Meeting Date:11-15-18
Item:

ITEM:

Work Session – Dayton Parkway Interchange

PREPARED BY:

Tina Goodroad, City Administrator and Vince Vander Top, Wenck/City Engineer

POLICY DECISION / ACTION TO BE CONSIDERED:

The goal of this work session is to bring the City Council up to date on interchange cost estimates, revenue projections and to select a project delivery method.

BACKGROUND:

Over the past year City Staff has been working closely with MNDOT and community partners to put the interchange project together. The majority of funding is in place. Due to fund timing, MNDOT has moved up their UBOL project on I-94 to match the 2020 interchange funding timeframe. With this, MNDOT will be building the west and east bound auxiliary lanes to the interchange effectively reducing the interchange total cost by $3 million.

During the summer Dayton participated in a Technical Advisory Committee and partnered with MNDOT on the Environmental Assessment. During this time City staff, working with SRF re-examined updated traffic forecasts and alternative interchange designs. In August the City Council chose the Diverging Diamond design. This design is also supported by MNDOT and Hennepin County.

Since this August decision we have accomplished several important tasks. We have:

- Requested financial participation from Hennepin County and City of Corcoran
- Confirmed a full access, mid-point intersection on Dayton Parkway with the county; met property owners south and west of the interchange regarding development potential.
- Met with MNDOT and State Aid regarding GO Bonding details
- Developed an interchange funding and cash flow financial strategy

At this work session staff, SRF and MNDOT will provide more costs and revenue sources detail. We will also review two interchange design and construction options. The first is Design/Build (wherein the interchange project is essentially rolled in to MNDOT's UBOL project) or Design/Bid/Build (wherein the interchange project is delivered as a City-led project).

Two memos from MNDOT and SRF are attached for your review prior to the meeting. Ultimately, each memo concludes Design/Bid/Build is the best choice for this project for Dayton for the following reasons:

- The City of Dayton's ability to control costs and risks is greater with Design/Bid/Build. One of the primary reasons is that a locally let project allows the city to reject bids,

repackage and rebid if necessary. The City will not be able to reject a high bid as part of a Design/Build project. Instead, the project would proceed, and the City would be responsible for any overage. Timing of the MNDOT UBOL will not allow for MNDOT to consider any rejection of bids and rebidding. Design/Bid/Build gives the city more control to manage risks and costs.

- Greater competition from bidders for the interchange work. Dayton Parkway includes the only bridge work in the overall I-94 scope of work. A separate bid for the interchange will allow contractors with specific expertise to lead the interchange project versus subcontracting as part of a broader team. This could lead to more direct competitive bidding.

- Design/Bid/Build will increase flexibility to work with landowners. We are coordinating with adjacent landowners to maximize developable land and tax base while reducing overall construction costs. We are working to create a development mass grading and concept plan and street and utility network to maximize development potential. We are also seeking opportunities to effectively mitigate floodplain and wetland impacts via a locally created wetland bank. A coordinated plan will also minimize soil excavation and borrow costs overall. A locally controlled Design/Bid/Build process will provide more flexibility to pursue these cooperative efforts.

- Design/Bid/Build will limit City costs (current estimated savings of $1.6-$2.1). Design/Build is an effective delivery method for projects with higher risk. Design/Build essentially passes this design risk to the contractor's team. The interchange project is not high risk and is conversely well-defined. Consequently, the City can efficiently define the scope and limit some of the costs of the project through the Design/Bid/Build method.

RECOMMENDATION:

Based on the numerous meetings with MNDOT and SRF and examination of the options Tina and Vince recommend the Design/Bid/Build Method for the Dayton Parkway Interchange project.

ATTACHMENT(S):

SRF Memo
MNDOT Memo

Memorandum

SRF No. 10472

To: Tina Goodroad, City Administrator

From: Dave Montebello, President/CEO

Date: October 24, 2018

Subject: Brockton/Dayton Parkway Interchange (Design Build or Design Bid Build)

Procurement Method and MnDOT Contribution Considerations

The following are our thoughts regarding the City of Dayton's decision on the procurement method for the Dayton Parkway Interchange (DPI).

Summary of Key Points

1. We agree that the two projects should be done under similar timeframes to minimize the disruption to traffic on all facilities; this can be achieved by either procurement method.
2. Adding the interchange to MnDOT's DB I-94 work will;
    a. Diminish the City's role and control in the design and construction of the project
    b. Reduce competition (bidders) for the interchange work
    c. Reduce the City's flexibility to work with land owners through design process
    d. Increase delivery cost to the city (estimated at over 2M)
3. MnDOT's rationale for using the DB method does not fit well with this project.
    a. The DPI project is not on an accelerated timeframe
    b. The project is not complex with significant traffic staging and phasing work
    c. The design and construction of DPI can be coordinated with I-94 work
    d. The DPI project has different work types than the I-94 work
    e. The DPI project can attract significant bidders on its own
    f. Limited design flexibility will be provided to the DB team to reduce cost on the DPI
4. The DB project is an all-in price; which will limit changes and better fixes costs at the bid price.
5. DBB process will put more control with the City; which will require the city to manage risk and costs
6. MnDOT's State Aid Office has indicated a preference for maintaining this as separate project let through the City given the complexities of funding.

The following is additional supporting information related to our evaluation.

Design Build

Design Build (DB) is a procurement method where the Design Build Team (contractor plus its engineer) takes a concept considered a 30% plan and set of instructions, then formulates a solution that meets the intent of these instructions (RFP). There are many pieces and complexities to this process. There is a significant amount of work on the DB Team's part to respond to the RFP and a large amount of administrative burden if the bid is won to go through the process (this is more time consuming and has more effort than the normal DBB process)[1]. In addition, the bid that is submitted by the contractor is lump sum. As such the contractor is taking on more risk and this risk is put into the bid as added cost.

As part of the bid the contractor can suggest alternatives that could save dollars but continue to meet the RFP requirements. The same cost saving alternatives are generally captured following the standard design bid build process. However, the contractors input on complex construction or project staging can provide some financial benefit. If the RFP is written tightly, there could be little to no-room for these types of changes. If the RFP is written too loosely, there could be changes that some may not like or want but meet the letter of the RFP. These alternatives are evaluated by MnDOT and a determination is made as to whether these changes will be accepted as part of the bid and/or are consistent with the contract. Typically, the more accelerated, the more complex the project (with complex staging and traffic control), the more advantage there is to work with a contractor on the design and staging of work. The less accelerated and less complicated projects do not lend themselves to more innovative measures and cost savings.

It is our understanding that MnDOT will require the DB contractor to establish a bid for both I-94 and for Dayton Parkway Interchange. These two numbers will be added together to form the basis for the DB project. While the I-94 DB project will be under tight timelines, the DPI project is not time constrained other than the desired project opening date. Bidders will be directed to not to place any accelerated costs in the DPI portion of the project. Also, MnDOT is proposing to add language that provides a range for the bid and to indicate that MnDOT may reject the bid if it is over the cap (15% above). While these are good safeguards to include and should help bidders with their prospective bids, it does not prevent some shifting of costs between the two projects.

As previously stated, combining the work into a large DB project is expected to attract fewer bidders - the size of the project now thought to be in the $175M+ range will limit bidders due to its size (bonding capacity and amount of work to be done). There are only a few contactors with the organizational structure and available financing to perform this type of work in Minnesota.

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[1] There are two teams of consultants that effectively work on the project. One on the contractor's side that formulate the design and one on MnDOT's side that check the design and make sure that it complies with all the requirements of the contract while meeting the design intent. The agencies are paying for these two teams. This process is very rigorous, and rules driven and requires significant effort. SRF has been on both sides of the DB process (contractors and MnDOT's) and has done many DBB projects. In our opinion, there are definitely projects that lend themselves to the DB procurement method; the DB process is more rigorous and costly than the DBB process – the hope is that through the process the agencies will benefit through either faster procurement, risk transfers and/or cost savings.

The controlling element on the DB project is concrete paving. The DPI work is a grading job on new alignment with a significant amount of earthwork/borrow, bridge and paving. As such, there will be distinct types of equipment and potentially different contractors or subcontractors needed.

One of the larger concerns is the position that **MnDOT will not rebid as part of the DB contract and that whatever bid comes in the City will have to fund.** This is a significant risk without recourse. Currently, contractors are telling us that they are busy and that it is difficult to find staff, energy costs have increased, and steel prices are up (tariffs). This is affecting bid costs. We expect that the level of construction work will continue to be strong as MnDOT continues to roll out the Corridor of Commerce projects in addition to their normal program.

Based on the formula established by MnDOT for over 20 DB projects, they have estimated costs for administering this type contract. We have used their formulas and applied them to the DPI project and comparted the DB with DBB. The DB method results in an estimated cost that is $2M+ more than the DBB cost.

Design Bid Build

Design Bid Build (DBB) is the more traditional way of procuring infrastructure work. The agency (the City in this case) would develop a set plans and bid documents – to be developed by the City's consultant or engineer. These plans and bid documents would be approved by MnDOT and put out for bid. The contractor responds to the request for bids; the City would award the contract and manage the work. SRF has helped numerous agencies (cities and counties) with this exact process.

If the City were to bid on its own, we would advocate to bid some alternates so that we could try and increase flexibility and reduce risks to contractors; our goal would be to make the dollars go as far as possible and achieve the maximum benefit to the City while managing the risk at the time of bid.

What are the potential advantages and disadvantages of DBB.

1. Competition and Price Synergies – SRF has worked to remove any excess costs from the design and as such, we believe that there will be limited cost savings proposed by the DB team/process. The design has been established to meet future traffic demands and work with other planned improvements in the area. This design is also required to meet minimum state and federal requirements[2]. While there are some synergies gained by combining projects, we believe that they may not all work in favor of the DPI project. The size and type of work on I-94 will severely limit bidders and therefore competition. The I-94 work is different work than the DPI project and the fast-paced schedule could drive up costs – including the rigorous DB design and review processes which are costlier. The DPI on the other hand is a significant project on its own; it is mostly off-line in terms of traffic, and it does not have the same time constraints. As such it will attract numerous bidders due to its size and relatively straight forward construction. This will offset any advantage of the DB project.

[2] The design has been optimized to reflect the geometrics needed to serve future traffic demands beyond 2040 and to meet state aid and federal requirements. We have looked at the design to squeeze out all costs with the goal of providing a facility that will function long-term and be a gateway to this area.

2. Project Coordination – While the DBB project would not be let with the I-94 work (potential to have separate contractors), we have visited with MnDOT (Jerome) and he indicated that coordination language will be placed in both contracts and that this will not be an issue. This has been done successfully on other DB projects and users were unaware that there were multiple contractors working in the same corridor. MnDOT's construction lead would attend key construction meetings to ensure good coordination. In addition, we would advocate for bidding the DPI project shortly after the award of the I-94 work to enhance the opportunity for synergies with the I-94 contractor.
3. Project Oversight – MnDOT coordination and oversight (due to I-94) requires special attention and oversight. SRF has successfully completed many of these projects and understands the level of documentation and oversight needed. We would work closely with MnDOT State Aid to ensure the level of oversight meets requirements while minimizing overlap and additional cost. The level of documentation would be the same as if MnDOT were doing the project.
4. Schedule – MnDOT is shooting to have the unbonded overlay completed by late fall of 2021. They would not permit the interchange to open prior to this date. This timeframe offers more flexibility for the construction of the DPI as the construction of the interchange is about one season of work. SRF has drafted a schedule that fits this timeframe and minimizes cashflow issues to the city.
5. Flexibility – The DBB process offers more flexibility with contract language and working with local landowners. SRF and Wenck have been looking for synergies that would both reduce overall costs and help landowners prepare properties for future development. These discussions are ongoing and would not be possible in the DB project process.
6. Change orders and supplemental agreements risk – There is some greater risk for the City with change orders and/or supplemental agreements. However, typically in the DB case this risk is reflected in higher costs at the time of bidding – contractor will add some additional contingency; in the DBB case the risk is shared and/or more on the owner. This places more emphasis on the engineer, bidding documents, and field oversight staff. We have not experienced meaningful change orders and/or supplemental agreements on our major projects.
7. Funding Agreements – The Office of State Aid has indicated a preference for bidding this on a separate contract through the City. The City has dollars coming through a federal grant as well as GO bonding dollars through the state. They have indicated a preference for allocating the dollars through the city versus moving them through the DB process.

We can connect you with many clients that we have helped through a similar process. These include the following.

- Doug Fischer, Anoka County (Armstrong Interchange on TH 10)
- Don Theisen, Washington County (CSAH 2/I-35W Interchange)
- Ken Ashfeld, Maple Grove (Maple Grove Parkway / I-94 Interchange)
- Matt Clark, City of Chaska (CR 44/TH 212 Interchange)
- Mike Sheehan, Olmsted County (55th Street Extension and River Crossing)

- Richard Freese, City of Rochester (65th Street/TH 52 Interchange)
- Jullie Long, City of Bloomington (Bush Lake Road/I494 Interchange - EA)
- Greg Isakson, Goodhue County (TH 52/Cannon Falls Interchange)
- Jodi Teich, Stearns County (I-94/New Flyer Interchange)

Design Bid Build vs Design Build Cost Comparison

	Design Bid Build Contracting		Design Buid Contracting	
Costs	**Diverging Diamond**	**Diverging Diamond +15%**	**Diverging Diamond**	**Diverging Diamond +15%**
Paving and Grading	$6,190,000.00	$7,118,500.00	$6,190,000.00	$7,118,500.00
Drainage, Utilities and Erosion Control	$1,967,000.00	$2,262,050.00	$1,967,000.00	$2,262,050.00
Bridge	$2,733,000.00	$3,142,950.00	$2,733,000.00	$3,142,950.00
Signal and Lighting	$2,023,000.00	$2,326,450.00	$2,023,000.00	$2,326,450.00
Signing and Striping	$278,000.00	$319,700.00	$278,000.00	$319,700.00
Miscellaneous	$3,618,000.00	$4,160,700.00	$3,618,000.00	$4,160,700.00
Subtotal - Construction (2017 Dollars)	**$16,809,000.00**	**$19,330,350.00**	**$16,809,000.00**	**$19,330,350.00**
Inflation (3 years at 3%)	$1,558,650.00	$1,792,450.00	$1,558,650.00	$1,792,450.00
Contigency (10%)	$1,836,770.00	$2,112,280.00	$1,836,770.00	$2,112,280.00
Subtotal - Construction (2020 Dollars)	**$20,204,420.00**	**$23,235,080.00**	**$20,204,420.00**	**$23,235,080.00**
DB Design and Engineering (10%)	-	-	$2,020,450.00	$2,323,510.00
DB Construction Services (11.5%)	-	-	$2,323,510.00	$2,672,040.00
DB Earthwork and ATC Savings (1.6%)	-	-	-$343,920.00	-$374,230.00
Bid Amount	**$20,204,420.00**	**$23,235,080.00**	**$24,204,460.00**	**$27,856,400.00**
DB Oversight (5%)	-	-	$1,210,230.00	$1,392,820.00
DBB Design and Engineering (5%)	$900,000.00	$900,000.00	-	-
DBB Construction Services (8%)	$1,616,360.00	$1,616,360.00	-	-
Change Orders (4% DBB, 1% DB)	$808,180.00	$929,410.00	$242,050.00	$278,570.00
Total	**$23,528,960.00**	**$26,680,850.00**	**$25,656,740.00**	**$29,527,790.00**
Increased Cost of DB			**$2,127,780.00**	**$2,846,940.00**

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DEPARTMENT OF TRANSPORTATION

Memo

Date: November 10, 2018

To: Tina Goodroad – City of Dayton

From: Jerome Adams - MNDOT

RE: S.P. 2780-97 I-94; Design/Build vs. Design/Bid/Build

Memo purpose

The purpose of this memorandum is to address the advantages and disadvantages of a Design/Build (DB) approach versus a Design/Bid/Build (DBB) approach for the Dayton Parkway Interchange.

MNDOT recommendation: Should Dayton Parkway be let as a design build project with the MNDOT freeway project?

Based on what I have heard from the City of Dayton, I believe the answer is no.

There are many reasons to select design build over design bid build. I believe three of those many reasons are key in making this recommendation.

1. **Control of price:** City must let a locally let project if it wants to control rejecting bids. MNDOT's letting history shows that the majority of our projects let for +/- 15% just due to economic factors. Using SRF's cost estimate on DBB, then 15% greater than the base cost of $20.2 million is $23.2 million, or $3 million additional dollars. It is understood that due to size the City of Dayton has less financial leverage than MNDOT, and as a result may not be able to accept a $3 million swing in price. As a result, the City may in fact want to reject a high bid. The City can only reject bids if they let a separate locally let project. The City cannot reject a high bid on the interchange if it is attached to MNDOTs DB freeway project, because MNDOT history shows that we have never rejected a DB bid, and doing so causes more problems than accepting a reasonable, but high price.
2. **Lack of complexity, risk, and innovation:** Design build is ideal for constructing complex risky projects that MNDOT does not have the expertise to design or construct, such as installing a 100 ft wide by 600 ft long 4-lane arch bridge truss by floating it down a river and lifting it 60 ft in the air like the Hastings Bridge project. The Dayton Parkway project lacks that complexity and risk. Thus design build likely will not deliver on any innovation or savings on the Dayton Parkway project, because it is relatively simple and low risk. The design bid build delivery on a locally let project will work just fine.
3. **Schedule:** The City does have time to wait for the environmental document approval in May 2019, and then direct its engineer to begin the final design of the $20 million Dayton Parkway interchange, so it is completed for a December 2019 through February 2020 letting. The $150 million MNDOT freeway

project does not have time to design in the same timeframe and thus MNDOT will use the design build method.

Why is MNDOT paving I94 at the same time as the Dayton Parkway interchange?

MnDOT is currently planning to let a Design/Build project for an unbonded concrete overlay on I-94 between the I-494 and I-94 junction in Maple Grove and TH 101 in Rogers. MnDOT has scheduled this project for construction in 2020 to be able to complete this work in conjunction with the construction of the Dayton Parkway Interchange to reduce impacts to the traveling public. There are two other projects on I-94 that will also be under construction in the same time period. Listed below are some of the reasons why MnDOT has scheduled this project for 2020 construction.

1. City of Dayton received federal FY 2020 dollars to build the Dayton Parkway Interchange. The interchange needs to be built in 2020, maybe 2021 at the latest to use those dollars.

2. With the recent "Corridors of Commerce" announcement, MnDOT will have the following projects on I-94 under construction in 2020.

    a. SP 2780-97--I94 from I494 in Maple Grove to TH 101 in Rogers: Unbonded Concrete Overlay

    b. SP 8680-172 - Corridors of Commerce--new project from St. Michael (Trunk Highway 241) to Albertville (County Road 37); Add an auxiliary lane.

    c. SP 8680-173--from TH 25 Monticello to TH 24 Clearwater: Unbonded Concrete Overlay

3. Traffic management and reducing impacts to the traveling public is important. To this end, MNDOT's experience and research has shown that it is best to "Get in, Get out, and Stay out" when it comes to a highway corridor. The fact is, I94 will be under construction in 2020 and 2021 from Clearwater to Maple Grove. These three projects will have major construction impacts to the I94 corridor, but when it's done we should be able to stay out of this corridor for 20 to 30 years.

4. The Dayton Parkway Interchange requires auxiliary lanes to be constructed on I-94 between TH 610 and Dayton Parkway. Using the "Get in, Get out, Stay out" approach, MNDOT needs to build these lanes during the 2020 I-94 pavement project. MnDOT plans to do this even if Dayton Parkway gets delayed due to funding, so that MnDOT does not need to come back later and impact I-94 traffic again in the very near future to add the lanes later with a delayed interchange.

Why did MNDOT select Design Build for the I94 freeway project?

MnDOT has selected the Design/Build delivery method for this project, because of the project schedule. A summary of the schedule and critical activity due dates is shown in the following table. Ideally, final design should not begin before the environmental document approval is received when the FONSI is issued. The schedule shows that the FONSI is expected May 2019. There is not enough time to produce design bid build plans between the May receipt of FONSI and the October letting. Design Build is ideal, because the request for proposal can be prepared while waiting for the FONSI and issues when FONSI is received. The RFP is different from final plans, because it is very easy to change the scope in the RFP, whereas it is very time and money costly to change scope in a completed final plan.

9/15/2018	Preferred alternative selected.
10/31/2018	1. Draft EA complete. Submit for MNDOT and FHWA review. 2. Construction limits submitted for final parcel acquisition.
5/29/2019	FONSI issued by FHWA. Make purchase offers
6/5/2019	Turn in project for Design/Build.
10/11/2019	Letting.
03/2020	Final parcels acquired by this date

Differences Between Design/Build and Design/Bid/Build

Table 1 outlines some of the differences between the Design/Build delivery method and the Design/Bid/Build delivery method.

Table 1

	Design/Build	Design/Bid/Build
Rejecting Bids	City cannot reject a bid once MnDOT certifies that bid, even if the bid comes in higher than expected. MnDOT cannot reject the interchange only, they must reject the whole project and MnDOT cannot risk delaying the freeway work.	City can reject the bid and it will not impact the freeway project.
Schedule	Can reduce the duration by doing tasks concurrently (design and construction) and having contractor own the schedule.	Work is done sequentially and contractor has fewer incentives for prioritizing this project over other projects.
Final Design	Contractor manages the design team.	Owner manages the design team.

Risk	Contractor assumes the risks of final design and construction. (Quantities, existing conditions, etc.)	Owner assumes the risks of final design and construction.
Cost	Contractor includes the risk costs in their bid.	Owner pays the risk costs after the bid.
Innovation	RFP process encourages innovations in design and construction methods to lower costs and improve quality.	Designers typically focus on good design, not costs. Bid process encourages focus on low bid with opportunity for extras during construction.
Funding Flows	Project funding is concentrated in years of construction.	Design costs are paid ahead of project letting by one or two years.
Contract Administration	Primary focus is on contractor meeting contract commitments on product quality and schedule.	Primary focus is on measuring pay item quantities and quality

Given these differences, MnDOT believes that there are advantages to the City of Dayton to the Design/Build delivery method for the Dayton Parkway Interchange. The only exception is that if the City needs to be able to reject bids because of cost and funding availability then the Design Build approach will not work. Some of these advantages of design build are outlined below.

- The City does not need to pay for final design costs now. They can wait until they know all of their funding is in place. If funding isn't available in time to include in Oct 2019 letting, then the City can remove the interchange from the MnDOT project and begin final design for a Design/Bid/Build letting that would happen in another year. Note that the auxiliary lanes between Dayton Parkway and TH 610 needs to be constructed with the MnDOT I-94 pavement project in all scenarios to minimize traffic impacts on I-94.

- If the City has the contractor assume the risks, there is no benefit and potentially some problems in giving the contractor a complete set of plans. Contractor and designer will need to review plans and quantities and it may restrict innovation.

- If the City wants to include this as Design/Bid/Build within a Design/Build contract they end up assuming risks and there is a danger that contractor shifts their risk costs to the City.

- Including Design/Bid/Build projects within a Design/Build project creates conflicts in contract administration since one is focused on contractor commitments to product quality and performance and the other on measuring what the contractor did.

MnDOT has included final plans in Design/Build projects, however, in most cases it was because the plans were already done when the decision was made to include that part of the project in the Design/Build project. For most of the Design/Build projects that included final plans for a portion of the project, the part of the project with final plans was a small component of the overall project. Where Design/Build projects had a larger component of the project with final plans, MnDOT was responsible for most of the project costs. In this case, if the City assumes the risks of Design/Bid/Build on their portion of the project, the contractor has more opportunity to shift risk costs to the City where they can get change orders.

Design/Build vs Design/Bid/Build Case Study-Colorado State University

As shown in Table 1, there are several reasons why the Design/Build approach can result in lower project delivery costs for the owner relative to the Design/Bid/Build approach. A study was done of three building projects at Colorado State University that were completed since the spring of 2015 that used three different delivery methods; CM/GC, Design/Build, and Design/Bid/Build. All three projects were similar relative to project type and had the same A/E team, the same general contractor, the same owner, and the same jurisdictional authority. Comparing the Design/Build project with the Design/Bid/Build project, the study had the following findings.

Design/Build project resulted in:

- 50% fewer design hours per square foot
- 27% less expensive per square foot
- 25% fewer punch list items
- 50% fewer Requests for Information (RFI's)
- 70% fewer change orders

This study demonstrates the ability of the Design/Build approach to deliver a project for less total cost.

DB VS DBB Cost comparison

WSB has put together a cost estimate for the Dayton Parkway Interchange under a Design Build and Design Bid Build approach. Those costs are summarized in Table 2 below.

Table 2

Comparison of Dayton Parkway Interchange Costs with Design-Build vs. Design-Bid-Build

Cost Component	Percentage	Design-Build	Design-Bid-Build
Final Design,Survey, Geotech			$1,000,000.00
Construction Cost (2020 Cost with 10% Inflation) Includes Mobilzation		$20,700,000.00	$20,700,000.00
A. Contractor Project Management	7%	$1,449,000.00	
B. Design and Geotech	9%	$1,863,000.00	
C. Insurance, Survey	4%	$828,000.00	
Letting Cost		$24,840,000.00	$20,700,000.00
Construction Oversight	8%	$ 1,987,200.00	$ 2,070,000.00
Claims / Change Orders		1% of Bid	8% of Bid
		$ 207,000.00	$1,656,000.00
Total Project Cost Estimate		$27,034,200.00	$25,426,000.00

DBB appears to be $1.6 million cheaper than DB. Note that the SRF estimates show DBB appears to be $2.1 million cheaper than DB.

Note: Claims/Change Orders based on MnDOT historical averages

Cost comparison conclusion:

Personally, I would not use the cost difference to be the major factor in selecting DBB over DB, which is why I did not list it as one of the main reasons at the beginning of this memo. I believe that attaching the $20 million interchange to the $150 million freeway project will realize efficiencies in cost. This means that I believe that DB really isn't more expensive than DBB, but I also can't promise that.

Again, I recommend the City choose DBB, for the three other reasons listed at the beginning of this memo.