



# CAPITAL PROJECT DELIVERY IN THE CITY OF AUSTIN

City of Austin Bond Oversight Commission  
June 16, 2021





# PRESENTATION OVERVIEW

Overview of  
Capital Project  
Delivery

Public Project  
Delivery  
Approach

Project  
Delivery  
Methods

Quality,  
Schedule, and  
Budget

## Project Management Division (PMD)

- Patricia L. Wadsack, P.E.
- Division Manager

## Architecture Project Management Division (APMD)

- Janice White, AIA
- Division Manager

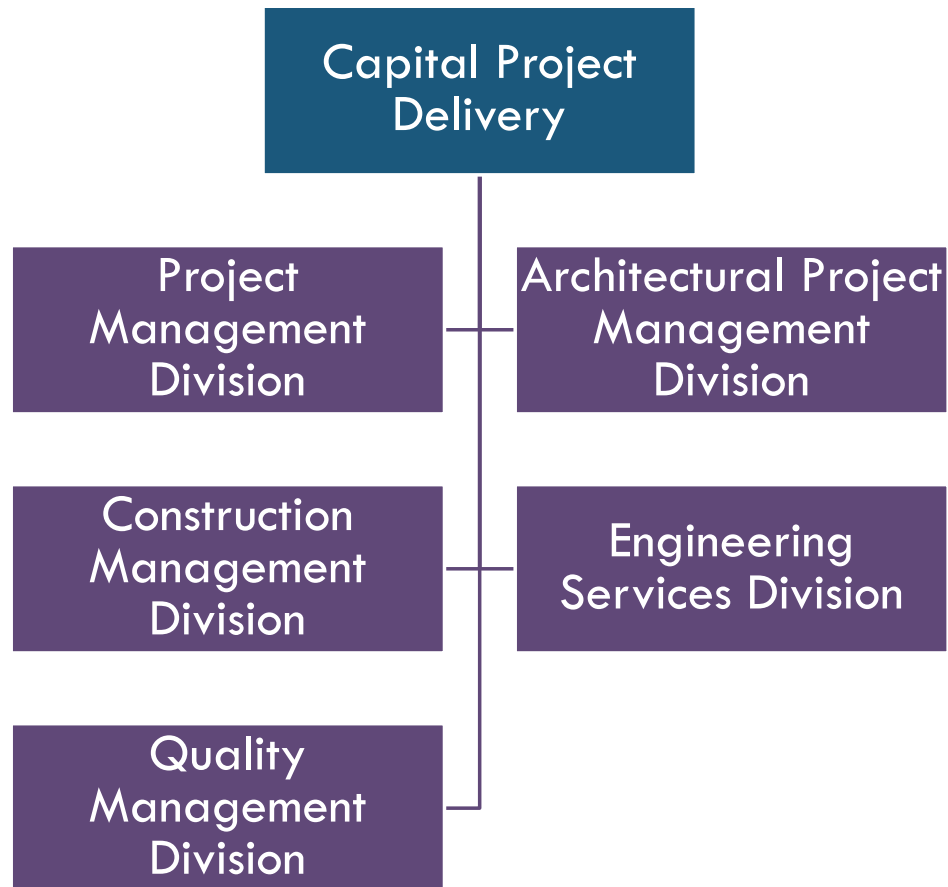
## PRESENTERS



# OVERVIEW OF CAPITAL PROJECT DELIVERY

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# CAPITAL PROJECT DELIVERY

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Capital Project Delivery is a part of the Public Works Department

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Capital Project Delivery is the centralized project delivery entity for the City

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Capital Project Delivery manages projects from “cradle to grave”

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Capital  
Contracting  
Office

Small and  
Minority Business  
Resources

Office of Real  
Estate

Financial  
Services

Development  
Services  
Department

Law

Sponsor  
Departments

# CAPITAL PROJECT DELIVERY PARTNERS



# TOTAL PROJECTS MANAGED

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## 475 Projects

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## \$4,954,391,690

- ❖ The data on this and following slides is a recent snapshot
- ❖ This data is constantly changing as projects begin and end



# OUR PEOPLE



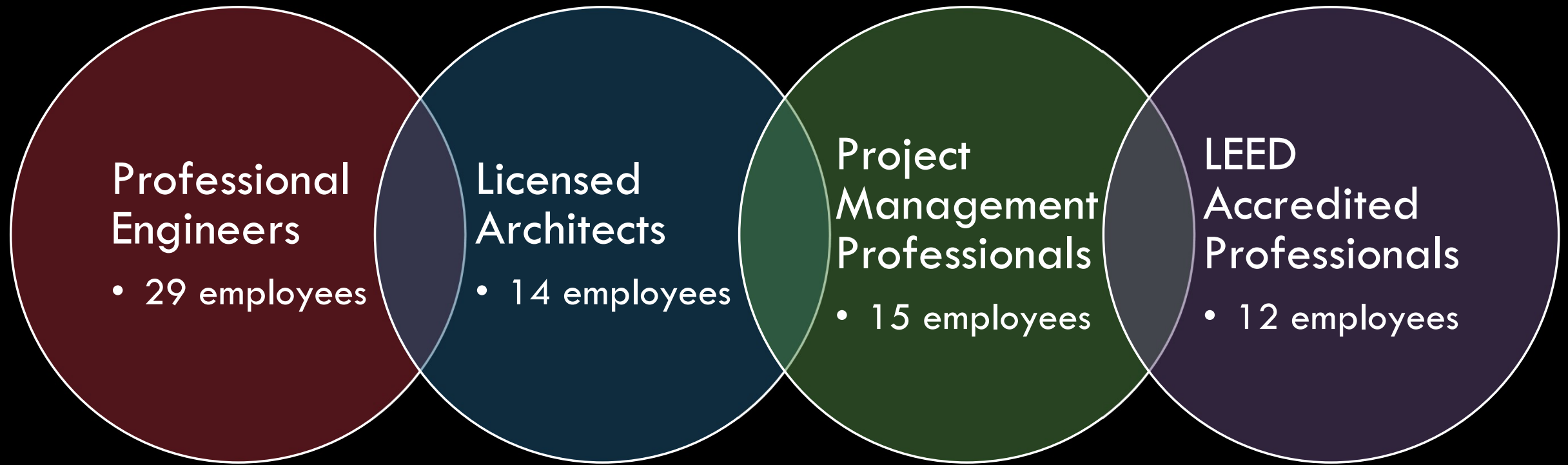
## PMD

- 49 Project Management Staff
- 8 Support Staff

## AMPD

- 25 Project Management Staff
- 2 Support Staff
- 3 Interns





# STAFF LICENSES AND REGISTRATIONS



# PMD PROJECTS

## PMD projects include:

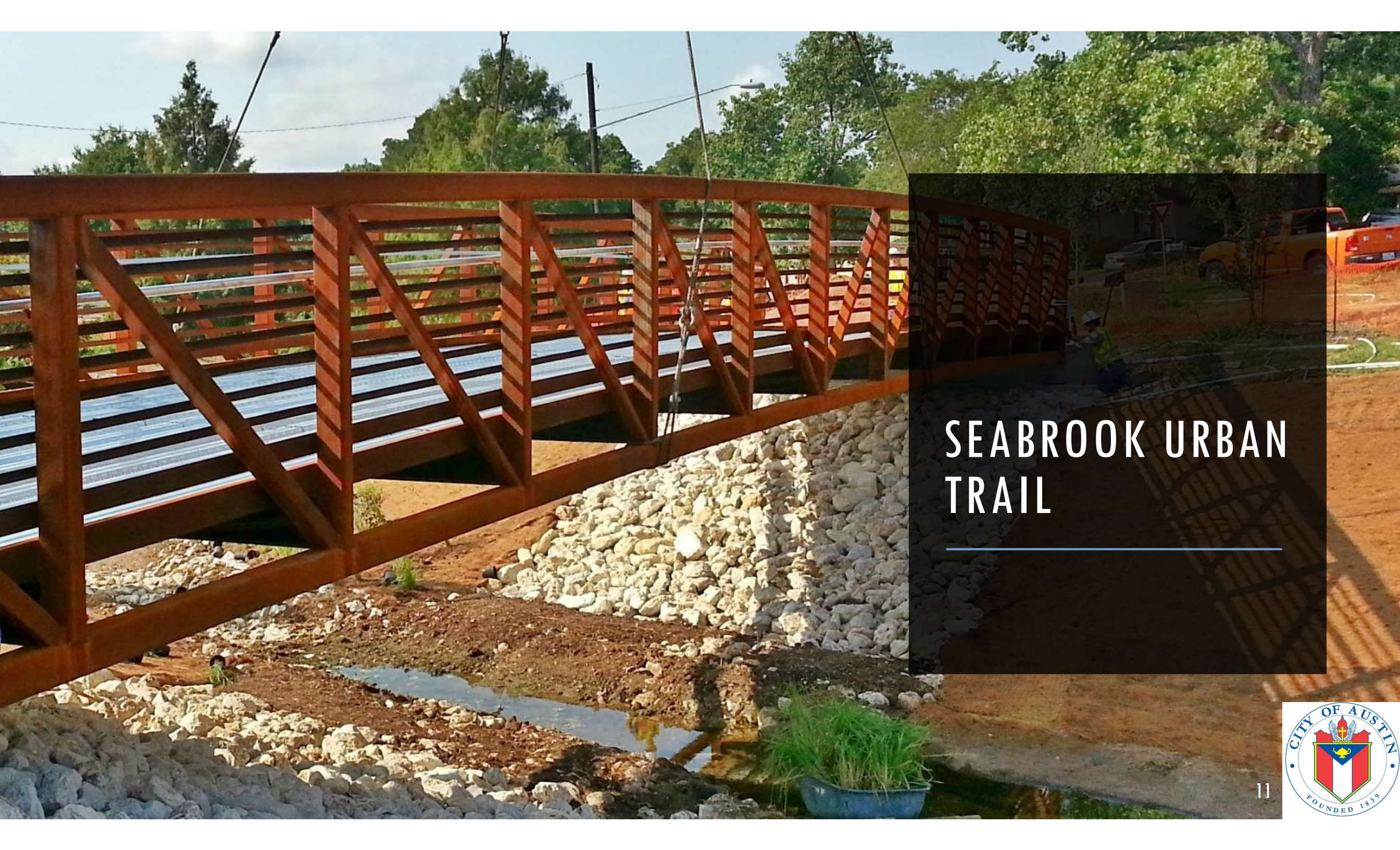
- Water and wastewater
- Streets, bridges, and sidewalks
- Watershed protection
- Drainage

## PMD manages:

- 365 active projects
- \$3,777,239,488







# SEABROOK URBAN TRAIL

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# RIO GRANDE ST. RECONSTRUCTION

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# BERL HANDCOX SR. WATER TREATMENT PLANT



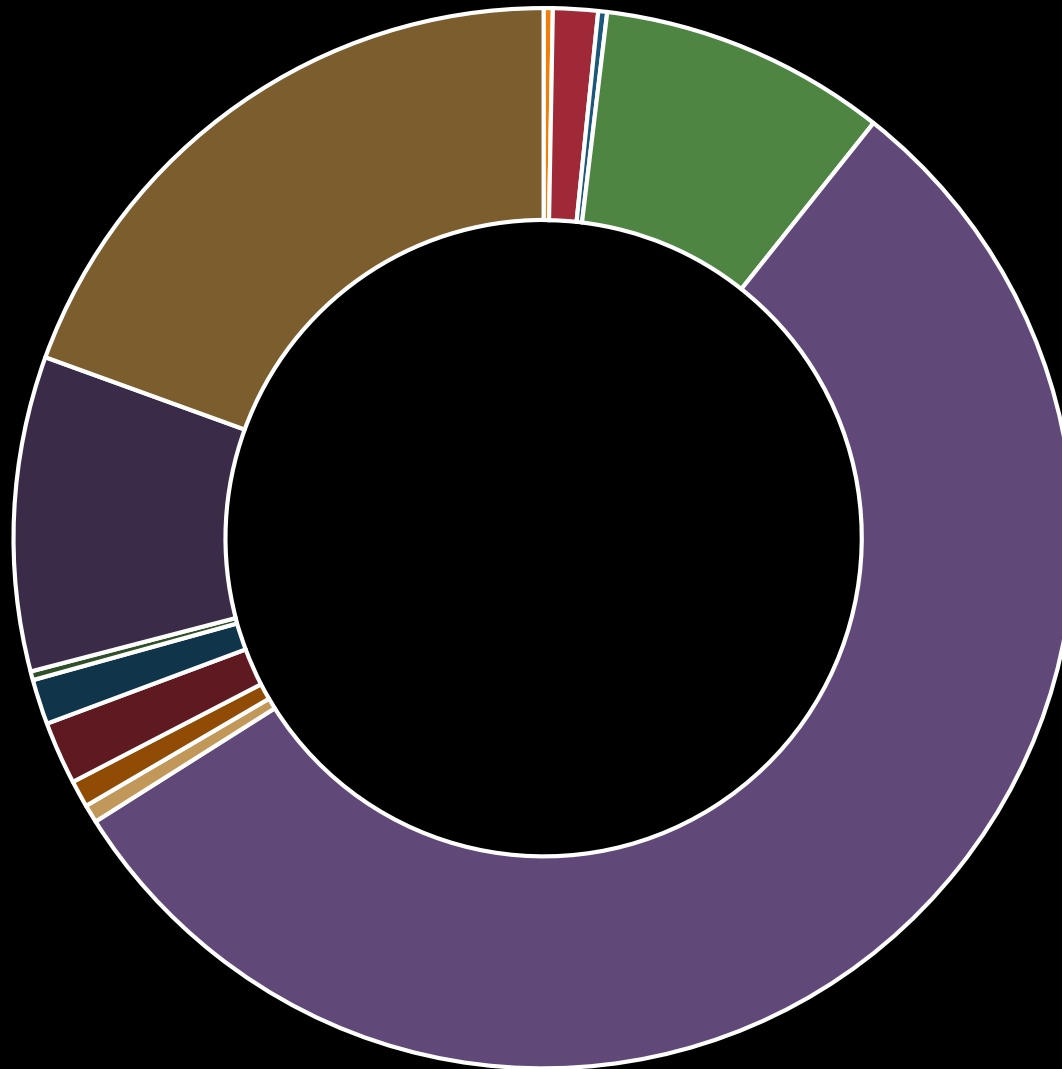
# BURNET ROAD SIDEWALK IMPROVEMENTS

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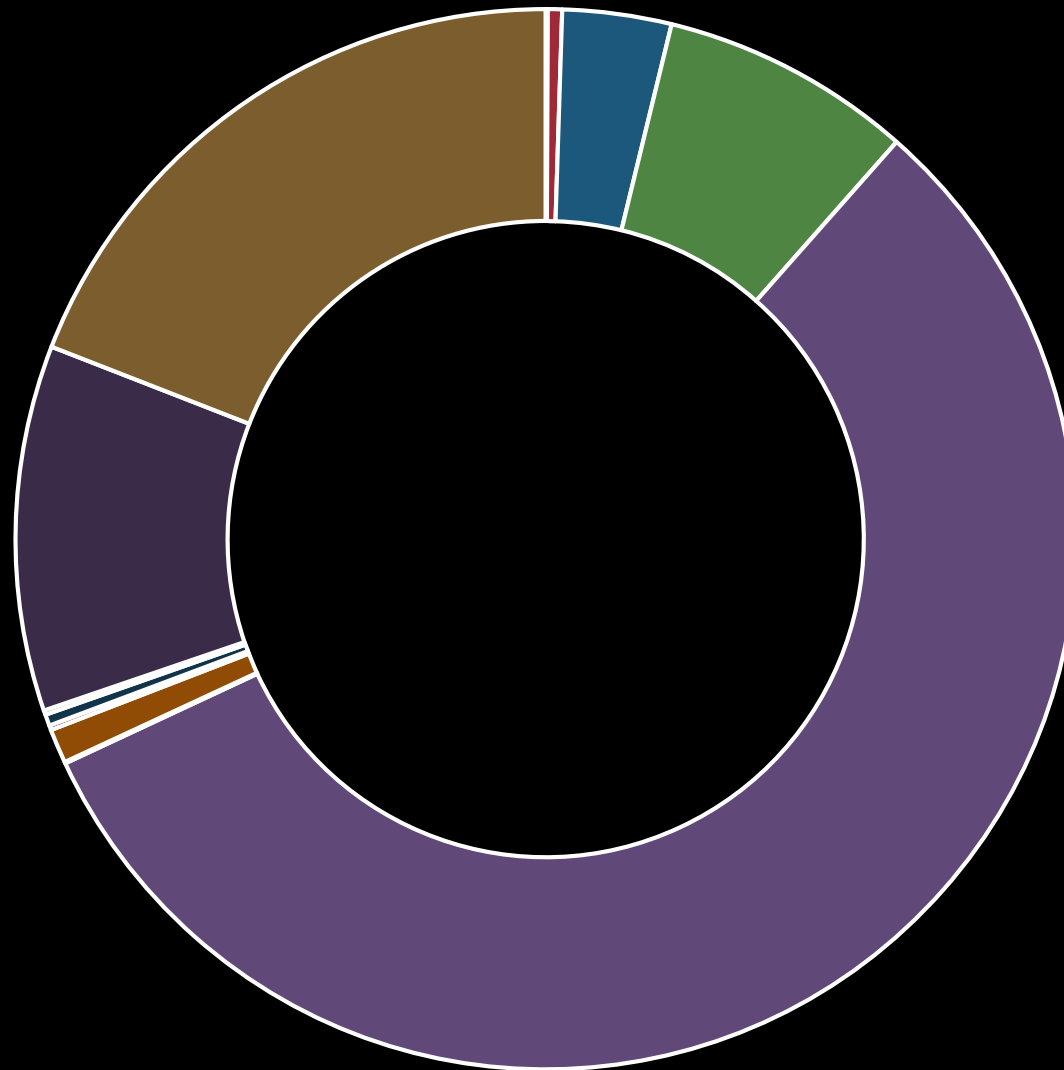


## PMD Active Projects by Count



- Austin Convention Center (1)
- Austin Energy (5)
- Austin Public Library (1)
- Austin Transportation (32)
- Austin Water (202)
- Aviation (2)
- Economic Development (3)
- Fleet Mobility Services (7)
- Parks and Recreation (5)
- Planning and Zoning (1)
- Public Works (35)
- Watershed Protection (71)

## PMD Active Projects by Value

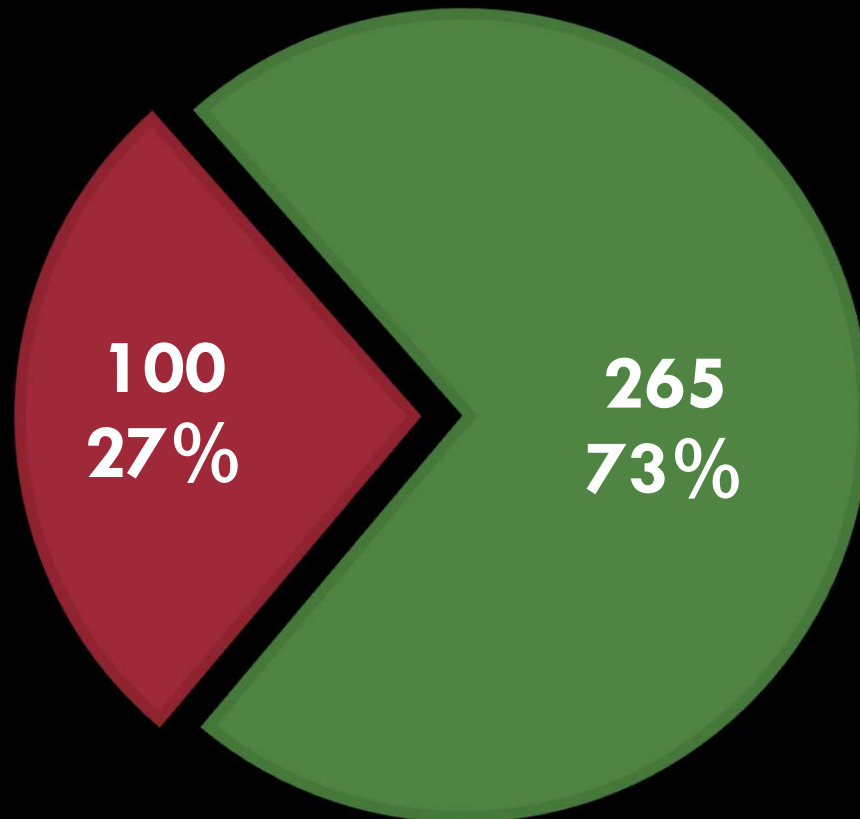


- Austin Convention Center (\$2,581,000)
- Austin Energy (\$16,170,204)
- Austin Public Library (\$125,658,542)
- Austin Transportation (\$290,558,556)
- Austin Water (\$2,135,648,306)
- Aviation (\$1,524,129)
- Economic Development (\$39,462,150)
- Fleet Mobility Services (\$5,279,000)
- Parks and Recreation (\$13,200,959)
- Planning and Zoning (\$5,086,000)
- Public Works (\$421,065,784)
- Watershed Protection (\$721,004,858)

# PMD FUNDING SOURCES

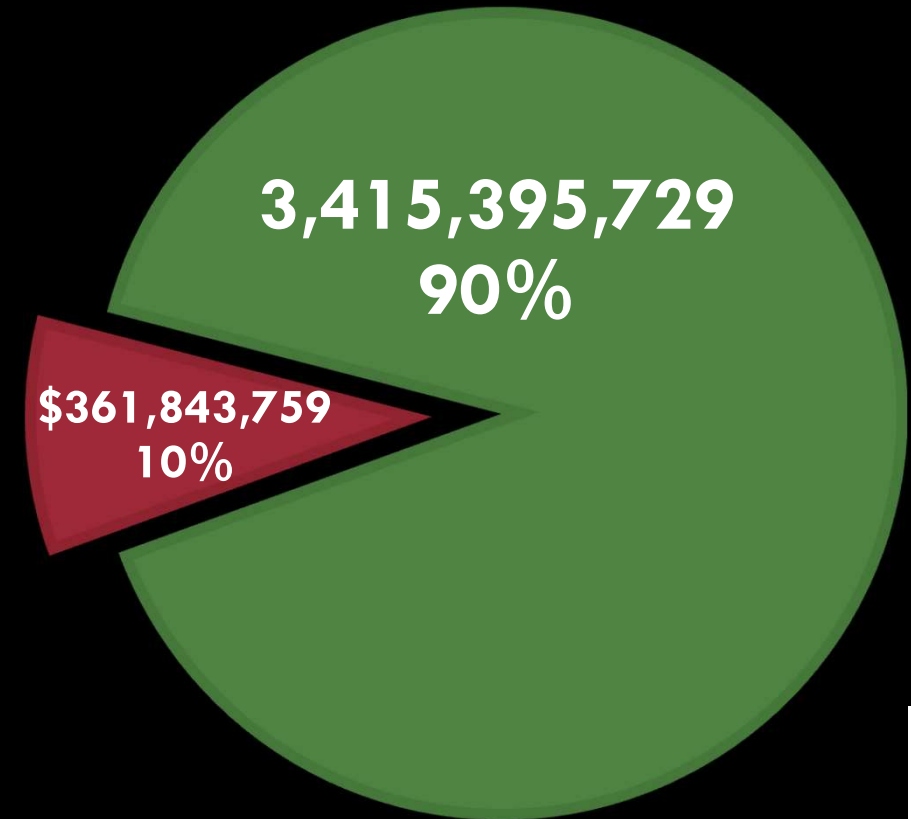
## Projects by Count

■ Bonds ■ Other Sources



## Total Funding

■ Bonds ■ Other Sources





# APMD PROJECTS

## APMD projects include:

- Airport
- Parks
- Fire and EMS facilities
- Libraries
- Civic buildings

## APMD manages:

- 110 projects
- \$1,177,152,202



# DEL VALLE / MOORE CROSSING FIRE AND EMS STATION

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# ABIA TERMINAL EXPANSION



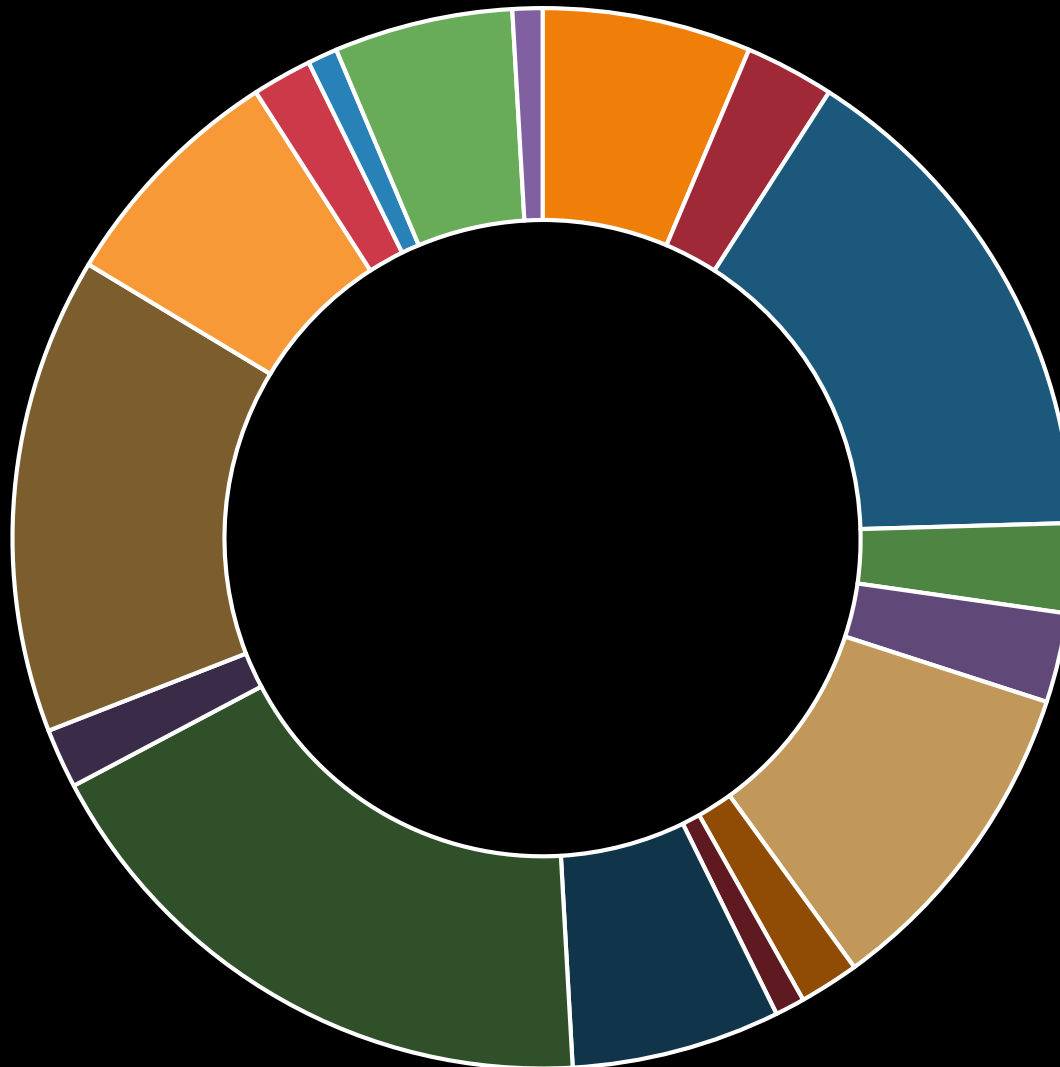


# MONTOPOLIS RECREATION CENTER

1200 MONTOPOLIS



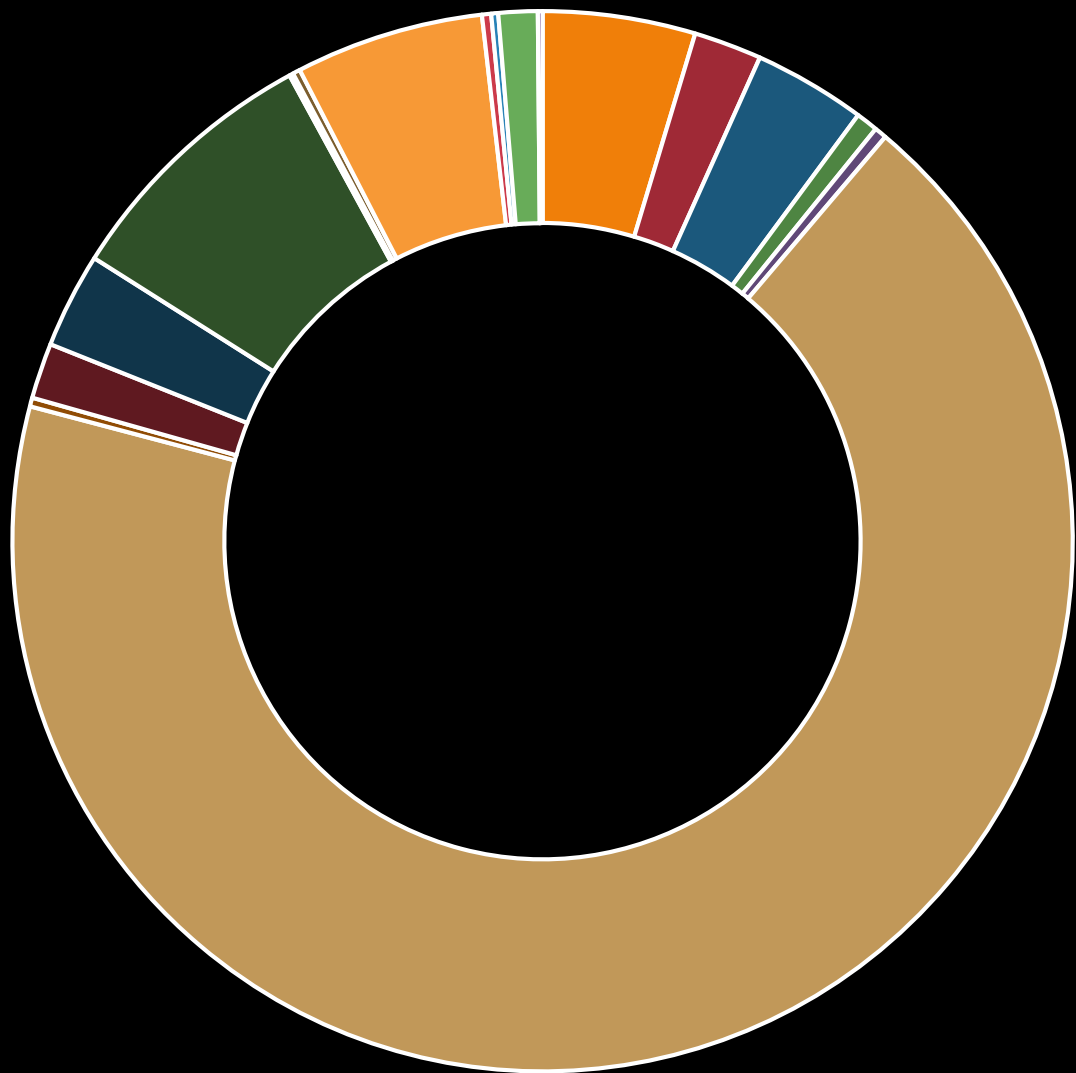
# APMD Active Projects by Count



- Austin Convention Center (7)
- Austin Public Health (3)
- Austin Public Library (17)
- Austin Resource Recovery (3)
- Austin Water (3)
- Aviation (11)
- Communications and Technology Management (2)
- Economic Development (1)
- Emergency Medical Services (7)
- Fire (20)
- Fleet Mobility Services (2)
- In-House Projects (16)
- Parks and Recreation (8)



# APMD Active Projects by Value



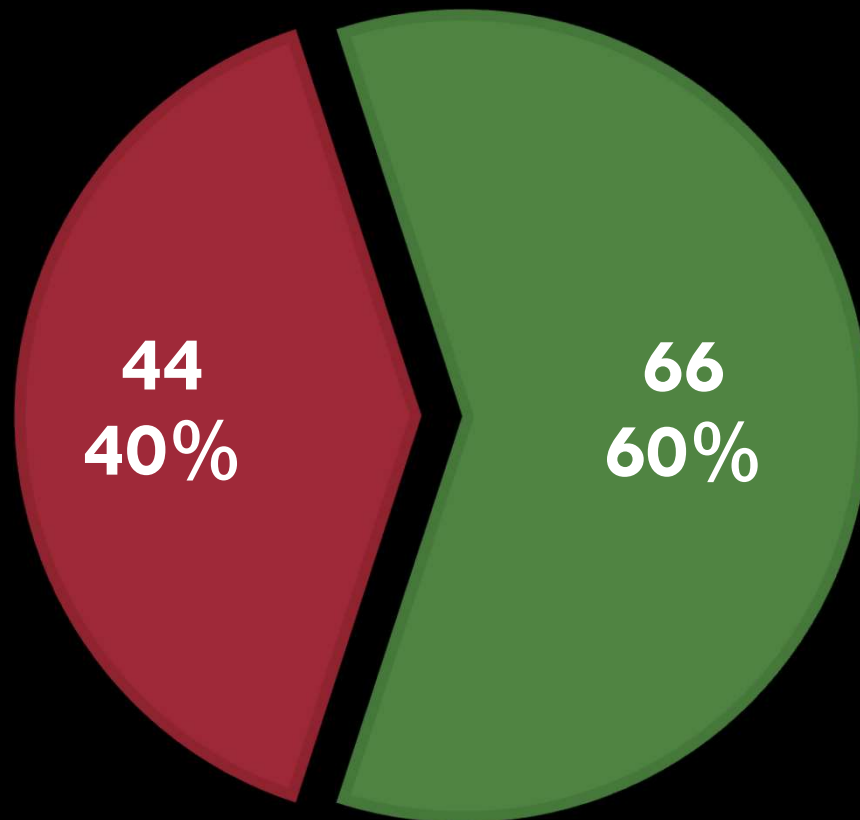
- Austin Convention Center (\$54,792,893)
- Austin Public Health (\$24,297,701)
- Austin Public Library (\$40,389,230)
- Austin Resource Recovery (\$7,841,812)
- Austin Water (\$4,402,543)
- Aviation (\$799,308,297)
- Communications and Technology Management (\$3,151,525)
- Economic Development (\$20,000,000)
- Emergency Medical Services (\$34,216,073)
- Fire (\$95,574,839)
- Fleet Mobility Services (\$1,350,000)
- In-House Projects (\$2,680,000)
- Parks and Recreation (\$67,609,546)



# APMD FUNDING SOURCES

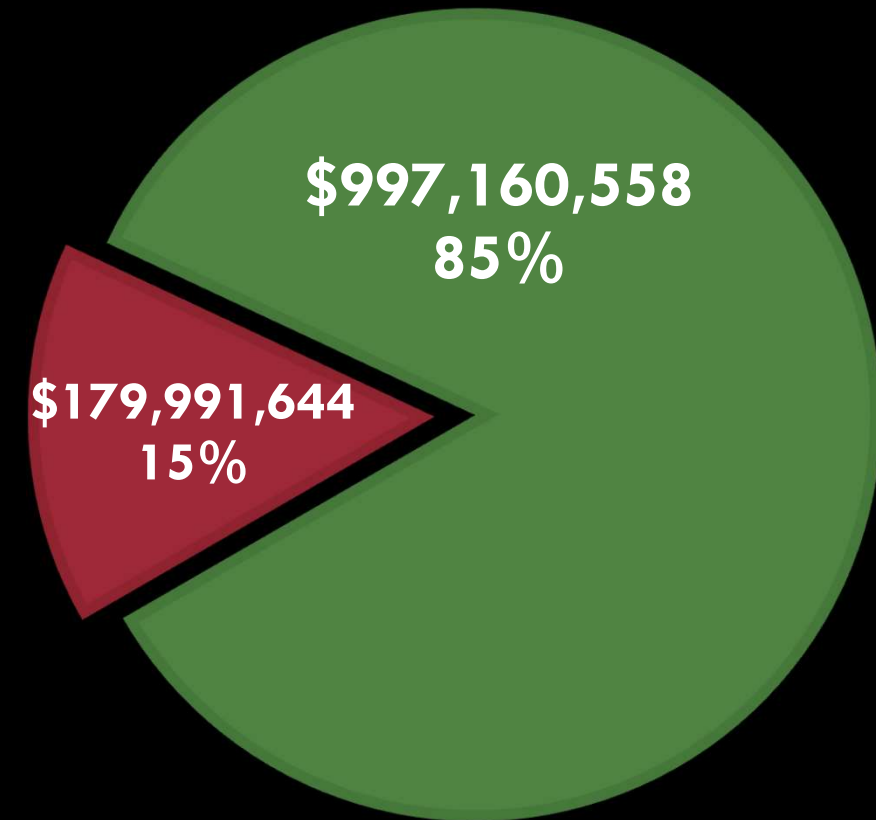
## Projects by Count

■ Bonds ■ Other Sources



## Total Funding

■ Bonds ■ Other Sources





# PUBLIC PROJECT DELIVERY



# PUBLIC PROCUREMENT

Public procurement must follow multiple specific processes as required by City Ordinances, State Law, and Federal Law

## These include

- Hiring of professional services
- Acquisition of real estate
- Small and Minority Business Resources
- Wage compliance
- Environmental compliance
- Ordinances which support City values



# HIRING THE DESIGN TEAM

Professional services procurement is governed by Texas state law

- The City is required to select the most highly qualified provider of professional services
- After determining the most qualified provider, City staff negotiates a contract with the consultant
- The City may only engage one consultant at a time and must end negotiations before beginning negotiations with a different consultant

The City has two methods to hire a consultant team:

- Single Consultant Selection
- Rotation List

The first step for both methods is a Request for Qualifications (RFQ)

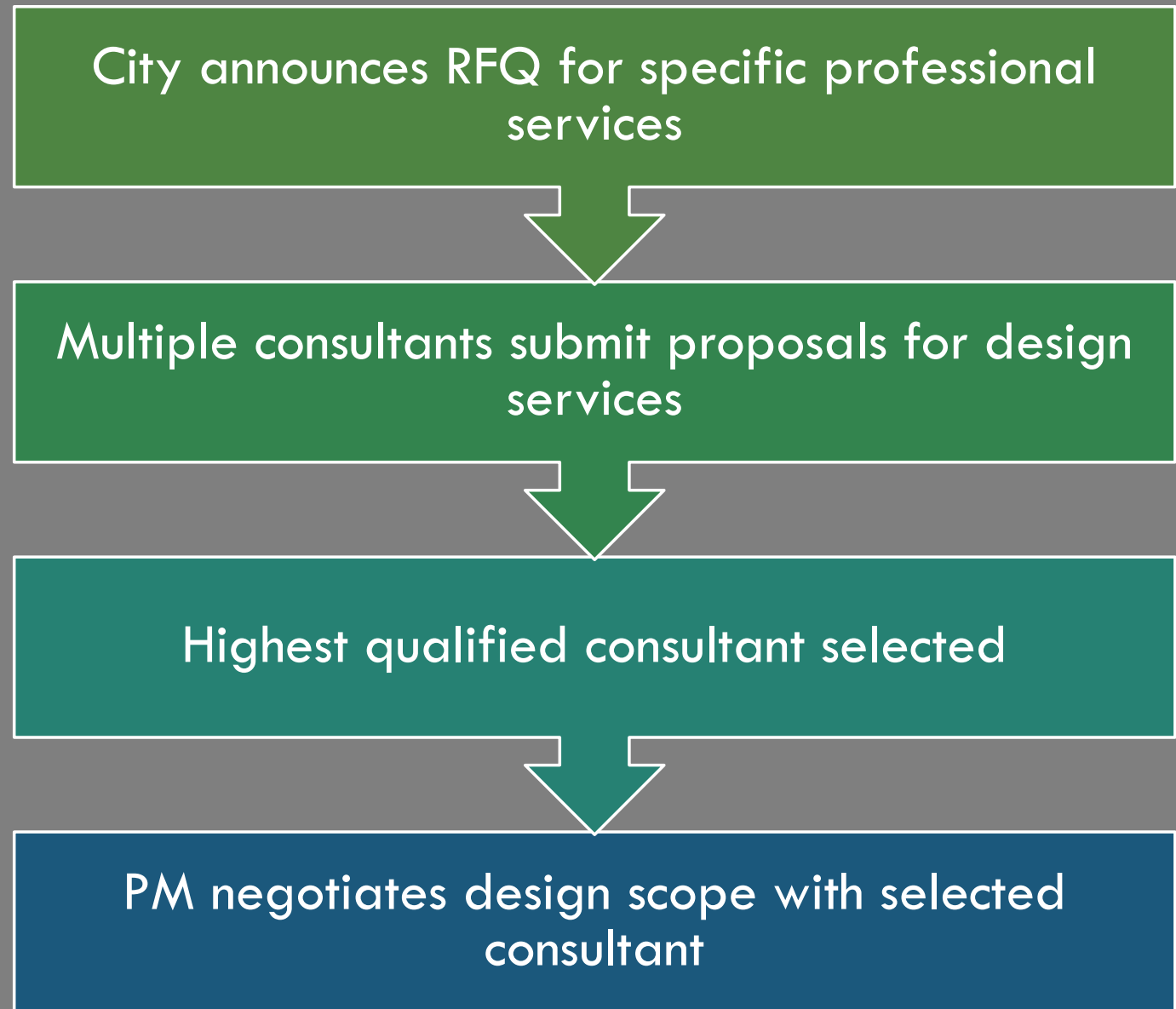




# SINGLE CONSULTANT SELECTION

Typically used for a single large project

Entire process can take upwards of 6 months



# ROTATION LIST

One Rotation List is used to hire professional services for multiple smaller projects

Consultants on Rotation List are offered to propose on a revolving basis

City has multiple Rotation Lists which are grouped by type of work

List selection process can take 6 months

Assignment of consultant from Rotation List takes 1-2 months



# ACQUISITION OF REAL ESTATE

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The City can directly purchase property after following all laws regarding property acquisition

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The City has the right to acquire property through eminent domain, which is referred to as condemnation

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If the City condemns property, the City must prove a need for that specific property

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Condemnation process requires several lengthy steps, including expert testimony

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Condemnation can take up to 2 years





# EXISTING CITY LAND

Conversion of Parks land requires a public hearing per State law and is a lengthy process

This requires the review and approval of:

- The Parks and Recreation Board
- The Land and Facilities Committee of the Board
- Typically, a public hearing by the City Council

The Parks Board independently establishes the amount of compensation for the use of parkland



# FEASIBILITY OF USE

Property can have existing concerns which limit use

Challenges can include:

- Prior easements
- Zoning
- Environmental features
- Sub-division of property
- Other governmental agencies

The City must follow all existing laws and processes to change property use





# SMALL AND MINORITY BUSINESS RESOURCES

Ordinance to promote and encourage minority, women, and disadvantaged business owners to participate in business opportunities with the City of Austin

## Supported through:

- The establishment of participation goals for vendors during procurement
- Monitoring of goal progress by SMBR during project delivery
- Verification of goal achievement prior to final payment



# WAGE COMPLIANCE

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Required by law for City projects

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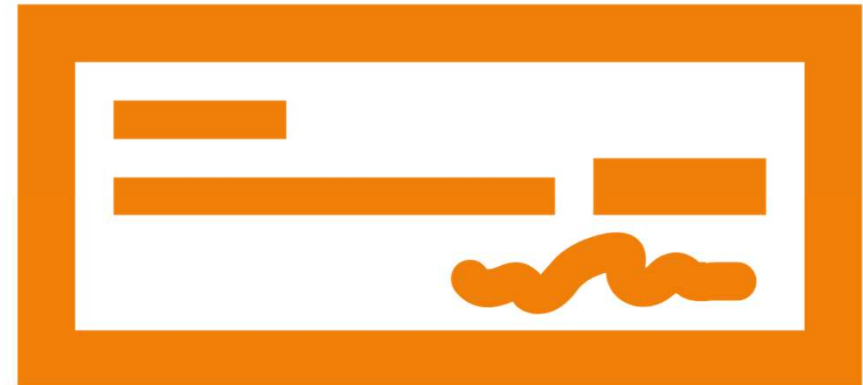
Ensures prevailing wages are paid by City contractors to their employees

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Each trade has a unique wage rate which is different for civil and architectural work

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Enforced by City processes and staff





# ENVIRONMENTAL COMPLIANCE

City land  
development code

SWPPP (Stormwater  
Pollution Prevention  
Plan)

BSEAD (Barton  
Springs - Edwards  
Aquifer District)

BCCP (Balcones  
Canyonland  
Conservation Plan)

Endangered Species  
Act

Migratory Bird  
Treaty Act

Wetlands Protection

Flood Risk  
(NOAA/FEMA)



# CITY VALUES

Sustainability

Art in Public  
Places (AIPP)

Accessibility

Great Streets  
Program

Noise  
Ordinance

Temporary  
Traffic Control





# PROJECT DELIVERY METHODS



# PROJECT DELIVERY METHODS

There are multiple ways to structure the relationship between the City, design professionals, and contractors

These include:

- Design/Bid/Build
- Indefinite Delivery/Indefinite Quantity
- Design/Build
- Construction Manager at Risk

Any delivery method other than Design/Bid/Build or IDIQ requires an approval from Council

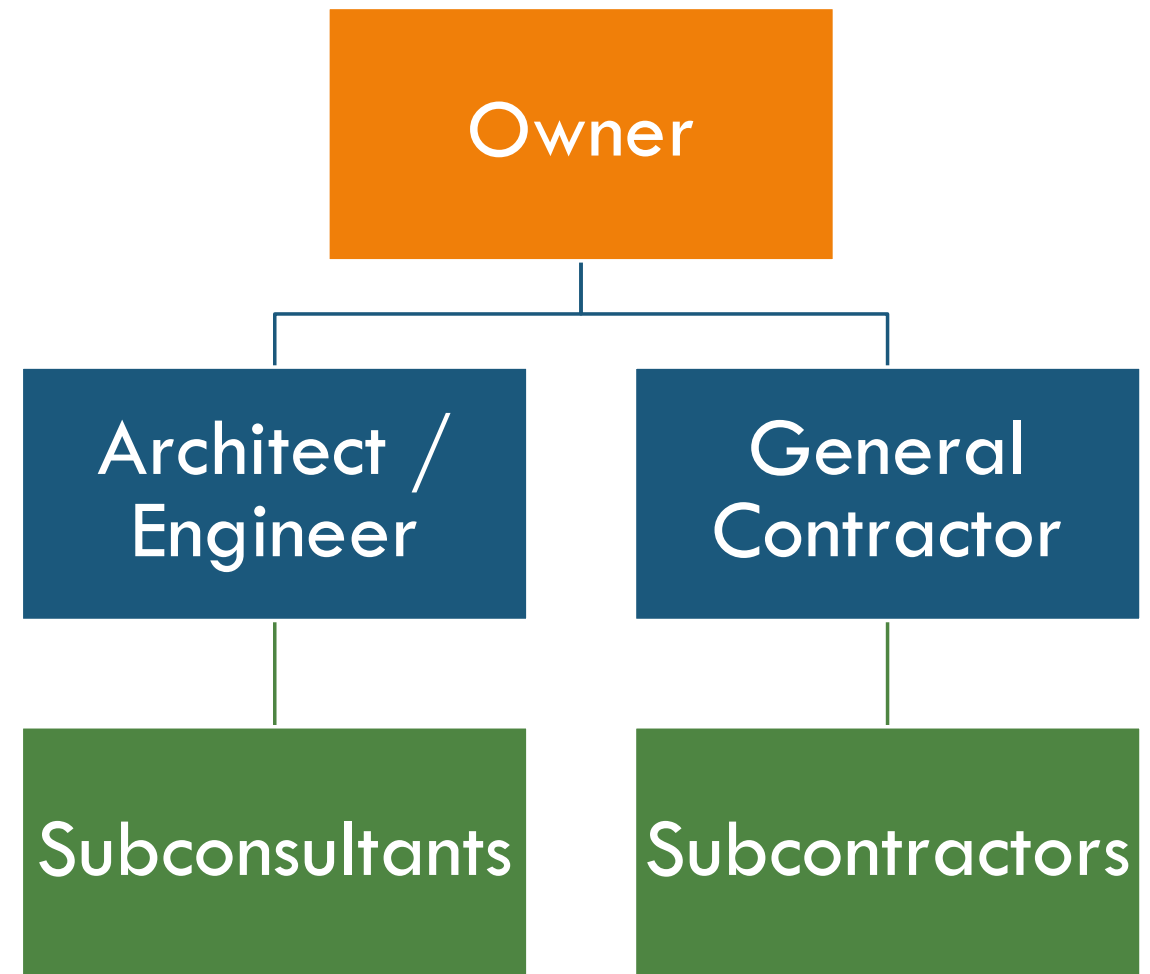


# DESIGN/BID/BUILD

Traditional delivery approach

Project awarded to lowest responsive bid

Provides lowest construction cost

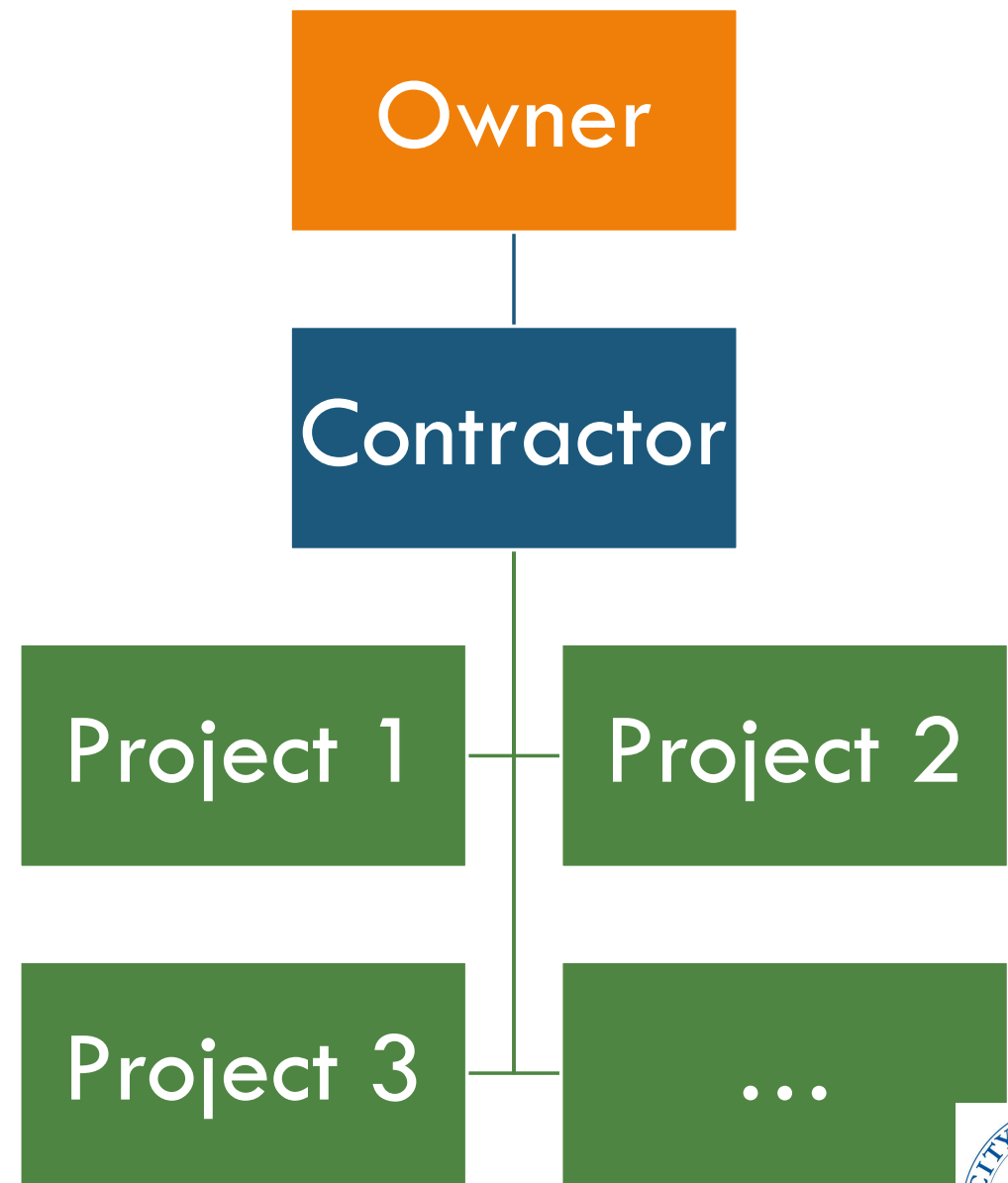


# INDEFINITE DELIVERY / INDEFINITE QUANTITY (IDIQ)

Work performed at multiple sites and payment is based on quantity of work delivered

Allows for single contract instead of multiple smaller ones

Suitable for projects with field engineering instead of traditional design



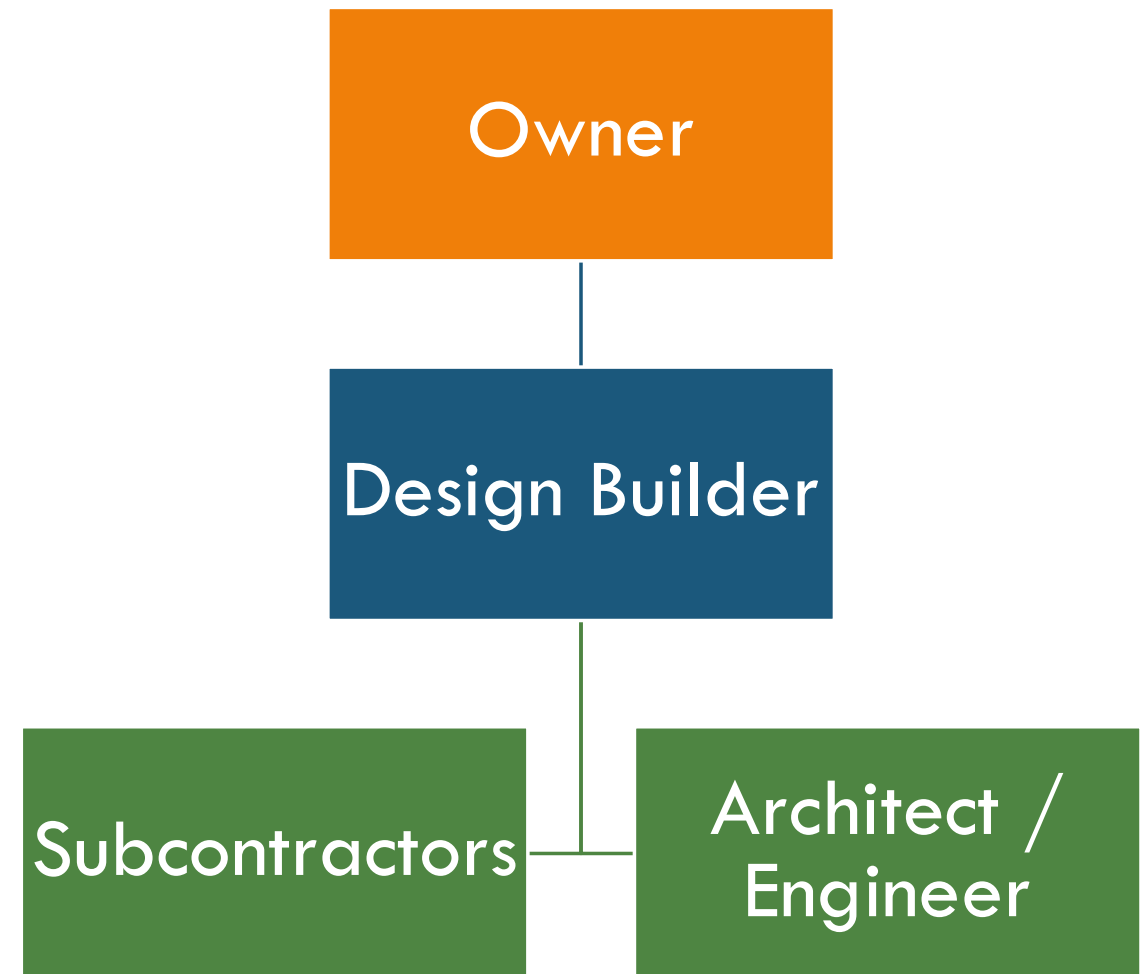


# DESIGN/BUILD

Single party responsible  
for design and construction

Can shorten overall  
delivery schedule

Used when schedule is  
more critical than cost

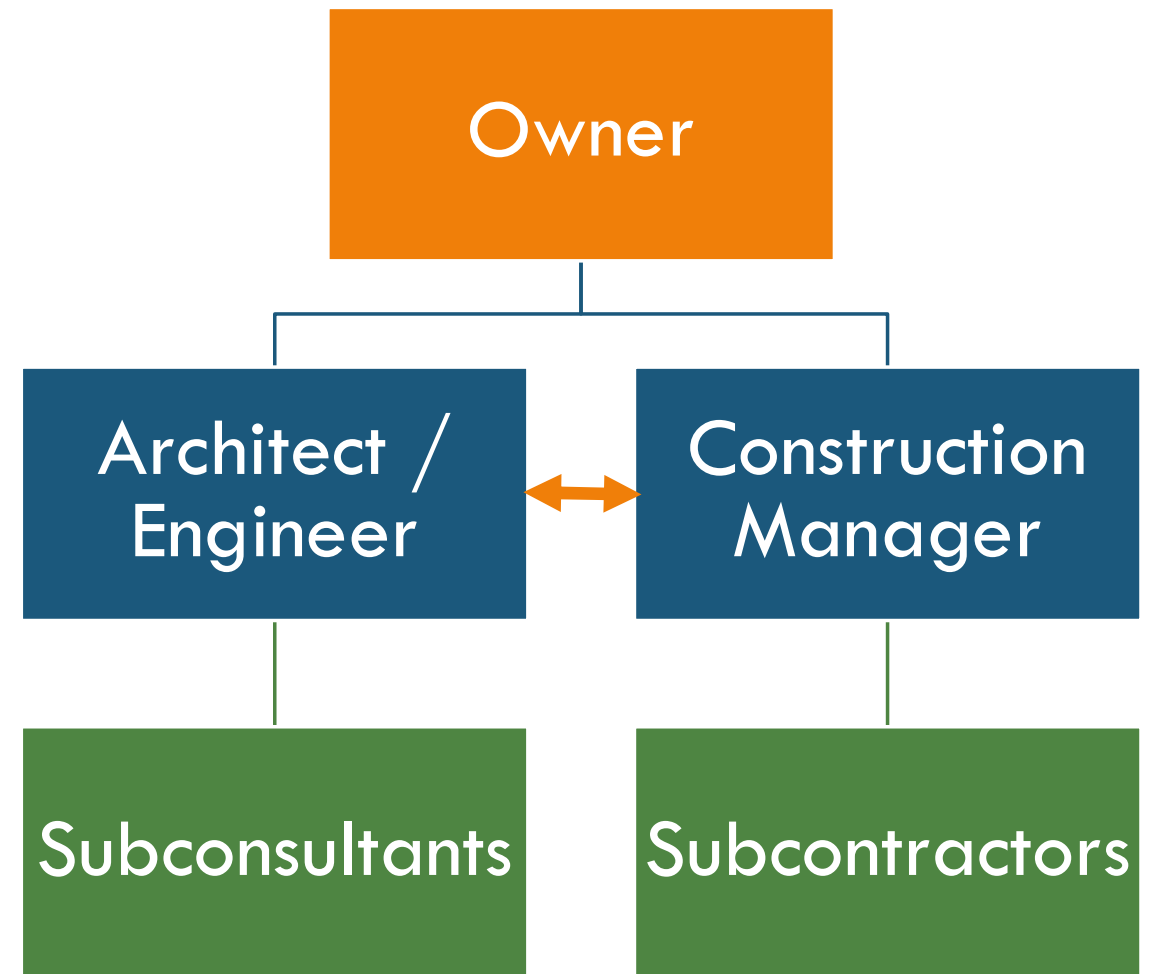


# CONSTRUCTION MANAGER AT RISK (CMAR)

CMAR selected early  
in process

Early budget  
assurance

CMAR provides input  
during design phase

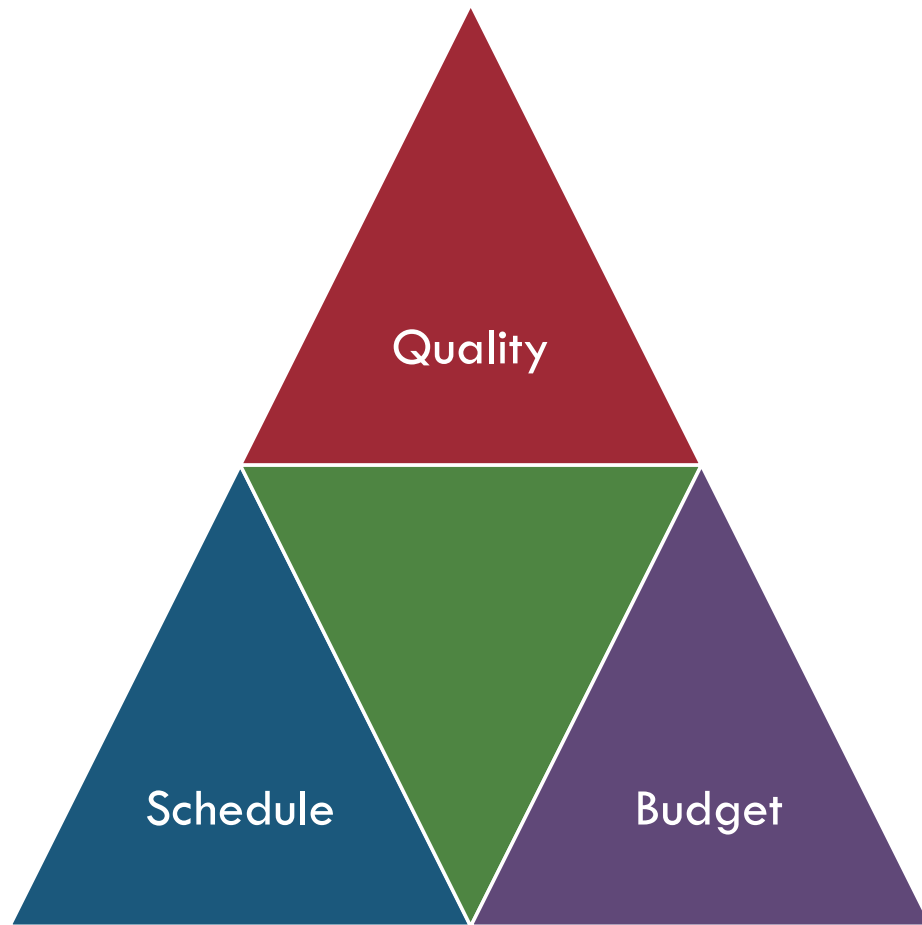




# QUALITY, SCHEDULE, AND BUDGET

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# PROJECT CONSTRAINTS

The project team must balance three equally important project constraints:

- Quality
- Schedule
- Budget

Changing one item impacts at least one of the other two items

Project managers work to provide high quality and long lasting infrastructure and facilities for the citizens of Austin





# QUALITY ASSURANCE AND CONTROL

## During design

- Utility coordination
- Predesign surveys
- Predesign geotechnical
- Multiple reviews
  - Sponsor
  - QMD
  - PMs
  - Permit

## During construction

- Materials and performance testing
- Onsite inspection and contract compliance by City staff
- Consultant services
- Acceptance walk-throughs
- Commissioning
- Operational training

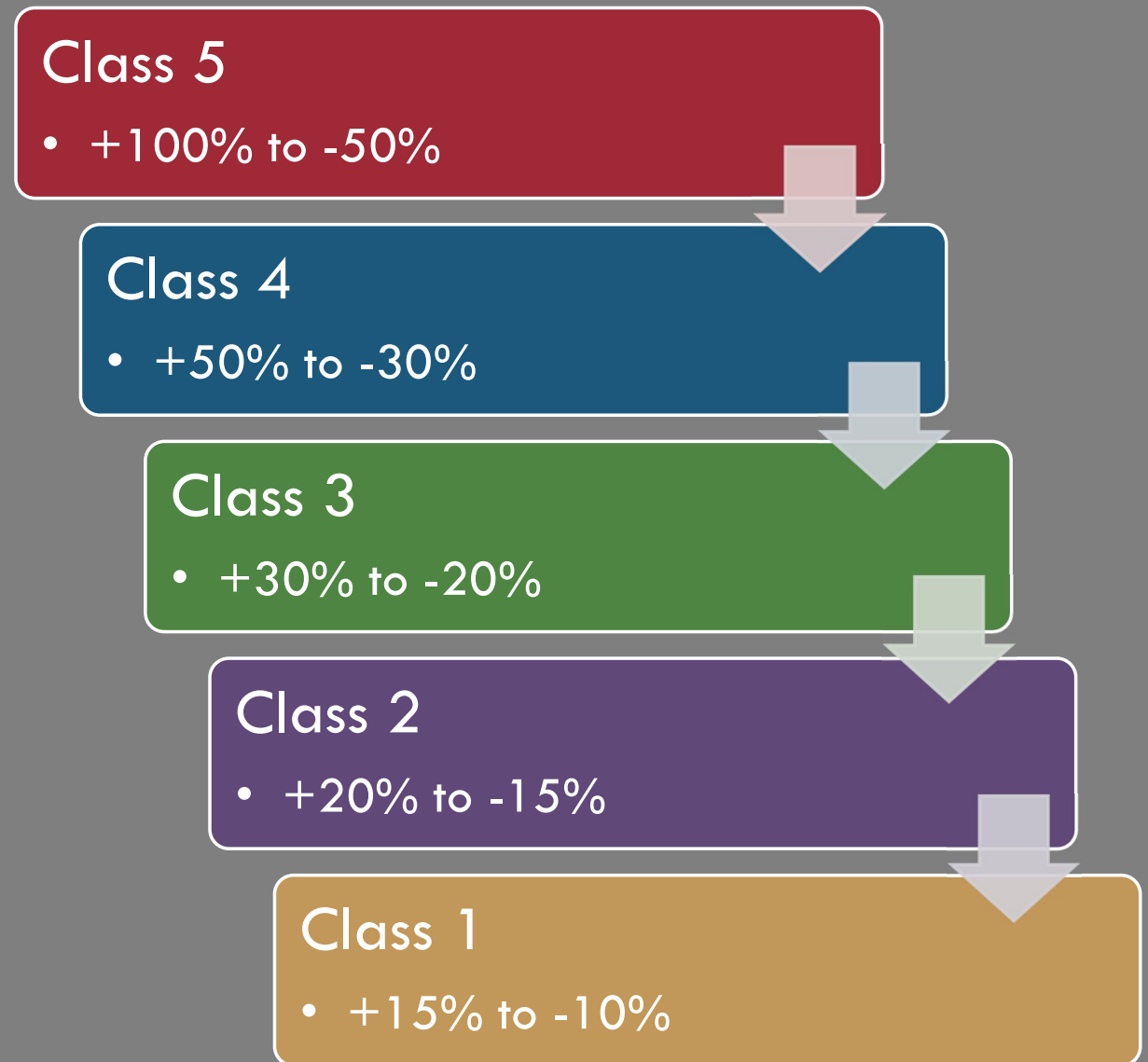


# COST ESTIMATE CLASSIFICATIONS

Cost estimates are assigned a classification based on the current phase of the project

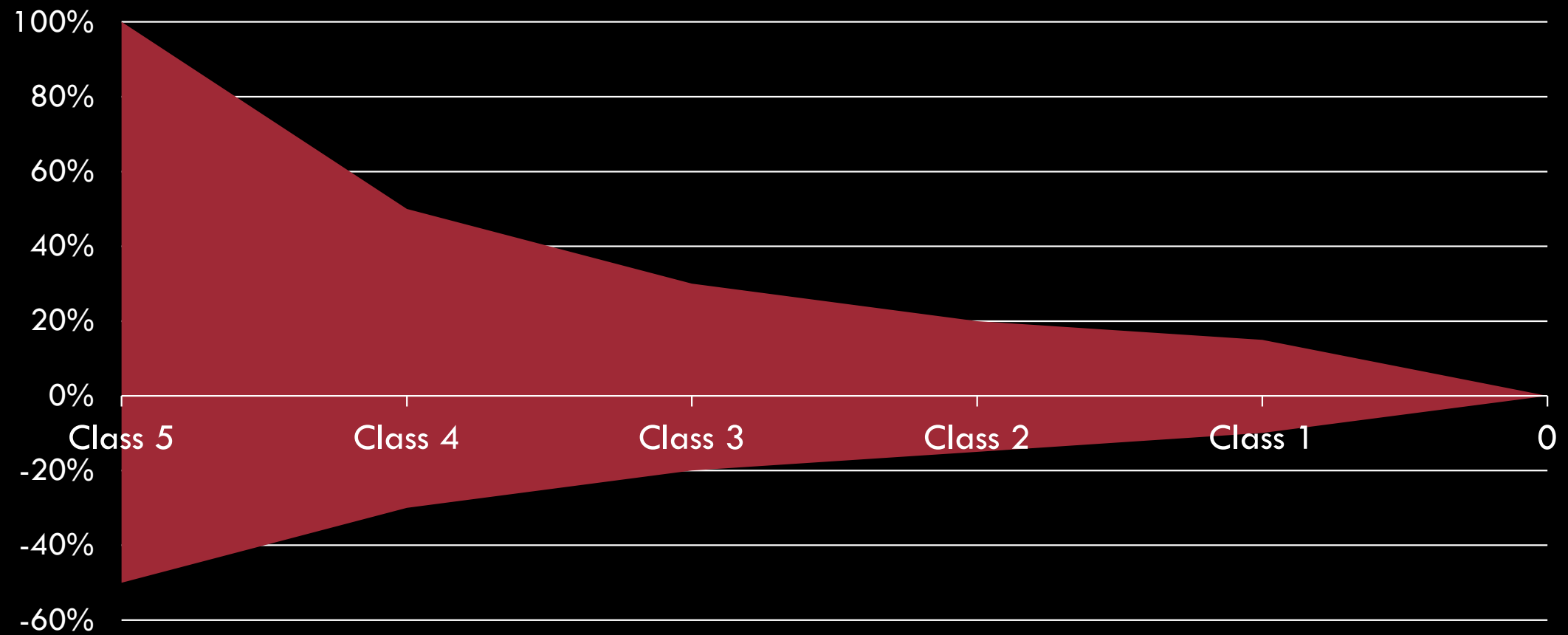
The classifications describe the confidence of the cost estimate

As the project progresses through phases, the cost estimate gains a higher level of confidence

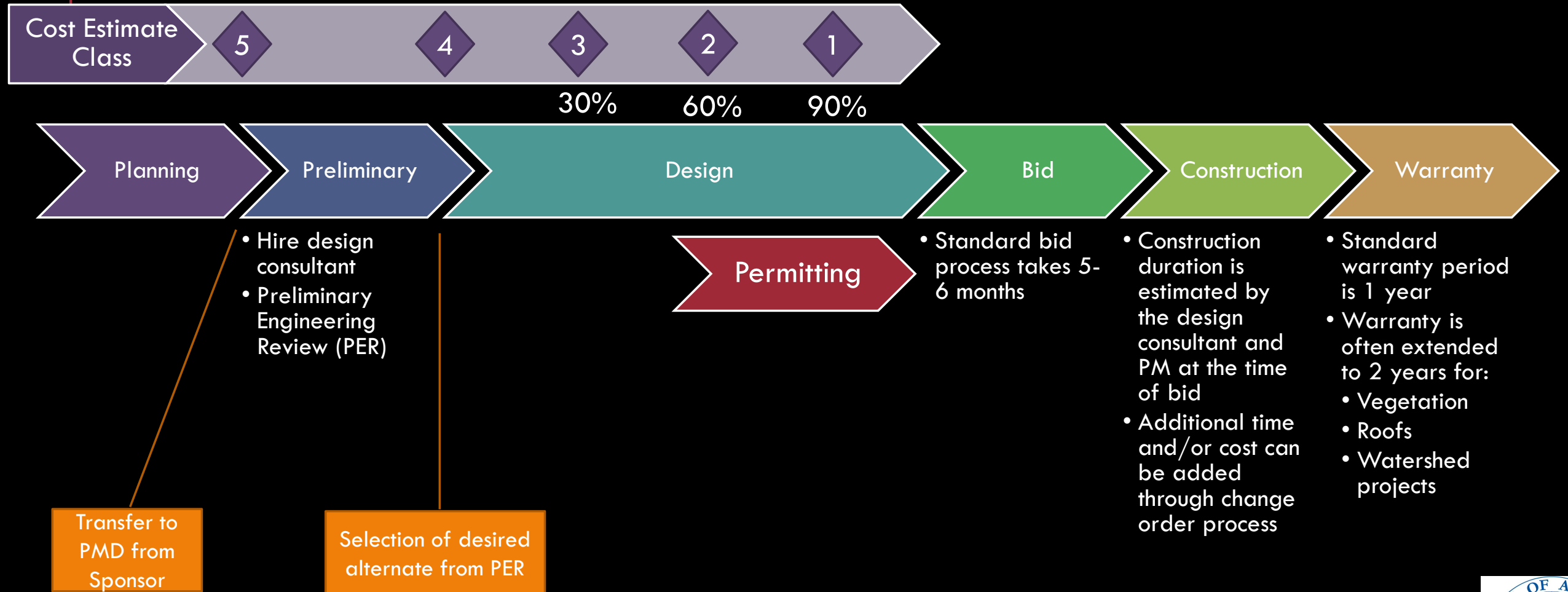




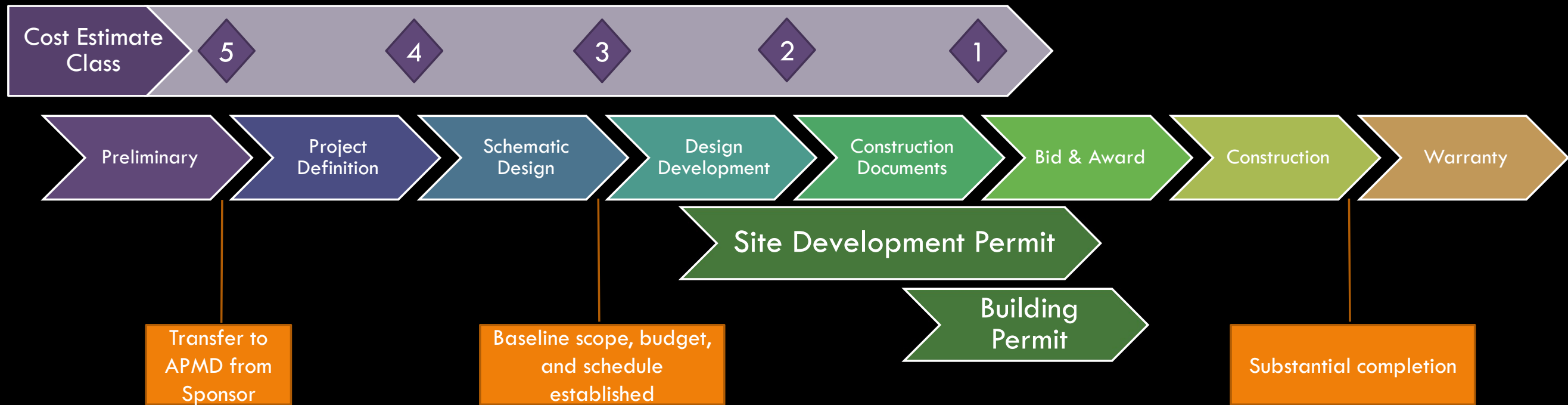
# BUDGET ACCURACY



# CIVIL PROJECT PHASES



# ARCHITECTURAL PROJECT PHASES





# PROJECT TIMELINE TIPS



- ▶ Each approval from Council is a 6 week process
- ▶ Hiring a design consultant can take 2 to 6 months
- ▶ Preliminary, design, and construction phases are variable based on the complexity of the project
- ▶ Real estate acquisition can take up to 2 years
- ▶ A general permit can take 2 to 6 months
- ▶ A site development permit can take 9 to 12 months
- ▶ The bid/award/execution process takes 5 to 6 months



Construction Estimate	Number of Projects	Average Design Period	Average B/A/E Period	Average Construction Period
< \$4M	172 projects	20.5 months	3.9 months	18.2 months
\$4M-\$19M	86 projects	32.6 months	4.9 months	25.4 months
> \$20M	21 projects	42.7 months	6.0 months	44.9 months
<b>Overall</b>	<b>279 projects</b>	<b>31.9 months</b>	<b>4.9 months</b>	<b>29.5 months</b>

# AVERAGE PROJECT DURATION FOR CIVIL PROJECTS



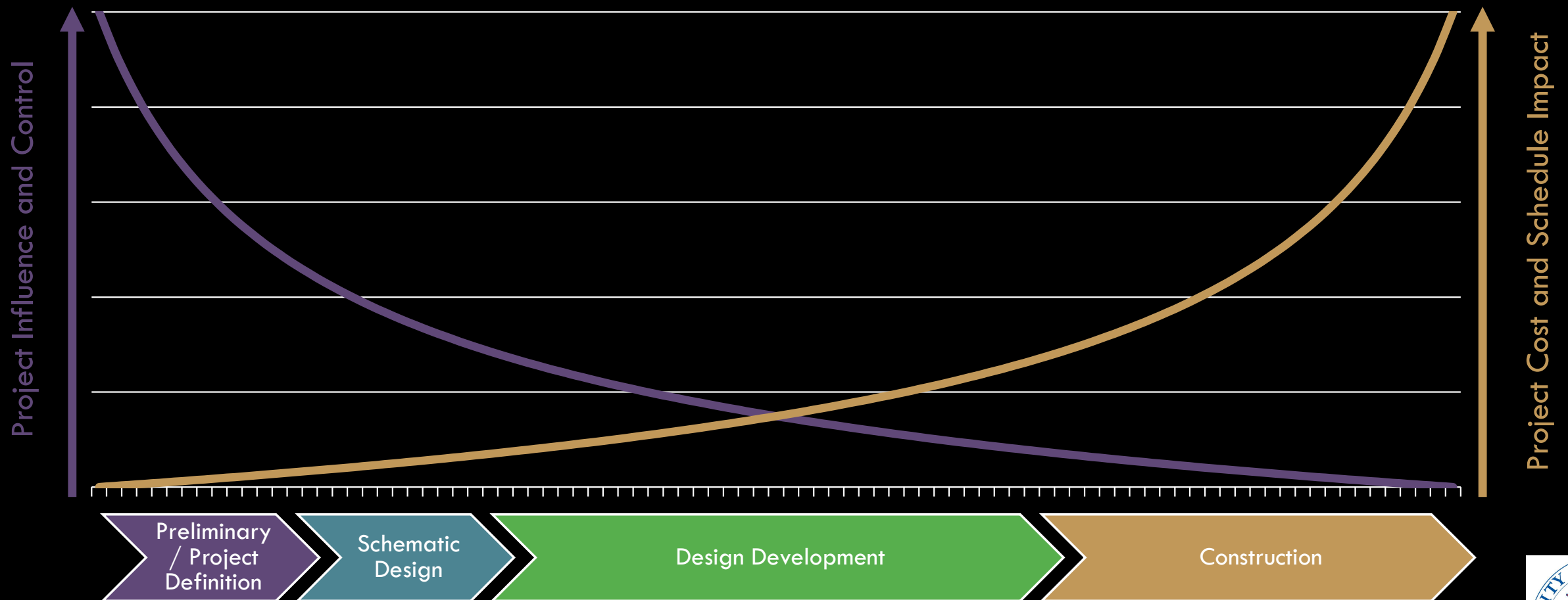
Construction Estimate	Number of Projects	Average Design Period	Average B/A/E Period	Average Construction Period
< \$4M	50 projects	15.7 months	4.9 months	13.5 months
\$4M-\$19M	11 projects	23.9 months	5.8 months	22.0 months
> \$20M	8 projects	20.9 months	5.7 months	31.3 months
<b>Overall</b>	<b>69 projects</b>	<b>20.2 months</b>	<b>5.5 months</b>	<b>22.3 months</b>

## AVERAGE PROJECT DURATION FOR ARCHITECTURAL PROJECTS





# PROJECT TIMELINE VS. CONTROL



# TODAY WE DISCUSSED

Capital  
Project  
Delivery

Public Project  
Delivery  
Approach

Project  
Delivery  
Methods

Quality,  
Schedule,  
and Budget

# DISCUSSION