



2012 Transportation Policy Area Review

A Synopsis of the Area-wide Transportation Test



Montgomery County Planning Department

M-NCPPC

MontgomeryPlanning.org

abstract

This document summarizes a proposal to replace the current area-wide transportation test, the Policy Area Mobility Review, with a new test as part of the Subdivision Staging Policy. The full report, *2012 Transportation Policy Area Review*, contains all the detail of the proposed methodology and the results of the test. Both documents are currently under review by the Montgomery County Planning Board.

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source of copies

This summary and the full report are available at:
Maryland-National Capital Park and Planning Commission
8787 Georgia Avenue
Silver Spring, MD 20910

Online at: MontgomeryPlanning.org/transportation

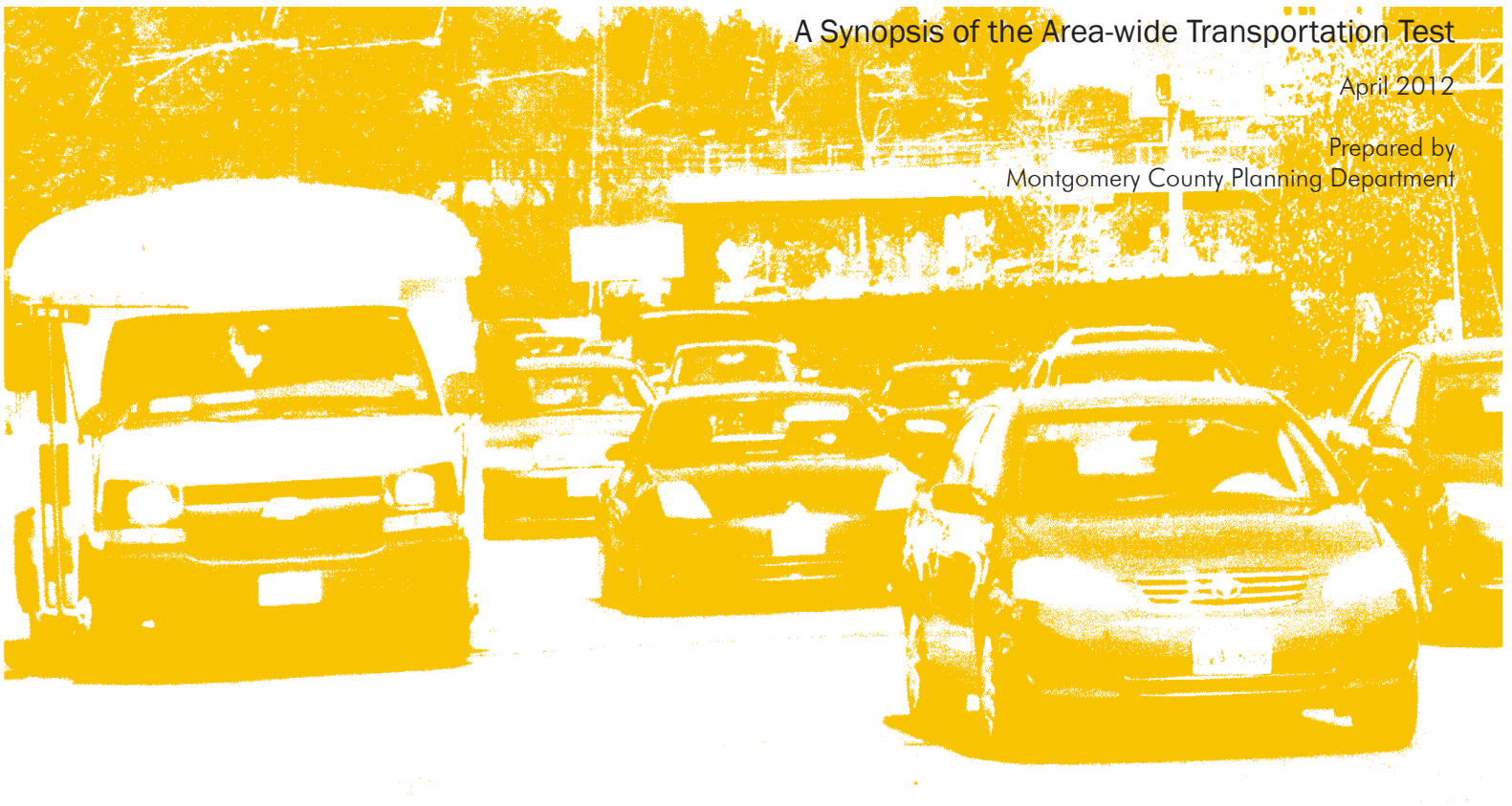


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April 2012

Prepared by
Montgomery County Planning Department



contents

introduction..... **5**
Transparent Approach..... 6
Ensure Delivery..... 6

the TPAR process..... **7**
Identify Inadequacies and Solutions..... 7
Program Implementation..... 9
Follow-through..... 9

agency coordination..... **9**

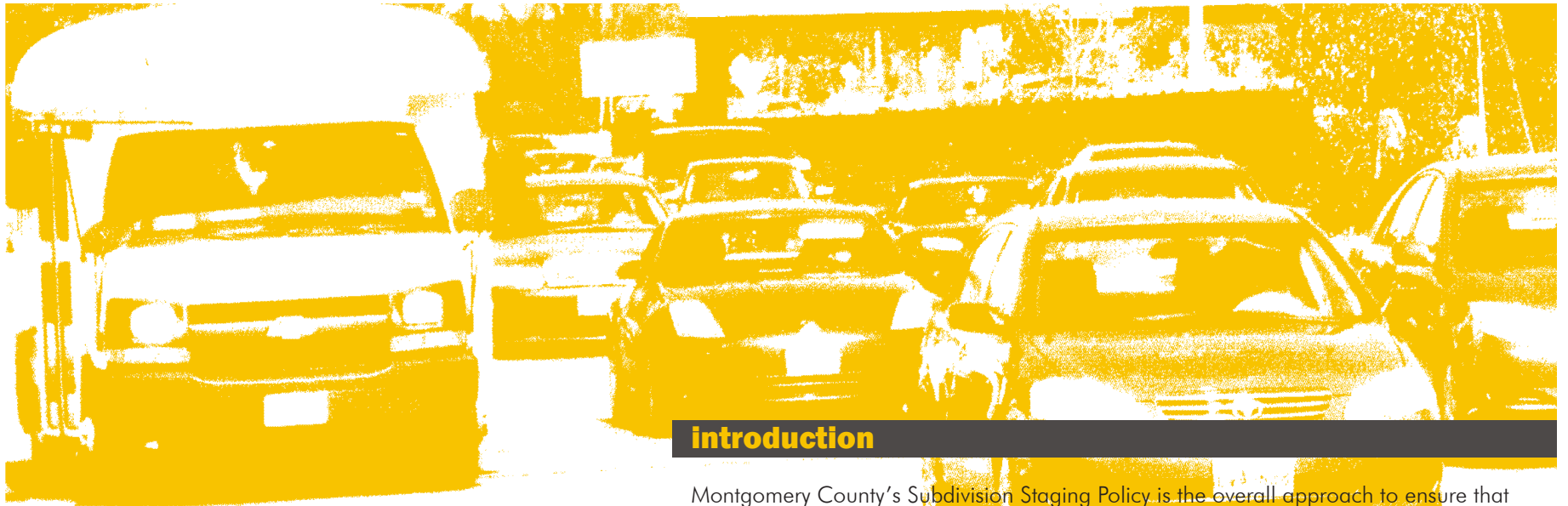
public-private funding..... **9**

implementing TPAR through the development process..... **12**

charts and tables

Chart 1 Identify Transit Inadequacies and Solutions.....7
Chart 2 Identify Roadway Inadquacies and Solutions.....7
Chart 3 Adequacy of Main Roads—Countywide Summary..... 10
Chart 4 Adequacy of Main Roads—Bethesda-Chevy Chase..... 11
Table 1 Policy Areas Categorized by Transit Related Elements.....7
Table 2 Bus Transit Quality of Service Measures.....8
Table 3 Results of Transit Service Adequacy Analysis.....8

* graphics have been simplified for this summary; detailed graphics are available in the full report



introduction

Montgomery County's Subdivision Staging Policy is the overall approach to ensure that roads, schools, and other public facilities are provided to serve development in a timely way.

Testing for sufficient auto and transit capacity to serve the county has been governed by Policy Area Mobility Review (PAMR) since 2007, but it was not easy to understand how a particular policy area was determined to have adequate or inadequate transportation capacity for growth, or what specific solutions would make the situation better. The goal of a new process is increase the transparency of the adequacy determination and to ensure that solutions are timed to accommodate growth as prescribed by adopted master plans.

The Council asked the Planning Department to create a new governing mechanism that:

- uses a more transparent approach (making it easier to see how roadway and transit deficiencies were determined and what solutions are necessary) and
- ensures delivery of needed infrastructure and service.

The proposed Transportation Policy Area Review (TPAR) responds to these requests in the following ways.

transparent approach

- Solutions to deficiencies are based on a forecast of a specific time period rather than by looking at approved projects.

The pipeline tells us what projects have been approved, but not when they might be built. Forecasts based on approved master plans use the pipeline as one input, but also account for regional growth projections, the relative distribution of population based on allowed zoning, and economic factors.

- Auto and transit adequacy standards are determined separately.

While PAMR's single level of service chart that combined auto and transit mobility was convenient, it was difficult for decision-makers and stakeholders to understand how roads and transit were each affecting individual policy areas.

- Individual road segments and transit service routes are examined separately to determine exactly where solutions are needed.

As with adequacy standards, separating roads and transit allows customized solutions to the identified problems.

- The starting point of the analysis is shifted from the capacity of established transportation projects to determining what projects are needed to accommodate master planned growth.

This shift focuses on implementing master plan goals and allows timely responses to market opportunities, rather than limiting growth to what can be accommodated by transportation capacity.

ensure delivery

- Specific road and transit solutions are identified within and across policy areas.

Specificity makes it easier to schedule and fund projects when and where they are needed. Costs can be estimated and allocated to each policy area and the County Council can set priorities in the County budget.

- Projects are funded through public-private cost sharing, with tight links to the county and state transportation budgets. Projects can only be postponed, not removed from the CIP. If projects are not privately-publicly funded within 10 years, they move to the CIP or Operating Budget.

- TPAR's open and iterative process allows elected officials to make priority decisions. An annual report will monitor both development and transportation projects.

Regular and specific reviews by the Planning Board and County Council as part of the master planning and budget process will ensure projects are not overlooked and will allow for adjustments to programming and implementing transportation solutions.



the TPAR process

The area-wide transportation test has to answer the following questions to guide decision-making in the Subdivision Staging Policy:

- Which areas of the County have sufficient transit and roadway capacity for growth and which do not?
- How can the inadequate areas increase their capacity, or how can new trips be mitigated?

The Subdivision Staging Policy is revisited every four years. As an important element of that policy, TPAR would be tested at least that often to reassess conditions and set budget priorities.

The proposed TPAR process will determine whether each policy area has adequate transit and roadway capacity for growth and solutions that would help meet standards; set priorities and costs for specific improvements, and allocate them by policy area; and monitor progress.

Identify inadequacies and solutions

for transit:

- Transit service in each policy area is analyzed and categorized as urban, suburban or rural. This analysis includes the number of bus routes, availability of rail service, the number of square miles, population and employment density in each policy area (see chart 1 and table 1).
- Different adequacy standards are applied to each area as defined by MCDOT. The coverage, frequency of service (headway) and hours of service (span) are used as part of this analysis.
- Each policy area is assessed to determine if it meets the standard for its category. The TPAR report gives the results of the analysis for each policy area (see table 3).
- If it meets the standard, no additional transit costs are allocated to that policy area
- If it falls short of the standard, MCDOT and the Planning Department determine improvements needed to meet the standard.
- MCDOT estimates the cost of additional service and/or capital improvements.
- The costs are then allocated to each policy area based on how the each area would benefit from the improvements (especially when an improve-

chart 1 Identify transit inadequacies and solutions

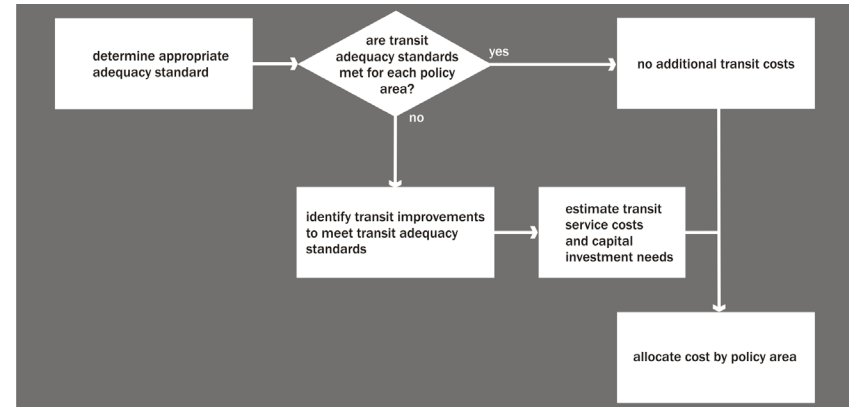


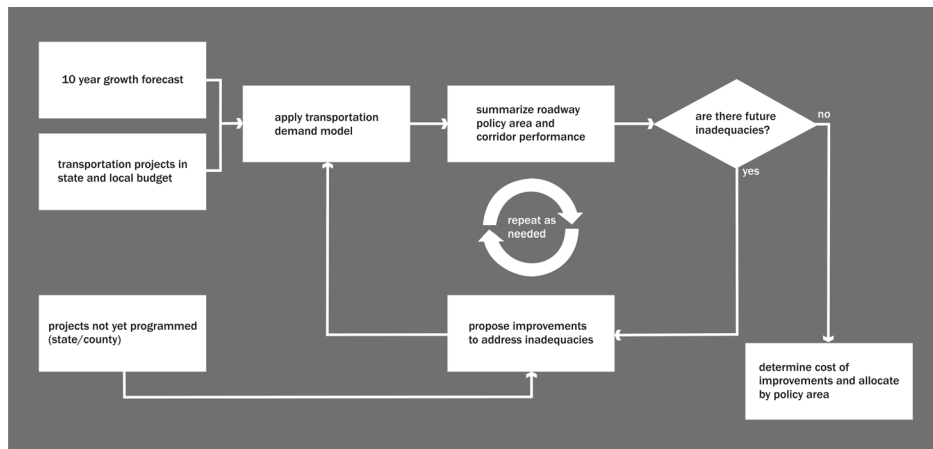
table 1 policy areas categorized by transit related elements

Policy Areas Categorized by Type of Transit and Population and Employment Density TPAR 2012 (3-26-12)									
	Number of Buses			Metro Rail?	MARC Com-muter Rail?	Future Light Rail and/or BRT?	Area of the Policy Area (sq. mi.)	Pop. Density in 2010 (person per sq. mi.)	Emp. Density in 2010 (emp. per sq. mi.)
	Total on all Routes	Peak Period Only	All-Day Routes						
Urban Policy Areas served by Metrorail									
Silver Spring/Takoma Park	35	14	21	Y	Y	Y	10.49	8,622	4,376
North Bethesda	15	4	11	Y	Y	Y	9.25	5,216	7,430
Kensington/Wheaton	29	12	17	Y	Y		19.26	4,853	1,230
Bethesda/Chevy Chase	17	6	11	Y		Y	20.24	4,962	4,339
Rockville City	16	2	14	Y	Y	Y	13.64	4,314	5,794
Derwood	7	2	5	Y	Y		8.22	2,274	2,556
Suburban Policy Areas									
R&D Village	5	2	3			Y	2.38	3,076	8,764
Gaithersburg City	10	1	9		Y	Y	11.03	5,446	4,967
Fairland/White Oak	14	7	7				20.66	3,700	1,495
Germantown West	9	2	7		Y	Y	10.98	5,652	1,347
Montgomery Village/Airpark	9	3	6				9.41	5,472	1,372
Aspen Hill	11	3	8				13.05	4,644	478
Germantown East	5	2	3			Y	6.57	3,568	1,310
Cloverly	2	2	0				9.83	1,621	137
North Potomac	7	3	4				10.49	2,570	1,427
Olney	5	4	1				17.36	1,887	317
Potomac	10	2	8			Y	28.07	1,696	431
Clarksburg	2	1	1			Y	14.91	934	255
Rural Policy Areas									
Rural West	1	1	0		Y		132.90	157	20
Damascus	1	0	1				9.42	1,119	248
Rural East	1	0	1				117.18	289	48

table 2 bus transit quality of service measures

Factors Characterizing Bus Transit Quality of Service in Montgomery County			
Transit Service Area Categories	Coverage: (percent of area within a 1 mile walk of Metro and/or 1/3 mile walk of bus)	Peak Headways: (equal to or less than ___ minutes between buses on average in Peak Hour)	Span of Service: (equal to or more than ___ hours in duration per weekday on average)
Urban	Greater than 80%	20 minutes with Metrorail; or 14 minutes without	17 Hours
Suburban	Greater than 30%	20 minutes	14 Hours

chart 2 identify roadway inadequacies and solutions



ment serves more than one policy area) and the amount of new development forecast for the policy area.

for roadways

- Policy areas’ levels of service are based on forecast master planned growth, with the assumption that county and state road projects in the budget are completed.
- The transportation demand model is then run and the roadway policy area and corridor performance are summarized to determine if they meet standards for level of service as set by the County Council in the Subdivision Staging Policy. Individual roadway levels of service are analyzed to determine where improvements are needed (see chart 4).
- If inadequacies are found, then the agencies test various proposed improvements (repeated as necessary) until the transportation demand model indicates

table 3 results of transit service adequacy analysis

Transit Adequacy Analysis Results TPAR 2012				
	Number of Bus Routes	Coverage (Percent of area within 1 mi. rail; 1/3 mi. of bus)	Peak Headway by Bus in PM Peak Hour (min.)	Span: Duration of Weekday Bus Service (hours)
Urban Policy Areas served by Metrorail				
Silver Spring/Takoma Park	35	96.0%	18.2	18.9
North Bethesda	15	87.4%	21.3	17.7
Kensington/Wheaton	29	82.0%	20.7	18.5
Bethesda/Chevy Chase	17	81.2%	20.4	17.4
Rockville City	16	79.9%	21.2	17.8
Derwood	7	70.0%	21.1	18.8
Inadequate versus the Standards shown	XX.X	more than 80.0%	less than 14.0 ##	more than 17.0
## = 20.0 with Metrorail				
Suburban Policy Areas				
R&D Village	5	75.5%	25.8	15.8
Gaithersburg City	10	75.0%	20.0	17.6
Fairland/White Oak	14	48.2%	19.1	18.8
Germantown West	9	48.0%	21.8	18.6
Montgomery Village/Airpark	9	47.1%	19.4	18.0
Aspen Hill	11	43.7%	19.9	19.3
Germantown East	5	39.3%	21.4	17.8
Cloverly	2	30.0%	26.5	8.0 *
North Potomac	7	29.2%	24.3	17.0
Olney	5	26.2%	25.0	22.3
Potomac	10	22.5%	21.1	16.4
Clarksburg	2	16.4%	30.0	14.1
Inadequate versus the Standards shown	XX.X	more than 30.0%	less than 20.0	more than 14.0
Rural Policy Areas				
Rural West	1	8.4%	30.0	6.3 *
Damascus	1	7.4%	20.0	15.7
Rural East	1	7.4%	20.0	15.7
Inadequate versus the Standards shown	XX.X	more than 5.0%	less than 30.0	more than 4.0

* Span includes Peak Period Routes because of absence of All Day Routes

that there are no future inadequacies.

- The cost of the improvements that result in no inadequacies are then estimated and allocated by policy area.

The data were prepared with the assistance of a consultant and the Montgomery County Department of Transportation. Table 3 and charts 4 and 5 extracts from the full TPAR report and illustrate some of the results of that analysis.

Table 3 summarizes the results of the transit adequacy analysis, highlighting the deficiencies for each component in each policy area.

program implementation

Determine needed funding and allocate costs to public and private sectors

- The cost of the transit and roadway improvements is divided by the total peak period trips generated by forecast households and jobs. This results in a per-unit-of-development cost for each policy area.
- The elected officials would then determine the how much of the cost should be covered by the public and private sectors.
- Based on development approvals and public-private funding, elected officials would determine when improvements should be scheduled and programmed.

development approval timing

- All development can proceed, with payment of the TPAR fee, if approved by the Planning Board.

follow-through

monitor and report

- In an annual report, by policy area, monitor progress of transportation projects and development activity, and include recommendations to maintain balance between development and transportation.

agency coordination

The TPAR process helps ensure timely delivery of needed infrastructure and service by coordinating the actions and clarifying the responsibilities of government agencies and decision-makers.

- Transit standards that establish adequacy are consistent with the County's Transit Strategy Plan.
- Project programming and funding is tied to the county and state transportation budgets.
- Responsibilities are clearly established:
 - the Planning Board provides growth forecasts and demand estimates
 - MCDOT undertakes capital programming, project development and implementation, and road and transit operations.
 - MCDOT and the Planning Board complete an annual monitoring report by policy area
 - County Council reviews annual monitoring report to reestablish budget priorities

public-private funding

Public-private funding will provide a guaranteed funding mechanism and will ensure that funds are spent where growth is happening.

- Private participation will be via a TPAR payment based on the cost of needed improvements in each policy area and on development size.
- All payments will be tracked and used within the policy area or on projects that directly benefit the policy area.
- The County will program projects through the County budget once 10 percent of the funds needed are contributed by the private sector. Funding may have to be programmed in advance, especially for design and engineering of complex projects, or equipment that requires a long lead time. Projects must be programmed to be complete within 10 years. The County will request needed improvements to state roads as a priority in state budgets.

chart 3 adequacy of the main roads—county-wide summary

2022 Development Forecasts with 2012 Roads + 2018 Programmed Improvements + Conditional Transit Headways

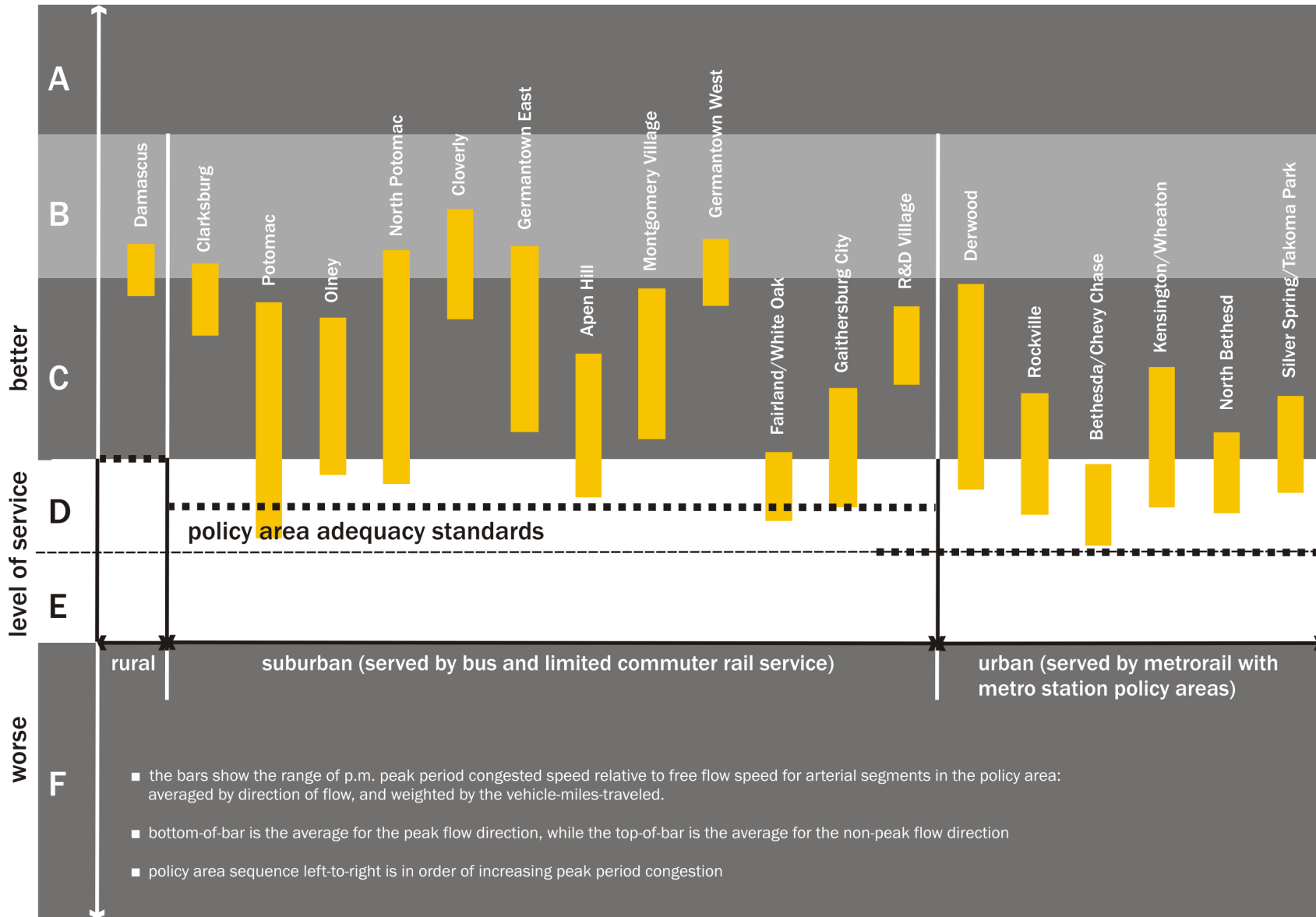


Chart 3 summarizes the projected average 2022 conditions on roadways in each policy area.

chart 4 adequacy of the main roads—bethesda chevy chase

2040 Development Forecasts with 2012 Roads + 2018 Programmed Improvements

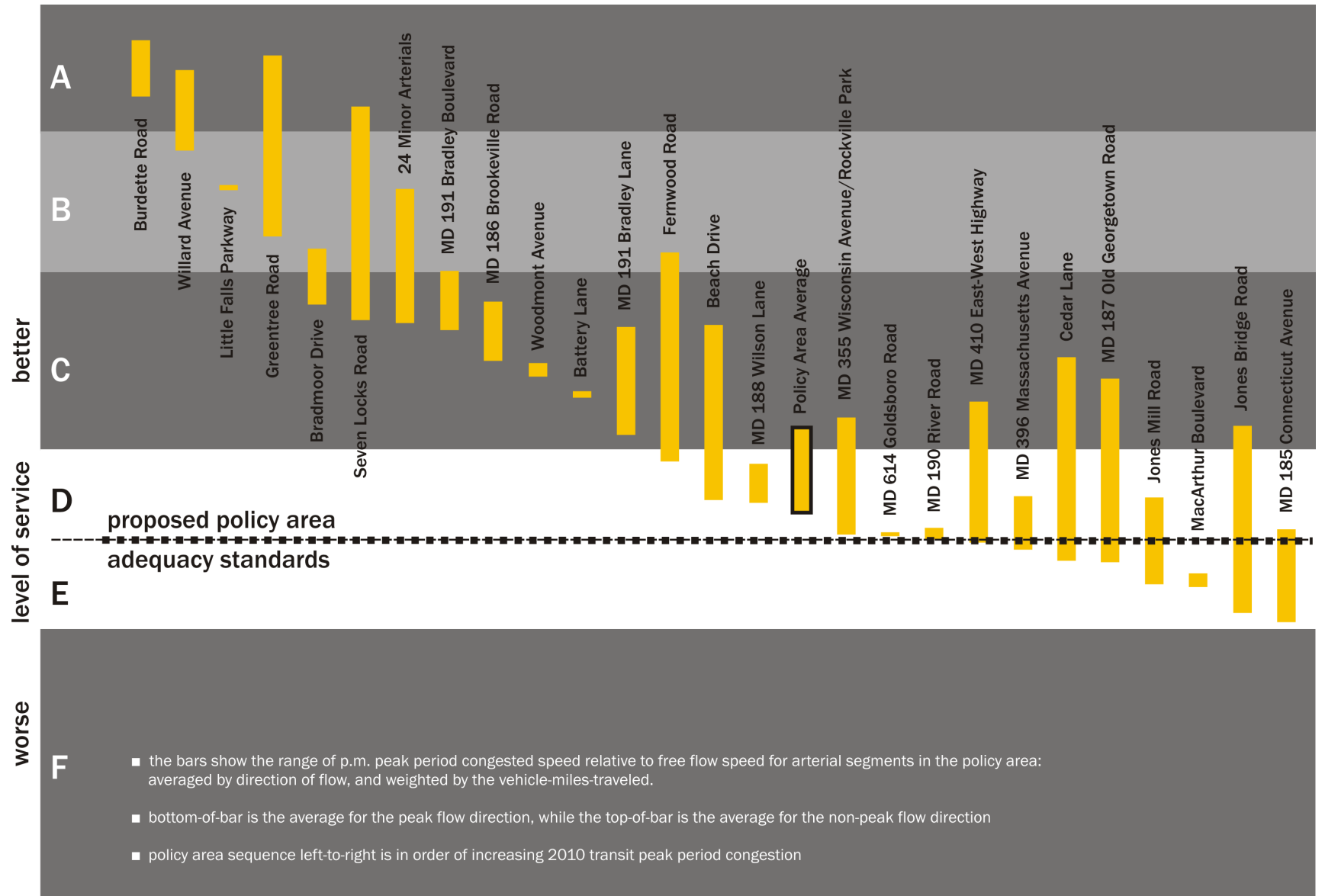


Chart 4 is an example of the detail for all major roadways in single policy area. The full TPAR report shows the results at this level of detail for each policy area.

implementing TPAR through the development process

- A development application identifies:
 - the policy area of the proposed development
 - the nature and size of the proposed development, and
 - expected total peak period trip generation.
- MCDOT determines the TPAR payment required based on the cost per unit of development in the policy area. If there are improvements that can be made by the project, these may be substituted for all or part of the payment if recommended by MCDOT. There would be a minimum payment per net new trip for all policy areas. In policy areas where standards are not met, the TPAR payment would be based on the cost allocation, but in no case exceed \$11,700 per net new trip (adjusted annually). The amount of the TPAR payment could be credited toward the Transportation Impact Tax.
- Planning Board approves the development, with conditions, including assurance that the TPAR payment will be made or transportation improvements (if substituted for some or all of the payment) will be constructed (permitted and bonded) at time of building permit.
- Developer either pays the TPAR payment or posts an irrevocable letter of credit for the payment. If the latter, the five-year time period for payment starts. At this point, the developer has met his/her obligations under TPAR and can proceed with the next steps in the subdivision process.



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