

## SECTION 7000 BLASTING

### 7001 GENERAL.

The Contractor shall comply with all laws, ordinances, applicable safety code requirements, and regulations relative to the handling, storage, transportation and use of explosives and the protection of life and property. The Contractor shall be responsible for all damage caused by his blasting operations and shall be responsible for responding to all complaints. The provisions of this standard shall not be construed to amend, supersede, or conflict with any requirement of state or federal law or regulation governing the handling, storage, transportation or use of explosives.

### 7002 PERMITS.

The Contractor shall not blast any rock or other materials or allow the same to be done in prosecution of the work unless they first secures a blasting permit.

Issuance of a Blasting Permit is contingent on the Contractor meeting the following requirements:

- Applicant shall submit proof that the person using explosives is registered with the division of fire safety and that blasting will be conducted by a licensed blaster.
- Permit shall be obtained no less than 10 days prior to the first use of explosives.
- Permit application shall include specifics on the type of explosive to be used and their storage location, if any.
- Applicant shall demonstrate an acceptable plan for signage or other means of informing the public of blasting in proximity to public streets or highways and any request for closing of streets or routing traffic
- Applicant shall submit proof of commercial general liability insurance in an amount no less than \$1,000,000.00 and no more than \$5,000,000.00

### 7003 PREBLAST SURVEY.

The Contractor shall make at least (3) documented attempts to contact the owner of any uncontrolled structures (uncontrolled structure shall be as defined within Missouri State Statute 319.309.) within a scaled distance of thirty-five from the blast site in order to conduct a preblast survey of such structures. The Contractor shall not be required to conduct a preblast survey if the owner of any such structure does not give permission for the survey to be conducted.

The survey shall be of such nature as to accurately establish the preblast structural condition of uncontrolled structures within the specified scaled distance. No blasting shall be allowed until the preblast survey has been completed and has been reviewed and accepted by the City Engineer and City Fire Marshall.

The contractor shall submit, to the City Engineer and City Fire Marshal preblast survey reports for uncontrolled structures within the specified scaled distance.

The preblast survey shall be performed by qualified personnel regularly engaged in blast operations.

### 7004 BLASTING OPERATIONS.

Blasting shall only occur between the hours of 8:00 AM and 5:00 PM and shall not be allowed on Sundays.

Where blasting is being conducted in the vicinity of utility lines or rights-of-way, the blaster shall notify the appropriate representatives of the utilities not less than 24 hours in advance of blasting, specifying the location and intended time of such blasting. Verbal notices shall be confirmed with written notice. Notices shall not relieve the blaster of any liability for damages or disruptions to utility services.

Contractor shall allow City Staff access to the site of blasting and shall allow City Staff to observe the blasting from a safe location, as designated by the blaster, upon request.

The Contractor shall provide suitable warning by siren or whistle prior to all blasts.

In any instance when the scaled distance value is fifty-five or less, any person using explosives, shall use at least one seismograph calibrated to the manufacturer's standard for use to record the ground vibration and acoustic levels that occur from the use of such explosives or explosive materials. When measuring ground vibration and acoustic levels, the seismograph shall be placed in the proximity of the nearest uncontrolled structure or, at the option of the person using explosives, closer to the blast site. If more than one uncontrolled structure is the same approximate distance from the blast site, then the person using explosives may select one representative structure for placement of the seismograph. Any person using explosives in the state of Missouri in which monitoring with a seismograph is required, as detailed previously, shall limit acoustic values from blasting to one hundred thirty-three decibels using a two hertz flat response measuring system based on the Office of Surface Mining Regulation 816.67(b)(1)(i). One copy of the recorded data from each blast, including the computed interpretations, shall be furnished to the Engineer.

Suitable methods shall be employed to confine all materials lifted by blasting within the limits of the excavation or trench. All rock shall be kept separate from other excavated materials and shall not be mixed with backfill or embankment materials except as specified or directed by the Engineer. All finished surface areas adjacent to blasting shall be kept free of all blasted materials within the top 12 inches.

The requirements presented herein shall not relieve the contractor from responsibility to avoid disturbing earth or rock beyond indicated and specified lines and levels.