

Minnesota DOT

General Information	
Contact Information	<p>Peter Davich 651-366-4233 peter.a.davich@state.mn.us</p>
Relevant Statute	<p><i>Minn. Stat. Ann. §§161.410 et seq.</i></p> <ul style="list-style-type: none"> • Authorizes DOT to procure DB contracts using either a best-value or low-bid process • Number of DB contracts awarded in a given fiscal year may not exceed 10% of the total number of transportation construction projects awarded in the prior fiscal year • Relatively prescriptive requirements related to implementation of DB delivery (e.g., RFP content, procurement process, award process, stipends, etc.)
DB Program Characteristics	<ul style="list-style-type: none"> • Began using DB in 1996; constructed 3 projects using a low-bid approach • More modern legislation was enacted in 2001, allowing use of best value • Average annual construction budget: \$1 billion • Average annual budget for DB: \$200 million, about 4 projects • 33 total DB projects (11 were low bid) • DB projects ranged from \$1 million (sign project) to > \$200 million

Agency Culture, Organization and Training	
Dedicated DB Program Staff	<ul style="list-style-type: none"> • One DB Program Manager (Peter Davich) along with 1 F/T staff (structural expert) • DB Program Manager acts as stage gate review for all documents and provides assistance to the project manager • Resources are identified for traffic and geotech • If the number of annual DB projects increases, would need to hire more F/T staff • Regions follow procedural guidance manuals
Outsourcing	<ul style="list-style-type: none"> • Most RFP writing by consultants • GEC is onboard for a 5-year term (cannot join a DB team; work exclusively for the DOT) • Believe outsourcing to be a good startup model, but would now prefer to internalize more functions
Internal Issues Related to DB Use	<ul style="list-style-type: none"> • Have mostly outgrown resistance to DB; however, some staff still feel DB equates to “outsourcing projects” • Only 1 district has had no DB experience
Industry Issues Related to DB Use	<p><i>Contractors</i></p> <ul style="list-style-type: none"> • Minnesota has a self-contained construction industry (i.e., no real national players) • Legislature incorporated industry input when drafting the DB legislation • Contractors were initially more comfortable with the low bid DB model, but have now grown comfortable with best value <p><i>Consultants</i></p> <ul style="list-style-type: none"> • Some concerns regarding size of stipends • DB consulting industry is fully mature and happy to pursue a DB opportunity if they perceive it to be a good economic fit

Procedural Guidance and Template Documents	<ul style="list-style-type: none"> • Guidance documents: <ul style="list-style-type: none"> - DB Manual - DB Contract Management Administration Manual • Templates have guidance (based on lessons learned) incorporated as hidden text • Typical RFP includes: <ul style="list-style-type: none"> - ITP - Book 1 (Contract Terms and Conditions) - Book 2 (Project Specific Requirements) - Book 3 (Standards) - Reference Information Documents (RID)
Training	No formal training program – training provided as needed

Selection of Project Delivery Method	
Drivers for Using DB	Not discussed
Process and Tools	<ul style="list-style-type: none"> • Have been using Colorado’s PDSM for 2 years (Using the PDSM provides a structure for transparent decision-making regarding project delivery) • Now looking at tweaking the process to better align with Mn/DOT’s program • Procurement options (best value vs. low bid) are also loosely discussed during PDSM workshop
Key Considerations	<ul style="list-style-type: none"> • Extent to which project requirements can be adequately defined in a proposed scope of work • Suitability of the project for use of DB with respect to time, schedule, costs, and quality factors • Capability and experience of potential contractors with DB • Capability of the DOT to manage and oversee the project
Project Characteristics that are suited for DB	<p>Per Mn/DOT’s DB Manual, DB is best-suited for projects that:</p> <ul style="list-style-type: none"> • require acceleration • have unique opportunities to transfer risk to DB team • have opportunities for innovation (i.e., decrease time, reduce costs, improve safety or quality)
Project Characteristics that are <u>not</u> suited for DB	<ul style="list-style-type: none"> • Bridge rehabilitation • Small projects with little complexity • Projects with significant third party risks
Entity Making the Delivery Decision	<ul style="list-style-type: none"> • Strive to make it the District’s decision • Headquarters will make comments; Districts have to defend their decision to management

DB Project Development	
Project Development Activities	<ul style="list-style-type: none"> • Sufficient preliminary engineering performed to determine ROW limits, obtain municipal consent, meet environmental and permitting requirements, and determine the project scope for the RFP • Standard practice is to not release the RFP until after the environmental process has concluded • Pavement designs (i.e., minimum pavement section, pavement type, and subbase) for all permanent roadways, ramps, shoulders, paths are designed by the DOT and provided in the RFP
Use of Performance Requirements	Not discussed

Lessons Learned	
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Procurement Process	
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Delivery Options	<ul style="list-style-type: none"> • One or Two-Step Low Bid <ul style="list-style-type: none"> - Recommended for projects with minimal risk transfer (e.g., unbonded overlays, mill/overlay, simple bridges) - Minimal complexity and a value less than \$10 million • Two-step Best value <ul style="list-style-type: none"> - Required for: <ul style="list-style-type: none"> ○ Major bridge projects ○ Major grading or reconstruction projects (over \$25 Million) - Recommended for projects with: <ul style="list-style-type: none"> ○ Major risk transfer ○ Complex staging • Fixed price variable scope (e.g., how many feet of concrete paving can you do) • On-call DB (1 ITS project: rural intersection conflict warning system; set cost for 4 different intersection situations) • DB with warranty (use warranties more DB program than DBB; standard DB documents have warranties as default) • CM/GC (2 projects underway: 1 complicated historic bridge; 1 complicated bridge project over an active mine)
Procurement Steps	<p><i>Best Value</i></p> <ol style="list-style-type: none"> 1. Issue RFQ (Phase 1) 2. Proposers prepare SOQ 3. Technical Review Committee (TRC) evaluates SOQs (TRC to include at least 5 individuals) 4. Establish shortlist (per statute, no more than 5 teams can be shortlisted) 5. Issue RFP to shortlist (Phase 2) 6. Teams submit technical and price proposals 7. TRC evaluates technical proposals 8. Price proposals opened publicly 9. Best value determined by dividing price by technical score to determine the lowest adjusted score <p><i>Two-step Low Bid</i></p> <ul style="list-style-type: none"> • Generally follows the best-value process • Technical proposals consist of a cover letter and the required legal forms • Technical proposals are not scored; only used to determine responsiveness <p><i>One-Step Low Bid</i></p> <ul style="list-style-type: none"> • No short-listing process
Selection Method	<ul style="list-style-type: none"> • Adjusted price/technical by legislation • Have recently been implementing a more formal process for determining technical weightings, which considers the benefits of having excellent vs. poor quality when determining the value of a point

Bundling DB Projects	<p>No systematic way to consider bundling projects</p> <ul style="list-style-type: none"> • Looking at developing “mini programs” for bridges • Allocation of funding can make it difficult to allow DB Teams to pick and choose when they would want to do a particular project if a multi-year bundled contract
Use of Alternative Technical Concepts (ATC)	<ul style="list-style-type: none"> • To streamline ATC process, Mn/DOT limits the number of ATCs DB Teams can submit • ATC approval statistics: <ul style="list-style-type: none"> - 20% are approved - 60% are conditionally approved - 20% flat denied • May also use “pre-accepted elements” (PAE) as a risk mitigation measure <ul style="list-style-type: none"> - PAE process used on complex items for which risks are difficult to assign in the RFP - Teams submit PAEs for DOT approval prior to submitting a technical proposal - A technical proposal that does not have approved PAEs is non-responsive - DOT offers confidential one-on-one meetings with teams to discuss potential PAEs • DB manual discourages use of ATCs to modify permanent pavement designs (pavement type, material, thickness) • More recently, contractors have been submitting decent ideas on the fringes; Mn/DOT is starting to do away with restrictions • VECs are allowed for DB – Contractors often submit the ATCs of unsuccessful proposers as VECs once all the proposals have been made public
Stipends	<ul style="list-style-type: none"> • Stipend of not less than 0.2% by statute, but manual allows higher stipends if the DOT feels it to be necessary • Stipends may be used on both best-value and two-step low bid procurements (i.e., no stipends when using the single-step process)
Other Comments	<p>Early information exchanges prior to release of procurement documents can be used to minimize project risk (e.g., inviting DB teams to meet with DBE firms, allowing teams to attend utility coordination meetings, pre-RFQ or RFP meetings, etc.)</p>

Risk Allocation	
Risk Management Philosophy	<p>Generally risk management philosophy is to allocate risk to party best able to manage for that specific project</p>
Differing Site Conditions	<ul style="list-style-type: none"> • Risk allocation depends on the project – if Mn/DOT can provide reasonable geotech information, the risk will be transferred to the DB Team • DOT generally conducts sufficient geotechnical investigation to minimize risks to the DB teams
Permitting	<p>DOT typically handles preliminary permitting and coordination</p> <ul style="list-style-type: none"> • DOT tries to obtain as many permits as possible before accepting proposals • For cases when DB Team will have to obtain permits, DOT will attempt to coordinate early with the regulatory agency to outline project’s risks and anticipated impacts
Utilities	<ul style="list-style-type: none"> • Risk allocation depends on the project – have evaluated proposers on their ability to avoid utilities • Standard practice is for DOT to provide subsurface utility engineering and enter into master utility agreements with the impacted utilities

Right-of-Way	<ul style="list-style-type: none"> • Acquisition of ROW and easements are generally handled by the DOT • DB Team is often responsible for construction easements that may become necessary • If not all of the ROW is acquired at the time of the RFP, the RFP should identify the dates on which the DOT will obtain title and possession • If ROW responsibility is delegated to the DB Team: <ul style="list-style-type: none"> - DOT will review and approve each step of the acquisition process - DB Team will develop a ROW work map and other information necessary to prepare ROW package, and complete the appraisal of parcels - Legal work related to condemnation handled by Minnesota Attorney General's office
Third Parties	<ul style="list-style-type: none"> • Usually handled by Mn/DOT but sometimes there could be some opportunities for innovation • Municipalities <ul style="list-style-type: none"> - Mn/DOT generally obtains municipal consent before issuing an RFP - Usually DB contracts are not awarded until all municipal agreements are signed • Railroads <ul style="list-style-type: none"> - DOT will initiate discussions with railroads as early as possible - Railroad agreements should be in place before issuance of the RFP - RFP should define key railroad requirements, including railroad's involvement, authority, and review times
Other	<p>On complex projects, shifting some public information responsibility to the DB Team is encouraged</p> <ul style="list-style-type: none"> • Require DB Team to have a highly skilled public relations expert • Press releases and direct contact with elected officials should remain with the DOT

DB Contract Administration	
Design Oversight	<ul style="list-style-type: none"> • Retain consultant to oversee the design process (not the GEC firm) • Oversight role entails verifying design meets contract requirements, auditing the DB Team's quality process, and accepting released for construction (RFC) packages • Prior to submitting RFC packages, DB Team should conduct over-the-shoulder reviews with DOT (informal comments provided during the over-the-shoulder reviews; formal comments provided on the RFC submittals) • Try to "accept" designs rather than "approve" • A few elements must be "approved," e.g., ITS and matters related to ADA compliance
Construction Oversight and Quality Management	<ul style="list-style-type: none"> • QA/QC by DB Team, with acceptance testing by Mn/DOT • Mn/DOT has a standard Quality Management Plan that the DB Team may adopt or they can submit their own for approval • DB Team identifies critical activity points and is required to prove at each of these points that contract quality obligations have been met before moving on to the next stage • Mn/DOT will likely be moving back to having DOT perform QA (similar to a DBB project)
Payment	<ul style="list-style-type: none"> • Payments are based on percent complete of activities defined within the cost-loaded CPM schedule <ul style="list-style-type: none"> - DB Team submits monthly invoices and progress reports that are used to determine progress payments based on the percentage of work complete for each scheduled activity - DOT testing and inspection documentation must support that work on each paid activity has occurred • Quality incentives are paid based on the average historic unit bid price from the past year • Unit prices are sometimes used for high risk items (e.g., the cost to patch underlying conditions on a roadway rehabilitation project)

<p>Best Practices and/or Lessons Learned</p>	<p><i>Co-Location</i></p> <ul style="list-style-type: none"> • Co-location is encouraged on multi-year complex projects • On projects of less than 6 months, alternative forms of design coordination are encouraged (e.g., regular scheduled meetings) <p><i>Quality Management</i></p> <ul style="list-style-type: none"> • Contractor’s Quality Team must have stop work authority and the responsibility to stop work upon discovery of non-conforming work • Consider having 2 NTPs – one to allow design work to proceed after submittal of the design QMP; the second after other deliverables are submitted • Understand that the intent of an audit is to verify that processes are being followed properly and to allow for correction and continued improvement (i.e., should not be viewed as a “gotcha” on the DB Team)
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<p>Performance Outcomes</p>	
<p>Tracking of Metrics</p>	<p>Track metrics on a spreadsheet, e.g.,:</p> <ul style="list-style-type: none"> • Time to respond to ATCs (7-day and 10-day goals) • % change orders • Number of clarifications needed • Meeting promised issuance dates for solicitation documents
<p>Primary Success Factors</p>	<p><i>Primary Success Factors</i></p> <ul style="list-style-type: none"> • Interaction of the DB Team (if the teaming partners work well together, they will figured out any project issues) • DB Team qualifications • Equitable risk allocation (if you don’t allocate risks correctly, you will either have to pay more, or quality could suffer) • Use of performance specifications (if you want to meet goals, get the best value from using performance specifications) <p><i>Secondary Success Factors (because they could be mitigated with partnering)</i></p> <ul style="list-style-type: none"> • Clarity of RFP scope • Timely owner review/approvals