



MEMORANDUM

TO: TPB Long-Range Plan Task Force
FROM: Kanti Srikanth, TPB Staff Director
Michael Grant, ICF
SUBJECT: Supporting Information for June 21 LRPTF Meeting
DATE: June 15, 2017

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Long-Range Plan Task Force - Preliminary Poll on Analysis Bundles

No. of members voting: 15

Version 1 - Sorted by original bundle alphabetical order (part 1)

Bundle	Favorite	Least Favorite	Total Votes	Net Vote
A	2	0	2	2
B	7	0	7	7
C	0	1	1	-1
D	8	0	8	8
E	1	2	3	-1
F	1	0	1	1
G	6	7	13	-1
H	2	1	3	1
I	3	3	6	0
J	1	3	4	-2
K	1	0	1	1
L	0	0	0	0
M	0	0	0	0
N	3	6	9	-3
O	0	1	1	-1
P	3	0	3	3
Q	5	0	5	5
R	0	1	1	-1
S	6	0	6	6
T	4	1	5	3
U	0	2	2	-2
V	3	9	12	-6

Version 1 - Sorted by original bundle alphabetical order (part 2)

Bundle	Favorite	Least Favorite	Total Votes	Net Vote
W	9	0	9	9
X	0	2	2	-2
Y	0	0	0	0
Z	0	1	1	-1
AA	0	0	0	0
BB	0	0	0	0
CC	0	0	0	0
DD	0	0	0	0
EE	0	0	0	0
FF	0	0	0	0
GG	1	0	1	1
HH	0	4	4	-4
II	0	10	10	-10
JJ	0	0	0	0
KK	0	3	3	-3
LL	0	1	1	-1
MM	0	0	0	0
NN	0	0	0	0
OO	0	0	0	0
PP	0	2	2	-2
QQ	0	0	0	0
RR	0	2	2	-2
SS	3	0	3	3
TT	0	3	3	-3
UU	0	1	1	-1
VV	0	0	0	0
WW	1	2	3	-1

Version 2 - Sorted by net vote (highest to lowest) - Part 1

Bundle	Favorite	Least Favorite	Total Votes	Net Vote
W	9	0	9	9
D	8	0	8	8
B	7	0	7	7
S	6	0	6	6
Q	5	0	5	5
T	4	1	5	3
P	3	0	3	3
SS	3	0	3	3
A	2	0	2	2
H	2	1	3	1
F	1	0	1	1
K	1	0	1	1
GG	1	0	1	1
I	3	3	6	0
L	0	0	0	0
M	0	0	0	0
Y	0	0	0	0
AA	0	0	0	0
BB	0	0	0	0
CC	0	0	0	0
DD	0	0	0	0
EE	0	0	0	0
FF	0	0	0	0

Version 2 - Sorted by net vote (highest to lowest) - Part 2

Bundle	Favorite	Least Favorite	Total Votes	Net Vote
JJ	0	0	0	0
MM	0	0	0	0
NN	0	0	0	0
OO	0	0	0	0
QQ	0	0	0	0
VV	0	0	0	0
G	6	7	13	-1
E	1	2	3	-1
WW	1	2	3	-1
C	0	1	1	-1
O	0	1	1	-1
R	0	1	1	-1
Z	0	1	1	-1
LL	0	1	1	-1
UU	0	1	1	-1
J	1	3	4	-2
U	0	2	2	-2
X	0	2	2	-2
PP	0	2	2	-2
RR	0	2	2	-2
N	3	6	9	-3
KK	0	3	3	-3
TT	0	3	3	-3
HH	0	4	4	-4
V	3	9	12	-6
II	0	10	10	-10

Version 3 - Sorted by most number of raw Favorite votes - Part 1

(bundles with 0 Favorite votes are in alphabetical order)

Bundle	Favorite	Least Favorite	Total Votes	Net Vote
W	9	0	9	9
D	8	0	8	8
B	7	0	7	7
G	6	7	13	-1
S	6	0	6	6
Q	5	0	5	5
T	4	1	5	3
I	3	3	6	0
N	3	6	9	-3
P	3	0	3	3
V	3	9	12	-6
SS	3	0	3	3
A	2	0	2	2
H	2	1	3	1
E	1	2	3	-1
F	1	0	1	1
J	1	3	4	-2
K	1	0	1	1
GG	1	0	1	1
WW	1	2	3	-1
C	0	1	1	-1
L	0	0	0	0
M	0	0	0	0

Version 3 - Sorted by most number of raw Favorite votes - Part 2

(bundles with 0 Favorite votes are in alphabetical order)

Bundle	Favorite	Least Favorite	Total Votes	Net Vote
O	0	1	1	-1
R	0	1	1	-1
U	0	2	2	-2
X	0	2	2	-2
Y	0	0	0	0
Z	0	1	1	-1
AA	0	0	0	0
BB	0	0	0	0
CC	0	0	0	0
DD	0	0	0	0
EE	0	0	0	0
FF	0	0	0	0
HH	0	4	4	-4
II	0	10	10	-10
JJ	0	0	0	0
KK	0	3	3	-3
LL	0	1	1	-1
MM	0	0	0	0
NN	0	0	0	0
OO	0	0	0	0
PP	0	2	2	-2
QQ	0	0	0	0
RR	0	2	2	-2
TT	0	3	3	-3
UU	0	1	1	-1
VV	0	0	0	0

Version 4 - Sorted by most number of raw Least Favorite votes

(bundles with 0 Least Favorite votes are in alphabetical order) - Part 1

Bundle	Favorite	Least Favorite	Total Votes	Net Vote
II	0	10	10	-10
V	3	9	12	-6
G	6	7	13	-1
N	3	6	9	-3
HH	0	4	4	-4
I	3	3	6	0
J	1	3	4	-2
KK	0	3	3	-3
TT	0	3	3	-3
E	1	2	3	-1
WW	1	2	3	-1
U	0	2	2	-2
X	0	2	2	-2
PP	0	2	2	-2
RR	0	2	2	-2
T	4	1	5	3
H	2	1	3	1
C	0	1	1	-1
O	0	1	1	-1
R	0	1	1	-1
Z	0	1	1	-1
LL	0	1	1	-1

Version 4 - Sorted by most number of raw Least Favorite votes

(bundles with 0 Least Favorite votes are in alphabetical order) - Part 2

Bundle	Favorite	Least Favorite	Total Votes	Net Vote
UU	0	1	1	-1
A	2	0	2	2
B	7	0	7	7
D	8	0	8	8
F	1	0	1	1
K	1	0	1	1
L	0	0	0	0
M	0	0	0	0
P	3	0	3	3
Q	5	0	5	5
S	6	0	6	6
W	9	0	9	9
Y	0	0	0	0
AA	0	0	0	0
BB	0	0	0	0
CC	0	0	0	0
DD	0	0	0	0
EE	0	0	0	0
FF	0	0	0	0
GG	1	0	1	1
JJ	0	0	0	0
MM	0	0	0	0
NN	0	0	0	0
OO	0	0	0	0
QQ	0	0	0	0
SS	3	0	3	3
VV	0	0	0	0

ORIGINAL LIST OF 49 BUNDLES, REORDERED WITH "TOP 10" BUNDLES LISTED FIRST IN BLUE TEXT

	Projects	Programs	Policies
A. Regional Express Travel Network	<ol style="list-style-type: none"> 1. HOV, toll lanes, and express bus service on all existing limited access and major travel facilities, including parkways 2. WMATA's Priority Corridor Network for bus service enhancements on major corridors 3. First/last-mile connections to express transit service through bus and bike/ped improvements 4. Additional park-and-ride lot capacity in outer jurisdictions for HOV and express bus services 	<ol style="list-style-type: none"> 5. Parking pricing and employer-provided transit/ridesharing subsidies in locations served by the above network 	<ol style="list-style-type: none"> 6. Redistribute forecast growth within jurisdictions to increase density and concentrate mixed-use development around the regional express travel network
B. Enhanced Regional Rail Service	<ol style="list-style-type: none"> 1. Metrorail: 100% eight-car trains, second Metro station at Rosslyn, reduce interlining, expand/enhance high-volume stations in system core 2. Commuter rail: increase frequency and hours of service, VRE-MARC crossover, Union Station and Long Bridge capacity expansion 3. First/last-mile connections to rail service through bus and bike/ped improvements 	<ol style="list-style-type: none"> 4. Reduce Metrorail fares in off-peak direction during peak period and on other underutilized Metrorail segments 5. Parking pricing and employer-provided transit subsidies in locations served by the above network 	<ol style="list-style-type: none"> 6. Concentrate more future growth within each jurisdiction for increased density and higher mix of uses in Activity Centers served by Metrorail and commuter rail

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Projects	Programs	Policies
<p>D. Enhanced Regional Rail Service (everything in B) PLUS Maximal Transit</p>	<ol style="list-style-type: none"> 1. Metrorail: 100% eight-car trains, second Metro station at Rosslyn, reduce interlining, expand/enhance high-volume stations in system core 2. Commuter rail: increase frequency and hours of service, VRE-MARC crossover, Union Station and Long Bridge capacity expansion 3. First/last mile connections to rail service through bus and bike/ped improvements 4. Second Rosslyn tunnel for Metrorail, Metro extensions to Centreville or Gainesville/ Haymarket, Hybla Valley, and Potomac Mills 5. Circumferential Purple Line (connecting New Carrolton to Eisenhower Ave, also connect Bethesda to Tysons) 6. Transitway to Waldorf 7. Light rail expansions in DC 8. WMATA's Priority Corridor Network for bus service enhancements on major corridors 9. MARC Growth Plan & VRE System Plan 2040 plans (not in CLRP), two-way traffic on MARC Brunswick line 	<ol style="list-style-type: none"> 10. Reduce Metrorail fares in off-peak direction during peak period and on other underutilized Metrorail segments 11. Parking pricing and employer-provided transit subsidies in locations served by the above network 12. Free transit for low-income earners 13. Extensive TOD in under-invested high-capacity transit nodes funded by a regional value-capture mechanism
<p>G. Targeted Roadway Capacity and Operational Enhancements</p>	<ol style="list-style-type: none"> 1. Enhanced Potomac River crossings (American Legion Bridge, additional northern crossing) 2. Added capacity at regionally significant bottlenecks identified by TPB's Congestion Monitoring Report 3. Fill gaps in the road network 4. Address congestion through the Congestion Mitigation Process 	<ol style="list-style-type: none"> 14. Concentrate more future growth within each jurisdiction for increased density and higher mix of uses in Activity Centers served by Metrorail and commuter rail 15. Policies to incentivize transit: price parking at all Activity Centers, require employer-provided subsidies for transit and parking cash-out 16. Optimize jobs-housing balance by moving more future housing growth within jurisdictions into Activity Centers, and moving jobs across jurisdictions to Activity Centers in need of more jobs

ORIGINAL LIST OF 49 BUNDLES, REORDERED WITH "TOP 10" BUNDLES LISTED FIRST IN BLUE TEXT

	Projects	Programs	Policies
<p>P. Roadway Technology Improvements <i>(Modified from Bundle K, very similar to bundle GG)</i></p>	<ol style="list-style-type: none"> 1. Improved engineering and operational practices in arterial design such as turn movement treatments 2. Transit priority treatments 3. Reversible lanes on key highways 	<ol style="list-style-type: none"> 4. Automated traffic incident management and advanced traveler information systems 5. ICM, ATM, and ITS regionwide 	
<p>Q. Improved Arterial Transit</p>	<ol style="list-style-type: none"> 1. WMATA's Priority Corridor Network for bus service enhancements on 24 major corridors 2. Dedicated-lane transitways (ie BRT or LRT) on Montgomery County's proposed BRT network, NVTA's TransAction BRT network, a TBD network for Prince George's County, and the transit lane network identified in moveDC 3. Transitway to Waldorf 4. Light rail (ie streetcar) expansions in DC, using dedicated lanes on future segments 		<ol style="list-style-type: none"> 5. Redistribute forecast growth within jurisdictions to increase high-density, mixed-use development in Activity Centers around Metrorail and arterial transitway network
<p>S. Optimize Existing Metrorail <i>(Similar program/policy themes are found in T, X, OO, PP, QQ, SS, WW)</i></p>	<ol style="list-style-type: none"> 1. 100% eight-car trains 2. Second Metro station at Rosslyn 3. Expand/enhance high-volume stations in system core 4. Expand park-and-ride lot capacities for end-line Metrorail stations 	<ol style="list-style-type: none"> 5. Reduce Metrorail fares in off-peak direction during peak period and on other underutilized Metrorail segments 	<ol style="list-style-type: none"> 6. Redistribute forecast growth within jurisdictions to increase high-density, mixed-use development in activity centers around Metrorail 7. Redistribute forecast growth across jurisdictions to increase high-density, mixed-use development in activity centers around Metrorail on the east side of the region

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	Projects	Programs	Policies
<p>T. Expand Metrorail</p> <p><i>(Similar program/policy themes are found in S, X, OO, PP, QQ, SS, WW)</i></p>	<ol style="list-style-type: none"> 1. Second Rosslyn tunnel for Metrorail 2. New separated Blue Line subway loop (i.e. reduce interlining) 3. Expand park-and-ride lot capacities for end-line Metrorail stations 		<ol style="list-style-type: none"> 4. Redistribute forecast growth within jurisdictions to increase high-density, mixed-use development in activity centers around Metrorail 5. Redistribute forecast growth across jurisdictions to increase high-density, mixed-use development in activity centers around Metrorail on the east side of the region
<p>W. Ease Last-Mile Trips Inside Activity Centers</p>	<ol style="list-style-type: none"> 1. Expand regional bike-share network 2. Metrorail station access improvements for bicyclists and pedestrians 3. Interconnected network of regional trails 4. Interconnected street grid in all activity centers 5. Expanded circulator buses to Metro stations 		<ol style="list-style-type: none"> 6. Redistribute forecast growth within jurisdictions to increase high-density, mixed-use development in activity centers around Metrorail

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Projects	Programs	Policies
<p>SS. Increase Accessibility for Disadvantaged and Underserved Communities</p> <p><i>(Similar program/policy themes are found in S, T, X, OO, PP, QQ, WW)</i></p>	<ol style="list-style-type: none"> 1. Address east-west divide through projects connecting Equity Emphasis Areas such as: <ul style="list-style-type: none"> - Light rail connecting Silver Spring to Branch Avenue - Expanding light rail in DC - Transitway to Waldorf 2. High-capacity transit to outer suburbs 	<ol style="list-style-type: none"> 3. Standardized or fixed fare on all transit 4. Free transit rides for residents earning \$30,000 a year or less 5. Subsidize ride-share 6. Stagger work hours 7. Expand telework 8. Address east-west divide by incentivizing job growth on the eastern side of the region <ul style="list-style-type: none"> - Create a fund to subsidize lease rates for job centers on the east side of the region by taxing new parking at the "vacant property" rate 9. Greater accessibility for persons with disabilities <ul style="list-style-type: none"> - Regionally accessible taxi network
		<ol style="list-style-type: none"> 10. Require an increased percentage of workforce/affordable housing in TOD areas 11. Coordinate local bus systems into a regionwide bus network <ul style="list-style-type: none"> - Glean motivations from how Houston and Baltimore have revamped their bus systems 12. Forecast the impact of alternative modes of transportation like Uber, Lyft, autonomous vehicles and their implications <ul style="list-style-type: none"> - Develop integrated plan (particularly for autonomous vehicles) that incorporates needs of disabled, senior citizens, and low-income communities

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	Projects	Programs	Policies
<p>E. Regional Express Travel Network <i>(Modified from Bundle A)</i></p>	<ol style="list-style-type: none"> 1. HOV, toll lanes, and express bus service on all existing limited access and major travel facilities, including parkways 2. First/last-mile connections to express transit service through bus and bike/ped improvements 3. Additional park-and-ride lot capacity in outer jurisdictions for HOV and express bus services 		<ol style="list-style-type: none"> 4. Redistribute forecast growth within jurisdictions to increase density and concentrate mixed-use development around the regional express travel network
<p>F. Enhanced Regional Rail Service <i>(Modified from Bundle B)</i></p>	<ol style="list-style-type: none"> 1. MARC Growth Plan & VRE System Plan 2040 plans (CLRP) 2. Increase frequency and hours of service for VRE and MARC, including two-way trains 3. VRE-MARC crossover 4. Union Station capacity expansion 5. Long Bridge capacity expansion 6. First-mile, last-mile connections to rail service through local bus and bike/ped connections 		<ol style="list-style-type: none"> 7. Redistribute forecast growth within jurisdictions to increase high-density, mixed-use development in Activity Centers around Metrorail and regional rail network
<p>H. Targeted Roadway Capacity Enhancements <i>(Modified from Bundle G)</i></p>	<ol style="list-style-type: none"> 1. Added road capacity at up to 10 highway bottlenecks, identified by TPB's Congestion Monitoring Report, and approved by the task force 		
<p>I. Single-Occupancy Vehicle Travel Demand Reduction</p>	<ol style="list-style-type: none"> 1. Toll the bridges in regional core 2. Expand regional bike-share network 3. Metrorail station access improvements for bicyclists and pedestrians and interconnected network of regional trails 4. Expand park-and-ride lot capacities for rideshare/carpool and end-line Metrorail stations 5. 	<ol style="list-style-type: none"> 6. Incentivize transit: targeted parking pricing at workplaces throughout region and expand employer-provided subsidies for transit 	<ol style="list-style-type: none"> 7. Optimize jobs-housing balance by moving more future housing growth within jurisdictions into Activity Centers, and moving jobs across jurisdictions to Activity Centers in need of more jobs

ORIGINAL LIST OF 49 BUNDLES, REORDERED WITH "TOP 10" BUNDLES LISTED FIRST IN BLUE TEXT

	Projects	Programs	Policies
J. Overall Travel Demand Management		<ol style="list-style-type: none"> 1. Extensive telework (50% of commuters telework 1.5 days/week) 2. Maximize flexible work schedules, expand compressed work schedules to 50% 4-day work weeks 	<ol style="list-style-type: none"> 3. Optimize jobs-housing balance by moving more future housing growth within jurisdictions into Activity Centers, and moving jobs across jurisdictions to Activity Centers in need of more jobs
K. Travel Automation and Technology Improvements	<ol style="list-style-type: none"> 1. Improved engineering and operational practices in arterial design such as turn movement treatments and transit priority 	<ol style="list-style-type: none"> 2. Automated and semi-automated services on limited access facilities to potentially include cars, buses, connected vehicles, freight 3. Automated and semi-automated services for first/last-mile connection to/from public transit 4. Extensive shared mobility for all trip purposes 5. Automated traffic incident management and advanced traveler information systems 	
L.	<i>Combine I and J</i>		
M.	<i>Combine J and K</i>		
N. Single-Occupancy Vehicle Travel Demand Reduction <i>(Modified from Bundle I)</i>	<ol style="list-style-type: none"> 1. Toll the bridges in regional core 	<ol style="list-style-type: none"> 2. Parking pricing and employer-provided transit/ride-sharing subsidies 	<ol style="list-style-type: none"> 3. Higher gas tax or VMT tax 4. Institute parking maximums in all Activity Centers via zoning

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	Projects	Programs	Policies
<p>O. Overall Travel Demand Management <i>(Modified from Bundle J)</i></p>		<ol style="list-style-type: none"> 1. Extensive telework (50% of commuters telework 1.5 days/week) 2. Maximize flexible work schedules, expand compressed work schedules to 50% 4-day work weeks 3. Expanded employer-provided transit/ridesharing subsidies 	<ol style="list-style-type: none"> 4. Parking cash-out requirement for all employers inside Activity Centers
<p>R. Expand Access to Existing Transit</p>	<ol style="list-style-type: none"> 1. Metrorail station access improvements for bicyclists and pedestrians 2. Expand park-and-ride lot capacities for end-line Metrorail stations 	<ol style="list-style-type: none"> 3. Free transit for low-income earners 	<ol style="list-style-type: none"> 4. Extensive TOD in under-invested high-capacity transit nodes funded by a regional value-capture mechanism 5. Require employer-provided subsidies for transit and parking cash-out 6. Redistribute forecast growth within jurisdictions to increase high-density, mixed-use development in Activity Centers around Metrorail
<p>U. Circumferential Transit <i>(These initiatives also included in Bundles C, D, SS)</i></p>	<ol style="list-style-type: none"> 1. Purple Line – New Carrollton to Eisenhower Ave extension 2. Purple Line – Bethesda to Tysons extension 		
<p>V. Circumferential Roadways</p>	<ol style="list-style-type: none"> 1. New northern Potomac River highway crossing 2. HOT lanes on Legion and Wilson bridges 		

	Projects	Programs	Policies
<p>X. Optimize Future Land Use</p> <p><i>(Similar themes are found in S, T, OO, PP, QQ, SS, WW)</i></p>			<ol style="list-style-type: none"> 1. Move more future job and housing growth within jurisdictions into activity centers 2. Move more future job growth across jurisdictions to activity centers on the east side of the region and in the regional core 3. Move more future housing growth from outside the region into activity centers inside the region 4. Extensive TOD in under-invested high-capacity transit nodes funded by a regional value-capture mechanism
<p>Y. Expand Shared Mobility</p> <p><i>(This initiative also included in Bundles K, M)</i></p>		<ol style="list-style-type: none"> 1. Extensive shared mobility for all trips purposes 	
<p>Z. Automated Vehicles</p> <p><i>(These initiatives also included in Bundles K, M)</i></p>		<ol style="list-style-type: none"> 1. Automated and semi-automated services on limited access facilities to potentially include cars, buses, connected vehicles, freight 2. First-mile, last-mile connections: automated and semi-automated services for first and last mile access to/from public transit 	
<p>AA. Fix Metro Funding</p>			<ol style="list-style-type: none"> 1. Regional dedicated funding source for Metro

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	Projects	Programs	Policies
BB. Improve Metro Core Capacity <i>(These initiatives also included in Bundles B, D)</i>	<ol style="list-style-type: none"> 1. Uncouple Metro lines at congested locations to relieve train congestion at key points such as tunnels (e.g. redesign Silver Line service to run in Virginia only) 2. 8-car trains 		
CC. Incentivize Suburban Metro Ridership <i>(This initiative also included in Bundles I, L, S, T)</i>	<ol style="list-style-type: none"> 1. Expand Park & Ride facilities at far-out stations 		
DD. Convert Commuter Rail to Regional Rail	<ol style="list-style-type: none"> 1. Dedicated commuter rail tracks, including Long Bridge (enabling high capacity service) 2. High capacity transit to outer suburbs (every 15-minutes all-day MARC and VRE) 		
EE. Construct Surface Transitway Network <i>(This initiative also included in Bundles A, C, D, Q)</i>	<ol style="list-style-type: none"> 1. Arterial BRT/priority bus network 		
FF. Increase Transit Demand	<i>(This initiative also included in Bundles B, S)</i>	<ol style="list-style-type: none"> 1. Optimize Metro (and bus) pricing to maximize ridership 	

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	Projects	Programs	Policies
<p>GG. Optimize Road Management <i>(Very similar to Bundle P)</i></p>	<ol style="list-style-type: none"> 1. Reversible lanes on key highways 2. Region-wide expansion of ITS 3. Integrated Corridor Management (ICM) region-wide 4. Regionwide cross-jurisdictional traffic signal optimization 	<ol style="list-style-type: none"> 5. Digitally integrated technology for transit systems and roadway corridors (e.g. active traffic management) 	
<p>HH. Expand Capacity at Road Bottlenecks <i>(This initiative also included in Bundles G, H)</i></p>	<ol style="list-style-type: none"> 1. Additional highway lanes at bottlenecks to increase person throughput at bottlenecks 		
<p>II. Improve Dulles-to-Maryland River Crossing <i>(This initiative also included in Bundles G, V)</i></p>	<ol style="list-style-type: none"> 1. New river crossing (Dulles to Montgomery County) 		
<p>JJ. Construct HOT Lanes Regionwide <i>(These initiatives also included in Bundles A, E, RR)</i></p>	<ol style="list-style-type: none"> 1. HOT lanes on all highways (possibly reversible) 2. High capacity transit to outer suburbs (via frequent buses in HOT lanes) 		

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	Projects	Programs	Policies
<p>KK. Price Driving to Manage Demand and Fund Improvements</p>		<p>1. Congestion pricing</p>	<p>2. Higher gas tax or VMT tax to fund projects and disincentivize driving</p> <p>3. Cordon charge to access regional core and/or Activity Centers</p>
<p>LL. Price Parking and Incentivize Non-driving trips to Manage Demand and Fund Improvements <i>(This initiative also included in Bundles A, B, C, D, I, N, O, R)</i></p>			<p>1. Price parking (possibly using the stretch parking pricing strategy from MSWG), with parking cash-out and transit benefits</p>
<p>MM. Make Activity Centers Multimodal <i>(These initiatives also included in Bundle W)</i></p>	<p>1. Interconnected street grids in all Activity Centers</p> <p>2. Pedestrian and bicycle access to Metro and commuter rail stations (e.g. WMATA's ped/bike access study)</p>		
<p>NN. Make Bikeshare Practical for More of the Population <i>(This initiative also included in Bundles I, W)</i></p>	<p>1. Expand regional bikeshare with prioritization in Activity Centers and transit nodes</p>		
<p>OO. Increase Residential Density in High-Job Areas <i>(Also included in Bundles C, D, I, J, L, M, PP, and many others. Similar themes are found in S, T, X, QQ, SS, WW)</i></p>			<p>1. Balance of transit priorities with housing mix (i.e. housing unit production targets in all Activity Centers served by high-capacity transit)</p>

	Projects	Programs	Policies
<p>PP. Optimize Land Use <i>(Similar themes are found in S, T, X, OO, QQ, SS, WW)</i></p>		<ol style="list-style-type: none"> 1. TOD in under-invested high-capacity transit nodes (eg use WMATA's Transit Corridor Expansion Guidelines to set density targets for existing and future transit nodes) 2. Address east-west divide by incentivizing job growth on the eastern side of the region (eg by subsidizing leases & taxing new parking at the vacant property rate) 3. Tie a value-capture mechanism to a regional fund for transit or bike/ped improvements in activity centers 	<ol style="list-style-type: none"> 4. Balance of transit priorities with housing mix (i.e. housing unit production targets in all Activity Centers served by high-capacity transit)
<p>QQ. Increase Jobs in the East Part of the Region <i>(These initiatives also included in Bundle WW. Similar themes are found in S, T, X, OO, PP, SS, WW)</i></p>		<ol style="list-style-type: none"> 1. Address east-west divide by incentivizing job growth on the eastern side of the region (e.g. by subsidizing leases & taxing new parking at the vacant property rate) 2. Tie a value-capture mechanism to a regional fund for transit or bike/ped improvements in activity centers 	

ORIGINAL LIST OF 49 BUNDLES, REORDERED WITH "TOP 10" BUNDLES LISTED FIRST IN BLUE TEXT

	Projects	Programs	Policies
RR.	<ol style="list-style-type: none"> 1. Maximize Metro capacity and maintain the system 2. Improve first/last mile connections 3. Add commuter rail capacity 4. Increase highway capacity including new east/west connections, to accommodate 60% of increased workers plus the current deficit, and including HOT lanes for BRT and autos 5. Increase passenger rail capacity by adding lines and stations (for example, north from Shady Grove to Gaithersburg/Germantown, other areas) 	<ol style="list-style-type: none"> 6. Incentives for telework 	<ol style="list-style-type: none"> 7. Build 100% of housing needs, and focus location on transit and Activity Centers
TT. Flat Fare		<ol style="list-style-type: none"> 1. Flat fare for Metrorail trips 	
UU. TOD Exactions			<ol style="list-style-type: none"> 1. Projects adjacent to Metrorail stations pay a surcharge (say 10%) in exchange for a reduction in parking
V V. Regional Affordable Housing		<ol style="list-style-type: none"> 1. Determine regional need for affordable housing, then allocate affordable housing growth needed for each jurisdiction (start at state level, then county, then smaller jurisdictions). Incentivize jurisdictions to build a percentage of affordable housing to distribute regionwide access to multi-modal transportation 	

ORIGINAL LIST OF 49 BUNDLES, REORDERED WITH "TOP 10" BUNDLES LISTED FIRST IN BLUE TEXT

	Projects	Programs	Policies
<p>W W. Land Use/ Balancing Region</p> <p><i>(Similar program/policy themes are found in S, T, X, OO, PP, QQ, SS)</i></p>	<ol style="list-style-type: none"> 1. Express lanes across American Legion Bridge, and widen bridge 2. Managed lanes with express bus service on beltway in Maryland, and other freeways in Prince George's County 3. Purple Line extension to Eisenhower Ave via Wilson Bridge 4. Branch Ave to Waldorf light rail 5. moveDC bus and high-capacity transit projects 6. High capacity routes from Langley Park to Bladensburg, US 1 from DC line to Beltsville, MD 193 from College Park to Greenbelt 	<ol style="list-style-type: none"> 7. TOD in under-invested high-capacity transit nodes, especially on east side of the region 8. Address east-west divide by incentivizing job growth on the eastern side of the region (eg by subsidizing leases & taxing new parking at the vacant property rate) 9. Tie a value-capture mechanism to a regional fund for transit or bike/ped improvements in activity centers 	<ol style="list-style-type: none"> 10. Move more future job growth across jurisdictions to activity centers on the east side of the region and in the regional core 11. Move more future job and housing growth within jurisdictions into activity centers

The projects, programs and policies from the “top 10” bundles are sorted into thematic categories below (2x in parentheses indicates the number of bundles in which it appeared):

- Multimodal:
 - Transit/Bike/Ped
 - Metrorail and commuter rail station access improvements for bicyclists and pedestrians (3x)
 - First-mile, last-mile connections to express transit service (local bus, bike/ped)
 - Road/Transit:
 - Expand park-and-ride lot capacities for end-line Metrorail stations (2x)
 - HOV, toll lanes, and express bus service on all existing limited access and major travel facilities, including parkways
 - Additional park-and-ride lot capacity in outer jurisdictions for HOV and express bus services
 - Address congestion through the Congestion Mitigation Process

- Transit:
 - Bus Improvements:
 - WMATA’s Priority Corridor Network for bus service enhancements on 24 major corridors (4x)
 - Dedicated-lane transitways (ie BRT or LRT) on Montgomery County’s proposed BRT network, NVTA’s TransAction BRT network, a TBD network for Prince George’s County, and the transit lane network identified in moveDC
 - Expanded circulator buses to Metro stations
 - Transit priority treatments (roadway/tech)
 - Coordinate local bus systems into a regionwide bus network. Glean motivations from how Houston and Baltimore have revamped their bus systems
 - Metro Rail Improvements:
 - 100% eight-car trains (3x)
 - Expand/enhance high-volume stations in system core (3x)
 - Second Metro station at Rosslyn (3x)
 - Second Rosslyn tunnel for Metro rail (2x)
 - Reduce interlining (2x)
 - Commuter Rail Improvements
 - increase frequency and hours of service (2x)
 - VRE-MARC run-thru (2x)
 - Union Station and Long Bridge capacity expansion (2x)
 - MARC Growth Plan & VRE System Plan 2040 plans (not in CLRP), two-way traffic on MARC Brunswick line (2x)
 - Light Rail Expansion
 - Light rail expansions in DC (3x) +
 - Light rail (ie streetcar) expansions in DC, using dedicated lanes on future segments
 - Light rail connecting Silver Spring to Branch Avenue
 - Transit Extensions:
 - Transitway to Waldorf (4x)

- Circumferential Purple Line (connecting New Carrollton to Eisenhower Ave, also connect Bethesda to Tysons) (2x)
 - High-capacity transit to outer suburbs
 - Metro Rail Extensions to Centreville or Gainesville/ Haymarket, Hybla Valley, and Potomac Mills (2x)
- Roadway Enhancements:
 - Enhanced Potomac River crossings (American Legion Bridge, additional northern crossing)
 - Added capacity at regionally significant bottlenecks identified by TPB's Congestion Monitoring Report
 - Fill gaps in the road network
 - Interconnected street grid in all activity centers
 - Improved engineering and operational practices in arterial design such as turn movement treatments
 - Reversible lanes on key highways
 - Automated traffic incident management and advanced traveler information systems
 - ICM, ATM, and ITS regionwide
- Bike/Ped:
 - Expand regional bike-share network
 - Interconnected network of regional trails
- TDM:
 - Parking pricing and employer-provided transit/ridesharing subsidies in locations served by the above network (3x)
 - Policies to incentivize transit: price parking at all Activity Centers, require employer-provided subsidies for transit and parking cash-out (2x)
 - Reduce Metrorail fares in off-peak direction during peak period and on other underutilized Metrorail segments (3x)
 - Free transit for low-income earners (2x) +
 - Free transit rides for residents earning \$30,000 a year or less
 - Standardized or fixed fare on all transit
 - Subsidize ride-share
 - Stagger work hours
 - Expand telework
- Land Use Changes:
 - Redistribute forecast growth within jurisdictions to increase high-density, mixed-use development around
 - Activity Centers around Metrorail (4x)
 - On the east side of the region (2x)
 - the regional express travel network
 - arterial transitway network
 - Concentrate more future growth within each jurisdiction for high-density, mixed-use development in Activity Centers served by Metrorail and commuter rail (2x)

- Extensive TOD in under-invested high-capacity transit nodes funded by a regional value-capture mechanism (2x)
- Optimize jobs-housing balance by moving more future housing growth within jurisdictions into Activity Centers, and moving jobs across jurisdictions to Activity Centers in need of more jobs (2x)
- Address east-west divide by incentivizing job growth on the eastern side of the region
 - Create a fund to subsidize lease rates for job centers on the east side of the region by taxing new parking at the “vacant property” rate
- Require an increased percentage of workforce/affordable housing in TOD areas
- Other
 - Greater accessibility for persons with disabilities via a Regionally accessible taxi network
 - Forecast the impact of alternative modes of transportation like Uber, Lyft, autonomous vehicles and their implications. Develop integrated plan (particularly for autonomous vehicles) that incorporates needs of disabled, senior citizens, and low-income communities

Table 3 Qualitative Assessment of Improvement POTential of Top 10 BUndles (6-7-2017)

#	Type		Roadway Congestion	Transit Crowding	Inadequate Bus Service	Inadq & Unsafe Walk/Bike Facd	Under Develop. Around Metro	Inadq. Housing Near Jobs	Metro Repair Needs	Roadway Repair Needs	Rdwy & Transt Incidents/Sfty	Walk / Bike Safety	Air & Water Quality	Open Space Preservation	Rdwy & Trnst Bottlenecks	Travel Time Reliability
A		Regional Express Travel Network	High	Low	High	Low	Low	Low	None	Negative	None	Low	None	Low	Medium	High
1	Projects	HOV, toll lanes, and express bus service on all existing limited access and major travel facilities, including parkways														
2	Projects	WMATA's Priority Corridor Network for bus service enhancements on 24 major corridors														
3	Projects	First-mile, last-mile connections to express transit service (local bus, bike/ped)														
4	Projects	Additional park-and-ride lot capacity in outer jurisdictions for HOV and express bus services														
5	Programs	Parking pricing and employer-provided transit/ridesharing subsidies in locations served by the above network														
6	Policies	Redistribute forecast growth within jurisdictions to increase high-density, mixed-use development around the regional express travel network														
B		Enhanced Regional Rail Service	Low	High	None	Low	High	Low	Negative	None	None	Low	Low	Low	Medium	Low
1	Projects	Metrorail: 100% eight-car trains, second Metro station at Rosslyn, reduce interlining, expand/enhance high-volume stations in system core														
2	Projects	Commuter rail: increase frequency and hours of service, VRE-MARC run-thru, Union Station and Long Bridge capacity expansion														
3	Projects	Metrorail and commuter rail station access improvements for bicyclists and pedestrians														
4	Programs	Reduce Metrorail fares in off-peak direction during peak period and on other underutilized Metrorail segments														
5	Programs	Parking pricing and employer-provided transit subsidies in locations served by the above network														
6	Policies	Concentrate more future growth within each jurisdiction for high-density, mixed-use development in Activity Centers served by Metrorail and commuter rail														
C		Maximal Transit	Low	Low	Medium	None	High	High	Negative	None	None	None	Low	Low	Low	Medium
1	Projects	Second Rosslyn tunnel for Metro rail, Metro extensions to Centreville or Gainesville/ Haymarket, Hybla Valley, and Potomac Mills														
2	Projects	Circumferential Purple Line (connecting New Carrollton to Eisenhower Ave, also connect Bethesda to Tysons)														
3	Projects	Transitway to Waldorf														
4	Projects	Light rail expansions in DC														
5	Projects	WMATA's Priority Corridor Network for bus service enhancements on major corridors														
6	Projects	MARC Growth Plan & VRE System Plan 2040 plans (not in CLRP), two-way traffic on MARC Brunswick line														

Table 3 Qualitative Assessment of Improvement Potential of Top 10 BUndles (6-7-2017)

#	Type		Roadway Congestion	Transit Crowding	Inadequate Bus Service	Inadq & Unsafe Walk/Bike Faci	Under Develop. Around Metro	Inadq. Housing Near Jobs	Metro Repair Needs	Roadway Repair Needs	Rdwy & Transt Incidents/Sfty	Walk / Bike Safety	Air & Water Quality	Open Space Preservation	Rdwy & Trnst Bottlenecks	Travel Time Reliability
7	Programs	Free transit for low-income earners														
8	Programs	Extensive TOD in under-invested high-capacity transit nodes funded by a regional value-capture mechanism														
9	Policies	Policies to incentivize transit: price parking at all Activity Centers, require employer-provided subsidies for transit and parking cash-out														
#	Policies	Optimize jobs-housing balance by moving more future housing growth within jurisdictions into Activity Centers, and moving jobs across jurisdictions to Activity Centers in need of more jobs														
D		Enhanced Regional Rail Service + Maximal Transit (Combine B and C)	Medium	Medium	Medium	Low	High	High	Negative	None	None	Low	Low	Low	Low	Medium
G		Targeted Roadway Capacity and Operational Enhancements	Medium	None	None	None	None	None	None	Negative	low	None	Negative	Negative	Medium	Medium
1	Projects	Enhanced Potomac River crossings (American Legion Bridge, additional northern crossing)														
2	Projects	Added capacity at regionally significant bottlenecks identified by TPB's Congestion Monitoring Report														
3	Projects	Fill gaps in the road network														
4	Projects	Address congestion through the Congestion Mitigation Process														
P		Roadway Technology Improvements (Modified from Bundle K, very similar to bundle GG)	Low	None	Low	None	None	None	None	Low	High	None	None	None	Medium	Medium
1	Projects	Improved engineering and operational practices in arterial design such as turn movement treatments														
2	Projects	Transit priority treatments														
3	Projects	Reversible lanes on key highways														
4	Programs	Automated traffic incident management and advanced traveler information systems														
5	Programs	ICM, ATM, and ITS regionwide														
Q		Improved Arterial Transit	None	Medium	High	None	Medium	Low	None	None	None	None	None	None	Medium	Medium
1	Projects	WMATA's Priority Corridor Network for bus service enhancements on 24 major corridors														
2	Projects	Dedicated-lane transitways (ie BRT or LRT) on Montgomery County's proposed BRT network, NVTA's TransAction BRT network, a TBD network for Prince George's County, and the transit lane network identified in moveDC														
3	Projects	Transitway to Waldorf														
4	Projects	Light rail (ie streetcar) expansions in DC, using dedicated lanes on future segments														
5	Policies	Redistribute forecast growth within jurisdictions to increase high-density, mixed-use development in Activity Centers around Metrorail and arterial transitway network														

Table 3 Qualitative Assessment of Improvement POTential of Top 10 BUndles (6-7-2017)

#	Type		Roadway Congestion	Transit Crowding	Inadequate Bus Service	Inadq & Unsafe Walk/Bike Faci	Under Develop. Around Metro	Inadq. Housing Near Jobs	Metro Repair Needs	Roadway Repair Needs	Rdwy & Transt Incidents/Sfty	Walk / Bike Safety	Air & Water Quality	Open Space Preservation	Rdwy & Trnst Bottlenecks	Travel Time Reliability
S		Optimize Existing Metrorail (Similar program/policy themes are found in T, X, OO, PP, QQ, SS, WW)	Low	High	None	None	High	High	Negative	None	None	None	Low	Low	Medium	Medium
1	Projects	100% eight-car trains														
2	Projects	Second Metro station at Rosslyn														
3	Projects	Expand/enhance high-volume stations in system core														
4	Projects	Expand park-and-ride lot capacities for end-line Metrorail stations														
5	Programs	Reduce Metrorail fares in off-peak direction during peak period and on other underutilized Metrorail segments														
6	Policies	Redistribute forecast growth within jurisdictions to increase high-density, mixed-use development in activity centers around Metrorail														
7	Policies	Redistribute forecast growth across jurisdictions to increase high-density, mixed-use development in activity centers around Metrorail on the east side of the region														
T		Expand Metrorail (Similar program/policy themes are found in S, X, OO, PP, QQ, SS, WW)	Low	Medium	None	None	High	High	Negative	None	Low	None	None	Low	Low	Medium
1	Projects	Second Rosslyn tunnel for Metrorail														
2	Projects	New separated Blue Line subway loop (i.e. reduce interlining)														
3	Projects	Expand park-and-ride lot capacities for end-line Metrorail stations														
4	Policies	Redistribute forecast growth within jurisdictions to increase high-density, mixed-use development in activity centers around Metrorail														
5	Policies	Redistribute forecast growth across jurisdictions to increase high-density, mixed-use development in activity centers around Metrorail on the east side of the region														
W		Ease Last-Mile Trips Inside Activity Centers	None	None	Low	High	Medium	Low	None	None	None	Medium	Low	Low	None	None
1	Projects	Expand regional bike-share network														
2	Projects	Metrorail station access improvements for bicyclists and pedestrians														
3	Projects	Interconnected network of regional trails														
4	Projects	Interconnected street grid in all activity centers														
5	Projects	Expanded circulator buses to Metro stations														
6	Policies	Redistribute forecast growth within jurisdictions to increase high-density, mixed-use development in activity centers around Metrorail														
SS		Increase Accessibility for Disadvantaged and Underserved Communities (Similar program/policy themes are found in S, T, X, OO, PP, QQ, WW)	Medium	None	Medium	None	Medium	High	None	Negative	None	low	None	Low	Low	Medium
1	Projects	Address east-west divide through projects connecting Equity Emphasis Areas such as: - Light rail connecting Silver Spring to Branch Avenue - Expanding light rail in DC - Transitway to Waldorf														

Table 3 Qualitative Assessment of Improvement POTential of Top 10 BUndles (6-7-2017)

#	Type		Roadway Congestion	Transit Crowding	Inadequate Bus Service	Inadq & Unsafe Walk/Bike	Under Develop. Areas	Inadq. Housing Near Lake	Metro Repair Needs	Roadway Repair Needs	Rdwy & Transt	Walk / Bike Safety	Air & Water Quality	Open Space Preservation	Rdwy & Trnst Bottlenecks	Travel Time Reliability
2	Projects	High-capacity transit to outer suburbs														
3	Programs	Standardized or fixed fare on all transit														
4	Programs	Free transit rides for residents earning \$30,000 a year or less														
5	Programs	Subsidize ride-share														
6	Programs	Stagger work hours														
7	Programs	Expand telework														
8	Programs	Address east-west divide by incentivizing job growth on the eastern side of the region - Create a fund to subsidize lease rates for job centers on the east side of the region by taxing new parking at the "vacant property" rate														
9	Programs	Greater accessibility for persons with disabilities - Regionally accessible taxi network														
#	Policies	Require an increased percentage of workforce/affordable housing in TOD areas														
#	Policies	Coordinate local bus systems into a regionwide bus network - Glean motivations from how Houston and Baltimore have revamped their bus systems														
#	Policies	Forecast the impact of alternative modes of transportation like Uber, Lyft, autonomous vehicles and their implications - Develop integrated plan (particularly for autonomous vehicles) that incorporates needs of disabled, senior citizens, and low-income communities														