ELEMENTARY SCHOOL INSTRUCTIONAL FORM

Area Custodial and Mechanical
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I. PROGRAM PHILOSOPHY

Refer to overall philosophy.

II. PROGRAM GOALS

See District's Goals

III. PROGRAM ACTIVITIES

Provide for a safe, clean, school facility and grounds.

IV. ORGANIZATIONAL NOMENCLATURE

Teacher-Student Ratio N/A Student Capacity Per Period N/A

Total No. of Custodians: Plant Manager. Other custodians will be Determined via County formula.

Total No. of Aides N/A Grade Levels or Age Levels for Which Program is Intended N/A

Hours Per Day Space Will Be Used N/A

V. INNOVATIONS, EXPERIMENTAL IDEAS, OTHER PLANNED USES

Custodial Storage/Service Closets

2 – (1299) = 2598

VI. SQUARE FOOTAGE CHANGES

Sixty (60 NSF) of custodial will be used for toilet space.

VII. SPECIAL CONSIDERATIONS

(1) Heating/Cooling/Ventilation

Only the central custodial receiving needs to be climatically controlled.

(2) Acoustical

Provide sufficient acoustical insulation in noisy equipment rooms to preclude distraction in other areas.

(3) Floor

1. Finished concrete in central receiving, custodial closets and equipment storage

(4) Walls

Central receiving to have standard finish.

(5) Ceiling

Finished with appropriate materials.

(6) Lighting

Standard fluorescent.

(7) Windows

N/A

(8) Doors

1. All doors to custodial areas to be appropriately marked "custodian".
2. All outside doors should be of substantial metal construction.

(9) Water

1. Hot and cold water in all slop sinks in each custodial area within the building. Slop sinks shall be provided with mixing faucets having hose bibs.

(10) Communications

1. A telephone should be provided in the central receiving area's office.

2. Two-way intercom in central receiving area.

(11) Electrical

1. No convenience outlets are necessary in any custodial service closet nor outside flammable storage. In the central custodial receiving and office area one 110 duplex outlet shall be located 40" above floor level and a maximum distance of 4' of the entrance door from the building interior. A second 110 duplex outlet at the same height above the floor shall be located on the opposite wall.

(12) Gas and Air

N/A

(13) Safety

N/A

(14) Fencing

N/A

(15) Service Drives

1. Service drive should lead to central storage.

2. A paved well drained service road, separate and apart from any other vehicular traffic and/or parking, shall be provided for food service and custodial receiving.

(16) Parking

N/A

(17) Built-ins

A. Built-in work counter

One 24" deep by 6' workbench 40" AFF

B. Built-in cabinets/shelving

Cabinets:

1. Custodial office – one cabinet divided into 8 compartments each 10" w x 6" h x 12" d.
2. Central/receiving and storage – one cabinet, base, closed, fixed, heavy duty shelves with lock, 36" h x 36" d (50 linear feet); one cabinet for tool storage, closed, fixed, heavy duty shelves with lock (10 linear feet).

Shelving:

1. Custodial office and workroom – shelves, base, open, fixed, adjustable, 24" w x 23" d (15 linear feet)
2. Custodial service closets (6) – shelving, floor to ceiling, 18" d, adjustable, in 5' sections (30 linear feet).
3. Central receiving and storage – shelving, 30"d, ceiling to floor, adjustable in 12' sections (50 linear feet) shelving 24" d, ceiling to floor, adjustable in 10' sections (50 linear feet); rack for storing two 55 gallon drums.
4. Isolated storage – 1' x 12' shelving on 18" centers over on wall.

(18) Other Considerations

None

GENERAL CONSIDERATIONS

Acoustics –

1. Provide sufficient acoustical insulation in noisy equipment rooms to preclude distraction in other areas.

2. Site should be free of as much community noise as possible.

3. Shrubbery and gardens should be planned as area sound barriers.

4. Carpet all classrooms.

Aesthetics –

1. Preserve trees and natural growth wherever possible.

2. Provide soil conducive to grass and shrubbery growth.

3. Select exterior colors which are compatible with surfaces not requiring paint.

BUILDING FINISHES:

Ceilings –

1. Acoustical ceilings should be of suspended type coordinated with lighting and climatic control systems.

2. Suspended ceilings shall allow work space for wiring, ducts, etc.

3. Provide solid impervious ceilings in toilet rooms.

4. 2 x 2 tiles.

Doorways –

1. Geotile walk-off mats inside doorways (4 x10)

2. All outside doors should be of substantial metal construction with tempered glass, approximately three quarters of door area.

3. Building shall be area master keyed with grand-master provided.

4. All classroom doors where provided shall have a tempered glass pane.

5. Double door entried have removable mullions with key.

Lighting –

1. Windows should be tinted and serve only the purposes of emergency ventilation. Thermal windows should be considered.

2. Classroom artificial lighting will meet FAC 61-1.65 requirements.

3. Use next generation energy saving bulbs and ballast's.

Floors –

1. Do not use carpeting in wet areas (fast food or wherever water is predominant).

2. Anti-static carpet used in classroom.

3. Carpet, III in quality.

Area Custodial and Mechanical

Restrooms –

1. Install floor/wall mounted commodes and urinals for ease of cleaning.

2. Provide tamper proof hose bibbs in all gang toilet rooms.

3. Provide floor drains in all gang toilet rooms.

4. Consider recessing all plumbing fixtures (flush valves, soap dispensers, etc.) behind wall exposing handles only and with ample plate size for servicing. Consider cycle flushing of urinals. Use high quality epoxy up walls to 5'.

5. Use epoxy type grout between tiles on walls and floors. Ceramic tile shall have a minimum height of 72".

6. Partition installation shall have tamper proof fasteners and shall be indestructible and impervious to soil and water. Any locks should be indestructible and foolproof.

7. The use of automatic tank type flushing mechanism for commodes is discouraged in student used areas.

8. Hot water does not have to be provided to student rest rooms.

9. Staff restrooms are to be located as follows: Two (2) in Media (60 NSF), Two in Teacher Lounge/dining (60 NSF), Two in Administration (60 NSF) and Two in sixth grade (60NSF) house, Two in seventh grade house (60 NSF), Two in eight grade house (60 NSF). Restrooms should be 30 NSF, not to exceed facilities list total of 383 NSF.

10. Student restrooms are to be located conveniently through out the building and handicapped accessible.

ELECTRICAL SERVICE:

1. Care should be exercised to keep electrical service panels well separated from boiler.

2. All areas should be served by sufficient electrical outlets, to allow service with no multiple connections. Outlets throughout shall be mounted at standard code height above the floor unless otherwise specified, i.e., floor outlets, hanging outlets, MATV outlets, at 80" A.F.F."

3. All outlets should be bonded duplex type each 20 linear feet unless stated otherwise in specific areas.

4. All wall switches throughout shall be mounted at a minimum of 60" above floor level adjacent to entrance.

5. Consider the standardization on lighting fixtures and lamps.

6. Install fluorescent lighting fixtures with sufficient air space above and to the side to preclude over-heating. All lighting should be glare reduction type required in current State Department of Education Regulations. Provision should be made to comply with all local, state and fire regulations. In all lighted areas (particularly in high ceiling areas) consideration should be given to the ease of relamping.

7. Provide separate circuits for all hall and exterior convenience outlets and locate every fifty feet.

8. Leave at least 25% excess capacity for electricity, fire alarm and intercom.

9. Provide service disconnects within five feet of powered equipment such as large motors, air conditioning units, and other building mechanical equipment.

10. Consider the use of mercury vapor, metal halid, or high pressure sodium lighting for more efficient use of energy.

11. Consider timer switches for control of exterior security lights and fluorescent tubes not harmful to occupants.

12. Wherever mid-room electrical outlets are needed, they should, when practical, be suspended from the ceiling rather than come through the floor.

13. Do not locate master switches and main service disconnect in a classroom or area subject to student traffic or unauthorized personnel.

14. Do not use aluminum wire as substitute for copper in any circuit.

15. Do not provide electrical convenience outlets in student toilet rooms. Wherever convenience outlets are used they must be ground-fault.

16. Use GFCI breakers instead of GFCI receptacles.

MECHANICAL SERVICES

Climate Control –

1. All areas shall be made to permit zoning of large air conditioned areas with temperature control of individual zones.

2. Provide sufficient space around air handling units and air conditioning equipment for the removal of and servicing, filters, motors, fans, etc. Lighting will be provided where necessary to service equipment.

3. Consider conspicuous audible or visible devices to warn of irregularities in the operation of mechanical systems.

4. Provide shut off valves both on supply and return of chilled and hot water coils and components. All such piping should have arrows indicating direction of flow, and color coded.

5. Install gate valves or at least plugs or caps that can be opened to flush strainers in chilled water systems without removing insulation from around

6. Boiler emergency shut down switch should be separately mounted, and located immediately inside doorway.

7. Appropriate operable windows shall be provided in each classroom for supplementary ventilation. Ground level windows should be located in such a manner as to discourage illegal entry.

8. Use same size AC filters through out the school.

ROOFING AND RELATED:

1. Design built-up roofs with slope (min. _":12") to preclude standing water.

2. Design and install gravel stops to preclude the leaking of tar into the fascia and ground.

3. Provide sufficient gutter and/or downspouts to preclude significant water overflow onto exterior walls or walkways.

4. Provide sufficient overlap on expansion joints to preclude roof leaks.

5. Provide splash blocks at base of downspouts and sufficient drainage to preclude standing water.

6. Roofs: adequate reinforcement for on roof installation of equipment.

7. Roof openings, hatches, and etc. to be a minimum of 12 inches for flashing, but in all cases at least 6 inches above overflow scuppers.

8. Exposing critical adjustments, controls, or fittings for mechanical equipment on roof units is discouraged.

9. Provide ample and effective expansion joints.
10. Have wide awning at the Administration entrance.

SERVICE

Access –

1. Pave all drives not less than twenty (20) feet in width for one way traffic. Entrance and exit points to school site should be a minimum radius of interedge of driveway, pavement of one hundred (100) feet. Within the school site there should be minimum radius of interedge of driveway pavement of sixty (60) feet on service driveways and forty (40) feet on public driveway.

2. Plan driveways which do not circle the school facility and which allow driver proper site distance at all points.

3. Coordinate the installation of permanent signs which are Department of Transportation approved with the Pasco County Schools Maintenance Operations and Transportation Departments.

4. Provide ramps for wheelchairs in areas requiring elevation.

5. The service drive shall be designed to provide school bus loading and unloading. If a separate entrance and exit for the service drive cannot be provided, a turning circle having a minimum inside radius of 60' must be provided to accommodate school buses. The service drive may not divide athletic areas or access to the athletic areas from the buildings. Limited parking for custodial and lunchroom personnel (Max. 12) may be provided off the service drive. A paved area off the service drive should be provided for dumpster bins. The service drive should be designed to provide covered loading and unloading.

6. Provide sight barrier wherever practicable for service drive.

Water –

1. Hot water should be provided in all needed areas except student restrooms.

2. Drinking fountains should be wall mounted and flush with walls. They should not be located at corners in hallways or in congested areas. Ratio of 1 cooler per 60 pupils.

3. Sprinkler system of the "quick coupling type" should be provided with a separate well and pump to sufficiently serve all landscaping needs.

4. Auto shut off sprinkler heads and pumps should be located to prevent access of water in windows, walkways, or hallways.

5. Provision should be made for area cut-off controls of all water systems.

6. Insulate all hot water lines.

OTHER CONSIDERATIONS:

1. Install motor driven equipment in such a manner as to preclude vibrations being transferred to the building structure.

2. Provide appropriate detectors for smoke, fire or heat at strategic points in ducts, concealed equipment spaces, and mechanical equipment rooms.

3. Provide appropriate fan shut down to the fire alarm system.

4. Locate heavy or bulky mechanical equipment to facilitate complete removal for replacement.

5. Provisions for storage in electrical or mechanical rooms should not be included.

6. Installation of equipment in such a manner that requires ladders or scaffolds to oil or change belts on filters is discouraged.

7. Locate fire extinguishers for mechanical equipment rooms adjacent to entrance. ABC fire extinguishers should be used throughout except where another type is specified.

8. Provide ample indoor walk off mats for walking off dirt and sand at all entrances to building.

9. Provide tamper proof hose bibbs and electrical fittings and fixtures on building exterior.

10. Provide panic hardware on exterior doors that is tamper proof to preclude the use of chains and locks.

11. Doors to have canopy or design to block the effects of the elements wherever necessary.

12. Do not install decorative concrete or metal details on building exterior to encourage climbing.

13. Care should be taken not to design building configuration to create hidden alcoves and unique areas conducive to the gathering of vandals and easy access to the roof.

14. Prime consideration shall be given to low maintenance and operational costs.

15. All sub-soil in and around the building complex must be pre-treated for termites.

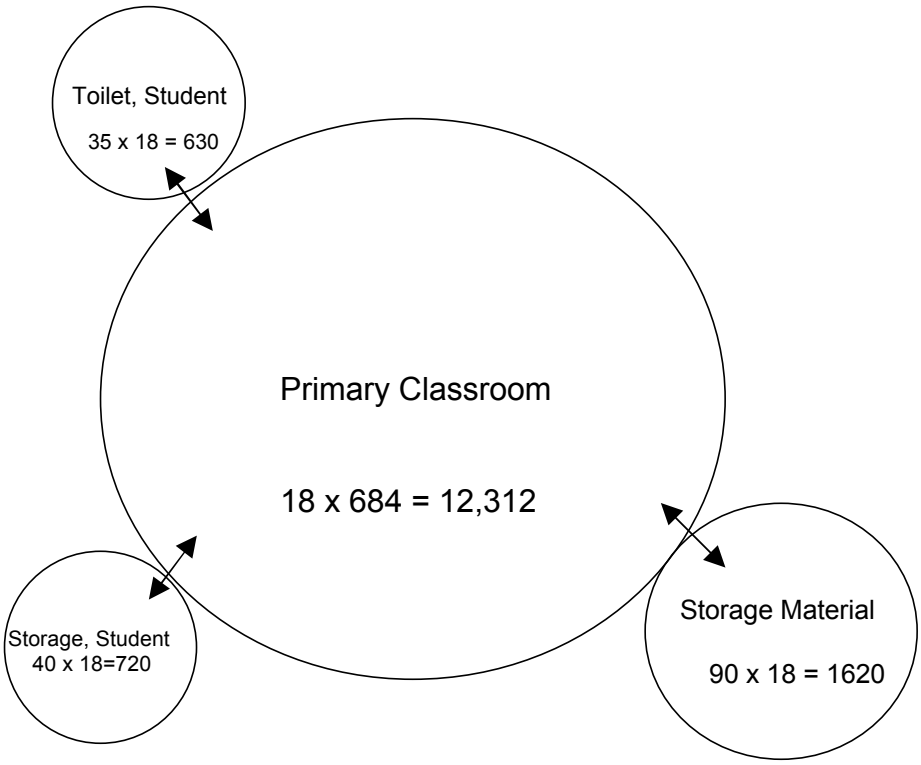
16. Consider solar collectors for hot water, with necessary pumps, tanks and controls.

17. Consider an emergency generator for kitchen, water, lights, lift pump, etc.

18. The architect will master plan for ten (10) future portable classrooms to be placed on the site in the future. Utilities (sewer, water, electric) and all safety features (fire alarm, PA, telephone, MATV, data) will be stubbed out for future hook-up to the portables.

19. Fly fans at all cafeteria entry doors.

CUSTODIAL


Toilet, Student
35 x 18 = 630
Primary Classroom
18 x 684 = 12,312
Storage, Student
40 x 18=720
Storage Material
90 x 18 = 1620