

CHAPTER 19
SIGNALIZED INTERSECTIONS

CONTENTS

1. INTRODUCTION	19-1
Overview.....	19-1
Chapter Organization.....	19-2
Related HCM Content.....	19-2
2. CONCEPTS	19-4
Traffic Signal Concepts	19-4
Analysis Type.....	19-14
Spatial and Temporal Limits.....	19-14
LOS Criteria.....	19-14
Scope of the Methodologies.....	19-16
3. CORE MOTORIZED VEHICLE METHODOLOGY	19-18
Scope of the Methodology	19-18
Required Data and Sources	19-22
Overview of the Methodology	19-40
Computational Steps	19-42
4. EXTENSIONS TO THE MOTORIZED VEHICLE METHODOLOGY	19-58
Critical Intersection Volume-to-Capacity Ratio.....	19-58
Uniform Delay Calculation Using Queue Accumulation Polygon.....	19-62
Initial Queue Delay Calculation.....	19-65
5. PEDESTRIAN METHODOLOGY	19-70
Scope of the Methodology	19-70
Required Data and Sources	19-72
Overview of the Methodology	19-76
Computational Steps	19-77
6. BICYCLE METHODOLOGY	19-86
Scope of the Methodology	19-86
Required Data and Sources	19-86
Overview of the Methodology	19-88
Computational Steps	19-89

7. APPLICATIONS	19-92
Example Problems	19-92
Generalized Daily Service Volumes	19-92
Analysis Type	19-93
Use of Alternative Tools.....	19-94
8. REFERENCES	19-97

