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CELRL-DP

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MEMORANDUM FOR DISTRIBUTION

SUBJECT: SDD Memo and ASHRAE 189.1 Implementation

1. REFERENCE:

- a. Memorandum, ASA (IE&E), 27 Oct 10, Subject: Sustainable Design and Development Update (Environmental and Energy Performance)
- b. Memorandum, ASA (IE&E), 24 Aug 12, Subject: Energy Goal Attainment Responsibility for Installations.
- c. Energy Independence and Security Act (EISA) of 2007, 19 Dec 07

2. This memorandum is to clarify the requirements listed in the Memorandum on Sustainable Design and Development Policy Update (SDD) and ASHRAE 189.1 for Louisville District projects. Full compliance with ASHRAE 189.1 is not required. Only portions of ASHRAE 189.1 that are specifically listed in the SDD memo will be requirements for the Louisville District projects. While other portions of ASHRAE 189.1 are good measures and should be evaluated by PDT's on a project by project basis, they are not requirements. PDT's should evaluate these sections and comply to the maximum extent possible within PA and consideration of other project requirements.

3. Per the SDD memo, the following outlines ASHRAE 189.1-2009 applicability and guidance by section:

a. Section 5 – Site Sustainability

(1) Site Selection 5.3

1. 5.3.1.1 Allowable Sites – Although not required to select sites that meet this criteria, this must be considered during the site selection activities. These sites must be highlighted during the site selection process. Greenfield sites (20% or less previously developed with impervious surfaces) have numerous requirements related to access to mass transportation and community services. Greyfield (more than 20% previously developed impervious surfaces) or brownfield sites must be given preference over greenfield sites.

SUBJECT: SDD Memo and ASHRAE 189.1 Implementation  
CELRL-DP

(2) 5.3.1.2 Prohibited Development Activity – This section is a requirement. These requirements include no site development on the following:

- Previously undeveloped land having an elevation lower than 5 ft above the 100-year flood
- Within 150 feet of any fish and wildlife habitat conservation area
- Within 100 feet of any wetland

Note that ASHRAE does not provide for mitigation of development within the “setbacks” from habitat areas or wetlands.

(3) Several current and future projects have sites that were allocated and/or programmed before the implementation of the SDD memo and will not meet the above requirements. Although per the guidance these projects will require an exception, PDT’s shall continue with the use of these sites. Justification for noncompliant sites will be documented by the PDT with the assistance of the DPW or party responsible for site selection, forwarded to District Chief of Engineering, and incorporated into the project files.

(4) Future projects with sites that have been selected and programmed within the SDD memo requirements shall comply with the above requirements or seek an exception.

(a) 5.3.2.3 Cool Roofs – This section is a requirement. However, per the SDD, cool roofs shall not be installed where energy performance is adversely affected.

(b) 5.4 Site Development (Prescriptive) & 5.5 (Performance). – The SDD memo states that project “should” comply with this requirement. Projects must comply with EISA 2007 Section 438.

b. Section 6 – Water Use Efficiency

(1) 6.3.1 Site Water Use Reduction – Projects are required to reduce outdoor potable water consumption by a minimum of 50% following guidance listed in Section 6.3.1. This section requires “a minimum of 60% of the area of the improved landscape shall be in bio-diverse planting of native plants and adapted plants other than turfgrass.” However, due to AT\FP and other potential site constraints, meeting the 60% ASHRAE requirement may not be feasible on all projects. PDT’s should comply to the maximum extent possible but an exception will not be required if the overall outdoor potable water consumption is reduced by 50%.

(2) 6.3.2.1 Plumbing Fixtures and Fittings– Projects are required to reduce indoor potable water use by a minimum of 30% utilizing guidance from Section 6.3.2.1. However the SDD memo states that fixture selection “should” comply with ASHRAE 189.1. PDT’s should comply to the maximum extent possible while considering the overall function and operation\maintenance of the building.

(3) 6.3.3 Water Metering – Water metering, as well as other utility smart metering, is a requirement on Army projects.

SUBJECT: SDD Memo and ASHRAE 189.1 Implementation  
CELRL-DP

c. Section 7 – Energy Reduction

(1) Energy Efficiency – All requirements listed in Section 7 as it relates to energy efficiency are applicable except as noted below.

(2) Renewable Energy Requirements – The SDD lists Renewable Energy Requirements per ASHRAE 189.1 beginning with the FY 15 program. PDT's should evaluate this requirement with consideration to the overall installation or program goals. However, the SDD states that "compliance shall be to the extent project funds and technology allows". PDT's should evaluate and document this section and comply to the maximum extent possible within PA and consideration of other project requirements but an exception is not required.

(3) 7.3.2 On-Site Renewable Energy Systems – This section requires projects "provide for the future installation of on-site renewable energy systems...Building projects design shall show allocated space and pathways for installation of on-site renewable energy systems and associated infrastructure." The SDD memo does not address compliance with this section. PDT's should evaluate and document this section and comply to the maximum extent possible within PA and consideration of other project requirements.

d. Sections 8-10 -These sections of ASHRAE 189.1 are not requirements.

4. The SDD memo lists solar hot water requirements for new construction projects. This requirement has been further clarified per ASA memo, Energy Goal Attainment Policy for Installations. This memo states that per EISA, 30% of domestic hot water must be provided from solar hot water if life cycle cost effective. PDT's shall perform a life cycle cost analysis to determine the effectiveness of solar hot water.

5. Exceptions – The "Exception Process" for noncompliance with the SDD initiatives is detailed in the memo. Projects shall comply with the SDD requirements to the maximum extent possible within the PA. For projects that do not comply, justification documentation will be prepared by the PDT and forwarded to the District Chief of Engineering. PDT's shall continue with the project design while awaiting determination of the exception.

6. These requirements are subject to change pending further guidance on the implementation of ASHRAE 189.1 by the Department of Army or others.

  
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