

**Oregon Department of Transportation**

Delivery & Operations Division/

Engineering & Technical Services

7163 ­‑ Geotechnical Engineering,

Engineering Geology & Hazmat Section

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FILE CODE:

**DATE: Wednesday, November 22, 2023**

**TO:** Susan C. Ortiz, P.E., G.E.

 State Geotechnical Engineer

**FROM: Curran Mohney Phone: (503) 508-3628**

 **Engineering Geology Program Lead**

 Oregon Department of Transportation

**SUBJECT: Proposed Revision to Geotechnical Design Manual**

 **To Section Number** 4.5.1

**Problem Statement:**

Current GDM Section 4.5.1 references the older AASHTO 1988 Manual on Subsurface Investigations for the base level of investigation.

[Provide a copy of the section being revised]

4.5.1 General

The 1988 AASHTO Manual on Subsurface Investigations is the basis for

subsurface investigations conducted by ODOT. This manual provides guidance on the minimum amount of

investigation for the various structures and geotechnical features constructed for transportation projects.

The manual states however, in numerous places, that there can never be a set of specifications and

guidelines that will determine the amount of exploration that must take place for every project. Each site

has its own requirements for exploration that must be determined by qualified personnel exercising

professional judgement.

Note:

The number of borings, their distribution, sampling interval, and depths of penetration will

always be determined by the underlying geology and the size and complexity of the project.

Planning for the subsurface exploration will be based on past knowledge of the site and on the published

and unpublished literature that was consulted during the project reconnaissance phase. However, even the

most thoroughly studied sites will still reveal previously unknown conditions, and each exploration

provides new information about it. In a sense, the site conditions are truly unknown until the exploration

begins, and knowledge of it increases as the investigation proceeds so adjustments must be made in the

field to economize the investigation while assuring a full investigation of the important geotechnical design

elements.

**Proposal:**

GDM Section 4.5.1 should be revised to reflect adoption the updated 2022 2nd edition of the AASHTO Manual on Subsurface Investigations.

[Provide a copy of the proposed revised language here]

4.5.1 General

The 2022 AASHTO Manual on Subsurface Investigations, 2nd Edition is the basis for

subsurface investigations conducted by ODOT. This manual provides guidance on the minimum amount of

investigation for the various structures and geotechnical features constructed for transportation projects.

The manual states however, in numerous places, that there can never be a set of specifications and

guidelines that will determine the amount of exploration that must take place for every project. Each site

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field to economize the investigation while assuring a full investigation of the important geotechnical design

elements.

**Analysis / Research / Other Supporting Data:**

[x] None

[ ] Attached:

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**Geotechnical Engineering, Engineering Geology & HazMat Section Response:**

[ ]  Accepted for consideration as submitted

[ ]  Accepted for consideration as noted

[ ]  Proposal tabled, see Remarks

[ ]  Proposal not accepted, see Remarks

**Remarks:**

[Enter Remarks here]

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