

Work Type Definition and Submittal Requirements

1.2 Geometric Layouts

Work Type Definition

Pages 1-2 detail the work type definition. In order to become *pre-qualified* for this work type, please see the “Work Type Submittal Requirements” on pages 3-4.

I. Description

This work type includes all work necessary to produce preliminary design layouts for staff approval by MnDOT. See the [Layout Content Review Form](#) for an example of the type of content required. MnDOT categorizes geometric layouts by level. Level Criteria can be found at the following site: [Geometric Layout Development](#)

NOTE: Pre-qualification in Level 1 includes pre-qualification for Levels 2 and 3. Pre-qualification in Level 2 includes pre-qualification for Level 3.

II. Standards and Specifications

Standards and specifications required for a project under this work type may include the following:

- A. All work completed must be in accordance with the current American Association of State Highway & Transportation Officials (AASHTO) Policy on Geometric Design of Highways and Streets (also known as The Green Book), current AASHTO Roadside Design Guide, current MnDOT Road Design Manual, current MnDOT Technical Memoranda, current Highway Capacity Manual, and Federal Highway Administration (FHWA) and MnDOT design policies, procedures, practices and standards.
- B. The layouts must meet the form and content requirements listed in the Highway Project Development Process ([HPDP](#)) Handbook.
- C. The layout must consider the various inputs during the development process, and incorporate where appropriate, and must also include a history that documents the development process and the design influences and decisions.
- D. All work completed must meet MnDOT’s [CADD Data Standards](#) and file naming conventions, including the use of GEOPAK™, and MnDOT’s automated design software.

III. Provided by MnDOT

Information to be supplied by MnDOT for a project under this work type may include the following:

- A. All project-specific documents and studies including but not necessarily limited to Project Scoping Documents and Scoping Decision Documents, following the MnDOT [HPDP](#) Guidance.

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IV. Provided by Consultant

Deliverables to be supplied by the consultant for a project under this work type may include the following:

- A. Design proficiency, knowledge of design standards, and coordination necessary to create a preliminary layout and receive MnDOT staff approval.
- B. Documentation of design decisions and variations from design standards ([Design Memo](#))
- C. Engineering, operational, and environmental analysis and documentation necessary to receive FHWA approval when required.
- D. Coordination with MnDOT's local partners when required.

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Work Type Submittal Requirements

A consultant firm becomes pre-qualified based on the qualifications of the personnel that are employed by the firm and by meeting the demonstrated CADD requirements.

Key Personnel Requirements	
Minimum Number of Staff:	<ul style="list-style-type: none"> At least two professional engineers for Level 1 and Level 2 projects. At least one professional engineer for Level 3 projects.
Professional Certification/Licensure:	Professionals must be Minnesota Board Licensed professional civil engineers. Provide license number and state of issue.
Work Type Submittal Requirements*	
<p>I. Resume and Relevant Project Experience Form (Form PQ1)</p> <p style="text-align: center;"><i>Submit in Word format</i></p>	<p>A. Complete Parts 1, 1A, 2 and 3 of Form PQ1</p> <p><u>Part 1:</u> Fill out general information and names of personnel</p> <p><u>Part 1A:</u> Must demonstrate satisfactory experience on at least two projects per qualified professional in the last ten years in the activities required for Level 1, and in the last five years for Levels 2 and 3. Description should include position held on project and specific project roles related to producing preliminary geometric layouts for approval.</p> <p><u>Part 2:</u> List of Project Examples correlating to those described in Part 1A and must correlate to described below in “Project Example Requirements”.</p> <p><u>Part 3:</u> Not Applicable</p>
<p>II. Project Example Requirements</p> <p style="text-align: center;"><i>Submit in PDF format</i></p>	<p>A. Provide staff approved versions of layouts described in Part 1A. Layouts should either be signed by the applicant or provide an Affidavit of Experience as verification of work experience.</p> <p>Project examples consist of preliminary geometric layouts demonstrating design elements similar to those that are suitable for MnDOT staff approval, as well as accompanying preliminary profile grades. Final plans, concept displays for public meetings, design concept alternatives and Request for Proposal displays will not be considered as project examples.</p>

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III. Proof of Professional Certification/Licensure <i>Submit in PDF format</i>	A. Provide a current copy of the Licensure as Professional Engineer by the Minnesota State Board of Architecture, Engineering, Land Surveying, Landscape Architecture, Geoscience and Interior Design.
IV. CADD Requirements <i>Submit in PDF format</i>	A. Complete, sign, and notarize form indicating the firm is capable of using MnDOT's Level 2 CADD Standards which can be found at: http://www.dot.state.mn.us/consult/prequal/overview.html Once at website, click link for Affidavit for MnDOT's Level 2 CADD Standards

***Work Type Submittal Instructions:**

Create a CD or flash drive that includes the following individual files or folders in this order:

- I. Resume and Relevant Project Experience Form (Form PQ1)
- II. Project Example Requirements (this should be a folder that includes individual files clearly named according to Part 2 of the PQ1, and Affidavit of Experience if applicable)
- III. Proof of Professional Certification/Licensure
- IV. CADD Requirements

**Each file should be saved in the format identified above.
Submit 5 copies of the CD or flash drive.**