



RESEARCH

2009RIC02

Innovative Contracting Methods



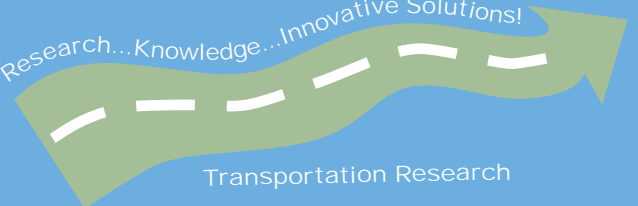
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Technical Report Documentation Page

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16. Abstract (Limit: 200 words) This document was developed as a resource for local governments to learn how to use contracting processes in a more cost-effective manner to, 1) let projects, 2) construct projects, and, 3) ensure quality projects. The Minnesota LRRB developed this resource on Innovative Contracting, designed as a guide to provide local government with guidance on a number of topics including: <ul style="list-style-type: none"> • Mn/DOT's Innovative Contracting Website • Minnesota Local Government Experience • Contracting 101 • Best Value Procurement for Contractors • Force Account (State Aid) • Bidder Qualification • Alternate Bidding The Minnesota Department of Transportation (Mn/DOT) has been a leader in communicating information about innovative contracting to the public. They have developed a dedicated office that deals solely with Innovative Contracting, a website that contains a wealth of knowledge on the topic and has a tremendous staff base to guide the public on the use of innovative contracting techniques.					
17. Document Analysis/Descriptors <table style="width: 100%; border: none;"> <tr> <td style="width: 50%; vertical-align: top;"> Innovative contracting Mn/DOT's Innovative Contracting Website Best Value Force Account Bidder Qualification Design-build </td> <td style="width: 50%; vertical-align: top;"> A + B Bidding Lane Rental Incentives/Disincentives Liquidated Savings Pay for Performance Warranties Alternate bidding </td> </tr> </table>		Innovative contracting Mn/DOT's Innovative Contracting Website Best Value Force Account Bidder Qualification Design-build	A + B Bidding Lane Rental Incentives/Disincentives Liquidated Savings Pay for Performance Warranties Alternate bidding	18. Availability Statement No restrictions. Document available from: National Technical Information Services, Springfield, Virginia 22161	
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Innovative Contracting Methods

Final Report

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Report Outline:

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INTRODUCTION

This document was developed as a resource for local governments, teaching them how to use contracting processes to more cost-effectively 1) let projects, 2) construct projects, and 3) ensure quality projects. The Minnesota LRRB designed this resource on innovative contracting to provide local governments with guidance on a number of topics, including:

- Mn/DOT's Innovative Contracting Website
- Minnesota Local Government Experience
- Contracting 101
- Best Value Procurement for Contractors
- Alternate Bidding
- Force Account (State Aid)
- Bidder Qualification

The Minnesota Department of Transportation (Mn/DOT) has been a leader in communicating information about innovative contracting to the public. They have developed a website that contains a wealth of knowledge on innovative contracting and a dedicated office that deals solely with innovative contracting. Mn/DOT has a tremendous staff base to guide the public on the use of innovative contracting techniques.

Mn/DOT'S INNOVATIVE CONTRACTING WEBSITE:

<http://www.dot.state.mn.us/const/tools/innovativecontract.html>

The Minnesota Department of Transportation has developed a website for the public to use as a resource when implementing innovative contracting methods. The website features include:

- Descriptions of various innovative contracting methods
- An “Innovative Contracting Guidelines” document, which provides detailed information on innovative contracting methods
- A report titled “Innovative Contracting in Minnesota 2000-2005,” which summarizes methods used on projects in Minnesota
- Many useful links to other resources you may need when implementing an innovative contracting method.



Contacts:

Interested in using innovative contracting on one of your projects, but need more information? Tom Ravn and Jay Heitpas at Mn/DOT welcome any questions you have and are available to help the public understand and implement a variety of innovative contracting methods.

Tom Ravn, Director, 651.366.4228
Jay Heitpas, Program Manager, 651.366.4210

Website Features:

The following are two excellent resources that are available on Mn/DOT's website:

Innovative Contracting Guidelines:

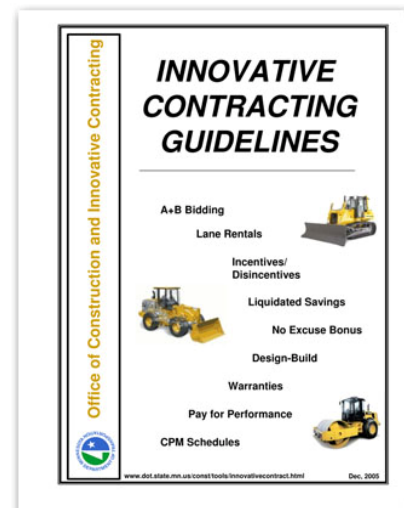
<http://www.dot.state.mn.us/const/tools/documents/Guidelines.pdf>

Mn/DOT's “Innovative Contracting Guidelines” is an extremely useful resource with detailed information on the following innovative contracting methods:

- A + B Bidding
- Lane Rental
- Incentives/Disincentives
- Liquidated Savings
- No-Excuses Bonus
- Design-Build
- Warranties
- Pay-for-Performance
- Critical Path Method Schedules

For each method covered in the “Innovative Contracting Guidelines,” the following information is provided:

- Description
- Benefits and Drawbacks
- Project Selection – Good and Poor Candidates
- Special Considerations or Further Contact Information



Innovative Contracting in Minnesota 2000-2005:

http://www.dot.state.mn.us/const/tools/documents/InnovativeContractingSummaryComplete_003.pdf

Mn/DOT has created a document titled “Innovative Contracting in Minnesota 2000-2005,” which summarizes innovative contracting techniques that have been implemented on a variety of roadway construction projects throughout the state. This report details the results of projects that were constructed between 2000 and 2005 using one of the following innovative contracting methods:

- A + B Bidding
- Lane Rental
- Incentives/Liquidated Savings
- Pay for Performance
- Warranties
- New Pre-Cast concrete

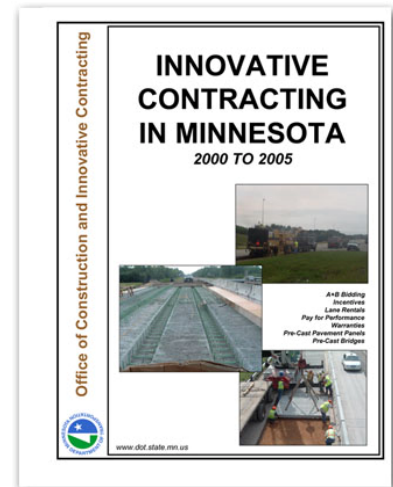
This report provides the following information for each method:

- Purpose of method
- Number/summary of projects completed using this method to date
- Project types
- Cost/incentives
- Case studies
- Lessons learned
- Conclusions
- Recommendations

Other Useful Links:

Mn/DOT’s Innovative Contracting Website has “Quick Links” to useful resources such as:

- Bid Letting
- Construction Tools
- Contract Time
- CPM Schedules
- Contract Administration Manual
- Spec Book
- Special Provisions



MINNESOTA LOCAL GOVERNMENT EXPERIENCE

In May of 2008, a survey was sent out to all cities and counties in the state of Minnesota to determine which innovative contracting methods are currently being used by agencies at a local level. A total of 46 survey responses were received (11 cities and 35 counties).

The following is a summary of the responses received:

- **A + B Bidding – 6**
 - City of Mound
 - City of St. Cloud
 - Anoka County
 - Dakota County
 - Rock County
 - Washington County
- **Lane Rental – 0**
- **Incentives/Disincentives – 17**
 - City of Eagan
 - City of Marshall
 - City of Mound
 - City of St. Cloud
 - City of St. Paul
 - Anoka County
 - Chisago County
 - Crow Wing County
 - Dodge County
 - Douglas County
 - Lac Qui Parle/Chippewa County
 - Lincoln County
 - Mahnomen County
 - Pennington County
 - Rock County
 - St. Louis County
 - Steele County
- **No-Excuse Bonus – 0**
- **Design-Build – 2**
 - City of St. Cloud
 - Carlton County
- **Warranties – 9**
 - City of Andover
 - City of Forest Lake
 - City of Mound
 - City of St. Cloud
 - City of St. Louis Park
 - City of St. Paul
 - Kandiyohi County
 - Lac Qui Parle/Chippewa County
 - Nicollet County
- **Partnership – 0**
- **Best Value – 3**
 - City of Duluth
 - City of Eagan
 - City of St. Cloud
- **Bidder Qualification – 3**
 - City of Eagan
 - City of Minnetonka
 - City of St. Cloud
- **Force Account (via State Aid) – 11**
 - City of St. Louis Park
 - City of St. Paul
 - Anoka County
 - Brown County
 - Lac Qui Parle/Chippewa County
 - Lincoln County
 - Nobles County
 - Rock County
 - Sibley County
 - St. Louis County
 - Steele County

CONTRACTING 101

The following questions and answers are intended to provide simple ways to improve the existing contracting process. This document is broken down into two parts: pre- and post- award questions and answers.

Pre-Award

1. What types of contracting training courses and resources are available?
 - Classes offered by Mn/DOT:
 - Plan Reading
 - Contract Administration 101
 - Contract Time
 - Traffic Control Overview
 - Inspector 101
 - Utilities Coordination (to be offered soon)
 - Course descriptions/schedules can be found on Mn/DOT's website at:
www.dot.state.mn.us/const/wzs/training.html
 - Mn/DOT's "Construction Tools" website has many beneficial resources for contractors:
www.dot.state.mn.us/const/tools/index.html

2. What are the options for funding?
 - Information on State Aid funding is available on Mn/DOT's State Aid Website at:
www.dot.state.mn.us/stateaid/index.html
 - The 2007 edition of the *State Aid Manual*, completely updated and redesigned, offers the official guidance, rules and procedures for **State Aid** and **Federal-aid** transportation projects. This manual can be found on Mn/DOT's website at:
www.dot.state.mn.us/stateaid/manual/sam07/index.html
 - Chapter 4 of the *State Aid Manual* lists funding options and criteria for funding for local programs:
www.dot.state.mn.us/stateaid/manual/sam07/chapter4/index.html
 - Funding options and requirements change often; here is a partial listing of Funding Programs that currently exist:
 - Local Bridge Replacement Program
 - Federal Bridge Replacement (BR) or Bridge Replacement Off System (BROS) Funds
 - State Transportation Fund (Bridge Bonds)
 - Town Bridge Program
 - Local Road Improvement Program
 - Town Road Account
 - Trunk Highway Turnback Program
 - State Park Road Program
 - Disaster Account
 - Federal Emergency Relief
 - Federal-aid (includes several programs)
 - Comprehensive Highway Safety Program

- Special assessment process – the League of Minnesota Cities (LMC) has created a guide for special assessments:
<http://www.lmc.org/media/document/1/sagtext.pdf>
- Alternative funding is available from the following sources (not inclusive):
 - Department of Natural Resources: www.dnr.state.mn.us
 - Trail recreation programs
 - Habitat improvement programs
 - Land conservation programs
 - General recreation programs
 - Water recreation programs
 - Minnesota Department of Transportation
 - Community roadside landscaping partnership program
 - Native wildflower and grass establishment program
 - Native tree and shrub establishment program
 - Historic bridges program
 - State rail banking program
 - Safety rest area program
 - Scenic byways program
 - USDA Rural Development: www.rurdev.usda.gov
 - Community facility guaranteed loans
 - Community facility direct loans and grants
 - Business and industry guaranteed loans
 - Minnesota Initiative Funds
 - Loans and grants for rural development
 - Soil Conservation Service (SCS)
 - Minnesota Council on Foundations
 - Resource information on Minnesota foundations and corporate giving programs
 - Legislative Commission on Minnesota Resources
 - Local Sources and Initiatives (such as bonding, property taxes, referendums, dedicated Pull Tab funds, etc.)

3. How do I determine whether to use a “working day” or “completion date” contract?

- Reference Mn/DOT’s Construction Administration Manual for direction on working day versus completion date:
www.dot.state.mn.us/const/manuals/contractadmin/sec-340.pdf
- Things to keep in mind:
 - Completion date is best used when a project needs to be completed by a certain date (i.e. when school begin/end dates are relevant, for multi-year projects, or when there are concerns about a project extending too late in the season, etc.).
 - Working days is best when time specific delivery dates are not critical and you want to promote competitive bid pricing by allowing the contractor more scheduling flexibility
 - Working day allows the contractor more flexibility in poor weather conditions.
 - Completion date allows the contractor to schedule mobilization of equipment.
 - A combination of working day and completion date offers more flexibility to a project.

- How do I determine contract time?
 - Mn/DOT has guidelines on how to determine how many working days or calendar days should be specified within the contract documents. These guidelines also explain when to use working days or calendar days (completion dates). See link below: www.dot.state.mn.us/const/determinecontracttime.html
 - How do I calculate working days on the job?
 - Reference the “Contract Time” chapter in the *Contract Administration Manual 5-591.340* for information on how to calculate working days on the job, track days and calculate remaining days accurately: www.dot.state.mn.us/const/manuals/contractadmin/sec-340.pdf
 - “Weekly Construction Diary” and “Statement of Working Days” forms must be submitted on all projects, as this is the only record of working day charges. “Weekly Payroll” forms are available on Mn/DOT’s website at: www.dot.state.mn.us/const/labor/lcuforms.html
4. Where can I find information on Special Provisions and Technical Certification Requirements?
- Mn/DOT’s Special Provisions website offers technical support information on: Special Provisions Standard Requirements (“Boiler Plate” language), Special Provisions Format, Proposal Sequence and other topics. <http://www.dot.state.mn.us/pre-letting/prov/index.htmlTechnical>
 - Certification is required for construction and/or materials testing technicians on state and federally funded highway construction projects.
 - Technical Certification courses, schedules and registration are available on Mn/DOT’s website at: www.dot.state.mn.us/const/tcp/
5. What should be considered when developing a schedule?
- An accurate, **written** schedule is needed at the beginning of the project.
 - All parties should be aware of the schedule from the beginning of the project.
 - Plan ahead and develop a critical path (particularly for utility related work).
 - Coordinate with utilities in the design phase.
 - Property acquisition can be a lengthy process, so make sure to plan accordingly.
 - MN Statute 216D **requires** coordination with utilities during both design and construction phases
6. When do I need to coordinate with public utilities?
- Utility companies should be contacted as early as possible in design and included in pre-construction and weekly meetings during construction
 - Work on utilities in the project Right-of-Way, must follow local agencies’ guidelines/processes and a permit for the work is usually required
 - Mn/DOT’s utility policies, guidelines, tools, references, permit forms, coordination letter templates and checklists are located on Mn/DOT’s website: www.dot.state.mn.us/utility/
 - Contact information for utility agreements and permits is located on Mn/DOT’s website: www.dot.state.mn.us/utility/contacts.html

7. Where do I find information on prevailing wage rates that will apply to my project?
 - Payment of prevailing wage rates is required on state and federally funded projects .
 - The following Mn/DOT site is a good resource on prevailing wage rates for highway projects: www.dot.state.mn.us/const/labor/
 - MN Statutes 177.41 to 177.44 establish wage rate requirements.
 - Additional information on prevailing wage rates can be found at the Minnesota Department of Labor and Industry website: www.doli.state.mn.us/pw_rates.html
 - The “Weekly Payroll” document should be reviewed (initialed and dated) on a weekly basis, to ensure compliance.

8. How often should a project be advertised for bids?
 - Advertising requirements vary depending on the type of project and funding.
 - Confirm requirements with the funding agency and your local attorney.
 - Uniform Municipal Contracting Law (MN Statute 471.345) applies if there are no other requirements.
 - MN Statute 160.17 has bid requirements for county and township roads.
 - MN Statute 412.311 has general bid requirements for cities.
 - MN Statute 429.041 has bid requirements for projects that are assessed.
 - Some city charters may contain special local bidding requirements.

9. What is the Delegated Contract Process, and when can it be used?
 - The Delegated Contract Process (DCP) is the local agency procedure for projects using any amount of federal aid funding. In addition to federally funded road and bridge projects, this process is used for Federal Enhancement, Safe Routes to School, Comprehensive Highway Safety Program, and Scenic Byway projects: http://www.dot.state.mn.us/safinance/dcp_process.pdf
 - The online “D.C.P. Checklist” outlines the roles and responsibilities of the Local Public Agency (LPA) and Mn/DOT in conducting the Delegated Contract Process. It contains hyperlinks that allow the user to access the forms and information from the process description: www.dot.state.mn.us/stateaid/dcp/dcpchecklist.htm
 - An example Delegated Contract Process agreement between Mn/DOT and a city/county is available at: www.dot.state.mn.us/stateaid/dcp/dcpsample.pdf

Post-Award

1. With whom should I be communicating during the project?
 - It is necessary to communicate with all stakeholders on a regular basis. Conducting a weekly meeting with all parties is recommended.
 - Keep communications open with all local agencies that are involved in or may be impacted by your project.
 - Contact utility companies as early as possible and include them in weekly and pre-construction meetings.
 - Communicate and resolve any issues in a timely manner.

2. How important is documentation?
 - Document all changes to plans in a timely manner as they occur.
 - Document all issues encountered.
 - Poor documentation could result in an incomplete contract or litigation.

3. Do you know your tolerances for workmanship/specification enforcement?
 - Where do I find resources for Specification Enforcement?
 - Mn/DOT specific engineering services offices (Bridge, Concrete, Bituminous, etc.)
 - Mn/DOT Standard Specifications book
<http://www.dot.state.mn.us/pre-letting/spec/index.html>
 - Who can help me decide if I should dispute poor workmanship?
 - Contact the MN/DOT specialty office or lab early.
 - Ask State Aid or Mn/DOT specific engineering services offices for advice upfront or during the process, rather than waiting until after the project is complete.
 - Seek guidance in the following order:
 - Specification book
 - Project Manager/Engineer
 - District State Aid Engineer
 - Mn/DOT specific engineering services offices

4. What are the requirements for material testing?
 - Mn/DOT's "Schedule of Materials Control" outlines the minimum sampling and testing required for most materials used in highway construction. This document is updated on an annual basis. The 2008 schedule can be found on Mn/DOT's website:
www.mrr.dot.state.mn.us/materials/2008MCS.pdf
 - Material failures should be reported to the contractor and project engineer/manager and addressed in a timely manner .
 - For federal projects a Materials Certification form must be submitted to the material engineering office.
 - Test methods used should be listed and documented.
 - Any incentives/disincentives (e.g. density, ride, etc.) must be communicated in a timely manner.

5. How should the public be involved in the project?
- Notify the public of project progress on a regular basis.
 - Notify the public, transit, schools and emergency medical services of detours and traffic management.
 - An information guide about the public involvement process is available on Mn/DOT's website: www.dot.state.mn.us/pubinvolve/partner.html
6. How do I find information on erosion control?
- Technical certificates for project personnel and contractors are required (check for documentation).
 - For information about erosion control permits and BMPs for Mn/DOT projects, contact Dwayne Stenlund at 651-366-3625 or dwayne.stenlund@dot.state.mn.us
 - Mn/DOT's Office of Environmental Services website offers information on how to coordinate with and/or receive approval from the following agencies:
 - Department of Natural Resources (DNR)
 - Watershed Districts
 - County Commissions and Joint County Ditch Authorities
 - U.S. Army Corps of Engineers
 - U.S. Coast Guard
 - Minnesota Pollution Control Agency (MPCA)
 - NPDES Permits
- www.dot.state.mn.us/environment/erosioncontrol/permits.html
- The following MPCA website has a document that addresses erosion prevention and sediment control on construction sites: www.pca.state.mn.us/publications/swm-ch6.pdf
 - Mn/DOT and the University of Minnesota offer certification classes on erosion control: www.mnltap.umn.edu/KnowHow/Topics/ErosionControl.html
 - Reference Mn/DOT's Erosion Control Handbook (2002). This handbook is not available online, but a hard copy can be ordered through Mn/DOT's Office of Environmental Services: www.dot.state.mn.us/environment/
7. How do I process work/change orders or supplemental agreements during a project?
- Each agency has different requirements for each agreement, and it is important to follow your local agencies' approval process. **Be aware of who has the delegated authority to approve change orders.** (i.e. Does the city/county board need to give approval?)
 - The following is an example of Mn/DOT's process:
 - A "Contract Changes Decision Tree" to assist in deciding which contract change method to use for your situation: www.dot.state.mn.us/const/tools/contractchange.html
 - Change Orders involve documentation of adjustments or minor plan changes allowed by contract specifications (Note: payment for change orders cannot be negotiated):
 - Normal increase/decrease of contract items
 - Unacceptable work
 - Revision of measurement method
 - Waiver of liquidated damages
 - Incentives/disincentives
 - Other payments specified in contract

- Work Orders/Minor Extra Work must meet three criteria:
 - Work omitted from the contract and needed to complete the project as let
 - Changes that involve extra work needed to complete contract as let
 - Changes that cost \$50,000 or less
- Supplemental Agreements document changes to the contract:
 - Design or contract specification changes
 - Major design or contract specification errors/ambiguities
 - Any extra work valued at \$50,000 or more
- Process, payment and example language on change orders, work orders and supplemental agreements can be found on Mn/DOT's website listed above.

8. What are liquidated damages and how are they used on the project?

- Liquidated Damages: Because of the difficulty in making a precise determination of actual damages incurred by the Owner due to failure of the Contractor to complete the work within the required time, liquidated damages are amounts set by the Contract, usually computed on a daily basis, the Owner will deduct, from money due to the Contractor, for each day that work remains uncompleted as compensation to the Owner for its damages.
- Each contract, including local forms, should establish a well-defined process for administering Liquidated Damages and clearly identify the amounts that will be paid by the Contractor for failure to complete the work on time. For projects that use Mn/DOT Standard Specifications, the Liquidated Damages process, including standard damage amounts, is identified in Section 1807.
<http://www.dot.state.mn.us/pre-letting/spec/index.html>
- A primary purpose and benefit of Liquidated Damages clauses is to make all the project participants fully aware of the financial implications of not performing the work in a timely manner so that work can be priced and scheduled appropriately by the Contractor.
- Liquidated damages should be consistently enforced. The ramifications of waiving liquidated damages:
 - Owner loses an important tool for encouraging timely completion of the project
 - Contractors will “learn” which agencies typically waive damages, potentially impacting bid pricing and scheduling practices for that owner
 - Owner's position in negotiating contract changes and in resolving disputes is often weakened.
- FHWA does not allow waiving liquidated damages, therefore, local authorities managing a federal project do not have the authority to waive liquidated damages. If the project is state funded, the state can grant locals the authority to make liquidated damages decisions.
- Proper documentation of project progress and changes (See preceding question) is key to successful enforcement of Liquidated Damages. If changes or extras are needed, address them promptly rather than waiting to the end of the project when they will be affected by Liquidated Damages enforcement.

BEST VALUE PROCUREMENT FOR CONTRACTORS

Background:

The 2007 Minnesota Legislature passed a law that allows public owners the option to select **contractors** based on “best value” instead of low bid. The current law is applicable to state agencies, cities, counties and some school districts; the remaining school districts, townships and political subdivisions will be phased in over a three-year period.

There are several authorizing statutes regarding public bidding. The two most commonly referenced are:

- Chapter 16C (applicable to the state)
- Chapter 471 (applicable to municipalities, which are defined as counties, towns, cities, school districts or other municipal corporations or political subdivisions)

Under the “old rule,” public bodies were generally obligated to award the bid to the lowest responsive, responsible bidder.

The “New Rule”: Overview of the Best Value Law

Definition of Best Value

Minnesota Statute 16C.02, subdivision 4a:

For purposes of construction, building, alternation, improvement, or repair services, “best value” describes the results determined by a procurement method that considers price and performance criteria, which may include, but are not limited to:

- (1) The quality of the vendor’s or contractor’s performance on previous projects;*
- (2) The timeliness of the vendor’s or contractor’s performance on previous projects;*
- (3) The level of customer satisfaction with the vendors’ or contractor’s performance on previous projects;*
- (4) the vendor’s or contractor’s record of performing previous project on budget and ability to minimize cost overruns;*
- (5) the vendor’s or contractor’s ability to minimize change orders;*
- (6) the vendor’s or contractor’s ability to prepare appropriate project plans;*
- (7) the vendor’s or contractor’s technical abilities;*
- (8) individual qualifications of the contractor’s key personnel; or*
- (9) the vendor’s or contractor’s ability to assess and minimize risk*

An important limitation is that, statutorily, consideration of “performance on previous projects” cannot consider the exercise or assertion of the vendor’s or contractor’s legal rights.

**2007 Minnesota
Legislature passed a
law that allows
public owners the
option to select
contractors based
on “best value”
instead of low bid**

Advertising and Evaluation Criteria

When best value is used for contracting, the solicitation (e.g. advertisement for bid) must provide the evaluation criteria and their relative importance (e.g. weighted factor). These include price and interview (if an interview is part of the process). These criteria must be established early in the process and must stay consistent throughout the process.

Some examples of evaluation criteria are listed in the definition above.

Minnesota Statute 16C.03, subdivision 3:

...The commissioner shall establish procedures for developing and awarding best value requests from proposals for construction projects. The criteria to be used to evaluate the proposals must be included in the solicitation documents and must be evaluated in an open and competitive manner.

Training

Any personnel administering best value procurement must be trained.

Currently the administration does not have or offer this training; Mn/DOT is looking into the possibility of offering some internal training. The League of Minnesota Cities (LMC) has offered one training workshop (11/27/07) and is exploring the possibilities of future workshops.

**Minnesota Statute
16C.03,
subdivision 19**

Minnesota Statute 16C.03, subdivision 19:

Any personnel administering procurement procedures for a user of best value procurement or any consultant retained by a local unit of government to prepare or evaluate solicitation documents must be trained, either by the department or through other training, in the request for proposals process for best value contracting for construction projects.

**Any personnel
administering best
value procurement
must be trained**

Availability

The 2007 law permitting best value procurement will be implemented in three phases (**Minnesota Statute 16C.28, subdivision 1a**):

- 2007-2008: state agencies, counties, cities, and school districts with the highest 25 percent student enrollment are eligible
- 2009: school districts with the highest 50 enrollment are eligible
- 2010: all other school districts, townships and political subdivisions (e.g. parks, watershed districts, etc.) are eligible

Limitations

During the first three years, the current law restricts the use of best value procurement to one project annually or 20 percent of projects, whichever is greater (**Minnesota Statute 16C.28, subdivision 1a**).

FHWA's Best Value Process:

Currently there are only four innovative contracting methods that are approved for use by FHWA (design build, lane rental, A+B and warranty). Other methods, such as best value, can only be used with FHWA approval, which is granted on a project-by-project basis. Agencies seeking to use best value need to work with the local State Aid office and the FHWA to obtain approval **before** the project is advertised.

Background Information:

Best Value is Not New

As additional background on the Best Value concept, the following are examples of services, project delivery systems and public entities that have used Best Value contracting.

Professional Services

Best Value contracting has been used by FHWA, Mn/DOT and other agencies for procurement of professional services (e.g. engineering) in Minnesota. In fact, if federal dollars are being used on a project, it is stipulated that Quality Based Selection (QBS) be used.

Design-Build Best Value

In 2001, new legislature was granted to Mn/DOT to do design-build best value contracts under Minnesota Statue 161.3426. This method of best value contracting was formula-based and very prescriptive. Mn/DOT's design-build best value varies substantially from the recent best value law passed in 2007. Some examples of projects completed or currently in progress using the 2001 legislation method are:

- I-494 (Minnetonka and Eden Prairie)
- Highway 52 (Oronoco)
- Highway 10/31 Interchange (near Hawley)
- Highway 212 (Chaska and Eden Prairie)
- Highway 52 (Rochester)
- I-35W Bridge Replacement (Minneapolis)

For more information about the 2001 design-build best value program, visit Mn/DOT's Design build website:

<http://www.dot.state.mn.us/designbuild/>

University of Minnesota

The University of Minnesota has implemented a sophisticated system that was developed at Arizona State University (see below for links) for best value selection. Their best value process, using Performance Information Procurement System (PIPS), has been used to select construction contractors as well as other types of vendors (such as janitorial and landscaping services, copy machine vendors and software systems). From the University's Capital Planning and Project Management (CPPM) web site:

CPPM is working to increase the level of efficiency in project management and construction. It has implemented a program to evaluate the impact of awarding projects based on value (performance and price) not just on price. CPPM believes that construction results (on time completion, no change orders, high customer satisfaction) can be improved without having to spend more money if the focus is on value and contractor performance. We have a partnership with the Dell-Webb School of Construction at the University of Arizona to implement and track our best-value program. More information can be found at www.pbsrg.com

Status:

Not everyone was in favor of the legislation that was passed in 2007 and there have been on-going “discussions” about potential clarification and improvements to the law including calls for a moratorium on the best value law until concerns and differences are resolved. Some of the contentious items include:

- Requests for more specific guidance on evaluation criteria
- Weighting of factors other than price and time (including suggestions that non-price factors be limited to no more than 20% of score)
- Basis for protesting the award process

Prior to utilizing the Best Value Contracting process, you are encouraged to consult with your agency’s or local authority’s legal counsel to determine the most current status of the legislation as well as specific requirements and procedures for your organization.

Resources:

- Asphalt Conference, 12/5/07, Presentation by Tom Ravn
- LMC Report “2007 Law Summaries”
- ACEC Seminar on Best Value Contracting, Presentation by Holly J. Newman (Mackall, Crounse, and Moore), 12/12/07
- Interview with LMC (Tom Grundhoffer), reviewing seminar LMC sponsored for Local Governments, 11/27/07 and 12/13/07
- ACEC Forecasting Seminar—University of Minnesota and MnSCU, 12/6/07

ALTERNATE BIDDING

Background:

The following summarizes the guidelines for local government agencies to follow when considering or using alternate bidding for **pavement selection**. These notes were compiled from discussions with a task force of local, state, federal and private industry representatives.

- The decision to use alternate bidding process must be made early in the process, NOT as a last minute add-on.
- When using alternate bidding, local governments should provide the typical section. DO NOT have the contractors provide.
- When using alternate bidding, local governments must have clear, well-defined selection criteria, usually involving life cycle cost (LCCA). A LCCA calculator from Mn/DOT is located here: <http://www.dot.state.mn.us/materials/pvmtdesign/lcca.html>
- If using alternate bidding on a project that has Federal aid, local governments must have “approval” by FHWA in advance (preferably 12 months, in conjunction with the Project Memorandum) and should detail how they are writing or setting their specifications.
- FHWA has provided some guidelines on alternate bidding under their Special Experimental Projects (SEP 14). The following links are from FHWA’s SEP 14 website:
 - <http://www.fhwa.dot.gov/construction/cqit/sep14.cfm>
 - <http://www.fhwa.dot.gov/programadmin/contracts/sep14list.cfm>
 - http://epg.modot.mo.gov/index.php?title=Alternate_Pavement
- NHI has a report on alternate contracting here:
 - http://www.nhi.fhwa.dot.gov/training/course_detail.aspx?num=FHWANHI134058&cat=134000&key=&num=&loc=&sta=&tit=&typ=&lev=&ava=&str=&end=&dr

Recommended Process for Local Governments to Follow when Using Alternate Bidding

The following is an outline of the items an agency should address when using alternate bidding for pavement selection:

- Structural Pavement Design
 - Based on the in-place subgrade material and the anticipated traffic, the agency should calculate the required structural design.
 - If using State Aid funding, the agency must use a design process approved by State Aid, found here:
 - <http://www.dot.state.mn.us/materials/pvmtdesign/software.html>
- Typical Sections (Cross section)
 - Based on the calculated structural design, the agency should develop typical sections for each pavement type.
 - Urban type sections (curb and gutter)
 - Surface profile normally needs to stay the same for each pavement type (work down from surface elevation to establish total section).
 - Variations in thickness are usually adjusted within the subgrade.
 - Rural sections
 - Where the surface profile isn't as crucial, variations in pavement thickness can usually be added on top of the subgrade.
 - Regardless of pavement surface type, the subgrade should be treated in a similar manner.
- Specific Details
 - Use standard plates.
 - Concrete design will require design of joint spacing/layout and joint types. For some locally funded projects, the designer may allow the contractor to determine joint details, subject to certain specified design criteria.
- Special Provisions
 - A separate special provision is needed for each pavement type.
- Bid Sheets
 - Agencies need to be very specific on their award process (e.g. LCCA vs initial cost).
 - The award process must be clearly defined and advertised prior to the letting.

- Regarding LCCA, Mn/DOT has developed a spreadsheet for calculating LCCA and comparing alternatives, found here:
 - <http://www.dot.state.mn.us/materials/pvmtdesign/lcca.html>
 - When using LCCA, and prior to letting, an agency needs to define expected pavement life, maintenance strategies and maintenance costs (check with your DSAE and District Materials Engineers).
 - The spreadsheet was developed in response to the 2008 law, HF 3486, International Fuel Tax Agreement), found here:
 - <https://www.revisor.leg.state.mn.us/laws/?id=287&doctype=Chapter&year=2008&type=0>
 - The law states that a life-cycle cost analysis is required for Mn/DOT projects that are constructed after July 1, 2011. Additionally, it is generally recommended that the analysis provide for :
 - Use equal design lives
 - Use equal analysis periods
- Additional items that should factored into the bid tabulations (regarding concrete vs. asphalt):
 - Construction time/closure
 - What will be allowed?
 - How will it be evaluated?
 - Local access during construction
 - Do residents/business/farmers require access?
 - Future Maintenance
 - What will be required?
 - Can it be done internally, or will it need to be contracted?
 - What is the cost?
- Salvage Material
 - Agencies need to determine who owns the salvage material and then apply to the cost analysis accordingly. If it is a State Aid route, the salvage materials must be used within the State Aid system; check with your DSAE.
 - When the agency owns the materials, they must determine where they will be used (existing project, future project, etc.).
 - If the contractor is allowed to reuse the materials, the agency needs to define where and how they will be used.

- For alternate bidding, the easiest process is to have the agency own the salvage material so that value of salvaged material used by the contractor does not factor into the pavement selection.
- Pre-Bid Meeting
 - Review the required maintenance strategies that will be applied to both pavement types.
 - Review the award process, especially the calculations and adjustments that will factor into final bid prices.

Partial List of Minnesota Agencies Who Used the Alternate Bid Process

The following partial list of Minnesota agencies may be a resource to agencies trying alternate bidding for the first time:

- Mn/DOT (contact Office of Innovative Contracting)
- McLeod County
- Meeker County
- Murray County
- Pipestone County
- Polk County
- City of Fairmont
- City of Luverne
- City of Rushford
- City of Willmar
- City of Windom

FORCE ACCOUNT (STATE AID)

Description:

Force Account is a contracting process that allows cities and counties to utilize State Aid funds while using their own local resources (such as maintenance staff) to expand planned projects or in stand-alone projects. When using federal aid, local agencies need to work closely with State Aid and FHWA, as outlined in the State Aid manual:

<http://www.dot.state.mn.us/stateaid/manual/sam07/index.html>

Local agencies should exercise caution when using this process, as the use of these federal dollars is intended to spark the economy, not to subsidize state or local highway forces.

Mn/DOT also uses the Force Account process; however, it is different than the process used by State Aid. There is a discrepancy with Force Account when applied to Mn/DOT projects versus local agency projects. Mn/DOT's Force Account process is used only for "time and materials" to expand or modify work on an existing project when Mn/DOT and the contractor cannot agree on a unit cost. In addition, only contractors are eligible to perform the work; Mn/DOT staff is excluded.

Local agencies use Force Accounts in the same way; however they also use it for labor and equipment for new contracts.

How Does The Force Account Contracting Process Work?

Force Account may require a city or county to submit plans to State Aid for approval. Once plans are approved, the city or county staff can begin work. Reference Mn/DOT Specification 1904. The following is a partial list of potential uses of Force Accounts. This list is not exclusive; contact State Aid to discuss other types of projects.

- Railroad Crossing – County share
- Seal Coats
- Turf/Erosion
- Shouldering after Contract Let Overlay
- Street Lighting
- Culvert Replacement
- Shoulder Widening and Turn Lanes
- Small Grading Paving Project
- Traffic Control/Signals
- Clear and Grub
- Bridge Construction (small)
- Bituminous Reclaim

Force Account:

The term is used differently by various governing bodies.

This discussion

focuses on State

Aid's use of Force

Account

Benefits:

- Force Account, in effect, can supplement a city or county's maintenance budget by shifting State Aid money from the construction account to the maintenance budget.
- Force Account allows a city or county the flexibility of modifying the scope of a project or expanding on a portion of the project

Drawbacks:

- Force Account may bring about political concerns if contractors feel they are competing with the city or county for work. In order to address this, State Aid requires that:
 - The project amount be generally less than \$100,000
 - Unit prices used by the city or county must be cost-competitive with contractors (verified by Mn/DOT estimating)
- Cities and counties must have an approved "Force Account Agreement" (Dated December 2007) signed by the DSAE and SAE before work is started.

Cities and counties must have an approved "Force Account Agreement" signed by the DSAE and SAE before work is

Project Selection:

- Good Candidates
 - Projects comprised of operations that are typical of maintenance staff duties.
 - Projects that are small and/or not cost-effective to bid on.
- Poor Candidates
 - Projects that would require the hiring of subcontractors to complete the work in addition to the maintenance operations. Projects should utilize all Force Account work or be bid out, not a combination of the two.

Lessons Learned:

State Aid Offices have performed audits on projects that have been completed to determine if cities and counties were able to complete the work at the costs they specified. Through these audits the State Aid Offices discovered that most cities and counties performed the work at a cost very similar to what they originally specified.

- Counties can be very competitive and cost-effective.
- Force Account allows for more flexibility when dealing with certain constraints. For example local entities have been flexible with project start dates or have kept roads open for time sensitive operations.
- Force Accounts can be cost-effective for smaller, randomly scattered projects where several "mobilizations" would be costly, such as seal coats.

BIDDER QUALIFICATION

The benefit of this process is still under “review,” and at this time it is not considered a “standard process.” Agencies are advised to use caution when implementing this process. This document is intended to serve as a brief summary of the process, and it will require further research on behalf of the agency, if it is to be used. It is strongly recommended that the agency consult with legal counsel throughout this process.

Description:

Bidder Qualification is a competitive bidding process that awards the contract to the lowest responsible bidder. In order for the lowest bid to be considered acceptable, the bidder is required to “pass” a measure of acceptability defined by the agency (e.g. practical experience of the particular construction work bid upon, the ability and resources to complete the proposed work in a manner satisfactory to the agency, etc.)

How Does The Bidder Qualification Contracting Process Work?

Bidding on a Bidder Qualification project is similar to the typical lowest bid process, but requires extra documentation from the bidder (for example: information for contracts on hand, former contracts, equipment available, credit, etc.) The additional information is attached to the sealed bid and is used by the Agency to determine if the lowest bidder is “qualified” to complete the work they are bidding on. This process requires additional language in the agency’s Advertisement for Bids and Specifications, so the bidders are aware of the criteria used to determine whether they are qualified.

Case Studies:

- The City of Minnetonka used the Bidder Qualification process for a building project; the lowest bidder did not qualify and was not awarded the contract. The lowest bidder challenged the City of Minnetonka in both District and Appellate Courts, but both Courts allowed the project to continue with the bidder selected by the City.
- The City of Eagan began using the Bidder Qualification process in 2004. Since the implementation of this process began, a bidder that had previously won many contracts (based on the lowest bid) was deemed to be of “poor quality.” This bidder no longer consistently has the lowest bid, and the City believes this is because the bidder began hiring higher quality staff and implementing better project management.

- The City of Eagan used the Bidder Qualification process on a project involving federal money and had to reject all bids, because the FHWA would not accept the Bidder Qualification process. The FHWA had not provided advance approval of the process and expressed concern over the lack of a pre-bid meeting with potential bidders
- The City of Plymouth used the Bidder Qualification process for building improvements and window replacement projects.
- The City of Hastings has also used the Bidder Qualification process. On one contract, the city awarded the contract to the second lowest bidder since the lowest bidder did not meet the stated qualifications. Written explanation of the basis of the award decision was provided to the lowest bidder, who consented to the city's decision without legal action.

Lessons Learned:

The ability to use the Bidder Qualification process is based on case law, not a state statute. Therefore, some lowest bidders who were deemed to be unqualified and were not awarded a contract may bring agencies to court over the matter. Because of this, the City of Eagan has decided to move toward the best value process since the passing of the Best Value Bill in 2007. The city has implemented pre-bid meetings as a part of all Bidder Qualification contracts with their limited ability to use Best Value at this time.