Oregon Department of Transportation

Highway Division
Maintenance Leadership Team
Operational Notice

Number	Supersedes	Effective Date	Cancellation Date
MG-Activities-1	**September 1, 2013**	December 1, 2013	**Until Further Notice**
Subject		Issuing Body	
Guidelines for Engineering Requirements for Maintenance Operations		Luci Moore, State Maintenance and Operations Engineer Cathy Nelson, ODOT Chief Highway Engineer	

PURPOSE:

The purpose of this notice is to establish guidelines for engineering requirements relating to Maintenance Crews and Maintenance Projects throughout the state. The purpose of this guidance is to insure compliance with ORS 672 which is in place to safeguard life, health, and property.

BACKGROUND:

In 2010 Oregon Department of Transportation began reviewing ODOT's policies and procedures regarding requirements by ORS 672 and professionals of record. ODOT's Chief Highway Engineer has the responsibility and authority to issue and approve Department policies and procedures for professional of record requirements consistent with governing statutes, rules, and decisions of the applicable professional boards.

The Maintenance Leadership Team (MLT) led the effort to review professional of record requirements for maintenance crew activities and maintenance projects. This Operational Notice describes the review process used to produce guidance, the stakeholders involved, documented outcomes, and criteria used during the evaluation. Evaluation was done objectively by technical experts with reference to the Department of Justice Attorney General Opinion No. 7821 that provides clarification to ORS 672. The Attorney General Opinion was issued in response to a question asking "are services of a registered professional engineer required for construction, reconstruction or repair of public roads." The Attorney General Opinion states the difficulty in listing every situation where professional of records are required and therefore provides guidance so a decision can be made on a case by case basis.

This Operational Notice provides further guidance and reference to the Attorney General Opinion No. 7821 so ODOT can determine professional of record needs and requirements during maintenance activities and maintenance projects.

DEFINITIONS:

Professional of Record (POR): includes all licensed professionals that, by the conditions of their professional license, can legally produce final work or work products requiring a professional license.

GUIDANCE FOR MAINTENANCE CREWS AND PROJECTS:

Guidance documents are divided into five types of work and each lists examples of ODOT maintenance activities in relation to their Professional of Record requirements. Bridge, Pavement, Geotechnical/Geology, Hydraulic, and Traffic/Roadway categories incorporate the majority of activities in which Maintenance Districts and Sections are responsible.

List of Guidance Documents:

APPENDIX A: Bridge Maintenance Requirements Regarding Licensed Professionals
APPENDIX B: Pavement Maintenance Requirements Regarding Licensed Professionals
APPENDIX C: Geotechnical/Geology Maintenance Requirements Regarding Licensed Professionals
APPENDIX D: Hydraulic Maintenance Requirements Regarding Licensed Professionals
APPENDIX E: Traffic & Roadway Services Maintenance Requirements Regarding Licensed Professionals

APPENDIX F: Department of Justice Attorney General Opinion No. 7821 – Provides clarification with a legal interpretation of ORS 672 regarding professional of record requirements. The Attorney General Opinion was issued in response to a question asking "are services of a registered professional engineer required for construction, reconstruction or repair of public roads."

Additional Guidance:

ODOT Standard Drawings: Standard Drawings or Specifications can only be used to fulfill requirements of a Licensed Professional when all of the following criteria are met:

- Document has been engineered and stamped by a licensed professional
- Oregon Department of Transportation retains a valid copy of the document on file
- Drawings or specifications contain adequate information and specifications for a non-engineer to perform the preparation and application of materials used so that engineering skills are not required.

Oregon Temporary Traffic Control Handbook (OTTCH): The Oregon Temporary Traffic Control Handbook can be applied, if applicable, during Maintenance Activities and District Permitting Operations according to the following:

- The standards in the OTTCH were developed in a cooperative effort with ODOT, the Oregon Traffic Control Devices Committee, and subcommittees from local and state public works and maintenance jurisdictions. The standards were adopted by the Oregon Transportation Commission as the standards for all temporary traffic control in place continuously for three days or less on Oregon public roads per their designated authority in ORS 810.200 and OAR 734-020-0005.
- For work not applicable to the OTTCH or work requiring devices in place longer than three continuous days, a more comprehensive Traffic Control Plan (TCP) is needed and a licensed professional may be required.

Emergency Situations: In certain circumstances, there is a need to start repairs immediately to staibilize the situation to safeguard, life, health and property. When this occurs and an engineered document is required, the appropriate engineer should be consulted as soon as feasible to discuss the situation and develop a plan for getting the appropriate engineering review, guidance and documents.

References:

APPENDIX G: Description of the process used to establish this guidance
APPENDIX H: Comprehensive list of discussion meeting stakeholders and their respective positions

Appendix A

Bridge Maintenance Requirements Regarding Licensed Professionals:

MAINTENANCE REPAIR DRAWINGS, PLANS, SPECIFICATIONS, OR SPECIAL PROVISIONS, REQUIRE A LICENSED PROFESSIONAL (WHEN ENGINEERING CALCULATIONS ARE REQUIRED) WHEN:

- There is a change in the original load path (includes changes to jump stringers)
- Geometric dimensions change
- The material or size of an element changes
- Temporary support is required

Bridge Section will finalize and distribute pre-stamped drawings for the following routine procedures. The procedure must fit within the parameters set in the pre-stamped drawing or further modification from a PE is required in order to use the drawings. A basic set of drawings are expected to be completed by July 1, 2014. Until they are completed, use existing practices.

- Routine temporary shoring
- Wood jump stringer retrofits
- Bridge pile cap replacement

Decision Meeting Attendees:

Decision Meeting Date: 06/19/2012

Luci Moore, State Maintenance & Operations Engineer
Bert Hartman, Bridge Program Unit Manager
Bruce Johnson, State Bridge Engineer
Gary Bowling, Bridge Operations Engineer
Richard Stinson, District 4 Bridge Supervisor
Ace Clark, Assistant District 12 Manager

Note:

This was shared with and accepted by the Bridge Leadership Team during their meeting on August 7, 2012.

Appendix B

Pavement Maintenance Requirements Regarding Licensed Professionals:

MAINTENANCE REPAIR DRAWINGS, PLANS, SPECIFICATIONS, SPECIAL PROVISIONS, OR CALCULATIONS REQUIRE A LICENSED PROFESSIONAL FOR THE FOLLOWING:

- New pavement construction, reconstruction, or overlays more than 2" thick, or other non-localized repairs intended to increase structural capacity to existing pavement that has suffered major deterioration.

THE FOLLOWING TWO CATEGORIES OF PRESERVATION AND REPAIR PROJECTS DO NOT REQUIRE A PROFESSIONAL OF RECORD:

- Preventative Maintenance with a 2" treatment or less (including chip seals)
  Preserves the wearing surface to prevent deterioration and maintain existing structural capacity. It is not construction, reconstruction or a major renovation.

- Non-Preventative Maintenance 2" or less, but including localized repair up to and including full depth repair.
  Treatment is a repair but is considered non-structural and is not significant strengthening or a major renovation. Non-preventative maintenance includes minor rehabilitation, some routine maintenance, and corrective maintenance.

Note: This information is consistent with FHWA's definition of pavement preservation. Pavement preservation includes minor rehabilitation, preventative maintenance, corrective maintenance, and routine maintenance.

"***Minor rehabilitation*** consists of non-structural enhancements made to the existing pavement sections to eliminate age-related, top-down surface cracking that develop in flexible pavements due to environmental exposure. Because of the non-structural nature of minor rehabilitation techniques, these types of rehabilitation techniques are placed in the category of pavement preservation."

"***Preventive maintenance*** is typically applied to pavements in good condition having significant remaining service life. As a major component of pavement preservation, preventive maintenance is a strategy of extending the service life by applying cost-effective treatments to the surface or near-surface of structurally sound pavements. Examples of preventive treatments include asphalt crack sealing, chip sealing, slurry or micro-surfacing, thin and ultra-thin hot-mix asphalt overlay, concrete joint sealing, diamond grinding, dowel-bar retrofit, and isolated, partial and/or full-depth concrete repairs to restore functionality of the slab; e.g., edge spalls, or corner breaks."

"Routine maintenance consists of day-to-day activities that are scheduled by maintenance personnel to maintain and preserve the condition of the highway system at a satisfactory level of service. Examples of pavement-related routine maintenance activities include cleaning of roadside ditches and structures, maintenance of pavement markings and crack filling, pothole patching and isolated overlays. Crack filling is another routine maintenance activity which consists of placing a generally, bituminous material into "non-working" cracks to substantially reduce water infiltration and reinforce adjacent top-down cracks. Depending on the timing of application, the nature of the distress, and the type of activity, certain routine maintenance

activities may be classified as preservation. Routine Maintenance activities are often "in-house" or agency-performed and are not normally eligible for Federal-aid funding."

"***Corrective Maintenance*** activities are performed in response to the development of a deficiency or deficiencies that negatively impact the safe, efficient operations of the facility and future integrity of the pavement section. Corrective maintenance activities are generally reactive, not proactive, and performed to restore a pavement to an acceptable level of service due to unforeseen conditions. Activities such as pothole repair, patching of localized pavement deterioration, e.g. edge failures and/or grade separations along the shoulders, are considered examples of corrective maintenance of flexible pavements. Examples for rigid pavements might consist of joint replacement or full width and depth slab replacement at isolated locations.

Decision Meeting Attendees:

Decision Meeting Date: 06/19/2012

Luci Moore, State Maintenance & Operations Engineer
John Coplantz, Pavement Management Engineer
Justin Moderie, Pavement Design Engineer
Ace Clark, Assistant District 12 Manager

Appendix C

Geotechnical/Geology Maintenance Requirements Regarding Licensed Professionals:

MAINTENANCE REPAIR DRAWINGS, PLANS, SPECIFICATIONS, SPECIAL PROVISIONS, OR CALCULATIONS REQUIRE A LICENSED PROFESSIONAL FOR THE FOLLOWING:

- Final geotechnical reports depicting subsurface conditions
- ODOT quarry development plans
- Retaining Walls: New construction or structural repairs to retaining walls greater than 4 feet high measured from the base of the footing to the top of the wall and any wall with a surcharge load[1].
- New construction or structural repairs to sound walls
- New construction or structural repairs to poles, masts, and towers.
- Structure foundations for bridges, viaducts, pumping stations, sound walls, buildings, large culverts, etc
- New construction or non-localized repair when steepening a slope that is greater than 4 feet in height.
- New rock slope design or new rockfall mitigation
- Permanent landside repair designs within the roadway prism

THE FOLLOWING MINOR REPAIR PROJECTS ARE EXAMPLES OF WHEN A LICENSED PROFESSIONAL IS NOT REQUIRED:

- Temporary protection measures or repair to the roadway that decreases immediate risk to the public
- Temporary emergency detour construction and removal
- Repair or maintenance when steepening a slope that is less than 4 feet in height.
- Routine slope maintenance that does not change or affect the existing slope geometry.
- Minor Walls: Retaining walls without surcharge loads[1] and less than 4 feet high measured[2] from the base of the footing to the top of the wall.
- Shoulder work including the following:
    - Correcting rutted shoulders, restoring the cross section shape, removing build up debris or unwanted vegetation, restoring drainage, and repairing shoulder erosion
- Repair of existing rockfall features

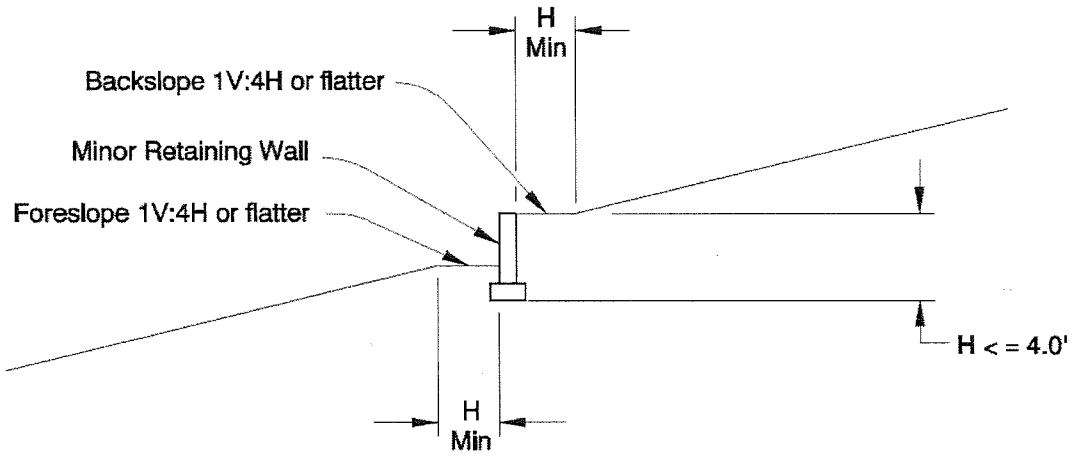
Definitions:

1 - A surcharge load is any load in addition to a 1V:4H slope at the top of the wall and within the area defined by the distance "H" from the top of the wall. Examples may include a structure, building, driveway, fill material, etc. (See Minor Wall Diagram)

2 – The footing is measured from the base of the footing to the top of the wall. (See Minor Wall Diagram for H< = 4.0')

Minor Wall Diagram:

Appendix C



Decision Meeting Attendees:
Luci Moore, State Maintenance & Operations Engineer
Joe Squire, District 4 Manager
Ace Clark, Assistant District 12 Manager
Paul Wirfs, Geo-Environmental Section Manager (Interim)

Decision Meeting Date: 12/07/2012

Note:

This was shared with and accepted by the Geo/Hydro Leadership Team during their meeting on February 5, 2013.

Appendix D

Hydraulic Maintenance Requirements Regarding Licensed Professionals:

MAINTENANCE REPAIR DRAWINGS, PLANS, SPECIFICATIONS, SPECIAL PROVISIONS, OR CALCULATIONS REQUIRE A LICENSED PROFESSIONAL FOR THE FOLLOWING:

- SPCC (Spill Prevention Control and Countermeasures Plans), flood studies, hydraulic, and storm water reports
- Stream modification structures
- Modification of storm water control features
- Structural design of culverts, and arches including headwalls, wing walls, vaults, and other man-made items
- Culvert replacement where fish passage is a concern
- In-stream channel modifications
- Stream bank construction or reconstruction that is beyond a repair or intended to increase the footprint of armoring
- Culvert replacement with a diameter or width greater than 4 feet
- Pipe replacement with a trench deeper than 5 feet without either a pre-engineered trench protective system or a back slope of 1V:1 ½ H or flatter unless a sloping design can be applied using tabulated data such as tables and charts pre-approved by an engineer that includes criteria to enable the user to make a selection and know the limits of the data
- Pipe replacement requiring a trench 20 feet deep or greater
- Construction or replacement of a tide gate

THE FOLLOWING MINOR REPAIR PROJECTS ARE EXAMPLES OF WHEN A LICENSED PROFESSIONAL IS NOT REQUIRED:

- Maintenance repairs to drainage facilities to ensure that the facility achieves its designed performance and intent.
- Replace an existing culvert if all of the following criteria are met:
  - Non-fish bearing waterway
  - 4 feet or less diameter or width
  - Excavation requires a trench with a depth less than 20 feet deep
  - Replacement culvert has existing flow capacity
  - The replacement purpose is for maintenance reasons. A change in conditions is not causing the need for replacement
  - [1]Replacement materials are chosen to match existing materials
  - Material backfill that is removed shall be replaced in accordance with the Oregon Standard Specifications for Construction
- Ditch maintenance

Definitions:

1 - If corrosion or abrasion has caused deterioration of a pipe prior to its expected design life (25-50 years: see table 5-3 ODOT Hydraulics Manual) it is recommended to consult an engineer for alternative pipe materials.

Decision Meeting Attendees: Decision Meeting Date: 12/07/2012

Luci Moore, State Maintenance & Operations Engineer
Joe Squire, District 4 Manager

Appendix D

Ace Clark, Assistant District 12 Manager
Paul Wirfs, Engineering & Asset Management Unit Manager

Note:

This was shared with and accepted by the Geo/Hydro Leadership Team during their meeting on February 5, 2013.

Appendix E

Traffic & Roadway Services Maintenance Requirements Regarding Licensed Professionals:

MAINTENANCE REPAIR DRAWINGS, PLANS, SPECIFICATIONS, SPECIAL PROVISIONS, OR CALCULATIONS REQUIRE A LICENSED PROFESSIONAL FOR THE FOLLOWING:

TRAFFIC MAINTENANCE ACTIVITIES

Striping/Legends:

- Major reconstruction or major lane modification that changes the intent of the design
- New legend installations except those supplemental additions to improve the existing feature (i.e. supplemental bike lane symbols)

Signs and Sign Supports:

- New permanent sign installation or removal of signs[2]
- Structural design of new permanent sign supports[3]

Signals:

- Traffic signal operations design elements report
- Traffic signal plans and installations
- Permanent Traffic Signal Timing Deviations – Deviations from ODOT TSP&G, MUTCD should and shall conditions, and STE/RTE operational approvals
- Wiring diagrams
- New installation of flashing beacons

Illumination:

- New highway illumination installation, plans, and calculations
- Removal of highway illumination
- Changing the type of illumination heads
- Structural modification to luminaire poles

Intelligent Transportation Systems (ITS):

- ITS construction plans and calculations
- Structural modifications to ITS features

ROADWAY MAINTENANCE ACTIVITIES

- New guardrail installation that changes the existing location
- Permanent removal of guardrail
- Travel lane additions or modifications
- Roadway geometry changes

MISCELLANEOUS

- Access Management Program (see TSB11-02(D))
- Transportation Development (see TSB11-02(D))

THE FOLLOWING MINOR REPAIR PROJECTS ARE EXAMPLES OF WHEN A LICENSED PROFESSIONAL IS NOT REQUIRED:

TRAFFIC MAINTENANCE ACTIVITIES

Striping/Legends:

- Restriping or maintaining existing striping to existing configuration or current standard
- Existing legend repair or maintenance to restore it's existing condition
- Legend supplemental additions to improve the existing feature (i.e. supplemental bike lane symbols)

Signs and Sign Supports:

- Repair or maintenance that restores sign and sign support to it's existing condition

- Replacement of sign and sign support to restore sign to it's existing condition
- Replacement upgrade of sign and sign support according to current standards

- NOTE: All new signs and sign support installations within the clear zone[1] require a professional of record or pre-stamped document guidance.

Signals:
- Traffic signal maintenance that restores signal to existing condition or current standard
- Restoring traffic signal timing to most current engineered timing
- Flashing beacon maintenance to restore beacons to their existing condition or current standard

Illumination:
- Maintenance of existing luminaires or restoration to maintain the existing condition or current standard

Intelligent Transportation Systems (ITS):
- ITS feature maintenance to maintain existing feature condition or current standard

ROADWAY MAINTENANCE ACTIVITIES
- Guardrail maintenance and repair that restores the feature to it's existing condition
- Upgrade guardrail end terminal to current standards
- Shoulder work including the following:
    - Correcting rutted shoulders, restoring the cross section shape, removing build up debris or unwanted vegetation, restoring drainage, and repairing shoulder erosion

Definitions:
1 – Clear Zone – Defined by the ODOT highway design manual, consult a registered professional for more information.
2 – Sign – The rigid substrate (aluminum or plywood) and the legend and symbols affixed to the substrate.
3 – Sign Support – Includes the supporting elements for a sign (i.e. post, foundation, and connections.

Decision Meeting Attendees: Decision Meeting Date: 05/09/2013

Bob Pappe, State Traffic/Roadway Engineer
Doug Bish, Traffic Services Engineer
Dave Polly, Senior Standards Engineer
Mike Kimlinger, Traffic Standards Engineer
Scott Cramer, Traffic Signal Engineer
Luci Moore, State Maintenance & Operations Engineer
Ace Clark, Assistant District 12 Manager

JAMES A. REDDEN
ATTORNEY GENERAL

NOTED
H. S. COULTER

DEPARTMENT OF JUSTICE
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Salem, Oregon 97310
Telephone: (503) 378-4400

November 29, 1979

No 7821

This opinion is issued in response to a question presented by the Honorable Mike Ragsdale, State Senator.

QUESTION PRESENTED

Are the services of a registered professional engineer required for construction, reconstruction or repair of public roads?

ANSWER GIVEN

Yes, for construction or reconstruction of roads, or for repair of roads in any case in which the purpose is to strengthen or increase capacity, or where the road has deteriorated to the extent that the repair would constitute significant strengthening. No, for repairs designed to preserve the road or restore it to its original condition, where the pre-repair condition is not greatly deteriorated.

DISCUSSION

This opinion request arises out of a concern that there are many road-work situations where it is not obvious whether the services of a registered professional engineer are needed.

We are asked for some guidelines to aid in determining where one is required.

ORS 672.005 states in relevant part:

> "As used in ORS 672.002 to 672.310, unless the context requires otherwise:
>
> "(1) 'Practice of Engineering' means any professional service or creative work requiring engineering education, training and experience and the application of special knowledge of the mathematical, physical and engineering sciences to such professional services or creative work such as consultation, investigation, evaluation, planning, design and services during construction for the purpose of assuring compliance with specifications and design, in connection with any public or private utilities, structures, buildings, machines, equipment, processes, works or projects.
>
> "(2) 'Practice of Engineering' does not include the execution of work designed by a professional engineer or the supervision of the construction of such work as a foreman or superintendent."

ORS 672.020(1) restricts the "practice of engineering" to "registered professional engineers" who possess a valid certificate to practice engineering issued by the State Board of Engineering Examiners under ORS 672.002 to 672.310. The purpose of this requirement is to "safeguard life, health and property." ORS 672.020(1). Several exemptions to the application of ORS 672.002 to 672.310 are found in ORS 672.060. Among these exemptions, it is found in subsection 5 that "[a]ny person practicing engineering under the supervision of a registered professional engineer" would not have to be so registered. These requirements should be

broadly construed in view of their purpose to "safeguard life, health and property."

This does not, of course, mean that every bit of repair work to the public roads must be performed, supervised or planned by an engineer. So long as the "life, health and property," of the public would not be endangered many tasks could be performed, e.g., the simple filling of a pothole. The circumstances present in each instance would, of course, be important in an actual determination of whether the services of a "professional registered engineer" would be needed. It is impossible in this opinion to set out the situations where such service would or would not be required. The tests set forth in the statute (necessity for skill, education, training and experience, and the safeguarding of life, health and property) must be applied on a case by case basis.

We do, however, suggest a guideline which may be used. Every case of construction of a roadway requires the services of a professional engineer. Reconstruction would probably require such services; repair may not. When a judgment decision must be made as to the best method to strengthen or increase the capacity of a road, the services of a registered professional engineer are required. If, however, the purpose is to preserve the road in or restore it to its original condition, such services would usually not be required. The exception would be a case in which a road has deteriorated to

an extent that the repair itself would constitute any significant strengthening. We are informed that there are adequate specifications, which can be followed by a non-engineer, for the preparation and application of the materials used, so that engineering skills would not be required for most such repairs.

There may, however, be cases in which tests required by the specifications, and particularly the interpretation of test results, would require the exercise of engineering judgment.

James A. Redden
Attorney General

JAR:DKH:tlg

Appendix G

DESCRIPTION OF PROCESS:

This guidance was established during a process that was developed by the Maintenance Leadership Team and approved by ODOT's Chief Highway Engineer. The intent of the process was to discuss Maintenance Operations and Projects with technical experts in their disciplines and develop guidance that could be used by ODOT crews when determining the need for a professional of record. The intent of this Operational Notice is to provide guidance for an estimated 80% of the work that ODOT Maintenance and Operations is responsible for throughout the state. The remaining 20% of work performed throughout the state may be difficult to describe or performed infrequently and should be evaluated on a case by case basis by the corresponding District Manager.

Please see **Figure 1** below showing a schedule of milestones and a display of the review process:

Figure 1

Maintenance Professional of Record Review and Process Schedule

Project Sponsor: Luci Moore, State Maintenance Engineer (Maintenance Leadership Team)
Lead By: Ace Clark, Assistant District 12 Manager (Highway Leadership Institute Class Project)
Approved By: Cathy Nelson, ODOT Chief Highway Engineer (Technical Services Manager)

	Milestone	2011	2012												2013					
Milestone Description	**Date(s)**	**Dec**	**Jan**	**Feb**	**Mar**	**Apr**	**May**	**Jun**	**Jul**	**Aug**	**Sep**	**Oct**	**Nov**	**Dec**	**Jan**	**Feb**	**Mar**	**Apr**	**May**	**Jun**
CPRO (Committee on Professional of Record) Participant to Inform Group of our Process	1-11-2012 to 6-30-2013	xxxx	xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx												xxxxxxxxxxxxxxxxxxxxxxxxx					
MLT periodic review and input for guidance documents	1-12-2012 to 6-30-2014	xxxx	xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx												xxxxxxxxxxxxxxxxxxxxxxxxx					
Project Issues Brief Approved by MLT	1/12/2012		x																	
Developed Evaluation Criteria for Discussion/Decision Meetings	4/15/2012					x														
Meeting with Cathy Nelson & Luci Moore to approve evaluation process and use of AG opinion	5/21/2012						x													
Meeting with Bridge and Pavement Units for Discussion/Decision Meeting	6/19/2012							x												
Meeting with Geo/Hydro Units for Discussion/Decision Meeting	12/7/2012													x						
Meeting with Traffic /Roadway Units for Discussion/Decision Meeting	5/9/2013																		x	
Meeting with Luci Moore & Cathy Nelson to Review Draft Maint. Ops Notice	6/25/2013																			x

For a comprehensive list of discussion meeting stakeholders and their respective positions please see **APPENDIX H.**

Appendix H

COMPREHENSIVE LIST OF DISCUSSION STAKEHOLDERS

Approval Authority

Cathy Nelson	ODOT Chief Highway Engineer

Maintenance Leadership Team Representatives

Luci Moore	State Maintenance and Operations Engineer
Mike Buchanan	District 13 Manager
Monte Grove	Region 5 Manager
Stefan Hamlin	Highway Budget Officer
Galen McGill	ITS Manager
Teddy Miller	Region 1 Maintenance and Operations Manager
Darrin Neavoll	District 7 Manager
Vivian Payne	Region 2 Maintenance and Operations Manager
Mike Stinson	District 11 Manager

Representatives for Bridge (POR) Requirements Meeting

Luci Moore	State Maintenance and Operations Engineer
Bert Hartman	Bridge Program Unit Manager
Bruce Johnson	State Bridge Engineer
Gary Bowling	Bridge Operations Engineer
Richard Stinson	District 4 Bridge Supervisor
Ace Clark	Assistant District 12 Manager

Representatives for Pavement (POR) Requirements Meeting

Luci Moore	State Maintenance and Operations Engineer
John Coplantz	Pavement Management Engineer
Justin Moderie	Pavement Design Engineer
Ace Clark	Assistant District 12 Manager

Representatives for Geo/Hydro (POR) Requirements Meeting

Luci Moore	State Maintenance and Operations Engineer
Joe Squire	District 4 Manager
Paul Wirfs	Geo-Environmental Section Manager (Interim)
Ace Clark	Assistant District 12 Manager

Representatives for Traffic/Roadway (POR) Requirements Meeting

Luci Moore	State Maintenance and Operations Engineer
Bob Pappe	State Traffic/Roadway Engineer
Doug Bish	Traffic Services Engineer
Dave Polly	Senior Standards Engineer
Mike Kimlinger	Traffic Standards Engineer
Scott Cramer	Traffic Signal Engineer
Ace Clark	Assistant District 12 Manager