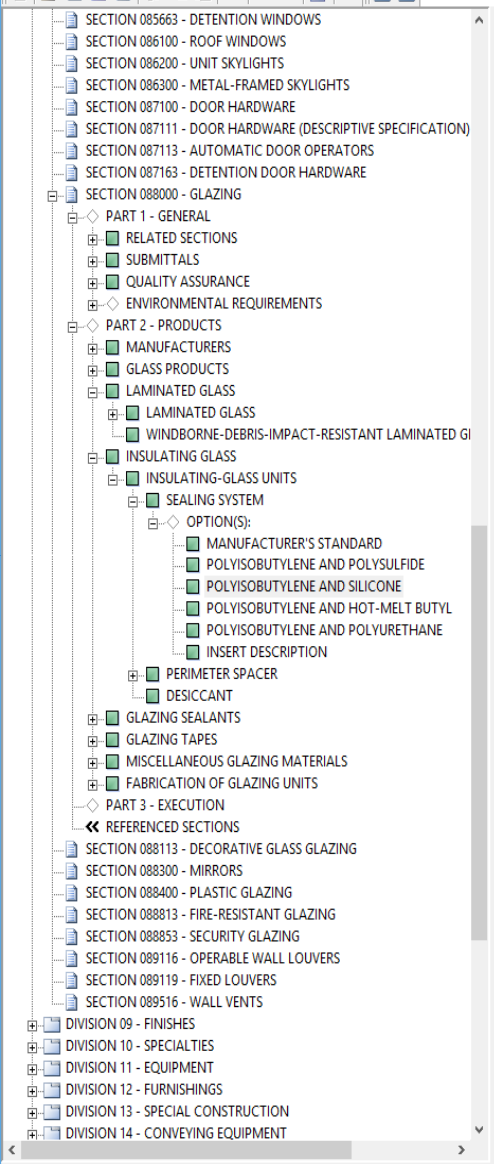
BRIEF HISTORY

- 1988
  - **AIA assigns ARCOM to be the exclusive distributor of all electronic and paper versions of MasterSpec**
- 1993
  - Complete research work and e-SPECS prototype developed
- 2000
  - Release commercial version of e-SPECS integrated with AutoCAD
- 2004
  - Release first version of e-SPECS for Revit
- 2006
  - **Release first version of e-SPECS for Revit w/ MasterSpec**
- 2009-2011
  - Support for Canadian NMS and CMS and Veterans Administration content
- 2013
  - Release of e-SPECS for Navisworks and construction integration
- 2016
  - e-SPECS InfoWare released for BPM online analytics
- 2017
  - **Alpine Acquisition ARCOM/InterSpec**

SECTION 088000 - GLAZING - [MasterSpec Premium] - e-SPECS Designer

File Edit View Format Mode Text Tables Tags Mappings Tools Help



2. Interlayer Thickness: Provide thickness not less than that indicated and as needed to comply with requirements.
3. Interlayer Color: Clear unless otherwise indicated.

Retain "Windborne-Debris-Impact-Resistant Laminated Glass" Paragraph below if retaining "Windborne-Debris-Impact Resistance" Paragraph in "Performance Requirements" Article.

B. Windborne-Debris-Impact-Resistant Laminated Glass: Comply with requirements specified above for laminated glass except laminate glass with**[one of]** the following to comply with interlayer manufacturer's written instructions:

1. Polyvinyl butyral interlayer.
2. Polyvinyl butyral interlayers reinforced with polyethylene terephthalate film.
3. Ionomeric polymer interlayer.
4. Cast-in-place and cured-transparent-resin interlayer.
5. Cast-in-place and cured-transparent-resin interlayer reinforced with polyethylene terephthalate film.

2.6 INSULATING GLASS

A. Insulating-Glass Units: Factory-assembled units consisting of sealed lites of glass separated by a dehydrated interspace, qualified according to ASTM E 2190.

Retain one of five options in "Sealing System" Subparagraph below, or insert other combinations; coordinate with manufacturers and products.

1. Sealing System: Dual seal, with **[manufacturer's standard] [polyisobutylene and polysulfide] [polyisobutylene and silicone] [polyisobutylene and hot-melt butyl] [polyisobutylene and polyurethane] <Insert description>** primary and secondary sealants.

If retaining a specific spacer material, coordinate with manufacturers and products.

2. Perimeter Spacer: **[Manufacturer's standard spacer material and construction] [Aluminum with mill or clear anodic finish] [Aluminum with black, color anodic finish] [Aluminum with bronze, color anodic finish] [Aluminum with powdered metal paint finish in color selected by Architect] [Galvanized steel] [Stainless steel] [Polypropylene-covered stainless steel in color selected by Architect] [Thermally broken aluminum] [Nonmetallic laminate] [Nonmetallic tube] [Silicone with integral desiccant and vapor barrier] <Insert material>**.

Retain "Basis-of-Design Product" Subparagraph below to require a specific product or a comparable product from manufacturers listed in "Manufacturers" Article.

a. Basis-of-Design Product: Subject to compliance with requirements, provide **[product indicated on Drawings] <insert manufacturer name, product name or designation>** or comparable product by one of the following:

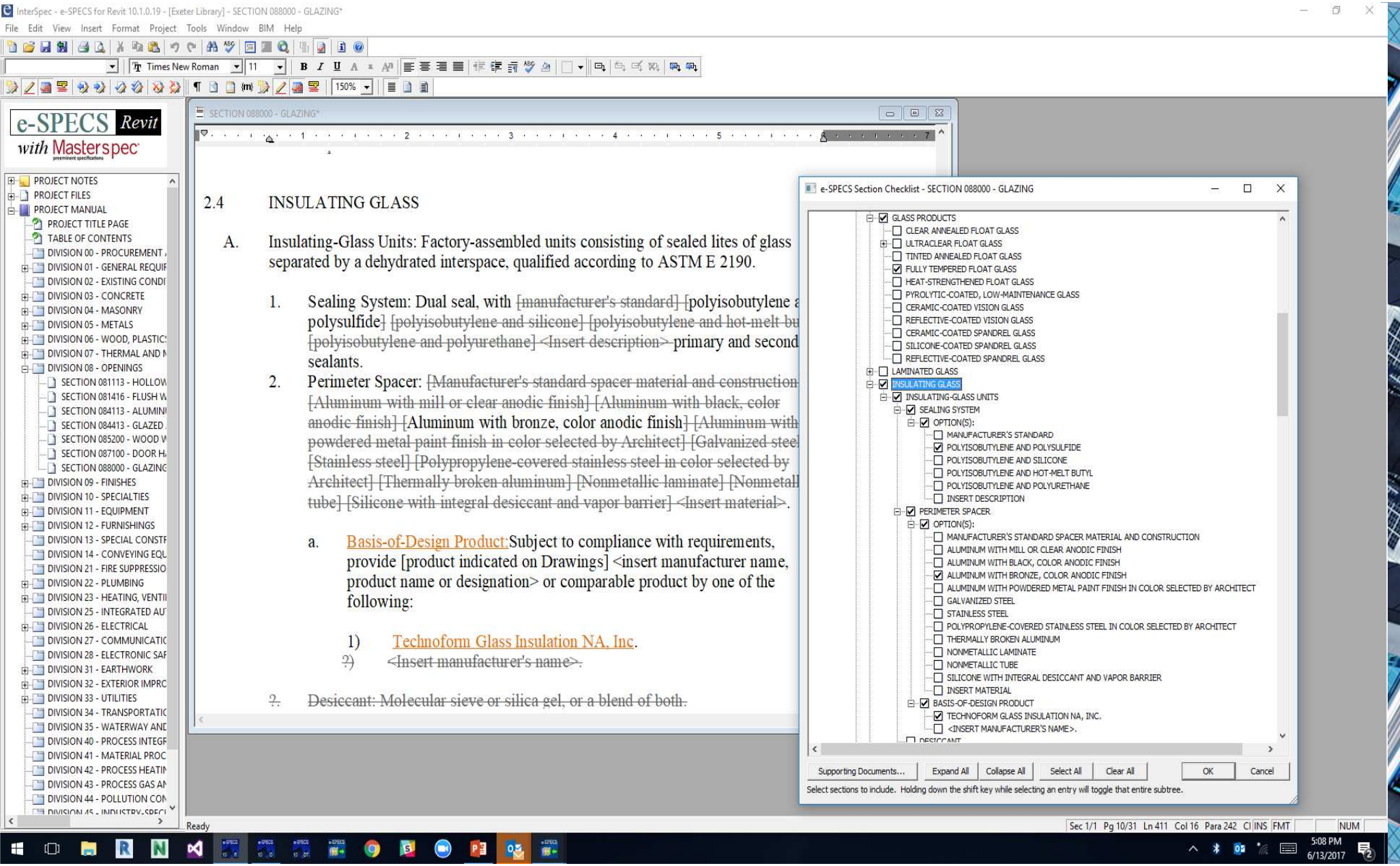
1) Technoform Glass Insulation NA, Inc.
2) **<Insert manufacturer's name>**.

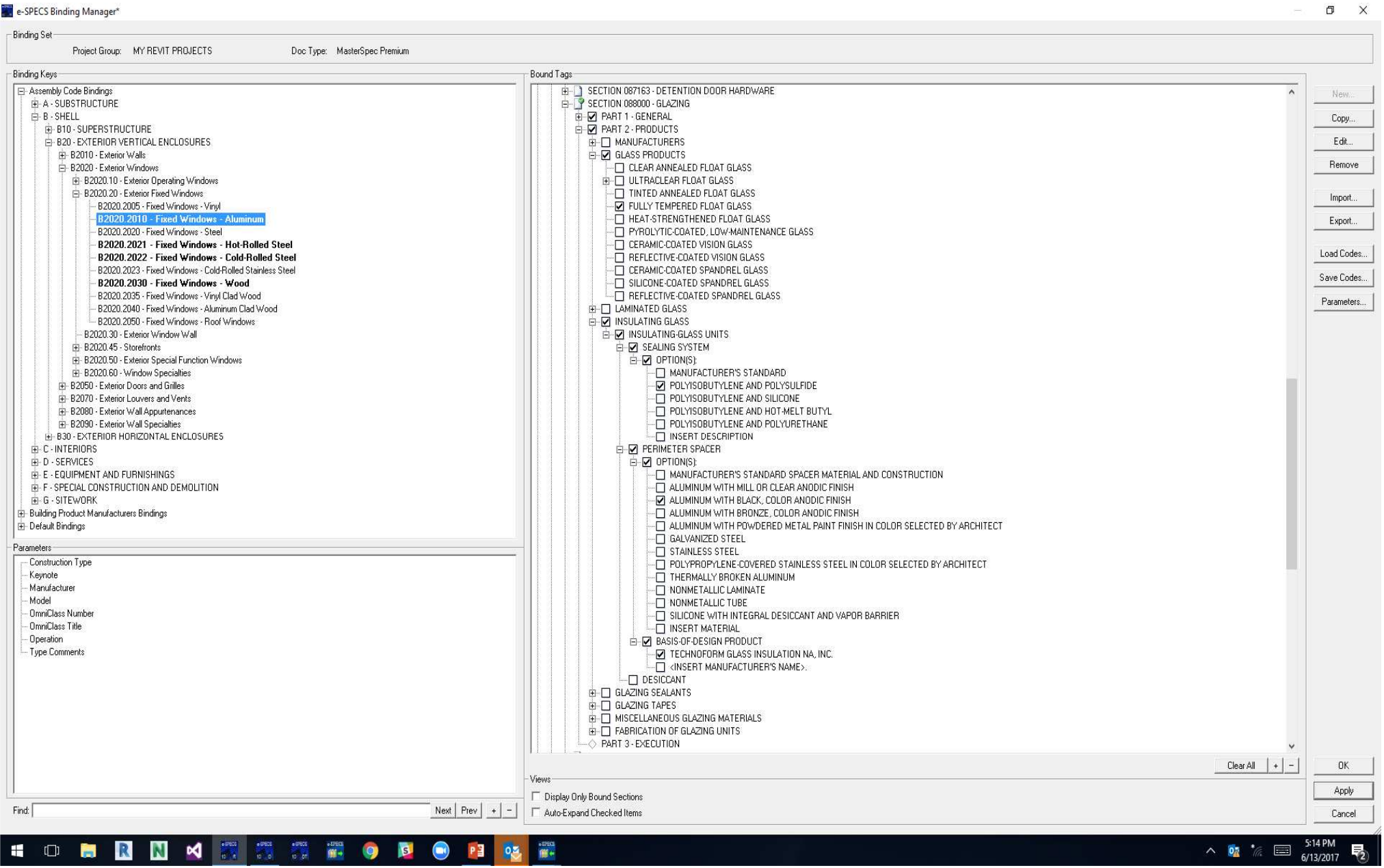
Revise "Desiccant" Subparagraph below if a specific type of desiccant is required.

3. Desiccant: Molecular sieve or silica gel, or a blend of both.

Ready

Vers: 12/15 Ln 469 Para 232 Chr 32588 FMT NUM


InterSpec - e-SPECS for Revit 10.1.0.19 - [Exeter Library] - SECTION 088000 - GLAZING*
File Edit View Insert Format Project Tools Window BIM Help
e-SPECS Revit with Masterspec
SECTION 088000 - GLAZING*
2.4 INSULATING GLASS
A. Insulating-Glass Units: Factory-assembled units consisting of sealed lites of glass separated by a dehydrated interspace, qualified according to ASTM E 2190.
1. Sealing System: Dual seal, with [manufacturer's standard] [polyisobutylene a polysulfide] [polyisobutylene and silicone] [polyisobutylene and hot-melt bu [polyisobutylene and polyurethane] <Insert description> primary and second sealants.
2. Perimeter Spacer: [Manufacturer's standard spacer material and construction [Aluminum with mill or clear anodic finish] [Aluminum with black, color anodic finish] [Aluminum with bronze, color anodic finish] [Aluminum with powdered metal paint finish in color selected by Architect] [Galvanized steel [Stainless steel] [Polypropylene-covered stainless steel in color selected by Architect] [Thermally broken aluminum] [Nonmetallic laminate] [Nonmetall tube] [Silicone with integral desiccant and vapor barrier] <Insert material>.
a. Basis-of-Design Product: Subject to compliance with requirements, provide [product indicated on Drawings] <insert manufacturer name, product name or designation> or comparable product by one of the following:
1) Technoform Glass Insulation NA, Inc.
2) <Insert manufacturer's name>.
2. Desiccant: Molecular sieve or silica gel, or a blend of both.
e-SPECS Section Checklist - SECTION 088000 - GLAZING
GLASS PRODUCTS
CLEAR ANNEALED FLOAT GLASS
ULTRACLEAR FLOAT GLASS
TINTED ANNEALED FLOAT GLASS
FULLY TEMPERED FLOAT GLASS
HEAT-STRENGTHENED FLOAT GLASS
PYROLYTIC-COATED, LOW-MAINTENANCE GLASS
CERAMIC-COATED VISION GLASS
REFLECTIVE-COATED VISION GLASS
CERAMIC-COATED SPANDREL GLASS
SILICONE-COATED SPANDREL GLASS
REFLECTIVE-COATED SPANDREL GLASS
LAMINATED GLASS
INSULATING GLASS
INSULATING-GLASS UNITS
SEALING SYSTEM
OPTION(S):
MANUFACTURER'S STANDARD
POLYISOBUTYLENE AND POLYSULFIDE
POLYISOBUTYLENE AND SILICONE
POLYISOBUTYLENE AND HOT-MELT BUTYL
POLYISOBUTYLENE AND POLYURETHANE
INSERT DESCRIPTION
PERIMETER SPACER
OPTION(S):
MANUFACTURER'S STANDARD SPACER MATERIAL AND CONSTRUCTION
ALUMINUM WITH MILL OR CLEAR ANODIC FINISH
ALUMINUM WITH BLACK, COLOR ANODIC FINISH
ALUMINUM WITH BRONZE, COLOR ANODIC FINISH
ALUMINUM WITH POWDERED METAL PAINT FINISH IN COLOR SELECTED BY ARCHITECT
GALVANIZED STEEL
STAINLESS STEEL
POLYPROPYLENE-COVERED STAINLESS STEEL IN COLOR SELECTED BY ARCHITECT
THERMALLY BROKEN ALUMINUM
NONMETALLIC LAMINATE
NONMETALLIC TUBE
SILICONE WITH INTEGRAL DESICCANT AND VAPOR BARRIER
INSERT MATERIAL
BASIS-OF-DESIGN PRODUCT
TECHNOFORM GLASS INSULATION NA, INC.
<INSERT MANUFACTURER'S NAME>.
Supporting Documents... Expand All Collapse All Select All Clear All OK Cancel
Select sections to include. Holding down the shift key while selecting an entry will toggle that entire subtree.
Ready
5:08 PM
6/13/2017


e-SPECS Binding Manager*
Binding Set
Project Group: MY REVIT PROJECTS
Doc Type: MasterSpec Premium
Binding Keys
Assembly Code Bindings
A - SUBSTRUCTURE
B - SHELL
B10 - SUPERSTRUCTURE
B20 - EXTERIOR VERTICAL ENCLOSURES
B2010 - Exterior Walls
B2020 - Exterior Windows
B2020.10 - Exterior Operating Windows
B2020.20 - Exterior Fixed Windows
B2020.2005 - Fixed Windows - Vinyl
B2020.2010 - Fixed Windows - Aluminum
B2020.2020 - Fixed Windows - Steel
B2020.2021 - Fixed Windows - Hot-Rolled Steel
B2020.2022 - Fixed Windows - Cold-Rolled Steel
B2020.2023 - Fixed Windows - Cold-Rolled Stainless Steel
B2020.2030 - Fixed Windows - Wood
B2020.2035 - Fixed Windows - Vinyl Clad Wood
B2020.2040 - Fixed Windows - Aluminum Clad Wood
B2020.2050 - Fixed Windows - Roof Windows
B2020.30 - Exterior Window Wall
B2020.45 - Storefronts
B2020.50 - Exterior Special Function Windows
B2020.60 - Window Specialties
B2050 - Exterior Doors and Grilles
B2070 - Exterior Louvers and Vents
B2080 - Exterior Wall Appurtenances
B2090 - Exterior Wall Specialties
B30 - EXTERIOR HORIZONTAL ENCLOSURES
C - INTERIORS
D - SERVICES
E - EQUIPMENT AND FURNISHINGS
F - SPECIAL CONSTRUCTION AND DEMOLITION
G - SITEWORK
Building Product Manufacturers Bindings
Default Bindings
Parameters
Construction Type
Keynote
Manufacturer
Model
OmniClass Number
OmniClass Title
Operation
Type Comments
Find:
Next
Prev
Bound Tags
SECTION 087163 - DETENTION DOOR HARDWARE
SECTION 088000 - GLAZING
PART 1 - GENERAL
PART 2 - PRODUCTS
MANUFACTURERS
GLASS PRODUCTS
CLEAR ANNEALED FLOAT GLASS
ULTRACLEAR FLOAT GLASS
TINTED ANNEALED FLOAT GLASS
FULLY TEMPERED FLOAT GLASS
HEAT-STRENGTHENED FLOAT GLASS
PYROLYTIC-COATED, LOW-MAINTENANCE GLASS
CERAMIC-COATED VISION GLASS
REFLECTIVE-COATED VISION GLASS
CERAMIC-COATED SPANDREL GLASS
SILICONE-COATED SPANDREL GLASS
REFLECTIVE-COATED SPANDREL GLASS
LAMINATED GLASS
INSULATING GLASS
INSULATING-GLASS UNITS
SEALING SYSTEM
OPTION(S):
MANUFACTURER'S STANDARD
POLYISOBUTYLENE AND POLYSULFIDE
POLYISOBUTYLENE AND SILICONE
POLYISOBUTYLENE AND HOT-MELT BUTYL
POLYISOBUTYLENE AND POLYURETHANE
INSERT DESCRIPTION
PERIMETER SPACER
OPTION(S):
MANUFACTURER'S STANDARD SPACER MATERIAL AND CONSTRUCTION
ALUMINUM WITH MILL OR CLEAR ANODIC FINISH
ALUMINUM WITH BLACK, COLOR ANODIC FINISH
ALUMINUM WITH BRONZE, COLOR ANODIC FINISH
ALUMINUM WITH POWDERED METAL PAINT FINISH IN COLOR SELECTED BY ARCHITECT
GALVANIZED STEEL
STAINLESS STEEL
POLYPROPYLENE-COVERED STAINLESS STEEL IN COLOR SELECTED BY ARCHITECT
THERMALLY BROKEN ALUMINUM
NONMETALLIC LAMINATE
NONMETALLIC TUBE
SILICONE WITH INTEGRAL DESICCANT AND VAPOR BARRIER
INSERT MATERIAL
BASIS-OF-DESIGN PRODUCT
TECHNOFORM GLASS INSULATION NA, INC.
<INSERT MANUFACTURER'S NAME>.
DESICCANT
GLAZING SEALANTS
GLAZING TAPES
MISCELLANEOUS GLAZING MATERIALS
FABRICATION OF GLAZING UNITS
PART 3 - EXECUTION
Clear All
Views
Display Only Bound Sections
Auto-Expand Checked Items
New...
Copy...
Edit...
Remove
Import...
Export...
Load Codes...
Save Codes...
Parameters...
OK
Apply
Cancel
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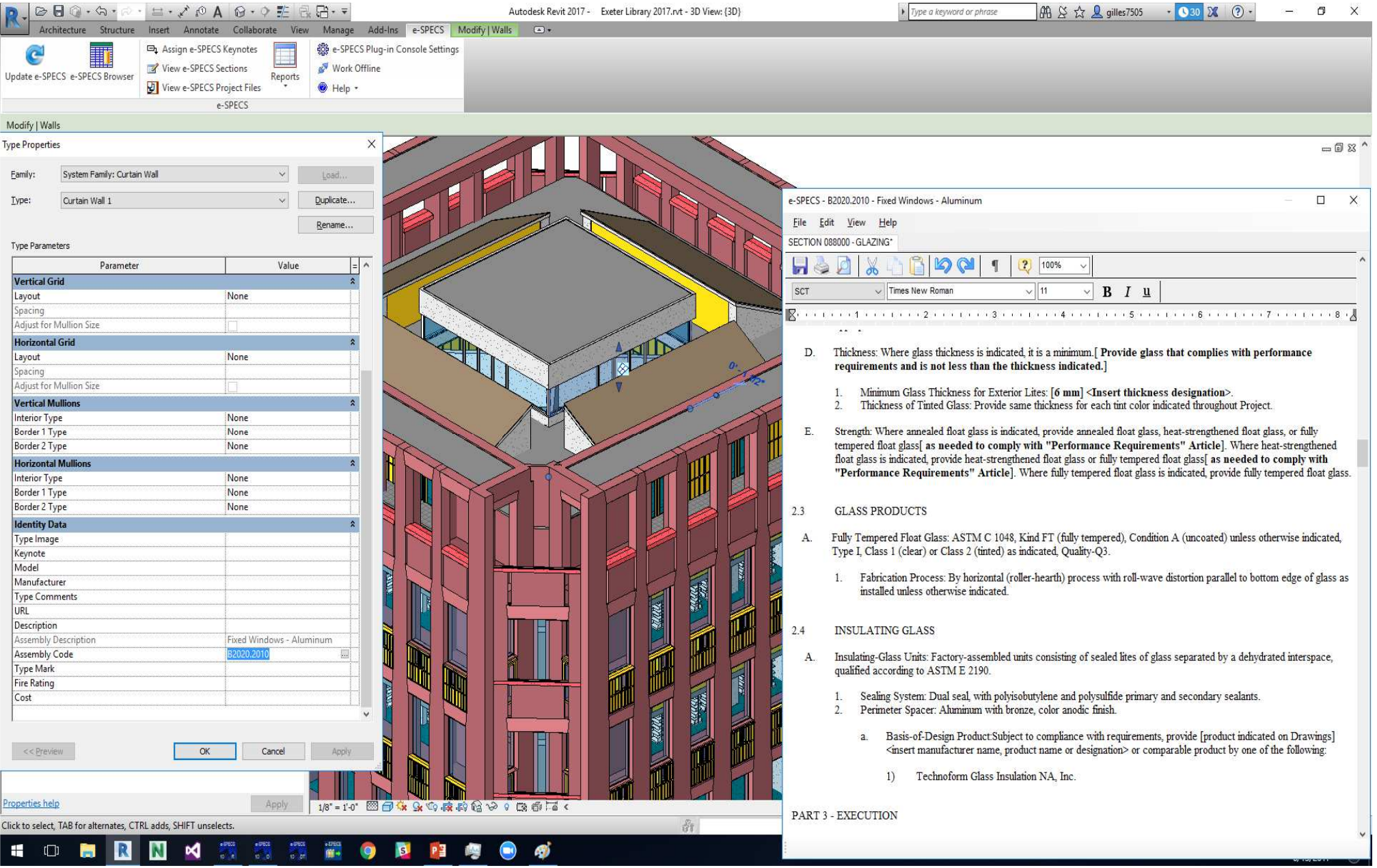
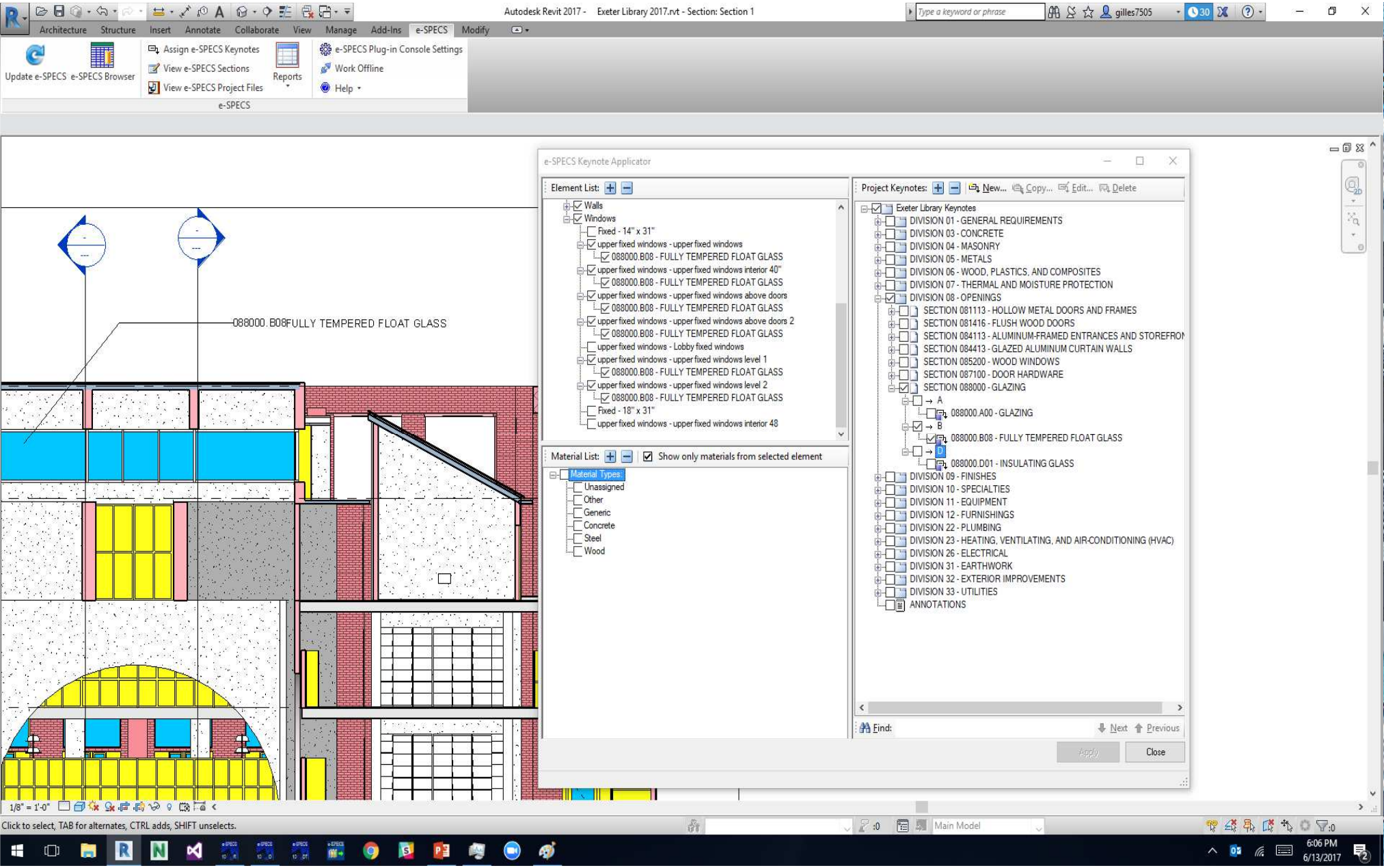
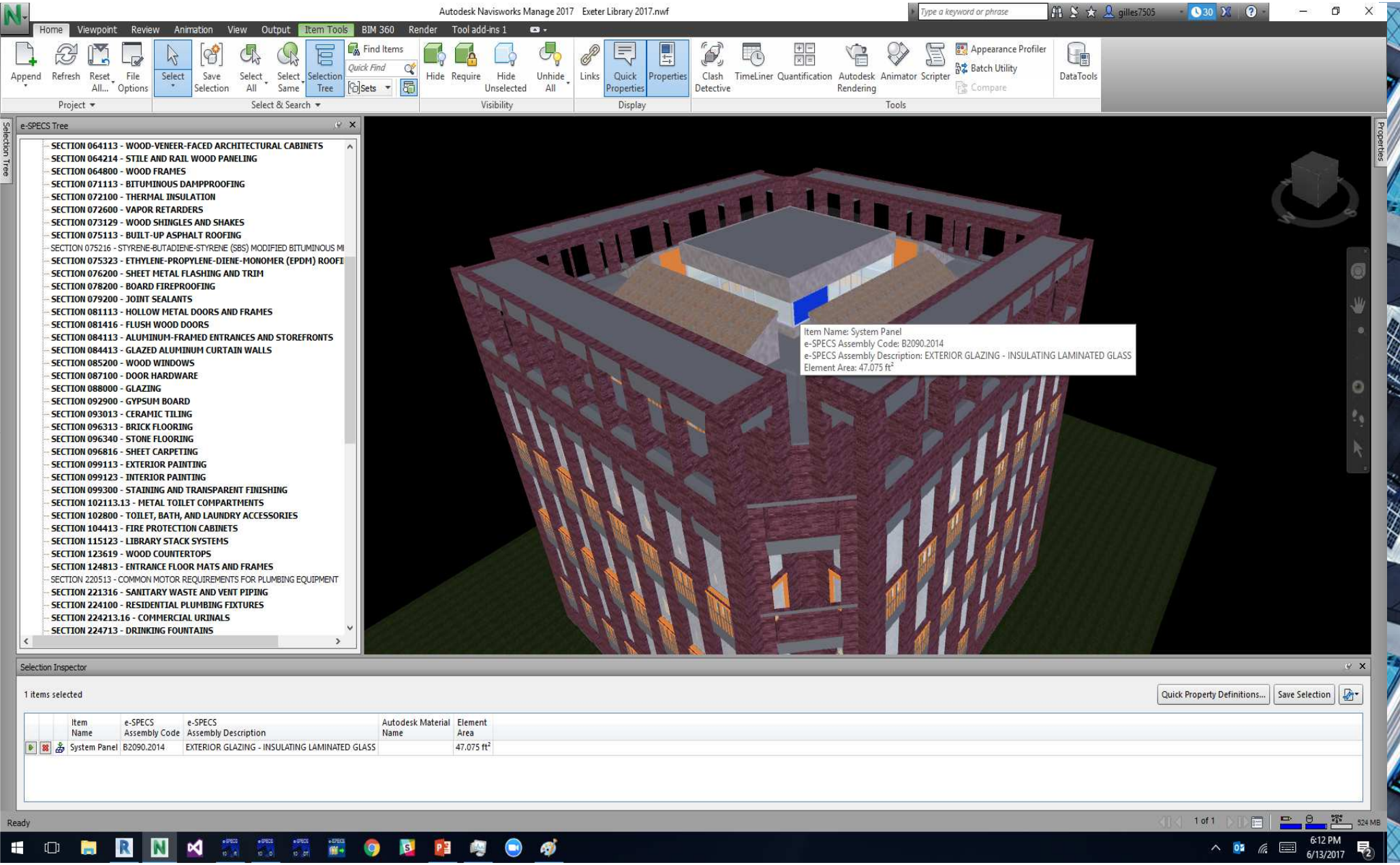
6/13/2017


Autodesk Revit 2017 - Exeter Library 2017.rvt - 3D View: {3D}
Architecture Structure Insert Annotate Collaborate View Manage Add-Ins e-SPECS Modify | Walls
Update e-SPECS
e-SPECS Browser
Assign e-SPECS Keynotes
View e-SPECS Sections
View e-SPECS Project Files
Reports
e-SPECS Plug-in Console Settings
Work Offline
Help
e-SPECS
Modify | Walls
Type Properties
Family: System Family: Curtain Wall
Load...
Type: Curtain Wall 1
Duplicate...
Rename...
Type Parameters
Parameter
Value
Vertical Grid
Layout None
Spacing
Adjust for Mullion Size
Horizontal Grid
Layout None
Spacing
Adjust for Mullion Size
Vertical Mullions
Interior Type None
Border 1 Type None
Border 2 Type None
Horizontal Mullions
Interior Type None
Border 1 Type None
Border 2 Type None
Identity Data
Type Image
Keynote
Model
Manufacturer
Type Comments
URL
Description
Assembly Description Fixed Windows - Aluminum
Assembly Code B2020.2010
Type Mark
Fire Rating
Cost
<< Preview
OK
Cancel
Apply
Properties help
Apply
1/8" = 1'-0"
Click to select, TAB for alternates, CTRL adds, SHIFT unselects.
e-SPECS - B2020.2010 - Fixed Windows - Aluminum
File Edit View Help
SECTION 088000 - GLAZING*
SCT
Times New Roman
11
D. Thickness: Where glass thickness is indicated, it is a minimum.[Provide glass that complies with performance requirements and is not less than the thickness indicated.]
1. Minimum Glass Thickness for Exterior Lites: [6 mm] <Insert thickness designation>.
2. Thickness of Tinted Glass: Provide same thickness for each tint color indicated throughout Project.
E. Strength: Where annealed float glass is indicated, provide annealed float glass, heat-strengthened float glass, or fully tempered float glass[as needed to comply with "Performance Requirements" Article]. Where heat-strengthened float glass is indicated, provide heat-strengthened float glass or fully tempered float glass[as needed to comply with "Performance Requirements" Article]. Where fully tempered float glass is indicated, provide fully tempered float glass.
2.3 GLASS PRODUCTS
A. Fully Tempered Float Glass: ASTM C 1048, Kind FT (fully tempered), Condition A (uncoated) unless otherwise indicated, Type I, Class 1 (clear) or Class 2 (tinted) as indicated, Quality-Q3.
1. Fabrication Process: By horizontal (roller-hearth) process with roll-wave distortion parallel to bottom edge of glass as installed unless otherwise indicated.
2.4 INSULATING GLASS
A. Insulating-Glass Units: Factory-assembled units consisting of sealed lites of glass separated by a dehydrated interspace, qualified according to ASTM E 2190.
1. Sealing System: Dual seal, with polyisobutylene and polysulfide primary and secondary sealants.
2. Perimeter Spacer: Aluminum with bronze, color anodic finish.
a. Basis-of-Design Product:Subject to compliance with requirements, provide [product indicated on Drawings] <insert manufacturer name, product name or designation> or comparable product by one of the following:
1) Technoform Glass Insulation NA, Inc.
PART 3 - EXECUTION


Autodesk Revit 2017 - Exeter Library 2017.rvt - Section: Section 1
Architecture Structure Insert Annotate Collaborate View Manage Add-Ins e-SPECS Modify
Update e-SPECS
e-SPECS Browser
Assign e-SPECS Keynotes
View e-SPECS Sections
View e-SPECS Project Files
Reports
e-SPECS Plug-in Console Settings
Work Offline
Help
e-SPECS
088000.B08FULLY TEMPERED FLOAT GLASS
e-SPECS Keynote Applicator
Element List:
Walls
Windows
Fixed - 14" x 31"
upper fixed windows - upper fixed windows
088000.B08 - FULLY TEMPERED FLOAT GLASS
upper fixed windows - upper fixed windows interior 40"
088000.B08 - FULLY TEMPERED FLOAT GLASS
upper fixed windows - upper fixed windows above doors
088000.B08 - FULLY TEMPERED FLOAT GLASS
upper fixed windows - upper fixed windows above doors 2
088000.B08 - FULLY TEMPERED FLOAT GLASS
upper fixed windows - Lobby fixed windows
upper fixed windows - upper fixed windows level 1
088000.B08 - FULLY TEMPERED FLOAT GLASS
upper fixed windows - upper fixed windows level 2
088000.B08 - FULLY TEMPERED FLOAT GLASS
Fixed - 18" x 31"
upper fixed windows - upper fixed windows interior 48
Material List:
Show only materials from selected element
Material Types
Unassigned
Other
Generic
Concrete
Steel
Wood
Project Keynotes:
New... Copy... Edit... Delete
Exeter Library Keynotes
DIVISION 01 - GENERAL REQUIREMENTS
DIVISION 03 - CONCRETE
DIVISION 04 - MASONRY
DIVISION 05 - METALS
DIVISION 06 - WOOD, PLASTICS, AND COMPOSITES
DIVISION 07 - THERMAL AND MOISTURE PROTECTION
DIVISION 08 - OPENINGS
SECTION 081113 - HOLLOW METAL DOORS AND FRAMES
SECTION 081416 - FLUSH WOOD DOORS
SECTION 084113 - ALUMINUM-FRAMED ENTRANCES AND STOREFRON
SECTION 084413 - GLAZED ALUMINUM CURTAIN WALLS
SECTION 085200 - WOOD WINDOWS
SECTION 087100 - DOOR HARDWARE
SECTION 088000 - GLAZING
A
088000.A00 - GLAZING
B
088000.B08 - FULLY TEMPERED FLOAT GLASS
D
088000.D01 - INSULATING GLASS
DIVISION 09 - FINISHES
DIVISION 10 - SPECIALTIES
DIVISION 11 - EQUIPMENT
DIVISION 12 - FURNISHINGS
DIVISION 22 - PLUMBING
DIVISION 23 - HEATING, VENTILATING, AND AIR-CONDITIONING (HVAC)
DIVISION 26 - ELECTRICAL
DIVISION 31 - EARTHWORK
DIVISION 32 - EXTERIOR IMPROVEMENTS
DIVISION 33 - UTILITIES
ANNOTATIONS
Find:
Next Previous
Apply
Close
1/8" = 1'-0"
Click to select, TAB for alternates, CTRL adds, SHIFT unselects.
Main Model
6:06 PM
6/13/2017


Autodesk Navisworks Manage 2017 Exeter Library 2017.nwf
Type a keyword or phrase
gilles7505
Home Viewpoint Review Animation View Output Item Tools BIM 360 Render Tool add-ins 1
Append Refresh Reset All... File Options
Select Save Selection Select All Select Same Selection Tree
Find Items Quick Find Sets
Hide Require Hide Unselected Unhide All
Links Quick Properties Properties
Clash Detective TimeLiner Quantification Autodesk Rendering Animator Scripter
Appearance Profiler Batch Utility Compare
DataTools
Project Select & Search Visibility Display Tools
e-SPECS Tree
SECTION 064113 - WOOD-VENEER-FACED ARCHITECTURAL CABINETS
SECTION 064214 - STILE AND RAIL WOOD PANELING
SECTION 064800 - WOOD FRAMES
SECTION 071113 - BITUMINOUS DAMPPROOFING
SECTION 072100 - THERMAL INSULATION
SECTION 072600 - VAPOR RETARDERS
SECTION 073129 - WOOD SHINGLES AND SHAKES
SECTION 075113 - BUILT-UP ASPHALT ROOFING
SECTION 075216 - STYRENE-BUTADIENE-STYRENE (SBS) MODIFIED BITUMINOUS MI
SECTION 075323 - ETHYLENE-PROPYLENE-DIENE-MONOMER (EPDM) ROOFI
SECTION 076200 - SHEET METAL FLASHING AND TRIM
SECTION 078200 - BOARD FIREPROOFING
SECTION 079200 - JOINT SEALANTS
SECTION 081113 - HOLLOW METAL DOORS AND FRAMES
SECTION 081416 - FLUSH WOOD DOORS
SECTION 084113 - ALUMINUM-FRAMED ENTRANCES AND STOREFRONTS
SECTION 084413 - GLAZED ALUMINUM CURTAIN WALLS
SECTION 085200 - WOOD WINDOWS
SECTION 087100 - DOOR HARDWARE
SECTION 088000 - GLAZING
SECTION 092900 - GYPSUM BOARD
SECTION 093013 - CERAMIC TILING
SECTION 096313 - BRICK FLOORING
SECTION 096340 - STONE FLOORING
SECTION 096816 - SHEET CARPETING
SECTION 099113 - EXTERIOR PAINTING
SECTION 099123 - INTERIOR PAINTING
SECTION 099300 - STAINING AND TRANSPARENT FINISHING
SECTION 102113.13 - METAL TOILET COMPARTMENTS
SECTION 102800 - TOILET, BATH, AND LAUNDRY ACCESSORIES
SECTION 104413 - FIRE PROTECTION CABINETS
SECTION 115123 - LIBRARY STACK SYSTEMS
SECTION 123619 - WOOD COUNTERTOPS
SECTION 124813 - ENTRANCE FLOOR MATS AND FRAMES
SECTION 220513 - COMMON MOTOR REQUIREMENTS FOR PLUMBING EQUIPMENT
SECTION 221316 - SANITARY WASTE AND VENT PIPING
SECTION 224100 - RESIDENTIAL PLUMBING FIXTURES
SECTION 224213.16 - COMMERCIAL URINALS
SECTION 224713 - DRINKING FOUNTAINS
Item Name: System Panel
e-SPECS Assembly Code: B2090.2014
e-SPECS Assembly Description: EXTERIOR GLAZING - INSULATING LAMINATED GLASS
Element Area: 47.075 ft²
Selection Inspector
1 items selected
Quick Property Definitions... Save Selection
Item Name | e-SPECS Assembly Code | e-SPECS Assembly Description | Autodesk Material Name | Element Area
System Panel | B2090.2014 | EXTERIOR GLAZING - INSULATING LAMINATED GLASS | | 47.075 ft²
Ready
1 of 1
524 MB
6:12 PM
6/13/2017


What's Next

“Five exabytes (or 5 billion, billion bytes) of data could store all the words ever spoken by humans between the birth of the world and 2003. In 2011, five exabytes of content were created every two days!”

The Content Trap, Bharat Anand

A few statistics (Sadistics)

- 93% of teens ages 12-17 are now online more than once everyday
  - 25% almost constantly
- 73% of teens are on a social network
  - 5-1 ratio of virtual friends vs face to face friends
    - 25% of virtual friends have met face to face
  - 1/3 of the time post negative messages about virtual friends
  - 1/4 of teens have had embarrassing info of themselves made public
- 88% of teens send 30 txt messages per day – daily
- 71% use not one but all of the following:
  - Facebook Google+ Instagram Twitter
  - Snapchat Vine Tumblr Pintrest

The Pew Research center

- Male teens ages13-17 via community based gaming:
  - 57% of there friends are gaming friends
  - 56% of gamers feel more connected to people they play networked games with who are not friends

Do you really own IP?

- Facebook alone in 2015:
  - 500 million users daily, 500,000 new users every day, 6/sec
  - 8 Billion videos viewed everyday
  - 1 hour and 16 min on average watching video on digital devices
- By 2014 Google had indexed 30,000,000,000,000 pages of content

Laura Demasi of Ipsos, Global Research Firm

“Forget Generation ‘Z’ today’s youngsters are ‘Generation Free’ when it comes to content”

https://www.youtube.com/watch?v=p-3e0EkvIEM

“Only the data I need when I need it for what I need it for delivered instantaneously. ”

- Gilles Letourneau, AIA