# Archibus: Facility Space Database

Facilities Planning, Design and Construction at BIDMC collects, maintains and analyzes space data for over 3 million gross square feet of clinical and administrative spaces using Archibus facility management (CAFM) software.   A number of internal departments and external organizations rely on this data to support compliance, construction and financial activities.

## Introduction/Problem

Facilities Planning, Design and Construction implemented Drawbase software in 1996, shortly after the merger of Beth Israel and Deaconess Hospitals. This CAFM system was used for the for the maintenance and analysis of BIDMC-wide space data.

Drawbase required a lot of manual data entry, which meant that information was usually out-of-date, with no way to see when it was last verified. Additionally, there were few parameters within which the data could be visualized, resulting in poor reporting functionality. As needs changed and the hospital grew, Facilities desired a more robust system with additional capabilities.

## Aim/Goal

Since the data maintained in Drawbase was used by both the Facilities department and external groups, our Space Planning team was determined to improve the records and ensure proper reporting. With Archibus, the major goals for future data collection, maintenance, and reporting were:

❶ Ability to tie into database records that would automatically update
❷ More parameters for visualization (Division, Department, Use, etc)
❸ Mobile surveying capabilities
❹ Advanced reporting functionality

## The Team

### Facilities Space Planning
- Sarah Holton
- Rachel Mutschler
- Branden Etheridge
- Adriana Tzigantcheva
- Jennifer Vasington

### Implementation & Data
- Archibus
- IS: Brendan Fitzmaurice, Leon Vitale, Rob Cook
- Steve Berry, Academic Computing
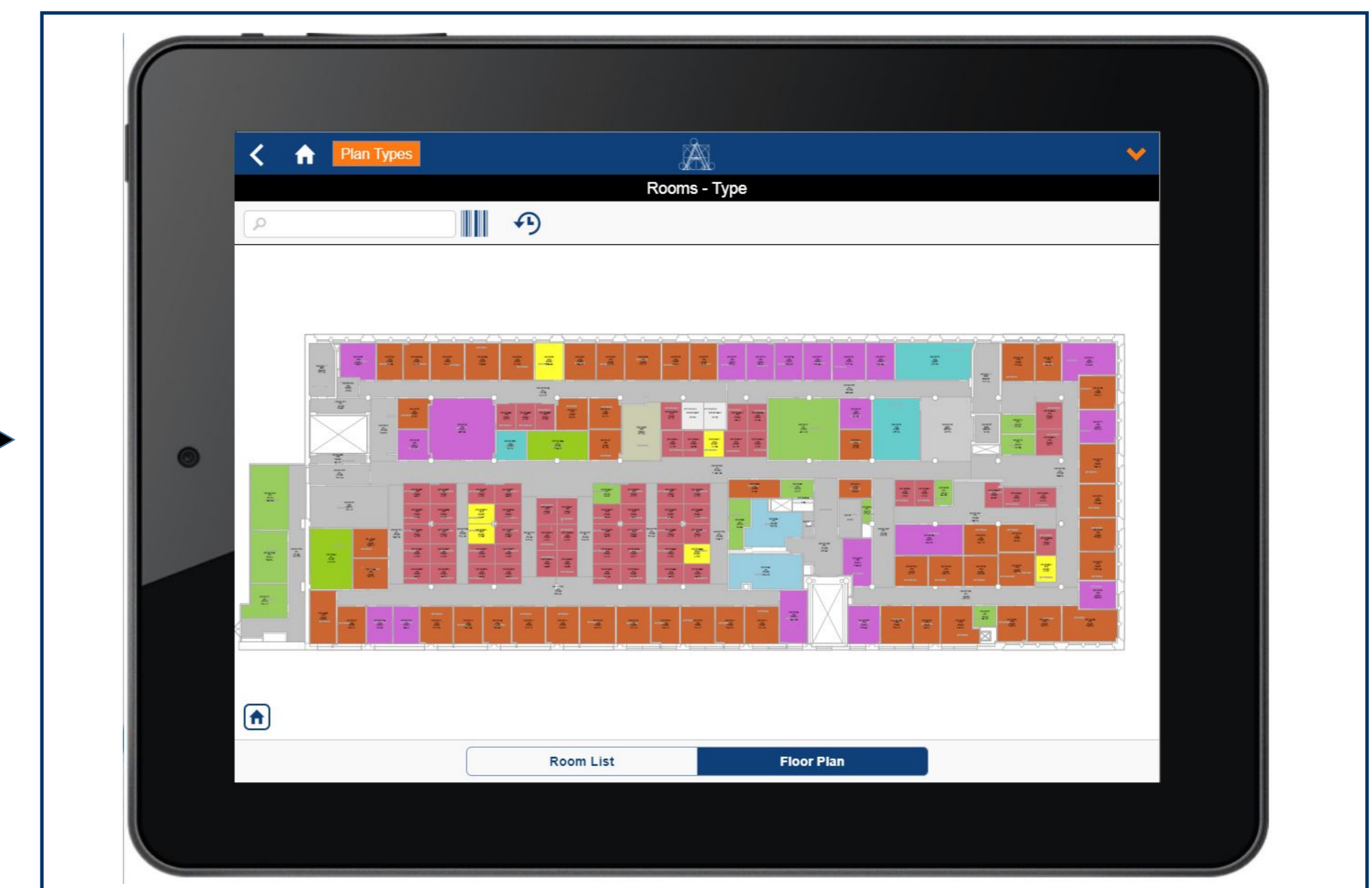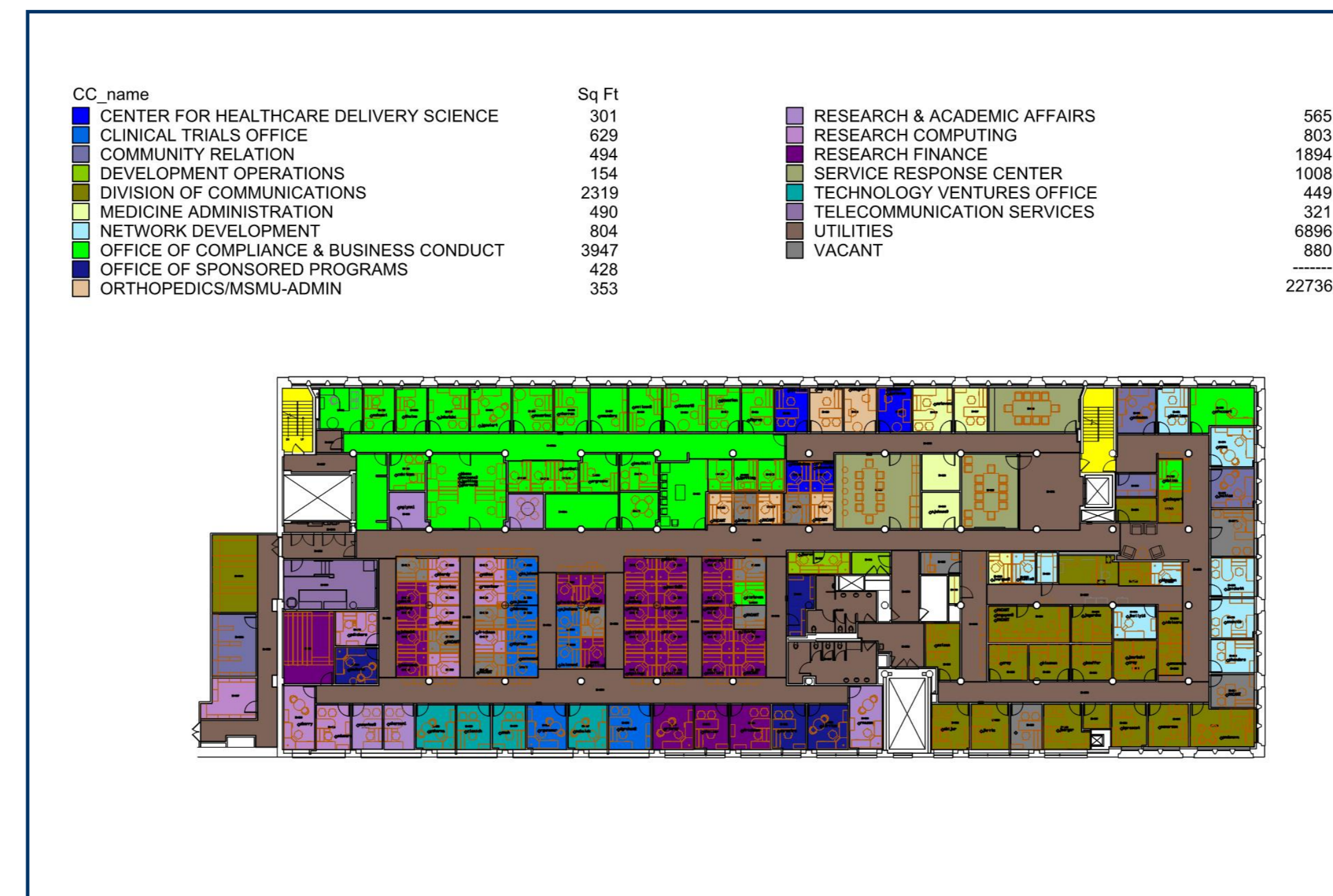- Matt Glynn, R&AA

## The Interventions

### Setup
❶ Migrate Drawbase data to new server
❷ Clean up and update existing plans
❸ Link to Division, Department and Employee databases
❹ Meet with department managers to capture space data through in-person surveys. Areas surveyed include East Campus, West Campus, nearby leased facilities and off-site BIDHC locations.
❺ Link to R&AA database to reduce data inconsistencies

### Rollout
❶ Create online accounts for Facilities staff to test (view only access)
❷ Implement mobile access for select staff
❸ Generate custom reports for consistent year-to-year data

## Results/Progress to Date



| CC_name | Sq Ft |
| --- | --- |
| CENTER FOR HEALTHCARE DELIVERY SCIENCE | 301 |
| CLINICAL TRIALS OFFICE | 629 |
| COMMUNITY RELATION | 494 |
| DEVELOPMENT OPERATIONS | 154 |
| DIVISION OF COMMUNICATIONS | 2319 |
| MEDICINE ADMINISTRATION | 490 |
| NETWORK DEVELOPMENT | 804 |
| OFFICE OF COMPLIANCE & BUSINESS CONDUCT | 3947 |
| OFFICE OF SPONSORED PROGRAMS | 428 |
| ORTHOPEDICS/MSMU-ADMIN | 353 |

| CC_name | Sq Ft |
| --- | --- |
| RESEARCH & ACADEMIC AFFAIRS | 565 |
| RESEARCH COMPUTING | 803 |
| RESEARCH FINANCE | 1894 |
| SERVICE RESPONSE CENTER | 1008 |
| TECHNOLOGY VENTURES OFFICE | 449 |
| TELECOMMUNICATION SERVICES | 321 |
| UTILITIES | 6896 |
| VACANT | 880 |
|  | 22736 |

**January 2017:  Drawbase software**
Inaccurate data. Inability to visualize additional levels of information. Archival employee data (manual entry). Poor reporting functionality
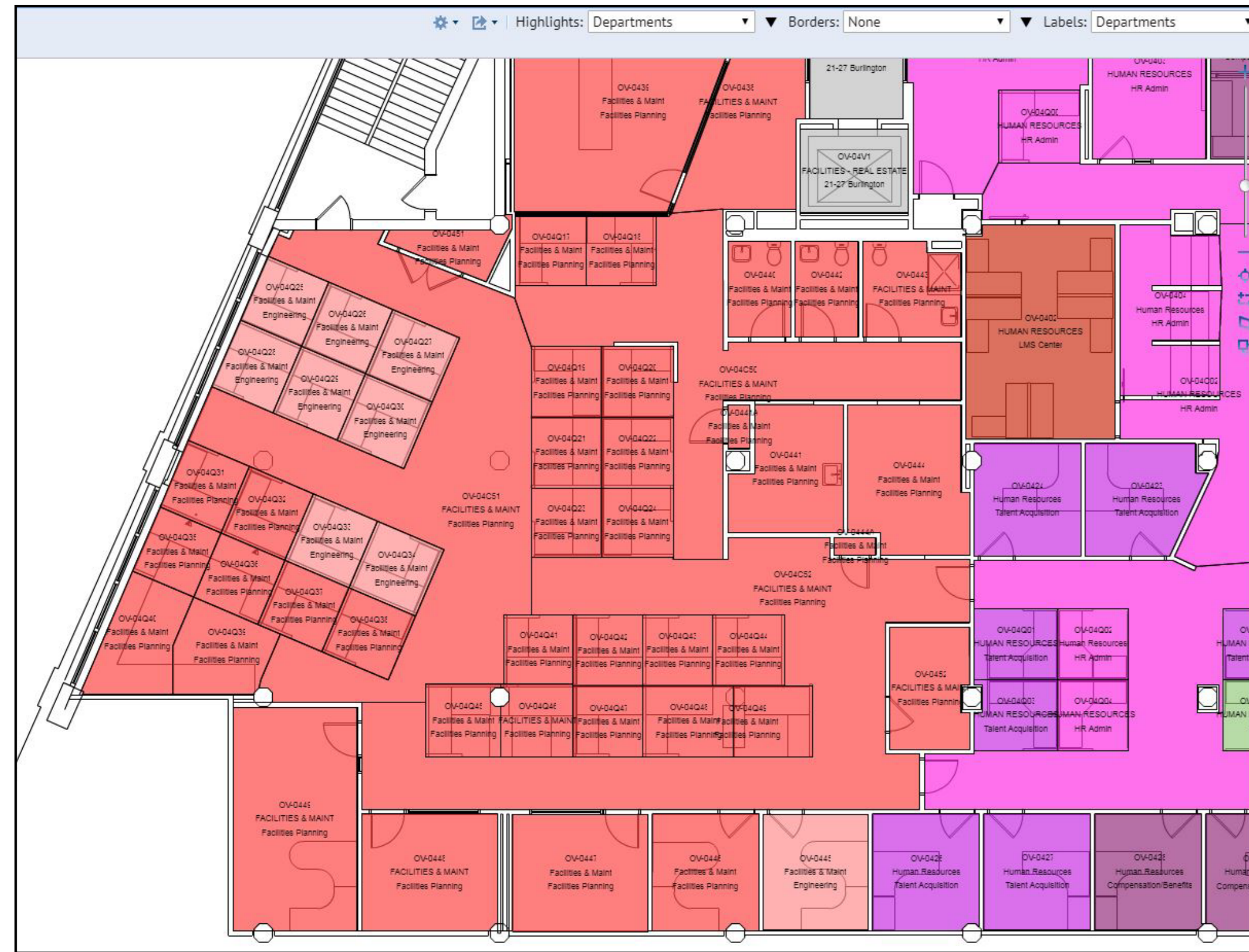
**March 2018:  Archibus software**
Tied to database records.  Ability to generate highlight plans by Room Type, Department, Occupancy etc. Advanced reporting. Mobile surveying.

*For more information, contact:*
**BIDMC_DCG@bidmc.harvard.edu**

# More Results/Progress to Date



▲ Departments



▲ Room Types



▲ Occupancy
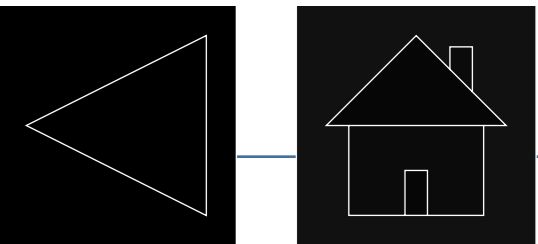
To date, we have conducted in-person surveys to verify information across 3 million square feet on- and off-campus.

For every space we surveyed, we have captured the following information:

- Division
- Department
- Room Type
- Room Use
- Capacity & Occupancy
- Employee Names
- Architectural changes

## Lessons Learned

❶ Meeting with a department manager when surveying is very helpful for collecting accurate data that may be difficult to identify in the field.

❷ The use of a dynamic data management system like Archibus has fostered an interdepartmental, collaborative effort to update the database across different disciplines.

❸ Improved data accuracy and reporting has been very useful in the evaluation of current and future Facilities projects.

## Next Steps

☐ Research: work with R&AA team to input shared use spaces into Archibus and streamline tracking systems

☐ Moves: tie to move requests (RFRs) and automate employee & departmental moves

☐ Telecomm: input jack data in partnership with Telecomm

☐ Clean Building: overlay testing and abatement information and tie to reports

ARCHIBUS APPLICATIONS

| Space Planning & Management | Move Management | Asset Management | Environmental & Risk Management | System Administration |
|---|---|---|---|---|
| Space Inventory & Performance | Enterprise Move Management | Asset Management | Clean Building | ARCHIBUS System Administration |

▼ Data

| Building Name | Floor Code | Room Code | Room Category | Category Description | Room Type | Type Description | Room Use | Room Area ft² | Is Accessible? | Employee Capacity | Occupancy Count | Division Name | Department Code | Department Name |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 20 Overland Street | 04 | OV-04L1 | W01 | Circulation | W0103 | Public Lobby | NOT NASF | 96.60 | N/A | 0 | 0.00 | Facilities - Real Estate | 1081620 | 21-27 Burlington |
| 20 Overland Street | 04 | OV-04V1 | W02 | Vertical Circulation | W0202 | Elevator | NOT NASF | 73.18 | N/A | 0 | 0.00 | Facilities - Real Estate | 1081620 | 21-27 Burlington |
| 20 Overland Street | 04 | OV-0405 | 310 | Office | 31001 | Office - Private | ADMIN | 153.35 | N/A | 2 | 2.00 | Human Resources | 1080730 | Compensation/Benefits |
| 20 Overland Street | 04 | OV-0409 | 310 | Office | 31013 | Office - Administrative | ADMIN | 156.50 | N/A | 2 | 2.00 | Human Resources | 1080730 | Compensation/Benefits |
| 20 Overland Street | 04 | OV-0411 | 310 | Office | 31013 | Office - Administrative | ADMIN | 151.42 | N/A | 2 | 2.00 | Human Resources | 1080730 | Compensation/Benefits |
| 20 Overland Street | 04 | OV-0420 | 310 | Office | 31013 | Office - Administrative | ADMIN | 80.47 | N/A | 1 | 1.00 | Human Resources | 1080730 | Compensation/Benefits |
| 20 Overland Street | 04 | OV-0428 | 310 | Office | 31001 | Office - Private | ADMIN | 99.78 | N/A | 1 | 1.00 | Human Resources | 1080730 | Compensation/Benefits |
| 20 Overland Street | 04 | OV-0429 | 310 | Office | 31001 | Office - Private | ADMIN | 100.10 | N/A | 1 | 1.00 | Human Resources | 1080730 | Compensation/Benefits |
| 20 Overland Street | 04 | OV-0430 | 310 | Office | 31013 | Office - Administrative | ADMIN | 100.62 | N/A | 1 | 1.00 | Human Resources | 1080730 | Compensation/Benefits |
| 20 Overland Street | 04 | OV-0431 | 310 | Office | 31013 | Office - Administrative | ADMIN | 123.26 | N/A | 1 | 1.00 | Human Resources | 1080730 | Compensation/Benefits |
| 20 Overland Street | 04 | OV-0433 | 310 | Office | 31013 | Office - Administrative | ADMIN | 93.50 | N/A | 1 | 1.00 | Human Resources | 1080730 | Compensation/Benefits |
| 20 Overland Street | 04 | OV-0434 | 310 | Office | 31013 | Office - Administrative | ADMIN | 93.44 | N/A | 1 | 1.00 | Human Resources | 1080730 | Compensation/Benefits |
| 20 Overland Street | 04 | OV-0435 | 310 | Office | 31013 | Office - Administrative | ADMIN | 92.24 | N/A | 1 | 1.00 | Human Resources | 1080730 | Compensation/Benefits |
| 20 Overland Street | 04 | OV-0445 | 310 | Office | 31001 | Office - Private | ADMIN | 98.38 | N/A | 1 | 1.00 | Facilities & Maint | 1081480 | Engineering |
| 20 Overland Street | 04 | OV-04Q25 | 310 | Office | 31003 | Office - Cubicle | ADMIN | 37.21 | N/A | 1 | 1.00 | Facilities & Maint | 1081480 | Engineering |
| 20 Overland Street | 04 | OV-04Q26 | 310 | Office | 31003 | Office - Cubicle | ADMIN | 39.15 | N/A | 1 | 1.00 | Facilities & Maint | 1081480 | Engineering |
| 20 Overland Street | 04 | OV-04Q27 | 310 | Office | 31003 | Office - Cubicle | ADMIN | 40.86 | N/A | 1 | 1.00 | Facilities & Maint | 1081480 | Engineering |
| 20 Overland Street | 04 | OV-04Q28 | 310 | Office | 31003 | Office - Cubicle | ADMIN | 38.94 | N/A | 1 | 1.00 | Facilities & Maint | 1081480 | Engineering |
| 20 Overland Street | 04 | OV-04Q29 | 310 | Office | 31003 | Office - Cubicle | ADMIN | 40.77 | N/A | 1 | 1.00 | Facilities & Maint | 1081480 | Engineering |
| 20 Overland Street | 04 | OV-04Q30 | 310 | Office | 31003 | Office - Cubicle | ADMIN | 42.55 | N/A | 1 | 1.00 | Facilities & Maint | 1081480 | Engineering |
| 20 Overland Street | 04 | OV-04Q33 | 310 | Office | 31003 | Office - Cubicle | ADMIN | 40.97 | N/A | 1 | 1.00 | Facilities & Maint | 1081480 | Engineering |
| 20 Overland Street | 04 | OV-04Q34 | 310 | Office | 31003 | Office - Cubicle | ADMIN | 42.40 | N/A | 1 | 1.00 | Facilities & Maint | 1081480 | Engineering |
| 20 Overland Street | 04 | OV-41417 | X01 | Building Service Area | X0104 | Custodial Supply Closet | SUPPORT | 11.78 | N/A | 0 | 0.00 | Support Services | 1081310 | Environmental Services |
| 20 Overland Street | 04 | OV-0438 | 315 | Office Service | 31500 | Office Corridor | ADMIN | 154.24 | N/A | 1 | 0.00 | Facilities & Maint | 1081260 | Facilities Planning |
| 20 Overland Street | 04 | OV-0439 | 350 | Conference Room | 35001 | Conference Room | ADMIN | 347.83 | N/A | 0 | 0.00 | Facilities & Maint | 1081260 | Facilities Planning |
| 20 Overland Street | 04 | OV-0440 | 315 | Office Service | 315XX | Toilet | ADMIN | 48.87 | N/A | 0 | 0.00 | Facilities & Maint | 1081260 | Facilities Planning |
| 20 Overland Street | 04 | OV-0441 | 315 | Office Service | 31503 | Kitchen | ADMIN | 105.12 | N/A | 0 | 0.00 | Facilities & Maint | 1081260 | Facilities Planning |
| 20 Overland Street | 04 | OV-0441A | 315 | Office Service | 31513 | Supply Storage | ADMIN | 7.89 | N/A | 0 | 0.00 | Facilities & Maint | 1081260 | Facilities Planning |
| 20 Overland Street | 04 | OV-0442 | 315 | Office Service | 315XX | Toilet | ADMIN | 48.88 | N/A | 0 | 0.00 | Facilities & Maint | 1081260 | Facilities Planning |
| 20 Overland Street | 04 | OV-0443 | 315 | Office Service | 31507 | Toilet/Shower | ADMIN | 73.29 | YES | 0 | 0.00 | Facilities & Maint | 1081260 | Facilities Planning |
| 20 Overland Street | 04 | OV-0444 | 315 | Office Service | 31504 | Copy Room | ADMIN | 136.56 | N/A | 0 | 0.00 | Facilities & Maint | 1081260 | Facilities Planning |
| 20 Overland Street | 04 | OV-0444B | 350 | Conference Room | 35001 | Conference Room | ADMIN | 128.37 | N/A | 0 | 0.00 | Facilities & Maint | 1081260 | Facilities Planning |
| 20 Overland Street | 04 | OV-0444A | 350 | Conference Room | 35001 | Conference Room | ADMIN | 6.00 | N/A | 0 | 0.00 | Facilities & Maint | 1081260 | Facilities Planning |
| 20 Overland Street | 04 | OV-0446 | 310 | Office | 31001 | Office - Private | ADMIN | 99.81 | N/A | 1 | 1.00 | Facilities & Maint | 1081260 | Facilities Planning |
| 20 Overland Street | 04 | OV-0447 | 350 | Conference Room | 35001 | Conference Room | ADMIN | 128.26 | N/A | 0 | 0.00 | Facilities & Maint | 1081260 | Facilities Planning |
| 20 Overland Street | 04 | OV-0448 | 350 | Conference Room | 35001 | Conference Room | ADMIN | 128.37 | N/A | 0 | 0.00 | Facilities & Maint | 1081260 | Facilities Planning |
| 20 Overland Street | 04 | OV-0449 | 310 | Office | 31001 | Office - Private | ADMIN | 224.43 | N/A | 1 | 1.00 | Facilities & Maint | 1081260 | Facilities Planning |

*For more information, contact:*
**BIDMC_DCG@bidmc.harvard.edu**