

OHIO DEPARTMENT OF TRANSPORTATION

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Changes and Issues

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SGE Changes

- ① Section 100, acknowledged new prequalification for field exploration services and drilling inspection services.
- ① Section 303.2, presented the requirements for determining an exploration location's elevation and coordinates as "Determine and report elevation in U.S. survey feet to one decimal place using NAVD 88. Determine and report horizontal position in geographic coordinates (Latitude and Longitude) using NAD 83 and shown as decimal degree to nine decimal places."

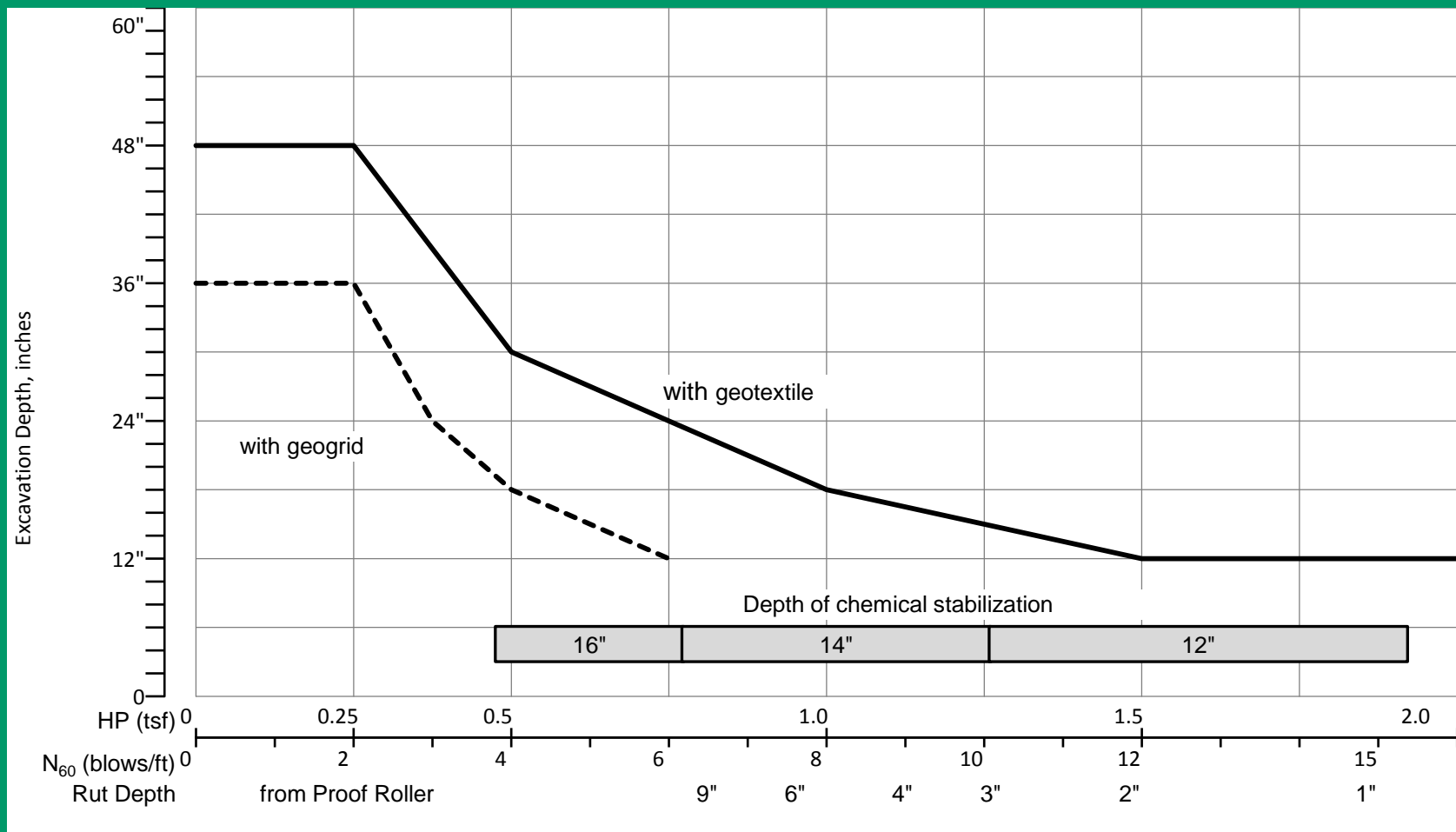
SGE Changes

- ④ **Section 701: Removed the requirement to submit all documents in native format to the ftp site.** Changed this requirement to the following: "Submit electronic copies of all final Geotechnical Exploration plan sheets as TIFF images in accordance with Location & Design Manual Volume 3, Section 1201, and the TIFF Submission Procedure. A copy of the TIFF Submission Procedure and associated document may be found at <http://www.dot.state.oh.us/Divisions/ContractAdmin/Contracts/Pages/TIFF.aspx>." In addition to this, the consultant is required to submit a paper and electronic copy of all final reports to the DGE.

SGE Changes

- Section 705: Added the following requirement, "Identify the project PID and contact person (with contact information)."

GB1 Changes (7/15/2010)



GB1 Changes (7/15/2010)

- ① **N_{60} throughout**
- ① **For N_{60L} greater than or equal to 12 and less than 15, no stabilization is necessary unless MC is greater than optimum plus 3 percent.**
- ① **This figure does not apply to A-1-a, A-1-b, A-3, or A-3a soils and soils with an N_{60L} of 15 or more. These soils should be reworked to stabilize the subgrade.**

GB1 Changes (7/15/2010)

- ④ For all Interstates and other divided highways with four or more lanes more than 1-mile in project length, the subgrade of the entire project shall be stabilized (global stabilization)

GB1 Changes (7/15/2010)

- ⦿ Consider an undercut with Geogrid when N_{60L} is less than 6, to avoid impact on shallow utilities below the subgrade, or to avoid difficult maintenance of traffic situations

GB1 Changes (7/15/2010)

- ④ Lime may be used to stabilize unstable subgrades which have a *PI of 16 or greater*, consisting of A-6b, A-7-5, or A-7-6 soils.
- ④ Lime Kiln Dust (LKD) may be used to stabilize unstable subgrades which have a PI from 10 to 20. Consult the Office of Geotechnical Engineering when specifying LKD.

GB1 Changes (7/15/2010)

- ④ **When chemical stabilization is to be used on a project with multiple maintenance of traffic phases, coordinate the roadway work with the maintenance of traffic schemes such that an 8-foot minimum width for chemical stabilization exists.**

GB1 Changes (7/15/2010)

GB1 Figure C – Chemical Stabilized Subgrade

Chemical	Estimated Rate ⁽¹⁾	Quantity Formula ⁽²⁾
Cement	6 percent	$C = 0.75 \times T \times 110 \times 0.06$
Lime	5 percent	$C = 0.75 \times T \times 110 \times 0.05$
LKD	7 percent	$C = 0.75 \times T \times 110 \times 0.07$

(1) By dry density of soil (using 110 pounds / cubic foot)

(2) Where: C = amount of chemical (pounds / square yard)
T = thickness of stabilization (inches)

GB1 Changes (4/15/2011)

- ④ **Identify and clarify between unstable subgrade and unsuitable subgrade**
 - ④ Need to identify each separately in the plans

- ④ **Rewrote Item 204 – Subgrade Compaction and Proof Rolling note, and included it in the L&D Manual as Plan Note G122.**

GB1 Changes (4/15/2011)

- ① ~~Undercut~~ and Replace became
Excavate and Replace

GB2 Changes

- ④ **The language of GB 2 was updated to be in accordance with LRFD terminology.**
- ④ overall stability analyses are still performed by traditional means, utilizing FS, and GB 2 continues to express stability with regards to FS

GB6 Introduction

- ④ **Shear Strength of Proposed Embankments (December 6, 2010)**
- ④ The primary purpose of this bulletin is to provide a sound and consistent methodology for determination of **shear strength parameters for proposed embankments that are not yet constructed.**
- ④ A research project was conducted by Ohio University, sponsored by ODOT, to ascertain the shear strengths that are being achieved in our roadway embankments across the state.

Common Issues*

- ④ **Borings drilled by others or drilled as part of a previous (preliminary) exploration are still project borings.**
- ④ Must be included and considered in planning additional explorations
- ④ Present accordingly in the soil profile
- ④ **Include historic structure borings and useful roadway borings in the soil profile/SFE**

Common Issues

- ① **Exploration identification numbers are still a challenge**
- ② Borings well off the mainline that cannot be reasonably referenced to the mainline (e.g. cross section) should be numbered consecutively from the last boring along the mainline.

Common Issues



Changes and Issues



Common Issues

- ④ **Borings added back of B-001 should be numbered as offset borings where practical.**
- ④ For example, project limit is changed and the project ends at station 220+00 instead of 230+00. Add three borings identified as B-001-1, B-001-2, B-001-3.

Questions?

