Digging and Excavations Permit procedure

Permits are required on JLAB property for any mechanized excavations or excavations using hand tools that penetrate the ground greater than 12 inches.

A permit does not guarantee that a utility is not present. All precautions need to be taken to safeguard individuals during the digging or excavation activity.

Policy:
Excavation, digging, boring into soil or demolition at Jefferson Lab shall be performed only after utilities have been located and marked by a competent person except for the use of hand tools less than 12 inches into the ground.

Instructions:

1. Obtain and print a copy of the instructions and permit from the Facilities web page:
   http://www.jlab.org/fm under “Fillable Forms”

2. Filling out Page 1
   a. At the top of the page enter the date the permit is required.
   b. In section “I. Requester”
      i. Fill in the Company or JLab group that is going to be performing the work
      ii. The contact phone number for the Company or JLab group
      iii. The location of the Dig
      iv. Desired start date of work
      v. Purpose of digging or excavation
      vi. The supervisor of the dig or excavation work and a contact phone number
      vii. If a work order was submitted, add the number in the appropriate box
      viii. Provide a Project tile
      ix. If applicable, provide an account code
      x. How to Identify work:
         1. Print a view from the Basic Site Plan PDF file (available from the Facilities Management “Handy Links” web page) that shows the area of excavation. Contact Facilities Management Drafting (or call 7400) if you are unable to download the drawing or don’t understand use of the Utility Layers. Clearly indicate where the work is to occur.

2. Attach the drawing to the back of the permit request

3. Filling out Page 2
   a. Subject Matter Experts Approval- section II
      i. System Matter Experts must review and sign off on the permit prior to having a locating company contacted to mark the utilities.
      ii. If work is to be done within the Accelerator site a signature from Accelerator OPS is required. See page three of the permit request for authorized individuals
      iii. If work is to be done within the Accelerator site or a surface that functions as a physical barrier to a radiologically-controlled area a signature from RADCON is required. See page three of the permit request for authorized individuals
      iv. For all permit requests, authorized Facilities Subject Matter Experts signatures are required
for Electrical, Chilled, Cooling, Low Conductivity Water, Potable Water, Sewer, Communications and Data lines, Stormwater, Fire Protection and Life Safety Systems and Natural Gas systems. See page three of the permit request for authorized individuals.

v. For Building and Support structures an authorized Facilities Structural Expert signature is required. See page three of the permit request for authorized individuals.

vi. If interruption or a potential of interruption to building operations, the appropriate Building Manager’s signature is required.

vii. A Building Manager’s signature is required if building operations are impacted.

b. Locator – section III

i. Fill out Company Name and Technician Name fields

ii. Check appropriate box indicating consistency of field observation with Basic Site Plan sketch (also see paragraph “vi” below)

iii. Enter equipment specifics as indicated

iv. A sketch produced from the latest version of the BASIC SITE PLAN (“BSP”) file will be provided to the locator and must be used to show verified locations found in the field.

v. Enter date of field work

vi. Check “Yes” in the “Additional Location or Verification Required” field if inconsistencies between observation and provided information were noted (also see paragraph “ii” above)

c. SOTR, Project Mgr, Inspector or Subcontractor Information – section IV

i. A JLab SOTR or contact name and phone number must be entered.

ii. After the locator has returned the annotated dig permit sketch to the SOTR the SOTR shall “Walk Down the Marks”

iii. If there are any inconsistencies found then the SOTR shall investigate and resolve the conflicts to the point that he/she feels that excavation may proceed safely and check the appropriate box on the Dig Permit Form.

iv. If no inconsistencies are found and the SOTR is confident that the marks are fully consistent with the BSP then he/she shall check the appropriate box on the Dig Permit.

v. Facilities will notify the requester after the final approval signature is obtained.

4. Filling out Page 3 - Final Approval – section V.

i. Check page 3 to verify the Director of Facilities or designee has signed and dated the permit. Also read and communicate any comments added to the signature area.

ii. Do not use mechanized equipment within 2 feet of utility markings. Hand digging is required. If hand digging is not possible, see facilities SOTR for alternative methods.

b. If facilities assisted in the permit process, the SOTR, Project Manager, Inspector must field verify the utilities with the requester after the locating company has marked the utilities and prior to excavation.

c. After work is completed.

Return entire permit to Facilities Drafting (SSC Building, room 75) after completion of digging/excavating activities. If additional utilities are located or encountered (or marked utilities are not found in their expected locations) then the Requester shall provide an “as-built” sketch to Facilities Drafting precisely detailing the location(s) of all utilities that were found to not be in the location expected.
Permits are required on JLab property for: any mechanized excavations or any excavation using hand tools that penetrate the ground greater than 12 inches.

Submit request to Facilities Management at least seven days before needed start date.

This permit is valid for 14 days from the approval date or for the duration of the project when the group performing the work has maintained continuous possession of the site, and the original location markings are intact and there have been no changes to the proposed excavation location; changes require a new permit.

DO NOT start work until you have received a signed, approved copy of this document.

For exterior work underground, obtain a Basic Site Plan drawing from Facilities with known utilities overlaid on the aerial photo. Mark on this drawing or use project drawings to show area of excavation.
## II. SME Approval

<table>
<thead>
<tr>
<th>System</th>
<th>Comment</th>
<th>Reviewed/Approved By</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accelerator OPS</td>
<td>Required for any work within the accelerator fence</td>
<td></td>
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<tr>
<td>RADCON</td>
<td>Required for any work within the accelerator fence and on any structure or surface that functions as a physical barrier to a radiological-controlled area</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Electrical</td>
<td>All Permits</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chilled, Cooling, Low Conductivity Water</td>
<td>All Permits</td>
<td></td>
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<tr>
<td>Potable Water</td>
<td>All Permits</td>
<td></td>
<td></td>
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<tr>
<td>Sewer</td>
<td>All Permits</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Communications/Data</td>
<td>All Permits</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stormwater</td>
<td>All Site</td>
<td></td>
<td></td>
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<tr>
<td>Structural</td>
<td>Within structures</td>
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<tr>
<td>Fire Protection/Life Safety Systems</td>
<td>All Permits</td>
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<td></td>
</tr>
<tr>
<td>Natural Gas</td>
<td>All Permits</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other – Bldg Manager</td>
<td>If Applicable</td>
<td></td>
<td></td>
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</tbody>
</table>

### Comments:

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## III. Locator

Name of locate service used: [ ]

Technician name: (first, last)

Technician (check 1):

- Field observation are consistent with provided sketch ____ (initial)
- Field observation are not consistent with provided sketch; SOTR notified ____ (initial)

Locating equipment used:

- Make/Model
- Serial Number
- Calibration Due Date

Site or building drawing(s) used:

Date utilities located & marked:

Additional location or verification required? □ Yes □ No

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## IV. SOTR, Project Manager, Inspector or Subcontractor

JLab SOTR/contact

Phone number:

SOTR has "walked down the marks" and (check 1):

- The marks are consistent with the Basic Site Plan ____ (initial) or;
- Inconsistencies were noted and have been resolved as indicated on the sketch ____ (initial)

Comments/Notes

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Digging Permit

Rev 30-Sep-19
Do not use mechanized equipment within 2 feet of utility line markings. If you need to excavate near a marked utility line, carefully expose the utility line by hand digging and keep mechanized equipment at least 2 feet away from the line at all times. If this cannot be done, you must obtain SOTR approval before deviating from this requirement.

Non-Hand Dig Method: ____________________________________________

SOTR Approval: ____________________________________________ Date: ___________

A copy of the Signed Permit is to be provided to Facilities Drafting (Bldg 28, room 75) Permit and As-Built Drawings (if any) Returned to Facilities Management Drafting

By: ____________________________ Date: ___________

**Authorized SMEs**

<table>
<thead>
<tr>
<th>System</th>
<th>SME Department</th>
<th>SMEs</th>
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<tbody>
<tr>
<td>Accelerator OPS</td>
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<td>Steve Suhring/Randy Michaud</td>
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<tr>
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<td>Keith Welch/Pavel Degtiarenko/David Hamlette</td>
</tr>
<tr>
<td>Electrical</td>
<td>Facilities - FME</td>
<td>Paul Powers/Jason Willoughby</td>
</tr>
<tr>
<td>Chilled, Cooling, Low Conductivity Water</td>
<td>Facilities - FMM/FMO</td>
<td>Carroll Jones/Mike Sprouse/Celia Whitlatch</td>
</tr>
<tr>
<td>Potable Water</td>
<td>Facilities - FMF/FMFS/FMO</td>
<td>Ed Winslow/Mike Sprouse</td>
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<td>Sewer</td>
<td>Facilities - FMF/FMO</td>
<td>Ed Winslow/Mike Sprouse</td>
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<td>Facilities - FME</td>
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<tr>
<td>Stormwater</td>
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<td>Ed Winslow/Suresh Chandra</td>
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<td>Facilities - FMF</td>
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<td>Fire Protection/LLS</td>
<td>Facilities - FMFS</td>
<td>Robert Myles/Tim Minga</td>
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**APWA Uniform Color Code**

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<thead>
<tr>
<th>Color</th>
<th>Description</th>
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<tbody>
<tr>
<td>WHITE</td>
<td>Proposed excavation</td>
</tr>
<tr>
<td></td>
<td>Temporary survey marking</td>
</tr>
<tr>
<td></td>
<td>Electric power cable or conduit</td>
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<tr>
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<td>Gas, oil, petroleum, gaseous materials</td>
</tr>
<tr>
<td></td>
<td>Telecommunications, data, alarm cables</td>
</tr>
<tr>
<td></td>
<td>Potable water</td>
</tr>
<tr>
<td></td>
<td>Irrigation water</td>
</tr>
<tr>
<td></td>
<td>Sewers &amp; drains</td>
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