STATE OF THE INFRASTUCTURE:
PANEL #1
INFRASTRUCTURE FUNDING CHALLENGES
May 21, 2018

Panelists:

- Joe LaHait, Debt Manager, Fairfax County Government - Supporting Economic Development through Special District Financing
- Stacy Swann, Climate Finance Advisors and Vice Chair of the Montgomery County Green Bank – Financing Clean Energy Improvements through Green Banks
- Holger Serrano, Assistant to the Director of Public Works, Howard County Government - Howard County’s Courthouse Project: Public Private Partnership

Moderator:

- Joseph F. Beach, Chief Financial Officer, Washington Suburban Sanitary Commission

Introduction

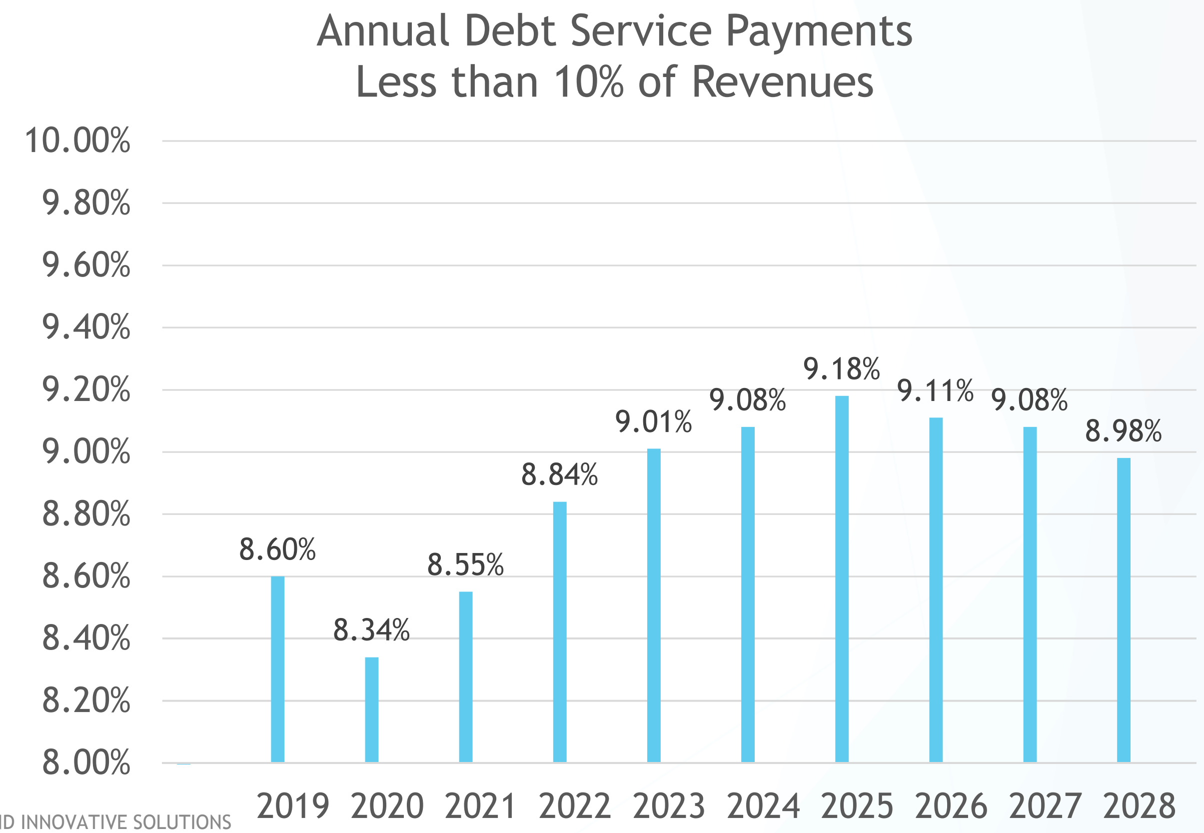
- Three different approaches
  - Property Tax Based
  - Clean Energy and non-traditional sources of financing
  - Public Private Partnerships
- Much More could be covered
  - State and Federal Funding Challenges
    - Availability
    - Compliance
    - Timing
  - Citizen & Customer Expectations
  - Debt Limitations
  - Taxpayer/Rate Payer Expectations
  - Social Impact Bonds

Supporting Economic Development through Special District Financing - Overview

- How to Fund Capital Projects
  - Pay As You Go (PAYGO) - Annual cash provided to fund projects
  - Issuing Bonds
    - A form of borrowing commonly used by municipal and state governments and large corporations
    - Amortization period of 20-30 years; tie to useful life of the project
  - Equity Principle “Who Pays” - current vs future generations
- Comprehensive Plan provides planning guidance for out year projects
- The County FY 2018 – FY 2022 Capital Improvement Program (CIP) totals $9.99 billion
  - Sensitivity to existing projects to be funded

Supporting Economic Development through Special District Financing - County Traditional Funding Approach

- General Obligation Bond Referenda Plan
  - Dates back to 1966
  - Includes County and School bond referenda in alternate years
  - The Bond Referenda Plan is developed based on prioritized projects in conformance with the 10 Principles of Sound Financial Management
    - Established Strict Debt Ratio Limits - 10%



Supporting Economic Development through Special District Financing - Regional Transportation Projects

- County was facing a myriad of special projects that require significant capital contributions
  - Metro Silver Line expansion
  - County owned parking garages to support the Silver Line expansion
  - Transportation funding plans to accommodate Transit Oriented Development
  - Aging administration buildings
- How to finance these projects without steering capital funding away from traditional County and School financing projects
- Virginia code provides for various special tax districts
  - Transportation Improvement Districts
  - Special Service Districts
  - Sanitary Districts

Transportation Improvement District

Item	Criteria	Example
How to Establish	Voluntary petition of majority of landowners by Assessed Value or land area	• Dulles Rail Phase 1 – petition constituted 53% of assessed value in the district • Dulles Rail Phase 2 – petition constituted 60% of property in the district
Types of Improvements	Construct, alter, improve, or expand transportation improvements	• Dulles Rail Phase 1 • Dulles Rail Phase 2 • Route 28 Highway Improvements
Revenue Sources	Annual ad valorem tax rate applies to commercial and industrial properties (includes multi-family)	• Dulles Rail Phase 1 Tax Rate \$0.13 per \$100 of Assessed Value • Dulles Rail Phase 2 Tax Rate \$.20 per \$100 of Assessed Value • Route 28 Tax Rate \$0.13 per \$100 of Assessed Value
Debt Issuance	Bonds can be secured by revenues and other funds of the district Revenues generated pay back the debt for these districts	• Dulles Rail Phase 1 issued three series of bonds • Dulles Rail Phase 2 weighing debt/PAYGO options • Route 28 has issued debt since 1990's • District abolished when debt paid off

Supporting Economic Development through Special District Financing – Metrorail Silver Line Expansion & Use of Transportation Improvement Districts

- Metropolitan Washington Airports Authority (MWAA) will design and construct the project in two phases
- Washington Metropolitan Area Transit Authority (WMATA) will assume ownership and operation of the Silver Line, also in two phases
- Total project estimate of $5.8 billion with the County responsible for 16.1% or $927 million of baseline costs
- County established two Transportation Improvement Districts for the project to cover capital costs
  - Phase 1 - $400 million
  - Phase 2 - $330 million
  - These two districts cover approximately **80%** of the County's baseline costs to this project
- Phase 1 opened in July 2014 and brought five stations and one parking garage to Fairfax County
- Phase 2 anticipates to open in 2020* and will bring three stations and two parking garages to Fairfax County

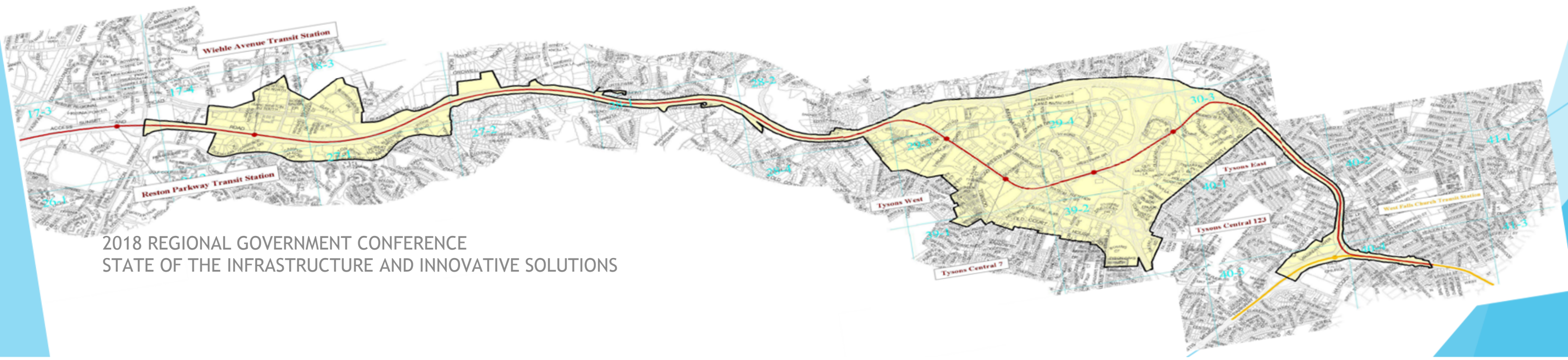
*final date determined via review by WMATA Board of Directors

Supporting Economic Development through Special District Financing - Fairfax County Silver Line Costs

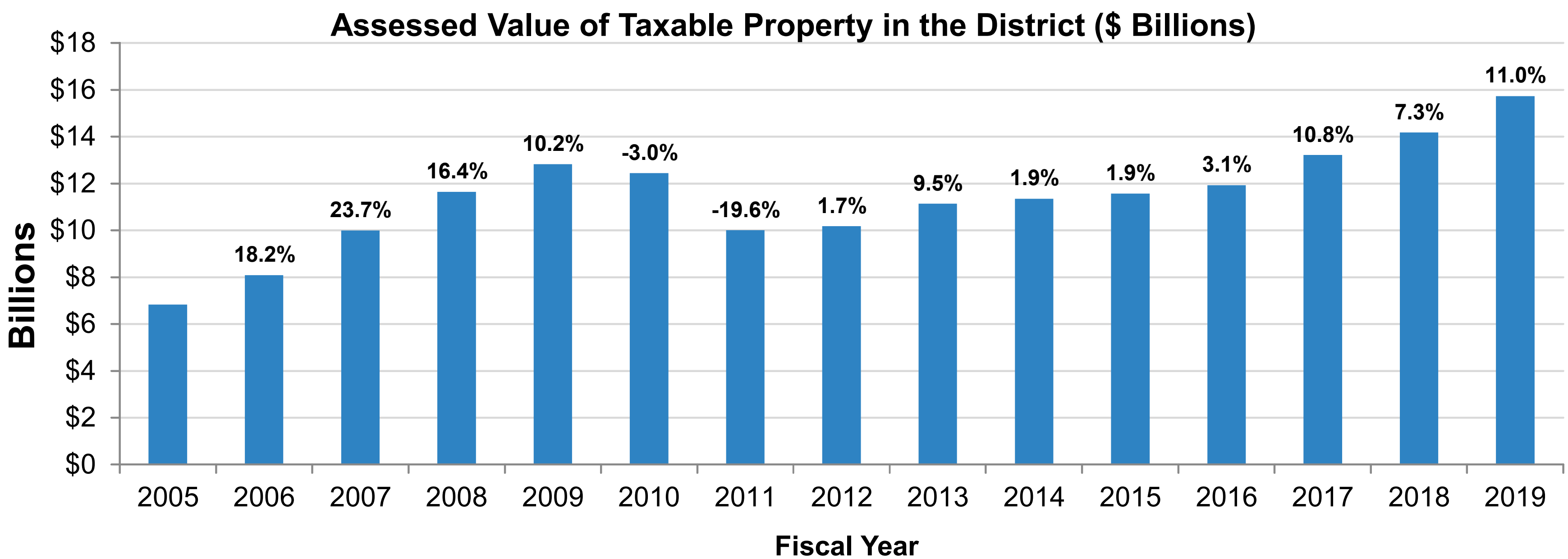
Item	Amount
County Baseline Costs @ 16.1%	
Phase 1 Tax District	$400,000,000
Phase 2 Tax District	330,000,000
Commercial & Industrial Tax Fund	187,688,868
Northern Virginia Regional Transportation Authority	9,660,000
Total County Baseline Costs @ 16.1%	**$927,348,868**
Parking Garages	
Wiehle-Reston East	$89,860,000
Herndon	44,900,000
Innovation Center	52,000,000
Total Garages	**$186,760,000**
TOTAL - Baseline and Parking Garages	**$1,114,108,868**

Supporting Economic Development through Special District Financing – Dulles Rail Phase 1 Tax District

- The Phase I Tax District was created in February 2004 upon the petition of the owners of approximately 53% of the commercial and industrial property in the District by assessed value
- Surcharge tax applied initially in FY 2005 budget at $0.22 per $100 of Assessed Value
  - Statutory limit is $0.40 per $100 of Assessed Value
- The Phase 1 District boundaries encompass approximately 11.7 miles in length
- Located along the Dulles Airport Access Road / Toll Road corridor, running from the Orange line just before Tysons Corner to Wiehle Avenue on the eastern edge of Reston
- Encompasses Tysons commercial submarket
  - The largest of County's 17 office submarkets
  - 37 million square feet of office, commercial & retail space
  - Phase 1 ends at Wiehle-Reston East which entails mixed use Transit Oriented Development



Supporting Economic Development through Special District Financing - Dulles Rail Phase 1 Tax District



Fiscal Year (Valuation Date)	2005 (1/1/04)	2006 (1/1/05)	2007 (1/1/06)	2008 (1/1/07)	2009 (1/1/08)	2010 (1/1/09)	2011 (1/1/10)	2012 (1/1/11)	2013 (1/1/12)	2014 (1/1/13)	2015 (1/1/4)	2016 (1/1/15)	2017 (1/1/16)	2018 (1/1/17)	2019 (1/1/18)
Assessed Value ($ in Billions)	6.83	8.08	9.99	11.63	12.82	12.43	9.99	10.17	11.13	11.35	11.56	11.92	13.21	14.17	15.73
District Tax Rate in $ (per $100 AV)	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.21	0.21	0.19	0.17	0.15	TBD
AV Growth	-	18.2%	23.7%	16.4%	10.2%	-3.0%	-19.6%	1.7%	9.5%	1.9%	1.9%	3.1%	10.8%	7.3%	11.0%

Supporting Economic Development through Special District Financing - Dulles Rail Phase 1 Tax District

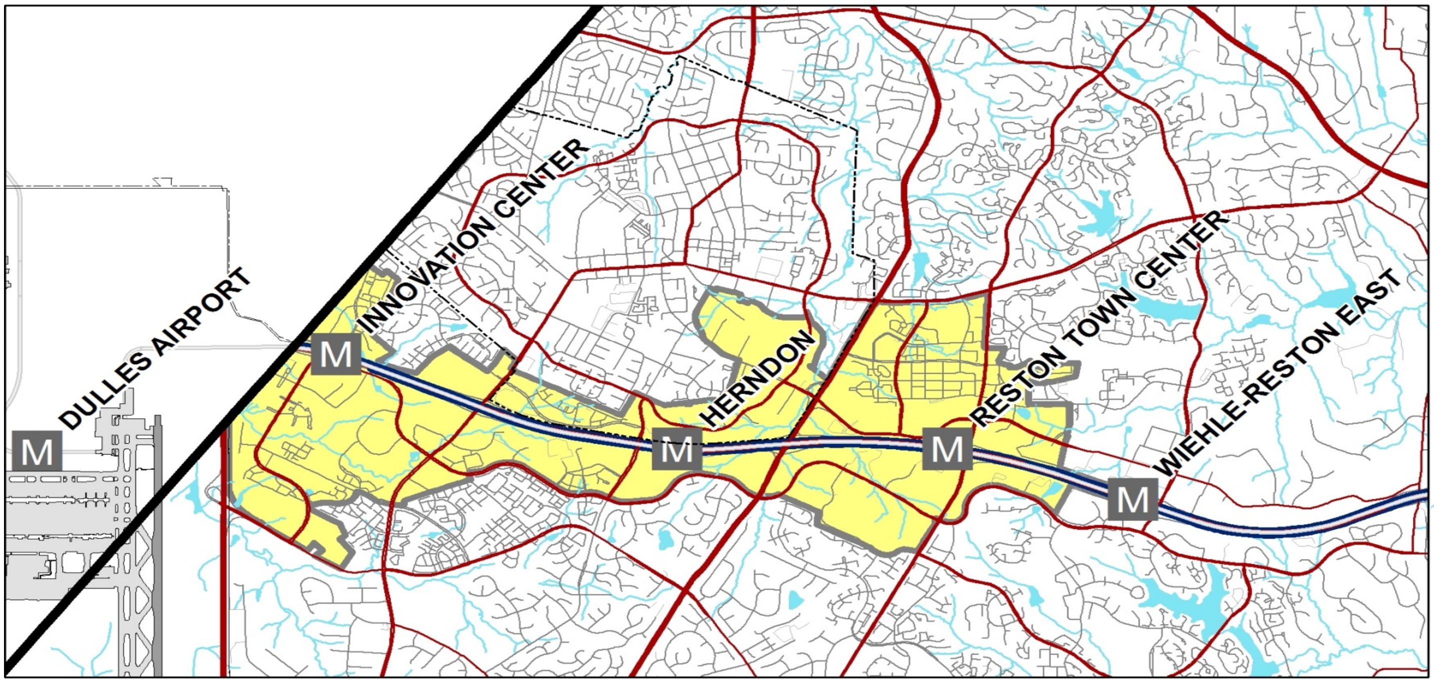
- Use of Tax District Revenues
  - District provided its $400 million obligation for Phase through a combination of cash ($131.6 million) and bond proceeds ($268.4 million)
- Annual coordination with stakeholders
  - Meeting with District Advisory Board – property owners
    - Financial update on tax district & vote on district tax rate recommendation for upcoming fiscal year
  - Meeting with District Commission - select members of County Board of Supervisors
    - Receive tax rate recommendation from District Advisory Board and then vote on tax rate to include in overall County budget
- Strong debt profile – bond ratings of Aaa/AA/AA+ from Moody's, Standard & Poor's, and Fitch
  - Formal policy for maintaining debt service coverage, reducing the district tax rate, and reserve levels
- District is formally abolished once all debt is paid off

Supporting Economic Development through Special District Financing - Dulles Rail Phase 2 Tax District

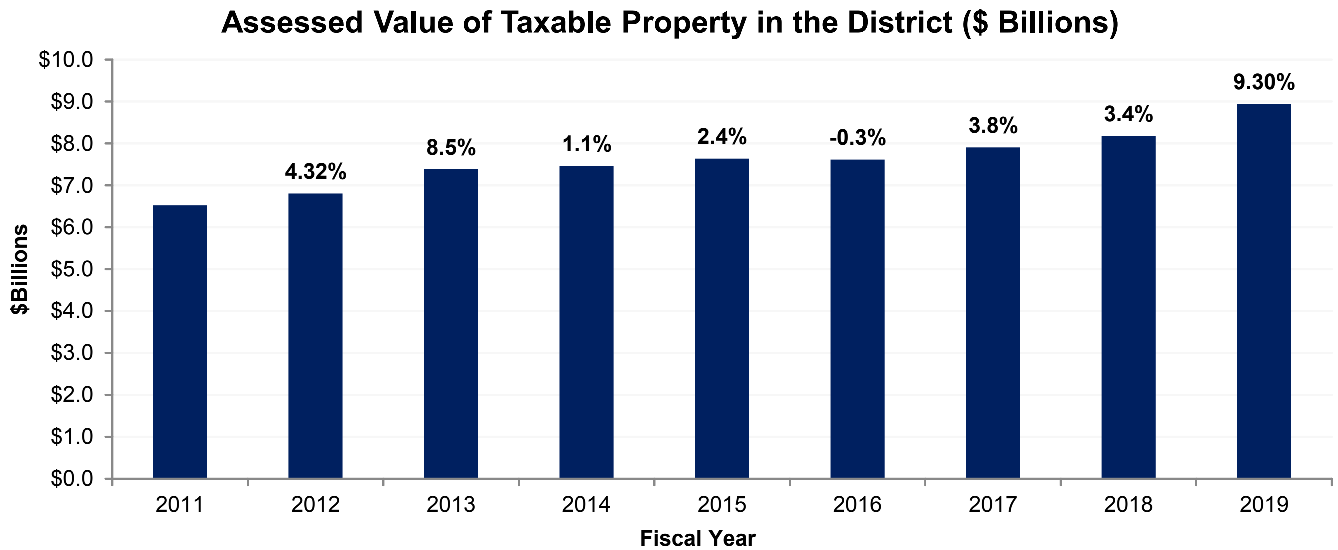
- The Phase 2 Tax District was created in December 2009 upon the petition of approximately 60% of the owners of the commercial and industrial property in the District by AV
- The petition called for an initial tax rate of $0.05 per $100 of Assessed Value (FY 2011), increasing in $0.05 increments on an annual basis up to $0.20/$100 per $100 of Assessed Value (FY 2014) and has remained at $0.20 per $100 of Assessed Value through FY 2019.
- After passenger rail service begins, the tax rate may be increased to $0.25 per $100 of Assessed Value
  - The statutory tax rate limit is $0.40 per $100 of Assessed Value
- Transportation improvements financed by the Phase 2 District are capped at $330 million of project capital costs
- Tax Revenue restricted to pay project costs for Phase 2 and debt service costs related to the project

Supporting Economic Development through Special District Financing – Dulles Rail Phase 2 Tax District

- Located along the Dulles Airport Access Road / Toll Road corridor
- Runs from the Wiehle Avenue station on the eastern edge of Reston through the Dulles Airport to the Route 772 station in Loudoun County
- Reston is currently the County's 2nd largest office submarket



Supporting Economic Development through Special District Financing - Dulles Rail Phase 2 Tax District



Fiscal Year (Valuation Date)	2011 (1/1/10)	2012 (1/1/11)	2013 (1/1/12)	2014 (1/1/13)	2015 (1/1/14)	2016 (1/1/15)	2017 (1/1/16)	2018 (1/1/17)	2019 (1/1/18)
Assessed Value (Billions)	$6.52	$6.81	$7.38	$7.46	$7.64	$7.62	$7.91	$8.18	$8.94
District Tax Rate (per $100 AV)	$0.05	$0.10	$0.15	$0.20	$0.20	$0.20	$0.20	$0.20	$0.20
AV Growth	-	4.32%	8.49%	1.07%	2.35%	-0.28%	3.82%	3.39%	9.30%

Supporting Economic Development through Special District Financing - Dulles Rail Phase 2 Tax District

- Use of Tax District Revenues - $330 million obligation for Phase 2 through:
    - Repayment of $216 million toward Federal Transportation Infrastructure Financing and Innovation Act (TIFIA) loan
    - Cash on hand $114 million
- Annual coordination with stakeholders
  - Meeting with District Advisory Board – property owners
    - Financial update on tax district & vote on district tax rate recommendation for upcoming fiscal year
  - Meeting with District Commission - select members of County Board of Supervisors
    - Receive tax rate recommendation from District Advisory Board and then vote on tax rate to include in overall County budget
- Bond ratings were received as part of the County's closing on its TIFIA loan but no additional debt is contemplated
- District is formally abolished once all debt is paid off

Silver Line Funding Takeaways

- State provided the option for special tax districts
- Conduit financing – Fairfax County Economic Development Authority
- Project buy in from the business / development community – where residents and employers want to be located
- Transparency on all financial projections
- Political reactions –
  - Request from business community to self-impose tax
  - Does not take away funding for traditional capital projects (e.g. schools) and impact County debt ratios
- Debt issuance will require Financial Advisor and Bond Counsel for process guidance
- Notable increases in land values – but remember historical patterns
- Regional and national significance of the project
  - Federal TIFIA and State of Virginia funding
  - Regional transportation dollars from Northern Virginia Transportation Authority (NVTA)
- WMATA
  - Regional funding sources achieved to address long term capital needs
  - Current and projected ridership

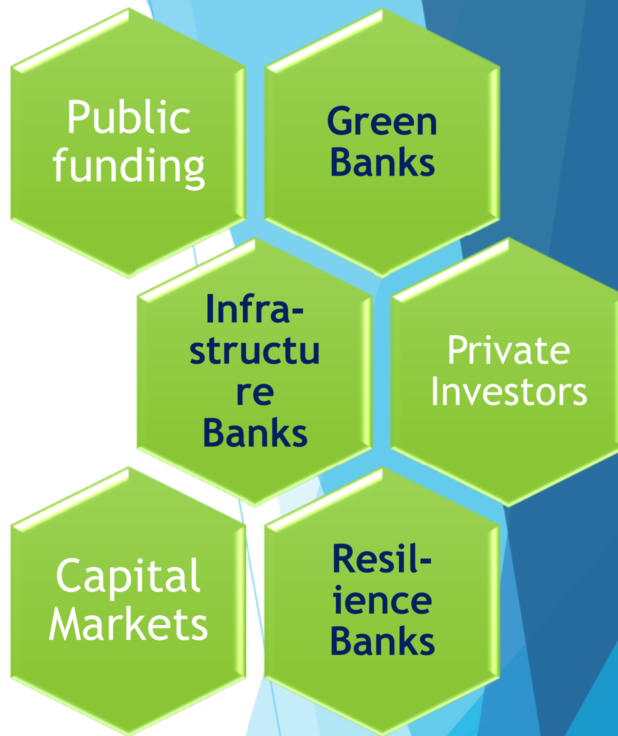
Financing Clean Energy Improvements through Green Banks

Recap: Three Different Approaches

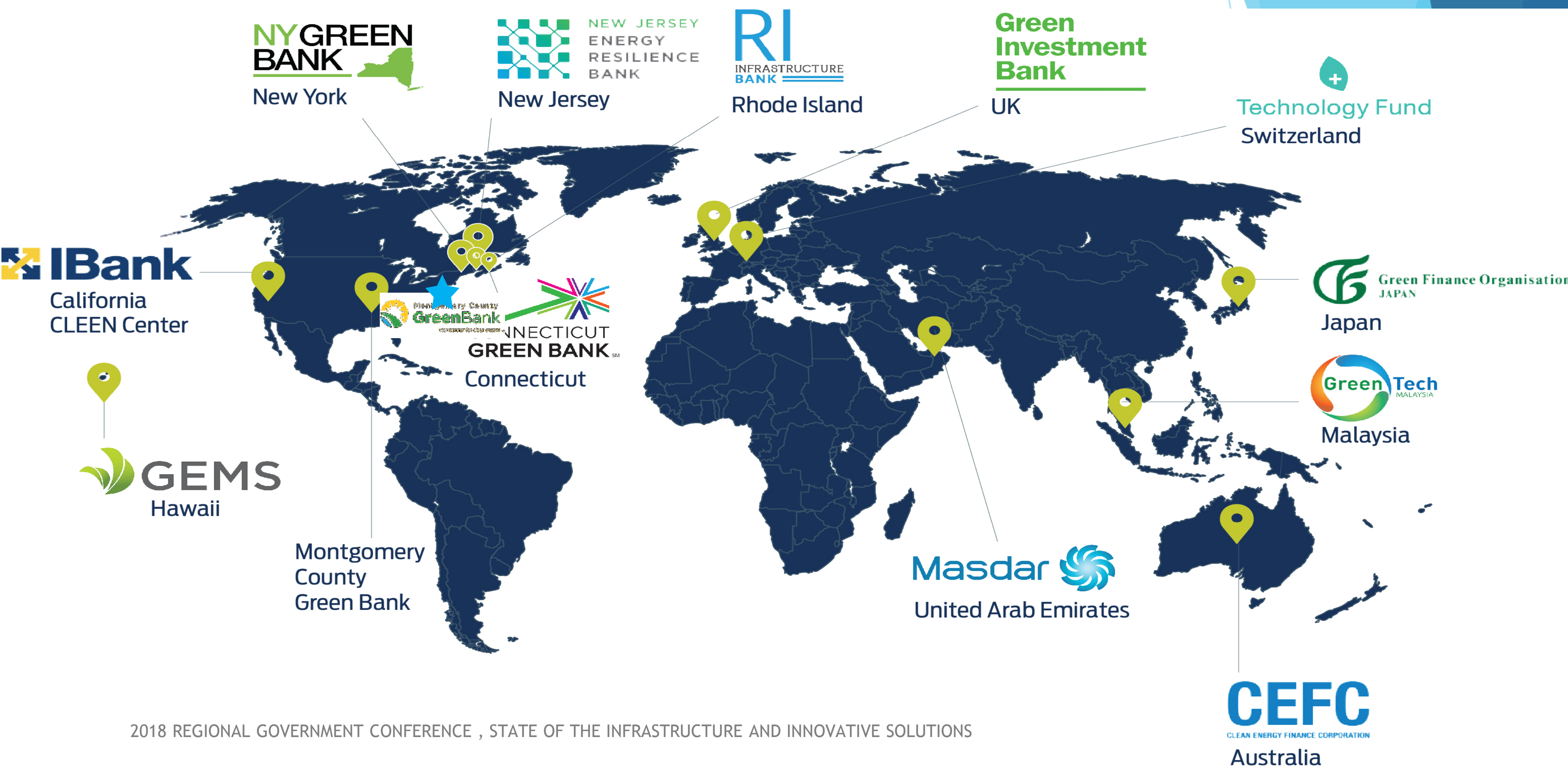
- Property Tax Based
- Clean Energy and non-traditional sources of financing
- Public Private Partnerships

Green Banks: Specialized Finance Entities

- “Blended Finance” vehicles – bridging public and private capital, including with capital markets
- Work locally/nationally where financing gaps exist
- Leverage public investment to crowd in private investment



GREEN INVESTMENT BANK FOOTPRINT WORLDWIDE



Characteristics of Green Investment Banks

GIBs

- **Independent**
- **Narrow mandate**
- **Cost-effectiveness**
- **Additionality**
- **Accountability**
- **Designed to leverage private capital***
- **Built to serve local policy and market needs***
- **Capitalized with public funds***

A GIB is not a "bank" in the traditional sense, as does not take deposits, manage savings or provide direct financing to consumers

Adapted from the OECD report, "Green Investment Banks: Scaling up Private Investment in Low-Carbon, Climate-Resilient Infrastructure", 2016.
An asterisk indicates characteristics that have been added to the OECD's list.

MCGB: Who are we?

Montgomery County Green Bank: Your Partner for Clean Energy

- The nation's FIRST County-level green bank:
  - designated in July 2016
  - chartered by the County in 2015
- Independent, 501(c)3 non-profit corporation; 11 Board Members (2 are County representatives)
- Not a Bank, **a fund/facility**
- Capitalized with $14 million from County settlement from Pepco-Exelon merger

What are we trying to do?

- In partnership, grow the clean energy market
- in Montgomery County.

Cascade of results:

More Capital → More Projects / Jobs → Greater Energy Savings

→ Better Financial Security → Less Energy Demand → *Lower Greenhouse Gas Emissions*

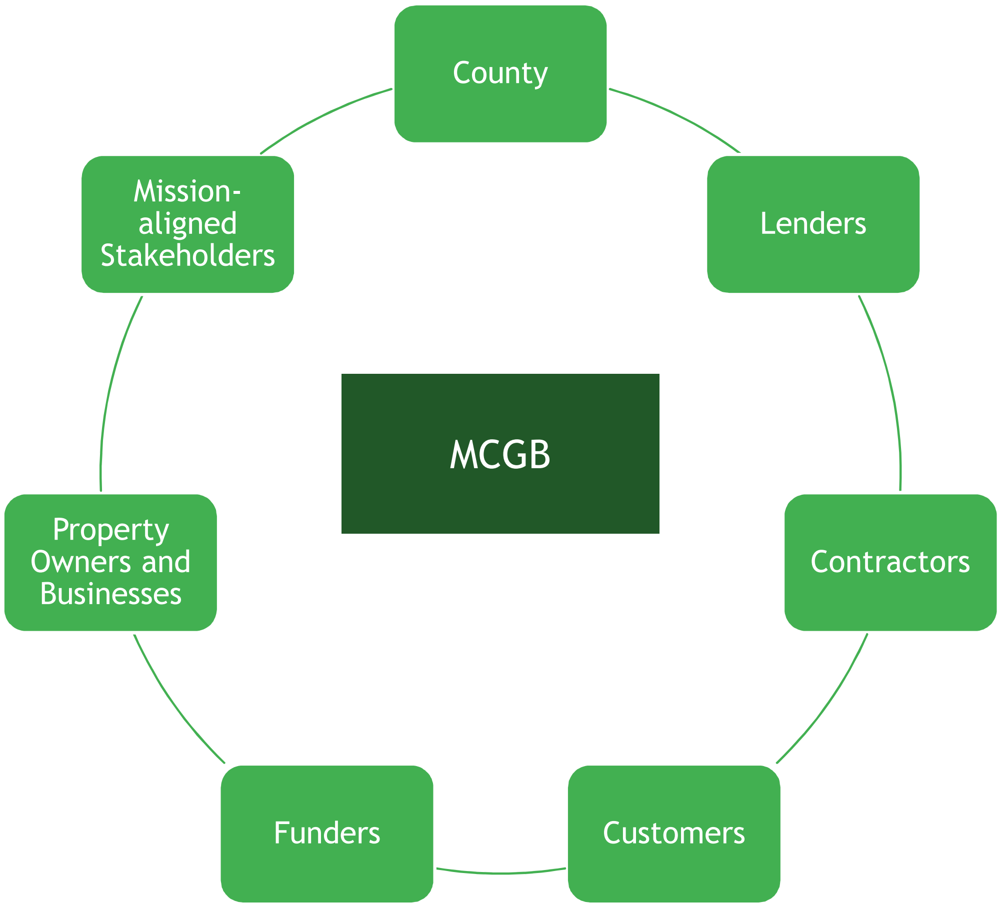
How Do We Approach Our Work?

Find gaps in the existing market for private sector financing products (e.g., loans) offered to property owners for energy efficiency/renewable energy projects.

Partner with private lenders to co-invest Green Bank capital, reducing their risk in order to attract private capital into the market.

Achieve transformation when private lenders become comfortable with investing in these projects.

What is Key to Our Success? Partnerships



Before Lift Off: Looking for Gaps Commercial and Industrial Sector

Market Assessment (example from CLEER)

- C-PACE serves larger investments - $250,000 and above.
- Pepco's Small Business Advance Program serves smaller businesses with grants and 0% financing.
- Contractors identified gap in financing for medium-sized businesses between Pepco Small Business Advance and C-PACE.
- Lenders are not proactive in this market and do not desire to underwrite the energy savings.

Montgomery County Green Bank Response

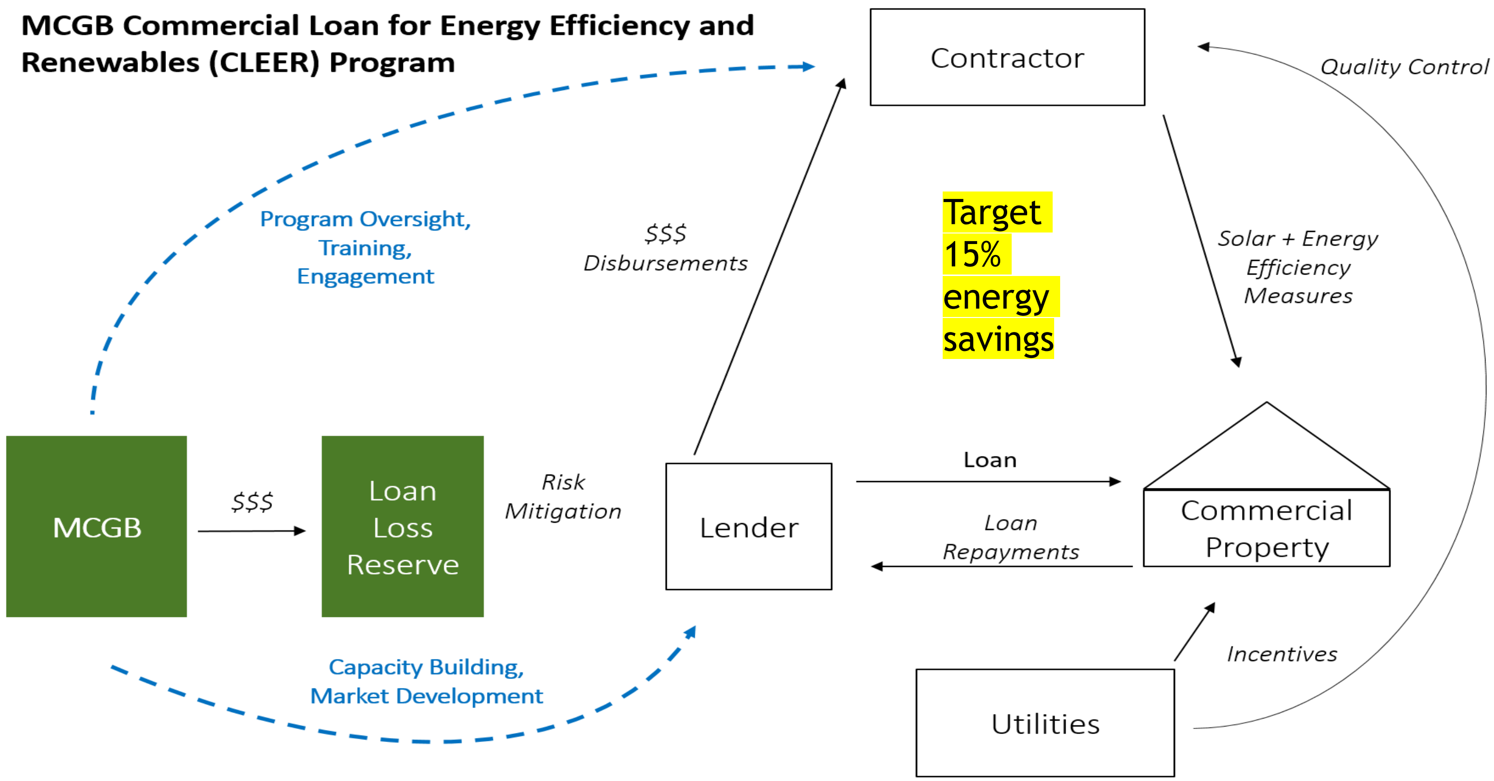
- Develop a product that works in this identified gap.
- Reduce the risk for lenders by offering to cover initial losses incurred by lenders, making loans for energy efficiency and eliminate the concern on underwriting on energy savings.
- Leverage Green Bank funds by at least 10:1 using a loan loss reserve structure.
- Partner with contractors to deliver product to customers and close more projects.

Responding With A Construct: How the Green Bank Works

Our Financial Product:
Guarantee to Lenders

Our Market Support: (i) Pre-Qualify Contractors; (ii) Coordinate Contractors with Lenders

MCGB Commercial Loan for Energy Efficiency and Renewables (CLEER) Program



Financial Products in the MCGB Pipeline

Residential Energy Efficiency and Renewables
- Homeowners throughout County
- Focus on low and moderate income households

Community Solar
- Supports market and low and moderate income communities
- Various models under review

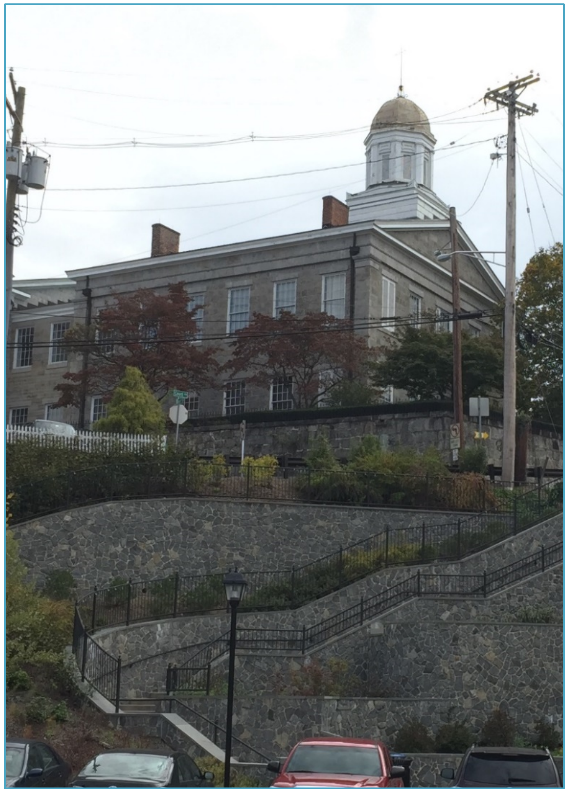
Affordable Rental
- Low and moderate income communities
- Technical assistance support being evaluated

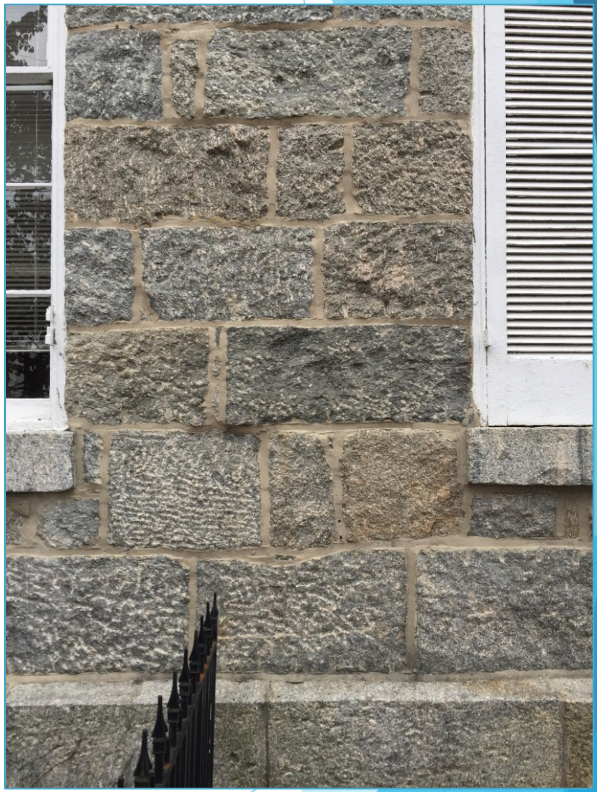
Commercial PACE
- Large-scale commercial properties

Engage and Learn with Montgomery County Green Bank

- See our website – www.mcgreenbank.org
  - Sign up for our newsletter on the website (bottom of homepage)
- Follow us on:
  - Twitter: @mcgreenbank
  - Facebook
  - LinkedIn

HISTORIC COURTHOUSE





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Howard County's Courthouse Project: Public Private Partnership

- County Courthouse - 1843 (174 years ago)
- Renovated
- No space
  - State approved 6th judge
  - Technology enhancements
  - Required Federal and State mandates
- Existing building cannot be further renovated to solve space inadequacies

HOWARD COUNTY
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Howard County's Courthouse Project: Public Private Partnership

- New Courthouse
  - 240,000 square feet
  - 680 space parking garage
- Use existing site in Ellicott City
- Eight courts
- Meet 2030 projected needs

Howard County's Courthouse Project: Public Private Partnership

- How to fund the Project
- Fall 2016 – Outside consultant Project Analysis
- County Executive
- County Spending Affordability Committee
- County Council

Howard County's Courthouse Project: Public Private Partnership

- Option 1. Conventional Model (DBB+OM):
  - Public financing with County 30-year GO bond
  - Traditional design and build
  - Multiple short-term operate and maintain contracts
- Option 2. Hybrid P3 – 1 (DBOM):
  - Public financing with County 30-year GO bond
  - Design, build, operate and maintain
- Option 3. Hybrid P3 -2 (DBfOM):
  - Partial public financing and partial private financing tentatively assuming 50/50
  - Design, build, operate and maintain
- Option 4. P3 (DBFOM):
  - Full private financing
  - Design, build, operate and maintain

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Howard County's Courthouse Project: Public Private Partnership

Key Evaluation Factors	Note	Option 1. Conventional (DBB + OM)	Option 2. Hybrid P3-1 (DBOM)	Option 3. Hybrid P3-2 (DBfOM)	Option 4. P3 (DBFOM)
Project Risk	1=least risk	3	2	1	1
Project Cost	1=least costly	3	2	1	4
Quality (building and O&M)	1=highest quality	4	3	2	1
Long-term Cost Certainty	1=highest certainty	3	2	1	1
Completion Time	1=fastest delivery	3	1	2	2
Total		**16**	**10**	**7**	**9**

Note: "Total" is listed for illustration purpose only because factors do not carry the same weight in decision making.

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Howard County's Courthouse Project: Public Private Partnership

Committee recommended Option 3. Hybrid P3-2 (DBfOM)

- Shifts a high level of risks to the private partners
  - Financing
  - Operational
  - Lifecycle maintenance
- Forecasts the lowest project cost in the long run
- Building in good operating condition - life-cycle investment.
- Provides both incentives and enforcement
  - Private partners sharing part of the financing
- Offers ability for efficiency gain and cost savings
  - Competitive bid
  - Integration between building design and long-term O&M needs
- Offers relatively fast construction delivery schedule
- Provides high certainty on future cost.

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Howard County's Courthouse Project: Public Private Partnership

- Project company selection June 2018
- Final Council vote July 2018
- Financial close September 2018
- Start – Design Fall 2018
- Construction complete Fall 2021

Questions?