BRADDOCK ROAD MULTIMODAL IMPROVEMENTS ESTIMATED TIMELINE



June 26, 2017



PARK-AND-RIDE / TRANSIT CENTER: ADDITIONAL FACTORS

| | | Alternatives | | | | |
|--------------------------|------------------------|---------------------------|-------------------------|--|--|--|
| Additional | Kings Park Shopping | Northern Virginia | Kings Park Shopping | | | |
| Eactors | Center - Park and Ride | Training Center - Transit | Center - Transit Center | | | |
| Factors | | Center | | | | |
| Total Cost | \$9,920,000 | \$10,730,000 | \$22,970,000 | | | |
| Number of Peak Bus | 20 | 1 ⊑ | 20 | | | |
| Trips | 29 | 13 | ٢٦ | | | |
| Number of Jobs within | 12 701 | 2 260 | 12 701 | | | |
| 45-min Transit Ride | 15,701 | 5,200 | 15,701 | | | |
| Number of Vehicles | E010 | 2 6 1 7 | 5010 | | | |
| Passing Site | 2919 | 5,017 | 5919 | | | |
| | 57 | | 57 | | | |
| | (Somewhat walkable, | 22 | (Somewhat walkable, | | | |
| Walk Score | and some errands can | (Car dependent, all | and some errands can | | | |
| | be accomplished on | errands require car) | be accomplished on | | | |
| | foot) | | foot) | | | |
| Population within | | | | | | |
| Walking Distance (20 min | 10,892 | 8,394 | 10,892 | | | |
| Walk) | | | | | | |











NOVA TRAINING CENTER: TRANSIT CENTER - WEST

BRADDOCK ROAD

NORTHERN VIRGINIA TRAINING CENTER

(

000 a 900

LEGEND

- PROPOSED BUS CIRCULATION
- CAR CIRCULATION
 - EXISTING GREEN SPACE TO REMAIN
 - PROPOSED GREEN SPACE

MEASURES OF EFFECTIVENESS (MOE) MEASUREMENT TABLE: PARK-AND-RIDE / TRANSIT CENTER

| | | | | | | Transit Ce | Kings Park | |
|-----------------------------|----|---|---|---------------------------|------------------------|---|--|--------------------------------------|
| What you care about/ MOE | | Description of MOE | Performance Measures - Metrics | Task Force Weights* | No Transit Center | Kings Park Shopping Center Garage | NOVA Training Center West Site | Shopping Center Park- and-Ride |
| | | | | | Measure | Measure | Measure | Measure |
| ب ب | 1 | Number of trees affected and loss of green space | Area of vegetation that needs to be removed to construct and maintain the facility (square feet) | | 0 | 29,300 | 163,200 | 47,400 |
| wironmer | 2 | Does the alternative increase air pollution? | Aggregate Air Quality levels (NOx levels). Air quality levels as measured by traffic models (Pounds of GHG emissions average[1]). Evaluation should consider where a change becomes noticeable, where it becomes unhealthy. | 0.5 | 5,816,042 | 5,688,754 (-2.2%) | 5,706,311 (-1.9%) | 5,688,754 (-2.2%) |
| ц Ш | 3 | Will site lighting impact adjacent lands in a negative way? | Degree separation/screening between transit site and adjacent single-family properties, as measured by the number of residences within ¼ mile of the site | | 0 | 194 | 119 | 194 |
| | 4 | Ease of access in/out for commuter vehicles | Number of entrances (number). Are the accesses configured in a way to facilitate commuter access into and out of the site? | | N/A | 2 | 2 | 3 |
| Mobility | 5 | Ease and convenience of access for pedestrians & bicycles | Number of signalized pedestrian crossings or grade separations to site (number). Are the proposed crossings safe as compared to the existing crossings? | | N/A | 1 | 0 | 1 |
| | 6 | Increase in the number of traffic signals | Number added (positive) or removed (negative) as a result of the proposal. This could be anywhere on the corridor, except as already planned for by roadway improvements. | 1.5 | 0 | (+)1 | 0 | (+)1 |
| | 7 | Ease of access for transit routes | Number of drive entrances and signals for left-turn movements (number). Are the accesses configured in a way to facilitate transit access into and out of the site? | | N/A | 2 Entrances 1 Signal | 2 Entrances 1 existing signal for exiting only | Buses do not enter site |
| Safety | 8 | Will vehicular access in/out of facility be safe? | Number of conflict points at entrances (number). This is a measure of the number of points where vehicles cross paths. More conflict points generally relate to a lower safety score. | 2.0 | N/A | 74 | 52 | 78 |
| | 9 | Are safe movements provided to pedestrians and bicycles? | Number of pedestrian/bicycle conflict points with vehicles over a typical path. This is a measure of the number of points where vehicles paths intersect crosswalks. More conflict points generally relate to a lower safety score. | 5.0 | N/A | 6 | 6 | 8 |
| Travel | 10 | Braddock Road vehicle travel time | Travel time along Braddock Road from Guinea Road to I-495, as it is impacted by movements into and out of transit center (minutes). Lower travel time is considered to be better as the transit center traffic is improving traffic flow. | | 13.3 | 11.9 (-10.5%) | 12.5 (-6.0%) | 11.6 (-12.8%) |
| adway Tim | 11 | Person throughput through the corridor | Sum of AM and PM peaks – same as widening study. Increase or decrease must exceed 5% of No Transit Center option to be deemed significant. | 5.0 | 22,326 | 23,851 (+6.8%) | 22,629 (+1.4%) | 23,468 (+5.1%) |
| Ř | 12 | Increase in vehicular density at major intersections | Adjacent Intersections. A lower number is better. (seconds/vehicle) ** | | 84 (KPSC) 49 (NOVA) | 110 (+31.0%) | 52 (+6.1%) | 106 (+26.2%) |

* Final weight factors determined by the Task Force on April 5, 2017. Performance measure weights under each MOE category are averaged and then multiplied by this weighting. ** Average of overall intersection delay for AM and PM peak (At Kings Park: Rolling/Kings Park Shopping Center); (At NOVA Training Center: Braddock / Burke Station)

[1] Sum of AM / PM peak based on WSDOT corridor planning values

May 3, 2017 Braddock Road Multimodal Study Fairfax County, Virginia

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|-------------------|-----------------------------|---|---|---|---|---|--|
| | | Transit | Center MO | E Measuremen | ts | | |
| What you about/ M | care OE | Description of MOE | Task Force Weights* | No Transit Center | Transit Cer Kings Park Shopping Center Garage | nter Options NOVA Training Center West Site | Kings Park Shopping Center Park-and-Rid |
| | | | | Score | Score | Score | Score |
| | 1 | Number of trees affected and loss of green space | | 0 | -0.5 | -2.0 | -0.5 |
| Environment | 2 | Does the alternative increase air pollution? | 0.5 | 0 | +0.5 | +0.5 | +0,5 |
| | 3 | Will site lighting impact adjacent lands in a negative way? | | 0 | -1.0 | -0,5 | -1.0 |
| | 4 | Ease of access in/out for commuter vehicles | | 0 | <i>••Q.</i> 6 | 0.0 | 1.0 |
| oility | 5 | Ease and convenience of access for pedestrians & bicycles | 1.5 | 0 | 1.0 | 0.0 | 0.1 |
| Mok | 6 | Increase in the number of traffic signals | | 0 | -40 | 0-0 | -1.0 |
| | 7 | Ease of access for transit routes | | 0 | 1.0 | 0.5 | \bigcirc |
| ety | 8 | Will vehicular access in/out of facility be safe? | 2.0 | 0 | -/.5 | -0.5 | -1.5 |
| Saf | 9 | Are safe movements provided to pedestrians and bicycles? | 5.0 | 0 | -0.5 | -0,5 | -0,75 |
| Time | 10 | Braddock Road vehicle travel time | | 0 | 1.0 | 0,5 | 1,25 |
| ay Travel | 11 | Person throughput through the corridor | 5.0 | 0 | 0.75 | 0,5 | 0.75 |

Scoring Key: Compared to the "No Transit Center" scenario, is this element for the subject alternative:

0.00

-3.21 0.81 -2.75

TECHNICAL TEAM - MEASURE OF EFFECTIVENESS (MOE) SCORING: PARK-AND-RIDE / TRANSIT CENTER

| | | | | | | | | Transit Cei | nter Options | | | |
|--------------------------|----------|---|--|---------------------------|------------------------|-------|--------------------------------------|-------------|--|-------|---|-------|
| What you ca about/ MO | ire E | Description of MOE | Performance Measures - Metrics | Task Force Weights* | No Transit Center | | Kings Park Shopping Center Garage | | NOVA Training Center West Site | | Kings Park Shopping Center Park-and-Ride | |
| | | | | | Measure | Score | Measure | Score | Measure | Score | Measure | Score |
| t. | 1 | Number of trees affected and loss of green space | Area of vegetation that needs to be removed to construct and maintain the facility (square feet) | | 0 | 0 | 29,300 | -0.5 | 163,200 | -2 | 47,400 | -0.5 |
| wironmer | 2 | Does the alternative increase air pollution? | Aggregate Air Quality levels (NOx levels). Air quality levels as measured by traffic models (Pounds of GHG emissions average[1]). Evaluation should consider where a change becomes noticeable, where it becomes unhealthy. | 0.5 | 5,816,042 | 0 | 5,688,754 (-2.2%) | 1 | 5,706,311 (-1.9%) | 1 | 5,688,754 (-2.2%) | 1 |
| Ш | 3 | Will site lighting impact adjacent lands in a negative way? | Degree separation/screening between transit site and adjacent single-family properties, as measured by the number of residences within ¼ mile of the site | | 0 | 0 | 194 | -1 | 119 | -0.5 | 194 | -1 |
| | 4 | Ease of access in/out for commuter vehicles | Number of entrances (number). Are the accesses configured in a way to facilitate commuter access into and out of the site? | | N/A | 0 | 2 | 1 | 2 | 1 | 3 | 1.5 |
| Mobility | 5 | Ease and convenience of access for pedestrians & bicycles | Number of signalized pedestrian crossings or grade separations to site (number). Are the proposed crossings safe as compared to the existing crossings? | | N/A | 0 | 1 | 2 | 0 | 0 | 1 | 2 |
| | 6 | Increase in the number of traffic signals | Number added (positive) or removed (negative) as a result of the proposal. This could be anywhere on the corridor, except as already planned for by roadway improvements. | 1.5 | 0 | 0 | (+)1 | 0.5 | 0 | 0 | (+)1 | 0.5 |
| | 7 | Ease of access for transit routes | Number of drive entrances and signals for left-turn movements (number). Are the accesses configured in a way to facilitate transit access into and out of the site? | | N/A | 0 | 2 Entrances 1 Signal | 1 | 2 Entrances 1 existing signal for exiting only | 0.5 | Buses do not enter site | 0 |
| ity | 8 | Will vehicular access in/out of facility be safe? | Number of conflict points at entrances (number). This is a measure of the number of points where vehicles cross paths. More conflict points generally relate to a lower safety score. | | N/A | 0 | 74 | -1 | 52 | -0.5 | 78 | -1 |
| Safe | 9 | Are safe movements provided to pedestrians and bicycles? | Number of pedestrian/bicycle conflict points with vehicles over a typical path. This is a measure of the number of points where vehicles paths intersect crosswalks. More conflict points generally relate to a lower safety score. | 3.0 | N/A | 0 | 6 | -0.5 | 6 | -0.5 | 8 | -0.75 |
| Travel e | 10 | Braddock Road vehicle travel time | Travel time along Braddock Road from Guinea Road to I-495, as it is impacted by movements into and out of transit center (minutes). Lower travel time is considered to be better as the transit center traffic is improving traffic flow. | | 13.3 | 0 | 11.9 (-10.5%) | 1 | 12.5 (-6.0%) | 0.5 | 11.6 (-12.8%) | 1.25 |
| Roadway | 11 | Person throughput through the corridor | Sum of AM and PM peaks – same as widening study. Increase or decrease must exceed 5% of No Transit Center option to be deemed significant. | 5.0 | 22,326 | 0 | 23,851 (+6.8%) | 1.5 | 22,629 (+1.4%) | 0.5 | 23,468 (+5.1%) | 1.5 |
| | 12 | Increase in vehicular density at major intersections | Adjacent Intersections. A lower number is better. (seconds/vehicle) ** | | 84 (KPSC) 49 (NOVA) | 0 | 110 (+31.0%) | -1.5 | 52 (+6.1%) | -0.5 | 106 (+26.2%) | -1.5 |

Scoring Key.

for the subject alternative:

* Final weight factors determined by the Task Force on April 5, 2017. Performance measure weights under each MOE category are averaged and then multiplied by this weighting. ** Average of overall intersection delay for AM and PM peak (At Kings Park: Rolling/Burke Lake, Braddock/Burke Lake, Rolling/Kings Park Shopping Center); (At NOVA Training Center: Braddock / Burke Station)

[1] Sum of AM / PM peak based on WSDOT corridor planning values

May 3, 2017 Braddock Road Multimodal Study Fairfax County, Virginia

JUNE 26, 2017

SCORES:

0.00

1.02

-0.35

0.88

Based on an evaluation of the proposed transit center and park-and-ride lot alternatives, the Braddock Road Multimodal Study Task Force came to the following conclusions:

- Center site.
- network.

1. The Task Force is not opposed to a transit center at the Northern Virginia Training

2. The Task Force opposes a transit center at the Kings Park Shopping Center site. Any further consideration of a transit center at the Kings Park Shopping Center site should not occur until after the proposed roadway improvements are completed and the transit center can be evaluated based on actual data from the improved roadway

3. The Task Force does not support a park-and-ride lot at the Kings Park Shopping Center site at this time. The Task Force recommends that any further consideration of a park-and-ride lot at the Kings Park Shopping Center site be deferred until after the proposed roadway improvements are completed and the park-and-ride lot can be evaluated based on actual data from the improved roadway network.

TECHNICAL TEAM: PARK-AND-RIDE AND TRANSIT CENTER EVALUATION

1. If a transit center is built, the Kings Park Shopping Center **Iocation is the best option compared to the Training Center site.**

Kings Park Shopping Center.

location in the future.

2. Based on staff's analysis of the MOE's and other factors a parkand-ride lot is a reasonable alternative to a transit center at

3. If a transit center or park-and-ride are not constructed at this time, it is worth reconsidering the Kings Park Shopping Center

Survey open for 30 days

- Present Final Recommendations to Community in August 2017
- Present Final Recommendations to Board of Supervisors
- Fall Community Meetings/Workshops
- Initiate Design

NEXT STEPS

