

Corona-Norco Unified School District
Facilities Division
Maintenance and Operations
District Standards

July 1, 2018

Corona-Norco Unified School District

Facilities Division &
Maintenance
District Standards

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GENERAL DESIGN COMMENTS

A. TYPICAL CLASSROOM LAYOUTS:

Portions of typical classroom layout are described in various locations throughout these Standards. Following is a summary of typical classroom layout:

1. **Teaching Walls:**

- i. Three (3) 8' x 4' magnetic sliding marker boards with three track rail, within a 16' wide opening. Provide room within the opening to allow vertical adjustment of the markerboards.
- ii. All markerboards to be setback no further than 4" from leading front edge of the lower teaching wall casework.
- iii. The markerboard in the front track must have a locking device or catch to hold the board steady at the center of the 16' opening.
- iv. Short-throw projector will be mounted on a permanent soffit or cabinet fascia centered on the 16' wide markerboard opening.
- v. Deep open storage behind marker boards
- vi. Deep cabinet storage below marker boards.

2. **Telephones:** Telephone shall be adjacent to the teachers' desk. Refer to Attachment A for desk location that should be located directly adjacent to the teaching wall.

3. **Tackable Wallboards:** Tackable wallboard shall be provided with aluminum J-Mold as noted herein, locate on blank walls where possible for maximum area. (Not on window wall, not on teaching wall).

4. **Floor Finish:** Typical classrooms shall have Tandus (Collins & Aikman) carpet with GeoTile at wet and entry areas.

5. **Data / Power:** Provide data jacks as shown in Attachment 1, "Typical Classroom Technology Floor Plan". Power receptacles to correspond to each data location and other convenience receptacles equally distributed throughout the room.

B. COMPUTER LABS – All Grade Levels

1. No built-in furniture except standard teaching walls.
2. Two (2) Projectors offset on opposite walls (cloned image)
3. Two pull down screens will be used to project image (refer to Attachment 1A-brown rectangles).
4. Six (6) power boxes, with four (4) convenience outlets in the floor (refer to Attachment 1A-blue boxes).
5. Six (6) data boxes in the floor, with four (4) CAT6 data ports in each box. (Refer to Attachment 1-A-yellow boxes)

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6. Perimeter data/power on three walls (not teaching walls), two data drops/two power outlets every three feet.
 7. A minimum of 40 student data drops with convenience power outlets with one (1) teacher's station data drops.
- C. **WALKWAY COVERS:** Covered walkways shall extend from any classroom exterior door continuously to any gang restrooms serving the building, whenever restrooms are not accessible from interior hallways. Walkway covers are not required between buildings. Exterior walkway lighting shall be LED.
- D. **SHADE STRUCTURES:** Permanent shade structures shall be provided for kindergarten play area; elementary school primary/secondary grade levels at lunch area; middle and high school lunch area. (No shade cloth covering will be accepted). Provide drinking fountains and vapor tight, vandal resistant LED strip lighting fixtures (Kinnal or Failsafe). Elementary School outdoor covered lunch eating areas shall be designed to allow daily wash down of the eating area. Provide catch basin, trench drain, or similar drainage structure, connected to the sanitary sewer system so that food and drink waste may be washed/hosed off from the tables and pavement to the drainage structures. Drainage system must be designed so that storm water does not enter the drain. Coordinate with local sewer jurisdiction to provide appropriate solids interceptor, grease trap, etc as required by local agency.
- E. **MULTI-STORY CLASSROOM BUILDINGS:** Provide removable window and/or railing on second floor large enough for a standard pallet to easily fit through the opening to load F&E through the window.
- F. **LIBRARIES:** Place a full size Computer Lab adjacent to the Library, separated by a glass wall with sliding doors. Limit use of fixed/built-in furniture where possible to allow for future flexibility. Fixed casework on perimeter walls and matching mobile casework book shelving for center stacks. For existing campus, provide a minimum of 110% linear feet of book shelving of current library books. Verify book inventory by measuring the current book stacks.
- G. **COMPUTER LABS:** All new campuses to have at least one (1) computer lab; however, inquire with the District as to whether to equip a percentage of standard classrooms with floor boxes to convert spaces into computer labs.
- H. **RESTROOMS**
1. All restrooms, student, staff, and public shall have hot water supplied for hand washing.

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2. All Single accommodation toilet rooms must have signage to allow for all gender use. Refer to DSA BU 17-01 for sign graphics, shape, and other guidance.
2. All restroom doors, including kindergarten restrooms, shall be solid doors with no vision lites.
3. All single accommodation toilet rooms' door hardware will have an exterior indicator notifying if the restroom is vacant or occupied.
4. Refer to section 22 05 00-Plumbing for additional District requirements.

GENERAL SITEWORK

A. PLAYGROUND EQUIPMENT - ELEMENTARY SCHOOL

1. Include space and equipment for Basketball, Tetherball, Bike racks, skateboard racks, (4) ball walls (concrete block 20' wide and 12' high), portable chain link backstops. All other equipment to be purchased by the District. Include curbed areas at kindergarten and primary for play/climbing equipment.

B. PLAYGROUND EQUIPMENT - MIDDLE SCHOOL

1. Include space and equipment for basketball, bike racks, skateboard racks, volleyball, DG/Clay running track. Portable backstops for softball.

C. ATHLETIC EQUIPMENT/FEATURES - HIGH SCHOOL

1. Include running track and football/soccer field in stadium setting with permanent grandstands, Musco field lighting, separate varsity & junior varsity softball and baseball fields, PE turf area with soccer field overlay. Provide bike rack and skateboard rack areas. Confirm requirements for swimming pool with District. Use LED lighting for area, field, and pool lighting where feasible.

D. PLAYGROUND SAFE SURFACE

1. Provide two (2) separate recessed concrete basin with curb areas at kindergarten and primary/upper grade playgrounds. **District will provide** Play Matta rubber play surface beneath all District-provided play apparatus equipment (refer to Attachment 2 - Play Matta Submittal Information). Compacted subgrade shall be **provided by the contractor** at the indicated elevations, with 4" of class II aggregate base, area drain connected to appropriate drainage system, and a final leveling layer of 1" min. thick fine crushed compacted granite screenings. Refer to Attachment 2A - "Play Matta Over Aggregate Contained by Curb". A/E team shall design a drainage system with connection to the storm drain system for play areas.

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E. INTERIM HOUSING RELOCATABLE CLASSROOM BUILDINGS

1. Provide standard 24' x 40' DSA PC-approved stockpile leased buildings with standard leased metal ramps. Provide appropriate asphalt toes and/or landings with required hand-railing to be ADA-compliant. Equip low-voltage items per Attachment 1: Typical Classroom Layout. Added casework is NOT required for standard classroom configuration. No stand-alone dry utilities systems all line and low voltage additions must tie into the current campus' systems. Provide overhead dry utilities. Provide portable transformers as needed. Install with 18" building separation on wood foundations over base only if placing on existing turf. Unless specifically directed all interim housing classroom buildings to be without water and/or sewer connections.

F. ALL CAMPUS PARKING LOTS & ADA CURB RAMPS

1. Include speed control measures in all drive lanes of all campus parking lots and driveways. Include handrail on backside of ramp at curb to prevent tripping hazards.

OWNER FURNISHED / OWNER INSTALLED ITEMS:

- A. Play Matta play area surfacing.
- B. Play Equipment Apparatus for play area
- C. LAN Data system equipment only.
 - a. Cisco LAN electronics (switches & routers).
 - b. Crown Castle Fiber WAN Fiber with MDF terminations and electronics
 - c. Cisco Wireless LAN Hubs
- D. District's Locksmith will rekey Contractor-installed construction lock cylinders
- E. Cisco VOIP Telephone System; including but not limited to equipment and software with programming, preferred vendor is Dimension Data, Account Representative-Richard Eyer.
- F. LAN Electronics' Uninterrupted Power Supplies (UPS)
- G. All non-DSA required hand towel dispensers, soap dispensers, toilet paper dispensers for restrooms, classrooms, water closets and handsinks thorough out the project shall be OFOI.
- H. Intel NUC Kit at all Menu Boards is OFOI; however, the contractor shall provide the utilities and space to accommodate immediate mounting at CFCI 60 inch flat screen monitor. See Attachment 24.
- I. Conference Tables are OFOI; however, all floor-mounted utilities is CFCI. See Attachment 23.

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CONTRACTOR FURNISHED / CONTRACTOR INSTALLED
ITEMS:

- A. Intercom / PA / Bell System to interface with either existing Rauland Borg Telecenter System or Cisco VOIP System; including but not limited to equipment and software with programming.
- B. Rauland Borg Telecenter IP System for existing schools that have existing Rauland Borg systems and Telecor eSeries IP System for new schools. including but not limited to equipment, and software with programming.
- C. Cisco Video Surveillance with IP Cameras; including but not limited to equipment and software with programming, preferred vendor is Dimension Data, Account Representative-Richard Eyer.
- D. Multi-Purpose Rooms and/or other Spaces Localized PA and ALD Systems; including but not limited to equipment, software and programming.
- E. LED Marquee School Campus Sign; including but not limited to equipment and software with programming; preferred vendor is Queil Bros. Signs. See Attachment 5.
- F. Classroom, MPR, Library, Computer Labs, Conference Rooms LCD Projection Systems; Extron WallVault Model WVS 211D with Epson PowerLite 685W WXGA 3LCD Presentation Display; including but not limited to equipment and software with programming. See Attachment 3
- G. MDF and/or IDF includes but not limited to all equipment and cabling such as racks, cabinets, cable management, patch cords, power supply, , etc.
- H. Security Intrusion Systems, campus-wide and/or classroom relocatable buildings includes but not limited to all equipment and software with programming.
- I. Any wall-mounted flat screen digital television systems to be used as Audio-Visual Monitors and/or Reader Boards such as those found in conference rooms and/or at food service meal lines.
- J. Provide Battery-powered Classroom Clocks in all teaching spaces, office and public spaces.
- K. Play area compacted subgrade with 4" of class II aggregate base, area drain connected to appropriate drainage system, and a final leveling layer of 1" min. thick fine crushed compacted granite screenings. Refer to Attachment 2A - "Play Matta Over Aggregate Contained by Curb".

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DIVISION 03 30 00 – CONCRETE

03 35 13 Concrete Floor Finishes

SPECIFICATION SECTION	DESCRIPTION	SPECIFIED MFRS	APPROVED MFRS	COMMENTS
03 35 13	Concrete Floor Finishes	Koster	Dependable Chemical Co.	<ul style="list-style-type: none"> • All exposed concrete floors must be sealed • Use Koster system for moisture vapor control. DCC Cutdown II also acceptable.

NOTES

1. At second floor elevated walkway decks where split-slab is designed, specify minimum 2" thick topping slab with fiber reinforcement and control joints at 10' oc.
2. At former dairy sites, verify corrosion protection requirements for concrete footings and slabs have been properly implemented in plans and specs.

03 48 00 – Precast Concrete Specialties

SPECIFICATION SECTION	DESCRIPTION	SPECIFIED MFRS	APPROVED MFRS	COMMENTS
03 48 00	Precast Concrete Specialties	Dura Art Stone Quick Crete (Norco)	Concrete Design, Inc.	

DIVISION 04 20 00- MASONRY

SPECIFICATION SECTION	DESCRIPTION	SPECIFIED MFRS	APPROVED MFRS	COMMENTS
04 20 00	Concrete Masonry Units			

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1. District prefers smooth Units with concave joints. Paint CMU where possible for maintenance/waterproofing purposes. Consult with District for approval of special textures/integral color.
2. Indicate expansion joints at 30'-40' max. on all drawing elevations.
3. Provide bullnose corners at all interior masonry wall conditions where an outside corner occurs.
4. Specify light sand blast cleaning and water repellent coating/sealer at all unpainted masonry.
5. Consult with District for any veneer masonry or stone proposed. If veneer is specified, grout all joints to improve adhesion to structure.
6. Do not specify Graffiti Coatings for masonry surfaces.

DIVISION 05 00 00- STEEL

SPECIFICATION SECTION	DESCRIPTION	SPECIFIED MFRS	APPROVED MFRS	COMMENTS
05 12 00	Structural Steel			Exposed steel <i>galvanized finish</i>
05 52 13	Steel Handrails & Guard rails			Galvanized finish, no paint.
05 36 00	Decking			Canopy decking should be left as galvanized finish without paint. Screws thru canopy deck must be caulked.

NOTES

A. SITE RAILINGS

1. Site ramp & stair handrails shall have top, middle & bottom rails as a minimum - galvanized finish - no paint. Specify complete dipped sections of railings. No site-fabricated railings. (It is acceptable to splice railings in the field)

B. METAL STAIR PANS

1. Specify galvanized stair assemblies for all exterior metal stair assemblies.

C. METAL DECK

1. District prefers galvanized finish where metal is exposed. District prefers exposed galvanized metal deck for canopies & walkway covers.

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D. METAL STAIR NOSINGS

1. Barrycraft extruded aluminum nosing # B-1 and B-30/40 series

DIVISION 06 00 00 - WOOD

06 10 00- Rough Carpentry

SPECIFICATION SECTION	DESCRIPTION	SPECIFIED MFRS	APPROVED MFRS	COMMENTS
06 11 13	Glu-Lam Beams			Do not design with GLB's exposed to weather.
06 11 00	Wood Beams			Sheet metal end cap ends of exposed wood beams. Paint or stain exterior exposed wood.

06 41 00- Casework

NOTES

A. CASEWORK

1. Standard: (WIC) Woodwork Institute of California Manual of Millwork.
2. Countertops: Solid Surface (Corian or similar) at Kindergarten wet areas, plastic laminate typical other locations; epoxy resin at Science/Prep Labs; galvanized steel at shops; stainless steel at exterior pass through at kitchens.
3. Computer Countertops: 30" deep typical with rolled front edge; width at grades K-6: 30"-36"; width at grades 7-8: 32"-36"; width at grades 9-12; 36"-42". Provide integral cable trays. Do not indicate keyboard trays at any countertops.
4. District prefers teaching/learning wall style casework with sliding marker boards at each classroom. Detail sliding marker boards to provide adequate room for adjustment of boards as components wear. Center the marker board portion of the teaching wall in the classroom.
5. Computer lab layout shall include CFCI standard teaching wall and OFOI computer counters around perimeter of room on three walls and in the center of room. Minimize use of surface mounted Wiremold as much as feasible.

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6. Classroom cubbies, when used, are to be: 12h X 16w X 17d, sixty (6) total per K classrooms and forty (40) total per 1-6 classrooms; at Elementary Schools only.
7. Provide removable panels or access panels in island or peninsula science casework to allow access to all connections, faucets, boxes, fittings, etc.
8. Administration and library transaction counters shall have shelves large enough to accommodate 12-inch tall 3-ring binders on the clerk side.
9. All K-12 classrooms shall have matching casework computer counters for three (3) computer stations in each classroom unless that classroom is designated for additional computers. Casework to include wire management trays and grommets in casework.
10. Library and text book storage shelving to be designed to accept excessive weight with adequate support mid-shelf to prevent caving under loaded weights or sized to prevent overloading of books

B. HARDWARE

1. Hinges: Rocker B-Series heavy duty wrap-around tight pin butts of steel 2-1/2" minimum width with companion magnetic door catch; or approved equivalent.
2. Pulls: Extruded aluminum, clear anodized finish; 4".
3. Drawer Slide: Model No. 1429; full extension; side mounting; 100 pound rated; wide paper drawers use 200 lb rated; manufactured by Knappe and Vogt Manufacturing Co.; (616) 459-3311, or approved 333equivalent.
4. Silencer: Provide as required of cabinet doors.
5. File Drawer slide: Model No 3640; full extension; side mounting; 200 pound rated; manufactured by Accuride; (310) 903-0200, or approved equivalent.
6. Deadbolt Locks: Provide cylinder deadbolt; Olympus 4 pin keyway 100/200 series at small doors/drawers. Use Olympus 700/800 series at large cabinet doors such as trophy cases, etc. Use 4 separate keys alternating in rooms, all casework in a room keyed alike.
7. Grommets: Provide 2-1/2" diameter plastic grommet at countertops; color to match countertop.
8. Cabinet edge-banding: Specify 3mm PVC edge banding at all exposed cabinet/door/drawer edges.

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DIVISION 07 00 00 – THERMAL AND MOISTURE CONTROL

07 20 00- Insulation

SPECIFICATION SECTION	DESCRIPTION	SPECIFIED MFRS	APPROVED MFRS	COMMENTS
07 22 00	Batt Sound (acoustical) Insulation			Sound insulation At all interior walls preferred. Required at offices and restrooms.
07 22 00	Batt Thermal Insulation			At all exterior envelope conditions as required by energy code.
07 22 16	Rigid Insulation			Below sheet metal roofing over metal decking. <i>On wood framed buildings, frame crickets with plywood not tapered insulation.</i>

07 50 00 – Membrane Roofing

SPECIFICATION SECTION	DESCRIPTION	SPECIFIED MFRS	APPROVED MFRS	COMMENTS
07 51 13	Membrane Roofing - Cold Applied	Henry # H3-NGC-MR for nailable deck; Henry # H3-IGC-MR for insulated decks.		Cold applied Built-up Roofing
	Single Ply	Sarnafil	Sarnafil	Thermoplastic Single-Ply Roofing

Notes

A. BUILT-UP ASPHALT BITUMINOUS ROOFING

System: Henry Specification # H3-NGC-MR for nailable deck; Henry Specification H3-IGC-MR for insulated decks.

1. All penetrations to be a minimum of 24" from parapet wall
2. Provide 3/8":1' slope on roof.
3. Keep roof penetrations to a minimum
4. No pitch pockets on roof. Use steel pipes for screen wall supports penetrating the roof: detail with standard lead pipe flashings.
5. Provide hose bibs on all roofs at 50' maximum intervals.
6. Provide continuous walkway pads for path to and around all heating & cooling units and exhaust fans from each roof hatch

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location.

7. No sump receivers on roof. Pipe all condensate drains thru roof at each unit and run to nearest plumbing waste line/trap, etc.
8. Detail roof membrane extending min 8" from top of roof to reglet/flashing at all vertical elements - curbs, walls etc.
9. Extend roofing up parapet walls to coping wherever said roofing will not be visible from the ground. (Henry's will warrant the roof extending maximum 10' up parapet walls.)

B. SINGLE PLY ROOFING SYSTEMS

1. Sarnafil Thermoplastic Single-Ply Roofing. See Attachments 6a-6c

C. FLASHING & SHEET METAL

1. Flash all roofing areas to allow for re-roof. Use springlok flashings, etc
2. Copings and exposed flashings shall be either pre-finished (Kynar) or factory primed for site paint finish. Do not specify galvanized sheet metal to be site painted. All other miscellaneous exterior metal to be galvanized finish.
3. Specify HVAC units with integral convenience outlets to reduce roof penetrations where possible.
4. No concealed gutters will be accepted. All gutters shall be mounted on the exterior face of the building.
5. Indicate sheet metal flashing around all HVAC equipment to counter-flash the roofing termination at equipment curbs.
6. Avoid the use of concealed equipment wells with high concentration of HVAC (units) duct.
7. Specify a family of expansion joints from one manufacturer, designed to interface between wall, roof, floor, ceiling covers.
8. Provide roof access ladders to HVAC equipment designed to allow access to HVAC units without walking on metal roof. No access hatches are to be located in classrooms or offices.

D. RESINOUS/ELASTOMERIC WALKWAY COATINGS:

1. Specify resinous/elastomeric type, slip resistant water proof coating at all elevated walkways and stairs not indicated as split-slabs. Specify Dex-o-tex Weather Wear, Mer-Kote Weather Deck, or equal.

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07 61 00 – Sheet Metal Roofing

SPECIFICATION SECTION	DESCRIPTION	SPECIFIED MFRS	APPROVED MFRS	COMMENTS
07 61 00	Sheet Metal Roofing			

NOTES

1. Use of some pre-finished sheet metal roofing is preferred, but do not use barrel-vaulted metal roofs.

DIVISION 08 00 00 - OPENINGS

08 10 00 – Wood Doors

SPECIFICATION SECTION	DESCRIPTION	SPECIFIED MFRS	APPROVED MFRS	COMMENTS
08 10 00	Wood Doors	Graham Manufacturing <i>V.T. Industries</i>	Buell Door Company	<i>Interior only. No mineral fill doors. Use metal doors or solid core.</i>

08 11 00 – Steel Doors and Frames

SPECIFICATION SECTION	DESCRIPTION	SPECIFIED MFRS	APPROVED MFRS	COMMENTS
08 11 00	Steel Doors and Frames	Curries, Division of AADG AMS		<ul style="list-style-type: none"> • Full welded steel door and window frames are to be used. No K.D. (knock down) frames. Provide vision panels at interior office doors. • <i>Use steel doors at exterior locations</i>

08 14 16 – Flush Wood Veneer Doors

SPECIFICATION SECTION	DESCRIPTION	SPECIFIED MFRS	APPROVED MFRS	COMMENTS
08 14 16	Flush Wood Veneer Doors	Marshfield Door Systems <i>V.T. Industries</i>	Eggers Industries	<i>Interior only. No mineral fill doors. Use metal doors or solid core.</i>

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8 30 00- Specialty Doors and Frames

SPECIFICATION SECTION	DESCRIPTION	SPECIFIED MFRS	APPROVED MFRS	COMMENTS
08 33 13	Overhead coiling doors			<ul style="list-style-type: none"> • Provide overhead coiling door on exterior side of remote food service areas. Enclose in soffit. • <i>Where electric door is specified provide manual over ride / bypass</i> • <i>Use manual doors whenever appropriate – cranks and push-ups</i>

08 41 00–Entrances and Store Fronts

SPECIFICATION SECTION	DESCRIPTION	SPECIFIED MFRS	APPROVED MFRS	COMMENTS
08 41 13	Aluminum Entrances and Store Fronts	Kawneer Company	EFCO Corporation	Aluminum storefront to be used sparingly, and only with prior District approval. Use Hollow Metal where feasible.

08 56 19 – Pass Windows

SPECIFICATION SECTION	DESCRIPTION	SPECIFIED MFRS	APPROVED MFRS	COMMENTS
08 56 19	Pass windows	George A. Diak, Inc.	Nissen & Company, Inc.; C.R. Laurence of North America	<ul style="list-style-type: none"> • Kitchen/snack bar windows need a sliding screen for insect control. • No speak holes • See Attachment 18 for Layout for Secondary School Meal Service

08 62 13 - Skylights

SPECIFICATION SECTION	DESCRIPTION	SPECIFIED MFRS	APPROVED MFRS	COMMENTS
08 62 13	Sola-tubes			<i>District preference – No Skylights</i>

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- a. If skylights are used and blackout feature is required, use manual internal shades - no motorized shades/louvers.
- b. Solatubes should be used whenever possible in lieu of skylights. Consult with District prior to incorporating skylights into the design.

08 71 00 – Door Hardware

SPECIFICATION SECTION	DESCRIPTION	SPECIFIED MFRS	APPROVED MFRS	COMMENTS
	Key System	Corbin-Russwin		For key cyl. Review Items 5 and 6 below, large bow - use a #52 Corbin Ruswin blank.
	Cont Hinge	Pemko	Hager, Zero, Stanley	
	Butt Hinge	Hager	Bommer, Stanley	Marker hinges not allowed
	Mortise Lockset	Corbin-Russwin		#Review Item 5 & 6 below rim cyl. #ML433 F07 lever lock sets
	Cylindrical Lock	Corbin-Russwin		#Review Item 5 & 6 below key cyl. #ML433 F07 lever lock sets #ML2000 for single occupancy restrooms
	Coordinators	Glynn Johnson	Ives, Hager	
	Exit Device	Von Duprin		#99EO CD US 26D (gates and doors)
	Surface Closer	LCN	Corbin-Russwin	#4040XP; Gate closer LC 4111
	Anti-Vandal Pull	Trimco	McKinney	
	Push/Pull/KP	Trimco	Hager, Rockwood	#1090 Standard 630
	Auto. Flushbolt	Glynn Johnson	Rockwood, DCI	
	Door Control	McKinney	Trimco	
	O.H. Stop	Glynn Johnson		
	Stops & Holders	Trimco	Ives, Rockwood	#8015-15X 626
	Thresh/Seal	McKinney	Pemko	
	Silencers	Glynn Johnson	Ives, Hager	
	Kick Plates	Hager	Ives, Rockwood	
	Seals & Bottoms	Zero	Reese, NGP	
	Key Cabinets	Lund	TelKee	

NOTES

1. Exterior doors shall be steel, 16 gauge. Keep aluminum entrances to a minimum and located only at lobby entrances or the like.
2. All classroom entrance doors shall include vision panels for visual access to/from the room. Vision panel shall be single rectangular shaped

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- lite, approximately 6" x 24" tall. No round or square port holes. For Modernization projects where entrance doors are not scheduled to be replaced, and no vision panels are present, provide "Peep Holes" in door at appropriate height.
3. No concealed rod panics.
 4. All exterior doors (Exceptions–Electrical, Mechanical, Custodial Rooms) and all classroom doors (interior and exterior) shall use panic devices whether or not required by code.
 5. District requires panic door/lock system and dog down locking by room key from inside door at all panic devices where permitted by code (double-sided keyed cylinder, dog down not permitted by code at fire rated doors). **Fire rated classroom doors shall be lockable from classroom side by room key.**
 6. No top-of-door closers. No interchangeable (IC) cores.
 7. Specify Corbin-Russwin 67-B1 keyway for all **new** campus projects. For existing campus projects, match the existing keyway. Confirm with Support Services the specific Keyway for existing campus, 67, 67-A1, 67-A2
 8. District prefers Pemko continuous hinges.
 9. Single Occupancy Restrooms: For STAFF single-occupant restrooms use ML 2029 or ML 2059. For STUDENT single-occupant restrooms use ML 2065. Refer to Attachment 20R.
 10. Provide 5 each emergency key blanks.
 - A. New Construction:
 - For interior applications use Corbin-Russwin mortise w/ Occupied Indicator
 - For exterior applications use Corbin-Russwin mortise w/ Occupied Indicator Vandal Pulls.
 - B. On Modernizations:
 - For interior applications use Corbin-Russwin mortise with Occupied Indicator.
 - For exterior applications use Corbin-Russwin mortise with Occupied Indicator Vandal Pulls
 - C. Provide placards inside restroom doors to read "Please latch dead bolt when occupied.
 11. Specify hardware group for all exterior site gates to include panic device, heavy-duty closer, heavy-duty ball bearing hinges. Provide BHMA 626 satin chrome finish-no oil rubbed bronze.
 12. All door hardware to be 626 S.S. satin chrome finish.
 13. Key blanks are to be "large bow": #52 Corbin Ruswin blank.

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08 81 00- Glass Glazing

GLASS & GLAZING

1. Exterior kitchen pass-through windows shall be equipped with sliding screen-covered speak section located above pass-through. (No speak holes in glass). See Attachment 18.
2. All exterior windows to be non-operable.
3. Provide window tinting film on exterior door lites.

DIVISION 09 00 00 – FINISHES

09 20 00 – Plaster and Gypsum Board

NOTES

1. Where masonry walls occur behind sinks and other plumbing fixtures requiring furred wall for vent pipes, fur entire wall.
2. Fur-out all roof /overflow drain piping at masonry buildings.
3. Fur-out masonry teaching wall with hat channels as a minimum to provide pathway for electrical utility chase for data, power, etc.
4. Specify exterior plaster integral color to match exterior paint color as closely as possible using standard plaster colors, particularly at areas within 60" of floor level.
5. Specify high impact gypsum board in corridors to 6' AFF minimum.
6. Gypsum Board wall finish shall be light orange peel texture.
7. In hard lids, provide large enough size and quantities of access panels to reasonably access all electrical, plumbing, and mechanical devices, equipment, boxes, etc.

09 30 13 – Ceramic Tiling

SPECIFICATION SECTION	DESCRIPTION	SPECIFIED MFRS	APPROVED MFRS	COMMENTS
09 30 13	Ceramic Tile	DAL Tile	American Olean	

NOTES

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Per Megan carts and equipment cause damage to the epoxy flooring which results in conditions dangerous for wheels and for tripping. Quarry tile would be the answer.

1. Provide thin-set ceramic tile at all Toilet room walls using cement board substrates, with tile extending up to ceiling or 8' whichever is less. Tile all restroom floors using full mortar set. Slope restrooms floors to drains. (Where exposed CMU is proposed at restroom walls, paint with industrial type epoxy coating to facilitate wash down).
2. Epoxy Grout shall be specified for all restroom wall and floor tiles.
3. Discourage use of ceramic tile at exteriors which are easily chipped; use porcelain tile instead.
- 4. No Quarry tile at kitchen floors – Use an epoxy flooring with integral base instead of quarry tile (Gulf Synthetics Epoxy Finish or equal).
5. Provide tile behind all wall-mounted drinking fountains to wainscot height as a minimum. If located in alcove, tile all surrounding walls.
6. Restroom floor tile use 12”x12” tile to reduce grout joints.
7. Use random patterns in both wall and floor tile for ease of repairing/replacing tile after color has been discontinued.
8. Use US manufactured standard tile. Avoid use of imported tile.

09 51 00 – Acoustical Ceilings

SPECIFICATION SECTION	DESCRIPTION	SPECIFIED MFRS	APPROVED MFRS	COMMENTS
09 51 23	Acoustical Tile Ceilings	Chicago Metallic	USG Interiors, Armstrong	

NOTES

1. Grid System for Lay-in Acoustical Tiles (Heavy Duty)
 - Chicago Metallic DSA product acceptance PA-026
 - USG Interior Systems (Donn) acceptance PA-030
 - Armstrong Ceiling System (Donn) acceptance PA-041
2. Lay-in Acoustical Ceiling Tile - Suspended Grid Mounted
 Acceptable Manufacturers: Armstrong or Celotex or USG
 - a. Use Health Department approved ceiling tile at kitchen areas.
 District prefers suspended gypsum board ceilings in kitchens.
3. Restroom ceilings shall be gypsum board; no suspended acoustical ceiling systems. (Detail all ceiling hung/braced toilet compartments with backing in ceiling.) Typical all hard lids, provide an adequate number and size of access panels so that all electrical, mechanical, and plumbing equipment and connections can be accessed.

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4. Label/mark ceiling panels where valves, dampers, equipment, V.A.V. boxes etc., are located above. Specify a label, colored dot, or other demarcation located on the T-bar grid.
5. Mechanical and Electrical rooms shall be designed without ceilings. Paint exposed structure.
7. Provide all multi-purpose rooms with tectum or other sound attenuating panels around the room for acoustics. At performing arts theaters, utilize tectum or fabric-wrapped acoustical wall panels.

09 64 00 – Wood Flooring

SPECIFICATION SECTION	DESCRIPTION	SPECIFIED MFRS	APPROVED MFRS	COMMENTS
09 64 00	Wood Flooring			¾" solid wood-avoid laminates.

09 65 00 – Resilient Flooring

SPECIFICATION SECTION	DESCRIPTION	SPECIFIED MFRS	APPROVED MFRS	COMMENTS
09 65 19	Resilient Tile Flooring	Armstrong	Azroc	<i>Excelon as standard quality. For wax, use Destiny Floor finish #82-5</i>

09 65 13 – Top-Set Resilient Base

SPECIFICATION SECTION	DESCRIPTION	SPECIFIED MFRS	APPROVED MFRS	COMMENTS
09 65 13	Resilient Base & accessories	Burke	Johnsonite, R.C. Musson	<ul style="list-style-type: none"> • Use rubber, not vinyl.

09 65 16 – Resilient Sheet Flooring

SPECIFICATION SECTION	DESCRIPTION	SPECIFIED MFRS	APPROVED MFRS	COMMENTS
09 65 16	Resilient Sheet Flooring	Altro Floors	-Armstrong	To be used in staff restrooms. Provide welded seams and rolled cove base.

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May need to add a spec section for quarry tile.

09 67 23 – Resinous Flooring Epoxy

SPECIFICATION SECTION	DESCRIPTION	SPECIFIED MFRS	APPROVED MFRS	COMMENTS
09 67 23	Resinous Flooring	Epmar Cooperation- Stacrete	Dex-o-TEX	<ul style="list-style-type: none"> • For kitchens & snack bars • Weather wear for exterior balconies. • Smooth finish under appliances-texture at walk paths.

NOTES

1. Maintenance Department prefers to use sealed concrete at all shop, Art, CTE, and Science Lab floors where chemicals are used. Consider 2-part epoxy paint at shop floors.
2. Provide carpet at all typical classrooms with small area of Geo-tile at sink and walk-off area adjacent to exterior door.
3. Provide Geo-Tile at exterior entrances and in corridors.

09 68 00 –Carpeting

SPECIFICATION SECTION	DESCRIPTION	SPECIFIED MFRS	APPROVED MFRS	COMMENTS
09 68 16	Sheet Carpet	Collins and Aikman	Tandus	<i>ER3 cushion, 10RS broadloom</i>

NOTES

The District has standardized on Collins and Aikman, rubber backed carpet products. See Attachment 15. Architect shall specify the following carpet:

- Product: ER3 cushion 10RS broadloom carpet.
- GeoTile floor mats at all exterior doorways and interior wet areas.
- Consult with manufacturer for latest product specification.
- Presently, there are two styles that are currently approved for CNUSD: Custom Crayon Outside the Lines (Color Spectrum and/or Aftermath II). The material is 6' vinyl cushion Powerbond backing with pre-applied adhesives.
- At all exterior door ways that have carpet finish receive an integrated geometric mat system. The entry door layout follows: for a single door, a minimum of 4.5' x 4.5' and a double door, a minimum of 7.5'x9.0'.
- No transition materials are to be used between the integrated matting system and the Powerbond Carpet.
- The colors are to be neutral and medium to dark shades to conceal wear

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patterns and stains.

09 90 00 – Painting and Coating

SPECIFICATION SECTION	DESCRIPTION	SPECIFIED MFRS	APPROVED MFRS	COMMENTS
09 91 00	Painting	<i>Dunn Edwards</i>	Vista, Frazee	See district color chart for approved colors

NOTES

1. Interior Gypsum Board Walls: semi-gloss finish Acrylic (no flat paint), except at theatrical areas.
2. Exterior Exposed Structural Steel & Ferrous Metal items, fences, gates, rails: galvanized finish (preferred). If painted, use Acrylic paint. Limited use of 2-part Epoxy, Industrial Coating, at exterior exposed structural steel will be accepted.
3. Exterior Plaster Surfaces: Semi-gloss Acrylic paint.
4. Acceptable Paint Manufacturers: Dunn Edwards, Vista, Frazee.
5. Exterior visible sheet metal flashings: Semi-gloss acrylic, over factory primed sheet metal.
6. Specify primer and two coats of paint – typical
7. At close of project, turn over one unopened gallon in the original container, with manufacture’s and color formula labels attached, for each color and type of paint used on the project. Color formula label is also to identify the architect’s color name and number from the finish schedule.

09 96 60 – Graffiti Resistant Coating

SPECIFICATION SECTION	DESCRIPTION	SPECIFIED MFRS	APPROVED MFRS	COMMENTS
09 96 23	Graffiti Resistant Coatings	NONE		<i>Do not specify Graffiti Resistant Coatings</i>

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DIVISION 10 – SPECIALTIES

10 11 16 – Markerboards

SPECIFICATION SECTION	DESCRIPTION	SPECIFIED MFRS	APPROVED MFRS	COMMENTS
10 11 16	Markerboards	Polyvision	Tri- Best	Magnetic ceramic coated steel.

10 11 23 - Tackable Wallboards

SPECIFICATION SECTION	DESCRIPTION	SPECIFIED MFRS	APPROVED MFRS	COMMENTS
10121	Tackable wallboard	Chatfield/Clark	Polyvision, Tri-Best, Korseal	

NOTES

VINYL-COATED WALL COVERING/PINBOARDS

1. Vinyl Wall Coverings. Chatfield/Clark.
2. Provide tackable wallboard from floor to 8’ at minimum of (2) classroom walls at all grades except for art classrooms or other specialty classrooms where curriculum supports the use of more. Concentrate on walls other than window-wall or teaching wall.
3. Tack panels are to be individual 48” wide panels. Do not run vinyl continuously across panel joints.

10 14 00 – Signage

SPECIFICATION SECTION	DESCRIPTION	SPECIFIED MFRS	APPROVED MFRS	COMMENTS
10 14 23	Signs - Restroom	ASI Sign Systems	Mohawk, Vomar	<ul style="list-style-type: none"> • Plastic
10 14 23	Identification Signs			<ul style="list-style-type: none"> • All exterior signs shall be metal • Provide age-appropriate’ signage at playgrounds.
10 14 16	Dedication plaque			<ul style="list-style-type: none"> • Bronze plaque at all new construction, located at interior.
10 14 00	Monument Sign			Include monument sign at ground level; masonry, concrete, or steel. No lighting for monument signs, flag poles, or trees.

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10 14 33 – Exit Signs

SPECIFICATION SECTION	DESCRIPTION	SPECIFIED MFRS	APPROVED MFRS	COMMENTS
10 14 33	Exit Signs	Active Safety		Nuclear - Minimum 20 year life

NOTES

1. Include (1) Dedication Plaque for each new project. Verify with District if plaque required for additions/modernizations.
2. ADA building & room signage to be screwed (Torx head with pin only) and glued in place.
3. District will provide additional over-sized signs on doors after acceptance.
4. Provide metal wall-mounted address numerals with photo cell activated lighting per Riverside County requirements.
5. At new campus projects, provide permanent monument sign adjacent to street with school name and Corona-Norco Unified School District. Monument sign shall be constructed of masonry, concrete, steel or other durable material and shall not be lighted.

10 14 63 –Electronic Message Signage (Marquees)

SPECIFICATION SECTION	DESCRIPTION	SPECIFIED MFRS	APPROVED MFRS	COMMENTS
10 14 63	Exterior Electronic Sign	<i>Quiel Bros. Signs</i>		<i>CFCI</i>

NOTES

1. Provide electrical power (2 circuits) and data for exterior electronic marquee sign. Based upon application (elementary, intermediate, high) the size may change and it may be single-sided wall-mounted or double-sided pedestal mounted. See attachment “Quiel Signs Message Board”.

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10 21 13 – Toilet Partitions

SPECIFICATION SECTION	DESCRIPTION	SPECIFIED MFRS	APPROVED MFRS	COMMENTS
10 21 13.19	Toilet Partitions	Santana	Capital Partitions, Sanymetal, Metpar Corp.	<i>Phenolic panels only, no plastic or metal All toilet partition doors to have continuous SS hinges.</i>

NOTES

1. District prefers not to use urinal screens. If they are used, provide pilaster brace at leading edge mounted to floor & ceiling structure.
2. Provide privacy screens (continuous hinge or peek-a-boo feature) at all staff women toilet compartments between the door and side wall screens

10 28 00 –Toilet and Bath Accessories

SPECIFICATION SECTION	DESCRIPTION	SPECIFIED MFRS	APPROVED MFRS	COMMENTS
10 28 00	Toilet Accessories	Boberick	American Specialties, Bradley Corp., A&J Washroom Equip.	

NOTES

C. TOILET & BATH ACCESSORIES

1. Acceptable Manufacturers - General:
 - a. Bobrick Washroom Equipment, Inc.; North Hollywood CA
818-764-1000
 - b. A & J Washroom Accessories; Newburg, NY
914-562-3332
 - c. American Specialties Inc.; Yonkers, NY
914-476-9000
 - d. Bradley Corp.; Menomonee Falls, WI
414-251-6000
 - e. General Accessory Manufacturing Co.; Durant OK
405-924-8066
2. District Standards: The fixtures identified below are to be specified in all non-ADA toilet stalls, and other locations where their use will not obstruct the path of travel.
 - a. Toilet Tissue Dispenser for Student Restrooms: Waxie Sanitary Supply. OFCI

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Contact: Bonnie Olmstead 889-2753

Stock # 40402- Waxie Brand # 851370 Interfold Tissue Holder, White

8-1/4" x 5-13/16" x 3-1/8"d

- b. Jumbo Roll Toilet Tissue Dispenser for Staff only. OFCI Clean Source

Contact: Mike Dolman 800-247-7826

Stock # 40405 - Fort James

Stock # 58050 Jumbo Junior, dual dispenser, holds 2 each 9" rolls

- c. Paper Towel Dispenser: Manufacturer: San Jamar. Model No. T850TBK. Refer to Attachment 21. OFCI
3. Provide hand dryers (World Dryer Corporation "Slim Dry" semi-recessed, mounted at all toilet rooms for all student restrooms. Paper towels in faculty restrooms only.
 4. Provide paper towels at Multi-Purpose room restrooms.
 5. Provide Torx with pin tamper-proof screws at signs.
 6. Provide stainless steel mirrors at student restrooms, glass mirrors at staff restrooms.

10 44 16 – Fire Extinguishers

SPECIFICATION SECTION	DESCRIPTION	SPECIFIED MFRS	APPROVED MFRS	COMMENTS
10 44 16	Fire Extinguishers	Amerex		

DIVISION 11 00 00 – EQUIPMENT

11 40 00 - FOOD SERVICE EQUIPMENT

SPECIFICATION SECTION	DESCRIPTION	SPECIFIED MFRS	APPROVED MFRS	COMMENTS
11 40 00	75LC Multi-Monitor	Modularm		Walk-in cooler/freezer alarm
11 40 00	HVC-100G	Blodgett		Gas Hydrovection Oven

DFG - 100

Dual Flow Gas Convection Oven

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NOTES

1. See Riverside County Health Department requirements. Snack bar areas will only sell pre-packaged foods.
2. Provide FRP at all kitchen walls to facilitate wash down. Where FRP will be installed at masonry walls, fur wall with hat channels as a minimum, so FRP is adhered to gypsum board, not masonry.
3. Provide 42” doors in kitchen where feasible, and from kitchen to MP rooms for cart access; provide 48” door at loading dock for deliveries.
4. Provide two dedicated phone lines to the kitchen office/desk, with a data and power receptacle at each Point of Sale (POS) located at the meal service windows
5. Do not provide a pot rack above the 3-compartment sink. A stainless steel shelf is adequate.
6. Per “My plate” regulation, provide a visual menu display. Facing the MPR, on both sides of the serving window, provide wall mounted flat-screen monitors recessed into the wall. Recess shall be 50” wide and 10” deep min. Provide power and data connections. District plans to utilize Intel NUC Kit NUC5PPYH to interface with the monitor at it’s location thus the need for deep recess to accommodate NUC Kit. Please see Attachment No. 24.
7. Flooring at the serving window should have lines or a pattern to delineate serving lines approx. 8’ from the windows.
8. Provide power and data to the lunch shelter.
9. A door bell and peep hole is required at the exterior kitchen delivery door.
10. The coiling door at the serving counters must be enclosed with a soffit to prevent oil from leaking onto the counter below.
11. The wall under the MP serving counter must be stainless steel, FRP, or high impact wall covering to resist student kicking.
12. Provide an electrical outlet in chair/table storage area.
13. Meal service counters and pass thru windows for meal service to students shall be 34” in height from FF.
14. See Attachment 17 for add -At outdoor serving lines - shade needs to be provide over the stainless steel counters, to prevent extreme surface temperatures.

11 66 43- Interior Scoreboards

SPECIFICATION SECTION	DESCRIPTION	SPECIFIED MFRS	APPROVED MFRS	COMMENTS
	Gymnasium Scoreboards Marquee Signs	Daktronics		<ul style="list-style-type: none"> • Provide security shield at interior scoreboards and shot clocks • Specify as “wireless” optional.

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11 68 43 – Exterior Scoreboards

SPECIFICATION SECTION	DESCRIPTION	SPECIFIED MFRS	APPROVED MFRS	COMMENTS
	Exterior Scoreboards	Daktronics	<i>Neco</i> Fairplay	<i>With "wireless" optional</i>

NOTES

1. Lockers shall include integral combination locks and concrete base/curb for all student book and Physical Education lockers. Lockers shall be heavy-duty grade with replaceable doors. Specify Worley lockers.
2. Flagpoles shall be 30' min in height. Do not exceed 35' height threshold requiring DSA deferred approval. No flag pole lighting
3. Provide Garbage Disposers at all home economics labs, growing up ready classrooms, staff lounges.
4. Provide water connection to refrigerator with ice maker and dishwasher at all staff lounges. Locate dishwasher at end of counter so only a portion of the counter at end will be raised to 36" ht. Alternative is to locate the sink at the end at 34" ht. (ADA) and locate the balance of the countertop at 36".
5. Provide stainless steel or Acrovyn type plastic corner guards at all framed/gypsum board hallway corners to protect corners from damage.
6. Provide space for under-counter refrigerator at all nurse's offices. Design room of sufficient size to allow for eye exam within the room by providing min. 10' from student to eye chart.
7. Provide space for District furnished electric ranges (50 amp wiring/breaker) in Growing Up Ready and Home Economics classrooms. Acquire cut sheet from District for specific range/utility rough-in requirements. Kitchen Appliances to be Owner Furnished, Contractor Installed (OFCI).
8. Provide mobile storage shelving at all attendance rooms and textbook storage rooms. Specify Space Saver or equal.
9. Projection screens are not required in classrooms.
10. Elementary schools with folding tables/benches shall be included in contract.
11. Ceramics kilns to be CFCI.

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DIVISION 12 00 00 – FURNISHINGS

12 20 00– Window Treatments

SPECIFICATION SECTION	DESCRIPTION	SPECIFIED MFRS	APPROVED MFRS	COMMENTS
	Vertical Blinds			Vertical blinds are preferred.
	Horizontal Blinds		Mecho	
	Motorized Blinds/Rollers			

NOTES

1. Specify blinds for all windows. Door lites are to have tinted film in lieu of blinds.

12 48 00 – Entrance Mats

SPECIFICATION SECTION	DESCRIPTION	SPECIFIED MFRS	APPROVED MFRS	COMMENTS
12 48 00	Entry Mats	Tandus (C&A)		Charcoal Gray GeoTile Mats at all exterior entries and at wet locations.

1. At all exterior door ways that have carpet finish receive an integrated geometric mat system. The entry door layout follows: for a single door, a minimum of 4.5' x 4.5' and a double door, a minimum of 7.5'x9.0'.
2. No transition materials are to be used between the integrated matting system and the Powerbond Carpet.

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DIVISION 13 00 00 – SPECIAL EQUIPMENT

13 11 00 – Swimming Pool Equipment

SPECIFICATION SECTION	DESCRIPTION	SPECIFIED MFRS	APPROVED MFRS	COMMENTS
	Lighting			LED lighting for all pool and pool area lighting
	Pool Pump			
	Chemical Pump	EMIC		
	Pool Heater	Ray Pac		X-Therm High Efficiency Model # P2005A w/ Backnet Communication Module

DIVISION 14 20 00 - CONVEYANCE SYSTEMS

A. ELEVATORS

Acceptable manufacturers: GMS Elevator Services, Thyssen/Krupp Elevators, Schindler Elevator Corp., Kone Elevator Co.

1. Keyed hall call stations typical
2. VCT or Geo-Tile in floor cab.
3. District 24 hour Emergency Telephone Service – Kone 24 Hours
Emergency Telephone: (877) 438-0393
4. Specify a “holeless” elevator.
5. Design elevators with pit overflow holding tanks and alarm system, whether or not required by code.

B. WHEEL CHAIR LIFT – At MPR Platforms, District prefers a ramp in lieu of a wheel chair lift if space requirements allow for such feature.

Acceptable manufacturer: Garaventa Opal Model Mid-Size or Larger

1. Design for as few wheel chair lifts as possible. Use ramps where feasible to eliminate lifts.
2. Provide keyed up and down switches.

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DIVISION 21 00 00 – FIRE SUPPRESSION

SPECIFICATION SECTION	DESCRIPTION	SPECIFIED MFRS	APPROVED MFRS	COMMENTS
	Sprinkler Escutcheons	As Specified		Concealed fusible link type heads in all student areas, provide wire cage to protect sprinkler heads in MPR, Gym, exterior walkways and other high abuse or vandal-prone areas where heads are not concealed within ceiling/soffit.
	Fire Risers	As Specified		Locate in separate room, accessible from outside

DIVISION 22 05 00 – PLUMBING

22 30 00 – Plumbing Equipment

SPECIFICATION SECTION	DESCRIPTION	SPECIFIED MFRS	APPROVED MFRS	COMMENTS
22 34 00	Water Heaters	A.O. Smith		Provide tankless gas water heaters wherever feasible. Provide cold water only to student restrooms, hot and cold water to staff restrooms
	Shut Off Valves			Provide isolation valves for each building and each restroom.
	Hose Bibs			Loose key hose bibs below sinks in student restrooms; adjacent to all outdoor lunch/eating areas, and on roofs near HVAC units.
	Faucets	Chicago	Haws, Delta, T&S Brass, ELJER	
	Closets	American Standard	Kohler	
	Waterfree Urinals	Sloan	Sloan	Sloan Hybrid w/ Jetrinse. Model HYB-1000/HYB-4000. Plumb for future water/waste connection. All urinals shall be waterfree.
	Flush Valves	Sloan	Zurn	<ul style="list-style-type: none"> • Manual type only
	Shower Systems	Acorn	Logon	
	One-Way Roof Vents	Shur-Vent	Or Equal	Specify one-way vent caps at all vent risers within mechanical wells or on flat roofs with HVAC equipment on roof.
	Drinking Fountains	Hawes		Appropriately located in/on buildings. Provide remote drinking fountains near turf playfields and at all eating areas.

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NOTES

B. PLUMBING PIPING AND VALVES

1. Use Fusseal type or equal acid waste/piping in labs - no glass piping.
2. Eyewash/emergency showers shall have floor drains with trap primers.
3. For medium pressure gas distribution, put regulators in an accessible vandal-proof location, preferably not on the roof. Locate at grade in cage, not in vault. Provide Earthquake shut off at the backside of the meter.
4. Condensate lines shall be tied into sink tailpieces with flexible braided hose at sink tailpiece for maintenance purposes.
5. Site domestic water shut-off valves shall be heavy-duty gate valve with 2" operating nut. (No globe valves)
6. Use of ABS plastic sewer piping below buildings is acceptable where corrosion potential exists. Review and approval required by District on case by case basis.
7. Where downspouts are piped directly into storm drain system, provide a cleanout or plugged tee at downspout to grade connection.
8. Shut-off valves on cold and hot water lines to lavatories.
9. Shut-off valves to all restrooms.
10. Shut-off valves to all science/chemistry islands (water and gas).
11. All hose bibs shall be provided as "loose key" hose bibs.

C. PLUMBING FIXTURES

1. Provide vandal-resistant drinking fountains at football/baseball fields
2. Provide eye wash on demo table or retractable hose at Science Lab.
3. Automatic fixture controls are not allowed.
4. Provide integral stops at all Janitor's Custodial Faucets.
5. Provide hot water at lavatories in all restrooms, both staff and students.
6. Provide remote drinking fountains for H.S. baseball, football, and tennis; provide adjacent to restrooms in Elementary Schools & Middle Schools, and at all shade structures, lunch shelters, and Kindergarten and Primary play apparatus areas.

D. PLUMBING EQUIPMENT

1. Use gas water heaters where practical. Electric Insta-hot is acceptable on a limited basis (Staff restrooms where other hot water is not available).
2. Use FEBCO or WATTS backflow devices.
3. Provide dilution tank at Chemistry Labs with a solids interceptor installed before the dilution tank, and clay traps at Ceramic Labs.

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4. Restroom floor drains shall be provided with trap primers.
5. Provide gas & power emergency shut off at demonstration tables area in Science Lab.
6. Provide hose bibs on roofs for HVAC units.

DIVISION 23 05 00 - HVAC

23 09 00 – Instrumentation and Control for HVAC

SPECIFICATION SECTION	DESCRIPTION	SPECIFIED MFRS	APPROVED MFRS	COMMENTS
23 09 23	Building Management and Control System	<i>Carrier</i>		EMS: Carrier controls for Carrier system –
23 09 23	Non=EMS Thermostat	<i>Venstar School Thermostat T2900SCH</i>		Non-network T-stat for relocatable and permanent buildings, See Attachment 14.

23 80 00 – Decentralized HVAC Equipment

SPECIFICATION SECTION	DESCRIPTION	SPECIFIED MFRS	APPROVED MFRS	COMMENTS
23 74 00	Rooftop Package Units	Carrier		15 SEER. One for each classroom. Gas Heat Only. Demand Control Ventilation
23 74 00	Wall Mount Package Units	Bard	As Specified	14 SEER "Quiet Climate"
23 81 26	Split Systems	<i>Carrier</i>	<i>Toshiba</i>	Computer closets, low voltage equip. rooms
	Coil Guards	WCM	As Specified	On all rooftop installation
23 41 00	Filters			2 inch pleated
23 34 00	Exhaust Fans	Cook	Penn, Greenheck	
23 76 00	Evap. Coolers			
	Heating Only	Carrier	Reznor	
	Fume Hoods	Dayton	As Specified	

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NOTES

1. Ductwork to be minimum 26 gauge galvanized, no fiber ducts.
2. Energy Management System shall be Carrier's Open System – Carrier Comfort Link w/ Open UPC, Carrier RTU Open, or Carrier Open VVT as applicable with the existing Carrier i-Vu Pro web based server. Carrier Comfort Link is a factory installed controller that comes on Carrier's (HC and LC) series. Carrier's RTU Open shall be used anywhere the Carrier Comfort Link is not used. Carrier's Open VVT is a zoning system that utilizes the Carrier RTU Open interface to control separate zones. Carrier's RTU Open/Carrier Comfort Link are unitary controls used for single zone applications. Carrier's I-Vu Pro is a web based server that takes the place of the older Comfort View front end.
3. Staff Restroom exhaust fans shall be interlocked to light switches. Student restrooms and/or locker rooms shall be controlled via the EMS if available, if not use Intermatic ET270 series time clock
4. District owned relocatable or Modular classrooms shall have 4, 5 or 6 ton Bard type HVAC units depending on the application (classroom, computer lab or food service) 3-phase system, with a *Venstar* Programmable thermostat if EMS is not available.
5. Provide walk pads on all roofs to all HVAC equipment including exhaust fans.
6. Provide roof access ladders to every roof level (above 3' - 4')
7. Provide access to all HVAC equipment via ladders, etc. for servicing units.
8. Provide access door/port induct adjacent to all fire/smoke dampers per NFPA 90A A.4.3.4.1.
9. Provide hose bibs on all roof tops with HVAC units min 50' apart.
10. Specify 100% replacement of all HVAC filters at project closeout.
11. Utilize 2" pleated filters for all systems where possible.
12. Do not specify locking covers on EMS thermostats.
13. The EMS is to be used to control all equipment, in lieu of time clocks wherever feasible.
14. Include Demand Control Ventilation (DCV) where appropriate. For Carrier units, specify Humidi-MiZer Adaptive Dehumidification option monitored by Carrier's

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ZS Plus sensor with temperature, CO@, humidity, set point adjust, and occupancy override button.

DIVISION 26 00 00 –Electrical

SPECIFICATION SECTION	DESCRIPTION	SPECIFIED MFRS	APPROVED MFRS	COMMENTS
26 05 33	Conduit			Do not exceed 70% fill ratio, No MC cable in any application
26 56 00	Exterior Light Fixtures			
26 51 00	Interior Florescent Fixtures	Lithonia	Max Lite, Cooper, Cree	District standard is LED lighting where ever feasible.
26 56 16	Pole Light Fixtures			LED
	Photo Cells	Intermatic		
	Motion Sensors	Watt Stopper	Lutron (VIVR)	
	Lighting Controls	Watt Stopper	Lutro (VIVR)	
26 52 00	Emergency Lights			Combo exit sign with bug-eye emergency light is preferred. Avoid use of emergency battery pack light fixtures with UPS.
	Electric Hand Dryers	World Dryer		"Slim Dry" Flush or semi-recessed

NOTES

A. ELECTRICAL GENERAL:

1. Specify In-service staff training for HVAC, Electrical and Plumbing Systems.
2. Specify/Provide complete as-builts including Fire Alarms and underground drawings per NFPA 4.5.2.3.
3. Identify circuits & equipment with typewritten card in located in panel board. At Fire Alarm panels, provide directory showing location of all power supplies for that panel.
4. Provide data, phone, and electrical drops in the main custodial room of all new schools.
5. Avoid use of floor boxes for power and data in classrooms and labs unless necessary. Administrative conference rooms are to have two (2) centered floor boxes with data and power for AV equipment. Where floor boxes are used in conference rooms, provide adequate conduit diameter to get large connectors for AV equipment through.

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B. ELECTRICAL POWER:

1. Provide 1" min. conduit where necessary for future school sign and scoreboards, both signal and power. Each school will have future electronic message boards. (1) 1" conduit for power, (1) 1" conduit for Data. Signal and data wire do not require conduit in accessible above ceiling spaces.
2. Device wall plates shall be nylon or stainless steel.
3. Specify caution tape 12" below finish grade on all conduit unprotected by concrete.
4. Specify copper conductors for feeders and branch circuits - no aluminum wire.
5. Provide lighting & service outlet in Mechanical areas above ceiling (110 volts) per N.E.C. for F/C or air handlers.
6. Provide convenience receptacle (110 volts) on Roofs at or near HVAC unit per N.E.C.
7. District requires compression fittings only for EMT. Steel not die cast.
8. Provide (1) 3/4" conduit for every 3 spare circuit breaker spaces in flush panels/ cabinets.
9. Standing panel sections to have (1) 2" conduit for every 3 poles of spare circuit breaker space stubbed to U.G. pull box at grade.
10. Color code for 120V and 208V: A 0: Black, B 0: Red, C 0: Blue, Neutral - White, 277V/480V: A 0: Brown, B 0: Orange, C 0: Yellow, Neutral - Gray.
11. Provide isolated grounds and oversize or dedicated neutrals for computer room branch circuits.
12. No aluminum, flexible conduit. Should be RW steel.
13. No MC or AC cable allowed.
14. Use stranded wire for branch circuit wiring.
15. Provide 50 amp dedicated circuits for electric ranges in home economics and Growing Up Ready classrooms.
16. Provide one (1) 50 amp 1-phase 208/120VAC receptacle for carnival power adjacent to playground.
17. Provide electrical floor box in MPR floor in front of meal service counter to support refrigerated self-serve units.

C. ELECTRICAL LIGHTING

1. Emergency lighting shall have battery back up in the fixtures, including Exit signs. No remote battery chargers or inventers. District preference is combo exit signs and bug-eye emergency lighting.
2. Provide LED Exit signs, red in color.
3. Outdoor wall-pak light fixtures shall be mounted at 12' max. height. No scissor lift requirement for re-lamping fixtures.

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4. Do not design landscape, flagpole, or monument lighting on ground. (Vandalism).
5. Specify 10% replacement lamps included in turn-over at project completion.
6. LED lighting, interior and exterior, is the District standard.
7. No stage lighting shall be specified for Elementary level stages and platforms.

D. ELECTRICAL EQUIPMENT

1. Max. Insta-Hot water heater voltage shall be 120 or 208 volts. (No 277V) Include nameplate on transformer for I.D. per single line diagram.
2. Transformers to have copper windings and be 'K' rated.
3. Include name plates on all electrical gear (i.e. main gear, distribution boards, load center, motor control centers, disconnect switches, time clocks.) Wherever possible, mount on exterior of building.
4. Data and communication equipment rooms must be air conditioned with ductless split system. Do not place building transformers in communication equipment rooms. Electrical and Communication equipment rooms must be kept separate. Electrical rooms are to have thermostatically controlled exhaust fans, not air conditioning.

E. ELECTRICAL CONTROLS

1. Provide EMS controls for exterior lighting. All HVAC, lighting, and other controls installed that are not manufactured by Carrier must be compatible with Carrier controls through Backnet.
2. Provide occupancy sensors with manual override. (Watt stopper).
3. For all time clocks use Intermatic model # ET70215C.
4. The Buildings' exterior lighting such as wall packs, flood and area lights should be programmed to illuminate at Dusk and shut down at Dawn. Sunday-Saturday (DAILY). This task can be achieved either EMS, photo cell on time, time clock off control strategies.
5. District's Local Vendor for Programming is Global Automation, Account Representative: Todd Courtney

F. ELECTRICAL LOW-VOLTAGE SYSTEMS

1. Specify that low voltage wiring in underground pull boxes may not be spliced. Use stranded wire only.

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26 56 68 – Exterior Athletic Lighting

SPECIFICATION SECTION	DESCRIPTION	SPECIFIED MFRS	APPROVED MFRS	COMMENTS
	Exterior Athletic Field / Facility Lighting	Musco		Must tie into existing site EMS system through Backnet protocol. Use LED fixtures where feasible.

DIVISION 27 00 00 - COMMUNICATIONS

27 10 00 – Structured Cabling System

NOTES

1. Provide a fully tested Fiber Optic cable back bone terminated at Patch Panels. Fiber cables shall be 12 strand Single Mode Fiber (SMF) and 12 strand OM4 Multi Mode Fiber (MMF) to every IDF to provide IDF-MDF/backbone connectivity. Patch the fiber into the LIU in a vertical orientation. Fiber to be terminated with SC connections in the LIU.
2. Owner to provide electronics (CISCO routers/switches) after acceptance and prior to beneficial occupancy.
3. Provide data ports at kitchen areas from points of sale to IDF.
4. Provide classroom data drops per Attachment A “Typical Classroom Technology Floor Plan”.
5. Provide power and data to each projector location. See attached equipment product data.
6. WallVault Model WVS 211D, Two Input Digital WallVault, Part #42-311-03. Inputs to be located adjacent to the teacher’s desk/workstation.
7. Connect and terminate Contractor provided Epson projector(s), teacher’s PC to the PVS system in each classroom.
8. Provide necessary cabling and hardware for integration to a wireless microphone (future).
9. Provide Epson PowerLite 685W WXGA 3LCD Presentation Display.
10. Provide inputs at Teacher Desk as follows:
 - i. HDMI x 2, Audio (3.5mm).
 - ii. Provide one (1) data drop to MLC location for network management.

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11. Wireless access equipment (Cisco ceiling-mounted hub) will be OFOI; all remaining scope such as -pathway and cable to be in contract. System will provide one (1) wireless hub with two (2) Cat. 6 data drops centered in the classroom ceiling in every classroom and/or lab
12. –Crown Castle Fiber is the District’s WAN fiber supplier; provide conduit from the street to the MDF. The contact information is: ED MULCAHY, Project Manager T: (951) 278-0400 | M: (951) 264-9953 CROWN CASTLE FIBER 226 North Lincoln Avenue, Corona, CA 92882 CrownCastle.com
13. IDFs are to be enclosed in a security cabinet with an adequate lock, ventilation, water proof where necessary.
14. Specify SC connectors for cable terminations, flush keystones, and Cat. 6 cable. Note: Cat. 6 cable is to be specified for all horizontal Ethernet data cabling including data, VOIP, and Extron applications.
15. IDF & MDF cabinets are to be floor mounted where feasible, are not to be located in offices or classrooms, each MDF shall have one 220V/30A and one 110V/30A circuit, and each IDF shall have two (2) 110V/30A circuits. Evaluate and provide adequate HVAC for MDF/IDF rooms.
16. Provide zoning and dimming for classroom lighting so that the area in front of the teaching wall can be dimmed for easier viewing of the projected image.
17. Refer to attachment Typical IDF Layout for typical IDF configuration.
18. Typical Administration Conference Rooms shall be provided with wall mounted Digital flat screen TV(s), projector(s), projector screen, and Extron system. Confirm with District exact requirements for each school.
19. Typical Conference Rooms shall have two centered floor-mounted utility boxes that include data, power and HDMI/VGA connections. Floor boxes shall be installed so that cables can be routed up the legs of the conference table. Refer to Attachment 23 – Conference Room Table and Electrical Layout.
20. J-Hooks and Ladder Racks are acceptable means of supporting above-ceiling voice and data cabling.

27 30 00 – Voice Communications

SPECIFICATION SECTION	DESCRIPTION	SPECIFIED MFRS	APPROVED MFRS	COMMENTS
	IP Intercom / PA	Rauand-Borg		Telecenter VOIP; Refer to Attachment 22

NOTES

1. Provide CFCI equipment and installation for an operational telephone system. District Standard is Rauland-Borg Telecenter IP System at existing sites with this

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- telephone system. Handsets shall be Cisco Model No. CP-7841. Refer to Attachment 22 - Rauland Telecenter Specification Gateway.
2. Provide CFCI equipment and installation for an operational PA/Intercom System to interface with existing Rauland-Borg System or provide Telecor eSeries system at new campuses.
 2. No master clock feature – specify battery-powered, 12” minimum diameter face, wall hung clocks (LaCrosse Technology WT-3121A Atomic Clocks)
 3. Specify appropriate speaker back box to accept Rauland-Borg/Telecor PA System speakers.
 4. Provide location for horn/driver to project class-pass bells to play fields -typical. For High Schools, locate same at remote/out building(s) to ensure adequate coverage.
 5. For the Cisco VOIP system which is OFOI, however, include in the design the following scope: CAT-6 wiring, jacks, and conduit pathway,. This system is used at new campuses or interfaces with existing campus’ Cisco VOIP telephone system.
 6. Provide two (2) 1” GRC conduits with roof penetrations to 2’0” above finished roof for base radio antenna, above office area. Antenna wire does not require conduit in accessible above ceiling locations.

27 30 10 - Sound Reinforcement System

<i>SPECIFICATION SECTION</i>	<i>DESCRIPTION</i>	<i>COMMENTS</i>
	<ul style="list-style-type: none"> • Biamp Audia SOLO- Digital Audio Platform • Middle Atlantic Products USC-6R AC Power Sequencer • Biamp Accessory- Volume/ Select 8 Control panel • Pair of Electro Voice Speakers SX500+ with Mb500 Wall Mount Brackets • DVD Player • QSC Amplifiers • LCD Projector • Chief RPA Series Mounting Brackets • Rack Unut • Motorized Screen 	MPR Rooms, Gyms. CFCI

NOTES

1. MPR and Gymnasiums shall be provided with facilities to support AV equipment, projection system, and localized PA system as CFCI.
2. Extron System is required in MPR for stage teaching station and also for MPR directed to Stage Platform; provide electrical operated projection screen for Stage Platform.

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3. In MPR rooms, provide two microphone wall receptacles at stages, and two microphone floor jacks, location to be confirmed with the District. Provide two wireless microphone remote antennas at line of sight location near rear of stage.
4. Install ALS FM antenna at line of sight location near rear of stage.

27 72 20 – Fire Alarm

SPECIFICATION SECTION	DESCRIPTION	SPECIFIED MFRS	APPROVED MFRS	COMMENTS
16722	Fire Alarm Panel	Notifier		Elementary: NFS2-640E Middle and High School: NFS2-3030
16722	Fire Alarm Battery	Genesis	Yuasa	
16722	Pull Stations	Notifier		NBG-12LX / key reset
16722	Pull Station Covers			Stopper II with Horn
16722	Heat Detectors			FST-851, FST-851H in attics
16722	Smoke Detectors			FSP-751

NOTES

1. Manufacturer - NOTIFIER SYSTEMS TECHNOLOGY Addressable System (Intelligent Devices)
2. Elementary / Intermediate School - specify AFP 400 Panel
3. High Schools - specify AFP 2020 Panel
4. Stranded wire for all Fire Alarm Devices (Flexibility).
5. Provide vandal guards for smoke detectors and strobes in restrooms, hallways, shops & other high use/abuse areas.
6. Provide breakaway vandal shields for manual pull stations.
7. HVAC unit shut down shall be via fire alarm system area smoke detectors, not duct detectors where permitted by code.
8. Provide future conduits stubbed to accessible space out of all panel/cabinets into accessible attic space and/or underground pull box at grade.
9. Identify/mark any fire alarm devices not visible (concealed).
10. At existing sites, continue use of non-voice-activated FA panel and devices. For building additions, provided current code compliant FA panel and devices AND interface the two systems with one annunciator.
11. Fire Alarm Wire Color Code:

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- Fire Alarm Bells or Horns to be Red (+) Black (-), and Fire Alarm Pull Stations (Non-Addressable) to be yellow (+) Blue (-) and Smoke Detectors, Heat Detectors (Non-Addressable) to be Red (+) Orange (-).
12. Interim Housing FA panels are to tie back to the existing FA panel and not be stand-alone.

27 74 20 – Intrusion Detection System

NOTES

1. Specify Bosch Security System with separate piping/conduit system. Security system shall be monitored offsite by Protection One, Kirk Butler, 525 Technology Court, Riverside, CA 92507. kirkbutler@protection1.com
2. Security Specifications provided by A/E’s electrical engineer.
3. Provide individual security keypads for each Building as a minimum. Consult District for additional keypads at kitchen, gymnasiums, libraries, specialty spaces. Kitchens and MPR rooms to have partitioned key pads, all roof hatches to be alarmed.
5. Initial Security Zone to consist of one (1) Zone by Contractor. M&O will re-zone the campus with site principal’s input.

DIVISION 28 00 00 – ELECTRONIC SAFETY AND SECURITY

28 20 00 – Electronic Surveillance

SPECIFICATION SECTION	DESCRIPTION	SPECIFIED MFRS	APPROVED MFRS	COMMENTS
28 20 10	I.P. Surveillance Cameras	CISCO	CISCO	Complete System, check with District for updated specifications

NOTES

1. Refer to Attachment 19 for a camera equipment list used at Ronald Reagan Elementary School. Cameras are to be Cisco 7530PD model.
2. Provide cabling and conduit system for security cameras at all schools to support Cisco Video Surveillance and Cameras as CFCI.
3. At maximum, the quantity of IP Cameras for each type of campus follows:

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- a. Comprehensive High School – 75 each
- b. Alternative/Intermediate/Middle/Academy School – 15 each
- c. Elementary School – 5 each

DIVISION 32 00 00 – SITE IMPROVEMENTS

32 10 00 – Site Concrete

SPECIFICATION SECTION	DESCRIPTION	SPECIFIED MFRS	APPROVED MFRS	COMMENTS
32 30 00	Benches, platforms, light standards, planters/walls			<ul style="list-style-type: none"> • Raised elements may be colored concrete. • Provide skateboard deterrents at 48"; chamfer reveals preferred. • <i>Preference No Color</i>
32 13 13	Flatwork, pavement, sidewalks			<ul style="list-style-type: none"> • Keep colored and textured concrete to a minimum • Site concrete paving should be standard grey concrete with broom finish.

32 12 16 – Asphaltic Concrete Paving

SPECIFICATION SECTION	DESCRIPTION	SPECIFIED MFRS	APPROVED MFRS	COMMENTS
32 12 16	Asphalt Concrete Paving			Minimum 3" ac over 4" base for parking lots and play grounds / Minimum 4" asphalt over 6" base for all access roads and fire lanes or as directed by soils engineer.
32 12 36	Asphalt Seal Coat			New asphalt must cure a minimum of 30 days prior to seal coat application. Water not to exceed 20% total volume.

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32 17 26 – Tactile/Detectable Warning Surface Tile

SPECIFICATION SECTION	DESCRIPTION	SPECIFIED MFRS	APPROVED MFRS	COMMENTS
32 17 26	Tactile / Detectable Warning Surface Tile	Wausau Tile Armor Tile	Hanover Architectural Products	Must be precast concrete. VPC (Vitrified Polymer Composite) tiles will not be accepted. Armor- Tile - cast in place

32 18 00 – Athletic and Recreational Surfacing

SPECIFICATION SECTION	DESCRIPTION	SPECIFIED MFRS	APPROVED MFRS	COMMENTS
32 18 23.39	All-Weather Track Surface	Beynon	Or equal	Track surface to be one color only
32 18 13	Synthetic Grass Surfacing	Field Turf	Or equal	

NOTES

1. No exposed aggregate finish at exterior flatwork. Limit colored concrete flatwork. Limit radius (curved) joints in flatwork. Sawcut joints with 1/2" beveled edges are preferred, rather than hand-tooled joints.
2. Provide concrete paving at play areas and parking/drop-off areas in lieu of asphalt if budget permits.
3. District requires metal nosing on all exterior stairways. Concrete stairs shall be provided with metal reinforced nosing - cast-in-place steel angles or Barrycraft extruded aluminum nosing # B-1 and B-30/40 series or the like will be accepted.
4. Include speed control measures in all drive lanes of all campus parking lots and driveways.

32 31 13– Fences and Gates (Chain Link)

SPECIFICATION SECTION	DESCRIPTION	SPECIFIED MFRS	APPROVED MFRS	COMMENTS
32 3 13	Fences and Gates			

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NOTES

1. 9 gauge wire with continuous top rail, 1-5/8" diameter; 6' minimum height;
2. Schedule 40 pipe; top and bottom knuckle selvage.
3. Site perimeter fencing may need to be taller than 6'. Consult with District for required height.
4. Tennis Court fencing shall be 12' high and include windscreen fabric.
5. Perimeter of site shall typically have chain-link fencing. Verify with District where/if ornamental fence or CMU is required.

32 31 19 – Fences and Gates – Ornamental Metal

SPECIFICATION SECTION	DESCRIPTION	SPECIFIED MFRS	APPROVED MFRS	COMMENTS
32 31 19	Fences and Gates - Ornamental Metal			Gates and panels are to be hot dipped galvanized, no paint.

NOTES

1. Provide ornamental iron fencing between buildings, etc.to enclose & secure the building courtyards; 6' high minimum; galvanized finish - no paint. Controlled, single-point of entry to campus at administrative office.
2. Detail gates with mechanical tubing (thin wall) to decrease overall weight of gates and wear and tear on hardware. Max gate leaf width shall be 48" where panic devices are required.
3. Gates with panic devices shall include mesh or perforated plate, 3/8" diameter max., so panic device cannot be activated by reaching through fence pickets. Provide overhead rail above gates for attachment of closer.
4. Hardware for site gates shall be specified and included in door schedule and shall include the following:
 - A. Panic device with dog-down feature.
 - B. Heavy-duty closer
 - C. Heavy-duty weldable hinges.
 - D. Removable center tube steel post at pairs of gates with panic devices, padlocked in place.
 - E. Cane Bolts or other means to lock gates open.
 - F. Include separate Knox boxes for Riverside County Fire and

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Sheriff affixed to main campus gates.

5. Provide “cattle gates”, single-arm leaf(s) swing gate at the entry driveway for the main parking lot only.

32 80 00 – Irrigation Systems

NOTES

Use District standard Specifications and Details. Coordinate and include specification requirements with drawings. *See attachment “Irrigation Specifications – 2015”.*

1. All valves above ground clustered and covered with a cage. Six valves max. per cage.
2. Above ground irrigation shall be used at steep slopes (only if required).
3. Provide separate meter for irrigation system.
4. Where an irrigation pump is required, specify Bear State Pump & Equipment, Corona, Ca. Master plan a location for pump with conduit, etc. for all projects, whether or not a pump is required during design phase.
5. Use ET irrigation controller

32 90 00 – Landscaping Planting and Maintenance

SPECIFICATION SECTION	DESCRIPTION	SPECIFIED MFRS	APPROVED MFRS	COMMENTS
2990	Landscape Planting and Maintenance			See CNUSD Landscape Plant Materials Guide.

NOTES

1. Provide plant materials from attached District approved plant material list. Refer to attachment “Planting Specs 2015”.
2. Playfield turf shall be a blend of Perennial Rye, Bermuda, and bluegrass similar to Sports Field Elite by Stover Seed Company. Turf around buildings may be dwarf fescue. Provide as much turf as possible.
3. When sod is utilized, specify removal of the nylon reinforcement backing during placement.
4. Provide design with minimal edging: Landscaping and hardscape shall be designed to reduce the areas that would require edging. Provide

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concrete mow curbs around all vertical structures/obstructions in contact with turf.

5. Parking islands should have concrete with trees only. No turf, shrubs.

32 92 00 – Natural Field Sport Surfacing

SPECIFICATION SECTION	DESCRIPTION	SPECIFIED MFRS	APPROVED MFRS	COMMENTS
32 92 00	Natural Field - Play Yard	Stover Seed Co.	A-G Sod Farms, Inc.	All Grass Areas-Sports Field Elite; Blend Perennial Rye, Bermuda, Bluegrass.

END