

**EXHIBIT H**  
**EDUCATIONAL PLAN**  
**NORTHEAST METROPOLITAN REGIONAL VOCATIONAL SCHOOL**  
**DISTRICT**  
**NORTHEAST METROPOLITAN REGIONAL VOCATION HIGH**  
**SCHOOL**

**PROJECT FUNDING AGREEMENT**

# Educational Program

## Northeast Metro Tech



Northeast Metropolitan Regional  
Vocational Technical High School District  
Wakefield, Massachusetts  
Educational Program  
July, 2020

## 3.1.2 Educational Program

### Introduction

Northeast Metropolitan Regional Vocational Technical High School District (hereinafter referred to as the “district” or “Northeast Metro Tech”) sits on 60 acres in Wakefield, Massachusetts serving ninth through twelfth graders from the cities of Chelsea, Malden, Melrose, Revere, and Woburn, and the towns of North Reading, Reading, Saugus, Stoneham, Wakefield, Winchester, Winthrop, and Woburn. The 240,000 square foot facility opened in 1968. From an educational standpoint, many of the classrooms are inadequate or non-functional for the delivery of twenty-first century education. The technical area offerings have changed over time, along with the demographics and population size, and the building has been sectioned off for various purposes during this time. These factors, along with many others outlined prior, highlight the district's desperate need for a new or substantially renovated facility.

### Vision

Dr. Frank Locker, an educational consultant, conducted three afternoon “Visioning Sessions” on February 13, 24, & 25, 2020 at the school. Approximately thirty-five stakeholders from inside and outside the school participated. When participants were asked to encapsulate the future of education in the district, the five most important issues were:

- Social/Emotional Learning
- Student Engagement
- Project Based Learning
- Creating Innovators
- Safety and Security in 21st Century Schools

The overarching principles to deliver on this future-oriented educational vision call for the district to:

- Incorporate a number of innovative 21st century educational practices already in discussion or operation in classrooms and technical areas and to extend those practices.
- Create a common understanding of this Educational Vision among all Northeast stakeholders (administrators, faculty, parents, and students) to continuously

transition the educational model from one that is fairly traditional to one that is student centered on 21st century skills.

- Teach 21st century skills in concert with traditional content.
- Build relationships with students, families, and communities through school structure and programs.
- Aspire beyond the Common Core and beyond the Massachusetts Department of Elementary and Secondary Education guidelines to do what is best for student learning, and to instill a lifelong sense of wonder and purpose that creates independent, lifelong learners.
- Establish a program of staff professional development that supports the desired educational delivery.

The vision for educational delivery requires a transition to the following instructional models which necessitates that the district will:

- Continue and expand project-based learning in both the academic and vocational settings.
- Make academic courses more relevant to students by shifting the daily delivery model to address multiple learning styles and needs.
- Group students in small learning teams to foster communication, collaboration, and improved social skills, and expand differentiated instruction.
- Organize teachers in teaching teams and clusters.
- Create a school culture that values flexibility for change.
- Position students to learn 21st century skills (collaboration, communication, creativity, and critical thinking) while simultaneously meeting standard curriculum goals.
- Integrate the curriculum by interrelating traditionally separate content areas, ideally with multiple teachers synchronously team teaching. Integrate academics with career-tech, academics with academics, and career-tech with career-tech.
- Pilot innovative deliveries such as mastery learning and blended learning/flipped classroom for future large scale or individualized implementation.
- Recognizing students' multiple intelligences and learning styles in creating student centered differentiated learning experiences.

In addition to the delivery models above, it is important that the district realize that our world is dependent on technology implementation in all aspects of life. Technology must not be viewed as a curriculum add-on but rather as an effective tool to be utilized in meaningful instruction that



is relevant and rigorous and increases student engagement. Students must be provided with the technological skills and knowledge which will enable them to succeed in a global context. The district, with respect to the integration of technology should:

- Recognize that technology can be more effective than a teacher alone in tracking individual student's learning patterns and styles.
- Utilize technology as part of strategic initiatives to personalize learning.
- Guarantee wireless access in all spaces in the school building.
- Continue to reduce the number and use of desktop devices in favor of mobile technology to create flexible learning models for both students and staff.
- Create adequate room and places for students to learn using new technology including oral presentations both physically and through online mediums.

The guiding principles, educational delivery models, and technology integration stated above imply the following educational structure to establish the organizational patterns necessary to group students and teachers in the most effective ways. The following outlines the vision for the district's educational structure in a new or renovated facility:

- Organization:
  - Position educators to better know their students through the size and strategic placement of learning spaces.
  - Increase opportunities for students to learn through cooperative learning opportunities.
- Relationships:
  - Organize school as smaller learning communities to support relationship formulation.
  - Support synchronous teacher teaming through common planning time, class scheduling, and professional development.
  - Foster student collaboration to build communication skills and the ability to work with others.
  - Create opportunities for students to grow socially and emotionally while working with others in classroom assignments.
- Curriculum:
  - Build 21st century skills while meeting traditional curriculum goals.
  - Create regular opportunities for students to improve their oral communication skills through presentation and collaboration.

- Continue and expand project-based learning in both the academic and vocational settings.
- Schedule:
  - Continue establishing advanced learning opportunities through expanded programming (i.e. AP, PLTW, World Languages, Fine/Performing Arts).
  - Create common planning time for teachers.
  - Create co-teaching planning time for content and special education teachers.
  - Increase targeted Tier 2 intervention opportunities in the schedule.

Finally, this comprehensive vision, developed collaboratively with the district's stakeholders, has facility implications. The district should seek to:

- Design facilities to be flexible, able to support student and staff technology needs, multiple learning modalities, teaching and learning styles, and program changes over time.
- Develop Small Learning Community (SLC) learning spaces arranged in clusters. Include the potential for a Freshmen Academy SLC.
- The SLCs will each have career-tech learning spaces and academic learning spaces that are themed around the career-tech programs offered within each cluster.
- Ensure that furniture and technology support collaboration, different learning modalities, and is substantiated by research.
- Create teacher planning centers within each SLC to foster collaboration, interdisciplinary teaching, and greater knowing of students by teachers.
- Create building plans that offer security and safety despite constant visitors to many shops (Auto Tech and Auto Body, Culinary, Cosmetology, Design and Visual, Early Child Care Pre-School) as well as other visitors who are active participants in student learning.
- Ensure there are community areas that are established for formal and informal meetings that are safe and secure.
- Develop customer service areas to receive customers to CTE businesses within the school.
- Create spaces that support and expand project-based learning in both CTE and academic settings.

- Create desired Career/Technical Clusters:
  - **Construction:** Carpentry, Electrical, HVAC/R, Plumbing
  - **Transportation:** Auto Collision and Repair, Auto Technology, Metal Fabrication
  - **Business and Consumer Services:** Business Tech, Cosmetology, Culinary Arts, Early Child Care, Marketing (new)
  - **Health Services:** Bio Tech (new), Dental Assisting, Health Assisting, Medical Assisting (new)
  - **Design and Communications:** Design and Visual Communications, Drafting and Design, Robotics and Automation
  - **Freshmen Academy:** to maximize flexibility, consider the potential for a separate cluster to house primarily 9<sup>th</sup> Grade academic areas

## Grade and School Configuration Policies

The District comprises one high school serving grades nine through twelve (9-12). The District enrollment on October 1, 2019 was 1275 students, the highest enrollment in the district's history. The high school is currently organized by departments and career technical areas. Northeast consistently receives 700+ applications for the Freshman class and accepts 330 students each year for its in-coming class. Each year, 250+ students are on the school's waiting list. The data and anecdotal evidence strongly suggests that the Northeast Metro Tech could support higher enrollments.

The District's future will most likely be centered around an academy or cluster model. To accommodate this possibility, the facility should be designed in such a way that areas are flexible to accommodate the type of scheduling and space configuration an academy model would require. The district is considering the implementation of five career/technical clusters in which the students would be organized into teams with dedicated specialists and a common set of teachers across the curriculum. In addition to the five career/technical clusters, the district will continue the freshmen academies, housing them within one of the clusters. Creating clusters will minimize student transition throughout the building. The design implications of this option include dedicated general classrooms with adjacent science labs, collaborative space, nearby administrative space, Guidance space, teacher planning space, and dedicated support spaces

(restrooms, storage, etc.) to create a small learning community within the larger high school. CTE shops should be located in career clusters to the best extent possible. This would include the following clusters: Construction, Transportation, Business and Consumer Services, Health Care Services, and Design and Communications.

As noted elsewhere in the Education Program, the proposed school ideally would be designed in such a way to provide flexibility over time to allow the school to adopt the cluster model or operate as a departmental organization. The vision for the future includes more collaboration between and among departments. Teacher teams do not have suitable space for collaborating currently during the school day. They meet in an available classroom or the library during any collaboration time available. This is far from ideal for the kind of work they need and want to do. The vision for the new building includes spaces designed for teacher collaboration, where they will have appropriate table-top space, display space, presentation space and appropriate presentation technology, and spaces to accommodate small group work and individual private conversations with stakeholders. It will be “dedicated teacher planning space” ensuring that collaboration can extend for multiple meetings without the need to “pick-up” and “reset” each meeting.

The high school curriculum is aligned with DESE frameworks, Mass Core curriculum, state college entrance requirements, career readiness and MCAS and AP preparation. Mass Core requires four years of study in the curricular areas of Mathematics, ELA. Three years of study are required in the areas of lab-based Science and Social Studies, and two years of World Language are also a portion of Mass Core. The depth of the curriculum reflects the entrance requirements of the competitive colleges. By supporting our students in the achievement of this standard, good positioning for college acceptance is addressed. We foresee continuing this curriculum alignment in the future.

The District needs a facility that ensures that 21st century learning expectations are the norm and not the exception. The existing facility significantly limits our ability to prepare students for college and careers in the 21st century. This includes but is not limited to the need for more presentation space beyond our current cafetorium including an auditorium; flexible, collaborative spaces for creativity, and a library/media center more like a “Learning Commons”. Currently our cafetorium serves as not just the cafeteria but is where our Drama Club meets and performs, the Northeast Chorus meets and performs, our Wrestling, Indoor Track and Cheerleading teams

practice, and is the only space where we can bring together a large number of students (roughly 500). Because this is the school's cafeteria, the space cannot be used for at least three hours during the middle part of the day, making it very difficult to schedule Guest Speakers/presentations for large groups of our students. For example, during the summer of 2019, the school-wide summer reading book was Hidden Figures. As part of that project, Astronaut Scott Tingle came to speak at Northeast on November 26th. Because we have to use our cafeteria for these types of events, Astronaut Tingle had to speak 3 times to students sitting at cafeteria tables, with the three (3) hour break to have four (4) lunches and clean the cafe interrupting the momentum. Astronaut Tingle is a Massachusetts vocational school graduate, and this was a tremendous learning experience for our students, but the attention of the students was difficult as the seating was uncomfortable for the hour-long presentation. Having an Auditorium as a dedicated presentation/performance space would allow for many such experiences and would free up the cafeteria to be a more effective multi-purpose student commons, suitable for informal student gatherings.

The District is committed to educating all students and has successfully developed a special education program to address the needs of students with disabilities where 95% of students with individual education plans are successfully integrated into classes with co-teachers. The remaining 5% are educated in small classes of twelve or fewer students for the core subjects.

## **Enrollment**

Due to the demonstrated high demand for admission to Northeast Metro Tech, it is clear that the future school should accommodate a larger enrollment than the current 1,250 students. This increase could be achieved either through initial construction or planned future expansion. The Administration and District School Committee have begun discussions to review the issues and identify the criteria to make this important determination.

Student demand for admission to the grade 9 exploratory program is overwhelming with historical enrollment data indicating that 19% of district grade 8 students (767) apply for admission with 43% (330) being accepted and 57% (437) placed on a wait list. We propose increasing the capacity of the Exploratory program for grade 9 students from 330 to 430 students. This would allow for 56% (430) of applicants to be admitted into the school and reduce

wait listed students to 44% (337). This would suggest that the future school should accommodate at least 1600 students.

In order to accommodate the potential of 100 additional grade 9 students as they matriculate into grades 10 through 12, we propose minor increases to program capacity enrollment of several existing shops/labs as well as the addition of 3 new programs which will be included in future exploratory rotations. We are very confident that these new programs will fill to capacity consistent with our exploratory program selection process as outlined in our DESE approved Admission Plan.

For these reasons, we believe that the new Northeast Metro Tech should be planned for an initial enrollment of 1600 students.

### **Class Size Policies**

The District's collective bargaining agreement limits special education (learning center) classes to twelve without an aide, and regular education classes are limited to thirty. However, the District has consistently maintained an average class size of less than twenty students for the previous five years despite a steady increase in students considered High Needs, Economically Disadvantaged, Students with Disabilities, and/or English Language Learners. In the 2019-2020 school year, according to the DESE District Profile, the District special needs population was 23.5% compared to 18.4% for the State, the District high needs population was 53.6% compared to the State percentage of 48.7, and the District's economically disadvantaged population was 33.8%, a full percentage point higher than the State. These expanding subgroups have required the hiring of additional staff to meet student needs and ensure reduced class sizes. In addition, maintaining ideal class sizes are impacted by the ratios maintained locally in technical areas for safety reasons and the physical size of current classrooms and CTE areas.

For safety reasons the district maintains the following class size maximums in each career/technical area:

<b>Shop</b>	<b>Teacher/Student Ratio</b>
<b><u>Auto Body</u></b>	12:1

<b><u>Auto Tech</u></b>	15.5:1
<b><u>Business Tech</u></b>	18:1
<b><u>Carpentry</u></b>	13:1
<b><u>Cosmetology</u></b>	15:1
<b><u>Culinary</u></b>	13:1
<b><u>Dental Assisting</u></b>	20:1
<b><u>Design and Visual</u></b>	15:1
<b><u>Drafting and Design</u></b>	20:1
<b><u>Early Childcare</u></b>	17.5:1
<b><u>Electrical</u></b>	17:1
<b><u>Health Assisting</u></b>	16.5:1
<b><u>HVAC</u></b>	15:1
<b><u>Metal Fab</u></b>	12:1
<b><u>Plumbing</u></b>	15:1
<b><u>Robotics and Automation</u></b>	17.5:1

With respect to the square footage of the District’s classrooms limiting class size, the following examples are from the District’s 2015 Statement of Interest:

- As shown on the space needs diagram, many of the shop spaces and their related classrooms are undersized according to DESE Chapter 74 space standards for their current enrollments which leads to overcrowding situations. These programs include Auto Mechanics, Dental Assisting, Electrical, Health Assisting, and HVAC & Refrigeration. Also, the Cosmetology shop does not currently meet the State Board of Cosmetologist’s facilities requirements. Some shops have adjacent related classrooms while others share classrooms where space is available. Storage spaces vary in size and many have been adapted and rebuilt by students and staff to better serve the program’s needs.
- The Culinary Arts program is located on the non-visible east side of the building, without an access point to an accessible entrance or the parking lot. Lacking any type of

storefront presence, there is little visibility or awareness of the associated restaurant among the greater community. Additionally, accessibility issues and travel distance from the front door make it more difficult for senior citizens to dine at the restaurant.

- Some programs are inhibited by their geographic location and accessibility within the building. The Design and Visual Communications, Early Child Care and Health Assisting programs are housed on the lower level with very little access to natural daylight. There is also a severe indoor air quality problem in these program areas.
- The building houses twenty-nine instructional spaces, many of which are undersized in relation to MSBA guidelines. Undersized classrooms create an overcrowding situation. Eight spaces are dedicated to teaching science curriculum (only one of which is an actual Science Lab); however, the infrastructure is outdated. There is no auditorium or space available for dedicated drama or music classrooms. Therefore, there are minimal programmatic offerings in the fine or performing arts. There are two teaching stations for physical education in the undersized gymnasium, no dedicated teaching space for health classes, and a full-sized swimming pool that is no longer in use due to leaks and structural damage.

The District School Committee and sending communities are very supportive of maintaining class sizes reflective of the student population and building limitations. The District would propose to maintain current class sizes for academic and special needs classes. For this Feasibility Study, we recommend utilizing an average class size of twenty-three (23) for academic classes. Technical areas class sizes should continue to reflect current chapter 74 DESE recommendations or modified local class size limitations as referenced in the table above.

## **School Scheduling Methodology**

The school day begins at 7:45 am and ends at 2:30 pm. The current academic/vocational schedule is based upon a six-period day with students spending a week in their career/technical area and then a week in their academic classes. Ninth and Eleventh graders are grouped together, and Tenth graders with Twelfth graders, alternating through the two-week academic/vocational cycle. Students spend approximately ninety days in each cycle. Due to high stakes testing, ninth graders have two additional periods per academic week of ELA and Mathematics and one additional period per academic week of science. Tenth graders have three additional periods of Mathematics and two additional periods of ELA per academic week.



As Northeast moves toward clustering, the school would continue to pursue the possibility of each cluster developing a schedule that was tailored to the individual needs of the students within that cluster. For example, each cluster could research the necessity for particular science or mathematics classes that are directly related to their vocations and when that instruction happened within the schedule.

## **Teaching Methodology and Structure**

The District Administrative Team consists of the Superintendent-Director, Principal/Deputy-Director, Administrator of Student Services, Finance Director, and Special Education Administrator. The High School Leadership Team consists of the Principal/Deputy-Director, Assistant Principal, Vocational Deans (two), the Academic Program Coordinator, Administrator for Student Services, and the Special Education Administrator. All sixteen career/technical areas have a Department Head. There are Department Heads for Mathematics and Science, English Language Arts and Social Studies, Physical Education/Health, and Special Education. These four Academic Department Heads meet regularly with the Academic Program Coordinator and Principal/Deputy-Director, and the Career/Technical Department Heads meet regularly with the Assistant Principal, Vocational Deans, and the Principal/Deputy-Director. All Department Heads meet monthly with the Principal/Deputy-Director and the Leadership Team. A new or renovated facility, or an expanded enrollment would not likely necessitate alterations to the current organizational structure.

The District's curriculum is aligned with the Common Core State Standards for English Language Arts and Mathematics, the Massachusetts Literacy Standards for Social Science, Science and Technical/Vocational Subjects, and the most recent Massachusetts Curriculum Frameworks for Digital Literacy, Foreign Languages, Comprehensive Health, Mathematics, English Language Arts, History and Social Science, Science Technology and Engineering, WIDA English Language Development Standards and the Vocational Technical Frameworks.

The unit and lesson plans developed around these standards and frameworks are honed through continuous improvement via professional development, regular collaboration opportunities, summer curriculum development, and the Massachusetts Educator Evaluation system. In the career/technical areas, the curriculum is delivered through classroom instruction in related classes, hands-on competency based projects in the career/technical area and real world experiences inside the school building, outside the building and in the twelve sending

communities. With a new or renovated facility, the District would integrate academic and career/technical areas as stated in the “vision” section and previously in this Education Program Requirement report. The integration of disciplines would allow for more teacher collaboration and interdisciplinary project-based learning opportunities for students.

Northeast’s current graduation requirements are below. These were updated when the new master schedule was implemented for 2018-2019 school year and will remain in effect for the future:

4 Years	English Language Arts	24 credits
4 Years	Mathematics (Alg 1, Geom, Alg 2 required)	24 credits
3 Years	Science (Lab-based)	18 credits
3 Years	Social Studies/History (US 1 & 2 required)	18 credits
1 Year	Vocational Exploratory 9	30 credits
	Vocational Shop 9	6 credits
3 Years	Vocational Related Theory	18 credits
3 Years	Vocational Shop	102 credits
4 Years	Physical Education/Health	8 credits
2 Years	World Language/Other Electives	40 credits

## **English Language Arts/Literacy**

The District’s students in Grades Nine and Ten work to improve analysis of literature and technical text, refine and expand writing skills, increase vocabulary, identify elements of fiction, and improve skills in grammar, usage and mechanics. Their learning is assessed by local assessments as well as the Massachusetts Comprehensive Assessment System. Grade Eleven and Twelve students read a variety of world literature for analysis and continue to hone their writing skills with an emphasis on literary analysis, research papers, technical writing, and essays. Their learning is assessed by local assessments. College Preparatory, Honors, and

Advanced Placement courses are available to all students based on recommendations from teachers, IEP teams, and student/parent input. The District offers four levels at each grade level of English Language Arts from Honors to Learning Center (small classes for a very small population of students). The majority of students are in the College Preparatory 1 and College Preparatory 2 inclusion classes. All classes are aligned with the Common Core ELA Standards and the Massachusetts State Frameworks. With implementation of the new Master Schedule for the 2018-2019 school year, students in Grades 10-12 now have the opportunity to take elective classes in ELA. New offerings for the 2020-2021 school year are: Introduction to Theatre, Technical Writing and The Graphic Novel.

The following table details a typical sequence for ELA for Grades 9-12:

<b>Grade</b>	<b>Advanced Placement</b>	<b>Honors</b>	<b>CP1</b>	<b>CP2</b>	<b>Learning Center</b>
<b>9</b>		ELA 9 Honors	ELA 9 CP1	ELA 9 CP2	ELA 9 LC
<b>10</b>		ELA 10 Honors Technical Writing	ELA 10 CP1 Technical Writing	ELA 10 CP2 Technical Writing	ELA 10 LC Technical Writing
<b>11</b>	AP Language & Composition	ELA 11 Honors Electives	ELA 11 CP1 Electives	ELA 11 CP2 Electives	ELA 11 LC Electives
<b>12</b>	AP Literature & Composition	ELA 12 Honors Electives	ELA 12 CP1 Electives	ELA 12 CP2 Electives	ELA 12 LC Electives

All Sophomores take a Technical Writing trimester course that is taught by an ELA teacher in concert with the students' Shop Related teachers. In addition, the ELA department offers Elective Courses for students including Literature to Film, Creative Writing, Young Adult Literature, The Graphic Novel, Introduction to Theatre and Effective Communication Techniques.

In addition, students are able to take electives through Edgenuity, an on-line learning platform. Such potential elective courses include ethics of scientific research, economics of emerging industries, and intellectual property protection.

## Mathematics

Students learn math skills that are needed to succeed in high school, the workforce and higher education. Students solve problems related to their technical training, use technology to solve problems and utilize hands-on labs to understand and master new concepts and skills. We also seek to connect this learning to our students' everyday experiences so that they gain the problem-solving skills needed to advance their education and career. All Math classes are aligned with Common Core Math Standards and Massachusetts State Frameworks and provide a focus on complex application problem solving that replicates real world scenarios. Students are encouraged to work independently and in groups to use a variety of transferable problem-solving strategies which reflect the Common Core Math Practices.

In Grades 9-11, the District offers four levels at each grade level of Mathematics from Honors to Learning Center (LC) for special needs students not able to benefit from inclusion. The District seeks to minimize the number of students in LC in favor of inclusion. The majority of students are in College Preparatory 2 inclusion classes or higher. The Mathematics department has diversified the Mathematics options for Seniors that represent the varying paths that our students will take leaving Northeast. With implementation of the new Master Schedule for the 2018-2019 school year, students in Grades 11 and 12 now have the opportunity to take elective classes in Math. New offerings for the 2020-2021 school year are: Cybersecurity and Statistics in Sports. We are considering additional elective courses in Data Analysis and Topology.

The following table details a typical sequence for Mathematics from grades 9-12:

<b>GRADE</b>	<b>Advanced Placement</b>	<b>Honors</b>	<b>CP1</b>	<b>CP2</b>	<b>Learning Center</b>
<b>9</b>		Algebra I Honors Algebra II Honors	Algebra 1 CP1	Algebra 1 CP2	Algebra 1 LC
<b>10</b>		Geometry Advanced Geometry Honors	Geometry CP1	Geometry CP2	Geometry CP3
<b>11</b>		Algebra II Honors Pre-Calc. Honors Electives	Algebra II CP1 Electives	Algebra II CP2 Electives	Algebra II LC Electives
<b>12</b>	AP Calculus AP Statistics	Pre-Calc. Honors Electives	Pre- Calculus CP1 Electives	Tech. Prep Applied Bus. Math CP2 Electives	Applied Bus. Math LC Electives

The department offers the advanced track for students who would like to reach AP Calculus in Grade 12. This track begins with taking Algebra II as a Grade 9 student. Students who take Algebra I during Grade 9 will also have the opportunity to “move up” by taking a course during the Summer Mathematics Bridge Program. The Math Department is also responsible for the Computer Science courses offered. All Ninth Graders take a trimester Introduction to Computer Programming course. Additionally, Grade 12 students have the opportunity to take AP Computer Principles as an elective. Students in Grades 9 and 10 are scheduled into additional Math lab classes (2 extra periods per academic week, 3 extra periods per academic week respectively). The content and structure of Math for Grades 9 and 10 aim to prepare students for mastery of the knowledge and skills they need to Exceed or Meet Expectations on the Grade 10 MCAS.

## **Science**

All Science classes are aligned with the Massachusetts Curriculum Frameworks which incorporate the Common Core Literacy standards as well. The District has begun transitioning exclusively from Biology to Introduction to Physics for some students for the MCAS. Most freshmen continue to take Biology in ninth grade, but the department is looking to expand the number of students taking Introduction to Physics in the upcoming school years. All grade 9 students have an extra Science Lab period each academic week as part of their grade 9 science class. In tenth grade students take Biology (if not previously taken), PLTW- Introduction to Engineering Design, Chemistry, or Physical Science. Students who do not pass the MCAS during grade 9 are placed in Life Science for grade 10. Grade 11 students take Physics, Chemistry, or Forensics. Students in grade 12 take Advanced Placement Biology, Advanced Placement Physics, Anatomy & Physiology, Physics, Forensics, or Environmental Science. A handful of grade 10 students take AP Biology as an elective. Often the Science a student chooses depends upon their technical area and their college plans. As stated in the ELA and Mathematics section, the District seeks to minimize the number of students in LC in favor of inclusion. The majority of students are in CP2 inclusion classes or higher. With implementation of the new Master Schedule for the 2018-2019 school year, students in Grades 10-12 now have the opportunity to take elective classes in Science. New offerings for the 2020-2021 school year are: Principles of Engineering (PLTW), Women in Engineering and Marine Biology. We are

considering additional elective courses in Genetics/ Immunology, Climate Research, and Alternative Energy.

The following table details a typical sequence for Science from grades 9-12:

<b>GRADE</b>	<b>Advanced Placement</b>	<b>Honors</b>	<b>CP1</b>	<b>CP2</b>	<b>Learning Center</b>
<b>9</b>		Intro to Physics Honors Biology Honors	Intro to Physics CP1 Biology CP1	Intro to Physics CP2 Biology CP2	Biology LC Intro to Physics LC
<b>10</b>	AP Biology	PLTW- Introduction to Engineering Design Honors Chemistry Honors	Biology CP1 Chemistry CP 1 Intro to Physics 2	Biology CP2 Chemistry CP2 Physical Science CP2 Life Science CP2	Physical Science LC Life Science LC Intro to Physics 2 LC
<b>11</b>		Physics Honors Electives	Physics CP1 Forensics CP1 Chemistry CP1 Electives	Physics CP2 Forensics CP2 Chemistry CP2 Electives	Electives
<b>12</b>	AP Biology AP Physics	Anatomy and Physiology Honors Electives	Physics CP1 Anatomy and Physiology CP1 Environmental Science CP1 Electives	Environ. Science CP2 Electives	Electives

The Science, Technology, Engineering and Math (STEM) program is a requirement for all Ninth Graders, and an elective for Seniors. Ideally, a future building will have a STEM Lab and classroom in the Design and Communications Cluster.

The District currently has ten classrooms where the Science courses in the table above are taught. Only six of the ten classrooms could be classified as a science classroom and only one could be classified as a lab. The Science Department shares a separate “lab” classroom for all labs. Teachers sign out the lab in advance of their class. The remaining classrooms used for Science classes are merely superficially retrofitted regular classrooms. For the current enrollment, the District needs seven MSBA approved Science classrooms at a minimum. Additionally, the District needs a designated Engineering Classroom for the expanding Project Lead The Way Engineering program. Each of the proposed science classrooms should have the following equipment:

- Instructor’s station
- Movable demo table
- 2 Wheelchair accessible tables

- 1 Wheelchair accessible counter
- 10 Movable tables
- An adjoining prep room with refrigerator and dishwasher
- 7 sinks including hot & cold water, gas
- A teaching wall
- Full blackout window treatment in labs

Each of the proposed science classrooms should have the following safety measures

- Fire Extinguisher Master Gas Shut Off
- Safety Goggle Sterilizer Unit
- Fume Hood/ Biosafety Cabinet
- Safety Shower & Eyewash w/ Fd
- Fire Blankets
- Chemical storage

In a new facility, the Science spaces should be distributed among the Small Learning Communities (not grouped as a “science wing”) .Finally, the Science labs should be designed to accommodate all Science offerings and they should be capable of providing both lecture and lab, in accordance with current MSBA standards.

## **Social Studies**

The District’s Social Studies curriculum gives students the opportunity to develop a geographical understanding of the world and to respect and value a diversity of cultures. Students also learn what power is, how it is legitimized through governance and what their roles and responsibilities are as members of society. They develop discussion and presentation skills and the ability to conduct research. All Tenth-Grade students will be required to take a trimester Civics course. A project completed in the course satisfies the Massachusetts requirement related to Civics education. All Social Studies Department classes are aligned to the newly revised 2018 MA DESE Frameworks and Standards. With implementation of the new Master Schedule for the 2018-2019 school year, students in Grades 11 and 12 now have the opportunity to take elective classes in Social Studies.

The curriculum is outlined in the table below:

<b>GRADE</b>	<b>Advanced Placement</b>	<b>Honors</b>	<b>CP1</b>	<b>CP2</b>
<b>9</b>		World History Honors	World History CP1	World History CP2
<b>10</b>	AP US History 1 Civics	US History I Honors Civics	US History I CP1 Civics	US History I CP2 Civics
<b>11</b>	AP US History 2	US History 2 Honors Electives	US History 2 CP1 Electives	US History 2 CP2 Electives
<b>12</b>	AP Psychology	Electives	Electives	Electives

Social Studies Electives are available to all grade 10-12 students. Electives include full year AP Psychology and trimester courses Consumer Education, Introduction to Criminal Justice, Introduction to Sociology, Introduction to Psychology, Contemporary World Issues, Civics and Pop Culture.

## **World Languages**

The District's Spanish language program seeks to broaden student knowledge of culture through the study of Spanish grammar, linguistics, culture, and geography. Through this three-year progressive curriculum, students actively participate in learning through class discussions, grammar practice and projects.

The District offers three years of Spanish with differentiation for levels Honors and CP. Additionally, due to Northeast's large Spanish speaking population, Advanced Spanish I Honors & Advanced Spanish II Honors are offered. These courses focus on reading and writing Spanish.

As a part of a new or renovated facility, the District would definitely want a language lab to personalize learning for each student. The lab would be staffed by an existing staff member and would allow every student more time reading, writing, and speaking Spanish in this case. A language lab could also allow for "single offerings" in different languages, perhaps through distance learning, not currently offered in the District. Additionally, the World Language Department would like to expand to offer additional languages to students, especially if the enrollment increases as anticipated. Such a Lab would also be utilized by English Language



Learners. Scheduling would be coordinated between the World Language department and Student Services. It is anticipated that the Lab would be scheduled at least one period per week for each of the eight Spanish classes, two periods per day for English Language Learners, and up to two periods per day for Distance Learning. This would result in approximately a 93% utilization rate.

The curriculum is outlined in the table below:

<b>GRADE</b>	<b>Honors</b>	<b>CP</b>
<b>10</b>	Spanish I Honors Advanced Spanish I Honors	Spanish I CP
<b>11</b>	Spanish I Honors Spanish II Honors Advanced Spanish II Honors	Spanish I CP Spanish II CP
<b>12</b>	Spanish II Honors Spanish III Honors	Spanish I CP Spanish II CP Spanish III CP

## **Student Guidance and Support Services**

The District currently employs six Adjustment/Guidance Counselors who are dual certified, a School Psychologist, an Intervention/Preventions Specialist, and a Career Counselor, all overseen by the Administrator of Student Services. The District would like to maintain the desired ratio of 250:1 (students to counselor). Due to the nature of their work, each of these positions requires a private office and a conference room as well as access to classrooms. Counselors deliver a comprehensive Guidance Curriculum in a variety of ways. Curriculum is delivered one-to-one, in small groups and in large groups. College and career representatives meet with students regarding their area of expertise. Students utilize the Adjustment/Guidance Office for social emotional, academic, and personal needs, as well as for college and career planning. Individual counselor offices and a conference room are needs of the Guidance Department in order to continue this work.

The District employs a Career Counselor who oversees the College and Career Center (a classroom dedicated to teaching courses to all grades aligned with the state Massachusetts School Counselors Association guidelines). Within each grade, by technical area, the Career Counselor assists students in developing skills such as time management, goal setting, social emotional health, and college and career readiness, etc.

The School Psychologist needs dedicated office space which would include a private office, and separate area for testing of students.

Currently, the Intervention/Prevention Specialist has an office located in one of the Guidance areas. The Intervention/Prevention Specialist also needs a private office and small conference area for meeting with individual students or small groups.

For the 2019-2020 school year, Northeast has located Adjustment/Guidance Counselors in the offices of the Assistant Principal, and two Vocational Deans. This configuration should continue in a new facility. Counselors offices should be distributed among the Small Learning Communities. Counselors are paired with an administrator with whom each shares students. These students are broken up by Career/Technical Program. This allows for direct work in Small Learning Communities and collaboration between the Administrator and Adjustment/Guidance Counselors.

We would like to continue this set up for the future. However, with all of the diverse counseling needs, it will be important for the Guidance Department to have at least one instructional space (Career Center) as well. This space could be attached to one of the three offices and should be able to accommodate up to 30 students. This space could also be used by Guidance for college representative visits, guest speakers, 504 meetings, counseling group sessions, quiet study space for students who need it within their service delivery plan, etc. This instructional space should include plenty of whiteboard space, smart board (or similar technology) and flexible movable furniture that can be organized in several different configurations.

## **Teacher Planning**

The District's building currently offers two teacher planning spaces for over sixty academic teachers. Every classroom, office or common space is occupied throughout the building and so teacher planning spills into many areas designed for students (the library/media center most notably). The only areas designated (the second-floor teacher's room and the first-floor teacher's room off of the library) accommodate teacher use and are highly sought after and fill quickly but even these spaces are ill-equipped for teacher collaboration.

The vision for the future includes more collaboration between and among departments. Teacher teams do not have suitable space for collaborating currently. They currently meet in an available classroom or the library/media center during their collaboration time. This is far from ideal for the

kind work they need and want to do. The vision for the new building includes spaces designed for teacher collaboration within each cluster of academic classrooms; where they will have appropriate table top space, display space, presentation space, and technology, including a smart board or similar technology and spaces to accommodate individual or small group work. The Planning spaces should include a small kitchenette and shall be conveniently located adjacent to Teacher's Toilet Rooms.

## **Lunch Programs**

The District participates in the National School Lunch Program and is committed to serving healthy meals that meet the Federal and State Guidelines for nutrition. Free and Reduced Lunch benefits are available to qualifying families. The District currently offers a breakfast program prior to the start of the school day as well as lunch and after school snacks for certain after school activities and sports.

The current structure and schedule of the Food Service program meets the District's needs. The current daily schedule allows for four twenty-three (23) minute lunch periods during a normal school day.

- First Lunch 11:02-11:25
- Second Lunch 11:35-11:58
- Third Lunch 12:05-12:28
- Fourth Lunch 12:31-12:54

The desired future lunch schedule would be for three lunch shifts, with the middle shift primarily Career/Technical Program students during their Shop Week. The kitchen and serving area should be sized to accommodate this.

The School Lunch program operates out of a kitchen next to the Culinary Arts (Ch. 74) Program. The serving area of the lunch program is not large enough to serve the students adequately and efficiently. The space is cramped, and the traffic flow is difficult to manage during peak lunch times. In addition to an adequate stand-alone cafeteria, students need a space to congregate if they are finished with lunch. The current "courtyard" is helpful with large lunches and for students that like to eat outdoors but the space is limited and is not efficiently designed to maximize the space. An indoor or extended outdoor courtyard would be ideal for the purpose of extending lunch. Currently, students are "held" in the cafeteria until the bell rings and it would be

ideal to have a space for students to go. Providing students with a sense of some autonomy and freedom during their lunch time is essential to school culture and climate.

The concept of a shared kitchen for Culinary Arts and School Lunch is not advantageous for either department and as such a separate and distinct space benefits both programs and should be ensured in a new or renovated building.

The serving area for the Food Service program is not adequate to accommodate the proper food storage equipment. Displaying and serving the offerings is difficult with limited space constraints. The area becomes heavily congested and often slows traffic to the serving and payment stations.

Ideally, the cafeteria should be an enclosed space for supervision reasons. The current cafeteria opens to a small courtyard area. It is desired to continue to have an outdoor space adjacent to the cafeteria where students could eat outside. The cafeteria should also be an area for students to gather both before and after school. The students should be able to continue to have breakfast and socialize in the space before school. The cafeteria needs to be large enough to accommodate our Athletic Awards Dinners (fall, winter, spring) as well as our state required Program Advisory Meetings and Dinners (fall and spring).

A new facility should also consider the possibility of dividing the dining area into two spaces to allow for smaller groupings, improved flexibility, and better social distancing. It may be necessary to support each dining area with a separate serving area. It may be appropriate for these separate serving areas to support different menu options.

## **Technology Instruction and Program Requirements**

As of April 3, 2020, Northeast Metro Tech Technology (NEMT) operates the following educational technology:

- Desktops (500)
- Laptops (300)
- Chromebooks (1500)
- I-Pad Tablets (70)
- Android Tablets (70)
- Network Printers (200) & Local Printers (100)
- SmartBoards (5)
- Projectors (150)

Most instructional classrooms are equipped with at least one desktop computer, a cart of 32 chromebooks for student use, and a projector, typically for use by the instructor. All instructors have also been offered the use of a Chromebook. There are also shops equipped with computers (Design Visual, Drafting, Robotics, Business Technology) that are used to provide technology instruction as part of coursework. Moreover, instructors have integrated technology frequently in delivery of their curriculum.

The Technology of the District is supported by the Technology Manager, a Digital Learning/Instructional Technology Manager and a Technician who manages a Help Desk based in the Information Technology Office. The work spaces for these personnel should be located adjacent to the Library/ Media Center and the MDF room. The IT Department utilizes desktop management tools such as Netsupport, UserLock, and Spiceworks to track and report issues. The District has established a naming convention for users and computers based upon best practices.

Training for staff is a major focus of the District's professional development schedule for the 2019-2020 school year and overall District Strategic Plan. Workshops have been scheduled to train staff on the Google Apps for Education, Zoom, Aspen X2 as well as strategies for integrating technology in the delivery of curriculum.

The Northeast Metro Tech IT Department intends to continue its efforts to increase access to technology by continuing to purchase technology equipment in an effort to meet the technology needs of students, teachers, and other staff. The District will continue to follow best technology practices for managing and maintaining systems, ensuring a robust infrastructure to support these devices.

As previously stated, training for staff is a major focus of the District's professional development schedule for the 2019-2020 school year and overall District Strategic Plan. Workshops have been scheduled to train staff and teachers in using Zoom and Google Suite as well as strategies for integrating technology into the delivery of curriculum. The District goal is to always integrate cutting edge technology to support instructors in their classroom.

The District is also considering a program to engage students in technology repair and maintenance to support the rest of the school community. This may take the form of a "Genius Bar" in the Library/ Media Center.

## **Media Center/Library**

The Media Center should be the heart of a new or renovated facility. It should be a flexible space where teams, teachers and students can work together or individually, formally or informally; along the lines of a “Learning Commons”. This space should contain the resources necessary to accommodate several classes and individual students or small groups at one time. The space should encourage a wider scope of uses by more school personnel for tutoring, instruction, instructional support services and collaboration. It must be a creation space, giving all students access to workstations with fast processing speed, computer programming, CAD, and multimedia production. This space must possess ample computer stations, mobile devices, and outlets to charge devices. The space should include multiple presentation spaces; a smartboard (or similar technology) in more than one location of the space in order to accommodate multiple presentations. Flexible desks and chairs that allow students and staff the ability to collaborate and create their own spaces depending on their needs. At least two small quiet rooms, conference space, and a TV studio should also be a part of this space. A Distance Learning Lab (possibly shared as a Language Lab) is a desired adjacency to the Media Center as well.

Our current Library is not sized or proportioned adequately. Our Library is currently overflowing with regular use by both staff and students. Students who need a quiet space to study and complete assignments use this space each period, before and after school, and during their lunch block. However, at the same time teachers are meeting in collaboration or for planning. And often, as the only large space for groups larger than a single class, students and teachers will not have access because the “library” will be “booked” in advance. The back room of the current Library functions as a teacher preparation room and storage for the Academic Program Coordinator, After School and Summer programs. Additionally, the Library is used regularly by the District for professional development and by the high school administration as a location for MCAS and AP testing. The Library is staffed from 7:50AM – 3PM each day for students who need to use a school computer either before or after school. It also houses the after-school tutoring and MCAS preparation programs. Since it is a multi-functional space, and will continue to be so moving forward, the new facility will need to be designed with this in mind.

## Visual Arts Program

The District has no art program currently and does not foresee adding one in the future.

## Performing Arts Program

The District does not currently provide any music or drama programs during the school day. Currently the Drama Club meets regularly after-school throughout the year. The drama program holds various performances through the year and participates in the Massachusetts DramaFest competition yearly. Northeast does not have part-time or full-time staff devoted to this pursuit but rather offers a stipended advisor position. The Chorus Club also meets after school and has performed at graduation for the past two years as well as singing the National Anthem at home tournament games for a number of our sports teams. Like the Drama Club, the choral director is a stipended advisor position. The lack of significant electives focused on the arts has been cited in District strategic planning with students and faculty. Along with the research supporting the Arts as a vital complement to academic and technical student achievement, the District is committed to expanding these programs into the regular school day. Based on student interest and participation in the after-school programs, the District will be offering *Introduction to Theater* and *Chorus* as electives beginning in 2021-2022. Expanding into the Arts would necessitate the proper classroom and performance spaces drama and chorus instruction require. An auditorium was part of the original design for Northeast Metro Tech in 1969 (auditorium is on the right side of the rendition) and was later cut from the project as a result of budgetary constraints.



*Original Rendering*

Today's vocational students want to have the same educational opportunities as their peers at traditional high schools. The lack of an auditorium severely limits the Drama and Choral programs as previously mentioned. Those programs must share the cafeteria space with our Wrestling, Indoor Track and Cheerleading teams, and is the only space where we can bring together a large number of students (roughly 500). Because this is the school's cafeteria, the space cannot be used for at least three (3) hours during the middle part of the day, making it very difficult to schedule Guest Speakers/presentations for large groups of our students. An auditorium would also be utilized for student presentations from Career/Technical programs such as Design and Visual Communications, Business Technology, and Health Assisting. The desired size of an auditorium would be a seating capacity that accommodates at least half of our student population, up to the allowable maximum of 750 seats. It should also provide the appropriate backstage areas of dressing rooms, "green room", and storage to support the school's drama program as well as possible community theater use. The Auditorium would also provide the needed space for the Choral program (in lieu of a separate Music (Choral) classroom).

## **Physical Education/ Health Programs & Athletic Program**

Health and Physical Education have been combined to form the Wellness Department. The Wellness program combines classroom health/wellness instruction with active physical education to provide a well-rounded program for our students. The Wellness program encourages students to develop a healthy and active lifestyle with instruction in team sports, personal fitness, nutrition, weight training and conditioning.

The District strongly values the health and wellness of all its members, students, staff, and community. The current facility does not allow for us to offer programs, services, or activities at the level we desire for all of these constituents. Our facilities are currently utilized by the school for Physical Education and Health classes, interscholastic and intramural athletics, and community sports leagues. Additionally, we host sports camps during the summer and often utilize the space as a presentation space when appropriate throughout the year. The facility is not air conditioned, has a poor sound system, has no handicapped seating, is far too small (cannot host tournament games), and is not able to be divided into multiple stations. The new facility should be air conditioned, have a sound system to accommodate presentations, large



enough to accommodate four teaching stations and be able to be divided. The new facility should also include a fitness center, including cardiovascular equipment and weights, a Trainer's room, and Athletic Office. The District has been bound by the limitations of the building in creating inadequate spaces for these activities over the years.

It is important that our students be exposed to this type of physical education for lifelong health and wellness. Additionally, we would like to be able to provide our faculty and staff the opportunity to utilize the fitness center, which they currently have limited access to. The current facility severely impacts the program we offer and desire to offer to our students.

All students are required to take four trimester Wellness courses (3 Physical Education classes and 1 Health class) as a graduation requirement. As a technical high school, offering a comprehensive curriculum for our students is difficult. Our facility and the schedule have limited our ability to offer a diverse physical education program until the 2018-19 school year when we expanded our offerings to include additional physical education courses, such as Competitive Games, Project Challenge, Lifetime Activity, and Personal Fitness and Nutrition. For the 2020-2021 school year, the Wellness Department is expanding its offerings to include Yoga and Advanced Project Challenge but are currently limited by the facilities space.

Physical Education and Health are graduation requirements at NEMT. All 9th graders take 1 trimester of Health and 1 trimester of Physical Education. All 10th graders take 1 trimester of Physical Education. Juniors and Seniors must take 1 trimester elective in Physical Education or Health each year. Many 11th and 12th grade students take more than 1 Physical Education or Health elective. All classes meet 5 days per week, for 58 minutes each block. Students take Physical Education or Health classes during their academic week. Currently there are 4 teachers in the Physical Education/Health Department and often there are 3 or 4 classes running simultaneously. Locker facilities are needed to accommodate the entire school enrollment.

Our new facility should include a gymnasium large enough for four teaching stations which can be divided by drop curtains. Due to the programming offered, an alternative gym studio would also be ideal. This would be a smaller space appropriately sized and furnished for such classes as Yoga, Dance, Step Aerobics, Plyometric and Agility workouts/exercises. As mentioned above, a fitness center is also required in the new facility. Locker rooms and Wellness teacher spaces must be placed in a location easily accessible to the gymnasium to allow our Wellness students to be properly supervised and change before and after class without losing valuable

instructional time in traveling from the locker rooms to the facility. The Wellness Department also needs two dedicated spaces for wellness classes, a required course for all Ninth-Grade students, allowing for two Health classes to meet during the same block. It should be noted that upperclassmen have the opportunity to take an additional Health elective. Currently there are no classrooms dedicated to the Wellness Department.

The facility is also utilized by our Athletic program. We currently offer the following MIAA sanctioned athletic programs:

- Baseball (boys) varsity, junior varsity, freshmen
- Basketball (boys and girls) varsity, junior varsity, freshmen
- Cheerleading varsity, fall, winter, and spring sports (MSSAA)
- Cross-Country (boys and girls) varsity, junior varsity
- Field Hockey (girls) varsity, junior varsity
- Football varsity, junior varsity, freshmen
- Golf varsity
- Ice Hockey (boys and girls) varsity, junior varsity
- Lacrosse (boys and girls) Varsity and junior varsity
- Soccer (boys and girls) varsity, junior varsity
- Softball (girls) varsity, junior varsity, freshmen
- Swimming (coed)
- Tennis (coed) varsity
- Track (coed) both Winter and Spring
- Volleyball (girls) varsity, junior varsity, freshmen
- Wrestling varsity

As a result of this large program, we feel that a state-of-the-art facility both inside and outside is a critical need of our program. Additionally, the numbers in our athletic programs have increased. The new facility should be able to accommodate these teams and the anticipated growth of the department. Male and female locker rooms for home and visiting teams, ample storage for large equipment, an exam, treatment and office space for our Athletic Trainer, an office for our Athletic Director, area for indoor batting practice, locker rooms with shower facilities for our coaches, PE instructors, and referees are features that should all be included in the new facility. Additionally, careful thought must be given to where the Athletic Director's office will be located. This individual is responsible for the supervision and scheduling of all teams and

areas of play regarding our athletic program. Therefore, this office should be located in an area that allows easy access to the fields and is in close proximity to the gymnasium, fitness center, alternative studio, and locker rooms.

Our vision for the gymnasium is a multi-purpose facility that has a court for varsity athletics, but also space available for sub-varsity programs. An obvious need is for there to be handicap accessible seating and access to the gymnasium. The ceiling must be high enough to accommodate varsity volleyball games. An alternative studio is also a critical component. This is a space that could contain an indoor batting cage. This space would be used by our Alternative Fitness classes during the school day for yoga and for the expansion of dance as a course offering.

Our football stadium, which hosts football, soccer, lacrosse, field hockey, is in desperate need of replacement or significant renovation as weather often makes the field unplayable causing significant scheduling issues. Our lack of a modern track and space for NFHS certified field events means that our track team cannot ever host a track meet. Additionally, the seating is not handicap accessible and the placement of the field atop a hill makes even getting to the field extremely difficult for people with physical disabilities. Our baseball and softball fields are also in need of significant rehabilitation or replacement as years of use have created deplorable playing surfaces.

## **Special Education Programs**

As stated previously, the district has a significant number of students, currently twenty four percent (24%), on Individualized Education Plans (IEP's). The District's most recent Coordinated Program Review occurred during the 2014-2015 school year (February 9-12, 2015) and the District was issued a corrective action plan to complete for Special Education in fourteen areas. All areas in the action plan were completed at the mid-cycle review during school year 2018-2019. In assessing the District's current facility using the Special Education Rubric/Regulations, the following is noted:

With respect to **ensuring access**:

1. **Do the facilities and classrooms for eligible students maximize their inclusion into the life of the school?** No, all academic classrooms are located on three floors, only

one of which is accessible to all students. Consequently, schedules must be established and adjusted for student needs. Special Education specific classrooms are designated on the first floor which is accessible to all students. The deficiencies of our current facility with respect to integration with our technical areas and inadequate square footage pertain to special education classrooms as well as regular education classrooms. It should also be stated that the overwhelming majority of our special education students are integrated within our regular education classrooms providing the least restrictive environment. However, even in those classrooms, accommodations for disabilities such as hearing impairment have had to be built into some classrooms rather than Universally Designed causing significant scheduling issues.

2. **Do all eligible students have access to school facilities including, but not limited to, those areas necessary to implement the student's IEP?** No, students with certain disabilities do not have equal access to all school facilities because of the facilities limitations.
3. **Are resource rooms and separate classrooms for students with disabilities given the same priority as general education programs for access to and use of instructional and other space in public schools?** Yes, the district's separate special education classrooms have equal access to and the use of instructional space within the school.
4. **Is the school providing whatever equipment and making whatever physical adaptations are necessary, including acoustical and lighting treatments to remove physical communication barriers for students who are visually impaired, deaf, or hard of hearing?** Yes, the school has made physical adaptations to the facility or classrooms to remove communication barriers for students who are visually impaired, deaf or hard of hearing. The need for such adaptations is discovered through the transition team meeting process for incoming ninth graders and plans are put in place to accommodate the specific student(s).

With respect to **ensuring quality**:

5. **Are the facilities and classrooms serving only students with disabilities at least equal in all physical respects to the average standards of general education facilities and classrooms?** Yes, the spaces serving only students with disabilities are at least equal in all physical respects to the average standards of the general education facilities and classrooms.

With respect to **Minimizing Stigmatization**:

6. **Specifically, does the plan place a classroom serving only older students with disabilities in a part of the school building in which all the classrooms are occupied by elementary school students? Vice versa? (if yes, it's a violation) No**, the district does not have elementary school students so this situation could not occur.
7. **Does the plan place all, or a significant proportion, of special education facilities together in one part of a school building? (if yes, it's a violation) No**, the plan does not place all or a significant proportion of special education facilities in one part of the building. The plan would have special education facilities integrated within each of the academies.
8. **During a school construction project, is the plan to move classrooms of students with disabilities to locations apart from the general education program? (if yes, it's a violation) No**, the plan during construction would not move classrooms of students with disabilities to locations apart from the general education program.
9. **Is the plan to place a sign saying "special class" or "resource room" on the front of a substantially separate classroom? (if yes, it's a violation) No**, the plan does not place a sign saying "special class" or "resource room" on the front of any classroom.

The District's Special Education approach is one of inclusion, to the greatest extent possible. We have no substantially separate programs that would require dedicated, self-contained classrooms. We do foresee a Special Education program that aligns with our desire to have Small Learning Communities. As such, we would prefer to have one Learning Center (full-size classroom), one Small Group (half-size classroom), and one Tutoring space per cluster/ small learning community for assessment and direct instruction with students. In addition, there should be a more centralized administration area including the Director's office, secure file area, and a dedicated conference room to accommodate the numerous meetings with parents and specialists, located near the main visitor's entrance.

### **Vocational and Technical Programs (Please refer to Appendix A)**

The District does not currently offer any non-Chapter 74 programs. Furthermore, the District does not envision offering any non-Chapter 74 programming in the future. With respect to Chapter 74 programming, the District completed the required Chapter 74 programming report and submitted the report to the DESE which is **APPENDIX A** within this report.

## **Narrative description of the types of educational activities intended for core academic spaces over the course of a typical school day**

The student experience in general classrooms will be interdisciplinary, collaborative, and project-based whenever feasible. Furthermore, the student experience will consistently incorporate technology throughout the curriculum. To accomplish these aims, teacher planning rooms and student collaboration spaces will be needed in addition to a traditional classroom. Teachers will not have their “own” room but rather will have shared classrooms that have expanded presentation or collaborative spaces within the clusters. Scheduling of these spaces would be a combination of the master schedule for regularly scheduled classes and communication between teacher teams to schedule the collaborative areas. It is desired for Clusters to be centered around technical areas with common themes, grouped with academic teacher teams housed within the cluster.

## **Transportation policies**

The District currently contracts for its transportation services through a local bussing vendor and the District does not intend to make any substantive changes to the existing student transportation. It is more financially advantageous to contract for this service. Being a regional school district, the geography of our sending towns is expansive. Approximately 80% of our students utilize the bus transportation. The District runs nineteen (19) bus routes for morning and afternoon runs for our current enrollment. Throughout the year there are four (4) daily routes for late transportation as well as sports transportation.

In addition, the District owns and operates a fleet of 8-12 passenger vans and passenger activity buses. These vehicles provide transportation for students and staff to do outside vocational work, student internships and field trips, and some athletic competitions.

## **Functional and spatial relationships**

The District participated in three afternoon workshops with Dr. Frank Locker on February 13, 24, 25, 2020. These “Visioning Sessions” were attended by approximately thirty-five stakeholders from inside and outside the building. The results of these sessions were compiled in a draft

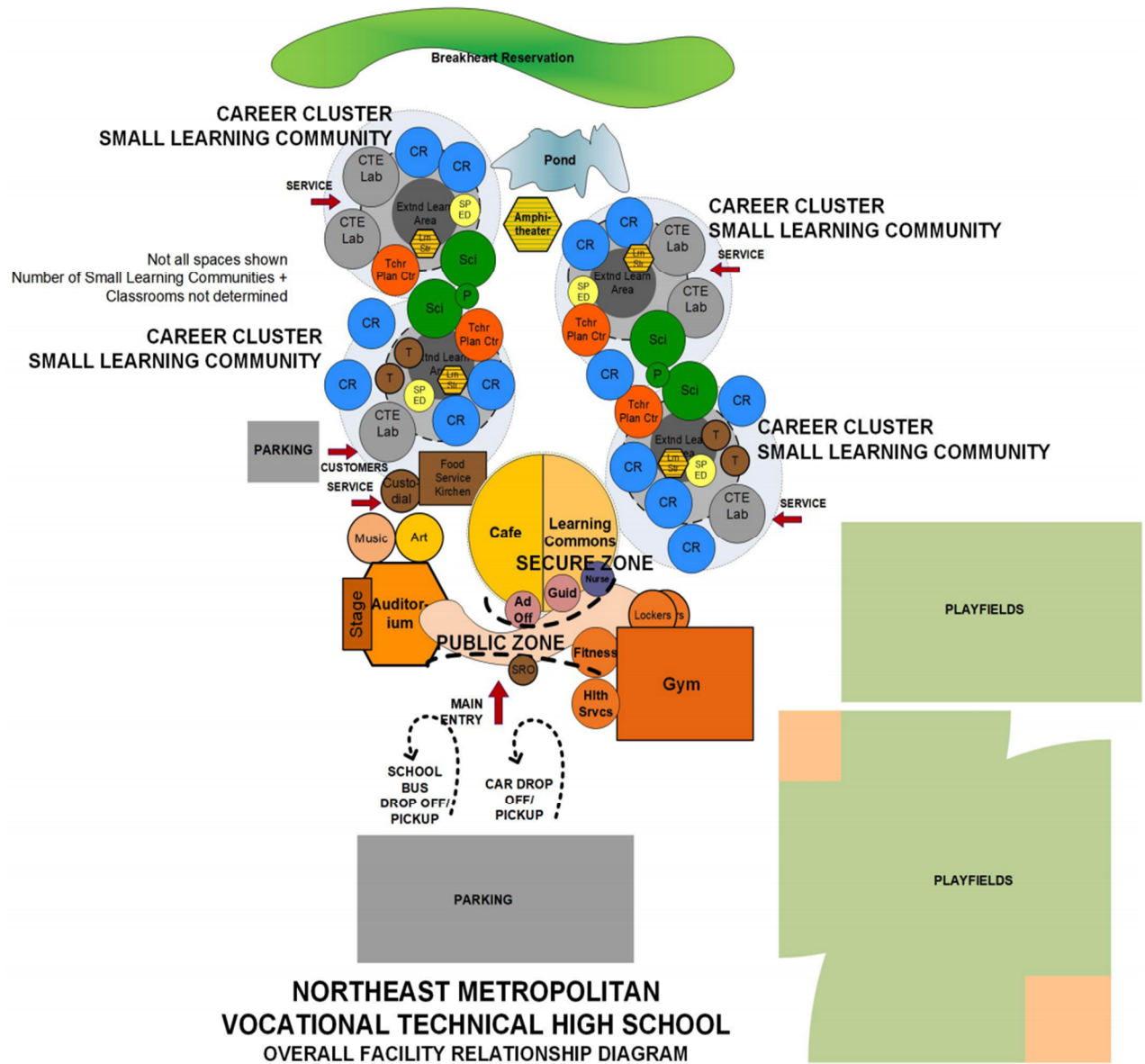
report by Dr. Locker. The following are excerpts from Dr. Locker's report pertaining to functional and spatial relationships that attendees felt would be most beneficial to student achievement.

Participants conceived an overall facility planning diagram, a relationship concept to organize essential functions within the school. The concept rendering (seen later in the document) featured the following essential characteristics:

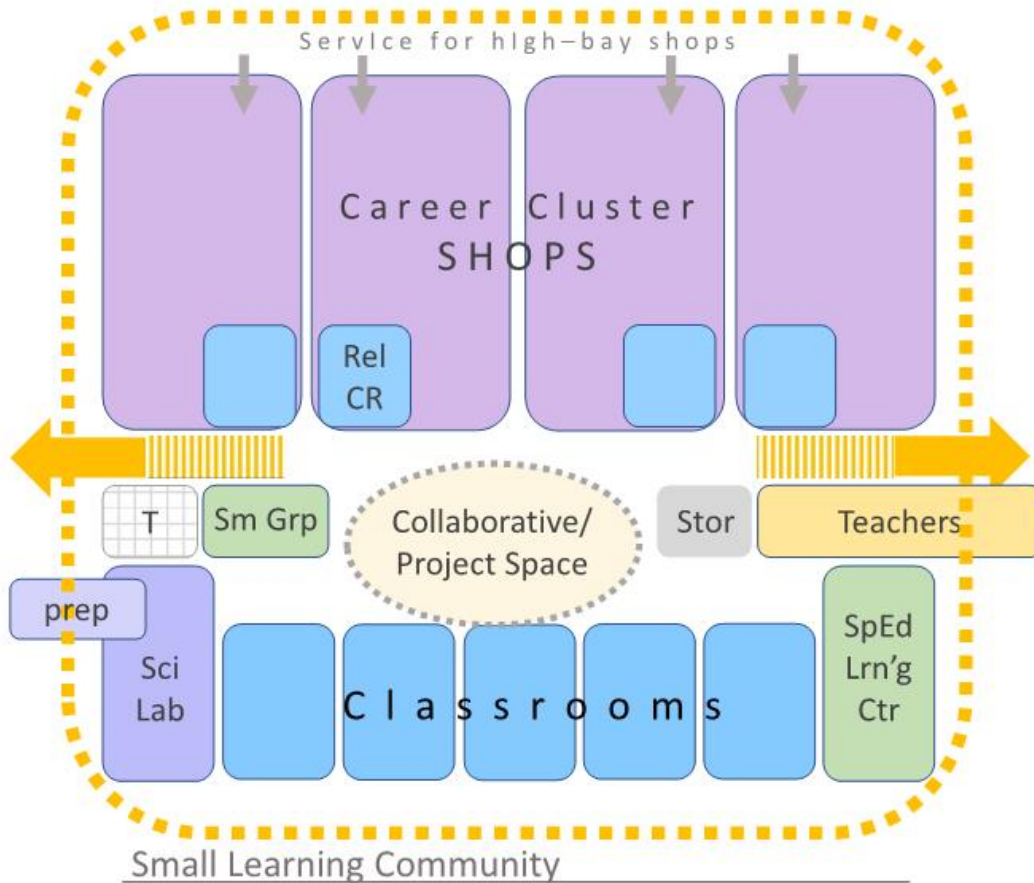
- Safety and security as an integral planning component, not as an “add on” as it has been in the past.
- Create a building plan that offers security and safety despite constant visitors, many of whom will be customers for student services and active participants in student learning
- Develop overall and learning space planning concepts as flexible platforms for continued change, giving future generations of educators and students the power to easily change the educational model.
- Develop Small Learning Communities, learning spaces arranged in National Career Cluster Framework-based clusters.
- Select furniture that supports collaboration, student decision making, different learning modalities, and is substantiated by brain research.
- Create Teacher Planning Centers to foster collaboration, interdisciplinary teaching, and greater knowing of students by teachers.
- Integrate outdoor learning spaces such as an amphitheater.
- Create presentation spaces to honor and encourage frequent student and expert visitor presentations.
- Minimize circulation spaces that do not also offer opportunities for learning, such as Extended Learning Areas, Breakout/ Collaboration/Small Group spaces

# Key Programmatic Adjacencies

The following concept rendering diagrams are visual representations of the desired spatial relationships and key programmatic adjacencies:







## Security and visual access requirements

The District meets twice a year with the Wakefield fire department and Building Inspector. In addition, the District has a Safety and Security Subcommittee of the District School Committee that has Wakefield fire and police representatives as members. This subcommittee, which is facilitated by the Superintendent's Office, reviews all emergency response plans for the District. The District has a comprehensive emergency management plan, which is reviewed and updated annually by this committee as well. The school has a full-time school resource officer as well who resides within the main corridor. In addition, the district submitted their Medical Emergency Response Plan (MERP) most recently in September 2015. The plan is reviewed annually with our school nurses.

The current facility is designed to channel all visitors to the Main Entrance which is not handicapped accessible. All exterior doors are equipped with electronic access control. The

entrance at the front of the building designed to be the Main Entrance is locked after 8:00AM. The main entrance has two sets of doors and visitors must request access from the outside to enter after 8:00AM. Upon entering, a visitor will encounter the reception desk with a Security Monitor who checks in all visitors. This desk is equipped with a two-way radio, phone, and computer. The Security Monitor scans licenses or asks questions then runs a rudimentary background check and generates a credential for the visitor to wear throughout their stay in the building.

One challenge to note as a regional technical high school is the community's use of the facility and the extensive number of vendors that deliver products to the school. Our Culinary Arts, Cosmetology, Early Child Care (Pre-School), Business Tech (Bank), Auto Tech, and Auto Collision departments to name a few, have both types of outside visitors during the course of the day through multiple entrances. This activity is vital to the success of regional technical high schools but present unique security issues and concerns.

The District serves as one of the region's Red Cross emergency shelters. It would be the intention of the District to remain one of the region's Red Cross emergency shelters in a new or renovated facility. The detailed requirements for this provision will have cost implications for the District's project and informed final decisions regarding the building's status as a shelter will be made at a later time. The existing facility has over 120 interior and exterior video cameras, with remote access. Currently the Wakefield Police Department has access to our cameras, but the Wakefield Fire Department does not. All camera views are digitally recorded and stored for approximately thirty (30) days. A more extensive camera system will enhance our current school-wide safety and security. Our current camera system is used regularly to help students with issues that arise in regard to theft as well as other student management issues. A new system would be web based so it can be viewed by Administration even when they are not in the building. The system should cover all public areas (hallways, common areas, and entrances to the school). Outside coverage should include all student and staff parking and athletic areas.

There is only one access road coming into Northeast. Currently, the facility has an easily discernible main entrance and two separate parking lots, one in front of the building which is mainly visitor, student, staff and administrative parking and behind the building which is mainly for staff. Anyone coming to Northeast must come up Hemlock Road and stop at the Guard Station. Visitors to Breakheart Reservation also enter through this Guard Station. The parking lot in front of the building is generally full. However, part of the lot is shared with those going into Breakheart Reservation. This is a source of great concern and requires daily monitoring since

visitors to Breakheart regularly park in areas of the lot designated for Northeast. The new facility should have a parking lot that is completely separate from Breakheart parking and secured so that only those coming to Northeast have access.

## Describe what currently occurs in a student’s day in a general classroom

Typical Day in the Life of a Student	
Activity or Subject	Program Details and Educational Benefit
<b>Academic Cycle (One Week)</b>	
7:15AM – 7:45AM Arrival	Students arrive at school via bus, personal car or family drop-off. Some students participate in the breakfast program in the Cafetorium, others meet in the Media Center/Library. At 7:45 students begin to proceed to Home Room (academic class for grade 9, Technical Area for grades 10-12). Homeroom runs from 7:53-7:56 am.
7:59AM - 8:57AM Period 1: Mathematics	Students learn math skills that are needed to succeed in high school, the workforce and higher education. Students solve problems related to their technical training, use technology to solve problems and utilize hands-on labs to understand and master new concepts and skills.
9:00AM- 9:58AM Period 2: ELA	Students in grades 9 and 10 work to improve analysis of literature and technical text, refine and expand writing skills, increase vocabulary, identify elements of fiction, and improve skills in grammar, usage, and mechanics. Grade 11 and 12 students read a variety of world literature for analysis and continue to hone their writing skills with an emphasis on literary analysis, research papers, technical writing, and essays.
10:01AM - 10:59AM Period 3: Grade 9-10 Labs	Students in grade 9-10 have Math, ELA, and Science labs that are extensions of their classes.
Period 3: Grade 11-12 Technical Area Related	Students in these classes address the background knowledge and skills needed in a particular technical area in alignment with the Massachusetts Technical

	Frameworks.
11:02AM - 12:28PM Period 4: Social Studies (Includes 3 of the 4 lunch blocks)	Students in these classes are given the opportunity to develop a geographical understanding of the world and to respect and value a diversity of cultures. Students also learn what power is, how it is legitimized through governance and what their roles and responsibilities are as members of society. They also develop discussion and presentation skills and the ability to conduct research.
First Lunch 11:02AM - 11:25AM Second Lunch (Shops) 11:35AM - 11:58AM Third Lunch 12:05PM - 12:28PM Fourth Lunch 12:30PM - 12:54PM (Shops)	Students would attend one of four lunch periods held during the extended fourth period. Students would have several choices from two meals of the day, Soup and Sandwich, Pizza, Salad offered daily and students may also purchase an assortment of "grab & Go" salads/sandwiches and milk or beverages.
12:31PM - 1:29PM Period 5: Science	Students can explore the fields of Physics, Technology & Engineering, Biology, Chemistry, Physics or Environmental Science.
1:32pm - 2:30PM Period 6: Elective	
<b>Technical Cycle (One Weeks)</b>	
Period 1: Technical Area Related Grades 9 & 10	Students in these classes address the background knowledge and skills needed in a particular technical area in alignment with the Massachusetts Technical Frameworks.
or Technical Area/EXP	Students will be engaged in hands-on projects, working in the school as a class or working in the community as a class.
ALL DAY: Cooperative Education/Internship	In the second trimester of the 11th grade through graduation, students meeting grades, discipline and attendance criteria can work in the community during the technical cycle under the direction of an employer as either an unpaid intern or as a paid cooperative education placement. These placements are handled by the Cooperative Education coordinator.
Period 2: Technical Area/EXP	Students will be engaged in hands-on projects, working in the school as a class or working in the community as a class.

Period 3: Technical Area/EXP	Students will be engaged in hands-on projects, working in the school as a class or working in the community as a class.
Period 4: Technical Area/EXP	Students will be engaged in hands-on projects, working in the school as a class or working in the community as a class.
Period 5: Technical Area/EXP	Students will be engaged in hands-on projects, working in the school as a class or working in the community as a class.
Period 6: Technical Area/EXP	Students will be engaged in hands-on projects, working in the school as a class or working in the community as a class.

**Week in the Life of a Student**

A week in the life of a Northeast Metro Tech student alternates on a one-week cycle between the Career Technical curriculum and the Academic curriculum.

During the Career-Tech cycle students will spend the majority of their time in their shop areas-working on projects, gathering for related sessions, and collaborating in small groups. This schedule allows for a continuity of instruction and the convenience of leaving long-term project work-in-process in the shop areas during the week.

Grade 11 and 12 students have their related course during the academic week while grade 10 students receive their related instruction during the Technical week.

Some students who are at least 16 years of age, with appropriate skills and interest may participate in the Co-op and internship programs. These students are allowed to leave school to travel to places of employment to gain hands-on skills and experience in their chosen field.

Students in the academic cycle would cycle through their daily schedule of academic courses like traditional high school students in a “waterfall” schedule where the last class of the day will be the first class of the day the following day. However, the third and fourth periods remain

constant, unchanged by the schedule. Grade 9 and 10 students' daily routines would vary to accommodate labs on the schedule, which are not daily courses.

All students have the opportunity to participate in after-school activities and athletics. Northeast Metro Tech has a rich variety of such offerings including: Drama, Skills USA, a SADD, Guitar Club, and seventeen (17) interscholastic sports.

In addition, after school most days students have access to the Library to work on homework or receive tutoring. To accommodate these activities, the school provides a series of late buses daily, Monday through Friday.

*[End of Educational Program]*

# APPENDIX A

## **Vocational and Technical Programs**

### **Chapter 74 Vocational Technical Education Viability Documentation**

November, 2019

This form and other information and evidence referenced herein must be submitted as a component of all Massachusetts School Building Authority (<https://massschoolbuildings.org/about>) projects that include plans to:

- Continue to offer existing Chapter 74 state-approved Vocational Technical Education (VTE) programs
- Expand the size of, contract the size of, or close existing Chapter 74 state-approved Vocational Technical Education (VTE) programs; and/or
- Add new Chapter 74 state-approved Vocational Technical Education (VTE) programs.

Completed forms and attachments should be returned to MSBA.

**NOTE:** The information provided by MSBA applicants does not eliminate the requirement to engage in the MA Department of Elementary and Secondary Education’s Chapter 74 New Program Application process in its entirety **in the year prior to** the proposed program’s opening. However, submission of this information will allow DESE to provide MSBA with a “**viability**” letter that would result in a potential recommendation that the MSBA Board of Directors vote to authorize the district to proceed into schematic design phase of the building project.

**Overview of Chapter 74 Programs**

1. **General Information.** Complete the table below for all current and proposed Chapter 74 Programs to be considered for inclusion in the proposed project.

<b>Chapter 74 Program Offerings</b>	<b>Current Enrollment</b>	<b>Proposed Capacity</b>	<b>Comment*</b>
Auto Body	33	45	Existing: current space limits enrollment
Auto Technology	66	75	Existing: current space limits enrollment
Business Technology	53	38	Existing: decrease due to cross training with new Marketing program
Carpentry	60	75	Existing: current space limits enrollment
Cosmetology	59	75	Existing: current space limits enrollment
Culinary Arts	35	75	Existing: current space limits enrollment
Dental Assisting	83	85	Existing
Design & Visual Communications	61	75	Existing: current space limits enrollment
Drafting & Design	63	66	Existing
Early Childhood Education	32	36	Existing
Electricity	87	90	Existing
Health Assisting	87	75	Existing: decrease due to addition of new Medical Assisting program
HVAC&R	60	75	Existing: current space limits enrollment
Metal Fabrication	42	60	Existing: current space limits enrollment
Plumbing & Pipe Fitting	77	90	Existing: current space limits enrollment



Chapter 74 Program Offerings	Current Enrollment	Proposed Capacity	Comment*
Robotics	24	75	Existing: Ch74 approved for FY20, phasing in enrollment
Exploratory – Grade 9	330	430	Existing: increased capacity of shops allows admission of 100 more students
Marketing	0	37	New Program: will cross train with Business Tech.
Biotechnology	0	75	New Program
Medical Assisting	0	75	New Program
<b>Total</b>	<b>1,252</b>	<b>1,722</b>	

\* Indicate whether the program is an existing program, proposed to be expanded, a new program, a program to be scaled down, or program to be discontinued.

2. **School Committee Support.** Provide a copy of the school committee meeting minutes, which include language and outcome of the vote regarding the Chapter 74 Programs to be studied as part of the feasibility study for the proposed project.

### **If Expanding the Size of Existing Chapter 74 Programs**

1. **General Information.** Please provide the name of your district, and the existing Chapter 74 program(s) you are proposing to expand in conjunction with this MSBA project.

*Northeast Metropolitan Regional Vocational Technical School District proposes to significantly expand its Exploratory program for grade 9 students by 100 students from 330 to 430 students.*

2. **Student Demand.** Please provide evidence of increased student demand for the Chapter 74 programs you propose to expand. The best source of data for this would include recent waitlist trend data for both entrance to the school (which will provide evidence for the expansion of 9<sup>th</sup> grade exploratory) and in student selection of programs after completing exploratory.

*Historical enrollment data indicates that 19% of district grade 8 students (767) apply for admission with 43% (330) being accepted and 57% (437) placed on a wait list. We propose increasing the capacity of the Exploratory program for grade 9 students from 330 to 430 students. This would allow for 56% (430) of applicants to be admitted into the school and reduce wait listed students to 44% (337).*

### **If Adding New Chapter 74 Programs**

1. **General Information.** Please provide the name of your district, and the new Chapter 74 program(s) you are considering applying for in conjunction with this MSBA project.

*Northeast Metropolitan Regional Vocational Technical School District proposes to add the following 3 new programs:*

- *Biotechnology*
- *Marketing*
- *Medical Assisting*

2. **Alignment with Regional Workforce Development Priorities and Critical Industries and Occupations.** The Governor's Office and DESE seek to ensure that Chapter 74 program approvals align with regional workforce needs. The Department encourages Chapter 74 program applications that:

- Align with regional occupational priorities as outlined in [the state’s MassHire regional workforce development Blueprints](#); and
- Demonstrate evidence of consultation and collaboration involving regional MassHire Boards (formerly Workforce Investment Boards); school districts, including regional vocation technical school districts and, where applicable, county agricultural school districts; postsecondary educational institutions; and other key regional stakeholders as appropriate.

Proposed programs that do not align with priorities and critical needs as outlined in a regional Blueprint may still be viable, if they are accompanied by an analysis of need that is grounded in labor market demand, student demand, and support from the stakeholders listed above.

<p>REGION 1: Berkshire - Includes Berkshire Workforce Area</p> <p>REGION 2: Pioneer Valley - Includes Franklin/Hampshire and Hampden Workforce Areas</p> <p>REGION 3: Central Massachusetts - Includes North Central and Central Massachusetts Workforce Areas</p> <p>REGION 4: Northeast - Includes Greater Lowell, Lower Merrimack and North Shore Workforce Areas</p> <p>REGION 5: Greater Boston - Includes Boston (Private Industry Council), Metro North, and Metro South/West (Partnerships for a Skilled Workforce) Workforce Areas</p> <p>REGION 6: Southeast - Includes South Shore, Brockton, Bristol, and New Bedford Workforce Areas</p> <p>REGION 7: Cape Cod and Islands - Includes Cape Cod and Islands Workforce Area</p>
--

*Does the Chapter 74 program (or programs) you are considering align with a priority industry sector and/or occupation for your region of the Commonwealth for the next 5 to 10 years?*

- Yes, the program(s) we are considering align with a priority or critical **industry** within the region.
- Yes, the program(s) we are considering align with a priority or critical **occupation** within the region.
- Yes, the program(s) we are considering align with a priority or critical **industry and occupation** within the region
- No, the program(s) we are considering do not align with regional priorities or critical needs.

~~3. **Labor Market Demand.** If the proposed program does not align with regional priorities or critical industries and occupations outlined in Question 2 above, it is the obligation of the applicant to make a compelling case for the viability of the program with respect to labor market demand. If you were able to answer ‘Yes’ to any of the conditions described in Question 2 above, no further labor market demand information is required.~~

4. **Student Demand.** Please provide preliminary evidence of student demand for the proposed new programs (this could include recent waitlist trend data, waitlist data for similar/proximate programs, student demand for the new program(s) statewide and regionally). This is particularly important for proposed new capital-intensive programs such as those in the Agriculture and Natural Resources, Construction, or Transportation Clusters, or a program like Advanced Manufacturing.

*Student demand for admission to the grade 9 exploratory program is overwhelming with historical enrollment data indicating that 19% of district grade 8 students (767) apply for admission with 43% (330) being accepted and 57% (437) placed on a wait list. We propose increasing the capacity of the Exploratory program for grade 9 students from 330 to 430 students. This would allow for 56% (430) of applicants to be admitted into the school and reduce wait listed students to 44% (337).*

***In order to accommodate the additional 100 grade 9 students as they matriculate into grades 10 through 12, we propose minor increases to program capacity enrollment of several existing shops/labs as well as the addition of 3 new programs which will be included in future exploratory rotations. We are very confident that these new programs will fill to capacity consistent with our exploratory program selection process as outlined in our DESE approved Admission Plan.***

***Resources:*** Please refer to the [Guidelines for demonstrating student and labor market demand.](#) Please also consider asking your local MassHire Board for assistance.

- 5. Consultation with Industry, MassHire Boards, and Postsecondary Partners.** New Chapter 74 programs under consideration must be planned in consultation with industry experts and postsecondary partners. The formal Chapter 74 application process requires the formation of Program Advisory Committee (see [Program Advisory Committee for VTE Form](#)). For the purposes of a MSBA project, preliminary consultation with your MassHire board, associated industries, and higher education representatives (where applicable) in your region is sufficient. Please provide evidence that this consultation has occurred and that such consultation included information about workforce and job development demands or job market trends and student demand.

***Northeast Metropolitan Regional Vocational Technical School District convened a consultation meeting on November 14, 2019 with invitations sent to the following stakeholders:***

- School Committee members for the Northeast Metropolitan Regional Vocational Technical School District***
- Mayors or Town Administrators of all district member municipalities***
- Executive Director of the MassHire Metro North Workforce Board***
- Superintendents and Vocational Directors from close proximity schools offering any of the proposed new programs (Everett & Peabody High Schools)***

**Please see the attached PowerPoint presentation from the consultation meeting.**

- 6. Consultation with other potential providers of Chapter 74 programs in your region.** Please provide a description of any consultation that has already been conducted, along with consultation that is planned. See specific consultation expectations in the Consultation Appendix to guide your description.

**Please see the attached PowerPoint presentation from the consultation meeting held on November 14, 2019.**

**Consultation Appendix.** Please review and address all parts that apply to your situation.

**1. ~~For Districts that are Members of Regional Vocational Technical Schools~~**

~~DESE requires that applicant school districts that are members of regional vocational technical school districts consult, and provide evidence of consultation, with the regional vocational technical school district.~~

~~This expectation applies regardless of whether the program under consideration duplicates one currently available within the regional vocational technical school district. Consultation between school districts considering new Chapter 74 programs and the regional vocational technical school districts to which they belong is intended to encourage cooperation in the provision of technical programming, the coordination of efforts, and strategic alignment with regional workforce needs.~~

~~A. Please specify the regional vocational technical school district of which the prospective applicant is a member.~~

---

~~B. Does the program(s) you are proposing duplicate one currently offered at the regional vocational school district indicated above?~~

- ~~No~~
- ~~Yes~~

~~C. Have you engaged in discussions with the regional vocational technical school district regarding your consideration of the program(s) indicated above with respect to your MSBA project?~~

- ~~No~~
- ~~Yes, and I'm attaching additional documentation of these discussions~~

**2. For Regional Vocational Technical Schools**

DESE requires that regional vocational technical school districts consult, and provide evidence of consultation, with all member cities and towns. This expectation applies regardless of whether the program(s) under consideration duplicates ones currently available within any member cities and towns. Consultation between the regional vocational technical school districts and member cities and towns is intended to encourage cooperation in the provision of technical programming, the coordination of efforts, and strategic alignment with regional workforce needs.

A. *What are the member cities and towns that comprise the regional vocational technical school district?*

***Woburn, North Reading, Stoneham, Wakefield, Saugus, Malden, Reading, Winchester, Melrose, Chelsea, Revere, Winthrop***

B. *Have you engaged in discussions with all cities and towns that are members of your regional vocational technical school district regarding your consideration of the program(s) indicated above in relation to an MSBA funding application?*

- No
- Yes, and I'm attaching additional documentation of these discussions (see powerpoint)

**3. ~~For Districts located within Bristol, Essex or Norfolk Counties:~~**

NOTE: DESE requires that applicants consult, and provide evidence of consultation, when the Chapter 74 program(s) under consideration duplicates one already offered at Bristol County Agricultural High School, Essex North Shore Agricultural and Technical High School, or Norfolk County Agricultural High School in the same county. Consultation between school districts considering creation of Chapter 74 programs and the county agricultural school districts is intended to encourage cooperation in the provision of agricultural programming, the coordination of efforts, and strategic alignment with regional workforce needs.

~~A. Is your school district located within Bristol, Essex or Norfolk County?~~

- ~~Yes, our school district is located within Bristol County.~~
- ~~Yes, our school district is located within Essex County.~~
- ~~Yes, our school district is located within Norfolk County.~~

~~B. Are any program(s) you are proposing identical to a Chapter 74 program currently being offered at your Agricultural High School?~~

- ~~No~~
- ~~Yes~~

~~C. Have you engaged in discussions with your Agricultural High School regarding your consideration of the program(s) indicated above in relation to an MSBA funding application?~~

- ~~No, we have not discussed our consideration of the program(s) indicated above with our Agricultural High School.~~
- ~~Yes, we have discussed our consideration of the program(s) indicated above with our Agricultural High School, and I'm attaching additional documentation of these discussions~~

#### 4. For all applicants: Duplicating Programs Offered at High Schools in Close Proximity

NOTE: DESE requires that applicants consult, and provide evidence of consultation, when the Chapter 74 program(s) under consideration duplicates one already offered in another school district at a school in close proximity. Consultation between school districts considering creation of Chapter 74 programs and school districts offering the identical program at a school in close proximity is intended to encourage cooperation in the provision of technical programming, the coordination of efforts, and strategic alignment with regional workforce needs. DESE suggests the following geographical boundaries to assist districts in determining "close proximity" as follows:

- For school districts in areas east of Route 495, any Chapter 74 programs within 5 miles of the proposed Chapter 74 program(s)
  - For school districts west of 495, to the east border of Berkshire County, any Chapter 74 programs within 10 miles of the proposed Chapter 74 program(s)
  - For school districts in Berkshire County, any Chapter 74 programs within 20 miles of the proposed Chapter 74 program(s)
- A. Are any of the programs you are proposing identical to a Chapter 74 program currently being offered in another school district in a school in close proximity?
- No
  - Yes

B. *What are the names of the school districts currently offering identical Chapter 74 programs at a school in close proximity?*

***Everett Public School and Peabody Public Schools***

C. *Have you engaged in discussions with the school district(s) with schools in close proximity offering the same program regarding your consideration of the program indicated above in relation to an MSBA funding application?*

No, we have not engaged in discussion with the school district(s) indicated above.

Yes, and I'm attaching additional documentation of these discussions

***The following new proposed programs are offered by schools in close proximity:***

- ***Biotechnology: no schools in close proximity***
- ***Marketing: Everett High School***
- ***Medical Assisting: Everett and Peabody High Schools***

***The vocational director (Nelvia Braga) at Everett High School attended the November 14, 2019 consultation meeting and fully supports the addition of these programs at Northeast Metro Tech and offered her assistance and that of her staff as may be needed in the future.***

***The vocational director (Maria Ferri) at Peabody High School did not attend the November 14, 2019 consultation meeting. She indicated by RSVP that she had a conflict and could not attend. She indicated in a follow up phone conversation on January 23, 2020 that she fully supports the addition of these programs at Northeast Metro Tech offered her assistance and that of her staff as may be needed in the future.***



# **NORTHEAST METROPOLITAN REGIONAL VOCATIONAL HIGH SCHOOL**

## **WELCOME**

**M.G.L. Chapter 74 New Program  
Key Stakeholder Consultation Meeting  
November 14, 2019**

*Chelsea – Malden – Melrose - North Reading – Reading – Revere  
Saugus, Stoneham - Wakefield - Winchester - Winthrop - Woburn*



## **Welcome Key Stakeholders**

- Northeast Metro Tech Administrators
- Northeast Metro Tech School Committee
- Regional Municipal Member Partners
- MassHire Metro North Workforce Board
- Peabody Public Schools
- Everett Public Schools





## Agenda

- DESE Consultation Meeting Requirement
- MSBA Feasibility Study Options
- Review New Programs under Consideration
- Review Relevant Labor Market Data
- Review DESE Guiding Questions
- Discussion
- Consultation Letter Signatures
- Adjourn

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## DESE Consultation Meeting Requirements

- Convene a meeting of key stakeholders
  - LEA staff
  - Region's MassHire Workforce Board
  - Close proximity schools offering the program(s) under consideration (5 mile radius)
  - Regional District's Municipal Members
  - Suggested guiding questions
  - Template of signature document

4





# Historical Enrollment Data

- 1,256 student five-year enrollment average
- 331 student grade 9 enrollment average
- 19% of district grade 8 students apply (767)
- 43% of applicants are enrolled (330)
- 57% of applicants are NOT enrolled (437)
- 1,722 feasibility study student enrollment (+470)
  - Expand 16 existing programs (+183)
  - Expand Grade 9 Exploratory (+100)
  - Add 3 new Chapter 74 programs (+187)

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Program	Current	Proposed	Difference
Auto Body	33	45	+12
Auto Technology	66	75	+9
Business Tech	53	38	-15
Carpentry	60	75	+15
Cosmetology	59	75	+16
Culinary Arts	35	75	+30
Dental Assisting	83	85	+2
Design & Visual	61	75	+14
Drafting & Design	63	66	+3
Early Childhood Ed	32	36	+4
Electricity	87	90	+3
Health Assisting	87	75	-13
HVAC	60	75	+15
Metal Fabrication	42	60	+18
Plumbing	77	90	+13

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## Greater Boston Workforce Planning Blueprint

- Priority Industries and Occupations
  - Healthcare and Social Assistance Medical Asst
  - Professional and Technical Services
- Critical Industries to the Region
  - Construction
  - Hospitality
  - Finance
  - Creative Economy
  - Life Sciences Biotech
  - Advanced Manufacturing
  - Retail Marketing

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## Biotechnology is a Critical Industry

“The following industries were not prioritized in this blueprint, but are critical to the region.

- Hospitality
- Construction
- Finance
- Creative economy
- Life sciences
- Advanced manufacturing
- Retail”

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## Marketing is a Critical Industry

“The following industries were not prioritized in this blueprint, but are critical to the region.

- Hospitality
- Construction
- Finance
- Creative economy
- Life sciences
- Advanced manufacturing
- **Retail**”

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## Medical Assisting is a Priority Industry...

“**NAICS 62: Health Care and Social Assistance** – The largest industry in terms of employment and ranks near the top in terms of growth from 2001 to 2016, both in Greater Boston and in each of the three workforce development areas that comprise Greater Boston. The LQ analysis supports the notion that this sector is crucial for our region’s economic competitiveness. Job projections demonstrate that employment is expected to continue to grow, which will present workforce challenges, but also opportunities.”

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## ...and a Priority Occupation

- Health Technologists and Technicians (SOC: 29-2000)
- Nursing, Psychiatric, and Home Health Aides (SOC: 31-1000)
- Other Healthcare Support Occupations (SOC: 31-9000)

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## Suggested Guiding Questions<sup>1</sup>

- What occupations are identified in the Regional Blueprint as high priority for the region?
- What occupations in the region lack an adequate talent pipeline from regional education and training providers, resulting in an insufficient supply to meet employer demand?

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## Suggested Guiding Questions<sup>2</sup>

- If the district would like to apply for a particular Chapter 74 program, why does the district want to open this program in this school? Is there a better choice for a new program for the district, based on the LMI?
- What factors make this district an appropriate choice for the delivery of the program(s)?

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## Suggested Guiding Questions<sup>3</sup>

- What data has the district used in selecting the program(s) for application?
- If the occupations the district has in mind are not identified in the Regional Blueprint, what is the evidence that there is regional demand and insufficient supply for the program?

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## Suggested Guiding Questions<sup>4</sup>

- Are there other avenues for offering this program?
  - Perkins Non-Ch 74 Elective?
  - Partnering opportunities outside the district?
  - Innovation or Early College Pathway?
- Other discussion?

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## What Happens if Northeast is too small

- It will have a serious negative impact on its communities and on its ability to serve deserving students who apply.
- If students are denied access to Northeast they can apply to a different school district.
- Minuteman was recently allowed by DESE to charge a per pupil “capital fee” of \$4,651 in addition to its tuition fee for non-resident students.

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# Minuteman's New Regional Agreement

Minuteman's Regional School Agreement states: -  
 "Section (X) Tuition Students Subject to state law, and applicable regulations, effective June 30, 2018, it shall be the policy of the District to admit out of district students only based on tuitions and charges equal or greater than the District's similarly-calculated average per pupil costs for in-district communities as determined by the Committee. Exceptions to this policy may only be made by two-thirds weighted vote of the Committee."

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## Comparative Assessments (nearby schools)

	Northeast	Shawsheen	Minuteman
<b>FY 18 Per Pupil Spending (state average is 21918)</b>	21,870	23,274	34,956
<b>FY 20 Total Operating Assessment to Member Communities</b>	14,727,254	23,438,445	12,037,071
<b>FY 20 Minimum Required Contribution</b>	12,087,037	16,980,984	6,651,519
<b>FY 20 Amount assessed over Minimum</b>	2,640,217	6,457,461	5,385,552
<b>FY 20 Capital Assessment</b>	0	1,245,365	3,819,833
<b>Total FY 20 Assessments to Communities</b>	14,727,254	24,683,810	15,856,904
<b>Foundation Enrollment</b>	1,242	1,337	364
<b>Total Assessments Per Pupil (not including state aid)</b>	11,858	18,462	43,563
	Woburn	Burlington	Arlington
<b>FY 20 Total Assessment from CTE Regional School</b>	1,795,646	2,309,688	5,384,690
<b>Operating</b>	1,795,646	2,185,141	4,058,915
<b>Capital</b>	0	124,547	1,325,775
<b>Foundation Enrollment</b>	105	123	120
<b>Assessment per Pupil (not including state aid)</b>	17,101	18,778	44,872





**NORTHEAST METROPOLITAN  
REGIONAL VOCATIONAL HIGH SCHOOL**

**THANK YOU!**

*Chelsea – Malden – Melrose - North Reading – Reading – Revere  
Saugus, Stoneham - Wakefield - Winchester - Winthrop - Woburn*