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First Supplement to Memorandum 69-51

Subject: Study 65 - Inverse Condemnation (Interference With Land Stability)

Time did not permit the Commission to consider Memorandum 69-51 relating to interference with land stability at the April meeting and we will, therefore, take up that memorandum at the May meeting. In connection therewith, the staff believes that the attached Note dealing with lateral support may provide additional valuable background.

It may be noted that the Restatement of Torts makes no attempt to deal with the more difficult problems connected with lateral support. The Restatement merely provides absolute liability for the withdrawal of "natural necessary lateral support." Thus, the excavator has an absolute duty to provide lateral support for adjacent land in its natural state. Moreover, this duty extends to improvements on adjacent land that are damaged by a subsidence that would have occurred if the land was unimproved. The Restatement makes no provision concerning damage to improvements where the weight of the improvements contributes to the subsidence. No attempt is made to provide notice, to permit entry to cure, to allocate the expense of cure, and so on.

Respectfully submitted,

Jack I. Horton
Associate Counsel

Lateral Support

Almost every construction job begins with an excavation, and many still end with a lawsuit. Building inspection practices and modern engineering techniques have gone far toward eliminating the hazards to life and property involved in the problem of "lateral support." The engineer has methods at hand sufficient to protect a skyscraper when an adjacent excavation threatens its foundations. But the question of who is to bear the cost of protection—builder, adjoining landowner, or both—is one for which the law has yet to supply a satisfactory answer. Although statutes or city ordinances have replaced the common law in almost all jurisdictions, the change generally has meant only the substitution of one rule of thumb for another.

I. The Problem

Surface land and the structures it supports constitute a vertical load upon the soil beneath. Under this load, the subsoil in turn exerts lateral pressure against the adjoining earth. It is the resistance which this adjoining earth affords to such pressure that is termed "lateral support."

Excavation may cause the sinking of adjacent land in any one of several ways. Most common, perhaps, is the "cave-in." When the excavator removes earth from plot *A*, he deprives the adjacent plot, *B*, of lateral support. Unless the sides of the excavation have been braced to withstand the lateral pressure exerted by the subsoil of plot *B*, they may give way and cause settlement of the adjacent surface area.[1]

A similar type of subsidence may occur when the excavator encounters water-bearing soil below the surface of the ground. In the attempt to pump out the water, great quantities of sand are sucked into the hole and also pumped out. Often large areas are undermined, with consequent settling of adjoining structures.[2]

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1. Randall, *Lateral Support of Building Foundations*, Midwest Engineer, Nov. 1951, pp. 11, 13.

2. Huntington, Building Construction 134 (2d ed. 1941). For examples of litigation arising from this type of subsidence, see Tillson v. Consumers Power Co., 269 Mich. 53, 256 N.W. 801 (1934); Harder Realty Co. v. City of New York, 64 N.Y.S.2d 310 (Sup. Ct. 1946). A similar effect, not to be confused with removal of lateral support, follows from the lowering of the ground water table through pumping operations. As the moisture content of adjacent soil is reduced, its compaction increases, and again, settlement and cracking of structures may result. See Randall, *supra* note 1, at 26.

A third type of soil movement results from the "heave" which typically occurs in the bottom of an excavation. Whenever a hole is opened up, there is a tendency for the ground in the bottom of the excavation to rise.

> This effect is most likely to occur with deep, wide holes underlain with soft clay, because the banks of the hole constitute an unbalanced load on the underlying strata near the edge of the hole. . . . It is impossible to prevent the lateral movement of the soil which occurs below the level of the excavation, and in turn the resulting heave of the bottom of the hole. The accompanying settlement of the upper adjacent ground surface is therefore unavoidable.[3]

How the "careful" excavator will meet the threat of these contingencies depends almost entirely on the conditions of the job at hand—the character of the soil, the load which it carries, the excavation depth, its proximity to adjoining structures, and climatic conditions. Under certain circumstances merely bracing the sides of the cut may be sufficient. Other circumstances may necessitate the pouring of a reinforced concrete retaining wall, or, where the excavation threatens to undermine the foundations of the adjoining structure, the pouring of additional footings. The development of the science of soil mechanics bears promise of increasing the predictability of the bearing qualities of soil, and subsurface exploration is common practice today.[4]

While engineering science has developed adequate methods of protection, their cost is often extremely high. Thus in many instances it may be not only impractical but also unsound as a matter of social policy to impose the *full* burden on either the builder or the adjoining landowner. The large number of reported cases is a measure of the frequency with which builders are tempted to cut corners in providing protection to adjacent structures. But cases have also reached the courts in which building owners, discouraged by the cost, have refused to take measures necessary to prevent collapse of their own structures.[5]

The cost-of-protection problem takes on a critical aspect as rezoning becomes prevalent and new buildings are begun next to older structures. Age and often inferior foundations may make

3. Randall, *supra* note 1, at 13.

4. Huntington, *op. cit. supra* note 2, at 105.

5. See, *e.g.*, Braun v. Hamack, 206 Minn. 572, 289 N.W. 553 (1940), 50 Yale L.J. 1125 (1941).

these structures exceedingly difficult to protect.[6] Similarly, the problem is enlarged as cities spread out into "secondary land"—marginal land on slopes where permanent excavations are necessary to provide adequate footings, and land in areas where the lateral stability of the ground is less than in more desirable building sites.[7]

The conflict of social interests evoked under these circumstances is clear. Urban society demands protection for existing structures, and, at the same time, seeks to encourage new construction to meet expanding needs. The attempt of the common law to resolve the conflict in terms of the "natural" rights of land ownership was patently inadequate to the demands of urban development. Thus it was inevitable that legislatures should eventually pre-empt the field in an effort to provide a more workable solution.

II. The Common Law

The law of lateral support found its beginnings in the rather off-the-cuff remarks of an early commentator. He stated that the right of a landowner to the support of his land was absolute, so long as it remained in its natural state; if improvements were added, however, there could be no recovery for damage to buildings *or* land occasioned by an adjoining excavation.[8] For two centuries courts reiterated these propositions without questioning their validity.[9]

Support of Land

The doctrine of an absolute right to the support of land in its "natural state" failed to fit very neatly into the common-law scheme

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6. See Trinfzi v. Costa, 296 Mass. 24, 4 N.E.2d 617 (1936).

7. The Building Inspector for the City of Oakland, California, stated that "down in the heart of the city, the bigger contractors are fully aware of what they must do. In the hill sections where is available the only land left for residential construction, we are encountering some misunderstanding, and even attempts to avoid the implications of the law. . . . It is only in the last twenty years or so that foundation and soil mechanics have received any attention in a big way in this country, and now that a great deal of marginal land must be used, it is becoming an increasing problem." Letter of August 17, 1953, from Milton P. Ketchel, Building Inspector, Oakland, California, on file with the *Stanford Law Review*.

8. 2 Roll. Abr. 564 (1668). An earlier case granted recovery to the owner of a building which had subsided as a result of the digging of a neighbor, but the facts are sparse, and the reasoning is not reported. Slingsby v. Barnard, 1 Rolle 430, 81 Eng. Rep. 586 (K.B. 1616).

9. For a relatively recent application of this reasoning, see City of Quincy v. Jones, 76 Ill. 231 (1875).

of interests in land. Since the right to the support afforded by adjoining land was a nonpossessory interest, it was looked upon as an easement in that land.[10] Being a "natural" right, it required neither grant nor prescription for its creation. Moreover, since it was an easement for support, the statute of limitations ran from the time that the support was removed.[11] While the plaintiff could sue at any time thereafter, actual subsidence might not occur until after the statutory period had run. But if he brought his action before subsidence had occurred, he not only found himself limited to recovery of nominal damages by difficulties of proof, but he was also foreclosed from bringing future actions in the event that an unforeseen subsidence did occur.[12] The theory was that prospective damages were his for the asking in the original suit,[13] despite the obvious impossibility of proof.

The incongruity of these results eventually forced a departure from the doubtful logic of the easement theory. Although the courts continued to talk in easement terms, the landowner's interest in lateral support came to be regarded as a right "to the integrity of the supported land."[14] Since that "integrity" was destroyed only by actual subsidence, damage became essential to a cause of action.[15] Accordingly, the statute of limitations ran from the time when the damage occurred,[16] and successive actions were maintainable for subsequent subsidences resulting from the same excavation.[17] Prospective damages, however, could no longer be recovered even in theory.[18]

Logically applied, the right "to the integrity of the supported land" doctrine would have abrogated entirely the absolute liability of the excavator for damage to adjoining land.[19] Since the supporting land was no longer regarded as being subjected to a "natural servitude," trespass would not lie and the excavator should have

10. See Losee v. Buchanan, 51 N.Y. 476, 478 (1873).

11. Nicklin v. Williams, 10 Ex. 259, 267, 156 Eng. Rep. 440, 444 (1854).

12. *Ibid.*

13. *Ibid.*

14. 4 RESTATEMENT, TORTS 185–86 (1939).

15. Church of the Holy Communion v. Paterson Extension R.R., 66 N.J.L. 218, 49 Atl. 1030 (1901).

16. Ludlow v. Hudson River R.R., 6 Lans. 128 (N.Y. 1872); Smith v. Seattle, 18 Wash. 484, 51 Pac. 1057 (1898).

17. Crumbie v. Wallsend Local Board, [1891] 1 Q.B. 503.

18. Schultz v. Bower, 57 Minn. 493, 59 N.W. 631 (1894).

19. See note 14 *supra*.

been liable only if negligence or intent to cause harm was shown. However, the doctrine of absolute liability prevailed; it continues in force today throughout the United States and England.[20]

Support of Buildings

The attempt of the common law to adjust the social interests involved in the problem of lateral support on the basis of the "natural" rights of land ownership led to an early denial of protection for buildings.[21] This denial was premised on the assertion that one could not restrict his neighbors in the free use of their land by artificially altering his own property.[22] Courts also rationalized the result in contributory negligence terms; the building owner could not complain if his structure collapsed into an adjoining excavation for it was obviously his own fault for building so close to the property line.[23]

Doubtless this position caused courts little embarrassment in a day when heavy, multistoried structures were comparatively rare, or at least seldom built in close proximity to the smaller structures that characterized the urban centers of fifteenth-century England. But such reasoning could not prevail long against the growing demands of urban development.

The first inroad on the early rule which limited protection to land in its "natural condition" took the form of the prescriptive easement.[24] The "lost grant" fiction soon gave way to a statutory prescriptive period,[25] and it became established that a building which had stood for twenty years had earned the right to lateral support from adjoining land.

However the incongruous results which followed from literal easement theory forced the same doctrinal departures as had occurred in the law relating to support of land. The practical necessity of providing the building owner with an efficacious remedy prevailed over the attempt to make the incidents of his right con-

20. Gorton v. Schofield, 311 Mass. 352, 41 N.E.2d 12 (1942); Home Brewing Co. v. Thomas Colliery Co., 274 Pa. 56, 117 Atl. 542 (1922); Prete v. Cray, 49 R.I. 209, 141 Atl. 609 (1928); Darley Main Colliery Co. v. Mitchell, 11 App. Cas. 127 (1886).

21. 2 ROLL. ABR. 565 (1668).

22. See Smith v. Martin, 2 Wms. Saund. 394, 85 Eng. Rep. 1206 (K.B. 1684).

23. See City of Quincy v. Jones, 76 Ill. 231 (1875).

24. See Stansell v. Jollard (1803), cited in 1 SELWYN, ABRIDGEMENT OF THE LAW OF NISI PRIUS 457 (7th Am. ed., Fish, 1857).

25. 2 & 3 WM. IV, c. 71 (1832–33).

sistent with settled property law. Speaking of that right, Lord Blackburn was forced to remark pointedly,

> [W]hether it is to be called by one name or the other is, I think, more a question as to words than as to things. . . . That though the right of support to a building is not of common right and must be acquired, yet, when it is acquired, the right of the owner of the building to support for it, is precisely the same as that of the owner of land to support for it.[26]

The English view of the building owner's right as a prescriptive easement has received virtually no support in the United States.[27] A cause of action can hardly be said to arise merely from the presence of a structure on neighboring land. Thus the theory runs counter to prevailing notions of the basis for the acquisition of prescriptive rights. Moreover, as a practical matter, the theory affords little protection in rapidly growing communities where new buildings may outnumber old ones.

As an alternative to the prescription doctrine, some courts, not all of them early English, granted recovery for injury to buildings as part of the measure of damages.[28] It was held that, if the excavation was such as would have caused collapse of the soil even without the added weight of the building, the excavator was liable without fault for the total damage sustained to both land and building.[29] Apparently recovery was predicated on the favorite principle of the common law that one is held to have intended the "natural and probable consequences of his act."[30]

The first semblance of a rational common-law approach to the problem of lateral support appeared with the establishment of negligence as the broad basis of liability in the field of tort law. The principle of "due care under the circumstances" quickly replaced the mechanical and rigid property doctrines which had governed the liability of the excavator in respect to adjoining structures.[31] Today, under both decision and many statutes, negligence is the standard of protection for existing structures. The excavator

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26. Dalton v. Angus, 6 App. Cas. 740, 809 (1881).
27. *E.g.*, Sullivan v. Zeiser, 98 Cal. 346, 33 Pac. 209 (1893); Gilmore v. Driscoll, 122 Mass. 199 (1877); *dictum*, Carpenter v. Reliance Realty Co., 103 Mo. App. 480, 490, 77 S.W. 1004, 1007 (1903).
28. *E.g.*, Prete v. Cray, 49 R.I. 209, 141 Atl. 609 (1928).
29. *Ibid.*
30. *Id.* at 211, 141 Atl. at 612.
31. *E.g.*, Moore v. Anderson, 5 Boyce 477, 94 Atl. 771 (Del. 1915); Gilmore v. Driscoll, 122 Mass. 199 (1877).

who negligently deprives land of its lateral support becomes liable for the harm that results both to the land and to the buildings upon it. But, absent fault on the part of the excavator, the burden lies with the adjoining owner to protect his structures.[32]

What constitutes negligence in the lateral support context will vary, of course, with the particular circumstances of each case. The test is the same as that applied in determining the reasonableness of the defendant's conduct in other fields of activity, although the great social utility involved in the improvement and utilization of land may often influence a court's determination of the reasonableness of the excavator's conduct. It is interesting to note, however, that the required standard of care appears to have become stricter in recent times.[33] Ultimately, the advance of engineering science may balance out entirely the influence of the policy for improvement of land upon the legal standard of care. By providing the excavator with inexpensive methods that obviate what are today often necessary risks to adjoining structures, engineering science may render the creation of these risks unnecessary, and thus unreasonable.

While it is difficult to generalize with respect to the question of what constitutes negligence, certain acts have often been held to furnish strong evidence of negligence. The failure of the excavator to notify the adjoining landowner of his activities, and to provide him reasonable opportunity for protecting his premises is generally regarded as evidencing lack of due care.[34] Similarly, assuring the adjacent owner that the excavation will be carried out in a particular manner, or to a particular depth, when it is actually carried out differently, may result in liability for damage to structures.[35] Depending upon the circumstances, it may be negligent for the excavator to leave the sides of the cut unbraced over long periods

32. RESTATEMENT, TORTS § 819 (1939); see, *e.g.*, ST. LOUIS BUILDING CODE § 47-2. (This building code, and others hereafter cited were in effect as of September 1953.)

33. *Compare* Charless v. Rankin, 22 Mo. 566, 575 (1856), *with* Bissell v. Ford, 176 Mich. 64, 72, 141 N.W. 860, 864 (1913). In *Charless v. Rankin*, the court said, "[T]he law does not exact of him [the excavator] the same forbearance and care and expense for the security of his neighbor's property that he would have found it for his interest to have taken for his own." Later, in *Bissell v. Ford*, the court said, "If there were two ways in which defendant Ford could make the desired improvements on his land, one of which, with the use of reasonable care and skill, would not injure plaintiffs' premises, and another method which lacked skill and care, which would result in injury to them, it was clearly his duty to select the former."

34. Bonaparte v. Wiseman, 89 Md. 12, 42 Atl. 918 (1899); Gerst v. St. Louis, 185 Mo. 191, 84 S.W. 34 (1904); Schultz v. Byers, 53 N.J.L. 442, 22 Atl. 514 (1891).

35. Larson v. Metropolitan Street Ry., 110 Mo. 234, 19 S.W. 416 (1892).

of time,[36] to open the entire excavation at one time when it would have been possible and safer to dig in sections,[37] or to fail to shore up the adjacent structure when it is endangered.[38]

The principles of contributory negligence have only limited application to lateral support. The excavator generally must take the plaintiff's building "as he finds it," and its structural defects or state of dilapidation will not bar the owner's recovery unless the owner himself has neglected to take such precautions as are reasonable under the circumstances.[39] Here the issue of whether the owner had notice of the excavation and reasonable opportunity to take protective measures is decisive.[40] Unless the excavator has provided him with notice, or the owner can be said to have had actual knowledge, the weaknesses of the structure will be regarded as a condition which increases the standard of care required of the excavator.[41]

The scope of the "independent contractor" defense has also been limited. While the defense has been successful on occasion,[42] some means of circumventing it is usually found. Most commonly the project is said to be an "inherently dangerous" one, creating a "nondelegable" duty.[43] Thus both the contractor who does the excavating and the owner of the land on which the project takes place are commonly held liable. The fact that the owner was appraised of the contractor's plans and exercised rights of supervision during the course of the excavation may impose liability upon him as a joint tort-feasor even absent the nondelegable duty.[44]

Application of tort doctrines in the field of lateral support allowed a much more flexible adjustment of conflicting social interests than was possible with the ancient property concepts. By impos-

36. Randall, *Lateral Support of Building Foundations*, Midwest Engineer, Nov. 1951, p. 13.

37. Jones v. Hacker, 104 Kan. 187, 178 Pac. 424 (1919) (no negligence); Gildersleeve v. Hammond, 109 Mich. 431, 67 N.W. 519 (1896) (negligence); Larson v. Metropolitan Street Ry., 110 Mo. 234, 19 S.W. 416 (1892) (negligence).

38. Hartshorn v. Tobin, 244 Mass. 334, 138 N.E. 805 (1923) (negligence); Horowita v. Blay, 193 Mich. 493, 160 N.W. 438 (1916) (no negligence). See RESTATEMENT, TORTS § 819, comment *c* (1939).

39. RESTATEMENT, TORTS § 819, comment *g* (1939).

40. Huber v. H. R. Douglas Inc., 94 Conn. 167, 108 Atl. 727 (1919); Stockgrowers' Bank v. Gray, 24 Wyo. 18, 154 Pac. 593 (1915).

41. Cooper v. Altoona Concrete Construction & Supply Co., 53 Pa. Super. 141 (1913).

42. See Myer v. Hobbs, 57 Ala. 175 (1876); Smith v. Howard, 201 Ky. 249, 256 S.W. 402 (1923); Neumann v. Greenleaf Real Estate Co., 73 Mo. App. 326 (1898).

43. *E.g.*, Law v. Phillips, 68 S.E.2d 452 (W. Va. 1951); see Bohrer v. Dienhart Harness Co., 19 Ind. App. 489, 49 N.E. 296 (1898).

44. Wharam v. Investment Underwriters, Inc., 58 Cal. App.2d 346, 136 P.2d 363 (2d Dist. 1943).

ing a duty of care on the excavator with respect to adjacent structures the law took a large step toward distributing the burden of protection. But the attempt to resolve the problem in negligence rather than easement terms, while it yielded results more satisfying to notions of justice and sound policy, made the situation of excavator and adjoining landowner legally unpredictable. The lines drawn by the early courts were arbitrary ones, but they were "clean-cut" and thus easy to discern. The principle of due care under the circumstances, on the other hand, with its highly relative "risk against utility" approach, offered few guides to those seeking to avoid a lawsuit. Some affirmative measure of their respective rights and liabilities was necessary.

III. Regulation by Statutes and Ordinances

Only about one-fourth of the state legislatures have enacted statutes dealing with the problem of lateral support.[45] County and municipal ordinances on the subject, however, are almost universal and undoubtedly govern most of the building done in the United States today.[46] The statutes and ordinances fall into three groups: (1) those that codify the common law and add minor embellishments, such as making the failure to give notice negligence per se and requiring a certain period of time between the giving of notice and the beginning of excavation;[47] (2) those which impose abso-

45. The indices to the various state statutes under the titles "lateral support" and "excavation" yield legislation on this matter in only eleven states. Cal. Civ. Code § 832 (Deering, 1949) (for an analysis, see Comment, 20 Calif. L. Rev. 62 (1931)); Ga. Code Ann. §§ 85-1202, 85-1203 (1933); Idaho Code Ann. § 55-310 (1949); Ill. Ann. Stat. c. 121, § 156a (Cum. Supp. 1951) (this statute deals only with excavations adjoining streets); Ky. Rev. Stat. § 381.440 (1953) (the Kentucky statute applies only to cities of the first class, which include only Louisville); Mich. Comp. Laws §§ 554.251–254 (1948); Mont. Rev. Codes Ann. § 67-714 (1947); N.J. Stat. Ann. § 46:10.1 (1940); Ohio Code Ann. §§ 3782, 3783 (1940); Okla. Stat. tit. 60, §§ 49(13), 66 (1951); Pa. Stat. Ann. tit. 53, § 2656 (1931) (the Pennsylvania statute deals only with excavations adjoining streets).

46. Note, 50 A.L.R. 486, 519 (1927).

47. An example of an ordinance codifying the common law with slight changes is that used by the City of St. Louis: "An owner proposing to excavate on his own land to an elevation below the foundation of a structure on an adjoining lot and so near such structure as to endanger it shall notify the owner of the adjoining lot and shall afford him a reasonable opportunity to protect his property. The notice shall be made in writing and shall be delivered to the owner of the adjoining lot at least seven days before the excavation is extended to a hazardous depth. The notice shall state the location, size and depth of excavation proposed and the date upon which it is intended to commence the extension of excavation to hazardous depth, and a copy of the notice shall be filed with the Building Commissioner. Such notice having been so served and so filed, the owner of the adjoining lot shall protect and keep safe the structure thereon at his own expense.

"An owner of an adjoining lot notified to protect a structure thereon from damage by reason of a neighboring excavation shall be permitted to enter the lot to be excavated and shall be permitted to occupy it for such length of time as is required to make safe the

lute liability for the failure to provide lateral support for buildings;[48] (3) those which provide for an apportionment of the cost of protection between the adjoining landowners.[49]

Footage-Depth Ordinances: A Solution?

The apportionment-type ordinance is by far the most common. Many counties and cities which utilize it have developed their own regulations, but the majority use one of a number of "model" building codes.[50] These codes embody largely similar provisions regarding lateral support for buildings. All provide for apportionment of the burden of protection on the basis of the depth of the excavation. Section 2801 of the Code of the Pacific Coast Building Officials Conference is typical and thus bears examination.[51]

structure; and one so entering and occupying the property of another shall protect the land, premises and structures thereon from damage by reason of such entry.

"If the owner of an adjoining lot is notified as required above to protect a structure thereon from damage by reason of a neighboring excavation but fails either to observe such notice or to make the structure safe within a reasonable time, the Building Commissioner may condemn the structure and order its removal or repair if in his judgment the structure will be rendered unsafe by reason of the excavation described in the notice." ST. LOUIS BUILDING CODE § 47-2.

48. A typical ordinance imposing absolute liability is that of Elmira, New York: "Whenever an excavation for buildings or other purposes shall be carried below the curb, the person causing the excavation shall at all times, if accorded the necessary license to enter upon the adjoining property, and not otherwise, at his own expense preserve any adjoining or contiguous wall, structure, yard or bank of earth or rock from injury in any approved manner so that the said wall, structure, yard or bank of earth or rock shall be practically as safe as before such excavation was commenced." BUILDING CODE OF THE CITY OF ELMIRA, Part III, § 13.2.

A simpler ordinance to the same effect is that of Canton, Ohio: "No building shall be erected in such a manner as to endanger the safety of the foundation or superstructure of an adjoining building." Letter of Aug. 19, 1953, from Lloyd Davis, Inspector of Buildings, Canton, Ohio, on file with the *Stanford Law Review*.

49. For an example of the third type of ordinance, see the UNIFORM CODE OF THE PACIFIC COAST BUILDING OFFICIALS CONFERENCE § 2801, reproduced at note 51 *infra*.

50. The Southern Building Code is used by over 500 communities including Tulsa, Okla., Knoxville, Tenn., Nashville, Tenn., and Norfolk, Va. Letter of Sept. 14, 1953, from M. L. Clement, Director of the Southern Building Code Congress, on file with the *Stanford Law Review*.

The suggested code of the National Board of Fire Underwriters, published initially in 1905, was the first model building code. It has undergone periodic revision since that date. The code is now in use in about 500 communities. NBFU, COMMUNITIES WHICH HAVE ADOPTED THE NATIONAL BUILDING CODE OF THE NBFU OR HAVE A CODE BASED LARGELY ON THE NBFU CODE (1952) (mimeo).

The Pacific Building Code was first proposed in 1927 and has gone through periodic revision since that time. UNIFORM CODE OF THE PACIFIC COAST BUILDING OFFICIALS CONFERENCE 14. The code is now estimated to be in use by over 600 communities.

51. "Excavations for buildings and excavations accessory thereto shall be protected and guarded against danger to life and property. Permanent excavations shall have retaining walls of masonry or concrete of sufficient strength to retain the embankment together with any surcharged loads. No excavation for any purpose shall extend within one foot (1') of the angle of repose or natural slope of the soil under any footing or foundation, unless such footing or foundation is first properly underpinned or protected against settlement.

"Any person making or causing an excavation to be made to a depth of twelve feet

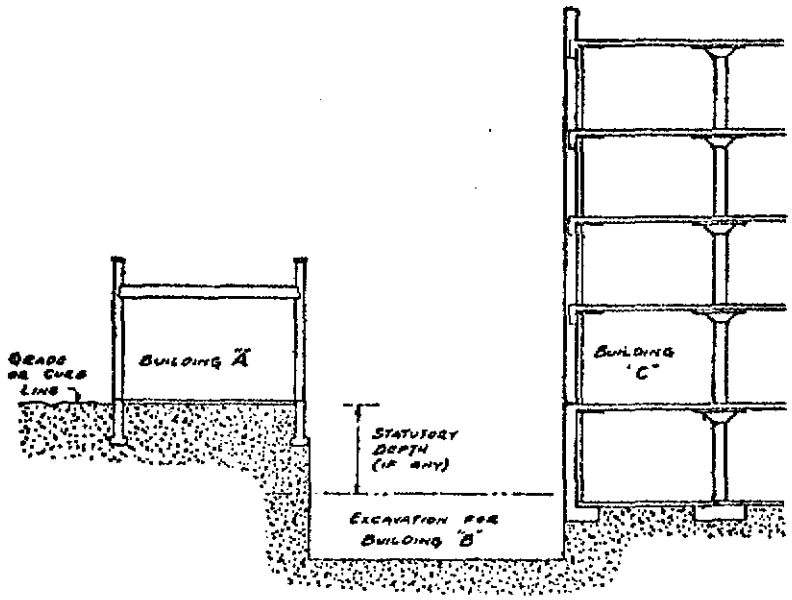

FIG. 1.—Since the foundation of building *C* already exceeds the statutory depth, the normal rule is that any expense of support must be borne by the party constructing building *B*. The expense of extending the foundation of building *A* to the statutory depth falls upon its owner. Beyond that point, the burden falls upon the excavator.

Diagram reprinted through the courtesy of *Midwest Engineer*.

The first paragraph of the model ordinance provides that excavations shall have "retaining walls of masonry or concrete of sufficient strength to retain the embankment together with any surcharged loads." The absolute common-law duty of the excavator to provide lateral support for adjoining *land* is expanded to include the support of the land "together with any surcharged

(12') or less, below the grade, shall protect the excavation so that the soil of adjoining property will not cave in or settle, but shall not be liable for the expense of underpinning or extending the foundation of buildings on adjoining properties where his excavation is not in excess of twelve feet (12') in depth. Before commencing the excavation the person making or causing the excavation to be made shall notify in writing the owners of adjoining buildings not less than 10 days before such excavation is to be made that the excavation is to be made and that the adjoining buildings should be protected. The owners of the adjoining properties shall be given access to the excavation for the purpose of protecting such adjoining buildings.

"Any person making or causing an excavation to be made exceeding twelve feet (12') in depth below the grade, shall protect the excavation so that the adjoining soil will not cave in or settle, and shall extend the foundation of any adjoining buildings below the depth of twelve feet (12') below grade at his own expense. The owner of the adjoining buildings shall extend the foundations of his buildings to a depth of twelve feet (12') below grade at his own expense as provided in the preceding paragraph." UNIFORM CODE OF THE PACIFIC COAST BUILDING OFFICIALS CONFERENCE § 2801. The "angle of repose" referred to in the first paragraph is the angle at which the soil must be left in order to support buildings in their natural unshored condition. This angle is usually about thirty degrees but will vary depending on the consistency of the soil.

loads," i.e., buildings. The paragraph also sets up a standard of care for the excavator who proposes to dig within a certain distance of adjacent foundations.

The second and third paragraphs of the ordinance allot the expense of extending the *foundations* of an adjacent structure according to a footage-depth measure of twelve feet. The excavator remains under his primary duty of providing support for both the soil and the loads upon it by means of a retaining wall. However, where circumstances make it necessary to pour additional footings, for example where the excavation extends to the property line, the burden of extending the foundations of adjacent structures below twelve feet falls upon the excavator. If the depth of the excavation will be less than twelve feet, the adjoining building owner has the duty of carrying his foundation down far enough to protect the building from settlement.

Ordinances using the footage-depth rule as a basis for apportioning the cost of providing additional footings for an adjacent structure vary as to the depth at which the burden will shift. The majority use a nine-, ten-, or twelve-foot depth. The practical consequences of the footage-depth rule are difficult to gauge. The depth to which foundations must be carried depends on a number of factors: the space requirements of the building, the loads which must be carried, the character of the foundation material, and climatic conditions.[52] While large industrial and commercial structures may require deep foundations, the majority of buildings rest on footings much shallower than the footage-depth marks set up in the ordinances and statutes.[53] Yet only rarely do such regulations make any distinction among the various types of structures erected within a city.[54]

The chief virtue of the apportionment-type ordinance, then, is its ease of administration. In this respect, it remedies the major weakness of the common law negligence test. Aside from certain technical ambiguities,[55] the regulation gives adjoining landowners

52. HUNTINGTON, BUILDING CONSTRUCTION 103 (2d ed. 1941).

53. This information and other factual data was procured through interviews with contractors, building officials, and the technical advisor of the Pacific Coast Building Officials Conference Code, during the month of September, 1953.

54. The Building Code of the City of Grand Rapids, Michigan, makes such a distinction. The dividing line is six feet in the construction of dwellings, and thirteen feet in the construction of business buildings. GRAND RAPIDS BUILDING CODE § 161(c).

55. For example, ordinances vary as to the point where measurement is to begin. Many measure from the surface of the ground where the excavation meets the property line; others measure from the curb height where the property line intersects it. In the

fairly definite notice of the extent of their duties. But in so far as the footage-depth rule purports to allot the costs of extending foundations on a rational basis, it falls short of the mark.

The excavator must extend adjoining foundations below twelve feet. However, if the excavation is no deeper than eleven feet, eleven inches, the adjoining owner bears the cost. The rule probably reflects a number of considerations. As a matter of policy, property owners should be required to provide adequate foundations for buildings which they erect—"adequate" not only for their own protection, but also for the usages of the community. On the other hand, there is little justification for requiring the property owner to assume the costs of protecting against extraordinarily deep excavations. It may not be unsound to assume, furthermore, that deep excavations are commonly part of a large economic venture, the proponents of which will ordinarily be in the better position to assume the extra costs of protection.

The difficulty with this reasoning, of course, is the fact that these considerations apply to the excavation which is eleven feet, eleven inches deep as well as to the one which extends past the twelve-foot mark. The argument that "the line must be drawn somewhere" fails to take into account the possibility of drawing the line in a different way. The need for standards sufficiently definite to provide for "fair warning" and for efficient administration does not necessitate completely arbitrary standards. For instance, the cost of protection might be apportioned according to the relative market values of the existing building and the new structure. This would require an appraisal in place of a tape measure, but would seem to involve benefits commensurate with the added degree of complication.

Enforcement of Statutes and Ordinances

Statutory regulation of lateral support involves the imposition of both penal and civil sanctions on recalcitrant property owners.

latter case, what is to be done if there is no curb? Could one measure from the gutter line instead of the curb? What if there is no street at all? If the property line runs through an entire block, thus intersecting two curbs at different levels, which is to be used? A similar problem arises when the excavator's lot and the lot of the adjoining building meet back-to-back, so that the excavation is referred to the curb of one street and the building to the curb of another. The National Building Code of the National Board of Fire Underwriters meets this problem by providing that if the building is properly referred to a curb of higher level than the excavation is referred to, the cost of shoring the difference shall be shared by the parties. NATIONAL BUILDING CODE OF THE NATIONAL BOARD OF FIRE UNDERWRITERS § 907(d) (1949 ed.).

The ordinances commonly make violations a misdemeanor punishable by fine or imprisonment or both.[56] In addition, some statutes expressly provide that a violation will constitute ground for a civil action.[57] Even where the ordinance is silent on the point, however, the courts generally regard a violation as negligence per se.[58] Both the plaintiff and the hazard which materialized to cause harm must come within the scope of the risk against which the enactment was designed to protect.[59] Injunctive relief may also be available where a violation threatens serious harm.[60]

A related problem of enforcement arises in cases where the building owner refuses to protect his structure. Under the typical apportionment-type ordinances adopted from the model codes, and under some state statutes, the refusal will constitute a violation resulting in both penal and civil liability. The regulation may make additional sanctions available against the building owner. Some ordinances provide that in the event of the owner's refusal, the building inspector or even the excavator may order the work done and charge the cost to the owner.[61] In the absence of such provision, some courts have denied recovery to the excavator who is forced to assume the burden in order to proceed with his work.[62]

Validity and Interpretation

Although local regulation of lateral support is today almost universal in this country, there remains a substantial question as to the validity of many of the ordinances dealing with the subject. Problems arise both where local regulations conflict with a state statute, and where the city ordinance purports to change the common law without specific authorization from the state.

It is a general rule, subject to manifold qualifications, that a

56. See, *e.g.*, NATIONAL BUILDING CODE OF THE NATIONAL BOARD OF FIRE UNDERWRITERS § 107-3(a) (1949 ed.).

57. MICH. COMP. LAWS §§ 554.252–254 (1948); OHIO CODE ANN. §§ 3782, 3783 (1940).

58. Harder Realty Co. v. City of New York, 64 N.Y.S.2d 310 (Sup. Ct. 1946). With regard to the civil effects of municipal ordinances generally, see O'Donnell v. Riter-Conley Mfg. Co., 124 Ill. App. 544 (1906) (negligence per se). *Contra*: Renner v. Martin, 116 N.J.L. 240, 183 Atl. 185 (1936) (in New Jersey, however, even the violation of a state statute is not negligence per se).

59. PROSSER, TORTS 264–78 (1941).

60. Massell Realty Improvement Co. v. MacMillan Co., 168 Ga. 164, 147 S.E. 38 (1929).

61. ST. LOUIS BUILDING CODE § 47-2; PORTLAND [ORE.] BUILDING CODE, ART. 12, § 7-1205. See Ceffarelli v. Landino, 82 Conn. 126, 72 Atl. 564 (1909); Newman v. Pasternack, 103 N.J.L. 434, 135 Atl. 877 (1927).

62. See, *e.g.*, Braun v. Hamack, 206 Minn. 572, 289 N.W. 553 (1940).

municipal ordinance which conflicts with the terms or policy of a state statute is void.[63] Perhaps the major limitation on the principle is the "home rule amendment" by which a state constitution may grant local governments autonomy in respect to "local" or "municipal" affairs.[64] Assuming, however, that the problem of lateral support does not qualify as a "municipal affair"[65] (as it probably does not), the validity of local regulation will depend on the extent to which it conforms with the state statute.

Minor differences in wording between ordinance and statute may produce major differences in result. Many California cities, for instance, have adopted the model Uniform Code of the Pacific Building Officials Conference.[66] Section 832 of the California Civil Code shifts to the excavator the burden of extending the foundations of the adjacent structure when the excavation exceeds twelve feet,[67] just as does the Uniform Code.[68] But the statute measures the twelve-foot depth from the point where the "joint property line intersects the curb,"[69] while the ordinance measures from the ground level where the excavation is made.

Assume that the land slopes downward from the curb and digging is commenced at a point six feet *below* the level of the curb. The state in effect tells the contractor that he must begin extending the foundations of the adjacent building when he has excavated to a depth of six feet. The city, however, orders the adjoining building owner to support his structure until the excavation reaches twelve feet. While the materiality of the conflict between the provisions seems clear, no case raising the point has been discovered.

Similar difficulties exist with respect to local regulations not

63. 5 McQUILLIN, MUNICIPAL CORPORATIONS 100 (3d ed., Smith, 1949).

64. *Id.* at 98.

65. For a general discussion of the term "municipal affair," see McBAIN, LAW AND PRACTICE OF MUNICIPAL HOME RULE 252-321 (1916).

66. Letters on file with the *Stanford Law Review*: from E. H. Rogers, Building Inspector, City of Alameda, Aug. 24, 1953; from D. D. Cargile, Superintendent, Building Department, City of Beverly Hills, Aug. 25, 1953; from A. T. Brown, Superintendent of Buildings, City of Glendale, Sept. 18, 1953; from Edward M. O'Connor, Superintendent of Building, City of Long Beach, Sept. 21, 1953; from Clyde N. Dirlam, Chief Building Inspector, Division of Building and Safety, County of Los Angeles, Aug. 19, 1953; from Lester Ryan, Building Inspector, Marin County, Aug. 21, 1953; from Milton P. Ketchel, Building Inspector, City of Oakland, Aug. 17, 1953; from A. W. Russell, Chief Building Inspector, County of San Mateo, Aug. 21, 1953; from Douglas Monchamp, Director, Building Inspection Department, County of Santa Clara, Aug. 20, 1953; and from G. L. Rozzi, Building Inspector, City of South San Francisco, Aug. 17, 1953.

67. CAL. CIV. CODE § 832 (Deering, 1953).

68. UNIFORM CODE OF THE PACIFIC COAST BUILDING OFFICIALS CONFERENCE § 2801.

69. CAL. CIV. CODE § 832 (Deering, 1953).

specifically authorized by the state which contravene the common law. In a Massachusetts case decided in 1943,[70] the parties, adjoining landowners, were unable to agree on an interpretation of the following provision of an ordinance of the city of Brockton:

> Any person causing any excavation to be made for a building, shall have the same properly guarded and protected. Wherever necessary, he shall at his own expense properly sheath pile and erect masonry or steel construction, or a sufficient retaining wall to permanently support the adjoining earth. . . .[71]

The question was whether the ordinance imposed a duty on the excavator to protect the adjacent landowner's buildings as well as land. A state statute provided that a city might, "by ordinance consistent with law," regulate inspection, materials, construction, alteration, repair, height, area, location, and use of buildings and other structures within its limits.[72] The court found nothing in the statute to authorize cities to change the common law.

If the court was right in requiring a more specific grant of power to change the common law than that contained in the Massachusetts statute, the validity of most lateral support ordinances is open to question. The apportionment-type regulations of the model codes make radical departures from the common law, while those that impose absolute liability on the excavator from the start for any harm caused by his activity abrogate earlier rules completely. Where a state statute is in force which itself changes the common law, a court may find less reason for insisting on specific authorization for local regulations.[73] It would seem, however, that the general validity of the rule requiring an express grant of power to change the common law is doubtful, particularly where it inhibits a municipality in enacting ordinances which relate to the public safety.

70. Corcoran v. S. S. Kresge Co., 313 Mass. 299, 47 N.E.2d 257 (1943).
71. *Id.*, at 302, 47 N.E.2d at 259.
72. *Id.*, at 302, 47 N.E.2d at 258-59.
73. If the state itself has imposed on the excavator a duty to support adjacent structures, a court will be less disposed to overturn an ordinance expressing the same basic policy.