



**DEPARTMENT OF
TRANSPORTATION**

**UTILITY COORDINATION MANUAL
DESIGN-BUILD SUPPLEMENT**

July 2019

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I. Utility Coordination Process for Design-Build Projects

The design-build process is one way that MnDOT uses to deliver transportation projects in a shorter amount of time than the traditional design-bid-build process. [Minnesota Statutes, sections 161.3410-.3428](#), define what design-build projects are and when to use them. In the design-build process, MnDOT solicits technical and price proposals based roughly on a plan that is 30-percent complete and awards a contract to bidders based on best value rather than on low bid. The selected contractor is responsible for the design and construction of the project. Construction begins as soon as initial design packages are completed, and subsequent construction phases begin as other design packages are completed.

The utility coordination process in this section assumes that a project was chosen to be a design-build project before project development began. Because not all design-build projects are planned that way from the very beginning (i.e., a project could start out as a traditional project and become a design-build project when the plans are at the 30-percent completion stage), the project manager will need to consider what level of utility coordination occurred under the traditional process before pursuing the steps in the design-build approach.

The design-build project process consists of two phases: the Request for Proposals (RFP) development phase and the design-build contract phase.

The coordination of utilities on a design-build project differs from that of traditional projects in two major areas: contractors' roles and MnDOT's roles. Contractors have more roles and responsibilities with design-build projects than they do with traditional projects, and they have greater freedom and control to mitigate utility issues. While design-build contractors must follow the provisions of the Master Utility Agreements (MUAs) and project contract, they may also use innovative methods to coordinate work with utility owners. The design-build contractor's ability to coordinate utility concerns will influence the success of all parties involved. By mitigating risk and taking a proactive approach, design-build contractors can avoid unexpected utility issues.

MnDOT's roles and responsibilities are different on design-build projects than they are on traditional projects; the design-build utility coordination process allows MnDOT the oversight to avoid unnecessary utility costs.

The design-build utility coordination process speeds up utility coordination by:

1. Requiring MnDOT, the design-build contractor, and utility owners to work together to relocate facilities
2. Providing more detailed information about existing utility facilities through [Subsurface Utility Engineering \(SUE\)](#)
3. Requiring MnDOT and utility owners to fully complete [Utility Information Sheets \(UIS\)](#)
4. Using MUAs to bring together MnDOT, the design-build contractor, and utility owners as partners

While there are many definitions associated with traditional projects that also apply to design-build projects, some terms are unique to design-build projects. The Master Utility Agreements contain definitions that are design-build specific.

II. Roles and Responsibilities

MnDOT fills many roles on a design-build project. Overall, MnDOT oversees the design-build contractor, who assumes responsibility for many of the tasks that MnDOT traditionally performs. MnDOT, the design-build contractor, and the utility owners must comply with all federal, state, and local laws, rules, policies, and regulations that pertain to utilities as well as the terms of the MUA. MnDOT issues permits, approves individual utility work orders, accepts plans, and ensures that the design-build contractor follows the MUA terms and the appropriate processes.

This section highlights the roles and responsibilities of MnDOT, the design-build contractor, and utility owners on design-build projects.

A. MnDOT Central Office Functions

1. Utility Agreements and Permits Unit

The Utility Agreements and Permits Unit plays several roles in the utility coordination process. This unit consists of the Utilities Engineer, Utility Agreement Writers, and Utility Permit Writers.

a. Utilities Engineer

The Utilities Engineer oversees the activities of the Utility Agreements and Permits Unit and approves utility agreements, issues Notice and Orders and permits on behalf of the Commissioner of Transportation, enforces the MnDOT Utility Accommodation Policy, and helps resolve any outstanding utility issues. On design-build projects, the Utilities Engineer typically coordinates all utilities, including all municipally owned facilities. The cooperative Agreements Unit may handle municipal utilities if there will be a municipal agreement.

b. Utility Agreement Writers

Agreement Writers review district plans and recommend changes. They prepare and send all Notice and Orders and they prepare and process utility relocation agreements. They also act as a liaison between the district and the utility owners and serve as a central resource for utility issues.

c. Utility Permit Writers

Permit Writers review and process all applications for Utility Accommodation on Trunk Highway Right of Way (Form 2525) to install permanent facilities on trunk highway right of way. They suggest changes to applications if necessary, and issue permits with special provisions. To perform any work in state right of way, utility owners must first receive a permit from this unit.

2. Cooperative Agreements Unit

The Cooperative Agreements Unit prepares and administers municipal agreements, which include cooperative construction agreements, landscape partnership agreements, detour agreements, and signal agreements with cities, counties, soil and water conservation districts, and state and federal agencies.

a. Municipal Agreements Engineer

The Municipal Agreements Engineer administers and coordinates agreements with municipalities for municipally owned utility facilities that are affected by:

- Construction or utility betterments as a result of construction
- Cooperative construction elements in state-let or locally let contracts
- Other agreements as needed

The Municipal Agreements Engineer encumbers funds to pay local units of government or coordinates invoices to pay the state for construction elements, as well as develops and implements policies and procedures to address current laws and regulations, and distributes information to provide guidance for continuous improvement of agreement procedures.

b. Municipal Agreement Writers

The Municipal Agreement Writers provide engineering expertise and act as liaisons to the district to assist with the development of the agreements necessary for trunk highway construction projects. They verify that elements of a construction project comply with [MnDOT's Policy and Procedures for Cooperative Construction Projects with Local Units of Government](#), and write the municipal agreements with the coordination and assistance of the project manager.

3. Office of Chief Counsel

The Office of Chief Counsel assigns a staff attorney to act as counsel to the Utility Agreements and Permits Unit.

4. Office of Contract Management

The Office of Contract Management provides a legal review of all utility agreements. Staff members in this office also are authorized to sign utility agreements of up to \$1 million on behalf of the Department of Administration.

5. Office of Land Management

Right of way professionals assist other MnDOT staff by obtaining necessary right of way and preparing Quitclaim Deeds on transportation projects that require additional right of way. Legal documents are prepared by the Office of Land Management, with the preparatory negotiations and receipt of signatures conducted by district staff.

B. MnDOT District Functions

1. MnDOT Project Manager

The MnDOT project manager assumes many key roles on design-build projects. Although s/he may not perform certain tasks directly, the MnDOT project manager is responsible for completing those tasks and managing the overall project. The MnDOT project manager:

- a. Identifies the design manager, construction manager, and utility coordinator
- b. Prepares SUE contracts for design-build project lettings
- c. Oversees the design work that occurs prior to the design-build contract

- d. Completes the [UIs](#)
- e. Monitors the design-build contractor and utility owners to see that they meet the schedule and perform the work according to the terms of the design-build contract (which includes the MUA)
- f. Resolves utility issues and oversees the completion of deliverable documents according to the MUA
- g. Keeps the utility coordinator informed about the overall project schedule and major project issues
- h. Attends or sends a representative to project utility meetings
- i. Helps design-build contractors and utility owners work together, as appropriate

2. MnDOT Design Manager

The MnDOT design manager helps the project manager oversee the design work on the design-build project. S/he is someone assigned by the District Design Section, and his or her responsibilities include:

- a. Monitoring the design-build contractor's utility design efforts to verify that they comply with contract requirements
- b. Attending or sending a representative to project utility meetings
- c. Facilitating coordination between the design-build contractor and public utility owners (i.e., municipalities)
- d. Assessing utility design progress for payment purposes
- e. Communicating with utility owners to increase understanding of the design-build contract requirements regarding design and plan review
- f. Conducting periodic audits of the design-build contractor's design and utility coordination processes to verify compliance with contract requirements

3. MnDOT Construction Manager

The MnDOT construction manager helps the project manager oversee the construction work on the design-build project. S/he is someone from the District Construction Section, and his or her responsibilities include:

- a. Planning for and overseeing field observation and verification of utility construction
- b. Monitoring the design-build contractor's construction and utility relocation schedules
- c. Attending or sending a representative to project utility meetings
- d. Monitoring utility construction progress on a daily basis

4. MnDOT Utility Coordinator

The MnDOT utility coordinator helps the project manager oversee the utility work on the design-build project. His or her responsibilities include:

- a. Ensuring that all parties are adhering to the contract (and MUA) requirements
- b. Attending project utility meetings
- c. Facilitating work order negotiations and processing among the design-build contractor, utility owners, and MnDOT
- d. Coordinating the MnDOT permit process for all facilities relocated by utility owners and the design build contractor
- e. Coordinating with other functional areas within MnDOT as needed
- f. Monitoring field activities with the construction manager (as necessary)

- g. Reviewing utility invoices to ensure they comply with the scope of the work orders or relocation agreements
- h. Send accepted utility invoices along with the executed acceptance/approval letters to the Utility Agreement Writer for processing
- i. Auditing the design-build contractor's utility coordination process to verify that it complies with contract (and MUA) requirements
- j. Communicating with utility owners to increase their understanding of the design-build contract requirements and the MUA

5. Permits

District Permit Staff process many different types of permit applications, including Access permits, Drainage permits, and Miscellaneous Work on Trunk Highway Right of Way (Form 1723) permits for minor or temporary installations and maintenance projects. They are responsible for checking the accuracy of information on completed applications for Utility Accommodation on Trunk Highway Right of Way (Form 2525) utility permits and verifying field location.

C. Design-Build Contractor

The design-build contractor is responsible for a much larger amount of work on design-build projects than traditional projects and may divide up this work among its employees as it sees fit. The design-build contractor:

1. Develops a utility work plan that sets forth its plan to coordinate the relocation of all utility facilities on the project, and submits this plan to MnDOT for approval
2. Works with MnDOT and utility owners to ensure that all utility work (whether performed by the utility owners or the design-build contractor) is closely coordinated with the design-build contractor's work on the project
3. Performs all tasks, obligations, and duties assigned in the MUAs and all incidental utility work
4. Identifies and verifies all existing utility facilities that the project affects, regardless of whether or not those facilities were identified previously
5. Prepares and processes all utility permit applications for all work that the design-build contractor performs
6. Approves the design and construction of all new utility facilities and the design and relocation of existing facilities (whether performed by the design-build contractor or utility owner) to ensure that design and construction are compatible with the rest of the project
7. Incorporates utility facility designs on project plans that provide coordinate information, profile information, and test hole information
8. Works to avoid utility work to the extent practicable and to minimize the potential costs and delays inherent in utility work
9. Coordinates schedules with the utility owners and keeps MnDOT informed about those schedules

D. Utility Owners

The utility owners work with MnDOT and the design-build contractor to ensure the successful completion of utility facility relocations and adjustments, according to project schedules. Utility owners operate under the conditions of the MUA, Notice and Order, or standard utility agreement, whichever is applicable. Depending on the terms of the MUA, utility owners may play a role in production, quality control, or acceptance.

E. Gopher State One Call

As the statewide notification center, Gopher State One Call serves as a clearinghouse for information about the location of underground utilities.

State law requires utility owners of underground facilities to provide utility location information in response to a Gopher State One "Design Call," either by as-built plans or field locates, within 15 days of the original request. State law also requires any excavator to contact Gopher State One Call at least 48 hours, excluding weekends, holidays, and emergencies, before digging.

The project manager completes the electronic ticket for Gopher State One Call at www.gopherstateonecall.org. Other ways of contacting Gopher State One Call include:

Smartphone/Tablet: <http://mnticketentry.korterraweb.com>

Telephone (metro): 651-454-0002

Telephone (statewide): 1-800-252-1166

Telephone (nationwide): 811

III. Development of Request for Proposals (RFP)

The MnDOT project manager must determine time frames for each of the following steps in the RFP development process so they fit appropriately into the overall RFP procurements schedule.

A. Step 1: Utility Identification

The first step in the design-build utility coordination process is the identification of existing subsurface and above-ground utility facilities within the limits of the proposed project. To identify which utility owners have facilities in the area of the project, the MnDOT project manager calls and completes an information request form for Gopher State One Call. MnDOT District Surveys staff survey above-ground utility facilities and identify the utility owners.

MnDOT typically uses an RFP or the consultant pre-qualification process to hire a Subsurface Utility Engineering (SUE) provider. Because SUE providers do not typically collect information for MnDOT-owned facilities, the project manager must be specific about which facilities are included in the SUE contract if s/he wants the SUE provider to collect that information.

B. Step 2: SUE Kick-Off Meeting

MnDOT requires the SUE provider to locate underground facilities on all design-build projects. SUE is an engineering process that involves applying appropriate surface geophysical methods to determine the existence and horizontal position of underground utilities. Examples of such geophysical methods for utility imaging include:

1. Electromagnetic, such as pipe and cable locators that induce a signal into the medium and track the signal, or ground penetrating radar that works by beaming a microwave pulse into the ground and measuring any reflection that is received back at the ground surface
2. Magnetic-magnetometers that detect shallow buried valve boxes, manhole covers, hand holes, and other items
3. Acoustic where a pipe under mechanical stress may deform and generate noise that acoustical equipment monitors

The CI/ASCE Standard 38-02, "Standard Guidelines for the Collection and Depiction of Existing Subsurface Utility Data" contains information about additional methods:

1. Comparing this information with proposed highway facilities and analyzing potential conflicts
2. Using non-destructive digging equipment at critical points to determine the precise horizontal and vertical position of underground utilities, as well as the type, size, condition, material, and other characteristics
3. Surveying this information to project survey control and depicting it on highway plans

The SUE provider invites the MnDOT project manager, design manager, and utility coordinator and all identified utility owners to a SUE kick-off meeting. At this meeting, the SUE provider explains the work it will perform on the project. The project manager may elect to combine the SUE kick-off meeting with the Utility Information Meeting.

C. Step 3: Utility Information Meeting

The Utility Information Meeting introduces utility owners to the design-build project and allows the utility owners to inform MnDOT of any concerns or relevant information about existing or planned utility facilities. This meeting also provides an opportunity for a MnDOT Utility Agreements and Permits Unit representative to explain the design-build and MUA processes and to clarify the roles, responsibilities, and expectations of all involved.

The SUE provider along with the MnDOT utility coordinator and project manager or design manager invite the main contact and the area contact from each utility owner along with representatives government agencies, the Construction Group, and any other MnDOT areas involved in the project to this meeting. The MnDOT project manager or design manager shares project layouts (that include in-place utility facilities), typical cross sections, and any other relevant basic design and construction information with all utility owners. The meeting allows those involved to understand how they depend on one another to succeed.

D. Step 4: Preliminary Utility Conflict Analysis

Once the project layout and footprint are ready, the SUE provider along with the MnDOT project manager or design manager compare the utility quality level B information obtained from the investigation in Step 2 against the preliminary design. They review these results and use preliminary design information, reasonable assumptions, and guidelines to identify potential utility conflict points. The SUE provider proposes locations for gathering utility quality level A information based on the conflict points. Once the MnDOT project manager approves those locations, the SUE provider obtains utility quality level A information by using nondestructive digging equipment to determine the precise horizontal and vertical position of the underground facilities. MnDOT only guarantees the utility quality level A information that the SUE investigation provides.

For each potential conflict, the SUE providers information from Step 1, Utility Identification, and Step 3, Utility Information Meeting, to fill out the [Utility Information Sheets \(UIS\)](#). They assign each utility owner a number, and assign a conflict number to each UIS, and then send the UISs to the utility owners. The UIS explains, in detail, potential conflict points that the utility identification provided. The UIS has multiple sections to be completed:

1. Utility Owner Information
2. Existing Conditions
3. Possible Conflict
4. Resolution Condition
5. Final Decision

Accurate UISs allow contractors to place reasonable bids on design-build contracts and help the design-build contractor complete the Utility Design Sheets (UDSs).

E. Step 5: Utility Workshops

The SUE provider schedules an individual workshop with each utility owner, invites the appropriate parties to each workshop, and conducts each workshop along with the assistance of the construction manager and the utility coordinator.

The MnDOT design manager brings the current project layout, profiles, and cross sections to each workshop and the utility owners bring as-built drawings, maps, cross

sections, and any other pertinent information. At the workshops, the SUE provider, MnDOT design manager, construction manager, utility coordinator, and the utility owners review and update the Existing Conditions section and fill out or verify the Proposed Resolution section of each UIS. Both of these sections will be completed by the end of the workshop. Reasonable deadlines are set for the utility owners to complete the Resolution Condition section of their UISs, sign, and return them.

After the workshops, the SUE provider updates the UISs electronically and emails them to the utility owners including a reminder for when the UISs must be returned. For projects requiring extensive utility owner involvement, additional workshops may need to be scheduled in order to complete the UISs.

F. Step 6: Utility Resolution Conditions and UIS Submittal

In this step, utility owners complete the Resolution Condition section of their UISs. Each utility owner indicates whether it intends to design the relocation itself, or have the design-build contractor design the work. The utility owner also indicates whether it will perform the relocation construction work itself, or have the design-build contractor perform it. The SUE provider, MnDOT design manager and utility coordinator work with utility owners to resolve any issues or inconsistencies in the UISs.

The utility owner estimates costs and provides them to MnDOT for:

1. Utility work that the utility owner performs, and for which MnDOT will pay
2. Utility work that the design-build contractor performs, and for which MnDOT will pay
3. Utility work that the design-build contractor performs, and for which the utility owner will pay
4. Utility betterment work that the design-build contractor performs, and for which the utility owner will pay

If the design-build contractor is doing the utility work, utility owners must provide two UISs for each conflict:

1. One with costs that the MnDOT project manager can use in the engineer's estimate
2. One without costs that will be included in the RFP as Reference Information Document (RID) information

If the utility owner will perform the work and the work is not reimbursable, the UIS will not need to include costs.

Utility owners submit completed UISs to the MnDOT design manager with any other pertinent information, such as easements, plans, specifications, and standards.

Once the MnDOT design manager, construction manager, and utility coordinator are satisfied with the UISs, the design manager approves them and returns them to the utility owners. The MnDOT project manager will incorporate all of this information into the design-build RFP prior to its release.

G. Step 7: Master Utility Agreements

1. General MUA Conditions

The MUAs establish general terms and conditions for the design-build contractor, MnDOT, and the utility owners to follow when relocating and/or adjusting utility facilities. Project success depends on prompt execution of the MUAs, which apply to

all utility work that a design-build project requires, whether the design-build contractor or the utility owner performs that work. Obtaining utility owner signatures on the MUAs is an important milestone before release of the RFP. Although most of the utility agreements that MnDOT executes for design-build projects will be MUAs, there may be some standard utility agreements as well.

The procedure for preparing MUAs is similar to that used for other utility agreements.

The Utility agreement Writer will:

- a. Use one of two templates to write the body of the MUA, depending on whether the utility owner is a private company or a public entity. S/he inserts the appropriate execution sheets and exhibits
- b. Sends copies of the agreement to the utility owner with the [Agreement for Signature Letter](#); if the agreement amount is less than \$1 million, the Utility Agreement Writer sends three copies of the agreement to the utility owner, and if the agreement amount is more than \$1 million, the Utility Agreement Writer sends four copies of the agreement to the utility owner. MnDOT requires the signature of an officer of a private utility company or an employee who has been delegated authority, in writing by an officer, to negotiate contracts and sign agreements on the company's behalf. For municipalities and political subdivisions (e.g., counties, Metropolitan Council, special districts), MnDOT requires copies of a resolution, passed by the governing body, that identifies and describes the work, authorizes the entity to enter into an agreement with MnDOT, and gives the designated official the authority to execute the agreement. The utility owner must also submit a certificate authenticating the copies of the resolution to MnDOT with the MUAs.
- c. Receives the signed agreement from the utility owner.
- d. Encumbers funds and obtains a signature that verifies that all funds have been encumbered
- e. Sends the agreement to the District Engineer or Metro Utilities Coordinator for signature.
- f. Obtains the Director of Land Management's signature.
- g. Once MnDOT awards the contract, the Utility Agreement Writer sends the MUAs to the office of Construction and Innovative Contracting to acquire the design-build contractor's signature.
- h. Upon receiving the signed MUAs from the design-build contractor, the MUA's are sent to the Office of Contract Management for execution.
- i. The Office of Contract Management can execute agreements that are under \$1 million, but the Department of Administration must execute all agreements that are \$1 million or greater. Upon executing the agreement, or receiving the executed agreement from the Department of Administration, the Office of Contract Management returns three copies of the agreement to the Utility Agreement Writer
- j. Once the Utility Agreement Writer receives the fully executed MUAs, s/he sends one copy to the design-build contractor and one copy to the utility owner and retains one copy for the file. The Utility Agreement Writer distributes copies of the agreement to the District.
- k. The design-build contractor must sign and MnDOT must execute the MUAs before work can begin. The design-build contractor must execute any subsequent MUAs that may arise within a time period that the design-build contract specifies.

All parties involved in the design-build project must understand all parts of the MUA. Contact the Utility Agreements and Permits Unit with any questions about MUAs.

2. Elements of MUAs

The parties in a MUA adhere to a specific process to coordinate and relocate a utility owner's facilities and to minimize delays, uncertainties, risk, and project costs through Work Orders.

a. Work Orders

Whereas traditional agreements specify the actual utility work on a project, the MUA sets up the general terms of the utility work and uses work orders to cover specific duties. A MUA establishes a work order process whereby MnDOT, the utility owner, and the design-build contractor may enter into separate work orders for each phase of utility work and agree to a scope, cost, and schedule for that relocation.

If a utility owner is giving up property rights, it will need to submit a quitclaim deed to MnDOT. While the MUAs set up the quitclaim deed process, the work orders actually describe how MnDOT will deal with them.

Only authorized agents have the authority to sign work orders. Authorized agents include the utility owner and design-build contacts listed in the Authorized Agents section of the MUA and MnDOT personnel that have been delegated authority by the Deputy Commissioner of Transportation

b. General Terms and Conditions for Payment

Although MnDOT passes on most of its responsibilities regarding design-build projects to the design-build contractor, it maintains its responsibility to make payment. The provisions of the MUA explain how MnDOT will pay the appropriate party for performing utility work.

c. Project Time Frames

The MUAs set up time frames that the parties may use to review and approve specific items, such as work orders. These time frames will vary from project to project. The MUAs also define delays and how they are to be treated if they occur.

d. Permits Process

The MUA outlines the permit process that design-build contractors and utility owners must follow during the design-build project.

See Section II. of the Utility Accommodation Section of the Utility Accommodation and Coordination Manual. The party responsible for performing the work is responsible for obtaining all construction-related and environmental permits. For further information, see the [Environmental Requirements Document](#). MnDOT must approve and issue all utility permits before any facilities can be placed or relocated in the right of way of a design-build project.

e. Dispute Resolution Process

Disputes between the utility owner and the design-build contractor, and/or between the utility owner and MnDOT, that cannot be resolved informally are subject to the Partnering section of the MUA.

3. Differences Between Public and Private Utility Owner MUAs

Although the MUAs that MnDOT uses with public entities and private utility companies are very similar, there are some aspects that are different.

a. Performance of the Work

The MUA provides language allowing either private or public utility owners the option of performing the work themselves or having the design-build contractor perform the work. In most cases private utility owners contract or perform their own utility work. Public utility owners usually have the design-build contractor perform their utility work.

b. Insurance

Private utility owners include a detailed clause addressing insurance in their MUAs. Because municipalities have specific laws that govern how they use insurance, an insurance clause is not included in a public utility owner's agreements.

c. Approval and Acceptance Letters

Whereas private utility owners only use Construction Approval letters, public utility owners have an added step in their process. As each segment is completed, public utility owners must accept the design-build contractor's work by issuing a Construction Acceptance letter. When all of the construction work has been completed, including final grading and landscaping, the public utility owner inspects and then approves that work and issues a Construction Approval letter.

d. Pre-Qualified Subcontractor and Subconsultant Lists

In the MUA, private utility owners provide a list of [pre-qualified subconsultants or subcontractors](#). If the design-build contractor is responsible for the utility work, the design-build contractor is required to use subconsultants or subcontractors from this list or it may complete the work itself if it receives approval from the utility owner. Municipalities, however, do not provide this list in their MUAs. The design-build contractor must contact municipalities directly for information about subconsultants and subcontractors.

4. Utility Owners Not Involved in MUAs

If a utility owner must relocate its facilities but does not enter into a MUA, the Utilities Engineer will issue that utility owner a [Notice and Order](#), and if necessary, enter into a standard MnDOT Utility Relocation Agreement. If an agreement can not be reached, work may be done using force account.

IV. Implementation of the Design-Build Contract

After MnDOT awards the project, the design-build contractor begins to implement the design-build contract. Because the design-build contract involves many design packages, all or a portion of the following process may be repeated throughout the life of the project.

A. Step 1: Utility Work Plan

After receiving the first notice to proceed (NTP1), the design-build contractor submits a utility work plan to coordinate utility facility relocation for MnDOT's approval. The minimum requirements for this plan are:

1. A detailed description of the design-build contractor's utility coordination activities prior to the proposal due date and the results of those activities
2. A detailed description of the design-build contractor's plan to coordinate with utility owners during the project
3. A detailed description of the design-build contractor's plan to coordinate with new utility owners whose facilities are discovered during the project
4. A description of the design-build contractor's plan to meet with utility owners and keep them informed of the design-build contractor's monthly project schedule and utility work schedule throughout the project
5. The design-build contractor's procedures for performing all of the tasks, obligations, and duties assigned in the MUA

The design-build contractor submits a final utility work plan to the MnDOT project manager for approval. The MnDOT utility coordinator must approve or disapprove the utility work plan and reply to the design-build contractor within the time described in the contract. If disapproved, the design-builder must make appropriate changes and resubmit the utility work plan. The second notice to proceed (NTP2) will not be issued until the utility work plan has been approved.

B. Step 2: Utility Identification

The design-build contractor must identify the existence of any new facilities, and confirm the exact location, size, and type of all new and previously identified facilities that the project impacts. The design-build contractor performs this step by:

1. Contacting Gopher State One Call
2. Contacting utility owners
3. Consulting public records
4. Conducting field studies (e.g., performing further SUE investigations)

Upon discovering misidentified or unidentified facilities, the design-build contractor must notify the MnDOT project manager and utility owner immediately. Any inaccuracies in, or omissions from, the existing facility locations provided in the RFP do not relieve the design-build contractor of its responsibilities pertaining to utility work. The design-build contractor may be entitled to a change order to include misidentified or unidentified facilities in the project. It is MnDOT's responsibility to negotiate with utility owners to resolve issues relating to the determination of legal responsibility for costs between MnDOT and the Utility Owner

C. Step 3: Utility Conflict Analysis

Using updated location and/or design information, the design-build contractor performs a utility conflict analysis. As design of the project progresses, new conflicts may arise, and

some previously identified conflicts may be avoided. In considering the locations and the potential impacts of the utility work on the Project, the design-build contractor will identify and resolve conflicts in the following order of precedence:

1. Avoid the conflict
2. Minimize the conflict by adjusting bridge or roadway design
3. Relocate the Utility

The design-build contractor provides information necessary to the utility owners to relocate their facilities. This information may include survey data, profiles and or cross sections, and test hole information that confirms the locations of conflicts.

D. Step 4: Utility Coordination

1. Utility Coordination Meetings

The design-build contractor holds coordination meetings as each design package is developed. The design-build contractor drafts the work orders and [Utility Design Sheets \(UDS\)](#) and brings them to the meetings to discuss with MnDOT and the utility owners. Utility owners bring as-built drawings, relocation plans, and cost estimates (if applicable). All three parties work to determine whether utility facilities can be left in-place or need to be relocated, decide where facilities can be relocated, find possible solutions to conflicts, and gain further information. They also typically discuss:

- a. Construction problems
- b. Betterments
- c. Schedules
- d. Potential coordination with other utility owners
- e. Impacts on other aspects of the project

The parties participate in additional utility coordination meetings as necessary to address construction problems and relocation issues. The design-build contractor develops an agenda for each meeting and invites the utility owners that will be affected at that time. After the meetings, utility owners follow up to provide any additional information requested of them during the meeting.

No more than seven calendar days after a meeting was held, the design-build contractor prepares and distributes minutes to all the parties involved in any of these meetings, including utility owners who did not attend a particular meeting.

2. Work Orders, Utility Design Sheets (UDS's) and Utility Tracking Reports

Work orders can be either [Design Work Orders](#) or [Construction Work Orders](#) depending upon the stage of work. Each relocation should result in both types of work orders.

Work orders address:

- a. The scope of the utility work
- b. The party who will perform the utility work
- c. The work schedule
- d. Property rights issues
- e. Costs of the utility work and how those costs are distributed
- f. The party responsible for payment

- g. The party who will receive payment
- h. Any other specifications, comments or relevant issues

The design-build contractor uses the UIS sheets to prepare the UDS sheets, which specifically describe the utility work that the work order covers. The design-build contractor must prepare the UDS sheets and the work orders for the Utility Coordination Meeting.

Before any utility work begins, the utility owner, contractor, MnDOT, and either the Department of Administration or, by delegation, the Office of Contract Management. MnDOT must sign and execute a work order. For construction work orders, MnDOT must also issue a permit before work begins. The design-build contractor is responsible for obtaining the proper utility owners' signatures, signing the work orders, and then submitting them to the MnDOT utility coordinator. The MnDOT utility coordinator informs the design-build contractor when the work order has been executed so that it can begin work. The design-build contractor may not issue more than five work orders per week.

Changes in the project design or other circumstances may change elements of the utility work, the party who performs the work, and/or the location of the work. The design-build contractor, the utility owner, and MnDOT indicate these changes in the work order.

The design-build contractor updates and maintains the [Utility Tracking Report \(UTR\)](#) each week. The UTR is a spreadsheet that describes the elements of the utility work at each conflict. The UTR shows each utility conflict along with milestone dates.

Any changes that increase or decrease the design-build contract price must follow the terms of Book 2, Section 6 of the design-build contract.

3. Utility Work Order and Permits Process

The design-build contractor must follow the [work order and permit process](#). Utility work orders must be signed and executed and utility permits must be approved and issued by the Utilities Engineer before a utility owner can place or relocate any facilities in the right of way of a design-build project.

The party performing the work must also obtain and follow all environmental permits, and all [environmental regulations](#) must be followed

E. Step 5: Performing the Utility Work

1. General

MnDOT, the design-build contractor, and utility owners must cooperate to complete utility work. The design-build contractor:

- a. Provides the utility owners with project schedules and estimated schedules for the utility work in the work orders and notifies the utility owners as soon as possible of any changes in that schedule
- b. Involves the utility owners in discussions and decisions about their facilities to enable the utility owners to provide uninterrupted service or cause as little interruption to service as possible

Pursuant to the MUA, the utility owner or the design-build contractor (whichever is performing the utility work) must complete any design, construction, and/or utility inspection within the schedule in the work order.

The MUA explains that pursuant to the design-build contract, the design-build contractor may be responsible for the risk of delays that utility work causes, up to an aggregate amount per utility owner. In order for a delay to count as a utility delay, it must affect the critical path, and the design-build contractor must show that it fulfilled all of its obligations to coordinate with the utility owner, but that the utility owner did not cooperate.

Any utility work the design-build contractor or utility owner performs must be consistent with the terms and conditions of the MUA. If the design-build contractor performs the utility work, it must follow the utility owner's written specifications, standards of practice, applicable permit requirements, and construction methods that are current at the time the design-build contractor is to perform the work. The utility owner must provide these specifications, standards, requirements, and methods to the design-build contractor before utility work can begin. If there is a conflict between the MUA and the utility owner's written specifications, standards of practice, requirements, and construction methods, MnDOT will determine which provision is the most restrictive and will resolve the conflict in favor of that provision.

2. Design Work

If the utility owner authorizes the design-build contractor to do so in a work order, the design-build contractor may perform utility design work in conjunction with its own project design work. Once the design-build contractor completes the utility design work, it must obtain a [utility owner design approval letter](#). If the utility owner designs the utility work, it must obtain a [contractor design approval letter](#) upon design completion. Neither the design-build contractor nor the utility owner may unreasonably withhold its approval.

3. Construction Work

If the utility owner authorizes the design-build contractor to do so in a work order, the design-build contractor may perform utility construction work in conjunction with its own project construction work. Once the design-build contractor completes the utility construction work, it must obtain a [utility owner construction approval letter](#). If the utility owner performs the utility work, it must obtain a [contractor construction approval letter](#) upon construction completion. Neither the design-build contractor nor the utility owner may unreasonably withhold its approval.

4. Traffic Control

The design-build contractor must provide traffic control for any project utility work at its own expense, regardless of whether the design-build contractor or the utility owner performs that work.

5. Work by Subconsultants or Subcontractors

If the design-build contractor is responsible for the utility work, it may perform the work itself if the utility owner approves. In the MUA, private utility owners provide a list of pre-qualified subconsultants or subcontractors which the design-build contractor is required to use. Municipalities, however, do not provide this list in their

MUAs. Design-build contractors must contact municipalities directly for information about subconsultants or subcontractors.

F. Step 6: Recurring Utility Meetings

The frequency of utility meetings on a design-build project depends on:

1. The number of affected utility owners
2. The overall project schedule (when utility owners will be notified and when they will need to move)
3. The complexity of the design-build project
4. The project's critical path

The design-build contractor schedules meetings on a regular (e.g., weekly) basis during construction. Although the design-build contractor, MnDOT project manager, and MnDOT utility coordinator attend all of these meetings, the design-build project schedule determines which utility owners are being affected at that time and who, therefore, will need to attend the meetings.

The agendas of the meetings may vary according to the demands of the design-build project. Topics at these meetings often include:

1. Work order negotiations
2. Utility work schedule
3. Construction schedule
4. Cost of relocation work
5. Betterments
6. Coordination with other utility owners and/or other agencies;
7. Input from other stakeholders (e.g., FHWA, counties, municipalities, other MnDOT functional areas)
8. Right of way issues
9. Design changes
10. Quality management
11. Disputes
12. Items not previously negotiated
13. Close-out work

The design-build contractor or utility owners may issue design and construction approval letters at these meetings.

G. Step 7: Reimbursement/Responsibility for Cost

1. Reimbursement Basis

State laws and rules and federal regulations determine reimbursement for all projects, including design-build projects.

To pay a utility owner for performing utility work, the MnDOT utility coordinator must:

- a. Verify that all of the terms of the work order were met satisfactorily
- b. Obtain all design and construction approval letters
- c. Have copies of all subcontracts that are more than \$10,000

Reimbursement for utility work performed under a work order that is \$100,000 or less may be on an actual cost or lump sum basis. Reimbursements that are greater than \$100,000 must be on an actual cost basis. The MUA details how MnDOT will pay these costs to the utility owner.

When MnDOT and the utility owner cannot agree about how MnDOT will pay the utility owner for utility work that it performs itself or has the design-build contractor perform, MnDOT may pay the utility owner on a unit cost basis.

For more comprehensive information on the reimbursement procedures refer to Step 14 in the Utilities Coordination Section of the [Utility Accommodation and Coordination Manual](#).

2. Betterments

MnDOT cannot pay the utility owner for any betterment to its facilities. Utility owners may request MnDOT to allow the design-build contractor to perform betterment work at the utility owners' expense. This betterment work will be added to the design-build contractor's work through a work order and will not be considered a MnDOT-directed charge.

MnDOT may approve the utility owner's betterment work as part of the project if:

- a. The utility owner and design-build contractor have agreed to the betterment work
- b. The betterment is compatible with the rest of the project
- c. The utility owner has agreed to pay MnDOT for all costs associated with the betterment so that MnDOT can pay the design-build contractor
- d. The utility owner has agreed to the method of pricing the betterment work (e.g., negotiated lump sum, unit cost, or time and materials cost basis)
- e. MnDOT can separate the cost/pricing of the betterment work from that of any other utility work that the design-build contractor will perform
- f. There is a workable plan and schedule that will not delay the project

If MnDOT approves a request for betterment, the design-build contractor will add the betterment work to the utility work upon execution of a work order by MnDOT, the utility owner, and the design-build contractor. The design-build contractor will provide all coordination, including all cost estimates and billing information, to address the betterment. Book 2, Section 6, of the design-build contract addresses the design-build contractor's right to time extensions and/or contract price increases due to betterment work.

Refer to Step 14; Section III.C.2 in the Utilities Coordination Section of the [Utility Accommodation and Coordination Manual](#) for more information on Betterments.

H. Step 8: Inspection

1. When the Design-Build Contractor Performs the Utility Work

The design-build contractor is responsible for the quality management of any utility work it performs or subcontracts. The utility owner may conduct inspections and oversight any time during construction.

Private utility owners issue the [Utility Owner Construction Approval Letter](#) no more than 14 calendar days after being notified that the work is complete and after finding the utility work was completed to their satisfaction.

Public utility owners issue [Utility Owner Construction Acceptance Letters](#) to accept the design-build contractor's work as each part of the utility work is finished. Once the design-build contractor has finished working on the utility owner's entire system, the public utility owners can inspect and approve that work, and issue a [Utility Owner Construction Approval Letter](#) within 14 calendar days if it finds that the design-build contractor performed the work satisfactorily.

The utility owner has the right to reject any utility work that does not meet its standards. In that event, the utility owner must notify the design-build contractor immediately in a letter that includes its grounds for rejection and suggestions for correcting the work. The utility owner will re-inspect the revised work no more than seven calendar days after its completion.

The approval and acceptance letters are considered granted if no response is provided in the time period the MUA specifies.

2. When the Utility Owner Performs the Utility Work

The utility owner may perform the design and/or construction of the utility work as long as it does so within the schedule in the work order. The design-build contractor will inspect any utility work the utility owner performs that affects the design-build project. The design-build contractor has the right to reject any utility work that does not meet the requirements of the work order. In that event, the design-build contractor must notify the utility owner immediately in a letter that includes its grounds for rejection and suggestions for correcting the work. The design-build contractor will re-inspect the revised work no more than seven calendar days after its completion. The design-build contractor issues a Design-Build Contractor Construction Approval Letter.

The approval letters are considered granted if no response is provided in the time period the MUA specifies.

I. Step 9: Close Out

MnDOT's close out activities include:

1. Reviewing as-built drawings to see if all of their information are accurate
2. Accepting the as-built drawings
3. Holding construction punch list meetings, where MnDOT, the design-build contractor, and the utility owner walk through a finished segment
4. Certifying that the work is complete
5. Settling claims and resolving payment issues
6. Performing utility facility placement audits
7. Completing payments

The utility owner must send, within 60 calendar days, an invoice with all supporting documents to the MnDOT utility coordinator once work has been completed and approved. The utility coordinator will verify all information and forward it on to the Utility Agreement Writer to make partial or full payments for the completed and closed out work. All payments are subject to MnDOT Audit.

Pursuant to Minnesota Statutes, section 16C.05, subdivision 5, all parties' accounting books, records, documents, procedures, and practices that are relevant to a MUA are subject to legislative or state audit for six years after the MUA expires.

If the design-build contractor performs the utility work, the design-build contractor must provide as-built drawings to the MnDOT project manager and the utility owner no more than 90 calendar days after receiving the Construction Approval Letter from the utility owner.

If the utility owner performs the utility work, the utility owner must provide as-built drawings to the MnDOT project manager no more than 90 calendar days after receiving the Construction Approval Letter from the design-build contractor. Because the design-build contractor is responsible for obtaining x, y, and z information, the utility owner must obtain that information from the design-build contractor before developing its as-built drawings.

After submitting as-built drawings to the design-build contractor, the utility owner submits a certificate of completion to the MnDOT utility coordinator, who signs this certificate and sends it to the District Permits Office for close out.

Appendix A - Master Utility Agreement Templates

1. [Private Master Utility Agreement](#)
2. [Public Master Utility Agreement](#)
3. [Receivable Private Master Utility Agreement](#)
4. [Receivable Public Master Utility Agreement](#)