- F. Summary of Merits & Limitations
 - 1. Narrative
 - 2. Site Ranking Matrix

3.3.3 FINAL EVALUATION OF ALTERNATIVES

Feasibility Study PSR

F. Summary of Merits & Limitations

1. Narrative

Expanding on the three option types identified in the PDP (Base Repair, Renovation/Addition, and New Construction) the design team reviewed several variations of each of these schemes. Those selected for further study include the following:

- Code Upgrade
- Addition / Renovation
- New Construction on Existing Site
 - o Option A.1 Pods on Park
 - o Option A.2 Olmsted Homage
 - Option A.3 Highland Proud
- Option B.1 New Construction on Foley Stadium Site
- Option C.2 New Construction on Chandler Magnet School site with added land

Following is a description of the criteria used to evaluate each of the Options. The criteria are weighted from 1–5, 5 being the most important to the City and School District. The ratings were developed as part of the Steering committee and School meetings. Each of the options were given a score between 1 and 5 for each of these criteria. This score is then multiplied by the weight, and added cumulatively to determine the final score. A perfect score using this matrix would be 185.

SITE RANK	SITE RANKING CRITERIA			
WEIGHT	CRITERIA	DESCRIPTION		
5	ABILITY TO MEET BUILDING	Rated based on the ability for the site to support a building		
	PROGRAM	that meets the full educational program (organization,		
		adjacencies, exterior access, daylight) as outlined in		
		Section 3.1.2.		
5	ACQUISITION ISSUES,	Cost of land acquisition or purchase of adjacent land are		
	NEGOTIATION & EXPANSION	factored in the rating of this category.		
5	COMPARATIVE STAFF &	Rated on the relative impact to the Doherty Staff and		
	STUDENT IMPACT	Students and to the school district as a whole.		
4	ABILITY TO MEET SITE	Rated on the ability for the site to meet the desired site		
	ATHLETICS PROGRAM	athletic field program.		
4	CENTRAL TO	Rated on the ability to achieve equitable access for high		
	DISTRICT/QUADRANT	school students throughout the quadrant.		
3	SITE DEVELOPMENT COSTS	Rated on a comparative cost/difficulties factor on the		
	(Earth moving, soils,	options reviewed. These factors include: soils conditions,		
	retaining walls, parking	foundation requirements needed to provide proper bearing,		
	structures)	the amount of excavation required for the building and site,		
		the amount of site retaining walls or slope mitigation,		





3.3.3 FINAL EVALUATION OF ALTERNATIVES

Feasibility Study PSR

F. Summary of Merits & Limitations 1. Narrative

		added features such as parking decks.
3	TRAFFIC IMPACTS & ACCESS	Rated on a combination of factors including vehicular &
		pedestrian access and potential impact on traffic.
3	BUS & PARENT VEHICULAR	Rated on the extent to which the site could accommodate
	CIRCULATION & PARKING	separate parent and bus circulation and parking
		requirements.
3	CONSTRUCTION SCHEDULE	Rating reflects aspects of the site that may result in delays
	IMPACT	to the project target occupancy of Fall 2024 or extended
		construction beyond building occupancy.
1	ADJACENT USES &	Rated according to the current uses of the subject parcel as
	NEIGHBORHOOD IMPACT	well compatible adjacencies for a School including:
		residential, business and publicly owned open space (i.e.
		parks, recreation fields, etc.).
1	UTILITIES & DEVELOPMENT	Rated on the availability of utilities, including public sewer,
	ISSUES	water, electrical power, fiber, and natural gas, determine
		this criterion.

In the following pages, each of the options are ranked according to each of these categories. For additional information on each score, refer to the narratives in section 3.3.3.C Preliminary Design Options.

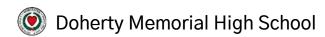




Feasibility Study PSR

CODE	CODE UPGRADE		
RATING	SCALE: 0=Negative → 5=Positive)	
WEIGHT	CRITERIA	SCORE	NOTES
5	ABILITY TO MEET BUILDING	0	Does not address educational program
	PROGRAM		
5	ACQUISITION ISSUES,	5	The Site is bounded by park land; there are
	NEGOTIATION & EXPANSION		no expansion options or acquisition issues.
5	COMPARATIVE STAFF &	1	Comparatively the most disruption to
	STUDENT IMPACT		Doherty staff and students
4	ABILITY TO MEET SITE	1	No improvements to the existing baseball
	ATHLETICS PROGRAM		and softball fields
4	CENTRAL TO	5	The existing school site is recognized as
	DISTRICT/QUADRANT		central to the Doherty Quadrant.
3	SITE DEVELOPMENT COSTS	5	
	(Earth moving, soils, retaining		No site development
	walls, parking structures)		
3	TRAFFIC IMPACTS & ACCESS	1	 No improvements to the existing bus and parent circulation.
3	BUS & PARENT VEHICULAR	1	No improvements to the existing traffic
	CIRCULATION & PARKING		issues
3	CONSTRUCTION SCHEDULE	1	Comparatively longer construction schedule
	IMPACT		due to phased occupied construction
1	ADJACENT USES &	4	Current site of the school
	NEIGHBORHOOD IMPACT		Construction would be disruptive
1	UTILITIES & DEVELOPMENT	3	 Utilities are available and adequate.
	ISSUES		Because the development of the site is
			constrained, with phased construction, the
	TOTAL		score for this category is average
	TOTAL	85	

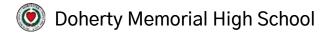




Feasibility Study PSR

ADDI	TION RENOVATION		
RATING	SCALE: 0=Negative → 5=Positive)	
WEIGHT	CRITERIA	SCORE	NOTES
5	ABILITY TO MEET BUILDING PROGRAM	3	 Educational program organization and adjacencies are compromised
5	ACQUISITION ISSUES, NEGOTIATION & EXPANSION	5	 The Site is bounded by park land; there are no expansion options or acquisition issues.
5	COMPARATIVE STAFF & STUDENT IMPACT	1	 Comparatively the most disruption to Doherty staff and students
4	ABILITY TO MEET SITE ATHLETICS PROGRAM	3	A single soccer/practice field above an open air parking deck is included
4	CENTRAL TO DISTRICT/QUADRANT	5	The existing school site is recognized as central to the Doherty Quadrant.
3	SITE DEVELOPMENT COSTS (Earth moving, soils, retaining walls, parking structures)	2	 Added cost for parking structure and retaining walls
3	TRAFFIC IMPACTS & ACCESS	3	 The existing Doherty site is limited to access from Highland Street only, which has limitations, and is subject to traffic congestion. Refer to Civil Narrative for Traffic analysis.
3	BUS & PARENT VEHICULAR CIRCULATION & PARKING	3	 Separate bus and parent circulation. Parking deck may result in security issues.
3	CONSTRUCTION SCHEDULE IMPACT	1	Comparatively the longest construction duration
1	ADJACENT USES & NEIGHBORHOOD IMPACT	4	 The existing school is an established location, so impact on the neighborhood is expected to be limited primarily to construction related activities. The portion of the site that is currently undeveloped is used by Newton Hill park for disc golf and trails. Elm Park, Newton Hill Park and Foley Stadium are all significant





3.3.3 FINAL EVALUATION OF ALTERNATIVES

Feasibility Study PSR

	TOTAL	111	3) 11 13
			constrained, with phased construction, the score for this category is average
	ISSUES		Because the development of the site is
1	UTILITIES & DEVELOPMENT	3	 Utilities are available and adequate.
			due to construction activities
			Comparatively longer duration of disruption
			carefully as the design progresses.
			adjacencies to the site to be considered





Feasibility Study PSR

NEW CONSTRUCTION ON EXISTING SITE					
OPTIO	OPTION A.1 PODS ON PARK				
RATING	SCALE: 0=Negative → 5=Posit	ive			
WEIGHT	CRITERIA	SCORE	NOTES		
5	ABILITY TO MEET BUILDING PROGRAM	5	 Building program requirements can be satisfied. Greatest opportunities for views and daylight for all teaching spaces. 		
5	ACQUISITION ISSUES, NEGOTIATION & EXPANSION	5	 The Site is bounded by park land; there are no expansion options or acquisition issues. 		
5	COMPARATIVE STAFF & STUDENT IMPACT	3	 Construction adjacent to occupied existing school building. Staff and students will have limited parking and no practice fields during construction. 		
4	ABILITY TO MEET SITE ATHLETICS PROGRAM	3	 Limited field development is anticipated. A football/soccer/field hockey field is provided. Off-site fields are required to meet the athletic program. 		
4	CENTRAL TO DISTRICT/QUADRANT	5	 The existing school site is recognized as central to the Doherty Quadrant. 		
3	SITE DEVELOPMENT COSTS (Earth moving, soils, retaining walls, parking structures)	3	 Short to moderate height retaining walls are anticipated to optimize site area available. Parking below building provided 		
3	TRAFFIC IMPACTS & ACCESS	3	 The existing Doherty site is limited to access from Highland Street only, which has limitations, and is subject to traffic congestion. Refer to Civil Narrative for Traffic analysis. 		
3	BUS & PARENT VEHICULAR CIRCULATION & PARKING	4	 Bus and parent traffic are separated. 100 Parking spaces below building reduce surface parking, but may represent security issues 		
3	CONSTRUCTION SCHEDULE IMPACT	3	 Achieves occupancy of building in Fall 2024, with parking and field completion in Spring of 2025 		





3.3.3 FINAL EVALUATION OF ALTERNATIVES

Feasibility Study PSR

1	ADJACENT USES & NEIGHBORHOOD IMPACT	4	 The existing school is an established location, so impact on the neighborhood is expected to be limited primarily to construction related activities. The portion of the site that is currently undeveloped is used by Newton Hill park for disc golf and trails. Elm Park, Newton Hill Park and Foley Stadium are all significant adjacencies to the site to be considered carefully as the design progresses. This option locates some of the parking below building, which may increase open/green space on the site.
1	UTILITIES & DEVELOPMENT ISSUES	3 143	 Utilities are available and adequate. Because the development of the site is constrained, with phased construction, the score for this category is average





Feasibility Study PSR

NEW CONSTRUCTION ON EXISTING SITE			
OPTION A.2 OLMSTED HOMAGE			
RATING	SCALE: 0=Negative → 5=Positi	ve	
WEIGHT	CRITERIA	SCORE	NOTES
5	ABILITY TO MEET BUILDING PROGRAM	4	 Building program requirements can be satisfied, however some teaching spaces are interior limited daylight options Academic area organization is not as intuitive as other options. Core facilities grouped on one level
5	ACQUISITION ISSUES, NEGOTIATION & EXPANSION	5	 The Site is bounded by park land; there are no expansion options or acquisition issues.
5	COMPARATIVE STAFF & STUDENT IMPACT	3	 Construction adjacent to occupied existing school building. Staff and students will have limited parking and no practice fields during construction.
4	ABILITY TO MEET SITE ATHLETICS PROGRAM	3	 Limited field development is anticipated. A football/soccer/field hockey field and a practice field are provided. Off-site fields are required to meet the athletic program.
4	CENTRAL TO DISTRICT/QUADRANT	5	The existing school site is recognized as central to the Doherty Quadrant.
3	SITE DEVELOPMENT COSTS (Earth moving, soils, retaining walls, parking structures)	3	 Short to moderate height retaining walls are anticipated to optimize site area available. Parking below building provided
3	TRAFFIC IMPACTS & ACCESS	3	The existing Doherty site is limited to access from Highland Street only, which has limitations, and is subject to traffic congestion. Refer to Civil Narrative for Traffic analysis.
3	BUS & PARENT VEHICULAR CIRCULATION & PARKING	4	 Bus and parent traffic are separated. +/- 165 Parking spaces below building reduce surface parking, but may represent





3.3.3 FINAL EVALUATION OF ALTERNATIVES

Feasibility Study PSR

			security issues
3	CONSTRUCTION SCHEDULE IMPACT	3	 Achieves occupancy of building in Fall 2024, with parking and fields completion in Spring of 2025
1	ADJACENT USES & NEIGHBORHOOD IMPACT	4	 The existing school is an established location, so impact on the neighborhood is expected to be limited primarily to construction related activities. The portion of the site that is currently undeveloped is used by Newton Hill park for disc golf and trails. Elm Park, Newton Hill Park and Foley Stadium are all significant adjacencies to the site to be considered carefully as the design progresses. This option locates most of the parking below building, which increases open/green space availability.
1	UTILITIES & DEVELOPMENT ISSUES	3	 Utilities are available and adequate. Because the development of the site is constrained, with phased construction, the score for this category is average
	TOTAL	138	



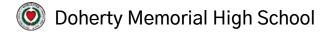


Feasibility Study PSR

F. Summary of Merits & Limitations
1. Narrative

NEW CONSTRUCTION ON EXISTING SITE OPTION A.3 HIGHLAND PROUD RATING SCALE: 0=Negative → 5=Positive WEIGHT **CRITERIA SCORE NOTES** 5 ABILITY TO MEET BUILDING Building program requirements can be satisfied, however some teaching spaces are **PROGRAM** interior with limited daylight options. 4 Main Administration and Media Center are very remote from the academic wings on the upper levels. • The Site is bounded by park land; there are 5 ACQUISITION ISSUES, 5 no expansion options or acquisition issues. **NEGOTIATION & EXPANSION** 5 Construction adjacent to occupied existing **COMPARATIVE STAFF &** school building. STUDENT IMPACT Comparatively greater construction impact 3 due to elimination of the staff parking lot during construction. Staff and students will have very limited parking and no practice fields during construction. Limited field development is anticipated. A ABILITY TO MEET SITE football/soccer/field hockey field elevated on ATHLETICS PROGRAM 3 an open-air parking deck is provided. Off-site fields are required to supplement the athletic program. CENTRAL TO The existing school site is recognized as 4 5 central to the Doherty Quadrant. **DISTRICT/QUADRANT** 3 SITE DEVELOPMENT COSTS Short to moderate height retaining walls are (Earth moving, soils, anticipated to optimize site area available. 2 An open-air parking deck below the football retaining walls, parking fields is provided at a significant cost. structures) TRAFFIC IMPACTS & ACCESS The existing Doherty site is limited to access from Highland Street only, which has 3 limitations, and is subject to traffic





congestion. Refer to Civil Narrative for Traffic

3.3.3 FINAL EVALUATION OF ALTERNATIVES

Feasibility Study PSR

			analysis.
3	BUS & PARENT VEHICULAR CIRCULATION & PARKING	3	 Bus loop is completely separate from parent parking Parking deck for +/- 245 cars may result in issues with security and surveillance.
3	CONSTRUCTION SCHEDULE IMPACT	2	 Achieves occupancy of building in Fall 2024, with parking and field completion in Spring of 2025. Comparatively longer construction duration due to construction of parking deck below field.
1	ADJACENT USES & NEIGHBORHOOD IMPACT	4	 The existing school is an established location, so impact on the neighborhood is expected to be limited primarily to construction related activities. The portion of the site that is currently undeveloped is used by Newton Hill park for disc golf and trails. Elm Park, Newton Hill Park and Foley Stadium are all significant adjacencies to the site to be considered carefully as the design progresses.
1	UTILITIES & DEVELOPMENT ISSUES	3	 Utilities are available and adequate. Because the development of the site is constrained, with phased construction, the score for this category is average
	TOTAL	129	





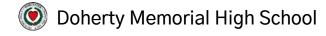
Feasibility Study PSR

F. Summary of Merits & Limitations

1. Narrative

NEW CONSTRUCTION ON ALTERNATE SITE OPTION B.1 NEW CONSTRUCTION ON FOLEY STADIUM SITE RATING SCALE: 0=Negative → 5=Positive WEIGHT CRITERIA **SCORE NOTES** 5 ABILITY TO MEET Building program requirements can be 5 satisfied. **BUILDING PROGRAM** 5 ACQUISITION ISSUES, The Foley Stadium site is owned by Worcester **NEGOTIATION &** Public schools. **EXPANSION** This option also indicates potential acquisition 3 of additional vacant and residential back land to provide the desired number of parking and access via Norman Ave. 5 **COMPARATIVE STAFF &** The new facility could be constructed without impact on the Doherty site or student STUDENT IMPACT population. The loss of the District's only stadium and surrounding fields would be a detriment to the athletics programs throughout the Worcester 2 Public School district. Replacement of the athletic facilities at the Foley Stadium site would represent a significant logistical and financial burden to the City, and would require completion prior to demolition of the existing stadium. 4 ABILITY TO MEET SITE Limited field development is anticipated. A ATHLETICS PROGRAM single soccer/field hockey field is provided. With the loss of the stadium and fields currently existing on the Foley stadium site, the 1 district would need to fund and construct replacement facilities elsewhere. Beaver Brook Park, across Chandler Street is operated and scheduled through the City's





Feasibility Study PSR

	T		T
			Parks Department.
			Beaver Brook is city-owned Park land
			protected under Article 97; any development
			would need to be a parks department project.
4	CENTRAL TO		The Foley Stadium site is relatively central to
	DISTRICT/QUADRANT	4	the district, especially with access to major
			feeder routes.
3	SITE DEVELOPMENT		The Soils logs provided as reported under the
	COSTS (Earth moving,		Geotechnical review noted that the parcel is
	soils, retaining walls,	_	filled with a mix of urban fill, and coal ash. A
	parking structures)	1	system of piles foundations at a premium cost
			would be anticipated to support any structure
			on the site.
3	TRAFFIC IMPACTS &		This option would include several curb cuts
	ACCESS		along Chandler Street as well as a potential
		2	access to Abbott Street or Coombs Road
		2	Significant additional traffic congestion is
			anticipated if this site is selected. Refer to the
			updated Traffic Report.
3	BUS & PARENT VEHICULAR		Bus and parent circulation are separated in
	CIRCULATION & PARKING		this option.
		5	 The desired parking spaces may be
		5	accomplished with the acquisition of
			additional land.
			Refer to the Civil Narrative.
3	CONSTRUCTION		An unoccupied/available site with room for
	SCHEDULE IMPACT		construction staging is the most advantageous
			from a schedule standpoint. Construction is
			anticipated to meet the current occupancy goal
			of Fall 2024, but the schedule must factor in
		5	several additional months for structural piles
			and soils conditions.
			If replacement Foley Stadium facilities were
			not available prior to construction of the new
			school, there could be a significant schedule
			impact.





3.3.3 FINAL EVALUATION OF ALTERNATIVES

Feasibility Study PSR

1	ADJACENT USES & NEIGHBORHOOD IMPACT	3	 The parcel backs up to the surrounding residential neighborhood; Buffers could be established to minimize the impact to the neighbors. Hours of operation for a high school are more extensive than those of the stadium and fields.
1	UTILITIES & DEVELOPMENT ISSUES	1	 Beaver Brook runs in a conduit though the site, and is assumed to be original to the site development in the 1920's. This 84" conduit would have to be relocated around the building, and also be supported on ground improvements or piles. A significant stormwater management system would be required to address the increased impervious site cover. Refer to Civil Narrative.
	TOTAL	113	





Feasibility Study PSR

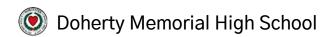
F. Summary of Merits & Limitations

1. Narrative

NEW CONSTRUCTION ON ALTERNATE SITE

OPTION C.2 NEW CONSTRUCTION ON CHANDLER MAGNET SITE + LAND									
RATING SCALE: 0=Negative → 5=Positive									
WEIGHT	CRITERIA	SCORE	NOTES						
5	ABILITY TO MEET BUILDING PROGRAM	4	 Building program requirements can be satisfied; however, some teaching spaces are interior and without natural daylight. 						
5	ACQUISITION ISSUES, NEGOTIATION & EXPANSION	2	 This option requires land acquisition of parcels owned by Worcester State Foundation Real Estate LLC, and potential rear land acquisitions from May Street Residences. 						
5	COMPARATIVE STAFF & STUDENT IMPACT	3	 The new facility could be constructed without impact on the Doherty site or student population. The current Chandler Magnet School students and Bilingual/ Dual Language programs would need to be relocated together. The district has advised that no existing facility within the district can accommodate all 500 students. 						
4	ABILITY TO MEET SITE ATHLETICS PROGRAM	4	 Comparatively, the most athletic fields are provided in this option, including a football/soccer/field hockey field, a softball field and a practice field. Off-site fields are still required to meet the athletic program. 						
4	CENTRAL TO DISTRICT/QUADRANT	4	 The Chandler Magnet School site is geographically central to the district. 						
3	SITE DEVELOPMENT COSTS (Earth moving, soils, retaining walls, parking structures)	4	Fields and building would have average development issues and related costs with some retaining wall construction anticipated.						
3	TRAFFIC IMPACTS & ACCESS	2	 While the Chandler Magnet School site has the advantage of access from multiple streets, it is also across the street from Worcester State University, which experiences existing traffic 						

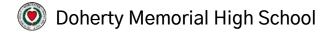




Feasibility Study PSR

3	BUS & PARENT VEHICULAR CIRCULATION & PARKING CONSTRUCTION SCHEDULE IMPACT	5	 congestion. Studies have shown that vehicular and pedestrian congestion will be increased significantly if this site is selected. Refer to updated traffic report. Bus and parent circulation is separated. The desired number of parking spaces is provided without a parking deck or garage. An unoccupied/available site with room for construction staging is the most advantageous from a schedule standpoint. Construction is anticipated to meet the current occupancy goal of Fall 2024.
1	ADJACENT USES & NEIGHBORHOOD IMPACT	3	 The Chandler Magnet School parcel includes an existing school and practice fields, and is surrounded by dense residential neighborhoods. The new four-story building would be directly adjacent to the abutting residential parcels. Buffers could be established to minimize the impact to the neighbors. The adjacent Worcester State University presents opportunities for mutually beneficial programs. Due to increased traffic and use of the site, neighborhood impact of a high school would be increased significantly from that of the existing elementary school.
1	UTILITIES & DEVELOPMENT ISSUES	3	Existing 10" sanitary pipes and 30"-42" storm drain mains traverse the site in multiple locations (refer to the Civil Narrative.) These conduits would need to be re-laid around the building. Otherwise utilities are available and development is comparable to the other sites.
	TOTAL	131	





3.3.3 FINAL EVALUATION OF ALTERNATIVES

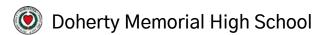
Feasibility Study PSR

F. Summary of Merits & Limitations

1. Narrative

Refer to the following section for the full comparison matrix and explanation of the Preferred Solution.





Feasibility Study PSR

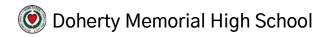
3.3.3 FINAL EVALUATION OF ALTERNATIVES

F. Summary of Merits and Limitations
2. Site Ranking Matrix

Below is a summary of the site ranking evaluations from each individual option. Refer to Section 3.3.3.F.1 for a detailed description of each criteria.

WEIGHT (1-5)	CODE LEGISLATION REPORT SOLET STATE OF SOLET STATE STATE SOLET STATE STA										
W	CRITERIA			A.1	A.2	A.3	B.1	C.2			
5	ABILITY TO MEET BUILDING PROGRAM	0	3	5	4	4	5	4			
5	ACQUISITION ISSUES, NEGOTIATION & EXPANSION	5	5	5	5	5	3	2			
5	COMPARATIVE STAFF & STUDENT IMPACT	1	1	3	3	3	2	3			
4	ABILITY TO MEET SITE ATHLETICS PROGRAM	1	3	3	3	3	1	4			
4	CENTRAL TO DISTRICT/QUADRANT	5	5	5	5	5	4	4			
3	SITE DEVELOPMENT COSTS (Earth moving, soils, retaining walls, parking stuctures)	5	2	3	3	2	1	4			
3	TRAFFIC IMPACTS & ACCESS	1	3	3	3	3	2	2			
3	BUS & PARENT VEHICULAR CIRCULATION & PARKING	1	3	4	4	3	5	5			
3	CONSTRUCTION SCHEDULE IMPACT	1	1	3	3	2	5	5			
1	ADJACENT USES & NEIGHBORHOOD IMPACT	4	4	4	4	4	3	3			
1	UTILITIES & DEVELOPMENT ISSUES	3	3	3	3	3	1	3			
	WEIGHTED SCORE	85	111	<u>143</u>	138	129	113	131			





Feasibility Study PSR

3.3.3 FINAL EVALUATION OF ALTERNATIVESF. Summary of Merits and Limitations2. Site Ranking Matrix

PSR Preferred Solution: At the December 18, 2019 Building Committee meeting, Option A.1: New Construction on Existing Doherty Site: Pods on the Park was approved as the Preferred Solution.



