

same by proper foundations, so that said party wall shall be and remain practically as safe as before the excavation was commenced.

When an excavation is made on any lot, the person or persons causing such excavation to be made shall build at his or their own cost and expense, a retaining wall to support the adjoining earth; and such retaining wall shall be carried to the height of the adjoining earth and be properly protected by coping. The thickness of a retaining wall at its base shall be in no case less than one-fourth its height.

Ib., Sec. 18.

SEC. 490. Foundations.—Every building, except buildings erected upon solid rock or buildings erected upon wharves and piers on the water front, shall have foundations of brick, stone, iron, steel or concrete, laid not less than one foot below the surface of the earth, on the solid ground or level surface of rock or upon piles or ranging timbers, when solid earth or rock is not found.

All calculations for piling shall be made by some approved formula and plans submitted to the Commissioner of Buildings for his approval.

The tops of all the piles shall be cut off below the lowest water line. When necessary concrete shall be rammed down in the interspaces between the heads of the piles to a depth and thickness of not less than twelve inches and for one foot in width outside of the piles. Where ranging and capping timbers are laid on piles for foundations, they shall be of hardwood or heart pine, not less than six inches thick, and properly joined together, and their tops laid below the lowest water line. Where metal is incorporated in or forms a part of a foundation, it shall be thoroughly protected from rust by paint, asphaltum, concrete, or by such other materials as may be approved by the Commissioner of Buildings. When footings of iron or steel for columns are placed below the water level they shall be similarly coated, or inclosed in concrete, for preservation against rust.

Ib., Sec. 19.

SEC. 491. Foundation Walls.—Foundation walls shall be construed to include all walls and piers built below the curb level, or nearest tier of beams to the curb, to serve as supports for walls, piers, columns, girders, posts or beams. Foundation walls shall be built of stone, brick, Portland cement, concrete, iron or steel. If built of rubblestone or Portland cement concrete, they shall be at least eight inches thicker than the wall next above them; if built of brick, they shall be at least four inches thicker than the wall next above them.