MATERIAL SOURCE & DISPOSAL SITE INVESTIGATION AND REPORT SPECIFICATION

1.0 SCOPE

Conduct geologic investigations, perform geologic and geotechnical analysis, perform material quality and characteristic testing, complete design and provide construction support for material source and disposal site development and reclamation related to various types of projects. Apply for and obtain all necessary state, local and federal permits associated with the proposed activities. The investigation work, analysis and recommendations will be clearly summarized in a narrative report and in the contract plans and specifications. The report will include a detailed summary of all geologic and/or geotechnical investigation work performed, final exploration logs, core photos, site photos, laboratory test results and any available historical data related to the source and/or site. The report will also provide any and all applicable permit conditions and or restrictions as well as a narrative type description of the long and short term development and reclamation concepts for the source or site. Surface and subsurface data will be provided in the form of development/disposal site plans and cross sections for inclusion in the contract plan drawings.

2.0 STANDARDS AND REFERENCES

Design proposed material source or disposal site in accordance with this Performance Specification and the requirements of the following standards. In this Performance Specification, should the requirements in any standard conflict with those in another, the standard highest on the list shall govern. It is the Designer's responsibility to obtain clarification of any ambiguity within this Performance Specification prior to proceeding with design. (References are provided for the Designer's general information).

2.1 Standards

- ODOT Standard Specifications For Construction, 2002, including the most recent standard special provisions
- ODOT Soil and Rock Classification Manual, 1987
- ODOT Highway Design Manual
- ODOT Laboratory Manual of Field Test Procedures (Brown Book), 2005
- ODOT Contract Plans Development Guide
- ODOT Construction Manual, sampling, and testing frequency requirements
- ODOT Standard Specifications, Plans, and Special Provisions
- AASHTO Manual on Subsurface Investigations, 1988

2.2 References

- Laws, rules, and regulations of the Oregon Mined Land Act
- ODOT Material Source Checklist
- ODOT/USFS MOU related to Material Sources
- Oregon Water Resources Department laws, rules and regulations
- Specific local, State and Federal mining laws
- D.O.G.A.M.I. Best Management Practices for Reclaiming Surface Mines in WA and OR
- FHWA Soils and Foundation Workshop Manual
- FHWA Rock Slope Manual
- FHWA Blasting Manual
- www.oregon.gov/ODOT/HWY/GEOENVIRONMENTAL/aggregate_material_sources.shtml
- Project Delivery Operational Notice PD-10, Disposal of Excess Excavation Material

3.0 GENERAL REQUIREMENTS

Perform Material Source or Disposal Site Design and Development in accordance with the ODOT Material Source Checklist and other referenced ODOT, AASHTO or FHWA manuals or standards, as specified in this performance specification. Coordinate with Agency staff, contractors, and other agencies or consultants as necessary to acquire project related reports and information, resolve questions, comments and information inquiries.

3.1 Exploration Work Plan

Prepare an Exploration Work Plan and provide it to the Agency for review and approval prior to Notice to Proceed (NTP). The proposed investigation shall be performed in accordance with guidelines provided by AASHTO in the AASHTO Manual on Subsurface Investigations, 1988, as well as the Agency standards set forth in this specification. The plan shall be finalized, addressing issues, if any, raised in Agency comments, prior to the start of geologic/geotechnical investigations. The plan shall include an outline of the criteria or rationale used in developing the plan, and shall identify the locations of all proposed explorations and exploration methods together with their proposed depths, sampling intervals if appropriate, and a description of both the field and laboratory testing programs proposed for utilization.

3.2 Surface and Subsurface Investigation and Data Analysis

Interpret the geologic/geotechnical data obtained from previous research and from the investigation work. Perform any additional surface and subsurface investigation and/or field and laboratory testing as may be necessary to be satisfied as to the nature of:

(a) the soil, bedrock, groundwater, and overall subsurface conditions
(b) the geologic formations within and attributes of the Material Source or Disposal Site
(c) the surface features, such as drainages, existing site condition and man made features
(d) the variations in the subsurface and groundwater conditions across the Source/Site
(e) the quality characteristics of the various formations or units
(f) the vertical and lateral extent of the various rock and soil units
(g) verify the existence of the needed quantity and quality of material needed for the project
(h) all other factors impacting design, reclamation and construction

Perform all subsurface investigation and laboratory testing in accordance with the standards set forth in Section 2.1. Laboratories shall be certified and equipment used for testing shall have documentation of calibration within the last year.

Prepare all final boring logs using geotechnical software by gINT software on the Agency templates, or an equal approved by the Agency.

Determine the coordinate location and ground surface elevation for each boring and field investigation site, and show the coordinates, station and offset, and the elevation for each individual boring log or investigation record. Coordinates and station and offset shall be referenced to the Project survey control. Elevations shall be referenced to the Project datum and horizontal control system.

3.3 Material Source / Disposal Site Narrative Report

Perform the material source/disposal site design work and prepare the Material Source / Disposal Site Narrative Reports in accordance with examples provided by the Agency. Each proposed source of materials or disposal site shall have a separate report, combining multiple sites into a single report only if the combining of sites has prior approval by the Agency.

Provide the completed ODOT Material Source Checklist for each source/site.

3.4 Material Source / Disposal Site Plan Sheets

Prepare and provide Material Source / Disposal Site Plan Sheets for each source or disposal site in accordance with the ODOT Contract Plans Development Guide.

4.0 SUBMITTALS

4.1 Submittal Stages – Submit the following plan and documents:

(a) Exploration Work Plan – Submit a draft Exploration Work Plan to the Agency for review and approval.

(b) Final Exploration Work Plan.

(c) Draft Material Source / Disposal Site Plan Sheets – Submit draft plan sheet to Agency for review and comment.

(d) Draft DOGAMI permit application and reclamation plans – Submit draft application and reclamation plans for review and comment.

(e) Draft County Land Use or other applicable permit application – Submit draft applications for review and comment.

(f) Draft Material Source / Disposal Site Narrative Report – Submit Draft report to Agency for review and comment.

(g) Final permits, DOGAMI, County or other applicable permits – Submit in hard copy form, all permits and attachments including all signatures.

(h) Final Material Source / Disposal Site Narrative Report – Submit in hard copy form and provide an electronic copy in ".doc" or ".pdf" format, as requested by the Agency.

(i) Final Material Source / Disposal Site Plan Sheets – Submit in hard copy form and provide an electronic copy in ".dgn" format, also include both the original ground and design surfaces in ".dtm" format.