Village of Volente

ORDINANCE NO. 2008-O-91

AN ORDINANCE ADOPTING REGULATIONS TO REGULATE BLASTING ACTIVITIES WITHIN THE VILLAGE OF VOLENTE; PROVIDING FOR PERMITTING; STANDARDS; ENFORCEMENT, FINES AND CRIMINAL PENALTIES; SEVERABILITY; PUBLIC NOTICE; OPEN MEETINGS; AND, EFFECTIVE DATE.

WHEREAS, the Village of Volente desires to protect its citizens from any damages resulting from sounds and vibrations caused by blasting activities conducted within or outside its corporate boundaries; and

WHEREAS, the Village of Volente finds that the adoption of regulations to control blasting and establishing a permit procedure as set forth in this Ordinance will help protect its citizens from sustaining any damages by blasting activities affecting the Village of Volente; and

WHEREAS, improper blasting is a hazard to the public health and welfare, safety, and the quality of life; and,

WHEREAS, a substantial body of science and technology exists by which damages from blasting activities can be prevented; and,

WHEREAS, the people have a right to and should be ensured an environment free from blasting activities that may jeopardize their health or welfare or safety or degrade their quality of life.

NOW, THEREFORE, BE IT ORDAINED BY THE COUNCIL OF THE VILLAGE OF VOLENTE, TEXAS:

Section One:

The Village of Volente adds Chapter 49 to its Code of Ordinances by adopting the following provisions regulating blasting activities having effects within its corporate boundaries.

Section Two: Legislative Findings

The recitals above made in the Preamble are hereby deemed to be the Factual and Legislative Findings of the Village Council, and are hereby incorporated within this Ordinance.

Section Three: Purpose and Scope

This Ordinance is adopted to prevent damages from blasting activities having effects within the
Corporate limits of the Village of Volente and to promote the health, safety, welfare, convenience

and
enjoyment of the citizens of Volente.

Section Four:

CHAPTER 49.000 BLASTING REGULATIONS

Sec. 49.001 Short Title

This ordinance may be cited as the "Blasting Regulations Ordinance of the Village of Volente."

Sec. 49.002 Definitions

All terminology used in this ordinance shall be consistent with the blasting standards set forth in the U.S. Code of Federal Regulations, Vol. 30, Parts 700-899.

Sec. 49.003 Blasting Permits.

a. General

It shall be unlawful for any person to conduct blasting activities causing effects within the Village limits or its extraterritorial jurisdiction for the purpose of preparing building sites, tunneling, installing pipelines, sewer lines and other underground utilities, demolition of any building or structure and for all other purposes without first obtaining a blasting permit from the Council.

b. Application for Permit

To obtain a blasting permit, the applicant shall first file an application in writing. Each application
for a blasting permit shall include the following:

(1) Blasting plan, as described in this Chapter.

(2) The name of the licensed blaster and qualifications who will engage in any blasting activities and a copy of his/her current license.

(3) The signature of the applicant, general contractor, and authorized agent, who may be required to submit evidence to prove his authority as an agent.

(4) Evidence showing that the desired results from blasting could not reasonably be achieved through a less destructive or dangerous method.

(5) Proof of insurance in the amounts required by this Ordinance and a copy of the current insurance policy.

(6) Other reasonable information as may be required by the Council or Council designate.

(7) The name of the property owner(s) on whose property the blasting will take place.

(8) The location of the proposed blasting activity shown on a copy of the Volente tax

maps.

c. Reports to be completed prior to blasting commencing.

(1) Applicant will provide the Village of Volente with a pre-blasting base ambient sound report as defined by Council before any blasting may begin. This independent testing will be done by a company selected by the Village at the applicant's expense.

(2) Water well tests conducted by an independent water testing firm, selected by the Village and paid for by the applicant will be made on all wells within 500 ft. of the subject property. The tests shall document the flow rate, levels of sulphur, nitrates, PH, copper, iron chloride, manganese, arsenic, calcium and sodium. At least three attempts must be made to contact the landowner to obtain permission to conduct the drinking water test before the applicant can request the Village to deem the landowner as non-responsive. A written report of the results shall be provided prior to the commencement of blasting to the applicant and the Village's Code Enforcement Officer/Inspector.

(3) An independent firm will perform pre-blast surveys on all structures within 500 ft of the subject property boundary. The survey shall include video or photographic documentation of any pre-existing damage and other physical factors that could reasonably be affected by the blasting on the interior and exterior of each structure. The survey shall be conducted by an independent company, selected by the Village and paid for by applicant. At least three attempts must be made to contact the landowner to obtain permission to conduct the survey before the applicant can request the Village to deem the landowner as non-responsive. A written report of the results shall be provided prior to the commencement of blasting to the applicant and the Village's Code Enforcement Officer/Inspector.

d. Notice and Hearing.

The Council shall hold a public hearing for consideration of the application no later than sixty (60) days after the date the application for action, or an appeal, is filed. At applicant's expense, notice of the public hearing shall be provided to all property owners within one mile of the proposed permit area at least fifteen (15) days prior to the public hearing by United States Postal Service Certified Mail, and also be published in the official local newspaper at least fifteen (15) days prior to the public

hearing. Both notices must include: the location of the proposed blasting, a schedule of the dates and times that blasting will be conducted, a description of the blasting warning signals to be used during the operation, an address and phone number where landowners may request further information and, if applicable, information regarding the pre-blast survey and well water test.

e. Comments from Adjacent Property Owners and Utilities

The Council or Council designate may request written comments on each permit application from the various affected utilities, adjacent property owners, or franchise holders. When in the opinion of the Council or Council designate, such utility or adjacent property owner or franchise holder has a valid objection to the issuance of a permit, no permit shall be approved until such objection has been resolved to the satisfaction of the Council.

f. Approval by Village

Blasting Permits can only be approved by the Village Council of Volente. The Council shall not grant a blasting permit unless it finds, based upon evidence that may include geologic studies requested by the Village, that the requirements of this Chapter have been and will be met. The Village may impose such conditions, limitations and safeguards as it deems appropriate upon the permit. Violation of any such condition, limitation or safeguard shall be grounds from revoking the permit and/or seeking injunctive action to terminate the blasting activities.

g. Issuance of Permit.

In the event the Council determines that such blasting activities can be done as specified in the application for a permit under the provisions of this Chapter consistent with safety to property and lives, and in compliance by the applicant with all other provisions of this Chapter, the Council shall issue the permit applied for to utilize such explosives or blasting agents as set forth in the application. Once issued, blasting permits shall be valid for a period of ninety (90) days from the date of issuance, unless otherwise provided for in the permit.

h. Denial of Permit that Endangers Life, Health or Property

(1) When in the opinion of the Council there exists the potential for danger to life, health, real property, personal property, water wells, roadways and/or utility lines or structures in the immediate area exposed to the blasting or another less destructive or dangerous method could reasonably be used to achieve the results for which a permit has been requested or issued, said permit may be denied or revoked. Should Council determine, however, that a reduced scope in the blasting plan could be accommodated without the apparent potential for danger to life, health or property as described above, then Council may request that said permit application be amended.

(2) If said permit application is amended in accordance with the request and

comments of the Council, then the amended permit may be approved and issued by Council.

i. Fee and Expenses

An applicant for a permit required by this Chapter shall deposit the amount set forth by the Village Council under its fee ordinance. If a review of the blasting permit and associated information is required by Council to determine the merits of issuing or denying a permit, applicant shall reimburse the Village for said review.

j. Stop Work Orders

Whenever any blasting work is being done contrary to the provisions of this Chapter or in violation of conditions contained in the blasting permit, the Village may order all blasting activities be stopped by notice in writing (referred to as a "Stop Work Order") served on any persons engaged in the doing or causing such blasting work to be performed. The stop work order will be posted on the property adjacent to the activity in question, and any such person shall forthwith stop work until authorized by the Village in writing to proceed with the blasting activities.

k. Permit Revocation

A violation of this Chapter or a violation of a condition(s) of a permit shall authorize the Village to initiate proceedings to revoke any permit or any other type of approval given under this Chapter. If a permit is revoked, no further blasting work shall be done on the project made the subject of the permit until the violation has been cured and new submittals under this Chapter, as required by the Village, have been made and approved in accordance with the provisions of this Chapter and a new permit has been issued.

Sec. 49.004 Blasting Standards

a. The permitee shall comply with all laws, codes, ordinances, applicable safety code requirements and regulations relative to the handling, storage and use of blasting materials and the protection of life and property.

b. The permittee shall be responsible for all damage caused by his blasting operations.

c. The permittee shall erect signboards of adequate size stating that blasting operations are taking
place in the area and such signs shall be clearly visible at all points of access to the area. The permittee shall utilize a reliable audible warning system to ensure that any personnel in the area are forewarned of the impending detonation of explosives or blasting agents

d. Appropriate precautions shall be taken during thunderstorms to prevent unintentional firing of charges due to static electricity

e. The permittee shall space his production blasting drill holes and schedule the delays of caps so that all shots break toward a free-face. Lifters shall not be used.

f. Controlled blasting shall be performed in such a manner as will result in a minimum of over-breakage. Excavation of the tunnel and faces of cut slopes through rock shall be performed by pre-splitting, cushion blasting, line drilling or other methods approved by Council.

g. Particle velocities at the nearest permanent structure may not exceed the safe levels indicated in Table 1 below. Monitoring of particle velocities for all blasting operations shall be carried out as required by this section and shall be performed using the best available instrumentation. When particle velocities exceed 0.5 inches per second, blast frequencies shall also be monitored. Air over pressure shall not exceed the values in Table 2 below. Particle velocities, frequencies, or air over pressure in excess of the limits prescribed in this section shall require the immediate suspension of blasting and initiation of corrective measures. The Council may grant or require deviations from these limits as required to adequately protect the public safety.

h. **Ground Vibration Criteria**

Ground vibration from all blasting operations shall be measured in terms of peak particle velocity (inches per second) and frequency (hertz). The permissible maximum ground vibration at any adjacent structure shall conform to the values established in USBM RI 8507 (see graph in Appendix B). Above 40 Hz, a constant peak particle velocity of 2.0 inches per second is the maximum safe value. Below 40 Hz, the maximum velocity decreases at a rate equivalent to a constant peak displacement of 0.008 inches. At frequencies corresponding to 0.75 inches per second for Drywall, and 0.50 inches per second for plaster, constant particle velocities are again appropriate. An ultimate displacement of 0.030 inches is recommended which would only be of concern where very low frequencies are encountered (4 Hz).

TABLE ONE

U. S. BUREAU OF MINES CRITERIA
From Report RI-8507 (November, 1980)

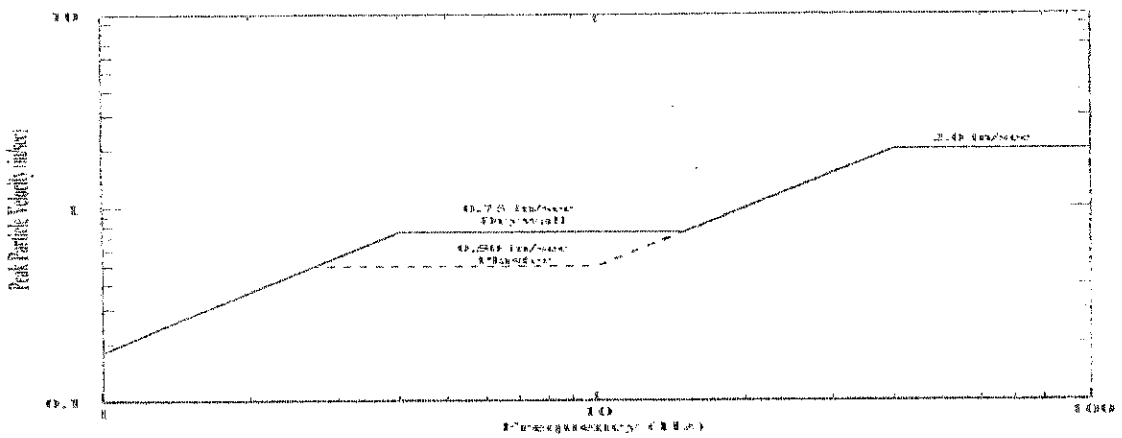

TABLE TWO

Airblast Criteria

Airblast at any structure shall not exceed the values established below. Acceptable levels for various equipment specifications are detailed in the table below.

Lower Frequency of Measuring System (Hz (3dB)	Measurement Level (dB)
0.1 Hz or lower – flat response	134 peak
2 Hz or lower – flat response	120 peak
6 Hz or lower – flat response	120 peak

C-Weighted – slow 105 peak

i. A blast monitor, such as a seismic blast recording machine, must be used during all blasting operations for which a permit is issued by the Village of Volente. The monitor must meet the minimum specifications established by Village of Volente. Particle velocity shall be recorded in three mutually perpendicular axes. The maximum particle velocity shall be the maximum of any of the three axes. Blast monitoring shall be performed by an independent company selected by the Village that is experienced in planning and implementing blast monitoring programs. The blast monitoring company shall prepare monitoring plans and shall be responsible for ensuring that the monitor sensors are placed properly and that the measuring and recording instruments function properly. The monitoring company shall prepare blast monitoring reports. All monitoring reports shall carry the seal of an engineer licensed in the State of Texas and shall be retained on file by the permit holder. These reports shall be available to the Village on request. Monitoring will be at the applicant's expense.

j. An independent firm, retained at the sole cost and expense of the applicant, shall monitor airblast and vibration operations. No fewer then two (2) seismographs shall be employed to monitor airblast and vibration. The independent firm is required to record each shot, document the location of surrounding buildings, their distances and relation to the blast site, analyze readings for compliance, and report results to the blaster following each detonation. Reports containing pertinent information and seismograph printouts of r each shot shall be submitted weekly to the Village of Volente.

k. **Monitoring**

1. Instrumentation:

A. All seismographs used for compliance with this section shall meet the following specification:

(1) Seismic frequency range: two (2) to two Hundred (200) Hz (+/- three (3) Hz)

(2) Acoustic frequency range: tow (2) to tow Hundred (200) Hz (+/- one (1) dB).

(3) Velocity range: two-hundredths (0.02) to four(4.0) inches per second

(4) Sound range: one hundred and ten (110) to one hundred and forty (140) dB linear.

(5) Transducers: three (3) mutually perpendicular axes.

(6) Recording: provide time-history waveform.

k. Detonating cord may be used only when approved on the blasting permit. Unauthorized use of a detonating cord will result in revocation of the blasting permit.

Sec. 49.005 Blasting Plan

A site specific blasting plan shall be prepared and submitted by a licensed blaster. The proposed blasting plan shall show the location of shots relative to nearby structure(s) and water wells, type of explosive or other blasting agent used, number of holes, pounds per hole, depth of hole, total pounds per shot, maximum number per delay, the estimated number of cubic yards of material to be removed by blasting, the estimate of the number of blasts required to remove the specified amount of material, the proposed date(s) and time(s) of use, the location(s) where such explosives or blasting agents are to be temporarily stored, and a safety plan to protect property and lives.

Sec. 49.006 Safety of Persons and Property

a. The permittee shall take all reasonable precautions for the safety of, and shall provide all reasonable protection to prevent damage, injury or loss to:

(1) All employees on the work and all other persons who may be affected thereby;

(2) All the work and all materials and equipment to be incorporated therein, whether in storage or off the site, under the care, custody or control of the permittee or any of his subcontractors or sub-subcontractors; and

(3) Other property at the site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, fences, roadways, water wells, structures and utilities not designed for removal, relocation or replacement in the course of construction.

b. The permittee shall comply with all applicable laws, codes, ordinances, rules, regulations and lawful orders of any public authority having jurisdiction for the safety of persons or property or to protect them from damage, injury or loss. The permittee shall erect and maintain, as required by existing conditions and progress of the work, all reasonable safeguards for safety and protection, including posting danger signs and other warnings against hazards, promulgating safety regulations and notifying owners and users of adjacent utilities.

c. When the use or transportation of explosives, blasting agents, or other hazardous materials or equipment is necessary for the execution of the work, the permittee shall exercise the utmost care and shall carry on such activities under the supervision of properly qualified personnel. No overnight storage will be permitted within the Village limits of Volente or its ETJ.

Sec. 49.007 Notification

All blasting operations must be preceded by a pre-blast notification to the owners or managers as required by the permit. The range of the pre-blast notification shall be at the discretion of the blaster or as required by the permit. Whenever blasting is being conducted in the vicinity of utility lines or rights of-way, the blaster shall notify the appropriate representatives of the utilities at least 24 hours in advance of blasting, specifying the location and intended time of such blasting. Verbal notices shall be confirmed with written notice. The permittee shall also post on the Village's web site a schedule of the blasting activities by time and place planned for the next 120 hour period.

Sec. 49.008 No Smoking in Vicinity of Blasting

No person shall smoke or carry matches, lighters or other such combustible materials while handling explosives or blasting agents or while in the vicinity thereof. "No Smoking" signs shall be posted in areas where explosives or blasting agents are being handled. The signs shall be visible from a distance of at least fifty (50) feet.

Sec. 49.009 Blasting Mat

When blasting is done in a congested area or in close proximity to a building, structure, highway, vehicle, conveyance or any other installation that may be damaged by material being thrown into the air, the blast shall be covered with an adequate blasting mat or shield. Proof that any such building structure, highway, vehicle, conveyance or other installation was damaged to any degree by material which was so thrown into the air shall raise a rebuttable presumption that said blast was not covered with an adequate blasting mat or shield. For purposes of this Section, an otherwise adequate blasting mat used improperly shall not be considered to be an adequate blasting mat or shield.

Sec. 49.010 Removal of Blasting Caps

All exposed blasting cap lead wires in the ground from previous blasts shall be removed at the end of each working day.

Sec. 49.011 License Required

a. No person shall engage in blasting activities within the Village of Volente or its ETJ unless that person is a licensed blaster or is under the direct supervision of a licensed blaster.

b. Any person engaging in the use of explosives or blasting agents who are not a licensed blaster or working under the direct supervision of a licensed blaster shall be fined two thousand dollars ($2,000.00) per day for each day the violation continues.

c. A "licensed blaster" as used in this Chapter refers to a person who possesses a valid "Blaster's License" from the City of Austin as that term is defined in Section 25-12-172 Local Amendments to Fire Code 202 General Definitions.

Sec. 49.012 No Blasting on Holidays and Weekends; Permissible Hours for Blasting

No blasting shall be permitted on Saturdays, Sundays, or legal holidays or before 9:00 a.m. or after 4:00 p.m. on any other day.

Sec. 49.013 Blasting Records and Responsibility

Persons responsible for blasting shall maintain a record of each blast. All records shall be retained at least five (5) years following the cessation of the blasting operation and shall be available for inspection by the Code Enforcement Inspector and contain the following minimum data:

- The name of the person responsible for the blasting operation.
- Location, date and time of each blast
- Name of blaster
- Type of material blasted
- Number of holes, burden and spacing
- Type(s) of explosives or blasting agents used
- Amount of explosives or blasting agents used
- Whether mats or other protections were used.
- Maximum amount of explosives or blasting agents per delay period of eight (8) milliseconds or greater.
- Maximum number of holes per delay period of eight (8) milliseconds or greater.
- Method of firing and type of circuit..
- Weather conditions (including such factors as wind direction, cloud cover, etc.)
- Height or length of stemming.
- Type of detonators used and delay periods used.

The permittee shall maintain accurate records throughout the blasting operations showing the location of shots relative to nearby structure(s), type of explosive or blasting agent used, number of holes, pounds per hole, depth of hole, total pounds per shot, date and time of blast and initials of the Inspector. Ground vibrations shall be measured by appropriate instrumentation adjacent to side of structures nearest the shot location and shall not exceed the limits set forth in Section 49.004g. The permittee is fully responsible for all claims from the blasting operation and shall promptly repair or replace all items known to be damaged as a result of blasting.

Sec. 49.014 Insurance

Prior to the issuance of a permit for blasting and including activities requiring the above ground storage of explosive or blasting agent materials and/or products above ground, a general liability insurance policy shall be exhibited to said Council in the principal sum of five million dollars ($5,000,000) for personal injuries and five million dollars ($5,000,000.00) for property damage per occurrence. The policy shall be current and shall name the Village of Volente as an additional insured 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 Council may specify a greater amount when, in its opinion, conditions at the location of use indicate a greater amount is required. The policy must be valid

for the life of the permit. The insurance policy must contain specific reference to blasting as an activity covered by insurance. The applicant and/or blaster shall provide proof of insurance from the insurance carrier that the policy does indemnify and hold harmless the Village, its agents/representatives, employees and residents from and against any or all claims, damages, losses and expenses including attorneys' fees arising out of or resulting from performance of the work, provided that such, damage, loss or expense is attributable to bodily injury or death, or to injury to or destruction of tangible property including the loss of use resulting from and is caused in whole or part by any negligent act or omission of the contractor or any of its officers, agents, employees, representatives, subcontractors, anyone directly or indirectly employed by any of them or anyone for whose acts any of them would be liable regardless of whether or not it is caused in part by a party indemnified hereunder and the contractor shall, at its own expense and cost, defend and protect said indemnified parties against all of such claims and demands.

Sec. 49.015 Penalty and Enforcement

a. Any person who shall violate any of the provisions of this Chapter, or shall fail to comply therewith, or with any of the requirements thereof, within the Village limits or its extraterritorial jurisdiction shall be deemed guilty of an offense and shall be liable for a fine not to exceed the sum of two thousand dollars ($2,000.00). Each day the violation exists shall constitute a separate offense. Such penalty shall be in addition to all the other remedies provided herein. Any person who violates this Chapter is subject to suit for injunctive relief as well as prosecution to seek penalties for the violations.

b. The doing or performing of any act in violation of this Chapter is additionally defined as a nuisance and prohibited within the Village of Volente and its extraterritorial jurisdiction.

c. This ordinance shall be administered and enforced by the Village Council or its designee.

Section 5: Severability

If any provision of this Ordinance or the application of any provision to any person or circumstance is held invalid, the invalidity shall not affect other provisions or applications of the Ordinance which can be given effect without the invalid provision or application, and to this end the provisions of this Ordinance are declared to be severable.

Section 6: Public Notice and Meeting

It is hereby officially found and determined that the meeting at which this Ordinance is passed was open to the public as required and that public notice of the time, place, and purpose of said meeting was given as required by the Open Meetings Act.

Section 7: Effective Date

This Ordinance shall take effect after any required posting and publication of this Ordinance.

PASSED AND APPROVED this, the ____ day of April, 2008, by a vote of the Volente Village Council of 5 in favor to 0 opposed with 0 abstentions.

Jan Yenawine, Mayor

ATTEST:

Jennifer Zufelt, Village Secretary