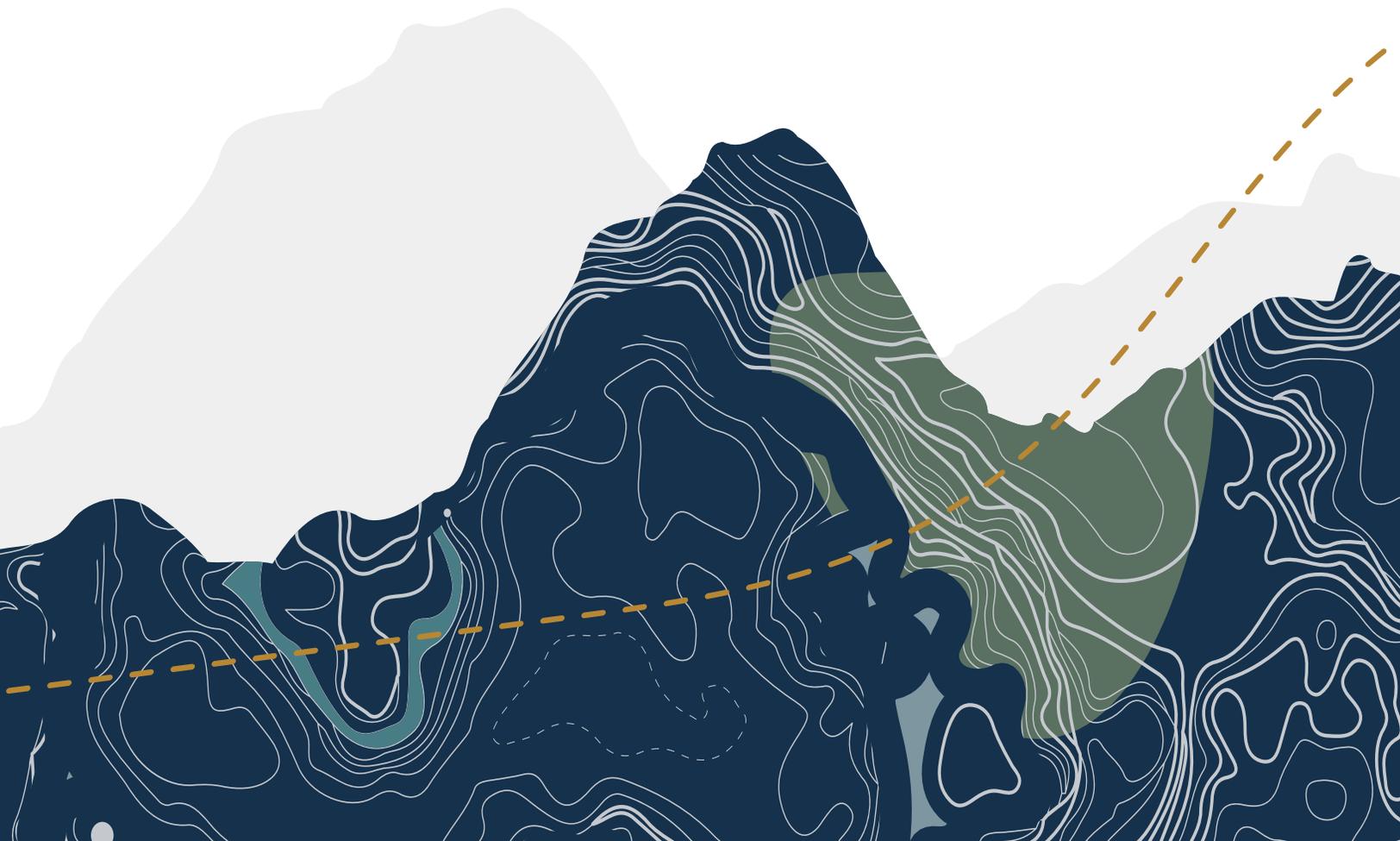

Right-Sized Requests

*Best Practices for Writing Infrastructure Planning
RFPs for Gateway Communities*

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A common requirement of improving water infrastructure involves a preliminary engineering study that defines the infrastructure improvements that will be needed to accommodate existing and future populations. Recently, these studies are taking on an increasingly comprehensive “integrated planning” approach, which broadens the scope to include affordability, infrastructure equity analyses, and wholistic engineering solutions.

Usually, integrated plans and engineering studies are conducted by an engineering consultant who submitted a response to a community’s “request for proposals”, or RFP, where an engineering firm highlights how their services and expertise are able to meet the proposal’s requirements. The community then determines the most qualified engineering firm for the job, and collaborates with them to accomplish the task in question.

Generally, community RFPs are for projects that seek to do the following (in order of priority):

- 1. Evaluate, define, and quantify infrastructure capacity and condition and affordability and infrastructure equity challenges.**
- 2. Plan, project, and estimate the impact on infrastructure and inequities by population growth and increased tourism.**
- 3. Quantify, prioritize, and optimize the cost, effort, and schedule of improvements for present and future conditions.**

Right-Sized Requests: RFP Best Practices

To accomplish these goals, costs can vary widely based on quantity and quality of information required or desired by a community. This is why an adaptable and tiered scope of services is preferable, and what this guide hopes to provide to community leaders drafting RFPs.

To visualize the range of infrastructure planning services available to communities and their general cost, let's use an Olympic analogy for a three-tiered system: **Bronze**, **silver**, or **gold**.

Bronze services will represent the minimum requirements to get the information needed to make better-informed infrastructure planning decisions. **Silver** and **Gold** services will add to the bronze and/or silver levels to highlight more comprehensive service options. Knowing what services are available will allow communities to determine if the additional effort or cost is worth it, or, if future studies should be pursued when more funding is available or attainable.

Bronze, **silver**, or **gold** text color for each "service level" is depicted for each of the primary categories of infrastructure planning listed below:

- 1. Population Growth and Community Planning**
- 2. Data Acquisition and Infrastructure Inventory and Assessment**
- 3. Infrastructure Alternatives Analysis and Recommendation**
- 4. Cost Estimating, Phasing, and Funding Support**

1. Population Growth and Community Planning: Existing Population and Tourism Study

Description	Bronze	Silver	Gold
Evaluation of historical population trends and current census data.	✓	✓	✓
Evaluation of potential service populations – including industrial and commercial users.	✓	✓	✓
Evaluation of tourism and visitation trends to include projected growth from industry studies.	✓	✓	✓
In-depth analysis of historical and current infrastructure use trends and potential areas of growth.		✓	✓
In-depth analysis of historical and current population and tourism impacts on infrastructure.		✓	✓
High quality visualizations and conceptual modeling of current and future service populations.			✓
High quality visualization of historical population and visitation impacts and trends.			✓

Population and Economic Growth Trends Study

Evaluation of future population, economic, and tourism growth.	✓	✓	✓
In-depth analysis of future population, economic, and tourism growth based on regional or other insights.		✓	✓
High quality visualization and conceptual modeling of future population, economic, and tourism trends.			✓

Affordability and Infrastructure Equity

Evaluation of baseline socioeconomic, affordability, and demographic data.	✓	✓	✓
Baseline affordability assessment and qualitative analyses of potential infrastructure equity challenges.	✓	✓	✓
Evaluation of affordability and equity issues resulting from infrastructure impacts and growth.	✓	✓	✓
In-depth localized evaluation of socioeconomic, affordability, and demographic baselines.		✓	✓
In-depth affordability assessment with more comprehensive qualitative and quantitative equity analyses.		✓	✓
In-depth assessment of affordability and equity infrastructure impacts from tourism growth, etc.		✓	✓
Community surveys and reports to build a more comprehensive affordability and equity landscape.			✓

Design Criteria Workshop

One or two-day workshop with community staff to define existing and future population and growth data, affordability and equity challenges, and planning for infrastructure design alternatives	✓	✓	✓
Multiple coordinated public comment periods for input on existing and future population and growth data, affordability and equity challenges, and planning for infrastructure design alternatives.		✓	✓
Development and hosting of online platform and campaign to gather public feedback for input on existing and future population and growth data, affordability and equity, and planning for infrastructure design alternatives.			✓

2. Data Acquisition and Infrastructure Inventory: Existing Infrastructure Inventory

Description	Bronze	Silver	Gold
Collect and compile existing infrastructure record drawings, manuals, repair records, etc.	✓	✓	✓
Collect and document existing infrastructure capacity and condition.	✓	✓	✓
Construct a GIS database for infrastructure assets, capacity, and condition reporting.		✓	✓
Creation of public online web map for visualization of existing infrastructure capacity and condition			✓

Existing Service Data

Collection, compilation, and evaluation of existing infrastructure service use data.	✓	✓	✓
Comprehensive analysis of infrastructure use data to inform peak usage, performance, etc.		✓	✓
Comprehensive analysis of infrastructure data to inform prioritized risk analysis and inventory.			✓

Regulatory Evaluation

Evaluation of current and foreseen infrastructure standards, regulation, and requirements.	✓	✓	✓
Comparison of shifts in regulations, standards, requirements, impacts, and solutions on a regional level.		✓	✓
Evaluation and prioritization of potential regulations, solutions, or variance approaches.			✓

Data & Design Criteria Workshop

One or two-day workshop with key community staff to review key infrastructure evaluation findings and data gaps. Collaboration with staff to prioritize key areas of concern and define preliminary design criteria.	✓	✓	✓
Multiple coordinated public comment periods for input on preliminary design criteria, existing infrastructure issues, and prioritization of issues.		✓	✓
Development and hosting of an online platform and campaign to gather public feedback for preliminary design criteria and prioritization of infrastructure issues.			✓

3. Infrastructure Assessment and Alternatives Analysis

3. Infrastructure Condition Assessment and Capacity Evaluation

Description	Bronze	Silver	Gold
Planning-level condition and capacity assessment of drinking water and wastewater infrastructure.	✓	✓	✓
Expansion of planning-level analysis to include condition assessment and capacity risk prioritization.		✓	✓
Comprehensive modeling of water infrastructure to provide highly detailed asset inventory, condition assessment inventory, and capacity evaluation to include consequence and likelihood of failure.			✓

Alternative Analysis Development

Approximate 10%-design-level and analysis of primary design alternatives that inform highest priority infrastructure solutions and provide recommendations for asset management and condition assessment. Alternative analysis accounts for affordability and equity challenges based on broad analysis findings.	✓	✓	✓
Approximate 20%-design-level and analysis of all design alternatives that inform all infrastructure solutions and provide recommendations for asset management and condition assessment programs. Alternative analysis accounts for affordability and equity challenges based on detailed analysis findings.		✓	✓
Approximate 30%-design-level and analysis of all design alternatives to include optimization and design sizing modeling to inform solutions for all infrastructure issues. Additional provision of asset management inventory and condition assessment program. Incorporation of preliminary cost and schedule metrics to inform design optimization. Alternative analysis accounts for affordability and equity challenges based on highly detailed analysis findings.			✓

Alternative Analysis Workshop

Development and coordination of a one or two-day workshop with community staff to define alternatives analysis criteria and weighting.	✓	✓	✓
Coordination of public input for alternatives analysis criteria and weighting. Written summary of alternatives analysis process and findings for public distribution.		✓	✓
Development and hosting of online platform and campaign to gather public feedback for input on alternatives analysis criteria. Incorporation of planning-level economic criteria into alternatives analysis to inform a second workshop where economic and equity analysis is incorporated.			✓

4. Cost Estimating, Phasing, and Funding Support: Cost Estimation

Description	Bronze	Silver	Gold
Planning-level cost estimation of elected alternatives. Estimate error of -50% to 100%.	✓	✓	✓
More comprehensive cost estimation of elected alternatives. Estimate error of -30% to 60%.		✓	✓
Schematic design cost estimation that requires 30%-level design. Estimate error of -20% to 20%.			✓

Phasing Schedule

Planning-level scheduling of elected design alternatives	✓	✓	✓
More comprehensive scheduling to incorporate local metrics for funding, permitting, etc.		✓	✓
Comprehensive scheduling of construction tasks that requires 30%-level design. Incorporates high level of logistic detail, incorporation of local data, and affordability analysis.			✓

Funding Support

Planning-level support for project funding options to include fund-specific report formatting and list of available funding platforms and resources	✓	✓	✓
More comprehensive funding support to include development and submission support for local funding applications.		✓	✓
More comprehensive funding support to include funding application definition, development, and submission for local, regional, and national funding options. Development of additional deliverables to meet application criteria.			✓