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March 7, 2014

VIA EMAIL & HAND DELIVERY

Ms. Ruby Potter
Health Facilities Coordination Officer
Maryland Health Care Commission
4160 Patterson Avenue
Baltimore, Maryland 21215

Re: CON Application-Prince George's Regional Medical Center
As a Replacement and Relocation of Prince George's Hospital Center
Matter No. 13-16-2351

Dear Ms. Potter:

Enclosed are ten copies of the "Responses to Completeness Questions Dated January 30, 2014" with respect to the CON Application of Dimensions Health Corporation *d/b/a* Prince George's Hospital Center and Mount Washington Pediatric Hospital, Inc. for Relocation of a General Acute Care Hospital and a Special Hospital-Pediatric.

Please sign and return to our waiting messenger the enclosed acknowledgment of receipt. Thank you for your assistance.

Sincerely,

Thomas C. Dame

TCD:blr
Enclosures
cc: Pamela B. Creekmur, Health Officer, Prince George's County
Dr. Laurence Polsky, Health Officer, Calvert County
Meenakshi G. Brewster, Health Officer, St. Mary's County
Dianna E. Abney, Acting Health Officer, Charles County
Patrick D. Dooley, Chief of Staff, Department of Health & Mental Hygiene
Paul Parker, Director, Center for Health Care Facilities Planning & Development, MHCC
Kevin McDonald, Chief, Certificate of Need
Suellen Wideman, Esq., Assistant Attorney General, Maryland Health Care Commission
Bradford L. Seamon, Chief Administrative Officer, Prince George's County Government

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Neil J. Moore, President & CEO, Dimensions Health Corporation
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John O'Brien, Chief Operating Officer, Dimensions Healthcare System
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Peter P. Parvis, Esq.

Dimensions Health Corporation d/b/a Prince George's Hospital Center
Mount Washington Pediatric Hospital, Inc.
Relocation of a General Acute Care Hospital and a Special Hospital-Pediatric
Matter No. 13-16-2351
Responses to Additional Information Questions Received 01/30/14

Elaboration on Responses from January 16 letter

1. **Your response to our question regarding oncology services only addressed medical oncology for inpatients. Please clarify whether the space and rooms identified in your response to question 4 of our 11/20/13 completeness letter is primarily for inpatients or outpatients. That is, are the 14 rooms (referenced in the table on page 5 of your 11/20 response letter) treatment rooms or inpatient rooms dedicated to medical oncology patients?**

The 14 "Cancer Treatment-Medical" rooms identified within the table on page 5 of the responses to the Commission's completeness questions dated November 20, 2013 will be located in the ambulatory cancer center area of the regional medical center. These rooms will not be used for overnight stays.

Of the 14 rooms, plans call for two types of chemo-therapy infusion treatment spaces. There will be four fully-enclosed private rooms of approximately 120 square feet each. The other ten rooms will be smaller treatment bays with curtain enclosures. These ten treatment spaces will be approximately 80 square feet each. The typical medical–surgical inpatient room size is approximately 280 square feet.

2. **Referring to the chart on page 16 of your response to the 11/20/13 letter:**

   a) **Please confirm that the numbers shown refer to inpatient admissions.**

The chart on page 16 of the responses to the completeness questions dated November 20, 2013 is information obtained from Sg2, which illustrates Sg2's national

inpatient forecast based on a number of variables or factors that will impact the trend of inpatient volumes. These numbers represent inpatient discharges and include all DRGs including neonatal/newborn discharges.

b) If indeed the numbers refer to inpatient utilization -- projecting a 3.7 decline from 2013 to 2023 -- why did the use rate projections provided in response to our 10/21/13 letter indicate no change in use rates in the PGHC service area after 2015? Please explain this inconsistency.

The 3.7% decline represents the net impact of population, utilization rate, and other factors. The national inpatient utilization rate alone declined 9.7% over the period 2013-2023. The total utilization rate for MSGA in the CON Application and the response to the 10/21/13 letter showed an expected 11.5% decrease in use rate over the period 2013-2021.

PGHC projects that the majority of the change will occur in the beginning years and then level off. Based on the national forecasts and current inpatient utilization rates of Prince George's County, PGHC determined to reduce MSGA utilization rates by approximately 11% over the projection period. As illustrated below, in comparison to forecasted utilization rates by Sg2, the projected utilization rates projected for the PGRMC service area are significantly lower than what Sg2 projects for national rates.

		National Source: Sg2	PG vs. Nation
Prince George's County			
2012 Total Discharges (incl. Births)	95,850		
2012 Total Population	891,455		
2012 PG County Use Rate	107.52	125.67 (1)	-14.4%
Prince George's Regional Medical Center Service Area			
2018 Projected Discharges (incl. Births)	96,094		
2018 Projected Population	975,840		
2018 PGRMC Service Area Use Rate	98.47	120.30	-18.1%
% Change	-8.4%	-4.3%	

(1) 125.67 represents the 2013 National utilization rate. The Prince George's County utilization rate is based on 2012 data.

PGHC has appropriately accounted for healthcare reform, population health management principles, and the Maryland Medicare Waiver initiative in its development of its inpatient utilization forecasts for the PGRMC service area.

The State's new Medicare Waiver arrangement is aimed at reducing the overall cost of healthcare expense with emphasis on reducing utilization and costs associated with hospital care. The goal is for the State's inpatient utilization rates, readmission rates, and other hospital utilization benchmarks to be comparable or better than the national averages. The inpatient forecasting model being utilized for PGRMC takes into account trends in population health management as well as current national inpatient utilization forecasts.

The assumptions of the inpatient forecasting model consider a number of factors including: (1) the current Prince George's County inpatient utilization rate in comparison to national and State inpatient utilization rates (currently Prince George's County has a lower inpatient utilization rate than the State overall as well as national average); (2) projected increase in over-65 population for Prince George's County (Prince George's County is forecasted to have a higher growth rate of senior population in comparison to overall State's growth rate of the "over-65" population); and (3) the current environment where improvements have already been made in the conversion of one-day inpatient stays into observation cases.

The projected inpatient utilization declines were reviewed and finalized after reviewing national forecasts from Sg2 and Milliman. PGHC concluded that it is appropriate to decrease the utilization rates in the early years of the projection period and have stable rates in the later projection years. PGHC expects that in the later years

of the projection model utilization rate decline drivers (*e.g.*, reductions of readmission rates, reduced avoidable admissions, medical home management initiatives, etc.) will be offset by the increased demands of inpatient care caused by the increasing the over-65 age population within Prince George's County.

In conclusion, PGHC assumes lower utilization rates in the beginning years of the projection model with utilization rates leveling in the mid and latter projection years. The net result is an inpatient utilization rate for the latter years that is less than the projected utilization rates for the nation overall.

3. As discussed at our meeting, the explanation in the January 16th letter explaining the reference to "Claritas 2011 Estimates Prince George's County" did not adequately explain the derivation of the information. Your verbal responses on 1/22 seemed to explain that a software package used by Nielsen applies use rates to Claritas population projections to arrive at utilization projections. Please explain this in writing with some thoroughness.

For cardiovascular volume forecasting, PGHC worked with Haber Consulting Services and the University of Maryland Medical System, who had access to the Nielsen iXPRESS (registered trademark) planning software system. The volume forecasting information that was labeled as "Claritas 2011 Estimates Prince George's County" came from the iXPRESS software system.

The iXPRESS system has a population demographic component, along with a healthcare utilization rate component with regional variations in utilization forecasting. The iXPRESS system utilizes Claritas population projections. Healthcare utilization data is derived from several national data sources administered by the National Center For Health Statistics (NCHS). These data sources include the National Ambulatory

Medical Care Survey (NAMCS), National Hospital Ambulatory Medical Care Survey (NHAMCS), National Hospital Discharge Survey (NHDS), National Survey of Ambulatory Surgery (NSAS), and National Health Interview Survey (NHIS). An overview of the Nielsen iXPRESS's methodology is attached as Exhibit 51. Please note that Claritas Inc. was purchased by The Nielsen Company.

4. With respect to the information submitted to predict changes in market share based on relocation and patient migration:

a) Re: <u>New Service Area</u>, what version of Freeway software was used in the proximity analysis? What parameters (such as level of congestion and travel speed) were used? Were DC hospitals included in determining the proximity ranking?

Dimensions utilized the services of Spatial Insights to identify population centroid points of the various ZIP codes within the designated service area. Spatial Insights utilized the 2012 US TIGER version of Freeway software product. Moderate traffic conditions were specified. Freeway 2012 documentation is attached as Exhibit 52. "Moderate" speed assignments used for the analysis are listed on page 5. Washington D.C. hospitals were included in determining the proximity ranking (MedStar Washington Hospital Center, Providence Hospital, Children's National Hospital Center, MedStar Georgetown University Hospital, George Washington University Hospital).

b) Re: <u>Change in market share due to relocation</u>, submit the handout provided at the January 22, 2014 along with the narrative presentation and responses to the questions that were asked by MHCC staff.

A copy of the handout from the January 22, 2014 meeting is attached as Exhibit 53.

Responses to specific questions asked by MHCC staff during the January 22, 2014 meeting:

Question: MHCC Staff inquired about the Service Area used in the 2012 Market Share listed in Table 13.

The 2012 column shows PGHC's Market Share in FY2012 in the proposed PGRMC (Largo) Service Area, not the PGHC Current Service Area.

Question: MHCC Staff inquired about the allocation of recaptured discharges and their impact on other hospitals. The question was whether PGHC used 2012 market shares of each hospital by Zip Code or the projected/adjusted market shares of each hospital by Zip Code after the relocation (ranking) methodology had been applied.

Assumed recaptured discharges were allocated to hospitals based on their individual market share in a given Zip Code *after* relocation (ranking) methodology had been applied.

c) Re: <u>Changes in population and use rate</u>, submit a readable detailed spreadsheet showing the population by zip code and cohort provided by Claritas for 2013 and 2018 and projected by PGHC through 2021. Provide a few examples of the calculations that produced the 2021 projections to illustrate the methodology and assumptions used.

A spreadsheet showing the requested population by ZIP code information is attached as Exhibit 54.

In Zip Code 20743 (Capitol Heights), the 2013 Claritas data listed a MSGA (15-64) population of 26,113, as compared to 25,974 in 2018. This is equal to a Compound Annual Growth Rate (CAGR) of -0.11% from 2013 to 2018. This is calculated as follows:

(2018 Population / 2013 Population) ^ (1/5) – 1
(25,974 / 26,113) ^ (1/5) – 1 = -0.11%

PGHC then applied this CAGR to the years following 2018 in order to arrive at the 2021 projected population. The calculation is as follows:

2019 Population = 25,974 * (1 + -0.11%) = 25,946
2020 Population = 25,946 * (1 + -0.11%) = 25,919
2021 Population = 25,919 * (1 + -0.11%) = 25,891

In Zip Code 20774 (Upper Marlboro), the 2013 Claritas data listed a Psychiatric (18+) population of 34,753, as compared to 37,263 in 2018. This is equal to a CAGR of 1.40% from 2013 to 2018. This is calculated as follows:

(2018 Population / 2013 Population) ^ (1/5) – 1
(37,263 / 34,753) ^ (1/5) – 1 = 1.40%

PGHC then applied this CAGR to the years following 2018 in order to arrive at the 2021 projected population. The calculation is as follows:

2019 Population = 37,263 * (1 + 1.40%) = 37,786
2020 Population = 37,786 * (1 + 1.40%) = 38,317
2021 Population = 38,317 * (1 + 1.40%) = 38,855

5. As discussed on 1/22, we need a more thorough explanation of why the proposed project shows almost 50 more square feet/bed than is occurring in comparable new construction, driving construction cost and project cost per bed above benchmarks as well. Your January 16 response letter said:

a) That "exclusive of the Ambulatory Care Center and CUP buildings . . . (the space per bed is) 2612 SF / bed." Staff finds this explanation curious, as we believe industry statistics referring to SF / bed include core components and infrastructure such as ambulatory care and central utility plant space in any SF / bed statistics. Put another way, are you representing that the table on p. 14 of your 1/16 response sourced from HOK shows comparables exclusive of ambulatory care space and CUP space?

b) That "The presence of students and residents requires a different use of space." Please elaborate on the academic level and role the proposed PGRMC is envisioned to play, and how that differs from institutions with a similar service and bed composition in a way that justifies additional space.

Please address these points and provide any other information that would explain and justify this apparent excess space.

In response to part (a) of the question, the comparison projects identified by HOK in the table on page 14 of PGHC's January 16, 2014 responses follow industry standards for determining building gross area and are exclusive of ambulatory care centers and central utility plants.

During the meeting on January 22, 2014, MHCC Staff provided a chart entitled "Space and Cost Comparison: Prince George's proposed project with other recent projects" (the "MHCC Project Comparison Chart"). The MHCC Project Comparison Chart purports to compare the space and cost of PGRMC with four other hospital construction projects and also includes data from an unspecified "architect survey." The comparison projects included in the MHCC Project Comparison Chart are not directly comparable in scope or level of service to PGRMC. As explained below, after adjusting the PGRMC project space to compare to the same program scope as the other projects on the chart, the PGRMC facility should be regarded as 2,262 SF / bed, within the suggested benchmark range of the other projects.

A. Facility Scope Assessment and Discussion of Variations

The projects included in the MHCC Project Comparison Chart are not comparable, without adjustments, due to significant facility scope differences. The proposed PGRMC is not a community hospital, but rather a regional, trauma, teaching hospital. As a result, it has the following additional programs that Washington Adventist Hospital, Memorial Hospital at Easton, Holy Cross Hospital—Germantown, and the proposed Clarksburg Community Hospital do not have:

- Land use restrictions that require high-rise construction
- Ambulatory Care Center / Cancer Center
- Central Utility Plant (CUP) that is detached and sized to serve other campus buildings
- Trauma Center
- Pediatric ED
- Teaching / Education
- Roof Helipad
- Enclosed Mechanical Rooms

The following chart illustrates the variation in scope among the projects included in the MHCC Project Comparison Chart.

	Dimensions / PGRMC		Washington Adventist	Memorial - Easton	Holy Cross Germantown	Clarksburg Community
BUILDING	EXISTING	PROPOSED	PROPOSED	PROPOSED	PROPOSED	PROPOSED
HOSPITAL	☆	★	★	★	★	★
MOB - CURRENT PLANNING		★				
ACC - CURRENT PLANNING	☆	★		★		
CANCER CENTER	☆	★		★		
GARAGE - CURRENT PLANNING	☆	★				
ATTACHED MECHANICAL - HOSPITAL ONLY		★	★	★	★	★
CAMPUS CUP HOSPITAL + OTHER BUILDINGS	☆	★				
HELIPAD ON GRADE			★	★	★	★
HELIPAD ON ROOF	☆	★				
TRAUMA CENTER	☆	★				
PSYCH ED	☆	★	★	★	★	
PEDS ED		★		★		
NEUROLOGY	☆	★				
CARDIOVASCULAR	☆	★	★	★		★
INPATIENT PSYCH	☆	★			★	

B. Industry Standard for Area Calculation Methodology

Two recent published white papers produced by Texas A&M University and the AIA-affiliated Academy of Architecture for Health Foundation, with others, presented the results of studies to standardize area analysis procedures for healthcare facilities. PGHC's design and architecture firm, HOK, along with a number of other leading healthcare design firms, participated by providing project experience and technical advice for these studies. Studies were driven by the need for industry leaders to reach consensus on benchmarking criteria. The results of the consensus-based research is "a detailed methodology document that defines and illustrates the basic definitions needed for measuring healthcare facilities." The full reports are attached as Exhibits 55 and 56. Several key decisions concerning standardizing the scope of work typically included in benchmark area analysis are highlighted here.

Benchmark standards do not include in the Hospital BGSF / bed calculations:

- Medical Office Buildings
- Ambulatory Care Centers
- Health Science Centers
- Parking Decks
- Bridge Walkways
- Other detached structures (such as a CUP)

In describing preliminary research data in a paper presented by faculty of Texas A&M University at the 2012 PDC Summit, titled *Preliminary Benchmarking Results: Departmental Gross And Building Gross Data*, the authors state "[i]n cases where additional areas were included, such as research buildings, central plant, covered

parking, professional buildings, or other functions, these areas were also measured and reported separately, so these additional areas did not affect the net-to-gross ratios." *See* Exhibit 56 at 5.

Additionally relevant to the design of PGRMC, the research shows that "the greatest variation [among the projects submitted for study] occurs among the mechanical and non-departmental corridors." Most significantly, "rooftop mechanical systems impact the BGSF when compared to penthouse designs."

Several detailed descriptions of area calculation methodology appear in the report titled "Area Calculations & Net: Gross Ratios in Hospital Design, Methodology Guide," released in August 2011 (attached as Exhibit 55). The following descriptions are found in the "Definitions" section of the report:

Item 3. "attached medical office buildings (MOB) will not be measured or included in the calculations."[1]

Item 6. "Enclosed roof-top mechanical space (*e.g.*, Penthouses) = BGSF; mechanical areas not enclosed will be calculated as zero area"

Item 18. "Tunnels to power plant or other needed service will be measured if it is tall enough for a walking space and placed below the calculation line under Related Areas Not In Calculations. Buried utility lines or crawling tunnels will not be measured.

Item 19. "A Bridge or walkway to a building not included in the measurement drawings (eg. for outbuildings to a facility) is not calculated. The

[1] By way of example, the Clarksburg Community Hospital CON application contains a description of concurrent construction of medical office and nursing home space, which properly is not included in the overall area calculations for the facility.

exterior wall of the hospital will be treated as if the bridge or walkway does not exist but no additional exterior wall will be added."

Item 45. "Parking space enclosed within the building envelope will be assigned a DGSF and placed below the calculation line under Related Areas Not In Calculations."

Item 46. "Central Utility Plants (CUP) are assigned only a DGSF and listed below the calculation line. Two possible circumstances include:

a. The CUP is a detached piece. The exterior wall for the CUP is not counted in the Exterior Wall calculation. It is included in the CUP DGSF listed below the calculation line.

b. The CUP is attached to or enclosed within the building envelope. An exterior wall will be created at the wall boundary between the CUP and the remainder of the hospital. The CUP is excluded from the Total Floor Area and the DGSF will be included below the calculation line."

1. Treatment of Ambulatory Care Center Space.

The space for medical office buildings and ambulatory care centers are excluded from benchmark area-per-bed calculations for inpatient hospital facilities because the functions contained in outpatient facilities are completely independent of inpatient treatment functions, and the size and scope of these facilities is not in any way related to the number of inpatient beds. Many calculated relationships exist between the inpatient bed count and the patient volumes, procedure capacity, and physical size of treatment areas such as the emergency and surgery departments. The inpatient bed counts are also related to the need for the support areas such as pharmacy, lab, materials management, foodservice, etc. These relationships do not exist for outpatient spaces.

The proposed uses in the PGRMC ACC building are all outpatient spaces. The Cancer Center on Level 1 is an outpatient function and this type of treatment function is, on many hospital campuses, located in a freestanding building. The outpatient clinic spaces on Level 2 are not for inpatient use, and as noted later in this document, may be considered by the building codes as business, not healthcare, occupancy. Similarly, the administration functions on Level 3 are for business use. Administration areas on many healthcare campuses are located in freestanding buildings and not in the main hospital building.

The 2009 Guidelines for the Design and Construction of Healthcare Facilities, NFPA 101 Life Safety Code, and the International Building Code differentiate inpatient hospital space from outpatient/ambulatory space. These differentiations support the benchmarking process of not including outpatient/ambulatory spaces in the definition of inpatient hospital space or in the calculation of benchmark area/inpatient room.

The 2009 Guidelines for the Design and Construction of Healthcare Facilities includes several definitions for ambulatory care spaces that are applicable to the proposed project. The term “ambulatory care” is defined in the Glossary as “a defined health care encounter of less than 24 hours in duration that requires direct professional health care support within a specific facility”

Section 3.1-1 defines outpatient facilities as follows:

> *The outpatient facilities described in Part 3 of the Guidelines are used primarily by patients who are able to travel or be transported to the facility for treatment, including those confined to wheelchairs. These facilities may be an outpatient unit in a hospital, a freestanding facility, or an outpatient facility in a multiple use building containing an ambulatory health care facility as described in the NFPA 101: Life Safety Code occupancy chapters.*

Section 3.1-7.1.1.1 further clarifies that "*Occasional facility use by patients on stretchers shall not be used as a basis for more restrictive institutional occupancy classifications."*

Part 3, Section 3.1-1.1.1 and 1.1.2, includes a number of delineated facility descriptions:

- *Primary care outpatient facilities*
- *Small primary care outpatient facilities*
- *Freestanding outpatient diagnostic and treatment facilities*
- *Freestanding urgent care facilities*
- *Cancer treatment facilities*
- *Outpatient surgical facilities*
- *Office surgical facilities*
- *Gastrointestinal endoscopy facilities*

The inclusion of cancer treatment and diagnostic and treatment clinics in Section 3.1-1.1.2 is applicable to the definition of these areas as outpatient/ambulatory care space in the proposed PGRMC ACC Building.

The proposed ACC building, while situated adjacent to the hospital, will be physically separated from the hospital building structurally, and there will be a designated fire protection separation between the two buildings. The inpatient hospital space will conform to the building code definition of Institutional occupancy classification. The ACC will be designated as a different occupancy and construction type, in conformance with Guidelines Section 3.1-7.1.1.2 *"Construction and structural elements of freestanding outpatient facilities shall comply with recognized building code requirements for offices."*

The NFPA 101 Life Safety Code includes much of the same language differentiating inpatient hospital space from outpatient/ambulatory space. Of particular

note is the inclusion of dentist offices, doctor's offices, and outpatient clinics in the Business occupancy category, not in the Institutional occupancy category. The clinic spaces on Level 2 of the proposed PGRMC ACC are of this type.

NFPA 101 — Chapter 3 identifies the definitions of the occupancy classifications used in the Code.

> *3.3.168 Occupancy. The purpose for which a building or other structure, or part thereof, is used or intended to be used. [ASCE 7:1.2]*
>
> *3.3.168.1* Ambulatory Health Care Occupancy. A building or portion thereof used to provide services or treatment simultaneously to four or more patients that provides, on an outpatient basis, one or more of the following: (1) treatment for patients that renders the patients incapable of taking action for self-preservation under emergency conditions without the assistance of others; (2) anesthesia that renders the patients incapable of taking action for self-preservation under emergency conditions without the assistance of others; (3) emergency or urgent care for patients who, due to the nature of their injury or illness, are incapable of taking action for self-preservation under emergency conditions with-out the assistance of others.*
>
> *A.3.3.168.1 Ambulatory Health Care Occupancy. It is not the intent that occupants be considered to be incapable of self-preservation just because they are in a wheelchair or use assistive walking devices, such as a cane, a walker, or crutches. Rather it is the intent to address emergency care centers that receive patients who have been rendered incapable of self-preservation due to the emergency, such as being rendered unconscious as a result of an accident or being unable to move due to sudden illness.*
>
> *3.3.168.3* Business Occupancy. An occupancy used for the transaction of business other than mercantile. [5000, 2006]*
>
> *A.3.3.168.3 Business Occupancy. Business occupancies include the following:*
>
> *(1) Air traffic control towers (ATCTs)*
> *(2) City halls*

(3) College and university instructional buildings, classrooms under 50 persons, and instructional laboratories
(4) Courthouses
(5) Dentists' offices
(6) Doctors' offices
(7) General offices
(8) Outpatient clinics (ambulatory)
(9) Town halls

Doctors' and dentists' offices are included, unless of such character as to be classified as ambulatory health care occupancies. (See 3.3.168.1.)

NFPA 101 - Chapter 20 defines specific requirements for ambulatory health care facilities, and includes definitions of these spaces.

A.20.1.2.2 Doctors' offices and treatment and diagnostic facilities that are intended solely for outpatient care and are physically separated from facilities for the treatment or care of inpatients, but are otherwise associated with the management of an institution, might be classified as business occupancies rather than health care occupancies.

20.1.1.1.4 Buildings, or sections of buildings, that primarily house patients who, in the opinion of the governing body of the facility and the governmental agency having jurisdiction, are capable of exercising judgment and appropriate physical action for self-preservation under emergency conditions shall be permitted to comply with chapters of this Code other than Chapter 20.

Finally, the International Building Code, 2009, provides similar identification of outpatient spaces differentiated from inpatient spaces:

Chapter 3: Use and Occupancy Classification
Section 304: Business Group B

SECTION 304
BUSINESS GROUP B

304.1 Business Group B. Business Group B occupancy includes, among others, the use of a building or structure, or a portion thereof, for office, professional or service-type transactions,

including storage of records and accounts. Business occupancies shall include, but not be limited to, the following:

Airport traffic control towers
Ambulatory health care facilities
Animal hospitals, kennels and pounds
Banks
Barber and beauty shops
Car wash
Civic administration
Clinic—outpatient
Dry cleaning and laundries: pick-up and delivery stations and self-service
Educational occupancies for students above the 12th grade
Electronic data processing
Laboratories: testing and research
Motor vehicle showrooms
Post offices
Print shops
Professional services (architects, attorneys, dentists, physicians, engineers, etc.)
Radio and television stations
Telephone exchanges
Training and skill development not within a school or academic program

304.1.1 Definitions. The following words and terms shall, for the purposes of this section and as used elsewhere in this code, have the meanings shown herein.

CLINIC, OUTPATIENT. Buildings or portions thereof used to provide medical care on less than a 24-hour basis to individuals who are not rendered incapable of self-preservation by the services provided.

308.3 *Group I-2. This occupancy shall include buildings and structures used for medical, surgical, psychiatric, nursing or custodial care for persons who are not capable of self-preservation. This group shall include, but not be limited to, the following:*

Child care facilities
Detoxification facilities
Hospitals
Mental hospitals
Nursing homes

308.3.1 *Definitions. The following words and terms shall, for the purposes of this* section *and as used elsewhere in this code, have the meanings shown herein.*

CHILD CARE FACILITIES. Facilities that provide care on a 24-hour basis to more than five children, 21/2 *years of age or less.*

DETOXIFICATION FACILITIES. Facilities that serve patients who are provided treatment for substance abuse on a 24-hour basis and who are incapable of self-preservation or who are harmful to themselves or others.

HOSPITALS AND MENTAL HOSPITALS. Buildings or portions thereof used on a 24-hour basis for the medical, psychiatric, obstetrical or surgical treatment of inpatients who are incapable of self-preservation.

NURSING HOMES. Nursing homes are long-term care facilities on a 24-hour basis, including both intermediate care facilities and skilled nursing facilities, serving more than five persons and any of the persons are incapable of self-preservation.

Medical office buildings and ambulatory care centers both provide care for patients who are not considered inpatients and who are not housed or treated for longer than a 24-hour period. These buildings and the functions within them are designated separately from traditional inpatient hospitals by patient acuity, procedure type, length of stay, and construction and building code classification. Outpatient facilities, whether a medical office, and ambulatory clinic, or specialty treatment area such as a cancer center, should not be included in the benchmark area/inpatient bed analysis. Excluding outpatient space in a benchmark analysis is consistent with industry standards, and maintaining this consistency allows for a more accurate benchmark comparison process.

2. Adjustment of PGRMC Area Measurement.

When adjusting the building area assigned to the hospital to match industry standard methodology of calculating hospital areas, the area of PGRMC is reduced down from 3,081 SF / bed to 2,612 SF / bed to remove the CUP and the Ambulatory Care Center, as illustrated in the chart below.[2]

PGRMC CON SUBMISSION	
PGRMC New Campus Total Area	711,699
PGRMC Total Beds	231
Total Campus SF / bed	3,081
ADJUSTMENTS PER INDUSTRY STANDARDS	
ACC (Remove)	68,255
CUP (Remove)	40,000
PGRMC Hospital BGSF Per Industry Standard	**603,444**
PGRMC Total Beds	231
Hospital SF / bed	**2,612**

This results in the proposed facility at 2,612 SF / bed using industry standard methodology.

[2] PGHC acknowledges that several of the comparison projects in the MHCC Project Comparison Chart have attached mechanical/electrical spaces that are included in the overall area calculations. As a standard methodology, HOK calculates the attached mechanical spaces in the overall building areas. The Concourse Level mechanical spaces, Level 3 main mechanical rooms, and the various distributed mechanical shafts, closets, etc., are included in the area calculations for PGRMC. However, in the design for PGRMC, the area for the CUP is not counted because it is a detached structure; also, it serves a number of other buildings on campus in addition to the hospital.

C. Unique Characteristics of the Proposed Design of PGRMC

The projects included in the MHCC Project Comparison chart, while all within the region and relatively recent time range, do have significant scope variations that make comparisons difficult. In order to compare similar scope, more adjustments to the PGRMC area calculation are appropriate. Several items, summarized here, are significant:

- Trauma Center – area impact : 8,000 SF
- Pediatric ED – area impact : 2,000 SF
- Education space – building configuration and area impact: 750 SF / unit and 5,000 SF conference center
- Rooftop Helipad and Enclosed Mechanical Space Response– building configuration and area impact : 60,000 SF

PGRMC Hospital BGSF Per Industry Standard	**603,444**
PGRMC Total Beds	231
Hospital SF / bed	**2,612**
ADJUSTMENTS FOR COMMON PROJECT COMPARISONS	
Dedicated Trauma Center(Remove)	8,000
Dedicated Pediatric ED Unit (Remove)	2,000
Embedded Education Space (Remove)	6,000
Conference Center (Remove)	5,000
Enclosed AHU Space (Remove)	60,000
PGRMC Hospital Common Scope Area	**522,444**
PGRMC Total Beds	231
Adjusted SF / bed	**2,262**

Each of these elements distinguishes PGRMC from the comparison facilities and each impacts space needs. For an accurate comparison to the projects in the MHCC Project Comparison Chart, the distinguishing elements should be identified and isolated to create a common core of elements that are similar across all of the facilities used in the comparison. This common core can then be judged accurately across all projects, producing an "apples to apples" comparison.

The following chart shows the MHCC Project Comparison Chart excluding the distinguishing construction elements described above:

Project	Beds	Hospital Area	Hospital Area / Bed
Dimensions / PGRMC	231	522,444	2,262
Washington Adventist	201	428,412	2,131
Memorial Easton	126	300,678	2,386
Holy Cross Germantown	93	215,469	2,317
Clarksburg Community	86	186,512	2,169
Architect Survey			2000-2500

When comparing the proposed PGRMC design with a similar scope relative to the other projects included in the MHCC Project Comparison Chart, the adjusted facility size of 2,262 SF / bed is well within the comparison benchmark range.

D. Comparable Project Benchmark Analysis

The MHCC Staff assertion that PGHC shows 50% more area per bed than comparable new construction is created by comparing the proposed total project built area of 3,081 SF / bed to a hospital-only area of 2,000 SF / bed. This benchmark is at

the lowest end of the architects' survey scale, which would represent a small community hospital, not an urban regional medical center. The lowest actual project area on the MHCC Project Comparison Chart is 2,131 SF / bed for the proposed Washington Adventist Hospital project, which does not include a MOB or ACC building.

1. Analysis of Comparison Project Spaces After Adjustment.

The lowest comparable project that includes an ACC component is Memorial Hospital at Easton, measuring at 2,849 SF / bed. This comparison shows that the PGRMC project at 3,081 SF / bed is only 8% larger, not 50% larger, than a comparable project. While this example deviates from the industry standards discussed here, it is a useful comparison to illustrate the difficulty of comparing facilities with different scopes of construction. After adjusting the PGRMC space calculation to remove the elements that should not be included in calculation (the ambulatory care center space and the CUP), and further adjusting to remove elements that are not common among the comparison projects (as shown in the chart above), the project measures 2,262 SF / bed, and is only 5% larger than the average of all of the comparable projects on the MHCC Project Comparison Chart, which is 2,155 SF / bed.

Project	Beds	Hospital Area	Hospital Area / Bed	Ambulatory Care Area	CUP	Total Area	Total Area / Bed
Dimensions / PGRMC	231	603,444	2,612	68,255	40,000	711,699	3,081
Washington Adventist	201	428,412	2,131	0	0	428,412	2,131
Memorial Easton	126	300,678	2,386	58,250	0	358,928	2,849
Holy Cross Germantown	123	237,842	1,934	0	0	237,842	1,934
Holy Cross Germantown	93	215,469	2,317	0	0	215,469	2,317
Clarksburg Community	86	186,512	2,169	0	0	186,512	2,169
Average of MHCC comparables			2,155				
Architect Survey			2000-2500				

A proper comparison of the industry standard hospital-only area indicates the following:

- PGRMC at 2,262 SF / bed = 5% increase greater than the average of the other projects in the MHCC Project Comparison Chart (2,155 SF / bed);
- PGRMC at 2,262 SF / bed = 0% increase greater than the average of the unspecified Architect Survey (2,250/bed);
- PGRMC at 2,612 SF / bed = 5% increase greater than the top range of the Architect Survey (2,500/bed), an area per bed which more accurately reflects the scope of a regional medical center.

The chart below was presented on page 14 of PGHC's responses to the completeness questions dated December 23, 2013. The chart illustrates a number of built projects designed by HOK. The areas disclosed in the chart are exclusive of ACC, MOB, parking, and CUP space, in accordance with the industry standards described previously.

FACILITY	LOCATION	BEDS	DGSF	DGSF / BED	BGSF	BGSF / BED
Community Hospitals:						
Progress West	**O'Fallon, MO**	**72**	122,595	**1,703**	154,425	**2,145**
Deaconess Gateway-Evansville	**Evansville, IN**	**116**	253,391	**2,184**	382,646	**3,299**
Methodist Stone Oak	**Houston, TX**	**147**	242,786	**1,652**	327,343	**2,227**
Saint Joseph Regional (Replacement)	**Mishawaka, IN**	**253**	489,054	**1,933**	656,122	**2,593**
Columbia St Mary's Lake Drive (Replacement)	**Milwaukee, WI**	**268**	480,560	**1,793**	702,725	**2,622**
Academically Affiliated:						
Princeton (UMCP)	**Princeton, MA**	**237**			523,010	**2,207**
Baylor Hospital (Replacement)	**Houston, TX**	**244**	644,621	**2,642**	883,131	**3,619**
Wishard Hospital (Replacement)	**Indianapolis, IN**	**329**	629,887	**1,915**	881,842	**2,680**
LAC+ USC Medical Center (Replacement)	**Los Angeles, CA**	**598**	1,114,825	**1,864**	1,407,232	**2,353**
Average						2,638

Utilizing the industry standard methodology for identifying the correct area for the proposed PGRMC, the proposed design falls in line with these build project comparables.

Prince George's Hospital Center (Proposed)		**231**	422,602	**1,829**	603,444	**2,612**

The chart below has been modified to illustrate three projects that, when the MOB or ACC scope is added, vary significantly from the original calculation. Most notable is the design for Memorial Hospital at Easton, which when excluding the ACC/MOB is 2,386 SF / bed, but including the ACC/MOB, is 2,849 BGSF / bed. Because there is great variance among hospital designs in the types of clinic services and related space requirements, there is no benchmark ratio for the number of clinics (*e.g.*, facility size) relative to inpatient bed counts; every ACC/MOB facility is developed differently based upon the unique needs of the hospital. Thus, there can be no reliable standardized methodology for creating a direct comparison of ACC/MOB area per bed.

FACILITY	LOCATION	BEDS	DGSF	DGSF / BED	BGSF	BGSF / BED
Baylor Hospital Including ACC	**Houston, TX**	**244**	874,277	**3,583**	1,179,555	**4,834**
Wishard hospital including ACC	**Indianapolis, IN**	**329**	911,622	**2,771**	1,228,610	**3,734**
Shore Health Including ACC	**Maryland**	**126**			358,928	**2,849**

2. Analysis of Functional Space Components of the Comparison Projects.

The core patient care areas of the proposed PGRMC facility will be sized consistent with other hospital facilities. Facility benchmarking is used to gauge an overall facility size in reference to a particular baseline unit. On a large scale, this comparison is created using a calculation of overall Building Area per Inpatient Room.

On a smaller scale within facilities, Diagnostic and Treatment areas may have a specific “Key Room” or “Key Rooms,” depending on the specific hospital department. Examples include operating rooms and procedure rooms for a Surgery Department; radiology, CT scan, MRI, and ultrasound stations, among others, for a Radiology Department; exam room and treatment bays for an Emergency Department; or exam rooms for a Medical Office or Ambulatory Clinic. The number of Key Rooms is determined by the patient volume and throughput calculations. The total area of a

department for all of the required supporting functions can then be benchmarked to the total number of Key Rooms.

The following tables demonstrate that, in general, the Key Room benchmarks for patient care areas within the hospital for the proposed PGRMC are all in the same typical range for a hospital facility.

The behavioral health program, which includes outpatient space adjacent to the inpatient space, is larger relative to the other projects in the MHCC Project Comparison Chart. This increases the overall area per room.

Department/Function			KEY ROOM	DGSF	SF / KEY ROOM (Round)	KEY ROOM	DGSF	SF / KEY ROOM (Round)	KEY ROOM	DGSF	SF / KEY ROOM (Round)	KEY ROOM	DGSF	SF / KEY ROOM (Round)	KEY ROOM	DGSF	SF / KEY ROOM (Round)
HOSPITAL	**HOK**	**DIMENSIONS / PGRMC**				**WAH**			**MHE**			**HCH**			**Clarksburg**		
		Design areas from CON design				*Approximate areas from CON design*			*Approximate areas from CON design*			*Approximate areas from CON design*			*Program areas from CON design*		
ACUTE PATIENT CARE																	
ACUTE CARE	675	ST	133	95,700	**720**	160	99,595	**620**	104	69,820	**670**	90	58,600	**650**	60	26,123	**435**
INTENSIVE CARE	675	ST	32	21,955	**690**	28	18,676	**670**	12	9,918	**830**	15	8,725	**580**	10	4,451	**445**
POST-PARTUM	675	ST	22	13,000	**590**	21	14,384	**680**	14	6,750	**480**	12	7,575	**630**	16	7,838	**490**
NEONATAL INTENSIVE CARE UNIT	675 (PRIVATE)	ST	*24*	16,000	**670**	9	3,812	**420**	5	3,100	**620**	8	2,520	**320**	0	NA	
MT. WASHINGTON PEDIATRICS	675	B	15	10,800	**720**	0	NA			NA		0	NA		0	NA	
INPATIENT PSYCH	900	ST	28	25,050	**890**	0	NA			NA		6	5,250	**880**	0	NA	
PEDIATRICS	675	ST	1	500	**500**	0	NA		6	5,700	**950**	0	NA		0	NA	
SUBTOTAL			231	183,005	**792**	209	136,467	**650**	136	95,288	**700**	123	82,670	**670**	86	38,412	**447**
									Includes Shell			*Includes Shell*					

As shown below, diagnostic areas for the PGRMC design are within the range of the comparison projects.

Department/Function			KEY ROOM	DGSF	SF / KEY ROOM (Round)	KEY ROOM	DGSF	SF / KEY ROOM (Round)	KEY ROOM	DGSF	SF / KEY ROOM (Round)	KEY ROOM	DGSF	SF / KEY ROOM (Round)	KEY ROOM	DGSF	SF / KEY ROOM (Round)
HOSPITAL	**HOK**	**DIMENSIONS / PGRMC**				**WAH**			**MHE**			**HCH**			**Clarksburg**		
		Design areas from CON design				*Approximate areas from CON design*			*Approximate areas from CON design*			*Approximate areas from CON design*			*Program areas from CON design*		
DIAGNOSTICS & TREATMENT																	
SURGERY	2200	ST	16	31,850	**1,990**	12	22,127	**1,840**	9	24,475	**2,720**	9	21,450	**2,380**	4	11,709	**2,927**
CARDIAC CATH LAB	2200	ST	4	9,400	**2,350**	6	20,296	**3,380**		incl above			incl above		0	NA	
GI - ENDOSCOPY	800	ST	2	2,280	**1,140**		incl above			incl above			incl above		2	1,070	**535**
ADULT/PEDS ED	600	ST	53	25,300	**480**	32	21,670	**680**	37	19,400	**520**	12	13,300	**1,110**	17	10,130	**596**
TRAUMA	1000	ST	5	7,000	**1,400**		NA			NA			NA		0	NA	
UNIVERSAL CARE / PRE-POST	300	ST	68	23,650	**350**	56	17,795	**320**	35	10,950	**310**	24	7,624	**320**	15	5,211	**347**
IMAGING	1400	ST	13	19,700	**1,520**	12	14,584	**1,220**	12	17,200	**1,430**	9	12,800	**1,420**	14	12,370	**884**
NON-INVASIVE CARDIOLOGY	800	ST	4	2,785	**700**	8	4,030	**500**	4	5,025	**1,260**		NA			1,190	
NEURODIAGNOSTICS	800	ST	2	1,000	**500**		NA			NA			NA		0	NA	
LABOR & DELIVERY	1200	ST	10	12,575	**1,260**	9	16,605	**1,850**	16	12,950	**810**	7	14,900	**2,130**	8	7,286	**911**
DIALYSIS	240	ST	6	1,970	**330**	6	2,210	**370**	4	2,150	**540**		NA		0	NA	
PT/OT		ST		2,400			NA			NA			NA			2,985	
SUBTOTAL			183	139,910	**760**	141	119,317	**850**	117	92,150	**790**	61	70,074	**1,150**	60	51,951	**866**
		PROG	22			18			9			9			6		

As shown below, support areas space for the PGRMC design also is within the range of the comparison projects.

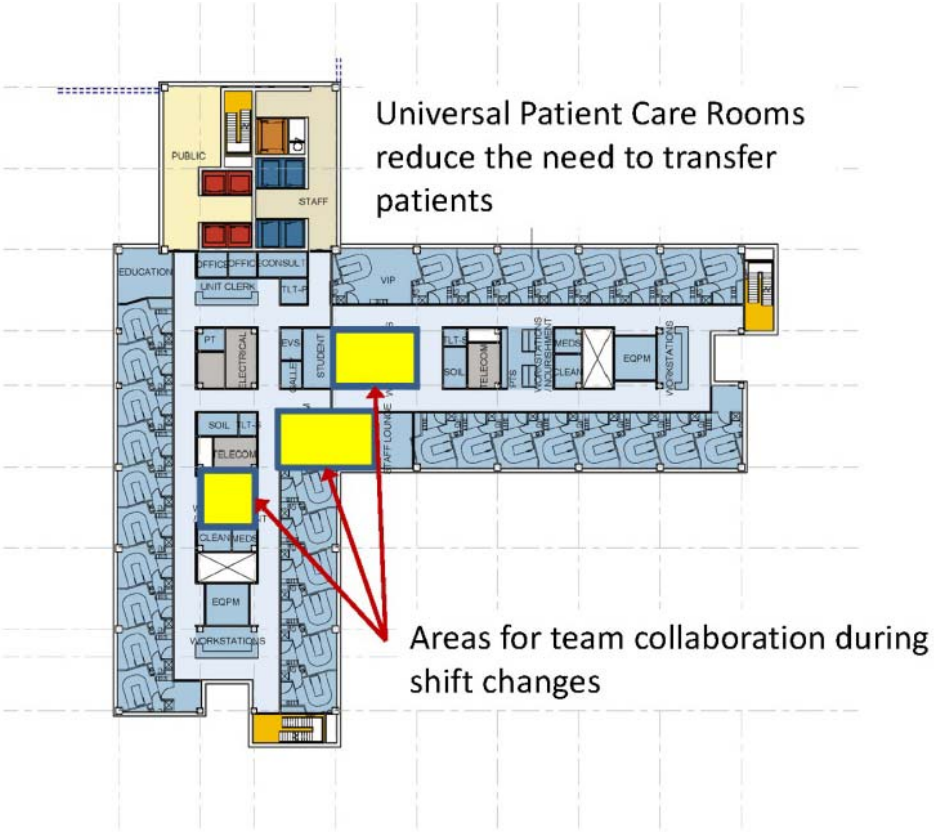
Department/Function			KEY ROOM	DGSF	SF / KEY ROOM (Round)	KEY ROOM	DGSF	SF / KEY ROOM (Round)	KEY ROOM	DGSF	SF / KEY ROOM (Round)	KEY ROOM	DGSF	SF / KEY ROOM (Round)	KEY ROOM	DGSF	SF / KEY ROOM (Round)
HOSPITAL	HOK	DIMENSIONS / PGRMC				WAH			MHE			HCH			Clarksburg		
		Design areas from CON design				Approximate areas from CON design			Approximate areas from CON design			Approximate areas from CON design			Program areas from CON design		
CLINICAL SUPPORT																	
LABORATORY / PATHOLOGY	40	B	231	8,800	**40**	201	9,400	**50**	126	11,900	**90**	123	4,700	**40**	86	3,190	**40**
PHARMACY	20	B	231	4,800	**20**	201	4,525	**20**	126	4,000	**30**	123	3,725	**30**	86	2,050	**20**
OTHER CLINICAL SUPPORT	30	B	231	6,500	**30**	201	2,200	**10**		NA			NA		86	3,810	**40**
SUBTOTAL			231	20,100	**90**	201	16,125	**80**	126	15,900	**130**	123	8,425	**70**	86	9,050	**110**
NON CLINICAL SUPPORT																	
DIETARY / DINING	60	B	231	11,800	**50**	201	12,400	**60**	126	11,000	**90**	123	6,450	**50**	86	6,500	**80**
MATERIALS / BIO MED / EVS	40	B	231	9,200	**40**	201	12,230	**60**	126	9,950	**80**	123	7,020	**60**	86	2,160	**30**
CENTRAL STERILE	400	B	16	6,475	**400**	12	8,500	**710**	8	6,100	**760**	8	3,900	**490**	4	2,300	**580**
FACILITIES & SUPPORT SERVICES	60	B	231	13,500	**60**	201	5,060	**30**	126	5,200	**40**	123	300	**0**	86	3,670	**40**
IT / TELECOM	10	B	231	1,600	**10**	201	4,475	**20**	126	2,700	**20**	123	1,300	**10**	86	1,420	**20**
SUBTOTAL			231	42,575	**180**	201	42,665	**210**	126	34,950	**280**	123	18,970	**150**	86	16,050	**190**
OFFICES & EDUCATION																	
OFFICE / ADMINISTRATION	40	B	231	9,350	**40**	201	25,596	**130**	126	11,300	**90**	123	6,600	**50**	86	9,420	**110**
ON CALL	10	B	231	6,500	**30**	201	2,050	**10**		NA			NA			NA	
CONFERENCE CENTER	20	B	231	4,000	**20**		NA		126	5,950	**50**	123	4,160	**30**	86	2,660	**30**
SUBTOTAL			231	19,850	**90**	201	27,646	**140**	126	17,250	**140**	123	10,760	**90**	86	12,080	**140**

E. Education Space Strategy

When comparing the proposed PGRMC to other academic regional hospitals, there should be little difference in education and training space needs. While conference rooms are provided in a number of the projects in the MHCC Project Comparison Chart, the student support areas (lockers, lounge, training rooms) on patient units and in diagnostic areas, and the administrative areas that are utilized solely by faculty will not be present in the comparison community hospitals. Thus, community facilities will have an overall lower BGSF / bed ratio.

In the PGRMC design, there is 650 net square feet, equaling approximately 750 departmental square feet, of education related space on each patient unit.

The student/faculty support areas and the scope of the conferencing areas are not provided or are not as extensive in the designs of Clarksburg Community Hospital, Holy Cross Hospital—Germantown, or Washington Adventist Hospital.



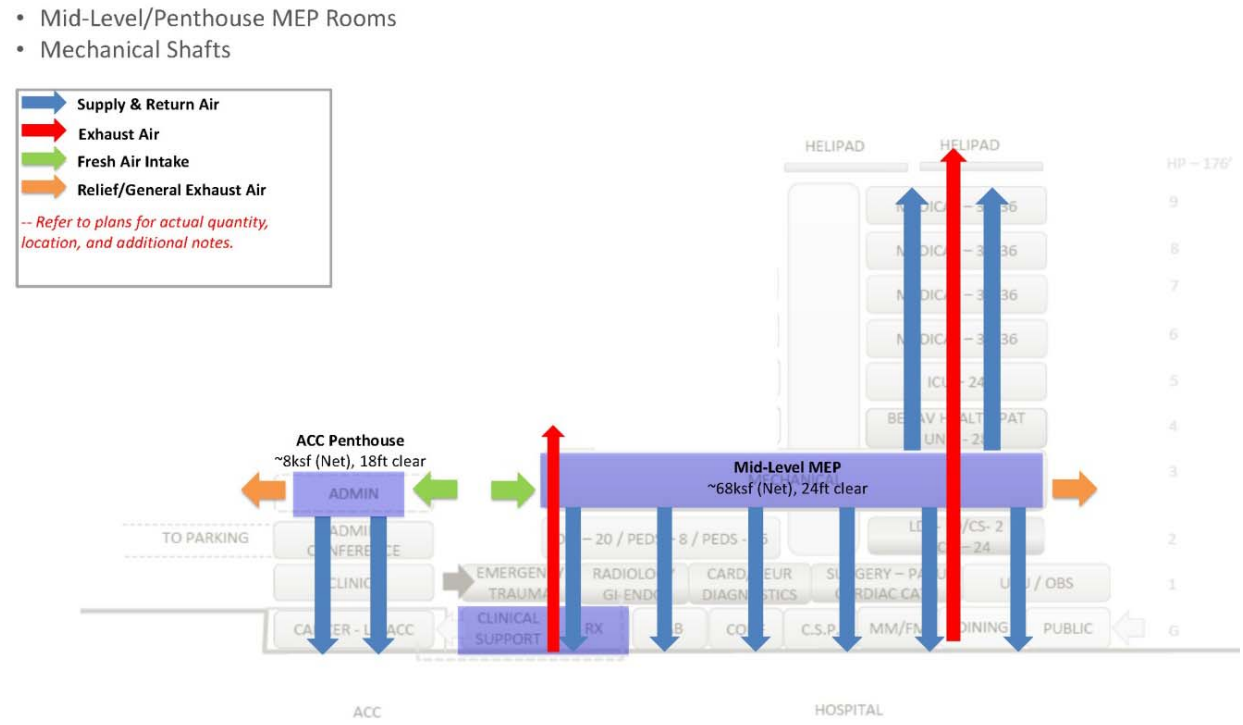
F. Mechanical Strategy

The design for PGRMC must conform to the Prince George's County Largo Town Center Sector Plan, which calls for high-rise buildings to create dense, urban developments. A copy of the Largo Town Center Sector Plan is attached as Exhibit 57.

Considering the height of this facility and the proposed height of buildings on the immediate adjacent parcels, representatives from Dimensions and the University of Maryland Medical System met with the State Police Aviation Division and Andrews Air Force Base regarding the trauma center and helicopter access to the facility. The current facility has one roof top helipad, and the proposed facility includes two roof top helipads to accommodate the projected need in trauma arrivals. After reviewing the

location of the facility relative to other buildings on site and in the area, the State Police requested that the helipads be placed on the rooftop, rather than the ground. Additionally, the efficiency of patient transfers down a dedicated trauma elevator to the trauma center, rather than moving patients across the site, provides the best patient care design. These decisions led to a particular design strategy for the mechanical systems for the hospital.

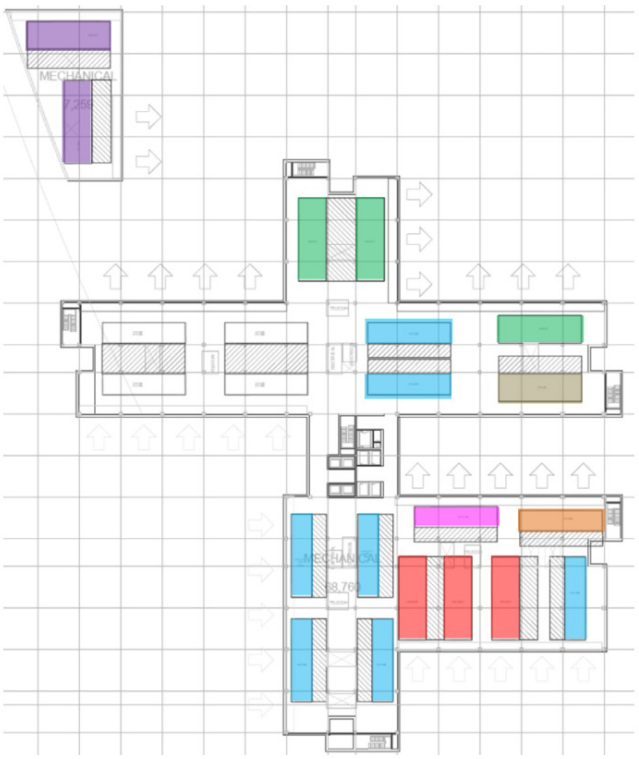
As shown in the diagram below, the design team developed the conceptual blocking and stacking to locate the main electrical room on the concourse level similar to other facilities and the main mechanical rooms in the middle of the tower at Level 3, rather than having exposed roof top air handling units as designed for the other facilities.



If the air handling equipment was located on the roof level, diesel exhaust from helicopter will easily be entrained into the air system for the hospital, resulting in health and odor impacts to the occupants. A system of filters has been used on other projects, but this is not as reliable design strategy as locating the air intake and exhaust at a distance from the source of the pollution.

This mid-level mechanical room strategy also equates to more efficient equipment design and energy conservation. The overall height of the building does not support feeding the entire building from just roof top units at the top of the tower. This approach would require larger fan sizes and larger duct sizes to move air farther down the height of the building, and directly resulting in increased energy usage. Roof top units may be located on the lower roof level, but these would be at a distance from the core of the floorplate and would result in lager duct sizes on the horizontal runs, which in turn would increase the floor to floor heights. The current design makes efficient use of equipment and distribution systems by allowing distribution spread over the footprint of the diagnostic areas, which reduces floor to floor heights, and both upward and downward, which reduces fan and shaft sizes. There are no rooftop helipads for the other comparable projects in the MHCC Project Comparison Chart, which allows those facilities to design distributed rooftop equipment to serve the patient floors.

• Level 3 MEP Rooms Layout



The higher amount of diagnostic and treatment areas at PGRMC, versus an example such as Washington Adventist Hospital, drives a higher load and equipment sizes and costs. The OR count comparison between the two shows a 50% increase in OR's (8 vs. 12) while the bed count is only 15% different. This disproportionate difference, weighted toward the most intensive mechanical use areas, increases the equipment sizes and negatively affects the BGSF / bed calculations.

Higher reliability and flexibility investment of mechanical equipment and distribution systems in PGRMC includes standby thermal equipment (boiler, chiller, cooling tower and associated distribution pumps), standby generator, 96-hour fuel storage and some extra capacity in AHU's and electrical switchgears/primary equipment for future flexibility. This increased first investment will realize savings in operation cost

over the life of the facility, and more importantly providing a reliable and robust infrastructure utility services to support uninterrupted patient care.

G. Analysis of Project Costs Relative to Comparison Projects

The cost analysis (per bed and per square foot) contained in the MHCC Project Comparison Chart does not appropriately assess and compare the project costs for the various projects to determine reasonableness of the costs.

The Commission adopted a regulatory benchmark for determining if project costs are reasonable. COMAR 10.24.10.04B(7) states:

> Standard .04B(7) – Construction Cost of Hospital Space.
>
> (a) The cost per square foot of hospital construction projects shall be no greater than the cost of good quality Class A hospital construction given in the Marshall and Swift Valuation Quarterly, updated to the nearest quarter using the Marshall and Swift update multipliers, and adjusted as shown in the Marshall and Swift guide as necessary for terrain of the site, number of levels, geographic locality, and other listed factors.
>
> (b) Each Certificate of Need applicant proposing costs per square foot above the limitations set forth in the Marshall and Swift Guide must demonstrate that the higher costs are reasonable.

The PGRMC's project costs should be measured against the regulatory benchmark, not the proposed project costs of dissimilar projects.

Aside from inappropriately applying a reasonableness standard for costs that is not a promulgated regulatory standard, the MHCC Staff's comparison of PGRMC's project costs to the project costs of the other projects in the MHCC Project Comparison Chart is not an apples-to-apples comparison. The MHCC Staff seeks to compare the PGRMC total project costs per square foot and per bed to projects that, with one

exception, were proposed in different years and in, in one case, is proposed to be constructed in a part of the State with a different construction cost market.

The MHCC Project Comparison Chart is reproduced below:

Project	Sq. Ft.	# Beds	Construction Cost	Project Cost	Sq. Ft./Bed	Project Cost/ Sq. Ft.	Project Cost/Bed
Dimensions/Prince George's	711,699	31	$327,969,605	$776,850,000	3,081	$1,092	$3,362,987
Washington Adventist	428,412	01	$136,300,000	$326,780,400	2,131	$763	$1,625,773
Memorial Hospital at Easton	358,928	26	$184,716,247	$283,240,375	2,849	$789	$2,247,939
Holy Cross Germantown	237,842	3	$112,284,568	$201,983,857	2,557	$849	$2,171,869
Holy Cross Germantown w/o Shell	215,469				2,317		
Clarksburg Community	186,512	6	$81,141,000	$177,081,000	2,169	$949	$2,059,081
Architect Survey					2,000-2,500	$675-$825	

1. Total Project Costs for PGRMC Include Costs That Should Not Be The Basis for Comparison to the Other Projects

The Marshall Valuation Service is a benchmark that is reasonably applied to all projects. It clearly states what is included in the benchmark and what is not. Instead of relying upon this objective and reliable standard, the MHCC is proposing also to conduct a project cost comparison that compares costs that are simply not comparable between projects. Exhibit 58 includes a table that shows the Project Budgets for all five projects in the MHCC Project Comparison Chart. Among other things, it shows:

a. The current PGRMC Project Budget includes $109,200,000 in "Working Capital Startup Costs." Only one other project on the MHCC Project Comparison Chart discloses any amount for Working Capital Startup Costs—Holy Cross Hospital. Germantown shows $25,000,000 for this item. Upon further review, PGHC intends to revise the PGRMC Project Budget to remove or substantially reduce the amount of Working Capital Startup Costs because

the budgeted amount represents a short-term source of funds to be available upon opening of the new facility to pay operating expenses of the proposed facility before revenues are collected. It reflects operating expenses going forward, rather than true start-up costs associated with the new healthcare project. Start-up costs are included elsewhere in the Project Budget. The amount will be determined and included in the Working Capital Startup Costs line. Regardless of the amount, the Working Capital Startup Costs should be disregarded for purposes of comparing the cost per bed, or the cost per square foot, of the projects.

b. The PGRMC project includes $138,000,000 in Major Moveable Equipment Costs, of which, $31,000,000 is for equipment in the necessary Central Utility Plant. PGHC's current equipment is old and PGHC plans to purchase all new equipment for the new facility.

c. The PGRMC project includes $42,400,000 in Minor Moveable Equipment Costs. As with Major Moveable Equipment, PGHC's current Minor Moveable Equipment is old and PGHC plans to purchase all new equipment for the new facility.

d. PGHC has $12,350,000 in Land Purchase costs. The cost of purchasing the land has no bearing on whether a project's cost is reasonable.

e. All projects have "extraordinary costs" that are specific to each project and should not be included in comparisons with other projects.

The appropriate comparison between projects would be the extent to which they are, or are not, comparable on the benchmark that the Commission has adopted as a regulation, their MVS analyses.

2. All But One of the Comparison Projects Were Filed in Different Years, and Their Costs Are in Different Year Dollars.

Two of the projects that the MHCC seeks to compare to the PGRMC project costs were proposed in 2009. It is expected that the costs/square foot would be less than a project proposed in 2013. Also, one of the comparison projects is proposed to be located on Maryland's Eastern Shore, where the MVS Local Multiplier is lower than for other parts of the State. A sound comparison of project costs would have to adjust for these differences.

The table below shows in what month and year each comparison project was filed. It also shows the MVS Base Cost for that month, the MVS Update Multiplier, and the MVS local Multiplier in that month. Also, it shows the calculation of an MVS Benchmark for each of the comparison projects (unadjusted for building size, height, etc.). The table then shows the ratio that would be required to make the resultant MVS Benchmark comparable to the PGHC application's benchmark by dividing the PGHC benchmark by each of the other project's calculated benchmark.

	Filed	MVS Base / SF	Update	Local	Benchmark/SF (Unadjusted for size, building height, etc.)	Factor to Update to 10/13
Dimensions/Prince George's	10/13	$336.71	1.07	1.07	$385.50	
Washington Adventist	10/13	$336.71	1.07	1.07	$385.50	1.00
Memorial Hospital at Easton	9/12	$336.71	1.04	1	$350.18	1.10
Holy Cross Germantown	2/09	$306.33	1.12	1.02	$349.95	1.10
Clarksburg Community	4/09	$306.33	1.11	1.02	$346.83	1.11

The following table shows the formal MVS benchmark and Project Costs that the Commission or the applicant used in its formal MVS benchmark comparison in the sources that are listed for each comparison project. PGHC then multiplied the Project Costs times the "Factor to update to 10/13" that PGHC calculated in the previous table. One can see that PGHC's project costs / square foot are similar to the other comparison projects, except, perhaps, the most recently filed Washington Adventist Hospital relocation project, which has not been subjected to full review. In fact, PGHC's proposed costs are "within the ballpark" of the other projects' costs and are slightly lower than the average of the costs, excluding PGHC and including the Washington Adventist Hospital project.

	Filed	Formal Benchmark	Comparable Project Costs	Source	Factor to Update to 10/13	Comparable Costs/SF Updated to 10/13
Dimensions/Prince George's	10/13	$425.41	$419.76	Completeness	1.00	$419.76
Washington Adventist	10/13	$384.64	$365.82	CON App	1.00	$365.82
Memorial Hospital at Easton	9/12	$397.31	$373.83	Completeness	1.10	$411.54
Holy Cross Germantown	2/09	$380.33	$376.67	MHCC Dec	1.10	$414.93
Clarksburg Community	4/09	$371.56	$452.21	MHCC Dec	1.11	$502.63
Average without PGHC						$423.73

Questions re: cardiac Surgery and PCI

6. Consistent with the Quality Review Program standards in COMAR 10.24. 17.06B(2), please document that Prince George's Hospital Center (PGHC) has utilization and peer review and control programs for cardiac surgery and percutaneous coronary intervention (PCI) with regularly scheduled conferences.

A. Quality Review of Cardiac Surgery Procedures

All cardiovascular surgery procedures are reviewed at PGHC's monthly Surgery Department peer review meeting; the meeting includes cardiovascular surgeons. Providers are monitored for practices that are not compliant with standards in COMAR 10.24.17.06B. If as a result of this review, there are concerns or questions, a letter is sent to the provider asking him or her to respond in writing to the questions or concerns. The provider is also given the option of responding in person before the committee or he or she may be asked by the committee to appear in person. If the committee is satisfied with the provider's response, no further discussion is necessary. If the Committee is not satisfied with the provider's response or still has any concerns about the case, it is referred to the Medical Staff Oversight Committee, which reviews the case and makes recommendations to the Medical Executive Committee (MEC). The MEC determines the nature of disciplinary action. All recommendations and reports are then sent to the Hospital Board for final approval.

All cases of concern are also reviewed by the Hospital Quality Oversight Committee, which is chaired by the Vice President of Medical Affairs. If deemed appropriate, providers will be asked to appear before this committee as well. Once the Quality Oversight Committee completes its review, it can close the case or refer it to MEC for further review or disciplinary action. The MEC will then send its recommendations to the Quality and Professional Affairs Committee, a sub-committee of the Hospital Board. All recommendations and reports are then sent to the Hospital Board for final approval. All letters of concern and disciplinary actions are noted in the provider's file.

B. Quality Overview for Percutaneous Coronary Intervention (PCI)

All Percutaneous Coronary Intervention Procedures are reviewed by peers of the interventional cardiologist. This quality review includes review of the chart, images taken during the procedure, and type of treatment. If there are any concerns, the procedure is then referred to the hospital's Quality Department to be reviewed in the Cath Lab Peer Review meeting. This group may ask questions, voice concerns, teach, and recommend possible other treatment modalities. Providers are monitored for practices that are not compliant with standards in COMAR 10.24.17.06B. If standards are not met, this committee will decide the next steps for addressing the noncompliance. The procedure may then be referred to the Medical Staff Quality Oversight for further action.

PGHC has a Cath Lab Peer Review Committee, comprised of the following:

- Chief Medical Officer
- Chief of Cardiology
- Medical Director of Cardiac Catheterization Laboratory
- Medical Director of Emergency Department
- Vice President of Medical Affairs
- Intervention Cardiologist Prince George's Hospital Center
- Quality Data Resource

The Peer Review Committee is a subcommittee of the Medical Staff Quality Oversight and reports to Medical Executive Committee. That committee reports to Quality and Professional Affairs of the Board and the final report is made to the Hospital Board. Cath Lab Peer Review meetings are held monthly.

Also, PGHC is a participant of the National Cardiac Data Registry (NCDR). Data is entered for Cardiac Catheterizations and Percutaneous Coronary Interventions. The outcome reports from the Registry are used as quality benchmarks for the care of patients undergoing cardiac angiography and interventions.

Additionally, please provide a copy of:

a) The protocols governing the referral, admission, and discharge of cardiac surgery patients;

The protocol governing the referral process of patients is that the on-call cardiovascular surgeon will see any patient needing cardiovascular services anywhere in the hospital. He or she will also answer any calls regarding the potential transfer of cardiovascular patients from an outside facility to our facility. Once accepted for admission, consulting physicians are contacted, an evaluation is performed, and options for care are discussed first with the team, and then with the patient. Options may include: (1) prepare for PCI; (2) prepare for surgery; (3) transfer to a tertiary facility; (4) transfer to a different service within the hospital; or (5) discharge to home.

If the patient is determined to be more appropriate for PCI, the Cardiac Cath Service is immediately consulted, and the process for that service is then initiated. If the patient is deemed inappropriate for treatment at PGHC (in need of a higher level of care), the appropriate facility is contacted immediately. Transfer agreements are already in place with the appropriate facilities. If the patient is deemed to need services within PGHC other than Cardiology or Surgery, the appropriate service is contacted. Finally, if the patient is determined to be appropriate for discharge, follow-up plans are made prior to discharge.

PGHC's clinicians follow established clinical care protocols (clinical pathways) for cardiac care patients. The Cardiac Surgery Clinical Pathway is a care plan for patients that includes care processes related to medications, other treatments/tests/procedures, patient physical activity (pre/post-surgery), consults, patient nutrition, and overall patient monitoring/assessment. A copy of PGHC's Clinical Pathway for Cardiac Surgery is attached as Exhibit 57.

b) The established list of indications and contraindications to govern patient selection for cardiac surgery; and

In connection with responding to this question, PGHC developed the following list of indications and contraindications concerning patient selection for cardiac surgery. Although the list was recently compiled, the substantive material contained in the list has been communicated regularly to physicians through peer review processes, lectures, and continuing medical education sessions.

Indications for Cardiac Surgery

- Coronary Artery Disease (CAD)
  - 3 vessels CAD with symptoms.
  - 3 vessel CAD with reduced Ventricular function
  - 2 vessel Coronary artery disease involving the anterior descending artery with symptoms.
  - 2 vessel Coronary artery disease involving the anterior descending artery with reduced ventricular function.
  - Failed Angioplasty
  - Acute MI < 6 hours
  - Congenital anatomy leading to risk of sudden death.
  - Single vessel CAD involving the proximal anterior descending artery in a diabetic patient
  - Coronary artery aneurysm with symptoms

- Aortic Valve Disease
  - Severe aortic stenosis with symptoms
  - Severe aortic stenosis with reduced ventricular function

- Severe aortic stenosis with history of sudden death
- Aortic Valve insufficiency with symptoms
- Aortic Valve insufficiency with dilated ventricle or reduced ventricular function

- Mitral Valve Disease
  - Mitral stenosis with symptoms
  - Severe Mitral stenosis the intracardiac clot
  - Mitral regurgitation with symptoms
  - Mitral regurgitation with dilated ventricle or reduced ventricular function

- Aortic Disease
  - Aortic aneurysm with symptoms
  - Aortic aneurysm size greater than 5.5 cm
  - Aortic dissection- Ascending
  - Aortic dissection with ischemic syndrome

- Heart Failure
  - Congestive heart failure which has failed medical therapy
  - Congestive heart failure due to repairable structural heart disease

- Intracardiac Mass including
  - Tumor
  - Clot
  - Infection

Contraindications for Cardiac Surgery

- A life expectancy of less than one year by clear documentation;
- Closed chest massage for an extended period of time and no signs of life;
- Severe irreversible multiple organ failure.

c) The established guidelines governing the admission of cardiac surgery patients to the intensive care, coronary care and progressive care units, and for discharge from these units.

Exhibit 58 is a copy of PGHC's established guidelines governing the admission of Cardiac Surgery patients to the Intensive Care Unit (denoted "CCC"), Coronary Care Unit (denoted "CCU"), and Progressive Care Unit (denoted "K400" and "K500").

Patients are discharged from the CCC when the need for intensive care treatment is no longer present. Patients are then transferred to the CCU or K400/K500 depending upon the needs of the patient. For example patients with respiratory insufficiency may be transferred to the CCU for pulmonary physiotherapy before being transferred to K400/K500 and then to home.

7. Please provide a description of:

a) The program for educating patients about treatment options for heart disease [COMAR 10.24.17.06B(2)(c)];

PGHC has sponsored a number of community outreach health education and screening programs related to cardiovascular disease including:

- Women Heart -heart Seminar every month along with Doctor's Community Hospital
- Health Fairs
- Blood Pressure screening
- Speaker's Bureau
- Heart Health Seminars

PGHC's cardiac surgery nurse practitioner provides pre- and post-op education for heart surgery patients and PCI patients. Case management and bedside nurses also provide education regarding treatment options for heart disease.

The Cardiac Rehabilitation Program educates and discusses treatment options for patients with heart disease. Both individual and group education is conducted on a variety of topics including treatment options, exercise, diet and education, smoking cessation and other lifestyle modification classes.

b) The mechanisms that PGHC has in place to monitor long term outcomes of discharged cardiac surgery patients [COMAR 10.24.17 .06B(2)(g)]; and

Currently, cardiac surgery patients are monitored by PGHC's Cardiac Rehabilitation program nurses. A 30-day, 60-day and 90-day follow-up assessment is conducted. The assessment includes measurement of activity, adherence to nutrition guidelines for cardiac patients, psycho-social stress evaluation, and cardiac knowledge.

c) PGHC's existing cardiovascular disease prevention and early diagnosis program that provides for outreach to the minority and indigent population in the hospital's service area [COMAR 10.24.l7.06(B)(11)]. Please discuss the effectiveness of these strategies in achieving outreach to the minority and indigent populations with cardiovascular diseases.

PGHC is proud of its long-standing role in addressing racial, ethnic, and socio-economic disparities in Prince George's County. Historically, PGHC has served the largest percentage of Medicaid and Self-Pay patients of any hospital in the county. Dimensions' outpatient network including 120,000 per year emergency visits in our three Dimensions' facilities, another 50,000 visits to Dimensions' general medicine and OB clinic at Glenridge (including cardiology service), physician offices at Bowie Health Campus and Laurel, Rachel Pemberton Senior Health Center in Brentwood, Suitland Family Health and Wellness Center, physician and nurse practitioner and midwife services at the Greater Baden and Community Care, Inc. federally qualified health centers, and collaboration with the County Health Department to serve high risk and undocumented women. All of these sites, with the exception of Bowie, are serving the higher risk "inside the beltway" communities that are largely characterized by their more severe economic challenges and related poor health status.

Dimensions receives no assistance from other health systems in this task. Furthermore, PGHC provides approximately $24,000,000 per year in unreimbursed physician subsidies to enable physicians to care for the low income and minority residents of the County.

In 2012, Dimensions co-sponsored the study by the University of Maryland School of Public Health ("UMSPH"), entitled *Transforming Health in Prince George's County, Maryland: A Public Health Impact Study* (see Exhibit 4 to the CON application) which identified the major barriers to care in Prince George's County and established a framework for addressing them.

PGHC takes a multi-disciplinary approach to addressing the disparities of care in heart disease and other health indicators.

A. Infrastructure

PGHC recognizes that there must be adequate physician access for underserved populations in order to provide primary prevention, patient education, early detection, primary care, and an entree to specialty services when needed. To this end, as stated previously, PGHC provides physician subsidies to keep physicians serving the otherwise underserved residents of Prince George's County. The physicians which PGHC subsidizes include 11 Internists, 22 Cardiologists, 26 OB-GYN physicians, and 62 other specialists.

In addition, PGHC is a participant in the Partnership to Improve Primary Care, which is planning to bring another 70 primary care physicians to Prince George's County.

B. Partnerships

PGHC recognizes that it cannot address the disparities alone. Consequently, PGHC partners with the Prince George's County Health Department, community groups, churches, schools, associations such as the American Heart Association, businesses, other hospitals, and the University of Maryland School of Public Health to provide education, reach underserved patients, identify residents in need, and strategize for attempting to provide effective outreach to both.

C. Programs

PGHC offers a variety of programs, such as:

Community Programs

- Childbirth Education Classes
- Diabetes Management Program
- HeartSaver First Aid/CPR
- Maternity Center Tours
- Smoking Cessation Program

Support Groups

- Alcoholics Anonymous (AA)
- Al-Anon
- Bipolar Support Group
- Nar-Anon
- Narcotics Anonymous (NA)
- Rehabilitation Sharing Group (strokes and longtime illness)

In addition, PGHC participates in health fairs, patient education sessions at churches and other community gathering places, blood pressure screenings, and other programs in the community.

In all of these efforts (physicians, partnerships, and programs), disease prevention and early diagnosis are important objectives. If someone is identified as

being in need, he or she is encouraged and enabled to receive the care that they need. For example, if someone is participating in a smoking cessation program, and mentions that a loved one is "not well," he or she is encouraged to bring that person along so that he or she can have a blood pressure screening or receive the kind of care that is required.

More than 70% of the residents of Prince George's County are African American, Indian, or Asian. Seventeen percent of the County population are Latino. The focus of PGHC's community programs is on the lower income portions of the County population.

Since the initial *Impact Study*, PGHC has continued to collaborate with the UMSPH in an effort to improve PGHC's outreach efforts. In June 2013, the UMSPH issued *Community Health Needs Assessment—Prince George's Hospital Center* (see Exhibit 59). This study included focus groups that involved community leaders from the following entities:

- Casa San Bernardo, Inc./St. Bernard Clairvaux Church
- Dimensions Health System Senior Health Center
- Greater Baden Medical Services
- Prince George's County Chamber of Commerce
- Prince George's County Council
- Prince George's County Health Department, Office of the Health Officer
- Support Our Seniors

Building on this study, PGHC developed a *Community Health Needs Assessment Implementation Strategy Plan, Fiscal Year 2014-2016* (see Exhibit 60) to guide the expansion of its outreach efforts.

PGHC chose three areas of concentration (Diabetes, Heart Disease, and Pregnancy and Childbirth Complications). The Diabetes and Heart Disease initiatives are shown below.

Focus Area: Diabetes

Goal I: Improve the availability of diabetes self-management education and services to the community.

Strategies:

- Enhance screenings and information offered at community health events.
- Increase frequency of education and information offerings to area churches, senior centers, and activity centers.
- Continue to offer quarterly on-site free information sessions to community to provide access to resources that are usable by residents with diabetes/pre-diabetes.

Goal II: Engage and partner with community physicians to increase awareness of diabetes services and education availability.

Strategies:

- Create an engagement process inclusive of information package to inform and educate community physicians about diabetes services.
- Distribute program description and promotional materials to physician offices and patients with face-to-face visits to physician/practice administrator.

Goal III: Advance quality and continuity of diabetic care through formation of outpatient care teams and group visits.

Strategies:

- Increase the accurate/adequate coordination of care post ED visit.
- Streamline follow up appointments into outpatient clinics to improve continuity of care.
- Form outpatient care teams to include MD, RN, nutrition and diabetes educator, case manager, podiatrist and wound care RN when needed.
- Educate patients about group visits and coordinate care with outpatient care team to conduct visits.

Goal IV. Promote diabetes literacy – particularly focusing on prevention of diabetes.

Strategies:

- Partner with community partners to create diabetes awareness and education for all ages, focusing on prevention, in local libraries, other public buildings. Advertise via posters newspaper, radio, etc.

- Partner with school system to incorporate nutrition and exercise education into school curriculum via newsletters, health fairs at schools, PTA meetings, and Board of Education.

Focus Area: Heart Disease

Goal I: Educate women on how uncontrolled high blood pressure can lead to cardiovascular disease

Strategies:

- Participate in health fairs at community centers and faith based organizations providing blood pressure screening, educate women on understanding their "Numbers". Discuss signs & symptoms of stroke.
- Provide Blood Pressure information that explains how uncontrolled blood pressure relates to women's heart disease in key areas like clinical waiting rooms at PGHC. (Information from Women Heart, Go Red, American Heart Association)
- Clinical staff from PGHC and Doctor's Community Hospital (DCH) currently partner with Women Heart, The National Coalition for Women with Heart Disease. The meetings will continue to be held monthly alternating the location between PGHC and DCH. Participants are women heart attack survivors and their support system, speakers and clinical staff.

Goal II: Education on recognition of symptoms and risk factors of heart disease in women.

Strategies:

- Organize a women's clinic at PGHC that will provide screening services for heart disease. Clinic will be held quarterly.
    1. Educate women with results of screening
    2. Provide onsite educational support for abnormal clinical values
    3. Provide proper referrals (diabetes, nutritionist, cardiology listing, local exercise programs)
    4. Provide educational material on Women and Heart Disease
    5. Provide education on smoking cessation and its effect on heart disease and stroke.
- Refer to different educational websites: American Heart Association, Go Red, Women Heart, Sister to Sister, Center for Disease Control, Healthy Hearts.

Goal III: Increase exercise & diet awareness, education and opportunities for women.

Strategies:

- Encourage Heart Healthy Diets and Exercise at participating Health Fairs; provide information about heart healthy foods and recipes.
- Provide websites encouraging Health Heart diets to hospital staff and community fairs (Womenshealth.gov, American Heart Association)
- Partner with Diabetes Center at PGHC for information and nutritional consultation to distribute to women with diabetes.
- Contact community-based exercise programs and provide information at clinic and health fairs.
- Continue to follow up with patients in PGHC Cardiac Rehab.
- Provide opportunities for staff exercise or gym at PGHC.
- Provide nutritional information for foods served in hospital cafeteria.

Please note that these initiatives are in addition to the outreach and community health education programs that PGHC already provides or participates in.

One could question the effectiveness of any hospital outreach program since there is still too much obesity, too much diabetes, too much heart disease, in spite of outreach efforts. There are still disparities of care, and PGHC believes that the rate of cardiac surgery among residents of Prince George's County is lower than national rates would indicate.

However, notwithstanding these issues, PGHC reaches many residents who would not otherwise receive care. PGHC's role in providing health education, preventive services, primary care, early detection, hospitalization, rehabilitation, and follow-up to Prince George's County's most challenging populations has been recognized in the *Impact Study*, the MOU, and elsewhere. PGHC is constantly striving to improve its services to its service area in collaboration with the Prince George's

County Health Department, community groups, churches, schools, physicians, and the UMSPH.

8. As an existing cardiac surgery program, PGHC should be reviewing morbidity and mortality rates and other indicators of patient outcomes, and compliance with established processes of care as compared with regional or national averages [See COMAR 10.24. 17.06B(2)(e)]. Please describe PGHC's history of participation in the Society for Thoracic Surgeons (STS) cardiac surgery registry during the last five years and provide the STS Coronary Artery Bypass Graft Composite Scores reported by STS for the PGHC cardiac surgery program for any reporting period during the last five years. Please identify the reporting period for each reported composite score.

Quality measures, morbidity and mortality and outcomes of cardiac surgery patients are continuously assessed. At PGHC's monthly peer review meeting, all cardiac surgery cases are reviewed. Any deviation from pre-op, intra-op, or post-op care protocols or expectations is discussed.

For a number of years the PGHC participated in the STS cardiac surgery registry. However, PGHC has not participated in the registry in the past five years. PGHC recently completed the application process and is making preparations to participate. Consequently, PGHC cannot provide the Commission with STS composite scores at this time.

9. The redacted Cardiovascular Program Strategic Business Plan, FY 2012 to FY 2017 (the Plan), previously provided in response to completeness questions on this application, establishes that the existing cardiac surgery program at Prince George's Hospital Center is, at best, negligible. (In FY 2011 and 2012, the Plan reports that PGHC had approximately one cardiac surgery case per month.) It outlines a plan for reestablishing this program on the existing PGHC campus before the proposed replacement hospital opens. Our review of this redacted Plan is the basis for the following questions and requests for information.

a) Please update the PGHC Patient Volume Projections on page 6 of the Plan to show actual case counts for FY 2013 and any updated projections for FY 2014 to FY 2017. In this table, does the "Cardiology" service line represent diagnostic cardiac catheterization cases? Please clarify. Additionally, please describe the cases reported for the "Vascular" and "Vascular Surgery" service lines. Does this include peripheral vascular surgery?

Presented below is an update of the projected cardiovascular inpatient cases, showing: (1) FY2013 actual and FY2014 expected experience, and (2) an extension of the projection period to FY2021 to provide the basis for the projection of revenues and expenses that are requested in response to Question 9(c).

	Actual			Projected							
CV Service Line	FY2011	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021
Cardiac Surgery	24	5	15	15	100	140	175	200	205	210	215
Cardiac Arrhythmia	181	158	151	150	165	181	200	210	222	234	247
Cardiology	1,078	794	872	950	1,040	1,068	1,097	1,126	1,289	1,476	1,689
Interventional Cardiology	181	155	168	188	214	233	272	298	341	390	447
Vascular	56	63	61	72	85	98	115	132	147	157	168
Vascular Surgery	123	124	109	90	118	155	200	239	266	285	304
Total Inpatient CV	1,643	1,299	1,376	1,465	1,722	1,875	2,059	2,205	2,470	2,753	3,071

It is important to note that the implementation of the strategies set forth in the Cardiovascular Program Strategic Business Plan (the "Plan") is approximately one year behind schedule due to challenges recruiting a full-time cardiac surgeon. An experienced full-time cardiac surgeon was recently recruited.

The "Cardiology" sub-service line represents medical cardiology MS-DRGs, which include some cardiac catheterizations. The "Cardiology" service line includes patients discharged with diagnoses of chest pain, angina, myocardial infarction, heart failure, endocarditis, hypertension, atherosclerosis, and circulatory disorders other than AMI. There are some diagnostic catheterizations associated with these patients (one

example being MS-DRGs 286-287 (Circulatory Disorders Except AMI, with Cardiac Cath)). Inpatient diagnostic catheterizations are also captured in the “Interventional Cardiology” and some “Cardiac Surgery” sub-service line MS-DRGs.

The “Vascular” sub-service line captures “medical vascular “ MS-DRGs such as Peripheral Vascular Disorders, Deep Vein Thrombophlebitis and other medical vascular diagnoses. Any Peripheral Vascular related procedures are classified under the “Vascular Surgery” service line described next.

The “Vascular Surgery” sub-service line includes DRGs such as Major Cardiovascular Procedures, Carotid Artery Stent Procedures, Thoracic Aortic Aneurysm Repair, Other Circulatory System O.R. Procedures, Vein Ligation & Stripping, and Amputation Procedures For Circulatory System Disorders.

b) With respect to diagnostic cardiac catheterization and cardiovascular treatment services, the table at page 5 of the Plan shows a projected ratio in the Southern Maryland region of eight diagnostic catheterizations to one cardiac surgery and 3.4 diagnostic catheterizations to one PCI. However, if the "Cardiology" service line in the table on page 6 represents diagnostic catheterizations (see question 3.A. above), it would appear that PGHC is projecting a very high ratio of cardiac surgery cases per diagnostic catheterization within its own cardiovascular program in 2016, approximately 4.2 diagnostic catheterizations per surgery case. Please discuss and clarify as necessary.

The diagnostic catheterization volumes on page 5 represent total inpatient and outpatient diagnostic catheterizations that could be done as “diagnostic only” procedures or with other procedures such as PCI, heart surgery, etc. Volumes shown on Table 5 are not MS-DRG based. This table represents cardiac catheterization cases as a starting point for diagnosing patients for PCI and heart surgery procedures. The

original purpose of the table on page 5 was to show the potential "pool" of patients that may need an intervention. In order to proceed to a PCI or heart surgery, the best practice is for a patient to have a diagnostic cardiac catheterization that can be performed at various points in their care. For example, the most common practice among interventional cardiologists is to perform a "cath possible," which means a diagnostic catheterization is performed with the possibility of performing a PCI during the same setting, *i.e.*, while the patient is on the table in the cath lab.

Table 6 "Cardiology" volumes as mentioned in response to Question 9(a) capture patient discharges with medical cardiology discharge diagnosis, whereas Table 5 represents potential cardiac cath volumes among the population. Table 6 volumes are used for calculating financial projections.

Dimensions / PGHC does anticipate a higher intervention rate of heart surgeries (higher ratio of surgery cases to diagnostic caths) in the future because there are cath only programs and the number of number of PCI programs without heart surgery in the region are increasing. As such, the intervention rates for tertiary hospitals have the potential to be higher.

c) Please provide two separate service line pro forma schedules of historic and projected revenues and expenses, using the format and instructions provided in Table 3 of the hospital CON application form, for cardiac surgery and PCI services, projecting through the first two years of operation of the replacement hospital.

As presented in the response to Question 9(a), the Plan consists of more than cardiac surgery and PCI services. Exhibit 61 contains a projection of revenues and expenses, along with supporting assumptions, associated with the Plan including the

other services presented in the response to Question 9(a). Consistent with the CON guidelines, this projection excludes annual HSCRC update factors and expense inflation. Included in Exhibit 62 is a comparable projection of revenue and expenses, along with supporting assumptions, including annual HSCRC update factors and expense inflation.

The revenues included in these projections are based on Dimensions' current Charge per Case reimbursement methodology. As Dimensions completes an agreement with the HSCRC to shift to a global based reimbursement methodology, this projection will be revised to reflect the new reimbursement methodology and will be submitted to the Commission. At that time, efforts will be made to split out the revenues and expenses that are specific to the cardiac surgery and PCI services and provide separate projections for each service line.

d) Please specify the projected impact on cardiac surgery and PCI case volume of the market capture assumptions identified on page 54 of the Plan, by hospital, for all D.C. and Maryland hospitals projected to experience an impact.

As shown below, the revised projection of Dimensions' cardiac surgery cases results in a lower assumed market share of the cardiac surgery cases in Southern Maryland.

County	Actual FY10	Estimated FY13	Projected FY14	Projected FY15	Projected FY16	Projected FY17	Projected FY18	Projected FY19	Projected FY20	Projected FY21
Southern Maryland Inpatient Cardiac Surgery Inpatient Cases										
Prince George's County	554	551	595	642	694	749	768	787	807	827
Charles County	120	121	127	132	138	145	149	152	156	160
Calvert County	81	84	89	94	100	106	109	111	114	117
St. Mary's County	88	92	95	99	103	107	110	112	115	118
Total	843	848	906	967	1,035	1,107	1,135	1,163	1,192	1,222
PGHC Market Share of Southern Maryland Inpatient Cardiac Surgery Inpatient Cases										
Prince George's County	3.6%	2.7%	2.2%	15.0%	19.5%	22.6%	25.1%	25.1%	25.1%	25.1%
Charles County	0.0%	0.0%	1.0%	2.0%	2.5%	3.0%	4.0%	4.0%	4.0%	4.0%
Calvert County	0.0%	0.0%	0.5%	1.0%	1.0%	1.0%	1.5%	1.5%	1.5%	1.5%
St. Mary's County	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Total	2.4%	1.8%	1.7%	10.3%	13.5%	15.8%	17.6%	17.6%	17.6%	17.6%

As PGHC gains market share, it will reduce the market share of cardiac surgery cases at other hospitals. The allocation of this reduction in cardiac surgery cases at other hospitals is based on the 2012 actual market share of cardiac surgery cases from PGHC's service area.

Hospital	Actual FY12
PGHC	0.6%
WHC	48.5%
WAH	22.3%
JHH	5.5%
Suburban	4.3%
George Washington	3.2%
INOVA	3.4%
UMMC	2.7%
Other	9.5%
Total	100.0%

The growth of 200 cardiac surgery cases at PGHC from 15 cases in FY2013 to 215 by FY2021 is driven by an increase in service area cases and changes in market share. The increase in service area cases with no change in market share drives six (6) additional cases at PGHC. The remaining 194 cases are driven by a change in market

share. Based on the 2012 allocation of cardiac surgery cases, the other hospitals providing cardiac surgery cases to residents of Southern Maryland will be impacted as follows:

Hospital	Projected FY21
WHC	(95)
WAH	(44)
JHH	(11)
Suburban	(8)
George Washington	(6)
INOVA	(7)
UMMC	(5)
Other Non-Maryland Hospitals	(18)
Total	(194)

126 or 65% of the cardiac surgery cases will come from hospitals outside of Maryland while 68 or 35% of the cases will come from other Maryland hospitals.

The impact of PGHC's growth in PCI cases is spread across more hospitals than those presented above. The 2012 market share of PCI cases from PGHC's service area is presented below.

Hospital	Actual FY12
PGHC	12.6%
WAH	30.7%
WHC	28.1%
Southern Maryland	13.9%
Suburban	3.1%
Anne Arundel	2.7%
JHH	1.9%
Holy Cross	1.7%
INOVA	1.5%
George Washington	1.1%
Other	2.8%
Total	100.0%

The growth of 279 cases at PGHC from 168 cases in FY2013 to 447 by FY2021 will result in a comparable reduction in cases at other hospitals as follows:

Hospital	Projected FY21
WAH	(98)
WHC	(90)
Southern Maryland	(44)
Suburban	(10)
Anne Arundel	(9)
JHH	(6)
Holy Cross	(5)
INOVA	(5)
George Washington	(4)
Other	(9)
Total	(279)

107 or 38% of the PCI cases will come from hospitals outside of Maryland while 172 or 62% of the cases will come from other Maryland hospitals.

Budget Implications of the Maryland All-Payer Model Agreement vis a vis this Project

10. Has Dimensions/PGHC completed a global budget agreement with HSCRC?

a) If not, when is that agreement projected to be reached?

Representatives of Dimensions are in discussions with the HSCRC and have submitted a proposal for global based reimbursement (GBR). As recently as last week, Dimensions met with HSCRC staff to discuss components of the global budget agreement. At last week's meeting the proposed GBR cap for PGHC and Laurel Regional Hospital was discussed along with volume growth potential in specific service lines due to planned program development. Also the participants discussed the rate structure for the proposed new hospital. Dimensions and HSCRC staff plan to meet

again within the next couple weeks to continue discussing points of interest to the HSCRC. Once an agreement is reached, PGHC will submit revised budget projections.

b) If and when such an agreement is reached, we suspect that the reimbursement model established in this agreement will affect (current and future) budget projections that were submitted in the CON application in order to be consistent with the recent HSCRC agreement. Please confirm.

Revised projections will be submitted.

c) Assuming that the global budget does indeed change the revenue (and perhaps expense) budgets submitted in the application, please submit revised Table 3s with and without inflation, including any related assumptions.

Revised projections will be submitted.

EXHIBITS

51 Overview of Nielsen iXPRESS's methodology

52 Freeway 2012 documentation

53 January 22 meeting handout

54 Population by ZIP code spreadsheet

55 TAMU-Methodology Guide—Revised

56 TAMU-Preliminary Benchmarking Results

57 Largo Town Center Sector Plan

58 Project Budgets

57 Clinical Pathway for Cardiac Surgery

58 Cardiac surgery admission/discharge guidelines

59 *Community Health Needs Assessment – Prince George's Hospital Center*

60 *Community Health Needs Assessment Implementation Strategy Plan, Fiscal Year 2014-2016*

61 Cardiovascular Business Plan revenue/expense projection (without inflation)

62 Cardiovascular Business Plan revenue/expense projection (with inflation)

I hereby declare and affirm under the penalties of perjury that the facts stated in Co-Applicants' Response to January 30, 2014 Completeness Questions and its exhibits are true and correct to the best of my knowledge, information, and belief.

February 27, 2014
Date

Lisa M. Goodlett
Chief Financial Officer
Dimensions Health Corporation

#481236
013346-0001

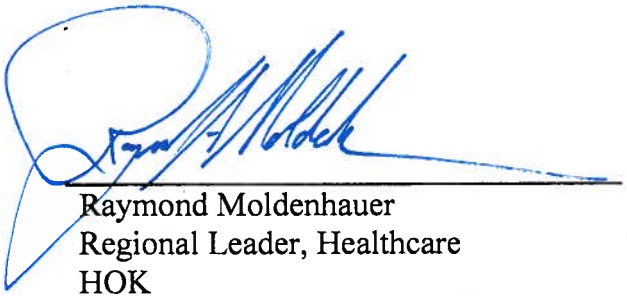
I hereby declare and affirm under the penalties of perjury that the facts stated in Co-Applicants' Response to January 30, 2014 Completeness Questions and its exhibits are true and correct to the best of my knowledge, information, and belief.

March 4, 2014
Date

Carnell Cooper, M.D.
Sr. VP & Chief Medical Officer
Dimensions Health System
DIO & VP Medical Affairs Prince George's Hospital Center

#491848
013346-0001

I hereby declare and affirm under the penalties of perjury that the facts stated in Co-Applicants' Response to January 30, 2014 Completeness Questions and its exhibits are true and correct to the best of my knowledge, information, and belief.



February 27, 2014
Date

Raymond Moldenhauer
Regional Leader, Healthcare
HOK

#488643
013346-0001

I hereby declare and affirm under the penalties of perjury that the facts stated in Co-Applicants' Response to January 30, 2014 Completeness Questions and its exhibits are true and correct to the best of my knowledge, information, and belief.

February 27, 2014
Date

Terri Haber
Cardiovascular Program Development Consultant
Haber Consulting, LLC

#486238
013346-0001

I hereby declare and affirm under the penalties of perjury that the facts stated in Co-Applicants' Response to January 30, 2014 Completeness Questions and its exhibits are true and correct to the best of my knowledge, information, and belief.

February 27, 2014
Date

Jeffrey Johnson
Consultant

#481237
013346-0001

I hereby declare and affirm under the penalties of perjury that the facts stated in Co-Applicants' Response to January 30, 2014 Completeness Questions and its exhibits are true and correct to the best of my knowledge, information, and belief.

March 4, 2014
Date

Andrew L. Solberg
A.L.S. Healthcare Consultant Services

#481240
013346-0001

EXHIBIT 51

Nielsen iXPRESS 5.0 ICD-9 Healthcare Database Methodology

August 2010

Model Overview

The Nielsen ICD-9 Healthcare Database is built using a model developed by Treo Solutions. This model has three primary components: demographic cohort population counts, cohort-specific healthcare utilization rates, and a setting-specific regional adjustment. In order to calculate healthcare utilization estimates and forecasts, counts for a dozen age/sex specific demographic cohorts are multiplied by cohort-specific utilization rates, and then multiplied by a setting-specific regional adjustment factor, as follows:

Demographic Cohort Counts	x	Cohort-Specific Utilization Rates	x	Regional Variation Adjustment	=	Area Utilization Counts

This model has the advantages of accounting for demographic variation down to the ZIP Code level, beginning with nationally comprehensive utilization rates to ensure comparability of estimates from diverse geographic areas, and adjustment for regional variation in healthcare utilization rates due to factors apart from demographic differences.

Data Overview

Demographic Data

A brief summary of the Nielsen Pop-Facts methodology is provided in this document. For complete methodology details, please contact your Nielsen account representative.

Age/sex distribution is estimated using a modified cohort survival method, which ages population based on age/sex specific survival probabilities, and estimates births over the estimation period. Group quarters and other populations that do not age in place are not aged. The method is applied first at county level, using the United States Census Bureau's most recent estimates of county population by age/sex as a starting point. Tract age/sex estimates are produced next, and controlled to the county estimates, then block group age/sex estimates are produced and controlled to tract level.

Cohort-specific demographic data are a keystone of healthcare utilization modeling, as age/sex cohort differences in disease and utilization rates are the major source of variation in healthcare utilization.

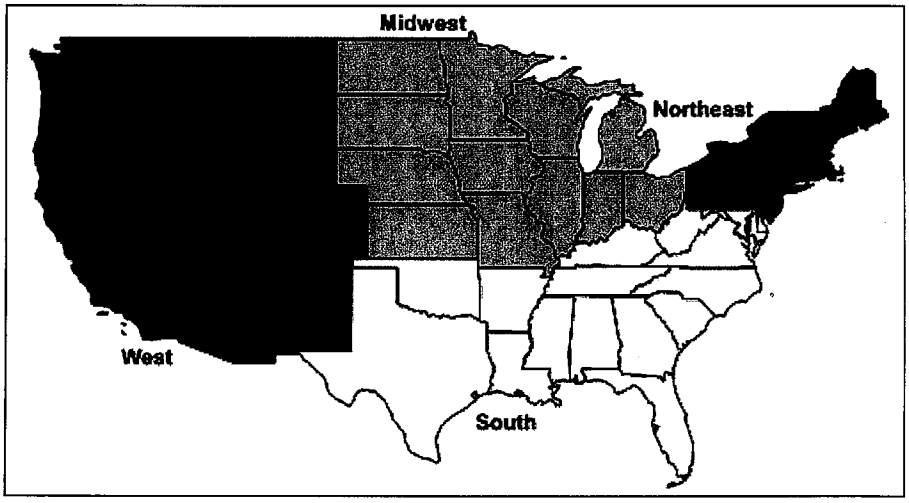
Healthcare Utilization Rates

Baseline healthcare utilization rates are calculated from several national survey data sources administered by the National Center for Health Statistics (NCHS). These databases, described below, are used in order to generate baseline utilization rates from sources that use consistent methodologies for sampling across the United

States. A dozen cohort-specific use rates are calculated and multiplied by the demographic cohort counts. The resulting baseline cohort utilization counts are summed to generate a total utilization count for each geographic area.

Regional Variations in Utilization Rates

Ongoing healthcare utilization research continues to support the observation that regional differences exist in the patterns of healthcare utilization across the United States.[1] These regional differences are influenced by socioeconomic variables such as race and income, as well as market variables such as insurance coverage patterns and supply of services such as facilities and providers of care. For the most part, use of services was higher in every age/sex cohort in the Northeast, lower in the West and somewhere in between for the Midwest and South. Despite the goals of comprehensive health planning in the 1970s, the introduction of standardized DRGs in the 1980s, and the growth in managed care in the 1990s, these differences in utilization between the regions persist.



National Center for Health Statistics (NCHS) Region Map

The Treo Solutions healthcare utilization model incorporates a regional adjustment by setting (i.e., physician office, hospital inpatient, hospital outpatient, hospital emergency department, and ambulatory surgery center) for the four regions of the United States pictured in the illustration above and listed in the table below.[2]

NCHS Region List			
Northeast	**Midwest**	**South**	**West**
Maine	Michigan	Delaware	Montana
New Hampshire	Ohio	Maryland	Idaho
Vermont	Illinois	District of Columbia	Wyoming
Massachusetts	Indiana	Virginia	Colorado
Rhode Island	Wisconsin	West Virginia	New Mexico
Connecticut	Minnesota	North Carolina	Arizona
New York	Iowa	South Carolina	Utah
New Jersey	Missouri	Georgia	Nevada
Pennsylvania	North Dakota	Florida	Washington
	South Dakota	Kentucky	Oregon
	Nebraska	Tennessee	California
	Kansas	Alabama	Hawaii
		Mississippi	Alaska
		Arkansas	
		Louisiana	
		Oklahoma	
		Texas	

Healthcare Utilization Rate Data Sources

A key component of small area analysis using modeled data is the choice of "standard" databases from which baseline utilization rate estimates are calculated. Many of these standard databases are produced by the federal government, particularly the National Center for Health Statistics (NCHS). Advantages of using these national survey databases include the following:

- Strict probability sampling techniques are observed.
- Surveys are carefully constructed, validated, and administered.
- Proven analytical techniques are employed.
- Underlying population estimates are available from U.S. Census Bureau data.
- Results are extrapolated to national populations.

Brief descriptions of some of the principal survey sources are provided below.[3]

National Ambulatory Medical Care Survey (NAMCS) is a national survey designed to meet the need for objective, reliable information about the provision and use of ambulatory medical care services in the United States. Findings are based on a sample of visits to non-federally employed office-based physicians who are primarily engaged in direct patient care. Physicians in the specialties of anesthesiology, pathology, and radiology are excluded from the survey. The survey was conducted annually from 1973 to 1981, in 1985, and annually since 1989.

National Hospital Ambulatory Medical Care Survey (NHAMCS) is designed to collect data on the utilization and provision of ambulatory care services in hospital emergency and outpatient departments. Findings are based on a national sample of visits to the emergency departments and outpatient departments of non-institutional general and short-stay hospitals, exclusive of federal, military, and Veterans Administration hospitals, located in the 50 States and the District of Columbia. The survey uses a four-stage probability design with samples of geographically defined areas, hospitals within these areas, clinics within hospitals, and patient visits within clinics. Annual data collection began in 1992.

National Hospital Discharge Survey (NHDS), which has been conducted annually since 1965, is a national probability survey designed to meet the need for information on characteristics of inpatients discharged from non-Federal short-stay hospitals in the United States. The NHDS collects data from a sample of approximately 270,000 inpatient records acquired from a national sample of about 500 hospitals. Only hospitals with an average length of stay of fewer than 30 days for all patients, general hospitals, or children's general hospitals are included in the survey. Federal, military, and Department of Veterans Affairs hospitals, as well as hospital units of institutions (such as prison hospitals), and hospitals with fewer than six beds staffed for patient use, are excluded.

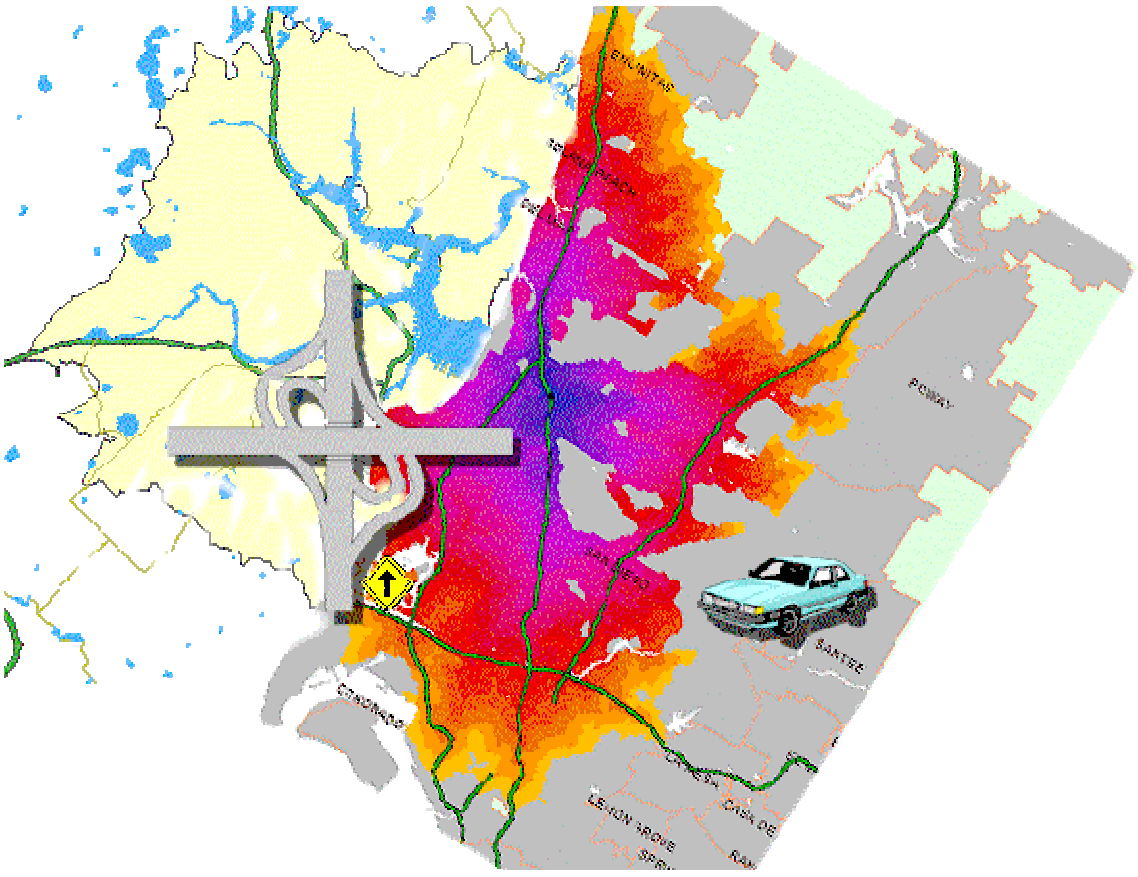
National Survey of Ambulatory Surgery (NSAS), which was initiated by the National Center for Health Statistics in 1994, is a national survey designed to meet the need for information about the use of ambulatory surgery services in the United States. For NSAS, ambulatory surgery refers to surgical and nonsurgical procedures performed on an ambulatory (outpatient) basis in a hospital or freestanding center's general operating rooms, dedicated ambulatory surgery rooms, and other specialized rooms such as endoscopy units and cardiac catheterization labs. The survey was conducted annually from 1994 through 1996 and again in 2006. The 2006 survey was released twice, the second time to correct inconsistencies in coding multiple occurrences of the same procedure in single visits (for example for bilateral procedures). The estimates contained in the Treo dataset use this corrected database.

National Health Interview Survey (NHIS) is the principal source of information on the health of the civilian non-institutionalized population of the United States. The National Health Interview Survey is a cross-sectional household interview survey. Sampling and interviewing are continuous throughout each year. The sampling plan follows a multistage area probability design that permits the representative sampling of households. The 1996 NHIS rates for acute and chronic conditions were used herein because beginning in 1997, questions on acute and chronic conditions were dramatically reduced in an effort to shorten the NHIS survey.

References

1. Dartmouth Medical School: Center for the Evaluative Clinical Sciences. The Dartmouth Atlas of Health Care 1999 / The Center for the Evaluative Clinical Sciences, Dartmouth Medical School, 1999.
2. National Center for Health Statistics: Advance data from vital and health statistics: numbers 141 –1 50. National Center for Health Statistics: Vital Health Stat 16(15). 1995.
3. National Center for Health Statistics: Surveys and Data Collection Systems (http://www.cdc.gov/nchs/express.htm), September 2004.

EXHIBIT 52



INTRODUCTION

Freeway is a drive time generator which can be used to produce:

- polygons representing the area which can be driven from a specified point within a specified amount of time under specific traffic conditions either one at a time or for an entire dBase table
- point-to-point drive times between a single origin and single destination point
- tables of drive times between a set of one or more origins and a set of one or more destinations

There are two separate means of accessing the Freeway software library, including:

- FWY32.EXE, a polygon generation utility which works without a mapping and creates polygons in either MID/MIF (MapInfo Import Format) or BNA (Atlas GIS ASCII format).
- FREEWAY.MBX, a MapInfo (version 4.0 or higher) application which allows interactive polygon generation.

METHODOLOGY AND DATA SOURCES

Freeway uses a precompiled grid environment which is a compressed representation of the street network. A detailed grid (approximately 500 feet in size) is used for drive times up to 30 minutes while a generalized grid (approximately ½ mile in size) is used for larger drive times, although it is possible to force Freeway to use a specific grid size for any particular problem. Urban/rural differentiation was accomplished by aggregating census tracts with more than 60% urban population, then buffering the results (2 miles). The goal was not to replicate the Census Bureau's definitions of urban/rural, but rather to identify those areas where significant urban traffic congestion is likely.

Coverage	Vintage	Source	Config Value	Filename	Product
US	Dec. 2011	TIGER '11 1st Release	US	Tt11us0<n>	Freeway
Canada	June 2009	StatsCan	CA	Tt10ca0<n>	Freeway Canada
Wyoming	Dec. 2009	TIGER '09 1st Release	WY	Tt10wy0<n>	Freeway Demo
US	2008 Q4	NavTeq	PU	nt09us0<n>	Freeway Premium
Canada	2008 Q4	NavTeq	PC	nt09ca0<n>	Freeway Canada Premium
Wyoming	2008 Q4	NavTeq	PW	nt09wy0<n>	Freeway Premium Demo
UK & Ireland	2007 Q1	NavTeq	PE	nt07ui0<n>	Freeway UK and Ireland Premium

Road linkages are divided into six categories, as follows:

Rural local	local roads in small towns and minor roads outside of small towns
Rural arterial	state and US highways outside of urban areas
Rural freeway	state, US, and Interstate multi-lane divided highways located outside of designated urban areas
Urban local	residential streets and minor roads within urban areas
Urban arterial	multi-lane major roads within designated urban areas
Urban freeway	multilane, divided, limited access highways located within urban areas

The default speed settings on rural linkages are somewhat higher than those for the corresponding urban linkages in order to account for the higher levels of traffic congestion within urban areas. The default speed settings are identified later in this section.

INSTALLATION AND CONFIGURATION

A standard setup program is used to install Freeway. The program allows you to selectively install various components and to optionally install the databases to your hard disk. If you do not choose to install the databases to the hard disk, the CD-ROM must be present in order to run the software.

You can choose to either leave the data on the installation CD-ROM or copy it to the local disk. Performance on the CD-ROM is adequate on 8X or faster CD-ROM drives. The total file space required on the hard disk is approximately 120 megabytes.

FREEWAY USER SETTINGS

A number of options are available to control the style and detail of the resulting drive time polygons.

DETAIL LEVEL

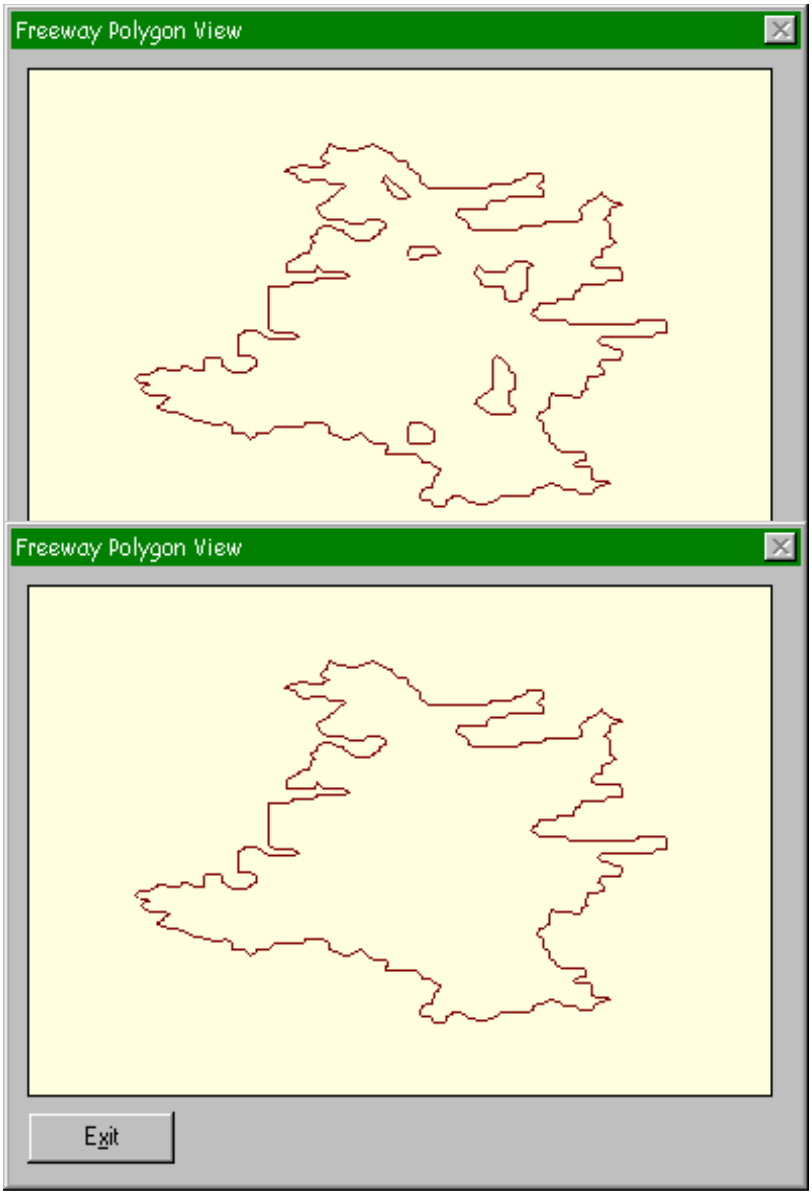
Determines the level of detail of the database to be used. Three options are available:

- *System selected*
  This is the default setting. For drive times under 30 minutes, the detail file is used, otherwise the generalized file is used
- *Force Detail*
  Forces the use of the detail file regardless of the drive time
- *Force Generalized*
  Forces the user of the generalized file regardless of the drive time

The use of the detail mode file for large drive times may result in "out of memory" errors, especially under Windows 3.1. Under Windows 95, the operating system imposes a limit of 128MB of memory use for any particular task. For large problems, the use of the detail mode is not recommended, as performance is hampered once the memory use exceeds physical memory significantly.

CONTOUR MODE

Determines whether complex polygons can be generated. The default is to generate only the main polygon without any embedded "islands". However, the system can be configured to display internal areas which are unreachable (such as a large urban park, or a lake). Simple polygons may be easier to interpret for a map reader, but less precise. The diagrams below show the differences for a typical polygon in a mountainous area:



At left is a typical polygon with internal areas displayed. Note the five areas within the drive time polygon which are unreachable. In this particular case, four of the five contain no roads and the fifth is a reservoir.

In this view, the embedded unreachable areas are not displayed. For purposes of obtaining trade area demographics, this is likely the preferred means, as there is not guarantee that the block or block group centroids do not fall within the unreachable areas.

TRAFFIC CONDITIONS

Freeway permits the drive time to be calculated under any one of four traffic condition sets. The following are available:

Normal
Non-rush hour traffic conditions. Assumes traffic flows at or near the likely posted speed limits in urban areas.

Moderate
Rush hour traffic conditions in most small to mid size urban areas, or the "background" traffic level in most major metropolitan areas

Heavy
Rush hour in major metropolitan areas

Custom
Allows the user to set the traffic conditions

The speed conditions reflect the expected travel speed over a link of a specific type and location, not the actual speed limit. The following table shows the default link speeds for each traffic condition type:

Link Type	Normal	Moderate	Heavy	Custom
Urban Local	25	25	20	25
Urban Arterial	40	35	30	35
Urban Freeway	55	50	40	50
Rural Local	35	30	30	35
Rural Arterial	50	50	50	50
Rural Freeway	65	65	65	65

Note that the end-user can alter the Custom travel speeds by selecting "Options/Custom Speed" from the main interface.

CONNECTION TYPE

In order to allow for both minor geocoding errors and for deficiencies in the TIGER street network files, Freeway is configured to automatically attach the geocoded site to the street network in one of three ways:

Strict
The site must be directly connected to the network within the cell in which it is located.

Normal
The site will be connected to its immediately adjacent neighbor cells using the slowest travel time indicated in the current Traffic setting.

Relaxed
Connect the site up to five cells away to connect to the network. In detail mode, this is approximately ½ mile while in generalized mode, this is 2½ miles. The relaxed mode is recommended only when the normal setting has failed to generate a desirable result.

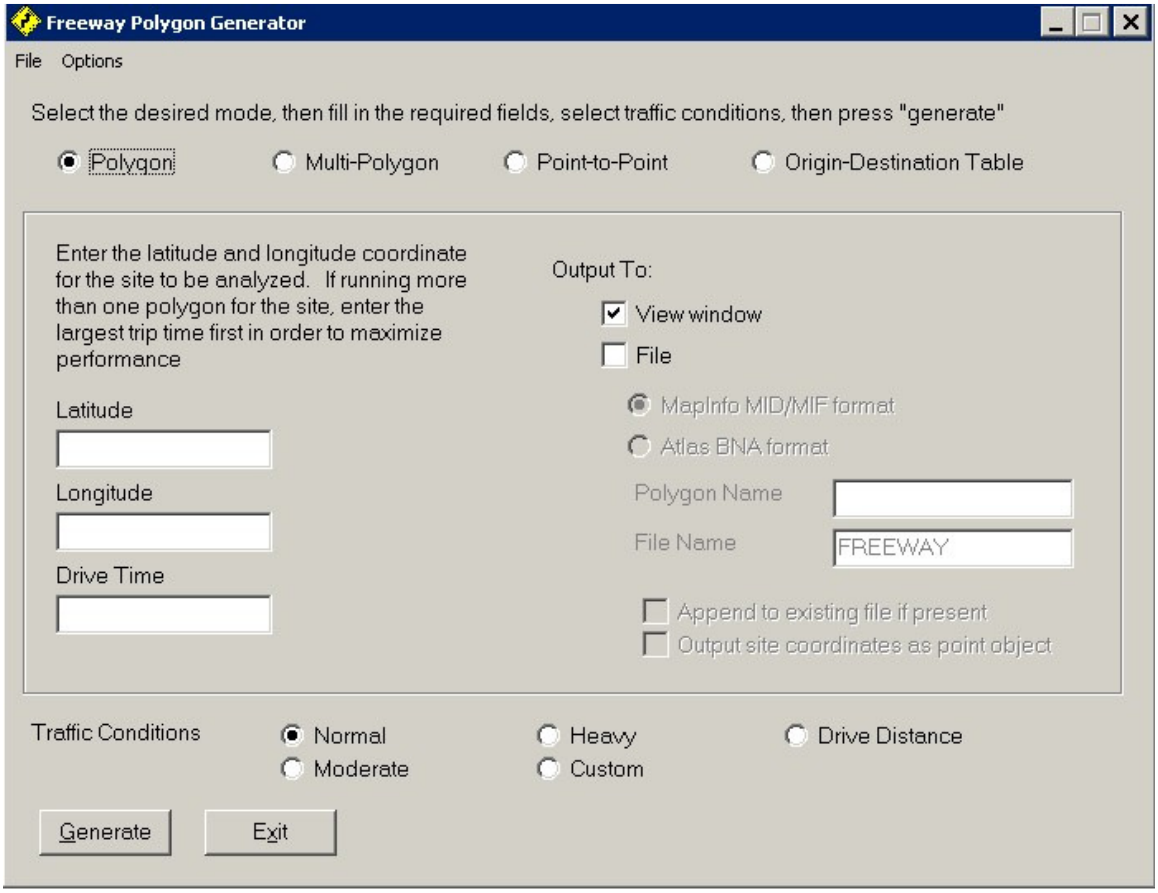
COUNTRY

Freeway is available for both the United States and Canada. The Country code should be set to either US or CA as appropriate.

FWY32.EXE
Freeway Polygon Generator

This application is a stand-alone polygon generation utility which can be used to create polygons in either MID/MIF (MapInfo) or BNA (Atlas GIS) formats for importing into any of several mapping packages which can import files of these two types.

It consists of a simple interface which allows the user to enter in the coordinates of the site, the drive time, and the output style. The main view appears below.



File Menu

Version	displays the current freeway.dll version number
Exit	exits the program

Options Menu

Configure	displays the configuration dialog (see below)
Custom Speed	displays the custom traffic conditions dialog (see below)
About	shows an about box for the application

On the main dialog form, the "output to:" section has a number of options. First, the polygon can be simply displayed on a view window or can be written to a file. Note that the view does not contain any other cartographic information.

If output is to a file, the following options are available:

File Type
Can be MID/MIF (MapInfo) or BNA (Atlas GIS) formats. These can be readily imported into most major desktop mapping environments

Polygon Name
Sets the feature name for later reference.

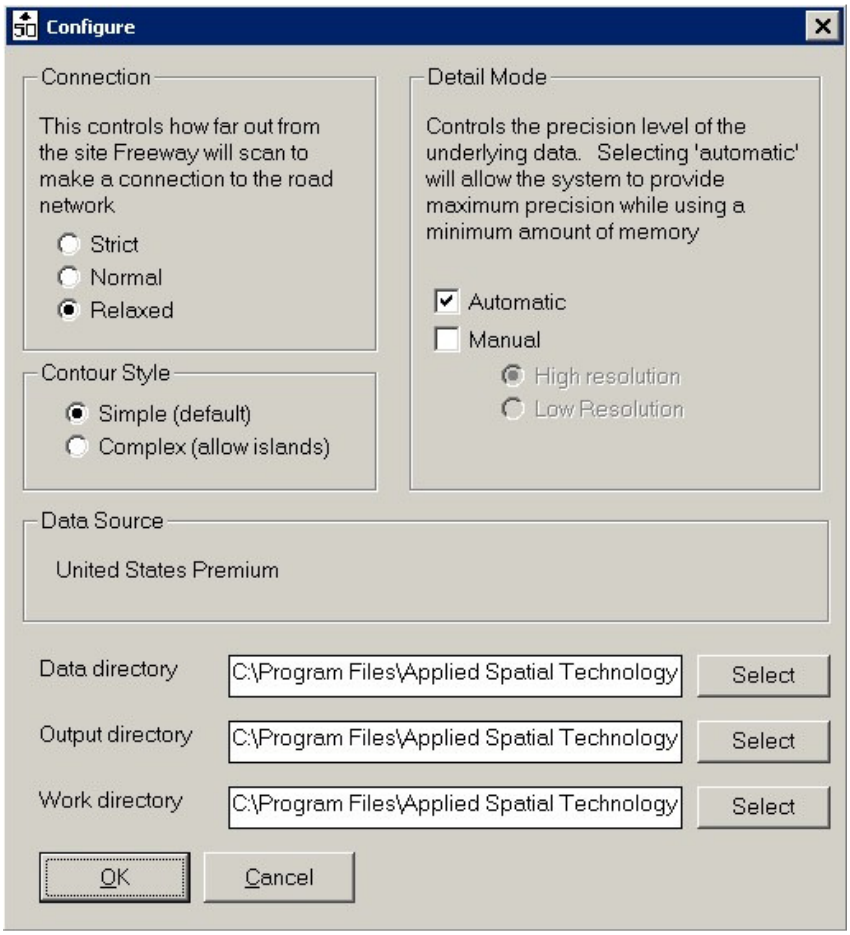
File Name
Sets the output file name. Output will be written to the directory specified in the Configuration dialog.

Append Option
If an output file with the name chosen exists, Fwy can be forced to either overwrite the file or append to it as appropriate. This allows for multiple polygon generation within a single layer.

Site Option
If checked, Fwy will output the site coordinates as a separate feature in the file. Note that some mapping environments will not permit both point and polygon data within the same layer.

Once the coordinates and drive time are entered, and the output options selected, press [Generate] to create the polygon. Upon completion, a message will appear indicating that the polygon was completed if output is to a file.

Note that if you are generating multiple polygons for a single site, it is most efficient to start with the largest drive time and work down. For example, if you wanted to produce a map showing drive times from a site in one minute intervals, you would first enter the largest interval desired and work down in one minute intervals. This allows the system to avoid rereading the databases each time and greatly improves performance.

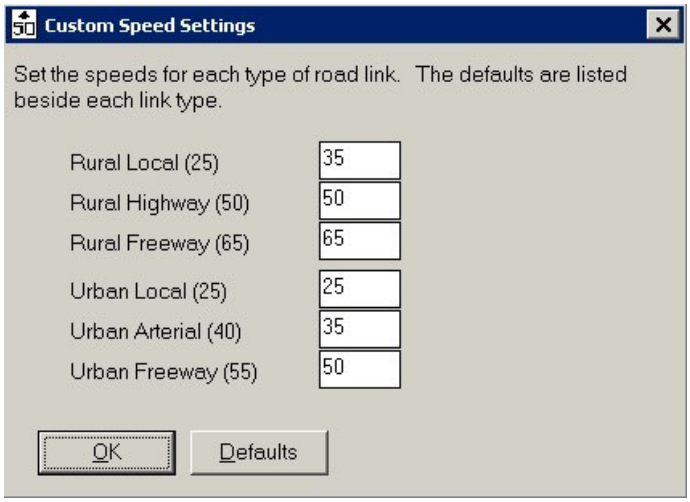


Configuration Dialog

This dialog allows the user to select the desired Freeway settings. See the introductory section for interpretation of these settings.

Note that the data directory must be set appropriately in order for the system to locate its data. The "Select" commands at the right of the directory path can be used to locate necessary files and select the appropriate directory.

Note that version 2.1 adds a dialog setting for country, in which either Canada or the United States may be selected.

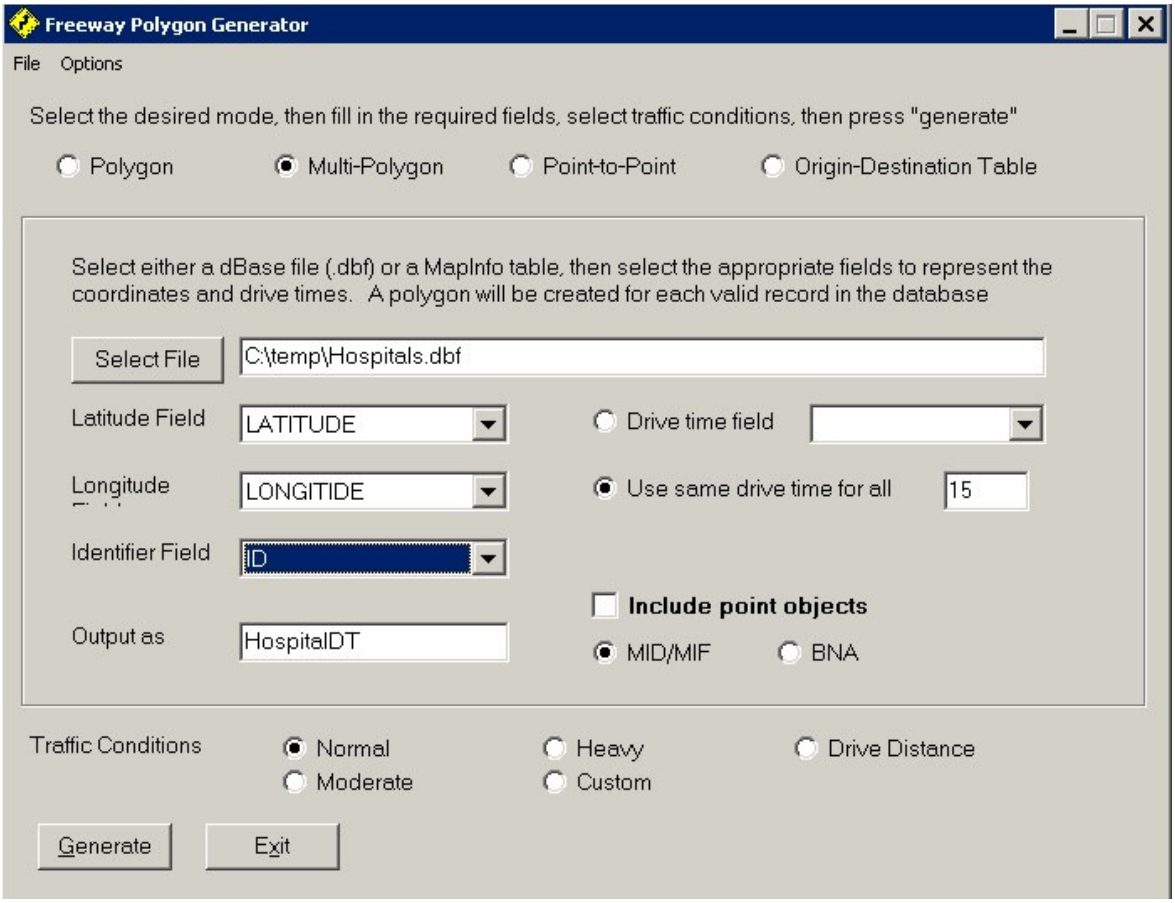


Custom Traffic Settings

From the "Options" menu, select Custom Speed. Enter the desired speed settings on the form to modify the custom settings. These changes are saved to the initialization file.

MULTI-POLYGON MODE

The multi-polygon mode is used to process an entire group of records.



Choose a file using the "Select File" command button. If the system can determine which fields contain latitude and longitude coordinates, these fields will be automatically filled in. The "Identifier" field is used to relate the resulting polygons back to the original file.

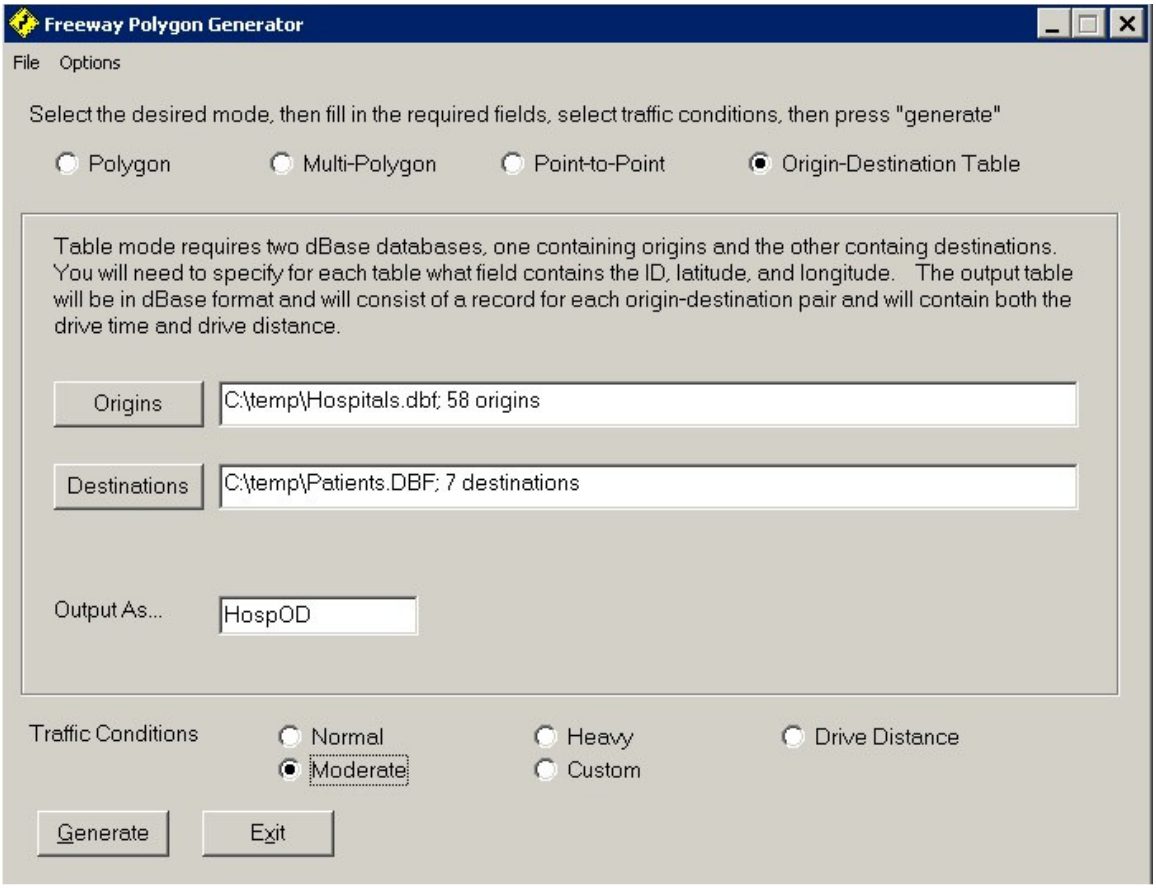
You must enter an output file name. The output will be stored in the output directory as specified in the options dialog box.

You may choose to generate the same drive time for each record in the file or to use the value of a specified field for this purpose (allowing each record to be given a different drive time). Output can be either as MID/MIF or BNA format.

TABLE MODE

Table mode is used to generate an origin-destination table by processing an orgin dBase file and a destination dBase file. The resulting dBase table will contain a record for each origin-destination pair and will include both drive time and drive distance. Please note that time to construct this table may be large if the spatial extent of either the origin or destination file is large.

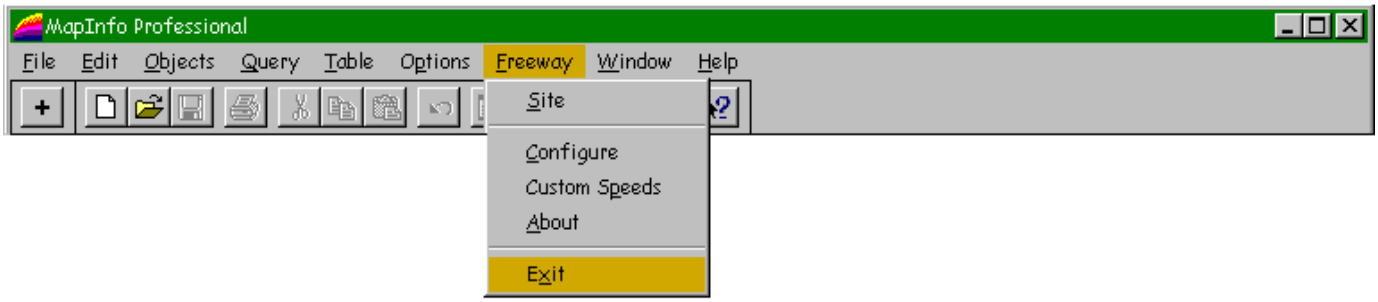
When selecting the input files, you must indicate which field contains the latitude, longitude, and a unique ID field.



FREEWAY MAPINFO INTERFACE

A direct MapInfo interface is available by running Freeway.mbx from the File | Run MapBasic Application option of the MapInfo menu. This application installs itself on the main menu and attaches a custom toolbar to the interface. This application is available for MapInfo version 4.0 or higher running under either Windows 3.1 or Windows 95. The application is currently not supported under Windows NT.

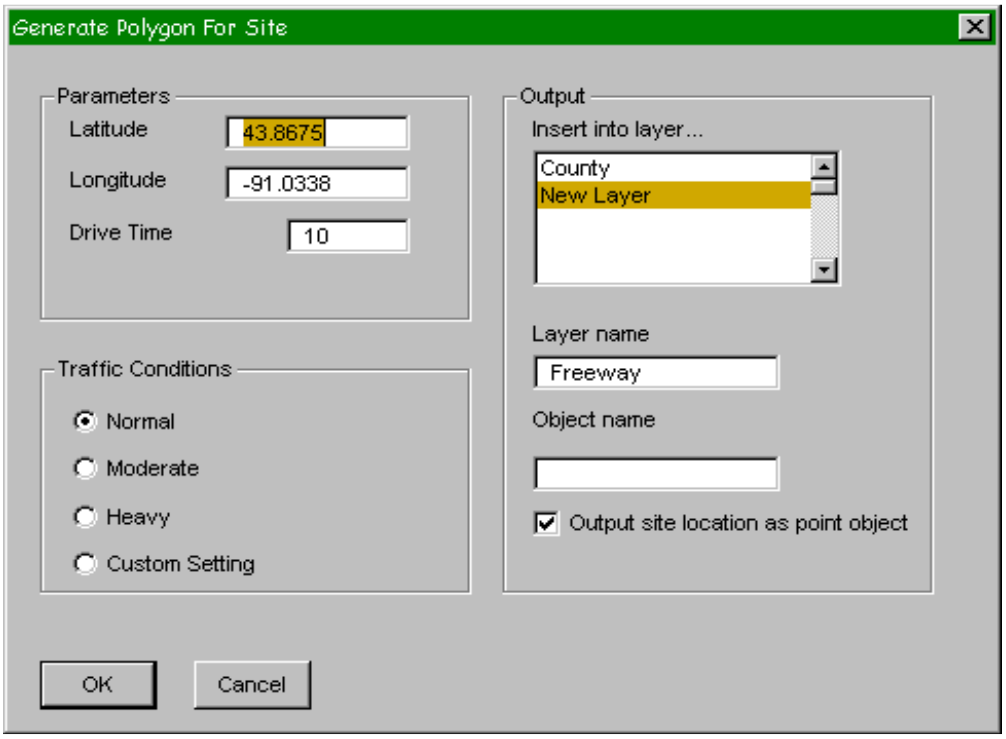
The Freeway interface to MapInfo is shown below:



The + at left is the button bar installed by Freeway. Normally, this will appear at the right of any MapInfo button bars already present.

In most cases, a Freeway polygon will be generated by selecting the + button on the button bar and clicking on the desired site. This will invoke the site dialog with the coordinates filled in. Enter a drive time in minutes and select traffic conditions. In addition, you will want to provide a name for the resulting polygon

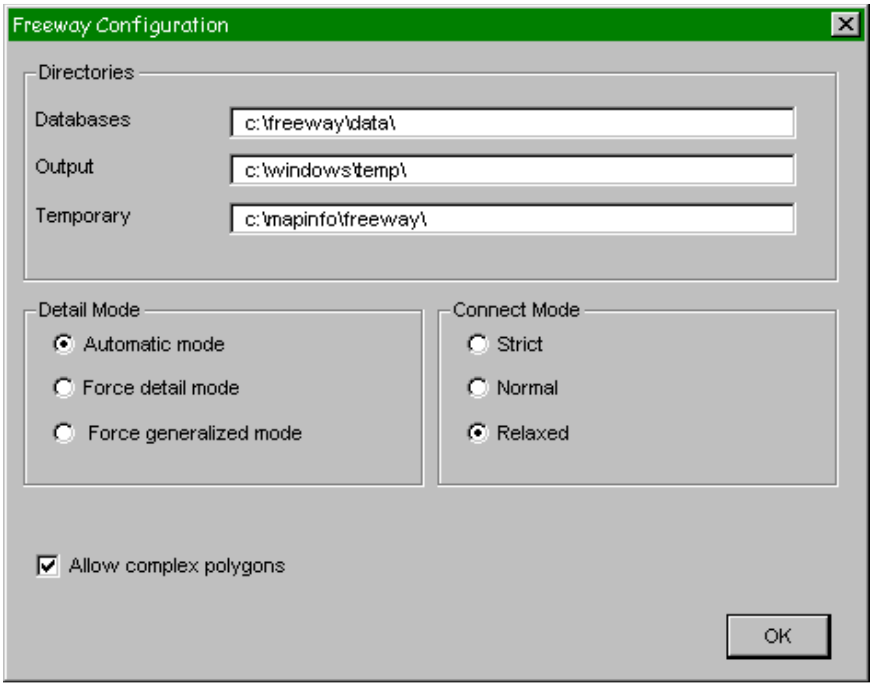
and choose an output layer into which the polygon will be added. Note that Freeway will create a new layer if you so desire. The site dialog is shown below:



Note that if you select "New Layer", you should choose a layer name in the text box below the layer selection list. If you check the "output site location as point object" box, Freeway will insert two objects into the layer – the polygon and the site from which it was generated.

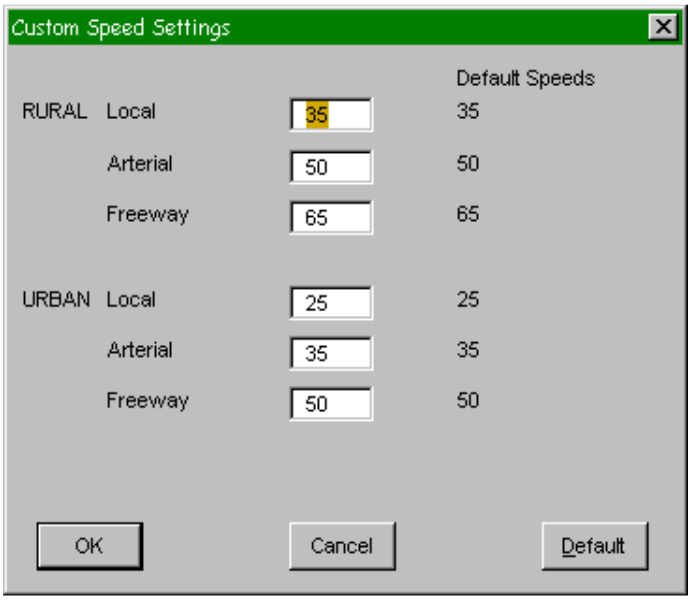
Once you select "OK", Freeway will assemble an origin-destination matrix from its databases, and then generate a polygon using that information. MapInfo will then be instructed to import the resulting polygon into the chosen layer. The view is automatically adjusted to show the new polygon.

The main configuration form is selected from the Freeway menu and appears as below. The databases directory is the location of the databases. The output directory should be either a temporary files directory or a location accessible to MapInfo. The temporary directory is used for temporary storage in some cases. Any files created there will be destroyed by Freeway upon completion of its tasks.



Note that version 2.1 adds a country setting to the above dialog.

The speed setting dialog is shown below and is self-explanatory.



Customer and Technical Support

Customer and technical support is available directly from your Freeway reseller.

EXHIBIT 53

Prince George's Hospital Center ("PGHC") / Prince George's Regional Medical Center ("PGRMC")
Changes in Service Area Hospital Discharges
FY2012 - FY2021

The following schedules support Exhibit 27 in the CON Application:

Page 1: Exhibit 27 as presented in the CON Application.

Page 2: Demonstrates the redefinition of the Service Area as a result of moving to Largo, MD.
First, the FY2012 PGHC Service Areas are shown along with the corresponding discharges by Zip Code.
Then, the FY2012 PGRMC Service Areas are shown along with the corresponding discharges by Zip Code.
As multiple Zip Codes are removed and none are added to arrive at the PGRMC Service Area, the net result is a decrease of 283 discharges.

Page 3: Demonstrates the impact of population growth and use rate assumptions from FY2012-FY2021 by Cohort.
Applying the FY2021 Use Rates to the FY2021 PGRMC Service Area population by Cohort results in total discharges for the PGRMC Service Area of 91,856.
Using PGHC's Market Shares based on FY2012 actual data, population growth and use rate changes would result in a net impact of 97 additional discharges for PGRMC.

Page 4: Demonstrates PGHC's proximity ranking for each Zip Code in its current (PGHC) and future (PGRMC) location.

Page 5: Demonstrates changes in Market Share as a result of moving the hospital to Largo, MD and application of the relocation methodology.
First, PGHC Market Shares are presented by Zip Code and Cohort using FY2012 actual discharge data for the PGRMC Service Area.
For each Cohort, the Zip Codes are organized by PGHC proximity ranking and the average Market Share for each ranking is calculated.
Then, the Zip Codes in PGRMC's Service Area are sorted by PGRMC proximity ranking and the average Market Share for that ranking is assumed.

Page 6: Demonstrates changes in discharges as a result of moving the hospital to Largo, MD and application of the relocation methodology
First, PGHC discharges are presented by Zip Code and Cohort using FY2012 actual Market Shares applied to FY2021 projected discharges (page 2).
Then, revised Market Shares (page 4) are applied to FY2021 Service Area projected discharges (page 2) to arrive at PGRMC FY2021 projected discharges.

Page 7: Demonstrates the impact of Recapture assumptions on In-Service Area FY2021 PGRMC discharges and Market Share.
Service Line recapture assumptions are discussed in the CON Application on pages 91-94.

Page 8: Demonstrates the allocation of Recapture assumptions from the Service Line level to the Cohort level based on FY2012 actual data.
First, FY2012 PGHC discharges in the PGHC service area are presented by Service Line and Cohort.
Then, those same proportions are used to allocate the Service Line Recapture assumptions into the five Cohorts.

Note:
PGHC = current location in Cheverly, MD
PGRMC = future location in Largo, MD

Prince George's County Regional Medical Center
Change in Hospital Discharges
In-Service Area Only
FY2012 - FY2021

Hospital	FY12 PGHC Service Area Discharges	*Change to Largo Service Area*	FY12 Largo Service Area Discharges	*Population/ Use Rate Adjustment*	FY21 Largo Service Area Discharges (pre-relocation)	*Relocation/ Methodology Adjustment*	FY21 Largo Service Area Discharges (post-relocation)	*Additional Recapture Adjustment*	FY21 Largo Service Area Discharges (post-relocation, post-recapture)	*Total Adjustment*
Prince George's Regional Medical Center	9,436	*(283)*	9,153	*97*	9,250	*243*	9,493	*2,860*	12,353	*3,103*
Doctor's Community Hospital	10,772	*(161)*	10,611	*925*	11,536	*130*	11,667	*(214)*	11,453	*(83)*
Southern Maryland Hospital Center	13,433	*(19)*	13,414	*1,079*	14,493	*(399)*	14,095	*(216)*	13,878	*(615)*
Washington Adventist Hospital	7,898	*(3,621)*	4,277	*362*	4,639	*219*	4,858	*(72)*	4,786	*146*
Laurel Regional Hospital	3,658	*(306)*	3,352	*175*	3,527	*36*	3,562	*(53)*	3,510	*(17)*
Johns Hopkins Hospital	1,833	*(227)*	1,606	*29*	1,635	*(43)*	1,593	*(28)*	1,565	*(70)*
University of Maryland Medical Center	1,864	*(174)*	1,690	*(21)*	1,669	*(18)*	1,651	*(32)*	1,619	*(50)*
Holy Cross Hospital	9,992	*(4,334)*	5,658	*(64)*	5,594	*42*	5,636	*(98)*	5,538	*(56)*
Howard County General Hospital	753	*(94)*	659	*22*	681	*(7)*	675	*(10)*	664	*(17)*
Fort Washington Medical Center	1,759	*(1)*	1,758	*217*	1,975	*(10)*	1,965	*(30)*	1,935	*(40)*
Anne Arundel Medical Center	4,107	*(44)*	4,063	*317*	4,380	*(328)*	4,052	*(66)*	3,986	*(394)*
Suburban Hospital	1,207	*(435)*	772	*57*	829	*3*	833	*(13)*	819	*(10)*
Shady Grove Hospital	425	*(165)*	260	*(12)*	248	*1*	249	*(5)*	244	*(4)*
Montgomery General Hospital	618	*(378)*	240	*5*	245	*14*	260	*(3)*	256	*11*
Other MD Hospitals	7,406	*(316)*	7,090	*299*	7,389	*0*	7,389	*(114)*	7,275	*(114)*
Total MD Hospitals	75,161	*(10,558)*	64,603	*3,488*	68,091	*(116)*	67,975	*1,905*	69,880	*1,789*
Total MD Hospitals (Excluding PGHC)	65,725	*(10,275)*	55,450	*3,391*	58,841	*(359)*	58,482	*(955)*	57,527	*(1,314)*
Washington Hospital Center	9,492	*(740)*	8,752	*624*	9,376	*51*	9,427	*(861)*	8,565	*(811)*
Children's National Medical Center	3,890	*(624)*	3,266	*(42)*	3,224	*(2)*	3,222	*(75)*	3,147	*(77)*
Providence Hospital	2,240	*(342)*	1,898	*38*	1,936	*87*	2,023	*(171)*	1,852	*(84)*
Georgetown University Hospital	2,986	*(238)*	2,748	*111*	2,859	*(12)*	2,847	*(260)*	2,587	*(272)*
George Washington University Hospital	2,142	*(140)*	2,002	*(8)*	1,994	*7*	2,001	*(196)*	1,805	*(189)*
Other DC Hospitals	2,268	*(312)*	1,956	*(49)*	1,907	*0*	1,907	*(179)*	1,728	*(179)*
Total DC Hospitals	23,018	*(2,396)*	20,622	*673*	21,295	*131*	21,426	*(1,742)*	19,685	*(1,611)*
Inova Fairfax Hospital	609	*(34)*	575	*(21)*	554	*(0)*	554	*(41)*	512	*(41)*
Inova Alexandria Hospital	608	*(12)*	596	*(22)*	574	*(3)*	571	*(41)*	531	*(44)*
Virginia Hospital Center - Arlington	525	*(21)*	504	*0*	504	*(3)*	501	*(35)*	466	*(38)*
Inova Mount Vernon Hospital	377	*(7)*	370	*36*	406	*(8)*	398	*(20)*	378	*(29)*
Inova Fair Oaks Hospital	81	*(7)*	74	*(3)*	71	*(0)*	71	*(6)*	65	*(6)*
Other VA Hospitals	378	*(30)*	348	*15*	363	*0*	363	*(20)*	343	*(20)*
Total VA Hospitals	2,578	*(111)*	2,467	*5*	2,472	*(15)*	2,458	*(163)*	2,294	*(178)*
Total	100,757	*(13,065)*	87,692	*4,167*	91,859	*0*	91,859	*(0)*	91,859	*(0)*

Prince George's Hospital Center
Change to Largo Service Area
FY 2012

Zip Code	Description	FY 2012 Current Service Area Discharges						FY 2012 PGRMC Service Area Discharges					
		MSGA (15-64)	MSGA (65+)	OB	PEDS	PSY	Total	MSGA (15-64)	MSGA (65+)	OB	PEDS	PSY	Total
20785	Hyattsville - Landover	714	320	259	4	114	1,411	714	320	259	4	114	1,411
20743	Capitol Heights Area	704	429	212	3	127	1,475	704	429	212	3	127	1,475
20774	Upper Marlboro	283	216	68	3	75	645	283	216	68	3	75	645
20747	District Heights - Forestville	257	63	164	1	58	543	257	63	164	1	58	543
20721	Bowie	109	102	33	-	26	270	109	102	33	-	26	270
20716	Bowie - South East	53	27	14	-	28	122	53	27	14	-	28	122
20753	District Heights	3	1	-	-	-	4	3	1	-	-	-	4
20775	Upper Marlboro	3	-	-	-	-	3	3	-	-	-	-	3
20773	Upper Marlboro	2	4	-	-	-	6	2	4	-	-	-	6
20731	Capitol Heights	1	-	-	-	1	2	1	-	-	-	1	2
20752	Suitland	1	-	-	-	-	1	1	-	-	-	-	1
20717	Bowie	1	-	-	-	-	1	1	-	-	-	-	1
20791	Capitol Heights	-	1	-	-	1	2	-	1	-	-	1	2
20797	Southern MD Facility	-	-	-	-	-	-	-	-	-	-	-	-
20799	Capitol Heights	-	-	-	-	-	-	-	-	-	-	-	-
20792	Upper Marlboro	-	-	-	-	-	-	-	-	-	-	-	-
20784	Hyattsville - Landover Hills	259	146	185	5	82	677	259	146	185	5	82	677
20706	Lanham-Glenarden	238	121	182	2	114	657	238	121	182	2	114	657
20772	Upper Marlboro	119	71	33	-	37	260	119	71	33	-	37	260
20746	Suitland	99	24	115	-	34	272	99	24	115	-	34	272
20770	Greenbelt Area	59	13	43	-	31	146	59	13	43	-	31	146
20720	Bowie - North	44	21	20	1	17	103	44	21	20	1	17	103
20715	Bowie - North	46	30	14	-	29	119	46	30	14	-	29	119
20769	Glenn Dale	6	4	7	-	13	30	6	4	7	-	13	30
20718	Bowie	3	-	-	-	-	3	3	-	-	-	-	3
20623	Cheltenham	1	1	-	-	-	2	1	1	-	-	-	2
20703	Lanham-Seabrook	-	-	-	-	1	1	-	-	-	-	1	1
20762	Andrews AFB	-	-	-	-	-	-	-	-	-	-	-	-
20768	Greenbelt	-	-	-	-	-	-	-	-	-	-	-	-
20771	Greenbelt	-	-	-	-	-	-	-	-	-	-	-	-
20748	Temple Hills	91	30	103	-	43	267	91	30	103	-	43	267
20735	Clinton	47	8	34	-	20	109	47	8	34	-	20	109
20602	Waldorf	29	8	4	-	6	47	29	8	4	-	6	47
20601	Waldorf	28	6	4	-	-	38	28	6	4	-	-	38
20708	South Laurel	25	8	29	1	12	75	25	8	29	1	12	75
20603	Waldorf	15	2	3	1	3	24	15	2	3	1	3	24
20613	Brandywine	11	8	9	-	3	31	11	8	9	-	3	31
20608	Aquasco	3	-	-	-	1	4	3	-	-	-	1	4
20719	Bowie	2	2	1	-	-	5	2	2	1	-	-	5
20757	Temple Hills	1	-	-	-	1	2	1	-	-	-	1	2
20709	Laurel	1	-	-	-	-	1	1	-	-	-	-	1
20710	Bladensburg	144	79	56	1	26	306	144	79	56	1	26	306
20737	Riverdale	144	43	148	5	47	387	144	43	148	5	47	387
20738	Riverdale Park	-	-	-	-	-	-	-	-	-	-	-	-
20704	Beltsville	1	-	-	-	-	1	1	-	-	-	-	1
20745	Oxon Hill	83	23	139	2	44	291	83	23	139	2	44	291
20781	Hyattsville Area	79	21	42	1	17	160	79	21	42	1	17	160
20744	Fort Washington	63	17	74	-	19	173	63	17	74	-	19	173
20705	Beltsville	29	10	40	-	14	93	29	10	-	-	14	53
20740	College Park	25	11	26	-	18	80	25	11	-	-	18	54
20653	Lexington Park	22	6	-	-	1	29	22	6	-	-	1	29
20607	Accokeek	10	-	6	-	5	21	10	-	6	-	5	21
20725	Laurel	1	-	-	-	-	1	1	-	-	-	-	1
20749	Fort Washington	-	-	1	-	-	1	-	-	1	-	-	1
20726	Laurel	-	-	-	-	-	-	-	-	-	-	-	-
20722	Colmar Manor	68	37	21	-	3	129	68	37	-	-	3	108
20707	Laurel	31	22	-	-	15	68	31	22	-	-	15	68
20787	Hyattsville	4	-	-	-	1	5	4	-	-	-	1	5
20741	College Park	1	-	-	-	1	2	1	-	-	-	1	2
20742	College Park	-	-	-	-	-	-	-	-	-	-	-	-
20782	Hyattsville-Chillum	55	13	56	-	17	141	55	13	-	-	17	85
20712	Mount Rainier	21	14	19	-	14	68	21	14	-	-	14	49
20788	Hyattsville	1	-	-	-	-	1	1	-	-	-	-	1
20903	Silver Spring-Hillandale	13	3	-	-	5	21	-	-	-	-	-	-
20904	Silver Spring-Colesville	9	6	-	-	3	18	-	-	-	-	-	-
20783	Hyattsville-Adelphi	46	9	-	-	16	71	-	-	-	-	-	-
20912	Takoma Park	7	2	-	-	2	11	-	-	-	-	-	-
	Total	4,115	1,982	2,164	30	1,145	9,436	4,040	1,962	2,002	30	1,119	9,153
												Variance	(283)

- Out of Service Area

PGHC/PGRMC
Population/Use Rate Adjustment
FY 2012 - FY 2021

	MSGA (15-64)	MSGA (65+)	OB	PEDS	PSY	Total
FY 2012 PGHC Discharges in PGRMC Service Area	4,040	1,962	2,002	30	1,119	9,153
FY2012 PGRMC Service Area Population	666,304	97,746	169,791	168,128	724,643	
FY2021 PGRMC Service Area Population	679,026	148,524	161,617	172,495	787,672	
% Population Change FY2012 - FY2021	*1.9%*	*51.9%*	*-4.8%*	*2.6%*	*8.7%*	
FY2012 Use Rate	61.34	283.21	62.59	20.16	5.25	
FY2021 Use Rate	54.46	251.48	61.33	20.16	5.25	
% Use Rate Change FY2012 - FY2021	*-11.2%*	*-11.2%*	*-2.0%*	*0.0%*	*0.0%*	
FY2021 Projected Total Discharges in PGRMC Service Area	36,982	37,350	9,913	3,478	4,133	
FY2012 PGHC Market Share in PGRMC Service Area	9.6%	7.2%	17.5%	0.9%	29.4%	
FY2021 PGRMC Projected Discharges at FY2012 Market Share	3,567	2,699	1,737	30	1,216	9,250
Population and Use Rate Adjustment	(473)	737	(265)	0	97	97

PGHC/PGRMC
Ranking Methodology Application
FY2012

	Ranking									
	Current Location (PGHC)					Future Location (PGRMC)				
Zip Code	MSGA (15-64)	MSGA (65+)	OB	PEDS	PSY	MSGA (15-64)	MSGA (65+)	OB	PEDS	PSY
20785	1	1	1	1	1	1	1	1	1	1
20743	1	1	1	1	1	1	1	1	1	1
20747	1	1	1	1	1	1	1	1	1	1
20710	1	1	1	1	1	4	4	3	4	4
20737	1	1	1	1	1	4	4	3	4	4
20781	1	1	1	1	1	6	6	4	6	6
20722	1	1	1	1	1	7	7	5	7	7
20787	1	1	1	1	1	7	7	5	7	7
20753	1	1	1	1	1	1	1	1	1	1
20731	1	1	1	1	1	1	1	1	1	1
20752	1	1	1	1	1	1	1	1	1	1
20791	1	1	1	1	1	1	1	1	1	1
20738	1	1	1	1	1	4	4	3	4	4
20797	1	1	1	1	1	1	1	1	1	1
20774	2	2	1	2	2	1	1	1	1	1
20784	2	2	1	2	2	2	2	1	2	2
20706	2	2	1	2	2	2	2	1	2	2
20721	2	2	1	2	2	1	1	1	1	1
20746	2	2	2	2	2	2	2	2	2	2
20770	2	2	1	2	2	2	2	1	2	2
20720	2	2	1	2	2	2	2	1	2	2
20715	2	2	1	2	2	2	2	1	2	2
20712	2	2	2	2	2	9	9	7	9	9
20769	2	2	1	2	2	2	2	1	2	2
20718	2	2	1	2	2	2	2	1	2	2
20775	2	2	1	2	2	1	1	1	1	1
20741	2	2	1	2	2	7	7	5	7	7
20788	2	2	2	2	2	9	9	7	9	9
20703	2	2	1	2	2	2	2	1	2	2
20768	2	2	1	2	2	2	2	1	2	2
20771	2	2	1	2	2	2	2	1	2	2
20799	2	2	1	2	2	1	1	1	1	1
20792	2	2	1	2	2	1	1	1	1	1
20772	3	3	2	3	3	2	2	2	2	2
20748	3	3	2	3	3	3	3	2	3	3
20716	3	3	2	3	3	1	1	1	1	1
20735	3	3	2	3	3	3	3	2	3	3
20602	3	3	2	3	3	3	3	2	3	3
20601	3	3	2	3	3	3	3	2	3	3
20708	3	3	2	3	3	3	3	2	3	3
20740	3	3	2	3	3	6	6	5	6	6
20603	3	3	2	3	3	3	3	2	3	3
20613	3	3	2	3	3	3	3	2	3	3
20608	3	3	2	3	3	3	3	2	3	3
20773	3	3	2	3	3	1	1	1	1	1
20719	3	3	2	3	3	3	3	2	3	3
20757	3	3	2	3	3	3	3	2	3	3
20709	3	3	2	3	3	3	3	2	3	3
20717	3	3	2	3	3	1	1	1	1	1
20762	3	3	2	3	3	2	2	2	2	2
20782	4	4	4	4	4	9	9	7	9	9
20623	4	4	2	4	4	2	2	2	2	2
20742	4	4	3	4	4	8	8	6	8	8
20705	5	5	4	5	5	6	6	5	6	6
20704	5	5	4	5	5	5	5	4	5	5
20725	5	5	4	5	5	6	6	5	6	6
20726	5	5	4	5	5	6	6	5	6	6
20745	6	6	4	6	6	6	6	4	6	6
20744	6	6	4	6	6	6	6	4	6	6
20783	6	6	5	6	6	11	11	8	11	11
20707	6	6	5	6	6	7	7	6	7	7
20653	6	6	2	6	6	6	6	2	6	6
20607	6	6	4	6	6	6	6	4	6	6
20912	6	6	5	6	6	11	11	8	11	11
20749	6	6	4	6	6	6	6	4	6	6
20904	8	8	6	8	8	10	10	7	10	10
20903	9	9	6	9	9	10	10	7	10	10

PGHC/PGRMC
Ranking Methodology Application
FY2012

	Market Share														
	Pre-Relocation Methodology (PGRMC Service Area)					Post-Relocation Methodology (PGRMC Service Area)					Variance				
Zip Code	MSGA (15-64)	MSGA (65+)	OB	PEDS	PSY	MSGA (15-64)	MSGA (65+)	OB	PEDS	PSY	MSGA (15-64)	MSGA (65+)	OB	PEDS	PSY
20785	31.4%	27.0%	37.5%	2.8%	64.8%	22.1%	19.9%	24.2%	1.9%	48.6%	-9.3%	-7.2%	-13.3%	-0.9%	-16.2%
20743	26.2%	26.9%	33.1%	1.5%	51.8%	22.1%	19.9%	24.2%	1.9%	48.6%	-4.2%	-7.0%	-8.9%	0.4%	-3.3%
20747	10.9%	5.8%	29.5%	0.6%	32.8%	22.1%	19.9%	24.2%	1.9%	48.6%	11.2%	14.1%	-5.3%	1.3%	15.8%
20710	30.8%	28.2%	28.3%	1.8%	89.7%	4.5%	1.4%	10.4%	0.7%	16.8%	-26.3%	-26.8%	-17.9%	-1.1%	-72.8%
20737	15.2%	11.0%	31.0%	3.5%	50.5%	4.5%	1.4%	10.4%	0.7%	16.8%	-10.7%	-9.6%	-20.6%	-2.8%	-33.7%
20781	15.7%	8.8%	18.3%	2.5%	33.3%	2.9%	1.3%	15.5%	0.4%	11.0%	-12.9%	-7.5%	-2.9%	-2.1%	-22.3%
20722	25.3%	19.9%	Out of SA	Out of SA	11.1%	2.9%	0.9%	Out of SA	Out of SA	9.1%	-22.4%	-19.0%	0.0%	0.0%	-2.1%
20787	30.8%	0.0%	Out of SA	Out of SA	50.0%	2.9%	0.9%	Out of SA	Out of SA	9.1%	-27.9%	0.9%	0.0%	0.0%	-40.9%
20753	15.0%	8.3%	0.0%	0.0%	0.0%	22.1%	19.9%	24.2%	1.9%	48.6%	7.1%	11.5%	24.2%	1.9%	48.6%
20731	4.3%	0.0%	0.0%	0.0%	100.0%	22.1%	19.9%	24.2%	1.9%	48.6%	17.7%	19.9%	24.2%	1.9%	-51.4%
20752	8.3%	0.0%	0.0%	0.0%	0.0%	22.1%	19.9%	24.2%	1.9%	48.6%	13.7%	19.9%	24.2%	1.9%	48.6%
20791	0.0%	20.0%	0.0%	0.0%	100.0%	22.1%	19.9%	24.2%	1.9%	48.6%	22.1%	-0.1%	24.2%	1.9%	-51.4%
20738	0.0%	0.0%	0.0%	0.0%	0.0%	4.5%	1.4%	10.4%	0.7%	16.8%	4.5%	1.4%	10.4%	0.7%	16.8%
20797	0.0%	0.0%	0.0%	0.0%	0.0%	22.1%	19.9%	24.2%	1.9%	48.6%	22.1%	19.9%	24.2%	1.9%	48.6%
20774	14.1%	16.1%	13.6%	2.5%	46.9%	22.1%	19.9%	24.2%	1.9%	48.6%	8.0%	3.8%	10.6%	-0.7%	1.7%
20784	19.1%	19.9%	34.3%	2.7%	64.1%	10.5%	9.1%	24.2%	1.0%	42.2%	-8.6%	-10.8%	-10.1%	-1.7%	-21.8%
20706	12.8%	9.1%	26.8%	1.0%	58.2%	10.5%	9.1%	24.2%	1.0%	42.2%	-2.3%	0.1%	-2.7%	0.0%	-15.9%
20721	11.3%	12.9%	11.0%	0.0%	36.6%	22.1%	19.9%	24.2%	1.9%	48.6%	10.8%	6.9%	13.2%	1.9%	12.0%
20746	6.7%	2.8%	23.9%	0.0%	22.2%	10.5%	9.1%	8.2%	1.0%	42.2%	3.8%	6.4%	-15.6%	1.0%	20.0%
20770	5.6%	2.4%	9.1%	0.0%	30.7%	10.5%	9.1%	24.2%	1.0%	42.2%	4.9%	6.8%	15.1%	1.0%	11.5%
20720	5.6%	4.5%	7.2%	1.1%	32.7%	10.5%	9.1%	24.2%	1.0%	42.2%	4.8%	4.6%	17.0%	-0.1%	9.5%
20715	4.8%	2.7%	5.4%	0.0%	31.2%	10.5%	9.1%	24.2%	1.0%	42.2%	5.7%	6.4%	18.8%	1.0%	11.0%
20712	6.1%	6.8%	Out of SA	Out of SA	28.6%	1.6%	0.5%	Out of SA	Out of SA	5.3%	-4.5%	-6.3%	0.0%	0.0%	-23.3%
20769	2.2%	2.6%	8.5%	0.0%	54.2%	10.5%	9.1%	24.2%	1.0%	42.2%	8.3%	6.5%	15.6%	1.0%	-11.9%
20718	17.6%	0.0%	0.0%	0.0%	0.0%	10.5%	9.1%	24.2%	1.0%	42.2%	-7.2%	9.1%	24.2%	1.0%	42.2%
20775	30.0%	0.0%	0.0%	0.0%	0.0%	22.1%	19.9%	24.2%	1.9%	48.6%	-7.9%	19.9%	24.2%	1.9%	48.6%
20741	10.0%	0.0%	Out of SA	Out of SA	50.0%	2.9%	0.9%	Out of SA	Out of SA	9.1%	-7.1%	0.9%	0.0%	0.0%	-40.9%
20788	33.3%	0.0%	Out of SA	Out of SA	0.0%	1.6%	0.5%	Out of SA	Out of SA	5.3%	-31.8%	0.5%	0.0%	0.0%	5.3%
20703	0.0%	0.0%	0.0%	0.0%	25.0%	10.5%	9.1%	24.2%	1.0%	42.2%	10.5%	9.1%	24.2%	1.0%	17.2%
20768	0.0%	0.0%	0.0%	0.0%	0.0%	10.5%	9.1%	24.2%	1.0%	42.2%	10.5%	9.1%	24.2%	1.0%	42.2%
20771	0.0%	0.0%	0.0%	0.0%	0.0%	10.5%	9.1%	24.2%	1.0%	42.2%	10.5%	9.1%	24.2%	1.0%	42.2%
20799	0.0%	0.0%	0.0%	0.0%	0.0%	22.1%	19.9%	24.2%	1.9%	48.6%	22.1%	19.9%	24.2%	1.9%	48.6%
20792	0.0%	0.0%	0.0%	0.0%	0.0%	22.1%	19.9%	24.2%	1.9%	48.6%	22.1%	19.9%	24.2%	1.9%	48.6%
20772	6.7%	5.6%	7.1%	0.0%	24.0%	10.5%	9.1%	8.2%	1.0%	42.2%	3.8%	3.5%	1.2%	1.0%	18.2%
20748	4.4%	2.1%	21.4%	0.0%	22.4%	3.7%	2.2%	8.2%	0.2%	15.9%	-0.7%	0.1%	-13.1%	0.2%	-6.5%
20716	6.9%	4.2%	5.2%	0.0%	36.8%	22.1%	19.9%	24.2%	1.9%	48.6%	15.2%	15.7%	19.0%	1.9%	11.7%
20735	2.3%	0.5%	8.2%	0.0%	11.4%	3.7%	2.2%	8.2%	0.2%	15.9%	1.4%	1.7%	0.1%	0.2%	4.5%
20602	2.6%	1.1%	0.8%	0.0%	7.1%	3.7%	2.2%	8.2%	0.2%	15.9%	1.1%	1.0%	7.4%	0.2%	8.7%
20601	2.2%	1.0%	1.2%	0.0%	0.0%	3.7%	2.2%	8.2%	0.2%	15.9%	1.4%	1.2%	7.0%	0.2%	15.9%
20708	2.5%	1.7%	6.5%	0.9%	15.0%	3.7%	2.2%	8.2%	0.2%	15.9%	1.2%	0.5%	1.7%	-0.7%	0.9%
20740	3.6%	1.8%	Out of SA	0.0%	22.5%	2.9%	1.3%	Out of SA	0.4%	11.0%	-0.7%	-0.5%	0.0%	0.4%	-11.5%
20603	1.6%	0.5%	0.8%	0.7%	3.8%	3.7%	2.2%	8.2%	0.2%	15.9%	2.1%	1.7%	7.4%	-0.5%	12.1%
20613	2.1%	1.8%	7.0%	0.0%	6.4%	3.7%	2.2%	8.2%	0.2%	15.9%	1.6%	0.3%	1.2%	0.2%	9.5%
20608	4.8%	0.0%	0.0%	0.0%	16.7%	3.7%	2.2%	8.2%	0.2%	15.9%	-1.1%	2.2%	8.2%	0.2%	-0.8%
20773	16.7%	16.0%	0.0%	0.0%	0.0%	22.1%	19.9%	24.2%	1.9%	48.6%	5.4%	3.9%	24.2%	1.9%	48.6%
20719	50.0%	28.6%	50.0%	0.0%	0.0%	3.7%	2.2%	8.2%	0.2%	15.9%	-46.3%	-26.4%	-41.8%	0.2%	15.9%
20757	12.5%	0.0%	0.0%	0.0%	20.0%	3.7%	2.2%	8.2%	0.2%	15.9%	-8.8%	2.2%	8.2%	0.2%	-4.1%
20709	14.3%	0.0%	0.0%	0.0%	0.0%	3.7%	2.2%	8.2%	0.2%	15.9%	-10.6%	2.2%	8.2%	0.2%	15.9%
20717	9.1%	0.0%	0.0%	0.0%	0.0%	22.1%	19.9%	24.2%	1.9%	48.6%	13.0%	19.9%	24.2%	1.9%	48.6%
20762	0.0%	0.0%	0.0%	0.0%	0.0%	10.5%	9.1%	8.2%	1.0%	42.2%	10.5%	9.1%	8.2%	1.0%	42.2%
20782	4.9%	1.4%	Out of SA	Out of SA	18.7%	1.6%	0.5%	Out of SA	Out of SA	5.3%	-3.3%	-0.9%	0.0%	0.0%	-13.4%
20623	0.8%	1.5%	0.0%	0.0%	0.0%	10.5%	9.1%	8.2%	1.0%	42.2%	9.7%	7.6%	8.2%	1.0%	42.2%
20742	0.0%	0.0%	Out of SA	Out of SA	0.0%	0.5%	0.2%	Out of SA	Out of SA	1.3%	0.5%	0.2%	0.0%	0.0%	1.3%
20705	3.2%	1.8%	Out of SA	0.0%	13.7%	2.9%	1.3%	Out of SA	0.4%	11.0%	-0.3%	-0.5%	0.0%	0.4%	-2.7%
20704	7.1%	0.0%	0.0%	0.0%	0.0%	3.3%	1.7%	15.5%	0.0%	13.1%	-3.9%	1.7%	15.5%	0.0%	13.1%
20725	5.6%	0.0%	0.0%	0.0%	0.0%	2.9%	1.3%	Out of SA	0.4%	11.0%	-2.7%	1.3%	0.0%	0.4%	11.0%
20726	0.0%	0.0%	0.0%	0.0%	0.0%	2.9%	1.3%	Out of SA	0.4%	11.0%	2.9%	1.3%	0.0%	0.4%	11.0%
20745	5.2%	2.8%	32.7%	1.3%	28.2%	2.9%	1.3%	15.5%	0.4%	11.0%	-2.4%	-1.5%	-17.2%	-0.9%	-17.2%
20744	3.0%	0.9%	13.4%	0.6%	9.8%	2.9%	1.3%	15.5%	0.4%	11.0%	-0.1%	0.4%	2.1%	-0.2%	1.2%
20707	2.8%	2.6%	Out of SA	Out of SA	9.9%	2.9%	0.9%	Out of SA	Out of SA	9.1%	0.1%	-1.6%	0.0%	0.0%	-0.9%
20653	1.7%	1.0%	0.0%	0.0%	0.8%	2.9%	1.3%	8.2%	0.4%	11.0%	1.1%	0.2%	8.2%	0.4%	10.2%
20607	2.3%	0.0%	4.5%	0.0%	11.6%	2.9%	1.3%	15.5%	0.4%	11.0%	0.5%	1.3%	11.0%	0.4%	-0.6%
20749	0.0%	0.0%	33.3%	0.0%	0.0%	2.9%	1.3%	15.5%	0.4%	11.0%	2.9%	1.3%	-17.9%	0.4%	11.0%
Total	8.7%	6.1%	16.9%	0.7%	26.0%	9.9%	7.9%	16.6%	0.9%	28.4%	1.2%	1.8%	-0.3%	0.2%	2.4%

PGHC/PGRMC
Ranking Methodology Application
FY2012

	Discharges																	
	Pre-Relocation Methodology (PGRMC Service Area)						Post-Relocation Methodology (PGRMC Service Area)						Variance					
Zip Code	MSGA (15-64)	MSGA (65+)	OB	PEDS	PSY	Total	MSGA (15-64)	MSGA (65+)	OB	PEDS	PSY	Total	MSGA (15-64)	MSGA (65+)	OB	PEDS	PSY	Total
20785	630	440	225	4	124	1,423	444	324	145	3	93	1,008	(187)	(117)	(80)	(1)	(31)	(416)
20743	622	590	184	3	138	1,537	523	437	135	4	129	1,227	(99)	(153)	(50)	1	(9)	(310)
20747	227	87	142	1	63	520	461	299	117	3	93	973	234	212	(26)	2	30	453
20710	127	109	49	1	28	314	19	5	18	0	5	48	(109)	(103)	(31)	(1)	(23)	(266)
20737	127	59	128	5	51	371	37	8	43	1	17	106	(90)	(52)	(85)	(4)	(34)	(265)
20781	70	29	36	1	18	155	13	4	31	0	6	54	(57)	(25)	(6)	(1)	(12)	(101)
20722	60	51	Out of SA	Out of SA	3	114	7	2	Out of SA	Out of SA	3	12	(53)	(49)	-	-	(1)	(102)
20787	4	-	Out of SA	Out of SA	1	5	0	0	Out of SA	Out of SA	0	1	(3)	0	-	-	(1)	(4)
20753	3	1	-	-	-	4	4	3	-	-	5	12	1	2	-	-	5	8
20731	1	-	-	-	1	2	4	1	-	-	1	6	4	1	-	-	(1)	4
20752	1	-	-	-	-	1	2	1	-	-	-	3	1	1	-	-	-	2
20791	-	1	-	-	1	2	3	1	0	0	1	5	3	(0)	0	0	(1)	3
20738	-	-	-	-	-	-	0	-	0	-	0	1	0	-	0	-	0	1
20797	-	-	-	-	-	-	0	-	-	-	-	0	0	-	-	-	-	0
20774	250	297	59	3	81	691	392	367	105	2	84	952	143	70	46	(1)	3	261
20784	229	201	161	5	89	684	125	92	113	2	59	391	(103)	(109)	(47)	(3)	(30)	(293)
20706	210	166	158	2	124	660	172	167	142	2	90	574	(38)	1	(16)	0	(34)	(86)
20721	96	140	29	-	28	293	188	216	63	1	37	506	92	75	35	1	9	212
20746	87	33	100	-	37	257	138	109	34	1	70	353	50	76	(65)	1	33	95
20770	52	18	37	-	34	141	98	69	99	1	46	314	46	51	62	1	13	173
20720	39	29	17	1	18	105	72	58	58	1	24	214	33	29	41	(0)	5	109
20715	41	41	12	-	31	126	89	140	54	1	43	327	48	99	42	1	11	202
20712	19	19	Out of SA	Out of SA	15	53	5	2	Out of SA	Out of SA	3	9	(14)	(18)	-	-	(12)	(44)
20769	5	6	6	-	14	31	25	19	17	0	11	73	20	14	11	0	(3)	42
20718	3	-	-	-	-	3	2	0	-	-	-	2	(1)	0	-	-	-	(1)
20775	3	-	-	-	-	3	2	2	1	-	1	5	(1)	2	1	-	1	2
20741	1	-	Out of SA	Out of SA	1	2	0	0	Out of SA	Out of SA	0	0	(1)	0	-	-	(1)	(1)
20788	1	-	Out of SA	Out of SA	-	1	0	0	Out of SA	Out of SA	Out of SA	0	(1)	0	-	-	-	(1)
20703	-	-	-	-	1	1	1	1	1	-	2	5	1	1	1	-	1	4
20768	-	-	-	-	-	-	1	1	1	-	-	2	1	1	1	-	-	2
20771	-	-	-	-	-	-	0	-	0	-	-	1	0	-	0	-	-	1
20799	-	-	-	-	-	-	0	-	-	-	-	0	0	-	-	-	-	0
20792	-	-	-	-	-	-	1	0	0	0	1	2	1	0	0	0	1	2
20772	105	98	29	-	40	272	165	159	33	2	71	430	60	61	5	2	30	158
20748	80	41	89	-	47	258	67	44	34	0	33	179	(13)	2	(55)	0	(14)	(79)
20716	47	37	12	-	30	127	150	178	57	1	40	426	103	141	45	1	10	299
20735	41	11	30	-	22	104	67	53	30	0	30	180	25	42	0	0	9	76
20602	26	11	3	-	7	47	36	21	34	0	14	106	10	10	30	0	8	59
20601	25	8	3	-	-	36	41	19	23	0	18	101	16	11	20	0	18	65
20708	22	11	25	1	13	72	33	14	32	0	14	93	11	3	7	(1)	1	21
20740	22	15	Out of SA	-	20	57	18	11	Out of SA	0	10	38	(4)	(4)	-	0	(10)	(18)
20603	13	3	3	1	3	23	30	12	26	0	14	82	17	10	23	(1)	10	59
20613	10	11	8	-	3	32	17	13	9	0	8	48	7	2	1	0	5	16
20608	3	-	-	-	1	4	2	2	1	0	1	5	(1)	2	1	0	(0)	2
20773	2	6	-	-	-	7	2	7	1	-	-	10	1	1	1	-	-	3
20719	2	3	1	-	-	5	0	0	0	-	-	0	(2)	(3)	(1)	-	-	(5)
20757	1	-	-	-	1	2	0	0	0	-	1	2	(1)	0	0	-	(0)	(0)
20709	1	-	-	-	-	1	0	0	-	-	-	0	(1)	0	-	-	-	(1)
20717	1	-	-	-	-	1	2	0	0	0	-	3	1	0	0	0	-	2
20762	-	-	-	-	-	-	1	-	6	0	1	8	1	-	6	0	1	8
20782	49	18	Out of SA	Out of SA	18	85	15	7	Out of SA	Out of SA	5	27	(33)	(11)	-	-	(13)	(58)
20623	1	1	-	-	-	2	11	9	2	0	3	25	10	7	2	0	3	23
20742	-	-	Out of SA	Out of SA	-	-	0	0	Out of SA	Out of SA	0	0	0	0	-	-	0	0
20705	26	14	Out of SA	-	15	55	23	10	Out of SA	0	12	45	(3)	(4)	-	0	(3)	(9)
20704	1	-	-	-	-	1	0	0	1	-	-	1	(0)	0	1	-	-	0
20725	1	-	Out of SA	-	-	1	0	0	Out of SA	0	1	1	(0)	0	-	0	1	0
20726	-	-	Out of SA	Out of SA	-	-	0	-	Out of SA	Out of SA	-	0	0	-	-	-	-	0
20745	73	32	121	2	48	275	40	15	57	1	19	131	(33)	(17)	(64)	(1)	(29)	(144)
20744	56	23	64	-	21	164	53	34	74	1	23	186	(2)	11	10	1	2	22
20707	27	30	Out of SA	Out of SA	16	74	28	11	Out of SA	Out of SA	15	54	1	(19)	-	-	(1)	(20)
20653	19	8	-	-	1	29	32	10	29	1	14	87	13	2	29	1	13	58
20607	9	-	5	-	5	19	11	4	18	0	5	39	2	4	13	0	(0)	19
20749	-	-	1	-	-	1	0	0	0	-	0	1	0	0	(0)	-	0	1
Total	3,567	2,699	1,738	30	1,215	9,250	3,679	2,961	1,647	31	1,175	9,493	112	262	(91)	1	(40)	243

Prince George's Regional Medical Center
Recapture Adjustment
FY2021

	Pre-Recapture		Post-Recapture		Impact of Recapture	
Service Line	Market Share	Discharges	Market Share	Discharges	Market Share	Discharges
Burn	1.5%	2	1.8%	2	0.3%	0
Dental / Oral	26.6%	30	26.6%	30	0.0%	-
Cardiac Arrhythmia	10.3%	193	15.4%	291	5.1%	97
Cardiac Surgery	0.7%	4	27.7%	164	27.0%	160
Cardiology	10.1%	904	15.8%	1,418	5.7%	513
Interventional Cardiology	14.8%	176	20.1%	239	5.3%	63
Vascular	9.8%	70	13.5%	97	3.7%	27
Vascular Surgery	9.7%	141	14.9%	217	5.2%	76
Gastroenterology	6.7%	434	8.5%	550	1.8%	116
Gynecology	4.6%	86	6.5%	120	1.8%	34
HIV	17.0%	70	21.2%	88	4.2%	17
Medical Oncology/ Hematology	5.1%	224	12.8%	564	7.7%	340
Medicine	9.5%	1,151	11.1%	1,352	1.7%	202
Nephrology	6.4%	134	9.1%	190	2.7%	57
Neurology	11.8%	725	13.6%	840	1.9%	115
Neuro Surgery	6.8%	66	9.7%	94	2.9%	28
Ophthalmology	9.2%	20	12.0%	26	2.7%	6
Orthopedics	9.8%	630	14.1%	906	4.3%	275
Otolaryngology	5.4%	50	8.1%	74	2.6%	24
Rehab	0.0%	0	0.0%	0	0.0%	-
Respiratory	7.9%	595	9.6%	717	1.6%	122
Spine-Back/Neck Procedures	3.7%	31	8.9%	76	5.2%	44
Substance Abuse	16.2%	78	16.6%	80	0.5%	2
Surgery	6.9%	483	9.4%	656	2.5%	173
Transplant	2.2%	4	3.7%	8	1.5%	3
Trauma	25.3%	157	30.1%	187	4.8%	30
Urology	6.0%	211	8.5%	300	2.5%	89
Obstetrics	16.6%	1,646	19.0%	1,881	2.4%	234
Psychiatry	28.5%	1,176	28.7%	1,187	0.3%	11
Total In-Service Area	10.3%	9,493	13.4%	12,353	3.1%	2,860

Prince George's Regional Medical Center
FY 2021 Recaptured Discharges by Cohort

	FY 2012 - Discharges by Cohort							FY 2021 Recaptured Discharges by Cohort					
Service Line	MSGA (15 to 64)	MSGA (65+)	Peds (Under 15)	Pysch (Over 18)	Obstetrics	Total	Market Recapture Adjustment	MSGA (15 to 64)	MSGA (65+)	Peds (Under 15)	Pysch (Over 18)	Obstetrics	Total
Burn	2	-	-	-	-	2	0	0	-	-	-	-	0
Dental / Oral	25	5	-	-	-	30	-	-	-	-	-	-	-
Cardiac Arrhythmia	66	90	-	-	-	156	97	41	56	-	-	-	97
Cardiac Surgery	3	1	-	-	-	4	160	120	40	-	-	-	160
Cardiology	453	334	-	-	-	787	513	295	218	-	-	-	513
Gastroenterology	247	141	3	-	-	391	116	73	42	1	-	-	116
Gynecology	84	7	-	-	-	91	34	31	3	-	-	-	34
HIV	72	4	-	-	-	76	17	16	1	-	-	-	17
Interventional cardiology	93	62	-	-	-	155	63	38	25	-	-	-	63
Medical Oncology/ Hematology	165	51	-	-	-	216	340	260	80	-	-	-	340
Medicine	735	326	7	-	-	1,068	202	139	62	1	-	-	202
Nephrology	71	47	-	-	-	118	57	34	23	-	-	-	57
Neurology	447	218	-	-	-	665	115	77	38	-	-	-	115
Neuro Surgery	37	22	-	-	-	59	28	18	10	-	-	-	28
Obstetrics	-	-	-	-	2,164	2,164	234	-	-	-	-	234	234
Ophthalmology	16	3	1	-	-	20	6	5	1	0	-	-	6
Orthopedics	441	158	-	-	-	599	275	203	73	-	-	-	275
Otolaryngology	31	14	1	-	-	46	24	16	7	1	-	-	24
Psychiatry	-	-	-	1,145	-	1,145	11	-	-	-	11	-	11
Rehab	-	-	-	-	-	-	-	-	-	-	-	-	-
Respiratory	326	193	16	-	-	535	122	75	44	4	-	-	122
Spine-Back/Neck Procedures	20	9	-	-	-	29	44	31	14	-	-	-	44
Substance Abuse	82	3	-	-	-	85	2	2	0	-	-	-	2
Surgery	330	125	1	-	-	456	173	125	48	0	-	-	173
Transplant	5	-	-	-	-	5	3	3	-	-	-	-	3
Trauma	139	22	-	-	-	161	30	26	4	-	-	-	30
Urology	116	71	1	-	-	188	89	55	34	0	-	-	89
Vascular	37	25	-	-	-	62	27	16	11	-	-	-	27
Vascular Surgery	72	51	-	-	-	123	76	45	32	-	-	-	76
Total Discharges	4,115	1,982	30	1,145	2,164	9,436	2,860	1,744	863	8	11	234	2,860

EXHIBIT 54

Prince George's Hospital Center
Population Breakdown by Zip Code and Cohort
2013, 2018, 2021

		In/Out of PGRMC Service Area					2013 (Claritas)					2018 (Claritas)					2021 (PGHC/PGRMC Projection)				
Zip Code	Description	MSGA (15-64)	MSGA (65+)	OB	PEDS	PSY	MSGA (15-64)	MSGA (65+)	OB	PEDS	PSY	MSGA (15-64)	MSGA (65+)	OB	PEDS	PSY	MSGA (15-64)	MSGA (65+)	OB	PEDS	PSY
20743	Capitol Heights	In	In	In	In	In	26,113	4,993	8,448	7,912	29,280	25,974	5,724	8,117	8,039	30,104	25,891	6,213	7,925	8,116	30,609
20785	Hyattsville	In	In	In	In	In	24,567	3,597	8,279	8,036	26,600	24,154	4,381	7,792	8,260	27,111	23,910	4,931	7,514	8,397	27,422
20784	Hyattsville	In	In	In	In	In	19,390	2,402	6,057	6,465	20,623	18,923	3,035	5,757	6,646	20,828	18,648	3,492	5,584	6,757	20,952
20706	Lanham	In	In	In	In	In	26,186	4,271	8,146	8,577	28,763	25,827	5,271	7,923	8,821	29,524	25,614	5,980	7,792	8,971	29,990
20774	Upper Marlboro	In	In	In	In	In	31,092	5,651	9,364	8,088	34,753	31,739	7,417	9,216	8,149	37,263	32,134	8,732	9,128	8,186	38,855
20747	District Heights	In	In	In	In	In	27,818	3,857	9,327	8,206	29,879	27,322	5,019	8,764	8,245	30,781	27,029	5,878	8,443	8,268	31,335
20737	Riverdale	In	In	In	In	In	14,444	1,495	4,544	5,193	15,102	14,490	1,867	4,360	5,386	15,519	14,518	2,133	4,253	5,505	15,775
20745	Oxon Hill	In	In	In	In	In	20,097	3,257	6,382	5,619	22,116	19,612	4,149	6,081	5,681	22,679	19,327	4,798	5,907	5,719	23,024
20746	Suitland	In	In	In	In	In	20,167	3,177	6,845	5,975	22,100	19,970	3,922	6,491	6,088	22,777	19,853	4,450	6,287	6,157	23,193
20748	Temple Hills	In	In	In	In	In	25,227	5,058	7,668	6,490	28,807	24,276	6,077	7,237	6,563	29,110	23,723	6,784	6,990	6,607	29,293
20710	Bladensburg	In	In	In	In	In	6,523	884	2,297	2,292	7,052	6,596	1,043	2,217	2,453	7,267	6,640	1,152	2,170	2,555	7,399
20721	Bowie	In	In	In	In	In	19,472	3,289	5,256	5,321	21,332	19,910	4,506	5,252	5,203	23,045	20,178	5,443	5,250	5,133	24,138
20772	Upper Marlboro	In	In	In	In	In	31,257	4,479	9,199	8,341	33,668	32,348	6,062	9,084	8,312	36,367	33,021	7,269	9,016	8,295	38,089
20744	Fort Washington	In	In	In	In	In	35,881	7,915	10,026	9,198	41,445	35,634	10,017	9,795	9,241	43,553	35,487	11,537	9,659	9,267	44,869
20783	Hyattsville	Out	Out	Out	Out	Out	Out	Out	Out	Out	Out	Out	Out	Out	Out	Out	Out	Out	Out	Out	Out
20781	Hyattsville	In	In	In	In	In	8,495	950	2,570	2,633	9,011	8,273	1,232	2,407	2,716	9,078	8,143	1,440	2,314	2,767	9,118
20782	Hyattsville	In	In	Out	Out	In	21,848	3,098	Out	Out	23,946	21,848	3,721	Out	Out	24,579	21,848	4,153	Out	Out	24,967
20770	Greenbelt	In	In	In	In	In	18,128	2,221	6,047	4,912	19,386	18,131	2,952	5,766	5,144	20,182	18,133	3,502	5,604	5,288	20,675
20722	Brentwood	In	In	Out	Out	In	4,040	611	Out	Out	4,419	3,984	788	Out	Out	4,558	3,951	918	Out	Out	4,643
20735	Clinton	In	In	In	In	In	25,325	4,891	6,867	6,347	28,516	25,175	6,381	6,633	6,226	30,048	25,085	7,485	6,496	6,155	31,006
20716	Bowie	In	In	In	In	In	14,466	2,312	4,596	4,219	15,829	14,637	2,773	4,387	4,221	16,475	14,741	3,093	4,266	4,222	16,875
20705	Beltsville	In	In	Out	In	In	18,515	3,025	Out	5,273	20,613	18,616	3,745	Out	5,664	21,404	18,677	4,257	Out	5,912	21,893
20715	Bowie	In	In	In	In	In	16,903	4,007	4,612	4,581	19,863	16,691	4,592	4,413	4,467	20,265	16,565	4,983	4,298	4,400	20,510
20720	Bowie	In	In	In	In	In	16,599	1,960	4,979	4,485	17,487	17,157	2,911	5,012	4,592	18,996	17,501	3,691	5,032	4,657	19,963
20708	Laurel	In	In	In	In	In	17,780	2,050	6,308	5,786	18,850	17,410	2,511	5,881	5,914	18,905	17,192	2,836	5,639	5,992	18,938
20740	College Park	In	In	Out	In	In	21,868	2,427	Out	3,041	23,662	21,828	2,855	Out	3,389	24,210	21,804	3,147	Out	3,617	24,545
20707	Laurel	In	In	Out	Out	In	23,209	3,500	Out	Out	25,634	23,661	4,468	Out	Out	26,948	23,936	5,173	Out	Out	27,769
20712	Mount Rainer	In	In	Out	Out	In	6,538	707	Out	Out	6,953	6,308	945	Out	Out	6,973	6,174	1,125	Out	Out	6,985
20602	Waldorf	In	In	In	In	In	17,722	2,359	6,112	5,916	18,803	18,555	2,954	6,057	6,029	20,262	19,073	3,381	6,024	6,098	21,191
20601	Waldorf	In	In	In	In	In	17,563	2,289	5,340	4,877	18,551	17,866	3,068	5,168	4,661	19,757	18,050	3,657	5,067	4,536	20,518
20613	Brandywine	In	In	In	In	In	8,352	1,540	2,300	2,355	9,293	8,722	1,946	2,294	2,446	10,088	8,952	2,239	2,290	2,502	10,597
20769	Glenn Dale	In	In	In	In	In	4,772	697	1,316	1,455	5,160	4,944	1,018	1,360	1,450	5,627	5,050	1,278	1,387	1,447	5,927
20903	Silver Spring	Out	Out	Out	Out	Out	Out	Out	Out	Out	Out	Out	Out	Out	Out	Out	Out	Out	Out	Out	Out
20653	Lexington Park	In	In	In	In	In	18,193	1,923	6,287	5,813	19,039	19,004	2,549	6,431	6,350	20,389	19,508	3,019	6,519	6,696	21,245
20603	Waldorf	In	In	In	In	In	21,026	1,862	6,931	6,701	21,249	22,576	2,749	7,049	6,621	23,666	23,560	3,473	7,121	6,573	25,246
20607	Accokeek	In	In	In	In	In	7,331	1,138	1,966	1,834	7,963	7,751	1,613	2,003	1,814	8,885	8,014	1,989	2,026	1,802	9,489
20608	Aquasco	In	In	In	In	In	584	177	132	129	722	559	204	125	133	731	545	222	121	135	736
20623	Cheltenham	In	In	In	In	In	2,003	255	562	494	2,086	1,993	367	543	467	2,212	1,987	457	532	452	2,291
20742	College Park	In	In	Out	Out	In	9,548	10	Out	Out	9,528	9,924	7	Out	Out	9,898	10,157	6	Out	Out	10,127
20762	Andrews A.F.B.	In	In	In	In	In	2,135	13	898	1,099	2,082	2,392	32	937	1,226	2,335	2,561	55	961	1,309	2,501
20771	Greenbelt	In	In	In	In	In	2	1	-	-	3	2	1	1	-	3	2	1	1	-	3
20904	Silver Spring	Out	Out	Out	Out	Out	Out	Out	Out	Out	Out	Out	Out	Out	Out	Out	Out	Out	Out	Out	Out
20912	Takoma Park	Out	Out	Out	Out	Out	Out	Out	Out	Out	Out	Out	Out	Out	Out	Out	Out	Out	Out	Out	Out
20782	Hyattsville	In	In	Out	Out	In	21,848	3,098	Out	Out	23,946	21,848	3,721	Out	Out	24,579	21,848	4,153	Out	Out	24,967
	In-Service Area Total Population by Cohort						673,027	101,446	169,661	167,663	734,114	676,630	128,593	164,553	170,617	766,981	679,026	148,524	161,617	172,495	787,672

Note:

The following zip codes are in the proposed PGRMC service area, but do not have population forecasts, as they are included within another zip code

20703	Lanham	20725	Laurel	20752	Suitland	20787	Hyattsville
20704	Beltsville	20726	Laurel	20753	District Heights	20788	Hyattsville
20709	Laurel	20731	Capitol Heights	20757	Temple Hills	20791	Capitol Heights
20717	Bowie	20738	Riverdale Park	20768	Greenbelt	20792	Upper Marlboro
20718	Bowie	20741	College Park	20773	Upper Marlboro	20797	Southern MD. Facility
20719	Bowie	20749	Fort Washington	20775	Upper Marlboro	20799	Capitol Heights

EXHIBIT 55

Evidence Based Design Research Lab
Center for Health Systems and Design
College of Architecture

TEXAS A&M UNIVERSITY

Area Calculations & Net:Gross Ratios in Hospital Design

Methodology Guide

August 20, 2011

Herman Miller Architecture
Academy of Architecture for Health Foundation
Alberta Infrastructure
Texas A&M University

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Introduction

Study Background

Hospitals and hospital designs have been changing. Plans must now address far higher percentages of outpatient care, accommodate new equipment modalities, and provide space to account for family presence in patient rooms. There are new and exciting advances, as in the case of robotic surgery or intervention suites combining invasive and imaging capabilities. There are substantially larger commitments to wired and wireless networks for communications and data transmission. Some departments, like the pathology laboratory may be shrinking in response to new machinery that can test more samples for more parameters with smaller and more compact devices. Architects and space programming consultants may wonder whether the projections made to plan for projects and their budgets can rely on the information gathered from projects in the past. Do today's hospital designs produce new ratios of net space to the gross area of departments, and the departmental gross to the gross space associated with the larger building? What constitutes the elements that make up the contemporary building gross square footage calculations in a new hospital?

Texas A&M University, through the College of Architecture's Evidence-Based Design Research Lab and principal investigators, Professor D. Kirk Hamilton and Associate Professor Sarel Lavy, with the support of Herman Miller Healthcare, the Academy of Architecture for Health Foundation, and Alberta Infrastructure, have been conducting a study to answer these important questions.

Procedures

-Conducting Area Take-Offs
-Generating Project Reports
-Revisions
-Checking Calculations

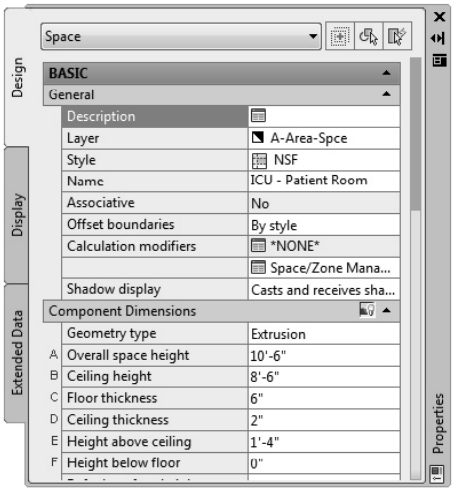
Conducting Area Take-Offs

Basic Process

1. Measure Building Gross Square Footage (BGSF) line items
    a. Identify zero area spaces (e.g. open to below, interior courtyards, etc.)
2. Measure Exterior Wall Thickness
3. Measure each Departmental Gross Square Footage (DGSF)
4. Measure individual room Net Square Footage (NSF)
5. Measure BGSF total floor area

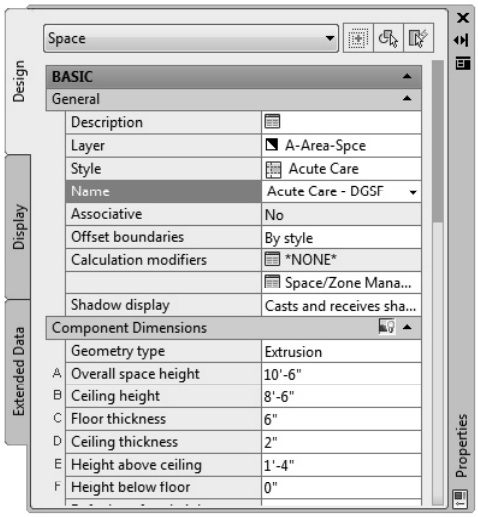
Net Square Footage (NSF)

In order to assure the correct identification of NSF in a department, consult with the colored floor plans that have been provided by the architectural firm. Sometimes, departmental boundaries will be included in the AutoCAD floor plans or department identification will be part of each room tag in the AutoCAD floor plans. Creating the measurement spaces is a three-step process: create polyline, convert to space, name space. To begin, draw a closed polyline around the desired room. This boundary should be along the interior finished face of the surrounding walls. Every room that belongs to the department must be measured. Major rooms to be included in the departmental NSF are: patient rooms and toilets, nurse stations, operating rooms, soiled and clean linen closets, and housekeeping closets. For any questions regarding the method to correctly identify the NSF space, please refer to the "Decisions and Judgment Calls" list. Next, the polyline is converted to what AutoCAD calls a "Space." These "spaces" are able to have specific identifying information assigned to them. Upon converting the polyline to a space, enter the required information into the appropriate fields.



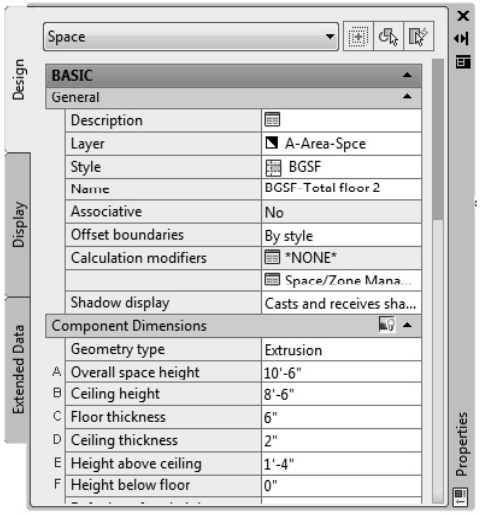
Departmental Gross Square Footage (DGSF)

After creating the “spaces” in the measurement drawing for each NSF item in a department, draw a polyline around the entire department to create the Departmental Gross Square Footage (DGSF) boundary. Included in the DGSF are wall thicknesses between all NSF spaces, departmental circulation, and building structure within the department. If a department is on an exterior wall, the DGSF boundary is drawn along the interior face of the exterior wall and does not include the columns along the perimeter of the exterior wall. When two departments share a common demising partition, the boundary line is drawn down the middle of this partition so that half of the demising partition is equally allocated to the two departments. Every department must be accounted for. For any questions regarding the method to correctly identify the DGSF space, please refer to the “Decisions and Judgment Calls” list. In a manner similar to the NSF three-step procedure, convert the polyline to a space, and enter the required information into the appropriate fields.



Building Gross Square Footage (BGSF)

The BGSF is comprised of the total area of each floor in the project. To measure the BGSF total floor area, draw a closed polyline around the exterior face of the exterior wall. In a manner similar to the DGSF procedure, convert the polyline that surrounds the building floor plate to a space and enter the required information into the appropriate fields.



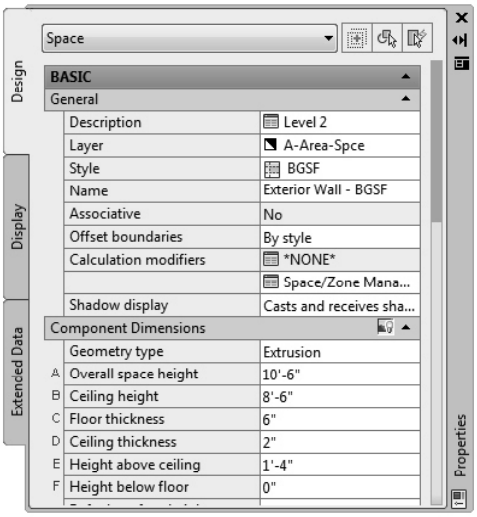
BGSF Line Items

There are several functions included in the BGSF that need to be identified. These functions are referred to as “BGSF Line Items” and include Mechanical, Electrical, Communications, Non-Departmental Corridors, Stairs, Vertical Transport, Miscellaneous Structure, and Exterior Wall Thickness. These line items will only have a “departmental” boundary; there will be no NSF, even if there are multiple rooms for a function. Follow the same rules when drawing the boundary for the BGSF Line Item that are used when drawing a DGSF boundary.

For covered areas that are not enclosed in the building envelope such as covered drop-offs, entries and exit niches, their square footage will be measured in the same three-step method and labeled Exterior Covered Areas. These spaces will be counted at ½ area to the total BGSF number and this calculation is completed in the Excel file. For any questions regarding the method to correctly identify the BGSF line items, please refer to the “Decisions and Judgment Calls” list.

To measure the BGSF line item Exterior Wall Thickness, draw a polyline following the perimeter of outside face of the exterior wall. Without closing the polyline, trace the interior face of the exterior wall in its entirety. Close the polyline and convert to a space. Enter the required information into the appropriate fields naming the space: Ext Wall Thickness-Floor #.

Note: The research team has elected to measure the departmental gross to the inside face of the exterior wall, and to allocate the entire thickness of the exterior wall to the building gross calculation. For any questions regarding the method to correctly identify the Exterior Wall Thickness, refer to the “Judgment Calls” list.

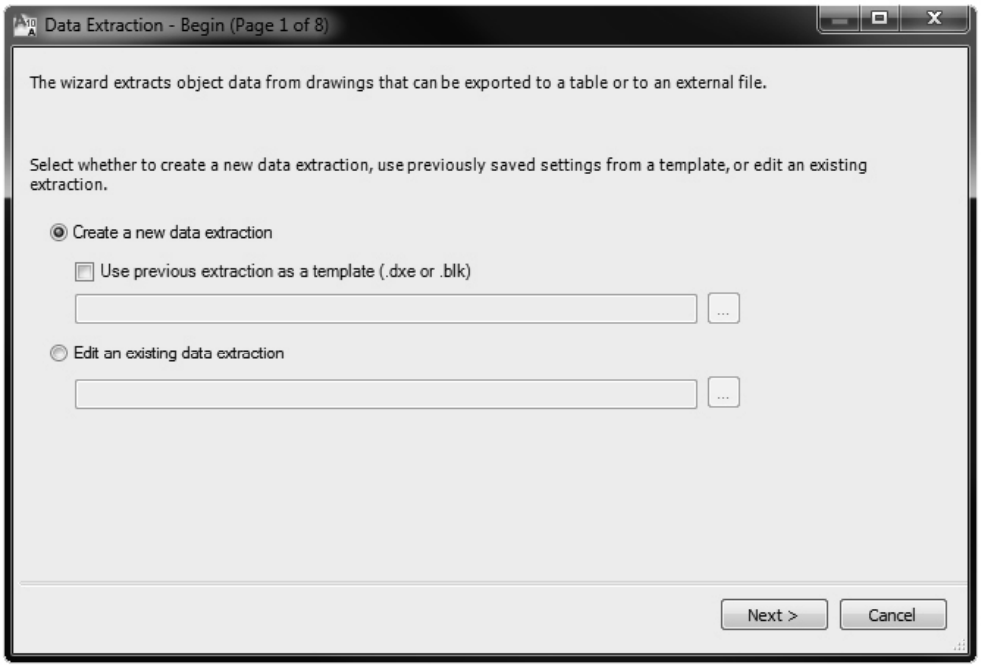


Generating Project Reports

Data Extraction and Sorting

Once the area take-offs have been completed for each area breakdown in the project, the data that lies within AutoCAD must be converted, sorted and organized to generate the necessary reports. This is possible with use of the “Data Extraction” feature in AutoCAD. This feature will extract the data and save it in a Microsoft Excel spreadsheet. Please refer to the sections AutoCAD Step by Step and Excel Step by Step for more detailed instructions.

The information should be sorted according to function – Patient Beds, Obstetrics Unit, Procedure Departments, Diagnostic Department, Centers of Excellence, Support Services, Administrative, BGSF Line Items, Related Areas Not in Calculation. After the data has been sorted appropriately, the Master Project List, Project Type Categories, and Ratings should be updated next by referencing the information from the individual project spreadsheet. The questionnaire responses are also listed on the information sheet. When the information sheet is completed, email the information sheet along with PDFs of the final department boundaries to the architecture firm that provided the project. The architecture firm’s participation in reviewing the final report is an important part in the process. Any comments the architecture firm has should be sent to the research team at Texas A&M and any necessary adjustments will be made. All of the correspondence between the research team and the architecture firm needs to be filed in both hard-copy form and electronic form.



Revisions

Revisions to Completed Projects

The research team has determined there are measurement corrections that need to be considered on all previously completed and measured projects (Projects A-X). The calculation for determining the Exterior Wall Thickness has been evaluated and found not to be accurate enough for the purpose of this study.

The original method for calculating the Exterior Wall Thickness was a subtractive method: the Department grand total and the BGSF Line Item grand total were both subtracted from the BGSF grand total. In theory, this left only the square footage for the Exterior Wall Thickness. However, the research team decided it is more accurate to use an additive method in calculating the Exterior Wall Thickness. The additive method measures the Exterior Wall Thickness in AutoCAD using the same three-step method used on all other parts of the floor plan.

The second correction to be made to each project calculation is calling out Exterior Covered Areas and Miscellaneous Structure in the BGSF line items. (Miscellaneous Structure items include shear walls, cross bracing and other structural elements not calculated in Department Gross or the Exterior Wall Thickness.) In the original calculation these items were not subtracted from the BGSF grand total when calculating the Exterior Wall Thickness. Therefore the Exterior Wall Thickness square footage was skewed in the original calculation. In the new calculation using the additive method described above, these BGSF line items will be correctly calculated for and errors similar to this will be avoided.

These corrections have implications on the progress of the study. Each completed and measured project will need to be checked and may need to be repaired. To repair each project the Exterior Wall Thickness, Exterior Covered Areas, and Misc Structure will be measured in AutoCAD. The data will then be re-extracted from the AutoCAD software and re-sorted into Excel. A new report will be created reflecting the new calculations. This report will then be sent to each architecture firm for the new findings to be reviewed and reconciled. The process of checking and repairing each project has started and the status is shown in the Progress Report.

Checking Calculations

Methods to Checking Accuracy

The research team has discovered methods in which to verify the measurements conducted by the research team:

By using the additive method for calculating the exterior wall, there is now a way to double check the accuracy of the entire calculation: the Department grand total plus the BGSF Line Item grand total (including the Exterior Wall Thickness square footage) should equal the BGSF Total Floor Plate Area grand total (which is derived by using the three-step method in AutoCAD).

A rule of thumb used by the research team to ensure the measurements were conducted accurately is that the BGSF Total Floor Plate Area grand total must be within 1% of the BGSF Total generated in the report by adding the Department grand total to the BGSF Line Item total. This ensures that the accuracy of the measurements conducted by the research team do not impact or skew the DGSF:BGSF Ratio. If these two numbers are not deemed to be accurate enough the research assistant must go back to the drawings and double check all measurements until the miscalculations are found.

One method the research team uses to further check the accuracy is to is to extract the data floor by floor. All BGSF Line Items and DGSFs are added together and compared to the BGSF Total Floor Plate Area. These two numbers should fall within the 1% rule mentioned above. If they do not, the researcher is able to determine which floor is not calculated accurately before extracting and sorting all data to generate the final project report. This method adds little additional time to each project and verifies the accuracy level of the measurements conducted by the research team.

Detailed Methodology

-Definitions
-Judgement Calls

Definitions

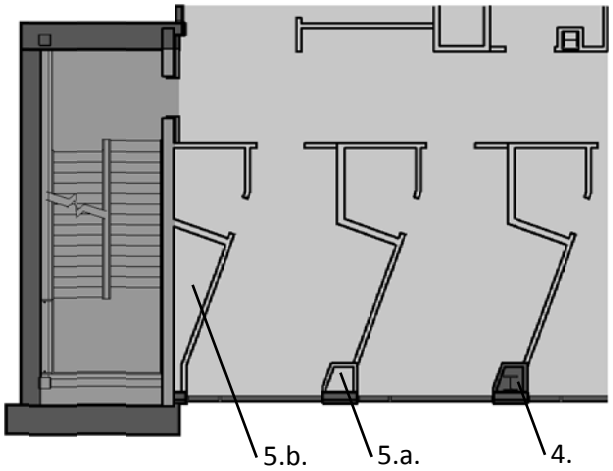
Basic Definitions

Methodology

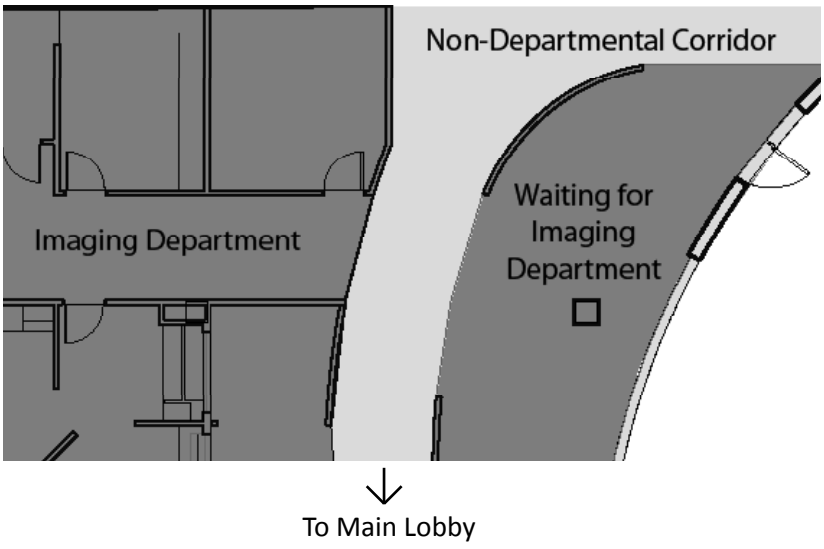
1. Net Square Footage (NSF) is measured to the inside face of the finished wall.
2. DGSF is measured to the inside face of the exterior wall and the entire thickness of the exterior wall will be allocated to the BGSF line item, Exterior Wall Thickness.
3. Attached medical office buildings (MOB) will not be measured or included in the calculations. Hospital related functions located within the medical office building will not be measured, but will be listed on the first page of the project report. The exterior wall thickness will be measured as it appears in the drawings. No additional exterior wall thickness will be assumed or added to the calculations.

BGSF Line Items

4. Exterior Wall Thickness includes the exterior wall material, all columns along the perimeter of the wall and any furr-outs along these columns.
5. Furr-outs
    a. Located along columns on the perimeter or along the exterior wall will be included in exterior wall thickness. If furr-outs are along the exterior wall but do not contain columns, the area measured belongs to the department not to the exterior wall thickness.
    b. Located in department along perimeter of stairs and elevators – area measured as part of the adjacent department, not as part of the stairs or elevators.

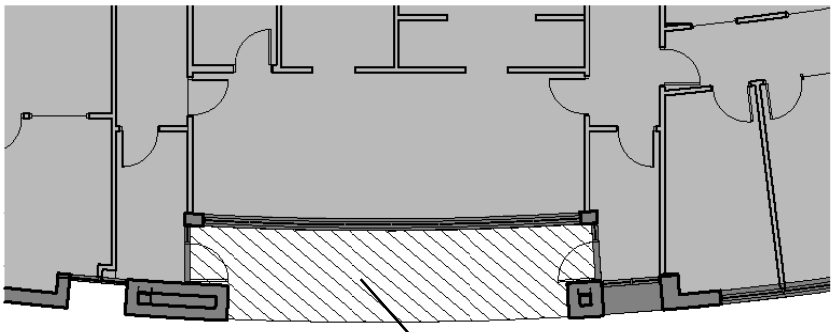


6. Enclosed roof-top mechanical space (eg. penthouses) = BGSF; mechanical areas not enclosed will be calculated as zero area.
7. The BGSF line item, Communication Distribution, is defined as rooms used for data/ communications distribution raceways and equipment. Data distribution areas may be identified in floor plans as MDF, IDF, or Communications.
8. Miscellaneous structure items include shear walls, cross bracing and other structural elements not calculated in the Department Gross or the Exterior Wall Thickness. Each item is assigned its own DGSF and labeled Misc Structure.
9. Lobbies for all elevators are included in the 'Non-Departmental Corridors'.
10. Revolving doors and vestibules will be designated as Non-Departmental Corridors.
11. Circulation:
    a. All stairs are included in BGSF and called out as 'Stairs'
    b. All elevators included in BGSF and called out as 'Vertical Transport'. This also includes dumbwaiters and cart lifts.
    c. Internal departmental corridors are included in DGSF.
12. All other corridors are not in the DGSF are called out as non-departmental corridors in a BGSF line item. The boundaries for these corridors are measured from the exterior face of the department boundary wall to the interior face of the exterior wall. Do not split the wall thickness between non-departmental corridors and departments. Public corridors may be split only when major departmental circulation overlaps with the non-departmental corridor, or when a single department is truly split by the non-departmental circulation. Special circumstances may include non-departmental circulation that splits a department into two parts. Examples may include surgery or imaging departments.



Exterior Covered Areas and Canopies

13. Canopies attached to the building are measured as half the area of the canopy and will be listed under 'Related Areas Not In Calculations'. Ambulance covers have two options: If created by the building overhang they are measured as half the area and included in the Exterior Covered Areas even if enclosed in the building envelope. If cover is an attached canopy, then it is measured as a Canopy and listed below the calculation line.
14. Exterior exit niches (recessed exterior door swing) are calculated as half the area if covered, or zero area if not and will be listed as Exterior Covered Areas.

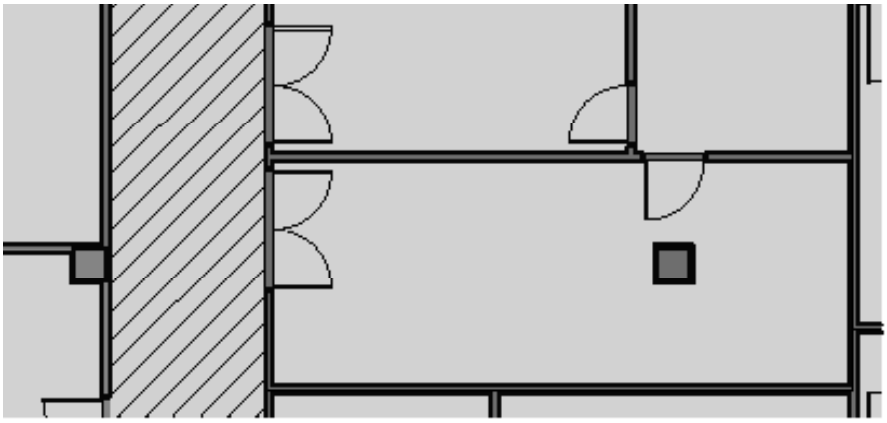


Exterior Covered Area.
Calculated as half the total area.

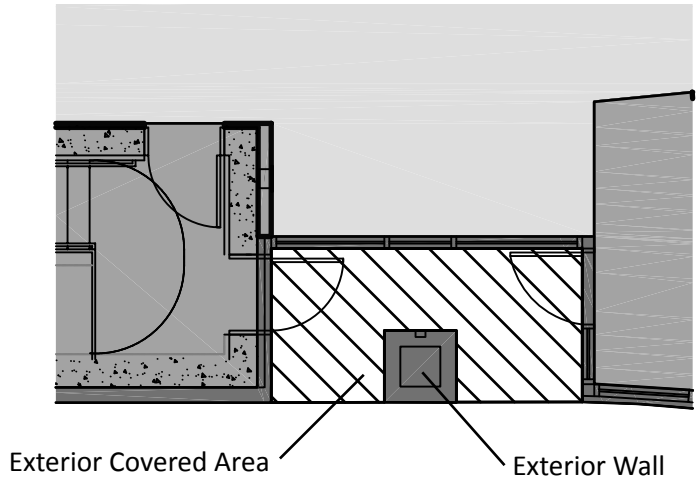
15. Exterior healing gardens, labyrinth type spaces, roof gardens, and courtyards are measured as a ½ area if covered, or zero area if not. If these spaces are enclosed and located in the building envelope, the full area is measured. Follow the rules for Canopies versus Exterior Covered Areas.

Columns

16. Columns located within a department are included in that department's gross square footage and do not receive a NSF.



17. Columns supporting Exterior Covered Areas will be included in the calculation for the Exterior Wall Thickness. The square footage of the columns will be subtracted from the overhang square footage for the Exterior Covered Area.



Connections to Other Buildings

18. Tunnels to power plant or other needed service will be measured if it is tall enough for a walking space and placed below the calculation line under Related Areas Not In Calculations. Buried utility lines or crawling tunnels will not be measured.
19. A Bridge or walkway to a building not included in the measurement drawings (eg. for outbuildings to a facility) is not calculated. The exterior wall of the hospital will be treated as if the bridge or walkway does not exist but no additional exterior wall will be added.

Light Wells and Atriums

20. Atriums or 'open to below' areas: the full area of the bottom-most level is measured once if covered, zero area if not. All other floors the atrium passes through are assigned a zero area and subtracted from that floor's total BGSF floor area. Verify all enclosing exterior walls are properly measured.
21. Skylights and light wells located in the interior of the building are treated as an atrium. The full area is measured once if covered, or zero area if not. Verify all enclosing exterior walls are properly measured.
22. Skylights and light wells located on the perimeter of the building with and open side are calculated once as ½ area if covered, or zero area if open to the sky and called out as 'Exterior Covered Areas'. Verify all exterior walls are properly measured.

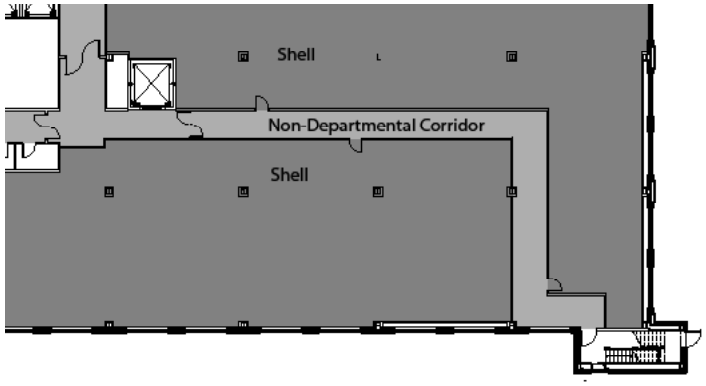
Departments

23. The thickness of the demising wall, that separates two departments from each other, is sometimes composed of varying thicknesses. For departmental boundary measurements there are two possible scenarios.
    a. The first is when two walls of differing thicknesses abut end to end. For this condition, join the centerlines each wall as shown in Figure 1.
    b. The second condition is when two walls of differing thicknesses join a third wall, which is typically at a 90-degree angle to the demising partition. The centerline of the perpendicular wall should serve as the joining point for the two centerlines.
24. When the “wet wall” of a toilet room falls along a departmental boundary, do not split the overall thickness, which would include the plumbing chase. All of the area that includes the plumbing should belong to the department to which the toilet room belongs.
25. Satellite conditions, such as labs, pharmacies, material handling spaces, etc. are to be called out separately. For example: the main pharmacy department will have its own NSF and DGSF. If there are three satellite pharmacies, the NSF and DGSF for all three will be added together and labeled Satellite Pharmacies (3). Other spaces that could have satellites are: Respiratory Therapy, Biomedical and Dietary.
26. The IT Department is defined as where people work and the main computer frame systems are located. These areas are separate from “Communication Distribution” areas and will be assigned a NSF and a DGSF and classified as Information Technology.
27. Folding partitions in rooms: the space allocated for the storage of the partition will not be included in the NSF only in the DGSF.
28. For open telephone and vending areas, calculate the 8’-0” for the adjoining corridor. Anything beyond this measurement will be assigned a NSF and included in the Lobby/ Public DGSF.
29. Trash chutes will have their own DGSF and will be included in the ‘Vertical Transport’ BGSF line item. They do not get their own NSF. If the trash chutes are part of the soil linen room within a department, only the trash chutes will be counted towards the Vertical Transport BGSF and the soiled linen room will be measured as part of the department and assigned a NSF.
30. Public toilets located throughout the building will be assigned a NSF and Lobby/Public DGSF. If the public toilet is part of the program for the department, it will be measured in the department’s DGSF.
31. Public waiting areas that are not specifically included in a single department will be classified as Lobby/Public spaces. Example: waiting area located directly off elevator but not included within the department boundary.
32. Large concourse areas will be called out as ‘Concourse’ and be assigned a NSF and DGSF. This department is different than an extra wide corridor. Correspondence with architecture firm may be necessary.

33. Undefined waiting and lobby areas on the first floor will be calculated as one large Lobby/ Public space and assigned a NSF and DGSF.
34. Cafeterias and bistros are included in the Food and Nutrition Department.
35. Flex beds between two departments will be included in the department in which the beds are used during the day. Correspondence with architecture firm may be necessary.
36. Salons and spas will be designated as Retail.
37. Central telemetry monitoring for acute and ICU beds will be given to acute care.
38. The obstetrics department may have spaces that are shared or do not belong to any single department. These spaces will be designated at Shared Spaces under Obstetrics.
39. Play areas and breast feed rooms if near a department will be included in the departmental DGSF. If rooms are located in a public or lobby area they will be designated as Public/Lobby.

Shell Space

40. Shell space will be identified as a department and assigned a NSF and DGSF. The unfinished area should be treated as a large NSF measurement, only extending to the interior finish face of any bounding walls.
41. When a shell space floor has a main building corridor passing through it, for example to egress stairs, the building corridor will be measured as Non Departmental Corridors. The corridor will not be included in the shell space area.



42. Shell within a department that is allocated as a future space (eg. future CT room in an Emergency Dept). The future CT room will be assigned a NSF and counted in the Emergency Department Gross not counted in the Shell calculation.
43. When adding the shelled space to the data sheet, it will be inserted as a separate line item Shell space that has been labeled as storage on the plans for construction document purposes will be measured as shell space. Coordination with the architecture firm is

necessary to properly differentiate between shell and storage areas.

44. after the total summation of the NSF and DGSF for the project. A net:gross factor will be calculated. A new grand total number will be produced for NSF and DGSF that includes the

	NSF Total	Sub NSF	DGSF Total	Sub DGSF	Net:Dept	Net:Dept
Total:	241,863		372,242			1.54
Shell Space:	37,103		37,601			1.01
Grand Total:	278,966		409,843			1.47

shell space. Also, a new net-gross factor will be calculated that includes the shelled space.

Parking

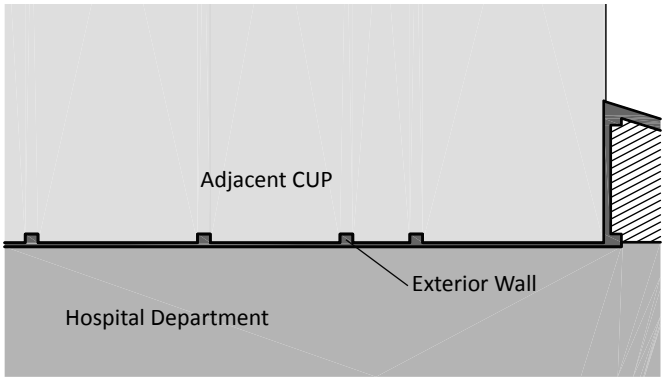
45. Parking space enclosed within the building envelope will be assigned a DGSF and placed below the calculation line under Related Areas Not In Calculations. The DGSF will be measured as all of the usable square footage for parking and vehicular circulation. When the parking space DGSF meets the open air at entrances and exits, the DGSF line is drawn so that it is in-line with the outermost edge of the exterior wall.

Central Utility Plant

46. Central Utility Plants (CUP) are assigned only a DGSF and listed below the calculation line. Two possible circumstance include:

    a. The CUP is a detached piece. The exterior wall for the CUP is not counted in the Exterior Wall calculation. It is included in the CUP DGSF listed below the calculation line.

    b. The CUP is attached to or enclosed within the building envelope. An exterior wall will be created at the wall boundary between the CUP and the remainder of the hospital. The CUP is excluded from the Total Floor Area and the DGSF will be included below the

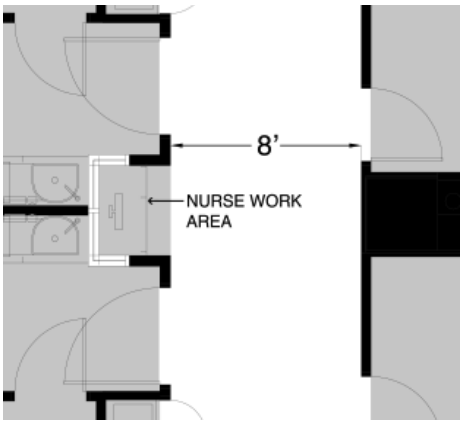


calculation line.

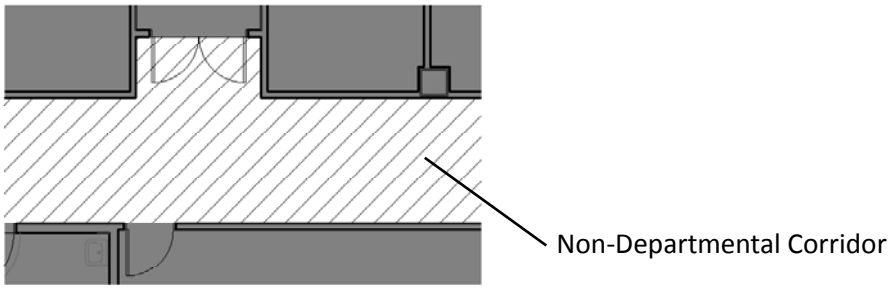
Judgement Calls

Nurse Work Areas

1. Pneumatic tube stations are included in the DGSF but do not get their own NSF.
2. Open work areas and chart areas will be assigned a NSF and be counted in the departmental gross. Respect the 8’-0” minimum requirement for corridors.

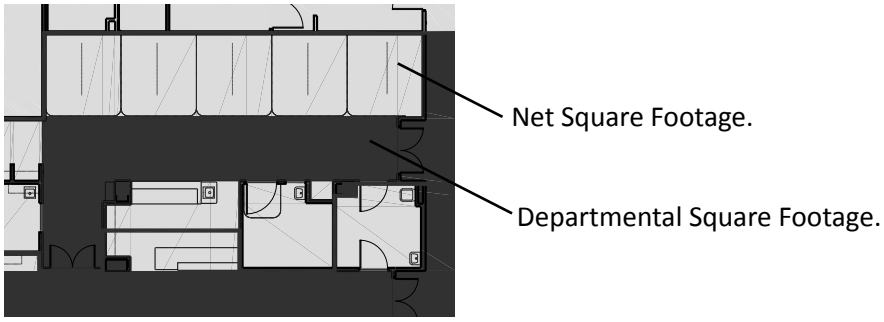


3. Recesses for door swing are part of the non-departmental corridor BGSF, unless the niche is used as an equipment alcove or crash cart storage. Then it is included in the departmental gross and the equipment area receives a NSF.

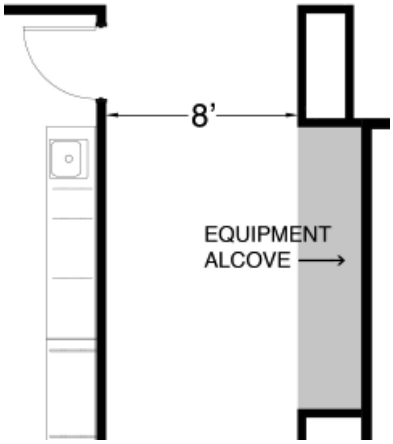


4. If the meds supply station is not adjacent to the nurse station, the circulation that is needed to get from the nurse station to the meds supply station is not included in the NSF, but is factored into the DGSF.
5. If the boundary of the nurse station is not clearly defined on the floor plans by the architect, The NSF boundary will extend to the edges of counters and exterior face of the walls that define the space. Respect the 8’-0” minimum requirement for corridors. If the nurse station is set back from the line of the corridor, the extra square footage between the edge of the nurse station and the corridor line will be given to the nurse station NSF. If the entire corridor width is larger than the 8’-0” minimum, respect the entire width of the corridor.

6. Open patient care areas, such as PACU stations, Prep/Recovery areas, and NICU, that are not clearly defined with partitions will be measured as follows. The NSF for these spaces will not extend beyond the curtain line that defines the space and the corners will be squared off. All circulation between patient beds and nurse stations will be designated as DGSF. Respect the 8’-0” requirement for corridors.



7. Scrub/hand wash sinks located in an alcove off of a corridor will be counted in the department NSF. Respect the 8’-0” requirement for corridors.
8. Equipment alcoves located off of a corridor in the department will be given an NSF. Respect the 8’-0” requirement for corridors.
9. Public entry vestibules will be measured as Non-Departmental Circulation.
10. Public entry vestibules into an emergency department will be counted in the NSF and DGSF for that department.
11. When two departments located on the same floor share a specific room or space, the dominant department will be designated the NSF for the shared space. If it is not possible



Entries

to assign a dominant department or the function of the shared space is required by both departments, the shared space NSF will be split between the two departments. The measurements for splitting the space will be conducted in AutoCAD and will be kept as simple as possible. Coordination with the architecture firm may be necessary.

Shared Spaces

12. The NSF boundary for a space with punched windows or curtain wall will be the line for the edge of the window sill.
13. When there is not a window sill visible in the floor plan given by the architecture firm, the NSF boundary should follow the outline of the wall and extend no further than the interior face of the window frame visible on the plan.

Windows

14. When there is only a curtain wall span of windows, the NSF boundary should follow along the interior face of the window frame on the plan.

Appendix

-List of Department Names
-AutoCAD Step by Step
-Excel Step by Step

List of Department Names

Department Names and Alternatives Names

NTGR Departmental Categories

DEPARTMENTS:	
Patient Units	(Total Bed Count Listed in Title)
Acute Care Unit	
Cardiac	
Medical/Surgical	Note: use Medical/surgical for General Acute Care beds
Oncology	
Orthopedic	
Pediatric	
Intensive Care Unit	CCU - Critical Care Unit
Cardiac ICU	
Coronary CCU	
CV ICU	
General ICU	
Medical ICU	
Neuro ICU	
Pediatric ICU	PICU, Peds ICU
Respiratory ICU	
Surgical ICU	
Trauma ICU	
Intermediate Care Unit	IMCU, step down, progressive care, telemetry
Long Term Acute Care	LTAC
Psychiatric Care	
Skilled Nursing	
Obstetrics	
Ante Partum	
C-Section	
LDR	
LDRP	
Neonatal ICU	Newborn ICU, NICU
Newborn Nursery	Not included in Bed Count, Special Care Nursery included
Post Partum	
Shared Support	*Rooms that do not belong to any one department related to obstetrics care
SRMC	
Procedure Departments	
Emergency Department Total	
Emergency Department	
Clinical Decision	Short Stay, 23 hr stay
Observation	
Pediatric ED	
Dialysis	
Endoscopy	Bronchoscopy, Gastrointestinal
Hyperbaric Suite	
IV Therapy	
PACU	
Pheresis	
Pre-Operative Care Unit	Pre-OP
Prep/Recovery Unit	Combination Unit, Peri-operative Unit
Rehabilitation Total	
Rehabilitiation	
Hydrotherapy	
Respiratory Therapy	
Secondary Recovery	
Surgery Department Total	
Surgery	
Ambulatory Surgery	
Interventional Imaging	

Diagnostic Departments	
Cardiac Cath	
Cardiology	EKG
Imaging	
Radiology	
Nuclear Medicine	Break out dept if substantial or if called out by firm. Don't measure if buried in dept
Women's Imaging	Break out dept if substantial or if called out by firm. Don't measure if buried in dept
Neurodiagnostics	EEG, Epilespy Monitoring
Pathology	
Clinical Laboratory	
Satellite Lab	
Morgue	includes body hold room
Pre-Admission Testing	may include blood draw
Pulmonary Function	
Urodynamics	
Centers of Excellence	Depts big enough to have a large dept boundary or outside door, ambulatory like
Cancer Center Total	
Cancer Center	
Oncology/Chemotherapy	Treatment and infusion
Radiation Therapy	
Cardiac/Heart Center	
Support Services	
Bio Medical Engineering	equipment maintenance
Building Maintenance	electrician, carpenter, maintenance, etc
Central Sterile Processing	
Engineering /Facility Management	operations offices
Environmental Services	janitorial and housekeeping services not housed in a dept
Food & Nutrition	watch for elements near loading dock that are kitchen related, includes kitchen and dining
Linen	or laundry, break out dept separate from materials mgmt
Materials Management	includes waste management, biohazard room
Pharmacy Total	
Pharmacy	may include blood draw unles blood draw tied to admitting or pre admission testing
Satellite Pharmacy	could also be a decentralized blood draw
Security	
Staff Support	
Administrative & Public	
Administration/Medical Staff	
Business Offices	
Chapel	includes chaplaincy
Conference/Education	Patient and Staff education
Gift Shop	
Information Technology	
Lobby/Public	
Medical Records	HIM, Health Information Management
On Call	
Patient Admitting	may include blood draw
Public Spaces	
Lobby/Reception/Public Toilets	
Concourse/Gallery/ Main Street	also called multi-departmental waiting
Registration	
Resource Center	library or patient resource center, typical from planetree model
Retail	
Volunteer Services	
Shell Space:	
BGSF	
Mechanical	Includes major shafts
Electrical	
Communication Distribution	
Non-Departmental Corridors	
Stairs	
Vertical Transport	Elevators
Misc Structure	
Exterior Covered Areas	
Exterior Wall Thickness	
Related Areas Not In Calculations	
Faculty Offices	calculate DGSF only - similar to shell
Research Areas	calculate DGSF only - similar to shell
Clinics	calculate DGSF only - similar to shell
Central Plant	CUP, Power Plant
Canopies	1/2 area of canopy (not including supports)+ full area of canopy supports
Parking	Only parking that is determind to be located within the building envelope. Does not include garages.
Tunnels	Covered walkway only = 1/2 area; Totally Enclosed = Full Area; If no tunnel given = N/A

AutoCAD Step By Step

Preparing the Measurement Drawing File

1. Setup the file structure for the new project
    a. Rename the folder that contains the data sent by the architectural firm:
        i. “Project X” – letter will be next in the alphabet

2. Open AutoCAD and select the template file “A&M-NTGR-Temp” located in the folder “Setup Template” from our research project folder.

3. XREF the AutoCAD drawing sent from the architectural firm into a new drawing.
    a. The XREF should be on the layer named “XREF.”
    b. Freeze or turn-off all layers except for the walls, doors, windows, casework, stairs, elevators, room tags, columns, and other similar/related layers

4. Save the drawing with the following nomenclature:
    a. Project Letter_FP-xx (FP: floor plan) (xx: floor number – 01, 02, 03, 04…)
    b. For basement floors, use FP-00

Process for Creating “Spaces”

For NSF:

1. Draw a closed polyline around the room
    a. Layer should be “A-Area-PL-NSF”
    b. COMMAND: “PL” or “PLINE”

2. Convert PLINE to SPACE
    a. COMMAND: “SPACE”
        i. Type “CO” for “Convert”
        ii. Window will pop up, select OK.
    b. **If columns exist within the NSF; draw a closed PLINE around them, Right-Click, choose AEC MODIFY tools, choose “SUBTRACT” and follow as prompted in the Command Line

3. Enter information for the room in the PROPERTIES TOOLBAR:
    a. Name field: DEPARTMENT-Room Name
    b. Description: Additional information about space if needed
    c. Style: NSF

4. Reapeat this process for all NSFs, DGSFs, BGSF Line Item and the Total Floor Plate Area
    a. Adjust names as necessary. Example: Name field: DEPARTMENT-DGSF.

Data Extraction

*****Once every floor has been completed, use the following instructions to complete the data extraction.*****

COMMAND: "dataextraction"
-new window opens on the screen

Page 1:
-Create new data extraction
-NEXT – "Save as" window – save in the folder "Data Extraction" within project – name file with the date of extraction in this format: "Project Letter_YYYY_MM-DD" (YYYY – 4 digit year; MM – 2 digit month; DD – 2 digit day)

Page 2:
-Add drawings button: add all of the drawings that correspond to the project that contain space objects
-Settings: uncheck boxes – "Extract from blocks" & "Extract from xrefs"
-OK and NEXT

Page 3:
-Only check "Space" from the list
-NEXT

Page 4:
-With "Category Filter" on right side, only check the boxes labeled:
1. Actual Dimensions and General
-With "Properties" on the left side, only check the boxes labeled:
1. Area, Description and Name

Page 5:
-Right click the following columns, one at a time, and select "HIDE COLUMN"
-Count and Name (with "space" as info in the cells below)
-Reorder the list by dragging the columns into this order:
1. Name
2. Description
3. Area
-Create new formula column:
-Right click on "Area" column and select "Insert Formula Column"
-Give new name: "Calc Area"
-Double-click area from column name list on the right side
-Click the "/" (divide) button and type "144" in the Formula prompt
-OK and Hide "AREA" column

Note: Uncheck all 3 options. Make sure to uncheck "Combine Identical Rows"
-NEXT

Page 6:
-Select "Output to external file"
-click the "…" button to choose file destination
-Save the extraction as an .xls file with the name: "Project Letter_YYYY_MM-DD" in the Data Extraction folder in the project file
-NEXT and FINISH

-Open the Excel spreadsheet to begin sorting the data.

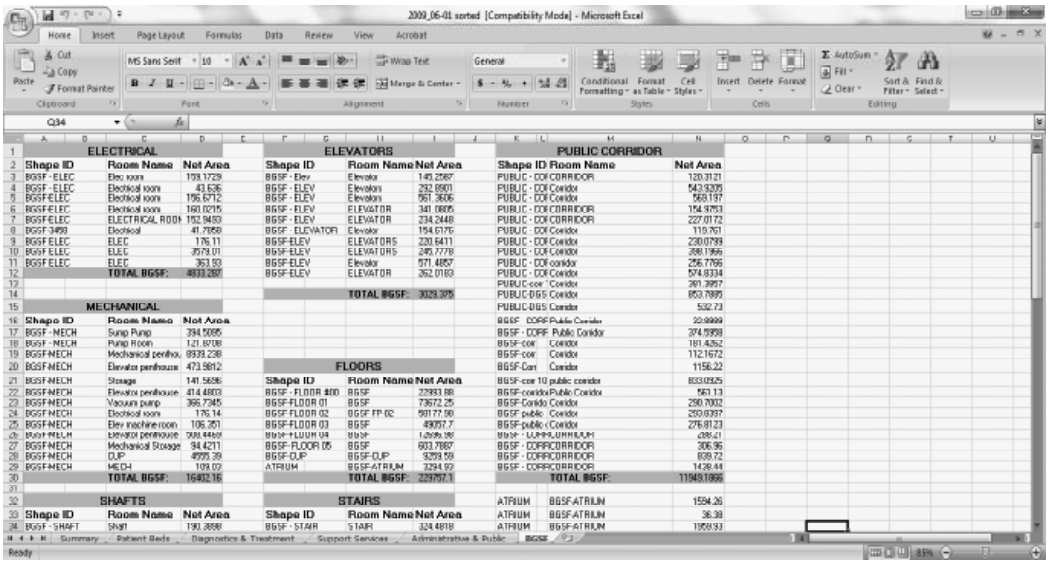
Excel
Step By Step

Data Sorting

-Open the .xls file with the extracted information
-Open “Setup spreadsheet.xls” from PROJECT DUMMY
-Copy info from extraction into the dummy spreadsheet
-Save the modified spreadsheet in the correct project data extraction folder with the name:
    -Project Letter_YYYY_MM-DD sorted.xls (YYYY – 4 digit year; MM – 2 digit month; DD – 2 digit day)

The columns in the spreadsheet should read as follows:
    A: Name
    B: Description
    C: Calc. Area
-Select all rows, excluding row one(1)
-From toolbar:
    -Data, “SORT”
    -Sort by column A, ascending
-Insert a new row between each group of departmental information

-Sort the data by departmental function; beds, then D&T, and so on…
-Copy the data from the “Summary” tab to the corresponding function and insert into the template provided
    -Note: formulas are already included in the spreadsheet.



Updating the Master List and Categories

-Open the Excel spreadsheet titled “MASTER LIST.xls” from:
  -NTGR – Documents – Excel – MASTER LIST.xls

-Have the current project spreadsheet open

-In the Master List, the NSF and DGSF numbers will be copied manually into the corresponding cells for the project from the project spreadsheet.
  -Within the appropriate cell in the Master List file, copy and click over to the project spreadsheet.
  -select the appropriate cell for the NSF, DGSF, or BGSF number
  -Special Paste Value only into the cell
  -Do this for each department and BGSF line item

-Create the data sheet report for each project
  -Copy one of the existing tabs from the bottom of the spreadsheet and change the title to correctly correspond with the most recent project.
  -Copy the NSF, DGSF, and BGSF line items into the new data sheet.
  -Do not include all of the responses to the questionnaire in the data sheet, but be selective enough to be able to paint an adequate picture of the project with responses from both the architect and programmer.

-Save the data sheet as a .pdf file in the project folder on the server
  -use the following naming: PRJ_A_ YYYY-MM-DD.pdf

-Email the completed project report and PDFs of the measurement drawings to the research team for their comments

-Make adjustments based on comments and email modified project report and drawings

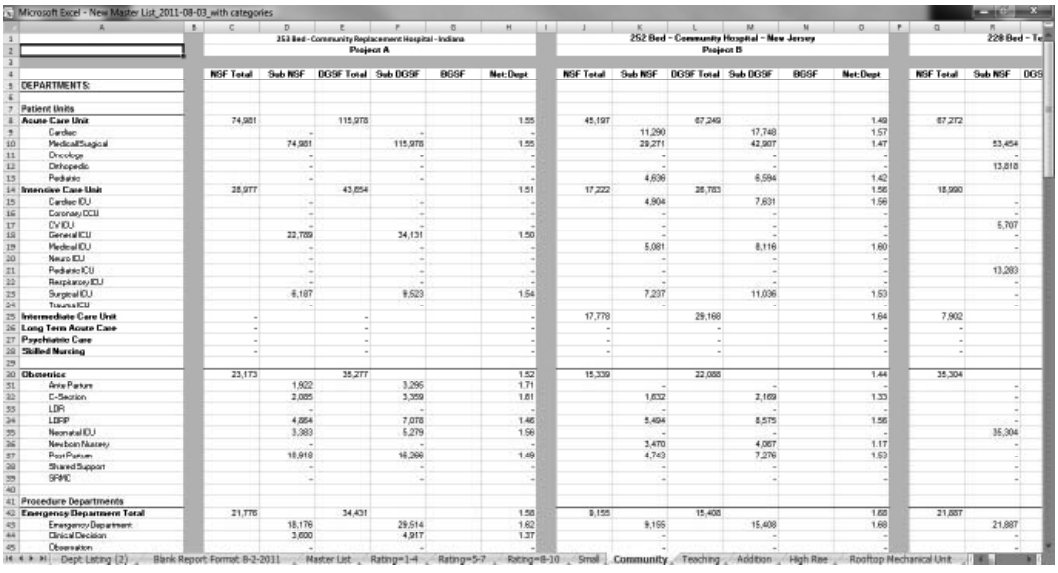


EXHIBIT 56

2012 PDC Summit
Phoenix, Arizona
March 7, 2012 9:50 am – 10:50am

Preliminary Benchmarking Results: Departmental Gross and Building Gross Data

D. Kirk Hamilton[1], FAIA, FACHA, EDAC; Sarel Lavy[2], PhD; Amy Kircher[3], BED, LEED AP BD+C, EDAC; and Yin Jiang[4], M.Arch

[1] Professor, Texas A&M University
[2] Associate Professor, Texas A&M University
[3] Master of Architecture Student, Texas A&M University
[4] Doctoral Student, Texas A&M University

This session will review Texas A&M research on the calculation of building gross square footage for health care facility projects, including lessons learned about the need for precision and consistency in calculation methods, preliminary data results, and early conclusions about how the research results could affect space programming for health care projects. Time will be allowed for Q&A. This session will enable you to:

- Express how precision and consistency in area calculation methods can improve an organization's internal and external measurement comparisons.
- Apply the information provided when assessing which building components to include in net area calculations and which to include in gross square footage calculations.
- Discuss how and why area allocations in recent hospital designs have changed from traditional allocations for the same spaces.
- Apply techniques discussed to revise preparation and use of hospital space programming information for a particular facility.

Introduction

Hospitals and hospital designs have been changing. Plans must now address far higher percentages of outpatient care, accommodate new equipment modalities, and provide space to account for family presence in patient rooms. There are new and exciting advances, as in the case of robotic surgery or intervention suites combining invasive and imaging capabilities. There are substantially larger commitments to wired and wireless networks for communications and data transmission. Some departments, like the pathology laboratory may be shrinking in response to new machinery that can test

more samples for more parameters with smaller and more compact devices. Architects and space programming consultants may wonder whether the projections made to plan for projects and their budgets can rely on the information gathered from projects in the past. Do today's hospital designs produce new ratios of net space to the gross area of departments, and the departmental gross to the gross space associated with the larger building? What constitutes the elements that make up the contemporary building gross square footage calculations in a new hospital?

Texas A&M University, through the College of Architecture's Evidence-Based Design Research Lab and principal investigators, Professor D. Kirk Hamilton and Associate Professor Sarel Lavy, PhD with the support of Herman Miller Healthcare, the Academy of Architecture for Health Foundation, and Alberta Infrastructure, has been conducting a study to answer these important questions.

Background

The following report summarizes the preliminary data collected for first 20 projects of the "Area Calculations and Net:Gross Ratios in Hospital Design - Phase I" study last updated on September 18, 2011. The results are preliminary, based upon a small sample and should be used with discretion as the results will certainly change as more projects are added to the database. The study builds on the basis of a preliminary study, "Analysis of departmental area in contemporary hospitals: calculation methodologies and design factors in major patient care departments," as conducted by David Allison of Clemson University and D. Kirk Hamilton of Texas A&M University. The findings of the previous study are available online at: http://www.aia.org/aiaucmp/groups/aia/documents/pdf/aias074528.pdf. The pilot study was limited to five major departments and did not investigate the final project's relationship to the program or design intent.

Research Objectives

The goal of the current study is to make planning data available to the industry in a way that allows for better predictions of square footage requirements and improved performance of healthcare buildings. Ratios used to calculate proposed departmental gross square footage constitute key information used in the process of programming, planning and design. Planners and designers use this ratio to project the total area of proposed departments within hospitals, based on the net area requirements. These ratios may also be used as space utilization benchmarks according to which future needs and costs can be projected. Similarly, the predictive calculation of total building gross area based upon the total departmental gross area is important for scope and budget determination. The purpose of this study is to establish a publicly accessible database of healthcare and hospital area calculations that can be updated and maintained over time. The searchable database will contain collected data on industry trends for the ratio between departmental net and departmental gross square footage in significant patient care, diagnostic, and treatment departments within hospitals.

Research Questions

The study attempts to address several research activities:

- Develop consensus on methods for calculating net and gross area of all departments in the buildings studied.
- Survey participating firms and their designers to discover the standards they use in healthcare design, as well as their design targets for each project.
- Measure the net to gross ratios for departments and elements of the building gross analyze the data by conducting net to gross calculations using the methods agreed upon by the research team and consensus advisory council.
- Disseminate the findings and conclusions back to the industry.
- Compare with historical ratios.

Methodology

It was easy to assume that everyone was calculating area in the same or similar ways based on the American Institute of Architects (AIA) Document D101-1995 "Method of Calculating Area and Volumes of Buildings" or the Canadian Standards Association document "Area Measurement for Health Care Facilities." This, however, has not proved to be the case. One of the more important lessons learned, is the need to reach agreement on the methods for measuring a project, as well as developing consistent definitions and methods.

AIA D101 is a simple two page document that includes basic definitions for calculating the useable net area. This document does not give detailed information and is not specific enough for conducting area take-offs for healthcare facilities.

The Canadian Standards Association Z317.11 –'02 is a lengthier document of approximately 25 pages with more detailed explanations than the AIA D101. This document uses examples of colored floor plans to illustrate each of the definitions it describes. The content of these two documents provided a basic methodology for this study, but there was still a need for multiple interpretations of undocumented conditions or ambiguous situations. The AIA and CSA methods are compatible.

The research team created a detailed methodology document that defines and illustrates the basic definitions needed for measuring healthcare facilities. This methodology document also addresses ambiguous situations and judgment call situations for various department and building gross components.

Measurement Procedures

The area take-offs for each project are conducted in AutoCAD Architecture software. A three-step process is used to create the measurement spaces: create polyline, convert to space, and name space.

To begin, draw a closed polyline around the desired space. Next, the polyline is converted to what AutoCAD calls a "space." The "spaces" are able to have specific identifying information assigned to them. Upon converting the polyline to a space, required information should be entered into the appropriate fields.

The measurement of drawings follows a five-step procedure:

1. Measure building gross square footage (BGSF) line items. BGSF line items identify several functions including Mechanical, Electrical, Communication, Non-departmental corridors, Stairs, Vertical Transport, Miscellaneous Structure, and Exterior Wall Thickness.

2. Measure BGSF total floor area. The BGSF is comprised of the total area of each floor in the project. The boundary of each floor is defined by the exterior face of the exterior wall.

3. Measure exterior wall thickness. The exterior wall thickness includes the exterior wall material, all columns along the perimeter of the wall and any furr-outs along those columns.

4. Measure each departmental gross square footage (DGSF). Departmental gross footage includes wall thickness between all its NSF spaces, departmental circulation, and building structure within the department.

5. Measure individual room net square footage (NSF). The NSF boundary should be along the interior finished face of the surrounding walls. Every room that belongs to the department must be measured. Major rooms to be included in the departmental NSF are: patient rooms and toilets, nurse stations, operation rooms, soiled and clean linen closets, and housekeeping closets.

Upon completing the area take-offs, the data which lies within AutoCAD are converted to an Excel spreadsheet using the "Data Extraction" feature. This feature allows researchers to sort the data and eventually generate a unique report for each project.

Questionnaires

In addition to the measurement and data analysis, the research team sends out questionnaires to collect extra information about the projects. Architects and programmers of each project are asked to answer a series of questions regarding project type, design features, and other information not accessible through the CAD drawings. The questionnaires are used to better understand the projects, and further categorize them for analysis.

Sensitivity Analysis

The following method is used by the research team to double check the accuracy of the entire calculation: the Department grand total plus the BGSF Line Item grand total (including the Exterior Wall Thickness square footage) should equal the BGSF Total Floor Plate Area grand total.

A rule of thumb used by the research team to ensure the measurements were conducted accurately is that the BGSF Total Floor Plate Area grand total must be within **1%** of the BGSF Total generated in the report by adding the Department grand total to the BGSF Line Item total. Accuracy must be within one in a hundred square feet, or ten in a thousand. This ensures that the accuracy of the measurements do not impact or skew the DGSF:BGSF Ratio. If these two numbers are not deemed to be accurate enough the research assistant must go back to the drawings and double check all measurements until the miscalculations are found.

Dealing with Ambiguous Situations and Judgment Calls

During the course of this study, the research team encountered various ambiguous situations related to dealing with NSF and DGSF measurements in departments or components of building gross. These ambiguous situations are defined by consensus among the advisory council. The attempt is to produce consistency with methodologies among the firms in practice and the TAMU researchers. There is a continuous struggle for consistently measuring projects, and using consistent department names. Procedures for checking accuracy have become important to develop precision in measuring each project.

Preliminary Findings

Profile of Projects Measured

As of January 2012, 17 firms responded to the call for submissions by submitting drawings and materials for 30 complete projects and 19 partial projects. Two sets of questionnaires that follow the submission of project drawings were sent to these firms immediately after receiving their materials. Twenty-five projects have been fully measured, for which detailed individual reports were produced and shared back with the firm that submitted each project. The firms were given access to the data that included a breakdown of departmental net and gross areas, and net-to-gross ratios for more than 100 possible departments in a hospital building, as well as shell space, the building gross areas for 9 different categories of space, and the building gross to departmental gross ratio. In cases where additional areas were included, such as research buildings, central plant, covered parking, professional buildings, or other functions, these areas were also measured and reported separately, so these additional areas did not affect the net-to-gross ratios. Table 1 summarizes the profile of the 25 projects measured.

Table 1: Characteristics of projects measured (based on 20 projects)

	Mean	Std. Dev.	Minimum	Maximum
Number of projects measured	25			
NSF (sf)	186,890	80,699	58,196	355,777
DGSF (sf)	254,567	110,267	77,105	497,932
BGSF (sf)	334,656	150,722	97,625	638,726
Number of floors per building	5.64	2.48	1	13
Number of beds	132.2	69.2	20	253

Findings

Figure 1 shows the minimum, maximum, and mean values for each department for which at least 10 measurements were obtained. This figure shows that in some departments, e.g., PACU and surgery, there is a much larger variability of measurements than in other departments, e.g., acute care, intensive care, obstetrics, neurodiagnostics, and pulmonary function, which showed a more consistent trend.

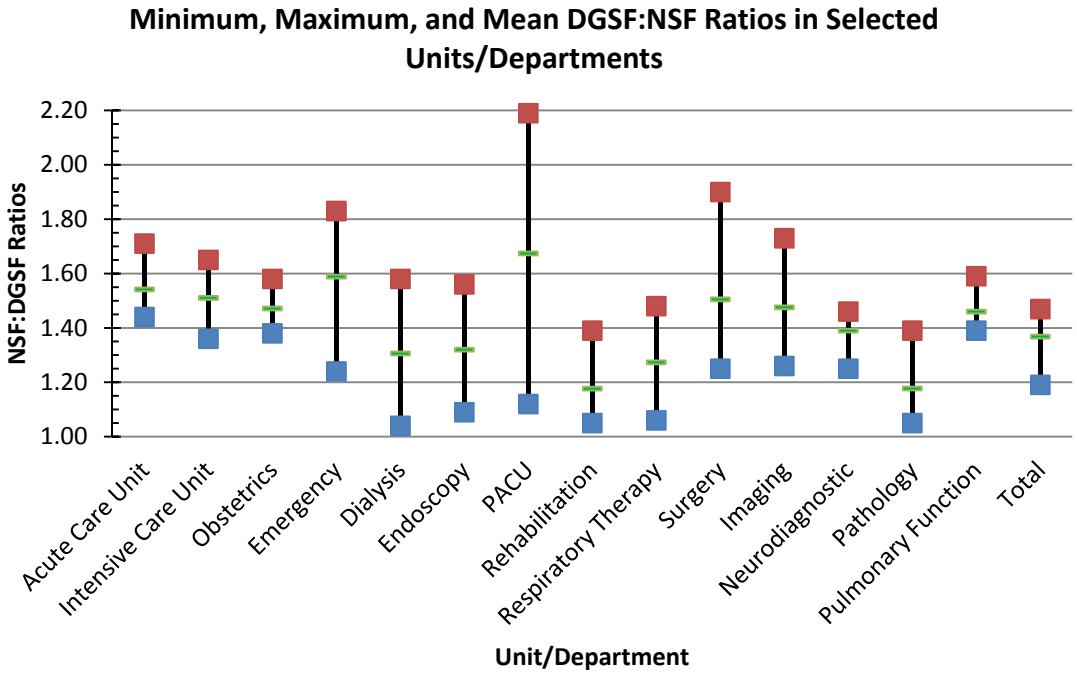


Figure 1: Minimum, maximum, and mean DGSF:NSF ratios in selected units/departments

Based on the projects measured and on the departmental ratios as presented in Figure 1, the research team conducted a preliminary statistical analysis that led to the development of expected departmental net-to-gross ratios (DGSF:NSF) in several major departments of a hospital where at least 10 measurements were obtained.

As can be seen in Table 2, these nine departments were measured in a minimum of 13 to a maximum of 25 projects. The results are, therefore, limited by this small number of measurements, and as the number of projects that are been added to the pool of measured projects increases, these values may become more consistent, having a smaller level of variability. The results are arranged by the number of Standard Variations (S.D.) from the mean value for each department, which us an indicator of the probability of future measurements. Statistically speaking, 1 S.D. means that based on the current measurements, it is expected that over 68% of the projects added to the pool will result in a ratio that falls in between the minimum and the maximum values showed in Table 2. Similarly, 2 S.D. and 3 S.D. mean that 95.5% and 99.7% of the projects, respectively, will fall within the ranges shown in Table 2.

It is expected that as the number of projects grows, the minimum and the maximum values in each department for each category will change, and may become closer to each other. It is necessary to mention that all the values presented in Table 2 assume a normal distribution of the measurements. Should this not be found to be the case, the values presented in Table 2 may change significantly. At this moment, with no more than 25 measurements per department, it is still too early to test this assumption.

Table 2: DGSF:NSF expected ratios, by statistical probability (with values based on Table 1).

Department	1 S.D. (68.3%)		2 S.D. (95.5%)		3 S.D. (99.7%)	
	Min.	Max.	Min.	Max.	Min.	Max.
Acute Care Unit	1.47	1.61	1.40	1.68	1.33	1.76
Intensive Care Unit	1.43	1.59	1.36	1.66	1.28	1.74
Obstetrics	1.42	1.52	1.37	1.57	1.32	1.63
Emergency	1.46	1.72	1.32	1.85	1.19	1.99
Dialysis	1.10	1.51	1.00	1.72	1.00	1.93
Endoscopy	1.19	1.45	1.06	1.58	1.00	1.71
PACU	1.41	1.94	1.14	2.21	1.00	2.48
Rehabilitation	1.05	1.30	1.00	1.42	1.00	1.54
Surgery	1.35	1.66	1.20	1.81	1.04	1.97
Imaging	1.34	1.61	1.21	1.74	1.08	1.87
Pathology	1.07	1.28	1.00	1.39	1.00	1.49
Total DGSF:NSF	1.29	1.44	1.22	1.52	1.14	1.59

Table 2 presents a picture similar to Figure 1; for example, the PACU department is found to have a large variability of the results, and so it is expected that 68.3% of the DGSF:NSF ratio measurements will range between 1.41 to 1.94. This is a very wide range of values, which can't provide significant assistant to programmers and/or designers of such spaces. On the other hand, when looking at acute care units, the findings show that it is expected that 68.3% of the DGSF:NSF ratio measurements will range between 1.47 to 1.61, while 95.5% of the measurements will range between 1.40 to 1.68. The overall total DGSF:NSF ratio is also found to be consistent within the 25 projects measured, and so it is expected that 68.3% and 95.5% of the measurements will range between 1.29 to 1.44, and between 1.22 to 1.52, respectively.

In order to be able to analyze the results further on, Figures 2 and 3 are presented as examples of two departments having different characteristics. In Figure 2, the intensive care unit is analyzed in terms of the actual measurements in comparison with the normal distribution assumption made. In this case, it can be seen that the actual measurements are tilted toward the lower side of the curve (with most measurements fall below the mean value,) and no measurements in both far ends of the curve exist. Any conclusions are still too early to be made at this time, given the small number of data points that are currently included in this figure.

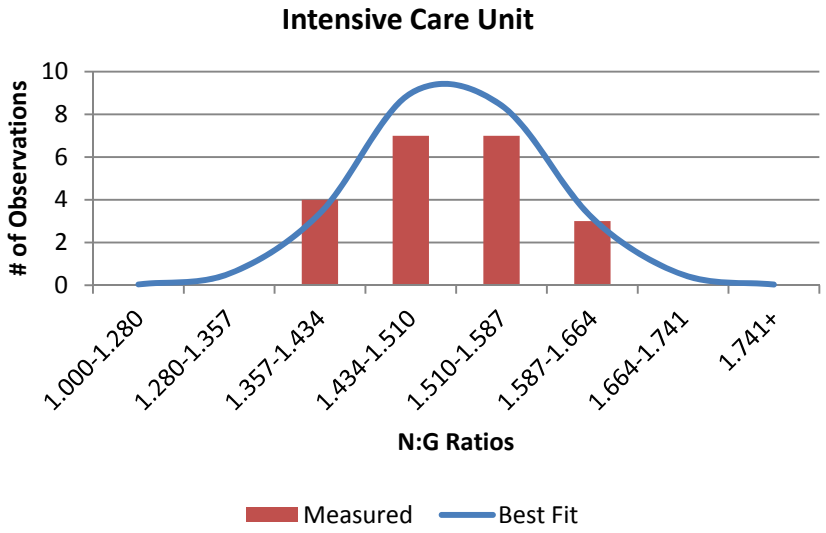


Figure 2: Distribution of DGSF:NSF ratio measurements for an intensive care unit; mean ratio: 1.51; based on 21 measurements

Figure 3 presents a similar analysis for the emergency department. Here, it can be seen that the distribution of the actual results mirrors the normal distribution curve pretty well. It can also be seen that a similar number of projects exist from both sides of the mean value, and one measurement even falls on the far right end side of the curve. As in the previous example, any conclusions are still too early to be made at this time, given the small number of data points that are currently included in this figure. What these two figures (Figure 2 and Figure 3) show us is a trend that can be either validated or invalidated in the future, with more measurements added to the study, and if validated, the range of values (as shown in the x-axis of these two figures) can also change.

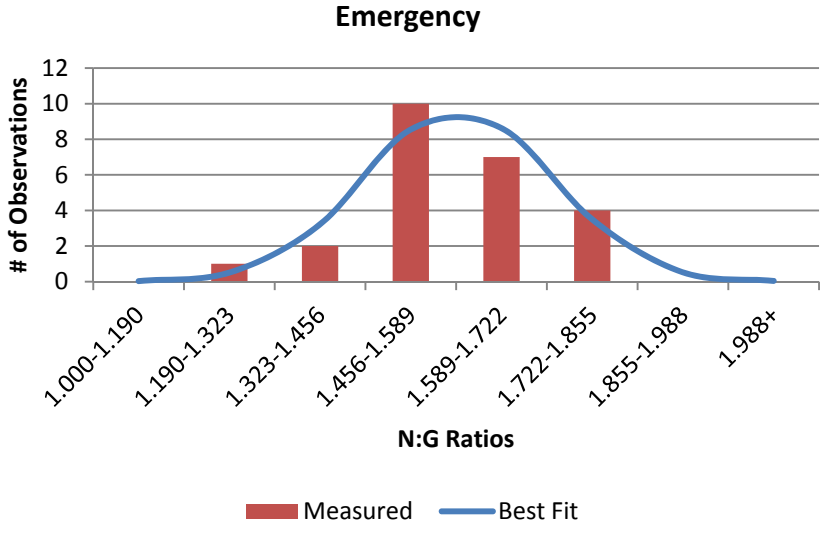


Figure 3: Distribution of DGSF:NSF ratio measurements for an emergency department; mean ratio: 1.59; based on 24 measurements

Another significant finding from conducting this project deals with the ratios of BGSF functions to DGSF areas. This aspect has not been studied before, and the findings show that BGSF:DGSF ratios are consistent within the 25 projects measured so far. The statistical analysis of the results shows that the expected values for the BGSF:DGSF ratio for 68.3% and for 95.5% of the projects is expected to range between 1.231 to 1.388 and between 1.153 to 1.466, respectively. Even within this range, the various BGSF functions have different contributions to these totals. Figure 4 shows the average percentages of various BGSF functions out of the total BGSF:DGSF ratio. It can be seen that the non-departmental corridors are the major component (40.0%), followed by the mechanical areas (23.1%). The third most influential function is the exterior wall, with a contribution of 14.5% to the ratio. These three functions contribute over 75% to the BGSF:DGSF ratio, while the remaining less than 25% are contributed by six other functions, naming (in decreasing order of their contribution): stairs (8.1%), vertical transport (6.4%), electrical (5.1%), communication distribution (2.1%), exterior covered areas (0.6%), and miscellaneous structures (0.0%). In this case too, any conclusions are still too early to be made at this time, given the small number of data points that are currently included in this figure. More significant conclusions will be available as the number of measured projects increases.

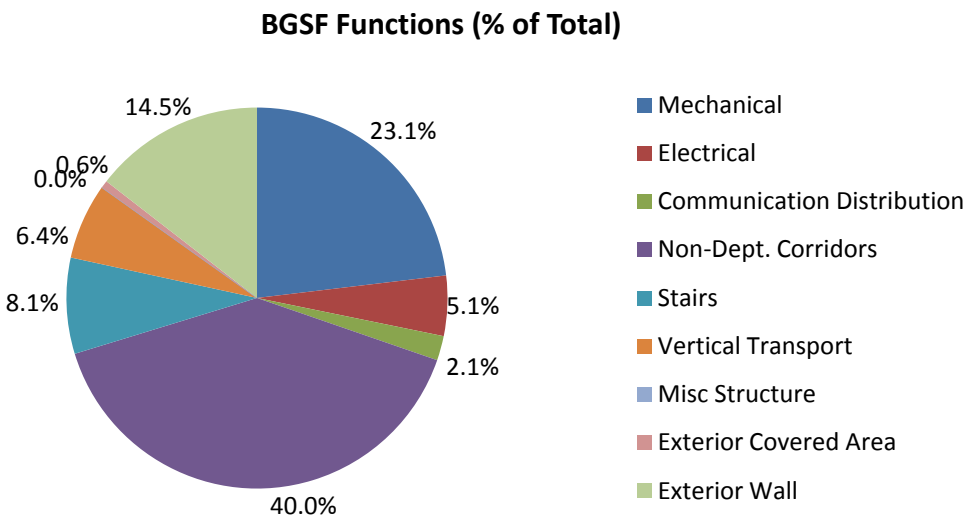


Figure 4: The contribution of various functions to the BGSF:DGSF ratio

Preliminary Conclusions

The reports and data on the 25 projects measured have shown several trends. The DGSF: NSF ratios for many departments are at or near the old rules of thumb used in practice (i.e., Acute Care). These rules of thumb have typically been based on the experience of the practitioner rather than data taken from several projects in a rigorous method. Some departments exhibit wider variation than others (i.e., Surgery, Imaging, ED, PACU). The ratios for Imaging and Surgery seem to be somewhat lower than past rules of thumb.

BGSF ratios and the breakdown of the BGSF components is potentially important new information for the profession. While the overall preliminary BGSF ratio seems to track around 1.3 and match the older rules of thumb, the greatest variation occurs among the mechanical and non-departmental corridors. As the number of projects measured increases, the different components of the BGSF can be further analyzed. One of the preliminary conclusions based on the BGSF ratios shows that rooftop mechanical systems impact the BGSF when compared with penthouse designs. Unusual design elements like large courtyard designs may also impact the percentage of exterior wall in the BGSF. The method for measuring overhangs, canopies, and partially enclosed spaces as a "half- area" measurement may not give the best explanation of what exists. This brings to attention the issue of measuring convention vs. accuracy. Many more hospitals need to be measured before the significance of these preliminary conclusions can be confirmed.

Limitations of the Study

These preliminary findings must be carefully considered and discounted as a result of the study's limitations. The sample size is quite small. Designers may be planning on the basis of the 'rules of thumb' from the past, therefore perpetuating the old ratios. There have been a limited number of firms providing projects to measure, so a bias may be present based on the planning habits of those firms. Quality of the source documents have varied by submission, so the researchers may have introduced interpretation errors. The sample contains few small critical access hospitals and no huge academic medical centers. Submissions consisting of additions or partial facilities have not yet been included at this point, as they do not offer a full view of all parts of a hospital.

What is Ahead?

There are plans for an interactive database in the future, when a sufficient number of projects have been measured. The research team would like to appeal for more submissions, in return for which participants will receive copies of reports and guidelines for consistent measurement methods.

EXHIBIT 57

Chapter 1: Introduction

Sector Plan Area Boundary

A project to update the 1990 *Largo-Lottsford Approved Master Plan and Adopted Sectional Map Amendment* was approved by the District Council as part of the Prince George's County Planning Department of The Maryland-National Capital Park and Planning Commission's (M-NCPPC) fiscal year 2012 work program. A study was conducted in April 2011 by M-NCPPC staff to identify and justify a boundary for the proposed Largo-Lottsford Master Plan update. This study included evaluation of the following seven areas: Woodmore Town Center area, Woodview Village/North Lake Arbor area, South Lake Arbor area, Largo Town Center Metro Station area, Central Avenue East/Kingdom Square area, Central Avenue West/Central industrial area, and Morgan Boulevard Metro Station area. The boundaries of the Largo Town Center Sector Plan were further refined after extensive M-NCPPC staff review and research of approved plans governing future development at the Largo Town Center Metro Station.

The boundaries of the Development District Overlay Zone (DDOZ) were established through an extensive stakeholder and community outreach planning process that included community workshops held in February, September, October, November, and December 2012.

The Largo Town Center sector plan area occupies portions of Planning Area 73 (Largo-Lottsford) in central Prince George's County. It is generally bounded by I-95/I-495 (Capital Beltway), MD 202 (Landover Road), the southwest boundary of the Woodview Village subdivision, Campus Way North, Lake Arbor Way, Landover Road (south of Lake Arbor Way), and MD 214 (Central Avenue). (See Map 1: Sector Plan Area Boundary on page 2 and Map 2: Largo Town Center DDOZ Boundaries on page 3.)

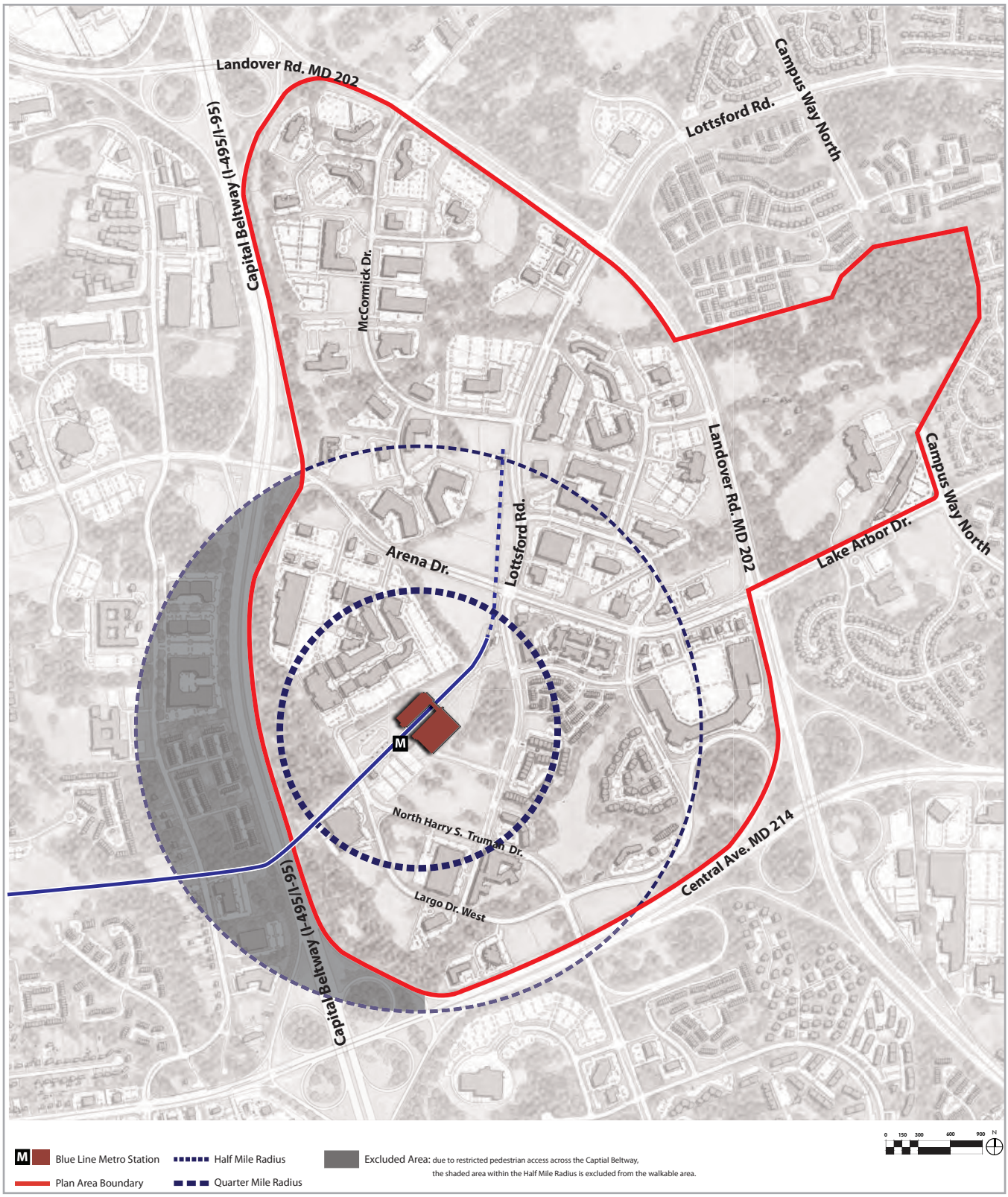
Regional Setting

The sector plan area contains approximately 800 acres of land, more than 200 acres of which are vacant or undeveloped. The area is anchored by the Largo Town Center Metro Station. The Metro station is the terminal station for the Blue Line in Prince George's County and offers direct rapid transit access to the rest of the metropolitan Washington region as well as connections to Amtrak and commuter rail (MARC and Virginia Railway Express) service. Largo is an unincorporated area; the nearest municipality is Glenarden, Maryland, with town limits that include the Woodmore Towne Centre at Glenarden immediately north of Landover Road.

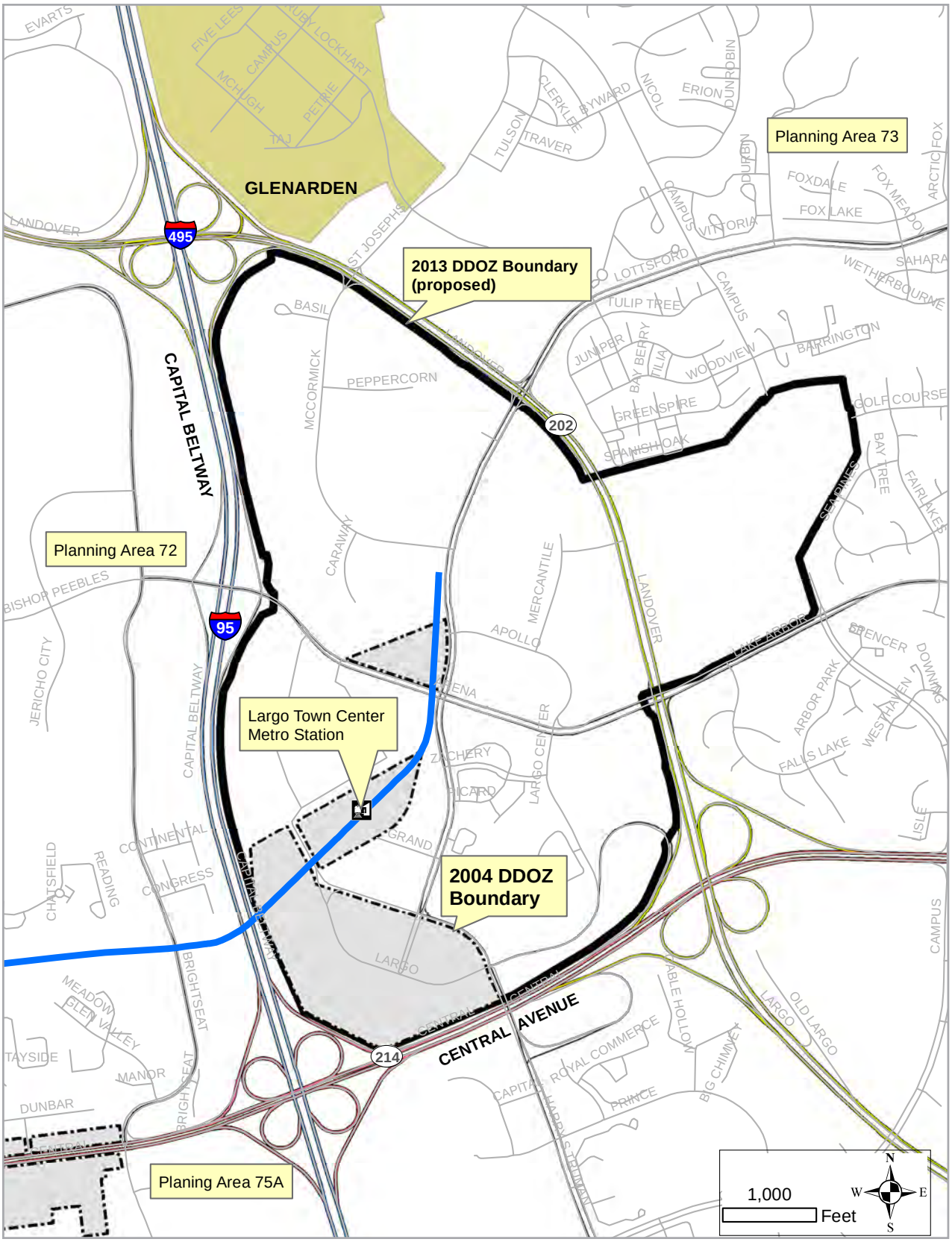
Located in Prince George's County, five miles east of Washington, D.C., Largo Town Center is highly accessible by automobile, intersecting several regionally important highways and roadways: Capital Beltway on the west (three interchanges provide the sector plan area with ample access to and from the highway), MD 202 to the north and east, and MD 214 to the south. Additionally, US 50 (John Hanson Highway) is located approximately 2 miles to the north, Baltimore-Washington Parkway is located approximately 5 miles to the northwest, and MD 301 (Crain Highway) is located approximately 10 miles to the east (See Map 3: Location of Largo Town Center DDOZ on page 4.)

The University of Maryland University College is located within the plan area, and Prince George's Community College is one-half mile to the south of the plan

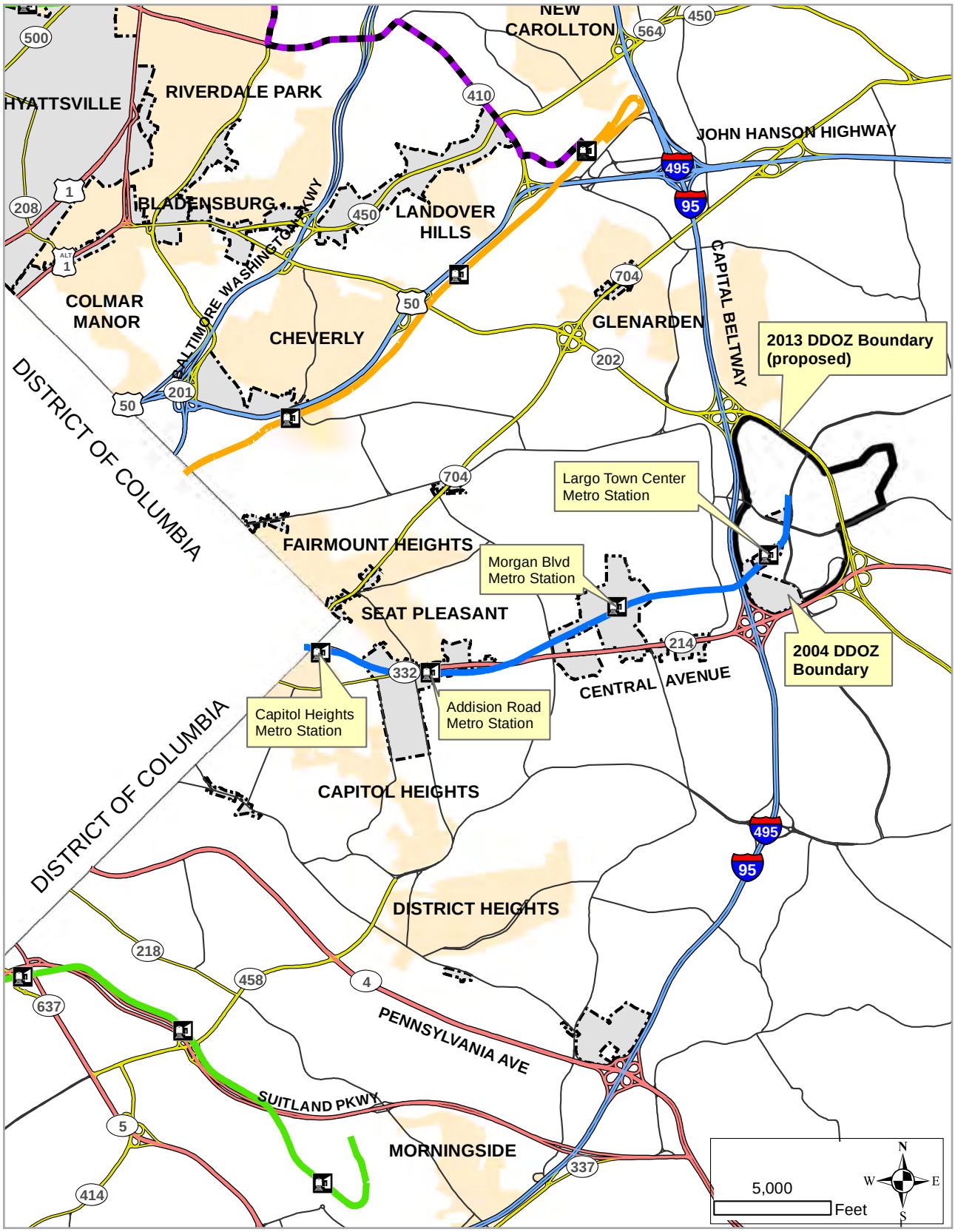
Map 1: Sector Plan Area Boundary



Map 2: Largo Town Center DDOZ Boundaries



Map 3: Location of Largo Town Center DDOZ



TOD is generally defined as development that is located within a 10-minute walk or one-half mile of a commuter rail or rail transit station (Planning and Urban Design Standards, American Planning Association Press, 2006). The 2002 General Plan further defines TOD as development that actively seeks to increase transit use and decrease automobile dependency by:

- *Locating homes, jobs, and shopping closer to transit services.*
- *Locating the mix of critical land uses (live/work/shop/recreate) in closer proximity to one another.*
- *Establishing land use/transit linkages that make it easier to use transit (rail and bus).*

area. These universities draw professionals, students, researchers, and academics to the area. Kaiser Permanente has a major medical office within the northeastern quadrant of the plan area, owning almost 15 acres of land and attracting patients from around the county.

Plan Purpose

The purpose of the *Largo Town Center Sector Plan and Sectional Map Amendment* (SMA) is to promote and facilitate transit-oriented development (TOD) around the Largo Town Center Metro Station and ensure that TOD implementation is realized. The development standards, policies, and strategies contained in this plan are intended to make certain that future development within the sector plan area maximizes transit ridership, revitalizes the area through economic development while maintaining its socioeconomic diversity, and adopts a sustainable development pattern.

The Largo Town Center SMA modifies the DDOZ established by the 2004 *Approved Sector Plan and Sectional Map Amendment for the Morgan Boulevard and Largo Town Center Metro Areas* to ensure that future development is conducive to its designation in the 2002 *Prince George's County Approved General Plan* as a metropolitan center.

This sector plan sets out a development vision for the Largo Town Center DDOZ that articulates vibrant and diverse neighborhoods, an efficient multimodal transportation system, sustainable and accessible environmental infrastructure, and pedestrian- and bicyclist-friendly urban design. This vision emphasizes:

- TOD near the Metro station and clearly defined neighborhoods with distinct characters and functions.
- Pedestrian- and bicyclist-friendly development and redevelopment in the DDOZ.
- Protected environmentally sensitive areas, minimal development impacts, and expanded recreational opportunities and trail/bikeway connections.
- Maximum housing opportunities within walking distance of the Metro station.
- Increased commercial retail and restaurant opportunities as the population expands.
- Publicly- and privately-owned open space for recreation and passive enjoyment.

The plan vision anticipates the possibility of a major institutional user within walking distance of the Metro station, such as a new regional medical center, an expanded university satellite campus, or a U.S. General Services Administration (GSA) tenant.

Additionally, this plan also moves the entire sector plan area from the Developing Tier into the Developed Tier. The Largo Town Center Metro Station is the only Metro station in Prince George's County that is not within the Developed Tier. By designating the plan area as part of the Developed Tier, the sector plan's vision is more likely to be attained. Among the goals of the Developing Tier are:

- Develop compact, higher-intensity mixed-uses in centers and corridors.
- Reinforce planned commercial centers as community focal points.
- Develop compact, planned employment areas.
- Preserve and enhance environmentally sensitive areas.
- Increase utilization of transit.
- Balance the pace of development with the ability of the private sector to provide adequate transportation and public facilities.

- Encourage contiguous expansion of development where public facilities and services can be more efficiently provided.

Relationship to Other Plans

A number of plans and initiatives at the local and state levels provide a framework in which the sector plan was prepared. The policy documents described below formed the context for the Largo Town Center Sector Plan.

2002 *Prince George's County Approved General Plan*

The 2002 General Plan sets forth goals, objectives, policies, and strategies that guide future growth and development throughout Prince George's County and is the foundation for the recommended compact, dense, transit-oriented development that emerged from the Largo Town Center planning process.

The 2002 General Plan divides the county's land into three policy tiers: the Developed Tier, the Developing Tier, and the Rural Tier. It also designates a number of centers and corridors where development is intended to be concentrated in the future. The sector plan area is located on the western edge of the county's Developing Tier. The area includes the Largo Metropolitan Center, the highest intensity center as defined by the 2002 General Plan.

The 2002 General Plan's vision for the Developed Tier is a network of sustainable, transit-supporting, mixed-use, pedestrian-oriented, medium- to high-density neighborhoods. The 2002 General Plan vision for the Developing Tier is to maintain a pattern of low- to moderate-density suburban residential communities, distinct commercial centers, and employment areas that are increasingly transit serviceable. The 2002 General Plan's vision for metropolitan centers is a high concentration of land uses and economic activities that attract employers, workers, and customers from other parts of the metropolitan Washington area.

The Largo Town Center Sector Plan amends the 2002 General Plan by expanding the Developed Tier boundary to include the Largo Town Center sector plan area. This change simultaneously removes the sector plan area from the Developing Tier (see Map 4. Largo Town Center—General Plan Tier Update on page 7).

Moving the Largo Town Center sector plan area from the Developing Tier to the Developed Tier ensures consistency between the TOD-supportive 2002 General Plan visions for both the Developed Tier and the Largo Town Center Metropolitan Center. The amendment also ensures that all 15 Prince George's County Metro stations are in areas that are eligible for county and state TOD-supportive resources and incentives.

1990 *Largo-Lottsford Approved Master Plan and Adopted Sectional Map Amendment*

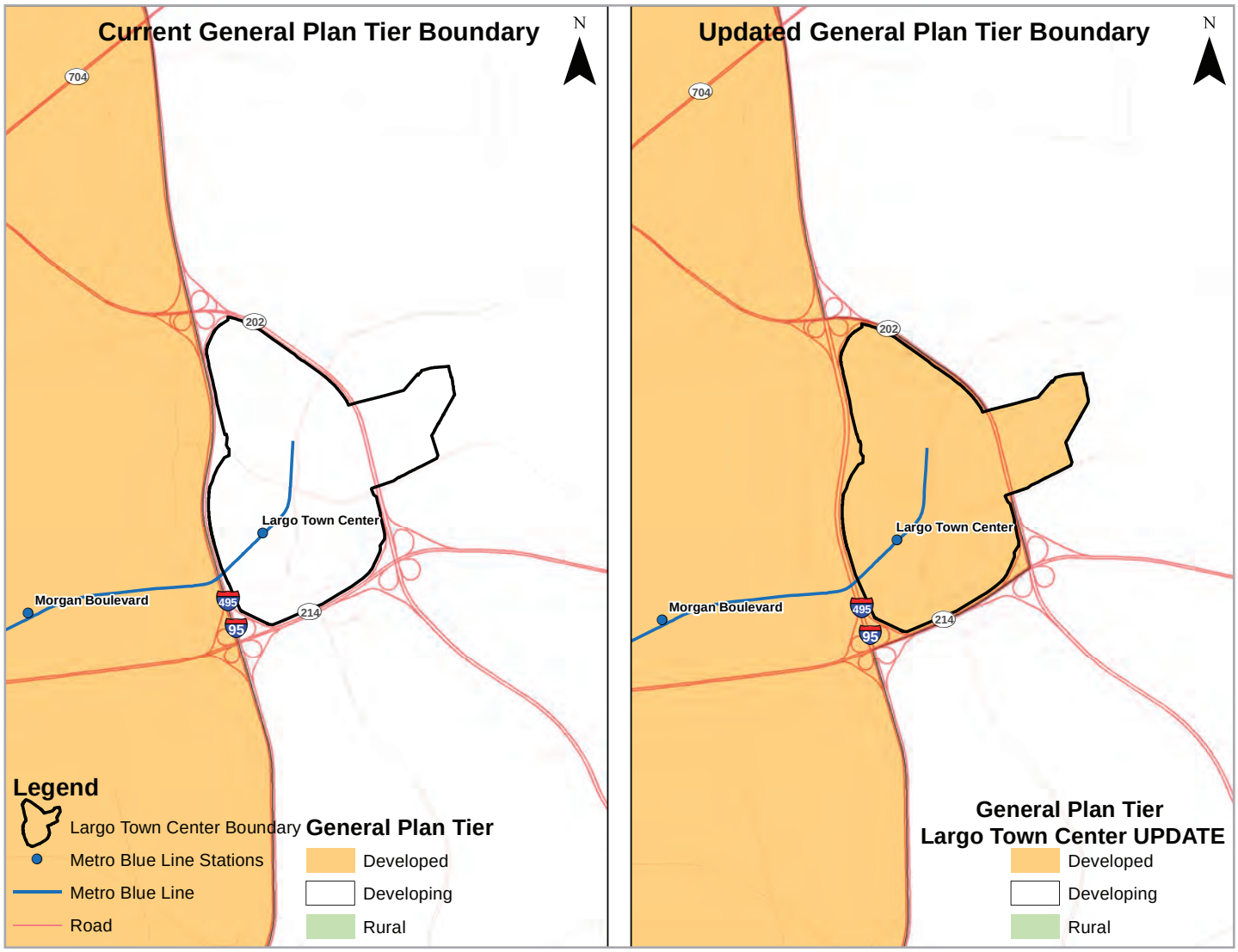
This sector plan boundary falls entirely within the boundary covered by the 1990 Largo-Lottsford Master Plan. Thus, the Largo Town Center Sector Plan amends the portion of the master plan area where both boundaries coincide. The 1990 Largo-Lottsford Master Plan's general recommendations for the area include developing unused land for employment centers, protecting existing residential areas from encroachment by incompatible land uses, and constructing adequate public facilities to meet future community needs.

The 1990 Largo-Lottsford Master Plan specifically recommends the establishment of a major employment area in the parcel between the Capital Beltway (I-495/I-95), MD 202 (Landover Road), and MD 214 (Central Avenue), which includes the majority of the sector plan area. The plan also designates the parcels adjacent to what is now the Largo Town Center Metro Station as a town center, which it classifies as a potential site of highly concentrated, mixed-use development of regional importance. The 1990 Largo-Lottsford Master Plan describes the town center as possibly the most visible aspect of the central portion of the county because of its proximity to major roads. However, the 1990 Largo-Lottsford Master Plan does not promote the town center's relationship to the future Largo Town Center Metro Station, because the master plan was approved 14 years before the Metro station opened for service.

2004 *Approved Sector Plan and Sectional Map Amendment for the Morgan Boulevard and Largo Town Center Metro Areas* (MorLar)

The MorLar Plan amends part of the area covered in the 1990 Largo-Lottsford Master Plan. The MorLar Plan

Map 4: Largo Town Center—General Plan Tier Update



intends to implement the principles of concentrated, transit-serviceable growth outlined in the 2002 General Plan and provide the land use vision required by the Washington Metropolitan Area Transit Authority (WMATA) for Metro stations nearing completion. The Largo Town Center Sector Plan amends that portion of the MorLar plan area east of the Capital Beltway.

The MorLar Plan focuses on fostering compact, mixed-use TOD around both the Morgan Boulevard and Largo Town Center Metro stations. To facilitate TOD in these areas, the MorLar Plan placed a DDOZ, a regulation that imposes a set of development standards intended to promote the urban design and land use principles expected of TOD, on several parcels in the immediate vicinity of these two Metro stations. In addition, it focuses on a swath within roughly one-third of a mile of the Largo Town Center Metro Station and designates it as a "core" area. The MorLar Plan recommends mixed-use zoning for most of this core.

2009 *Approved Countywide Master Plan of Transportation* (MPOT)

The MPOT updates the Prince George's County Master Plan of Transportation, adopted in 1982, and incorporates the transportation recommendations included in subsequent approved master and sector plans. The master plan's recommendations are intended to produce a network of transportation systems and

facilities that, as articulated in the 2002 General Plan: a) encourage quality economic development; b) make efficient use of existing and proposed county infrastructure and investment; and c) enhance the quality and character of communities and neighborhoods.

In relation to the sector plan area, the MPOT provides guidance for future changes in the county's transportation network related to the expansion of Metro's Blue Line to Largo Town Center. This includes reinforcing the 2002 General Plan's recommendation for high-intensity commercial and residential TOD in metropolitan centers, especially the Largo Town Center. The MPOT reinforces the 2002 General Plan's prioritization of public investment for the areas adjacent to the county's Metro stations.

2008 *Approved Public Safety Facilities Master Plan*

The Public Safety Facilities Master Plan contains recommendations for the Prince George's County Police Department, Fire and Emergency Medical Services Department, Department of Corrections, Office of Emergency Management, Office of the Sheriff, and the M-NCPPC Park Police Division. The plan addresses the need for new facilities, renovation of facilities, staffing levels, and crime-prevention strategies such as crime prevention through environmental design.

The master plan sets priority levels for public sector provision of capital improvements related to public safety facilities that vary depending on an area's tier status as specified by the 2002 General Plan. The Public Safety Facilities Master Plan places a high priority on public spending on such facilities in metropolitan centers in the Developing Tier and places a medium to low priority on such spending in other parts of the Developing Tier.

2005 *Approved Countywide Green Infrastructure Plan*

The Green Infrastructure Plan guides development, green space protection, and mitigation activities as well as seeks to implement a long-range vision for preserving, protecting, enhancing, and restoring a contiguous network of environmentally important areas in the county by the year 2025. The plan is not intended to reduce the overall development potential in the county nor is it intended to be a major land acquisition program. The plan emphasizes private-sector stewardship of privately-held lands, which comprise most of the county's green infrastructure network.

The plan aligns with the 2002 General Plan's guiding principles for future green infrastructure plans, which include: a) identifying a contiguous network of environmentally important areas; b) setting forth strategies to preserve, protect, enhance, and restore the network; c) supporting the desired development pattern of the 2002 General Plan; d) adopting and/or supporting effective implementation mechanisms; e) supporting the county's Livable Communities Initiative; and f) ensuring meaningful public participation.

2009 Smart, Green, and Growing Legislation

In 2009, the State of Maryland signed into law a package of three bills bundled under the title "One Maryland: Smart, Green, and Growing." The bills comprehensively outline the state's policy for smart and sustainable growth. The first law, the Smart and Sustainable Growth Act, clarifies that local jurisdictions must implement and follow the comprehensive plans they adopt. The second law, Smart Growth Measures and Markers, directs local jurisdictions and the state to collect smart-growth measures and indicators and establishes a statewide land use goal. The third law, Planning Visions, updates the state's planning process with a set of 12 plan visions that address infrastructure, economic development, public participation, and quality of life, among many other issues. Local jurisdictions are required to include these visions in their local comprehensive plans and implement them through the adoption of applicable zoning and subdivision ordinances and regulations. The 2009 Smart, Green, and Growing legislation replaced the 1992 Economic Growth, Resource Protection, and Planning Act.

Maryland's Stormwater Management Act of 2007

In 2007, the Maryland Department of the Environment passed legislation amending the state's existing site design standards for mitigating stormwater runoff. The primary goals of the state and local stormwater management programs are to maintain the predevelopment runoff characteristics (as closely as possible) after development

and to reduce stream channel erosion, pollution, siltation and sedimentation as well as local flooding by implementing environmental site design to the maximum extent practicable and using appropriate structural best management practices only when necessary. These regulations for stormwater management apply to the development or redevelopment of land for residential, commercial, industrial, or institutional use. The high-quality, mixed-use development envisioned by the sector plan and previous plans will incorporate these stormwater management principles.

1997 Smart Growth and Neighborhood Conservation Initiative

In 1997, the Maryland General Assembly enacted a package of legislation collectively referred to as the Neighborhood Conservation and Smart Growth Initiative. The Maryland Smart Growth Program had three basic goals: to save valuable remaining natural resources, to support existing communities and neighborhoods, and to save taxpayers millions of dollars in unnecessary costs for building infrastructure to support sprawl. This legislation established the state's priority funding areas to help guide future development in ways that support smart growth.

Subregion 4 (Central Avenue-Metro Blue Line Corridor) Transit-Oriented Development Implementation Project

The Central Avenue-Metro Blue Line Corridor Implementation Project will put into effect the vision and goals for the Central Avenue Corridor as presented in the 2010 *Approved Subregion 4 Master Plan and Sectional Map Amendment* and will advance the recommendations of the 2008 *Approved Capitol Heights Transit District Development Plan and Transit District Overlay Zoning Map Amendment*. These plans envision mixed-use TOD and promote housing and neighborhood conservation, public facility and infrastructure improvements, and commercial revitalization around county Metro stations. The project will concentrate on the county's Blue Line Metro stations, including Largo Town Center.

The project's objectives include: a) conducting a series of community educational and outreach programs focused on the TOD opportunities along the Central Avenue and Metro Blue Line Corridor; b) forming partnerships with economic, business, and community stakeholders to develop and initiate a strategic marketing campaign and business retention and attraction program; c) identifying and prioritizing TOD opportunities; d) undertaking a comprehensive pedestrian and bicycle access improvement plan for the Central Avenue Corridor; and e) preparing a sectional map amendment to be applied to the entire corridor.

Background

Demographic Profile

The Largo Town Center sector plan area has a population of 3,400 according to the 2010 U.S. Census Bureau and Metropolitan Washington Council of Governments Round 8.1 estimates. As of March 2013, the area had a median household income of $68,539, lower than the county's median of $72,058 but higher than the national median of $51,301. A total of 1,322 dwelling units are located in the area divided between multifamily and townhome units. Owner-occupied dwelling units in Largo Town Center were 32.4 percent of the total housing stock compared to the county rate of 62.9 percent. The Largo Town Center area is less racially/ethnically diverse than the rest of the county. In 2010, the area's population was only five percent white and 0.8 percent Hispanic compared to 23.6 percent and 14.5 percent, respectively, for the county. Black residents comprised 95 percent of the sector plan area's population compared to 66 percent of the county's population.

Residents of the sector plan are highly educated. A higher proportion of the sector plan area's adult population (47.8 percent) had completed at least two years of college compared to 34.8 percent for the county as a whole. The sector plan area's population is proportionately somewhat older than the county as a whole, with a median age of 37.4 compared to the county's median age of 36.0. The primary driver of this age difference is most likely the lack of children in the area. Many households in the area are childless. The average household size for the sector plan area is 1.9; the average household size in the county is 3.0.

Development Pattern

Land use in the sector plan area is fragmented by man-made and natural barriers. Most of the plan area is framed—and isolated—within the triangle formed by the Capital Beltway, MD 202 (Landover Road), and MD

214 (Central Avenue). All three roads are high-speed thoroughfares with limited or controlled access and no provisions for safe non-motorized use. The plan area is divided into quadrants by Arena Drive and Lottsford Road. Much of the property around the Metro station is publicly owned, including the county-owned land now occupied by The Boulevard at the Capital Centre shopping center and the WMATA-owned joint development site around the Metro station.

The development pattern within the plan area is suburban sprawl. An office park with large amounts of county-owned and county-leased office space occupies the area between Arena Drive and Landover Road. Although several office buildings are as much as six stories in height, most of these structures are three stories in height or less. South of Arena Drive, an existing residential community of low- to mid-rise apartments and townhomes is sandwiched between two suburban shopping centers—The Boulevard at the Capital Centre and the older Largo Town Center Shopping Center. Along the sector plan's southern boundary, undeveloped and privately-owned land predominates with scattered warehouse/light industrial uses and two hotels. East of Landover Road, a large undeveloped property sits immediately north of a public middle school (Ernest Everett Just), an M-NCPPC community center, and a small neighborhood shopping center. A total of more than 200 acres of undeveloped land, more than one-quarter of all of the land in the sector plan area, is scattered throughout

The street network is characterized by superblocks with little or no connectivity between the quadrants. The primary streets are very wide with discontinuous medians; their design allows for traffic speeds that are above posted limits. All development within the sector plan area faces inward and away from the streets. The result is an unattractive, and even unsafe, environment that is pedestrian-unfriendly and lacks points of visual interest in or site lines to shopping centers for pedestrians (or even motorists) to see what retail services are offered. No sense of security exists to encourage walking or biking.

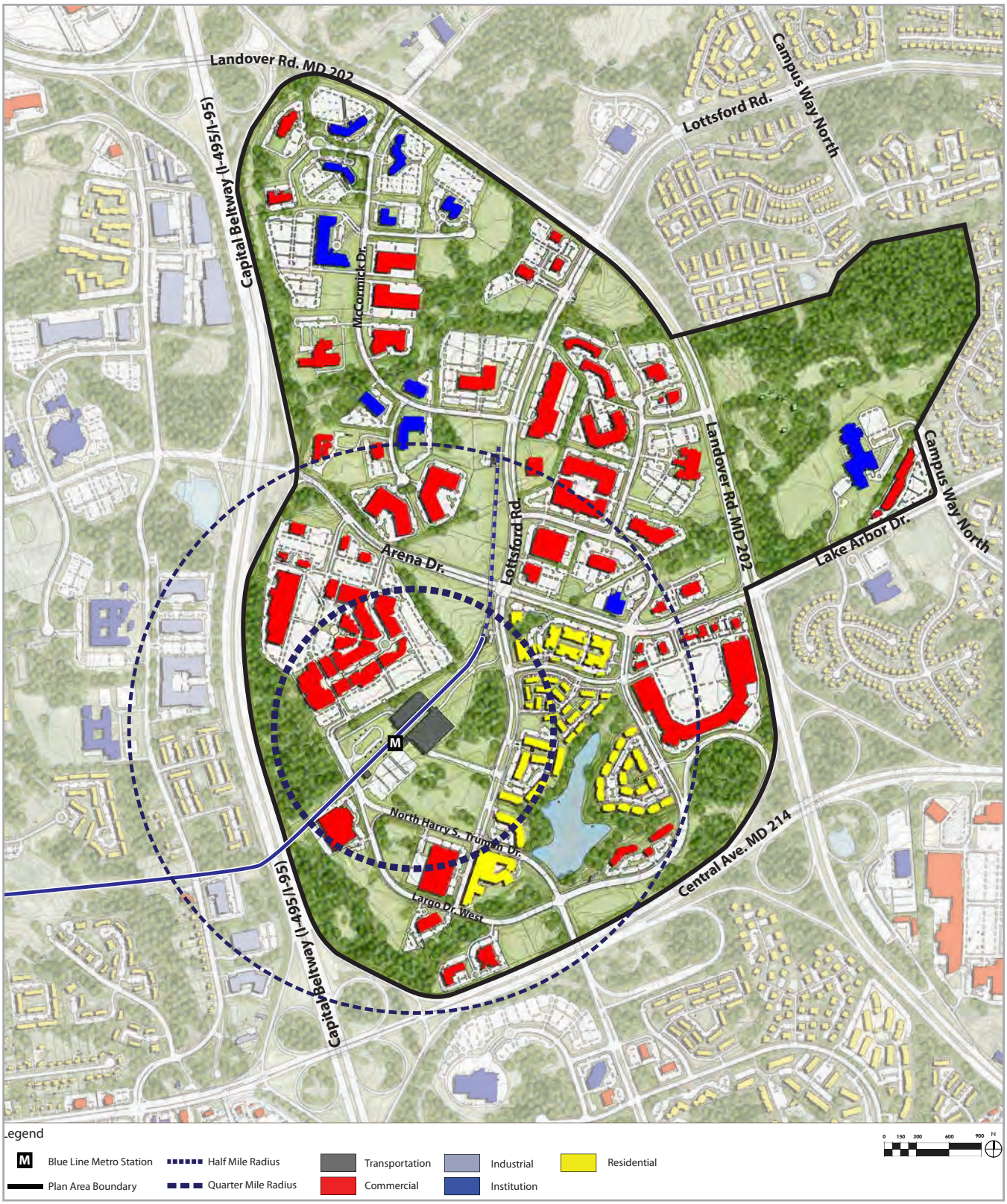
The Metro station opened for service in 2004. It was designed to facilitate convenient commuter parking instead of future air-rights development. Two large parking garages with a total of 2,200 spaces wrap the station tightly and occupy a significant portion of the WMATA joint development site. WMATA has expressed interest in joining a new public-private partnership effort to facilitate TOD around the Metro station. (See Map 5: Largo Town Center Existing Land Use on page 11.)

Development Potential

The Largo Town Center Metro Station currently serves as a commuting hub for Metro patrons traveling to other parts of the Washington metropolitan area. However, the sector plan area possesses several important assets that, leveraged wisely, could help transform the area into a regional urban destination with a vibrant mix of commercial, institutional, and cultural activities.

The most important asset is the Metro station. Not only does it serve as a gateway to the rest of the regional Metro system but also to the ongoing expansion of Metro service to Tysons Corner, Reston, and Dulles International Airport, which will bring direct Silver Line service to Largo Town Center. Second, key underdeveloped parcels around the Metro station are publicly owned. The Prince George's Revenue Authority owns 70 acres of land immediately adjacent to the Metro station at The Boulevard. Although the development at The Boulevard at the Capital Centre is privately owned and the current retail leases are long-term, an opportunity to redevelop the site through a single master planning process remains high. Third, more than 200 acres of undeveloped land are within a mile of the Metro station; nearly all of this land is in large tracks of five or more acres, most at least 10 acres. Large tracts of undeveloped land held by a few individuals increase the likelihood of developing

Map 5: Largo Town Center Existing Land Use



in a cohesive way. Finally, the plan area enjoys excellent regional highway access as well as Metrorail and bus transit access.

Recognizing these assets, the Prince George's County government has named the Largo Town Center area as one of four potential sites that are currently being screened and evaluated for the location of a new regional hospital center. The state of Maryland, through the University of Maryland's medical services system, is collaborating with the county in this major countywide health planning initiative. Such a significant institutional use—or an expanded university satellite campus or GSA tenant—would be a development game-changer for central Prince George's County. A final site for the new hospital is scheduled to be announced in summer 2013.

The county government is not the only potential developer expressing an interest in "doing something" at Largo Town Center. More than half a dozen owners of key developable parcels within the plan area have indicated interest in starting new development projects on their land. M-NCPPC staff conducted one-on-one interviews and group meetings with these key stakeholders between October 2012 and February 2013 to ascertain their development plans and share the plan vision.

In light of the intense public- and private-sector interest in the future of Largo Town Center, the Largo Town Center Sector Plan was developed as a detailed implementation plan with specific development standards and guidelines, concepts, and strategies to promote and facilitate TOD around the Metro station. By doing so, the plan will help transform the Largo Town Center into a true urban destination with enhanced employment and housing opportunities; institutional services; an effective multimodal transportation system; and attractive, walkable, and safe neighborhoods with protected environmental amenities.

Community Engagement

Direct community input shaped the ideas and recommendations found in the Largo Town Center Sector Plan. Public outreach, resident participation, and buy-in from various stakeholders, including county agencies and land owners/developers, were priorities of this planning effort. Several approaches were employed to bring attention to the sector plan area; obtain comments on community and stakeholder concerns, project priorities, and the plan vision; and build a long-term commitment to the ultimate success of the sector plan area. Since the primary focus of the plan is ensuring quality redevelopment of the area immediately surrounding the Metro station (specifically TOD), public sector coordination was necessary. Additionally, the goal was to ensure participation of those property and business owners and other stakeholders interested in and committed to the planning process for the Largo Town Center. The major components of the outreach process included:

- Community Workshops: Staff conducted community planning workshops to solicit public input in the crafting of a community vision for TOD around the Metro station. Five communitywide meetings were held. Preliminary notice of each scheduled meeting was sent to all property owners within one mile of the sector plan area. The team identified key stakeholders integral to the planning process and contacted them directly to ensure their involvement.
- Interviews and Briefings: Staff scheduled meetings with key stakeholders, including owners of potential development opportunity sites, implementing public agencies, and community organizations.

Reaching Out to the Community

Community outreach for the sector plan began with a kick-off community workshop on February 16, 2012, to explain the purpose of the plan and understand community and stakeholder priorities and concerns.

At this meeting, facilitated group discussions ensued regarding issues and opportunities in the sector plan area. This discussion and the ballot vote pointed the planning team in the direction it needed to proceed. Connectivity to Metro was deemed the most important planning issue to focus on, followed by employment, public safety, finding the appropriate intensity and density to redevelop the area, and attracting high-quality retail and restaurants. (See Figure 1: Community Meeting Ballot Results.) The primary intent of this session was to solicit input from the community and help identify issues of importance to the community for planning staff.

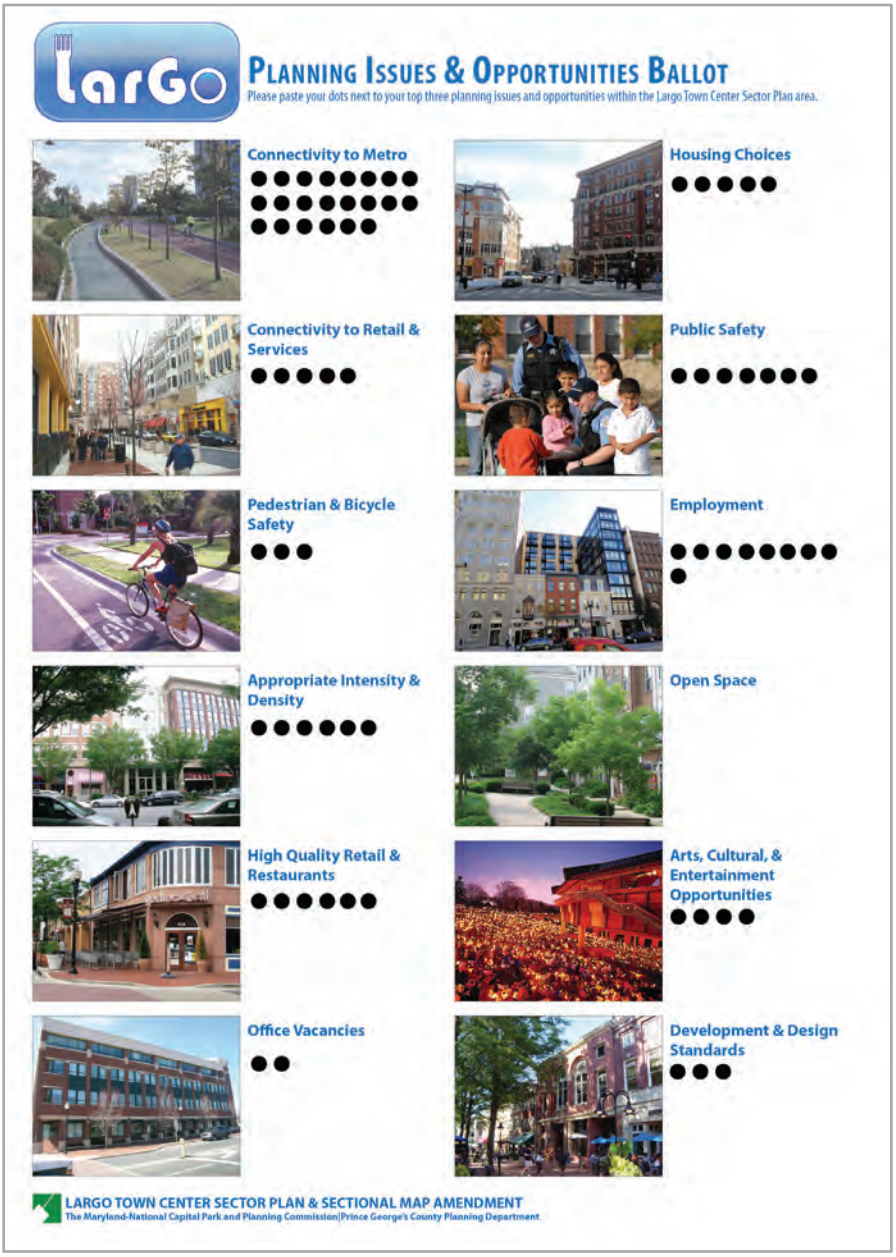


Figure 1: Community Meeting Ballot Results

After six months of data analysis (see Information Collection on page 10), outreach continued with a community meeting on October 3, 2012, describing the team's initial analysis followed by a facilitated community workshop on November 8, 2012, on the community's vision for the area and how it would fit into potential development scenarios. A preferred land use and design concept was developed, and the planning team presented their initial recommendations at this community meeting. A final presentation of the preferred development concept and plan-related recommendations took place on December 10, 2012, and participants further refined and validated the concept. The public audience, which included property owners and developers, was invited to share thoughts about the recommendations and design schematic. After the presentation, the planning team stood by illustrative boards that described architectural character, open space plans, streets and block structure, retail, and implementation while taking questions and comments from the audience.

In addition, at a meeting on February 28, 2013, the community was introduced to the possibility of a major institutional user locating within a quarter-mile radius of the Metro station. With approximately 350 people in attendance, there was overwhelming support for the concept.

A final presentation of the preferred development concept and plan-related recommendations took place on May 2, 2013. The community engagement strategy was designed to reach out to all members of the community, including those who have not actively participated in the past. More than 475 interested residents and stakeholders participated in the planning process, including property owners, neighbors, merchants, developers,

and community leaders. Responsible growth requires teamwork; the high level of civic involvement displayed during the Largo Town Center Sector Plan planning process will ultimately guide growth and ensure quality development for future generations of residents.

Interviews, Briefings, and Tours with Stakeholders

Because of the importance of creating a new mixed-use core, special efforts were made to involve landowners and business operators of undeveloped, vacant sites and sites within a half-mile radius of the Metro station. These properties and businesses would be directly affected by efforts to promote widespread mixed-use redevelopment. Planning staff contacted members of the business community and invited them to attend open houses. One-on-one interviews were held with landowners, developers, business operators, and commercial property owners throughout the process.

These meetings were set up to initiate an ongoing dialogue, regarding community concerns and desires, the plan vision, owner/developer intentions for their properties, and to ensure that the development of those parcels with the TOD core is consistent with the plan vision. The team met with business owners at The Boulevard at the Capital Centre to discuss the plan vision and business owners' concerns. Since The Boulevard at the Capital Centre site is a major part of redefining and redeveloping the area around the Metro station, the team briefed the Revenue Authority's board of directors and met regularly with Revenue Authority staff and the owners of the shopping center. Planning staff also attended a special meeting with the businesses in The Boulevard at the Capital Centre.

From January 2012 through March 2013, the planning team held a series of meetings with Prince George's County Councilmember Derrick Leon Davis and his staff, representatives of Prince George's County's state legislative delegation (Senator Joanne Benson and Senator Ulysses Currie's staff), and senior staff from the County Executive's Office. Monthly coordination meetings were held with the chief executives and directors of the county's Economic Development Corporation, Department of Public Works and Transportation, Revenue Authority, Redevelopment Authority, and Department of Housing and Community Development, as well as senior staff from the WMATA.

Meetings were also held with the Lake Arbor Civic Association. Invitations were extended to Largo Civic Association and Kettering Civic Association for M-NCPPC staff to meet with association members.

Finally, a regional TOD tour was conducted for four County Council members and their staff. With the planning team, the group visited successful, walkable mixed-use TOD communities, including Rockville Town Center in Rockville, Maryland and Clarendon, Shirlington, and Courthouse Square in Arlington County, Virginia. These sites were selected based on attractive, walkable urbanism features and the evolution of their development near transit. The team met with planners and local politicians who described the history of the area, including the market conditions and necessary legislative and implementation tools that enabled the development of each area. These first-hand, on-the-ground studies allowed the group to understand local traditions in place-making, as well as the public and private commitments.

Marketing and Outreach

A public advertisement was printed in local newspapers after the District Council formally initiated the plan in May 2012. In order to inform residents and stakeholders of community meetings, save-the-date postcards and flyers were sent to all property owners within a one-mile radius of the planning area for each of the five community meetings. Flyers were also distributed to local businesses, commuters at the Largo Town Center Metro station, and students at the Lake Arbor Elementary School and Ernest Everett Just Middle School. In addition to notices posted on the plan's web page, e-mails were sent to those who previously participated at Largo Town Center Sector Plan community meetings or signed up as stakeholders on the project web page. At the planning team's request, Councilmember Derrick Leon Davis's office also sent out meeting invitations to his e-mail list. Additionally, advertisements were posted on the Planning Department's and General Plan team's Facebook and Twitter feed. Finally, the team identified key stakeholders integral to the planning process and contacted them directly to ensure their involvement at community meetings.

Information Collection

Intensive analysis of the Largo Town Center area was undertaken during the six months between the kick-off meeting and the second community meeting. The planning team toured the sector plan area multiple times, focusing on opportunity sites, physical constraints, and the existing building layout and design. During a kick-off meeting with consultants in July 2012, the group spent an afternoon on a comprehensive bus tour, analyzing maps and discussing opportunities for growth and redevelopment.

The planning team toured the sector plan area numerous times, noting and analyzing the area's development patterns; reviewing the clustering and type of retail establishments; and documenting physical features with photographs, measurements, and sketches. From the visual analysis, in conjunction with market data and interviews with property owners (including the Revenue Authority and the owners of The Boulevard at the Capital Centre) on their debt and annualized rate of return, an economic market analysis was conducted that helped determine the viability of various land use, zoning, and design scenarios. On-site analysis through the examination of physical constraints, such as steep slopes, wetlands, and specimen trees that require preservation, also aided in identifying redevelopment and infill opportunity sites. These studies were used to better describe the Largo Town Center sector plan area and to inform the community of planning and design decisions.

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Chapter 2: The Vision for Largo Town Center Metro Station and Beyond

The Largo Town Center Sector Plan envisions the transformation of the Largo Town Center Metro Station area into one of Prince George's County's premiere mixed-use "downtowns" and 24-hour activity centers by 2035. The core area is anchored by a major new institutional use—a regional hospital, satellite university campus, or U.S. General Services Administration (GSA) tenant—and features a mixed-use retail district along an extended Harry S Truman Drive. Largo Town Center is Prince George's County's primary local government center, offering a variety of services for county residents and businesses. A range of large and small businesses serve both the needs of citizens who reside within walking distance of the Largo Town Center Metro Station and the needs of visitors from the greater Washington metropolitan region. A wide range of sit-down restaurants, performance venues, public and private open spaces, and other cultural attractions add to the regional attraction of the new Largo Town Center area.

The sector plan area's high-density, mixed-use core is bordered to the north by an expanded government services district and health-related service activities. New medium- to high-density residential development rings the sector plan area's southeast quadrant between Arena Drive and Harry S Truman Drive, east of Lottsford Road. New townhomes occupy a formerly undeveloped site east of Landover Road (MD 202).

The maximum buildout scenario for the Largo Town Center sector plan area envisions a new regional medical center, expanded university satellite campus, or GSA tenant within one-quarter mile of the Metro station entrance. Under this scenario, housing stock in the area has expanded to a total of 4,350 new and preexisting dwelling units. Approximately 5,000,000 square feet of commercial office and institutional space provide a rich mix of employment and business service opportunities. Some 400,000 square feet of reconfigured retail space line part of the extended Harry S Truman Drive and make up two smaller retail focus areas within the sector plan area.

The downtown area or Transit-Oriented Development (TOD) core contains the tallest buildings, with 8- to 14-story office and residential towers surrounding the Largo Town Center Metro Station. The TOD core transitions into outer neighborhoods with a range of high- and moderate-density civic/institutional, commercial office, and residential mixed-use development. Buildings in these areas range from 4 to 10 stories in height. East of Landover Road, a new community of three-story townhomes has been built. (See Map 6: Recommended Building Heights Plan on page 19.)

Largo Town Center serves as a major multimodal transportation hub with excellent highway and transit (bus and Metrorail) connections to support the new development. The area is buffered by a network of trails and open spaces that provide needed green and open space for residents. The roadway network is transformed into a network of pedestrian- and bicyclist-friendly complete streets.

Vision Elements

A new mixed-use TOD core that focuses on the Largo Town Center Metro Station. The TOD core is anchored by the extension of Harry S Truman Drive north to Arena Drive as a boulevard-like landscaped green street. The preferred buildout scenario for the TOD core features a major new institutional use—a new regional medical center, expanded university satellite campus, or GSA tenant—on a site south of Arena Drive and within convenient walking distance of the Metro station. Along with the new institutional use, a complementary mix

of residential and commercial uses fosters round-the-clock activity and a genuine sense of place. A compact, connected grid of streets includes many small blocks and a variety of street and building types. The TOD core functions as a place to live, work, play, and visit, with its interrelated uses and built environment forming a cohesive, vibrant whole.

The former Boulevard at the Capital Centre shopping center has been replaced by a new main street commercial retail district that lines both sides of Harry S Truman Drive Extended. The new main street includes destination and neighborhood-oriented retail uses on ground floors with offices and residences on the upper floors. A smaller cluster of retail uses links Harry S Truman Drive to a new public green at the Metro station via a new local street. (See Map 7: TOD Core Concept Plan on page 20.)

Expanded primary civic center to consolidate county services. The consolidation of a variety of county services at a single location has resulted in an expanded civic center north of the TOD core. The expanded government services center is an employment and cultural destination with a mix of government, cultural, educational, office, and hotel uses. New road connections make the TOD core accessible by transit and on foot. The modified street grid is punctuated and complemented by civic places that accommodate a variety of needs from public gatherings and cultural activities to quiet contemplation.

Healthcare center. The existing private healthcare complex at this location (Kaiser Permanente) has been joined by more specialized, mostly private health care providers in several medical services buildings. Healthcare-related retail uses are located in ground floor space in one or two of the new buildings.

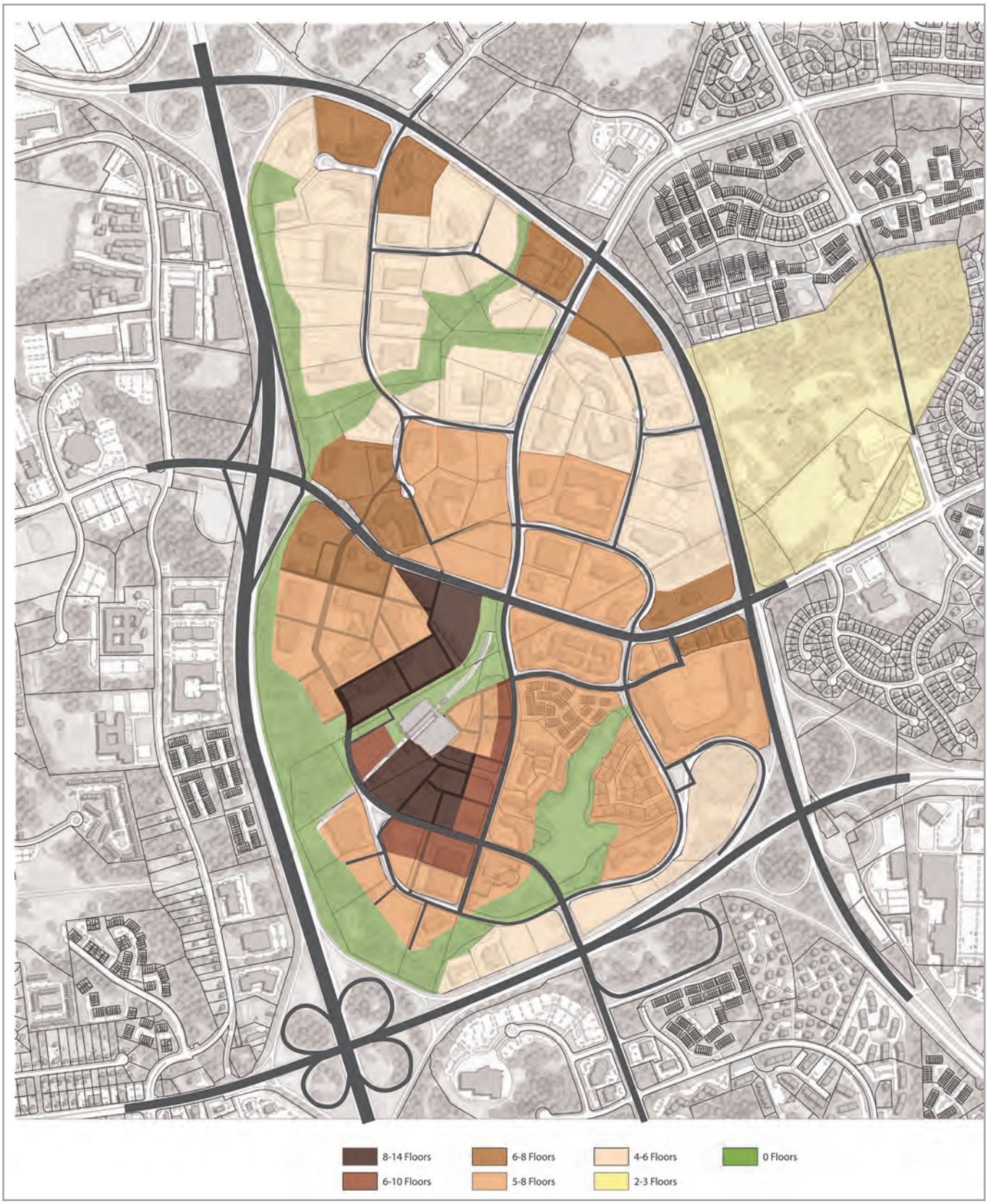
A variety of neighborhoods with a range of housing types. Largo Town Center includes a variety of neighborhoods, including housing integrated into mixed-use districts; high-density multifamily residential neighborhoods; and townhome neighborhoods. A large concentration of high-density multifamily residential units are located in the TOD core west of Lottsford Road. East and south of Largo Center Drive, moderate- to medium-density multifamily residential development buffers the sector plan area from the highway noise of Landover Road and Central Avenue (MD 214). The old Largo Town Center Shopping Center has been replaced by new medium-density multifamily residences over reconfigured retail services that continue many of the services offered by the former shopping center. This mixed-use residential complex fronts Arena Drive and is no longer set back from the street, enabling greater access and walkability. A large townhome community sits on formerly undeveloped land that is bisected by the now-completed Campus Way North.

These neighborhoods achieve a successful housing mix, offering housing opportunities across a broad spectrum of ages and incomes. The area includes mixed-income and workforce housing in a variety of housing types, which range from single-family attached townhomes to higher-density apartment buildings of various sizes. The housing mix accommodates older adults and families with children, as well as singles and couples seeking an urban lifestyle in Prince George's County. The multifamily units throughout the sector plan area are a mix of rental and condominium units, but most will be rental units in the near term due to market forces. As the market shifts, rental units can be converted to condominiums with tenants having the right of first refusal. Ultimately, rental and condo units abound the entire plan area in addition to the for-sale single-family attached townhomes. In short, county residents in the Largo Town Center sector plan area now have the option to "age in place" without fear of involuntary displacement or other loss in their quality of life.

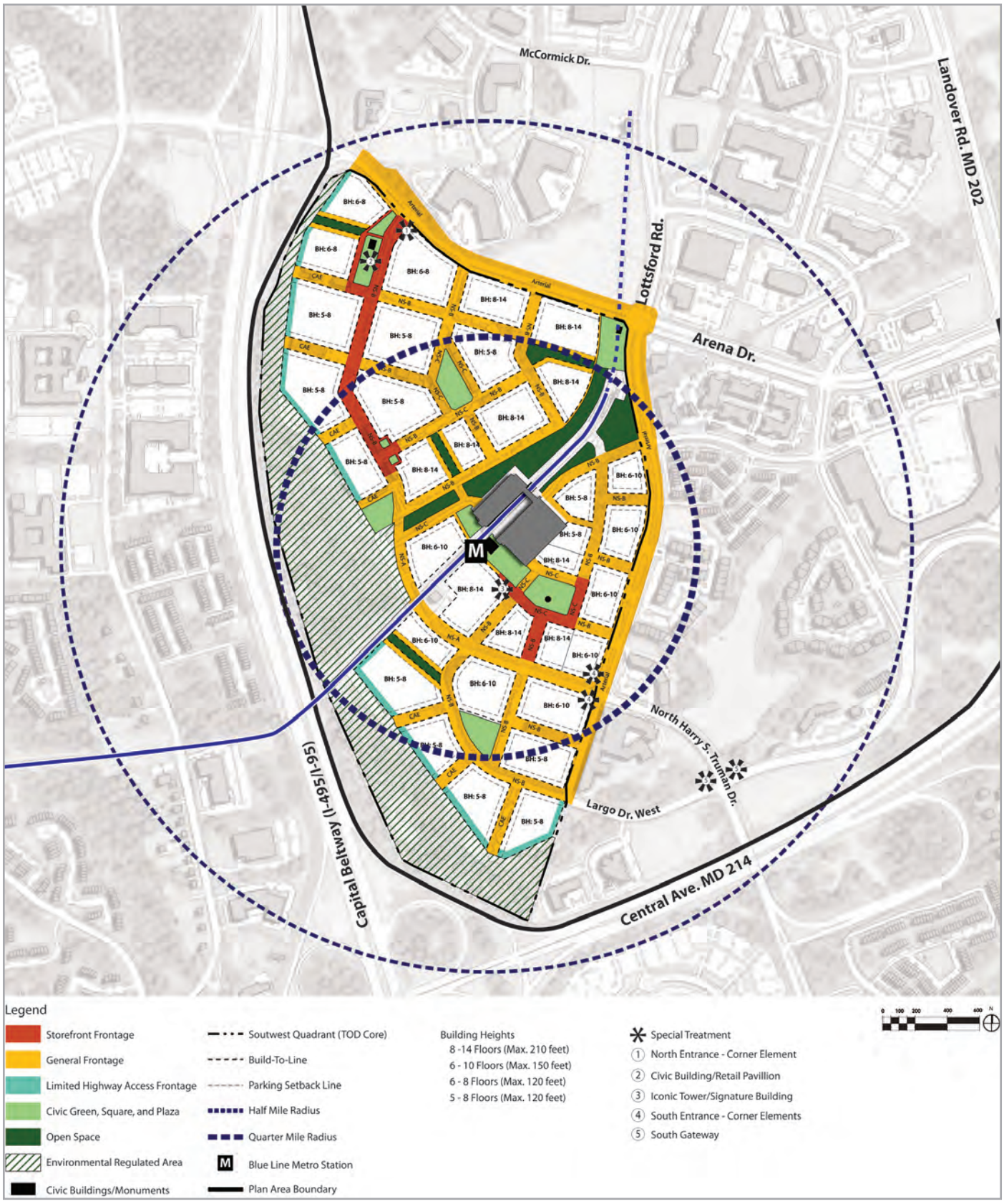
Economic development and a vital economic mix. The area offers a variety of employment opportunities and generates substantial tax-based revenue for the county, especially with the addition of a major institutional user. Largo Town Center accommodates a diverse mix of business opportunities, having attracted anchor office tenants to this regional destination with its rich mix of retail and restaurants. At the same time, needed neighborhood-oriented services are found at several select locations within the sector plan area. By combining compatible uses within walking distance of each other, the area achieves a synergy and vitality that continues well past the end of the workday. In this 18- to 24-hour-a-day regional destination, residents and visitors patronize local and national businesses; cultural uses enliven the TOD core and civic center; and major employers provide a daytime and, in the case of a regional hospital, nighttime population to support businesses.

A fully-integrated, multimodal transportation system. The vision for Largo Town Center provides a

Map 6: Recommended Building Heights Plan



Map 7: TOD Core Concept Plan



comprehensive, multimodal transportation network that fully accommodates public transit, automobiles, pedestrians, and bicyclists through the application of complete street principles. A key component of the vision for Largo Town Center is enhanced highway and Metrorail access to other key destinations in the region, including downtown Washington, D.C., Montgomery County, northern Virginia, and all three regional commercial airports (Ronald Reagan Washington National, Washington Dulles International, and Baltimore/Washington International Thurgood Marshall). An urban street grid with smaller blocks and no cul de sacs encourages travel on foot and bicycle within the area by providing a safe pedestrian/bicyclist environment.

All former one-way streets in the area south of the Metro Blue Line rail overpass have been converted to two-way streets with abundant on-street parking. Arena Drive, McCormack Drive, and Lottsford Road have been transformed into boulevard-like streets with green medians, curb bumpouts at intersections, lighted bus stop shelters with real-time transit service information, pedestrian-scaled streetlights, and pedestrian-activated crossing signals with countdown displays. The former flying right-turn entrance ramp from Largo Center Drive to westbound Central Avenue has been reconfigured into a 90-degree, three-way intersection with Largo Center Drive. East of Landover Road, a completed Campus Way North provides direct connections between residential areas northeast and southeast of the sector plan area and helps to divert local traffic away from Landover Road. (See Map 8: Proposed Street Network on page 25.)

An enhanced and expanded network of open space and civic places, Largo Town Center includes an expanded open space network that comprises publicly and privately owned greens and plazas, linear parks, promenades, natural resource-based parkland, and recreational amenities. The open space system provides focal places in the hearts of neighborhoods, settings for public gatherings and events, opportunities for quiet contemplation and appreciation of nature, attractive connections between destinations, and opportunities for passive and active recreation that are located in safe places. The open space system is tied together by expanded trail connections linking Largo Town Center with surrounding areas.

Improved pedestrian, bicycle, and trail connections. The Largo Town Center area encourages residents and visitors alike to leave their automobiles behind. All destinations are accessible by a continuous network of sidewalks, safe pedestrian crossings, bicycle routes, and new trail connections. New development emphasizes pedestrian and bicycle linkages to schools, parks/recreational areas, and commercial and employment centers for all ages. Largo Town Center's pedestrian- and bicyclist-friendly built environment encourages its residents to make much healthier personal mobility choices. (See Map 9: Illustrative Community Open Space and Bicycle Path Plan on page 26.)

An environmentally sensitive and security-conscious site design. Largo Town Center incorporates environmentally sensitive design and stormwater management practices that (1) minimize and manage stormwater at its source, thereby protecting local and regional watersheds from harmful runoff; and (2) counteract the "urban heat island effect" through a reduction in heat-retaining impervious surfaces (i.e., building roofs, paved surface parking lots, and too-wide streets). The area includes open spaces that combine stormwater management functions and publicly and privately owned amenities. New development minimizes impervious surfaces and employs other low-impact design techniques. Following a "green streets" model, Largo Town Center features many street trees and multipurpose green spaces that function as community amenities as well as areas for stormwater infiltration. In sum, the Largo Town Center sector plan area features an expanded network of green spaces and places that connect with natural resource areas.

All new public buildings and most—if not all—new privately built buildings in the sector plan area are designed to qualify for leadership in energy and environmental design (LEED) certification (LEED Gold or better for public buildings). Crime prevention through environmental design (CPTED) principles have also been incorporated into the design of buildings and public spaces throughout the sector plan area to minimize or eliminate opportunities for crime. Key CPTED features include continuously lighted public streets and open spaces, building façades that promote "eyes on the street" surveillance, and publicly accessible spaces whose design invites use and "ownership" by residents and visitors.

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EXHIBIT 58

PROJECT BUDGETS

***NOTE**: These costs have not been adjusted for inflation. They are only being presented for comparison purposes.*

				PGHC			WAH	MHE	Germantown	Clarksburg
1.	Capital Costs:			Completeness			CON Application	Completeness	Modification	Modification
	a.	New Construction		Hospital/ACC	Central Utility Plant	TOTAL				
		(1)	Building	$257,572,688	$9,646,917	$267,219,605	$136,300,000	$125,193,045	$86,809,872	$66,870,000
		(2)	Fixed Equipment (not included in construction			$0			$3,439,500	
		(3)	Land Purchase	$12,350,000		$12,350,000	$11,000,000	$2,000,000	$7,746,016	
		(4)	Site Preparation	$23,904,693	$895,307	$24,800,000	$10,400,000	$36,015,484	$7,139,623	$6,067,000
		(5)	Architect/Engineering Fees	$17,350,181	$649,819	$18,000,000	$13,200,000	$17,400,000	$5,975,188	$5,892,000
		(6)	Permits (Building, Utilities, Etc.)	$5,397,834	$202,166	$5,600,000	$700,000	$4,107,718	$1,174,369	$2,312,000
			SUBTOTAL	$316,575,395	$11,394,210	$327,969,605	$171,600,000	$184,716,247	$112,284,568	$81,141,000
	b.	Renovations								
		(1)	Building							
		(2)	Fixed Equipment (not included in construction							
		(3)	Architect/Engineering Fees							
		(4)	Permits (Building, Utilities, Etc.)							
			SUBTOTAL	$0	$0	$0				
	c.	Other Capital Costs								
		(1)	Major Movable Equipment	$107,000,000	$31,000,000	$138,000,000	$20,400,000	$22,000,000	$14,636,677	$16,665,000
		(2)	Minor Movable Equipment	$42,400,000		$42,400,000	$13,600,000	$4,100,000	$23,118,707	$3,500,000
		(3)	Contingencies	$38,555,957	$1,444,043	$40,000,000	$11,300,000	$7,000,000	$12,104,857	$6,572,000
		(4)	Other (Specify)	$15,600,000		$15,600,000	$30,900,000	$18,200,000	$3,734,055	$11,996,000
			SUBTOTAL	$203,555,957	$32,444,043	$236,000,000	$76,200,000	$51,300,000	$53,594,296	$38,733,000

				PGHC			WAH	MHE	Germantown	Clarksburg
			TOTAL CURRENT CAPITAL COSTS (a - c)	$520,131,352	$43,838,253	$563,969,605	$247,800,000	$236,016,247	$165,878,864	$119,874,000
	d.	Non-Current Capital Costs								
		(1)	Inflation	$26,488,323	$992,072	$27,480,395	$9,400,000	$4,679,795	$1,409,242	$7,887,000
		(2)	Capitalized Construction Interest	$46,574,555	$3,925,445	$50,500,000	$50,288,600	$24,901,333	$3,313,105	$13,023,000
	TOTAL PROSOSED CAPITAL COSTS (a – e)			$593,194,230	$48,755,770	$641,950,000	$307,488,600	$265,597,375	$170,601,211	$140,784,000
	2. Financing Cost and Other Cash Requirements:									
		a.	Loan Placement Fees	$6,560,759	$539,241	$7,100,000	$5,260,600	$600,000	$550,307	$6,687,000
		b.	Bond Discount					$970,000	$533,588	
		c.	Legal Fees (CON Related)	$184,810	$15,190	$200,000	$223,970	$700,000	$200,000	
		d.	Legal Fees (Other)	$92,405	$7,595	$100,000	$0	$0	$250,000	
		e.	Printing							
		f.	Consultant Fees							
			CON Application Assistance	$277,215	$22,785	$300,000	$129,280	$100,000	$500,000	$150,000
			Other (Specify)	$277,215	$22,785	$300,000		$300,000	$4,348,751	
		g.	Liquidation of Existing Debt							
		h.	Debt Service Reserve Fund	$16,355,694	$1,344,306	$17,700,000	$26,303,000	$14,973,000		$6,880,000
		i.	Principal Amortization							
			Reserve Fund							
		j.	Other (Specify)							$2,580,000
		TOTAL (a - j)		$23,748,098	$1,951,902	$25,700,000	$31,916,850	$17,643,000	$6,382,646	$16,297,000
	3. Working Capital Startup Costs			$109,200,000		$109,200,000	0	$0	$25,000,000	$20,000,000
	TOTAL USES OF FUNDS (1 - 3)			$726,142,328	$50,707,672	$776,850,000	$339,405,450	$283,240,375	$201,983,857	$177,081,000

EXHIBIT 59

DIMENSIONS HEALTHCARE SYSTEM

Prince George's Hospital Center

CLINICAL PATHWAY
CARDIAC SURGERY - PART I

DRG #:

Expected LOS 4 Days

	Date PRE-OP	Date 1st 30 MIN POST OP	Date 30 MIN - 4 HRS POST OP	Date 4-12 HRS POST OP	Date POST OP DAY 1
PT / FAMILY EDUCATION	❑ Pt/family will verbalize understanding of pre/post-op routines ❑ Pre-op visit to CCC and PCRU ❑ Family to wait in CCC Waiting area for surgeon ❑ Cardiac Surgery patient/family booklet given ❑ Identify family spokesperson / complete family database ❑ Advance Directives discussed / form completed	❑ Explain procedures to reassure pt ❑ Allow immediate family in ASAP; review family database	❑ Orient family to pt condition ❑ Family spokesperson updated on pt's status ❑ If awake, continue to orient pt to surroundings /procedures	❑ Orient to surroundings when awake	❑ Initiate / progress with Cardiac Surgery Teaching Plan
D/C Planning	❑ Assess for D/C support/needs ❑ Home situation discussed /evaluated ❑ Mended Heart referral				❑ Transfer to PCRU
DAILY EVALUATION	**2400 - 0730** **Progress on Target?** ❑ Yes ❑ No* Signature / Title **Requires a Progress Note*	**2400 - 0730** **Progress on Target?** ❑ Yes ❑ No* Signature / Title **Requires a Progress Note*	**2400 - 0730** **Progress on Target?** ❑ Yes ❑ No* Signature / Title **Requires a Progress Note*	**2400 - 0730** **Progress on Target?** ❑ Yes ❑ No* Signature / Title **Requires a Progress Note*	**2400 - 0730** **Progress on Target?** ❑ Yes ❑ No* Signature / Title **Requires a Progress Note*
	0730 - 1600 **Progress on Target?** ❑ Yes ❑ No* Signature / Title **Requires a Progress Note*	**0730 - 1600** **Progress on Target?** ❑ Yes ❑ No* Signature / Title **Requires a Progress Note*	**0730 - 1600** **Progress on Target?** ❑ Yes ❑ No* Signature / Title **Requires a Progress Note*	**0730 - 1600** **Progress on Target?** ❑ Yes ❑ No* Signature / Title **Requires a Progress Note*	**0730 - 1600** **Progress on Target?** ❑ Yes ❑ No* Signature / Title **Requires a Progress Note*
	1600 - 2400 **Progress on Target?** ❑ Yes ❑ No* Signature / Title **Requires a Progress Note*	**1600 - 2400** **Progress on Target?** ❑ Yes ❑ No* Signature / Title **Requires a Progress Note*	**1600 - 2400** **Progress on Target?** ❑ Yes ❑ No* Signature / Title **Requires a Progress Note*	**1600 - 2400** **Progress on Target?** ❑ Yes ❑ No* Signature / Title **Requires a Progress Note*	**1600 - 2400** **Progress on Target?** ❑ Yes ❑ No* Signature / Title **Requires a Progress Note*

NAME PLATE

3-845 (9/00) (13f)

3-845 (9/00) (f3l)

DIMENSIONS HEALTHCARE SYSTEM
Prince George's Hospital Center

DRG #:
Expected LOS 4 Days

CLINICAL PATHWAY
CARDIAC SURGERY - PART I

NAME PLATE

	Date	Date	Date	Date	Date
	PRE-OP	**1st 30 MIN POST OP**	**30 MIN - 4 HRS POST OP**	**4-12 HRS POST OP**	**POST OP DAY 1**
ACTIVITY	❑ Activity at pre-hospital level	❑ Bedrest with HOB ⇑ 30°, if hemodynamically stable	❑ Bedrest/turn side to side q 2 hrs if stable ❑ HOB ⇑ 30° if stable	❑ Turn q 2 hrs ❑ HOB ____ / FOB ____ ❑ 2 hrs after extubation, pt tolerated dangling at bedside _____ min w/O dizziness ⇒ tolerated OOB to chair for _____ min ❑ Walk 10-20' w/assist	❑ Scoot in bed/dangle at EOB w/assist ❑ OOB x 2 to chair ❑ OOB for meals ❑ Comb hair/wash face w/out assist ❑ Ambulate 30' in room w/assist or to BR ❑ ROM UE (elbow-distally) / LE
TXS	❑ Central line insertion ❑ A-Line insertion ❑ Antiembolism stockings in place	❑ Warming blankets if T < 35.5° C ❑ Chest Tube milked PRN ❑ NG Tube ❑ Foley ❑ Restraints to prevent extubation ❑ Antiembolism stockings in place	❑ Weight ❑ I/O q 1 hr ❑ CVP, PA reading q 1 hr ❑ CO continuous or PRN ❑ Pacer PRN for HR ≤ 40 ❑ NG Tube ❑ Foley ❑ Antiembolism stockings in place	❑ D/C NG tube if drainage < 50 cc/hr ❑ Dressing change/reinforce per MD order ❑ Cough, deep breathe and IS q 1 hr while awake ❑ IS < 1200 ml, institute nebulization therapy and IPPB therapy ❑ D/C sheaths as appropriate ❑ I/O q 1 hr ❑ Antiembolism stockings in place	❑ I/O q 1 hr ❑ Initiate peripheral IV line ❑ D/C central lines ❑ D/C chest tubes if ~~bleeding~~ drainage ≤ 100 cc ❑ Antiembolism stockings in place ❑ Cough, deep breathe and IS q 4 hr while awake
MEDS	❑ Anti-hypertensive meds ❑ Anti-arrhythmic meds ❑ HS medication given, if needed ❑ O_2 therapy, if indicated ❑ IV fluids initiated	❑ Anti-arrhythmic, if ectopy ❑ May be administered to maintain hemodynamic state within parameters: ❑ Dopamine ❑ Nitroprusside ❑ Epinephrine ❑ NTG ❑ Dobutamine ❑ Milrinone ❑ Neosynephrine ❑ Magnesium per protocol ❑ Hyperglycemia protocol or Insulin drip ❑ KCL per protocol ❑ Acetaminophen PRN for T > 101.5° F ❑ Pain relieved with IV medications per standing orders: ❑ Fentanyl ❑ Morphine Sulfate ❑ Midozolam ❑ IVFs maintained per pt condition ❑ Albumin/Hespan/Blood products per MD orders for hypovolemia ❑ Administer IV antibiotics as ordered ❑ H_2 blocker agent	❑ Anti-arrhythmic, if ectopy ❑ May be administered to maintain hemodynamic state within parameters: ❑ Dopamine ❑ Nitroprusside ❑ Epinephrine ❑ NTG ❑ Dobutamine ❑ Milrinone ❑ Neosynephrine ❑ Magnesium per protocol ❑ Hyperglycemia protocol or Insulin drip ❑ KCL per protocol ❑ Acetaminophen PRN for T > 101.5° F ❑ Pain relieved with IV medications per standing orders: ❑ Fentanyl ❑ Morphine Sulfate ❑ Midozolam ❑ IVFs maintained per pt condition ❑ Albumin/Hespan/Blood products per MD orders for hypovolemia ❑ Administer IV antibiotics as ordered ❑ H_2 blocker agent	❑ D/C IV anti-arrhythmic ⇒ PO, if ectopy ❑ Titrate / D/C vasopressors as able to maintain hemodynamic parameters ❑ Pain relieved with IV analgesics and anxioloytics ❑ Evaluate/continue pre-op meds ❑ Continue KCL and Magnesium protocol ❑ O_2 via face mask @ 40%, maintain O_2 sat ≥ 92% → repeat here.	❑ PO anti-arrhythmic if ectopy ❑ Oral KCL protocol ❑ HS medication, if needed ❑ D/C IV antibiotic ❑ Acetaminophen PO PRN FOR T > 101.5° F ❑ ECASA ❑ Pain relieved with PO medication ❑ Bisacodyl supp x 2, if needed ❑ Metoprolol 12.5 mg PO BID if SBP > 110 and pt is off Inotropes ❑ IV anticoagulation therapy, if valve patients ❑ Beta Blockers ❑ O_2 by NC at 4-6 L / min

3-845 (9/00) (f3f)

DIMENSIONS HEALTHCARE SYSTEM
Prince George's Hospital Center

DRG #:
Expected LOS 4 Days

CLINICAL PATHWAY
CARDIAC SURGERY - PART I

NAME PLATE

	Date	Date	Date	Date	Date
	PRE-OP	**1st 30 MIN POST OP**	**30 MIN - 4 HRS POST OP**	**4-12 HRS POST OP**	**POST OP DAY 1**
ASSESSMENT / MONITOR	❑ Database completed with attention to cardiovascular, respiratory and neurological assessments	❑ Pt adequately ventilated with 100% O_2 with PAO_2 > 95% and SVO_2 between 60%-80% ❑ $ETCO_2$ between 35-45 ❑ Pt hemodynamically stable with vasopressor support and volume ❑ Heart sounds clear ❑ Pt temp ≥ 95° F ❑ Breath sounds clear bilaterally ❑ Chest tube drainage < 100 cc/hr ❑ Urine output ≥ 30 cc/hr ❑ NG drainage < 50 cc/hr ❑ All dressings D/I ❑ VS Assessed q 15-30 min ❑ O_2 sat maintained ≥ 92%	❑ Pt adequately ventilated with 60% O_2 with PAO_2 > 95% and SVO_2 between 60%-80% ❑ CVP, PAP, PACWP and C.O, C.I, WNL ❑ Pt hemodynamically stable with vasopressor support and volume ❑ Heart sounds clear q 2 hr ❑ Tolerating weaning from ventilator ❑ Breath sounds clear bilaterally ❑ Chest tube drainage < 100 cc/hr ❑ Urine output ≥ 30 cc/hr ❑ NG drainage < 50 cc/hr ❑ Pt less somnolent ❑ All dressings D/I ❑ O_2 sat maintained ≥ 92%	❑ Weaning Parameters ❑ Pt extubated; FiO_2 40% with PAO_2 > 95% and SVO_2 between 60%-80% ❑ Pt hemodynamically stable with ⇓ vasopressor support/ ⇓ volume support ❑ Heart sounds clear q 2 hr ❑ Breath sounds clear bilaterally q 4 hrs ❑ Chest tube drainage < 100 cc/hr ❑ Urine output ≥ 30 cc/hr ❑ NG drainage < 50 cc/hr with bowel sounds present ❑ Pt awake, alert and oriented to surroundings ❑ All dressings D/I ❑ $K^+ \geq 4$	❑ Pt hemodynamically stable with no IV vasopressor support and ⇓ volume to KVO ❑ Chest tube drainage < 100 cc/hr ❑ Arrhythmias controlled by meds ❑ No s/s infection/emboli ❑ Heart sounds clear q 2 hr ❑ Breath sounds clear bilaterally q 4 hrs ❑ Pt adequately ventilated with face mask 40% /nasal O 4-6 L /min; SAO_2 > 92% and SVO_2 between 60%-80% ❑ Urine output ≥ 30 cc/hr ❑ Pt w/O neuro deficits ❑ All dressings D/I ❑ Incision open to air / cleaned with betadine BID ❑ Incision well approximated with no redness/drainage
CONSULTS	❑ Pulmonary ❑ Case Management - assess family support/identify D/C needs ❑ Anesthesia ❑ Spiritual Support				❑ Food and Nutrition ❑ PM & R
TESTS / PROCEDURES	❑ Consents obtained to include: surgery/anesthesia, placement of central lines and blood ***Pre-admission testing on chart:*** ❑ CXR ❑ EKG ❑ CBC ❑ CMP ❑ PT, PTT, INR ❑ Type/Screen ❑ Type/Cross - 4 units PRBC; Platelets ❑ Cardiac Cath/results ❑ ECHO ❑ Urinalysis ❑ Pulm Function Studies ❑ Carotid Doppler Studies	Done STAT ❑ CBC ❑ BMP ❑ PT ❑ PTT ❑ INR ❑ EKG ❑ Cardiac enzymes ❑ CXR ❑ ABG ❑ COOX ❑ ABG Ven ❑ ABG Ven Coox	❑ Mg, if ectopy	❑ CBC ❑ K^+ q 6 hrs x 4 ❑ H/H - 6 hrs post-op ❑ 12 lead EKG PRN for dyrrhythmia ❑ CXR - 8 hrs post-op	❑ CBC ❑ BMP ❑ 12 lead EKG ⇒ PRN for arrhythmias ❑ ABG ❑ CXR
NUTRITION	❑ NPO 6 hrs before surgery	❑ NPO	❑ NPO	❑ Ice chips ⇒ Clear Liquid when bowel sound present ⇑ as tolerated	❑ Advance as tolerated

3-845 (9/00) (f3l)

DIMENSIONS HEALTHCARE SYSTEM
Prince George's Hospital Center

DRG #:
Expected LOS 4 Days

CLINICAL PATHWAY
CARDIAC SURGERY - PART I

NAME PLATE

CLINICAL PATHWAY - CARDIAC SURGERY - PART I

START DATE & INITIALS	PROTOCOLS	DISCIPLINE	MODIFICATIONS	STOP DATE & INITIALS
	IV Therapy PT 17	Nursing		
	Oxygen Therapy PT 15	Nursing		
	Magnesium Sulfate CCA 31	Nursing		
	Dopamine CCA 6A	Nursing		
	Dobutamine CCA 7A	Nursing		
	NTG CCA 32	Nursing		
	KCL Protocol CCA 24	Nursing		
	Pain Management PT 4	Nursing		
	Thrombolytic CCA 11A	Nursing		
	Patient Safety PT 40	Nursing		
	Restraint Protocol PT 66	Nursing		

Date of Admission _____ Date of Discharge _____

Pathway initiated on *(Date)* _____ by _____

Pathway shared with Patient / Family on *(Date)* _____ by _____

3-846 (3/05) (f3f)

DIMENSIONS HEALTHCARE SYSTEM

Prince George's Hospital Center

DRG #:

Expected LOS 4 Days

CLINICAL PATHWAY
CARDIAC SURGERY - PART II

PATIENT LABEL

CLINICAL PATHWAY - CARDIAC SURGERY - PART II

START DATE & INITIALS	PROTOCOLS	DISCIPLINE	MODIFICATIONS	STOP DATE & INITIALS
	IV Therapy PT 17	Nursing		
	Oxygen Therapy PT 15	Nursing		
	Dopamine CCA 6B	Nursing		
	Dobutamine CCA 7B	Nursing		
	Pain Management PT 4	Nursing		
	Patient Safety PT 40	Nursing		
	Restraint Protocol PT 66	Nursing		

Date of Admission _____ Date of Discharge _____

Pathway initiated on *(Date)* _____ by _____

Pathway shared with Patient / Family on *(Date)* _____ by _____

DIMENSIONS HEALTHCARE SYSTEM
Prince George's Hospital Center

DRG #:
Expected LOS 4 Days

CLINICAL PATHWAY
CARDIAC SURGERY - PART II

PATIENT LABEL

	Date	Date	Date	Date
	POST OP DAY 2	POST OP DAY 3	POST OP DAY 4	DISCHARGE OUTCOMES
TXS	❑ D/C peripheral IV line ⇒ saline lock ❑ Cough, deep breathe and IS q 4 while awake	❑ Saline lock in tact ❑ Cough, deep breathe and IS q 4 while awake ❑ Complete pacer wire care (mediastinal/pleural/leg)	❑ D/C saline lock ❑ Cough, deep breathe and IS q 4 while awake ❑ DC pacer wires	
MEDS	❑ K + t per KCL protocol ❑ ECASA ❑ Stool softener ❑ Consider adjustmentof diuretic ❑ Beta blocker ❑ Antihypertensive ❑ Wean IV anti-coagulation therapy ⇒ PO anticoagulation therapy; if valve patient.	❑ ECASA ❑ Stool softener ❑ Consider adjustment of diuretic ❑ Beta blocker ❑ Antihypertensive ❑ PO Coumadin; if valve patient ❑ Cholesterol agent	❑ ECASA ❑ Stool softener ❑ Consider adjustment of diuretic ❑ Beta blocker ❑ Antihypertensive ❑ PO Coumadin; if valve patient ❑ Cholesterol agent	❑ Patient stable on current medication therapy
PT / FAMILY EDUCATION	❑ Patient verbalizes understanding of pathway expectations ❑ Continue to progress with Cardiac Surgery Teaching Plan ❑ Provide handouts on activity/exercises	❑ Continue to progress with Cardiac Surgery Teaching Plan ❑ Reinforce previous education as needed ❑ Patient/family verbalize risk factor modification	❑ Continue to progress with Cardiac Surgery Teaching Plan ❑ Reinforce previous education as needed ❑ Patient/family verbalize risk factor modification ❑ Patient/family verbalize understanding of continuing energy conservation exercises for life ❑ Verbalize energy conservation/apply w/cues	❑ Verbalizes understanding of D/C instructions including meds, activity, diet, F/U care with MD
D/C Planning	❑ D/C needs assessed/documented	❑ Patient/family express preference for post-hospital care	❑ D/C plans for post hospital care arranged based on patient/family preference	
DAILY EVALUATION	**2400 - 0800** **Progress on Target?** ❑ Yes ❑ No* Signature / Title **Requires a Progress Note*	**2400 - 0800** **Progress on Target?** ❑ Yes ❑ No* Signature / Title **Requires a Progress Note*	**2400 - 0800** **Progress on Target?** ❑ Yes ❑ No* Signature / Title **Requires a Progress Note*	
	0800 - 1600 **Progress on Target?** ❑ Yes ❑ No* Signature / Title **Requires a Progress Note*	**0800 - 1600** **Progress on Target?** ❑ Yes ❑ No* Signature / Title **Requires a Progress Note*	**0800 - 1600** **Progress on Target?** ❑ Yes ❑ No* Signature / Title **Requires a Progress Note*	
	1600 - 2400 **Progress on Target?** ❑ Yes ❑ No* Signature / Title **Requires a Progress Note*	**1600 - 2400** **Progress on Target?** ❑ Yes ❑ No* Signature / Title **Requires a Progress Note*	**1600 - 2400** **Progress on Target?** ❑ Yes ❑ No* Signature / Title **Requires a Progress Note*	

3-846 (3/05) (13i)

DIMENSIONS HEALTHCARE SYSTEM
Prince George's Hospital Center

DRG #:
Expected LOS 4 Days

CLINICAL PATHWAY
CARDIAC SURGERY - PART II

PATIENT LABEL

	Date	Date	Date	Date
	POST OP DAY 2	**POST OP DAY 3**	**POST OP DAY 4**	**DISCHARGE OUTCOMES**
TXS	❑ D/C peripheral IV line ⇒ saline lock ❑ Cough, deep breathe and IS q 4 while awake	❑ Saline lock in tact ❑ Cough, deep breathe and IS q 4 while awake ❑ Complete pacer wire care (mediastinal/pleural/leg)	❑ D/C saline lock ❑ Cough, deep breathe and IS q 4 while awake ❑ DC pacer wires	
MEDS	❑ K + t per KCL protocol ❑ ECASA ❑ Stool softener ❑ Consider adjustmentof diuretic ❑ Beta blocker ❑ Antihypertensive ❑ Wean IV anti-coagulation therapy ⇒ PO anticoagulation therapy; if valve patient.	❑ ECASA ❑ Stool softener ❑ Consider adjustment of diuretic ❑ Beta blocker ❑ Antihypertensive ❑ PO Coumadin; if valve patient ❑ Cholesterol agent	❑ ECASA ❑ Stool softener ❑ Consider adjustment of diuretic ❑ Beta blocker ❑ Antihypertensive ❑ PO Coumadin; if valve patient ❑ Cholesterol agent	❑ Patient stable on current medication therapy
PT / FAMILY EDUCATION	❑ Patient verbalizes understanding of pathway expectations ❑ Continue to progress with Cardiac Surgery Teaching Plan ❑ Provide handouts on activity/exercises	❑ Continue to progress with Cardiac Surgery Teaching Plan ❑ Reinforce previous education as needed ❑ Patient/family verbalize risk factor modification	❑ Continue to progress with Cardiac Surgery Teaching Plan ❑ Reinforce previous education as needed ❑ Patient/family verbalize risk factor modification ❑ Patient/family verbalize understanding of continuing energy conservation exercises for life ❑ Verbalize energy conservation/apply w/cues	❑ Verbalizes understanding of D/C instructions including meds, activity, diet, F/U care with MD
D/C Planning	❑ D/C needs assessed/documented	❑ Patient/family express preference for post-hospital care	❑ D/C plans for post hospital care arranged based on patient/family preference	
DAILY EVALUATION	**2400 - 0800** **Progress on Target?** ❑ Yes ❑ No* Signature / Title **Requires a Progress Note*	**2400 - 0800** **Progress on Target?** ❑ Yes ❑ No* Signature / Title **Requires a Progress Note*	**2400 - 0800** **Progress on Target?** ❑ Yes ❑ No* Signature / Title **Requires a Progress Note*	
	0800 - 1600 **Progress on Target?** ❑ Yes ❑ No* Signature / Title **Requires a Progress Note*	**0800 - 1600** **Progress on Target?** ❑ Yes ❑ No* Signature / Title **Requires a Progress Note*	**0800 - 1600** **Progress on Target?** ❑ Yes ❑ No* Signature / Title **Requires a Progress Note*	
	1600 - 2400 **Progress on Target?** ❑ Yes ❑ No* Signature / Title **Requires a Progress Note*	**1600 - 2400** **Progress on Target?** ❑ Yes ❑ No* Signature / Title **Requires a Progress Note*	**1600 - 2400** **Progress on Target?** ❑ Yes ❑ No* Signature / Title **Requires a Progress Note*	

EXHIBIT 60

ADDENDUM A

ADMISSION CRITERIA

		HEART CENTER		
	CCC	CCU	K400	E500
Patient Condition	• Critically ill with high potential for deterioration • Intubated/ imminent risk of • Hemodynamic instability requiring close titration of meds and/or fluids • 1-2 body systems requiring Q1-2Hr assessment	• Critically ill with high potential for deterioration • Intubated/ imminent risk of • Hemodynamic instability requiring close titration of meds and/or fluids • 1-2 body systems requiring Q1-2Hr assessment	• Acutely ill • Hemo-dynamically stable • New onset or chronic dysrhythmia • Intubated with stable resp status • Stable Trach with Mist Mask (TMM)	• Acutely ill • Hemo-dynamically stable • New onset or chronic dysrhythmia • No ventilators at this time • Stable Trach Mist Mask (TMM)
Procedures	• Mechanical ventilation • Vaso-active drips requiring titration • IABP • ICP monitoring • CVVHD/ Hemofiltration • Tight glucose control • Rapid blood transfusions • Concentrated electrolyte infusions • Cardiac pacing	• Mechanical ventilation • Vaso-active drips requiring titration • IABP • Cardiac pacing • Elective cardioversion • Tight glucose control • Concentrated electrolyte infusions • Rapid blood transfusions	• IV infusions • IV medications • Renal level vaso-active drugs • Aggressive pulmonary toilet • Cardiac pacing: permanent • Non-concentrated electrolyte infusions	• IV infusions • IV medications • Renal level vaso-active drugs • Aggressive pulmonary toilet • Non-concentrated electrolyte infusions
Limitations	• ≤ 15 years	• ≤ 18 years	• ≤ 18 years	• ≤ 18 years • No ventilators at this time

ADDENDUM A

ADMISSION CRITERIA

		HEART CENTER		
	CCC	CCU	K400	E500
Physician Orders	• Intensivist • ICU Resident • ICU PA	• CCU Resident • Cardiologist	• Attending Physician • Internal Medicine Resident • PA	• Attending Physician • Internal Medicine Resident • PA
Patient Age	• ≥ 15 years	• ≥ 18 years	• ≥ 18 years	• ≥18 years
Vital Signs	• Q 1-2 Hrs or more frequent as patient condition warrants	• Q 1-2 Hrs or more frequent as patient condition warrants	• Q 2 -4 hrs	• Q 2 -4 hrs
Cardiac Monitoring	• Invasive hemodynamic monitoring (arterial/PA lines) • Cardiac monitoring • SVO_2 or continuous pulse oximetry	• Invasive hemodynamic monitoring (arterial/PA lines) • Cardiac monitoring • SVO_2 or continuous pulse oximetry	• Cardiac telemetry monitoring for unstable cardiac patients	• Cardiac telemetry monitoring for unstable cardiac patients

EXHIBIT 61

Dimensions Healthcare System

COMMUNITY HEALTH NEEDS ASSESSMENT

PRINCE GEORGE'S HOSPITAL CENTER

JUNE 7, 2013

Prepared by: **University of Maryland**
School of Public Health
Health Services Administration
Dr. Lori Simon-Rusinowitz, *Principal Investigator, Associate Professor*
Dr. Jie Chen, *Co-Principal Investigator, Assistant Professor*
Dawn Hamilton, *JD, Project Manager, MHA Student*
Robin Bloodworth, *Ph.D Student*
Raphael Gaeta, *Ph.D. Student*

Submitted to: **Dimensions Healthcare System**
Michael King, *Vice President Reimbursement and Business Development*
Patty Tihansky, *Director of Strategic Planning and Analysis*
Shervon Yancey, *Community Based Health Manager*

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OVERVIEW
PRINCE GEORGE'S HOSPITAL CENTER

Prince George's Hospital Center (PGHC) was founded in 1944, and is a 224-bed acute care teaching hospital and regional referral center located in Cheverly, Maryland. PGHC is a member of Dimensions Healthcare System (DHS), and is the largest not-for-profit hospital in Prince George's County. The hospital offers a comprehensive range of inpatient and outpatient medical and surgical services, including trauma and critical care, cardiac care, open-heart surgery and therapeutic catheterization, maternal and child health services, obstetrics/gynecology, senior health care, behavioral health, domestic violence, diabetes, and other services. Approximately 50% of the patient population is either uninsured or covered by Medicaid, which makes PGHC a vital safety net hospital.

In fiscal year (FY) 2012, PGHC admitted over 13,500 patients, and had nearly 95,000 outpatient visits in FY 2012. The hospital has the second busiest trauma center in the state of Maryland, and sees over 3,000 trauma patients per year. Its Emergency Department is a state designated Level II Trauma Center. PGHC offers a designated ST-Elevation Myocardial Infarction (STEMI) center with a comprehensive Cardiac Care Program, providing 24-hour cardiac catheterization and open-heart surgery capabilities for all acute heart emergencies, and is the only hospital in Prince George's County that provides these services. The hospital offers a state of the art Intensive Services Pavilion,

and a Level III Neonatal Intensive Care Unit. In addition, PGHC has the only 24-hour hospital based comprehensive sexual assault center in Maryland. The hospital also operates a free-standing 24-hour emergency department located in Bowie, Maryland.

Prince George's Hospital Center provides a wide scope of community programs, including those that focus on diabetes management and education, breast health, domestic violence, HIV testing, smoking cessation, senior health, and childbirth. PGHC has implemented a community-based care transition program aimed at reducing readmissions, lowering emergency department utilization, reducing health care costs and the incidence of childhood obesity. The hospital also offers support groups geared toward patients with medical issues involving brain injury, cardiac rehabilitation, as well as survivors of rape and sexual abuse, and those with alcoholism.

BACKGROUND AND LEGISLATION

IRS requirement: Community benefit. A non-profit hospital qualifies for federal tax exemption from the IRS if it meets certain requirements, which includes utilizing a percentage of its resources to fund activities and services that benefit the community. The community benefit requirement is based on the principle that the government's loss of tax revenues is offset by the hospital's allocation of a percentage of its financial resources to benefit the public welfare, which the government would otherwise have to expend. Community benefit (CB) services and activities include:

- Charity care
- Health education and screening to vulnerable populations
- Mission driven health services, and
- Medical research and education for health professionals that benefit the greater good.

Federal intervention: IRS requirement to file Schedule H. In 2005, the Government Accountability Office (GAO) found that non-profit hospitals were not defining community benefit in a consistent manner that would enable policymakers to hold them accountable for providing benefits commensurate with their federal tax-exempt status. Thereafter, the IRS issued a requirement that non-profit hospitals file Schedule H (Form 990), which:

- Summarizes charity care policies
- Documents the hospital's community benefit programs

- Identifies how the hospital is meeting community health care needs
- Describes other activities associated with tax-exempt status, and
- Distinguishes between charity care and bad debt.

Maryland State Intervention: Health Services Cost Review Commission (HSCRC) – mandatory community benefit reporting. In 2005, the HSCRC began to require non-profit hospitals to report annually on community benefit activities and services. The HSCRC CB report covers the fiscal period of July 1 to June 30 and is due each year on December 15. Pursuant to HSCRC regulations, a "community benefit" is defined as an activity that is intended to address community needs and priorities through disease prevention and improvement of health status, including:

- Services to vulnerable and underserved populations
- Financial and in-kind support of public health programs
- Donations of funds, property and other resources
- Health care education, screening and prevention, and
- Health care cost containment activities.

In 2011, Maryland hospitals reported providing $1.203 billion in community benefits, and the CB spending for each hospital was 9.2% of its total operating expenses on average.

- Prince George's Hospital Center's FY 2011 CB expenditure was 18.8% of its total operating expenses. The rate was more than 2 times higher than the state average, primarily due to the hospital's substantial expenditures on charity care and mission-driven physician subsidies.

Federal community health needs assessment legislation: Patient Protection and Affordable Care Act of 2010 (PPACA). Under the PPACA, and IRC 501 (r), hospitals are required to conduct a CHNA every three years to identify the significant health needs in the communities they serve, and create a strategic plan to meet at least some of those needs. PGHC must complete a community health needs assessment by June 30, 2013. The hospital must develop and adopt an Implementation Strategy Plan (ISP) by November 15, 2013, which aims at meeting some of the health needs identified in the assessment.

The CHNA should be based on the findings of multiple types of data collection and analysis, and must include input from individuals who represent the broad interests of the community served by the hospital.

Community Health Needs Assessment Requirements

Part 1: Community Health Needs Assessment

- Purpose: identification of significant health needs within the hospital service area.
    - Significant health needs are determined based on
        - Burden, scope, urgency, importance to the community, and health disparities issues.
    - Hospital must address some of the health needs identified from CHNA.

- Hospital is not required to address all identified health needs, but it must explain why the needs are not being addressed (i.e. lack of resources, not feasible to address)

Part 2: Implementation Strategy

- Purpose: design and implement community benefits activities that effectively address selected significant health needs, through hospital programs, activities and partnerships with local community and public health organizations.
- Outcome: a written plan that is submitted with Schedule H (Form 990) and made widely available to the public.
- Date of plan adoption: the ISP is considered "adopted" on the date it is approved by the hospital's and/or Dimensions Healthcare System's Board of Directors.
- Requirements:
  - Describe how the hospital plans to meet the selected need(s) and conduct an impact evaluation for each strategy.
  - Explain why the hospital does not intend to address other needs.
  - Evaluate the ongoing progress of strategies set forth in the ISP.
  - Describe mechanism for ongoing assessment of the ISP and set forth the data sources being used to monitor the plan.
  - Identify all programs and resources the hospital is committing to address the selected needs.

- Describe any planned collaboration with other hospitals, community health organizations, county health department, etc.
- Submit an annual progress report regarding the ISP, along with Schedule H (Form 990).

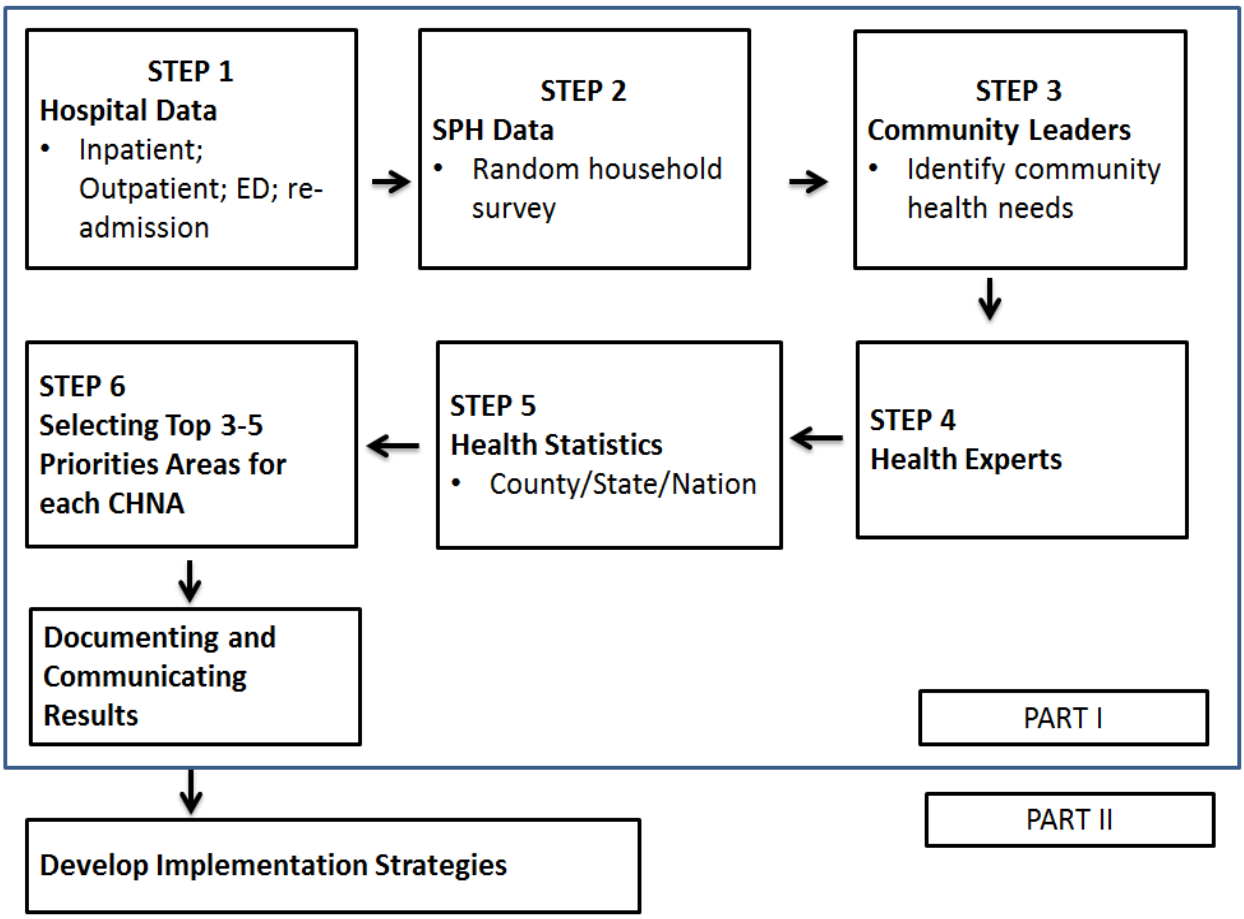
The CHNA must be made widely available to the public and accessible on the hospital's website. Any hospital that fails to comply with the CHNA requirement can lose their non-profit status and be subject to a $50,000 excise tax penalty.

According to the federal CHNA requirements, the PGHC CHNA has two parts.

Part 1: Community Health Needs Assessment

Multiple methods were used to study the significant health needs within PGHC hospital service area (HSA). Specifically, the PGHC CHNA has 6 sections (Figure 1).

Figure 1. ***PGHC CHNA Six-Step Analysis Strategy***



- Step 1: Analysis of PGHC hospital discharge data to identify the most frequent diseases within PGHC HSA.
- Step 2: Analysis of a household survey among Prince George County residents in 2012 to evaluate residents' perception of health needs.
- Step 3: Professionally facilitated meeting among Prince George's County community leaders to get in-depth opinions of community health needs.
- Step 4: Professionally facilitated meeting among Prince George County health experts to get in-depth opinions of community health needs.
- Step 5: Collection of the existing county, state, and national statistics of health needs as the reference to the PGHC CHNA findings.
- Step 6: Identification of top 3-5 significant health needs of PGHC HSA through the analyses from steps 1–5; recommendations of meaningful health improvement plans will be developed and discussed as well.
- Final CHNA that documents the CHNA methods, results, and recommendations.

Part 2: Implementation Strategy Plan (ISP)

Based on CHNA developed in Part 1, PGHC will develop an ISP to address selected community health needs. The objective of the ISP is to engage in community benefits activities that effectively improve community health.

Step 1

Data. The primary data sources were PGHC Inpatient, Outpatient, and Emergency Department (ED) Discharge Data from January 2010 – November

2012. These hospital discharge data provided detailed information on patients, including age, gender, ICD9 codes, as well as the zip codes of their residence.

Method. The top zip codes listed in Table 2 represented 62% of all PGHC inpatient discharge data from 2010-2012, and hence were considered as PGHC Hospital Services Area (HSA). We summarized patient demographic characteristics and health insurance coverage, and calculated the ICD9 codes by frequency to identify the most common diseases reported in each of these three departments (i.e. inpatient, outpatient, and ED) at PGHC HSA (i.e. among the listed zip codes).

Results.

Patient demographic characteristics. Approximately 82%-86% of patients were African Americans, 7%-10% were Hispanics, and 4%-6% were Whites (see Table 3 for more detailed information). Discharges for female patients were from 56%-60% of the total discharges. The majority of patients were working age adults (63%-77%), followed by children (13%-19%), and elders (8%-18%).

Health care access. Medicaid provided the major insurance coverage (almost half of inpatients and about a third of outpatient and ED patients); private insurance covered about a quarter of patients; Medicare covered a smaller percentage of patients (ranging from 10% of outpatients to 23% of inpatients), and about a quarter of outpatients and ED patients were uninsured (Table 4).

Final health priorities identified using hospital discharge data.

The diseases listed in Table 5 were identified based on the findings from PGHC inpatient, outpatient and ED discharge data. The summary statistics for each of these health concerns were presented in the following Analysis section.

Analysis

1. Statistics from PGHC inpatient discharge data

   Top diseases (% of inpatient discharges) (Table 6):

   - Schizophrenic disorders (6%)
   - Current conditions complicating pregnancy childbirth, such as Diabetes or abnormal glucose tolerance complicating pregnancy (3%)
   - Septicemia (3%)
   - Mood disorders (3%)
   - Heart failure (3%)
   - Diabetes (2%)

2. Statistics from PGHC outpatient data

   Top diseases (% of outpatient discharges) (Table 7):

   - Symptoms involving respiratory system and other chest symptoms (5%)
   - Current conditions complicating pregnancy childbirth (5%)
   - Other symptoms involving abdomen and pelvis (3%)
   - General symptoms, such as fever, dizziness and giddiness, syncope and collapse (3%)

3. Statistics from PGHC ED discharge data

   Top diseases (% of ED discharges) (Table 8):

   - Symptoms involving respiratory system and other chest symptoms (10%)
   - Other symptoms involving abdomen and pelvis (6%)
   - General symptoms, such as fever, syncope and collapse, dizziness and giddiness (6%)

Study limitations. First, hospital discharge data might not fully reflect the health needs at different health care sectors, such as primary care, nursing home, etc. It is also likely that some residents in PGHC HSA might seek health care at other hospitals or clinic centers (Random Household Survey 2012). However, Step 2 – Step 5 of this report were conducted to complement these limitations. Please see the following sections for the details. Second, it is worth noting that our analyses presented the overall health needs at the HSA level. Top diseases of specific populations, such as elderly populations, racial and ethnic minorities, might differ.

Step 2

Data. The primary community data source employed in this study is the University of Maryland School of Public Health Public Health Impact Study (SPH PHIS) Random Household Survey 2012. The Random Household Survey is a telephone interview survey of Prince George's County residents 18 years and older (n = 1,001). The overall response rate is 29%. All the following findings

were adjusted for sampling weights to ensure that the results were county-wide representative (Random Household Survey Technique Report).

Results.

Self-reported health needs. The majority of the residents reported excellent or very good health status (52%). Residents reported the following urgent health conditions in Prince George's County: cancer (17.2%), diabetes (15.7%), obesity (10%), high blood pressure/hypertension (9.1%), HIV/AIDS (8.4%), and heart disease (8.1%) (Table 9).

Health care access. Approximately 25% of Prince George's County residents did not have a usual source of care, 17% were uninsured, and 17% had delayed necessary health care. Residents reported that the cost, access, and quality were the major barriers to receiving health care in Prince George's County (Table 10).

Health care urgency in Prince George's County. When asked about what services were perceived as being vital to have in Prince George's County, 77% reported urgent care, 68% reported alcohol and drug abuse treatment, and 63% reported mental health treatment (Table 11).

Perception of PGHC. Approximately 47% of the respondents reported favorable view to the overall opinion of PGHC, 35% reported an unfavorable view. Among those who reported an unfavorable view, respondents identified the most important factors that could change their opinions. Adding more quality staff was the most important factor, followed by adding quality physicians and improving facilities and equipment (Table 12).

Study limitations. SPH PHIS data were designed at the county level. Survey weights at PGHC HSA were not available. Nevertheless, we calculated the summary statistics of the PGHC hospital services area (n=391). Analysis revealed similar top health concerns and health care barriers.

Step 3 and Step 4

Background. Two community input meetings were conducted as part of the Prince George's Hospital Center (PGHC) Community Health Needs Assessment (CHNA), one with community leaders and one with health experts. The purpose of these meetings was to obtain the views from individuals who represent the broad interests of the community served by PGHC, as explicitly required by the IRS. Additionally, the qualitative data provided contextual and explanatory information to complement the quantitative findings. Furthermore, incorporating multiple types of data created convergence of findings, facilitated triangulation thereby strengthening the overall findings of the CHNA.

Methods. The community leaders input meeting was conducted on March 21, 2013 at the University of Maryland, College Park, School of Public Health (SPH). Participants were selected based on their knowledge of community health needs within the PGHC service area and representation of various community stakeholder groups, such as vulnerable and underserved populations. They were selected using the SPH Public Health Impact Study (PHIS) community leaders interview list, PHIS inventory of community health organizations, and with suggestions from Dimensions Healthcare System (DHS). Examples of participant affiliations include Prince George's County Health

Department, Federally Qualified Health Centers, faith-based organizations, and business leaders. A total of 9 community leaders participated.

The health experts input meeting was conducted on April 8, 2013 at PGHC. Participants were selected using input from DHS and PGHC hospital leaders who suggested key informants able to provide information about the community health needs within the PGHC service area. Examples of participant types include hospital board members, administrators, physicians, and nurses. A total of 11 health experts participated.

The protocol for each meeting was approved by the University of Maryland Institutional Review Board. Participants provided written informed consent at the beginning of each input meeting including their authorization to audio record the meeting discussion. Both meetings were professionally facilitated using a standard facilitator guide. The facilitator guide included the following discussion items which were consistent with the broader CHNA study questions:

- Based on your experience, what are the urgent health conditions facing the community?
- What are some of the root causes for these conditions?
- What are the top three to five health priorities on which the hospital should focus?
- How can the hospital work with other agencies in the community to address these public health priorities?
- What are existing community/hospital resources that can be leveraged as the hospital works to address these priorities?

- What are potential barriers to addressing these priorities?

Study team members attended both input meetings and used field note taking to capture the information that emerged throughout the meeting discussions. The audio recordings were used as necessary in order to clarify points of confusion and confirm study team observations. Field notes were consolidated, and then analyzed using an inductive/emergent coding approach in which similar information was organized by category/theme. A final list of themes was determined by consensus discussion in which study team members agreed on significant themes to be reported as findings. These findings are presented in the following results section.

Results. The following themes emerged from the community leaders and health experts input meetings. These themes represent the significant community health needs as identified by input meeting participants. A discussion of the significant dimensions of each theme is given. Observations provided exclusively by community leaders, exclusively by health experts, and overlapping observations are addressed. Themes are not listed in any particular order.

Access to health services. Participants from both meetings addressed the problem of access to health services. In particular, they discussed barriers associated with the high cost of care/insurance. Community leaders and health experts addressed the need for affordable prescription drugs. Health experts further discussed the problem of individuals using emergency department services for prescription refills. Both groups also discussed the large uninsured population, including the unemployed and working poor, who seek services at

PGHC, while a significant proportion of insured community members seek their health care outside of Prince George's County. Community leaders also addressed the need for more dental services and enhanced health services for the elderly.

Availability of specialists and health services. Community leaders and health experts discussed the need to increase the availability of specialty care providers and specific health services in the PGHC service area. Both groups discussed the need for more prenatal care specialists and services. Additionally, community leaders addressed a wide range of needed specialty care including nephrology, endocrinology, cardiology, orthopedics, podiatrist, nutritionists, gastroenterologists, HIV/AIDS infectious disease specialists. They also mentioned the need for more dental care, which is often overshadowed by other health care needs. Diversion programs were also suggested to redirect patients using the emergency department inappropriately (e.g. for primary care).

Coordinated and integrated care. Health experts discussed the need for coordinated and integrated care. Specifically, they addressed the need for continuity of behavioral health care from the emergency room to outpatient and then home/community based care. Meeting participants also discussed the need for continuity of maternal/child care. Health experts noted that PGHC has the opportunity to continue providing care to women and infants after childbirth, however, mothers and their children are not often followed-up. Additionally, participants discussed the need for improved coordination of treatment and services for the elderly post hospital discharge since this population is at high risk

of readmission. More coordination was suggested for supporting patients to navigate the health benefits system (e.g. prescription drugs).

Preventive and basic care. The need for adequate preventive and basic care was listed as a significant community health need by community leaders and health experts. Health experts discussed the need for a greater safety net to deliver basic health services and screenings, education materials, and other supports. They mentioned that annual health fairs do not adequately meet the community's need for prevention, compared to continuous care services. They also underscored the importance of access to screenings, noting that delayed diagnosis results in disease advancing more quickly, than it would if the disease had been detected earlier, and treated sooner.

High prevalence of behavioral health issues. Behavioral health was listed as one of the top health concerns in PGHC service area. Community leaders and health experts discussed the high prevalence of substance abuse including alcohol and illicit drug use as well as mental health problems including post-traumatic stress disorder (PTSD), depression, schizophrenia, and bipolar disorder. Alcohol use was listed as a significant problem because of the frequency of alcohol related hospital admissions. These admissions tend to occupy hospital beds, and delays admission for others. Also, the co-occurrence of substance abuse and mental health issues was noted as a particularly significant problem as it often negatively affects patients' ability to self-manage their conditions. These patients often have high levels of need but strained relationships with family, friends, employers and others in their support system.

Both community leaders and health experts talked about domestic and community violence as an underlying contributor to the high prevalence of behavioral health problems in the community. Community leaders reported that the origins of PTSD among certain immigrant populations in the community may also be associated with exposure to civil war in their native countries and fear of arrest/deportation.

High prevalence of chronic disease. Health experts discussed the high prevalence of chronic illness in the PGHC service area including obesity, diabetes, asthma, heart disease, coronary disease, renal failure, strokes, and congestive heart failure. They explained that these conditions result from untreated diabetes, cholesterol, and high blood pressure and that exacerbating these chronic illnesses are patient lack of education, access to care/insurance, and high rates of smoking.

Health education and awareness. Participants from both input meetings addressed the need for greater health education and awareness among community members of the PGHC service area. They discussed the need for better disease management education to patients before discharge. They urged increased awareness of community-based health services and support for organizations that assist with post-discharge care management and benefits navigation and enrollment.

Community perceptions of PGHC. Community leaders and health experts addressed the need to improve the community perception of PGHC. While PGHC is known to provide excellent trauma and neonatal intensive care

services, community leaders indicated that community members feel less positive about other services provided by PGHC. Both community leaders and health experts explained that a substantial proportion of community members seek health services outside of Prince George's county. They indicated that the problem may be due to the low visibility of PGHC in the community.

Commitment to collaboration. Community leaders and health experts expressed a strong desire to collaborate with PGHC to expand health care services and work together to meet community health needs.

Proposed strategies. Community leaders and health experts proposed a variety of strategies for PGHC to address the significant community health issues identified during the input meetings. These proposed strategies are organized in Table 13 according to the specific community health need(s) that the proposed strategy seeks to address.

Study limitations. No research methodology is without flaws. The information provided by sub-groups of community leaders and health experts may not fully represent the true community health needs of the PGHC hospital service area. Their views and opinions may not be generalizable to other community leaders and health experts in the PGHC hospital service area who did not participate in the input meetings. Also, the presence and behaviors of the study team during the input meetings may have introduced interviewer bias. For example, participants may have answered discussion questions based on their interpretation of interviewer cues or based their beliefs about what the study team expects to hear. Biases may have emerged from potential participant

motivation to draw attention to a particular community health issue or proposed strategy that aligns with their specific interests.

Step 5

National, State, and County health statistics were collected as reference for PGHC CHNA (Table 14). Healthy People 2020 sets several overarching health-related goals for America in the year 2020. These goals are to (1) attain high-quality, longer lives free of preventable disease, disability, injury, and premature death; (2) achieve health equity, eliminate disparities, and improve the health of all groups; (3) create social and physical environments that promote good health for all; and (4) promote quality of life, healthy development, and healthy behaviors across all life stages. In addition, the National Prevention Strategy (2011) defines nationwide health priority areas. These priority areas are tobacco free living, preventing drug abuse and excessive alcohol use, healthy eating, active living, injury and violence free living, reproductive and sexual health, and mental and emotional well-being.

The state of Maryland issued a State Health Improvement Plan (2011) which identifies effective programs to achieve the top vision areas for the state. These programs focus on healthy babies, healthy social environments, safe physical environments, infectious diseases, chronic diseases, and health care access. The Prince George's County Health Improvement Plan from 2011 to 2014 identified the top priority areas for the county, which include access to health care, chronic diseases, reproductive health, infectious diseases, safe and healthy physical environments, and safe and healthy social environments. Prince

George's County Health Improvement Plan also sets out specific implementation strategies to achieve improvement in each priority area.

Discussion

This Community Health Needs Assessment (CHNA), based on multiple data sources and multiple types of data, provides a sound basis to guide hospital leaders in selecting priority areas for the CHNA Implementation Strategy Plan and developing a plan to address these areas. The U-MD SPH team based the CHNA findings upon the following quantitative and qualitative data sources:

1) Hospital data spanning January, 2010 – November, 2012 for inpatient, outpatient, and emergency department (ED) services, analyzed for Maryland zip codes comprising the hospital service area (HSA);
2) County-wide, household survey data (n=1001) collected for the U-MD SPH Public Health Impact Study that assessed residents' perceptions of health service needs;
3) A professionally facilitated meeting of nine Prince George's County community agency leaders designed to assess their views of health needs in the HSA; and
4) A professionally facilitated meeting of 11 Prince George's County health experts designed to assess their views of health needs in the HSA.
5) National, state, and county health service priority areas from Healthy People 2020, 2011 National Prevention Strategy, 2011 Maryland State Health Improvement Plan (SHIP), and 2011 Prince George's County Health Improvement Plan (CHIP);

This discussion will highlight key findings and identify areas of commonality among the various data sources. This section draws from the previously presented findings and a synthesis of all data sources presented in Table 1. This discussion informs recommendations intended to guide hospital leaders in conducting the next steps required for the CHNA.

PGHC patient demographic information. PGHC hospital inpatient, outpatient, and ED data describe a racially diverse patient population who are primarily working age adults with limited access to private insurance. The vast majority of patients are African American (over 80%), and there is a Hispanic presence (just under 10%). Medicaid provides the major insurance coverage (almost half of inpatients and about a third of outpatients and ED patients); private insurance covers about a quarter of patients (ranging from 20% of inpatients to 29% of ED patients); Medicare covers a smaller percentage of patients (ranging from 10% of outpatients to 23% of inpatients), and about a quarter of outpatients and ED patients were uninsured (Table 4).

The majority of patients (ranging from two-thirds of inpatients to three-fours of outpatient and ED patients) are working age adults, followed by children (ranging from 13% ED patients to 19% inpatients), and elders (ranging from 8% of outpatients to18% inpatients). Over half of all patients are women (ranging from 56% ED patients to 62% outpatients).

Top diseases to be addressed. All data sources spoke to some similar high priority diseases needing to be addressed. The SPH team analyses of PGHC data, across all hospital departments, indicated that the following six

disease areas are top priorities: mental disorders, conditions complicating pregnancy and childbirth (e.g. diabetes), septicemia, heart failure, diabetes, and respiratory disorders. Respondents from the county-wide survey identified two of these diseases, heart disease and diabetes, as urgent health conditions in the county. They also mentioned obesity and high blood pressure, which can be conditions complicating pregnancy and childbirth. The majority of respondents from the county-wide survey also identified nutrition education (59%) and physical activity programs (58%) as vital needs, which are often related to heart disease, diabetes, and pregnancy complications. Community leaders and health experts also discussed the importance of addressing diabetes, obesity, and heart disease. While the State and County Health Improvement Plans did not mention specific diseases, the top diseases identified by analyses of PGHC data fit in the categories discussed in these plans.

All respondents spoke about the need to expand mental health and substance abuse services. When asked if the availability of specific services was vital in the County, more than half of survey respondents mentioned mental health treatment (63%), alcohol and drug abuse treatment (68%), smoking cessation (46%) and stress management (48%). These four areas may be included in the broader category of “behavioral health,” which combines mental health and substance use disorder diagnoses. Community leaders and health experts addressed the high prevalence of behavioral health issues, specifically mentioning mental health issues, substance abuse, and the co-occurrence of these conditions. They pointed to the high prevalence of hospital admissions for

these problems, and the need for treatment of diseases including schizophrenia, bipolar disorder, depression, post-traumatic stress disorder for immigrants coming from war torn countries, and violence resulting from these behavioral health problems. These diseases reflect several national priority areas.

Access to health services. Three data sources spoke clearly about limitations in access to health services among patients in the PGHC service area. As indicated in Table 1, access includes five components: affordability, accessibility, availability, accommodation, and acceptability (Penchansky & Thomas, 1981). Community leaders and health experts spoke about the need to address all of these aspects of access to health care services, with a focus on the high cost of insurance, services, and prescription drugs. They specifically mentioned the need to increase the number of specialists, expand pre-natal and maternal/child services, enhance health services for elders, and increase access to dental care. The county-wide survey findings indicated that the vast majority of respondents reported having a usual source of care (75%) and insurance (84%). However, the majority of respondents identified cost of health care and health insurance (over 70%) as well as access to care (about 50%) and quality of care (45-50%) as major problems in Prince George's County. Clearly, stakeholders' concerns about access are important issues needing attention, and they reflect national, state, and county priority areas.

Coordinated and integrated care. The need for improved coordination of care and integration of various types of care (e.g. physical and behavioral health care) are major themes throughout the PPACA. Not surprisingly, the

community leaders and health experts spoke about this key issue. Specifically, they discussed the importance of coordinating behavioral health services from the emergency department to outpatient and community-based services. This coordination involves cross-training for emergency department, primary care, and behavioral health practitioners. Meeting participants also discussed the need to coordinate maternal/child and elder care after these patients leave the hospital and return to their homes and community services. Improved transitions from the hospital to home could also help prevent unnecessary readmissions – another priority for hospitals as they want to avoid financial penalties for these readmissions as defined in the PPACA.

Chronic diseases, prevention, and health education. The community leaders and health experts spoke about the high prevalence of chronic illnesses such as heart disease, diabetes, asthma, obesity, and stroke as well as the need for preventive services and health education. County survey respondents mirrored this focus on prevention and education when identifying programs to address smoking cessation, stress management, physical activity, nutrition counseling, and family planning as “vital” services needed in the County. National, state, and county priorities include these areas. Hospital leaders have an opportunity to acknowledge the importance of health promotion and disease prevention activities through the implementation strategy plan. For example, by creating strategies that align with existing programs, such as the extensive primary health care initiatives the hospital is in the process of developing and

implementing, the hospital can effectively leverage its resources and strengthen its ability to improve access to needed health care services.

Community perceptions about the hospital. The community leaders and health experts as well as county survey respondents addressed community perceptions about the PGHC, noting the high quality emergency department and trauma services. They also recommended that the hospital work toward improving community perceptions about the quality of other services as well as enhancing community involvement and visibility.

Recommendations

The following recommendations are intended to guide hospital leaders in conducting the next steps required by the Affordable Care Act – developing an Implementation Strategy Plan (ISP).

1. Evaluate hospital and community resources to select three top significant health needs to address in the ISP.
2. Create an infrastructure to develop the ISP.
    a. Form an Advisory Committee comprised of health experts and community health care organizations to assist in developing the ISP.
    b. The community health needs assessment (CHNA) findings clearly show that health experts and community leaders want to collaborate to address community health needs.
    c. Form a hospital department or team dedicated to addressing community benefit requirements.

3. Create and implement a plan to expand hospital visibility in the community.
4. Increase community engagement efforts to enhance the public perception that the PGHC offers access to high quality health care providers and services.
5. Increase the hospital's focus on community health initiatives, such as:
    a. developing community partnerships, and
    b. implementing an on-going evaluation of strategies to address community health needs.
6. Support the certificate of need application for the new regional academic medical center with CHNA findings.
7. Recommended CHNA next steps:
    a. PGHC identifies its strengths, resources, and existing programs to inform selection of needs for the ISP.
    b. Consider opportunities to coordinate efforts to select/address health needs with Laurel Regional Hospital, as many identified needs are similar.
    c. Select community health needs based on PGHC strengths, resources, previously stated recommendations (1-6), and IRS requirements. For example, capitalize on the hospital's current efforts and leverage the resources that are being focused on developing and implementing extensive primary health care initiatives.
    d. Develop PGHC ISP by November 15, 2013.

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APPENDIX I

Table 1. ***CHNA Findings – All Data Sources***

ACCESS TO HEALTH CARE SERVICES	LRH	PGHC
Affordability	X	X
Accessibility	X	X
Availability	X	X
Accommodation	X	X
Acceptability	X	X
Need to increase number of specialists	X	X
Need to expand prenatal, maternal/child services	X	X
Need to support and enhance senior health services	X	X
Need to expand health services for harder to reach, vulnerable populations (e.g. women, homeless, Hispanic community, immigrants)	X	
COORDINATION OF CARE	**LRH**	**PGHC**
Primary care	X	X
Prenatal, mother/child care	X	X
Senior care	X	X
Behavioral health	X	X
Integrated care (i.e. primary and behavioral health)	X	X
To access pharmaceuticals	X	X
To provide preventative care (e.g. health screenings)	X	X
Upon release from emergency department	X	X
BEHAVIORAL HEALTH	**LRH**	**PGHC**
Substance abuse/alcohol	X	X
Post-traumatic stress disorder (esp. among immigrants)		X
Violence as a root cause	X	X
HEALTH EDUCATION AND AWARENESS	**LRH**	**PGHC**
Chronic diseases	X	X
Prevention	X	X
Smoking cessation		X
DISEASE, CHRONIC DISEASE, CO-MORBIDITIES	**LRH**	**PGHC**
Schizophrenia, heart failure, diabetes, asthma, obesity	X	X
HIV/AIDS, septicemia, complications from pregnancy/childbirth (e.g. gestational diabetes)		X
Acute kidney failure, care involving rehab procedures	X	
COMMITMENT TO COLLABORATION	**LRH**	**PGHC**
Community leaders and health experts expressed a strong desire to collaborate with the hospital to expand health care services and work together to meet community health needs.	X	X
COMMUNITY PERCEPTIONS OF HOSPITAL	**LRH**	**PGHC**
Perception of high quality emergency department/trauma services		X
Need to enhance community engagement/involvement	X	X
Need to enhance community presence/visibility	X	X
Need to enhance ownership of hospital by community	X	
Need to improve perception quality health care services	X	X

Table 2. ***PGHC Hospital Service Area***

ZIP CODE	CITY
20743	Capitol Heights
20785	Hyattsville
20747	District Heights
20784	Hyattsville, Cheverly, Landover Hills New Carrollton
20706	Lanham, Glenarden, Seabrook
20774	Upper Marlboro, Glenarden, Kettering
20737	Riverdale
20710	Bladensburg
20746	Suitland
20748	Temple Hills
20745	Oxon Hill

Table 3. ***Patients' Demographic Characteristics***

	INPATIENT N=25,890	OUTPATIENT N=96,686	ED N=32,105
Age (%)			
0-17	18.7	13.8	12.7
18-64	63.4	78.4	77.0
65+	17.9	7.8	10.3
Gender (%)			
male	40.0	37.7	43.6
female	60.0	62.3	56.4
Race (%)			
White	5.6	3.8	4.2
African American	81.7	85.9	86.4
Hispanic	9.9	8.1	7.4
Asian	0.5	0.3	0.3
Other	2.4	1.9	1.7

Table 4. ***Patients' Health Insurance Coverage***

	INPATIENT (%)	OUTPATIENT (%)	ED (%)
Medicaid	47.6	36.9	30.2
Medicare	23.0	10.0	13.1
Private Health Insurance	19.6	26.7	28.5
Uninsured	8.8	21.9	25.1
Other	1.1	4.5	3.1

Table 5. ***Top Health Concerns for PGHC (all data sources)***

Top Health Concerns
Mental disorders (schizophrenic and other mood disorders)
Pregnancy and childbirth complications (particularly complications including diabetes and abnormal glucose tolerance)
Septicemia
Heart failure
Diabetes
Respiratory disorders

Table 6. ***Diseases with the Highest Frequency (PGHC Inpatient Discharges January, 2010 – November, 2012)***

Total inpatient discharges at the HSA (n=25,890)			
Disease	**Major ICD9 codes**	**N**	**%**
Schizophrenic disorders	*295.7, 295.3, 295.34, 295.72*	1418	5.5
Pregnancy complications, diabetes or abnormal glucose tolerance complicating pregnancy	*648.21, 648.91, 648.93, 648.81*	847	3.3
Septicemia	*38.9, 38.42, 38.49, 38.12, 38, 38.19, 38.8*	728	2.8
Mood disorders	*296.2, 296.23, 296.24, 296.3, 296.33, 296.34, 296.4, 296.5, 296.54, 296.6, 296.64, 296.8, 296.9*	686	2.6
Heart failure	*428, 428.23,428.3, 428.2*	667	2.6
Diabetes	*250.13, 250.12, 250.02, 250.22, 250.6, 250.62, 250.63, 250.8, 250.82*	622	2.4
Delivery	*V30.00, V30.01*	4307	16.6

Table 7. ***Diseases with the Highest Frequency (PGHC Outpatient Discharges January, 2010 – November, 2012)***

Total outpatient discharges at the HSA: n= 96,686			
Disease	**Major ICD9 codes**	**n**	**%**
Symptoms involving respiratory system and other chest symptoms	*786.5,786.59, 786.51, 786.09, 786.52, 786.05, 786.6*	5133	5.3
Pregnancy complications, diabetes or abnormal glucose tolerance complicating pregnancy	*648.93, 648.83, 648.23, 648.03, 648.13, 648.43*	5008	5.2
Abdominal pain	*789.09, 789.06, 789, 789.03, 789.04, 789.06, 789.01,789.05*	3166	3.3
General symptoms(fever, Malaise and fatigue, syncope, conditions associated with dizziness or vertigo)	*780.6, 780.79, 780.4, 780.2, 780.31*	2723	2.8

Table 8. ***Diseases with the Highest Frequency (PGHC Emergency Department Discharges January, 2010 – November, 2012)***

Total emergency department discharges at the HSA: n= 32,105			
Disease	**Major ICD9 codes**	**n**	**%**
Symptoms involving respiratory system and other chest symptoms	*786.5, 786.51, 786.59, 786.52, 786.2, 786.09, 786.05, 786.07*	3149	9.8
Other symptoms involving abdomen and pelvis	*789, 789.01, 789.02, 789.03, 789.04, 789.06, 789.09, 789.05*	1909	6.0
General symptoms(fever, malaise and fatigue, syncope, conditions associated with dizziness or vertigo)	*780.6, 780.79, 780.4, 780.2, 780.31*	1890	5.9

Table 9. ***County Level Analysis: Patients' Self-Reported Health Needs***

Perceived Health Status %	
Excellent	20.7
Very good	28.3
Good	35.9
Fair	12.8
Poor	2.3
Perceived urgent health condition in the county %	
Cancer	17.2
Diabetes	15.7
Don't know	14.7
Obesity	10.0
High blood pressure/hypertension	9.1
HIV/AIDS	8.4
Heart disease	8.1

Table 10. ***County Level Analysis: Patients' Self-Reported Health Care Access***

Having usual source of care (%)	
Yes	75.4
No	24.6
Insured (%)	
Yes	83.8
No	16.2
Delayed any necessary care in the past 12 months (%)	
Yes	16.9
Delayed due to: no insurance coverage	42
Delayed due to: couldn't afford the cost	20
Delayed due to: couldn't get an appointment	24
Delayed due to: other	16
No	83.1
People are more likely to identify major problems in (%)	
Cost of health care	over 70
Cost of health insurance	over 70
Access to care	approximately 50
Quality of care	45-50

Table 11. *County Level Analysis: Patients' Self-Reported Health Care Urgency*

"Based on your experiences and the experiences of your family, please tell me if the availability of (insert service) is vital to have in Prince George's county?" (%)	
Urgent care	77.1
Alcohol & drug abuse treatment	67.9
Mental health treatment	62.5
Nutrition education or counseling	58.9
Physical activity program	57.7
Family planning services	54.6
Stress management program	47.6
Smoking cessation programs	45.6

Table 12. ***County Level Analysis: Perception of PGHC Health Care Quality***

"Would you say overall you have a favorable or unfavorable opinion of Prince George's Hospital Center?" (%)	
Favorable	47.2
Unfavorable	34.9
Don't know/not sure	17.5
"What would change your unfavorable opinion of Prince George's county hospital?" (%)	
Adding more quality staff other than physicians, such as nursing staff	31.0
All of these are equally important	20.7
Adding new quality physicians to the medical staff	19.1
Improving or modernizing the current facility or build a new facility	17.1
Other	12.1

Table 13. *Community Leaders' and Health Experts' Proposed Strategies to Address Community Health Needs*

Community Health Need	Proposed Strategy
Access to health services; Preventive and basic care; health education and awareness	• Start medical daycare centers and mobile clinics like Montgomery County, or partnering with organizations to provide these services. State waivers exist to financially support these programs. • Partner with mega churches and tiny churches. The faith-based community should be a partner to improve access because this is where the people are. The Board of Trustees, Pastoral Ministry, and other business leaders of the church are the key stakeholders to partner with because they have a pulse on the church and its operations. Churches often do Safe Haven and Warm Nights programs [overnight shelter programs], and interact with the homeless population in need. The churches have the opportunity to deliver health related services through these programs.
Preventive and basic care; Health education and awareness	• Bring services into the community to promote health and intervene early. This could be accomplished through partnerships with community-based organizations (e.g. health department, religious, etc.) by assessing, planning, and traveling into the community together to reach residents where they are. Creative strategies, such as group intervention/appointments in or outside of the hospital, should be used. Another example of a creative strategy suggested by the participants was to offer a cooking class for diabetics. This would bring residents together and increase education and awareness through peer learning and encouragement.
Availability of specialists and health services	• Attracting a better mix of insured and uninsured patients will involve increasing certain health services and providers. For example, PGHC could establish a high quality surgical team (e.g. GYN surgery - maternal and child health) in order to attract a better patient mix. • Place PGHC specialists in the community to increase access to care. • Partner with community based organizations and University of Maryland Medical System, Johns Hopkins Medicine, and Howard University Hospital to link patients to specialty care.
Coordinated and integrated care	• Establish clear processes for PGHC patients when discharged into the community. They need support services from community-based organizations to prevent readmission and be able to manage their disease(s). Doing this correctly requires thorough planning between PGHC and the community. • Establish partnerships between PGHC and the community agencies for emergency room diversion.

Table 14. ***Comparison of National, State, and Local Health Priorities***

Healthy People 2020 Overarching Goals	National Prevention Strategy 2011 Priority Areas	Maryland State Health Improvement Plan (SHIP) 2011 Vision Areas	Prince George's County Health Improvement Plan 2011 Priority Areas
Attain high-quality, longer lives free of preventable disease, disability, injury, and premature death.	Tobacco Free Living	Healthy Babies	Access to Health Care
Achieve health equity, eliminate disparities, and improve the health of all groups.	Preventing Drug Abuse and Excessive Alcohol Use	Healthy Social Environments	Chronic Diseases
Create social and physical environments that promote good health for all.	Healthy Eating	Safe Physical Environments	Reproductive Health
Promote quality of life, healthy development, and healthy behaviors across all life stages.	Active Living	Infectious Diseases	Infectious Diseases
	Injury and Violence Free Living	Chronic Diseases	Safe and Healthy Physical Environments
	Reproductive and Sexual Health	Health care Access	Safe and Healthy Social Environments
	Mental and Emotional Well-Being		

APPENDIX II

List of Organizations Participating in PGHC Community Leaders Input Meeting

1) Casa San Bernardo, Inc./St. Bernard Clairvaux Church

2) Dimensions Health System Senior Health Center

3) Greater Baden Medical Services

4) Prince George's County Chamber of Commerce

5) Prince George's County Council

6) Prince George's County Health Department, Office of the Health Officer

7) Support Our Seniors

EXHIBIT 62

Dimensions Healthcare System

Prince George's Hospital Center

Community Health Needs Assessment
Implementation Strategy Plan
Fiscal Year 2014-2016

INTRODUCTION

Prince George's Hospital Center (PGHC) is an acute care teaching hospital and regional referral center, providing access to high quality healthcare to residents since 1944. The 224-bed facility located in Cheverly, MD, has the second busiest trauma center in the state of Maryland, servicing over 3,000 trauma patients per year. It is the only hospital in Prince George's County that offers a designated ST-Elevation Myocardial Infarction (STEMI) center with a comprehensive Cardiac Care Program, and has the only 24-hour hospital based comprehensive sexual assault center in Maryland. The hospital has also been ranked in the Honor Roll of America's Best Regional Hospitals by U.S. News and World Report.

PGHC is a member of Dimensions Healthcare System, the largest not-for-profit healthcare provider in Prince George's County, caring for more than 150,000 patients each year. The System is comprised of two hospital facilities, one emergency medical center and an ambulatory care/outpatient center. Providing services to individuals residing in Prince George's County and the surrounding areas, PGHC offers a comprehensive range of inpatient and outpatient medical and surgical services, as well as a wide scope of community programs that focus on diabetes management and education, breast health, domestic violence, HIV testing, smoking cessation, senior health, and childbirth.

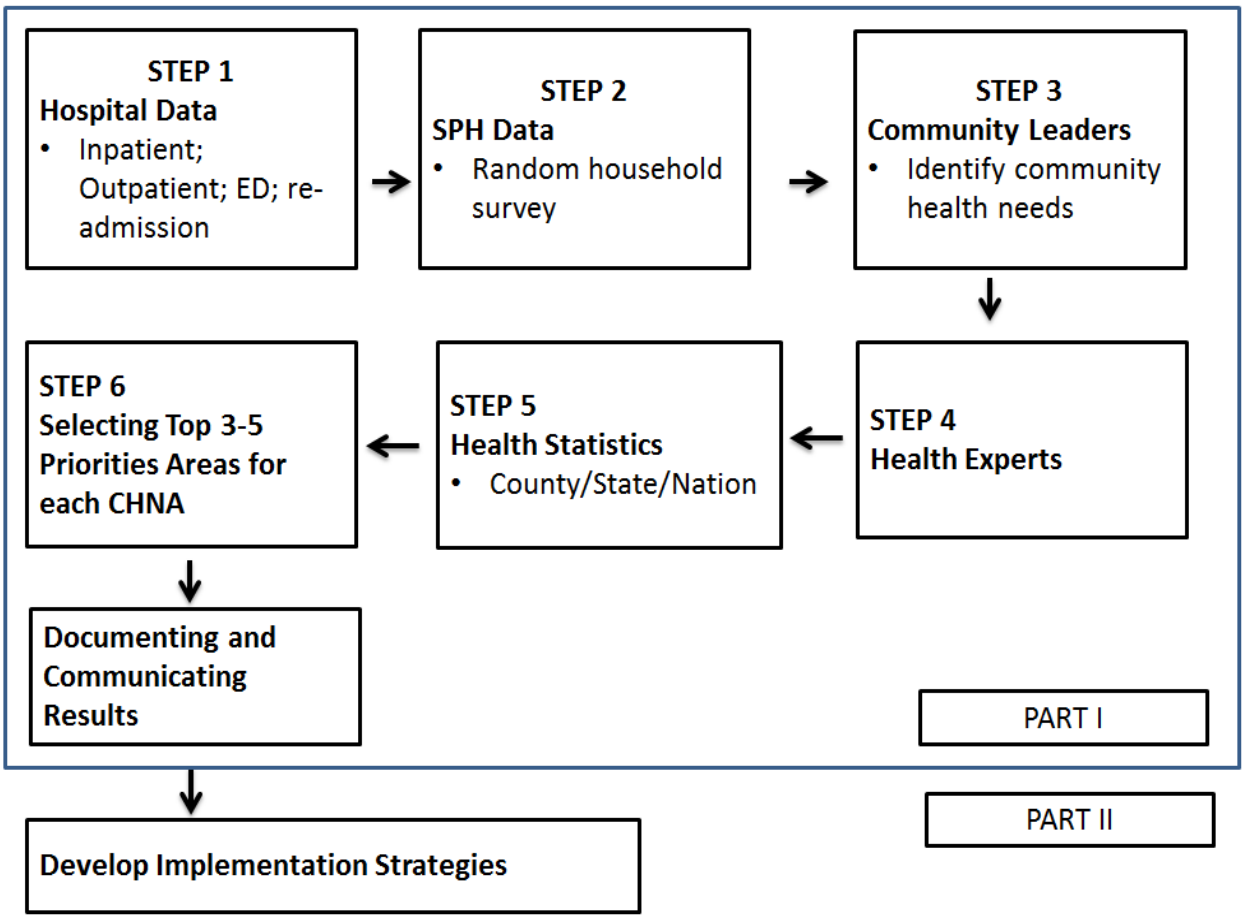
Prince George's Hospital Center, in conjunction with the University of Maryland School of Public Health (UMSPH), conducted a Community Health Needs Assessment (CHNA) in fiscal year 2013. This Implementation Strategy provides a summary of how the hospital plans to address the top community health priorities identified in the assessment for fiscal year 2014-2016.

HEALTH NEEDS IDENTIFICATION & SELECTION

Dimensions Healthcare System employed a system-wide approach inclusive of both Prince George's Hospital Center and Laurel Regional Hospital to identify and select community health needs. Community health needs assessments and implementation strategy plans (ISP) were completed for both hospitals individually with similarity due to some overlap in service area within Prince George's County. PGHC identified and selected community health needs in a two-phase process. In phase one, PGHC collaborated with the University of Maryland School of Public Health to identify community health needs. UMSPH conducted analyses utilizing multiple data sources to assess community needs and identify top health concerns in the PGHC service area. Community needs were assessed in a series of six steps culminating in the identification of significant health needs from which to select for implementation. These steps focused on the analyses of hospital discharge data, a household survey, community

leader and health expert focus groups, and compilation of existing health needs statistics. Each step yielded information about the most frequently presented diseases within PGHC's patient population, resident perception of health needs, community leader and health expert opinions, and county, state and national statistics of health needs.

PGHC CHNA Six-Step Analysis Strategy



In phase two of the process, identified needs were reviewed, selected and prioritized for implementation based on prevalence of community need, existing programming, strengths, resource allocation, operational alignment and partnerships. Need selection was conducted by the Implementation Strategy Plan Task Force (ISPTF), a multidisciplinary team of health administrators with expertise in each of the areas of most concern as documented in the CHNA. Three of the areas of concern were selected as community health needs focus areas for implementation of community health improvement programs and initiatives.

The community health needs focus areas are:

1) Diabetes
2) Heart Disease
3) Pregnancy and Childbirth Complications

Each of the three community health needs focus areas were then linked to three healthcare administration areas. They are:

1) Health Access & Primary Care
2) Disease Prevention & Management
3) Health Integration & Coordination

Community health needs focus areas and health administration areas were aligned, in part, with national, state and local health priorities. This alignment is designed to improve overall access, integration and coordination and to achieve better health outcomes across the continuum of care.

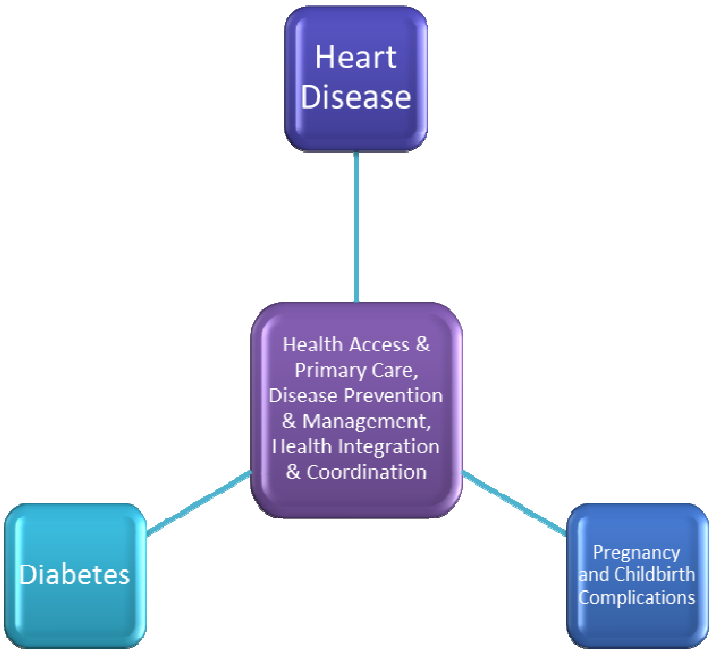
Comparison of National, State, and Local Health Priorities

Healthy People 2020 Overarching Goals	National Prevention Strategy 2011 Priority Areas	Maryland State Health Improvement Plan (SHIP) 2011 Vision Areas	Prince George's County Health Improvement Plan 2011 Priority Areas
Attain high-quality, longer lives free of preventable disease, disability, injury, and premature death.	Tobacco Free Living	Healthy Babies	Access to Health Care
Achieve health equity, eliminate disparities, and improve the health of all groups.	Preventing Drug Abuse and Excessive Alcohol Use	Healthy Social Environments	Chronic Diseases
Create social and physical environments that promote good health for all.	Healthy Eating	Safe Physical Environments	Reproductive Health
Promote quality of life, healthy development, and healthy behaviors across all life stages.	Active Living	Infectious Diseases	Infectious Diseases

	Injury and Violence Free Living	Chronic Diseases	Safe and Healthy Physical Environments
	Reproductive and Sexual Health	Health care Access	Safe and Healthy Social Environments
	Mental and Emotional Well-Being		

IMPLEMENTATION STRATEGY DEVELOPMENT

The development of the implementation strategy plan consisted of a comprehensive approach inclusive of the selected community health needs focus areas and the healthcare administration linkage. The community health needs focus areas are directly linked to each other and to the healthcare administration areas to ensure that health needs are met in the most effective manner. Many of the health challenges in the PGHC service area are due to the large population of uninsured of residents in Prince George's County as well as the lack of access to and availability of needed health services, including primary care services for which there is a shortage of providers. As a result, access to and availability of preventative care and disease management tools and resources, including education, are limited. Health integration and coordination affect and are affected by healthcare affordability, accessibility and availability, particularly for underserved, vulnerable and disparate populations.



Fragmented and uncoordinated health systems have perpetuated the dysfunction of healthcare administration in the PGHC service area, making effective and efficient health integration and coordination essential to meet community health needs. By acknowledging the relationship between inpatient care and community health improvement efforts, the ISPTF was able to develop a plan that will positively impact quality and safety across the continuum of care.

Building an Infrastructure for Community Health Improvement & Empowerment

Building the appropriate infrastructure is required to sustain community health improvement and empowerment efforts. This infrastructure will allow for effective administration of community health improvement and community benefit planning/implementation. The infrastructure build focuses on evidence-based community health/wellness program development and management through partnerships with community organizations. While the expansion and restructuring of current programming is a priority, the development of new programming to improve health status and outcomes through assessment, response, measurement and evaluation are also of great significance. As PGHC continues to build the infrastructure to respond to selected community health needs, community/staff engagement, and education and training are all integral components of community health improvement. Other integral components include physician recruitment and establishing health access points such as primary care offices within the community.

Partnerships for Health Promotion & Improvement

Prince George's Hospital Center recognizes the value of community collaboration through partnerships to promote and improve community health. Therefore, PGHC will continue to develop and strengthen collaborative relationships with national and local health/ wellness and community organizations, including federally qualified health centers and the Prince George's County Health Department, faith based, government, and academic institutions.

Unaddressed Needs

While the total range of community health needs is important, PGHC is not currently positioned to focus on top health concerns identified by the CHNA such as respiratory health and septicemia due to the lack of available resources to make the most impactful changes in these areas. These needs did not emerge as community health needs focus areas, but they as well as other chronic diseases and co-morbidities will be taken into account and incorporated into the strategic plan where appropriate. PGHC currently provides emergency psychiatric, inpatient behavioral health and outpatient partial hospitalization services to assist with the mental health needs in the community. As a result, this area was not selected as one of the community health needs focus areas. Though these needs are not presently being addressed by PGHC as an area of focus, the

hospital will explore opportunities to collaborate with other community and public health organizations such as the health department and federally qualified health centers to address these needs.

COMMUNITY HEALTH NEEDS FOCUS AREAS

Goals and strategies for each of the selected community health needs focus areas are documented in this section. Each goal and strategy can be linked to one or more of the healthcare administration areas to ensure effective response to needs. Metrics and methods of evaluation will be incorporated into each focus area as work plans are developed.

Focus Area: Diabetes

Goal I: **Improve the availability of diabetes self-management education and services to the community.**

Strategies:

- Enhance screenings and information offered at community health events.
- Increase frequency of education and information offerings to area churches, senior centers, and activity centers.
- Continue to offer quarterly on-site free information sessions to community to provide access to resources that are usable by residents with diabetes/pre-diabetes.

Goal II: **Engage and partner with community physicians to increase awareness of diabetes services and education availability.**

Strategies:

- Create an engagement process inclusive of information package to inform and educate community physicians about diabetes services.
- Distribute program description and promotional materials to physician offices and patients with face-to-face visits to physician/practice administrator.

Goal III: **Advance quality and continuity of diabetic care through formation of outpatient care teams and group visits.**

Strategies:

- Increase the accurate/adequate coordination of care post ED visit.
- Streamline follow up appointments into outpatient clinics to improve continuity of care.
- Form outpatient care teams to include MD, RN, nutrition and diabetes educator, case manager, podiatrist and wound care RN when needed.
- Educate patients about group visits and coordinate care with outpatient care team to conduct visits.

Goal IV. Promote diabetes literacy – particularly focusing on prevention of diabetes.

Strategies:

- Partner with community partners to create diabetes awareness and education for all ages, focusing on prevention, in local libraries, other public buildings. Advertise via posters newspaper, radio, etc.
- Partner with school system to incorporate nutrition and exercise education into school curriculum via newsletters, health fairs at schools, PTA meetings, and Board of Education.

Focus Area: Heart Disease

Goal I: Educate women on how uncontrolled high blood pressure can lead to cardiovascular disease

Strategies:

- Participate in health fairs at community centers and faith based organizations providing blood pressure screening, educate women on understanding their "Numbers". Discuss signs & symptoms of stroke.
- Provide Blood Pressure information that explains how uncontrolled blood pressure relates to women's heart disease in key areas like clinical waiting rooms at Prince George's Hospital Center. (Information from Women Heart, Go Red, American Heart Association)
- Clinical staff from Prince George's Hospital Center (PGHC) and Doctor's Community Hospital (DCH) currently partner with Women Heart, The National Coalition for Women with Heart Disease. The meetings will continue to be held monthly alternating the location between PGHC and DCH. Participants are women heart attack survivors and their support system, speakers and clinical staff.

Goal II: **Education on recognition of symptoms and risk factors of heart disease in women.**

Strategies:

- Organize a women's clinic at Prince George's Hospital Center that will provide screening services for heart disease. Clinic will be held quarterly.
    1. Educate women with results of screening
    2. Provide onsite educational support for abnormal clinical values
    3. Provide proper referrals (diabetes, nutritionist, cardiology listing, local exercise programs)
    4. Provide educational material on Women and Heart Disease
    5. Provide education on smoking cessation and its effect on heart disease and stroke.
- Refer to different educational websites: American Heart Association, Go Red, Women Heart, Sister to Sister, Center for Disease Control, Healthy Hearts.

Goal III: **Increase exercise & diet awareness, education and opportunities for women.**

Strategies:

- Encourage Heart Healthy Diets and Exercise at participating Health Fairs; provide information about heart healthy foods and recipes.
- Provide websites encouraging Health Heart diets to hospital staff and community fairs (Womenshealth.gov, American Heart Association)
- Partner with Diabetes Center at Prince George's Hospital Center for information and nutritional consultation to distribute to women with diabetes.
- Contact community-based exercise programs and provide information at clinic and health fairs.
- Continue to follow up with patients in Prince George's Hospital Center Cardiac Rehab.
- Provide opportunities for staff exercise or gym at Prince George's Hospital Center.
- Provide nutritional information for foods served in hospital cafeteria.

Focus Area: Pregnancy and Childbirth Complications

Goal I: Enhance access to obstetrical care providers to include Maternal-Fetal Medicine specialists.

Strategies:

- Develop office practices in new locations:
  1. Suitland family Health and Wellness (Suitland, Md.)
  2. Community Clinic, Inc. (Greenbelt, Md.)
  3. Perinatal Diagnostic Center (Laurel, Md.)

- Partner with community/governmental agencies to enhance care and access services:
  1. Infant-At-Risk
  2. Bright Beginnings
  3. WIC
  4. Pregnancy Aid Center
  5. Prince George's County Health Department
  6. Fetal and Infant Mortality Review Committee
  7. Greater Baden Medical Services

Goal II: Provide continuity of care, through a seamless process that supports the patient/family need for education, care coordination, and psychosocial support for the high risk pregnancy.

Strategies:

- Implement the role of Nurse Navigator for high risk patients to include:
  1. Develop a job description
  2. Identify a funding source
  3. Develop/implement a database to track high risk patient's care

- Development of a Lactation Resource Center that provides the following:
  1. On-site rounding of all breastfeeding patients
  2. Staff education
  3. Outpatient breastfeeding classes
  4. Outpatient consultations for patients
  5. Warm-line for questions

IMPLEMENTATION STRATEGY EXECUTION

The next phase of the ISP will focus on proper execution of the plan. This will be achieved by allocating the necessary resources, aligning strategies with operations and engaging partners. The ISPTF will be expanded into a body of internal and external advisors who will continue to build the infrastructure to fully execute the ISP, develop sustain, monitor and evaluate community health improvement initiatives and programs.

EXHIBIT 63

Cardiovascular Service Line Table 3 (Without Inflation) And Assumptions

TABLE 3: REVENUES AND EXPENSES - ENTIRE FACILITY (including proposed project)

Excludes HSCRC Annual Update Factors and Expense Inflation

(Dollars are presented in thousands)

	Two Most Recent Actual Years		Current Year Projected	Projected Years (ending with first full year at full utilization)						
Fiscal Year	FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20	FY21
1. Revenue										
a. Inpatient Services	$ 22,370	$ 23,681	$ 23,340	$ 30,322	$ 33,810	$ 38,173	$ 41,260	$ 45,027	$ 48,497	$ 52,331
b. Outpatient Services	6,066	6,450	6,716	8,258	8,921	9,707	10,251	10,736	11,159	11,629
c. Gross Patient Services Revenues	28,435	30,130	30,057	38,580	42,731	47,880	51,511	55,763	59,656	63,960
d. Allowance of Bad Debt	1,630	1,728	1,717	2,172	2,394	2,675	2,873	3,115	3,336	3,581
e. Contractual Allowances	3,442	3,647	3,706	5,110	5,788	6,564	7,113	7,650	8,143	8,686
f. Charity Care	2,637	2,794	2,778	3,513	3,872	4,326	4,647	5,038	5,396	5,792
g. Net Patient Services Revenue	20,725	21,961	21,856	27,785	30,678	34,314	36,878	39,960	42,781	45,902
h. Other Operating Revenue										
- State Support										
- County Support										
- Other Revenue										
i. Net Operating Revenue	20,725	21,961	21,856	27,785	30,678	34,314	36,878	39,960	42,781	45,902
2. Expenses										
a. Salaries, Wages, and Benefits	9,802	11,500	14,284	16,591	17,719	18,449	19,668	21,503	23,466	25,665
b. Contractual Services	178	325	424	430	495	405	413	414	416	417
c. Interest on Current Debt	-	165	326	323	319	315	310	305	300	295
d. Interest on Project Debt										
e. Current Depreciation	-	49	254	439	559	559	559	559	559	559
f. Project Depreciation										
g. Current Amortizaton										
h. Project Amortiziation										
i. Supplies	4,390	4,642	4,487	5,894	6,608	7,520	8,138	8,772	9,350	9,989
j. Other Expenses										
- Marketing and Program Development	-	50	405	505	455	405	405	405	405	405
- Contingency	-	135	307	396	399	371	371	371	371	371
k. Total Operating Expenses	14,370	16,866	20,486	24,578	26,554	28,024	29,865	32,331	34,868	37,702
3. Income										
a. Income from Operations	6,355	5,095	1,370	3,208	4,124	6,290	7,013	7,630	7,913	8,200
b. Non-Operating Income										
- Investment Income										
- State Grant Capital Support										
c. Subtotal	6,355	5,095	1,370	3,208	4,124	6,290	7,013	7,630	7,913	8,200
d. Income Taxes										
e. Net Income (Loss)	$ 6,355	$ 5,095	$ 1,370	$ 3,208	$ 4,124	$ 6,290	$ 7,013	$ 7,630	$ 7,913	$ 8,200

	Two Most Recent Actual Years		Current Year Projected	Projected Years (ending with first full year at full utilization)						
Fiscal Year	FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20	FY21
4. Patient Mix										
A. Percent of Inpatient Revenue										
1. Medicare	53.7%	50.2%	50.2%	50.2%	50.2%	50.2%	50.2%	50.2%	50.2%	50.2%
2. Medicaid	18.4%	23.0%	23.0%	23.0%	23.0%	23.0%	23.0%	23.0%	23.0%	23.0%
3. Blue Cross	7.6%	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%
4. Commercial Insurance	3.8%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%
5. Self Pay	4.6%	4.4%	4.4%	4.4%	4.4%	4.4%	4.4%	4.4%	4.4%	4.4%
6. Other	11.9%	11.4%	11.4%	11.4%	11.4%	11.4%	11.4%	11.4%	11.4%	11.4%
7. Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
B. Percent of Inpatient Days										
1. Medicare	56.6%	52.1%	52.1%	52.1%	52.1%	52.1%	52.1%	52.1%	52.1%	52.1%
2. Medicaid	20.0%	24.5%	24.5%	24.5%	24.5%	24.5%	24.5%	24.5%	24.5%	24.5%
3. Blue Cross	6.7%	7.8%	7.8%	7.8%	7.8%	7.8%	7.8%	7.8%	7.8%	7.8%
4. Commercial Insurance	3.2%	1.3%	1.3%	1.3%	1.3%	1.3%	1.3%	1.3%	1.3%	1.3%
5. Self Pay	4.0%	4.7%	4.7%	4.7%	4.7%	4.7%	4.7%	4.7%	4.7%	4.7%
6. Other	9.5%	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%
7. Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Prince George's Hospital Center & Prince George's County Regional Medical Center

Key Financial Projection Assumptions (Excludes HSCRC Annual Update Factors and Expense Inflation)

1)	Volumes	
	- Inpatient Admissions	Cases projected to increase from 1,376 in FY2013 to 3,071 in FY2021
	- Outpatient Visits	
	• Outpatient	Increases at same rate as growth in inpatient admissions
	• Observation	Increases by 6% in FY2014, 2% in FY2015, and 1% per year beginning in FY2016
2)	Patient Revenue	
	- Gross Charges	
	• Update Factor	0.0% annual increases throughout projection period
	• Variable Cost Factor	85% throughout projection period
	- Revenue Deductions	
	• Contractual Allowances	Held constant at 12.11% based on FY2013 budget
	• Charity Care	Held constant at 9.27% based on FY2013 budget
	• Allowance for Bad Debt	Held constant at 5.73% based on FY2013 budget
3)	Expenses	
	- Inflation	0.0% increase per year
	- Medical Supplies and Drugs	Based on FY2012's cost-to-charge ratio
	- Physician Salaries	Includes current PGHC Cardiac physician costs as well as incremental costs in business plan
	- Interest Expense	7.25% interest on capital
	- Depreciation	Equipment with useful life of 3-10 years
4)	Capital	$3.5 million from FY2013 - FY2016
5)	Debt	$4.5 million borrowed in 2013

EXHIBIT 64

Cardiovascular Service Line Table 3 (With Inflation) And Assumptions

TABLE 3: REVENUES AND EXPENSES - ENTIRE FACILITY (including proposed project)

Includes HSCRC Annual Update Factors and Expense Inflation

(Dollars are presented in thousands)

	Two Most Recent Actual Years		Current Year Projected	Projected Years (ending with first full year at full utilizaton)						
Fiscal Year	FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20	FY21
1. Revenue										
a. Inpatient Services	$ 22,370	$ 23,681	$ 23,464	$ 30,946	$ 35,038	$ 40,163	$ 44,071	$ 48,824	$ 53,389	$ 58,488
b. Outpatient Services	6,066	6,450	6,750	8,412	9,208	10,147	10,852	11,518	12,134	12,818
c. Gross Patient Services Revenues	28,435	30,130	30,214	39,358	44,246	50,309	54,923	60,342	65,523	71,306
d. Allowance of Bad Debt	1,630	1,728	1,726	2,216	2,481	2,814	3,069	3,377	3,672	4,002
e. Contractual Allowances	3,442	3,647	3,725	5,204	5,971	6,858	7,526	8,204	8,853	9,575
f. Charity Care	2,637	2,794	2,792	3,585	4,012	4,552	4,963	5,463	5,940	6,473
g. Net Patient Services Revenue	20,725	21,961	21,970	28,353	31,782	36,085	39,365	43,298	47,058	51,256
h. Other Operating Revenue										
- State Support										
- County Support										
- Other Revenue										
i. Net Operating Revenue	20,725	21,961	21,970	28,353	31,782	36,085	39,365	43,298	47,058	51,256
2. Expenses										
a. Salaries, Wages, and Benefits	9,802	11,500	14,625	17,369	18,966	20,170	21,980	24,601	27,489	30,792
b. Contractual Services	178	325	428	440	511	427	441	449	458	467
c. Interest on Current Debt	-	165	326	323	319	315	310	305	300	295
d. Interest on Project Debt										
e. Current Depreciation	-	49	254	439	559	559	559	559	559	559
f. Project Depreciation										
g. Current Amortizaton										
h. Project Amortiziation										
i. Supplies	4,390	4,642	4,511	6,016	6,849	7,913	8,694	9,513	10,294	11,166
j. Other Expenses										
- Marketing and Program Development	-	50	405	505	455	405	405	405	405	405
- Contingency	-	135	307	396	399	371	371	371	371	371
k. Total Operating Expenses	14,370	16,866	20,856	25,488	28,058	30,160	32,761	36,205	39,878	44,056
3. Income										
a. Income from Operations	6,355	5,095	1,114	2,864	3,724	5,925	6,604	7,093	7,180	7,200
b. Non-Operating Income										
- Investment Income										
- State Grant Capital Support										
c. Subtotal	6,355	5,095	1,114	2,864	3,724	5,925	6,604	7,093	7,180	7,200
d. Income Taxes										
e. Net Income (Loss)	$ 6,355	$ 5,095	$ 1,114	$ 2,864	$ 3,724	$ 5,925	$ 6,604	$ 7,093	$ 7,180	$ 7,200

	Two Most Recent Actual Years		Current Year Projected	Projected Years (ending with first full year at full utilizaton)						
Fiscal Year	FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20	FY21
4. Patient Mix										
A. Percent of Inpatient Revenue										
1. Medicare	53.7%	50.2%	50.2%	50.2%	50.2%	50.2%	50.2%	50.2%	50.2%	50.2%
2. Medicaid	18.4%	23.0%	23.0%	23.0%	23.0%	23.0%	23.0%	23.0%	23.0%	23.0%
3. Blue Cross	7.6%	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%
4. Commercial Insurance	3.8%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%
5. Self Pay	4.6%	4.4%	4.4%	4.4%	4.4%	4.4%	4.4%	4.4%	4.4%	4.4%
6. Other	11.9%	11.4%	11.4%	11.4%	11.4%	11.4%	11.4%	11.4%	11.4%	11.4%
7. Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
B. Percent of Inpatient Days										
1. Medicare	56.6%	52.1%	52.1%	52.1%	52.1%	52.1%	52.1%	52.1%	52.1%	52.1%
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6. Other	9.5%	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%	9.6%
7. Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

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