



TAYLOR INDEPENDENT SCHOOL DISTRICT

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DR. BRUCE SCOTT

Superintendent

October 31, 2005

Frank Salvato, City Manager
City of Taylor
400 Porter Street
Taylor, TX 76574

Dear Frank:

It is with great excitement that I submit this proposal for Taylor Independent School District to implement the Center for Advanced Research and Technology for Eastern Williamson County (CART). As you know, Taylor ISD has a long-term commitment to helping both our students and the community build the workforce skills needed. We are very eager to have this project that will help us achieve our goal to be more **effective**, help our workforce become more **competitive**, and help create a more **vital** community in which we live.

I believe the innovative CART program will make it possible for us to help our workforce develop into a solid, effective, economic engine that will help the Taylor economy thrive. Advanced technology centers have been proven to work in many parts of the country. For instance, in Virginia Beach (VA), the ATC has enlisted a record-breaking roster of 50 companies for job candidates to explore. They range from the Bank of America to Chesapeake General Hospital to FedEx to Gold Key Resorts to Lockheed Martin to Norfolk and Virginia Beach police departments to The Virginian-Pilot to Walgreen's.

The only current impediment to instituting this program is funding. We respectfully request your help in obtaining the initial funding for capital costs. While Taylor ISD can contribute to the maintenance and operation of CART, we are very grateful that you will consider providing the additional funding to make the project successful.

Please let me know if there is anything more I can do to support your decision process. I look forward to working with you on this valuable and important project.

Sincerely,

Bruce Scott, Ed.D.
Superintendent of Schools

Attachment

ASSISTANT SUPERINTENDENT
CURRICULUM & INSTRUCTION
BARBARA DALE

BUSINESS MANAGER
BILL MIKULENCAK

ASSISTANT SUPERINTENDENT
SUPPORT OPERATIONS
DAVID KRUEGER

Proposal for the Taylor Independent School District to Support Implementation of the *Center for Advanced Research and Technology for Eastern Williamson County (CART)*

Prepared for the City of Taylor

Description of the City of Taylor and Taylor Independent School District

Taylor is an economically challenged town of 15,000 residents about 35 miles from Austin, Texas. Three separate public housing units attest to the low-economic status of the area. According to census data, approximately 18.17% of these families are currently living below the poverty level. Census data reports that 15.1% of Taylor residents 25 and older have less than a 9th grade education. Census data also indicates that 31.5% of Taylor residents 5 years and older speak a language other than English in the home. Areas in Taylor do qualify as a state designated enterprise zone and certain neighborhoods qualify as a locally designated neighborhood empowerment zones.

The Taylor community lacks adequate access to educational resources outside school facilities. The Taylor Library operates from a single downtown location with limited hours. School libraries operate only during school hours. A limited-time public transportation system operates out of another county. The lack of transportation makes resources inaccessible to many residents, especially youth.

Need for the *Center for Advanced Research and Technology for Eastern Williamson County (CART)*

High school graduates must be better prepared to compete in our new brain-based economy. Our nation and the world are becoming increasingly reliant upon technology and our public schools must step up to the challenge of equipping our students for success in this dynamic economy. Current students will need to be prepared to change careers at least eight times during their life. Whether students go directly into the work force after high school or choose to continue their education, as most will need to do, our schools must adapt their curriculum and instructional strategies to match the needs of our economy.

The Taylor Independent School District through Center for Advanced Research and Technology (CART) is preparing to collaborate with area school districts, higher education, government, and business and industry to ensure student success in our new economy. This synergistic partnership will allow the CART staff to develop curriculum and instructional strategies that will provide students with real world experiences in preparation for life after high school. By pooling financial and human resources, CART will be able to provide a unique and powerful educational environment.

While East Williamson County's economic base is primarily agrarian, there is a need and a desire to diversify this economic base by attracting high tech industry to our community. Providing a trained workforce for this new economy is essential. CART will be uniquely positioned to meet this community need because of the flexible nature of its lab environment. The Taylor Economic Development Corporation and the Hutto Economic Development Corporation are active members of the CART partnership. This relationship will guarantee that CART programs align with long term community workforce requirements, preparing students for the continuing educational experiences that are necessary to enter this new workforce.

Objectives and Outcomes for the Project

The objectives and outcomes of the Center for Advanced Research and Technology for Eastern Williamson County (CART) include the following:

- To serve as a primary source of instruction and training for advanced technology workforce development and to be a significant contributor to the City of Taylor, Eastern Williamson County and the surrounding area, and the State of Texas workforce development.
- To serve as a primary resource for successful small business startups, utilizing local resources and Temple College faculty.
- To provide multi-use space for a variety of economic development meetings and training on an "as needed" basis.
- To ensure that Eastern Williamson County secondary and post-secondary students will have the best career opportunities in the new millennium.
- To provide the opportunity for students to earn industry recognized certificates or licensure.
- To provide the opportunity for all students to earn up to a year of college credit, thus encouraging a higher matriculation rate for high school students to institutions of higher education.

To facilitate long-term learning, students must be actively involved in their education. Student learning is maximized when academic concepts are applied to relevant community issues. For these reasons, CART's instructional strategy will emphasize an interdisciplinary, project based model. CART's learning environment will stress core academics, technology, analytical thinking, and communication skills in an environment that emphasizes collaboration, teamwork, and components of the Secretary's Commission on Achieving Necessary Skills (SCANS).

An important design element of the CART program is the systematic and ongoing participation of the business community. Each lab will partner with a Business Advisory committee that will include professionals who work in the career focus area and representatives from higher education. These groups will meet on a regular basis throughout the year to evaluate curriculum, design student project assignments, and collaborate on student internships. These professionals will also identify site visit

opportunities, provide class speakers, and serve as mentors for CART students. In addition, business and community partners will provide internships for teacher training and skill enhancement.

The CART curriculum is designed to offer a different educational experience that allows all students to realize their academic potential. An important ingredient is capturing student interest by exposing them to a myriad of career options and developing transferable skills that will prepare them to adjust to an ever-changing work environment. A variety of lab offerings expose students to a full range of career opportunities.

Secondary students earn credits in four classes during their three-hour session at CART. Each secondary student may earn high school and/or dual credit for

- English III or IV;
- Science or social studies;
- Mathematics;
- Career and Technology focus class that reflects the name of the lab.

The curriculum in each core academic course is built upon the Texas Essential Knowledge and Skills and Texas Assessment of Knowledge and Skills and the requirements of Temple College. All CART classes are college prep and many are approved by Temple College requirements for meeting dual-credit or articulated-credit standards. Some CART classes will earn credit through the Temple College system. The goal of CART is that every secondary student will graduate from high school with a minimum of 22 hours of college credit. This articulation will make the transition to post-secondary education as seamless as possible.

The 120,000 square foot CART facility, designed as a high-performance business atmosphere, will be organized around five broad career clusters. These clusters are Biotechnology Sciences, Healthcare Sciences, Engineering and Engineering Technology (Advanced Manufacturing/Robotics), Advanced Information and Communication Technology (Information Technology), and Advanced Construction Technology. The clusters are flexible and may change as time progresses. Each cluster will contain several labs such as:

1. Biotechnology Sciences
 - a. Biotechnology Research
 - b. Bioengineering Learning Lab
(Students will utilize scientific principles and methods to conduct research and develop solutions to medical, forensic, and environmental issues that impact our community. Bioengineering explores questions about genetically engineered foods, DNA, microbes, tissue culture and how these influence both the problems and potential solutions of our society. Students also will study engineering and it's applications to health related professions.)
2. Healthcare Sciences
 - a. Health Occupations Lab
 - b. Medical/Health Science Technology Lab
(Health Sciences students will pursue a focused program in the health sciences. Courses of study will include options for students to pursue goals of post-secondary education at colleges or universities. Students will have the opportunity to begin preparation for careers in nursing, medicine, veterinary science, as well as allied health fields.)
3. Engineering and Engineering Technology

- a. Product Development Lab
- b. CAD/CAM
- c. Architectural Drafting and Design

(Engineering and Engineering Technology labs use knowledge, imagination, and skills to create solutions to engineering problems faced by our society. Solid Works software will allow students to create on the computer a design concept and then produce a prototype on state of the art rapid prototyping machines.)

4. Advanced Information and Communication Technology

- a. Multimedia
- b. Network Management
- c. Computer Science

(Students will be introduced to basic computer concepts, the Windows XP operating system, Microsoft Office XP, programming expressions & functions, database concepts using Microsoft Access, data-modeling & SQL programming for relational databases using Oracle's Internet Academy, basic HTML using Macromedia DreamWeaver, some beginning Visual Basic, and practical object-orientated principals in Java. Students enrolled for AP credit will concentrate on the AP objectives and curriculum in preparation for the AP Computer Science test in the spring. Students will have the opportunity to obtain Oracle certification in SQL programming.)

5. Advanced Construction Technology

- a. Construction Lab
- b. Architectural Drafting and Design Lab

(Students will be provided with an opportunity to become familiar with basic modern building methods and materials. The course will deal with typical construction projects, from specifications through building an actual structure. This will reinforce planning theory, problem solving and math as well as provide new knowledge and a wide variety of skills.)

How Funds Will Be Spent

We will use the funds to support our implementation of the Center for Advanced Research and Technology for Eastern Williamson County (CART). City of Taylor funds will be used to:

- Construct a technology theater and business incubator with the following capabilities:
 - ISO 9000 Training
 - Teleconference and distance learning
 - Seminar and meeting spaces
 - Economic development shell space for business training and relocating firms
 - Small Business Assistance Center
 - Estimated 15,000 to 20,000 square feet

Other funds will be sought for the instructional and instructional-related spaces that follow:

- Construct 16 specialized lab spaces (est. 40,000 square feet)
- 20 multi-use classrooms (est. 18,000 square feet)
- Faculty and administrative offices (est. 5,000 square feet)
- Conference room w/capacity of 100 (est. 3000 square feet)
- General storage (est. 4,000)

Maintenance and operation costs for CART are estimated to be approximately \$500,000 to \$750,000 per year depending on how many students attend the center. The District, along with the nine collaborating ISDs, will fund the operation through state allocated funds collected through Average Daily Attendance. Temple College has also agreed to pay building use fees to CART for college-age students who attend. Finally, businesses who utilize the services for CART training will be charged a training and development fee.

This totals to about 90,000 square feet. The remaining 30,000 of the total of 120,000 square feet would be left for future growth and development by either CART or Temple College-Taylor Center.

Population Served by the Program

The Taylor Independent School District (District) enrollment is currently 3,033, of which 59.18% receive free or reduced lunches. The District has a growing special needs student population including 251 Limited English Proficient (LEP) students, 108 migrant students, 1106 at-risk students, 198 gifted and talented students, and 402 Special Education students. Data listed in the 2005 AEIS report indicates that the District is 50.18% Hispanic, 34% White, 15.3% African American, and 73% other.

Since TEA named one of the District's elementary schools as Low Performing in 2002, the District has been working hard to raise the academic performance of all students. Based on the results of the 2005 Texas Assessment of Knowledge and Skills (TAKS), all campuses are now academically acceptable. In 2005, T. H. Johnson Elementary School and Taylor Middle School received Gold Acknowledgement Awards from TEA for performance in reading and mathematics. The District's completion rate of students graduating within four years of entering high school is currently 96%.

The percent of Taylor ISD students passing all sections of the state standardized test in the Texas Assessment of Knowledge & Skills (TAKS) in the spring of 2005 is indicated in the table below.

2005 District Accountability Data Tables

Subtest	All Students	African American	Hispanic	White	Econ. Disadv.
Read./ELA	78	69	71	90	71
Writing	81	74	74	94	74
Social Studies	87	80	81	96	81
Mathematics	71	58	63	87	61
Science	66	48	55	83	55

As noted in the table, low performance and performance gaps continue to be a major concern even though many students and some student groups are doing very well. In

particular, the data suggest that achievement gaps exist for African American, Hispanic, and Economically Disadvantaged.

Staff Qualifications

Program training and implementation support is provided by District and Temple College staff. Below is a representative sample:

Bruce Scott, Ed.D., has been an educator for 30 years in school districts in the central and south Texas regions. For the past 11 years he has served as an administrator at both the campus and central office levels. He is completing his first year as superintendent for the Taylor Independent School District. In addition, Dr. Scott has taught various graduate leadership and technology classes at Texas A&M University-Corpus Christi. From 1995 through 2002, he served as one of 50 principals on the statewide Texas High School Mentor Initiative.

Program Evaluation

In order to address significant barriers which impede the ability of the Taylor Independent School District (District), area ISDs, and Temple College, as well as other partners, to meet the training needs of the five targeted high-growth, high-demand industry for workforce training, the CART project will have to develop, pilot, and institutionalize a number of new systems, processes, and curricula. The technical and academic programs used in CART will enable secondary students to receive high quality training and earn college credit.

The project will develop solutions-based models that will be shared with, and implemented by other community colleges and secondary school partnerships as well as other trainers in the workforce system. By making products, models, and effective approaches available to business and educational systems, the region, as a whole, will become more responsive to the workforce demands of industry and through dissemination of those products effect the workforce responsiveness of the state.

While the main emphasis of this project is the development and creation of the Center for Advanced Research and Technology for Eastern Williamson County (CART), the facility will also be available for other workforce training, adult basic education, and specific short-term training for displaced workers, current employees, and adults that require shorter or longer training programs depending on the specific skills and skill levels identified by industry.

Specific participant outcomes and related data resources are:

Adult measures

Entered Employment

UI wage records

Employment retention	UI wage records
Wage increases	UI wage records
Academic attainment	pre-test & post-test*, credential attainment

*A pre-test is required for individuals who have been recognized as ESL, LEP, or ABE/GED candidates with a post-test to be administered upon program completion.

Youth Measures

Placement in employment or education	Adult and Student Follow-up System
Attainment of a degree or credential	Texas Higher Education Coordinating Board
Literacy and numeracy gains	Texas Assessment of Knowledge and Skills

The major outcome of the region advanced technology project or CART will be the increased capacity of Temple College, Taylor ISD, and their partner schools to prepare students for high-skill, high wage careers in high-demand and high-growth industries to ensure that regional businesses can find the trained workers they need and program completers can qualify for high-wage positions.

Capacity building partnerships and collaborations; marketing and curricular products; educational models; and activities that link workplace and academic classroom education that increase the capacity of Taylor ISD, Temple College, and their academic partners to provide training, improve that training, and increase the capability to serve more participants—these are the ultimate goals of the Center for Advanced Research and Technology in Eastern Williamson County (CART).