**TH 210 Flood Repair Design-Build Project**

**DRAFT Scoring Criteria**

**Note 1) These criteria are subject to substantial change prior to the release of the Design-Build Request For Proposals, which is scheduled for mid-December, 2014. No clarification process exists for these criteria, however potential Proposers are invited to offer comments to the Project Manager or Design-Build Program Manager if desired.**

**Note 2) Where the term “commitments” is employed, these commitments must be explicitly stated as such to receive full scoring credit. Commitments made in this manner become contractual. Be advised that MnDOT highly values certainty in regards to the solutions to be employed on the project while recognizing that absolute certainty may not be possible in all cases*.***

**Note 3) The below criteria include some italicized notes which relay potentially relevant expectations from the future RFP.**

**4.2.4.4 Ground Stabilization (14 Points)**

The Proposer shall provide the below elements, supported by exhibits in the Appendices:

The proposal shall contain commitments to particular stabilization solutions to be constructed for each of the four high-priority impact sites listed below. The Proposer shall commit to either one particular solution for each site or to a small number of possible solutions (not to exceed three) for each site. If a small number of solutions is proposed, the Proposer shall include a narrative that clearly describes the process by which an individual solution will be selected from the group. This narrative shall include information regarding necessary field investigations and analysis methods.

* + The west end of the site (in vicinity of existing nailed walls and GRS soil structure)
  + The Hairpin Turn
  + The County Corner
  + Site 23/60 (roadway subsidence area)

The proposal shall contain a narrative describing the field investigations that will be necessary to validate that the proposed solutions for the high priority areas are constructable and that they will be effective over time. The narrative shall describe what processes will be followed if the field investigations find that the soils are not well suited to the proposed solutions.

The proposal shall contain a narrative describing the Proposer’s plans to stabilize the remaining non-high-priority sites beyond the required minimum fixes. The Proposal may contain specific commitments to enhance the stabilization of these sites.

The proposal shall contain a narrative describing how the Proposer’s solutions for the impact sites will enhance, degrade, or not affect the geotechnical stability of adjoining at-risk areas.

Lastly, the proposal shall contain a narrative describing the methods that will be employed to manage geotechnical and other risk associated with the committed solutions.

MnDOT will evaluate the following subfactors:

* The quality and reliability of the proposed solutions proposed at the four high-priority areas to keep the slopes stable over time, the quality of the associated commitments including the level of risk that the best solutions will be constructable, and the quality and reliability of the associated approaches. (7 points)
* The quality and reliability of the commitments and approach to stabilize the non-high-priority sites over time. (4 points)
* The quality and reliability of the commitments and approach to improve or not degrade the stability of at-risk areas adjoining project impact sites. (3 points)

*Note: MnDOT has provided some soil investigation data and more will be forthcoming. Some of this information will be contractual and some will be ‘Reference Information Documents’ (RID). Despite this, please recognize that MnDOT will not be guaranteeing an interpretation of the site conditions on this project. MnDOT is asking that each of the Proposers study the available information and bid the risk that their proposals will need to be modified based on unforeseen soil conditions in the field. There are three reasons for this: 1) MnDOT does not know which solutions will ultimately be proposed, nor do we necessarily know how particular soil types might affect those solutions. 2) Many of the sites will be difficult or impossible to access prior to construction.3) Timing does not allow for a rigorous investigation prior to the RFP process.*

*Note: The preliminary design drawings on this project will likely be plan views of the roadway with some narrative notes for each impact site. Some drawings will be provided to depict typical “minimum fix” solutions; these diagrams will be provided for conceptual purposes only and are not intended to be prescriptive; they are intended to be a framework for illustrative purposes. Proposers should not expect to receive the ‘normal’ package including plan/profile views, xsections, etc.*

**4.2.4.5 Landslide Stabilization Factor of Safety Commitments (19 points)**

The contractor shall provide geotechnical Factor of Safety (FOS) commitments for the 4 high-priority impact sites’ slopes. These commitments will be enforced regardless of the final solution selected for the site. Points will be awarded based upon the following:

* + Zero [0] points shall be awarded if no additional commitments are made above the prescribed FOS. *(Note: These are likely to be 1.3 for normal conditions and 1.1 for extreme conditions i.e. a 500-yr flood)*
  + Up to four [4] points shall be awarded per site for additional factor of safety commitments at the following locations:
    - The ‘West End’ of the site (in vicinity of existing nailed walls and GRS soil structure)
    - The ‘Hairpin Turn’
    - The ‘County Corner’
    - ‘Site 23/60’ (roadway pavement failure)

The following formula will be used to award points:

Points Awarded = (FOS Commitment – 1.1) \* 10

The ‘FOS Commitment’ for a site may be larger than 1.5. However, ‘Points Awarded’

may not exceed 4 at any location.

The contractor shall provide a geotechnical Factor of Safety (FOS) commitment for the medium-priority impact sites’ slopes collectively. These commitments will be enforced regardless of the final solutions selected for the sites. Commitments for sub-categories of impacted sites will not be considered here, although they may be given credit under Section 4.2.4.4. Points will be awarded based upon the following:

* + Zero [0] points shall be awarded if no additional commitments are made above the prescribed FOS.
  + Up to three [3] points shall be awarded for additional factor of safety commitments based upon the following formula:

Points Awarded = (FOS Commitment – 1.1) \* 10

The ‘FOS Commitment’ for a site may be larger than 1.4. However, ‘Points Awarded’ may not exceed 3.

*Note: Here, the term ‘site’ refers to the 4 high-priority site groups (defined collections of enumerated sites).*

**4.2.4.6 Hydraulics/Erosion Control (4 points)**

Provide a narrative, supported by exhibits in the Appendices as necessary, that describes the Proposer’s approach to the Project drainage system and site-specific drainage at the high-priority sites. Risk factors such as seeping slopes, concentrated surface flows, drainage system infrastructure performance over time, etc should be addressed in the narrative. The proposal may contain specific commitments to drainage and erosion control on specific sites.

MnDOT will evaluate the degree to which the approach and commitments decrease the risk to the project impact site solutions. (6 points)

**4.2.4.7 Maintenance (5 points)**

Provide a narrative, supported by exhibits in the Appendices (if appropriate), that describes the Proposer’s approach to designing and constructing a high quality product that minimizes the need for future maintenance and inspection activities. The narrative may contain specific commitments to minimize future maintenance inspection activities.

MnDOT will evaluate the approach and commitments to minimize future maintenance, operation costs, and inspection activities including, but not limited to: performance of walls, hydraulic structures, permanent erosion control, and vegetation.

**4.2.4.8 Perpetuation of the Natural Setting and Park Character (5 points)**

Provide a narrative, supported by graphics as appropriate to convey needed detail, that describes the Proposer’s approach to maintaining the natural character of the project corridor while minimizing impacts to portions of the landscape unaffected by the rain event.

The narrative may contain specific commitments to set aside areas for vegetation to re-established, install plantings, adjust grading and slope restoration to a “natural look” or otherwise maintain the natural character. In the event that stabilization solutions require a more invasive footprint or visually contrasting character, a discussion of those requirements should be included in this section.

MnDOT will evaluate the following subfactors:

* The quality of the approach and commitments to avoiding or minimizing impacts to portions of the landscape unaffected by the rain event.
* The quality and approach of blending remediated sites and unimpacted areas.
* Quality and approach to restoring any temporarily disturbed areas required for site access to a natural condition.
* The approach and commitments to otherwise maintain the natural character of the project corridor.

**4.2.4.9 Implementation Quality, Instrumentation, and Performance Assessment (3 Points)**

The Proposer shall provide a narrative, supported by exhibits in the Appendices, describing the approach and commitment to the required project instrumentation, monitoring, and performance assessment activities of the constructed work.

This narrative may include specific commitments (above and beyond the requirements) intended to increase MnDOT’s confidence, over the warranty period in the long-term stability of the completed project. The narrative and commitments may contain concept layouts of instrumentation, quality control methods, specific hardware commitments, and other program details.

MnDOT will evaluate the degree to which the Proposer’s approach and commitments increase MnDOT’s confidence that the solutions’ effectiveness can be actively monitored through the warranty period

*Note: The required monitoring program will consist of a minimum of 2 weather stations located at the west end and the county corner areas as well as automatic robotic total station systems (installed on deep foundations with embedment of system mounts and reference back-sight prisms of at least 20 feet) installed at all 4 high priority sites. A minimum of 20 reflectors per-site are to be installed A near-real-time monitoring program is required at each of the high priority sites, including web-based reporting. Earth stations will require cellular modem connections, solar power systems, batteries, and may require towers for cell modem communication antennas. Depending on cellular coverage, radio systems may be required to connect sites to one another to a common uplink (depending on cell providers, carriers and coverage). The systems are to be operational from the time work is complete on the project site group through the warranty period. At the end of the warranty the equipment shall be able to remain in service with support costs transferred to MnDOT. The equipment shall be designed to be operational for a 20 year period; MnDOT is to have ownership of all site hardware. Approximately 8 sensors per high-priority site to measure earth pressure, ground moisture, temperature, or other representative parameters are to be installed and connected to the monitoring systems. Sensors may also include web-cameras to monitor site performance visually. In-place inclinometers or SAA systems may be required (this requirement may be solution-based).*