



Supplemental Material and Excavation Requirements For Permits in the State Right of Way

ITD Use Only
Permit # _____

Permittee **MUST** also follow the **General Requirements** and other applicable **supplemental requirements**.

From IDAPA 39.03.42 Rules Governing Highway Right-of-Way Encroachments on State Highway Rights-of-Way, and ITD Specifications, Policies & Procedures.

Excavation & Paving: Requirements apply to work under ITD encroachment permit that includes any operation in which earth, rock, or other material in the ground is *moved or otherwise displaced by any means* including, but not limited to: location and installation of utilities, site preparation, approach / roadway construction, grading, trenching, boring, landscaping, and restoration.

Specification - All work within ITD right-of-way shall be in accordance with Idaho 2018 Standard Specifications for Highway Construction, supplemental, latest editions, excepting the details listed within.

Construction – Shall be in accordance with *accepted stamped engineered drawings or drawings referencing ITD standard drawings* to the specification listed above. Contact ITD for any conflict in plans, all work shall meet the satisfaction of the ITD, District Engineer. All costs associated with permit are at the expense of the permit holder. ITD will not pay or reimburse costs associated with work completed under encroachment permit.

As-Built drawings

Subject to all ITD encroachment permits - shall apply when work consists of the exposure, installation, or modification of pipe, conduit, cable, or other utility conveyance. Overhead utilities are excluded from this requirement except for new pole or structure placement. Compaction effort is also included with this submittal where 3rd party reporting is not required.

- Document precise location any utility placed or encountered within work area. Reference utility location from the highway centerline or edge of right-of-way, dimension horizontal, vertical and/or depth. Include utility type, size, and quantity.
- Submittals should be as “plan and profile” format, other methods may be accepted with prior authorization. Submittals may be in the form of: (GIS) geo-referenced spatial data bore logs, drawn/sketched by knowledgeable personnel, or prepared as-constructed drawings by a licensed Engineer.
- Compaction effort and method: list type of equipment used, number of passes, estimated percentage of compaction.

Certification and Materials

Materials - shall be documented and submitted for approval a minimum of 14 business days prior to the planned placement on form ITD 0862.

- All materials shall be sourced from an ITD Qualified Vendor. Lists of qualified vendors available upon request.
- Weight tickets shall be provided with each load of material identifying the material type and to certify the material properties.
- Acceptance shall be in accordance with ITD Quality Assurance (QA) Manual.
- ITD will accept materials for use based on the manufacturer’s certification in accordance to *section 700*.

Mix designs - shall be submitted for approval a minimum of 14 business days prior to the planned placement.

Testing & Compaction - when required from the guidelines listed in this provision testing and compaction reports shall be performed by a 3rd party qualified commercial material inspection laboratory, using WAQTC qualified personnel. Certification must be submitted prior to ITD Final Acceptance.

- In-Place density and moisture content of soil and soil aggregate by nuclear methods shall be required for traveled way paving. Documented on form ITD 0850
- Small quantities will be accepted by certification per the *QA Manual section 270.04 Acceptance of Small Quantities*
- Excavation and Embankment shall meet the testing requirements of section 205 – *Classes of Compaction and Density Requirements*.
- Granular Subbase shall meet the requirements of section 301 – Granular Subbase.
- Traveled way paving, intersection paving, and paving at intersection radiuses, cores are required in accordance with Standard Specification 405.03L for in-place density acceptance. A minimum of one core shall be required for small quantity paving in these locations.
- Small quantity pavement and soil / aggregate that do not require testing by cores for in-place density or in-place density by nuclear methods include small patches, utility repairs, residential / field approach, and pavement placed outside the traveled way. The ITD Engineer may elect to require samples and tests for small quantities at any time.
- All testing shall be documented with field or test reports and submitted to the permit coordinator. ITD retains the right to perform confirmation testing.

Excavation - Inside Roadway Prism

DESCRIPTION: This work shall consist of excavating along or within the engineered/structural portion of the highway (see *Roadway Prism*) backfilling and compaction of the excavated area, restoring the paved surface; and then restoring other disturbed areas to their original condition.

Materials – see *Certification and Materials, Lean Concrete Backfill, Earthwork and Bases, Surface Courses and Pavement*

CONSTRUCTION REQUIREMENTS:

Backfill - Lean Concrete Backfill (*see lean concrete backfill*) shall be required unless prior acceptance has been authorized and documented by ITD.

Lean Concrete shall be placed so as to avoid segregation of the mixture. The material shall be allowed to set for a minimum of 2 hours before the permanent Hot Mix Asphalt surfacing is placed. **No compaction, vibration or finishing is required for lean concrete.**

Excavation - Outside Roadway Prism

DESCRIPTION: This work shall consist of excavating outside the engineered/structural portion of the highway (*see Roadway Prism*) backfilling and compaction of the excavated area; then restoring other disturbed areas to their original condition.

MATERIALS – see *Certification and Materials* and ITD Standard Drawings as attached

CONSTRUCTION REQUIREMENTS:

Compaction – The use of sufficient compaction effort and equipment shall be documented on As-built drawing submittal. Compaction shall be sufficient to avoid settlement for a period of 2 years.

Backfill – typically native soil however shall conform to the more restrictive of: accepted engineered stamped plans, ITD Roadway Plan Sheet, or as directed by the ITD. Note: Super Elevated or curved embankments may have special requirements of the ITD Engineer. Excavation in areas that include inside and outside the roadway prism shall conform to the specification at each respective location.

Bell-Holes & Pot-Holes

Description: - This work shall consist of excavating for the locating of utilities;

Restoration shall conform to the detail specifications of *Excavation Inside / Outside Roadway Prism*. The Permittee shall be responsible for any defect in the restoration at the pot-hole location for a period of two years. The maximum allowable settlement shall be ¼ inch as measured with a 10 foot straight edge.

Pot-Holes are defined as twelve inches by twelve inches (12"X12") and smaller.

Bell-Holes are defined as a hole larger than twelve inches by twelve inches (12"X12"), but less than five feet by six feet (5'X6').

Lean Concrete Backfill

Lean Concrete Backfill shall conform to these approximate materials proportions for 1 cubic yard:

Portland cement: 94 lbs.

Coarse Aggregate for Concrete-Size 1: 2,600 lbs., per subsection 703.02:

Fine Aggregate for concrete: 800 lbs. per subsection 703.02

Water: 30-46 gallons. Water content given is a maximum and may be reduced. Care shall be taken to assure that excess water is not present in the mixing drum prior to charging the mixer with materials. Thorough mixing will be required prior to discharge.

Earthwork and Bases *sections 200-300*

Materials & Testing– see *Certification and Materials*

Minimum depth **0.5' (6")** – **¾-inch Untreated Aggregate type "A" or "B"**

Minimum depth **1.45' (17 13/32")** – **Granular Sub base**

Geotextile (filter fabric) shall be placed between the subgrade and the subbase in accordance to section 718.07 the geotextile shall be Type III

Construction notes:

Excavate soft spot material and repair soft spots so the subgrade meets compaction and density for Class A compaction as specified in 205.03F

Surface Courses and Pavement *section 405*

Materials & Testing - see *Certification and Materials*

Minimum depth **.45'- Superpave Hot Mix Asphalt SP3 ½ -inch nominal maximum aggregate**, using PG 64-34 Binder or better include 0.5% anti-strip additive in accordance to *subsection 405*

Construction notes:

1. Pavement density cores shall be required for all traveled way paving. Core samples shall be tested in accordance to 405.03L (*includes traffic lanes and shoulders*) *excludes: approaches where traffic lanes are not included and pavement placed outside the traveled way.* Additional locations for samples may be required at the discretion of the ITD Engineer.
2. Removal of existing pavement within wheel path shall require a full lane-width repave ⇕ (12' min.) to a length sufficient to achieve surface smoothness conforming to *Section 405 – Superpave Hot Mix Asphalt*.
3. Repave of excavated trench shall be a minimum 15' in both directions (15') ⇔ (15') of the traveled way measured from the trench wall, and shall extend beyond the wheel path at intersections and turn lanes.
4. Surface smoothness will be checked with a 10' straight edge to verify it conforms to *Section 405 – Superpave Hot Mix Asphalt*. The contractor shall be required to repair any areas to meet the required surface smoothness.
5. Existing plant mix shall be saw-cut to neat lines; no wheel or jackhammer cutting shall be permitted. The sawed joints shall be perpendicular and longitudinal to centerline of the roadway with exception to "curb return" radii may be cut to neat 45 degree angles.

6. The longitudinal joints shall be located close to a lane line, after final striping, and shall not be located in the wheel path areas of the lane(s).
7. Prior to the placement of Hot Mix Asphalt, any temporary base or plant mix shall be removed, replaced with new material, and compacted to achieve the specified depths.
8. Treat the entire cut face of existing plant mix with a tack coat in accordance to section 401 and 405.031
9. Superpave Hot Mix Asphalt shall be placed in accordance with *Section 405*.
10. Joining new asphalt to existing pavement (pave-back) should be keyed to avoid a vertical split or separation in pavement.
11. Temporary cold-mix asphalt surfacing may be used in conjunction with the lean concrete backfill to accommodate traffic within the first two (2) hours of backfill placement, prior to completing the permanent repair.
12. At the Contractors option, the trench may be temporarily filled with lean concrete backfill to the level of the adjacent pavement to accommodate traffic until permanent patching can be accomplished. The lean concrete backfill shall be removed to the level of the bottom of the base course prior to placing the permanent base and Superpave Hot Mix Asphalt.
13. Superpave Hot Mix Asphalt patching shall be completed within 24 hours after completing base course compaction. Traffic shall not be allowed on the permanent backfill or base prior to paving.
14. The permanent repair shall be completed within 48 hours, unless other arrangements have been made with ITD, District Three - Operations Manager.

Additional Notes:

1. **Bedding Material** – Bedding material shall consist of $\frac{3}{4}$ " Untreated Aggregate for Base, Type "A". It shall be placed as shown in the attached typical section or in layers at a maximum lift thickness of 6 inches and in accordance with ASTM D2321.
2. **Geotextile (Filter Fabric)** – Geotextile shall be accepted in accordance to section 718. If geotextile (filter fabric) is encountered while excavating, work shall cease, the ITD area maintenance Foreman shall be notified. The geotextile shall be required to be repaired. The repair shall consist of cutting out and replacing all the damaged material. The new geotextile material shall overlap the existing material a minimum of two (2) feet and be properly attached to the existing material.
3. **Markers** are required at each Right of Way line for all crossings, and at 500' intervals for utilities buried along the shoulder. Closer spacing will be used in urban areas. Plastic ribbon is required in addition to the markers and should be installed at least one foot above the utility being marked. Plastic ribbon is not required on crossing where the utility is jacked under the roadway
4. **Structure Excavation** – Excavation shall meet the requirements of Section 210 – Structure Excavation and Compacting Backfill. Material shall be removed from the trench as shown in the attached typical section.
5. **Trenches / Splice Pits** shall not be left open or exposed overnight without proper traffic control and safety devices in place.
6. **Monuments - Idaho Statute 54-1234** If any person shall willfully deface, injure or remove any signal, monument, building or other object set as a permanent boundary survey marker by a registered, professional land surveyor, he shall forfeit a sum not exceeding five hundred dollars (\$500) for each offense, and shall be liable for damages sustained by the affected parties in consequence of such defacing, injury or removal, to be recovered in a civil action in any court of competent jurisdiction. *Idaho Statute 18-7021* Every person, not the owner thereof, who willfully mars, disfigures breaks or otherwise injures, or molests, removes or destroys, any work of art, monument, landmark, historic structure, shade tree, shrub, ornamental plant, or useful or ornamental improvement, is guilty of a misdemeanor.
7. **Landscaping** - The permit holder shall return to original condition and re-seed all areas disturbed. Berms and/or fences will not be permitted. Only flowers, grasses and shrubs with a mature height not to exceed three (3) feet or trimmed with no sight obstructions between three (3) feet to five (5) feet in areas with a posted speed limit of 35 M.P.H or less, and three (3) feet to seven (7) feet in areas with a posted speed limit above 35 M.P.H. will be allowed within the sight triangle at corners and the safety clear zone of the State Highway. Landscaping shall be short enough or trimmed so it doesn't interfere with State Highway signs. No rocks over four (4) inches maximum size. Sprinkler heads shall be no closer than five (5) feet from the pavement edge and adjusted to not cause water to cover any part of the highway surface. *IDAPA Rule 39.03.42* , # 13. Drainage, B. Landscaping irrigation systems shall not disturb, obstruct, or add to the normal drainage patterns of the State highway right-of-way. No new ditches shall be constructed without prior approval. Landscaping, farming, and irrigation systems shall not interfere with utility installations, removals, or operations.

References and Standards Publications

Idaho 2018 Specification for Highway Construction
ITD 2018 Quality Assurance Manual
Idaho Guide for Utility Management
ITD manuals
Digline
OSHA

<https://apps.itd.idaho.gov/apps/manuals/SpecBook/SpecBook18.pdf>

https://apps.itd.idaho.gov/apps/manuals/QAm/QA_Searchable_2018.pdf
http://apps.itd.idaho.gov/apps/manuals/UtilityMgmt/gum_cover.pdf
<http://apps.itd.idaho.gov/apps/manuals/manualsonline.html>
<http://www.digline.com/>
<https://www.osha.gov/>