

24 April 2014

Residential Wayne Avenue Group for
Purple Line Design Issues in Silver Spring

Springvale Terrace Senior Living Community
Silver Spring

The Honorable Martin O'Malley
Governor of Maryland

The Honorable Anthony G. Brown
Lieutenant Governor of Maryland

Dear Governor O'Malley and Lieutenant Governor Brown,

We are writing to ask your immediate intervention with the Maryland Transit Administration to instruct MTA to put explicit language into the imminent Purple Line RFP to include planning for alternative locations for Traction Power Substations in east Silver Spring.

MTA plans to put only two of the 20 large Power Substations for the Purple Line in residential areas and only in east Silver Spring. MTA put every other unit in heavily-wooded or industrial areas where the large mechanical boxes can blend in. The two east Silver Spring locations are surrounded by smaller, detached homes and in view of scores of others at places so high-profile that the Power Substations would adversely redefine a wide residential area. At one location, the Power Substation would be adjacent to the Springvale Terrace Senior Living Community and would become the view for many of its 150 senior residents. *(Please see Attachment 1)*

Montgomery County Executive Leggett has stated publicly that he does not support siting a Power Substation at the Wayne/Cloverfield location. **The Montgomery County Planning Board** recommended on March 20, 2014, that MTA keep the locations of these "highly visible" Power Substations "open." **Numerous area residents filed FEIS comments** asking for review of relocation. Many residents are pro Purple Line but against the Power Substation locations.

On April 11, 2014, **Congressman Van Hollen** wrote Transportation Secretary Smith about constituent concerns that "crucial" Purple Line issues are "not being addressed by (MTA)." The congressman urged that MTA's "RFP language make it clear that these issues are open for review." Congressman Van Hollen specified, "One of the most serious of these concerns is the placement of power substations in residential areas."

The MTA process did not provide a review of locations: MTA made the east Silver Spring locations known to the public barely a year ago. Our four neighborhood groups united at once to get MTA to move the Power Substations to more appropriate locations. We identified multiple alternatives for MTA of how other cities have inserted large light rail Power Substations into established areas and we also identified other possible locations in east Silver Spring *(Please see*

Attachment 2). But MTA would not budge on relocation, made limited inquiry into alternatives, and over the months of discussion, never offered one alternative idea of its own.

MTA also declared any costs for relocation prohibitive without providing any cost-benefit analysis while residents of east Silver Spring watched MTA make public commitments to expensive upgrades for Chevy Chase and Bethesda. Those bridges, acoustical walls and underpasses are optional mitigations those neighborhoods need and will get. We are asking only the same for the mitigations needed here in the east county, where there are no such plans.

The reasons for relocation are compelling. **Large Power Substations damage residential property values.** While light rail may benefit residential property values, large Power Substations, light rail or no light rail, do not. Residents are also concerned because **permanently unoccupied structures in suburban settings create conditions for an increase in crime.**

MTA now refuses to discuss relocation at all which contradicts MTA's own commitment to the federal government in the Record of Decision (ROD) that it would continue to work "with the counties and communities" on all aspects of Power Substations including "location." (*Ref: FTA Record of Decision March 2014, Attachment A: Mitigation ID and Reference # V104*)

MTA is restricting any discussion with the community to the sole topic of design of aesthetic exteriors, but no design can prevent the damage to home values or change the perception that a Power Substation is anything other than the large mechanical plant it is, or eliminate the requirement for bold warning signs that say, "Danger. Keep away."

MTA is perfectly capable of moving these last two Power Substations away from homes without any damage or any delay to the Purple Line. The options and technologies exist.

We ask that you urge MTA to include explicit language in its RFP that signals bidders that relocation is under review. That would make the RFP consistent with MTA's commitment in the ROD and responsive to Congressman Van Hollen, County Executive Leggett, the Planning Board, the Springvale Terrace seniors' community, and the residents of east Silver Spring.

Sincerely,

The Residential Wayne Avenue Group for Purple Line Design Issues
Signers listed individually below

Margaret Hubbard
Director, Springvale Terrace/Seabury Senior Living Community

Signed by adjacent stakeholders
Signers listed individually below

Attachment 1: Graphics marking homes with direct view of Power Substation locations
Attachment 2: List of Power Substation Construction and location options that enable relocation

**Signing members of the Residential Wayne Avenue Group for Purple Line Design Issues
a coalition of residents and four civic associations in east Silver Spring**

Tom Armstrong
Secretary – SOECA/Seven Oaks Evanswood Civic Association, Silver Spring
Alan S. Bowser
President – Park Hills Civic Association, Silver Spring
Jean Cavanaugh
President – SOECA/Seven Oaks Evanswood Civic Association, Silver Spring
Anne M. Edwards
Member, SOECA
Jonathan D. Halpern
Purple Line Issues Coordinator, Sligo Branview Community Association
Erin Johansson
Member, SOECA
William R. Mentzer, Jr.
President – Sligo Branview Community Association, Silver Spring
Chris Richardson
Vice President – Park Hills Civic Association, Silver Spring
Karen Roper
Chair of Purple Line and Land Use Committee,
ESSCA/East Silver Spring Citizens Association
Darian Unger
Vice President – ESSCA/East Silver Spring Citizens Association

CONTACT for the Residential Wayne Avenue Group:
WayneAvenueGroup@Gmail.com

Signing for the Springvale Terrace Senior Living Community:

Margaret Hubbard, Director
Springvale Terrace Seabury Senior Living Community
Silver Spring
CONTACT: MHubbard@Seabury.org

Signing owners of properties adjacent to the proposed location at Wayne/Cloverfield:

Christian Tawamba Mbouende	621 Greenbrier Drive, Silver Spring
Sheila E. Jaskot	620 Greenbrier Drive, Silver Spring
William A. Wax	620 Greenbrier Drive, Silver Spring
Thomas J. S. Edwards	619 Greenbrier Drive, Silver Spring
Fabian E. Soria	618 Greenbrier Drive, Silver Spring
Claudia V. Gutierrez	618 Greenbrier Drive, Silver Spring

Letter to Gov. O'Malley and Lt. Gov. Brown April 24, 2014
From Residential Wayne Avenue Group for Purple Line Design Issues in Silver Spring
Re: Relocation of Purple Line Power Substations in east Silver Spring

Being copied with individual cover:

The Hon. Barbara J. Mikulski of Maryland, US Senate
The Hon. Benjamin Cardin of Maryland, US Senate
The Hon. Chris Van Hollen of Maryland, US House of Representatives

The Hon. Peter V. R. Franchot, Comptroller of Maryland

The Hon. Jamie B. Raskin, Maryland State Senate, District 20
The Hon. Sheila Ellis Hixson, Maryland House of Delegates, District 20, and Chair of Ways and Means Committee
The Hon. Tom Hucker, District 20, Maryland House of Delegates
The Hon. Heather R. Mizeur, District 20, Maryland House of Delegates

The Hon. James T. Smith, Secretary, Maryland Department of Transportation
The Hon. Robert L. Smith, Administrator and CEO, Maryland Transit Administration

Mr. Isiah Leggett, County Executive, Montgomery County, Maryland

Mr. Craig Rice, President and Member, Montgomery County Council
Mr. George Leventhal, Vice President and Member-at-Large, Montgomery County Council
Ms. Nancy Floreen, Member-at Large, Montgomery County Council
Mr. Marc Elrich, Member-at Large, Montgomery County Council
Mr. Hans Reimer, Member-at Large, Montgomery County Council
Mr. Phil Andrews, Member, Montgomery County Council, and Chair, Public Safety Committee
Mr. Roger Berliner, Member, Montgomery County Council, and Chair, Transportation, Infrastructure Energy and Environment Committee
Ms. Nancy Navarro, Member Montgomery County Council, and Chair, Government Operations and Fiscal Policy Committee
Ms. Cherri Branson, Member, District 5, Montgomery County Council

Ms. Françoise Carrier, Chair of the Planning Board, Maryland-National Capital Parks and Planning Commission

Members of the SOECA/Seven Oaks Evanswood Civic Association
Members of the Park Hills Civic Association
Members of the Sligo Branview Community Association
Members of the East Silver Spring Citizens Association
COPLN/Coalition of Purple Line Neighborhoods, Montgomery County
Ms. Charlotte Coffield, President, Lyttonsville Community Association

Letter to Gov. O'Malley and Lt. Gov. Brown April 24, 2014
From Residential Wayne Avenue Group for Purple Line Design Issues in Silver Spring
Re: Relocation of Purple Line Power Substations in east Silver Spring

Mr. Henry Kay, MTA, Executive Director for Transit Development and Delivery
Mr. Jamie Kendrick, MTA, Deputy Executive Director for Transit Development and Delivery
Mr. Michael D. Madden, Purple Line Project Manager
Ms. Joy Hamilton, Purple Line Outreach Director

Mr. Arthur Holmes, Jr., Director, Montgomery County Department of Transportation
Mr. Gary Erenrich, Special Assistant to the Director, MC DOT
Mr. Charles Lattuca, Rapid Transit System Development Manager, MC DOT
Mr. Reemberto Rodriquez, Director, Silver Spring Regional Services Center of the Montgomery
County Executive's Office

Ms. Gwen Wright, Director of Planning, Montgomery County Planning Department
Mr. Robert Kronenburg, Chief, Montgomery County Planning Department
Mr. Tom Autrey, Supervisor, Montgomery County Planning Department
Mr. David Anspacher, Planner/Coordinator, Montgomery County Planning Department
Mr. Marc DeOcampo, Supervisor, Montgomery County Planning Department

Attachment 1

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**SILVER SPRING
LONG BRANCH**
Homes in sight of TPSS Q7
at Flower Ave and Arliss St



Power Substation

TPSS Q7



Homes



Townhomes

Attachment 1

Page 2 of 2

**SILVER SPRING
WAYNE AVENUE**

**Homes in sight
of TPSS Q6
at Wayne Ave
at Cloverfield Rd**

Power Substation


 **TPSS Q6**



**Homes in view
year round**



**Homes in view
In winter**

 **Seniors' windows and
balconies with view**

**Springvale Terrace
home of 150 seniors**

ATTACHMENT 2

LIST OF OPTIONS FOR POWER SUBSTATION CONSTRUCTION AND RELOCATION OF TPSS Q6 AND TPSS Q7 FOR THE PURPLE LINE IN EAST SILVER SPRING

This attachment offers examples of how other governments have inserted large Power Substations (TPSS) into compact, established areas particularly by using the “Build-in-Place” process which can customize a TPSS to fit a space where a standard TPSS unit doesn’t work.

Purple Line plans to place 20 uniform, pre-fab units at 20 surface locations about a mile apart (See Photo 1).

Residents of east Silver Spring want MTA to reposition the only two TPSS that MTA placed among homes: TPSS Q6 at Wayne/Cloverfield and TPSS Q7 at Flower/Arliss.

The community developed this list of alternatives for MTA a year ago.

Every suggested location is non-park public property or will be MTA property.

Every option here is technically feasible.

This document addresses only relocation options and not the separate issue of exterior aesthetics for TPSS at the original locations that MTA wants:

PART I introduces the widely-used construction process “Build in Place” that allows cities to custom fit TPSS facilities into established areas.

PART II presents alternative locations in east Silver Spring of public properties that could support a TPSS either as Build-in-Place and/or a standard surface pre-fab unit.

PART III offers Relocation Concepts combining elements of Parts I and II with the goal of shifting TPSS Q6 and TPSS Q7 away from east Silver Spring homes. Concept (A) relocates a few TPSS units using only TPSS already in MTA’s design. Concept (B) adds one new TPSS to be situated in the Silver Spring CBD area which eases multiple constraints if relocating only the existing TPSS.



Baltimore light rail TPSS, Bellona Ave at West Joppa Rd

*Photo 1: Standard pre-fab traction power substation (TPSS)
52' long x 14' wide x 12-14' high*

PART I: “Build-in-Place” as a Construction Process for TPSS

Build-in-Place literally means taking individual TPSS components out of the standard metal-box so the components can be assembled to fit in a given space.

Build-in-Place is the widely-used practice to construct TPSS in established areas that cannot accommodate surface parking of the standard metal-box TPSS unit.

A few examples of Build-in-Place applications

1. Build-in-Place inside almost any pre-existing building

Photo 2 shows a TPSS recently installed inside a long-existing parking garage at the Mall of America near Minneapolis.



Photo 2: Build-in-Place TPSS in the Mall of America Parking Garage, Minnesota, 2014

2. Build-in-Place as an add-on structure of any shape next to a pre-existing building

3. Build-in-Place under rising highway ramps or rising light rail ramps

TPSS can be installed at street level by tucking them in the space under the rising supports of a ramp.

A rising ramp like this will be built by Bonifant and Dixon for the Purple Line to reach its station at the Silver Transit Center.



Photo 3: Generic rising ramp. A Build-in-Place TPSS fits under its supports, with street-level access.

4. Build-in-Place into hillsides behind retaining walls with street-level access

TPSS can be installed into a cut in a hillside with street level access through doors in a retaining wall.

The Montgomery County Planning Board recommended that Purple Line planners consider this exact arrangement in Chevy Chase, to:

... integrate the traction power substation at Connecticut Avenue into the elevated fill for the tracks and trail, with service doors along the retaining wall, to reduce visual impacts

-- M-NCPPC Purple Line Mandatory Referral recommendations

This process provides at least two more options for TPSS in east Silver Spring: (a) on the south slope of the county school in the 300 block of Wayne Avenue near the Dale Drive station and (b) on the north slope of Wayne Ave designed into the hillside as part of the opening of the tunnel near Manchester Road.

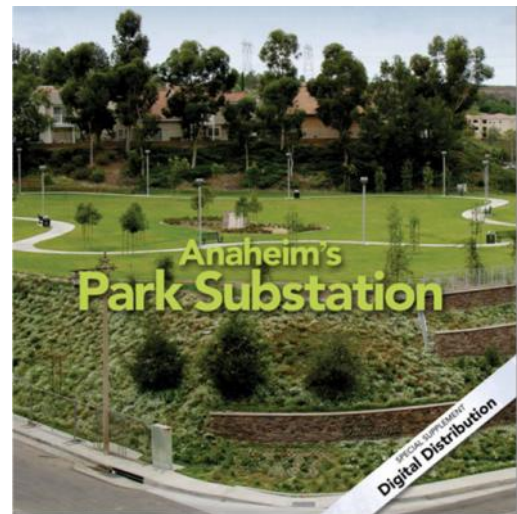
5. Build-in-Place completely underground: Bury it and put a Park on top

This has been done in developed areas to preserve the surface for commercial or community use in London, New York, Tokyo, and Anaheim CA (See Photo 4).

This idea is a favorite among residents of east Silver Spring. MTA has ruled it out citing engineering challenges and costs without providing the cost-benefit analysis.

The suggested location was at Dale Drive and Wayne Avenue under the naturally elevated school parking lot which MTA already needs to rebuild completely.

Street-level access to the TPSS would occur through retaining wall doors on Wayne Avenue.



Cover of *Transmission and Distribution World*, April 2007

Photo 4: Buried Power Substation under city park in Anaheim, CA. Truck access ramps not shown.

6. Build-in-Place can preserve valuable AIR RIGHTS of a parcel, especially in a CBD and the revenue from it

Giving a valuable parcel permanently to a surface-parked TPSS kills the parcel for any future use – unless the air rights are preserved at the initial construction.

The size of the revenue loss to the economy and to state and county treasuries over the four-decade life that a TPSS occupies a CBD or other development parcel could offset initial construction costs that preserve the parcel for additional use. The parcel is preserved if the TPSS is installed on a foundation that can support later construction above or beside it.

Immediate applications in Montgomery County vis a vis the Purple Line:

Two current CBD parcels marked for surface TPSS

Q5 in Silver Spring and Q1 in Bethesda

Two Master Plan development parcels marked for surface TPSS

Q7 in Long Branch and Q2 in Chevy Chase Lake

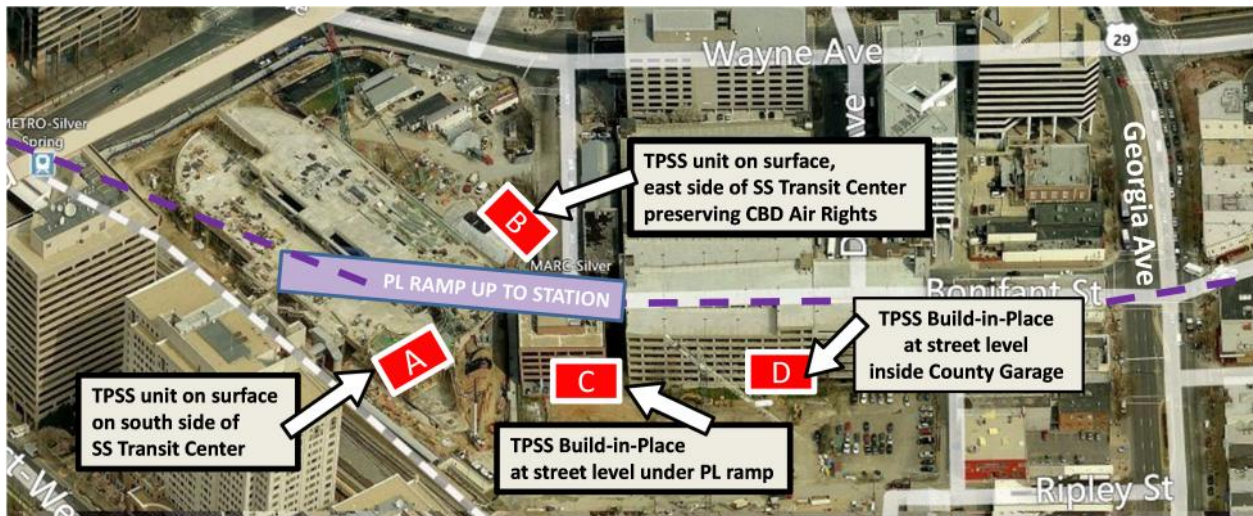
PART II: List of Public Properties To Assess As Possible Locations for TPSS

There are sixteen locations in Silver Spring, primarily in the east Silver Spring area, which belong to the County or State now or will become Purple Line properties. They do not involve residential areas.

Use of these locations alone or in combination can allow repositioning of the few TPSS in Silver Spring that the community is adamant should be moved: TPSS Q6 and TPSS Q7.

- | | |
|--|---|
| 1. Lyttonsville Station or Work Yard | On surface, no disguise needed |
| 2. Woodside/16th Street PL Station area | On surface, no disguise needed |
| 3. Area around Silver Spring Transit Center (SSTC) (See Figure 1) | |
| A) South edge of SSTC | On surface, disguise optional
Street-level access |
| B) East side of SSTC | On surface, disguise optional,
street-level access, OR
On surface with foundation that preserves
AIR RIGHTS for future development |

Figure 1: Possible TPSS Locations near Silver Spring Transit Center

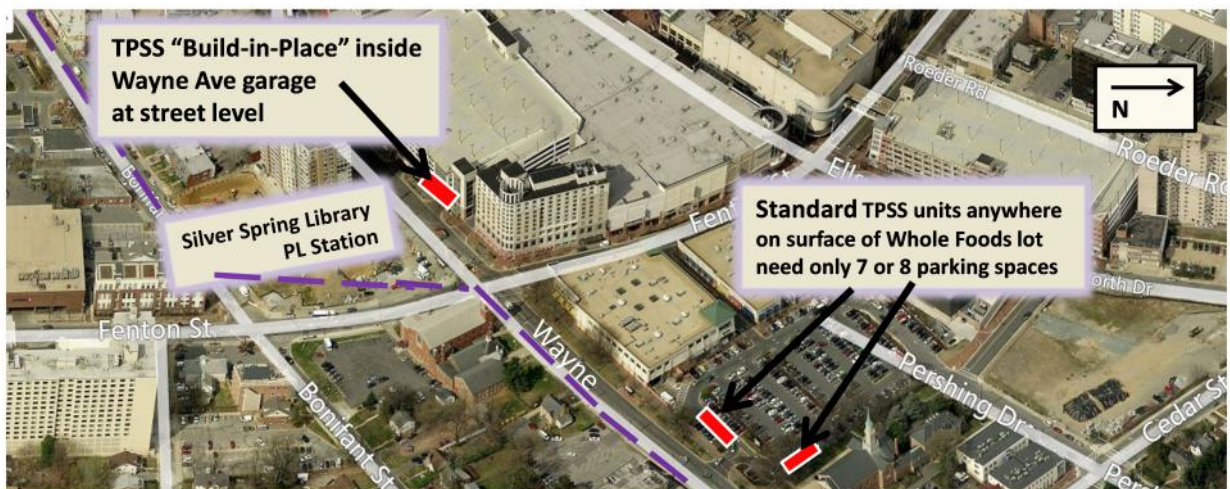


C) Tuck TPSS under PL ramp at Bonifant/Dixon at street level
 Build-in-Place at street level under PL ramp that will rise from Bonifant Street to Transit Center station with access to TPSS under the ramp through street-level doors.

D) Inside County Parking Garage at Bonifant and Dixon
 Build-in-Place TPSS inside County Parking Garage at Bonifant and Dixon next to the Silver Spring Transit Center; build TPSS at street level, with full street-level access.

4. Wayne Avenue Alignment Near Silver Spring Library Station (See Figure 2)

Figure 2: Possible TPSS Locations near Silver Spring Library Station



- A) Wayne Avenue Garage Build-in-Place at street level inside County Parking Garage
 Opposite Silver Spring Library PL station

- B) Whole Foods Parking Lot Park a STANDARD TPSS unit on surface of county lot.
 Needs only 7 or 8 parking spaces
 Lot is on the Wayne Avenue alignment.

5. FAR WEST EDGE of Silver Spring International Middle School at Dale Drive

- A) Along west curb of school On surface, full access, disguise optional
 East side of 700 Blk Dale Dr. *Challenge:* Requires reworking school parking plan,
 which was arranged between MTA and MCPS
 without community involvement
 Challenge: Would use parking spots but only 7 or 8.

- B) Bury underneath school lot Build-in-Place under school lot at Wayne/Dale;
 Street-level access thru retaining wall on Wayne
 Obstacle: MTA cites cost, engineering challenges

6. EAST EDGE of Silver Spring International Middle School (See Figure 3)

Figure 3: Possible TPSS Locations East of Silver Spring International Middle School



- A) On South slope Build-in-Place cut into hill with street-level access
 From Wayne Ave through retaining wall doors

- | | |
|---------------------------|---|
| B) On south edge of track | Park SURFACE unit (or build-in-place) on county property at south east edge of school facilities. |
|---------------------------|---|

7. At Wayne Ave End of Manchester Place Station

Build TPSS into hillside design on East Wayne at opening of Purple Line tunnel

8. Long Branch Area (See Figure 4)

Figure 4: Possible TPSS Locations for Long Branch



- | | |
|--------------------------------------|---|
| A) At Arliss Street end of tunnel | Build-in-Place TPSS obscured within the Design of the east opening of tunnel |
| B) As Part of Long Branch PL Station | Surface standard TPSS unit, no disguise required incorporated into design of Long Branch station |
| C) As part of Master Plan site | Surface standard unit OR Build in Place along edge of property/ROW marked for Long Branch Master Plan development Preserving Air rights around TPSS |

Part III – Two Relocation Concepts That Combine Elements of Parts I and II

The goal is to move two Power Substations designated by MTA as TPSS Q6 (600 block Wayne Avenue between Cloverfield and Greenbrier) and TPSS Q5 (Flower and Arliss in Long Branch) away from the smaller homes to more suitable locations.

The Relocation Concepts presented here are suggestions that need refinement but are viable.

Concept (A) shifts only existing TPSS

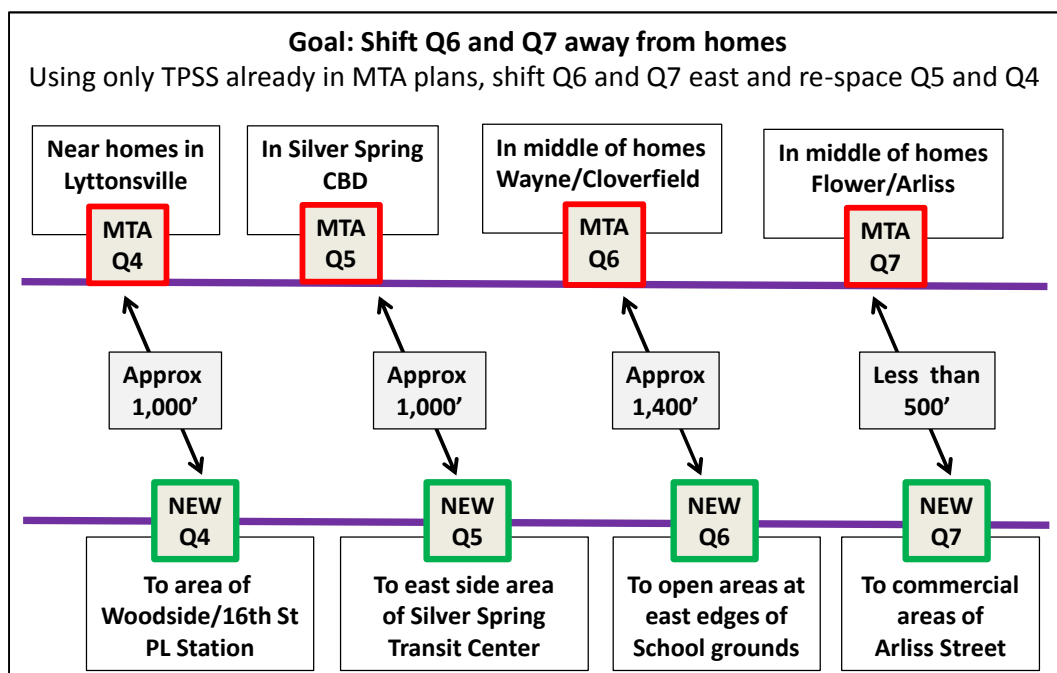
Concept (B) adds one more TPSS to be located in the Silver Spring CBD to allow easier repositioning of the others in the Silver Spring area.

Relocation Concept (A): Shift only a few TPSS Units already in MTA'S design

According to their manufacturers, the 2-Megawatt TPSS units planned for the Purple Line are so powerful that they should have spare capacity when placed at the one-mile intervals planned by MTA even with normal levels of variables of terrain, headway, and redundancy.

Concept (A) is based on stretching within that tolerance to shift existing TPSS and put more distance between them (See Figure 5)

Figure 5: Relocation Concept (A)



The likelihood of spare capacity means it is worth investigating whether a few TPSS could extend their coverage range to shift even the short distance needed to allow TPSS Q6 and TPSS Q7 to move to nearby more appropriate places.

Concept (A) shifts TPSS Q5, Q6 and Q7. It shifts Q4 in Lyttonsville only if necessary to support the shifts by the others

TPSS Q5 moves within the Silver Spring CBD

MTA has placed **TPSS Q5** in Silver Spring CBD at the northwest edge of Metro Station. Shift TPSS Q5 about 1,000 feet to the east and place it on public property near the Silver Spring Transit Center. *Four alternative locations for Q5 are identified in Part II – Locations List – Point #3, and Figure 1.*

TPSS Q6 - This is the one near too many homes along Wayne Ave

MTA places TPSS Q6 on Wayne Ave between Cloverfield Rd and Greenbrier Drive. The shift east of TPSS Q5 should allow TPSS Q6 to shift east onto public properties in the area of 300 and 200 blocks of Wayne Avenue. *Five alternative locations for Q6 are identified in Part II – Locations List – Points #5, #6 and #7, and Figures 2 and 3.*

TPSS Q7 – This is the one near too many houses in Long Branch

MTA places TPSS Q7 amid houses at Flower Avenue and Arliss Street. The shift east of TPSS Q6 should allow TPSS Q7 to move only a few hundred feet into a commercial area. The distance needed to move TPSS Q7 away from homes is so short that it is possible that TPSS could move on its own. *Three alternative locations for Q7 are identified in Part II – Locations List – Point #8, and Figure 4.*

IF NEEDED: TPSS Q4 in Lyttonsville can shift east to allow the move of TPSS Q5

MTA places TPSS Q4 in Lyttonsville near homes. TPSS Q4 is not addressed previously in this document because TPSS Q4 is the only Silver Spring TPSS placement that has a public commitment from MTA to review their situation. The relocation of TPSS Q4 however could be the key to shifting Q5, Q6, and Q7 and the prerequisite for all moves. *Two alternative places for Q4 are identified in Part II – Locations List – Points #1 and #2.*

Relocation Concept (B):

Add one more TPSS in the Silver Spring CBD for easier relocation of Q6 and Q7

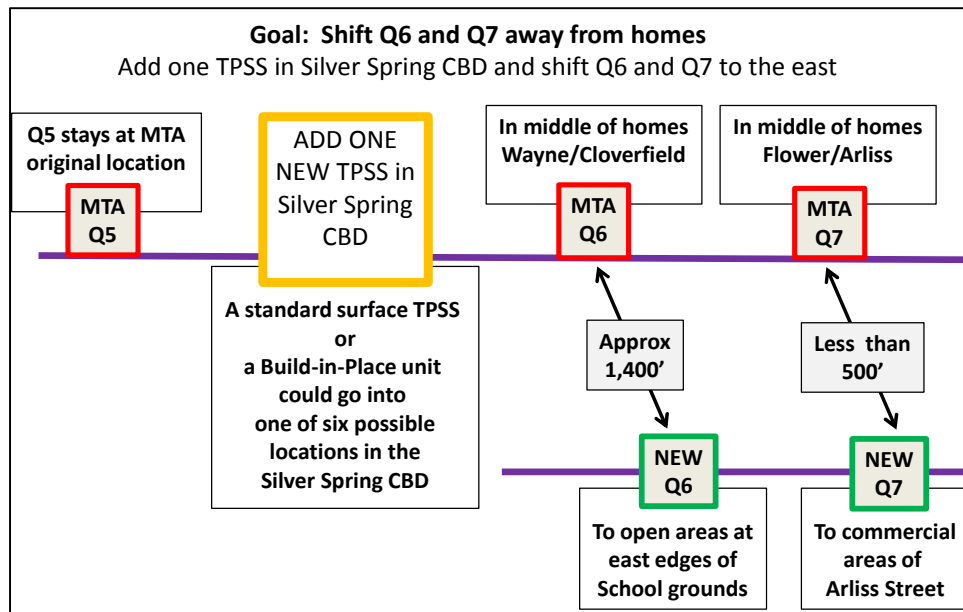
MTA told area residents that places farther east on Wayne Avenue than Cloverfield Road were worth consideration for installation of TPSS Q6 but were ruled out because the sites were “too far to the east.” That begged the question, “Why not just add a TPSS to the west?”

MTA has repeatedly refused any discussion at all about adding a TPSS. If MTA were to add one TPSS in the Silver Spring CBD, both Q6 and Q7 could relocate away from homes.

ADD ONE NEW TPSS IN SILVER SPRING CBD

Adding one more TPSS would allow the moves east of TPSS Q6 and Q7 to get away from the houses; it should also mean no other existing TPSS need to move (See Figure 6).

Figure 6: Relocation Concept (B)



One more TPSS could be added in the Silver Spring CBD which is midway between MTA's TPSS Q5 and the new position needed for TPSS Q6. If Q6 moves, Q7 can move.

The cost of one additional TPSS, estimated by contracts of other governments using the same equipment planned for the Purple Line, is approximately 2% of the projected cost of the optional Purple Line Bridge over Connecticut Avenue in Chevy Chase.

Six possible locations to put a new TPSS in the Silver Spring CBD are identified in Part II – Locations List – Points #3 and #4

Concluding Point

This document and data were originated and compiled by the *Residential Wayne Avenue Group for Purple Line Design Issues*, a coalition of residents and civic association officers in east Silver Spring. For any further information or inquiry, please contact us at

WayneAvenueGroup@Gmail.com

END Attachment 2