

# DOE-ID NEPA CX DETERMINATION Idaho National Laboratory

**SECTION A. Project Title:** Idaho National Laboratory (INL) Road Improvements Revision 2

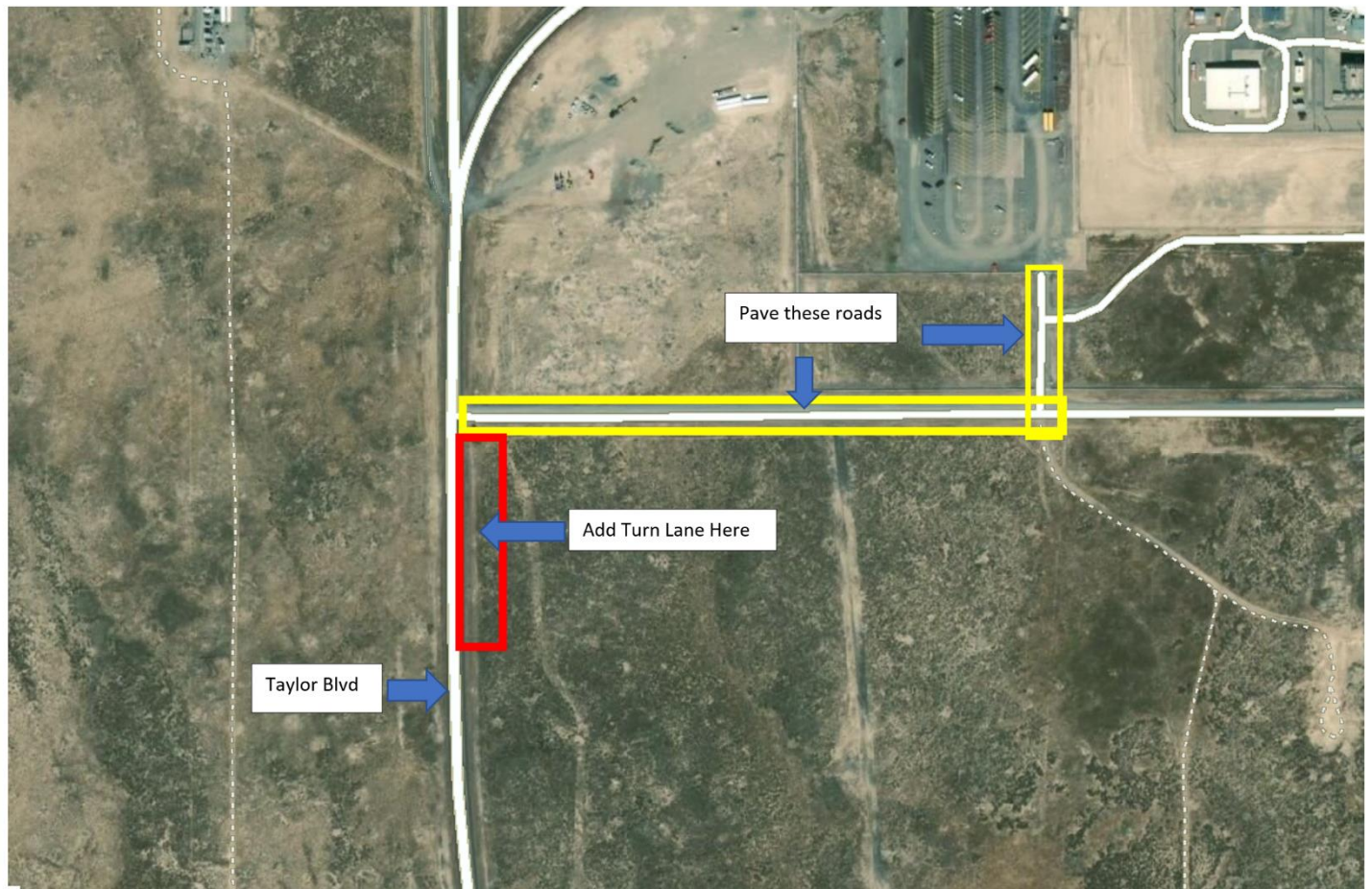
**SECTION B. Project Description and Purpose:**

Revision 2:

The purpose of this revision is to add the following scope:

The project plans to add a turn lane as Taylor Blvd approaches the Service Road on the south side of the MFC parking lot. The Service Road will be paved from Taylor Blvd intersection, east and then north into the south entrance of the MFC Parking lot. See Image 3.

Figure 3



Revision 1:

The purpose of this revision is to add the following scope:

subcontractor permitted rock crushing and hot mix asphalt plants would be located within the Monroe Gravel Pit. The subcontractor would be required to submit copies of their permits into the vendor data system for Idaho National Laboratory (INL) approval. Surveillance and inspections would be conducted by INL to verify subcontractor permit requirements are being met. The Remote-handled Low Level (RH-LLW) Waste Disposal Area project is also using the Monroe Gravel Pit at the present time. Road improvement project personnel have worked with the Facility and Site Services manager in charge of the gravel pit and the RH-LLW project to identify work plans that allow both projects to simultaneously use the Monroe pit without conflict.

Except for the above scope change, the scope of the original environmental checklist remains valid.

Original Scope

The road network at the Idaho National Laboratory (INL) Site is composed of approximately 120 miles of improved and 600 miles of unimproved roadways. Roads and parking lots at the INL Site show signs of rutting, potholing, and other deterioration. Deterioration of the road network at the INL Site has created

# DOE-ID NEPA CX DETERMINATION Idaho National Laboratory

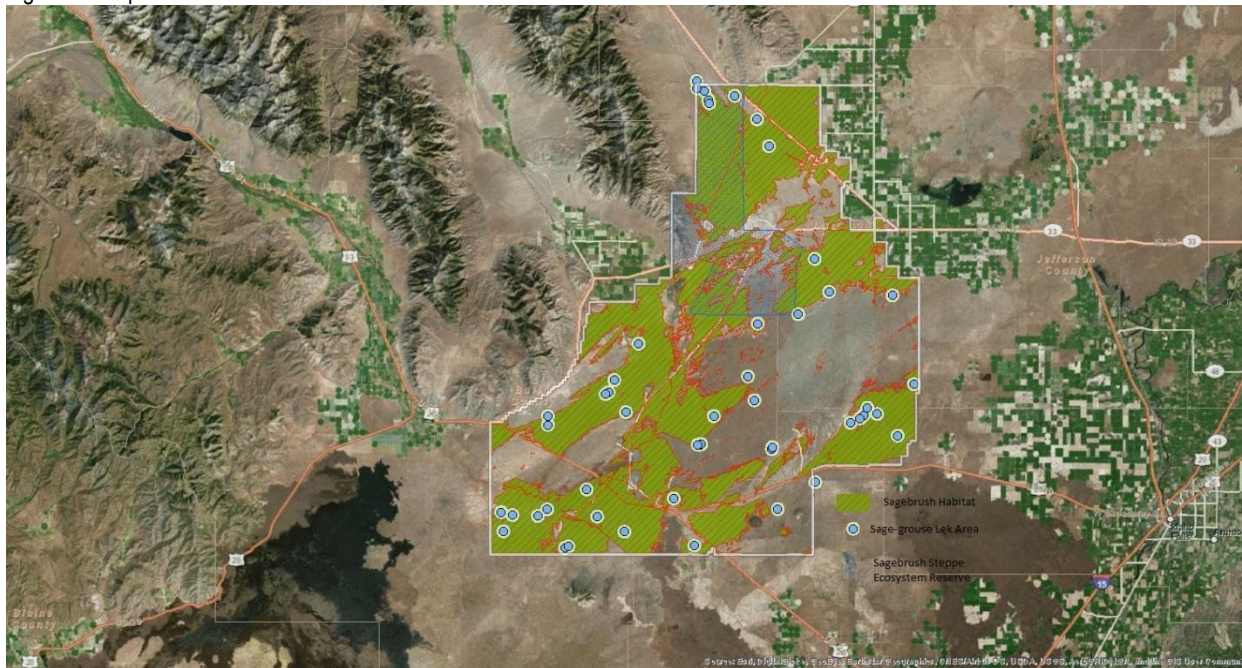
safety hazards that have led to accidents and near misses. A 2014 assessment by the Idaho Transportation Department found the majority of primary roads at the INL site are in need of substantial maintenance and restoration to correct road deterioration and address road safety.

Approximately 63.92 miles of roads need to be resurfaced or reconstructed to eliminate safety hazards, improve drainage, and address damage from surface settlement, rutting, or erosion. Appropriate storm water drainage is needed for runoff drainage and to maintain roadbed integrity during storm events. Improved roads at the INL Site in need of restoration or repair are listed in Table 1. Figure 1 provides an overview of INL. The INL Site road segments in need of repair are shown in Figure 2.

Table 1. Road segments at INL in need of restoration or repair.

Road	Linear Feet (lf)	Miles (mi)
Adams Blvd	11,040	2.09
Buchanan Blvd	1,463	0.28
E. Portland Ave	7,262	1.38
Harrison Blvd	7,367	1.40
Jefferson Blvd	18,697	3.54
Lincoln Blvd	35,446	6.71
Monroe Blvd	7,367	1.40
Ogden Ave	8,681	1.64
Taylor Blvd	99,596	18.87
Underpass Rd to Highway 20	20,583	3.90
Van Buren Blvd	9,987	1.89
Washington Blvd	5,783	1.10
West Portland Ave	11,539	2.19
<b>Total</b>	<b>337,433</b>	<b>63.92</b>

Figure 1. Map of INL.



# DOE-ID NEPA CX DETERMINATION Idaho National Laboratory

Figure 2. INL Roads in need of repair.



Table 2 provides a list of roads and the estimated mileage of each road segment proposed for repair or restoration in 2017. The extent of work needed for each road is dependent upon evaluation of core samples and the amount of road deterioration but is expected to include activities from minor repairs (e.g. asphalt replacement) to full road reconstruction (removal and re-installation of asphalt, road base, and substructure). Project personnel must work with the Program Environmental Lead (PEL) and the NEPA Technical Lead as evaluations are completed and activities are further defined to update the scope of this environmental checklist (EC).

Completed evaluations revealed Lincoln Boulevard from the Central Facilities Area (CFA) to the Advanced Test Reactor (ATR) Complex requires reclamation. The proposed method for reclamation of this section of road is known as Recycled Asphalt Base Stabilization (RABS). To complete RABS, pulverization of the asphalt surface layer and a portion of the underlying base course is completed. The pulverized material is then reused as an extension of the road base, and a new asphalt layer is placed on top of the road.

Road widening is not part of the proposed action, and project activities would occur primarily within the disturbed footprint of current roads. Work on bridges, culverts, and ditches is not anticipated. Roads at the INL Site have grades that are relatively level, and construction of retaining walls is not needed. In addition, construction of by-pass roads or lanes is not part of the project scope. Existing pullouts and turnarounds will be used to the maximum extent practical. Construction of new pullouts and turnaround areas would be reviewed to verify compliance with applicable requirements.

Table 2. Road segments at the INL Site identified for improvement in 2017.

Road	Linear Feet (lf)	Miles (mi)
E. Portland Ave	20,135	3.81
Harrison Blvd	3,020	0.57
Lincoln Blvd*	35,446*	6.71*
Monroe Blvd	7,367	1.40
Taylor Blvd	20,583	3.90
Underpass Rd to Highway 20	7,262	1.38
Washington Blvd	5,783	1.10
<b>Total</b>	<b>99,596</b>	<b>18.87</b>

\*Lincoln Blvd activities will be divided into two phases—from Portland Ave to Monroe Blvd (14,225 lf, 2.69 mi) and from Monroe Blvd to Washington Blvd (21,221 lf, 4.02 mi).

Large staging areas would not be needed. The number of construction vehicles needed in an area at any given time would be small and would be accommodated by parking within previously disturbed areas. Off-road vehicle travel is not anticipated.

All crushed rock and gravel used to improve roads would be obtained from the Monroe Boulevard Gravel Pit. Expansion of the pit is not anticipated.

# DOE-ID NEPA CX DETERMINATION

## Idaho National Laboratory

Large quantities of excess soil would be generated from roads that require total road replacement. Project personnel and Facility Management will work with Cultural and Biological Resource personnel to determine the best location (out of storm water corridor, limited sage brush disturbance, previously disturbed areas, etc.) to place this soil. Seeding with native vegetation may be required depending on location and future use of the area.

Some of the types of construction equipment that would be used for construction activities under the proposed action include:

- Road graders
- Bulldozers
- Heavy trucks
- Excavators

Roads or areas not specifically mentioned in this Environmental Checklist (EC) that are identified for repair or replacement in 2017 will require revision of this EC. In addition, roads and parking areas identified for repair or replacement in subsequent years will require preparation of project specific ECs. The project and facility management will work with Cultural and Biological Resource Personnel to designate pull-out areas, turnarounds, and other areas needed to complete the proposed action. Work activities will be confined to these identified areas.

Estimated Start Date: 2017

Estimated End Date: 2020

Estimated Cost: \$50,000,000

### **SECTION C. Environmental Aspects or Potential Sources of Impact:**

#### **Air Emissions**

Fugitive dust may be generated during excavation and grading activities.

Emissions from machinery and equipment exhaust are expected.

Permitted rock crushing and asphalt plants will be located in the Monroe Gravel Pit. The majority of emissions from this equipment is expected to be associated with the combustion of fuel. Other potential emissions include dust and water vapor.

#### **Discharging to Surface-, Storm-, or Ground Water**

Lincoln Blvd, Monroe Blvd, West Portland Ave, and Van Buren Blvd are located within the INL storm water corridor, and project activities have the potential to discharge to waters of the U.S.

#### **Disturbing Cultural or Biological Resources**

Project activities have the potential to remove topsoil and vegetation, compact soils, and damage soil structure. Indirect effects could include soil erosion and reduced soil productivity. Erosion of disturbed soils would be greatest during and immediately after ground disturbance. Afterwards, soils would stabilize as they settle and as vegetation becomes reestablished. The seeding of all disturbed areas would reduce erosion.

Road reconstruction activities typically occur within the width of the existing roadways (including shoulders and embankments). However, turnouts, turnarounds, and parking areas adjacent to or near the roadways are also necessary to complete the work. These actions have the potential to disturb both Cultural and Biological Resources and can result in the long-term loss of soil productivity.

Replacement of roads typically generates a large amount of excess soil that will require placement in a pre-determined location that must be approved by Cultural and Biological personnel.

Known Atomic Energy Commission (AEC) Monuments are located near the areas planned for disturbance. Pursuant to Idaho Code 54-1234, Idaho Code 55-1613, and 18 U.S. Code § 1858, all markers, benchmarks, and monuments are protected and must not be disturbed, defaced, moved, or destroyed. These monuments must be avoided by all project activities.

#### **Generating and Managing Waste**

Typical non-hazardous construction waste such as asphalt, soil road base, Resource Conservation and Recovery Act (RCRA) empty containers, etc., will be generated during the project. Asphalt will be taken to the Central Facilities Area (CFA) landfill and will be staged for recycle or reuse.

#### **Releasing Contaminants**

Project activities have the potential to result in spills.

#### **Using, Reusing, and Conserving Natural Resources**

Removed asphalt will be recycled.

# DOE-ID NEPA CX DETERMINATION

## Idaho National Laboratory

**SECTION D. Determine Recommended Level of Environmental Review, Identify Reference(s), and State Justification:** Identify the applicable categorical exclusion from 10 Code of Federal Regulation (CFR) 1021, Appendix B, give the appropriate justification, and the approval date.

For Categorical Exclusions (CXs), the proposed action must not: (1) threaten a violation of applicable statutory, regulatory, or permit requirements for environmental, safety, and health, or similar requirements of Department of Energy (DOE) or Executive Orders; (2) require siting and construction or major expansion of waste storage, disposal, recovery, or treatment or facilities; (3) disturb hazardous substances, pollutants, contaminants, or Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)-excluded petroleum and natural gas products that pre-exist in the environment such that there would be uncontrolled or unpermitted releases; (4) have the potential to cause significant impacts on environmentally sensitive resources (see 10 CFR 1021). In addition, no extraordinary circumstances related to the proposal exist that would affect the significance of the action. In addition, the action is not "connected" to other action actions (40 CFR 1508.25(a)(1)) and is not related to other actions with individually insignificant but cumulatively significant impacts (40 CFR 1608.27(b)(7)).

**References:** 10 CFR 1021, Appendix B to subpart D, items B1.3 "Routine maintenance," B1.15 "Support Buildings," B1.32 "Traffic flow adjustments," and B1.33 "Stormwater runoff control."

**Justification:** Project activities described in this EC are consistent with the following items in 10 CFR 1021, Appendix B to Subpart D:

B1.3 "Routine maintenance activities and custodial services for buildings, structures, rights-of-way, infrastructures (including, but not limited to, pathways, roads, and railroads), vehicles and equipment, and localized vegetation and pest control, during which operations may be suspended and resumed, provided that the activities would be conducted in a manner in accordance with applicable requirements. Custodial services are activities to preserve facility appearance, working conditions, and sanitation (such as cleaning, window washing, lawn mowing, trash collection, painting, and snow removal). Routine maintenance activities, corrective (that is, repair), preventive, and predictive, are required to maintain and preserve buildings, structures, infrastructures, and equipment in a condition suitable for a facility to be used for its designated purpose. Such maintenance may occur as a result of severe weather (such as hurricanes, floods, and tornados), wildfires, and other such events. Routine maintenance may result in replacement to the extent that replacement is in-kind and is not a substantial upgrade or improvement. In-kind replacement includes installation of new components to replace outmoded components, provided that the replacement does not result in a significant change in the expected useful life, design capacity, or function of the facility. Routine maintenance does not include replacement of a major component that significantly extends the originally intended useful life of a facility (for example, it does not include the replacement of a reactor vessel near the end of its useful life). Routine maintenance activities include, but are not limited to:

- a) Repair or replacement of facility equipment, such as lathes, mills, pumps, and presses;
- b) Door and window repair or replacement;
- c) Wall, ceiling, or floor repair or replacement;
- d) Reroofing;
- e) Plumbing, electrical utility, lighting, and telephone service repair or replacement;
- f) Routine replacement of high-efficiency particulate air filters;
- g) Inspection and/or treatment of currently installed utility poles;
- h) Repair of road embankments;
- i) Repair or replacement of fire protection sprinkler systems;
- j) Road and parking area resurfacing, including construction of temporary access to facilitate resurfacing, and scraping and grading of unpaved surfaces;
- k) Erosion control and soil stabilization measures (such as reseeding, gabions, grading, and revegetation);
- l) Surveillance and maintenance of surplus facilities in accordance with DOE Order 435.1, "Radioactive Waste Management," or its successor;
- m) Repair and maintenance of transmission facilities, such as replacement of conductors of the same nominal voltage, poles, circuit breakers, transformers, capacitors, crossarms, insulators, and downed powerlines, in accordance, where appropriate, with 40 CFR part 761 (Polychlorinated Biphenyls Manufacturing, Processing, Distribution in Commerce, and Use Prohibitions) or its successor;
- n) Routine testing and calibration of facility components, subsystems, or portable equipment (such as control valves, in-core monitoring devices, transformers, capacitors, monitoring wells, lysimeters, weather stations, and flumes);
- o) Routine decontamination of the surfaces of equipment, rooms, hot cells, or other interior surfaces of buildings (by such activities as wiping with rags, using strippable latex, and minor vacuuming), and removal of contaminated intact equipment and other material (not including spent nuclear fuel or special nuclear material in nuclear reactors); and
- p) Removal of debris.

B1.15 "Siting, construction or modification, and operation of support buildings and support structures (including, but not limited to, trailers and prefabricated and modular buildings) within or contiguous to an already developed area (where active utilities and currently used roads are readily accessible). Covered support buildings and structures include, but are not limited to, those for office purposes; parking; cafeteria services; education and training; visitor reception; computer and data processing services; health services or recreation activities; routine maintenance activities; storage of supplies and equipment for administrative services and routine maintenance activities; security (such as security posts); fire protection; small-scale fabrication (such as machine shop activities), assembly, and testing of non-nuclear equipment or components; and similar support purposes, but exclude facilities for nuclear weapons activities and waste storage activities covered in B1.10, B1.29, B1.35, B2.6, B6.2, B6.5, B6.6, and B6.10 of this appendix."

**DOE-ID NEPA CX DETERMINATION**  
**Idaho National Laboratory**

B1.32 "Traffic flow adjustments to existing roads (including, but not limited to, stop sign or traffic light installation, adjusting direction of traffic flow, and adding turning lanes), and road adjustments (including, but not limited to, widening and realignment) that are within an existing right-of-way and consistent with approved land use or transportation improvement plans."

B1.33 "Design, construction, and operation of control practices to reduce stormwater runoff and maintain natural hydrology. Activities include, but are not limited to, those that reduce impervious surfaces (such as vegetative practices and use of porous pavements), best management practices (such as silt fences, straw wattles, and fiber rolls), and use of green infrastructure or other low impact development practices (such as cisterns and green roofs)."

Is the project funded by the American Recovery and Reinvestment Act of 2009 (Recovery Act)       Yes     No

Approved by Jason Sturm, DOE-ID NEPA Compliance Officer on: 5/18/2020