

NCHRP

National Cooperative Highway Research Program

LEGAL RESEARCH DIGEST

October 1997

Number 39

Legal Research Digests are issued to provide early awareness and encourage application of research results emanating from NCHRP Project 20-6, "Legal Problems Arising Out of Highway Programs." These Digests contain supplements and new papers that are periodically compiled as addenda to the treatise, *Selected Studies in Highway Law*, published by the Transportation Research Board.

Areas of Interest: IA Planning and Administration; IC Transportation Law; IIB Materials and Construction; IIC Maintenance

Liability of Contractors to State Transportation Departments for Latent Defects in Construction after Project Acceptance

A report prepared under NCHRP Project 20-6, "Legal Problems Arising Out of Highway Programs," for which the Transportation Research Board is the agency coordinating the research. The report was prepared by Darrell W. Harp. James B. McDaniel, TRB Counsel for Legal Research Projects, was the principal investigator and content editor.



THE PROBLEM AND ITS SOLUTION

State highway departments and transportation agencies have a continuing need to keep abreast of operating practices and legal elements of specific problems in highway law. This report is a new paper, which continues NCHRP's policy of keeping departments up-to-date on laws that will affect their operations.

In the past, papers such as this were published in addenda to *Selected Studies in Highway Law (SSHL)*. Volumes 1 and 2 of *SSHL* dealt primarily with the law of eminent domain and the planning and regulation of land use. Volume 3 covered government contracts. Volume 4 covered environmental and tort law, inter-governmental relations, and motor carrier law. Between addenda, legal research digests were issued to report completed research. The text of *SSHL* totals over 4,000 pages comprising 75 papers. Presently, there is a major rewrite and update of *SSHL* underway. Legal research digests will be incorporated in the rewrite where appropriate.

Copies of *SSHL* have been sent, without charge, to NCHRP sponsors, certain other agencies,

and selected university and state law libraries. The officials receiving complimentary copies in each state are the Attorney General and the Chief Counsel and Right-of-Way Director of the highway agency. The intended distribution of the updated *SSHL* will be the same.

APPLICATIONS

Heretofore, there has been very little guidance to engineers and contracting officials on how various transportation departments have responded when latent defects are discovered in highway construction after the project has been completed and accepted. This report describes and analyzes the responses to a questionnaire submitted to state departments of transportation.

This information should help attorneys, administrators, engineers, contracting officers, and financial officials be prepared for situations where latent defects are discovered after the construction project has been completed and accepted.

CONTENTS

I. INTRODUCTION 3

II. SCOPE OF REPORT 3

III. BACKGROUND OF RESEARCH EFFORT FOR THE REPORT 3

IV. RESULTS OF THE SURVEY OF STATE DEPARTMENTS OF TRANSPORTATION 3

V. HISTORICAL PERSPECTIVE OF LATENT DEFECTS 5

VI. LEGAL PRINCIPLES AND TYPICAL SITUATIONS INVOLVED IN LATENT DEFECT MATTERS 6

 A. Legal Principles 6

 1. Contractual 6

 2. Negligence 6

 3. Statutes of Limitations 6

 4. Warranty/Guaranty 7

 5. Fraud/Misrepresentation of Facts 7

 6. Acceptance of Project—Estoppel or Waiver of Claims 7

 7. No Contractual Relationship to Party Damaged 8

 B. Typical Situations 8

 1. Defective Material 8

 2. Materials Specified by the Owner—Also “Substitute” or “Equivalent” Products 8

 3. Materials Under Control of Contractor 9

 4. Materials Under Control of Subcontractor 9

 5. Materials Under Control of Materialman or Manufacturer 9

 6. Latent Defects Caused by Workmanship 9

 7. Defects in Plans or Specifications that Caused Latent Defects 9

 8. Work Performed in Accordance with Plans and Specifications and Thereafter Latent Defects Appear 10

 C. The Measure of Damages and Means of Recovery Therefor 10

VII. CONCLUSION 10

ENDNOTES 11

Liability of Contractors to State Transportation Departments for Latent Defects in Construction After Project Acceptance

By Darrell W. Harp

Attorney at Law, Clifton Park, New York

I. INTRODUCTION

Heavy construction, involving highways and bridges, has many elements that are hidden from view. At times, defects in these elements are not readily apparent, or the problems therewith do not appear until after the contract has been settled. Therefore, one of the most vexing problems confronting an owner of a facility is the discovery of latent defects after the construction contract has been settled. Not only are government agencies concerned about the costs to repair the damage to their facilities caused by the latent defects, but also about the increase in third party tort claims for defective conditions. When latent defects are discovered, government agencies should carefully examine the potential for recovery from the contractor that caused the defects.

Many times the struggle involved in trying to recover from the party responsible for the latent defects, and thus liable for damage, is a very difficult road to navigate. Even when the liability is established, the ability to actually recover is often barred or limited. Such problems and situations are covered in this report, which should meet the need for better understanding of such situations by those that administer public construction contracts.

This report will cover third party negligence actions for latent defects only when they directly relate to the construction contract and when the owner attempted to recover from the contractor responsible for the latent defect.

II. SCOPE OF REPORT

This report is limited to covering the area of contractor liability for latent defects discovered by state transportation departments after the contract has been settled or accepted and which was not previously covered in the following articles: *Preventing and Defending Against Highway Construction Contract Claims: The Use of Changes and Differing Site Condition Clauses and New York State's Use of Exculpatory Contract Provisions and No Claim Conditions*;¹ *Legal Problems Arising from Changes, Changed Conditions, and Dispute Clauses in Highway Construction Contracts*;² and *Legal Effect of Representation as to Subsurface Conditions*.³

The terms "settlement" and "acceptance" are used interchangeably throughout the report. Frequently, the language of the court decisions referred to "settlement" or "acceptance" without explanation of any difference. It was just the facts of the case in that particular situation. The dual use is not intended to mislead the reader of this report in any way. Although the terms have different legal significance, in this report they both mean that the latent defects were discovered after the contractor was normally relieved of further responsibility for the project.

III. BACKGROUND OF RESEARCH EFFORT FOR THE REPORT

An initial legal review of the subject revealed that relatively few reported or active cases have dealt with the relationship between contractor and state transportation department when latent defects were discovered after the contract had

been settled. A survey of all 50 state transportation agencies was undertaken to try to determine the actual extent of the problem, the contractual or statutory bars that may have prevented any matter(s) from proceeding to court, and how such matters were handled administratively.

In order to present a more complete discussion on the subject, it was also decided to expand the scope beyond the cases involving state departments of transportation, since other cases can establish legal precedents that could be persuasive when state transportation departments are confronted with similar matters or circumstances. Although there are relatively few cases that involve contractor-state transportation departments relationships, when latent defects are discovered after acceptance, the agency must know its options relative to holding the responsible party liable.

IV. RESULTS OF THE SURVEY OF STATE DEPARTMENTS OF TRANSPORTATION

A survey was sent to the 50 state departments of transportation to determine if they were experiencing latent defect situations after completion of contracts. The survey included the following questions:

- Has your state had any cases involving latent defects after contract acceptance?
- In order to determine the real extent of the problem, provide information on whether or not the state has had any such matters that are not reported cases.
- If the answer is yes, what contractual or statutory bars have prevented the matter from proceeding to court?
- How was any latent defect matter handled administratively?

Thirty-seven states responded to the survey.⁴ Nineteen states indicated that the departments of transportation had no cases or matters involving latent defects.⁵ Three of these states (Arkansas, Georgia and Nebraska) had standard specifications that would apply to latent defect situations.

The Georgia Department of Transportation's (DOT) Standard Specifications Section 107.20 provides, in part, "The contractor, without prejudice to the terms of the Contract, shall be liable to the Department for latent defects, fraud, or such gross mistakes as may amount to fraud, or as regards the Department's rights under any warranty or guaranty."⁶ Georgia DOT has had no cases involving latent defects.⁷

The Arkansas Highway and Transportation Department's Standard Specifications Section 107.20 contains a provision similar to the Georgia provision cited above. Likewise, Arkansas has had no cases involving latent defects.⁸

The Nebraska DOT's Standard Specifications Section 107.18 provides:

No Waiver of Legal Rights

The department shall not be precluded or estopped by any measurement, estimate, or certificate made either before or after the completion and acceptance of the work and payment therefor, from showing the true amount and character of the work performed and materials furnished by the contractor, nor from showing that any such measurement, estimate, or certificate is untrue or is incorrectly made, nor that the work or materials do not in fact conform to the contract. The department shall not be precluded or estopped, notwithstanding any such measurement, estimate, or certificate and payment in accordance therewith, from recovering from the contractor or his sureties, or both, such damage as it may sustain by reason of his failure to comply with the terms of the contract. Neither the acceptance by the department, or any representative of the department, nor any payment for or acceptance of the whole or any part of the work, nor any extension of time, nor any possession taken by the department, shall operate as a waiver of any portion of the contract or of any power herein reserved, or of any right to damages. A waiver of any breach of the contract shall not be held to be a waiver of any other or subsequent breach.

Nebraska has had no cases involving latent defects.⁹

Sixteen of the state DOTs have experienced matters involving latent defects.

- Washington: The 1984 case of *Bellevue School District No. 105 v. Brazier Construction*¹⁰ involved a school district action for breach of contract in connection with the 1963-65 construction of a school building. The alleged latent defects in the design and construction related to the sufficiency of structural support in the building walls and the failure to adequately secure the roofs of the buildings to the walls. The defendants moved for summary judgment based on a 6-year statute of limitations. The court held that even though the construction had been completed some 20 years prior, a statute providing that no statute of limitation was applicable to actions brought in the name or for the benefit of the state applied to the school district's action. The court further found that:

The purpose of the statute is to insure recovery by the State of tangible losses it has suffered. The present case is an excellent example of the relationship of the statute to the purpose it serves. The only defense asserted here by defendants is the expiration of the limitations period. Should the limitations period apply to the present case, the public would be prevented from recovering losses it suffered as a result of breaches of contracts between the School District and defendants.¹¹

Following the decision the Washington State Legislature amended the Revised Codes of Washington Section 4.16.310 to include the state within the statute of limitations.

- California: This state had a matter involving latent defects which was settled prior to trial. The question presented was, "Can a contractor who performed bridge removal work, including the removal of structures and debris underwater, be held liable for the removal of additional debris and structures discovered after acceptance of the contract?"

The position of the California Department of Transportation (Caltrans) was that "A contractor and its surety can be held liable for the correction of latent defects or completion of unfinished contract work even though the contract was accepted as complete as long as the defective or incomplete work was not discernible through reasonable inspection."

This position relied on the Caltrans Standard Specifications Sections 5-1.08 and 5-1.09, which relate to fulfillment of the contract obligations, and the case of *Banducci v. Frink T. Hickey, Inc.*, 93 Cal App. 2d 658, 662 209 P.2d 398, 400 (1949). This case holds:

A mere acceptance, without more, does not necessarily preclude the owner from showing that the work was done in an unworkmanlike manner, especially when the defects were latent or where the owner had no reasonable means of ascertaining such defects and, when ascertained, gave timely notice thereof, even though he has paid the contract price.

- Connecticut: Two latent defect situations were reported by Connecticut.¹² The first involved the westbound superstructure of the Thames River Bridge near New London. The project was started in 1970 and completed in 1973. During a 1978 inspection it was discovered that bolt connections were not properly constructed. The contractor was contacted and rapidly undertook corrective repairs. The Connecticut DOT indicated that it felt fortunate that the contractor made the repairs without any discussion of performance bonds, liability, or monetary reimbursement.

The second situation involved a construction project on I-395. The asphalt pavement was placed with latent defects (segregation and poorly constructed joints), which resulted in accelerated pavement deterioration within the first year after placement. The matter was handled administratively through partnering efforts

that included a monetary credit, immediate corrective work, and an agreement to perform additional corrective work, if necessary, within 1 year.

- Alaska: The State of Alaska Department of Transportation and Public Facilities reported that an underwater inspection of the Peger Road Bridge project, which was completed in 1991, discovered that a large surface spall existed in the south pier. After further examination and testing, the latent defect was reported to the contractor, and the contractor was required to prepare a corrective action plan. The contractor made some repairs at its cost. Further examination after the initial repairs by the contractor found further latent defects. The subcontractor who was performing the repairs left the work site and advised the department that the requested repairs were cosmetic in nature and did not need to be performed. The performance bond was about to expire, and the department decided that it had to sue on the bond. Following negotiations, the department shared in the cost of the additional repairs.¹³

- Wisconsin: In the 1980s, the State experienced a latent defect situation involving defective steel in a bridge over the Mississippi River. The State sued in contract and tort and then settled, with the supplier paying the repair costs less the costs of betterments in the repair.¹⁴

- Rhode Island: The case of *Clark-Fitzpatrick, Inc. / Franki Foundation Co. v. Gill*¹⁵ was originally brought by a subcontractor against the general contractor. The general contractor filed a third party claim against the Rhode Island DOT, and the DOT then counterclaimed against the general contractor. Although there were multiple issues in the cases, the following issues in the appeal involved potential latent defects:

- 1) A provision of the contract required thermal curing for massive concrete pours. (Thermal curing is essentially a method of maintaining the heat between inner and outer portions of concrete to control the cracking force. Massive concrete pours were defined as any pour in which the concrete dimensions in three directions were 5 feet or more.) The trial justice found, and the Appellate Court affirmed the finding, that the specifications were "at best ambiguous" in relation to thermal curing and that they did not apply to tremies and the substructure.¹⁶

- 2) The State sought reversal of the trial justice's denial of its counterclaims for repairing a cofferdam and for redesigning the construction option for lifting the spans into place and replacing the tie-down loops. The following clause was in the termination agreement between the State and Clark-Fitzpatrick/Franki Foundation:

6. All work completed and materials stored to date by Clark-Fitzpatrick and paid for by the State are hereby deemed accepted and, except as described below, the State of Rhode Island does hereby waive any and all claims resulting from latent defects attributable solely to the work performed by Clark-Fitzpatrick and/or its subcontractors.

There was no exception in the agreement for latent defects in the cofferdam or the construction option. The Appellate Court affirmed the trial justice's finding that the State had waived its claims for latent defects.¹⁷

- Louisiana: The Louisiana Department of Transportation and Development has had matters involving latent defects that appeared after acceptance of the project; in one instance this involved the painting of a bridge in which defects were discovered after acceptance. The department's employees inspected the work during construction, when the defective work was performed. The standard specifications were examined, as well as the case law on the subject. Although the Louisiana cases indicated no recovery from contractors for such latent defect situations and the Statute of Repose was about to expire, the recommendation was to attempt recovery from the contractor.¹⁸

- New York: Following repavement of a road, which included stiffening of the shoulders by adding 3 inches of asphalt, it was observed that the shoulders were deteriorating rapidly. The shoulder asphalt thickness for that project was measured and found to be thinner than required by the contract. The DOT's regional office then measured the shoulder thickness of the other repaving projects in the region. All projects by the one contractor were deficient, while projects by other contractors were satisfactory. The State withheld payments for the ongoing projects of that particular contractor, and the contractor sued. The Court of Claims case was settled by establishing a credit to be paid to the State for the defective condition.

- New Mexico: In *Gardner-Zemke Co. v. State*,¹⁹ the soils report lacked information about a latent defect (presence of rock) in the soil. Although the court was dealing with the issue of a changed condition or a differing site condition, the case gives possible insight into how a court might resolve a matter of latent defect after contract acceptance. The court held that the contract and its other documents, such as the soils report, if misleading, would have been a breach of an implied warranty of correctness. Therefore, in a latent defect matter the State would have to overcome this implied warranty of correctness standard. The court in this particular case, however, upheld summary judgment for the State and stated:

[T]he soil report was not ambiguous...Even if the narrative portion of the report would indicate sand to a reasonable contractor preparing a bid, the contract should be read as a whole, construing each part harmoniously, and a reasonable contractor would have noted the obvious discrepancy between its interpretation of the narrative portion and the technical portion, giving rise to its duty to inquire.²⁰

- New Jersey: New Jersey had a soil condition matter that was similar to the New Mexico case cited above. In the 1987 case, *P.T. & L. Construction v. Department of Transportation*,²¹ the contractor successfully relied on a claim of defective soil conditions (a latent very wet condition) that the DOT did not disclose for its recovery of delay damages.²² New Jersey also reported that the construction industry is concerned that liability for latent defects is ongoing and that the industry has expressed a desire that a time frame should be established.²³

- Virginia: The DOT had some latent defect issues that were resolved administratively. It was further pointed out that Virginia Code Section 11-59 provides a mechanism for bringing an action on a performance bond within 5 years after completion of the work. The issue of whether the bond would cover a latent defect situation after acceptance of the project has not been decided by a court in Virginia.²⁴

- Wyoming: The case of *Lynch v. Norton Construction, Inc.*²⁵ dealt with a third party suit (an injured school district employee) against a contractor who had constructed a sidewalk that became defective. The court found that the school district's negligence in failing to repair an obviously dangerous sidewalk condition after receiving several complaints was an intervening cause that relieved the contractor from liability for constructing a sidewalk without appropriate drainage.

- Massachusetts: The State has had latent defect matters. Although the survey response mentioned no specific case, information was provided to the effect that there are no contractual or statutory bars to recovery by the highway agency. It was reported that when a latent defect matter arises, it is usually handled administratively at hearings in front of the Chief Administrative Law Judge of the Massachusetts Highway Department. It was further reported that if the matter arises before final settlement of the contract, the Highway Department typically enters into a settlement agreement with the contractor. If the latent defect condition involves a changed condition or extra work, an order on contract is issued in the field by the agency.²⁶

- Missouri: There were three matters that were all settled or compromised at the administrative or circuit court level. None was an Appellate Court case. There is no contractual or statutory bar to the issue of latent defects being presented to a court.²⁷

- Oregon: A latent defect was discovered after settlement of the contract and was settled administratively based on the contractor's warranty.²⁸

- South Carolina: The State DOT reported two latent defect matters. On the I-326 Interchange project in Lexington County, numerous structural bridge elements were found to be deficient in April 1990. The project had been accepted in February of 1988. After meetings and a lengthy exchange of correspondence, the contractor agreed to make corrections at its cost.

In the second matter, two large spalls were discovered after acceptance of the bridge deck on I-526 spanning the Wando River. The DOT's position was that the spalls represented latent defects in the construction and that they were the responsibility of the contractor. In correspondence with the contractor, the department reiterated its position that latent defects existed in the bridge segments that either allowed water to penetrate the top slab or trapped water below the slab surface, and that these defects were not discovered as a part of the project inspection. The contractor finally agreed to make corrections at its cost.²⁹

- West Virginia: Although latent defect matters were reported, no recovery has been sought because the projects had been accepted, payments in the matters had already been made, and the Statute of Repose had run out. The DOT has taken no action to decertify the prequalification of the companies involved.³⁰

V. HISTORICAL PERSPECTIVE OF LATENT DEFECTS

Before 1970, relatively few cases are found where a contractor was held responsible for latent defects in project materials discovered after settlement of the contract. Most of the pre-1970 latent defect cases were decided on strict contractual terms. As long as the contractor performed the contract work in a workmanlike manner and used reasonable care in selecting the materials, the contractor had no liability for latent defects. It was generally held that there was no implied warranty given by the contractor for latent defects in materials where the contractor had no knowledge of the defect, had acted in good faith, had exercised reasonable care and skill, and had obtained the materials from a reputable source, and where the materials were of the type required by the contract. The contractor was not responsible for latent defects in those materials.³¹ Where liability is imposed in pre-1970 cases, it is based on a lack of good workmanship in installing the materials, fraud or misrepresentation of facts, or gross negligence on the part of the contractor in connection with the project.³²

Post-1970 cases hold the contractor responsible more frequently, mainly on the theory of implied warranty. In the 1972 case of *O'Dell v. Custom Builders Corp.*,³³ the court found the builder liable as a matter of law on the theory of "implied warranty." A clause in the sales contract provided, "There are no promises, agreements or understandings other than those contained in this purchase contract, and no agent or salesman has any authority to obligate Seller by any terms, stipulation or conditions not herein expressed."³⁴ In justifying why implied warranties apply to the situation, the court stated, "This paragraph was directed at protecting against perhaps overly ambitious statements or promises by a sales representative in attempting to secure a contract with a prospective buyer, not at eliminating warranties implied as a matter of law."³⁵

In *Clark v. Campbell*,³⁶ the latent defect was due to improper and unworkmanlike compaction of soil that supported the building, and the court found that there was

an implied warranty against such defects. In *Loch Hill Construction Co. v. Fricke*,³⁷ a purchaser of a new home brought an action against the builder alleging a breach of implied warranty by reason of an inadequate water supply. The court found that the proper supply of water from a well was not normally a condition that an inspection of the premises would reveal and therefore the implied warranty was breached. In *Lempke v. Dagenais*,³⁸ subsequent purchasers were permitted to pursue the contractor, under the theory of implied warranty, for latent defects. There is also an indication in the cases that they were decided on the basis of a product liability theory, particularly where the contractor sells a building that has latent defects.³⁹

VI. LEGAL PRINCIPLES AND TYPICAL SITUATIONS INVOLVED IN LATENT DEFECT MATTERS

A. Legal Principles

The cases and matters that involve the discovery of latent defects after acceptance usually involve the following legal principles. How the courts resolve these principles greatly affects whether or not liability will be imposed on a contractor.

1. Contractual

Several of the early cases (pre-1970) relied on a breach of the contract terms as a basis for finding the contractor liable for latent defects after contract acceptance. In finding that the contractor had breached its contract, the court in *Town of Tonawanda v. Stapell, Mumm & Beals Corp.*⁴⁰ stated, "Defendant contractor's breach of the contract in constructing the curbing was clearly proven. The curbing was oversanded and over-graveled. It was not mixed, tamped or spaded as required by the specifications, and, as a result, the curbing disintegrated, became worthless and had to be replaced by the town."

In *Mayor of Newark v. New Jersey Asphalt Co.*⁴¹ the court stated:

The work may have been done in a workmanlike manner, and such workmanship may have been approved by the engineer and general superintendent of works, but that fact, if true, would not bar the right of the plaintiff to recover for the failure to use the kind and quality of materials required by the contract, or for the noncompliance with the requirements of the contract for the construction of the binder and wearing surface of the pavement in the manner required by the contract, where such failure to so perform, and such noncompliance with the contract, are assigned as breaches in the declaration. The contract does not make the certificate of the engineer or general superintendent conclusive upon the question of the fulfillment of the contract according to its terms.

Some states have provisions in their specifications that address latent defect situations. For instance, the Arkansas DOT states:

§107.20 No Waiver of Legal Rights. Upon completion of the work, the Department will expeditiously make final inspection and notify the Contractor of acceptance. Such final acceptance, however, shall not preclude or estop the Department from correcting any measurement, estimate, or certificate made before or after completion of the work, nor shall the Department be precluded or estopped from recovering from the Contractor or the Surety, or both, such overpayment as it may sustain, or by failure on the part of the Contractor to fulfill obligations under the Contract. A waiver on the part of the Department of any breach of any part of the Contract shall not be held to be a waiver of any other or subsequent breach.

The Contractor, without prejudice to the terms of the Contract, shall be liable to the Department for any or all of the following: fraud or such gross mistakes as may amount to

fraud, the Department's rights under any warranty or guaranty, or any latent defects in the work.

The New Mexico State Highway and Transportation Department has the following in its Standard Specifications, Section 107.26, "The Contractor, without prejudice to the terms of the contract, shall be liable to the Department for latent defects, fraud, or such gross mistakes as may amount to fraud, or as regards the Department's right under any warranty or guaranty."

These types of standard specifications protect the states in actions against the contractor for latent defects that are discovered after acceptance of the contract work. The New York State DOT specification provides modified protection as follows:

ARTICLE 9, FINAL ACCEPTANCE OF WORK. When in the opinion of the Regional Director a Contractor has fully performed the work under the contract, the Regional Director shall recommend to the Commissioner of Transportation the acceptance of the work so completed. If the Commissioner accepts the recommendation of the Regional Director, he shall thereupon by letter notify the Contractor of such acceptance, and copies of such acceptance shall be sent to other interested parties.

Final acceptance shall be final and conclusive except for defects not readily ascertainable by the Department, actual or constructive, fraud, gross mistakes amounting to fraud or other errors which the Contractor knew or should have known about as well as the Department's rights under any warranty or guarantee. Final acceptance may be revoked by the Department at any time prior to the issuance of the final check by the Comptroller upon the Department's discovery of such defects, mistakes, fraud or errors in the work.

This particular specification holds open the potential of recovery against the contractor between the acceptance of the project by the department and the issuance of the final check by the State Comptroller. In states where there is no "latent defect" language in the contract, other legal principles and/or the case law of that jurisdiction, which are discussed within this report, may control the particular situation.

2. Negligence

The theory of a tort for latent defects is generated from a general rule of contracts that states that there is an implied duty to perform the contract skillfully, carefully, diligently, and in a good workmanlike manner. Therefore, in the cases involving latent defects, the basic theories are that the contractor performed the work in a negligent manner⁴² or that the contractor failed to exercise due care and skill in inspecting the materials that contained the latent defects.⁴³ In *Zion's Cooperative Mercantile Institute v. Jacobsen Construction Co.*,⁴⁴ the court determined that a contractor who knew that the work that was being performed would likely cause the rupture of a water line in an alleyway adjacent to the excavation, or with the exercise of reasonable care should have known of the potential of the effects of a ruptured waterline, was negligent when the shoring materials failed to withstand the pressure of the ruptured water line. In *Banner v. Town of Dayton*,⁴⁵ the professional engineer hired by the town was held to the duty of anticipating that there was a need to cathodically protect a steel water line to prevent leakage in the future.

3. Statutes of Limitations

Several states have statutes of limitations that may prevent recovery from the contractor for defects, including "latent defects," after specified periods of time following the substantial completion of the project. These include: Alabama, 7 years;

Arkansas, 5 years; California, 10 years; Colorado, 6 years; Delaware, 6 years; Georgia, 8 years; Idaho, 6 years; Illinois, 10 years; Indiana, 12 years; Kentucky, 5 years; Louisiana, 10 years;⁴⁶ Maryland, 10 years; Massachusetts, 6 years; Minnesota, 10 years; Mississippi, 6 years; Missouri, 10 years; Nebraska, 10 years; Nevada, 8 years; New Jersey, 10 years; New Mexico, 10 years; North Carolina, 6 years; North Dakota, 10 years; Ohio, 10 years; Oklahoma, 10 years; Oregon, 10 years; Pennsylvania, 12 years; Rhode Island, 10 years; Tennessee, 4 years; Virginia, 5 years; Washington, 6 years; and West Virginia, 10 years.

When there is a statute of limitations that is applicable to the situation, it will bar a successful action against the contractor for latent defects. Therefore, a careful examination should be conducted in the particular jurisdiction to determine if there is an applicable statute of limitation. The day on which the statute of limitation starts to run should be determined carefully and precisely. In the case of *Yeshiva University v. Fidelity and Deposit Co. of Maryland*,⁴⁷ the University argued "that the existence of a defect meant that the work had not been completed and that final payment, therefore, never fell due." The court concluded that such reasoning would have rendered the statute of limitations inoperative. It went on to state: "An agreement to waive or even extend the statute of limitations, adopted at the inception of the contract and not after the cause of action has accrued is against public policy and void."⁴⁸ It should also be noted that actions for latent defects against sureties on performance bonds may be considerably shorter than the statute of limitations for actions against the contractor.⁴⁹

4. Warranty/Guaranty

There are two types of warranty/guaranty situations. The first is where the contractor guarantees that it will perform a particular project without any reservations whatsoever as to the materials and methods of construction. Essentially the contractor takes control over all aspects of the project on a design-build concept. When a latent defect appears in the project after acceptance, the contractor will generally be held to be responsible because of its "implied" warranty resulting from the contractor's control over the construction.

The second is an "express" warranty given by the contractor relative to its performance of the project or its ability to build in accordance with the plans and specifications.⁵⁰ An analysis of the case law reveals that the responsibility of the contractor to a large extent depends on the circumstances of the latent defect and the time of its discovery.

5. Fraud/Misrepresentation of Facts

Like other contract cases, the courts hold the contractor responsible when there is fraud or misrepresentation relative to the materials used in the project or with respect to the acceptance procedure.⁵¹

6. Acceptance of Project—Estoppel or Waiver of Claims

Once the contract has been settled, the older cases apply estoppel or waiver of claims as a bar to actions against the contractor for latent defects. For instance, in *City of Ottumwa v. McCarthy Improvement Co.*,⁵² the court stated:

The improvements [were] accepted by the city council. This was in compliance with the conditions of the first bond, and thereafter the city, in the absence of fraud, might not, in an action thereon, question performance in conformity with the plans and specifications. Such

is the purport of authorities cited by the appellant and too numerous for citation. Such approval by its officers is held in a suit on a bond like the first, in the absence of fraud, to estop the city from asserting otherwise.

Likewise, in *Wauwatosa v. Jacobus & Winding Concrete Construction Co.*,⁵³ there was no concealment or attempt to conceal the lack of performance relative to the thickness of the pavement. There was no recovery from either the contractor or the surety after acceptance of the project when the court determined that the owner was estopped from making a claim because of the acceptance.

In more recent cases, however, the courts have less frequently determined that an estoppel or waiver of claims has occurred unless there is very strong and direct proof that the actions of the owner or its agent caused an estoppel or waiver to be effective.⁵⁴ An exception to the waiver doctrine is found when the contractor has promised to remedy defects, or warrants against defects, resulting from its workmanship and such defects are pointed out to the contractor by the owner prior to final payment. In that situation, acceptance of the work does not amount to a waiver of performance with regard to known defects or to latent defects appearing afterwards.⁵⁵

In the situation where the owner discovers the latent defects after the owner's architect, consultant, inspector, or agent has certified substantial completion of the project, the owner will have a difficult time establishing that the contractor is liable for defects after acceptance of the work unless the owner can clearly establish that the defects were truly latent.

The usual claim by the contractor is that the owner in such a circumstance has waived any right to recovery of damages or that the owner, based on equitable consideration, is estopped from bringing action under the legal principle that it is the duty of the agent to communicate to the principal information that is relative to the project.⁵⁶

Further, the facts of the situation generally determine whether a waiver or estoppel defense against an owner's claim will be successful. For instance, in *Quin Blair Enterprises, Inc. v. Julien Construction Co.*,⁵⁷ the court stated, "While certain patent defects may be waived by...the making of final payment, this is not necessarily so, nor would it have that effect on latent defects."

The owner, in *American Employers' Insurance Co. v. Huddleston*,⁵⁸ was successful when the court found:

We have, therefore, the case of a building not constructed, as to workmanship and materials, according to contract, the defects in which were not known to the architect or owner, during construction, and discovered only after the owner had paid strictly according to the contract, in full. Simply stated, the owner paid for something which he did not get in the way of workmanship and material, and which he was entitled to under the contract. We think he is entitled to recover and is not estopped because, relying on the architect's certificate, he made the final payment.

Where there is fraud and/or misrepresentations in documents involved in acceptance and the owner did not participate therein, the owner generally prevails against the contractor who did participate. In *City of Seaside v. Pandles*,⁵⁹ the court found:

"An owner is not bound as against his contractor by the acts of a supervising engineer or inspector in approving work done by the contractor where such approval is the result of either bad faith, collusion, or gross negligence." (citations omitted)

In *Sioux City v. Western Asphalt Paving Corp.*,⁶⁰ both the contractor and the surety unsuccessfully argued waiver. There were latent defects in the project due to fraudulent conduct in part by the contractor. Therefore, exceptions to releasing the con-

tractor by acceptance of the project include situations where fraud, bad faith, collusion, or gross negligence by persons other than the owner are present. Under such conditions, approval by a consultant inspector or agent of owner does not relieve the contractor. In *Mayor of Newark v. New Jersey Asphalt Co.*,⁶¹ on defendant's motion to strike the action, the court stated:

The work may have been done in a workmanlike manner and such workmanship may have been approved by the engineer and general superintendent of works, but that fact, if true, would not bar the right of the plaintiff [Mayor] to recover for the failure to use the kind and quality of materials required by the contract, or for the noncompliance with the requirements of the contract for the construction of the binder and wearing surface of the pavement in the manner required by the contract, where such failure to so perform, and such noncompliance with the contract, are assigned as breaches in the declaration. The contract does not make the certification of the engineer or general superintendent conclusive upon the question of the fulfillment of the contract according to its terms.

When an owner accepts work with the knowledge, including knowledge of the agent, that it had not been performed according to the contract, or when the latent defects are discoverable by reasonable inspection, the owner's acceptance is usually a waiver of defective performance.⁶² In *Eastover Corp. v. Martin Builders*,⁶³ there was a floor collapse caused by the plumbing underneath the building slab. It was alleged that the spacing of the pipe hangers was defective. The architect visited the construction site only two or three times and employed a field inspector. The field inspector was constantly present during all phases of construction, including the time period when the building code was violated and the defect resulted. The evidence was clear that the defective spacing of the pipe hangers was easily observable. The court imputed the knowledge of the field inspector to the architect and owner, although no formal notification was made to them and the architect and owner were unaware of the defect. Because of the field inspector's acts, the court estopped the owner from recovering damages from the contractor for the defect.⁶⁴ The court cited *State v. Wilco Construction Co.*⁶⁵ for the legal theory: "It is well settled that where an owner proves the existence of defects or omissions and the costs of repairing them, he is nevertheless barred from recovering these costs if he accepted the work despite the patent defects or imperfections discoverable upon reasonable inspection."⁶⁶

Accepting work without complaint about the manner or quality of performance serves as an estoppel to subsequent recovery by the owner for defective workmanship.⁶⁷ Stated another way, if after the contract has been settled, there are defects that should have been discovered by reasonable attention by the owner or the owner's agent supervising the work, courts are likely to determine that an estoppel or waiver of the claim has occurred.⁶⁸

7. No Contractual Relationship to Party Damaged

In *Friedman, Alschuler & Sincere v. Arlington Structural*,⁶⁹ a building's roof collapsed 4 years after completion as a result of poor workmanship and latent defects in the materials. The architect-general contract inspector, Friedman, Alschuler & Sincere (FAS), paid 25 percent of the repair costs under a compromise settlement. FAS then brought an indemnity action against the subcontractor (builder) and the supplier of the materials. The court held that FAS lacked pretort legal relationship to that subcontractor and the materialman. The court also held that the indemnity provisions of the contracts between the various parties did not cover economic damages like the damage that FAS had suffered. This case demonstrates that getting

recovery from the actual party who caused the latent defects can be very difficult. However, in some cases the courts have permitted the plaintiff to overcome the lack of privity.⁷⁰

B. Typical Situations

1. Defective Material

At the present time, the cases consistently hold the contractor responsible for latent defects in the materials when the contractor failed to use reasonable care in the inspection of the materials and the latent defects could have been discovered by such inspection, when the contractor failed to use reasonable care and/or skill in the use of the materials and such lack of care and/or skill caused the latent defect, or when the contractor was responsible for the selection and use of the materials in the work and such materials had latent defects therein. For instance, in *Ked-klick Corp. v. Levinton*,⁷¹ recovery was allowed under the theories of breach of express and implied warranties relative to materials and the workmanship in the construction. The bricks had latent defects. It was common knowledge in the construction industry that many of the Mexican bricks were defective. The contractor made no proper inspection or testing of the brick; thus the contractor's failure to meet its duty was found to be the proximate cause of the damages sustained. Prior to the 1970s, the contractor may not have been held responsible for latent defects as long as it obtained the materials from a reputable source and the latent defects were not obvious to those responsible for the materials.⁷²

2. Materials Specified by the Owner—Also "Substitute" or "Equivalent" Products

The court's statement about the facts in *Wood-Hopkins Contracting Co. v. Masonry Contractors, Inc.*⁷³ contains several important legal questions that must be addressed when the owner's specified materials are involved in latent defect situations. The court found:

There is no dispute but that the type of brick specified in the contract was of a particular type manufactured by only one supplier. The subcontractor purchased and installed the exact type of brick called for in the specifications. The latent defect present in the brick was not discernible by the exercise of care and skill in inspecting them, and was present in the brick through no fault and with no knowledge of the subcontractor [the installer]. There is no dispute but that the bricks were installed strictly in accordance with the plans and specifications of the contract, and no fault was found on the workmanlike manner in which the installation was made. (emphasis added) (235 So. 2d at 551).

Although the *Wood-Hopkins* case did not involve latent defects discovered after settlement of the contract, the legal questions that were addressed would have been the same for latent defects. These questions include:

- a. Was a particular product specified?
- b. Was that particular product installed?
- c. Was the latent defect discernible by the exercise of care and skill in inspections that should have been made?
- d. Was the latent defect present through no fault or knowledge of the contractor?
- e. Was the product installed in accordance with the plans and specifications?
- f. Was there any fault of the contractor with respect to workmanship?

If all of these questions are answered in favor of the contractor, the owner will undoubtedly not be able to collect for the costs to repair the damage due to latent defects. An example of this type of situation was reported by the New York State DOT. After the contract had been settled, there was severe rutting on a section of the Cross Bronx Expressway in New York City. It cost about \$2.5 million to re-lay asphalt over the failed section. The analysis of the failure found that the contractor used the materials precisely as required, but for some reason, under heavy truck traffic, a large section of asphalt failed as a result of latent defects in the materials. The State did not attempt to collect its cost for repaving the failed section of the roadway.⁷⁴

Because of proprietary rights problems that occur if patented products are specified, and to promote competition, many state transportation departments use generic descriptions for materials and equipment. The product or equipment that the contractor furnishes is intended to be equivalent to the generic description. When the equivalent is the same as specified, the rules that apply to owner-specified materials will be applied. However, when the contractor provides a "substitute" product/material, the risk of a latent defect will generally shift to the contractor, even when the owner tests the substitute.⁷⁵

No cases were found where, under the facts of the cases, the government agency specified the materials or the construction procedure the contractor strictly followed, and the government agency was able to recover damages from the contractor for subsequently discovered latent defects. Government must therefore exercise ordinary care and skill to foresee and guard against defects in its plans and specifications, especially in situations where it is specifying the required materials and construction methods.⁷⁶

3. Materials Under Control of Contractor

When the materials are under the control of the contractor, that contractor usually will be held responsible when latent defects are discovered. Courts generally find that the contractor has the duty to control the use of the materials and to ensure their adequacy for the application in the project. Exceptions to this general rule are found only where a release, estoppel, waiver of claim, or a statute relieves the contractor from liability.

4. Materials Under Control of Subcontractor

The cases on materials under control of subcontractor are consistent with the cases that deal with materials under the control of the contractor. The responsibility of the subcontractor for the materials sometimes is passed up to the contractor because of its general responsibility for the project. For instance, the contractor was found responsible for payment to the subcontractor who corrected defective work performed by another subcontractor in *Miller v. Knob Construction Co.*⁷⁷ Also, in *Puget Sound National Bank v. C.B. Lauch Construction Co.*,⁷⁸ the subcontractor was able to recover from the contractor when the subcontractor had nothing to do with the selection of paint or the choice of siding upon which it was applied and latent defects subsequently appeared. In *Bradford Builders, Inc. v. Sears, Roebuck & Co.*,⁷⁹ the general contractor furnished both the specifications and plot plans for laying a wire fence that proved to be defective. The subcontractor was held not liable to the general contractor for resulting damages.

5. Materials Under Control of Materialman or Manufacturer

In *Wood-Hopkins*,⁸⁰ although the court absolved the installer from liability for the latent defects in the bricks, the court by way of dicta suggested that a claim for the latent defects might lie against the materialman or manufacturer. There are many cases dealing with a theory of strict liability in products liability actions for latent defects in materials.⁸¹

6. Latent Defects Caused by Workmanship

When the workmanship of a contractor causes a latent defect, recovery therefor is usually based on one of the following theories:

- a. Breach of contract,⁸²
- b. Breach of an implied or express warranty, or
- c. Negligence in performance of the work.⁸³

Another and newer theory of "implied warranty" is found in the case of *Ecksel v. Orleans Construction Co.*,⁸⁴ where a boilerplate release did not prevent a homeowner from recovering damages for latent defects.

7. Defects in Plans or Specifications that Caused Latent Defects

The prevalent legal principle that is followed by the courts is that a contractor is not liable for any damage occasioned by a defect in plans and specifications furnished by the owner if the contractor performs its work without neglect and in a workmanlike manner.⁸⁵ This is known as the "shield doctrine." In *Trustees of the First Baptist Church v. McElroy*,⁸⁶ the court stated:

The rule has become well settled, in practically every American jurisdiction in which the matter has been involved, that a construction contractor who has followed plans or specifications furnished by the contractee, his architect or engineer, and which have proved to be defective or insufficient, will not be responsible to the contractee for loss or damage which results solely from the defective or insufficient plans or specifications, in the absence of negligence on the contractor's part, or any express warranty by him as to their being sufficient or free from defects.

The principle has been applied when there were latent conditions in the soil that resulted in the plans and specifications being defective. In *Ridley Investment Co. v. Croll*,⁸⁷ the appellate court quickly dispatched the owner's claim that the lower court had failed to distinguish between defects inherent in the plans and specifications and defects extrinsic to such specifications, such as a condition of the soil, with its statement:

This argument is untenable, since plans and specifications do not exist in a vacuum; they are made for a particular building at a particular place. The defect in the plans and specifications for the building in question was the failure to make provision for adequate pilings and other support for the floor; the fact that these plans and specifications might provide for an adequate building in some other place does not render the plans and specifications less defective for the location in question.

A basic point found in many cases is that there is an "implied warranty of correctness" by the owner that the plans and specifications are suitable for the purpose for which they were prepared.⁸⁸ However, in *Alexander v. Gerald E. Morrissey*,⁸⁹ the contractor proposed to the architect that it use insulating material that was insufficient to comply with the plans and specifications and thus lost its right to defend the claim based on the plans and specifications provided by the owner.

8. Work Performed in Accordance with Plans and Specifications and Thereafter Latent Defects Appear

There are situations where the contractor has followed the plans and specifications, but a latent defect is discovered after acceptance and it cannot be ascertained what caused the defect. In the case of *Large v. Johnson*,⁹⁰ the court found the construction was in accordance with the plans and specifications. The supporting soil had an undiscovered condition so that it did not support a dwelling built on a pier foundation. The court found that the contractor had performed as required by the plans and specifications and had no way of knowing that the soil would not support the dwelling. Thus, the owner did not recover the costs of rebuilding.

Likewise, an owner cannot sue for deviations from specifications that were obvious to the owner prior to acceptance of the project.⁹¹

In the survey response, the New York State DOT reported a situation where premature cracking of concrete pavement appeared in the project and the cause could not be precisely determined. After acceptance of the project, the lack of proof that the premature cracking was the contractor's fault prevented any recovery from the contractor.⁹²

C. The Measure of Damages and Means of Recovery Therefor

In public construction projects the common measure of damages against the contractor for latent defect damages is to treat the situation as an implied contract term of indemnity for the damages suffered. In *Town of Tonawanda v. Stapell, Mumm & Beals Corp.*,⁹³ the court found that "the damages are such as ordinarily and naturally flow" from the situation caused by the contractor. The original contract also had called for maintenance of the pavement for 1 year. The contractor then tried to limit the recovery to that 1-year period. The court found that recovery was not limited as to amount or time.

In *Walsh & Co. v. Alaska State Housing Authority*,⁹⁴ the lower court improperly awarded the housing authority only the value of the omitted road base materials that resulted in latent defects that caused failures of roadways. The appellate court allowed the reasonable costs of remedying defects in the work and/or materials.

The contractor did not construct a sewer system in accordance with the contract requirements and the court found such lack of conformance to be "latent defects" in *City of Seaside v. Randles*.⁹⁵ The measure of damages that the court found was "the reasonable cost and expense of procuring the work and labor to be done and furnishing the necessary material in order to make the sewer system to conform to the provisions of the contract."

The case of *City of New Orleans v. Vicon, Inc.*⁹⁶ involved defective asphalt underneath the runways, which was discovered after acceptance of the project. The contractor was found responsible for a portion of the cost of repair work, which was extensive and even exceeded the original contract price.

By contrast, in matters involving private construction, recovery may be limited to the amount of diminution in value of the property due to the latent defects, or to costs of a reasonable repair, but seldom are the costs to remove and rebuild the items that have the latent defects imposed on the contractor.⁹⁷

When the contractor is found to be liable for latent defects and the damages caused thereby, the contractor's resources need to be evaluated. Many public construction contracts contain insurance or bonding requirements. The terms of any insurance policy will control whether or not the responsibility of the contractor, if any, is covered by the insurance carrier. The biggest problem that arises is the cost

of litigation and the time consumed in disputes over the insurance policy terms and coverage, particularly when the latent defects cause injury to third parties after the contract for the project has been settled. Even if the contractor's insurance policy does not cover the event, the contractor may still be liable to the government agency for damages it suffers.

Looking to the contractor's performance bond is another option. The question that must be asked is: Has the statute of limitations against enforcement of the bond expired? The cases generally hold that the surety is relieved from responsibility once the statute of limitations has run.⁹⁸ Where the statute has not run, some cases hold the surety liable on the theory that the performance was not completed in accordance with the contract requirements.⁹⁹ In other cases the courts have relieved the surety with statements like:

The payment and performance bond did not insure against the risks [latent defects discovered after acceptance of projects] described in this suit. A payment and performance bond is an agreement to protect the owner of a building from two particular defaults by a builder...the performance part of the bond guarantees that the contract to build the building (or road, or utility transmission lines, etc.) will be fully performed. When the architect certifies the building as substantially completed, and the owner accepts the building, then the contractor is deemed to have fully performed.¹⁰⁰

Compare the case of *Guin & Hunt, Inc. v. Hughes Supply, Inc.*,¹⁰¹ where the owner withheld payment to the contractor because of latent defects. A subcontractor then tried to enforce the payment and performance bond after substantial completion, on the theory that the surety was responsible for payment. The court agreed when it determined that the purpose of a bond was to ensure the physical completion of the work upon default by the contractor and payment of the subcontractor under the terms of its contract, and that there was such a default with respect to payment. It is also a clearly recognized exception to the rule that "acceptance releases the surety on the performance bond." When the contractor participates in fraud relative to performance or acceptance, the surety will still be liable under the bond.¹⁰² However, other legal principles, such as the terms or limitations within the bond itself, statutes of limitations for certain types of actions against the bond, and waiver or estoppel, may be applicable.¹⁰³

Suretyship is important in public construction projects since performance bonds are required from all contractors. There has been considerable litigation on whether or not the surety is liable when latent defects are discovered after the contract has been settled, and such cases tend to vary from jurisdiction to jurisdiction. When determining whether to seek damages for a latent defect discovered after the contract has been settled, the case law of the state governing the contract should be reviewed to determine whether action on the performance bond is worth the effort.

VII. CONCLUSION

From the lack of reporting of pending latent defect matters by state transportation departments, it could easily be concluded that there is little or no problem in this area. However, 16 states have had latent defect situations at some time in the past. This suggests that a problem exists and that the potential of recovery by state transportation departments against the contractors may not have been fully explored.

After acceptance of a project, the potential of recovery from the contractor for latent defects clearly favors the contractor. The courts tend to protect the contractor, especially when there is some failure or negligence on the part of the owner. The

barriers to recovery, such as proof, restrictions within the construction contract, estoppel or waiver of claims, and statutes of limitation, are difficult obstacles to overcome by the owner's attorney.

In 31 states, statutes of limitations or repose are major obstacles to state transportation departments' recovery from a contractor for latent defects. The lack of standard specification provisions that address the latent defect situation and the governmental rights thereunder are another major obstacle in many states. The standard specification problem could be addressed by state governments the next time their specifications are modified. The language of the surety bonds that state transportation departments use could also be clarified so that the issue of latent defects is addressed. If change is sought, the statute of limitations situations could be taken up by the respective state legislatures.

There were a few cases where the owner's pleadings did not clearly establish the owner's right under a recognized theory of law. One of the most important functions for a government attorney in the latent defect cases is to know and understand the particular facts and to prepare the pleadings under established and recognized principles of law prevailing in the jurisdiction.

Although there are not many viable legal theories to be employed in the circumstance of latent defects after acceptance, where recovery has been successful, it is found that the fact pattern has been carefully fit into the appropriate case law of that jurisdiction. Also, it is found that the legal barriers and bars have been successfully dealt with by the owner's attorney.

ENDNOTES

¹ NATIONAL COOPERATIVE HIGHWAY RESEARCH PROGRAM, TRANSPORTATION RESEARCH BOARD, LEGAL RESEARCH DIGEST No. 28 (1993).

² Selected Studies in Transportation Law, Vol. 3, TRANSPORTATION CONTRACT LAW, 1441-1469 and its Supplement 1470-S1-1470-S6.

³ Selected Studies in Transportation Law, Vol. 3, TRANSPORTATION CONTRACT LAW, 1471-1494 and its Supplement 1494-S1-1494-S7.

⁴ The states that responded were: Alaska, Arkansas, California, Connecticut, Delaware, Florida, Georgia, Hawaii, Idaho, Illinois, Indiana, Iowa, Kansas, Louisiana, Maryland, Massachusetts, Michigan, Minnesota, Missouri, Montana, Nebraska, Nevada, New Jersey, New Mexico, New York, North Carolina, Ohio, Oklahoma, Rhode Island, South Carolina, South Dakota, Vermont, Virginia, Washington, West Virginia, Wisconsin, and Wyoming.

⁵ These states were: Arkansas, Delaware, Georgia, Hawaii, Idaho, Illinois, Indiana, Iowa, Maryland, Michigan, Minnesota, Montana, Nebraska, New Jersey, North Dakota, Ohio, Oklahoma, Vermont, and Wyoming.

⁶ It is noted that the provisions of the Louisiana Department of Transportation and Development Standard Specifications, § 107.24, are also identical to Georgia's.

⁷ Information provided by Larry W. Matthews, P.E., State Construction Claims Engineer, Department of Transportation, State of Georgia, #2 Capitol Square, S.W., Atlanta, Georgia 30334-1002.

⁸ Information provided by Robert L. Wilson, Chief Counsel, Arkansas Highway & Transportation Department, P.O. Box 2261, Little Rock, Arkansas 72203.

⁹ Information provided by Jeffrey T. Schroeder, State of Nebraska, Office of Attorney General, P.O. Box 94759, Lincoln, Nebraska 68609-4759.

¹⁰ 675 P.2d 232 (Wash. 1984).

¹¹ *Id.* at 236.

¹² Information supplied by Charles E. Dougan, Ph.D., P.E., Manager, Research & Materials, Bureau of Engineering and Highway Operations, State of Connecticut, Department of Transportation, 2800 Berlin Turnpike, P.O. Box 317546, Newington, Connecticut 06131-7546.

¹³ Information supplied by Joseph H. Keeney, P.E., Alaska Department of Transportation & Public Facilities, 2301 Peger Road, Fairbanks, Alaska 99709-5316.

¹⁴ Information provided by James S. Thiel, General Counsel, Wisconsin Department of Transportation, 4302 Sheboygan Avenue, Room 115B, P.O. Box 7910, Madison, Wisconsin 53707.

¹⁵ 652 A.2d 440 (R.I. 1994).

¹⁶ *Id.* at 445.

¹⁷ *Id.* at 450.

¹⁸ Information provided by David C. Voss, Attorney III, State of Louisiana, Department of Transportation and Development, P.O. Box 94245, Baton Rouge, Louisiana 70804-9245.

¹⁹ 109 N.M. 729, 790 P.2d 1010 (1990).

²⁰ *Id.* at 790 P.2d 1010, 1016-1017.

²¹ 108 N.J. 539, 531 A.2d 1330 (1987).

²² Information submitted by Kevin E. Rittenberry, Deputy Attorney General, State of New Jersey, Department of Law and Public Safety, Richard J. Hughes, Justice Complex, 25 Market Street, CN 114, Trenton, New Jersey 08625-0114.

²³ Information provided by Frank Battaglia, New Jersey Department of Transportation, Engineering and Operations Building, CN 600, Trenton, New Jersey 08625.

³⁴ Information provided by Richard L. Walton, Jr., Senior Assistant Attorney General, Office of the Attorney General, Virginia Highway & Transportation Section, 900 East Main Street, Richmond, Virginia 23219.

²⁵ 861 P.2d 1095 (Wyo. 1993).

²⁶ Information provided by Dean S. Kalavritinos, Assistant Chief Counsel, Legal Counsel's Office, Massachusetts Highway Department, 10 Park Plaza, Boston, Massachusetts 02116-3973.

²⁷ Information provided by Dan Pritchard, Senior Assistant Counsel, P.O. Box 270, Jefferson City, Missouri 65102.

²⁸ Information provided by Dale Harmann, Assistant Attorney General, Oregon Department of Justice, 1162 Court Street, Salem, Oregon 97310.

²⁹ Information provided by Elizabeth S. Mabry, Deputy Chief Counsel, and D.H. Freeman, State Highway Engineer, South Carolina Department of Transportation, 955 Park Street, Suite 302, P.O. Box 191, Columbia, South Carolina 29202-0191.

³⁰ Information provided by Frank Curia, West Virginia Department of Transportation, Division of Highways, Building #5, Room A519, 1990 Kanawha Boulevard, East, Charleston, West Virginia 25305.

³¹ See, e.g., *Flannery v. St. Louis Architectural Iron Co.*, 194 Mo. App. 555, 185 S.W. 760 (1916); *Whaley v. Milton Const. & Supply Co.*, 241 S.W.2d 23 (Mo. App. 1951); and *Levy v. C. Young Construction Co. Inc.*, 46 N.J. Super. 293, 134 A.2d 717, at 719 (1957), where the court stated: "A builder who sells a completed house is thereafter not liable to the purchaser for damages resulting from latent defects, in the absence of express warranties in the deed, or fraud or concealment."

³² See, e.g., *Sioux City v. Western Asphalt Paving Corp.*, 271 N.W. 624 (Iowa 1937).

³³ 560 S.W.2d 862 (Mo. 1978).

³⁴ *Id.* at 868.

³⁵ *Id.* at 868.

³⁶ 492 S.W.2d 7 (Mo. 1973).

³⁷ 284 Md. 708, 399 A.2d 883 (1979).

³⁸ 130 N.H. 782, 547 A.2d 290 (1988).

³⁹ See, e.g., *Moxley v. Laramie Builder, Inc.*, 600 P.2d 733 (Wyo. 1979) and *Fisher v. Simon*, 15 Wis. 2d 207, 112 N.W.2d 705 (1967).

⁴⁰ 270 N.Y.S. 377, 379 (1934).

⁴¹ 53 A. 294, 296 (1902).

⁴² See, e.g., *Town of Tonawanda v. Stapell, Mumm & Beals Corp.*, 270 N.Y.S. 377 (1934), *aff'd* 265 N.Y. 630, for a case of very poor workmanship.

⁴³ See, e.g., *Wisconsin Red Pressed Brick Co. v. Hood*, 67 Minn. 329, 69 N.W. 1091 (1897).

⁴⁴ 27 Utah 2d. 6, 492 P.2d 135 (1971).

⁴⁵ 474 P.2d 300 (Wyo. 1970).

⁴⁶ By letter of December 9, 1996, David C. Voss of the Louisiana Department of Transportation and Development indicated that the "ten-year pre-emptive period is not subject to suspension of prescription under the maxim *contra non valentem non currit praescriptio*." He also indicated that under Louisiana Revised Statute § 38:2189, there are no reported cases that addressed a latent defect situation as to the beginning of the prescription period.

⁴⁷ 500 N.Y.S. 2d 241, 243 *appeal den.* 506 N.Y.S. 2d 1025, 497 N.E. 2d 705 (1986).

⁴⁸ *Id.*

⁴⁹ See, e.g., *Yeshiva Univ.* 500 N.Y.S. 2d at 245. For an example of a statute see, TEX. GOV'T CODE ANN. § 2253.078, where a 1-year Statute of Limitations would be applied.

⁵⁰ See, e.g., *Trustees of the First Baptist Church v. McElroy*, 223 Miss. 327, 78 So. 2d 138 (1955), where there

was no express warranty given by the contractor.

⁵¹ See, e.g., *Sioux City v. Western Asphalt Paving Corp.*, 271 N.W. 624 (Iowa 1937).

⁵² 175 Iowa 233, 150 N.W. 586, 589 (1915).

⁵³ 271 N.W. 21 (1937).

⁵⁴ See, e.g., *Ting-Wan Liang v. Malawista*, 70 A.D.2d 415, 421 N.Y.S.2d 594 (2d Dept. 1979); and *McKee v. Wheelus*, 85 Ga. App. 525, 69 S.E.2d 788 (1952).

⁵⁵ *McKee v. Wheelus*, *supra* n.54.

⁵⁶ See, e.g., *Gering v. Patricia G. Smith Co.*, 215 Neb. 174, 337 N.W.2d 747 (1983).

⁵⁷ 597 P.2d 945, 955-956 (Wyo. 1979).

⁵⁸ 70 S.W.2d 696, 697-698 (Tex. 1934).

⁵⁹ 92 Or. 650, 180 P. 319, 326 (1919).

⁶⁰ 271 N.W. 624 (Iowa 1937).

⁶¹ 68 N.J.L. 458, 53 A. 294, 296 (1902).

⁶² See, e.g., *International Trust Co. v. Keefe Mfg. & Inv. Co.*, 40 Colo. 440, 91 P. 915 (1907); *Murphy v. State*, 90 Ind. App. 432, 168 N.E. 875 (1929); *Salem Realty Co. v. Batson*, 256 N.C. 298, 123 S.E.2d 744 (1962); *Osceola v. Gjellefeld Constr. Co.*, 225 Iowa 215, 279 N.W. 590 (1938); *Town of Tonawanda v. Stapell, Mumm & Beals Corp.*, 270 N.Y.S. 377 (1934), *aff'd*, 265 N.Y. 630; *City of Seaside v. Randles*, 92 Or. 650, 180 P. 319 (1919); and *Mayor of Newark v. New Jersey Asphalt Co.*, 68 N.J.L. 458, 53 A. 294 (1902).

⁶³ 543 So. 2d 1358 (LA. App. 4th Cir. 1989.)

⁶⁴ The owner may have recovery opportunities under the principle that an architect's or inspector's neglect in failing to inspect and/or supervise does not routinely relieve a contractor from liability to the owner. See, e.g., *Winnsboro v. Barnard & Burk, Inc.*, 295 So. 2d 52 (La. 1974).

⁶⁵ 393 So. 2d 885 (La. 1981), *writ denied*, 400 So. 2d 905 (La. 1981).

⁶⁶ *Eastover*, *supra* at 1361

⁶⁷ *Brouillette v. Consolidated Constr. Co.*, 422 So. 2d 176 (La. 1982); *Charles C. Cloy, General Contractors, Inc. v. Divincenti Brothers, Inc.*, 308 So. 2d 495 (La. 1975), *writ denied* 311 So. 2d 262 (La. 1975).

⁶⁸ See, *Sioux City v. Western Asphalt Paving Corp.*, 271 N.W. 624 (Iowa 1937) and 109 A.L.R. 625 for further discussion about estoppel.

⁶⁹ 489 N.E.2d 308 (Ill. 1985).

⁷⁰ See, e.g., *Moxley v. Laramie Builders, Inc.*, 600 P.2d 733 (Wyo. 1979).

⁷¹ 681 S.W.2d 851 (Tex. App. 14th Dist. 1984).

⁷² See Section V of this Report.

⁷³ 235 So. 2d 548 (Fla. 1970).

⁷⁴ Information provided by Eric Kerness, Assistant Counsel, New York State Department of Transportation, 1220 Washington Avenue, Albany, New York 12232.

⁷⁵ See, *Kansas Turnpike Auth. v. Abramson*, 275 F.2d 711 (10th Cir. 1960), *cert. den.* 363 U.S. 813, for discussion about risks to government agency and contractor in connection with materials. Also see TRANSPORTATION RESEARCH CIRCULAR No. 386, INNOVATIVE CONTRACTING PRACTICES 24-27 (1991).

⁷⁶ See, e.g., *City of New Orleans v. Vicon, Inc.*, 529 F. Supp. 1234 (E.D. LA. 1982); *Woods v. Amulco Products*, 205 Okla. 34, 235 P.2d 273 (1951); *Moore v. United States*, 46 Ct. Cl. 139 (1910); and *Bentley v. State*, 73 Wis. 416, 41 N.W. 338 (1889).

⁷⁷ 368 So. 2d 891 (Fla. 1979).

⁷⁸ 73 Idaho 68, 245 P.2d 800 (1952).

⁷⁹ 270 F.2d 649 (5th Cir. 1959).

⁸⁰ 235 So. 2d 548 (Fla. 1970).

⁸¹ For further references see, *Products Liability: Sufficiency of Evidence to Support Product Misuse Defense in Actions Concerning Building Compo-*

nents and Materials, 61 A.L.R. 4th 156; *Products Liability: Building and Construction Lumber*, 61 A.L.R. 4th 121; *Product Liability: Sufficiency of Evidence to Support Product Misuse Defense in Actions Concerning Ladders and Scaffolds*, 59 A.L.R. 4th 73; and *Products Liability: Sufficiency of Evidence to Support Product Misuse Defense in Actions Concerning Paint, Cleaners, or other Chemicals*, 58 A.L.R. 4th 76.

⁸² See, e.g., *Town of Tonawanda v. Stapell, Mumm & Beals Corp.*, 240 A.D. 472, 270 N.Y.S. 377 (1934), *aff'd*, 265 N.Y. 630.

⁸³ See, e.g., *City of Seaside v. Randles*, 92 Or. 650, 180 P. 319 (1919).

⁸⁴ 360 Pa. Super. 119, 519 A.2d 1021 (1987).

⁸⁵ See, e.g., *Draube v. Rieth*, 114 So. 2d 879 (La. 1959); *Blue Bell, Inc. v. Cassidy*, 200 F. Supp. 443 (D.C. Miss. 1961); and *Fuchs v. Parsons Constr. Co.*, 172 Neb. 719, 111 N.W.2d 727 (1961).

⁸⁶ 78 So. 2d 138 at 141 (Miss. 1955).

⁸⁷ 192 A.2d 925, 926-927 (Del. 1963).

⁸⁸ See, e.g., *United States v. Spearin*, 248 U.S. 132, 63 L. Ed. 166, 39 S. Ct. 59 (1918); and *Trustees of First Baptist Church v. McElroy*, 223 Miss. 327, 78 So. 2d 138 (1955).

⁸⁹ 137 Vt. 20, 399 A.2d 503 (1979).

⁹⁰ 474 So. 2d 75 (Ala. 1985).

⁹¹ See, e.g., *Page v. Willey*, 139 N.H. 33, 648 A.2d 206 (1994), where the court held that "where all of the relevant facts underlying the alleged defect are known, or discoverable...upon reasonable inspection at the time of purchase, no claim for latent defects can later arise." (648 A.2d at 208)

⁹² Information provided by Eric Kerness, Assistant Counsel, New York State Department of Transportation, 1220 Washington Avenue, Albany, New York 12232.

⁹³ 270 N.Y.S. 377, 379 (1934), *aff'd*, 265 N.Y. 630.

⁹⁴ 625 P.2d 831 (Alaska 1980).

⁹⁵ 92 Or. 650, 180 P. 319 (1919).

⁹⁶ 529 F. Supp. 1234 (E.D. La. 1982).

⁹⁷ 1981 WL 6380 (Ohio App.).

⁹⁸ See, e.g., *Florida Bd. of Regents v. Fidelity & Deposit Co. of Md.*, 416 So. 2d 30 (Fla. App. 1982); *Yeshiva Univ. v. Fidelity*, *supra* n.47; *Miller v. Knob Constr. Co.*, 368 So. 2d 891 (Fla. 1979), where the court released the surety, but applied the statute of limitations for contract actions against the contractor for the work to correct latent defects rather than the statute of limitation for bond actions; and *School Bd. of Volusia v. Fidelity Co. of Md.*, 468 S.2d 431 (Fla. 1985), where the court found that there was no deferral of the accrual of a cause of action for latent undiscovered defects.

⁹⁹ See, e.g., *Salem Realty Co. v. Batson*, 256 N.C. 298, 123 S.E.2d 744 (1962), where the court found that the surety was not relieved from latent defects that were not discovered by the owner prior to acceptance; *Osceola v. Gjellefeld Constr. Co.*, 279 N.W. 590, 594 (Iowa 1938), when the court stated:

Under such circumstances the principle of law is, as laid down by courts throughout the country, that in the absence of fraud or mistake acceptance of the work bars and estops the city for defects known or discoverable by reasonable attention on the part of the engineer in the performance of his duty in inspecting the work. However, the basis of the doctrine of estoppel and waiver does not exist where the thing complained of was undiscoverable and unknown at the time of acceptance. It is a well known and recognized principle of law that there can be no waiver of a condition unknown..

American Employers' Ins. Co. v. Huddleston, 123 Tex. 285, 70 S.W.2d 696 (1934), where the court held that the surety was not released from liability on the contractor's bond for defects discovered after final payment;

Town of Tonawanda v. Stapell, Mumm & Beals Corp., 240 A.D. 472, 270 N.Y.S. 377 (1934), *aff'd*, 265 N.Y. 630, where the court stated: "Its [the Town's] acceptance and payment, however, 'does not preclude a recovery...on account of latent defects not discoverable by a reasonable inspection.'"; and *City of Seaside v. Randles*, 180 P. 319 (1919), where the court at 326 stated "Payment by the city for the work accepted by it under an honest belief that it was done in the manner required by the contract did not release the surety." However, *cf.*, *Guin & Hunt, Inc. v. Hughes Supply, Inc.*, 335 So. 2d 842 (Fla. 1976), where the court apparently would have released the surety if the claim had been brought by the contractor against the owner rather than the subcontractor.

¹⁰⁰ *Florida Bd. of Regents v. Fidelity & Deposit Co.*, 416 So. 2d 30, 31 (Fla. App. 1982).

¹⁰¹ *Guin & Hunt, Inc. v. Hughes Supply, Inc.*, *supra* n.99.

¹⁰² See, e.g., *Village of Downers Grove v. American Surety Co. of NY*, 218 Ill. App. 608 (1920); and *Sioux City v. Western Asphalt Paving Corp.*, 271 N.W. 624 (Iowa 1937).

¹⁰³ See, e.g., *Sioux City v. Western Asphalt Paving Corp.*, *Id.* However, *cf.*, *School Bd. of Pinellas County v. St. Paul Fire and Marine Ins. Co.*, 449 So. 2d 872, 874 (Fla. 1984), *rev. denied*, 458 So. 2d 274 (Fla. 1984), where the court stated that:

If the work was not performed according to the contract and acceptance of the work and payment of the contract price by the Board was without knowledge of latent defects, the acceptance and payment would not necessarily constitute a waiver or an estoppel to claim damages for such latent defects.

And in *Seaside v. Randles*, *supra*, 180 P. at 326, the court stated:

"It is further maintained on behalf of defendant that the surety was released. The payment by the city for the work accepted by it under an honest belief

that it was done in the manner required by the contract did not release the surety."

ACKNOWLEDGMENTS

This legal study was performed under the overall guidance of NCHRP Project Panel SP20-6. The Panel is chaired by Delbert W. Johnson (formally with Office of the Attorney General of Washington). Members are Grady Click, Texas Attorney General's Office; Donald L. Corlew, Office of the Attorney General of Tennessee; Lawrence A. Durant, Louisiana Department of Transportation and Development; Brelend C. Gowan, California Department of Transportation; Michael E. Libonati, Temple University School of Law; Marilyn Newman, Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, Boston, Massachusetts; Lynn B. Obernyer, Duncan, Ostrander and Dingess, Denver, Colorado; James S. Thiel, Wisconsin Department of Transportation; Richard L. Tiemeyer, Missouri Highway and Transportation Commission; Richard L. Walton, Office of the Attorney General of the Commonwealth of Virginia; Steven E. Wermcrantz, Wermcrantz Law Office, Springfield, Illinois; and Robert L. Wilson, Arkansas Highway and Transportation Department. Edward V.A. Kussy provides liaison with the Federal Highway Administration, and Crawford F. Jencks represents the NCHRP staff.