

LITP OPTIONS ASSUMED FOR TIER I MODELING AND TESTING

MAY 1999

Note: All testing was done under the assumption of year 2020 population and employment forecasts.

Travel Demand Management (TDM)

Option 1 – Island-wide Voluntary TDM

Employers implement programs on a voluntary basis to encourage their employees to drive alone to work less often.

This Option includes:

1. Employer Support Programs
 - Car pool and transit information
 - Rideshare programs, carpools, subscription bus service
 - Preferential parking
2. Employer Participation
 - Information distribution activities
 - Transportation coordinator at one-quarter time
 - In-house ride matching services

Option 1a – Island-wide Voluntary “Smart Moves” TDM

Tax incentives would be given to employers who implement TDM on a voluntary basis.

This Option includes:

1. Employer Support Programs
 - Car pool and transit information
 - Rideshare programs, carpools, subscription bus service
 - Flextime, telecommuting, satellite work sites
 - Guaranteed ride home
 - Preferential parking
 - Transit fare subsidies, transit stops at work site, parking cash-out
2. Employer Participation
 - Information distribution activities
 - Special parking
 - Flexible work hours
 - Guaranteed ride home
 - Transportation coordinator at full time
 - In-house ride matching services

Option 2 – Island-wide Mandatory TDM

Employers would be required by law to implement TDM.

This Option includes:

1. Employer Support Programs
 - Car pool and transit information
 - Rideshare programs, carpools, subscription bus service
 - Flextime, telecommuting, satellite work sites
 - Guaranteed ride home
 - Preferential parking
2. Employer Participation
 - Information distribution activities
 - Special parking
 - Flexible work hours
 - Guaranteed ride home
 - Transportation coordinator at full time
 - In-house ride matching services

Option 3 – Island-wide Bus Transit Service/Fare Changes

This Option includes:

1. Island-wide Bus Transit Service/Fare Changes (based on initial results of the LI Bus Study)
 - Bus route gap closures, including:
 - N2 extension (serving Great Neck and Lake Success)
 - A new route serving Great Neck and Nassau Hub
 - New route via Brush Hollow Rd. serving Jericho/Syosset
 - A new route between Freeport and Roosevelt Field
 - S3B extension (connecting Melville to Babylon)
 - A new Melville-Central Suffolk route
 - A new route serving Stony Brook and Shirley/Mastic
 - S66 extension (serving county center and Riverhead)
 - A new route between Jericho and SUNY Farmingdale
 - N78 extension south of Manetto Hill Road
 - S1 extension to Sunrise Mall
 - Bus network enhancers, including:
 - Demand Responsive Services in Port Washington Area (including Plandome)
 - “Shuttle-Link” services to various LIRR train stations
 - Development of SUNY Farmingdale as a Transit Hub
 - A new semi-express between Babylon and Stony Brook
 - A new route between East Islip and Hauppauge
 - N6 express/limited service improvements
 - JFK Flyer extension to Roosevelt Field
 - A new express route serving Babylon and Roosevelt Field
 - Level of service
 - Frequency – maximum headways of 30 minutes during peak hours and 60 minutes during off-peak hours

- Span (minimum hours of service) – 6 AM to 10 PM weekdays, 7 AM to 7 PM Saturday, and 8 AM to 6 PM Sunday
 - Fare – e.g., expansion of MetroCard and Uniticket
2. Island-wide Voluntary TDM
 - Employer Support Programs
 - Car pool and transit information
 - Rideshare programs, carpools, subscription bus service
 - Preferential parking
 - Transit fare subsidies, transit stops at work site, parking cash-out
 - Employer Participation
 - Information distribution activities
 - Transportation coordinator at one-quarter time
 - In-house ride matching services

Transit System Expansion in Combination with Island-wide TDM

Option 4 - Island-wide Voluntary TDM, Island-wide Bus Transit Service/Fare Changes, & LIRR Network Strategy Plan

This Option includes:

1. LIRR Network Strategy Plan
 - Increased capacity and peak service trains
 - Additional morning trains from NYC to Long Island (reverse commute) and afternoon trains from Long Island to NYC
 - Projects to provide additional mainline track capacity
 - Increased Peak and Off-Peak Intra-Island Service
2. Island-wide Voluntary TDM and Island-wide Bus Transit Service/Fare Changes
As described in Option 3

Option 5 - Island-wide Voluntary TDM & Idealized Island-wide High- Level Transit System
(This option was tested to see where potential for transit ridership might exist.)

This Option includes:

1. High-level transit system (non-technology specific encompassing extensive route coverage, no transfer times (no waiting) between routes, frequent service, same fare (\$1.50) as existing buses)
 - East-west corridors
 - Long Island Expressway, La Guardia Airport to Riverhead
 - Southern State Parkway, JFKIA to Heckscher State Park
 - Sunrise Highway, East Islip to Patchogue
 - Nesconset Highway (Rte. 347), Hauppauge to Port Jefferson
 - Veterans Memorial Highway (Rte. 454), Dix Hills to Holbrook
 - North-south corridors
 - Meadowbrook Parkway, Freeport to East Hills

- Wantagh State Parkway, Freeport to Westbury
 - Seaford-Oyster Bay Expressway, Massapequa to Hicksville
 - Route 110, Amityville to Huntington
 - Deer Park Avenue, Dix Hills to Babylon
 - Sagtikos State Parkway, West Islip to Commack
 - Nicolls Road (CR 97), Bayport to Stony Brook
 - Frequency of service – 10-minute headways
2. Nassau Hub circulator
 - Transit service on guideway (e.g., people mover or light rail technology) consisting of a circulator loop within the business and commercial center of the Hub and also linking to the LIRR Main Line
 3. Island-wide Voluntary TDM
 - Employer Support Programs
 - Car pool and transit information
 - Rideshare programs, carpools, subscription bus service
 - Preferential parking
 - Transit fare subsidies, transit stops at work site, parking cash-out
 - Employer Participation
 - Information distribution activities
 - Transportation coordinator at one-quarter time
 - In-house ride matching services

Option 6 - Island-wide Voluntary TDM, Idealized Island-wide High-Level Transit System, & Value Pricing/ Parking Charges

This Option includes:

1. Value Pricing
 - Tolls based on distance and time of day (\$0.15 per mile assumed during peak hours)
 - All expressways and parkways, including Sunrise Highway between Rte. 109 in Babylon and the Shinnecock Canal
 - New technology (no toll barriers)
2. Employee parking charges (\$1.40 per day)
3. Island-wide Voluntary TDM and Island-wide High Level Transit System
As described in Option 5

Option 7 - Redistributed Household and Employment Growth Scenario
(Not yet developed.)

Island-wide Transportation Systems Management (TSM) in Combination with Island-wide TDM

Option 8 - Island-wide Voluntary TDM & High Occupancy Vehicle (HOV) Network

This Option includes:

1. HOV network consisting of lane additions (where new HOV lanes would be constructed) and lane conversions (where existing general use lanes would be used as HOV lanes during peak periods). The HOV lanes would be reserved for passenger cars with 3 or more occupants.
 - HOV Lane additions
 - Northern State Parkway, from Wantagh State Parkway to Rte. 454
 - Southern State Parkway, from Hempstead Ave. (Exit 17) to Sagtikos State Parkway
 - Sunrise Highway, from Phyllis Dr. to William Floyd Pkwy
 - Meadowbrook Parkway, from Southern State Parkway to Northern State Parkway
 - Sagtikos State Parkway, from Southern State Parkway to Northern State Parkway
 - CR 97 (Nicolls Road), from Rte 27A to Rte. 25A
 - Route 109 (Babylon Farmingdale Road), from Sunrise Highway to Southern State Parkway
 - HOV Lane conversions
 - Northern State Parkway, from Cross Island Parkway to Wantagh State Parkway
 - Southern State Parkway, from Fletcher Av. (Exit 14) to Hempstead Ave. (Exit 17)
 - Seaford-Oyster Bay Expressway, from Southern State Parkway to LIE
 - Sunrise Highway, from Route 109 to Phyllis Dr.
2. Island-wide Voluntary TDM
 - Employer Support Programs
 - Car pool and transit information
 - Rideshare programs, carpools, subscription bus service
 - Preferential parking
 - Employer Participation
 - Information distribution activities
 - Transportation coordinator at one-quarter time
 - In-house ride matching services

Option 9 - Island-wide Voluntary TDM, HOV Network, & Express Bus Transit
(Not yet tested.)

This Option includes:

1. HOV network, as described in Option 8, in combination with express buses operating in HOV lanes along the following highways:
 - Long Island Expressway
 - Southern State Parkway
 - Meadowbrook Parkway
 - CR 97 (Nicolls Road)
 - Sunrise Highway
2. High speed ferry, Glen Cove to Manhattan
3. Island-wide Voluntary TDM
 - Employer Support Programs
 - Car pool and transit information
 - Rideshare programs, carpools, subscription bus service

- Preferential parking
- Transit fare subsidies, transit stops at work site, parking cash-out
- Employer Participation
 - Information distribution activities
 - Transportation coordinator at one-quarter time
 - In-house ride matching services

Option 10 - Island-wide Voluntary TDM, & HOV/HOT (High Occupancy/Toll) Network

This Option includes:

1. HOV network consisting of lane additions (where new HOV lanes would be constructed) and general use lane conversions (where existing general use lanes would be used as HOV lanes during peak periods). The LIE HOV lanes would be used as HO/T lanes. The HOV lanes would be reserved for passenger cars with 3 or more occupants. The HO/T lanes would be reserved for passenger cars with 3 or more occupants at no charge and for passenger cars with 2 occupants at \$1.50 charge. Single occupant cars would be prohibited from using the HO/T lanes.
 - HOV Lane additions
 - Southern State Parkway, from Hempstead Ave. (Exit 17) to Sagtikos State Pkwy
 - Sunrise Highway, from Phyllis Dr. to William Floyd Pkwy
 - Meadowbrook Parkway, from Southern State Pkwy to Northern State Pkwy
 - Sagtikos State Parkway, from Southern State Pkwy to Northern State Pkwy
 - CR 97 (Nicolls Road), from Rte 27A to Rte. 25A
 - Route 109 (Babylon Farmingdale Road), from Sunrise Hwy to Southern State Pkwy
 - Long Island Expressway HOV lanes conversion to HO/T lanes, from Exit 32 to Exit 64
 - HOV Lane conversions
 - Northern State Parkway, from Cross Island Pkwy to Wantagh State Pkwy
 - Northern State Parkway, from Wantagh State Pkwy to Rte. 454 (all lanes)
 - Southern State Parkway, from Fletcher Av. (Exit 14) to Hempstead Ave. (Exit 17)
 - Seaford-Oyster Bay Expressway, from Southern State Pkwy to LIE
 - Sunrise Highway, from Route 109 to Phyllis Dr.

2. Island-wide Voluntary TDM
 - Employer Support Programs
 - Car pool and transit information
 - Rideshare programs, carpools, subscription bus service
 - Preferential parking

 - Employer Participation
 - Information distribution activities
 - Transportation coordinator at one-quarter time
 - In-house ride matching services

Option 11 - Island-wide Voluntary TDM, & General Purpose Roadway Widening

This Option includes:

1. Add an additional general purpose lane in each direction on:
 - Northern State Parkway, from Wantagh State Pkwy to Rte. 454
 - Southern State Parkway, from Hempstead Ave. (Exit 17) to Sagtikos State Pkwy
 - Sunrise Highway, from Phyllis Dr. to William Floyd Pkwy
 - Meadowbrook Parkway, from Southern State Pkwy to Northern State Pkwy
 - Sagtikos State Parkway, from Southern State Pkwy to Northern State Pkwy
 - CR 97 (Nicolls Road), from Rte 27A to Rte. 25A
 - Route 109 (Babylon Farmingdale Road), from Sunrise Hwy to Southern State Pkwy

2. Town/County/State requested roadway widening (increases in number of through travel lanes, excluding intersection turn lanes and two way left turn lanes)
 - Town of Brookhaven
 - William Floyd Pkwy (CR 46), from Rte. 27 to Rte. 25
 - Patchogue-Mt. Sinai Rd. (CR 83), from Rte. 27 to Rte. 25A
 - Route 112, from Rte. 27 to Rte. 347
 - Route 25, from Moriches Rd. to Wading River-Manorville Rd.
 - Route 27, from Townline Rd. to CR 31
 - Town of Smithtown
 - Veterans Memorial Highway (Rte. 454), from Rte. 25 to Rte. 347
 - Hauppauge Rd., from Rte. 25/25A to Singer Lane
 - Old Willets Path, from Rte. 347 to Motor Pkwy (CR 67)
 - Town of Oyster Bay
 - Massapequa-Hicksville Rd. (Rte. 107), from Merrick Rd. to Boundary Ave.
 - Town of Brookhaven/Town of Smithtown
 - Route 347, from Northern State Parkway to Rte. 112
 - Suffolk County/ Town of Brookhaven
 - Nicolls Rd. (CR 97), from LIE to Rte. 25A

3. Town of Oyster Bay requested roadway reduction (reduction in number of lanes)
 - Broadway/N. Broadway Ave., from Sunrise Hwy to Boundary Ave.

4. Island-wide Voluntary TDM
 - Employer Support Programs
 - Car pool and transit information
 - Rideshare programs, carpools, subscription bus service
 - Preferential parking

 - Employer Participation
 - Information distribution activities
 - Transportation coordinator at one-quarter time
 - In-house ride matching services

Roadway Extensions in Combination with Areawide TDM & Island-wide TSM

Option 12 – Same as described in Option 11 plus General Purpose Roadway Extensions

This Option includes:

- Extensions of existing roadways
 - Seaford-Oyster Bay Expressway (Rte. 135), from Rte. 25 to Rte. 25A
 - Bethpage Parkway, from Central Ave. to Seaford-Oyster Bay Expwy at Broadway
 - LIE Service Roads, from Exit 63 (North Ocean Ave.) to Exit 67 (Yaphank Ave.)
 - Suffolk Ave. (CR 100), from Commack Rd. (CR 4) to Fifth Ave. (CR 13)

Option 13 – Same as described in Option 12 plus Long Island Sound Bridge

- Long Island Sound Bridge, from William Floyd Pkwy to New Haven, CT, or
 - Long Island Sound Ferry, from Shoreham to New Haven, CT
- Or,
- Long Island Sound Bridge, from Sunken Meadow Parkway to Rte. 95/1 near Westport, CT

NOTES

1. Each of the above options might be further enhanced if construction of an intermodal rail-truck terminal within central Long Island could divert a significant number of long-haul truck shipments onto rail. This would be particularly true if those shipments would otherwise be carried by trucks on the highway system during peak periods. The market potential for this peak period freight diversion must be carefully explored before an estimate can be made. The LITP2000 study team is working closely with another study team (Cross Harbor Freight Study) to make these estimates. As appropriate, this will be evaluated carefully during subsequent LITP2000 testing.
2. Bicycle and Pedestrian travel improvements will also enhance each of the options. The effects of bicycle and pedestrian travel improvements on managing traffic congestion are very difficult to measure technically. Therefore, appropriate recommendations from the LITP2000 Subcommittee on Special Travel Needs will be advanced as improvements to Long Island's quality of life.
3. Intelligent Transportation System (ITS) treatments will be added during the Tier II level testing, which will begin in the Fall. ITS treatments will include ramp metering on all entry ramps to expressways and parkways and coordinated traffic signal systems, as appropriate and feasible.