City of Seattle
Seattle Department of Construction and Inspections
Engineering Services

JOHN ANDERSON
16771 Ne 80th St
Suite #110
Redmond, WA 98052

Re: Project #6771337-CN

Correction Notice #1

Review Type STRUCTURAL ENGINEER
Project Address 229 BROADWAY E
SEATTLE, WA 98102
Contact Email janderson@sh-architecture.com
SDCI Reviewer Nouri Samiee-Nejad
Reviewer Phone (206) 733-9057
Reviewer Email Nouri.Samiee@seattle.gov
Owner Rebecca Ralston

Date December 03, 2021
Contact Phone (360) 348-7773

Address Seattle Department of Construction and Inspections
700 Fifth Ave
Suite 2000
PO Box 34019
Seattle, WA 98124-4019

Please provide a letter responding to each item of this correction notice.

Applicant Instructions

You will not be able to upload corrected plans until all reviews are completed and the project's review status is "Corrections Required".

*** Respond by providing **a written response to each correction AND identify changes to drawings since initial review**. ***

Drawings shall be **legible**, with sheets **oriented correctly**, on an appropriate **sheet size**, with all revisions/changes **clouded or circled**, with **no missing sheets**, and uploaded in a **single PDF file**.

Link for detailed steps: "How to Respond to a Correction Notice". If the 3-step process outlined in this document is not followed, your response could be **rejected**, permit issuance could be **delayed**, and **penalty fees** could be assessed.

Codes Reviewed

This project has been reviewed for conformance with one or more of the following codes: 2018 Seattle Building Code (SBC); 2018 Seattle Residential Code (SRC); 2018 Seattle Existing Building Code (SEBC); 2018 Seattle Energy Code (SEC); Grading Code; Environmentally Critical Areas Regulations (ECA).

Corrections

1. SBC 1704.2 - Complete and return the attached SDCI Statement of Structural Special Inspections, signed by the owner or engineer or architect acting as the owner's agent. The designated special inspection agency shall be WABO registered. Note: SDCI will not accept the signature of the contractor on the statement.

2. Section 1704.6 - Structural observation is required for this structure. Nominate a registered design professional to perform the observations using the attached SDCI Statement of Structural Observation form. Ordinarily, testing agencies do not perform this work. Fill in the name of the nominated firm, sign the schedule, and return it to the SDCI reviewer. Before SDCI issues the Certificate of Occupancy for the building, the structural observer must submit a written statement to SDCI that the site visits have been made, and identifying any deficiencies which, to the best of the structural observer's knowledge, have not been resolved.

3. Provide a letter from Geotech engineer indicating that he/she has reviewed foundation drawings and that they in compliance with soil report provided for this project.

4. Ref. to structural plans submitted, level 3 framing plan is missing, please complete.

5. Specify wood post sizes on plan as some are missing, see sheet S 2.4,(Grid 3.8 east of grid A1), and other level's framing plans

6. Are the basement wall reactions due to lateral soil and seismic pressure at each floor level included in the diaphragm design under lateral seismic and wind loads? Please provide detailed narratives and calculations to explain the design approach taken. Also, provide calculations to verify the load transfer path of the wall top reaction forces due to lateral soil/seismic pressures at the top of the basement walls in details, provide supporting documents and detailed calculations for the seismic surcharge loading used for basement wall design

7. ACI 318-14 Section 18.12.9.2 – Please provide structural calculation for the worst-case diaphragm shear that shows the concrete diaphragm shear capacity does not exceed 8√f'c. Modify the diaphragm design accordingly, If the calculation has been done, please reference the sheet the shows that calculation.

8. For the PT slab at level 2(transfer slab) supporting the wood structures above, provide a table showing the maximum holdown forces from wood shear walls and make a reference to where these forces have been considered in structural calculations.

9. Type IA construction requires the floor slab to have 2 hour fire rating. SBC TBL 721.1(1) with sub-note "f" requires the interior slab spans (restrained) to have minimum 0.75"x1.2 = 0.9" clear cover for the PT tendons, and the exterior spans (unrestrained) to have 1.5"x1.2 = 1.8" clear cover for the tendons. Please verify if the provided clear covers for all PT slabs meet this requirement.

10. Please provide calculations to verify the slab to top of basement wall doweling connections shown in details on sheet S3.1 are adequately developed at either side of the shear friction plane for out-of-plane and in-plan wall to slab force transfer.

11. ASCE 7-10 13.5.8 **-** Partitions that are tied to the ceiling and all partitions greater than 6 feet in height shall be laterally braced to the building structure. Provide bracing details.

12. Please provide structural calculations to verify the adequacy of the basement walls with footings and site retaining walls with footings. In addition to the at-rest or active soil pressure, a lateral seismic soil pressure should also be applied to walls. Please provide information on how the lateral seismic pressure is determined. Please verify that the wall vertical flexural reinforcement has adequate hooked embedment length in the footing that meets ACI318-14-25.4.3

13. ASCE 7-10 12.3-1 and 2. Please provide an itemized analysis of each irregularity present, per this section. Verify whether computer model is considering the effect of 5% accidental torsion in the model. If it is not, run additional models considering this assumption.

14. ASCE 7-10 12.1.3 - Please provide analysis and design of the interconnection forces between the wood framed and concrete sections of the building. Typical at podium slabs - The podium slabs provide a force transfer for the vertical discontinuity of the wood framed lateral system above, and the concrete shear wall system below. Please provide in the concept model the resolution of the discontinuous forces. Note that per ASCE 7-10 12.3.3.3, the discontinuous vertical force will be required to be amplified by the over strength factor.

15. Provide calculations for gravity wood bearing walls and for gravity wood posts. considering at some location there are forces (compression) from holdowns).

16. Please provide structural calculations to verify the adequacy of wood shear wall holdown anchorage design per ACI 318 D.3.3.4.3.

17. AWC SDPWS-2008 - 4.3.6.4.3 - Plate washer shall extend to within 1/2 inch of the edge of the bottom plate on the side(s) with sheathing or other material with unit shear capacity of 400plf for wind or seismic. Provide a detail on the plans that shows this requirement will be met.

18. Please provide structural calculations for the concrete basement walls and elevator/stair walls to demonstrate compliance with ACI318 21.9. If some of the walls are not designed to be part of the primary lateral system, the wall reinforcement shall comply with ACI 318 21.13.2

19. Indicate if stairs are prefabricated or if they are included in this permit submittal. If included, provide design and details.

20. It appears that the studrails were checked for shear and unbalanced moment in one direction only. However, it appears that slab/column connections are subjected to concurrent unbalanced moment in two orthogonal directions. Please provide studrail check to account for the concurrent unbalanced moment from two orthogonal directions or provide technical justifications for the submitted design calculation approach.

21. Ref. to shoring plan on sheet SH-2 provide calculation and explain how the shoring pile will work at for corners and also at grid line and grids 1.1 and 1.2

22. Section 2304.3.3 - Wood walls and bearing partitions are supporting more than two floors and a roof. Provide analysis that shows shrinkage of the wood will not have adverse effects on the structure or any plumbing, electrical, mechanical or roof drainage systems.

☐ Revised Schedule ☐ Addition to Previous Schedule ☑ 2018 SBC

SDCI Statement of Structural Special Inspection

Project Number 6771337-CN
Project Address 229 BROADWAY E
SEATTLE, WA 98102
Architect
Engineer

Date 12/3/2021 9:27 AM
SDCI Plan Examiner Nouri Samiee
Architect Phone
Engineer Phone

Prior to issuance of a building permit, the owner, architect, or engineer acting on behalf of the owner shall appoint an inspection agency and shall sign and submit this form to the building official.

Property Owner, Architect, or Engineer Signature
I hereby certify that the engineering firm and inspection agency named below has been engaged to perform the special inspections outlined below as required by the Seattle Building Code. It is the responsibility of the owner or the owner's designee to notify the inspection agency in a timely manner when the inspections listed below are required.

Signature	Title	Date	Phone

Inspection Agency Name	Inspection Agency Phone

Required Special Inspections

	Inspection Type	Description
1.	Wood Seismic	
2.	High Strength Hold Down System	
3.	Reinforced Concrete - Cip	
4.	Pt Prestressed Concrete	

Call (206) 684-8860 to schedule a pre-construction conference before the start of construction

Seattle Department of Construction and Inspections
700 Fifth Ave, Suite 2000, PO Box 34019, Seattle, WA 98124-4019