

# Orange County Convention Center

## OCCC Campus Building Envelope Waterproofing



WEST BUILDING WORK WILL BE PERFORMED IN THIS AREA. REFER TO DETAILS 9 AND 10 ON SHT 4.

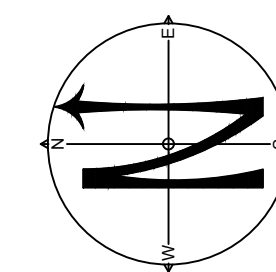
### SHEET INDEX

- Sheet 1 of 4: COVER SHEET
- Sheet 2 of 4: SPECIFICATIONS (North and South Concourses and West Building)
- Sheet 3 of 4: BUILDING LAYOUT (North and South Concourses)
- Sheet 4 of 4: SECTIONS AND DETAILS

### BOARD OF COUNTY COMMISSIONERS

Orange County Mayor: Teresa Jacobs

- District 1 Commissioner: Betsy Vanderley
- District 2 Commissioner: Bryan Nelson
- District 3 Commissioner: Pete Clarke
- District 4 Commissioner: Jennifer Thompson
- District 5 Commissioner: Emily Bonilla
- District 6 Commissioner: Victoria P. Siplin



Certificate of Authorization #26152

Anthony J. Fiorillo, P.E.  
Registered, Florida 58405

COVER SHEET

OCCC PHASE V  
"BIDDING SET"

OCCC CAMPUS BUILDING ENVELOPE WATERPROOFING  
PHASE V BUILDING  
9899 INTERNATIONAL DRIVE  
ORLANDO, FLORIDA 32819

PROJECT: 24-5932  
DATE: 04-19-17  
DRAWN BY: CEW  
APPROVED BY:  
SHEET: 1 OF 4

**BORRELLI + PARTNERS**  
ARCHITECTURE PLANNING LANDSCAPE INTERIOR  
720 VASSAR STREET  
ORLANDO, FL. 32804 (407) 418-1338  
CONFIDENTIAL THIS DRAWING IS THE PROPERTY OF BORRELLI + PARTNERS UNLESS OTHERWISE PROVIDED BY THE CONTRACT. THE CONTENTS OF THIS DRAWING ARE SHALL NOT BE TRANSMITTED TO ANY OTHER PARTY EXCEPT AS AGREED TO BY THE ARCHITECT. COPYRIGHT BORRELLI + PARTNERS, AAC 000711



2815 DIRECTORS ROW  
SUITE 500  
ORLANDO, FL 32809

Geotechnical  
Construction Materials  
Environmental  
Facilities

\* Located on the West side of the North/South building the Corrugated Metal Wall Panels will be an "Additive Bid Items".\*

**PART 1 - GENERAL**

**1.01 DESCRIPTION AND RESPONSIBILITIES**

**A. GENERAL:**

1. WORK ON THIS PROJECT INCLUDES SPECIFIED WORK ON BUILDING ENVELOPE AND WATERPROOFING OF ORANGE COUNTY CONVENTION CENTER LOCATED AT INTERNATIONAL DRIVE, ORLANDO, FLORIDA AS GENERALLY DESCRIBED HEREIN.
2. THE CONTRACTOR IS RESPONSIBLE FOR COMPLETING ALL SPECIFIED REQUIREMENTS NECESSARY TO PROVIDE FOR COMPLETED WORK BEING SOUND, DURABLE AND WATERTIGHT.
3. THE CONTRACTOR IS RESPONSIBLE FOR COMPLETING ALL CONTRACTED WORK IN STRICT ACCORDANCE WITH PROJECT REQUIREMENTS AND/OR MANUFACTURER REQUIREMENTS WHICHEVER IS MORE STRINGENT. ALL WORK SHALL BE INSTALLED IN STRICT ACCORDANCE WITH REQUIREMENTS OF GOVERNING AUTHORITIES, CURRENT WIND LOADS, AND FLORIDA BUILDING CODE (FBC).

**B. PREPARATION:**

1. CONDUCT A COMPLETE INVESTIGATION OF THE EXISTING PROJECT CONDITIONS TO IDENTIFY THE AREAS OF WORK, EXTENT OF WORK AND CONSIDERATIONS REQUIRED TO COMPLETE THE WORK. NO CONSIDERATION WILL BE GIVEN TO CLAIMS BASED ON A DIFFERENCE BETWEEN ACTUAL AND ASSUMED CONDITIONS. COORDINATE ALL SITE INSPECTIONS WITH REPRESENTATIVES OF FACILITIES MAINTENANCE.
2. TAKE FIELD MEASUREMENTS, VERIFY FIELD CONDITIONS AND CAREFULLY COMPARE SUCH FIELD MEASUREMENTS AND CONDITIONS AND OTHER INFORMATION KNOWN TO THE CONTRACTOR BEFORE COMMENCING ACTIVITIES. DESTRUCTIVE ANALYSIS DURING THE BID PREPARATION IS ALLOWABLE TO FIELD VERIFY ALL CONDITIONS. AS COORDINATED WITH OWNER. CONTRACTORS SHALL BE RESPONSIBLE FOR EFFECTIVELY REPAIRING ANY FIELD CUTS THE SAME DAY OF INSPECTION.
3. FULL SETS OF ORIGINAL DRAWINGS SHALL NOT BE PRINTED AND ISSUED TO CONTRACTORS AND ARE NOT PART OF THE REMEDIATION BIDDING PACKAGE. CONTRACTOR SHALL UTILIZE ALL BID DOCUMENTS TO ASSIST WITH THE ESTIMATE PREPARATION. OWNER NOR CONSULTANT ARE RESPONSIBLE FOR ERRORS OR MISINTERPRETATIONS RESULTING FROM THE USE OF BID DOCUMENTS.

**C. SPECIAL PROJECT CONDITIONS:**

1. MINIMIZE DISTURBANCE TO THE FACILITY AND ITS OCCUPANTS AND COMPONENTS. THERE SHALL BE NO INTERFERENCE WITH THE OPERATION OR USE OF THE FACILITY.
2. PROTECT THE BUILDING, THE PROPERTY, THE BUILDING OCCUPANTS AND THEIR PROPERTY.
3. PROVIDE PROTECTIVE BARRICADES, ENCLOSURES, DIRECTIONAL AND WARNING SIGNAGE AND OTHER METHODS TO ASSURE SAFE PASSAGE OF PEDESTRIANS AND VEHICLES IN, NEAR AND AFFECTED BY AREAS OF THE WORK.
4. DO NOT DISRUPT SERVICES OR BLOCK EGRESS. THERE SHALL BE NO INTERFERENCE WITH LIFE SAFETY FEATURES.
5. IN ADDITION TO PERFORMING THE WORK HEREIN DEFINED, KEEP ALL AREAS IN A WATERTIGHT CONDITION THROUGHOUT CONSTRUCTION PERIOD. CONTRACTOR SHALL PROVIDE AND BEAR ALL COSTS ASSOCIATED WITH TEMPORARY WATERPROOFING.
6. REPAIR AND REINSTALL ITEMS DAMAGED DURING THE COURSE OF THE WORK OF THIS PROJECT. REUSE OF ANY ITEMS INVOLVED IN THE WORK IS SUBJECT TO THE CONTRACTOR'S ABILITY TO REMOVE, STORE AND REINSTALL THE ITEM WITHOUT PERMANENTLY DAMAGING OR MARRING THE ITEMS TO BE REUSED. IF THE CONTRACTOR IS UNABLE TO REUSE ANY ITEM AS PRESCRIBED HEREIN, HE SHALL SUBSTITUTE NEW MATERIAL TO MATCH EXISTING IN LIEU OF REUSING IT. CONTRACTOR MAY ALSO ELECT TO USE NEW MATERIAL TO MATCH EXISTING IN LIEU OF REUSE OF EXISTING FOR HIS OWN CONVENIENCE. CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT THE BUILDINGS EXTERIOR AND GROUNDS, INCLUDING GRASS, PLANTS, TREES, SHRUBS, OTHER LANDSCAPING, AND ALL CONCRETE AND PAVED ALL DAMAGES SHALL BE REPAIRED OR REPLACED TO OWNER'S SATISFACTION AT NO COST TO OWNER.
7. CONTRACTORS SHALL ABIDE TO OWNER AND/OR PROPERTY RULES AND REGULATIONS IN TERMS OF SCHEDULING ACCESS TO WORK AREAS, EMPLOYEE CONDUCT AND NOISE RESTRICTIONS AS PROVIDED SEPARATELY BY THE OWNER(S).
8. ACCESS TO AREAS OF WORK SHALL BE CONDUCTED FROM THE EXTERIOR OF THE FACILITY BY USE OF TEMPORARY BUILDING LADDER OR STAGE EQUIPMENT.
9. IN CASE OF HURRICANE CONDITIONS OR OTHER NATURAL OCCURRENCES, CONTRACTOR SHALL BE RESPONSIBLE FOR ALL REMOVAL OF CONSTRUCTION EQUIPMENT AND MATERIALS FROM PROJECT SITE AND/OR SUFFICIENTLY STORED AT LOCATIONS ACCEPTABLE TO OWNER(S).
10. ALL IMPROVEMENTS APPROVED BY OWNER SHALL BE CONDUCTED AT TIMES PRE-APPROVED BY THE OWNER IN ACCORDANCE WITH THE APPROVED PROJECT SCHEDULE. CONTRACTOR SHALL PROVIDE SUFFICIENT MANPOWER AND EQUIPMENT TO COMPLETE CONTRACTED WORK WITHIN ALLOTTED SCHEDULE.
11. THE CONTRACT DRAWINGS REPRESENT THE GENERAL BUILDING LAYOUT OF THE NORTH AND SOUTH CONCOURSE AND SITE PLAN OF THE WEST BUILDING. THE CONTRACTOR SHALL PROVIDE ALL MEASURES NECESSARY TO PROTECT THE STRUCTURE DURING CONSTRUCTION, SUCH MEASURES SHALL INCLUDE, BUT NOT LIMITED TO, BRACING, SHORING FOR LOADS DUE TO CONSTRUCTION EQUIPMENT, ETC. THE ENGINEER OR OWNER SHALL NOT BE RESPONSIBLE FOR THE CONTRACTOR'S MEANS, METHODS, TECHNIQUES, SEQUENCES FOR PROCEDURE OF CONSTRUCTION, OR THE SAFETY PRECAUTIONS AND THE PROGRAMS INCIDENT THERETO (NOR SHALL OBSERVATION VISITS TO THE SITE INCLUDE INSPECTION OF THESE ITEMS.)

**1.02 SUMMARY OF WORK SCHEDULE**

**A. MOBILIZATION:**

1. INCLUDE DELIVERY AND SET UP OF ALL MATERIALS, EQUIPMENT AND INCIDENTAL ITEMS NECESSARY TO SAFELY ACCESS AREAS OF WORK TO COMPLETE SPECIFIED ROOFING WORK. PROPERLY STORE ALL MATERIALS AND EQUIPMENT IN DESIGNATED PROJECT STAGING AREAS. CONTRACTORS SHALL BE RESPONSIBLE FOR MOBILIZATION AND MAINTAINING SCAFFOLDING, SAFETY BARRICADES, OVERHEAD PROTECTION, BUILDING PROTECTION, LANDSCAPE PROTECTION AND PROJECT SIGNAGE REQUIRED FOR THE PROJECT THE FULL DURATION OF THE PROJECT. COORDINATE ALL MOBILIZATION OF EQUIPMENT, MATERIALS AND INCIDENTAL ITEMS WITH FACILITY MANAGEMENT AND LOCAL GOVERNING AUTHORITIES IN ACCORDANCE WITH PRE-APPROVED PROJECT SCHEDULE.

**B. CONTRACTOR SUBMITTALS**

1. REFER TO SECTION 013300 (SUBMITTAL PROCEDURES) IN THE PROJECT MANUAL FOR SPECIFIED REQUIREMENTS.

**C. SCOPE OF WORK (NORTH/SOUTH CONCOURSE)**

1. **ARCHITECTURAL METAL WALL PANELS:** THERE ARE NO REPORTED LEAKS AT THIS TIME BUT THE POLYMER GASKETS HAVE COME LOOSE AT THE SEAMS AND NEED TO BE REPLACED. THERE IS APPROXIMATELY 14,000 LINEAR FEET INCLUDED IN BID. PROVIDE ADDITIONAL AT LINEAR FEET UNIT RATE. WALL PANEL LOCATIONS ARE IDENTIFIED ON THE PLANS OF PAGE 3 OF 4.
2. **CORRUGATED METAL WALL PANELS (SCOPE WILL BE "ADDITIVE BID ITEMS-WEST SIDE OF BUILDING ONLY) :** THE EXTERIOR EXPOSED ATTACHMENTS WITH METAL BACKED NEOPRENE WASHERS HAVE FAILED. THERE ARE ISOLATED AREAS WHERE MOISTURE INTRUSION HAS OCCURRED RESULTING IN WET CARPETS INSIDE THE BUILDING. ISOLATED DETERIORATION OF METAL WALL FRAMING IN THE FORM OF RUSTED METAL BOTTOM PLATE AND BOTTOMS (UP TO 6 INCHES) OF VERTICAL METAL STUD FRAMING RESULTING IN THE NEED TO REMOVE AND REPLACE OF ALL DETERIORATED METAL FRAMING. A CONTINUOUS METAL SILL WILL BE INSTALLED PRIOR TO INSTALLING NEW METAL PLATE TO PREVENT FUTURE WATER INTRUSION. CONTRACTOR SHALL USE 33 mils X 1 1/2" X 5 3/8" X 6" LONG "U SERIES" METAL ANGLE TO FASTEN NEW VERTICAL STUD TO EXISTING STUD. NEW 6" SECTIONS OF METAL STUDS SHALL MATCH THE EXISTING STUDS TO FIT TIGHTLY BETWEEN EXISTING STUD AND NEW BOTTOM PLATE. ALSO, CONTRACTOR SHALL REPLACE ALL EXPOSED FASTENERS AND METAL BACKED NEOPRENE WASHERS ON EXTERIOR WALL USING LARGER FASTENERS. CONTRACTOR SHALL HAVE THE NEW FASTENERS PULL TESTED FOLLOWING FLORIDA BUILDING CODE STANDARDS. FASTENERS AND WASHERS TO MATCH EXISTING FINISH. QUANTIFIED QUANTITIES OF FASTENERS AND WASHERS (160,000) INCLUDED IN BID. PROVIDE ADDITIONAL FASTENERS AT UNIT RATE.
3. **EXPANSION JOINT COVERS AT CORRUGATED PANEL WALL SYSTEM:** ALL EXISTING VERTICAL EXPANSION JOINTS AND NEOPRENE GASKETS BETWEEN THE CORRUGATED METAL PANELS LOCATED AT SEVERAL LOCATIONS AROUND THE BUILDINGS EXTERIOR ARE AGED AND NEED TO BE REPLACED USING NEW METAL 2-PIECE EXPANSION JOINT WITH NEW NEOPRENE GASKETS REFER TO DETAIL 6 ON SHEET 4 OF 4.
4. **STAIRWAY EXPANSION JOINT (EAST END OF THE SOUTH CONCOURSE):** EXPANSION JOINTS BETWEEN CONCRETE STAIRS AND DECK HAVE FAILED. CONTRACTOR SHALL REMOVE AND REPLACE EXPANSION JOINT COVERS AS WELL AS EXPANSION JOINT MATERIALS NEXT TO HANDRAILS USING NEW ELASTOMERIC JOINT MATERIALS, PVC JOINT COVER, AND ADD NEW REGLETS AND METAL COUNTER FLASHING OVER THE NEW EXPANSION JOINT SEALS. IDENTIFY AREAS ON DRAWINGS. REFER TO SHEET 3 OF 4.
5. **STOREFRONT WINDOWS:** THERE ARE SEVERAL AREAS WHERE WATER INTRUSION HAS OCCURRED RESULTING IN WET CARPETS INSIDE THE BUILDING. CONTRACTOR SHALL INSTALL NEW METAL SILL PANS MATCHING EXISTING MATERIALS IN ALL AREAS OF WATER INTRUSION. ALL FRAMING COLUMNS SHALL BE CAPPED USING METAL CAPS THAT MATCHES EXISTING MATERIALS AND WATERPROOFED WITH MANUFACTURER APPROVED SEALANT TO REDUCE WATER ENTERING THE FRAMING SYSTEM IN SAME AREAS. IDENTIFY AREAS ON DRAWINGS. REFER TO SHEET 3 OF 4.

**D. SCOPE OF WORK (WEST BUILDING)**

**LOADING DOCK EXPANSION JOINT COVERS (TWO LOCATIONS):** EXPANSION JOINTS OF CONCRETE DRIVE HAVE FAILED IN TWO PLACES. CONTRACTOR SHALL REMOVE EXISTING EXPANSION JOINT COVERS AND PRIOR REPAIRS AND INSTALL (OPT 1) NEW ELASTOMERIC EXP. JOINT WITH 2-PART URETHANE SEALANT, BACKER RODS, AND METAL PLATE ABOVE WITH FASTENER AT ONE SIDE OR (OPT 2) CUT AWAY EXISTING CONCRETE TO MAKE ROOM FOR NEW ELASTOMERIC EXPANSION JOINT SYSTEM SET IN PLACE WHEN NEW CONCRETE IS POURED. REFER TO DETAILS 9 & 10 ON SHEET 4 OF 4.

**E. MATERIALS AND MANUFACTURERS**

- |                                                  |                         |
|--------------------------------------------------|-------------------------|
| 1. -(2-PART) POLYURETHANE SEALANT                | 1. TREMCO               |
| -(1-PART) SILICONE SEALANT                       | 2. SIKA                 |
| -BACKER ROD                                      | 3. BASF                 |
| 2. -SELF DRILLING FASTENERS                      | 1. TEK                  |
| -RUBBER GROMMETS                                 | 2. SFS INTEC            |
|                                                  | 3. FORD FASTENERS       |
| 3. VERTICAL EXPANSION JOINT AT CORRUGATED SIDING | 1. CLARK DIETRICH       |
|                                                  | 2. JOHNS MANVILLE       |
|                                                  | 3. MEISHUO              |
| 4. EXPANSION JOINT AT STAIR AND LANDING          | 1. EMSEAL               |
|                                                  | 2. CS                   |
|                                                  | 3. JOINTMASTER          |
| 5. POLYMER GASKET BETWEEN INSULATED PANELS       | 1. AMERICAN PANELS      |
|                                                  | 2. REED RUBBER PRODUCTS |
|                                                  | 3. FACADE SYSTEMS       |
| 6. MASONRY ANCHOR                                | 1. TAPCON               |
|                                                  | 2. METAL SCREW SUPPLY   |
|                                                  | 3. TITEN                |
| 7. EXPANSION JOINT AT LOADING DOCK               | 1. SJS                  |
| 2. MM SYSTEMS                                    |                         |
| 3. C-S GROUP                                     |                         |

**CLOSING DOCUMENTS:**

1. NO WAIVER IS REQUIRED FROM THE SUB-CONTRACTORS/SUPPLIERS IF A BONDED PROJECT.

Certificate of Authorization #26152

Anthony J. Fiorillo, P.E.  
Registered, Florida 58405

SPECIFICATIONS  
(North and South Concourses and West Building)

OCCC PHASE V  
"BIDDING SET"

OCCC CAMPUS BUILDING ENVELOPE WATERPROOFING  
PHASE V BUILDING  
9899 INTERNATIONAL DRIVE  
ORLANDO, FLORIDA 32819

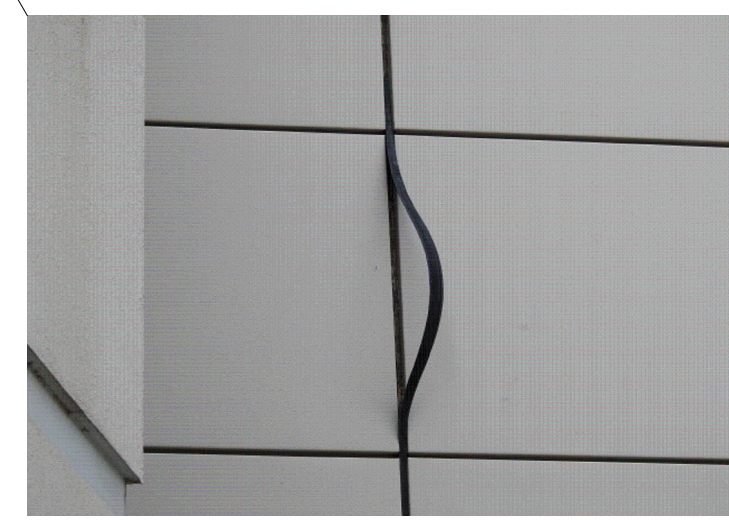
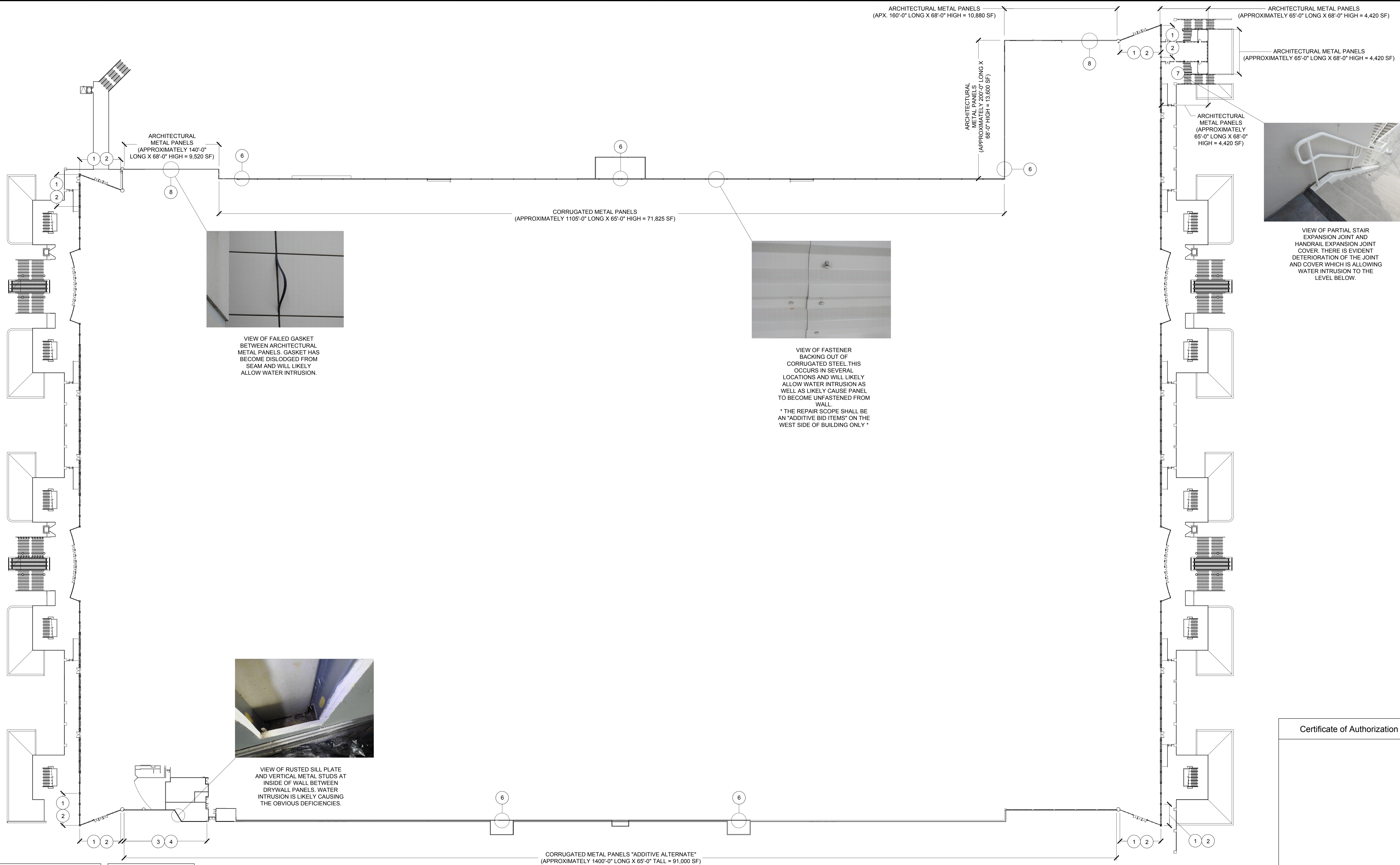
PROJECT:	24-5932
DATE:	04-19-17
DRAWN BY:	CEW
APPROVED BY:	
SHEET:	2 OF 4

**BORRELLI + PARTNERS**  
ARCHITECTURE PLANNING LANDSCAPE INTERIOR  
720 VASSAR STREET  
ORLANDO, FL. 32804 (407) 418-1338  
CONFIDENTIAL THIS DRAWING IS THE PROPERTY OF BORRELLI + PARTNERS UNLESS OTHERWISE PROVIDED BY THE CONTRACT. THE CONTENTS OF THIS DRAWING ARE NOT TO BE TRANSMITTED TO ANY OTHER PARTY EXCEPT AS AGREED TO BY THE ARCHITECT. COPYRIGHT BORRELLI + PARTNERS. IAC 00071



2815 DIRECTORS ROW  
SUITE 500  
ORLANDO, FL 32809

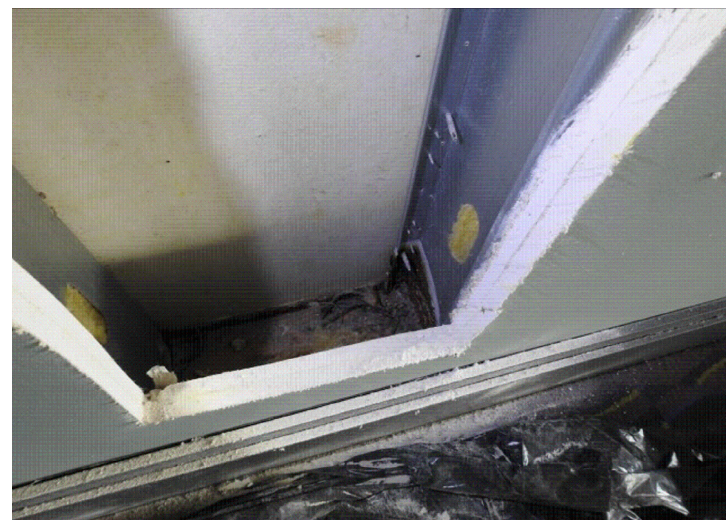
Geotechnical  
Construction Materials  
Environmental  
Facilities



VIEW OF FAILED GASKET BETWEEN ARCHITECTURAL METAL PANELS. GASKET HAS BECOME DISLODGED FROM SEAM AND WILL LIKELY ALLOW WATER INTRUSION.



VIEW OF FASTENER BACKING OUT OF CORRUGATED STEEL. THIS OCCURS IN SEVERAL LOCATIONS AND WILL LIKELY ALLOW WATER INTRUSION AS WELL AS LIKELY CAUSE PANEL TO BECOME UNFASTENED FROM WALL.  
\* THE REPAIR SCOPE SHALL BE AN "ADDITIVE BID ITEMS" ON THE WEST SIDE OF BUILDING ONLY \*



VIEW OF RUSTED SILL PLATE AND VERTICAL METAL STUDS AT INSIDE OF WALL BETWEEN DRYWALL PANELS. WATER INTRUSION IS LIKELY CAUSING THE OBVIOUS DEFICIENCIES.



VIEW OF PARTIAL STAIR EXPANSION JOINT AND HANDRAIL EXPANSION JOINT COVER. THERE IS EVIDENT DETERIORATION OF THE JOINT AND COVER WHICH IS ALLOWING WATER INTRUSION TO THE LEVEL BELOW.

### OCCC PHASE V (BUILDING LAYOUT)

N.T.S.

SCALE AND ORIENTATION

DETAIL TAG SEE SHT 4 OF 4

NOTE: PHOTOS TAKEN FROM PREVIOUSLY SUBMITTED PHOTO PAGES

KEY/NOTES

Certificate of Authorization #26152

Anthony J. Fiorillo, P.E.  
Registered, Florida 58405

BUILDING LAYOUT  
(North and South Concourses)

OCCC PHASE V  
"BIDDING SET"

OCCC CAMPUS BUILDING ENVELOPE WATERPROOFING  
PHASE V BUILDING  
9899 INTERNATIONAL DRIVE  
ORLANDO, FLORIDA 32819

PROJECT:	24-5932
DATE:	04-19-17
DRAWN BY:	CEW
APPROVED BY:	
SHEET:	3 OF 4

**BORRELLI + PARTNERS**  
ARCHITECTURE PLANNING LANDSCAPE INTERIOR

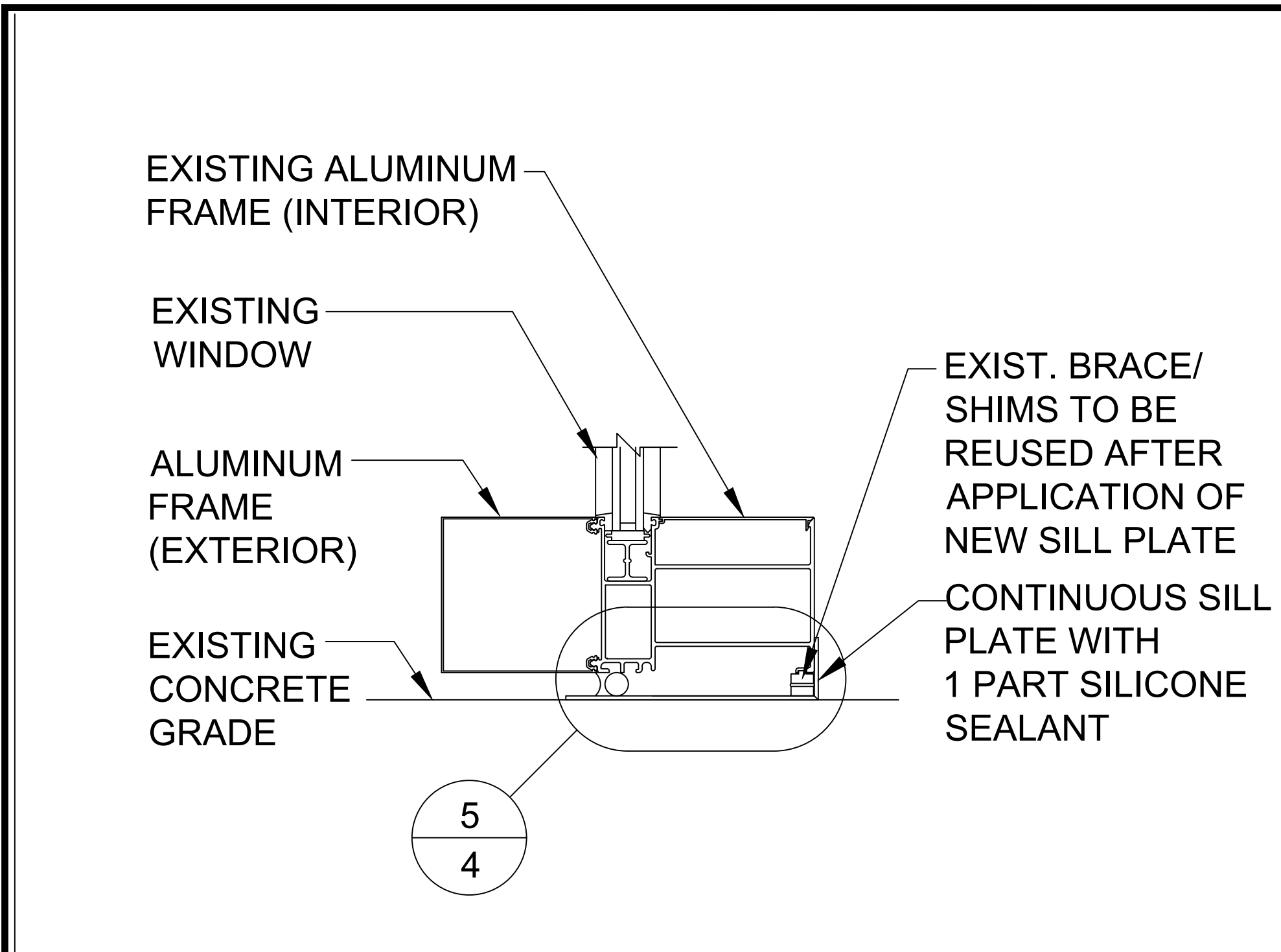
720 VASSAR STREET  
ORLANDO, FL. 32804 (407) 418-1338

CONFIDENTIAL THIS DRAWING IS THE PROPERTY OF BORRELLI + PARTNERS UNLESS OTHERWISE PROVIDED BY THE CONTRACT. THE CONTENTS OF THIS DRAWING ARE SHALL NOT BE TRANSMITTED TO ANY OTHER PARTY EXCEPT AS AGREED TO BY THE ARCHITECT. COPYRIGHT BORRELLI + PARTNERS, AAC 000711

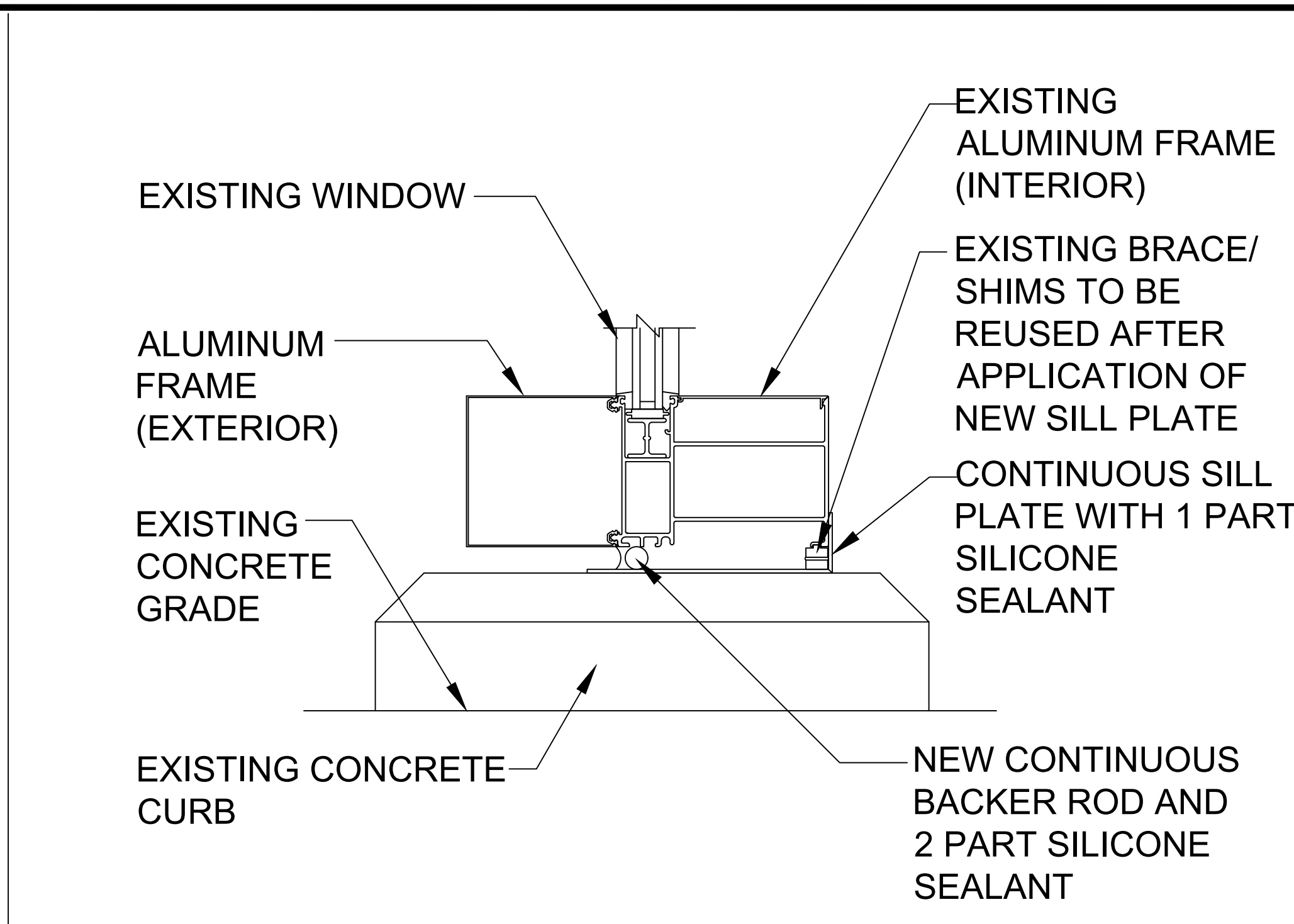


2815 DIRECTORS ROW  
SUITE 500  
ORLANDO, FL 32809

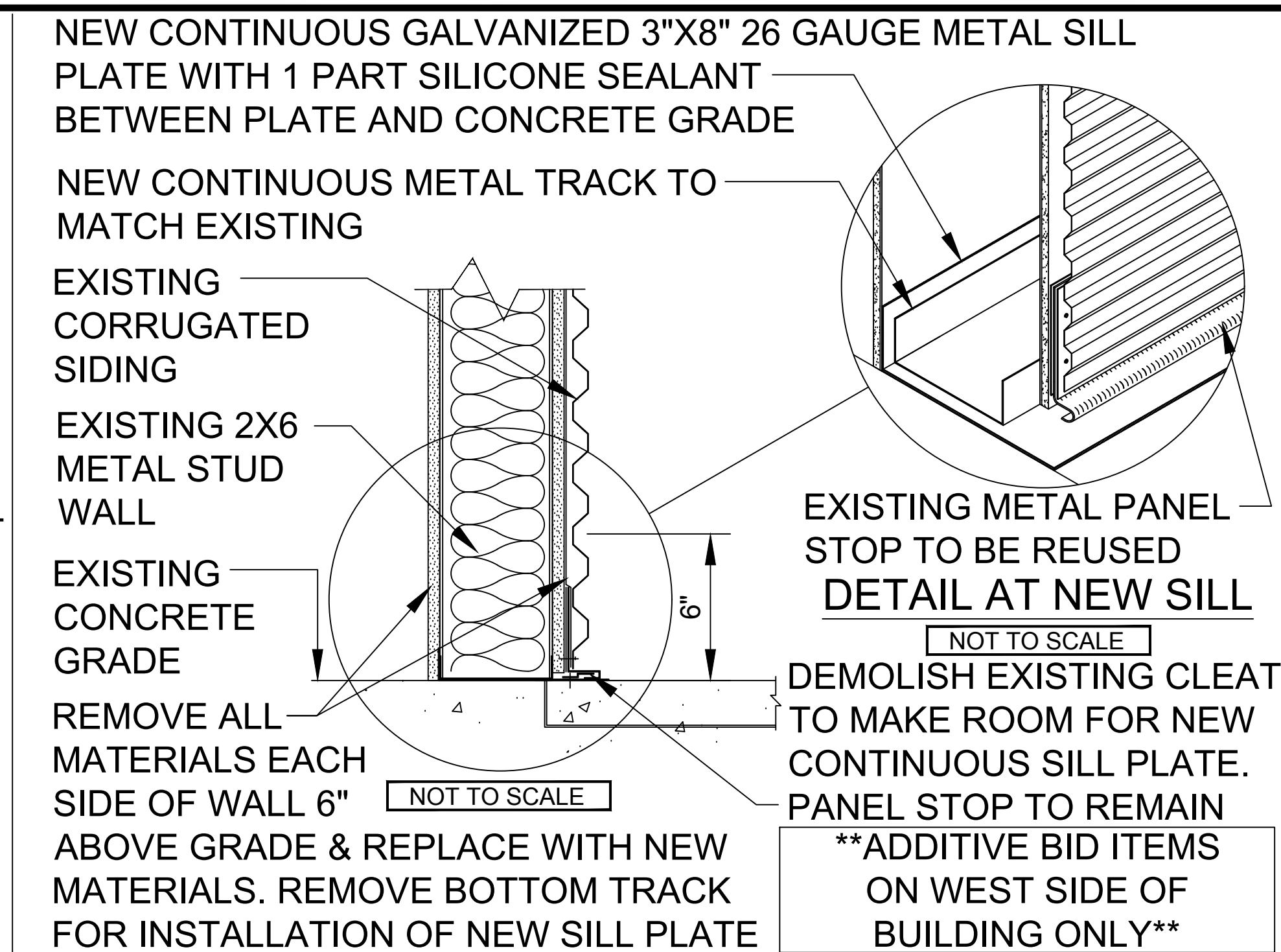
Geotechnical  
Construction Materials  
Environmental  
Facilities



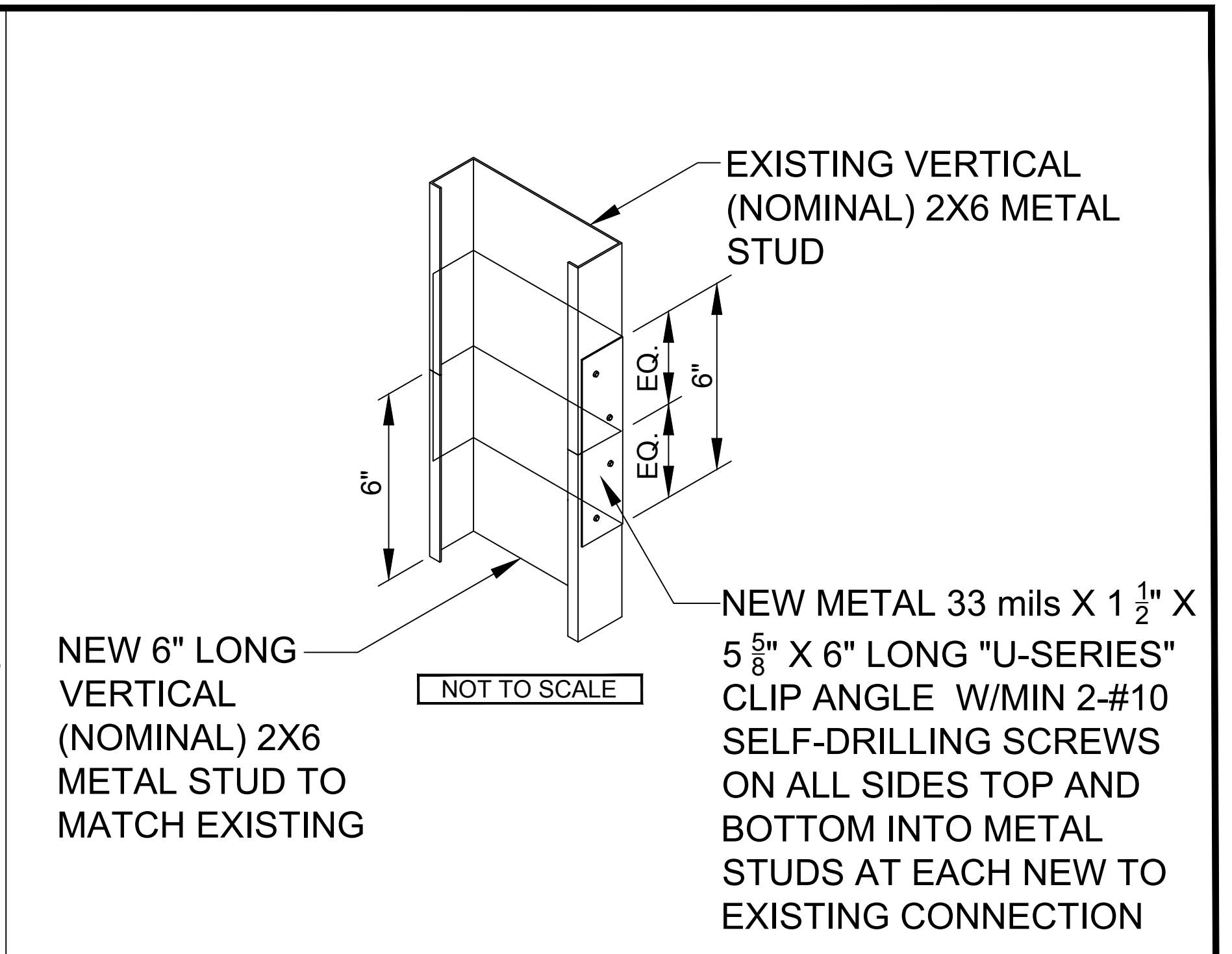
1 SILL DETAIL AT CONCRETE FLOOR NOT TO SCALE



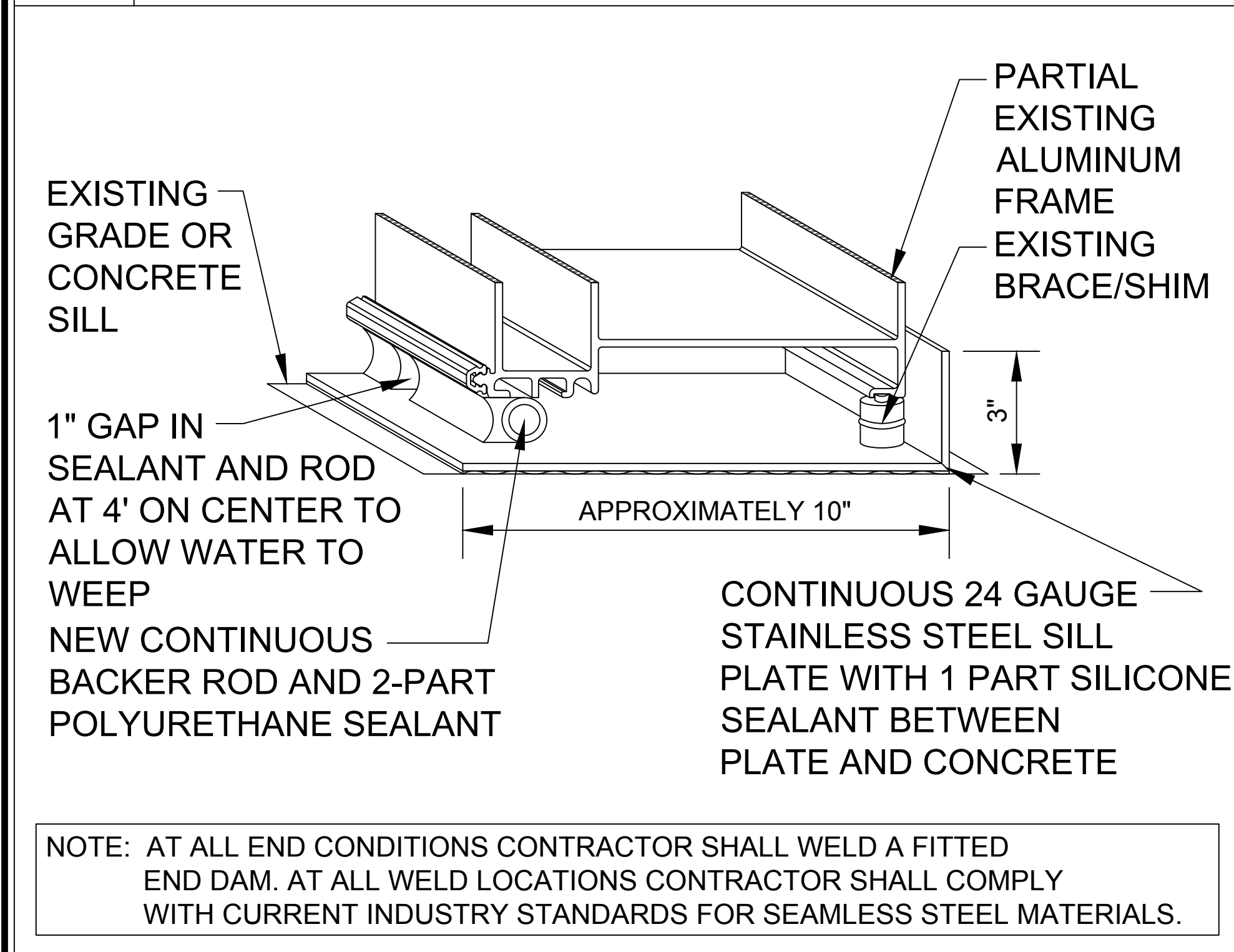
2 SILL DETAIL AT CONCRETE CURB NOT TO SCALE



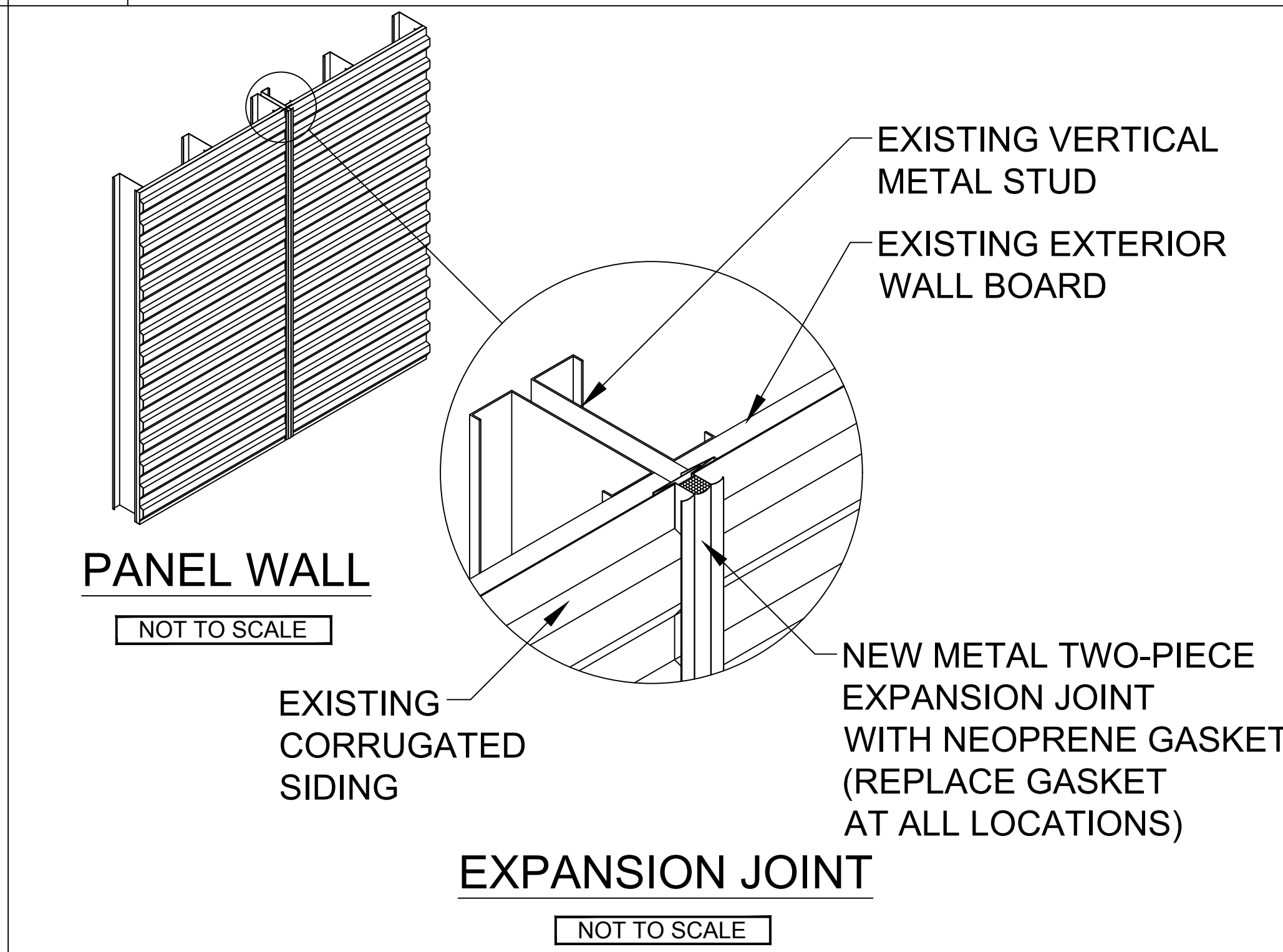
3 CORRUGATED PANEL WALL



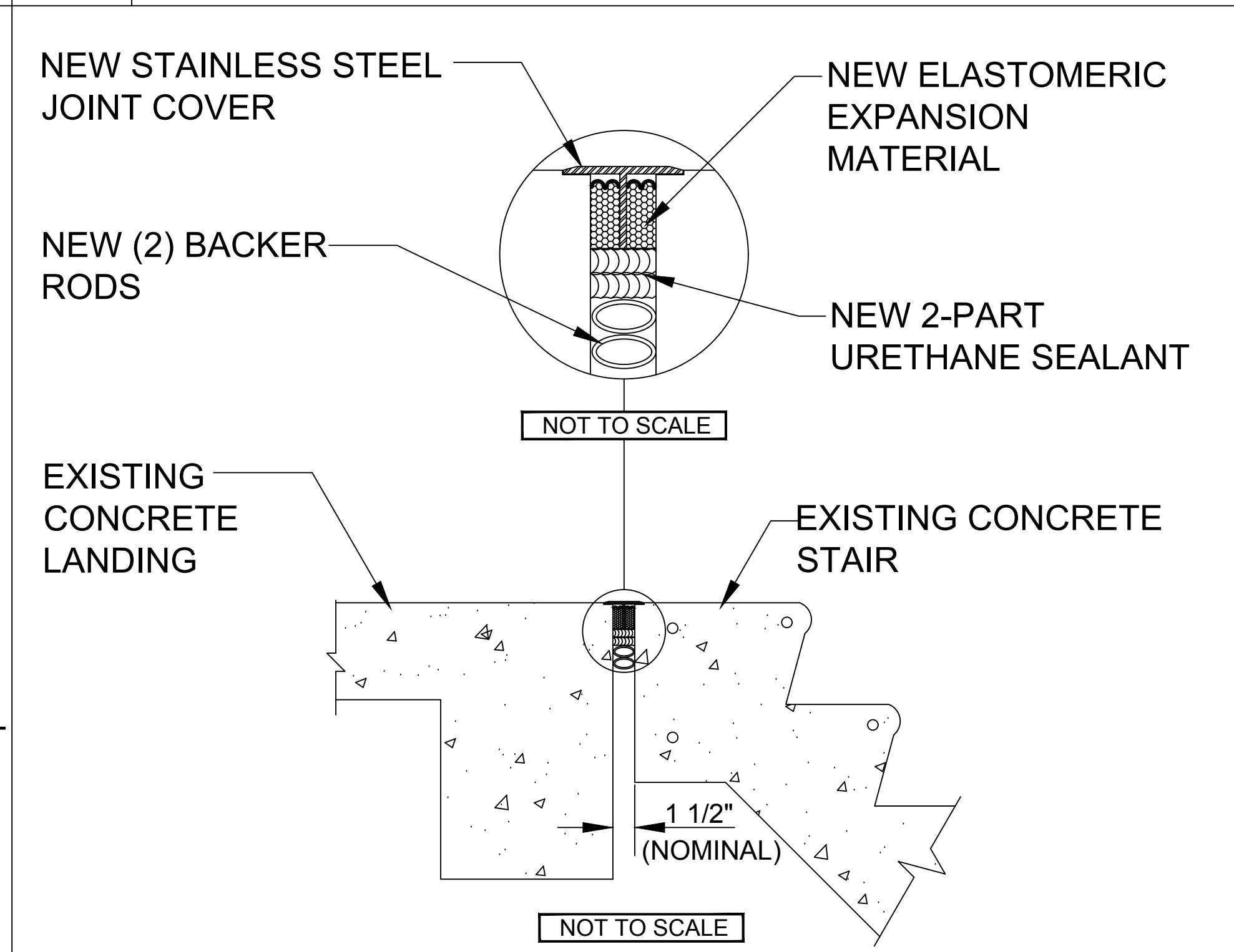
4 DETAIL AT NEW TO EXISTING METAL STUD



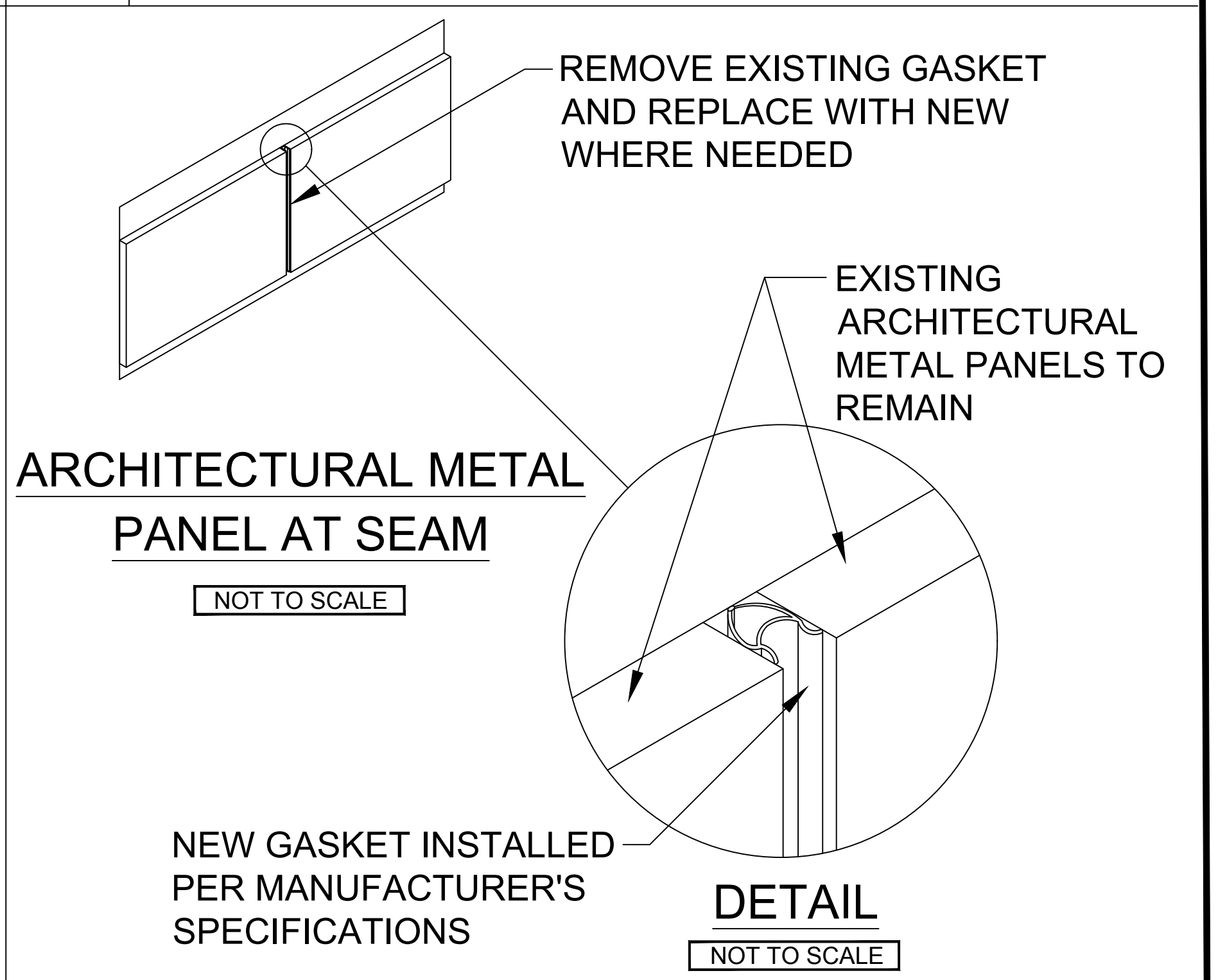
5 SILL PLATE DETAIL NOT TO SCALE



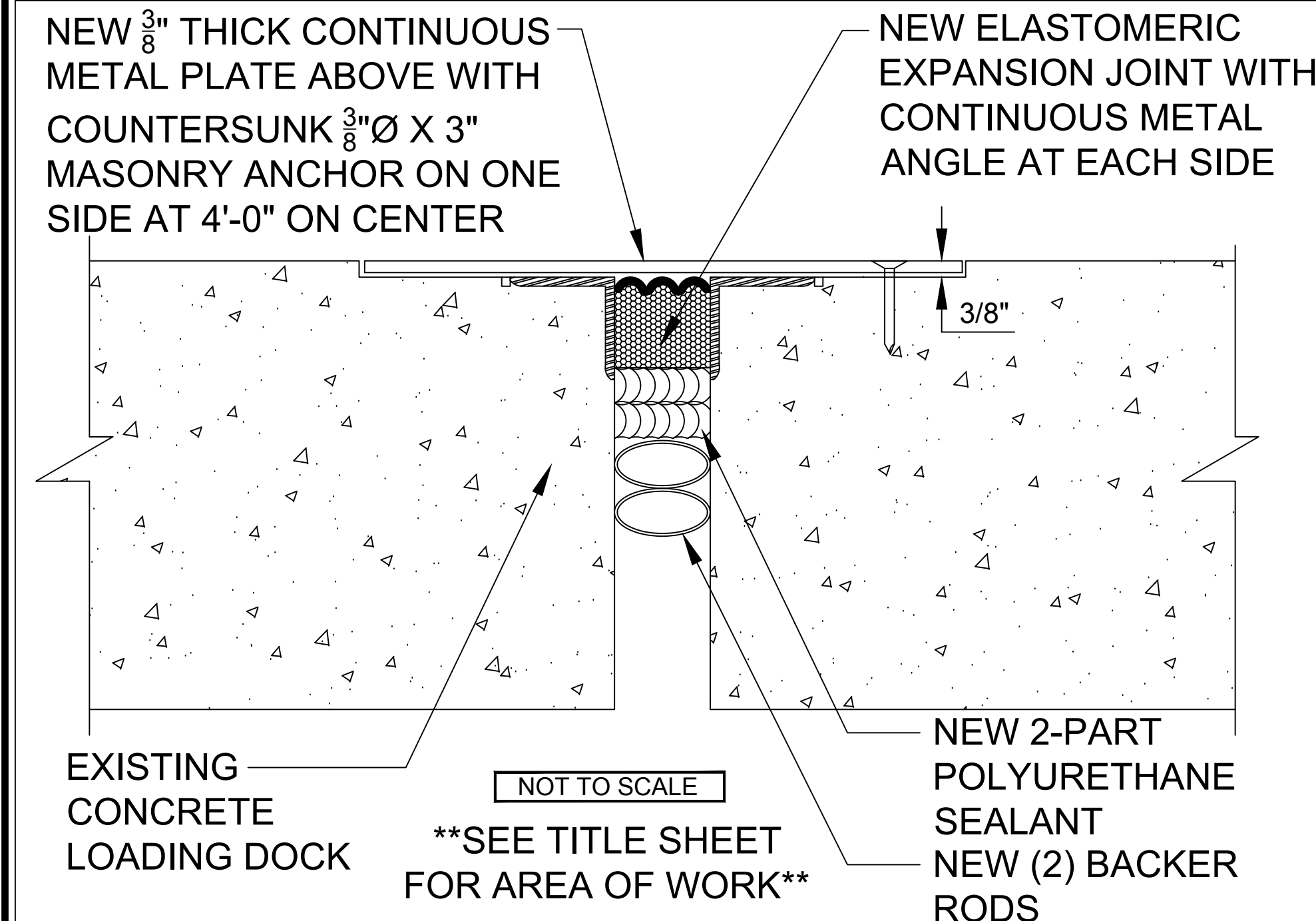
6 EXPANSION JOINT AT CORRUGATED PANELS



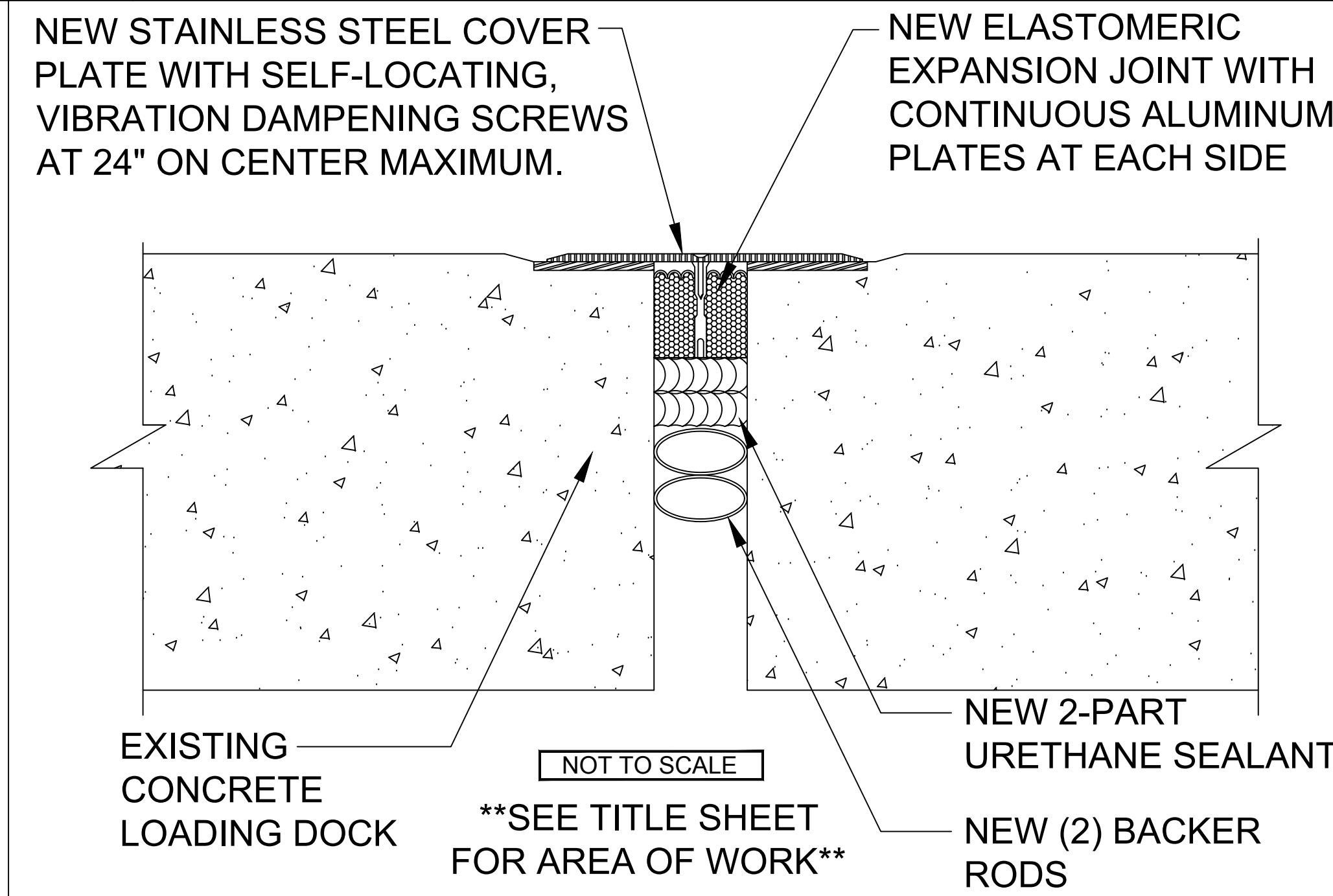
7 EXPANSION JOINT AT CONCRETE STAIR



8 INSULATED METAL PANEL AT EXTERIOR WALL



9 EXPANSION JOINT AT LOADING DOCK - BASE BID



10 EXPANSION JOINT AT LOADING DOCK-ALTERNATE (1)

Certificate of Authorization #26152

Anthony J. Fiorillo, P.E.  
Registered, Florida 58405

SECTIONS AND DETAILS

OCCC PHASE V  
"BIDDING SET"

OCCC CAMPUS BUILDING ENVELOPE WATERPROOFING  
PHASE V BUILDING  
9899 INTERNATIONAL DRIVE  
ORLANDO, FLORIDA 32819

PROJECT: 24-5932  
DATE: 04-19-17  
DRAWN BY: CEW  
APPROVED BY:  
SHEET: 4 OF 4

**BORRELLI + PARTNERS**  
ARCHITECTURE PLANNING LANDSCAPE INTERIOR

720 VASSAR STREET  
ORLANDO, FL. 32804 (407) 418-1338

**ECs**

2815 DIRECTORS ROW  
SUITE 500  
ORLANDO, FL 32809

Geotechnical  
Construction Materials  
Environmental  
Facilities