

12/8/2025

Letter No. 291
BY-CRE-04172

Evelyn Pao, P.E., Project Director
Washington State Department of Transportation
18911 N Creek Pkwy S, Suite 150
Bothell, WA 98011

Project: I-405, Brickyard to SR 527 Improvement Project
Contract No: 009727

Subject: Supplement to Notice of Protest 006 – DSC 006 for Clay Layer ESU2C

Dear Ms. Pao:

Skanska hereby provides our written protest with the following supplemental information per 1-04.5.

a. The Date and nature of the protested determination.

WSDOT issued its written determination regarding DSC 006 in Serial Letter No. 9727-162, dated September 18, 2025, concluding that the conditions encountered within the ESU 2C clay layer do not constitute a Differing Site Condition under Section 1-04.7. WSDOT's determination was further supported by the supplemental document titled "Engineering Decision Regarding DSC 006."

In WSDOT's response, WSDOT summarized their reasoning for this not meeting the definition of a differing site condition in the following four bullet points:

In Conclusion, WSDOT has determined this **does not constitute a Differing Site Condition** under the contract due to the following findings:

- Reliance on a Reference Document (GDR) at the Design-Builder's risk
- Lack of evidence showing a reasonable effort to verify geotechnical assumptions
- Absence of any physical site condition that meets the contractual definition of a DSC
- The GBR baselined poor ground conditions in this area

While the Design-Builder disputes WSDOT's conclusion and will work to counter each of the bullet points provided, WSDOT critically omits from its evaluation part (b) of the differing site condition clause that states "*physical conditions of an unusual nature, differing materially from those ordinarily encountered and generally recognized as inherent in the type of Work provided in the Contract and the Work Site characteristics*".

Throughout this response, the Design-Builder wishes to highlight to WSDOT that there is a clear discrepancy between the observed behavior of the soil at the current settlement surge pile and the incremental measurements from subsurface investigations (pre-award, post-award, and the latest samples taken in Summer/Fall 2025). These variances are unusual and deviate from predictive

geotechnical modeling. This situation should be defined as a differing site condition.

Skanska hereby protests WSDOT's determination. As detailed in the attached supplemental documentation prepared by GeoEngineers and AECOM, as the actual subsurface conditions encountered, including the inconsistency between laboratory characterizations and field performance, demonstrate unusual and unanticipated conditions, that are not materially consistent with the conditions indicated in the Contract Documents, including the GDR, GDR Supplement, and GBR; or with those ordinarily encountered and generally recognized as inherent in the type of Work provided for in the contract and Work Site characteristics.

Skanska therefore submits this supplemental protest in accordance with Section 1-04.5(2).

b. Full Discussion of the circumstances which caused the protest, including names of persons involved, time, duration and nature of the Work involved, and a review of the Contract Documents/Design Documents referenced to support the protest.

The circumstances giving rise to this protest relate to the subsurface conditions encountered within ESU 2C in the vicinity of Abutment 10 and Walls 23.72R, 23.73R, 23.74R, and 23.80R, and the significant impacts this Differing Site Condition has on the design and construction of the affected elements.

During procurement, WSDOT issued the Geotechnical Data Report (GDR) and GDR Supplement as Contract Documents, and these documents remained Contract Documents through Addendum 14, where WSDOT changed the C to an R for the GDR on Appendix A1 without modifying the differing site condition language which takes precedence over an appendix.

Importantly, the Contract itself requires the Design-Builder to base its geotechnical engineering and analyses on the information contained in the GDR. Section 2.6.5.2 (Geotechnical Analysis) states that such analyses "**shall be based on...** the information contained in the GDR." Under Section 1-03.1 (Contract Documents), any Reference Document that is cited as a mandatory requirement is incorporated into the Contract Documents to the extent of that requirement and assumes the same order of precedence as the Contract Document in which the reference appears. Therefore, despite its reclassification in Addendum 14, the GDR and the factual data contained within it functioned as a Contract Document for purposes of establishing baseline geotechnical conditions and for evaluating Differing Site Conditions under Section 1-04.7.

The Design-Builder inspected and examined the Site and surrounding locations in accordance with the Examination of Site of Work in section 1-02.4, which is further defined in GeoEngineers letter.

Following the award, the Design-Builder performed extensive, contractually compliant explorations in accordance with the approved Subsurface Investigation

Plans (SIPs) and the GDM. These post-award explorations corroborated the general subsurface profile indicated in the GDR and did not reveal, nor could reasonably have revealed, the unusual behavior later observed in the field. Six post-award borings with supplemental laboratory testing were completed within the contract required distances from the affected structures.

The differing site condition became apparent only after Wall 23.80R exhibited settlement far in excess of calculated values, prompting additional investigative borings, extensive laboratory testing, and a full-scale gravel surcharge load test. Despite laboratory tests conducted by multiple independent laboratories (WSDOT, GeoEngineers, Haley & Aldrich), the soil behavior measured in the field *could not be replicated* using any reasonable combination of laboratory-based parameters, including lower-bound values, median values, or any values typically applied under accepted geotechnical practice. Only after Skanska installed a large settlement surcharge pile and proceeded to surcharge the ESU-2C soil layer (with a continued and ongoing total duration of 10+ months to-date), can we predictably understand the behavior of the soil. Please see the supplemental information about the soil's behavior as captured in supplemental data provided by GeoEngineers in their attached letter.

These findings demonstrate that:

- The Contract Documents did not indicate the unusual settlement behavior encountered; Only through constructing a large settlement surcharge pile for upwards of 10+ months when completed, can the Design-Builder now predict the behavior of the ESU-2C soil layer.
- The conditions were not discoverable through reasonable pre-award or post-award site investigations; and
- The actual subsurface behavior is of an unusual nature, not ordinarily inherent in the type of work.

For these reasons, and as further detailed in the attached GeoEngineers and AECOM documentation, the Design-Builder asserts that the conditions encountered constitute a Differing Site Condition under Section 1-04.7(a) and Section 1-04.7(b) of the Contract.

c. The estimated dollar cost, if any, of the protested Work and a detailed breakdown showing how the estimate was determined.

In accordance with Section 1-04.5(2)(c), Skanska provides below the current estimated dollar cost associated with addressing the Differing Site Conditions affecting MSE Wall 23.80R, Abutment 10, the adjacent retaining walls, and associated interface elements. These estimates include costs already incurred for field investigations, surcharge monitoring, and technical evaluations, as well as the projected cost to redesign and reconstruct affected design components.

The technical evaluations of both GeoEngineers and AECOM form the basis for these estimates and are provided in the attached supplemental letters. Skanska has incorporated AECOM's ongoing redesign effort.

A consolidated summary of the current estimated costs is provided below. These values represent Skanska's best available estimate at this stage of design maturity and will continue to be refined as additional information becomes available. Delay-related costs have not been assessed at this time and will be updated.

DESCRIPTION	PROJECTED COSTS
SETTLEMENT STUDY COSTS	\$ 855,421.88
REBUILD MSE WALL 23.80	\$ 3,023,924.54
DESIGN MODIFICATION TO WALL 23.74	\$ 625,000.00
ABUTMENT 10 & NB EMB CONSTRUCTION	\$ 15,396,227.68
DRAINAGE & WALL INTERFACES	\$ 476,437.50
UNKNOWN IMPACTS & DELAY RELATED COSTS	TBD
SUBTOTAL	\$ 20,377,011.59
DESIGN COSTS	\$4,572,975
ESDC	\$457,300
SUBTOTAL	\$5,030,275
TOTAL	\$ 25,407,284.09

Skanska expressly reserves all rights to adjust, revise, supplement, or expand these estimates as design development progresses, as construction impacts become clearer, and as additional cost information is obtained from subcontractors and suppliers.

d. An analysis of the progress schedule showing the schedule change or disruption of the Design-Builder is asserting a schedule change or disruption.

Based on the current design development path, AECOM's updated design package for Abutment 10 is now expected to be delivered in November 2026, which is approximately seven (7) months later than the Design-Builder's planned mobilization date of April 2026 for mainline bridge work to proceed in the subject area. This delay in design readiness directly affects the timing of construction activities associated with Abutment 10 and the related retaining wall elements impacted by DSC 006.

At this time, the Design-Builder is continuing to evaluate the downstream effects of this delayed design delivery on the project's critical path, milestone dates, and overall sequence of work. In accordance with Section 1-04.5 and Section 1-08.8 of the Contract, The Design-Builder will prepare and submit a Time Impact Analysis (TIA) once sufficient information is available to quantify the effect of the DSC on the project schedule.

The Design-Builder provides this preliminary statement of schedule impact for purposes of this supplemental protest and expressly reserves all rights to submit additional schedule analysis, including a formal TIA, as the design evolves and the full extent of the delay becomes known.

Skanska reserves its rights under the contract and applicable laws to seek equitable compensation for cost and time impacts incurred to perform this scope of work.

If you have any questions, please do not hesitate to contact me.

Sincerely,



Patrick Prendergast, Project Executive
Skanska USA Civil
18911 N Creek Pkwy S, Suite 300
Bothell, WA 98011

Attachments

AECOM: 2025.12.05-PCN86-DSC-AECOM Response to WSDOT SL No. 9727-175_signed_FINAL



AECOM Technical Services, Inc.
1111 Third Ave., Suite 1600
Seattle, WA 98101, USA
aecom.com

12/5/25

Via E-mail

Patrick Prendergast
Contractor's Representative
Skanska USA Civil West California District Inc.
18911 N Creek Pkwy, Suite 300
Bothell, WA 98011
Patrick.Prendergast@skanska.com

Project: I-405, Brickyard to SR 527 Improvement Project
Contract No: 009727
RE: Notice of Protest 006: DSC 006 – Clay Layer ESU 2C Under Walls 23.80R, 23.72R, 23.73R, 23.74R
& I-405 Mainline Abutment 10

NOTICE OF PROTEST SUPPLEMENTAL INFORMATION

Dear Mr. Prendergast:

I am writing on behalf of AECOM in response to WSDOT's Serial Letter No. 9727-175 entitled "RE: Notice of Protest 006: DSC 006 – Clay Layer ESU 2C Under Walls 23.80R, 23.72R, 23.73R, 23.74R & I-4045 Mainline Abutment 10" and dated October 10, 2025, and previous letter, WSDOT's Serial Letter No. 9727-162 entitled "RE: Notice of DSC at Wall 23.80R, I-405 Mainline Bridge Abutment 10, Wall 23.72R, Wall 23.7R, and Wall 23.74R" and dated September 18, 2025. In accordance with the protest procedures outlined in Section 1-04.5 of the RFP: Procedure, Protest, and Dispute by the Design-Builder, AECOM hereby disputes WSDOT's determination that Differing Site Conditions do not exist and no adjustment in cost or time is warranted at Walls 23.80R, I-405 Mainline Bridge Abutment 10, Wall 23.72R, Wall 23.7R and Wall 23.74R. As required per the agreement between Skanska USA Civil West California District Inc. ("Skanska") and AECOM Technical Services, Inc. ("AECOM"), dated October 25, 2022 (the "Design Subcontract"), please forward this to WSDOT as soon as possible, but no later than the deadline provided by WSDOT of December 8, 2025.

As a supplement to AECOM's Notice of Protest, dated October 1, 2025, entitled, "Response to WSDOT SL No. 9727-162, and Notice of Protest per RFP Section 1-04.5" AECOM provides additional information as requested by WSDOT, as follows:

a. The date and nature of the protested order, direction, instruction, interpretation, determination:

Date of Protested Order: September 18, 2025

Nature of Protested Order: On September 18, 2025, WSDOT advised in Serial Letter No. 9727-162 that "WSDOT determines that Differing Site Conditions do not exist and no adjustment in costs or time is warranted."

On April 1, 2025, the design build team notified WSDOT of potential differing site conditions due to atypical field performance of the soil at Wall 23.80 via email from Kyle Sharrer (Skanska) to Sonia Berriz (WSDOT). This email was formalized with a letter sent from AECOM to Skanska on April 9, 2025. Since this initial notice, additional analysis has been completed and differing site conditions have been found at

Walls 23.80R, 23.72R, 23.73R, 23.74R and I-405 Mainline Abutment 10. The Design Build Team was in continuous communication with WSDOT throughout the analysis process, and again formally notified WSDOT of the differing site conditions via AECOM letter, Notice of Potential DSC at Wall 23.80R, I-405 Mainline Bridge Abutment 10, Wall 23.72R, Wall 23.73R, and Wall 23.74R. R2” dated September 2, 2025 and Skanska letter BY-CRE-03417, “Notice of DSC at Wall 23.80R, I-405 Mainline Bridge Abutment 10, Wall 23.72R, Wall 23.73R, and Wall 23.74R,” dated September 4, 2025. AECOM’s letter and attached memo from GeoEngineers provided substantial evidence of the differing site condition in the aforementioned locations. WSDOT responded to this letter on September 18, 2025 via letter Serial No.9727-162, rejecting the design builder’s request for Change due to the differing site condition which AECOM is further protesting as there is compelling proof of this differing site condition.

b. A full discussion of the circumstances which caused the protest, including names of Persons involved, time, duration and nature of the Work involved, and a review of the Contract Documents/Design Documents referenced to support the protest.

Please see the attached memo from AECOM’s subcontractor GeoEngineers for discussion of the circumstances which caused the protest, nature of the Work involved, and review of the Contract Documents.

In addition to impacts to GeoEngineers, a number of AECOM discipline designs such as Walls, Structures, Roadway, Drainage, Landscape, and MOT teams have also had and/or will have impacts associated with the differing site condition at walls 23.80R, 23.72R, 23.73R, 23.74R and I-405 NB Abutment 10. At this time, the full impact to all design disciplines is not known and will be evaluated through the redesign process.

When differing site conditions were confirmed, design for Walls 23.80R, 23.72R, 23.73R, 23.74R, and I-405 Northbound Mainline Bridge Abutment 10 were complete and RFC packages had been approved. Due to the differing site conditions updated geotechnical design parameters, AECOM is required to redesign Walls 23.72R, 23.73R and 23.74R and I-405 NB Mainline Bridge Abutment 10 constituting cost and schedule impacts.

This redesign for walls 23.72R and 23.73R require changing the walls from MSE walls to concrete fascia walls. This necessitates adjusting the wall alignments for geofoam placement and developing new cross-sectional details to replace the original WSDOT approved system provided by Skanska’s wall supplier. Additionally, Wall 23.74 piles could require redesign to address the differing site conditions. Required wall 23.80R design updates can be made in NDC 47.

As stated, AECOM had previously submitted the RFC package for I-405 Northbound Bridge. The current design for abutment 10 is a spread footing foundation. The updated geotechnical parameters will require the abutment to be re-designed to be on a deep foundation of drilled shafts. This redesign mandates additional seismic analysis and calculations, revisions to the approach slab, and an evaluation of the superstructure to identify any further updates that may be required. This major redesign will cause a substantial cost and schedule impact to the design team.

As the aforementioned walls and Northbound Mainline abutment 10 will require modifications, impacts to the current grading at the bottom of the walls are triggered. Revised grading and geofoam placement will likely require changes to the current landscape plans and drainage design in the impacted areas. These revisions necessitate additional unforeseen design costs and schedule impacts.

In addition, NDC’s 26, 67, 114, and RFI’s 265 and 462 were required due to the field issues experienced at wall 23.80 that were a result of the differing site condition. These additional submittals impacted the Wall, Drainage, and MOT designs. The Skanska-AECOM team acted in good-faith to finalize these additional submittals caused by the differing site condition while keeping other project design and construction activities progressing.

c. The estimated dollar cost, if any, of the protested Work and a detailed breakdown showing how that estimate was determined.

AECOM's additional cost to implement the changes stemming from this differing site condition is as follows:

I-405 Brickyard DB Project		
PCN / CN #:	CO 086	
Walls 23.80R, 23.72R, 23.73R, 23.74R & I-405 Mainline		
Name of PCN/CO:	Abutment 10 DSC	
Date Updated:	5-Dec	
Discipline	Hours	Fee
Section 2.1 General / Management	994	\$392,154
Section 2.5 Survey		
Section 2.6 Geotechnical	7234	\$1,622,112
Section 2.7 Pavement		
Section 2.8 Environmental	230	\$57,500
Section 2.10 Utilities		
Section 2.11 Roadway	616	\$148,084
Section 2.12 Project Documentation		
Section 2.13 Bridges and Structures	5819	\$1,477,851
Section 2.14 Stormwater	365	\$76,024
Section 2.15 Roadside Restoration	322	\$80,674
Section 2.16 Illumination		
Section 2.17 Traffic Signals		
Section 2.18 ITS		
Section 2.19 Signing		
Section 2.20 Pavement Marking		
Section 2.21 Traffic Operations		
Section 2.22 MOT		
Section 2.26 Toll Infrastructure		
Section 2.27 Transit		
Section 2.28 Design Quality Management	97	\$25,116
Section 2.30 Water Crossings		
Section 2.31 Vertical Construction		
NDCs and RFIs associated with Differing Site Conditions	456	\$96,985
Totals	16132	\$3,976,500

d. An analysis of the progress schedule showing the schedule change or disruption if the Design-Builder is asserting a schedule change or disruption.

AECOM has requested additional time to evaluate the impact of this issue. At this time, AECOM currently estimates differing site conditions will delay the RFC of the I-405 Northbound Mainline bridge, retaining walls, and additional impacted disciplines by 11 months. AECOM is analyzing delay and corresponding cost; once all impacts are known, AECOM will request a time extension and additional funds. This design will be worked through concurrently with other contractual design deliverables and may cause delay to contractual submittals previously developed. Actual delay is currently being evaluated and will be provided once full delay is assessed.

Note that the foregoing cost and schedule estimates are preliminary, based only on the information available to AECOM at this time. As more information becomes available, additional impacts may be discovered which are unknown as of today, and which are specifically excluded from the cost and schedule impact estimates. The above estimates should not be considered binding, and they may need

to be revised as additional information is gathered. This letter is without prejudice to, and with a full reservation of, AECOM's rights, remedies, causes of action, and defenses under the Subcontract, at law, in equity, or otherwise. Nothing in this letter shall be interpreted as a modification or waiver, or an estoppel of AECOM's right to assert the same.

I appreciate your prompt attention to this matter. If you have any questions, please do not hesitate to contact me directly. Please promptly provide this notice of protest to WSDOT per the Design Subcontract and Design-Build Contract no later than December 8, 2025.

Yours sincerely,

AECOM Technical Services, Inc.



Ryan Abraham, PE

Vice President

T: 303.807.5730

E: Ryan.Abraham@aecom.com

cc: E. Grant, J. Waldron, R. Patterson, J. Guerrero



Memorandum

17425 NE Union Hill Road, Suite 250, Redmond, WA 98052, Telephone: 425.861.6000

www.geoengineers.com

To: Ryan Abraham, P.E., AECOM, Project Design Manager for the I-405/Brickyard to SR 527 Design-Build Team

From: Benjamin M. Upsall, P.E., GeoEngineers, Geotechnical Group Manager for the I-405/Brickyard to SR 527 Design-Build Team

Date: December 08, 2025

File: 000180-423-04

Subject: Protest Letter and Supplemental Information
Differing Site Conditions Claim – DSC 006 – Clay Layer ESU 2C Under Walls 23.80R, 23.72R, 23.73R, 23.74R, and I-405 Mainline Abutment 10
I-405, Brickyard to SR 527 Improvement Project
King and Snohomish Counties, Washington

1.0 - Introduction:

GeoEngineers acknowledges receipt of WSDOT's correspondence (WSDOT SL No. 9727-162), dated September 18, 2025, wherein WSDOT rejected Skanska's formal notice of a Differing Site Condition (See Letter No. 226 Notice of [Differing Site Condition] DSC at Wall 23.80R, I-405 Mainline Bridge Abutment 10, Wall 23.72R, Wall 23.7R, and Wall 23.74R, dated September 4, 2025) pertaining to Differing Site Conditions at Walls 23.80R, I-405 Mainline Bridge Abutment 10, Wall 23.72R, Wall 23.7R, and Wall 23.74R. WSDOT further advised that, should Skanska disagree with its determination, the matter should be pursued via the protest procedures outlined in Request for Proposal (RFP) *Chapter 1 General Provisions: RFP 1-04.5 Procedure, Protest, and Dispute by the Design-Builder*. The conformed RFP for the project is dated October 25, 2022.

GeoEngineers disagreed with the WSDOT Engineer's Written Determination set forth in the aforementioned letter, and we submitted a formal notice of protest in accordance with *RFP 1-04.5(1) Procedure, Protest, and Dispute by the Design-Builder, subpart Disputes*. The protest was based on the assertion that GeoEngineers is entitled to equitable adjustments to the Contract Price and Contract Time due to the unusual site conditions at the aforementioned project locations. These unusual conditions continue to result in additional design work and construction delays. We provided this notice in accordance with *RFP 1-02.4(1) Examination of Site of Work, subpart General, RFP 1-02.4(2) Examination of Site of Work, subpart Subsurface Information* for subsurface DSC, *RFP 1-04.7 Differing Site Conditions, 1-08.8 Extensions of Time, and 1-05.15 Method of Serving Notices*.

Furthermore, pursuant to *RFP 1-04.5 Procedure, Protest, and Dispute by the Design-Builder subpoint 2*, GeoEngineers requested a 75-day extension on the allowable timeline to supplement this written protest. In WSDOT's response Letter (WSDOT SL No. 9727-175) dated October 10, 2025, WSDOT granted

GeoEngineers a 59-day extension (making the new due date December 8, 2025). WSDOT also granted themselves 39 calendar days to properly review and respond to the protest letter with supplemental information.

GeoEngineers is one of the leaders in successful WSDOT design-build geotechnical project experience. We performed our work on this project in accordance with the standard of care and the standard of practice for a project of this type at the time and in the jurisdiction that the work was performed. The assessments and conclusions presented in this protest are informed by GeoEngineers' extensive experience evaluating subsurface conditions and designing geotechnical solutions for complex transportation infrastructure projects. The engineering work described herein also reflects the level of reasonable investigation contemplated by RFP 1-02.4(1) General and demonstrates that the conditions ultimately encountered at Project site were not discoverable by any investigation that could reasonably have been performed during the procurement and design phases.

DSC claims are grounded in a four-part test: (1) the Contract Documents must indicate certain conditions; (2) the Design-Builder must reasonably rely on those indications when making its bid; (3) the actual conditions must materially differ from those indicated; and (4) the materially different conditions must not have been reasonably foreseeable. See RFP 1-04.7 Differing Site Conditions. This supplement will establish that the subsurface soil conditions encountered satisfy all four elements as well as the Contract's definition of a DSC under both RFP 1-04.7 Differing Site Conditions, subparts a and b.

As stated in the original protest, the Design-Builder submitted DSC 006 under RFP 1-04.7 Differing Site Conditions, subpart a on the basis that the subsurface conditions encountered differed materially from those indicated in the Contract Documents. The Design-Builder's interpretation was grounded in the information provided in the Geotechnical Data Report (GDR) and GDR Supplement, which were designated as Contract Documents during the majority of the procurement period and therefore required to be relied upon for proposal development. RFP 1-04.7 Differing Site Conditions, subpart a expressly defines a DSC by reference to "the baseline conditions identified in the GBR and the data in the GDR as set forth in Section 1-02.4(2)." By incorporating "data in the GDR" into the DSC definition itself, the Contract mandates use of the GDR data as part of the baseline and does not allow WSDOT to erase that baseline simply by later reclassifying the GDR as a Reference Document.

The additional post-issue phase field data, settlement observations, and laboratory test interpretations now further demonstrate that the encountered subsurface conditions also satisfy the definition of a DSC in RFP 1-04.7 Differing Site Conditions, subpart b—that is, they represent physical conditions of an unusual nature that differ materially from those ordinarily encountered and generally recognized as inherent in the work. This supplement provides that additional technical and contractual context. The intent is not to restate the contents of the original protest, but rather to present the further evaluations performed to date that support the applicability of DSC Part (b) in conjunction with Part (a). Taken together, these facts show that (1) the Contract Documents and GDR data indicated certain baseline soil conditions, (2) the Design-Builder reasonably relied on those indications, (3) the field behavior materially differed from the indicated behavior, and (4) this materially different behavior was not reasonably foreseeable thus satisfying the Contract's DSC provisions.

As described herein, the combined subsurface behavior of ESU 2C—its depth, variability, compressibility, and the inconsistency between laboratory characterizations and field performance—demonstrates an unusual and unanticipated condition that meets the criteria of RFP 1-04.7 Differing Site Conditions, subpart

b. Taken together with the requirements and constraints of the procurement period, these conditions also reinforce the validity of a DSC per RFP 1-04.7 Differing Site Conditions, subpart b, and further underscore that the differing condition was not reasonably discoverable by the Design-Builder prior to bid. The technical findings in this supplement directly support DSC entitlement by demonstrating material difference, unusual physical behavior, reasonable reliance, and lack of reasonable foreseeability.

2.0 - Description of the Supplemental Information Required by Contract:

A supplement to the written protest, is provided here in with a written statement and supporting documentation addressing the following four subparts (a through d) of RFP 1-04.5 Procedure, Protest, and Dispute by the Design-Builder, subpart 2. These four subparts are listed below with an outline of where and how they are addressed within this supplement (the underlined portion of each subpart is a reproduction of the contract language).

- 1-04.5, subpart 2(a) The date and nature of the protested order, direction, instruction, interpretation, or determination.

The protested determination is the Engineer's Written Determination provided in Serial Letter No. 9727-162, dated September 18, 2025, and as supported in a document titled "Engineering Decision Regarding DSC 006" in which WSDOT concluded that DSC 006 does not constitute a Differing Site Condition under RFP 1-04.7 Differing Site Conditions. The nature of the protest concerns WSDOT's conclusions related to:

- The interpretation of the Contract Documents, including the GDR and GDR Supplement;
- The discoverability of the subsurface conditions during procurement; and
- The applicability of both DSC Part (a) and DSC Part (b) to the conditions encountered within ESU 2C.

This supplement provides additional technical and contractual information related specifically to those elements of the determination. In doing so, it responds directly to WSDOT's four principal conclusions in the "Engineering Decision Regarding DSC 006" and explains why, under the Contract those conclusions are incorrect.

- 1-04.5, subpart 2(b) A full discussion of the circumstances which caused the protest, including names of Persons involved, time, duration and nature of the Work involved, and a review of the Contract Documents/Design Documents referenced to support the protest.

In Appendix A of this document, you will find a timeline and description of when the issue leading to the Differing Site Condition was observed, what was performed in response, and when the DB team determined and documented that a Differing Site Condition did exist. We document the dates of our formal notice of Differing Site Conditions, WSDOT's response, our formal notice of intent to protest, WSDOT's response, and this letter of supplemental information. Section 3.0 of this supplement provides a detailed discussion of the circumstances giving rise to this protest. In summary:

- The Design-Builder relied on the GDR and GDR Supplement, which were designated as Contract Documents during most of procurement, and which did not indicate the unusual behavior subsequently observed in the field.

- The GDR was reclassified as a Reference Document only 89 days before bid, which did not allow sufficient time for additional investigations under RFP 1-02.4.
- Post-award investigations performed in accordance with the Subsurface Investigation Plan (SIP) and General Design Manual (GDM) confirmed the Contract-era understanding of ESU 2C and did not reveal any unusual behavior.
- The unusual subsurface behavior was revealed only after surcharge placement, full-scale settlement monitoring, and subsequent post-issue phase analyses.
- These conditions materially differ from those indicated in the Contract Documents and represent an unusual subsurface condition not ordinarily encountered in the Work.

The primary contract provisions applicable to DSC 006 include:

- RFP 1-04.7 Differing Site Conditions – Definition and requirements for Differing Site Conditions
- RFP 1-02.4 Examination of Site Work – Design-Builder’s obligations to examine the Site, review the Contract Documents, and conduct investigations as reasonably necessary
- Appendix A1 – Identification of Contract Documents, including the GDR and GDR Supplement during the procurement period
- Appendix A2 – Identification of Reference Documents
- GDM and SIP Requirements for post-award investigations

This supplement provides additional information that further supports the DSC claim under both Part (a) and Part (b) of RFP 1-04.7 Differing Site Conditions.

- 1-04.5, subpart 2(c) The estimated dollar cost, if any, of the protested Work and a detailed breakdown showing how that estimate was determined.

GeoEngineers has provided AECOM with the costs incurred to date and our estimated costs to complete the redesign of all affected elements, excluding Retaining Wall 23.8OR, which we recommend be accepted as-is consistent with the findings in NCR 047 and NCR 113. Skanska will compile and reconcile the GeoEngineers and AECOM cost estimates, together with the reconstruction costs resulting from the DSC, into a single consolidated cost summary. This consolidated summary will be included in Skanska’s cover letter transmitting both this GeoEngineers letter and AECOM’s letter to WSDOT.

- 1-04.5, subpart 2(d) An analysis of the progress schedule showing the schedule change or disruption if the Design-Builder is asserting a schedule change or disruption.

GeoEngineers has provided AECOM with our analysis of the schedule impacts to date and our estimated schedule for completing the redesign of all affected elements, excluding Retaining Wall 23.8OR, which we recommend be accepted as-is based on the findings in NCR 047 and NCR 113. Skanska will consolidate the schedule analyses prepared by GeoEngineers and AECOM, along with Skanska’s own assessment of reconstruction-related impacts resulting from the DSC and will present this consolidated schedule summary in its cover letter transmitting both this GeoEngineers letter and AECOM’s letter to WSDOT.

Additionally, the Design-Build team must respond to the conclusions drawn by WSDOT when they determined that Differing Site Conditions do not exist in Serial Letter No. 9727-162, dated September 18, 2025, and as supported in a document titled “Engineering Decision Regarding DSC 006.” The conclusions are most clearly outlined in the “Engineering Decision Regarding DSC 006” where four main conclusions are drawn. These four conclusions are listed below with a response to each or an explanation of where and how they are addressed within this supplement (the underlined portion of each subpart is a reproduction of the contract language).

- 1) **Reliance on a Reference Document (GDR) at the Design-Builder’s risk.** WSDOT changed its GDR from a “Contract Document” to a “Reference Document” more than halfway through the procurement process on this project as described in detail below. This was the first time such a change was made in WSDOT’s Design-Build program history and occurred without explanation to prospective bidders. The reclassification does not relieve WSDOT from responsibility for errors in its own laboratory test reports contained within the GDR and presented as factual information. While the Design-Builder has discretion to rely on a Reference Document, clear factual errors contained in such a document should not shift liability to the Design-Builder.

Additionally, the change of the GDR from a “Contract Document” to a “Reference Document” created more than 8 direct contradictions in the Contract regarding the nature of the GDR, the definition of a Differing Site Condition, and the Design-Builder’s obligation to rely on the factual data presented therein. One of the most significant inconsistencies remained in the contractual definition of a Differing Site Condition where the contract states, “For Work unrelated to an ATC, Differing Site Conditions shall mean (a) actual subsurface or latent physical conditions encountered at the Site **that are substantially or materially different from** the baseline conditions identified in the GBR **and the data in the GDR** as set forth in RFP 1-02.4(2) Examination of Site of Work, subpart Subsurface Information and which are not discoverable from a reasonable investigation and analysis of the Site...”. Because RFP 1-04.7 Differing Site Conditions, subpart a expressly incorporates “data in the GDR,” the GDR remains part of the baseline for DSC analysis notwithstanding its later designation as a Reference Document. WSDOT cannot use a generic Reference Document disclaimer in RFP 1-02.2 Disclaimer Regarding Documentation to override a specific entitlement clause that requires the Design-Builder to use GDR data to define baseline conditions. Moreover, the incorrect overburden values in the GDR are not matters of **professional judgment but factual numerical miscalculations** in consolidation test results stamped by WSDOT. Thus, RFP 1-02.4(2).1 Examination of Site of Work, subpart Subsurface Information, subpart 1 does not apply either. This is not an issue of DB’s interpretations being correct but WSDOT’s representations being incorrect. WSDOT cannot seek to avoid responsibility for factual misrepresentations simply by re-labeling the document in which they appear.

- 2) **Lack of evidence showing a reasonable effort to verify geotechnical assumptions.** Soil conditions between the GDR and the post-award explorations were compared using Atterberg limit and moisture content tests. Laboratory test results for post-issue borings B-1-25, B-2-25, and B-3-25, drilled in response to excessive settlement at Wall 23.80R, show a wide range of calculated OCR values in ESU 2C. This wide range of calculated OCR values (with an average OCR of approximately 1.4) in ESU 2C does not align with the settlement performance of the gravel preload test, which shows an aggregate effective OCR very close to 1.0. A significant post-award exploration and laboratory testing program was used to corroborate and verify the Design-Builders geotechnical

assumptions. Errors made by WSDOT in its stamped GDR do not fully explain the differences between the design estimates and the unusual soil behavior of excessive settlement in ESU 2C observed in the field. Additional support explaining our position on this claim of Differing Site Conditions is included in detail below in the Section titled “**3.0 - Additional Support of DSC Part 2.b. and General Description of the Differing Site Conditions**” below.

In total, the Design-Builder conducted more than 245 additional explorations, prepared and obtained WSDOT review of SIPs, performed extensive laboratory testing, and implemented a long-term monitoring program. These efforts meet and exceed the “reasonable investigation” standard in RFP 1-02.4(1) Examination of Site of Work, subpart General) and satisfy the requirement that DB reasonably relied on the information. Neither WSDOT’s Contract or industry practice requires the Design-Builder to replicate WSDOT’s multi-year exploration program during a compressed procurement window or to anticipate an anomalous soil behavior that only manifested under months of full-scale loading.

- 3) **Absence of any physical site condition that meets the contractual definition of a DSC.** As described in the Section titled “**3.0 - Additional Support of DSC Part 2.b. and General Description of the Differing Site Conditions.**” the Design-Builder provides extensive information demonstrating that the encountered subsurface conditions satisfy both the “material difference” requirement of a DSC in RFP 1-04.7 Differing Site Conditions, subpart a and the “unusual nature” requirement of a DSC in RFP 1-04.7 Differing Site Conditions, subpart b. The surcharge settlement data and back-calculated soil parameters demonstrate a physical condition that differs substantially from the baseline indicated by the GDR and GBR. This is a physical subsurface condition, not merely a change in design assumption, and it meets the contractual definition of a DSC under both subsections (a) and (b).
- 4) **The GBR baselined poor ground conditions in this area.** While the GBR does baseline “poor ground,” it does **not** baseline:
 - a. OCR values as low as 1.0–1.3 indicated by wall performance and stockpile settlement,
 - b. compressibility characteristics inconsistent with the GDR consolidation test data, or
 - c. settlement behavior requiring drilled shafts extending more than 200 feet particularly in an area where surrounding structures are supported on shallow timber piles showing no signs of distress.

The **material difference lies not in the generic classification (“poor ground”), but in the magnitude and behavior** of the soft clay layer, which differs materially from the GBR baseline expectations and from WSDOT’s own contract-level data.

“Poor Ground” as defined in the GBR was anticipated, encountered, and addressed in design through the inclusion of stone columns, wick drains, and specially timed construction activities. However, after construction of Wall 23.80R, the soil exhibited settlement behavior that was **unusual and inconsistent** with reasonable pre-bid and post-award site investigation including laboratory testing suggested that it should have. The significant discrepancy between the laboratory test results and the field performance is central to this Differing Site Conditions claim.

Soil unit ESU 2C contains laboratory test results with significant variability, yet in the field it behaves in a manner aligning with the worst-case end of that variability across multiple soil parameters. It is NOT a standard practice to assume that all soil units behave at the bottom end of the statistical bell curve.

WSDOT attempts to rely on “poor ground” to indicate that this should have been foreseeable to the Design-Builder. However, generalized warnings such as “poor ground” cannot defeat a DSC claim where the specific conditions encountered materially differ from what the documents indicate or reasonably imply. Here, the GBR’s broad descriptors do not provide a quantitative baseline for overburden, OCR, or settlement magnitude and do not disclose or suggest that the soil would behave as it did. The DSC at issue here arises directly from the magnitude and behavior of the soil, not the mere existence of “poor ground.”

Additional detail supporting this position is provided in Section titled “**3.0 - Additional Support of DSC Part 2.b. and General Description of the Differing Site Conditions**” below.

3.0 - Additional Support of DSC Part 2.b. and General Description of the Differing Site Conditions:

This additional support for the applicability of DSC Part 2.b, as well as the overall description of the Differing Site Conditions at this location, is best presented in a chronological narrative with a summary at the end. This narrative will begin at the pre-award phase, referring to the time leading up to the bid due date, then move to the post-award phase

, covering the time between award of the contract and when the construction issues stemming from the Differing Site Conditions first became apparent, then the post-issue phase, referring to the period after settlement at Wall 23.80R was identified, verification drilling and laboratory testing were performed, and the Differing Site Conditions became evident. This additional support demonstrates when and how the Contract indicated certain conditions, how the Design-Builder relied on those indications, when the material differences became known, and why the DSC was not reasonably foreseeable during earlier project phases, as required by the four-part test.

3.1 Pre-Award Phase:

RFP 1-02.4(1) Examination of Site of Work, subpart General states that the Design-Builder is responsible for performing additional explorations and laboratory testing deemed necessary both prior to bid and post-award. It further provides that the Design-Builder is solely responsible for all Site conditions that could be discoverable through a reasonable Site examination and that submission of a proposal will be considered conclusive evidence that the Proposer has determined that it has performed a reasonable Site investigation.

- The Design-Builder did, in fact, perform a reasonable Site investigation as confirmed through submission of its proposal. The reasonable site investigation included review of historical borings and information contained in both the GBR and GDR (each of which was listed as Contract Document at the time of review), structural inspection in the field (including evaluations of the existing bridge structures and looking for signs of distress or poor long-term performance), site inspection in the field to look for common characteristics that would demonstrate abnormal conditions such as ground fissures, bridge and pavement

settlement/cracking. No such indicators were present that were discernible from the surface that would have affected the project consistent with RFP 1-02.4(1) Examination of Site of Work, subpart General. The nearest bridge, supported on timber piles approximately 65 feet deep, exhibited no signs of structural distress, further reinforcing the expectation of typical subsurface conditions.

- The Design-Builder was not afforded a realistic opportunity to perform additional explorations or laboratory testing prior to the bid. The Request for Proposal was published by WSDOT on October 25, 2022. At the time of RFP issuance, the GDR was listed in Appendix A1 as a Contract Document (not a Reference Document) as it had been on every other WSDOT Design-Build project in recent history. This Contractual GDR published by WSDOT contained 71 project specific geotechnical explorations along the project corridor including laboratory tests. Among this information were 6 project specific borings with supplemental laboratory testing data (including classification tests, organic content tests, and consolidation tests) in the immediate vicinity of Mainline Bridge Abutment 10, and Retaining Walls 23.72R, 23.73R, 23.74R, and 23.80R. WSDOT subsequently provided a number of historical boring logs; however, these were older, lacked supporting information, and therefore could not be relied upon with the same level of confidence as the project-specific data. Based on the volume and apparent completeness of the information provided in the Contract-level GDR, the Design-Builder reasonably believed it had sufficient factual data from WSDOT upon which to base its bid.

In Addendum #8 dated January 20, 2023, WSDOT issued a stamped and signed GDR Supplement with 4 additional borings and 6 additional Cone Penetrometer Tests (CPTs). On February 24, 2023, 122 calendar days after the initial RFP was issued and only 95 days before the bids would be due, WSDOT issued the final sealed and signed version of the GDR in Addendum # 13. At the time this final GDR was issued, it was still listed as a Contract Document in Appendix A01. However, in Addendum #14 dated March 2, 2023, (128 calendar days after the RFP was issued and only 89 days before the bids would be due), WSDOT reclassified GDR from a Contract Document to a Reference Document. For the first 128 days of the procurement, all factual boring logs, laboratory test results (including consolidation tests), and related subsurface data contained in the GDR were contractually reliable and formed the factual basis upon which proposers were expected to develop their bid-level geotechnical design assumptions.

Reclassifying the GDR to a Reference Document with less than 90 days remaining in the procurement phase constituted a **material and unprecedented change** for a WSDOT design-build procurement and had a direct impact on the Design-Builder's ability to perform the "reasonable investigation" contemplated by RFP 1-02.4 Examination of Site of Work. With less than 90 days remaining before bids were due, it was unrealistic for any DB Team to prepare a SIP, allow WSDOT to review and comment on it, develop and issue Traffic Control Plans (TCPs), obtain rights-of-entry from WSDOT and other local stakeholders, hire a drilling subcontractor, perform utility location services, redrill the approximately 71 borings provided in the base GDR, redrill the 4 additional borings and 6 additional CPTs in the GDR Supplement, perform an immense number of laboratory tests and then prepare geotechnical recommendations in support of the other design disciplines which feed into the bid for the Design-Builder. Indeed, WSDOT performed the work presented in the GDR over the course of several years. At the time

WSDOT reclassified the GDR, it was unreasonable to perform further meaningful investigations prior to bid. Under established federal and state contracting principles (including FHWA and WSDOT precedents), a proposer cannot be penalized for failing to undertake investigations that the owner's procurement schedule renders impossible.

Thus, the Design-Builder was left with no practical alternative other than to base their bid in good faith on boring logs and lab test data that WSDOT prepared specifically for this project and provided as part of the RFP. Under these circumstances, a "reasonable Site examination" as contemplated by RFP 1-02.4 Examination of Site of Work necessarily consisted of reviewing the subsurface information furnished by WSDOT and conducting appropriate field reconnaissance to familiarize the Design-Builder with surface and subsurface conditions discernible from the ground surface. The Design-Builder undertook both. This approach is consistent with accepted engineering practice for WSDOT Design-Build procurements, in which proposers rely on WSDOT-issued documents—principally the GBR and GDR—to develop conceptual geotechnical models and bid-level design assumptions. Although WSDOT now asserts that the GDR was a Reference Document, it remained a Contract Document through Addendum #14, and in all events, the GDR directly correlates with the GBR and the Contract definition of a Differing Site Condition. The Design-Builder's reliance on this information was both reasonable and consistent with the Contract requirements. To wit, Contract Documents indicated certain conditions and the Design-Builder reasonably relied on those conditions in preparing its bid.

3.2 Post-Award Phase:

Following Contract award, the Design-Builder initiated the geotechnical investigations required under the Contract, including preparation of a SIP, coordination with WSDOT for SIP review and approval, and execution of field explorations and laboratory testing in accordance with the GDM. These post-award investigations were intended to supplement—not replicate—the Contract-era investigations documented in the GDR and GDR Supplement, and to support advancement of the design in accordance with RFP and GDM requirements.

The Design-Builder's understanding of ESU 2C during this period continued to be based on the Contract Documents, which indicated stratified alluvial deposits with moderate variability and no characteristics suggesting unusually high compressibility or atypical consolidation behavior. The initial post-award data provided no indication that the subsurface conditions were inconsistent with the Contract Documents or regional geologic expectations.

- GeoEngineers and the Design-Build team performed more than 245 additional geotechnical explorations along the project corridor (not including the three forensic borings drilled later to investigate the cause of the DSC), supported by an extensive laboratory testing program, and a significant groundwater monitoring effort. As part of this work, GeoEngineers and the Design-Build team completed 6 additional post-award borings with supplemental laboratory testing in the immediate vicinity of Mainline Bridge Abutment 10, and Retaining Walls 23.72R, 23.73R, 23.74R, and 23.80R. These post-award explorations brought the overall subsurface investigation program into full compliance with the contract requirements as set forth in the GDM for each design element as discussed in the WSDOT reviewed Geotechnical Design Reports (Segment #2 and Segment #2 Early Design Package #1B). Importantly, none of this

extensive post-award work revealed soil behavior inconsistent with the Contract Documents or indicative of the unusual settlement characteristics that later emerged, further demonstrating that the DSC was not reasonably discoverable during design.

- The contractual compliance of the exploration plan was documented in full within the required SIPs which WSDOT reviewed in detail prior to authorizing any field explorations. These SIPs demonstrated that the proposed boring locations, quantities, and investigation methods satisfied all applicable Contract and GDM requirements. A summary of the contract compliance for borings per design element is outlined in the table below.

Design Element	Explorations Used for Design (Total Quantity)	Compliant with Contract Requirements in Conformed RFP Section 2.6.2.2.1?
Mainline Bridge Pier 10	Boring W-B120-23 Boring 522-2-06 from project: XL2326 (2 total borings)	YES
Wall 23.72R	NE-30vw-19 NE-31p-19 NE-32p-19 TH-3-96 OL 2095 BH-1 HWA OL 1284 BH-4 HWA OL 1284 522-2-06 XL 2326 W-B41-23 W-B43-23 W-B45-23 (10 total borings)	YES 10 borings within 25 feet of wall face or reinforced zone (160 feet is maximum spacing)
Wall 23.73R	Boring W-B40-23 Boring W-B41-23 Boring W-B120-23 Boring 522-2-06 XL2326 (4 total borings)	YES Nearest exploration to design element: 12 to 20 feet from wall face (138 feet is the maximum spacing)
Wall 23.74R	Boring W-B39-23 Boring NE-29-19 Boring L-7 1994 OL1510A (3 total borings)	YES Nearest exploration to design element: 2 to 17 feet from wall face 8 feet from anchorage zone behind wall face (147 feet is maximum spacing)
Wall 23.80R	NE-30vw-19 NE-31p-19 NE-32p-19 NE-33-19 TH-3-96 OL 2095 BH-1 HWA OL 1284	YES 9 borings within 25 feet of wall face or reinforced zone (212 feet is maximum spacing)

	BH-4 HWA OL 1284 W-B43-23 W-B45-23 (9 total borings)	
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In summary, we performed our post-award engineering explorations, evaluations, analyses, and conclusions in full accordance with generally accepted standards of professional geotechnical practice in this region at the time this work was completed. Given the procurement schedule and the amount of subsurface information already developed and provided by WSDOT, it was not practical—or consistent with industry practice—to base the Design-Builder’s bid on any subsurface information other than that provided in the Contract Documents. Standard practice for WSDOT Design-Build projects is not to redrill existing borings after award, but rather to rely on the data generated, analyzed, and sealed by a Washington State Professional Engineer during WSDOT’s multi-year development of the project, supplemented as appropriate by additional Design-Builder investigations. This approach was clearly reflected in the SIP submitted to WSDOT, and WSDOT raised no comments or concerns regarding this methodology.

In the vicinity of the Differing Site Condition, WSDOT provided three consolidation tests with preconsolidation pressures and overburden calculated from factual test data, checked and confirmed by WSDOT personnel, and incorporated into the signed and stamped GDR document. OCR is defined as the ratio of these two parameters (preconsolidation pressure divided by overburden). The resulting OCR values were 1.63, 1.99, and 3.57. The mean OCR is 2.40, while the median value—commonly used when an outlier may be present—is 1.99. In compliance with the contract requirements and with generally accepted standards of professional geotechnical practice in this region at the time this report was prepared, the Design-Build Team selected a conservative design value of OCR of 2.0 which is consistent with the lower-bound cluster of the three test results, is below the mean value, and aligns closely with the median value. This selection reflects a conservative and contractually appropriate interpretation of the available data.

These post-award efforts confirm that the Design-Builder did exactly what the Contract required. The Design-Builder interpreted the GDR and GBR data using conservative, professionally accepted methods, supplemented those data with additional explorations, and advanced the design accordingly. The DSC therefore cannot be attributed to a lack of verification by the Design-Builder, but instead to an underlying subsurface condition that **differed materially from what WSDOT’s Contract-level data** and standard engineering practice would have indicated.

3.3 Post-Issue Phase:

After Wall 23.80R exhibited settlement significantly in excess of the estimates in our design report, three additional explorations with extensive in-situ and laboratory testing program were recommended. A full-scale field load test using a large stockpile of gravel was also recommended in the vicinity of the proposed Wall 23.72R to determine whether there was

going to be a similar issue in that vicinity and whether the actual field data from the gravel preload test corroborated the findings from the laboratory tests. The drilling was performed by WSDOT, the in-situ vane shear testing was performed by WSDOT, samples of the ESU 2C material were imaged at the University of Washington using a Scanning Electron Microscope, and the remaining laboratory tests were divided between three geotechnical laboratories (WSDOT, Haley & Aldrich, and GeoEngineers).

The results of the additional lab testing showed considerable variability amongst all of the principal settlement parameters (OCR, C_c , C_r , C_v , and e_0). Importantly, the data did not indicate any consistent or systematic difference in the OCR or other settlement parameters between the pre-award, post-award and post-issue phases. See Figures 3 and 6 at the end of this letter for a comparison of the OCR values derived from the WSDOT provided overburden and preconsolidation pressure values and the combined OCR values from all tests between pre-award to post-issue. The spread of post-issue OCR values ranged from about 0.75 to almost 2.41. All samples were checked for sample disturbance as a potential influencing factor and some (but not all) of the samples at lower OCR values appeared to have some disturbance and also some (but not all) of the samples at higher OCR values appeared to have some disturbance. As previously communicated, it was and remains our opinion that sample disturbance did not significantly affect the variability of the OCR values in the laboratory test results.

Similar variability was observed in the other principal settlement parameters, soil characteristic properties, and soil strength properties in this soil unit and are shown on Figures 2 through 14. Such variability is not uncommon in geotechnical engineering where statistical evaluation is used to help distill the variability down to acceptable design parameters. Common methods include averaging soil properties or subdividing a soil unit into thinner layers when trends appear (e.g., higher values in the upper portion and lower values in the lower portion of the unit).

We compared the laboratory results to the actual settlement performance of ESU 2C in the instrumented gravel preload test. The gravel preload test data demonstrate that the laboratory-derived parameters cannot reliably predict the settlement behavior of this soil unit due to unusual field performance of the soft silts and clays. Figure 15 shows the observed settlement of the gravel preload test (blue curves) plotted against predicted settlement using average parameters from the combined laboratory dataset. Figures 16 through 20 include five additional plots showing the sensitivity of each of the five fitted-field consolidation parameters to the observed settlement of the gravel preload test. The results show:

- **Little sensitivity** to the C_r parameter
- **Moderate** sensitivity to e_0
- **High sensitivity** to C_c , C_v , and OCR

In almost all cases, the settlement estimated from using the average laboratory-calculated results of each of these five consolidation parameters produces a curve (black dashed line) that predicts less settlement than was actually observed from the gravel preload test. The average laboratory-calculated results of each of these five consolidation parameters also

produces a curve (black dashed line) that in most cases predicts less settlement than the majority of the sensitivity curves for any given parameter. Based on settlement curve fitting (fitted-field consolidation parameters) to the measured gravel preload test settlement data, the OCR in that vicinity is likely close to 1.0, as shown in Figure 15.

Only after monitoring the settlement from gravel preload test over the course of 8 months did the design team have enough evidence to conclude that the ESU 2C behaves in an unusual and contractually unanticipated manner, far differently than any reasonable site investigation—pre-award or post-award—would have indicated. Full evaluation of this behavior requires a 10-month monitoring period, far exceeding what is possible during procurement and incompatible with standard geotechnical design practice for Design-Build projects. Figure 21 clearly illustrates this:

- The **green dashed** and **grey hatched** curves (based on pre-award and post-award data, respectively) predict **less than 1 inch** of settlement.
- Including all post-issue laboratory test results produces the **solid black** curve, which predicts somewhat higher settlement but still significantly underestimates actual performance.
- Only the **solid red** curve—developed through **back-calculation from field settlement of the gravel preload test**—matches observed behavior.

These post-issue findings demonstrate that the actual conditions (as revealed by full-scale loading and long-term monitoring) materially differed from the Contract indications and that those differences were not reasonably foreseeable prior to construction. The soil behavior observed in the field is thus both a DSC under RFP 1-04.7 Differing Site Conditions, subpart a and a physical condition “of an unusual nature” under RFP 1-04.7 Differing Site Conditions, subpart b.

4.0 – Summary of Differing Site Conditions Claim:

As described above, GeoEngineers performed all engineering work at this site in accordance with the high standards for which our firm is known for, and;

- We exercised professional due diligence at every stage of the project;
- We practiced in accordance with the accepted geotechnical standard of practice;
- We met the accepted standard of care for projects of this type and complexity;
- We used every opportunity afforded to us during the pre-award phase to evaluate how the soil might behave;
- We executed a comprehensive, contractually compliant exploration and laboratory testing program for the project and at this specific site;
- We recommended that the contractor not continue to construct Mainline Bridge Abutment 10 and the retaining walls immediately to the north (23.72R, 23.73R, and 23.74R) upon identifying indications of potential settlement issues;
- We executed (with the help of WSDOT and its subconsultants) an extensive post-issue exploration and laboratory testing program;

- We recommended, and then performed, a time consuming and expensive full-scale instrumented gravel preload test to evaluate field-scale behavior; and
- We compiled analyzed and compared all rounds of field explorations and laboratory test results to determine the root cause of the issue.

Despite this extensive effort, the combined laboratory test data did not accurately predict the magnitude of settlement that we are seeing in the field under the full-scale load test. Instead, the full-scale settlement test results were much more closely in line with the worst-case soil parameters in each of the 5 categories. It is not the standard of practice to design everything to the worst-case soil parameters in this type of situation. Under WSDOT's own GDM and typical design-build design expectations, laboratory data—particularly consolidation test results confirmed by a P.E.—are considered appropriate for developing design parameters. Nothing in WSDOT practice requires, or even suggests, designing to an extreme lower-bound combination of parameters when field-scale performance cannot be predicted from the laboratory data.

The discrepancy between (a) the reasonable, contractually required interpretation of laboratory results and (b) the actual settlement performance observed in the field demonstrates that the conditions encountered at this site meet the Contract definition of a Differing Site Condition under RFP 1-04.7 Differing Site Conditions, subpart b. That section provides:

“For Work unrelated to an ATC, Differing Site Conditions shall mean ... (b) physical conditions of an unusual nature, differing materially from those ordinarily encountered and generally recognized as inherent in the type of Work provided for in the Contract and the Work Site characteristics...”

The unusual and materially different settlement behavior of ESU 2C—confirmed only through long-duration field monitoring—meets this definition. The soil behavior encountered could not have been reasonably predicted from the Contract Documents, from pre-award or post-award investigations, or from standard geotechnical practice. It is therefore a Differing Site Condition under RFP 1-04.7 Differing Site Conditions, subpart b.

Because RFP 1-04.7 Differing Site Conditions, subpart a explicitly incorporates “data in the GDR” into the DSC definition, the incorrect overburden values reported in the GDR and relied upon by the Design-Builder mean that the actual subsurface conditions were “substantially or materially different from the baseline conditions identified in the GBR and the data in the GDR.”

The DSC thus satisfies both prongs of the Contract's DSC clause and all four elements of the legal standard: (1) the Contract indicated certain baseline conditions; (2) the Design-Builder reasonably relied on those indications; (3) the actual conditions materially differed; and (4) those differences were not reasonably foreseeable.

4.0 – Closing:

As explained above, WSDOT's position effectively eliminates the Differing Site Conditions clause in the Contract. That is improper and unfair because that clause is an important risk allocation provision relied upon in cost estimating and bid preparation and ensures that the contract price does not include contingencies for Differing Site Conditions. As demonstrated in this letter, a Differing Site Condition was encountered and should be acknowledged so that a fair resolution can be reached.

This letter is without prejudice to, and with a full reservation of, GeoEngineers' rights, remedies, causes of action, and defenses under the Subcontract, at law, in equity, or otherwise. Nothing in this letter shall be interpreted as a modification or waiver, or an estoppel of GeoEngineers' right to assert the same.

I appreciate your prompt attention to this matter. If you have any questions, please do not hesitate to contact me directly. **Please promptly provide this supplement to our notice of protest to WSDOT per the Design-Build Contract.**

Sincerely,



Benjamin M. Upsall, P.E.

Principal Geotechnical Engineer

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Disclaimer: Any electronic form, facsimile or hard copy of the original document (email, text, table, and/or figure), if provided, and any attachments are only a copy of the original document. The original document is stored by GeoEngineers, Inc. and will serve as the official document of record.

Figures:

1A through 1B – Site and Exploration Plan

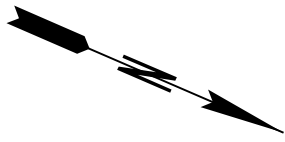
2 through 14 – Summary of ESU 2C Soil Properties

15 through 20 – Comparison of Gravel Preload Test Performance to Laboratory Derived Soil Properties

21 – Comparison of Settlement Estimates at Different Project Phases

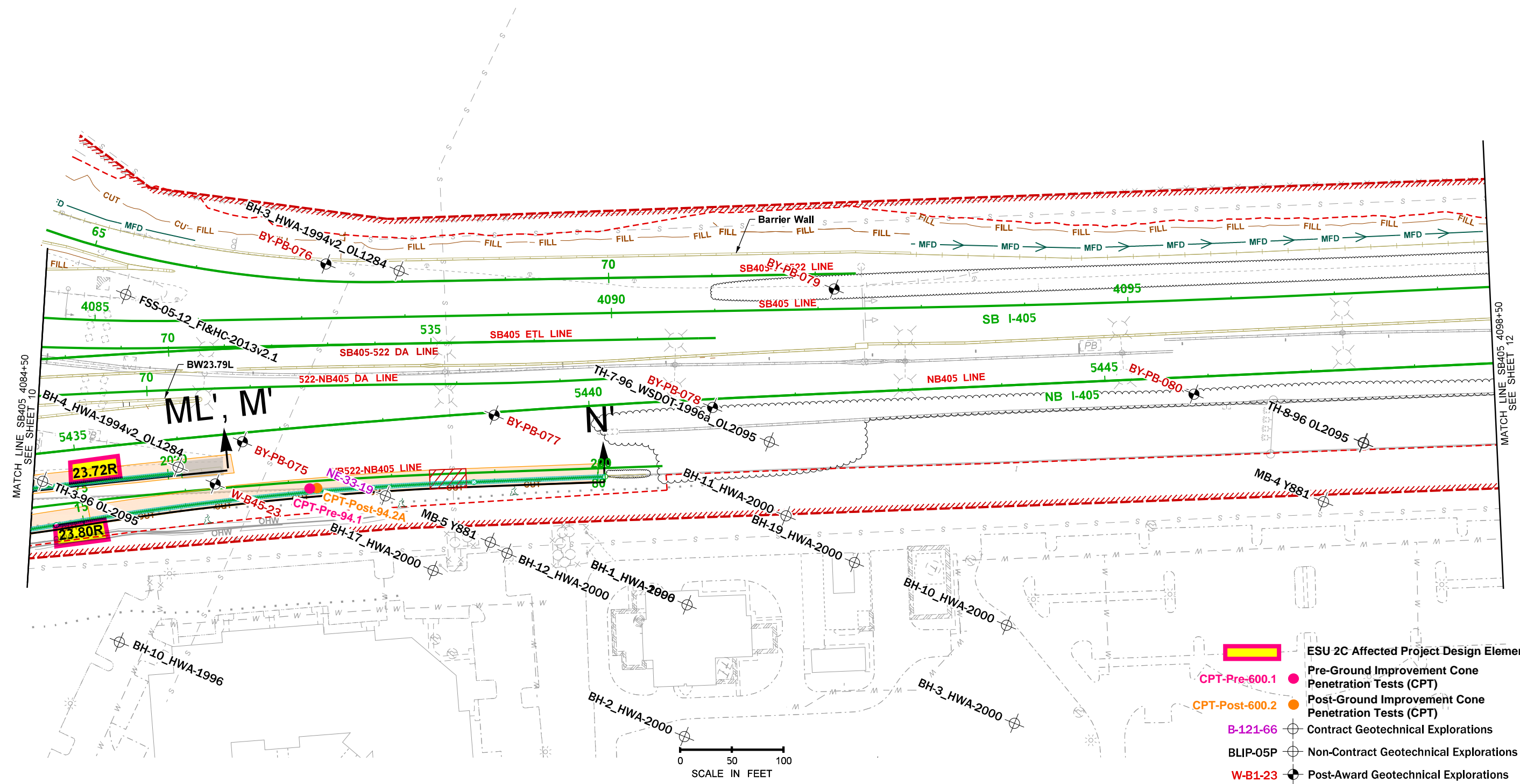
Appendices:

Appendix A – Timeline of Activities



LEGEND

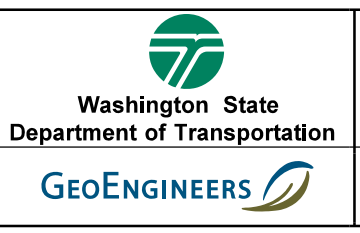
APPROXIMATE STONE COLUMN
GI ZONE FOOTPRINT (14.4% ARR)



- ESU 2C Affected Project Design Elements
- Pre-Ground Improvement Cone Penetration Tests (CPT)
- Post-Ground Improvement Cone Penetration Tests (CPT)
- Contract Geotechnical Explorations
- Non-Contract Geotechnical Explorations
- Post-Award Geotechnical Explorations

FILE NAME		REGION NO.		STATE	FED.AID PROJ.NO.
TIME	6:32:19 AM	10	WASH		
DATE	5/13/2025	JOB NUMBER		LOCATION NO.	
PLOTTED BY	tbyrd	22AB17		9727 XL5446	
DESIGNED BY		CONTRACT NO.			
ENTERED BY					
CHECKED BY					
PROJ. ENGR.	J SLAVICEK				
REGIONAL ADM.	L HODGSON	REVISION	DATE	BY	

PRELIMINARY
NOT FOR
CONSTRUCTION

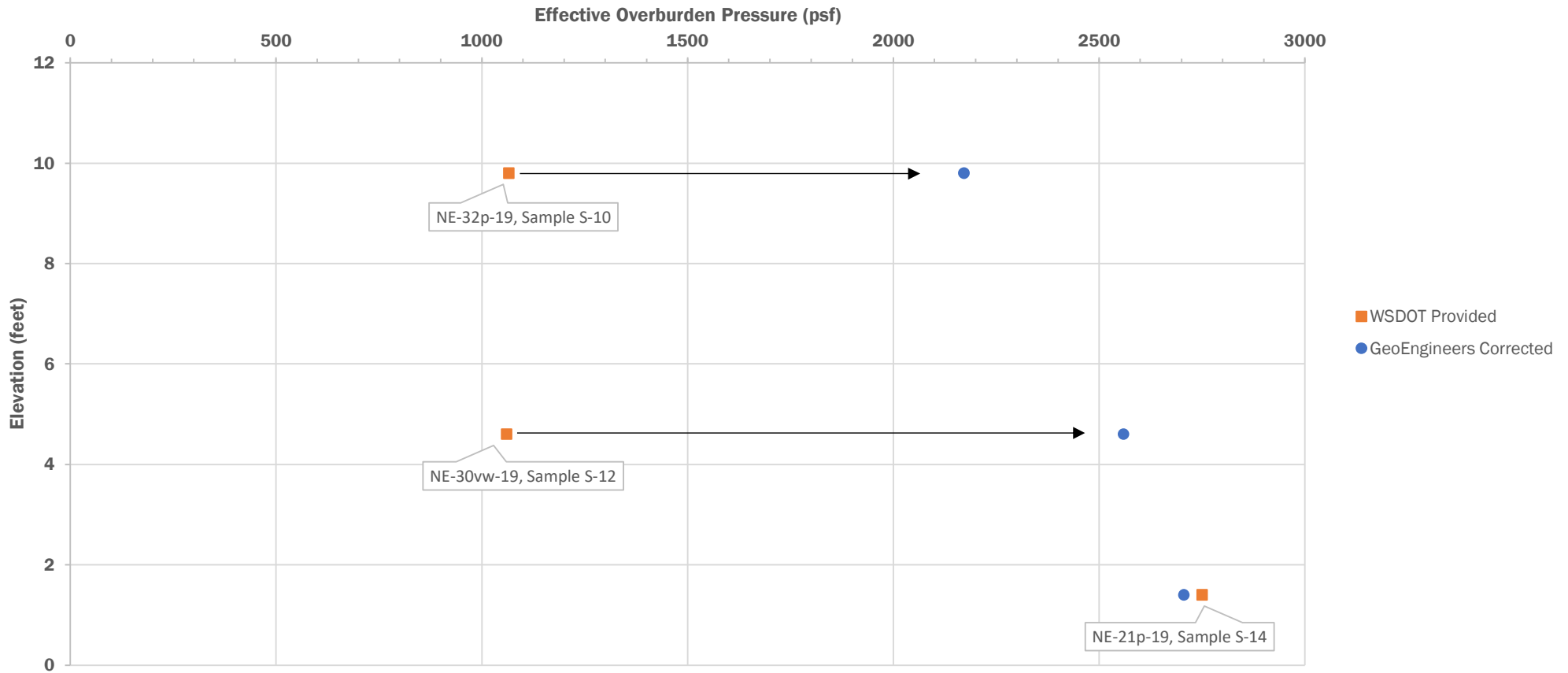


**I-405
BRICKYARD TO SR527
IMPROVEMENT PROJECT**

**GEOTECHNICAL SITE PLAN
FIGURE 1B**

PLAN REF NO	F2K
SHEET	2
OF	2
SHEETS	

WSDOT Pre-Award Consolidation Test Results in ESU 2C



WSDOT effective overburden pressures presented in this figure are provided in the corresponding consolidation test results presented in the Project Pre-Award Phase GDR.

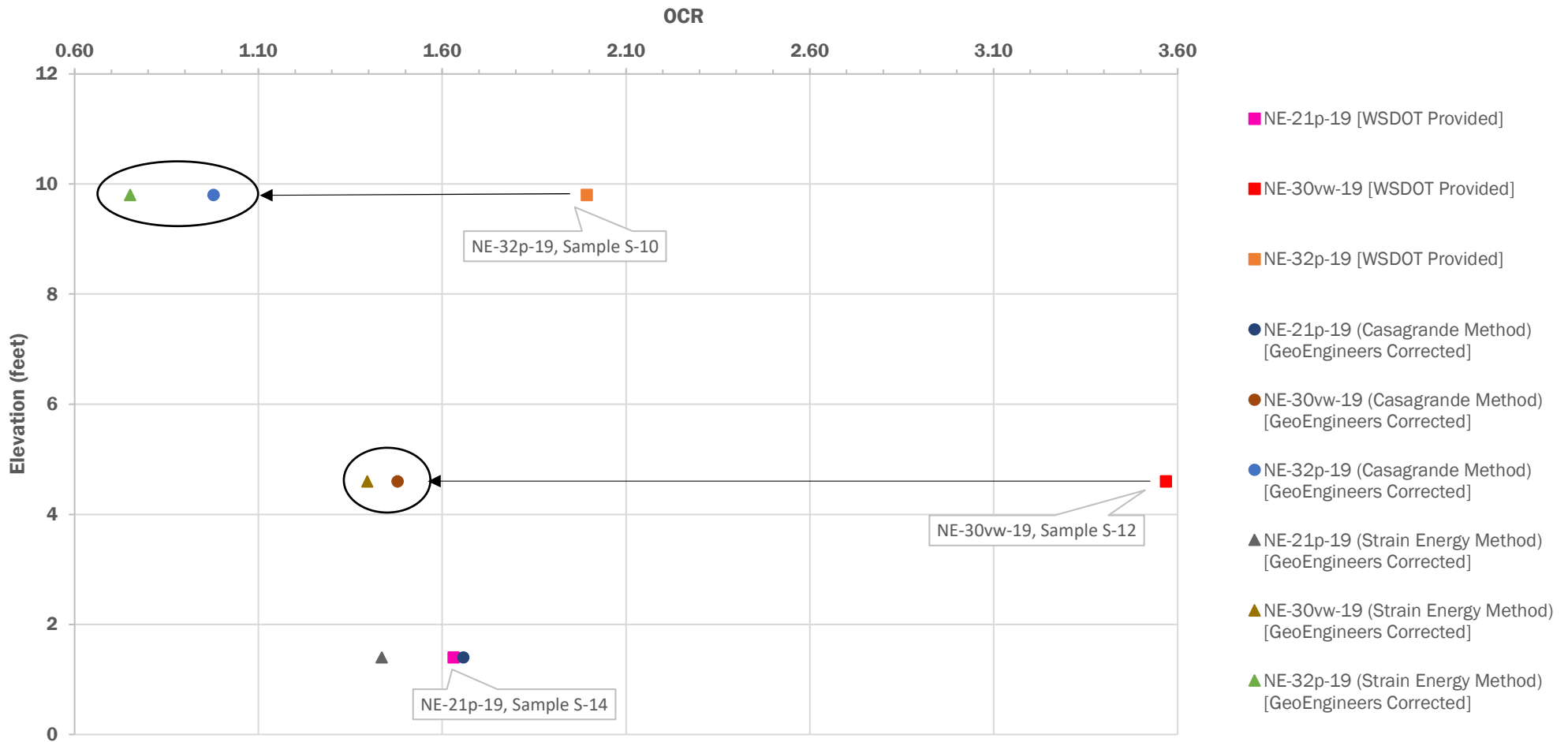
GeoEngineers recalculated effective overburden pressures presented in this figure correct errors in the Pre-Award Phase GDR values and are based on density laboratory test results from soil samples taken at elevations above the consolidation tests in the post-issue borings.

**WSDOT Pre-Award Consolidation Test Results
Elevation vs. Effective Overburden Pressure**

I-405, Brickyard to SR 527 Improvement Project
King and Snohomish Counties, Washington



WSDOT Pre-Award Consolidation Test Results in ESU 2C



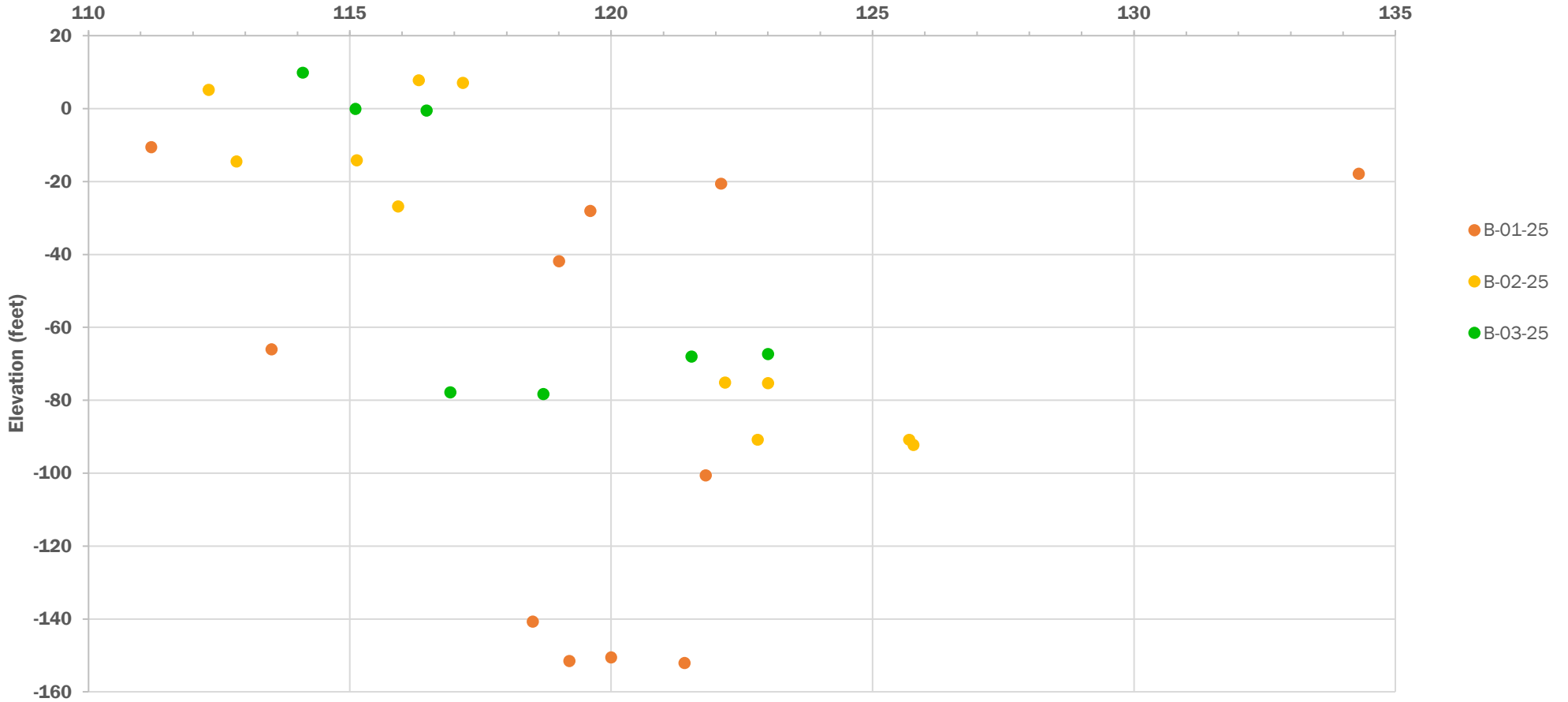
WSDOT overconsolidation ratio (OCR) values presented in this figure are estimated from the effective overburden pressures provided in the corresponding consolidation test results presented in the Project Pre-Award Phase GDR.

GeoEngineers OCR values presented in this figure are estimated from corrected effective overburden pressures that were found to be reported in error in the Pre-Award Phase GDR. The OCR was calculated and presented using two different methods (Casagrande and Strain Energy methods).

WSDOT Pre-Award Consolidation Test Results Elevation vs. Overconsolidation Ratio	
I-405, Brickyard to SR 527 Improvement Project King and Snohomish Counties, Washington	
	Figure 3

Post-Issue Density Test Results in ESU 2C

Saturated Unit Weight (pcf)



Unit weights values presented in this figure are obtained from laboratory testing conducted by GeoEngineers, Haley & Aldrich, and WSDOT on post-issue geotechnical explorations (B-01-25 through B-03-25). Laboratory testing for unit weights consisted of both standalone density testing and secondary testing (consolidation and triaxial consolidated undrained tests).

The minimum unit weight is 111 pounds per cubic feet (pcf) and the maximum unit weight is 134 pcf, indicating wide variability in the laboratory tested unit weight values.

Post-Issue Density Test Results
Elevation vs. Saturated Unit Weight

I-405, Brickyard to SR 527 Improvement Project
King and Snohomish Counties, Washington




Figure 4

Pre-Award, Post-Award, Pre-Ground Improvement, Post-Ground Improvement, and Post-Issue Explorations: Preconsolidation and Effective Stress

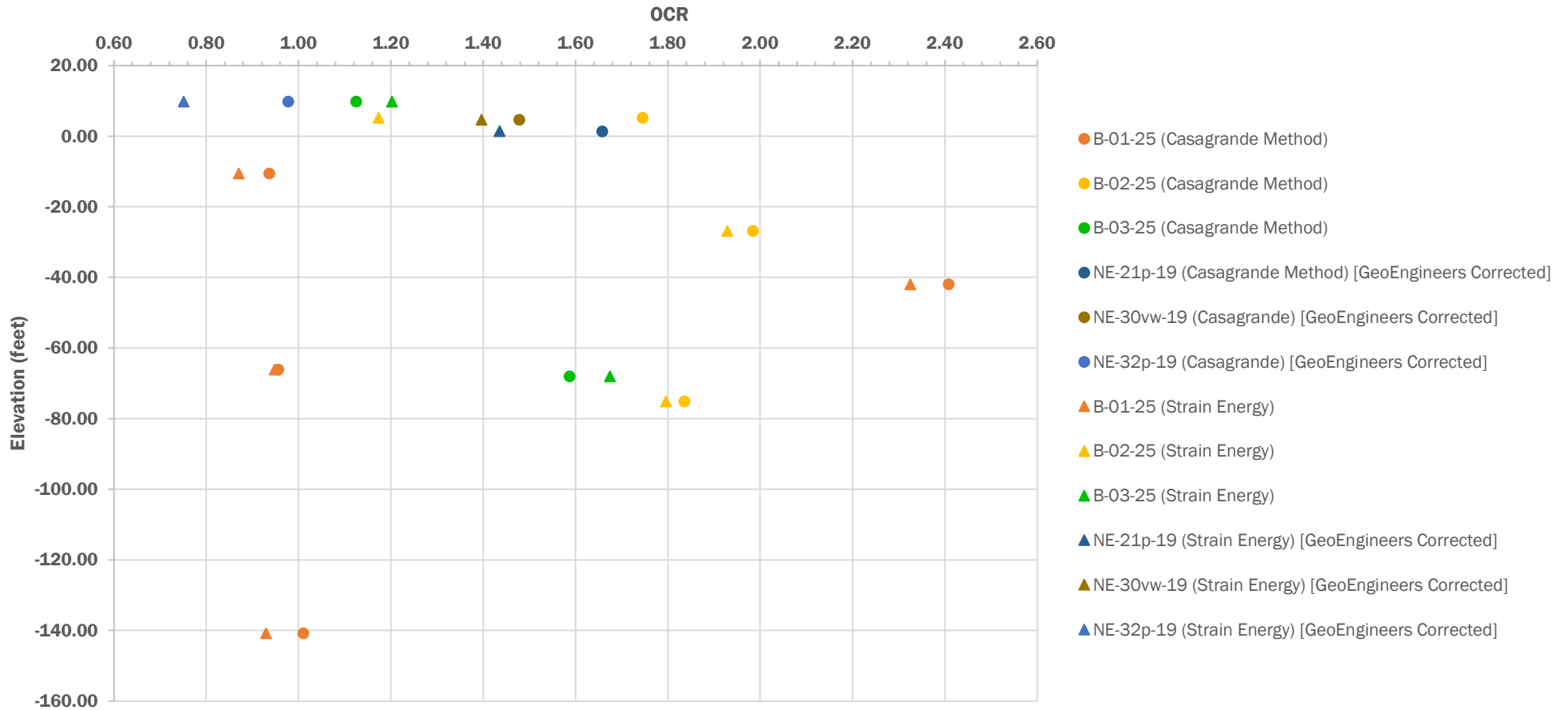


Preconsolidation pressure and effective overburden pressure results presented in this figure are corrected from the effective overburden pressure errors in the Pre-Award Phase GDR from the pre-award geotechnical explorations (NE-21p-19, NE-30vw-19, and NE-32p-19) and from consolidation laboratory testing conducted by GeoEngineers, Haley & Aldrich, and WSDOT on post-issue geotechnical explorations (B-01-25 through B-03-25).

The minimum preconsolidation pressure is 388 pounds per square foot (psf) and the maximum preconsolidation pressure is 13,953 psf, indicating wide variability in the preconsolidation pressure values. The preconsolidation pressure was calculated and presented using three different methods (Casagrande, Strain Energy, and Bartlett [for CPT] methods).

Pre-Award, Post-Award, Pre-Ground Improvement, Post-Ground Improvement and Post-Issue Explorations Elevation vs. Vertical Effective Stress	
I-405, Brickyard to SR 527 Improvement Project King and Snohomish Counties, Washington	
	Figure 5

Pre-Award and Post-Issue Borings: Consolidation Test Results in ESU 2C

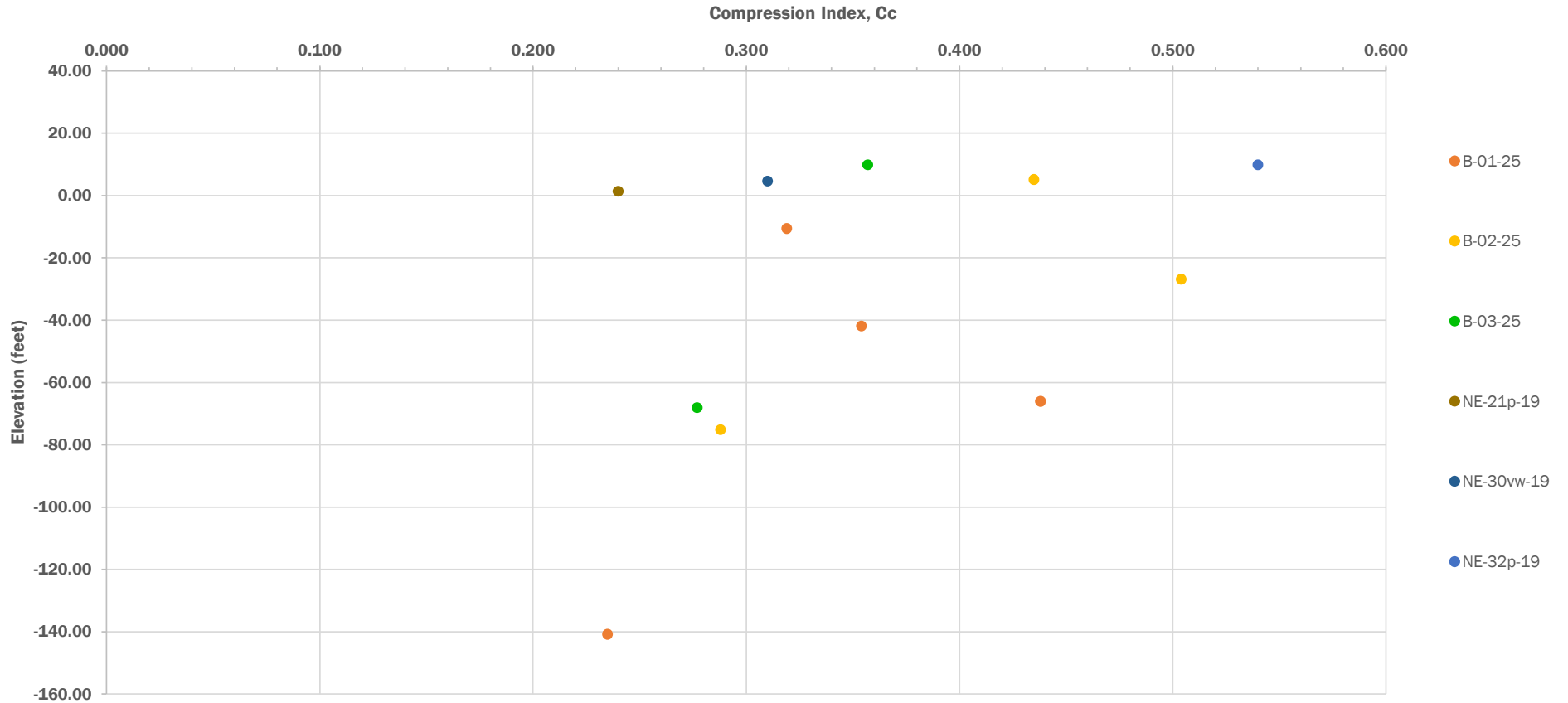


Overconsolidation ratio (OCR) results presented in this figure are estimated from corrected effective overburden pressure errors in the Pre-Award Phase GDR from the pre-award geotechnical explorations (NE-21p-19, NE-30vw-19, and NE-32p-19) and from consolidation laboratory testing conducted by GeoEngineers, Haley & Aldrich, and WSDOT on post-issue geotechnical explorations (B-01-25 through B-03-25).

The minimum OCR is 0.75 (unitless) and the maximum OCR is 2.41, indicating wide variability in the OCR values. The OCR was calculated and presented using two different methods (Casagrande and Strain Energy methods).

Pre-Award and Post-Issue Borings Elevation vs. Overconsolidation Ratio	
I-405, Brickyard to SR 527 Improvement Project King and Snohomish Counties, Washington	
	Figure 6

Pre-Award and Post-Issue Borings: Compression Index Results in ESU 2C



Compression index values presented in this figure are obtained from consolidation laboratory testing conducted by GeoEngineers, Haley & Aldrich, and WSDOT on post-issue geotechnical explorations (B-01-25 through B-03-25) and from consolidation laboratory testing conducted by WSDOT on pre-award geotechnical explorations (NE-21p-19, NE-30vw-19, and NE-32p-19).

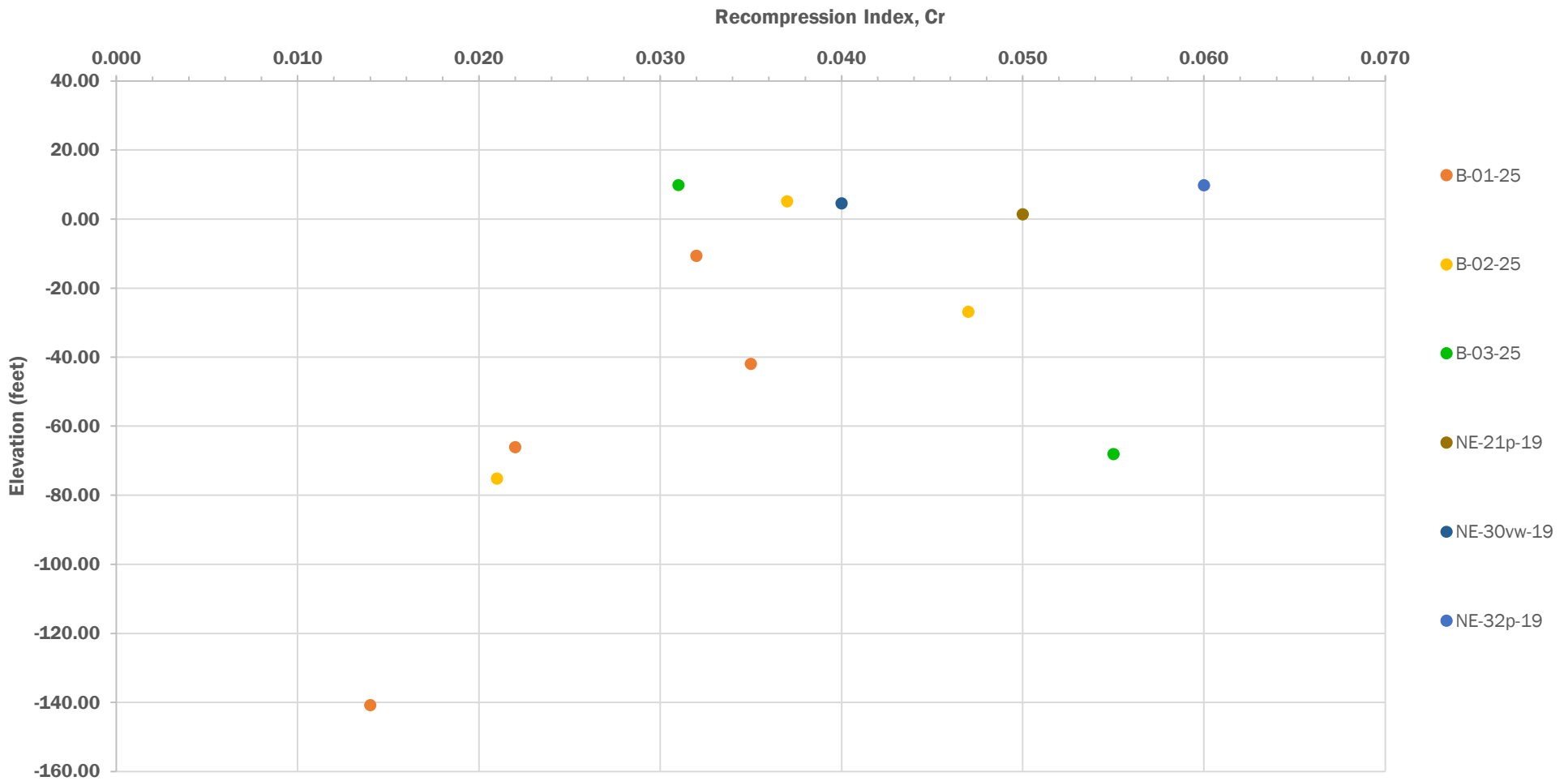
The minimum compression index is 0.235 (unitless) and the maximum compression index is 0.540, indicating wide variability in the compression index values.

Pre-Award and Post-Issue Borings Elevation vs. Compression Index

I-405, Brickyard to SR 527 Improvement Project
King and Snohomish Counties, Washington



Pre-Award and Post-Issue Borings: Recompression Index Results in ESU 2C



Recompression index values presented in this figure are obtained from consolidation laboratory testing conducted by GeoEngineers, Haley & Aldrich, and WSDOT on post-issue geotechnical explorations (B-01-25 through B-03-25) and from consolidation laboratory testing conducted by WSDOT on pre-award geotechnical explorations (NE-21p-19, NE-30vw-19, and NE-32p-19).

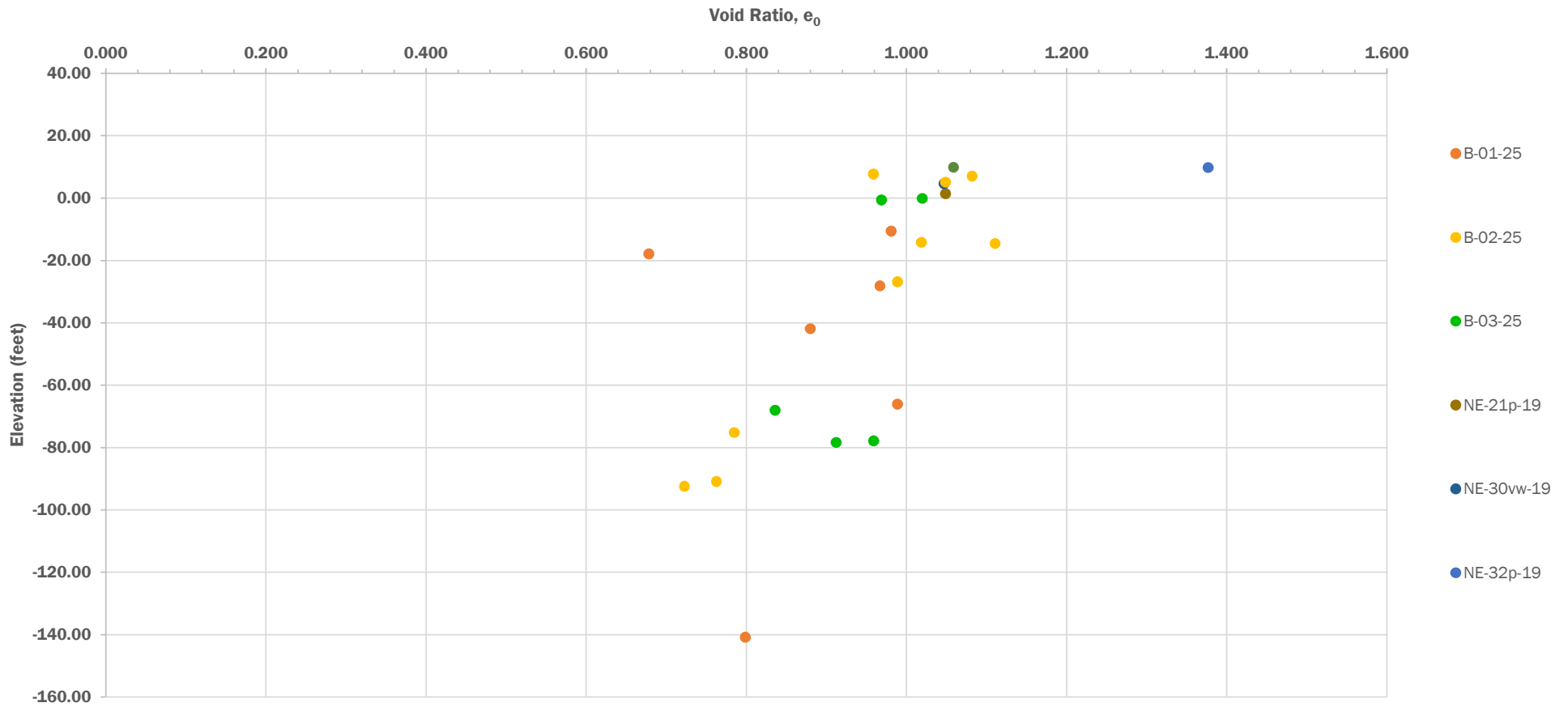
The minimum recompression index is 0.014 (unitless) and the maximum recompression index is 0.060, indicating wide variability in the recompression index values.

Pre-Award and Post-Issue Borings Elevation vs. Recompression Index

I-405, Brickyard to SR 527 Improvement Project
King and Snohomish Counties, Washington




Pre-Award and Post-Issue Borings: Void Ratio Results in ESU 2C



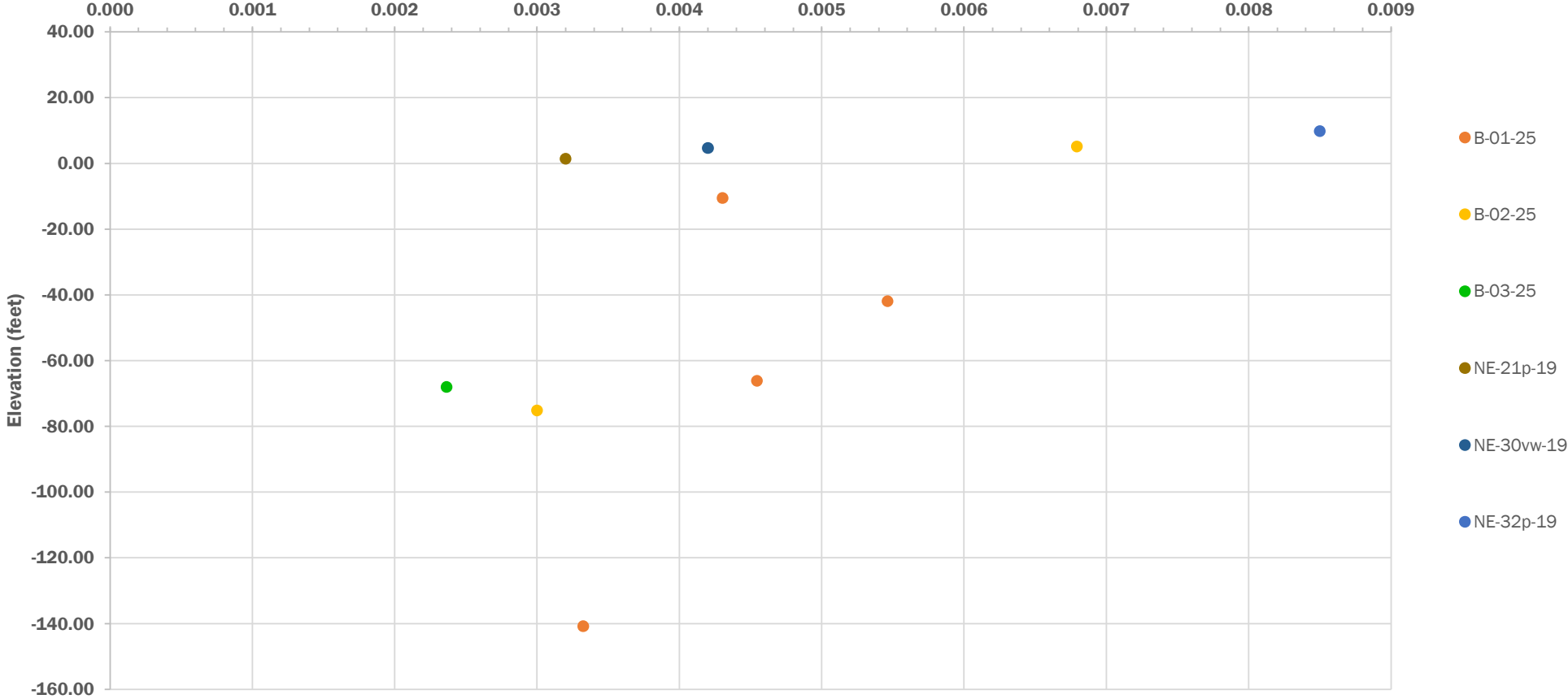
Void ratio values presented in this figure are obtained from secondary laboratory testing (consolidation and triaxial consolidated undrained tests) conducted by GeoEngineers, Haley & Aldrich, and WSDOT on post-issue geotechnical explorations (B-01-25 through B-03-25) and from consolidation laboratory testing conducted by WSDOT on pre-award geotechnical explorations (NE-21p-19, NE-30vw-19, and NE-32p-19).

The minimum void ratio is 0.678 (unitless) and the maximum void ratio is 1.377, indicating wide variability in the void ratio values.

Pre-Award and Post-Issue Borings Elevation vs. Void Ratio	
I-405, Brickyard to SR 527 Improvement Project King and Snohomish Counties, Washington	
	Figure 9

Pre-Award and Post-Issue Borings: Secondary Compression Index Results in ESU 2C

Secondary Compression Index, C_{α}

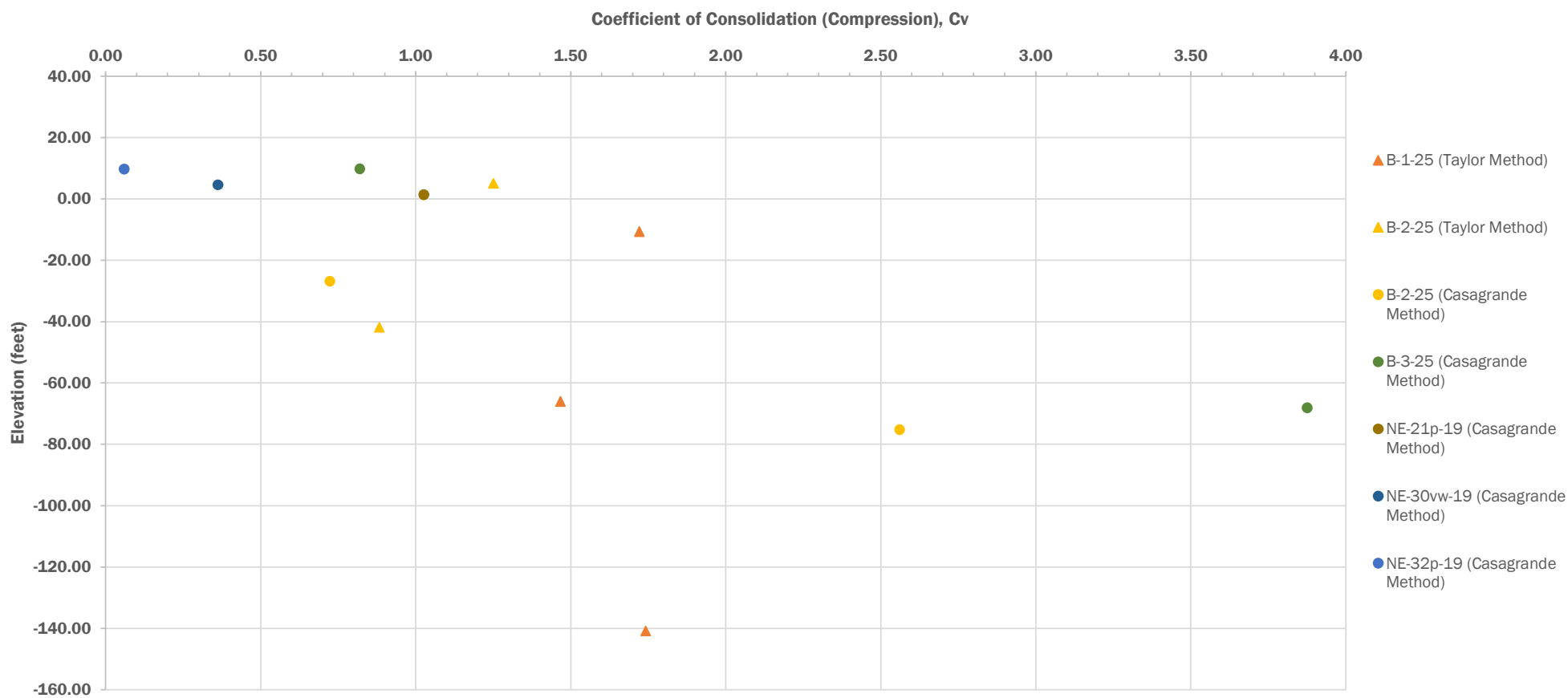


Secondary compression index values presented in this figure are obtained from consolidation laboratory testing conducted by GeoEngineers, Haley & Aldrich, and WSDOT on post-issue geotechnical explorations (B-01-25 through B-03-25) and from consolidation laboratory testing conducted by WSDOT on pre-award geotechnical explorations (NE-21p-19, NE-30vw-19, and NE-32p-19).

The minimum secondary compression index is 0.0024 (unitless) and the maximum secondary compression index is 0.0085, indicating wide variability in the secondary compression index values.

Pre-Award and Post-Issue Borings Elevation vs. Secondary Compression Index	
I-405, Brickyard to SR 527 Improvement Project King and Snohomish Counties, Washington	
	Figure 10

Pre-Award and Post-Issue Borings: Coefficient of Consolidation (Compression) Results in ESU 2C

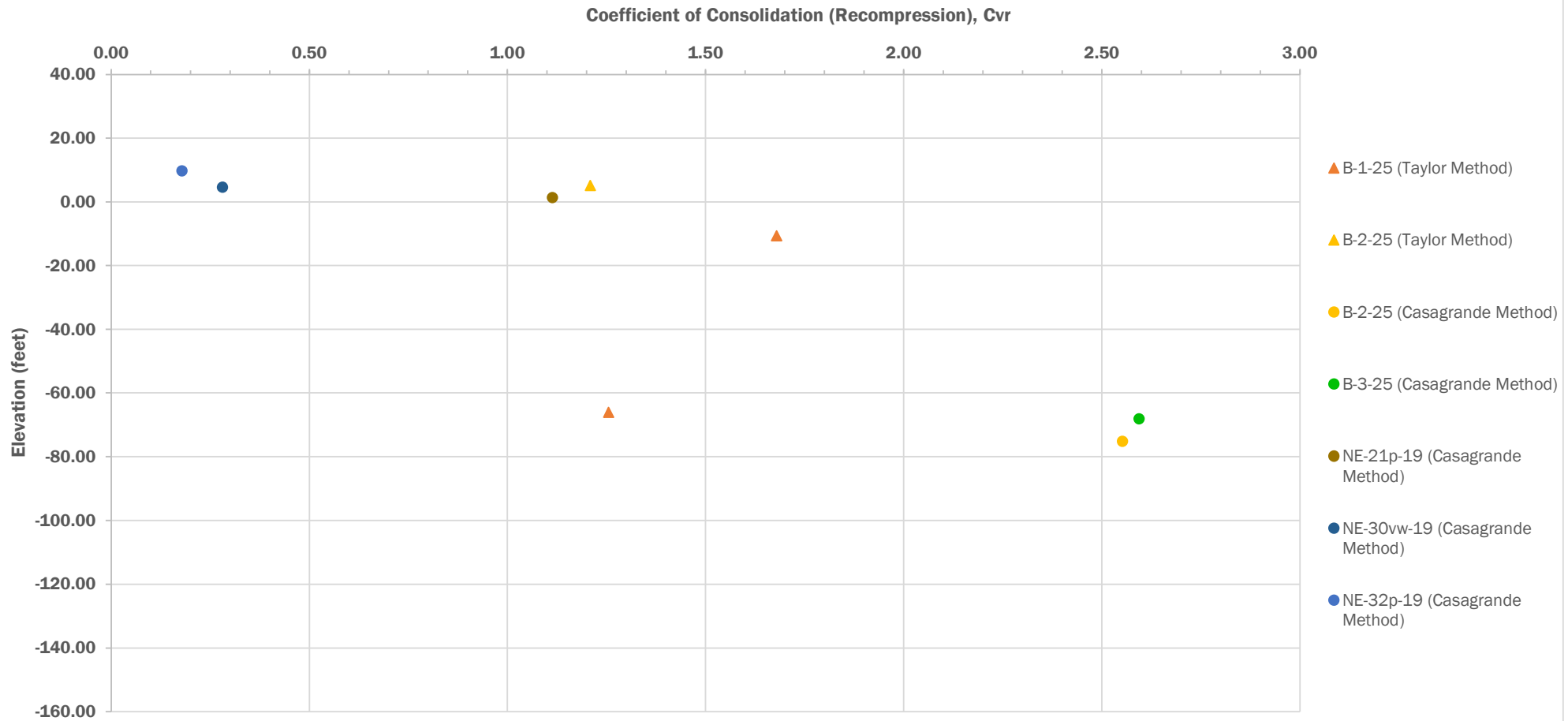


Coefficient of consolidation values (Cv) in the compression portion of the consolidation curve presented in this figure are obtained from consolidation laboratory testing conducted by GeoEngineers, Haley & Aldrich, and WSDOT on post-issue geotechnical explorations (B-01-25 through B-03-25) and from consolidation laboratory testing conducted by WSDOT on pre-award geotechnical explorations (NE-21p-19, NE-30vw-19, and NE-32p-19).

The minimum Cv (compression) is 0.060 (unitless) and the maximum Cv (compression) is 3.875, indicating wide variability in the Cv (compression) values. The Cv was calculated and presented using two different methods, dependent on the laboratory testing company (GeoEngineers uses the Taylor method to evaluate Cv and Haley & Aldrich and WSDOT use the Casagrande method).

Pre-Award and Post-Issue Borings Elevation vs. Coeff. of Consolidation (Comp.)	
I-405, Brickyard to SR 527 Improvement Project King and Snohomish Counties, Washington	
	Figure 11

Pre-Award and Post-Issue Borings: Coefficient of Consolidation (Recompression) Results in ESU 2C



Coefficient of consolidation values (C_v) in the recompression portion of the consolidation curve presented in this figure are obtained from consolidation laboratory testing conducted by GeoEngineers, Haley & Aldrich, and WSDOT on post-issue geotechnical explorations (B-01-25 through B-03-25) and from consolidation laboratory testing conducted by WSDOT on pre-award geotechnical explorations (NE-21p-19, NE-30vw-19, and NE-32p-19).

The minimum C_v (recompression) is 0.179 (unitless) and the maximum C_v (recompression) is 2.594, indicating wide variability in the C_v (recompression) values. The C_v was calculated and presented using two different methods, dependent on the laboratory testing company (GeoEngineers uses the Taylor method to evaluate C_v and Haley & Aldrich and WSDOT use the Casagrande method).

Pre-Award and Post-Issue Borings Elevation vs. Coeff. of Consolidation (Recomp.)	
I-405, Brickyard to SR 527 Improvement Project King and Snohomish Counties, Washington	
	Figure 12

Pre-Award, Post-Award, Pre-Ground Improvement, Post-Ground Improvement, and Post-Issue Explorations: Undrained Shear Strength Results in ESU 2C

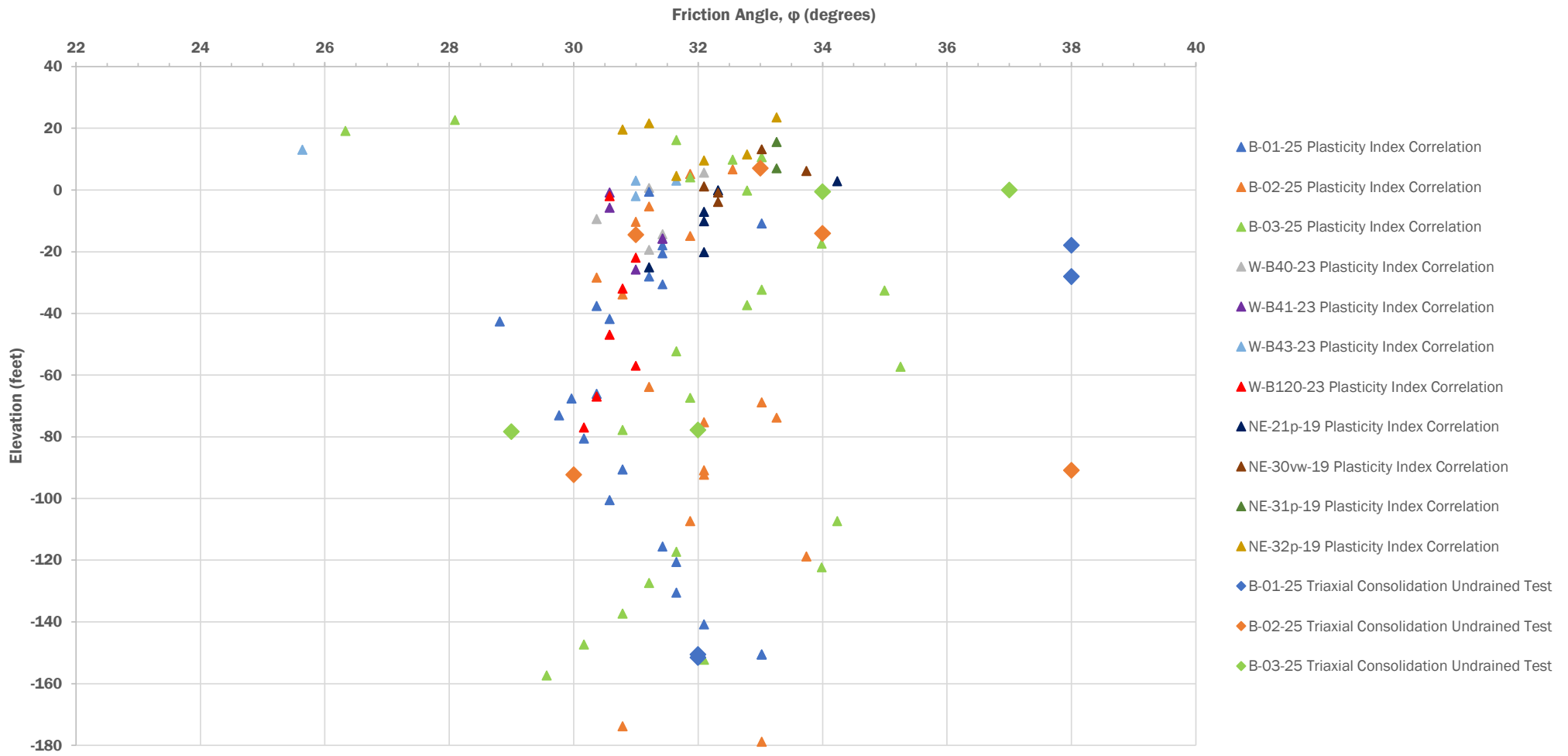


Undrained shear strength results presented in this figure are estimated from standard penetration test (SPT) correlations, plasticity index (PI) correlations, and overconsolidation ratio (OCR) correlations taken from laboratory tested samples on pre-award (NE-21p-19, NE-30vw-19, NE-31p-19, and NE-32p-19), post-award (W-B40-23, W-B41-23, W-B43-23, and W-B120-23), and post-issue geotechnical explorations (B-01-25 through B-03-25); from field vane shear testing (VST) on post-issue geotechnical explorations; and from triaxial consolidated undrained (TxCU) laboratory testing conducted by GeoEngineers, Haley & Aldrich, and WSDOT on post-issue geotechnical explorations.

The minimum undrained shear strength is 16 pounds per square foot (psf) and the maximum undrained shear strength is 9795 psf, indicating wide variability in the undrained shear strength values. Values obtained from the TxCU testing that produced a friction value were simplified to a cohesive material for the purposes of plotting on this figure. Values obtained from the VST were corrected based on ASTM D2573. Values obtained using the Plasticity Index correlation are from Figure 19.7 (Terzaghi, Peck, and Mesri, 1996). Values obtained from the SPT correlation are based on Equation 7.19 (Loehr et al. 2017). Values obtained from the PI correlation are based on Skempton, 1957. Values obtained from the OCR correlation are based on Jamiolkowski et al., 1985).

- ◆ B-01-25 TxCU
 - ◆ B-02-25 TxCU
 - ◆ B-03-25 TxCU
 - B-01-25 VST
 - B-02-25 VST
 - B-03-25 VST
 - B-01-25 SPT Correlation
 - B-02-25 SPT Correlation
 - B-03-25 SPT Correlation
 - W-B40-23 SPT Correlation
 - ▲ W-B41-23 SPT Correlation
 - W-B43-23 SPT Correlation
 - W-B120-23 SPT Correlation
 - NE-21p-19 SPT Correlation
 - ▲ NE-30vw-19 SPT Correlation
 - ▲ NE-31p-19 SPT Correlation
 - ▲ NE-32p-19 SPT Correlation
 - CPT Pre-Mainline 1
 - CPT Pre-Mainline 2
 - CPT Post-997.2
 - CPT Pre-600.1
 - CPT Post-600.2
 - CPT Pre-23.72-Z2.1
 - × B-01-25 PI Correlation
 - × B-02-25 PI Correlation
 - × B-03-25 PI Correlation
 - × W-B40-23 PI Correlation
 - W-B41-23 PI Correlation
 - W-B43-23 PI Correlation
 - W-B120-23 PI Correlation
 - NE-21p-19 PI Correlation
 - NE-30vw-19 PI Correlation
 - NE-31p-19 PI Correlation
 - NE-32p-19 PI Correlation
 - W-B40-23 PI Correlation
 - W-B41-23 PI Correlation
 - W-B43-23 PI Correlation
 - NE-21p-19 OCR Correlation
 - NE-30vw-19 OCR Correlation
 - B-1-25 OCR Correlation
 - B-2-25 OCR Correlation
 - B-3-25 OCR Correlation
- Notes:
 TxCU = triaxial consolidated undrained test
 VST = vane shear test
 SPT = standard penetration test
 PI = plasticity index
 OCR = overconsolidation ratio

Pre-Award, Post-Award, and Post-Issue Borings: Friction Angle Results in ESU 2C



Friction angle results presented in this figure are estimated from plasticity index correlations taken from laboratory tested samples on pre-award (NE-21p-19, NE-30vw-19, NE-31p-19, and NE-32p-19), post-award (W-B40-23, W-B41-23, W-B43-23, and W-B120-23), and post-issue geotechnical explorations (B-01-25 through B-03-25) and from triaxial consolidated undrained (TxCU) laboratory testing conducted by GeoEngineers, Haley & Aldrich, and WSDOT on post-issue geotechnical explorations.

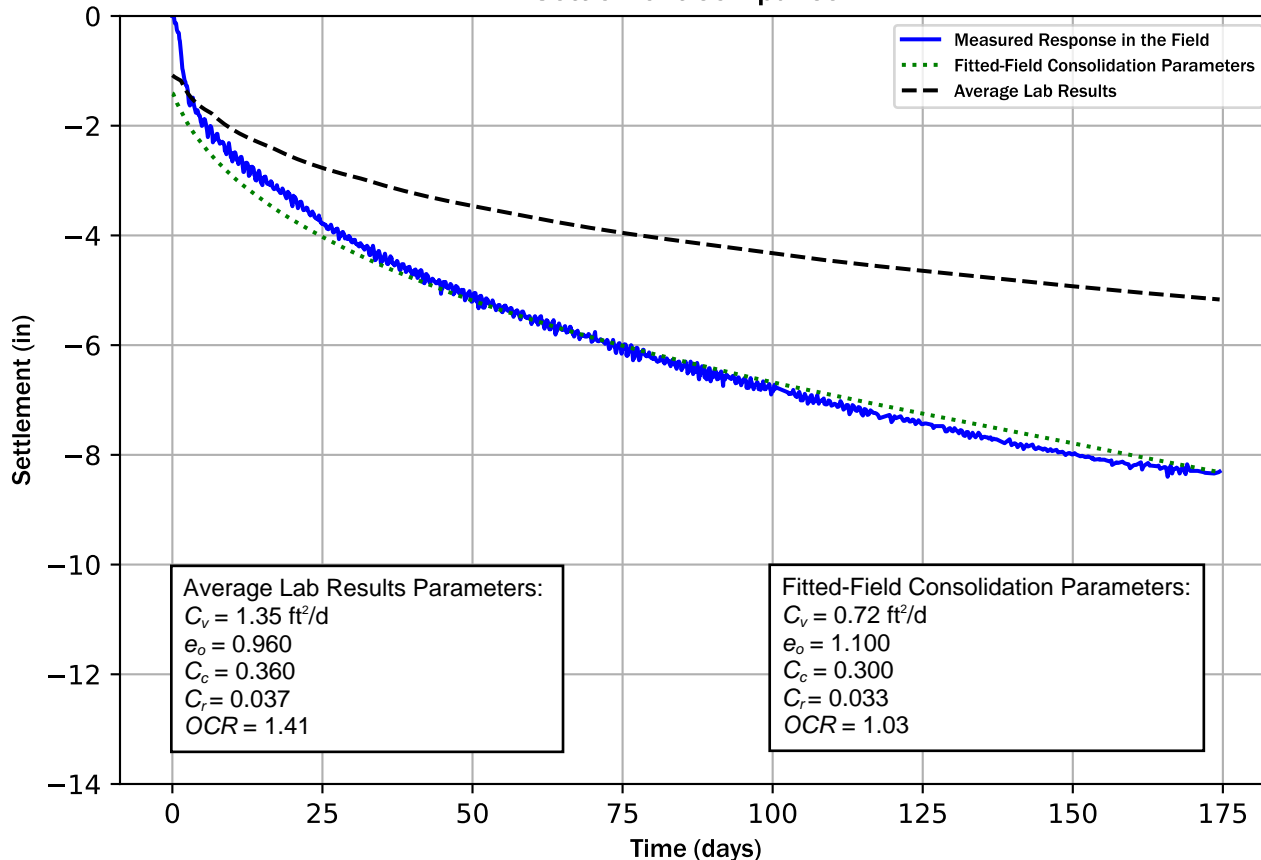
The minimum friction angle is 26 degrees and the maximum friction angle is 38 degrees, indicating wide variability in the friction angle values. Values obtained using the Plasticity Index correlation are from Figure 19.7 (Terzaghi, Peck, and Mesri, 1996). Values obtained from the TxCU testing that produced a cohesion value were simplified to a frictional material for the purposes of plotting on this figure. Friction angle values obtained from the CPT results are omitted in this figure due to the wide variability, scatter, and unreliability associated with those results.

**Pre-Award, Post-Award, and Post-Issue Borings
Elevation vs. Friction Angle**

I-405, Brickyard to SR 527 Improvement Project
King and Snohomish Counties, Washington



Settlement Comparison



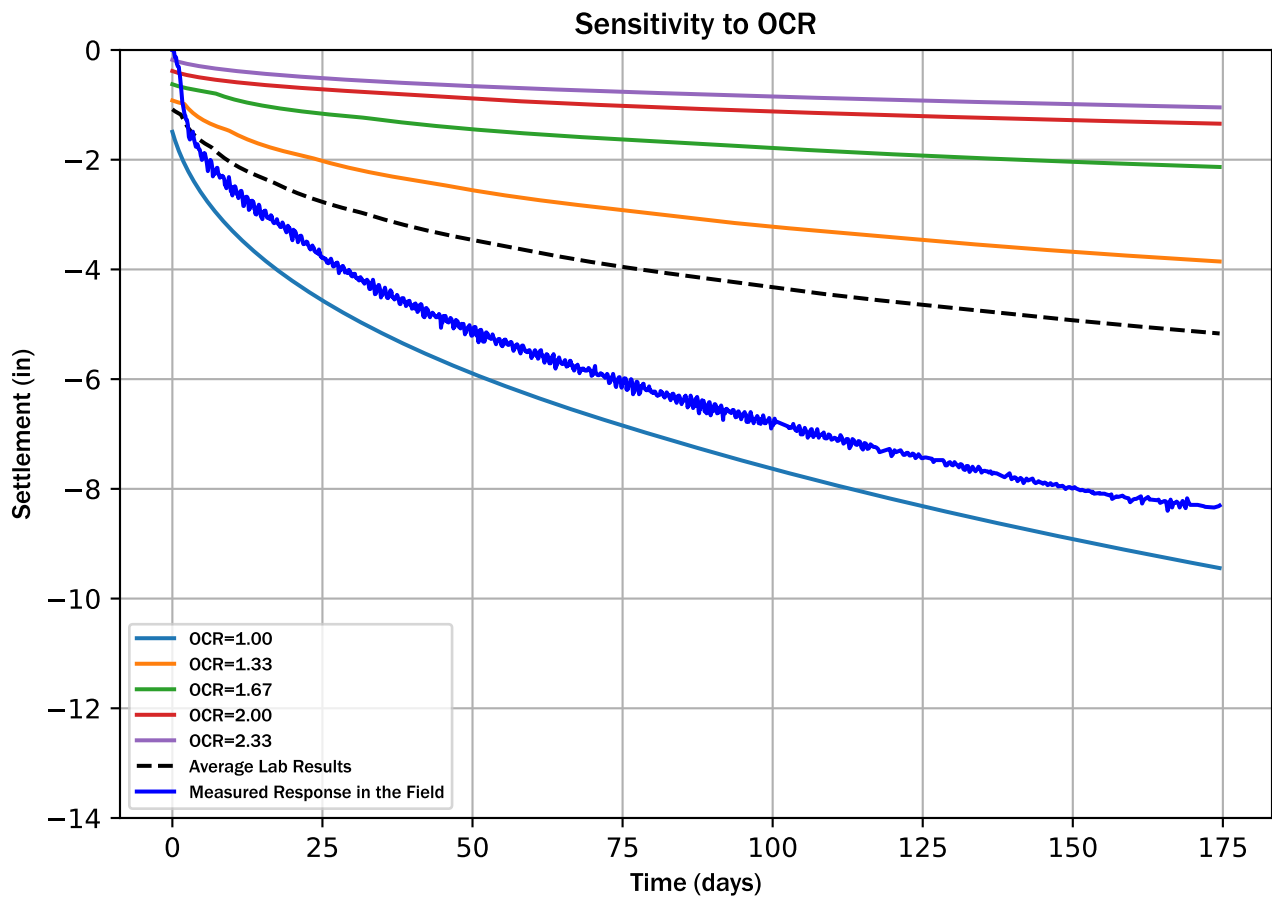
Average Lab Results Parameters:
 $C_v = 1.35 \text{ ft}^2/\text{d}$
 $e_o = 0.960$
 $C_c = 0.360$
 $C_r = 0.037$
 $OCR = 1.41$

Fitted-Field Consolidation Parameters:
 $C_v = 0.72 \text{ ft}^2/\text{d}$
 $e_o = 1.100$
 $C_c = 0.300$
 $C_r = 0.033$
 $OCR = 1.03$


Time (days) = 0 begins when gravel preload test is fully placed (plot does not include settlement during placement of the gravel preload test).

Gravel Preload Test Settlement Comparison	
I-405, Brickyard to SR527 Improvement Project King and Snohomish Counties, Washington	
	Figure 15

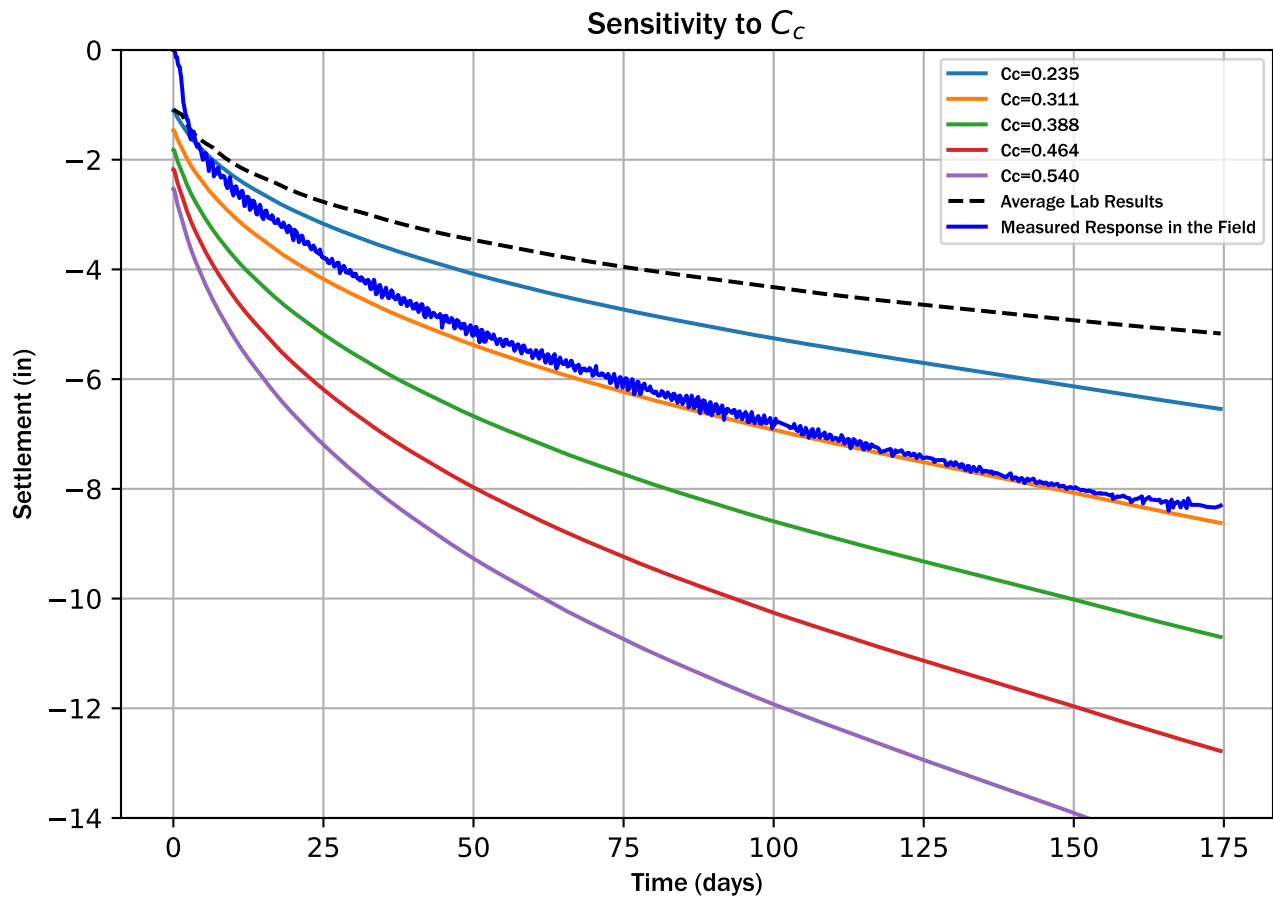
Disclaimer: This figure was created for a specific purpose and project. Any use of this figure for any other project or purpose shall be at the user's sole risk and without liability to GeoEngineers. The locations of features shown may be approximate. GeoEngineers makes no warranty or representation as to the accuracy, completeness, or suitability of the figure, or data contained therein. The file containing this figure is a copy of a master document, the original of which is retained by GeoEngineers and is the official document of record.




Plot presents the fitted-field consolidation results for the gravel preload test for variations in OCR assuming the remaining consolidation parameters presented on Figure 15 (C_v , e_o , C_c , and C_r) are held constant.

Gravel Preload Test Settlement OCR Sensitivity Analysis	
I-405, Brickyard to SR527 Improvement Project King and Snohomish Counties, Washington	
	Figure 16

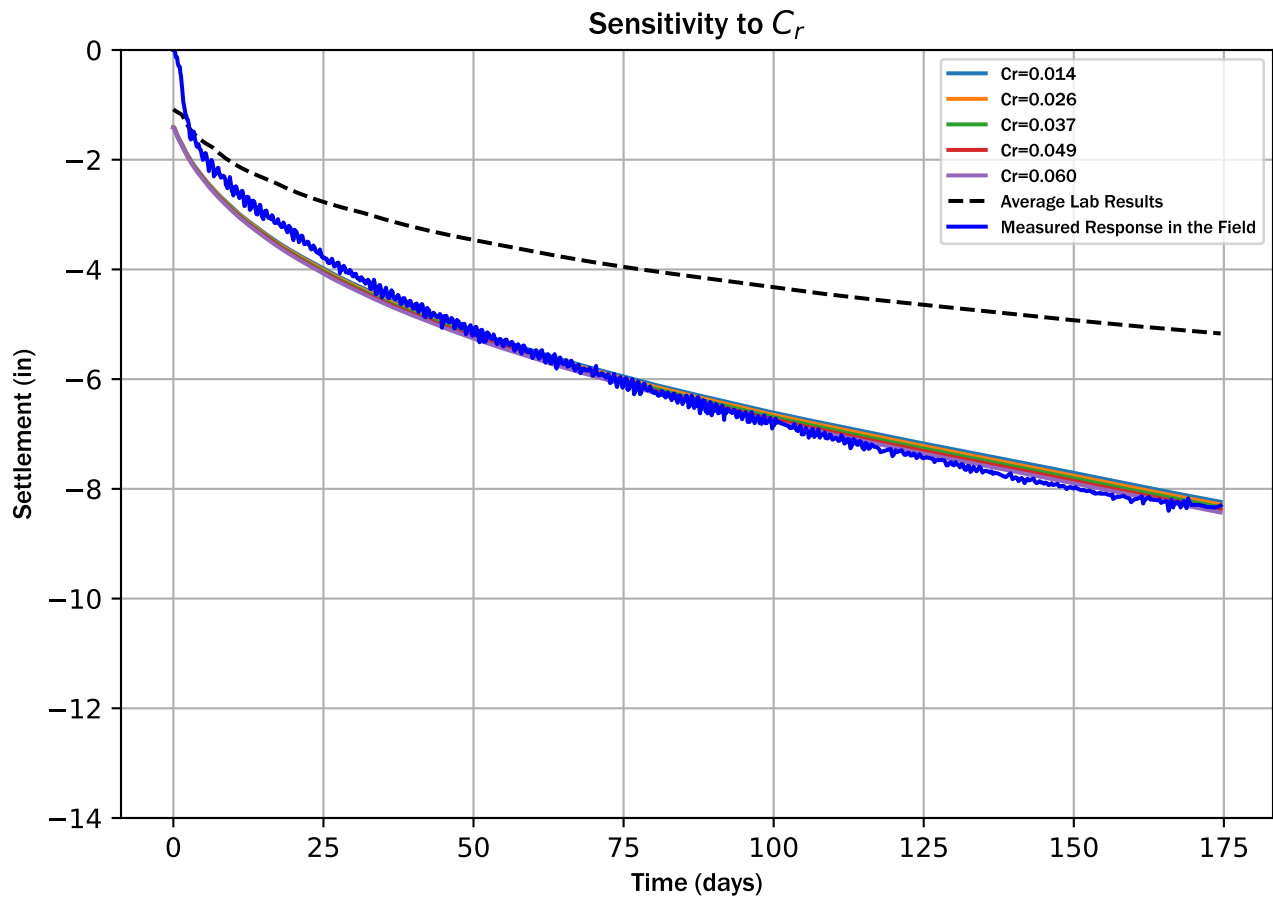
Disclaimer: This figure was created for a specific purpose and project. Any use of this figure for any other project or purpose shall be at the user's sole risk and without liability to GeoEngineers. The locations of features shown may be approximate. GeoEngineers makes no warranty or representation as to the accuracy, completeness, or suitability of the figure, or data contained therein. The file containing this figure is a copy of a master document, the original of which is retained by GeoEngineers and is the official document of record.



Plot presents the fitted-field consolidation results for the gravel preload test for variations in C_c assuming the remaining consolidation parameters presented on Figure 15 (C_v , e_o , C_r , and OCR) are held constant.

Gravel Preload Test Settlement Compression Index, C_c, Sensitivity Analysis	
I-405, Brickyard to SR527 Improvement Project King and Snohomish Counties, Washington	
	Figure 17

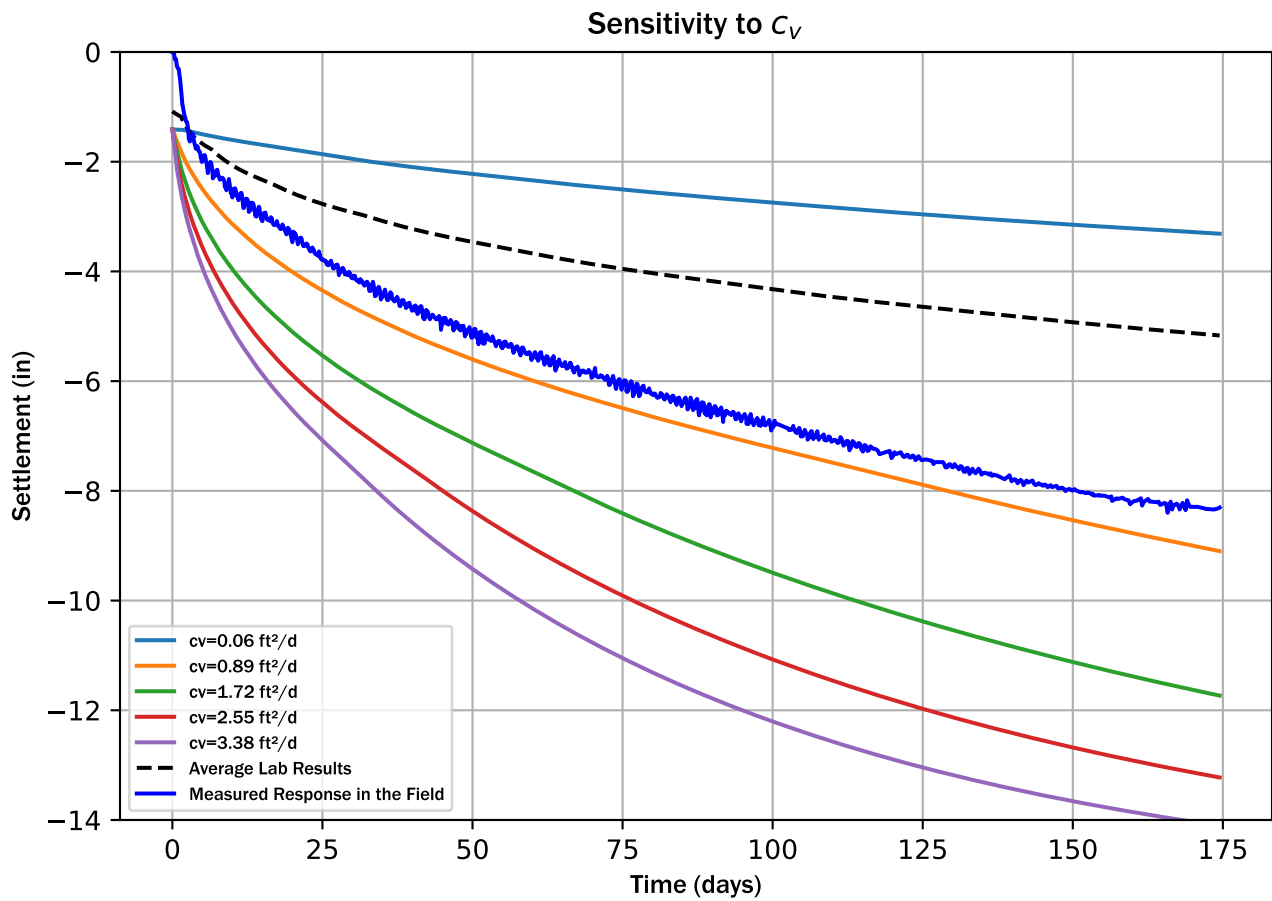
Disclaimer: This figure was created for a specific purpose and project. Any use of this figure for any other project or purpose shall be at the user's sole risk and without liability to GeoEngineers. The locations of features shown may be approximate. GeoEngineers makes no warranty or representation as to the accuracy, completeness, or suitability of the figure, or data contained therein. The file containing this figure is a copy of a master document, the original of which is retained by GeoEngineers and is the official document of record.



Plot presents the fitted-field consolidation results for the gravel preload test for variations in OCR assuming the remaining consolidation parameters presented on Figure 15 (C_v , e_0 , C_c , and OCR) are held constant.

Gravel Preload Test Settlement Recompression Index, C_r, Sensitivity Analysis	
I-405, Brickyard to SR527 Improvement Project King and Snohomish Counties, Washington	
	Figure 18

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Plot presents the fitted-field consolidation results for the gravel preload test for variations in OCR assuming the remaining consolidation parameters presented on Figure 15 (e_o , C_c , C_r , and OCR) are held constant.

**Gravel Preload Test Settlement
Coefficient of Consolidation, C_v , Sensitivity Analysis**

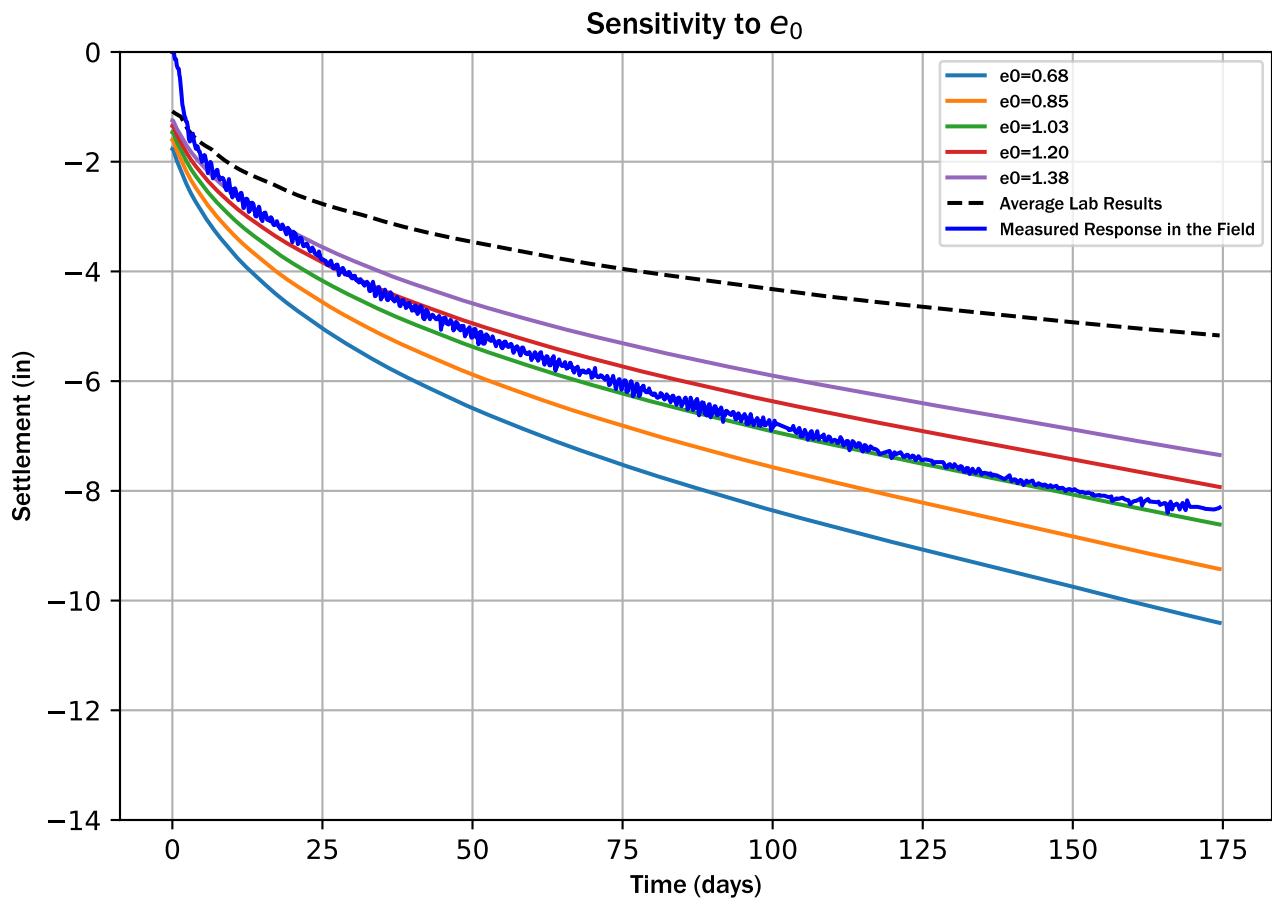
I-405, Brickyard to SR527 Improvement Project
King and Snohomish Counties, Washington



Figure 19

0180-423-01 Date Exported: 12/4/25

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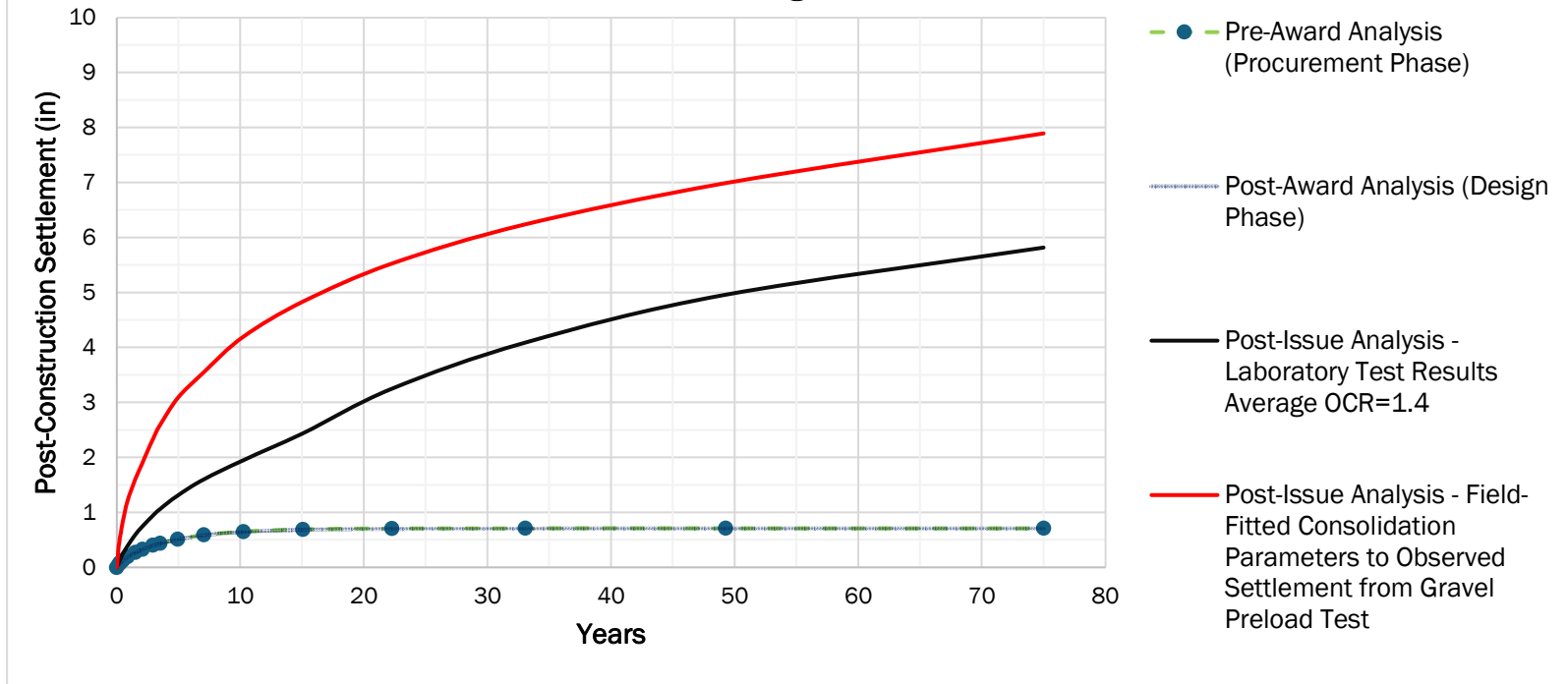


Plot presents the fitted-field consolidation results for the gravel preload test for variations in OCR assuming the remaining consolidation parameters presented on Figure 15 (C_v , C_c , C_r , and OCR) are held constant.

Gravel Preload Test Settlement Initial Void Ratio, e_0, Sensitivity Analysis	
I-405, Brickyard to SR527 Improvement Project King and Snohomish Counties, Washington	
	Figure 20

Disclaimer: This figure was created for a specific purpose and project. Any use of this figure for any other project or purpose shall be at the user's sole risk and without liability to GeoEngineers. The locations of features shown may be approximate. GeoEngineers makes no warranty or representation as to the accuracy, completeness, or suitability of the figure, or data contained therein. The file containing this figure is a copy of a master document, the original of which is retained by GeoEngineers and is the official document of record.

Post-Construction Settlement Estimate Comparison at Mainline Bridge Abutment 10



Post-Construction Settlement at Abutment 10
 I-405, Brickyard to SR527 Improvement Project
 King and Snohomish Counties, Washington


GEOENGINEERS 

Figure 21

Appendix A – Timeline of Activities:

Below you will find that we provide a timeline and description of when the issue leading to the Differing Site Condition was observed, what was performed in response, and how the DB team determined that a Differing Site Condition did exist. We also document the dates of our formal notice of Differing Site Conditions, WSDOT’s response, our formal notice of intent to protest, WSDOT’s response, and this letter of supplemental information.

Date	Description	Document Title (if applicable)
10/6/2023	GeoEngineers issues the RFC’d version of the Subsurface Exploration Plan – Phase 1, which included explorations needed for design elements impacted by this Differing Site Condition. This SIP had been reviewed by WSDOT for contract compliance and all comments had been addressed before issuing it as an RFC.	“Subsurface Investigation Plan, Phase 1”, dated October 6, 2023.
04/19/2024	GeoEngineers issues the RFC’d version of the geotechnical design report including the design recommendations for Retaining Wall 23.80R in project Segment 2. This design report had been reviewed by WSDOT for contract compliance and all comments had been addressed before issuing it as an RFC.	“Geotechnical Design Services, Project Segment 2 – Early Design Package #1B, I-405, Brickyard to SR 527 Improvement Project, King and Snohomish Counties, Washington”, dated April 19, 2024.
9/2/2024	Skanska begins construction on Wall 23.80R at the north end of the wall near wall Station 20+00.	-NA-
10/18/2024	Skanska pours the fascia wall leveling pad for Wall 23.80R within the station range (south of Wall Station 15+50) that would ultimately exhibit settlement significantly in excess of the estimates provided in the RFC’d report above.	-NA-
10/31/2024	Skanska notices that several panels in the station range of interest are tilting outward between 2” - 5”.	-NA-
11/6/2024 – 11/15/2024	Skanska tears down the portions of Wall 23.80R that were affected by settlement and overturning of the fascia panels. Skanska begins surveying the wall’s fascia panel leveling pad.	-NA-
11/8/2024	Skanska submits RFI 0152 to the design team.	-NA-
11/27/2024	The Design Team responds to RFI 0152.	-NA-
12/10/2024	Skanska survey is showing additional settlement of the wall’s fascia panel leveling pad. Settlement is worst between wall Station 12+00 and 14+00 but settlement is present at most locations south of wall Station 15+50.	-NA-

12/13/2024	GeoEngineers representative onsite to observe the subgrade beneath the wall's fascia panel leveling pad between wall Station 12+00 and 14+00.	-NA-
1/7/2025 - 1/15/2025	GeoEngineers representative onsite to observe the overexcavation and replacement of the subgrade beneath the wall's fascia panel leveling pad with a combination of geosynthetics and imported gravel. Work occurred between about wall Station 12+00 and 14+00.	-NA-
1/7/2025 - 2/6/2025	Skanska rebuilds the torn down portions of the MSE wall on top of new load transfer pad beneath the wall's fascia panel footing.	-NA-
1/15/2025 - Present	Skanska surveys the wall's fascia panel leveling pad for additional movement.	-NA-
3/19/2025	Skanska sends latest survey of re-built wall to GeoEngineers for review.	-NA-
3/20/2025 - 3/28/2025	GeoEngineers evaluates the settlement data and provides a notice to WSDOT of the additional settlement that has occurred.	-NA-
3/22/2025	GeoEngineers recommends to Skanska that work be stopped on Abutment 10 and the vicinity of Walls 23.72R and 23.73R due to concerns that the ESU 2C may be settling more than expected and the issue could affect those other design elements also.	-NA-
4/1/2025	GeoEngineers issues a Corrective Action Plan addressing the excessive settlement and recommends that a thickness of gravel surcharge be added to the top of the wall to promote any additional settlement to occur more quickly.	-NA-
4/8/25 - 6/13/25	A three-foot-tall gravel surcharge is placed on top of Wall 23.80R at GeoEngineers' recommendation to mimic the future load of pavement and traffic so as to cause any predicted future settlement to occur before finishing construction of wall 23.80R.	-NA-
4/26/2025 - 5/13/2025	Three new borings are drilled at the recommendation of GeoEngineers to evaluate the ESU 2C material in more depth.	-NA-
5/1/2025 - 11/25/2025	Lab testing performed on samples taken from the three new borings and boring logs finalized with laboratory test results.	-NA-
05/21/2025 - 12/4/2025	An instrumented gravel preload test is constructed at GeoEngineers' recommendation in the vicinity of Wall 23.72R to get a larger scale test of	-NA-

	settlement performance. Survey continues through to present day.	
6/13/25 – 6/20/25	Settlement under the gravel surcharge at Wall 23.80R appears to have stabilized, as documented in the Structures/Geotech Task Force Meeting and the surcharge is removed.	-NA-
9/4/2025	The design team issued their formal notice of a Differing Site Condition to WSDOT pertaining to Differing Site Conditions at Walls 23.80R, I-405 Mainline Bridge Abutment 10, Wall 23.72R, Wall 23.7R, and Wall 23.74R.	“Letter No. 226 Notice of DSC at Wall 23.80R, I-405 Mainline Bridge Abutment 10, Wall 23.72R, Wall 23.7R, and Wall 23.74R”, dated September 4, 2025.
9/18/2025	WSDOT's issued (WSDOT SL No. 9727-162), dated September 18, 2025. In this letter, WSDOT rejected the design team's formal notice of a Differing Site Condition dated 9/4/2025.	“WSDOT SL No. 9727-162”, dated September 18, 2025.
9/30/2025	GeoEngineers disagreed with the WSDOT Engineer's Written Determination set forth in the serial letter dated 9/18/2025 and submitted a formal notice of protest in accordance with <u>RFP 1-04.5(1) Procedure, Protest, and Dispute by the Design-Builder subpart Disputes</u> . This included a request for an extension from WSDOT on the timeline for providing supplemental information to the protest.	“Notice of Intent to Protest”, dated September 30, 2025.
10/10/2025	WSDOT's issued (WSDOT SL No. 9727-175), dated October 10, 2025. In this letter, WSDOT acknowledged receipt of the Notice of Intent to Protest dated 9/30/2025 and granted the design team's request for extension on the deadline to produce supplemental information to 12/8/2025.	“WSDOT SL No. 9727-175”, dated October 10, 2025.