

Accelerating the Delivery of the I-75 Modernization Project August 15, 2017

The Michigan I-75 Modernization Project (“Project”) has been in the planning and development stages for nearly 20 years, with a current schedule to deliver the Project in nine segments over the next 17 years - by 2034 - primarily using the more traditional Design-Bid-Build (DBB) approach. The first segment is currently under construction. The Michigan Department of Transportation’s (“MDOT”) current Initial Financial Plan estimates projected year of expenditure (“YOE”) costs of \$1.3 billion from 2016 - 2034 for the delivery of the Project.

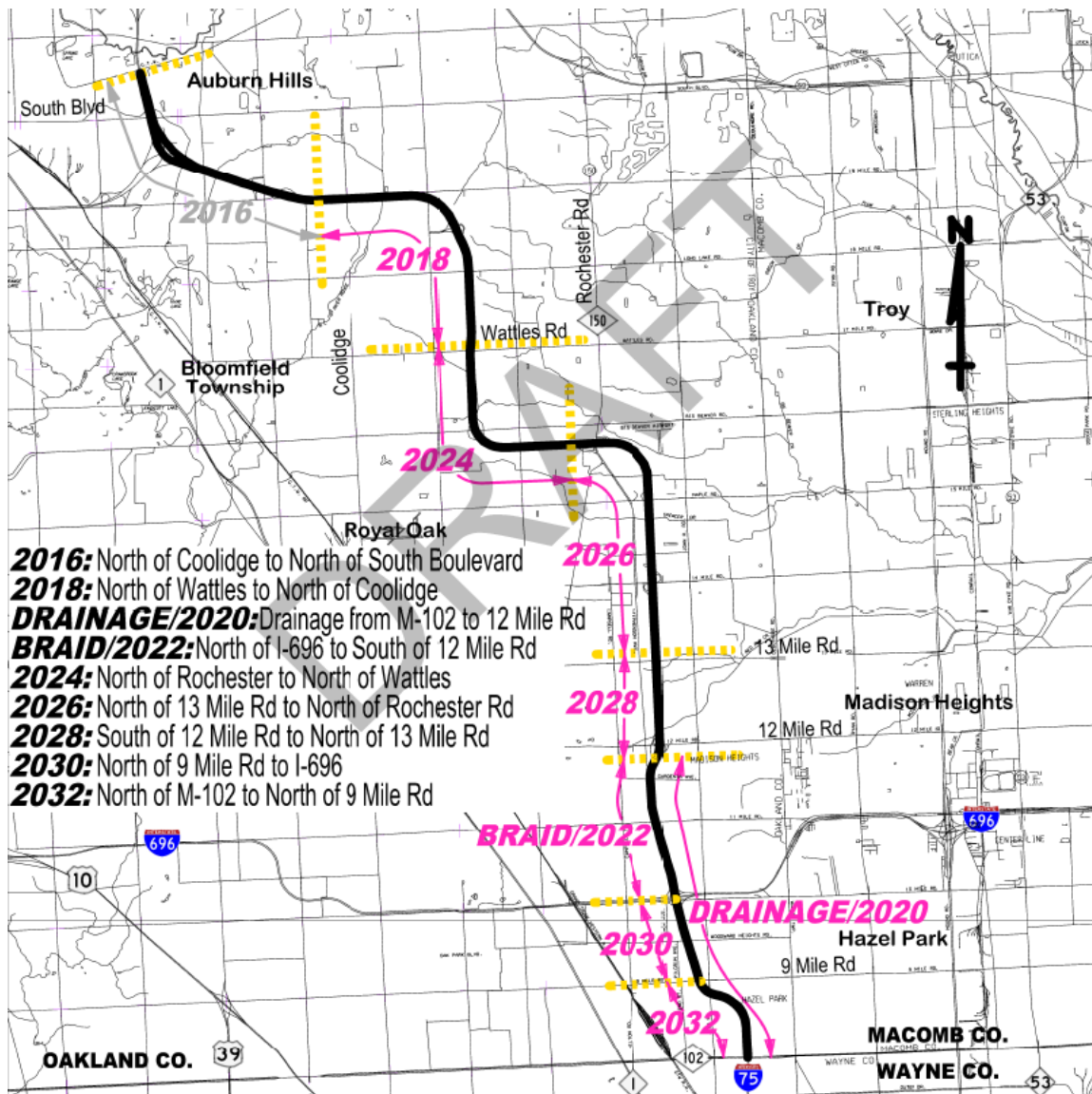


Figure 1: Project Map and Existing DBB Construction Schedule

Why accelerate?

MDOT and many of its customers and key stakeholders are interested in alternative ways to deliver the project in order to:

- Accelerate completion of construction in the corridor to realize the full positive economic benefits of the infrastructure modernization a decade (10+ years) sooner, and to significantly reduce disruption and negative economic impact to users and communities;
- Introduce innovation, with construction and lifecycle efficiencies (e.g. economies of scale, better coordination of activities, reduction in mobilization costs), and in transferring long term risks and extending pavement life; and
- Take advantage of the historically low cost of financing to accelerate construction.

An analysis of potential Project delivery approaches was conducted in comparison to the key project goals and objectives that include:

- Accelerating Project completion;
- Reducing user delays and minimizing disruption to stakeholders;
- Leveraging the most innovation possible locally and nationally;
- Making the best and most efficient use of funding sources;
- Minimizing and transferring risks to others that are best able to manage them;
- Spreading project repayment over a longer period of time; and
- Making the Project a national example of innovation, partnership and performance excellence.

After consideration of various delivery alternatives, financial analysis and consultation with the construction contracting and “developer” community, MDOT has decided to advance the Project using a 2-part approach, with both parts running concurrently.

Part 1: Accelerate the delivery of the northern remaining 3 segments (from North of 13 Mile Road to Coolidge Hwy) using a Design-Build (DB) contracting method.

- Funded using existing, programmed funds and cash flow for the next 3 phases of construction implementation, and will cover design and construction costs for the northerly 3 remaining segments.
- Contract award target: Summer 2018
- Construction period: 2018 through 2020

Part 2: Accelerate the delivery of the remaining segments (from 8 Mile Road to North of 13 Mile Road) using a Design-Build-Finance-Maintain (DBFM) contracting method.

- Funded with availability payments spread out over an estimated 25-30 year timeframe following the initial construction, using existing program dollars in future years. These availability payments will therefore be lower, enabling additional investment in other parts of the transportation system. The availability payments will cover costs for initial design and construction, as well as ongoing asset condition maintenance (e.g. preventive maintenance cycles, not routine maintenance like snow removal and mowing) and long term financing costs.
- Contract award target: Fall 2018
- Construction period: 2019 through 2022

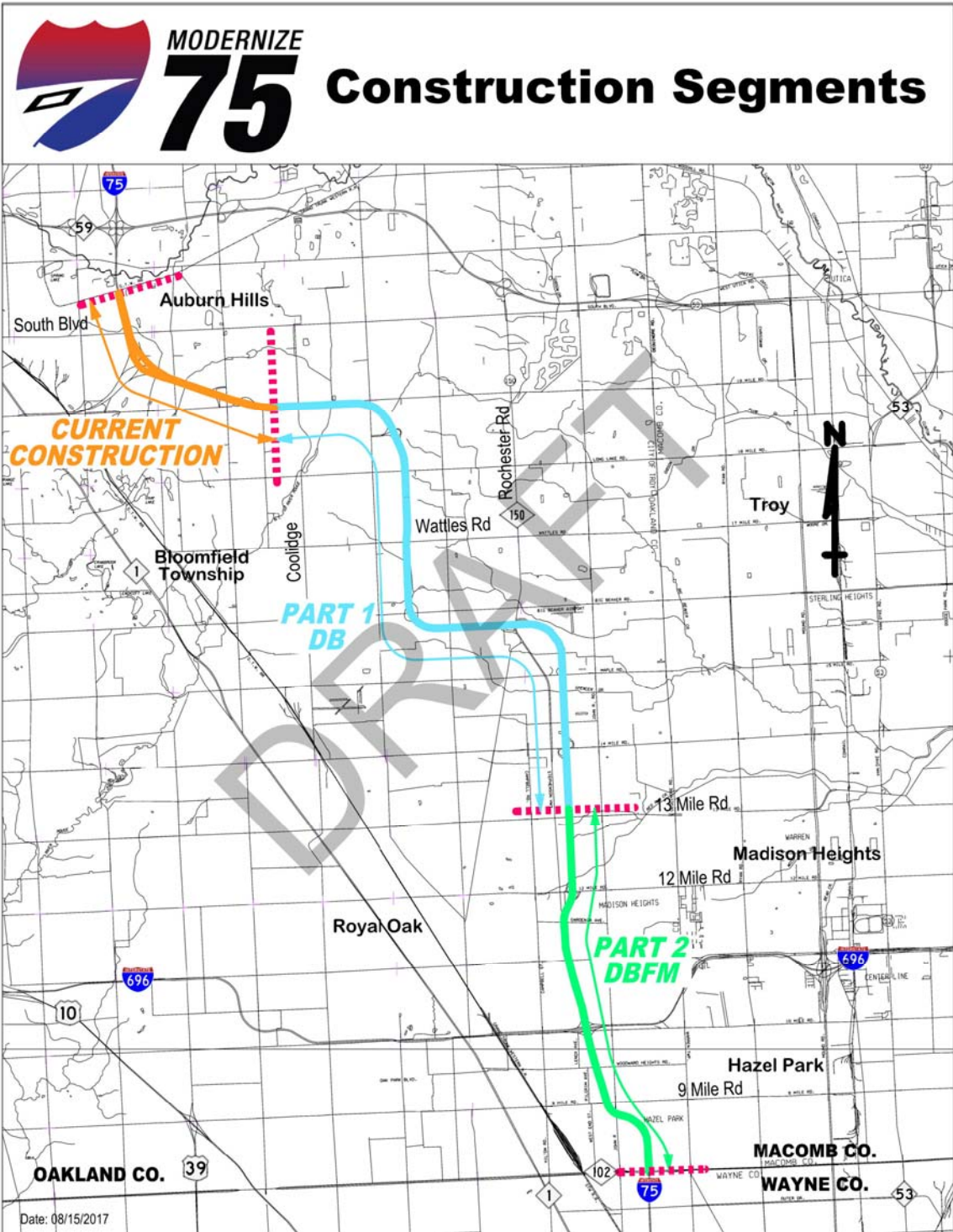


Figure 2: Project Map and Proposed Acceleration Plan

Why two parts and contracting methods?

The reason behind advancing the remaining segments as 2 parts using two types of procurement processes lies in balancing our risks and assuring that some substantial portion of the project is in fact advanced. To explain this further, it is important to understand the differences between DB and DBFM procurement models.

DB (Design-Build) is an innovative contracting model that allows for overlapping steps between design and construction, thus saving the overall time to complete the work of the Project. DB allows for more contractor innovation as they can apply their unique expertise and strengths as builders of infrastructure during the design phase. However, long term risk for the infrastructure performance (for example, pavement and bridge condition), largely remains with the agency/owner; once the Project work is complete, the owner assumes responsibility for the ongoing performance and maintenance of the facility.

DBFM (Design-Build-Finance-Maintain) is an innovative contracting model that uses the DB methodology, but transfers more risk to the contractor for the long term performance of the Project work. The DBFM team is responsible to not only design and build the Project, but to maintain it for a period of something on the order of 25 to 30 years; accordingly they have a vested interest in ensuring it performs well in order to manage their long term risk. Because of this risk transfer, it is also possible for the financial arm of the DBFM team to spread their costs (and therefore our repayment) over the term of the maintenance period. This frees up more money in the short term for MDOT to invest in other parts of transportation system.

MDOT and our contracting and consulting community in Southeast Michigan has enough experience with DB procurements that we are confident that we can successfully procure and execute a contract of this magnitude now. Unfortunately we don't have enough funding in the short term to do the entire remaining portions of the Project using DB alone. If we can take some substantial portion of the Project and spread those payments out over 25-30 years, then we can afford to advance the entire Project. While we could apply a DBFM to the entire remaining segments of the Project, DBFM is new to MDOT and Michigan; while there are plenty of examples across the country and world to draw from, there will still be a learning curve here in Michigan, and the risk associated with working through the details and doing them well in a compressed procurement timeframe could jeopardize the ability to accelerate any portion of the Project. Therefore, by having 2 parts, we can be relatively well assured that we can advance a substantial portion of the Project (via DB), while still working through the details to hopefully ensure a successful DBFM for the rest of the Project.

Successful implementation of these contracting methods will require significant learning and adjustment to our normal way of executing projects and providing oversight. This is especially true for the DBFM portion, where more risk and responsibility is transferred to the contractor team. At the same time, this is a great chance for us to learn, to be part of something new and exciting, to become the state's experts at this type of procurement, and to deliver something really significant for our customers. To this end, we remain committed to having MDOT staff engaged in this process to the greatest degree practical.