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## California Underground Facilities Safe Excavation Board

September 13, 2022

Agenda Item No. 8 Information Item – Staff Report

*Potholing Standards Development*

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### PRESENTERS

Tony Marino, Executive Officer

### SUMMARY

The Potholing Committee held a workshop on Thursday, August 4 to hear from excavators and operators about what would improve the information they had available to do their jobs. Workshop participation was limited. Staff recommends that the Potholing Committee begin drafting standards for discussion.

### STRATEGIC PLAN

2021 Annual Plan Objective: Improve Excavation Safety and Location Practice Safety

Strategic Activity: Develop Safety Standards

### BACKGROUND

Potholing has been a continuous but indirect topic of conversation in the Board's standards development, and the Board has held numerous workshops and surveys that involve potholing practices.<sup>1</sup>

### Government Code § 4216 Requirements and Title 19 Regulations

Government Code § 4216 and the California Code of Regulations (CCR) Title 19 contain

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<sup>1</sup> [November 8, 2018, Agenda Item No. 7, AB 1914: Initial Discussion on Scope of Implementation; April 24, 2019, Reasonable Care Standards Workshop; AB 1914 Workshop Survey – Results Summary; May 13-14, 2019, Agenda Item No. 6, AB 1914 Implementation; August 27, 2020, Agenda Item No. 1, Trenchless Excavation Reasonable Care Workshop; September 14, 2020, Agenda Item No. 18, Discussion on Reasonable Care Standards Development for Trenchless Excavation Techniques; October 29, 2020, Agenda Item No. 3, Reasonable Care in Trenchless Excavation; November 16, 2020, Agenda Item No. 9, Update on Reasonable Care Standards Development for Trenchless Excavation Techniques; Trenchless Excavation Survey Responses; July 13, 2021, Agenda Item No. 7, Update on Safety Standards: Public Works Excavation Survey and Interviews Preliminary Results, Preliminary Public Works Excavation Survey Data; July 21, 2021, Agenda Item No. 1, Workshop: Earthwork and Road Construction Excavation; November 9, 2021, Agenda Item No. 5, Update on Safety Standards – Next Steps.](#)

<sup>1</sup> [January 14, 2019, Agenda Item No. 6, Legal Counsel Opinion on GOV 4216.4\(a\) and GOV 4216.4\(b\).](#)

provisions related to potholing and the determination of the location of a facility. For instance, excavators must determine the exact location of facilities with hand tools prior to using power tools,<sup>2</sup> on-site meetings occur in the vicinity of high priority facilities to determine how to determine the location of the facility,<sup>3</sup> and an excavator requests additional information on the location of a facility if they cannot determine its location with hand tools.<sup>4</sup>

The Board implemented AB 1914 (Flora, 2018) in regulation codified as 19 CCR § 4501, which specifies the conditions for and use of equipment other than hand tools that may be used to determine the exact location of a facility.<sup>5</sup> This regulation allows for a process for excavators and operators to come to agreement on the use of different tools if there is a question of the safety of workers or effectiveness of the tool.<sup>6</sup>

The Board also created a process for the resolution of conflicting information on the location of a facility in an area of continual excavation.<sup>7</sup> If the operator and excavator disagree as to the exact location of the facility, the operator must demonstrate the facility is in conflict through the provision of documentation on the exact location or by exposing the facility.<sup>8</sup>

Board standards for potholing could continue to outline standard circumstances and processes for potholing such as these by providing meaning for many terms in statute, such as “exact location,”<sup>9</sup> “in conflict,”<sup>10</sup> “verify the location,”<sup>11</sup> and “additional information”<sup>12</sup> on the location of a facility. Potholing standards can then specify where it is in the interest of public and worker safety to pothole a facility and what additional information an operator should provide when potholing does not find a facility or discovers new information about the facility.

## **DISCUSSION**

### **Definition of Potholing**

The Potholing Committee posed two questions to ensure that it was prepared to draft standards:

- To excavators: What do you need to be better at your job in effectively potholing buried facilities?
- To operators: What do you need to be better at your job in accurately locating and marking or otherwise assisting excavators in determining the exact location of buried

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<sup>2</sup> [Cal. Gov. Code § 4216.4\(a\)\(1\)](#)

<sup>3</sup> [Cal. Gov. Code § 4216.2\(c\)](#)

<sup>4</sup> [Cal. Gov. Code § 4216.4\(b\)](#)

<sup>5</sup> [19 CCR § 4501\(b\)](#)

<sup>6</sup> [19 CCR § 4501\(c\)](#)

<sup>7</sup> [Cal. Gov. Code § 4216.10](#)

<sup>8</sup> [19 CCR § 4351\(c\)\(1\)\(A\) and \(B\)](#) Agricultural Operations; [19 CCR § 4361\(c\)\(1\)\(A\) and \(B\)](#) Flood Control Facilities

<sup>9</sup> [Cal. Gov. Code § 4216.4\(a\)\(1\)](#)

<sup>10</sup> [Cal. Gov. Code § 4216.4\(a\)\(1\)](#)

<sup>11</sup> [Cal. Gov. Code § 4216.2\(c\)](#)

<sup>12</sup> [Cal. Gov. Code § 4216.4\(b\)](#)

facilities?

Executive Officer Tony Marino also posed several questions from staff. One excavator and one operator participated in the discussion.

The excavator stated that they need accurate and complete information about facilities, including voltages and whether facilities were fiber. When asked about the safety of hand tools in potholing, the excavator stated that the problem was less of technique and more of ground hardness. He stated that they keep all the information they have on site, and they use a bore log to record the location of facilities they encounter. This log is currently kept on paper, but his company is making the transition to digital. The operator stated that maintaining communication between the excavator and operator is important, as new issues come up as soon as the excavator starts work in the field.

When asked about issues the operators see in potholing, the operator stated that not potholing was the largest issued. Other issues were not potholing deep enough and potholing only to the top of the pipes and not clearing a bore path. The operator stated that they provide both as-builts and maps on request, and that those requests are processed by a separate department, and it takes them approximately 2 days to provide the information. The operator also stated that they have been installing marker balls for the past three years or so, including for abandoned lines.

Both the excavator and the operator stated that companies sometimes choose to pothole where it is easiest to pothole instead of where it is most appropriate. Both describe how companies will often pothole a facility in the grass adjacent to the area of potential conflict instead of where the potholing is most necessary to avoid working in the road.

#### **RECOMMENDATION**

Staff recommends that staff work with the Potholing Committee to begin drafting standards for Board discussion and review.