



Tierra Adentro

Facility Master Plan &
Educational Specifications

2016-2021



July 2016



Architectural Research Consultants, Incorporated

ACKNOWLEDGMENTS

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ABBREVIATIONS

ADA - Americans with Disabilities Act

ARC - Architectural Research Consultants, Incorporated

CNM - Central New Mexico Community College

CR - Classroom

Ed Specs - Educational specifications

FAD - The Facility Assessment Database maintained by PSFA

FCI - Facilities Condition Index, or the ratio of the cost facility repair to facility replacement

FMP - Facilities master plan

GSF - Gross square feet, or the sum of net assignable square feet plus all other building areas that are not assignable (the unassigned area is called "tare," which includes areas such as hallways, mechanical areas, restrooms, and the area of interior and exterior walls)

HVAC - Heating, ventilation and air conditioning

MACC - Maximum allowable construction cost, or a project construction budget; this cost is comparable to the contractor's bid

per MEM - Per student membership, or per full time equivalent student enrollment

NASF - Net assignable square feet, or the total of all assignable areas in square feet

NIF - National Institute of Flamenco

NMPSFA or PSFA - New Mexico Public School Facilities Authority

NMPED or PED - New Mexico Public Education Department

PE - Physical education

POR - Program of requirements

PSCOC - Public School Capital Outlay Council

PTR - Pupil/teacher ratio

SF - Square Feet

SPED - Special education

TANM - Tierra Adentro of New Mexico Charter School

TPC - Total project cost with soft costs, including fees, movable equipment, special studies, administration, and contingencies

UNM - University of New Mexico

wNMCI - Weighted New Mexico Condition Index



EXECUTIVE SUMMARY

Tierra Adentro of New Mexico (TANM) is a state-chartered public school serving 6th -12th grades, located in Albuquerque, NM. The school offers a rigorous academic program aligned with state standards and benchmarks, as well as a focus on dance, music, and visual arts. Through a key partnership with the National Institute of Flamenco (NIF), TANM incorporates flamenco dance, guitar, and other aspects of Spanish culture into its educational program.

The school initially opened in the 2010/11 school year with 153 students. Enrollment has increased steadily since 2010, reaching 270 students in 2015/16. In the future, TANM seeks to grow to its enrollment cap of 430 students.

TANM currently occupies leased facilities. The facilities have high utilization and limited ability to accommodate additional students. To reach its enrollment cap, TANM requires additional educational program area. Therefore, TANM's capital plan focuses on design and construction of a new facility. Initial programming, included in this document, identifies a need of approximately 47,700 GSF, including 13 flexible general classrooms and 18 specialized instructional spaces. The preliminary total project budget is estimated at approximately \$17 million.

TANM has a number of options available to finance a new facility. Based on projected capital funding (PSCOC lease assistance, SB-9, and HB-33), TANM may procure a new facility using a lease-purchase option through its foundation. In addition, TANM may pursue funding through public-private partnerships, fundraising, donations, PSCOC awards, and/or legislative appropriations.

TANM anticipates completing design and securing financing for its new facility by July 2017. Allowing a year for construction, TANM is targeting fall 2018 as the date to occupy its new facility.

TANM classroom in existing facility



OVERVIEW

This document is a Facilities Master Plan and Educational Specifications (FMP/Ed Specs) for Tierra Adentro of New Mexico (TANM), a state-chartered public school. The Public School Capital Outlay Council (PSCOC) and the Public School Facilities Authority (PSFA) require that all New Mexico public schools have five-year FMP/Ed Specs as prerequisites for eligibility to receive state capital outlay assistance. The FMP/Ed Specs guides capital planning decisions to support the school's educational mission and comply with minimum PSCOC/PSFA New Mexico Public School Facility Adequacy Standards, including variances for charter schools. This FMP/Ed Specs is in accordance with guidance issued by the PSCOC and PSFA.

School Profile	
Grades served	6th - 12th
2015/16 enrollment (40-day)	270 students
Enrollment cap	430 students
Initial charter	2009
Charter renewed	2015

TANM students



1 MISSION / EDUCATIONAL PHILOSOPHY / PROCESS

1.1 Goals

1.1.1 Mission

The mission of Tierra Adentro: The New Mexico School of Academics, Art and Artesanía (TANM) is to create an inclusive and thriving learning environment comprised of a demographically and culturally diverse student population with a focus on academics, art, artesanía (artisanship), and the study of the cultures that comprise our rich New Mexican heritage to ensure awareness, preservation, and progression of our cultural legacy.

Source: http://www.tierraadentronm.org/about_tierra_adentro/mission/

1.1.2 Educational Philosophy

The following excerpt from TANM's Charter, dated July 2009, describes the school's educational philosophy:

Our educational philosophy is founded on the principles that a well-rounded education includes the study of academics, art, and artesanía. These disciplines are hands-on, creative, and intellectual by nature. We will implement this philosophy through a trilateral curricular methodology, based on the study of technique, application, and theory. This methodology was designed to facilitate comprehensive knowledge and confidence in students.

We believe that demanding excellence in the arts will carry over into a student's approach to academics. Through the study of fundamental principles such as aesthetic, design, form, and process, students will develop a sensibility and motivation to understand the world around them through a new perspective; one which is shaped by an in-depth

understanding of the creative process and respect for traditions.

By focusing on the Iberian Diaspora, or diffusion of Spanish culture as an overarching theme and filter, we give focus to our programs without limiting them to a "Spanish" world-view. The school's use of Spanish culture as a base for study of arts and academics reaches beyond the commonly understood definition of "Hispanic culture." TANM employs the term "Iberian Diaspora" to refer to the cultures of the Iberian Peninsula as well as the cultures that resulted from contact with the New World. Our approach is to provide a deeper understanding of Spanish culture and its role in New Mexico which will serve as a basis for the study of other cultures.

Exhibit 1-1

TANM student performance



1.2 Process

1.2.1 Data Gathering and Analysis

ARC uses a collaborative process to collect, review, and analyze information about the school's educational program and delivery, projected enrollment and anticipated future needs, and to determine capital priorities. Exhibit 1-2 illustrates the collaborative process.

School contact:

Veronica Torres, Executive Director
 phone: (505) 967-4720
 email: vtorres@tierraadentronm.org

Exhibit 1-3

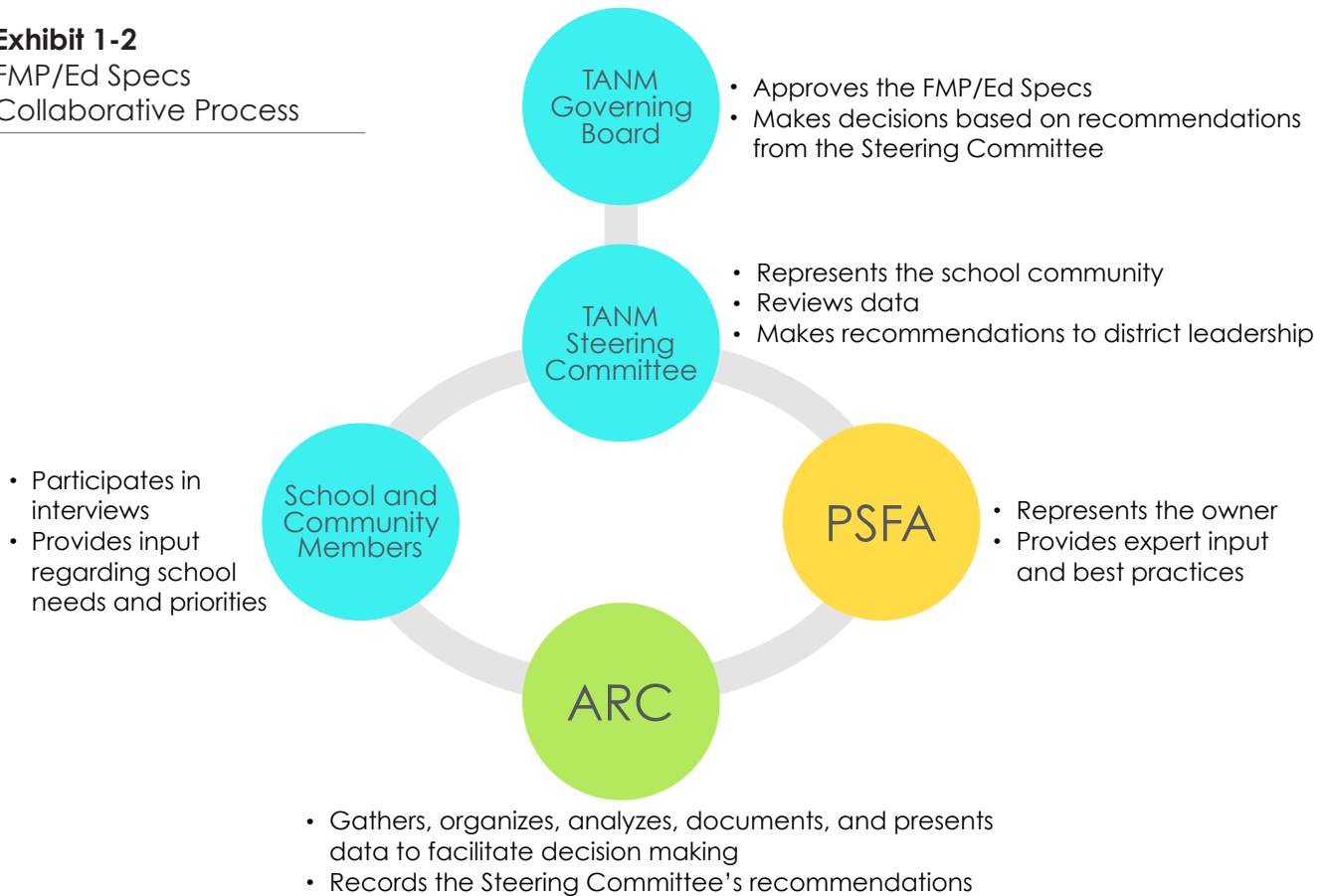
Steering Committee Members

FMP/Ed Specs STEERING COMMITTEE

- Veronica Torres, Executive Director
- Theresa Archuleta, Principal and Special Education/Bilingual Director, Parent
- Joaquin Encinias, Director of Curricular Implementation
- Leroy Sanchez, Math Teacher
- Sandy Martinez, President of the Governing Council and Parent

Exhibit 1-2

FMP/Ed Specs Collaborative Process



Steering Committee Involvement

TANM assembled its steering committee, including a cross-section of the school community comprised of parents, teachers, administrators, and the president of the governing board (exhibit 1-3).

ARC conducted three meetings with the steering committee to develop and gain consensus on the school's five year capital needs (exhibit 1-4).

Capital Planning Process and Decision-Making

The steering committee makes recommendations to TANM's Governing Board. The Board has the authority to make major operational and capital decisions for the school.

Community Input

To gather input from a larger sample of stakeholders, ARC interviewed additional TANM staff and community partners (exhibit 1-5).

Exhibit 1-5 Stakeholders Interviewed

INTERVIEWS

Genevieve Chavez, Head SPED Teacher
 Deanna Encinias, Dance Dept. Head
 Mario Febres, Music Dept. Head
 Marisa Magallanez, Director of Business Strategy and Philanthropy at the NIF
 Katie Martinez, Visual Arts Teacher
 Leroy Sanchez, Math Teacher
 Tamara Torres, Language Arts and Social Studies Teacher

Exhibit 1-4 FMP/Ed Specs Meeting Schedule



2 EXISTING AND PROJECTED CONDITIONS

2.1 Programs and Delivery Methods

2.1.1 Programs Overview

TANM offers a middle school program for students in grades 6 through 8, and a high school program for students in grades 9 through 12. Academics for both programs are comprised of core subjects established by the Common Core State Standards, and align with the State of New Mexico's Benchmark and Performance Standards.

In addition to core subjects, TANM requires all students to complete coursework in dance, music, visual arts, and Spanish language. Many high school students participate in TANM's dual enrollment program by taking courses at CNM and UNM.

Instructional Program

Fundamental to TANM's educational program is the belief that excellence in the arts (dance, music, and visual arts) supports

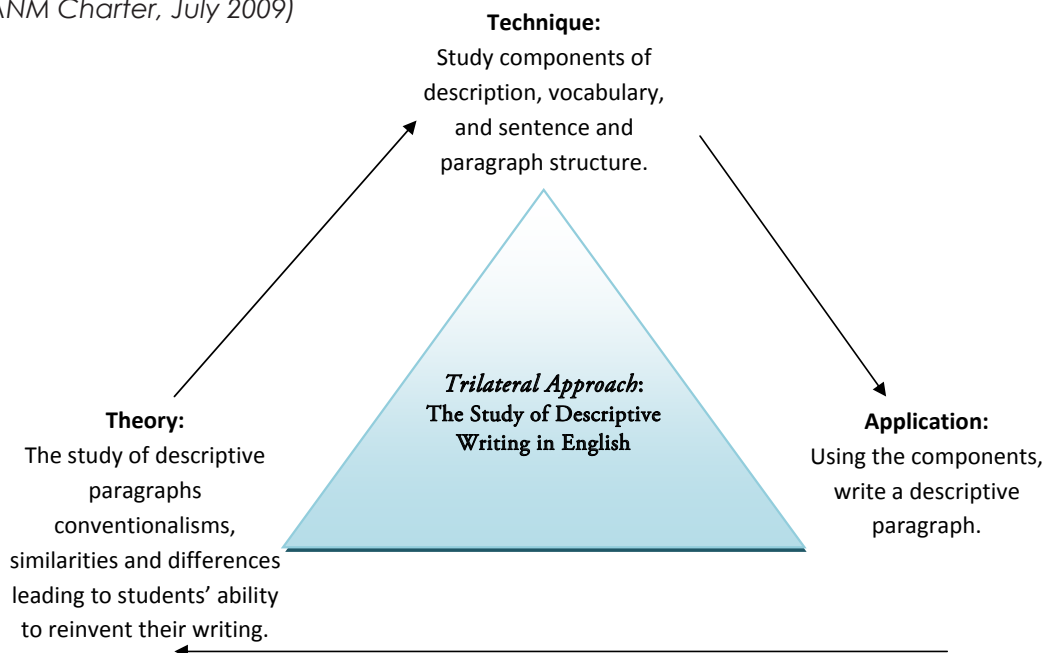
better student academic performance. All TANM students take dance, music, and/or visual arts classes every school day. In addition, TANM is currently piloting a program to allow 9th and 10th grade students to select an arts focus area. The focus area gives students the opportunity to devote more time to something they are passionate about.

TANM's instructional program and delivery method employs the "trilateral method." Director of Curriculum Implementation and Master Flamenco Instructor, Joaquin Encinias developed this method. NIF originally used the method to teach flamenco dance. The trilateral method employs three perspectives to approaching all subjects: "theory," "technique" and "application." Theory covers background, historical development, and similarities and differences of conventions and traditions. Technique covers approaches, patterns, and formulas. Application allows students to participate in hands-on learning of theory and technique through actual practice.

Exhibit 2-1

Diagram of the Trilateral Method

(source: TANM Charter, July 2009)



TANM believes that by studying academics and arts through the multiple lenses of theory, technique, and application, students gain a more comprehensive understanding.

TANM recently implemented a new instructional delivery initiative that involves the use of "trackers." Trackers are curriculum development professionals who are embedded in classrooms to help facilitate best teaching practices and peer communication, as well as provide professional development and support to faculty. Trackers support the trilateral method and testing criteria. Currently, TANM deploys three trackers in the classrooms, but would like to increase to five or six trackers in the future.

General Organization

TANM organization is by grade and school levels. For example, 6th grade classes do not include students from other grades. Other middle school classes may include both 7th and 8th grade students. High school classes may include students in 9th, 10th, 11th, and 12th grades.

Scheduling Approach

TANM schedules classes using a rotating block schedule, which includes 8 days (A through H). Each day has 7 periods. Refer to exhibit 2-2.

The school follows the collegiate model, where teachers move through different classrooms during the day (rather than

Exhibit 2-2

2015/16 Rotating Block Schedule

A LUNCH SCHEDULE

TIMES	A	B	C	D	E	F	G	H
First bell 7:35								
7:40-8:30	1	8	1	1	1	1	1	1
8:35-9:25	2	2	8	2	2	2	2	2
9:30-10:20	3	3	3	8	3	3	3	3
10:25-11:15	4	4	4	4	8	4	4	4
A 11:20-11:50								
11:55-12:45	5	5	5	5	5	8*	5	5
12:50-1:40	6	6	6	6	6	6	8	6
1:45-2:35	7	7	7	7	7	7	7	8
CLASS OUT	8	1	2	3	4	5	6	7

*Check master schedule on F day to find out your lunch period

B LUNCH SCHEDULE

TIMES	A	B	C	D	E	F	G	H
7:40-8:30	1	8	1	1	1	1	1	1
8:35-9:25	2	2	8	2	2	2	2	2
9:30-10:20	3	3	3	8	3	3	3	3
10:25-11:15	4	4	4	4	8	4	4	4
11:20-12:10	5	5	5	5	5	8*	5	5
B 12:15-12:45								
12:50-1:40	6	6	6	6	6	6	8	6
1:45-2:35	7	7	7	7	7	7	7	8
CLASS OUT	8	1	2	3	4	5	6	7

*Check master schedule on F day to find out your lunch period



“owning” a classroom). While the collegiate model increases classroom efficiency, it requires teacher workspace outside of the classroom.

Shared and Joint Use Facilities

TANM shares dance studios with NIF. This arrangement is convenient and cost-effective for both TANM and NIF. During the school day, TANM students take dance classes in the studios. In the evenings, NIF conducts community dance classes. The joint-use arrangement enables TANM to lease the dance studios from NIF at a reduced rate.

TANM encourages students to earn dual credit by enrolling in online courses or by taking courses at CNM and/or UNM. Many of TANM's 12th grade students spend a significant portion of the school day at the CNM and UNM campuses. In addition to giving students a head start on college coursework, TANM's dual enrollment program effectively increases the number of students that TANM can accommodate based on the capacity of its leased space.

Special Curricular and Extracurricular Activities

Special Education (SPED) - TANM is a full-inclusion school with a higher than typical percentage of SPED students. In the 2015

school year, TANM had 68 SPED students (approximately 25%). SPED students are fully integrated into regular classrooms, although they may receive pull-out support for occupational/physical therapy, speech and language, and other individualized services as required.

Dance - TANM's dance curriculum is one of the school's most unique components. While the school exposes students to a variety of dance styles, its focus is flamenco. The dance curriculum requires specialized dance studio space. Because TANM students take dance in lieu of PE (except for NMPED's PE requirement for 9th graders), the specialized dance space offsets most of the school's need for traditional PE areas (gymnasium, bleachers, etc.).

Community Partners

National Institute of Flamenco - NIF is TANM's key synergy partner. NIF shares dance studio space with TANM, which results in a more cost-effective lease. NIF also schedules student performances, and runs TANM's after-school programs.

UNM Theater and Art Department

UNM and CNM (dual enrollment)

TANM has also coordinated student events with **508 Arts** and the **Albuquerque Museum**.

Exhibit 2-3
TANM Dance Class



2.2 Location

Site and Facilities

TANM occupies a main facility and three satellite studios for dance, music, and visual arts. The total area of all facilities is about 18,875 GSF. All facilities are leased, and are located near the intersection of Central Avenue NE and University Boulevard NE, in Albuquerque, NM (exhibits 2-4 and 2-5). Refer to the Appendix for the facilities inventory table and facility condition summary.

TANM's existing facilities have high utilization and limited ability to accommodate additional students. For TANM to reach its enrollment cap of 430 students in the future, the school will need to expand its facility area.

Exhibit 2-4
Vicinity Map



Exhibit 2-5
Existing Facility Locations



2.3 Utilization and Capacity of Existing Facilities

Existing Utilization

PSCOC/PSFA analyzes utilization using two approaches, described in the table below. With either approach, TANM's existing utilization is in the mid- to high 80s by percent. PSCOC/PSFA recommends a target utilization of about 80% to 85% for middle and high schools. (Refer to the Appendix for utilization spreadsheet.)

	Utilization Method	TANM %
1	Amount of time instructional space is occupied vs. the amount of time it is available to be occupied	84%
2	Number of seats filled in classes vs. the number of available seats	88%

The functional capacity of TANM's existing instructional spaces is about 250 students, which is below TANM's 2015/16 enrollment of 270 students. There are a few explanations of why the calculated functional capacity is below TANM's actual enrollment, although the explanations do not negate the conclusion that TANM's existing facilities are supporting close to the feasible maximum number of students. Explanations of higher actual enrollment compared to functional capacity include:

- Many seniors spend a significant part of the school day off site, taking classes at CNM or UNM
- TANM loads small classrooms based on PED's PTRs, rather than the lesser number of students that would be calculated based on PSCOC/PSFA SF per student allocations

Existing Capacity

ARC calculated TANM's existing functional capacity using the method described below and in exhibit 2-6:

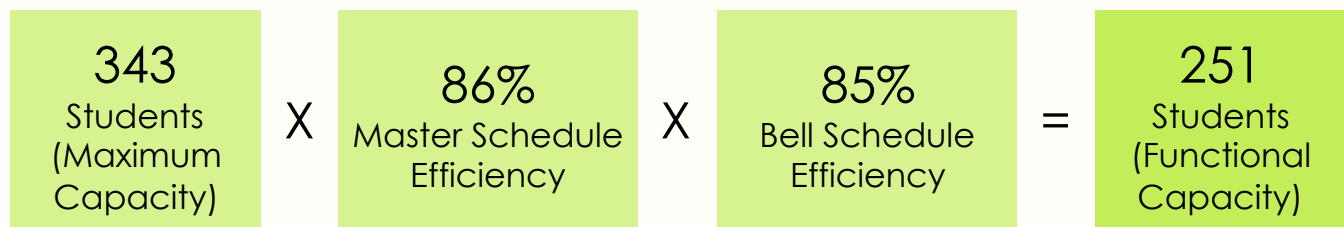
- 1) Determine maximum capacity by tallying the number of students that can be accommodated in instructional spaces, based on the more restrictive of PED's pupil / teacher ratio (PTR) or PSCOC/PSFA SF per student
- 2) Reduce the maximum capacity to account for inherent master schedule and bell schedule inefficiencies

Master Schedule Efficiency accounts for reduction to the maximum capacity due to rotating classes/periods throughout the school day (i.e., a student may be scheduled for 6 class periods during a 7-period day; $6/7 = 86\%$).

Bell Schedule Efficiency accounts for unique educational program offerings that preclude every class from being fully loaded. For example, advanced placement (AP) courses and specialized electives generally have lower enrollments and smaller class sizes than more general academic classes.

Exhibit 2-6

Method for Calculating Functional Capacity



2.4 Historic and Proposed Enrollment

Phased Enrollment

TANM's enrollment has increased steadily since it first opened in the 2010/11 school

year. Provided that facility area is sufficient to meet demand, TANM expects enrollment to continue to grow in the future until the school reaches its enrollment cap of 430 students around school year 2024/25 (exhibits 2-7 and 2-8).

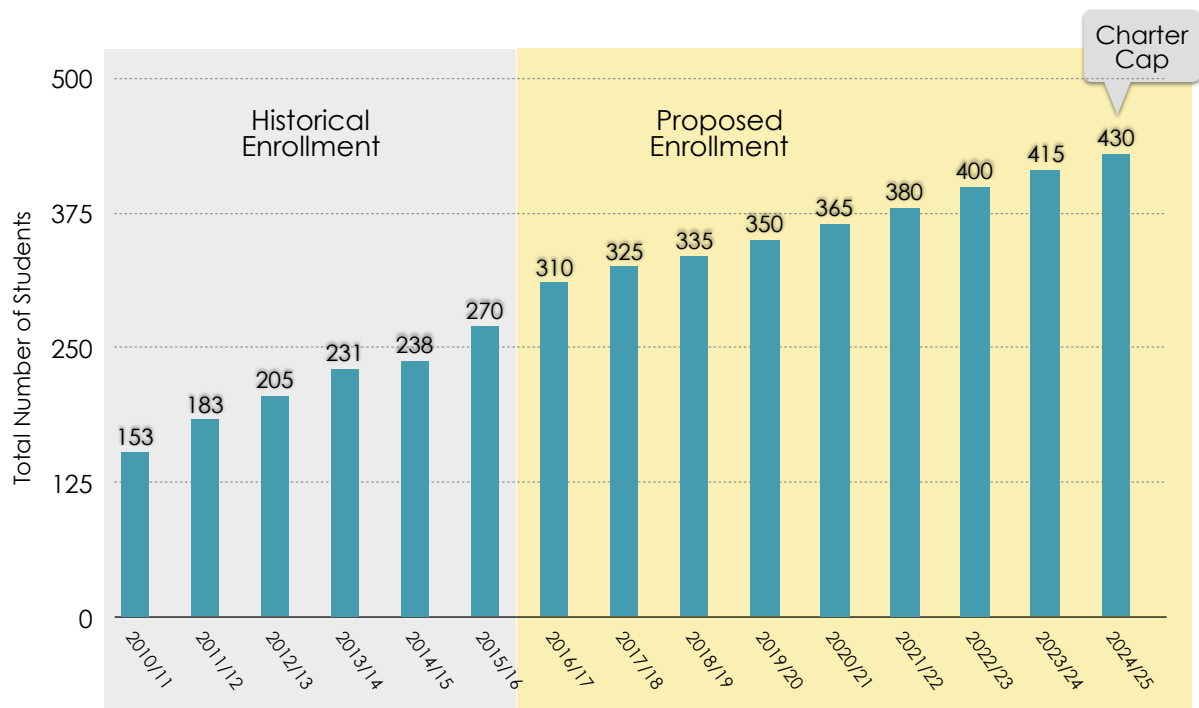
Exhibit 2-7

Proposed Enrollment (table)

School Year	Grade Level							Total Enrollment
	6	7	8	9	10	11	12	
Historical Enrollment								
2010/11	50	38	32	24	9	0	0	153
2011/12	50	51	35	30	11	6	0	183
2012/13	43	52	49	24	19	10	8	205
2013/14	46	47	58	37	20	14	9	231
2014/15	50	44	47	39	29	16	13	238
2015/16	45	57	51	38	38	27	14	270
Proposed Enrollment								
2020/21	53	53	53	53	53	50	50	365
2024/25	62	62	62	62	62	60	60	430

Exhibit 2-8

Proposed Enrollment (chart)



Classroom Needs and Loading Policies

TANM will need 13 general and 18 specialized classrooms to accommodate the enrollment cap of 430 students, summarized in exhibit 2-9. Exhibits 2-10 and 2-11 provide supporting detail for general and specialized classroom need projections.

The classroom need projections include the following assumptions:

- Even distribution of students among grades (60 to 62 students per grade)
- Classroom loading aligned with NM PED's pupil / teacher ratios (PTRs); 24 students per class for 6th grade, and 27 students per class for 7th - 12th grades.
- 7 class periods per school day
- General classrooms are separated by grade level (i.e., 6th grade / 7th - 8th grades / 9th - 12th grades)
- Specialized classrooms are shared among grade levels

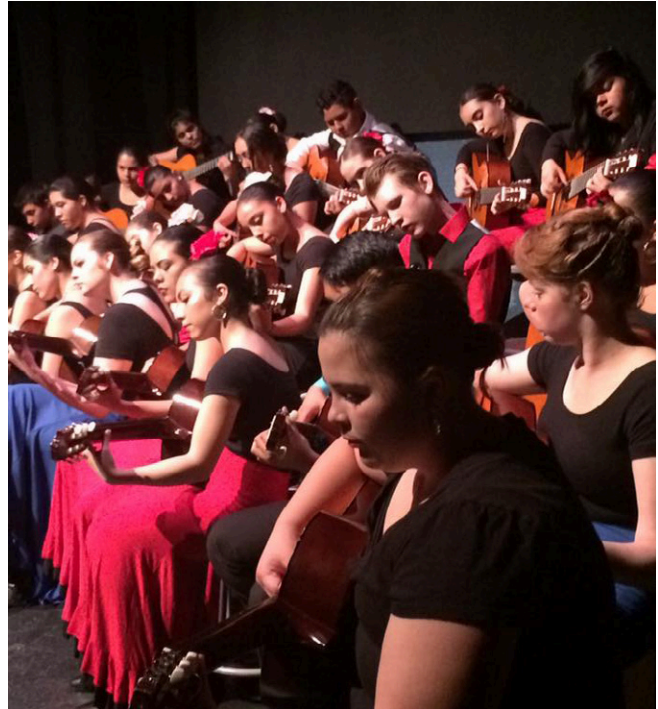


Exhibit 2-9

Classroom Needs Summary

Space Description	# of Spaces		Notes
	Existing	Proposed	
General Classrooms			
Flexible Core Subject Classroom	9	13	
Specialized Classrooms			
Science Classroom / Lab	2	3	
Dance Studios	3	4	Joint use with NIF
Music Studios	2	3	
Visual Art Studios	2	3	
SPED Support Space			
OT/PT/RT	1	2	In school year 2015/16, about 25% (68 of 270 students) receive SPED support
Pull-out		2	
Other Instructional Program Areas			
Media Resources Lab	0	1	
TOTAL	19	31	



Exhibit 2-10

General Classrooms Needs Analysis

General Classrooms	Number of Sections		
	6th	7th-8th	9th-12th
Math	3	5	10
English	3	5	10
Spanish	3	5	10
Social Studies	3	5	10
Health	3		3
Total Sections	15	20	43

General Classrooms by Grade Level (7 Sections per Classroom)	3	3	7
---	----------	----------	----------

• Rounding up is necessary (cannot teach half a section, or build 1/10th of a classroom)

• Example Calculation:

- (62) 6th graders / 24 students per math class = 2.6 sections = 3 sections
- (15) total 6th grade sections / 7 periods per day = 2.1 classrooms = 3 classrooms

Exhibit 2-11

Specialized Classrooms Needs Analysis

Instructional Space Type	Number of Sections			Total Sections	Classrooms Required (Round Up)
	6th	7th-8th	9th-12th		
Specialized Classrooms					
Science Classroom / Lab	3	5	10	18	3
Baile (6th) / Dance	3	5	10	18	4*
Music	3	5	10	18	3
Visual Art	3	5	10	18	3
SPED Support Space					
SPED OT/PT	Pull-out - No scheduled sections				2
SPED Pull-out	Pull-out - No scheduled sections				2
Other Instructional Program Spaces					
Media Resources Lab	Open Lab - Not Applicable				1
Total Specialized, SPED, and other Instructional Program Spaces					18

* Dance studio requirement increased from 3 to 4 classrooms to reflect the role of dance in the educational program

Specialized classrooms are shared among levels



Program of Requirements

In addition to classrooms, TANM will require other spaces to support its instructional program for 430 students. These spaces include support areas for faculty, staff, and administration, as well as the student health suite and a multipurpose room.

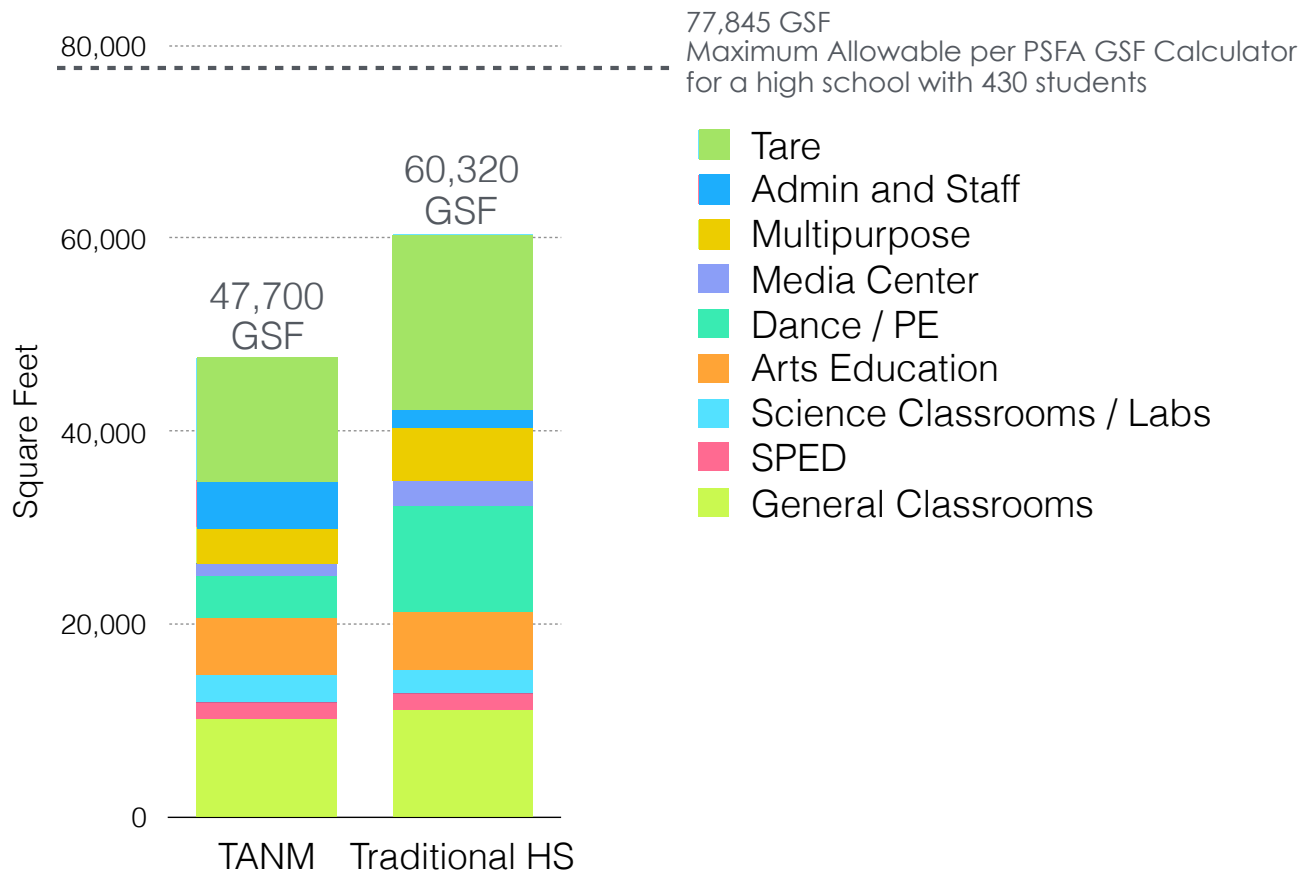
Exhibit 2-12 is a summary comparison of the space required to accommodate TANM's program vs. a program of requirements (POR)

for a traditional high school for 430 students based on PSCOC/PSFA Adequacy Standards. TANM's instructional program requires less area than a traditional high school, as well as less area than the maximum allowable for state funding assistance determined by PSCOC/PSFA's GSF calculator.

Exhibit 2-14 itemizes the quantity and size of spaces required for TANM's instructional program, and includes a comparison with PSCOC/PSFA Adequacy Standards for a traditional high school.

Exhibit 2-12

POR Summary: TANM vs. Traditional HS



Special Program Considerations that Impact Space Requirements

The greatest differences in area requirements between TANM and a traditional high school are for:

- Dance/PE
- Media Center
- Multipurpose
- Administration and staff
- Tare

Dance/PE: TANM reduces PE space required because it accommodates PE primarily through dance. While traditional high schools require large gymnasiums with playing courts and bleacher seating, TANM's dance studios are smaller, specialized instructional areas.

Media Center: In lieu of a traditional library with space-intensive printed materials and stacks, TANM desires a media center that primarily accommodates computers for students to access electronic materials and resources, as well a limited fine arts section with select printed material relevant to TANM's art programs.

Multipurpose/Gathering: TANM reduces its overall gathering space by incorporating

student commons into circulation space (tare). For example, the student commons may be combined with hallway space outside of classroom areas to support project-based learning.

Administration and Staff: TANM requires more faculty work areas than a traditional high school because it uses the collegiate classroom model. With the collegiate model, faculty move through different classrooms during the day. Because faculty do not "own" classrooms, they require workspace outside of the classroom to prep for classes. The collegiate model benefits TANM because it allows for more efficient master class scheduling, and better utilization of classrooms, and encourages more collaboration among faculty who share a common, open work area.

Tare: As defined in facility planning as "left-over" building space, tare includes hallways, lobbies, mechanical/electrical/server rooms, and restrooms. For programming purposes, tare is calculated based on a percentage of the overall building area. In TANM's POR, tare is 27% of the proposed overall building area, compared with 30% for the traditional high school. TANM proposes to minimize tare through efficient building design.

Exhibit 2-13
TANM Existing
Dance Studio







Space Description	Preliminary TANM Programming			Traditional High School (Adequacy Standards)					NSF Above / Below Traditional	
	# of Spaces	Space Criteria	Total NSF	# of Spaces	# of Students	NSF per Student	NSF per Space	Total NSF		
General Classrooms										
Classrooms	13	700	9,100	13	25	28	700	9,100	0	
Classroom Technology		Included above		distribute	430	3	1,290	1,290	-1,290	
Classroom storage	13	77	1,001	13	25	2	50	650	351	
	SUBTOTAL		10,101						11,040	-939
Special Education Support Space										
Can be integrated w/ General CR	4	450	1,800	4	15	30	450	1,800	0	
	SUBTOTAL		1,800						1,800	0
Science Classroom / Labs										
Science Lab	3	792	2,376	3			700	2,100	276	
Dedicated lab storage and offices	3	160	480	3			80	240	240	
	SUBTOTAL		2,856						2,340	516
Arts Education Classrooms										
Visual Art Studio / Classroom	3	783	2,349	1	430	5	2,150	2,150	199	
Visual Arts Storage	1	315	315	1			315	315	0	
Music Studio	2	1,000	2,000	1	430	5	2,150	2,150	-150	
Piano Lab	1	1,250	1,250	4	4	30	315	1,260	1,250	
Practice Rooms	0	0	0	1			100	100	-1,260	
Music Storage	1	97	97	0			0	0	-3	
Gallery		Include with Tare		0			0	0	0	
	SUBTOTAL		6,011						5,975	36
Physical Education										
Dance Studio - Large	1	1,172	1,172	Gym				6,500	-5,328	
Dance Studio - Medium	2	1,095	2,190	Bleachers				3,200	-1,010	
Dance Studio - Small	1	937	937	Locker Rooms				1,200	-263	
Lobby		Include with Tare		Storage				250	-250	
	SUBTOTAL		4,299						11,150	-6,851
Media Center										
Computer Lab (career education)	1	1,187	1,187	1	240	4	960	960	227	
Library	0	0	0	1	430	3	1,290	1,290	-1,290	
Office / Workroom / Storage	0	0	0	1			350	350	-350	
	SUBTOTAL		1,187						2,600	-1,413
Multipurpose and Gathering										
Multipurpose Room	1	2,945	2,945	1	240	15	3,600	3,600	-655	
Dedicated MP storage	1	146	146	1			150	150	-4	
Student Commons		Include with Tare		0			0	0	0	
Warming Kitchen w/ storage	1	609	609	1			1,700	1,700	-1,091	
	SUBTOTAL		3,700						5,450	-1,750
Faculty, Staff, Administration and Other Support										
Reception and Lobby	1	400	400	1			Include in tare	0	400	
Large Conference Room	1	200	200							
Small Conference Room	1	160	160							
Principal's Office	1	120	120	1 Suite	430	1.5	645 + 150	795	2,485	
Executive Director's Office	1	120	120	1	430	1	430	430	170	
Registrar's Office	1	120	120	1	430	1	430	430	-30	
Private Office	10	96	960	1	430	0.5	215	215	-215	
Curriculum Director's Office	1	400	400	1			Include in tare	0	232	
Teachers' Office Pods	2	600	1,200						3,042	
Work Room	1	250	250						1,870	
Teachers' Lounge	1	350	350							
Health Suite	1	400	400							
Parent Room		Use Conference Spaces								
IT Room	1	232	232							
	SUBTOTAL		4,912							
Subtotal (NASF)			34,866						42,225	-7,359
Tare (27%)			12,834						18,096	-5,262
Total GSF			47,700						60,321	-12,621



3 PROPOSED FACILITY REQUIREMENTS

3.1 Facility Goals and Concepts

TANM's steering committee identified the following facility goals and concepts, with input from the school community:

3.1.1 Facility Goals

- Create an environment that supports student achievement in academics, art, artesanía, and cultural expression
- Provide a safe, sound, and healthy learning environment
- Provide a resource of cultural education for the community
- Create an educational setting which fosters development of positive self-identity, character, and behavior

3.1.2 Concepts

Safety

- Separate pedestrian and vehicle site access and circulation
- Provide adequate site space to accommodate necessary support functions, such as student drop-off/pick-up, parking, deliveries, outdoor classroom and gathering areas, and emergency vehicle access
- Provide outdoor lighting and minimize areas that are hard to supervise (i.e., "nooks and crannies")

Security

- Provide a single point of building entry that can be monitored from the school's reception area
- Provide the ability to secure the building entrance/reception area from the remainder of the school
- Provide the ability to open after-hours space for the community, while securing the remainder of the school

Sustainability

- "Right-size" the proposed facility to accommodate the school's enrollment cap and educational program without over-building
- Locate the proposed facility to provide access to public transportation
- Consider life-cycle costs of the proposed facility; build a lasting facility
- Incorporate energy-efficient systems and equipment in the proposed facility, such as LED light fixtures
- Where possible, reuse existing furniture and equipment in the proposed facility
- Use electronic media in classrooms to reduce the amount of printed material
- Incorporate a recycling program into the design and construction of the proposed facility

Flexibility

- Create flexible instructional spaces that can adapt to future educational program changes
- Use the collegiate classroom model to promote versatile classrooms that can be used by numerous teachers for various subjects
- Incorporate movable classroom furniture that can be reconfigured for various instructional delivery methods

Community Use

- Locate the facility to be convenient to partner facilities, such as museums, parks, and performance venues
- Provide community use space, such as gathering areas and dance studios, that can be secured separately from the rest of the school



Utilities

- Incorporate energy-efficient systems and equipment in the proposed facility, to reduce overall demand for utilities (e.g., low-flow toilets, LED lighting, and operable windows).
- Provide on-site stormwater retention areas, and harvest rainwater for landscape use to reduce run-off to the municipal storm sewer

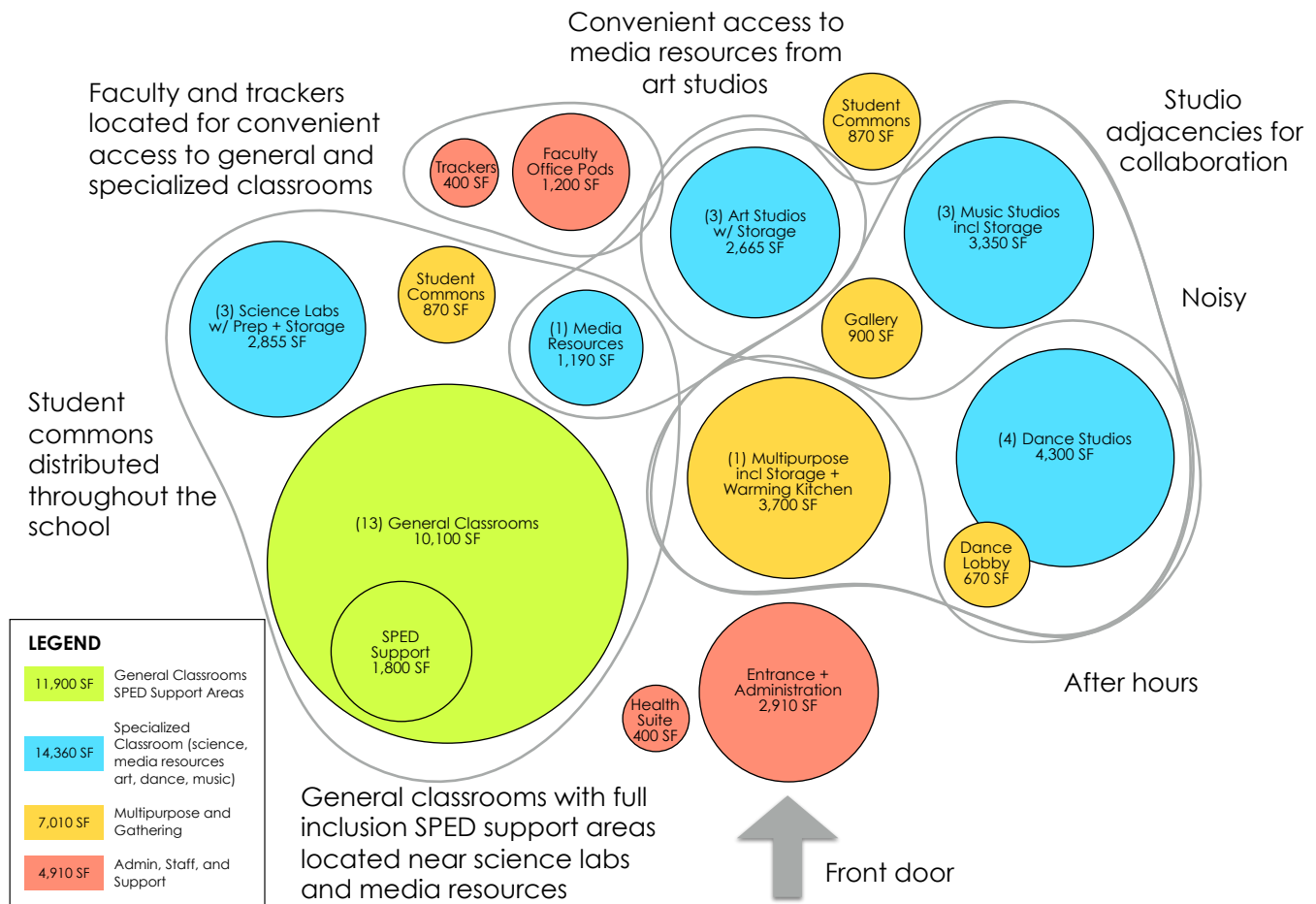
Other Issues or Special Considerations

- Separate noisy areas from quiet areas (i.e., separate the multi-purpose room, dance, and music studios from other instructional spaces)

- Locate dance, music, and art studios to encourage collaboration and synergy among disciplines
- Provide robust technology infrastructure to support the educational program and testing requirements
- Provide SPED support space to accommodate a higher-than-typical percentage of SPED students
- Provide student study space outside of classrooms to support dual enrollment students
- Provide staff work areas outside of the classroom to support the collegiate model of shared classrooms

Exhibit 3-1

Conceptual Facility Diagram



4 CAPITAL PLAN

TANM will focus available capital resources to design and construct a new facility to accommodate its enrollment cap and support its educational program.

4.1 Capital Funding

ARC obtained funding data from TANM's financial consultant, The Vigil Group, LLC. TANM's inclusion in the February 2016 Albuquerque Public School (APS) bond election factors significantly into capital funding projections, due to resulting increases in TANM's SB-9 and HB-33 future allocations.

The list below summarizes TANM's potential capital funding sources.

- **PSCOC Lease Assistance Program:** Based on student full-time equivalent enrollment (per student membership, or MEM), the State allocates funding to TANM for lease payments.
- **The Public School Capital Improvement Act, also known as SB-9 Mill Levy Funds:** Revenue from the APS SB-9 mill levy is distributed on a per MEM rate.
- **The Public School Buildings Act, also known as HB-33 Funds:** Revenue from the APS HB-33 referendum is distributed on a per MEM rate.
- **PSCOC Awards:** The State ranks public school buildings according to facility conditions, and prioritizes funding for facilities at the top of the list. TANM's existing facilities rank at 143 out of approximately 800 (lower ranking indicates greater assessed need). Due to limited state funding for capital improvements to schools, a state capital outlay award is unlikely at this time or for a new building by 2018, but could be a consideration in the future should state revenues improve.
- **State Legislative Appropriation**
- **NMDOT Funding:** For paving and safe routes to school
- **Public-Private Partnerships, Fundraising, Donations**

Exhibit 4-1 summarizes capital funds that are

projected to be available annually, starting in 2019/20 when SB-9 and HB-33 increases from the APS election take full effect.

Exhibit 4-1

Projected Annual Capital Funding

Capital Funding Projection (2019/20)	
PSCOC Lease Assistance	\$ 245,000
SB-9	\$ 105,000
HB-33	\$ 192,500
Total	\$ 542,500

4.2 Capital Needs

The preliminary project budget based on TANM's POR for a new 47,700 GSF facility is approximately \$17 million (refer to exhibit 4-2 for the breakdown). The basis for unit construction costs and budget allocations is historical data from public school construction projects, and from local industry professionals. Assumptions include:

- Design-bid-build project delivery
- Public sector construction, including union wage rates
- 3% inflation, with mid-point of construction in January 2018.

4.3 Capital Funding Strategy

Based on projected capital funds (from PSCOC lease assistance, SB-9 and HB-33 allocations), TANM may be able to finance between \$8 to \$10 million, and may consider a lease-purchase agreement with its foundation. To bridge the gap between the amount that TANM can finance and the total project cost, the school might pursue public-private partnerships, fundraising, donations, PSCOC awards, and/or legislative appropriations. Additionally, the school may consider reducing its capital need by trimming the overall area of the proposed facility.



Exhibit 4-2

Preliminary Project Budget

				2016 Costs	2018 Costs*
A. Construction Cost	\$230	Per GSF X	47,700	\$10,970,000	\$11,640,000
B. General Site Development Cost	12.0%			\$1,320,000	\$1,400,000
C. Taxes (on A and B)	7.1875%			\$880,000	\$930,000
D. MAXIMUM ALLOWABLE CONSTRUCTION COST (MACC), A TO C				\$13,170,000	\$13,970,000
E. Site Acquisition Cost	\$350,000			\$350,000	\$370,000
F. Moveable Equipment	2.0%	of A, B, and C		\$250,000	\$270,000
G. Professional Fees	6.0%	of A, B, and C		\$740,000	\$790,000
H. Contingency	10.0%	of A, B, and C		\$1,230,000	\$1,300,000
I. Taxes	7.1875%	of E to J		\$180,000	\$190,000
J. TOTAL PROJECT COST (TPC), SUM OF D TO I				\$15,920,000	\$16,890,000

* Value represents inflation escalated costs per GSF at 3% per year, rounded to the nearest ten thousand

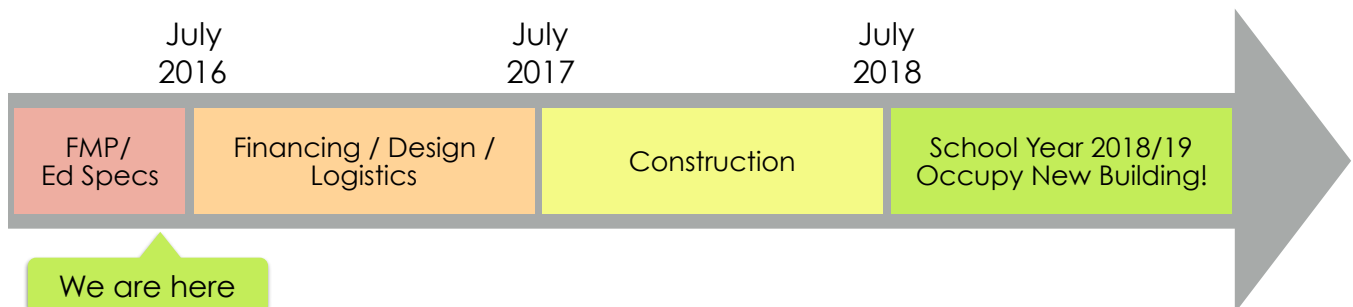
4.4 Project Schedule

TANM anticipates:

- Securing financing and completing design of its new facility within the next year
- Completing construction between July 2017 and July 2018
- Occupying the new facility at the beginning of the fall 2018 semester

Exhibit 4-3

Preliminary Project Schedule



5 APPENDIX



5.1 Existing Sites and Facilities Data Table

Facility	District ID	State ID	Address	ZIP	Phone	Fax	Principal/ Site Manager	Open Date	Age (Years)	Construction Dates	State FCI	Site Acreage	Owned/ Leased	Permanent Building Area	Portable Building Area	Total Area	Grades	40-Day Enrollment	Full-Size Classrooms	Half-Size Classrooms	Gym/Multi-Purpose	# Permanent Classrooms	# Portable Classrooms	Total Classrooms	GSF Per Student
Main Facility	518	n/a	1511 Central Avenue NE, Albuquerque, NM	87106	(505) 967-4720	(505) 967-4721	Veronica Torres, Executive Director	2010	34	1982	0.64	0.62	Leased	15,310	0	15,310	6 - 12	270	6	3	0	9	0	9	70
Dance Studios			1620 Central Avenue NE, Albuquerque, NM	87106				2015	(estimate)	TBD	na	Leased	1,585	0	1,585	1			2	0	3	0	3		
Music Studios			1421 Central Avenue NE, Albuquerque, NM	87106				2013	(estimate)	TBD	na	Leased	1,045	0	1,045	1			1	0	2	0	2		
Art Studio			1423 Central Avenue NE, Albuquerque, NM	87106				2013	(estimate)	TBD	na	Leased	935	0	935	1			0	0	1	0	1		
Subtotals													0.62	18,875	0	18,875	270	9	6	15	0	15	70		

Exhibit 5-1

Street View of Existing Facilities

Main Facility (left); Dance Studios (center); Music and Art Studios (right)



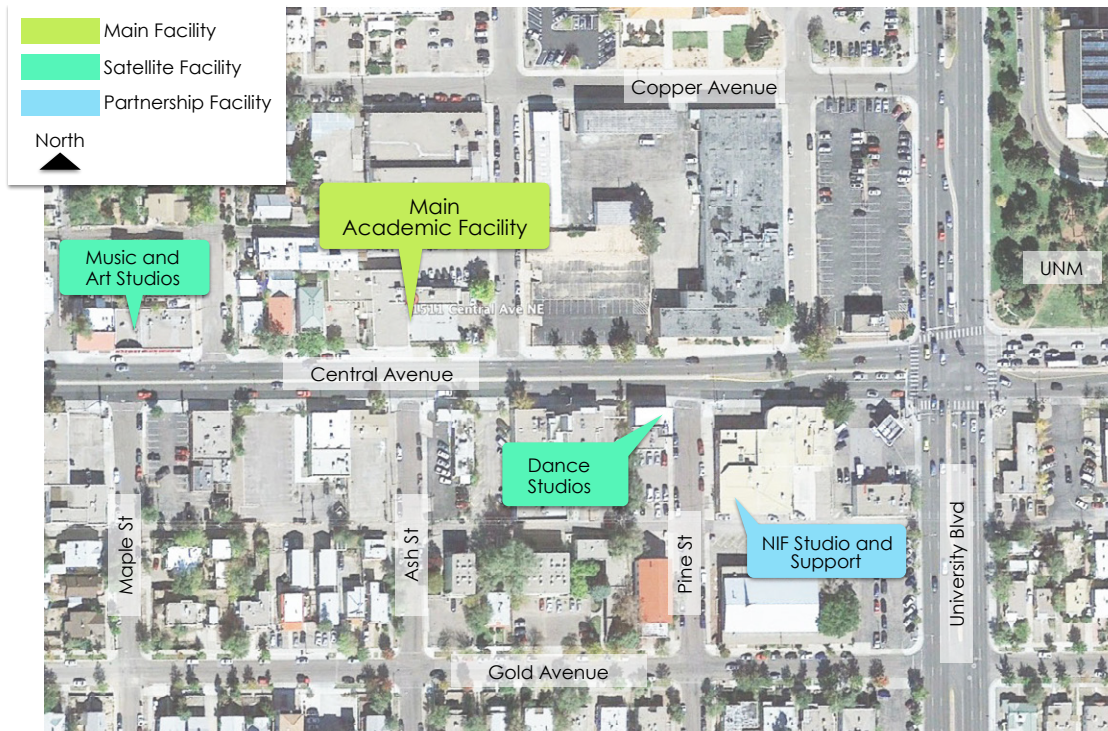


Exhibit 5-2a
Key Plan



Exhibit 5-2b
Existing Site Plan

5.2 Existing Site Plan

ARC evaluated TANM's existing site and exterior conditions and recorded the following observations:

- Limited parking
- Inadequate drop-off and pick-up area
- Poor ADA access to building entrances
- Land-locked buildings (limited expansion opportunities)
- Site security and supervision challenges
- Dispersed campus facilities
- Heavy traffic near student pedestrian routes
- Landscaping and planters in poor condition
- Inadequate site drainage
- Limited exterior classroom/recreation opportunities
- Paving is in poor condition (asphalt and concrete)
- Handrails and exterior metal are deteriorated, rusted, and have sharp edges
- Exterior light fixtures are damaged
- Roof drains discharge on building infrastructure and walkways
- Roof membrane is in poor condition
- Exterior stucco is faded, cracked, and spalling

Main Building Site Plan

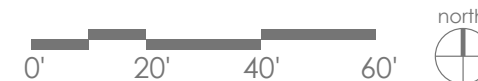


Exhibit 5-3
Existing Main Building, 1st Floor Plan

5.3 Existing Floor Plans

Main Building, 1st Floor

ARC evaluated TANM's existing main building and recorded the following observations:

- Limited ability to supervise the front door
- Lobby also serves as a cafeteria
- Steep interior ramp
- Worn interior finishes (flooring, walls/paint, and ceilings)
- Narrow hallways (too crowded during passing periods)
- Many interior spaces, including classrooms, lack access to daylight
- Some classrooms lack adequate control of natural light
- Teacher support areas are too small (offices, copy room, workroom, and breakroom)
- Nurse's office is too small
- Counseling and social worker are poorly located off the main hallway (no waiting area)
- SPED office is used for pull-out and parent conferences (need separate spaces for these functions)
- Access to some classrooms is through intervening rooms
- Many classrooms are too small for the number of students in classes
- Sound transmission between classrooms is disruptive
- Science classrooms, middle school art, and OT/PT spaces were recently renovated

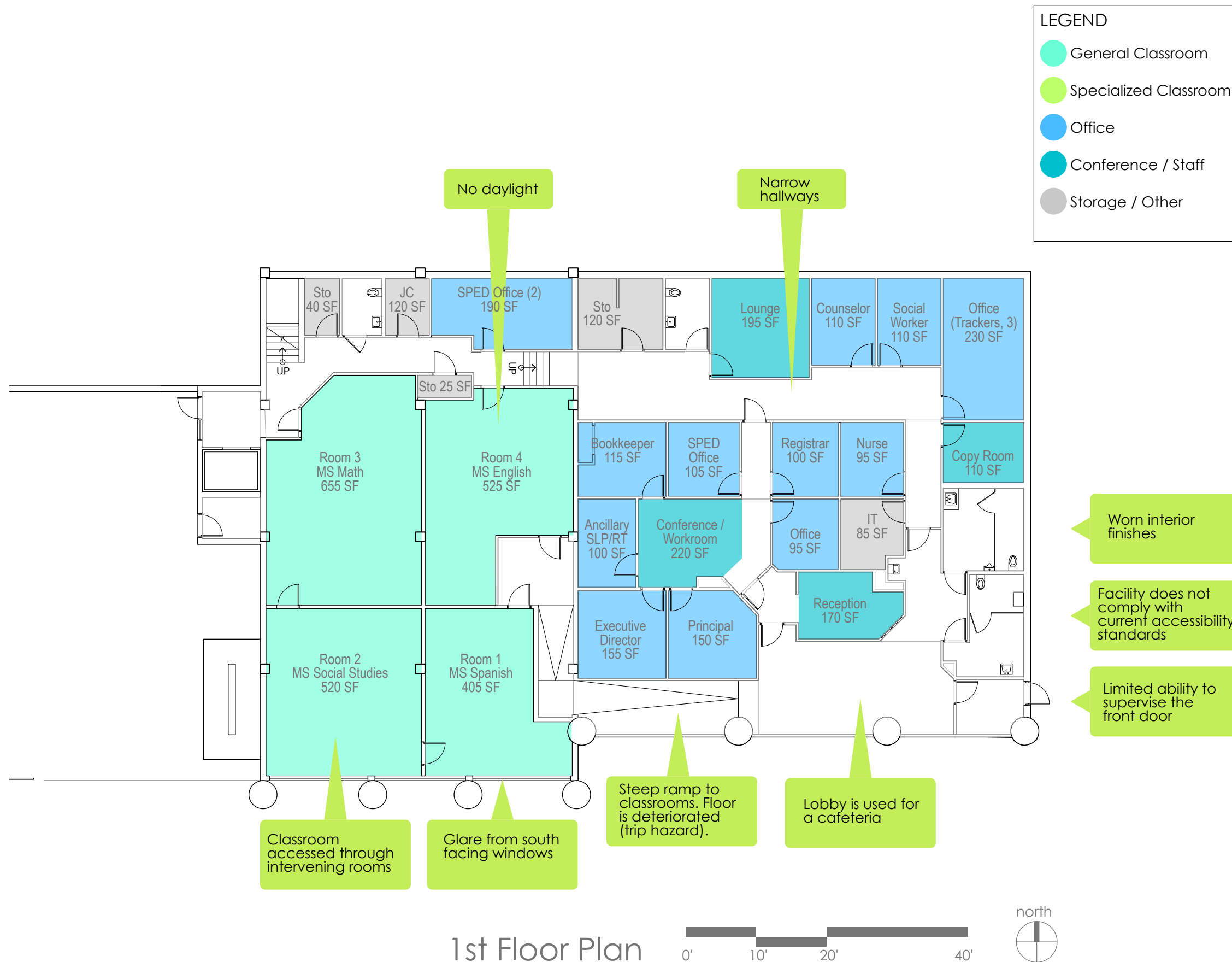
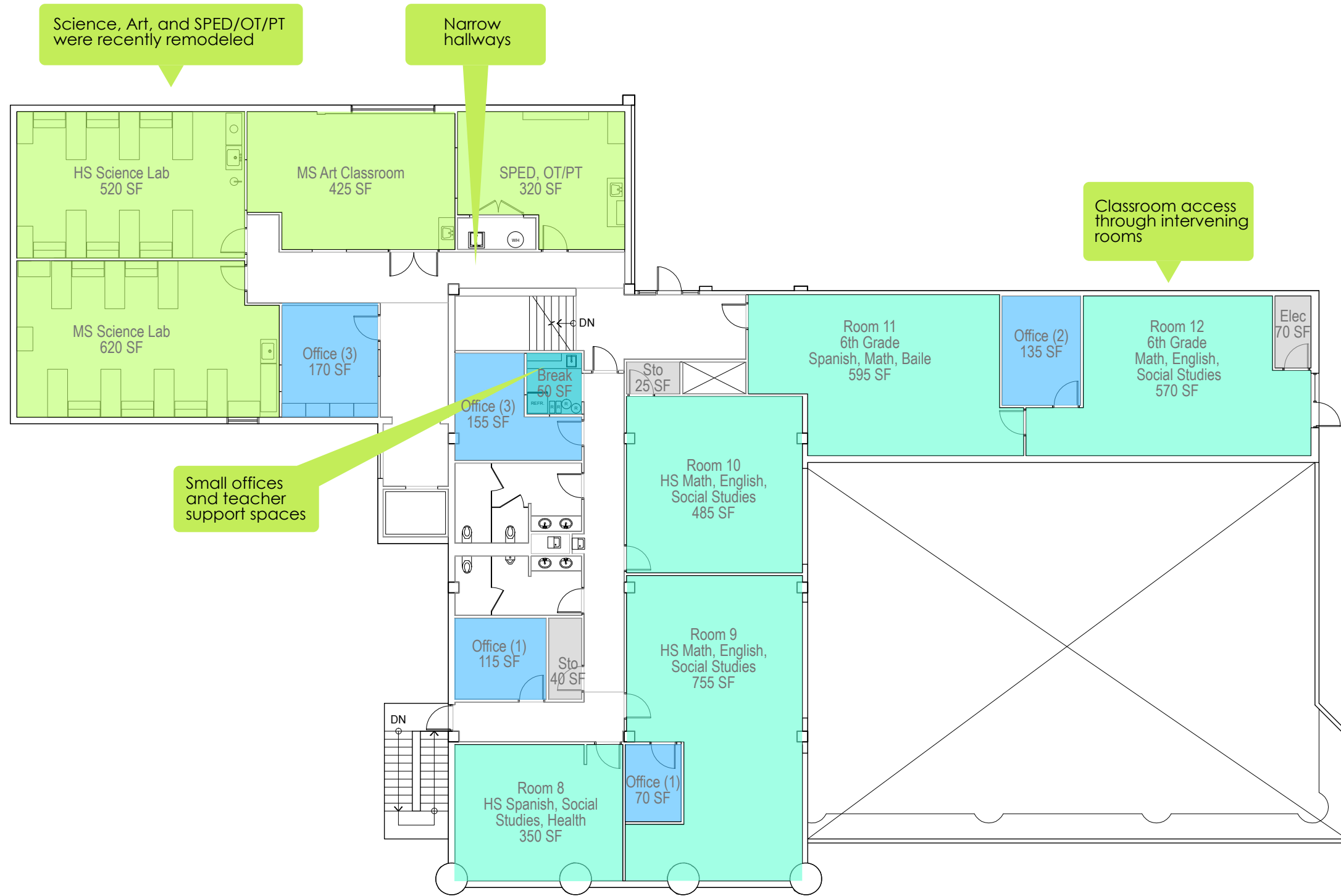


Exhibit 5-4
Existing Main Building, 2nd Floor Plan

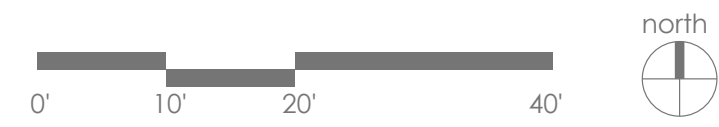


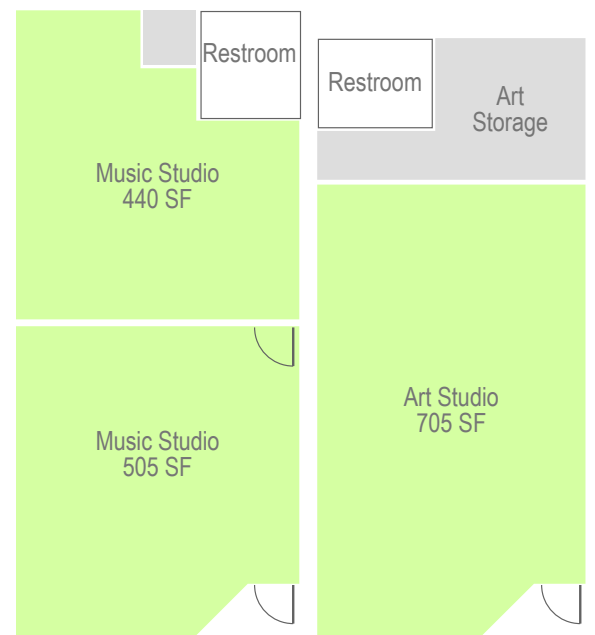
Main Building, 2nd Floor

LEGEND

- General Classroom
- Specialized Classroom
- Office
- Conference / Staff
- Storage / Other

2nd Floor Plan





Small classrooms and lack of storage limit educational program offerings

Classrooms lack adequate visual display and projection surfaces

LEGEND

- General Classroom
- Specialized Classroom
- Office
- Conference / Staff
- Storage / Other

Central Avenue

Physical separation limits collaboration. Teachers lack convenient access to common resources.

Dance studios lack changing areas and have inadequate ventilation

Two of the dance studios are too small for regular classes

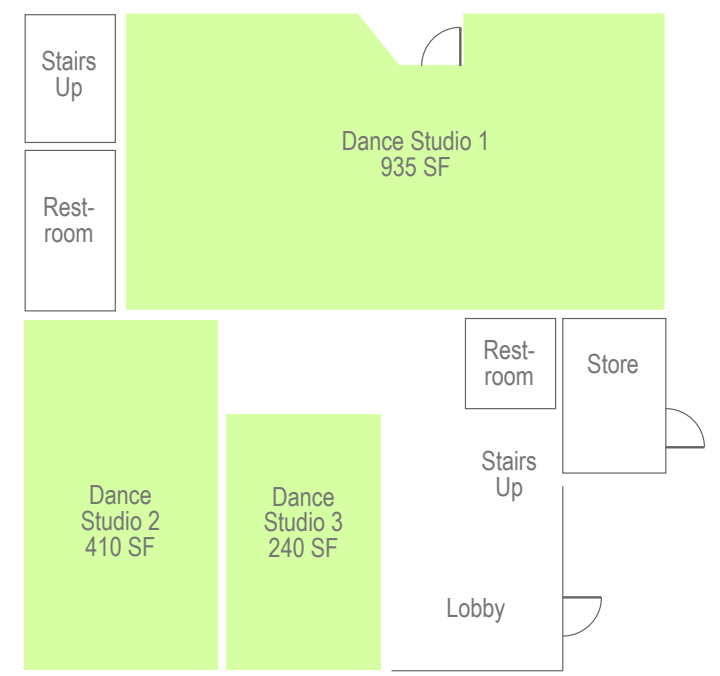


Exhibit 5-5
Existing Satellite Studios

Satellite Studios

ARC evaluated TANM's existing satellite dance, music, and art studios and recorded the following observations:

- Small classrooms and lack of adequate storage limit educational program offerings (lack area for instrument and supply storage, recording and technology equipment, kiln, silkscreening, etc.)
- Classrooms lack adequate visual display and projection surfaces
- Two dance studios are too small for regular classes
- Dance studios lack changing areas and have inadequate ventilation
- Some interior spaces lack access to daylight
- Interior finishes (flooring, walls, paint, and ceilings) are worn
- Sound transmission between classrooms and from Central Avenue is disruptive
- Physical separation among dance, art, and music studios makes collaboration more difficult
- Teachers lack convenient access to copy room, workroom, break room, and other support functions located in the main building

Satellite Studios







District: **State Chartered Schools** School: **Tierra Adentro Charter School** School ID: **518001**

High Level Overview

General Information

Location: Albuquerque, NM 87106 Ed. Adequacy Model: Charter School Educational Adequacy
 School Type: High **(Middle + High; 6th - 12th)** Ed. Adequacy CCI: 100.00%
 School Category: Charter School CCI City: RSMEANS2016:US_NM_ALBUQUERQ, UE

NMCI Statistics

Number of Students: ~~299~~ **270** Number of Buildings: **+ 4**
 Growth Factor: 1.00 Number of Portables: 0
 Total Gross Square Feet: ~~45,766~~ **18,875** Building Square Feet: ~~45,766~~ **18,875**
 Site Size (Acres): 0.00 Portable Square Feet: 0

NMCI School Metrics

Replacement Cost: \$2,869,490 Unweighted Repair Cost: \$1,827,873
 Weighted Repair Cost: \$598,754 Unweighted Educational Adequacy Cost: \$58,843
 Weighted Educational Adequacy Cost: \$176,530 Total Unweighted Cost: \$1,886,716
 Total Weighted Cost: \$775,294 Unweighted NMCI Score: 65.75
 Weighted NMCI Score: 27.02

NMCI Facility History

Last Assessment Date: 02-18-2014 Previous Award, Yes or No, Year if Yes: No
 Closed: No





District: **State Chartered Schools** School: **Tierra Adentro Charter School** School ID: **518001**

Facility Description

Tierra Adentro of New Mexico is a state-chartered public school serving 6th through 12th grades. The school leases a 15,310 GSF main building and 3 smaller facilities (3,565 GSF) near the intersection of Central Avenue NE and University Boulevard NE, in Albuquerque, NM.

Site: The school's site is unique, because it is spread out across several blocks on Central Avenue. The main building accommodates most academic classes, while dance, music, and art classes are accommodated in the smaller leased facilities. As such, the site presents several challenges for the school, including: open campus, supervision, security, pedestrian safety, vehicular and traffic, and ADA accessibility.

Structure/Building Envelope: The school facilities date from the 1980s (estimated) and are poorly insulated by current building standards. Windows and doors are single-glazed in metal frames, and are drafty. Walls and roofs probably have minimal insulation. The roof on the main building is in poor condition with large cracks in its flashing, and has a history of leaks.

Interiors: The facilities were originally designed for commercial/office and retail use. As a result, some interior features are poorly suited for a school environment. For example, the facilities include narrow hallways (4'-0" in areas), classrooms accessed through intervening rooms and through other classrooms, and commercial grade interior finishes and fixtures (as opposed to more durable institutional grade for schools). The facilities lack some spaces that are typical of school environments, including a cafeteria/multi-purpose room, kitchen, student commons, health suite, parent workroom, and student locker areas. Some classrooms and other regularly occupied spaces lack natural light.

Mechanical/Plumbing: Facility heating is by gas-fired, forced air furnaces and cooling is by evaporative coolers. Interviews with building occupants indicate that thermal comfort is challenging year-round, likely due to poorly configured HVAC zoning, aging equipment, and inadequate envelope insulation.

Electrical: The design of the school's facilities was for uses other than education. Consequently, classroom and studio spaces generally lack sufficient power outlets on multiple walls to support educational equipment and flexible learning environments.



Fire Protection: The main school facility is fire-sprinklered. The dance, music, and art studios are not fire-sprinklered.

Life Safety: All facilities have fire alarms. The main facility has an intercom system, but it does not connect with the satellite studios. As a result, communication to the satellite studios is challenging. Two classrooms exit through intervening rooms. Exterior doors are equipped with panic hardware.

Accessibility: The school's site has inherent ADA challenges because it is comprised of separate facilities spread out on several blocks along a sloping section of Central Avenue. Although City of Albuquerque sidewalks connect the facilities, the paving is worn and not all street crossings have crosswalks and signals. The main building lacks handicapped parking.

Construction of the facilities was prior to ADA legislation, and while the school has completed measures to make the facilities more accessible, they do not comply with current ADA standards. For example, the building geometry and site topography challenge access to the main entrances of the main facility as well as the music and art studios. The main building includes a ramp connecting the split level ground floor, but the ramp does not comply with current ADA standards. The elevator requires upgrades to meet ADA standards, and to renew aging components to ensure operational reliability. Restrooms in all facilities are out of compliance with current ADA standards, and would also benefit from renewal to replace aging fixtures, finishes, and equipment.

End of Facility Description





District: **State Chartered Schools** School: **Tierra Adentro Charter School** School ID: **518001**

Asset Level Summary

15,310

Building Name	Cost Model	Repair Cost (Unweighted)	Repair Cost (Weighted)	Year Built	Size Type	Use
Main Building (1982)	High School Building	\$1,623,308	\$545,452	1982	45,700 Building	Educational
Site	High School Site	\$204,565	\$53,312	1900	45,700 Building	Site
Building Totals		\$1,827,873	\$598,764			
Educational Adequacy Need	Charter School Educational Adequacy	\$58,843	\$176,530			
School Totals		\$1,886,716	\$775,294			

*Add: Dance Studios, 1,585 Gsf
 Music Studios, 1,045 Gsf
 Art Studio, 935 Gsf*

All leased spaces, built ± 1980's (approx.)





Executive Summary Report

State Chartered School: **Tierra Adentro Charter** School ID: **518001**
 District: **Schools** School: **School**

Asset Detail

Building Name: **Main Building (1982)** Cost Model: **High School Building** Size: ~~15,700~~ **15,310**

Name	Cost SF	Life	Renewal Percent	Last Reno.	Next Reno.	Degrade Adj. Percent Factor	Repair Cost (Unweighted)	Category Number	Weight	Repair Cost (Weighted)	Comments
Air/Ventilation Equipment	\$3.06	20	110%	1982	2002	100%	\$53,099	4	.25	\$13,275	
Ceiling Finishes	\$5.58	30	110%	1982	2012	100%	\$96,950	4	.25	\$24,237	TL 2/18/2014 Multiple stained and missing tile in need of replacement. Ceiling in poor condition.
Communications/Security	\$1.96	15	90%	2009	2024	22%	\$6,074	9	.25	\$1,519	TL 2/18/2014 Installed when school opened 2009?
Exterior Walls	\$15.39	100	100%	1982	2082	12%	\$28,080	3 3	.25 2.0	\$7,020	Stucco. Major cracking due to patch work and age related issues. Graffiti on exterior wall west end of school.
Exterior Windows and Doors	\$5.98	30	110%	1982	2012	100%	\$103,813	4	.25	\$25,953	TL 2/18/2014 windows are sealed good drafty and not well insulated . There is some graffiti on glass.
Fire Detection/Alarm	\$1.98	15	90%	2003	2018	75%	\$21,117	9	.25	\$5,279	TL 2/18/2014 fire panel installed around 2003?
Fire Sprinkler	\$2.62	50	130%	2003	2053	7%	\$3,632	9	.25	\$908	
Floor Finishes	\$6.43	12	110%	1982	1994	100%	\$111,700	2	1.5	\$167,550	...how's heavy wear. VCT patch jobs done with different tile. Carpets in offices and classrooms was installed 2009.
Foundation/Slab/Structure	\$29.28	100	100%	1982	2082	12%	\$53,433	9	.25	\$13,358	
HVAC	\$23.92	30	100%	1982	2012	100%	\$377,617	4	.25	\$94,404	TL 2/18/2014 Unable to access at time of survey. Occupants report thermal comfort + zoning issues.
Institutional Equipment	\$3.74	30	100%	1982	2012	100%	\$59,098	4	.25	\$14,774	
Interior Doors, Partitions, Stairs, Elevator	\$11.66	50	90%	1982	2032	46%	\$76,587	4 6	.25 1.0	\$19,147	TL 2/18/2014 Interior doors are wood which are in fair condition. Elevator + inkeride ramp do not meet ADA
Interior Walls	\$7.41	60	90%	1982	2042	32%	\$33,784	9	.25	\$8,446	
Lighting/Branch Circuits	\$11.48	30	90%	1982	2012	100%	\$163,150	4	.25	\$40,788	TL 2/18/2018 Original lighting and circuits 1982. Recommended upgrade.
Main Power/Emergency	\$1.33	30	90%	1982	2012	100%	\$18,826	4	.25	\$4,707	
Other Electrical Systems	\$0.53	20	90%	1982	2002	100%	\$7,488	4	.25	\$1,872	
Other Equipment	\$11.59	60	110%	1982	2042	32%	\$64,623	9	.25	\$16,156	





Executive Summary Report

Name	Cost SF	Renewal Percent	Last Reno.	Next Reno.	Degrade Adj. Percent	Degrade Adj. Factor	Repair Cost (Unweighted)	Category Number	Category Weight	Repair Cost (Weighted)	Comments
Plumbing	\$11.10	30	100%	1982	2012	100%	\$175,209	4	25	\$43,802	TL 2/18/2014 All original faucets and fixtures. Recommended replacement.
Roof	\$8.05	20	120%	1982	2002	100%	\$152,454	4	25	\$38,113	...ng material meets parapit. Multiple stained ceiling tile in interior suggest roof leaks. Roof is rolled 90 wt.
Technology	\$0.14	10	90%	2009	2019	49%	\$983	3	2.0	\$246	Flashing is dried out and has large cracks.
Wall Finishes	\$2.90	12	100%	2009	2021	34%	\$15,589	9	.25	\$3,897	TL 2/18/2014 Walls were painted in 2009.
Total:							\$1,623,308			\$545,452	

Restrooms require upgrades to comply w/ ADA standards

Flashing is dried out and has large cracks.





Executive Summary Report

State Chartered District: Schools School: **Tierra Adentro Charter School** School ID: **518001**

Asset Detail

Building Name:	Site	Cost Model:	High School Site	Size:									
				15,786									
Name	Cost SF	Life	Renewal Percent	Last Reno.	Next Reno.	Degrade Adj. Percent	Factor	Repair Cost (Unweighted)	Category Number	Weight	Category	Repair Cost (Weighted)	Comments
Athletic Fields	\$0.40	30	90%	1982	2012	100%	33.25%	\$5,883	4	.25		\$1,421	N/A
Fencing	\$0.43	100	110%	1982	2082	12%	33.25%	\$858	9	.25		\$214	
Landscaping	\$1.98	30	110%	1982	2012	100%	33.25%	\$34,413	4	.25		\$8,603	TL 2/18/2014 Poor condition on landscaping.
Parking Lots	\$6.70	20	80%	1982	2002	100%	33.25%	\$84,613	4	.25 1.0		\$21,153	TL 2/18/2014 Parking lot has potholes in need of repair. Striping faded & asphalt cracking.
Playground Equipment	\$0.11	15	100%	1982	1997	100%	33.25%	\$1,736	2	1.5		\$2,605	
Site Lighting	\$1.40	40	100%	1982	2022	72%	33.25%	\$15,968	9	.25		\$3,992	TL 2/18/2014 Exterior lighting missing covers and some broken. Recommended repair.
Site Specialties	\$0.07	40	100%	1982	2022	72%	33.25%	\$798	9	.25		\$200	
Site Utilities	\$2.17	50	120%	1982	2032	46%	33.25%	\$18,979	9	.25		\$4,745	
Walkways	\$2.39	30	110%	1982	2012	100%	33.25%	\$41,517	4	.25		\$10,379	TL 2/18/2014 sidewalks are in fair condition.
Total:								\$204,565				\$53,312	<i>Some sidewalks require repair to reduce trip hazard.</i>

*No handicapped parking spaces provide
Damaged paving creates trip hazards*





District: **State Chartered Schools** School: **Tierra Adentro Charter School** School ID: **518001**

Educational Adequacy Detail

Population

Growth Factor:	1	Number of Kindergarten Students:	0
Number of Staff:	25 40	Number of 1-5 Students:	0
Number of Students:	228 270	Number of 6-8 Students:	144 153
Number of Special Education Students:	0	Number of 9-12 Students:	97 117

Square Footage

Permanent GSF:	15,700 18,875	General Storage NSF:	148 225
Portable GSF:	0	Maintenance or Janitorial Space NSF:	60 120
Admin NSF:	4,974 1,110	Media Center NSF:	0
Art/Music NSF:	154 2,075	Parent Work Space NSF:	0
Assembly NSF:	0	Physical Ed NSF:	0 1,585 (dance studios)
Career Ed NSF:	0	Science Classroom NSF:	364 1,140
Computer Lab NSF:	0	Science Storage NSF:	0
Faculty Work Area NSF:	100 1,740	Special Education Classroom NSF:	174 320
Food Service NSF:	0	Student Health NSF:	90 95
General Classroom NSF:	5,824 4,860		

Classrooms

Number of Classrooms:	19 19 (includes general + specialized)	Number of Special Education Classrooms:	0 1
-----------------------	--	---	-----------------------

Parking

Number of Paved Parking Spaces:	20 30	Number of Bus Drop Offs:	0
Number of Handicap Parking Spaces:	0	Number of Student Drop Offs:	0
Number of Gravel Parking Spaces:	0		

Miscellaneous

Number of Chemical Storage Rooms:	0	Number of Multi-Use Playgrounds:	0
Playground Equipment:	N/A		





Executive Summary Report

State Chartered Schools School ID: 518001
 District: Schools School: School
 School ID: 518001

EA Deficiencies

EA Cost Model: Charter School Educational Adequacy

Name	Actual Value	Required Value	Unit Cost	CCI Adj Unit Cost	Repair Cost (Unweighted)	Category Number	Category Weight	Repair Cost (Weighted)
Insufficient General Classroom Square Footage	4,860	6,373	\$80	\$80.00	\$58,843	7	3	\$176,530
Missing or Inadequate Multi-use Play Area	0	0	\$11,436	\$11,436.30	\$0	8	.5	\$0
Insufficient Total Parking	30	0	\$1,322	\$1,321.66	\$0	6	1	\$0
Insufficient Student Health Square Footage	95	0	\$80	\$80.00	\$0	7	3	\$0
Insufficient Student Drop Off	0	0	\$21,000	\$21,000.00	\$0	6	1	\$0
Insufficient Special Education Square Footage	320	0	\$80	\$80.00	\$0	7	3	\$0
Insufficient Science Storage Square Footage	0	0	\$80	\$80.00	\$0	7	3	\$0
Insufficient Science Square Footage	1,140	0	\$80	\$80.00	\$0	7	3	\$0
Insufficient Physical Education Square Footage	1,585	0	\$80	\$80.00	\$0	7	3	\$0
Insufficient Parent Work Space	0	0	\$80	\$80.00	\$0	7	3	\$0
Insufficient Media Center Square Footage	0	0	\$80	\$80.00	\$0	7	3	\$0
Insufficient Janitorial Square Footage	180	0	\$80	\$80.00	\$0	7	3	\$0
Insufficient General Storage	225	0	\$80	\$80.00	\$0	7	3	\$0
Insufficient Food Service Square Footage	0	0	\$80	\$80.00	\$0	7	3	\$0
Insufficient Faculty Workspace	1,740	0	\$80	\$80.00	\$0	7	3	\$0
Insufficient Computer Lab Square Footage	0	0	\$80	\$80.00	\$0	7	3	\$0
Insufficient Career Ed Square Footage	0	0	\$80	\$80.00	\$0	7	3	\$0
Insufficient Bus Drop Off	0	0	\$20,800	\$20,799.69	\$0	6	1	\$0
Insufficient Administrative Square Footage	1,110	0	\$80	\$80.00	\$0	7	3	\$0
Insufficient Art and Music Square Footage	2,075	0	\$80	\$80.00	\$0	7	3	\$0
Inadequate Number of Handicap Spaces	0	0	\$144	\$143.52	\$0	6	1	\$0
Inadequate Number of Chemical Storage Units	0	0	\$1,464	\$1,464.30	\$0	8	.5	\$0
Total					\$58,843			\$176,530



5.5 Utilization Spreadsheet

ARC analyzed utilization of TANM's existing instructional space, including main and satellite facilities (see the spreadsheet on the following page). The analysis found:

- Classrooms are occupied 84% of the available time, on average
- 88% of available seats are filled in classes, on average
- General classrooms accommodate a variety of subjects throughout the day
- Specialized classrooms are used for dance, music, art, or science



Exhibit 5-7
Existing Facility Utilization

Utilization Analysis Notes:

- 1) Max # of St./Sq. Ft. = The maximum number of students allowed per the Statewide Adequacy Standards square feet.
- 2) PED Max PTR/Clm = PED's maximum pupil / teacher ratio per class period.
- 3) % Rm Occ. = The number of students column divided by either the PED Max./PTR/Clm column or the Max #of St./Sq ft column, whichever column is the smaller maximum allowed by A.S. or PED.
- 4) Tot. St. = The total number of students in the specific instructional space throughout the day.
- 5) PED Max. PTR/Day = The maximum pupil teacher ratio allowed by PED for specific teacher per day allowed.
- 6) Tot. % Rm Occ. / Day = Total average percentage room is occupied throughout the day. (count all periods in average)
- 7) Occ. # of Pd.'s / Day = Occupied number of periods occupied per day. (Prep period may be counted as utilized if teacher does not have a separate office from classroom)
- 8) % Pd. / Day = The average percent of occupied periods (occupied number of periods divided by the number of periods available per day).

Utilization Spreadsheet Legend

Art	Music	Spanish	Math	English	Open Period Instructional Space is Too Small to Support Educational Program
Dance	Science	Health	Social Studies	Prep	

Rm #	Classroom NSF	1		2		Teacher Name(s)	3			PERIOD 1			PERIOD 2			PERIOD 3			PERIOD 4			PERIOD 5A			PERIOD 5B			PERIOD 6			Period 7			Period 8			Total Students Per Room Per Day	Max Students per Day based on Room Area	Max Students Per Day based on PED PTR	% Room is Occupied per Day based on Area	% Room is Occupied per Day based on PED PTR	Occupied Periods out of 56 Period Cycle (A thru H Days)	% of Periods used per Cycle
		SF per Student (AS)	Max # Students per Room SF (AS)	Max Students per PED Standards	Subject		# of St.	% Rm Occ.	Subject	# of St.	% Rm Occ.	Subject	# of St.	% Rm Occ.	Subject	# of St.	% Rm Occ.	Subject	# of St.	% Rm Occ.	Subject	# of St.	% Rm Occ.	Subject	# of St.	% Rm Occ.	Subject	# of St.	% Rm Occ.	Subject	# of St.	% Rm Occ.	Subject	# of St.	% Rm Occ.								
		7:40 - 8:30	8:35 - 9:25	9:30 - 10:20	11:25 - 11:15		11:55 - 12:45 (A Lunch)	11:20 - 12:10 (B Lunch)	12:50 - 1:40	Rotating Period																																	
ART HS	730	28	26	27	Martinez, Katherine	HS Visual Art I/ Independent Art Study	21	81%	Independent Art Study	30	115%	Visual Art Advanced Studio	17	65%	PREP		0%	Visual Art Advanced Portfolio	13	50%			0%			0%	HS Visual Art II	15	58%	HS Visual Art I/ Independent Art Study	27	104%	123	163	160	67%	77%	49	88%				
ART MS	424	28	15	27	Patten, Sasha-Ingen	Visual Art/ Visual Art Advanced	30	198%	Visual Art 6	24	158%	PREP		0%	MS Visual Art Advanced	21	139%			0%	MS Visual Art	14	92%	MS Visual Art 1	21	139%	MS Visual Art 1/ MS Visual Art Advanced	29	192%			0%	139	106	160	131%	87%	49	88%				
Dance 1	960	28	34	27	Encinas, Deanna (4)/ Hartshorn, Sarah (1)/ Leyva, Rebekah (2)/ Alba, Alisa (2)/ Lyall, Kayla (3)/ Osuna, Elena (2)	Dance Technique	18	133%	Dance Choreography	24	152%	Dance Ensemble	27	159%	Dance II	33	196%	Dance II	22	81%			0%	Dance 1	23	85%	Dance II	21	167%	Dance 1	23	167%	265	240	320	110%	83%	56	100%				
Dance 2	410	28	15	27	Not Applicable; This classroom is too small for use			0%					0%				0%																										
Dance 3	240	28	9	27	Not Applicable; This classroom is too small for use			0%					0%				0%																										
Music A	530	28	19	27	Benavidez, Donald (6), Truitt, John (2)	Music II	28	148%	Music and Notation	14	74%	Music 1	25	132%	Music Repertoire	15	79%			0%	Music 1	19	100%	Music 6	24	127%	Music 6	21	111%	Music 1	25	132%	171	133	160	129%	107%	56	100%				
Music B	450	28	16	27	Febres, Mario (5)			0%	Music II	10	62%	Music III	13	81%	PREP		0%			0%			0%	Music 5	5	31%	Music III	14	87%	Music II	17	106%	59	113	160	52%	37%	42	75%				
HS SciLab	522	28	19	27	Collins, Kenna (5)/ Leyva, Rebekah (1)	Earth Science/ Physics	21	113%	Science 6	21	113%	PREP		0%	Earth Science/ Physics	21	113%	Biology 9/ Lab	27	145%			0%			0%	Bology 9/ Lab	19	102%	Earth Science/ Physics	22	118%	131	131	160	100%	82%	49	88%				
MS Sci Lab	619	28	22	27	Leyva, Rebekah (3)/ Burford, Janine (2)	Science 8	22	100%	Science 7	11	50%	Science 6	24	109%	PREP		0%			0%			0%	Science 7	23	104%	Science 8	28	127%	Science 7	21	95%	129	155	160	83%	81%	49	88%				
RM 01	404	28	14	27	Alba, Alisa (4)/ Terry, Gloria (1)	Spanish 8	8	55%	Spanish 7	27	187%	HS Spanish 3A	22	152%	Spanish 7	14	97%			0%	Spanish 7	12	83%			0%																	
RM 02	519	28	19	27	Smith, Sarah (5)			0%	MS US History	24	129%	MS US History	25	135%	PREP		0%	MS US History	25	135%			0%	MS New Mexico History	20	108%			0%	MS New Mexico History	9	49%	103	130	160	79%	64%	42	75%				
RM 03	653	28	23	27	Sumner, Azizah (3), Burford, Janine (2)			0%	Pre-Algebra	18	77%	Math 7	24	103%	Math 7	19	81%	Pre-Algebra	12	51%			0%	Pre-Algebra	21	90%			0%			94	163	160	58%	59%	35	63%					
RM 04	523	28	19	27	Borrego, Melia (6)/ Burford, Janine (1)	English 7	21	112%	English 7	15	80%	PREP		0%	English 8	23	123%			0%	Math 7	10	54%	English 8	21	112%	Engoish 7	19	102%	English 8	6	32%	115	131	135	88%	85%	56	100%				
RM 08	348	28	12	27	Terry, Gloria (5)/ Papp, Gregory (1)/ Encinas, Deanna (1)	HS Spanish 3A	17	137%	PREP		0%	World History/ Geography	15	121%	HS Spanish 3A	17	137%	HS Spanish 3A	11	89%			0%	Health Ed	20	161%	HS Spanish 3B	12	97%	HS Spanish 3B	11	89%	103	87	160	118%	64%	56	100%				
RM 09	754	28	27	27	Hartshorn, Sarah (4)/ Papp, Gregory (1)/ Sanchez, Leroy (3)	English 12	12	45%	English 10/ Honors English 10	7	26%	Economics/ Government	20	74%	World History/ Geography	21	78%	English 10/ Honors English 10	23	85%			0%	Integrated Math III/ Integrated Math III	26	97%	Integrated Math I	18	67%	Integrated Math III/ Honors Integrated Math II	7	26%	134	189	135	71%	99%	56	100%				
RM 10	484	28	17	27	Oya, Sojourner (5)/ Sanchez, Leroy (2)			0%	Integrated Math I	26	150%	English 9	12	69%	English 9/ Honors English 9	20	116%	Integrated Math III	22	127%			0%	HS New Mexico History	24	139%	English 11/ Honors English 11	20	116%	Honors English 9	10	58%	134	121	135	111%	99%	49	88%				
RM 11	594	28	21	27	Osuna, Elena (3)/ Sumner, Azizah (1)	Spanish 6	25	118%			0%	Spanish 8	15	71%	PREP		0%			0%	Spanish 6	21	99%			0%			Math 6	24	113%	85	149	160	57%	53%	35	63%					
RM 12	568	28	20	27	Sumner, Azizah (1)/ Torres, Tamara (4)/ Papp, Gregory (1)	Math 6	21	104%			0%	English 6	21	104%	Social Studies 6	24	118%			0%	English 6	24	118%	US History/ Geography	24	118%			0%	Social Studies 6	21	104%	135	142	135	95%	100%	42	75%				
	9,732		348	486			262	75%		268	76%		276	76%		248	72%		155	42%		100	30%		252	73%		240	70%		245	66%	2,003	2,271	2,620	88%	76%		84%				

Period 5 includes 2 lunch waves

5.6 Detailed Space and Room Requirements

Exhibit 5-8 captures desired space and room requirements and characteristics as discussed by the steering committee. This criteria is intended to guide and support, but not limit, the design process.

Exhibit 5-8
Space and Room Requirements

TANM Space and Room Requirements	Operations				Technology / Special Systems			Power		Lighting / Daylighting			Acoustics	HVAC / Plumbing					Flooring			Furniture and Equipment											Notes								
	School Day (7:30 - 2:30)	After-School Programs	Community Access	Other	WiFi	Projection Capabilities	Sound System	Convenience Outlets (wall)	Convenience Outlets (floor and/or ceiling)	General Area Illumination	Task Lighting	Daylight		Noise Generating Space (Separate from quiet areas)	Enhanced Ventilation	Group Workstations with Water and Gas (plus power and data)	Sink(s)	Easy Access to Drinking Fountain(s)	Eye Wash	Non-Absorptive	Athletic	Other / To Be Determined	Moveable / Flexible Workstations	Heavy Duty Tables and Chairs	Collaboration Tables and Chairs	Casual Seating	Tiered Seating (portable)	Whiteboard / Teaching Wall	Wall-Mounted Mirrors	Barres / Dance Equipment	Fume Hood and Chemical Storage	Kiln		Clay Trap at Sink(s)	Nurse's Station and Cot Area	Food Prep and Demonstration Equipment	Secure Storage				
1.0 Instructional Areas																																									
General Classrooms	✓				✓	✓		✓		✓		✓								✓			✓				✓											✓	Classrooms will be shared among faculty (collegiate model).		
SPED Space	✓				✓	✓		✓		✓		✓															✓											✓	SPED space may be located within regular classrooms (inclusion program).		
Science Labs	✓				✓	✓		✓	✓	✓		✓			✓	✓				✓			✓	✓			✓			✓								✓	Science labs include classroom area.		
Dance Studios	✓	✓	✓	✓	✓	✓	✓	✓		✓		✓	✓	✓			✓			✓							✓	✓	✓										✓	Dance studios will be joint use with NIF.	
Music Studios	✓	✓			✓	✓	✓	✓		✓		✓	✓			✓	✓									✓	✓	✓											✓	Provide whiteboard with musical staff. Accommodate set design.	
Visual Arts Studios	✓	✓			✓	✓		✓		✓		✓								✓			✓	✓			✓						✓	✓					✓	Provide screen printing work area and storage.	
Media Center	✓	✓			✓	✓	✓	✓	✓	✓		✓											✓	✓			✓												✓	Accommodate 24 to 30 computer stations.	
2.0 Multipurpose																																									
Multipurpose Room	✓	✓	✓		✓	✓	✓	✓	✓	✓		✓	✓	✓			✓										✓											✓	✓	Provide flexibility for small-scale performance.	
Warming Kitchen	✓	✓						✓	✓	✓		✓		✓						✓																			✓	✓	
Student Commons	✓	✓			✓			✓		✓		✓					✓									✓															
3.0 Other Support Space																																									
Lobby	✓	✓	✓		✓			✓		✓		✓	✓				✓																								
Reception	✓				✓			✓		✓		✓					✓																						✓		
Student Health	✓				✓			✓		✓		✓		✓			✓																			✓			✓		
Administration and Staff Offices	✓	✓			✓			✓		✓		✓															✓													✓	
Faculty Open Work Areas	✓	✓			✓			✓		✓		✓															✓												✓	Collegiate classroom model requires faculty work areas outside of classrooms.	



5.7 Site Test of Fit Diagrams

The steering committee considered a 2.5-acre site in Albuquerque's Sawmill District, near Old Town, as a potential location for the proposed 47,700 GSF facility. The test of fit

diagrams (exhibits 5-9 through 5-12) suggest that this location can support many of TANM's goals and concepts for a new facility as described in section 3 of this document.

Exhibit 5-9

Test of Fit Diagram A:
Proximity to Existing Location



Exhibit 5-10

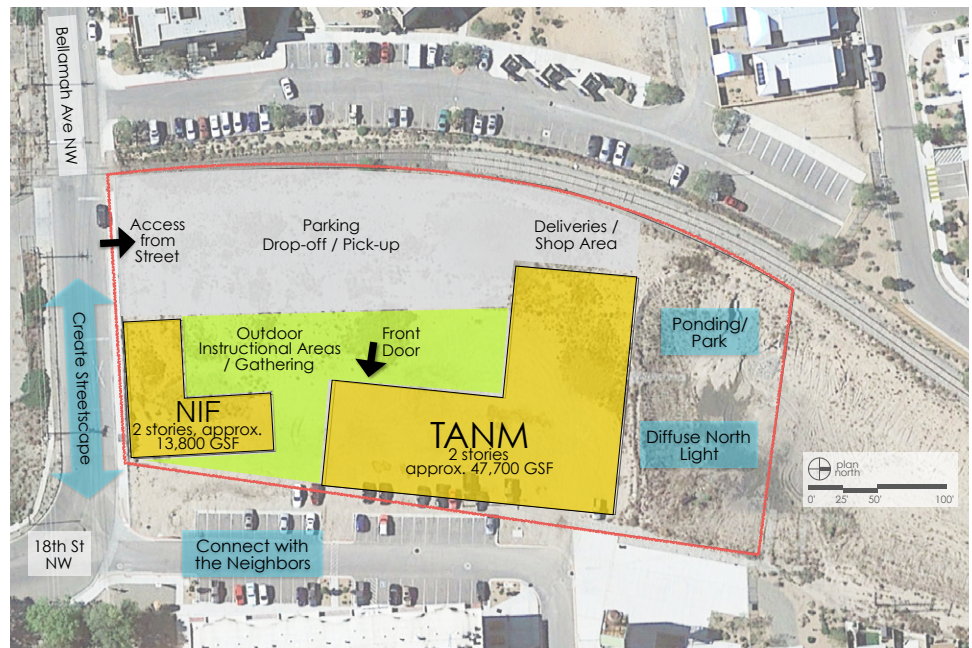
Test of Fit Diagram B:
Proximity to Potential Partner Facilities



Exhibit 5-11
 Test of Fit Diagram C:
 Neighborhood
 Adjacencies



Exhibit 5-12
 Test of Fit Diagram D:
 Site Organization
 Concepts





Architectural Research Consultants, Incorporated