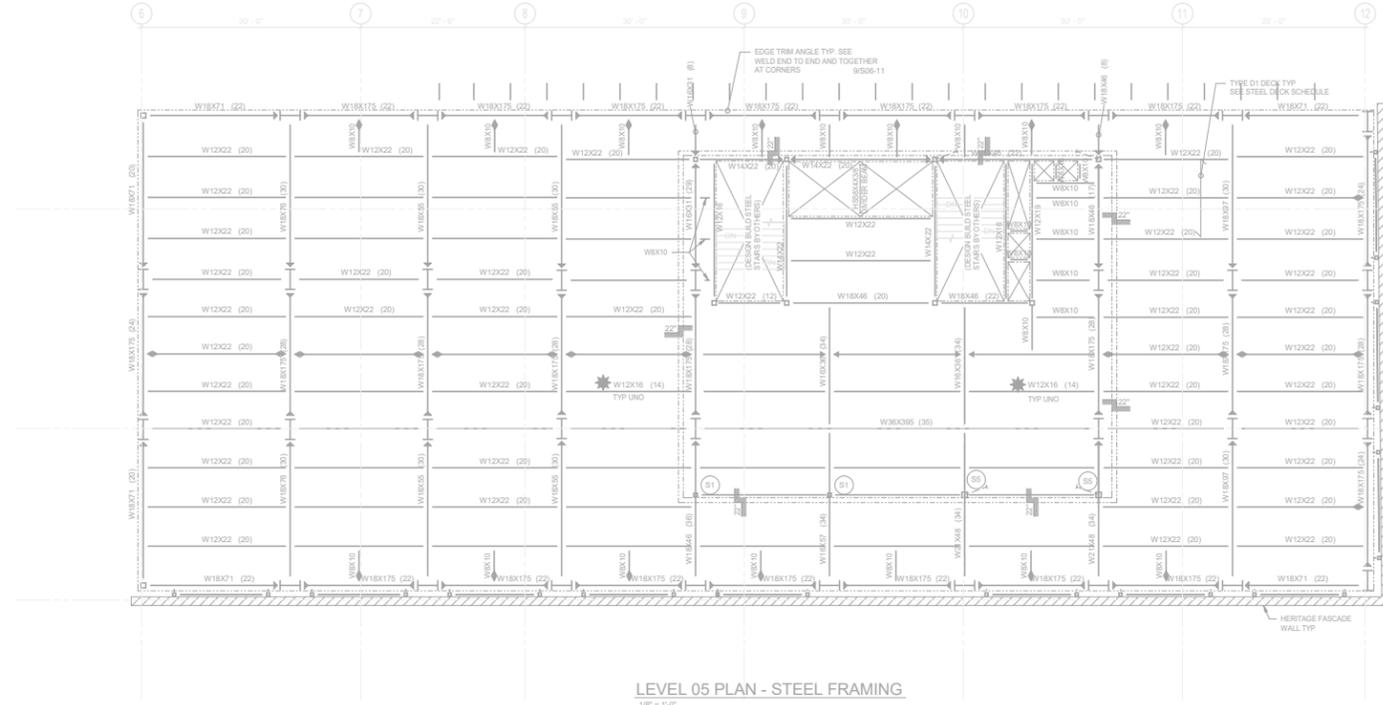


ONNI GROUP  
1120 JOHN STREET



# SEATTLE TIMES BUILDING HERITAGE SEISMIC JOINT LOCATION - STRUCTURAL NARRATIVE

Perkins&Will

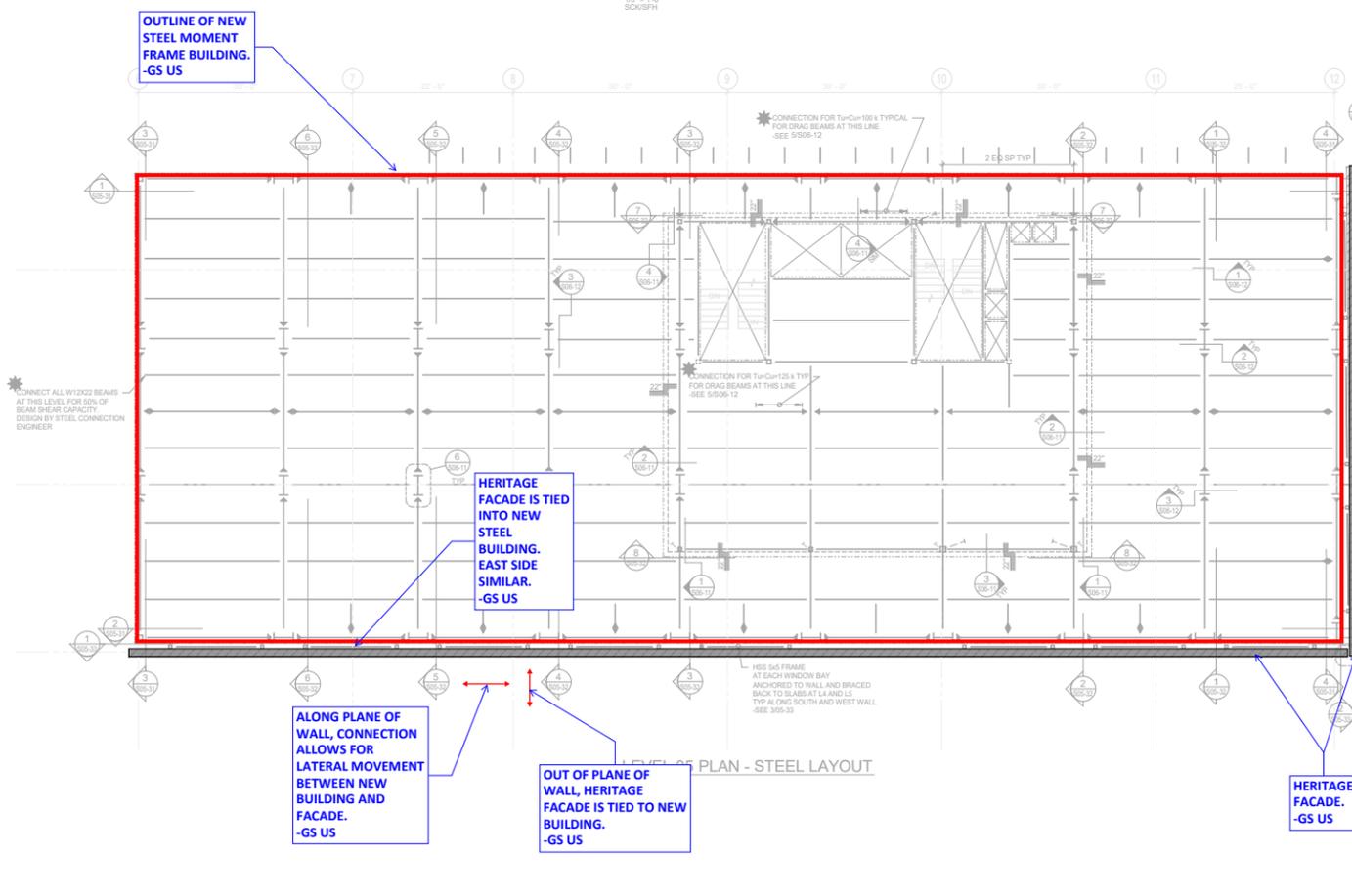


**SEISMIC JOINT LOCATION NARRATIVE**

- 1) ALONG THE AXIS OF THE HERITAGE FACADE, THE HERITAGE FACADE IS STIFFER THAN THE NEW CONSTRUCTION. WHILE STIFFER THAN THE NEW CONSTRUCTION, IT DOES NOT HAVE THE STRENGTH OR DUCTILITY TO RESIST SEISMIC LOADING PER MODERN BUILDING CODES.
- 2) BASED ON ITEM 1, THE CONNECTION BETWEEN THE EXISTING AND NEW CONSTRUCTION IS INTENDED TO ALLOW FOR LATERAL MOVEMENT BETWEEN THE NEW AND THE EXISTING CONSTRUCTION ALONG THE PLANE OF THE WALL.
- 3) ITEM 2 PREVENTS THE STIFF HERITAGE FACADE FROM COMPROMISING THE SEISMIC PERFORMANCE OF THE NEW BUILDING, OR INERTIAL LOAD FROM THE NEW BUILDING BEING RESISTED BY THE HERITAGE FACADE AS THE SEISMIC LOAD WILL BE RESISTED BY THE STIFFEST LOAD PATH.
- 4) WE ANTICIPATE STRENGTH LOSS DURING A DESIGN LEVEL EARTHQUAKE RESULTING IN CRACKING IN THE HERITAGE FACADE. DURING A DESIGN LEVEL EARTHQUAKE, THE OUT OF PLANE CONNECTION OF THE HERITAGE FACADE TO THE NEW BUILDING HELPS PREVENT ANY PORTION OF THE DAMAGED FACADE FROM BREAKING AWAY FROM THE LARGER STRUCTURE. THE HERITAGE FACADE IS FLEXIBLE RELATIVE TO THE NEW BUILDING OUT OF THE PLANE OF THE WALL, AND AS SUCH DOESN'T IMPACT THE SEISMIC PERFORMANCE OF NEW BUILDING.
- 5) BASED ON SUMMARY ABOVE, THE PRIMARY GOALS ARE AS FOLLOWS:
  - A) PREVENT THE HERITAGE FACADE FROM COMPROMISING THE SEISMIC PERFORMANCE OF THE NEW BUILDING.
  - B) PREVENT SEISMIC LOADING FROM NEW BUILDING MASS FROM BEING RESISTED BY HERITAGE FACADE, TO MINIMIZE CRACKING OF HERITAGE FACADE UNDER DESIGN EARTHQUAKE.
  - C) CONTROL THE CRACKING IN THE HERITAGE FACADE UNDER A DESIGN EARTHQUAKE, AND ENSURE CRACKED PORTIONS ARE RESTRAINED BY THE NEW BUILDING.

THE LOCATION IS REQUIRED TO BE AT THE CORNER TO FULLY SEPERATE THE 2 AXES OF THE WALL FROM EACHOTHER. RELOCATING THE JOINT AWAY FROM THE CORNER WOULD PREVENT ITEMS A AND B ABOVE FROM BEING ACHIEVED.

THE FOLLOWING SHEETS OUTLINE THE DESIGN INTENT UNDER THE CONSIDERATION OF A DESIGN LEVEL EARTHQUAKE AND HIGHLIGHT THE CHALLENGES PRESENTED IF THE SEISMIC JOINT IS LOCATED AWAY FROM THE CORNER.



GRAVITY COLUMN SCHEDULE

Mark	Type	Base Plate
B1	HSS48x48	TYPE C
B2	HSS48x48	TYPE C
B3	HSS48x48	TYPE C
B4	HSS48x48	TYPE C
B5	HSS48x48	TYPE C

MARK	STEEL DECK TYPE	GAGE	TOTAL THICK	SLAB DESCRIPTION	MAXIMUM UNBORDERED SPAN			NOTES
					SINGLE SPAN	DOUBLE SPAN	TROUBLE SPAN	
D1	VERCO PLB-36 FORMALOK	22	5"	3 1/2" WMC TOPPING RW #4@12" EW AT MIDHEIGHT	9'-0"	6'-0"	6'-0"	TYPICAL @ UPPER ROOF
D2	VERCO PLB-36	18	-	BARE METAL DECK				

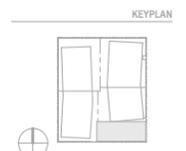
- NOTE:
1. PROVIDE AND INSTALL VERCO STEEL DECKING (OR APPROVED EQUAL) IN ACCORDANCE WITH MANUFACTURER'S INSTALLATION REQUIREMENTS AND PROCEDURES AND ADDITIONAL REQUIREMENTS OF ER-2018.
  2. ALL STEEL DECKING SHALL BE 3/8" (3 SPAN MIN).
  3. PROVIDE SPECIAL INSPECTION FOR WELDED STUDS OR LIGHT GAUGE DECK WELDING.
  4. PROVIDE AND INSTALL HELT SHEETPIPS (OR APPROVED EQUAL) IN ACCORDANCE WITH MANUFACTURER'S INSTALLATION REQUIREMENTS AND PROCEDURES AND ADDITIONAL REQUIREMENTS OF ESR-2197 AND ESR-2766.
  5. SLABS EXPOSED TO WEATHER OR MOISTURE SENSITIVE COVERINGS SHALL BE PROVIDED WITH POSITIVE VENTED STEEL DECK.
  6. BUTTON PUNCH SIDE LAPS @ 24" OC USING VERCO PUNCHLOK II TOOL.
  7. HELT SHEETPIPS FASTENERS TO ALL SUPPORTS (USA PATTERN).
  8. CONTRACTOR TO VERIFY AND IDENTIFY ON DECK SHOP DRAWING SUBMITTALS ALL DECK CLEAR SPANS AND NUMBER OF CONTINUOUS SPANS AND WHETHER SHORED VERSUS UNSHORED CONDITIONS APPLY.
  9. FOR TYPICAL DECK DETAILS, SEE 506-11.

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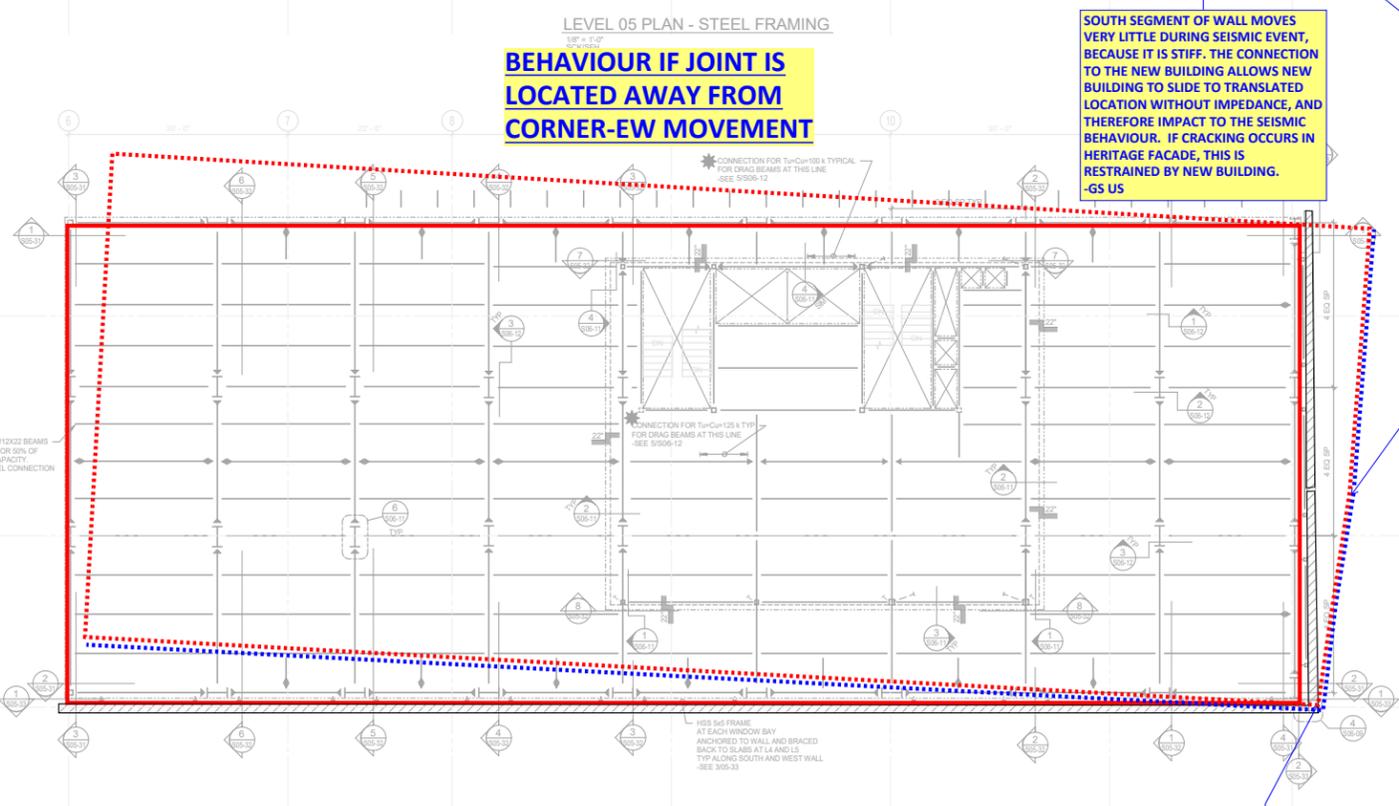
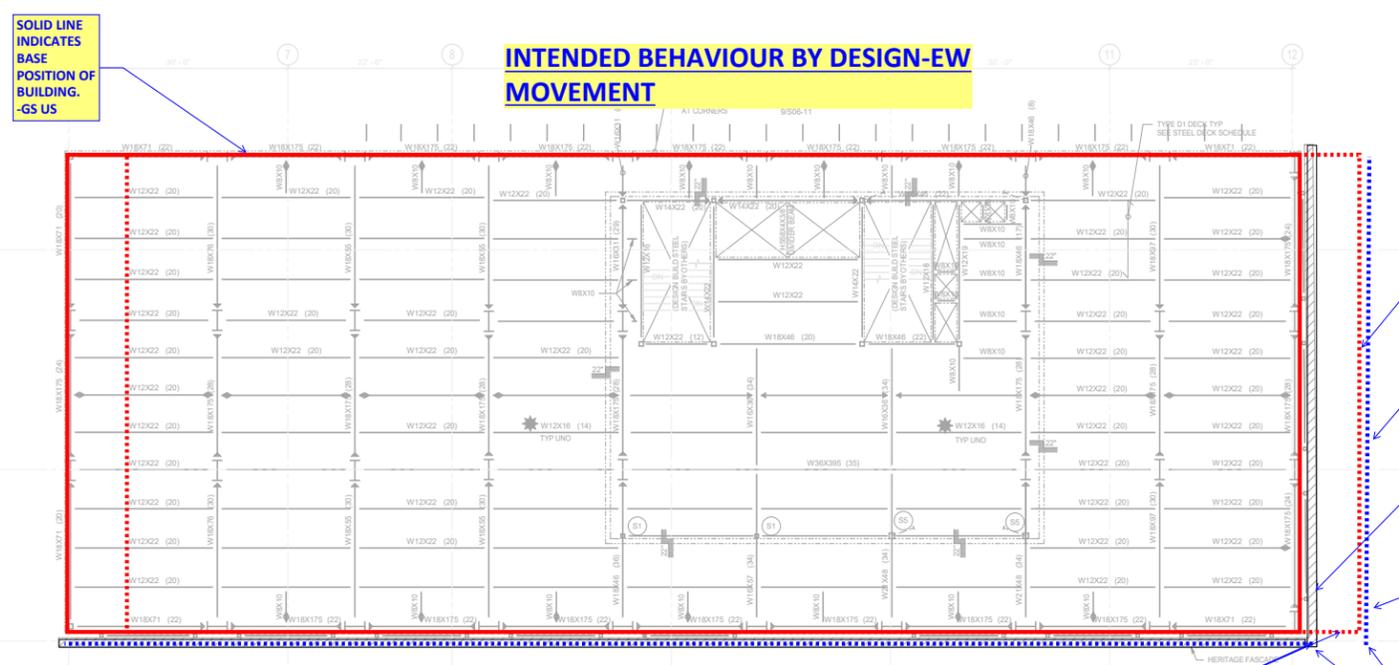


ISSUE CHART

NO.	DESCRIPTION	DATE
A	Issued for CD Review	2023-08-28
B	Issued for Concrete and Rebar Phasing	2023-08-28
C	Phase 1 - Foundation	2023-08-28
D	Phase 2 - Check for Clash	2023-08-28
E	Phase 3 - Full Structure	2023-08-28
F	Phase 1 - Plan Check Copy 1	2023-08-28
G	Phase 2 - Plan Check Copy 1	2023-08-28
H	Phase 3 - Plan Check Copy 1	2023-08-28
I	Phase 1 - Plan Check Copy 1	2023-08-28
J	Phase 2 - Plan Check Copy 1	2023-08-28
K	Construction Documents - FC	2023-08-28
L	Revision #1	2023-08-28
M	Phase 3 - Plan Check Copy 1	2023-08-28

Job Number 213351  
TITLE  
SEATTLE TIMES - LEVEL  
05 FRAMING PLAN  
SHEET NUMBER  
S02-L05SF

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**CASE WITH EW SEISMIC MOVEMENT IS SHOWN HERE, BUT SAME IS TRUE IN S/DIRECTION.**

**DASHED LINE INDICATES TRANSLATED OUTLINE OF BUILDING UNDER SEISMIC EVENT (EXAGGERATED FOR EFFECT) -GS US**

**DASHED LINE INDICATES TRANSLATED HERITAGE FACADE UNDER SEISMIC EVENT (EXAGGERATED FOR EFFECT) -GS US**

**SOLID INDICATES BASE POSITION OF HERITAGE FACADE -GS US**

**EAST PORTION IS FLEXIBLE OUT OF PLANE RELATIVE TO NEW BUILDING AND THEREFORE MOVES WITH NEW BUILDING WITHOUT IMPEDANCE. IF CRACKING OCCURS IN HERITAGE FACADE, THIS IS RESTRAINED BY NEW BUILDING. -GS US**

**THESE SEGMENTS CAN ONLY MOVE SEPARATELY IF GAP IS AT CORNER. -GS US**

**SOUTH SEGMENT OF WALL MOVES VERY LITTLE DURING SEISMIC EVENT, BECAUSE IT IS STIFF. THE CONNECTION TO THE NEW BUILDING ALLOWS NEW BUILDING TO SLIDE TO TRANSLATED LOCATION WITHOUT IMPEDANCE, AND THEREFORE IMPACT TO THE SEISMIC BEHAVIOUR. IF CRACKING OCCURS IN HERITAGE FACADE, THIS IS RESTRAINED BY NEW BUILDING. -GS US**

**BEHAVIOUR IF JOINT IS LOCATED AWAY FROM CORNER-EW MOVEMENT**

**BECAUSE THIS POINT IS ACTUALLY CONNECTED TO STIFF SEGMENT ALONG THE SOUTH EDGE, IT MOVES LESS THAN THE BASE CASE. THIS IMPLIES TWO THINGS: 1) LOAD FROM NEW BUILDING IS BEING RESISTED BY HERITAGE FACADE COMPROMISING SEISMIC PERFORMANCE OF NEW BUILDING. 2) HERITAGE WALL IS UNDERGOING SIGNIFICANT STRESS AS IT DEFORMS BETWEEN THE POINT OF LITTLE MOVEMENT ON THE SOUTH CORNER AND SIGNIFICANT MOVEMENT AT THE LOCATION OF SEISMIC JOINT.**

**MOVING THE JOINT AWAY FROM THE CORNER WOULD PREVENT ITEMS A, B, AND C ON THE PREVIOUS SHEET FROM BEING ACCOMPLISHED. -GS US**

**THIS POINT MOVES SIMILAR TO DESIGN CASE. -GS US**

Mark	Type	Base Plate
B1	H56x53	TYPE C
B2	H56x53	TYPE C
B3	H57x75.6	TYPE C
B4	H58x63.6	TYPE C
B5	H59x69.6	SEE 4.3.5506-11

MARK	STEEL DECK TYPE	GAUGE	TOTAL THICK	SLAB DESCRIPTION	MAXIMUM UNSHORED SPAN			NOTES
					SINGLE SPAN	DOUBLE SPAN	TRIPLE SPAN	
D1	VERCO PLB-36 FORMLOK	22	9"	3 1/2" NWC TOPPING R/W #4@12" E/W AT MIDHEIGHT	5'-0"	6'-0"	6'-0"	
D2	VERCO PLB-36	18	-	BARE METAL DECK	-	-	-	TYPICAL @ UPPER ROOF

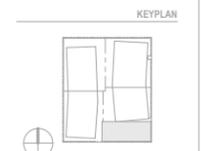
- NOTE:**
1. PROVIDE AND INSTALL VERCO STEEL DECKING (OR APPROVED EQUAL) IN ACCORDANCE WITH MANUFACTURER'S INSTALLATION REQUIREMENTS AND PROCEDURES AND ADDITIONAL REQUIREMENTS OF ESR-2018.
  2. ALL STEEL DECKING SHALL BE 50 (5) (3 SPAN MIN).
  3. PROVIDE SPECIAL INSPECTION FOR WELDED STUDS OR LIGHT GAUGE DECK WELDING.
  4. PROVIDE AND INSTALL HELI-BROTHING (OR APPROVED EQUAL) IN ACCORDANCE WITH MANUFACTURER'S INSTALLATION REQUIREMENTS AND PROCEDURES AND ADDITIONAL REQUIREMENTS OF ESR-2107 AND ESR-2766.
  5. SLABS EXPOSED TO WEATHER OR MOISTURE SENSITIVE COVERINGS SHALL BE PROVIDED WITH POSITIVE VENTED STEEL DECK.
  6. BUTT JUNCTIONS SHALL BE LAPPED @ 3" O/C USING VERCO PUNCHLOK IT TOOL.
  7. HELI-BROTHING FASTENERS TO ALL SUPPORTS (USE PATTERN).
  8. CONTRACTOR TO VERIFY AND IDENTIFY ON DECK SHOP DRAWING SUBMITTALS ALL DECK CLEAR SPANS AND NUMBER OF CONTINUOUS SPANS AND WHETHER SHORED VERSUS UNSHORED CONDITIONS APPLY.
  9. FOR TYPICAL DECK DETAILS, SEE 506-11.

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Mark	Issue	Date
A	Issued for 2D Review	2023-08-10
B	Issued for Concrete and Rebar Phasing	2023-08-17
C	Revised 1 - Foundation	2023-11-08
D	Revised 2 - Foundation/Slab	2023-12-13
E	Revised 3 - Full Structure	2023-02-28
F	Revised 4 - Steel Deck Cycle 1	2023-08-10
G	Revised 5 - Steel Deck Cycle 2	2023-08-10
H	Revised 6 - Plan Check Cycle 1	2023-12-20
I	Revised 7 - Steel Deck	2023-08-10
J	Phase 3 - Plan Check Cycle 3	2023-03-24
K	Construction Documents - PC	2023-04-05
L	Submit #1	2023-07-20
M	Submit #4	2023-04-24
N	Phase 3 Permit	2023-06-01

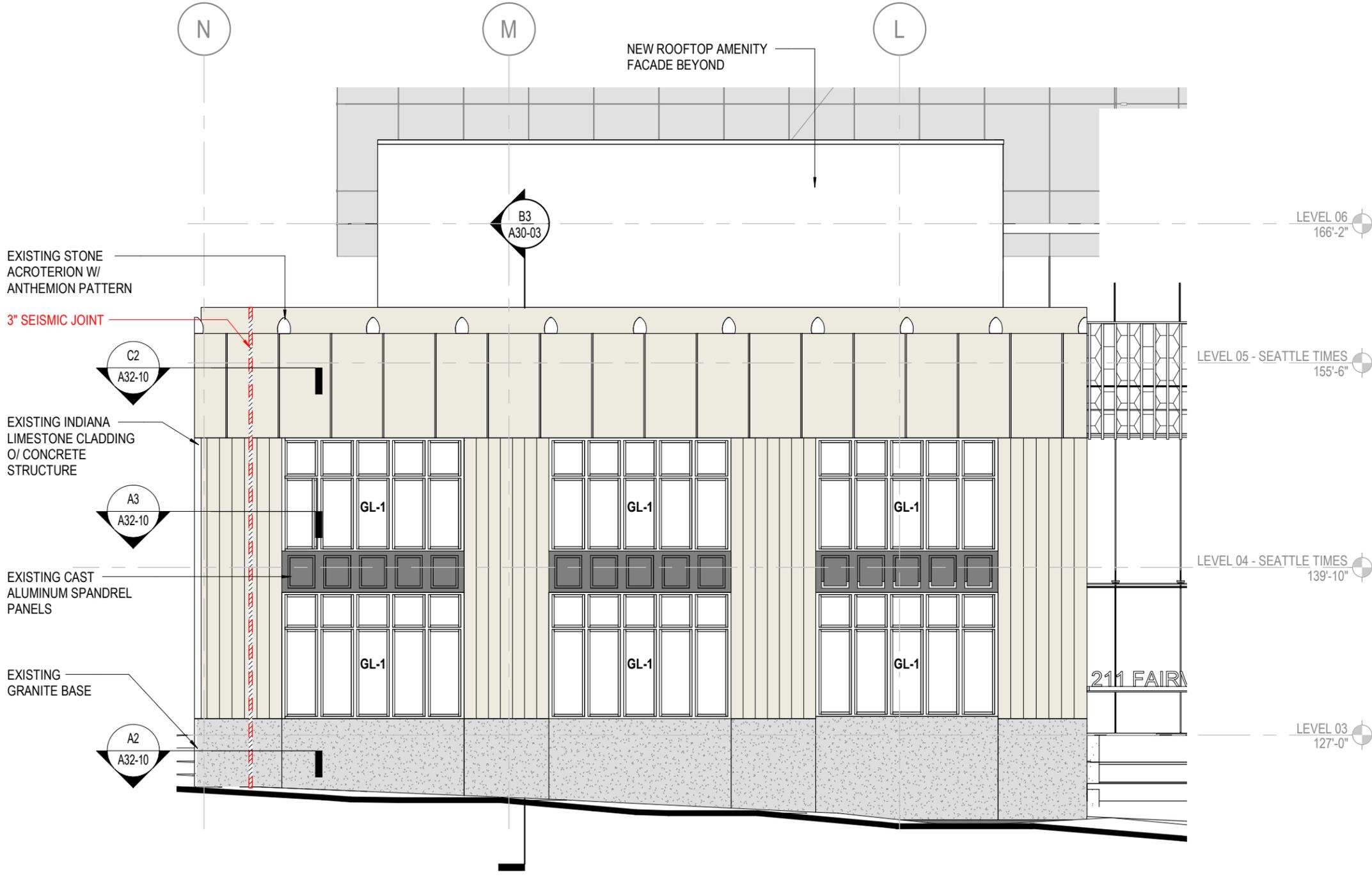
Job Number: 213351  
 TITLE: SHEET

**SEATTLE TIMES - LEVEL 05 FRAMING PLAN**

SHEET NUMBER  
**S02-L05SF**

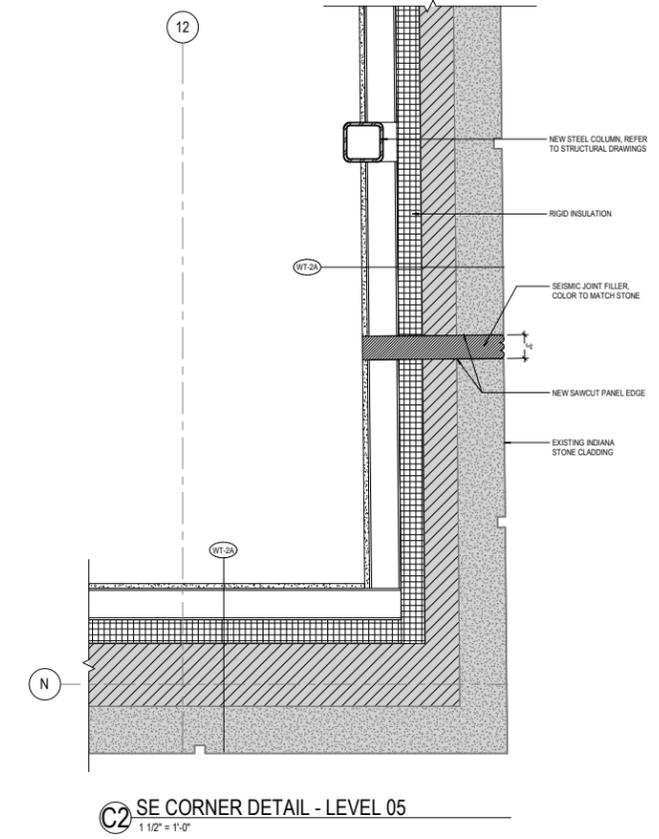
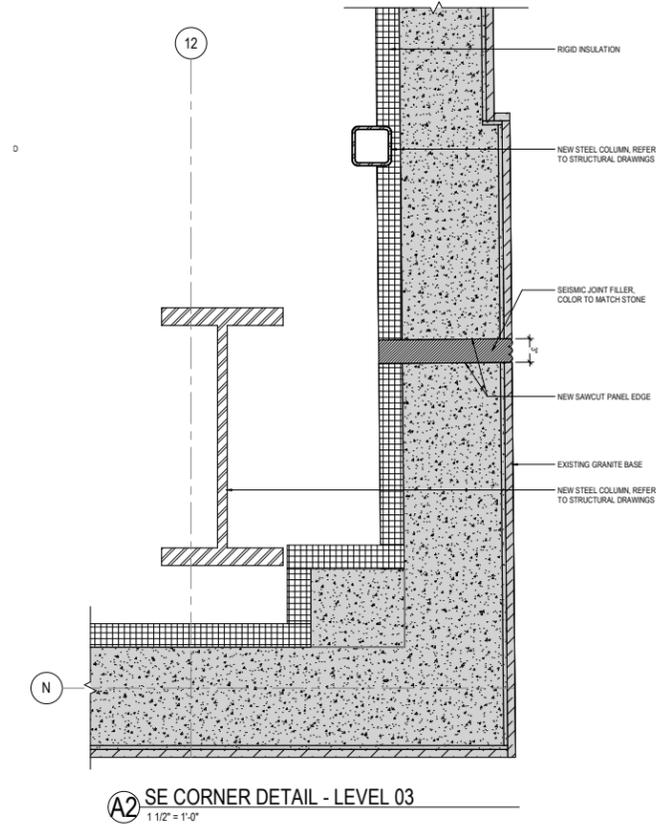
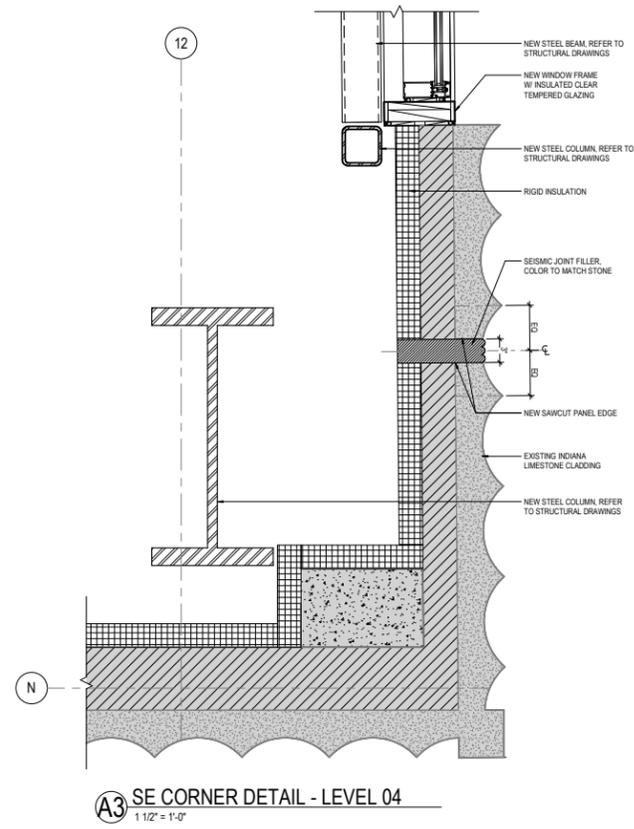
# SEATTLE TIMES BUILDING HERITAGE SEISMIC JOINT LOCATION - ELEVATION, DETAILS , EXAMPLES

## ELEVATION



**B2** SEATTLE TIMES - EAST ELEVATION  
1/8" = 1'-0"

# DETAILS



# EXAMPLES

