

Memorandum to the Commissioner

Applicant: Shields Imaging at Heywood Healthcare, LLC
At: 242 Green Street, Suite 1
Gardner, MA 01440

PROJECT NUMBER: Application DoN #21021213-HS
Amendment #25042215-AM (Significant Change)

Filing DATE: August 1, 2025

Introduction

The Proposed Amendment is filed with respect to DoN # 21021213-HS where Shields Imaging at Heywood Healthcare, LLC (formerly Shields PET-CT at Heywood Healthcare) is requesting approval for a Significant Change to operate one additional day of fixed MRI services for both inpatients and outpatients at Heywood Hospital, 242 Green St, Suite 1, Gardner, for a total of seven (7) days. The Holder is a joint venture between Shields Health Care Group, Inc. and Heywood Healthcare, Inc. There is no increase to the Maximum Capital Expenditure ("MCE") associated with the Significant Change Application and therefore no change to the Community Health Initiatives ("CHI") contribution.

This request falls within the definition for Significant Change that includes "...(1) Any change, modification, or deletion of components within a previously issued Notice of Determination of Need that is not an Immaterial Change, ..." and will be reviewed pursuant to 105 C.M.R. 100.635(A)(3), which requires that the proposed change falls within the scope of the Notice of Determination of Need and is reasonable.

Background and Proposed Amendment

The Original DoN was approved on November 29, 2021, to establish a licensed clinic for a fixed magnetic resonance imaging (MRI) unit at Heywood Hospital for operation six days a week¹ and mobile positron emission tomography-computed tomography (PET-CT) imaging services at Athol Hospital (Athol) one day a week. This was approved when the mobile contract with another imaging vendor ended and the Applicant sought to fulfill the need for continued access to MRI via the current fixed unit. Currently, the approved fixed MRI unit operates only at Heywood Hospital six (6) days per week, Monday through Saturday.² The Holder asserts that an additional day of MRI service at Heywood, on Sunday will address increasing need for MRI inpatients and outpatients. With approval of this Amendment, this unit will be operating seven days per week. Any further expansion of MRI service will require the Applicant to file another Determination of Need for DoN Required Equipment.

¹ The Department does not have a history of approving fixed units on a part-time basis.

² The previous MRI mobile contract operated at both Athol and Heywood Hospitals.

<https://www.mass.gov/doc/shields-pet-ct-at-heywood-healthcare-decision-letter-0/download>

The Rationale for the Significant Change Amendment

The Holder attributes the need for the Significant Change to add an additional day of service to the following:

1. An increase in scan volume: The Holder took over operations of these services on April 18, 2023, and, therefore, does not have full calendar year data for 2023. The reported scans performed between April 2023 and December 2023 was 4,515. Staff annualized that volume to which resulted in an annualized number of 6,386 scans performed. (See Table 3). Using the annualized 2023 data and the number of scans performed in 2024 (6,779), the annual growth between 2023 and 2024 is calculated at 6%.³ The scan volume for 2025 is currently tracking at 8% growth over 2024. The Holder anticipates 8% growth annually in subsequent years, as well. The Holder attributes this increase in scan volume to an aging of the patient panel as well as the closure of previously and separately operated MRI services at Athol, resulting in a shift of patients from Athol to Heywood.⁴
2. An increase in wait-times: The average time from when an outpatient's MRI order is received to the patient being scanned increased from 16.2 days in 2023 to 18.5 days in 2024. Between January 1, 2025 and June 30, 2025, the average wait-time increased to 22.5 days. The Holder estimates that the additional day of operation is projected to decrease average wait times by 1-2 days during the first year of operation.⁵ The Holder asserts shorter wait-times lead to more efficient backlog management and improve timely access to diagnostics for patients.
3. Lack of close alternative sites of service: The Holder states North Central Massachusetts is a region with limited local alternatives. In response to staff inquiry, the Holder provided a list of alternative sites (see below) and noted that the next closest alternative is 14 miles away. The Holder asserts that the alternative sites that it is affiliated with (see Shields sites listed below) have capacity constraints which it anticipates might be partially alleviated by an additional day of operation at Heywood. The closest alternative sites are:
 - Shields/UMass Leominster (Leominster, MA) – 14.4 miles
 - St Vincent's Hospital (Worcester, MA) – 28.9 miles
 - Reliant Medical Group Hospital (Worcester, MA) – 34.9 miles
 - Shields/UMass Marlborough (Marlborough, MA) – 35.8 miles
 - Shields/UMass Shrewsbury Street (Worcester, MA) – 37.3 miles
 - Rayus Chelmsford (Chelmsford, MA) – 40.2 miles

³ The Holder indicated in their amendment the data reflected a 50% surge in scan volume between 2023 and 2024, but this surge did not annualize the data, therefore, this memorandum substitutes growth reflecting annualized data.

⁴ Prior to the approval of the Original DoN, Heywood Hospital and Athol Hospital contracted with another vendor to provide MRI services at Heywood Hospital six days a week and PET-CT services at Athol Hospital one day a week. The Original DoN was approved in November 2021, but the Holder did not begin operating the fixed until April 18, 2023. The Original DoN sought, in part, to fulfill the need for those MRI and PET-CT services by establishing a licensed clinic operated by the Applicant upon the termination of the contract with the other vendor.

⁵ The Holder does not have estimates of the reduction beyond year one.

- Cooley Dickenson Hospital (Northampton, MA) – 47.8 miles
- Lawrence General Hospital MVHS (Andover, MA) – 49.4 miles
- Lawrence General Hospital (Lawrence, MA) – 53.4 miles

As a result of these factors, the Unit in 2024 operated at about 86% capacity for the six operating days and is on track in 2026 to be at 92%. (See Table 1)

Table 1: Historic Annual Capacity

Day	Open Minutes	Daily Slot Time	Daily Capacity ⁶
Mon	35,980	27.2	25
Tue	37,840	27.7	26
Wed	37,200	27.3	26
Thu	36,635	26.5	27
Fri	39,050	26.9	28
Sat	22,805	22.2	20
Annual	209,510	26.5	7,902

Upon staff inquiry, the Holder explained measures already taken to alleviate the wait-times, including daily monitoring of patient cancellations and backfilling cases waiting to be performed; and flexing hours of operation during approved days of operation which is dependent upon staff availability.

Except on Saturday, which operates 8 hours, the MRI unit operates 12-13 hours per day. Excluding Saturday, the daily capacity is 25-28 scans per day. The Holder anticipates it will operate for 8 hours on Sunday. Daily capacity varies based on the complexity of the scheduled scans. For example, only some exams require contrast.⁷ The Holder states that with approval of the additional day of service, average scans per day will likely be the same. (See Table 2)

Table 2: Operational Hours and Daily Capacity

Day	Daily Operational Hours	Daily Capacity ⁸
Mon	12.0	25
Tue	12.6	26
Wed	12.4	26

⁶ Based on minutes of operation.

⁷ Abdomen exams often require contrast, breath-holding sequences, Arthrograms require coordination of multiple providers/resources (usually a radiologist for joint injection with contrast). Not all sites or technologists perform arthrogram injections, so patients have fewer locations to choose from creating an increased backlog.

⁸ The capacity will vary based on the type of scan and whether it is routine or requires contrast, lab-work, or coordination with other providers. The Holder states that Arthrograms and Abdominal scans require coordination with departments and specialists.

Thu	12.2	27
Fri	13.0	28
Sat	7.8	20
Sun	8.0	20

Further, the Holder anticipates increased need for MRI services as the patient population ages due to the prevalence of age-related conditions such as musculoskeletal diseases, arthritis, strokes, and cancer where MRI is utilized as a diagnostic modality. Based on 2024 data, approximately 70% of the Holder's patients are over the age of 50, and the 65 and older age cohort currently comprises about 30% of imaging volume. According to the census data, the number of 60-69 year olds in Gardner is 25% higher than in Massachusetts as a whole. Accordingly, due to the nature of the patients' medical conditions and the age of the existing patient panel, it is important that patients have timely and convenient access to this service.

Upon staff inquiry as to how the Holder verifies appropriate use of MRI, it affirmed that Medicare, MassHealth and commercial carriers all require that clinical medical necessity criteria⁹ be met in advance of completing most MRI scans through prior authorization requirements. Medical necessity must meet the burden of appropriateness, as well as expectations of improvement, safety, and efficiency. Additionally, each exam is evaluated by exam type cross-referencing to diagnosis along with Radiologist oversight and approval to meet medical necessity.

Following the growth trajectory for 2025 of 8%, the holder projects similar annual growth in Fiscal Years 2026-2028. The Holder expects the additional day of service will accommodate the projected growth, improve wait-times, and prevent or alleviate delays in care. Table 3 is the historical volume by specialty for FY2023 and 2024 and projections for FY2025-2028.

Table 3: Heywood MRI Historic and Projected Volumes (FY2025-2028)

Specialty	2023	2023 Annualized	2024	2025	2026	2027	2028
Abdomen	457	645	674	730	788	852	920
Arthrogram	24	34	43	47	50	54	59
Brain	1,333	1,883	1,943	2,104	2,272	2,454	2,650
Cervical	421	595	721	781	843	911	984
Chest	6	8	1	1	1	1	1
Head/Neck	125	177	128	139	150	162	175
Lower Extremity	698	986	1,044	1,131	1,221	1,319	1,425
Lumbar	801	1,131	1,219	1,320	1,426	1,540	1,663
Pelvis	85	120	150	162	175	190	205
Thoracic Spine	153	216	222	240	260	280	303
Upper Extremity	418	590	634	687	742	801	865
Total	4,521	6,386	6,779	7,342	7,929	8,564	9,249

⁹ i.e. precertification

Impact on Costs – to Holder

The Holder states that there are no associated capital expenditures with the additional day of service since the fixed MRI unit has already been acquired and is operational. The Holder states annual operating costs are estimated based on projected scan volume and on marginal cost increases which include: 1) Electricity, gas, management, and scan delivery (including contrast agents, drugs, supplies, etc.) totaling \$12,000; and 2) MRI Technologists and front office support, totaling \$40,000. In sum, the Holder estimates the annual marginal operating cost increases will be approximately \$52,000. These overhead costs will be managed internally without being passed on to individual patients.

Impact on Cost - to the Patient Panel

The Holder states the Proposed Project will not have any significant cost implications for its Patient Panel because all pricing will remain consistent with current charges. There will be no change in how patients are billed or in patients' out-of-pocket of costs.

The Holder states the Payer Mix (shown below) is expected to remain consistent with the FY 2024 payer mix while helping alleviate access to appointments for the current patient population.

Table 4: Payer Mix- 2004

Insurance Type	Payer Mix % 2024	Payer Mix % 2028
Commercial (PPO/Indemnity and HMO/POS)	32%	30%
Other	11%	9%
Medicare FFS	20%	21%
Managed Medicare (s.a. Medicare Advantage)	16%	18%
Managed Medicaid (Private Medicaid/Medicaid MCOs)	11%	11%
MassHealth	10%	11%
	100%	100%

Analysis

Staff has reviewed the rationale and cost impact of the proposed Amendment and notes that it will not significantly impact cost other than adding one additional day of marginal operating costs, approximately \$52,000 annually, since the costs of the equipment and of the site have already been expended.

Staff concurs that operating the unit on a seven-day per week schedule will contribute to the provision of timely quality effective services for Heywood Hospital's inpatients and outpatients. This also has the potential to save costs through the reduction in length of stay and reduced admissions.

Further, the additional day will likely improve access for the Patient Panel in a region that has been under-resourced, where over 57% of patients are covered by public payers, and where

times and cost of travel can be a challenge due to age and financial constraints. By giving patients the choice of an additional weekend day of service, they will have greater access to timely scans, potentially reducing the financial and logistical costs in terms of parking, transport and time away from work or family care they might experience during a weekday or having to travel farther to for a scan.

Findings and Recommendations

Staff reviewed the information in the record the Approval of DoN #21021213-HS and determined that the Amendment request falls within the scope of that Approval.

Based upon the information submitted, and information in the record, the Department can find that the “the proposed change or modification falls within the scope of the Notice of Determination of Need as previously approved by the Department, and ... is reasonable” 105 CMR 100.635(A)(3), which are the requirements for approval of an Amendment.