



# Explosive and Blasting

Orange County  
Emergency Services  
Fire Marshal Division  
510 Meadowlands Drive  
Hillsborough, NC 27278  
919.245.6100

In accordance with the provisions of the North Carolina State Fire Prevention Code, a blasting permit must be obtained before a person is authorized to do any blasting or to use any explosive for the purpose of demolishing a structure or blasting out rock, gravel, earth, trees, or any other substance or material.

All information must be complete before the processing of a blasting permit application will proceed. This permit application and supporting documentation must be submitted in advance of planned blasting operations.

---

**1. Subject Property / Storage Site**

OC Parcel ID \_\_\_\_\_

Location / Name \_\_\_\_\_

GPS #1 \_\_\_\_\_

GPS #2 \_\_\_\_\_

GPS Format \_\_\_\_\_

DDD \_\_\_\_\_

DMS \_\_\_\_\_

DMM \_\_\_\_\_

---

**2. Applicant (Person or Firm Responsible for Blasting Operations )**

Name \_\_\_\_\_

Title \_\_\_\_\_

Blaster's Name &  
License Number \_\_\_\_\_

Company Name \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_

State \_\_\_\_\_

Zip \_\_\_\_\_

Daytime Telephone: \_\_\_\_\_

E-mail \_\_\_\_\_

Emergency \_\_\_\_\_

Telephone: \_\_\_\_\_

---

**3. Property Owner**

Name \_\_\_\_\_

Address: \_\_\_\_\_

City \_\_\_\_\_

State \_\_\_\_\_

Zip \_\_\_\_\_

Daytime Telephone: \_\_\_\_\_

E-mail \_\_\_\_\_

---

**4. General Contractor**

Name \_\_\_\_\_

Title \_\_\_\_\_

Company Name \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_

State \_\_\_\_\_

Zip \_\_\_\_\_

Daytime Telephone: \_\_\_\_\_

E-Mail \_\_\_\_\_

Emergency \_\_\_\_\_

Telephone: \_\_\_\_\_

5. Permit Type  Single Shot - 48hr. (\$100)  30 Day (\$100)  30 Day  
 Renewal (\$50)

**6. Project Description**

Start Date		Estimated End of Blasting
Describe the project and why blasting is a necessary part of the project:		

**7. Submission Requirements**

This application shall be accompanied by the following information, unless otherwise specifically modified by the Fire Marshal or his/her designee: For explosive storage permits, refer to the underlined requirements below.

- A legible sketch of the blast site showing measured distances to adjacent buildings, streets, utilities, wells, and other facilities.
- For a full description of all submission information needed see the attached Blasting permit requirements checklist.
- A blasting plan to include a description of the proposed blasting procedures, an estimate of the total number of cubic yards of material to be removed by blasting, an estimate of the number of blasts to be detonated, the quantity and type of explosives to be used, the maximum amount of explosives per delay, the maximum number of holes per delay, and the proposed placement of seismographs. (Delay shall mean a period of eight milliseconds or greater.)
- The proposed hours during which the blasting operations will be conducted.
- A safety plan to include traffic control, barricading, signage plan, and adverse weather operation plan.
- Will explosives be stored on site?  Yes \_\_\_\_\_  No \_\_\_\_\_
  1. List all materials to be used on site. Provide a site plan indicating the location of storage magazines and distances to inhabited buildings, public roadways and separation of multiple magazines.
  2. Provide information on magazine types to include amount and type of explosives to be stored in each.
- Any other studies or information deemed necessary by the Fire Marshal, which may include, but is not limited to:
  1. A pre-blast assessment, prepared by a geotechnical engineer or other blasting professional, which would assess the potential for damage to adjacent structures and facilities.
  2. A pre-blast inspection of all structures and facilities located within 500 feet of the proposed blast location. As part of the inspection, the structures and facilities would be

videotaped and/or digitally photographed to document any pre-existing damage so that any claims for post-blast damages could be compared to the pre-blast inspection report. A complete pre-blast report shall be submitted with this documentation for a permit.

### 3. Hydrological study, Geological Study, Test Wells

---

#### 8. Liability Insurance Required

Before a permit is issued, the Applicant must file with the jurisdiction a corporate surety bond in the principal sum of \$500,000 or a public liability insurance policy for the same amount, and an additional \$500,000 for the purpose of the payment of all damages to persons or property which arise from, or are caused by, the conduct of any act authorized by the permit upon which any judicial judgment results. The fire code official is authorized to specify a greater or lesser amount when, in his or her opinion, conditions at the location of use indicate a greater or lesser amount is required. Government entities shall be exempt from this bond requirement. The insurance policy shall state, "For blasting operations. The policy shall name the County of Orange and any Sub-Contractors as an additional insured.

- f. Water is a precious resource and measures shall be taken to protect ground water quality as found in the nearest well within 500 feet of the blasting location. Post blast testing shall be done no sooner than 24 hours or no later than 48 hours following a blast. Turbidity in wells tested shall be no greater than that which existed prior to the blasting as established in the pre-blast assessment.
- g. Any person detonating explosives shall first notify the Orange County Emergency Communications Center 919-732-5063 that a blast is planned. Such notification shall be received at least twenty-four (24) hours prior and within one hour to the planned detonation and shall give the time (within 30 minutes) of the planned detonation and the location where the blasting is to be done. The person detonating the explosives shall give an equivalent notice to each property owner that is located within 500 feet of the proposed blasting location.

---

#### 9. Record Keeping

Persons responsible for blasting operations shall maintain a record of each blast. A copy of that record shall be filed with the Fire Marshal within twenty-four hours of each blast. All original blasting records shall be retained by the persons responsible for the blasting operations for at least three years following the cessation of the blasting operations and shall be available for inspection by the Fire Marshal. The blasting records shall contain the following minimum data:

1. Name of the person responsible for the blasting operation
2. Location, date, and time of blast
3. Name of the blaster in charge
4. Type of material blasted

5. Number of holes, burden, and spacing
6. Diameter and depth of holes
7. Types of explosives used
8. Amount of explosives used
9. Maximum amount of explosives per delay period of eight milliseconds or greater
10. Maximum number of holes per delay period of eight milliseconds or greater
11. Method of firing and type of circuit
12. Weather conditions (including factors such as wind direction, cloud cover, etc.)
13. Height or length of stemming
14. Were mats or other types of protection used
15. Type of detonators used and delay periods used
16. Seismograph and air blast readings when measured, and from where measured

---

**10. Certification and Signature**

I hereby certify that I have read and examined this application and its attachments and that all of the information contained therein is true and correct. Furthermore, I certify that the proposed blasting operations will fully comply with the requirements contained in The North Carolina State Fire Prevention Code and NFPA 495. I agree to indemnify, save harmless, and defend Orange County, its agents and employees, from all claims, damages, costs, expenses, and charges, including attorney's fees, which arise out of or by reason of these blasting operations.

---

Applicant Company

---

Property Owner's Signature

By:

Date:

---

Date:

---

**Blasting Permit Requirements Checklist**

<input type="checkbox"/>	Complete and submit the attached permit application and supporting documentation in advance. An initial blast inspection will be required at the time of permit issuance.
<input type="checkbox"/>	Request a blasting permit site inspection by calling (919) 245-6100 or <a href="mailto:firemarshals@orangecountync.gov">firemarshals@orangecountync.gov</a>
<input type="checkbox"/>	Pay all applicable permit fees and application/supporting documents in advance of the site inspection. Orange County Fire Marshal Division P.O. Box 8181 Hillsborough, NC 27278 (Make check payable to Orange County Revenues)
<input type="checkbox"/>	A 500ft. blasting perimeter will be required under any of the following conditions. <ul style="list-style-type: none"> <li>1. Blasting that occurs in multiple jurisdictions.</li> <li>2. Multiple blasting companies on a site and/or subdivision.</li> <li>3. Right-of-way, roadway infrastructure improvements.</li> </ul> <p>Blasting company representative shall provide GPS coordinates for each proposed blast site. A site blasting map will be issued with the permit indicating the 500ft. blasting perimeter. (Blasting operations outside this permitted perimeter will result in a stop work order and revocation of permit(s))</p>
<input type="checkbox"/>	Current certificate of liability insurance on file. (Additional insured names Orange County)
<input type="checkbox"/>	Provide a copy of blasting certifications, ATF licenses, and blaster resumes with a photograph ID.
<input type="checkbox"/>	Each permit and site plan on site at all times during blasting operations.
<input type="checkbox"/>	Provide a copy of any pre-blast surveys.
<input type="checkbox"/>	Blasting within 500ft. of a structure requires witness by fire marshal for initial site blast.
<input type="checkbox"/>	Blasting mats provided and in use if within 500ft. of structures. Beyond 500ft, a fire official may approve adequate cover in lieu of blasting mats.
<input type="checkbox"/>	A safety plan to include traffic control, barricading, signage plan, and adverse weather operation plan must be on file with the fire marshal's office.
<input type="checkbox"/>	Proper notification made to utility companies.

<input type="checkbox"/>	Proper notification made to Orange County Communications Center. (919) 732-5063
<input type="checkbox"/>	The Fire Inspector will deliver the permit to the site and give it to the contractor once final approval is given to conduct blasting operations.
<input type="checkbox"/>	Are explosive materials stored on site? (Additional permit and requirements from fire official)
<p>An on-line request can be submitted with all attached documentation for a blasting permit. Please visit <a href="http://www.orangecountync.gov">www.orangecountync.gov</a></p>	

Information below is not part of the permit application but shall be printed on the issued permit

Permit Conditions

- a. Any blasting permit may be revoked for (1) failure to comply with the provisions of the State and local codes; (2) failure to comply with any of the provisions of this permit; or (3) for any other cause if the Fire Marshal determines that the continuance of the permit is not consistent with the provisions of the Code. A stop order may be issued for seismic readings above the limits of NFPA 495, and for failure to comply with conditions of the permit. Such stop work order will be issued to the blasting permit representative and shall state conditions before blasting resumes.
- b. This permit shall not be transferable whether by operation of law or otherwise, either from one location to another or from one person to another.
- c. All blasting operations shall be covered in such manner as to prevent fragments of rock, gravel, earth, trees, or other substances or materials from being thrown against or upon lots, buildings, utility lines, or any street or highway.
- d. Whenever blasting is being conducted in the vicinity of gas, electric, water, fire alarm, telephone, telegraph, or steam utilities, the blaster shall

notify the appropriate representative of such utilities at least 24 hours in advance of blasting specifying the location and intended time of such blasting.

- e. Hours of detonation shall be limited to daylight hours, no earlier than 8:00 a.m. or later than 5:00 p.m., Monday through Friday, except by special exception specifically authorized by the Fire Marshal. Blasting shall also be prohibited on all Orange County, State and Federal holidays.