Plan Your Facilities
Manage Your Construction
Presentation Team

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Principal
DLR Group

David McKay
Managing Director
HMK Company
Objectives

Attendees will:

1. Identify the various partners in a capital construction project
2. Clarify their roles
3. Explain the benefits each brings to the table
4. Provide general costing information for each of these partners
Primary Partners in Capital Construction

- Project Manager
- Planning Professionals
- Pre-Design Professionals
- Designers
- General Contractor
- Commissioning Agent
The Project Manager

Roles

• Establishes the budget break down
• Facilitates the hiring and management of other consultants
• Performs quality reviews of all other work
• Reports out to Board and key stakeholders
• Delivery method

Benefits

• A wealth of historical and current industry knowledge
• Relieves staff to keep running the district

Costs

• 2-3% of construction
Planning Professionals

**Players**

- Facilities Assessment Expert
- Capital Assets Planner
- Demographers
- Financial Advisor, Bond Underwriter
- Pollster
- Cost Estimator
- Seismic Assessment/Grant Writer
- Legal Counsel
- Communications Consultant
- Real Estate Agent
Facilities Assessment Expert

Roles
• They help envision what schools could become and how to get there.
• By engaging the community and facilitating stakeholders to develop the plan, consultants increase support base and likelihood of success.
Capital Assets Planner/Facilitator

**Benefits**

- They help envision what schools could become and how to get there.
- By engaging the community and facilitating stakeholders to develop the plan, consultants increase support base and likelihood of success.
Financial Advisor & Bond Underwriter

**Benefits**

- Advisor oversees process, Bond Underwriter facilitates sale of bonds
- Provides various tax impact scenarios to varying potential bonding amounts
- Assist Districts in determining bonding capacity and debt structure
- Explain funding to citizens facilities planning committee for thoughtful and informed decision-making

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### General Obligation Bonds, Series 2017 – Summary of Structuring Scenarios

<table>
<thead>
<tr>
<th>Structure</th>
<th>$60 Million Issue</th>
<th>$80 Million Issue</th>
<th>$100 Million Issue</th>
</tr>
</thead>
<tbody>
<tr>
<td>Par Amount</td>
<td>$60,000,000</td>
<td>$80,000,000</td>
<td>$100,000,000</td>
</tr>
<tr>
<td>Dated Date</td>
<td>6/15/2017</td>
<td>6/15/2017</td>
<td>6/15/2017</td>
</tr>
<tr>
<td>Final Maturity</td>
<td>6/15/2027</td>
<td>6/15/2027</td>
<td>6/15/2027</td>
</tr>
<tr>
<td>Amortization Period</td>
<td>10 years</td>
<td>10 years</td>
<td>10 years</td>
</tr>
</tbody>
</table>

### Levy Rates

<table>
<thead>
<tr>
<th>Year</th>
<th>Prior Debt</th>
<th>New Bonds</th>
<th>Combined</th>
<th>New Bonds</th>
<th>Combined</th>
<th>New Bonds</th>
<th>Combined</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015</td>
<td>1.73</td>
<td>1.73</td>
<td>1.73</td>
<td>1.73</td>
<td>1.73</td>
<td>1.73</td>
<td>1.73</td>
</tr>
<tr>
<td>2016</td>
<td>1.67</td>
<td>1.67</td>
<td>1.67</td>
<td>1.67</td>
<td>1.67</td>
<td>1.67</td>
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<tr>
<td>2017</td>
<td>1.86</td>
<td>1.86</td>
<td>1.86</td>
<td>1.86</td>
<td>1.86</td>
<td>1.86</td>
<td>1.86</td>
</tr>
<tr>
<td>2018-2027</td>
<td>1.80</td>
<td>1.80</td>
<td>1.80</td>
<td>1.80</td>
<td>1.80</td>
<td>1.80</td>
<td>1.80</td>
</tr>
</tbody>
</table>

### Interest

<table>
<thead>
<tr>
<th>Description</th>
<th>$60 Million Issue</th>
<th>$80 Million Issue</th>
<th>$100 Million Issue</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current Interest Rates</td>
<td>+ 1.50%</td>
<td>+ 1.50%</td>
<td>+ 1.50%</td>
</tr>
<tr>
<td>True Interest Cost (TIC)</td>
<td>3.66%</td>
<td>3.66%</td>
<td>3.66%</td>
</tr>
<tr>
<td>Total Interest Cost</td>
<td>$13,371,744</td>
<td>$17,831,071</td>
<td>$22,289,297</td>
</tr>
<tr>
<td>Total Interest Cost % of Par</td>
<td>22%</td>
<td>22%</td>
<td>22%</td>
</tr>
</tbody>
</table>

*Projected levy rates are based on a variety of assumptions regarding AV growth, tax collections & Interest rates. Debt service will be fixed when bonds are sold but levy rates are preliminary until the assessor certifies values each year.*
**Pollster**

**Benefits**

- Statistical survey of cross-section of community
- Understanding of overall District credibility with community and any outstanding issues to be addressed
- Ask questions in various ways to ascertain voter priorities of projects and likelihood of support
Communications Consultant

Benefits
- Assist in messaging and strategy
- Community support analysis
- Community outreach
- Create informational collateral
Cost Estimator

Roles
- On top of current and forecasted market trends
- Reliable costing data from planning budgeting to materials & labor quantitative estimating
Pre-Design Professionals

**Players**

- Educational Visioning Consultant
- Educational Specifications Writer
- Cost Estimator
- Traffic Consultant
- Site Surveyor
- Geotechnical
- Archeologist
- Architect
- Engineers (civil, structural electrical, mechanical)
- Energy Analyst
Educational Visioning

Roles

- Explore various learning models
- Site tours
- Guiding Principles creation
Educational Specifications

Benefits
- Create space program, refine budget
- Translate Project Guiding Principles into building spaces
- Explore spatial relationships and define individual building space needs
- Assist in developing building image
Traffic Consultant

Benefits

• Early analysis of site feasibility and possible off-site improvement costs required by local jurisdictions
Designers

Players

• Architect
• Civil Engineer
• Structural Engineer
• Mechanical Engineer
• Electrical Engineer
• Interiors Design
• Low Voltage Systems Design
• Energy Analyst
• Security Design
• Landscape Design
• (Potential – kitchen, auditorium, acoustics, building envelope, wetlands biologist, archeologist)

Benefits

• They see opportunities that you may miss
• They know industry and educational facility best practices
• They know code and the jurisdictions

Costs

• 8-14% of Construction
**Interior Designer**

**Benefits**
- Assist with design and procurement of appropriate furniture
- Set tone of school through careful selection of material color and texture
Security Expert

Benefits

• Analyzes building concept floor plans and makes recommendations for optimal safety design guidelines in regards to building access, site lines, surveillance, and security yet remain a welcoming environment.
**Energy Analyst**

**Benefits**

- Models various scenarios regarding energy usage, day lighting, water conservation, affects of building orientation
General Contractor

**Roles**
- To physically build the intended project
- To find multiple sub-contractors to help execute the work
- To perform constructability review and estimates (in some cases)
- To shop locals

**Benefits**
- Professional labor to build your end product versus in house
- Knowledgeable of industry best practices
- Wide pool of resources and suppliers

**Costs**
- Bid Cost of Actual Construction OR Actual Cost plus Fee
Commissioning Agent

Roles

• Evaluate mechanical systems against district goals
• Helps to write control sequences
• Establishes the steps, and oversees start-up and functional testing of systems
• Inspects installation

Benefits

• Discovers latent defects pre-warranty
• Creates smoother turn over of building

Costs

• $60k - $100k
## Other Potential Partners

<table>
<thead>
<tr>
<th>Task</th>
<th>Cost Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Development of Technical Standards</td>
<td>$30 – 60k</td>
</tr>
<tr>
<td>Development of Educational Specifications</td>
<td>$60 – 90+k</td>
</tr>
<tr>
<td>Geotechnical Investigation &amp; Observations</td>
<td>$45 – 75k</td>
</tr>
<tr>
<td>Site Surveying</td>
<td>$15 – 30k</td>
</tr>
<tr>
<td>Land Use / Environmental</td>
<td>$20 – 40k</td>
</tr>
<tr>
<td>Building Envelope</td>
<td>$40 – 60k</td>
</tr>
<tr>
<td>Cost Estimator</td>
<td>$25 – 60k</td>
</tr>
<tr>
<td>Community Communications</td>
<td>$50 – 75k</td>
</tr>
<tr>
<td>Hazardous Materials Investigation &amp; Removal</td>
<td>$40 – 100k</td>
</tr>
<tr>
<td>Special Inspection &amp; Testing</td>
<td>$30 – 80k</td>
</tr>
<tr>
<td>Furniture Design, Selection, &amp; Procurement</td>
<td>$65 – 120k</td>
</tr>
</tbody>
</table>
Total Project Costs?

Cost = Construction + about 40%

**Construction**
- Building (estimate)
- Site Work (estimate)
- Demolition (estimate)
- Abatement (estimate)
- Sustainability Options (estimate)
- Inflation (varies)

**Administrative**
- Bond Issuance Fees (1.5%)
- Projects Manager (2 – 3%)
- Legal Consulting Fees ($10k)

**Site Services**
- Site Acquisition (varies)
- Site Surveying ($15 – 30k)
- Geotechnical Investigation ($45 – 75k)
- Inspection & Testing Services (0.75%)

**Planning Services**
- Educational / Technical Specs ($80 – 135k)
- Architecture & Engineering (8-14%)
- Commissioning Agent ($60 – 100k)
- District-Direct Consulting ($325 – 425k)
- Permits (.075%)
- LEED Certification ($25 – 35k)

**Miscellaneous**
- Printing ($5 – 10k)
- Advertisement ($2 – 3k)
- Furniture & Equipment (5-8%)
- Contingency (10% new, 15% remodel)
Sample Timeline

DLR Group

Planning → Pre-Design → Design → Construction

Bond Election

Ribbon Cutting!

DISTRICT CAPITAL PROJECTS PROGRAM

Assessments
Educational Visioning
Capital Assets Planner
Tech Standards
Ed Specs
Project Manager
Cost Estimator
Cost Estimator
Cost Estimator
Cost Estimator
Design Team (Architecture, Engineering, Landscape, Security, etc.)

Legal Counsel
Bond Underwriter
Financial Advisor

Traffic Consultant
Site Survey
Geo Tech

CM/GC or Contractor Design/Bid/Build

District Communications
Polling
Polling
Archaeology
Archaeology

Building Commissioning

Communications Consultant
Questions?

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