



HEALTHCARE
FACILITIES
symposium and expo

REBUILDING GRADY FROM THE INSIDE OUT: TRANSFORMING A SAFETY NET HOSPITAL

October 2, 2014

9:15 AM

Building Connections

#HFSE

SPEAKERS

George C. Smith
Senior Architectural Project Manager
Facilities Development
Grady Memorial Hospital



Lynda B. Herrig, PE, LEED AP
Associate Partner
Newcomb & Boyd



LEARNING OBJECTIVES



- Identify service lines upgraded in a large safety net hospital in its journey to respond to the ACA
- Identify enhancements made to increase patient, visitor and staff satisfaction, and the bottom line
- Identify impact on systems and review infrastructure replacement checklists and reports
- Identify lessons learned from Grady for future projects

THEN: 1892



THEN: 1956



THEN: 1993



NOW

John Hauptert
President & CEO



NOW



STATISTICS 2013

| | |
|-----------------|---------|
| ER Visits | 126,000 |
| Stroke Visits | 11,000 |
| Burn Visits | 2,600 |
| Neonatal Babies | 1,200 |
| Patient Visits | 600,000 |
| Beds | 953 |
| - Med-Surg | 806 |
| - ICU | 117 |
| - NICU | 30 |



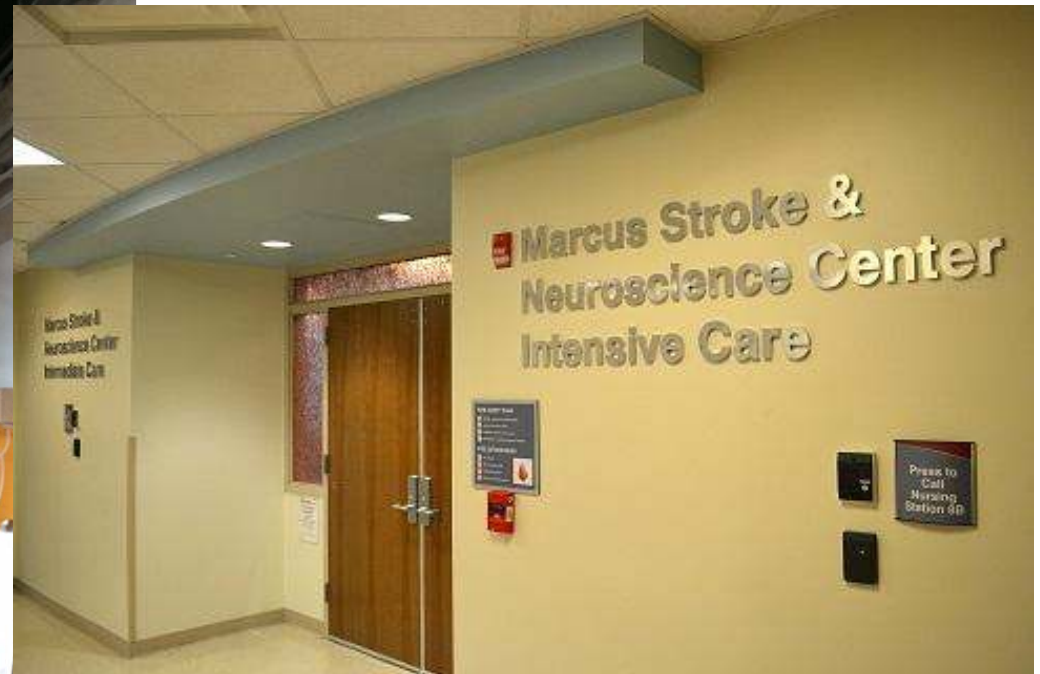
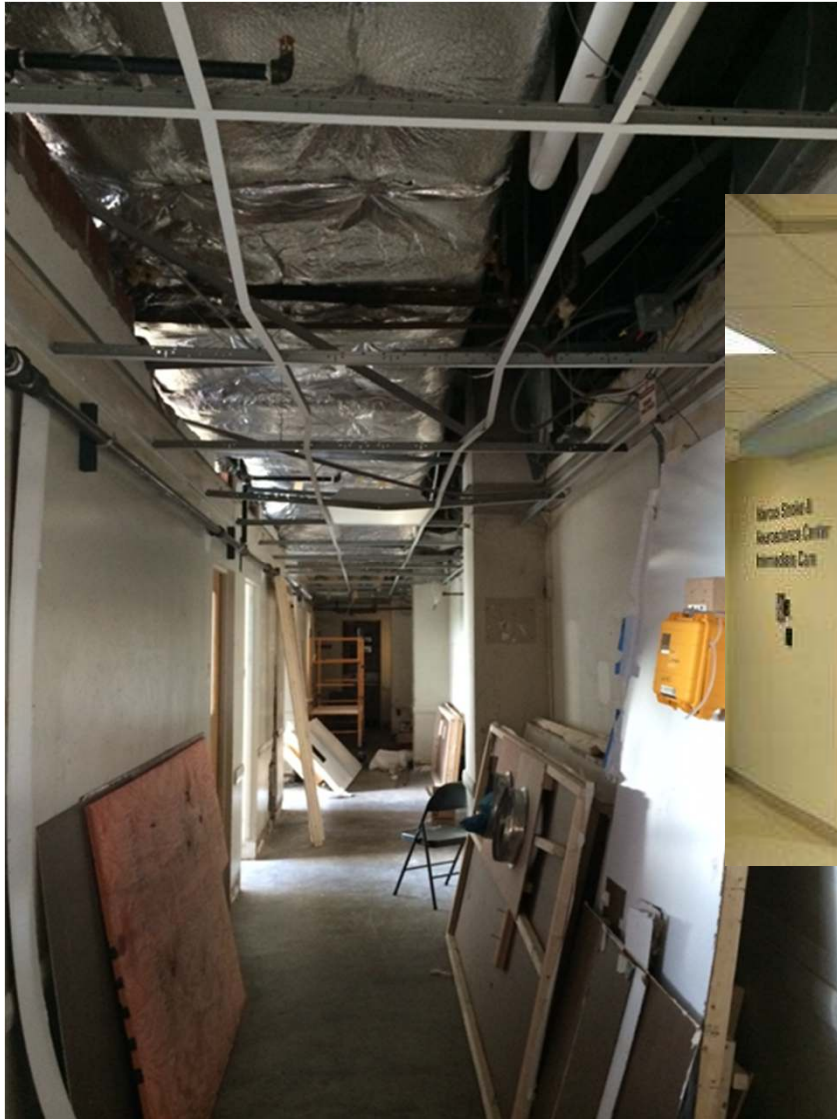
MARCUS STROKE & NEUROSCIENCE CENTER

- 2008
- \$15 million total project cost
- 32,000 square feet
- 19 ICU rooms
- 20 Step-down rooms
- IVR Suite on the unit
 - 64 slice CT
 - Bi-plane angio



Architect: HKS, Inc.

BEFORE



MARCUS STROKE & NEUROSCIENCE CENTER

- ❑ The first safety-net public hospital in the U.S. to be certified as a Primary Stroke Center by The Joint Commission
- ❑ Stroke Center built around a specialty surgical unit
- ❑ Electrical analysis performed for short circuit and coordination studies



MARCUS TRAUMA CENTER

- 2010
- \$7 million total project cost
- 19,000 square feet
- 7 trauma rooms
- 8 exam rooms
- Digital x-ray room



Architect: HOK

MARCUS TRAUMA CENTER



MARCUS TRAUMA CENTER



NICU RENOVATION

- 2011
- \$1.2 million total project cost
- 7,800 square feet
- 30 care spaces



Architect: Knight Architects, Inc.

NICU RENOVATION



NICU RENOVATION



CORRELL CARDIAC CENTER

- ❑ 2012
- ❑ \$5.4 million total project cost
- ❑ 11,000 square feet
- ❑ 2 procedure rooms
 - electro-physiology lab
 - catheterization suite
- ❑ 8 holding bays
- ❑ 5 bay stress lab



Architect: LEO A DALY

CORRELL CARDIAC CENTER



CORRELL CARDIAC CENTER

- ❑ New cooling for medical equipment
- ❑ New technology allows for program growth
- ❑ STEMI certification (10/14)
- ❑ 24/7/365 access



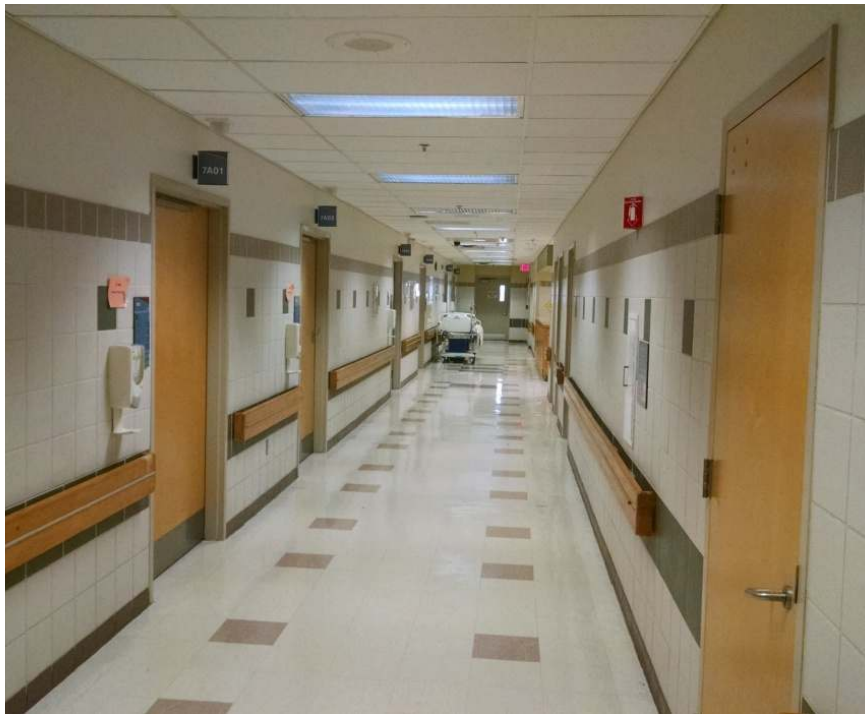
INPATIENT UNIT UPGRADES

- 2012
- \$4.7 million total project cost
- 32,000 square feet
- 52 rooms
- First in a multi-year initiative to convert semi-private to private rooms hospital-wide



Architect: HDR Architecture, Inc.

INPATIENT UNIT UPGRADES



INPATIENT UNIT UPGRADES

- ❑ New headwalls
- ❑ New LED lighting
- ❑ New digital fire alarm system
- ❑ Upgraded HVAC distribution



CLINICAL DECISION UNIT

- 2012
- \$2.8 million total project cost
- 7,000 square feet
- 18 holding bays
- 2 isolation rooms
- Central diagonal nursing core



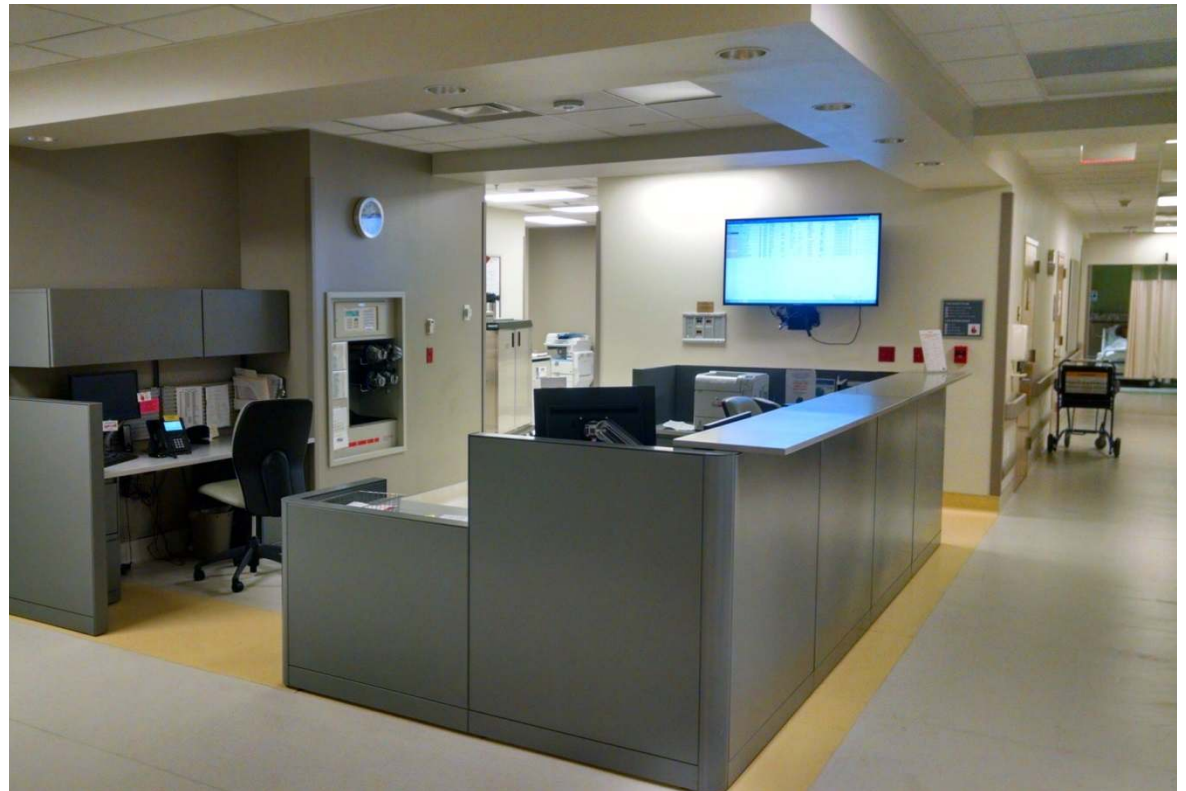
Architect: CDH Partners, Inc.

CLINICAL DECISION UNIT



CLINICAL DECISION UNIT

- New code compliant air handling unit sized to serve other renovated areas
- Individual temperature controls



GU RELOCATION / GI REMODELING

- 2012
- \$9 million total project cost
- 6,000 square foot urology center



GU Relocation

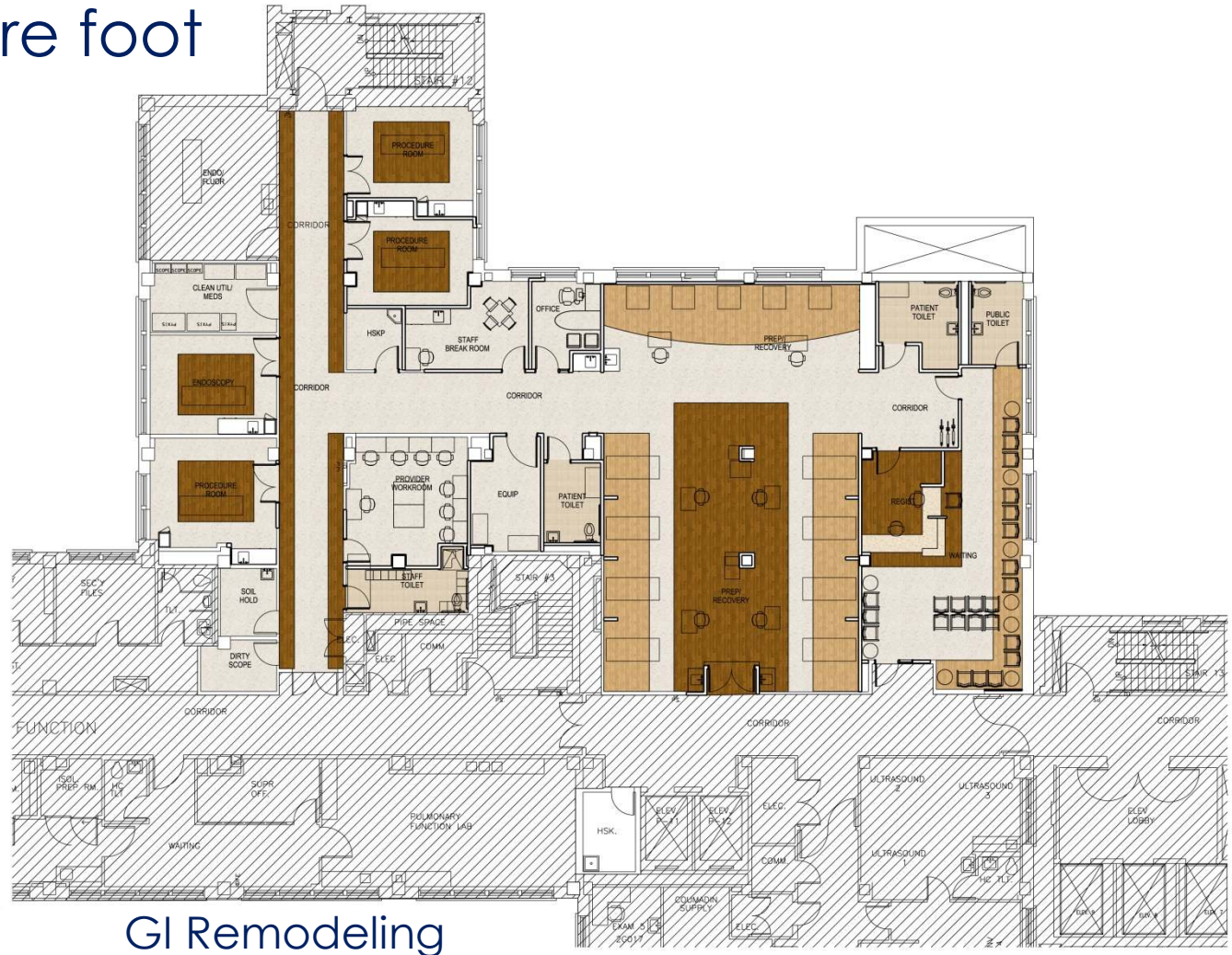
Architect: Stanley, Beaman & Sears

GU RELOCATION / GI REMODELING



GU RELOCATION / GI REMODELING

- 5,500 square foot GI Center



GI Remodeling

Architect: Stanley, Beaman & Sears

INPATIENT PHARMACY RENOVATION

- 2012
- \$2.5 million total project cost
- 7,055 square feet
- Upgrade compounding for USP 797 compliance



INPATIENT PHARMACY RENOVATION



INPATIENT PHARMACY RENOVATION

- Opens mid-2015
- Modern infrastructure for relative pressure relationships



Architect: Stanley, Beaman & Sears

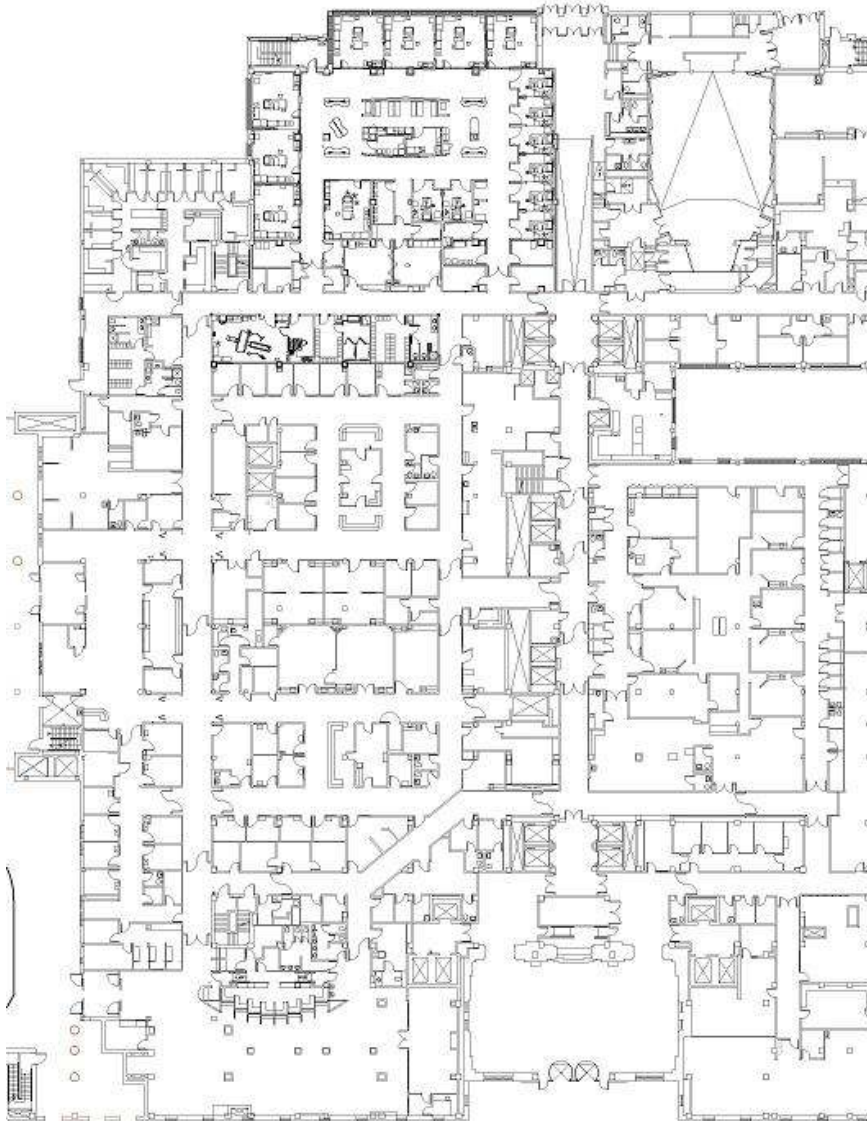
ED & HOSPITAL EXPANSION

- 2012
- \$76 million total project cost
- 165,000 square feet
 - 95,000 sf new
 - 75,000 sf renovation
- New stand alone utility infrastructure in mechanical penthouse

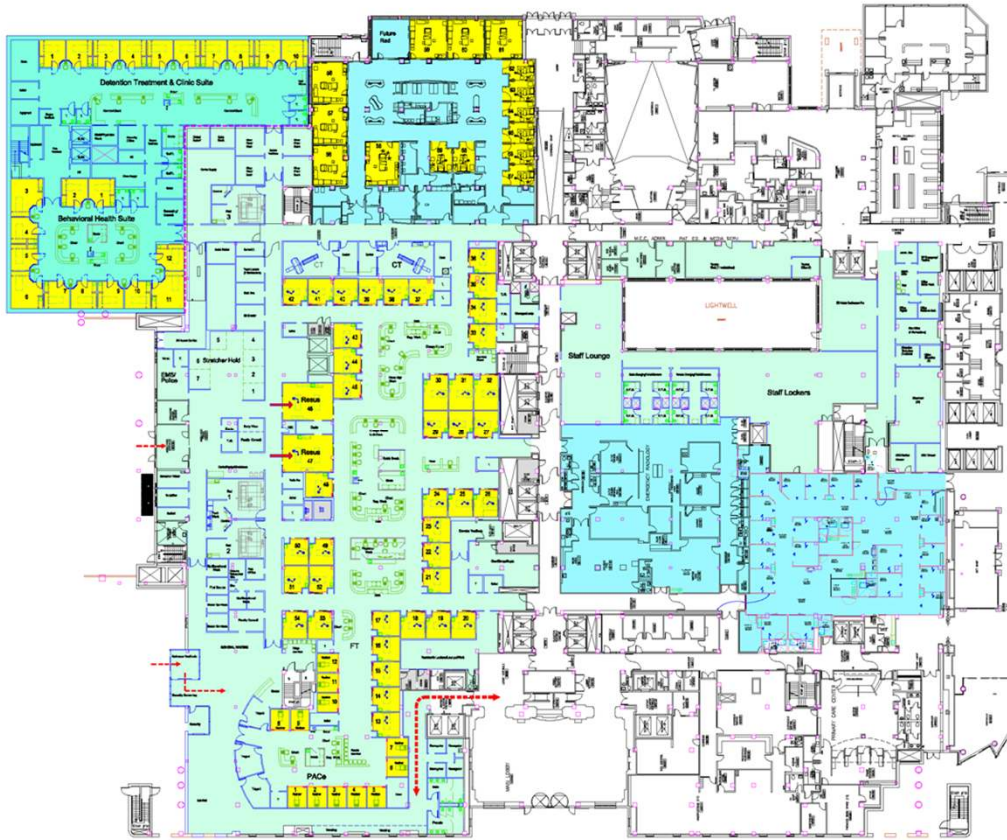


Architect: FreemanWhite, Inc.

ED & HOSPITAL EXPANSION



ED & HOSPITAL EXPANSION



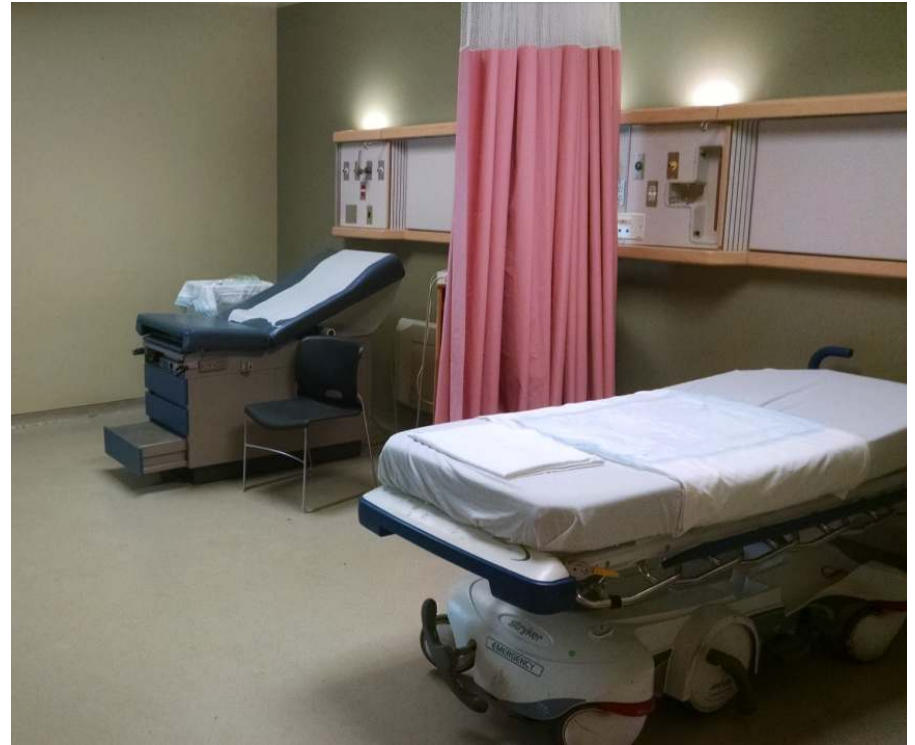
WOMEN'S AND INFANTS' CENTER

- ❑ 2014
- ❑ \$18 million total project cost
- ❑ 58,500 square feet over three floors
- ❑ Dedicated entrance
- ❑ Prenatal clinic remodeling
- ❑ State-of-the-art labor and delivery suites



Architect: BSA LifeStructures

WOMEN'S AND INFANTS' CENTER



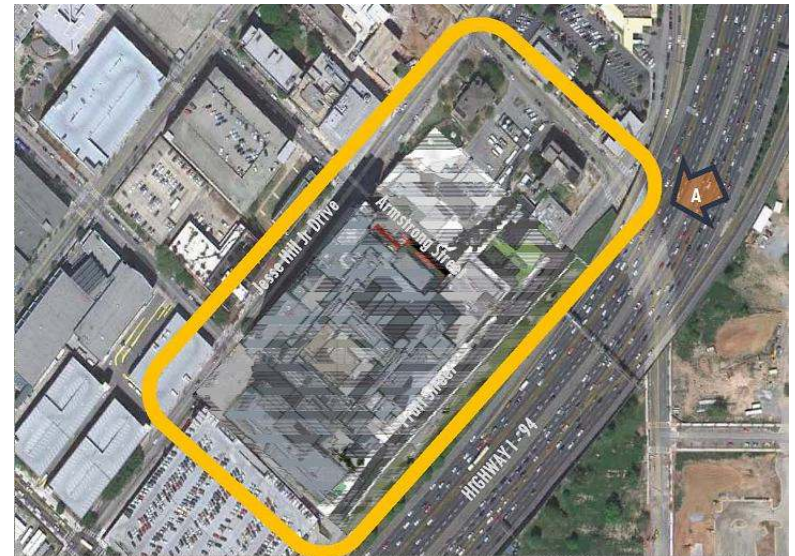
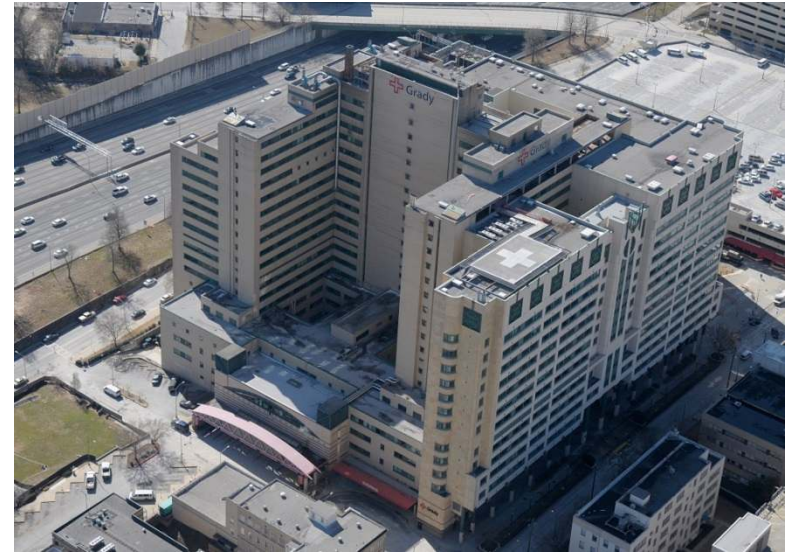
WOMEN'S AND INFANTS' CENTER



HEALTH SYSTEM CAMPUS MASTER PLAN

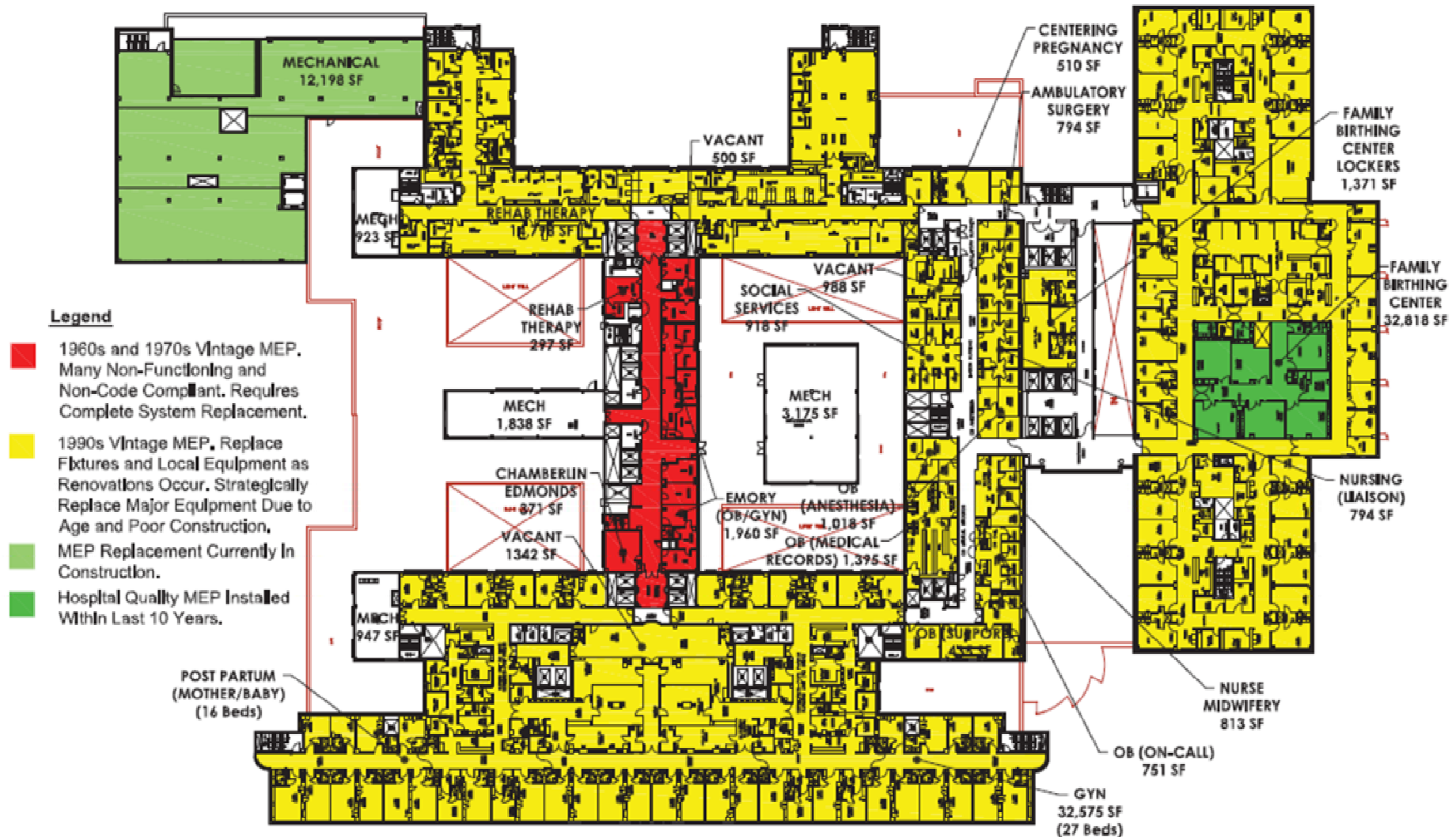
What's next?

- 2014
- Building to meet strategic business plan
- Infrastructure for the future
- Inviting campus and sense of community



Architect: HDR Architecture, Inc.

HEALTH SYSTEM CAMPUS MASTER PLAN



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| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 | 51 | 52 | 53 | 54 | 55 | 56 | 57 | 58 | 59 | 60 | 61 | 62 | 63 | 64 | 65 | 66 | 67 | 68 | 69 | 70 | 71 | 72 | 73 | 74 | 75 | 76 | 77 | 78 | 79 | 80 | 81 | 82 | 83 | 84 | 85 | 86 | 87 | 88 | 89 | 90 | 91 | 92 | 93 | 94 | 95 | 96 | 97 | 98 | 99 | 100 | 101 | 102 | 103 | 104 | 105 | 106 | 107 | 108 | 109 | 110 | 111 | 112 | 113 | 114 | 115 | 116 | 117 | 118 | 119 | 120 | 121 | 122 | 123 | 124 | 125 | 126 | 127 | 128 | 129 | 130 | 131 | 132 | 133 | 134 | 135 | 136 | 137 | 138 | 139 | 140 | 141 | 142 | 143 | 144 | 145 | 146 | 147 | 148 | 149 | 150 | 151 | 152 | 153 | 154 | 155 | 156 | 157 | 158 | 159 | 160 | 161 | 162 | 163 | 164 | 165 | 166 | 167 | 168 | 169 | 170 | 171 | 172 | 173 | 174 | 175 | 176 | 177 | 178 | 179 | 180 | 181 | 182 | 183 | 184 | 185 | 186 | 187 | 188 | 189 | 190 | 191 | 192 | 193 | 194 | 195 | 196 | 197 | 198 | 199 | 200 | 201 | 202 | 203 | 204 | 205 | 206 | 207 | 208 | 209 | 210 | 211 | 212 | 213 | 214 | 215 | 216 | 217 | 218 | 219 | 220 | 221 | 222 | 223 | 224 | 225 | 226 | 227 | 228 | 229 | 230 | 231 | 232 | 233 | 234 | 235 | 236 | 237 | 238 | 239 | 240 | 241 | 242 | 243 | 244 | 245 | 246 | 247 | 248 | 249 | 250 | 251 | 252 | 253 | 254 | 255 | 256 | 257 | 258 | 259 | 260 | 261 | 262 | 263 | 264 | 265 | 266 | 267 | 268 | 269 | 270 | 271 | 272 | 273 | 274 | 275 | 276 | 277 | 278 | 279 | 280 | 281 | 282 | 283 | 284 | 285 | 286 | 287 | 288 | 289 | 290 | 291 | 292 | 293 | 294 | 295 | 296 | 297 | 298 | 299 | 300 | 301 | 302 | 303 | 304 | 305 | 306 | 307 | 308 | 309 | 310 | 311 | 312 | 313 | 314 | 315 | 316 | 317 | 318 | 319 | 320 | 321 | 322 | 323 | 324 | 325 | 326 | 327 | 328 | 329 | 330 | 331 | 332 | 333 | 334 | 335 | 336 | 337 | 338 | 339 | 340 | 341 | 342 | 343 | 344 | 345 | 346 | 347 | 348 | 349 | 350 | 351 | 352 | 353 | 354 | 355 | 356 | 357 | 358 | 359 | 360 | 361 | 362 | 363 | 364 | 365 | 366 | 367 | 368 | 369 | 370 | 371 | 372 | 373 | 374 | 375 | 376 | 377 | 378 | 379 | 380 | 381 | 382 | 383 | 384 | 385 | 386 | 387 | 388 | 389 | 390 | 391 | 392 | 393 | 394 | 395 | 396 | 397 | 398 | 399 | 400 | 401 | 402 | 403 | 404 | 405 | 406 | 407 | 408 | 409 | 410 | 411 | 412 | 413 | 414 | 415 | 416 | 417 | 418 | 419 | 420 | 421 | 422 | 423 | 424 | 425 | 426 | 427 | 428 | 429 | 430 | 431 | 432 | 433 | 434 | 435 | 436 | 437 | 438 | 439 | 440 | 441 | 442 | 443 | 444 | 445 | 446 | 447 | 448 | 449 | 450 | 451 | 452 | 453 | 454 | 455 | 456 | 457 | 458 | 459 | 460 | 461 | 462 | 463 | 464 | 465 | 466 |
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| | | Wing | | | | | | | | | | | | |
|-------|--|---|---|--|--|--|---|--|--|---|------------------------------|------------------------------|--|--|
| | | A | B | C | D | E | F/G | H | I | J | K | L | | |
| Floor | 20-MP | | | | | NO AC Mechanical Penthouse | <div> <div>1980s And 1970s Vintage AHUs - Many Non-Functioning And Non-Code Compliant. Require Complete System Replacement.</div> <div>1990s Vintage AHUs - Replace Filters And Local Equipment As Renovations Occur. Strategically Replace Major Equipment Due To Age And Poor Construction.</div> <div>AHU Replacement Currently In Design / Construction</div> <div>Hospital quality AHU installed within last 10 years</div> </div> | | | | | | | |
| | 19-MP | | | | | NO AC Mechanical Penthouse | | | | | | | | |
| | 18-MP | | | | | NO AC Mechanical Penthouse | | | | | | | | |
| | 17-MP | | | | | NO AC Mechanical Penthouse | | | | | | | | |
| | 16 | Employee Wellness Center | Employee Wellness Center | Patient Lounge | Satellite Medical Library | Patient Care CRM and Education | | | | | | | | |
| | 15 | Employee Health Clinic | Security (Realt)/ Multi-Use | Quality Improvement Management | Administrative | Isolation / Psych / Financial | | | | | | | | |
| | 14 | On Call | Patient Financial Services | On Call | On Call | On Call | | | | | | | | |
| | 13 | Psych | Psych | Psych | Psych | Psych | | | | | | | | |
| | 12 | CR / Clinical Research | Resp. Isolation | Surgery Clinic | Surgery Clinic | ORAC / Security / Other | | | | | | | | |
| | 11 | Medicine / Neurology | Infir. Systems / Data Center | Neurology Clinic | Information Systems | Referral/Multispecialty/ Neurologics | | | | | | | | |
| | 10 | Medical General Acute / Oncology | Cancer Center Outpatient | Cancer Center Outpatient | Monospace Lab | GA Cancer Center Lab | Tissue Bank / Adults | | | | | | | |
| | 9 | Medical / Surgical and Intensive | Cancer Center Breast Center | Cancer Center Breast Center | Vacant | Hemodialysis / Vacant | Cancer Center Adults | | | | | | | |
| | 8 | ICU Step Down / Neuro Imaging | Maroon Stroke and Neuro ICU | Maroon Stroke and Neuro ICU | Vacant / Neuro Office | Neurology / ID SD / Epidemiology | Nursing Admin / Diabetes Education | | | | | | | |
| | 7 | Medical Surgical | Monospace School of Medicine | Vacant / Mechanical | Waiting / Support / Mechanical | Facilities MGMT / CR Care Mgmt / Security (Power Office) | | | | | | | | |
| | 6A | NO AC Mechanical | | | | | | | | | | | | |
| 6 | Surgery / Trauma / Orthopedic Surgery | Surgery / Trauma / Orthopedic Surgery | Clinical Prof. Sup. / Monospace / Other | Anesthesia / Surgery (On Call) / Library | Nursing Admin / Sec. Serv. / Office Admin / House | Surgery Support | Surgery Support | Surgery | Surgery | Surgery | | | | |
| 5 | Med / Telemedicine / Cardiovascular Surgery | Med / Surgery / Cardiovascular Step Down | Adolescent Health Center | Vacant | Psych / Security / Clinical Pharm / Material Mgmt / Other | Resp. Care / Site Reading / Pharmacy (NICU) / ORAC / Clinical Eng. / Other | Surgery Support | Surgery Support | Surgery Support | Surgery Support | | | | |
| 4 | Past Patients & Gyn | Past Patients & Gyn | Rehab Therapy | Rehab Therapy | Security (NICU) / ERG Care / Rehab Therapy / Cardiovascular Laboratory | OB Support (NICU) / Sec. Services / Ambulatory Surgery / Vacant | Birth Center Lockers | Family Birth Center | Family Birth Center | Family Birth Center | | | | |
| 3 | Radiology / EPC / Burn Waiting | Burn Unit / Outpatient Burn / Oral Surgery | Radiology / Cardiovascular / Oral Surgery | Radiology / Security / Vacant | Radiology / EPC / Outpatient Burn / IT Storage | Radiology | EPC / Patient Financial Services | ENT / Allergy / Asthma Clinic | Eye Clinic | Orthopedic Clinic | | | | |
| 2 | Cardiac (Various) | Catheter / Nursing Admin / Resource | Catheter / Transcath / Electry | Cardiac / CR Services / ID SD / Laboratory | Catheter / Cardiac Support / Credit Union | Cardiac (Various) / OB Women's Services | OB Office | OB (Eye Clinic) | OB (Eye Clinic) | OB (Auto Patients) | | | | |
| 1 | Chaplaincy / Sec. Serv. / Med. Records / Peds / Derm. / Lupus Clinic / Bus. Office | Admin / Med. Affairs / Med. Staff | ER/ER | Laboratory | Laboratory | Security / Med. Records | ER/ER / Med. Records / Med. Staff | Geriatric / ID / Med. Rec. / Peds / Lupus | Patient Access / Geriatric Clinic | Primary Care Clinic - Green | Primary Care Clinic - Orange | Primary Care Clinic - Yellow | | |
| G | Admission / Pat. Room / Insp. Health / Vacant / Elev. | ED | ED / Definition | Trauma | Auditorium / Plan. (Bankers) / ID Admin / Patient Lounge / Security / Vacant / Green Radiology | ED / Emer. Radiology / ID Radiology | ED | Aspire / Vestibule | Purple Pod / Med Subspecialty Clinic | Purple Pod / International Medical Center | Mobile Cell Center | | | |
| B | EMS Training / Sec. Services / Pharmacy (Adults) / Storage / Mech. Room / Elev. Room | Laboratory / End. Services / Pharmacy (Adults) / Security / Storage / Mech. Room / Elev. Room | Laboratory (Morgue) / Laboratory (Other) | Facilities / Library Storage / Mech. | Facilities / Clin. Eng. / Pharm. Outpatient / X-Ray Records | X-Ray Records / Pharmacy (Inpatient) / Biochemical Storage | EMS Training / Med Records / Pharmacy (Inpatient) / Storage | Material Mgmt / Sterile Processing / Elev. Room / Mech. Room | Material Mgmt / Sterile Processing / Elev. Room / Mech. Room | Material Mgmt / Sterile Processing | | | | |
| | | MAIN HOSPITAL ← → CLINIC | | | | | | | | | | | | |
| | | MAIN HOSPITAL ← → CLINIC | | | | | | | | | | | | |

Legend

CONSTRUCTION CONSIDERATIONS

- Coordination: users, facilities, engineering
- Communication: CON, State Fire Marshal, Department of Community Health
- Implementation: best practice infection control



INNOVATION

A horizontal bar with a green gradient, starting with a darker green on the left and fading to a lighter green on the right.

- Reuse and recycle existing facility
- Adopt sustainability measures:
 - LED lighting
 - Energy efficient HVAC strategies
- Implement Electronic Medical Records
 - Named one of *Hospital & Health Networks* magazine's "most wired" hospitals in 2013

QUESTIONS

