INFORMATION SHEET

NO. M-04

DATE : January 23, 2020

SUBJECT : Mechanical

TITLE : 2019 Title-24 Energy/Green Forms for High-rise Residential, Hotel/Motel and Non-residential Buildings

PURPOSE : The purpose of this Information Sheet is to provide Title-24 energy inspection forms for high-rise residential, hotel/motel and nonresidential buildings based on the 2019 California Energy Code (CEC) and green building compliance per 2019 San Francisco Green Building Code (SFGBC) and Administrative Bulletin 093 (AB-093).

REFERENCE : 2019 California Energy Code
2019 San Francisco Green Building Code
Administrative Bulletin 093 (AB-093)
Information Sheet GB-01


2019 California Energy/Green Code Form Requirements for Non-Residential, High-Rise Residential, and Hotel/Motel

Non-Residential, High-Rise Residential, and Hotel/Motel Title-24 is comprised of Certificate of Compliance, Certificate of Installation, Certificate of Acceptance, and Certificate of Verification forms. Compliance documentation of the AB-093 is comprised of Attachment E. The Energy/Green Inspection forms are included in the following attachments.

Effective Date of the Provisions of this Information Sheet

The provisions of the Title-24 energy inspection forms become effective for building permit applications submitted on or after January 1, 2020. The provisions of the AB-093 Attachment E form is required for new construction and major alteration permits that have a final certificate of occupancy after January 1, 2019.

Note: Refer to GB-01, Attachment H for projects required to exceed energy standards per San Francisco Green Building Code.

Tom C. Hui, S.E., C.B.O., Director
Department of Building Inspection

Attachment Title-24 Non-Residential Energy/Green Inspection Requirements (Building)
Attachment Title-24 Non-Residential Energy Inspection Requirements (Electrical/Lighting)
Attachment Title-24 Non-Residential Energy Inspection Requirements (Plumbing)
Attachment Simplified Title-24 Interior Tenant Improvement Non-Residential Energy Inspection Requirements (M/E/P).

This Information Sheet is subject to modification at any time. For the most current version, visit our website at http://www.sfdbi.org.

Energy Inspection Services
1650 Mission Street – San Francisco CA 94103
NOTICE

TITLE-24 NON-RESIDENTIAL ENERGY/GREEN INSPECTION REQUIREMENTS (BUILDING)

Please note that Certificates of Installation and/or Acceptance and/or Verification are required for this project, as indicated on this form issued with this permit. Ensuring the accurate completion of this documentation is the direct responsibility of the engineer/architect of record. This documentation is required in addition to the called inspections performed by the Department of Building Inspection.

For questions regarding the details or extent of required documentation or testing, and if there are any field problems regarding documentation or testing, please call your District Building Inspector or 415-558-6570.

Before final building inspection is scheduled, documentation of energy compliance “Certificate of Installation, Acceptance, and Verification” and green building “Attachment E” must be completed and signed by the responsible person in charge. The permit will not be finalized without compliance with the energy inspection requirements.

Energy Inspection Services Contact Information

1. Telephone:  (415) 558-6132
2. Fax:  (415) 558-6474
3. Email:  dbi.energyinspections@sfgov.org
4. In person:  3rd floor at 1660 Mission St.

Note: We are moving towards a ‘paperless’ mode of operation. All special inspection submittals, including final letters, may be emailed (preferred) or faxed. We will also be shifting to a paperless fax receipt mode.


Information Sheet M-06 provides submittal instructions for the Title-24 installation, verification, and acceptance energy certificates and Green Building Attachment E. M-06 may be found on the SFDBI website at http://sfdbi.org/information-sheets
Ensuring the completion of installation documentation as well as the required acceptance/verification testing is the direct responsibility of the undersigned. Installation documentation must be completed by the contractor performing the installation. Acceptance testing must be performed by an individual licensed to perform the specific testing needed. Verification testing must be completed by a certified HERS rater. Green Building Attachment E shall be completed as per Administrative Bulletin 093 (AB-093).

In accordance with the requirements of the 2019 California Energy Code, 2019 SFGBC and AB-093, the following documentation is required for the building elements in this project:

1. Installation
   - Envelope
     - NRCA-ENV-01-E Envelope (IB35)
   - Mechanical
     - NRCA-MCH-01-E Mechanical (IB36)
   - Process
     - NRCA-PRC-01-E Covered Processes (IB37)

2. Acceptance
   - Envelope
     - NRCA-ENV-02-F Fenestration Acceptance (AB1)
     - NRCA-ENV-03-F Daylighting Design PAF Acceptance (AB25)
   - Mechanical
     - NRCA-MCH-02-A Outdoor Air (AB2)
     - NRCA-MCH-03-A Constant Volume Single Zone HVAC (AB3)
     - NRCA-MCH-04-H HERS Air Distribution Duct Leakage Testing (AB4)
     - NRCA-MCH-05-A Air Economizer Controls (AB5)
     - NRCA-MCH-06-A Demand Control Ventilation (DVC) (AB6)
     - NRCA-MCH-07-A Supply Fan Variable Flow Controls (VFC) (AB7)
     - NRCA-MCH-11-A Automatic Demand Shed Controls (AB8)
     - NRCA-MCH-12-A Fault Detection & Diagnostics for DX Units (AB9)
     - NRCA-MCH-13-A Automatic Fault Detection & Diagnostics for Air Handling & Zone Terminal Units (AB10)
     - NRCA-MCH-14-A Distributed Energy Storage DX AC Systems Test (AB11)
     - NRCA-MCH-16-A Supply Air Temperature Reset Controls (AB13)
     - NRCA-MCH-18-A Energy Management Control System (AB14)
     - NRCA-MCH-19-A Occupied Standby Acceptance (AB26)

3. Verification
   - Mechanical
     - NRCA-MCH-04-H HERS Duct Leakage Diagnostic Test (VB55)

4. Green Building (For New Construction and Major Alterations)
   - Green Building Attachment E (GBC1)

Required information:

Prepared by: ___________________________ Engineer/Architect of Record Signature

Fax: ___________________________ Email: ___________________________

Review by: ___________________________ Phone: (415) 558-

APPROVAL (Based on submitted reports)

DATE ___________________________ DBI Building Inspector or Energy Inspection Services Staff

QUESTIONS ABOUT TITLE-24 ENERGY INSPECTION SHOULD BE DIRECTED TO:
Energy Inspection Services (415) 558-6132; or, dbi.energyinspections@sfgov.org; or FAX (415) 558-6474

Revised 1/23/2020
NOTICE

TITLE-24 NON-RESIDENTIAL ENERGY INSPECTION REQUIREMENTS (ELECTRICAL/LIGHTING)

Please note that Certificates of Installation and/or Acceptance and/or Verification are required for this project, as indicated on this form issued with this permit. Ensuring the accurate completion of this documentation is the direct responsibility of the engineer/architect of record. This documentation is required in addition to the called inspections performed by the Department of Building Inspection.

For questions regarding the details or extent of required documentation or testing, and if there are any field problems regarding documentation or testing, please call your District Building Inspector or 415-558-6570.

Before final building inspection is scheduled, documentation of energy compliance “Certificate of Installation, Acceptance, and Verification” must be completed and signed by the responsible person in charge. The permit will not be finalized without compliance with the energy inspection requirements.

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Information Sheet M-06 provides submittal instructions for the Title-24 installation, verification, and acceptance energy certificates. M-06 may be found on the SFDBI website at http://sfdbi.org/information-sheets
Ensuring the completion of installation documentation as well as the required acceptance/verification testing is the direct responsibility of the undersigned. Installation documentation must be completed by the contractor performing the installation. Acceptance testing must be performed by an individual licensed to perform the specific testing needed. Verification testing must be completed by a certified HERS rater.

In accordance with the requirements of the 2019 California Energy Code, the following documentation is required for the electrical and lighting elements in this project:

<table>
<thead>
<tr>
<th>1. Installation</th>
<th>2. Acceptance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indoor Lighting</td>
<td>Indoor Lighting</td>
</tr>
<tr>
<td>□ NRCl-LTI-01-E  Indoor Lighting (IE6)</td>
<td>□ NRCA-LTI-02-A  Lighting Controls (AE1)</td>
</tr>
<tr>
<td>□ NRCl-LTI-02-E  Energy Management Control System (EMCS) or Lighting Control System (IE7)</td>
<td>□ NRCA-LTI-03-A  Automatic Daylighting Controls (AE2)</td>
</tr>
<tr>
<td>□ NRCl-LTI-03-E  Track Lighting Integral Current Limiter or Supplementary Overcurrent Protection Panel (IE8)</td>
<td>□ NRCA-LTI-04-A  Demand Responsive Lighting Controls (AE3)</td>
</tr>
<tr>
<td>□ NRCl-LTI-04-E  Two Interlocked Lighting Systems (IE9)</td>
<td>□ NRCA-LTI-05-A  Institutional Tuning PAF (AE5)</td>
</tr>
<tr>
<td>□ NRCl-LTI-05-E  Power Adjustment Factors (IE10)</td>
<td>Outdoor Lighting</td>
</tr>
<tr>
<td>□ NRCl-LTI-06-E  Additional Videoconference Studio Lighting (IE11)</td>
<td>□ NRCA-LTO-02-A  Outdoor Motion Sensor and Lighting Shut-Off Controls (AE4)</td>
</tr>
</tbody>
</table>

Outdoor Lighting
□ NRCl-LTO-01-E  Outdoor Lighting (IE12)
□ NRCl-LTO-02-E  Energy Management Control System (EMCS) or Lighting Control System (IE13)

Sign Lighting
□ NRCl-LTS-01-E  Sign Lighting (IE14)

Electrical
□ NRCl-ELC-01-E  Electrical Power Distribution (IE15)

Solar
□ NRCl-SPV-01-E  Solar Photovoltaic System (IE16)

Required information:
Prepared by: ___________________________ Date: ___________________________
Engineer/Architect of Record Signature

Fax: ___________________________ Email: ___________________________

Review by: ___________________________ Phone: (415) 558-________
DBI Engineer or Plan Checker

APPROVAL (Based on submitted reports)

DATE ___________________________
DBI Electrical Inspector or Energy Inspection Services Staff

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NOTICE

TITLE-24 NON-RESIDENTIAL ENERGY INSPECTION
REQUIREMENTS (PLUMBING)

Please note that Certificates of Installation and/or Acceptance and/or Verification are required for this project, as indicated on this form issued with this permit. Ensuring the accurate completion of this documentation is the direct responsibility of the engineer/architect of record. This documentation is required in addition to the called inspections performed by the Department of Building Inspection.

For questions regarding the details or extent of required documentation or testing, and if there are any field problems regarding documentation or testing, please call your District Building Inspector or 415-558-6570.

Before final building inspection is scheduled, documentation of energy compliance “Certificate of Installation, Acceptance, and Verification” must be completed and signed by the responsible person in charge. The permit will not be finalized without compliance with the energy inspection requirements.

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Information Sheet M-06 provides submittal instructions for the Title-24 installation, verification, and acceptance energy certificates. M-06 may be found on the SFDBI website at http://sfdbi.org/information-sheets
Ensuring the completion of installation documentation as well as the required acceptance/verification testing is the direct responsibility of the undersigned. Installation documentation must be completed by the contractor performing the installation. Acceptance testing must be performed by an individual licensed to perform the specific testing needed. Verification testing must be completed by a certified HERS rater.

In accordance with the requirements of the 2019 California Energy Code, the following documentation is required for the plumbing work in this project:

1. Installation

Plumbing
☐ NRCI-PLB-01-E Plumbing (IP10)
☐ NRCI-PLB-02-E High Rise Residential/Hotel/Motel Central Hot Water System Distribution (IP11)
☐ NRCI-PLB-03-E High Rise Residential/Hotel/Motel Single Dwelling Unit Hot Water System Distribution (IP12)
☐ NRCI-PLB-21-H HERS High Rise Residential/Hotel/Motel Central hot Water System Distribution (IP13)
☐ NRCI-PLB-22-H HERS High Rise Residential/Hotel/Motel Single Dwelling Unit Hot Water System Distribution (IP14)

Solar
☐ NRCI-STH-01-E Solar Water Heating System (IP15)

2. Acceptance

Mechanical
☐ NRCA-MCH-08-A Valve Leakage Test (AP1)
☐ NRCA-MCH-09-A Supply Water Temperature Reset Controls (AP2)
☐ NRCA-MCH-10-A Hydronic System Variable Flow Controls (AP3)
☐ NRCA-MCH-17-A Condenser Water Temperature Reset Controls (AP4)

3. Verification

Plumbing
☐ NRCV-PLB-21-H High Rise Residential/Hotel/Motel Central Hot Water System Distribution (VP1)
☐ NRCV-PLB-22-H High Rise Residential/Hotel/Motel Single Dwelling Unit Hot Water System Distribution (VP4)

Required information:

Prepared by: ___________________________ Date: ___________________________

Engineer/Architect of Record Signature

Fax: ___________________________ Email:

Review by: ___________________________ Phone: (415) 558-

DBI Engineer or Plan Checker

APPROVAL (Based on submitted reports)

DATE ___________________________ DBI Plumbing Inspector or Energy Inspection Services Staff

QUESTIONS ABOUT TITLE-24 ENERGY INSPECTION SHOULD BE DIRECTED TO:
Energy Inspection Services (415) 558-6132; or, dbi.energyinspections@sfgov.org; or FAX (415) 558-6474
NOTICE

SIMPLIFIED TITLE-24 NON-RESIDENTIAL INTERIOR TENANT IMPROVEMENT ENERGY INSPECTION REQUIREMENTS (M/E/P)

Please note that Certificates of Installation and/or Acceptance and/or Verification are required for this project, as indicated on this form issued with this permit. Ensuring the accurate completion of this documentation is the direct responsibility of the engineer/architect of record. This documentation is required in addition to the called inspections performed by the Department of Building Inspection.

For questions regarding the details or extent of required documentation or testing, and if there are any field problems regarding documentation or testing, please call your District Inspector or (415) 558-6570.

Before final inspection is scheduled, documentation of energy compliance “Certificate of Installation, Acceptance, and Verification” must be completed and signed by the responsible person in charge. The permit will not be finalized without compliance with the energy inspection requirements.

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Installation, Acceptance, and Verification certificates can be found on the California Energy Commission website at http://energy.ca.gov/title24/2016standards/

Information Sheet M-06 provides submittal instructions for the Title-24 installation, verification, and acceptance energy certificates. M-06 may be found on the SFDBI website at http://sfdbi.org/information-sheets
SIMPLIFIED TITLE-24 NON-RESIDENTIAL INTERIOR TENANT IMPROVEMENT ENERGY INSPECTION (M/E/P)

A COPY OF THIS DOCUMENT SHALL BE KEPT WITH THE APPROVED DRAWING SET

JOB ADDRESS ____________________________ APPLICATION NO. __________________ ADDENDUM NO. ___

ENGINEER/ARCHITECT NAME __________________________ PHONE NO. (_______) __________________

Ensuring the completion of installation documentation as well as the required acceptance/verification testing is the direct responsibility of the undersigned. Installation documentation must be completed by the contractor performing the installation. Acceptance testing must be performed by an individual licensed to perform the specific testing needed. Verification testing must be completed by a certified HERS rater.

In accordance with the requirements of the 2019 California Energy Code, the following documentation is required for a typical Non-Residential Tenant Improvement:

**MECHANICAL**
1. Installation
   - NRCI-MCH-01-E Mechanical (IB36)
2. Acceptance
   - NRCI-MCH-02-A Outdoor Air (AB2)
   - NRCI-MCH-03-A Constant Volume Single Zone HVAC (AB3)

**ELECTRICAL**
1. Installation
   - NRCI-LTI-01-E Indoor Lighting (IE6)
   - NRCI-LTI-02-E Energy Management Control System (EMCS) or Lighting Control System (IE7)
   - NRCI-LTI-03-E Track Lighting Integral Current Limiter or Supplementary Overcurrent Protection Panel (IE8)
   - NRCI-LTI-05-E Power Adjustment Factors (IE10)
2. Acceptance
   - NRCI-LTI-02-A Lighting Controls (AE1)
   - NRCI-LTI-03-A Automatic Daylighting Controls (AE2)
   - NRCI-LTI-04-A Demand Responsive Lighting Controls (AE3)
   - NRCI-LTI-05-A Institutional Tuning PAF (AE5)

**PLUMBING**
1. Installation
   - NRCI-PLB-01-E Water Heating Systems (IP10)

This simplified energy inspection form is intended to be used for typical interior tenant improvements. If additional Installation, Acceptance, or Verification certificates not shown in this form are required, the standard Non-Residential Building, Plumbing, and Electrical Energy Inspection forms shall be used.

Review by: ____________________________________________ Phone: (415) 558-___________

APPROVAL (Based on submitted reports)

DATE ____________________________ DBI Inspector or Energy Inspection Services Staff

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