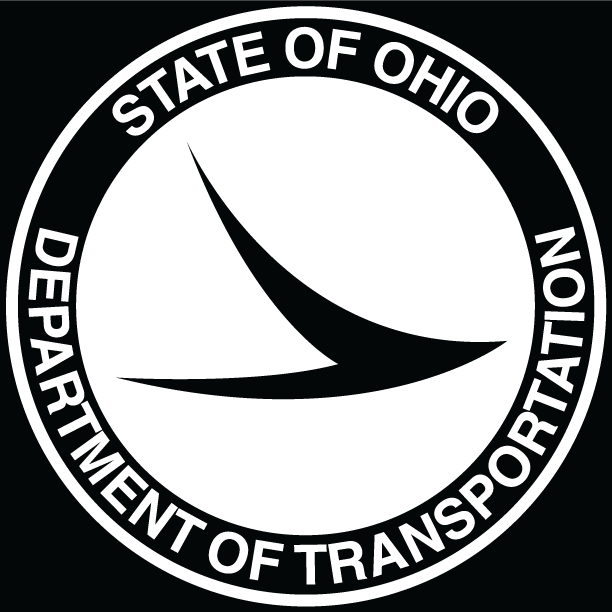
Instructor Guide

Design-Build Training Course

[](http://www.google.com/url?sa=i&rct=j&q=&esrc=s&frm=1&source=images&cd=&cad=rja&uact=8&docid=GqBp6u1NNCirLM&tbnid=9nZXt79T5zj4qM:&ved=0CAUQjRw&url=http://www.dot.state.oh.us/Divisions/Communications/Pages/OdotImageLibrary.aspx&ei=EhO0U73lGYOcqAb9zYCoCg&bvm=bv.70138588,d.ZGU&psig=AFQjCNFwRoCR4lOV_6omNgpmC_NO2tgkIg&ust=1404396688668274)

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# Course Overview and Introductions

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| Notes:  Display this screen as participants enter the training room.  To start the training:   * Direct students to turn to the first page of their Participant Workbook.   Move on to the next slide in the PowerPoint presentation. |

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| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Key_ICON.gif | Key Message  Begin the training event on a positive note by welcoming participants, introducing yourself, and orienting participants to training materials. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Notepad_ICON.gif | Interactivity/Talking Points   1. Introduce yourself to participants; discuss your background and how you came to be teaching this course. 2. Ask participants to provide self-introductions. Encourage participants to share their name, background, position, and experience with DB. 3. Ask participants to share their expectations for the course, record these on easel pages, and post pages for reference throughout the day. (Aim to record expectations from 5 to 7 participants to control time). 4. Orient participants to the course materials and explain that: 5. You will use a PowerPoint presentation throughout the training to guide the discussion. 6. The participants can follow along using their Participant Workbook. The workbook contains copies of the slides, as well as supplemental background and reference information to help clarify and further emphasize the major points of the discussion. 7. Review the basic ground rules for the course:   Participate  Return from breaks on time  Attentively listen when others talk.  Respect the opinions and attitudes of others.  Turn cell phone on mute.   1. Encourage participants to be active participants in the learning process, noting that they can obtain the maximum benefit from the course by asking and answering questions, participating in discussions and activities, and by sharing their own experiences and ideas. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Alarm Clock_ICON.gif | Timing  Time spent on slide: 10 min | Elapsed time from start of section: 10 min |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Emphasis-Pointing Right_ICON.gif | Transition  Next, we’ll review the overall structure and agenda for the course. | |

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| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Key_ICON.gif | Key Message  This training course will be divided into 4 main parts, followed by a course wrap-up. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Magnify Glass Search_ICON.gif | Reference Materials  This course is intended to provide participants with an *introduction* to DB project delivery. For more detailed information regarding DB, participants should consult the following ODOT guidance documents:   * Alternative Contracting Manual * Design Build Scope Manual * Project Development Process (PDP) Manual | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Notepad_ICON.gif | Interactivity/Talking Points  Present the basic structure of the course, which consists of 4 parts:   1. The first portion of the course provides a brief overview of the DB delivery method, including its advantages and disadvantages and the characteristics that would make a project a good candidate for DB delivery. 2. The second part explores how the use of DB impacts the traditional project development process and highlights the importance of developing complete and thorough scoping documents. 3. The third part addresses procurement processes and contracting issues that are unique to DB. 4. The final part addresses the post-award administration of the design, construction, and closeout phases of a DB project.   Note the following:   * Each part will begin and end with a review of the key learning outcomes for that particular portion of the course. * Throughout the course and at the end of each section, review questions will be asked to reinforce the learning outcomes for that section and to preview upcoming material.   To wrap-up the course, student mastery of the material presented will be assessed using a post-course test covering the key learning objectives from each section. Although the test will be open-note, participants will obtain the maximum benefit from the course by paying careful attention throughout the day, asking for clarification when necessary, contributing any personal experiences and anecdotes related to the topic under discussion, and attentively listening to the comments and experiences shared by your colleagues. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Alarm Clock_ICON.gif | Timing  Time spent on slide: 5 min | Elapsed time from start of section: 15 min |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Emphasis-Pointing Right_ICON.gif | Transition  We are ready to move on to Part 1 of the training. Here, we’ll quickly review our traditional DBB delivery approach before turning our attention to DB. | |

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# Part 1: Introduction to Design-Build

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| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Key_ICON.gif | Key Message  Display this screen to introduce Part 1 of the training, which provides an introduction to design-build (DB) project delivery. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Magnify Glass Search_ICON.gif | Reference Materials  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Information_ICON.gif | Background Information  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Notepad_ICON.gif | Interactivity/Talking Points  Note that you will now begin Part 1, which provides an introductory overview of DB. This section is expected to take about an hour, after which there will be a brief 10 minute break.  Note that the slides throughout the course employ the following acronyms:  DBB = design-bid-build  DB = design-build  DBT = design-build team | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Alarm Clock_ICON.gif | Timing  Time spent on slide: 1 min | Elapsed time from start of section: 16 min |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Emphasis-Pointing Right_ICON.gif | Transition  As I noted earlier, each part of the training will begin with a review of the learning outcomes for that portion of the course. Let’s now turn to the learning outcomes for this part. | |

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| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Key_ICON.gif | Key Message  Display this screen when reviewing the Part 1 learning outcomes. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Magnify Glass Search_ICON.gif | Reference Materials  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Information_ICON.gif | Background Information  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Notepad_ICON.gif | Interactivity/Talking Points  Briefly review the learning outcomes and indicate that you will revisit the outcomes once again at the end of this section. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Alarm Clock_ICON.gif | Timing  Time spent on slide: 1 min | Elapsed time from start of section: 17 min |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Emphasis-Pointing Right_ICON.gif | Transition  To meet these learning outcomes, we will follow the agenda shown on the next slide. | |

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| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Key_ICON.gif | Key Message  This slide presents the main topic areas covered in this section. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Magnify Glass Search_ICON.gif | Reference Materials  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Information_ICON.gif | Background Information  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Notepad_ICON.gif | Interactivity/Talking Points  Use this slide to present the main topic areas covered in this section.  Note the following:   * Although the focus of the course is on DB delivery, we will begin with a brief discussion of the traditional DBB delivery system to provide a foundation for our subsequent discussions on DB. We will move through the initial slides on DBB fairly quickly as the information should be familiar. * Although some time will be set aside at the end of this section for questions, feel free to speak up at any time. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Alarm Clock_ICON.gif | Timing  Time spent on slide: 1 min | Elapsed time from start of section: 18 min |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Emphasis-Pointing Right_ICON.gif | Transition  Before launching into a discussion of DB, we will first review the traditional DBB system, including its advantages and disadvantages and rationale for use, to establish a basis for comparison with DB. | |

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| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Key_ICON.gif | Key Message  Display this screen to initiate a brief review and discussion on ODOT’s traditional delivery system, DBB. | |
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| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Information_ICON.gif | Background Information  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Notepad_ICON.gif | Interactivity/Talking Points  Explain that ODOT’s traditional delivery system is DBB. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Alarm Clock_ICON.gif | Timing  Time spent on slide: 1 min | Elapsed time from start of section: 19 min |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Emphasis-Pointing Right_ICON.gif | Transition  As illustrated on the next slide, the distinguishing feature of DBB is the clear separation between the design and construction phases. | |

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| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Key_ICON.gif | Key Message  ODOT’s traditional project delivery system is DBB. | |
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| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Information_ICON.gif | Background Information  Design-Bid-Build (DBB), or design then bid then build, is the Department’s traditional delivery system, in which fully completed plans and specifications are incorporated into a bid package, which contractors then competitively bid. The Department evaluates the bids received, awards the contract to the lowest responsible and responsive bidder, uses prescriptive or method specifications for construction, and retains significant responsibility for quality, cost, and time performance.  This traditional procurement system has performed reasonably well over the past century, providing taxpayers with an adequate, safe, and efficient transportation facility at the lowest price that responsible, competitive bidders can offer. For the most part, it has resulted in a satisfactory degree of quality, and has effectively prevented favoritism in spending public funds, while stimulating competition in the private sector.  However, in the traditional system, the separation of design and construction services can foster adversarial relationships between the Department, designers, and contractors, can restrict innovation, and result in high cost and time growth. The traditional system may therefore not necessarily provide the best value to the Department for all project types. In recent years, the Department has therefore been increasingly turning to DB to streamline and enhance project delivery and risk allocation by contracting with one entity to provide design, construction, and other pre or post-construction services. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Notepad_ICON.gif | Interactivity/Talking Points  Use the graphics to emphasize that under DBB there is a clear separation between design and construction, and that no contractual relationship exists between the designer and the contractor. As such, design risk generally resides with the Owner, while the Contractor assumes responsibility for construction means and methods and a 1-year materials and workmanship warranty.  Before turning to the next slide, use this slide to provoke thought. Ask participants:   * What do you see as the top 3or 4 goals for a typical construction project? (Possible answers could include on-time delivery, meeting the project budget, obtaining a certain quality level, etc.) * What are some advantages of DBB that would help you meet these goals? * What are some of the disadvantages of DBB that would impede you from meeting these goals? | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Alarm Clock_ICON.gif | Timing  Time spent on slide: 5 min | Elapsed time from start of section: 24 min |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Emphasis-Pointing Right_ICON.gif | Transition  Let’s see if there are any other advantages of DBB that haven’t already been mentioned. | |

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| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Key_ICON.gif | Key Message  The DBB delivery method’s widespread and enduring use can be attributed in part to several distinct advantages. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Magnify Glass Search_ICON.gif | Reference Materials  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Information_ICON.gif | Background Information  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Notepad_ICON.gif | Interactivity/Talking Points   1. Depending on how active participants were in the prior Q&A session, you may only need to use this slide to confirm what the participants have already stated. If participants were less vocal, briefly review some of the benefits of DB, which include the following:  * Applicable to a wide range of projects * Well established and easily understood * As construction features are typically fully specified, DBB provides agencies with significant control over the end product * Clearly defined roles for all parties * Provides the lowest initial price that responsible, competitive bidders can offer * Extensive litigation has resulted in well-established legal precedents  1. Based on these advantages, ask participants if they can identify any project conditions that would benefit from the use of DBB. Possible answers may include:  * ODOT needs to completely define the scope using 100% complete plans and specifications * Significant risks or third-party issues (e.g., ROW, utility, environmental) that can be best resolved or managed by ODOT | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Alarm Clock_ICON.gif | Timing  Time spent on slide: 2 min | Elapsed time from start of section: 26 min |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Emphasis-Pointing Right_ICON.gif | Transition  Let’s now consider some of the disadvantages of DBB to the extent that we haven’t already identified them. | |

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| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Key_ICON.gif | Key Message  Although the traditional DBB delivery system has served the public well over the past century, given its risks and limitations, it may not necessarily provide the best value to the Department for all project types. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Magnify Glass Search_ICON.gif | Reference Materials  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Information_ICON.gif | Background Information  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Notepad_ICON.gif | Interactivity/Talking Points   1. Briefly review the content on the slide, noting that the separation of design and construction services can foster adversarial relationships between the Department, designers, and contractors; can restrict innovation; and result in high cost and time growth. 2. Ask participants to share if they have experienced any of these disadvantages on a project. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Alarm Clock_ICON.gif | Timing  Time spent on slide: 2 min | Elapsed time from start of section: 28 min |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Emphasis-Pointing Right_ICON.gif | Transition  Now that we all share a similar understanding of DBB, including its advantages and disadvantages, we will focus on DB for the rest of the course. | |

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| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Key_ICON.gif | Key Message  Display this slide to transition to the discussion on DB. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Magnify Glass Search_ICON.gif | Reference Materials  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Information_ICON.gif | Background Information  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Notepad_ICON.gif | Interactivity/Talking Points  Explain that you will devote the remainder of the course to DB.  If you haven’t already done so, poll participants to determine who has had experience with DB. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Alarm Clock_ICON.gif | Timing  Time spent on slide: 1 min | Elapsed time from start of section: 29 min |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Emphasis-Pointing Right_ICON.gif | Transition  Let’s start our discussion on DB by reviewing its definition. | |

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| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Key_ICON.gif | Key Message  DB is an alternative project delivery method that combines design and construction under one contract. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Magnify Glass Search_ICON.gif | Reference Materials  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Information_ICON.gif | Background Information  DB is an alternative project delivery system that combines both project design and construction under one contract. The DBT performs design, construction engineering, and construction according to design parameters, performance criteria, and other requirements established by the Department.  DB has been implemented in the highway construction industry in a variety of ways based in part on how state statutes are written, the procurement approach used, and how much responsibility is transferred to the DBT for the design and other aspects of project performance. This course specifically addresses how ODOT has implemented the DB delivery method. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Notepad_ICON.gif | Interactivity/Talking Points  Read through the definition of DB, emphasizing that under DB, ODOT will enter into a single contract for both engineering/design services and construction.  Note that the DBT may be a single firm, a consortium, joint venture, or other organization. However, the fundamental element of DB delivery remains that one entity assumes primary responsibility for both design and construction of the project. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Alarm Clock_ICON.gif | Timing  Time spent on slide: 1 min | Elapsed time from start of section: 30 min |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Emphasis-Pointing Right_ICON.gif | Transition  Let’s see how DB differs from the traditional DBB delivery process. | |

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| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Key_ICON.gif | Key Message  Use of DB allows some design risk to shift to the DBT. | |
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| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Information_ICON.gif | Background Information  Under traditional DBB delivery, the Department acts as both the owner and the designer. In this role, the Department in effect guarantees the completeness and accuracy of the design and retains most, if not all, of the risk for the success of the design.  In DB, several design-related risks shift to the DBT. Although the Department will continue to retain responsibility for defining the project scope, design criteria, and general site conditions (e.g., initial geotechnical investigation), the DBT, as Designer-of-Record, has ultimate responsibility for the accuracy of the plans, conformance with established standards, and constructability. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Notepad_ICON.gif | Interactivity/Talking Points  Note that participants should be familiar with the graphics shown on the left based on the earlier DBB discussions.  Contrast these graphics with those shown on the right for DB. Note the following key differences:   * The Department enters into only one contract for design and construction services. * Some (but not all) of the design risk shifts to the DBT. * Maintenance risk, during the life of the physical construction, primarily remains the same.   Explain that even under DB, some design risk will continue to reside with the Department due to its responsibility to fully define the project scope. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Alarm Clock_ICON.gif | Timing  Time spent on slide: 2 min | Elapsed time from start of section: 32 min |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Emphasis-Pointing Right_ICON.gif | Transition  As we’ll see on the next slide, DB is not a new concept. | |
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| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Key_ICON.gif | Key Message  DB is not a new delivery method, but one that can trace its origins to the Master Builders of ancient times. | |
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| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Information_ICON.gif | Background Information  DB is not a new delivery method. From ancient times up through the Renaissance, construction was accomplished by so-called Master Builders who oversaw design and construction.  *Master Builders*  The Code of Hammurabi – a Babylonian law code of ancient Mesopotamia that dates back to before 1800 BC – contains an early framework for DB contracting. The Code consists of 282 laws, with scaled punishments, adjusting “an eye for an eye, a tooth for a tooth.” The following provision from the Code defines a builder’s liability for a house that collapses:  A. If a builder build a house for a man and does not make its construction firm and the house which he has built collapse and cause the death of the owner of the house—that builder shall be put to death.  B. If it cause the death of the son of the owner of the house—they shall put to death a son of that builder.  C. If it cause the death of a slave of the owner of the house—he shall give to the owner of the house a slave of equal value.  D. If it destroy property he shall restore whatever it destroyed. And because he did not make the house which he built firm and it collapsed—he shall rebuild the house which collapsed at his own expense.  E. If a builder build a house for a man and does not make its construction meet the requirements and a wall fall in—that builder shall strengthen the wall at his own expense.  From the Code of Hammurabi, King of Babylonia  The Code defined an obligation of design and construction to society, leading to the emergence of Master Builders who were responsible for the temples of Classical Greece and the cathedrals of Medieval and early Renaissance Europe.  *The Renaissance and the Rise of the Architect*  The writings of Leon Battista Alberti contain the first documented separation of arts and crafts. Alberti is known as the first modern day architect in that he developed drawings, which were then used by others to construct buildings. The architect no longer needed to be present to direct the construction of a project they had designed. Instructions were conveyed by drawings, and builders built the buildings according to the drawings.  *The Industrial Revolution*  Further separation of design from construction continued and by the time of the Industrial Revolution, the design and construction industry had become more specialized and segmented with the rise of Professional Societies and divisions of labor into trades.  In 1897, the US passed the first architectural licensing laws.  *Federal Legislation and DBB*  In response to the growing segmentation of the construction industry, Congress enacted laws that served to endorse the DBB delivery model.   * **1893:** Legal separation of design and construction responsibilities on Federal projects came about through the passage of a 1893 Congressional Act that authorized the Department of Treasury to “obtain plans, drawings and specifications for the erection of public buildings in the US” through a fee competition. * **1926:** The Omnibus Public Buildings Act of 1926 required all capital project plans and specifications to be completed and approved before the construction can begin. * **1935:** With the passage of the **Miller Act** in 1935, a builder on a federal project of more than $100,000 had to post bonds. The Miller Act essentially took designers out of the construction business as they typically did not have the capital to post a bond. In effect, the Miller Act created a legal separation between design and construction. * **1949:** Congress enacted the Federal Property and Administrative Services Act, which mandated the separation of design and construction by requiring the selection of builders on public contracts through open competition and lowest responsible price. * **1968:** Federal Highway Act revised Title 23 USC 112 to award construction contracts “only on the basis of the lowest responsive bid.” * **1972:** The passage of the **Brooks Architect-Engineer’s Act** solidified the separation of design and construction and reinforced the DBB project delivery method. The Brooks Act requires government agencies to award architectural and engineering contracts based solely on qualifications, rather than price.   *Reemergence of DB*  As owners began to experience problems with DBB, DB re-emerged as a possible solution for eliminating the often adversarial relationships between designers and contractors and for obtaining better cost certainty.  Private sector use of DB began to expand in the 1960s with the proliferation of Engineer-Procure-Construct contracts in the oil and gas industry.  In 1990, FHWA implemented Special Experimental Project No.14, Innovative Contracting (SEP-14) as a vehicle for State highway agencies to use Federal-aid funds – with FHWA approval – to experiment with alternative contracting methods for selected projects. In return, the FHWA asked that these agencies report on outcomes, particularly in terms of the ability to save time, reduce costs, or improve performance. DB was one of four alternative contracting practices approved for evaluation in SEP-14, (along with cost-plus-time bidding, lane rental, and warranty clauses).  In 1998, under the Transportation Equity Act for the 21st Century (TEA-21), FHWA took the first steps in developing regulations for the regular use of DB on federally funded transportation projects. Section 1307 of TEA-21 amended federal law, 23 U.S.C. 112, to authorize the use of DB and all other projects which exceed $50,000,000.  Based on this change in the law, the FHWA published a final rule for DB contracting in December 2002, which became effective in 2003. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Notepad_ICON.gif | Interactivity/Talking Points  Present this slide to provide a historical perspective of DB. Note that in the interest of time, for those interested, a more complete summary of the evolution of DB is provided in the Participant Workbook.  Emphasize that DB does not represent a departure to something new, but rather a full-circle return to how buildings were constructed in ancient times.   * As denoted by the gray circles on the slide, up until the mid-1400s, construction was accomplished by so-called Master Builders who oversaw design and construction. * With the Renaissance and the rise of the modern-day architect, the design and construction fields began to separate (see the red circles on the graphic). Alberti is known as the first modern day architect in that he developed drawings, which were then used by others to construct buildings. * The Industrial Revolution encouraged further specialization and segmentation of the design and construction industries through the rise of Professional Societies and divisions of labor into trades. * In response to the growing segmentation of the construction industry, Congress enacted several laws that served to endorse the DBB delivery model, chief among these were the Miller Act and the Brooks Act: * By requiring the posting of bonds, the Miller Act of 1935 essentially took designers out of the construction business because they typically did not have the capital needed to post a bond. * The Brooks Act of 1972 reinforced the DBB project delivery method by requiring government agencies to award architectural and engineering contracts based solely on qualifications, rather than price. * As owners began to experience problems with DBB, DB re-emerged as a possible solution for eliminating the often adversarial relationships between designers and contractors and for obtaining better cost certainty. * In 1990, FHWA implemented Special Experimental Project No.14, Innovative Contracting (SEP-14) as a vehicle for State highway agencies to use Federal-aid funds to experiment with certain alternative contracting methods, including DB, for selected projects. * 1998: The Transportation Equity Act for the 21st Century (TEA-21) took the first steps in developing regulations for the regular use of DB on federally funded transportation projects. * 2003: FHWA’s Final Rule on DB Contracting becomes effective. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Alarm Clock_ICON.gif | Timing  Time spent on slide: 3 min | Elapsed time from start of section: 35 min |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Emphasis-Pointing Right_ICON.gif | Transition  Now that we understand some of the history behind DB, let’s take a look at how its use evolved in Ohio. | |

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| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Key_ICON.gif | Key Message  ODOT’s experience with DB dates back to 1995. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Magnify Glass Search_ICON.gif | Reference Materials  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Information_ICON.gif | Background Information  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Notepad_ICON.gif | Interactivity/Talking Points  Use this slide to transition to a discussion on ODOT’s experience with DB. Note the following:   * In 1995 the Ohio State Legislature passed legislation authorizing ODOT to develop and implement a DB pilot program for a maximum of six projects. * ODOT selected six pilot projects ranging in value from $250,000 to $14 million to demonstrate the effectiveness of the DB project delivery method. The slide summarizes the key findings from this pilot program. * In 1999, the Ohio legislature gave ODOT additional DB authority in House Bill 163. This bill allows ODOT to contract a maximum of $250 million using DB. * ODOT’s authority expanded in 2011to allow up to $1billion per fiscal year. The revised legislation allowed ODOT to consider Qualifications by combining technical qualifications and competitive bidding elements. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Alarm Clock_ICON.gif | Timing  Time spent on slide: 2 min | Elapsed time from start of section: 37 min |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Emphasis-Pointing Right_ICON.gif | Transition  As shown on the following slide, ODOT’s use of DB has expanded significantly since these early projects. | |

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| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Key_ICON.gif | Key Message  ODOT has had a variety of experience with DB. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Magnify Glass Search_ICON.gif | Reference Materials  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Information_ICON.gif | Background Information  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Notepad_ICON.gif | Interactivity/Talking Points  Emphasize that the program has add multiple increases and decreases through the years.  Initial push from 2001 to 2003 was an initiative from management to delivery DB projects in every district.  2010 increase was due to ARRA  Major push from 2014 through 2018 because of Ohio Bridge Partnership  Highlight some of ODOT’s DB accomplishments to emphasize that DB does not represent a new departure for the Department.  Poll participants to see if they were involved with any of the projects shown on the slide. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Alarm Clock_ICON.gif | Timing  Time spent on slide: 2 min | Elapsed time from start of section: 39 min |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Emphasis-Pointing Right_ICON.gif | Transition  Specific projects have represented many differing approaches and highlights of the overall program. | |

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| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Key_ICON.gif | **Key Message**  ODOT has had a variety of experience with DB. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Magnify Glass Search_ICON.gif | **Reference Materials**  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Information_ICON.gif | **Background Information**  CCG1 – George Voinovich Bridge (Project 1): First Value Based DB award  670 / 71 – First major interchange reconstruction  CCG2 – DB with a Finance component  71 widenings – 3 consecutive DB projects for the widening of 71 between Columbus and Cleveland  MLK – First Two-step Low Bid  OC2 – First project to use minority goals in determination  OBPP – replacement of 200 bridges  OC3 – First project to allow more than 40% award on proposal  I-480 Valley View Bridge – First Pass/Fail evaluation  LUC-2: First DBOM | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Notepad_ICON.gif | **Interactivity/Talking Points**  CCG1 – first project to incorporate the overall design and approach as an award consideration  670/71 – first project to be taken to court. First major interchange  71 widenings – remaining corridor between Columbus and Cleveland was widened using DB: 25.27 Miles  MLK – First to be shortlisted and Low bid  OBPP – 200+ bridges in 3 years  Opp Corr 3 – First project to use non-traditional goals & to push the approach as a deciding factor (upto 40%)  I-480 Valley View bridge – 4300ft bridge addition (middle) – used one on one confidential meetings during procurement & Pass/Fail evaluation  Luc-2 Dehumidification of the structure with O&M portions.  Main point: Differing types of projects which all have specific needs which were able to be addressed using DB delivery. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Alarm Clock_ICON.gif | **Timing**  Time spent on slide: 2 min | Elapsed time from start of section: 39 min |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Emphasis-Pointing Right_ICON.gif | **Transition**  ODOT has been able to implement DB in a variety of ways, due in part to the broad discretion granted by both Federal and State regulations. | |

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| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Key_ICON.gif | Key Message  Display this slide to discuss the enabling legislation for DB. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Magnify Glass Search_ICON.gif | Reference Materials  The legal basis for using DB on ODOT projects can be found in the following regulations:   * 23 CFR 636, Design-Build Contracting * ORC 5517.011, Combining design and construction elements of highway or bridge project into single contract | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Information_ICON.gif | Background Information  *Federal Authority*  In 1998, under the Transportation Equity Act for the 21st Century (TEA-21), FHWA took the first steps in developing regulations for the regular use of DB on federally funded transportation projects. Section 1307 of TEA-21 amended Federal law, 23 U.S.C. 112, to authorize the use of DB, in states which authorized it under their own legislation, on ITS projects which exceed $5,000,000 and all other projects which exceed $50,000,000.  Based on this change in the law, the FHWA published a final rule for DB contracting in December 2002, which became effective in 2003 (23 CFR Part 636).  Subsequent modifications required by section 1503 of SAFETEA-LU resulted in revisions published in a final rulemaking on August 14, 2007. Among the revisions made by SAFETEA-LU were the elimination of the dollar thresholds for “qualified” projects; and permission to release an RFP or award a DB contract prior to completion of the NEPA process.  DB procurement processes that deviate from the requirements of 23 CFR 636 may require an SEP-14 work plan and approval.  *State Authority*  State authority to use DB is derived from ORC 5517.011, which allows a project’s design and construction elements to be combined into a single contract and the work to be bid using a scope of work document.  The provision grants the director the discretion to use a value-based procurement process, that bases contract award on a combination of price and qualitative considerations.  **ORC 5517.011 Combining design and construction elements of highway or bridge project into single contract.** Notwithstanding section 5517.01 of the Revised Code, the director of transportation may establish a program to expedite the sale and construction of special projects by combining the design and construction elements of a highway or bridge project into a single contract. The director shall prepare and distribute a scope of work document upon which the bidders shall base their bids. Except in regard to those requirements relating to providing plans, the director shall award contracts under this section in accordance with Chapter 5525. of the Revised Code.  Notwithstanding any provision of Chapter 5525. of the Revised Code, the director may use a value-based selection process, combining technical qualifications and competitive bidding elements, including consideration for minority or disadvantaged businesses that may include joint ventures, when letting special projects that contain both design and construction elements of a transportation project into a single contract.  The total dollar value of contracts made under this section shall not exceed one billion dollars per fiscal year. The director may provide compensation for preparation of a responsive preliminary design concept to not more than two bidders who, after the successful bidder, submitted the next best bids. The director may establish policies or procedures necessary to determine the amount of compensation to be provided for each project and the method of evaluating the value of the preliminary design concept submitted, but in no instance may the compensation exceed the value of such concept. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Notepad_ICON.gif | Interactivity/Talking Points   1. Briefly review this slide, noting that the legal basis for using DB on ODOT projects can be found in:  * FHWA’s DB Final Rule (23 CFR 636) * ORC 5517.011 (note that the Participant Workbook contains an extract from the Code)  1. Explain that this legal authority provides the basis for awarding DB contracts using either a low bid or value based procurement process. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Alarm Clock_ICON.gif | Timing  Time spent on slide: 2 min | Elapsed time from start of section: 41 min |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Emphasis-Pointing Right_ICON.gif | Transition  Based on this legal authority, ODOT has been granted broad discretion to select a DB approach appropriate for the specific needs of a given project. As identified in the next slide, ODOT has implemented DB using four different approaches. | |

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| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Key_ICON.gif | Key Message  Although ODOT has the ability to use a two-step low bid or value-based procurement process, the majority of its DB projects are low bid. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Magnify Glass Search_ICON.gif | Reference Materials  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Information_ICON.gif | Background Information  ODOT has been granted fairly broad discretion when it comes to selecting a DB approach appropriate for the specific needs of a given project. ODOT has implemented DB using three different approaches.   * Under one-step low bid, pre-qualified Offerors submit bids, which the Department uses to determine the apparent low bidder. * A two-step low bid process incorporates a Request for Qualifications (RFQ) step in which Offferors prepare Statements of Qualification (SOQ), which the Department then uses to limit the playing field to the most qualified firms on the basis of pass/fail criteria and a limited number of scored criteria. The short-listed DBTs are then invited to prepare Price Proposals, which the Department uses to determine the Apparent Low Bidder. * Value-based DB contracting also entails an RFQ step, followed by an RFP step in which the short-listed DBTs are invited to submit Technical and Price Proposals, which the Department evaluates and scores to determine the Apparent Best Value Bidder based on a combination of bid price and a technical qualifications assessment. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Notepad_ICON.gif | Interactivity/Talking Points  Briefly review the content on the slide, emphasizing that even though ODOT’s Central Office has the ability to use a two-step low bid or value-based procurement process, the majority of its DB projects are awarded using one-step low bid process.  Briefly introduce the main differences between these three approaches:   * Under one-step low bid, pre-qualified Offerors submit bids, which the Department uses to determine the apparent low bidder. This process is fairly similar to the approach used to procure construction services for a traditional DBB project. * A two-step low bid process entails an RFQ step in which Offferors prepare Statements of Qualification, which the Department then uses to limit the playing field to the most qualified firms on the basis of pass/fail criteria and a limited number of scored criteria. The short-listed DBTs are then invited to prepare a Price Proposal, which the Department uses to determine the apparent Low Bidder. * Value-based DB contracting also entails an RFQ step, followed by an RFP step in which the short-listed DBTs are invited to submit Technical and Price Proposals, which the Department evaluates and scores to determine the Apparent Best Value Bidder based on a combination of bid price and a technical qualifications assessment. * Two-Step Technically Responsive Low-Bid. Two-Step Technically Responsive Low-Bid process incorporates a Request for Qualifications (RFQ) step in which Offerors prepare Statements of Qualification (SOQ), which the Department then uses to limit the playing field to the most qualified firms. The short-listed Offerors are then invited to submit Technical and Price Proposals. The Department evaluates the Technical proposal on a Pass/Fail evaluation. Process usually includes a “pre-submission” / Proprietary Techincal Information meetings to discuss concept before official submittal.   The revisions of approach have occurred because of changing needs to the project, the reponses from industry, and the adjusting of the processes as we’ve learned more of what works.  Note that you will spend additional time on procurement considerations during Section 3. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Alarm Clock_ICON.gif | Timing  Time spent on slide: 1 min | Elapsed time from start of section: 42 min |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Emphasis-Pointing Right_ICON.gif | Transition  Now that we have a fuller understanding of the DB delivery method, let’s take a look at its advantages and disadvantages. | |

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| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Key_ICON.gif | Key Message  Display this slide to transition to a discussion of DB’s advantages and disadvantages. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Magnify Glass Search_ICON.gif | Reference Materials  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Information_ICON.gif | Background Information  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Notepad_ICON.gif | Interactivity/Talking Points  Note that DB is not appropriate for every project, but given the right circumstances, DB may offer significant benefits to both the Department and the public. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Alarm Clock_ICON.gif | Timing  Time spent on slide: 2 min | Elapsed time from start of section: 44 min |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Emphasis-Pointing Right_ICON.gif | Transition  Let’s turn to some of the perceived advantages of DB. | |

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| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Key_ICON.gif | Key Message  A key advantage of DB is its ability to shorten overall project delivery time. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Magnify Glass Search_ICON.gif | Reference Materials  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Information_ICON.gif | Background Information  The overall project schedule is typically a driving consideration for selecting the DB delivery approach. The ability offered under DB to overlap (“fast-track”) design and construction activities can be used to accelerate the overall project delivery schedule, even if actual construction time remains similar to that of a traditional project.  Earlier contractor involvement also allows for more efficient procurement of long-lead items, earlier cost and schedule certainty, and enhanced constructability of plans.  In addition, allocating design and construction responsibilities to one entity should improve communication and coordination efforts between the designer and contractor, and thus minimize the potential for project delays associated with requests for information and design-related errors and omissions. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Notepad_ICON.gif | Interactivity/Talking Points  Explain that a key consideration for using DB is its ability to “fast-track” construction by starting construction before the entire design is complete. This allows for a shorter overall delivery schedule, even if actual construction time remains the same.  Earlier contractor involvement also promotes the following:   * More efficient procurement of long-lead items * Earlier cost and schedule certainty * Enhanced cost-consciousness and constructability of plans due to improved coordination between designer and contractor | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Alarm Clock_ICON.gif | Timing  Time spent on slide: 1 min | Elapsed time from start of section: 45 min |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Emphasis-Pointing Right_ICON.gif | Transition  Let’s now consider some other advantages of using DB. | |

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| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Key_ICON.gif | Key Message  In addition to accelerated delivery, DB also offers many other potential advantages. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Magnify Glass Search_ICON.gif | Reference Materials  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Information_ICON.gif | Background Information  In addition to quicker delivery, other considerations for using DB include the following:   * **Innovation** – To the extent that the Department is willing to relinquish control over some aspects of the work, use of DB has the potential to foster contractor innovation and thereby improve the quality or economy, or both, of the end-product. Innovation can also extend to management techniques and other elements of the project, such as public information and community relations, maintenance and protection of traffic (MPT), and schedule. * **Less Cost Growth** – Assigning control over design and construction to one entity should minimize cost growth due to errors and omissions in the plans. Furthermore, the lump-sum nature of the DB contract eliminates cost increases due to variation in unit quantities. * **Enhanced Constructability** – Early contractor involvement and coordination with the designer should allow the design to be optimized to the contractor’s strengths, potentially leading to time and/or cost savings. * **Better Risk Allocation** – Risk can be allocated to the party best able to manage it. * **Single point of responsibility** – Having a single point of responsibility for design and construction services promotes a non-adversarial relationship between the designer and contractor. Improved communication and increased constructability should help minimize claims associated with errors and omissions in the plans. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Notepad_ICON.gif | Interactivity/Talking Points  Review the potential advantages shown on the slide, to the extent that they weren’t already addressed during the Q&A.  Ask the class if they can identity any other potential advantages of DB. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Alarm Clock_ICON.gif | Timing  Time spent on slide: 2 min | Elapsed time from start of section: 47 min |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Emphasis-Pointing Right_ICON.gif | Transition  Now that we’ve reviewed the advantages of DB, let’s take a look at some of its perceived disadvantages. | |

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| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Key_ICON.gif | Key Message  Despite its potential benefits, DB does carry some risks. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Magnify Glass Search_ICON.gif | Reference Materials  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Information_ICON.gif | Background Information  Note that before deciding to use DB, it is important to take stock of its potential risks. These include the following:   * **Reduced owner control over design:** By only providing a Scope of Work document, the Department can exert less control over the final design. * **Quality concerns:** DB eliminates the traditional checks and balances between the designer and contractor. As part of the DBT, the designer is no longer in the position to act as the Department’s advocate. Quality may be subordinated by cost or schedule considerations. * **Reduced competition:** Opportunities for smaller, local construction firms may be reduced. Fewer competitors may result in higher initial costs. * **Lengthy procurement process:** Particularly if using a two-step value-based process, the scoping and procurement phase can be critical to project success. * **Confusion regarding roles and responsibilities:** Roles and responsibilities of the contractor and the Department can become blurred if not adequately defined in the specifications or contract documents. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Notepad_ICON.gif | Interactivity/Talking Points  Use this slide to review some of the main disadvantages and risks of using DB, which may include:   * Less agency control over final design * Elimination of traditional checks and balances. Designer is no longer agency’s advocate. Quality may be subordinated by cost or schedule considerations. * Reduced opportunities for smaller, local construction firms * Higher procurement costs, which may include stipends for proposers * Traditional funding may not support fast-tracking construction or may require accelerated cash flow * Accelerated construction can potentially overextend the workforce | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Alarm Clock_ICON.gif | Timing  Time spent on slide: 2 min | Elapsed time from start of section: 49 min |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Emphasis-Pointing Right_ICON.gif | Transition  We’ve just identified several advantages and risks related to the use of DB, suggesting that DB is most beneficial when used on projects for which the anticipated benefits will offset the potential risks.  Let’s now consider what project circumstances would make for an ideal DB candidate. | |

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| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Key_ICON.gif | Key Message  Display this slide to transition to a discussion on DB project selection criteria. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Magnify Glass Search_ICON.gif | Reference Materials  The following ODOT manuals contain additional information on project selection considerations:   * Design Build Scope Manual * Innovative Contracting Manual | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Information_ICON.gif | Background Information  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Notepad_ICON.gif | Interactivity/Talking Points  Note that in this section you will discuss considerations for using DB. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Alarm Clock_ICON.gif | Timing  Time spent on slide: 2 min | Elapsed time from start of section: 51 min |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Emphasis-Pointing Right_ICON.gif | Transition  Let’s first discuss considerations for using DB. | |

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| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Key_ICON.gif | Key Message  The use of DB is more likely to be successful if used under the appropriate circumstances. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Magnify Glass Search_ICON.gif | Reference Materials  The following ODOT manuals contain additional information on project selection considerations:   * Design Build Scope Manual * Innovative Contracting Manual | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Information_ICON.gif | Background Information  *Considerations for Using DB*  Although DB can be used to deliver almost any project, best practice suggests that it provides the greatest benefit on projects for which reduced schedule duration, increased constructability, and/or enhanced innovation offset the potential risks and associated costs of transferring design responsibility and other roles traditionally held by the Department to the DBT.  DB has been used successfully on projects for which:   * The project scope can be adequately defined without 100 complete PS&E. * A compressed schedule is needed. * Outside expertise is needed. * Schedule certainty is needed. * Early cost certainty is required. * Project quality can be defined through minimum design. * Opportunity for innovation exists. * Minimal third party risks exist or can be mitigated.   In addition, ODOT’s PDP identifies the following additional screening characteristics for identifying candidate projects for DB:   * Minimal utility coordination required * Manageable public controversy * Projects that are environmentally exempt or qualify for a Level 1 Categorical Exclusion * Projects that are Minor or Minimal under ODOT’s PDP   As a final consideration, the Department must have adequate staff to devote to the DB procurement effort, particularly for a two-step value-based selection. Development of the solicitation documents and evaluation of proposals require a far more intensive effort under DB delivery than in a traditional procurement. Best practice also suggests that key personnel remain involved with the project from its inception to completion of construction.  *Considerations for NOT Using DB*  Reasons for not using DB to deliver a particular project include:   * The project schedule cannot be compressed or there is no benefit from compression. * The design must be complete to obtain accurate pricing. * The design must be complete to resolve environmental and/or other third party issues. * Environmental or other third party issues are better managed by the Department, not the DBT. * Project is too small to attract competition. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Notepad_ICON.gif | Interactivity/Talking Points  Explain that best practice suggests that DB provides the greatest benefit on projects for which:   * The project scope can be adequately defined without 100 complete PS&E. * Reduced schedule duration is needed * Opportunity for innovation exists * Outside expertise is needed. * Early cost certainty is required. * Minimal third party risks exist or can be mitigated.   In addition, ODOT guidance documents contain the following additional screening criteria:   * Minimal utility coordination required * Manageable public controversy * Projects that are environmentally exempt or qualify for a Level 1 Categorical Exclusion * Projects that are Minor or Minimal under ODOT’s PDP   Conversely, you may want to note that projects that make for good DBB candidates include the following:   * ODOT needs to completely define the scope * Scope can be best defined using prescriptive specifications   Significant risks or third-party issues (e.g., ROW, utility, environmental) that can be best resolved or managed by ODOT  Admit that the official guidance would eliminate the majority of the best DB projects – none of the largest projects would meet the official criteria. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Alarm Clock_ICON.gif | Timing  Time spent on slide: 5 min | Elapsed time from start of section: 58 min |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Emphasis-Pointing Right_ICON.gif | Transition  Based on these selection criteria, we will now take a look at project *types* that generally align with the DB delivery method. | |

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| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Key_ICON.gif | Key Message  Display this slide to review suitable project types for DB delivery. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Magnify Glass Search_ICON.gif | Reference Materials  The following ODOT manuals contain additional information on project selection considerations:   * Design Build Scope Manual * Innovative Contracting Manual | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Information_ICON.gif | Background Information  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Notepad_ICON.gif | Interactivity/Talking Points  Use this slide to identify typical DB project types.  Conversely, you may wish to point out that the following projects would make poor candidates for DB.   * Two-lane resurfacing and overlays * Bridge painting * Crack sealing * Guardrail, RPM, and striping * Signage | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Alarm Clock_ICON.gif | Timing  Time spent on slide: 2 min | Elapsed time from start of section: 60 min |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Emphasis-Pointing Right_ICON.gif | Transition  This concludes Part 1 of this training course. We will now demonstrate what we’ve learned by revisiting the learning objectives that started off this section. | |

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| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Key_ICON.gif | Key Message  Display this screen to wrap-up Part 1. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Magnify Glass Search_ICON.gif | Reference Materials  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Information_ICON.gif | Background Information  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Notepad_ICON.gif | Interactivity/Talking Points  Before closing out this section, ask participants if they have any questions regarding the material covered in Section 1. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Alarm Clock_ICON.gif | Timing  Time spent on slide: 2 min | Elapsed time from start of section: 62 min |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Emphasis-Pointing Right_ICON.gif | Transition  Let’s take a look at our original learning objectives. | |

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| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Key_ICON.gif | Key Message  Display this screen to recap the learning outcomes from Part 1. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Magnify Glass Search_ICON.gif | Reference Materials  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Information_ICON.gif | Background Information  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Notepad_ICON.gif | Interactivity/Talking Points  Review the section learning objectives. Plan to spend 3-5 minutes on this review. Maintain a quick pace throughout the review to keep it interesting and interactive.  Preview the next section by telling participants that, after the break, your will begin discussing the DB project development and scoping process. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Alarm Clock_ICON.gif | Timing  Time spent on slide: 6 min | Elapsed time from start of section: 70 min |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Emphasis-Pointing Right_ICON.gif | Transition  We will now take a quick ten minute break, which based on my watch means we should be back in the room by \_\_\_\_\_ | |

# Part 2: DB Project Development

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| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Key_ICON.gif | Key Message  Display this screen to introduce Part 2 of the training, which provides an overview of the DB project development process. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Magnify Glass Search_ICON.gif | Reference Materials  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Information_ICON.gif | Background Information  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Notepad_ICON.gif | Interactivity/Talking Points  Note that you will now begin Part 2 of the course, which provides an overview of the DB project development and scoping process. This part is expected to take 70 minutes, after which we will break for lunch. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Alarm Clock_ICON.gif | Timing  Time spent on slide: 1 min | Elapsed time from start of section: 1 min |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Emphasis-Pointing Right_ICON.gif | Transition  Let’s start off this part of the training by taking a look at the learning objectives. | |

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| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Key_ICON.gif | Key Message  Display this screen when reviewing the learning outcomes for this portion of the training course. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Magnify Glass Search_ICON.gif | Reference Materials  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Information_ICON.gif | Background Information  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Notepad_ICON.gif | Interactivity/Talking Points  Briefly review the learning outcomes for this section and indicate that you will revisit the outcomes once again at the end of this portion of the training. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Alarm Clock_ICON.gif | Timing  Time spent on slide: 1 min | Elapsed time from start of section: 2 min |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Emphasis-Pointing Right_ICON.gif | Transition  To meet these learning outcomes, we will follow the agenda shown on the next slide. | |

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| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Key_ICON.gif | Key Message  This slide presents the main topic areas covered in this part of the course. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Magnify Glass Search_ICON.gif | Reference Materials  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Information_ICON.gif | Background Information  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Notepad_ICON.gif | Interactivity/Talking Points  Use this slide to present the main topic areas covered in this section.  Note that the information presented in this section supplements existing Department manuals, such as the PDP, with information specific to the DB method of project delivery. The information provided has been developed based on lessons learned on ODOT projects as well as best practices from the DB industry, with consideration given to how these practices can be best integrated into the Department’s existing project development and project management processes. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Alarm Clock_ICON.gif | Timing  Time spent on slide: 2 min | Elapsed time from start of section: 4 min |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Emphasis-Pointing Right_ICON.gif | Transition  Building upon some of what was discussed in Part 1, the decision to use DB is not one that should be taken lightly. We will therefore start this section by briefly discussing the DB decision process. | |

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| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Key_ICON.gif | Key Message  Display this slide to initiate a brief discussion on the DB decision process. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Magnify Glass Search_ICON.gif | Reference Materials  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Information_ICON.gif | Background Information  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Notepad_ICON.gif | Interactivity/Talking Points  Use this slide to provoke thought and reinforce the information conveyed during Part 1:   * Based on what we learned in Part 1, what are some considerations for using DB? Possible answers may include: * Reduce delivery time * Promote innovation * Allocate risk to the party best able to manage it * Enhance constructability * Obtain earlier cost certainty * Consider the following scenarios. What delivery method would be most appropriate for the given situation? * We want quick project delivery? DB * Design is complete and not complex (e.g., rehab job)? DBB * Projects having a high sense of urgency? DB * Projects having manageable public controversy and minimal third party or environmental issues? DB | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Alarm Clock_ICON.gif | Timing  Time spent on slide: 3 min | Elapsed time from start of section: 6 min |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Emphasis-Pointing Right_ICON.gif | Transition  These scenarios demonstrate the need to align project goals with delivery approach, as shown on the following slide. | |

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| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Key_ICON.gif | Key Message  Project goals and characteristics should be aligned to the chosen project delivery approach. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Magnify Glass Search_ICON.gif | Reference Materials  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Information_ICON.gif | Background Information  Identification of project goals and risks are critical to the success of any project. However, when the Department is considering use of an alternative delivery method such as DB, articulation of these factors takes on even greater importance as they set the foundation for the entire project development process. Decisions made with respect to risk allocation, procurement method (low-bid vs. best-value), RFQ/RFP development, and the proposal evaluation and DBT selection process, should all stem from the goals identified at project inception. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Notepad_ICON.gif | Interactivity/Talking Points  Explain that before deciding to use DB, the project team should make a concerted effort at defining project goals, assessing project characteristics, and then aligning these to the delivery method. For example, on an emergency project where the goal is to reduce overall project delivery time, DB may provide the best option.  Note that an additional consideration, which will be discussed in greater detail in Part 3, relates to also tailoring the procurement approach (low bid vs. value-based) to the project goals and characteristics. For example,   * A low bid DB approach would apply to projects where a compressed construction schedule is beneficial or possible but the Department must provide a high level of design definition and retain control of quality and third party coordination. * A value-based DB approach is better suited for projects where a low level of design definition is possible, there is greater opportunity for innovation, and the DBT can assume greater responsibility for quality and third party coordination.   A final consideration relates to the use of incentive/disincentive strategies (e.g., for timely completion, quality, etc.) to motivate the contractor to achieve key project goals. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Alarm Clock_ICON.gif | Timing  Time spent on slide: 3 min | Elapsed time from start of section: 12 min |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Emphasis-Pointing Right_ICON.gif | Transition  In addition to making a deliberate decision to use DB, other aspects of the Department’s traditional project development process will also require some adjustments to accommodate DB. We’ll address these differences in the next set of slides. | |

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| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Key_ICON.gif | Key Message  Display this slide to initiate a discussion on how DB can be integrated into ODOT’s standard project development processes. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Magnify Glass Search_ICON.gif | Reference Materials  For more information, users should consult the following ODOT manuals:   * Project Development Process Manual * Location and Design Manual (particularly Section 1401.5 on DB) | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Information_ICON.gif | Background Information  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Notepad_ICON.gif | Interactivity/Talking Points  Ask the class how familiar they are with ODOT’s PDP. Note that this discussion will address the necessary adjustments to the PDP to accommodate DB. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Alarm Clock_ICON.gif | Timing  Time spent on slide: 1 min | Elapsed time from start of section: 13 min |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Emphasis-Pointing Right_ICON.gif | Transition  Let’s start things off by comparing the general development process for a DBB vs DB project. | |

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| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Key_ICON.gif | Key Message  ODOT’s project development process requires some modification to accommodate DB. | |
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| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Information_ICON.gif | Background Information  Under its standard DBB delivery approach, the Department prepares complete plans, specifications, and estimates (PS&E) to fully define project requirements. These design documents are then used to procure construction contractors (typically on a low-bid basis) to build the project in strict accordance with the Department’s design.  In contrast, under DB delivery, the DBT, and not the Department or a consultant retained by the Department, is the Designer-of-Record (or Engineer-of-Record) responsible for the final project design, in addition to construction of the project in accordance with this design.  With this change in roles and responsibilities comes a change in the basis of the contract between the Department and the constructor. No longer are 100 percent complete plans and specifications the technical basis of the construction contract. Instead, the Department’s Scope of Work Document forms the technical basis of the DB contract, and the 100 percent complete plans and specifications are a required deliverable under this contract. As such, the Scoping Phase (akin to Preliminary Design under DBB) takes on heightened importance under DB. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Notepad_ICON.gif | Interactivity/Talking Points  Refer to the graphics shown on the slides to identify the high-level differences between the DBB and DB project development processes.   * Under DBB, the Department conducts preliminary and final design (represented by the green and orange shapes) to procure construction contractors to build the project in strict accordance with the Department’s design. * Under DB, 100% complete plans and specifications do not form the technical basis of the construction contract. Instead, the Department’s Scope of Work Document forms the technical basis of the DB contract, and the 100% complete plans and specifications are a required deliverable under this contract. As such, the Scoping Phase (akin to Preliminary Design under DBB) takes on heightened importance (again shown in orange) under DB. * Given the increased complexity of procuring DB teams, the bidding phase (particularly for value-based procurements) is generally longer under DB (as represented in brown in both diagrams). * The duration of the overall construction phase (shown in blue) may not differ between the two methods, but the ability to fast-track construction means that overall project duration may be reduced. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Alarm Clock_ICON.gif | Timing  Time spent on slide: 2 min | Elapsed time from start of section: 15 min |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Emphasis-Pointing Right_ICON.gif | Transition  Let’s now take a closer look at ODOT’s standard project development process. | |

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| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Key_ICON.gif | Key Message  The graphic shown on this slide represents ODOT’s standard project development process, as taken from ODOT’s PDP manual. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Magnify Glass Search_ICON.gif | Reference Materials  For more information, users should consult the following:   * ODOT Project Development Process Manual | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Information_ICON.gif | Background Information  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Notepad_ICON.gif | Interactivity/Talking Points  Briefly display this slide, which represents ODOT’s standard project development process, as taken from the PDP manual.  Explain that you will use a similar set of graphics in the next few slides to display how DB fits into ODOT’s PDP. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Alarm Clock_ICON.gif | Timing  Time spent on slide: 1 min | Elapsed time from start of section: 16 min |
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| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Key_ICON.gif | Key Message  The Planning Phase requires little change under DB. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Magnify Glass Search_ICON.gif | Reference Materials  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Information_ICON.gif | Background Information  For most projects, the possibility of using DB will not substantially alter the Department’s existing Planning phase. The need for the Department to prepare a Project Initiation Package, obtain input from stakeholders, develop a budget, etc. will still be required under DB delivery.  To facilitate the DB decision process, this phase should be expanded to include a concerted effort to:   * Identify and rank the project’s goals and objectives; * Identify, evaluate, and allocate project risks; and * Select the appropriate delivery method given the goals and risks identified for the project.   These additional activities are not necessarily sequential and will likely require some iteration as project data is refined through subsequent investigations and preliminary engineering efforts. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Notepad_ICON.gif | Interactivity/Talking Points  Note that the use of DB will not substantially change the existing Planning phase. As indicated by the red text shown in the figure, the Planning phase should be expanded to include   * Identification of project goals and risks * Selection of the delivery method that aligns with these goals and risks   Explain that the DB decision itself can generally be made after the completion of the PIP; for more complex projects this may not occur until after the completion of the Feasibility Study in the next Phase. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Alarm Clock_ICON.gif | Timing  Time spent on slide: 1 min | Elapsed time from start of section: 17 min |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Emphasis-Pointing Right_ICON.gif | Transition  More significant modifications occur during the Preliminary Engineering Phase. | |

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| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Key_ICON.gif | Key Message  The Preliminary Engineering Phase requires some modification under DB. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Magnify Glass Search_ICON.gif | Reference Materials  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Information_ICON.gif | Background Information  To develop the basic project configuration for the solicitation documents, the Department must still perform preliminary engineering and design, similar to that required for a traditional DBB project. With design-build, however, the challenge is not to progress this design to a point that precludes any innovation and flexibility on the part of the DBT, particularly if innovation is a stated goal of the project.  ODOT will normally prepare the Design Red Flag Summary and Feasibility Study, using this information to help determine if the project is a candidate for further development as a DB project. Once this is confirmed, the Department will begin to prepare the DB Scope of Services document and the Bid package.  This scoping effort essentially replaces several of the Department’s traditional tasks during the Preliminary Engineering phase of project development. Instead of initiating an effort to take plans and specifications to 100 percent completion, the project team will begin to define the project scope, which will form the basis of the bid documents.  Another key difference is that under DB, value engineering is not necessary. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Notepad_ICON.gif | Interactivity/Talking Points  Point out the following key changes:   * Preparation of the DB Scope of Services document replaces the traditional staged design process. In developing the Scope, the project team should take the time upfront to determine: * What design exceptions it will approve * What items it can’t live without * A VE assessment does not need to be performed | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Alarm Clock_ICON.gif | Timing  Time spent on slide: 2 min | Elapsed time from start of section: 19 min |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Emphasis-Pointing Right_ICON.gif | Transition  Additional modifications to the Environmental and Final Engineering Phases are also necessary. | |

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| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Key_ICON.gif | Key Message  Under DB, the Environmental and Final Engineering Phases will essentially merge into a single Phase. | |
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| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Information_ICON.gif | Background Information  The Department will generally have to perform enough preliminary engineering and design to support the NEPA, ROW acquisition, and Utility relocation efforts.  With regard to the NEPA process, the Department’s role will likely remain unchanged under DB. Note, however, that the FHWA’s Final Design-Build Rule under SAFETEA-LU (amended August 14, 2007) does allow agencies to issue RFPs, execute agreements with the selected design-builder, and issue the notice-to-proceed with *preliminary* design work prior to the completion of the NEPA process. Such early involvement of the design-builder could further accelerate the delivery process by advancing the preliminary design of the preferred alternate in parallel with the NEPA process. To avoid conflicts of interest under such a procurement strategy, the Design-Build Final Rule does preclude the design-builder from preparing the NEPA documents and from having any decision-making responsibility with respect to the NEPA process. The design-build contract under these conditions would also require appropriate provisions (e.g., through the use of contract hold points) to prevent the design-builder from proceeding with the final design and any physical construction prior to conclusion of NEPA. Similarly, the contract would have to include termination provisions in the event that the no-build alternative is ultimately selected.  Although federal regulations allow the RFP and design-builder selection to occur prior to completion of the NEPA process, ODOT will generally only issue a bid package once the NEPA process is complete and the necessary environmental clearances have been received. The preliminary engineering and preparation of the appropriate environmental documents will therefore remain the Department’s responsibility, just as with the DBB process.  Similarly, ROW acquisition and utility relocation will proceed much the same as it does under a traditional DBB project. The Department will retain responsibility for obtaining ROW for most DB projects. However, under certain circumstances, it may not be practical or possible to define the final footprint for the project, and complete the acquisition process, until the DBT completes the design phase. In these cases, the DBT must determine what additional ROW and temporary easements are necessary to accommodate the final design. If additional ROW is deemed necessary, the DBT must submit a written request to the Department justifying the need for additional ROW.  The Department in turn would be responsible for assessing whether the additional ROW remained within the scope of the environmental permits, acquire the additional property, and determine the cost and lead-time impacts to be borne by the DBT. The Department would also handle the acquisition of temporary construction easements identified by the DBT but might transfer responsibility for acquiring additional temporary easements to the DBT if it is practical to do so. In either case, the DBT would be responsible for any schedule or cost impacts associated with the acquisition of additional temporary easements.  The Department has a long-standing relationship with most local agencies, Utilities, and railroads. As such, the Department will likely be in the best position to influence and obtain the required cooperation from these third party entities. In most cases, the Department will obtain the required agreements with these parties prior to its issuance of the bid package to avoid schedule impacts. If these have not been secured by the time of advertisement, the RFP should indicate the status of any outstanding agreements. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Notepad_ICON.gif | Interactivity/Talking Points  Use this slide to point out the following:   * Under DB, there is no clear distinction between the Environmental and Final Engineering phases. * Value Engineering does not have to be performed. * Even though the lump sum nature of a DB project makes the development of quantities for *bidding* purposes unnecessary, Estimating still needs a detailed scope and quantities from which to develop a *reasonable* estimate (i.e., not just plug numbers) for Project Filing purposes. The estimate should be based on the worst case or preferred alternate. * While developing the Scope, develop a listing of appropriate DB-specific pay items. (Note you will discuss this topic in more detail in Part 3 when discussing the bid package preparation) * Minor projects can typically be bid after environmental clearance is obtained. * Most of ODOT’s DB projects are: * Environmentally exempt or qualify for a Level 1 Categorical Exclusion * Require no ROW acquisition * Final Engineering is the responsibility of the DBT. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Alarm Clock_ICON.gif | Timing  Time spent on slide: 2 min | Elapsed time from start of section: 22 min |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Emphasis-Pointing Right_ICON.gif | Transition  To summarize this discussion, the following slide identifies key elements of the DB project development process. | |

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| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Key_ICON.gif | Key Message  This slide summarizes the key elements and considerations for developing a DB project. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Magnify Glass Search_ICON.gif | Reference Materials  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Information_ICON.gif | Background Information  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Notepad_ICON.gif | Interactivity/Talking Points  Note that in the interest of time you will not cover this slide in depth. However, it can serve as a useful reference/checklist for ensuring that key activities and considerations are not forgotten.  Explain that the key takeaways from this slide should be the following:   * The scoping and bid package development process can be intensive effort, requiring * input from multiple functional areas and specialized expertise * a dedicated effort to identify goals, risks, and Department preferences, and * a significant effort to evaluate proposals (if a value-based procurement process is used). * Note that the decision to use a two-step low bid or value-based procurement process is a Central Office decision. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Alarm Clock_ICON.gif | Timing  Time spent on slide: 1 min | Elapsed time from start of section: 23 min |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Emphasis-Pointing Right_ICON.gif | Transition  A key element of the project development process for a DB project is preparation of the DB Scope of Services document. In the next set of slides we will go into scope preparation in more detail. | |

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| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Key_ICON.gif | Key Message  Display this slide to initiate a discussion on DB project scoping. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Magnify Glass Search_ICON.gif | Reference Materials  For further information on project scoping, users may consult the following ODOT documents:   * ODOT Design-Build Manual and Instructions for Completing the Scope of Services form * Scope of Services template | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Information_ICON.gif | Background Information  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Notepad_ICON.gif | Interactivity/Talking Points  Poll the class to see if anyone present has been involved with developing a Scope of Services document. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Alarm Clock_ICON.gif | Timing  Time spent on slide: 1 min | Elapsed time from start of section: 24 min |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Emphasis-Pointing Right_ICON.gif | Transition  Let’s first consider the function of the Scope of Services document. | |

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| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Key_ICON.gif | Key Message  The Scope of Services document is the Department’s last chance to influence the design. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Magnify Glass Search_ICON.gif | Reference Materials  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Information_ICON.gif | Background Information  Of the various documents to be prepared and issued during the procurement process, the Scope of Services document, which communicates the Department’s expectations to bidders and serves as the basis for the DB contract, is perhaps the most critical factor to a project’s success. In this respect, the Scope is akin to the plans and specifications prepared under traditional DBB delivery. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Notepad_ICON.gif | Interactivity/Talking Points  Review the bullets shown on the slide, emphasizing that the Scope of Services document essentially replaces the plans and specifications used on a traditional job and acts to establish the Department’s minimum requirements. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Alarm Clock_ICON.gif | Timing  Time spent on slide: 1 min | Elapsed time from start of section: 25 min |
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| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Key_ICON.gif | Key Message  The Scope sets ODOT’s minimum requirements; any changes from this minimum will result in a change order. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Magnify Glass Search_ICON.gif | Reference Materials  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Information_ICON.gif | Background Information  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Notepad_ICON.gif | Interactivity/Talking Points  Review the bullets shown on the slide, emphasizing that the Scope sets the minimum. It should be used to identify what the Department wants, as well as what it does not want. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Alarm Clock_ICON.gif | Timing  Time spent on slide: 2 min | Elapsed time from start of section: 27 min |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Emphasis-Pointing Right_ICON.gif | Transition  Let’s now discuss how we can go about developing a Scope that meets these objectives. | |

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| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Key_ICON.gif | Key Message  The Scope development process can be an intensive effort to ensure that all relevant information is properly addressed. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Magnify Glass Search_ICON.gif | Reference Materials  For further information on project scoping, users may consult the following ODOT documents:   * ODOT Design-Build Manual and Instructions for Completing the Scope of Services form * Scope of Services template | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Information_ICON.gif | Background Information  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Notepad_ICON.gif | Interactivity/Talking Points  Review the bullets shown on the slide.   * In disputes, the contract is construed against the person writing the contract. * ODOT has the knowledge of the projects and know the intent of the project. * Ensure what is being described can be built   Use this slide to provoke thought by asking the following question:   * Can anyone think of a Department preference that should be stipulated in the Scope? Think in terms of what we can live with versus what we can’t live without. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Alarm Clock_ICON.gif | Timing  Time spent on slide: 3 min | Elapsed time from start of section: 30 min |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Emphasis-Pointing Right_ICON.gif | Transition  An effective Scope is both clear and complete. To ensure that this is the case, let’s consider some possible pitfalls of scope development. | |

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| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Key_ICON.gif | Key Message  The Scope must be clear and complete. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Magnify Glass Search_ICON.gif | Reference Materials  For further information on project scoping, users may consult the following ODOT documents:   * ODOT Design-Build Manual and Instructions for Completing the Scope of Services form * Scope of Services template | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Information_ICON.gif | Background Information  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Notepad_ICON.gif | Interactivity/Talking Points  Explain that to avoid misinterpretation, scope requirements should be clear and quantifiable if possible. By including any vague or unclear requirements, the Department will risk receiving:   * a design that it doesn’t want, and/or * higher bids than anticipated if bidders price in risk. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Alarm Clock_ICON.gif | Timing  Time spent on slide: 2 min | Elapsed time from start of section: 32 min |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Emphasis-Pointing Right_ICON.gif | Transition  Let’s now consider some of the key scope areas to address. | |

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| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Key_ICON.gif | Key Message  The Scope of Services document should address all applicable project features and needs. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Magnify Glass Search_ICON.gif | Reference Materials  For further information on project scoping, users may consult the following ODOT documents:   * ODOT Design-Build Manual and Instructions for Completing the Scope of Services form * Scope of Services template | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Information_ICON.gif | Background Information  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Notepad_ICON.gif | Interactivity/Talking Points  Refer to ODOT’s Scope of Services manual and form and explain that these documents should be used as a checklist to help ensure the development of a complete Scope. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Alarm Clock_ICON.gif | Timing  Time spent on slide: 1 min | Elapsed time from start of section: 33 min |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Emphasis-Pointing Right_ICON.gif | Transition  In the next set of slides, we’ll briefly run through key requirements and/or considerations related to these different scope areas. | |

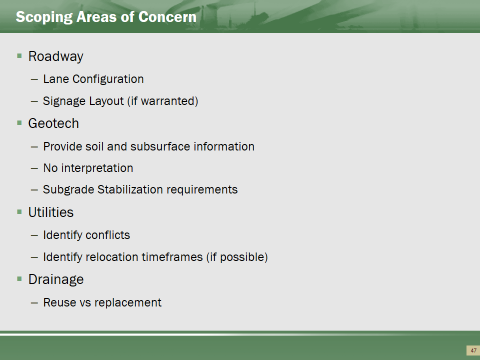
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| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Key_ICON.gif | Key Message  The Scope should clearly identify all known information regarding hazardous materials. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Magnify Glass Search_ICON.gif | Reference Materials   * ODOT Design-Build Manual and Instructions for Completing the Scope of Services form * Scope of Services template | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Information_ICON.gif | Background Information  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Notepad_ICON.gif | Interactivity/Talking Points  Note that the Scope should include all information related to the presence of material and substances at the site that could create hazardous conditions. Include the following information:   * Type of contaminated material present * Quantity of materials * Locations * Parties responsible for testing and handling * Payment method | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Alarm Clock_ICON.gif | Timing  Time spent on slide: 1 min | Elapsed time from start of section: 34 min |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Emphasis-Pointing Right_ICON.gif | Transition  Let’s move on to environmental issues. | |

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| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Key_ICON.gif | Key Message  The Scope should clearly convey the DBT’s responsibilities with regard to permitting and compliance. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Magnify Glass Search_ICON.gif | Reference Materials   * ODOT Design-Build Manual and Instructions for Completing the Scope of Services form * Scope of Services template | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Information_ICON.gif | Background Information  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Notepad_ICON.gif | Interactivity/Talking Points  Note that:   * Because design will likely be incomplete at the procurement stage, the Scope preparer may have to assume a “worst case scenario” from an environmental perspective when preparing permit applications. This “worst case” areas should include all anticipated work areas, including temporary work areas. * Because the DBT has control over the final project design, some permit applications may have to be completed or modified by the DBT. The Scope must be clear in identifying which party is responsible for acquiring which permits. * Permit conditions may also result in unexpected design and/or construction requirements that may be more costly or time consuming than originally anticipated by the DBT. The Scope must therefore provide enough detail about environmental conditions and commitments and the general status of the permitting process to clearly convey the level of risk to be absorbed by the DBT for environmental compliance issues. * Special attention needs to be paid with projects on Scenic Rivers (i.e. the Big and Little Darby, Olentangy, [Kokosing](http://watercraft.ohiodnr.gov/KokosingSR) [Little Miami](http://watercraft.ohiodnr.gov/LittleMiamiSR), Maumee). These can have special commitments which need specifically called out. * The Scope should also stipulate, regardless of the operator named on the permit (i.e., the Department or the DBT), that all environmental violation costs are the responsibility of the DBT. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Alarm Clock_ICON.gif | Timing  Time spent on slide: 2 min | Elapsed time from start of section: 36 min |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Emphasis-Pointing Right_ICON.gif | Transition  Similar to the environmental permitting process just discussed, in some cases, the conceptual design prepared by the Department may not support the identification of all ROW needs prior to the completion of the DBT’s final design. In this case, the scope needs to address the following. | |

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| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Key_ICON.gif | Key Message  In certain cases, the Department will have to purchase additional ROW to accommodate the final design of the DBT. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Magnify Glass Search_ICON.gif | Reference Materials   * ODOT Design-Build Manual and Instructions for Completing the Scope of Services form * Scope of Services template | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Information_ICON.gif | Background Information  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Notepad_ICON.gif | Interactivity/Talking Points  Explain that although ODOT typically only applies DB to projects having minimal need for ROW acquisition, in some cases, the conceptual design prepared by the Department may not support the identification of all ROW needs prior to the completion of the DBT’s final design. In this case, the scope needs to address exactly what is required of the DBT to support the Department’s ROW acquisition process. In general:   * All necessary ROW will be acquired by ODOT. * The DBT will prepare ROW plans and legal descriptions | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Alarm Clock_ICON.gif | Timing  Time spent on slide: 1 min | Elapsed time from start of section: 37 min |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Emphasis-Pointing Right_ICON.gif | Transition  Let’s now move on to utility coordination. | |

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| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Key_ICON.gif | Key Message  Even under DB, ODOT’s Utility Coordinator will continue to play a significant role, both pre-award and post-award. This is a shared responsibility between parties. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Magnify Glass Search_ICON.gif | Reference Materials  For further information, please review the following ODOT policy document:   * Utility Coordinator Involvement – DB | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Information_ICON.gif | Background Information  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Notepad_ICON.gif | Interactivity/Talking Points  Use this slide to emphasize that even though the DBT will ultimately be responsible for coordinating with the affected utilities, ODOT’s Utility Coordinator will continue to perform many of the same pre-award and post-award tasks that are necessary under DBB.  Ohio Design-Build Utility Responsibilities Pre sale -Reference Locations & Good Practices  ODOT Responsibilities:  PDP: Requirements of utility coordination same on DB as for all projects through the Feasibility Study and the Alternative Evaluation Report. *(PDP Manual-Introduction* 11.1. *lithe project may be chosen for Design-Build during the Planning Phase of the PDP after the Project Initiation Package (PIP) is completed. For some Path 2 projects and the non-complex Path* 3 *candidate projects, this decision will occur after the Feasibility Study (FS) is completed in the Preliminary Engineering Phase.")*   * Utility Assessment *(PDP Manual-Preliminary Engineering:* 1. *Feasibility Study Development)* * Utility companies are contacted and asked to locate their underground facilities within the project area. *(PDP Manual-Preliminary Engineering:* 3: *Alternative Evaluation Report)* * Utilities which conflict with the proposed project work are identified for relocation. *(PDP Manual -Preliminary Engineering:* 3: *Alternative Evaluation Report)* * Determine estimated utility reimbursement cost. *(PDP Manual-Preliminary Engineering: 3: Alternative Evaluation Report)*   Determine which utilities are located in the location of the project. Gather and provide all known utility information *(PDP Manual-Planning:* 8.4) and provide this information to the DBT during the Bidding process and list all underground and overhead utilities, similar to a Utility note *(DB Manual-Section* 12.1).  Direct the utility owners to relocate or adjust water lines, gas lines, wire lines, service connections, water and gas meter boxes, water and gas valve boxes, light standards, cableways, signals, and all other utility appurtenances within the limits of the proposed construction (unless otherwise noted in the contract). *(PN126: 105.07 Cooperation with Utilities)*  Coordinate early with the utilities to establish realistic relocation schedules upon final design *(Good practice­ and inferred in 105.07 Cooperation with Utilities* -*B. "If performance of the Contractor's work is delayed because the utility owners fail to relocate or adjust their facilities* as *previously agreed, the contract time will be adjusted in accordance with the provisions of108.06.")* | |
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| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Emphasis-Pointing Right_ICON.gif | Transition  Let’s now move on to Maintenance of Traffic considerations | |

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| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Key_ICON.gif | Key Message  The MOT section of the Scope should address all preferences, plan notes, special provisions, work area restrictions, and other applicable requirements that will be enforced during construction. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Magnify Glass Search_ICON.gif | Reference Materials   * ODOT Design-Build Manual and Instructions for Completing the Scope of Services form * Scope of Services template | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Information_ICON.gif | Background Information  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Notepad_ICON.gif | Interactivity/Talking Points  Instruct the class to refer to the ODOT Scoping Manual for a checklist of items that should be considered when preparing the MOT section of the Scope form.   * Specify minimum number of lanes to maintain. * Review all TEM notes and specifically include if needed. * Known restriction on time to be clearly noted. Do not specify ambiguous restrictions without noting. * Innovative Contracting methods allowed.   + A+B allowed   + Incentive/Disincentive allowed   + Window Contract / Flexible Start allowed   If a project goal is to minimize disruption during construction, suggest that preparers may also wish to consider the use of I/Ds related to road closures. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Alarm Clock_ICON.gif | Timing  Time spent on slide: 1 min | Elapsed time from start of section: 39 min |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Emphasis-Pointing Right_ICON.gif | Transition  The Scope must also address the design and construction of project-specific elements. Let’s turn to the next slide to discuss the development of such technical criteria. | |



Coordinate with the Office of Pavements for buildup and types.

* + Rehabilitation types and options to be specified.

Lane Configuration and Turn lane required lengths – specify graphically or narrative. Ensure clarity. Specify minimum underdrain depths as design guides specify a max depth.

Signage – Overhead or ground mounted (freeway). Potentially provide preliminary layout.

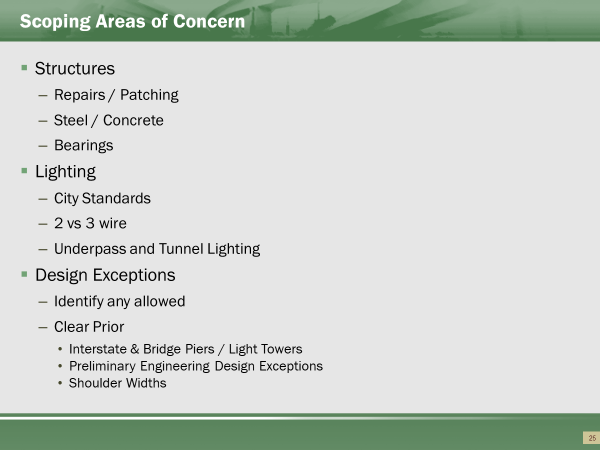
Provide soil or structure borings, but do not provide recommendations. DBT to determine capabilities from information provide – interpretation risk on the DBT.

* + Subsurface high risk item.
  + Reuse of existing borings acceptable to provide IF quality of borings appears good and Office of Geotech agrees.

Perform subgrade analysis and specify subgrade treatment per Geotechnical Bulletin-1 (GB1).

Major drainage installations need evaluated prior to award.

* + Consideration of reuse only if determined usable prior.
  + Do not leave the determination of quality of drainage structures (pipe and installations) up for DBT to determine if available for reuse.



Specify minimums allowed for structure types. Considerations given for replacements for railroads.

Identify bearing work needed for rehabilitated structures. New vs refurbished. Shear requirements of existing pier caps need addressed, or potentially ignored. Loading of existing substructures and unknown piling may disallow concrete beams (if substructure not new). Consideration needing to be given for drilled shafts vs

Repair areas (patching) needed to be clearly scoped, or consideration for establishing unit price pay item. Subjective area of evaluation by DBT will almost always be made towards the minimal option.

Lighting – consider underpass lighting requirements. Specify tunnel lighting, if required. Consideration given for upgrading of system.

Identify allowed design exceptions. If shown in preliminary engineering, then difficult to disallow after award. Median towers and median bridge piers often require shoulder exceptions.

Traffic Signals – Consult with Traffic Engineering for requirements. Coordinate with municipalities to establish and use their criteria (if appliciable)

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| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Key_ICON.gif | Key Message  When preparing the Scope for a particular project element, be sure to identify all preferences and restrictions, and to include all existing plans and studies. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Magnify Glass Search_ICON.gif | Reference Materials   * ODOT Design-Build Manual and Instructions for Completing the Scope of Services form * Scope of Services template | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Information_ICON.gif | Background Information  *Basic Configuration*  A key aspect of scope development entails establishing the basic configuration. The DBT’s proposal and design must be consistent with the basic configuration (though it could be subject to changes approved in accordance with ACT procedures). Typical constraints addressed in the basic project configuration include:   * Project Boundaries: * ROW plans that depict the limits of ROW or easements obtained or to be obtained by the Department * Environmental constraints (e.g., wetland protection) * Project limits * Horizontal and vertical alignment; * Vertical clearance requirements; * Critical project components: * Number of lanes * Interchanges * Ramps * Location of major structures * Other factors that may define the limits and constraints of the project.   *Performance versus Method Specifications*  To the extent that the Department is willing to relinquish control over some aspects of the work, the use of more performance-oriented specifications has the potential to foster contractor innovation and thereby improve the quality or economy, or both, of the end-product. Use of less prescriptive specifications will also shift more performance risk from the Department to the DBT.  The difference between performance and method specifications are described below:   * **Method specifications** (also called *prescriptive* or *recipe* specifications) require contractors to use specific materials, equipment, and methods to complete the work. The prescribed requirements are typically based on materials and methods that have historically produced satisfactory results for the Department, thereby eliminating risk associated with newer, less proven methods and risk associated with varying contractor performance. Contractors are provided few, if any, opportunities to deviate from the specified requirements, and, provided that the specifications are met, is not responsible for performance deficiencies of the end product (i.e., the Department retains performance risk). * **Performance specifications** contain statements of required results that focus on the desired quality level or performance of the finished work. (For example, “the interchange should perform at LOS B”).   Conditions appropriate for using method vs. performance specifications are summarized below.  Appropriate Conditions for Using Method vs. Performance Specifications   | Method Specifications | Performance Specifications | | --- | --- | | * End product performance cannot be easily defined. * End product performance cannot be easily or economically measured and verified. * Limited methods exist that would satisfy the agency’s minimum requirements. * The agency must retain performance risk because of permit requirements; maintenance considerations; need to tie into existing or adjacent construction; and similar issues. * Removing and replacing defective work would be impractical. * Pre-existing conditions would compromise the transfer of performance risk to the contractor. | * End product performance can be defined in terms of desired outcomes or user needs. * Key performance parameters can be measured and tested, and the test methods are rapid, reliable, and economical. * There are multiple approaches to achieve the desired results. * Industry is willing to assume performance risk. * Agency is willing to relinquish control over some aspects of the work. | | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Notepad_ICON.gif | Interactivity/Talking Points  Instruct the class to refer to the ODOT Scoping Manual for a checklist of items that should be considered when preparing the design and construction requirements of the Scope form. Stress the need to include all preferences, plan notes, and special provisions.  A key aspect of scope development entails establishing the basic configuration. The DBT’s proposal and design must be consistent with the basic configuration (though it could be subject to changes approved in accordance with ACT procedures). Typical constraints addressed in the basic project configuration include:   * Project Boundaries: * ROW plans that depict the limits of ROW or easements obtained or to be obtained by the Department * Environmental constraints (e.g., wetland protection) * Project limits * Horizontal and vertical alignment; * Vertical clearance requirements; * Critical project components: * Number of lanes * Interchanges * Ramps * Location of major structures * Other factors that may define the limits and constraints of the project.   Note that Scope preparers may also want to consider using more performance-oriented or end result specifications if innovation is a project goal.  Explain the differences between method and performance specifications:   * **Method specifications** (also called *prescriptive* or *recipe* specifications) require contractors to use specific materials, equipment, and methods to complete the work. The prescribed requirements are typically based on materials and methods that have historically produced satisfactory results for the Department, thereby eliminating risk associated with newer, less proven methods and risk associated with varying contractor performance. Contractors are provided few, if any, opportunities to deviate from the specified requirements, and, provided that the specifications are met, is not responsible for performance deficiencies of the end product (i.e., the Department retains performance risk). * **Performance specifications** contain statements of required results that focus on the desired quality level or performance of the finished work. (For example, “the interchange should perform at LOS B”). | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Alarm Clock_ICON.gif | Timing  Time spent on slide: 1 min | Elapsed time from start of section: 40 min |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Emphasis-Pointing Right_ICON.gif | Transition  A key consideration to bear in mind when developing the technical criteria relates to how far the Department should take preliminary design. | |

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| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Key_ICON.gif | Key Message  Determining the appropriate level of preliminary design by the Department requires a careful balancing of the needs, goals, and risks identified for the project. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Magnify Glass Search_ICON.gif | Reference Materials  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Information_ICON.gif | Background Information  Under traditional DBB delivery, the Department acts as both the owner and the designer. In this role, the Department in effect guarantees the completeness and accuracy of the design and retains most, if not all, of the risk for the success of the design.  In DB, several design-related risks shift to the DBT. Although the Department will continue to retain responsibility for defining the project scope, design criteria, and general site conditions (e.g., initial geotechnical investigation), the DBT (as Designer-of-Record) has ultimate responsibility for the accuracy of the plans, conformance with established standards, and constructability.  Determining the appropriate level of design by the Department therefore requires a careful balancing of the needs, goals, and risks identified for the project. Providing too much design can restrict innovation and increase design liability for the Department, whereas providing too little can create uncertainty, driving bidders to increase the contingency included in their bids.  To a large extent, the information needed to advance the environmental documents and ROW acquisition will drive the level of preliminary design needed. The risks identified during the risk management process will also indicate where the Department needs to focus its scoping efforts. For example, any risks related to utilities, ROW, railroads, and other stakeholder concerns may necessitate additional engineering and design to mitigate the concern or to secure the appropriate agreements with the affected third party. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Notepad_ICON.gif | Interactivity/Talking Points  Use this slide to spark a discussion on how much preliminary design the Department should be performing for a DB project. Ask the class,   * Identify some advantages of performing a high level of preliminary design. * A possible answer would be to retain more control over the end product. If the class provides this answer, respond by asking: * If we know exactly what we want, does it make sense to use DB? (yes, if we need to expedite project delivery) * Identify some disadvantages of performing a high level of preliminary design. Possible answers would include: * Reduces DBT’s ability to innovate * Department retains more design responsibility | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Alarm Clock_ICON.gif | Timing  Time spent on slide: 2 min | Elapsed time from start of section: 42 min |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Emphasis-Pointing Right_ICON.gif | Transition  Conceptually, we can plot the relationship between % of design completion vs risk as follows. | |

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| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Key_ICON.gif | Key Message  There is a relationship between the level of preliminary design prepared by the Department and design risk that can be shifted to the DBT. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Magnify Glass Search_ICON.gif | Reference Materials  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Information_ICON.gif | Background Information  Determining the appropriate level of preliminary design by the Department can be challenging. Providing too much design can restrict innovation and increase design liability for the Department, whereas providing too little may result in the Department not receiving what it wants or placing undue risk upon the DBT (which the DBT will likely pass on to the Department in the form of a higher bid).  Agencies experienced in DB often report higher levels of project satisfaction with lower levels of preliminary design (with 30 percent often cited as a benchmark). However, this is not to say that the same level of preliminary design should be applied to every DB project, or that every element within a single project should be taken to the same level of design. Each project, as well as each component of a single project, must be examined to determine the extent of preliminary or conceptual design needed to clearly convey the Department’s performance expectations. For certain project elements, defining performance requirements could require close to 100 percent design, whereas for others, very little design may suffice. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Notepad_ICON.gif | Interactivity/Talking Points  Use this slide to quickly reinforce the idea that as the Department performs a higher level of preliminary design, less design risk can be shifted to the DBT. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Alarm Clock_ICON.gif | Timing  Time spent on slide: 1 min | Elapsed time from start of section: 43 min |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Emphasis-Pointing Right_ICON.gif | Transition  While we are on the topic of design risk, it is also important to note that although use of DB does allow some design risk to be shifted to the DBT, it will not completely shield owners from Spearin liability, as we will discuss on the next slide. | |

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| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Key_ICON.gif | Key Message  Even under DB, the Department will continue to retain some design risk. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Magnify Glass Search_ICON.gif | Reference Materials  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Information_ICON.gif | Background Information  *The Spearin Doctrine*  A long held principle of construction law is that if a contractor is bound to build according to plans and specifications provided by the owner, the contractor will not be responsible for defects in the plans and specifications (i.e., there is an “implied warranty” that the owner’s plans and specifications are suitable for the purpose intended).  The leading Supreme Court case on the subject, *U.S. v. Spearin*, 248 U.S. 132 (1918), involved cross-claims by the owner and contractor resulting from a failure of a sewer. Although the contractor built the sewer to specifications, it was determined to be inadequate to handle the actual flows and tides encountered. The sewer failed to function because of an existing dam in an adjoining line that was unknown to both the government and the contractor.  The Supreme Court excused the contractor’s non-completion and allowed them to recover extra costs related to the failure, holding: “[T]he insertion of the [contract] articles presenting the character, dimensions and location of the sewer imparted a warranty that, if the specifications were complied with, the sewer would be adequate.”  In the wake of the *Spearin* decision, similar case law further affirmed the right of contractors to assume the specifications are free of defects. While some cases have based the implied warranty on the owner’s presumed “superior knowledge” of the work conditions, it is more commonly based on the simple rationale that the party preparing the specification bears the risk of its inaccuracy.  *Applying the Spearin Doctrine to DB Projects*  In the context of a dB project, the owner will generally provide design criteria and performance standards, but the DBT will prepare the actual construction plans and specifications. The DBT will thus generally bear the risk of non-performance and cost overruns related to its final design.  However, risk of design deficiencies may continue to reside with owners if design details included in the DB contract set forth specific requirements, sizes, quantities, etc. and remain under the owner’s control. Recent case law suggests that the courts may continue to invoke the Spearin Doctrine to protect the contractor if it can trace the ultimate cause of the problem to defective design specifications issued by the owner. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Notepad_ICON.gif | Interactivity/Talking Points  Note that although DB shifts some risk of faulty design to the DBT, the Department will continue to retain some design risk (hence the criticality of preparing clear and complete scoping documents).   * The information provided by ODOT must be correct based on the actual conditions encountered. * If evidence suggests that a design defect stems from owner-issued specifications, the courts may apply the Spearin Doctrine to protect the DBT.   If time allows, ask the class to read the summary of the *Drennon Construction* case provided in their Participant Workbooks. Note that this is a recent case in which the Spearin Doctrine was applied to protect a DBT. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Alarm Clock_ICON.gif | Timing  Time spent on slide: 3 min | Elapsed time from start of section: 46 min |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Emphasis-Pointing Right_ICON.gif | Transition  Now, we’ll use some case studies to take a look at some of the scoping issues that have occurred on ODOT projects. | |

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| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Key_ICON.gif | Key Message  Use this slide to transition to two case studies that illustrate the importance of project scoping. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Magnify Glass Search_ICON.gif | Reference Materials  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Information_ICON.gif | Background Information  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Notepad_ICON.gif | Interactivity/Talking Points  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Alarm Clock_ICON.gif | Timing  Time spent on slide: 0 min | Elapsed time from start of section: 46 min |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Emphasis-Pointing Right_ICON.gif | Transition  Let’s turn to our first case study. | |

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| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Key_ICON.gif | Key Message  Summarize the case study by defining the key scoping requirements as background for the case study | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Magnify Glass Search_ICON.gif | Reference Materials  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Information_ICON.gif | **Background Information**  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Notepad_ICON.gif | Interactivity/Talking Points  Set up the key project scope statement for the case study project: “Cap and Column piers shall have a minimum of three Columns when completed…”  The existing bridge was to be widened, therefore existing piers needed to be widened. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Alarm Clock_ICON.gif | Timing  Time spent on slide: 1 min | Elapsed time from start of section: 47 min |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Emphasis-Pointing Right_ICON.gif | Transition  Now let’s look at the detail of the existing pier configuration. | |

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| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Key_ICON.gif | Key Message  This slide illustrates the existing pier elevation. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Magnify Glass Search_ICON.gif | Reference Materials  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Information_ICON.gif | Background Information  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Notepad_ICON.gif | Interactivity/Talking Points  Use this slide to explain the existing configuration. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Alarm Clock_ICON.gif | Timing  Time spent on slide: 1 min | Elapsed time from start of section: 47 min |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Emphasis-Pointing Right_ICON.gif | Transition  Now let’s look at the detail of a proposed column configuration proposed by DBT to accommodate the bridge widening. | |

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| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Key_ICON.gif | Key Message  This slide illustrate the proposed configuration of the widened bridge section | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Magnify Glass Search_ICON.gif | Reference Materials  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Information_ICON.gif | Background Information  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Notepad_ICON.gif | Interactivity/Talking Points:  A proposed design for the widened bridge section shows the additional of two piers. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Alarm Clock_ICON.gif | Timing  Time spent on slide: 1 min | Elapsed time from start of section: 48 min |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Emphasis-Pointing Right_ICON.gif | Transition  Now let’s ask a question related to the proposed design configuration. | |

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| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Key_ICON.gif | Key Message  This slide summarizes the key issue - whether the proposed five column configuration complies with scope requirement. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Magnify Glass Search_ICON.gif | Reference Materials  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Information_ICON.gif | Background Information  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Notepad_ICON.gif | Interactivity/Talking Points  Ask participants whether the proposed configuration complies with the scope requirement as drafted? Show the configuration again on previous slide if needed. Ask for one or two responses before giving the answer provided by the DBT. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Alarm Clock_ICON.gif | Timing  Time spent on slide: 1 min | Elapsed time from start of section: 49 min |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Emphasis-Pointing Right_ICON.gif | Transition  Now let’s discuss the interpretation made by the winning bidder. | |

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| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Key_ICON.gif | Key Message  What happened? The proposed configuration complies with scope requirement though it was not the solution envisioned | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Magnify Glass Search_ICON.gif | Reference Materials  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Information_ICON.gif | Background Information  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Notepad_ICON.gif | Interactivity/Talking Points  Emphasize that when drafting scope, say what you want (and don’t want) because that’s what you’ll get. Draft the scope requirement such that requirements are interpreted the one way intended (unless multiple solutions are sought)  More attention (review) is required for the scoping stages. Inputs are needed from multiple departments: Planning, Production, Construction, Maintenance, C.O.  Attention is especially needed from those who are going to be involved with the project. They have the most to gain/lose. The Project Manager should be sending out for review. Central Office review will be for consistency through the state – not to direct the project. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Alarm Clock_ICON.gif | Timing  Time spent on slide: 3 min | Elapsed time from start of section: 52 min |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Emphasis-Pointing Right_ICON.gif | Transition  Now let’s move to a case study illustrating a scope requirement that referenced a non-existent design standard | |

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| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Key_ICON.gif | Key Message  This slide contains scope language addressing conduit banks on a DB bridge project. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Magnify Glass Search_ICON.gif | Reference Materials  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Information_ICON.gif | Background Information  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Notepad_ICON.gif | Interactivity/Talking Points:  Point out to participants that the scope language required that the conduit banks on the bridge be designed in accordance with ODOT’s bridge design standards | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Alarm Clock_ICON.gif | Timing  Time spent on slide: 1 min | Elapsed time from start of section: 54 min |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Emphasis-Pointing Right_ICON.gif | Transition  Now let’s review the existing ODOT design standards addressing the installation of utilities on bridges | |

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| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Key_ICON.gif | Key Message  These are the ODOT bridge design standards from BDM addressing utility installation on bridges. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Magnify Glass Search_ICON.gif | Reference Materials  ODOT Bridge Design Manual | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Information_ICON.gif | Background Information  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Notepad_ICON.gif | Interactivity/Talking Points  Note that the requirements for installation of utilities on bridges addressed the requirements as summarized, but did not provide a standard drawing or detail for installation of conduit banks within one bay of a bridge. There are no standard drawings!! | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Alarm Clock_ICON.gif | Timing  Time spent on slide: 1 min | Elapsed time from start of section: 55 min |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Emphasis-Pointing Right_ICON.gif | Transition  Now let’s see the proposed DBT design solution for installation of conduit banks. | |

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| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Key_ICON.gif | Key Message  This is the proposed design drawing addressing conduit banks on the DB bridge project. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Magnify Glass Search_ICON.gif | Reference Materials  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Information_ICON.gif | Background Information  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Notepad_ICON.gif | Interactivity/Talking Points  Ask participants:   * Does this proposed design solution (utility hangers fastened to the bridge deck) comply with the design standards referenced in the scope? | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Alarm Clock_ICON.gif | Timing  Time spent on slide: 1 min | Elapsed time from start of section: 56 min |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Emphasis-Pointing Right_ICON.gif | Transition  Now let’s see what actually happened to the proposed DBT design solution. | |

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| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Key_ICON.gif | Key Message  This is what actually happened regarding the proposed design for conduit banks on the DB bridge project. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Magnify Glass Search_ICON.gif | Reference Materials  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Information_ICON.gif | Background Information  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Notepad_ICON.gif | Interactivity/Talking Points  As pointed out, there were no ODOT design standards for utility hangers  The DBT proposed a solution using utility hangers, but ODOT advised them that it did not meet separate scope requirements to reduce future maintenance costs  The DBT ultimately gave up on the design detail  Lesson-learned:   * If the scope references a “standard” for design and construction of an item, make sure a standard actually exists! | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Alarm Clock_ICON.gif | Timing  Time spent on slide: 2 min | Elapsed time from start of section: 58 min |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Emphasis-Pointing Right_ICON.gif | Transition  We’re nearing the end of this portion of the course. Are there any questions? | |

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| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Key_ICON.gif | Key Message  Allow for any final questions related to Part 2. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Magnify Glass Search_ICON.gif | Reference Materials  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Information_ICON.gif | Background Information  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Notepad_ICON.gif | Interactivity/Talking Points  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Alarm Clock_ICON.gif | Timing  Time spent on slide: 2 min | Elapsed time from start of section: 60 min |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Emphasis-Pointing Right_ICON.gif | Transition  Before we conclude this portion of the course, let’s recap the learning outcomes. | |

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| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Key_ICON.gif | Key Message  Review some general learning outcomes for Part 2. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Magnify Glass Search_ICON.gif | Reference Materials  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Information_ICON.gif | Background Information  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Notepad_ICON.gif | Interactivity/Talking Points  Ask participants:   * Identify the basic steps in the DB decision process: * Define goals * Assess Project characteristics * Decide on DB and procurement method based on alignment of goals and characteristics * Identify some modifications to PDP process to accommodate DB:   + Planning: Added project selection process   + Preliminary Engineering: Begin DB scope and bid documents based on feasibility, NEPA, ROW, alternatives analysis, stakeholders, etc.   + Final Engineering: Performed by DBT * Identify some recommended practices for developing a sufficient Scope of Services:   + Conduct field review before writing scope   + Avoid broad statements of performance or directions regarding means and methods unless necessary   + Draft scope to allow for one interpretation unless otherwise specified   + If scope allows for more than one option, specify the desired alternative   + Specify all preferences, plan notes, and required special provisions * Recap the lessons learned from the case study:   + Draft scope carefully to provide one interpretation (if that is the intent)   + Ensure that design standards exist or are consistent with scope language | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Alarm Clock_ICON.gif | Timing  Time spent on slide: 5 min | Elapsed time from start of section: 65 min |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Emphasis-Pointing Right_ICON.gif | Transition  This concludes this morning’s session. Let’s break for lunch and meet back by \_\_\_\_\_ | |

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# Part 3: DB Procurement and Contracting

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| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Key_ICON.gif | Key Message  Display this screen to introduce Part 3, which addresses DB procurement and contracting considerations. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Magnify Glass Search_ICON.gif | Reference Materials  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Information_ICON.gif | Background Information  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Notepad_ICON.gif | Interactivity/Talking Points  Note that you will now begin Part 3 of the training, which addresses DB procurement and contracting issues. The part is expected to take approximately 60 minutes, after which there will be a brief 10 minute break. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Alarm Clock_ICON.gif | Timing  Time spent on slide: 1 min | Elapsed time from start of section: 1 min |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Emphasis-Pointing Right_ICON.gif | Transition  Let’s start off this portion of the course by taking a look at the learning objectives. | |

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| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Key_ICON.gif | Key Message  Display this screen when reviewing the Part 3 learning outcomes. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Magnify Glass Search_ICON.gif | Reference Materials  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Information_ICON.gif | Background Information  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Notepad_ICON.gif | Interactivity/Talking Points  Briefly review the learning outcomes and indicate that you will revisit the outcomes once again at the conclusion of this portion of the training. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Alarm Clock_ICON.gif | Timing  Time spent on slide: 1 min | Elapsed time from start of section: 2 min |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Emphasis-Pointing Right_ICON.gif | Transition  To meet these learning outcomes, we will follow the agenda shown on the next slide. | |

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| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Key_ICON.gif | Key Message  This slide presents the main topic areas covered in this portion of the training. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Magnify Glass Search_ICON.gif | Reference Materials  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Information_ICON.gif | Background Information  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Notepad_ICON.gif | Interactivity/Talking Points  Use this slide to present the main topic areas covered in this portion of the training. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Alarm Clock_ICON.gif | Timing  Time spent on slide: 1 min | Elapsed time from start of section: 3 min |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Emphasis-Pointing Right_ICON.gif | Transition  In this section, we’ll take a more detailed look at the DB procurement process – a topic which we only lightly touched upon this morning during our discussion of the overall DB project development process. | |

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| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Key_ICON.gif | Key Message  Display this slide to initiate a discussion on the DB procurement process. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Magnify Glass Search_ICON.gif | Reference Materials  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Information_ICON.gif | Background Information  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Notepad_ICON.gif | Interactivity/Talking Points  Ask the class, under traditional DBB:   * How does the Department procure design services? (Answer: based on qualifications) * How does the Department procure construction services? (Answer: based on low bid)   Note that under DB these traditional procedures no longer apply. When design and construction elements are combined into a single contract, Federal and State statutes allow the Department to use other procurement strategies. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Alarm Clock_ICON.gif | Timing  Time spent on slide: 1 min | Elapsed time from start of section: 4 min |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Emphasis-Pointing Right_ICON.gif | Transition  In the next set of slides we’ll take a closer look at the overall process and options available for procuring DB services. | |

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| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Key_ICON.gif | Key Message  This slide presents a brief overview of the DB procurement process. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Magnify Glass Search_ICON.gif | Reference Materials  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Information_ICON.gif | Background Information  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Notepad_ICON.gif | Interactivity/Talking Points  Use this slide to briefly explain that at a high level, the DB procurement process can essentially be boiled down to 3 key steps – planning the procurement strategy, developing the bid package, and advertising and awarding the DB contract.   * The first step in the procurement process should begin by planning a procurement strategy that aligns with the needs and goals of the project and the reasons why DB was selected as the project delivery system. These three elements (i.e, project goals, delivery system, and procurement approach) should all be in harmony. * In conjunction with the development of the Scope of Services document, the complete bid package must be prepared. * Finally, the project can be advertised and awarded. Note that the bidding phase is generally much longer and more involved under DB than DBB, particularly when a value-based approach is used.   *(There is no need to address the numerous bullets shown on the slide at this time – these items will be adequately addressed in following slides.)* | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Alarm Clock_ICON.gif | Timing  Time spent on slide: 2 min | Elapsed time from start of section: 6 min |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Emphasis-Pointing Right_ICON.gif | Transition  As we discussed this morning, both Federal and State statutes grant ODOT fairly broad discretion in designing a DB procurement approach that will best meet the specific needs of a given project. Let’s first take a look at what is allowed under the Federal DB Final Rule. | |
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| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Key_ICON.gif | Key Message  FHWA’s DB Final Rule grants state highway agencies significant flexibility with regard to crafting DB procurement strategies. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Magnify Glass Search_ICON.gif | Reference Materials  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Information_ICON.gif | Background Information  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Notepad_ICON.gif | Interactivity/Talking Points  Note that the DB Final Rule explicitly addresses many procurement options, not all of which will necessarily be implemented by ODOT with any regularity, if at all. For example, although the Final Rule allows agencies to issue an RFP and award a DB contract before the final NEPA decision, ODOT will generally only issue a bid package once NEPA is complete and the necessary environmental clearances have been obtained.  Stipends, while recommended, are not paid regularly by ODOT. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Alarm Clock_ICON.gif | Timing  Time spent on slide: 1 min | Elapsed time from start of section: 7 min |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Emphasis-Pointing Right_ICON.gif | Transition  Let’s now take a look at how ODOT has procured DB projects. | |

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| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Key_ICON.gif | Key Message  The majority of ODOT’s DB projects are procured using a one-step low-bid process. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Magnify Glass Search_ICON.gif | Reference Materials  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Information_ICON.gif | Background Information  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Notepad_ICON.gif | Interactivity/Talking Points  Use this slide to briefly review ODOT’s procurement options, noting the following:   * Although the majority of projects are procured using a one-step low-bid process, the Central Office can decide to apply a two-step low bid or value-based process if warranted by project conditions. The Two Step requies the submission of a proposal for evaluation of the quality of the proposed DBTs. * Under both the two-step low bid and value-based options, the Department may allow Offerors to propose Alternate Technical Concepts (ATCs), which will be discussed more a bit later in this presentation. However, in brief, an ATC is a request by a proposer to modify a contract requirement (for its competitive advantage) that provides a solution that is equal to or better than the base design requirements. | |
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| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Emphasis-Pointing Right_ICON.gif | Transition  ODOT has become more aggressive in its approach to selecting contractors and evaluating what they intend to build, which is more important in the next two possibilities. |

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| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Key_ICON.gif | Key Message  The proposed design and overall project approach becomes a key determining factor using Two-Step, Low Bid Technically Responsive & Value-Base.. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Magnify Glass Search_ICON.gif | Reference Materials  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Information_ICON.gif | Background Information  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Notepad_ICON.gif | Interactivity/Talking Points  Use this slide to briefly review ODOT’s procurement options, noting the following:   * Central Office can decide to apply a two-step low bid , Two-step Low Bid Technically responsive, or value-based process if warranted by project conditions. * Under both the two-step low bid, Two-step Low Bid Technically responsive, and value-based options, the Department may allow Offerors to propose Alternate Technical Concepts (ATCs), which will be discussed more a bit later in this presentation. However, in brief, an ATC is a request by a proposer to modify a contract requirement (for its competitive advantage) that provides a solution that is equal to or better than the base design requirements. * Two-step Low Bid Technically responsive requires a pass/fail evaluation prior to opening bids. | |
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| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Emphasis-Pointing Right_ICON.gif | Transition  ODOT’s typical DB procurement approach is fairly conservative when compared to what is allowed under the DB Final Rule and the spectrum of procurement options shown on the next slide. | |

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| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Key_ICON.gif | Key Message  The graphic shown on this slide represents the spectrum of possible procurement methods. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Magnify Glass Search_ICON.gif | Reference Materials  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Information_ICON.gif | Background Information  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Notepad_ICON.gif | Interactivity/Talking Points   1. Starting with the left-hand side of the graphic, explain that in public sector construction, the traditional procurement decision for construction services is based primarily on price (or qualified low bid). Add that this method is generally the most objective process, requiring only a comparison of bid prices, a responsiveness check, and a price reasonableness analysis.   Moving on to the right side of the graphic, explain that the procurement of so-called “professional” or design services is traditionally based on qualifications, a much more subjective approach.  Logically then, a value-based process falls in the middle, as it marries together price and other factors. Note that value-based procurement approaches are often used in connection with DB and other non-traditional delivery methods that combine design and construction services.   1. Ask the class where they think ODOT’s DB program falls on this spectrum. *(The slide is animated. Once you receive a consensus response, click on the slide to reveal the bouncing ODOT symbol)*   Explain that ODOT is shown as being closer to the left because most of its DB projects are low bid. Even for those projects that are value-based, the predominant evaluation criterion is often price.  We do not do Sole Source selection. This would be were only one proposer could give a price. If you get into DB regulations, this would be a “Progressive DB”. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Alarm Clock_ICON.gif | Timing  Time spent on slide: 2 min | Elapsed time from start of section: 11 min |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Emphasis-Pointing Right_ICON.gif | Transition  As I already noted, one should consider a project’s goals and characteristics when deciding upon a procurement strategy. | |

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| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Key_ICON.gif | Key Message  The chosen procurement strategy should align with project characteristics. | |
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| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Information_ICON.gif | Background Information  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Notepad_ICON.gif | Interactivity/Talking Points  Explain that certain project characteristics lend themselves better to one procurement option than another.   * A one-step low-bid DB approach would apply to low-risk, non-complex projects where a compressed construction schedule is beneficial or possible, but the Department must still provide a high level of design definition. Other circumstances conducive to a one-step low bid approach would include the following: * Proposers do not have to perform substantial design work to develop price proposals * Time constraints do not allow for a separate short-listing step * Department lacks the resources to develop the required documents and manage a two-phase selection process * Department wants to open up the bidding process to more firms, including those with minimal or no DB experience * A two-step low bid approach would apply to moderately complex projects that still require highly qualified teams. For example, a short-listing step would be appropriate if the Department wants to the limit the playing field to firms that qualify for a specialized type of work (e.g. bridge rehabilitation, environmentally sensitive work, etc.) or to firms that have prior DB experience on similar projects. * A two-step low bid technically responsive approach would apply to moderately complex projects that still require highly qualified teams, but ODOT is not looking for betterments. For example, a short-listing step would be appropriate if the Department wants to the limit the playing field to firms that qualify for a specialized type of work (e.g. bridge rehabilitation, environmentally sensitive work, etc.) or to firms that have prior DB experience on similar projects. We would have the opportunity to reject the bid if the approach is not within the Scope of Services. * A value-based DB approach is better suited to projects where the Department can convey project requirements based on a low level of design definition, there is opportunity for innovation, and the DBT can assume greater responsibility for quality and third party coordination.   Stress that use of a two-step low bid, A two-step low bid technically responsive approach, or value-based process requires Central Office approval. | |
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| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Emphasis-Pointing Right_ICON.gif | Transition  We’ll now take a closer look at each of these methods, starting with low bid. | |

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| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Key_ICON.gif | Key Message  Each of the procurement options holds unique advantages and disadvantages. The challenge is to select the approach that is best-suited to a project’s particular needs and goals. This slide presents the pros and cons of low-bid procurement. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Magnify Glass Search_ICON.gif | Reference Materials  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Information_ICON.gif | Background Information  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Notepad_ICON.gif | Interactivity/Talking Points  Point out a low-bid procurement process has the advantage of being the most similar to the Department’s traditional low-bid approach to procuring construction contractors. ODOT can provide a high level of design definition and thus control the design solution. Also, awarding only the basis of price and responsiveness introduces relatively little subjectivity into the evaluation and selection process. However, by precluding the consideration of factors other than cost alone (e.g., quality, innovation, schedule, etc.), it may be difficult to ensure that the Department ultimately receives the best-value, particularly for large, complex projects. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Alarm Clock_ICON.gif | Timing  Time spent on slide: 1 min | Elapsed time from start of section: 14 min |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Emphasis-Pointing Right_ICON.gif | Transition  Let’s now take a look at how the one-step low bid process generally works. | |

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| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Key_ICON.gif | Key Message  The one-step low-bid process is generally the quickest and most streamlined process for procuring DB services. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Magnify Glass Search_ICON.gif | Reference Materials  PN 126 | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Information_ICON.gif | Background Information  Under a low-bid approach, the Department will award the contract to the bidder that submits the lowest price and has a responsive proposal. Implementing the one-step low-bid procurement approach typically entails the following major steps:   1. Identify project goals and risks. 2. Based on the goals and risks identified for the project, take the preliminary design to the desired level of completion. 3. Prepare and issue the DB solicitation package. 4. Hold a pre-bid meeting. 5. Issue addenda to address questions submitted during the Q&A period. 6. Receive and open bids. 7. Determine the Apparent Low Bidder. 8. Verify bid responsiveness. 9. Award contract. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Notepad_ICON.gif | Interactivity/Talking Points  Use this slide to describe the low-bid DB process.  Note that even under the one-step low-bid process, interested DBTs must still be pre-qualified to submit a bid.  Highlight the key steps shown on the figure:   1. Identify project goals and risks. 2. Based on the goals and risks identified for the project, take the preliminary design to the desired level of completion. 3. Prepare and issue the DB solicitation package, which will include items such as:  * Scope of Services document * Proposal notes (including PN126) * Schedule of contract items (should be specific to DB) * Specifications, Special Provisions, Supplemental Specifications  1. Hold a pre-bid meeting. 2. Issue addenda to address questions submitted during the Q&A period. 3. Receive and open bids. 4. Determine the Apparent Low Bidder. 5. Verify bid responsiveness. 6. Award contract. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Alarm Clock_ICON.gif | Timing  Time spent on slide: 2 min | Elapsed time from start of section: 16 min |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Emphasis-Pointing Right_ICON.gif | Transition  The low-bid process can be made slightly more complicated by adding an RFQ shortlisting step, as shown on the next slide. | |

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| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Key_ICON.gif | Key Message  Under two-step low bid, Offerors are first short-listed in an RFQ step and then only the short-listed Offerors are invited to submit bids. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Magnify Glass Search_ICON.gif | Reference Materials  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Information_ICON.gif | Background Information  The FHWA’s DB Final Rule (at 23 CFR 636.201) encourages the use of a two-step selection process, in which the Department first short-lists DBTs on the basis of their responses to a Request for Qualifications (RFQ). (The document submitted in response to the RFQ is called a Statement of Qualifications (SOQ).)  The short-listed firms, in response to an RFP solicitation, may then submit proposals, which the Department evaluates for contract award (step 2).  *Developing Requests for Qualifications (RFQ) and SOQ Evaluation System Planning*  When planning to use a two-step selection process, the Department should begin to think about evaluation factors soon after identifying project goals, as such criteria will be needed to prepare and complete the RFQ. Evaluation factors may be set up on a pass/fail basis, in which the proposers have to meet certain minimum prescribed requirements to be responsive, or on a more qualitative, best-value basis, in which evaluators rate the SOQs according to the evaluation criteria included in the RFP.  Development and issuance of the RFQ will likely take place sometime prior to finalization of the project requirements. Given this timing, instead of requesting specific information regarding the Offerors’ approach to the project, the evaluation factors should focus on the general qualifications of the Offerors to perform the work, using indicators such as their experience, past performance, and bonding capacity.  Typical SOQ evaluation factors include the following:   * General pass/fail factors such as: * Responsiveness of the SOQ in general; * Provision of draft legal documents identifying the legal relationships and organizational structure of the proposers; * Designation of authorized representative; * Evidence that the DBT has the capacity to obtain all required payment and performance bonding, liability insurance, and errors and omissions insurance; * Acceptable certification regarding debarment status and other legal compliance issues; * Letter from Surety indicating sufficient bonding capacity; and * For larger projects, financial data indicating sufficient capacity to undertake and sustain a project of the size and scope contemplated. * Experience of the proposing entity, including that of the lead design entity, major construction contractors, and any specialty design consultants and/or subcontractors as identified in the RFQ. * Identification of key staff and experience on similar projects. * Information that addresses the capability of the firms to perform the work, such as: * Manpower and equipment resources; * Experience in completing projects of similar size, scope, and complexity; and * Experience in obtaining environmental permits, ROW, or assistance or cooperation from Utilities and railroads (as applicable based on risk allocation). * Project understanding and approach * General approach to meet requirements * Description of major tasks * General CPM schedule * Potential risks and mitigation * Opportunities for innovation | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Notepad_ICON.gif | Interactivity/Talking Points  Note that compared to the previously discussed one-step low-bid process, the two-step process can be more time-consuming and resource-intensive.  *RFQ Phase*  Using the figure shown on the slide, note that the RFQ phase can take up to 12 weeks. Highlight the key activities taking place during this phase, which include the following:   1. Identify project goals and risks. 2. Based on the goals and risks identified for the project, take the preliminary design to the desired level of completion. 3. Develop RFQ evaluation criteria. Note that the evaluation factors included in a RFQ should focus on the general qualifications of the proposers to perform the work, using indicators such as key staff qualifications, firm experience on similar projects, firm capabilities, and past performance. Note that requesting past performance information (e.g., adherence to contract schedule, good workmanship, cost control, value of change orders and claims) can be controversial, as some indicators may be out of the contractor’s control (e.g., owner-caused delays). Bidders should therefore be able to explain or qualify issues related to cost growth, delay, violations, or other issues related to change orders or claims with the information submitted. 4. Prepare and issue the RFQ. 5. Hold a pre-submission meeting. 6. Issue addenda to address questions submitted during the Q&A period. 7. Offerors submit their Statements of Qualifications (SOQ). Note that the Lead Designer and Contractor must be prequalified. 8. Rate and score the SOQs to limit the playing field to typically the 3 most qualified firms on the basis of pass/fail criteria and a limited number of scored criteria. 9. Announce the short list of fully responsive RFQs.   *RFP Phase*  Note that the RFP phase, even when using a low-bid process, can take another 12 to 18 weeks. This phase is relatively similar to that of the one-step low bid process, except for the following:   * Competition is limited to the DB teams short-listed in the first step. * As part of its responsiveness determinations, the Department will generally hold a pre-award conference in which the Apparent Low Bidder will be asked to present its conceptual design and schedule for Department review. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Alarm Clock_ICON.gif | Timing  Time spent on slide: 2 min | Elapsed time from start of section: 18 min |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Emphasis-Pointing Right_ICON.gif | Transition  Now that we understand how low-bid DB works, let’s take a look at value-based DB. | |

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| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Key_ICON.gif | Key Message  Two-Step Technically Responsive Low-Bid procurement allows the Department to consider price and qualitative technical components. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Magnify Glass Search_ICON.gif | Reference Materials   * PN 136 * ODOT DB Value-Based Selection Policy (November 17, 2010) | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Information_ICON.gif | Background Information  Two-Step Technically Responsive Low-Bid process requires a shortlisting process as well as a technical proposal evaluation. The Short-listed Offerors are to prepare and submit a Technical Proposal and a Price Proposal.  The Short-listed Offeror that submits both the lowest responsive Price Proposal and a responsive Technical Proposal will be considered successful. The Price Proposal will include the cost of all Work proposed to be completed in accordance with the Contract Documents and Technical Proposal.  Risk to the Offeror as their bid may not be opened if the proposal isn’t acceptable. Technical proposal is not submitted until the price is submitted, therefore, the Department usually holds Proprietary Technical Information (PTI) meetings and discussions. These are confidential meetings to discuss the intended offeror’s approach. The Department can “warn” the offeror of potential failures, allowing the bidders to adjust the approach.   * Two-Step Technically Responsive Low-Bid approach eliminates surprises for both parties. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Notepad_ICON.gif | Interactivity/Talking Points  Review the definition for Two-Step Technically Responsive Low-Bid procurement, emphasizing that this method allows the Department to consider a Pass/fail evaluation before opening the price to determine the apparent low bidder.  Explain that the Department has implemented Two-Step Technically Responsive Low-Bid procurement as a two-step selection process:   * Step 1 entails short-listing Offerors (based on qualifications submitted in response to an RFQ), in a manner similar to the RFQ step just described for the two-step low-bid process. * Step 2 entails evaluating technical proposals submitted by short-listed Offerors in response to an RFP for responsiveness   Personalize the idea – when you buy something, do you want to make sure it is in the bag before you hand over the money. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Alarm Clock_ICON.gif | Timing  Time spent on slide: 1 min | Elapsed time from start of section: 19 min |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Emphasis-Pointing Right_ICON.gif | Transition  Let’s consider some of the advantages and disadvantages of using value-based procurement. | |

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| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Key_ICON.gif | **Key Message**  Under two-step low bid, Offerors are first short-listed in an RFQ step and then only the short-listed Offerors are invited to submit bids. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Magnify Glass Search_ICON.gif | **Reference Materials**  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Information_ICON.gif | **Background Information**  Implementing a Two-Step Technically Responsive Low-Bid procurement process typically entails the following:  1. In conjunction with the development of the project requirements and RFQ and RFP documents, determine the critical risk key items.  2. Determine the Pass/Fail evaluation items which for submission by the Offeror. These items are technical approaches to the final design and should align with the risk items for the Project.  3. Prepare and issue an RFQ (assuming a two-phase selection process is used).  4. Receive SOQs.  5. Evaluate SOQs against the established standards.  6. Announce the short list of Offerors.  7. Issue the DB RFP to the short-listed competitors.  8. Hold PTI (Proprietary Technical Information) meetings to confidentially discuss Offeror’s approach.  9. Receive price and technical proposals submitted by the short-listed Offerors.  10. Open technical proposals and determine Pass/Fail responsiveness.  11. Eliminate any non-responsive proposals.  12. Open the price proposals to determine the apparent lowest responsive Offeror. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Notepad_ICON.gif | **Interactivity/Talking Points**  Note that compared to the previously discussed one-step low-bid process, the two-step process can be more time-consuming and resource-intensive.  Discuss the benefits of ODOT being assured that the approach is one we can live with. The primary things we review depend on the high risk items on the project. We must specify what they are to submit for review.  Ask in this situation, who is at greater risk? DBT if it does not meet our expectations.  As there is a risk to the bidders that we may reject the bids, we hold the PTI meetings to allow them the opportunity to present their plans, specically the items we want to evaluate in the pass/fail. This occurs typically within 3-4 weeks of bid date. Why? So it can be adjusted to ensure a passing submittal. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Alarm Clock_ICON.gif | **Timing**  Time spent on slide: 2 min | Elapsed time from start of section: 18 min |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Emphasis-Pointing Right_ICON.gif | **Transition**  Now that we understand how low-bid DB works, let’s take a look at value-based DB. | |

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| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Key_ICON.gif | Key Message  There are both advantages and disadvantages to the value-based procurement process. | |
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| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Information_ICON.gif | Background Information  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Notepad_ICON.gif | Interactivity/Talking Points  Use this slide to review some of the advantages and disadvantages of value-based procurement. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Alarm Clock_ICON.gif | Timing  Time spent on slide: 1 min | Elapsed time from start of section: 20 min |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Emphasis-Pointing Right_ICON.gif | Transition  As noted, implementing a value-based procurement process is generally quite time-consuming and resource-intensive. We can see this by taking a look at the process flowchart shown on the next slide. | |

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| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Key_ICON.gif | Key Message  Value-based procurement allows the Department to consider price and other key factors (cost, time, qualifications, quality, etc.) in the evaluation and selection process. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Magnify Glass Search_ICON.gif | Reference Materials   * PN 136 * ODOT DB Value-Based Selection Policy (November 17, 2010) | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Information_ICON.gif | Background Information  A value-based procurement approach allows for the consideration of price and other key factors (e.g., cost, time, qualifications, quality, and design alternates) in the evaluation and selection process. ODOT has implemented value-based procurement as a two-step selection process:   * Step 1 entails short-listing Offerors based on qualifications submitted in response to an RFQ. * Step 2 entails evaluating price and technical proposals submitted by short-listed Offerors in response to an RFP. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Notepad_ICON.gif | Interactivity/Talking Points  Review the definition for value-based procurement, emphasizing that this method allows the Department to consider price and other key factors (e.g., cost, time, qualifications, quality, and design alternates) in the evaluation and selection process.  Explain that the Department has implemented value-based procurement as a two-step selection process:   * Step 1 entails short-listing Offerors (based on qualifications submitted in response to an RFQ), in a manner similar to the RFQ step just described for the two-step low-bid process. * Step 2 entails evaluating price and technical proposals submitted by short-listed Offerors in response to an RFP.   Note that some entities refer to this method as “best-value” procurement.  To personalize the idea of value-based procurement, ask the class to think about the last large purchase they made. Did they base their decision solely on price, or did other factors play a role as well? For example, when buying a car, is price the only consideration? What about other factors, such as reliability, safety, brand reputation, key features or options, etc. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Alarm Clock_ICON.gif | Timing  Time spent on slide: 1 min | Elapsed time from start of section: 19 min |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Emphasis-Pointing Right_ICON.gif | Transition  Let’s consider some of the advantages and disadvantages of using value-based procurement. | |

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| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Key_ICON.gif | Key Message  There are both advantages and disadvantages to the value-based procurement process. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Magnify Glass Search_ICON.gif | Reference Materials  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Information_ICON.gif | Background Information  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Notepad_ICON.gif | Interactivity/Talking Points  Use this slide to review some of the advantages and disadvantages of value-based procurement. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Alarm Clock_ICON.gif | Timing  Time spent on slide: 1 min | Elapsed time from start of section: 20 min |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Emphasis-Pointing Right_ICON.gif | Transition  As noted, implementing a value-based procurement process is generally quite time-consuming and resource-intensive. We can see this by taking a look at the process flowchart shown on the next slide. | |

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| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Key_ICON.gif | Key Message  Implementing a value-based procurement process can be an intensive effort. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Magnify Glass Search_ICON.gif | Reference Materials  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Information_ICON.gif | Background Information  Implementing a value-based procurement process typically entails the following:   1. In conjunction with the development of the project requirements and RFQ and RFP documents, determine qualifications, technical, schedule, and cost evaluation criteria. The non-price factors and their maximum point values or weightings should align closely with the goals and the perceived value that the criterion brings to the project. 2. Devise a scoring system to evaluate the proposal’s responsiveness to the evaluation criteria established in the RFQ and RFP. 3. Prepare and issue an RFQ (assuming a two-phase selection process is used). 4. Receive SOQs. 5. Evaluate SOQs against the established standards. 6. Announce the short list of Offerors. 7. Issue the DB RFP to the short-listed competitors. 8. Receive price and technical proposals submitted by the short-listed Offerors. 9. Open technical proposals and determine responsiveness. 10. Score the responsive proposals in each technical area. 11. Open the price proposals to determine responsiveness to required pricing requirements. 12. Eliminate any non-responsive proposals. 13. Roll-up evaluation results, and determine the total point score for each responsive proposal. 14. Compute the final scores and determine the Apparent Best Value Bidder. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Notepad_ICON.gif | Interactivity/Talking Points  Explain that the Department has implemented value-based procurement as a two-step process, which first incorporates an RFQ step similar to that just described for a two-step low-bid process.  Implementing Step 2 of the value-based process then typically entails the following:   1. Issue the DB RFP to the short-listed Offerors. 2. Offerors submit price and technical proposals. 3. Open technical proposals and determine responsiveness. 4. Score the responsive proposals in each technical area. 5. Open the price proposals to determine responsiveness to required pricing requirements. 6. Eliminate any non-responsive proposals. 7. Roll-up evaluation results, and determine the total point score for each responsive proposal. 8. Compute the final scores and determine the Apparent Best Value Bidder.   Point out that the RFP phase generally takes another 18 to 22 weeks on top of the 12-week RFQ phase. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Alarm Clock_ICON.gif | Timing  Time spent on slide: 2 min | Elapsed time from start of section: 22 min |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Emphasis-Pointing Right_ICON.gif | Transition  A key step in implementing a value-based DB procurement process is establishing a transparent evaluation system that promotes objective assessment of submitted proposals. | |

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| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Key_ICON.gif | Key Message  Establishing an evaluation system that aligns with the project goals and objectives is critical to the successful implementation of a value-based approach. | |
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| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Information_ICON.gif | Background Information  *Evaluation System Planning*  The DB Final Rule recognizes several options for implementing a value-based selection process (e.g. adjusted bid, weighted criteria, tradeoff analysis, etc.). On past value-based projects, the Department has used a weighted criteria approach, in which technical factors and price are scored and summed to arrive at a total score.  To use such an approach, early in the project development process, the Department should begin to outline a plan for evaluating the proposals submitted by DBTs. Preparing the evaluation plan before the solicitation documents ensures that the RFQ and RFP will contain sufficient information for prospective DBTs to prepare proposals that address the Department’s major concerns.  The Department will ultimately develop the selection criteria into a formal, internal document that details each step in the evaluation and selection process, from the receipt of proposals to the final documentation of the selection decision. The evaluation and selection plan should describe the evaluation factors and their relative importance (weighting), rating guidelines, and other information critical to maintaining the integrity and fairness of the selection process. Adherence to this plan will help the Department defend its selection decision in the event of a bid protest.  With all point scoring methods, maximum point values should be pre-established and stipulated in the RFP. By specifying maximum point values in the RFP, the Department can directly convey its perceptions regarding the relative importance of the various evaluation criteria that will be used to assess proposals. Proposers can then use these relative weights as a guide to determine where best to focus their attention and resources when developing a proposal.  Evaluation of proposals will entail members of the evaluation team assigning a score for each of the criteria in the evaluation plan. Ideally, these scores should correspond to some measurable standard (e.g., schedule savings in work days, lane closures, etc.). However, for criteria that require discretionary judgment on the part of the evaluators (e.g., design solutions, quality management plan, etc.), ensuring uniform application of evaluation standards can prove to be difficult, particularly if reviewers have different perceptions regarding the value of a point.  To promote consistency in how members of the Evaluation Team interpret the selection criteria included in the RFQ/RFP, the Department may conduct training sessions in the following topic areas:   * Key elements of the RFQ/RFP and related evaluation plans; * Project requirements; * Project constraints; * Appropriate documentation of the selection decision; * Roles and responsibilities of the evaluators; and * Confidentiality.   Such training would generally precede the receipt of SOQs (if applicable) and proposals, and would be mandatory for all members of the Evaluation Team.  *Selection Criteria*  A key element of evaluation system planning is identifying the evaluation criteria that will be used to assess the ability of Offerors to meet the needs and goals of the project. For example, although not a complete guarantee of quality and/or innovation, the experience of design consultants and subcontractors in relevant specialty areas can often serve as an indicator of the Offerors’ ability to successfully complete the project or a particular portion of the work. Such information would generally be obtained through the RFQ phase. The technical approach provided in the proposals submitted in response to the RFP could then provide a further indication of the Offerors’ understanding of the work and its ability to meet the project requirements, particularly for those project components for which the Department will allow some flexibility in design and/or construction solutions.  Risk allocation strategies may also drive evaluation criteria. For example, if the Department were to transfer construction quality assurance responsibilities to the DBT, the RFP could require proposers to address their general approach to quality management in their technical proposals. By evaluating and rating these approaches, the Department could continue to exert some control over quality management.  Identification of possible selection criteria should began soon after identifying project goals. Considering that project goals typically fall into the categories of time, budget, and quality, it is not surprising that evaluation factors generally follow suit, falling into the categories of schedule, price, and technical criteria. Evaluation factors may be set up on a pass/fail basis, in which Offerors have to meet certain minimum prescribed requirements to be responsive, or on a more qualitative, best-value basis, in which evaluators rate the proposals according to the evaluation criteria included in the RFP. Either way, to be effective, each criterion should be defined in terms of some measurable standard against which responsiveness can be measured.  Evaluation factors should be designed to solicit information that can support meaningful comparison and discrimination among competing proposals. When identifying these factors, consideration should be given to the time and effort that Offerors will have to invest in preparing responsive proposals, and that of the Department in evaluating this information. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Notepad_ICON.gif | Interactivity/Talking Points  Explain that this figure represents the key elements of evaluation system planning.  First, one should consider the project’s goals and objectives. These goals and objectives will then drive the selection of evaluation criteria that:   * Align with the project goals * Are critical to project success * Will enable meaningful comparison and discrimination among competing proposals   Note that because the RFQ/SOQ step focuses on the Offerors’ qualifications and experience, the RFP/proposal step may focus on how Offerors intend to complete the project, particularly for those project elements for which the Department will allow some flexibility in design and/or construction solutions.  To help streamline the proposal evaluation process, emphasize that scored criteria should be limited to those items that will reveal true differences among bidders and that will most influence the successful execution of the project. Don’t ask for too much!  Possible evaluation criteria may include:   * Price * Schedule * Maintenance of traffic * Technical concepts * Project management approach * Aesthetics * Public outreach * Impacts (environmental, traffic, etc.)   Once the selection criteria have been identified, the maximum point values should be pre-established for each of these factors and stipulated in the RFP. These point values should reflect the relative importance of the various criteria to the Department.  Finally, the evaluation and selection plan should identify the method or formula by which an overall score is determined for the price and technical proposals. The DB Final Rule allows for many different options (e.g. adjusted bid, weighted criteria, tradeoff analysis, etc.). On past value-based projects, the Department has used a weighted criteria approach, in which technical factors and price are scored and summed to arrive at a total score. The formula used is shown on the next slide. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Alarm Clock_ICON.gif | Timing  Time spent on slide: 3 min | Elapsed time from start of section: 25 min |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Emphasis-Pointing Right_ICON.gif | Transition  In the next slide, we’ll review a formula ODOT has used to determine the Apparent Best Value Bidder. | |

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| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Key_ICON.gif | Key Message  Display this slide to briefly illustrate an award method ODOT has used on a past project. | |
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| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Notepad_ICON.gif | Interactivity/Talking Points  Explain that this slide shows the formula ODOT used on the I-670/71 Interchange Improvement DB Project to determine the Apparent Best Value Bidder.  Point out that price remained a key determinant in the final score. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Alarm Clock_ICON.gif | Timing  Time spent on slide: 1 min | Elapsed time from start of section: 26 min |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Emphasis-Pointing Right_ICON.gif | Transition  To wrap-up our discussion on value-based procurement, let’s quickly identify some best practices related to implementing this method. | |

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| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Key_ICON.gif | Key Message  Display this slide to summarize some best practices related to value-based procurement. | |
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| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Information_ICON.gif | Background Information  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Notepad_ICON.gif | Interactivity/Talking Points  Use this slide to quickly emphasize the importance of minimizing subjectivity and providing for a transparent evaluation process when using a value-based procurement approach. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Alarm Clock_ICON.gif | Timing  Time spent on slide: 1 min | Elapsed time from start of section: 27 min |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Emphasis-Pointing Right_ICON.gif | Transition  Let’s now consider some key considerations that factor into the procurement process. | |

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| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Key_ICON.gif | Key Message  Display this slide to transition to a brief discussion on some procurement considerations. | |
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| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Information_ICON.gif | Background Information  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Notepad_ICON.gif | Interactivity/Talking Points  Point out that when developing a procurement approach, it is important to consider some of the challenges unique to DB projects. For example,   * Given the time and expense Offerors will incur in developing responsive proposals, how can the Department attract healthy competition? * How can the Department ensure opportunities for subcontractors if the conceptual design included in the RFP provides insufficient detail for such firms to submit binding quotes to Offerors? * How can the Department promote innovation, enhance quality, or reduce cost?   Explain that in the next set of slides you will identify such concerns and discuss how they can be minimized through the use of stipends; providing the appropriate level of preliminary design; limiting the size and scope of technical proposal requirements; and by allowing for Offerors to propose alternative technical concepts. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Alarm Clock_ICON.gif | Timing  Time spent on slide: 1 min | Elapsed time from start of section: 28 min |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Emphasis-Pointing Right_ICON.gif | Transition  In the next slide, we’ll take a closer look at some of these procurement risks. | |

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| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Key_ICON.gif | Key Message  The DB procurement process, even when using a low bid approach, can still present some obstacles and risks. | |
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| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Notepad_ICON.gif | Interactivity/Talking Points  Use this slide to identify some possible risk areas and associated mitigation strategies.  Note that as discussed earlier, the procurement process can be very time consuming, acting to tie up valuable resources from both the Department and DBTs. A best practice suggested earlier, that of limiting scored criteria to key differentiators, can help streamline the process and help mitigate this issue.  Given the amount of engineering and design work typically needed to prepare a responsive DB proposal, particularly for two-step procurements, another mitigation strategy is to consider paying a stipend to proposers who submit responsive, but unsuccessful, proposals. The intent of such stipends is to:   * Compensate unsuccessful proposers for a portion of the cost of preparing a proposal, thereby encouraging firms to participate in a lengthy and involved procurement process; * Ensure that smaller firms are not put at a competitive disadvantage; * Increase the quality of proposals; * Increase the level of innovation in proposals; and * Secure owners right to use ideas and concepts within all proposals   Note that stipends are typically 0.25 to 1% of total project construction costs | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Alarm Clock_ICON.gif | Timing  Time spent on slide: 2 min | Elapsed time from start of section: 30 min |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Emphasis-Pointing Right_ICON.gif | Transition  Let’s take a closer look at potential bid protest issues associated with DB procurements. | |

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| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Key_ICON.gif | Key Message  The DB procurement process can introduce the risk of bid protests. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Magnify Glass Search_ICON.gif | Reference Materials  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Information_ICON.gif | Background Information  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Notepad_ICON.gif | Interactivity/Talking Points  Use this slide to briefly review some potential bid protest issues.  Note that some of the best practices that have already been discussed in this course can help prevent protests. These include:   * Clear and complete project scopes * Fair and transparent evaluation processes | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Alarm Clock_ICON.gif | Timing  Time spent on slide: 1 min | Elapsed time from start of section: 31 min |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Emphasis-Pointing Right_ICON.gif | Transition  Another issue that frequently comes up during the development of solicitation documents is how far the Department should take the preliminary design. We touched upon this issue in Part 2 of this course, but the level of design will also relate to the procurement strategy selected, as shown in the next slide. | |

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| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Key_ICON.gif | Key Message  The desired level of preliminary design will likely vary with procurement approach. | |
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| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Information_ICON.gif | Background Information  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Notepad_ICON.gif | Interactivity/Talking Points  Remind the class of the discussion held during Part 2 related to the relationship between the level of preliminary design provided by the Department and the design risk that can be shifted to the DBT.  Use this slide to briefly point out that the level of design will also vary with the procurement approach. If the Department provides a high level of design definition (affording industry little flexibility or opportunities for innovation) a low-bid process is suitable. As less design is provided, a value-based approach may become necessary to evaluate technical qualifications and approach. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Alarm Clock_ICON.gif | Timing  Time spent on slide: 1 min | Elapsed time from start of section: 32 min |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Emphasis-Pointing Right_ICON.gif | Transition  As discussed in the next set of slides, if the Department wishes to promote innovation, an option would be to allow Offerors to submit Alternate Technical Concepts (ATC). | |

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| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Key_ICON.gif | Key Message  ATCs provide a way to promote innovation. | |
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| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Information_ICON.gif | Background Information  If project conditions do not restrict the range of possible technical approaches, alternative technical concepts (ATC) may be used as a means to promote innovation.  As defined by FHWA, an ATC is a:  *A request by a proposer to modify a contract requirement, specifically for that proposer’s use in gaining a competitive benefit during the bidding or proposal process … [that] provides a solution that is equal to or better than the owner’s base design requirements*  If the RFP allows ATCs, a proposer can suggest an ATC during the proposal preparation period, and, if accepted, can then decide to concentrate on developing a proposal around the accepted ATC.  The ATCs could address different configurations, different design criteria, materials not previously used on Department projects, and similar issues for which some design flexibility may exist.  Allowing ATCs does not equate to automatic acceptance of the alternate approaches by the Department; however, the Evaluation Team should be prepared to seriously consider ATCs and the benefits they may offer. For example, possible benefits may include schedule or cost reductions or minimized disruption during construction.  To consider ATCs, the Department needs to carefully tailor evaluation factors related to technical criteria to ensure that both baseline and alternate solutions are evaluated and rated with fairness and consistency.  Other potential challenges related to implementing ATCs include the following:   * Additional procurement time/cost to review * Maintaining confidentiality and fairness among bidders * Comparing an “equal or better” design to base design * Possible impacts on NEPA permits, ROW, utilities, etc. * Protecting intellectual property of DBTs * Increased protest risk (perceived inequity by unsuccessful bidders)   Benefits: Innovation, reduced costs, and improved quality are essentially potential benefits. Why would the give improved quality? For a Value Based selection – would be a balance of price versus proposal scoring. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Notepad_ICON.gif | Interactivity/Talking Points  Use this slide to introduce ATCs.  Note that the following proposed changes could constitute an ATC:   * Concept does not comply with existing criteria or specifications * Concept generates a cost, time, or life-cycle benefit * Concept requires a design variation from standard agency documented practices   In contrast, a simple waiver request from standard Department practices is generally not considered an ATC.  Ask the class,   * What are some possible benefits that ATCs could provide? (Possible answers: innovation, reduced cost, reduced schedule, minimized disruption) * What are some potential challenges related to implementing ATCs? (Possible answers: Additional procurement time/cost to review, comparing an “equal or better” design to base design, maintaining confidentiality, etc.) | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Alarm Clock_ICON.gif | Timing  Time spent on slide: 2 min | Elapsed time from start of section: 33 min |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Emphasis-Pointing Right_ICON.gif | Transition  Let’s take a look at how allowing ATCs would modify the procurement process. | |

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| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Key_ICON.gif | Key Message  Allowing ATCs will generally extend the duration of the RFP phase. | |
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| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Information_ICON.gif | Background Information  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Notepad_ICON.gif | Interactivity/Talking Points  Use this slide to illustrate how ATCs are incorporated into the RFP process, noting that it can add 4 weeks to the procurement schedule.  Indicate that although the figure reflects a value-based procurement process, ATCs could also be used in a two-step low-bid process, where no separate technical proposal is submitted.  Also add that the Department may incorporate one-on-one meetings with the Offerors to discuss the ATCs before the final submittal. | |
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| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Emphasis-Pointing Right_ICON.gif | Transition  Before we move on to some general DB contracting issues, let’s summarize what we’ve discussed about DB procurement. | |

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| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Key_ICON.gif | Key Message  Display this slide to summarize the key points from the procurement discussion. | |
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| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Information_ICON.gif | Background Information  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Notepad_ICON.gif | Interactivity/Talking Points  Use this slide to quickly run through the highlights of the procurement discussion. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Alarm Clock_ICON.gif | Timing  Time spent on slide: 1 min | Elapsed time from start of section: 35 min |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Emphasis-Pointing Right_ICON.gif | Transition  Let’s now take a closer look at DB contracts. | |

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| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Notepad_ICON.gif | Interactivity/Talking Points  Note that because DB alters the traditional roles and responsibilities of the Department and industry, the contractual basis between these parties changes as well.  Although specific contract provisions will vary from project to project, the nature of the DB delivery approach requires careful revision of existing general provisions or the addition of unique special provisions for DB. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Alarm Clock_ICON.gif | Timing  Time spent on slide: 1 min | Elapsed time from start of section: 36 min |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Emphasis-Pointing Right_ICON.gif | Transition  Let’s start our discussion by taking a look at terminology. | |

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| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Key_ICON.gif | Key Message  DB requires some new terminology. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Magnify Glass Search_ICON.gif | Reference Materials   * PN 126 * PN 136 | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Information_ICON.gif | Background Information  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Notepad_ICON.gif | Interactivity/Talking Points  Use this slide to quickly point out that use of DB requires some new definitions, which have been incorporated into ODOT’s proposal notes. For example, Engineer of Record refers to the DBT’s Lead Designer who seals the construction plans.  Other existing definitions require some modification. For example, under DB, “the Work” refers to both the design and construction of the project. | |
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| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Emphasis-Pointing Right_ICON.gif | Transition  The contents of the bid documents will also change, as shown on the next slide. | |

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| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Key_ICON.gif | Key Message  The contents of the bid documents changes under DB. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Magnify Glass Search_ICON.gif | Reference Materials   * PN 126 * PN 136 | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Information_ICON.gif | Background Information  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Notepad_ICON.gif | Interactivity/Talking Points  Use this slide to explain that due to the lump sum nature of DB, the Department no longer provides Offerors with an estimate of quantities.  The basis of the DB contract becomes the Scope of Services document. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Alarm Clock_ICON.gif | Timing  Time spent on slide: 1 min | Elapsed time from start of section: 38 min |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Emphasis-Pointing Right_ICON.gif | Transition  Other contracting issues unique to DB are discussed on the next slide. | |

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| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Key_ICON.gif | Key Message  Use of DB requires some new or modified contract provisions. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Magnify Glass Search_ICON.gif | Reference Materials   * PN 126 * PN 136 | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Information_ICON.gif | Background Information  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Notepad_ICON.gif | Interactivity/Talking Points  Use this slide to briefly review some of the required changes to standard provisions. For example:   * The intent of the contract documents needs to address both design and construction. * On a DB project, in addition to general liability and builder’s risk insurance, it is also common to require professional liability, or Errors and Omissions (E&O) insurance, as the DBT, and not the Department or a design consultant, is the Engineer-of-Record. The professional liability insurance policy should be held in the name of the DBT that enters into a contract with the Department. This means that the DBT cannot rely on the insurance policy or policies of its designers to cover professional liability. This protects the Department from dealing with multiple insurance agencies and policies that may or may not cover the risks associated with a particular project. * VE Change Proposals are typically not accepted. * Measurement and payment provisions need to be revised to reflect the lump sum nature of the project and address payment for both design and construction services.   Note that additional contract administration issues will be addressed in the next Part of the course. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Alarm Clock_ICON.gif | Timing  Time spent on slide: 2 min | Elapsed time from start of section: 39 min |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Emphasis-Pointing Right_ICON.gif | Transition  Unique administrative aspects of a DB contract will be discussed in the next Part of the course. First, however, we’ll take a look at a case study in which the Department dealt with a bid protest on a recent value-based DB project. | |

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| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Key_ICON.gif | Key Message  Display this slide to transition to a case study discussion. | |
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| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Information_ICON.gif | Background Information  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Notepad_ICON.gif | Interactivity/Talking Points  Note that you will now be presenting a case study to discuss a bid protest that occurred on an ODOT project. Note that although the issue materialized during the procurement phase, the root cause of the problem stemmed from an ambiguous project Scope. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Alarm Clock_ICON.gif | Timing  Time spent on slide: 1 min | Elapsed time from start of section: 40 min |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Emphasis-Pointing Right_ICON.gif | Transition  Let’s take a look at what the Scope of Services required. | |

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| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Key_ICON.gif | Key Message  Use this slide to introduce the case study. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Magnify Glass Search_ICON.gif | Reference Materials  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Information_ICON.gif | Background Information  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Notepad_ICON.gif | Interactivity/Talking Points  Set up the project circumstances, highlighting the following:   * New westbound Innerbelt Bridge DB Project utilized a multi-step value-based procurement process (1-SOQ, 2-ATC, 3-Technical Proposal) * The most important criteria (weightings) were Proposed Design (20pts) and Construction (20pts) * The design criteria called for the girder depth to vary “parabolically” * The final award was determined using a formula weighing 70% on price, and 30% on score. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Alarm Clock_ICON.gif | Timing  Time spent on slide: 2 min | Elapsed time from start of section: 42 min |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Emphasis-Pointing Right_ICON.gif | Transition  So what happened? | |

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| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Key_ICON.gif | Key Message  This photo represents what ODOT had expected to receive from the DBT. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Magnify Glass Search_ICON.gif | Reference Materials  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Information_ICON.gif | Background Information  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Notepad_ICON.gif | Interactivity/Talking Points  The second place team received their stipend, but ended up filing an injunction against ODOT and wanted the contract declared void.  The litigation centered around the interpretation of “what is a parabola?”  The photo shows what ODOT intended for the shape. ODOT intended for the parabolic shape to continue from support to support. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Alarm Clock_ICON.gif | Timing  Time spent on slide: 1 min | Elapsed time from start of section: 43 min |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Emphasis-Pointing Right_ICON.gif | Transition  Let’s take a look at the winning proposer’s concept. | |

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| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Key_ICON.gif | Key Message  This rendering represents the winning proposer’s concept. | |
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| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Information_ICON.gif | Background Information  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Notepad_ICON.gif | Interactivity/Talking Points  Instruct the class to study the rendering and ask them if they think it meets the Scope requirements.  The proposer’s explanation is that this section does assume a parabolic shape when it is changing. This would be consistent with the look of existing bridges in the area. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Alarm Clock_ICON.gif | Timing  Time spent on slide: 1 min | Elapsed time from start of section: 44 min |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Emphasis-Pointing Right_ICON.gif | Transition  Let’s take another look at the winning concept. | |

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| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Key_ICON.gif | Key Message  The winning concept used a straight member to connect the varying depth sections, which wasn’t what ODOT had originally envisioned for the design solution. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Magnify Glass Search_ICON.gif | Reference Materials  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Information_ICON.gif | Background Information  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Notepad_ICON.gif | Interactivity/Talking Points  The winning proposer connected the varying depth sections with a straight member.  The variation did NOT continue from support to support, as ODOT intended when the scope wording was written.  ODOT accepted the design, even though a full parabola was ODOT’s intention…acknowledged scope not clear… but winning Proposer had a reasonable interpretation. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Alarm Clock_ICON.gif | Timing  Time spent on slide: 1 min | Elapsed time from start of section: 45 min |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Emphasis-Pointing Right_ICON.gif | Transition  What happened next? | |

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| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Key_ICON.gif | Key Message  Use this slide to describe what happened. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Magnify Glass Search_ICON.gif | Reference Materials  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Information_ICON.gif | Background Information  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Notepad_ICON.gif | Interactivity/Talking Points  Use this slide to describe what happened.  Proposer #2 filed an injunction.   * Claimed the winning DBT did not follow the Scope – the bridge beam shape is not a Parabola as was “required” by the scope; therefore, #1 was nonresponsive. * ODOT accepted the project design as consistent with Scope of Services even though it was not what was originally intended. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Alarm Clock_ICON.gif | Timing  Time spent on slide: 1 min | Elapsed time from start of section: 46 min |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Emphasis-Pointing Right_ICON.gif | Transition  What was the judge’s interpretation? | |

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| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Key_ICON.gif | Key Message  Use this slide to describe what happened. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Magnify Glass Search_ICON.gif | Reference Materials  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Information_ICON.gif | Background Information  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Notepad_ICON.gif | Interactivity/Talking Points  The Judge agreed (with ODOT) that #1 had a reasonable interpretation, even though the design was not what ODOT intended. Parabolic variation wasn’t required across entire beam length  Injunction was NOT upheld as it would cause unreasonable delays to the construction. ODOT continued forth with the award process. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Alarm Clock_ICON.gif | Timing  Time spent on slide: 1 min | Elapsed time from start of section: 47 min |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Emphasis-Pointing Right_ICON.gif | Transition  What can we take away from this case study? | |

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| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Key_ICON.gif | Key Message  Use this slide to discuss the outcome and lessons learned from this project. | |
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| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Information_ICON.gif | Background Information  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Notepad_ICON.gif | Interactivity/Talking Points  Discuss the project outcomes:   * Project moved forward and design did not strictly meet scope language as drafted. * What was designed and constructed was not strictly what ODOT had intended but was reasonable. When bridge beam shape varied, it varied in parabolic shape. * Proposer #2 continued to fight and appealed judge’s decision. * During the appeal, it was determined the language in their Joint Venture agreement nullified the joint venture. Judge ruled the JV had dissolved and did not have grounds to sue. * At that point ODOT had started procurement of our 2nd Value Based DB project in Columbus. The 2nd ranked team dropped the suit as they had also proposed for this project. * Bridge opened to bi-directional traffic in Nov 2013. * ODOT unsure if “process” would have been upheld as the full argument wasn’t heard.   Ask the class if they can identify some lessons learned. For example:   * If a specific design feature is required from proposers, the language in the scope of work must precisely convey the one solution, without room for interpretation * If language is not specific, need to live with the result, or issue a change order. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Alarm Clock_ICON.gif | Timing  Time spent on slide: 2 min | Elapsed time from start of section: 49 min |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Emphasis-Pointing Right_ICON.gif | Transition  This concludes Part 3 of this training course. We will now demonstrate what we’ve learned by revisiting the learning objectives that started off this section. | |

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| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Key_ICON.gif | Key Message  Display this screen to wrap-up Part 3. | |
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| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Information_ICON.gif | Background Information  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Notepad_ICON.gif | Interactivity/Talking Points  Before closing out this section, ask participants if they have any questions regarding the material covered in Section 3. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Alarm Clock_ICON.gif | Timing  Time spent on slide: 1 min | Elapsed time from start of section: 50 min |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Emphasis-Pointing Right_ICON.gif | Transition  Let’s take a look at our original learning objectives. | |

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| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Key_ICON.gif | Key Message  Display this screen to wrap-up Part 3. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Magnify Glass Search_ICON.gif | Reference Materials  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Information_ICON.gif | Background Information  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Notepad_ICON.gif | Interactivity/Talking Points  Review the section learning objectives. Plan to spend 3 to 5 minutes on this review. Maintain a quick pace throughout the review to keep it interesting and interactive. Possible review questions to ask may include:   * Identify the 3 procurement options available to ODOT. * What are some ways to improve competition on a DB project? (e.g., stipends, streamline requirements, don’t require prior DB experience) * Identify some necessary changes to the Department’s general provisions to accommodate DB.   Preview the next section by telling participants that, after the break, you will begin discussing the administration of DB contracts. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Alarm Clock_ICON.gif | Timing  Time spent on slide: 5 min | Elapsed time from start of section: 55 min |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Emphasis-Pointing Right_ICON.gif | Transition  We will now take a quick ten minute break, which based on my watch means we should be back in the room by \_\_\_\_\_ | |

# Part 4: DB Contract Administration

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| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Key_ICON.gif | Key Message  Display this screen to introduce Part 4, which addresses design-build (DB) project execution covering contract administration for design and construction. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Magnify Glass Search_ICON.gif | Reference Materials   * ODOT Design Manual, Section 1400 * ODOT Construction Administration Manual of Procedures (MOP), 2013 * ODOT Construction and Materials Specifications (CMS), 2013 | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Information_ICON.gif | Background Information  This part of the course is intended to provide participants with an overview of DB contract administration processes and best practice procedures for design and construction administration. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Notepad_ICON.gif | Interactivity/Talking Points  Present the basic structure for this portion of the training, which consists of:   * Execution overview. What are the key considerations for DB, a DB execution process overview, and quality management overview? * Design contract administration: This section focuses on the design administration of the project including the design phase process and deliverables, and what’s different regarding DBT and ODOT responsibilities. A case study is also presented. * Construction contract administration: This section addresses the administration of the, construction, and closeout phases of the project. * Review Questions | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Alarm Clock_ICON.gif | Timing  Time spent on slide: 1 min | Elapsed time from start of section: 1 min |
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| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Key_ICON.gif | Key Message  Display this screen to present learning outcomes for DB contract administration for design and construction. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Magnify Glass Search_ICON.gif | Reference Materials  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Information_ICON.gif | Background Information  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Notepad_ICON.gif | Interactivity/Talking Points  Present the learning outcomes for this portion of the course. These learning outcomes will be reviewed at the conclusion of this section to assess the degree to which the content was retained and understood by participants | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Alarm Clock_ICON.gif | Timing  Time spent on slide: 1 min | Elapsed time from start of section: 2 min |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Emphasis-Pointing Right_ICON.gif | Transition  Now let’s turn to the contents of Part 4. | |

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| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Key_ICON.gif | Key Message  Display this screen to summarize content of Part 4. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Magnify Glass Search_ICON.gif | Reference Materials  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Information_ICON.gif | Background Information  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Notepad_ICON.gif | Interactivity/Talking Points  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Alarm Clock_ICON.gif | Timing  Time spent on slide: 1 min | Elapsed time from start of section: 3 min |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Emphasis-Pointing Right_ICON.gif | Transition  Now let’s turn to Execution Overview – key considerations. | |

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| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Key_ICON.gif | Key Message  DB is not business as usual. ODOT staff must integrate with the DBT to much greater extent than traditional DBB meet the Project schedule, budget, and quality goals. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Magnify Glass Search_ICON.gif | Reference Materials  DBIA has a wealth of information on DB processes.   * See website: <http://www.dbia.org> * Design-Build Done Right (DBIA 2014) <http://www.dbia.org/resource-center/documents/best_practices_2014.pdf> | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Information_ICON.gif | Background Information  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Notepad_ICON.gif | Interactivity/Talking Points  Note the following:   * Traditional contract administration under DBB design and construction are administered under separate contracts. Administrative decision-making and approvals are often less efficient and difficult to coordinate * DB integrates design and construction to meet shared goals – “all on the same team” mentality * The pace of DB demands that ODOT staff dedicate sufficient resources and experienced staff to meet DBT schedule while ensuring that design and construction are in compliance with ODOT requirements. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Alarm Clock_ICON.gif | Timing  Time spent on slide: 2 min | Elapsed time from start of section: 5min |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Emphasis-Pointing Right_ICON.gif | Transition  Now let’s turn to Execution Overview – Collaboration. | |

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| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Key_ICON.gif | Key Message  Integrated project delivery demands collaboration. Collaboration means shared problem-solving and shared success. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Magnify Glass Search_ICON.gif | Reference Materials  Design-Build Done Right (DBIA, 2014) | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Information_ICON.gif | Background Information  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Notepad_ICON.gif | Interactivity/Talking Points  DBIA promotes establishing collaborative working relationships:   * “All members of the Design Build Team must understand that the project’s success is dependent on the ability of the team members to work collaboratively and trust that each member is committed to working in the best interests of the project.” (Design-Build Done Right - Project Execution) * Integrated Project Delivery (or “little IPD”) means adopting a collaborative working relationship in while maintaining the traditional contracting protections/constraints in DB contract. * ODOT personnel need to be willing to participate. While they are responsible for more of the project, ODOT needs to be involved. DB projects require Partnering, and the project management needs to be willing to “jump-in”. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Alarm Clock_ICON.gif | Timing  Time spent on slide: 2 min | Elapsed time from start of section: 7 min |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Emphasis-Pointing Right_ICON.gif | Transition  Now let’s turn to Execution Process Overview. | |

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| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Key_ICON.gif | Key Message  Project execution for DB means integrating design and construction activities. Construction will often proceed in Buildable Units (BU) before the design is complete. Contract administration must adapt to this integration and work flow | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Magnify Glass Search_ICON.gif | Reference Materials  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Information_ICON.gif | Background Information  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Notepad_ICON.gif | Interactivity/Talking Points  Ask participants:   * How do design responsibilities (submittal reviews) change for a DB contract both for the DBT and for ODOT staff? * What would be the advantage(s) of proceeding with early construction? * What would be the challenges? | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Alarm Clock_ICON.gif | Timing  Time spent on slide: 3 min | Elapsed time from start of section: 10 min |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Emphasis-Pointing Right_ICON.gif | Transition  Now let’s turn to Quality Assurance under DB. | |

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| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Key_ICON.gif | Key Message  The DBT has responsibility for design and construction QC. ODOT is responsible for design QA and construction QA and IA and as part of contract administration responsibilities | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Magnify Glass Search_ICON.gif | Reference Materials   * CFR 637 Subpart B, Quality Assurance Procedures for Construction * FHWA Techbrief, Construction Quality Assurance for Design-Build Highway projects, 2012 * ODOT Design Manual * ODOT Construction Administration Manual of Procedures, 2013 * ODOT Construction and Materials Specifications, 2010 | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Information_ICON.gif | Background Information  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Notepad_ICON.gif | Interactivity/Talking Points  Note the following:   * Federal requirements (CFR 637) are the same for DB as for DBB – the Owner is responsible for QA verification, IA, and acceptance. However, the owner may reduce the frequency of testing or inspection on DB projects based on the criticality of the materials or the work. * Federal CFR requirements are not applicable for design. Best practice standards for DB require design check and independent review (AISC, ISO, ODOT Design Manual, etc.) * For design QA, the same QA requirements apply as for DBB in the ODOT Design Manual * For large projects (value-based DB), DBT prepares a QMP and an independent QA entity not reporting to DBT management, the IQF, performs QA review, verification inspection, and testing. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Alarm Clock_ICON.gif | Timing  Time spent on slide: 2 min | Elapsed time from start of section: 12 min |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Emphasis-Pointing Right_ICON.gif | Transition  Now let’s turn to Design Administration for DB. | |

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| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Key_ICON.gif | Key Message  Use this slide to transition to the Design Administration portion of the training. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Magnify Glass Search_ICON.gif | Reference Materials  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Information_ICON.gif | Background Information  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Notepad_ICON.gif | Interactivity/Talking Points  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Alarm Clock_ICON.gif | Timing  Time spent on slide: 1 min | Elapsed time from start of section: 13 min |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Emphasis-Pointing Right_ICON.gif | Transition  Now let’s turn to What’s Different (in Design Administration for DB). | |

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| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Key_ICON.gif | Key Message  This slide addresses how design administration changes from DBB to DB. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Magnify Glass Search_ICON.gif | Reference Materials  ODOT Project Development Process Manual, Section 1400, Review Submissions | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Information_ICON.gif | Background Information  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Notepad_ICON.gif | Interactivity/Talking Points  Use this slide to emphasize the following:   * For DBB: “Project is a product of the design,” DB: “Design is a product of DB contract. * Design Ownership * ODOT no longer serves as the “go between” the design professional and contractor * Traditionally, ODOT owns the details of design. For DB, the DBT responsible for the design details and E&O. * Design Submittal Review * ODOT’s role in design review shifts to oversight and plan review for compliance with the scope * Design Completion * Design is not complete until final as-builts submitted after construction * Design and construction are not sequential – they overlap and integrate. * The focus is on design efficiency/constructability to support and enhance the construction process * ODOT will establish minimum standards “quality of design” and performance goals in scope, but should not dictate details of design to meet those standards | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Alarm Clock_ICON.gif | Timing  Time spent on slide: 4 min | Elapsed time from start of section: 17 min |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Emphasis-Pointing Right_ICON.gif | Transition  Now let’s turn to Predesign Meeting | |

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| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Key_ICON.gif | Key Message  Pre-design meeting establishes collaborative working relationship | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Magnify Glass Search_ICON.gif | Reference Materials   * ODOT PN 126   For more information, interested participants may consult the following DB manuals published by other state highway agencies:   * NYS Design-Build Procedures Manual, 2011 * MD SHA Design-Build Manual, 2013 | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Information_ICON.gif | Background Information  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Notepad_ICON.gif | Interactivity/Talking Points  Use this slide to explain the following:   * Key difference is mandatory pre-design meeting for DB * Pre-design meeting establishes how the project team (ODOT & DBT) will work together collaboratively. It will:   + Establish Lines of communication, roles and responsibilities,   + Inventory major features of design work & correlate to major features of construction,   + Develop initial progress schedule with design submittal breakdown of deliverables and milestones for payment,   + Identify sub-consultants & other firms involved in design,   + ODOT and 3rd party design review requirements and schedule, and   + If applicable, project management office and facilities. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Alarm Clock_ICON.gif | Timing  Time spent on slide: 4 min | Elapsed time from start of section: 21 min |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Emphasis-Pointing Right_ICON.gif | **Transition**  Now let’s turn to DBT Design Responsibilities. | |

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| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Key_ICON.gif | Key Message  Outline DBT design responsibilities and submission requirements. Point out that design development is structured to support and integrate with construction sequencing | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Magnify Glass Search_ICON.gif | Reference Materials   * ODOT Project Development Process Manual * ODOT Design-Build Scope Manual, Section 1400, Review Submissions | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Information_ICON.gif | Background Information  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Notepad_ICON.gif | Interactivity/Talking Points  Note the following:   * DBT defines Buildable Units (BU) and how far they take design in logical packages that can be reasonably reviewed * DBT is responsible for development of design and construction plans to meet the contract requirements * Inputting electronic submittals (sharepoint) * DBT Design Deliverables include:   + A schedule of defined submittals and payment milestones   + Surveys, analysis, investigations, and other submittals as needed to support plans   + Preliminary, final and release-for-construction plans (with materials quantities for certain items requiring sampling frequencies?)   + As-built construction plans (after completion & prior to final acceptance) | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Alarm Clock_ICON.gif | Timing  Time spent on slide: 3 min | Elapsed time from start of section: 24 min |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Emphasis-Pointing Right_ICON.gif | Transition  Now let’s turn to Buildable Units. | |

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| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Key_ICON.gif | Key Message  BUs are logical elements of the project that can be designed, reviewed, and released to allow for early construction | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Magnify Glass Search_ICON.gif | Reference Materials   * ODOT Project Development Process Manual, * ODOT Design-Build Scope Manual, Section 1400, Review Submissions | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Information_ICON.gif | Background Information  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Notepad_ICON.gif | Interactivity/Talking Points  Note the following:   * Buildable units (BU) are defined in terms of logical units of work, or areas within the work zone organized in a table of BUs coded to project plans and schedules * BU submittals should define logical discrete items of work with assumptions and information for adjoining components (i.e. pavement, bridge, retaining wall). Individual elements (i.e. Pier 1, Abutment 1, Span 4 for a bridge) are not acceptable * BUs require sufficient information for adjoining components or areas of work to allow for evaluation of BU submittals.   + Any assumptions need to be clearly defined (e.g. loading for superstructure during substructure review), and all supplemental information is required for a complete review   + MOT submittals should include description of all work to be done in a specific MOT phase | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Alarm Clock_ICON.gif | Timing  Time spent on slide: 3 min | Elapsed time from start of section: 27 min |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Emphasis-Pointing Right_ICON.gif | Transition .  Now let’s turn to ODOT design administration responsibilities | |
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| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Key_ICON.gif | Key Message  ODOT design reviews are strictly for verifying compliance with scope. The DBT is responsible for developing a detailed design that meets the scope of work. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Magnify Glass Search_ICON.gif | Reference Materials  ODOT Project Development Process Manual, ODOT Design-Build Scope Manual, Section 1400, Review Submissions | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Information_ICON.gif | Background Information  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Notepad_ICON.gif | Interactivity/Talking Points  Ask participants:   * Comment on the issues that might arise related to ODOT design reviews for DB projects. * Given the ODOT review responsibility, should the reviewer point out obvious errors or omissions in the plans?   Note the following:   * ODOT reviews should not ask for or provide additional design details. Review only for compliance with scope and design standards. Excessive direction or requests for more detail may lead to ODOT assuming “ownership” for design if issues arise during construction related to the design. * ODOT should point out obvious errors or omissions or lack of compliance but not direct the DBT how to fix * Submittal reviews of buildable units (i.e. earthwork, pavement, structures) must be carefully coordinated so as not to delay the construction sequence & project schedule * Review comments should clearly define whether a response (or revision) is needed * Additional design review responsibilities:   + Joint reviews of release-for-construction plans   + Review and concurrence of field changes (minor design revisions) arising during construction   + Review and acceptance of final as-built plans * For value-based DB, ODOT’s role becomes of an oversight function, auditing the DBT ‘s design QMP processes and procedures, ensure that IQF is performing QA of design, and confirming DBT adherence to design QMP | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Alarm Clock_ICON.gif | Timing  Time spent on slide: 4 min | Elapsed time from start of section: 31 min |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Emphasis-Pointing Right_ICON.gif | Transition  Now let’s turn to Submittal Reviews. | |

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| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Key_ICON.gif | Key Message  Submittal reviews are different of DB. ODOT project management should utilize a single review disposition spreadsheet. A central disposition assists in filtering out of repetitive comments. This avoids the “trickling in” of review comments.  Turnaround times by reviewers are contractual times. Delays in reviews can result in delays in the project resulting in Field and Home Office overhead payments. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Magnify Glass Search_ICON.gif | Reference Materials  ODOT Project Development Process Manual, ODOT Design-Build Scope Manual, Section 1400, Review Submissions | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Information_ICON.gif | **Background Information**  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Notepad_ICON.gif | Interactivity/Talking Points   * 3rd Parties   + Clarify that submittal reviews are based on partial designs   + POC required for coordination   + Commitments to contractual comment/review timeframes * ODOT Process   + Centralized disposition review spreadsheet   + POC to filter and de-conflict comments   + DBT will incorporate, justify, ask for clarification, or request change | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Alarm Clock_ICON.gif | Timing  Time spent on slide: 4 min | Elapsed time from start of section: 35 min |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Emphasis-Pointing Right_ICON.gif | Transition  Now let’s turn to a Case Study addressing the importance of design reviews to de-conflict scope and design standards before construction begins. | |

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| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Key_ICON.gif | Key Message  Summarize the scope and options as background for the case study project. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Magnify Glass Search_ICON.gif | Reference Materials  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Information_ICON.gif | Background Information  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Notepad_ICON.gif | Interactivity/Talking Points  Briefly summarize DB scope where DBT is requested to select an option. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Alarm Clock_ICON.gif | Timing  Time spent on slide: 2 min | Elapsed time from start of section: 37 min |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Emphasis-Pointing Right_ICON.gif | Transition  Now let’s look at more detail on the options. | |

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| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Key_ICON.gif | Key Message  In the scope details, the scope required total new build-ups for the pavement options | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Magnify Glass Search_ICON.gif | Reference Materials  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Information_ICON.gif | Background Information  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Notepad_ICON.gif | Interactivity/Talking Points  Note that both options in the scope specified the exact type/dimension of pavement buildup, not minimum values. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Alarm Clock_ICON.gif | Timing  Time spent on slide: 2 min | Elapsed time from start of section: 39 min |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Emphasis-Pointing Right_ICON.gif | Transition  Now let’s look at what actually happened. | |

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| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Key_ICON.gif | Key Message  The scoping document conflicted with current design standard (different super-elevation designations for rural and urban interstate roadway). | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Magnify Glass Search_ICON.gif | Reference Materials  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Information_ICON.gif | Background Information  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Notepad_ICON.gif | Interactivity/Talking Points  Use this slide to describe what happened:   * The conflict with super-elevation requirements was not picked up during the scope development * ODOT Central Office preliminary review commented on the elevation issue but it did not get addressed and incorporated into the scope * This is a construction contract – ambiguities or conflicts between scope and design standards are construed against the drafter   Ask the class:   * How could this issue have been avoided? (More careful review and disposition of comments) | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Alarm Clock_ICON.gif | Timing  Time spent on slide: 4 min | Elapsed time from start of section: 43 min |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Emphasis-Pointing Right_ICON.gif | Transition  What happened cont’d | |

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| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Key_ICON.gif | Key Message  The conflict resulted in a CO to address a change in the specified build-up. If scope requirements are prescriptive, design risk is retained by ODOT. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Magnify Glass Search_ICON.gif | Reference Materials  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Information_ICON.gif | Background Information  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Notepad_ICON.gif | Interactivity/Talking Points  Note that because the scope did not address super-elevation requirements, a design change to the specified pavement build-up was required to meet these design requirements. ODOT issued a contract change order to modify the scope resulting in additional design (and construction) cost.  Explain the key takeaway:   * Project was unbuildable as specified. The risk of ambiguities or conflicts between scope and design standards is retained by the owner   Ask participants:   * How could this issue have been avoided?   + Identify known design exceptions and obtain conceptual approval of design exceptions   + Scoping (use minimum buildup dimension and modify the buildup to adapt to super-elevation requirements)   + Emphasize that design reviews must carefully consider current design standards in context of project scope | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Alarm Clock_ICON.gif | Timing  Time spent on slide: 4 min | Elapsed time from start of section: 47 min |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Emphasis-Pointing Right_ICON.gif | Transition  Another actual case study | |

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| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Key_ICON.gif | Key Message  Summarize the scope and options as background for the case study project. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Magnify Glass Search_ICON.gif | Reference Materials  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Information_ICON.gif | Background Information  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Notepad_ICON.gif | Interactivity/Talking Points  Describe the language inserted to assign responsibility of the design guide to allow flexibility. Recommendations must be adhered as minimum reuirements. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Alarm Clock_ICON.gif | Timing  Time spent on slide: 2 min | Elapsed time from start of section: 37 min |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Emphasis-Pointing Right_ICON.gif | Transition  Now let’s look at more detail on the options. | |

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| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Key_ICON.gif | Key Message  In the scope details, the scope required the construction of an intersection. The guidelines of L&D recommended preferred grades to intersection to be at 3%, but no more than 6% | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Magnify Glass Search_ICON.gif | Reference Materials  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Information_ICON.gif | Background Information  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Notepad_ICON.gif | Interactivity/Talking Points  Note that this is a new intersection on a new alignment which has no limiting external factors forcing the horizontal grades | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Alarm Clock_ICON.gif | Timing  Time spent on slide: 2 min | Elapsed time from start of section: 39 min |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Emphasis-Pointing Right_ICON.gif | Transition  Now let’s look at what actually happened. | |

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| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Key_ICON.gif | Key Message  The scoping document conflicted with current design standard (different super-elevation designations for rural and urban interstate roadway). | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Magnify Glass Search_ICON.gif | Reference Materials  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Information_ICON.gif | Background Information  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Notepad_ICON.gif | Interactivity/Talking Points  Use this slide to describe what happened:   * Value Based DB project with a Proposal * These two slides show the grades for the intersection provided. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Alarm Clock_ICON.gif | Timing  Time spent on slide: 4 min | Elapsed time from start of section: 43 min |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Emphasis-Pointing Right_ICON.gif | Transition  What happened cont’d | |

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| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Key_ICON.gif | Key Message  The process allowed for a requested clarification. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Magnify Glass Search_ICON.gif | Reference Materials  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Information_ICON.gif | Background Information  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Notepad_ICON.gif | Interactivity/Talking Points   * + The proposal was evaluated very low in this section.   + The minimums, unless specifically addressed, are to be followed.   + Grades were specifically addressed, and not qualified by location, so reasonable interpretation | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Alarm Clock_ICON.gif | Timing  Time spent on slide: 4 min | Elapsed time from start of section: 47 min |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Emphasis-Pointing Right_ICON.gif | Transition  Let’s now quickly summarize the key takeaways regarding design administration under DB. | |

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| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Key_ICON.gif | Key Message  Summarize design administration takeaways | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Magnify Glass Search_ICON.gif | Reference Materials  N?A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Information_ICON.gif | Background Information  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Notepad_ICON.gif | Interactivity/Talking Points  Summarize key take-aways:   * Careful coordination of scope with design standards * Design details are DBT responsibility * Collaboratively manage reviews and comments (both internal and 3rd party external) | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Alarm Clock_ICON.gif | Timing  Time spent on slide: 2 min | Elapsed time from start of section: 49 min |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Emphasis-Pointing Right_ICON.gif | Transition  Before we turn to construction administration, are there any questions on design? | |

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| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Key_ICON.gif | Key Message  Questions | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Magnify Glass Search_ICON.gif | Reference Materials  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Information_ICON.gif | Background Information  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Notepad_ICON.gif | Interactivity/Talking Points  Ask if there are any questions regarding the material just discussed. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Alarm Clock_ICON.gif | Timing  Time spent on slide: 2 min | Elapsed time from start of section: 51 min |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Emphasis-Pointing Right_ICON.gif | Transition  Let’s now move on to Construction Administration. | |

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| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Key_ICON.gif | Key Message  Introduce construction administration topics covered including what’s different for DB, key responsibilities, potential issues, and how best to manage. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Magnify Glass Search_ICON.gif | Reference Materials   * ODOT Construction Administration Manual of Procedures 2013 * ODOT Construction and Materials Specifications, 2010 * FHWA Techbrief, Construction Quality Assurance for Design-Build Highway projects, 2012 * NYS DOT Design-Build Procedures Manual, 2011 * MD SHA Design-Build Manual, 2013 | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Information_ICON.gif | Background Information  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Notepad_ICON.gif | Interactivity/Talking Points  Note that in this portion of the course, you will introduce key DB construction administration topics including quality management, roles and responsibilities, payment, changes, utility coordination, and final acceptance. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Alarm Clock_ICON.gif | Timing  Time spent on slide: 1 min | Elapsed time from start of section: 52 min |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Emphasis-Pointing Right_ICON.gif | Transition  Ask if there are any questions, then move on to What’s Different? | |

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| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Key_ICON.gif | Key Message  This slide compares and contrasts DBB with DB to understand what’s different for DB construction administration. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Magnify Glass Search_ICON.gif | Reference Materials   * ODOT Construction Administration Manual of Procedures 2013 * ODOT Construction and Materials Specifications, 2010 * FHWA Techbrief, Construction Quality Assurance for Design-Build Highway projects, 2012 | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Information_ICON.gif | Background Information  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Notepad_ICON.gif | Interactivity/Talking Points  Ask participants:   * Who has experience on administration of a DB project during construction? * Can you offer one key difference between construction administration for a traditional DBB project and a DB project?   Explain the differences (and similarities) for topics noted on the slide (i.e. communication and decision-making, quality management, payment, and changes).   * Communication/Decision-making: Because design and construction are on same team for DB, ODOT no longer serves as the go between for communication and decision-making. Decisions must be made collaboratively to support the DB project schedule * Quality management: For DBB, ODOT has primary responsibility for quality. For DB, quality management is heightened (Low Bid) or shifts to the DBT (Value-based) * Payment: For DBB, payments are made based on detailed quantity calculations for standard unit priced bid items. For DB, payments are based on percent complete of standard DB lump sum items * Changes: For DBB, ODOT retains the risk of quantity variations, completeness and accuracy of the design, and unforeseen conditions. For DBB, the DBT assumes the risk of quantities for lump sum items, and accuracy and completeness of plans.   Add to these topics as participants share experiences. Additional differences may include:   * Start of construction before completion of design * Expedited pace of construction * Inspection without a complete set of plans and specifications * Tracking and management of field changes during construction * Verifying materials quantities for lump sum items * ODOT oversight of IQF (for value-based DB) | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Alarm Clock_ICON.gif | Timing  Time spent on slide: 5 min | Elapsed time from start of section: 57 min |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Emphasis-Pointing Right_ICON.gif | Transition  If there are no more questions, let’s now consider When Can Construction Start? | |

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| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Key_ICON.gif | Key Message  What are the key steps needed prior to construction? | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Magnify Glass Search_ICON.gif | Reference Materials   * ODOT Construction Administration Manual of Procedures 2013 | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Information_ICON.gif | Background Information  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Notepad_ICON.gif | Interactivity/Talking Points   * Explain purpose of pre-construction meeting per ODOT CA MOP - it establishes lines of communication and coordination, lays out roadmap and rules for construction, and discuss issues or concerns.   + Pre-construction meeting addresses traditional requirements.   + It also reviews highlights of scope and potential high risk issues * For DB, point out that there are differences in requirements for review and release for construction plans, quality management, payment, and changes. These are addressed in more detail in follow-on discussion * Note that one of the important pre-construction items is concurrence on DB pay items and process for submitting monthly partial payment estimates. This includes:   + Review the itemized cost breakdown of items the DBT submitted as part of its bid (based on ODOT item master for lump sum DB) and assuring that breakdown reflects realistic costs of major elements of work that make-up the lump sum price.   + Establishing and tracking materials quantity estimates as a component of pay items. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Alarm Clock_ICON.gif | Timing  Time spent on slide: 3 min | Elapsed time from start of section: 60 min |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Emphasis-Pointing Right_ICON.gif | Transition  Ask if there are any questions, then move on to Release for Construction. | |

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| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Key_ICON.gif | Key Message  What are the key steps needed to Release-for-Construction? | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Magnify Glass Search_ICON.gif | Reference Materials  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Information_ICON.gif | Background Information  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Notepad_ICON.gif | Interactivity/Talking Points  Note the following:   * Design is integrated with construction. Several design steps are typically needed to achieve release–for–construction BUs. If needed, a collaborative review meeting is held where the DBT summarizes design submission and provides supporting documents to ODOT, and ODOT reviews for compliance with the scope. * The Release-For-Construction plans represent the commitment by DBT and ODOT that project will be constructed in accordance with the final design. * Question: Can the DBT proceed with construction without final approved plans? Ans. The DBT cannot proceed (at own risk) with construction without approved & QAed plans | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Alarm Clock_ICON.gif | Timing  Time spent on slide: 3 min | Elapsed time from start of section: 63 min |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Emphasis-Pointing Right_ICON.gif | Transition  Let’s move on to some potential issues to consider. | |

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| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Key_ICON.gif | Key Message  What are some of the common issues on DB projects? | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Magnify Glass Search_ICON.gif | Reference Materials  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Information_ICON.gif | Background Information  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Notepad_ICON.gif | Interactivity/Talking Points  Note the following:   * Business as usual approach to ODOT plan reviews and construction inspection may not support construction schedule * Payment – How does ODOT verify and document materials for payment? * Changes – What constitutes a change and when is a change order required? * Pricing * 3rd party reviews and Utility coordination - Who has most influence and control? | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Alarm Clock_ICON.gif | Timing  Time spent on slide: 1 min | Elapsed time from start of section: 64 min |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Emphasis-Pointing Right_ICON.gif | Transition  Are there any questions? If no, let’s move on to Payment. | |

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| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Key_ICON.gif | Key Message  What are the key considerations for payment on DB projects? | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Magnify Glass Search_ICON.gif | Reference Materials   * ODOT CA MOP | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Information_ICON.gif | Background Information  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Notepad_ICON.gif | Interactivity/Talking Points  Ask the class the following:   * Why is it important to develop a schedule of progress pay items? (Ans. Schedule of pay items protects ODOT from paying too much, creates predictable cash flow, & more accurate estimates of percent complete.) * Predominantly – Payments made on a percent complete of lump sum items. The Schedule of Values breaksdown the Lump Sum Items so we have a bases to determine percentage of the LS item. * What are DBT responsibilities?   + Preparation of partial payment estimates based on % complete for each pay item (or activities in schedule)   + Certification of payment requests with supporting documentation   + Estimates of certain materials quantities for sampling frequencies * What are ODOT responsibilities?   + Review for concurrence with earned value for each item, completeness of supporting documentation   + Verification of materials quantities for payment, and tracking quantities to build a bill of materials   Note the following:   * Large Projects: If too many items, schedule becomes unmanageable * Small Projects: More pay items are easier to manage | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Alarm Clock_ICON.gif | Timing  Time spent on slide: 3 min | Elapsed time from start of section: 67 min |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Emphasis-Pointing Right_ICON.gif | Transition  Ask if there are any questions, then move on to other payment considerations | |

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| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Key_ICON.gif | Key Message  This slide summarizes additional payment considerations. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Magnify Glass Search_ICON.gif | Reference Materials   * ODOT MOP, 2013 | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Information_ICON.gif | Background Information  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Notepad_ICON.gif | Interactivity/Talking Points  Note the following:   * Pay items that are impractical to administer as a lump sum are unit priced. The DBT estimates unit prices and quantities for bidding * ODOT retains the risk of fluctuations in fuel and asphalt prices with price adjustment indexing   Ask the class:   * What does DBT need to submit as a prerequisite for final payment for a DB project that is different from DBB project? (Ans. As-built drawings) | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Alarm Clock_ICON.gif | Timing  Time spent on slide: 2 min | Elapsed time from start of section: 69 min |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Emphasis-Pointing Right_ICON.gif | Transition  Are there any questions? If no, let’s move on to DB quality management. | |

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| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Key_ICON.gif | Key Message  Identification of scope changes | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Magnify Glass Search_ICON.gif | Reference Materials   * ODOT MOP, 2013 * ODOT PN 126 * ODOT Materials and Construction Specifications, 104 Scope of Work | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Information_ICON.gif | Background Information  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Notepad_ICON.gif | Interactivity/Talking Points  Instruct the participants to review the slide and ask them to identify (Y/N) what issues or events on a DB project would or would not justify a contract change order?   | Issue/Event | Answer | | --- | --- | | DBT change in the final design plans or specifications | No | | Unexpected or changed field or subsurface conditions | Yes | | Material Substitutions proposed by DBT | No (if on approved list),  Yes (if not on approved list) | | Design alternatives proposed by DBT field personnel | No | | Changes to Environmental Documentation/Permits | Yes | | Significant increases in quantities | No | | Fuel price increases | Yes | | Change in design standards | Yes | | Non-standard concrete beam & shapes | Technically yes, realistically no |   An issue would be eligible for a change if it couldn’t be reasonably known during the design of the project  Review ODOT Section 104.02, Revisions to Scope of Work. Ask participants:   * Would these specifications apply to a DB project? (Ans. Yes, with qualification that the variation in quantities provision would not apply to the predominantly lump sum items. Also, for contingent unit-priced items, a significant change in quantities may not be eligible for a revision to the scope of work.) * Per ODOT 104.02, the Standard DSC applies for DB projects. Pre-bid representations of site conditions are not nullified in DB (or any other contract type) by the DBT’s duty to conduct a site investigation. Some owners have the view that a DB contract transfers the risk for subsurface conditions to the DBT. This would only hold if the owner transfers the responsibility for pre-proposal site investigations to the prospective proposers and compensates proposers for these investigations. The recent Metcalf decision (Metcalf Construction v United States, 2012) re-affirmed the government’s responsibility for a differing site condition on a U.S. Navy DB project. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Alarm Clock_ICON.gif | Timing  Time spent on slide: 5 min | Elapsed time from start of section: 74 min |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Emphasis-Pointing Right_ICON.gif | Transition  Are there any questions? If no, let’s move on to the topic of managing design changes during construction. | |

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| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Key_ICON.gif | Key Message  ODOT is not responsible for design changes, conflicts, or errors in field. | |
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| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Information_ICON.gif | Background Information  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Notepad_ICON.gif | Interactivity/Talking Points  Emphasize the following:   * ODOT not the go between design and construction * Don’t manage communications between the designer and builder * Collaborate with DBT to expedite review and approval * Work should not proceed on major plan revisions without approved plans * Field changes must comply with the Scope | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Alarm Clock_ICON.gif | Timing  Time spent on slide: 2 min | Elapsed time from start of section: 76 min |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Emphasis-Pointing Right_ICON.gif | Transition  Are there any questions? If no, let’s move on to change order pricing for DB. | |

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| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Key_ICON.gif | Key Message  Change Order Pricing for DB - What is required and how is it different, if at all? | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Magnify Glass Search_ICON.gif | Reference Materials   * ODOT Materials and Construction Specifications, 109.05 Changes and Extra Work | |
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| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Notepad_ICON.gif | Interactivity/Talking Points  Review ODOT Section 109.05, Payment for Changes and Extra Work with participants.  Ask participants the following:   * Would these specifications apply to a DB project? (Ans. Yes, with qualification that quantity estimates for negotiated pricing would be more difficult to assess for lump sum items. Force account provisions would apply for documenting and tracking quantities.)   Note that:   * If lump sum contract, pricing must still be justified * Should give some consideration to risk in pricing * Need timely processing | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Alarm Clock_ICON.gif | Timing  Time spent on slide: 2 min | Elapsed time from start of section: 78 min |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Emphasis-Pointing Right_ICON.gif | Transition  Are there any questions? If no, let’s turn to utility coordination. | |

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| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Key_ICON.gif | Key Message  Utility Coordination for DB - What is required and how is it different, if at all? | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Magnify Glass Search_ICON.gif | Reference Materials   * ODOT Materials and Construction Specifications, 105.07 Cooperation with Utilities * ODOT policy document, “Utility Coordinator Involvement – DB” | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Information_ICON.gif | Background Information  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Notepad_ICON.gif | Interactivity/Talking Points  Use this slide to note the following:   * Utility coordination – Who has the most influence and control? Best to have utility relocation in project scope if DBT has most influence. * DBT responsible for designing around utility conflicts or justify why relocation is needed.   Review ODOT Section 105.07, Cooperation with Utilities, and 109.05, Payment for Changes and Extra Work with participants.  Ask participants:   * What happens if utility owners fail to relocate or adjust utilities in accordance with the DB contract? * Who is responsible & what recourse by ODOT or DBT? * DBT must justify that they have tried to design around and mitigate impact. * Only ODOT has responsibility to notify utilities to perform extra work   Emphasize the importance of early notification and coordination with utilities by ODOT and DBT team.  ODOT Utility Involvement Post sale - -Reference Locations & Good Practices  Attend all utility meetings post sale. *(PN* 126: *104.011 Design of the Project and Scope 12.2)*  Authorize project funds for utility relocations eligible for reimbursement and issue permits to the utilities relocating facilities that require relocation within the Right of Way. *(PN* 126: *104.011 Design of the Project)*  Determine eligibility of betterments or eligible costs if utility relocations are included in the project *(Standard Scope of Service template* -*Section* 12.2)  Keep record of all coordination correspondence between DBT and utilities *(PN* 126: *104.011 Design of the Project)*  Assist in the coordination if utilities are non-responsive to DBT (Good practice as *Per PN* 126 *-105.07* -*A. The Engineer shall be satisfied that the Contractor has made every effort to prosecute the design and construction work despite any delays encountered* or *revisions in the Contractor's scheduling of work. B. If performance of the Contractor's work is delayed because the utility owners fail to relocate or adjust their facilities as previously agreed, the contract time will be adjusted in accordance with the provisions of 108.06.)*  DB Team Responsibilities   * Stake the existing ROW in the field and perform clearing and grubbing within that ROW, in order to allow utility relocation and reduce potential delays. *(Scope 12.2)* * Be cognizant of the project's impact on utility facilities. In the event utility relocations are required, do not preclude legal occupancy of the highway ROW by the relocated utility facilities. *(Scope 12.2)* * Coordinate all existing utilities with construction activities. Ensure that potential delays in coordination and relocation of the affected utilities are minimized. *(Scope 12.2)* * Hold a meeting at or near preliminary review between the DBT, the District Utility Coordinator and the utility owners to determine if any significant utility relocations can be eliminated or mitigated. *(Scope 12.2)* * Perform SUE required for utility relocations at Department's option. *(Scope 12.3)* * Coordinate all design for relocation or accommodation of any utilities within the project *(PN126 -104.011 Design of the Project)* * Determine and show on the plans the names of all existing utilities within project limits. *(PN126 -104.011 Design of the Project)* * Identify and resolve utility conflicts and reflect the resolutions and decisions accepted on the plans and details. *(PN126 -104.011 Design of the Project)* * • Call any utility meetings needed to ensure that the concerns are addressed on the plans involving utilities. *(PN126 -104.011 Design of the Project)* * Notify the Project Engineer at least two working days in advance of any utility meeting. *(PN126 -104.011 Design of the Project)* * Take responsibility for working with the individual utilities to ensure that all utility concerns are addressed and that any required utility relocation plans, estimates and support material are developed and copies are provided to the district utility office. *(PN126 -104.011 Design of the Project)* * Keep the district utility office aware of all utility coordination information. *(PN126 -104.011 Design of the Project)* * Design for and perform any relocation of utilities as required in the Scope of Services. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Alarm Clock_ICON.gif | Timing  Time spent on slide: 4 min | Elapsed time from start of section: 82 min |
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| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Magnify Glass Search_ICON.gif | Reference Materials   * ODOT Materials and Construction Specifications, 109.12 Final Acceptance * ODOT CAMOP | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Information_ICON.gif | Background Information  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Notepad_ICON.gif | Interactivity/Talking Points  Note the following:   * Final acceptance requirements are the same for DBB * Main difference is DBT requirement to provide final as-built plans * Final bill of materials | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Alarm Clock_ICON.gif | Timing  Time spent on slide: 1 min | Elapsed time from start of section: 83 min |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Emphasis-Pointing Right_ICON.gif | Transition  Based on what we’ve discussed, let’s see how well we do answering some wrap-up questions. | |

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| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Key_ICON.gif | Key Message  Questions and answers to test comprehension of materials | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Magnify Glass Search_ICON.gif | Reference Materials   * ODOT Materials and Construction Specifications * ODOT CAMOP | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Information_ICON.gif | Background Information  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Notepad_ICON.gif | Interactivity/Talking Points  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Alarm Clock_ICON.gif | Timing  Time spent on slide: 6 min | Elapsed time from start of section: 90 min |
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| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Information_ICON.gif | Background Information  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Notepad_ICON.gif | Interactivity/Talking Points  Quickly review what was discussed in each of the sections. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Alarm Clock_ICON.gif | Timing  Time spent on slide: 2 min | Elapsed time from start of section: 92 min |
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| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Magnify Glass Search_ICON.gif | Reference Materials  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Information_ICON.gif | Background Information  N/A | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Notepad_ICON.gif | Interactivity/Talking Points  Administer the post-test, noting that participants may consult their notes but not each other. | |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Alarm Clock_ICON.gif | Timing  Time spent on slide: 2 min | Elapsed time from start of section: 92 min |
| C:\Users\h34644\Documents\ACRP Risk Study\Guidebook\Graphics\icons\Emphasis-Pointing Right_ICON.gif | Transition  The post-test should take approximately 15 minutes, but allow 30 minutes. | |