



Office of Health Care Access Certificate of Need Application

Final Decision

Applicant: The Stamford Hospital and
Stamford Health System, Inc.

Docket Number: 02-527

Project Title: Acquisition of PACS

Statutory Reference: Section 19a-639, Connecticut General Statutes

Filing Date: August 27, 2002

Hearing: Waived

Decision Date: October 4, 2002

Default Date: November 25, 2002

Staff: Laura Jaworski and Steven Lazarus

Project Description: The Stamford Hospital and Stamford Health System, Inc. (“Applicants”) propose to replace their film-based imaging system with the acquisition of a Picture Archiving Communication System (“PACS”), at a total proposed capital expenditure of \$3,434,592.

Nature of Proceedings: On August 27, 2002, the Office of Health Care Access (“OHCA”) received The Stamford Hospital and Stamford Health System, Inc.’s Certificate of Need (“CON”) application to replace their film-based imaging system and acquire a PACS at a total proposed capital expenditure of \$3,434,592. The project will be implemented in three phases, with the final phase extending through Fiscal Year (“FY”) 2007. The Applicants are health care facilities or institutions as defined in Section 19a-630 of the Connecticut General Statutes (“C.G.S.”).

The Applicants requested a waiver of public hearing pursuant to Section 19a-643-45 of OHCA's Regulations and claimed that the CON application was non-substantive as defined in Section 19a-643-95(3) of OHCA's Regulations. A notice to the public was published on August 30, 2002, in *The Advocate* of Stamford. OHCA received no comments concerning the Applicants' request for waiver of public hearing during the public comment period, and therefore on September 19, 2002, OHCA granted the Applicants' request of waiver of the public hearing.

OHCA's authority to review, approve, modify or deny this proposal is established by Section 19a-639, C.G.S. The provisions of this section, as well as the principles and guidelines set forth in Section 19a-637, C.G.S., were fully considered by OHCA in its review.

Findings of Fact

Each finding of fact included in this Final Decision has been taken from the CON application and related CON filings. A source reference is included with each finding of fact. All CON applicants must attest to the accuracy and correctness of the information submitted to OHCA as part of the CON application process.

Clear Public Need

Contribution of the Proposal to the Quality, Accessibility and Cost Effectiveness of Health Care Delivery in the Region

1. The Stamford Hospital ("Hospital") is a non-profit acute care hospital located in Stamford. Stamford Health System, Inc. ("SHS") is the Hospital's parent corporation. *(April 29, 2002, Letter of Intent)*
2. Via a three-phased project, the Applicants propose to replace their film-based imaging system with a Picture Archiving Communication System ("PACS"). The PACS is capable of digitally displaying, transmitting, and storing diagnostic images throughout a health care delivery system. *(August 13, 2002, CON Application, page 2)*
3. The Applicants have participated in beta testing for this project with Fuji Medical Systems since October 1998. The Applicants incurred no cost during the beta testing. *(August 13, 2002, CON Application, page 11)*
4. The project is intended to serve the following municipalities: Darien, Greenwich, New Canaan, Norwalk, Stamford, and other surrounding communities. *(April 29, 2002, Letter of Intent)*
5. The Applicants expect to link all imaging services, except mammography, performed at the Hospital, the outpatient Tully Center ("Tully"), and SHS's Darien Imaging Center ("DIC"), to a central archive. The central archive will provide 24 hours-per-

- day, 7 days-per-week access to new and historical images and clinical result reports. *(August 13, 2002, CON Application, page 11)*
6. The data will be accessed through a web-based system available to hospital-based radiologists, clinical staff, and referring physicians. *(August 13, 2002, CON Application, page 11)*
 7. As the system will be accessed through home and office computers, measures such as passwords will be installed to ensure patient privacy. *(August 13, 2002, CON Application, page 12)*
 8. PACS technology has the capability to provide radiologists and physicians with expedited diagnostic imaging, allowing for a timely review of information. Therefore, PACS has the potential to decrease turnaround time for consultations and test results. *(August 13, 2002, CON Application, pages 12 and 13)*
 9. PACS images may be viewed on-line, regardless of the location or time of day. Such technology affords physicians, radiologists, and clinicians the ability to discuss and consult from their offices. *(August 13, 2002, CON Application, page 13)*
 10. The Applicants state that PACS will enhance the quality of patient care. Radiologists will be able to provide physicians with more accurate and expedited diagnostic imaging information, resulting in a reduction in the number of repeat exams and also decreasing the length of time for interpretation and diagnosis of data. *(August 13, 2002, CON Application, pages 12 and 13)*
 11. The rapidity of the PACS technology will allow the Applicants to meet the projected demand of medical imaging volumes, as volumes are expected to increase from approximately 152,000 cases in 2002 to 171,000 cases in 2005. *(August 13, 2002, CON Application, page 12)*
 12. According to the Applicants, images produced on the PACS workstations are more accurate and easier to read than films viewed on traditional x-ray boxes. This is due to the clinician's ability to manipulate brightness and contrast levels on the screens, rotate images, and magnify certain areas. Clinicians may also scroll through historical images and perform archival queries, which will advance comparison methodologies. Additionally, images may be viewed immediately after their completion, allowing technicians to identify image problems while a patient is present for a procedure, eliminating the need for a patient to return for repeat testing due to image variances. *(August 13, 2002, CON Application, page 13)*
 13. The Applicants assert that implementation of a PACS will ameliorate administrative problems such as lost or misplaced films, which can lengthen the time for diagnosis, delay patient surgeries, and increase the average length of stay. *(August 13, 2002, CON Application, page 14)*

14. Phase I of the proposal will entail the provision of monitors, software, and system architecture to the Tully Center and the Darien Imaging Center, allowing access to a central archive of diagnostic imaging information housed on the main campus of the Hospital. This phase also includes running data transmission lines between the Hospital's main campus and the Tully and DIC sites, improvements to the servers necessary for the central archive to receive and store Tully and DIC images, and the replacement of the Beta central archive with a new central archive. Phase I is scheduled to be implemented FY 2003. *(August 13, 2002, CON Application, page 11 and October 2, 2002, Supplemental Information, page 1)*
15. Phase II of the project includes a rollout of the hardware and software necessary to allow the Hospital and key departments to operate in a filmless environment. Equipment installed during the beta test will be integrated or upgraded to complete the PACS link to all SHS facilities that offer diagnostic imaging services. Phase II will be implemented during FY 2004. *(August 13, 2002, CON Application, page 11 and October 2, 2002, Supplemental Information, page 1)*
16. The third and final project phase consists of network upgrades, equipment purchases, and an expansion of the archival capacity necessary to support the PACS as it matures. Phase III extends from FYs 2005 through 2008. *(August 13, 2002, CON Application, page 12 and October 2, 2002, Supplemental Information, page 1)*
17. Full implementation of the three-phased PACS project is slated for September 2008. *(August 13, 2002, CON Application, page 12 and October 2, 2002, Supplemental Information, page 2)*

**Financial Feasibility of the Proposal and its Impact on the Applicant's Rates and
Financial Condition
Impact of the Proposal on the Interests of Consumers of Health Care Services and
Payers for Such Services**

18. The proposal has a total capital expenditure of \$3,434,592. The breakdown of capital costs includes \$3,374,592 for fixed equipment and \$60,000 for implementation. *(August 13, 2002, CON Application, page 5)*
19. Funding for the proposal includes a \$2,934,592 equity contribution from operations. The remaining \$500,000 will be financed via a charitable donation. *(August 13, 2002, CON Application, pages 5 and 6)*
20. A breakdown of the proposal's capital outlay by phase is as follows: Phase I: \$1,221,875; Phase II: \$1,479,063; and Phase III: \$733,654. *(August 13, 2002, CON Application, pages 11 and 12)*
21. The Applicants project excess in revenues incremental to the project of (\$79,732), \$159,191, and \$218,732 for FYs 2003, 2004, and 2005, respectively. *(August 26, 2002, Revised Response to Question 11C and October 2, 2002, Supplemental Information, pages 1 and 2)*

22. The projected savings associated with the project are due to the following:
- the technology is expected to reduce the usage of films, chemicals, and film processing supplies, and
 - a reduction in staff costs associated with the transportation and handling of films.

(August 13, 2002, CON Application, pages 13, 14 and 54, and August 26, 2002, Revised Response to Question 11C)

23. With the project, the total film-related full-time equivalent positions (“FTEs”) at the Hospital, DIC, and Tully facilities is expected to decrease from 15.0 in FY 2003 to 10.9 and 7.9 in FYs 2004 and 2005, respectively. *(August 13, 2002, CON Application, pages 14 and 54, August 26, 2002, Revised Response to Question 11C, and October 2, 2002, Supplemental Information, pages 1 and 2)*

24. By FY 2008, total cost reductions associated with the PACS project are approximately \$5,387,000. A breakdown of projected cost-savings by facility by FY 2008 is as follows:

- SHS, excluding Tully: \$3,733,855, and
- Tully: \$1,653,478.

(August 13, 2002, CON Application, pages 14 and 51-52, and October 2, 2002, Supplemental Information, pages 1 and 2)

25. The Applicant’s projected payer mix for the first three years of operation associated with the CON proposal is as follows:

(August 26, 2002, Revised Response to Question 11A)

Payer Mix Percentages			
Payer Source	Year One	Year Two	Year Three
Medicare	41.33%	41.33%	41.33%
Medicaid	5.66%	5.66%	5.66%
Commercial Insurers	48.01%	48.01%	48.01%
Self-Pay	2.80%	2.80%	2.80%
Workers Compensation	2.20%	2.20%	2.20%
Total Payer Mix	100.00%	100.00%	100.00%

26. Project implementation will have no effect on the volume statistics at the Hospital, DIC, or Tully facilities. *(August 26, 2002, Revised Response to Question 11C)*

27. The Applicants’ rates are sufficient to cover the proposed capital expenditure and operating costs. *(August 13, 2002, CON Application, pages 8 and 51-54)*

Consideration of Other 19a-637, C.G.S. Principles and Guidelines

The following findings are made pursuant to principles and guidelines set forth in Section 19a-637, C.G.S.:

28. There is no State Health Plan in existence at this time. (*August 13, 2002, CON Application, page 2*)
29. The Applicants have adduced evidence that this proposal is consistent with the Applicants' long-range plan. (*August 13, 2002, CON Application, page 2*)
30. The Applicants have undertaken energy conservation and reengineering activities in an effort to improve productivity and contain costs. (*August 13, 2002, CON Application, page 3*)
31. The proposal will not result in changes to the Applicants' teaching and research responsibilities. (*August 13, 2002, CON Application, page 3*)
32. There are no distinguishing characteristics of the Applicants' patient/physician mix. (*August 13, 2002, CON Application, page 3*)
33. The Applicants have sufficient technical, financial and managerial competence to provide efficient and adequate services to the public. (*August 13, 2002, CON Application, pages 8, 14-15, and 51-54*)

Rationale

The Stamford Hospital and Stamford Health System, Inc. propose to replace their film-based imaging system with the acquisition of a Picture Archiving Communication System at a total capital expenditure of \$3,434,592. The acquisition of such technology will allow for the digital display, transmission, and storage of diagnostic images throughout a health care delivery system. The project proposes to link all imaging services, with the exception of mammography, performed at the Hospital, Tully Center, and Darien Imaging Center to a central archive that will provide data capable of remote access from home or office computers via a web-based system twenty-four hours-per-day, seven days-per-week.

The PACS technology offers several advantages over a film-based imaging system. Such technology will expedite diagnostic imaging, allowing for the timely review of data and the Applicants' ability to meet the projected demand of increased medical imaging volumes. The PACS will facilitate concomitant discussions between physicians and radiologists, permitting the two groups to consult from one's offices. More accurate imaging information is another benefit of the PACS technology in that it will enable clinicians to manipulate brightness and contrast on the screens, rotate images, and magnify certain areas. This will result in a reduction in the number of repeat exams and a decrease in the length of time necessary for the interpretation and diagnosis of data. Finally, a PACS will eliminate lost or misplaced film.

The project is scheduled for a three-phased implementation process that extends into Fiscal Year 2008. The phased approach will minimize the impact to hospital and clinical services. In addition, each phase will be examined to identify process inefficiencies, system design and testing, and requisite physician and staff training.

The capital expenditure associated with the project is \$3,434,592. Funding for the proposal includes a \$2,934,592 equity contribution from operations, while the remaining \$500,000 will be funded via a charitable donation. The PACS project acquisition spans three phases, with the capital outlays being \$1,221,875, \$1,479,063, and \$733,654 for Phases I, II, and III, respectively. Excess revenues incremental to the project are \$79,732, (\$159,191), and (\$218,732) for FYs 2003, 2004, and 2005, respectively. Project implementation will result in cost-savings for the Applicants, including savings associated with the films, chemicals, and film processing supplies, as well as reductions in staff costs associated with the processing, transportation, and handling of films. Therefore, OHCA finds that the proposal will not only improve the quality of health care services in the region, but that the proposal is also financially feasible.

Based on the foregoing Findings and Rationale, the Certificate of Need application of The Stamford Hospital and Stamford Health System, Inc. to acquire a Picture Archiving Communication System, at a total capital expenditure of \$3,434,592, is hereby GRANTED.

Order

The Stamford Hospital and Stamford Health System, Inc. are hereby authorized to acquire a Picture Archiving Communication System at a total capital expenditure of \$3,434,592, subject to the following conditions:

1. This authorization shall expire on September 30, 2009, unless the Applicants present evidence to OHCA that the proposal has been completed by that date.
2. The Applicants shall not exceed the approved capital expenditure of \$3,434,592. In the event that the Applicants learn of potential cost increases or expect that the final project costs will exceed those approved, the Applicants shall file with OHCA a request for approval of the revised budget.

3. Prior to the commencement of Phases II and III of the PACS acquisition, the Applicants shall report to OHCA the completion dates of Phases I and II, and shall report the actual total capital expenditures incurred for each completed project phase before commencing with the next phase.

All of the foregoing constitutes the final order of the Office of Health Care Access in this matter.

By Order of the
Office of Health Care Access

October 4, 2002
Date

Signed by:
Mary M. Heffernan
Commissioner

MMH/lj
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