

SECTION 2300 - BLASTING

PART 1 - GENERAL

- 1.01 SCOPE:** This Section covers use of explosives in construction and demolition. Topics include permit requirements, blaster qualifications, and reference standard for transport, storage, use, and disposal of explosives.
- 1.02 REFERENCE STANDARDS:** In this Section, the "Uniform Fire Code", Western Fire Chiefs Association shall be referred to as "UFC".
- 1.03 PERMIT:** Blasting permits are required for every project using explosives. A two step process is required to obtain a blasting permit. The process is summarized as follows:
- A. Permit for storage of explosives shall be applied for at the Fire Prevention office, 815 North 6th Street, Kansas City, Kansas. Documents required for processing the permit include a Blaster license and a User license issued by the State of Kansas and a site drawing showing the location of storage and points of use.
 - B. Permit for use of explosives for construction or demolition shall be applied for at the Unified Government Engineer's office, 701 North 7th Street, Kansas City, Kansas. Documents required for processing the permit include:
 - 1. Certificate of Insurance for Catastrophic Coverage - A certificate separate from the one covering the work as a whole will be required. The insurance limit will be a minimum of \$5,000,000.00. Based on the location of the proposed blasting, the limit may be increased, so consultation with the Unified Government Engineer's office prior to application is encouraged. The specific language requirements for insurance certificates contained in the General Conditions shall apply.
 - 2. Blasting Bond - The amount of bond is the maximum amount established in the UFC, \$100,000.00.
 - 3. Storage Permit Issued by the Unified Government Fire Marshal - This is item A described above.
 - 4. Blaster and User license issued by the State of Kansas.
 - 5. Blaster and User business license issued by the Unified Government.
 - 6. Pre-blast survey.
 - C. Permits shall be kept on site for the duration of blasting operations.
- 1.04 PREBLAST SURVEY:** Preblast survey shall be conducted by an independent, neutral blasting consultant who regularly performs preblast surveys. Two copies of the signed written summary shall be submitted to Engineer.

Preblast survey shall record photographic and verbal documentation of preblast damage to the exterior and interior of structures within 300 feet of the proposed blast points. Verbal documentation may be either written text or audio tape, with written transcripts as required by Engineer to evaluate claims. Minimum photographic record shall be developed negatives in 35-mm format and a contact print. Alternate minimum photographic record shall be digital, JPEG format, with 4.0 mega pixel sensor size. Submit 5"x 7" prints as required by Engineer to evaluate claims. Transcript and prints requested by Engineer to evaluate claims shall be supplied at no additional cost to the Unified Government. Survey records shall be kept on file by the blasting consultant for a minimum of 5 years.

If access to the interior of buildings is denied, the survey record shall contain a returned certified letter to the tenant or owner of the building as proof of attempts by the blasting consultant to gain entry. Letter shall explain the purpose of the survey and have attached the survey and signed denial of access statement, which clearly represents the purpose of the preblast survey and explains the contact procedure with the blasting consultant.

1.05 PROTECTION OF EXISTING STRUCTURES: Minimum protection from noise, flyrock, and ground vibration is described below. Contractor shall take whatever additional protective measures he deems necessary.

- A. Noise: No building shall be exposed to a peak sound level in excess of 130 dB, when measured by instrument with a low frequency limit of 6 hertz or lower.
- B. Flyrock: No flyrock shall leave the construction limits. Overburden or blasting mats shall be used where necessary to prevent unsafe conditions.
- C. Ground Vibration: Ground vibrations shall be monitored by a seismograph located at the nearest building (or if the nearest building is distant, the seismograph may be located at a reasonable distance from the blast in the direction of the nearest building). Seismographs used for monitoring ground vibrations shall record peak particle velocity and frequency in 3 mutually perpendicular directions.

The peak particle velocity shall not exceed 1.0 inches/second for frequencies greater than 11 hertz, and shall not exceed 0.50 inches/second for frequencies of 11 hertz and less.

1.06 SAFETY: Blasting operations shall be conducted by the blaster(s) named in the permit. Storage, transportation, handling, use, and disposal of explosives shall conform to the requirements of the UFC.

1.07 BLASTING RECORDS: The blaster shall retain a record of blasts for a minimum of 5 years. Upon request, these records shall be made available to Engineer or the public for review. Records shall contain the company name of the contractor doing the blasting; the location, time, and date of blast; the name, signature, and certification number of the blaster; type of material blasted; type of explosive; total weight of explosive detonated in an 8 millisecond period; sketch of blast area including number, diameter and depth of holes, burden, spacing, delay pattern; initiation system; mats or other protection; identity, distance, and direction of the nearest building; noise and seismic records.

PART 2 - PRODUCTS Not Used.

PART 3 - EXECUTION Not Used.

END OF SECTION 2300