

UNIVERSITY OF MICHIGAN HOSPITALS AND HEALTH CENTERS
FACILITIES PLANNING AND DEVELOPMENT

2101 Commonwealth, Suite B
Ann Arbor, MI 48105-5759

MEMORANDUM

TO: FPD Staff
Architect/ Engineers on FPD Blanket Contract
UM AEC UMH Project Managers
UMH Maintenance Shop Foremen
UM Construction Services WO Foreman
UMH Medical Gas Certification Companies
UMH Test & Balance Companies

FROM: Heather Lewis, Manager, FPD Architecture *HL*
Adam Desmarais, Manager, FPD Mechanical Engineering *AD*
Jim Harvey, Manager, FPD Electrical Engineering *JH*

THROUGH: Bob Harris, Director, Facilities Planning & Development *BH*

DATE: January 4th, 2012

SUBJECT: FPD Master Documents

This memo serves to outline the policy and procedures required for maintaining accurate FPD master documents.

These documents reflect as-built floor plans and drawings/ schematics/ risers of critical systems in facilities throughout UMHHC's facilities. For many of the main UMHHC facilities, these master documents currently include the following:

Architectural

- Emergency Evacuation Drawings
- Floor Plans (i.e. Key Plans)
- Lead Shielding Drawings
- Fire/ Smoke Partition Drawings
- Space Utilization Drawings

Mechanical

- HVAC Zones/ MEP Equipment Location Drawings
- Chilled Water Drawings
- Roof Safety/ Exhaust Drawings
- Medical Gas Drawings
- Air and Water Balance Data

Electrical

- Electrical One-Line and Riser Diagrams
- Electrical Panel Location Drawings
- Critical Power Distribution Drawings
- Cable Tray Drawings
- Fire Alarm Drawings
- Panelboard Schedules

**UNIVERSITY OF MICHIGAN HOSPITALS AND HEALTH CENTERS
FACILITIES PLANNING AND DEVELOPMENT**

2101 Commonwealth, Suite B
Ann Arbor, MI 48105-5759

A complete list of the master documents for each UMHHC facility can be found on the Virtual Network of UMHHC FPD's website (<http://www.med.umich.edu/facilities/planningdevelopment/vn/>). Documents may be added/ deleted as deemed necessary by UMH FPD & Facilities.

UMHHC Facilities is committed to maintaining these documents to aid in the design, construction, maintenance and operation of UMH facilities. FPD posts these documents on UMH FPD's virtual network in AutoCAD ".dwg" format as well as Adobe Acrobat ".pdf" format. In addition, all documents are also posted as a complete "Proposed Revisions" set under a pdf review. Access to these documents is controlled thru a secure log-in administered thru FPD, primarily for use by FPD, outside A/E consultants, UM AEC and UMHHC Facilities Operations.

In an effort to keep these master documents up to date and as accurate as possible, the following policy shall be followed:

PHASE	TASK	RESPONSIBLE PARTY
INVESTIGATION	<p>1. A running log (i.e. UMHHC Master Documents Log) will be kept for all projects affecting UMHHC master documents. This log will automatically be generated by input on the "Project_Info-Budget" spreadsheet used in the investigation & design of UMHHC projects. This log will serve as a quick visual aid for which projects affect the master documents as well as verification that final close-out documentation has been received.</p> <p>An example of this log can be found on the FPD network here: S:\Restricted\DEPTS_SHARED\CDA-USER\ MASTER PROJECT-Database.xls</p> <p>Log will be automatically generated for all new projects using the new "Project_Info-Budget" spreadsheet. <i>Note: for all projects currently in design/ construction that modify UMHC Master Documents, the Design Manager and A/E support staff shall manually enter all projects into the running log document.</i></p>	<p>FPD Design Manager and support staff</p>
DESIGN	<p>2. Once a project is funded (i.e. has a UMHHC FPD CBN#), the A/E of record shall validate the assumptions stated in the investigative report (i.e. available circuits, chilled water connection points, etc.). Once verified, the A/E shall reflect all proposed changes to these master documents on the Proposed Revisions pdf review set posted on FPD's Virtual Network. These proposed changes shall clearly indicate the portion of the floor plan/ riser affected under the project scope (via a "cloud") as well as the RTN # and project name. The Proposed Revisions review set shall serve as a working copy of the master documents reflecting proposed design/ construction changes.</p> <p>3. All projects that affect UMHC master documents will be required to incorporate the relevant portions of the master documents into the project construction set (i.e. CD's). The incorporation of these master documents should clearly show the changes required under each project's scope.</p> <p>4. All projects that modify UMHHC electrical panelboards shall require that the A/E of record request updated panelboard schedules from the UMH FPD archive staff. Archive staff shall query the MS Access database for the most up-to-date panelboard schedule and forward to the A/E for use in their design.</p>	<p>A/E of record (external or internal FPD Design)</p> <p>A/E of record (external or internal FPD Design)</p> <p>A/E of record (external or internal FPD Design)</p>

**UNIVERSITY OF MICHIGAN HOSPITALS AND HEALTH CENTERS
FACILITIES PLANNING AND DEVELOPMENT**
2101 Commonwealth, Suite B
Ann Arbor, MI 48105-5759

	<p>5. The A/E shall field verify all information expressed on UMHHC master documents essential to their respective project.</p> <p>The A/E shall clearly label all available electrical circuits with “Reserved for RTN xxxxxxx ‘Name of RTN’” written on the panelboard schedule in the field.</p>	A/E of record (external or internal FPD Design)
CONSTRUCTION	<p>6. All projects that modify the electrical panelboard schedules shall require via a note on the drawings that the jobsite electrician coordinate the schedule changes with the UMH Electrical Shop. UMH electrician shall modify the Maximo panelboard schedule database and print off a final panelboard schedule for update in the field.</p>	A/E of record, Jobsite Electrician, UM Electrician
	<p>7. All open work orders that potentially affect electrical panelboard schedules shall be manually logged under the UMHHC Master Documents Log by the FPD archive staff upon processing each work order. Prior to forwarding WO to CS, archive staff shall provide verbiage directing CS to document all panelboard changes thru a posting on the Proposed Revisions pdf review set posted on FPD’s Virtual Network. These proposed changes shall clearly indicate the panels & circuits affected under the project scope (via a “cloud”) as well as the work order # and project name.</p>	UMH FPD archive staff / UM Work Order Construction Services Foreman
	<p>8. At the conclusion of substantial completion, the A/E of record shall be responsible for uploading all modified master documents (one-lines, floor plans, approved test & balance reports, etc.) to the FPD website under Drawing Archive Updates. http://www.med.umich.edu/facilities/planningdevelopment/vn/</p>	A/E of record (external or internal FPD Design)
POST-CONSTRUCTION	<p>9. Upon receiving final record drawings for each project, UMH FPD archive staff will use the UMHHC Master Documents Log to verify what master documents need to be updated and note on the log the date record drawings are received. For projects that modify master documents, archive staff will communicate/ verify the proposed master document changes with the appropriate assigned FPD staff.</p>	UMH FPD archive staff
	<p>10. The UMH FPD archive staff will alert the UMH FPD webmaster once master documents are ready for posting. Prior to reposting, webmaster will extract any uploaded updates from the FPD virtual network and remove comments from the respective Proposed Revisions review set.</p>	UMH FPD Webmaster
	<p>11. Master floor plans (i.e. key plans) will be updated via field verification by UMH FPD archive staff. Archive staff will be notified of all punchlists by the FPD Construction Coordinator. Prior to attending the punchlist, archive staff will obtain construction drawings to aid in field verification.</p>	UMH FPD archive staff
	<p>12. Master Space Utilization documents will be updated via the above procedures for design-build projects. For non-construction department moves, archive staff will coordinate with the space planning committee and FPD Interior Design once a month. In addition, once a year at the conclusion of the University’s annual Space Inventory Survey, archive staff will identify all areas that have changed ownership and update the Space Utilization documents for all efforts not picked up under the above regular process.</p>	UMH FPD archive staff

**UNIVERSITY OF MICHIGAN HOSPITALS AND HEALTH CENTERS
FACILITIES PLANNING AND DEVELOPMENT**

2101 Commonwealth, Suite B
Ann Arbor, MI 48105-5759

	13. All medical gas certification companies shall be required to provide a field as-built of the medical gas modifications for their respective project scope. As-builts will be delivered to FPD via an upload to the FPD virtual network. http://www.med.umich.edu/facilities/planningdevelopment/vn/	Medical Gas Certification Co.
	14. Upon project completion, electronic copies of all final approved project air/ water test & balance reports shall be submitted to UMH FPD for update in the master document. http://www.med.umich.edu/facilities/planningdevelopment/vn/	Test & Balance Co.

CC: Bob Harris
Joe Stchur
Matthew Hicks
UMH Building Managers
UMH Shops and Area Foremen