Construction Documents Required for Every Submittal 2018 IECC

1. Insulation materials and their R-values
2. Fenestration U-factors and SHGC
3. Area-weighted U-factors and SHGC calculations (If applicable)
4. Air barrier and air sealing details
5. Building thermal envelope depiction
6. Water resistive barrier
7. Window flashing
8. Building flashing details IBC 1404.4
9. Mechanical and service water heating system and equipment types, sized and efficiencies *(Begins in Phase 2)*
10. Mechanical system design criteria *(Begins in Phase 2)*
11. Economizer description
12. Equipment and system controls
13. Fan motor hp and controls
14. Duct sealing, duct and pipe insulation, and location
15. Lighting fixture schedule with wattage and control narrative *(Begins in Phase 2)*
16. Location of daylight zones on floor plans
Submittal Documents for 2018
Commercial IECC Compliance Paths Xcel
Energy’s Building Codes Support Program

Commercial – Prescriptive

R-value Based Method

1. Provide vertical fenestration area and skylight area
2. Documentation for mechanical ventilation
3. Provide calculation for heating and/or cooling loads (*Begins in Phase 2*)
4. Provide documentation for HVAC equipment performance (*Begins in Phase 2*)
   a. This could be a mechanical COMcheck
5. Provide documentation for service water heating equipment performance (*Begins in Phase 2*)
   a. This could be a mechanical COMcheck
6. Provide interior lighting power and exterior lighting power building method and calculations (*Begins in Phase 2*)
   a. This could be a lighting COMcheck
7. Provide commissioning plan for mechanical, lighting, and service water heating, if applicable. This will include the building operations and maintenance documents. Will need to provide evidence of commissioning and completion of service water heating and mechanical and will also need to provide functional testing of lighting controls. (*Begins in Phase 3*)
8. Provide options for additional efficiency packages. (*Begins in Phase 3*)
   a. This can be provided on each COMcheck.
Submittal Documents for 2018
Commercial IECC Compliance Paths Xcel
Energy’s Building Codes Support Program

Assembly U-factor, C-factor, or F-factor Method

1. Provide calculations showing the proposed assembly does not exceed the maximum U-factor in Table C402.1.4
2. Provide vertical fenestration area and skylight area
3. Documentation for mechanical ventilation
4. Provide calculation for heating and/or cooling loads *(Begins in Phase 2)*
5. Provide documentation for HVAC equipment performance *(Begins in Phase 2)*
   a. This could be a mechanical COMcheck
6. Provide documentation for service water heating equipment performance *(Begins in Phase 2)*
   a. This could be a mechanical COMcheck
7. Provide interior lighting power and exterior lighting power building method and calculations *(Begins in Phase 2)*
   a. This could be a lighting COMcheck
8. Provide commissioning plan for mechanical, lighting, and service water heating, if applicable. This will include the building operations and maintenance documents. Will need to provide evidence of commissioning and completion of service water heating and mechanical and will also need to provide functional testing of lighting controls. *(Begins in Phase 3)*
9. Provide options for additional efficiency packages. *(Begins in Phase 3)*
   a. This can be provided on each COMcheck.
Component Performance Alternative (COMcheck)

1. The thermal envelope must show the location of insulation. The wall assembly that represents the thermal envelope must meet the requirements of the U-Factor method shown in Chapter 4.
   a. To calculate the U-factor for the assemblies used for the thermal envelope, provide an envelope COMcheck.
   b. The COMcheck allows the option to input “other” in assemblies. If you chose “other” you must provide documentation that shows how the assembly meets the U-factor you manually put in the software.

2. Provide vertical fenestration area and skylight area

3. Documentation for mechanical ventilation

4. Provide calculation for heating and/or cooling loads *(Begins in Phase 2)*

5. Provide documentation for HVAC equipment performance
   a. This could be a mechanical COMcheck *(Begins in Phase 2)*

6. Provide documentation for service water heating equipment performance *(Begins in Phase 2)*
   a. This could be a mechanical COMcheck

7. Provide interior lighting power and exterior lighting power building method and calculations *(Begins in Phase 2)*
   a. This could be a lighting COMcheck

8. Provide commissioning plan for mechanical, lighting, and service water heating, if applicable. This will include the building operations and maintenance documents. Will need to provide evidence of commissioning and completion of service water heating and mechanical, and will also need to provide functional testing of lighting controls. *(Begins in Phase 3)*

9. Provide options for additional efficiency packages. *(Begins in Phase 3)*

10. This can be provided on each COMcheck.
Performance Method

1. Provide third party report that shows the building envelope values and fenestration areas are determined by the equation shown in Chapter 4. Will also need to verify that the methods and accuracy of compliance software tools conform to the provisions of the IECC and must be provided to the code official.
   a. The compliance report must show the address of the building, an inspection checklist, name of individual completing report, and name and version of compliance software tool.
   b. The code official can require documentation of the building component characteristics of the standard reference design, thermal zoning diagrams of floor plans, input and output reports from the energy analysis simulation program, a certification signed by the builder, and/or documentation of the reduction in energy use associated with on site renewable energy.
2. Documentation for mechanical ventilation
3. In addition, will need documentation for Demand Control Ventilation, ERV, or HRV.
4. Provide documentation for HVAC equipment performance
5. Provide documentation for service water heating equipment performance
6. Provide interior lighting power and exterior lighting power building method and calculations
7. Provide commissioning plan for mechanical, lighting, and service water heating, if applicable. This will include the building operations and maintenance documents. Will need to provide evidence of commissioning and completion of service water heating and mechanical and will also need to provide functional testing of lighting controls.