

AN ORDINANCE ESTABLISHING CHAPTER 214 – PILE DRIVING FOR UPLAND FOUNDATIONS SO AS TO IMPLMENT CONTROLS AND STANDARDS WITH REGARD TO PILE DRIVING AND VIBRATION LEVELS

WHEREAS, the Board of Commissioners of the City of Margate City, Atlantic County, State of New Jersey, have determined that in the best interest of public health, safety and welfare, there exists a need to implement standards and controls with regard to the driving of piling and cause of ground vibration caused by pile driving for foundations of new construction; and

WHEREAS, the Board of Commissioners has determined to establish Chapter 214 – Pile Driving as follows.

SECTION 1. Chapter 214 is hereby established to read “Pile Driving for Upland Foundations”.

SECTION 2. Section 214-1- Definitions:

Vibration, Impact. Earth borne oscillations occurring in discrete pulses at less than 60 per minute.

Vibrations, Steady-State. Continuous earth borne oscillations. Discrete pulses occurring 60 or more times per minute are usually considered steady-state vibrations.

1. **Vibration.**

A. Vibration, as used in these performance standards, refers to ground-transmitted oscillations. They shall be measured with a seismograph or complement of instruments capable of recording vibration displacement and frequency particle velocity or acceleration simultaneously in three mutually perpendicular directions.

B. Maximum permitted vibration levels. Table I designates the applicable columns of Table II that apply on or beyond adjacent lot lines within the zone and on or beyond appropriate district boundaries. Vibration shall not exceed the maximum permitted particle velocities of Table II. Readings may be made at points of maximum vibration intensity.

Table I

District	Adjacent Lot Line (within zone)	Adjacent Lot Line (If Adjacent Lot has a Historic Structure)
Historic	B	A
All Others	C	A

Table II
Maximum Peak
Particle Velocity
(inches/second)

Vibration	A	B	C
Steady-state	0.02	0.05	0.10
Impact	0.35	0.50	0.75

C. For purposes of these performance standards, steady-state vibrations are vibrations which are continuous or vibrations in discrete impulses more frequent than 60 per minute. Discrete impulses which do not exceed 60 per minute shall be considered impact vibrations.

D. Between the hours of 7:00 p.m. through 7:00 a.m., all driving of piling is prohibited unless an emergency has been declared by a Governmental authority.

E. During impact vibration operations, vibration monitoring must occur in accordance with N.J.A.C 12:190-7.26.

F. For all upland piling vibration monitoring must be performed using a seismograph with a triaxial geophone that records particle velocity displacement in three (3) mutual perpendicular directions (vertical and two (2) horizontal directions). The seismograph must have a peak particle velocity dynamic range of up to ten (10) inches per second and a sample rate of one thousand twenty-four (1,024) samples per second per component. The seismograph must continuously record and store the highest peak particle velocity at a minimum of three (3) second intervals. A caution level of 75% of the maximum level shall be established for each job site. If ground vibrations reach the caution level, the seismograph must record a waveform event in order to measure the frequency of the vibration and the particle velocity. All vibration monitoring must be performed by an individual trained in vibration monitoring that is under the direct supervision of a New Jersey Licensed Engineer.

G. The installer of the pilings, sheet piling, foundation pilings and other pilings of any kind shall submit a record of the recordings to the Construction Office within 5 days of completing the work.

SECTION 3: Section 214-2 Permit required for erection and reconstruction:

Applications for permits to perform pile driving for upland foundations shall be accompanied with plans showing size, location, configuration and specification of materials to be used in the placement of upland foundation piling as well as the manner in which such materials shall be incorporated into the upland foundation piling.

SECTION 4: Section 214-3 Notification to Adjacent Property Owners.

Prior to the commencement of work to install upland foundation piling, the contractor shall notify the owner of all properties contiguous to the subject property for which the piling are to be installed. All notifications shall be in writing and shall include the name, address and telephone number of the piling installation contractor and the owner of the property, the street address, lot and block of the property and the date(s) on which the piling installation is to be done and shall be delivered at least ten (10) calendar days prior to the commencement date of the pile installation activity, and shall be forwarded by either personal delivery to the owner(s) or certified mail.

Notification shall be forwarded to the properties mailing address as set forth on the Margate City tax bill for each property. Proof of such notification to contiguous property owners shall be furnished to the Construction Office prior to the commencement of pile driving.

SECTION 5. Section 214-4 Insurance requirements for Piling Contractors.

All piling contractors prior to issuance of a Permit shall present to the Construction Office proof of insurance coverage by way of an insurance certificate indicating that the contractor has personal injury and property damage liability insurance in a minimum amount of \$1,000,000.00 per occurrence. Such insurance coverage must be in effect during the duration of the Permit. The City of Margate City as an interested party shall be notified of the cancellation or lapse of any policy. In the event that said policy is cancelled or lapsed and is not immediately renewed or replaced, the Permit issued hereunder shall be revoked.

SECTION 5. Section 214-4 SIGNS.

Every upland foundation pile driving construction site in Margate shall have a sign eighteen (18") inches in width and twenty-four (24") inches in height posted at the site which shall contain a phone number given to the contractor by the City of Margate advising people to call if they believe any violation of this section has occurred.

SECTION 6. Section 214-5 – Violations and Penalties.

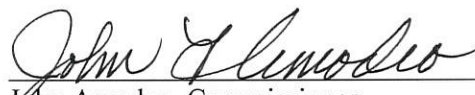
Any person, firm association or corporation violating the provisions of this chapter shall be subject, upon conviction, to a fine not to exceed \$1,000.00 or imprisonment for a term not to exceed 90 days, or both such fine and imprisonment.

SECTION 5. All ordinances or parts of ordinances inconsistent with any terms of this Ordinance are hereby repealed to the extent of such inconsistency only.

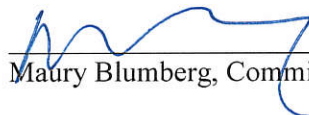
SECTION 6: This ordinance shall take effect upon its final passage and publication as required by law.



Michael Becker, Mayor



John Amodeo, Commissioner



Maury Blumberg, Commissioner

Board of Commissioners of the City of
Margate City, New Jersey

Introduction: November 5, 2020

Enactment: November 19, 2020