



Who is FHI?

FHI is a multidisciplinary consulting firm focused on providing quality services and products to our clients. Our staff of planners, engineers and scientists have a depth of experience on projects of many sizes for both public and private clients. Our core services include environmental planning, transportation planning, cultural resource investigations, GIS mapping and analyses, community and site planning, and public involvement. In support of our overall transportation planning and engineering capabilities, we provide a wide range of traffic services and maintain a full range of traffic analysis capabilities.

FHI's Traffic Services

- Traffic Impact Analysis
- Traffic Simulation
- Travel Demand Modeling
- Access Management
- Safety Reviews
- Parking Studies
- Traffic Calming
- Signal Optimization
- Signal and Lighting Design
- Signing/Markings/MPT
- Travel Surveys/Data Collection

Traffic Project Experience

- Corridor Studies
- Transit Station Area Analysis
- Master Planning Projects
- Municipal Review
- Interchange Studies/Design
- Bicycle & Pedestrian Plans/Projects
- Environmental Documentation
- Safe Routes to School Efforts
- Airport Planning/Access
- Statewide Systems Plans
- ITS Feasibility Planning
- Air Conformity Planning
- Regional and Local Plans of Development

Core Services

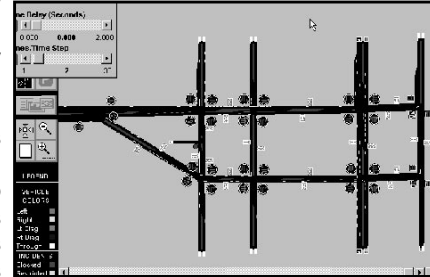
- Transportation Planning
- Environmental Planning
- Historical/Cultural Documentation
- Public Involvement
- Community/Site Planning
- GIS Analysis

Traffic Impact Analysis

FHI prepares and reviews traffic impact studies for both private and municipal clients. Our project experience encompasses both private development projects (residential, commercial, and industrial) and public projects such as campus, military base, and downtown improvement projects. FHI uses current capacity analysis methodologies, including Highway Capacity Software (HCS), Signal 2000, and Synchro for intersection analysis.

Traffic Simulation

FHI employs simulation models, primarily utilizing the software program CORSIM, to evaluate traffic operations for a variety of projects. FHI has successfully used simulation to evaluate freeways and arterial networks, as well as to assess the operational impacts of closely spaced intersections, particularly with regard to delay and queuing impacts. FHI uses CORSIM's simulation display capabilities to better explain detailed traffic analysis results to clients and the public.



Corridor Simulation, Virginia Beach

Travel Demand Modeling

FHI staff is proficient in building and updating regional transportation network models and has used them to develop travel demand projections as part of regional transportation plans. FHI is a licensed user of MINUTP and is also licensed to use VIPER software and its GIS extension to manage, edit, and display MINUTP and TP+ models.

Access Management

FHI has strong applied experience in the engineering and land use interface critical to development of a successful access management program. FHI's experience includes the development of signal plans and curb cut plans, as well as the evaluation of existing land use control regulations to suggest changes which support access management goals, as well as the preparation of draft model zoning regulations to empower planning and zoning commissions to further implement access management goals.

Safety Reviews

FHI's traffic engineers provide reviews of crash data and statistics for traffic operations studies. Crash data is graphically analyzed using representative diagrams and geometric and/or traffic control modifications are identified for locations with high crash rates. FHI also uses MUTCD signal warrants and AASHTO lighting justification procedures.



Parking Analysis, Connecticut

Parking Studies

FHI's parking experience includes demand analysis, circulation and queuing studies for parking lots and decks, determining parking needs for multi-use facilities, and providing recommendations for circulation, safety, and capacity improvements. Parking issues are also routinely addressed as an element of downtown and urban corridor studies.

Traffic Calming

FHI has been actively involved in the evaluation of traffic calming techniques on studies ranging from "Safe Routes to School" and corridor study projects to neighborhood and town-wide traffic calming efforts. Proposed traffic calming measures have included bumpouts, plantings, roundabouts, textured pavements, enhanced crosswalks, lane narrowing, speed tables, and mid-block islands.

Signal Optimization

FHI is experienced in analyzing and optimizing timing and phasing plans for traffic signals, both at isolated intersections and within coordinated systems. These services have been provided in support of signal optimization studies as well as to determine mitigation requirements for various development or roadway improvement scenarios. FHI's traffic group is proficient in the use of Highway Capacity Software (HCS), Signal 2000, TEAPAC, Synchro, TRANSYT-7F, and PASSER IV-94.

Signal and Lighting Design

FHI engineers are experienced with the design of lighting and signalization. Lighting expertise includes aesthetic, conventional, architectural, and high-mast lighting for a variety of applications. Entire signalization designs for urban, suburban, and rural applications as well as signal modifications for new entrances can be provided by FHI traffic engineers for a wide variety of locations and applications.

Signing / Pavement Markings / MPT

FHI's traffic group has been responsible for signage, pavement marking, and maintenance and protection of traffic elements for a variety of projects. We place emphasis on standards, safety, constructability, and the local needs of the business and residential community impacted by the project. FHI designers are intimately familiar with the MUTCD and provide comprehensive signing plans for interstate, arterial, and local roads. FHI also provides customized sign inventory database programs which can be tied to GIS for asset management and maintenance planning.

Travel Surveys / Data Collection

FHI has designed, carried out, and analyzed results from numerous travel surveys, including origin-destination surveys, license plate surveys, parking surveys, household travel surveys, and transit on-board surveys. In addition, we have orchestrated data collection efforts which have included vehicle occupancy counts, inventory of roadway characteristics, and travel time and delay runs. FHI also coordinates and conducts traffic count programs, including manual turning movement counts and automatic traffic recorder (ATR) counts.



Origin-Destination Survey, Connecticut

Representative Traffic Analysis Projects

- I-895 Traffic Projections and LOS Analysis, VA
- Route 202 Corridor Study/Access Management Plan, CT
- Pleasant Grove Parkway Feasibility Study, VA
- Route 6 FEIS Traffic/Land Use Studies, RI
- MDOT Statewide Bicycle and Pedestrian Plan, MD
- Bridgeport Intelligent Transportation System Feasibility Study, CT
- Southeast Suffolk Bypass Feasibility Study, VA
- Greater Hartford Signal Systems Project, CT
- Safe Routes to School, MD
- Bridgeport Intermodal Transportation Center, CT
- Dulles Rapid Transit Project Station Analysis, VA
- Woodbury Plan of Development, CT
- VDOT On-Call Transportation Planning, VA
- Avalon Green II Traffic and Noise Impact Review, NY
- Burlington Downtown Parking Study, VT
- Route 4, 10, 44 Corridor Studies/Access Management Plans, CT
- Westfield Intermodal Facility, MA
- Patterson Place Traffic Impact Study Review, NC
- VTrans Long Range Transportation Plan Update, VT
- Cleveland Inner Belt Study Parking Analysis, OH
- Randolph Downtown Circulation Study, VT
- I-64 Interchange Analysis, VA
- Hartford Neighborhood Traffic Calming Study, CT
- Naval Atlantic Fleet Headquarters Master Plan Traffic Impact Study, VA
- Longmeadow Rotary Study, MA
- Virginia Beach Convention Center Traffic Impact Study, VA
- MDOT On-Call Transportation Planning, MD
- Southington Linear Park Design, CT
- I-81 Traffic Analysis, VA
- Durham On-Call Traffic Engineering, NC
- PennDOT Sign Inventory Management System, PA
- Laskin Road Gateway Corridor Simulation, VA
- Hartford Downtown Circulation Study, CT
- Kennedy Plaza Transit Center Traffic Impact Study, RI
- Old Colony Planning Commission Transportation Growth Management Plan, MA
- Carolina Road Borrow Pit Traffic Impact Study, VA