

Practical Design Fdot

A Policy on Design Standards--interstate SystemAashtoRoadside Design GuideGravel RoadsMaintenance and Design Manual

TRB's National Cooperative Highway Research Program (NCHRP) Report 672: Roundabouts: An Informational Guide - Second Edition explores the planning, design, construction, maintenance, and operation of roundabouts. The report also addresses issues that may be useful in helping to explain the trade-offs associated with roundabouts. This report updates the U.S. Federal Highway Administration's Roundabouts: An Informational Guide, based on experience gained in the United States since that guide was published in 2000.

Traffic Engineering Handbook
Bus Rapid Transit Practitioner's Guide
Street Lighting Projects
Maintenance and Design Manual
Urban Street Design Guide

This report serves as a comprehensive guide to traffic signal timing and documents the tasks completed in association with its development. The focus of this document is on traffic signal control principles, practices, and procedures. It describes the relationship between traffic signal timing and transportation policy and addresses maintenance and operations of traffic signals. It represents a synthesis of traffic signal timing concepts and their application and focuses on the use of detection, related timing parameters, and resulting effects to users at the intersection. It discusses advanced topics briefly to raise awareness related to their use and application. The purpose of the Signal Timing Manual is to provide direction and guidance to managers, supervisors, and practitioners based on sound practice to proactively and comprehensively improve signal timing. The outcome of properly training staff and proactively operating and maintaining traffic signals is signal timing that reduces congestion and fuel consumption ultimately improving our quality of life and the air we breathe. This manual provides an easy-to-use concise, practical and modular guide on signal timing. The elements of signal timing from policy and funding considerations to timing plan development, assessment, and maintenance are covered in the manual. The manual is the culmination of research into practices across North America and serves as a reference for a range of practitioners, from those involved in the day to day management, operation and maintenance of traffic signals to those that plan, design, operate and maintain these systems.

CI/ASCE Standard 38-02 presents a credible system for classifying the quality of utility location information that is placed in design plans. The Standard addresses issues such as: how utility information can be obtained, what technologies are available to obtain that information; how that information can be conveyed to the information users; who should be responsible for typical collection and depiction tasks; what factors determine which utility quality level attribute to assign to data; and what the relative costs and benefits of the various quality levels are. Used as a reference or as part of a specification, the Standard will assist engineers, project and utility owners, and constructors in developing strategies to reduce risk by improving the reliability of information on existing subsurface utilities in a defined manner.

Guide for the Development of Bicycle Facilities

Concepts, Criteria and Procedures

Roadside Design Guide

Public-private Partnerships

Standard Guideline for the Collection and Depiction of Existing Subsurface Utility Data

Transportation agencies across the United States are afflicted with aging infrastructure, unstable funding, changing performance expectations, and programs that need updating to meet future demand effectively and efficiently. Yet, these agencies are charged with ensuring ongoing alignment between the life cycle cost, capacity, extent, condition, and function of a piece of infrastructure or a program and its intended current and future use. The TRB National Cooperative Highway Research Program's NCHRP Research Report 917: Right-Sizing Transportation Investments: A Guidebook for Planning and Programming provides a guideline for identifying right-sizing opportunities where greater social and economic value can be realized by repurposing, reusing, or fundamentally resizing existing transportation system assets.

TRB's National Cooperative Highway Research Program (NCHRP) Synthesis 414: Effective Delivery of Small-Scale Federal-Aid Projects examines streamlined methods for meeting federal funding requirements for small-scale highway projects. The report explores ways that state departments of transportation work with local agencies to implement small projects eligible for federal funding. Appendix G to NCHRP Synthesis 414 is available only in the pdf version of the report.

Roadway Lighting Design Guide

A Guidebook for Planning and Programming

Mechanistic-empirical Pavement Design Guide

Effective Delivery of Small-scale Federal-aid Projects

Geotechnical Related Development and Implementation of Load and Resistance Factor Design (LRFD) Methods

"The Transit Street Design Guide sets a new vision for how cities can harness the immense potential of transit to create active and efficient streets in neighborhoods and downtowns alike. Building on the Urban Street Design Guide and Urban Bikeway Design Guide, the Transit Street Design Guide details how reliable public transportation depends on a commitment to transit at every level of design. Developed through a new peer network of NACTO members and transit agency partners, the Guide provides street transportation departments, transit operating agencies, leaders, and practitioners with the tools to actively prioritize transit on the street."--Site Web de NACTO.

The purpose of this manual is to provide clear and helpful information for maintaining gravel roads. Very little technical help is available to small agencies that are responsible for managing these roads. Gravel road maintenance has traditionally been "more of an art than a science" and very few formal standards exist. This manual contains guidelines to help answer the questions that arise concerning gravel road maintenance such as: What is enough surface crown? What is too much? What causes corrugation? The information is as nontechnical as possible without sacrificing clear guidelines and instructions on how to do the job right.

NCHRP Report 659

Highway Subdrainage Design

Planning and Programming Manual

A Policy on Geometric Design of Highways and Streets, 2011

Florida Construction Law and Practice

When can government "take" private property for a "public" purpose? Can private property owners obtain restitution for partial takings and business damages? This manual is a comprehensive treatment of current legal practice, including detailed review of proceedings from both the condemnor's and condemnee's perspective. In addition to updated rules, statutes and recent case law, the latest edition offers. A new section on takings by utilities under federal law; nuisance abatement; interstate pipeline condemnation in federal court; vagueness; and motions in limine, motions for summary judgments,and motions to strike New material related to trial preparation, severance damages, easements, recurrent flooding, and regulatory takings Rewritten on project development and the environment; expert testimony; voir dire, the Bert Harris Act; substantive and procedural due process; equal protection; and statute of limitations Updated material on defenses; motions to amend; curing defects; appellate review; property valuation; nonmonetary benefits; and environmental concerns Elimination on public purpose; necessity; compliance to sustain a petition for condemnation; order of taking in inverse condemnation; appellate review; settlement negotiations; witness testimony; and mediation process

Introduction -- Planning framework -- Estimating BRT ridership -- Component features, costs, and impacts -- System packaging, integration, and assessment -- Land development guidelines.

Accident Investigation Manual

Florida Eminent Domain Practice and Procedure 12th Edition

Traffic Signal Timing Manual

Gravel Roads

Designing Sidewalks and Trails for Access

This synthesis reports how various agencies have acted on the various components of an access management program, what have been barriers to action, and how new efforts might improve implementation of access management strategies. Primary focus areas considered are legal and legislative bases, contents of policies and programs, implementation aspects, reported effectiveness of program implementation, and profiles of contemporary practice. This synthesis reports on the state of the practice with respect to planning, highway design, development review and permitting, and other focus areas where access management is typically incorporated. The emphasis is placed on states, but counties, municipalities, and metropolitan planning organizations are also considered.

This report contains guidelines and recommendations for managing and designing for friction on highway pavements. The contents of this report will be of interest to highway materials, construction, pavement management, safety, design, and research engineers, as well as others concerned with the friction and related surface characteristics of highway pavements.

AASHTO Guide for Design of Pavement Structures, 1993

Urban Bikeway Design Guide, Second Edition

State of the Practice in Highway Access Management

Transit Street Design Guide

Native Plants for Florida Gardens

This synthesis report will be of interest to geotechnical, structural, and bridge engineers, especially those involved in the development and implementation of the geotechnical aspects of the AASHTO Bridge Code. The synthesis documents a review of geotechnical development worldwide to compare them with the current AASHTO LRFD Bridge Code. Design procedures for foundations, earth retaining structures, and culverts are summarized and compared with the methods specified by the AASHTO code. This TRB report focuses on engineering in implementing the geotechnical features of LRFD methods. Information for the synthesis was collected by surveying U.S. and Canadian transportation agencies and by conducting a literature search using domestic and international sources. Interviews with international experts. The limited available experience in the United States and information from international practice are discussed to understand the problems that have arisen in order that solutions may be found. Based on the studies reported here, suggestions are provided for future research.

Authored by experienced construction lawyers, this manual is a comprehensive treatment of construction law. Chapters cover the rights and liabilities of parties to construction projects, the bid process involving public entities, trial preparation, and alternative dispute resolution. The manual addresses bankruptcy, bond, insurance, and damages issues, and includes a chapter on jury instructions for construction trials. Highlights of the new edition include: Specific focus on design professionals within contract and litigation Update and expansion of the chapter on construction law Particular considerations given to the 2017 and 2018 amendments to F.S. 95.11(c)(3) throughout the manual Discussion of the Middle Districts reaction to Tiara. Discussions of the Florida Supreme Court's quashing of Sebo v. American Home Assurance Co. and statutory updates that impact contractors and construction managers Detailed explanation regarding the Arbitration Act and case law regarding attorneys' fees Significant rewrite of the chapter sections regarding public-private partnerships and the sharing of information of trial preparation, specifically regarding electronic stored information Statutes, rules of court, federal rules, and case law updated throughout

Guide for the Geometric Design of Driveways

Right-sizing Transportation Investments

Innovative Contracting : Hearing Before the Subcommittee on Highways and Transit of the Committee on Transportation and Infrastructure, House of Representatives, One Hundred Tenth Congress, First Session, April 17, 2007

Riprap Design Criteria, Recommended Specifications, and Quality Control

Information Technology for Efficient Project Delivery

The NACTO Urban Street Design Guide shows how streets of every size can be reimagined and reoriented to prioritize safe driving and transit, biking, walking, and public activity. Unlike older, more conservative engineering manuals, this design guide emphasizes the core principle that urban streets are public places and have a larger role to play in communities than solely being conduits for traffic. The well-illustrated guide offers blueprints of street design from multiple perspectives, from the bird's eye view to granular details. Case studies from around the country clearly show how to implement best practices, as well as provide guidance for customizing design applications to a city's unique needs. Urban Street Design Guide outlines five goals and tenets of world-class street design:

- Streets are public spaces. Streets play a much larger role in the public life of cities and communities than just thoroughfares for traffic.
- Great streets are great for business. Well-designed streets generate higher revenues for businesses and higher values for homeowners.
- Design for safety. Traffic engineers can and should design streets where people walking, parking, shopping, bicycling, working, and driving can cross paths safely.
- Streets can be changed. Transportation engineers can work flexibly within the building envelope of a street.

Many city streets were created in a different era and need to be reconfigured to meet new needs.

- Act now! Implement projects quickly using temporary materials to help inform public decision making. Elaborating on these fundamental principles, the guide offers substantive direction for cities seeking to improve street design to create more inclusive, multi-modal urban environments. It is an exceptional resource for redesigning streets to serve the needs of 21st century cities, whose residents and visitors demand a variety of transportation options, safer streets, and vibrant community life.

Highway engineers, as designers, strive to meet the needs of highway users while maintaining the integrity of the environment. Unique combinations of design controls and constraints that are often conflicting call for unique design solutions. A Policy on Geometric Design of Highways and Streets provides guidance based on established practices that are supplemented by recent research. This document is also intended as a comprehensive reference manual to assist in administrative, planning, and educational efforts pertaining to design formulation

A Policy on Geometric Design of Highways and Streets, 2018

Roundabouts

Guidelines for Geometric Design of Very Low-volume Local Roads (ADT [less Than Or Equal to Symbol] 400)

An Informational Guide

State Product Evaluation Programs

NACTO's Urban Bikeway Design Guide quickly emerged as the preeminent resource for designing safe, protected bikeways in cities across the United States. It has been completely re-designed with an even more accessible layout. The Guide offers updated graphic profiles for all of its bicycle facilities, a subsection on bicycle boulevard planning and design, and a survey of materials used for green color in bikeways. The Guide continues to build upon the fast-changing state of the practice at the local level. It responds to and accelerates innovative street design and practice around the nation.

Florida is home to an entire library of native plants that evolved to thrive in its range of climate regions. Native Plants for Florida Gardens profiles 100 Florida native wildflowers, shrubs, vines and trees that can transform typical Florida landscapes. Striking color photography showcases species and flowering characteristics. With the expertise of the Florida Wildlife Foundation, anyone can create lovely, low-maintenance gardens that will tolerate Florida's roughest conditions, resist disease, and support biodiversity.

Highway Functional Classification

A Manual of Practice

Transportation and Land Development

Modern Geotechnical Design Codes of Practice

Guide for the Planning, Design, and Operation of Pedestrian Facilities

The ground is one of the most highly variable of engineering materials. It is therefore not surprising that geotechnical designs depend on local site conditions and local engineering experience. Engineering practices, relating to investigation and design methods site understanding and to safety levels acceptable to society, will therefore vary between different regions.The challenge in geotechnical engineering is to make use of worldwide geotechnical experience, established over many years, to aid in the development and harmonization of geotechnical design codes. Given the significant uncertainties involved, empiricism and engineering

Get a complete look into modern traffic engineering solutions Traffic Engineering Handbook, Seventh Edition is a newly revised text that builds upon the reputation as the go-to source of essential traffic engineering solutions that this book has maintained for the past 70 years. The updated content reflects changes in key industry standards, and shines a spotlight on the needs of all users, the design of context-sensitive roadways, and the development of more sustainable transportation solutions. Additionally, this resource features a new organizational structure that promotes a more functionally-driven, multimodal approach to planning, designing, and implementing transportation solutions. A branch of civil engineering, traffic engineering concerns the safe and efficient movement of people and goods along roadways. Traffic flow, road geometry, sidewalks, crosswalks, cycle facilities, shared lane markings, traffic signs, traffic lights, and more—all of these elements must be considered when designing public and private sector transportation solutions. Explore the fundamental concepts of traffic engineering as they relate to operation, design, and management Access updated content that reflects changes in key industry-leading resources, such as the Highway Capacity Manual (HCM), Manual on Uniform Traffic Control Devices (MUTCD), AASHTO Policy on Geometric Design, Highway Safety Manual (HSM), and Americans with Disabilities Act Understand the current state of the traffic engineering field Leverage revised information that homes in on the key topics most relevant to traffic engineering in today's world, such as context-sensitive roadways and sustainable transportation solutions Traffic Engineering Handbook, Seventh Edition is an essential text for public and private sector transportation practitioners, transportation decision makers, public officials, and even upper-level undergraduate and graduate students who are studying transportation engineering.

Guide for Pavement Friction

A Policy on Design Standards--interstate System