





NASHUA MIDDLE SCHOOLS

2019 FACILITY ANALYSIS & CONCEPT DESIGN REPORT





ACKNOWLEDGMENTS

INTRODUCTION

PROJECT TEAM

- / Owner Nashua School District
- / Architect Harriman
- / Construction Manager Harvey Construction

STEERING COMMITTEE

- / Richard Dowd Alderman, Ward 2
- / Jahmal Mosley, Ed.D. Superintendent of Schools
- / Donna Fitzpatrick Assistant Superintendent for Secondary Schools
- / Shawn Smith Director of Plant Operations
- / Carl Dubois Harvey Construction

JOINT SPECIAL SCHOOL BUILDING COMMITTEE (JSSBC)

- / BOE Members
 - / Raymond Guarino
 - / William Mosher
 - / Dorothy Oden
 - / Susan Porter
 - / Heather Raymond
- / NSD Administrators
 - / Jahmal Mosley
 - / Donna Fitzpatrick
 - / Daniel Donovan
 - / Shawn Smith
- / BOA Members
 - / Richard Dowd, Chairman of JSSBC
 - / Mary Ann Melizzi Golja
 - / Patricia Klee
 - / Ernest Jette
 - / Lori Wilshire

ARCHITECTS AND ENGINEERS

- / Mark Lee Harriman
- / Lisa Sawin Harriman
- / Jamie Ouellette Harriman
- / Dan Bisson Harriman
- / Sam Forgue Harriman
- / Howard Snyder Harriman
- / James Fortin Harriman
- / Jeff Cormier Harriman
- / Jeremie Briggs Harriman
- / Richard Marchessault Harriman
- / Emilie Waugh Harriman

CONSTRUCTION MANAGER

- / Carl Dubois Harvey Construction
- / John Beaver Harvey Construction

COMMUNITY FORUM ATTENDEES (JUNE 3, 2019)

- / Jessica Brown
- / Gabriel Falzarano
- / Ian Atwell
- / S. Coffy
- / Donna Fitzpatrick
- / R. McNally
- / Anne McCubrey
- / Sinead Crook
- / Tanya Brandt
- / Fran Nutter-Upham
- / Kim McCarthy
- / Lori Wilshire
- / Mary Ann Melizzi-Goja
- / Richard Dowd
- / Laura Graudons
- / Mr. Pearson
- / Catherine Belanger
- / Denise Rock-O'Hara
- / Darcy Rock-O'Hara
- / Shaunna O'Neil

TABLE OF CONTENTS INTRODUCTION

EXECUTIVE SUMMARY

NASHUA MIDDLE SCHOOLS STUDY	11
/ Project Goals and Objectives	11
/ Facility Analysis	11
/ Educational Programming	11
/ Concept Design	11
/ Financial and Energy Analysis	12
/ Conclusion	12

2 FACILITY ANALYSIS

FACILITY ANALYSIS OVERVIEW	13	SURVEYS, STUDIES, AND REPORTS	171
		/ Elm Street Middle School	171
EXISTING CONDITIONS / FINDINGS	15	/ AHERA	172
/ Elm Street Middle School	16	/ Hazardous Material Report	227
/ Site Analysis	16	/ Site Survey	273
/ Architectural and Code Analysis	21	/ Traffic Study	275
/ Structural Analysis	44	/ Roof Trac Report	301
/ Mechanical Analysis	53	/ Floor Cores and Ceiling Panel Evaluation	339
/ Plumbing Analysis	54	/ Snow Load Report	359
/ Fire Protection Analysis	63	/ Fairgrounds Middle School	375
/ Electrical Analysis	66	/ AHERA	377
/ Fairgrounds Middle School	78	/ Site Survey	379
/ Site Analysis	78	/ Traffic Study	381
/ Architectural and Code Analysis	84	/ Snow Load Report	383
/ Structural Analysis	98	/ Pennichuck Middle School	385
/ Mechanical Analysis	104	/ AHERA	387
/ Plumbing Analysis	106	/ Site Survey	389
/ Fire Protection Analysis	112	/ Traffic Study	391
/ Electrical Analysis	114	/ Geotechnical Report	393
/ Pennichuck Middle School	124	/ New Nashua Middle School	459
/ Site Analysis	124	/ Site Survey	461
/ Architectural and Code Analysis	130	/ Traffic Study	465
/ Structural Analysis	147	/ Preliminary Geotechnical Engineering Report	467
/ Mechanical Analysis	152	/ Geotechnical Engineering Report	507
/ Plumbing Analysis	155		
/ Fire Protection Analysis	161	RECOMMENDATIONS	581
/ Electrical Analysis	162	/ Elm Street Middle School	582
-		/ Fairgrounds Middle School	588
		/ Pennichuck Middle School	592

3 PROGRAMMING

PROGRAMMING OVERVIEW	597
SPACE ALLOCATION SUMMARY	599
EMS PROGRAMMING / Online Programming Survey Summary / Summary of Principal Interview	603 604 613
FMS PROGRAMMING / Online Programming Survey Summary / Summary of Principal Interview	615 616 623
PMS PROGRAMMING / Online Programming Survey Summary / Summary of Principal Interview	625 626 635
SUMMARY OF PROGRAMMING INFORMATION / All Middle Schools Online Programming Survey Summary	637 638
Special Education Director Interview High School Career Technical Education (CTE) Director Interview	644 646
/ Director of Athletics and Wellness Interview	647
COMMUNITY FORUM SUMMARY / Summary and Conclusion / Meeting Minutes	649 649 652

4 CONCEPT DESIGN

661	EMS RENOVATION / ADDITION	675
	/ Design Narrative	675
663	/ Site Plan	676
665	/ Floor Plans	677
671		
673	FMS RENOVATION / ADDITION	681
	/ Design Narrative	681
	/ Site Plan	682
	/ Floor Plan	683
	PMS RENOVATION / ADDITION	685
		685
	· . · · ·	686
	/ Floor Plan	687
	NEW NASHUA MIDDLE SCHOOL	689
	/ Design Narrative	689
	· . · · ·	690
	,	691
	•	695
	663 665 671	/ Design Narrative 663 / Site Plan 665 / Floor Plans 671 673 FMS RENOVATION / ADDITION / Design Narrative / Site Plan / Floor Plan PMS RENOVATION / ADDITION / Design Narrative / Site Plan / Floor Plan / Floor Plan

5 FINANCIAL ANALYSIS

FINANCIAL ANALYSIS OVERVIEW	699
ELM STREET MS COSTS	701
NEW NASHUA MS COSTS	703
FAIRGROUNDS MS COSTS	705
PENNICHUCK MS COSTS	707
ENERGY COST ANALYSIS SUMMARY	709
LIFE CYCLE COST ANALYSIS	711
CONSTRUCTION COSTS / Elm Street Middle School / Fairgrounds Middle School / Pennichuck Middle School / New Nashua Middle School	713 714 727 743 759
NASHUA PROJECT BUDGET / Elm Street Middle School / New Nashua Middle School / Fairgrounds Middle School / Pennichuck Middle School	775 776 777 778 779