the cross road. The proposed improvement will transition back into the present 4 lane roadway just north of Perimeter Road.

The typical section proposed is being recommended to minimize right-of-way requirements, to better facilitate widening the Clinch River Bridge and the interchange bridge at Bear Creek Road while accomplishing the goal of separation directional traffic flow. At the beginning of this study section the highway passes thru/beside flood plains of the Clinch River. This link of highway is also located adjacent to the Department of Energy's property which eliminates the possibility of any future development. The barrier rail is being dropped from the median near Perimeter Road to allow access for both

east and west travel to and from SR-58 and Perimeter Road. The median is also being dropped to transition into the existing adequate roadway (Study Section IV) that passes in front of the Department of Energy's K-25 facility.

Section IV (Length 1.6±k - 1.0± mile), from 0.6±k (0.3± mile) north of Perimeter Road to State Route 327 (Blair Road) is an adequate 4-lane facility, therefore no work is proposed for this section.

Section V (Length 0.6±k - 0.4± mile), from State Route 327 (Blair Road) to 0.8±k (0.5± mile) south of State Route 95 is recommended to be reconstructed to the same design standards as Section III.

This section of highway lies between two existing 4-lane sections (Study Section IV and VI) which have been determined to be adequate and will not require any improvements. There are two options for improving this section of highway. The alternate chosen is to extend the existing 4-lane barrier section that is presently in place that is included in Study Section VI. It is determined that this type template is the more appropriate because the highway passes thru a rural area that is not developed and in all probability will not be. The property belongs to the Department of Energy. As there is no need for turning movements the barrier provides a better design than a flush median and because of the short length of the section it would not be practical to add another type design.

Section VI (Length 1.6±k - 1.0± mile), from 0.8±k (0.5± mile) south of State Route 95 to 0.6±k (0.4± mile) north of State Route 95 is adequate, therefore no improvements are recommended for this section.

Section VII (Length 4.5±k 2.8± miles) begins 0.6±k (0.4± mile) north of State Route 95 and ends near Westover Drive in Oak Ridge. The typical cross section proposed for the portion from the beginning of the study section to near Wisconsin Avenue consists of 2 @ 7.2m (24') traffic lanes, a 15m (48') median, 2@ 3.6m (12') shoulders and a minimum of ~~65~~m (250') right-of-way. This section will transition at the end of the study to a typical consisting of 4 @ 3.6m (12') traffic lanes, 2 @ .6m (2') curbs and gutters, 2 @ 3m (10') shoulders and 2 @ 3m (10') grass strips and 28m (92') of right-of-way. The improvement will end at the Historic Guard House located near Westover Drive. The widening varies from side to side to avoid encroachment on wetlands and channel changes to East Fork Poplar Creek. A new structure is proposed over East Fork Poplar Creek. Care should be taken to avoid Scott Cemetery which is located on the south side of the subject route across from the Wisconsin Avenue intersection and the TVA tower that is located to the north just west of the juncture.

This 2.8± miles of the subject route passes thru rural property owned by the Department of Energy and a portion of the adjacent land is utilized as the Oak Ridge Wildlife Management Area. The median templates has been chosen partly because of the route length and there does exist a minimal number of recreational and access roads/trails throughout the study section presenting turning desires. The short 4-lane template has been chosen to provide turning opportunities at local roads that intersect the study route toward the end of the project, to better facilitate transitioning into the existing roadway

and to avoid adverse impacts to the historical g rd houses at the end terminus.

The following is a list of levels of service for each study section.

	Existing Route		Proposed Route	
	1995	2015	1995	2015
Section I	E	F	B	D
Section II	E	F	B	D
Section III	E	F	B	D
Section IV	C	E	No Work Proposed	
Section V	D	F	C	E
Section VI	B	D	No Work Proposed	
Section VII	D	E	B	D

DISPOSITION OF EXISTING ROUTE

N/A

DATA TABLE

Item	Existing	Proposed Section I
Functional Class	Rural and Urban Principal Arterial	Rural Principal Arterial
System Class	NHS	NHS
Length (Kilometers)	16.10± k	1.4± k
Length (Miles)	10.0 ± mi.	0.9± mi.
Cross Section (Meters)	2 - 4 Lane	25.2 m/ 30 m
Cross Section (Feet)	2 - 4 Lane	84'/100'
Present ADT (1995)	12,700 - 16,030	13,210 - 13,300
Future ADT (2015)	20,330 - 25,620	21,100 - 21,140
DHV	2,033 - 2,562	2,110 - 2,124
% Trucks	4%	4%
Estimated Right-of-Way Acquisition (Hectares)		0
Estimated Right-of-Way Acquisition (Acres)		0
Estimated Right-of-Way Tracts Affected		0
Estimated Family Displacements		0
Estimated Business Displacements		0
Estimated Non-Profit Displacements		0
Estimated Right-of-Way Cost		$ 100,000 *
Estimated Utility Cost Reimbursable		$ 20,000
Estimated Utility Cost Non-Reimbursable		$ 350,000
Estimated Construction Cost		$1,850,000
Estimated Preliminary Engineering Cost		$ 170,000
Total Estimated Project Cost		$2,490,000

*Estimate for construction and slope easements.

DATA TABLE

Item	Proposed Section II	Proposed Section III
Functional Class	Rural Principal Arterial	Rural and Urban Principal Arterial
System Class	NHS	NHS
Length (Kilometers)	3.7± k	2.6± k
Length (Miles)	2.3± mi	1.6± mi.
Cross Section (Meters)	2 @ 7.2m/25.2m/45m	2@ 7.2m/25.2m/45m
Cross Section (Feet)	2 @ 24'/84'/150'	2@ 24'/84'/150'
Present ADT (1995)	13,460 - 14,180	12,930 - 14,180
Future ADT (2015)	21,500 - 22,660	20,660 - 22,660
DHV	2,150 - 2,266	2,066 - 2,266
% Trucks	4%	4%
Estimated Right-of-Way Acquisition (Hectares)	6.96± HA	5.75± HA
Estimated Right-of-Way Acquisition (Acres)	17.19±	14.22±
Estimated Right-of-Way Tracts Affected	33	1
Estimated Family Displacements	12	0
Estimated Business Displacements	3	0
Estimated Non-Profit Displacements	1	0
Estimated Right-of-Way Cost	$1,820,000	$ 105,000
Estimated Utility Cost Reimbursable	0	$ 15,000
Estimated Utility Cost Non-Reimbursable	$ 695,000	$ 40,000
Estimated Construction Cost	$3,590,000	$8,925,000
Estimated Preliminary Engineering Cost	$ 325,000	$ 810,000
Total Estimated Project Cost	$6,430,000	$9,895,000

DATA TABLE

Item	Proposed Section IV Urban Principal Arterial	Proposed Section V Urban Principal Arterial
Functional Class		
System Class	NHS	NHS
Length (Kilometers)	1.6± k	0.6± k
Length (Miles)	1.0± mi.	0.4± mi.
Cross Section (Meters)	13.4m/17m/90m (Ex.) 15.8m/90m(Ex.)	2 @ 7.2m/25.2m/45m
Cross Section (Feet)	44'/56'/300' (Ex.) 52'/300'(Ex.)	2 @ 24'/84'/150'
Present ADT(1995)	12,930	16,030
Future ADT(2015)	20,660	25,620
DHV	2,066	2,562
% Trucks	4%	4%
Estimated Right-of-Way Acquisition (Hectares/Acres) *		0
Estimated Right-of-Way Tracts Affected		0
Estimated Family Displacements		0
Estimated Business Displacements		0
Estimated Non-Profit Displacements		0
Estimated Right-of-Way Cost		$ 0
Estimated Utility Cost Reimbursable		$ 0
Estimated Utility Cost Non-Reimbursable		$ 0
Estimated Construction Cost		$ 605,000
Estimated Preliminary Engineering Cost		$ 55,000
Total Estimated Project Cost		$ 660,000

*See Proposed Improvement Item

DATA TABLE

Item	Proposed Section VI	Proposed Section VII
Functional Class	Urban Principal Arterial	Urban Principal Arterial
System Class	NHS	NHS
Length (Kilometers)	1.6± k	4.6± k
Length (Miles)	1.0± mi.	2.8± mi.
Cross Section (Meters)	2@7.2m/25.6m/90m(Ex.) 10.9m/22.5m/90m(Ex.)	21.6m/28m 2@7.2m/36.6/75m
Cross Section (Feet)	2@24'/84'/300'(Ex.) 36'/74'/300'(Ex.)	72'/92' 2@24'/120'/250'
Present ADT(1995)	12,700 - 16,030	12,700
Future ADT(2015)	20,330 - 25,620	20,330
DHV	2,033 - 2,562	2,033
% Trucks	4%	4%
Estimated Right-of-Way Acquisition (Hectares)	*	22.66± HA
Estimated Right-of-Way Acquisition (Acres)		56.0±
Estimated Right-of-Way Tracts Affected		2
Estimated Family Displacements		0
Estimated Business Displacements		0
Estimated Non-Profit Displacements		0
Estimated Right-of-Way Cost		$ 590,000
Estimated Utility Cost Reimbursable		$ 0
Estimated Utility Cost Non-Reimbursable		$ 375,000
Estimated Construction Cost		$5,810,000
Estimated Preliminary Engineering Cost		$ 530,000
Total Estimated Project Cost		$7,305,000

*See Proposed Improvement Item.

DATA TABLE

Item	Proposed Total Rural and Urban
Functional Class	Principal Arterial
System Class	NHS
Length (Kilometers)	16.10± k
Length (Miles)	10.0± mi.
Cross Section (Meters)	4 - 5 Lane
Cross Section (Feet)	4 - 5 Lane
Present ADT(1995)	12,700 - 16,030
Future ADT(2015)	20,330 - 25,620
DHV	2,033 - 2,562
% Trucks	4%
Estimated Right-of-Way Acquisition (Hectares)	35.37± HA
Estimated Right-of-Way Acquisition (Acres)	87.41±
Estimated Right-of-Way Tracts Affected	36
Estimated Family Displacements	12
Estimated Business Displacements	3
Estimated Non-Profit Displacements	1
Estimated Right-of-Way Cost	$ 2,615,000
Estimated Utility Cost Reimbursable	$ 35,000
Estimated Utility Cost Non-Reimbursable	$ 1,460,000
Estimated Construction Cost	$20,780,000
Estimated Preliminary Engineering Cost	$ 1,890,000
Total Estimated Project Cost	$26,780,000

CHECK LIST OF DETERMINANTS FOR LOCATION STUDY

If any of the following facilities or ESE categories are located within the project area or corridor, place an "x" in the blank opposite the item. Where more than one alternate is to be considered, place its letter designation in the blank.

1. Agricultural land usage..... _____
2. Airport (existing or proposed)..... _____
3. Commercial area, shopping center..... X
4. Floodplains..... X
5. Forested land..... X
6. Historical, cultural, or natural landmark..... X
7. Industrial park, factory..... X
8. Institutional usages
   a. School or other educational institution..... X
   b. Church or other religious institution..... X
   c. Hospital or other medical facility..... _____
   d. Public building, e.g., fire station..... _____
   e. Defense installation..... _____
9. Recreational usages
   a. Park or recreational area..... X
   b. Game preserve or wildlife area..... X
10. Residential establishment..... X
11. Urban area, town, city, or community..Oak Ridge..... X
    Population: 27,310
12. Waterway, lake, pond, river, stream, spring..... X
    (Permit required: Coast Guard X Section 404 X
    TVA Section 26a review X NPDES X
    Aquatic Resource Alteration Permit _____)
13. Other Cemetery X
14. Location coordinated with local officials..... _____
15. Railroad Crossings..... _____
16. Hazardous Material Site.(U.G.T.)..... X

TENNESSEE DEPARTMENT OF TRANSPORTATION
DESIGN CRITERIA FOR LOCATION AND DESIGN PHASE

ROUTE State Route 58/95 ALTERNATE _____ SECTION I

REGION I COUNTY Roane PROJECT NO. _____

LOCATION: FROM: I-40

TO: Poplar Springs Road

1995 ADT	13,260
2015 ADT	21,180
PERCENT TRUCKS	4%
DHV	2,118
FUNCTIONAL CLASSIFICATION	Rural Principal Arterial
MINIMUM DESIGN SPEED	65 kmh (40 mph)
ACCESS CONTROL	N/A
MAXIMUM CURVE	Existing
MAXIMUM GRADE	Existing
MINIMUM STOPPING SIGHT DISTANCE	Existing
SURFACE WIDTH	2 @7.2m (24')
NUMBER OF LANES	4
USABLE SHOULDER WIDTH	2 @.3.6m(12')Incl.C&G
MEDIAN WIDTH	3.6m (12') turn lane
MINIMUM RIGHT OF WAY	*30m (100')Ex.
SIGNALIZATION	N/A

REMARKS: *Easement may be required outside the right-of-way limits.

TENNESSEE DEPARTMENT OF TRANSPORTATION
DESIGN CRITERIA FOR LOCATION AND DESIGN PHASE

ROUTE State Route 58/95 ALTERNATE _____ SECTION II

REGION I COUNTY Roane PROJECT NO. _____

LOCATION: FROM Poplar Springs Road

TO 0.6±k (0.4± mile) Southwest of Clinch River

1995 ADT	13,885
2015 ADT	22,175
PERCENT TRUCKS	4%
DHV	2,217
FUNCTIONAL CLASSIFICATION	Rural Principal Arterial
MINIMUM DESIGN SPEED	100 kmh (60 mph)
ACCESS CONTROL	N/A
MAXIMUM CURVE	4° - 45' (SE:0.08)
MAXIMUM GRADE	3%
MINIMUM STOPPING SIGHT DISTANCE	160m - 200m (525-650')
SURFACE WIDTH	2 @ 7.2m (24')
NUMBER OF LANES	4
USABLE SHOULDER WIDTH	2 @ 3.6m (12')
MEDIAN WIDTH	3.6m (12') Turn Lane
MINIMUM RIGHT OF WAY	* 45m (150')
SIGNALIZATION	N/A

REMARKS: *Actual right-of-way to be determined by slope limits.

TENNESSEE DEPARTMENT OF TRANSPORTATION
DESIGN CRITERIA FOR LOCATION AND DESIGN PHASE

ROUTE State Route 58/95 ALTERNATE _____ SECTION III

REGION I COUNTY Roane PROJECT NO. _____

LOCATION: FROM 0.6±k (0.4± mile) South of the Clinch River

TO 0.5±k (0.3± mile) North of Perimeter Road

1995 ADT..... 13,555

2015 ADT..... 21,660

PERCENT TRUCKS..... 4%

DHV 2,166

FUNCTIONAL CLASSIFICATION..... Rural and Urban Principal Arterial

MINIMUM DESIGN SPEED..... 100 kmh (60 mph)

ACCESS CONTROL..... N/A

MAXIMUM CURVE..... 4° - .45'(SE:0.08)

MAXIMUM GRADE..... 3%

MINIMUM STOPPING SIGHT DISTANCE.. 160m - 200m (525 - 650')

SURFACE WIDTH..... 2 @ 7.2m (24')

NUMBER OF LANES..... 4

USABLE SHOULDER WIDTH..... 2 @ 3.6m (12')

MEDIAN WIDTH..... *3.6m (12')

MINIMUM RIGHT OF WAY..... **45m (150')

SIGNALIZATION..... N/A

REMARKS: *A barrier rail will be included in the median from the beginning of the study section to west of Perimeter Road. From Perimeter Road to the end terminus the barrier rail will be excluded from the median.
**Actual right-of-way to be determined by slope limits.

TENNESSEE DEPARTMENT OF TRANSPORTATION
DESIGN CRITERIA FOR LOCATION AND DESIGN PHASE

ROUTE State Route 58/95 ALTERNATE _____ SECTION IV Excluded

REGION I COUNTY Roane PROJECT NO. _____

LOCATION: FROM 0.6±k (*0.3± mile) North of Perimeter Road

TO State Route 327 (Blair Road)

1995 ADT	12,930
2015 ADT	20,660
PERCENT TRUCKS	4%
DHV	2,066
FUNCTIONAL CLASSIFICATION	Urban Principal Arterial
MINIMUM DESIGN SPEED	Existing
ACCESS CONTROL	Existing
MAXIMUM CURVE	Existing
MAXIMUM GRADE	Existing
MINIMUM STOPPING SIGHT DISTANCE	Existing
SURFACE WIDTH	Existing
NUMBER OF LANES	Existing
USABLE SHOULDER WIDTH	Existing
MEDIAN WIDTH	Existing
MINIMUM RIGHT OF WAY	Existing
SIGNALIZATION	N/A

REMARKS: No work is proposed for this section.

TENNESSEE DEPARTMENT OF TRANSPORTATION
DESIGN CRITERIA FOR LOCATION AND DESIGN PHASE

ROUTE State Route 58/95 ALTERNATE _____ SECTION V

REGION I COUNTY Roane PROJECT NO. _____

LOCATION: FROM State Route 327 (Blair Road)

TO 0.8±k(0.5± mile) Southwest of State Route 95

1995 ADT	16,030
2015 ADT	25,620
PERCENT TRUCKS	4%
DHV	2,562
FUNCTIONAL CLASSIFICATION	Urban Principal Arterial
MINIMUM DESIGN SPEED	100km (60 mph)
ACCESS CONTROL	N/A
MAXIMUM CURVE	4° - 45' (SE: 0.08)
MAXIMUM GRADE	3%
MINIMUM STOPPING SIGHT DISTANCE	160m - 200m (525 - 650')
SURFACE WIDTH	2 @ 7.2m (24')
NUMBER OF LANES	4
USABLE SHOULDER WIDTH	2 @ 3.6m (12')
MEDIAN WIDTH	3.6m (12') Barrier Rail
MINIMUM RIGHT OF WAY	* 45m (150')
SIGNALIZATION	N/A

REMARKS: *Actual right-of-way to be determined by slope limits.

TENNESSEE DEPARTMENT OF TRANSPORTATION
DESIGN CRITERIA FOR LOCATION AND DESIGN PHASE

ROUTE State Route 58/95 ALTERNATE _____ SECTION VI Excluded

REGION I COUNTY Roane PROJECT NO. _____

LOCATION: FROM 0.8±k (0.5± mile) South of State Route 95

TO 0.6±k (0.4± mile) North of State Route 95

1995 ADT	14,365
2015 ADT	22,980
PERCENT TRUCKS	4%
DHV	2,298
FUNCTIONAL CLASSIFICATION	Urban Principal Arterial
MINIMUM DESIGN SPEED	Existing
ACCESS CONTROL	Existing
MAXIMUM CURVE	Existing
MAXIMUM GRADE	Existing
MINIMUM STOPPING SIGHT DISTANCE	Existing
SURFACE WIDTH	Existing
NUMBER OF LANES	Existing
USABLE SHOULDER WIDTH	Existing
MEDIAN WIDTH	Existing
MINIMUM RIGHT OF WAY	Existing
SIGNALIZATION	Existing

REMARKS: This section is excluded from the project.

TENNESSEE DEPARTMENT OF TRANSPORTATION
DESIGN CRITERIA FOR LOCATION AND DESIGN PHASE

ROUTE State Route 58/95 ALTERNATE _____ SECTION VII

REGION I COUNTY Roane PROJECT NO. _____

LOCATION: FROM 0.6±k (0.4± mile) North of State Route 95

TO Near Westover Drive in Oak Ridge

1995 ADT	12,700
2015 ADT	20,330
PERCENT TRUCKS	4%
DHV	2,033
FUNCTIONAL CLASSIFICATION	Urban Principal Arterial RD-TS-3A
MINIMUM DESIGN SPEED	100km (60 mph) C&G - RD-TS-6
ACCESS CONTROL	N/A
MAXIMUM CURVE	4° 45' (SE:0.08)
MAXIMUM GRADE	3%
MINIMUM STOPPING SIGHT DISTANCE	160m - 200m (525 - 650')
SURFACE WIDTH	2 @ 7.2m (24')
NUMBER OF LANES	4
USABLE SHOULDER WIDTH	2 @ 3.6m (12')
MEDIAN WIDTH	15m (48')
MINIMUM RIGHT OF WAY	* 75m (250')
SIGNALIZATION	N/A

REMARKS: *Actual right-of-way to be determined by slope limits. Transition from four lane divided section at end of project to four lanes with curbs and gutters (28m-92') right-of-way to avoid cemetery and historical property and to transition into existing roadway.

COST DATA SHEET
SECTION I

PROJECT: State Route 58/95, From I-40 to Poplar Springs Road, Roane County

LENGTH: 1.4± k (0.9± mi) CROSS SECTION: 25.2m/30m(84'/100')

Right-of-Way

Land, Improvements, and Damages (0 Hectares) (0 Acres)	$ 100,000
Incidentals.(0 Tracts)	$
Relocation Payments (0 Residences) (0 Businesses) (0 Non-Profits)	$
Total Right-Of-Way Cost	$ 100,000*

Utility Relocation

Reimbursable	$ 20,000
Non-Reimbursable	$ 350,000
Total Adjustment Cost	$ 370,000

Construction

Clear and Grubbing	$ 5,000
Earthwork	$ 95,000
Pavement Removal	$ 25,000
Drainage	$ 270,000
Structures	$ N/A
Railroad Crossing	$ N/A
Paving	$ 930,000
Retaining Walls	$ 40,000
Maintenance of Traffic	$ 25,000
Topsoil	$ 3,000
Seeding	$ 2,000
Sodding	$ 30,000
Signing	$ 5,000
Signalization	$ N/A
Fence	$ N/A
Guardrail	$ N/A
Rip Rap or Slope Protection	$ 5,000
Other Const. Items (8.5%)	$ 130,000
Mobilization	$ 115,000
10% Eng. & Cont.	$ 170,000
Total Construction Cost	$1,850,000

Preliminary Engineering (10%)	$ 170,000
TOTAL SECTION COST	$2,490,000

*Estimate for construction and slope easements.

COST DATA SHEET
SECTION II

PROJECT: State Route 58/95, From Poplar Springs Road to 0.6±k (0.4± mile) South of Clinch River

LENGTH: 3.7± k (2.3± mi) CROSS SECTION: 2@7.2m/25.2m/45m (2@ 24'/84'/150')

Right-of-Way

Land, Improvements, and Damages (6.96± Hectares) (17.19± Acres)	$1,378,000
Incidentals.(33 Tracts)	$ 94,000
Relocation Payments (12 Residences) (3 Businesses) (1 Non-Profits)	$ 348,000
Total Right-Of-Way Cost	$1,820,000

Utility Relocation

Reimbursable	$ 0
Non-Reimbursable	$ 695,000
Total Adjustment Cost	$ 695,000

Construction

Clear and Grubbing	$ 25,000
Earthwork	$ 320,000
Pavement Removal	$ 50,000
Drainage	$ 260,000
Structures	$ N/A
Railroad Crossing	$ N/A
Paving	$2,085,000
Retaining Walls	$ N/A
Maintenance of Traffic	$ 50,000
Topsoil	$ 17,000
Seeding	$ 15,000
Sodding	$ 5,000
Signing	$ 5,000
Signalization	$ N/A
Fence	$ N/A
Guardrail	$ 35,000
Rip Rap or Slope Protection	$ 10,000
Other Const. Items (8.5%)	$ 255,000
Mobilization	$ 135,000
10% Eng. & Cont.	$ 325,000
Total Construction Cost	$3,590,000

Preliminary Engineering (10%)	$ 325,000
TOTAL SECTION COST	$6,430,000

COST DATA SHEET
SECTION III

PROJECT: State Route 58/95, From 0.6±k (0.4± mile) South of Clinch River to 0.5±k (0.3± mile) North of Perimeter Road

LENGTH: 2.6± k (1.6± miles) CROSS SECTION: 2@7.2m/25.8m/45m (2@ 24'/84'/150')

Right-of-Way

Land, Improvements, and Damages (5.75± Hectares) (14.22± Acres)	$ 102,000
Incidentals.(33 Tracts)	$ 3,000
Relocation Payments (0 Residences)	$ N/A
(0 Businesses)	
(0 Non-Profits)	
Total Right-Of-Way Cost	$ 105,000

Utility Relocation

Reimbursable	$ 15,000
Non-Reimbursable	$ 40,000
Total Adjustment Cost	$ 55,000

Construction

Clear and Grubbing	$ 35,000
Earthwork	$ 940,000
Pavement Removal	$ 30,000
Drainage	$ 280,000
Structures	$3,580,000
Railroad Crossing	$ N/A
Paving	$1,655,000
Retaining Walls	$ 40,000
Maintenance of Traffic	$ 100,000
Topsoil	$ 22,000
Seeding	$ 18,000
Sodding	$ 10,000
Signing	$ 25,000
Signalization	$ N/A
Fence	$ 15,000
Guardrail	$ 390,000
Rip Rap or Slope Protection	$ 25,000
Other Const. Items (8.5%)	$ 635,000
Mobilization	$ 315,000
10% Eng. & Cont.	$ 810,000
Total Construction Cost	$8,925,000

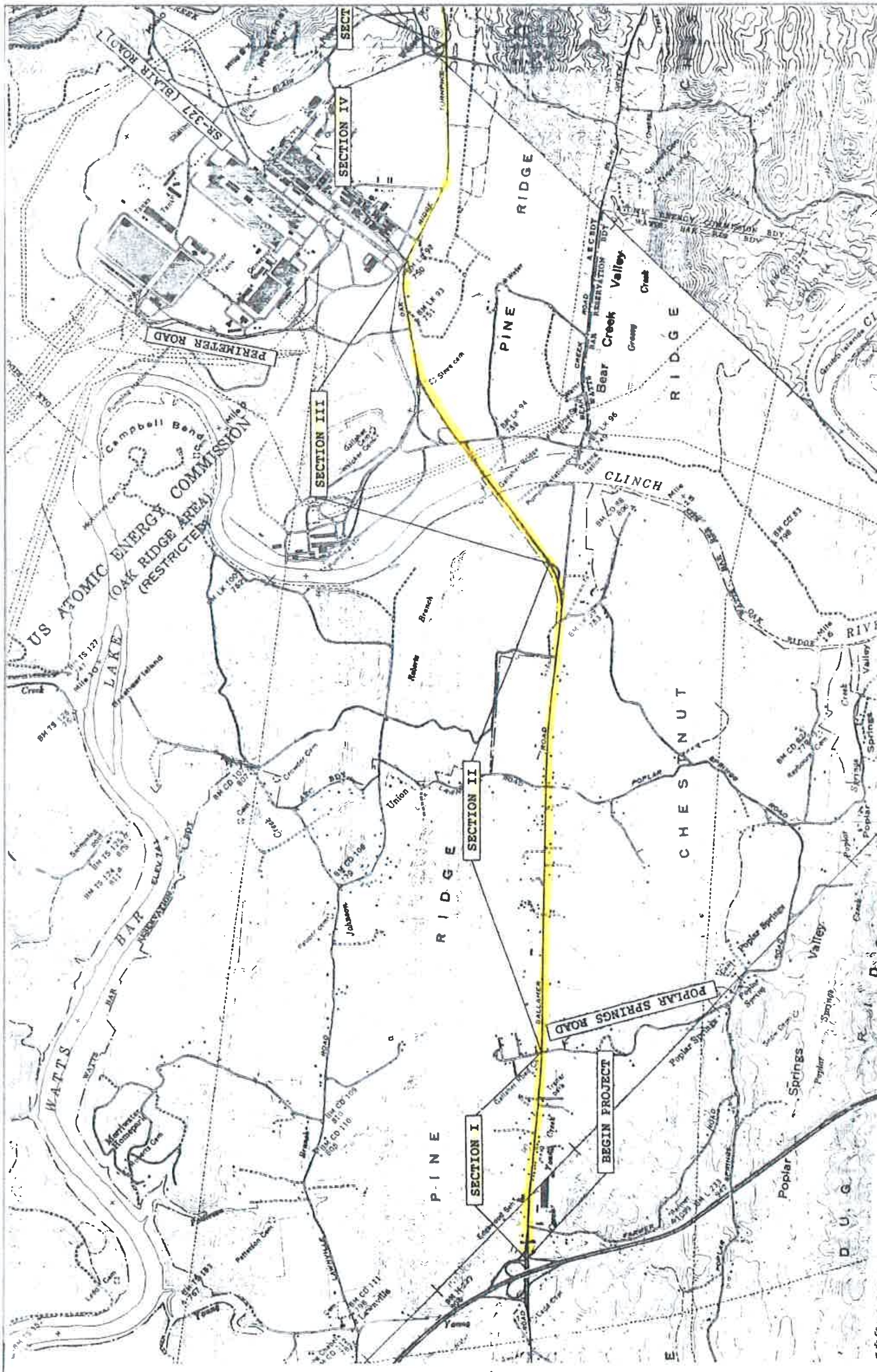
Preliminary Engineering (10%)	$ 810,000
TOTAL SECTION COST	$9,895,000

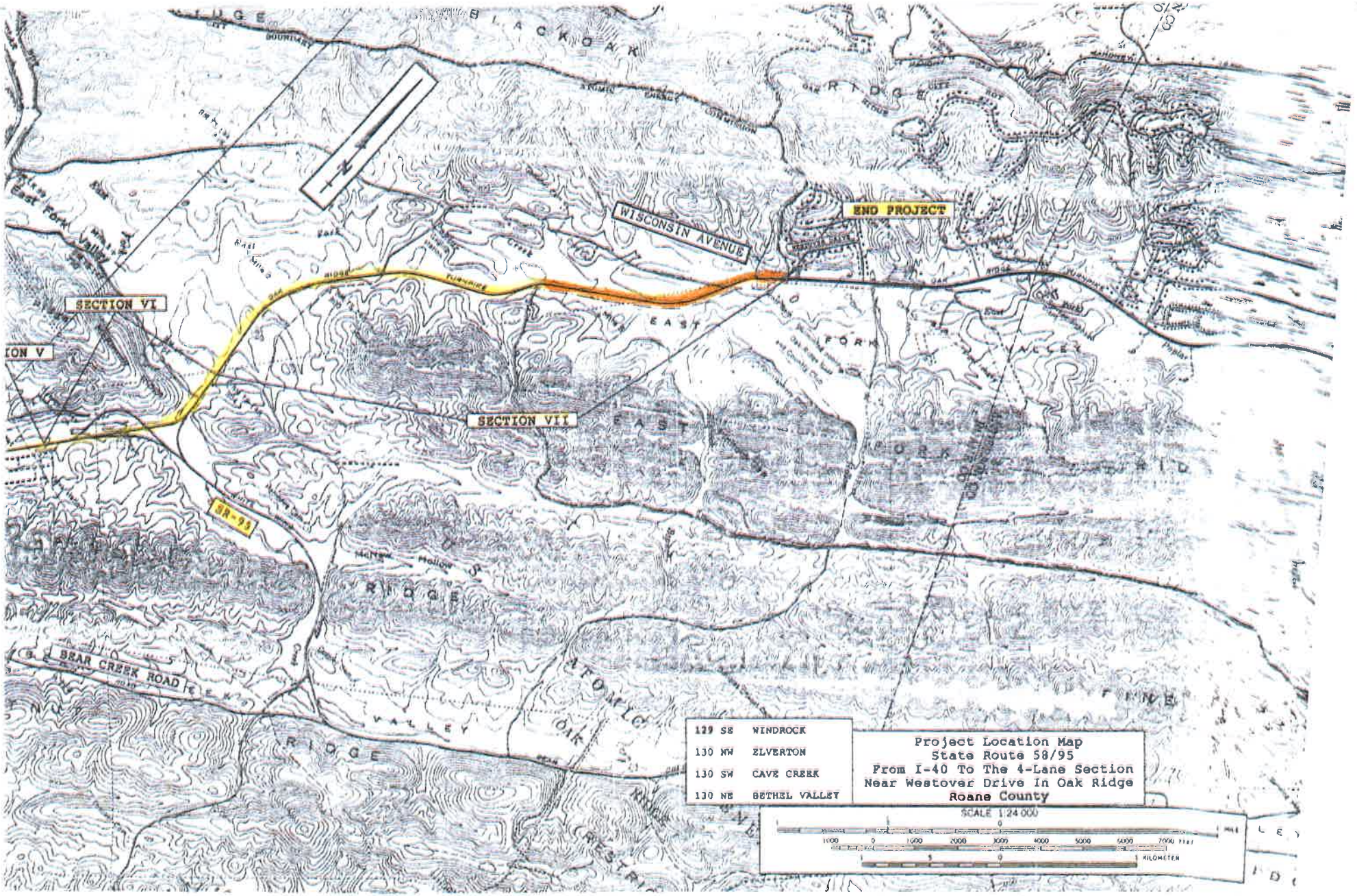
COST DATA SHEET
SECTION V

PROJECT: State Route 58/95, From State Route 327 (Blair Road) to 0.8±k (0.5± Mile) South of State Route 95

LENGTH: 0.6± k (0.4± miles) CROSS SECTION: 2@7.2m/25.2m/45m (2@ 24'/84'/150')

Right-of-Way		
Land, Improvements, and Damages (0 Hectares) (0 Acres)	$	N/A
Incidentals.(0 Tracts)	$	N/A
Relocation Payments (0 Residences) (0 Businesses) (0 Non-Profits)	$	N/A
Total Right-Of-Way Cost	$	N/A
Utility Relocation		
Reimbursable	$	N/A
Non-Reimbursable	$	
Total Adjustment Cost	$	N/A
Construction		
Clear and Grubbing	$	5,000
Earthwork	$	60,000
Pavement Removal	$	10,000
Drainage	$	75,000
Structures	$	N/A
Railroad Crossing	$	N/A
Paving	$	225,000
Retaining Walls	$	N/A
Maintenance of Traffic	$	20,000
Topsoil	$	3,000
Seeding	$	2,000
Sodding	$	3,000
Signing	$	2,000
Signalization	$	N/A
Fence	$	N/A
Guardrail	$	75,000
Rip Rap or Slope Protection	$	N/A
Other Const. Items (8.5%)	$	45,000
Mobilization	$	25,000
10% Eng. & Cont.	$	55,000
Total Construction Cost	$	605,000
Preliminary Engineering (10%)	$	55,000
TOTAL SECTION COST	$	660,000


SECTION I
SECTION II
SECTION III
SECTION IV
SECT
BEGIN PROJECT
POPLAR SPRINGS ROAD
PERIMETER ROAD
SR-327 (BLAIR ROAD)
US ATOMIC ENERGY COMMISSION
(OAK RIDGE AREA)
(RESTRICTED)
PINE RIDGE
PINE RIDGE
CHESNUT
RIDGE
CLINCH
RIVER
WATTS BAR LAKE
Campbell Bend
Bear Creek Valley


BLACKOAK RIDGE
WISCONSIN AVENUE
END PROJECT
SECTION VI
SECTION V
SECTION VII
EAST FORK VALLEY
SR-95
BEAR CREEK ROAD
OAK RIDGE
ATOMIC
129 SE WINDROCK
130 NW ELVERTON
130 SW CAVE CREEK
130 NE BETHEL VALLEY
Project Location Map
State Route 58/95
From I-40 To The 4-Lane Section
Near Westover Drive In Oak Ridge
Roane County
SCALE 1:24 000
KILOMETER

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