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REQUEST FOR INFORMATION DATE: April 20, 2016 NO.: RFI-043

To: Cannon Design

Attn: Kelvin Patel

From: Paric Corporation

Requested By: Devin Gates

Project Name: Webster University Interdisciplinary Science Building Project No.: 15051

Subject: Double horizontal for movement

Response Required By: April 27, 2016

Drawing / Spec Reference:

Information Requested:

Please see below notes from glazing contractor.

NGG requests clarification on the criteria for the movement of this building. It seems excessive, in fact double for most buildings. Clarify with the math please.

Detail 5/A0453 shows the original double horizontal design. NGG has some concerns about this detail. The expansion material is very difficult to waterproof. Also due to the location of this, people on the inside of the building can stick their hand in between the horizontals which could result in an injury. NGG proposes the following.

Attached is a preliminary sketch of this condition using a stacked joint. As stated this is preliminary and has not been reviewed by our structural engineer.

NGG would also like to point out that this double horizontal condition does not need to happen around the entire building. On the majority of the building we can dead load the entire wall down at the first floor using hard splices at current splice locations and have all movement picked up in the wind load anchors with vertical slots. I've attached the elevations highlighted in red where the double horizontal would have to happen and this is only because of the movement criteria and the soffit conditions of the building.

Response:

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ARCHITECT'S RESPONSE:

This information is provided as an interpretation of the Contract Documents for implementation. It is not an authorization for change to the Contract Sum or Contract Time. If this information results in a claim for a change to the Contract, the Contractor shall notify the [Construction

Answered By: _____

Date: _____



Manager][Architect] of a change through the change process.

MOVEMENT JOINTS:

See response from Structural engineer validating the movement of the building:

"Deflection calculations were provided on 11/17/2015. I reviewed the worst case location for verification. The results matched. Attached below represents the area of verification."

- JYW / DMA

We look forward to working with NGG and its structural engineer on refining the movement joints.

Any proposed changes should be reviewed and approved by NGG's structural engineer.

The design intent is to limit movement at roof level by loading the curtain wall from the roof structure. By dead loading the curtain wall at the first level and accommodating the movement at the roof, the design intent is not adhered to. Also, this proposal might not work with the designed mullion sizes (as the mullion spans three floors).

Prior to bid award, NGG had stated in previous correspondence that they understood the design requirements and that their system would adhere to the design intent of the documents. Let us know if any design intent clarifications are needed.

HORIZONTAL STACK MULLION JOINT DETAIL:

We can consider and review the proposed horizontal stacked joint subsequent to NGG's structural engineer review provided that the proposed joint accommodates the validated horizontal movement.

Refer to RFI 44 for comments on the vertical fin / snap cover.

Some initial observations for the proposed horizontal stacked joint-

- 1) Provide more information on how it satisfies the AVB requirements.
- 2) We are concerned about the approx. 2.5" deep cavity on the exterior side of the proposed stack joint being exposed to weather elements.
- 3) Provide a physical sample for consideration.

WEBSTER ISB 2016-04-22
 Deflection calculation at southwest corner of
 cantilevered floor - L03

Floor Type: Level 03



W36x150 DL=0.329 LL=0.221

W36x487 DL=0.731 LL=0.49

W24x68 DL=0.319 LL=0.479
 +W36x487 DL=0.731 LL=0.49
 TOTAL DL=1.05" LL=0.97"

LL deflection only at
 corner is 1" - this
 does not include
 any movement due
 to lateral loads.



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DESIGNED FOR CONSTRUCTION (BPM) 15 JAN 2016

DATE

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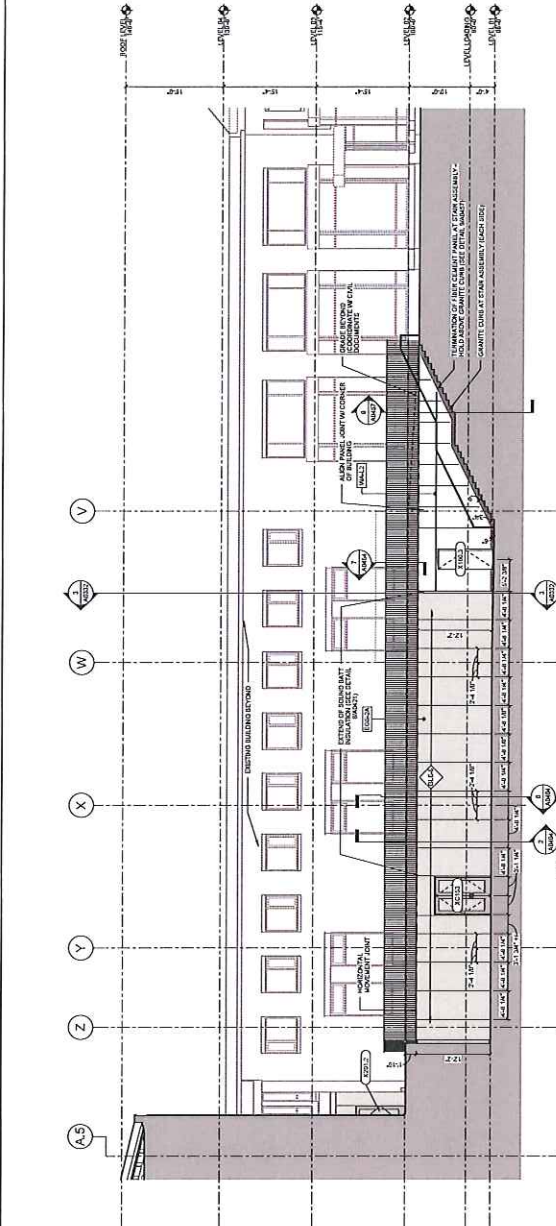
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DATE

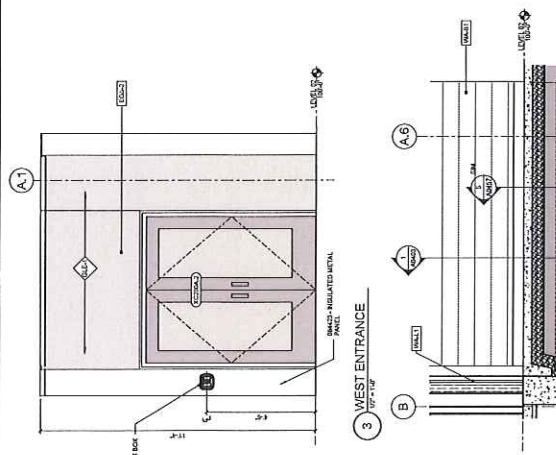
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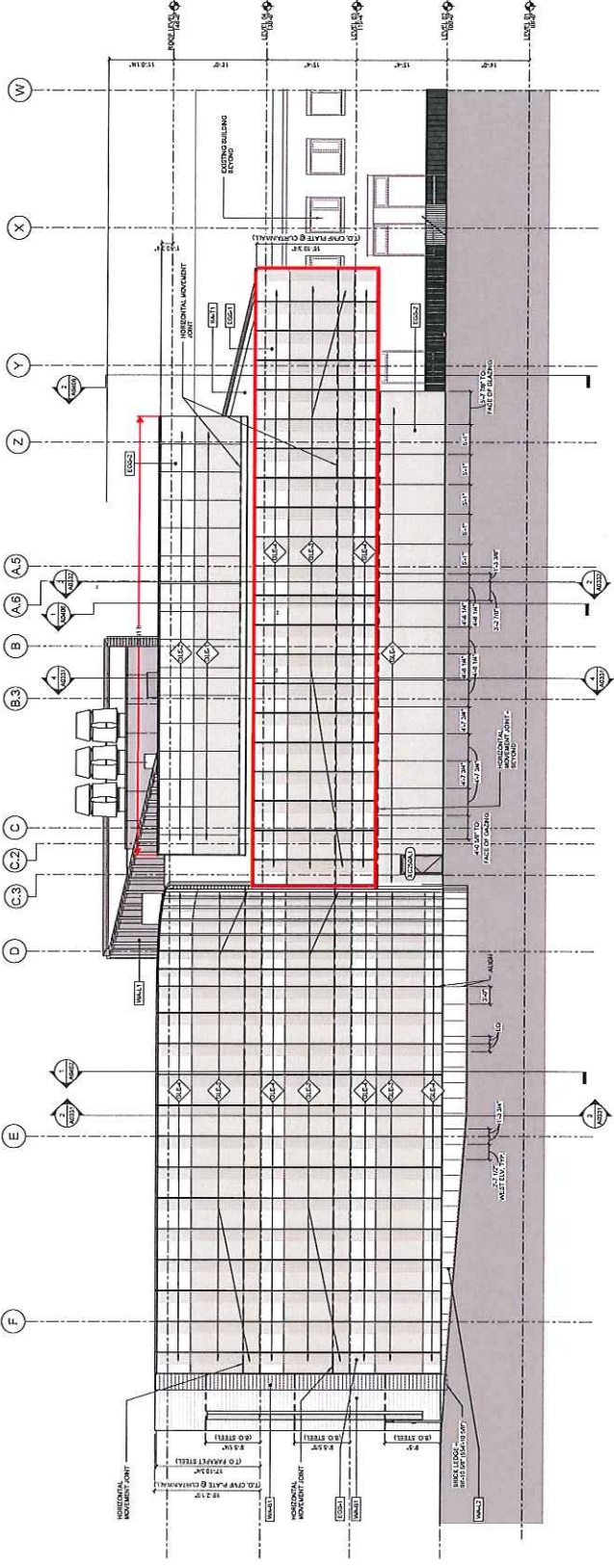


2 WEST ELEVATION AT SOUTH WING
1/2" = 1'-0"

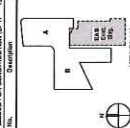


3 WEST ENTRANCE
1/2" = 1'-0"

4 PARTIAL WEST ELEVATION AT COLUMN LINE "B"
1/2" = 1'-0"



1 WEST ELEVATION
1/2" = 1'-0"



EXTERIOR ELEVATIONS

Project No. 0401.13

Sheet No.

0401.13

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A0311

084423 - ALUM STACK MULLION
 - SCHEMATIC ONLY - ACTUAL
 CONDITION PER CURTAINWALL
 MANUFACTURER
 SEE ELEVATIONS FOR LOCATION

088000 - GLAZING

084423 - ALUM SPLICE PLATE

1.35"
 DOWNWARD
 UPWARD
 MOVEMENT

084423 - ALUM MULLION
 EXTENSION BY CURTAINWALL
 MANUFACTURER

084423 - ALUM MULLION
 084423 - CUSTOM ALUMINUM
 SNAP COVER (SEE DETAIL
 12/A0421)

088000 - GLAZING - SPANDREL

078466 - FIRE RESISTIVE JOINT

072100 - INSULATION - MW
 BOARD

084423 - BACKPAN

084423 - LATERAL LOAD
 ANCHOR BY CURTAINWALL
 MANUFACTURER

078100 - FIREPROOFING

5

LEVEL 03
 115'-4"

ENLARGED DETAIL - CURTAINWALL FLOOR CONNECTION

4 ENL
 1 1/2" =

5
 1 1/2" = 1'-0"

NGG LTD

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Professional Sea

Sub. No.	Rev. No.	Date	Drawn By	Submittal/Revision Description

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Project Name

Webster University

Location

St. Louis, Missouri

Architect

KMA Architects**Location**

St. Louis, Missouri

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CONTRACTS

2. **2020 001 001 001 001 001**

TRANSFORM

Dr. Housh, M.D., M.Sc.

Owner

Webster University

Location

St. Louis, Missouri

Drawn Data

04/14/16

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NGG P1

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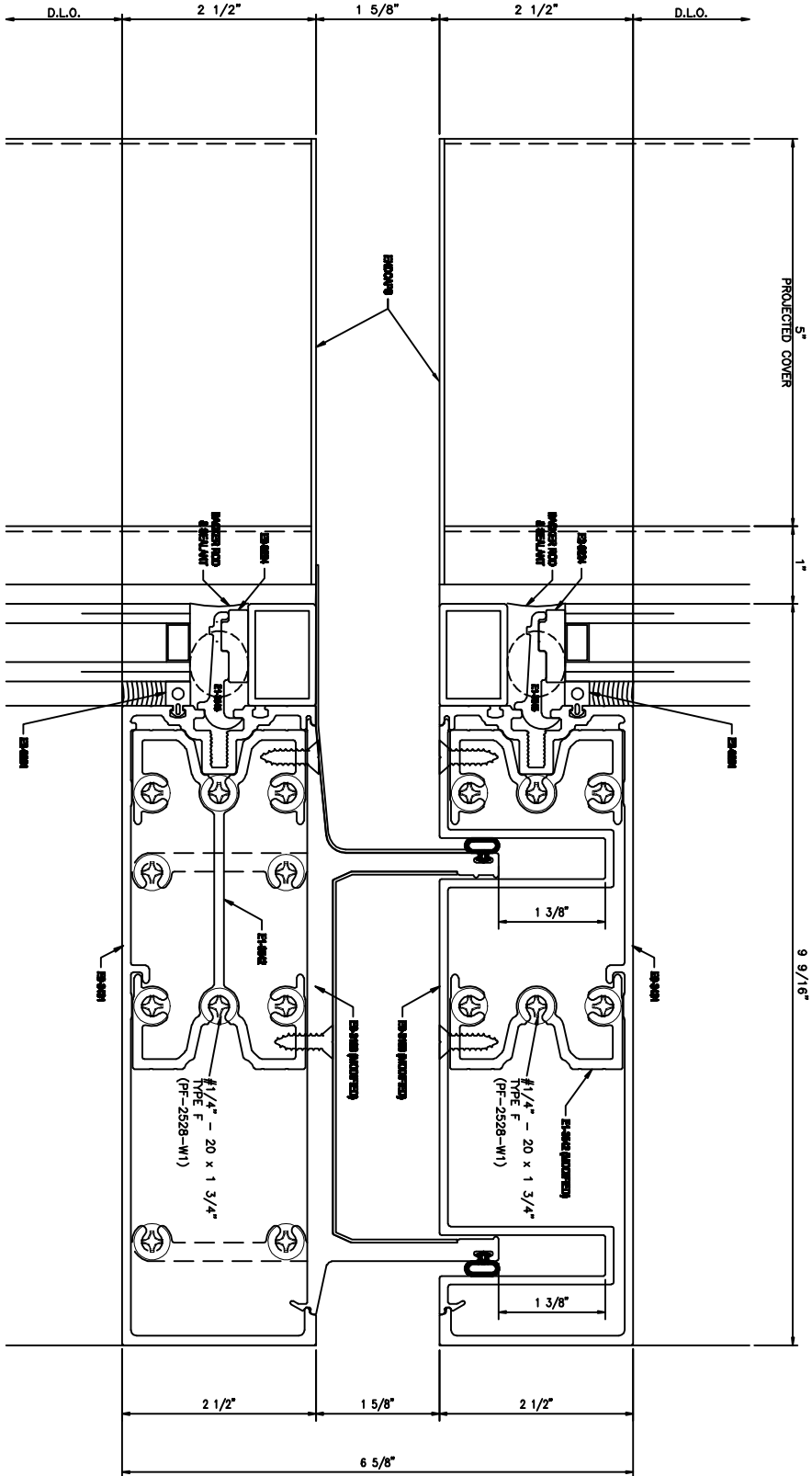
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Drawn By

12

CWT

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1
STACK HORIZONTAL
Scale: 12"=1'-0"

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