

EXHIBIT C

MAGNET PROJECT PRIORITIES PLAN (MPPP)

August 2020

A. Background

CMP section D (“Creating New Magnet Programs”), lists four scenarios from which the District may assess the need, resource and human capacity, and viability for creating a new magnet program, including: enrollment growth; gaps in theme pipelines; the identification of new, proven, successful magnet themes; or a unique opportunity. During the 2018-19 school year, the District conducted a study of its schools to identify potential magnet schools and proven, successful magnet themes. The study including analyses of potential magnet school candidates¹, and explored various themes including program viability and resource needs. A copy of the magnet study is included here as Attachment 1 (previously filed as ECF 2270-1).

In SY2019-20, one of the four scenarios existed: new, proven, successful magnet themes as identified in the magnet study. In the summer of 2020, the District convened a Magnet Development Committee (MDC) to review and assess the opportunities, as outlined in the CMP. The MDC also considered potential magnet candidate schools as identified through the 3-Year PIP 2019.

B. Magnet Development Committee (MDC) Review and Assessment

The 2020 MDC included the magnet director and magnet department staff, affected Regional Superintendents, and representatives from Curriculum & Instruction, Planning, Transportation, Communications; and the CSA committee. The MDC began its review of the two most-promising themes that emerged from the magnet study: health sciences and advanced technology.

1. Analysis of Magnet Themes

a. Environmental Health Sciences

Environmental health science involves understanding how the environment affects human health and how humans affect the environment. Through this theme, students will explore the connection between their natural environment and their

¹ The study considered known variables, including but not limited to the following: travel distances to and from neighborhoods to schools; racial/ethnic composition of neighborhoods based on external demographic data; geographic location; academic achievement; facility condition and capacity; demographics within school boundaries; transportation costs and restraints; and existing magnet programs and pipelines

health in order to make informed choices, reduce health risks, improve the quality of life, and protect their environment

Environmental health science provides authentic, relatable opportunities for teaching math, science, reading, and writing from an environmental health perspective. It is also a subject that is relatable and relevant to students and their families, particularly at this time in history. The current global pandemic has created a greater awareness of the importance of personal hygiene, sanitation, water, and air quality on individual and community health.

A study conducted by Stanford University involved an analysis of 119 peer-reviewed studies published over a 20-year period. The studies measured the impacts of environmental education for K-12 students and found clear evidence that environmental education programs provide a variety of benefits to students. Dr. Nicole Ardoin, Stanford University Graduate School of Education and Woods Institute for the Environment noted:

"There is a mountain of evidence that suggests [environmental education] is a powerful way to teach students. Over 100 studies found that it provides transformative learning opportunities that bring tremendous results and engage young people in the world around them in meaningful, collaborative ways. There is no doubt that environmental education is one of the most effective ways to instill a passion for learning among students."

In the studies reviewed, environmental education was shown to improve academic performance, enhance critical thinking skills, and strengthen personal growth and life-building skills (including confidence, autonomy, and leadership). In addition, a number of the studies showed that environmental education increased civic engagement and positive environmental behaviors. Environmental education has also been shown to promote the following in students:

- Knowledge in science, mathematics, reading, writing, and more. Since children are often naturally interested in and curious about the environment, environmental education can be an effective tool to teach these topics.
- Emotional and social skills, such as self-esteem, character development, teamwork, and leadership skills
- Environmentally friendly behavior, such as reducing water use, increasing recycling, and participating in community cleanups
- Academic skills (21st Century skills), such as critical thinking, oral communication, analytical skills, problem solving, and higher-order thinking

- Motivation to learn, including enthusiasm for and interest in school. In various studies, students and teachers reported that the students enjoyed taking part in environmental education activities, and that the “fun” factor enhanced motivation to learn.
- Civic interest and engagement, including feelings of civic responsibility, feelings of empowerment, and ability to take action.²

The District also reviewed the following model sites to assess the viability and success of this theme in other school districts at all grade levels, elementary, middle, and high school:

Dr Sammy Lee Elementary Medical and Health Science Magnet. This magnet program had higher attendance, lower suspension rates, and higher achievement scores than the district average in L.A. Unified School District.³

Northridge Middle School, Medical and Health Career Magnet Center. This magnet school provides a model curriculum that includes three theme-based academies: Biomedical Sciences and Health Careers, the Human Body System, and Investigation of Interventions, Prevention, Diagnosis and Treatment of Diseases.⁴

Hartsfield Elementary Animal and Environmental Science Magnet Program. This elementary magnet school provides specific thematic units and topics for each grade level. Each unit supports student learning about the link between the environment, health, science and math as they relate to the real world.⁵

² *The Benefits of Environmental Education for K-12 Students.*

<https://naaee.org/eapro/research/eeworks/student-outcomes>; see also “Top Ten Benefits of Environmental Education” at <https://www.plt.org/educator-tips/top-ten-benefits-environmental-education/> (finding that by “incorporating Environmental Health practices into the curriculum, teachers can integrate science, math, language arts, history into one rich lesson or activity.”)

³ <https://drsammyleemag-lausd-ca.schoolloop.com/>; <https://explorelausd.schoolmint.net/school-finder/schools/1284>

⁴

https://www.northridgemiddleschool.org/pf4/cms2/view_page?d=x&group_id=1575702880979&vdid=j37g22g7fgyn; http://www.northridgemiddleschool.org/cms/page_view?d=x&piid=&vpid=1505496781648

⁵ <https://www.houstonisd.org/Domain/13024>; <https://www.houstonisd.org/Page/158356>

Franklin Academy is the Medical Sciences & Wellness Magnet School. This Columbus Municipal School District magnet in Mississippi includes a capstone project as part of their model curriculum.⁶

Park Day School. This Oakland, California magnet school has embedded a social justice curriculum school-wide. Students in all grades are involved in projects that connect the school, family and community to resolve local environmental issues important to their community. They explore the theme through equity, access and activism using three guiding questions: What is Environmental Justice ?, What is a healthy climate, and How is innovation being used to address our changing climate?⁷

Crossroads School. This K-12 magnet utilizes a K-12 curriculum where students learn about critical social justice issues, develop an awareness about historical and current-day inequities and take action to affect meaningful change.⁸

b. Advanced Technology

An advanced technology magnet will expose students to computer coding, gaming, and robotics through a student-centered curriculum. This type of curriculum can be used to promote an inquiry-based approach to learning through innovation labs, design challenge studios, and the use of emerging technologies.

The use of design thinking and problem solving will allow teachers to reach students who are not typically engaged in school because the format of the traditional classroom fails to capture their interest or doesn't address their unique learning style or disability. The school-wide approach to Project Based Learning using information technology will allow students to actively explore real-world problems and challenges and acquire a deeper knowledge of the content taught in the classroom.

Advanced technology curriculum and programming has been shown to promote the following in students:

- Requires students to engage in critical thinking as they conduct research, solve problems, and create products

⁶ http://franklin.columbuscityschools.org*/; <http://franklin.columbuscityschools.org/curriculum/>

⁷ <https://www.parkdayschool.org/>; <https://www.edutopia.org/blog/social-justice-whole-school-approach-jeanine-harmon>

⁸ <https://www.xrds.org/educational-programs/social-justice>

- Is easily adaptable and can address individual learning styles
- Active engagement and participatory learning
- Students are active participants in their learning rather than passive recipients of information
- Can produce significant gains in student achievement and boost engagement, particularly among students most at risk

Instructional Technology can be used as a vehicle for teaching thematic units that integrate core subjects; math, science, language arts and social studies.

Curriculum and programming is usually designed with an emphasis on critical thinking and project based learning where students will engage in research, learning content and exhibitions. Students often demonstrate their learning by creating a project and then presenting it to authentic audiences in school and in the community. Some possible areas of study, or magnet theme components, include:

- Coding and Innovative Technologies
- Keyboarding
- Computing Fundamentals: Computer Hardware, Computer Software, Using an Operating System
- Key Applications: Common Program Functions, Word Processing Functions, Spreadsheet Functions, Presentation Software Functions
- Living Online: Electronic mail, internet literacy/doing research on an online environment
- Game-based learning to motivate all students; especially low achievers and reluctant learners.

c. Conclusion

After evaluating both potential theme options, the District determined that it would prioritize environmental health sciences. There are currently no health science magnets, creating an opportunity to create a unique offering and to attract students from across the District. The District has invested heavily in advanced technology already, particularly at McCorkle K-8 and Palo Verde Magnet High School. Both schools already provide a focus on advanced technology.

2. Identification of Viable Magnet Candidate Schools

In the 3-Year PIP 2019, the District identified six elementary schools (Cragin, Davidson, Howell, Steele, Tolson, Whitmore), one K-8 (Maxwell) one middle (Doolen) and one high (Sahuarro) school as potential magnet candidates. In spring of SY2019-20, the District re-evaluated the current status of these schools, considering

such factors as integration status, enrollment loss, facility utilization, letter grades, and science and math proficiency.

After careful analysis, the District narrowed the list down to the three most promising candidates: Cragin, Tolson, and Whitemore elementary schools.⁹ The Magnet department conducted interviews of the principals from all three schools in order to collect and analyze additional information to assess the schools' capacity, readiness, and overall positioning to consider becoming a new magnet school. From the analysis, Cragin and Whitmore emerged as the top candidates. Cragin has a motivated leadership, its staff and campus have a collective vision based in equity, it is in close proximity to University of Arizona, it runs a 21st Century program and OMA Gold arts integration program, and it has been involved with the Harvard Reimagining Integration: Diverse and Equitable Schools (RIDES) program for the past two years. Whitmore also has a highly-motivated leadership, close proximity to the University, a strong academic profile, and particularly strong science scores.

3. Consideration of Other Factors

Once the MDC identified environmental health sciences as the primary potential theme, and two schools as the primary potential magnet candidates (Cragin ES and Whitmore ES), it reviewed a series of other factors including themes, integration, transportation, infrastructure (costs and restraints, resource availability, staffing, marketing, and transportation), the status of current magnet schools, and the District's overall magnet strategy.

The District also evaluated the possibility of developing a fine arts middle school program, but determined there were no good potential magnet candidates at the middle school level that were positioned, at the present time, to develop a middle school fine arts program.

4. MDC Conclusion

Considering all factors, the MDC concluded that the present time is not ideal for beginning the implementation of, or even discussions around, a new magnet for several reasons. First, the District is in the midst of online learning and modified school closures. District resources have been refocused on the new and emerging needs and should not be diverted now towards the development of a new magnet school. Next, four of TUSD's 13 magnet schools are currently in targeted

⁹ The following are some of the primary reasons weighing against other candidates: Maxwell K-8 and Davidson ES have dropped an academic letter grade in the time since the initial analysis; Doolen is a D school and already operates a self-contained GATE program; Steele ES and Sahuarro HS were the furthest from the center of the District, and Howell ES is in close geographic proximity to Bonillas magnet ES and it has the lowest capacity for future growth of the six elementary options.

improvement and will require additional human resources, energy, and attention throughout the 2020-21 and 2021-22 school years. Finally, the MDC recognized that the CMP lacked one vital component: it was silent on the possibility of theme modification as a means of improving a struggling magnet school. Accordingly, the District revised the CMP to include a provision allowing for the Magnet Department (and, if needed, by extension the MDC) to consider, analyze, and propose a modification to a targeted school's magnet theme as a mechanism for supporting academic or integration improvement – based on an exploration of proven successful magnet themes. *See 3-Year PIP 2020, Section A, CMP sub-section B.6.* The District will explore this possibility during the 2020-21 school year to determine if any of the existing targeted schools could benefit from theme modification to one of the existing highlighted themes (advanced technology or health sciences).

5. Timeline for New Magnet in SY2023-24

The District intends to launch at least one new magnet program over the next three years. The District will reconvene MDC in 2020-21 to consider the options currently under consideration (Cragin environmental health sciences magnet; Whitmore environmental health sciences magnet) and to analyze the existing targeted schools (Tully, Booth-Fickett, and/or Palo Verde) as “potential magnet candidates” for an advanced technology or health sciences theme change.

The 2021-22, after analyzing the state of the overall magnet program, the two options included in this Plan, and the possibility of a viable theme modification to an existing magnet or magnets, the District will proceed with a CMP Year 1 proposal. The District will begin developing at least one draft proposal by the winter of 2021, as outlined in the CMP section D.3. Once the final proposal is developed, the District will present it to the Governing Board by the summer of 2022 and, if approved, will initiate the preparation year in the fall of 2022. The new magnet or magnets will launch in the fall of 2023.

ATTACHMENT A

STUDY OF TUSD SCHOOLS TO IDENTIFY POTENTIAL MAGNET SCHOOLS AND THEMES

As a foundational component of the Comprehensive Integration Plan (CIP), the District convened a cross-departmental committee to conduct a study of multiple criteria and factors to identify potential magnet schools or programs.

The District's Chief Academic Officer (the Interim Assistant Superintendent of Curriculum and Instruction, and designated Director of Student Assignment) led the committee's work from the winter of 2018 through the summer of 2019. The committee included the Magnet director, Transportation director, the Senior Director of Desegregation, the Desegregation Research Project Manager, and the District Planner. Other relevant staff attended various meetings or sub-committee meetings, as needed. Additional collaborators included the Grants and Programs director, the ALE director, the GATE coordinator, and the Communications and Social Media Director. The District contracted with a program manager to manage the project, including weekly meetings from during the 2018-19 school year.

The study considered known variables, including but not limited to the following:

- travel distances to and from neighborhoods to schools
- racial/ethnic composition of neighborhoods based on external demographic data
- geographic location
- academic achievement
- facility condition and capacity
- demographics within school boundaries
- transportation costs and restraints
- existing magnet programs and pipelines

The study also included an exploration of proven successful magnet themes, a review of existing magnet reports, and evaluation of other relevant information. The primary purpose of the study was to identify potential magnet programs and to inform the development of other key components of the CIP, including non-magnet school integration and academic plans, and the transportation plan.

A. Methodology

The District utilized the following five-part methodology to conduct the study:

- 1) Collected and analyzed specified criteria to identify initial magnet candidates
- 2) Calculated integration targets for each school
- 3) Identified specific geographical areas with targeted school age populations
- 4) Mapped the ACS¹ data to school location and attendance boundaries using ArcGIS²
- 5) Analyzed transportation factors based on distance, travel times, and routes

1) Identifying an initial group of magnet candidates

The CIP committee collected school-level data on each criterion, including current racial/ethnic enrollment, academic achievement information, school location feasibility (focusing on schools within eight miles of the District center at Broadway and Country Club), and facilities condition and capacity.

This task involved collating various types of information from multiple sources and pre-screening to eliminate certain schools from consideration based on existing evidence and data. Pre-screening analysis included the following criteria

- *Racial/Ethnic Composition.* What is the current racial/ethnic makeup?
- *Geographic Location.* Is the school within eight miles from the District's geographic center?
- *Academic Achievement.* Does the school meet academic achievement criteria for ELA and Math?³

¹ ACS stands for the American Community Survey.

² ArcGIS is a geographic information system (GIS) for working with maps and geographic information, used for creating and using maps, compiling geographic data, analyzing mapped information, sharing and discovering geographic information, using maps and geographic information in a range of applications, and managing geographic information in a database.

³ To meet this criterion, schools must meet or exceed District-level proficiency rates on math and ELA.

- *Facility Condition.* Does the school meet facilities condition criteria?⁴
- *Facility Capacity.* Does the school have current or future capacity for growth?
- *Boundary.* Would a future boundary change improve integration?
- *Other Considerations:* Does the school have special programming that could contribute to, or hinder, the development of a new magnet?

See Attachment 1, School Screening Tool.

2) Calculating integration targets for each school

The committee used 40th day enrollment data to identify the targeted demographic groups needed for each school. These integration targets indicated the minimum number of students by race or ethnicity needed for the school to reach Integrated status. These calculations allowed the committee to begin to identify which schools could move significantly towards integration and which could not.

3) Identifying specific geographical areas with targeted school age populations

The committee identified early on that the most recent available census data from 2010 was not a good source for analyzing demographic data in 2019. Therefore, the Committee used the 2017 American Community Survey (ACS) five-year demographic estimates by census tract to determine where appropriate school age populations resided within the District's geographic boundary.

Although an imperfect dataset, the ACS data allowed the committee to gain a better understanding of the demographic and geographic composition of the District, and provided a resource for determining which schools could become Integrated, or move closer towards integration, based on residential patterns, ethnicity, and school-aged populations.⁵

⁴ To meet this criterion, schools must score 2.4 or higher on the 2018 Facilities Condition Index (FCI).

⁵ There were several drawbacks to using the ACS dataset. The 5-year ACS data are estimates, and for small population groups, such as African American students, the reported numbers have a wider band of uncertainty, and therefore somewhat less useful. This was less of a problem for this analysis since the District was interested primarily in identifying White and Hispanic populations for integration purposes. However, it reinforces the fact that these are

The committee used ACS data to calculate the number of students of certain target races and ethnicities in each census tract that were available to recruit for integration purposes. For evaluation purposes, the committee used an adjusted number of students in each census tract – uncaptured students. The committee focused on geographical areas that had more students than the District was currently attracting rather than areas that the District was already capturing. The number of uncaptured students in a tract was determined by subtracting the total number of students in the targeted demographic group living in the census tract from the number of students in the targeted demographic group living in that census tract currently attending TUSD schools.⁶ The committee then created maps from this data (discussed below) to determine whether there were geographic areas to target for integration purposes. Development of the maps considered both travel times and existing bus route times. The identification and grouping of census tracts not only provided insight into potential magnet candidates, but also informed non-magnet school integration strategies including transportation options, as described below.

4) Mapping ACS data to school location and attendance boundaries

Planning Services created maps overlaying census tracts, school attendance boundaries, and areas with high numbers of targeted demographic groups⁷. (Attachment 2 – Maps for Grades K-4, 5-8, and 9-12). As shown in the attachment, the maps provided a visual representation for each grade level showing geographical locations with significantly sized targeted student groups to improve integration. This information informed the selection of magnet candidates, magnet and non-magnet transportation strategies, and was used by the committee to determine the geographical areas for each

well-respected estimates. Another issue is the fact that the census data uses the federal definition to report student race/ethnicity, while the District uses the USP definition to report student race/ethnicity in desegregation analyses. The Committee recognized this issue, and accounted for any difference in integration targets when evaluating the potential of a school to become integrated. Despite these limitations, this method was adequate for the purpose at hand.

⁶ For example, the ACS estimates indicated that there were 100 Hispanic K-4 students in census tract X. Our enrollment records indicate that 70 Hispanic students live in tract X and attend TUSD schools. Thus, there are 30 Hispanic “uncaptured students” in tract X. If a census tract included 30 or more uncaptured students of a particular targeted race or ethnicity, then the committee grouped that tract with others according to their targeted demographics.

⁷ The committee selected tracts based on the criteria that there were a minimum of 30 or more uncaptured students of a particular targeted race or ethnicity in the tract. The committee then grouped that tract with others according to their targeted demographics.

school's integration plan, where practicable, and whether these areas were within or outside the school's boundary. The committee also used the maps to establish priorities where multiple schools are competing for the same target demographic groups.

B. Outcomes

1) Identification of Potential Magnets

The committee used a three-step process to identify potential magnet schools: (a) an initial screening process to remove schools from further consideration based on a set of criteria making it unlikely that these schools could serve as effective magnets promoting integration, (b) determination of a set of preferred magnet themes, and (c) a final review of remaining schools based on a second set of criteria including awareness of the preferred magnet themes.

The initial screening process began with 84 schools. Applying the initial likelihood of success criteria, the committee eliminated 67 schools as potential magnet candidates . In addition to considering travel times and distances, the committee used the following criteria:

- Existing magnet schools (13 schools)⁸
- Schools with specialized programs serving unique student populations (8 schools)⁹
- Schools outside of the eight-mile radius (12 schools)¹⁰
- Schools with no current or future growth capacity (10 schools)¹¹
- Non-viable size to sustain a magnet (0 schools)

⁸ Bonillas, Borton, Carrillo, Davis, Holladay, Tully ES; Booth-Fickett, Drachman, Roskrugue K8; Dodge and Mansfeld MS; Palo Verde and Tucson HS.

⁹ Borman, Kellond, Lineweaver, Wheeler ES; Meredith K-12; Project MORE, TAPP, University HS.

¹⁰ Banks, Collier, Dunham, Henry, Johnson, Soleng Tom, Vesey ES; Lawrence 3-8 and Robins K-8; Gridley and Secrist MS; Sabino HS.

¹¹ Gale Grijalva, Hughes, Miller, White, Wright ES; Miles, Rose K8; Cholla, Rincon HS. The committee considered physical capacity and facility condition in the context of creating new programs that would benefit as many students as possible. Ensuring the site can accommodate growth also means potentially fewer start-up costs.

- Underperforming schools (“School-Improvement” schools; schools not meeting AzMERIT ELA and Math proficiency rates, or a D or F letter grade (18 schools)¹²
- Schools with dual language programs (4 schools)¹³
- Racially concentrated schools near or above 85 % Hispanic (2 schools)¹⁴

Seventeen schools remained after the initial screening process.¹⁵

2) Exploration of Magnet Themes

The committee reviewed the 2016 Marzano report, which highlighted five possible themes. The themes included STEAM, Fine and Performing Arts, Dual Language, Gifted and Talented (GATE), and Early College Preparatory. Many of these programs are already offered at both Magnet and non-Magnet schools. Currently, the District operates 13 magnet schools and programs, organized into four general themes, as shown in the chart below.

Theme (General)	Theme (Specific)	Elementary	K8/Middle School	High School
ARTS	Creative Arts ¹⁶	Carrillo ES		Tucson
	Fine Arts	Holladay ES		Tucson
STEM/STEAM	Science		Booth-Fickett K8	Tucson
	STEM/STEAM	Borton ES ¹⁷	Mansfeld MS	Palo Verde
ADVANCED LEARNING	Dual Language	Davis ES	Roskruge K8	
	Open-Access GATE	Tully ES		
ALTERNATIVE LEARNING	Traditional Academics	Bonillas ES	Dodge MS	
	Montessori		Drachman K8	

¹² Blenman, Cavett, Erickson, Maldonado, Manzo, Myers-Ganoung, Ochoa, Robison, ES; Dietz, Roberts-Naylor, Safford K8; Magee, Pistor, Vail, Valencia and Utterback MS; Catalina and Santa Rita HS.

¹³ Bloom and Mission View ES; Hollinger K8; Pueblo HS.

¹⁴ McCorkle and Pueblo Gardens K8

¹⁵ Cragin, Davidson, Ford, Fruchthandler, Howell, Hudlow, Lynn-Urquides, Marshall, Oyama, Sewell, Steele, Tolson, Warren, Whitmore ES; Morgan Maxwell, K8; Doolen MS; Sahuaro HS.

¹⁶ Creative Arts includes a strong communications component.

¹⁷ Borton ES uses systems thinking and project based learning to prepare students for STEM/STEAM courses at the secondary level, grades 6-12.

The District also has both Magnet and non-Magnet Dual Language and GATE schools, including a full-time GATE/ Dual Language program at Hollinger K-8. While not offered as Magnet programs, the District offers designated Early College Preparatory programs at University High (Advanced Placement focused curricula), Cholla (International Baccalaureate certification and Diploma program) and Santa Rita (Academic and CTE dual enrollment courses). The District also has both Magnet and non-Magnet Dual Language and GATE schools including a full-time GATE/ Dual Language program at Hollinger K-8. The one missing component identified by the Magnet department was a middle school Magnet Fine and Performing Arts program.

Having exhausted the Marzano report, the Magnet department expanded its review to explore magnet themes that have proven successful elsewhere. The two most-promising themes that emerged were health sciences and advanced technology.

Health Sciences

Health Science Magnet Schools employ a curriculum that promotes student inquiry and fosters student interest in science. Several health science magnet schools have proven track records of success:

Northridge Middle School's Medical and Health Career Magnet Center provided a model curriculum that includes three theme-based academies: Biomedical Sciences and Health Careers, the Human Body System and Investigation of Interventions, Prevention, Diagnosis and Treatment of Diseases.¹⁸

Hartsfield Elementary Animal and Environmental Science Magnet Program provided specific thematic units and topics for each grade level. Each unit supports student learning centered around the link between the environment, health, science and math as they relate to the real world.¹⁹

¹⁸ www.northridgemiddleschool.org/cms/page_view?d=x&piid=&vpid=1505496781648

¹⁹ www.houstonisd.org/Page/158356

Franklin Academy is the Medical Sciences & Wellness Magnet School in the Columbus Municipal School District includes a capstone project as part of their model curriculum.²⁰

Elementary Health and Science Magnet schools, such as *Dr Sammy Lee Elementary Medical and Health Science Magnet* experienced higher attendance rates, lower suspension rates, and higher achievement scores than other L.A. Unified School District.²¹

The District explored a variety of community partners that could provide resources and professional development to increase teachers' knowledge about health science topics and to enhance their proficiency on teaching lessons related to the school theme. *InSciEd Out* and *Project Lead the Way* provide support and materials for teachers to engage students in authentic, engaging and experimental learning related to health sciences.²²

The District met with the director of the *Southwest Environmental Health Science Center* as a potential partner to provide guest speakers and Health Science professional development for teachers on health related topics in order to develop students' understanding of Health Science concepts and spark interest in diverse health care career field.

Advanced Technology

Technology-themed magnet schools move beyond simply focusing on the use of technology in the classroom, but integrate a variety of computer and digital courses, that can range from simple coding to the creation of digital art.

The Center for Design and Computer Sciences at Bugg Elementary, Wake County public school system, North Carolina introduces foundational computer science knowledge and competencies. Students can learn about coding, robotics, and digital art (see www.wcpss.net/bugges).

²⁰ www.franklin.columbuscityschools.org/curriculum/

²¹ www.explorelausd.schoolmint.net/school-finder/schools/1284

²² See www.insciedout.org/ and www.pltw.org/blog/why-schools-should-teach-medical-detectives

The Washington Technology Magnet School in Saint Paul Minnesota offers “signature” courses in technology courses through introductory courses in computer keyboarding to computer applications. Their objective is to not only develop students computer skills, but also the critical understanding and thinking about the use of technology (see www.spps.org/washington).

Broward County Schools Florida offer a continuum of Magnet schools with technology as their focus. Starting in K-5, students can participate in the Technology with Global Communications Program, and then as middle school students explore topical areas ranging from information technology, computer engineering and the digital arts. Finally in high school, under the Emerging Computer Technology program students can take courses ranging from computer applications, network administration, electronics, computer design, robotics and animation (see www.browardschools.com)

3) Preferred Magnet Choices

This initial analysis resulted in the identification of 17 possible Magnet candidate schools, including 14 elementary schools, one K-8, one middle school and one high school. The committee then analyzed the 17 candidates to develop a list of preferred magnet choices.

Using the results of the comprehensive study, the committee eliminated seven elementary schools as possible magnet candidates due to one or more of the following factors: location, travel times, transportation, available geographical areas with targeted students, insufficient numbers of targeted students living within reasonable proximity of the schools (based on the identified census tracts and the maps). The committee eliminated another elementary school because there were two candidates located within a mile of each other.

The final list of preferred choices includes five elementary schools, one middle schools, one K-8 school, and one high school. Of these nine schools, three are currently integrated, two are racially concentrated, and four are not integrated or racially concentrated. Most of them have viable existing transportation routes from targeted census tracts; others need and could develop specific plans.

Elementary	K-8	Middle	High
Cragin, Davidson, Howell, Steele, Tolson, Whitmore	Maxwell	Doolen	Sahuarro

One of the considerations for the committee was to identify potential Magnet candidates who could fulfill existing district needs and support new Magnet themes. The potential candidates identified could support a dynamic Health and Medicine science magnet at both the Elementary and Middle school levels, and an advanced technology magnet at all school levels. However, at this point, the District does not have a viable middle school Fine and Performing arts option.

4) Informing Non-Magnet Integration and Academic Plans

a. Potential for Integration

The committee used the results of the comprehensive study to determine whether non-Magnet candidate schools could become integrated and where integration was not practicable. In completing this assessment, the committee grouped schools according to a number of characteristics. These factors included the location and number of students needed to integrate, the academic performance of the school, the design capacity of the school, whether a school was over-subscribed, and proximity to other schools competing for the same targeted demographic populations.

The Transportation department evaluated the maps and routes associated with schools that were not magnet candidates but identified as having a high potential for integration. Where transportation was a limiting factor, due to distance or travel times, the committee regrouped certain schools from high- or –moderate potential to low potential.

b. Inform the Transportation Plan

The Transportation department utilized the maps and census tract information to evaluate existing routes to develop transportation options by school and by targeted student populations. Once the committee narrowed magnet candidates to nine schools, Transportation evaluated all existing routes to those schools to identify opportunities for new routes, express shuttles, or other options.