



Suburban Hospital, Preliminary Plan 120120240, Site Plan 820120180



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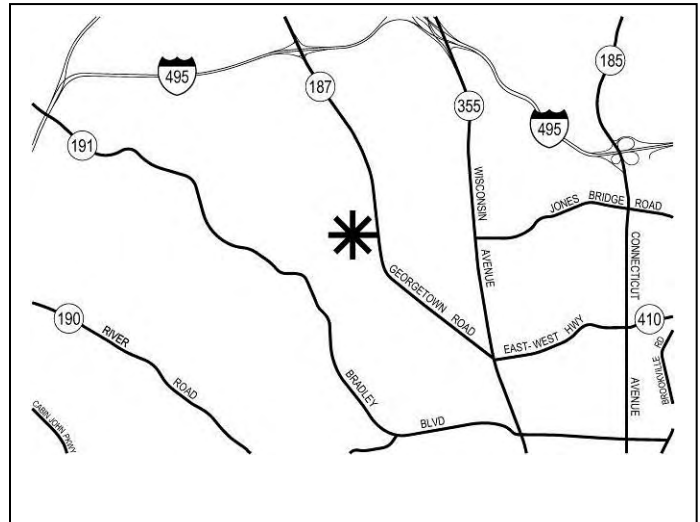


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Staff Report Date: 4/5/13

Description

- Preliminary Plan: Resubdivision to create one 12.89 acre lot
- Site Plan: 235,597 square-foot addition to existing 323,100 square-foot hospital (not including useable cellar space)
- Preliminary Plan: 13.01 acres gross tract area
- Site Plan: 15.17 acres gross tract area
- R-60 zone
- Located on the block bounded by Old Georgetown Road, Grant Street, Southwick Street, and McKinley Street
- Bethesda – Chevy Chase Master Plan
- Submitted: May 22, 2012
- Applicant: Suburban Hospital, Inc.



Summary

- **Staff recommendation: Approval of the preliminary plan and site plan with conditions**
- The approvals are subject to conditions of previously approved special exception and variances.
- Citizen correspondence raised concerns about noise level measurement locations, which are addressed through the recommended conditions of approval.

PRELIMINARY PLAN RECOMMENDATION AND CONDITIONS

Staff recommends approval of the preliminary plan subject to the following conditions:

- 1) This Preliminary Plan is limited to one lot for a hospital with up to 558,697 square feet of floor area not including 110,182 square feet of useable cellar space. The building addition is limited to 235,597 square feet not including 14,395 square feet of useable cellar or 249,992 square feet including the useable cellar, and including 38,000 square feet of physician office space.
- 2) The applicant must comply with the conditions of Special Exception S-274-D, as specified in the Opinion of the Board of Appeals dated October 20, 2010, which may be amended by the Board of Appeals. In the event that a subsequent amendment to the special exception substantially modifies the subdivision shown on the approved preliminary plan, the applicant must obtain a preliminary plan amendment.
- 3) The applicant must comply with the conditions of Variances A-6364 – A-6377, as specified in the Opinion of the Board of Appeals dated July 23, 2012, which may be amended by the Board of Appeals. In the event that a subsequent amendment to the variances substantially modifies the subdivision shown on the approved preliminary plan, the applicant must obtain a preliminary plan amendment.
- 4) The applicant must comply with the conditions of Abandonment AB715, as specified in County Council Resolution 17-220, dated July 19, 2011, which may be amended by the County Council. In the event that a subsequent amendment to the abandonment substantially modifies the subdivision shown on the approved preliminary plan, the applicant must obtain a preliminary plan amendment.
- 5) The applicant must comply with the conditions of approval for the final forest conservation plan, approved as part of this Preliminary Plan, subject to the following:
 - a. The tree save component of the final forest conservation plan must be appropriately signed by an International Society of Arboriculture certified arborist.
 - b. The sediment and erosion control plan and stormwater management plan must be submitted with the revised final forest conservation plan to ensure consistency with the limits of disturbance (LOD) and the associated tree/forest preservation measures.
- 6) The fee-in-lieu for the off-site forest mitigation must be submitted by the applicant and approved by staff prior to land disturbing activities occurring onsite.
- 7) The applicant must show on the record plat the following right-of-way dedications, Public Improvement Easement (PIE), or public access easements consistent with the 1990 Approved and Adopted *Bethesda/Chevy Chase Master Plan*, Subdivision Regulation requirements, and approved Special Exception Case No. S-274-D:
 - a. Old Georgetown Road: A PIE along the subject property frontage from the existing roadway right-of-way to provide a constant distance of 60 feet between the roadway right-of-way centerline and the western boundary of the proposed PIE line.
 - b. McKinley Street: Dedication along the subject property frontage, a minimum of 10 feet to provide a roadway right-of-way width of 60 feet.
 - c. Southwick Street: Confirm existing right-of-way width of 50 feet along the subject property frontage; no additional dedication is required.
 - d. Grant Street: Confirm existing right-of-way width of 50 feet along the subject property frontage; no additional dedication is required.

- e. A 20-foot wide public access easement for a pedestrian path through the subject property between the Grant Street/Lincoln Street intersection on the west and the intersection of Southwick Street and the proposed driveway near the northeast corner of the site, as a replacement for the master-plan-recommended shared-roadway bikeway section along existing Lincoln Street that will be abandoned between Old Georgetown Road to the east and Grant Street to the west.
- 8) The record plat must reflect abandonment of Lincoln Street through the subject property between Old Georgetown Road and Grant Street pursuant to the conditions of approval per Montgomery County Council Resolution No. 17-220 dated July 19, 2011.
 - 9) The applicant must construct all frontage, internal roadway, and sidewalk improvements as shown on the preliminary plan in accordance with the development program approved as part of the certified site plan.
 - 10) The applicant must execute a Transportation Management Plan (TMP) with the Planning Board and Montgomery County Department of Transportation (“MCDOT”) to effectively manage traffic in and out of the subject property. The executed TMP, as required by the special exception approval for the project, must be submitted to the Board of Appeals prior to the release of building permits for the building addition or garage.
 - 11) The applicant, as part of the above TMP, must coordinate with MCDOT to install a bikeshare station on the subject property, if permitted under the existing special exception approval, or at a nearby location, preferably with orientation towards Old Georgetown Road. If located on the subject property, the applicant must grant an access easement required by MCDOT for access to the proposed bikeshare station.
 - 12) The certified Preliminary Plan must contain the following note:
Unless specifically noted on this plan drawing or in the Planning Board conditions of approval, the building footprints, building heights, on-site parking, site circulation, and sidewalks shown on the Preliminary Plan are illustrative. The final locations of buildings, structures and hardscape will be determined at the time of site plan approval. Please refer to the zoning data table for development standards such as setbacks, building restriction lines, building height, and lot coverage for each lot. Other limitations for site development may also be included in the conditions of the Planning Board’s approval.
 - 13) The Planning Board has accepted the recommendations of MCDOT in its letter dated March 28, 2013, and does hereby incorporate them as conditions of the Preliminary Plan approval. Therefore, the applicant must comply with each of the recommendations as set forth in the letter, which may be amended by MCDOT provided that the amendments do not conflict with other conditions of the Preliminary Plan approval.
 - 14) Prior to recordation of plat(s), the applicant must satisfy the provisions for access and improvements as required by MCDOT.
 - 15) The Planning Board has accepted the recommendations of the Maryland State Highway Administration (“MDSHA”) in its letter dated January 10, 2013, and does hereby incorporate them as conditions of the Preliminary Plan approval. Therefore, the applicant must comply with each of the recommendations as set forth in the letter, which may be amended by MDSHA provided that the amendments do not conflict with other conditions of the Preliminary Plan approval.
 - 16) Prior to issuance of access permits, the applicant must satisfy the provisions for access and improvements as required by MDSHA.
 - 17) The Planning Board has accepted the recommendations of the Montgomery County Department of Permitting Services (“MCDPS”) – Water Resources Section in its stormwater

management concept letter dated April 1, 2012, and does hereby incorporate them as conditions of the Preliminary Plan approval. Therefore, the applicant must comply with each of the recommendations as set forth in the letter, which may be amended by MCDPS – Water Resources Section provided that the amendments do not conflict with other conditions of the Preliminary Plan approval.

- 18) Prior to recordation of any plat, Site Plan No. 820120180 must be certified by staff.
- 19) No clearing, grading or recording of plats prior to certified site plan approval.
- 20) Final approval of the number and location of buildings, on-site parking, site circulation, and sidewalks will be determined at site plan.
- 21) In the event that a subsequent site plan approval substantially modifies the subdivision shown on the approved Preliminary Plan with respect to lot configuration or location or right-of-way width, or alignment, the applicant must obtain approval of a Preliminary Plan amendment prior to certification of the site plan.
- 22) Record plat must show necessary easements.
- 23) The Adequate Public Facility (APF) review for the preliminary plan will remain valid for one hundred and nine (109) months from the date of mailing of the Planning Board resolution.

SITE PLAN RECOMMENDATION AND CONDITIONS

Staff recommends approval of Site Plan 820120180, Suburban Hospital, for construction of a 235,597 square-foot addition, not including useable cellar space, to the existing hospital and 1,280 parking spaces in surface lots and a parking structure on 15.17 gross acres. All site development elements shown on the site and landscape plans stamped “Received” by the M-NCPPC on December 3, 2012, are required except as modified by the following conditions.

Conformance with Previous Approvals

1. Special Exception Conformance

The applicant must comply with the conditions of approval of Special Exception S-274-D dated October 20, 2010, which may be amended by the Board of Appeals. In the event that a subsequent amendment to the special exception substantially modifies the development shown on the approved site plan, the applicant must obtain a site plan amendment.

2. Variance Conformance

The applicant must comply with the conditions of approval of Variances A-6364 – A-6377 dated July 23, 2012, which may be amended by the Board of Appeals. In the event that a subsequent amendment to the variances substantially modifies the development shown on the approved site plan, the applicant must obtain a site plan amendment.

3. Right-of-Way Conformance

The applicant must comply with the conditions of Abandonment AB715, as specified in County Council Resolution 17-220, dated July 19, 2011, which may be amended by the County Council. In the event that a subsequent amendment to the abandonment substantially modifies the development shown on the approved site plan, the applicant must obtain a site plan amendment.

4. Preliminary Plan Conformance

The applicant must comply with the conditions of approval for Preliminary Plan 120120240 as listed in the Planning Board Resolution, unless amended.

Environment

5. Stormwater Management

The development is subject to Stormwater Management Concept approval conditions dated April 1, 2012, unless amended and approved by the Montgomery County Department of Permitting Services (“MCDPS”).

6. LEED Certification

The applicant must achieve a LEED (Leadership in Energy and Environmental Design) Certified Rating Certification at a minimum. The applicant must make good faith efforts to achieve a LEED Silver rating. Before the issuance of any use and occupancy certificate, the applicant must inform M-NCPPC staff of the LEED Certification Level for which they are applying. If this level is less than a Silver rating, before the issuance of the final use and occupancy certificate the applicant must provide to staff a written report for public record purposes only from the applicant’s LEED consultant analyzing the feasibility of achieving a LEED-Silver rating, to include an affidavit from a LEED-Accredited Professional identifying the minimum additional improvements required to achieve the LEED Silver rating, including their associated extra cost. Submission of this report constitutes compliance with this condition.

Parks, Open Space, & Recreation

7. Maintenance of Public Amenities

The applicant is responsible for maintaining all on-site publicly accessible amenities including, but not limited to, outdoor seating areas, walkways, and bicycle racks and lockers.

Site Plan

8. Site Design

The exterior architectural character, proportion, materials, and articulation must be substantially similar to the schematic elevations shown on Sheet A-301 – A-303 of the submitted architectural drawings, as determined by staff.

9. Private Lighting

- a. The lighting distribution and photometric plan with summary report and tabulations must conform to IESNA standards for commercial development.
- b. All onsite down-light fixtures must be full cut-off fixtures.
- c. Deflectors must be installed on all fixtures causing potential glare or excess illumination, specifically on the perimeter fixtures abutting the adjacent residential properties.
- d. Illumination levels must not exceed 0.1 footcandles accordance with Section 59-G-1.23 of the Montgomery County Code.
- e. The height of the light poles must not exceed the height specified on the certified site plan.

10. Surety

Prior to issuance of first building permit within each relevant phase of development, the applicant must provide a performance bond(s) or other form of surety in accordance with Section 59-D-3.5(d) of the Montgomery County Zoning Ordinance with the following provisions:

- a. The applicant must provide a cost estimate of the materials and facilities, which, upon staff approval, will establish the initial surety amount.
- b. The amount of the bond or surety must include plant material, on-site lighting, recreational facilities, site furniture, and entrance piers within the relevant phase of development.
- c. Prior to issuance of the first building permit, the applicant must enter into a Site Plan Surety & Maintenance Agreement with the Planning Board in a form approved by the Office of General Counsel that outlines the responsibilities of the applicant and incorporates the cost estimate.
- d. The bond/surety must be tied to the development program, and completion of plantings and installation of particular materials and facilities covered by the surety for each phase of development will be followed by inspection and reduction of the surety.

11. Development Program

The applicant must construct the proposed development in accordance with a development program that will be reviewed and approved prior to the approval of the Certified Site Plan. The development program must include the following items in its phasing schedule:

- a. Off-site frontage improvements, including sidewalks, street trees, and lighting, must be installed as construction is completed for that phase. Street tree planting may wait until the next growing season.
- b. On-site amenities including, but not limited to, sidewalks, retaining walls, seating areas, benches, trash receptacles, and bicycle facilities must be installed prior to release of any building occupancy permit for that phase.
- c. Clearing and grading must correspond to the construction phasing to minimize soil erosion and must not occur prior to approval of the final forest conservation plan, sediment control plan, and M-NCPPC inspection and approval of all tree-save areas and protection devices.
- d. The development program must provide phasing for installation of on-site landscaping and lighting.
- e. Landscaping associated with each parking lot and building must be completed as construction is completed for that phase.
- f. The development program must provide phasing of dedications, stormwater management, sediment and erosion control, afforestation, trip mitigation, and other features.

12. Certified Site Plan

Prior to approval of the Certified Site Plan the following revisions must be made and/or information provided subject to staff review and approval:

- a. Include the final forest conservation approval, stormwater management concept approval, development program, inspection schedule, and site plan resolution on the approval or cover sheet.
- b. Add a note to the site plan stating that "M-NCPPC staff must inspect all tree-save areas and protection devices prior to clearing and grading".
- c. Modify data table to reflect development standards enumerated in the staff report.
- d. Ensure consistency of all details and layout between site plan and landscape plan.
- e. Ensure consistency of all details and layout between the site plan and the MCDOT design exception comments in the letter dated March 28, 2013.

- f. Changes to landscaping and lighting are permitted if needed to accommodate relocated signs based on the MCDOT letter of March 28, 2013.

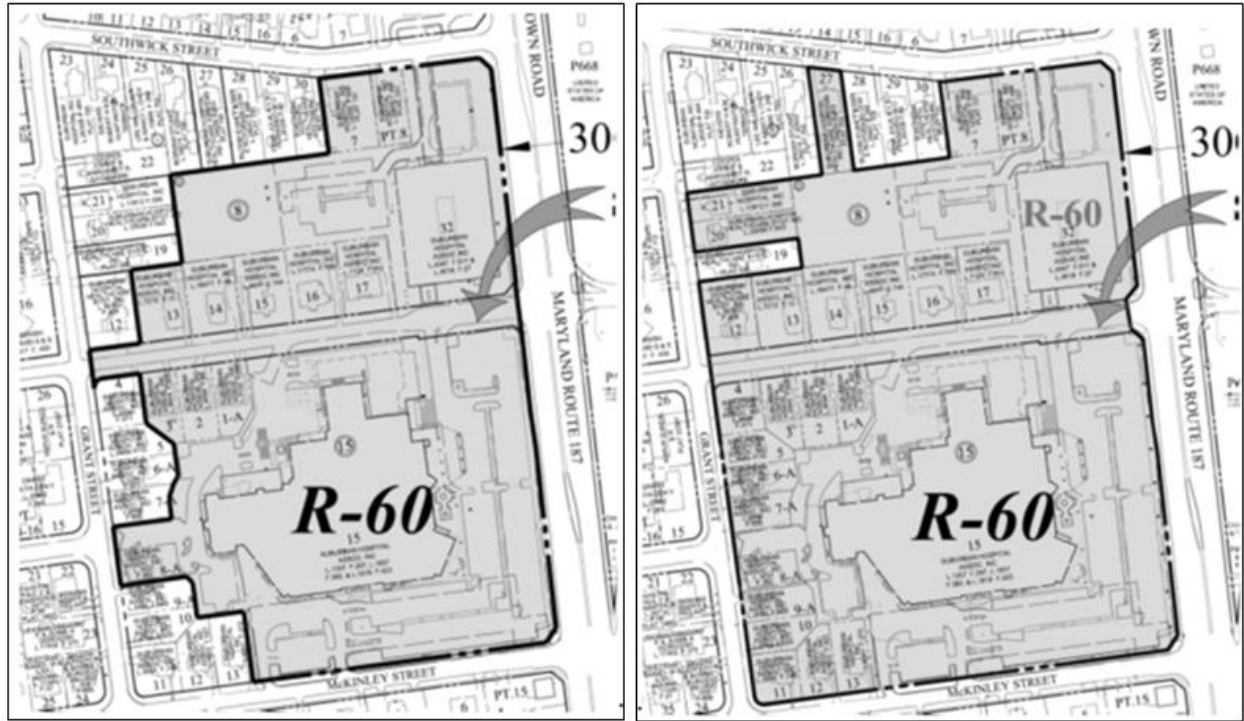
13. Within ten days of certification of the site plan, the Applicant must submit a copy of the certified site plan to the Board of Appeals.

SITE DESCRIPTION

The subject property, shown below and in Attachment A, is located on the block bounded by Old Georgetown Road, Grant Street, Southwick Street, and McKinley Street. Generally speaking, the subject property consists of two large lots developed with the existing hospital, an office building, and structured and surface parking, as well as several small residential lots that surround the two larger lots. As described below, the subject property for purposes of the preliminary plan and site plan contain a different number of these residential lots and, therefore, comprise a different overall land area.

For purposes of the preliminary plan, the subject property consists of five platted lots in the block south of Lincoln Street west of Old Georgetown Road and seven platted lots and one part of a platted lot in the block north of Lincoln Street west of Old Georgetown Road. In addition, the right-of-way for the block of Lincoln Street that bisects the site between Grant Street and Old Georgetown Road has been abandoned and is incorporated into the subject property. These properties comprise a gross tract area of 13.01 acres. The subject property for the preliminary plan is smaller than that for the site plan because the purpose of the preliminary plan is to create the lot that will contain the hospital and the new building addition, the parking structure, the surface parking lots, and associated green areas. Thirteen adjacent lots that contain the one-family dwellings that are owned by the applicant and are within the special exception boundary but will be retained after construction of the project are not included in the preliminary plan.

For purposes of the site plan, the subject property consists of all of the land that comprises the preliminary plan, as well as the 13 additional lots that were part of the previously-approved special exception for the hospital. The additional lots are included in order to have the site plan property be coterminous with the special exception property, and because grading, paving, and drainage improvements will extend onto some of these lots. The subject property for the site plan comprises a gross tract area of 15.17 acres.



Left: Subject Property for the Preliminary Plan. Right: Subject Property for the Site Plan.

The property is developed with the existing 323,100-square-foot hospital building, a 17,000-square-foot office building, a parking structure, and surface parking lots. The office building and parking structure will be removed to accommodate the proposed development. The 23 residential lots are developed with one one-family dwelling unit on each lot. Of those, ten will be removed to accommodate the proposed development. Surrounding properties to the north, south, and west are developed with one-family detached dwellings in the R-60 zone. The National Institutes of Health (NIH) is located directly across Old Georgetown Road to the east. Properties to the east of the site, south of NIH, are developed with one family detached dwellings in the R-60 zone.

The property is located in the Cabin John Creek and Lower Rock Creek watersheds. There are no streams, floodplains, forests, or other sensitive environmental features on the site. There are 25 trees with a diameter of 30 inches or larger on the site.



Aerial photograph of the subject property and vicinity, showing the boundary for the Preliminary Plan

PROJECT DESCRIPTION

Previous Approvals

Suburban Hospital is subject to a special exception approval, which has been amended several times over the years. The hospital has been operating at the site since 1943. The most recent amendment, S-274-D, was approved on October 20, 2010 (Attachment D). The purpose of the amendment was to permit the currently-proposed expansion to 294 beds and the proposed building addition and other improvements.

Fourteen variance applications were approved by the Board of Appeals on July 23, 2012 (A-6364 through A-6377) (Attachment E). Application A-6364 is for the property associated with the development of the hospital addition and parking garage (proposed Lot 16, Block 15). Variance A-6364 is for variances from the requirement that building coverage not exceed 35% of the lot area (the proposed building coverage is 41.1%) and the requirement that buildings maintain a setback of at least 20 feet from drive aisles. The other 13 variance applications are for the 13 one-family residential lots that will be retained by the hospital after development of the project. The decision of the Board of Appeals to require the applicant to retain the one-family dwellings necessitated the variance applications. The variances apply to the required 50-foot setback from lot lines for all 13 of the one-family dwellings as well as several existing accessory structures. In addition, applications for several of the lots also include variances for the requirement that buildings maintain a setback of at least 20 feet from drive aisles.

On July 19, 2011, the County Council approved AB715, an abandonment of the right-of-way for Lincoln Street (Attachment F). The abandoned right-of-way is incorporated into the subject property of the preliminary and site plans.

Proposal

The applicant proposes to expand the existing Suburban Hospital by constructing an addition to the existing building, constructing a new parking structure, making circulation improvements, and demolishing the existing medical office building and parking structure. The specific steps to be undertaken are as follows:

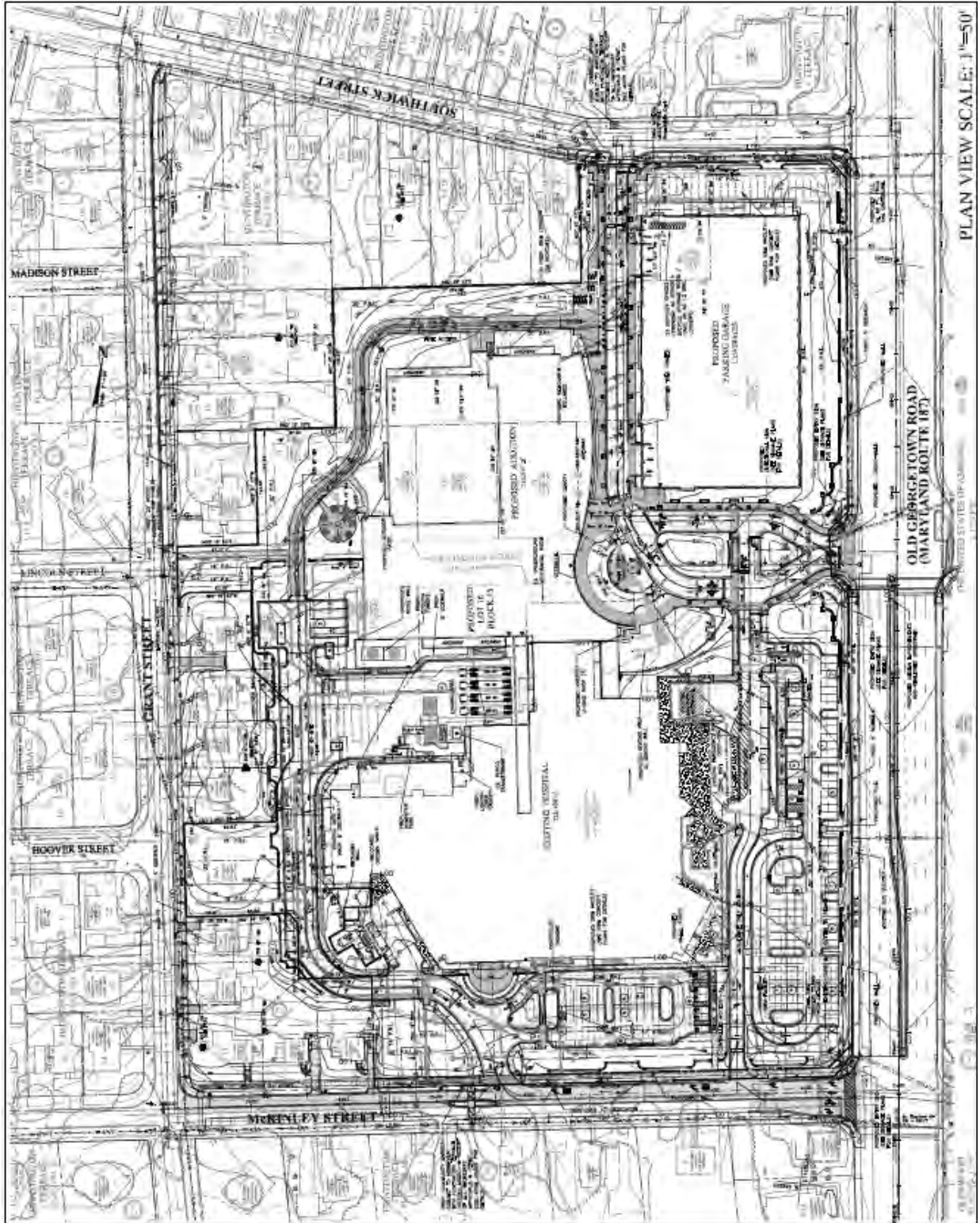
1. Construction of a new building addition (235,597 gross square feet of floor area) to house surgical facilities, private patient rooms, support areas, and physician offices;
2. Construction of a 1,159 parking space, multi-level parking structure. The parking structure is a total of seven stories, with two levels below grade, one level partially below grade, and four stories above grade;
3. Provision of 121 surface parking spaces.
4. Demolition of the existing parking structure, ten residential structures, and the 17,000 square foot medical office building;
5. Development of an improved pedestrian and vehicular circulation system, including a new main entrance;
6. Increase in the number of patient beds to 294, an addition of 66 beds;
7. Increase in the total number of full-time equivalent employees by 260 persons; and
8. Creation of open spaces, plazas, walkways, gardens, landscaping and other green areas to create a campus design.

The building addition will be built on the north side of the existing hospital, on land that is currently occupied by surface parking, Lincoln Street, and several one-family dwellings. The addition will be four stories tall, but only three stories will be above grade on the east and south elevations.

The primary vehicular access will be from Old Georgetown Road, at a signalized intersection opposite the entrance to NIH. This entrance will serve the general public, emergency room drop-off, and employees. One vehicular access will be located on Southwick Street, which will be restricted to employees only. Two access points will be located on McKinley Street. The easternmost of the two will be restricted to ambulance access only. The westernmost driveway will be for access to employee parking and loading areas.

Subdivision of Land

The preliminary plan proposes to assemble the various lots, parts of lots, and abandoned right-of-way into one lot of 12.89 acres in area. The preliminary plan provides for dedication of 0.12 acres of right-of-way for McKinley Street.



Preliminary Plan



Illustrative Site Plan



Illustrative Rendering

ANALYSIS AND FINDINGS

Preliminary Plan

Conformance to the Master Plan

The proposal is in substantial conformance with the Bethesda/Chevy Chase Master Plan, specifically with respect to land use and zoning. The Land Use and Zoning Plan of the Master Plan supports large land users, and, in its description of Community Land Use Objectives, specifically excepts community serving uses, of which a hospital is certainly one, from its recommendation against special exceptions along Old Georgetown Road. The Master Plan recognizes that some existing special exceptions along Old Georgetown Road may need to be modified and recommends that any building addition not be more than 50% of the existing building, and the proposed expansion is not. The guidelines for special exceptions support special exceptions that contribute to the service and health objectives of the Master Plan, which the hospital clearly does. Also, Suburban Hospital proposes to make improvements to the sidewalks and pedestrian cross-walks along Old Georgetown Road which are consistent with recommendations of the Master Plan.

The Master Plan provides guidelines for the location of special exceptions, primarily along Old Georgetown Road, however, the general objective of the guidelines is to avoid an over-concentration of special exceptions along major highways and in residential neighborhoods. The Master Plan emphasizes the importance of design in avoiding incompatible special exceptions along major corridors and in the neighborhoods. The guidelines support special exceptions that contribute to the service and health objectives of the Master Plan and recognize the importance of meeting these needs through hospital services and hospice centers that are appropriately sized to be compatible with the surrounding neighborhoods. The increase in square footage for the hospital is appropriately sized to accommodate the service and health objectives of the Master Plan. Compatibility has been achieved through protection of the one-family detached homes along Grant Street, which retain the neighborhood character; protection of trees which add to the neighborhood character and provide additional buffer from the existing and proposed uses to the existing one-family neighborhood; through noise mitigation measures; and through the closure of Lincoln Street to provide an integrated hospital campus. The Master Plan generally does not support assemblage of parcels or the removal of houses to accommodate a special exception, but recognizes that assessment of the appropriateness of a special exception is on a case-by-case basis.

The Master Plan recognizes that some existing special exceptions along the Old Georgetown Road corridor may need to be modified and, if such expansion is necessary, recommends that any building addition should not be larger than 50% of the existing building. The proposed hospital expansion does not exceed 50% of the existing building. It is important to note that Suburban Hospital is not specifically addressed in the discussion of special exceptions. It should also be noted that important improvements consistent with recommendations of the Master Plan would be implemented through the expansion as proposed. The applicant is proposing to reconstruct the sidewalks along Old Georgetown Road, provide separation between the sidewalk and the back of curb, and provide proper pedestrian crosswalks and curb cuts across Old Georgetown Road.

Master Plan conformance is further strengthened by the Board of Appeals decision to require that the applicant retain 13 one-family dwellings that are within the special exception boundary and that had originally been proposed for removal by the applicant. Height limitations have been maintained to complement the existing hospital building while respecting the existing surrounding neighborhoods. Vehicular circulation in and out of the site is limited to Old Georgetown Road and the perimeter streets of McKinley Street and Southwick Street, further adding to the compatibility of the expansion. A public pedestrian access has been maintained through the site from Grant Street to Old Georgetown Road. Therefore, staff recommends that the Planning Board find that the preliminary plan is in substantial conformance with the Bethesda/Chevy Chase Master Plan.

Public Facilities

Roads and Transportation Facilities

Access, Parking, and Public Transportation

The hospital currently has six access points: two from McKinley Street, three from Lincoln Street, and one from Southwick Street. As part of the hospital expansion, Lincoln Street from Old Georgetown Road to Grant Street will be abandoned. With abandonment of the Lincoln Street right-of-way, the applicant is proposing to consolidate the hospital campus and reduce the number of access points at the

hospital to four: a full-movement main entrance driveway off Old Georgetown Road at the location of the existing Lincoln Street across from the NIH driveway, an inbound only driveway for ambulances on McKinley Street, another limited-movement access driveway further west on McKinley Street, and a controlled, limited-movement, limited-hours, employee-only driveway on Southwick Street. The project will also provide sidewalks on the hospital frontage along Southwick Street, Old Georgetown Road, McKinley Street, and Grant Street and adjacent properties, resulting in a continuous sidewalk system around the entire hospital block. Additionally, sidewalks will be provided internally throughout the campus connecting off-site sidewalks and parking areas to the building entrances, including a 20-foot wide public access easement for a pedestrian path through the campus.

The hospital campus currently has 730 parking spaces, with 268 spaces in a three-level parking garage and 462 spaces in various surface parking lots. Currently, the hospital also provides approximately 350 off-site parking spaces to staff on a short-term basis at various locations. The project will include an additional 550 parking spaces on the campus for a total of 1,280 parking spaces. The 350 off-site spaces will be discontinued.

In addition to the Suburban Hospital shuttle service between the hospital campus and the Bethesda Metro Station (operating during morning and afternoon/evening peak periods), public transit services in the area include:

1. RideOn Bus Route No. 36 along Bradley Boulevard that generally run between Bethesda Metro Station and Potomac Connelly School,
2. RideOn Bus Route No. 47 along Greentree Road and Old Georgetown Road that generally run between Bethesda Metro Station and Rockville Metro Station,
3. RideOn Bus Route No. 30 along Old Georgetown Road, Huntington Parkway, and Bradmoor Drive that generally run between Bethesda Metro Station and Medical Center Metro Station, and
4. Metrobus Routes J2 and J3 along Old Georgetown Road that generally run between Silver Spring Metro Station and Montgomery Mall via Bethesda Metro Station.

Bus stops related to Routes 47, 70, J2, and J3 are located along Old Georgetown Road to the front of the hospital.

Master Plan Roadways and Pedestrian/Bikeway Facilities

The 1990 Approved and Adopted *Bethesda/Chevy Chase Master Plan* and the 2005 *Countywide Bikeways Functional Master Plan* include the following nearby roadway/bikeway facilities:

1. Old Georgetown Road, along the eastern property line of the hospital campus and between Capital Beltway (I-495) to the northwest and Bethesda CBD boundary line to the southeast, as a six-lane divided major highway (M-4) with a minimum right-of-way width of 120 feet. The roadway also accommodates the Bethesda Trolley Trail along the east side of Old Georgetown Road (along NIH frontage), recommended as a shared-use path (SP-41).
2. Bradley Boulevard, to the southwest of the hospital campus as a four-lane arterial (A-39) with a recommended minimum right-of-way width of 100 feet and with a dual bikeway (DB-4)

designation between Goldsboro Road to the east and Capital Beltway (I-495)/River Road to the west.

3. Huntington Parkway, to the south of the hospital campus as a two-lane primary residential street (P-3) with a recommended minimum right-of-way width of 100 feet between Old Georgetown Road to the east and Bradley Boulevard to the west.
4. Greentree Road, to the north of the hospital campus as a two-lane primary residential street (P-2) with a recommended minimum right-of-way width of 70 feet and with bike lanes (BL-4) between Old Georgetown Road to the east and Burdette Road/Fernwood Road to the west.
5. Shared-roadway bikeway between Old Georgetown Road to the east and Bradley Boulevard to the southwest, along existing Lincoln Street (PB-22; between Old Georgetown Road to the east and Garfield Street to the west), Garfield Street (PB-21 and EB-20; between Lincoln Street to the north and Huntington Parkway to the south), and Aberdeen Road (PB-19; between Huntington Parkway to the north and Bradley Boulevard to the southwest).

The applicant is proposing a 20-foot wide public access easement for a pedestrian path through the campus between the Grant Street/Lincoln Street intersection on the west and the intersection of Southwick Street and the proposed driveway near the northeast corner of the site, as a replacement for the master-plan-recommended shared-roadway bikeway section along existing Lincoln Street that will be abandoned between Old Georgetown Road to the east and Grant Street to the west.

Adequate Public Facilities (APF) Review

A traffic study dated October 18, 2012, was submitted by the consultant for the applicant for the subject application per the *LATR/PAMR Guidelines* since the proposed expansion of Suburban Hospital was estimated to generate 30 or more peak-hour trips during the typical weekday morning (6:30 a.m. – 9:30 a.m.) and evening (4:00 p.m. – 7:00 p.m.) peak periods.

- **Trip Generation**

A site trip generation summary for the proposed hospital expansion is provided in Table 1, which shows that the project will generate 542 peak-hour trips during the weekday morning peak period and 593 peak-hour trips during the weekday evening peak period. When compared to existing uses (minus the Lambert Building, which will be demolished), the proposed expansion will result in an increase of 155 peak-hour trips during the morning peak period and 191 peak-hour trips during the evening peak period.

**TABLE 1
SUMMARY OF SITE TRIP GENERATION
PROPOSED SUBURBAN HOSPITAL EXPANSION PROJECT**

Trip Generation	Morning Peak-Hour			Evening Peak-Hour		
	In	Out	Total	In	Out	Total
Existing						
Main Campus (including useable cellar) – 435,887 SF	218	126	344	185	176	361
Relocation of Off-site Parking – 350 spaces	43	--	43	1	40	41
Total Existing Trips	261	126	387	186	216	402
Trips per 1,000 SF	0.60	0.29	0.89	0.43	0.50	0.92
Future						
Existing Hospital (435,887 SF) + Standard of Care Expansion (134,996 SF) – Lambert Building Demolition (17,000 SF) = 553,883 SF	--	--	--	--	--	--
Hospital Expansion (incl. useable cellar) ¹ – 76,996 SF	46	22	68	33	38	71
Physician Office Space ² – 38,000 SF	69	18	87	32	88	120
Total New Trips	115	40	155	65	126	191
Total Future Suburban Hospital Trips – 668,879 SF	376	166	542	251	342	593

Source: Wells and Associates, Inc. Traffic Study dated October 18, 2012.

Notes: 1. Based on existing Hospital peak-hour trip rates

2. Based on ITE Trip Generation 8th Edition Land Use Code 720 (Medical/Dental Office).

- **Local Area Transportation Review (LATR)**

A summary of the capacity analysis/Critical Lane Volume (CLV) analysis results for the study intersections for the weekday morning and evening peak-hours within the respective peak periods from the traffic study is presented in Table 2.

**TABLE 2
SUMMARY OF CAPACITY CALCULATIONS
PROPOSED SUBURBAN HOSPITAL EXPANSION PROJECT**

Intersection	Traffic Conditions ¹					
	Existing		Background		Total	
	AM	PM	AM	PM	AM	PM
Old Georgetown Rd/W. Cedar Lane/Oakmont Ave -with BRAC improvements ²	1,203	1,368	--	--	--	--
	--	--	1,042	1,168	1,179	1,296
Old Georgetown Rd/Center St	913	1,096	997	1,200	1,002	1,225
Old Georgetown Rd/South Dr/Greentree Rd	1,100	906	1,029	939	1,121	985
Old Georgetown Rd/Southwick St	843	793	749	828	811	882
Old Georgetown Rd/Lincoln St	795	969	873	1,039	978	1,146
Old Georgetown Rd/McKinley St	1,053	778	1,076	835	1,086	859
Old Georgetown Rd/Roosevelt St	1,004	710	1,028	724	1,044	750
Old Georgetown Rd/Huntington Pkwy	1,192	1,034	1,215	1,054	1,226	1,088
Old Georgetown Rd/Battery La ³	1,014	1,166	1,034	1,196	1,036	1,230
Greentree Rd/Garfield St/Oneida La	591	520	603	536	617	571
Greentree Rd/Grant St	600	530	612	546	655	590
Southwick St/Garfield St	27	28	27	28	25	33
Southwick St/Grant St	43	75	43	75	67	108
Lincoln St/Garfield St	48	42	48	42	29	48
Lincoln St/Grant St	83	96	89	101	51	60
McKinley St/Garfield St	135	83	135	83	140	94
McKinley St/Grant St	91	125	109	131	111	170
Bradley Blvd/Huntington Pkwy	1,009	1,346	1,016	1,353	1,049	1,382
Roosevelt St/Garfield St	53	41	53	41	51	48
Roosevelt St/Grant St	42	31	42	31	42	36
Southwick St/Parking Dr	28	17	28	17	54	73
Lincoln St/Staff Parking & Loading Dock	102	84	105	88	--	--
Lincoln St/Emergency Ent & Parking/Garage	194	253	194	253	--	--
McKinley St/Exit Only	143	207	153	207	--	--
McKinley St/Entrance Only (Future Ent./Exit)	137	150	148	150	127	215

Source: Wells and Associates, Inc. Local Area Transportation Review; October 18, 2012.

Notes: 1. Bethesda/Chevy Chase Policy Area Congestion Standard: 1,600 CLV.

2. The Old Georgetown Rd/W. Cedar Lane/Oakmont Ave intersection improvements are fully-funded and will be improved as part of BRAC improvements.

3. Old Georgetown Road/Battery Lane Congestion Standard: 1,800 CLV (Bethesda CBD Policy Area).

As shown in Table 2, under Total (i.e., Build) traffic conditions, CLV values for intersections included in the study were estimated to be below the respective policy area congestion standards. Based on the analysis presented in the traffic study, it is concluded that the subject application will satisfy the LATR requirements of the APF test.

- **Transportation Policy Area Review (TPAR)**

Pursuant to Paragraph AP2 Transition, of the 2012-2016 Subdivision Staging Policy, the applicant has selected to use the TPAR test in lieu of the Policy Area Mobility Review (PAMR) test to satisfy the policy area requirements of the APF test.

As a development located within the Bethesda/Chevy Chase Policy Area, the policy area is inadequate for transit adequacy, and requires a transportation mitigation payment equal to 25% of the General District transportation impact tax for that subdivision. The transportation impact tax rate for hospitals, however, is currently zero, and, therefore, no transportation mitigation payment for the project is required. The application thus satisfies the TPAR requirements of the APF test.

Conclusion

Proposed vehicle and pedestrian access for the subdivision will be adequate with the proposed public improvements.

Other Public Facilities and Services

Public facilities and services are available and will be adequate to serve the proposed development. The property is proposed to be served by public water and public sewer. The application has been reviewed by the Montgomery County Fire and Rescue Service who has determined that the property will have appropriate access for fire and rescue vehicles. Other public facilities and services, such as police stations, firehouses, and health services are operating according to the Subdivision Staging Policy resolution currently in effect and will be adequate to serve the property. Electrical, telecommunications, and gas services are also available to serve the property.

Adequate Public Facilities Validity Period

Section 50-20(c) of the Subdivision Regulations allows the Planning Board to approve an adequate public facilities (APF) validity period of no less than seven years and up to 12 years. For most preliminary plan approvals, the validity period is set at seven years. However, in this case, the applicant has requested a validity period of nine years (109 months). The longer-than-typical validity period is requested in order to accommodate the phasing schedule, which requires provision of interim parking while the existing parking structure is demolished and the new one is constructed. Staff recommends approval of the 109-month APF validity period.

Environment

The subject property contains no existing forest, wetlands, intermittent or perennial streams, or floodplains onsite. The topography is relatively flat, and there are 36 significant trees (greater than 24" in diameter at breast height, or DBH) scattered throughout the property.

Natural Resource Inventory/Forest Stand Delineation (NRI/FSD)

In January, 2008, an NRI/FSD (420071040) was completed for the subject property identifying the site's natural resources, including streams, wetlands, forests, and all existing trees greater than 24-inches in diameter at breast height (DBH). The subject property contains no forest, but there were 36-significant trees (greater than 24-inches in DBH) onsite. Of these, 21-trees were specimen trees (greater than or equal to 30" DBH). In addition, there were two offsite specimen trees within 100 feet of the property boundary. Since that time, two on-site specimen trees have died and have been removed from the property.

The site plan includes the installation of a sidewalk along Grant Street expanding the limits of disturbance beyond what was identified in the 2008 NRI/FSD. The expanded boundary will impact an additional specimen tree not identified on the NRI/FSD at the corner of Grant and Southwick Street.

Forest Conservation Plan

For purposes of forest conservation, the total tract area is 16.80 acres. This is larger than the gross tract area of the subject property because areas of offsite disturbance are included. Under Chapter 22A of the Montgomery County Forest Conservation Law, there is an afforestation requirement of 2.52 acres. The applicant will satisfy this requirement via a fee-in-lieu payment.

On September 25, 2008, the Planning Board approved the preliminary forest conservation plan (PFCP) for Special Exception Modification S-274-D with conditions to protect and make "reasonable efforts" to save specific specimen trees (outlined below). The plan subsequently went to the Board of Appeals, and on October 20, 2010, the Board of Appeals required significant modifications to the PFCP. The changes to the configuration and layout of the project resulted in minor modifications to the final forest conservation plan (FFCP), allowing protection of some specimen trees, but not all of the trees recommended in the Planning Board's 2008 conditions. Outlined below are the Planning Board's 2008 PFCP conditions and the proposed changes to the FFCP based on the Board of Appeals' decision and the applicant's proposal.

Condition 1a: *Approval of the Final Forest Conservation Plan (FFCP) (is) consistent with the approved PFCP and all final FCP regulatory requirements, prior to any clearing, grading or demolition on site.*

The final forest conservation plan will not be consistent with the preliminary forest conservation plan due to the changes required by the Board of Appeals regarding retention of the 13 one-family dwellings on the lots on Southwick Street, Grant Street, and McKinley Street. The final forest conservation plan differs from the preliminary in that several trees that were to be retained on site are now proposed for removal, as discussed below.

Condition 1b: *At the time of site plan submission, FFCP must show tree compatible site design, stress reduction measures, and adjusted LOD/grading, prepared, signed and stamped by an ISA-certified arborist to avoid and minimize impacts, and determine feasibility to save tree #204, 210, 212, 213, 214, 220, 230, 233, and 237.*

The following table identifies which trees are proposed for protection in this final forest conservation plan. Trees 210, 214, 230, 233, 234, and 237 are proposed to be removed.

TABLE 3 TREES ORIGINALLY PROPOSED FOR PROTECTION			
Tree Number	Preliminary Forest Conservation Plan. Resolution S-274-D	Applicant Proposal	Rationale
204	Tree save efforts depend on County Waiver	Tree Protection	
210	Tree save efforts depend on County Waiver	Tree Removal	Removal is proposed due to the grading needed for sidewalk construction
212	Definite tree save	Tree Protection/ No Special Protection Measures	
213	Definite tree save	Tree Protection/ No Special Protection Measures	
214	Reasonable effort to save tree	Tree REMOVAL	Tree is proposed for removal due to the necessity for an underground stormwater management facility
220	Tree save efforts depend on County Waiver	Tree Removed by Maintenance or Natural Occurrence	Tree has subsequently died since the Examiners review
230	Reasonable effort to save tree	Tree REMOVAL	Tree proposed for removal due to existing dieback and poor condition
233	Reasonable effort to save tree	Tree REMOVAL	Proposed walkway for patients and grading requirements.
234	Reasonable effort to save tree	Tree REMOVAL	Proposed walkway for patients and grading requirements.
237	Reasonable effort to save tree	Tree REMOVAL	Proposed walkway for patients and grading requirements.

Condition 1c: Further detailed tree save analysis must be conducted which addresses the specified objectives noted, as follows:

- i. Tree #212 and #213: define tree save;
- ii. Tree #214, #230, #233, #234, and #237: all reasonable tree save efforts be explored; and

Trees #204, #210, #220: save efforts depends on County waiver to typical roadway cross section.

In the final forest conservation plan, trees 212 and 213 are proposed for protection; trees 214, 230, 233, 234, and 237 are proposed for removal; tree 204 is proposed for protection; tree 210 is proposed for removal due to sidewalk construction, driveway installation, and grading requirements, and tree 220 has died has subsequently been removed.

Condition 1d: *“The Applicant’s arborist shall include analysis and recommendations for several existing candidate willow oak trees to be transplanted in vicinity of Grant Street. Transplanting large trees as compensation for specimen tree loss is recommended in Forest Conservation Regulation Section 108F (3).*

- i. Any candidate willow oak tree to be transplanted shall be shown on the FFCP with the recommended transplanting techniques and details by the applicant's arborist.*
- ii. The analysis must justify why any candidate willow oak tree cannot be transplanted, if recommended as appropriate by the arborist.*

The impetus for considering the transplanting of the willow oak trees along Grant Street was the large area of open space that would have been the result of the removal of homes along Grant Street. A condition of the Board of Appeals approval requires that those homes be retained, thus the area envisioned as sufficient for planting trees will no longer become an open space. In addition, the arborist report states that “after closer examination of the area of the small parking island where the trees are currently located and the necessary size of the root ball associated with a transplant, the extraction of these trees would compromise the trees given the distributed roots throughout the parking lot. Considering the large size of the Willow Oaks, the unavailability of sufficiently sized receiving areas, logistical issues (overhead power lines, underground service lines) related to the transport of the tree(s), and the shock to the tree(s) associated with being transplanted, the arborist recommendation is to not transplant any of these trees.”

Forest Conservation Variance

Section 22A-12(b)(3) of Forest Conservation Law provides criteria that identify certain individual trees as high priority for retention and protection. The law requires no impact to any trees that measure 30 inches diameter at breast height (DBH) or greater; any tree designated as the county champion tree; trees with a DBH 75% or greater than the diameter of the current State champion for that species; rare, threatened and endangered species; and trees part of a historic site or associated structure. Any impact to these trees, including removal or disturbance within the tree’s critical root zone (CRZ) requires a variance if the plan was submitted after the enactment of this law on October 1, 2009.

On June 14, 2012, staff transmitted a tree variance request to the Montgomery County Department of Environmental Protection forester for approval (Attachment K). The variance proposes impacts to the critical root zone of a singular specimen tree as a result of sidewalk construction at the corner of Grant and Southwick Street. On July 13, 2013, staff received a response from the County arborist stating that the preliminary plan was submitted prior to October 1, 2009 when Section 22A-21(c) of the Forest Conservation Law was enacted, and, therefore, no comment would be made on the variance (Attachment L).

Table 4 below describes the impacts to one additional specimen tree being impacted due to the sidewalk construction.

Table 4 – Tree Subject to Variance

ID	Type	DBH	Condition	Impacts
--	Maple Tree	45"	Good	Impacts to the critical root zones. Special protection measures will be implemented including soil aeration, root pruning, and matting.

Although the County arborist will not make comments, Section 22A-21 of the County Forest Conservation Law sets forth the findings that must be made by the Planning Board or Planning Director, as appropriate, in order for a variance to be granted.

Unwarranted Hardship - The applicant's special exception application did not contemplate a sidewalk in this area of the tree proposed for impact, and, therefore, the subject tree was not identified as being removed on the Preliminary Forest Conservation Plan approved by the Planning Board on September 25, 2008. However, in its review of the Special Exception, Staff and the Planning Board requested that a sidewalk be added along the entire eastern length of Grant Street, between McKinley and Southwick Streets, to enhance pedestrian connectivity around the campus and in the neighborhood. This improvement was, therefore, included in the revised plans submitted to, and approved by, the Board of Appeals. Further, the Board of Appeals, in approving the special exception modification, found that this improvement, in combination with other roadway and sidewalk improvements in the area proposed by the applicant, acted to "increase the safety of...pedestrian traffic on and around the subject site by greatly improving circulation patterns...." Pedestrian connections such as this, aimed at enhancing pedestrian connectivity throughout the neighborhood, were also recognized as an important objective in the Bethesda Chevy-Chase Master Plan. Because there is insufficient room both between the Grant Street curb and the subject tree and between the subject tree and the property line of Lot 23 to construct a standard sidewalk without removal of the subject tree, the variance requests impacts to the subject tree to allow for the construction of a modified sidewalk in this area, which will allow for a continuous sidewalk as recommended by staff, the Planning Board and the Board of Appeals and as included in the special exception and envisioned by the Master Plan.

Variance Findings - Based on the review of the variance request and the proposed Forest Conservation Plan, staff makes the following findings:

1. *Granting the variance will not confer on the applicant a special privilege that would be denied to other applicants.*

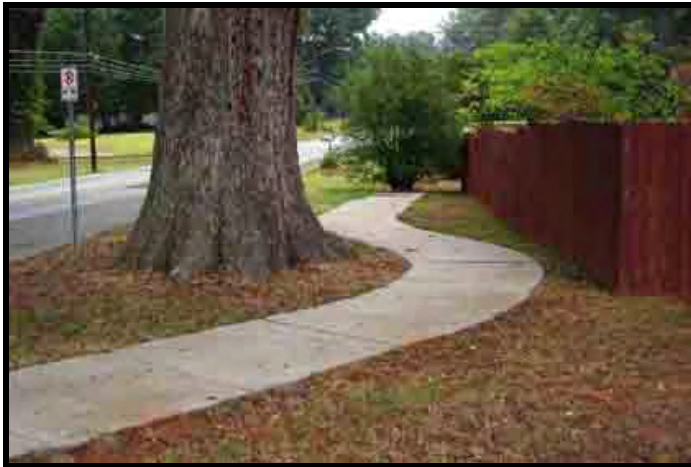
Granting this variance will not confer a special privilege on the applicant as disturbance of the specified trees are due to the request by the Board of Appeals (Case No. S274-D) for the widening of pedestrian and bike path connections along Grant Street.

2. *The need for the variance is not based on conditions or circumstances which are the result of the actions by the applicant.*

The requested variance is not based on conditions or circumstances which are the result of actions by the applicant, because the request for sidewalk construction was made by the Board of Appeals (Case No. S274-D).

- 3. The need for the variance is not based on a condition relating to land or building use, either permitted or non-conforming, on a neighboring property.*

The requested variance is a result of the proposed sidewalk to be built within the public right-of-way. The proposed curve in the sidewalk around the tree (image below) will require a small portion of the sidewalk to be on private property, which is owned by the applicant.



Example of curved sidewalk construction to preserve existing specimen tree

- 4. Granting the variance will not violate State water quality standards or cause measurable degradation in water quality.*

The proposed hospital modernization should improve water runoff quality by the addition of stormwater management.

Mitigation for Trees Subject to the Variance Provisions – Mitigation is generally not required for trees impacted but retained.

Variance Recommendation - Staff recommends that the variance be granted.

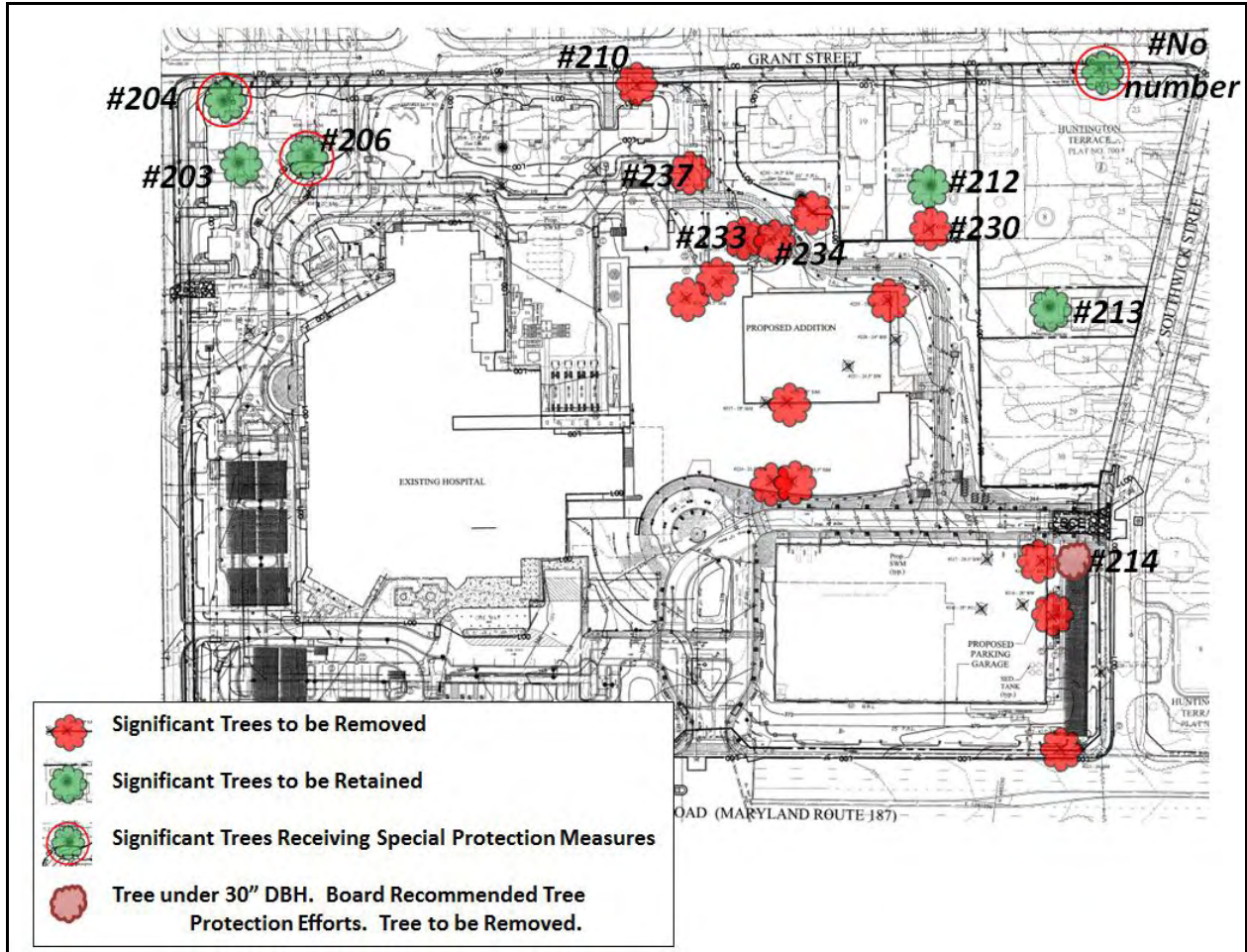
Significant and Specimen Tree Proposal

The following table outlines the proposal for each significant and specimen tree identified on the 2008 NRI/FSD.

Table 5 Significant and Specimen Trees

TREE TAG NO.	DBH	SYMBOL	COMMON NAME	BOTANICAL NAME	COMMENTS	PROPOSED TREE SAVE/REMOVAL	TREE REMOVED: MAINTENANCE OR NATURAL OCCURRENCE
201	29"	WIO	WILLOW OAK	<i>QUERCUS PHELLOS</i>	FAIR	REMOVE	
203	38"	SIM	SILVER MAPLE	<i>ACER SACCHARINUM</i>	VINES	SAVE	
204	32"	RM	RED MAPLE	<i>ACER RUBRUM</i>	GOOD	SAVE	
205	35"	RM	RED MAPLE	<i>ACER RUBRUM</i>	GOOD	REMOVE	
206	45"	SIM	SILVER MAPLE	<i>ACER SACCHARINUM</i>	VINES	SAVE	
207	25"	SIM	SILVER MAPLE	<i>ACER SACCHARINUM</i>	VINES	REMOVE	
208	27.5"	RM	RED MAPLE	<i>ACER RUBRUM</i>	GOOD	SAVE	
209	24"	BW	BLACK WALNUT	<i>JUGLANS NIGRA</i>	GOOD	REMOVE	
210	30"	SIM	SILVER MAPLE	<i>ACER SACCHARINUM</i>	GOOD	REMOVE	
211	42"	SIM	SILVER MAPLE	<i>ACER SACCHARINUM</i>	GOOD		X
212	49"	TP	TULIP POPLAR	<i>LIRIODENDRON TULIFERA</i>	GOOD	SAVE	
213	45"	SIM	SILVER MAPLE	<i>ACER SACCHARINUM</i>	GOOD	SAVE	
214	25"	BW	BLACK WALNUT	<i>JUGLANS NIGRA</i>	GOOD	REMOVE	
215	31"	BW	BLACK WALNUT	<i>JUGLANS NIGRA</i>	GOOD	REMOVE	
216	28"	BW	BLACK WALNUT	<i>JUGLANS NIGRA</i>	GOOD	REMOVE	
217	29.5"	BW	BLACK WALNUT	<i>JUGLANS NIGRA</i>	GOOD	REMOVE	
218	34"	SIM	SILVER MAPLE	<i>ACER SACCHARINUM</i>	LITTLE IVY		X
220	31.5"	TP	TULIP POPLAR	<i>LIRIODENDRON TULIFERA</i>	GOOD		X
221	31"	BW	BLACK WALNUT	<i>JUGLANS NIGRA</i>	GOOD	REMOVE	
222	42.5"	TP	TULIP POPLAR	<i>LIRIODENDRON TULIFERA</i>	GOOD	REMOVE	
223	28"	SIM	SILVER MAPLE	<i>ACER SACCHARINUM</i>	GOOD	REMOVE	
224	33.5"	SIM	SILVER MAPLE	<i>ACER SACCHARINUM</i>	IVY	REMOVE	
225	55.5"	SIM	SILVER MAPLE	<i>ACER SACCHARINUM</i>	IVY	REMOVE	
226	45"	SIM	SILVER MAPLE	<i>ACER SACCHARINUM</i>	IVY	REMOVE	
227	29"	SIM	SILVER MAPLE	<i>ACER SACCHARINUM</i>	IVY	REMOVE	
228	24"	BW	BLACK WALNUT	<i>JUGLANS NIGRA</i>	GOOD	REMOVE	
229	33"	RO	RED OAK	<i>QUERCUS RUBRA</i>	GOOD	REMOVE	
230	31.5"	BC	BLACK CHERRY	<i>PRUNUS SEROTINA</i>	GOOD	REMOVE	
231	24.5"	BW	BLACK WALNUT	<i>JUGLANS NIGRA</i>	GOOD	REMOVE	
232	35"	SIM	SILVER MAPLE	<i>ACER SACCHARINUM</i>	GOOD		X
233	31"	SIM	SILVER MAPLE	<i>ACER SACCHARINUM</i>	GOOD	REMOVE	
234	33"	SIM	SILVER MAPLE	<i>ACER SACCHARINUM</i>	GOOD	REMOVE	
235	48"	SIM	SILVER MAPLE	<i>ACER SACCHARINUM</i>	IVY	REMOVE	
236	34.5"	SIM	SILVER MAPLE	<i>ACER SACCHARINUM</i>	IVY		X
237	46"	SIM	SILVER MAPLE	<i>ACER SACCHARINUM</i>	GOOD	REMOVE	
238	29.5"	PO	PIN OAK	<i>QUERCUS PALUSTRIS</i>	GOOD	REMOVE	
239	54.5"	SIM	SILVER MAPLE	<i>ACER SACCHARINUM</i>	GOOD		X
240	24.5"	RO	RED OAK	<i>QUERCUS RUBRA</i>	GOOD	SAVE	
241	26"	SIM	SILVER MAPLE	<i>ACER SACCHARINUM</i>	GOOD	REMOVE	
242	29"	PO	PIN OAK	<i>QUERCUS PALUSTRIS</i>	GOOD	REMOVE	

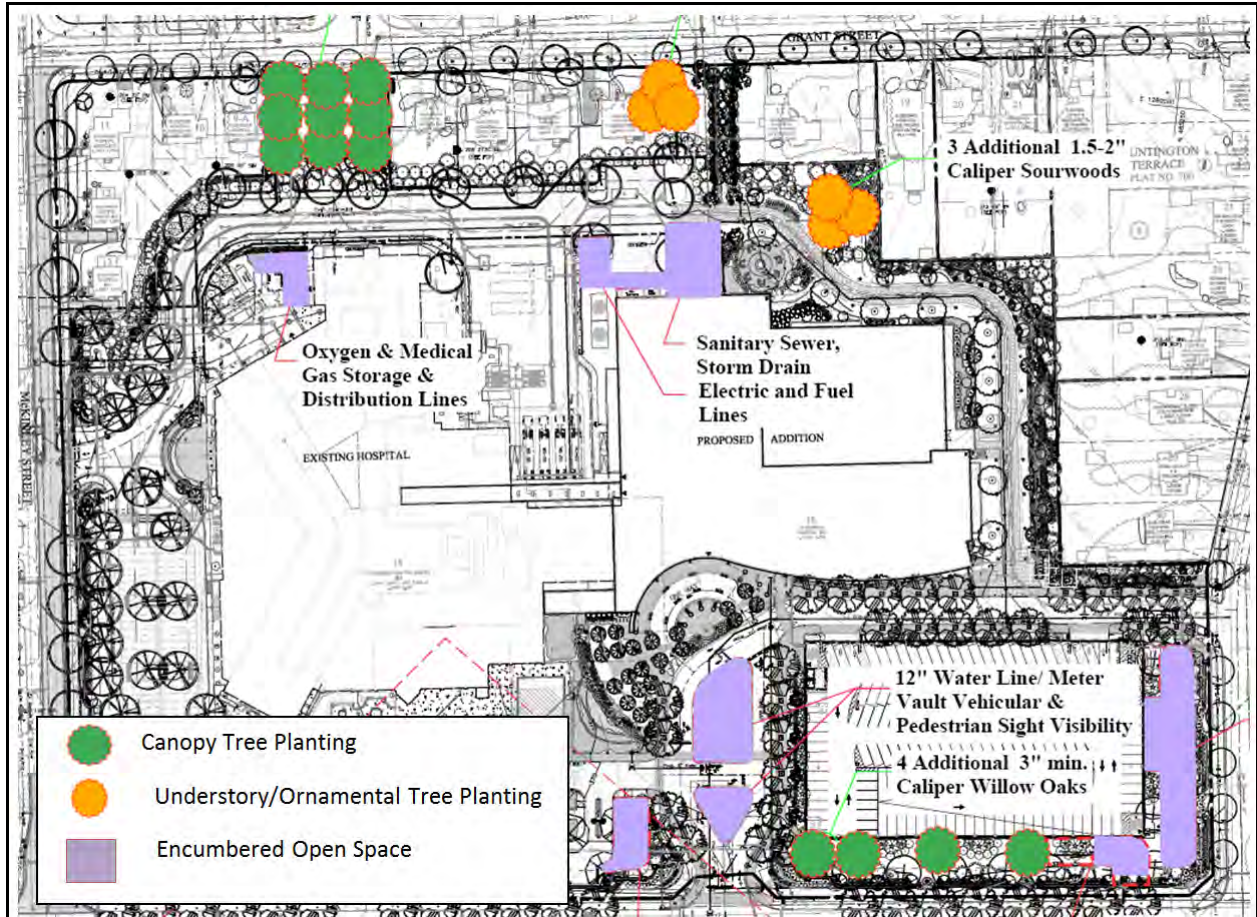
The graphic below shows the specimen trees to be removed and retained as proposed in the final forest conservation plan. The impacts to the specimen trees, with the exception of the singular tree at the corner of Grant and Southwick Street, were approved by the Planning Board at the hearing for the preliminary forest conservation plan on September 15, 2008.



Specimen Tree Mitigation

Mitigation for specimen tree loss is challenged by the limited open space within the compact site. Further planting limitations are due to the extensive distribution of oxygen, gas, sewer, electrical, and fuel lines, and a large underground stormwater vault system with requirements for perpetual maintenance access that does not favor tree planting.

Nevertheless, the applicant was able to provide a landscape plan with deciduous and evergreen trees along the streets, parking areas, and pedestrian walkways. Although full specimen tree mitigation is unachievable on this site, an additional 13 canopy trees will be planted along with six understory ornamental trees to improve the neighborhood buffer and widen the green corridor along Old Georgetown Road.



Arborist's Recommendations

Tree preservation measures will be applied to trees #206, #208 (not a specimen tree), #240, and the unnumbered 45-inch maple at the intersection of Grant and Southwick Street. Tree protection measures include root aeration matting, special protective matting during the demolition process, trunk wrapping, hand digging to protect roots, and supersonic root protection (SSAT and RAM).

Noise

A noise analysis was completed in March 2008 by an engineer specializing in acoustics, and an update was completed in January 2009 (Attachment G). The results found that "there will be no objectionable vibrations caused by the equipment to be used and the resulting noise levels on all adjacent residential properties caused by mechanical equipment from Suburban Hospital, including the proposed expansion, will be below the Montgomery County Noise Ordinance's nighttime limit of 55 dBA. This level completely complies with the Montgomery County Standards."

Staff has received correspondence from Mr. Howard Sokolove of the Huntington Terrace Citizens Association, expressing concern that noise testing locations remain at the rear yards of the hospital-owned residential properties on Grant Street, and not along the fronts of those properties, i.e. at the edge of the special exception boundary on Grant Street (Attachment G). The Citizens

Association's concern is that the noise measurement location not be moved closer to the residential neighborhood across the street from the hospital, because such a move would result in allowing higher noise levels within the neighborhood. This concern is fully addressed by a condition included in the staff recommendation. The condition would require the applicant to continue to comply with all conditions of previously approved variances. One of those conditions, condition 3, requires that noise level testing be taken at the locations at which it was done pursuant to the Board of Appeals' December 13, 2007 Resolution in case No. S-274-C and prior to the Board of Appeals' grant of modification in case No. S-274-D, which is to say at the rear of the lots that front on Grant Street (Attachment E). This condition will keep the testing locations at the rear yards of the properties on Grant Street.

Stormwater Management

The MCDPS Stormwater Management Section approved the stormwater management concept on April 1, 2011. According to the approval letter, the stormwater management concept consists of on-site storm water management using grass swales and proprietary structural filtering devices. Environmental site design was limited due to requirements of the special exception site plan.

Compliance with the Subdivision Regulations and Zoning Ordinance

The lot was reviewed for compliance with the dimensional requirements for the R-60 zone (as modified by the requirements for the special exception) as specified in the Zoning Ordinance. The lot as proposed will meet all the dimensional requirements for area, frontage, width, and setbacks in that zone, as modified by variances A-6364 – A-6377. Those variances were approved by the Board of Appeals on July 23, 2012, for building coverage (35% permitted, 41.1% proposed) and for setbacks (50 feet required, various setbacks proposed). A summary of this review is included in Table 6, below. The application has been reviewed by other applicable county agencies, all of whom have recommended approval of the plan.

This application has been reviewed for compliance with the Montgomery County Code, Chapter 50, the Subdivision Regulations. The application meets all applicable sections. The proposed lot size, width, shape and orientation are appropriate for the location of the subdivision.

Although this application is a resubdivision of previously platted lots, a resubdivision analysis is not required. This is in accordance with the Planning Board's interpretation of February 18, 2010, that the resubdivision analysis required by Section 50-29(b)(2) does not apply to nonresidential uses in residential zones.

Table 6: Preliminary Plan Data Table

PLAN DATA	Zoning Ordinance Development Standard	Proposed for Approval by the Preliminary Plan
Minimum Lot Area	5 ac.	12.89 ac. minimum
Lot Coverage	35%	41.1% ²
Lot Frontage	200 ft. Min.	950 ft. minimum
Setbacks	50 ft. Min.	Must meet minimum ^{1,2}
Maximum floor area per Special Exception	558,697	558,697 ³
MPDUs	N/a	
TDRs	N/a	
Site Plan Required	Yes	

¹ As determined by MCDPS at the time of site plan.

² Unless otherwise determined by approval of a variance.

³ Not including 110,182 square feet of useable cellar space.

Site Plan

- 1. The site plan conforms to all non-illustrative elements of a development plan or diagrammatic plan, and all binding elements of a schematic development plan, certified by the Hearing Examiner under Section 59-D-1.64, or is consistent with an approved project plan for the optional method of development, if required, unless the Planning Board expressly modifies any element of the project plan.*

Neither a development plan, diagrammatic plan, schematic development plan, nor a project plan were required for the subject site.

- 2. The site plan meets all of the requirements of the zone in which it is located, and where applicable conforms to an urban renewal plan approved under Chapter 56.*

The proposed use is allowed in the R-60 Zone with approval of a special exception. Special Exception Modification S-274-D was approved on October 20, 2010 (Attachment D). The purpose of the amendment was to permit the currently-proposed expansion to 294 beds and the proposed building addition and other improvements.

As the project data table below indicates, the site plan meets all of the development standards of the zone and the special exception, except as modified by the approved variances A-6364 – A-6377.

**Table 7
Suburban Hospital Addition Project Data Table for the R-60 Zone**

Development Standard	Permitted/Required	Proposed for Approval
Building Height (feet)	145	62.7
Building Setbacks (feet) (Per Approved Variances)		
Front	50	50
Right-of-Way	50	50
Rear	50	50
Side	50	50
Parking Setbacks (feet)		
Front	25	25
Right-of-Way	25	25
Rear	20	Varies ¹
Side	16	111.5
Building Area (square feet)	558,697	558,697 ²
Lot Coverage (%)	35%	41.1% ³
Parking Facility Internal Landscaping (%)	5%	15%
Parking Spaces (minimum)	937	1,280

¹ Approval for less than 20-foot parking setback approved by Board of Appeals in Variances A-6364 – A-6377.

² Not including 110,182 square feet of useable cellar space.

³ Approval to exceed the 35% building coverage approved by Board of Appeals in Variances A-6364 – A-6377.

- The locations of buildings and structures, open spaces, landscaping, recreation facilities, and pedestrian and vehicular circulation systems are adequate, safe, and efficient.*

The building and structures of the proposed development are located such that they balance efficiency of operation with neighborhood compatibility. This location provides easy access to the building from adjoining sidewalks, streets, and parking. The location of the building and structures are adequate and efficient, while addressing the aesthetic concerns of the area and do not pose any safety concerns on the site.

The project provides landscaped open space with pedestrian connections to the surrounding community. The location of the open space is adequate for the surrounding community, has been designed to encourage pedestrian activity and visual surveillance to promote safety, and presents an efficient balance between development and open space.

Pedestrian improvements, including sidewalks, trees, lighting, and underground utilities are provided to enhance the pedestrian environment. Site lighting will create enough visibility to provide safety but not so much as to cause glare on the adjacent roads or properties. There are no recreation facilities required for this site plan, but open space, seating, and pedestrian paths are provided. The landscaping, site details, and recreation facilities adequately and efficiently address the needs of the proposed use and the special exception approval, while providing a safe and comfortable environment.

Pedestrian access from the adjacent sidewalks adequately and efficiently integrates this site into the surrounding area. Safety is enhanced by several improvements, including new and upgraded sidewalks and ground-floor building design that features regular entrances and windows. The vehicular circulation design efficiently directs traffic into and through the site with minimal impacts to pedestrian circulation. This balance of design with the site, the recommendations of the master plan/special exception, and the needs of the use is an efficient and adequate means to provide a safe atmosphere for pedestrians, bicyclists, and vehicles.

4. *Each structure and use is compatible with other uses and other site plans and with existing and proposed adjacent development.*

The approved special exception for this expansion of Suburban Hospital includes several conditions of approval specifically intended to ensure compatibility between the hospital and the adjacent residential community. The structures and uses included in the site plan meet these conditions and are compatible with the surrounding community.

Chief among those conditions was the requirement that the applicant retain the one-family detached dwellings owned by the hospital on McKinley Street, Grant Street, and Southwick Street. This requirement helps maintain a buffer between the hospital use and the single family neighborhood, and helps maintain the character of the neighborhood.

Conditions were applied to the site driveway from Southwick Street that are intended to reduce vehicular traffic on that street and eliminate hospital-generated traffic on Southwick Street west of the subject property. The driveway is limited to left-in and right-out turns; it may be used by employees only, and it may be used only between the hours of 6:00 a.m. and 8:00 p.m. A condition of the special exception also prohibits westbound turns from the driveway at McKinley Street. These requirements help maintain the residential character of the neighborhood.

The requirement of the variance approval that noise level testing continue to be performed at the rear of the residential lots that front on Grant Street will ensure that higher noise levels are not allowed within the residential neighborhood.

A condition included in the staff recommendation requires continued compliance with the conditions of the special exception and variance approvals. The conditions will ensure compatibility with existing and proposed development.

The structure itself is in scale with the existing hospital building and is located such that it will not adversely impact existing or proposed adjacent uses. Like the existing building, it is located within the central portion of the site, partially buffered from the residential neighborhood by the hospital-owned one-family lots that will be retained.

Compatibility has been achieved through protection of the one-family detached homes along Grant Street, which retain the neighborhood character; protection of trees which add to the neighborhood character and provide additional buffer from the existing and proposed uses to the existing one-family neighborhood; through noise mitigation measures; and through the closure of Lincoln Street to provide an integrated hospital campus.

5. *The site plan meets all applicable requirements of Chapter 22A regarding forest conservation, Chapter 19 regarding water resource protection, and any other applicable law.*

The development complies with the applicable requirements of the Forest Conservation Law. The applicant will meet the afforestation requirements through a fee in lieu of payment.

The MCDPS Stormwater Management Section approved the stormwater management concept on April 1, 2011. According to the approval letter, the stormwater management concept consists of on-site storm water management using grass swales and proprietary structural filtering devices. Environmental site design was limited due to requirements of the special exception site plan.

CITIZEN CORRESPONDENCE AND ISSUES

The applicant has complied with all submittal and noticing requirements. As of the date of this staff report, staff has received one letter from Mr. Howard Sokolove, representing the Huntington Terrace Citizens Association (Attachment H). As discussed above, the letter expresses concern that noise testing locations remain at the rear yards of the hospital-owned residential properties on Grant Street, and not along the fronts of those properties, i.e. at the edge of the special exception boundary on Grant Street. The Citizens Association's concern is that the noise measurement location not be moved closer to the residential neighborhood across the street from the hospital, because such a move would result in allowing higher noise levels within the neighborhood. This concern is fully addressed by a condition included in the staff recommendation. The condition would require the applicant to continue to comply with all conditions of previously approved variances. One of those conditions, condition 3, requires that noise level testing be taken at the locations at which it was done pursuant to the Board of Appeals' December 13, 2007 Resolution in case No. S-274-C and prior to the Board of Appeals' grant of modification in case No. S-274-D, which is to say at the rear of the lots that front on Grant Street (Attachment E). This condition will keep the testing locations at the rear yards of the properties on Grant Street.

Staff also received a request from Norman Knopff, an attorney representing the Citizens Association, to delay the hearing on the grounds that the Board of Appeals decision is being contested in court (Attachment I). Staff cannot delay the case based upon the potential for the court's decision, and the applicant has elected to continue with the hearing at their own risk. A letter from the applicant's attorney objecting to a postponement is also included in Attachment I.

CONCLUSION

The proposed lot meets all requirements established in the Subdivision Regulations and the Zoning Ordinance and substantially conform to the recommendations of the Bethesda – Chevy Chase Master Plan. Access and public facilities will be adequate to serve the proposed lots, and the application has been reviewed by other applicable county agencies, all of whom have recommended approval of the plan. Therefore, approval of the preliminary plan application with the conditions specified above is recommended.

The site plan and the proposed building addition meet all of the requirements of the zone, provide building, open space, landscaping, and circulation system locations that are adequate, safe, and efficient, are compatible with existing and proposed adjacent development, and meet all applicable requirements of Chapter 22A regarding forest conservation and Chapter 19 regarding water resource protection.

Attachments

Attachment A – Vicinity Development Map
Attachment B – Proposed Preliminary Plan
Attachment C – Proposed Site Plan
Attachment D – Board of Appeals Opinion for Special Exception S-274-D
Attachment E – Board of Appeals Opinion for Variances A-6364 – A-6377
Attachment F – County Council Resolution for Abandonment AB715
Attachment G – Noise Study and Noise Study Update
Attachment H – Citizen Correspondence
Attachment I – Correspondence Regarding Hearing Postponement
Attachment J – Agency Correspondence Referenced in Conditions
Attachment K – Forest Conservation Variance Request
Attachment L – County Arborist’s Response to Forest Conservation Variance



Map compiled on March 21, 2013 at 9:54 AM | Site located on base sheet no - 210NW05

NOTICE

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Property lines are compiled by adjusting the property lines to topography created from aerial photography and should not be interpreted as actual field surveys. Planimetric features were compiled from 1:14400 scale aerial photography using stereo photogrammetric methods.

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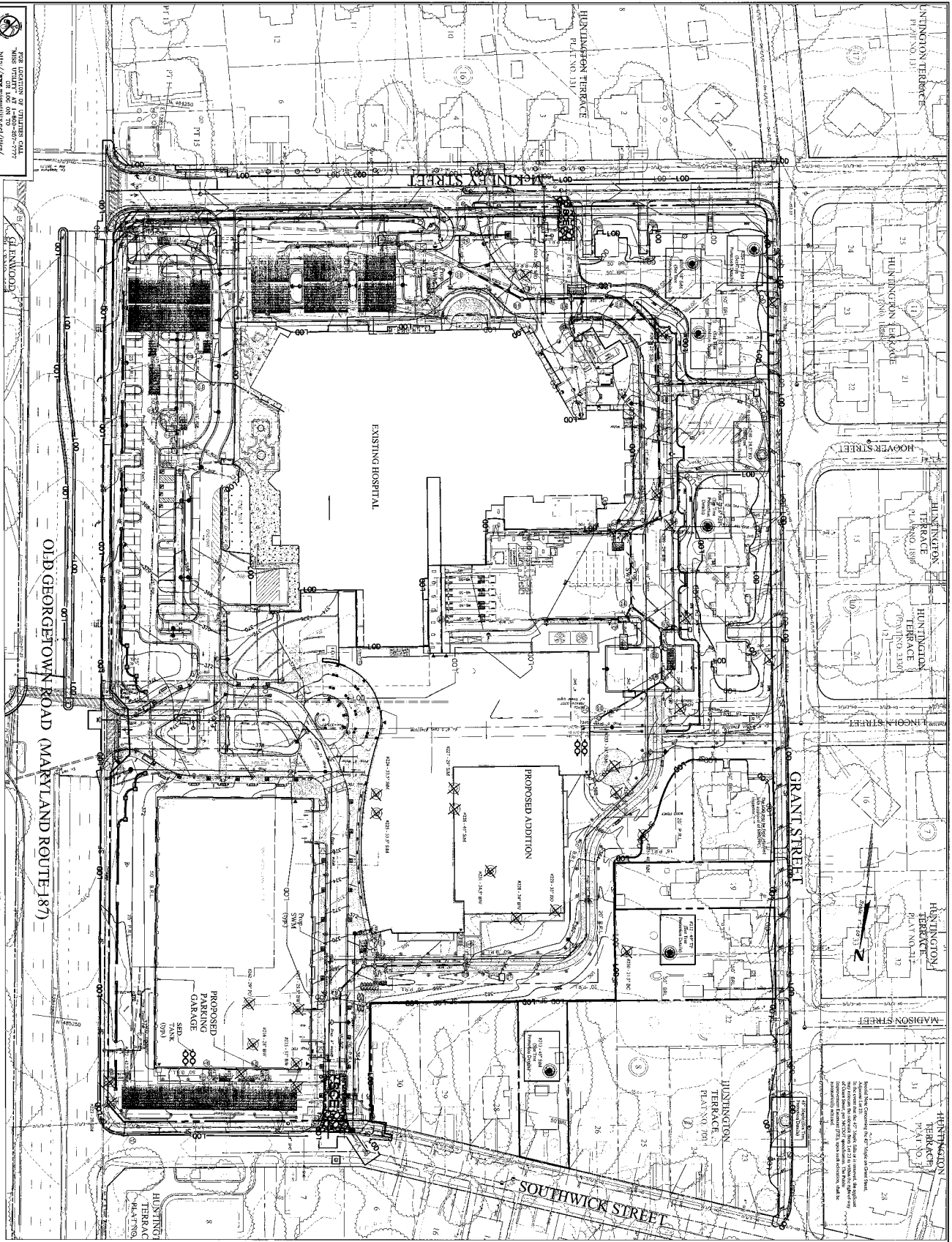
Key Map



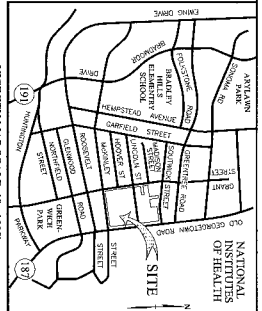
Research & Technology Center

0 300

1 inch = 300 feet
1 : 3600



PLAN VIEW SCALE: 1"=40'



LEGEND

- Site Boundary
- Existing Building Footprint
- Proposed Building Footprint
- Proposed Parking Garage
- Proposed Landscaping
- Proposed Driveway
- Proposed Utility Lines
- Proposed Easement
- Proposed Right-of-Way
- Proposed Street
- Proposed Sidewalk
- Proposed Stormwater Management
- Proposed Tree Removal
- Proposed Tree Retention
- Proposed Tree Planting
- Proposed Tree Pruning
- Proposed Tree Preservation
- Proposed Tree Protection
- Proposed Tree Removal
- Proposed Tree Retention
- Proposed Tree Planting
- Proposed Tree Pruning
- Proposed Tree Preservation
- Proposed Tree Protection

Qualified Professional Certification
 M. D. ...
 M.D. ...
 M.D. ...

FINAL
 FOREST CONSERVATION
 PLAN

RODGERS
 CONSULTING
 1400 Capital Boulevard
 Washington, Maryland 20004
 Phone: (301) 251-4000
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 Website: www.rodgersconsulting.com

SUBURBAN HOSPITAL
 SUBURBAN HOSPITAL
 ELECTION DISTRICT NO. 7
 MONTGOMERY COUNTY, MARYLAND

SUBURBAN HOSPITAL
 JOHNS HOPKINS MEDICINE

OWNER: DESIGNER:
 SUBURBAN HOSPITAL
 6800 OLD GEORGETOWN ROAD
 GAITHERSBURG, MD 20878
 PHONE: (301) 996-3100

NO. 1	DATE	DESCRIPTION

NOTES:
 1. THE FOREST CONSERVATION PLAN IS A PART OF THE FOREST CONSERVATION PLAN FOR THE SUBURBAN HOSPITAL PROJECT.
 2. THE FOREST CONSERVATION PLAN IS TO BE USED IN CONJUNCTION WITH THE OTHER DOCUMENTS IN THE PROJECT MANUAL.
 3. THE FOREST CONSERVATION PLAN IS TO BE USED IN CONJUNCTION WITH THE OTHER DOCUMENTS IN THE PROJECT MANUAL.
 4. THE FOREST CONSERVATION PLAN IS TO BE USED IN CONJUNCTION WITH THE OTHER DOCUMENTS IN THE PROJECT MANUAL.

**BOARD OF APPEALS
for
MONTGOMERY COUNTY**

Stella B. Werner Council Office Building
100 Maryland Avenue
Rockville, Maryland 20850

www.montgomerycountymd.gov/content/council/boa/index.asp

(240) 777-6600

Case No. S-274-D

PETITION OF SUBURBAN HOSPITAL

OPINION OF THE BOARD

(Opinion Adopted October 20, 2010)

(Effective Date of Opinion: December 9, 2010)

Case No. S-274-D is an application by Suburban Hospital to modify its existing, hospital special exception. The subject property consists of Lots 15, 1A, 2-5, 6A, 7A, 8A, 9A, 10-13, Block 15, and Lots 7, Part Lot 20, 21, 27, 32, Block 8, Huntington Terrace Subdivision, located at 8600 Old Georgetown Road, Bethesda, Maryland, 20814, in the R-60 Zone. The elements of the original modification request are:

- 1) A four-story addition with approximately 235,597 gross square feet of floor area, including two floors of private patient rooms, each containing 54 rooms. The first floor will house 15 operating rooms. The second floor will house the medical offices.
- 2) An increase of 66 in the number of patient beds, to 294 beds.
- 3) Construction of a multi-level parking structure containing approximately 1,196 parking spaces, with two levels below grade, one level partially below grade and seven stories above grade, at the northeast end of the Campus. Modifications to existing surface parking facilities to provide a total of 1,465 parking spaces on Campus. Reduction of the number of surface parking spaces from 462 spaces to 269 spaces.
- 4) Demolition of the existing three-story, 268-space parking structure, 23 residential structures and the approximately 17,000-gross-square-foot Lambert building.

- 5) Development of an improved pedestrian and vehicular circulation system, including a new main entrance that will separate the pedestrian and private vehicle entrance from the helipad and emergency vehicle entrance.
- 6) Incorporation of approximately 36,126 square feet of the right-of-way of Lincoln Street between Grant Street and Old Georgetown Road, based upon a request for the abandonment of the portion of Lincoln Street between Old Georgetown Road and Grant Street.
- 7) An increase of 260 full-time equivalent employees.¹

On September 15, 2008, the Technical Staff of the Maryland National Capital Park and Planning Commission recommended approval of Suburban Hospital's petition with six conditions. On September 25, 2008, the Planning Board also recommended approval with three additional conditions.

In response to recommendations by Maryland National Capital Park and Planning Commission (MNCPPC) staff, and the Planning Board, Suburban Hospital made revisions to their original modification request, proposing the following:

- 1) Alternate Garage configurations, to be located on the site of the existing garage and the Lambert Building, either 46.8 feet high, with seven floors and a total of 1244 parking spaces, or 35.3 feet high, with 1176 spaces.
- 2) Dedication of a 10-foot right of way along McKinley Street, which includes an additional westbound right turn access lane and an improved crosswalk on McKinley Street.
- 3) Retention of additional large and specimen trees above and beyond those originally proposed to be preserved.
- 4) Widening of the pedestrian and bike path connectors to 8-feet from the Grant and Lincoln Street intersection to the proposed north/south pedestrian/bike path.
- 5) Additional bike and pedestrian linkages and softer turning radii for the bike paths and wider sidewalks along all perimeters and interior spaces.
- 6) A wider pedestrian refuge and a re-aligned crosswalk on Old Georgetown Road (across from the employee entrance of NIH).
- 7) A handicap ramp across Grant Street at Lincoln Street.

¹ The Hospital currently has 1,682 total employees, including 1,400 full time/regular part-time employees. [HE Report and Recommendation, pages 34-35.]

substance of these findings was repeated by the Hearing Examiner in her analysis of this proposal under some of the General Standards in Section 59-G-1.21 and under Section 59-G-1.2.1. As further explained below, the Board adopts the Hearing Examiner's findings with respect to the adverse effects associated with the removal of 13 of these Hospital-owned homes along McKinley Street, Grant Street, and Southwick Street. The Board finds no adverse effects associated with the removal of eight (8) hospital-owned homes on Lincoln Street and the closing of that street, as explained below, or with the removal of the homes on lots 7 and 8 on Southwick Street, necessary for construction of the parking garage. The Board rejects the Hearing Examiner's findings regarding the proximity of the addition and garage to the closest homes, the size of the garage, and the employee entrance on Southwick Street.

Removal of the houses

With the exception of the eight (8) houses abutting only Lincoln Street and lots 7 and 8 on Southwick Street, the Board concurs with the Hearing Examiner's finding that removing existing residential houses and their mature landscaping would impermissibly adversely affect the residential character of the community surrounding the Hospital, whereas retaining those houses and their landscaping provides buffering more residential in character for the community adjacent to the hospital. Indeed, the Hearing Examiner notes in her analysis, citing the testimony of Mr. Doggett, that

“[t]he character of Grant Street would be totally different—and fundamentally less residential—with houses on one side and institutional buildings and their gardens on the other, compared to houses on both sides, mature trees and institutional buildings behind the houses on one side. The evidence was overwhelming that currently, the houses that back up to the Hospital serve as an effective visual and noise buffer for the rest of the neighborhood, sharply reducing the Hospital's impacts. That leaves the buffer houses themselves unprotected, as Mr. Hagerty pointed out, but their situation is different because they are owned by Suburban. It is Suburban that will feel any long-term impact on the property value. ... The current relationship between buildings is a successful buffer for most of the neighborhood. ... In addition to their buffering value, testimony from residents of Grant and Southwick Streets indicates that the houses Suburban proposed to tear down add to the human fabric of the neighborhood. As Mr. Doggett and residents stated, losing those houses means losing the opportunity for human connections. Much testimony from Huntington Terrace residents supports the conclusion that it is a community that prizes human connections and would suffer a distinct detriment from losing 23 houses' worth of them.”

As discussed in Part III.C. [of the Hearing Examiner's Report and Recommendation] above, in the Hearing Examiner's view any plan to expand Suburban compatibly with the neighborhood must limit the removal

of homes to those that front only on Lincoln Street, and therefore do not directly affect the character of other residential streets.” [Hearing Examiner Report and Recommendation, page 131].

In reaching its finding, the Board also adopts the Hearing Examiner’s conclusion that the 8 hospital-owned homes that abut only Lincoln Street can be removed for the expansion because they face only each other, and thus their removal would not affect the character of any remaining residential street or the effectiveness of the buffering role of the houses. [Hearing Examiner Report and Recommendation, pages 66-67]. With respect to the homes on lots 7 and 8 along Southwick Street, the Board finds that the removal of these Hospital-owned homes is necessary to accommodate the shorter alternate garage recommended for approval by the Hearing Examiner and this Board. The Board notes in this regard that it adopts the findings of Technical Staff and the Hearing Examiner that parking commensurate with the size of the staff and number of patients is an inherent adverse effect of this use. Thus the Board has conditioned its grant of this special exception on the retention of 13³ of the hospital-owned homes that border the perimeter of the two-block area defined by Old Georgetown Road, McKinley Street, Grant Street and Southwick Street to serve as a buffer, in lieu of the gardens proposed by the Hospital. The Board further finds that because the Hospital owns these peripheral properties, any economic impact on the values of these homes resulting from the expansion of the hospital would be borne by the Hospital.⁴

³ This number assumes that the two hospital-owned houses that are located on the East side of Grant Street at the corner of Lincoln Street, which currently have access on Lincoln Street, can obtain access on Grant Street.

⁴ The Board notes here the Hearing Examiner’s observation that one of the reasons the Hospital proposed to remove 23 houses was to be able to add the building square footage for the Hospital addition and the parking garage without exceeding the applicable building coverage cap. [See HE Report and Recommendation, pages 142-143.] The Hearing Examiner’s Report recounts that the parties discussed the feasibility for the Hospital to gain approval for a higher building coverage by seeking a zoning text amendment or a variance, and that HTCA had offered to support such a request. The Hearing Examiner noted that in another recent hospital special exception modification, Holy Cross Hospital received approval of a variance allowing it to exceed the building coverage limit by some 17 percent. The Hearing Examiner in that case found that the first prong of the variance test under the Zoning Ordinance, often called the “uniqueness” requirement, may be satisfied not only by unusual physical characteristics such as shape or topography, but by “other extraordinary situations or conditions peculiar to a specific parcel of property.” Hearing Examiner’s Report and Recommendation dated June 22, 2009 in Case No. S-420-H at 51, quoting Code § 59-G-3.1. The Hearing Examiner in that case concluded that the Holy Cross site satisfied the uniqueness test because of extraordinary situations comprised of its location, hemmed in between I-495 and Sligo Creek Park, and master plan recommendations that limited any expansion of the hospital to its existing site boundaries and suggested specific height limitations on certain parts of the site. The Board of Appeals adopted the Hearing Examiner’s report and granted the modification. See BOA Opinion effective September 18, 2009. The Hearing Examiner observed that while each case is decided on its own merits, this recent Holy Cross decision suggests that a variance from the building coverage limit might be granted to Suburban based on the physical and master plan constraints it faces. The Board notes in this regard that the need for Suburban to buffer its use with houses instead of landscaped gardens so as to be compatible with the surrounding neighborhood, thereby effectively denying the Hospital use of nearly a third of the land it owns for the purpose of meeting the applicable development standards, is indeed an extraordinary situation or condition unique to the Suburban property.

Proximity of the addition and garage

The Board disagrees with the Hearing Examiner's finding that given their size, the proposed addition and garage are too close to nearby homes. The Board notes that the requirement of Section 59-G-2.31(3) is that hospital buildings be set back a distance equal to the height of the portion of any building adjacent to single family residential uses, or not less than 50 feet from a lot line. One portion of the addition is 50.7 feet high and one portion is 20.7 feet high. As originally proposed by the Hospital, the modification would have been 200.5' and 230.5', and 55.89' from its proposed lot line along Grant Street confronting residential properties.⁵ [Exhibit 236(b)]. The Board's imposition of a condition requiring retention of the hospital-owned houses on Grant Street may reduce these distances and thus necessitate variances to meet this standard, although that is not clear and will depend on the configuration of any resubdivision sought by the Hospital after issuance of this Opinion. The Board observes in looking at the lot lines called out on Exhibit 175 [Hearing Examiner Report and Recommendation, page 10], the footprint of the proposed addition and garage as shown on Exhibit 263(b) [Hearing Examiner Report and Recommendation, page 30],⁶ and the distance between the proposed addition and lot 19, as shown on Exhibit 263(b) (55.89 feet), that it appears that the proposed addition and garage will be set back from the rear lot lines of the adjoining Hospital-owned properties at least as far as is required by Section 59-G-2.31(3), and that setback variances may not be necessary. The Board finds that the addition as proposed will be 76.5 feet, and 76.10 feet from its lot line along Southwick Street contiguous to residential properties, thus meeting the required setbacks. Finally, as noted in the paragraph below, the Board finds that the garage will be set back more than 50 feet.

The Board adopts the findings of the Hearing Examiner, and of Technical Staff of MNCPPC, that a large, high-bulk physical plant with some visual and noise impacts on its surroundings, and related parking, commensurate with size, are inherent adverse effects of hospital special exceptions. The Board finds that because the proposed addition and garage meet or exceed required development standards and because their size and bulk are inherent characteristics of the hospital, they are compatible and will not adversely affect the present character or future development of the neighborhood. The Board disagrees with and does not adopt the Hearing Examiner's reference to the setback standard in the Planned Development Zone or her conclusion that a 100-foot setback is more appropriate in this instance. The setback for hospitals in Section 59-G-2.31(3) was

⁵ The Hospital's acquisition of Lot 19 on Grant Street will change the third measurement.

⁶ Although Exhibit 263(b) depicts the 45.9 foot garage, the record indicates that the 36 foot garage would be constructed in the same location as this garage, but would have more below ground parking. See HE Report and Recommendation, page 43.

legislatively established by the County Council, and the Board finds that that is the setback that should be applied.

Size and proximity of garage

The proposed Alternate Garage approved by the Board will be no more than 36 feet high. It will be 64.28 feet from its shared lot line with Lot 30 on Southwick Street and 55.8' and 58.05' away from its lot line along Southwick Street. It is set back 50.1' from Old Georgetown Road. [Exhibit 236(b)]. Thus the Board finds that the garage meets the setbacks in Section 59-G-2.31(3). In addition to its finding that a large physical plant is inherent to hospitals, the Board adopts the findings of the Hearing Examiner and of Technical Staff that a significant amount of traffic and parking commensurate with the size of the staff and number of patients of the hospital are inherent adverse characteristics of a hospital use. The Board notes that the standards for parking garages in Section 59-E of the Zoning Ordinance have less stringent setbacks than the requirement in Section 59-G-2.31 for hospitals, and that the proposed Alternate Garage complies with these more stringent standards.

Employee entrance on Southwick Street

The Board disagrees with the Hearing Examiner that traffic impacts associated with the proposed employee entrance on Southwick Street would rise to the level of non-inherent adverse effects, provided that employee use of the entrance is restricted between 8 pm and 6 am, as has been provided for by the Board in its conditions. As noted below, the Board adopts the Hearing Examiner's finding that the anticipated increases in traffic will not have an incompatible adverse effect on the general neighborhood. [Hearing Examiner Report and Recommendation, page 134]. The Board finds that the Hospital currently has a driveway on Southwick Street and that turns in and out of the proposed Southwick Street driveway would be directed towards Old Georgetown Road. See Hearing Examiner Report and Recommendation, page 84, pages 85-86: "The Southwick Street entrance is proposed for employee use only, limited to 6:00 a.m. to 8:00 p.m., to provide access to the new parking garage without driving through the main entrance area. Drivers would be limited by signage and the driveway design to left turns in and right turns out, to discourage the use of neighborhood streets to reach this access point. Mr. Wells testified that the curb radii would make it very difficult if not impossible to turn left on exiting or to turn right to enter. See Transcript 12-18-08 at 128." Thus, any adverse effects from relocating the driveway entrance will primarily affect the first three properties on the north side of Southwick Street beginning at Old Georgetown Road, all three of which are owned by Suburban.

The Board concurs in the Hearing Examiner's acknowledgement of the hospital's "urgent need to separate its many streams of traffic" [Hearing Examiner

Report, page 135], and finds that the Southwick entrance is necessary to facilitate that. The Board notes that the hospital currently has six entrances, and is reducing that number to four with the modification. In light of the foregoing, the Board finds that the hospital entrance on Southwick is necessary and, as conditioned to limit its hours of operation and to orient Hospital traffic away from the neighborhood and towards Old Georgetown Road, will not have an adverse impact on the neighborhood.

Closing of Lincoln Street

The Board adopts the Hearing Examiner's finding "that ...the Hospital has met its burden of demonstrating that neither the closing of the first block of Lincoln Street nor the anticipated increases in traffic from the proposed expansion would have incompatible adverse effects on the general neighborhood," and agrees with her statement that "The people making 500 trips a day on that block [of Lincoln Street] by car would be very slightly inconvenienced by having to use a different street"; but that "...the harm from losing this block of Lincoln Street does not rise above the level of an inconvenience, which is not an adverse effect sufficient to warrant denying a special exception modification." [Hearing Examiner Report and Recommendation, page 134].

The preponderance of the evidence indicates that the specific standards for this special exception use will be satisfied in this case, as outlined below.

Specific Standards

Sec. 59-G-2.31. Hospitals

A hospital or sanitarium building may be allowed, upon a finding by the board that such use will not constitute a nuisance because of traffic, noise or number of patients or persons being cared for; that such use will not affect adversely the present character or future development of the surrounding residential community; and if the lot, parcel or tract of land on which the buildings to be used by such institution are located conforms to the following minimum requirements; except, that in the C-2 and C-O zones, the minimum area and frontage requirements shall not apply:

The Board adopts the Hearing Examiner's finding that the proposed modification and expansion would not constitute a nuisance due to traffic, noise or number of patients or persons being care for.

As discussed above, the Board concurs with the Hearing Examiner insofar as she found that demolition of the single family homes, other than those that front only on Lincoln Street between Old Georgetown Road and Grant Street and the

two located on Lots 7 and 8 on the south side of Southwick Street, would have unacceptable adverse impacts on the character of the surrounding residential community. The Board requires a condition to retain all but two of the houses on the perimeter of the two block special exception site as part of the modification.

In addition, despite its finding under Section 59-G-1.2.1(a)(5), below, that the Hospital's expansion will not be detrimental to the economic value or development of surrounding properties, in order to stem fears that the Hospital will continue to add to the properties it owns and thus to eliminate any impact that such fears might have on the future development of surrounding properties, the Board has conditioned the grant of this modification on the establishment of a two-block expansion limit, constrained by Old Georgetown Road, McKinley Street, Grant Street and Southwick Street, unless modified by an approved and adopted sector or master plan. In support of this condition, the Board notes the conclusion of the Hearing Examiner that:

“Testimony from Mr. Doggett and a number of local residents supports the conclusion that the uncertainty attached to Suburban's current and potential future expansion plans has adverse effects for all the houses close to the Hospital. ... While there was building improvement activity in the neighborhood even with all the discussion of expansion, a number of homeowners testified or wrote that they sold their house close to the Hospital, or they want to sell it, or they held off putting on an addition because they are afraid of how the expansion proposed now or some future expansion will affect them. For these reasons, the Hearing Examiner shares Technical Staff's view that if an expansion plan is approved, it should include a condition specifying that the two-block area identified in this application as the Hospital campus will be the permanent expansion limit. That certainly would do a great deal to mitigate and balance the inevitable adverse consequences of a hospital expansion.” [Hearing Examiner Report and Recommendation, pages 131-132].

The Board finds that with these conditions, the proposed modification will not adversely affect the present character of the surrounding residential community, and that the specter of any effect on future development (real or imagined) is minimized and mitigated so as to not adversely affect such development.

(1) *Minimum area. Total area, 5 acres.*

The hospital occupies approximately ten acres on the west side of Old Georgetown Road, approximately 7.1 acres (known as Lot 15, Block 15, Huntington Terrace Subdivision) south of Lincoln Street and approximately 2.9 acres (known as Lot 32, Block 8, Huntington Terrace Subdivision) north of Lincoln Street (Hearing Examiner Report and Recommendation, p. 4). The Hospital owns approximately five additional acres contiguous to the special exception site, which

contain single family homes currently used as rental properties. The original modification proposal included plans to demolish these houses and assemble the lots into a single lot. The Board's approval of the modification is conditioned upon retention of a majority of these houses so the Hospital's plans to re-subdivide the property, and the actual size of the resultant special exception area, may change. Nevertheless, the area currently occupied by the Hospital, and to be occupied by the Hospital with this modification, more than satisfies the 5-acre minimum.

- (2) *Minimum frontage. Frontage, 200 feet.*

The Board adopts the Hearing Examiner's conclusion that the subject site has 900 feet of frontage on Old Georgetown Road.

- (3) *Setback. No portion of a building shall be nearer to the lot line than a distance equal to the height of that portion of the building, where the adjoining or nearest adjacent land is zoned single-family detached residential or is used solely for single-family detached residences, and in all other cases not less than 50 feet from a lot line.*

The Board adopts the Hearing Examiner's conclusion that the proposed Alternate Garage satisfies these standards. A recitation of the setbacks for the garage is included under the heading "Size and proximity of garage," above.

As a condition of its approval of the modification, the Board requires the hospital to retain thirteen of the single family homes adjacent to the hospital property which the hospital had requested to demolish in order to re-subdivide its property and assemble the lots into one larger lot. The Board recognizes that retaining the houses may prevent the creation of this larger lot, raises questions about the configuration of the hospital's property, and may create a need for variances related to setbacks and lot coverage for the proposed addition. The setbacks of the proposed addition are discussed under the heading "Proximity of the addition and garage," above. While it appears from Exhibits 175 and 263(b) that the addition may not require the grant of any variances from the setbacks required by this section, the Board cannot be certain of that until a revised site plan is submitted. Accordingly, the Board's approval of this modification is conditioned on the Hospital's obtaining any variances necessary to satisfy this setback standard and other applicable development standards.

- (4) *Off-street parking. Off-street parking shall be located so as to achieve a maximum of coordination between the proposed development and the surrounding uses and a maximum of safety, convenience and amenity for the residents of neighboring areas. Parking shall be limited to a minimum in the front yard. Subject to prior board approval, a hospital may charge a reasonable fee for the use of off-street parking. Green area shall be located so as to*

maximize landscaping features, screening for the residents of neighboring areas and to achieve a general effect of openness.

The Board adopts the Hearing Examiner's conclusion that off-street parking is proposed in locations that would assist in coordination between the proposed hospital expansion and surrounding uses by improving the internal and external circulation pattern, effectively eliminating any need for hospital traffic to park on residential streets, and reducing the amount of hospital traffic driving on local streets in the immediate neighborhood. The Board agrees with the Hearing Examiner's conclusion that site constraints do not allow Suburban to limit front-yard parking, and that in this case, the area between the Hospital and Old Georgetown Road is the best place for parking, because it will least impact the closest residential areas, and will confront large institutional buildings at NIH. The Board has already authorized the Hospital to charge a reasonable fee for off-street parking. The evidence supports a finding that the proposed street trees and landscaping along Old Georgetown Road would enhance this road as a Green Corridor, per the Master Plan. (Hearing Examiner Report and Recommendation, p. 61). The Board agrees with the Hearing Examiner that the proposed green areas would provide some screening for nearby residents, but (as previously noted) also concludes that the screening offered by the landscaping would be inferior to what is currently available from some of the rental houses that Suburban proposes to remove.

- (5) *Commission recommendation. The board or the applicant shall request a recommendation from the commission with respect to a site plan, submitted by the applicant, achieving and conforming to the objectives and requirements of this subsection for off-street parking and green area.*

Suburban will be required to submit a site plan to the Planning Board for approval.

- (6) *Building height limit. Building height limit, 145 feet.*

The Board adopts the Hearing Examiner's conclusion that neither of the proposed structures would approach this height limit.

- (7) *Prerequisite. A resolution by the health services planning board approving the establishment of the hospital shall be filed with the petition for a special exception.*

Not applicable.

General Standards

The Board finds that the preponderance of the evidence indicates that the general standards will be satisfied in this case, as outlined below.

Sec. 59-G-1.2. Conditions for granting a special exception.

59-G-1.2.1. Standard for evaluation. A special exception must not be granted absent the findings required by this Article. In making these findings, the Board of Appeals, Hearing Examiner or District Council, as the case may be, must consider the inherent and non-inherent adverse effects of the use on nearby properties and the general neighborhood at the proposed location, irrespective of adverse effects the use might have if established elsewhere in the zone. Inherent adverse effects are the physical and operational characteristics necessarily associated with the particular use, regardless of its physical size or scale of operations. Inherent adverse effects alone are not a sufficient basis for denial of a special exception. Non-inherent adverse effects are physical and operational characteristics not necessarily associated with the particular use, or adverse effects created by unusual characteristics of the site. Non-inherent adverse effects, alone or in conjunction with the inherent effects, are a sufficient basis to deny a special exception.

MNCPPC Technical Staff identified the following characteristics as inherent characteristics of a hospital:

- 1) a large, high-bulk physical plant, with some visual and noise impact on its surroundings;
- 2) hospital operations running around the clock, seven days per week;
- 3) a large staff;
- 4) a large number of patients and visitors;
- 5) physician's offices affiliated with the hospital;
- 6) a significant amount of traffic and parking commensurate with the size of the staff and number of patients;
- 7) a certain amount of operational noise from generators, air conditioning systems, emergency vehicles, and helicopters;
- 8) a large amount of bio-medical and other waste disposal;
- 9) a significant amount of external lighting for surface parking and safety reasons;
- 10) an optimally located landing site for emergency helicopters.

The Hearing Examiner adopted this list of inherent characteristics, excepting the physician's offices. The Board adopts the Hearing Examiner's findings with respect to the nine inherent characteristics, but does not adopt the Hearing Examiner's findings with respect to the physician office space. The Board finds that physician's offices are an inherent characteristic of a modern hospital,

based on the testimony of Mr. Corapi and Dr. Westerbrand, cited below, and thus agrees with and adopts all ten of the inherent characteristics on the Technical Staff list. This is consistent with the Board's previous decisions in Case No. S-420-E, Petition of Holy Cross Hospital and Case No. CBA-2521, Petition of Montgomery General Hospital. With respect to the physician office space, the hospital proposes to devote 38,000 gross square feet of the 235,597 square-foot addition to physician office space. The Board finds persuasive the testimony of Mr. Corapi that Suburban Hospital is the only hospital in Montgomery County without on site physician office space and that not having physicians on site "critically impacts emergency and trauma" [Transcript, 11/17/08, p. 116]. The Board also finds persuasive the testimony of Dr. Westerbrand, Director of Trauma Services at Suburban, who spoke both to the benefit of physicians on site [Transcript 12/15/08, p.45] and to the less effective alternative of having physicians located in the Bethesda Central Business District [Transcript 12/15/08, p. 47].

59-G-1.21. General Standards

(a) *A special exception may be granted when the Board, the Hearing Examiner, or the District Council, as the case may be, finds from a preponderance of the evidence of record that the proposed use:*

(1) *Is a permissible special exception in the zone.*

The Board adopts the Hearing Examiner's conclusion that a hospital is a permitted use in the R-60 Zone.

(2) *Complies with the standards and requirements set forth for the use in Division 59-G-2. The fact that a proposed use complies with all specific standards and requirements to grant a special exception does not create a presumption that the use is compatible with nearby properties and, in itself, is not sufficient to require a special exception to be granted.*

As noted above, the Board finds that the proposed modification, as conditioned, complies with the standards and requirements set forth in Division 59-G-2.

(3) *Will be consistent with the general plan for the physical development of the District, including any master plan adopted by the commission. Any decision to grant or deny a special exception must be consistent with any recommendation in an approved and adopted master plan regarding the appropriateness of a special exception at a particular location. If the Planning Board or the Board's technical staff in its report on a special exception concludes that granting a particular special exception at a particular location would be inconsistent with the land use objectives of the applicable master plan, a decision to*

grant the special exception must include specific findings as to master plan consistency.

The Board agrees with the conclusion of the Technical Staff for the Planning Board that the proposed modification is consistent with the 1990 approved and adopted Bethesda/Chevy Chase Master Plan, and so finds, for the reasons cited in the Technical Staff report. [Technical Staff Report, pages 7-8]. The Board finds that the Land Use and Zoning Plan of the Master Plan supports large land users, and, in its description of Community Land Use Objectives, specifically excepts community serving uses, of which a hospital is certainly one, from its recommendation against special exceptions along Old Georgetown Road. The Master Plan recognizes that some existing special exceptions along Old Georgetown Road may need to be modified and recommends that any building addition not be more than 50% of the existing building, and the proposed expansion is not. The Master Plan guidelines for special exceptions support special exceptions that contribute to the service and health objectives of the Plan, which the hospital clearly does. Also, Suburban Hospital proposes to make improvements to the sidewalks and pedestrian cross-walks along Old Georgetown Road which are consistent with recommendations of the Master Plan.

- (4) *Will be in harmony with the general character of the neighborhood considering population density, design, scale and bulk of any proposed new structures, intensity and character of activity, traffic and parking conditions, and number of similar uses.*

The Board adopts the Hearing Examiner's definition of the general neighborhood for the purposes of special exception review [Hearing Examiner Report and Recommendation, pp. 15-17].

The Board finds that the people and activities associated with the hospital modification are transient and related to hospital services, so the hospital modification will not affect population density. The Board further finds that the design, scale and bulk of the proposed hospital addition and alternate garage are well within the parameters of the MNCPPC Technical Staff's finding, adopted by the Board, that a large, high-bulk physical plant is an inherent characteristic of a hospital. The existing hospital has a maximum height of 87.1 feet, the proposed addition has a maximum building height of 62.7 feet and the alternate garage approved by the Board has a maximum height of 36 feet - all well below the maximum permitted height of 145 feet. The addition is designed so that the rear portion of the building which is closest to residential homes is lower than 62.7 feet high. The Board finds that, as noted in Technical Staff's report to the Planning Board, "[t]he scale of the proposed addition is designed so that the rear portion of the building is lower in height in areas closest to the residential homes and higher towards Old Georgetown Road. Additionally, the hospital related activities, with the exception of the loading area which would remain unchanged, are oriented

away from the residential area, towards other health-related uses.” [Technical Staff Report, p. 15].

The Board finds that the character of activity associated with the hospital will not significantly change as a result of the modification. The addition of physician office space does somewhat change activity on the special exception site, but as explained above, the Board finds that this is an inherent characteristic of the hospital.

The Board further finds that retention of 13 hospital-owned houses which are contiguous to hospital property along McKinley, Grant and Southwick Streets and their existing, mature landscaping and trees harmonizes the modification with the general character of the neighborhood by providing screening that is residential in scale and character between the hospital and confronting properties.

- (5) *Will not be detrimental to the use, peaceful enjoyment, economic value or development of surrounding properties or the general neighborhood at the subject site, irrespective of any adverse effects the use might have if established elsewhere in the zone.*

As is discussed above, the Board finds that the impact on the surrounding neighborhood of the proposed hospital addition, including closure of the first block of Lincoln Street and the Alternate Garage, is softened by the buffering afforded by retention of 13 of Suburban’s residential properties and their mature vegetation. In addition to the buffering effect of these homes, the Board finds that retaining these homes would preserve the character of these peripheral streets by maintaining the connectivity that results from having similar houses on both sides of these streets, and would preserve the opportunity for human interaction, as testified to by Mr. Doggett. [Hearing Examiner Report and Recommendation, page 119]. See the foregoing discussion under the heading “Removal of the houses,” above. The Board notes its previous findings that a large, high-bulk physical plant and commensurate parking are inherent adverse effects of a hospital special exception. Taken as a whole, the Board thus finds that Suburban’s expansion, as conditioned herein on the retention of these Hospital-owned homes, will not be detrimental to the use or peaceful enjoyment of surrounding properties. The Board further finds that the report on Real Estate Market Conditions [Exhibit No. 28] submitted for Suburban by its expert witness Ryland Mitchell of Lipman Frizzell & Mitchell, LLC is substantial evidence that the hospital’s presence and modification plans are not detrimental to the economic value or development of surrounding properties. The Board notes that although Huntington Terrace Citizens’ Association offered testimony critical of the methodology of Suburban’s Real Estate Report, HTCA offered no countervailing factual or opinion testimony that refutes the conclusions of the report.

- (6) *Will cause no objectionable noise, vibrations, fumes, odors, dust, illumination, glare or physical activity at the subject site, irrespective of any adverse effects the use might have if established elsewhere in the zone.*

The Board adopts the Hearing Examiner's finding that the proposed modification and expansion will cause no objectionable noise, vibrations, fumes, odors, dust, illumination, or glare at the subject site beyond what can be expected for a hospital. Noise, lights and possibly dust related to emergency ambulances and helicopters are inherent parts of the use that must be expected. The Hospital has pledged that if the modification is approved, it will instruct ambulance services to turn off their sirens when they turn onto McKinley Street, to reduce noise impacts on residences. The Hearing Examiner found that the proposed Southwick Street employee entrance would cause objectionable physical activity, but, as discussed above under the heading "Employee entrance on Southwick," the Board disagrees and finds that the Southwick Street entrance will be compatible with the neighborhood with the condition that it not be used between 8 p.m. and 6 a.m. except in emergencies.

- (7) *Will not, when evaluated in conjunction with existing and approved special exceptions in any neighboring one-family residential area, increase the number, intensity, or scope of special exception uses sufficiently to affect the area adversely or alter the predominantly residential nature of the area. Special exception uses that are consistent with the recommendation of a master or sector plan do not alter the nature of an area.*

The Board adopts the Hearing Examiner's finding that the proposed modification will not increase the number of special exceptions in the area. The Board further finds that the impacts of the modification fall within the parameters of the inherent characteristics of a hospital and do not alter the intensity or scope of the use to the extent of altering the predominantly residential nature of the area.

- (8) *Will not adversely affect the health, safety, security, morals or general welfare of residents, visitors or workers in the area at the subject site, irrespective of any adverse effects the use might have if established elsewhere in the zone.*

The Board agrees with the reasoning and conclusions of MNCPPC Technical Staff and the Planning Board that the proposed hospital modification will enhance the hospital's ability to provide healthcare services and that the planned pedestrian and traffic circulation system would improve the safety and security of residents, visitors and workers at the site by reducing the number of access points into and from the hospital, virtually eliminating vehicle/pedestrian conflicts, and so finds. The Board further finds that these are positive effects on the health, safety, security and general welfare of residents and visitors to the site. The Board notes

that this is consistent with the conclusion of the Hearing Examiner, which the Board also adopts, who stated that “As a threshold matter, the proposed modification must be reviewed in comparison with existing conditions, and it is beyond question that the proposed access and circulation plan would be a vast improvement, in terms of both efficiency and safety, over the existing mishmash of vehicles and pedestrians that converge on the combined emergency room entrance/main entrance. Moreover, Mr. Wells offered his expert opinion that the proposed access and circulation plan would be safe and efficient ... Mr. Wells stated that the proposed plan would separate and distribute traffic and reduce, if not eliminate, conflicts at the main driveway.” [Hearing Examiner Report and Recommendation, pages 88-89]. Finally, the Board reiterates its finding that the proposed modification, as conditioned below, including the retention of 13 peripheral residential properties owned by Suburban, is compatible with the surrounding neighborhood, and thus the Board finds that it will not adversely affect the general welfare of residents.

- (9) *Will be served by adequate public services and facilities including schools, police and fire protection, water, sanitary sewer public roads, storm drainage and other public facilities.*

The Board adopts the Hearing Examiner’s finding that the subject property is and will continue to be served by adequate public facilities. Having carefully examined all of the traffic-related evidence as summarized in Part III.D of her report, the Hearing Examiner concludes and the Board concurs that the proposed modification and expansion would not have a material adverse effect on the local road network. It would have beneficial impacts in the form of roadway improvements on Old Georgetown Road and McKinley Street and dramatic improvements to on-site circulation and parking, which would reduce spillover traffic and parking on local streets. It would result in traffic increases on some local streets and decreases on others, given that some drivers will take residential streets and some will stick to larger streets.

- (A) *If the special exception use requires approval of a preliminary plan of subdivision, the adequacy of public facilities must be determined by the Planning Board at the time of subdivision review. In that case, subdivision approval must be included as a condition of the special exception.*
- (B) *If the special exception does not require approval of a preliminary plan of subdivision, the Board of Appeals must determine the adequacy of public facilities when it considers the special exception application. The Board must consider whether the available public facilities and services will be adequate to serve the proposed development under the Growth Policy standards in effect when the application was submitted.*

The Hospital must apply for subdivision approval, and the adequacy of public facilities will be definitively assessed at that time.

- (C) *With regard to public roads, the Board or the Hearing Examiner must further find that the proposed development will not reduce the safety of vehicular or pedestrian traffic.*

The Board agrees with the Hearing Examiner that the preponderance of the evidence supports a conclusion that the proposed modification would increase the safety of vehicular and pedestrian traffic on and around the subject site by greatly improving circulation patterns and ease of access and reducing incentives and opportunity to use local streets for hospital trips, and so finds.

- (b) *Nothing in this Article relieves an applicant from complying with all requirements to obtain a building permit or any other approval required by law. The Board's finding of any facts regarding public facilities does not bind any other agency or department which approves or licenses the project.*

No finding necessary.

- (c) *The applicant for a special exception has the burden of proof to show that the proposed use satisfies all applicable general and specific standards under this Article. This burden includes the burden of going forward with the evidence, and the burden of persuasion on all questions of fact.*

The Board finds that the record substantiates that Suburban Hospital has met its burden of proof and persuasion with respect to the modifications proposed to its physical plant (including the physician office space) and parking facility, and although the Board is requiring that the Hospital substitute the buffering provided by retention of the existing peripheral homes for the landscaped buffering proposed by the Hospital, which will necessarily occasion changes to the site plan and may require the grant of variances, the Board finds that these changes are secondary to the primary objectives of this modification, namely the expansion of the hospital facility itself and related parking, which the Board herein approves. The Board expects that these secondary, Board-imposed changes, which center on the nature rather than the location of the screening made necessary by the uniqueness of this site due to its relationship to and the character of the surrounding neighborhood, will be addressed to the Board's satisfaction in the context of a revised site plan and any variance proceedings, on which this grant is conditioned.

59-G-1.23 General Development Standards

Pursuant to Section 59-G-1.23, each special exception must comply with the development standards of the applicable zone where the special exception is located, applicable parking requirements under Article 59-E, forest conservation requirements under Chapter 22A, and sign regulations under Article 59-F; must incorporate glare and spill light control devices to minimize glare and light trespass; and may not have lighting levels along the side and rear lot lines exceeding 0.1 foot candles. Furthermore, under Section 59-G-1.23(g), any structure constructed under a special exception in a residential zone “must be well related to the surrounding area in its siting, landscaping, scale, bulk, height, materials, and textures, and must have a residential appearance where appropriate. Large building elevations must be divided into distinct planes by wall offsets or architectural articulation to achieve compatible scale and massing.” Under Section 59-G-1.26, a structure constructed pursuant to a special exception in a residential zone must, whenever practicable, have the exterior appearance of a residential building of the type otherwise permitted, and must have suitable landscaping, streetscaping, pedestrian circulation and screening.

The Board adopts the Hearing Examiner’s finding that the modification as originally proposed by the Hospital would satisfy all development standards applicable under the general development standards and under the specific standards for the hospital use. The Board further finds that the modification as conditioned by the Board (i.e. to require the retention of the peripheral houses) may require the Hospital to seek and obtain variances in order to satisfy these development standards, particularly the lot coverage limitation, and thus the Board has conditioned the grant of this modification on the submission and approval of a revised site plan, and on the Hospital’s procuring any necessary variances. The Board finds that the proposed modification would more than satisfy the parking requirements under Chapter 59-E, as indicated by the Table 2 in the Technical Staff report (indicating that 953 parking spaces will be required) and the testimony of Mr. Wells that the shorter, alternate garage on its own (exclusive of any surface parking) would provide 1,176 spaces. [Technical Staff Report, p. 10, Hearing Examiner Report and Recommendation, p. 97]. As noted in Part III.H of the Hearing Examiner’s Report and Recommendation, the proposed modification would satisfy forest conservation and stormwater management requirements, and the Board so finds. The Hospital will be obligated to obtain a sign variance if any of its proposed signage exceeds what the Sign Ordinance permits. The Board further finds that as discussed in Part III.H of the Hearing Examiner’s Report and Recommendation, the proposed lighting would satisfy the applicable requirements. Finally, the Board concurs with the Hearing Examiner’s conclusion that it is not practical for large institutional buildings to be residential in appearance, and thus the Board finds that it would not be appropriate to impose such a requirement here.

The Board finds that the new structures proposed in this petition will relate well to the surrounding area in terms of size, bulk and location, for the reasons set

forth under Section 59-G-1.21(a)(4) and (5), and for the reasons that follow. The size and bulk of the addition and garage are inherent characteristics of this special exception use. The proposed surgical and office addition fronts toward Old Georgetown Road. The addition is designed so that the lowest part of the building is adjacent to the neighboring single family homes, and the highest part of the building is closest to Old Georgetown Road. The rear side of the addition is off-set so that the building mass is broken in two. Retention of the 13 single family homes adjoining the perimeter of Hospital property and owned by the Hospital will further buffer the hospital facility from surrounding residential properties.

As discussed above, the proposed Alternate Garage will be no more than 36 feet high. It will be 64.28 feet from its shared lot line with Lot 30 on Southwick Street and 55.8' and 58.05' away from its lot line along Southwick Street. It is set back 50.1' from Old Georgetown Road. [Exhibit 236(b)]. The Board reiterates its finding that the standards for parking garages in Section 59-E of the Zoning Ordinance are less stringent than the requirement in Section 59-G-2.31, for hospitals, and that the proposed Alternate Garage complies with these more stringent standards.

MOTIONS

Vice-Chair David K. Perdue, seconded by Catherine G. Titus, Chair, moved to approve the modification as proposed, with Suburban Hospital's proposed conditions of approval found in Exhibit 446(a). Board members Perdue and Titus disagreed with the Hearing Examiner's finding that removal of the 23 houses, other than those located on Lincoln Street, rendered the proposal fatally incompatible. They found that whenever a special exception use is located in a residential zone it will either confront or adjoin residential uses and to some extent, displace residential uses in residential zones. Board members Perdue and Titus found that the Maryland Courts in *Schultz v. Pritts* (291 Md. 1; 432 A.2d 1319 (1981)) and *People's Counsel for Baltimore County v. Loyola College* (406 Md. 54; 956 A.2d 166 (2008)) have said that effects that inevitably arise in connection with special exceptions are contemplated by the legislature and presumed compatible with surrounding uses. If the Board were to find that special exceptions which adjoin residential property can be approved, but those which confront residential property cannot, it would limit the number of special exceptions that can be approved. They further found that the landscaping and buffering proposed by Suburban Hospital, maintaining a distance of 200 feet between any hospital building and any remaining residence, constitutes significant buffering. Board members Carolyn J. Shawaker, Walter S. Booth and Stanley B. Boyd opposed this motion.

Vice-Chair David K. Perdue, seconded by Stanley B. Boyd, moved approval of the modification proposed by Suburban Hospital, with conditions which are enumerated below, and with the additional condition that all of the single family houses owned by Suburban except those fronting on Lincoln Street between Old

Georgetown Road and Grant Street (if the abandonment of Lincoln Street between Old Georgetown Road and Grant Street is approved by the County Council), and except Lots 7 and 8 on Southwick Street adjacent to the proposed Alternate Garage, be retained. Board members Shawaker, Booth and Board Chair Titus voted in agreement.

CONDITIONS

1. All of the single family houses owned by Suburban Hospital, except those on the eight lots abutting only Lincoln Street between Old Georgetown Road and Grant Street (if the abandonment of Lincoln Street between Old Georgetown Road and Grant Street is approved by the County Council), and except Lots 7 and 8 on Southwick Street adjacent to the proposed Alternate Garage must be retained.
2. Suburban Hospital must apply for and obtain any variances required to meet the development standards.⁷
3. The two-block area bordered by McKinley Street, Grant Street, Southwick Street and Old Georgetown Road represents the Hospital's maximum expansion limit, unless modified in an approved and adopted master or sector plan.
4. The on-site physician office space will not include space for Family Practice Physicians, Primary Care General Medical Physicians and Primary Care Pediatricians.
5. Only physicians who have privileges to practice at Suburban Hospital may occupy the physician office space approved in this modification.
6. The Applicant shall incorporate the noise mitigation measures recommended by Scott Harvey listed in the conclusion paragraph of Exhibit 216 (letter dated January 28, 2009 from Scott Harvey to Gene Corapi) into the design of the Alternate Garage.
7. The interim parking lot will be removed within 6 months of issuance of the occupancy permit for the Alternate Garage, but no later than 36 months after commencement of construction of the garage structure. Commencement of construction does not include site preparation work.
8. All landscaping must be maintained by the Hospital in accordance with established standards in the horticulture industry for landscaping of the type provided. If requested by Technical Staff at the time of site plan review, the substitution of landscape plantings will be allowed provided the replacement plantings possess equivalent screening characteristics.

⁷ This condition was adopted on a motion by David K. Perdue, Vice-Chair, seconded by Carolyn J. Shawaker, with Catherine G. Titus, Chair, Walter S. Booth and Stanley B. Boyd in agreement.

9. In addition to the measures outlined in the Hospital's Traffic Mitigation Measures Report [Exhibit 144(b)], Suburban may elect to charge employees a reasonable fee for parking.

10. The applicant shall install emergency pull stations or "panic boxes" and add supplemental security cameras at locations determined in conjunction with local police along the trail systems.

11. The on-site gardens and trail system, to the extent that such system can be constructed in light of the requirement for retaining the peripheral houses, shall be open to the public subject to reasonable rules and policies of the applicant for their use.

12. A system shall be implemented by the applicant to allow patients and family members access to any garden areas.

13. The Southwick Street hospital staff entrance and the northern staff entrance to the garage shall be closed between the hours of 8 p.m. and 6 a.m. daily except in the event of an emergency or where life safety issues necessitate its use.

14. The Amended Alternate Garage shall be no more than 36 feet in height. The applicant may extend the parking area at the lowest level by excavating the full floor area. The resulting garage shall not exceed 1,176 spaces.

15. Applicant shall construct a 6-foot wooden fence along its shared property line with the east side of Lot 30.

16. Applicant shall place a Public Improvement Easement ("PIE") along its property line with Old Georgetown Road at a constant 60 feet from the centerline of Old Georgetown Road. As the right-of-way for Old Georgetown Road varies along the Hospital's property line, from approximately 100 to 103 feet (or approximately 50 to 53 feet from the centerline), the PIE varies from 7 to 10 feet in width. The center refuge island of Old Georgetown Road will also be widened to 6 feet, and a crosswalk repainted to provide a perpendicular crossing. Lanes will be repainted to clearly demarcate the through and right turn lanes provided, as shown on Exhibit 73(ppp), subject to final engineering.

17. As shown on Exhibit 73(rrr), applicant shall dedicate an additional 10 feet of right-of-way along the northern side of McKinley Street, between Old Georgetown Road and Grant Street. Between Old Georgetown Road and the hospital entrance, the applicant shall provide widened pavement and an additional right turn lane for traffic entering the hospital. Between the hospital entrance and Grant Street, pavement shall be widened to 26 feet and an island will be installed to direct exiting traffic towards Old Georgetown Road.

18. Applicant shall improve West Cedar Lane as shown on Exhibit 73(ttt), subject to final engineering. However, in the event that improvements to this intersection are constructed by the State Highway Administration (SHA) or others

for BRAC, the applicant may elect to participate in the future funding of the improvements to this intersection based on a pro-rata share of its traffic impact, such election to be made at the time of Preliminary Plan approval.

19. The applicant shall not directly, or through an agent, purchase any lot in the Huntington Terrace Subdivision beyond the boundaries of the Hospital's maximum expansion limits as established in Condition (3), unless this boundary is modified in an approved or adopted master plan or sector plan. In the future, the Hospital shall retain any single family dwelling it purchases within the boundaries of the hospital's maximum expansion limits⁸

20. The Community Liaison Committee (CLC) shall continue to meet a minimum of at least four times a year. Invitations shall be extended to homeowners and residents on Lincoln Street, Grant Street, McKinley Street, and Southwick Street adjacent to or opposite the Hospital and a representative of the Bradmoor, Huntington Parkway, Sonoma and Edgewood/Glenwood communities. If the Office of the People's Counsel resumes activity, the People's Counsel will serve as an *ex officio* member. The CLC is intended to provide a means and mechanism for communication and interaction between the Hospital and its neighbors. A contact person from Suburban Hospital and a contact person from Huntington Terrace Citizens' Association shall be designated to set the dates for the meetings. Minutes shall be taken at each CLC meeting, and the CLC shall prepare an annual report for submission to the Board of Appeals along with copies of the CLC minutes.

21. To the extent that the service drive running from McKinley Street around the west side of the existing hospital, as shown on Exhibit 227, is constructed and includes the paved area located at the terminus of the service drive directly west of the Addition and east of Grant Street, there shall be no vehicular parking on the west side of the paved area. [Service drive configuration may change in light of condition 1].

22. To the extent that the service drive referenced in the preceding condition is constructed, the brick wall along that service drive running parallel to Grant Street as shown on Exhibit 227, to the extent constructed, shall be 6 feet in height, as measured from grade, along the entire north/south length of the service drive. [This wall may not be installed in light of condition 1].

23. Trees required to be installed as part of any approved landscaping plan shall be substantially similar in size and height to the size and installation heights of trees shown on Exhibit 224(a).

24. Incoming vehicles shall not be allowed access to the top level of the garage between the hours of 8 p.m. and 6 a.m., except in the event of emergency or where life safety issues necessitate.

⁸ This condition was modified from its original form on a motion by David K. Perdue, Vice-Chair, seconded by Carolyn J. Shawaker, with Catherine G. Titus, Chair, Walter S. Booth and Stanley B. Boyd in agreement.

25. The construction contract between the applicant and its general contractor for construction of the Modification will include a provision requiring the contractor to comply with Section 31B-6 of the County Code during construction.

26. The applicant shall direct trucks connected with the construction of the Modification to on-site areas to prevent said trucks from standing and idling on McKinley Street, Grant Street, and Southwick Street to await construction duties.

27. The applicant shall designate a contact or contacts to receive and promptly respond to community questions and concerns regarding noise issues. The contact information shall include applicable phone numbers and e-mail addresses and be provided to the community through the CLC and through a direct mailing by the applicant to all persons required to receive notice of these proceedings prior to commencement of construction of the Modification.

28. The CLC shall act as a forum to seek input to assist the applicant in finalizing a new Transportation Management Plan (TMP), incorporating those measures outlined in Exhibit 144(b), with input from the Maryland-National Capital Park and Planning Commission (M-NCPPC) Staff, to be submitted to the Board of Appeals prior to release of building permits for the proposed hospital and/or any other on-site building, including the garage. The applicant, the M-NCPPC, and the Department of Transportation shall each be a signatory to the TMP. During construction of the Modification, the applicant shall also use the CLC as a forum to discuss issues relating to construction activities.

29. The applicant shall post signs prohibiting vehicles from exiting west at the McKinley Street and Southwick Street access points in conformance with Exhibit 46(ww), and shall construct its exits onto McKinley Street and Southwick Street, as shown on Exhibits 225 and 226, respectively, to restrict westbound turns onto these residential streets.

30. The applicant shall be limited to the one point of vehicular access from Southwick Street shown on the site plan.

31. Except as incorporated in this Resolution, previous existing Conditions of Approval for the special exception, as summarized in attachment A to Exhibit 442, are terminated. Conditions listed on attachment B to Exhibit 442 continue in effect except to the extent that they are deleted or modified by conditions set forth in this Opinion.⁹

32. Petitioner shall maintain the lots, trees, fences and shrubs of the houses it owns along McKinley, Grant and Southwick Streets in good condition.

34. Petitioner shall submit to the Board revised site and landscape plans consistent with this Opinion prior applying for building permits.

⁹ This condition was adopted on a motion by David K. Perdue, Vice-Chair, seconded by Catherine G. Titus, Chair, with Carolyn J. Shawaker, Walter S. Booth and Stanley B. Boyd in agreement.

BE IT RESOLVED by the Board of Appeals for Montgomery County, Maryland that the opinion stated above is adopted as the Resolution required by law as its decision on the above-entitled petition.

Catherine G. Titus
Chair, Montgomery County Board of Appeals

Entered in the Opinion Book
of the Board of Appeals for
Montgomery County, Maryland
this 9th day of December, 2010.

Katherine Freeman
Executive Director

NOTE:

Any request for rehearing or reconsideration must be filed within fifteen (15) days after the date the Opinion is mailed and entered in the Opinion Book (See Section 59-A-4.63 of the County Code). Please see the Board's Rules of Procedure for specific instructions for requesting reconsideration.

Any decision by the County Board of Appeals may, within thirty (30) days after the decision is rendered, be appealed by any person aggrieved by the decision of the Board and a party to the proceeding before it, to the Circuit Court for Montgomery County, in accordance with the Maryland Rules of Procedure. It is each party's responsibility to participate in the Circuit Court action to protect their respective interests. In short, as a party you have a right to protect your interests in this matter by participating in the Circuit Court proceedings, and this right is unaffected by any participation by the County.

BOARD OF APPEALS
for
MONTGOMERY COUNTY

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Case Nos. A-6364 thru A-6377

PETITIONS OF SUBURBAN HOSPITAL
(Hearings held March 21, March 28, and April 4, 2012)

OPINION OF THE BOARD
(Effective date of Opinion: July 23, 2012)

This proceeding is a petition pursuant to Section 59-A-4.11(b) of the Zoning Ordinance (Chap. 59, Mont. Co. Code 1994, as amended) for variances from Sections 59-C-1.328 and 59-E-2.83(b). The petitioner, Suburban Hospital (the "Hospital"), proposes: the construction of a hospital addition; a garage; and a drive aisle. The requested variances are listed below.

The petitioner was represented by Barbara Sears, Esquire, and Erin Girard, Esquire. The petitioner's witnesses were: Frank Bossong, civil engineer; Jacqueline Schultz, executive vice president/chief operating officer; Adrian Hagerty, health care architect; and Douglas Wrenn, land use consultant.

Huntington Terrace Citizens Association appeared in opposition to the variance requests and was represented by Norman Knopf, Esquire. The opposition witnesses were: Ann Dorough, who resides at 8604 Grant Street; Bob Deans, who resides at 5607 Lincoln Street; Jeff Barron, who resides at 5513 McKinley Street; Nancy Choy, who resides at 5520 Southwick Street; Howard Sokolove, who resides at 5600 Lincoln Street; and Amy Royden-Bloom, who resides at 5514 Southwick Street.

Please Note: Case Nos. A-6364, A-6365, A-6366, A-6367, A-6368, A-6369, A-6370, A-6371, A-6372, A-6373, A-6374, A-6375, A-6376, and A-6377 were heard together because much of the testimony and other evidence applied to several of the individual variance cases. All of the requested variances were necessitated by conditions included by the Board in its December 9, 2010, grant of a major modification to Suburban Hospital to allow expansion of the Hospital.

The subject properties are: (1) Lots 1-A, 2-3, 8-A and 15, Block 15, and Lots 7, Part of Lot 8, 13-17 and 32, Block 8, and a 32,126 square foot portion of the abandoned Lincoln Street right-of-way between Grant Street and Old Georgetown Road, Huntington Terrace Subdivision, located at 8600 Old Georgetown Road, Bethesda, Maryland, 20814, in the R-60 Zone (Tax Account No. 515226); (2) the subject property is Lot 13, Block 15, Huntington Terrace Subdivision, located at 5421 McKinley Street, Bethesda, Maryland, 20817, in the R-60 Zone (Tax Account No.515523); (3) the subject property is Lot 12, Block 15, Huntington Terrace Subdivision, located at 5423 McKinley Street, Bethesda, Maryland, 20817, in the R-60 Zone (Tax Account No.515181); (4) the subject property is Lot 11, Block 15, Huntington Terrace Subdivision, located at 5425 McKinley Street, Bethesda, Maryland, 20817, in the R-60 Zone (Tax Account No.515250); (5) the subject property is Lot 10, Block 15, Huntington Terrace

Subdivision, located at 8603 Grant Street, Bethesda, Maryland, 20817, in the R-60 Zone (Tax Account No.514040); (6) the subject property is Lot 9A, Block 15, Huntington Terrace Subdivision, located at 8609 Grant Street, Bethesda, Maryland, 20817, in the R-60 Zone (Tax Account No.515170); (7) the subject property is Lot 7A, Block 15, Huntington Terrace Subdivision, located at 8611 Grant Street, Bethesda, Maryland, 20817, in the R-60 Zone (Tax Account No.515168); (8) the subject property is Lot 6A, Block 15, Huntington Terrace Subdivision, located at 8613 Grant Street, Bethesda, Maryland, 20817, in the R-60 Zone (Tax Account No.515157); (9) the subject property is Lot 5, Block 15, Huntington Terrace Subdivision, located at 8615 Grant Street, Bethesda, Maryland, 20817, in the R-60 Zone (Tax Account No.515204); (10) the subject property is Lot 4, Block 15, Huntington Terrace Subdivision, located at 8617 Grant Street, Bethesda, Maryland, 20817, in the R-60 Zone (Tax Account No.515215); (11) the subject property is Lot 12, Block 8, Huntington Terrace Subdivision, located at 5431 Lincoln Street, Bethesda, Maryland, 20817, in the R-60 Zone (Tax Account No.514222); (12) the subject property is Lot 20, Block 8, Huntington Terrace Subdivision, located at 8707 Grant Street, Bethesda, Maryland, 20817, in the R-60 Zone (Tax Account No.514882); (13) the subject property is Lot 21, Block 8, Huntington Terrace Subdivision, located at 8709 Grant Street, Bethesda, Maryland, 20817, in the R-60 Zone (Tax Account No.513125); (14) the subject property is Lot 27, Block 8, Huntington Terrace Subdivision, located at 5516 Southwick Street, Bethesda, Maryland, 20817, in the R-60 Zone (Tax Account No.513934).

Decision of the Board: Requested variances **granted with conditions.**

As a preliminary matter, Chair Titus addressed the renewed request by the Huntington Terrace Citizens' Association (HTCA) that she recuse herself from the proceeding. Ms. Titus declined to do so, citing the reasons given in her November 5, 2008 and June 30, 2010 replies to earlier requests by HTCA for her recusal, together with the June 30, 2011 ruling by the Circuit Court for Montgomery County on the appeal from the special exception modification, which upheld her decision not to recuse herself.

EVIDENCE PRESENTED TO THE BOARD

Testimony presented March 21, 2012

1. The requested variances are a result of the Board's requiring the retention of thirteen (13) single-family homes on the special exception hospital site, as that site was modified by the Board in its December 9, 2010, Opinion. The Hospital seeks sixty-one (61) variances, for the hospital itself and the parking garage, a drive aisle and thirteen existing homes. See Exhibit Nos. 4(a) [DPS stamped site plan], 4(b) [variance site plan], 7 [required variances plan], 9 [aerial photo/existing conditions].

Case No. A-6364, for Lots 1-A, 2-3, 8-A and 15, Block 15, and Lots 7, Part of Lot 8, 13-17 and 32, Block 8, requires a variance for the proposed construction of the hospital addition and garage as they exceed the maximum lot coverage by 6.1%, and a variance of twenty [20] feet from the drive aisle.

Case No. A-6365, for Lot 13, Block 15, requires variances for the existing house of 34.30 feet from the front lot line, 35.60 feet from the side lot line, 43.00 feet from the side lot line, and a variance for the drive aisle of twenty [20] feet from the rear lot line.

Case No. A-6366, for Lot 12, Block 15, requires variances for the existing house of 29.80 feet from the front lot line, 43.20 feet from the side lot line, 35.60 feet from the side lot line, and 11.90 feet from the rear lot line, and a variance for the drive aisle of twenty [20] feet from the rear lot line.

Case No. A-6367, for Lot 11, Block 15, requires variances for the existing house of 29.70 feet from the front lot line, 42.70 from the side lot line, and 30.40 feet from the side lot line.

Case No. A-6368, for Lot 10, Block 15, requires variances for the existing house of 18.40 feet from the front lot line, 41.00 feet from the side lot line, 43.10 feet from the side lot line, and 25.00 feet from the rear lot line, and a variance for the drive aisle of twenty [20] feet from the rear lot line.

Case No. A-6369, for Lot 9A, Block 15, requires variances for the existing house of 18.70 feet from the front lot line, 41.60 feet from the side lot line, 34.50 feet from the side lot line, and 1.70 feet from the rear lot line, and a variance from the drive aisle of twenty [20] feet.

Case No. A-6370, for Lot 7A, Block 15, requires variances for the existing house of 23.80 feet from the front lot line, 36.10 feet from the side lot line, 42.30 feet from the side lot line, and 1.70 feet from the rear lot line, and a variance from the drive aisle of twenty [20] feet.

Case No. A-6371, for Lot 6A, Block 15, requires variances for the existing house of 24.50 feet from the front lot line, 7.10 feet from the side lot line, 43.30 feet from the side lot line, and 0.40 feet from the rear lot line, and a variance for the drive aisle of twenty [20] feet.

Case No. A-6372, for Lot 5, Block 15, requires variances for the existing house of 24.60 feet from the front lot line, 38.10 feet from the side lot line, 42.60 feet from the side lot line, and 31.40 feet from the rear lot line, and a variance for the drive aisle of twenty [20] feet.

Case No. A-6373, for Lot 4, Block 15, requires variances for the existing house of 24.80 feet from the front lot line, 29.70 feet from the side lot line, 21.40 feet from the side lot line, and 34.80 feet from the rear lot line.

Case No. A-6374, for Lot 12, Block 8, requires variances for the existing house of 22.70 feet from the front lot line, 27.70 feet from the

side lot line, 0.50 feet from the side lot line and 34.40 feet from the rear lot line; the existing accessory structure requires variances of 47.80 feet from the side lot line and 42.20 feet from the rear lot line.

Case No. A-6375, for Lot 20, Block 8, requires variances for the existing house of 25.00 feet from the front lot line, 43.20 feet from the side lot line, and forty-two (42) feet from the side lot line.

Case No. A-6376, for Lot 21, Block 8, requires variances for the existing house of 22.80 feet from the front lot line, 44.40 feet from the side lot line, 37.30 feet from the side lot line, and 15.90 feet from the side lot line; the existing accessory structure requires a variance of 46.60 feet from the side lot line.

Case No. A-6377, for Lot 27, Block 8, requires variances for the existing house of 18.40 feet from the front lot line, 39.00 feet from the side lot line, and 42.30 feet from the side lot line; the existing accessory structures requires variances of 45.40 feet from the side lot line and 9.70 feet from the side lot line.

2. Mr. Frank Bossong was accepted as an expert in civil engineering, and testified on behalf of the Hospital. Mr. Bossong testified that he has been involved in the hospital's expansion and modification project for six years, and that as originally proposed, the special exception modification would have erased the internal lot lines of the special exception property, from which many of the requested variances are needed. He testified that the special exception modification as granted by the Board, however, with its retention of 13 peripheral houses, resulted in a new hospital site plan which had internal lot lines. Mr. Bossong testified that as originally proposed, the area covered by the modified special exception would have been 15.2 acres, including the Lincoln Street abandonment and the proposed McKinley Street dedication; if the McKinley Street dedication were excluded, the total area would have been 15 acres. As granted, Mr. Bossong testified that the retention of the peripheral homes reduces the usable net area by 2.1 acres, resulting in a total area of 12.9 acres for the actual hospital and parking garage. See Exhibit 27.

Mr. Bossong testified that Lincoln Street, which bisects the Suburban Hospital campus, has been abandoned and that the special exception modification permitted the Hospital to have its main entrance on Old Georgetown Road. This entrance will also serve as the entrance for the parking garage and for some surface parking. Mr. Bossong testified that the entrance for emergency vehicles will be off of McKinley Street, and that the access off of Southwick Street will be gated and will be used by staff only. The special exception restricts use of the Southwick Street entrance between 8 p.m. and 6 a.m. See Exhibit Nos. 4(a) [DPS stamped site plan], 4(b) [variance site plan],

4(c) [illustrative site plan] and 28 [Suburban Hospital campus/required variances], 27 [special exception property with internal lot lines], and 28 [Suburban Hospital campus/required variances].

Mr. Bossong testified that thirteen houses were required to be retained as a result of the special exception modification and that all thirteen houses require variances. He explained that condition 1 of the modification grant instructs the Hospital to "retain" the houses, and condition 32 instructs the hospital to "maintain" the lots. He stated that DPS considered these existing houses to be part of the "hospital" use based on the special exception boundary, which in turn subjected them to the 50 foot setbacks for hospital buildings. Mr. Bossong testified that 61 variances resulted from the special exception modification, and that the variances fell into three general categories:

1. relief from the 50-foot setback for "hospital" buildings (i.e. for the existing houses (and accessory structures) that the Hospital was required to retain);
2. relief from the 20' parking/loading setback (from the retained internal lot lines, necessary to construct the drive aisle); and
3. relief from the 35% lot coverage limitation (due to the reduced size of the lot on which the actual hospital and garage are to be located, which resulted from the Board-imposed requirement that the peripheral homes be retained).

Mr. Bossong testified that the proposed construction of the hospital addition and the parking garage does not require any setback variances, but does require variances from the lot coverage limitation and for the drive aisle. See Exhibit Nos. 7 [required variances] 27 [special exception property with internal lot lines], and 28 [Suburban Hospital campus/required variances] He testified that if the Hospital had not been required to retain the peripheral homes, neither the setback variances nor the lot coverage variance would have been needed.

Mr. Bossong testified that the special exception site has some peculiar situations that are unique to the site. He testified that the subject property is surrounded on three sides by smaller residential lots; that the hospital needs to retain thirteen residential houses as a part of the special exception site to be used as a buffer between the actual hospital facility and the neighborhood, and that the special exception modification requires that the lots along the perimeter be maintained, which limits the ability of the Hospital to expand on its own property. He testified that the retention of the thirteen homes on the special exception site reduces the useable special exception area for lot coverage purposes by 2.1 acres. Mr. Bossong testified that those homes were generally built between 1935 and 1950, to a lesser

development standard than applies in the R-60 zone today. He testified that the special exception site is limited to the boundaries of Grant Avenue, McKinley Street, Southwick Street, and Old Georgetown Road and that the Hospital is prohibited from purchasing lots outside of those boundaries. He noted that this constrains expansion in a unique manner. Mr. Bossong testified that if the variances are not granted the Hospital would be unable to undertake the expansion previously approved by the Board, which is necessary to meet the healthcare needs of the community and to cure existing hospital deficiencies.

Mr. Bossong testified that with the special exception modification one of the most important factors of the hospital expansion is to correct or improve the circulation pattern on the special exception site. He testified that the modification separates the service drive (located on McKinley Street) and the main entrance to the hospital (located on Old Georgetown Road). Emergency vehicles have a separate entrance off of McKinley Street. He testified that there were no alternate locations for the service drive aisle. He testified that the service area is staying in its current location, and that the Hospital did not want service vehicles using the main or emergency entrances, which would cause conflicts. He testified that access via Southwick was limited by the terms of the special exception. He testified about the traffic problems and dangerous situation caused by the current on-site circulation, in which emergency vehicles, patients, visitors, doctors and service vehicles all use the same entrance. He stated that the circulation design that was approved in connection with the modification tries to reduce conflicts and promote safety.

Mr. Bossong testified that the hospital addition and the garage could not be located elsewhere on the special exception site. He testified that the design of the garage was restricted to a maximum height of three and half floors or 36 feet in height for compatibility and buffering for the adjacent neighborhood. He testified that the lowest level of the garage was restricted by the water table, which the Hospital sought to stay above. He stated that the garage will be three and half floors above ground and three and half floors below grade to keep the lowest level of the garage above the water table. See Exhibit Nos. 29 [Suburban Hospital campus-lot coverage], 30(a) [resubdivision of parts of blocks 1, 5 & 8] 30(b) [plat of Lot 32, Block 8]. He stated that the width of the facility was based on County Code requirements, and that the length took into account ADA slope requirements and other factors. Mr. Bossong testified that instead of using standard pre-cast T-beam construction, this garage would be poured in place to minimize its height while still allowing for the necessary parking. He concluded that the dimensions of the approved garage are the minimum reasonably necessary to accomplish the purposes of the Hospital's expansion.

Mr. Bossong testified that the variances requested were the minimum necessary to allow the Hospital to implement the special exception modification approved by the Board. He testified that there were no alternate locations for siting the hospital addition or parking garage which would mitigate or remove the need for the lot coverage variance. He testified that the requested variances could be granted in accordance with the intent and purpose of the Zoning Ordinance, indicating that their grant would further the Board's intent in approving the special exception modification that the peripheral houses be retained to serve as buffers for the adjoining properties. He testified that from a civil engineering standpoint, the grant of these variances would not disturb the public safety or welfare, and would not be detrimental to the use and enjoyment of the adjoining or neighboring properties. He stated that the grant of the variances would allow for implementation of the modification as conditioned by the Board, thereby benefiting the neighborhood and the community as a whole by providing a residential buffer of the hospital for the neighborhood, as well as improved healthcare.

On cross examination, Mr. Bossong testified that the area added to the hospital's property through the abandonment of Lincoln Street was approximately 40,000 square feet, and that the footprint of the hospital addition was 80,593.8 square feet. He testified that the maximum allowable height for a hospital was 145 feet, and that the height of the proposed addition ranges from approximately 45 feet to approximately 70 feet.

On cross examination, when asked why this Property is unique and confronted solely with the choice of exceptional narrowness, shallowness, shape, topographical conditions, Mr. Bossong testified that the shape of the subject Property was unique and irregular because of the need to maintain the existing 13 residential lots. When asked if he was primarily relying on the language in Section 59-G-3.1(a) of the Zoning Ordinance which refers to "other extraordinary situations or conditions peculiar to a specific parcel of property" to support the grant of the requested variances, Mr. Bossong testified that he was, citing the residences on three sides of this Property, the need for the Hospital to buffer itself with houses and the resultant lot lines internal to its own site, and the fact that without these variances, the existing residential houses that the Board ordered the Hospital to retain would be in violation of the hospital building setback and parking setback. He stated that the special exception proceedings did not address the criteria for a variance because the modification proposed by the Hospital did not require any variances.

Mr. Bossong agreed on cross examination that if a garage were constructed completely underground, it would not impact lot coverage. He stated that the approved garage can hold 1,159 cars. He testified

that it would be fairly unique in Montgomery County to construct a garage below the water table, but that it has been done. He also agreed with counsel for HTCA that the four and one-half story addition to the hospital was not 145 feet tall. When asked by counsel for HTCA whether, in light of his previous responses, the Hospital could attain the same square footage with a smaller footprint, Mr. Bossong replied that 34 days of special exception hearings had been devoted to this, looking at connectivity, usage, operating rooms, hospital codes issues, HVAC, and many other issues. Mr. Bossong concluded that he could not agree with the suggestion that the Hospital should simply have built a taller building. He testified that he was not aware of a 2001 plan drawn up by the citizens to expand the hospital. Mr. Bossong testified that he understood that the retained houses were to be used for hospital purposes, and that the special exception modification did not restrict their use to residential purposes. He testified that the approved drive aisle overlaps the rear lot line of lots 13, 12, 10, 9A, 7A, 6A, and 5.

Mr. Bossong, still on cross examination, testified that the majority of the HVAC for the addition will be underground. He stated that there is also a cooling tower, which he acknowledged admits noise. He stated that he was aware of the testimony concerning HVAC noise that was given during the modification hearing when he testified that granting the variances would not impact the use and enjoyment of neighboring properties. He testified that while he was not a noise consultant, it was his understanding that the noise would meet the requirements of the County noise Ordinance.

3. Ms. Jacky Schultz, Executive Vice President and Chief Operating Officer of Suburban Hospital, testified on behalf of the Hospital. Ms. Schultz testified that she is responsible for all the clinical and non-clinical operations. She testified that prior to her current role, she was Chief Nurse and was involved with other members of the team in the planning process and in identifying the needed improvements. Ms. Schultz testified that Suburban Hospital has been operating under a special exception in its current location since 1955. She testified that the last major hospital expansion was in 1979, and that the needs and requirements for patient care have changed dramatically since that time, particularly as pertains to technology. She testified that many advancements, innovations and techniques have driven the need to make improvements on the hospital's campus. She testified that by today's standards the current building is about 250,000 square feet undersized and is deficient in a number of ways:

- the operating rooms are undersized and outdated;
- the operating rooms are not appropriately shaped to accommodate new technology and are not ideally located;

- only 50% of the rooms in the hospital are private rooms, which have become the standard of care in hospitals;
- ambulances, helicopters, visitors and patients all arrive at the hospital in one area;
- there is a severe parking shortage; and
- there is a need for physician's office space, particularly for critical specialties which need to be close to the hospital for instances when time is of the essence.

Ms. Schultz testified that the hospital is the level II trauma center in Montgomery County. She stated that the hospital's programs, including a stroke program, a heart program, and a trauma program, underscore the aging of the community. Ms. Schultz testified that the Board's approval of the special exception modification required the retention of 13 homes and lots along the perimeter of the Hospital property, to provide a buffer for the neighborhood. She testified that the modification approval restricted the developable land and created practical difficulties for the Hospital. She testified that the approved modification is not a desired expansion, but rather an urgently needed one. Ms. Schultz testified that the expansion meets the needs of and the obligation that the hospital has to the community. She testified that the approved hospital addition footprint is driven by the need to accommodate operating rooms, and is the minimum reasonably necessary. Ms. Schultz testified that the location of sterile quarters is critical, that the pre- and post-op areas have to be appropriately adjacent, and, that there has to be access to other critical services like the emergency room and diagnostic testing. She testified that redesigning the plan or the demolition of the existing facilities would not be feasible for all the reasons that were reviewed during the [special exception] proceedings. She testified that the footprint is driven by the operating rooms and is the minimum reasonably necessary to accommodate those rooms; she noted that this was discussed at length during the special exception modification proceedings. She testified that the addition was placed on the property to connect with the existing hospital. She testified that the loading dock and service drive could not be relocated or demolished without detrimentally impacting operations. She explained that expanding the hospital vertically, so as to reduce the footprint, would necessitate a change in design which would eliminate the square and proximate block of operating rooms, causing them instead to be located on different floors. She explained that this would result in the separation of experts who may be needed with little or no warning in situations where time is critical, would create inefficiencies (duplication of facilities, equipment, and services), and would present a challenge to safe operations. She stated that in the operative suite, there is a variety of clinical expertise present, explaining that even operative nurses have different areas of expertise. There is also equipment for use in emergencies, which would have to be duplicated on each floor if

the operating rooms were separated from each other instead of being centrally located in the proposed operating suite. She testified that the reasons for the approved design, and the reasons that a more vertical design would not work, had been addressed at length during the special exception proceeding. See Exhibit 31. Ms. Schultz testified that if the variances were denied the hospital would not be able to expand in the way that's needed to cure the current deficiencies and to meet the community's needs for healthcare.

Ms. Schultz testified that the variances allow the hospital addition, as approved by the Board, to proceed. She testified that the houses along the periphery of the hospital Property have been there for years, and that the variances sought in connection with those houses are of the amount necessary to meet the Zoning Ordinance requirements now that the houses are considered part of the special exception. She testified that the variances sought to meet the parking and loading setbacks are also the minimum necessary, and referenced testimony in both the variance and special exception modification proceedings which explained why the drive aisle and service area/loading dock cannot be relocated. She testified that the variances are the minimum reasonably necessary to overcome the unique issues pertaining to the Property, including the retention of the existing houses, the footprint of the hospital addition (necessary to accommodate the operating room design), and the location of the loading dock and drive aisle (necessary to cure current circulation deficiencies by separating streams of traffic).

Ms. Schultz testified that she is at the hospital every day, and that based on her knowledge of the project, the operations of the hospital, and the neighborhood, the variances will not be detrimental to the use and enjoyment of neighboring properties. She stated in this regard that the grant of these variances will allow the Hospital to implement the approved special exception modification, in which the retention of the houses was found to be the appropriate buffer for the adjacent community. She testified that the variances preserve that buffer, preserve the residential nature of the neighborhood, and thus preserve the use and enjoyment of the neighborhood. She stated that strict compliance with the development standards (i.e. the failure to grant these variances) would unreasonably prevent the Hospital from using its Property for the needs it has, which will cause the Hospital problems by creating practical difficulties in delivering care and in correcting the deficiencies that currently exist with the hospital.

Ms. Schultz testified that the addition will not add any new operating rooms, but that it does create additional bed space by allowing the hospital to decant current semi-private rooms into private rooms. No net new bed space will be added. She testified that the addition would also include physician office space, which will ensure the immediate availability of physicians that are critically necessary for trauma and

neurosurgery, where a delay in their arrival can result in detriment to the patient.

She testified that private rooms are needed to accommodate a desire for privacy on the part of patients and families, now that family participation has become very integral to hospital care, and from an infection control prospective. She testified that about 50% of the hospital's current rooms are private rooms, and that with the addition, that percentage would increase to about 80% private rooms. She stated that the proposed addition is not principally about creating space for growth, but rather it's about correcting deficiencies. She testified regarding parking that the hospital had looked at the number of spaces currently available, taking into consideration the number of patients, visitors, employees and had found that the current parking was undersized. To mitigate this, in the interim, the hospital has moved people off-site, using a shuttle service. She testified that even with the new parking approved in the special exception modification, the hospital will still have less parking than other Montgomery County hospitals. She concluded that the hospital addition meets the needs that the hospital is not able to meet right now and accommodates deficiencies identified in current operations.

Ms. Schultz testified that the hospital is licensed for 239 beds. She testified that in Maryland hospitals are re-licensed every year based on 140 percent of their average daily census. The total licensed beds for this year is 294.

On cross-examination, Ms. Schultz testified that the only instance she knew of where it may be common for hospitals to not have all of their operating rooms on one floor was where a hospital had an obstetrics unit. She testified that in addition to operating rooms and private rooms, the proposed hospital addition also included about 38,000 square feet of physician's office space. She testified that during her six and a half years at the hospital, she was aware that some of the peripheral houses owned by the hospital had been used by doctors, nurses and physician's assistants. She agreed with opposing counsel that the current garage at the hospital has about 268 parking spaces, and that the garage approved in connection with the special exception modification has over 1,100 spaces.

Ms. Schultz testified on redirect that the hospital does not have obstetrical services, and has not since the mid-1970's. She testified that the hospital does a variety of surgeries: neurosurgery, orthopedic surgery, spine surgery, general surgery, trauma surgery, urological surgery, etc.¹ Ms. Schultz testified that the proposed operating rooms

¹ On re-cross, Ms. Schultz confirmed that the hospital currently does all of these types of surgery, and that they take place in operating rooms which are all on the same floor, but not in the same wing.

have been designed with technology needs in mind, such as the need for robotics, the need for the addition of particular diagnostic modalities that now are commonly used in operating rooms, including CAT scans, magnetic resonance imaging, and also what are called hybrid operating rooms where you have the capability of imaging right alongside operative capabilities.

4. Mr. Adrian Hagerty testified on behalf of the Hospital, as he had during the special exception modification proceedings, and was accepted as an expert in healthcare architecture. Mr. Hagerty testified that he has been engaged in this hospital project since 2006, and is the project architect. He testified that as the project architect, his job was to develop a plan that would address the identified deficiencies at the hospital and meet the building and State healthcare codes. Mr. Hagerty testified that the plan he developed was ultimately approved by the Board when it granted the special exception modification. He testified that in developing the plan, he had considered other locations and options to solve the hospital's problems, noting that architects were basically problem solvers. He testified that every option considered fell short in one way or another of fulfilling the needs of the hospital and/or meeting the various Code requirements (building, healthcare, etc.). He testified that when all of these considerations were factored in, each of the alternatives looked at became too restrictive and did not allow for the solution of the hospital's deficiencies in a way that would meet the applicable Codes and the needs of the hospital. He testified that a number of these options were discussed at the special exception hearing.

Mr. Hagerty testified that he was familiar with the variances requested, and that the original plan that he had submitted did not require these variances. He testified that the unique aspect of the subject property is the imposition by the Board of Appeals of a condition requiring the Hospital to keep the existing houses on the site as a buffer. He testified that the original hospital modification plan had a green space as a buffer and that the green space and the houses are, in fact, a different means of achieving the same thing, namely to buffer neighboring residential uses from an institutional use. He testified that the buffering is intended to improve compatibility, which is a central point of the special exception. He testified that the need to retain the houses is probably the single most important aspect of understanding why these variances are needed and why this property is unique. He stated that it was his understanding that the houses were retained to enhance compatibility and to provide a buffer of residential character which provides for residential structures to address the surrounding neighborhood. See Exhibit No. 9 [aerial photo/existing conditions].

Mr. Hagerty testified that a different plan was originally proposed and that the original plan did not require variances. He testified that there

is one and only one way to improve/modify the hospital site. He testified that the current (approved) plan restricts the amount of building area that can be built on as compared to the originally proposed hospital modification plan. He agreed that the retention of the houses improves the hospital's ability to exist within a residential district and be compatible, but noted that this was not the only way to achieve compatibility, and that the original plan also had a buffer, just a different type of buffer (landscape buffer/green space). He noted that the Hospital's needs did not change as a result of the imposition of this condition, and testified that he did not know of any other properties that were required to be buffered by houses.

Mr. Hagerty testified that the design criteria which must be employed to design any healthcare facility are contained in the Guidelines for Design and Construction of Healthcare Facilities. He testified that Maryland has adopted these Guidelines, and that construction of healthcare facilities is regulated by the State and must comply with this. See COMAR 10.07.01.03. He testified that architects view this as a minimum standard, and that the Guidelines encourage application of other industry standards. He testified that one of the central elements for the Suburban Hospital design was the need for connectivity to the emergency room, which is essential because Suburban is the only trauma center in Montgomery County. He testified that the approved modification has the operating rooms and pre- and post-operative areas on the same floor as the emergency room. He noted that the Guidelines require a direct connection from the operating rooms to the pre- and post-operative rooms. He testified that currently, the hospital is using a very difficult route, using a 'trauma-vator' that goes up five floors from the emergency room to the surgical suites. Mr. Hagerty explained the various adjacencies that are required by the Guidelines, and how these were met by the approved modification design. He testified that a direct connection is required from an infection control protocol standpoint. He acknowledged that the modification did not include a sterile processing unit on the same floor as the operating rooms. He testified that the movement of sterile instruments from the processing unit to the operating rooms would be accomplished by means of a direct-connecting lift. He testified that if the sterile processing unit had been contained on the first floor of the addition, the footprint would have been larger. As it stands now, Mr. Hagerty testified that the floorplate of the approved addition is about 65,000 square feet. He testified that four of the new operating rooms will be slightly larger than the minimum size set forth in the Guidelines in order to accommodate the new hybrid technology (diagnostic imaging equipment, etc.), and that the remaining operating rooms were built to the recommended specifications set forth in the Guidelines.

Mr. Hagerty testified that he would never recommend splitting up operating rooms, for reasons related primarily to safety and

secondarily to efficiency. As an architect, he testified that he would think twice about taking on a job for a client who wanted to split up operating rooms because he is under an obligation to protect the safety and welfare of his clients and the people who visit the buildings he designs. He testified that the proposed modification would provide the standard of care for surgical facilities today. He testified that healthcare providers today are being encouraged to do whatever surgeries they can in outpatient facilities. He testified that the surgeries that occur in hospitals like Suburban, especially because of its trauma designation and because of the nature of the orthopedics program, the heart program, and the neurology program, have a much higher percentage of high risk and higher acuity type of procedures. He testified that with the increased acuity level usually comes more equipment and more people involved in each operation.

Mr. Hagerty testified that an analysis of the hospital's deficiencies was done that concentrated primarily on the surgery performed at the hospital because that was the driver for the footprint of the addition, and consequently, the reason the hospital needs a variance from the 35% lot coverage restriction. See Exhibit 114 (SE record), with special attention to slide 12. Mr. Hagerty testified that the analysis also looked at the parking, infrastructure, and the lack of physician space. He testified that Suburban Hospital is the only Montgomery County hospital that does not have physician space on the campus and that the hospital is in a very small majority throughout the country. He testified that the analysis shows the difference between the operating room size at Suburban now, which is below code, and the current industry standard. He testified that healthcare facilities cannot simply be designed like hotel rooms because there is a lot of support/nursing space which makes the rooms wider than the typical space.

Mr. Hagerty testified that the garage was designed in the most efficient way possible to get the needed number of cars on the site, while working within certain limitations, including the 36 foot maximum height limitation, the lower height being constricted by the water table, the need to construct horizontally in modules of 60 feet, and the regulation of the length by the slope and available space. He testified that the design is the most effective parking garage that can fit on the site and still provide all the other elements of access, and that it has the minimum footprint necessary to accommodate the necessary number of parking spaces.

Mr. Hagerty testified that only one area of the existing hospital structure is designed for vertical expansion, and that that area—a "surface" parking lot with mechanical space below—is already being utilized. He testified that the rest of the existing hospital is not designed for a vertical expansion from both a structural and an adjacency standpoint. He explained that in addition to the lack of

structural compatibility, vertical construction on any other of the existing hospital components would block functions that would put those rooms out of Code compliance, adding that a number of blocked rooms would be patient rooms. Mr. Hagerty testified that his firm had studied the possibility of demolishing parts of the existing hospital in connection with the modification/addition at great length, and that they could not develop a plan that kept the hospital in operation and fulfilled the operational requirements of the hospital by demolishing any portions of the building. He later reiterated that it was not reasonable to suggest that the Hospital should demolish part or all of its existing facility in order to build an addition, based on his understanding of the operations of the hospital and its obligation to serve the community and provide healthcare, and that the hospital could not function as a hospital and serve the community if such demolition were undertaken. He testified that the hospital is efficiently utilizing its existing space, and that no space is not currently being utilized.

Mr. Hagerty testified that there is no other location on the hospital property to locate the proposed modifications that would avoid the need for or limit the extent of the requested lot coverage variance. He testified that this is because the site owned by the Hospital is 15 acres, but its usage is reduced to 12.9 acres for purposes of lot coverage. See Exhibit No. 32 [citations to portions of testimony and exhibits provided by Adrian Hagerty].

Mr. Hagerty testified from his standpoint as an architect that the proposed modification will not be detrimental to the usage of adjoining and neighboring properties. He testified that the condition that the Hospital retain the peripheral houses on its property created a win-win situation for the surrounding neighborhood wherein the residential character and nature of the surrounding properties is maintained. He testified that the modification plan also includes a number of safety enhancements such as restricting traffic flow through the neighborhood, which is another enhancement for the neighborhood. He testified that the safety and welfare of the neighborhood will also be improved by having better healthcare facilities. He testified that the drive aisle on Exhibit 7A is the same drive aisle approved by the Board in the modification. He testified that the drive aisle could not be moved to eliminate the need for the variances related to it without creating additional traffic through the neighborhood. He testified that the loading dock will be modified, but will not be moved from its current location.

Mr. Hagerty testified on cross-examination that the majority of the heating and cooling systems would be below grade, and thus any noise would be well-mitigated by the massing of the building and the louver system. He testified that the cooling towers would be at grade, to the left of proposed addition. Mr. Hagerty testified that the cooling

towers will have a built in noise mitigation system as well as a wall surrounding them which limits the noise. He testified that the chillers are an indoor component of the cooling system. He testified the noise generated by the hospital will meet the laws of the noise ordinance. See Exhibit Nos. 33 [letter from Russ Cramer dated 6/1/2007/noise from Suburban Hospital HVAC units], 34(b) [required variances reduced plan/notated with maintained, existing noise measurement locations], 38 [MC regulations on: procedures governing the measurement of noise levels]. Mr. Hagerty testified that the air handling systems were all underground, located on the level below the surgical area. He explained that the air handlers would exhaust the "relief air" on the front of the building to the east. He testified that the system was intentionally designed so that most of the noise is mitigated because the facilities are underground and exhaust through louvers that are on the front (Old Georgetown Road) side of the building, away from the residences.

Mr. Hagerty testified on cross-examination that the design of the addition was the best possible solution under the given constraints. He denied that the need for the variances was self-imposed, testifying that the need was triggered by the Board-imposed requirement that the Hospital retain the 13 peripheral houses and their lots, which had the effect of reducing the amount of usable property. He noted that the modification had been designed to meet all of the applicable zoning criteria, and that when the Board decided that to approve the proposed modification with the condition that the houses be retained for compatibility reasons as a buffer, this created a situation in which the Hospital had to apply for variances for coverage and to setbacks. He testified that the plan before the Board in the variance cases was the same plan originally proposed by the Hospital, with the addition of the retained houses. He testified that he did not believe it would be reasonable to redesign the modification plan to take into account the Board's requirement that the houses be retained.

When asked if it was possible to lower the garage or to expand the underground parking to reduce the footprint, Mr. Hagerty testified that the garage had been reduced to the extent that is reasonable, adding that it is not advisable to go below the water table and explaining that such action would trigger additional energy costs for fans and pumping water. He concluded that building below the water table goes against every sustainable design principle that you'd want to apply, especially where alternatives are available, such as the proposed (approved) garage design.

Mr. Hagerty testified, still on cross-examination, that while the majority of the heating and cooling systems would be below grade, and thus well-mitigated by the massing of the building and the louver system, the cooling towers would be to the left of proposed addition. Mr.

Hagerty testified that the cooling towers will have a built-in noise mitigation system as well as a wall surrounding them which limits the noise. He stated that they are at grade, and clarified that the chillers are indoors, at the lowest level of the building. He testified that the air handling systems were all underground, located on the level below the surgical area. He explained that the air handlers would exhaust the "relief air" on the front of the building or to the east. He testified that the system was intentionally designed so that most of the noise is mitigated because the facilities are underground and exhaust through louvers that are on the front (Old Georgetown Road) side of the building, away from the residences.

5. Mr. Wrenn testified on behalf of the Hospital as an expert in land planning. He testified that he has been associated with the hospital for eight years as a land planner on the team of consultants for Suburban with reference to the proposed expansion. He testified that as a land planner, the team initially looked at the context and characteristics of the site to understand what opportunities and constraints might be related to the expansion proposal. He testified they began to talk about the interaction with the broader community, share information, and get input on ideas. He testified that he was involved with architects, the engineers, and other consultants to formulate the expansion plan proposal. He testified that part of what they bring to the process is an evaluation of the conformance of the proposal with the Master Plan. He testified that the Master Plan for the Suburban area is the Bethesda/Chevy Chase Master Plan. [See Exhibit No. 13, provisions of Bethesda-Chevy Chase Master Plan]. He testified that he was familiar with this Master Plan, and that he had been involved with, and was familiar with, the variance requests.

Mr. Wrenn testified that he was familiar with the Zoning Ordinance criteria for the grant of a variance, and that he had reviewed the particulars of this Property against those criteria. He testified that there were extraordinary conditions peculiar to the Hospital's Property which cause the strict application of the standards in the Zoning Ordinance to result in practical difficulty to the Hospital. Mr. Wrenn testified that the first factor that makes this property unique is that the hospital is a 15.2 acre institutional campus located in an established neighborhood comprised mainly of single-family home on three sides [Southwick, Grant, McKinley], but he testified that it is more than that. He testified that in addition to the buildings and the streets themselves, what impressed him was the residential character of the setting as a whole, which he described as going beyond the houses and streets to include the landscaping, the mature tree canopy, and the narrowness of the residential streets. He testified that taken together, the scale, texture and composition of this neighborhood creates a remarkable character that you don't see in every residential area. See Exhibit 29B. He testified that because of the combination of these conditions the Board

required that the Hospital should buffer, restore, and retain this residential character by retaining the houses on the campus. He testified that it is unique for a campus to have to buffer itself by utilizing residential structures, and that this is a characteristic not shared by the other properties that surround it or by the other hospitals in the R-60 Zone, i.e. Holy Cross [Silver Spring], Montgomery General [Olney]. He testified that the need to retain the residential houses and their lots on the hospital campus for buffering purposes constitutes a practical restriction to the use of the Hospital's property.

Mr. Wrenn testified that a second factor peculiar to the Property which causes practical difficulties in complying with the Zoning Ordinance is its size and shape. He used Exhibit 27 to show the outer limits of the hospital campus as originally proposed, and contrasted that with the irregular perimeter remaining when the houses are retained. He testified that the retention of the houses on the Suburban site results in an irregular configuration of the property, that it removes 2.1 acres from the 15.2 acre campus, and that it greatly reduces the useable area.

Mr. Wrenn testified that the third extraordinary or peculiar condition which poses practical difficulties for the Hospital is that one of the conditions imposed by the Board on the grant of the Hospital's modification (i.e. the retention of the houses) creates what is essentially a regulatory constraint on the expansion and development of the hospital.

Mr. Wrenn testified that the fourth factor that makes this site unique is the Master Plan recommendations. In this regard, he stated that Section 2.11 of the Master Plan establishes a general goal to perpetuate and enhance the high quality of life which exists in the Bethesda/Chevy Chase plan area,' which he testified not only relates to the need to maintain the residential character of the area, but also to the need for an accessible and high quality healthcare facility in the planning area. He testified that Section 2.12 of the Master Plan sets out a land use goal 'to protect the high quality residential communities throughout the planning area as well as the services and environmental qualities that enhance the area,' and explained that this objective mandates the balancing of the provisions of healthcare services with the protection of residential communities. He testified that the Master Plan recognizes Suburban Hospital as one of the 12 large land users in the planning area, and acknowledges that it may expand in the future. He testified that the Master Plan states that such an expansion should be reviewed in the context of the impact it will have on the adjacent communities and that the Board found that the Master Plan objectives were best achieved through approval of the proposed expansion with the retention of the 13 hospital owned homes and maintenance of their lots as a buffer instead of the landscaped

open space that had been originally proposed. He noted that the focus on preserving the residential character is further emphasized in the Master Plan recommendations regarding the Old Georgetown Road corridor.

Mr. Wrenn testified that there is a constant emphasis in the Master Plan on community-serving uses, and testified that special exception uses contribute to the services and health objectives of the Master Plan. He testified that the Master Plan repeatedly recognizes health services as a fundamental component of a well planned area. He noted that Section 3.11 of the Master Plan establishes a Green Corridors policy for Old Georgetown Road, creating an additional requirement for the Hospital Property.

Mr. Wrenn testified that these four factors create a unique and peculiar circumstance that impacts the Hospital Property disproportionately when compared to other properties in the immediate area. He testified that these circumstances relate only and uniquely to the Hospital's Property.

Mr. Wrenn read into the record the last sentence of footnote 4 in the Board's Opinion granting the Hospital's modification:

The Board notes in this regard that the need for Suburban to buffer its use with houses instead of landscaped gardens so as to be compatible with the surrounding neighborhood, thereby effectively denying the Hospital use of nearly a third of the land it owns for the purpose of meeting the applicable development standards, is indeed an extraordinary situation or condition unique to the Suburban property.

[Case No. S-274-D, page 5, footnote 4]. Mr. Wrenn testified that this sentence is consistent with his testimony. He testified that the Master Plan started with the premise of protecting the residential neighborhoods, and that it was determined that the best way to protect the neighborhood that adjoins Suburban Hospital was the retention of the 13 homes on its site. He testified that the Hospital is requesting these variances to accommodate the adjustment made to its original plan by the Board, namely to accommodate the retention of the buffering houses, and that this adjustment creates practical difficulties for the Hospital by significantly limiting the flexibility that is available to meet the development standards and to implement the approved special exception modification. He testified that the original special exception application proposed to create one lot which met all of the zoning development standards, utilizing the entire 15.2 acres. He testified that losing the 2.1 acres of usable area significantly restricts the ability to expand the Hospital while meeting all of the zoning requirements, and that this is a practical difficulty. He testified that

when the Hospital applies the required zoning standards to its Property in connection with implementing the approved modification, it is unreasonably prevented from using the property for the permitted purpose. He testified that the Hospital's ability to implement the proposed improvements requires the requested variances.

Mr. Wrenn testified that the variances can be granted without undermining the purpose or intent of the Zoning Ordinance or the zoning standards from which the variances are sought. He testified that the properties that comprise the Hospital campus are owned and managed by the Hospital, and that the implementation of the approved modification to the hospital, which necessitates these variances, would not have any impact on the surrounding neighborhood. Mr. Wrenn testified that the variances are internal to the hospital's needs for expansion and for creation of the required buffer for the residential properties. He testified that there are not any alternative locations for the Hospital's facilities and improvements which would avoid the need for these variances while still meeting the healthcare needs of the community and creating the buffer the Board determined was necessary to preserve the residential character of the neighborhood. He testified that the variances requested are the minimum reasonably necessary to meet the needs of the hospital and comply with the zoning standards.

Mr. Wrenn testified that he believed that the variances can be granted without substantial impairment to the intent, purposes, and integrity of the general plan and the adopted area Master Plan. He reiterated his earlier testimony that the Master Plan establishes a number of goals and objectives, and that the special exception modification approved by the Board achieves those goals by requiring the residential buffer (which in turn necessitates the variances).

Mr. Wrenn testified that the requested variances will not be detrimental to the use and enjoyment of adjoining and neighboring properties. He testified that granting the variances would allow the retention of the buffering residential properties, their landscaping and their lots, which will maintain the use and enjoyment of the adjoining neighboring properties.

On cross-examination, Mr. Wrenn contrasted the smaller residential lots surrounding the hospital and in the Huntington Terrace neighborhood with the larger lot which contains the hospital use itself, characterizing it as an institutional campus located within a neighborhood of small single family lots. He testified that across Old Georgetown Road is another institutional use, NIH, and noted that NIH does not have residential lots on their campus to create a buffer with the surrounding neighborhood, since it is a federal facility. When asked if Holy Cross Hospital is also zoned R-60 on three sides or has

residences on at least three sides, Mr. Wrenn testified that Holy Cross backs up to the beltway, and while it may have residential houses on two or three sides, Holy Cross did not have to retain houses on its campus alongside the hospital, the parking, and its other facilities.

In response to a question asking how having a drive aisle on a single family property was consistent with the Master Plan goal of protecting the residential character of the neighborhood, Mr. Wrenn testified that the drive aisle was internal to the hospital site, and thus did not diminish the residential character experienced on Grant Street, McKinley Street and Southwick Street. He testified that it was not uncommon where there's shared ownership of property to utilize or straddle a property in order to provide a drive aisle or other facility. He testified that in the context of the proposed modification and the hospital campus, the location of this drive aisle is consistent with the protection of the residential neighborhood. Mr. Wrenn then testified that what is proposed is the best plan to meet the healthcare needs and expansion requirements of the hospital, and the best proposal to preserve the residential character of the neighborhood. In response to a Board question, Mr. Wrenn testified that the service drive aisle is presently accessed off of Lincoln Street, and that under the special exception as modified, it would be accessed from McKinley Street, but would serve a loading area that is not being moved, and thus that the noise attendant to the loading area would be essentially unchanged. He also testified that the drive aisle would be bounded by a 6-foot masonry wall.

When asked on cross-examination if noise could make a property uninhabitable, Mr. Wrenn testified that that would depend on the origin of the noise and its relationship to the residential property. Mr. Wrenn then testified that he is not a noise expert, but that he believes that noise exists at present from the hospital operations, and that there will be similar operations, and thus presumably similar noise, following the implementation of the approved modification. He testified that the Hospital will conform to the requirements of the law as it pertains to noise.

Mr. Wrenn agreed with Ms. Sears, in response to a Board question, that the garage entrance on Southwick Street will be restricted to use by employees only, between the hours of 6 a.m. and 8 p.m., He agreed that employees could only access the garage by making a left turn in, and a right turn when exiting, to preserve the residential character of the neighborhood and prevent cut-thru traffic. This stands in contrast with the current use of McKinley Street, which already handles shuttle buses and other activity.

Mr. Wrenn testified that Southwick Street is not a full movement, four signal light intersection, which means it can only be entered with a

right-hand turn onto Southwick from Old Georgetown Road, and can only be exited with a right out; there is no median break. He testified that McKinley Street has both a median break and a signalized intersection, which makes it better for service traffic. He testified that the originally proposed modification included a buffer of gardens, landscaping, seeding areas, and a whole sequence of spaces that were meant to be open and inviting for both people at the hospital and the surrounding neighborhood. He testified that the approved modification uses what currently exists as a buffer, replacing the gardens with the existing residential houses and lots. He testified that if the drive aisle were modified, it would require a new modification and approval by the Board.

Testimony presented March 27, 2012

6. Mr. Knopf's opening statement discussed the specific variance standards from Section 59-G-3.1 of the Montgomery County Code. He cited Circuit Court cases about variances, including Cromwell v. Ward, 102 Maryland App. 691, Umberly v. People's Counsel, 108 Md. App. 497, Salisbury v. Bounds, 240 Md. 547, Norris v. St. Mary's County, 99 Md. App. 502 and Montgomery County MD v. Rotwein, 906 A.2d 919, 9. Mr. Knopf opined that the modification approved by the Board is a design of convenience because it protrudes 500 feet back from Old Georgetown Road into the community, and leaves 250 feet in front of the hospital for flowers and a grand entrance, and that it does not appear that the hospital made it a priority to look for ways to meet its needs while minimizing adverse impact on the neighborhood. Mr. Knopf stated that the variances threaten the community with greater noise which could be mitigated by imposing a condition that noise level measurement testing, as required by the Board's December 13, 2007 Resolution in Case No. S-274-C, continue to be taken at the same location (behind the homes on Grant Street) as before those thirteen (13) homes were incorporated into the Hospital site.

Mr. Knopf stated that a big reason for opposition to the variance request is the interpretation that the Hospital can move the sound testing across the street, and that this will result in adverse, increased noise impacts both to the Grant Street houses retained as part of the special exception, and to those across the street. He further stated that this noise disturbance creates an impermissible inconsistency with the Master Plan.

The Board recognized Ms. Sears, who stated that retaining the Grant Street houses as part of the special exception changed its boundaries, and that the noise impact of the hospital on adjoining and surrounding properties outside the special exception boundaries would not violate the Noise Ordinance.

Mr. Knopf posited that the hospital could have located the improvements closer to Old Georgetown Road, and that the community would have agreed to a variance from the required 50-foot setback for hospital buildings. He stated that this would have been fewer variances than are requested, so the request is not the minimum reasonably necessary.

7. Ms. Ann Dorough and her husband Greg Eckman moved in at 8604 Grant Street in August of 1999. As a resident who lives in close proximity to the hospital, she supports "a condition to maintain[ing] the noise measurement location where it is now". She testified that there is a constant low grade mechanical noise from the hospital that is a "combination between a hum and a whish" that is always noticeable all around the outside of her home, and inside her home if the windows are open. Ms. Dorough expressed her appreciation that the Board required the retention of the thirteen houses to absorb and deflect the hospital sounds, but expected that the noise would be measured from the same place as it had been. She testified that if the noise measurement location remains the same with the retained homes, it would be acceptable to her. She expressed her concern that the installation of a new cooling tower closer to Grant Street might increase the noise level. In response to Board questions, Ms. Dorough stated that if the noise measurement location is moved, the [Noise Ordinance] 55 decibel limit will be moved from 140 feet away to 25 feet from her house, which she finds intolerable and unacceptable. Finally, Ms. Dorough stated that even though the hospital currently meets the County noise standards, it still disturbs her use and enjoyment of her property. Ms. Dorough testified that her understanding is that where the noise will be measured is now different from what the neighbors understood would be the case. She testified that she had understood that the noise would be measured from the same place that it is currently and that it's significantly different from her original understanding.

In response to a Board question about why the testing location is being moved, Ms. Sears stated that there is a false premise here. The variance does not change anything approved by the Board in terms of the conditions applicable to noise. The Board made a finding in the modification case, based on evidence presented by a noise expert, that the noise level was acceptable and that it did not cause a detrimental impact to the surrounding community. She stated that there is no issue in the variance requests about changing the testing points, but rather that the opposition would like to modify the special exception approval through the variance requests by requiring a different point of measurement. The point of measurement the opposition proposes is within the special exception property boundary, to the back or the rear of the lots that now are a part of the special

exception. Ms. Sears stated that the opposition is trying to unilaterally modify the special exception to a noise standard which is lower than what the law requires. She suggested that to go further to test at certain points within your special exception is not the right application of the law.

In response to a Board question, Mr. Knopf stated that the evidence that the noise emitted by the hospital will exceed allowed limits is that the Hospital will not agree to a condition to continue the noise testing at the rear property lines lot the retained Grant Street houses.

7. Bob Deans of 5607 Lincoln Street testified that he has been in the neighborhood for 20 years and that he has resided at his present location for 15 years. Mr. Deans testified that he is member of the board of the Huntington Terrace Citizens Association. He thanked the Board for saving the 13 homes on the Hospital campus and asked that the variances be conditioned upon a provision that the Hospital be required to maintain noise levels defined by the County Noise Ordinance as measured from the rear property lines of the receiving residential properties that have been preserved. He testified that with the variance request the hospital would be able to move its noise measurements 150 feet further away from the noise than is now the case. He testified that the hospital would be able to increase dramatically the noise imposed on the community, but that the measurement would be taken from so far away that the needle would still show compliance when you to measure it. He testified that that's not the intention of the Master Plan or the zoning laws. He pointed out that the Master Plan makes reference to Suburban Hospital and states, "any change in use of these properties, including any expansion proposal, should be reviewed in the context of the impact it will have on the adjacent communities."

In response to a Board question, Mr. Deans said that properties along Grant, Southwick and McKinley should be protected more strictly from noise than the noise ordinance itself requires, because even if noise measurements show compliance, the community will be experiencing substantially more noise. He said he did not know whether they will they be experiencing greater noise than the noise ordinance allows, but his issue is where it is being measured.

Mr. Deans testified that there was a little bit of ambiguity in where the noise would be measured and that it was the community's understanding that by preserving the homes, you were preserving the point of measurement of the noise. He stated, "It matters a lot to us where we measure these noise levels."

In response to a question from Mr. Knopf, Mr. Deans stated, referring to an appendix to the Hearing Examiner's Report and

Recommendation in the modification case, Exhibit 449, regarding noise impacts, that the houses along Grant street would experience noise impacts below 55 decibels, but that if noise testing is moved across the street from them they could experience noise impacts of 55 decibels, a change from the current circumstance.

8. Jeff and Kate Baron of 5513 McKinley Street have lived in their home for almost 25 years, about a block from the hospital. Mr. Baron testified that prior to moving in he was required to sign a paper that he understood that there would be helicopter flights over his home and that the noise from helicopters would be a factor in deciding to purchase his home. He testified that he never expected that a Board decision would extend the noise from the hospital into the neighborhood. He testified that the noise from the hospital is noise pollution. He testified that the streets by the hospital are pretty and lovely, but really noisy and that the Board's decision has the possibility of projecting noise into the neighborhood. He testified that it seems like common sense that if you change the place of measurement, you are going to change the ambient noise level. He testified that this is unexpected and unanticipated and that Board should consider the interest of the residential neighborhood in making its decision.

Mr. Baron stated that the hospital itself is unlikely to decide to mitigate the noise going into the neighborhood so the question of where you measure it becomes extremely important.

In response to a question from Mr. Knopf regarding the hospital's noise study appended to the Hearing Examiner's decision in the modification case, Mr. Baron stated his understanding is that changing the location of noise testing could allow noise impact to the houses on Grant Street to increase to 55 decibels. Upon cross examination Mr. Baron conceded that he that he did not know whether the exhibit [Exhibit 216D, p. 31] shows measuring points for noise testing, but that "irrespective" of that, "if there are new property lines, that I will have more noise in my neighborhood" [Transcript, March 27, 2012, p. 104].

9. Nancy Choy lives at 5520 Southwick Street. She testified that she understood the importance of Suburban's need for modernization of its facilities, but believed the expansion should minimize its adverse impact on residents and the neighborhood. She testified that the variances should not decrease the setback between the new hospital structures and the residences. She testified that if the variances are allowed, Suburban should be subject to conditions that would require the hospital to address the impact of increased noise that will result from the granting of the variances.

In response to Board questions Ms. Choy stated that she does not believe that the noise testing point will change for her property, but that everybody in the neighborhood is affected.

She testified that noise levels would impact the value of her home and that she was not sure she wanted to invest money in the home, but could not afford to move elsewhere. She testified that it does not matter whether her property is specifically involved because the surrounding properties are going to hear more noise and it will impact the community.

10. Howard Sokolove of 5600 Lincoln Street, testified that he has been a resident of the neighborhood for 27 years. He testified that his property does not receive a lot of noise, but that he can still hear it. Referring to Exhibit No. 175, Mr. Sokolove testified that as a result of the special exception modification process the boundaries of the hospital site have been changed to a two-block area, Grant Street to the west, Southwick Street to the north, Old Georgetown Road to the east, and McKinley Street to the south. He testified that nothing about the existing residential properties has changed. He testified that the noise should be measured as it is required in the Noise Ordinance, to the nearest residential receiving property line. He testified that he views the 13 homes retained on the hospital site as a visual buffer and a noise buffer

Mr. Sokolove expressed concern about potential noise impacts to homes on Southwick Street and the 8700 block of Grant Street. In response, Ms. Sears offered Exhibit 216 from Case No. S-274-D which consists of modeling of the noise impacts of the approved (but unbuilt) modification, and which shows compliance with the Noise Ordinance.

In response to questions from Mr. Knopf, Mr. Sokolove stated that the variance provision against detrimental impact on adjoining and neighboring houses is separate from the Noise Ordinance and does not have a quantitative decibel level attached to it. He stated that previous noise testing has been done primarily from the rear property line of the houses on Grant Street and from the front property lines of the houses on the north side of Lincoln Street. Mr. Knopf quoted the Hearing Examiner's report and recommendation in Case No. S-274-D, "Mr. Harvey acknowledged that if the 23 houses are torn down as proposed, the hospital will have more flexibility about placing noise producing equipment closer to Grant Street, because the noise will be measured from the closest residential property line;" and asked Mr. Sokolove his understanding of the implication of this statement if the houses are not torn down, to which Mr. Sokolove replied that implicit in the statement is that if the houses are not torn down the noise measurement will remain in the same place. In further response to Mr. Knopf, Mr. Sokolove stated that Exhibit 216 in Case No. S-274-D, page

31, shows no levels of 55 decibels or greater on hospital owned property, and that Mr. Harvey's testimony during the modification hearing was that there would be no projected noise above 55 decibels on any adjoining properties. Mr. Sokolove stated that if the noise measurements were taken from the property line on the west side of Grant Street, the houses on McKinley and Grant Street would experience a higher level of noise.

In response to questions from Ms. Sears, Mr. Sokolove stated that nothing about the variances increases the noise. He stated that Exhibit 216B at page 31 does not show the 13 houses on Grant Street retained as part of the approved modification or their lot lines. He stated that he is not aware of what noise mitigation elements were included in the special exception modification.

In response to further questions from Mr. Knopf, Mr. Sokolove stated that the reason Exhibit No. 216B does not show the 13 houses on Grant Street retained as part of the approved modification is that the houses were proposed to be removed in the original modification request, and that the exhibit shows no noise levels above 55 decibels in the area occupied by the houses and their lots.

Mr. Knopf reiterated the opposition's position that granting the variances should be conditioned on a requirement that noise from the hospital will not exceed 55 dba at the rear property line (of the retained houses).

Ms. Titus pointed out that the County Noise Ordinance allows 65 dba during the day and 55 dba at night.

11. Amy Royden-Bloom of 5516 Southwick Street testified that she has lived in the neighborhood since 2004. She testified that the County's Noise Ordinance finds that excessive noise harms public health and welfare and impairs the enjoyment of property. She quoted the definition of receiving property in the noise ordinance and stated that her reading is a property is a receiving property, regardless of ownership, as long as someone is living or working there. She testified that for the Board to condition the variance request on measuring noise from where it used to be is eminently reasonable. She testified that the Board should protect the ears of the people who live and work on the hospital-owned properties and that it is entirely consistent with its opinion and direction to maintain the 13 retained house on the hospital site. She testified that if the noise measurement is changed, it would allow more noise, and that according to the variance requirements, there should be no detrimental impact on adjoining properties.

Ms. Sears' Closing Remarks:

12. Ms. Sears requested admission into the record of certain documents from Case No. S-274-D pertinent to lot coverage, the size and location of the operating room suite, and whether the variances requested are the minimum reasonably necessary. They were Exhibit No. 432(a), a letter from Adrian Hagerty responding to a letter from Amy Shiman dated 6/12/2009; Exhibit No. 32 [Mr. Hagerty's summary of those portions of the record which support his testimony regarding sizing]; Exhibit No. 446 Suburban's memorandum in response to Huntington Terrace Citizens' Association's closing argument, especially pages 55-67, 62-63, 72-73, pages 71 through 106, pages 110-116;

Ms. Sears also offered three letters from agencies in the County; one is from Fire and Rescue, saying that they are not going to allow an underground operating room; the other two are from the Department of Transportation and the Department of Permitting Services. All show why the various alternatives suggested in place of the approved modifications are not feasible and could not be done in accordance with the law.

Ms. Sears also offered an exhibit containing evidentiary citations to the garage size dimensions in the record, the need for parking spaces, and the number of spaces Suburban has requested.

And finally, she offered Exhibit No. 11-1 [Wells and Associates Parking Demand Analysis], Exhibit No. 36, Exhibit No. 431(d) [Letter from Brian Grangnolati], Exhibit Nos. 431(d)(2) [Letter from HTCA], and 431(d)(3) [Letter from HTCA], Exhibit No. 111.

Ms. Sears stated Section 59-A-4.127 says that a special exception or variance must be implemented in accord with the terms and conditions approved by the Board's opinion. She noted that one of those conditions was to get the variances that were necessary to implement the plan. She reiterated that her client was trying to get the variances necessary to retain these houses as a buffer for the benefit of the neighborhood.

Ms. Sears recalled that the Board found that the special exception site was unique in its modification Opinion dated December 9, 2010, because of its location and proximity on three sides to the residential community and on the fourth to Old Georgetown Road. See pages 5 and 17 of the December 9, 2010, special exception modification (Case No. S-274-C). The special exception modification requires that the Hospital maintain and retain 13 residential homes on the special exception site. The homes are required as a buffer for the surrounding residential community. Ms. Sears stated that the requirement to maintain and retain those homes is a restriction placed on the ground

as a direct result of the special exception conditions because of the hospital's proximity and location in the neighborhood. Ms. Sears stated that the recommendations of the Master Plan further restrict the use and development of the property. She pointed out that the hospital also has functional needs and has physical barriers to growth and expansion. The hospital site is limited to a 2 block area. The Hospital's homes within the 2 block area must be retained and maintained as residential property, while also being a part of the special exception site. The conditions attached to the grant of the special exception modification require variances in order to implement the modification.

Ms. Sears described the two-step analysis required to grant a variance. The first step is a finding that a property is unique and unusual in a manner different from the nature of the surrounding properties. She submitted that this property is unique and different in conjunction with the surrounding properties. She noted that the setback regulations, coverage regulations, and drive aisle standards are going to apply differently to small R-60 lots than they are going to apply to the larger hospital property, as seen by the need for the variances.

Ms. Sears noted that the second part of the analysis is a finding of practical difficulty or unreasonable hardship, and that practical difficulty is the appropriate finding for area variances such as these. She stated that the strict application of the applicable standards would unreasonably prevent the hospital from using the property for its permitted purpose, posing a practical difficulty for the hospital. The special exception modification condition required by the Board to retain the 13 homes can not be met or implemented on the hospital site without the requested variances. The retention of the homes on the special exception site further restricts the use of the site's buildable area.

Ms. Sears stated that the grant of these variances would do substantial justice to the applicant as well as to the property owners in the district. Retaining these houses is what the community wanted. They wanted those houses to be a buffer to absorb whatever activities were on the site. Ms. Sears stated that granting the variances would allow the Hospital to implement its approved modification and would give the community the buffer that it sought. Ms. Sears stated her belief that the evidence shows that the variances can be granted so that the spirit of the Zoning Ordinance is observed, and public safety and welfare are secured.

Ms. Sears stated further that the conditions imposed by the special exception modification are not a self-created hardship, but are urgent and of substantial need for the efficient and safe of operation of the

hospital and in the interest of the public welfare. She said that the Salisbury case cited by HTCA, a Maryland Appellate Court case, is about a traditional self-created hardship where the applicant sought variances after they had built the structure. She said that in the instant case, the existing facilities are not the sole reason the Hospital is seeking the variances. Ms. Sears reminded the Board that the Hospital submitted a plan that needed no variances and could have been implemented in accordance with the law. She said it was the Board-imposed condition to preserve the houses based on the uniqueness of the site that required the Hospital to seek the variances. Ms. Sears cited Stansbury v. Jones, at 372 Md. 192, for the proposition that when a government permits and encourages an owner or owners to take certain action in order to be able to utilize property, that action cannot be characterized as self-created.

Citing Becker v. Anne Arundel County, Ms. Sears stated that the requested variances are the minimum reasonably necessary for the hospital to address functional deficiencies within the area available, given retention of the hospital owned houses on Grant Street.

Ms. Sears referred to Mr. Wrenn's testimony in support of Master Plan compliance.

Ms. Sears stated that the evidence in the special exception modification record is that the Hospital has and will comply with the Montgomery County Noise Ordinance, stating that "There is no evidence whatsoever that allowing the special exception to continue as it was approved where it was found that noise was not detrimental is somehow affected by this variance and should be changed [March 27 Transcript at p. 189]. She urged the Board not to impose conditions beyond what the law requires.

Ms. Sears compared the instant variance applications to those in Case Nos. S-420-H and A-6279, Petition of Holy Cross Hospital, for height and lot coverage variances, and stated, "What we're asking for here, what we're asking for here is entirely driven by retaining the houses. Retaining the houses reduces the size of the main lot by 2.1 acres. It creates a coverage issue of about 6.1 percent. So we're asking for 41.1 percent [lot coverage]." She stated that they were also asking for setback variances because once the houses became part of the special exception, they became subject to the 50-foot setback for hospital buildings. She added that the drive aisle also needed minimal setback variances to allow implementation of the improved circulation pattern approved by the Board.

Ms. Sears reiterated the hospital's request that the variances be given a two year validity period, consistent with the special exception modification, and in light of the fact that the modification is on appeal.

Mr. Knopf's Closing Remarks:

13. Mr. Knopf stated that he wanted to impress upon the Board the outrage of the community. He stated that in the special exception modification case the Board relied upon evidence that no noise beyond 65 decibels would go beyond the boundaries of the hospital as compared to the hospital houses. He stated that moving the noise testing location 150 feet is a major change. The 13 retained homes will be subject to nonresidential, non-community noises, which will undermine the purpose of the 13 homes as a noise barrier for the community. He indicated that the hospital might have to put up some more baffling, and stated that HTCA was asking the Hospital, when they build their air conditioning system, to make sure they build it in a way that meets what they promised to begin with. [March 27 Transcript at p. 199]

Mr. Knopf argued that the variance law requires that the Board can not grant a variance that causes deleterious effects on adjoining properties in a neighborhood, and that there is no decibel limit on this requirement. He said the hospital should adhere to what was promised to the community and keep the boundaries for measuring the noise where they were. The 13 homes that were retained on the special exception site are now unprotected. He suggested that the Board can condition the grant of the variance on where the noise measurement will be taken.

Mr. Knopf argued that the hospital could redesign the proposed addition and garage, and that because there are different ways to modify the hospital, "it is not clear that this is a unique situation" or that the requested variances are the minimum reasonably necessary. He stated that the need for the variances is based on design choices made by the hospital and are therefore self-created.

In response, Ms. Sears stated that the Hospital never represented that they were measuring noise at points internal to their property because their proposal did not include the houses or their lots. She referred to the testimony of Mr. Harvey, [Transcript 2/2/09, p. 162] who said that the results of his [noise testing] model showed an ample margin of safety well back from the property line. She stated that there was no justification to make the Hospital go above and beyond the standards in the Noise Ordinance.

In response to Board questions Ms. Sears stated that the houses on Grant Street retained in the special exception modification are now part of the special exception and are not receiving properties for the purposes of noise testing to determine the impacts of the special exception.

FINDINGS OF THE BOARD

Chair Titus stated that the Board, in deciding the Hospital's special exception modification request (S-274-D, Opinion dated December 9, 2010), responded to the unique circumstances of the Suburban Hospital site and to the neighborhood's need for additional buffering by approving the modification request with conditions, including conditions requiring that the Hospital retain 13 of the single family residences located on the periphery of the special exception Property. At that time, the Board stated that the improvements approved in the context of this modification appeared to meet the required setbacks, but noted that the requirement for the retention of houses as a buffer might trigger the need for setback and lot coverage variances:

As a condition of approval of the modification, the Board requires the hospital to retain thirteen of the single family homes adjacent to the hospital property which the hospital had requested to demolish in order to re-subdivide its property and assemble the lots into one larger lot. The Board recognizes that retaining the houses may prevent the creation of this larger lot, raises questions about the configuration of the hospital's property, and may create a need for variances related to setbacks and lot coverage for the proposed addition. The setbacks for the proposed addition are discussed under the heading "Proximity of the addition and garage," above. While it appears from Exhibits 175 and 263(b) that the addition may not require the grant of any variances from the setbacks required by this section, the Board cannot be certain of that until a revised site plan is submitted. Accordingly, the Board's approval of this modification is conditioned on the Hospital's obtaining any variances necessary to satisfy this setback standard and other applicable development standards.

Petition of Suburban Hospital, Case No. S-274-D, December 9, 2010, at page 9. This excerpt makes two things clear. First, it is clear that the Board did not approve a theoretical addition to the Hospital's facility, it approved the modification that the Hospital proposed. Second, it is clear that the Board recognized that construction of the approved hospital modification might require the grant of setback and lot coverage variances necessitated by the Board's imposition of a condition that the peripheral houses be retained. The Board notes that it does not have jurisdiction in the current proceeding to modify its earlier grant of the special exception modification; the variance proceeding before the Board is solely for consideration of the variances necessitated by the requirement that the Hospital retain the 13 peripheral houses.

Based upon the petitioner's binding testimony and the evidence of record, the Board finds that the variances can be granted. The requested variances comply with the applicable standards and requirements set forth in Section 59-G-3.1(a) as follows:

- (a) *By reason of exceptional narrowness, shallowness, shape, topographical conditions, or other extraordinary situations or conditions peculiar to a specific parcel of property, the strict application of these regulations would result in peculiar or unusual practical difficulties to, or exceptional or undue hardship upon, the owner of such property.*

The Board of Appeals' modification of the underlying special exception limited the site's boundaries as a condition of approval:

“ . . . in order to stem fears that the Hospital will continue to add to the properties it owns and thus eliminate any impact that such fears might have on the future development of surrounding properties, the Board has conditioned the grant of this modification on the establishment of a two-block expansion limit, constrained by Old Georgetown Road, McKinley Street, Grant Street and Southwick Street”. The Board also included a condition in its grant of the modification requiring the Hospital to retain all but two of the houses on the perimeter of the two block special exception site.

The Board finds that the conditions imposed by the Board of Appeals as part of the special exception modification constitute an *extraordinary situation or condition* peculiar to the special exception Property that differentiate it in a manner unique from the surrounding properties, since but for those conditions, the petitioner could have built the approved expansion to the hospital without needing any variances. The Board's condition requiring the petitioner to retain 13 homes on the hospital site decreases the buildable area available to the Hospital by 2.1 acres and necessitates the lot coverage variance. The conditions requiring the retention and maintenance of the 13 peripheral houses on the special exception Property has also rendered those houses “hospital buildings,” and makes them subject to the 50-foot setbacks for such buildings instead of the lesser setbacks applicable to single family houses, necessitating variances for the required setbacks. These houses are not being moved or changed; the variances are necessary so that they can remain in their current locations and serve the buffering function envisioned by the Board in its grant of the special exception modification. The special exception conditions require the retention of houses adjacent to the approved drive aisles, thereby necessitating the variances for the parking setbacks. The Board also finds that the requirement that the Hospital retain and maintain the 13 peripheral lots and the houses thereon renders the shape of the larger special exception Property and of the combined parcels on which the hospital and garage are located irregular and unique, and in turn creates a practical difficulty for the Hospital in complying with the setbacks for the drive aisle. See Exhibit 7. In short, the Board finds that the conditions it imposed on this Property in granting the special exception modification for the hospital addition created an extraordinary circumstance peculiar to the Hospital site. Mr. Wrenn confirmed this when he testified that it is unique for a campus to have to buffer itself by utilizing residential structures, and that this is a characteristic not shared by the other properties that surround it or by the other hospitals in the R-60 Zone such as Holy Cross Hospital and Montgomery General.

The Board further finds that the strict application of the development standards in the Zoning Ordinance to this Property would result in peculiar or unusual practical difficulties to, or exceptional or undue hardship upon, the Hospital. Without the variances, the Hospital will not be able to use its own Property for a use which is not only permitted in the Zone, but for a use which was approved by this Board in the context of its modification grant (S-274-D, December 9, 2010). In support of this, the Board notes that Mr. Wrenn testified that the Hospital is requesting these variances to accommodate the adjustment made to its original plan by the Board (the retention of the buffering houses), and that this adjustment creates practical difficulties for the Hospital by significantly limiting the flexibility that is available to meet the development standards and to implement the approved special exception modification. He testified that the proposed special exception modification called for the creation of a single lot which met all of the zoning development standards, utilizing the entire 15.2 acres owned by the Hospital. He testified that the loss of the 2.1 acres of usable area, due to the required retention of the houses, significantly restricts the ability to expand the hospital while meeting all of the zoning requirements, and that this is a practical difficulty. He testified that when the Hospital applies the required zoning standards to its Property in connection with implementing the approved modification, it is unreasonably prevented from using the property for the permitted purpose. Finally, he testified that the Hospital's ability to implement the improvements approved by the Board in Case S-274-D (the special exception modification) requires the grant of the requested variances. The Board notes that Mr. Bossong offered similar testimony regarding the uniqueness of this Property.

For the foregoing reasons, the Board finds that the petitioner has met the burden required by this variance standard.

(b) Such variance is the minimum reasonably necessary to overcome the aforesaid exceptional conditions.

The Board finds that the requested variances are the minimum necessary to implement the special exception modification that the Board already approved. Indeed, Ms. Schultz testified that the variances allow the hospital addition, as approved and conditioned by the Board, to proceed. She testified that the houses along the periphery of the hospital Property have been there for years, and that the variances sought in connection with those houses are only for the amount necessary to meet the Zoning Ordinance requirements now that the houses are considered part of the special exception (and are thus subject to much larger setbacks). She testified that the variances sought to meet the parking and

loading setbacks are also the minimum necessary, and cited testimony indicating why the drive aisle and service area/loading dock cannot be relocated. She testified that the variances are the minimum reasonably necessary to overcome the unique issues pertaining to the Property, including the retention of the existing houses, the footprint of the hospital addition (necessary to accommodate the operating room design), and the location of the loading dock and drive aisle (necessary to cure current circulation deficiencies by separating streams of traffic). Mr. Bossong offered similar testimony, concluding that the lot coverage variance was the minimum necessary to allow the Hospital to implement the modification approved by the Board.

The Board notes that there was a lot of testimony and discussion during both the special exception modification proceedings and during these variance proceedings regarding whether the proposed changes to the hospital—both the addition to the hospital itself and the parking garage—were the minimum reasonably necessary to allow the Hospital to meet its needs in a way that was compatible with the surrounding neighborhood. The Board addressed that in connection with the special exception modification when it approved the proposed addition to the hospital, the proposed parking garage, and the drive aisle and on-site circulation pattern. The Board ensured compatibility by requiring the Hospital to retain the 13 residential houses. The Board is not revisiting its earlier approvals in this variance proceeding, but if it were to do so, there is ample evidence in the record to support a finding that the design of the hospital addition, the garage and the drive aisle are appropriate. See March 21 Tr. at pages 64-71 (Bossong testimony), at pages 118-124 (Schultz testimony), at pages 156-171 (Hagerty testimony), at pages 212-213 (Wrenn testimony); Exhibits 31 and 32.

- (c) *Such variance can be granted without substantial impairment to the intent, purpose and integrity of the general plan or any duly adopted and approved area master plan affecting the subject property.*

The Board finds that granting the variances will not impair the intent, purpose or integrity of the 1990 approved and adopted Bethesda/Chevy Chase Master Plan. The Board finds that granting the variances and allowing the approved modification to proceed is consistent with the Master Plan goal to perpetuate and enhance the high quality of life which exists in the Bethesda/Chevy Chase plan area, including the need for an accessible and high quality healthcare facility in the plan area. The Board finds that approval of the variances to allow the modification to proceed is consistent with the Master Plan emphasis on community-serving uses, and notes

that the Master Plan recognizes Suburban Hospital as one of the large land users in the planning area and acknowledges that it may expand. The Board finds that approval of the variances to allow the 13 hospital-owned homes to remain as a buffer between the hospital and the neighborhood follows the Master Plan guidance to evaluate hospital expansion in the context of its impact on adjacent communities. The Board notes that its findings are corroborated by the testimony of Mr. Wrenn. See March 21 Tr. at pages 205-210.

(d) Such variance will not be detrimental to the use and enjoyment of adjoining or neighboring properties.

The Board finds that granting the requested variances will allow the retention of the 13 peripheral properties, which will, with their landscaping and their lots, buffer adjoining and neighboring properties from the hospital and will, therefore, be beneficial to the use and enjoyment of adjoining and neighboring properties.

There was much testimony regarding the perception of neighboring property owners that the approved special exception modification would cause an increase in the noise level at their houses, and thus would be detrimental to the use and enjoyment of their properties. It is the position of these neighbors that despite the incorporation of the 13 peripheral houses and lots into the special exception site, the Hospital should continue to be required to measure noise at the rear property lines of those lots, as it had before the special exception modification was granted; thus treating those lots as receiving properties and requiring noise testing at a location internal to the special exception property. The neighbors indicated that if the location of the measurement were moved closer to their properties, even if the noise levels complied with the Noise Ordinance, it would still be louder than the noise they currently experience. The Hospital countered that the Board had found, in granting the special exception modification, that the modification would not be detrimental to the use or peaceful enjoyment of neighboring properties, and would not cause any objectionable noise. See the December 9, 2010, Board Opinion in Case No. S-274-D, at pages 13-14. They testified that a noise model produced for the special exception modification hearing indicated that the noise produced by the expanded hospital would comply with the Noise Ordinance, and would not exceed 55 db (at the Property lines). See Exhibit 216 from Case S-274-D. They argued that while the internal lot lines created by the required retention of the 13 peripheral homes were not shown on Exhibit 216 (because the Hospital was not proposing to maintain those homes on its campus), the Exhibit appeared to show that any excessive noise near the rear of those lots would be minimal, and did not merit

testing in that location. They argued that they should not be required to test for noise compliance in the middle of their Property.

In light of the concerns raised by the neighbors, the Board has included a condition requiring that noise be measured from the locations required prior to the December 9, 2010 grant of the modification in Case No. S-274-D. The Board has included this condition to ensure that the grant of the requested variances, which are necessary to allow implementation of the special exception modification to proceed, will *not be detrimental to the use and enjoyment of adjoining or neighboring properties.*

The variances for each of the subject properties are:

(1) [A-6364] 6.1% as it exceeds the maximum lot coverage of 35% for the construction of an addition and a garage; and a variance of twenty (20) from the required twenty (20) foot rear lot line setback for the proposed construction of a drive aisle are granted.

(2) [A-6365] 34.30 feet from the required fifty (50) foot front lot line, 35.60 feet from the required fifty (50) foot side lot line setback, forty-three (43) from the required fifty (50) foot side lot line setback, for the existing house; and a variance of twenty (20) feet from the required twenty (20) foot rear lot line setback for the proposed construction of a drive aisle are granted.

(3) [A-6366] 29.80 feet from the required fifty (50) foot front lot line setback; 43.20 feet from the required fifty (50) foot side lot line setback; 35.60 feet from the required fifty (50) foot side lot line setback; 11.90 feet from the required fifty (50) rear lot line setback for the existing house; and a variance of twenty (20) feet from the required twenty (20) foot rear lot line setback for the proposed construction of a drive aisle are granted.

(4) [A-6367] 29.70 feet from the required fifty (50) foot front lot line setback; 42.70 feet from the required fifty (50) foot side lot line setback; 30.40 feet from the required fifty (50) foot side lot line setback for the existing house granted.

(5) [A-6368] 18.40 feet from the required fifty (50) foot front lot line setback; forty (41) feet from the required fifty (50) foot side lot line setback; 43.10 feet from the required side lot line setback; twenty-five (25) feet from the required fifty (50) foot rear lot line setback for the existing house; and a variance of twenty (20) feet from the required (20) foot rear lot line setback for the proposed construction of a drive aisle are granted.

(6) [A-6369] 18.70 feet from the required fifty (50) foot front lot line setback; 41.60 feet from the required fifty (50) foot side lot line setback; 34.50 feet from the required fifty (50) foot side lot line setback for the existing house; and a variance of twenty (20) feet from the required twenty (20) foot rear lot line setback for the proposed construction of a drive aisle are granted.

(7) [A-6370] 23.80 feet from the required fifty (50) foot front lot line setback; 36.10 feet from the required side lot line setback; 42.30 feet from the required side lot line setback; 1.70 from the required fifty (50) rear lot line setback for the existing house; and a variance of twenty (20) feet from the required twenty (20) foot rear lot line setback for the proposed construction of a drive aisle are granted.

(8) [A-6371] 24.50 feet from required fifty (50) foot front lot line setback; 42.90 feet from the required fifty (50) foot side lot line setback; 43.30 feet from the required fifty (50) foot side lot line setback; 0.40 from the required fifty (50) foot rear line setback for the existing house; and a variance of twenty (20) feet from the required twenty (20) foot rear lot line setback for the proposed construction of a drive aisle are granted.

(9) [A-6372] 24.60 feet from the required fifty (50) foot front lot line setback; 38.10 feet from the required fifty (50) foot side lot line setback; 42.60 feet from the required fifty (50) foot side lot line setback; 31.40 feet from the required fifty (50) foot rear lot line setback for the existing house; and a variance of twenty (20) feet from the required twenty (20) foot rear lot line setback for the proposed construction of a drive aisle are granted.

(10) [A-6373] 24.80 feet from the required fifty (50) foot front lot line setback; 29.70 feet from the required fifty (50) foot side lot line setback; 21.40 feet from the required fifty (50) foot side lot line; 34.80 feet from the required fifty (50) foot rear lot line setback for the existing house are granted.

(11) [A-6374] 22.70 feet from the required fifty (50) foot front lot line setback; 27.70 feet from the required fifty (50) foot side lot line setback; 0.50 feet from the required fifty (50) foot side lot line setback for the existing house; and variances of 47.80 feet from the required fifty (50) foot side lot line setback and of 42.20 feet from the required fifty (50) rear lot line setback for the existing accessory structure are granted.

(12) [A-6375] twenty-five (25) from the required fifty (50) foot front lot line setback; 43.20 feet from the required fifty (50) foot side lot line setback; and forty-two (42) feet from the required fifty (50) foot side lot line setback for the existing house are granted.

(13) [A-6376] 22.80 feet from the required fifty (50) foot front lot line setback; 44.40 feet from the required fifty (50) foot side lot line setback; 37.30 feet from the required fifty (50) side lot line setback for the existing house; and variances of 15.90 feet from the required fifty (50) foot side lot line setback and 46.60 feet from the required fifty (50) foot side lot line setback for the existing accessory structure are granted.

(14) [A-6377] 18.40 from the required fifty (50) front lot line setback; thirty-nine (39) feet from the required fifty (50) side lot line setback; 42.30 feet from the required fifty (50) foot side lot line setback for the existing house; and variances of 45.40 feet from the required fifty (50) foot side lot line setback and 9.70 from the required fifty (50) foot side lot line setback for the existing accessory structure are granted.

Accordingly, the above variances are granted subject to the conditions listed below:

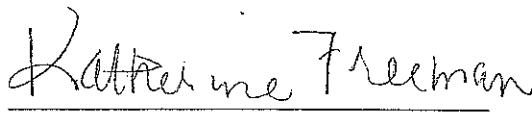
1. The petitioner shall be bound by all of the testimony and exhibits of the record, the testimony of its witnesses, and the representations of its attorney, to the extent that such evidence and representation are identified in the Board's Opinion granting the variances.

2. Construction must be completed according to plans entered in the record.
3. Noise level measurement testing will be taken at the locations at which it was done pursuant to the Board's December 13, 2007 Resolution in Case No. S-274-C and prior to the Board's grant of the modification in Case No. S-274-D.

On a motion by Stanley B. Boyd, seconded by Walter S. Booth, with Carolyn J. Shawaker in agreement, and with Catherine G. Titus, Chair, and David K. Perdue, in opposition, the Board adopted the foregoing Resolution.


 Catherine G. Titus
 Chair, Montgomery County Board of Appeals

Entered in the Opinion Book
 of the Board of Appeals for
 Montgomery County, Maryland
 this 23rd day of July 2012.


 Katherine Freeman
 Executive Director

NOTE:

See Section 59-A-4.53 of the Zoning Ordinance regarding the twenty-four (24) month period within which the variance granted by the Board must be exercised.

The Board shall cause a copy of this Opinion to be recorded among the Land Records of Montgomery County.

Any request for rehearing or reconsideration must be filed within fifteen (15) days after the date of the Opinion is mailed and entered in the Opinion Book (see Section 59-A-4.63 of the County Code). Please see the Board's Rules of Procedure for specific instructions for requesting reconsideration.

Any decision by the County Board of Appeals may, within thirty (30) days after the decision is rendered, be appealed by any person aggrieved by the decision of the Board and a party to the proceeding before it, to the Circuit Court for Montgomery County in accordance with the Maryland Rules of Procedure.

Minority Statement of Catherine G. Titus, Chair, Board of Appeals

This is an elaboration on my minority vote in Cases A-6364 through A-6377 Variances sought by Suburban Hospital and decided by the Board of Appeals on April 4, 2012.

Suburban Hospital applied for a Modification of its Special Exception to expand the land area covered by the Special Exception so as to include certain areas that are improved by single-family, detached dwelling units. Because of the increased area approved by a Modification of the Special Exception Case S-274-D granted December 9, 2010, this Board was able to exercise jurisdiction over that area and directed that certain of the dwelling units be retained to better assure compatibility with the neighborhood.

While I support granting the requested Variances, I disagree with the condition that noise measurements be conducted from within the area covered by the Special Exception rather than on the perimeter as required by County law. It makes no sense to require retention of the houses to mitigate the impact of the Special Exception use, a condition imposed by this Board, and yet require that noise measurements be taken in such a manner as to give no benefit to the noise attenuation resulting from the retention of the houses in question.

Minority Statement of David K. Perdue, Vice-Chair, Board of Appeals

I support granting the variances applied for by the petitioner. I do not support the unnecessary and inappropriate condition regarding where to conduct noise testing. The County Council has adopted a noise ordinance and the Executive has adopted implementing regulations. Together these constitute a comprehensive statement of county policy on noise levels, and noise testing. The ordinance is enforced by the Department of Environmental Protection, over which the Board of Appeals has no jurisdiction and whose decisions are not subject to our review. I believe that decisions on where and how to test for noise, and all other questions arising under the noise ordinance are the business of the Department, and the Board should impose no conditions regarding those matters. I recognize that in a past resolution involving this Petitioner the Board instructed where to take noise measurements. Unlike this case, there was no dispute in that case as to where the test should be done. Here, the dispute should be referred to the agency with the authority and expertise to resolve it--the Department of Environmental Protection

Resolution No.: 17-220
Introduced: July 19, 2011
Adopted: July 19, 2011

**COUNTY COUNCIL
FOR MONTGOMERY COUNTY, MARYLAND**

By: County Council

SUBJECT: DOT Docket No. AB715
Abandonment - Lincoln Street
Huntington Terrace Subdivision
Bethesda, Maryland

Background

1. By letter dated April 21, 2008, from Linowes and Blocher on behalf of its client, Suburban Hospital, Inc. (the Applicant), Montgomery County was requested to abandon a portion of Lincoln Street in the Huntington Terrace Subdivision in Bethesda. The portion of Lincoln Street is one block long from Old Georgetown Road (Route 187) on the east to Grant Street on the west, and it consists of approximately 36,126 square feet. The Applicant owns all properties adjoining the subject right-of-way.
2. A Public Hearing was held by the designee of the County Executive to consider the request for abandonment on August 26, 2008, pursuant to Executive Order No. 127-08, dated May 29, 2008.
3. Washington Suburban Sanitary Commission conditioned its approval upon being granted an easement for its facilities.
4. Washington Gas objected to the abandonment unless granted an easement for its facilities.
5. VERIZON objected to the abandonment unless granted an easement for its facilities.
6. PEPCO did not respond within 60 days and therefore, concurrence is presumed.
7. The Police Department approved of the proposed abandonment.
8. The Department of Fire and Rescue Services has no objection to the proposed abandonment.
9. The Department of Transportation (DOT) provided the following comments on the proposed abandonment:

- a. The Applicant's traffic consultant had satisfactorily demonstrated that the nearby roadway network has sufficient capacity to handle traffic which would be displaced if the abandonment is approved.
 - b. DOT reserves the right to require adjustments for operational and safety considerations to the plans of the Hospital to improve McKinley Street at the Site Plan/or permit stage.
 - c. DOT discussed that the Hospital is proposing to construct an on-site network of paths to replace the existing sidewalk and bicycle routes, and recommended that, if the abandonment is approved, then the Hospital must be required to grant and record a perpetual easement along those paths, in location(s) that most closely replicate the Lincoln Street sidewalks and bicycle routes, with appropriate lighting of the paths, and that the Hospital must be responsible for the maintenance and liability of the paths within the limits of the perpetual public access easement.
 - d. DOT recommended that, if the abandonment is approved, it should be conditioned upon the Applicant 1) granting easements for the County storm drains and public utility facilities or at the Applicant's sole expense relocating these facilities and granting easements, and 2) recording a new record plat that incorporates the former right-of-way.
10. The Montgomery County Planning Board recommended approval of the proposed abandonment subject to the following two conditions: 1) that the Special Exception application (Case No. S-274-D) for the Suburban Hospital expansion is approved and includes a condition that the on-site sidewalk network be made available for public use; and 2) that the proposed abandonment become effective simultaneously with the complete record plat for the proposed Hospital preliminary plan that consolidates all parcels fronting Lincoln Street between Old Georgetown Road and Grant Street.
11. The County Executive recommends approval of the proposed abandonment.

Action

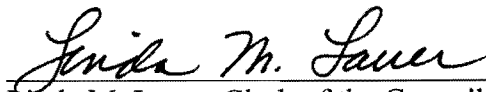
The County Council for Montgomery County, Maryland, finds that the one block section of Lincoln Street in the Huntington Terrace Subdivision from Old Georgetown Road to Grant Street and consisting of approximately 36,126 square feet that is proposed for abandonment is no longer necessary for present public use or anticipated public use in the foreseeable future, pursuant to Section 49-63 of the Montgomery County Code, and approves the abandonment subject to the following conditions which must be satisfied at Applicant's sole cost and expense prior to the abandonment becoming effective:

1. The Applicant must grant, prepare, and record any necessary easements for County Storm drains and public utility facilities, including but not limited to gas lines, electric facilities, and water and sewer facilities to the satisfaction of the County or the public utility, as applicable, allowing facilities to remain at their current location or relocated locations, and providing perpetual right of ingress

and egress from the easement area at any time (which rights must not be subordinate to other interests).

2. The Applicant must at its sole cost prepare and record a new record plat incorporating the Abandonment Area into the existing lots.
3. The Special Exception application (Case No. So-274-D) for the Suburban Hospital Expansion must be finally approved with no further appeals.
4. If Condition #3 is met, the proposed abandonment will become effective simultaneously with the complete record plat for the proposed Hospital preliminary plan that consolidates all parcels fronting Lincoln Street between Old Georgetown Road and Grant Street, with the exception of Lot 12 if it remains a separate recorded lot, and including a condition that the on-site sidewalk network must be available for public use when the Special Exception Addition is substantially complete.
5. Suburban Hospital must grant and record a perpetual access easement for the on-site network of paths that will replace the Lincoln Street sidewalk and bicycle routes and the perpetual access easement area must have appropriate lighting on the paths. Suburban Hospital must be responsible for the maintenance and legal liability of the paths within the limits of the perpetual public access easement.
6. The County Attorney must record among the Land Records of Montgomery County, Maryland, a copy of this Resolution approving the abandonment of the subject area.
7. Any person aggrieved by the action of the Council for abandonment may appeal to the Circuit Court within 30 days after the date such action is taken by the Council.

This is a correct copy of the Council Action.



Linda M. Lauer, Clerk of the Council



March 2008

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Suburban Hospital
Modification of Existing Hospital Special Exception

Noise and Vibration Impact Analysis

Montgomery County, Maryland

Report #080211

For: Suburban Hospital
By: Scott Harvey, P.E.

Executive Summary

Based upon the current architectural and mechanical equipment plans for the Suburban Hospital expansion project (Modification), an environmental noise analysis has been conducted to determine the impact of the proposed improvements upon the surrounding residential neighborhood. An evaluation of the Modification demonstrates that the noise of concern for testing purposes is the building mechanical equipment. The results of the analysis indicate that, with the mitigation techniques proposed for the cooling towers, emergency generators, relief air fans and garage fans, the noise levels from proposed mechanical equipment will meet the Montgomery County Noise Control Ordinance for residential use at residential properties adjacent to the hospital.

The following report provides details of this analysis and its results.

Standards

According to Chapter 31B – Noise Control of the Montgomery County Code,

...a person must not cause or permit noise levels that exceed the following levels:

<i>Maximum Allowable Noise Levels (dBA) for Receiving Noise Areas</i>		
<i>Non-residential noise area</i>	<i>67</i>	<i>62</i>
<i>Residential</i>	<i>65</i>	<i>55</i>

(3) Sound that crossed between residential and non- residential noise areas must not exceed the levels set in paragraph (1) for residential noise areas.

Given that the proposed operation of the subject mechanical equipment will be continuous for 24 hours a day, the nighttime noise standard will apply to this analysis.

Analysis

In order to determine the impact upon the surroundings of the proposed buildings a 3-dimensional computer model was developed using the CadnaA software program. This model is capable of determining the noise level impact at any chosen location by summing the noise level from the various noise sources. The model also considers the screening of noise by the various buildings on the site as well as reflections of noise from those buildings. The results of the model can include resultant noise levels at particular points or noise levels over an entire surface area (such as the neighborhood surrounding the hospital).

The model developed for this analysis is based upon a recent model of the existing Suburban Hospital building which included a proposed roof top air handling unit (AHU-23) and proposed noise screen walls surrounding various existing rooftop machinery.

The model included the following significant noise sources:

- Air Handling Unit, AHU 1A
- Air Handling Unit, AHU 1B
- Air Handling Unit, AHU 3A
- Air Handling Unit, AHU 3B
- Relief Air Fan, RF 1-1
- Relief Air Fan, RF 1-2
- Exhaust Fan, EF-1
- Exhaust Fan, EF-2
- Exhaust Fan, EF-3
- Exhaust Fan, EF-ISO 4 A&B
- Exhaust Fan, EF-ISO 5 A&B
- Exhaust Fan, EF-6
- Cooling Tower
- Emergency Generators 1, 2, and 3
- Garage Supply Fans
- Garage Exhaust Fans

Specific acoustical data for the equipment was acquired from the mechanical engineer for the project, Leach Wallace Associates, Inc. This includes sound power data for equipment and sound transmission loss data for silencers and mufflers. The sound data for these units are reprinted in Appendix B.

The current design of the buildings places these significant noise sources in three distinct locations: outside at the ground level, outside on the roof level, and inside mechanical rooms at the basement level (el 348 feet). Sources in each of these locations are as follows:

Location	Equipment
Outside Ground Level	Cooling Tower
Outside Roof Level	Exhaust Fans
Inside Basement Level	AHU's, Relief Air Fans, Emergency Generators
Inside Sub Basement, Basement, and 1 st floor Levels	Garage Supply and Exhaust Fans

The specific location of each mechanical element is shown on Drawing 1. While equipment located inside the building would not typically be a noise concern, intake and exhaust air for several items are managed through a series of grilles and large areaways which provide noise conduits to the outside. Similarly, garage supply and exhaust fans connect to shafts which lead to louvers at the face of the building.

The 3-D noise propagation model was arranged so that the various noise sources could be "turned on" or "turned off" to analyze the impact of the various sources and the cumulative

impact with all sources operating. The results of the model are shown in two colorized site plans which depict the following conditions:

Drawing #	Condition
2	All equipment operating, no emergency generators operating
3	All equipment operating, three emergency generators operating

These drawings can be found in Appendix A. These show the entire hospital property with a footprint of the significant building structures, as well as houses along Southwick, Grant and McKinley Streets. These plans depict various noise level impacts by using colored areas. According to the map legend, light orange indicate noise levels between 55 and 59.9 dBA with other colors indicating higher noise levels. These are the areas of concern since the nighttime noise limit, according to the Noise Control Ordinance, is 55 dBA. Areas in white represent noise levels less than 55 dBA. As can be seen in these graphics, none of the residential areas are impacted by levels higher than 55 dBA and therefore are in compliance with the Noise Control Ordinance. Note that emergency generators only operate sporadically, once every week or two for normal testing for approximately 30 minutes. Otherwise they run only during power outages.

To control noise emission from the west areaway from Relief Air Fans, RF 1-1 and 1-2, the model included the effect of 1-inch sound lining to absorb noise before it reaches the areaway. It is our understanding that all ductwork downstream of these fans include 1-inch thick sound lining. Additionally to control noise from the east areaway, we understand that all ducts feeding into the relief air plenum on the east side will be sound lined for a minimum of 30 feet with the exception of ductwork from RF-2A-1 and 2A-2. For RF-2A-1 and 2A-2, the ductwork will receive 2-inch sound lining.

The design includes inlet and outlet silencers for the generator room which will reduce radiated noise from the motors and the fans. The design also includes an “acute critical” muffler on the exhaust. The specified muffler provides 45 to 52 dBA of reduction to the exhaust noise. Because the noise from the emergency generator remains the highest noise source of all sources analyzed, the termination point for these pipes has also been designed to remain a minimum of 14 feet below the top level of the areaway to act as a shield to the noise emitted from the exhaust pipes.

The garage supply and exhaust shafts will be fully soundlined with 4-inch sound lining to maintain the desired noise level. This lining is composed of fiberglass ductliner board which can be stick-clipped to the inside walls of the shafts. Additional mitigation is achieved by using acoustical louvers at the openings of the shafts as planned.

To reduce noise level from the cooling towers a noise barrier covering three sides will be installed. This will measure 25 feet high.

Vibrations

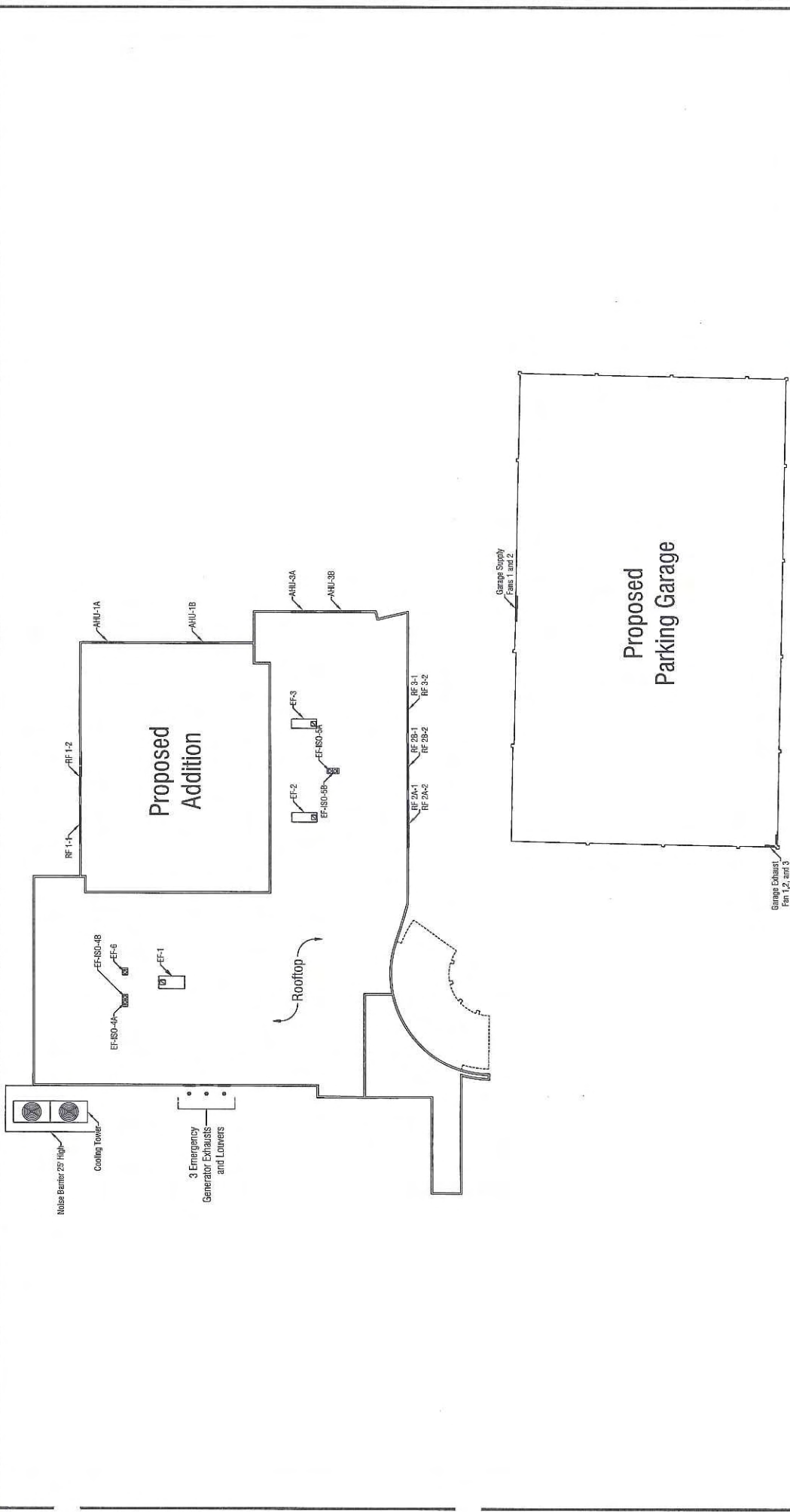
The proposed equipment will produce no perceptible vibrations at properties adjacent to or surrounding the hospital. The level of vibration produced by the equipment is not of the magnitude required to excite the building and surrounding grade to a level perceptible to humans. Additionally this level vibration will be far below that required to cause any structural damage on surrounding residential or commercial buildings.

Conclusion

Based upon this analysis, there will be no objectionable vibrations caused by the equipment to be used and the resulting noise levels on all adjacent residential properties caused by mechanical equipment from Suburban Hospital, including the proposed expansion, will be below the Montgomery County Noise Ordinance's nighttime limit of 55 dBA. This level completely complies with the Montgomery County Standards. In order to ensure compliance with these criteria, the following measures have been taken:

- Mufflers to be installed with "acute critical" rating (45 to 52 dBA of reduction) on all emergency generators.
- Emergency generator exhaust to be located 14 feet below the top edge of the area way.
- Emergency generator silencers will be added to intake and outlet louvers.
- One-inch sound lining to be installed on all ductwork downstream of RF 1-1, 1-2, 3-1 and 3-2.
- 30 feet of one-inch sound lining to be installed on all ductwork feeding into the east areaway. Two-inch sound lining to be installed for the entire duct run of ductwork from RF 2A-1 and RF 2A-2
- 4-inch thick duct liner to be installed for the garage supply and exhaust shafts.
- Acoustical louvers will be installed at the garage supply and exhaust shaft openings.
- A barrier will enclose three sides of the cooling tower and extend 25 feet above final grade.

Appendix A

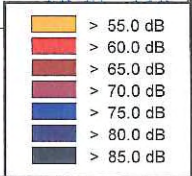
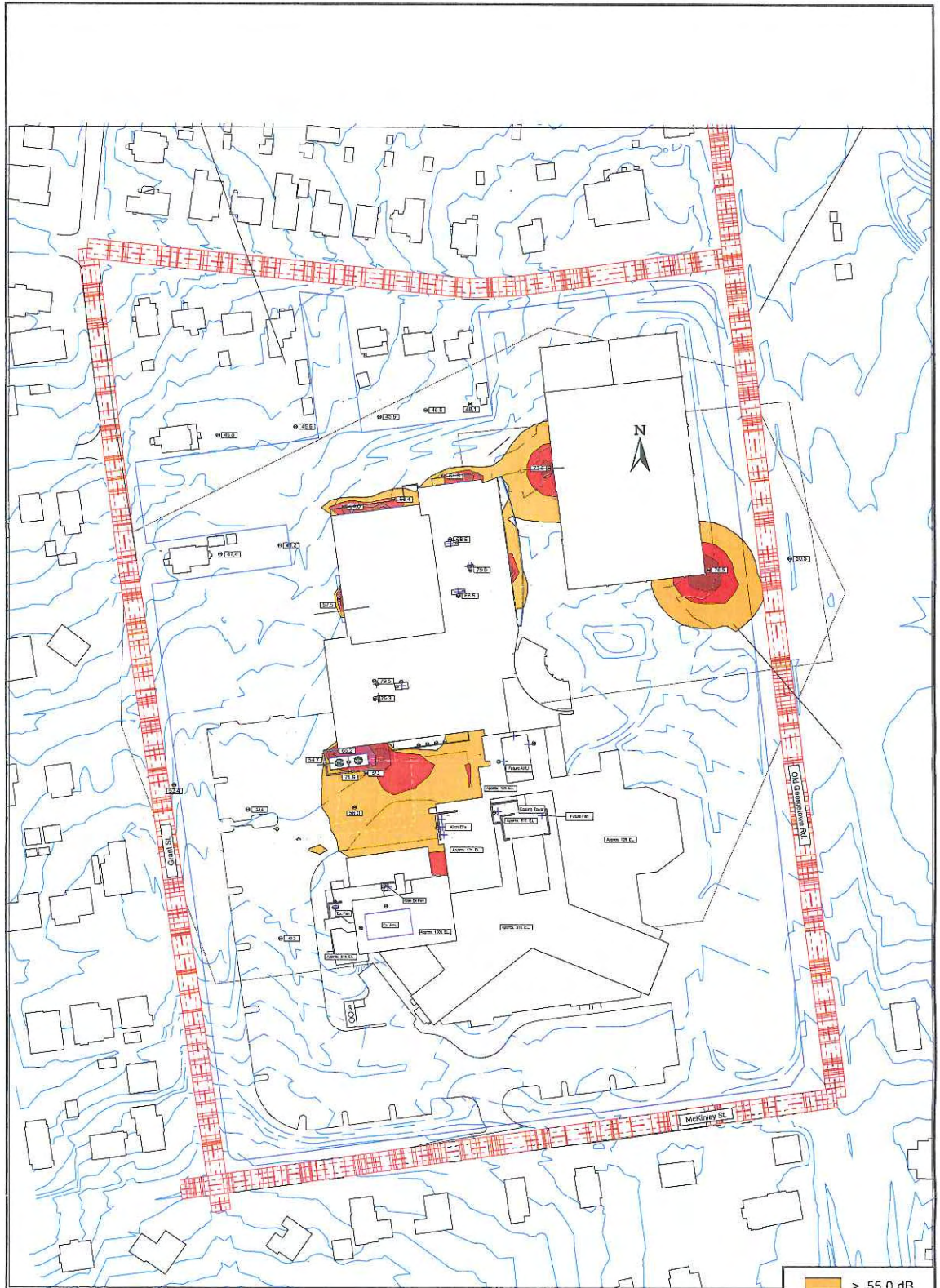


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Suburban 2020
 Exterior
 Noise Sources

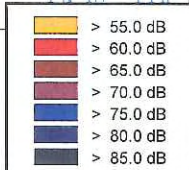
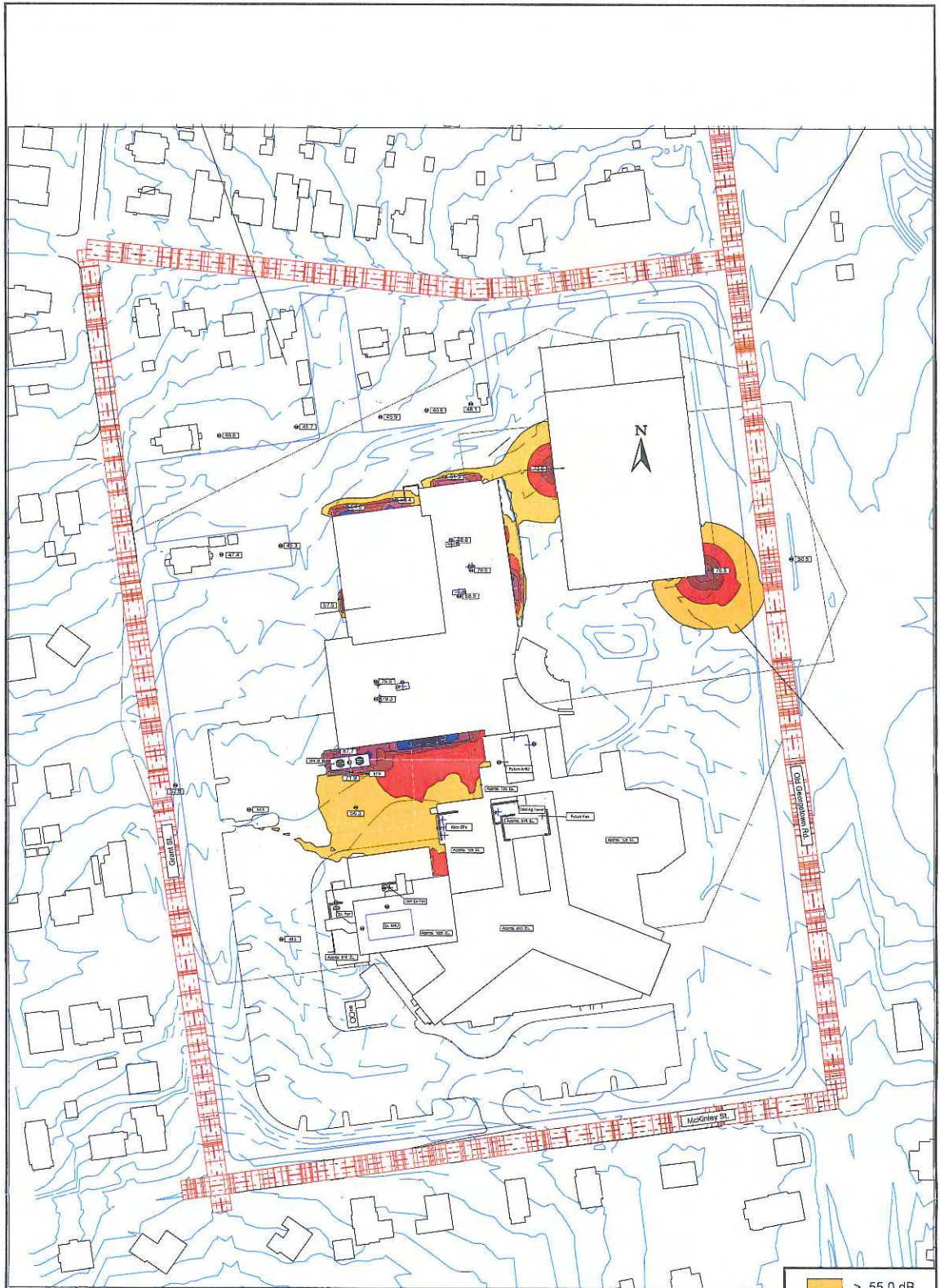
DWG. NO. 1 DATE 11 Feb. 2008
 SCALE 1"=60' DRAWN BY SMB

Indicates ground level and roof level noise source locations analyzed for environmental impact.



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Suburban Hospital 2020 Mitigated Noise Condition No Emergency Generator	
DWG. NO. 2	DATE: 11 Feb. 2008
SCALE: NTS	DRAWN BY: SMB



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301-846-4227

Suburban Hospital 2020
Mitigated Noise Condition
3 Emergency Generators

DWG. NO. 3	DATE: 11 Feb. 2008
SCALE: NTS	DRAWN BY: SMB

Appendix B

FAN SCHEDULE

DESIG.	SERVICE	TYPE (REFER TO SPEC.)	AIR FLOW (CFM)		S.P. (INCHES W.G.)	H.P. (BHP)	WHEEL (DIA IN.)	BLADE TYPE	FAN CLASS.	VOLT/PHASE HZ	RPM	REMARKS
			MAX.	MIN.								
SF-1A-1	AHU-1A SUPPLY AIR	B	37,000	-	7.0	60.0						
SF-1A-2	AHU-1A SUPPLY AIR	B	37,000	-	7.0	60.0						
SF-1B-1	AHU-1B SUPPLY AIR	B	37,000	-	7.0	60.0						
SF-1B-2	AHU-1B SUPPLY AIR	B	37,000	-	7.0	60.0						
SF-2A-1	AHU-2A SUPPLY AIR	B	31,000	-	7.0	50.0						
SF-2A-2	AHU-2A SUPPLY AIR	B	31,000	-	7.0	50.0						
SF-2B-1	AHU-2B SUPPLY AIR	B	31,000	-	7.0	50.0						
SF-2B-2	AHU-2B SUPPLY AIR	B	31,000	-	7.0	50.0						
SF-3A-1	AHU-3A SUPPLY AIR	B	22,500	-	6.0	30.0						
SF-3A-2	AHU-3A SUPPLY AIR	B	22,500	-	6.0	30.0						
SF-3B-1	AHU-3B SUPPLY AIR	B	22,500	-	6.0	30.0						
SF-3B-2	AHU-3B SUPPLY AIR	B	22,500	-	6.0	30.0						
RF-1-1	AHU-1A&B RETURN AIR	F	65,000	-	3.0	50.0						
RF-1-2	AHU-1A&B RETURN AIR	F	65,000	-	3.0	50.0						
RF-2A-1	AHU-2A RETURN AIR	F	27,500	-	3.0	25.0						
RF-2A-2	AHU-2A RETURN AIR	F	27,500	-	3.0	25.0						
RF-2B-1	AHU-2B RETURN AIR	F	27,500	-	3.0	25.0						
RF-2B-2	AHU-2B RETURN AIR	F	27,500	-	3.0	25.0						
RF-3-1	AHU-3A RETURN AIR	F	45,000	-	3.0	40.0						
RF-3-2	AHU-3A RETURN AIR	F	45,000	-	3.0	40.0						
EF-1	GENERAL EXHAUST	B	16,000	16,000	3.0	15.0						
EF-2	GENERAL EXHAUST	B	12,000	12,000	3.0	10.0						
EF-3	GENERAL EXHAUST	B	12,000	12,000	3.0	10.0						
EF-ISO-4A	ISOLATION EXHAUST	N	6,600	6,600	3.0	7.5						
EF-ISO-4B	ISOLATION EXHAUST	N	6,600	6,600	3.0	7.5						
EF-ISO-5A	ISOLATION EXHAUST	N	6,600	6,600	3.0	7.5						
EF-ISO-5B	ISOLATION EXHAUST	N	6,600	6,600	3.0	7.5						
EF-6	DECONTAMINATION EXHAUST	N	6,800	6,800	2.0	7.5						



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SF-1A-132
SF-1B-132

Customer: W/A
Job Name: Suburban Hospital 2020
Job ID: 06-408-00

November 19, 2007
Page: 1

Fan Description

Tag	SF-1
Type	EPFN
Size	445
Width	SWSI
Class	II
Wheel diameter (in.)	43.61
Drive method	60 Hz direct drive
Percentage width	105%
Percentage diameter	98%

Fan Performance

CFM	37,000
Operating SP (in.wg)	7
Standard SP (in.wg)	7
RPM	1161
Tip Speed (fpm)	13,255
Oper. BHP	53.07
Standard BHP	53.07
Outlet area (sq. ft)	N/A
Outlet Velocity (fpm)	N/A
Temperature (°F)	70
Altitude (ft)	0
Density (lb/ft ³)	0.075
Max RPM for Class	1202
Static Efficiency	76.71
Mechanical Efficiency	76.71

Modifiers

% width: 105%, % diameter: 98%

Sound

Sound Power Levels in dB re. 10⁻¹² Watts:

Octave Bands	1	2	3	4	5	6	7	8	LwA
Level at Inlet	97	104	98	85	86	82	76	73	94
Level at Outlet	96	101	99	94	92	88	82	77	97

Estimated sound pressure level in dBA (re: 0.0002 microbar) based on a single* ducted installation:

Distance in ft	1	3	5
dBA at Inlet	94	84	80
dBA at Outlet	97	87	83

*To estimate dBA level for ducted inlet and ducted outlet (into and out of the room) type installation, deduct 20 from the LwA value shown.

Using a directivity factor of 1.

Estimated Sound Pressure based on free field, spherical (Q = 1) radiation at the stated distance.

Definitions:

LwA The overall (single value) fan sound power level, 'A' weighted.

dBA The environment for each fan installation influences its measured sound value, therefore dBA levels cannot be guaranteed. Consult AMCA Publication 303 for further details.
A fan's dBA is influenced by nearby reflective surfaces.



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SF-2A-1½2
SF-2B-1½2

Customer: W/A
Job Name: Suburban Hospital 2020
Job ID: 06-408-00

November 19, 2007
Page: 1

Fan Description

Tag	SF-2
Type	EPFN
Size	445
Width	SWSI
Class	II
Wheel diameter (in.)	43.17
Drive method	60 Hz direct drive
Percentage width	90%
Percentage diameter	97%

Fan Performance

CFM	31,000
Operating SP (in.wg)	7
Standard SP (in.wg)	7
RPM	1185
Tip Speed (fpm)	13,391
Oper. BHP	44.25
Standard BHP	44.25
Outlet area (sq. ft)	N/A
Outlet Velocity (fpm)	N/A
Temperature (°F)	70
Altitude (ft)	0
Density (lb/ft³)	0.075
Max RPM for Class	1202
Static Efficiency	77.08
Mechanical Efficiency	77.08

Modifiers

% width: 90%, % diameter: 97%

Sound

Sound Power Levels in dB re. 10⁻¹² Watts:

Octave Bands	1	2	3	4	5	6	7	8	LwA
Level at Inlet	96	103	98	85	86	83	76	72	94
Level at Outlet	95	101	99	94	92	88	82	76	97

Estimated sound pressure level in dBA (re: 0.0002 microbar) based on a single* ducted installation:

Distance in ft	1	3	5
dBA at Inlet	94	84	80
dBA at Outlet	97	87	83

*To estimate dBA level for ducted inlet and ducted outlet (into and out of the room) type installation, deduct 20 from the LwA value shown.

Using a directivity factor of 1.

Estimated Sound Pressure based on free field, spherical (Q = 1) radiation at the stated distance.

Definitions:

LwA The overall (single value) fan sound power level, 'A' weighted.

dBA The environment for each fan installation influences its measured sound value, therefore dBA levels cannot be guaranteed. Consult AMCA Publication 303 for further details.
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SF-3A-1½2

SF-3B-1½2

Customer: W/A
Job Name: Suburban Hospital 2020
Job ID: 06-408-00

November 19, 2007
Page: 1

Fan Description

Tag	SF-3
Type	EPFN
Size	402
Width	SWSI
Class	II
Wheel diameter (in.)	40.25
Drive method	60 Hz direct drive
Percentage width	74%
Percentage diameter	100%

Fan Performance

CFM	22,500
Operating SP (in.wg)	6
Standard SP (in.wg)	6
RPM	1177
Tip Speed (fpm)	12,403
Oper. BHP	27.96
Standard BHP	27.96
Outlet area (sq. ft)	N/A
Outlet Velocity (fpm)	N/A
Temperature (°F)	70
Altitude (ft)	0
Density (lb/ft³)	0.075
Max RPM for Class	1329
Static Efficiency	75.89
Mechanical Efficiency	75.89

Modifiers

% width: 74%

Sound

Sound Power Levels in dB re. 10⁻¹² Watts:

Octave Bands	1	2	3	4	5	6	7	8	LwA
Level at Inlet	94	100	95	83	83	80	73	70	91
Level at Outlet	92	98	96	91	89	85	79	74	94

Estimated sound pressure level in dBA (re: 0.0002 microbar) based on a single* ducted installation:

Distance in ft	1	3	5
dBA at Inlet	91	81	77
dBA at Outlet	94	84	80

*To estimate dBA level for ducted inlet and ducted outlet (into and out of the room) type installation, deduct 20 from the LWA value shown.

Using a directivity factor of 1.

Estimated Sound Pressure based on free field, spherical (Q = 1) radiation at the stated distance.

Definitions:

LwA The overall (single value) fan sound power level, 'A' weighted.

dBA The environment for each fan installation influences its measured sound value, therefore dBA levels cannot be guaranteed. Consult AMCA Publication 303 for further details.
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RF-1-1:2

Customer: W/A
Job Name: Suburban Hospital 2020
Job ID: 06-408-00

November 21, 2007
Page: 1

Fan Description

Tag	RF-1AB
Type	TCVX
Size	60B5
Blade angle	30
Propeller Diameter (in.)	60
Class	II
Discharge	W/A

Fan Performance

CFM	65,000
Operating SP (in.wg)	3
Standard SP (in.wg)	3
TP (in.wg)	3.67
RPM	1182
Tip Speed (fpm)	18,567
Oper. BHP	49.79
Standard BHP	49.79
Outlet area (sq. ft)	19.9
Outlet Velocity (fpm)	3,271
Temperature (°F)	70
Altitude (ft)	0
Density (lb/ft³)	0.075
Max RPM for Class	1220
Static Efficiency	61.56
Mechanical Efficiency	75.24

Sound

Sound Power Levels in dB re. 10⁻¹² Watts:

Octave Bands	1	2	3	4	5	6	7	8	LwA
Level at Inlet	96	101	109	112	107	101	93	86	112

Estimated sound pressure level in dBA (re: 0.0002 microbar) based on a single* ducted installation:

Distance in ft	1	3	5
dBA at Inlet	112	102	98

*To estimate dBA level for ducted inlet and ducted outlet (into and out of the room) type installation, deduct 20 from the LwA value shown.

Using a directivity factor of 1.

Estimated Sound Pressure based on free field, spherical (Q = 1) radiation at the stated distance.

Definitions:

- LwA The overall (single value) fan sound power level, 'A' weighted.
- dBA The environment for each fan installation influences its measured sound value, therefore dBA levels cannot be guaranteed. Consult AMCA Publication 303 for further details.
A fan's dBA is influenced by nearby reflective surfaces.



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RF-2A-1 1/2

RF-2B-1 1/2

November 19, 2007

Page: 1

Customer: W/A
Job Name: Suburban Hospital 2020
Job ID: 06-408-00

Fan Description

Tag	RF-2
Type	TCVX
Size	36D5
Blade angle	38
Propeller Diameter (in.)	36
Class	II
Discharge	W/A

Fan Performance

CFM	27,500
Operating SP (in.wg)	3
Standard SP (in.wg)	3
TP (in.wg)	3.92
RPM	1741
Tip Speed (fpm)	16,409
Oper. BHP	22.91
Standard BHP	22.91
Outlet area (sq. ft)	7.17
Outlet Velocity (fpm)	3,838
Temperature (°F)	70
Altitude (ft)	0
Density (lb/ft³)	0.075
Max RPM for Class	1895
Static Efficiency	56.61
Mechanical Efficiency	73.94

Sound

Sound Power Levels in dB re. 10⁻¹² Watts:

Octave Bands	1	2	3	4	5	6	7	8	LwA
Level at Inlet	94	96	99	98	96	90	86	83	100

Estimated sound pressure level in dBA (re: 0.0002 microbar) based on a single* ducted installation:

Distance in ft	1	3	5
dBA at Inlet	100	90	86

*To estimate dBA level for ducted inlet and ducted outlet (into and out of the room) type installation, deduct 20 from the LWA value shown.

Using a directivity factor of 1.

Estimated Sound Pressure based on free field, spherical (Q = 1) radiation at the stated distance.

Definitions:

LwA The overall (single value) fan sound power level, 'A' weighted.

dBA The environment for each fan installation influences its measured sound value, therefore dBA levels cannot be guaranteed. Consult AMCA Publication 303 for further details.
A fan's dBA is influenced by nearby reflective surfaces.



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RF-3-1:2

Customer: W/A
Job Name: Suburban Hospital 2020
Job ID: 06-408-00

November 26, 2007
Page: 1

Fan Description

Tag	RF-3
Type	TCVX
Size	54D6
Blade angle	31
Propeller Diameter (in.)	54
Class	I
Discharge	W/A

Fan Performance

CFM	45,000
Operating SP (in.wg)	3
Standard SP (in.wg)	3
TP (in.wg)	3.49
RPM	1124
Tip Speed (fpm)	15,890
Oper. BHP	33.12
Standard BHP	33.12
Outlet area (sq. ft)	16.1
Outlet Velocity (fpm)	2,792
Temperature (°F)	70
Altitude (ft)	0
Density (lb/ft ³)	0.075
Max RPM for Class	1760
Static Efficiency	64.07
Mechanical Efficiency	74.45

Sound

Sound Power Levels in dB re. 10⁻¹² Watts:

Octave Bands	1	2	3	4	5	6	7	8	LwA
Level at Inlet	91	99	98	97	94	90	86	81	99

Estimated sound pressure level in dBA (re: 0.0002 microbar) based on a single* ducted installation:

Distance in ft	1	3	5
dBA at Inlet	99	89	85

*To estimate dBA level for ducted inlet and ducted outlet (into and out of the room) type installation, deduct 20 from the LWA value shown.

Using a directivity factor of 1.

Estimated Sound Pressure based on free field, spherical (Q = 1) radiation at the stated distance.

Definitions:

LwA The overall (single value) fan sound power level, 'A' weighted.

dBA The environment for each fan installation influences its measured sound value, therefore dBA levels cannot be guaranteed. Consult AMCA Publication 303 for further details.
A fan's dBA is influenced by nearby reflective surfaces.



Twin City Fan & Blower

A Twin City Fan Company

5959 Trenton Lane · Minneapolis, MN 55442-3238
Phone (763) 551-7600 · Fax (763) 551-7601 · www.tcf.com



EF-1

Customer: W/A
Job Name: Suburban Hospital 2020
Job ID: 06-408-00

November 21, 2007
Page: 1

Fan Description

Tag	EF-1
Type	EPFN
Size	365
Width	SWSI
Class	II
Wheel diameter (in.)	35.4
Drive method	60 Hz direct drive
Percentage width	68%
Percentage diameter	97%

Fan Performance

CFM	16,000
Operating SP (in.wg)	3
Standard SP (in.wg)	3
RPM	1180
Tip Speed (fpm)	10,937
Oper. BHP	11.10
Standard BHP	11.10
Outlet area (sq. ft)	N/A
Outlet Velocity (fpm)	N/A
Temperature (°F)	70
Altitude (ft)	0
Density (lb/ft³)	0.075
Max RPM for Class	1465
Static Efficiency	67.94
Mechanical Efficiency	67.94

Modifiers

% width: 68%, % diameter: 97%

Sound

Sound Power Levels in dB re. 10⁻¹² Watts:

Octave Bands	1	2	3	4	5	6	7	8	LwA
Level at Inlet	87	95	90	80	81	77	70	64	87
Level at Outlet	86	93	91	87	87	82	75	68	91

Estimated sound pressure level in dBA (re: 0.0002 microbar) based on a single* ducted installation:

Distance in ft	1	3	5
dBA at Inlet	87	77	73
dBA at Outlet	91	81	77

*To estimate dBA level for ducted inlet and ducted outlet (into and out of the room) type installation, deduct 20 from the LwA value shown.

Using a directivity factor of 1.

Estimated Sound Pressure based on free field, spherical (Q = 1) radiation at the stated distance.

Definitions:

LwA The overall (single value) fan sound power level, 'A' weighted.

dBA The environment for each fan installation influences its measured sound value, therefore dBA levels cannot be guaranteed. Consult AMCA Publication 303 for further details.
A fan's dBA is influenced by nearby reflective surfaces.



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5959 Trenton Lane · Minneapolis, MN 55442-3238
Phone (763) 551-7600 · Fax (763) 551-7601 · www.tcf.com



EF-233

Customer: W/A
Job Name: Suburban Hospital 2020
Job ID: 06-408-00

November 21, 2007
Page: 1

Fan Description

Tag EF-2&3
Type EPFN
Size 365
Width SWSI
Class I
Wheel diameter (in.) 36.13
Drive method 60 Hz direct drive
Percentage width 85%
Percentage diameter 99%

Fan Performance

CFM 12,000
Operating SP (in.wg) 3
Standard SP (in.wg) 3
RPM 874
Tip Speed (fpm) 8,268
Oper. BHP 7.37
Standard BHP 7.37
Outlet area (sq. ft) N/A
Outlet Velocity (fpm) N/A
Temperature (°F) 70
Altitude (ft) 0
Density (lb/ft³) 0.075
Max RPM for Class 1151
Static Efficiency 76.74
Mechanical Efficiency 76.74

Modifiers

% width: 85%, % diameter: 99%

Sound

Sound Power Levels in dB re. 10⁻¹² Watts:

Octave Bands	1	2	3	4	5	6	7	8	LwA
Level at Inlet	86	89	80	73	71	66	61	59	79
Level at Outlet	86	86	82	79	77	73	67	62	82

Estimated sound pressure level in dBA (re: 0.0002 microbar) based on a single* ducted installation:

Distance in ft	1	3	5
dBA at Inlet	79	69	65
dBA at Outlet	82	72	68

*To estimate dBA level for ducted inlet and ducted outlet (into and out of the room) type installation, deduct 20 from the LwA value shown.

Using a directivity factor of 1.

Estimated Sound Pressure based on free field, spherical (Q = 1) radiation at the stated distance.

Definitions:

LwA The overall (single value) fan sound power level, 'A' weighted.

dBA The environment for each fan installation influences its measured sound value, therefore dBA levels cannot be guaranteed. Consult AMCA Publication 303 for further details.
A fan's dBA is influenced by nearby reflective surfaces.

Job Title: 0640800 Suburban 2020 Equipment Schedule

Centrifugal Fans

Mark	Fan Quantity	Model	WB Exit Vol. (CFM)	Static Pressure (in wg)	FRPM	Hp. (hp)	Operating Power (hp)	Voltage (V)	Encl	RPM	Effective Plume Rise (ft)	Wind Speed (MPH)
EF-ISO-4&5	2	Vektor-MD-22-2-50-MV-HPW	13,081	3	1,770	7 1/2	6.02	460/60/3	TEFC	1770	30.5	10.0

LWA	dBA
89	78
92	81

Octave Band	63	125	250	500	1000	2000	4000	8000
Inlet Sound Levels	76	79	90	85	81	76	69	69
Outlet Sound Levels	82	86	88	91	89	83	80	71

EF-4:5

Equipment Schedule

EF-6	1	Vektor-MD-22-2-50-MV-HVW	10,644	2	1,770	7 1/2	5.19	460/60/3	TEFC	1770	31.2	10.0
------	---	--------------------------	--------	---	-------	-------	------	----------	------	------	------	------

Octave Band		63	125	250	500	1000	2000	4000	8000	LWA	dBA
Inlet Sound Levels	78	82	92	87	86	82	81	83	73	90	79
Outlet Sound Levels	84	87	90	92	84	84	83	83	75	93	82

EF-6

Cooling Tower Data Sheet



Leach Wallace Associates, Inc.
 813 Maiden Choice Lane
 Baltimore, MD, 21228, USA
 410-536-4000 Fax: 410-536-4007
 Project: 8997 - Suburban Hospital - Concept
 Equipment Reference:
 Product Type: USS Cooling Tower

Tyler Lee
 Chesapeake Systems, Inc.
 11900-H Baltimore Avenue
 Beltsville, MD, 20705, USA
 301-419-7411 Fax: 301-419-2912

Date: 03/07/07

Page: 1

Selection Criteria

Capacity (Tons): 2,000.00
 Capacity (MBH): 30,000.000
 Fluid: Water
 Flow (GPM): 6,000.0
 Entering Fluid Temp (F): 95.0
 Leaving Fluid Temp (F): 85.0
 Wet Bulb (F): 78.9

CTI Certified Selection

Qty	Model	Capacity (Tons)	Percent Capacity
1	USS 228-0924	2,012.00	100.6

All Weights, Dimensions and Technical Data are Shown per Unit

# Fans:	2	Overall Length:	23' 9.000"
# Fan Motors @ HP:	(2) @ 75.00 (460/3/60)	Overall Width:	28' 3.625"
# Heaters @ kW:	(4) @ 16.00	Overall Height:**	20' 7.000"
Air Flow (CFM):	459,200		
Inlet Pressure Drop (PSI):	2.5	Operating Weight (lbs):**	72,540
Evaporated Water Rate (gpm):	48.0	Shipping Weight (lbs):**	40,840
		Heaviest Section (lbs):**	14,860

** Adjusted for options selected below.

Options Selected:

- 3-Probe Electronic Water Level Control Package
- El. Heaters (0F / -18C ambient) (4) @ 16 kW
- Equalizer Connection (2) 14 inches
- External Service Platform with Ladder
- Fan Motor: Inverter Duty
- Ladder Extension : 3 foot
- Motor Davit with Base
- Super Low Sound Fan
- Vibration Switch
- Water Silencers
- P-10 (Recommended based on Flow per Inlet) [Qty of 2]



Evapco, Inc. Sound Data



Sound Pressure Levels (SPL) in dB RE 0.0002 Microbar
Sound Power Levels (PWL) in dB RE 10⁻¹² Watt

MODEL: USS 228-0924
MOTOR: 75 Hp (55 kW)
MOTORS: 2
SPEED: Full Speed

Sound Reduction Options
Super Low Sound Fan
Water Silencer

SINGLE FAN DATA

BAND	SOUND PRESSURE LEVEL										SOUND POWER LEVEL
	End		Mtr. Side		End		Opp. Mtr. Side		Top		
	5 ft (1.5 m)	50 ft (15 m)	5 ft (1.5 m)	50 ft (15 m)	5 ft (1.5 m)	50 ft (15 m)	5 ft (1.5 m)	50 ft (15 m)	5 ft (1.5 m)	50 ft (15 m)	
63 HZ	77	70	77	70	77	70	77	70	79	62	101
125 HZ	74	65	74	65	74	65	74	65	80	66	97
250 HZ	68	56	68	56	68	56	68	56	73	63	90
500 HZ	66	53	67	53	66	53	67	53	69	56	86
1 kHz	66	50	65	51	66	50	65	51	67	54	84
2 kHz	63	48	63	49	63	48	63	49	65	52	81
4 kHz	62	44	61	44	62	44	61	44	63	50	78
8 kHz	63	45	64	43	63	45	64	43	63	50	78
dBA	72	57	71	57	72	57	71	57	73	61	90

- REMARKS: 1. Sound levels are recorded with free-field conditions over a reflecting plane.
2. Sound levels can increase with variable frequency drives depending on the drive manufacturer and the drive configuration.
3. Sound data provided is for a single cell of a multiple cell tower with listed sound reduction option(s).



Evapco, Inc. Sound Data



Sound Pressure Levels (SPL) in dB RE 0.0002 Microbar
Sound Power Levels (PWL) in dB RE 10⁻¹² Watt

MODEL: USS 228-0924
MOTOR: 75 Hp (55 kW)
MOTORS: 2
SPEED: Full Speed

Sound Reduction Options
Super Low Sound Fan
Water Silencer

MULTI-FAN DATA

BAND	SOUND PRESSURE LEVEL										SOUND POWER LEVEL
	End		Mtr. Side		End		Opp. Mtr. Side		Top		
	5 ft (1.5 m)	50 ft (15 m)	5 ft (1.5 m)	50 ft (15 m)	5 ft (1.5 m)	50 ft (15 m)	5 ft (1.5 m)	50 ft (15 m)	5 ft (1.5 m)	50 ft (15 m)	
63 HZ	79	73	78	72	79	73	78	72	81	65	104
125 HZ	76	68	75	67	76	68	75	67	82	69	100
250 HZ	70	59	69	58	70	59	69	58	75	66	93
500 HZ	68	56	68	55	68	56	68	55	71	59	89
1 kHz	68	53	66	53	68	53	66	53	69	57	86
2 kHz	65	51	64	51	65	51	64	51	67	55	84
4 kHz	64	47	62	46	64	47	62	46	65	53	81
8 kHz	65	48	65	45	65	48	65	45	65	53	81
dBA	74	60	72	59	74	60	72	59	75	64	93

- REMARKS: 1. Sound levels are recorded with free-field conditions over a reflecting plane.
2. Sound levels can increase with variable frequency drives depending on the drive manufacturer and the drive configuration.
3. Complete unit sound data with all fans operating and listed sound reduction option(s).

EVAPCO, INC.



UNIT	MODEL #	SCALE	NTS	DWG. #	REV.	DATE	SERIAL #
COOLING TOWER	USS 228-0924			T2282448-ERA-SLF			

NOTES:

- (M) FAN MOTOR LOCATION
- HEAVIEST SECTION IS UPPER SECTION
- MPT DENOTES MALE PIPE THREAD
FPT DENOTES FEMALE PIPE THREAD
BFW DENOTES BEVELED FOR WELDING
- + UNIT WEIGHT DOES NOT INCLUDE ACCESSORIES (SEE SEPARATE DRAWINGS FOR ACCESSORIES)
- 3/4" DIA. MOUNTING HOLES. REFER TO RECOMMENDED STEEL SUPPORT DRAWING
- MAKE-UP WATER PRESSURE-20 psi MIN, 50 psi MAX

FACE 1 PLAN VIEW

Overall width: 28'-3 5/8"

Overall height: 23'-9"

Labels in drawing: (M) FAN MOTOR, (2) 3 MPT MAKE-UP, (2) 4 MPT DRAIN, (2) 4 MPT OVERFLOW, (2) 14 BFW/GROOVED INLET, (2) 14 BFW/GROOVED OUTLET.

SHIPPING WEIGHT	40940	+	OPERATING WEIGHT	72640	+	HEAVIEST SECTION WEIGHT	14910	+	NO. OF SHIPPING SECTIONS	4
		lbs.			lbs.			lbs.		



Sound Pressure Levels @ 7 meters dB(A)

Configuration		Position (Note 1)								8 Position Average
		1	2	3	4	5	6	7	8	
Standard-Unhoused (Note 3)	Infinite Exhaust	92.4	93.2	93.1	95.0	90.2	94.0	94.2	94.2	93.5
F200 - Weather	Mounted Muffler	90.4	91.6	82.1	89.9	91.9	88.9	81.8	91.1	89.7
F201 - Quiet Site II First Stage	Mounted Muffler	78.6	78.0	75.8	79.6	84.8	79.6	76.1	77.8	79.8
F202 - Quiet Site II Second Stage	Mounted Muffler	74.4	77.9	77.0	74.7	73.4	73.3	75.7	77.2	75.8

Note:

1. Position 1 faces the engine front at 23 feet (7 m) from the surface of the generator set. The positions proceed around the generator set in a counter-clockwise direction in 45° increments.
2. Data based on full rated load with standard radiator-fan package.
3. Sound data for generator set with infinite exhaust do not include exhaust noise.
4. Sound pressure levels per ANSI S1.13-1971 as applicable.
5. Reference sound pressure is 10 µPa.
6. Sound pressure levels are subject to instrumentation, measurement, installation and generator set variability.
7. Sound data with remote-cooled sets are based on rated loads without fan noise.

Sound Power Levels dB(A)

Configuration		Octave Band Center Frequency (Hz)								Sound Power Level
		63	125	250	500	1000	2000	4000	8000	
Standard-Unhoused (Note 3)	Infinite Exhaust	88.7	103.6	107.5	113.5	115.3	114.1	111.6	110.0	120.6
F200 - Weather	Mounted Muffler	90.6	100.7	105.2	111.4	112.2	110.5	106.2	103.3	117.2
F201 - Quiet Site II First Stage	Mounted Muffler	90.3	98.5	100.9	104.3	104.5	102.8	100.6	96.5	110.5
F202 - Quiet Site II Second Stage	Mounted Muffler	90.7	98.0	96.2	95.2	98.8	101.4	101.5	95.4	107.3

Note:

1. Sound pressure levels per ANSI S12.34-1988 and SIO 3744 as applicable.
2. Data based on full rated load with standard radiator-fan package.
3. Sound data for generator set with infinite exhaust do not include exhaust noise.
4. Reference sound pressure is 1pW-1x10⁻¹² W.
5. Sound pressure levels are subject to instrumentation, measurement, installation and generator set variability.
6. Sound data with remote-cooled sets are based on rated loads without fan noise.

Exhaust Sound Pressure Levels @ 1 meter dB(A)

Open Exhaust (No Muffler) @ Rated Load	Octave Band Center Frequency (Hz)								Sound Pressure Level
	63	125	250	500	1000	2000	4000	8000	
	94.5	111.6	116.5	122.0	122.5	126.5	125.7	121.3	131.4

Note: Sound pressure level per ISO 6798 Annex A as applicable.

GT Exhaust Systems, Inc.

Phone: 402-323-7272 Fax: 402-323-7270

201-7100 Series Extreme Application Series

APPLICATION

An acute critical silencer recommended for special applications when a single critical silencer is insufficient. The 201-7100 performs the work of two silencers in series. Excellent for applications requiring a very high measure of attenuation.

Typical Attenuation: 45 to 52 dB'A

INSTALLATION

May be installed in any position

CONSTRUCTION

All welded heavy-duty carbon steel construction featuring compressed acoustical fiberglass inserted between the double shell. This insulation will also provide a 300 to 400 degree (F) reduction in surface skin temperature. Silencer incorporates both multi-chambered and annular passage flow design to provide maximum attenuation of all frequencies. Silencers are standard with 125/150# ANSI steel plate flanges.

MATERIAL OPTIONS

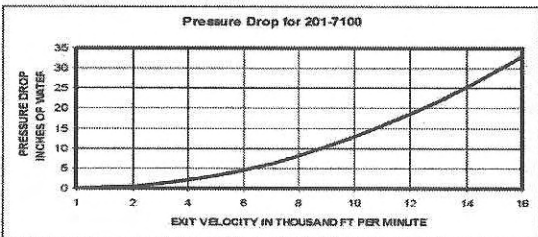
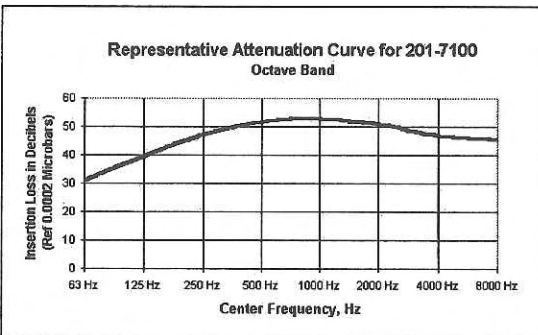
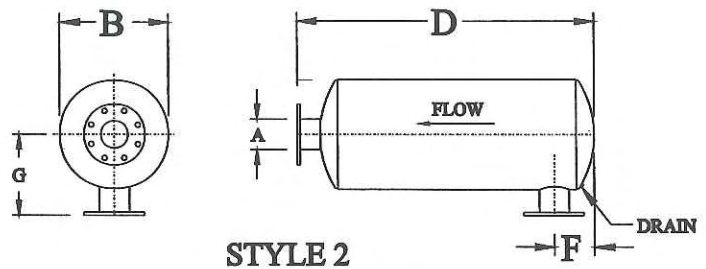
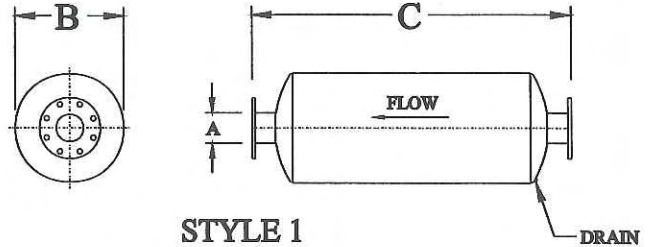
A variety of material options are provided to satisfy most applications and budgets:

- C** Carbon Steel
- AS** Aluminized Shell
- AH** Aluminized Shell and Heads
- S** Stainless Steel

FINISH

Standard finish is high heat silicone black or aluminum, depending on material options. Consult factory for optional coatings.

STAINLESS STEEL OPTIONS: 304, 316, & 316L



Model	A SIZE	B DIA	C OAL-1	D OAL-2	F MIN	F MAX	G	WT
201-7104	4	16	84	81	8	23	12	216
201-7105	5	20	105	101	10	29	14	300
201-7106	6	24	105	102	10	29	16	383
201-7108	8	26	106	102	10	28	17	481
201-7110	10	30	161	158	12	46	19	1006
201-7112	12	36	163	160	14	46	22	1482
201-7114	14	42	190	186	16	46	25	2248
201-7116	16	45	202	198	18	57	27	2457
201-7118	18	48	228	224	20	57	29	3270
201-7120	20	54	230	227	21	57	32	3704
201-7122	22	60	244	240	24	57	35	5097
201-7124	24	62	244	240	26	55	36	5248

All dimensions are in inches.
Inlet Sizes available up to 30.0"

ORDERING INFORMATION

When ordering, please place Material and Style Options as illustrated in the examples below:

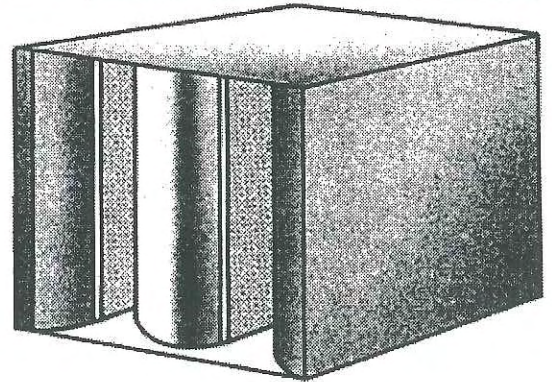
- 201-7104-2-C** Carbon Steel Construction with Style 2 -- Side Inlet
- 201-7112-2-AS** Aluminized Shell with Style 2 -- Side Inlet
- 201-7108-1-S** Stainless Steel with Style 1 -- End Inlet

SILENTAIR™ SOUND ATTENUATORS

Model ST2500 Standard Sound Attenuator

SEMCO **SILENTAIR** Model ST2500 sound attenuators are applicable in low to medium velocity systems where good attenuation across all bands and a moderate pressure drop are required.

GENERATOR DISCHARGE



INDEPENDENTLY CERTIFIED TEST DATA:

Published data is derived from Independent Certified Testing conducted in accordance with ASTM E477-90. For testing purposes, specified lengths of straight duct are used both upstream and downstream of the attenuator. Static pressure losses must therefore be adjusted if the unit is installed at or near transitions or elbows, or at the intake or discharge of the system. All data published herein was obtained from a 24" x 24" production run unit.

Dynamic Insertion Loss (dB)																				
Model	Length	Face Velocity	Cv	Press. Drop	Forward Air Flow Performance								Reverse Air Flow Performance							
					Octave Band/Frequency (hz)								Octave Band/Frequency (hz)							
					1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	8
63	125	250	500	1K	2K	4K	8K	63	125	250	500	1K	2K	4K	8K					
ST2503	36"	0	3.37	.00	5	7	15	29	38	37	23	14	4	6	15	29	38	36	24	13
		500		.05	5	7	14	28	37	37	23	14	4	7	16	30	36	35	22	12
		1000		.21	3	4	11	24	34	34	21	12	5	9	16	29	36	32	22	12
		1500		.47	3	4	11	24	32	33	21	12	5	9	17	30	35	23	17	11
		2000		.84	3	4	10	22	31	31	20	10	2	8	18	31	34	25	12	7
ST2505	60"	0	4.63	.00	7	12	25	38	44	45	36	21	7	12	25	38	44	45	36	21
		500		.07	6	12	23	37	44	45	36	21	6	12	23	37	44	45	36	21
		1000		.29	5	10	21	35	41	42	34	20	5	10	21	35	41	42	34	20
		1500		.66	5	9	20	35	39	41	33	19	5	9	20	35	39	41	33	19
		2000		1.17	4	8	18	31	38	38	31	18	4	8	18	31	38	38	31	18
ST2507	84"	0	6.02	.00	8	17	34	47	50	53	48	27	8	17	34	47	50	53	48	27
		500		.09	7	16	31	46	50	52	48	27	7	16	31	46	50	52	48	27
		1000		.37	7	15	30	46	48	49	46	27	7	15	30	46	48	49	46	27
		1500		.84	6	14	28	45	46	48	44	26	6	14	28	45	46	48	44	26
		2000		1.50	4	11	25	40	44	45	41	25	4	11	25	40	44	45	41	25
ST2510	120"	0	7.89	.00	10	25	48	61	59	65	67	37	10	25	48	61	59	65	67	37
		500		.12	10	23	44	60	59	63	67	37	10	23	44	60	60	63	67	37
		1000		.49	10	23	44	60	59	60	65	37	10	23	44	60	59	60	65	37
		1500		1.12	8	22	41	60	57	59	61	37	8	22	41	60	57	59	61	37
		2000		2.00	5	16	36	54	54	56	57	36	5	16	36	54	54	56	57	36

Forward Air Flow Performance applies when both noise and airflow are traveling in the same direction. Reverse Air Flow Performance applies when noise and air flow are traveling in opposite directions.

Pressure Drops for velocities not shown above can be calculated using the following formula:

$$P.D. = C_v \times H_v$$

where: P.D. = Pressure Drop

Cv = Silencer Flow Coefficient

$$H_v = (V/4005)^2$$

Hv = Velocity Pressure in Inches wg.

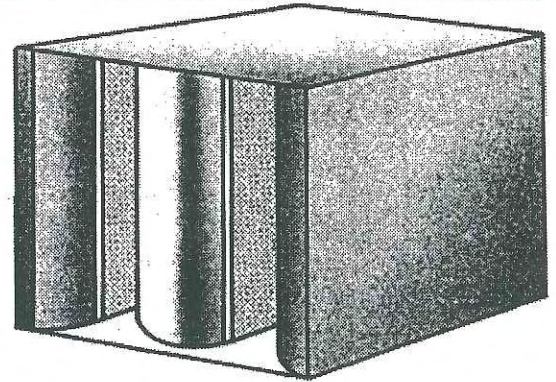
V = Face Velocity in Ft./Min.

ST2500

SILENTAIR™ SOUND ATTENUATORS

Model ST5000 Standard Sound Attenuator

SEMCO **SILENTAIR** Model ST5000 sound attenuators provide good attenuation across all bands and are designed to be used in low to medium pressure ranges where low to medium velocities are present.



GENERATOR INTAKE

INDEPENDENTLY CERTIFIED TEST DATA:

Published data is derived from Independent Certified Testing conducted in accordance with ASTM E477-90. For testing purposes, specified lengths of straight duct are used both upstream and downstream of the attenuator. Static pressure losses must therefore be adjusted if the unit is installed at or near transitions or elbows, or at the intake or discharge of the system. All data published herein was obtained from a 24" x 24" production run unit.

Model	Length	Face Velocity	Cv	Press. Drop	Dynamic Insertion Loss (dB)															
					Forward Air Flow Performance								Reverse Air Flow Performance							
					Octave Band/Frequency (hz)								Octave Band/Frequency (hz)							
					1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	8
					63	125	250	500	1K	2K	4K	8K	63	125	250	500	1K	2K	4K	8K
ST5003	36"	0	1.93	.00	2	3	11	24	33	29	17	10	4	4	12	24	33	29	18	12
		500		.03	1	2	10	22	32	29	16	9	3	5	13	24	34	29	18	12
		1000		.12	1	2	10	21	32	29	16	9	3	3	11	21	31	27	15	10
		1500		.27	0	2	9	20	31	29	16	9	2	4	11	22	30	22	14	7
		2000		.48	0	2	9	20	29	29	16	9	0	4	12	22	30	20	10	5
ST5005	60"	0	2.47	.00	4	8	19	35	41	40	26	15	6	8	19	33	37	36	26	16
		500		.04	3	7	18	34	41	40	26	14	6	10	21	33	38	36	25	15
		1000		.16	3	6	17	33	40	39	26	14	6	9	20	31	36	34	24	14
		1500		.35	2	6	17	32	39	37	25	14	4	10	20	31	33	24	17	11
		2000		.62	2	6	16	32	36	33	23	14	2	10	21	31	33	22	12	8
ST5007	84"	0	3.01	.00	6	12	27	45	49	50	35	19	8	12	26	41	41	42	34	19
		500		.05	5	11	26	45	49	50	35	19	8	14	28	41	41	43	32	17
		1000		.19	4	10	24	44	48	49	35	19	8	14	29	41	40	41	32	17
		1500		.42	4	10	24	44	46	44	34	19	5	15	29	40	36	25	19	15
		2000		.75	4	9	22	43	43	37	29	18	4	15	29	39	35	24	13	10
ST5010	120"	0	3.85	.00	9	19	39	61	61	66	49	26	11	18	37	54	47	52	46	24
		500		.07	8	18	38	62	62	66	49	27	12	21	39	54	46	54	43	21
		1000		.24	6	16	35	61	60	64	49	27	12	22	43	56	47	52	45	22
		1500		.53	7	16	35	62	57	55	48	27	7	23	43	54	41	27	23	21
		2000		.95	7	14	32	60	54	43	39	25	7	23	42	52	39	27	15	14

Forward Air Flow Performance applies when both noise and airflow are traveling in the same direction. Reverse Air Flow Performance applies when noise and air flow are traveling in opposite directions.

Pressure Drops for velocities not shown above can be calculated using the following formula:

$$P.D. = C_v \times H_v$$

where: P.D. = Pressure Drop

Cv = Silencer Flow Coefficient

$$H_v = (V/4005)^2$$

Hv = Velocity Pressure in Inches wg.

V = Face Velocity in Ft./Min.

ST5000

noishield/slimshield

architectural
noise control
ventilation

ventilation louvers
decorative facades
equipment screens
weather shields
noise barriers
silencers
housings

LOUVERS



THE STANDARD OF SILENCE

INDUSTRIAL ACOUSTICS COMPANY

iac acoustical noishield

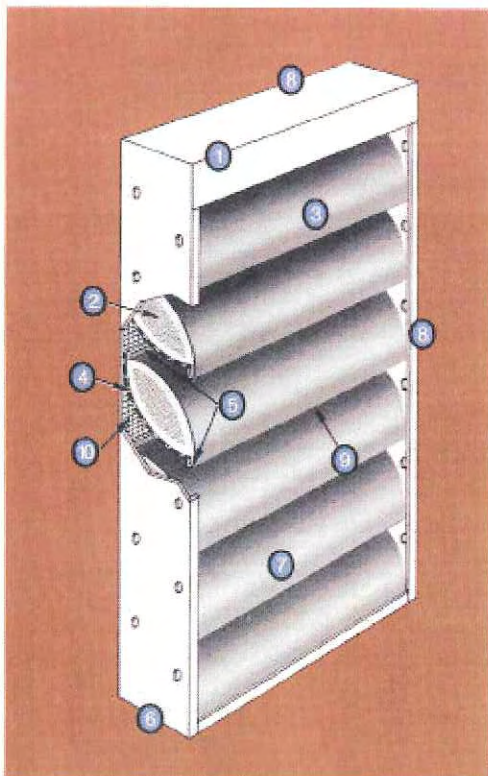
LOUVERS control noise...permit airflow



Noishield® Louver cooling tower inlet screen/noise barrier. Note how "clean" lines, color, and mitered corners provide attractive, uncluttered appearance architecturally compatible with the surroundings.

certified

acoustic and aerodynamic performance with an unmatched array of important features:



- 1 RUGGED ALL-STEEL GALVANIZED CONSTRUCTION. STAINLESS STEEL, ALUMINUM - OTHER MATERIALS ALSO AVAILABLE.
- 2 INERT, VERMINPROOF, WEATHER-RATED NONCOMBUSTIBLE ACOUSTIC FILL.
- 3 AIRFOIL SHAPED SPLITTER-BLADE FOR MAXIMUM NOISE REDUCTION WITH MINIMUM PRESSURE DROP.
- 4 PERFORATED SPLITTER UNDERSIDE FOR SOUND ABSORPTION.
- 5 WEATHER STOP INHIBITS RAIN/SNOW ENTRY.
- 6 ONLY 12 IN. (305 mm) DEEP.
- 7 AVAILABLE IN A VARIETY OF DURABLE, ATTRACTIVE FINISHES.
- 8 MODULAR SIZES (SEE PAGE 5) ENABLE ASSEMBLY OF RECTILINEAR LOUVER "WALLS" OF ALMOST ANY SIZE.
- 9 SPLITTER-BLADE ORIENTATION BLOCKS HORIZONTAL LINE OF SIGHT, THEREBY ENHANCING BOTH AESTHETICS AND ACOUSTIC PERFORMANCE.
- 10 1/2 IN. (13 mm) DETACHABLE GALVANIZED BIRD SCREEN FURNISHED AS STANDARD ON BACK SIDE OF LOUVER.

©Copyright 1981, last revised October 1986, last printed October 1987 by INDUSTRIAL ACOUSTICS COMPANY, INC.

..available for any application...in any size

The IAC Noishield® louver is a multi-purpose louver used to permit the flow of air while shielding the environment from noise. Noishield louvers are available in two models and standard modular sizes to meet a wide range of performance requirements where space is limited and architectural standards of appearance must be met.

typical uses include

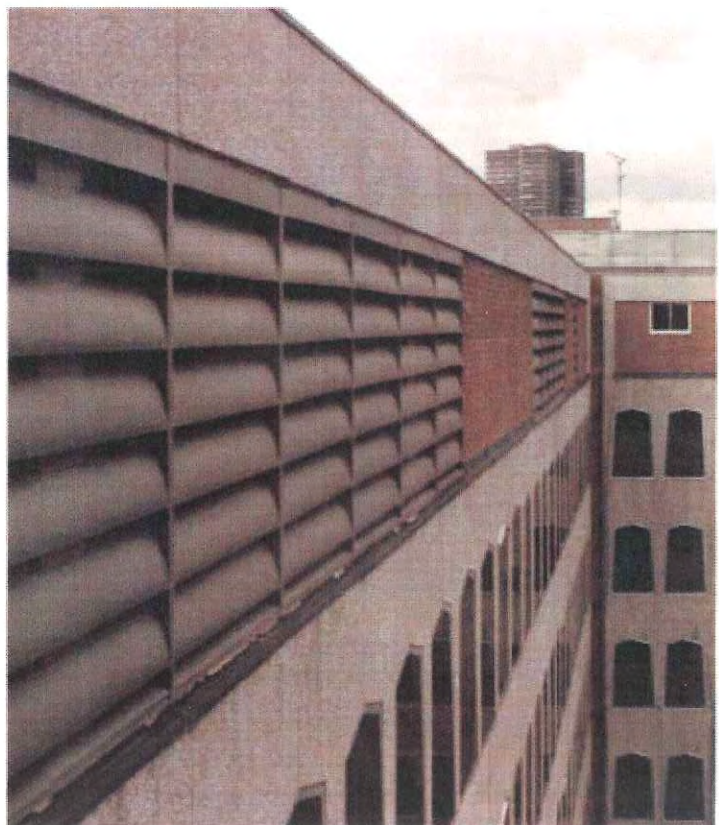
- FRESH AIR INTAKES FOR VENTILATION SYSTEMS
- MECHANICAL EQUIPMENT SCREENS OR PENTHOUSES
- CORRIDOR RETURN AIR INTAKES
- NOISE BARRIERS
- PROCESS AIR INTAKES
- CROSS TALK SILENCERS
- COOLING TOWER INLET SILENCERS OR SCREENS

...in a variety of colors and finishes

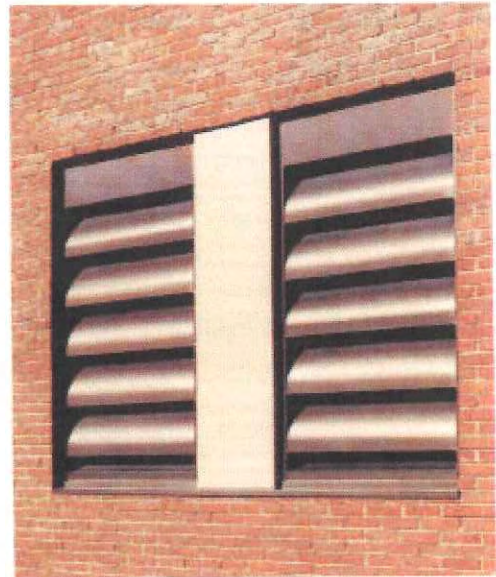
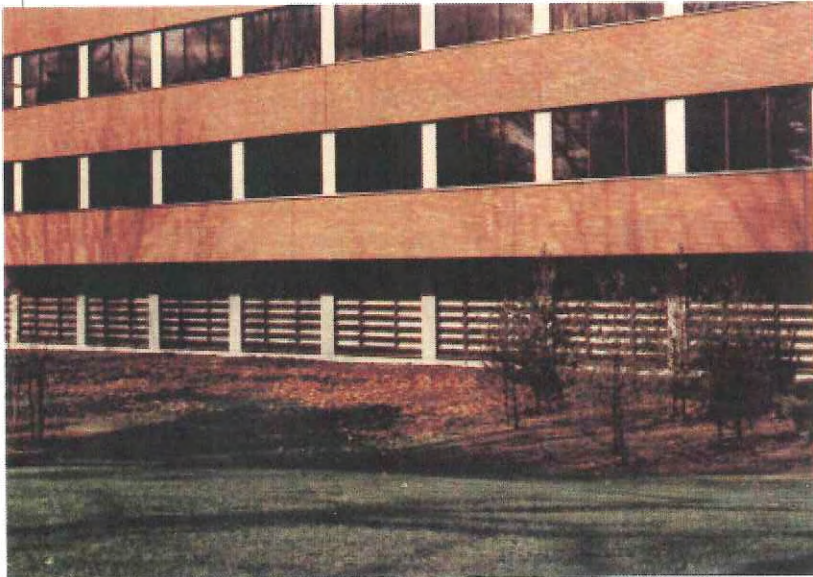
Noishield louvers can be provided in primed or unprimed galvanized steel or mill finish aluminum for field painting. In addition, they can be furnished in a range of architectural colors and gloss levels in any of the following finishes. IAC engineers can provide you with details on any of these options.

- AUTOMOTIVE QUALITY PHENOLIC PAINT
- ANODIZED ALUMINUM
- VINYL COATED STEEL
- STAINLESS STEEL IN A RANGE OF SURFACE FINISHES
- FLUOROPOLYMER, VINYL, POLYURETHANE AND OTHER PAINTS WITH SUPERIOR WEATHERABILITY

Noishield louvers provide decorative protection against weather and forced entry for air intakes and discharges.

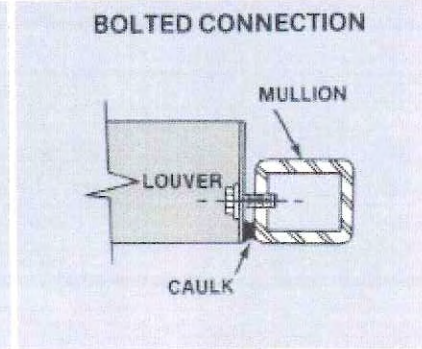
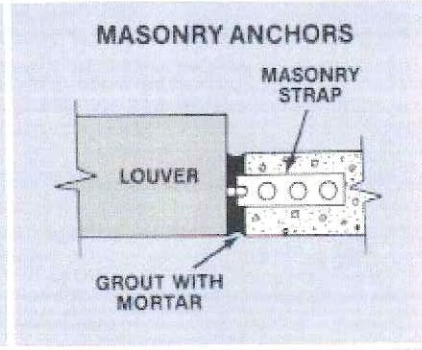
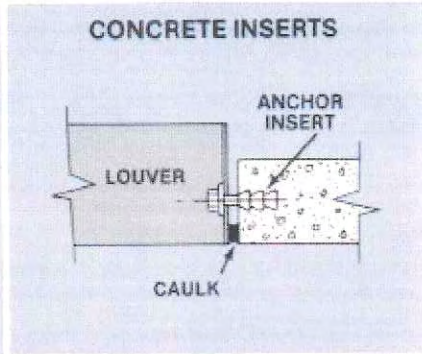
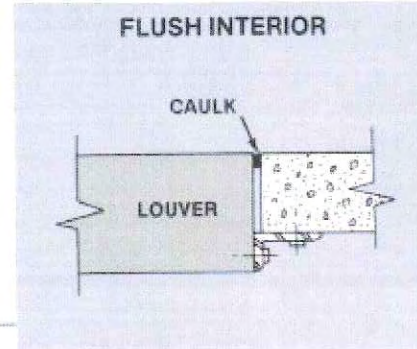
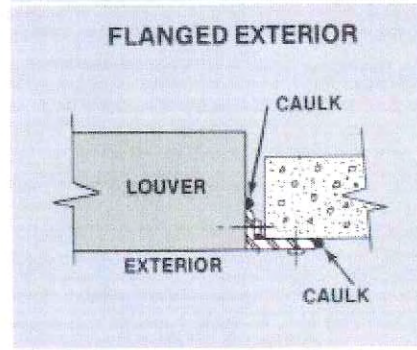
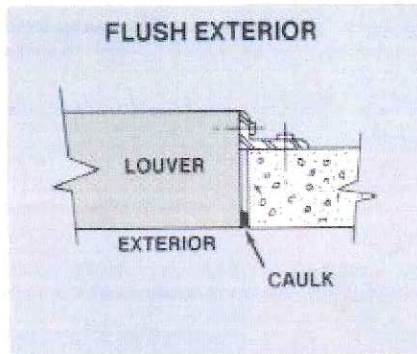
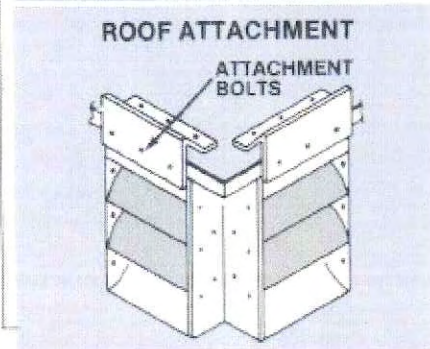
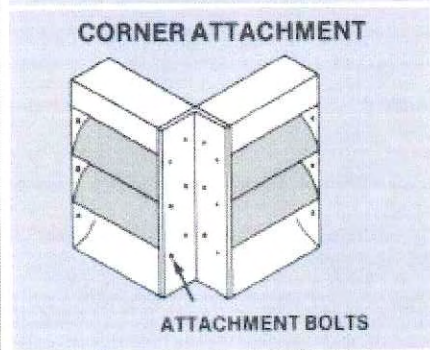
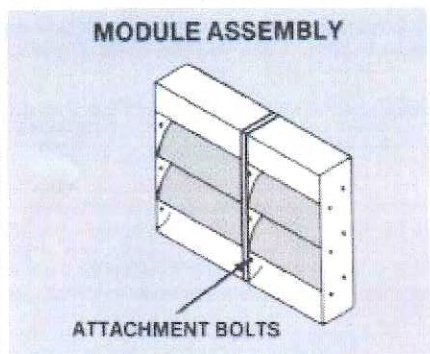


noishield louvers can be installed flush-mounted to fit into masonry or other building structures or as free-standing barriers or screens



field assembly

methods of installation



How To Specify Noishield Louvers

Furnish and install Noishield Louver(s) as manufactured by Industrial Acoustics Company. Outer casings shall be of 16 gauge (1.613 mm) galvanized steel. Louver baffles shall be of airfoil configuration and be made of 22 gauge (0.8534 mm) galvanized steel. They shall be packed with inert, vermin and moisture proof mineral fiber, and provide the acoustical performance as indicated in Table II. Louvers shall have _____ finish with _____ color.

Static pressure drop of louvers shall not exceed _____ i.w.g. (_____ Pa) at a face velocity of _____ fpm (_____ m/s) for Model R and _____ fpm (_____ m/s) for Model LP. *Fill in appropriate values.* Manufacturer shall submit certified data from one laboratory substantiating both the specified acoustic and aerodynamic performance.

Simplified Selection Procedure

Louvers are rated in the IAC aeroacoustic laboratory in accordance with ASTM Standard E90-75 and other applicable test standards.

To analyze specific louver applications, ask for IAC SNAP II (Bulletin 1.0503). This Systemic Noise Analysis Procedure enables you to evaluate the effects of the acoustical environment in which the source is located and to determine louver model and size selection.

Module Sizes

Noishield Louver Model	Model Width in. (mm)	Module Height in. (mm)
Model R—Optimum acoustical performance with normal pressure drop	24, 36, or 48 (610, 914 or 1219)	12 to 144 in 12 in. increments (305 to 3658 in 305 mm increments)
Model LP—Normal acoustical performance with minimum pressure drop	24, 36, or 48 (610, 914 or 1219)	14 to 140 in 14 in. increments (356 to 3556 in 356 mm increments)

NOTE: Width and height dimensions are nominal. Final assemblies will be 1/4 in. (6.4mm) less than nominal. Noishield Louver average weight — 10 lb/ft² (48.8 kg/m²) of face area.

certified performance data

Noishield Louver Model	Static Pressure Drop, i.w.g. (Pa)											
	0.05 (12.4)	0.10 (24.9)	0.15 (37.4)	0.20 (49.8)	0.25 (62.3)	0.30 (74.7)	0.40 (99.6)	0.50 (124.5)	0.60 (149.5)	0.75 (186.8)	1.0 (249.1)	1.25 (311.4)
Model R	Face Velocity, fpm (m/s)											
	215 (1.09)	305 (1.55)	375 (1.81)	430 (2.18)	480 (2.44)	525 (2.67)	610 (3.10)	675 (3.43)	745 (3.78)	830 (4.22)	960 (4.88)	1070 (5.44)
Model LP	270 (1.37)	380 (1.93)	465 (2.36)	540 (2.74)	600 (3.05)	660 (3.35)	780 (3.86)	850 (4.32)	925 (4.70)	1040 (5.28)	1200 (6.10)	1340 (6.81)

Table I
Aerodynamic
Performance

Table II—Transmission Loss (T.L.) — Defined as the ratio, in decibels, of acoustic energy transmitted through the louver to that incident upon it.

Octave Band Center Frequency, Hz.	1 63	2 125	3 250	4 500	5 1K	6 2K	7 4K	8 8K
Model R	6	7	11	12	13	14	12	9
Model LP	4	5	8	9	12	9	7	6

Table III—Noise Reduction (N.R.) — The free-field noise reduction of a louver is the difference, in decibels, between the sound pressure level on the noise source side of the louver and that measured outdoors on the side of louver away from the noise source.

Octave Band Center Frequency, Hz.	1 63	2 125	3 250	4 500	5 1K	6 2K	7 4K	8 8K
Model R	11	13	17	18	19	20	18	15
Model LP	10	11	14	15	18	15	13	12

Distance from Noishield Louver		Octave Band Center Frequency, Hz.							
		1 63	2 125	3 250	4 500	5 1K	6 2K	7 4K	8 8K
ft	m								
10	3.05	23	25	29	30	31	32	30	27
50	15.24	37	39	43	44	45	46	44	41
100	30.48	43	45	49	50	51	52	50	47
200	60.96	49	51	55	56	57	58	56	53
500	152.40	57	59	63	64	65	66	64	61
1000	304.80	63	65	69	70	71	72	70	67

*For MODEL LP Attenuation: SUBTRACT the following from above decibel values in each octave band.

DEDUCT	1	2	3	3	1	5	5	3
--------	---	---	---	---	---	---	---	---

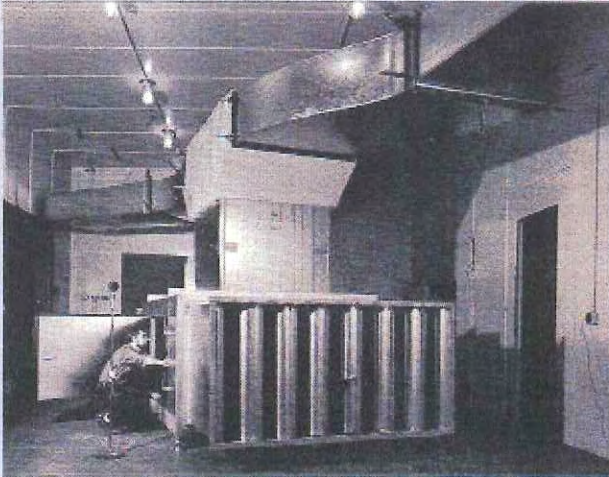
Table IV
Attenuation

(Source PWL re: 10-12 Watts)

Combines the Noishield Louver's transmission with the reduction of sound energy as a function of distance from the noise source (Type R attenuation tabulated; correct for Type LP as noted).

NOTE: Additional attenuation can be realized from room or plenum absorption characteristics. For detailed method of calculation, refer to IAC Bulletin 1.0503.

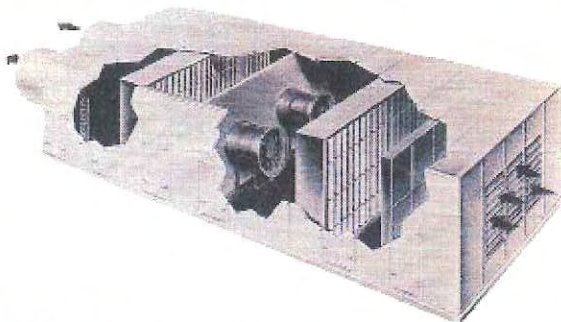
IAC HVAC Noise Control Products & Systems



Special Air Handling Systems — Custom engineered 24,000 cfm air-handling system including silencers, filters, coils, vaneaxial fan and acoustic plenum under test in IAC's 10,000 ft³ reverberation room. System is designed to meet consultant's NC 35 criterion for each floor of a fifty-story building. The reverberation room is part of IAC's Aero-Acoustic Laboratory which includes closed loop wind tunnel for establishing DIL, self-noise, and pressure drop ratings of full-scale silencers and other HVAC system components. **Bulletin 1.0004**

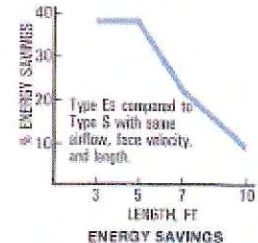
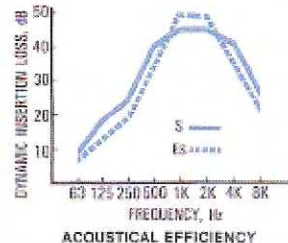
SNAP Form — IAC's Systemic Noise Analysis Procedure for determining acoustical requirements of HVAC systems. **Bulletin 1.0110**

SNAP II Form — IAC's Systemic Noise Analysis Procedure for determining acoustical requirements and applications involving Noishield® Acoustic Louvers. **Bulletin 1.0503**



Quiet-Flow® Fan Plenums of acoustically designed panels isolate fan noise from adjacent areas and control fan noise in the air stream. In addition they provide excellent thermal insulation. **Bulletin 1.0201**

Quiet-Duct® Silencers are engineered units with proven acoustical efficiency in attenuating fan noise. Easily fitted into existing systems. Sizes for practically every application. **Bulletin 1.0301**



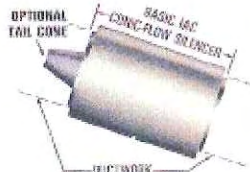
Type Es 'Energy Saver' Silencer — For many years, IAC Type S Quiet-Duct Silencers have been the industry standard for maximum noise reduction with minimum length. The Es 'Energy Saver' Rectangular Silencers provide the same high level of acoustic performance combined with a marked decrease in energy consumption. **Bulletin SDS 12**



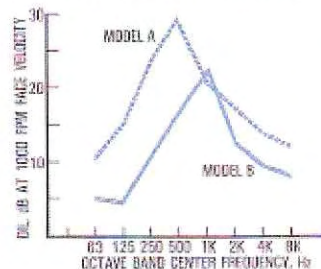
Conic-Flow® Silencers control noise of axial-flow-fans in 1/10th the duct length required for lined duct. Allow efficient air flow in both high-pressure and low-velocity systems. 18 standard sizes. **Bulletin 1.0301**

Energy Saver Conic-Flow® Silencer Tail Cones —

For any size IAC Conic-Flow Silencer. Decreases silencer pressure drop and cuts silencer energy consumption operating costs by as much as 33% with no change in acoustic characteristics and no increase in duct length requirements. **Bulletin SDS 14**



Ultra-Pals™ Packless Silencers —



IAC's all-steel reactive silencers use no acoustic fill of any kind. Readily cleaned with steam, hot water, chemical solutions and/or vacuumed. Ideal for electronic equipment assembly, pharmaceutical, food and dairy manufacturing, clean room or process applications, hospital operating rooms, and research facilities. **Bulletins SDS 21,24,25 and 28**

E-MAIL: INFO@INDUSTRIALACOUSTICS.COM

WEBSITE: [HTTP://WWW.INDUSTRIALACOUSTICS.COM](http://WWW.INDUSTRIALACOUSTICS.COM)



INDUSTRIAL ACOUSTICS COMPANY

SINCE 1949 — LEADERS IN NOISE CONTROL ENGINEERING, PRODUCTS AND SYSTEMS

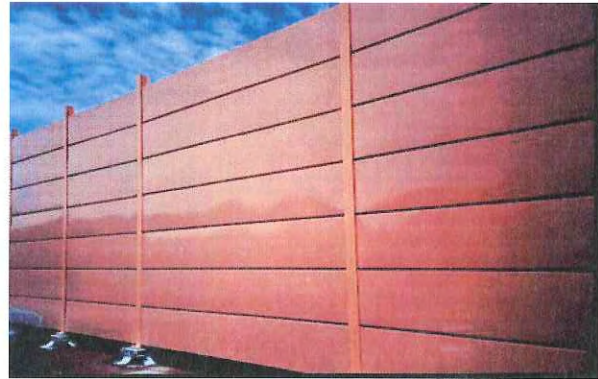
UNITED STATES
1160 COMMERCE AVENUE
BRONX, NY 10462 5598
TEL: (718) 931-8000
FAX: (718) 863-1138

UNITED KINGDOM
IAC HOUSE, MOORSIDE ROAD
WINCHESTER, HAMPSHIRE, SO23 7US
TEL: (01962) 873000
FAX: (01962) 873111, TELEX: 471117

GERMANY
SOHLWEG 17
D-41372 NIEDERKRÜCHTEN
TEL: (02163) 8431
FAX: (02163) 80618

TECHNICAL REPRESENTATION IN PRINCIPAL CITIES THROUGHOUT THE WORLD

PRINTED IN U.S.A.



IAC Noishield® Sound Barriers protect communities against noise such as air conditioners, pumps, compressors, fans, transformers, customer drive-thru's, salvage yards, condensers, car washes and traffic-rail-aircraft.

Freestanding Barriers-Noishield® Types: FS and SFS Barriers: sound absorptive on one and two side respectively - optimize sound transmission loss and sound absorbing properties in a durable and attractive wall system harmony with the community.

- Excellent low-frequency absorption for heavy equipment
- Laboratory-rated sound absorption on one or both sides, low weight, rugged construction.
- Ideal for round or roof structure mounting
- Withstands wind velocities of 110 mph (177km/hr) - designs for specific wind loads are available

Ground Mount/Roof Mount/Structure Mount: IAC NoishieldR Barriers are engineered from the foundation up for structural and acoustical integrity and economical installation. Low weight modules stack between posts to achieve required wall heights. Noishield® Barriers can be installed with horizontal or vertical reveals to satisfy aesthetic and architectural considerations.

Finishes: Noishield® Barriers are finished with a tough, thermosetting, polyester powder coating which is not damaged by the harsh cleaning chemicals used to remove spray paint graffiti. A wide variety of standard colors allow complementary decorative schemes and attractive designs to reduce apparent wall height as perceived by the community.

Tested for accelerated weathering per ASTM G23 for 2,400 hours with chalking not less than No. 8 rating (ASTM D659) and color changes less than 5 NBS units (ASTM D2244).

Salt spray tested for checking, blistering, loss of adhesion, or evidence of corrosion per ASTM B117 for more than 4,000

Acoustic Performances:

1/3 Octave Band Center Frequency, Hz.	125	250	500	1K	2K	4K	8K	STC
SOUND TRANSMISSION LOSS DATA, dB								
FS/S and SFS/S	21	34	40	33	32	26	37	30

SOUND ABSORPTION COEFFICIENTS

FS/S, FS/A and FSt/S	1.12	1.12	1.10	1.01	0.89	0.76	0.57	1.05	NRC
SFS/S and SFS/A	0.49	1.04	1.14	1.05	0.96	0.95	0.87	1.05	



Making the World a Quieter Place™

Industrial Acoustics Company, Inc.

1160 Commerce Avenue, Bronx, New York 10462

Phone: (718) 931-8000 Fax: (718) 863-1138

Email: info@industrialacoustics.com - Web: www.industrialacoustics.com

IAC NOISHIELD® SOUND BARRIERS

28 January 2009



Gene Corapi
Suburban Hospital Healthcare System
8600 Old Georgetown Road
Bethesda, MD 20814

Phoenix Noise & Vibration, LLC
930 North East Street, Suite 4
Frederick, Maryland 21701
301.846.4227 (phone)
301.846.4355 (fax)
www.phoenixnv.com

Reference: Suburban Hospital Facility Expansion
Report Conclusions Page Revision

Dear Mr. Corapi:

The following "Conclusion" paragraph is a revision to the same paragraph on page 4 of Report #080211 "Suburban Hospital, Modification of Existing Hospital Special Exception, Noise and Vibration Impact Analysis" dated March 2008. This revision addresses the changes brought about by the Alternative Garage Plan.

Conclusion

Based upon this analysis, there will be no objectionable vibrations caused by the equipment to be used and the resulting noise levels on all adjacent residential properties caused by mechanical equipment from Suburban Hospital, including the proposed expansion, will be below the Montgomery County Noise Ordinance's nighttime limit of 55 dBA. This level completely complies with the Montgomery County Standards. In order to ensure compliance with these criteria, the following measures have been taken:

- *Mufflers to be installed with "acute critical" rating (45 to 52 dBA of reduction) on all emergency generators.*
- *Emergency generator exhaust to be located 14 feet below the top edge of the area way.*
- *Emergency generator silencers will be added to intake and outlet louvers.*
- *One-inch sound lining to be installed on all ductwork downstream of RF 1-1, 1-2, 3-1 and 3-2.*
- *30 feet of one-inch sound lining to be installed on all ductwork feeding into the east areaway. Two-inch sound lining to be installed for the entire duct run of ductwork from RF 2A-1 and RF 2A-2*
- *A barrier will enclose three sides of the cooling tower and extend 25 feet above final grade. The length of the barrier will be 58 feet on southern side, 30 feet on western side, and 17 feet on the north side. The total length of the barrier will be 105 feet.*

If there are any questions, please contact me directly.

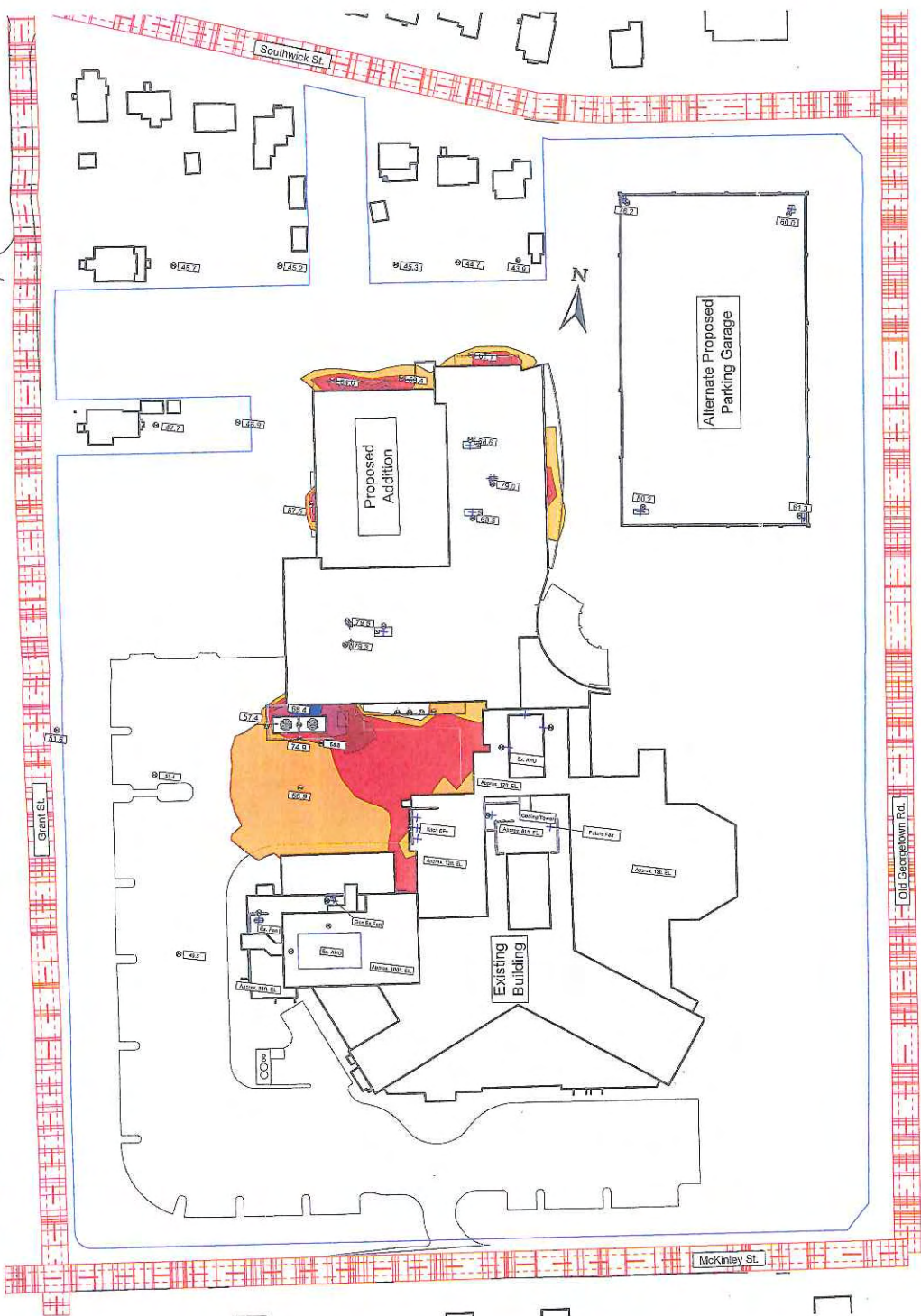
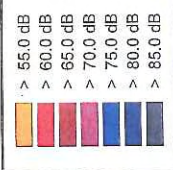
Most sincerely,

A handwritten signature in black ink, appearing to read "Scott Harvey".

Scott Harvey, PE
Chief Engineer

SH/sh

46

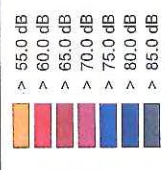
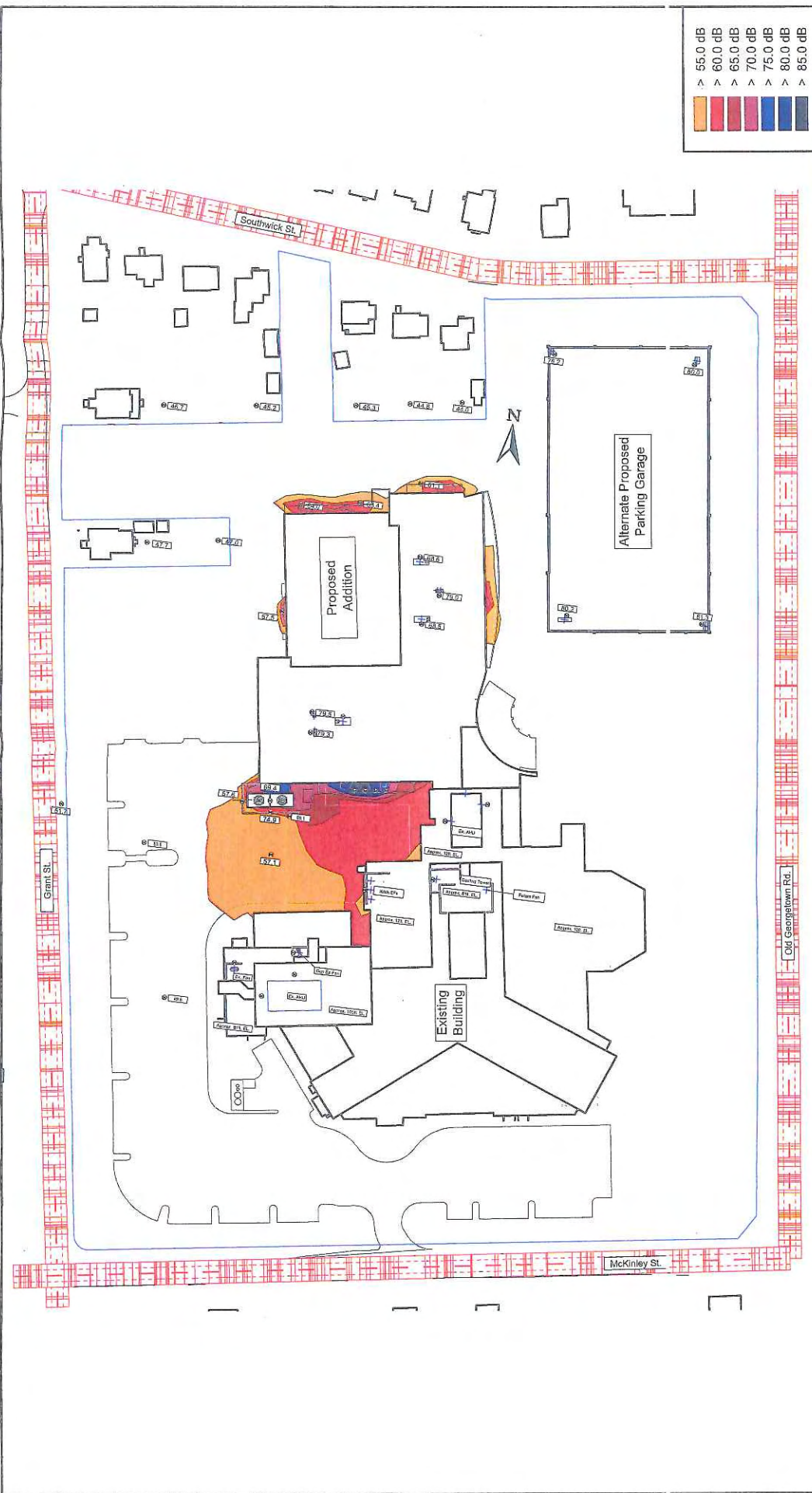


900 North East Street, Suite 4
 Frederick, MD 21701
 301-346-4227

Suburban Hospital 2020
 Mitigated Noise Condition
 Alt. Garage Plan w/ No Generator

DWG. NO. 4
 DATE: 17 Nov. 2008
 SCALE: NTS
 DRAWN BY: SMB

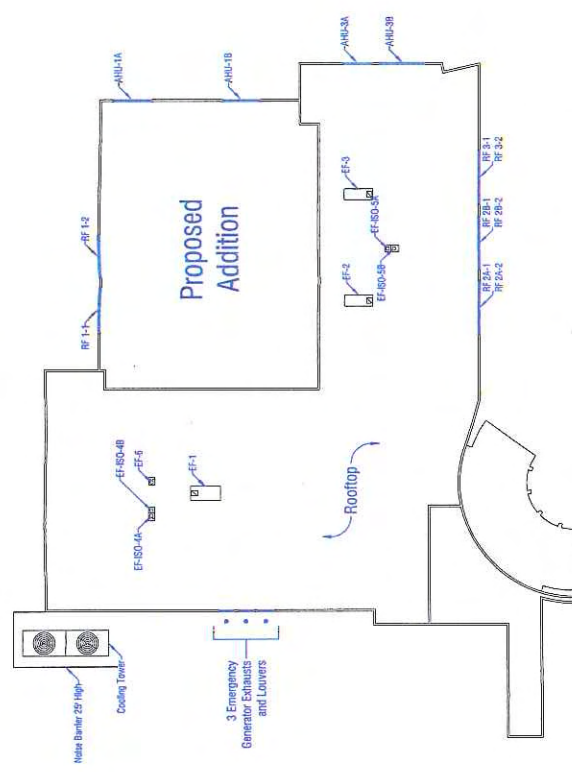
2166



PHOENIX
noise & vibration
930 North East Street, Suite 4
Frederick, MD 21701
301-846-4227

Suburban Hospital 2020
Mitigated Noise Condition
Alt. Garage Plan w/ 3 Generators

DWG. NO. 5
DATE: 17 Nov. 2008
SCALE: NTS
DRAWN BY: SMB



Indicates ground level and roof level noise source locations analyzed for environmental impact.

PHOENIX
noise & vibration
500 North East Street, Suite 4
Tucson, AZ 85701
301-846-4227

Suburban 2020 Exterior Noise Sources Alt. Garage Plan	
DWG. NO. 6	DATE 28 Jan, 2009
SCALE 1" = 30'	DRAWN BY SMB



105

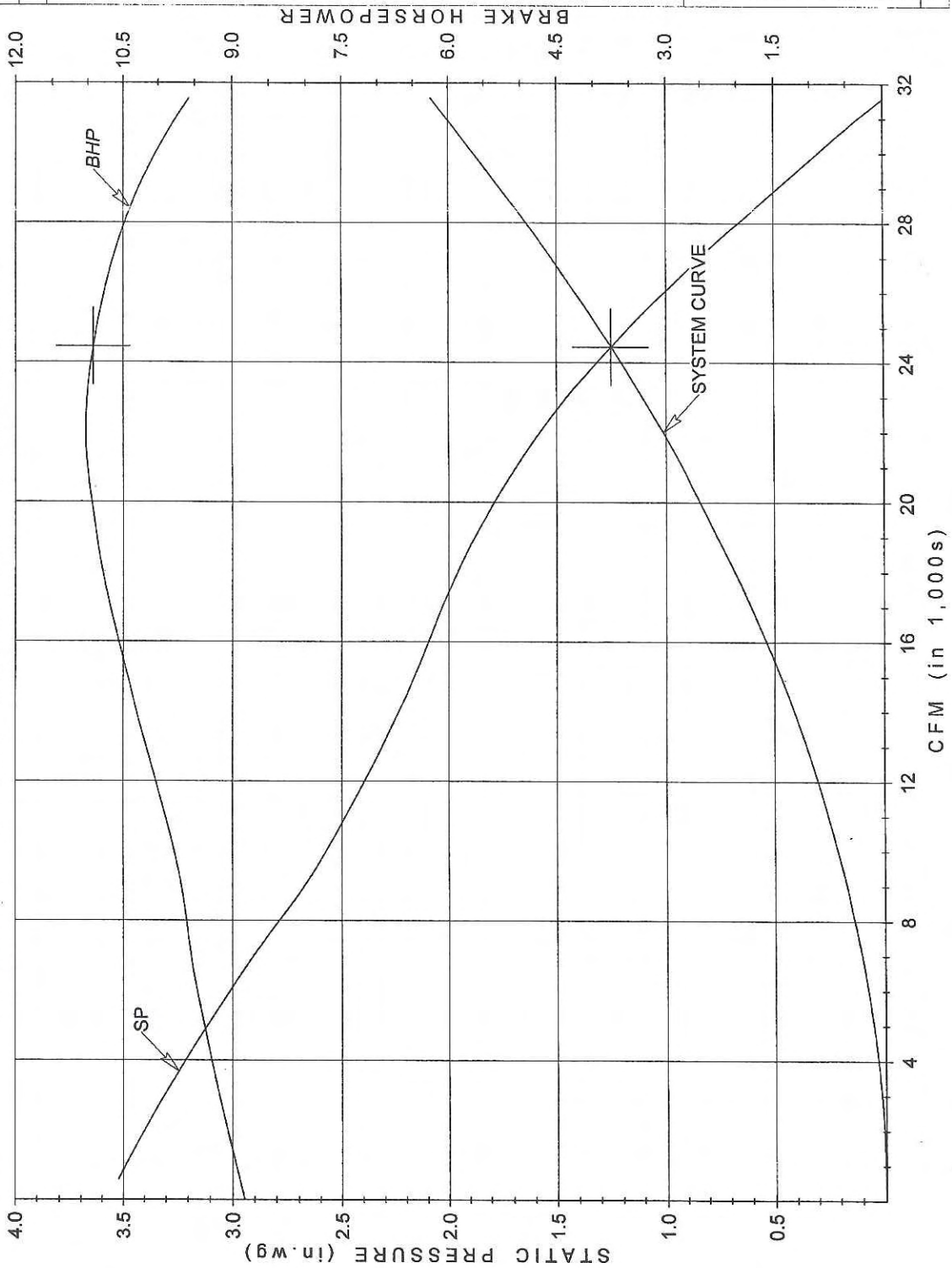
Customer:
Job ID:

Fan Tag: First SA Fan
Model: 42BE4 TCV/PX

CFM: 24,450
SP: 1.25 in.wg
RPM: 1546
BHP: 10.92
Outlet Velocity: 2,497
Density: 0.075

Corrected for:
Blade Angle 17°

TWIN CITY FAN AND BLOWER PERFORMANCE CURVE



Inlet Sound Power Octave	Level
1	102
2	108
3	105
4	101
5	100
6	98
7	94
8	90

in db re 10⁻¹² watts
11/3/2008 09:47



Twin City Fan & Blower

A Twin City Fan Company

5959 Trenton Lane · Minneapolis, MN 55442-3238
Phone (763) 551-7600 · Fax (763) 551-7601 · www.tcf.com



Customer: W/A
Job Name:
Job ID:

November 03, 2008
Page: 1

Fan Description

Tag First SA Fan
Type TCWPX
Size 42BE4
Blade angle 17
Propeller Diameter (in.) 42
Class N/A
Discharge W/A

Fan Performance

CFM 24,450
Operating SP (in.wg) 1.25
Standard SP (in.wg) 1.25
TP (in.wg) 1.64
RPM 1546
Tip Speed (fpm) 16,999
Oper. BHP 10.92
Standard BHP 10.92
Outlet area (sq. ft) 9.79
Outlet Velocity (fpm) 2,497
Temperature (°F) 70
Altitude (ft) 0
Density (lb/ft³) 0.075
Max RPM for Class 1637
Static Efficiency 43.98
Mechanical Efficiency 57.66

Motor Data

Motor not defined.

Sound

Sound Power Levels in dB re. 10⁻¹² Watts:

Octave Bands	1	2	3	4	5	6	7	8	LwA
Level at Inlet	102	108	105	101	100	98	94	90	105

Estimated sound pressure level in dBA (re: 0.0002 microbar) based on a single* ducted installation:

Distance in ft	1	3	5
dBA at Inlet	105	95	91

*To estimate dBA level for ducted inlet and ducted outlet (into and out of the room) type installation, deduct 20 from the LWA value shown.

Using a directivity factor of 1.

Estimated Sound Pressure based on free field, spherical (Q = 1) radiation at the stated distance.

Definitions:

LwA The overall (single value) fan sound power level, 'A' weighted.

dBA The environment for each fan installation influences its measured sound value, therefore dBA levels cannot be guaranteed. Consult AMCA Publication 303 for further details.
A fan's dBA is influenced by nearby reflective surfaces.



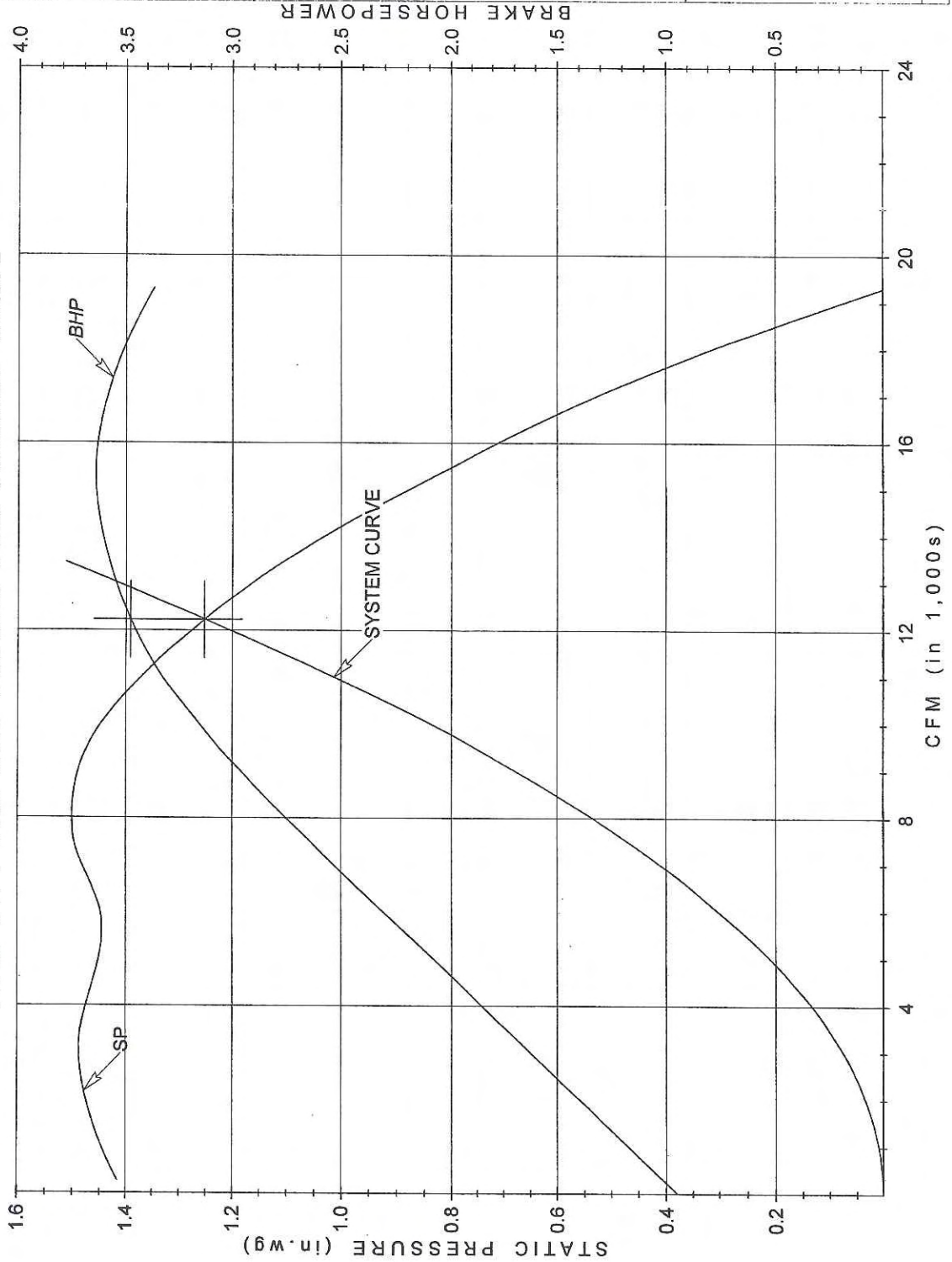
81

Customer:
Job ID:

Fan Tag: First EA Fan (2)
Model: 300 BC-DW

CFM: 12,225
SP: 1.25 in.wg
RPM: 645
BHP: 3.48
Outlet Velocity: 1,313
Density: 0.075

TWIN CITY FAN AND BLOWER PERFORMANCE CURVE



Octave	Level
1	86
2	84
3	83
4	79
5	75
6	69
7	64
8	60

Inlet Sound Power
in db re 10⁻¹² watts

11/3/2008 09:48



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Customer: W/A
Job Name:
Job ID:

November 03, 2008

Page: 1

Fan Description

Tag First EA Fan (2)
Type BC-DW
Size 300
Width DWDI
Class I
Wheel diameter (in.) 30
Drive method ... 60 Hz belt drive
Percentage width 100%
Percentage diameter 100%

Fan Performance

CFM 12,225
Operating SP (in.wg) 1.25
Standard SP (in.wg) 1.25
RPM 645
Tip Speed (fpm) 5,066
Oper. BHP 3.48
Standard BHP 3.48
Outlet area (sq. ft) 9.31
Outlet Velocity (fpm) 1,313
Temperature (°F) 70
Altitude (ft) 0
Density (lb/ft³) 0.075
Max RPM for Class 1253
Static Efficiency 69.06
Mechanical Efficiency 75.00

Motor Data

Motor not defined.

Sound

Sound Power Levels in dB re. 10⁻¹² Watts:

Octave Bands	1	2	3	4	5	6	7	8	LwA
Level at Inlet	86	84	83	79	75	69	64	60	81

Estimated sound pressure level in dBA (re: 0.0002 microbar) based on a single* ducted installation:

Distance in ft	1	3	5
dBA at Inlet	81	71	67

*To estimate dBA level for ducted inlet and ducted outlet (into and out of the room) type installation, deduct 20 from the LwA value shown.

Using a directivity factor of 1.

Estimated Sound Pressure based on free field, spherical (Q = 1) radiation at the stated distance.

Definitions:

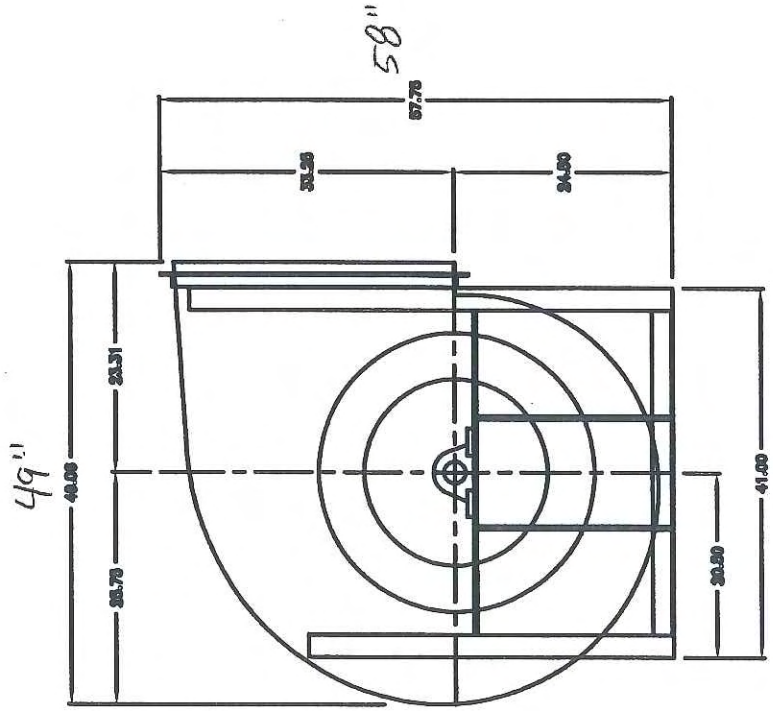
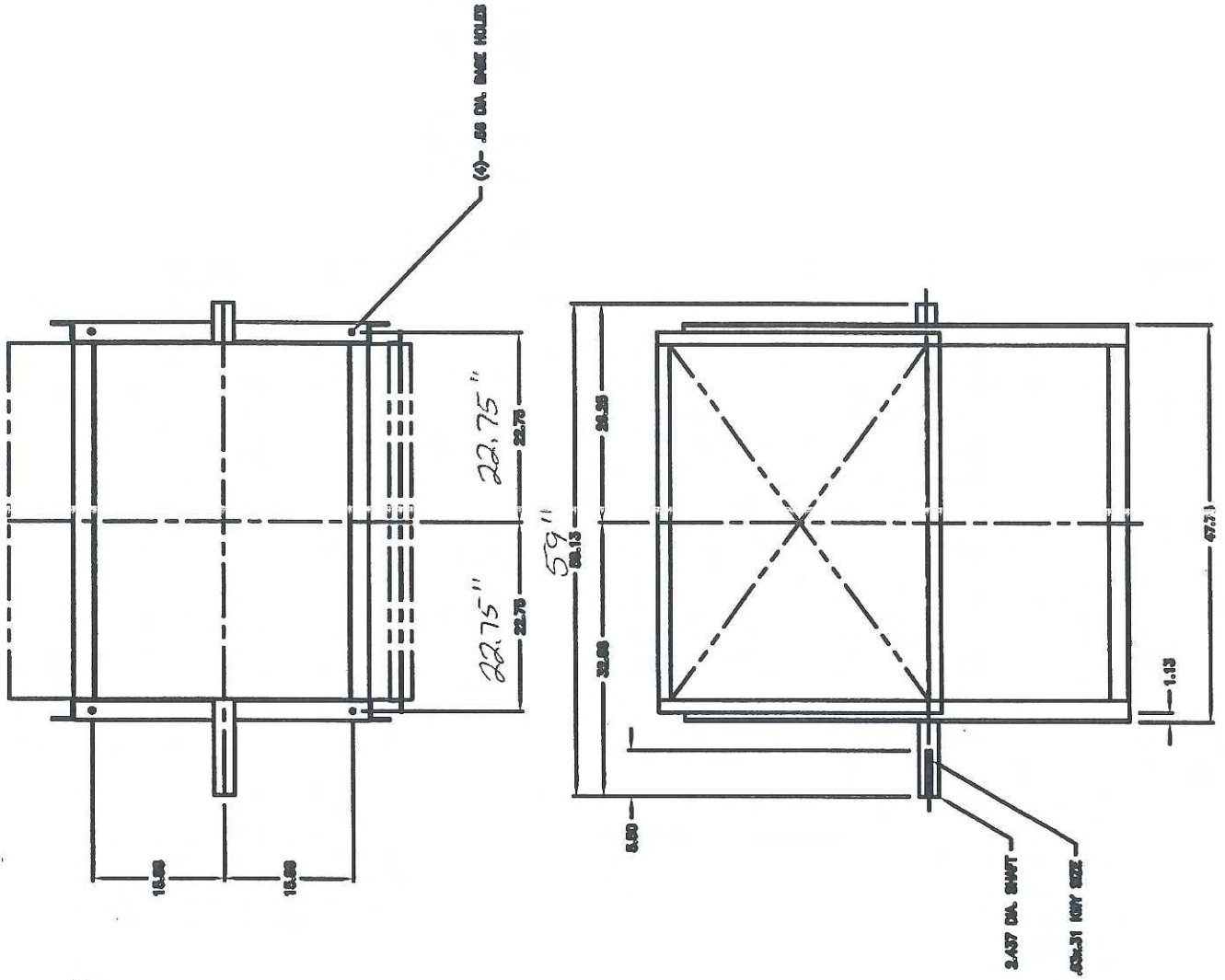
LwA The overall (single value) fan sound power level, 'A' weighted.

dBA The environment for each fan installation influences its measured sound value, therefore dBA levels cannot be guaranteed. Consult AMCA Publication 303 for further details.
A fan's dBA is influenced by nearby reflective surfaces.

**TYPE 'BC' AND TYPE 'BAF' ARRANGEMENT 3 DWDI NON-ROTATABLE
SIZE 300 CLASS 1 TOP HORIZ. DISCH.**

Outlet is 42.69 parallel to shaft X 31.81 (outside housing).

FAW BLOCK 1300163





103

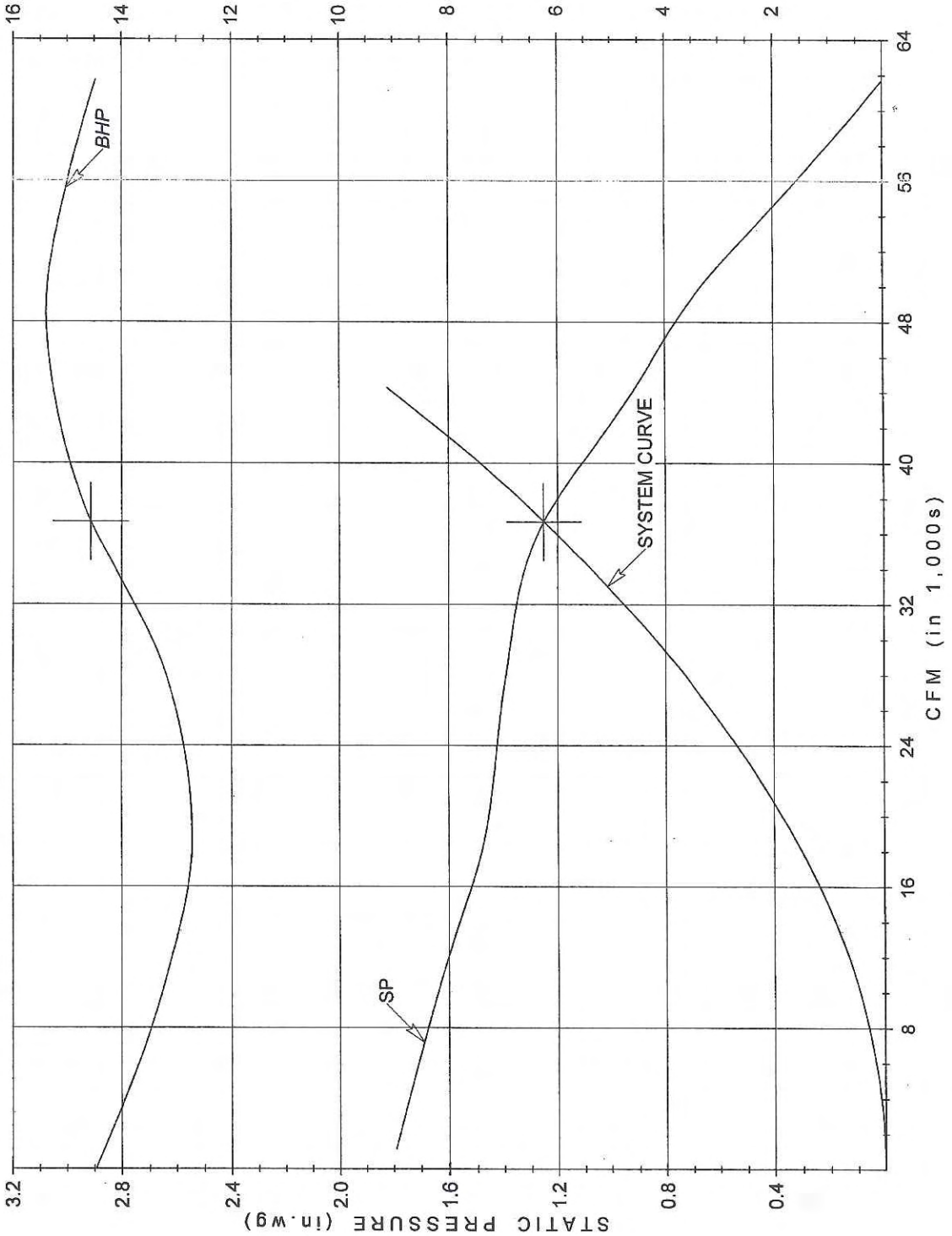
Customer:
Job ID:

Fan Tag: Basement SA Fan (2)
Model: 60BC6 TCwIPX

CFM: 36,675
SP: 1.25 in.wg
RPM: 840
BHP: 14.57
Outlet Velocity: 1,837
Density: 0.075

Corrected for:
Blade Angle 20°

TWIN CITY FAN AND BLOWER PERFORMANCE CURVE



Octave	Level
1	103
2	105
3	105
4	101
5	96
6	93
7	87
8	82

in db re 10⁻¹² watts

11/3/2008 09:39



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Customer: W/A
Job Name:
Job ID:

November 03, 2008

Page: 1

Fan Description

Tag Basement SA Fan (2)
Type TCWPX
Size 60BC6
Blade angle 20
Propeller Diameter (in.) 60
Class N/A
Discharge W/A

Fan Performance

CFM 36,675
Operating SP (in.wg) 1.25
Standard SP (in.wg) 1.25
TP (in.wg) 1.46
RPM 840
Tip Speed (fpm) 13,195
Oper. BHP 14.57
Standard BHP 14.57
Outlet area (sq. ft) 20
Outlet Velocity (fpm) 1,837
Temperature (°F) 70
Altitude (ft) 0
Density (lb/ft³) 0.075
Max RPM for Class 955
Static Efficiency 49.45
Mechanical Efficiency 57.77

Motor Data

Motor not defined.

Sound

Sound Power Levels in dB re. 10⁻¹² Watts:

Octave Bands	1	2	3	4	5	6	7	8	LwA
Level at Inlet	103	105	105	101	96	93	87	82	103

Estimated sound pressure level in dBA (re: 0.0002 microbar) based on a single* ducted installation:

Distance in ft	1	3	5
dBA at Inlet	103	93	89

*To estimate dBA level for ducted inlet and ducted outlet (into and out of the room) type installation, deduct 20 from the LWA value shown.

Using a directivity factor of 1.

Estimated Sound Pressure based on free field, spherical (Q = 1) radiation at the stated distance.

Definitions:

LwA The overall (single value) fan sound power level, 'A' weighted.

dBA The environment for each fan installation influences its measured sound value, therefore dBA levels cannot be guaranteed. Consult AMCA Publication 303 for further details.
A fan's dBA is influenced by nearby reflective surfaces.



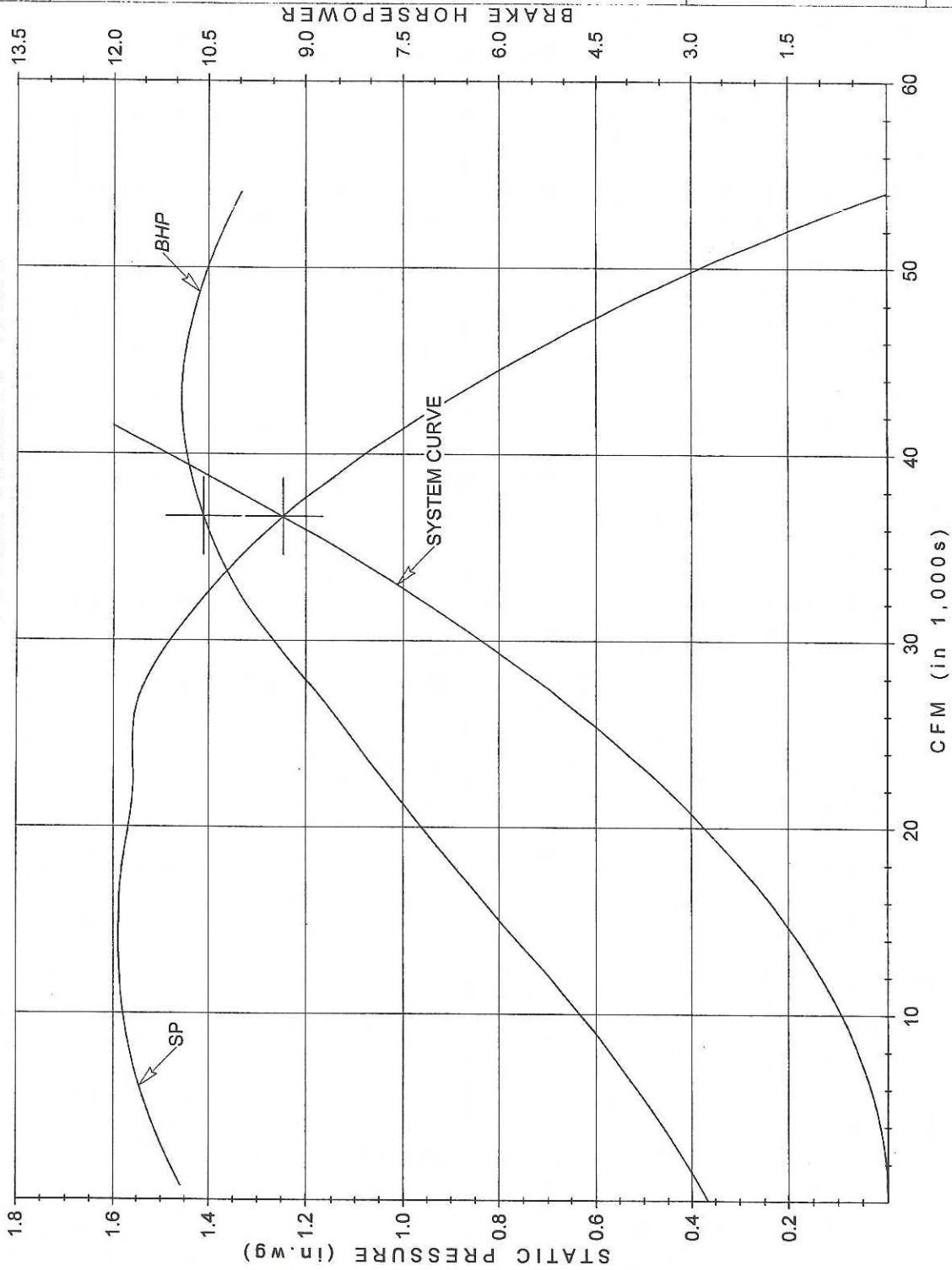
85

Customer:
Job ID:

Fan Tag: Basement EA Fan (2)
Model: 490 BC-DW

CFM: 36,675
SP: 1.25 in.wg
RPM: 404
BHP: 10.58
Outlet Velocity: 1,476
Density: 0.075

TWIN CITY FAN AND BLOWER PERFORMANCE CURVE



Inlet Sound Power	Level
Octave 1	92
Octave 2	90
Octave 3	89
Octave 4	83
Octave 5	78
Octave 6	72
Octave 7	67
Octave 8	63

in db re 10⁻¹² watts
11/3/2008 09:35



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Customer: W/A
Job Name:
Job ID:

November 03, 2008
Page: 1

Fan Description	Fan Performance	Motor Data
Tag Basement EA Fan (2)	CFM 36,675	Motor not defined.
Type BC-DW	Operating SP (in.wg) 1.25	
Size 490	Standard SP (in.wg) 1.25	
Width DWDI	RPM 404	
Class I	Tip Speed (fpm) 5,183	
Wheel diameter (in.) 49	Oper. BHP 10.58	
Drive method ... 60 Hz belt drive	Standard BHP 10.58	
Percentage width 100%	Outlet area (sq. ft) 24.9	
Percentage diameter 100%	Outlet Velocity (fpm) 1,476	
	Temperature (°F) 70	
	Altitude (ft) 0	
	Density (lb/ft ³) 0.075	
	Max RPM for Class 748	
	Static Efficiency 68.10	
	Mechanical Efficiency 75.50	

Sound

Sound Power Levels in dB re. 10⁻¹² Watts:

Octave Bands	1	2	3	4	5	6	7	8	LwA
Level at Inlet	92	90	89	83	78	72	67	63	85

Estimated sound pressure level in dBA (re: 0.0002 microbar) based on a single* ducted installation:

Distance in ft	1	3	5
dBA at Inlet	85	75	71

*To estimate dBA level for ducted inlet and ducted outlet (into and out of the room) type installation, deduct 20 from the LWA value shown.

Using a directivity factor of 1.

Estimated Sound Pressure based on free field, spherical (Q = 1) radiation at the stated distance.

Definitions:

LwA The overall (single value) fan sound power level, 'A' weighted.

dBA The environment for each fan installation influences its measured sound value, therefore dBA levels cannot be guaranteed. Consult AMCA Publication 303 for further details.
A fan's dBA is influenced by nearby reflective surfaces.



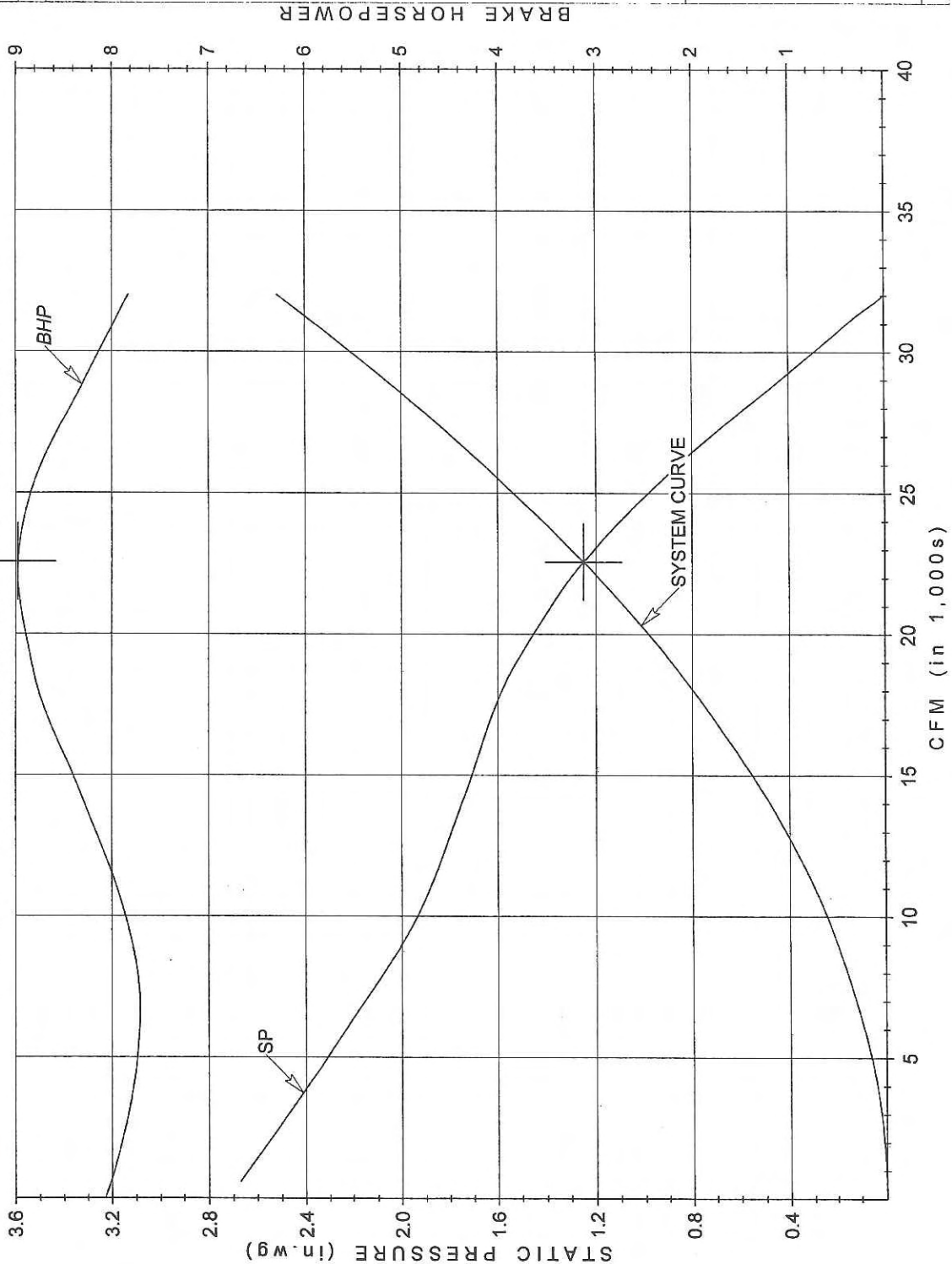
101

Customer:
Job ID:

Fan Tag: Sub-Basement SA Fan
Model: 42BE4 TCW/PX

CFM: _____ 22,560
SP: _____ 1.25 in.wg
RPM: _____ 1289
BHP: _____ 8.98
Outlet Velocity: .2,304
Density: _____ 0.075
Corrected for:
Blade Angle 22°

TWIN CITY FAN AND BLOWER PERFORMANCE CURVE



BRAKE HORSEPOWER

Inlet Sound Power	Level
Octave 1	103
Octave 2	105
Octave 3	100
Octave 4	98
Octave 5	96
Octave 6	93
Octave 7	90
Octave 8	85

in db re 10⁻¹² watts
11/3/2008 09:02



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Customer: W/A
Job Name:
Job ID:

November 03, 2008
Page: 1

Fan Description	Fan Performance	Motor Data
Tag Sub-Basement SA Fan	CFM 22,560	Motor not defined.
Type TCWPX	Operating SP (in.wg) 1.25	
Size 42BE4	Standard SP (in.wg) 1.25	
Blade angle 22	TP (in.wg) 1.58	
Propeller Diameter (in.) 42	RPM 1289	
Class N/A	Tip Speed (fpm) 14,173	
Discharge W/A	Oper. BHP 8.98	
	Standard BHP 8.98	
	Outlet area (sq. ft) 9.79	
	Outlet Velocity (fpm) 2,304	
	Temperature (°F) 70	
	Altitude (ft) 0	
	Density (lb/ft ³) 0.075	
	Max RPM for Class 1637	
	Static Efficiency 49.38	
	Mechanical Efficiency 62.45	

Sound

Sound Power Levels in dB re. 10⁻¹² Watts:

Octave Bands	1	2	3	4	5	6	7	8	LwA
Level at Inlet	103	105	100	98	96	93	90	85	101

Estimated sound pressure level in dBA (re: 0.0002 microbar) based on a single* ducted installation:

Distance in ft	1	3	5
dBA at Inlet	101	91	87

*To estimate dBA level for ducted inlet and ducted outlet (into and out of the room) type installation, deduct 20 from the LWA value shown.

Using a directivity factor of 1.

Estimated Sound Pressure based on free field, spherical (Q = 1) radiation at the stated distance.

Definitions:

LwA The overall (single value) fan sound power level, 'A' weighted.

dBA The environment for each fan installation influences its measured sound value, therefore dBA levels cannot be guaranteed. Consult AMCA Publication 303 for further details.
A fan's dBA is influenced by nearby reflective surfaces.



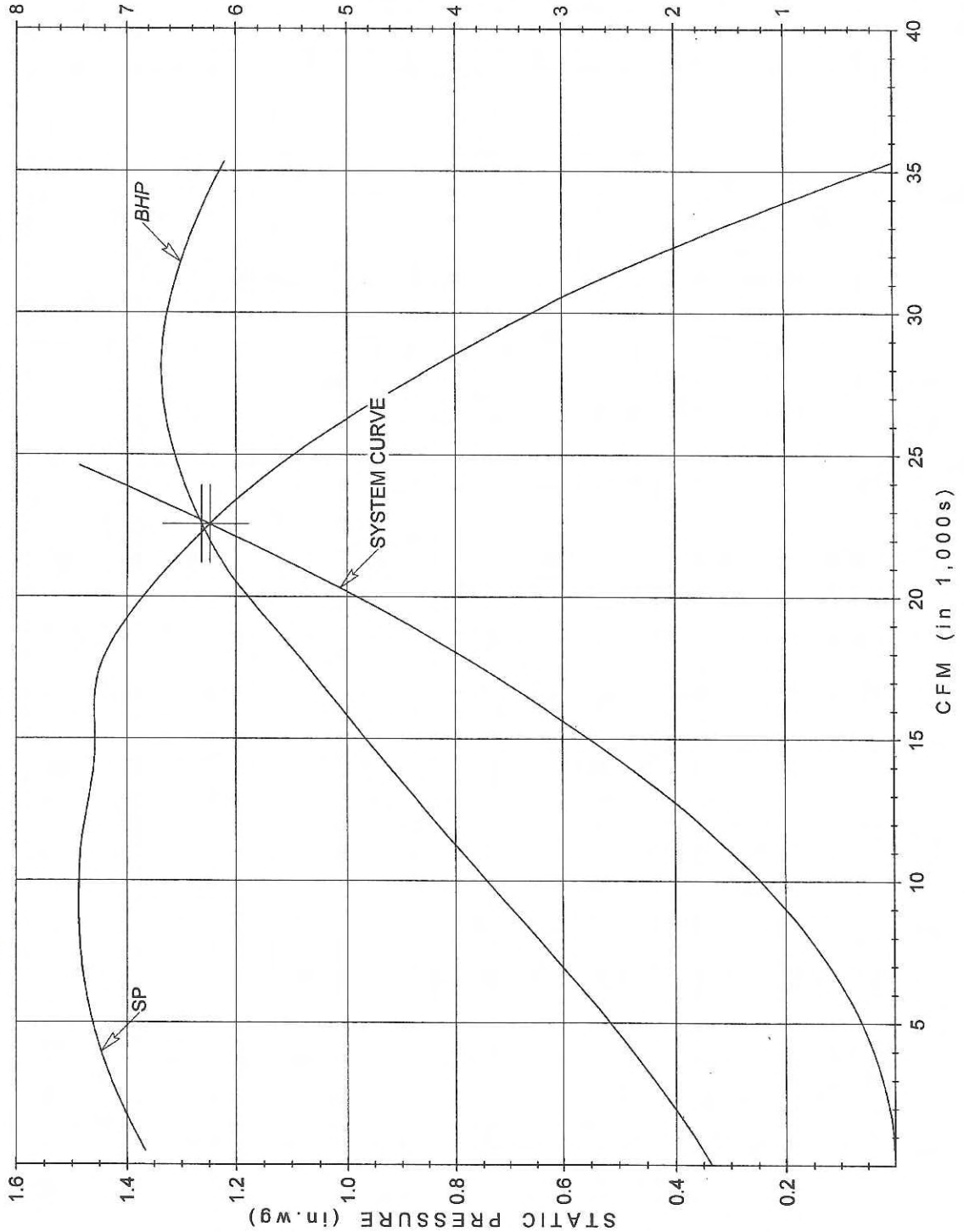
83

Customer:
Job ID:

Fan Tag: Sub-Basement EA Fan
Model: 402 BC-DW

CFM: 22,560
SP: 1.25 in.wg
RPM: 476
BHP: 6.32
Outlet Velocity: 1,345
Density: 0.075

TWIN CITY FAN AND BLOWER PERFORMANCE CURVE



BRAKE HORSEPOWER

Inlet Sound Power Octave	Level
1	89
2	87
3	86
4	79
5	76
6	70
7	65
8	61

in db re 10⁻¹² watts
11/3/2008 09:05



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Customer: W/A
Job Name:
Job ID:

November 03, 2008
Page: 1

Fan Description

Tag Sub-Basement EA Fan
Type BC-DW
Size 402
Width DWDI
Class I
Wheel diameter (in.) 40.25
Drive method ... 60 Hz belt drive
Percentage width 100%
Percentage diameter 100%

Fan Performance

CFM 22,560
Operating SP (in.wg) 1.25
Standard SP (in.wg) 1.25
RPM 476
Tip Speed (fpm) 5,016
Oper. BHP 6.32
Standard BHP 6.32
Outlet area (sq. ft) 16.8
Outlet Velocity (fpm) 1,345
Temperature (°F) 70
Altitude (ft) 0
Density (lb/ft³) 0.075
Max RPM for Class 920
Static Efficiency 70.15
Mechanical Efficiency 76.48

Motor Data

Motor not defined.

Sound

Sound Power Levels in dB re. 10⁻¹² Watts:

Octave Bands	1	2	3	4	5	6	7	8	LwA
Level at Inlet	89	87	86	79	76	70	65	61	83

Estimated sound pressure level in dBA (re: 0.0002 microbar) based on a single* ducted installation:

Distance in ft	1	3	5
dBA at Inlet	83	73	69

*To estimate dBA level for ducted inlet and ducted outlet (into and out of the room) type installation, deduct 20 from the LwA value shown.

Using a directivity factor of 1.

Estimated Sound Pressure based on free field, spherical (Q = 1) radiation at the stated distance.

Definitions:

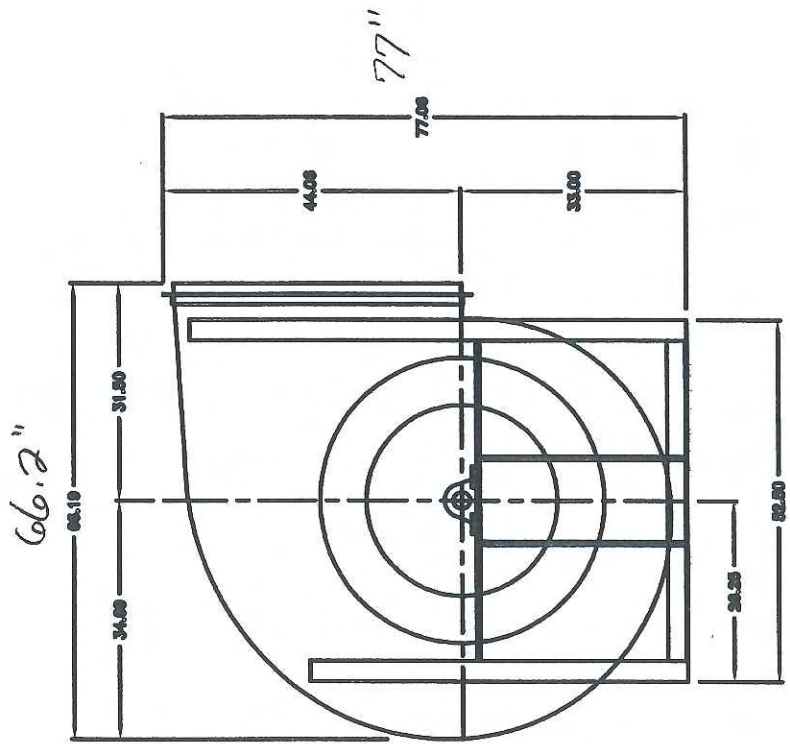
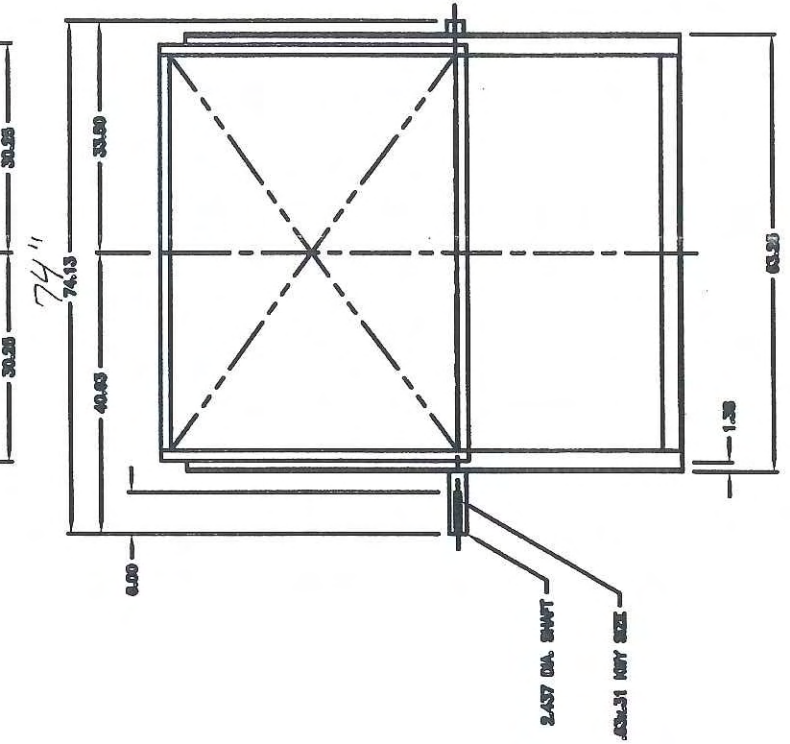
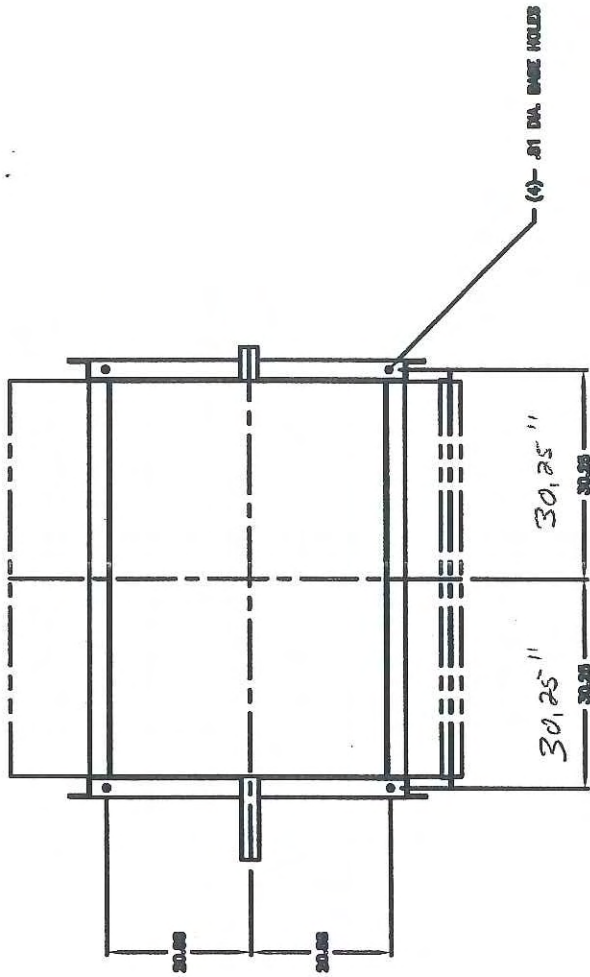
LwA The overall (single value) fan sound power level, 'A' weighted.

dBA The environment for each fan installation influences its measured sound value, therefore dBA levels cannot be guaranteed. Consult AMCA Publication 303 for further details.
A fan's dBA is influenced by nearby reflective surfaces.

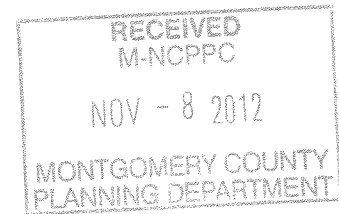
TYPE 'BC' AND TYPE 'BAF' ARRANGEMENT 3 DWDI NON-ROTATABLE
 SIZE 402 CLASS 1 TOP HORIZ. DISCH.

Outlet is 57.19 parallel to shaft X 42.63 (outside housing).

FAN BLOCK 1402163



Neil
November 7, 2012



Mr. Robert Kronenberg
Interim Chief, Area 1
Montgomery County Planning Board
8787 Georgia Avenue
Silver Spring, MD 20910-3760

Re: Suburban Hospital Lot Re-subdivision & Site Plan Submittals,
Huntington Terrace Community

Dear Robert:

The purpose of this letter is to confirm in writing a request made earlier this year in a meeting that Norman Knopf and I had with you and Neil Braunstein. In that May 30th meeting, we requested, in behalf of the Huntington Terrace Citizens' Association, that staff recommend that any approvals of Suburban Hospital's applications for site plan and re-subdivision be conditioned upon noise measurements continuing to be taken, as they have in the past, from the rear lot lines of hospital-owned houses.

There has been a long history of Montgomery County determining the hospital's compliance with its noise ordinance by measuring the HVAC-generated noise from the rear lot lines of homes the hospital owns and which adjoin the land upon which the hospital building itself is located. The Hospital, Huntington Terrace Citizens' Association and Montgomery County Department of Environmental Protection have long been in agreement with these noise-measurement locations.

However, as part of its variance request hearings before the Board of Appeals in March and April of this year, Suburban Hospital argued that, with the special exception modification and re-subdivision, noise-measurement locations should be moved into the community by taking measurements from the front property lines of the privately owned houses across the street from the houses owned by the hospital.

In its July 23, 2012 Opinion, the Board of Appeals rejected that request and imposed the condition that, "Noise level measurement testing will be taken at the locations at which it was done pursuant to the Board's December 13, 2007 Resolution, Case No. S-274-C and prior to the Board's grant of the modification in Case No. S-274-D [Variance Hearings, Case Nos. A-6374 thru A-6377, page 39, 3.].

These measurement locations are at the existing rear lot lines of the residential properties owned by Suburban Hospital and which they rent to families. Under the County Zoning Code's Noise Control Ordinance, Sec. 31-B, the lot lines of these residential properties (adjoining Suburban Hospital) are defined as "receiving property."

HTCA's position before the Board of Appeals in the variance hearings, was that the noise levels measured at this traditional location and which may be in compliance with the noise standards, remain, nonetheless, disturbing to the community. Moving the testing location further into the community would permit even more disturbing noise. Further, in order to meet the variance requirement that the variance "will not be detrimental to the use and enjoyment of adjoining or neighboring properties," [Zoning Ordinance, Sec. 59-G-3.1 (d)] the variance should be conditioned to retain the current testing locations.

However, notwithstanding the condition imposed in the BoA's Opinion, it is not inconceivable that a different Board of Appeals could, in the future, succumb to a hospital request to change this condition. With this potential, and its stability at risk, the community of Huntington Terrace needs more certainty!

Thus, Robert, we are making the request that staff recommend to the Planning Board that it condition its approval of Suburban Hospital's Site Plan and Subdivision submittals with the same condition as that made by the Board of Appeals in its Variance Opinion. We believe such a condition is consistent with and made necessary by the site plan requirement for compatibility with surrounding development, as well as the subdivision requirement that the plan promote harmonious development. Further, since the BCC Master Plan has, as one of its principal goals, the protection and preservation of the Huntington Terrace single family housing neighborhood, compliance with the master plan *requires* this noise condition .

This added protection by site plan and subdivision conditions will greatly help to provide the long term stability the community needs by preventing the adverse impact of additional noise generation and its intrusion from a significantly-expanded hospital facility within our residential neighborhood.

My sincere gratitude, Robert, for your thoughtful consideration.

Best regards,

Howard S. Sokolove
HTCA Board
5600 Lincoln Street
Bethesda, MD 20817

cc: Neil Braunstein ✓
Norman Knopf
HTCA Board Members

LAW OFFICES OF

KNOPF & BROWN

401 EAST JEFFERSON STREET

SUITE 206

ROCKVILLE, MARYLAND 20850

(301) 545-6100

FAX: (301) 545-6103

E-MAIL KNOPF@KNOPF-BROWN.COM

WRITER'S DIRECT DIAL

(301) 545-6104

NORMAN G. KNOPF

March 11, 2013

Via Email

MCP-Chairman@mncppc-mc.org

Françoise M. Carrier, Chair
Montgomery County Planning Board
Maryland National Capital Park
& Planning Commission
8787 Georgia Avenue
Silver Spring, MD 20910

**Re: Suburban Hospital Preliminary Plan of Subdivision
Number 120120240 and Site Plan Number 820120180**

Dear Chair Carrier:

On behalf of the Huntington Terrace Citizens Association ("HTCA"), it is requested that the above captioned matter, tentatively scheduled for hearing before the Board on April 18, 2013, be postponed until the Maryland Court of Special Appeals issues its decision on the validity of the Board of Appeals' approvals of the Suburban Hospital's special exception modification. The reasons for this request are as follows.

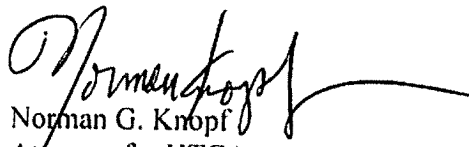
The subdivision and site plan hearing before the Board is to implement Suburban Hospital's special exception modification granted by the Board of Appeals in December 2010 (as you well know, contrary to the recommendation of the Hearing Examiner). The Board of Appeals' decision was appealed to the courts by HTCA. On September 13, 2012 oral argument was held before the Court of Special Appeals. The Court has yet to rule on that appeal but a decision is expected shortly. If the Court holds the grant of the special modification was not proper, the normal procedure is that the matter is remanded for an opportunity to make changes to the modification to bring it into compliance with the decision. It is premature for the Planning Board to decide subdivision and site plan matters based upon a modification plan which is not yet final and may well be changed by Court decision. The proceedings before the Planning Board would be a waste of time for the Board, as well as the parties and the public, should the Court's ruling require changes to the special exception modification. After any remand, new hearings will have to be held by the Planning Board to address the changed plan that is the result of the remand.

Françoise M. Carrier, Chair
Montgomery County Planning Board
March 11, 2013
Page 2

We believe the Planning Board workload and agenda are busy enough without taking time to address a plan which may be rendered moot. Accordingly, we request that the hearing be postponed at least until a final decision is issued by the Court of Special Appeals when it can be determined whether the plan for special exception modification will be changed.

Thank you for considering our request.

Sincerely yours,



Norman G. Kropf
Attorney for HTCA

cc: Robert Kronenberg
Barbara Sears, Esq.
Erin Gerard, Esq.
Howard Sokolove

LINOWES
AND BLOCHER LLP
ATTORNEYS AT LAW

March 15, 2013

Barbara A. Sears
bsears@linowes-law.com
301.961.5157

VIA E-MAIL

Françoise Carrier, Chair
Montgomery County Planning Board
Maryland-National Capital Park and
Planning Commission
8787 Georgia Avenue
Silver Spring, Maryland 20910

Re: Suburban Hospital; Preliminary Plan No. 120120240 and Site Plan No. 820120180

Dear Chair Carrier:

On behalf of our client, Suburban Hospital, Inc. ("Hospital"), the applicant for the above-referenced Preliminary Plan and Site Plan Applications ("Applications"), the purpose of this letter is to object to the March 11, 2013 request of the Huntington Terrace Citizens Association ("HTCA") to postpone the Planning Board hearing on the Applications until the Maryland Court of Special Appeals issues its decision on the Hospital's Special Exception Modification in Case No. S-274-D ("Modification").

Pursuant to the Maryland Rules that govern appellate review of administrative decisions in the courts, the filing of an appeal does not stay the action of the administrative agency. See Md. Rule 7-205. Additionally, there is no applicable law that would stay the current proceedings before the Planning Board because an appeal of the circuit court decision affirming the Board of Appeals' ("BOA") approval of the special exception was filed.

Postponing the Applications that are set for hearing on April 18, 2013, would further result in a significant hardship and burden on the Applicant. Suburban's Applications were filed with the Planning Board in May of 2012 and have been diligently pursued by the Hospital since that time. The Modification was approved by the BOA on December 9, 2010. On appeal of HTCA to this approval, the Circuit Court for Montgomery County affirmed the decision of the BOA on June 22, 2011. Further, the County Council approved the abandonment of Lincoln Street between Old Georgetown Road and Grant Street to permit the implementation of the Modification by Resolution No. 17-220, adopted on July 19, 2011. Finally, the BOA, by Opinion dated July 23, 2012, approved all variances necessary to implement the Modification.

LINOWES
AND BLOCHER LLP
ATTORNEYS AT LAW

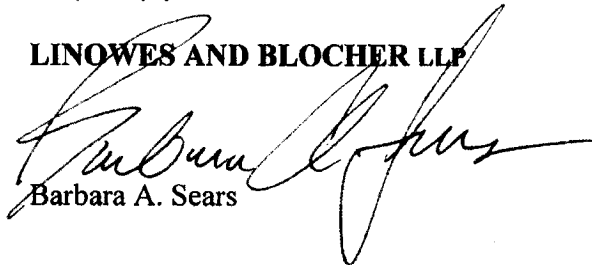
Françoise Carrier, Esq.
March 15, 2013
Page 2

As detailed in the Modification and Applications, the Hospital needs to expand its facilities to address the healthcare needs of the community it serves and to conform to current standards of care. This has been recognized throughout the multiple proceedings to approve and implement the Modification as outlined above. Since their filing in May of 2012, the Applications have received all necessary reviews and are ready for presentation to the Planning Board. Therefore, we respectfully request that the hearing on the Application be held on April 18, 2013, as scheduled.

Thank you for your consideration of this response. If you have any questions or concerns, please feel free to contact us.

Very truly yours,

LINOWES AND BLOCHER LLP



Barbara A. Sears

cc: Rose Krasnow
Robert Kronenberg
Jacky Schultz
Leslie Ford Weber
Margaret Fitzwilliam
Russ Cramer
Norman Knopf, Esq.
Erin Girard, Esq.

Martin O'Malley, *Governor*
Anthony G. Brown, *Lt. Governor*



Darrell B. Mobley, *Acting Secretary*
Melinda B. Peters, *Administrator*

January 10, 2013

Mr. Frank Bossong, P.E.
Rodgers Consulting
19847 Century Boulevard,
Suite 200
Germantown, Maryland 20874

RE: **Montgomery County**
MD 187 (Old Georgetown Road)
Suburban Hospital
SHA Tracking No: 12APMO037xx
County Tracking No: 120120240
Mile Post: 1.29

Dear Mr. Bossong:

Thank you for the opportunity to review the Preliminary and Site Plan submittal, received on December 4, 2012, proposing the Suburban Hospital development in Montgomery County. The State Highway Administration (SHA) offers the following comments:

Innovative Contracting Division (ICD) Comments:

1. Based on the current bicycle policy, bicycle lanes will need to be provided on both sides of the MD 187 (Old Georgetown Road). If bike lanes can not be provided, a bicycle waiver will need to be provided. Please see the attached bicycle waiver sample. In order to avoid delays, please match this format if you will be preparing a waiver.
2. Please provide the following note at Station 187+40; 'Minimum 60" pedestrian pathway with a maximum 2% cross slope must be maintained across the entire entrance'.
3. Please label all proposed ramps and cut-throughs along MD 187 with the appropriate Maryland Standard numbers.

For clarification of any Innovative Contracting comments, please contact Mr. John Vranish at 410-545-8778 or JVranish@sha.state.md.us.

Office of Environmental Design (OED) Division Comments:

1. **Roadside Tree Permit and Mitigation.** Tree removals, tree impacts, and installation of new trees within the right of way require a Maryland Roadside Tree Permit issued by the DNR-Forest Service. The applicant is responsible for coordination with DNR to obtain this permit.
2. **Specifications.** Landscape materials and methods for work performed within the SHA right of way shall be installed in conformance with the SHA 2008 Standard Specifications for Construction and Materials. The 2008 Standard Specifications shall supersede and replace all other plan notes and specifications of the project for areas constructed in the SHA right of way. The landscape plan shall indicate this requirement.
3. **Soil Remediation.**
 - a) **Excavation.** Areas of excavation such as utility trenching within landscaped areas of the SHA right shall be restored with subsoil, per Section 701 of the 2008 SHA Standard Specifications for Construction & Materials. The plan notes shall indicate this requirement.

My telephone number/toll-free number is _____

Maryland Relay Service for Impaired Hearing or Speech 1.800.735.2258 Statewide Toll Free

Street Address: 707 North Calvert Street • Baltimore, Maryland 21202 • Phone 410.545.0300 • www.roads.maryland.gov

- b) **Soil Placement.** Areas of soil disturbance within the right of way shall be restored with a layer of topsoil at least 4 in. thick per Section 701 of the 2008 SHA Standard Specifications for Construction & Materials. The plan notes shall indicate this requirement.
4. **Turfgrass Sod.** Areas of soil disturbance within the SHA right-of-way where paving or other plant materials are not installed shall be permanently vegetated with Turfgrass Sod Establishment per Section 708 of the Standard Specifications. The plan notes shall indicate this requirement.
5. **Tree Offset Distance.** The proposed *Ulmus Parvifolia* are located too close to the travel lane of MD 187. The SHA Landscape Design Guide provides information about tree offset distances to roadways and utilities.

Trees installed for this project shall be installed at least 6 feet from the back of the curb, and at least 3 feet from the edge of the sidewalk. If turfgrass green-space is retained between the curb and sidewalk, the width of turfgrass shall be at least 3 feet.

If you have questions or would like copies of the SHA Landscape Design Guide or the SHA Preferred Plant List, please contact Mr. Ken Oldham at 410-545-8590 or by email at koldham@sha.state.md.us and he will assist you.

Cultural Resources Comments:

Based on the assessment completed utilizing project plans provided by Rodgers Consulting, as well as cultural resources data, topographic mapping and aerial photography from the SHA-CIS database, the proposed roadway improvements to MD 187 associated with the Suburban Hospital project do not have the potential to impact historic properties.

Formal consultation with the Maryland Historical Trust is not recommended.

Highway Hydraulics Comments:

1. Once obtained, please provide documentation of the local agency's review and approval of both the stormwater management and erosion/sediment control plans. *Underground structures are proposed on-site.*
2. Please provide a copy of the SWM Concept Plans as well as the SWM Report/Calculations to show that there will be an increase to SHA's storm drain system downstream of the facilities. Specifically, there are tie-ins that occur at station 61+95 LT and 71+45 LT.
3. Please provide calculations showing that there is no increase to the SHA storm drain tie-in at station 67+50 LT (existing twin 18" RCPs). Also, please show how the site drainage is structurally tying into the existing pipes.
4. It is not clear on the plans provided whether or not any new drainage structures are proposed within the SHA right-of-way. If structures are proposed, please ensure that they are SHA standard structures. For inlets, COG structures are preferred.

For clarification of any hydraulic comments, please contact Ms. Erica Rigby of SHA AMD at 410-545-8395 or erigby@sha.state.md.us.

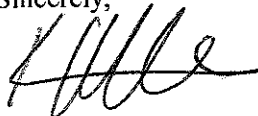
Access Management Division (AMD) Comments:

1. The SHA has no objection to acceptance of the preliminary and site plans. Please provide roadway improvement plans for review. *Previous comments (in our letter to Ms. Conlon dated July 3, 2012) pertaining to roadway improvements should be addressed on the roadway plans that will be submitted.*

2. Please provide the applicable professional stamp and certification on all plans sheets. For site plans, a valid PE stamp and certification must be provided on all sheets. For landscape plans, a valid PLA stamp and certification should be provided for all sheets.
3. Please provide dimensions from the centerline for the proposed access improvements.
4. Please identify lane widths and assignments on MD 187.
5. Please clearly show the applicable SHA paving section to be used for the portion of roadway improvements that is within the state's right of way.

Further plan submittals should reflect the above comments. Please submit 7 sets of revised plans and a point by point response, to reflect the comments noted above, directly to Mr. Steven Foster attention of Mr. Kwesi Woodroffe. Please reference the SHA tracking number on future submissions. Please keep in mind that you can view the reviewer and project status via SHA Access Management Division web page at <http://www.roads.maryland.gov/pages/amd.aspx>. If you have any questions, or require additional information, please contact Mr. Woodroffe at 410-545-8771, by using our toll free number in Maryland only at 1-800-876-4742 (x8771) or via email at KWoodroffe@sha.state.md.us.

Sincerely,



for Steven D. Foster, Chief
Access Management Division

Attachment

SDF/JWR/KSW

cc: Mr. Richard Brush, Montgomery County DPS
Ms. Catherine Conlon, Chairwoman, Development Review Committee, M-NCPPC – 8787
Georgia Ave, Silver Spring, MD 20910-3760
Mr. Russ Cramer, Suburban Hospital, Inc. – 8600 Old Georgetown Rd, Bethesda, MD 20814
Ms. Kate Mazzara, SHA – District 3
Mr. Mark McKenzie, SHA – AMD
Mr. Scott Newill, SHA – AMD
Mr. Ken Oldham, SHA – OED
Ms. Erica Rigby, SHA – AMD
Dr. Julie Schablitsky, SHA – OPPE
Ms. Jacquelin Schultz, Suburban Hospital, Inc. – 8600 Old Georgetown Rd, Bethesda, MD 20814
Mr. John Vranish, SHA – ICD



RECEIVED

APR 05 2011

DEPARTMENT OF PERMITTING SERVICES

Isiah Leggett
County Executive

April 1, 2011

Carla Reid
Director

Mr. Phillip Wagner
Rodgers Consulting
19847 Century Blvd. Suite 200
Germantown, MD 20874

Re: Stormwater Management **CONCEPT** Request
for Suburban Hospital Special Exception
Preliminary Plan #: NA
SM File #: 233263
Tract Size/Zone: 15.2 acres/resid/instituional
Total Concept Area: 14.11 acres
Lots/Block: 7, pt8, 12-17, 20, 21, 27, 30/8, 1-A,
2-5, 6A, 7A, 8A, 9A, 10-13, 15/15
Parcel(s): NA
Watershed: Lower Rock Creek

Dear Mr. Wagner:

Based on a review by the Department of Permitting Services Review Staff, the stormwater management concept for the above mentioned site is **acceptable**. The stormwater management concept consists of on-site Storm Water Management using grass swales and proprietary structural filtering devices. Environmental Site Design was limited due to requirements of the Special Exception Site Plan.

The following **items** will need to be addressed **during** the detailed sediment control/stormwater management plan stage:


1. Prior to permanent vegetative stabilization, all disturbed areas must be topsoiled per the latest Montgomery County Standards and Specifications for Topsoiling.
2. A detailed review of the stormwater management computations will occur at the time of detailed plan review.
3. An engineered sediment control plan must be submitted for this development.
4. All filtration media for manufactured best management practices, whether for new development or redevelopment, must consist of MDE approved material.

This list may not be all-inclusive and may change based on available information at the time.

Payment of a stormwater management contribution in accordance with Section 2 of the Stormwater Management Regulation 4-90 is not required.

This letter must appear on the sediment control/stormwater management plan at its initial submittal. The concept approval is based on all stormwater management structures being located outside of the Public Utility Easement, the Public Improvement Easement, and the Public Right of Way unless specifically approved on the concept plan. Any divergence from the information provided to this office; or additional information received during the development process; or a change in an applicable Executive Regulation may constitute grounds to rescind or amend any approval actions taken, and to reevaluate the site for additional or amended stormwater management requirements. If there are subsequent additions or modifications to the development, a separate concept request shall be required.

If you have any questions regarding these actions, please feel free to contact William Campbell at 240-777-6345.

Sincerely,

Richard R. Brush, Manager
Water Resources Section
Division of Land Development Services

RRB:tl

cc: C. Conlon
SM File # 233263

QN -onsite; Acres: 14.11
QL - onsite; Acres: 14.11
Recharge is not provided

April 11, 2012

Barbara A. Sears
bsears@linowes-law.com
301.961.5157

Erin E. Girard
egirard@linowes-law.com
301.961.5153

Mr. Marco Fuster
Area 1 Planner
Maryland-National Capital Park and
Planning Commission
8787 Georgia Avenue
Silver Spring, Maryland 20910

Re: Suburban Hospital Forest Conservation Variance

Dear Mr. Fuster:

Our client, Suburban Hospital, Inc. (the “Applicant”), the owner of approximately 15.2 acres of land having a principal address of 8600 Old Georgetown Road in Bethesda, hereby requests a variance pursuant to Section 22A-21(b) of the Montgomery County Code (the “Code”), from the provisions of Maryland Code (1973, 2005 Repl. Vol., 2010 Supp.), § 5-1607(c)(2)(iii)(1) of the Natural Resources Article, to allow the removal of a tree having a diameter of 30-inches or more that is located within the existing Grant Street right-of-way (the “Variance”). As explained more fully below, retention of the tree proposed to be removed, as identified on the Final Forest Conservation Plan (“FFCP”) attached hereto as Exhibit “A” (the “Subject Tree”), would result in undue hardship to the Applicant by preventing the construction of a continuous sidewalk along the east side of Grant Street between Southwick and McKinley Streets as part of Special Exception S-274-D approved by the Montgomery County Board of Appeals on December 9, 2010 for the modernization and expansion of Suburban Hospital. The sidewalk is proposed for construction in accord with County standards to improve neighborhood connectivity by providing a sidewalk on Grant Street between McKinley and Southwick Streets where no sidewalks currently exist. Existing conditions, prior approvals and the nature of the proposed improvements justify the granting of the Variance pursuant to Section 22A-21(b) of the Code. Additionally, the Variance is in conformance with Section 22A-21(d) of the Code, because the granting of the Variance will not confer a special privilege on the Applicant that would be denied to others, but rather, as discussed below, will allow the Applicant to implement the same right-of-way improvements required by other development projects in the County.

Mr. Marco Fuster
April 11, 2012
Page 2

Removal of the Subject Tree would satisfy the variance requirements of Section 22A-21(b) as follows:

- (1) *Describe the special conditions peculiar to the property which would cause the unwarranted hardship;*

The Subject Tree is a 42” triple-leader Silver Maple tree located within the eastern part of the Grant Street right of-way south of Southwick Street, situated between the existing Grant Street curb and the privacy fence of Lot 23. Applicant’s original special exception application (Case No. S-274-D; the “Special Exception”) did not contemplate a sidewalk in this area and, therefore, the Subject Tree was not identified as being removed on the Preliminary Forest Conservation Plan (“PFCP”) approved by the Planning Board on September 25, 2008. However, in its review of the Special Exception Planning Staff and the Planning Board requested that a sidewalk be added along the entire eastern length of Grant Street, between McKinley and Southwick Streets, to enhance pedestrian connectivity around the campus and in the neighborhood. *See* September 15, 2008 Staff Memorandum, p. 16. This improvement was therefore included in the revised plans submitted to, and approved by, the Board of Appeals. Further, the Board of Appeals, in approving the Special Exception Modification, found that this improvement, in combination with other roadway and sidewalk improvements in the area proposed by Suburban, acted to “increase the safety of...pedestrian traffic on and around the subject site by greatly improving circulation patterns...” December 2, 2010 Special Exception Opinion, p. 16. Pedestrian connections such as this, aimed at enhancing pedestrian connectivity throughout the neighborhood, was also recognized as an important objective in the 1990 Bethesda Chevy-Chase Master Plan. *See* Master Plan, p. 62. Because there is insufficient room both between the Grant Street curb and the Subject Tree and between the Subject Tree and the property line of Lot 23 to construct even a modified sidewalk without removal of the Subject Tree, the Variance requests removal of the Subject Tree to allow for the construction of a continuous sidewalk in this area, as recommended by Planning Staff, the Planning Board and the Board of Appeals and as included in the Special Exception and envisioned by the Master Plan.

- (2) *Describe how enforcement of these rules will deprive the landowner of rights commonly enjoyed by others in similar areas;*

The County’s typical street sections include sidewalks to facilitate pedestrian connections and, in this regard, the existing Grant Street cross-section, which lacks sidewalks, is currently substandard. As part of the approved Special Exception, the County is requiring the Applicant to address this deficiency, as it would require of any similarly situated applicant.

Mr. Marco Fuster
April 11, 2012
Page 3

- (3) *Verify that State water quality standards will not be violated and that a measurable degradation in water quality will not occur as a result of the granting of the variance;*

The Subject Tree is not within a stream buffer, wetland, or special protection area and therefore the granting of the Variance will not directly impact water quality in any way. As part of the Special Exception, the Applicant received approval of the PFCP and a Stormwater Management Concept Plan. The Property currently contains no stormwater management on-site and the improvements approved in the Stormwater Management Concept Plan will significantly improve the stormwater quality on the Applicant's property and in the adjacent area.

- (4) *Provide any other information appropriate to support the request.*

The Subject Tree is a Silver Maple, which is not a Montgomery County approved street tree species due to its self-pruning nature. Silver Maples cast off small limbs and branches in order to maintain health and devote energy to new growth. This characteristic can constitute a threat to public safety, particularly when located within a public right-of-way, as this tree is, and can cause significant property damage. This tree in particular is especially vulnerable due to its triple-leader nature. The Subject Tree's trunk is split into three large leaders approximately 6' to 8' from the ground. Given the large size of each of the leaders, the likelihood of a leader splitting off is high.

Additionally, due to the Subject Tree's location near the Grant Street curb, almost half of its root zone is located beneath the street bed. This makes long term protection and maintenance of the Subject Tree problematic. An examination of the Subject Tree revealed exposed roots exhibiting physical damage likely due to routine maintenance and activity proximate to the Subject Tree's base. If the Subject Tree were to collapse, the underground root network could cause extensive damage to the roadway infrastructure.

While the Variance seeks removal of one specimen tree, significant measures are being taken to retain other specimen trees on the Applicant's property wherever possible, as shown on the attached FFCP. Although the approved PFCP indicated that as many as thirty-eight (38) significant and specimen trees could be removed on the Applicant's property as part of the Special Exception, six of these are now proposed for retention in the FFCP, in addition to two specimen trees identified for retention on both the PFCP and FFCP. Additionally, as part of the Applicant's right-of-way improvements along Grant Street, 21 new street trees will be planted, utilizing appropriate street tree species including 14 sugar maples and 7 golden rain trees.

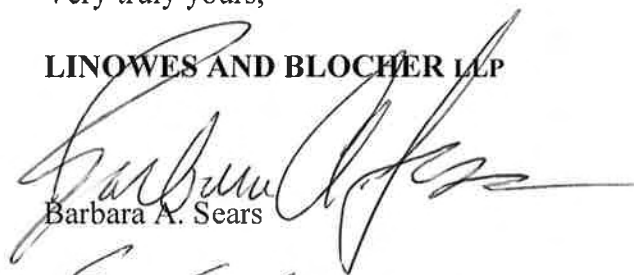
We believe the foregoing, as well as the information contained in the FFCP and Preliminary and Site Plan Application materials, clearly demonstrate that the grant of the Variance pursuant to

Mr. Marco Fuster
April 11, 2012
Page 4

Section 22A-21(b) of the Code is appropriate in this case. If you have any questions or concerns, however, or require any additional information for your review of this request, please contact us.

Very truly yours,

LINOWES AND BLOCHER LLP

A large, stylized handwritten signature in black ink, appearing to read 'Barbara A. Sears', is written over the printed name.

Barbara A. Sears

A handwritten signature in black ink, appearing to read 'Erin E. Girard', is written below the first signature.

Erin E. Girard

Enclosure

cc: Jacky Schultz
Leslie Weber
Russ Cramer
Margaret Fitzwilliam



Attachment L

DEPARTMENT OF ENVIRONMENTAL PROTECTION

Isiah Leggett
County Executive

Robert G. Hoyt
Director

July 13, 2012

Françoise Carrier, Chair
Montgomery County Planning Board
Maryland National Capital Park & Planning Commission
8787 Georgia Avenue
Silver Spring, Maryland 20910

RE: Suburban Hospital, DAIC 120120240, PFCP approved on 10/1/2009

Dear Ms. Carrier:

Based on a review by the Montgomery Planning Department, the application for the above referenced request is required to comply with Chapter 22A of the Montgomery County Code. As stated in a letter to Royce Hanson from Bob Hoyt, dated October 27, 2009, the County Attorney's Office has advised me that the specific provisions pertaining to certain trees in the Maryland Forest Conservation Act, and therefore any subsequent changes to the County Code based on those provisions, do not apply to any application that was submitted before October 1, 2009. Since this application was submitted before this date, I will not provide a recommendation pertaining to the approval of this request for a variance.

If you have any questions, please do not hesitate to contact me directly.

Sincerely,

Laura Miller
County Arborist

cc: Robert Hoyt, Director
Walter Wilson, Associate County Attorney
Mark Pfefferle, Acting Chief