

# Murdock Elementary School



Overview

Previous Work

Scope of Work

Cost Estimates



# Murdock Elementary School

## Overview

Principal: Carrie Brown  
Grade configuration: K-5  
Student enrollment: 635  
Year constructed: 1950/1951  
Building area: 47,966 (including portables; excluding maintenance building)

## Previous Work

Modernization - 1989  
Suspended acoustical ceilings installed  
Installed heat pumps

New Classrooms  
Constructed new relocatable classroom wing with toilets on west side of site

Lighting & Solar  
Replaced all lights including outside lighting with PG&E program (2013)  
Installed ground mounted solar system (2013)

## Scope of Work – Priority 1: ✓

### ADA (Americans with Disabilities Act) Improvements

ADA improvements are required for all public facilities when any construction project occurs on the site. These will include:

- Parking stalls
- Path of Travel (POT) from parking lot to all spaces affected by project work; this includes sidewalk slopes, curb cuts, door thresholds, etc.
- Drop-off zone
- Doors and hardware that allows accessible entry
- Drinking fountains
- Toilet rooms
- Signage (parking lot, rooms)

ADA work is far ranging and expensive. A survey of the campus by a specialized professional to identify all needs is the first step in developing a viable plan to gain compliance. Cost allowances for these improvements are provided in the estimate.

Toilet Rooms: The ADA improvements to all toilet rooms (student and staff) is a significant requirement. To accommodate current clearances and access, typical work will require removal and reconfiguration of the fixtures, often including relocation of walls and changes to doors, as well as increasing the size in very small rooms. A toilet analysis will be conducted to determine required quantity of fixtures. Construction of a new toilet building ( if accomplished) may alleviate the need for some of this work.

Plumbing: Toilet room plumbing lines are experiencing problems and should be replaced.

Doors and Hardware: Doors will be replaced where needed due to condition. Hardware will be replaced throughout to comply with code and ADA requirements. There are some specific problems with the office doors.

### **Classroom Finishes**

Flooring: All flooring is past useful life and needs to be replaced. In addition, much of the floor has Vinyl Asbestos Tile (VAT) under current flooring material. This will require abatement. The preferred material for flooring was discussed and all-carpet seems to be the site preferred option. This will be subject to review during planning.

Walls: All walls should be painted. Tack boards and whiteboards should be replaced.

Ceilings: Ceiling tiles are sagging and discolored. The suspended tile ceiling grid can be maintained and all existing acoustic ceiling tiles should be replaced with new. Hard ceilings should be painted.

### **Technology**

There is a need for improved technology infrastructure throughout the campus to accommodate current and future educational programs. This includes better access and speed, as well as wireless access throughout. There is also inadequate power in classrooms to support the technology as well as outdated and inadequate number of computers.

### **Signal Systems**

Fire Alarm, Clocks/Bells and Telephone are in poor repair and operational condition. These systems should be completely replaced. Telephone will be Voice Over internet Protocol (VOiP).

### **HVAC**

The boiler is operational and in reasonable condition; however, replacement should be included as an option due to the age of the equipment. The chiller is very old and requires replacement. The heat pumps in the buildings also need to be replaced. The central system design can be maintained. However, location of the equipment is undesirable and relocation should be considered if possible.

### **Roofing**

The roof is more than 25 years old and at the end of its' useful life. Re-roofing is a top priority and is a critical improvement to maintaining the school. Roofing should include the covered walks as they are leaking and deteriorating.

Skylights are a problem for break-ins. Skylights should be in-filled in rooms that are no longer active and be replaced with new in other locations. These shall have security grills to prevent access.

### **Exterior Painting**

Repainting of the exterior of the entire school should be included if possible to maintain the waterproofing integrity of the buildings.

### **Windows**

Classroom windows: Existing windows are steel frame single glazed in poor condition. Operation is difficult. Weather-stripping installed during last modernization is in poor condition. All steel windows should be replaced with thermal break frames and insulated glass.

Classroom clerestory windows-north side: These are sloped and have been sealed and painted over. Due to the slope, maintaining waterproofing is extremely difficult. These windows should be removed and in-filled as a permanent solution.

Classroom clerestory windows – south side: These have been painted over and are generally in good condition as they are protected by a roof overhang. It is recommended these be re-sealed and painted in place.

Other windows: Windows in administration area should be replaced.

Kindergarten Sliding Door: This door is difficult to secure and operate and needs to be replaced in the same configuration.

Window coverings: Covering should be provided to provide security options and allow darkening of rooms when needed for educational purposes.

### **Kitchen**

A new hood will be required. Additional food service needs to be further investigated.

### **Office Configuration**

The space utilization of the office should be studied and function improved. Expansion of the office space into the adjacent classroom should be considered to provide staff an adequate workroom and lounge, as the current space is inadequate. This classroom is currently not used as a teaching space. A conference room is also needed.

## **Planned Improvements – Priority 2:**

### **Portable Replacements** ✓

There are 5 classroom portables plus a library/computer room portable all over 20 years old and in need of replacement. New buildings should be set at grade (no ramps / stairs) include custodial space, toilets, storage and intervention spaces.

Options for replacing these portables with new construction and portable buildings will be considered.

### **Safety and Security**

The campus should have some additional fencing between parking and campus areas to prevent the public from walking on to the site without checking in at the office. Limiting points of access to locations that can be visually supervised during school hours is desired.

Security cameras have been installed by the District under a recent project.

French Street Closure: Closing French Street during the teaching day would reduce noise and improve safety. This would need to be discussed with the City to determine if closure is possible.

Classroom Doors: Most classrooms have 2 exterior doors. For controlling access, it may be desirable to close one door; however this may meet significant resistance at staff level. Further review to occur. However, closing the south doors facing French Street, and having students access these classrooms from the north side may be a practical way to improve safety. Sidewalks and entry covering may need to be considered.

Roof Access: The fencing around the boiler / chiller is being used to gain access to the roof. This fencing should be replaced with no-climb fabric or reconfigured to prevent easy roof access.

**Shade Structure**

A shade structure on the hard courts is desired.

**PE Room & Band Room**

As the MP is used extensively for serving, an indoor PE space would be very desirable for rainy day activities. A dedicated music room is also desired.

**Acoustics**

The M-P room acoustics need to be improved as it is not useable for many types of events including music.

**Stage**

The stage partition is difficult to use; it should be replaced. There is currently no projection screen in the MP.

**Kitchen**

The outside freezer should be moved adjacent to the building to allow direct access from interior space. This is a health department requirement.

**Maintenance Building**

It would be beneficial to relocate the maintenance building further outside the campus core.

Scope of Work  
**Murdock Elementary School**

configuration k - 5  
 site loading 635 students  
 building area 47,966 sf  
 year built 1950 / 51  
 soft costs 1.30  
 inflation factor 109%  
 updated: 3/26/2014

scope of work	quantity	unit	unit cost	construction cost - 2014	total cost - 2014	construction cost - 2017	total cost - 2017
<b>Priority 1</b>							
<b>ADA - Accessibility Improvements</b>							
ADA assessment and transition plan	47,966	sf	0.12	5,756	7,483	6,293	8,181
parking lot improvements							
signage	1	ls	750.00	750	975	820	1,066
parking stalls striping	4	ea	250.00	1,000	1,300	1,093	1,421
drop zone	1	ea	7500.00	7,500	9,750	8,200	10,660
accessible transition ramps	1	ea	2500.00	2,500	3,250	2,733	3,553
path of travel	2400	sf	16.00	38,400	49,920	41,983	54,578
building signage	52	ea	125.00	6,500	8,450	7,106	9,238
replace doors (80%)	41	ea	900.00	36,900	47,970	40,343	52,446
replace door hdw, thresholds	52	ea	1500.00	78,000	101,400	85,277	110,861
misc upgrades	47,966	ls	1.50	71,949	93,534	78,662	102,260
total - ADA					324,031		354,264

scope of work	quantity	unit	unit cost	construction cost - 2014	total cost - 2014	construction cost - 2017	total cost - 2017
<b>Bathroom Remodel</b>							
remodel student toilets	1,650	sf	325.00	536,250	697,125	586,282	762,167
remodel staff toilets	456	sf	350.00	159,600	207,480	174,491	226,838
	-	sf	350.00	-	-	-	-
total - toilets					904,605		989,005

<b>Interior Improvements</b>										
floor coverings (carpet) includes base	47,966	sf	4.88	234,074	304,296		255,913	332,687		say/or
VAT removal / abatement	47,966	sf	2.50	119,915	155,890		131,103	170,434		
walls (paint)	47,966	sf	2.25	107,924	140,301		117,993	153,391		say/or
ceilings (replace tiles)	47,966	sf	3.50	167,881	218,245		183,544	238,608		say/or
additional power outlets	22	cr	1500.00	33,000	42,900		36,079	46,903		
total - interior						861,632				942,022

<b>General Bidg Improvements</b>										
site allowance for misc needs	47,966	sf	2.00	95,932	124,712		104,882	136,347		say/or
kitchen hood replacement includes MAU	1	ls	35000.00	35,000	45,500		38,266	49,745		
total - general						170,212				186,092

<b>Mechanical Systems</b>										
replace HVAC system includes boiler, chiller and classroom heat pumps	47,966	sf	28.00	1,343,048	1,745,962		1,468,354	1,908,861		CECI
includes gym unit replacement							-	-		
total - mechanical						1,745,962				1,908,861

<b>Infrastructure Improvements</b>										
technology distribution	47,966	sf	1.85	88,737	115,358		97,016	126,121		
fire alarm	47,966	sf	3.75	179,873	233,834		196,655	255,651		
telephone	47,966	sf	1.00	47,966	62,356		52,441	68,174		
clocks / bells	47,966	sf	1.50	71,949	93,534		78,662	102,260		
total - infrastructure						505,082				552,206

<b>Exterior Improvements</b>											
roofing (remove & replace)			47,966	sf	12.00	575,592	748,270			629,295	818,083
roof abatement			47,966	sf	1.50	71,949	93,534			78,662	102,260
modify toilet room roofs			1,450	sf	50.00	72,500	94,250			79,264	103,044
replace skylights			8	ea	2500.00	20,000	26,000			21,866	28,426
paint exterior			-	sf	1.75	-	-			-	-
replace classroom windows			5,000	sf	65.00	325,000	422,500			355,323	461,919
includes demo and prep											
infill north clerestory windows			3,700	sf	32.00	118,400	153,920			129,447	168,281
replace admin windows			350	sf	65.00	22,750	29,575			24,873	32,334
replace kindergarten sliding doors			112	sf	120.00	13,440	17,472			14,694	19,102
										-	-
total - exterior									1,585,520		1,733,449

<b>Total - Murdock Elementary School - Priority 1</b>									<b>6,097,044</b>		<b>6,665,899</b>
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<b>Priority 2</b>											
scope of work											
<b>Interior Improvements</b>											
admin office reconfiguration			1,800	sf	90.00	162,000	210,600			177,115	230,249
stage door replacement			1	ls	55000.00	55,000	71,500			60,132	78,171
acoustic improvements in gym			1	ls	25000.00	25,000	32,500			27,333	35,532
projection screen			1	ls	15000.00	15,000	19,500			16,400	21,319
replace/relocate freezer			1	ls	125000.00	125,000	162,500			136,663	177,661
total									496,600		542,933



<b>Exterior Improvements</b>													
paint exterior	47,966	sf	1.75	83,941	109,123				91,772	119,304			
total - exterior								109,123					119,304

	includes concrete foundation systems												
<b>Portable Replacement w/ Portables</b>													
demolish (e) portables	6,720	sf	5.00	33,600	43,680				36,735	47,755			
site prep and utilities	8	ea	40000.00	320,000	416,000				349,856	454,813			
5 classrooms (960sf each)	5	ea	115000.00	575,000	747,500				628,648	817,242			
computer lab and library (1920 sf)	2	ea	125000.00	250,000	325,000				273,325	355,323			
toilet building	1	ea	145000.00	145,000	188,500				158,529	206,087			
support space (960)	1	ea	125000.00	125,000	162,500				136,663	177,661			
includes 2 student @ 600sf and 1 staff @ 80sf													
total - portables								1,883,180					2,058,881

	includes concrete foundation systems												
<b>PE Room &amp; Band Room (Portable)</b>													
flex room (1920)	1	ea	230000.00	230,000	299,000				251,459	326,897			
utilities and site work	1	ls	90000.00	90,000	117,000				98,397	127,916			
total								416,000					454,813

<b>Site Improvements</b>									
shade structure	2,400	sf	30.00	72,000	93,600		78,718	102,333	
fencing allowance	300	lf	34.00	10,200	13,260		11,152	14,497	
entry fence and gates	-	lf	150.00	-	-		-	-	
relocate maintenance building	1	ls	75000.00	75,000	97,500		81,998	106,597	
total - site						204,360			223,427

	2014	2017
<b>Total - Murdock Elementary School - Priority 2</b>	<b>3,109,263</b>	<b>3,399,357</b>

<b>Total - Murdock Elementary School - Priority 1 + 2</b>	<b>9,206,307</b>	<b>10,065,255</b>
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<b>Option 1</b>	quantity	unit	unit cost	construction cost - 2014	total cost - 2014	construction cost - 2017	total cost - 2017
scope of work							
<b>Portable Replacement w/ Permanent</b>							
demolish (e) portables	6,720	sf	5.00	33,600	43,680	36,735	47,755
site prep and utilities	1	ls	350000.00	350,000	455,000	382,655	497,452
new permanent building	7,392	sf	275.00	2,032,800	2,642,640	2,222,460	2,889,198
includes 5 classrooms, library, computer lab, intervention rooms and mechanical space							
new permanent toilets	680	sf	450.00	306,000	397,800	334,550	434,915
includes 2 student @ 600sf and 1 staff @ 80sf							
total					3,539,120		3,869,320

# Willows Intermediate School



Overview

Previous Work

Scope of Work

Cost Estimates



# Willows Intermediate School

## Overview

Principal: Steve Salisbery

Grade configuration: 6-8

Student enrollment: 456

Year constructed: 1975

Building area: 42,769 (including portables; excluding GCOE portable, GCOE building, free-standing toilet building and maintenance building)

## Previous Work

Gym Floor Refinished (2012)

Roofing Replacement at 100, 200, 300 (Extreme Hardship Program; 2003)

HVAC Replacement at 100, 200 (Extreme Hardship Program; 2003)

HVAC Replacement at 300 Shops (Maintenance; 2013)

Lighting & Solar

Replaced all lights including outside lighting with PG&E program (2013)

Installed ground mounted solar system (2013)

## Scope of Work – Priority 1:

### ADA (Americans with Disabilities Act)

ADA improvements are required for all public facilities when any construction project occurs on the site. These will include:

- Parking stalls
- Path of Travel (POT) from parking lot to all spaces affected by project work; this includes sidewalk slopes, curb cuts, door thresholds, etc.
- Drop-off zone
- Doors and hardware that allows accessible entry
- Drinking fountains
- Toilet rooms
- Signage (parking lot, rooms)

ADA work is far ranging and expensive. A survey of the campus by a specialized professional to identify all needs is the first step in developing a viable plan to gain compliance. Cost allowances for these improvements are to be provided in the estimate.

**Toilet Rooms:** The ADA improvements to all toilet rooms (student and staff) is a significant requirement. To accommodate current clearances and access, typical work may require complete removal and reconfiguration of the fixtures, often including relocation of walls and changes to doors. A toilet analysis will be conducted to determine required quantity of fixtures.

**Doors and Hardware:** Doors will be replaced where needed due to condition. Hardware will be replaced throughout to comply with code and ADA requirements.

### **Technology**

The lack of adequate technology is the primary issue for the campus and improving access and service is a top priority. There is inadequate capacity and speed to accommodate the site needs for a one-to-one ratio of students to devices. There is also inadequate power in the classrooms to support the technology.

### **Exterior Painting**

Cleaning and sealing of the exterior masonry is needed to maintain the waterproofing integrity of the buildings.

### **Interior Finishes**

As the school is almost 40 years old, replacement of interior finishes is needed. This includes new floor finishes throughout, painting of interior walls and new ceiling tiles (to improve acoustics and light reflectance).

### **Locker Rooms**

All showers are to be removed and the room reconfigured to improve usability. Lockers and benches are to be replaced.

### **Portables Building Replacement**

The portables are all over 20 years old and in poor condition. Replacing these with permanent or higher grade modular building is desired. A permanent building would cost more, but take longer to construct. Instead of 8 classrooms, the site currently needs a maximum of 4 classrooms at this time. The plan will allow the addition of future classrooms if growth occurs. It is preferable to have the classrooms face inwards to the campus, providing more connection with the core buildings as well as better security.

### **Toilet Building Replacement**

This building is not DSA approved and should not to be used by students during the school day. It is an exempt building; meaning it may be used for after school functions associated with the fields; however it should be posted and fenced to prevent any danger to students. This building should be replaced with new toilet rooms as a part of the classroom replacement.

### **Asphalt Paving / Hard Courts Replacement**

All AC paving, including hard courts and parking, is in poor condition and needs to be replaced. It is failing, continuing to deteriorate and is a tripping hazard. Replacement requires grinding, re-grading, storm drain adjustments and placement of new AC.

### **Sidewalks**

Some portions of the sidewalks are in bad repair and a tripping hazard. Replacement of portions of sidewalks to be a part of the ADA scope of work.

## **Scope of Work – Priority 2:**

### **HVAC at Gymnasium**

Adding evaporative cooling to the lockers room is desired to improve conditions during hot weather.

### **GCOE Portable**

The GCOE portable classroom building does not appear to be DSA approved; however this is not a requirement for the County program. Leaving this building in place for this program is not a problem but ultimately the building will need to be demolished.

**Outside lighting**

There seems to be an issue with the outside lighting controls. This can either be addressed prior to a project by district maintenance or be included as part of a controls modification with a future project.

**Bat Control**

There is a bat problem at the soffits of the M-P / Gym building caused by the metal deck flutes and the electrical conduit. This can be addressed by the installation of a sheet metal closure panel.

**Safety and Security**

Security cameras are being installed under a current District project. The existing fencing and access control are acceptable to the site and no other modifications or improvements were identified as needed at this time.

**Bleachers**

Replace bleachers with new electric bleacher system.

Scope of Work

**Willows Intermediate School**

6 - 8

configuration 456 students  
 site loading 42,769 sf  
 building area 1975 age 39 years  
 year built 1.30  
 soft costs 109.33%  
 inflation factor 4/1/2014  
 updated:

Priority 1 scope of work	quantity	unit	unit cost	construction cost - 2014	total cost - 2014	construction cost - 2017	total cost - 2017
<b>ADA - Accessibility Improvements</b>							
ADA assessment and transition plan	42,769	sf	0.12	5,132	6,672	5,611	7,294
parking lot improvements							
signage	1	ls	750.00	750	975	820	1,066
parking stalls	4	ea	250.00	1,000	1,300	1,093	1,421
drop zone	1	ea	7500.00	7,500	9,750	8,200	10,660
accessible transition ramps	1	ea	2500.00	2,500	3,250	2,733	3,553
path of travel	4000	sf	16.00	64,000	83,200	69,971	90,963
building signage	52	ea	125.00	6,500	8,450	7,106	9,238
replace doors (20%, ext)	10	ea	900.00	9,000	11,700	9,840	12,792 swg
replace door hdw, thresholds	52	ea	1600.00	83,200	108,160	90,963	118,251 swg
misc upgrades	42,769	ls	1.50	64,154	83,400	70,139	91,181
total - ADA						316,857	346,419

<b>Toilet / Lockers Remodel</b>	quantity	unit	unit cost	construction cost - 2014	total cost - 2014	construction cost - 2017	total cost - 2017
remodel student toilets	854	sf	325.00	277,550	360,815	303,445	394,479 swg
remodel staff toilets	120	sf	350.00	42,000	54,600	45,919	59,694
locker room remodel	3,150	sf	95.00	299,250	389,025	327,170	425,321
total - toilets						804,440	879,494

<b>Interior Improvements</b>										
floor coverings	26,000	sf	4.88	126,880	164,944		138,718	180,333	swg	
100, 300A, cafeteria, kit, band										
walls	32,300	sf	2.25	72,675	94,478		79,456	103,292		
ceilings	32,300	sf	3.50	113,050	146,965		123,598	160,677		
additional power outlets	13	cr	1500.00	19,500	25,350		21,319	27,715		
total - interior					431,737					472,018

<b>General Bldg Improvements</b>										
site allowance for misc needs	42,769	sf	2.00	85,538	111,199		93,519	121,574	say/or	
kitchen hood replacement	-	ls	25000.00	-	-		-	-		
total - general					111,199					121,574

<b>Infrastructure Improvements</b>										
technology distribution	42,769	sf	1.85	79,123	102,859		86,505	112,456	swg	
fire alarm	42,769	sf	3.75	160,384	208,499		175,348	227,952	swg	
telephone	-	sf	1.00	-	-		-	-	swg	
clocks / bells	-	sf	1.50	-	-		-	-	swg	
total - infrastructure					311,358					340,408

<b>Exterior Improvements</b>										
roofing (remove & replace)	-	sf	12.00	-	-		-	-	swg	
paint exterior	-	sf	1.75	-	-		-	-	swg	
total - exterior					-					-



Portable Replacement													
demolish (e) portables	7,680	sf	6.00	46,080	59,904	50,379	65,493						
demolish (e) toilet bldg	1	ls	5000.00	5,000	6,500	5,467	7,106						
site prep and utilities	1	ls	260000.00	260,000	338,000	284,258	369,535						
new portable classrooms	4	ea	115000.00	460,000	598,000	502,918	653,793						
new portable toilets	720	sf	325.00	234,000	304,200	255,832	332,582						
total - portables						1,306,604							1,428,510

Other Work													
upgrade bleachers	1	ls	17500.00	17,500	22,750	19,133	24,873						
replace bleachers	-	seat	125.00	-	-	-	-	bid					
total - other						22,750							24,873

Site Improvements													
AC paving - demo	93,150	sf	0.90	83,835	108,986	91,657	119,154	wce					
AC paving - lime treat	93,150	sf	1.00	93,150	121,095	101,841	132,393	wce					
AC paving - new	93,150	sf	3.25	302,738	393,559	330,983	430,278	wce					
total - site						623,639							681,825

Total - Willows Intermediate School - Priority 1		2014		2017	
		3,930,598		4,297,138	

Priority 2													
scope of work	quantity	unit	unit cost	construction cost - 2014	total cost - 2014	construction cost - 2017	total cost - 2017						
<b>Interior Finishes</b>													
floor coverings	-	sf	4.88	-	-	-	-	swg					
walls (all except gym/lkrs)	-	sf	2.25	-	-	-	-						
ceilings (all except gym/lkrs)	-	sf	3.50	-	-	-	-						
total - interior													-

<b>Mechanical Systems</b>									
evap cooling (lkr rms only)	3,150	sf	30.00	94,500	122,850	103,317	134,312		
	-	sf	0.00	-	-	-	-		
total - mechanical					122,850				134,312

<b>Exterior Improvements</b>									
paint exterior	42,769	sf	1.75	74,846	97,299	81,829	106,378	swg	
total - exterior						97,299			106,378

<b>Other Work</b>									
replace bleachers	300	seat	135.00	40,500	52,650	44,279	57,562	bid	
power for bleachers	1	ls	5000.00	5,000	6,500	5,467	7,106		
fencing allowance	-	lf	34.00	-	-	-	-		
entry fence and gates	-	lf	125.00	-	-	-	-		
total - other					59,150				64,669

<b>Total - Willows Intermediate School - Priority 2</b>	2014	2017
	<b>279,299</b>	<b>305,358</b>

<b>Total - Willows Intermediate School - Priority 1 + 2</b>	<b>4,209,897</b>	<b>4,602,496</b>
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# Willows High School

## Overview

Principal: Holly McLaughlin

Grade configuration: 9-12

Student enrollment: 491

Year constructed: 1950

Building area: 84,700 SF (excluding GCOE bldg, boiler bldg, maintenance bldg, bus garage)

## Previous Work

Fire Alarm (1994)

HVAC in admin, 100, 200, 300, 400, 500, 600 (1994)

HVAC in GCOE, Printing, Arts (1999)

HVAC in auto, shops (1999)

Roofing (1999)

Lighting & Solar

Replaced all lights including outside lighting with PG&E program (2013)

Installed ground mounted solar system (2013)

## Scope of Work – Priority 1:

### ADA (Americans with Disabilities Act)

ADA improvements are required for all public facilities when any construction project occurs on the site. These will include:

- Parking stalls
- Path of Travel (POT) from parking lot to all spaces affected by project work; this includes sidewalk slopes, curb cuts, door thresholds, etc.
- Drop-off zone
- Doors and hardware that allows accessible entry
- Drinking fountains
- Toilet rooms
- Signage (parking lot, rooms)

ADA work is far ranging and expensive. A survey of the campus by a specialized professional to identify all needs is the first step in developing a viable plan to gain compliance. Cost allowances for these improvements are provided in the estimate.

**Toilet Rooms:** The ADA improvements to all toilet rooms (student and staff) is a significant requirement. To accommodate current clearances and access, typical work may require complete removal and reconfiguration of the fixtures, often including relocation of walls and changes to doors. A toilet analysis will be conducted to determine required quantity of fixtures.

**Doors and Hardware:** Doors will be replaced where needed due to condition. Hardware will be replaced throughout to comply with code and ADA requirements.

### Technology

The lack of adequate technology is the primary issue for the campus and improving access and service is a top priority. There is inadequate capacity and speed to accommodate the site needs for a one-to-one ratio of students to devices. There is also inadequate power in classrooms to support the technology.

## **HVAC**

Gymnasium: The system is original and requires replacement. The new system for the gym and locker rooms should include heating and ventilation only. Evaporative cooling should be considered as a possible add-on, based on cost.

Multi-Purpose / Stage: Requires new HVAC system.

Kitchen: New hood will be required; make-up air will be evaporative cooling.

Ventilation: The welding exhaust system in the auto shop is under-sized and inadequate. This system should be replaced with a code-compliant system.

## **Roofing**

The roof is 20 years old and close to the end of its' useful life. Re-roofing the school will be needed within 5 years and is a critical improvement to maintaining the school.

## **Interior Finishes (Partial)**

This wing did not receive modernization improvements during the 1994 project. Basic work needed includes lowering of ceiling, wall finishes and asbestos floor removal / replacement. Floor replacement also needed in 201 and library workroom.

## **Fire Alarm & Intercom**

Although the fire alarm was upgraded in 1994, there were questions about strobe devices in certain spaces. Fire alarm upgrades required due to code changes will be an integral part of any future modernization work.

The intercom system is very antiquated and needs to be replaced along with clocks and bells.

## **Acoustics**

The M-P room acoustics need to be improved as it is not useable for many types of events including music.

## **Lockers & Showers**

Lockers to be replaced with new lockers. Showers to be modified for ADA and health code upgrades. If pool is upgraded, additional modifications may be required.

## **Planned Improvements – Priority 2:**

### **Windows**

There are concerns with the window systems, particularly in the classrooms:

- Visibility: The lower windows allow full visibility into the classrooms creating a serious concern for safety of the occupants. Making the lower panel opaque would be an improvement.
- The windows are single-pane and therefore very poor for energy efficiency.
- Window coverings are needed to allow darkening of room for video as well as to address safety issues.

### **Exterior Painting**

Repainting of the school should be included if possible to maintain the waterproofing integrity of the buildings.

## **HVAC**

Most of the campus HVAC is over 20 years old should be replaced within the next 5 years as the systems are close to the end of their useful life. New equipment will significantly improve energy efficiency, comfort and acoustic quality of classrooms.

## **Safety and Security**

The school is currently an open campus with multiple entrances and unfenced edges. It would be desirable to add fencing along the west edge adjacent to the residential unit as well as to add some gates at the parking lot to better control vehicular traffic during school hours.

Security cameras have recently been installed under a current project.

## **Swimming Pool**

Improvements needed to continue use of the pool include piping, equipment and code improvements including ADA compliance and pool deck.

## **Site Drainage**

It was observed during a site walk that there was significant ponding and drainage issues throughout the site. Improvements to the storm drainage system will be required to better collect and disperse the water.

Scope of Work  
**Willows High School**

configuration 9 - 12

site loading 491 students  
 building area 87,600 sf  
 year built 1950 age 64 years  
 soft costs 1.30  
 inflation factor 109.33%  
 updated: 3/26/2014

scope of work	quantity	unit	unit cost	construction cost - 2014	total cost - 2014	construction cost - 2017	total cost - 2017
<b>Priority 1</b>							
<b>ADA - Accessibility Improvements</b>							
ADA assessment and transition plan	87,600	sf	0.12	10,512	13,666	11,493	14,941
parking lot improvements							
signage	1	ls	750.00	750	975	820	1,066
parking stalls	4	ea	250.00	1,000	1,300	1,093	1,421
drop zone	1	ea	7500.00	7,500	9,750	8,200	10,660
accessible transition ramps	2	ea	2500.00	5,000	6,500	5,467	7,106
path of travel	3200	sf	16.00	51,200	66,560	55,977	72,770
building signage	111	ea	125.00	13,875	18,038	15,170	19,720
replace doors (50%)	55	ea	900.00	49,500	64,350	54,118	70,354 swg
replace door hdw, thresholds	111	ea	1600.00	177,600	230,880	194,170	252,421 swg
misc upgrades	87,600	ls	1.50	131,400	170,820	143,660	186,758
total - ADA					582,838		637,217

<b>Bathroom Remodel</b>										
remodel student toilets	1,810	sf	325.00	588,250	764,725	643,134	836,074	swg		
remodel staff toilets	450	sf	350.00	157,500	204,750	172,195	223,853			
	-	sf	350.00	-	-	-	-			
total - exterior						969,475				1,059,927

<b>Classroom Improvements</b>										
floor coverings	6,600	sf	4.88	32,208	41,870	35,213	45,777	swg		
300 wing, lib wkrm, 201										
VAT abatement	6,600	sf	2.50	16,500	21,450	18,039	23,451	swg		
walls	6,600	sf	2.25	14,850	19,305	16,236	21,106			
ceilings	6,600	sf	3.50	23,100	30,030	25,255	32,832	swg		
lighting (fluorescent 2x4 drop-in)	6,600	sf	10.00	66,000	85,800	72,158	93,805	swg		
additional power outlets	22	cr	1500.00	33,000	42,900	36,079	46,903			
total - classroom improvements						198,455				216,971

<b>General Bldg Improvements</b>										
site allowance for misc needs	87,600	sf	2.00	175,200	227,760	191,546	249,010	saylor		
kitchen hood replacement includes MAU	1	ls	35000.00	35,000	45,500	38,266	49,745			
total - exterior						273,260				298,755

<b>Mechanical Systems</b>										
new HVAC (gym, MP, stage)	30,892	sf	38.00	1,173,896	1,526,065	1,283,420	1,668,447			
welding ventilation system includes MUA	1	ls	72000.00	72,000	93,600	78,718	102,333			
total - exterior					1,619,665					1,770,780

<b>Infrastructure Improvements</b>										
technology distribution	87,600	sf	1.85	162,060	210,678	177,180	230,334	swg		
fire alarm (upgrades)	87,600	sf	1.75	153,300	199,290	167,603	217,884	swg		
telephone	-	sf	1.00	-	-	-	-	swg		
clocks / bells / intercom	87,600	sf	2.25	197,100	256,230	215,489	280,136	swg		
total - infrastructure					666,198					728,354

<b>Exterior Improvements</b>										
roofing (remove & replace)	87,600	sf	12.00	1,051,200	1,366,560	1,149,277	1,494,060	swg		
paint exterior	-	sf	1.75	-	-	-	-	swg		
replace classroom windows	-	sf	65.00	-	-	-	-	winco		
total - exterior					1,366,560					1,494,060

<b>Other Work</b>										
lockers & showers	4,500	sf	150.00	675,000	877,500	737,978	959,371			
	-	sf	3.00	-	-	-	-			
total - exterior					877,500					959,371



<b>Site Improvements</b>													
demo greenhouse	3,600	sf	2.50	9,000	11,700			9,840	12,792		wce		
repair greenhouse site	3,600	sf	8.00	28,800	37,440			31,487	40,933		wce		
				-	-			-	-		wce		
total - exterior								49,140				53,725	

		2014		2017	
<b>Total - Willows High School - Priority 1</b>		<b>6,605,105</b>		<b>7,221,177</b>	

<b>Priority 2</b>													
scope of work	quantity	unit	unit cost	construction cost - 2014	total cost - 2014	construction cost - 2017	total cost - 2017						
<b>Other Work</b>													
replace gym bleachers	700	seat	125.00	87,500	113,750	95,664	124,363						
pool upgrades	1	ls	250000.00	250,000	325,000	273,325	355,323						
paint exterior	87,600	sf	1.75	153,300	199,290	167,603	217,884				swg		
total - exterior								638,040				697,569	

<b>Exterior Improvements</b>													
replace classroom windows	16,000	sf	65.00	1,040,000	1,352,000	1,137,032	1,478,142				winco		
total - exterior						1,352,000						1,478,142	

<b>Mechanical Systems</b>													
new HVAC	56,700	sf	34.00	1,927,800	2,506,140	2,107,664	2,739,963						
total - exterior						2,506,140						2,739,963	

Site Improvements																	
AC paving - demo - courts	18,000	sf	0.90	16,200	21,060	17,711	23,025	wce									
AC paving - lime treat - courts	18,000	sf	1.00	18,000	23,400	19,679	25,583	wce									
AC paving - new - courts	18,000	sf	3.10	55,800	72,540	61,006	79,308	wce									
basketball backstops	6	ea	2600.00	15,600	20,280	17,055	22,172										
storm drain extensions	400	lf	42.00	16,800	21,840	18,367	23,878	wce									
storm drain inlets	8	ea	2000.00	16,000	20,800	17,493	22,741	wce									
new greenhouse	2,400	sf	75.00	180,000	234,000	196,794	255,832										
entry fence and gates	-	lf	150.00	-	-	-	-										
fencing allowance	300	lf	34.00	10,200	13,260	11,152	14,497	saylor									
total - exterior						427,180											467,036

	2014	2017
<b>Total - Willows High School - Priority 2</b>	<b>4,923,360</b>	<b>5,382,709</b>

<b>Total - Willows High School - Priorities 1 + 2</b>	<b>11,528,465</b>	<b>12,603,886</b>
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