

**Access Management:
The Challenge of Retrofit...
Theory Versus Reality**

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Base Network

- Speed limits of 45 mph eastbound and 55 mph westbound
- Six-lane divided cross section
- Left- and right-turn lanes
- Access points as little as 100 feet apart
- Signals closely spaced -- 5 within 1,550 feet
- ADT volume of 66,100 vehicles
- Saturday peak-hour volumes -- 3,100 eastbound and 2,700 westbound

Existing Conditions

- *Traffic Safety - 0.5 Mile Section of NY27 From Sunrise Promenade to Old Sunrise Highway Has Accident Rates that Exceed the Statewide Average Due to the Frequency and Density of Conflicting Traffic Movements*
- *High Traffic Volumes*
- *Frequent Driveways*
- *Closely Spaced Signals*
- *Heavy Left-Turn Movements*
- *Overlapping Traffic Backups*

Traffic Condition on NY27 Near Unqua Road



FRONT STREET

SUNRISE HIGHWAY

BUSY BEE

UNQUA ROAD

**Overlapping
Conflicts**

SUNRISE MALL

Westbound Left-Turn
Traffic Backs Up from
Unqua Road Past
Sunrise Mall Western
Driveway

Eastbound Left-Turn
Traffic Backs Up from
Western Sunrise Mall
Driveway and Blocks
Unqua Road

PHILIPS PLAZA

NY27 Near Philips Plaza & Old Sunrise Hwy.



SUNRISE MALL

Long Delay for Motorists
Exiting Sunrise Mall

Extensive Congestion
on Westbound Sunrise
Highway Caused by
Bottlenecks at Unqua
Road, Sunrise Mall,
"Sears Center" and
Old Sunrise Highway

SUNRISE HIGHWAY

OLD SUNRISE HIGHWAY

Overlapping
Conflicts

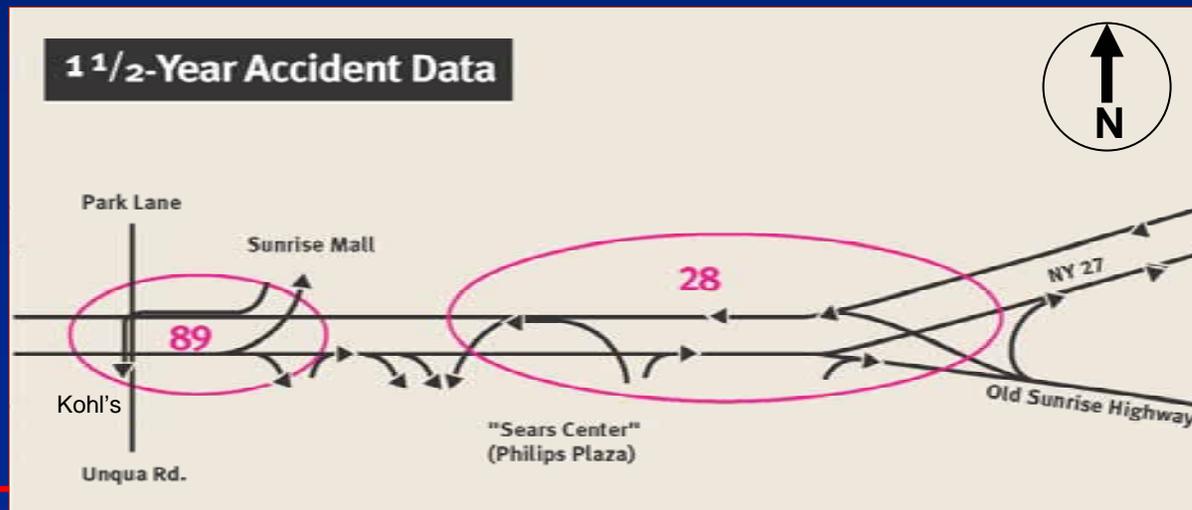
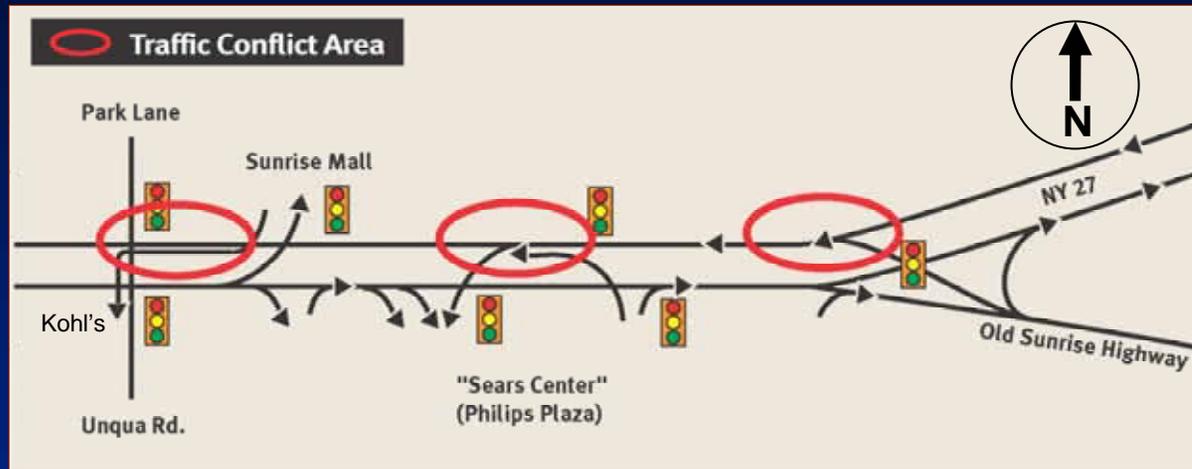
Entering Left Turn at
"Sears Center" backs up
and blocks exiting left turn
and westbound movement
from Old Sunrise Highway

Long Delay for Motorists
Exiting "Sears Center"

PHILIPS PLAZA

CARMANS MILL ROAD

Conflicting Traffic Movements & Accidents East of Unqua Road



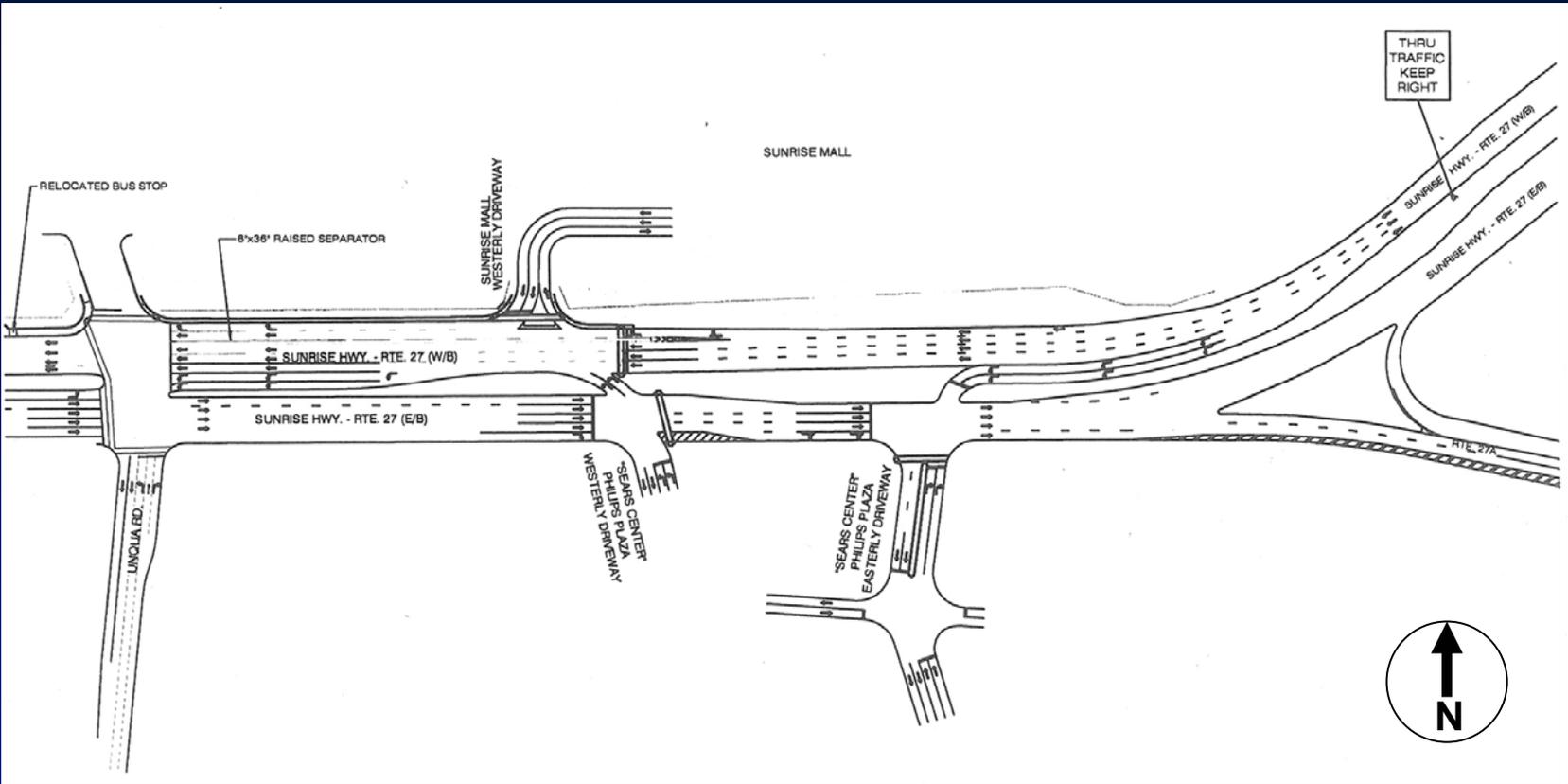
Project Objectives

- Improve Traffic Safety Along Sunrise Highway
- Improve Traffic Operations Along Sunrise Highway
- Maintain Reasonable Access to Abutting Properties
- Preserve Aesthetics of Area

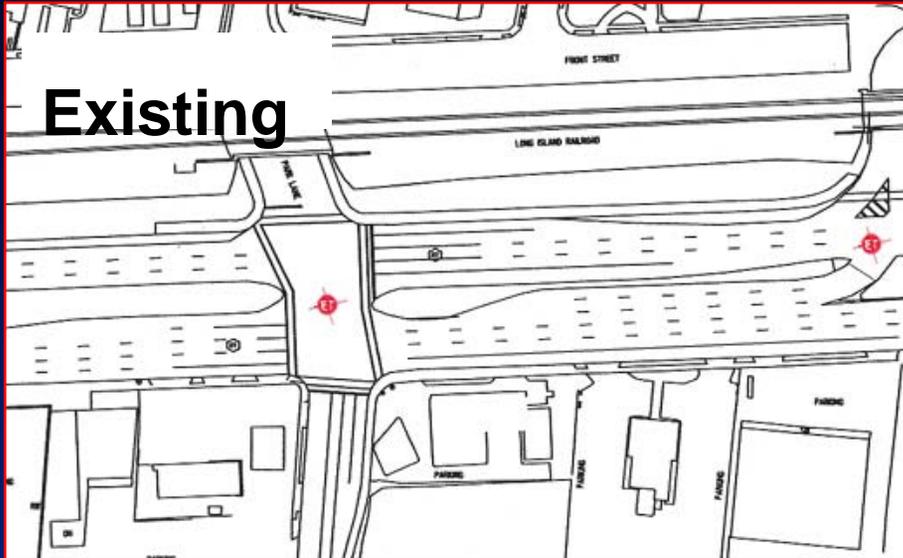
Concepts:

- Reduce the Number of Conflicting Traffic Movements
- Increase the Spacing between Conflict Points
- Remove Turning Vehicle Queues From Through Lanes
- Add Auxiliary Lanes

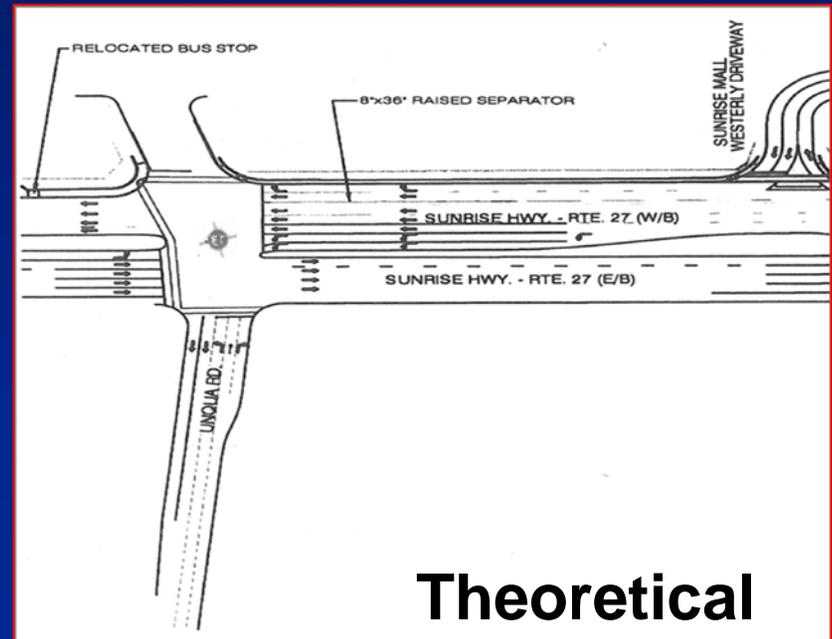
Theoretical Arrangement



Unqua Road

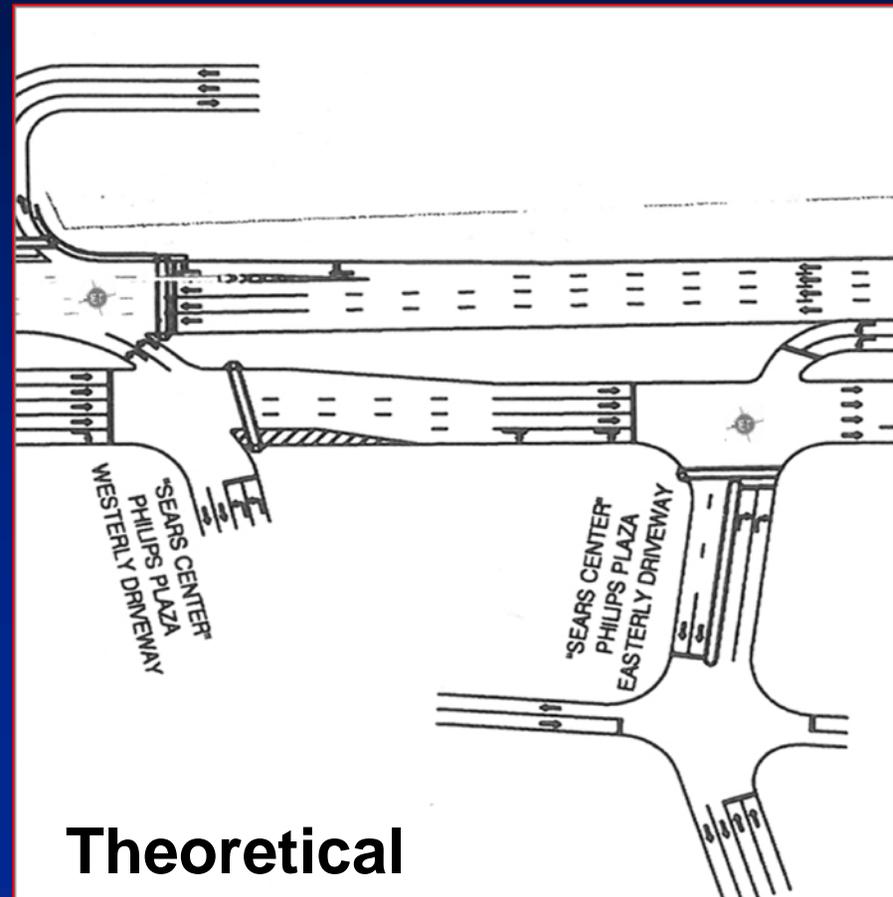
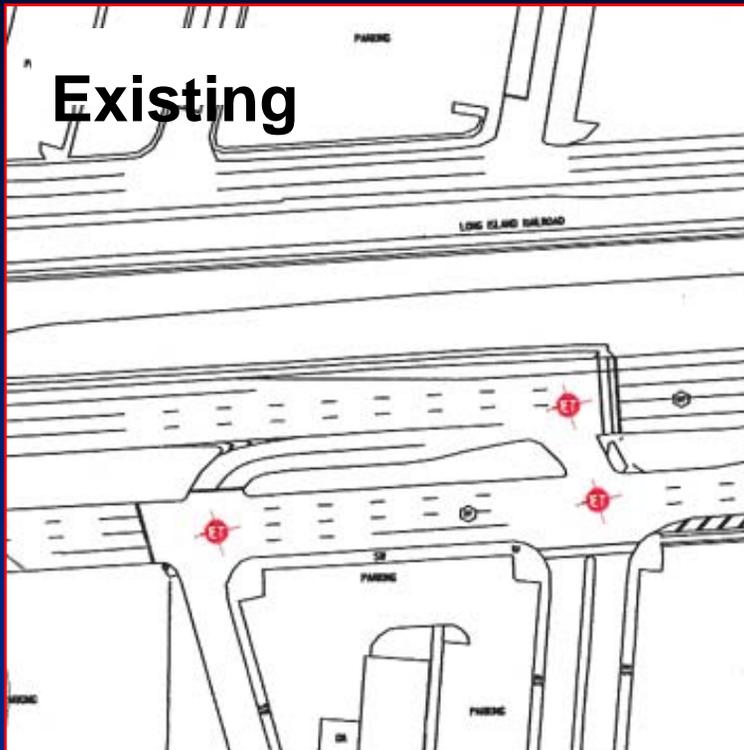


- Provide Additional Through Lane on Westbound NY27
- Increase Left-Turn Storage
- Provide a Raised Separator on Westbound NY27
- Eliminate Eastbound Left Turn into Sunrise Mall Westerly Driveway



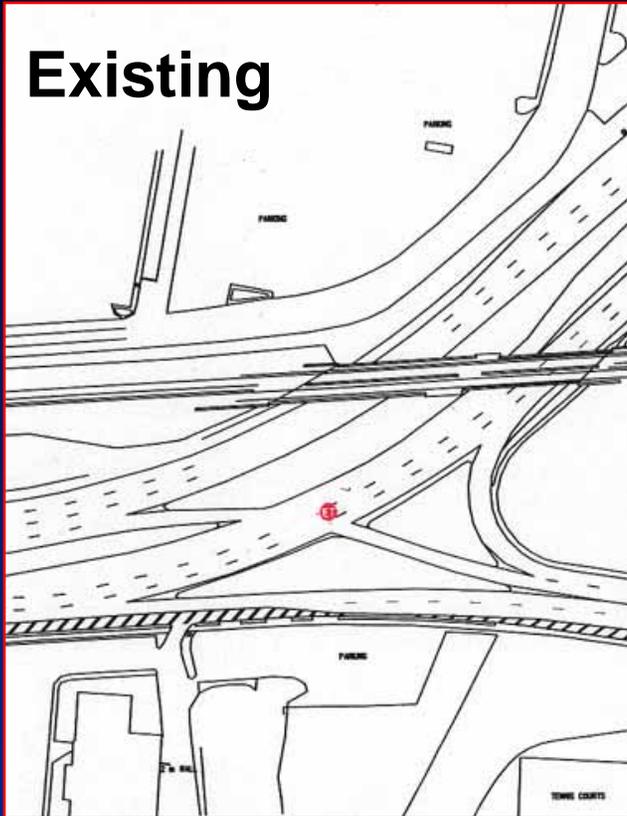
“Sears Center” (Philips Plaza)

- Reconfigure Access
- Revise Internal Circulation

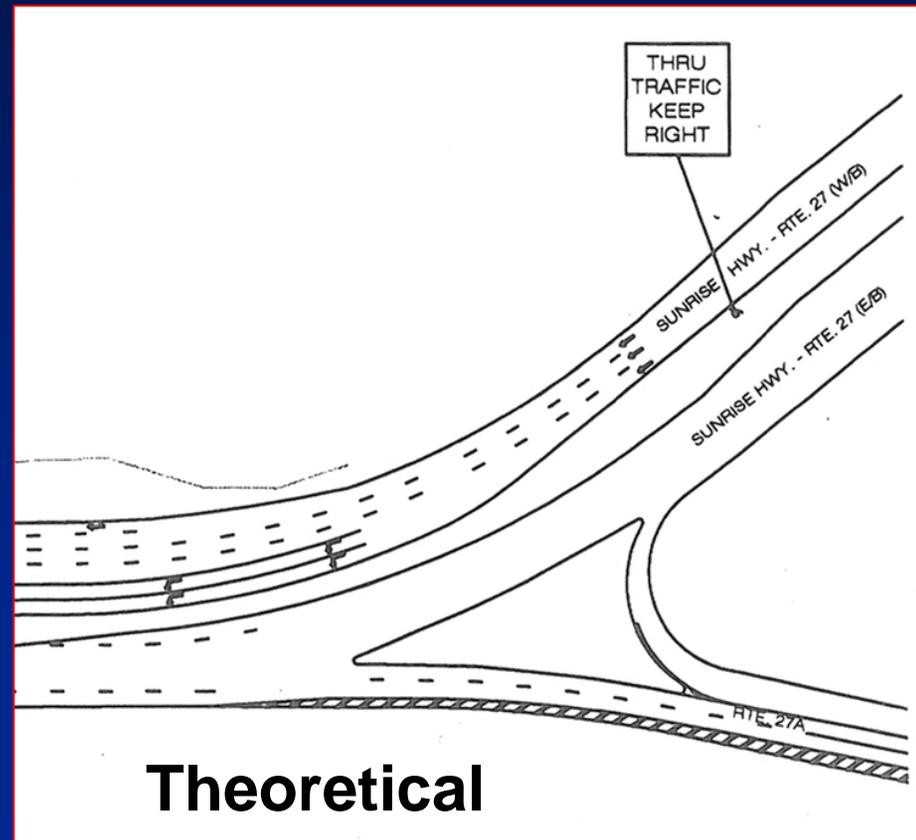


Old Sunrise Highway

Existing

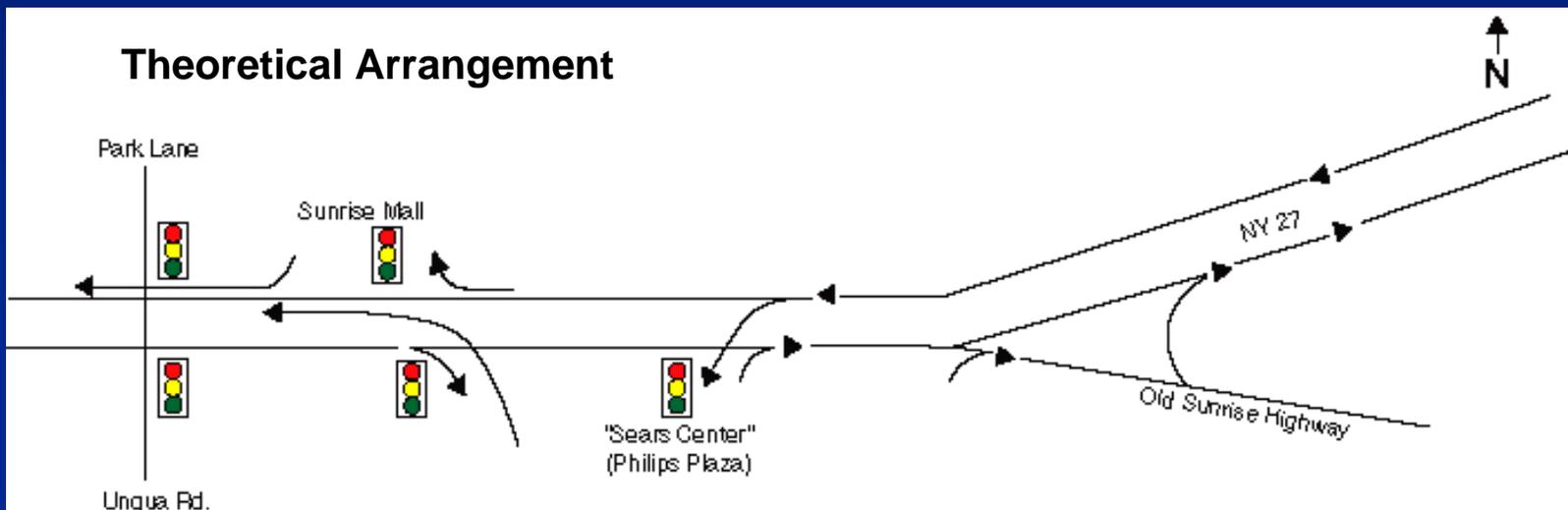
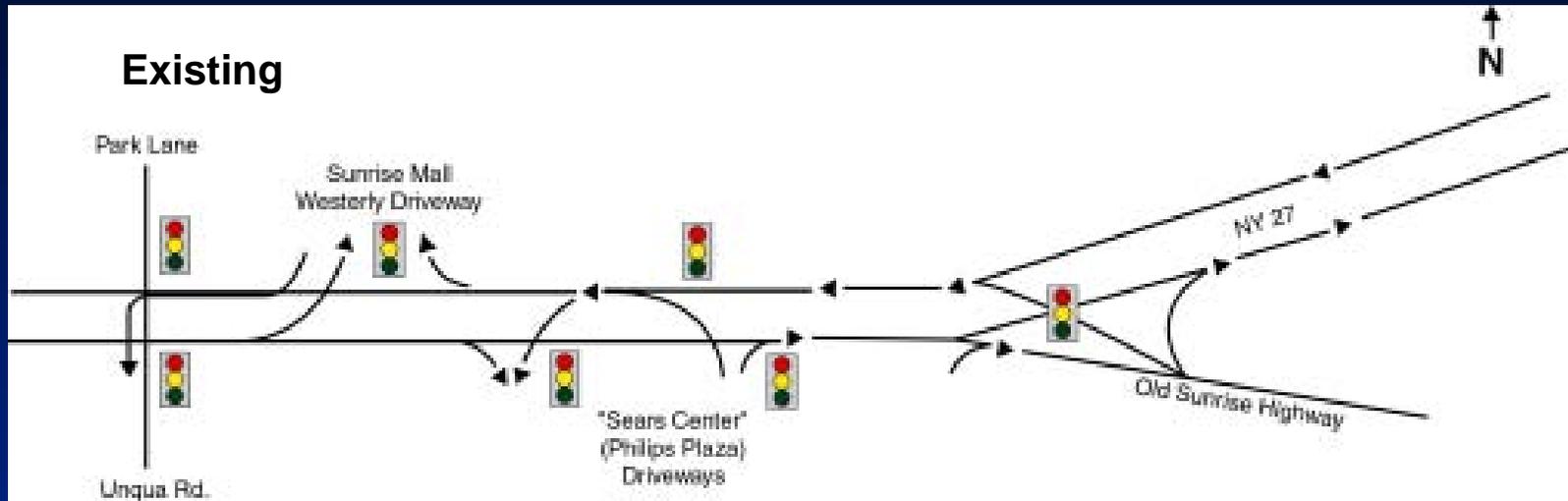


- Eliminate Westbound Connection
- Eliminate Traffic Signal on NY27 Eastbound



Theoretical

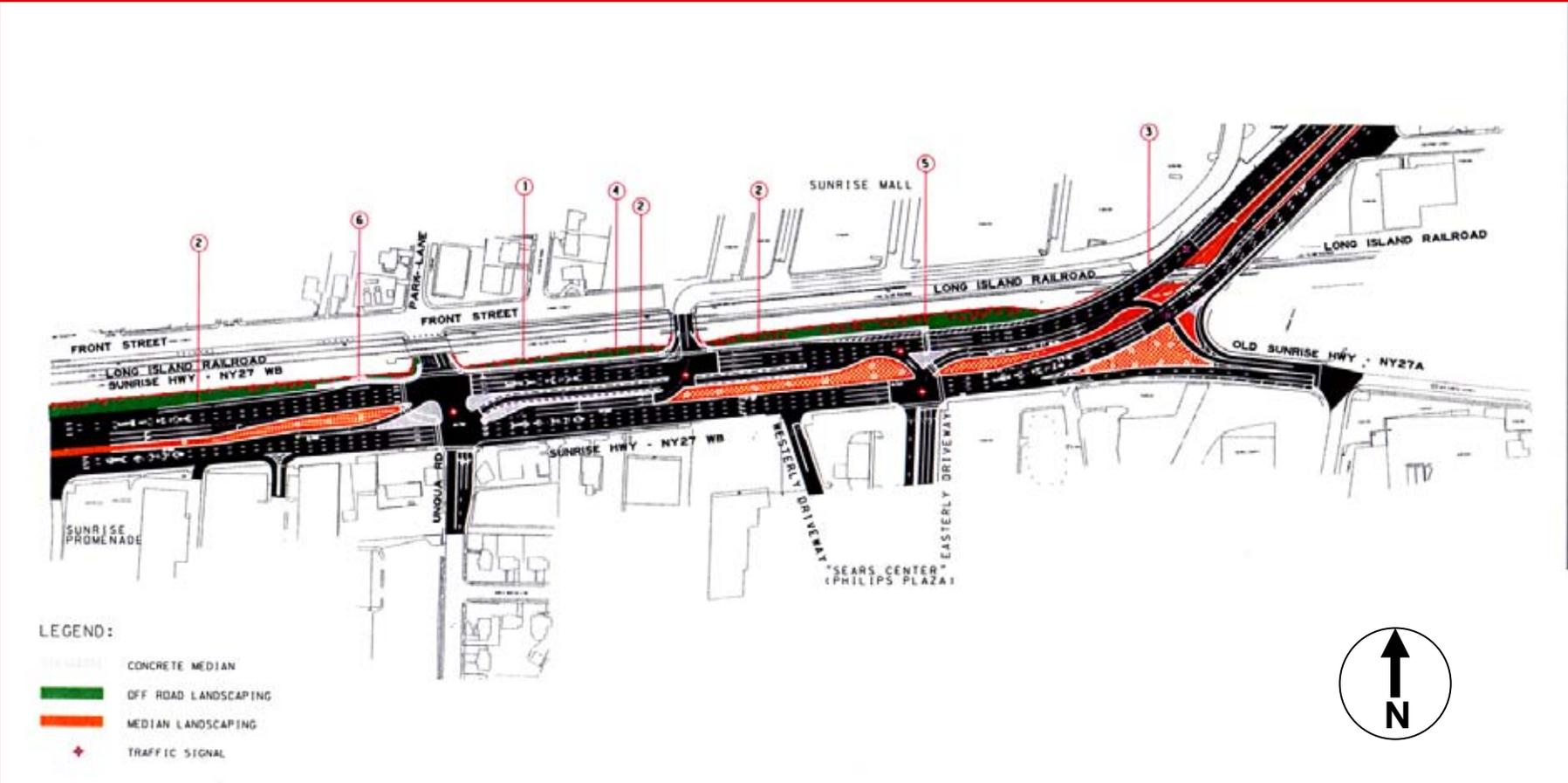
Major Turning Movements East of Unqua Road



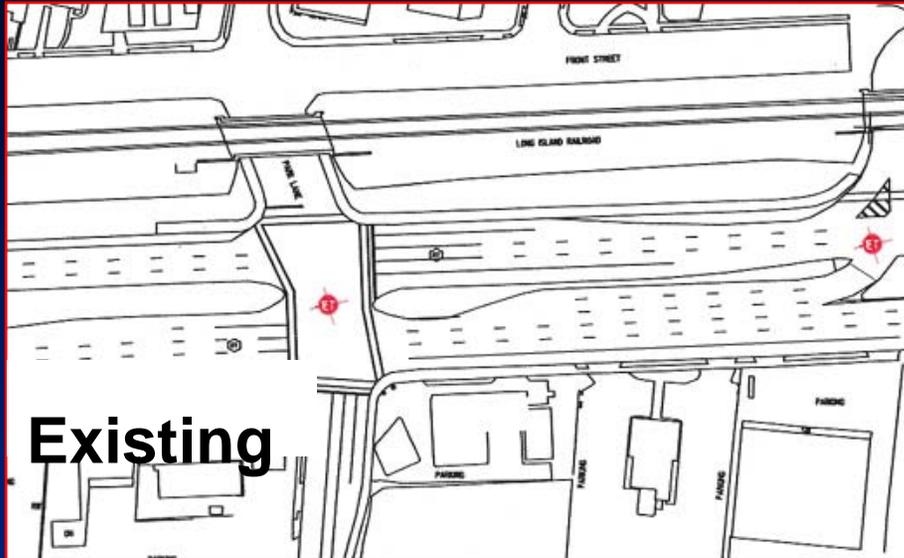
Theoretical Alternative -- Issues Raised by Stakeholders

- Additional pavement that pedestrians would need to cross on NY27
- Desire to preserve the character and aesthetics of NY27
- Potential economic impact of access restriction on businesses
- Major internal circulation changes that would be needed for the reconfigured access
- Potential reduction in the number of parking spaces
- Rerouting of some school buses to/from an area school

Approved Plan

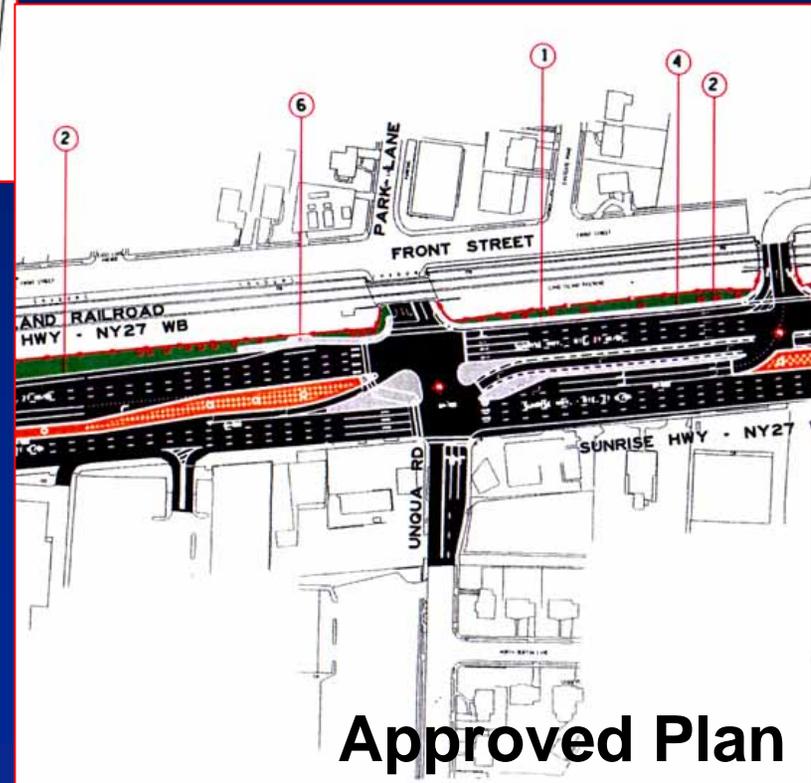


Unqua Road



Existing

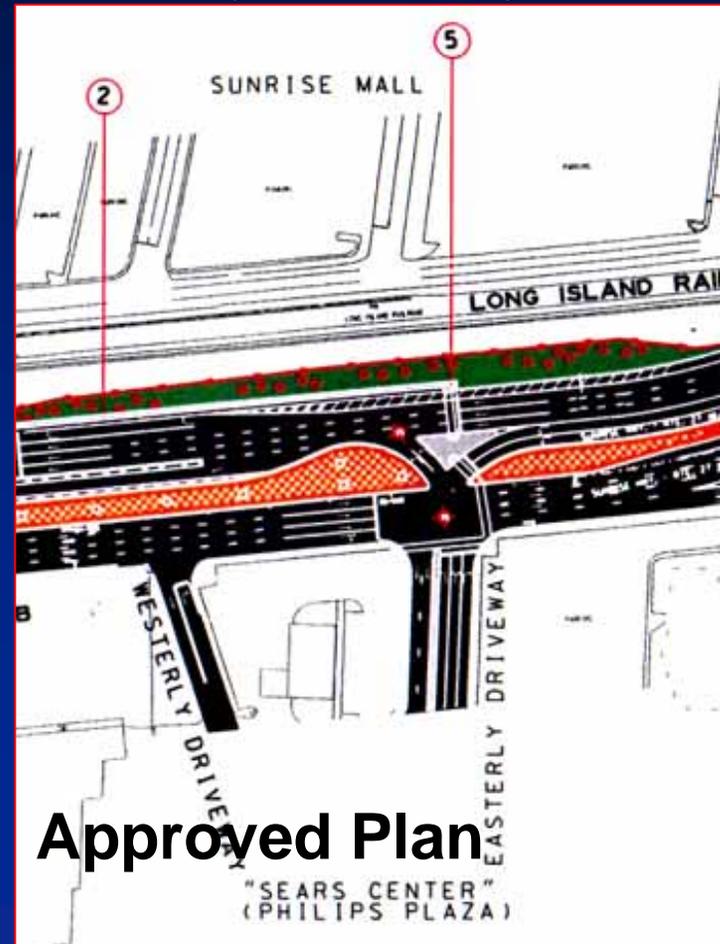
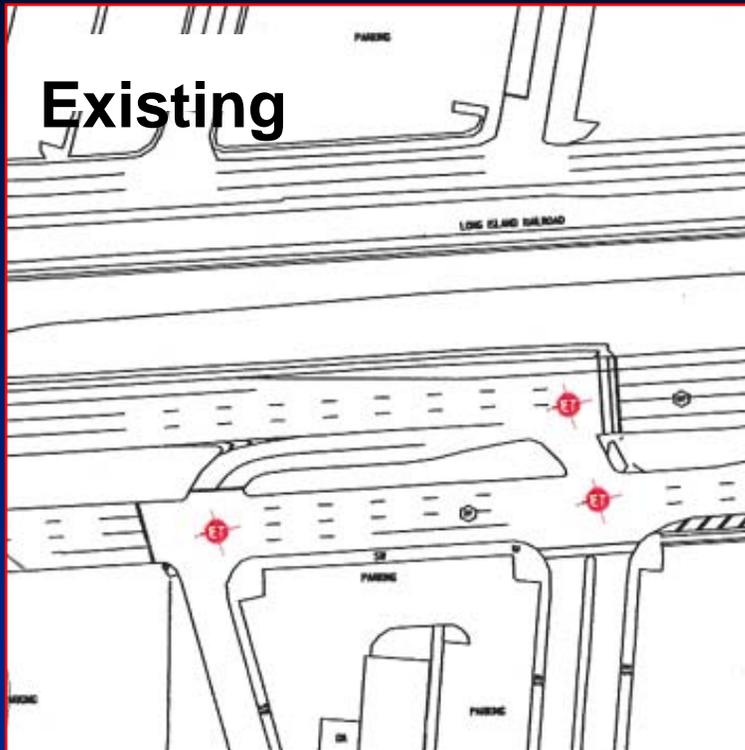
- Provide Additional Through Lane on Westbound NY27
- Increase Left-Turn Storage
- Provide a Raised Separator on Westbound NY27



Approved Plan

“Sears Center” (Philips Plaza)

- Reconfigure Access
- Eliminate Traffic Signal at Westerly Driveway



Old Sunrise Highway

Existing

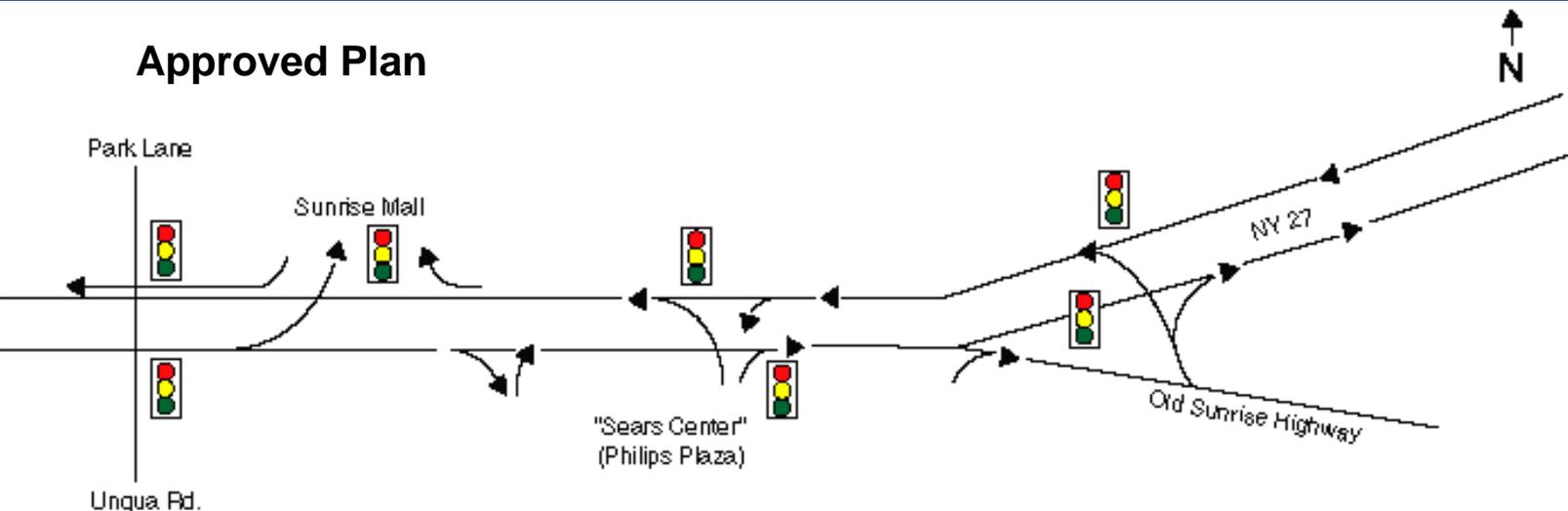
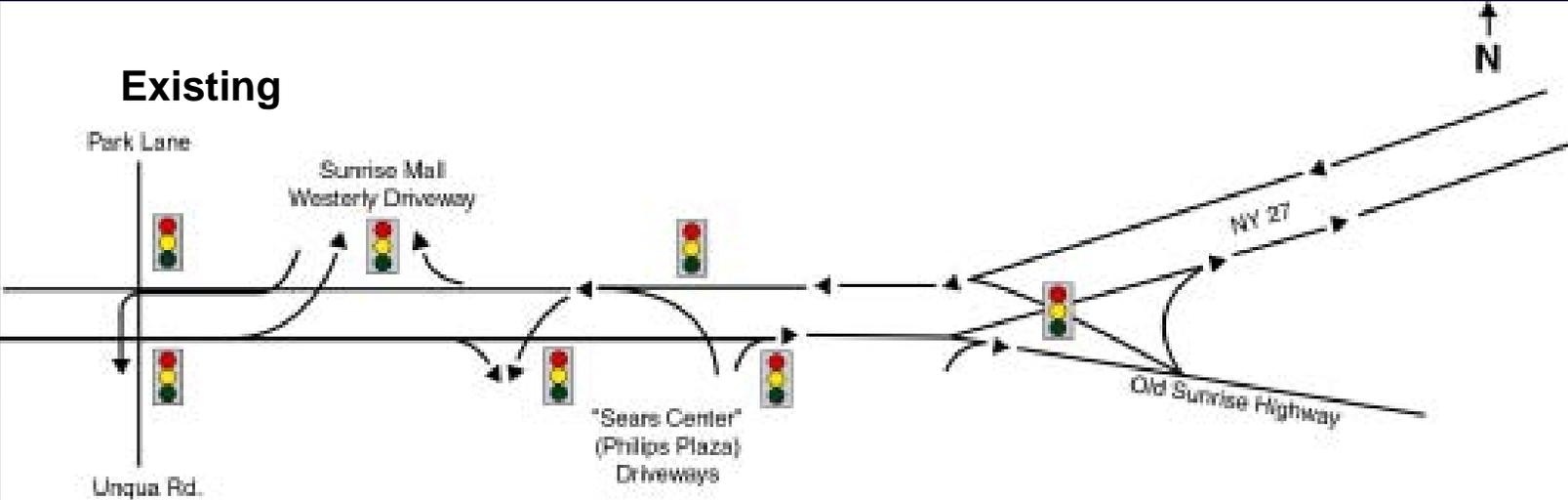


- Relocate Westbound Connection
- Add Traffic Signal on Westbound NY27



Approved Plan

Major Turning Movements East of Unqua Road



Approved Plan

- Eliminated modifications that were opposed by specific interests
- Appears to be implementable within a reasonable timeframe
- Would improve conditions compared to the no-build scenario
- Does not provide the same level of operational or safety benefits as the theoretical alternative



Accident Frequency & Reduction

LOCATION	Current Number of Accidents *	Estimated Accident Reduction	
		Theoretical Arrangement	Approved Plan
Unqua Road/ Sunrise Mall Westerly Driveway	89	53%	46%
“Sears Center” (Philips Plaza)	13	77%	51%
Old Sunrise Highway	15	48%	30%

* 1½ - Year Accident Data





Projected Operations with Approved Plan

	SPEED (MPH)	
	No Build Scenario	Build Scenario
Eastbound NY27	8.7 (14.0)	10.4 (16.7)
Westbound NY27	6.5 (10.4)	13.6 (21.9)





Conclusions/Lessons Learned

- Coordinate land use with available transportation resources.
 - Provide the appropriate transportation agency an opportunity to review while there is still a chance to be proactive.
 - Assess conditions at locations that extend beyond the immediate vicinity of the site.
 - Consider conditions beyond the time of the development review.
 - Identify if a supporting road system needs to be developed.
 - Include provisions for cross access to allow for internal circulation.
 - Identify the long-term implications and cumulative impacts of access-related decisions.
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