SE BEND SEPTIC TO SEWER

ADVISORY COMMITTEE MEETING

THURSDAY, MARCH 1, 2018

WELCOME & INTRODUCTIONS

AGENDA

- Preliminary Project Cost Estimate
- Sewer System Financial Considerations
- Septic to Sewer Financial Scenarios
- *Dinner Break!*
- Committee Discussion
- Public Comment
- Look Ahead: *April 12 – Project Costs and Financing – Part 2*

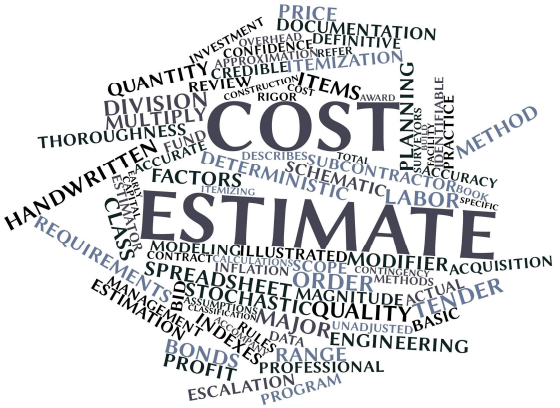
  (Bend City Council Chambers)

PRELIMINARY PROJECT COST ESTIMATE

ENGINEERING AND COST ESTIMATE UPDATE

- AACE Cost Estimate Refresher
- Engineering Update
- Cost Estimates
  - Public Project Class IV Estimate
  - Private Improvement Costs – Home to Connection
  - Septic Sewer Costs Refresher
  - “No Action” Estimate Discussion

COST ESTIMATING 101

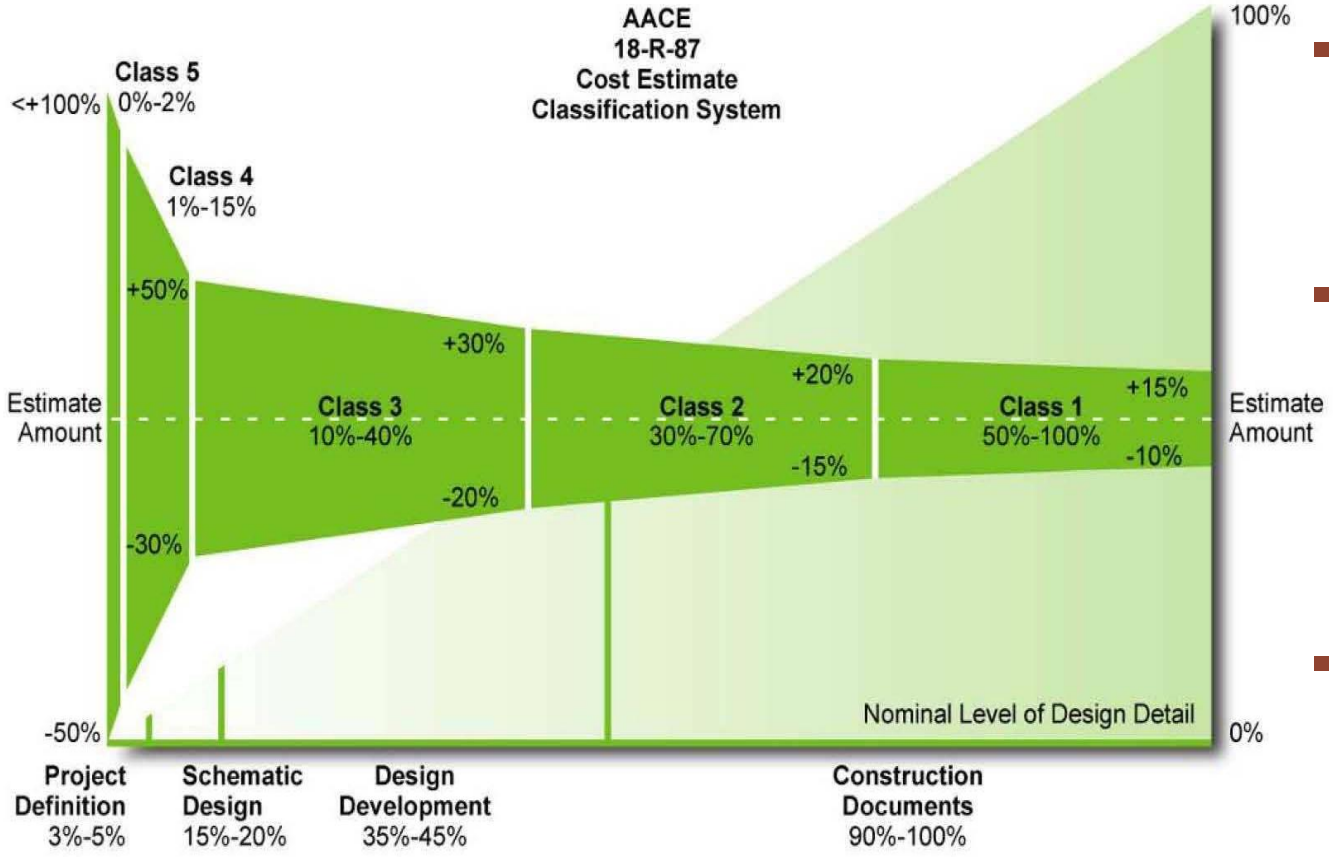


COST ESTIMATE CLASSIFICATIONS

Association for the Advancement of Cost Engineering International (AACE) Standards

Estimate Class	Purpose	Project Definition Level	Cost Est. Range
Class 5	Concept or Feasibility	0% to 2%	+100% / -50%
Class 4	Preliminary Engineering	1% to 15%	+50% / -30%
Class 3	Semi-Detailed (30% - 60% Design)	10% to 40%	+30% / -20%
Class 2	Detailed (60% - 90% Design)	30% to 70%	+20% / -15%
Class 1	Final (100% Design)	50% to 100%	+15% / -10%

THE AACE COST CURVE



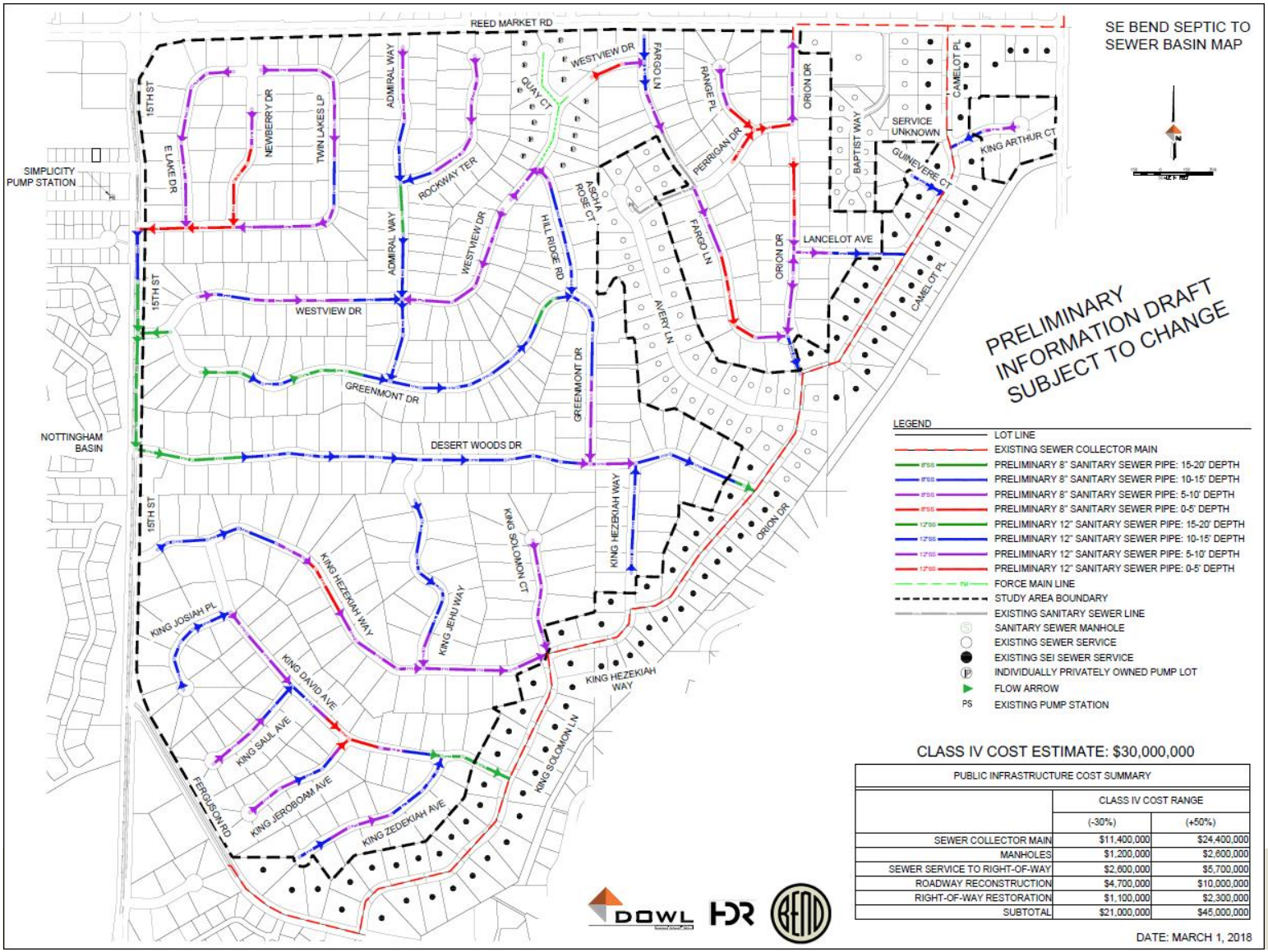
- Class level estimates are tied to the amount of known information
- The variance is different for every project and is typically related to the project complexity
- The timeline of the project also influences cost estimates

Alternatives Analysis

- Topographic Survey
- Preferred Alternative Analysis
- Cost Estimation
- Preliminary Engineering Report in process
- Environmental Documentation

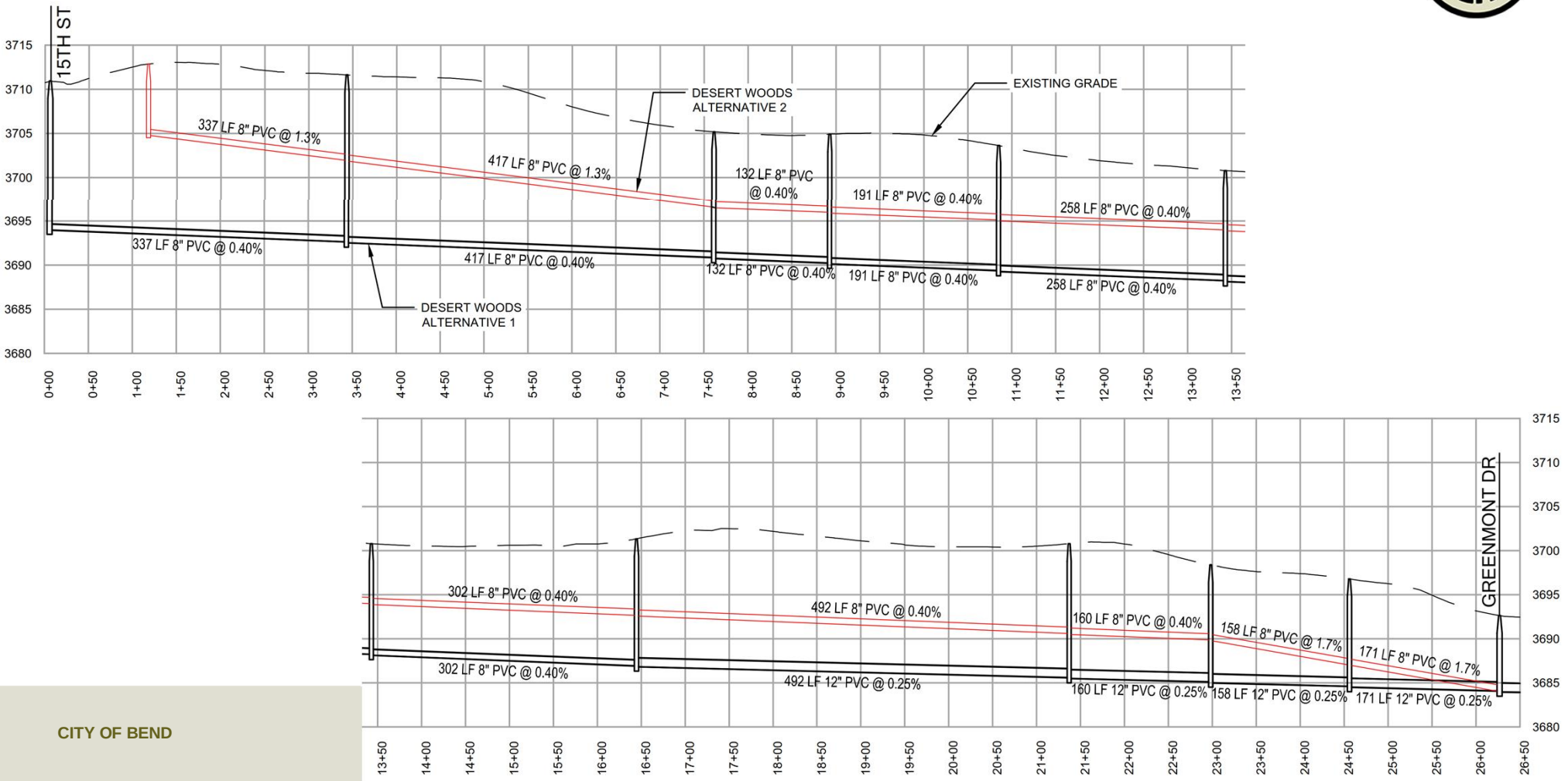
Alternative Analysis Considerations

- Number of households served by gravity
- Easements along private property
- Existing and Proposed Pump station needs
- Operation and maintenance
- Utility conflicts
- Cost
- Identified Collection System Master Plan projects
- Street classification



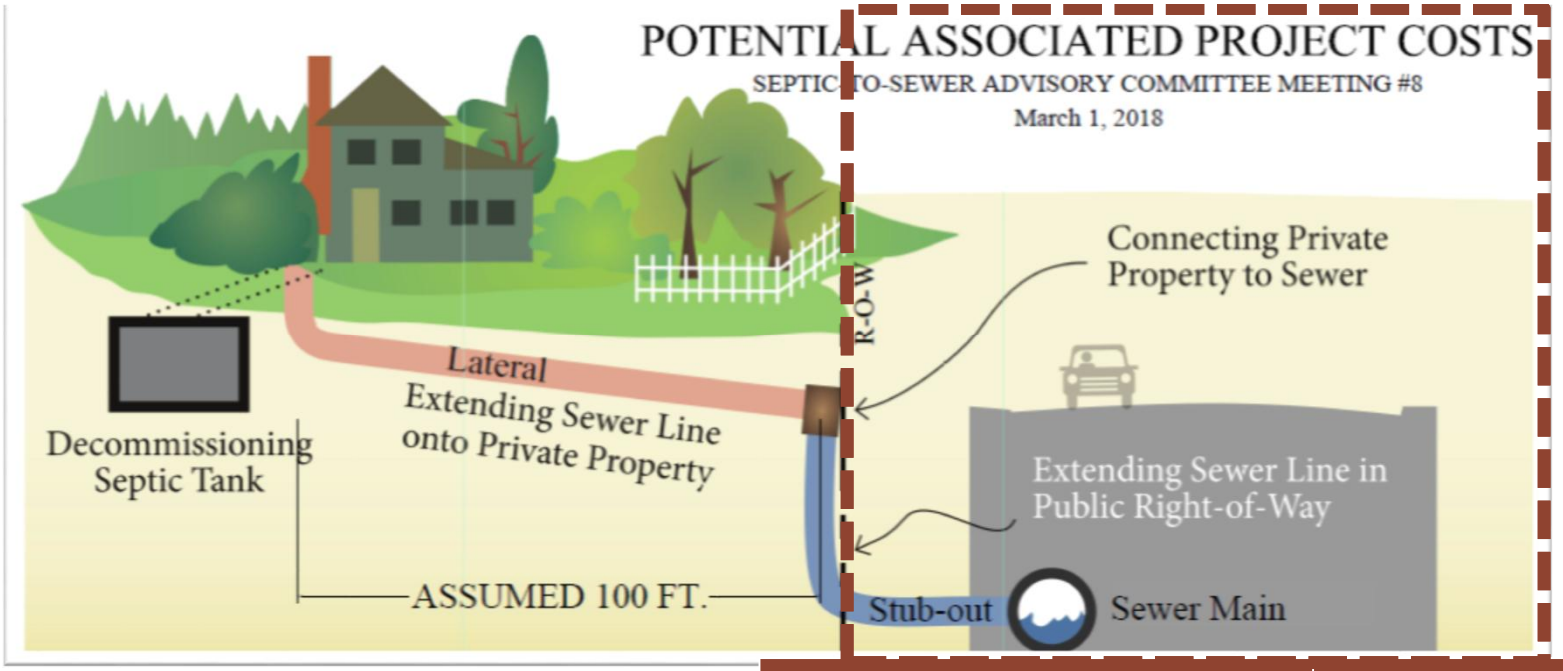
- Sewer collector main = +/- 35,000 Ft.
- Manholes
- Sewer service from collector main to right-of-way
- Road reconstruction
- Right-of-way restoration

DESERT WOODS – NOTTINGHAM CONNECTION



COST ESTIMATES

- Public Project Class IV Estimate
- Private Improvement Costs from Home to Connection
- Septic System Replacement Costs
- “No Action” Estimate Discussion

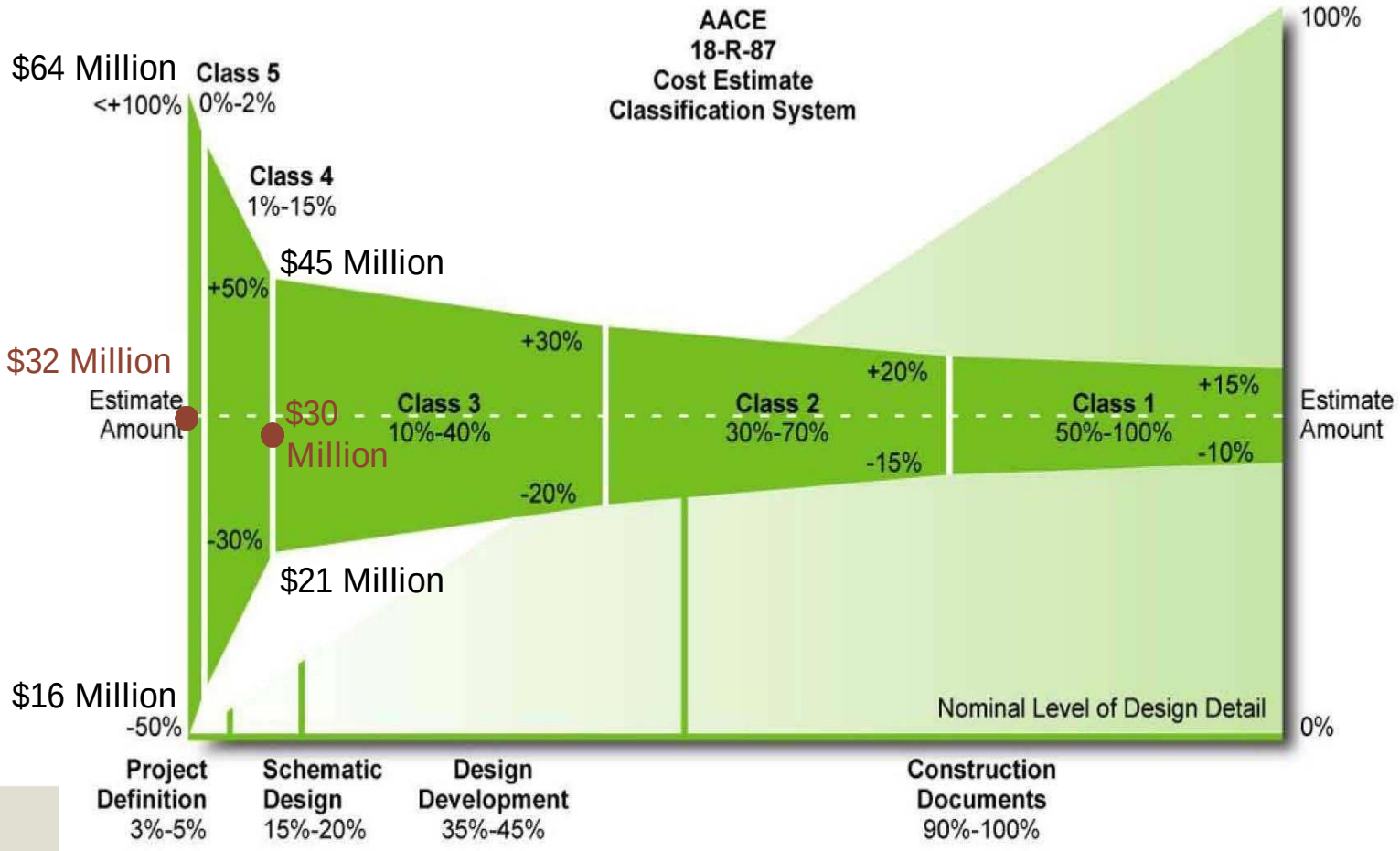


CLASS IV COST ESTIMATE = $30 Million

INFORMATION DRAFT – SUBJECT TO CHANGE

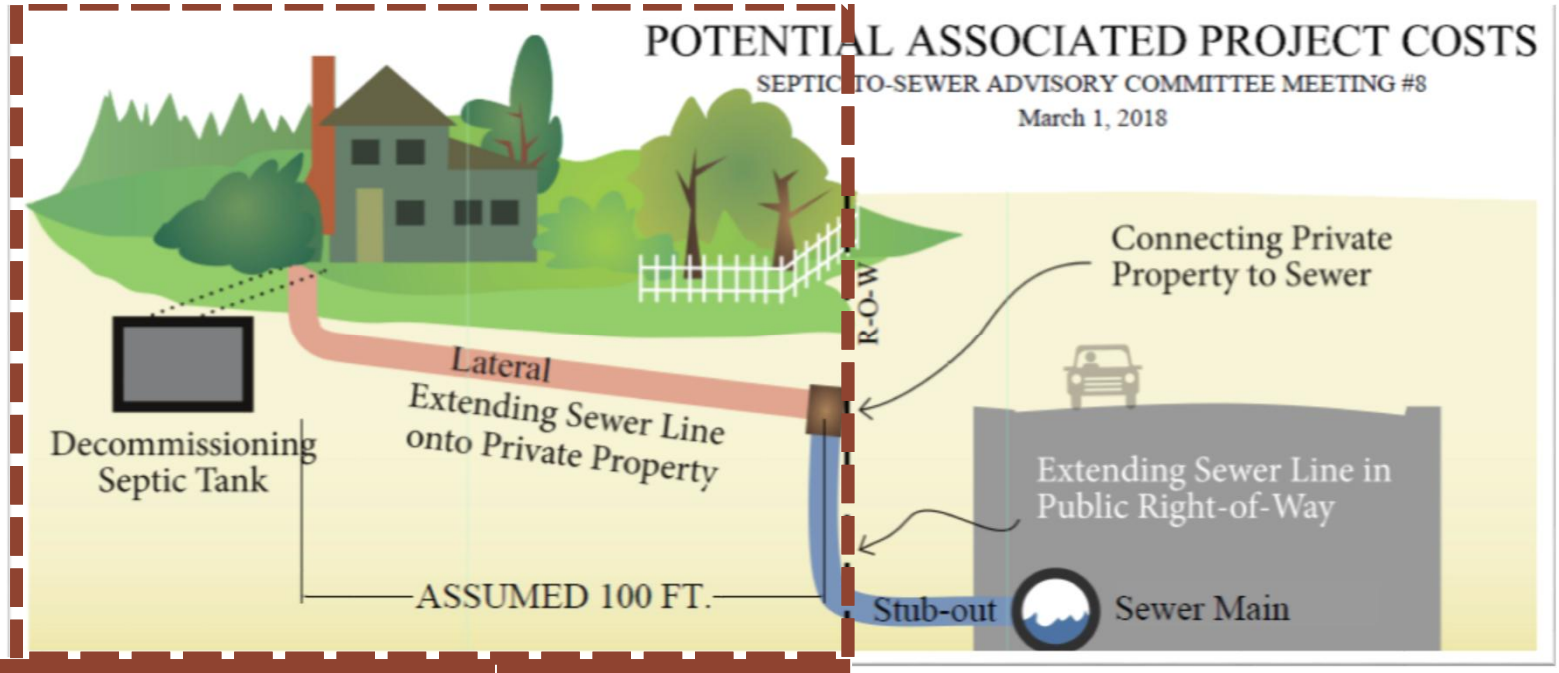
Public Right of Way	Approximate Range	
Sewer Main	$11,400,000	$24,400,000
Manholes	$1,200,000	$2,600,000
Sewer Stub-out to Right of Way	$2,600,000	$5,700,000
Roadway Reconstruction	$4,700,000	$10,000,000
Right of Way Restoration	$1,100,000	$2,300,000
Class IV Sub-total	$21,000,000	$45,000,000

THE AACE COST CURVE – SEPTIC SOLUTIONS



What drives private property cost?

- Septic tank decommission
- Sewer lateral from house to the right-of-way
- Additional plumbing upgrades
- Pump (where required)
- System development charges (SDCs)
- Permitting fees



Private Property	Approximate Range	
Septic Tank Decommission	$1,200	$2,400
New Service Lateral to Right of Way	$3,200	$10,000
Additional Pumping Upgrades	$1,500	$3,000
2017/18 System Development Charges	$4,655	$4,655
2017/18 City/County Permitting	$190	$465
Sub-total	$10,745	$20,520
Pump (where required)	$6,000	$10,000

INFORMATION DRAFT – SUBJECT TO CHANGE

Approximate costs obtained through interviews with several local contractors with experience in this type of construction

ESTIMATED SEPTIC SYSTEM REPLACEMENT COSTS

SUMMARY		
System Installation	Standard Septic	$5,500 - $6,500
	Cap and Fill	$9,500 - $10,500
	Sand Filter/ATT	$15,000 - $20,000
	Pressure (Add'l)	$2,800 - $3,500
System Repair	Tank replacement	$3,800 - $4,200
	Drill Hole Decommission	+/- $5,000
Ongoing Maintenance	Pump-Out (2-5 years)	$300

Approximate costs obtained through interviews with several local contractors with experience in this type of construction

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"NO-ACTION" OPTION – NO CITY COORDINATION

Wide Range of Potential Sewer Installation Costs without City Coordination

- Homeowner Scenario #1
  - 300 linear feet of 8"-12" sewer (20' depth)
    - Cost/LF range (non-prevailing wage rates)
      - $380/LF - $810/LF

$114,000 - $243,000 est. cost range

- Homeowner Scenario #2
  - 100 linear feet of 8" sewer (10' depth)
    - Cost/LF range (non-prevailing wage rates)
      - $280/LF - $600/LF

$28,000 - $60,000 est. cost range

Note: These are conceptual scenarios which could happen within the study area. Scenarios shown to convey the potential inequities of the "No-Action" Option ONLY.

COMMITTEE Q&A

SEWER RATEMAKING PROCESS

Bend's Sewer Ratemaking Process

Projects + O & M + Debt %

2023
2022
2021
2020
2019

2018 - $55/month (approx.)

Bend's Sewer Ratemaking Process

Bend Sewer System – Capital Projects (through 2037)

	Estimate ($ millions)
Collection System Enhancements	$63.9m
Collection System Rehab	13.5
Area Sewer Improvements	25.2
North Interceptor	23.0
Plant Interceptor	10.7
East Interceptor	30.0
WRF Treatment Expansion & Updates	23.7
Pump Stations (Drake, Riverhouse, other)	3.8
Assessment, Planning, Communications	10.4
Repair & Replacement	29.8

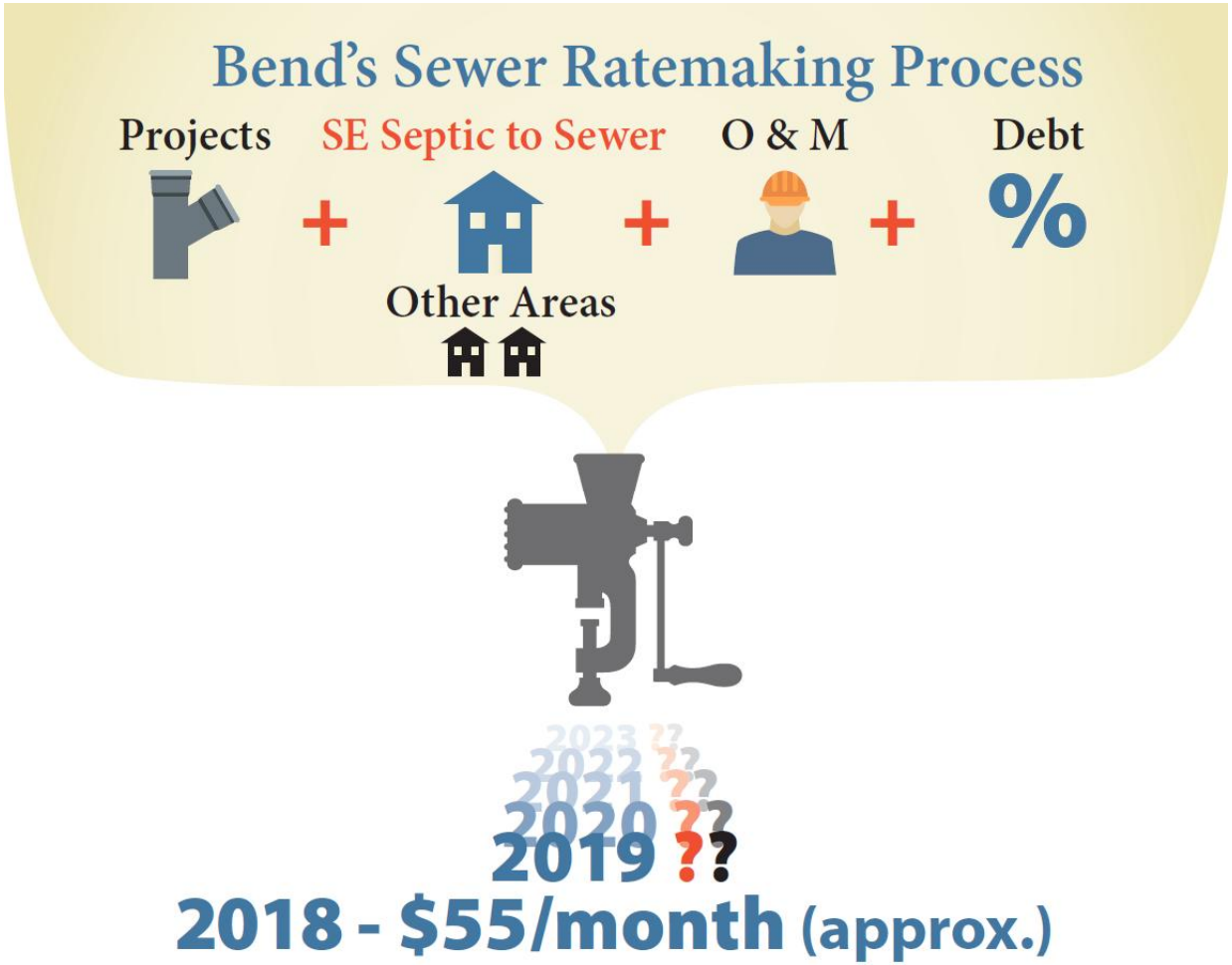
* Project cost estimates in 2018 dollars

Bend's Sewer Ratemaking Process

Projects + SE Septic to Sewer + O & M + Debt %

2023 ?
2022 ?
2021 ?
2020 ?
2019 ?

2018 - $55/month (approx.)


Bend's Sewer Ratemaking Process
Projects
SE Septic to Sewer
O & M
Debt
%
Other Areas
2023 ??
2022 ??
2021 ??
2020 ??
2019 ??
2018 - $55/month (approx.)

COMMITTEE Q&A

SEPTIC TO SEWER FINANCIAL SCENARIOS

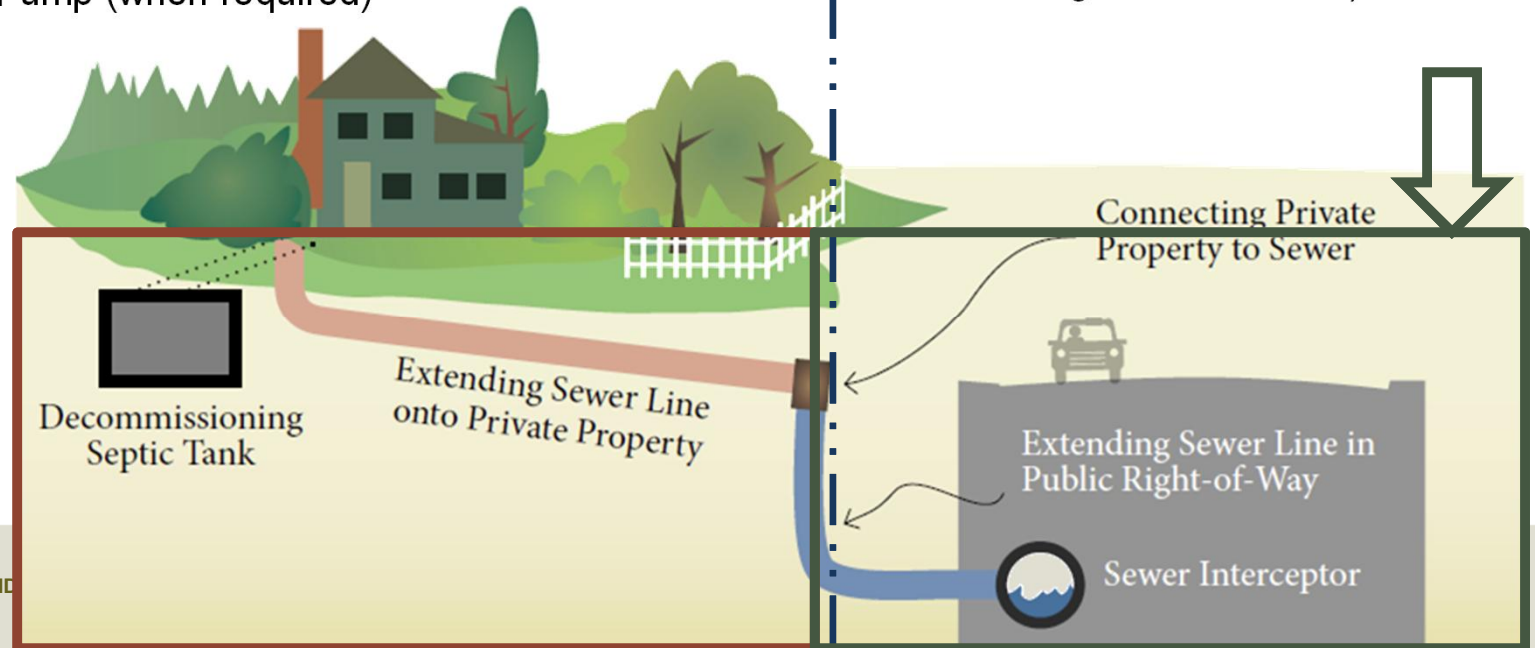
PROJECT COSTS

Private Property Costs

- Septic tank decommission
- New service lateral to the right-of-way
- Additional plumbing upgrades, as needed
- System development charges (SDCs)
- Permitting
- Pump (when required)

Public Costs

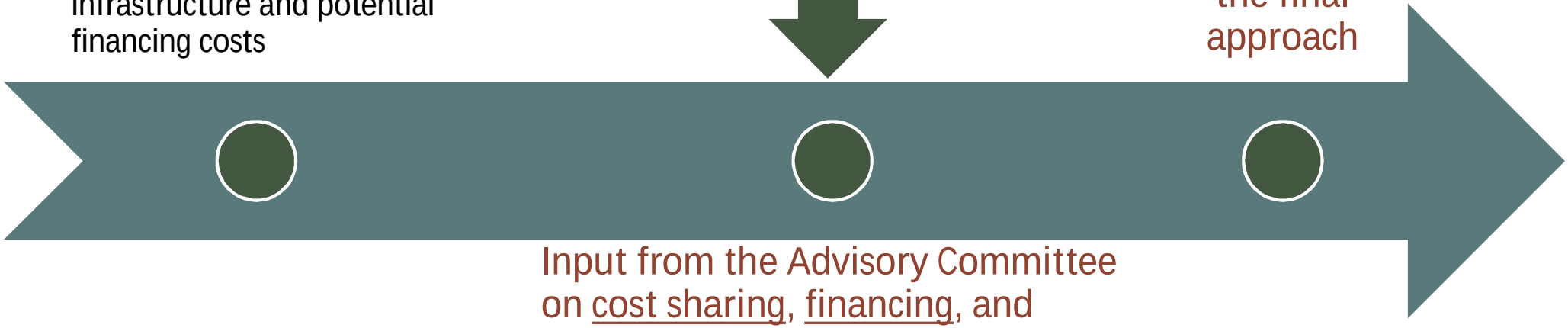
- Sewer main
- Manholes
- Sewer laterals to the right-of-way
- Road reconstruction
- Right of way restoration (landscaping and gravel shoulders)



FINANCIAL APPROACH MODEL

Financing model evaluates the cost allocations

- Based upon project cost, rate model, and funding approach
- Only for the public infrastructure and potential financing costs



Input from the Advisory Committee on cost sharing, financing, and incentives for this, considering other un-sewered areas and city-wide rate payers

- Provide Recommendations to City Council Summer 2018

City Council determines the final approach

FINANCIAL MODEL APPROACH

Key assumptions

- Project cost of $32 million used for financial modeling
  - Current Class IV cost estimate is $30 million
  - Based upon designs as of February 1, 2018
- City borrows for the total project cost
  - Model Assumptions
    - Financing Terms could be 20 year term at 5% interest
- Project is funded by City and affected customers fund the remaining amount

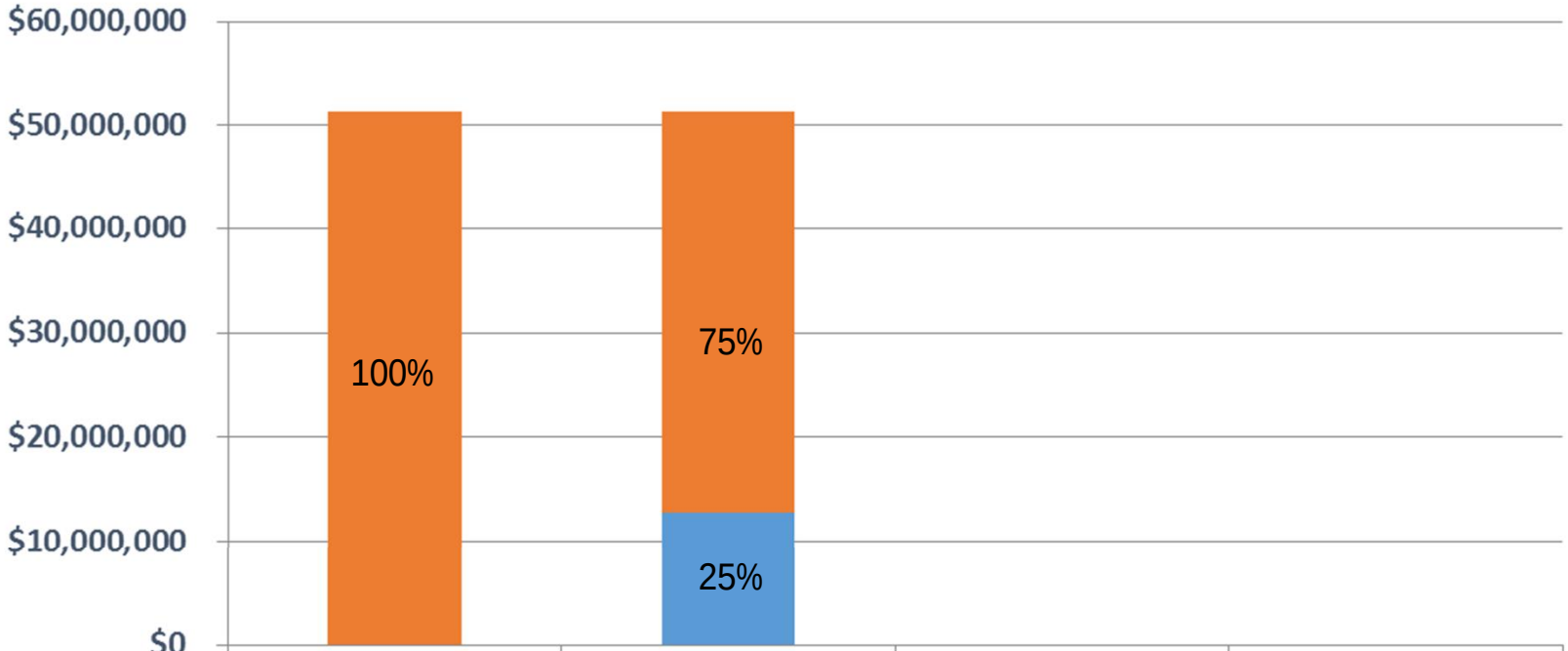
Developed 4 high-level alternatives for review with the committee based on different levels of City participation

- 0% City participation
- 25% City participation
- 33% City participation
- 50% City participation

City of Bend - Septic-to-Sewer Study ($32 million estimate)

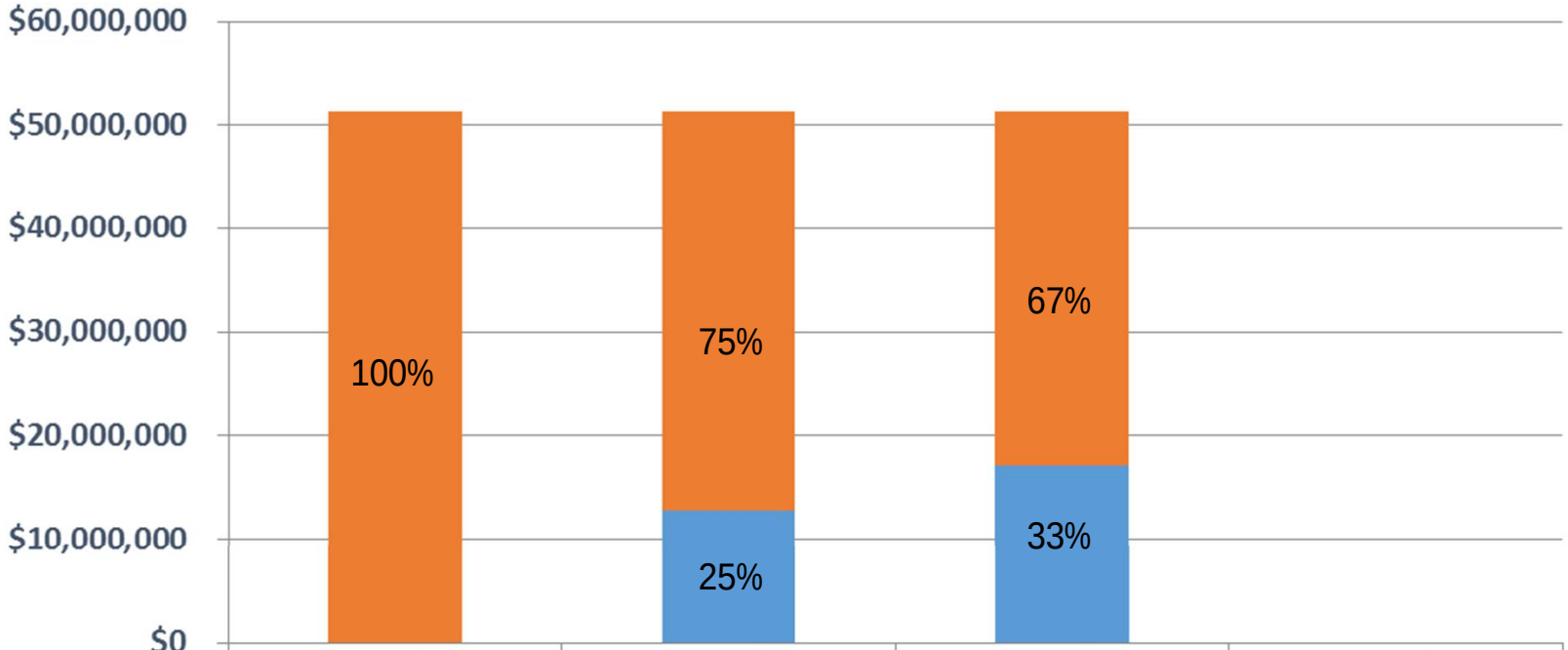
	Scenario 1	Scenario 2	Scenario 3	Scenario 4
Total Customer Contribution - Public	$51,355,256	$0	$0	$0
Total City Contribution	$0	$0	$0	$0
Burdened Construction Cost	$51,355,256	$0	$0	$0

City of Bend - Septic-to-Sewer Study ($32 million estimate)



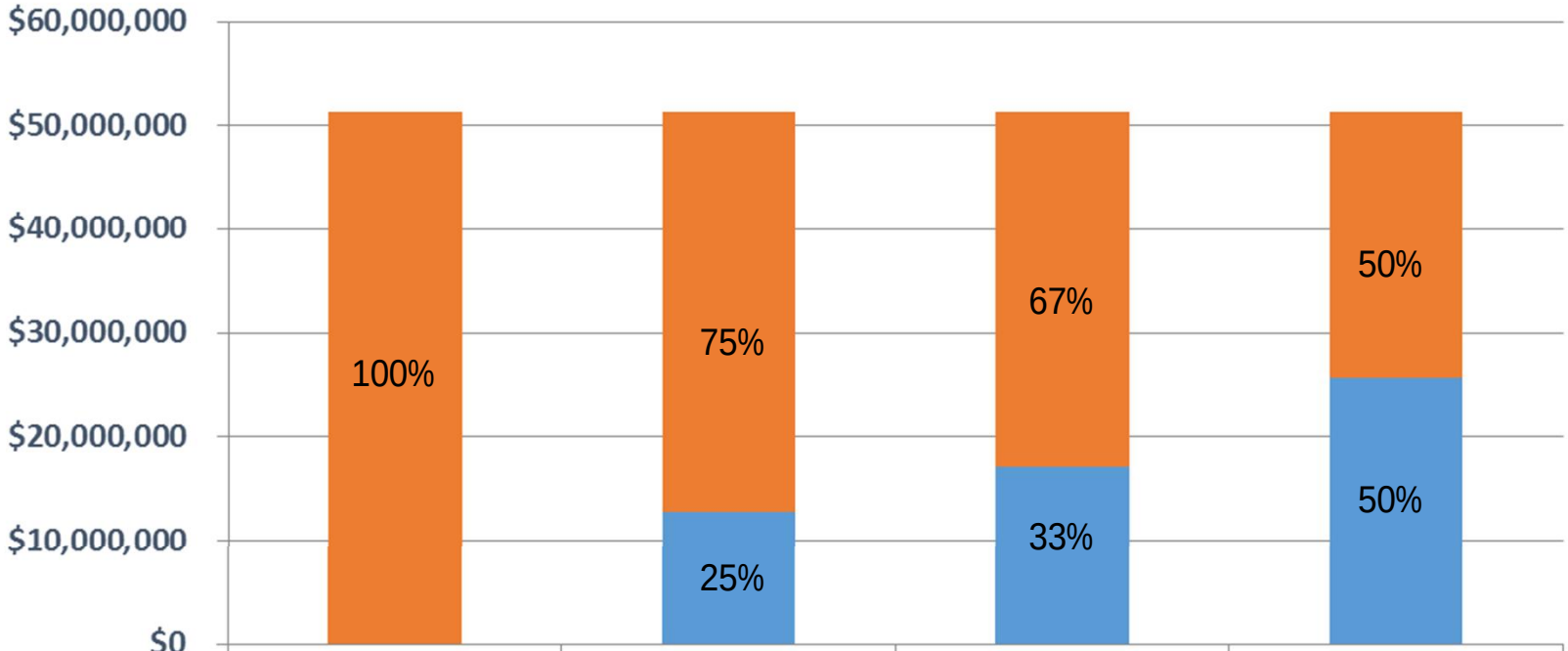
	Scenario 1	Scenario 2	Scenario 3	Scenario 4
Total Customer Contribution - Public	$51,355,256	$38,516,442	$0	$0
Total City Contribution	$0	$12,838,814	$0	$0
Burdened Construction Cost	$51,355,256	$51,355,256	$0	$0

City of Bend - Septic-to-Sewer Study ($32 million estimate)



	Scenario 1	Scenario 2	Scenario 3	Scenario 4
Total Customer Contribution - Public	$51,355,256	$38,516,442	$34,233,414	$0
Total City Contribution	$0	$12,838,814	$17,121,842	$0
Burdened Construction Cost	$51,355,256	$51,355,256	$51,355,256	$0

City of Bend - Septic-to-Sewer Study ($32 million estimate)



	Scenario 1	Scenario 2	Scenario 3	Scenario 4
Total Customer Contribution - Public	$51,355,256	$38,516,442	$34,233,414	$25,677,628
Total City Contribution	$0	$12,838,814	$17,121,842	$25,677,628
Burdened Construction Cost	$51,355,256	$51,355,256	$51,355,256	$51,355,256

SUMMARY OF THE FINANCIAL SCENARIOS

- Impact to customers will vary depending on the level of City participation
  - City Council will determine the final level of participation based, in part, on this committee's recommendation
- Final financial scenarios will need to include customer incentives and any affordability impacts/assumptions
  - Plus customer private costs
- Focus is on overall project financing and how the City will proceed with remaining unsewered areas

COMMITTEE Q&A

DINNER BREAK!

COMMITTEE DISCUSSION

– SHARE YOUR IDEAS!

PEER COMMUNITIES

	Program	Facilities Sources	Program Elements
SPOKANE COUNTY	Septic Tank Elimination Program (STEP) for unsewered areas County policy discourages septic tank installation *Later:* streamlined program administration	*Initial:* LIDs, SDCs, monthly rates, grants, sales tax revenues *Later:* low interest loans and revenue bonds repaid by rates and SDCs	Customers allowed to pay one-time costs over 20 years Interest-free loans for those who pay in 24 months Financing opportunity ended at program sunset
MULTNOMAH COUNTY	Oregon Environmental Quality Commission mandated sewers Septic systems prohibited for new development Extensive public outreach included program site office	*Initial:* LIDs *Later:* SDCs, connection charges, monthly rates	Financial incentives for timely hook up Reduced one-time charges Safety net program
WENATCHEE	City extending sewers to unincorporated Sunnyslope community Sewers required for new development Connection voluntary unless septic system fails	Revenue bonds repaid by rates Citywide Local Facilities Charge (LFC) Sunnyslope Area Fee	30% discount for properties that hook up in 2 years

FOCUS GROUP FORMULA (AUGUST 2017)

- ✓ Property owner costs/responsibilities known
- ✓ Schedule/phasing known

- ✓ Costs
  - Affordable for property owners
  - Forgiveness of some fees and charges: SDCs, permit fees, etc.
  - Costs shared with City of Bend/sewer utility
  - Property owner's share financed over time
  - Low impact on sewer ratepayers

- ✓ Property owners given choices:
  - Timing for sewer installation
  - Financing method
  - Alignment of sewer line on property
  - Selection of contractor

- ✓ Permanent solution to problem
- ✓ Go-to place to find accurate, up-to-date information

ADVISORY COMMITTEE VALUES

- Timely solutions (finished within 10 years)
- Solutions property owners understand and support
- Durable solutions: good for 50-100 years
- Equitable, fair, affordable
- Financially feasible
- Shared responsibility
- Reasonable, practical
- Replicable

COMMITTEE DISCUSSION

– YOUR QUESTIONS FOR THE CITY?

COMMITTEE DISCUSSION

PUBLIC COMMENT

- 10 minutes
- Time divided among speakers
- Comment cards available

UPCOMING ADVISORY COMMITTEE MEETINGS

Thursday, April 12

Project Costs and Financing – Part 2

Thursday, May 10

Topic TBD

THANK YOU