



BEST PRACTICES FOR
**CIP Development
and Promoting Healthy
Communities**

SECTION 1: EXECUTIVE SUMMARY

FINAL REPORT
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Kimley»Horn



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EXECUTIVE SUMMARY

1. PURPOSE OF STUDY

The Baltimore Metropolitan Council (BMC) provides planning resources and regional coordination for jurisdictions in the Baltimore region. Local governments in the region, shown to the right, are responsible for managing much of the infrastructure the public relies on every day, from streets and sidewalks to public transportation, water, sewer, and schools. These jurisdictions must grapple with aging infrastructure and constrained budgets, while continuing to serve the region's 2.8 million residents. Determining which infrastructure receives capital funding for replacement, renewal, and expansion is a crucial process for transportation planning in the region. These local jurisdictions also work with state agencies such as the Maryland Department of Transportation and the Departments of Planning and Environment.

At the same time, the transportation industry is broadening its planning focus from commuter trips to all trips and from vehicular trips to trips made by all modes. More inclusive planning practices focus on active transportation and how the built environment, which encompasses all the physical parts of where we live and work, fosters improved health outcomes and overall well-being.

This study focuses on these two emerging and interrelated questions for jurisdictions managing critical transportation infrastructure—*how best to allocate limited capital funds for transportation and how to promote healthy communities through the built environment.*

BMC Jurisdictions

Annapolis
Anne Arundel County
Baltimore City
Baltimore County
Carroll County
Harford County
Howard County
Queen Anne's County

1.1. BEST PRACTICES IN CAPITAL IMPROVEMENT PROGRAMS (CIPS)

CIPs determine how constrained capital funds are allocated for the maintenance and expansion of public infrastructure. CIPs can include transportation infrastructure along with other public infrastructure (water, sewer, etc.) or can be divided to focus on one sector. While BMC's member jurisdictions each approach their development individually, CIPs at their most basic fulfill four functions:

1. Inventory: What are the capital needs?
2. Prioritization: Which projects take precedence?
3. Funding: What fiscal resources are available to support capital investments?
4. Programming: How are funds being distributed among capital needs? Which capital needs are being met and which ones remain unfunded?

These functions may be accomplished through formal or informal processes. There are a wide range of factors that impact CIPs, from laws and budgets to citizen input and policies. This study focuses on knowledge sharing among BMC jurisdictions and furthering the state of practice in CIP development.

1.2. PROMOTING HEALTHY COMMUNITIES

The practice of promoting healthy communities through transportation planning seeks to identify where improvements can be made to the built environment to promote active lifestyles, connections to jobs and services, and walking and biking on a regular basis. The focus of this study is specifically on the nexus between the built environment and health, and how the transportation system can support healthier outcomes for all members of the community.

Innovative initiatives and strategies at the local and regional level can be incorporated into the transportation planning process to ensure that the Baltimore region is holistically considering the impact of infrastructure on physical and mental health. This study provides a roadmap to coordinating land use decisions, community design, and transportation planning in a way that supports active, healthy, and vibrant communities.

2. METHODOLOGY

The research in this report is broken into three sections:

1. State of Practice in the Baltimore Region Today
2. Review of Best Practices Across the Country
3. Recommendations for the Baltimore Region

The study was guided by a steering committee with representatives from each jurisdiction, the Maryland Department of Transportation (MDOT), and BMC staff. Technical committees also were convened on each topic area to provide input on the key questions for study and identify subject matter experts for interviews.

2.1. STATE OF LOCAL PRACTICE

In the spring of 2021, the project team conducted structured virtual interviews with planning and health staff from local jurisdictions and MDOT to discuss the current state of practice. Participants were selected based on guidance from the project's steering committee and encompassed staff with hands-on experience with the CIP development process and/or transportation planning for healthy community outcomes.

Interviews with each local jurisdiction were conducted to better understand the ways in which CIPs and healthy communities are planned for and prioritized in the Baltimore region. Each interview had the following objectives.

CIP Objectives:

- Understand overall CIP process and timing
- Learn how capital needs are identified and deemed eligible for inclusion in the CIP
- Identify what laws, regulations, performance metrics, and rocedures guide prioritization of funding
- Learn how jurisdictions identify and forecast capital funds
- Identify how funds are programmed and CIPs are monitored for implementation

**CIP
Objectives****Healthy Communities Objectives:**

- Learn what community health goals and priorities have been identified by the community
- Learn what health- and transportation-related initiatives have been implemented
- Identify what is working well and what are the biggest barriers for achieving healthier outcomes for all members of society
- Identify how the community currently incorporates and measures the promotion of health in transportation planning processes and projects
- Learn how the jurisdiction collaborates with and includes a variety of stakeholders in planning processes

**Healthy
Communities
Objectives**

Detailed summaries of the interviews can be found in **Appendix A: Technical Memorandum 1.**

2.2. REVIEW OF BEST PRACTICES

To supplement jurisdictional interviews, the project team also conducted a literature review to identify best practices and share examples of where and how healthy community and CIP strategies have been applied nationally. The team scanned existing literature and profiled case studies for specific examples of innovative CIP practice or healthy communities planning.

Areas of research were informed by guidance from interviews with participating jurisdictions and agencies. The research method focused on publicly available online resources, including white papers, briefing reports, news articles, and governmental and non-profit initiatives and campaigns. Key organizations for best practices research included the American Planning Association (APA), American Public Health Association (APHA), Transportation for America, Centers for Disease Control and Prevention (CDC), and the Robert Wood Johnson Foundation (RWJF). Best practices are grouped by the themes found during interviews with jurisdictions.

The full literature review and best practices summaries can be found in **Appendix B: Technical Memorandum 2.**

3. FINDINGS

3.1. KEY TAKEAWAYS FOR CIP DEVELOPMENT

Through the interview process and best practices research, four key themes emerged for improving CIP development in the Baltimore region: Identifying needs, prioritizing projects, funding and programming, and post-implementation monitoring.

3.1.1. IDENTIFYING NEEDS

- Resiliency and State of Good Repair (SGR) are important considerations when identifying capital needs. Properly accounting for these types of projects can reduce risk and long-term costs. It is critical to have comprehensive asset inventories and conditions available to identify and prioritize SGR needs.
- In many cases, Baltimore jurisdictions do not initiate their capital planning process with a truly unconstrained list of needs, but instead scope out capital needs based on their understanding of available funds. Needs that cannot be funded in the current fiscal year are placed in the out-years of the CIP. Jurisdictions can benefit from developing fiscally unconstrained inventories of capital needs to ensure they fully understand their capital investment needs.
- Literature suggests relying on a range of sources to identify capital needs, including: from resident requests, public policy priorities, responses to service deficits, crises and emergencies, regulatory requirements, current asset assessment, and plans.
- Developing accurate capital cost estimates and future-year costs can be challenging, and methods for developing them vary.

3.1.2. PRIORITIZATING PROJECTS

- Currently there appears to be limited prioritization for projects across different departments or asset classes in the Baltimore jurisdictions. Many of the prioritization strategies listed (e.g., project scoring, asset management database, condition assessment) do not help prioritize across different asset classes. Being able to prioritize across departments and asset types can be valuable to assist jurisdictions in allocating resources across a range of competing priorities.
- Score-based prioritization processes help make the selection of capital projects more objective and performance-driven. Jurisdictions build their scoring systems with a range of measures, including through qualitative and quantitative metrics.
- SGR prioritization should be based on quantitative measures such as asset condition or business continuity impact if an asset fails.
- Stakeholder engagement is an important component to prioritization. Prioritization schemes should reflect the public's own priorities and wider public policy objectives.

3.1.3. FUNDING AND PROGRAMMING

- In most years, jurisdictions have more capital needs than there is funding available. Identifying funds for projects is an iterative process, which requires whittling down needs and determining which projects are eligible for specific funding sources.
- Grant funding is challenging for jurisdictions in terms of matching funds, grant applications, and grants management with limited staff resources.
- Debt financing is recommended for capital investments with long useful lives. The literature recommends that jurisdictions avoid issuing debt for investments that will need to be replaced before the debt itself has reached maturity.
- Jurisdictions can set aside a portion of their operating and capital funds to cover unexpected capital expenses or to allow for participatory budgeting within communities.
- Jurisdictions can utilize a variety of value-capture financing methods to raise additional revenue for capital improvements.
- A successful strategy in other regions for funding bicycle and pedestrian improvements is to combine them with roadway projects to leverage state or federal highway funding.

3.1.4. POST-IMPLEMENTATION MONITORING

- Online resources can help the public monitor progress of local capital projects. Dashboards and web maps can be used to communicate the status of capital investments to the public.

3.2. KEY TAKEAWAYS FOR PROMOTING HEALTHY COMMUNITIES

Through the interview process and best practices research, four key themes emerged for promoting healthy communities through the built environment in the Baltimore region: Planning and project implementation, equity and inclusion, funding, and collaboration.

3.2.1. PLANNING AND PROJECT IMPLEMENTATION

- Promoting healthy communities is more than expanding bike and pedestrian infrastructure. Designing an efficient transportation system with equitable access to a broad range of services that promote healthier outcomes, ranging from medical and mental health to recreational and employment, is key.
- Vision Zero Action Plans and complete streets manuals are two strategies jurisdictions are utilizing to implement active transportation safety and infrastructure into projects. Another successful approach has been to fold pedestrian and bicycle improvements into already-scheduled vehicle-centered capital projects or routine maintenance such as roadway repaving schedules.
- How densely developed a community is directly influences how healthier outcomes may be promoted; strategies that are appropriate for urban and suburban communities often do not apply in more rural settings.
- Health Impact Assessments (HIAs) are one tool jurisdictions can utilize to understand the direct health-related impacts of projects and programs. HIAs are conducted to determine the potential health impacts of a proposed action, including a plan, policy or project, and can be utilized to guide decisions on choosing planning interventions. HIAs are one tangible strategy to incorporate measures of health into transportation plans and projects.
- The physical design of transportation projects is another key strategy for ensuring the built environment is supportive of healthy lifestyles.

3.2.2. EQUITY AND INCLUSION

- Historical approaches to planning and community engagement often have harmed communities of racial and ethnic minorities through the unfair burden of environmental hazards and lack of meaningful engagement, which has led to an ongoing legacy of discrepancies in health outcomes.
- To specifically focus on and address equity concerns, many jurisdictions have taken actionable steps. For example, Howard County has hired a Chief Equity Manager to ensure there is alignment in projects. Baltimore City is completing a Transit Equity Gap Study to compare different communities' commute time to work.
- Inclusionary planning requires practitioners to ensure there is adequate access to the planning process and that the people the project is aiming to serve can meaningfully engage.
- Adopting an anti-displacement strategy is a relatively new approach to help address concerns regarding gentrification caused by investment in enhanced infrastructure. Policies and programs typically relate to protection of existing residents, preservation of existing affordable units, and production of new affordable units.

3.2.3. FUNDING

- Availability of funding for new multimodal projects often is a barrier to implementation. While grants are an essential funding source for health-promoting projects, several jurisdictions mentioned that they are an unpredictable source of revenue and the process is often arduous.
- The most successful communities creatively leverage a mix of local, state, and federal funding as well as in-kind and financial contributions from the private sector, including non-profit organizations, charities, businesses, anchor institutions, and community members. This requires expertise in navigating the universe of public and private grants and strong relationships with community champions to buoy ongoing support.

3.2.4. COLLABORATION

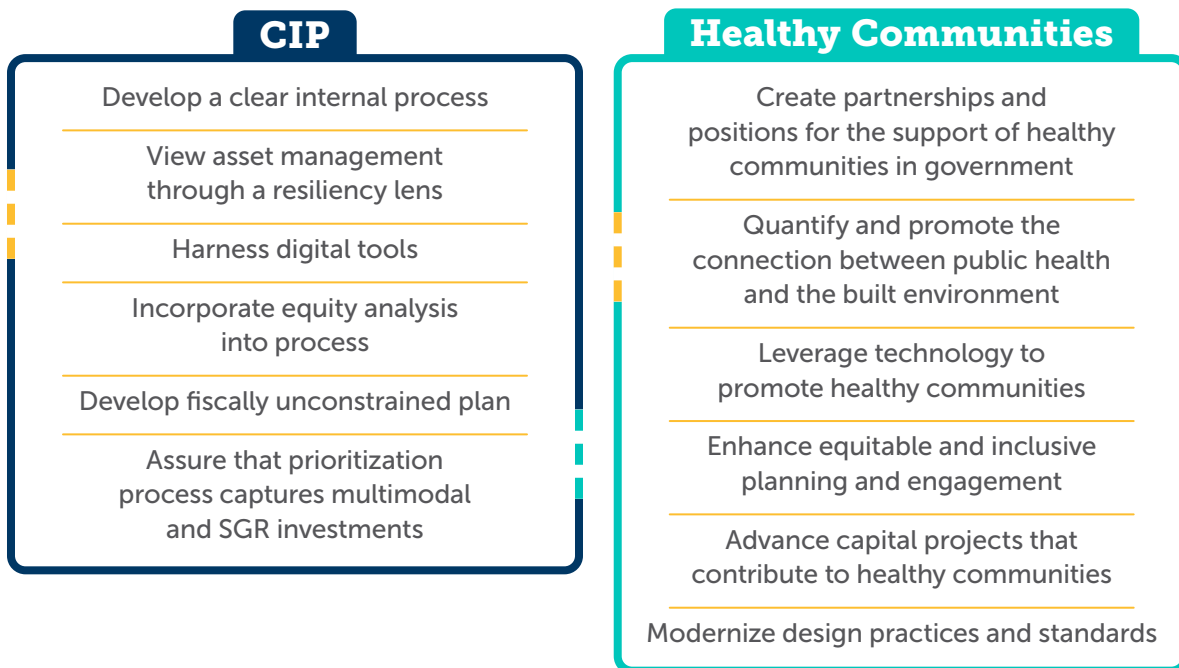
- There are many governmental departments whose work is directly related to improving community health, but do not often have the opportunity to meaningfully inform each other's work. There is value in transportation planners engaging with healthcare professionals to ensure their perspective on specific health outcomes (such as lower rates of mortality, obesity, and cardiovascular disease) is incorporated in the project planning and prioritization process.
- Engaging public health officials early in the planning process increases the likelihood of effectively incorporating public health goals and metrics throughout planning processes and the evaluation of interventions. Facilitating repeated opportunities for interdepartmental and cross-sector engagement, such as the comprehensive plan and other planning processes, as well as short-term efforts requiring collaboration, like disaster or emergency responses, helps foster longer-term relationships.

3.3. RECOMMENDATIONS FOR THE BALTIMORE REGION

Recommendations were developed by comparing the state of the practice across the Baltimore region's jurisdictions with the best practices found nationwide. The recommendations include specific actions that can be taken, barriers that may be an issue for implementation, and metrics to determine success.

A summary of the recommendations for CIP development and promoting healthy communities are illustrated below, with a brief description of each recommendation. The full report on each topic can be found in **Sections 2** and **3**.

FIGURE 1: SUMMARY OF RECOMMENDED IMPROVEMENTS



3.3.1. CIP DEVELOPMENT RECOMMENDATIONS

Developing a clear internal process for how capital projects are defined, identified, and screened will help facilitate the flow of information and may boost collaboration between departments. All BMC jurisdictions would benefit from a publicly published internal process for CIP development and the use of project charters and clear prioritization frameworks.

CIP Development Recommendations



Viewing asset management and State of Good Repair (SGR) through a resiliency lens means that jurisdictions should consider the condition of each asset in the prioritization process and the impact that asset's failure could have on transportation services and finances. Jurisdictions should have a detailed and up-to-date inventory of all assets in their portfolio. This inventory should include asset condition, and jurisdictions should develop formal processes to monitor the state of their assets on a continuous basis.

Developing a fiscally unconstrained plan provides two key benefits to jurisdictions: the ability to communicate the gap in funding available versus infrastructure needs and a pipeline of unfunded projects for consideration if/when new funding becomes available. Jurisdictions should develop a process to track these unfunded needs in a formal, centralized inventory. This could occur by first gathering all known, unfunded needs and adding them to an initial spreadsheet or database to which all departments have access. After each subsequent capital improvement budgeting process, new, unfunded needs are added to the centralized list.

Prioritizing projects with multimodal, SGR, and/or resiliency elements in their scope improves coordination of projects across multiple silos. Jurisdictions could take several steps to improve prioritization to capture a range of project types. The first step is effective interdepartmental communication. A range of stakeholders should have an opportunity to provide input on a capital need. For example, a new facility proposal should include a review by staff responsible for technology and safety. A roadway project should include reviews from teams responsible for planning, active transportation, and even public health.

Harnessing digital tools can help the public engage with traditionally lengthy budget documents that may not be easily accessible or understood. Jurisdictions have found ways to improve the flow of information related to capital planning and increase transparency by creating online interfaces that translate budget line items and projects into clickable maps. ArcGIS provides a suite of solutions to document and track capital projects and progress and create inventories of existing infrastructure and assets. Alternatively, open-source maps may be a more cost-effective option, although most maps found through research have been created on the ArcGIS platform.

Incorporating equity should happen throughout the capital planning process, influencing the development of the CIP from start to finish. Equity questions should be considered in the identification of needs, prioritization measures, and assessment of impacts. In addition, jurisdictions should be transparent in their use of equity analysis in planning.

3.3.2. PROMOTING HEALTHY COMMUNITIES RECOMMENDATIONS

Creating partnerships and positions for the support of healthy communities in government

will benefit communities via greater collaboration across government departments and increased emphasis on achieving healthy outcomes in the planning process. Dedicating staff resources, enhancing coordination between government departments, and specific coordination with public health officials will offer broader perspectives and build a wider support network for projects that advance shared goals.

Healthy Communities Recommendations



Enhancing equitable and inclusive planning and engagement is an intentional action required to ensure planning processes reach and effectively engage with traditionally underserved communities. Through leveraging community groups, identifying targeted strategies at specific populations, and questioning traditional practices, progress can be made.

Quantifying and promoting the connection between public health and the built environment in the scheme of transportation planning is a relatively new concept to tie mobility improvements and choices to benefits for health. This connection can be demonstrated and strengthened by leveraging established tools, and previous knowledge to “tell the story” to municipal leaders and elected officials of the quality-of-life benefits of multimodal investment and intentional land use planning.

Advancing capital projects that contribute to healthy communities so that modifications of the built environment occur for supporting more active lifestyles and enhancing the quality of life of all BMC jurisdictions. Jurisdictions should ensure the process for selecting capital projects results in the prioritization of projects that improve access to recreational and social opportunities, medical services, employment, healthy food sources, and education.

Modernizing design practices and standards through rethinking design principles and standards that support safety and comfort for all users, while considering the land use and network context of the street will help promote the use of non-auto trips and improve accessibility.

Leveraging technology to promote healthy communities through integrating technology solutions with mobility. Partnerships with private mobility companies to provide alternative solutions to resource-intensive practices and leveraging real-time information and open-data to engage with the community and improve the customer experience can improve mobility and access to services.

