

**MEMORANDUM OF UNDERSTANDING BETWEEN  
THE UTAH DEPARTMENT OF TRANSPORTATION  
AND  
THE UTAH GEOLOGICAL SURVEY  
CONCERNING  
AGENCY RESPONSIBILITIES PURSUANT TO U.C.A. 79-3-508**

WHEREAS, this Memorandum of Understanding (MOU) is entered into as of the effective date (as indicated by the latest signature below) by and between the Utah Department of Transportation (UDOT) and the Utah Geological Survey (UGS); and

WHEREAS, UGS is charged with establishing a state paleontological register for the orderly identification and recognition of the state's paleontological resources (U.C.A. 79-3-507), with assisting and advising state and local agencies and state educational institutions on geologic, paleontologic, and mineralogic subjects (U.C.A. 79-3-202), and with issuing permits to excavate paleontological resources (U.C.A. 79-3-501); and

WHEREAS, UDOT is responsible for constructing and maintaining a safe and effective transportation system, including permitting encroachments on the state highway right-of-way; and

WHEREAS, pursuant to U.C.A. 79-3-508, UDOT must (a) take into account the effect of the undertaking on a specimen that is included in or eligible for inclusion in the State Paleontological Register; and (b) allow the director or assigned staff a reasonable opportunity to comment regarding the undertaking or expenditure.

NOW, THEREFORE, UDOT and UGS agree that UDOT's transportation program in Utah shall be carried out in accordance with the following stipulations in order to take into account the effects of the program on paleontological resources in Utah and that these stipulations shall govern compliance of the program with U.C.A. 79-3-101 *et seq.* until this MOU expires or is terminated.

**STIPULATIONS**

**I. UNDERTAKINGS**

UDOT and UGS acknowledge that this agreement is applicable to all classes of UDOT projects (hereinafter referred to as undertakings), including encroachments onto UDOT right-of-way.

**II. QUALIFICATIONS**

UDOT and UGS agree that all undertakings shall be reviewed by qualified UDOT staff to determine the applicability of this agreement. This evaluation will be conducted in all cases by UDOT archaeological staff who meet or exceed the Secretary of the Interior's Standards and Guidelines for Archaeology and Historic Preservation (36 CFR 61), or by qualified consultant paleontologists who hold either a master's or doctoral degree in geology or biology with an emphasis on vertebrate paleontology or have equivalent paleontological training and experience.

### III. EXEMPTED PROJECTS

Certain types of undertaking have been found to routinely have no effect on paleontological specimens that are on or eligible for inclusion in the State Paleontological Register, and shall not require individual UGS notification. A list of the types of exempted projects is provided in Attachment 1.

### IV. ALL OTHER PROJECTS

For all other undertakings, the following process will be followed:

- a. A letter is submitted by the UDOT NEPA/NHPA specialist (archaeologist) or an archaeological/paleontological consultant to UGS, requesting a literature search for paleontological specimens.
  - i. The letter will include a description of the undertaking and its area of potential effects (APE), the legal location, and a copy of the 7.5' USGS topographic map (1:24,000 scale) showing the location of the undertaking.
  - ii. A GIS shape file of the project area, if available, should be submitted as well.
- b. The UGS will respond in writing to requests submitted under stipulation IV.a within two (2) weeks of receiving the written request.
  - i. If UGS responds that the geologic units are either Class 1 or Class 2 (see Attachment 2), compliance with U.C.A. 79-3-508 is complete, unless UGS indicates otherwise.
  - ii. If UGS responds that the geological units are Class 3, the UDOT archaeologist or the consultant should determine if construction activities will affect those geologic units.
    1. If the geologic units are exposed and will be affected, a survey will be conducted by a qualified paleontologist if recommended by UGS
    2. If the geologic units will be affected but are not exposed, monitoring or spot-checking by a qualified paleontologist during construction could be required, if recommended by UGS.
  - iii. If UGS responds that the geologic units are either Class 4 or Class 5, the UDOT archaeologist or the consultant should determine if construction activities will affect those geologic units.
    1. If the geologic units will be affected and are exposed, a survey by a qualified paleontologist is required.
    2. If the geologic units will be affected but are not exposed, monitoring or spot-checking by a qualified paleontologist is required.
  - iv. If UGS responds that there are known fossil localities in the APE, a survey (if the geologic units are exposed) or monitoring during construction (if the geologic units are not exposed) will be required.

## **V. EVALUATION AND MITIGATION**

If paleontological specimens are found during a survey or monitoring, or if there are known paleontological specimens in the APE, their significance will be evaluated by a qualified paleontologist.

- a. If they are significant and will be affected, UDOT will consult with UGS to seek ways to avoid, minimize, or mitigate the impacts.
- b. If mitigation by collection or excavation is determined appropriate, a mitigation plan will be prepared by a qualified paleontologist and submitted by the UDOT archaeologist to UGS for a 30-day review.
- c. Once the mitigation plan has been approved by the UGS, it will be implemented

## **VI. REPORTING**

All reports generated by a qualified paleontologist from survey, monitoring, or mitigation will be submitted to the UGS by the UDOT archaeologist for a 30-day review and comment period. Comments will be addressed and a final report will be submitted to UGS. A request for concurrence by the UGS on significance evaluations will be submitted with any report that contains specimens.

## **VII. CURATION**

All fossil specimens and related data collected during field surveys and mitigation must be placed in an approved repository as provided in U.C.A. 53B-17-603.

## **VIII. POST-REVIEW DISCOVERIES**

UDOT Standard Specification 01355, Part 1.13 will be enforced during all undertakings covered by this agreement. Upon discovery, the following will take place:

- a. Construction is immediately suspended within 100 feet of the discovery.
- b. The project engineer or permits officer is verbally notified of the nature and location of the discovery.
- c. The engineer will contact the UDOT archaeologist, who will assess the nature of the discovery and determine the necessary course of action, in consultation with UGS.
- d. The discovery will be protected and the engineer will be provided written confirmation of the discovery within two calendar days.
- e. The engineer will keep the contractor informed concerning the status of the restriction, and will provide written confirmation to the contractor when work may resume in the area.

## **IX. AMENDMENTS**

This MOU may be amended when such an amendment is agreed to in writing by all signatories. The amendment will be effective on the date it is signed by all signatories.

**X. TERMINATION**

If any signatory to this MOU determines that its terms will not or cannot be carried out, that party shall immediately consult with the other parties to attempt to develop an amendment per Stipulation IX, above. If within thirty (30) days an amendment cannot be reached, any signatory may terminate the MOU upon written notification to the other signatories.

**XI. DURATION OF AGREEMENT**

This MOU shall remain in effect for a period of ten (10) years after the date it takes effect, unless it is terminated prior to that time. Ninety days prior to the conclusion of the ten-year period, UDOT will notify all parties in writing. If there are no objections from any signatory, the term of the MOU will automatically be extended for an additional ten years. If any party objects to extending the MOU, or proposes amendments, UDOT will consult with the parties to consider amendments or other actions to avoid termination.

Execution and implementation of this agreement by the UDOT and the UGS, and implementation of its terms, evidences that the UDOT has taken into account the effect of its undertakings on paleontological resources pursuant to U.C.A. 79-3-508.

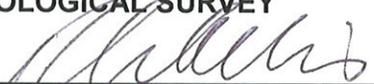
**SIGNATORIES**

**UTAH DEPARTMENT OF TRANSPORTATION**

By:   
Randy Park, PD Director

Date: 3/25/10

**UTAH GEOLOGICAL SURVEY**

By:   
Richard Allis, Director

Date: 3/8/2010

## ATTACHMENT 1

### EXEMPTED PROJECTS

1. Curb, gutter, and sidewalk improvements (including ADA ramps) that are in an area that has been completely disturbed and no new terrain is altered.
2. Lighting and signalization projects. This exemption allows for installation of concrete footers that extend 6 to 8 feet into the ground in or adjacent to the already disturbed road prism. Trenching is exempted provided it is in the already disturbed road prism.
3. Intersection improvements and minor widening projects. This exemption allows for acquisition of 20 feet or less of right-of-way for turn lanes and minor widening projects in areas already previously disturbed.
4. Resurfacing projects that are confined to the existing pavement surface. Shoulder flattening of no more than 8 feet and minor safety work can be included in or out of areas previously disturbed.
5. Structure and bridge maintenance (deck replacements, joint sealing, overlays, etc.).
6. Cattle guards or grates.
7. Improvement of existing railroad crossings where all earth disturbance is confined to the already disturbed highway road prism.
8. Guardrail and barrier installation. Minor shoulder widening of no more than 8 feet in or out of previously disturbed areas can be included.
9. Signing, where disturbance is limited to installation of posts.
10. Installation of VMC/CCTV cables, provided they are installed in previously disturbed areas.
11. Utility relocations that are moved to previously disturbed areas to accommodate proposed highway upgrades.
12. Minor changes during construction, including changes in cut-and-fill slopes, staging areas, locating office sites, water storage ponds, and material stockpile locations, if consultation on the project's area of potential effects (APE) has already occurred.
13. Permitted encroachment undertakings if they are contained within previously disturbed right-of-way or if they do not require any excavation.
14. Landscape or enhancement projects that are in previously disturbed right-of-way.
15. Bicycle/pedestrian pathways that involve restriping existing transportation facilities and/or minor widening by the addition of a graded pathway no more than 8 feet beyond the edge of the existing traveling surface.
16. Administrative or non-construction projects.

## ATTACHMENT 2

### GEOLOGIC CLASSIFICATION SYSTEM<sup>1</sup>

Class 1 – Very Low. Geologic units that are not likely to contain recognizable fossil remains.

Class 2 – Low. Sedimentary geologic units that are not likely to contain vertebrate fossils or scientifically significant nonvertebrate fossils.

Class 3 – Moderate or Unknown. Fossiliferous sedimentary geologic units where fossil content varies in significance, abundance, and predictable occurrence; or sedimentary units of unknown fossil potential.

Class 4 – High. Geologic units containing a high occurrence of significant fossils. Vertebrate fossils or scientifically significant invertebrate or plant fossils are known to occur and have been documented, but may vary in occurrence and predictability. This class can be either an exposed unit (Class 4a) or areas where the geologic unit with high potential is buried (Class 4b).

Class 5 – Very High. Highly fossiliferous geologic units that consistently and predictably produce vertebrate fossils or scientifically significant invertebrate or plant fossils. These units are further classified as exposed units (5a) and buried units (5b).

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<sup>1</sup> Adapted from the Bureau of Land Management (BLM Instruction Memorandum [IM] 2008-009; [http://www.blm.gov/wo/st/en/info/regulations/Instruction\\_Memos\\_and\\_Bulletins/national\\_instruction/2008\\_0/im\\_2008-009.print.html](http://www.blm.gov/wo/st/en/info/regulations/Instruction_Memos_and_Bulletins/national_instruction/2008_0/im_2008-009.print.html))