Manhattanville in West Harlem Implementation Plan Report October 16, 2023 Submission

Declaration Reference and Key Data

Obligation Section Number: 5.07(c)(x) Obligation Title: Availability of Facilities Obligation Page Number: 54 Obligation Trigger: Acquisition by ESD or CU of all Initial Stage 1 Condemnation Parcel(s) Obligation Start Date: March 12, 2012 Obligation End Date: March 12, 2038* (25 Years from Commencement) Obligation Status: In Compliance

Obligation: Innovation/Changed Conditions

In accordance with the Declaration of Covenants and Restrictions Section 5.08, Obligation 5.07 (c)(vi) is modified to clarify the obligation. In general, the scope of services to be provided has not been changed. Empire State Development and Columbia University agreed to this modification on November 28, 2018.

Modified Language:

Availability of Facilities. Commencing with the acquisition by ESD or CU of all Initial Stage 1 Condemnation Parcels, and continuing for a 25-year period from commencement, CU, in coordination with the School's guidelines, shall make its libraries, computing facilities and other academic support facilities and services available to upper level students from the School. Annual reports will provide details regarding the process.

* Facilities were made available in 2013, one year after the trigger date. Therefore, this obligation will be in effect until 2038, 25 years from the commencement of the obligation implementation.

Evidence of Compliance

1. Annual report

Columbia University's Implementation Plan and all supporting documentation are made available on the Columbia Neighbors Webpage at https://neighbors.columbia.edu/content/community-commitments.

EOC Checklist for Obligation 5.07(c)(x):
Please check to verify EOC items submitted for review.
1. Annual report
Monitor's Notes / Comments:
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Status: Please check to indicate the status of <u>Obligation 5.07(c)(x)</u> :
In Compliance
In Progress
□ Not In Compliance
Not Triggered

COLUMBIA SECONDARY SCHOOL

for Math, Science, & Engineering

425 West 123rd Street, New York, NY 10027

A Public School, Community, and University Partnership

Challenging Academics - A Passion for Reason and Knowledge - Strength in Diversity

Memorandum

To: Joseph J, Interim Provost
From: Vikram Arora, Principal
Re: Columbia University/Columbia Secondary School Staff and Student Interactions
Updated: September 1st, 2023

Columbia Secondary School for Math, Science, and Engineering (CSSMSE) opened in 2007 and has been providing the community with an excellent public secondary school (grades 6–12) option for over a decade. Based on feedback about the school's needs and priorities from my staff and our leadership team, the University has continuously supported CSSMSE and its students through access to the expertise of Columbia's faculty and to campus facilities.

This report describes the projects and programs through which CSSMSE accessed Columbia's faculty and campus resources from September 1, 2022 through August 31, 2023. As is noted in the report, most are ongoing. While Columbia's obligations under the *Availability of Faculty* and *Availability of Facilities* sections of the Declaration began in 2012, CSSMSE's interactions with Columbia's faculty began as early as 2007.

In addition to the other projects and programs noted in this report, CSSMSE upper-level students access Columbia University's libraries, computing facilities, and other academic support facilities and services while taking both for-credit and pre-college courses at the University. These programs are administered by Columbia's School of Professional Studies and described in more detail in this report. CSSMSE students who are enrolled in classes at Columbia have the support and guidance of their instructors and classmates and have demonstrated the maturity and responsibility needed to successfully navigate a university campus.

In addition to the campus experience and access enjoyed by students who are taking courses, these and other students also visit the campus under the supervision of CSSMSE teachers in collaboration with Columbia's administrative staff and academic faculty for a variety of other projects and programs, as also described herein.

(BRINCIPAL)



School, department, or unit:

Fu Foundation School of Engineering and Applied Science (SEAS) <u>CSS-MSE students or staff member:</u>

; 3 12th-grade students

Project/purpose:

Engineering the Next Generation (ENG): Rising high school seniors match with engineering labs and research mentors and are supervised by faculty members. Program components include research, mentoring, college preparation, and presentation skills, as well as academic and professional workshops. Students are challenged with high-level academic expectations by both the researchers and undergraduate mentors. Participants must be at least 16 years of age in order to participate and are granted a stipend for their time in the program. In addition, CU partnered with New York City's Department of Youth and Community Develop (DYCD) to utilize the Summer Youth Employment Program (SYEP) so that eligible students could receive a greater stipend than in previous years. <u>Outreach to students:</u>

Identification of potential participants and outreach to students is conducted by CSS-MSE faculty and administration. Columbia Engineering Outreach Programs team also holds info sessions at CSS-MSE.

Process by which students access benefit:

CSS-MSE faculty members facilitate students' participation in the program as part of the ongoing collaboration with CU faculty. Students submit applications individually.

Time period:

Ongoing

University faculty, instructor, or staff member:

Varies

School, department, or unit:

Vagelos College of Physicians & Surgeons, Office of Diversity & Multicultural Affairs <u>CSS-MSE students or staff member:</u>

Project/purpose:

S-PREP is a free high school and college preparatory program for 7th - 12th grade students who are interested in a career in medicine or related STEM professions. The long-range objective is to increase the number of historically underrepresented and economically disadvantaged students prepared to enter college, and improve their participation rate in healthcare and STEM. Outreach to students:

Identification of potential participants and outreach to students is conducted by CSS-MSE faculty and administration.

Process by which students access benefit:

CSS-MSE faculty members facilitate students' participation in the program as part of the ongoing collaboration with CU faculty. Students submit applications individually. <u>Time period:</u>

Ongoing, Summer, Fall, Spring

<u>School, department, or unit:</u> Columbia Zuckerman Institute <u>CSS-MSE students or staff member:</u>

4 CSS-MSE students in grades 10 through 12

Project/purpose:

CSS-MSE worked with Columbia's Zuckerman Institute to include CSS-MSE students in BRAINYAC (Brain Research Internships in New York at Columbia). BRAINYAC is a program for students with an interest in biomedical - specifically neuroscience - research. Students learn basic neuroscience concepts and laboratory skills which prepare them for a seven-week mentored science research experience in Columbia University research laboratories. Students receive a stipend for their participation and produce a poster that they present to scientists and family members at the end of the summer. BRAINYAC provides high-schoolers with an immersive, hands-on summer research experience in a Columbia laboratory. They emphasize opportunities to connect with real scientists, learn key skills required to work in a research environment, and become part of the Columbia University community. The 2023 program has returned to fully in person programming. <u>Outreach to students:</u>

Identification of potential participants and outreach to students is conducted by BRAINYAC program staff in collaboration with CSS-MSE faculty and administration.

Process by which students access benefit:

CSS-MSE faculty members facilitate students' participation in the program as part of the ongoing collaboration with CU faculty. BRAINYAC program staff facilitate an information session for interested CSS-MSE students to learn more about the program and its application process. <u>Time period:</u>

Ongoing, January -August

University faculty, instructor, or staff member:

<u>School, department, or unit:</u> Office of the Provost <u>CSS-MSE students or staff member:</u>

Project/purpose:

Provide outreach and introductions to University departments and promote CSS-MSE throughout the University. <u>Outreach to students:</u> Varies by project <u>Process by which students access benefit:</u> Varies by project Time period:

Ongoing

University faculty, instructor, or staff member:

<u>School, department, or unit:</u> School of Professional Studies (SPS)

CSS-MSE students or staff member:

Project/purpose:

Facilitating registration of CSS-MSE students in Columbia classes, including outreach to University faculty and staff, refining a system to vet courses to ensure that they are suitable for CSS-MSE students, creating and delivering orientations regarding CSS-MSE student registration and access to CU resources.

Outreach to students:

CSS-MSE administration and faculty identify students prepared for college-level coursework and independence and select student participants through a rigorous application and review process. CSS students also submit a CU Pre-College application to ensure completeness and accurate and timely account setup. CSS-MSE administration and faculty work with students to choose classes that are of interest and support their learning.

Process by which students access benefit:

CSS-MSE administration and SPS staff finalize the list of students each term. Students apply individually through the SPS application portal and their applications are reviewed for eligibility by SPS Admissions. After their accounts are set up in the SPS system, students who are participating for the term receive instructions from CSS-MSE administrators about how to enroll. An in-person orientation is conducted for participating CSS-MSE students by SPS staff, including familiarizing them with the Morningside campus, getting their CUIDs, and visiting the Columbia Bookstore to get their books (which have been set aside for CSS-MSE students based on their courses). Once enrolled and oriented, CSS-MSE students begin attending their classes alongside other students in the class. CSS-MSE administration oversees students' success and offers mentoring and tutoring opportunities when available to support students in their CU coursework. Students who take classes for credit are able to request a CU transcript following completion of their senior year, which can be submitted to colleges.

Time period: Ongoing

University faculty, instructor, or staff member:

CSS-MSE students or staff member:

- all 10th grade students

Project/purpose:

Faculty and graduate students in CU's History Department are engaged in a program with CSS-MSE's History faculty to support and improve the focus on research and writing in CSS-MSE's history curriculum and prepare students for college-level work. This past academic year, the program included the following elements: pairing graduate students with CSS-MSE history teachers to assist 10th grade students and history teachers to support essay writing and to help develop research and research papers.

Outreach to students:

The project was a mandatory component of 10th grade coursework.

Process by which students access benefit:

CSS-MSE faculty members facilitated students' participation as part of the ongoing collaboration with CU faculty. Collaboration between CU and CSS-MSE faculty has facilitated enhancements to the CSS-MSE curriculum, affecting all students.

Time period:

Ongoing

University faculty, instructor, or staff member: Various School, department, or unit: Various CSS-MSE students or staff member: Available to CSS-MSE classroom teachers and certain full-time CSS-MSE employees Project/purpose: Taking graduate courses in specific specializations through CSS-MSE/CU tuition scholarship program to further pedagogical work at CSS-MSE Outreach to students: n/a Process by which students access benefit: n/a Time period: Ongoing

University faculty, instructor, or staff member:

<u>School, department, or unit:</u> School of Professional Studies (SPS) CSS-MSE students or staff member:

; 26 CSS-MSE students in 8th and 9th grades

Project/purpose:

Through SPS's Pre-College Immersion Program, CSS-MSE students take Columbia non-credit courses and participate in extracurricular and co-curricular activities, including college preparedness programming, community outreach and awareness activities, and special lectures. At a course's conclusion, participants receive a Certification of Participation and an evaluation letter from the instructor.

Outreach to students:

Identification of potential participants and outreach to students is conducted by CSS-MSE faculty and administration.

Process by which students access benefit:

CSS-MSE faculty members facilitate students' participation in the program as part of the ongoing collaboration with CU faculty.

Time period:

Ongoing

University faculty, instructor, or staff member:

School, department, or unit:

School of Professional Studies

CSS-MSE students or staff member:

26 CSS-MSE students

Project/purpose:

Online writing workshop offered in three 3-week modules over a total of nine weeks, taught by specialist in undergraduate writing

Outreach to students:

Students enrolled in Pre-College Immersion (see above) are eligible to participate.

Process by which students access benefit:

Students enrolled in Pre-College Immersion (see above) are eligible to participate. Time period:

Ongoing

University faculty, instructor, or staff member: Varies School, department, or unit: Columbia University, School of Professional Studies <u>CSS-MSE students or staff member:</u> 7 students for Fall 2022, 7 students for Spring 2023, 17 students students for Summer

2023

Project/purpose:

The Summer Immersion program is a program through which high school students in the 9th and 10th grade can apply to take pre-college (non-credit bearing) courses at Columbia University during the summer.

Outreach to students:

9th and 10th grade students that have a gpa of above 85% receive an invitation from CSS-MSE faculty to apply to take a summer immersion course. Students submit applications individually. Process by which students access benefit:

Open to all 9th & 10th high school students with semester grades in every subject at 85% or higher. Submitted applications are reviewed by a CSS-CU Committee that includes CSS-MSE faculty. Attendance, punctuality, behavior in class, academic integrity, and maturity are all taken into account when reviewing a student's application.

Time period:

Ongoing

University faculty, instructor, or staff member:

CSS-MSE students or staff member:

All CSS-MSE students who are enrolled in CU courses through SPS;

Project/purpose:

The Columbia University Bookstore, in conjunction with the School of Professional Studies, has developed a streamlined process to facilitate CSS-MSE's acquisition of textbooks for the CU courses for which they are registered. This partnership was developed specifically for CSS-MSE students and is evaluated and improved each semester to ensure students have easy access to appropriate course materials.

Outreach to students:

CSS-MSE administration and faculty identify students prepared for college-level coursework and independence and work with them to choose classes that are of interest and support their learning. Process by which students access benefit:

Once CSS-MSE students are enrolled in their chosen courses for the term, a list of their names and courses is sent by CSS-MSE administration to the Columbia Bookstore.

The Bookstore sets aside all materials needed for the courses (except in the infrequent instance of something not being available there), and at the time of their orientation, CSS-MSE students visit the Bookstore, where they are shown the window at which they receive their books and told what to do in the case of a change in course or the need to pick up additional course materials.

The Bookstore donates materials annually up to \$5,000, an amount that covers almost the entire cost of the students' books. Any expenses above \$5,000 are covered by the school.

Students do not incur any expenses from the Bookstore for required course books. Students return all hardcover and non-consumable books after the completion of their CU semester. <u>Time period:</u>

Ongoing

University faculty, instructor, or staff member:

School, department, or unit:

Fu Foundation School of Engineering and Applied Science (SEAS) <u>CSS-MSE students or staff member:</u>

Project/purpose:

COSMOS is a Research Experience for Teachers (RET) program funding by the National Science Foundation (NSF) to support teachers learning new skills that can be applied to the classroom. This three week program selects certified high school teachers to learn how cutting-edge 5G/wireless technology developed as part of the COSMOS program can be integrated into technology courses. Teachers work alongside researchers to build lesson plans that can be replicated by other teachers. <u>Outreach to students:</u>

Fu Foundation School of Engineering and Applied Science (SEAS) outreach distributes flyers and email invites to partner schools.

Process by which students access benefit:

N/A Time period:

July, ongoing

University faculty, instructor, or staff member:

/2 Columbia Engineering students

School, department, or unit:

Fu Foundation School of Engineering and Applied Science (SEAS)

<u>CSS-MSE students or staff member:</u>

; 37 students in grades 9-12

Project/purpose:

FIRST Robotics: Throughout the year, CSS-MSE students prepare for and participate in the FIRST Robotics Competition, an annual national robotics competition for students in grades 9-12. The team meets on campus multiple times a week, working closely with peer team members, undergraduate mentors, and staff from the Mechanical Engineering Department, CSS-MSE students build and program robots and compete at the local and regional level. Fu Foundation School of Engineering and Applied Science (SEAS) Outreach Programs hosts the FIRST competition kickoff event not only for CSS-MSE but also including other local teams each January. This year, under the guidance of SEAS faculty and staff, CSS-MSE launched its own team with 37 students from CSS participating in 2022-2023 and 3 students from Columbia Engineering served as mentors.

Outreach to students:

Identification of potential participants and outreach to students is conducted by CSS-MSE faculty and administration. Columbia Engineering Outreach Programs team also holds info sessions at CSS-MSE.

Process by which students access benefit:

CSS-MSE faculty members facilitate students' participation in the program as part of the ongoing collaboration with CU faculty. Students submit applications individually.

Time period:

AY 2022-2023

(organizer) and multiple staff members

School, department, or unit:

Columbia University, Irving Medical Center

CSS-MSE students or staff member:

; all 10th and 11th grade students

Project/purpose:

An information session for 11th graders is held with video presentation, panel discussion (former participants and members of the CUIMC community, inspiring students to consider careers in the health sciences through experiential discovery learning experiences and courses. For the observership, rising seniors shadow CUIMC professionals in different medical fields and at different stages of their careers and met to explore medical careers on site. Students connect with healthcare professionals and immerse themselves in different hospital environments including the operating room and research labs, learn key skills required to work in the medical community, and become part of the Columbia University community.

Outreach to students:

Identification of potential participants and outreach to students is conducted by CSS-MSE faculty and administration.

Process by which students access benefit:

CSS-MSE faculty members facilitate students' participation in the program as part of the ongoing collaboration with CU faculty. Students submit applications individually.

Time period:

Summer 2023

University faculty, instructor, or staff member:

Senior Associate Director of Admissions

School, department, or unit:

Undergraduate Admissions and Financial Aid

CSS-MSE students or staff member:

Project/purpose:

Virtual sessions are available for CSS-MSE families and students throughout the year. They may also participate in on-campus tours as well. This year, CU Undergraduate Admissions held a school visit at CSS-MSE in the fall.

Outreach to students:

Students are invited to register for information sessions and on-campus tours through email notifications from Undergraduate Admissions. Students and families are notified by CSS-MSE staff via email, class announcements and letters home regarding CU's school visits to CSS-MSE. CSS-MSE counselors are encouraged to connect families with Undergraduate Admissions representatives. <u>Process by which students access benefit:</u>

Students attend scheduled college-oriented events

Time period:

Fall 2022 and Spring 2023

University faculty, instructor, or staff member:

School, department, or unit:

Chemistry; East Asian Languages and Culture; German; History; Mathematics; Philosophy; Psychology; Statistics

CSS-MSE students or staff member:

12 CSS-MSE students;

Project/purpose:

In the fall 2022 term, 12 CSS-MSE students took courses for college credit at Columbia University, including 6 CSS-MSE students who were newly enrolled at Columbia. Students enroll through the School of Professional Studies and are provided with a student orientation and access to discounted textbooks at the Columbia University bookstore. Students have full access to Columbia instructors, including use of office hours if needed. Courses this semester included Abnormal Behavior, Ancient History, Calculus II; Elementary German and Second Year Chinese I; Introduction to Statistics. <u>Outreach to students:</u>

CSS-MSE administration and faculty identify students prepared for college-level coursework and independence and work with them to choose classes that are of interest and support their learning. The program is well established at CSS-MSE and discussions about preparedness are a standard part of all CSS-MSE students' experiences.

Process by which students access benefit:

CSS-MSE administration and SPS staff finalize the list of students each term, and after their accounts are set up in the SPS system, students who are participating for the term receive instructions from CSS-MSE administrators about how to enroll. An in-person orientation is conducted for participating CSS-MSE students by SPS staff, including familiarizing them with the Morningside campus, getting their CUIDs, and visiting the Columbia Bookstore to get their books (which have been set aside for CSS-MSE students based on their courses). Once enrolled and oriented, CSS-MSE students begin attending their classes alongside, and indistinguishable from, other students in the class.

Time period: Fall 2022

University faculty, instructor, or staff member:

School, department, or unit:

Computer Science; Economics; History; Mathematics; Sociology; Statistics. <u>CSS-MSE students or staff member:</u>

12 CSS-MSE students

Project/purpose:

In the spring and summer 2023 terms, 12 CSS-MSE students took courses for college credit at Columbia university, including 2 CSS-MSE students who were newly enrolled at Columbia. Students enroll through the School of Professional Studies and are provided with a student orientation and access to discounted textbooks at the Columbia University bookstore. Students have full access to Columbia instructors, including use of office hours if needed. Courses these semesters included Computer Science, Linear Algebra, Principles of Economics, The Social World and US Presidency Washington.

Outreach to students:

CSS-MSE administration and faculty identify students prepared for college-level coursework and independence and work with them to choose classes that are of interest and support their learning. The program is well established at CSS-MSE and discussions about preparedness are a standard part of all CSS-MSE students' experience.

Process by which students access benefit:

CSS-MSE administration and SPS staff finalize the list of students each term, and after their accounts are set up in the SPS system, students who are participating for the term receive instructions from CSS-MSE administrators about how to enroll. An in-person orientation is conducted for

participating CSS-MSE students by SPS staff, including familiarizing them with the Morningside campus, getting their CUIDs, and visiting the Columbia Bookstore to get their books (which have been set aside for CSS-MSE students based on their courses). Once enrolled and oriented, CSS-MSE students begin attending their classes alongside, and indistinguishable from, other students in the class.

Time period:

Spring and Summer 2023 terms

University faculty, instructor, or staff member:

Director of Educational Technology at Tutoring and Learning Center ("TLC")

CSS-MSE students or staff member:

100 9th and 10th students in Geometry and Calculus

Project/purpose:

Through the Tutoring and Learning Center, Columbia and Barnard students offer math tutoring to individual students and small groups. Sessions can include math remediation, social and emotional learning skills, growth mindset, mentoring, and homework help.

Outreach to students:

Identification of potential participants and outreach to students is conducted by CSS-MSE faculty and administration.

Process by which students access benefit:

CSS-MSE faculty members facilitate students' participation in the program as part of the ongoing collaboration with CU faculty.

Time period:

Fall 2022 and Spring 2023

University faculty, instructor, or staff member:

School, department, or unit:

Fu Foundation School of Engineering and Applied Science (SEAS) CSS-MSE students or staff member:

6 students participated Project/purpose:

SHAPE, Columbia Engineering's Summer High School Academic Program for Engineers, is a selective pre-college program for rising sophomores, juniors, seniors, and recent high school graduates. SHAPE is geared toward students with an aptitude for STEM: science, technology, engineering, and mathematics. This summer, two 3-week sessions offered college-level, project-based courses in engineering taught by faculty at Columbia University. Students engage with peers and Columbia University faculty, staff, students, alumni, and industry partners through interactive programming, site visits, and workshops.

Outreach to students:

Identification of potential participants and outreach to students is conducted by CSS-MSE faculty and administration.

Process by which students access benefit:

CSS-MSE faculty members facilitate students' participation in the program as part of the ongoing collaboration with CU faculty.

Time period:

July and August

<u>School, department, or unit:</u> IEOR Department at SEAS <u>CSS-MSE students or staff member:</u>

Project/purpose:

AI Lab for Middle School Students (8th graders) and High School students As mentioned CSS was the pilot program during the 2022-2023 Academic year. An hour talk on Career Day in March and then 5 sessions April-June <u>Outreach to students:</u> Identification of potential participants and outreach to students is conducted by CSS-MSE faculty and administration. <u>Process by which students access benefit:</u> CSS-MSE faculty members facilitate students' participation in the program as part of the ongoing collaboration with CU faculty. <u>Time period:</u> April to June 2023