##

## Instructions for Using the 2024 P100 Performance Matrix

**Purpose:**

* Establish clear performance requirements.
* Identify opportunities for increased performance and life cycle benefits.
* Document project requirements for contract documents.

**PM Procedure:**

1. **Review the Matrix:** Familiarize yourself with performance attributes and levels.
2. **Identify Relevant Requirements:** Determine applicable attributes based on project scope, goals, and constraints.
3. **Select Performance Levels:** Choose desired levels based on project needs and budget. Consider benefits and costs.
4. **Document Requirements:** Insert "x" in the matrix to indicate desired levels. Ensure completeness and accuracy.
5. **Include in Contract Documents:** Incorporate requirements into contract documents using clear and concise language.
6. **Review Bidder Proposals:** Evaluate bidders' ability to meet or exceed requirements. Consider proposed betterments.
7. **Monitor Project Performance:** Regularly review progress against established requirements. Update matrix as needed.

**Additional Considerations:**

* **Conduct Life Cycle Cost Analysis:** Evaluate the long-term costs and benefits of different performance levels to identify the most cost-effective and sustainable options.
* **Collaborate with Stakeholders:** Involve relevant stakeholders in the process of selecting and documenting performance requirements to ensure that their needs and preferences are adequately considered.
* **Be Flexible to Address Challenges or Opportunities:** Be prepared to adapt the performance requirements as needed to address unexpected challenges or take advantage of new opportunities.
* **Document Waivers:** Use the notes section to identify any approved waivers.

Project Title: Click or tap here to enter text.

Location: Click here to enter text.

Current Phase: Click here to enter text.

Date: Click here to enter a date.

Project Manager: Click here to enter text.

| **2024 P100 Performance Matrix** | Place an **X** for each requirement |  |
| --- | --- | --- |
| Attribute | Baseline | Tier 1 | Tier2 | Tier 3 | N/A | Notes (Describe how design meets performance or any waivers from a requirement) |
| **1.9.1 Sustainable Performance Requirements** |  |
| Energy |  |  |
| Energy Net Zero |  |  |  |  |  |  |
| Water |  |  |
| Water Net Zero |  |  |  |  |  |  |
| High Performance Building Technologies |  |  |
| GSA Pilot to Portfolio |  |  |  |  |  |  |
| Fenestration |  |  |
| Daylight and Views |  |  |  |  |  |  |
| **2.1 Urban Planning and Public Use Performance Requirements** |  |
| Sustainable Locations |  |  |
| Site Uses Existing Local Infrastructure Resources and Preserves Natural Resources  |  |  |  |  |  |  |
| Site Supports Neighborhood Connectivity, Walkability, and Transportation Access |  |  |  |  |  |  |
| Collaborative Design Process |  |  |
| Design Process Considers Input of Local Officials |  |  |  |  |  |  |
| Design for Public Use |  |  |
| Interior |  |  |  |  |  |  |
| Exterior |  |  |  |  |  |  |
| **2.4 Landscape Performance Requirements** |  |
| Site Performance |  |  |
| Site Materials |  |  |  |  |  |  |
| Site Soils |  |  |  |  |  |  |
| Vegetation |  |  |  |  |  |  |
| Pollinators |  |  |  |  |  |  |
| **3.1 Enclosure Performance Requirements** |  |
| Envelope – Natural Hazard |  |  |
| Seismic Resistance |  |  |  |  |  |  |
| Windborne Debris Resistance |  |  |  |  |  |  |
| Envelope – Serviceability |  |  |
| Wind Resistance |  |  |  |  |  |  |
| Water Penetration Resistance |  |  |
| Fenestration |  |  |  |  |  |  |
| Roofing and Horizontal Waterproofing-Membrane System |  |  |  |  |  |  |
| Roofing and Horizontal Waterproofing-Minimum Slope |  |  |  |  |  |  |
| Roofing and Horizontal Waterproofing- Drainage |  |  |  |  |  |  |
| Roofing and Horizontal Waterproofing-Green Roof |  |  |  |  |  |  |
| Roofing and Horizontal Waterproofing-Testing & Monitoring |  |  |  |  |  |  |
| Ground Water Control |  |  |  |  |  |  |
| Below Grade Waterproofing |  |  |  |  |  |  |
| Moisture and Condensation Control |  |  |
| Moisture Control Opaque Assemblies |  |  |  |  |  |  |
| Condensation Resistance Fenestration |  |  |  |  |  |  |
| Air Tightness |  |  |
| Fenestration |  |  |  |  |  |  |
| Enclosure Airtightness |  |  |  |  |  |  |
| Thermal Performance |  |  |
| Thermal Performance |  |  |  |  |  |  |
| Building Enclosure Commissioning |  |  |
| Building Enclosure Commissioning |  |  |  |  |  |  |
| Enclosure Acoustic Control |  |  |
| Acoustic Control Assuming NC-35 interior |  |  |  |  |  |  |
| Enclosure Service Life |  |  |
| Walls |  |  |  |  |  |  |
| Roofs |  |  |  |  |  |  |
| Fenestration |  |  |  |  |  |  |
| **3.5 Interior Construction Performance Requirements** |  |
| Solid Core Wood Doors |  |  |
| Construction |  | LPOE |  |  |  |  |
| Durability |  |  |  |  |  |  |
| Hardware |  |  |  |  |  |  |
| Frame |  |  |  |  |  |  |
| Security |  |  |  |  |  |  |
| Hollow Metal Doors |  |  |
| Construction |  |  |  |  |  |  |
| Durability |  |  |  |  |  |  |
| Hardware |  |  |  |  |  |  |
| Frame |  |  |  |  |  |  |
| Security |  |  |  |  |  |  |
| Glazed Aluminum Doors |  |  |
| Construction |  |  |  |  |  |  |
| Durability |  |  |  |  |  |  |
| Hardware |  |  |  |  |  |  |
| Glazing |  |  |  |  |  |  |
| Security |  |  |  |  |  |  |
| All Glass Entrances |  |  |
| Construction |  |  |  |  |  |  |
| Durability |  |  |  |  |  |  |
| Hardware |  |  |  |  |  |  |
| Glazing |  |  |  |  |  |  |
| Security |  |  |  |  |  |  |
| Borrowed Lights |  |  |
| Glazing |  |  |  |  |  |  |
| Wood Framed Interior Lights |  |  |
| Construction |  |  |  |  |  |  |
| Glazing |  |  |  |  |  |  |
| Hollow Metal Framed Interior Lights |  |  |
| Construction |  |  |  |  |  |  |
| Frame |  |  |  |  |  |  |
| Glazing |  |  |  |  |  |  |
| Aluminum Framed Interior Lights |  |  |
| Construction |  |  |  |  |  |  |
| Frame |  |  |  |  |  |  |
| Glazing |  |  |  |  |  |  |
| Metal Stud Partitions |  |  |
| Construction |  | LPOE |  |  |  |  |
| Durability |  | LPOE |  |  |  |  |
| Height |  | LPOE |  |  |  |  |
| Security |  | LPOE |  |  |  |  |
| Environmental |  |  |  |  |  |  |
| Masonry Partitions |  |  |
| Construction |  | LPOE |  |  |  |  |
| Durability |  | LPOE |  |  |  |  |
| Security |  | LPOE |  |  |  |  |
| Environmental |  |  |  |  |  |  |
| Demountable Partitions |  |  |
| Construction |  |  |  |  |  |  |
| Environmental |  |  |  |  |  |  |
| Operable Walls |  |  |
| Construction |  |  |  |  |  |  |
| Operation |  |  |  |  |  |  |
| Millwork and Cabinets |  |  |
| Construction |  |  |  |  |  |  |
| Durability |  |  |  |  |  |  |
| Quality |  |  |  |  |  |  |
| Countertops |  |  |
| Construction |  |  |  | LPOE |  |  |
| Durability |  |  |  | LPOE |  |  |
| Quality |  |  |  | LPOE |  |  |
| Environmental |  |  |  |  |  |  |
| **3.7 Interior Finishes Performance Requirements** |  |
| Broadloom/Carpet Tile |  |  |  |  |  |  |
| Durability |  |  |  |  |  |  |
| Durability (Fiber) |  |  |  |  |  |  |
| Service Life |  |  |  |  |  |  |
| Environmental |  |  |  |  |  |  |
| Vinyl Composition Tile |  |  |  |  |  |  |
| Durability |  |  |  |  |  |  |
| Static Load |  |  |  |  |  |  |
| Maintenance |  |  |  |  |  |  |
| Service Life |  |  |  |  |  |  |
| Environmental |  |  |  |  |  |  |
| Sheet Vinyl |  |  |  |  |  |  |
| Durability |  |  |  |  |  |  |
| Static load |  |  |  |  |  |  |
| Maintenance |  |  |  |  |  |  |
| Service Life |  |  |  |  |  |  |
| Environmental |  |  |  |  |  |  |
| Rubber Tile/Rubber Sheet |  |  |  |  |  |  |
| Durability |  |  |  |  |  |  |
| Static load |  |  |  |  |  |  |
| Maintenance |  |  |  |  |  |  |
| Service Life |  |  |  |  |  |  |
| Environmental |  |  |  |  |  |  |
| Linoleum |  |  |  |  |  |  |
| Durability |  |  |  |  |  |  |
| Static Load |  |  |  |  |  |  |
| Maintenance |  |  |  |  |  |  |
| Service Life |  |  |  |  |  |  |
| Environmental |  |  |  |  |  |  |
| Luxury Vinyl Tile |  |  |  |  |  |  |
| Durability |  |  |  |  |  |  |
| Static Load |  |  |  |  |  |  |
| Maintenance |  |  |  |  |  |  |
| Service Life |  |  |  |  |  |  |
| Environmental |  |  |  |  |  |  |
| Porcelain Tile |  |  |  |  |  |  |
| Durability |  |  |  |  |  |  |
| Durability - Abrasion |  |  |  |  |  |  |
| Durability - Water |  |  |  |  |  |  |
| Durability - Breakage |  |  |  |  |  |  |
| Maintenance - Stain |  |  |  |  |  |  |
| Maintenance - Chemical |  |  |  |  |  |  |
| Service Life |  |  |  |  |  |  |
| Environmental |  |  |  |  |  |  |
| Quarry Tile |  |  |  |  |  |  |
| Durability |  |  |  |  |  |  |
| Durability - Abrasion |  |  |  |  |  |  |
| Durability - Water |  |  |  |  |  |  |
| Durability - Breakage |  |  |  |  |  |  |
| Maintenance - Stain |  |  |  |  |  |  |
| Maintenance - Chemical |  |  |  |  |  |  |
| Service Life |  |  |  |  |  |  |
| Environmental |  |  |  |  |  |  |
| Mosaic Tile |  |  |  |  |  |  |
| Durability |  |  |  |  |  |  |
| Durability - Abrasion |  |  |  |  |  |  |
| Durability - Water |  |  |  |  |  |  |
| Durability - Breakage |  |  |  |  |  |  |
| Maintenance - Stain |  |  |  |  |  |  |
| Maintenance - Chemical |  |  |  |  |  |  |
| Service Life |  |  |  |  |  |  |
| Environmental |  |  |  |  |  |  |
| Limestone Tile |  |  |  |  |  |  |
| Durability |  |  |  |  |  |  |
| Maintenance |  |  |  |  |  |  |
| Slate Tile |  |  |  |  |  |  |
| Durability |  |  |  |  |  |  |
| Maintenance |  |  |  |  |  |  |
| Marble |  |  |  |  |  |  |
| Durability |  |  |  |  |  |  |
| Maintenance |  |  |  |  |  |  |
| Granite |  |  |  |  |  |  |
| Durability |  |  |  |  |  |  |
| Maintenance |  |  |  |  |  |  |
| Terrazzo |  |  |  |  |  |  |
| Durability |  |  |  |  |  |  |
| Durability - Abrasion |  |  |  |  |  |  |
| Maintenance |  |  |  |  |  |  |
| Environmental |  |  |  |  |  |  |
| Laminate Flooring |  |  |  |  |  |  |
| Durability |  |  |  |  |  |  |
| Durability – Static Load |  |  |  |  |  |  |
| Maintenance |  |  |  |  |  |  |
| Service Life |  |  |  |  |  |  |
| Environmental |  |  |  |  |  |  |
| Wood Flooring |  |  |  |  |  |  |
| Durability |  |  |  |  |  |  |
| Maintenance |  |  |  |  |  |  |
| Environmental |  |  |  |  |  |  |
| Bamboo Flooring |  |  |  |  |  |  |
| Durability |  |  |  |  |  |  |
| Maintenance |  |  |  |  |  |  |
| Environmental |  |  |  |  |  |  |
| Glazed Wall Tile |  |  |  |  |  |  |
| Durability |  |  |  |  |  |  |
| Durability - Absorption |  |  |  |  |  |  |
| Maintenance |  |  |  |  |  |  |
| Service Life |  |  |  |  |  |  |
| Environmental |  |  |  |  |  |  |
| Interior Architectural Coatings |  |  |  |  |  |  |
| Environmental |  |  |  |  |  |  |
| Exterior Architectural Coatings |  |  |  |  |  |  |
| Durability |  |  |  |  |  |  |
| Environmental |  |  |  |  |  |  |
| Wall Covering – Type II |  |  |  |  |  |  |
| Durability |  |  |  |  |  |  |
| Maintenance |  |  |  |  |  |  |
| Environmental – Wall Covering |  |  |  |  |  |  |
| Environmental – Adhesives and Sealants |  |  |  |  |  |  |
| Wall Paneling Plastic/Laminate |  |  |  |  |  |  |
| Durability |  |  |  |  |  |  |
| Durability - Abrasion |  |  |  |  |  |  |
| Maintenance |  |  |  |  |  |  |
| Service Life |  |  |  |  |  |  |
| Environmental |  |  |  |  |  |  |
| Wall Paneling Wood |  |  |  |  |  |  |
| Durability |  |  |  |  |  |  |
| Maintenance |  |  |  |  |  |  |
| Environmental |  |  |  |  |  |  |
| Wall Paneling/Composite Board |  |  |  |  |  |  |
| Durability |  |  |  |  |  |  |
| Maintenance |  |  |  |  |  |  |
| Environmental |  |  |  |  |  |  |
| Wall Paneling Sculptural |  |  |  |  |  |  |
| Durability |  |  |  |  |  |  |
| Maintenance |  |  |  |  |  |  |
| Environmental |  |  |  |  |  |  |
| Wall Base |  |  |  |  |  |  |
| Durability |  |  |  |  |  |  |
| Maintenance |  |  |  |  |  |  |
| Service Life |  |  |  |  |  |  |
| Environmental |  |  |  |  |  |  |
| Acoustical Ceilings  |  |  |  |  |  |  |
| Surface Texture |  |  |  |  |  |  |
| Open Office NRC |  |  |  |  |  |  |
| Open Office CAC |  |  |  |  |  |  |
| Enclosed Office NRC |  |  |  |  |  |  |
| Enclosed Office CAC |  |  |  |  |  |  |
| Durability – Impact Resistance |  |  |  |  |  |  |
| Durability – Moisture Resistance |  |  |  |  |  |  |
| Maintenance |  |  |  |  |  |  |
| Service Life |  |  |  |  |  |  |
| Light Reflectance |  |  |  |  |  |  |
| Environmental |  |  |  |  |  |  |
| **4.1 Structural Performance Requirements** |  |
| Live Load |  |  |
| Uniform Office Floor Loading |  |  |  |  |  |  |
| Seismic |  |  |
| Structure |  |  |  |  |  |  |
| Nonstructural |  |  |  |  |  |  |
| Wind |  |  |
| Structure |  |  |  |  |  |  |
| Vibrations |  |  |
| Serviceability |  |  |  |  |  |  |
| **4.4 Physical Security Performance Requirements** |  |
| Security |  |  |
| Physical Security Performance |  |  | LPOE |  |  |  |
| **4.6 Civil Performance Requirements** |  |
| Flood Resistant Design Requirements |  |  |
| Building Enclosure and Site |  |  |  |  |  |  |
| Electrical and Generator System |  |  |  |  |  |  |
| Mechanical |  |  |  |  |  |  |
| **5.1 Mechanical Performance Requirements** |  |
| Temperature |  |  |
| Performance |  |  |  |  |  |  |
| Humidity Control |  |  |
| Performance |  |  |  |  |  |  |
| Cooling Robustness (Redundancy) |  |  |
| Performance |  |  |  |  |  |  |
| Heating Robustness (Redundancy) |  |  |
| Performance |  |  |  |  |  |  |
| Air Movement |  |  |
| Performance |  |  |  |  |  |  |
| Pressure |  |  |
| Performance |  |  |  |  |  |  |
| Ventilation |  |  |
| Performance |  |  |  |  |  |  |
| Filtration |  |  |
| Performance |  |  |  |  |  |  |
| HVAC Noise Control |  |  |
| Performance |  |  |  |  |  |  |
| HVAC Operational Efficiency |  |  |
| Equipment Performance |  |  |  |  |  |  |
| Fan Energy Performance |  |  |  |  |  |  |
| HVAC Energy Metering |  |  |  |  |  |  |
| Whole Building Metering |  |  |  |  |  |  |
| **6.1 Lighting Performance Requirements** |  |
| Lighting Quality – Interior |  |  |
| Luminance Balance |  |  |  |  |  |  |
| CCT |  |  |  |  |  |  |
| CRI |  |  |  |  |  |  |
| Fidelity (Rf) |  |  |  |  |  |  |
| Color Saturation (Rg) |  |  |  |  |  |  |
| Human Centric Lighting |  |  |  |  |  |  |
| Lighting Quality – Exterior |  |  |
| CCT |  |  |  |  |  |  |
| CRI |  | LPOE |  |  |  |  |
| Light Pollution/Light Trespass |  |  |  |  |  |  |
| Lighting Quantity - Interior |  |  |
| Illuminance – Horizontal |  |  |  |  |  |  |
| Illuminance – Vertical |  |  |  |  |  |  |
| Lighting Quantity – Exterior |  |  |
| Illuminance – Horizontal |  |  |  |  |  |  |
| Illuminance – Vertical |  |  |  |  |  |  |
| Lighting Energy Use – Interior |  |  |
| Controls |  |  |  |  |  |  |
| Energy Use |  |  |  |  |  |  |
| Lighting Energy Use – Exterior |  |  |
| Controls |  |  |  |  |  |  |
| Energy Use |  |  |  |  |  |  |
| Power Quality |  |  |
| Power Factor (Full Light Output) |  |  |  |  |  |  |
| Power Factor (Fully Dimmed) |  |  |  |  |  |  |
| Total Harmonic Distortion at the LED Driver (Full Light Output) |  |  |  |  |  |  |
| Total Harmonic Distortion at the LED Driver (Fully Dimmed) |  |  |  |  |  |  |
| Wiring |  |  |  |  |  |  |
| Maintenance |  |  |
| Equipment Life |  |  |  |  |  |  |
| Accessibility |  |  |  |  |  |  |
| Diagnostics |  |  |  |  |  |  |
| **6.4 Electrical Performance Requirements** |  |
| Transformers |  |  |
| Efficiencies for Network and Substation Transformers |  |  |  |  |  |  |
| Insulating Fluid  |  |  |  |  |  |  |
| Efficiencies for Low-Voltage Distribution |  |  |  |  |  |  |
| Impedance for Low-Voltage Distribution |  |  |  |  |  |  |
| Harmonic Rated & Mitigating Transformers |  |  |  |  |  |  |
| Variable Frequency Drives |  |  |
| Up to 25 HP |  |  |  |  |  |  |
| 30 to 100 HP  |  |  |  |  |  |  |
| 125hp and larger |  |  |  |  |  |  |
| Metering/Monitoring  |  |  |
| Metering/Monitoring |  |  |  |  |  |  |
| Building Automation System |  |  |
| Electrical Meter Input |  |  |  |  |  |  |
| PV System Input |  |  |  |  |  |  |
| Automatic Transfer Switches Input |  |  |  |  |  |  |
| Standby Generator Input |  |  |  |  |  |  |
| Uninterruptible Power Systems Input |  |  |  |  |  |  |
| Variable Frequency Drives Input |  |  |  |  |  |  |
| Motor Starters Input |  |  |  |  |  |  |
| Additional Computer-Based BAS Interface  |  |  |  |  |  |  |
| Additional Computer-Based BAS Energy Management  |  |  |  |  |  |  |
| Interior Electrical Distribution |  |  |
| Energy saving controls |  |  |  |  |  |  |
| Arc- Flash Reduction Maintenance Switches (ARMS) |  |  |
| Arc Reduction Maintenance Switches |  |  |  |  |  |  |
| Power Factor Correction |  |  |
| Power Factor Correction |  |  |  |  |  |  |
| Surge Protection Devices |  |  |
| 277/480 Volt distribution at Main Switchgear |  |  |  |  |  |  |
| 277/480V Volt distribution at Distribution Panels |  |  |  |  |  |  |
| 277/480V Volt Branch Panels |  |  |  |  |  |  |
| 120/208V Volt Branch Panels |  |  |  |  |  |  |
| Lightning Protection Systems (LPS) |  |  |
| Lightning Protection Systems |  |  |  |  |  |  |
| UL Compliance |  |  |  |  |  |  |
| UL Master Label Compliance |  |  |  |  |  |  |
| Surge Protection for building service |  |  |  |  |  |  |
| Grounding |  |  |
| Earth counterpoise |  |  |  |  |  |  |
| Separate grounding system |  |  |  |  |  |  |
| Equipment Grounding Conductors |  |  |  |  |  |  |
| Uninterruptible Power Systems (UPS) |  |  |
| Efficiency |  |  |  |  |  |  |
| Power Factor - Output |  |  |  |  |  |  |
| Power Factor – Input |  |  |  |  |  |  |
| Input Harmonics |  |  |  |  |  |  |
| **8.5 ELECTRIC VEHICLE SUPPLY EQUIPMENT (EVSE)** |  |
| Vehicle Charging |  |  |
| Charger Quantities |  |  |  |  |  |  |
| Charger Types |  |  |  |  |  |  |