

NOTICE

San Rafael City School District
PROP. 39 ENERGY CONSERVATION AND ENERGY EFFICIENCY SERVICES
ENERGY MANAGEMENT SYSTEM FOR MULTIPLE SITES
REQUEST FOR QUALIFICATIONS AND PROPOSALS

PROJECT

San Rafael City School District (DISTRICT) is requesting proposals from qualified Energy Management System vendors and contractors, herein referred to as ‘Contractor’ with experience working in K-12 educational settings. The DISTRICT has received funding from Proposition 39. A previous energy audit has identified energy efficiency opportunities in the installation of Energy Management Systems at District sites. The scope of this project includes designing, providing, and installing a new District-wide Energy Management with Mechanical Controls at each of the following sites: Bahia Vista Elementary School (ES), Coleman ES, Glenwood ES, Laurel Dell ES, San Pedro ES, Short ES, Sun Valley ES, Venetia Valley ES, Davidson Middle School, San Rafael High School, Terra Linda High School.

The selected Contractor will work with the assigned project manager, prepare final design documents, gather and submit verification data consistent with Prop 39 requirements, complete construction and installation, obtain required permits, register project with CA Department of Industrial Relations, and close out the project.

The DISTRICT will evaluate proposals to determine the Firm best qualified consistent with the evaluation criteria set forth, below. The DISTRICT intends to use the authority granted by Government Code sections 4217.10, et seq. as the basis for any contract award that may result from this Request for Qualifications and Proposals (RFQP).

It is the intent of this RFQP) to establish the project approach, outline specifications and work-scope, schedule and terms and conditions governing the selection process. Proposals shall be firm for ninety (90) days from the date of their opening. All Proposals must meet or exceed all the specifications contained herein. Three (3) signed copies of the Proposal should be addressed to the attention of:

Dan Zaich, Sr. Director of Capital Facilities
San Rafael City School District
310 Nova Albion Way San Rafael, CA 94903

The full RFQP and supporting documents are available on the DISTRICT’S website:
www.srcs.org/ Use the Bond Program Link to “Doing Business with Us”

Proposals must be submitted by 5 p.m Feb. 21, 2019

PROCUREMENT

The project must conform to all requirements of California Government Code 4217, Title 24, California Division of State Architect (DSA) and all the parameters laid out in the Proposition 39 guidelines. Best value criteria, as set forth in the law, includes objective criteria related to price, features, functions and life-cycle costs.

The DISTRICT will evaluate proposals to determine the Firm best qualified consistent with the evaluation criteria set forth, below. The DISTRICT intends to use the authority granted by Government Code sections 4217.10, et seq. as the basis for any contract award that may result from this RFP.

PREVAILING WAGE RATES AND COMPLIANCE WITH SENATE BILL 854

This project is subject to compliance monitoring and enforcement by the California Department of Industrial Relations. In accordance with SB 854, all bidders, contractors and subcontractors working at the site shall be duly registered with the Department of Industrial Relations at the time of bid opening and at all relevant times.

The contractor will be required to furnish certified payroll records directly to the Department of Industrial Relations in accordance with Labor Code Sections 1771.4(a) and 1776.

SCOPE OF WORK

The Scope of Work is defined in **Exhibit B: Technical Specifications and Scope of Work**.

1. Furnish adequate invoices that detail material, labor and total project costs. These invoices will be submitted to the CA Energy Commission for reporting purposes.

GENERAL MATERIAL AND INSTALLATION REQUIREMENTS

1. Technical information regarding General Material and Installation requirements is contained in the **Exhibit B: Technical Specifications and Scope of Work**.
2. This is a design-build solicitation, product, equipment, materials selection must meet the requirements of the RFP but are the responsibility of the proposers.
3. System Installation shall conform to Manufacturers Installation Manual and approved project drawings and specifications.
4. Installation crews shall minimize disturbance (due to noise, dust, odors, moving of furniture and equipment) of building occupants and activities.
5. Sites shall be maintained and kept secure, free of excessive debris, and in safe condition during the construction period. Site should be left "broom clean" after work is complete at the end of each work day. All work should comply with the National Electrical Code,

the National Fire Code, and the California Building Code, and shall be inspected by DISTRICT inspectors at each appropriate phase.

EXISTING CONDITIONS

The contractor has had sufficient access to the facility and the facility electrical system to verify that the proposal includes all materials and labor for all system components specified in the attached **Exhibit B: Technical Specifications and Scope of Work**, and to verify the existing conditions to ensure the proper installation of the system. No additional payment will be made due to site conditions (excluding quantities) that were not accounted for by the Contractor, per the General Conditions.

CONTRACTOR USE OF PREMISES

1. All work during periods when school is not in session and on weekends shall be completed during regular business hours in conformance with the City of San Rafael requirements, between 7 am and 5 pm.
2. All work during the school year shall be completed after hours, between 4:00 p.m. and 11:00 p.m., Monday through Friday. The DISTRICT will accommodate work in unoccupied areas during operational hours.
 - a. The facility must remain open and operational during normal business hours, Monday through Friday, 6:00 a.m. to 6:00 p.m. All access to and from the facility must be maintained during these hours
3. Any utility shut-offs shall be scheduled through the Project Manager at least 72 hours ahead of time. Any shut-off that will impact the standard operation of the facility shall happen during off hours.

SCHEDULE

Date	Event
Jan. 23, 2019	RFP Issue
Jan. 30, 2019 9:00 a.m.	Pre-Proposal Job Walk—allow min. 6 hours
Feb. 7, 2019	End of questions and information request period
Feb. 14, 2019	Addendum sent out if needed
Feb. 21, 2019 – 5:00p.m.	Proposals Due at DISTRICT Offices, 310 Nova Albion Way, San Rafael CA 94903 Room 505
TBD	Announcement of Award and notice to proceed
March 11, 2019-- anticipated	Board action to approve best value contract
September 1, 2019	Project Completion

ADDITIONAL INSTRUCTIONS TO BIDDERS

1. Progress Payments will be made on a monthly basis upon certification by the District of the work completed to date.
2. Final Payment will be available after a walk-through ensures completeness and functionality to DISTRICT satisfaction and all requirements for training, warranty, punchlist, and Prop 39 reporting has been met, and after 30 days of uninterrupted operation.
3. Contractor is responsible for providing all materials, labor and necessary equipment to complete the work according to the specifications provided and best practices.
4. **Insurance Requirements.** Provide insurance as noted below. Provide certificates of insurance. Name the District as additional insured on General and Auto Liability.
 - a. Workers Compensation: Statutory Limits
 - b. Commercial General Liability: \$1,000,000 each occurrence, \$2,000,000 aggregate
 - c. Automobile Liability: \$1,000,000
5. Proposers shall visit the site areas and familiarize themselves with the scope of the project. A pre-bid meeting and project walk-through will be held on **Jan. 30, 2019**.
6. Following award of the contract, work may commence on or after **April 1, 2019**. All work must be completed on or before **September 1, 2019**.
7. The contractor shall clean their job area daily and dispose of all trash and debris leaving the area broom clean. The DISTRICT dumpsters are not to be used for contractor's trash.
8. It is the responsibility of the contractor / bidders to field verify all existing conditions.

QUALIFICATIONS

The DISTRICT may award a contract to the Contractor that, in its sole opinion, is the most capable of providing the range of services described in this RFP, and in the long-term best interest of the DISTRICT. The contractor shall be licensed in the state of California, hold a class B, C10, or C7 license, and shall be experienced completing similar types of work.

To be considered for this project a provider must demonstrate knowledge and experience in similar projects:

- California K-12 references that can attest to the quality of the Contractor's past work
- An established record of technical performance on similar projects within California
- A proven record of on-time and on-budget performance
- Excellent safety record
- Established records of the Contractor's ability to complete the work

- Credentialed, trained, and knowledgeable staff
- Competent management support at all levels
- Ability to effectively communicate with the DISTRICT, administration, staff, students, and community as needed

The DISTRICT reserves the right to investigate the qualifications of all Contractors under consideration and to confirm any part of the information furnished, or to require other evidence of managerial, financial, or technical capabilities that are considered necessary for the successful performance of the described energy efficiency project.

SUBMITTAL REQUIREMENTS

Address the following items as completely as possible; response to each item is mandatory:

1. **COVER LETTER/LETTER OF INTEREST** Cover letter must include name of firm, address, telephone and fax numbers, and name of Principal to contact. Letter must be signed by representative of the firm with authorization to bind the firm by contract.
2. **PROJECT PROPOSAL**
 - a) Identify the project schedule (timeline)
 - b) Proposed cost by school site on a unit and total project basis, itemized budget, product quantity
 - c) Utilize Exhibit A: EMS Controls Scope Spreadsheet for preparation of proposal.
 - d) Data sheets of all equipment proposed for installation.
 - e) Energy and demand savings
 - f) Any measures requested but not included in the proposal should be itemized separately in the proposal and clearly marked as not included
 - g) Energy Management System Components Excel Proposal Sheet
 - h) Unit prices on Bid Pages will be used for contract changes that result from changes in quantities
3. **DESCRIPTION OF FIRM**
 - a) History, number of years in business in California, staff size
 - b) Location of office which will perform the work
 - c) Size of staff if applicable one-person Contractors/firms may submit
4. **RELEVANT EXPERIENCE**
 - a) List relevant K-12 public school projects where your firm has completed projects and include:

- i. Project name, type and location Ex: Classroom / Kitchen/ Library / Administration / Laboratory
 - ii. Year completed
 - iii. Project size, square feet and system cost
- b) List client names, contact person, and phone number for relevant project information.

5. FIRM TRACK RECORD

- a) Has your firm ever been let go by a client or replaced by another firm during any related project? If so, explain in detail.
- b) Does your firm have any current or pending litigation on any projects? If so, please describe.
- c) Has your firm defaulted on a contract within the past five (5) years or declared bankruptcy, or been placed in receivership within the past five (5) years?
- d) Is or has your firm been a party to suits, claims, or similar actions related to:
 - i. Construction claims relating to performance or delay
 - ii. OSHA, labor relations, or similar issues affecting the progress of the work
 - iii. California State Contractor License suspensions or code violations
 - iv. If “yes” to any of the above, provide a summary and current status of the issue under separate attachment to the response to this RFP.

SUBMITTAL INFORMATION

Deadline for submission of three (3) copies of your submittal is 1:00 PM, November 8, 2018. Submittals received after the deadline may be returned. All submittals become the sole property of the DISTRICT and the content will be held confidential until the selection of a firm is made. Any proprietary information must be designated clearly and should be bound separately and labeled with words “PROPRIETARY INFORMATION”. An entire submittal marked as such will not be accepted.

Submit sealed proposals clearly marked “**RFP for District Wide Energy Management System**” to the following location:

Attn: Dan Zaich
Senior Director of Capital Facilities
San Rafael City School District
310 Nova Albion Way
San Rafael, CA 94903

Questions or clarifications may be submitted in writing to Dan Zaich by email (dzaich@srcs.org).

SUBMITTAL EVALUATION PROCESS

The DISTRICT Board will manage the selection process, review and evaluate the Proposals and make a recommendation regarding the selection of a successful Contractor by utilizing the DISTRICT's bid recap spread sheet which incorporates, Company, Sealed bids, Firms history, Relevant experience, Firm's track record, DIR identification number, Subcontractor list, Non-Collusion affidavit, Worker's Comp certificate, California contractor's license number and cost proposal. The review committee shall be comprised of individuals with experience, knowledge and program responsibility for the products and services of this Project The evaluation, selection and recommendation timeframe is expected to be approximately two weeks.

Selection will be conducted comprehensively, fairly and impartially. Structured, quantitative scoring techniques will be used to maximize objectivity. Selection will include an assessment of the Firms' proven ability to apply their experience and technical expertise to:

- Complete this energy savings project in an efficient and skilled manner.
- Provide quality components per contract documents.
- Collect, document and assemble in the approved format, all pre and post monitoring and verification data as required of a Prop 39 energy savings project.

The DISTRICT will address the following criteria in evaluation of submittals in order to gauge the ability of the Provider. The same general criteria will be used to judge both the submittal and the interview, should the DISTRICT choose to conduct interviews with Providers.

1. Proposed contract price
2. Functions consistent with the Scope of Work attached and incorporated herein which shall consist of:
 - a. Meeting all scope of work criteria, without exception
 - b. Exceeding scope of work criteria
3. Features, other than core functions, which add tangible value expressed in the Proposal
4. Life-cycle costs which shall consist of:
 - a. Operational and maintenance costs
 - b. Replacement costs
 - c. Anticipated energy savings

The DISTRICT reserves the right to:

- Reject any or all submittals at its sole discretion.
- Cancel the Request for Proposals (RFP).

- Modify any requirements contained within the RFP and request a revised submission from all providers.
- Establish other evaluation criteria determined to be in the best interest of the DISTRICT.
- Contract with any of the firms responding to this RFP based solely upon its judgment of the qualifications and capabilities of the Contractor/firm.

A Selection Committee, as deemed necessary, will be formed to evaluate the submittals. Composition and creation of this committee, should one be formed, is at the sole discretion of the DISTRICT. The Selection Committee may review the submittals for format to ensure conformance with the requirements of the RFP and may select finalist to interview with the committee as part of the evaluation process. The DISTRICT does not guarantee that an interview will take place, thus reserving the right to select a Provider based solely on the information provided in the submittals received in response to the RFP. Should an interview take place, the key personnel responsible for fulfilling the requirements of the project shall be required to be present for the interview. The DISTRICT will take all steps necessary to ensure that any discussions and interviews conducted in connection to this RFP will be done in a fair and impartial manner.

This RFP does not commit the DISTRICT to negotiate a contract. The DISTRICT will not be responsible for any expenses incurred by any firm in preparing and submitting a proposal or response to this RFP.

SPECIAL PROCEDURES

1. Emergency Evacuation: Review and coordinate emergency response procedures with the facility staff. Become familiar with evacuation procedures and coordinate response of workers in an emergency.
2. Contractor Superintendent: Contractor's superintendent shall have experience supervising projects of similar size and type. The superintendent must be qualified to supervise all phases of this project. The superintendent's resume must be submitted to the DISTRICT prior to beginning the construction.
3. Project Safety
 - a. Contractor shall comply with all applicable safety standards from the California Code of Regulations, Title 8, including but not limited to the Construction Safety orders. For the duration of the Contract work the contractor must have on-site and available for review a copy of their injury and Illness Prevention Program. In addition, the contractor will be required to have the following documents at the job-site per Cal OSHA, Title 8 Regulations:
 - i. Code of Safety Practices
 - ii. Cal-OSHA required permits

- iii. All Cal-OSHA required training certifications
 - iv. Respiratory Protection Program for all work sited where respirators are mandatory.
 - v. Fall protection.
 - vi. Material Safety Data Sheets
 - b. The contractor will be required to post all required Cal-OSHA documents.
 - c. The contractor must designate a superintendent as the Competent Person per Title 8.
 - d. The contractor must take appropriate measures to ensure the security and safety of the work site, and materials and tools stored on premises. No tools are to be left unsecured after hours for any reason, within the secure areas around or in the building. Employees shall be directed to diligently police the construction areas for removal of debris, as well as tools and materials. Notify employees that inappropriate behavior or language will be grounds for removal of that employee from the job site.
 - e. Comply with all safety recommendations of the Material Safety Data Sheets and ensure that workers, staff, and public are not exposed to hazardous fumes or materials as a result of this work.
 - f. Appropriate protective clothing shall be worn when handling the products. Clothing shall include hard hats, steel toe boots, and insulated gloves when working on an active system.
4. Project Meetings
- a. *Pre-construction Meeting:* The DISTRICT will schedule a pre-construction meeting with the Contractor, the contractor's Project Superintendent and affected DISTRICT department representatives and consultants, at DISTRICT facilities.
 - b. *Project Progress Meetings:* The contractor will make arrangements for Project Progress Meetings held on a monthly basis. The Contractor will be responsible for scheduling, administering, preparing the agenda, and recording and distributing meeting minutes. Attendees shall include the Contractor's superintendent and the DISTRICT project manager. The agenda shall include, but not be limited to:
 - a. Review of work progress
 - b. Identification of problems that impede planned progress.
 - c. Maintenance of the Construction Schedule.
 - d. Corrective measures to maintain the Construction Schedule.
 - e. Planned progress in the succeeding work period.
 - f. Maintenance of quality of work standards.
 - g. Proposed changes to the schedule and project coordination, and the effect on the project.

- c. *Punch List Inspection:* The contractor will schedule a punch list inspection with the DISTRICT Project Manager. The inspection will allow the DISTRICT to identify problems that may impact the performance of the lighting system.
- d. *Final Inspection Meeting:* The Contractor will schedule a meeting that includes the DISTRICT Project Manager to walk-through and inspect the installation to ensure that all punch-list items have been addressed.

TEMPORARY FACILITIES

Telephone: The Contractor or supervisor on the job site must be able to be reached by phone at all times that work is in progress.

PROJECT CLOSEOUT

- 1. Clean all work areas, removing any debris.
- 2. Prepare three (3) copies of operating and maintenance manuals in hard cover binders and deliver to the DISTRICT. As a minimum the binders shall include:
 - i. A complete set of all approved submittals including shop drawings and product literature.
 - ii. Copies of all testing data and reports.

PROJECT SITES

Site	Address
San Rafael High School	150 3rd St, San Rafael, CA 94901
Bahia Vista	125 Bahia Way, San Rafael, CA 94901
Coleman	800 Belle Ave, San Rafael, CA 94901
Davidson	280 Woodland Ave, San Rafael, CA 94901
Glenwood	25 W Castlewood Dr, San Rafael, CA 94901
Laurel Dell	225 Woodland Ave, San Rafael, CA 94901
San Pedro	498 Point San Pedro Rd, San Rafael, CA 94901
Short	35 Marin St, San Rafael, CA 94901
Sun Valley	75 Happy Ln, San Rafael, CA 94901
Venetia Valley	177 N San Pedro Rd, San Rafael, CA 94903
Terra Linda High School	320 Nova Albion Way, San Rafael, CA 94903

EXHIBIT A

EMS CONTROLS BID SHEET & EMS CONTROL SCOPE

This is a separate worksheet attachment.

(EXCEL)

EXHIBIT B
TECHNICAL SPECIFICATIONS AND SOW

Exhibit B – Technical Specifications and Scope of Work

PART 1 - GENERAL

1.1 INTRODUCTION

- A. This section contains the technical specifications for the complete installation and integration of an Energy Management System for the District.
- B. The District is looking to control existing HVAC equipment and other energy using equipment through the design, procurement, and implementation of a complete Energy Management System (EMS).
- C. The District seeks an infinitely scalable solution, allowing for the integration of additional equipment in the future by adding sensors and controls to the EMS.
- D. The primary EMS in use across the District consists of an antiquated Alerton BACtalk system. A representative sample of EMS graphics has been made available by the District and is included as Attachment 3.
- E. The installation shall include all necessary components as described in this specification and any additional details not included in this specification that are necessary for properly completing the work.
- F. Contractor shall meet all code requirements and shall be responsible for and obtain all required State and/or local permits and inspections, including any Title 24 requirements deemed necessary.
- G. The installation shall be in conformance with the most current editions of the NEC (National Electric Code), California Electrical and Building Code, ACCA (Air Conditioning Contractors of America) Standard 5, Title 24, ASHRAE 135, CBC, ADA, and all other generally accepted standards for the installation of similar systems.

1.2 SYSTEM/SERVICE REQUIREMENTS

- A. Design, procure, and install complete EMS consisting of thermostats, and all necessary ancillary equipment that function together and integrate seamlessly with a new EMS front end interface.
- B. EMS shall be BACnet compatible (comply with ASHRAE 135). EMS interface shall be capable of being viewed and manipulated remotely and securely by means of an internet browser (Internet Explorer or equal). All points of the user interface shall be

accessible through standard PCs that do not require the purchase of any special software for off-site monitoring and management.

- C. EMS upgrades shall include the addition of a cloud-based system with an online interface capable of accessing from a standard PC, complete with (1) full EMS software license, new field controllers (as required), routers, bridges, and switches. Include dynamic graphics for all HVAC equipment and VAV temperature control zones. It is the intent of this project to interface as much of the existing EMS infrastructure as possible - including actuators, sensors, control wiring, and controllers - with the new EMS front-end. Hence, all proposed hardware and software must be fully capable of interfacing with existing systems. Vendor is to assume that existing equipment that is indoors is to be reused while outdoor equipment such as package unit controllers are to be replaced.
- D. EMS shall be fault-tolerant in the event of hardware or software failure, with defined procedures for system backup and restoration.
- E. All materials required for this work shall be of the latest proven technology, new and in original containers.
- F. Spare equipment shall be provided for any components of the EMS deemed to be essential, as well as any components used multiple times throughout the system. (e.g. wireless thermostats, wireless gateways, sensors). The number of spares provided for each piece of equipment shall be 5% of the total amount, or a minimum of one spare of gateways, controllers and thermostats
- G. Existing control points shall be maintained in the new EMS, and variable air volume (VAV) controllers and supply air temperature sensors to be included.

1.3 CONDUIT, WIRE

- A. All apparatus, conduit systems, etc. shall be installed and interconnected so as to form complete systems as herein. Contractor shall furnish and install all work necessary to make complete working systems.
- B. Patching and repair:
 - 1. Contractor is responsible for any patching and repairing of existing structures due to any installations during the project. If code requires thermostat locations to be moved, the contractor is responsible for installing thermostats

at code compliant height and patching and restoring hole left by old thermostat to match surrounding area.

C. Conduit:

1. Contract must use galvanized rigid steel conduits (RSC) for any new or replaced conduit used in outside or exposed areas. EMT conduit may be used for areas that are not exposed or hidden from view.
2. Contractor cannot utilize any existing conduit that contains fire detection wiring.

D. Wire:

1. All wire installed shall be of a standard manufacturer as approved by the National Board of Fire Underwriters and shall be of the size as required.
2. All wire shall bear the Underwriters' Laboratory label.
3. All power wiring conductors shall be type THWN or THHN copper.

1.4 SUBMITTALS

- A. The table below identifies each submittal that will be submitted by the Contractor to the District for review and approval. The District shall have five full working days to provide comments and an approval status. Contractor is responsible for addressing comments to the District's satisfaction.

Below is a summary table of required submittals:

Submittal	Description	Submittal Time
Equipment Specifications and Data Sheets	Provide manufacturer specifications (cut-sheets) for each thermostat, controllers, wireless gateway, and all other components	15 days after Notice to Proceed
System Design	Provide the system design for each location which identifies equipment to be installed. Also provide design narrative that shows how design meets technical requirements	15 days after Notice to Proceed
Final As-built Plans	An updated final inventory and plans with locations of thermostats, controllers, wireless gateways, and any other major components	5 days after completion

1.5 WARRANTY REQUIREMENTS

- A. Contractors must include a two (2) year warranty for all parts and labor. Warranty shall commence from the date of the project's Notice of Completion. These warranties shall include travel time and expense and provide on-site service and labor.
- B. Contractor is to maintain and not void warranty of equipment to be controlled which includes HVAC equipment during and after installation.

1.6 START-UP AND COMMISSIONING SERVICES

- A. Contractor shall be responsible for proper operation of all systems, minor subsystems, and services provided. Contractor is responsible for the start-up and commissioning of every unit controlled. All systems must be fully functional and operational after installation. If follow-up work is required to bring the system into compliance with the design intent, the District shall not be charged.
- B. Contractor shall be responsible for preparing a written commissioning and startup procedure including check off list and report format showing design conditions and blanks for indicating actual operating conditions. The report format shall include each piece of equipment and all items that require adjustment. Report to be submitted to the District 10 working days prior to execution of work for review and approval. A final report shall be provided once the final adjustments and/ or corrections are completed
- C. Personnel performing commissioning and startup services shall be fully qualified, experienced, and normally engaged in this type of work. If the Contractor does not have such personnel available from their own company, they shall hire, at their own expense, subcontractors who are qualified personnel.
- D. Functional performance tests verify that components, equipment, systems, and interfaces between systems operate correctly. They include operating modes, interlocks, control sequences, and responses to emergency condition.
- E. Functional performance testing and verification may be achieved by direct manipulation of system inputs (i.e. heating or cooling sensors), manipulation of system inputs by building automation system (i.e. software override of sensor

inputs), trend logs of system inputs and outputs using building automation system, or short-term monitoring of system inputs and outputs using stand-alone data loggers.

- F. If re-testing is necessary because any equipment or system reported to have been successfully started up or pre-functionally tested is found during functional testing to be faulty, the additional cost of retest shall be the responsibility of the Contractor.
- G. Final and complete commissioning, startup reports for all sites shall be submitted 10 working days prior to final acceptance and payment. This report shall be signed by each person doing the commissioning/startup task and by the responsible field person.

1.7 OPERATIONS AND MAINTENANCE MANUALS, TRAINING

- A. Contractor is to hold at least two 4-hour trainings for District staff on dates and times agreed upon by the District. Two bound hard copies, bound and tabulated, with a table of contents and an electronic copy (thumb drive) shall be provided to the District.
- B. Provide Operation and Maintenance manuals and documentation to District personnel 10 working days prior to date of Training.
- C. Utilize operation and maintenance manuals as basis for instruction. Review contents of manual with the District in detail to explain all aspects of operation and maintenance.
- D. Demonstrate start-up, operation, control, adjustment, trouble-shooting, servicing, maintenance. Prepare and insert additional data in operations and maintenance manuals when need for additional data becomes apparent during instruction.
- E. Contractor is responsible for videotaping the training sessions and providing District with physical and electronic copies of the trainings.
- F. Contractor shall provide the names, addresses, and telephone numbers of installing contractors and service representatives for equipment and control systems.

1.8 PROJECT CLOSEOUT

- A. Contractor shall provide as-built EMS drawings.

- B. Reconcile and close all permits.
- C. Restore all work areas to their original or better conditions
- D. Replace or repair to the District's satisfaction any building, infrastructure and/or systems damaged during the work.

Technical Specifications and SOW Attachment 1

Below is a summary of the sites for implementation of controls:

Site	Address
San Rafael High School	150 3rd St, San Rafael, CA 94901
Bahia Vista	125 Bahia Way, San Rafael, CA 94901
Coleman	800 Belle Ave, San Rafael, CA 94901
Davidson	280 Woodland Ave, San Rafael, CA 94901
Glenwood	25 W Castlewood Dr, San Rafael, CA 94901
Laurel Dell	225 Woodland Ave, San Rafael, CA 94901
San Pedro	498 Point San Pedro Rd, San Rafael, CA 94901
Short	35 Marin St, San Rafael, CA 94901
Sun Valley	75 Happy Ln, San Rafael, CA 94901
Venetia Valley	177 N San Pedro Rd, San Rafael, CA 94903
Terra Linda	320 Nova Albion Way, San Rafael, CA 94903

Below is a summary of the equipment to be controlled at each site. Please refer to the mechanical inventory for details.

Site	Cooling Units	Electric Heat/ Heat Pumps	Boilers/ Furnaces	VAVs/ AHUs	Split System HVAC
San Rafael High School	9	7	10	2	-
Bahia Vista	4	-	27	16	-
Coleman	23	-	-	1	19
Davidson	5	8	16	-	-
Glenwood	-	1	9	-	-
Laurel Dell	6	-	-	-	-
San Pedro	1	-	13	3	-
Short	1	1	3	-	-
Sun Valley	5	2	11	-	4
Venetia Valley	6	1	-	-	-
Terra Linda	18	-	45	-	2

Technical Specifications and SOW Attachment 2

SRCS - Mechanical Inventory

				# Units in Scope		279 SUPPLY FAN			GAS FIRED FURNACE			MOTOR								
School	Location - Building	Location - Floor	Drawing Notation	Equipment Type	Make	Model #	Include in Scope	HTG (CFM)	ESP	HP	GAS INPUT (MBH)	OUTPUT (MBH)	COMB. EFF (%)	V/HZ/P	FLA	MOC	SHEET	DATE	Comments	Column1
San Rafael High School	BLDG I	ROOFTOP	AC-A1	AC UNIT	TRANE	YHC048A3	Y	1600	NA	NA	60	NA	NA	208V/60/3	NA	NA	M4.1	12/21/06		1
San Rafael High School	BLDG I	ROOFTOP	AC-A2	AC UNIT	TRANE	YHC036A3	Y	1200	NA	NA	60	NA	NA	208V/60/3	NA	NA	M4.1	12/21/06		1
San Rafael High School	BLDG I	ROOFTOP	AC-A3	AC UNIT	TRANE	YHC036A3	Y	1200	NA	NA	60	NA	NA	208V/60/3	NA	NA	M4.1	12/21/06		1
San Rafael High School	BLDG I	ROOFTOP	AC-A4	AC UNIT	TRANE	YHC048A3	Y	1400	NA	NA	60	NA	NA	208V/60/3	NA	NA	M4.1	12/21/06		1
San Rafael High School	BLDG I	ROOFTOP	AC-A5	AC UNIT	TRANE	YHC092A3	Y	3200	NA	NA	120	NA	NA	208V/60/3	NA	NA	M4.1	12/21/06		1
San Rafael High School	BLDG I		F-A1	FORCED-AIR FURNACE	TRANE	TUX100C960A	Y	1800	0.2	3/4	100	92	92%	115V/60/1	13.5	15	M4.1	12/21/06		1
San Rafael High School	BLDG I		F-A2	FORCED-AIR FURNACE	TRANE	TUX100C960A	Y	1800	0.2	3/4	100	92	92%	115V/60/1	13.5	15	M4.1	12/21/06		1
San Rafael High School	BLDG I	CLASSROOM	F-11	FORCED-AIR FURNACE	TRANE	TUX100C960A	Y	1800	0.2	3/4	100	92	92%	115V/60/1	13.5	15	M4.1	12/21/06		1
San Rafael High School	BLDG I	CLASSROOM	F-12	FORCED-AIR FURNACE	TRANE	TUX100C960A	Y	1800	0.2	3/4	100	92	92%	115V/60/1	13.5	15	M4.1	12/21/06		1
San Rafael High School	BLDG I	CLASSROOM	F-13	FORCED-AIR FURNACE	TRANE	TUX100C960A	Y	1800	0.2	3/4	100	92	92%	115V/60/1	13.5	15	M4.1	12/21/06		1
San Rafael High School	BLDG I	CLASSROOM	F-14	FORCED-AIR FURNACE	TRANE	TUX100C960A	Y	1800	0.2	3/4	100	92	92%	115V/60/1	13.5	15	M4.1	12/21/06		1
San Rafael High School	BLDG I	CLASSROOM	F-15	FORCED-AIR FURNACE	TRANE	TUX100C960A	Y	1800	0.2	3/4	100	92	92%	115V/60/1	13.5	15	M4.1	12/21/06		1
San Rafael High School	BLDG I		F-R1	FORCED-AIR FURNACE	TRANE	TUX100C960A	Y	1800	0.2	3/4	100	92	92%	115V/60/1	13.5	15	M4.1	12/21/06		1
San Rafael High School	BLDG I		F-R2	FORCED-AIR FURNACE	TRANE	TUX100C960A	Y	1800	0.2	3/4	100	92	92%	115V/60/1	13.5	15	M4.1	12/21/06		1
San Rafael High School	BLDG I		F-R3	FORCED-AIR FURNACE	TRANE	TUX100C960A	Y	1800	0.2	3/4	100	92	92%	115V/60/1	13.5	15	M4.1	12/21/06		1
San Rafael High School	BLDG I	COUNSELOR	EBH-1	BASEBOARD HEATER	TRANE	EWFB TYPE DBF	Y	NA	NA	NA	NA	NA	NA	115V/60/1	NA	NA	M4.1	12/21/06		1
San Rafael High School	BLDG I	ROOFTOP	HV-11	HEATING & VENTING MAU	STERLING	PV60A6	Y	6900	NA	7-1/2	600	NA	NA	208V/60/3	NA	NA	M4.1	12/21/06		1
San Rafael High School	BLDG I	ROOFTOP	HV-12	HEATING & VENTING MAU	STERLING	PV10A6	Y	1000	NA	1/2	100	NA	NA	208V/60/3	NA	NA	M4.1	12/21/06		1
San Rafael High School	BLDG I		SAC-A1	AC UNIT	DAIKIN	PK18FK3	Y	NA	NA	NA	NA	NA	NA	115V/60/1	NA	NA	M4.1	12/21/06		1
San Rafael High School	BLDG I		SAC-A2	AC UNIT	DAIKIN	PK18FK3	Y	NA	NA	NA	NA	NA	NA	115V/60/1	NA	NA	M4.1	12/21/06		1
San Rafael High School	BLDG I		CU-A1	CONDENSING UNIT	DAIKIN	PU18EK	Y	NA	NA	NA	NA	NA	NA	208V/60/1	NA	NA	M4.1	12/21/06		1
San Rafael High School	BLDG I		CU-A2	CONDENSING UNIT	DAIKIN	PU18EK	Y	NA	NA	NA	NA	NA	NA	208V/60/1	NA	NA	M4.1	12/21/06		1
San Rafael High School	BLDG I		HC-1	HEATING COIL	TRANE	TYPE W	Y	740	NA	NA	NA	NA	NA	NA	NA	NA	M4.2	12/21/06		1
San Rafael High School	BLDG I		HC-2	HEATING COIL	TRANE	TYPE W	Y	580	NA	NA	NA	NA	NA	NA	NA	NA	M4.2	12/21/06		1
San Rafael High School	BLDG I		HC-3	HEATING COIL	TRANE	TYPE W	Y	255	NA	NA	NA	NA	NA	NA	NA	NA	M4.2	12/21/06		1
San Rafael High School	BLDG I		HC-4	HEATING COIL	TRANE	TYPE W	Y	195	NA	NA	NA	NA	NA	NA	NA	NA	M4.2	12/21/06		1
San Rafael High School	BLDG I		HC-5	HEATING COIL	TRANE	TYPE W	Y	700	NA	NA	NA	NA	NA	NA	NA	NA	M4.2	12/21/06		1
San Rafael High School	BLDG I		HC-6	HEATING COIL	TRANE	TYPE W	Y	735	NA	NA	NA	NA	NA	NA	NA	NA	M4.2	12/21/06		1
Davidson	30s	CLASSROOM	F-1	FORCED-AIR FURNACE	TRANE	TUX100C960A	Y	1800	0.4	1/2	100	93	93%	120V/60/1	13.5	15	M4.1B	12/1/04		1
Davidson	30s	CLASSROOM	F-2	FORCED-AIR FURNACE	TRANE	TUX100C960A	Y	1800	0.4	1/2	100	93	93%	120V/60/1	13.5	15	M4.1B	12/1/04		1
Davidson	30s	CLASSROOM	F-3	FORCED-AIR FURNACE	TRANE	TUX100C960A	Y	1800	0.4	1/2	100	93	93%	120V/60/1	13.5	15	M4.1B	12/1/04		1
Davidson	30s	CLASSROOM	F-4	FORCED-AIR FURNACE	TRANE	TUX100C960A	Y	1800	0.4	1/2	100	93	93%	120V/60/1	13.5	15	M4.1B	12/1/04		1
Davidson	30s	CLASSROOM	F-5	FORCED-AIR FURNACE	TRANE	TUX100C960A	Y	1800	0.4	1/2	100	93	93%	120V/60/1	13.5	15	M4.1B	12/1/04		1
Davidson	30s	CLASSROOM	F-6	FORCED-AIR FURNACE	TRANE	TUX100C960A	Y	1800	0.4	1/2	100	93	93%	120V/60/1	13.5	15	M4.1B	12/1/04		1
Davidson	10s	1st FLOOR	F-7	FORCED-AIR FURNACE	TRANE	TUX060C936A	Y	680	0.4	1/3	60	55	92%	120V/60/1	8.3	15	M4.1B	12/1/04		1
Davidson	30s	ROOFTOP	AC-1	AC UNIT	TRANE	YHC060A3	Y	1900	NA	NA	60	NA	NA	208V/60/1	NA	NA	M4.1B	12/1/04		1
Davidson	10s	1st FLOOR	HC-1	HEATING COIL	TRANE	TYPE W	Y	NA	NA	NA	NA	NA	NA	NA	NA	NA	M4.1B	12/1/04		1
Davidson	10s	1st FLOOR	HC-2	HEATING COIL	TRANE	TYPE W	Y	NA	NA	NA	NA	NA	NA	NA	NA	NA	M4.1B	12/1/04		1
Davidson	10s	ROOFTOP	HC-3	HEATING COIL	TRANE	TYPE W	Y	NA	NA	NA	NA	NA	NA	NA	NA	NA	M4.1B	12/1/04		1
Davidson	10s	1st FLOOR	HC-4	HEATING COIL	TRANE	TYPE W	Y	NA	NA	NA	NA	NA	NA	NA	NA	NA	M4.1B	12/1/04		1
Davidson	10s	1st FLOOR	HC-5	HEATING COIL	TRANE	TYPE W	Y	NA	NA	NA	NA	NA	NA	NA	NA	NA	M4.1B	12/1/04		1
Davidson	10s	1st FLOOR	HC-6	HEATING COIL	TRANE	TYPE W	Y	NA	NA	NA	NA	NA	NA	NA	NA	NA	M4.1B	12/1/04		1
Davidson	10s	ROOFTOP	HC-7	HEATING COIL	TRANE	TYPE W	Y	NA	NA	NA	NA	NA	NA	NA	NA	NA	M4.1B	12/1/04		1
Davidson	10s	ROOFTOP	HC-8	HEATING COIL	TRANE	TYPE W	Y	NA	NA	NA	NA	NA	NA	NA	NA	NA	M4.1B	12/1/04		1
Davidson	30s	LIBRARY LAB	ACS-1	AC UNIT	CARRIER	400A8024	Y	600	NA	NA	NA	NA	NA	208V/60/1	NA	15	M4.1B	12/1/04		1
Davidson	30s	LIBRARY LAB	CU-1	AC UNIT	CARRIER	38HDL024	Y	NA	NA	NA	NA	NA	NA	208V/60/1	NA	30	M4.1B	12/1/04		1
Davidson	MUSIC ROOM	STORAGE	F-7	FORCED-AIR FURNACE	TRANE	TUX120C960A	Y	1950	0.5	3/4	120	111	92%	115V/60/1	13.5	15	M4.01	11/30/04		1
Davidson	GYM	FITNESS	F-8	FORCED-AIR FURNACE	CARRIER	58MXA060-16	Y	1400	0.5	1/2	60	56	92%	115V/60/1	7.9	15	M4.01	11/30/04		1
Davidson	GYM	SERVERY	F-9	FORCED-AIR FURNACE	CARRIER	58MXA040-08	Y	700	0.5	1/2	40	38	92%	115V/60/1	4.9	15	M4.01	11/30/04		1
Davidson	GYM	LOCKER ROOM	CU-8	CONDENSING UNIT	CARRIER	38HDC048	Y	NA	NA	NA	NA	NA	NA	208V/60/1	NA	NA	M4.01	11/30/04		1
Davidson	GYM	ROOFTOP	CU-9	CONDENSING UNIT	CARRIER	38HDC024	Y	NA	NA	NA	NA	NA	NA	208V/60/3	NA	NA	M4.01	11/30/04		1
Davidson	40s	CLASSROOM	F-1	FORCED-AIR FURNACE	CARRIER	58MX-080-20	Y	1600	0.8	3/4	80	74.4	92%	120V/60/1	14.1	20	M0.2	2/15/02		1
Davidson	40s	CLASSROOM	F-2	FORCED-AIR FURNACE	CARRIER	58MX-080-20	Y	1600	0.8	3/4	80	74.4	92%	120V/60/1	14.1	20	M0.2	2/15/02		1
Davidson	40s	CLASSROOM	F-3	FORCED-AIR FURNACE	CARRIER	58MX-080-20	Y	1600	0.8	3/4	80	74.4	92%	120V/60/1	14.1	20	M0.2	2/15/02		1
Davidson	40s	CLASSROOM	F-4	FORCED-AIR FURNACE	CARRIER	58MX-080-20	Y	1600	0.8	3/4	80	74.4	92%	120V/60/1	14.1	20	M0.2	2/15/02		1
Davidson	40s	CLASSROOM	F-5	FORCED-AIR FURNACE	CARRIER	58MX-080-20	Y	1600	0.8	3/4	80	74.4	92%	120V/60/1	14.1	20	M0.2	2/15/02		1
Davidson	40s	CLASSROOM	F-6	FORCED-AIR FURNACE	CARRIER	58MX-080-20	Y	1600	0.8	3/4	80	74.4	92%	120V/60/1	14.1	20	M0.2	2/15/02		1
Venetia Valley	ROOFTOP-B	ROOF	AC-1	Gas/Elec AC UNIT	TRANE	YHC060A3	Y	1900	N/A	N/A	60	N/A	N/A	208V/60/1	N/A	N/A	M4.01	4/27/04		1
Venetia Valley	ROOFTOP-C	ROOF	AC-2	Gas/Elec AC UNIT	TRANE	YHC036A3	Y	1200	N/A	N/A	60	N/A	N/A	208V/60/1	N/A	N/A	M4.01	4/27/04		1
Venetia Valley	BLDG A	Admin	CU-1	CONDENSING UNIT	CARRIER	38ARZ007	Y	N/A	N/A	N/A	N/A	N/A	N/A	208V/*/3	N/A	N/A	M4.01	4/27/04	FEEDS AH-1	1
Venetia Valley	BLDG A	Admin	CU-2	CONDENSING UNIT	CARRIER	38ARZ007	Y	N/A	N/A	N/A	N/A	N/A	N/A	208V/*/3	N/A	N/A	M4.01	4/27/04	FEEDS AH-2	1
Venetia Valley	KINDER	1	AC 1-1	AC UNIT	DAIKIN	WAG40A	Y	1000	N/A	N/A	N/A	N/A	N/A	208V/60/3	~90	N/A	M-2	N/A	RLA-18A, LRA-82A FAN-S4.1A	1
Venetia Valley	KINDER	2	AC 1-2	AC UNIT	DAIKIN	WAG40A	Y	1000	N/A	N/A	N/A	N/A	N/A	208V/60/3	~90	N/A	M-2	N/A	RLA-18A, LRA-82A FAN-S4.1A	1
Venetia Valley	KINDER	1- STORAGE	HP 1	HEAT PUMP	TRANE	PTH415	Y	300	N/A	N/A	N/A	N/A	N/A	208V/60/1	N/A	N/A	M-2	N/A		1
Bahia Vista	B	1st	F-A1	FORCED-AIR FURNACE	TRANE	TUX100C442A	Y	1800	0.5	3/4	100	92	92%	115V/60/1	13.5	15	M4.01	1/18/05		1
Bahia Vista	B	1st	F-A2	FORCED-AIR FURNACE	TRANE	TUX100C442A	Y	1800	0.5	3/4	100	92	92%	115V/60/1	13.5	15	M4.01	1/18/05		1
Bahia Vista	B	1st	F-A3	FORCED-AIR FURNACE	TRANE	TUX100C442A	Y	1800	0.5	3/4	100	92	92%	115V/60/1	13.5	15	M4.01	1/18/05		1
Bahia Vista	B	1st	F-A4	FORCED-AIR FURNACE	TRANE	TUX100C442A	Y	1800	0.5	3/4	100	92	92%	115V/60/1	13.5	15	M4.01	1/18/05		1
Bahia Vista	B	1st	F-A5	FORCED-AIR FURNACE	TRANE	TUX100C442A	Y	1800	0.5	3/4	100	92	92%	115V/60/1	13.5	15	M4.01	1/18/05		1
Bahia Vista	B	1st	F-A6	FORCED-AIR FURNACE	TRANE	TUX100C442A	Y	1800	0.5	3/4	100	92	92%	115V/60/1	13.5	15	M4.01	1/18/05		1
Bahia Vista	B	2nd	F-A7	FORCED-AIR FURNACE	TRANE	TUX100C442A	Y	1800	0.5	3/4	100	92	92%	115V/60/1	13.5					

SRCS - Mechanical Inventory

							# Units in Scope	279 SUPPLY FAN			GAS FIRED FURNACE			MOTOR						
School	Location - Building	Location - Floor	Drawing Notation	Equipment Type	Make	Model #	Include in Scope	HTG (CFM)	ESP	HP	GAS INPUT (MBH)	OUTPUT (MBH)	COMB. EFF (%)	V/HZ/P	FLA	MOC	SHEET	DATE	Comments	Column1
Bahia Vista			F-C3	FORCED-AIR FURNACE	TRANE	TUX100C442A	Y	1800	0.5	3/4	100	92	92%	115V/60/1	13.5	15	M4.01	1/18/05		1
Bahia Vista			F-C4	FORCED-AIR FURNACE	TRANE	TUX100C442A	Y	1800	0.5	3/4	100	92	92%	115V/60/1	13.5	15	M4.01	1/18/05		1
Bahia Vista			F-C5	FORCED-AIR FURNACE	TRANE	TUX100C442A	Y	1800	0.5	3/4	100	92	92%	115V/60/1	13.5	15	M4.01	1/18/05		1
Bahia Vista			F-C6	FORCED-AIR FURNACE	TRANE	TUX100C442A	Y	1800	0.5	3/4	100	92	92%	115V/60/1	13.5	15	M4.01	1/18/05		1
Bahia Vista			F-C7	FORCED-AIR FURNACE	TRANE	TUX100C442A	Y	1800	0.5	3/4	100	92	92%	115V/60/1	13.5	15	M4.01	1/18/05		1
Bahia Vista			F-C8	FORCED-AIR FURNACE	TRANE	TUX100C442A	Y	1800	0.5	3/4	100	92	92%	115V/60/1	13.5	15	M4.01	1/18/05		1
Bahia Vista			F-C9	FORCED-AIR FURNACE	TRANE	TUX100C442A	Y	1800	0.5	3/4	100	92	92%	115V/60/1	13.5	15	M4.01	1/18/05		1
Bahia Vista			F-C10	FORCED-AIR FURNACE	TRANE	TUX100C442A	Y	1800	0.5	3/4	100	92	92%	115V/60/1	13.5	15	M4.01	1/18/05		1
Bahia Vista			F-C11	FORCED-AIR FURNACE	TRANE	TUX100C442A	Y	1800	0.5	3/4	100	92	92%	115V/60/1	13.5	15	M4.01	1/18/05		1
Bahia Vista			F-C12	FORCED-AIR FURNACE	TRANE	TUX100C442A	Y	1800	0.5	3/4	100	92	92%	115V/60/1	13.5	15	M4.01	1/18/05		1
Bahia Vista			F-C13	FORCED-AIR FURNACE	TRANE	TUX100C442A	Y	1800	0.5	3/4	100	92	92%	115V/60/1	13.5	15	M4.01	1/18/05		1
Bahia Vista			F-C14	FORCED-AIR FURNACE	TRANE	TUX100C442A	Y	1200	0.5	3/4	100	92	92%	115V/60/1	13.5	15	M4.01	1/18/05		1
Bahia Vista	BLDG A	ROOFTOP	AC-1	AC UNIT	TRANE	YCH151	Y	5000			150			208V/60/3		92	M4.01	1/18/05		1
Bahia Vista	BLDG B	ROOFTOP	AC-2	AC UNIT	TRANE	TCH360	Y	12000						208V/60/3		250	M4.01	1/18/05		1
Bahia Vista	BLDG B	1st	VAV/1-1	VARIABLE AIR VOLUME	TRANE	VCWF	Y	NA	NA	NA	NA	NA	NA	NA	NA	NA	M4.01	1/18/05		1
Bahia Vista	BLDG B	1st	VAV/1-2	VARIABLE AIR VOLUME	TRANE	VCWF	Y	NA	NA	NA	NA	NA	NA	NA	NA	NA	M4.01	1/18/05		1
Bahia Vista	BLDG B	1st	VAV/1-3	VARIABLE AIR VOLUME	TRANE	VCWF	Y	NA	NA	NA	NA	NA	NA	NA	NA	NA	M4.01	1/18/05		1
Bahia Vista	BLDG B	1st	VAV/1-4	VARIABLE AIR VOLUME	TRANE	VCWF	Y	NA	NA	NA	NA	NA	NA	NA	NA	NA	M4.01	1/18/05		1
Bahia Vista	BLDG B	1st	VAV/1-5	VARIABLE AIR VOLUME	TRANE	VCWF	Y	NA	NA	NA	NA	NA	NA	NA	NA	NA	M4.01	1/18/05		1
Bahia Vista	BLDG B	1st	VAV/1-6	VARIABLE AIR VOLUME	TRANE	VCWF	Y	NA	NA	NA	NA	NA	NA	NA	NA	NA	M4.01	1/18/05		1
Bahia Vista	BLDG B	1st	VAV/1-7	VARIABLE AIR VOLUME	TRANE	VCWF	Y	NA	NA	NA	NA	NA	NA	NA	NA	NA	M4.01	1/18/05		1
Bahia Vista	BLDG B	1st	VAV/1-8	VARIABLE AIR VOLUME	TRANE	VCWF	Y	NA	NA	NA	NA	NA	NA	NA	NA	NA	M4.01	1/18/05		1
Bahia Vista	BLDG B	1st	VAV/1-9	VARIABLE AIR VOLUME	TRANE	VCWF	Y	NA	NA	NA	NA	NA	NA	NA	NA	NA	M4.01	1/18/05		1
Bahia Vista	BLDG B	2nd	VAV/2-1	VARIABLE AIR VOLUME	TRANE	VCWF	Y	NA	NA	NA	NA	NA	NA	NA	NA	NA	M4.01	1/18/05		1
Bahia Vista	BLDG B	2nd	VAV/2-2	VARIABLE AIR VOLUME	TRANE	VCWF	Y	NA	NA	NA	NA	NA	NA	NA	NA	NA	M4.01	1/18/05		1
Bahia Vista	BLDG B	2nd	VAV/2-3	VARIABLE AIR VOLUME	TRANE	VCWF	Y	NA	NA	NA	NA	NA	NA	NA	NA	NA	M4.01	1/18/05		1
Bahia Vista	BLDG B	2nd	VAV/2-4	VARIABLE AIR VOLUME	TRANE	VCWF	Y	NA	NA	NA	NA	NA	NA	NA	NA	NA	M4.01	1/18/05		1
Bahia Vista	BLDG B	2nd	VAV/2-5	VARIABLE AIR VOLUME	TRANE	VCWF	Y	NA	NA	NA	NA	NA	NA	NA	NA	NA	M4.01	1/18/05		1
Bahia Vista	BLDG B	2nd	VAV/2-6	VARIABLE AIR VOLUME	TRANE	VCWF	Y	NA	NA	NA	NA	NA	NA	NA	NA	NA	M4.01	1/18/05		1
Bahia Vista	BLDG B	2nd	VAV/2-7	VARIABLE AIR VOLUME	TRANE	VCWF	Y	NA	NA	NA	NA	NA	NA	NA	NA	NA	M4.01	1/18/05		1
Bahia Vista	BLDG B	1st	B-1	BOILER	BRYAN	F-650-W	Y	NA	NA	NA	NA	NA	NA	NA	NA	NA	M4.01	1/18/05		1
Bahia Vista	BLDG B	1st	ACS-1	AC UNIT	CARRIER	FG3A-36	Y	1000	NA	1/3	NA	NA	NA	115V/60/1	6.2	NA	M4.01	1/18/05		1
Bahia Vista	BLDG B	ROOFTOP	CU-1	AC UNIT	CARRIER	38HDC036	Y	NA	NA	NA	NA	NA	NA	208V/60/3	12.1	NA	M4.01	1/18/05		1
Coleman	BLDG A	MECHANICAL	F1	SPLIT SYSTEM	REZNOR	CAUA 150	Y	2400	0.6	1	150	120	80%	120V/60/1	6.2	NA	M0.2	6/3/03		1
Coleman	BLDG A	MDF	F2	SPLIT SYSTEM	CARRIER	58MXA080-20	Y	2000	0.5	3/4	80	74.5	93%	120V/60/1	14.1	20	M0.2	6/3/03		1
Coleman	BLDG B	MECHANICAL	F3	SPLIT SYSTEM	CARRIER	58MXA080-20	Y	2000	0.5	3/4	80	74.5	93%	120V/60/1	14.1	20	M0.2	6/3/03		1
Coleman	BLDG B	KINDERGARTEN	F4	SPLIT SYSTEM	CARRIER	58MXA080-16	Y	1600	0.4	1/2	60	55.9	93%	120V/60/1	9.5	20	M0.2	6/3/03		1
Coleman	BLDG B	KINDERGARTEN	F5	SPLIT SYSTEM	CARRIER	58MXA080-16	Y	1600	0.4	1/2	60	55.9	93%	120V/60/1	9.5	20	M0.2	6/3/03		1
Coleman	BLDG E		F6	SPLIT SYSTEM	CARRIER	58MXA080-16	Y	1600	0.4	1/2	60	55.9	93%	120V/60/1	9.5	20	M0.2	6/3/03		1
Coleman	BLDG E	CLASSROOM	F7	SPLIT SYSTEM	CARRIER	58MXA080-20	Y	2000	0.5	3/4	80	74.5	93%	120V/60/1	14.1	20	M0.2	6/3/03		1
Coleman	BLDG E	CLASSROOM	F8	SPLIT SYSTEM	CARRIER	58MXA080-16	Y	1600	0.4	1/2	60	55.9	93%	120V/60/1	9.5	20	M0.2	6/3/03		1
Coleman	BLDG F	CLASSROOM	F9	SPLIT SYSTEM	CARRIER	58MXA080-16	Y	1600	0.4	1/2	60	55.9	93%	120V/60/1	9.5	20	M0.2	6/3/03		1
Coleman	BLDG F	CLASSROOM	F10	SPLIT SYSTEM	CARRIER	58MXA080-20	Y	2000	0.5	3/4	80	74.5	93%	120V/60/1	14.1	20	M0.2	6/3/03		1
Coleman	BLDG F	CLASSROOM	F11	SPLIT SYSTEM	CARRIER	58MXA080-16	Y	1600	0.4	1/2	60	55.9	93%	120V/60/1	9.5	20	M0.2	6/3/03		1
Coleman	BLDG G	CLASSROOM	F12	SPLIT SYSTEM	CARRIER	58MXA080-16	Y	1600	0.4	1/2	60	55.9	93%	120V/60/1	9.5	20	M0.2	6/3/03		1
Coleman	BLDG G	CLASSROOM	F13	SPLIT SYSTEM	CARRIER	58MXA080-20	Y	2000	0.5	3/4	80	74.5	93%	120V/60/1	14.1	20	M0.2	6/3/03		1
Coleman	BLDG G	CLASSROOM	F14	SPLIT SYSTEM	CARRIER	58MXA080-16	Y	1600	0.4	1/2	60	55.9	93%	120V/60/1	9.5	20	M0.2	6/3/03		1
Coleman	BLDG H	CLASSROOM	F15	SPLIT SYSTEM	CARRIER	58MXA080-16	Y	1600	0.4	1/2	60	55.9	93%	120V/60/1	9.5	20	M0.2	6/3/03		1
Coleman	BLDG H	CLASSROOM	F16	SPLIT SYSTEM	CARRIER	58MXA080-20	Y	2000	0.5	3/4	80	74.5	93%	120V/60/1	14.1	20	M0.2	6/3/03		1
Coleman	BLDG H	CLASSROOM	F17	SPLIT SYSTEM	CARRIER	58MXA080-20	Y	2000	0.5	3/4	80	74.5	93%	120V/60/1	14.1	20	M0.2	6/3/03		1
Coleman	BLDG H	CLASSROOM	F18	SPLIT SYSTEM	CARRIER	58MXA080-16	Y	1600	0.4	1/2	60	55.9	93%	120V/60/1	9.5	20	M0.2	6/3/03		1
Coleman	BLDG J	DAYCARE	F19	SPLIT SYSTEM	CARRIER	58MXA080-20	Y	2000	0.5	3/4	80	74.5	93%	120V/60/1	14.1	20	M0.2	6/3/03		1
Coleman	BLDG A	TOILET	CU1	CONDENSING UNIT	CARRIER	38AR007	Y	NA	NA	NA	NA	NA	NA	208V/60/3	NA	35	M0.2	6/3/03		1
Coleman	BLDG A	TOILET	CU2	CONDENSING UNIT	CARRIER	38TRA060	Y	NA	NA	NA	NA	NA	NA	208V/60/1	NA	60	M0.2	6/3/03		1
Coleman	BLDG B	CLOSET	CU3	CONDENSING UNIT	CARRIER	38TRA060	Y	NA	NA	NA	NA	NA	NA	208V/60/1	NA	60	M0.2	6/3/03		1
Coleman	BLDG B	CLOSET	CU4	CONDENSING UNIT	CARRIER	38TRA048	Y	NA	NA	NA	NA	NA	NA	208V/60/1	NA	50	M0.2	6/3/03		1
Coleman	BLDG B	KINDERGARTEN	CU5	CONDENSING UNIT	CARRIER	38TRA048	Y	NA	NA	NA	NA	NA	NA	208V/60/1	NA	50	M0.2	6/3/03		1
Coleman	BLDG E	CLASSROOM	CU6	CONDENSING UNIT	CARRIER	38TRA048	Y	NA	NA	NA	NA	NA	NA	208V/60/1	NA	50	M0.2	6/3/03		1
Coleman	BLDG E	CLASSROOM	CU7	CONDENSING UNIT	CARRIER	38TRA060	Y	NA	NA	NA	NA	NA	NA	208V/60/1	NA	60	M0.2	6/3/03		1
Coleman	BLDG E	CLASSROOM	CU8	CONDENSING UNIT	CARRIER	38TRA048	Y	NA	NA	NA	NA	NA	NA	208V/60/1	NA	50	M0.2	6/3/03		1
Coleman	BLDG F	CLASSROOM	CU9	CONDENSING UNIT	CARRIER	38TRA048	Y	NA	NA	NA	NA	NA	NA	208V/60/1	NA	50	M0.2	6/3/03		1
Coleman	BLDG F	CLASSROOM	CU10	CONDENSING UNIT	CARRIER	38TRA060	Y	NA	NA	NA	NA	NA	NA	208V/60/1	NA	60	M0.2	6/3/03		1
Coleman	BLDG F	CLASSROOM	CU11	CONDENSING UNIT	CARRIER	38TRA048	Y	NA	NA	NA	NA	NA	NA	208V/60/1	NA	50	M0.2	6/3/03		1
Coleman	BLDG G	CLASSROOM	CU12	CONDENSING UNIT	CARRIER	38TRA048	Y	NA	NA	NA	NA	NA	NA	208V/60/1	NA	50	M0.2	6/3/03		1
Coleman	BLDG G	CLASSROOM	CU13	CONDENSING UNIT	CARRIER	38TRA060	Y	NA	NA	NA	NA	NA	NA	208V/60/1	NA	60	M0.2	6/3/03		1
Coleman	BLDG G	CLASSROOM	CU14	CONDENSING UNIT	CARRIER	38TRA048	Y	NA	NA	NA	NA	NA	NA	208V/60/1	NA	50	M0.2	6/3/03		1
Coleman	BLDG H	CLASSROOM	CU15	CONDENSING UNIT	CARRIER	38TRA048	Y	NA	NA	NA	NA	NA	NA	208V/60/1	NA	50	M0.2	6/3/03		1
Coleman	BLDG H	CLASSROOM	CU16	CONDENSING UNIT	CARRIER	38TRA060	Y	NA	NA	NA	NA	NA	NA	208V/60/1	NA	60	M0.2	6/3/03		1
Coleman	BLDG H	CLASSROOM	CU17	CONDENSING UNIT	CARRIER	38TRA060	Y	NA	NA	NA	NA	NA	NA	208V/60/1	NA	60	M0.2	6/3/03		1
Coleman	BLDG H	CLASSROOM	CU18	CONDENSING UNIT	CARRIER	38TRA048	Y	NA	NA	NA	NA	NA	NA	208V/60/1	NA	50	M0.2	6/3/03		1
Coleman	BLDG J	DAYCARE	CU19	CONDENSING UNIT	CARRIER	38TRA060	Y	NA	NA	NA	NA	NA	NA	208V/60/1	NA	60	M0.2	6/3/03		1
Coleman	BLDG C	CLASSROOM	AC 1	HVAC UNIT	CARRIER	48GX024	Y	800	0.4	NA	40	NA	NA	208V/60/1	NA	25	M0.2	6/3/03		1
Coleman	BLDG C	MPR	AC 2	HVAC UNIT	CARRIER	48HJD014	Y	4300	0.5	NA	180	NA	NA	208V/60/3	NA	25	M0.2	6/3/03		1
Coleman	BLDG C	MUSIC ROOM	AC 3	HVAC UNIT	CARRIER	48HJE														

SRCS - Mechanical Inventory

# Units in Scope							279 SUPPLY FAN			GAS FIRED FURNACE			MOTOR								
School	Location - Building	Location - Floor	Drawing Notation	Equipment Type	Make	Model #	Include in Scope	HTG (CFM)	ESP	HP	GAS INPUT (MBH)	OUTPUT (MBH)	COMB. EFF (%)	V/HZ/P	FLA	MOC	SHEET	DATE	Comments	Column1	
Coleman	BLDG C	FOOD SERVICE	MUA1	MAKE UP AIR	COOK	120KSP-B	Y	1000	NA	NA	NA	NA	NA	NA	NA	NA	M0.3	6/3/03		1	
Glenwood	G	G06	F-1	FORCED-AIR FURNACE	TRANE	TUX100C948C	Y	1800	0.4	1/2	100	93	93%	120V/60/1	12.5	15	M4.1	8/1/03		1	
Glenwood	G	G05	F-2	FORCED-AIR FURNACE	TRANE	TUX100C948C	Y	1800	0.4	1/2	100	93	93%	120V/60/1	12.5	15	M4.1	8/1/03		1	
Glenwood	G	G04	F-3	FORCED-AIR FURNACE	TRANE	TUX100C948C	Y	1800	0.4	1/2	100	93	93%	120V/60/1	12.5	15	M4.1	8/1/03		1	
Glenwood	G	G03	F-4	FORCED-AIR FURNACE	TRANE	TUX100C948C	Y	1800	0.4	1/2	100	93	93%	120V/60/1	12.5	15	M4.1	8/1/03		1	
Glenwood	G	G02	F-5	FORCED-AIR FURNACE	TRANE	TUX100C948C	Y	1800	0.4	1/2	100	93	93%	120V/60/1	12.5	15	M4.1	8/1/03		1	
Glenwood	G	G01	F-6	FORCED-AIR FURNACE	TRANE	TUX100C948C	Y	1800	0.4	1/2	100	93	93%	120V/60/1	12.5	15	M4.1	8/1/03		1	
Glenwood	B1	DAYCARE	F-7	FORCED-AIR FURNACE	TRANE	TUX100C9606C	Y	2160	0.5	3/4	100	93	93%	120V/60/1	12.9	15	M4.1	8/1/03		1	
Glenwood	H	H01	F-8	FORCED-AIR FURNACE	TRANE	TUX100C948C	Y	1800	0.4	1/2	100	93	93%	120V/60/1	12.9	15	M4.1	8/1/03		1	
Glenwood	H	H03	F-9	FORCED-AIR FURNACE	TRANE	TUX040C924	Y	900	0.4	1/5	40	38	93%	120V/60/1	4.7	15	M4.1	8/1/03		1	
Glenwood	B1	B12	EBH-1	ELECTRIC HEATER	Q MARK	CWH3204	Y	NA	NA	NA	NA	NA	NA	208V/1/60	NA	NA	M4.1	8/1/03		1	
Laurel Dell	BLDG 300	ROOFTOP	AC-1	AC UNIT	TRANE	YHC060	Y	NA	NA	NA	NA	NA	NA	208V/1/60	NA	NA	M0.2	3/15/05		1	
Laurel Dell	BLDG 300	ROOFTOP	AC-2	AC UNIT	TRANE	YHC036	Y	NA	NA	NA	NA	NA	NA	208V/1/60	NA	NA	M0.2	3/15/05		1	
Laurel Dell	BLDG 300	ROOFTOP	AC-3	AC UNIT	TRANE	YHC036	Y	NA	NA	NA	NA	NA	NA	208V/1/60	NA	NA	M0.2	3/15/05		1	
Laurel Dell	BLDG 100	ROOFTOP	AC-4	AC UNIT	TRANE	YHC036	Y	NA	NA	NA	NA	NA	NA	208V/1/60	NA	NA	M0.2	3/15/05		1	
Laurel Dell	BLDG 100	ROOFTOP	AC-5	AC UNIT	TRANE	YHC048	Y	NA	NA	NA	NA	NA	NA	208V/1/60	NA	NA	M0.2	3/15/05		1	
Laurel Dell	BLDG 100	ROOFTOP	AC-6	AC UNIT	TRANE	YHC048	Y	NA	NA	NA	NA	NA	NA	208V/1/60	NA	NA	M0.2	3/15/05		1	
San Pedro	EAST BLDG	in class	F-4	FORCED-AIR FURNACE	TRANE	TUX100C442A	Y	1800	0.5	3/4	100	92	92%	115V/60/1	13.5	15	M4.01A	11/12/04		1	
San Pedro	EAST BLDG	in class	F-5	FORCED-AIR FURNACE	TRANE	TUX100C442A	Y	1800	0.5	3/4	100	92	92%	115V/60/1	13.5	15	M4.01A	11/12/04		1	
San Pedro	EAST BLDG	in class	F-6	FORCED-AIR FURNACE	TRANE	TUX100C442A	Y	1800	0.5	3/4	100	92	92%	115V/60/1	13.5	15	M4.01A	11/12/04		1	
San Pedro	EAST BLDG	in class	F-7	FORCED-AIR FURNACE	TRANE	TUX100C442A	Y	1800	0.5	3/4	100	92	92%	115V/60/1	13.5	15	M4.01A	11/12/04		1	
San Pedro	EAST BLDG	in class	F-8	FORCED-AIR FURNACE	TRANE	TUX100C442A	Y	1800	0.5	3/4	100	92	92%	115V/60/1	13.5	15	M4.01A	11/12/04		1	
San Pedro	MPR	ART ROOM	F-9	FORCED-AIR FURNACE	TRANE	TUX100C442A	Y	1800	0.5	3/4	100	92	92%	115V/60/1	13.5	15	M4.01A	11/12/04		1	
San Pedro	MPR	MUSIC ROOM	F-10	FORCED-AIR FURNACE	TRANE	TUX100C442A	Y	1800	0.5	3/4	100	92	92%	115V/60/1	13.5	15	M4.01A	11/12/04		1	
San Pedro	EAST BLDG	ROOFTOP	AC-2	AC UNIT	TRANE	YHC048A3	Y	1600	NA	NA	NA	NA	NA	230V/60/3	NA	NA	M4.01A	11/12/04		1	
San Pedro	EAST BLDG	ROOFTOP	HV-1	HEAT VENT UNIT	TRANE	GRAA10GDBFO	Y	2000	NA	2	NA	NA	NA	208V/60/3	NA	NA	M4.01A	11/12/04		1	
San Pedro	MPR	ROOFTOP	HV-3	HEAT VENT UNIT	TRANE	GRAA10GDBFO	Y	5000	NA	5	NA	NA	NA	208V/60/3	NA	NA	M4.01A	11/12/04		1	
San Pedro	MPR	EXTERIOR	HV-4	HEAT VENT UNIT	TRANE	GRAA10GDBFO	Y	150	NA	1.5	NA	NA	NA	208V/60/3	NA	NA	M4.01A	11/12/04		1	
San Pedro	BLDG 10	CLASS 1		FORCED-AIR FURNACE			Y												NO DRAWINGS	1	
San Pedro	BLDG 10	CLASS 2		FORCED-AIR FURNACE			Y												NO DRAWINGS	1	
San Pedro	BLDG 10	CLASS 3		FORCED-AIR FURNACE			Y												NO DRAWINGS	1	
San Pedro	BLDG 10	CLASS 4		FORCED-AIR FURNACE			Y												NO DRAWINGS	1	
San Pedro	BLDG 10	CLASS 5		FORCED-AIR FURNACE			Y												NO DRAWINGS	1	
San Pedro	BLDG 10	CLASS 6		FORCED-AIR FURNACE			Y												NO DRAWINGS	1	
Short	BLDG A	CLASSROOM 1	F-1	GAS FIRED FURNACE	CARRIER	58MTB-060-12	Y	1000	0.5	N/A	60/39	56/37	93	115/60/1	8.4	N/A	M1.0	8/16/11		1	
Short	BLDG A	CLASSROOM 2	F-2	GAS FIRED FURNACE	CARRIER	58MTB-060-12	Y	1000	0.5	N/A	60/39	56/37	93	115/60/1	8.4	N/A	M1.0	8/16/11		1	
Short	BLDG A	OFFICE	F-3	GAS FIRED FURNACE	CARRIER	58MTB-100-20	Y	1500	0.7	N/A	100/65	94/61	93	115/60/1	13.3	N/A	M1.0	8/16/11		1	
Short	BLDG A	EXTERIOR	CU-1	AIR COOLED CONDENSER	CARRIER	24P47060-30	Y	1500	N/A	N/A	N/A	N/A	N/A	208/60/1	24.3	N/A	M1.0	3/7/11		1	
Short	BLDG C	EXT. WALL	1	HEAT PUMP	MOD TECH	N/A	Y	N/A	N/A	N/A	N/A	N/A	N/A	208V*/1	62	N/A	M1.02	4/29/14		1	
Sun Valley	BLDG E	ROOFTOP	AC-1	HVAC UNIT	CARRIER	48HJED014	Y	4700	1	3.4	250	200	80%	208/60/3	NA	70	M1.1	5/20/03		1	
Sun Valley	BLDG E	ROOFTOP	AC-2	HVAC UNIT	CARRIER	48HJED015	Y	4700	1	3.5	250	200	80%	208/60/3	NA	71	M1.2	5/21/03		1	
Sun Valley	BLDG E	MUSIC ROOM	F-15	SPLIT SYSTEM	CARRIER	58MXA060-16	Y	1500	0.5	1/2	60	56	93%	120/60/1	8.4	15	M1.2	5/21/03		1	
Sun Valley	BLDG E	CLASSROOM	F-16	SPLIT SYSTEM	CARRIER	58MXA060-16	Y	1500	0.5	1/2	60	56	93%	120/60/1	8.4	15	M1.2	5/21/03		1	
Sun Valley	BLDG E	FOOD SERVICE	F-17	SPLIT SYSTEM	CARRIER	58MXA060-12	Y	1500	0.5	1/3	60	56	93%	120/60/1	8.4	15	M1.2	5/21/03		1	
Sun Valley	BLDG E	ROOFTOP	CU-15	CONDENSING UNIT	CARRIER	38HDC-048	Y	NA	NA	NA	NA	NA	NA	208/60/3	NA	NA	M1.2	5/21/03		1	
Sun Valley	BLDG E	ROOFTOP	CU-16	CONDENSING UNIT	CARRIER	38HDC-048	Y	NA	NA	NA	NA	NA	NA	208/60/3	NA	NA	M1.2	5/21/03		1	
Sun Valley	BLDG C	CLASSROOM	F-1	FORCED-AIR FURNACE	CARRIER	58MXA-100-16	Y	1450	0.5	1/2	100	94	93%	120V/60/1	13.5	15	M1.2	6/27/02		1	
Sun Valley	BLDG C	CLASSROOM	F-2	FORCED-AIR FURNACE	CARRIER	58MXA-100-16	Y	1450	0.5	1/2	100	94	93%	120V/60/1	13.5	15	M1.2	6/27/02		1	
Sun Valley	BLDG A	MECHANICAL	F-3	FORCED-AIR FURNACE	CARRIER	58MXA-100-16	Y	2000	0.5	3/4	80	74	92%	120V/60/1	17	20	M1.2	6/27/02		1	
Sun Valley			F-4	FORCED-AIR FURNACE	CARRIER	NOT USED	Y													1	
Sun Valley	BLDG B	CLASSROOM	F-5	FORCED-AIR FURNACE	CARRIER	58MXA-100-16	Y	1500	0.6	1/2	80	74	92%	120V/60/1	13.5	15	M1.2	6/27/02		1	
Sun Valley	BLDG B	KINDERGARTEN	F-6	FORCED-AIR FURNACE	CARRIER	58MXA-100-20	Y	1800	0.6	3/4	100	93	92%	120V/60/1	19.3	20	M1.2	6/27/02		1	
Sun Valley	BLDG A	CLASSROOM	F-7	FORCED-AIR FURNACE	CARRIER	58MXA-100-16	Y	1500	0.6	1/2	80	74	92%	120V/60/1	9.5	15	M1.2	6/27/02		1	
Sun Valley	BLDG A	CLASSROOM	F-8	FORCED-AIR FURNACE	CARRIER	58MXA-100-16	Y	1500	0.6	1/2	80	74	92%	120V/60/1	9.5	15	M1.2	6/27/02		1	
Sun Valley	BLDG A	CLASSROOM	F-9	FORCED-AIR FURNACE	CARRIER	58MXA-100-16	Y	1500	0.6	1/2	80	74	92%	120V/60/1	9.5	15	M1.2	6/27/02		1	
Sun Valley	BLDG A	LIBRARY	F-10	FORCED-AIR FURNACE	CARRIER	58MXA-100-16	Y	1500	0.6	1/2	80	74	92%	120V/60/1	9.5	15	M1.2	6/27/02		1	
Sun Valley	BLDG A	LAB	F-11	SPLIT SYSTEM	CARRIER	58MXA-080-20	Y	1800	0.6	3/4	80	74	92%	120V/60/1	9.5	15	M1.2	6/27/02		1	
Sun Valley	BLDG A	LAB	F-12	FORCED-AIR FURNACE	CARRIER	58MXA-100-16	Y	1450	0.5	1/2	100	94	93%	120V/60/1	9.5	15	M1.2	6/27/02		1	
Sun Valley	BLDG A	ENCLOSURE	CU-1	CONDENSING UNIT	CARRIER	38HDC060	Y	60	NA	NA	NA	NA	NA	208V/60/3	NA	35	M1.2	6/27/02		1	
Sun Valley			EW-1	ELECTRIC HEATER	Q MARK	CWH3204	Y	NA	NA	NA	NA	NA	NA	208V/60/1	NA	NA	M1.2	6/27/02		1	
Sun Valley			EW-2	ELECTRIC HEATER	Q MARK	CWH3204	Y	NA	NA	NA	NA	NA	NA	208V/60/1	NA	NA	M1.2	6/27/02		1	
Terra Linda	BLDG P	ROOFTOP	AC-P1	AC UNIT	TRANE	YCH181A4	Y	5400	NA	NA	250	NA	NA	460V/60/3	NA	NA	M4.01	1/6/05		1	
Terra Linda	BLDG P	ROOFTOP	AC-P2	AC UNIT	TRANE	YCD301C4	Y	10000	NA	NA	250	NA	NA	460V/60/3	NA	NA	M4.01	1/6/05		1	
Terra Linda	BLDG P	ROOFTOP	AC-P3	AC UNIT	TRANE	YCH060A4	Y	1800	NA	NA	60	NA	NA	460V/60/3	NA	NA	M4.01	1/6/05		1	
Terra Linda	BLDG P	CONTROL ROOM	AC-P4A	SPLIT SYSTEM	SANYO	K53032	Y	800	NA	NA	NA	NA	NA	208V/60/1	NA	NA	M4.01	1/6/05		1	
Terra Linda	BLDG P	DIMMER ROOM	AC-P5A	SPLIT SYSTEM	SANYO	K53032	Y	800	NA	NA	NA	NA	NA	208V/60/1	NA	NA	M4.01	1/6/05		1	
Terra Linda	BLDG P	CONTROL ROOM	AC-P4B	CONDENSING UNIT	SANYO	C3032	Y	NA	NA	NA	NA	NA	NA	208V/60/1	NA	NA	M4.01	1/6/05		1	
Terra Linda	BLDG P	DIMMER ROOM	AC-P5B	CONDENSING UNIT	SANYO	C3032	Y	NA	NA	NA	NA	NA	NA	208V/60/1	NA	NA	M4.01	1/6/05		1	
Terra Linda	BLDG A	CLASSROOM	F-A1	FORCED-AIR FURNACE	CARRIER	58MXA-80-20	Y	1500	0.5	3/4	80	75	93%	115V/60/1	11.1	NA	M4.01	1/28/05		1	
Terra Linda	BLDG A	CLASSROOM	F-A2	FORCED-AIR FURNACE	CARRIER	58MXA-80-20	Y	1500	0.5	3/4	80	75	93%	115V/60/1	11.1	NA	M4.01	1/28/05		1	
Terra Linda	BLDG A	CLASSROOM	F-A3	FORCED-AIR FURNACE	CARRIER	58MXA-80-20	Y	1500	0.5	3/4	80	75	93%	115V/60/1	11.1	NA	M4.01	1/28/05		1	
Terra Linda	BLDG A	CLASSROOM	F-A4	FORCED-AIR FURNACE	CARRIER	58MXA-140-20	Y	2100	0.3	3/4	138	129	93%	115V/60/1	11.1	NA	M4.01	1/28/05		1	
Terra Linda	BLDG A	CLASSROOM</																			

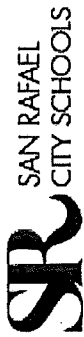
SRCS - Mechanical Inventory

School	Location - Building	Location - Floor	Drawing Notation	Equipment Type	Make	Model #	# Units in Scope			279 SUPPLY FAN			GAS FIRED FURNACE			MOTOR			Comments	Column1
							Include in Scope	HTG (CFM)	ESP	HP	GAS INPUT (MBH)	OUTPUT (MBH)	COMB. EFF (%)	V/HZ/P	FLA	MOC	SHEET	DATE		
Terra Linda	BLDG A	CLASSROOM	F-A10	FORCED-AIR FURNACE	CARRIER	58MXA-80-20	Y	1500	0.5	3/4	80	75	93%	115V/60/1	11.1	NA	M4.01	1/28/05	1	
Terra Linda	BLDG A	CLASSROOM	F-A11	FORCED-AIR FURNACE	CARRIER	58MXA-80-20	Y	1500	0.5	3/4	80	75	93%	115V/60/1	11.1	NA	M4.01	1/28/05	1	
Terra Linda	BLDG A	CLASSROOM	F-A12	FORCED-AIR FURNACE	CARRIER	58MXA-80-20	Y	1500	0.5	3/4	80	75	93%	115V/60/1	11.1	NA	M4.01	1/28/05	1	
Terra Linda	BLDG A	CLASSROOM	F-A13	FORCED-AIR FURNACE	CARRIER	58MXA-80-20	Y	1500	0.5	3/4	80	75	93%	115V/60/1	11.1	NA	M4.01	1/28/05	1	
Terra Linda	BLDG D	ROOFTOP	AC-D1	ROOFTOP GAS/ELECTRIC AC UNIT	TRANE	YHC0604A	Y	2000	NA	NA	60	NA	10.3	460V/60/3	NA	NA	M4.01	1/28/05	1	
Terra Linda	BLDG D	ROOFTOP	AC-D2	ROOFTOP GAS/ELECTRIC AC UNIT	TRANE	YHC0364A	Y	1000	NA	NA	60	NA	10.7	460V/60/3	NA	NA	M4.01	1/28/05	1	
Terra Linda	BLDG E	ROOFTOP	AC-E1	ROOFTOP GAS/ELECTRIC AC UNIT	TRANE	YHC0924A	Y	2700	NA	NA	120	NA	11	460V/60/3	NA	NA	M4.01	1/28/05	1	
Terra Linda	BLDG E	ROOFTOP	AC-E2	ROOFTOP GAS/ELECTRIC AC UNIT	TRANE	YHC0604A	Y	2000	NA	NA	60	NA	10.3	460V/60/3	NA	NA	M4.01	1/28/05	1	
Terra Linda	BLDG E	ROOFTOP	AC-E3	ROOFTOP GAS/ELECTRIC AC UNIT	TRANE	YHC0724A	Y	2400	NA	NA	80	NA	10.7	460V/60/3	NA	NA	M4.01	1/28/05	1	
Terra Linda	BLDG H	ROOFTOP	AC-H1	ROOFTOP GAS/ELECTRIC AC UNIT	TRANE	YHC0924A	Y	2700	NA	NA	120	NA	11	460V/60/3	NA	NA	M4.01	1/28/05	1	
Terra Linda	BLDG H	ROOFTOP	AC-H2	ROOFTOP GAS/ELECTRIC AC UNIT	TRANE	YHC0924A	Y	2700	NA	NA	120	NA	11	460V/60/3	NA	NA	M4.01	1/28/05	1	
Terra Linda	BLDG H	ROOFTOP	AC-H3	ROOFTOP GAS/ELECTRIC AC UNIT	TRANE	YHC0924A	Y	2700	NA	NA	120	NA	11	460V/60/3	NA	NA	M4.01	1/28/05	1	
Terra Linda	BLDG I	ROOFTOP	AC-I1	ROOFTOP GAS/ELECTRIC AC UNIT	TRANE	YHC0604A	Y	2000	NA	NA	60	NA	10.3	460V/60/3	NA	NA	M4.01	1/28/05	1	
Terra Linda	BLDG I	ROOFTOP	AC-I2	ROOFTOP GAS/ELECTRIC AC UNIT	TRANE	YHC0604A	Y	2000	NA	NA	60	NA	10.3	460V/60/3	NA	NA	M4.01	1/28/05	1	
Terra Linda	BLDG I	ROOFTOP	AC-I3	ROOFTOP GAS/ELECTRIC AC UNIT	TRANE	YHC0724A	Y	2400	NA	NA	80	NA	10.7	460V/60/3	NA	NA	M4.01	1/28/05	1	
Terra Linda	BLDG I	ROOFTOP	AC-I4	ROOFTOP GAS/ELECTRIC AC UNIT	TRANE	YHC0604A	Y	2000	NA	NA	60	NA	10.3	460V/60/3	NA	NA	M4.01	1/28/05	1	
Terra Linda	BLDG K	ROOFTOP	AC-K1	ROOFTOP GAS/ELECTRIC AC UNIT	TRANE	YHC0604A	Y	2000	NA	NA	60	NA	10.3	460V/60/3	NA	NA	M4.01	1/28/05	1	
Terra Linda	BLDG J	ROOFTOP	HV-J1	ROOFTOP HEATING UNIT	STERLING	PV4087B	Y	2100	0.7	2	NA	NA	NA	208V/60/3	NA	NA	M4.01	1/28/05	1	
Terra Linda	BLDG J	ROOFTOP	HV-J2	ROOFTOP HEATING UNIT	STERLING	PV80A7C	Y	6000	0.9	5	NA	NA	NA	208V/60/3	NA	NA	M4.01	1/28/05	1	
Terra Linda	BLDG J	ROOFTOP	HV-J3	ROOFTOP HEATING UNIT	STERLING	PV4087C	Y	4000	0.8	2	NA	NA	NA	208V/60/3	NA	NA	M4.01	1/28/05	1	
Terra Linda	BLDG K	ROOFTOP	HV-K1	ROOFTOP HEATING UNIT	STERLING	PV40A7C	Y	4700	0.9	3	NA	NA	NA	460V/60/3	NA	NA	M4.01	1/28/05	1	
Terra Linda	BLDG K	ROOFTOP	HV-K2	ROOFTOP HEATING UNIT	STERLING	PV40A7C	Y	4700	0.9	3	NA	NA	NA	460V/60/3	NA	NA	M4.01	1/28/05	1	
Terra Linda	BLDG M	CLASSROOM	F-1-1	FORCED-AIR FURNACE	CARRIER	58MXA-80-20	Y	1500	0.5	3/4	80	75	93	115V/60/1	11.1	NA	M4.01	4/7/04	1	
Terra Linda	BLDG M	CLASSROOM	F-1-2	FORCED-AIR FURNACE	CARRIER	58MXA-80-20	Y	1500	0.5	3/4	80	75	93	115V/60/1	11.1	NA	M4.01	4/7/04	1	
Terra Linda	BLDG M	CLASSROOM	F-1-3	FORCED-AIR FURNACE	CARRIER	58MXA-80-20	Y	1500	0.5	3/4	80	75	93	115V/60/1	11.1	NA	M4.01	4/7/04	1	
Terra Linda	BLDG M	CLASSROOM	F-1-4	FORCED-AIR FURNACE	CARRIER	58MXA-60-12	Y	900	0.5	3/4	80	75	93	115V/60/1	11.1	NA	M4.01	4/7/04	1	
Terra Linda	BLDG M	CLASSROOM	F-1-5	FORCED-AIR FURNACE	CARRIER	58MXA-80-20	Y	1500	0.5	3/4	80	75	93	115V/60/1	11.1	NA	M4.01	4/7/04	1	
Terra Linda	BLDG M	CLASSROOM	F-1-6	FORCED-AIR FURNACE	CARRIER	58MXA-80-20	Y	1500	0.5	3/4	80	75	93	115V/60/1	11.1	NA	M4.01	4/7/04	1	
Terra Linda	BLDG M	CLASSROOM	F-1-7	FORCED-AIR FURNACE	CARRIER	58MXA-80-20	Y	1500	0.5	3/4	80	75	93	115V/60/1	11.1	NA	M4.01	4/7/04	1	
Terra Linda	BLDG M	CLASSROOM	F-1-8	FORCED-AIR FURNACE	CARRIER	58MXA-80-20	Y	1500	0.5	3/4	80	75	93	115V/60/1	11.1	NA	M4.01	4/7/04	1	
Terra Linda	BLDG M	CLASSROOM	F-1-9	FORCED-AIR FURNACE	CARRIER	58MXA-60-12	Y	900	0.5	3/4	80	75	93	115V/60/1	11.1	NA	M4.01	4/7/04	1	
Terra Linda	BLDG M	CLASSROOM	F-1-10	FORCED-AIR FURNACE	CARRIER	58MXA-60-12	Y	900	0.5	3/4	80	75	93	115V/60/1	11.1	NA	M4.01	4/7/04	1	
Terra Linda	BLDG M	CLASSROOM	F-1-11	FORCED-AIR FURNACE	CARRIER	58MXA-80-20	Y	1500	0.5	3/4	80	75	93	115V/60/1	11.1	NA	M4.01	4/7/04	1	
Terra Linda	BLDG M	CLASSROOM	F-1-12	FORCED-AIR FURNACE	CARRIER	58MXA-80-20	Y	1500	0.5	3/4	80	75	93	115V/60/1	11.1	NA	M4.01	4/7/04	1	
Terra Linda	BLDG M	CLASSROOM	F-2-1	FORCED-AIR FURNACE	CARRIER	58MXA-80-20	Y	1500	0.5	3/4	80	75	93	115V/60/1	11.1	NA	M4.01	4/7/04	1	
Terra Linda	BLDG M	CLASSROOM	F-2-2	FORCED-AIR FURNACE	CARRIER	58MXA-80-20	Y	1500	0.5	3/4	80	75	93	115V/60/1	11.1	NA	M4.01	4/7/04	1	
Terra Linda	BLDG M	CLASSROOM	F-2-3	FORCED-AIR FURNACE	CARRIER	58MXA-60-12	Y	900	0.5	3/4	80	75	93	115V/60/1	11.1	NA	M4.01	4/7/04	1	
Terra Linda	BLDG M	CLASSROOM	F-2-4	FORCED-AIR FURNACE	CARRIER	58MXA-80-20	Y	1500	0.5	3/4	80	75	93	115V/60/1	11.1	NA	M4.01	4/7/04	1	
Terra Linda	BLDG M	CLASSROOM	F-2-5	FORCED-AIR FURNACE	CARRIER	58MXA-80-20	Y	1500	0.5	3/4	80	75	93	115V/60/1	11.1	NA	M4.01	4/7/04	1	
Terra Linda	BLDG M	CLASSROOM	F-2-6	FORCED-AIR FURNACE	CARRIER	58MXA-80-20	Y	1500	0.5	3/4	80	75	93	115V/60/1	11.1	NA	M4.01	4/7/04	1	
Terra Linda	BLDG M	CLASSROOM	F-2-7	FORCED-AIR FURNACE	CARRIER	58MXA-80-20	Y	1500	0.5	3/4	80	75	93	115V/60/1	11.1	NA	M4.01	4/7/04	1	
Terra Linda	BLDG M	CLASSROOM	F-2-8	FORCED-AIR FURNACE	CARRIER	58MXA-80-20	Y	1500	0.5	3/4	80	75	93	115V/60/1	11.1	NA	M4.01	4/7/04	1	
Terra Linda	BLDG M	CLASSROOM	F-2-9	FORCED-AIR FURNACE	CARRIER	58MXA-60-12	Y	900	0.5	3/4	80	75	93	115V/60/1	11.1	NA	M4.01	4/7/04	1	
Terra Linda	BLDG M	CLASSROOM	F-2-10	FORCED-AIR FURNACE	CARRIER	58MXA-80-20	Y	1500	0.5	3/4	80	75	93	115V/60/1	11.1	NA	M4.01	4/7/04	1	
Terra Linda	BLDG M	CLASSROOM	F-2-11	FORCED-AIR FURNACE	CARRIER	58MXA-80-20	Y	1500	0.5	3/4	80	75	93	115V/60/1	11.1	NA	M4.01	4/7/04	1	
Terra Linda	BLDG M	CLASSROOM	F-2-12	FORCED-AIR FURNACE	CARRIER	58MXA-80-20	Y	1500	0.5	3/4	80	75	93	115V/60/1	11.1	NA	M4.01	4/7/04	1	
Terra Linda	BLDG E	CLASSROOM	F-3-1	FORCED-AIR FURNACE	CARRIER	58MXA-80-20	Y	1500	0.5	3/4	80	75	93	115V/60/1	11.1	NA	M4.01	4/7/04	1	
Terra Linda	BLDG E	CLASSROOM	F-3-2	FORCED-AIR FURNACE	CARRIER	58MXA-80-20	Y	1500	0.5	3/4	80	75	93	115V/60/1	11.1	NA	M4.01	4/7/04	1	
Terra Linda	BLDG E	CLASSROOM	F-3-3	FORCED-AIR FURNACE	CARRIER	58MXA-80-20	Y	1500	0.5	3/4	80	75	93	115V/60/1	11.1	NA	M4.01	4/7/04	1	

Technical Specifications and SOW Attachment 3

San Rafael High School

FC/HP Summary



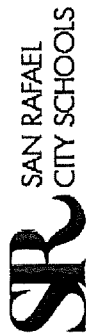
wednesday, 7/22/2003 6:25:34AM

OSA Temp: 60.9 °F

Serving	Zone	Command	Space Temp	Setpoint	SA Temp	Filter/Alarm	Fan	Clg	Htg	Temp Attained
Building G - Studio	F/CU-1	Active	66 °F	66	58 °F	<input checked="" type="checkbox"/>	OFF	OFF	OFF	45 69
Building G - Classroom	F/CU-2	Active	68 °F	68	63 °F	<input checked="" type="checkbox"/>	ON	OFF	OFF	45 -17
Building G - Computer Lab	F/CU-3	Active	68 °F	67	59 °F	<input checked="" type="checkbox"/>	OFF	OFF	OFF	61 103
Building J - Band Room	F-4	Active	69 °F	68	67 °F	<input checked="" type="checkbox"/>	ON	N/A	OFF	64 94
Building J - Band Room	F-5	Active	72 °F	68	68 °F	<input checked="" type="checkbox"/>	ON	N/A	OFF	68 107
Building J - Band Room Office	F-6	Active	71 °F	68	68 °F	<input checked="" type="checkbox"/>	ON	N/A	OFF	68 98

Building J - Band Storage 74 °F

San Rafael High School Gym Summary



wednesday, 7/22/2003 6:29:11AM

OSA Temp: 61.2 °F

Serving	Zone	Command	Space Temp	Setpoint	SA Temp	Filter/Alarm	Fan	Htg	Temp Attained
Building P - Weight Room	HV-P1	Active	71 °F	68	60 °F	<input checked="" type="checkbox"/>	OFF	OFF	70 92
VR	HV-P2	NR	NR °F	NR	NR °F	<input checked="" type="checkbox"/>	NR	NR	NR NR
Building P - East Classroom	HV-P3	Active	70 °F	68	64 °F	<input checked="" type="checkbox"/>	OFF	OFF	62 95
Building P - Classroom	HV-P4	Active	72 °F	73	73 °F	<input checked="" type="checkbox"/>	ON	ON	75 73
Building P - Girl's Locker Room	HV-P5	Active	69 °F	72	66 °F	<input checked="" type="checkbox"/>	OFF	ON	64 66
Building P - Small Gym	HV-P6	Active	65 °F	72	52 °F	<input checked="" type="checkbox"/>	OFF	ON	62 52
Building P Team Room	HV-P7	Active	62 °F	67	54 °F	<input checked="" type="checkbox"/>	OFF	ON	53 54
Building P - Boy's Locker Room	HV-P8	Active	70 °F	72	61 °F	<input checked="" type="checkbox"/>	ON	ON	66 70
Building P - BLRoom Office	HV-P9	Active	71 °F	72	72 °F	<input checked="" type="checkbox"/>	OFF	OFF	62 79
Building P - Dance Studio	HV-P10	Active	66 °F	68	66 °F	<input checked="" type="checkbox"/>	OFF	ON	60 64
Building P - Big Gym	HV-P11	Active	71 °F	72	68 °F	<input checked="" type="checkbox"/>	OFF	OFF	72 74
Building P - Big Gym	HV-P12	Active	70 °F	72	90 °F	<input checked="" type="checkbox"/>	ON	ON	64 90
VR	HV-P13	NR	NR °F	NR	NR °F	<input checked="" type="checkbox"/>	NR	NR	NR NR

-Gym 2

Serving	Zone	Command	Space Temp	Lockout	SA Temp	Lockout	Fan
Building P - Gym 2	HV-P16	Active	62 °F	120	62 °F	<input checked="" type="checkbox"/>	OFF
Building P - Gym 2	HV-P17	Active	0 °F	100	54 °F	<input checked="" type="checkbox"/>	OFF



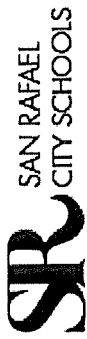
San Rafael High School

Heating Coil Summary

Tuesday, 7/22/2003 6:30:12AM

OSA 60.7 °F

Serving	Unit	Device ID	Status	RM Temp.	Space SPT.	Supply Air	Htg
NR	HC-1	2121	NR	NR °F	NR	NR °F	NR %
NR	HC-2	2122	NR	NR °F	NR	NR °F	NR %
NR	HC-3	2123	NR	NR °F	NR	NR °F	NR %
NR	HC-4	2124	NR	NR °F	NR	NR °F	NR %
NR	HC-5	2125	NR	NR °F	NR	NR °F	NR %
NR	HC-6	2126	NR	NR °F	NR	NR °F	NR %
NR	HC-7	2127	NR	NR °F	NR	NR °F	NR %
NR	HC-8	2128	NR	NR °F	NR	NR °F	NR %
NR	HC-9	2129	NR	NR °F	NR	NR °F	NR %
NR	HC-10	2130	NR	NR °F	NR	NR °F	NR %
NR	HC-11	2131	NR	NR °F	NR	NR °F	NR %
NR	HC-12	2132	NR	NR °F	NR	NR °F	NR %
NR				HC-14 was Abandoned!			
NR	HC-15	2135	NR	NR °F	NR	NR °F	NR %
NR				HC-16 was Abandoned!			



San Rafael High School

Heating Coil Summary

Tuesday, 7/22/2003 6:30:43AM

OSA 60.7 °F

Serving	Unit	Device ID	Status	RM Temp.	Space SPT.	Supply Air	Htg
NR	HC-17	2137	NR	NR °F	NR	NR °F	NR %
NR	HC-18	2138	NR	NR °F	NR	NR °F	NR %
NR	HC-19	2139	NR	NR °F	NR	NR °F	NR %
NR	HC-20	2140	NR	NR °F	NR	NR °F	NR %
NR	HC-21	2141	NR	NR °F	NR	NR °F	NR %
NR	HC-22	2142	NR	NR °F	NR	NR °F	NR %
NR	HC-23	2143	NR	NR °F	NR	NR °F	NR %
NR	HC-24	2144	NR	NR °F	NR	NR °F	NR %
NR	HC-25	2145	NR	NR °F	NR	NR °F	NR %
NR	HC-26	2146	NR	NR °F	NR	NR °F	NR %
NR	HC-27	2147	NR	NR °F	NR	NR °F	NR %
NR	HC-28	2148	NR	NR °F	NR	NR °F	NR %
NR	HC-29	2149	NR	NR °F	NR	NR °F	NR %
NR	HC-30	2150	NR	NR °F	NR	NR °F	NR %
NR	HC-31	2151	NR	NR °F	NR	NR °F	NR %
NR	HC-32	2152	NR	NR °F	NR	NR °F	NR %

San Rafael High School

Heating Coil Summary

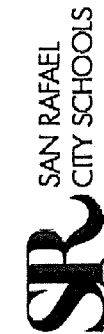


Tuesday, 7/22/2003 6:31:25AM

OSA 60.7 °F

<<

Serving	Unit	Device ID	Status	RM Temp.	Space SPT.	Supply Air	Hfg
NR	HC-33	2153	NR	NR °F	NR	NR °F	NR %
			Not Used				
NR	HC-35	2155	NR	NR °F	NR	NR °F	NR %
NR	HC-36	2156	NR	NR °F	NR	NR °F	NR %
NR	HC-37	2157	NR	NR °F	NR	NR °F	NR %
NR	HC-38	2158	NR	NR °F	NR	NR °F	NR %
NR	HC-39	2159	NR	NR °F	NR	NR °F	NR %



San Rafael High School Hot Water System

Tuesday, 7/22/2003 6:26:57AM

DSA 60.9

- Pump Speed

VFD Manual Speed Select (%)

VFD Manual Speed Select (%)

Highest Heating Signal (%)

(In auto mode, vfd will track highest heating signal)

- Pump Runtime

Lead/Lag Setpoint (Hrs)

Lead Pump is: Pump 2

Pump 1 Runtime (Hrs) 89475

Pump 2 Runtime (Hrs) 89504

HWP-14 Active

HWP-16 Active

HWP-15 Active

Pump Delay Off (Sec)

Hot Water System Scheduled ON

Hot Water System will enable when scheduled AND Outside air is below lockout temp OR during morning warmup

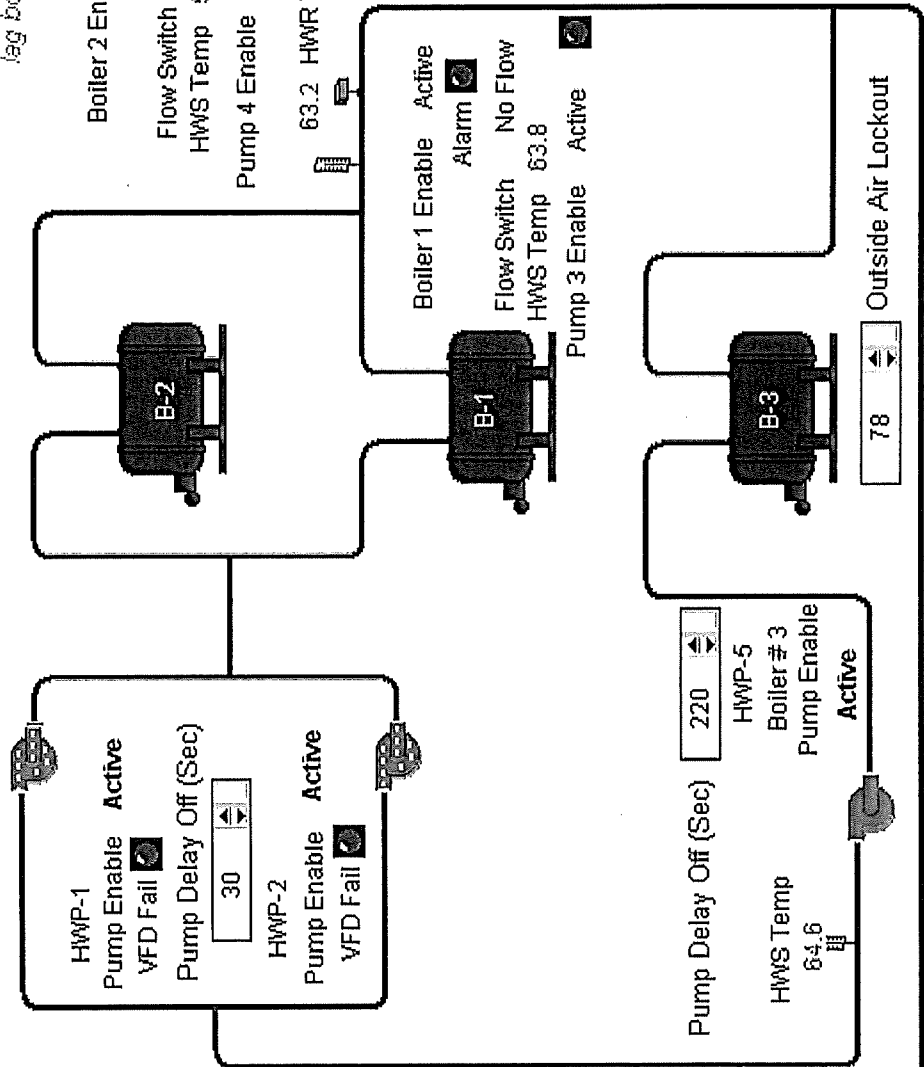
Outside Air Lockout

Hot Water Setpoint

System is: Enabled

Lag Boiler Enabled

If loop temp remains below setpoint after lag boiler delay, 2nd boiler will enable for 1 hour.



Boiler 2 Enable Active

Flow Switch No Flow

HWS Temp 55.6

Pump 4 Enable Active

Boiler 1 Enable Active

Flow Switch No Flow

HWS Temp 63.8

Pump 3 Enable Active

Boiler 3 Enable Active

Flow Switch No Flow

HWS Temp 64.6

Pump 5 Enable Active

Manual Switch for Boiler



San Rafael High School

Science Summary

uesday, 7/22/2003 6:28:30AM

OSA Temp: 61.2 °F

Servng	Zone	Command	Space Temp	Setpoint	SA Temp	Filter/Alarm	Fan	Filtg	Temp Attained
√R	HV-F1	NR	NR °F	NR	NR °F		NR	NR	NR NR
Building F - Classroom SC-105	HV-F2	Active	71 °F	69	69 °F		OFF	OFF	74 82
Building F - Classroom SC-103	HV-F3	Active	70 °F	67	61 °F		OFF	OFF	67 77
√R	HV-F4	NR	NR °F	NR	NR °F		NR	NR	NR NR
√R	HV-F5	NR	NR °F	NR	NR °F		NR	NR	NR NR
Building F - Classroom SC-102	HV-F6	Active	72 °F	73	62 °F		OFF	OFF	63 67
√R	HV-F7	NR	NR °F	NR	NR °F		NR	NR	NR NR
√R	HV-F8	NR	NR °F	NR	NR °F		NR	NR	NR NR



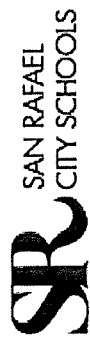
EF-1 Bathroom Exhaust Fan



CEF-6 Storage Exhaust Fan

Sun Valley Elementary School

Unit Summary - Buildings A,B,C

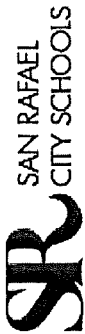


Tuesday, 7/22/2003 6:45:26AM OSA 55.3 °F

Serving	Unit	Device ID	Status	RM Temp.	Space SPT.	Supply Air	Filter/Alarm	Fan Proof	Clg	Htg	Economize
Classroom C9	F-1	1101	Active	67.7 °F	69	62.9 °F	<input checked="" type="checkbox"/>	Inactive	Inactive	Inactive	0 % 0
Classroom C8	F-2	1102	Active	67.6 °F	68	59.4 °F	<input checked="" type="checkbox"/>	Inactive	Inactive	Inactive	0 % 0
Classroom C7	F-3	1103	Active	67.0 °F	68	60.2 °F	<input checked="" type="checkbox"/>	Inactive	Inactive	Inactive	0 % 0
Classroom C6	F-4	1104	Active	67.1 °F	68	60.7 °F	<input checked="" type="checkbox"/>	Inactive	Inactive	Inactive	0 % 0
Classroom B5	F-5	1105	Active	69.5 °F	69	59.2 °F	<input checked="" type="checkbox"/>	Inactive	Inactive	Inactive	0 % 0
Kindergarten B1	F-6	1106	Active	68.9 °F	71	57.0 °F	<input checked="" type="checkbox"/>	Inactive	Inactive	Inactive	0 % 0
Administration - Principal	F-3	1203	Active	71.6 °F	68	60.0 °F	<input checked="" type="checkbox"/>	Inactive	Inactive	Inactive	0 % 0
Classroom A2	F-7	1207	Active	69.6 °F	68	62.5 °F	<input checked="" type="checkbox"/>	Inactive	Inactive	Inactive	0 % 0
Classroom A3	F-8	1208	Active	69.5 °F	69	66.5 °F	<input checked="" type="checkbox"/>	Inactive	Inactive	Inactive	0 % 0
Classroom A4	F-9	1209	Active	68.2 °F	68	63.6 °F	<input checked="" type="checkbox"/>	Inactive	Inactive	Inactive	0 % 0
Library	F-10	1210	Active	68.6 °F	68	55.3 °F	<input checked="" type="checkbox"/>	Inactive	Inactive	Inactive	0 % 0
Computer Lab	F-11	1211	Active	70.9 °F	72	56.1 °F	<input checked="" type="checkbox"/>	Inactive	Inactive	Inactive	0 % 0
Resources	F-12	1212	Active	69.3 °F	65	55.1 °F	<input checked="" type="checkbox"/>	Inactive	Inactive	Inactive	0 % 0

Sun Valley Elementary School

Unit Summary - Building D



OSA 55.4 °F

Tuesday, 7/22/2003 6:46:11AM

<<

Serving	Unit	Device ID	Status	RM Temp.	Space SPT.	Supply Air Filter/Alarm	Fan	Fan Proof	Clg	Hfg	Attains
Classroom 10	HP-1	1301	Active	69.2 °F	70		Active	Inactive	Active	90.3	46.8
Classroom 11	HP-2	1302	Active	68.9 °F	68		Inactive	Inactive	Inactive	97.1	43.2
Classroom 12	HP-3	1303	Active	67.6 °F	68		Inactive	Inactive	Inactive	88.9	46.4
Classroom 13	HP-4	1304	Active	68.2 °F	68		Inactive	Inactive	Inactive	85.4	43.1
Classroom 14	HP-5	1305	Active	67.5 °F	68		Inactive	Inactive	Inactive	86.9	42.2
Classroom 15	HP-6	1306	Active	67.9 °F	68		Inactive	Inactive	Inactive	80.8	44.1
Classroom 16	HP-7	1307	Active	67.6 °F	68		Inactive	Inactive	Inactive	86.3	41.0
Classroom 17	HP-8	1308	Active	70.6 °F	71		Inactive	Inactive	Inactive	89.2	46.5
Classroom 18	HP-9	1309	Active	68.0 °F	69		Inactive	Inactive	Inactive	81.7	43.0
Classroom 19	HP-10	1310	Active	69.6 °F	70		Inactive	Inactive	Inactive	90.1	40.8
Classroom 20	HP-11	1311	Active	68.9 °F	69		Inactive	Inactive	Inactive	87.1	43.8
Classroom 21	HP-12	1312	Active	68.3 °F	68		Inactive	Inactive	Inactive	86.9	57.5
Classroom 22	HP-13	1313	Active	68.9 °F	69		Inactive	Inactive	Inactive	94.5	44.2

Terra Linda High School

Building M Second Floor Summary



wednesday, 7/22/2003 5:51:57AM

OSA Temp: 71.5 °F

Page 2 of 2 <<

Serving	Zone	Command	Space Temp	Setpoint	SA Temp	Filter	Fan	Htg	Ctg	Temp Attained
Terra Linda Classroom 401	F-2-1	Active	72 °F	70	69 °F	☉	OFF	OFF	OFF	84 108
VR	F-2-2	NR	NR °F	NR	NR °F	☉	NR	NR	NR	NR NR
Terra Linda Classroom 405	F-2-3	Active	71 °F	70	72 °F	☉	OFF	OFF	OFF	53 87
Terra Linda Classroom 407	F-2-4	Active	72 °F	70	70 °F	☉	OFF	OFF	OFF	61 111
Terra Linda Classroom 409	F-2-5	Active	72 °F	70	69 °F	☉	OFF	OFF	OFF	52 108
Terra Linda Classroom 411	F-2-6	Active	72 °F	70	69 °F	☉	OFF	OFF	OFF	57 104
Terra Linda Classroom 402	F-2-7	Active	72 °F	70	71 °F	☉	ON	OFF	ON	51 110
Terra Linda Classroom 404	F-2-8	Active	72 °F	70	69 °F	☉	OFF	OFF	OFF	52 110
Terra Linda Classroom 406	F-2-9	Active	73 °F	70	72 °F	☉	OFF	OFF	OFF	55 110
Terra Linda Classroom 408	F-2-10	Active	71 °F	73	70 °F	☉	OFF	OFF	OFF	49 115
Terra Linda Classroom 410	F-2-11	Active	71 °F	70	69 °F	☉	OFF	OFF	OFF	58 103
Terra Linda Classroom 412	F-2-12	Active	73 °F	70	72 °F	☉	OFF	OFF	OFF	47 61
Terra Linda Classroom 54	F-3-1	Active	73 °F	69	73 °F	☉	OFF	OFF	OFF	51 97
Terra Linda Classroom 52	F-3-2	Active	72 °F	70	72 °F	☉	OFF	OFF	OFF	54 101
Terra Linda Classroom 50	F-3-3	Active	72 °F	69	70 °F	☉	OFF	OFF	OFF	81 103

Bahia Vista Elementary School

Building B Furnace Summary

resday, 7/22/2003 6:48:06AM

OSA Temp: 0.0 °F

Servicing	Properties	Zone	Command	Space Temp	Setpoint	SA Temp	Fan	Filter	Econ.	Htg	Temp Attained
Classroom 1B18		F-1A	Auto	71.0	72.0	70.0 °F	OFF	<input checked="" type="checkbox"/>	OFF	OFF	77
Classroom 1B19		F-2A	Auto	70.5	60.0	69.9 °F	OFF	<input checked="" type="checkbox"/>	OFF	OFF	78
Classroom 1B20		F-3A	Auto	70.5	61.0	71.2 °F	OFF	<input checked="" type="checkbox"/>	OFF	OFF	79
Classroom 1B21		F-4A	Auto	68.5	68.0	67.0 °F	OFF	<input checked="" type="checkbox"/>	OFF	OFF	77
Classroom 1B22		F-5A	Auto	68.5	60.0	67.0 °F	OFF	<input checked="" type="checkbox"/>	OFF	OFF	80
Classroom 1B23		F-6A	Auto	68.0	60.0	67.1 °F	OFF	<input checked="" type="checkbox"/>	OFF	OFF	78
Classroom 2B14		F-7A	Auto	67.0	70.0	68.2 °F	OFF	<input checked="" type="checkbox"/>	OFF	OFF	78
Classroom 2B13		F-8A	Auto	69.5	60.0	68.5 °F	OFF	<input checked="" type="checkbox"/>	OFF	OFF	78
Classroom 2B12		F-9A	Auto	71.5	71.0	69.4 °F	OFF	<input checked="" type="checkbox"/>	OFF	OFF	79
Classroom 2B11		F-10A	Auto	69.5	68.0	70.0 °F	OFF	<input checked="" type="checkbox"/>	OFF	OFF	81
Classroom 2B15		F-11A	Auto	72.5	67.0	67.6 °F	OFF	<input checked="" type="checkbox"/>	OFF	OFF	80
Classroom 2B16		F-12A	Auto	69.5	70.0	65.9 °F	OFF	<input checked="" type="checkbox"/>	OFF	OFF	80
Classroom 2B17		F-13A	Auto	67.5	72.0	64.9 °F	OFF	<input checked="" type="checkbox"/>	OFF	OFF	81



Bahia Vista Elementary School

Building C Furnace Summary

Main Menu
Previous
Floor Plan

jesday, 7/22/2003 6:50:04AM

OSA Temp: 0.0 °F

Servicing	Properties	Zone	Command	Space Temp	Setpoint	SA Temp	Filter	Fan	Econt.	Htg	Temp Attained
Kindergarten 1C01		F-1C	Auto	69.0	50.0	68.0 °F		ON	OFF	OFF	82 60
Kindergarten 1C14		F-2C	Auto	69.5	70.0	68.1 °F		OFF	OFF	OFF	80 119
Kindergarten 1C07		F-3C	Auto	69.0	75.0	67.6 °F		OFF	OFF	OFF	78 121
NR		F-4C	NR	NR	NR	NR °F		NR	NR	NR	NR NR
Head-Start 1C08		F-5C	Auto	67.5	64.0	68.3 °F		OFF	OFF	OFF	77 119
Even-Start 1C21		F-6C	Auto	69.5	60.0	68.1 °F		OFF	OFF	OFF	80 124
Head-Start 1C12		F-7C	Auto	63.5	74.0	61.8 °F		OFF	OFF	OFF	78 126
Classroom 2C01		F-8C	Auto	70.5	72.0	68.4 °F		OFF	OFF	OFF	63 107
Classroom 2C04		F-9C	Auto	69.0	60.0	67.0 °F		OFF	OFF	OFF	81 106
Classroom 2C02		F-10C	Auto	67.5	60.0	66.2 °F		OFF	OFF	OFF	78 119
Classroom 2C05		F-11C	Auto	71.0	65.0	67.6 °F		OFF	OFF	OFF	82 117
Classroom 2C03		F-12C	Auto	69.5	71.0	68.0 °F		OFF	OFF	OFF	78 114
Classroom 2C06		F-13C	Auto	69.5	71.0	67.7 °F		OFF	OFF	OFF	75 109
RSP 2C07		F-14C	Auto	71.0	60.0	68.7 °F		OFF	OFF	OFF	82 122

Previous

Schedule Active Auto

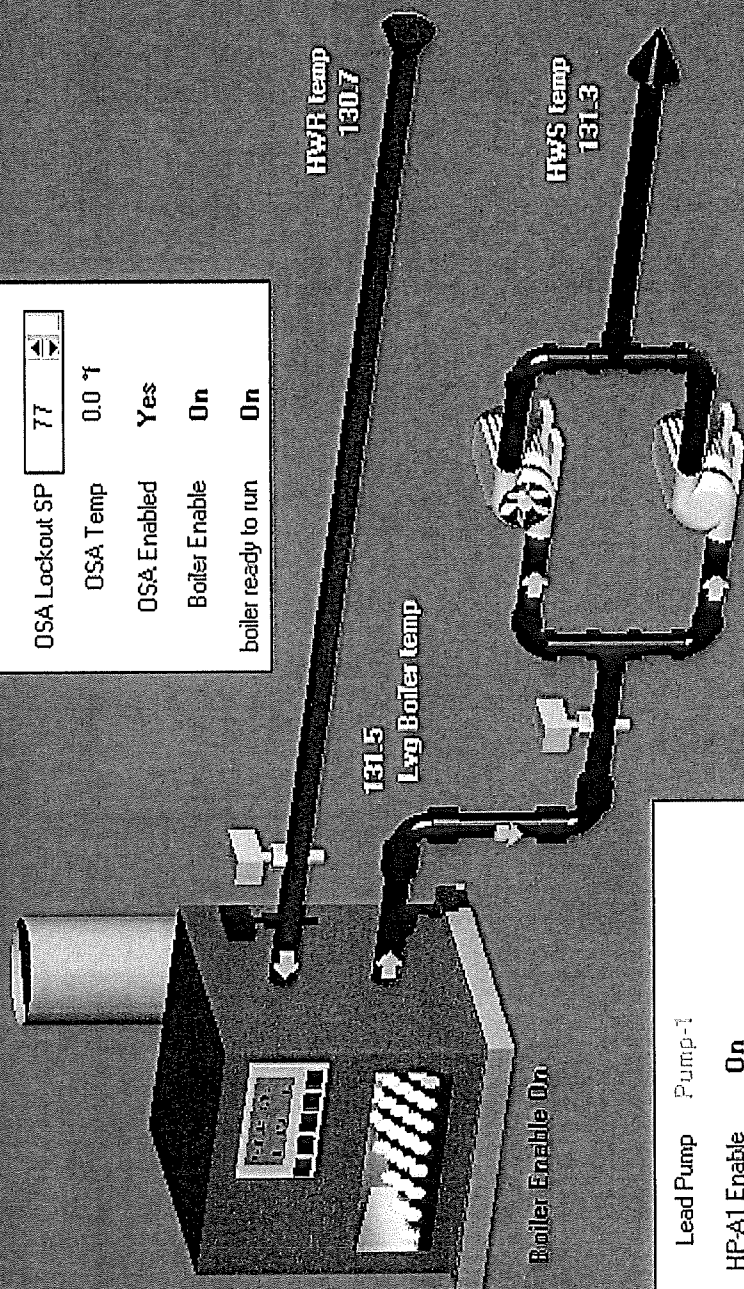
OSA Lockout SP

OSA Temp

OSA Enabled Yes

Boiler Enable On

boiler ready to run On



Lead Pump Pump-1

HP-A1 Enable On

HP-A1 proof 50.9 gpm

HP-A2 Enable Off

HP-A2 proof 1.1 gpm

Low OSA sp HHW temp SP

High OSA sp

max HW temp 3-way valve

min HW temp

Bahia Vista Elementary School

VAV Summary 1st floor

Main Menu [More >>](#)
 Previous [Floor Plan](#)

Wednesday, 7/22/2003 6:50:33AM

OSA Temp: 0.0 °F

Location	Unit	Status	Setpoint	Space Temp.	Current CFM	Desired CFM	SA Temp.	HWV %
Office 1B12	VAV 1-1	Auto	72	68 °F	142	600	73 °F	100 %
Office 1B14	VAV 1-2	Auto	74	71 °F	282	430	74 °F	100 %
Admin 1B01	VAV 1-3	Auto	74	71 °F	465	1600	77 °F	100 %
Office 1B05	VAV 1-4	Auto	75	72 °F	398	720	75 °F	100 %
Library 1B16	VAV 1-5	Auto	73	69 °F	308	800	74 °F	100 %
Women's RR 1B24	VAV 1-6	Auto	70	68 °F	376	500	71 °F	0 %
Nursing Station 1B09	VAV 1-7	Auto	73	72 °F	114	220	73 °F	0 %
Principal's Office 1B03	VAV 1-8	Auto	74	69 °F	196	300	79 °F	100 %
Conf. Room 1B02	VAV 1-9	Auto	70	70 °F	89	500	71 °F	0 %



Bahia Vista Elementary School

VAV Summary 2nd floor

wednesday, 7/22/2003 6:51:08AM

OSA Temp: 0.0 °F

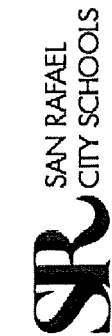
Location	DI #	Unit	Status	Setpoint	Space Temp.	Current CFM	Desired CFM	SA Temp.	HWV %
Computer Room 2B08	DI # 6128	VAV 2-1	Auto	73	71 °F	235	783	69 °F	67 %
Lounge 2B05	DI # 6129	VAV 2-2	Auto	72	72 °F	283	600	73 °F	0 %
Workroom 2B04	DI # 6130	VAV 2-3	Auto	74	73 °F	310	750	76 °F	0 %
Conference 2B01	DI # 6131	VAV 2-4	Auto	66	68 °F	308	750	77 °F	0 %
Office 2B02	DI # 6132	VAV 2-5	Auto	72	73 °F	125	750	73 °F	0 %
Office 2B03	DI # 6133	VAV 2-6	Auto	72	73 °F	248	750	73 °F	0 %
Women's RR 2B20	DI # 6134	VAV 2-7	Auto	70	69 °F	556	750	72 °F	0 %

Davidson Middle School Air Handler Summary

Tuesday, 7/22/2003 6:40:10AM

OSA Temp: 56.7 °F

Serving	Device ID	Zone	Command	SA Temp	Filter/Alarm	Fan	Econ
AHU-1	5109	AH-1	Active	71.8 °F	<input checked="" type="checkbox"/>	ON	0 6 Op



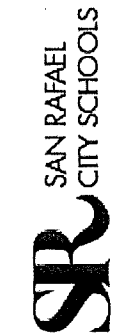
Davidson Middle School

Furnace Summary

wednesday, 7/22/2003 6:42:58AM

OSA Temp: 57.3 °F

Setting	Zone	Command	Space Temp	Setpoint	SA Temp	Filter/Alarm	Fan	Htg	Temp Attained
* no entry *	F-7	* no entry *	* no °F	no entry	* no °F	<input checked="" type="checkbox"/>	* no	* no	* no
Room 30	F-1	Active	70 °F	68	69 °F	<input checked="" type="checkbox"/>	OFF	OFF	67 116
Room 31	F-2	Active	73 °F	73	76 °F	<input checked="" type="checkbox"/>	OFF	OFF	62 117
Room 32	F-3	Active	70 °F	68	68 °F	<input checked="" type="checkbox"/>	OFF	OFF	66 126
* no entry *	F-4	* no entry *	* no °F	no entry	* no °F	<input checked="" type="checkbox"/>	* no	* no	* no
Room 34	F-5	Inactive	69 °F	68	66 °F	<input checked="" type="checkbox"/>	OFF	OFF	77 116
* no entry *	F-6	* no entry *	* no °F	no entry	* no °F	<input checked="" type="checkbox"/>	* no	* no	* no



Davidson Middle School Heating Hot Water System

Tuesday, 7/22/2003 6:43:46AM

OSA Temp: 57.4 °F

Properties **Schedule**

5110

Servicing	Device ID	Boiler	Status	HWP	Cmd	C Sw	Spt Auto	Spt Manual	Spt Current	HWS Temp	HWR Temp	Mixer Valve
-----------	-----------	--------	--------	-----	-----	------	----------	------------	-------------	----------	----------	-------------

Hot Water System	5110	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	On	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	170.0 °F	177	170.0 °F	142.1 °F	141.3 °F	100.0 %
------------------	------	-------------------------------------	-------------------------------------	----	-------------------------------------	-------------------------------------	----------	-----	----------	----------	----------	---------

Boiler Control

Force Hot Water System On

Valve Signal

Reverse Hot Water Valve Action

OSA Lockout

Man Loop %

100.0 Curr Loop %

Current Lead Hw/P

Manual Lead Hw/P

Auto Lead Hw/P

Pump Xover His

Pump Shutoff Delay (min)

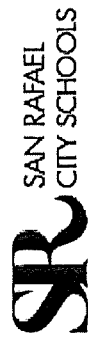
Pump Alarm 1

Pump Alarm 2

Reset Alarms

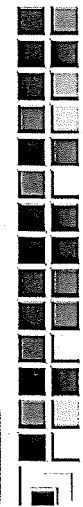
Davidson Middle School

Reheat Coil Summary



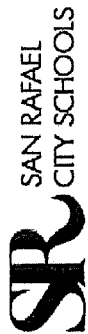
Tuesday, 7/22/2003 6:41:37AM OSA 57.2 °F

Serving	Unit	Device ID	Status	RM Temp.	Space SPT.	Supply Air	Htg	Rev Action
Reception A-01	RHC-1	5101	Active	70.2 °F	68	71.9 °F	0 %	┐
Principal A-08	RHC-2	5102	Active	70.2 °F	70	71.9 °F	0 %	┐
Teachers Lounge A-25	RHC-3	5103	Active	72.7 °F	70	72.7 °F	0 %	┐
Conference Room A-10	RHC-4	5104	Active	73.0 °F	67	86.7 °F	0 %	┐
Attendance A-02	RHC-5	5105	Active	70.8 °F	68	71.7 °F	0 %	┐
Counseling A-19	RHC-6	5106	Active	69.0 °F	65	71.9 °F	0 %	┐
Suspension A-22	RHC-7	5107	Active	69.9 °F	69	71.7 °F	0 %	┐
Classroom A-24	RHC-8	5108	Inactive	72.1 °F	67	80.5 °F	0 %	┐



Glenwood Elementary School

Building G Summary



wednesday, 7/22/2003 6:38:04AM

OSA Temp: 62.7 °F

Page 1 of 1 <<

Serving	Zone	Command	Space Temp	Setpoint	SA Temp	Filter/Alarm	Fan	Htg	Econ.	%	NR	Temp	Alttime
NR	F-1	NR	NR °F	NR	NR °F	<input checked="" type="checkbox"/>	NR	NR	NR	%	NR	NR	NR
Glenwood Classroom 18	F-2	Active	70 °F	72	69 °F	<input checked="" type="checkbox"/>	ON	OFF	20	%	71	108	
Glenwood Classroom 17	F-3	Active	69 °F	66	68 °F	<input checked="" type="checkbox"/>	OFF	OFF	0	%	69	140	
Glenwood Classroom 16	F-4	Active	71 °F	72	88 °F	<input checked="" type="checkbox"/>	OFF	OFF	0	%	65	125	
Glenwood Classroom 15	F-5	Active	71 °F	66	68 °F	<input checked="" type="checkbox"/>	OFF	OFF	0	%	68	123	
Glenwood Classroom 14	F-6	Active	69 °F	67	67 °F	<input checked="" type="checkbox"/>	OFF	OFF	0	%	64	108	
Glenwood Sci/Art 20	F-8	Active	69 °F	70	83 °F	<input checked="" type="checkbox"/>	OFF	OFF	0	%	0	126	
Glenwood Classroom HO3	F-9	Active	69 °F	73	66 °F	<input checked="" type="checkbox"/>	OFF	OFF	0	%	60	104	



San Rafael High School

Air Handler Summary

July 7/22/2003 6:01:59AM

OSA Temp: 56.3 °F

Page 1 of 1

Serving	Device ID	Zone	Command	SA Temp	Filter/Alarm	Fan	Htg	Econ
Air Handler 1	2120	AC-1A	Active	52.5 °F	<input checked="" type="checkbox"/>	ON	100 %	25 % Op

San Rafael High School

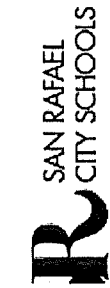
FC/HP Summary



wednesday, 7/22/2003 6:26:22AM

OSA Temp: 60.9 °F

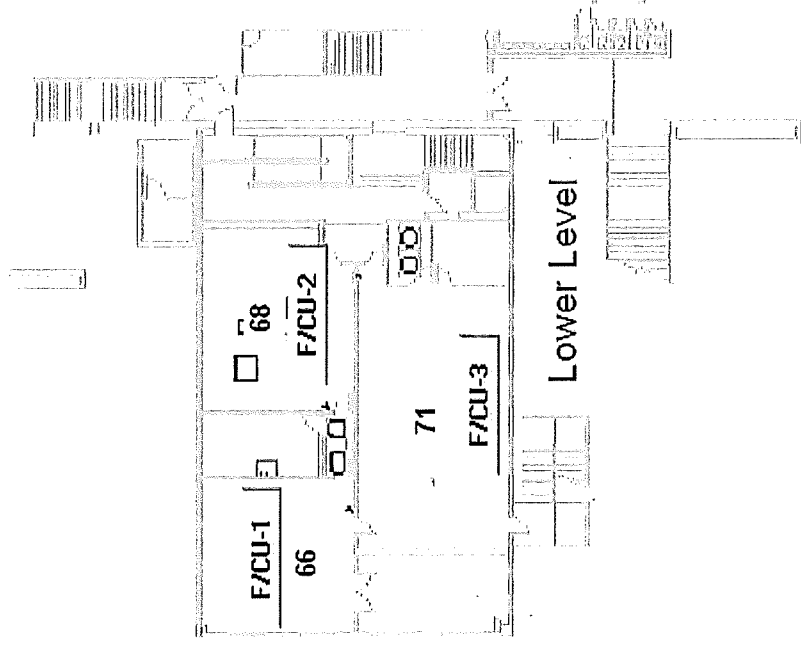
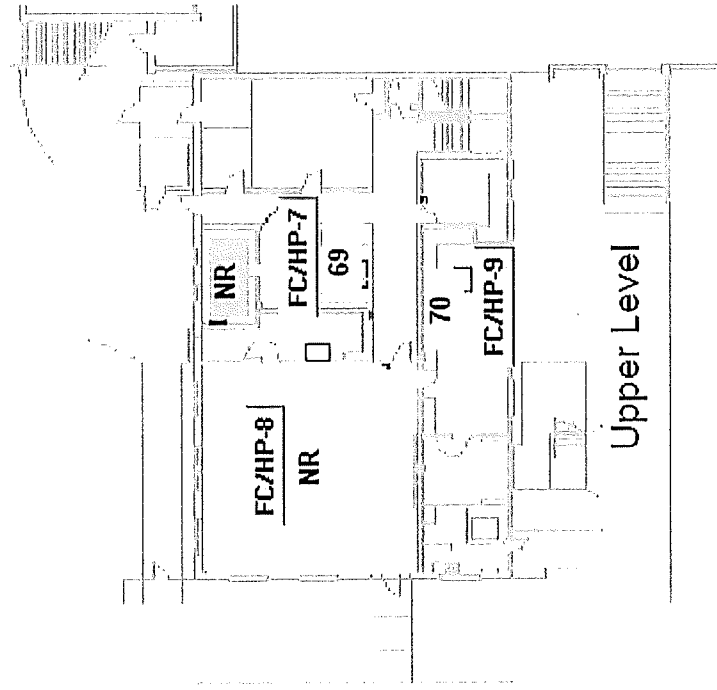
Serving	Zone	Command	Space Temp	Setpoint	SA Temp	Filter/Alarm	Fan	Comp	RV Mode	Temp Attained
_library	FC/HP-1	Active	71 °F	70	73 °F	<input checked="" type="checkbox"/>	ON	OFF	Cooling	48 78
_library	FC/HP-2	Active	71 °F	70	72 °F	<input checked="" type="checkbox"/>	OFF	OFF	Cooling	74 72
_library	FC/HP-3	Active	71 °F	70	73 °F	<input checked="" type="checkbox"/>	OFF	OFF	Cooling	54 85
_library	FC/HP-4	Active	71 °F	70	71 °F	<input checked="" type="checkbox"/>	OFF	OFF	Cooling	52 95
_library Workroom	FC/HP-5	Active	72 °F	68	58 °F	<input checked="" type="checkbox"/>	ON	ON	Cooling	58 77
Building LA- 213	FC/HP-7	Active	67 °F	70	68 °F	<input checked="" type="checkbox"/>	N/A	OFF	Heating	74 66
NR	FC/HP-8	NR	NR °F	NR	NR °F	<input checked="" type="checkbox"/>	NR	NR	Heating	NR NR
Building G - Office	FC/HP-9	Active	69 °F	67	70 °F	<input checked="" type="checkbox"/>	OFF	OFF	Cooling	48 93
Building G - Office			NR °F							



San Rafael High School Building G

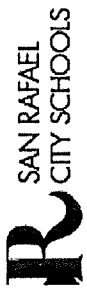
av. 7/21/2003 7:41:24AM

OSA 63.6 °F



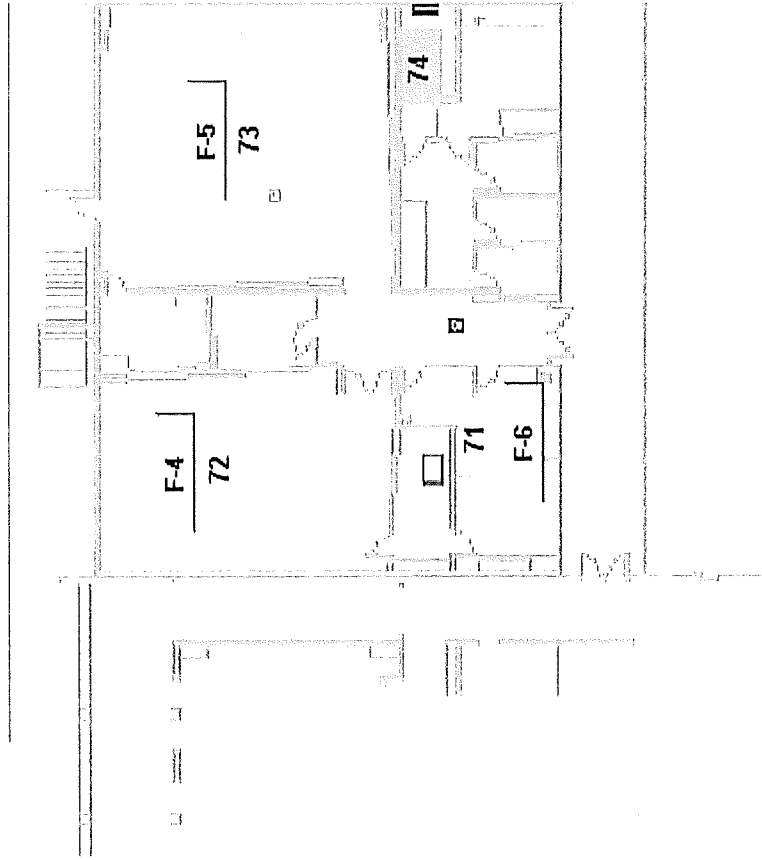
San Rafael High School Building J - Band Room

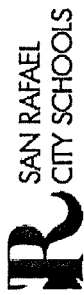
Main Menu
Previous



July 7/21/2003 7:41:49AM

OSA 63.6 °F



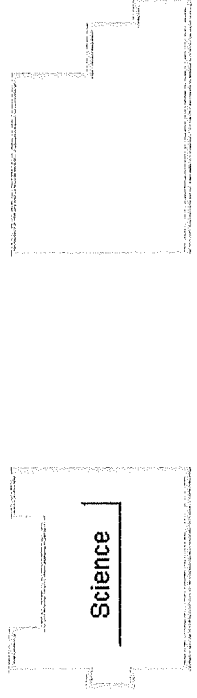
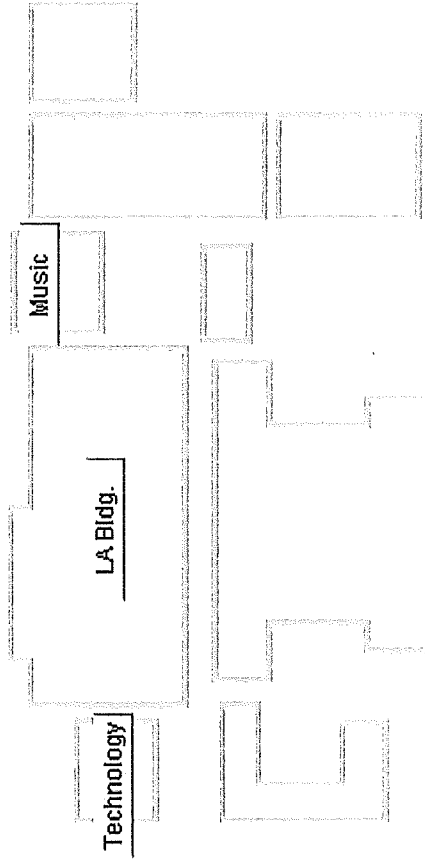
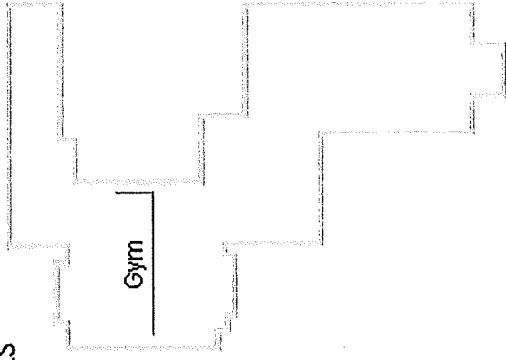


San Rafael High School Campus Map

Monday, 7/21/2003 7:42:12AM

OSA 63.6 °F

[Main Me](#)
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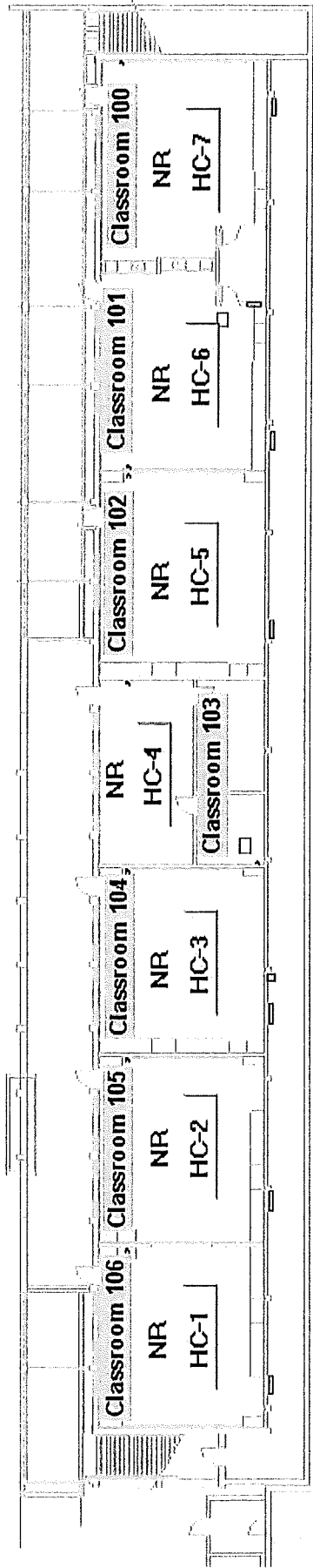


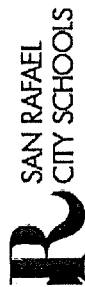
San Rafael High School Building LA - Lower Level



July 7/21/2003 7:39:36AM

OSA 64.0 °F

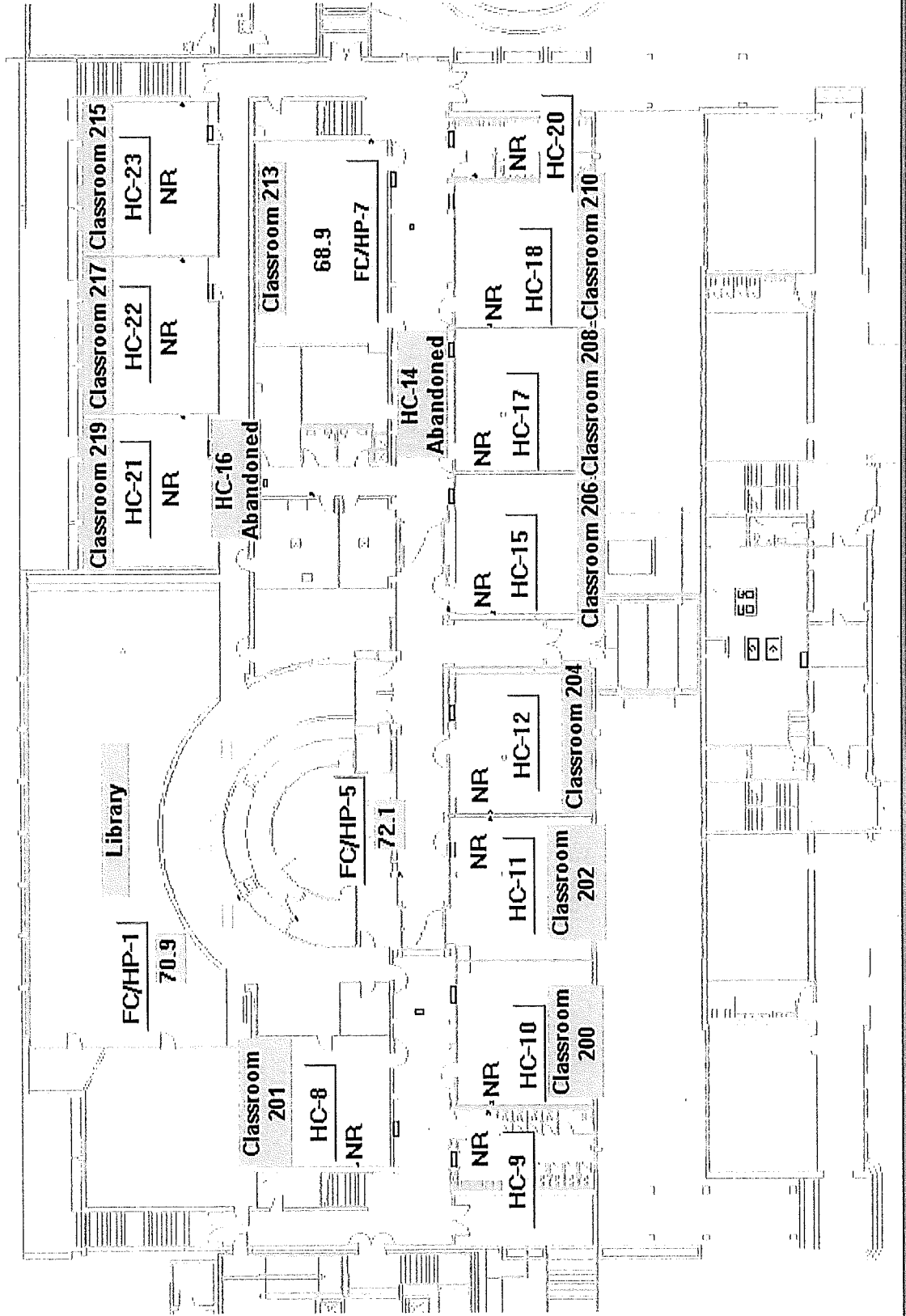


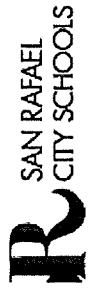


San Rafael High School Building LA - Main Level

ay. 7/21/2003 7:41:06AM

OSA 63.6 °F



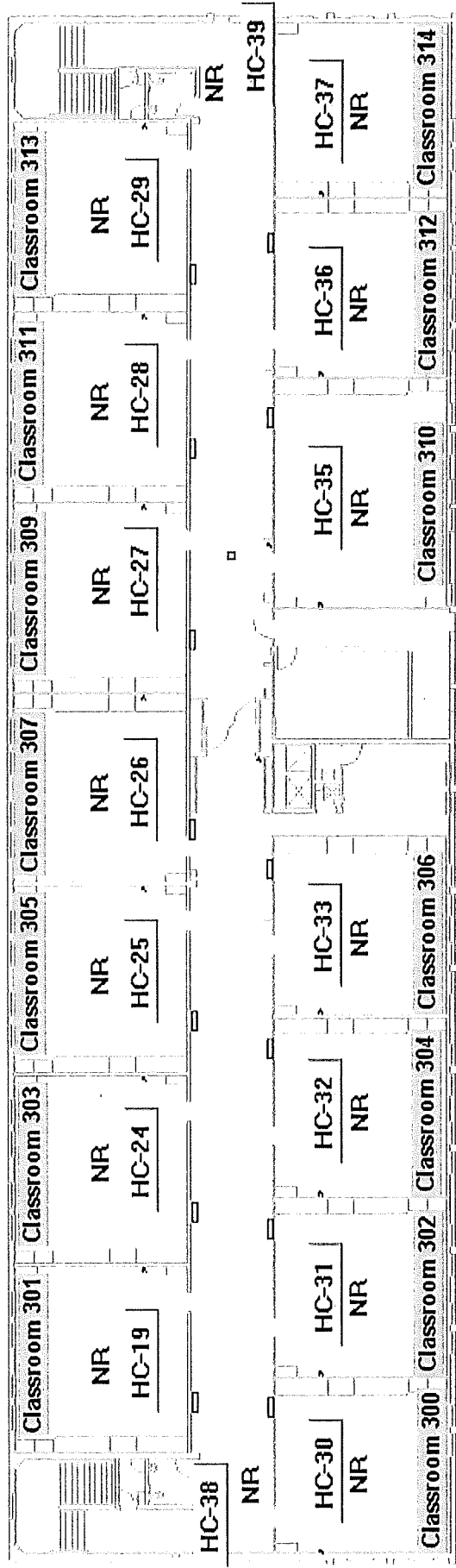


San Rafael High School Building LA - Upper Level

ay, 7/21/2003 7:40:43AM

OSA 63.6 °F

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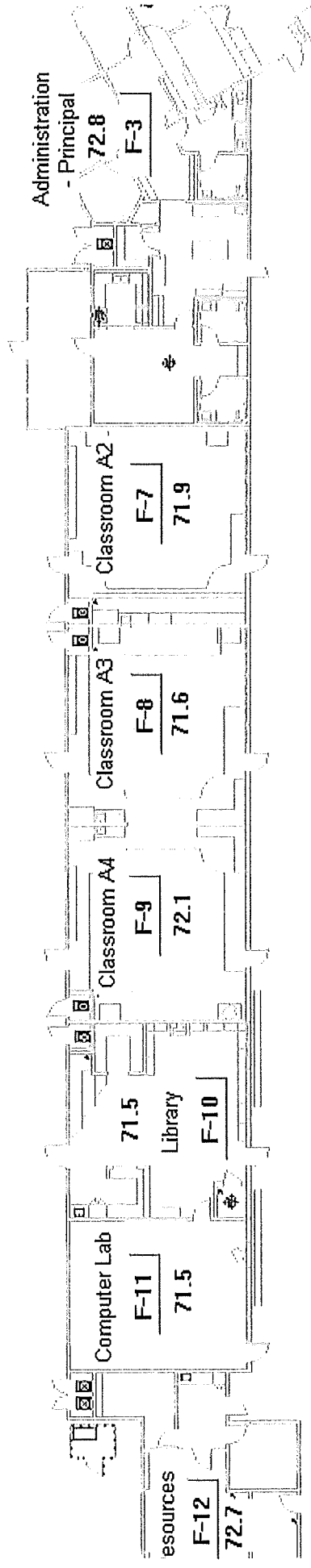


Sun Valley Elementary School

Building A Floor Plan



lay. 7/21/2003 10:46:34AM OSA 65.9 °F

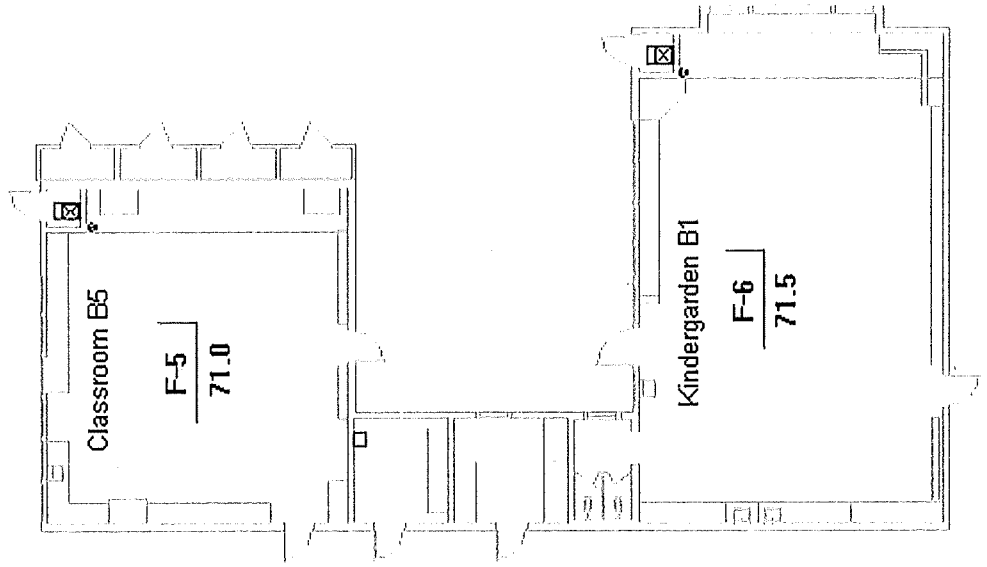


Sun Valley Elementary School

Building B Floor Plan

ay. 7/21/2003 10:47:02AM

OSA 65.9 °F

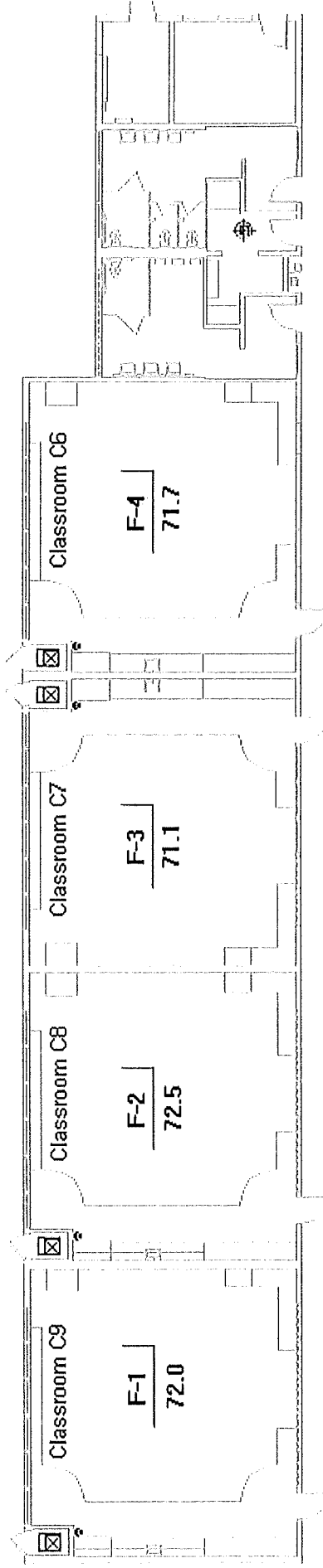


Sun Valley Elementary School

Building C Floor Plan

07/21/2003 10:47:27AM

OSA 65.9 °F



Sun Valley Elementary School

Building D Floor Plan

May 7/21/2003 10:47:42AM

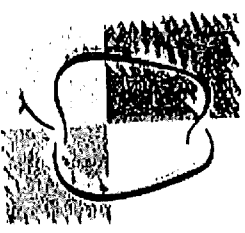
OSA 65.9 °F

Second Floor

Classroom 16 HP-7 70.1	Classroom 17 HP-8 70.9	Classroom 18 HP-9 70.8	Classroom 19 HP-10 71.5	Classroom 20 HP-11 70.8	Classroom 21 HP-12 70.9	Classroom 22 HP-13 70.9
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First Floor

Classroom 15 HP-6 70.2	Classroom 14 HP-5 69.5	Classroom 13 HP-4 70.1	Classroom 12 HP-3 70.2	Classroom 11 HP-2 69.5	Classroom 10 HP-1 71.5
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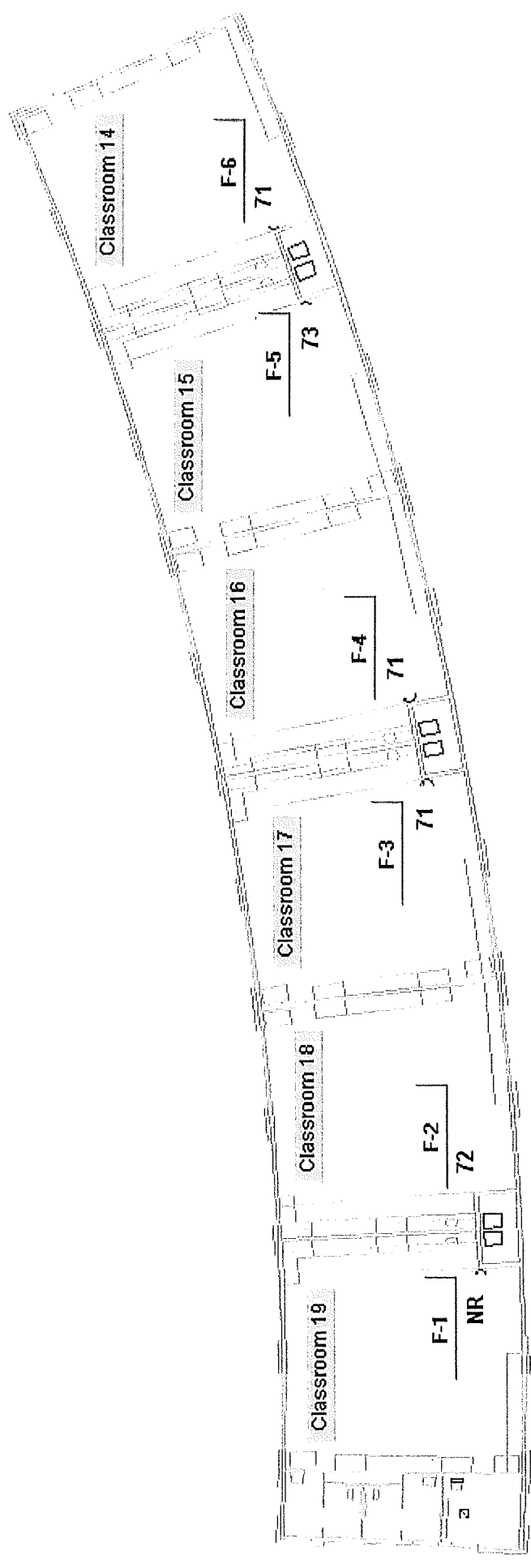


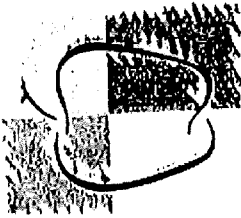
Glenwood Elementary School Building G Floor Plan

Monday, 7/21/2003 12:47:03PM

OSA Temp: 67.9 °F

Main Me
Previoi





Glenwood Elementary School Building H Floor Plan

Monday, 7/21/2003 12:45:49PM

OSA Temp: 67.8 °F

Main Me
Previous

