

# Qualifications-Based Selection (QBS)



# ACEC

The *American Council of Engineering Companies* is the business voice of America's engineering industry.

51 state and regional Member Organizations

Advocating for policies at the federal, state, and local level that promote economic growth and improve the quality of life for every American.

We represent nearly 6,000 firms employing more than 600,000 engineers, architects, land surveyors, highly trained specialists, and licensed professionals who design and improve our world.



# ACEC Nevada

In Nevada we represent 41 Member Firms - 1,995 engineers, land surveyors, geologists, LSPs, planners, scientists, architects, landscape architects, related design professionals, & staff

We partner with Public Agencies to Improve Project Delivery.

ACEC's primary tools are advocacy, education, and research.

# What is QBS?

**A procedure for selecting and retaining design professionals (Engineers, Land Surveyors and Architects).**



**A competitive procurement approach that emphasizes quality and value.**



**Scope and fee discussions occur after the initial selection is made.**



# What is QBS?

- The Brooks Act (Public Law 92-582), enacted in 1972, requires the U.S. Federal Government to use QBS in its selection of engineering and architecture firms for public projects.
- The use of QBS ensures that the procurement process engages the most experienced and most qualified firms at a fair and reasonable price.
- QBS is used by all federal agencies, along with 46 state governments and many localities around the country (mini 'Brooks Acts').

# QBS: The Process

## Classical QBS Process

**1**

Request for  
Qualifications  
(RFQ)

**2**

Shortlist the  
best qualified  
respondents

**3**

Rank and  
select the  
most qualified

**4**

Create specific  
Scope of Work  
(SOW)

**5**

Negotiate  
SOW and fees

# QBS is endorsed by:



American Public Works Association



AMERICAN COUNCIL OF ENGINEERING COMPANIES



**AGC**

THE CONSTRUCTION  
ASSOCIATION



American Institute  
of Architects



AMERICAN SOCIETY OF CIVIL ENGINEERS

**COFPAES**

Council on Federal Procurement of  
Architectural and Engineering Services



NATIONAL  
SOCIETY OF  
PROFESSIONAL  
ENGINEERS



**NSPS**

National Society of  
Professional Surveyors

# Benefits of QBS

- QBS outperforms national average project performance for:
  - Cost Growth (3% vs 6%)
  - Schedule Growth (7% vs 10%)
  - This is true for all projects but especially true for complex projects
- QBS projects had a greater degree of consistency in successful project outcomes
- QBS leads to increased innovation

# Professional A/E Services

- Constitute about 1% of *total* life cycle cost
- Are creative by nature
- Require critical thinking skills, intellectual effort
- Involve investigation, analysis and research
- Previous experience is highly beneficial
- Are not a “tangible commodity”

These are not “bid” items and have a significant impact on construction costs as well as operations & maintenance over the lifetime of the facility

# Benefits of QBS

“The public interest is best served when government agencies select engineers, architects and related professional services and technical consultants for projects and studies through QBS.”

– *Marty Manning,*

*President American Public Works Association*

# QBS in Nevada

## NRS 625.530 Restrictions upon public works; preferences for contracts.

**NRS 625.530 Restrictions upon public works; preferences for contracts.** Except as otherwise provided in [NRS 338.1711](#) to [338.173](#), inclusive, and [408.3875](#) to [408.3888](#), inclusive:

1. The State of Nevada or any of its political subdivisions, including a county, city or town, shall not engage in any public work requiring the practice of professional engineering or land surveying, unless the maps, plans, specifications, reports and estimates have been prepared by, and the work executed under the supervision of, a professional engineer, professional land surveyor or registered architect.

2. The provisions of this section do not:

(a) Apply to any public work wherein the expenditure for the complete project of which the work is a part does not exceed \$35,000.

(b) Include any maintenance work undertaken by the State of Nevada or its political subdivisions.

(c) Authorize a professional engineer, registered architect or professional land surveyor to practice in violation of any of the provisions of this chapter or [chapter 623](#) of NRS.

(d) Require the services of an architect registered pursuant to the provisions of [chapter 623](#) of NRS for the erection of buildings or structures manufactured in an industrial plant, if those buildings or structures meet the requirements of local building codes of the jurisdiction in which they are being erected.

3. The selection of a professional engineer, professional land surveyor or registered architect to perform services pursuant to subsection 1 must be made on the basis of the competence and qualifications of the engineer, land surveyor or architect for the type of services to be performed and not on the basis of competitive fees. If, after selection of the engineer, land surveyor or architect, an agreement upon a fair and reasonable fee cannot be reached with him or her, the public agency may terminate negotiations and select another engineer, land surveyor or architect. Except as otherwise provided in this subsection, in assigning the relative weight to each factor for selecting a professional engineer, professional land surveyor or registered architect pursuant to this subsection, the public agency shall assign, without limitation, a relative weight of 5 percent to the possession of a certificate of eligibility to receive a preference when competing for public works. If any federal statute or regulation precludes the granting of federal assistance or reduces the amount of that assistance for a particular public work because of the provisions of this subsection relating to a preference when competing for public works, those provisions of this subsection do not apply insofar as their application would preclude or reduce federal assistance for that public work.

[12a:198:1919; added [1947, 797](#); A [1949, 639](#); 1943 NCL § 2875.06a]—(NRS A [1967, 953](#); [1971, 774](#); [1973, 1700](#); [1975, 208](#); [1977, 320](#); [1983, 807](#); [1989, 788](#); [1997, 1055](#); [1999, 3489](#); [2001, 2022](#); [2003, 119](#); [2011, 3707](#))

**Public works involving engineering services must be done under PE/PLS**

**Exceptions**

**Special Considerations**

**QBS**



# QBS in Nevada

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**WHICH AGENCIES?**

preferences for

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**WHICH PROJECTS?**

# QBS in Nevada

## **NRS 625.050 “Practice of professional engineering” defined.**

1. “The practice of professional engineering” includes, but is not limited to:

(a) Any professional service which involves the application of engineering principles and data, such as surveying, consultation, investigation, evaluation, planning and design, or responsible supervision of construction or operation in connection with any public or private utility, structure, building, machine, equipment, process, work or project, wherein the public welfare or the safeguarding of life, health or property is concerned or involved.

(b) Such other services as are necessary to the planning, progress and completion of any engineering project or to the performance of any engineering service.

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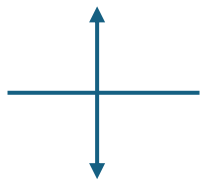
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**QBS**



**Preferences  
for  
Contracts**

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# QBS in Nevada

- Applies to any public work requiring the practice of professional engineering or land surveying
- Applies to all public Agencies
- Applies to any and all services or projects involving the practice of Professional Engineering
- Applies to all phases of a project including concepts, planning, preliminary engineering, design and construction

# Why QBS over other procurement methods?



QBS saves **money**



QBS saves **time**



QBS **simplifies** complex projects



QBS **delivers** innovation



QBS **drives** procurement

# QBS Saves Money

## KEY FACTS

**When it comes to saving money, QBS outperforms the national average by keeping projects on budget.**

- The perception that QBS procurement's focus on qualifications results in higher design fee costs has been shown to be incorrect.
- Devoting more design effort can reduce the project's final cost from early estimates by solving construction problems during the design phase when the costs are lower than after construction has commenced.
- QBS projects analyzed in a recent study showed an overall project cost growth of 3%. This is half of the national average of 6%.

# QBS Saves Time

## KEY FACTS

**QBS procurement results in fewer project delays and improves the likelihood of owner satisfaction**

- A recent study showed that about half (48%) of QBS projects met all construction milestones with no adjustment in schedule required. Conversely, only 32% of non-QBS projects had the same performance. This is a 50% increase in the number of projects that met all schedules.
- QBS outperforms the national performance in schedule growth (7% growth versus 10% growth).
- Teams with greater experience working together, and in the same sector, consistently produced documents that resulted in fewer delays during the construction process.

# QBS Saves Time

## KEY FACTS

**QBS procurement results in fewer project delays and improves the likelihood of owner satisfaction**

- There is a strong association between the use of QBS, the quality of construction documents developed by the design team, and the final cost and schedule performance.
- In a review of 76 design-build projects in the US, QBS was found to have the lowest cost growth and the fastest construction speed when compared to sole source, best value, and low bid.

# QBS Simplifies Complex Projects

## KEY FACTS

**QBS ensures complex projects have the best talent by engaging experienced, stable design teams.**

- As the complexity of a project grows, the positive impact of using QBS grows along with it.
- Projects with community involvement, social components, and additional community features require design firms with broader knowledge and understanding, not just the best price.
- QBS can encourage engineering firms to team in ways that provide the owner with the greatest set of qualifications to successfully complete the project.

# QBS Delivers Innovation

## KEY FACTS

**QBS procurement for design services produces innovative solutions. When firms have greater opportunity to explore innovations, they can produce better outcomes for clients. QBS enables innovation because price is not the only driving factor.**

- A recent study showed that when QBS was used, projects that mentioned complexity either in terms of physical challenges or in terms of social or political challenges were consistently higher in terms of innovations.

# Questions?

## ***What happens if the Owner and A/E can not agree on the fee for the services?***

- The Owner terminates negotiations with the first ranked firm and begins negotiation with the second ranked firm. The Owner is always in control of the process.



# Questions?

## *Why not ask for prices from three qualified firms?*

- Each firm will offer a price based on its own interpretation of the scope and not necessarily that of the owner. Each price therefore, represents a unique and unilateral scope.
- Since most equally qualified firms have similar labor cost, overhead, and profit structures, they will cut scope first to be price competitive.



# Questions?

## ***Does QBS encourage competition?***

- A/E firms make a significant investment in the preparation of qualifications packages and the interview.
- The process encourages A/E firms to focus on projects for which they are best qualified.
- This investment by the A/E encourages good-faith negotiations.



# Questions?



## ***How does the owner know that he is getting a fair price in the negotiation?***

- A/Es typically get about 85% of their business from repeat clients. Client satisfaction ranks second only to the A/E's public safety professional responsibility. A reputation of higher fees without commensurate high quality (value) is a sure formula for losing clients and not in the best business interest of the A/E.
- If the owner cannot be convinced that the fees are fair, he does not have to buy the A/E's services.

# Questions?



- “It is unwise to pay too much, but it’s worse to pay too little. When you pay too little, you sometimes lose everything because the thing you bought was incapable of doing the thing you bought it to do.” – John Ruskin (1819–1900)