



PHASE I: Letter of Intent

Last updated: 06/13/2015

Basic Contact and Application Information

Page 1

Applicant groups and Existing Education Corporations interested in submitting an application to establish Regents-authorized charter schools are asked to complete this brief information sheet. The Department will use this information to plan and coordinate peer review panels with appropriate expertise to evaluate all application materials.

Please indicate whether an Applicant Group or an Existing Education Corporation is submitting this Round 1 Letter of Intent.

Applicant Group LOI to establish a single, brand new charter school

Proposed Charter School Name

(Please write out the formal and full name for the school you proposed, and include the words "charter" and "school" in the proposed name(s)).

School Name	Pythagoras Charter School of Science, Technology, Engineering, and Mathematics (PCS-STEM)
Grades Served (K-5, .6-8, 9-12, etc.) During Initial Term	9-12
Number of Students During Initial Term	300

Proposed or Current Board Chair and Public Contact information, including mailing address, phone number, and email address.

(The entire chart may not be visible on your screen. Use the "tab" key to move from column to column. The first column will remain static as you do so).

	First and Last Name	Best Phone Number (###-###-####)	Email Address
Proposed/Current Board Chair	John Tiliakos	917-502-4829	vur501@aol.com
Public/Media Contact Person	John Tiliakos	917-502-4829	vur501@aol.com

If available, please provide the URL to the website established for the proposed school or existing education corporation.

pythagorascharterstemschools.weebly.com

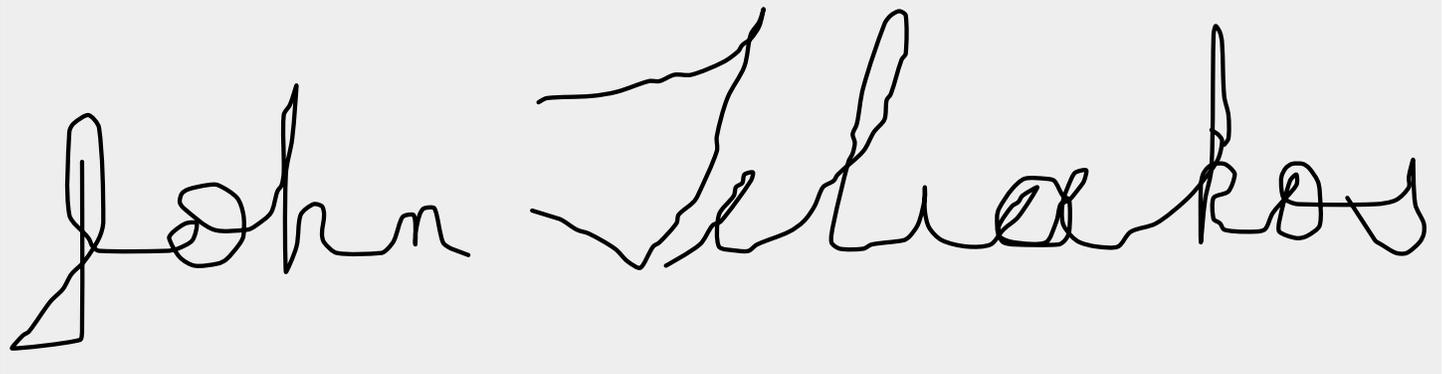
Proposed Management and/or Partner Organization(s), such as a charter or educational management company or a university, academic program partner, or whole school change partner.

(See pages 45-46 of the application kit for definitions and guidance as only "substantial" partnerships should be listed here).

Proposed Management Company	NA
Partner Organization 1	NA
Partner Organization 2	NA

Proposed Board Chair Signature

(Internet Explorer may not support this feature. Open the portal using Google Chrome, Firefox, or Safari).

A handwritten signature in black ink on a light gray background. The signature reads "John Thacker" in a cursive, flowing style. The first name "John" is written with a large, looped 'J' and a distinct 'h'. The last name "Thacker" starts with a large, stylized 'T' and continues with cursive letters.

Date

2015/06/15

Thank you for completing this form.

I. Applicant Group Information

a-b. Members of the Applicant Group and Initial Board of Trustees: Table1-attachment 5A

c. Public Contact: Name: John Tiliakos • **Tel:** 917-502-4829 • **Email:** Vur501@aol.com

d. Application History: 2014 Round 2 / 2015 Round 1 - Letter of Intent not accepted

II. Proposed Charter School Information

a. Proposed School Name: Pythagoras Charter School of Science, Technology, Engineering, and Mathematics (PCS-STEM)

b. Proposed School Location: 1724 Ave. P, B’klyn, NY Community School District (CSD) 22

c. Planned Grades and Enrollment in Each of the Years of the Proposed Charter Term:

Each year PCS-STEM will enroll 75 students in the ninth grade with a maximum student-faculty ratio of 25:1. At full size, PCS-STEM will serve students in grades 9-12. The table below depicts the school’s planned enrollment in each year of the proposed five-year charter term. The school reaches its full enrollment of 300 students in Year 4.

Projected Enrollment Table Over the Charter Term						
Grade	Ages	2016-2017	2017-2018	2018-2019	2019-2020	2020-2021
9	13-16	75	75	75	75	75
10	14-17	0	75	75	75	75
11	15-18	0	0	75	75	75
12	16-19	0	0	0	75	75
Totals		75	150	225	300	300

d. Proposed Management and/or Partner Organization(s): N/A

e. Proposed School Mission: The proposed mission of the *Pythagoras Charter School of Science, Technology, Engineering, and Mathematics (PCS-STEM)* is to promote a superior educational experience for students of grades 9-12 by stimulating creativity and innovative thinking through a concentration in Science, Technology, Engineering, and Mathematics (STEM). Students will acquire knowledge and skills in problem solving and teamwork, while exploring STEM careers. PCS-STEM will promote an educational system that closes the achievement gap between learners, fosters academic success, and prepares each student for acceptance into institutions of higher learning.

f. School Overview: The founding group believes that all students can attain their maximum capability given the appropriate opportunity. We will provide this opportunity by creating an atmosphere conducive to learning where each student maximizes their potential through a curriculum addressing their individual learning styles. PCS-STEM’s instructional philosophy and practices constitute a paradigm shift in secondary school education from teacher-centered to student-centered. PCS-STEM will combine research-based instructional methodologies that have been proven successful. Administrators will establish a data-driven and reflective instructional culture that measures student achievement, teacher efficacy, and school-wide performance. The school believes that all students are to be treated with dignity and respect in accordance with the NYS Dignity Act. They have the right to learn, grow, and achieve their full potential without limitations in a safe nurturing environment. **Shared Culture and Values:** PCS-STEM would create an atmosphere that is supportive, innovative, collaborative, inspired, inspiring and rigorous. All stakeholders are expected to follow a set of shared core values that help the proposed school realize its mission and vision. **Rigorous Standards-Aligned Curriculum:** In order to have all students meet or exceed the New York State Common Core Learning Standards and other guidelines, students would complete a Common Core-aligned curriculum that includes two periods of math instruction per day and two periods of English instruction per day. Moreover, the proposed school would offer full-service programs for English Language Learners (ELLs) and special education students to ensure that every student has the academic support needed to close the achievement gap. All of this would be made possible by an extended school day (7:50am-4:30pm) and year (190 days), which would provide additional time on task, small class sizes (maximum 25), after school programs, and extra-curricular programs. We will deliver

educational best practices to the students by utilizing Pearson Education resources and researched-based instructional strategies: Understanding by Design (UBD), differentiated instruction, direct instruction, and personalized (individualized) learning plans to close the achievement gap by increasing learning opportunities for all students, with special emphasis on student at risk of academic failure, and an RTI model. **Student-Centered Instruction:** PCS-STEM's instructional design would align most closely with the Gradual Release of Responsibility (GRR) approach. GRR reflects the importance PCS-STEM would place on student-led exploration and discovery in learning. PCS-STEM would use the Sheltered Instruction and Observation Protocol (SIOP) model as its primary instructional tool for ELLs. The decision to use SIOP was made because it incorporates GRR principles, directly addresses the needs of ELLs, and would provide a broad and sound base of pedagogical practice. PCS-STEM will deliver educational best practices to the students by utilizing Pearson Education resources and the research-based instructional strategies mentioned in the Rigorous Standards-Aligned Curriculum section above. **Support for At-Risk Students:** PCS-STEM's Response to Intervention (RTI) system would be data-driven to help faculty, staff, and school leaders provide targeted and timely academic and behavioral support. The school would offer opportunity to a range of students with disabilities through general education classes, integrated co-teaching (ICT) classes, and self-contained special education classes. ELLs would receive additional support through instruction from ELL specialists. We would offer a robust special education program including integrated co-teaching (ICT) classes, Special Education Teacher Support Services (SETSS), and self-contained classes for students with disabilities. We would also have an English as a Second Language Specialist to address the needs of ELLs and to support literacy development. PCS-STEM would have a well-developed RTI procedure that would support struggling students. **College Readiness:** PCS-STEM will prepare students for a post-secondary education and careers in STEM. **Professional Development:** The school design will clearly support its commitment to professional development. Teacher schedules incorporate designated time during each day for the instructional staff to work individually and collectively with the Principal and/or to plan individually, or with their co-teachers or collaborate with their colleagues within and across grade levels. The school calendar and daily schedule provide opportunities for in-depth professional development prior to the start of each school year a mandatory three-week Summer Teacher Academy every August, where expanded professional development will be provided to familiarize teachers with the latest requirements, programs, and methodologies that lead to individual student success and throughout the year. PCS-STEM has scheduled early release every Friday afternoon for 90 minutes of targeted, job-embedded professional development to allow staff engagement in reflective practice, individual planning, and collegial collaboration. Teachers will receive ongoing professional development and support to deliver research-based instructional methodologies. This is intended to be a productive time during which the staff will utilize formative assessment data from interim assessments and student achievement data to drive professional development decisions and identify areas of greatest need.

g. Target Population and the Community That the School Intends to Serve

PCS-STEM will target and enroll students (including students with learning disabilities (SWDs), ELLs, students eligible for free and reduced-price lunch program (FRLP), and the economically disadvantaged) from ten elementary and middle schools in CSD 22: IS 240, IS 381, JHS 014, JHS 078, JHS 234, JHS 278, PS 109, PS 206, PS 207, and PS K811. According to the *2013-2014 NYC DOE Demographics Snapshot* of CSD 22, 20% of students were designated as SWD, 9% of students were classified as ELL, and 71% were eligible for Title I and FRLP. We will meet or exceed enrollment and retention targets for these students established by NYSED under New York Education Law § 2852 (9)(b)(i). CSD 22 serves the southeastern Brooklyn neighborhoods of Sheepshead Bay, Madison, Midwood, Flatlands, Marine Park, Mill Basin, and parts of Flatbush. The district's ethnic middle school student composition is: 27% White, 43% Black or African American, 14% Hispanic or Latino, and 15% Asian. **CSD 22 students are exiting 8th**

grade with the following scores: ELA (Level 1: 26%, Level 2: 41%, Level 3: 24%, and Level 4: 9%) and Math (Level 1: 32%, Level 2: 38%, Level 3: 17%, and Level 4: 13%). According to the **2012-13 NYCDOE High School Progress Report**, CSD 22 has only 2 schools that do not require screening for special programs and both are low-performing: Sheepshead Bay (44% 4-year graduation rate with 43% attended college and 39% college ready) and James Madison (75% 4-year graduation rate with 61% attended college and 57% college ready).

h. Replication or Network Information: N/A

III. Enrollment and Retention of Students with Disabilities, English Language Learners, and Students Who Are Eligible Applicants for the Free and Reduced-Price Lunch Program

Recruitment and Enrollment: By using various recruitment strategies, we will meet or exceed enrollment and retention requirements. Similar practices were widely utilized by the two charter schools that meet and exceed Recruitment and Retention targets in CSD 22. We plan to enroll special student populations in proportions that reflect their representation in CSD 22. We will continue to conduct a vigorous outreach program aimed at recruiting and enrolling a student body that is representative of all SWD, ELLs, FRLP students, at risk learners, and economically disadvantaged students from the general population residing in CSD 22.

Recruitment: We ensure that our marketing materials highlight our mathematics, science, and technology emphasis and college preparatory focus as well as promote PCS-STEM's high quality instructional programs to local elementary and middle schools, parents, teachers, and community: •Meet feeder schools guidance counselors •Hold Family Information Sessions in the local community to elicit public comment and distribute surveys •Attend community events •Advertise in local publications that focus on our target population •Distribute marketing flyers •School Website •Conduct school tours •Recruitment booth for three days at school site during community festival •Provide translators •Visit libraries. In regards to recruiting a student population representative of CSD 22, we led specific efforts to recruiting SWD, ELLs, and FRLP-eligible students: **SWD:** To recruit SWDs, we aimed our direct advertising and other recruitment efforts at a broad range of neighborhood and community programs that serve special education students. We also cultivated relationships with the special education coordinators of the CSD 22 middle schools to inform them about the school and provide them with promotional materials for parents. We provided a qualified special education teacher at information sessions to present the academic programs and resources that PCS-STEM will provide to meet those needs. **ELLs:** To recruit ELLs, we canvassed CSD 22 neighborhoods and distributed recruitment marketing materials in the community's predominant languages (Spanish, Russian, and Creole). We also provided translators at all of our information sessions and other events and purchased local newspaper advertisements in multiple languages. We provide promotional materials to community organizations to make sure those "harder-to-reach" families (e.g. single parent families, low socio-economic households, people who work in the area, etc.) are aware of the school and their eligibility to apply for enrollment. As part of our ongoing recruitment efforts, we will continue to post notices in multiple languages throughout the community. **Students Eligible for the FRLP:** To recruit FRLP-eligible students, we distributed marketing materials to public housing apartment complexes and Brooklyn food pantries, and conducted information sessions in community centers that offer support to low income families and to those who may be less informed of school options in an effort to recruit these students.

Retention: In order to retain students until graduation, PCS-STEM will utilize various instructional strategies: differentiated instruction, direct instruction, and personalized (individualized) learning plans/learning. Also, small class size and innovative instructional methods that lead to academic achievement, particularly for at-risk students, will help close the achievement gap for all students. The extended school day and year afford the opportunity to provide remediation and tutoring. We plan to incorporate instructional resources that will fulfill our mission to enable all students to achieve optimally, including students with IEP or 504 accommodations. **Our Retention plan goals and strategies include: Goal 1: To improve parent communication & strengthen relationships with parents-•Freshmen Orientation**

- Newsletters containing upcoming events will be prepared and distributed 4 times a year.
- Distribute report cards four times a year and hold three parent-teacher conferences including progress reports
- Utilize the Pearson PowerSchool database that will be used by teachers, parents, and students to monitor academic progress and assignments
- Teachers will keep parent logs of all the phone calls made home
- E-mail communication / in-person meetings
- Provide parent satisfaction surveys twice a year (mid-year and end-of-year)
- Serve on parent advisory councils (PTA/PTO)
- Attend PTA meetings/parent workshops
- Dedicated Parent Room:** In order to help parents feel at home in the school and to encourage their presence in their child's education.

Goal 2: To provide social and emotional support-The school will establish mentoring and support groups. Each group, organized and led by a licensed guidance counselor (and supported by teacher advisors and a social worker) will provide students with comprehensive socio-emotional development on topics such as leadership, teamwork, peer support, bullying, college applications, & balancing school and family.

Goal 3: To utilize after-school tutoring to ensure academic success-During the hours of 4:40-6:00pm, students receive tutoring in subjects they need extra help in.

Goal 4: To provide opportunities for social interactions to contribute to a positive school culture-Offer a variety of extracurricular activities and participation in various activities such as sports and science/math competitions.

SWD: All students will have access to tutoring and remediation during the extended school day. For SWDs, the IEP Team will ensure that students with IEPs access the appropriate programs and support to help them meet graduation requirements in the least restrictive environment.

ELLs: Students will initially self-identify when the NYSED Home Language Survey is completed. If a student's need is significant enough, PCS-STEM will provide appropriate instruction. The Sheltered Instruction Observation Protocol (SIOP) Model is a research-based instructional model that will be implemented to address the academic needs of ELLs. To support ELLs in the classroom, we will provide proper training on differentiating instruction and practice for ELL staff highlighting the language and communication skills required in all content areas. The professional development will be driven by disaggregated student performance data for ELLs.

Students Eligible for the FRLP: We will participate in the FRLP meal program and adhere to all applicable requirements. PCS-STEM will make sure all families are informed that the school participates in the FRLP at the start of the school year and offer assistance to families/parents to complete FRLP paperwork. Research has consistently shown that socioeconomic status is a key determinant of educational outcomes. PCS-STEM will implement a three-tiered Response to Intervention (RTI) process to support this population. The RTI process will allow the staff to quickly identify students who require additional support (Tier 2 or Tier 3 interventions) and provide appropriate services. The RTI team will collaboratively develop an academic intervention plan that will include the type and length of services needed and short- and long-term goals. This team will work closely with this population to identify and work through obstacles to academic success – whether those obstacles are solely academic challenges, family issues and/or social problems.

IV. Public Outreach and Community Support

Public Outreach: Since September 2014, our team has solicited community input regarding PCS-STEM in the following ways: public meetings, discussions, public awareness campaigns and surveys. First, we held public meetings with parents, community leaders, elected officials, and other stakeholders on 20 separate occasions between September 2014 and June 2015. At each meeting, our team made presentations on the mission, key design elements, curriculum, and proposed location of the school. At each meeting, our team collected anecdotal information from participants concerning the mission, model and overall design of the school.

Second, our team has met with a diverse array of stakeholders in and around our target communities. Our discussions with school leaders, administrators, and guidance counselors have informed our model and school design. In particular, we will offer a dedicated STEM program and dedicated STEM FAB LAB. We also hosted and were invited to participate in discussions with elected officials such as NYS Senator Golden, Brooklyn Borough President Eric Adams

Assemblywoman Nicole Malliotakis and Congresswoman Ms. Yvette D. Clarke. Each elected official endorses our initiative. More importantly, each elected official allowed us to speak directly with their constituencies. In our discussions, CSD 22 residents expressed concerns about limited high school alternatives in the community. Our proposal is intended to meet that concern. Third, our team launched a public awareness campaign targeting students, parents and families in CSD 22. Our campaign comprises four types of communication: visual/print (surveys, petitions, and flyers, and a website <http://pythagorascharterstemschools.weebly.com>), direct engagement (“street team” canvassing in CSD 22, information sessions at CSD 22 after-school programs and youth centers), and organizational partnership (disseminating materials through the district CEC and parent advocacy groups for targeted outreach to SWD, ELL and FRLP-eligible students). Finally, to provide our planning team with some empirical measures for demand, our team developed a survey on planned key design elements. The survey was issued to 225 persons, of whom 200 are parents. No less than 90 percent of all parents surveyed endorsed each of the key design elements for PCS-STEM.

Outreach meetings: CSD 22 and “Feeder” Schools March: Ms. Julia Bove, CSD 22 Superintendent; Ms. Therese Salli, Family Advocate. **April:** Melida Quiroz, Lead School Counselor, JHS 240. **June:** Ms. Deanna DeBlasio, Guidance Counselor, Brooklyn Dreams Charter School. **STEM Curriculum/program discussions March:** Dr. Socrates Thanasas, Assistant Dean, Farmingdale State College School of Engineering. **April:** Tanya Navas, NYS Director, NAF Academy; Prof. Bill Capitano, Biology Dept., Suffolk Community College. **May:** Dr. Godfrey Nwoke, NYC College of Technology, Career Technology dept.; Ms. Margarita Dominique, Science Teacher retired NYC DOE; Frantz Victor, CEO, IT Consultant. **June:** Cheryl Matthews, Vice President, Tech-Ed Systems; Alex Alfredo, STEM Program Director, Xaverian High School. **Special Education discussions April:** CEO Martin Handler, Special Education Associates, Inc. **June:** Kalliopi Xanthopoulos, NYC DOE Special Ed. Teacher. **Internship discussions May:** Doug Manowitz, CEO, Stone Core & Shell, LLC. **June:** Dinos Avlonitis, Manager, Magellan Aerospace, Inc.; Mike Dimarino, CEO, LindaTool. **Other community outreach April:** Fr. Mykola Fylyk, Saint Pantheleimon Ukrainian Orthodox Church. **May:** Michelle Koutsoubelis, Director, Cathy's Dance Studio; Frank Dody, Work Force Development Program Manager, Bedford Stuyvesant Restoration-discussed college readiness; Jacob Hecht, Aide of District 48 Council Member Chaim M. Deutsch; Cosmos FM 91.5, Q & A session for listeners. We will continue with our outreach efforts as we progress.

Community Support: Our outreach has led to positive feedback, support, and sufficient interest in the proposed school from stakeholders to allow us to reach our targeted enrollment. **Parental and community member input** (Upon analysis of 225 surveys ranking importance of the key features of the school were reviewed and summarized we know the school model we have proposed has the support from the community.): **100%**-Positive school community; Caring nurturing school with high quality teachers/administration; Families engaged in child's learning; Provide a College Readiness program/Extra-curricular activities; **98%**-Cultural diverse/promote tolerance; **97%**-Promote leadership/community involvement; Provide a dedicated STEM Program/lab; **95%**-Address needs of ELLs; **92%**-Longer school year/day; Two hours of literacy instruction each day. In fact, the surveys in particular, point to a great alignment between the academic programs we will offer and the educational needs of the children in the community. PCS-STEM is an excellent option and the only school in CSD 22 to offer specialized STEM programs.



John Tiliakos, Board Chairperson • June 22, 2015

TABLE 1: APPLICANT GROUP INFORMATION

***Minimum of 5 members must be designated as Trustees**

NAME OF APPLICANT GROUP MEMBER	EMAIL ADDRESS	CURRENT EMPLOYMENT	RELEVANT EXPERIENCE, SKILLS, AND ROLE ON APPLICANT GROUP (Key Words)	PROPOSED ROLE (if any) (Trustee, Employee,	PROPOSED POSITION ON THE BOARD (e.g., officer, trustee, or constituent	LENGTH OF INITIAL TERM	VOTING MEMBER (YES OR NO)
John Tiliakos	[REDACTED]	Franklin Career Institute	Administration/Policy	Trustee	President	3	YES
			Curriculum Development		/Chair		
			Technology				
Anastasios Koularmanis	[REDACTED]	Saint Demetrios School	Administration/Policy	Trustee	Vice-President	3	YES
			Curriculum Development		/Co-Chair		
Leonidas Eracleous	[REDACTED]	Zeaccounting	Accounting	Trustee	Treasurer	3	Yes
			Finance/Auditing				
Adam Wittenstein	[REDACTED]	Saint Demetrios School	Curriculum Development	Trustee	Secretary	3	YES
			Technology				
			Mathematics Specialist				
Stamatina Hatzimichalis	[REDACTED]	P.S 169 K	School Administration	Trustee	Trustee	3	YES
			Academic Intervention				
			Bilingual Education				
			Teacher Coaching				
Christopher Iannelli	[REDACTED]	Franklin Career Institute	Administration/Policy	Member	Officer	2	Yes
			Curriculum Development				
			Staff Development				
Christopher Tripoulas	[REDACTED]	Saint Demetrios School,	English as Second Language	Member	Officer	2	Yes
		Saint John's University	Public Relations and				
		LaGuardia Community College	Communication				
		The National Herald					
		PS 95Q					