Comprehensive Bus Route Analysis and Service Development for the Suffolk County Transit Public Bus System

Interim Report: Service Proposals

Submitted to:
Suffolk County
Department of Public Works
Transportation Division

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INTRODUCTION

The past decade has been one of considerable change in Suffolk County and this dynamic situation is expected to continue in the future. This has included growth in population, jobs and activity centers that generate travel and the need for increased transit access. In addition, the characteristics of Suffolk County are changing in a manner which may place an increased responsibility on the bus system to meet mobility needs. To respond to this situation, Suffolk Transit (ST) has embarked on an ambitious program to analyze individual bus routes and the overall bus system. Based on this evaluation, a comprehensive public transportation development plan will be prepared to guide transit’s future.

To prepare this public transportation master plan, a work program of several sequential tasks will be undertaken. Initial efforts will be oriented to developing a description of the current bus system and the setting in which it operates. Utilizing this information, an evaluation of the present system will be undertaken in terms of its efficiency and effectiveness and various measures that affect ST customers. Previous reports and analyses, such as the Long Island Bus Study and its proposals, will be considered. Based on these inputs, various proposals will be formulated ultimately leading to the delineation of a preferred plan. Ongoing with these activities, issues related to funding will be considered along with efforts to obtain input from the community on transit issues.

To solicit comments throughout the study process, interim reports will be prepared at key study milestones. This should encourage dialogue and discussion on study findings as they become available. This interim report presents a set of proposals that would change the current bus routes in terms of alignment and coverage as well as call for implementation of entirely new bus lines. The proposals also make suggestions with regard to the frequency and span of service. Two points are worth noting at the outset regarding the changes documented in this interim report. First, the proposals are preliminary in nature and would be refined as the planning and review process continues. Second, the proposals represent an ambitious program of service expansion and enhancements that will require several years to implement. At this time, no attempt has been made to assign priorities to how the various proposals should be staged.
SERVICE PROPOSALS

A wealth of information has been gathered on the existing bus system and the transportation setting in which it operates. These data have consisted of quantitative items as well as views and perceptions of people involved with transportation and development in Suffolk County. Based on this input and consideration of policy parameters, a series of route and service proposals have been formulated. One observation at the outset is that major portions of the Suffolk County fixed route bus system appears well suited to the service area in which it operates and the markets which it serves. Accordingly, in some areas, radical changes to the network are not suggested since it could jeopardize current ridership levels. In other parts of Suffolk County more significant changes are suggested to improve bus service. Accordingly, a series of proposals are presented which include both minor and major revisions to existing routes and suggested new bus lines to respond to future growth.

At this stage of the analysis, the objective is to solicit comments and promote dialogue that will ultimately lead to a recommended plan. This interim report presents the input data, planning precepts that influenced the planning process and service proposals for consideration.

Service Development Process

The analysis was based on a rigorous review of existing services and potential future markets. As such, it delineated problem areas that warranted remedial action as well as opportunities that should be exploited. A considerable amount of information was obtained and analyses conducted, which served as vital input to the service development process. Further, planning precepts were postulated that provide policy inputs to the analysis. Each of these important considerations to the planning process is summarized in this section.

Service Inputs - A number of inputs were considered in preparing the program of public transportation options for the community. They consisted of technical analyses as well as opinions and views of riders and community representatives. Each of these inputs, many of which were documented in previous interim reports are briefly described below:

- Service Area Characteristics - Utilizing U.S. Census data and information provided by the Suffolk County Planning Department, the ST service area was described in terms of population concentrations and the characteristics of residents. Of particular interest were communities where transit need was the greatest. The locations of major generators (i.e., major employers, shopping centers, schools and hospitals) were identified, along with the appropriate dimensions. Journey to work
information provided data on commuting patterns in terms of their geographical distribution and mode choice.

- **Existing Transit System** - A description of the current bus system was presented in terms of key operating, ridership and financial statistics as well as cost effectiveness and efficiencies measures were documented for the last five years. In addition, funding from local, state and federal sources were delineated for both operating assistance and capital expenditures during the past few years.

- **Ride Check Surveys** - As part of another study effort commissioned by ST, data was gathered on current ridership patterns. Survey personnel recorded passenger ons, offs and time at each bus stop. Every bus trip for a representative weekday and Saturday was surveyed with the results comprising an extensive data base. The data indicates ridership concentrations, segments with underutilization and schedule adherence.

- **Stakeholder Interviews** - The consultant interviewed a broad spectrum of community leaders to assess their views on the current public transportation system, community needs and proposals for the future. Various topics were used to guide the discussions, but participants were free to make any suggestions or comments.

- **Route Diagnostics Analysis** - Each bus route was examined in terms of key operating and financial measures with the objective of assessing relative efficiency and effectiveness. Several techniques were applied to gauge the balance between bus system supply and demand. As might be expected, the performance varies widely among the five bus routes.

- **Service Guidelines** - Approximately one dozen guidelines were formulated that can be used to assess the current system and provide a basis for service changes. Criteria were specified that relate to the rider, ST as the service sponsor and the broader community in Suffolk County. The guidelines were grouped into four categories: service coverage, patron convenience, fiscal condition and passenger comfort.

- **Driver Meetings** - Meetings were held with drivers at each of the contractors that provide service under contract to Suffolk County. Project staff met with drivers during their report times at the garage to provide input for the service improvement program. Given their duties, they provide a useful perspective on the current bus system and desirable changes. Various suggestions were made regarding route alignments and level of service.
• **Community Outreach** - Meetings were held in Hauppauge and Riverhead during both afternoon and evening hours to solicit comments of riders and residents. The meeting format was an open house where participants could easily communicate their comments and suggestions to the project team.

• **Other Transit Studies** - A number of transit analyses have been performed in the past or are currently underway. Previous studies include the Long Island Bus Study and a two-part report (i.e., Policy Recommendations and Bus Routing and Service Recommendations) to the Suffolk County Legislature. Two analyses that are still underway are the Planning and Assessment Activities for a Coordinated Bus and Rail Network on the East End of Long Island and the Modernization Study for HART Bus Operations.

• **Staff Meetings** - Discussions have been held with Suffolk County transportation staff to present findings as they became available. In particular, a work session was held to review initial concepts and proposals for the ST bus network.

• **Field Reconnaissance** - Hundreds of miles of field trips were conducted throughout the area to gain a first-hand understanding of existing transit operating characteristics as well as the layout of present and future development. During the course of these investigations, land use, key generators, roadway characteristics and other noteworthy items were recorded.

The discussion above indicates the extensive input to the planning process. It included technical analyses that examined the existing Suffolk County bus system and the setting in which it operates.

**Planning Precepts** - Having assembled the comprehensive and detailed database described previously, the next step in the process was to formulate principles that would guide the development of service proposals. They provide a policy framework for the service plan and are summarized below:

• **Density of Development** - Suffolk County contains a wide variety of land use and development patterns that range from urban, suburban and rural which generate varying opportunities for public transportation. Portions of Suffolk County are comprised of areas where development is not sufficiently concentrated to support some level of fixed route bus service. Public transportation works best with higher density of development and linear concentrations of residential and other land uses.

• **Transit Friendly Design** - Related to the point above, most development is not designed to encourage transit use. This would include roadway geometrics that
permit bus operations, access to new developments by more than a single street, sidewalks that permit convenient access to bus stops, building frontages near streets where buses operate and installation of amenities (e.g., shelters). Much of the new development does not have these transit friendly attributes. Also, growth is expected to take place in outlying areas, which often are not within existing transit coverage areas.

• **Travel Modes** - The two primary public transportation modes are bus service provided by Suffolk County and commuter rail lines operated by the Long Island Rail Road. The former is primarily oriented to local trips within Suffolk County and to a limited extent, service in adjacent areas of Nassau County. The LIRR serves longer trips of Suffolk County residents mostly to New York City, although reverse commute travel is an increasing market segment.

• **Multiple Transit Agencies** - While Suffolk County is the largest bus system in Suffolk County, it is recognized that coordination should be achieved with other transit operators. This would include Huntington Area Rapid Transit (HART), Long Island Bus and the LIRR. In addition, Suffolk County operates a demand responsive service for persons with disabilities while Towns operate paratransit services for senior citizens and other eligible groups.

• **Dispersed Travel Patterns** - The decentralized nature of development results in travel desires which are dispersed throughout Suffolk County. This requires the bus system to serve multiple corridors in such a way that residents can travel from their home to locations in all directions.

• **Multi-Nucleated System** - Notwithstanding the comments above, development has taken place in areas that reflect the traditional town centers as well as more recent suburban type projects. Traditional downtown areas, such as Main Street in Huntington and Riverhead, along with major shopping centers (e.g., Walt Whitman mall), are logical places to concentrate bus service. Also, the LIRR stations provide a convenient place to establish a hub for transit services.

• **Service Area Dimensions** - The length of Suffolk County indicates the extent of the geographical area that needs coverage. This mandates considerable transit resources to provide coverage and convenient access of the bus system. In turn, the relatively long cycle times requires more buses to maintain a reasonable headway.

• **Simplicity** - The current route structure can be confusing to both existing and new riders because of the number of routes and geographical extent of the bus system. To remedy this situation, Suffolk County maintains the same alignment with few
branches, turnbacks and variations. This approach is preferred and future route proposals should incorporate this feature in any new service proposals.

- **Defined Corridors** - To the extent possible, bus routes should be continued on the same roadway to provide a clearly defined transit corridor. This readily identifies a bus route’s coverage and can be more readily understood by riders.

- **Timed Transfer** - Currently, there is some schedule coordination between routes. This concept should be strengthened with buses operating in a “pulse-scheduled” arrangement where buses arrive and depart a transfer location. This enables riders to transfer from one route to another without a lengthy waiting period. In view of the prevailing headway policy (i.e., buses every 30 or 60 minutes), this arrangement for Suffolk County bus routes is viewed as desirable.

- **Coverage** - In some instances, the current bus system operates along roads and streets that do not provide sufficient access from adjacent communities. To the extent possible, bus routes should attempt to maximize penetration of these areas. However, it should be recognized that some areas would not warrant fixed route buses services.

- **Directness** - In some cases the route diverts from the primary alignment to serve a specific location. While this affords transit access where walking distances are excessive and no sidewalks provided, it also results in circuitous journey for many riders. In similar manner, routings to concentrations of senior citizens have resulted in deviations form the primary alignment. A balance needs to be achieved between attracting riders and at the same time not discourage new riders because of lengthy travel times.

- **Supply and Demand Balance** - Transit resources are finite and decisions to provide service in one area implies less service somewhere else in the system. For this reason, transit resources should be allocated to where there is current riders or the potential to attract new riders. The route diagnostics analysis indicated wide variations in individual route performance.

This interim report is organized in two parts. The first are general observations that apply to the entire system and have broad implications. The second part lists each existing route and the suggested changes followed by the proposed new routes.
General Proposals

As noted above, a number of changes are suggested for Suffolk Transit which apply broadly to the entire system and all bus routes. The general observations are also reflected in the specific route changes. For the most part, they relate to service changes, but in some cases, they are oriented to making the system more user friendly and easier to navigate for not only current riders, but new potential riders. Each of these topics is presented below.

**Frequency of Service** - Presently, the Suffolk Transit system operates with “user-friendly” headways where buses tend to operate every hour or, in some cases, every half hour. This approach also can facilitate transfers, which are important since bus service is typically one or two buses an hour. The plan does not call for proposing any major changes to this approach to specifying headways. Nonetheless, some proposals suggest an increased frequency of service, particularly on routes where there appears to be an opportunity to increase ridership or relieve overcrowding. It should be noted that, in some cases, bus routes may not have user-friendly headways because their level of ridership demands only that they provide “lifeline” service by operating one vehicle on a cycle time headway.

**Span of Service** - Most Suffolk Transit routes require that their span of service be lengthened in order to accommodate employment opportunities at the various shopping centers served by the system. The following “strong” bus routes, based on the route diagnostics analysis and other input, should operate with an extended span of service (i.e., at least as long as the recommended service guideline or possibly until 10:00PM, whichever is later) so that the various shopping centers are served past their closing times. This allows employees the ability to return home using the bus system. These routes would still maintain their existing evening service frequency while operating a lengthier span of service. This would include the following Suffolk Transit routes: S1, S20, S23, S27, S33, S40, S41, S42, S45, S54, S58, S60, S61, S63, S66, S68, S69, S92, 1A, 2B, 3A, 3B, 3C and 3D.

In addition, some Suffolk Transit bus routes should also have their spans of service extended to better serve the various shopping centers in the service area. For these routes, the frequency of service (i.e., wider headways) would be reduced during their lengthened span of service in order to save effectively use operating resources. These Suffolk Transit bus routes are the S29, S47, S62, 6A, 7A, 7B, 10B and 10C.

A significant departure from the current operating practice is the provision of Sunday service on selected bus routes. This was proposed in the service guidelines and seems appropriate in a relatively large system serving a large population. Based on a review of the route diagnostics results as well as the relationship of weekday and Saturday ridership levels and productivity measures from the ride check data, it is proposed that the following bus routes operate service on
Sundays: S1, S20/S40, S23, S25, S33, S41, S42, S45, S54, S58, S61, S63, S66, S69, S92, 2A, 2B, 3A, 3B, 3C, 3D, 7D and 10C.

**Transit Centers** - There are several opportunities to reinforce current bus focal points and create new transit hubs which could be located on off-street sites and that would offer places where passengers could comfortably transfer among the various Suffolk Transit bus routes serving them, with the provision of various amenities. These might include passenger waiting shelters, benches, and passenger information materials. Some of the larger centers would also likely have indoor climate-controlled waiting areas for the passengers. Many of the MTA Long Island Rail Road stations may be good locations for possible upgraded “transit centers” in that they provide off-street loading and unloading areas as well as the opportunity for intermodal transfers. These transit centers would be located at:

- Walt Whitman Mall
- Smith Haven Mall
- Hauppauge County Center
- Bay Shore/Mechanicsville Service Road/South Shore Mall area (or near the BayShore LIRR Station)
- Riverhead
- Brentwood
- Ronkonkoma LIRR Station
- Patchogue LIRR Station

Any Suffolk Transit bus routes serving these locations would be modified to serve these new transit centers. To the extent possible, service at these locations would be “pulsed” to facilitate transfers among the various bus routes serving them. As part of the Long Island Bus Study, it was recommended that the SUNY Farmingdale campus be developed as a “hub” for the Suffolk Transit system; however, this location does not appear suitably located for such a facility. Possibly, an alternate site (e.g., the new Republic Airport LIRR station) could be found.

**Feeder Bus Routes** – The Long Island Bus Study also recommended a new series of feeder bus routes providing access to the LIRR stations in both Nassau and Suffolk Counties. The service would be dedicated to the feeder function since service would be designed to meet specific trains. Currently, HART operates two bus routes that operate in this fashion. There are other examples in the region, such as the CTC and RailLink services connecting with the MTA Metro-North Railroad. These services typically have relatively low productivity and farebox recovery and mandate a substantial commitment of resources and financial support. While the proposals presented here attempt to integrate bus and rail services, the preliminary plan does not call for a series of “Fast Link” bus routes, with the exception of the proposal for the Babylon Fast Link services.
Running Time Adjustments - At the outset, it should be noted that any running time issues identified as part of the earlier phase of the study process would be addressed, and these adjustments would be made to each bus route as necessary. These adjustments are noted in the following section of this document during the discussion of each route proposal. The comments and suggestions related to running time adjustments and related issues are the result of analysis of the ride checks compiled and summarized in the “Ridecheck Plus” data provided by Suffolk County.

It should be noted that the running time adjustments are based on the existing Suffolk Transit bus routes and do not necessarily assume that any of the proposed modifications will be implemented. They are intended to illustrate the modifications required to operate the current Suffolk Transit system’s bus routes in a more efficient and effective manner and assure on-time performance.

Timetable Format - In the future, Suffolk Transit will need to determine how it wishes to reformat its current bus schedules to accommodate the provision of Sunday service as well as to possibly differentiate between the schedule for weekday service and services on weekends. Also, a revised format could result in the schedule data and schematic routes maps that are more user friendly and attractive.

If Suffolk Transit were to maintain the number of timepoints it currently utilizes, the timetables could become too large and unwieldy. One possible strategy to reduce the overall size of the timetables is to reduce the number of timepoints. Currently, Suffolk Transit utilizes timepoints as little as one or three minutes apart – a better standard would be to utilize timepoints eight to ten minutes apart. Moreover, the suggested time interval between time points is common in the industry and allows patrons to interpolate the bus arrival/departure time for their specific trip.

Two other points related to the Suffolk Transit time tables are the use of uniform times between timepoints for different operating periods and days of service. Also, in many routes, uniform headways are not maintained which appears to be based on the desire to provide a meal break to drivers. This also disrupts the clockface headways on some bus routes. Since Suffolk Transit contracts for the service, it does not prepare drivers’ runs which is the responsibility of the operators. They should be responsible for providing relief to drivers, but not at the expense of riders who should expect uniform headways. This is particularly the case since headways are typically relatively wide and this results in larger gaps in service during the midday.

One minor point is that in reviewing the timetables, some typographical errors were observed and pointed out in this memorandum. These errors are relatively limited in view of the number of routes and the volume of printed materials.
Route Nomenclature - The analysis has not undertaken a wholesale examination of the manner in which Suffolk Transit’s bus routes are identified, particularly from a marketing standpoint and the ease of use and comprehension of the bus system. Nonetheless, the current method of identifying bus routes as either “Main Line” or “Feeder” bus routes appears to be inaccurate and does not always reflect the nature of the service being provided. It would seem appropriate to assign a unique number to each route and use the S prefix. The geographical identity (e.g., S for Suffolk, N for Nassau and Q for Queens) is a consistent approach to route nomenclature.

Existing Route Proposals

The proposals for Suffolk Transit’s bus routes are described in this section of the document. These proposals include a variety of items such as modifications to alignment, frequency, frequency, span and running time. The main line routes are presented first, followed by the feeder bus lines. The last set of proposals are for new routes which attempt to provide linkages where none currently exist as well as respond to a frequent suggestion for more north-south service. As noted previously, some of the new route proposals are ambitious and would be slated for the latter portion of the implementation period.

Two concluding points relate to planning activities underway on the East End by the Volpe Transportation System Center and the use of other modes. While not specifically addressed at this stage of the preliminary analysis since the focus is on the Suffolk Transit system, there will be coordination between the current and East End planning activities. In a similar manner, the current study will be coordinated with an ongoing review of the HART bus system. Also, consideration should be given to demand responsive replacement service to the current bus system. This could include dial-a-ride, ride request service and possibly shared ride programs (i.e., carpool and vanpool). The preliminary proposals do not call for flex route such as route and point deviation.
S1 Amityville Railroad-Halesite

Running Time Adjustments to Existing Route

In addition to any time needed for the proposed route extension, on weekdays, northbound trips lose 3 to 10 minutes between Amityville Railroad and North Amityville (i.e., the first two time points). A minimum of three additional minutes is needed to maintain schedules.

Nearly all northbound trips get three minutes between North Amityville and East Farmingdale but the 6:00AM trip gets five minutes without any explanation.

All but one trip (i.e., 6:00AM) get 12 minutes between Melville Mall and Walt Whitman Mall; only six minutes are needed.

Without any detail of the operator’s run construction it is difficult to be certain, however, it appears certain trips get no recovery while others get five minutes at the Halesite terminus. If the running time is cut as noted above, it should be placed into recovery time and not removed from the schedule. A trip more than an hour long serving two malls, two railroad stations, a post-secondary educational facility and other trip generators would typically have more than the five minutes which appears to be allotted to recovery.

Proposals

As shown in Figure 1, extend the S1 to the Sunrise Mall – a major shopping destination as well as a transfer location with MTA Long Island Bus service – from the Amityville LIRR Station via Oak Street, the Old Sunrise Highway, Sunrise Highway, Louden Avenue and County Line Road. This recommendation was originally made as part of the Long Island Bus Study. This proposal would require that additional equipment and resources be allocated for this route.

Further examination will be undertaken to determine if there is a better method of serving the Huntington LIRR Station. At the present time, the S1 does not enter the station complex, while Huntington Area Rapid Transit (HART) buses serve the south side of the station. The ability of Suffolk Transit to serve the north side of the station will be investigated.

Operate this route on Sundays.
Figure 1 – Proposed Extension of S1 to Sunrise Mall
S20 Babylon Railroad-Sunrise Mall and S40 Babylon Railroad-Patchogue

Running Time Adjustments to Existing Routes

On weekdays and Saturdays there is insufficient running time on eastbound S20 trips between Kohl’s and Oak Street. Five and three additional minutes are needed on weekdays and Saturdays, respectively.

The bus line cannot be operated reliably with inadequate running time and no recovery. There are three options: do nothing; add appropriate running time and reasonable recovery (and therefore resources); or widen the headway.

Most weekday and Saturday S40 trips operate ahead of schedule at the beginning of trips in both directions and stay that way. On weekdays 8 to 10 minutes of round trip running time should be eliminated; 10 to 11 minutes should be eliminated on Saturdays.

Proposals

As shown in Figure 2, the S20 and the S40 will be merged.

Eliminate service along East John Street, Albin and Arnold Avenues and keep the route on Hoffman Avenue.

Eliminate the Middle Road/CR 65 variation.

Eliminate the U-turn serving Kohl’s – this shopping center is served by the N19, N54, N55, N80 and N81 routes of LI Bus, which would meet the Suffolk Transit bus route at the Sunrise Mall.

Depending upon the desired frequencies of service, it would be possible to create a new short turn location along the merged route at the Bay Shore area Transit Center, with the western side of the route seeing less service than the eastern side.

In order to operate service every 30 minutes along the proposed combined bus route, six buses would be needed.

If these bus routes are not merged, then the current configuration of the S20 could operate with one bus on a 75 minute headway.

Operate this route on Sundays.
Figure 2 – Proposed Merger of S20 and S40
S23 Babylon Railroad-Walt Whitman Mall

Running Time Adjustments to Existing Route

A few minor running time reallocations could enhance on-time performance.

Proposals

As shown in Figure 3, utilize the alignment of Route S2B to operate between Sunset Plaza and Grand Boulevard. This makes the S23 more direct and improves its running time.

Timing issues near Five Towns College must be resolved.

Operate this route on Sundays.
Figure 3 – Proposed Realignment of S23 in North Babylon
S25 Babylon Railroad-Northwest Babylon

Running Time Adjustments to Existing Route

The loop portion of the route runs “hot” (i.e., operates early). Two minutes should be cut between the Babylon Railroad Station and the Great South Bay Shopping Center as well as between Little East Neck Road and Claremont & Five Corners (i.e., for a total reduction of four minutes).

Proposals

As shown in Figure 4, extend the route from the northwest Babylon area to the Walt Whitman Mall in Melville via Edison Avenue, Wellwood Avenue, Smith Street (serving the SUNY Farmingdale Campus), Broad Hollow Road, Ruland Road, Maxess Road (serving the Huntington Quadrangle business area), South Service Road, Half Hollow Road, North Service Road, Old East Neck Road and New York Avenue. This extension would also serve Newsday and the Pinelawn LIRR Station.

This proposal would require that additional equipment and resources be allocated for this route; resources from the proposed elimination of the S31 and S35 bus routes could be utilized to extend the S25.

The midday gap in service on this route should be eliminated.

The current one-way loop on the S25 would, at the present time, be retained as ridership data indicates that there are boardings and alightings on both portions of the loop route alignment.

Operate this route on Sundays.
Figure 4 – Proposed S25
S27 Babylon Railroad-Hauppauge

Running Time Adjustments to Existing Route

A number of weekday trips – particularly northbound – have different running times between points in comparison to their leaders and trailers (i.e., previous and subsequent trips).

In addition to several minor reallocations of running time between timepoints in both directions, about 10 to 12 minutes of additional running time per round trip is necessary to increase reliability.

Proposals

As shown in Figure 5, extend the route into The Arches, a new shopping center being constructed in Deer Park at Commack Road and Grand Boulevard. This would also serve the new social services building. This proposal might require that additional equipment and resources be allocated for this route.

Eliminate Montauk Highway branch.
Figure 5 – Proposed Southern Portion of S27
S29 Babylon-Walt Whitman Mall

Running Time Adjustments to Existing Route

Running time on weekdays needs to be reallocated in both directions although total running time is sufficient.

Saturday running time should be reduced by about 3 minutes in each direction. Trips run early between the first two time points.

Proposals

No changes.

S31 Copiague-Northwest Babylon

Running Time Adjustments to Existing Route

None.

Proposals

This route’s service area is now part of the proposal for the S25 and will no longer operate as a distinct bus route.
S33 Sunrise Mall/Amityville-Hauppauge

Running Time Adjustments to Existing Route

Line requires substantial running time by time of day adjustments to improve its performance. Northbound midday trips have 8 minutes too much time between Deer Park and Brentwood Psychiatric Center. However, additional time (i.e., three minutes) is needed between Amityville Railroad and North Lindenhurst throughout the day.

Southbound trips need two minutes more between the County North Complex and Oser Avenue. Eight minutes more are needed midday between North Lindenhurst and the Amityville Railroad Station.

Proposals

As shown in Figure 6, extend this route to the Smith Haven Mall via Wheeler Road and the Nesconset Highway. In a future phase, this route may also be extended to serve the SUNY Stony Brook campus, thus connecting the campus with Amityville. This proposal would require that additional equipment and resources be allocated for this route.

If the Hauppauge Transit Center is not implemented, then this route could operate only as far north as the Suffolk Community College Brentwood Campus on weekends.

This route’s current alignment will serve The Arches, the new shopping center being constructed in Deer Park at Commack Road and Grand Boulevard.

This route should be operated with a uniform 30 minute peak/60 minute off-peak headway.

Operate this route on Sundays.
Figure 6 – Proposed Extension of S33
S35 South Bay Shopping Center-Crown Manor

Running Time Adjustments to Existing Route

This loop needs to be retimed in nearly all segments. Overall, 4 to 5 minutes should be cut off each trip.

Proposals

This route’s service area is now part of the proposal for the S25 and will no longer operate as a distinct bus route.

S41 Bay Shore-Northport VA Medical Center

Running Time Adjustments to Existing Route

On Saturdays, running time on northbound trips should be reduced by six minutes and on southbound trips by four minutes. Northbound, two minutes should be cut from the start of the line to Howell’s Road, another two minutes between Brentwood Railroad and the Pilgrim Psychiatric Center and finally, two minutes between Northport Railroad and the VA Medical Center.

Southbound, one minute should be cut on each side of the Commack timepoint at Jericho Turnpike and Commack Road and two minutes between Suffolk Community College and the Pilgrim Psychiatric Center.

Proposals

This route should operate a uniform headway.

During the morning period, a new 6:35AM northbound trip should be operated, which would become a 7:35AM southbound trip operating the entire length of the route.

Operate this route on Sundays.
S42 Babylon Railroad-Central Islip Railroad

Running Time Adjustments to Existing Route

None.

Proposals

As shown in Figure 7, extend the route to the County Offices in Hauppauge from the Central Islip LIRR Station via Wheeler Road and the route alignment of the S54. However, the S42 will only operate as far as the County Office Complex and return to Veterans Memorial Highway via Old Willets Path. This will allow this route to connect East Islip and Central Islip with the County Office Complex. This recommendation was originally made as part of the Long Island Bus Study. This proposal would require that additional equipment and resources be allocated for this route.

On Saturdays, the proposed extension should be operated only if the Hauppauge Transit Center is implemented.

Operate this route on Sundays only if the Hauppauge Transit Center is implemented.

An alternative to this proposal which was considered was to operate the segment between the Central Islip LIRR Station and Hauppauge as its own “Hauppauge Shuttle” bus route. However, the ability to provide a new “one seat ride” between Islip Avenue and Hauppauge led to retaining the proposed S42 extension.
Figure 7 – Proposed Extension of S42
S45 Bay Shore-Smithtown

Running Time Adjustments to Existing Route

There is no consistency of running time allotted between timepoints either by time of day or by direction. For example, northbound weekday trips have three different running times between the first two timepoints during the period from 6:30AM to 8:30AM. Unless the printed schedule contains several typographical errors, major revisions are necessary by time period and direction.

Proposals

As shown in Figure 8, the S45 will operate via Joshua’s Path and will not serve the Central Islip LIRR Station or Hawthorne Avenue, both of which are served by the existing 3C bus route, as well as by the proposed 3E.

Operate this route on Sundays only between the Brentwood LIRR Station and the new Bay Shore area Transit Center.
Figure 8 – Proposed Realignment of S45 in Central Islip

S47 Babylon Railroad-Robert Moses State Park

Running Time Adjustments to Existing Routes

None.

Proposals

No changes.
S54 Patchogue Railroad-Walt Whitman Mall

Running Time Adjustments to Existing Routes

Several running time adjustments should be implemented to improve point-to-point on-time performance. Overall, the running time on the line is reasonable for most of the day on weekdays. After 4:30PM, running time between Patchogue Railroad and Blue Point should be cut by two minutes on westbound trips and three minutes on eastbound trips.

Proposals

Operate this route on Sundays.

S56 Commack-Smith Haven Mall via Kings Park

Running Time Adjustments to Existing Routes

The ridecheck data would tend to suggest an operator issue. One driver operated early between most timepoints, whereas the other was consistently late.

The typo of “Matin” Luther Housing should be corrected when reprinted.

Proposals

This route should operate on a cycle time headway (i.e., every two hours) and utilize only one bus.

S57 Sayville-Smith Haven Mall via MacArthur Airport

Running Time Adjustments to Existing Route

Minor running time reallocations would enhance on-time performance on weekdays and Saturdays.

Proposals

As shown in Figure 9, extend the route from the Smith Haven Mall to Port Jefferson via Lake Avenue in St. James and North Country Road, Main Street and State Route 25A into Port Jefferson. This proposal would require that additional equipment and resources be allocated for this route.

This extension strengthens a currently “weak” bus route (i.e., the S57) and allows another “weak”
bus route (i.e., the S76) to be eliminated as it would be almost entirely duplicative of the extended S57. In addition, this route extension connects the Stony Brook and Port Jefferson areas with a one-seat ride to and from Long Island MacArthur Airport.

Figure 9 – Proposed Extension of S57
S58 East Northport-Riverhead County Center and Proposed S65

Running Time Adjustments to Existing Route

Minor running time reallocations would enhance on-time performance on weekdays and Saturdays. Overall, the total time on the line is fine.

Proposals

The S58 will be shortened and operate only between Riverhead and the Smith Haven Mall.

Extend all eastbound PM trips to Riverhead; later service to Riverhead was cited as a necessary improvement by several stakeholders.

As shown in Figure 10, a new route – the S22 – will operate between the Walt Whitman Mall and the Suffolk County Community College via the Jericho Turnpike and the Smith Haven Mall, thus overlapping the S58 between the Smith Haven Mall and the Suffolk County Community College.

Taken together, these two bus routes will provide a continuous service along State Route 25 (i.e., Jericho Turnpike, Main Street and Middle Country Road) throughout most of the length of Suffolk County between Melville and Riverhead. This recommendation was originally made as part of the Long Island Bus Study as an extension of the S58. This proposal would require that additional equipment and resources be allocated for this route.

Operate Sunday service on both the S58 and the proposed S22.
Figure 10 – Proposed S22

S59 Sayville-Smith Haven Mall

Running Time Adjustments to Existing Route

On weekdays, southbound afternoon trips require an additional seven minutes between Lake Grove and Lake Ronkonkoma and six more minutes between Bohemia and Sayville Plaza. Since this running time cannot be accommodated by the existing cycle, additional resources would be required to maintain the existing schedule. A less desirable option would be to widen or “open-up” the headway.
Proposals

This route’s service area is served by both the S54 and S57; therefore, it will no longer operate as a distinct bus route.

S60 Smith Haven Mall-Gordon Heights and S69 Smith Haven Mall-Gordon Heights Night Loop

Running Time Adjustments to Existing Routes

On weekdays, eastbound S60 buses get 13 minutes of running time from the Smith Haven Mall to the Coventry Mall all day. Only seven minutes is needed – six minutes should be cut. On Saturdays, four minutes should be removed. Similarly, two minutes should be cut from westbound buses in the same segment on weekdays and Saturdays. Westbound running time should also be reduced by two minutes between the SUNY South Campus and Coventry Mall on weekdays and Saturdays.

There are seven timepoints designated during a 13 minute portion of the S60 route; this is too many. Generally, timepoints should be at least 6 to 8 minutes apart, particularly on a line with an 80 minute one-way running time.

The reason for the notation on S60 timetables at Coram Plaza westbound with an asterisk and bolded with a corresponding note shown below indicating that it is a departure time is not clear. All intermediate timepoints should be departure times.

There are no running time adjustments required for the S69.

Proposals

Extend the last S60 trips to Gordon Heights.

As shown in Figure 11, operate the S60 with a different route number – “S64” – on Sundays, with direct service to the Smith Haven Mall Transit Center via State Route 25.

Operate the S69 on Sundays.
Figure 11 – Proposed S64
S61 Patchogue Railroad-Port Jefferson

Running time Adjustments to Existing Routes

On weekdays after 3:00PM, northbound trips need 5 to 6 minutes additional running time. Most of the lost time occurs between Patchogue Railroad and Jamaica Avenue in Medford.

Proposals

Consideration should be given to no longer serving the old Coram Health Center. Possible retention would be warranted if sufficient drug and alcohol treatment activities continue.

Operate this route on Sundays.

Consideration was given to eliminating service to the Blue Ridge Condominium Complex; however, there is poor pedestrian access from this location to the bus route along State Route 112 – therefore, it is retained.

S62 Hauppauge-Smith Haven Mall/Riverhead

Running Time Adjustments to Existing Route

This route had severe trip-to-trip running time variations between timepoints throughout the day. The timetable shows a 7 minute travel time westbound during the midday period from Port Jefferson Railroad to the Port Jefferson Shopping Plaza – a distance of less than half a mile. Buses needed 1 to 3 minutes to operate between the two points. The line's running time should be reset as part of implementing other proposals for the route.

Proposals

Eliminate the North Wading River Road variation.

The North Country Road variation will now be operated by the 5A and not by the S62.

S63 Patchogue-Smith Haven Mall

Running Time Adjustments to Existing Route

With the exception of the first northbound trip, the line operates well. The 7:20AM trip from Patchogue should be moved 10 to 15 minutes earlier to improve reliability and provide for a few minutes of recovery time at Smith Haven Mall at the end of the trip.
Proposals

This route will be slightly shortened so that its southern terminus is in Patchougue.

Operate an earlier northbound trip on weekdays.

Operate this route on Sundays.

**S66 Patchogue-Riverhead**

*Running Time Adjustments to Existing Route*

None.

*Proposals*

Eliminate the Frowein Road variation.

Operate this route on Sundays.

Consideration was given to directly serving the senior complex on Beaver Dam Road; however, it is located too far from the bus route to serve effectively.

**S68 Patchogue-Center Moriches**

*Running Time Adjustments to Existing Route*

Two minutes of running time should be cut between Hagerman and North Bellport on weekdays and Saturdays to reduce trips operating early.

*Proposals*

This route’s service area is now part of the proposal for the 7B and will no longer operate as a distinct bus route.

**S71 Shirley-Stony Brook Railroad**

*Running Time Adjustments to Existing Route*

This route operates well; however, three minutes should be cut from northbound trips between Brookhaven Town Hall and Suffolk Community College. Two additional minutes should be cut...
between the SUNY University Hospital and the Student Union. As noted previously, timepoints should be at least 6 to 8 minutes apart.

Proposals

Eliminate Saturday service.

**S76 Stony Brook Village-Port Jefferson Station**

*Running Time Adjustments to Existing Route*

On weekdays, eastbound trips have 8 to 9 minutes of running time that should be removed from the schedule between various timepoints. Some minor running time revisions should be made to westbound trips.

The reason for presenting the S60 schedule is not clearly defined or explained.

*Proposals*

This route’s service area is now part of the proposal for the S57 and will no longer operate as a distinct bus route.
S90 Center Moriches-Riverhead County Center

Running Time Adjustments to Existing Route

Running time needs to be reset throughout the day. This is a route where there is no consistent pattern among the trips between the same timepoint pairs. Additional ride checks should be considered. The same results are evident on weekdays and Saturdays.

Proposals

As shown in Figure 12, eliminate the variation serving Gabreski Airport.

Figure 12 – Proposed Realignment of S90 in Quogue
S92 Orient Point/Greenport-East Hampton via Riverhead and Proposed S96 and Proposed S98

Running Time Adjustments to Existing Route

In addition to the recommendations below, it should be noted that the S92 needs substantial additional running time to improve reliability. Trips to Orient Point lose 6 to 7 minutes on average during weekday afternoons between East Hampton and Sag Harbor. Running times for trips between Montauk Highway & Newlight Lane to 82 Nugent Street need to be re-checked. The ride check data indicated a travel time range from 5 to as many as 37 minutes. It would be extremely difficult to set a time without additional data. Trips then lose 3 to 9 minutes in Riverhead and an additional 7 minutes between Main & Young Roads and Dock Road & State Route 25. Too much time is allotted between Montauk Highway & Springville Road to Flanders Road & Pleasure Drive – 10 minutes is given but checks indicate only five minutes is needed.

Trips to East Hampton tend to mirror the observations noted above. Generally, 15 to 18 minutes of additional running time is needed off peak and 23 to 26 minutes during peak periods.

The locations of the timepoints along the route need to be displayed in greater detail. It is not sufficient to simply name a municipality; at the very least, a landmark or intersection should be provided.

Proposals

Three early morning trips should be added to the schedule of the existing S92 bus route to provide a 15 minute headway during the morning peak period; these trips will start revenue service as a short turn after pulling out from the garage on the North Fork. In addition, a new afternoon trip from the South Fork to the North Fork should be added at 3:10PM. These proposals would require that additional equipment and resources be allocated for this route.

Operate the S92 bus route on Sundays.

As shown in Figure 13, two new bus routes – the S96 and the S98 – would also operate on the East End. The S96 would operate along the North Fork between Greenport and the Tanger Outlet Center, while the S98 would operate along the South Fork between Bridgehampton and the Tanger Outlet Center.

The S96 and S98 will each be operated hourly, thus providing more frequent service along both the North Fork and South Fork during the peak periods. They will not operate on Sundays.
Figure 13 – Proposed S96 and S98 in Riverhead
S94 Montauk Village-Montauk Point Lighthouse

*Running Time Adjustments to Existing Route*

None.

*Proposals*

This seasonal bus route is eliminated.

**110 Suffolk Clipper**

*Running Time Adjustments to Existing Route*

None.

*Proposals*

No changes.

**1A Amityville Railroad-Copiague**

*Running Time Adjustments to Existing Route*

This route has running time issues and the allotted scheduled running time needs to be lengthened.

*Proposals*

No changes; however, in the future this bus route will serve the new MTA Long Island Rail Road station being developed at Republic Airport.

The Long Island Bus Study called for extending this bus route to the SUNY Farmingdale campus; instead, we have recommended that the proposed extension of the S25 serve that academic facility.

**1B Copiague-Lindenhurst Railroad**

*Running Time Adjustments to Existing Route*

None.
Proposals

Eliminate Saturday service.

2A Wyandanch-South Shore Mall

Running Time Adjustments to Existing Route

On weekdays, southbound trips should be given two additional minutes between Deer Park and West Brentwood. Northbound trips should have three minutes cut between South Shore Mall and Mechanicsville Service Road & Park Avenue on weekdays and Saturdays.

Proposals

As shown in Figure 14, this route will operate more directly through Deer Park.

Figure 14 – Proposed Realignment of 2A in Deer Park
This route’s current alignment will serve The Arches, the new shopping center being constructed in Deer Park at Commack Road and Grand Boulevard. The new social services building on South 2nd Street, off of Corbin Avenue, will also be served.

In the long term, this route could be shortened so that it operates only as far west as the Wyandanch LIRR Station. The 2A would then be extended east to serve the Court Complex in Central Islip.

Saturday service on the 2A should be monitored because this route could also operate Sunday service in a future phase.

All “2” and “3” series Feeder Routes should be coordinated with each other to allow for easy connections at the South Shore Mall.

**2B East Farmingdale-Wyandanch-Bay Shore**

*Running Time Adjustments to Existing Route*

Prior to 1:30PM, northbound trips lose three minutes in North Babylon. However, adding running time will result in insufficient recovery without expending additional resources.

*Proposals*

Operate this route on Sundays.

All “2” and “3” series Feeder Routes should be coordinated with each other to allow for easy connections at the South Shore Mall.

**3A South Shore Mall-Hauppauge Industrial Park**

*Running Time Adjustments to Existing Route*

The 5:45PM trip from South Shore Mall to Hauppauge shows asterisks at Suffolk Community College and the next two time points. It is not clear if the trip operates through to Hauppauge or not.

*Proposals*

The loop in the Hauppauge Industrial Park should be operated in a counter-clockwise direction (i.e., opposite the direction it currently operates) so as to better complement the service provided
by the 3B bus route and provide better connections through the facility. This proposal would provide two-way bus service through the Hauppauge Industrial Park.

Operate this route on Sundays.

In a future phase, this route should be considered for increases in its service frequency to a 30 minute peak period frequency.

All “2” and “3” series Feeder Routes should be coordinated with each other to allow for easy connections at the South Shore Mall.

3B Gardiner Manor Plaza-Hauppauge Industrial Park

Running Time Adjustments to Existing Route

On Saturdays nearly every trip runs early. A decision needs to be made to produce a separate schedule “box” on the timetable for Saturdays to display more accurate schedule information.

Proposals

Operate this route on Sundays.

In a future phase, this route should be considered for increases in its service frequency to a 30 minute frequency.

All “2” and “3” series Feeder Routes should be coordinated with each other to allow for easy connections at the South Shore Mall.

3C Central Islip-South Shore Mall and Proposed 3E

Running Time Adjustments to Existing Route

In addition to the proposal described below, some minor (i.e., 1 to 2 minute) running time reallocations should be done on weekdays and Saturdays in both directions.

Proposals

As shown in Figure 15, extend the 3C to the County Offices in Hauppauge via the same route alignment as the S54 from Wheeler Road; however, the 3C will only operate as far as the County Office Complex and return to Veterans Memorial Highway via Old Willets Path. This will allow
this bus route to connect East Islip and Central Islip with the County Office Complex. This recommendation was originally made as part of the Long Island Bus Study.

The 3C will operate from the South Shore Mall via Carleton Avenue through the court complex off of Carleton Avenue and with a stop at the Central Islip LIRR station. The route will then operate via Wheeler and Conklins Roads heading towards the State and County offices.

Figure 15 – Proposed 3C

As shown in Figure 16, the newly proposed 3E will also operate between the South Shore Mall and Hauppauge. However, when traveling from the South Shore Mall this route will utilize Conetquot Avenue, Atlantic Street, Bellmore Avenue, Orange Street, Boulevard Avenue, Poplar Street and Lowell Avenue to get to the Central Islip LIRR. The vehicle will then return to Lowell Avenue, heading north to the intersection of Lowell Avenue and East Suffolk Avenue, where it will turn left, followed by a right onto Hawthorne Avenue and another right onto the Long Island Motor Parkway. The bus will then make a right onto Bridge Road and another right onto Oval Road, before it makes a left turn to return to Bridge Road, and another left back onto the Long Island Motor Parkway. As with the 3C, this route will utilize Wheeler and Conklins Roads to
access the County and State offices. These proposals would require that additional equipment and resources be allocated for the 3C and 3E bus routes.

Consideration was given to operating the 3E via Lowell Avenue; however, this would have created some longer walking distances to the bus route from Conetquot Avenue and would also have located the route alignment close to that of the 3C.

**Figure 16 – Proposed 3E**

Operate the 3C on Sundays only if the Hauppauge Transit Center is developed.

If the Hauppauge Transit Center is not developed, then operate the 3C only between the South Shore Mall and the Central Islip LIRR Station.

All “2” and “3” series Feeder Routes should be coordinated with each other to allow for easy connections at the South Shore Mall.
3D Brentwood Railroad-Stony Brook Railroad

Running Time Adjustments to Existing Route

In addition to the proposal described below, several minor (i.e., 1 to 3 minute) running time reallocations are needed on weekdays and Saturdays in both directions.

Proposals

The last trip of the day on the 3D should operate to the SUNY Stony Brook University campus.

As shown in Figure 17, extend the 3D between the Brentwood LIRR Station and the Babylon LIRR Station – thus providing a one-seat ride between the SUNY Stony Brook University campus and Babylon – via the route alignment of the S27 between the Brentwood and Babylon LIRR stations. This recommendation was originally made as part of the Long Island Bus Study. Finally, the proposed extension of the S3D should serve the new Arches shopping center being constructed in Deer Park at Commack Road and Grand Boulevard. This proposal would require that additional equipment and resources be allocated for this route.

However, one difference between the 3D extension and the S27 will be that the 3D extension need not serve the Heartland Industrial Park, as this facility is already served by the S27. Nonetheless, in the future the 3D could serve this facility should it be redeveloped into a generator of regional significance.

Additionally, although it is not part of the original Long Island Bus Study recommendation, in a subsequent phase the S3D should also be extended east to Port Jefferson via Sheep Pasture Road and Main Street, thus providing a one-seat ride between Port Jefferson and Babylon. This proposal would also require that additional equipment and resources be allocated for this route.
Operate this route on Sundays.

All “2” and “3” series Feeder Routes should be coordinated with each other to allow for easy connections at the South Shore Mall.
5A Port Jefferson-Middle Island

Running Time Adjustments to Existing Route

In addition to the proposal described below, several minor (i.e., 1 to 3 minute) running time reallocations are needed on weekdays and Saturdays in both directions.

Proposals

As shown in Figure 18, extend the 5A from Middle Island to the Mastic-Shirley LIRR Station via State Route 25, County Route 21, Main Street, Moriches-Middle Island Road and West End Avenue. This route would provide service to the Walmart on Middle County Road, just west of County Route 21. This new north-south bus route would connect Mastic-Shirley with Port Jefferson. This extension should help improve the performance characteristics of the S5A, which is currently a “weak” bus route. This proposal would require that additional equipment and resources be allocated for this route along with the need to field test bus maneuvering in the Walmart parking lot.
Figure 18 – Proposed Extension of 5A

6A Ronkonkoma Railroad-Coram

Running Time Adjustments to Existing Route

None.

Proposals

As shown in Figure 19, this route should be extended to Gordon Heights.
Figure 19 – Proposed Extension of Route 6A
6B Farmingville-Smith Haven Mall

Running Time Adjustments to Existing Route

There is insufficient running time on weekdays and Saturdays. Trips in both directions lose about 7 minutes between Terryville and Selden on weekdays and five minutes on Saturdays.

Proposals

This route should be operated with a uniform hourly headway.

7A Patchogue Railroad-Ronkonkoma Railroad

Running Time Adjustments to Existing Route

On weekdays, two minutes should be cut between Patchogue Railroad and Gateway Shopping Center.

Proposals

No changes.

7B Patchogue Railroad-Medford-Bellport and Proposed 7F

Running Time Adjustments to Existing Route

None.

Proposals

As shown in Figure 20, the 7B will continue to operate between Patchogue and Medford, while the variation to Bellport will be incorporated into a new bus route – the 7F – and operate between Patchogue and the Coram Plaza shopping center via Gordon Heights, utilizing Station Road, Bellport Avenue and Horse Block Road. This proposal would require that additional equipment and resources be allocated for this route.
Figure 20 – Proposed 7B and 7F
7D/7E North Shirley-East Yaphank-Mastic-Shirley

Running Time Adjustments to Existing Routes

None.

Proposals

As shown in Figure 21, these two bus routes would be modified so that they become a single bus route providing bi-directional (i.e., they will no longer operate large loops) service on an hourly basis between the East Yaphank Industrial Park and the Smith Point County Park (or Grand View Drive during the winter months) utilizing two vehicles. This route would also serve Southport.

During the summer months, this route should operate on Saturdays and Sundays in order to provide service to Smith Point County Park.

In a later phase, this new bus route would be extended to Riverhead via the William Floyd Parkway, County Route 25 and Calverton, serving any new industries and development slated for the former Navy site. This extension would also provide service to the apartments on Strathmore Ridge Drive. This proposal would require that additional equipment and resources be allocated for this route.
8A Riverhead

Running Time Adjustments to Existing Route

On all days, running time between Calverton Hills and River Road should be cut by 2 minutes when service to the MacLeod Mobile Home Park is discontinued in both directions. On weekdays, running time for trips to Calverton should be reduced by two minutes between Riverhead Railroad and Fairway Avenue.
Proposals

As shown in Figure 22, this circulator bus route in Riverhead is slightly modified.

Additionally, the variation to the MacLeod Mobile Home Park is eliminated.

Finally, service along County Route 63 is eliminated; all 8A service will instead operate bi-directionally on County Route 51 (i.e., Center Drive).

Figure 22 – Proposed Modifications to 8A in Riverhead
10A Southampton-South Ferry

Running Time Adjustments to Existing Route

In addition to the adjustment described below, running time reallocations should be implemented on weekdays and Saturdays.

Proposals

As shown in Figure 23, the trips serving South Ferry in North Haven will be modified to operate via the Water Mill-Town Road and Montauk Highway.

Figure 23 – Proposed 10A Variation via Water Mill Town Road
10B East Hampton-Bridgehampton

Running Time Adjustments to Existing Route

None.

Proposals

As shown in Figure 24, this bus route will be extended on the east to serve the Amagansett LIRR Station and on the west to Long Island University’s Southampton College campus. In addition, service will not operate directly into the Accabonac Apartments and the Windmill Apartments; instead, the 10B will remain on the primary roadway. Finally, the direction of the loop in Springs will be reversed. This proposal would require that additional equipment and resources be allocated for this route.
Figure 24 – Proposed 10B
10C East Hampton-Montauk

*Running Time Adjustments to Existing Route*

None.

*Proposals*

Operate this bus route on Sundays.

The public timetable for this route should present it as a two-way bus route (as opposed to a “loop” route) with Ditch Plains as the eastern terminal.

10D/10E Hampton Bays-East Quogue-Hampton Bays Loop

*Running Time Adjustments to Existing Route*

None.

*Proposals*

These bus routes should be eliminated, with their resources instead being utilized to provide other service in the area.

**New Route Proposals**

The following section presents proposals for entirely new bus lines. They range from proposals that could be operated in the near-term to changes that are long-term in nature. While this memorandum does not suggest a phasing plan, the majority of the new routes can be characterized as ambitious and longer term in nature. They would require significant increases in equipment and financial resources to implement these routes. Further, increased development, both residential and non residential, would have to take place to warrant new fixed route transit service. Nonetheless, many of the proposals represent options that are worth considering for a longer term horizon. Possibly these are areas where ride request or some form of demand responsive service might be appropriate.

The proposals for entirely new bus routes are as follows:

- SUNY Farmingdale-Ronkonkoma-Coram
- Babylon-Roosevelt Field Express
Consideration was given to new “commuter express” bus services connecting with major job locations in Suffolk County in addition to the existing Suffolk Clipper and the service previously proposed as part of the Long Island Bus Study. Such locations would include the court complex in Central Islip, the Suffolk County offices in Hauppauge and the Hauppauge Industrial Park. New commuter express service could also be provided to Nassau County job centers and major New York City employment locations not well served by the MTA Long Island Rail Road, including John F. Kennedy International Airport and the Nassau Hub. While mentioned in this memorandum to prompt discussion, no specific proposals are presented in this memorandum other than the Babylon-Roosevelt Field service.
SUNY Farmingdale-Ronkonkoma-Coram Route - As shown in Figure 25, a new bus route would operate between SUNY Farmingdale, the Ronkonkoma LIRR Station and the Coram Plaza shopping center via Gordon Heights, utilizing primarily Long Island Avenue. This bus route would provide service through the central “spine” of Suffolk County.

Figure 25 – SUNY Farmingdale-Ronkonkoma-Coram Route
Babylon-Roosevelt Field Express - As shown in Figure 26, operate a new express bus route between the Babylon LIRR Station and Roosevelt Field via Railroad Avenue, State Route 109, State Route 24, Merrick Avenue and Stewart Avenue. This new express bus route would connect with several MTA Long Island Bus routes at Roosevelt Field in addition to providing service to this major regional retail center. This recommendation was originally made as part of the Long Island Bus Study, and could be operated by MTA Long Island Bus as an express version of the N72, or an “N72X”.

Figure 26 – Babylon-Roosevelt Field Express

Babylon “Fast Link” – Operate both the North Shuttle and Southwest Shuttle routes that were developed in detail in the Long Island Bus Study. These new bus routes would provide feeder services in the areas around the Babylon LIRR station which would allow people in the service area to connect not only with the MTA Long Island Rail Road but also with the other
Suffolk Transit and MTA Long Island Bus services at the station. As noted above, this recommendation was originally made as part of the Long Island Bus Study.

**Patchogue-Hampton Bays-Southampton Route** - As shown in Figure 27, operate a new bus route primarily along the Montauk Highway between the Patchogue LIRR Station and the Southampton LIRR Station via the Shirley/Mastic and Hampton Bays area. It is also possible at this bus route could be combined with the previously mentioned “merger” of the S20 and S40 bus routes to create a continuous service along the South Shore between Amityville and Southampton.

**Figure 27 – Patchogue-Hampton Bays-Southampton Route**
Ronkonkoma-Northport Route - As shown in Figure 28, create a new bus route from the Ronkonkoma LIRR Station to the Northport VA Hospital via Northport LIRR Station, Railroad Avenue, Johnson Avenue, County Routes 93 and 16, State Route 25, State Route 25A, County Route 11 and Larkfield Road. This creates a new north-south route connecting Ronkonkoma with Smithtown and Northport.

Figure 28 – Ronkonkoma-Northport Route
Babylon-Kings Park Route - As shown in Figure 29, create a new bus route providing a one-seat ride between the Babylon LIRR Station and the Kings Park LIRR Station via Deer Park Avenue, Commack Road, Jericho Turnpike, Indian Head Road and the Village Plaza. This route would provide service in this north-south corridor and connect Babylon with Commack and Kings Park.

Figure 29 – Babylon-Kings Park Route
Northport-Babylon Route - As shown in Figure 30, create a new bus route between the Northport LIRR Station and the Babylon LIRR Station via Larkfield Road, Daly Road, Commack Road, the North and South Service Roads of the Long Island Expressway, Carll’s Straight Path, Carll’s Path and Deer Park Avenue. This route would provide service in this north-south corridor and serve to connect both Northport and Babylon with Commack.

Figure 30 – Northport-Babylon Route
**Brentwood-Ronkonkoma Route** - As shown in Figure 31, create a new bus route that connects the Brentwood LIRR Station with the Ronkonkomo LIRR Station via Suffolk Avenue, Nicholls Road, Johnson Avenue, and Railroad Avenue. The vehicle will turn around via Mill Road, Union Avenue and Hawkins Road to head west to the Brentwood LIRR Station.

**Figure 31 – Brentwood-Ronkonkomo Route**

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**Other Service Concepts**

The study proposals presented in this interim report call for the continuation of fixed route bus service, although at greatly expanded levels in terms of coverage and level of service (i.e., frequency and span). It is recognized that other service concepts are available and were considered, but not included at this time. These concepts are discussed briefly below:

- **Fast Link** - The Long Island Bus Study called for a series of bus routes that serve LIRR stations. Typically, the service is dedicated to achieving bus-rail coordination since the schedule is designed to specifically meet arriving and departing LIRR trains. HART operates two bus lines that are rail feeders and there
are other examples in Nassau Counties and other portions of the New York City region. Moreover, the East End communities operated feeder bus service during a period of expanded rail service. In most cases, the service is oriented to connecting residential areas to rail stations, although services can be designed to connect reverse commute employees to suburban job locations.

The travel market for such services is often influenced by the price and availability of parking at the rail stations as well as the frequency of commuter rail service. Experience suggests that this service exhibits limited ridership potential and relatively low productivity. The current plan calls for such service in Babylon and the continuation of the current practice where LIRR stations are focal points of the bus system. Unless there is greatly expanded LIRR rail service, additional Fast Link would not appear to be appropriate.

• **Flex Routing** - Some bus systems operate routes where buses can deviate from the regular alignment to provide more convenient access to riders. The bus typically follows a set alignment where persons can call the dispatcher and request that they be picked up at their origin. Similarly, riders can request that the bus drops them off at their destination whether or not it is on the regular bus route alignment. Usually a premium fare is charged each time the bus diverts from its regular alignment. Riders can opt to walk to and from the regular bus alignment or request more convenient access where the bus diverts to a rider’s origin and/or destination.

Some bus systems use an approach where the bus can divert up to three-quarters of a mile. In this way, the agency meets its complementary paratransit requirements mandated by the Americans with Disabilities Act (ADA) which applies to fixed route bus systems. Some transit agencies find this as a way to combine attractive features of fixed route bus service (i.e., efficiency) and demand responsive service (i.e., convenience) in low density areas where ridership potential is limited. Concern about this concept is the delay to riders when the bus is diverted and the difficulty of maintaining scheduling coordination with other routes.

• **Ride Request** - In low density areas, it is typically not economical to provide fixed route bus service. To respond to this situation, some transit agencies designate areas where passengers can request that a transit vehicle pick them up at their origin. The vehicle takes the rider to a designated location where they can board a regular bus route which they use to complete their trip. The pick-up time is scheduled to permit the person to arrive at the bus stop to meet the connecting bus. For the return trip, on boarding the bus, the rider tells the bus driver of their desire to return home in the ride request service area. A request is made for a vehicle to
be available at the designated bus stop to allow the person to complete their trip. The advantage of this approach is that it provides a convenient trip which complements the bus system and at the same time avoids buses operating empty in low density areas that cannot support fixed route bus service.

- **Dial-A-Ride** - Some agencies offer curb-to-curb service to residents in low density areas that do not have a sufficient concentration of development to warrant fixed route bus service. People make a reservation to request service for that day or more than 24 hours advance notice. Similar to taxi service, riders are provided a trip from their origin to their destination. One difference is that other riders may be picked up or dropped during the trip. This shared ride service is similar to that operated by Suffolk County for ADA eligible patrons or that offered by towns for their senior citizens. With this concept, the dial-a-ride service is available to the general public with no restrictions on eligibility.

- **Rover** - This concept could embrace fixed route, demand responsive or some of the other concepts mentioned above. Service is provided to different portions of the service area on a rotating basis. It normally is viewed as a “life line” service to people without an vehicle. It affords mobility to transit dependent residents in an economical manner.

The discussion above indicates various approaches to affording mobility to communities. In the current analysis, these options are cited; however, the focus of the proposals are oriented to improvements to the current bus system.

**Summary**

This interim report has presented a number of alternatives for the future which includes changes to the existing bus routes and proposals for entirely new bus lines. In the long-term, the new bus lines would suggest that consideration be given to operating a transit network which is a timed-transfer system at additional “pulse points” than just those which are operated today. The proposed modifications to Suffolk Transit include changes to alignment, frequency and span. They include relatively modest changes with limited impact on necessary resources to ambitious proposals that would mandate greatly increased funding levels. The timing and dimensions of service changes will depend on available funding along with the pace of residential and commercial development. At this stage in the planning process, a staging or implementation plan for these route proposals has not been determined.

This interim report is the starting point for discussions with Suffolk Transit staff and other stakeholders to identify a preferred bus system plan. It is recognized that other inputs, such as the
results of other efforts (e.g., Coordinated Bus and Rail Network on the East End of Long Island) and comments received from the project Steering Committee and through the outreach efforts will need to be considered. Nonetheless, this report starts the dialogue that will lead to a recommended bus plan for Suffolk County.