



SCMagLev Proposed Use of Konterra Property

Prepared by: Maryland Coalition for Responsible Transit (MCRT)
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I. Introduction

The focus of this document is to provide the “Konterra” references contained within the DEIS documents. Surrounding and relevant text to the “Konterra” mentions have been extracted from the DEIS documents and supplement each of the sections below in order to provide context and additional information for each topic. Some commentary is provided in this document to explain our interpretation of the references.

In general, MCRT’s evaluation of the DEIS document and appendices is that they are significantly inadequate to the requirements of NEPA and there is much that is open to question in how the project proposer identifies the environmental and community impacts, the duration of impacts to communities or natural resources, and how they would mitigate these impacts. For example, the document states that continuous impacts, some 24 hours per day, could last for 1-7 years. However, there are few specifics about how these highly intrusive impacts to communities will be ameliorated. In another example, the size and scope of large laydown areas to prepare for and stage construction activities are identified to take place on specific properties. On at least one of the properties listed in the DEIS, the Konterra property, MCRT has discovered that the property owner has never even been contacted by BWRR about the proposed use of their property. In another example, the choice of haul routes which would also have a large impact on local communities and transportation routes references the Konterra site, but does not specify amount, mitigation, and duration of impacts.

The document, section, and page references are specific to the DEIS documents. The passages containing the “Konterra” reference are highlighted in gray. We recommend downloading the DEIS document from the Maryland Transportation Administration project website: [DEIS \(bwrmaglev.info\)](https://bwrmaglev.info) and using it to note each citation that we highlight here in gray.

II. Additional TMF Locations Considered, 2018 Alternatives Report

Konterra DEIS Reference: App-C_DEIS_Alternatives Development Summary: Table C-3: Additional TMF Locations Considered, 2018 Alternatives Report, Page C-21.

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C.2.2 Alternatives Report, November 2018 (page C-9)

The 2018 Alternatives Report² documents the continued alternatives development, refinement, and environmental evaluation of Alignments J and J1. The 2018 Alternatives Report also documents the more detailed study of stations and trainset maintenance facility (TMF) options.

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Following completion of the 2018 *Alternatives Report*, the owner of the SCMAGLEV technology, Central Japan Railroad Company (JRC), informed FRA and MDOT MTA that a more flexible TMF configuration, requiring less than 235 acres, would be possible in order

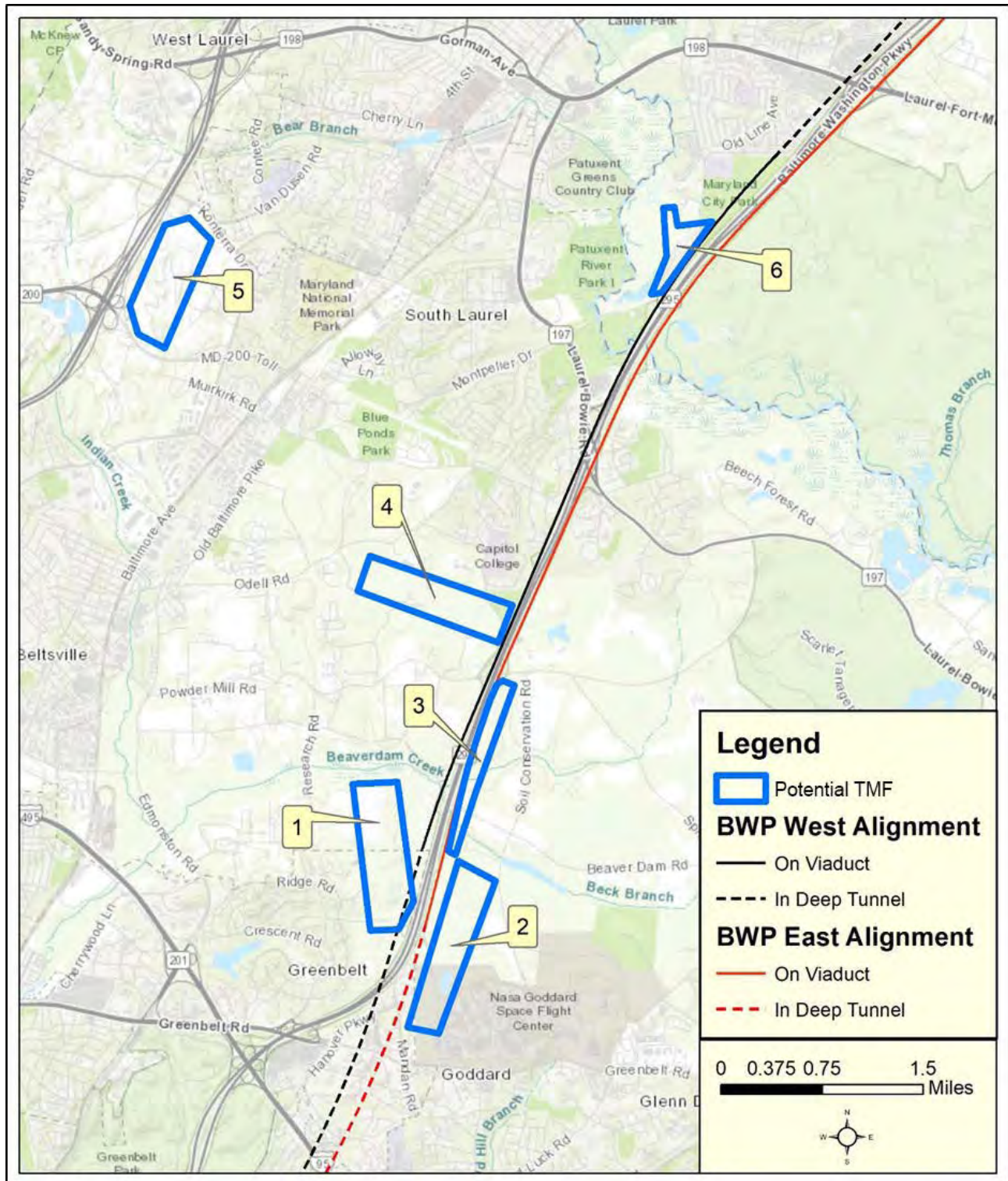
to reduce impacts; however, a smaller TMF would be less operationally efficient. The reduction in overall TMF footprint size was the result of relocating the mainline substation and a MOW support facility to separate sites. Based on this new information, FRA and MDOT MTA identified and evaluated additional locations. FRA studied nine additional locations, plus the previously studied BARC and MD 198 locations (three different BARC locations and sites in Beltsville, Maryland City, Russett, Laurel, Fort Meade, BWI Marshall Airport and Patapsco Avenue), listed in **Table C-3** and shown in **Figures C-12 and C-13**. FRA evaluated each location in terms of property acquisition requirements, land use compatibility, access and transportation needs, natural and built environment conditions, constructability, operational characteristics, and cost.

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Table C-3: Additional TMF Locations Considered, 2018 Alternatives Report

ID	City/Area	Property Owner	Area (Acres)
1	Greenbelt	BARC, Greenbelt	217
2	Greenbelt	BARC, NASA, Prince George's County	228
3	BARC Facility	BARC	92
4	BARC North	BARC, GSA	202
5	Beltsville	PEPCO, Konterra Associates LLC	200
6	Maryland City	Commercial, Anne Arundel County	65
7	Russett	Anne Arundel County, Private Owners	125
8	Laurel (MD 198)	Federal Gov't (D.C. use), Commercial	97
9	Fort George G. Meade	Fort Meade (NSA Exclusive Use)	131
10	Baltimore Washington Airport	State of Maryland	253
11	Patapsco/Cherry Hill	Commercial, Industrial, CSX, Maryland	109

Figure C-12: Potential Additional TMF Locations Considered (South of MD 198)



Source: Alternatives Report, 2018

III. Existing Land Use Categories and Distribution within the Affected Environment

Konterra DEIS Reference: App-D.03_DEIS_Socioeconomic Environment Technical Report Attachments: Table D.3-4: Existing Land Use Categories and Distribution within the Affected Environment, See the "Agriculture" paragraph following the table, Page B-18.

Land uses identified in Table D.3-4, shown on Figure D.3-5 and further described below are present within the SCMAGLEV Project Affected Environment.

Table D.3-4: Existing Land Use Categories and Distribution within the Affected Environment

Land Use Category	Land Use Definition	Area (acres)	Study Area %
Low-Density Residential	Detached single-family dwelling units with less than 0.2 dwelling units per acre to 2 dwelling units per acre	18.1	0.2%
Medium-Density Residential	Detached or attached single-family dwelling units with 2 dwelling units per acre to 8 dwelling units per acre	464.3	4.6%
High-Density Residential	Attached single-unit row housing, garden apartments, or high-rise dwelling units with more than 8 dwelling units per acre	449.9	4.4%
Forest	Area dominated by trees and other woody or herbaceous plants	4382.9	43.3%
Industrial	Manufacturing and industrial parks	695.4	6.9%
Institutional	Schools, colleges, universities, military installations, churches, medical facilities, correctional facilities, and government offices and facilities	803.2	7.9%
Commercial	Retail and wholesale services	966.9	9.6%
Open Urban Space	Urban areas whose use does not require structures, or urban areas where	317.5	3.1%
Transportation	Major highways, light rail, metro, large Park 'N Ride lots, generally over 10 acres in size	798.1	7.9%
Agricultural	Cropland, pasture, orchards, feeding operations, breeding and training facilities	978.9	9.7%
Water	Rivers, waterways, reservoirs, ponds, bays, estuaries, and ocean	216.8	2.1%
Open Space	Undeveloped open land, may include areas of forest and water	21.0	0.2%
Mining	An area in which mining operations are performed	0.0	0.0%
Mixed Use	An area containing multiple types of land use such as residential, commercial, and/or industrial	2.4	<0.1%
Total		10,115.3	100.0%

Source: Maryland Department of Planning (2010).
<https://planning.maryland.gov/Pages/OurProducts/DownloadFiles.aspx>

Agriculture – Agriculture land uses within the SCMAGLEV Project Affected Environment are identified within Prince George’s County, predominately within BARC and east of I-95 at MD 200 and Konterra Drive. Although the Konterra site is classified as an agricultural land use on the Maryland Department of Planning’s (MDP) current land use/land cover mapping, it is an open grass field with roadways and stormwater management facilities and is not currently used for agricultural purposes. Future plans for the area include the development of the Konterra Town Center and do not include agricultural use.

IV. Short-term Construction Effects

Konterra DEIS Reference: App-D.03_DEIS_Socioeconomic Environment Technical Report: Section D.3D.3.3 Short-term Construction Effects, Page D-106 - 108.

D.3D.3.3 Short-term Construction Effects

Construction of the SCMAGLEV Project would include activities such as digging and tunneling using multiple tunnel boring machines, ground clearing, pile driving, excavating, grading, and the stockpiling of soil, muck, and materials. The SCMAGLEV Project could cause potential short-term impacts to air quality (fugitive dust and construction equipment exhaust), noise and vibration (construction equipment and activities), and transportation (work vehicles, increased congestion, detours, and road closures). Powder Mill Road, MD 197, MD 198, and MD 32 are potential construction access points during viaduct construction. In some cases, local roads may serve as access points to construction areas. Where possible, haul routes would use public roads in non-residential areas to minimize potential for traffic, noise, and vibration impacts from construction vehicles.

The tunnel portions of the Project would be achieved using tunnel boring machine (TBM) technology. The Project Sponsor would require the construction contractor to conduct existing foundation evaluations and implement tunnel vibration and settlement monitoring during construction. The exact TBM type and tunneling plan and construction sequence would be developed during final design.

Construction of the SCMAGLEV Project would result in short-term adverse impacts to neighborhoods due to temporary use of property, increased noise and vibration, air quality/emissions, changes in aesthetics and visual quality, changes to access and mobility, and the use of community facilities. Neighborhoods subject to these impacts may also experience community disruption, a population’s ability to navigate their way around their community, and adverse effects to community cohesion, the disruption of interaction between people and groups within a community. Community disruption would be due to temporary impacts to traffic, pedestrian access, and neighborhood access during construction. These impacts would

disrupt community cohesion and wayfinding by creating longer travel times and rerouting travel pattern. These effects, however, would be temporary and would cease upon project completion.

Temporary adverse direct impacts would occur at varying locations and for varying durations during the construction period. Temporary construction impacts that would occur in neighborhoods in close proximity to SCMAGLEV Project alignments, ancillary facilities, TMF, and stations. Construction would occur simultaneously at different locations. FRA anticipates construction impacts to be short-term in duration and to cease upon completion of construction. Construction activity would occur up to 24 hours a day at some locations and could last up to three years.

Construction laydown areas would be required in multiple locations throughout the SCMAGLEV Project corridor. Four long-term laydown areas include:

- Landover Mall Site – in the Summerfield neighborhood in Prince George’s County and adjacent to the Landover and Glenarden neighborhoods. The Maple Ridge Apartment Community is across Brightseat Road from and within 225 feet of the Landover Mall Site. Residents would be temporarily impacted due to increased noise, vibration, and changes to aesthetics.
- Konterra Site – in the Konterra neighborhood in Prince George’s County and adjacent to the Laurel neighborhood. The Avalon Laurel Apartment community is within 450 feet of the Konterra Site. Residents would be temporarily impacted by to noise, vibration, and changes to aesthetics during construction.
- Suburban Airport Site – in the Maryland City neighborhood in Anne Arundel County. No impacts to neighborhoods or community facilities are anticipated because residential areas and community facilities are not present in the general vicinity.
- Patapsco Avenue Site – in the Cherry Hill neighborhood in Baltimore City. Residences along Round Road, Spelman Road, and Bethune Road north of Patapsco Avenue and existing railroad tracks are as close as 150 feet from the Patapsco Avenue site and would be temporarily impacted due to increased noise and changes to aesthetics.

The DEIS details mitigation strategies in section D.3D.3.4 Potential Mitigation Strategies, of the DEIS. As mentioned before, the focus of this document is to provide the “Konterra” references within the DEIS documents. Surrounding and relevant text to the “Konterra” mentions are provided.

From Page E-129-130:

D.3E.3.3 Short-term Construction Effects

The construction of and the associated construction staging and laydown areas and haul routes for the SCMAGLEV Project would predominately occur within Environmental Justice population areas. Construction of the SCMAGLEV Project would include activities such as digging and tunneling using multiple tunnel boring machines, ground clearing, pile driving, excavating, grading, and the stockpiling of soil, muck, and materials. The SCMAGLEV Project would require temporary property acquisition and could cause potential short-term impacts to air quality (fugitive dust and construction equipment exhaust), noise and vibration (construction equipment and activities), transportation (work vehicles, increased congestion, detours, and road closures), and changes to views and visual quality. Temporary construction impacts that would be concentrated around the viaducts, portals, ancillary facilities, TMFs, stations, and construction staging and laydown areas. Construction would occur simultaneously at different locations.

The underground stations and tunnel portions of the SCMAGLEV Project would be achieved using tunnel boring machine (TBM) technology. In order to create the underground stations and tunnels, construction staging areas would be needed for assembly, launch, operation, and retrieval of the TBMs. The TBM launch and retrieval areas would be located along the alignment and would be located at the future station locations and FA/EE facilities. The majority of the underground stations (Mount Vernon Square East Station and Camden Yards Station) and FA/EE facilities would be located in areas with Environmental Justice populations. The BWI Marshal Station and FA/EE facilities located north and south of the BWI Marshall Station, are not in Environmental Justice population areas. Additionally, portions of the proposed hauling routes to and from TBM sites would be located within or immediately adjacent to EJ population areas including the Queen Chapel Road, MD 410, Kenilworth Avenue, MD 193, Brock Bridge Road, MD 197, MD 170, and MD 643/Annapolis Road.

The viaduct would be located in portions of Prince George's and Anne Arundel Counties either just east of the BWP (Build Alternatives J-01 – J-06) or just west of the BWP for (Build Alternatives J1-01 – J1-06), and in Baltimore City for Build Alternatives J-01, J-02, J-03, J1-01, J1-02, and J1-03 that would include the Cherry Hill Station. Elevated viaduct ramp structures would also be constructed to access TMFs. The entirety of the viaduct and viaduct ramp locations would be located in or adjacent to Environmental Justice population areas. There is a section of unpopulated PRR-owned land adjacent to Build Alternatives J-01 – J-06. Powder Mill Road, MD 197, MD 198, and MD 32 are potential construction access points during viaduct construction. Both local and state roads within these EJ population areas would serve as access points to construction areas and would be subject to associated traffic, noise, and vibration impacts from construction vehicles.

Construction laydown areas would be required in multiple locations throughout the SCMAGLEV Project corridor. All identified construction laydown areas would be located within areas with Environmental Justice populations. The four long-term laydown areas include:

- Landover Mall Site (on a vacant site adjacent to commercial and residential areas within an EJ Population Area) – in the Summerfield neighborhood in Prince George’s County and adjacent to the Landover and Glenarden neighborhoods. The Maple Ridge Apartment Community is across Brightseat Road from and within 225 feet of the Landover Mall Site. EJ populations would be temporarily impacted due to increased noise, vibration, and changes to aesthetics.
- Konterra Site (on a vacant site within an EJ Population Area largely surrounded by major transportation corridors) – in the Konterra neighborhood in Prince George’s County and adjacent to the Laurel neighborhood. The Avalon Laurel Apartment community is within 450 feet of the Konterra Site. EJ populations would be temporarily impacted by to noise, vibration, and changes to aesthetics during construction.
- Suburban Airport Site (within a non-populated section of an EJ Population Area) – in the Maryland City neighborhood in Anne Arundel County. No impacts to EJ populations are anticipated because residential areas and community facilities are not present in the general vicinity.
- Patapsco Avenue Site (with an EJ population Area)– in the Cherry Hill neighborhood in Baltimore City. EJ populations in proximity of Round Road, Spelman Road, and Bethune Road north of Patapsco Avenue would be temporarily impacted due to increased noise and changes to aesthetics.

Construction of the SCMAGLEV Project would result in short-term adverse impacts to Environmental Justice populations due to temporary use of property, increased noise and vibration, air quality/emissions, changes in aesthetics and visual quality, changes to access and mobility, changes in current transit service, and the use of community facilities. Environmental Justice populations subject to these impacts may also experience community disruption, a population’s ability to navigate their way around their community, and adverse effects to community cohesion, the disruption of interaction between people and groups within a community. Community disruption would include temporary impacts to traffic (i.e. detours), pedestrian access, and neighborhood access and mobility during construction.

Construction impacts would occur at varying locations and for varying durations during the construction period. Construction operations would occur for up to 24 hours a day in some areas and last from 1 – 7 years. FRA anticipates construction impacts to cease upon completion of construction.

Prior to construction, the Project Sponsor would develop and continually implement a Public Safety Plan for the SCMAGLEV. Maintenance of traffic plans would also be developed in accordance with local requirements and in consultation with emergency services to ensure that temporary detours and road closure would not significantly impact emergency response times.

V. Konterra Viaduct Laydown Parcels Impacts

Konterra DEIS Reference: App-G_DEIS_Part C, Page 91 of 103: "Konterra Viaduct Laydown Parcel Impacts, page 1 of 10". The maps are labelled as "page 1 of 10", "page 2 of 10", etc. The page numbers within the above referenced DEIS document begin on page 90 of 103.

The above referenced DEIS section is 10 pages of maps, plus a table that is more than one page long. The maps are not included in this document, but can be viewed in the aforementioned DEIS reference.

VI. Construction Logistics

Konterra DEIS Reference: App-G_DEIS_Part K, Section 7.4 Construction Logistics, Pages 24-26

7.4 CONSTRUCTION LOGISTICS

For schedule optimization, the elevated viaduct is proposed to be constructed in approximate 2,500 meters (8,200 feet) sections so that some of the major construction activities can be synchronized. One or more contractors will be responsible for building the viaduct structure. Close coordination between crews working in each section and conveyance of material and equipment across sections will be undertaken.

The right-of-way width for the viaduct sections is 22 meters (70 feet). An additional width of 6 meters (20 feet) will be provided for temporary use during construction. A construction access road will be provided on each side of the piers for the conveyance of material and equipment from the local road access points and between the construction sections.

Figure 16. Laydown/Storage Areas (Courtesy of WSP/Pace)



Topsoil/organic material will be stripped and removed prior to construction and disposed offsite. The excavated subsoil from the viaduct foundation can be partially reused within the right of way for grading. The ground within the ROW will need to be stabilized and compacted for the construction equipment and drill rigs to be transported to each substructure unit. Barges and or temporary bridges may be needed to cross water bodies. Stockpiling of spoils, material, and equipment adjacent to the structure pier bents is generally prohibited.

For the J Alignment three work fronts are anticipated, each with access via local roads to an offsite laydown yard of approximately 105 meters by 175 meters (340 feet by 570 feet), or 1.8-hectare (4.4 acres), having a storage capacity of at least a quarter of each 2,500 meters (8,200 feet) construction section.

For the J1 Alignment two work fronts are anticipated, each with access via local roads to a laydown yard of similar area and storage capacity as the J Alignment. Areas for storage/laydown, and potentially segment casting, will be provided for the precast superstructure segments before being trucked to the project site for erection, similar to Figure 16. The following laydown area locations have been identified:

1. Suburban Airport at the project site, Figure 17.

2. Undeveloped commercial land owned by Konterra Associates LLC at I-95/MD Route 200 interchange about 4.8 kilometers (3 miles) west of project site, Figure 18.

3. The open lot/remains of the former Landover Mall owned by Landover Mall LTD Partnership on Brightseat Road at the I-495/MD Route 202 interchange near University of Maryland College campus in Glenarden about 11.3 kilometers (7 miles) south of project site, Figure 19.

These potential storage/laydown areas can also accommodate the storage of the precast substructure elements and other construction material and equipment. The Suburban Airport site is approximately 20.2 hectare (50 acres) and its location is a convenient storage/laydown area due to its proximity to the project site. The mid-section of the viaduct for the J1 alternative can be accessed directly from the Suburban Airport within the ROW and that of the J alternative can be accessed via Brock Bridge Road to MD Route 197. The northern section of the viaduct can be accessed via Brock Bridge Road to MD Route 198 and MD Route 32, and the southern section can be accessed via Brock Bridge Road to MD Route 197 to local roads as illustrated in Figure 17. The Brock Bridge Road Bridge over the Patuxent River has a posted weigh limit of 5 Tons and a bridge reinforcement or replacement may be required. To avoid local bridge replacement, alternatively the Brock Bridge Road access to MD Route 198.

The undeveloped land owned by Konterra Associates LLC is accessible from I-95 and MD Route 200 and is approximately 65 hectares (160 acres). The access to the project site from the Konterra storage location can be via Contee Road to MD Route 197 towards the mid-section of the elevated viaduct, from I-95 to MD Route 32 and MD Route 198 to access the northern section and via MD Route 197 to local roads to access the southern section as shown in Figure 18.

The former Landover Mall lot is approximately 16.2 hectare (40 acres) and is accessible from I-95 and MD Route 202 (Figure 19). Access to the project site can be via I-95 to MD Route 201 to Powder Mill Road and Beaver Dam Road to the southern. Other routes to access the northern portion of the viaduct from this site can be as indicated for the Konterra storage location.

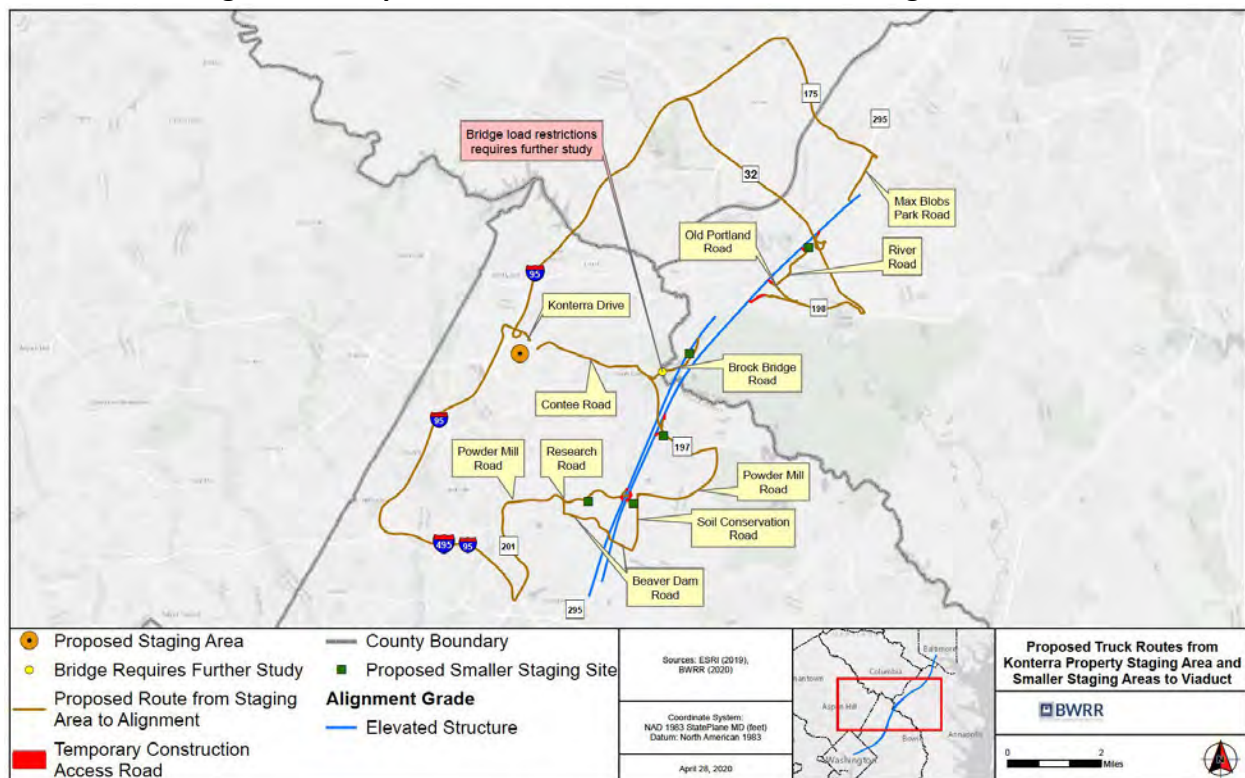
In addition, smaller construction access and laydown yards will be provided along each alignment for use by the contractors. They are shown on the DEIS drawings, and range in size from 2 acres to 10 acres.

The laydown areas for J alignment include:

- 200 meters by 80 meters open land near Powder Mill Road at STA 122+00
- 200 meters by 90 meters Harley Davidson site at STA 124+500
- 300 meters by 200 meters site near Route 32 Interchange at STA 133+00.

- The storage area at Suburban Airport site
- 200 meters by 100 meters open land near Powder Mill Road at STA 121+500

Figure 18. Proposed Haul Routes from Konterra Storage Location



VII. Evaluation of Fourteen Potential TMF Sites

Konterra DEIS Reference: App-G_DEIS_Part L, Table 1: Evaluation of Fourteen Potential TMF Sites (180-acre footprint), Pages 12-17. (Page 59 of 215)

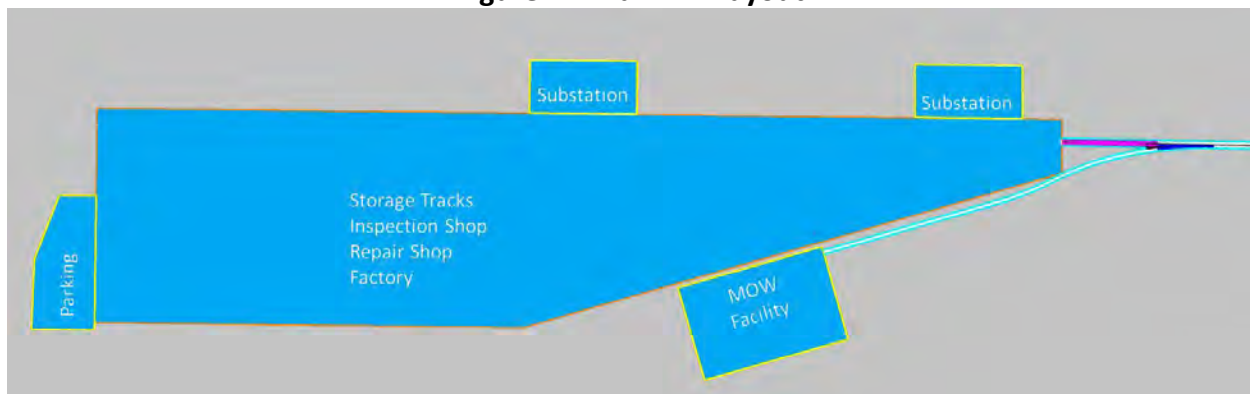
6.1 OPTIMAL TMF FOOTPRINT

Through additional coordination with JRC, and further evaluation of the facility layout and footprint, a 180-acre wedge shape was finalized with a length of 1800 meters (5,800 feet) and a width of 400 meters (1300 feet). This layout optimizes the operations for maintenance of the fleet. The footprint standardizes the TMF that is fully designed and is under construction in Chubu, Japan. The final TMF footprint is provided in Figure 7.

The 180-acre footprint is approximately 55 acres (24%) smaller than the original 235-acre site used in the Alternatives Report. The breakdown of the footprint is as follows:

- TMF wedge shape area of approximately 142 acres.
- Each substation of approximately 5 acres and enables the movement of different trainsets in the TMF.
- MOW facility of approximately 12 acres.
- Parking of approximately 6 acres.
- Ramps to the mainline of approximately 10 acres.

Figure 7. Final TMF Layout



The two substations would be optimally sited on the long side of the TMF, with one located near the entrance and the second substation approximately halfway along the length. For an optimal design, the parking area would be located with easy access to the roadway network, and the MOW facility would be positioned as close to the mainline as possible.

6.2 LOCATION CONSIDERATIONS

BWRR assessed fourteen (14) sites against the following key factors:

- Sufficient size and shape for the 180-acre footprint
- Proximity to the Washington, D.C. terminus station, between D.C. and Baltimore
- Proximity to the mainline alignment with suitable geometry and orientation for TMF ramp connections
- Worker and material delivery access
- Avoidance of residential impacts

In response to agency input, an underground TMF alternative on BWI Airport property and a partially depressed TMF at MD-198 were explored. An underground TMF would require top-down construction including the ramp connections to the mainline turnouts, resulting in temporary surface impacts over the full dimensions of the site. Additional permanent surface impacts would be imposed by a comprehensive system of ventilation and emergency egress facilities. According to engineering estimates, BWRR estimated the additional cost for construction would be over \$1 billion compared to a conventional TMF on the surface. This additional cost results from several factors including, for example, the extensive excavation and movement of spoils, the need to construct walls and to cover the TMF, etc. Therefore, an underground TMF is not a reasonable or cost effective and economically infeasible.

Supported by this analysis, the TMF must be built above ground along a portion of the mainline alignment that is also above ground (viaduct). Both alignment alternatives have an elevated viaduct along the Baltimore-Washington Parkway, between Greenbelt and Fort Meade for Alternative J, and between Greenbelt and Maryland City for Alternative J1. Both alignment alternatives also have a short viaduct section around the Cherry Hill station alternative.

7. TMF ALTERNATIVES

7.1 DESCRIPTION OF ALTERNATIVES

Using the 180-acre final footprint shown in Figure 7, a study was undertaken that included eleven sites that were previously evaluated plus three new locations that were subsequently identified, resulting in a total of fourteen sites shown in Figure 8 and assessed in Table 1.

Figure 8. TMF Site Alternatives



Each site is further described in Table 1.

All of the TMF sites are above ground and adjacent to a viaduct section of the mainline alignment, with the exception of Site #13, BWI Airport, and site #7. The MD-198 site was assessed two ways, #10A and #10B, with #10B excavated and depressed ~20m (66 feet) to avoid encroaching on Tipton Airport airspace.

TMF options on the West side of the Baltimore-Washington Parkway require TMF ramps to bridge over the Parkway to connect Alignment Alternative J. Similarly, TMF options on the East side of the Parkway require TMF ramps to cross over the Parkway to connect to Alignment Alternative J1.

7.2 EVALUATION CRITERIA

Table 1 provides information on each site, including ownership, surface characteristics, land use, feasibility of providing connecting ramps to the mainline, and impacts for each TMF alternative.

The first five columns in Table 1 provide site characteristics as described below.

- **Number (No.)** - Corresponds to numbers on Figure 8
- **Stationing** - Location along the Alternative J or J1 alignment
- **Location Descriptor** - Brief word identification

- **Property Owner** - Public or private owner
- **Characteristics / Land Use** - Surface characteristics such as woods, cropland, wetlands, rivers, and land use: residential, commercial, institutional parkland, etc. The elevation differential across the TMF footprint is provided.

The remaining columns provide additional details about each site that can be considered in an evaluation of alternatives. The following discussion describes the characteristics and how they are evaluated for consistency with the design criteria of the project.

- **TMF Ramps to Mainline** - Ramps that connect the TMF site to the Northbound and Southbound guideways on the mainline alignment.
 - Ramps that do not connect above ground were inconsistent with the design criteria adding additional cost on the order of \$500 million, adversely impacting financial viability. Additionally, surface impacts associated with the construction of underground switchboxes, tunnel transition portals and ventilation facilities would pose substantial impacts.
 - Ramps in tunnel are therefore deemed **UNACCEPTABLE**.
- **Residential Impacts** - Direct impacts to residential properties by either the TMF or the TMF ramps.
 - Impacts to residences were considered **UNACCEPTABLE** and serious impediments based on the objective to avoid, minimize and mitigate impacts.
 - Impacts to residentially zoned properties that are not developed were considered **ACCEPTABLE**.
- **Wetland Impacts** - Wetland impacts quantified based on GIS data, supplemented by AECOM field studies, where available. The impacts noted are gross impacts and do not reflect mitigation, construction methods or post-construction impacts.
- **Parkland Impacts** - Impacts identified for areas that are designated as parkland.
- **Other Impacts** - Impacts to institutional facilities, major utilities, churches, cemeteries, transportation infrastructure, etc.
 - Completion of the TMF is a critical component of the project schedule as it is required to take delivery of the trainsets and commence assembly and testing.

- Impacts were considered **UNACCEPTABLE** if the mitigation efforts required would add two or more years to the project schedule. The cost of overall construction would increase with a delay.
- **Cost Increment** - The additional cost of an alternative compared to all other alternatives due to site specific conditions, such as a requirement for underground construction.
 - Substantial cost increases were deemed **UNACCEPTABLE** due to a substantial adverse impact on the economic viability of the project.
- **Distance to Washington, DC Station** - The deadhead travel distance between the TMF and the Washington, DC terminal station. The operating assumption is that all revenue trains end their service at the DC station. The distance is important because a longer distance reduces time available for maintaining trainsets and guideway infrastructure during the 6-hour maintenance window.

Table 1. Evaluation of Fourteen Potential TMF Sites (180-acre footprint)
(Below information was extracted from the table)

#	7
Stationing	124+000
Location Description	Konterra, Beltsville, MD
Property Owner	PEPCO, Konterra Associates LLC
Characteristics / Land Use	Open, disturbed 30m (100 ft) elevation differential
TMF Ramps to Mainline	3 miles of ramps through residential and commercial areas
Residential Impacts	Ramps cross through several residential neighborhoods. Unacceptable
Wetland Impacts (acres)	2
Parkland Impacts	No
Other Impacts / Cost Differential	Site development is planned
Distance to DC Station km (miles)	24 (15)

VIII. Material Hauls Routes

Konterra DEIS Reference: Ch-4.01_DEIS_Introduction, Material Hauls Route: Page 4.1-6.

Material Haul Routes

The Project Sponsor will designate haul routes for controlling vehicles carrying construction materials and debris use. Where possible, haul routes will use public roads in non-residential areas to minimize potential for traffic, noise, and vibration impacts from construction vehicles. No

commercial or construction vehicles are allowed on the Baltimore Washington Parkway (BWP) south of MD 175 since this section of the road is maintained by the National Park Service (NPS).

The former Suburban Airport site is accessible to the mid-section of the viaduct for Build Alternative J1 directly from the Suburban Airport site and that of the Build Alternative J via Brock Bridge Road to MD 197. Crews will access the northern viaduct section via Brock Bridge Road to MD 198 and MD 32, and the southern section via Brock Bridge Road to MD 197 and local roads. The Brock Bridge Road Bridge over the Patuxent River has a posted weigh limit of five tons; the Project may require bridge reinforcement. To avoid local bridge replacement, construction workers could alternatively access Brock Bridge Road to MD Route 198; however, the route passes through the Maryland City residential neighborhood and may have time of use restrictions.

The undeveloped land owned by Konterra Associates LLC is accessible from I-95 and MD 200 (ICC) and can accommodate the stockpiling of spoils. The access to the project site from the Konterra storage location can be via Contee Road to MD 197 towards the mid-section of the viaduct, from I-95 to MD 32 and MD 198 to access the northern section and via MD 197 to local roads to access the southern section.

The former Landover Mall lot is accessible from I-95 and MD 202. Access to the project site can be via I-95 to MD 201 to Powder Mill Road and Beaver Dam Road to the south.

Construction crews will require temporary access roads and spoil routes along the viaduct for the delivery and transport of materials. In addition, the fresh air and emergency egress (FA/EE) facilities and substations will also require access. Appendix G.7 includes additional maps depicting the proposed haul routes between respective project elements (including the FA/EE facilities, substations, tunnel portals, and stations) and the nearest limited access highway or main artery.

IX. Land Use Classification Within the SCMAGLEV Affected Environment

Konterra DEIS Reference: Ch-4.03_DEIS_Land Use and Zoning, Table 4.3-3: Land Use Classification Within the SCMAGLEV Affected Environment, Page 4.3-5 – 4.3-6

The land uses identified in **Table 4.3-3** and further described below are present within the SCMAGLEV Project Affected Environment. Additional mapping of land uses present in the SCMAGLEV Project Affected Environment is located in Appendix D.3 Figure D.3-5.

Table 4.3-3: Land Use Classification within the SCMAGLEV Project Affected Environment

Land Use Type	Acreage	Percentage of Study Area
Low Density Residential	18	0.2%
Medium Density Residential	464	4.6%
High Density Residential	450	4.4%
Open Space	21	0.2%
Open Urban Space	318	3.1%
Mixed Use	2	0.0%
Commercial	967	9.6%
Industrial	695	6.9%
Institutional	803	7.9%
Agriculture	979	9.7%
Forest	4,383	43.3%
Water	217	2.1%
Transportation	798	7.9%
Total	10,116	100%

Forest – There is forested land scattered throughout the SCMAGLEV Project Affected Environment, most notably along the BWP within Prince George’s County and south of MD 32 in Anne Arundel County, in the PRR, and surrounding the MD 198 TMF site (see Section 4.12 Ecological Resources).

Agriculture – Agriculture land uses within the SCMAGLEV Project Affected Environment are identified within Prince George’s County, predominately within BARC and east of I-95 at MD 200 and Konterra Drive. Although the Konterra site is classified as an agricultural land use on the Maryland Department of Planning’s (MDP) current land use/land cover mapping, it is an open grass field with roadways and stormwater management facilities and is not currently used for agricultural purposes. Future plans for the area include the development of the Konterra Town Center and do not include agricultural use.

X. Summary of Build Alternatives Impacts

Konterra DEIS Reference: Ch-4.03_DEIS_Land Use and Zoning, Summary of Build Alternatives Impacts, Page 4.3-8 – 4.3-10.

Summary of Build Alternatives Impacts

- Linear impacts to land use would be due to the viaduct, its support piers, and new roadways built to supplement access for construction and ongoing maintenance. Large area impacts to land use would be associated with SCMAGLEV Project related buildings

such as substations, fresh air/emergency egress facilities (FA/EEs), TMFs, and systems support buildings; construction laydown areas; and areas for stormwater management.

- The construction of some SCMAGLEV Project features would be in contrast to current and surrounding land uses. The potential sites for the TMFs include large portions of BARC which currently includes open space, forested areas, and agricultural uses or an area of land off of MD 198 east of the BWP that includes forested land and institutional uses. In other areas, SCMAGLEV Project facilities would be located in proximity to residential and commercial uses and forested areas.
- SCMAGLEV Project elements are located in areas zoned with various designations. SCMAGLEV Project elements would be considered transportation and/or public utility use. These uses would be permitted or would require a special exception prior to construction.
- The 12 Build Alternatives would result in property impacts that range from a total of 852 acres to 1,066 acres for permanent acquisition. Temporary property impacts would range from 120 acres to 252 acres. Build Alternatives with the Cherry Hill Station (J-01, J-02, J-03, J1-01, J1-02, J1-03) would result in more affected parcels and larger areas of permanent property acquisition, and would require larger amounts of land use changes compared to Build Alternatives with the Camden Yards Station (J-04, J-05, J-06, J1-04, J1-05, J1-06).
- Agricultural land uses would have the largest amount of land changed to transportation use. Most of the land characterized as agricultural is located on the Konterra site that would be used as a long-term construction laydown area under all Build Alternatives. Although classified as agricultural land use on MDP's current land use/land cover mapping, the Konterra site is an open grass field with a few roadways and stormwater management facilities. The site is not being used for agricultural purposes and is planned for future development. Impacts on farmland (i.e., soils designated as prime farmland, unique farmland, and farmland of statewide or local importance) are described in Section 4.14 Soils and Farmland.
- Build Alternatives J would result in at least one full permanent acquisition of a residential property. Build Alternatives J1 would result in one additional permanent acquisition of a residential property; however, this additional property is part of homeowners' association owned land and is currently forested and undeveloped.
- The BARC Airstrip TMF and the BARC West TMF would be located in the Prince George's County Rural and Agricultural area. The construction and operation of a TMF at either location would not be consistent with Prince George's County Master Plan as the county intends to limit and discourage growth in the BARC area and keep it as a natural area.

- The SCMAGLEV Project would require temporary property acquisitions and permanent partial (less than 1/3 of the property) property acquisitions from numerous residential properties. As the SCMAGLEV Project design is finalized, these property impacts may be refined.

Permanent and temporary impacts to property are displayed by total acreage and number of parcels within the LOD for above ground elements, and changes in land use and parcel impacts are highlighted on Table 4.3-4. The Build Alternatives that would require the lowest and highest numbers of residential parcel property impacts are also identified. Property impacts are displayed by parcel in Appendix D.3 Attachment A. Impacts to land use are displayed by acreage, number of parcels, and land use type for each Build Alternative in Appendix D.3 Attachment B.