

APPENDIX A

SECTION A-1-GEOMETRIC DESIGN STANDARDS

INTRODUCTION	A-1
FLEXIBILITY IN DESIGN.....	A-1
SECONDARY PROJECT IMPROVEMENTS.....	A-2
ROADWAY WIDTH.....	A-3
DESIGN SPEED	A-3
DESIGN WAIVERS.....	A-4
DESIGN EXCEPTIONS	A-4
FUNCTIONAL CLASSIFICATION.....	A-4
PAVEMENT TRANSITIONS	A-6
GEOMETRIC DESIGN STANDARDS FOR RURAL PRINCIPAL ARTERIAL SYSTEM (GS-1)	A-8
GEOMETRIC DESIGN STANDARDS FOR RURAL MINOR ARTERIAL SYSTEM (GS-2)	A-9
GEOMETRIC DESIGN STANDARDS FOR RURAL COLLECTOR ROAD SYSTEM (GS-3)	A-10
GEOMETRIC DESIGN STANDARDS FOR RURAL LOCAL ROAD SYSTEM (GS-4) ..	A-11
GEOMETRIC DESIGN STANDARDS FOR URBAN PRINCIPAL ARTERIAL SYSTEM (GS-5)	A-12
GEOMETRIC DESIGN STANDARDS-URBAN MINOR ARTERIAL STREET SYSTEM (GS-6)	A-13
GEOMETRIC DESIGN STANDARDS FOR URBAN COLLECTOR STREET SYSTEM (GS-7)	A-14
GEOMETRIC DESIGN STANDARDS FOR URBAN LOCAL ST. SYSTEM (GS-8).....	A-15
GEOMETRIC DESIGN STANDARDS FOR SERVICE ROADS (GS-9).....	A-16
GEOMETRIC DESIGN STANDARDS FOR INTERCHANGE RAMPS (GS-R).....	A-17

SECTION A-2-CLEAR ZONE GUIDELINES

INTRODUCTION	A-18
ROADWAYS WITH SHOULDERS.....	A-18
ROADWAYS WITH CURB.....	A-19
CLEAR ZONE COST-EFFECTIVENESS ANALYSIS	A-22
EMBANKMENT SLOPES	A-24
HORIZONTAL CURVE ADJUSTMENTS.....	A-25
SHOWING CLEAR ZONES/ LATERAL OFFSETS ON TYPICAL SECTIONS	A-26
NON-RECOVERABLE PARALLEL SLOPES.....	A-28

SECTION A-3-TRAFFIC BARRIER INSTALLATION CRITERIA

INTRODUCTION	A-30
GUARDRAIL WARRANTS.....	A-30
BARRIER TYPE SELECTION	A-32
GUARDRAIL INSTALLATION IN URBAN SETTINGS.....	A-34
GUARDRAIL LOCATIONS ON FIELD INSPECTION PLANS	A-34
DETERMINING LOCATION OF THE ENDS OF GUARDRAIL.....	A-35
SLOPES FOR APPROACH BARRIERS.....	A-36
FIXED OBJECTS WITHIN DEFLECTION AREA.....	A-37
FIXED OBJECT ATTACHMENT/TRANSITIONS POLICY.....	A-37