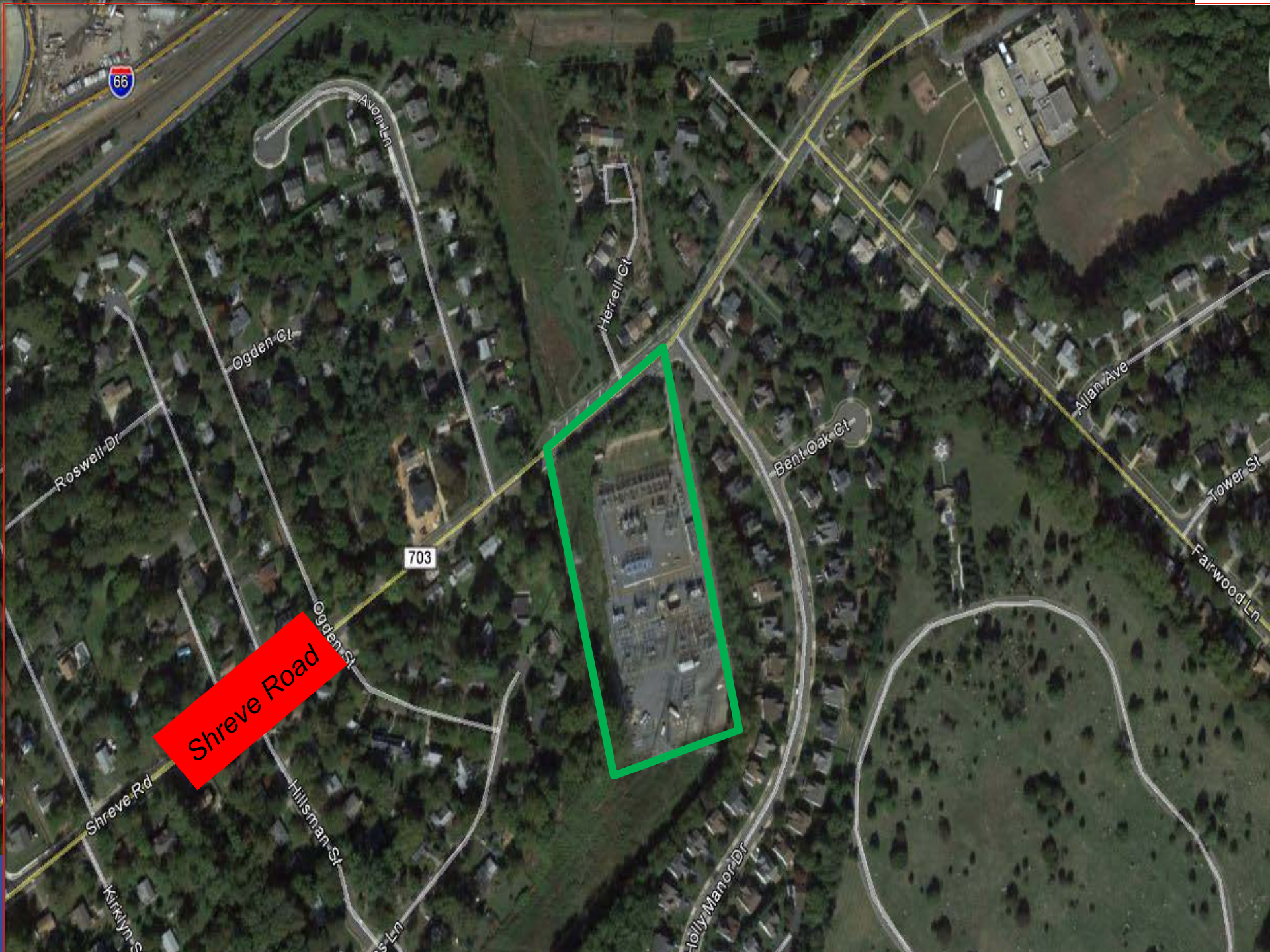


Idylwood Substation

Open House Presentation
January 28, 2015



Shreve Road

Idylwood Substation...Critical Hub

The Idylwood Substation is a 60-year old facility located at the intersection of two major transmission corridors. It is an electrical transmission hub and major distribution substation that is critical to Dominion for providing reliable power to the Holly Crest Community, Fairfax County, and all of Greater Northern Virginia



Updated Plans

- **Fact remains: Substation must be updated and remodeled**
- **Following last open house, Dominion removed rear expansion proposal**
- **Dominion will proceed with remodeling substation at front portion of property**
- **Along with removing Phase 2, other improvements to proposal were made**

Community requests that have been implemented:

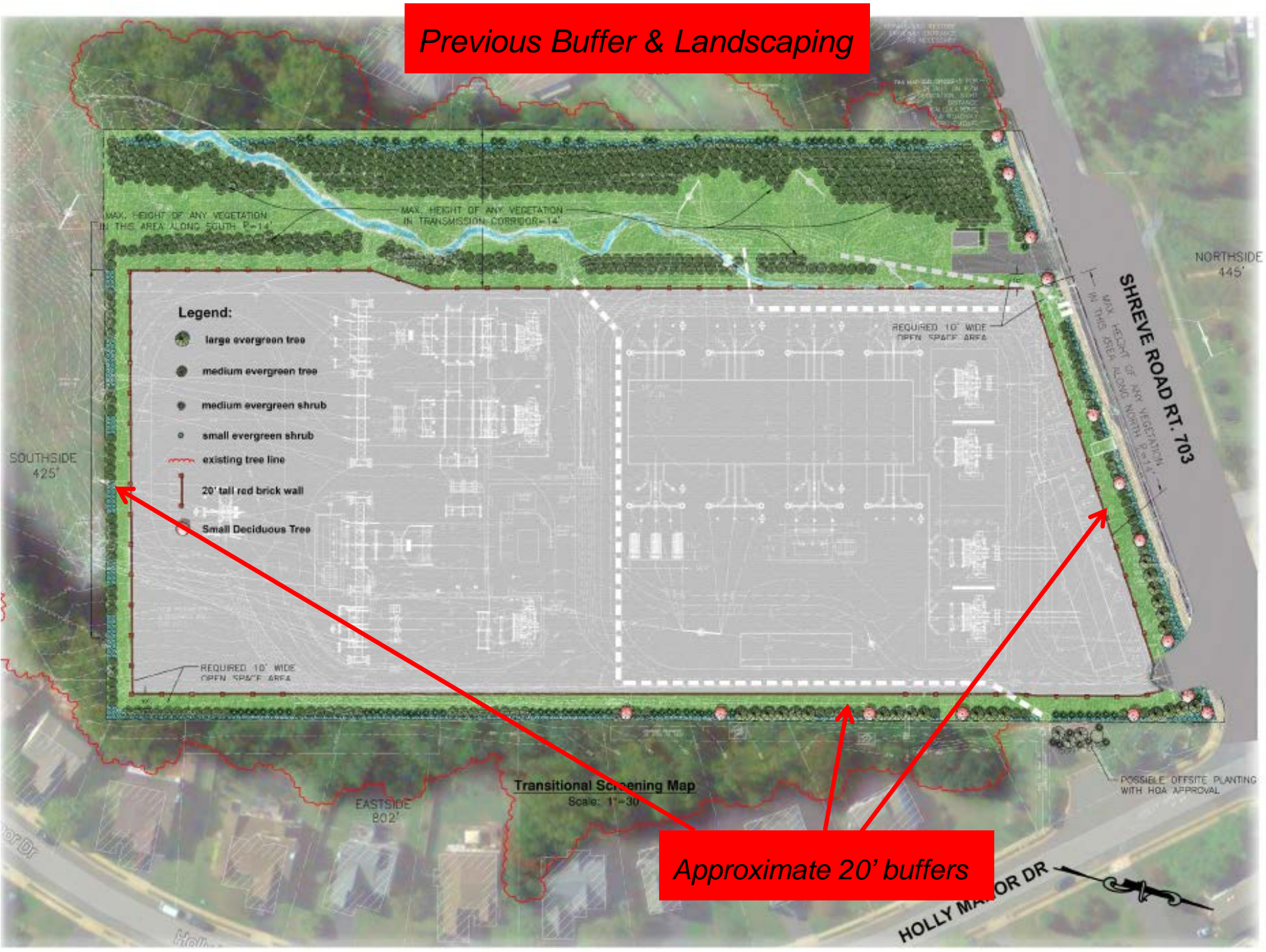
- *Lowered Backbones*
- *Brick Architectural Wall*
- *Increased Landscaping*
- *Extra Street Lighting*
- *Removal of Entrance from Holly Crest*
- *Off-Site Landscaping*

- *Phase 2 removed*
- *Substation shifted approximately 30' away from Holly Manor Drive properties*
- *Substation shifted approximately 15' away from Shreve Road*



Aerial View of Existing Substation

Previous Buffer & Landscaping

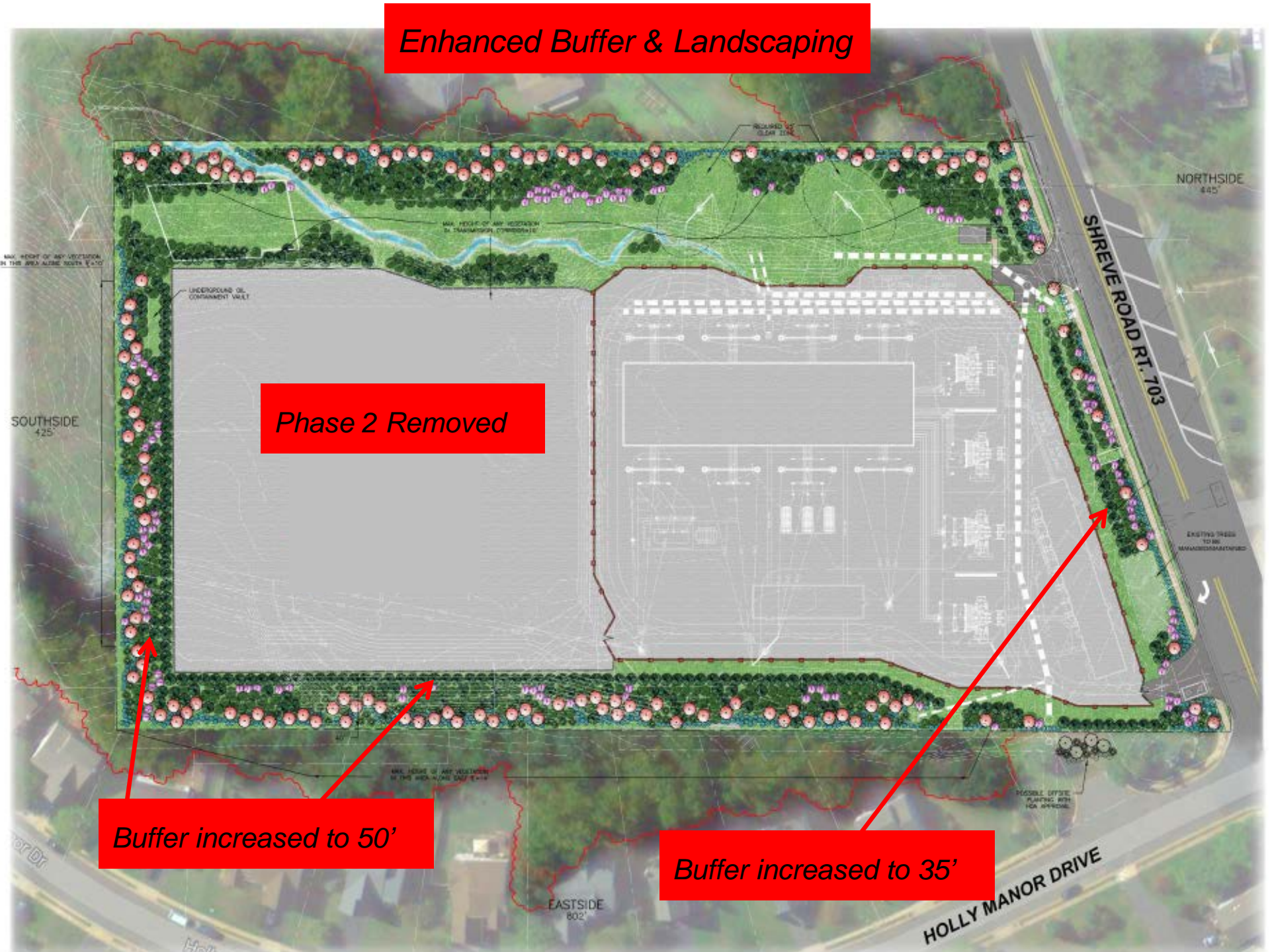


Enhanced Buffer & Landscaping

Phase 2 Removed

Buffer increased to 50'

Buffer increased to 35'



EQUIPMENT

- **Existing equipment footprint: 3.99 acres**
 - **Existing equipment is wider and bulkier**
 - **It has more steel and metal throughout property**
- **Proposed equipment footprint: 2.27 acres**
 - **New footprint is 1.72 acres smaller than what exists today**
 - **New equipment is less bulky**
 - **Majority of equipment is now “enclosed”**

Side-by-Side Comparison of Various Footprints

Existing



3.99 Acres

Previously Proposed



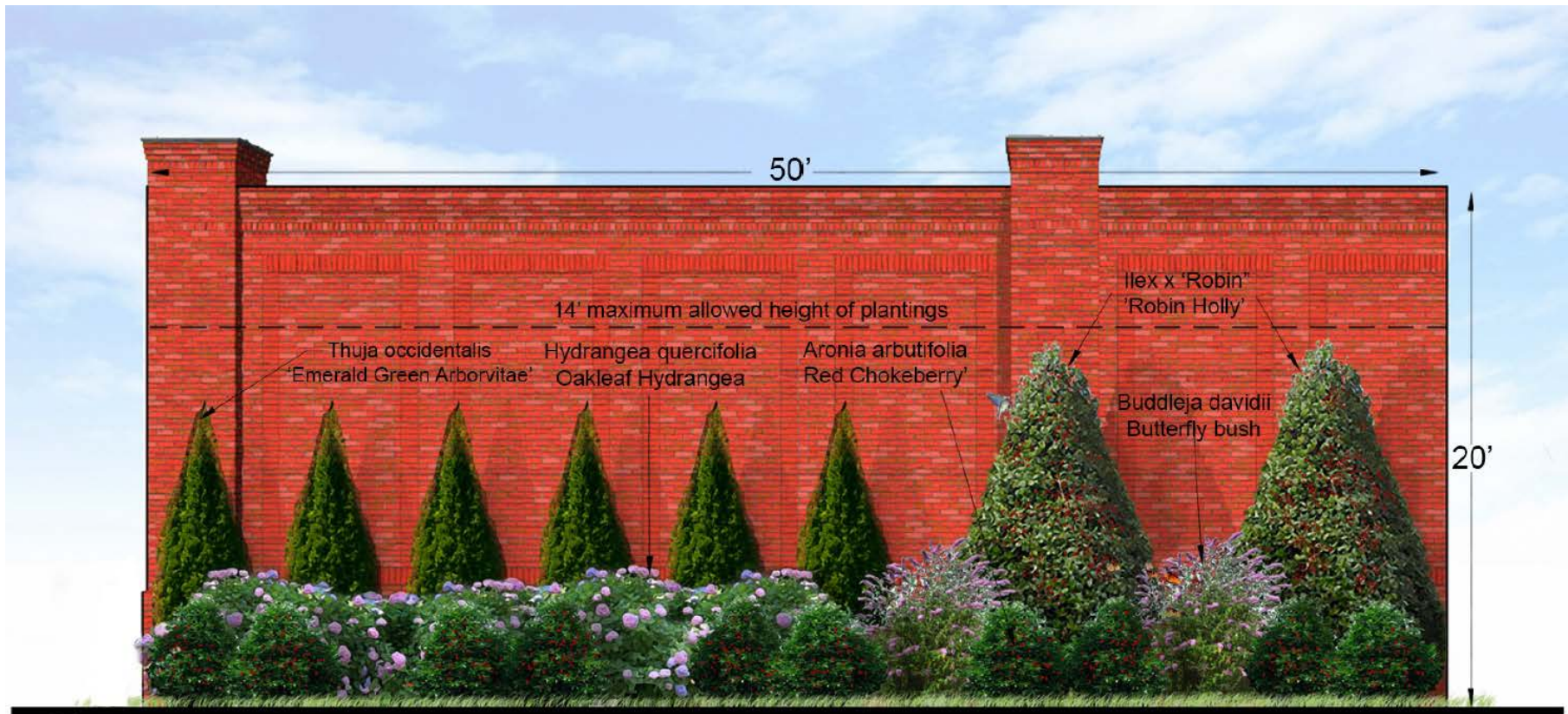
4.69 Acres

Currently Proposed

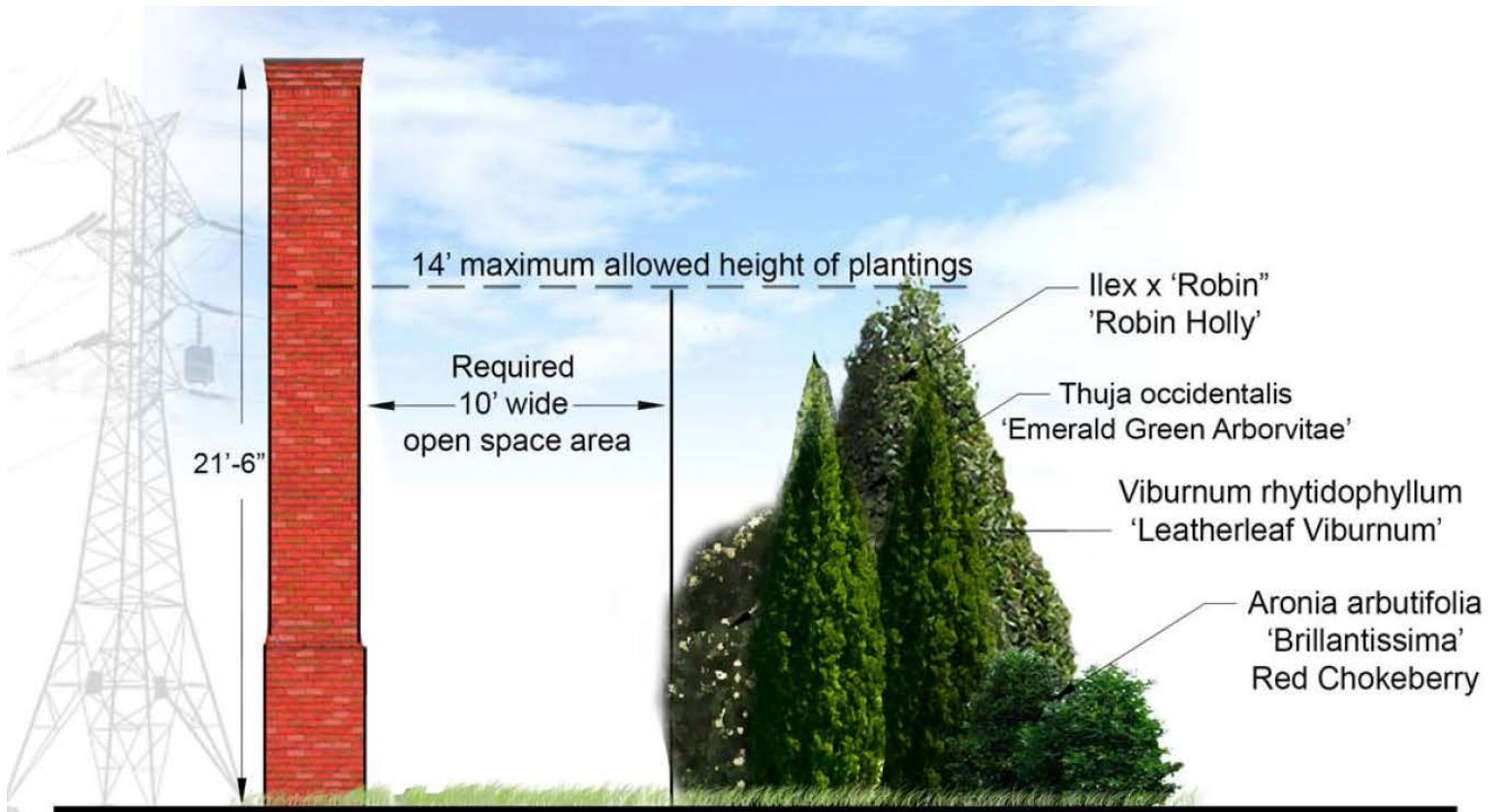


2.27 Acres

Wall



Profile View of Wall



Visual Simulations

Front Entrance – Existing View



Front Entrance – 2 Year Growth



Front Entrance – 10 Year Growth



View from Shreve Road - Existing



View from Shreve Road – 2 Year Growth



View from Shreve Road – 10 Year Growth



7715 Marthas Lane - Existing



7715 Marthas Lane – 2 Year Growth



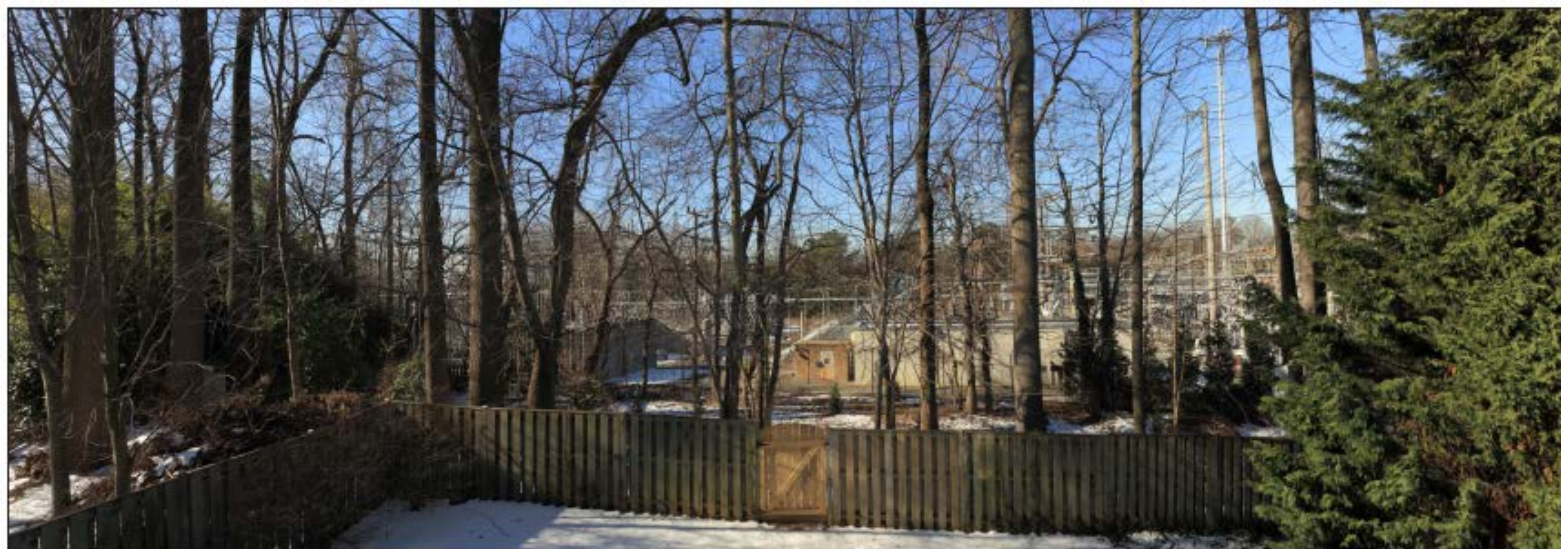
7715 Marthas Lane – 10 Year Growth



7715 Marthas Lane – Off Site Landscaping



2554 Holly Manor Drive



Viewpoint 01 - Residence at 2554 Holly Manor Drive - Looking West Southwest - *Existing View*

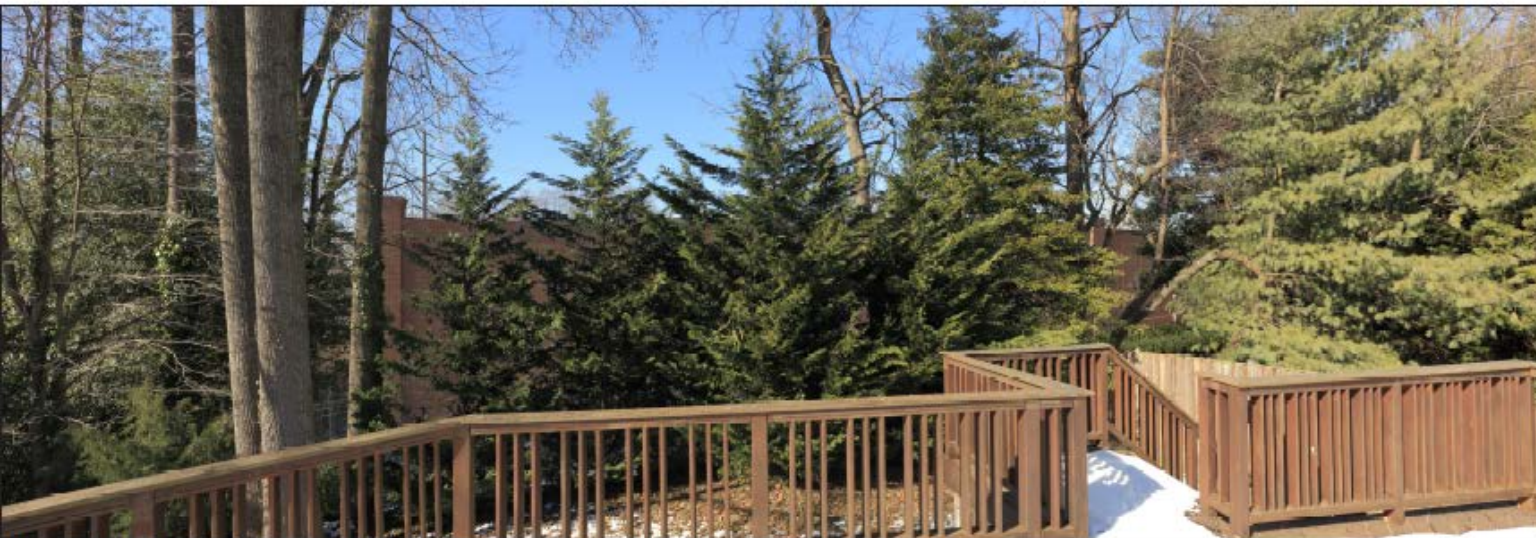


Viewpoint 01 - Residence at 2554 Holly Manor Drive - Looking West Southwest - *Proposed View*

2564 Holly Manor Drive



Viewpoint 04 - Residence at 2564 Holly Manor Drive - Looking West - *Existing View*



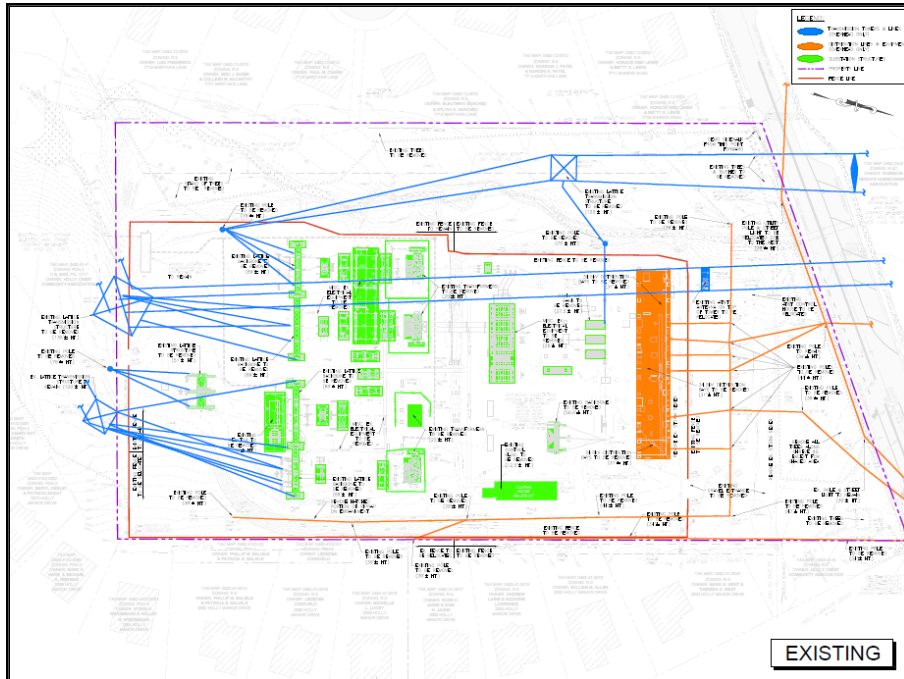
Viewpoint 04 - Residence at 2564 Holly Manor Drive - Looking West - *Proposed View*

Benefits of Application

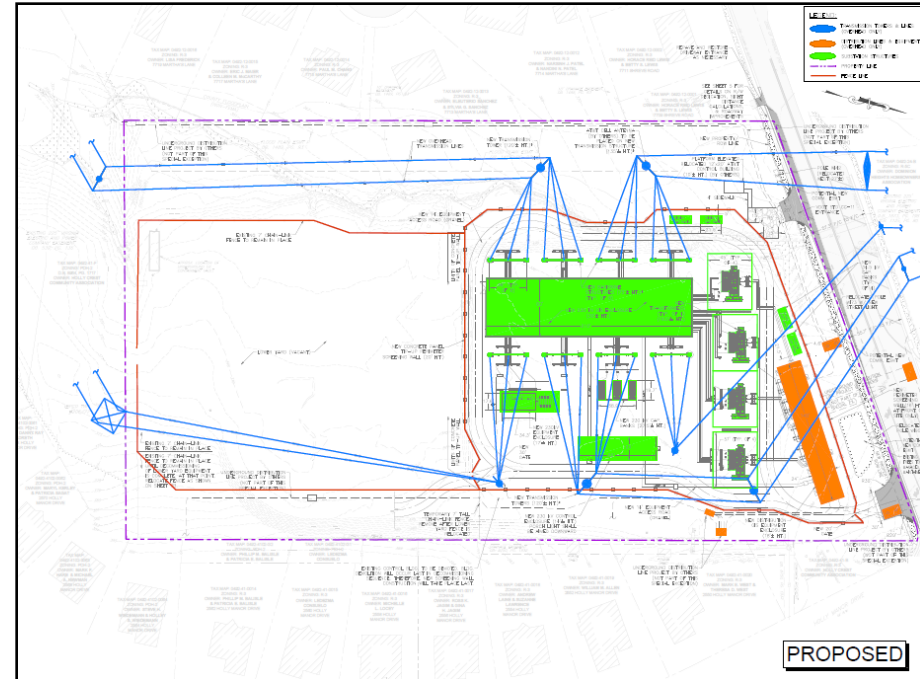
- After 60 years, site gets brought back under County review
- Opportunity for improved equipment that is quieter and less bulky looking
- An improved, architectural brick wall that hides the industrial look of the property
- Landscaping – on and off-site
- County development conditions that provide controls over site

Location of Transmission & Distribution Lines

Existing



Proposed



Transmission:



Substation:



Distribution:



- *Distribution Lines Along Holly Manor Being Undergrounded*
- *Transmission Lines now go further to front of property, but are 45' inside property line*
- *Substation Equipment 50' inside property line*

Electromagnetic Fields (“EMF”)

- EMF, at various frequencies, is naturally present everywhere in the environment
- It is also created whenever an electrical current is used
- It is not only found near transmission and distribution lines, but also in homes, workplaces, schools, etc.
- EMF “falls off” very quickly from the source

Sample household items that generate EMF

Distances from Source

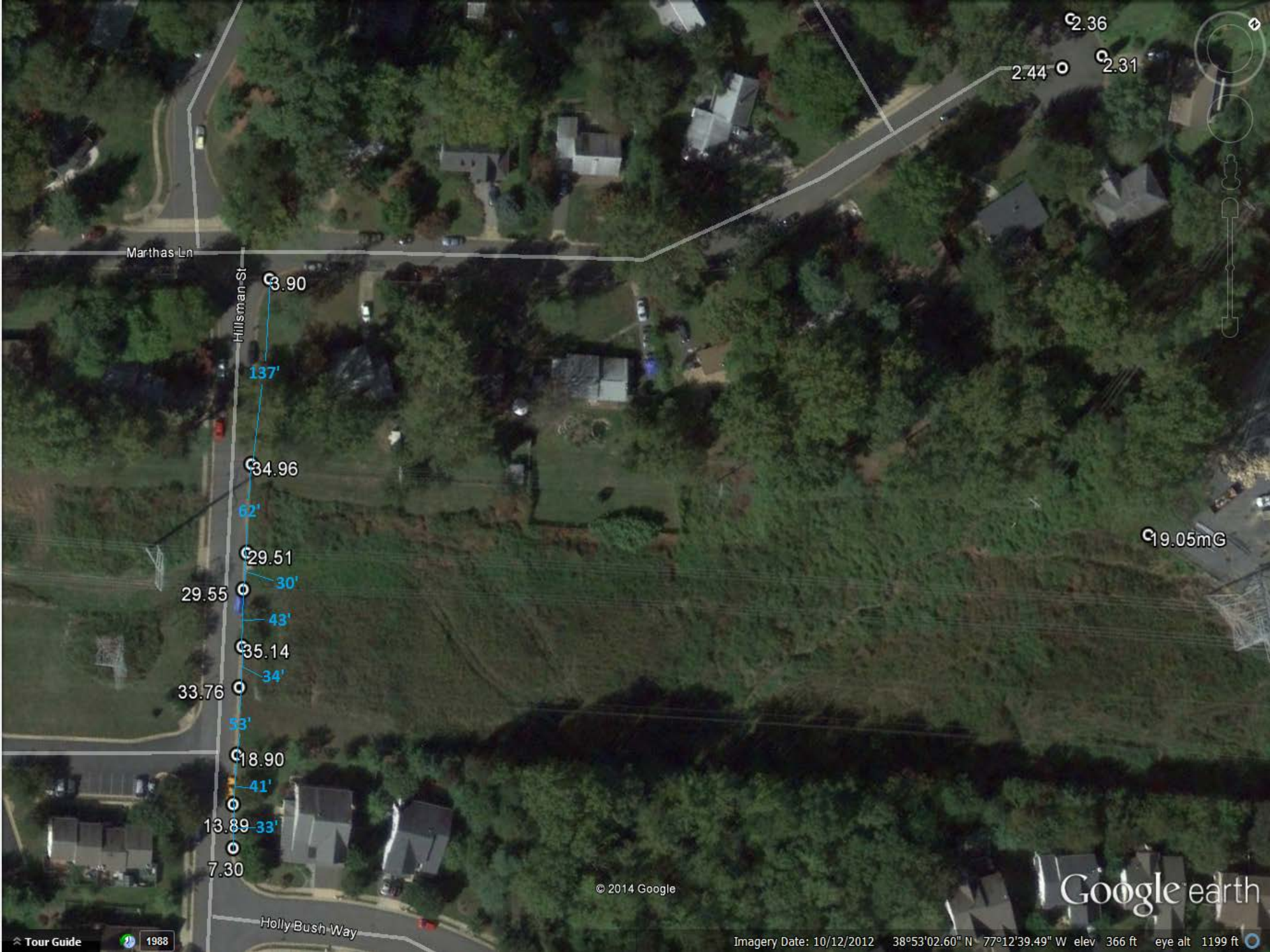
EMF Source (mG)	6 inches	1 Foot	2 Feet	4 Feet
Fluorescent Lights	40	6	2	-
PCs (with color monitors)	14	5	2	-
Copy Machines	90	20	7	1
Color TVs	Not measured	7	2	-
Digital Clock	Not Measured	1	-	-
Microwave Oven	200	4	10	2
Vacuum Cleaner	300	60	10	1
Baby Monitor (unit closest to child)	6	1	-	-

- *Frequencies are measured in milliGauss (mG)*
- *Median frequencies are noted*



IDYLWOOD SUB

Google earth



Marthas Ln

Hillsman St

3.90

137'

34.96

62'

29.51

29.55

30'

43'

35.14

34'

33.76

53'

18.90

41'

13.89

33'

7.30

Hollybush Way

2.36

2.44

2.31

19.05mG

© 2014 Google

Google earth

Sound Study

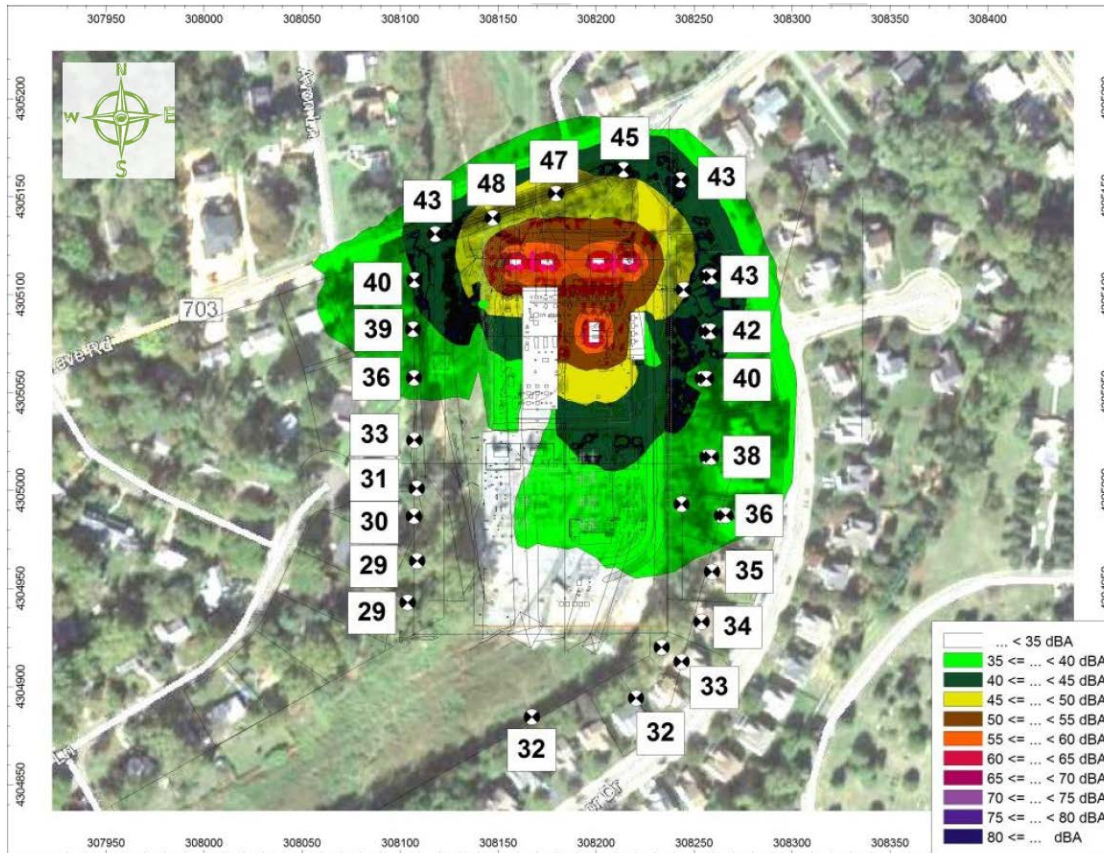


Figure 1: A-Weighted Sound Propagation Contour (dBA)

- *Fairfax County requires 55 dBA at property line*
- *Proposed equipment is newer and quieter*
- *Levels shown are without proposed wall*
- *14' wall will mitigate sound even further*

Status of Application

- **Planning Commission Hearing Date: February 11, 2015**
- **County has been drafting development conditions and staff report**
- **Staff Report will be posted on the County website tomorrow**

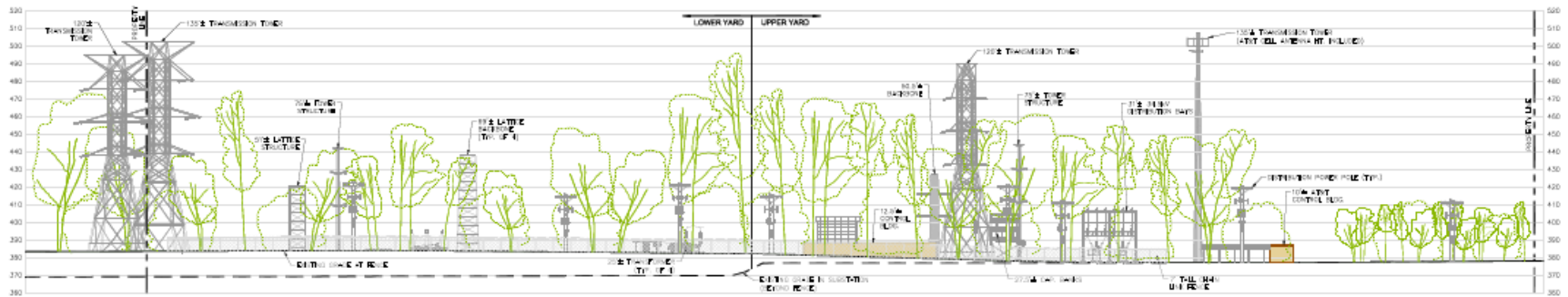
Community Contact

- Dominion will maintain a point of contact for citizens' concerns
- Tiffany Taylor-Minor with Dominion is the main point of contact
- Email: powerline@dom.com or call
1-888-291-0190

QUESTIONS?



Existing Substation Profile



Future Substation Profile

Revised SE Proposal

