



C.U.S.D. Building Standards

Eimear O'Brien, Ed.D.
District Superintendent

Denver Stairs
Assistant Superintendent
Facility Services

Nick Mele
Administrator
Facility Services



Facility Services

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Building Specification Process

The goal of the Building Specification Committee is to create building specifications that provide direction for the initial planning and building of school facilities within the Clovis Unified School District. These building specifications were developed based on the following intentions:

- To create the best possible learning environment for teachers and students
- To facilitate an efficient and effective workplace
- To enhance the use of school facilities for co-curricular, athletics, performing arts and community activities
- To select high quality materials, finishes and equipment in the design of the facilities that will minimize the need for ongoing maintenance
- To maximize energy conservation by the use of maximum “R” value insulation, location and treatment of windows, high efficiency HVAC equipment and lighting systems, and incorporate day lighting when possible.
- To meet all state and federal building codes and requirements related to ADA (American Disabilities Act)
- To design and construct the school within the School Facilities Program (SFP) grant and CUSD matching funds
- To support the utilization of technology by students, staff and the community

The Building Specifications Committee includes representation from a wide array of groups to maximize achievement for all students, to operate with increasing efficiency and effectiveness and to develop, sustain and value a quality workplace. The Building Specifications Committee includes representatives from the following groups:

<ul style="list-style-type: none">• Facility Services• Construction and Engineering• Plant Operations• Custodial• Energy Education• Teachers• Principals	<ul style="list-style-type: none">• Nursing Services• Office Managers• Library Media Technicians• Architectural and Engineering Firms• Site Plant Managers• Building Consultants• Specialists
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To begin gathering input from the various groups, the building specifications review process was initiated by identifying key building team members from construction and engineering, plant operations, custodial, grounds, maintenance and operations, and technology to assist in communicating needs from the lens of their departments.

Initial Building Specification Process

Mr. Kevin Peterson, Administrator for Facilities Services, first met with the selected key leaders to identify the project goals and expectations and shared the goals, process, procedures and outcome expectations of their assigned sub-groups.

Introduction

- Educational Specifications vs. Material/Building Specifications

Components

- General Building Conditions
- Interior
- Exterior
- Casework
- Flooring and Wall Finishes
- Plumbing
- Restrooms
- Energy Efficiency
- Technology Infrastructure
- Network
- Transportation
- Electrical Distribution
- Audio/Visual
- Lighting
- Portables
- Custodial
- Landscaping
- Irrigation
- Concrete
- Security Doors and Hardware
- Athletic Facilities
- Swimming Pool
- Snack Bar
- Kitchen
- Marquee

After each meeting, the sub-committee members were encouraged to return to their areas of expertise, discuss the agenda topics, solicit input from colleagues in their departments, and return with additional input and additional recommendations. Mr. Peterson organized and attended all meetings with various sub-groups. Once a draft of the building specifications was compiled, which incorporated the input and recommendations from the previously mentioned sub-committees and sub-groups; it was discussed with the Building Specifications Committee. A site walk with key leaders was held on two occasions to field evaluate the recommendations and add specificity and

detail. The draft building specifications were reviewed in various separate meetings over a three month period. Input was solicited from the committee to ensure that the specifications were not only designed to maximize student achievement, but to also create an environment to sustain a quality workforce and ensure that staff would be able to perform duties with increased effectiveness and efficiency. Committee recommendations were then incorporated into the draft building specifications and submitted to Dr. Don Ulrich, Assistant Superintendent of Facility Services. These building specifications will be reviewed on a yearly basis to ensure that the document remains current with educational practices and technological advances. The building specifications will be available for the community online at the Clovis Unified website.

Educational Program Specifications

Introduction

The Educational Specifications are a separate, stand-alone document intended to provide direction to architects, engineers, and consultants for the initial planning of new or modernization of existing elementary school facilities within the Clovis Unified School District. The building standards take the educational specifications to a more specific level as they are provided with the following intentions:

- To select materials, finishes and equipment in the design of the facilities that will minimize the need for ongoing maintenance
- To maximize energy conservation by the use of maximum "R" value insulation, location and treatment of windows, high efficiency HVAC equipment and lighting systems, and incorporate day lighting when possible
- To design and construct the school within the School Facilities Program (SFP) grant and CUSD matching funds
- To support the utilization of technology by students, staff and the community

CUSD Building Specifications Committee and Review Team Members

2020 Revision Team: Dean McClusky, Adam Belmont, Chris Petty, Henry Garza, Jim Fanning, Charles Henson, Ralph Westcott, Mauro Garza, Roy Straughter, Robert Schram, Tino Ruiz, Aaron Goodlad, Gary Foster, Jeffrey Lindlahr, Raj Nagra, Rob Barnes, Bill Rice, Carlos Aleman, Michael Pair, Ricky Sinor, Robert Meza, Matthew Wittenborn, David Martin, Tim Ciolkosz, William McElhaney, Rick Lawson, Denver Stairs, Nick Mele

3 CONCRETE

033000 CAST-IN-PLACE CONCRETE

General condition (Evaluation only)

- Large cracks from structure failure are not acceptable
- Provide adequate surface drainage to eliminate standing water
- No excessive run-off, grade areas to avoid this
- Eliminate trip hazard.
- Replace from joint to joint where grinding is not an option
- Reduce skateboard damage with plant on metal brackets or design concrete seat walls to deter skateboarders
- When utilities cross concrete no trench caps allowed- must be joint-to-joint
- 12" compacted soil below new flatwork
- All expansion joints must have cap and construction sealant
- When adding a new portable, all surrounding area needs to be engineered to have no standing water

ADA Compliance

- Meet or exceed CBC (Calif. Building Code) and DSA/ADA regulations regarding
- Slope: use 1:13 instead of 1:12 for built in deviance factor. Similar for other slopes, where possible
- Stairs: detectable warning surfaces, tooled nosing of differentiating color

Mow strips

- 18" minimum at exterior building wall face
- 18" at all fence, blacktop and turf locations
- Valley gutter along CMU walls for drainage to perimeter of playfields and playground equipment

Concrete collars

- 18" minimum collar placed around light poles and drainage inlets
- In turf areas add additional 18" mow strip around all elements mowed around

Seating Benches

- Designed to reduce skateboard damage. (Chamfer 24" O.C.)
- Seat wall at 18" depth to act as a root barrier when a tree is present
- All seat walls, when acting as a planter, must have weep holes at grade
- All benches placed in turf areas must be placed on concrete pad with legs that bolt to the surface (no pour in place).

Tree wells

- Tree wells 4'x4' and smaller iron tree gates required. An 8'x8' may be required for larger trees (CUSD Grounds to determine).
- Tree wells 4'x4' or larger shall have an iron tree grate or seat wall, typically 16" to 18" tall depending on how the adjacent grade is sloping to discourage through traffic
- Tree grates must have a pattern that allows for tree growth
- Install root barrier at all trees in confined concrete planter areas and adjacent to sidewalks

Planter Boxes

- *All planter boxes must have 1.5" weep holes for drainage*
- *Building wall may not be used as part of the planter*

Concrete Mix

- Defer to soils engineer and structural engineer for recommendations
- Review concrete strengths, if possible and when cost effective, the strengths can vary between footing, slab, walk, etc

Tennis Court Spectator Seating

- Concrete seating at Intermediate and High School only-architect designed

033543 POLISHED CONCRETE FINISHING -See Polished Concrete Specifications

- Polished concrete in all MPRs

033910 TOPICAL CONCRETE VAPOR CONTROL BARRIER

New Concrete

- Two-component, spray applied product for application to newly poured concrete slabs on grade during final troweling
- Materials shall be polymer-based penetration, film forming barrier that remains compatible with floor adhesives
- Protect from walking traffic for 12 hours, heavy traffic for 36 hours

Existing Concrete

- Shot blast floors to ICR#4 using #420 shot and grind near edges
- Seal all cracks and joints during initial application
- Apply two coats
- Protect from walking traffic for 12 hours, heavy traffic for 36 hours

4 MASONRY

042200 CONCRETE MASONRY UNIT

- Hollow load-bearing concrete masonry units
- ASTM C90, Grade N, Type 1
- Use precision block at door and window perimeters to provide a smoother, easier joint to seal
- Structural engineer shall determine if block shall be light, medium or heavy weight
- Some color of CMU only comes in one weight
- If project is going to be LEED, research which aggregate is mined locally-may be able to get additional credits if mined within 500 miles of the project
- Use 8' height CMU block fence along perimeter of campuses adjacent to housing (provided by residential developer)
- Use brick where existing buildings have brick. Tie in color, size and style when possible

Planter Boxes

- *All planter boxes must have 1.5" weep holes for drainage*
- *Building wall may not be used as part of the planter*

5 METALS

PIPE AND TUBE RAILINGS

- Weep holes to be filled, ground smooth, cold galvanized with silver paint coating
- Exterior rails shall be hot dipped galvanized-no painting
- Interior rails shall be aluminum or stainless steel-no painting
- 1 ¼ "schedule 40 pipe in all handrail/guardrail (must meet Code Requirements)
- ADA access ramps must have railing to signify step down (Architect to review potential locations with District)

Trash Enclosures/Storage Areas

- Solid metal gate

055133 METAL LADDERS

- Roof hatch access for all roofs with HVAC systems with ladder

6 WOOD, PLASTICS, AND COMPOSITES

064600 ARCHITECTURAL WOODWORK

- All casework and installation to be AWS certified
- All file drawers / vertical files must provide CompX Timberline file hanging system
- Casework manufacturer/ supplier shall be certified and in good standing with current Woodwork Institute
- The casework manufacturer shall be responsible for notifying the Woodwork Institute inspector that the project has started and call for inspection while the casework is being built
- Installation of casework shall be certified by a WIC Inspector before delivery and after installation to guarantee product meets the most current AWS standards and specifications including CUSD standards and specifications.
- All shelving that exceeds 24" in length shall be made of at least 1" thick material. All standards shall be KV 255 steel or equivalent. Line boring shall not be acceptable in any situation
- Hinges shall be Rockford Process Control 5 knuckle wrap around hinges with hospital tips or district approved equivalent
- Wall units shall not exceed 3' in width unless there is a center divider from the top to the bottom. With a center divider, the cabinetry shall not exceed 4' in width.
- All drawer bottoms shall be made with 1/2" thick particle board as a minimum
- All 72" tall doors or higher shall have a minimum of 4 hinges
- All casework shall be made using Confirmat screws and glue
- Handles shall be 4" wire pulls, brushed aluminum
- Any particle board used shall be industrial grade
- Cabinetry shall be secured to the wall framing or backing by at least (4) #14 screw piercing the framing by at least 2" minimum
- Cabinet installation shall be plumb, level and true
- The base of each unit shall extend to 3/8" minimum under the side of the cabinetry
- Cabinetmaker to supply list of all materials- manufacturer color, and products used in new construction and modernization to CUSD maintenance department after the project completion

Cabinets

- HPDL, vertical surfacing grade
- 0.028" minimum thickness in accordance with PS-1
- Plywood or particle board cores (particle board shall be Industrial grade)
- Exposed ends, panels and back panels shall flush out with face of doors and drawer fronts

Interior Surfaces

- Cabinet liner over 3/4 "thick in accordance with PS-1, Industrial grade particle board core (44-50 lb density)
- Concealed Backs- 1/2" minimum
- Exposed Backs- 1/2" minimum
- Drawer bottoms- cabinet liner- 1/2" minimum thickness

Interior of Doors and Drawer Fronts

- DPL shelves: 0.020" minimum thickness
- Cabinet liner glued to veneer core hardwood plywood/industrial grade particle board (VCHP), 3/4"thick for spans up to 25", and 1 inch thick for spans greater than 24"
- Shelving for Library bookcases shall be 1" thick VCHP in accordance with premium grade AWS, and laminated at front face only and top and bottom surfaces with a minimum 0.028" high pressure decorative thermoplastic laminate
- Exposed shelves with no door fronts, or glass door fronts, shall be high pressure decorative thermoplastic laminate in accordance with high pressure decorative thermoplastic laminate material
- Edge banding - Exposed and semi-exposed edges shall be banded with Polyvinyl Chloride color to match exposed surface at shelves, dividers, and partitions
- 0.5 mm nominal edge banding – width of banding shall match edge condition being banded
- 3 mm nominal edge banding – match edge condition

Countertops

- HDPL general purpose grade, 0.050" minimum thickness (0.042" minimum thickness for post forming).
- Underside of plywood or particle board core shall have a backing sheet securely glued to core and sealant applied to all exposed plywood and particle board surfaces.
- No drip bullnose waterfall edge, 3/16" maximum deflection with 150 lb. load, core material for top and splashes – minimum ¾" thick industrial grade particle board (44-50 lb. density), solid stock edges of maple hardwood with W-6 finishes, in accordance with NEMA standard LD-3
- Back splash- provide an integral cove splash, 6" tall (minimum), at the classroom locations, the new back splash height shall be at least 1" taller than the existing splashes (expected to be 4" tall). If the existing splashes are 4" tall, provide 6" tall splashes, at window openings where a 6" splash is too tall, provide an appropriate height to align with the windowsill
- End Splash – 6" butt end splash
- Top Splash- square edge
- Administration/LMC: solid surface at high traffic reception areas (architect choice district approved)
- Classrooms: plastic laminate
- Standing counters – 38", Sitting counters – 26", Coat racks – 40", sinks – 34"

Custom Countertops

Science Lab

Manufacturer: BRODHEAD-GARRET, product number B571047082, or district approved equivalent.

- Chemical resistant countertop
- Provide 1" thick x 6" tall back and end splashes with matching finish
- Field-verify actual dimensions of counter prior to ordering

Wood/Ceramic Shop

- Maple Top laminated and warp-resistant seasoned and kiln dried hard maple ("Summer-cut" or "Winter-cut") with a moisture content of 6% to 8%, finished with three (3) coats of V.O.C. compliant natural lacquer. Countertop size shall be 1 ¾" thick x 30" deep x 12'-0" (=/-) long
- Provide 1" thick x 6" tall back and end splashes with matching finish. Field-verify actual dimensions of counter prior to ordering

Solid Surfacing

Manufacturer: CORIAN" by E. I. DuPONT DE NEM OURS & CO., or approved equivalent

- Hard surface only used in high traffic areas
- Decorative synthetic marble of solid (mineral and acrylic filled) methyl Methacrylate
- Thicknesses- 1/4" for vertical applications, minimum of 1/2" for horizontal applications
- Backing material - plywood core, Structural 1, CD, Group 1, 5-ply
- Edges- front edge design - rounded edge (top and bottom)
- Finish- BHM A 626 (26D)

Countertops Supports

Manufacturer: RANGINE CORPORATION- RAK K S, EH-Series, flush mount.

- Steel Support angle and Base plate- galvanized, single-piece construction, all welded ground smooth, flush
- Angle material to be A36 (Fy=36ksi), Plate material to be A36 (Fy=36ksi), all welding to conform to AW S and shall be done by certified welders

Modular Casework - Science Labs

- High Pressure Decorative Laminate- **Manufacturer:** WILSONART
- Low Pressure Thermal-fused- **Manufacturer:** SELPLY
- Solid Surfacing- **Manufacturer:** E.I.DuPONT
- Custom Maple Top- **Manufacturer:** BROADHEAD GARRETT
- Cabinetry hardware- see cabinetry hardware schedule

066400 FIBERGLASS REINFORCED PLASTIC PANELING (FRP)

FRP Sheet Paneling

Manufacturer: Kemlite Company Inc., Marlite, Nudo Products Inc.

- No less than .09" thickness
- Surface molded pebble texture
- Color-architect design with district approval

7 THERMAL AND MOISTURE PROTECTION

NOTE: Single ply on all flat deck roofs up to 1.5/12 pitch. Built up roofing or shingle for all other roofs. When patching-match existing roof.

Coating Materials

Manufacturer: Garland Pyramic (white); Tremco Polarcote FR (white)

- Acrylic Latex, highly reflective, elastomeric, compatible with modified bitumen surfaces
- CCRC “cool roof” compliant
- Use cap sheet - granulated

CompShingle(Asphalt)

Manufacturer: Malarkey, IKO or GAF

- Laminated shingle, lifetime warranty
- Underlayment –required, made by manufacturer
- Venting- low profile or O’Hagin type vents (1 per 250 sq. ft)
- Step flashing at walls
- Lead jacks at all pipe vents with cap flashing
- 4 nails per shingle (or manufacturer’s recommendation)

074112 METAL ROOF PANELS

Metalroof

- Underlayment – required
- Manufacturer provided standing seam

075216 COLD-APPLIED BUILT-UP ASPHALT ROOFING

Cold Applied Built-Up Roofing

Manufacturer: Garland Weather King Plus WC adhesive; Malarkey or Tremco Inc. Standard Cold Adhesive LV or district approved equivalent

- Cold process modified built up (asphalt)
- Title 24 compliant
- Flash off time – minimum 40 days
- All walls applied in hot tar

Basesheet

Manufacturer: Garland- HPR Premium Glasbase; Malarkey or Tremco BURmastic Glassply sheet

- Twoply membrane - ASTM D-4601, type 3

Flashing Cap Sheet

Manufacturer: Garland – Versiply mineral; Tremco Powerply Plas HT FR mineral or district approved equivalent

- ASTM D-6163, type 3
- Work with 2-3 manufacturers. Have them agree as to what is “equal”. Find reps that are responsible and get on roof before, during and after construction
- Use cap sheet – granulated

PVC Thermoplastic Membrane Roofing

Manufacturer: Sika Sarnafil Inc; John Manville (JM) or Soprema

- Fully adhered 80 mil single ply thermoplastic roofing membrane
- .6 mil non fleece back at base flashings and walls
- ¼ inch DensDeck prime hardboard
- Install walk-deck around all mechanical units and roof hatches

Portable foam roofing

- Portables with existing foam roof repairs must be done by a foam contractor

077233 ROOF HATCHES

Manufacturer: The BILCO Company or Dur-Red

- Roof hatch access for all roofs with HVAC systems with ladder.
- During re-roof process new roof hatch must be installed

8

OPENINGS

081113 HOLLOW METAL DOORS AND FRAMES

Manufacturer: Curries; Ceco; or district approved equivalent

- Hollow metal frame and door
- 3" flange at stud walls
- Frames: 14 gauge
- Door: 16 gauge. Reinforcing strike side
- Paint: three coat system (primer and two coats)
- Hollow metal doors and frame at exterior of all buildings
- Narrow glass light to classrooms/offices within door with lock down cover

Kitchen

- Large single or double door
- 4' minimum opening for equipment transporting

081416 FLUSH WOOD DOORS

- Solid core wood door laminated plastic with aluminum metal frame at interior administration and library facilities

085113 ALUMINUM WINDOWS

- Hollow metal interior, or aluminum frame/storefront at both exterior and interior.
- Dual pane in all exterior windows.
- Tinted glass in windows facing east and west.
- Blinds or roller shade - by District.
- In store front window systems – use storefront doors from same manufacturer (Kawneer).
- In all storefront door systems hardware must be to district standard (Schlage lock sets, Von Duprin exit devices, and LCN closers)
- Use heavy duty storefront door system.

087100 DOORHARDWARE

All door hardware supplied by hardware supplier that does all the hollow-metal door work; not by aluminum storefront or entrance door supplier

Padlock

Manufacturer: KZW1 Master padlock

- Elementary- 30 locks
- Intermediate-50 locks
- High School-100 locks

Locknetics

Manufacturer: Model AD 200

- For cylinder opening AD model 200 CY-70-MT-RHO-626 for all multiple stall bathrooms at snack bar
- For exit device openings use model AD-200-993R-70-MT-RHO-626 gymnasiums

Key Blanks:

Manufacturer: Schlage original DND- key blanks 101-131

Door Hardware:

Manufacturer: Schlage lockset and mortise locks **only**

- Hagar or Roton – door hinges
- Von Duprin – exit devices – all exits devices need keyed dogging
- Norton – LCN-closers
- Trimco-Pimco-threshold, holdbacks, door shoe, silencer
- **Schlage only**-cylinder

Mullions

- All mullions are to be removable with lockable cylinder- district approved keying
- Should be I/C Schlage cylinders and housing

Exterior Hollow Metal Openings

Storeroom lock function/single door/ non-rated

- Hinge- Roton/Hagar, continuous hinge
- Lockset-ND80PD RHO 626SC
- Cylinder – Schlage
- Closer- 4040XP RW/PA/689
- Kick plate- 37 10inch x 2 inch L.D.W 630TR
- Stop holder- FS432 626IVE
- Plate Anchor- 1268 626TR
- Seals- S88D at HEAD & JAMBS-PEM
- Threshold- 195A EXT. Reducer/mitered ends
- Threshold- 228A Safety tread (192A at 4inch framed walls)
- Threshold- 196A Interior reducer-PEM
- Door Shoe- 222AV-PEM

Classroom lock function/single door/non-rated

- Hinge- Roton/Hagar, continuous hinge
- Lockset-ND73PD RHO 626SC
- Cylinder – Schlage
- Closer- 4040XP RW/PA/689
- Kick plate- 37 10inch x 2 inch L.D.W 630TR
- Stop holder- 1214 or vary from door to door
- Plate Anchor- 1268 or 1268CK (not installed in wet cement)
- Silencer- GJ64
- Threshold- 196A Interior reducer-PEM

Exterior Restroom

- Lockset-ND70 RHO 626
- Wall stop and holder 1254 or floor stop and holder 1267 626 anchor (for floor stop) 1268
- Closer- 4040XP RW/PA/689
- Kick plate- 37 10inch x 2 inch L.D.W 630TR
- Threshold- 196A Interior reducer-PEM

Interior Hollow Metal Openings

Bathroom Lock function/single door/non-rated

- Hinge- Roton/Hagar, continuous hinge
- Lockset-ND40 S RHO 626
- Closer- 4040XP RW/PA/689
- Kick plate- 37 10" x 2" L.D.W 630TR
- Plate Anchor- 1268 TR
- Wall stop and holder 1254 and floor stop and holder 1267 626 anchor (for floor stop) 1268
- Silencer- GJ64

Store lock function/single door/non-rated

- Hinge- Roton/Hagar, continuous hinge.
- Lockset-ND80PD RHO 626SC.
- Cylinder – Schlage.
- Closer- 4040XP RW/PA/689
- Kick plate- 37 10' x 2" L.D.W
- Wall stop and holder 1254 and floor stop and holder 1267 626 anchor (for floor stop) 1268
- Silencer- GJ64

Classroom/Institution Lock function/single door /non-rated

- Hinge- Roton/Hagar, continuous hinge
- Lockset-ND73PD RHO 626
- Cylinder – Schlage
- Kick plate- 37 10inch x 2 inch L.D.W
- Wall stop and holder 1254 and floor stop and holder 1267 626 anchor (for floor stop) 1268
- Silencer-GJ64

Corridor lock function/single door/ non-rated

- Hinge- 5BB1HW
- Lockset-ND66PD RHO 626
- Cylinder – Schlage

- Closer- 4040XP RW/PA/689
- Kick plate- 37 10" x 2" L.D.W 630
- Silencer-GJ64
- Wall stop and holder 1254 and floor stop and holder 1267 626 anchor (for floor stop) 1268

Storeroom lock function/single door/ non-rated

- Hinge- 5BB1HW
- Lockset-ND80PD RHO 626SC
- Cylinder – Schlage
- Closer- 4040XP RW/PA/689
- Kick plate- 37 10" x 2"L.D.W
- Silencer-GJ64
- Wall stop and holder 1254 and floor stop and holder 1267 626 anchor (for floor stop) 1268

Automatic Doors (if required)

- Auto Operator - 9542/689
- Mounting Plate - 9540-18/689
- Receiver - 8310-865
- Wireless Actuator - 8310-3853TWF
- Key Switch with L2 option – 653-04
- IC Mortise Cylinder – 20-061/626
- voltage
- Hard wired
- AC powered/ battery backup

LOCK AND KEY

- Contact CUSD locksmith before ordering hardware and any keying to be done

9 FINISHES

092400 CEMENT PLASTERING

- Standard three coat stucco system (must meet performance spec)
- New Construction – Colored stucco finish no paint required
- Modernization/Repaint – Elastomeric used as a mid-coat on a three-coat system for new stucco

092713 GLASS-FIBER-REINFORCED GYPSUM FABRICATIONS

Student Restrooms, Janitor Closets, Other Wet Areas

Manufacturer: Marlite, Acrovyn

- Wall finishes: Fiberglass stalls in lieu of tile (one piece)
- FRP at custodial closet
- Epoxy (4" min up wall).
- Bullnose at top and paint above epoxy

Kitchen

- FRP – floor to ceiling over water resistant gypsum board with aluminum or stainless-steel trim

MPR

- FRP – 4' starting from floor around the perimeter of the building **with chair rail**

092900 GYPSUM BOARD

Interior Wall Finishes

Manufacturer: American Gypsum, Certain Teed, USG

- Typical gypsum board with medium stipple texture
- Use water resistance gypsum board in wet areas (kitchens, restrooms, locker rooms, janitor closets)
- Fiberglass in lieu of paperbacked

093000 TILING

Staff Restrooms and Auxiliary Buildings

Manufacturer: Flooring- ceramic tile: Epoxy or Dal Tile, American Olean; 2x2 with medium to dark gray grout

- Walls: 4x4 or larger with 1/8" grout joints
- If larger tile, make sure of slip resistance

Kitchen Flooring

- Quarry tile with dark/medium gray grout (spec gray tile)

095113 ACCOUSTICAL PANEL CEILINGS

Classroom

Manufacturer: 2x4, Armstrong 755B; or district approved equivalent

- Suspended acoustical tile system
- Access door under HVAC/FAU (if in attic)

Auxiliary buildings (Office, Library, Reading Room)

- Same as above but ok for some special ceiling products in limited areas **(must be District approved)**

096410 HARDWOOD FLOORING

Multi-Purpose Room

- Stage flooring – ¾ Maple T&G with Valspar WP14 finish

096516 RESILIENT SHEET FLOORING

Auxiliary buildings (Office, Library, Reading Room, MPR, Classroom near sinks)

Manufacturer: Vinyl sheet flooring: Mondo, Congolum, or Forbo

096519 RESILIENT TILE FLOORING

Auxiliary buildings (Office, Library, Reading Room)

Manufacturer: VCT: Armstrong: Standard Excelon

- All floor tiles to be glued down (including LVT)

096723 RESINOUS FLOORING

Student Restroom

Manufacturer: Resinous epoxy stonehard, stone shield HRI or UTS; or district approved equivalent (see District spec)

- Sherwin Williams / General Ploymers Fastops
- Return up wall 4" minimum

096800 CARPETING

Classrooms

Manufacturer: Tandus or district approved equivalent

- District to select and go direct to mill. Store at District
- 4" rubber top set base (Burke) – coordinate color with adjacent flooring

Auxiliary buildings (Office, Library, Reading Room)

- Tandus Abrasive Action (charcoal)
- Walk-off mats at all exterior to interior doorways of all buildings

97723 VINYL COVERED TACKBOARD PANELS

Classrooms (Elementary), Administration, Library, MPR

- Fabric- wrapped tackable wall panels (tackboard)
- 4x8 sheets with extended plastic trim
- Fabric: Koroseal RCV School Collection or Highlander
- Take tackboard up to a certain height
- Painting gypsum board up to 4'-0" and then Vertech above that (fur 4'-0")

099100 PAINTING

Manufacturer: Sherwin Williams- Solo

- Color: "Swiss coffee" interior finish
- Interior- light sanding on flat surfaces, 3 coat system - primer, (2) coats of finish semi-gloss
- Exterior- light sanding on flat surfaces (doors, trim, frames, etc) - 3 coat system - primer, (2) coats of finish semi-gloss
- No flat finish surfaces school wide
- Play surface (asphalt) – State Wide Traffic Paint, (no semi-gloss) Yellow- basketball – all other lines white
- Concrete- State Wide Traffic Paint
- Curb- State Wide Traffic Paint
- Basketball backboards- Sherwin Williams- Pro-Cryl Acrylic primer, 2 coats Multi-Surface Acrylic (gloss white) shooting square (orange)
- Interior paint upgrades in large High School gym only
- Baseball and softball backstops – repaint using flat paint only

10 SPECIALTIES

101419-DIMENSIONAL LETTER SIGNAGE

- ADA compliant on all buildings/offices
- Use existing sign program when designing new schools or remodeling existing. Contact District for copy
- Mechanically fastened to the building using theft resistant stainless-steel fasteners

107316 CANOPIES

Manufacturer: Custom Canopies

- DSA approved shade structures

107333 MARQUEES

- Elementary- 7'6" top of marquee to concrete baseplate (no DSA approval required)
- Intermediate - same
- High School - Same
- Reader board, electric with computerized input. Can be hard wired or wireless
- Sign verbiage shall be individual cast letter or "negative" letter cut using CNC machine on plate metal

Base

- Concrete.
- (2)- ¾" electrical conduit (data and power)
- Wireless capable
- Direct line of sight from antennae to marquee
- Stubbed out conduit run to designated panel
- Christy box at marquee pedestal

101116 MARKER BOARDS

Manufacturer: liquid chalk dry - white marker boards with marker trays by Claridge, LCS Deluxe, or district approved equivalent

- 16 linear feet of marker board per classroom. Minimum of (1) 4' x 8' length on teaching wall (no section longer than 8')
- Kindergarten- mount at 24" from floor to bottom of marker board
- Elementary/intermediate- mount at 30" from floor to bottom of marker board
- High School-mount at 36" from floor to bottom of marker board
- Short throw projector mounting - Coordinate with AV specifications

102113 19 TOILET COMPARTMENTS

All Restrooms

Manufacturer: Santana, Comtec, or Capital

- Must meet current fire code
- Partitions: floor mounted, overhead braced, heavy duty aluminum continuous wall mount bracket with non-corrosive door panels and pilasters, high density polyethylene HDPE
- Wall brackets and overhead rails must be fastened to the framing/backing
- Wall panels or pilasters must be inset at least 1 ½" into heavy duty aluminum continuous wall mount bracket
- Pilasters over 10" require aluminum stiffener

Manufacturer: Santana, Comtec, or Capital

- Door panels and pilasters – 1" thick HDPE resin
- Must meet current fire code
- Plastic components covered w/protective plastic masking
- Edges rounded to ¼" radius
- 55" high and mounted at 14" above floor finish

102813 TOILET, BATH AND LAUNDRY ACCESSORIES

Student

- Electric hand dryers- Excellerator by Excel Dryer Inc. (only in student bathrooms)
- Railings- ADA grab bars by Bobrick, ASI, or district approved equivalent
- Lighting, exhaust, AC: connect light switch to exhaust so exhaust goes on when light is turned

Accessories

Soap Dispenser (**owner provided/contractor installed**)

Manufacturer: Impact # 9326 Foameeze, Archer 1015-01G

Toilet Tissue Dispenser (secondary student, all handicap accessible stalls, public, and athletic)

Manufacturer: Royce Rolls Ringer, #TP-2 (boys) #T22 (girls)

Toilet Tissue Dispenser with Pin (elementary and staff)

Manufacturer: Bradley #5241, ASI #0264-1

- Surface mounted

Sanitary Napkin Disposal

Manufacturer: Bobrick #B270

- Elementary – 1/3 of upper grade stalls, nurse's restroom, women's staff restroom
- Intermediate/HS – all stalls, nurse's restroom, women's staff restroom

Sanitary Napkin Dispenser

Manufacturer: Bobrick, B-2706 25 Model

- Intermediate/HS and Faculty Restroom – one per restroom

Toilet Seat Cover Dispenser

Manufacturer: Bobrick #B4221

- Not recessed in wall

Paper towel dispensers (**owner provided/contractor installed**)

Manufacturer: Palmer Fixture T215, Georgia Pacific #54338 (Elem)

- District provided/contractor installed

105113 METAL LOCKERS

Gymnasium

Miscellaneous locker

Kitchen

Manufacturer: Republic Storage Systems

- 12" wide, 15" deep and 36" tall metal lockers
- Elem (4), Inter/HS (16)- depending on type of kitchen
- Locker: type, number and size will vary greatly based upon exact use.

General information to be concerned with are:

- Material: Frames 16 gauge formed steel, doors 14 gauge with high grade enamel finish
- Hardware: Heavy duty, stainless steel
- Design: Built on unit principle - each door has individual door and frame
- Hinges: 2" high, 5 - knuckle, 2 hinges on doors under 42" high; 3 hinges over 42" high
- Lock and latching: ADA accessible, 48" above floor finish maximum
- Recessed handle: non-protruding 14 gauge trigger with 20 gauge stainless steel pocket
- Interior Equipment: Over 42" High - hat/book shelf, double pronged hook
- Number plates: polished aluminum with 1/2" high number

11 EQUIPMENT

114000 FOODSERVICE EQUIPMENT

Appliances

Refrigerator: district choice

- Elementary: 10x12 fridge/freezer
- Intermediate: 20x20 fridge /freezer
- HS: 20x20 fridge/freezer

Dishwasher:

Manufacturer: Champion 44 DR, E-Series

- 44" long rack conveyor dishwasher
- Dual Rinse™ feature

Electric Booster Heater:

Manufacturer: Hatco S-24. Imperial Booster Heater

- Electric
- 16-gallon storage capacity
- 24-KW stainless steel front
- Castone tank

Disposal Unit @ dishwasher:

Manufacturer: InSinkErator model SS-500-18A-AS101

- 18" diameter bowl, 6-5/8" diameter inlet, with re- movable splash baffle and reversible bowl cover
- 5 HP motor
- stainless steel construction
- only add a disposal in dishroom

Convection Oven:

Manufacturer: Montague, Wolf, Hobart

- Montague Company HX2-63AH
- Vectaire Convection oven
- Features: gas, double-deck, bakery depth, cook- and-hold, two-speed motor, electronic ignition and solid-state controls, stainless steel front, top and sides

Combi Oven:

Manufacturer: Rational, Groen, Hobart (start up included in the installation)

Elementary

Manufacturer: Rational SCC WE 102 NG SelfCooking Center® 5 Senses Combi Oven/Steamer,Control with stand UG II

- Double stack
- 5 programmable proofing stages
- 7 cleaning stages
- Automatic
- Provide in-line filters to all combi-ovens

Intermediate/High School

Manufacturer: Rational Self cooking Center 202 Gas

Warming Carts: Carter Hoffmann, Wittco, Hobart

Manufacturer: Carter Hoffmann PH1840, Height 75 7/8, Depth 38", Width 31½ with 6" casters

- Heating system-top mounted
- Stainless steel
- Base Frame-stainless steel, 12 gauge

Air Curtain: Mars, Berner, Airtecnic

Manufacturer: Mars Air Systems PH1272-2UA-PW

- Phantom 12 Series Air Door, for 72" wide door

Sneeze guard (at serving counter)

Manufacturer: ADM EP-21 Pass-Over

- 11' opening

Tilt Skillet

Manufacturer:

Water Filter Assembly for ice machines and combi oven

Manufacturer: Everpure EV927502. QC71-MC² Twin Water Filter System

- Features: soda dispenser, cap. 50 syrup tanks or bag-in-box per month
- 1/2 micron precoat cartridges, water shut-off valve, outlet pressure gauge, flushing valve, flow rate: 3.34gpm

Milk Cooler

Manufacturer: Beverage-Air or True

- Beverage –Air, SM Series 16 case capacity

Transport Cabinet

Manufacturer: Wittco

- High School: IMC-2026-HS
- Full perimeter bumper
- Must have handles

Holding and Transport Cabinet:

Manufacturer: Wittco

- Model #2026-60-BC
- full perimeter bumper
- Must have handles

Gas Range

Manufacturer: Wolf

- Model # FS-4J-27
- 4 burner gas range with oven

Slicer

Manufacturer: Hobart

- Model 2712
- two-speed automatic carriage

Mixer

Manufacturer: Hobart or Globe -20 quart

- Model A200
- manual bowl lift, 3 fixed speeds

Manufacturer: Hobart or Globe -60 quart

- Legacy HL 600
- power bowl lift

Reach-in Freezer

Manufacturer: Traulsen

- Model RLT232WUT
- full length doors, stainless steel

Reach-in Refrigerator:

Manufacturer: Traulsen

- Model RHT232NUT
- full length doors, stainless steel

No water softener systems

Kitchen Faucet:

Manufacturer: Chicago 100 series with 8" spread

Sinks

Three Compartment Sink

Manufacturer: Advance Tabco model # 94-83-60-36RL

- Features: 28" front-to-back x 20" wide sink compartments, 14" deep, with 11" high splash, stainless steel legs with welded front-to-rear and adjustable left-to-right cross rails, 36" drain boards

Hand Sink:

Manufacturer: Advance Tabco 7-PS-69. Wall model,

- Features: 14"Wx10" front-to-back x5" deep bowl, 20 gauge 304 series stainless steel, heavy duty splash mounted faucet with wrist handles, lever drain with overflow, P-trap, soap and towel dispenser.

Mop Sink

Manufacturer: Advance Tabco 9-OP-40DF-X, floor mounted

- Features: 20" L-R, 16" F-B, drop front design, 12" high water level, free flow drain with 2" IPS outlet, stainless steel construction.

Storage

Wire Shelving

Manufacturer: Metro 2448BR

- Super Erecta® Shelf, wire, 48" Wx24" D, Bright (zinc) finish, plastic split sleeves are included in each carton, NSF.

Locker

Manufacturer: Republic Storage Systems

- 12" wide, 15" deep and 36" tall metal lockers
- Elem (4), Inter/HS (16)- depending on type of kitchen
- Locker: type, number and size will vary greatly based upon exact use. General information to be concerned with are
- Material: Frames 16 gauge formed steel, doors 14 gauge with high grade enamel finish
- Hardware: Heavy duty, stainless steel
- Design: Built on unit principle - each door has individual door and frame
- Hinges: 2" high, 5 - knuckle, 2 hinges on doors under 42" high; 3 hinges over 42" high
- Lock and latching: ADA accessible, 48" above floor finish maximum
- Recessed handle: non-protruding 14 gauge trigger with 20 gauge stainless steel pocket
- Interior Equipment: Over 42" high - hat/book shelf, double pronged hook
- Number plates: polished aluminum with 1/2" high number

High efficiency water heater

- Architect determined based on size of kitchen facility
- No tank-less water heater

Prep Counter

- Electrical access
- 4 drop down outlets over prep area
- 1 ¾" wood top table with under shelf, 3' x 6', and stainless steel table with pot and pan rack with shelving above and below table (consider drawers in configuration)

Auto Scrubber

Manufacturer: Tomcat Mini Scrub or district approved equivalent (walk behind)- Elementary

Manufacturer: Advance or district approved equivalent (ride on) - Intermediate/ High School

116813 PLAY FIELD EQUIPMENT

Primary Play Equipment- 5 Years to 12 Years

Manufacturer: Miracle

- Pit size will vary depending on the size of the equipment – designed by civil engineer and approved by CUSD (no circular design)
- No rusted, bent, broken, worn-out, or damaged items
- ADA accessible sidewalk path to pit
- ADA accessible ramp to pit
- Engineered wood fiber fill (18" deep & filled to the top) and poured-in-place rubber surface for ADA compliance (engineered by civil engineer and locations approved by CUSD Grounds)
- Pit designed with 18" deep curb

- 18" valley gutter on all sides of the pit, slope dependent on grass
- Sub grade slope from bottom of curb to top of dry well
- Dry well drain-filter fabric on inlets w/in pit area
- Components: 8-10 play components - age appropriate

Kindergarten Play Equipment - 5 Years to 12 Years (2-12 when Kindergarten shared with Preschool)

Same as 5 Years to 12 Years Primary Play with the following additions

- Main gate w/ panic bar hardware (dependent upon location of playground equipment)
- Double-wide gate 10' wide (maintenance)

Preschool Play Equipment - 2 Years to 5 Years

Manufacturer: Miracle

- Pit size will vary depending on the size of the equipment – designed by civil engineer and approved by CUSD (no circular design)
- No rusted, bent, broken, worn-out, or damaged items
- ADA accessible sidewalk path to pit
- ADA accessible ramp to pit
- Engineered wood fiber fill (18" deep) or poured-in-place rubber surface (engineered by civil engineer and approved by CUSD)
- Pit designed with 18" deep curb
- 18" valley gutter on all sides of the pit, slope dependent on grass
- Sub grade slope from bottom of curb to top of dry well
- Dry well drain-filter fabric on inlets w/in pit area
- Main gate w/ panic bar hardware
- Double-wide gate 10' wide (maintenance)
- Components: 5-6 play components
- Shade canopy required as part of equipment

Shade Structure

- Each school will receive a 30'x40' shade structure near the playground

Athletic Specifications

- See appendix at the end of Building Specifications document.

13 SPECIAL CONSTRUCTION

131100 SWIMMING POOLS

Construction

- Deck construction – coated rebar at cantilever deck or skimmer deck approximately for 4'
- Deck finish medium broom, approved by the district
- Sample finishes must be provided to CUSD

Heater/Boiler

Manufacturer: Pentair (No Lochinvar)

- Designed by aquatic engineer and approved through CUSD
- Cooling tower lock out w/ boiler @ HS, not necessary @ Intermediate
- Solar when possible for pre-heating purpose

Filtration

Manufacturer: Eco3, high rate sand

- Covers to protect system (indoor or sheltered)
- Automatic backwash
- Size varied by pool volume
- NO D.E. systems
- Minimum 15 year for filter system

CO2PHsystem

Manufacturer: Carbo Max 750 tank/ TEK feed unit

- Fill valve and injectors
- No heated tank and booster pumps

Chemical controller

Manufacturer: BEC system 7

- Keyed enclosure at the pool control panel locations
- Must be located in covered area

Chlorine Pump and Tank

Manufacturer: PPG, LMI pump, Stenner pump

- Sodium hypochlorite feeders
- Chemical storage must be contained in a fully enclosed room

Pool Equipment Eye Wash/Shower

Manufacturer: Haws

- ADA compliant

Flow Meter

Manufacturer: Signet or must be compatible to chemical controller

- Must have indicator light

Acid Feeder

Manufacturer: PPG, LMI pump, Stenner pump

- Separate room from chlorine feeder

Exhaust Fans

Manufacturer: Greenheck

- TEFC motor
- Hi Pro polyester finish
- CUBE fan (out of airstream) or GB series (in airstream)
- In chemical room
- Size depends on square footage

Auto Fill

- Easy to calibrate

VFDDrive

Manufacturer: KNORR systems Inc. or district approved equivalent

- Smart pump control system

Underwater Lights

Manufacturer: Pentair

- LED technology 3400 lumens equivalent to 500 watt incandescent
- Replace terminal connection with new connection
- Brass mounting rings

Lane Lines

Manufacturer: Competitor

- 6" lane lines @ CWHS and CNHS
- CW/CN dedicated 50m lane lines in addition to yard lines
- 4" lane lines @ all other facilities
- Reels – enough to handle all lanes and polo sidelines out of the pool
- Reel covers for lane lines

Backstroke Poles

Manufacturer: Paragon

- With collars
- Stainless steel

Diving Boards

Manufacturer: Durafirm, Maxiflex B

- Aluminum
- Height – HS (3M and 1M), Intermediate (2 1M)

Starting Blocks (Site Funded)

Manufacturer: Paragon

- HS – dual post
- Intermediate – single post

Block Anchors

Manufacturer: Paragon

- HS – dual post anchor
- Intermediate – single post anchor

Timing System

Manufacturer: Colorado timing, systems 6

- HS – touch pads
- In-deck timing @ CW, CN, CE, BHS
- Speakers- one per lane for competition
- Starter – Infinity @ all sites
- 2 Champ starts @ CW and CN
- Number of lanes is dependent on size of pool

Scoreboard (site funded)

Manufacturer: Colorado Timing or VividLED- full color board

- Alphagraphic or Video

Drains

- Main drain must be Virginia Baker Act compliant
- Gutter drains need to be accessible from deck with enough room for a 12"x16" access panel

Storage facility

- HS – 1500 sq feet
- Intermediate – 500 sq feet
- Gated and covered with rolling gates
- Surrounding fence and roof of storage facility needs to be slated

Safety Storage

- Ca. Health Code compliant
- ADA compliant

Fencing

Manufacturer: Valley Fence

- Chain link 1" mesh, hot dipped
- Considerations for wind exposure
- County health department approved

Lane Line/Reel

Manufacturer: Paragon

- Stainless steel

Lane Line Anchors/Water Polo Anchors

- ½" stainless steel eyebolt
- Per USWP rules – 25M/30M courses

Racing Line Tiles

- Architect designed and CUSD approved
- Black tile
- Turn T's at pool floor at 2M

Water polo Boundary Lines/Tethers

Manufacturer: Competitor

- Per USWP rules 25M/ 30M courses

Handrails and Ladders

Manufacturer: Paragon

- Stainless steel
- Escutcheon plate
- ADA compliant

Water polo Goals

Manufacturer: Kieffer or district approved equivalent

- Stationary or Floating- site discretion (site funded)
- Stainless steel- stationary
- Fiberglass- floating

Disable Lift with Anchor

Manufacturer: Paragon #20302

- Quantity depends on the size of the pool

Strainer

Manufacturer: MerMaid or district approved equivalent

- Acrylic lid
- Stainless steel

Thermal Pool Cover/Reel

- Triple winder
- Protective tarps for pool covers

Warranty

- Start-up training and field service
- Chemical balanced pool once filled

Deck Shower

- Number of nozzles depended on pool occupancy and on size of pool.
- Must have hot water
- Showers must be located away from path of travel
- Must drain toward shower base

Bathrooms /Office

- Sealed concrete, slip-resistant floors
- Tinted windows

Gate

- Self-closing with panic bar devise
- Meet all county health code requirements

Emergency Vehicle Access

- Concrete pathway – 20' wide, 8" thick – architect/engineer designed
- Double gate access
- Fire code compliant

Pool Design Consultants/Architect

- Preferred Consultants: Aquatics Design Group and Arch Pac

Signage

- Signage compliant with county health requirements

131100 SNACK BARS

Appliances

- Refrigerator (site funded)
- Tankless water heater
- Soda dispensers (provided by distributor)

Ice Machine

Manufacturer: Scottsman, Manitowoc

- 300-500lb capacity
- Remote condensers
- No flakers or nuggets

Casework/Countertops

- Open shelves at counter
- Lockable storage
- Countertop serving area – stainless steel
- Code compliant serving area

Electrical power

- 110/220

Sink

- Dual sink
- Hand wash station w/ large basin

Cooling

- Swamp/evaporative cooler

Flooring

- Bare sealed concrete

Wall finish

- FRP

21 FIRE SUPPRESSION

210000 FIRE SPRINKLER SYSTEMS

- The sprinkler system shall be designed and sized (by hydraulic calculations for mains) in accordance with NFPA No.13 and fire authority requirements
- All materials shall be in accordance with NFPA No. 13 “standard for the installation of sprinkler systems”, underground mains shall be in accordance with NFPA No. 24

Sprinkler heads

- Semi-recessed in areas with finished ceilings, standard heads elsewhere
- Chrome finish in areas with finished ceilings, standard finish in areas with exposed piping

Alarm Valve Assembly

- Standard wet type alarm valve assembly and water motor gong
- Provide flow switch for connection to alarm system
- Provide tamper switch

Post Indicator Valve

- Lockable operating handle, tamper switch
- Target visible through a glass covered post – “open” or “shut”

Fire Hydrant

- In accordance with fire authority

Interior Fire Station

- Open house rack with 1 ½ inch valve
- 100 feet of 1 ½ inch woven jacket, rubber lined hose and 1 ½ adjustable nozzle

Escutcheons

- Chrome plated where piping penetrates walls, ceilings or floors in finished areas

Sprinkler Pattern

- Symmetrical pattern with lighting fixtures and ceiling pattern
- Heads located in lay-in ceiling shall be centered within panel

Pipe Installation

- Pipes passing through fire rated surfaces shall have the annular space surrounding the pipe sealed with fire rated materials
- Pipe passing through concrete shall be provided with pipe sleeves

Concrete Thrust Blocks

- Constructed at all valves, T’s, elbows, bends, crosses, reducers, and dead ends in loose-joint pipes
- Concrete shall be 2500 psi mix
- Size of block based on 1500 psi undisturbed soil bearing capacity

Access

- Provide access doors as required for all valves, devices, etc.

22 PLUMBING

220000 PLUMBING

Faucets

Manufacturer: Student – Chicago Metering 3400-ABCP Cold only

Manufacturer: Break room/nurses office –Chicago #1100 GN8AE35-317 AB

Manufacturer: Staff - Moen 8813 Hot and Cold

- Push action metering (self-closing) faucets in the restrooms
- Hot and cold water for staff restrooms

Classroom Faucets

Manufacturer: Chicago 350 Series

- Single Hole Faucet
- Cold only

Toilets

Manufacturer: Kohler or American Standard

- Floor -mount with manual flush valve system
- Sp. Ed. rooms with battery operated flush system
- All water closets at full size (no mini toilets at Kindergarten)

Tank toilets

Manufacturer: Kohler “Cimarron”

- Floor mounted

Urinals

Manufacturer: Kohler K4991-ET-0

- No waterless urinals
- Wall mounted
- Urinal screen at each urinal
- Battery/sensor flush drive (Staff only)

Flush valves

Manufacturer: Sloan Royal #111 for toilets #186 for urinals, Zurn Aqua Advantage Z6000 series

- Manual- toilet
- Meet ADA requirement

Mounting

- All sinks and urinals are to be wall mounted
- All toilets to be floor mounted
- Sink/Urinal/Toilets: meet ADA requirements

Drinking fountains

Manufacturer: HAWS model #3300G exterior hi/lo, HAWS for all other fountains (HAWS 1900 for water bottle fillers)

- Meet ADA requirement
- Athletic fields: locate near backstops when possible
- Hook up to sewer if fountain within 100 ft. and sanitary slope allows
- Winterize outdoor pipes
- Required at all baseball fields
- Center location between fields
- Hose bib with lockable access door
- In-ground shut-off valve for all outdoor drinking fountains

Water Heater

- No tankless water heaters
- No instant hot water heater (EEMax – EMT 2.5 only)

Hose bibs

Manufacturer: Woodford Loose Key or district approved equivalent

- No recessed type wall box where possible
- Bibs located in landscaped areas
- Provide at rooftop HVAC units
- Provide near amphitheater

Student Bathroom Sinks

Manufacturer: Kohler

- 4" spread K2005-0 with mounting arms (no brackets)

Classroom Sinks

Manufacturer: Elkay or district approved equivalent

- Stainless steel
- Gooseneck faucet with drinking bubbler (separate shutoffs)
- Cold water only

Eye Wash Station

Manufacturer: Guardian/HAWS

- Stainless steel
- Models G1101, G1200, G1774, G1849 dependent on replacement of sink or retro-fit
- Eye Wash/Shower Stations- HAWS only
- In nurse's office and custodial yard

Custodial Closet

Manufacturer: Chicago C897CP (mop sink)

- Hot water access
- Wall finish FRP or tile (no FRP around mop sink)
- Flooring - bare concrete
- Mop sink with rack
- Shelving for supply storage
- Storage in MPR for auto scrubber

Hot water access locations

- Custodial closets and sinks
- All kitchen sinks
- Nurses office sinks
- Kindergarten work room sinks
- Administration office work room sinks
- Snack bar sinks
- Teacher lounge sinks
- All staff restroom sinks
- Staff shower at locker room
- District approved locations

Shut-off valves

Manufacturer: Nibco or district approved equivalent

- In ground valves to have #2 square key shut off
- In ground valves larger than 2 inches to have rising stem gate valve
- Above ground valves 2 inches or larger to have rising gate valve
- Valves less than 2 inches to be ball valves- above ground
- Shut off valve at each building

Sewer Clean Out

- Two way clean outs every 100'
- Clean out located at each building

Washout Drains

- Drainage system which separates the solids from the liquids
- Located in grounds shop area (high school or district office grounds shop)

General

- Flow direction indicators on piping – above ground

Floor Drains

- Trap primers to be connected to flush valves and not installed in a 12X12 panel when they are serving restroom with floor drains

Gas Regulator

- Above ground in a lockable cage

23 MECHANICAL/PLUMBING

237413 PACKAGED OUTDOOR, CENTRAL STATION AIR HANDLING UNITS

Package Unit

Manufacturer: Trane or district approved equivalent

- 14 Seer
- HPI= 16+ Seer
- Equipped with Economizers
- Gas fired heat
- Rooftop 110V power
- Water/electricity accessible- water and electricity access for every two units within 20'
- All panels and doors must maintain clearance for service men to access for repairs

Chiller

Manufacturer: Trane or district approved equivalent

- Efficiency- .60 kwh/ton hr.
- Air cooled

Boiler

Manufacturer: RayPac, Cleaver Brooks, or Camus

- No air cooled module boilers
- No pulse style boilers
- Less than 2M BTU / unit
- Efficiency – 90% condensing
- Expansion tank sized for site
- Pump Manufacturer: Bell Gossett or district approved equivalent
- All plumbing and drains terminated outside of footprint should be ran to a floor drain

Variable Frequency Drives

Manufacturer: ABB, Daikin or district approved equivalent

- Where applicable – pumps and fans
- 5 HP or greater

Custodial Room-Air/Cafeteria Manager Officer-Air

Manufacturer: Gree (mini split) or district approved equivalent

Manufacturer: Trane (package unit)

- Package unit or mini-split

Exhaust Fans

- Roof mount when possible

Pool Chemical Room: pool guy

Manufacturer:

Restrooms Fans

Manufacturer: Cook, Broan or district approved equivalent

Kitchen Fans

Manufacturer: Cook or district approved equivalent

- Designed for size of kitchen

Unit Ventilators

Manufacturer: Changeaire

- Blowers are serviceable

Gymnasium Fans

Manufacturer: Cook or district approved equivalent

- Designed for size of gymnasium
- HVAC unit in large gymnasium on high school campus and one gymnasium on intermediate campus
- If evaporative cooler is at its useful end of life, replace with HVAC

Data Room-Cooling

Manufacturer: Gree, Sanyo, (mini split)

Manufacturer: Trane (package unit)

- Do not use cassette style or wall mount (air handler on ground)

- Not to be on central plant
- Condensation lines to terminate to outside

Evaporative Coolers

Manufacturer: Western Air, AirEase or Gouvernaire

- CFM- designed for room size
- Stainless steel sumps where available

General Maintenance of HVAC

- Vacuum all interior surfaces
- Replace all bearings with high grade seals
- Replace any missing or damaged interior insulating materials
- Replace blower motor with energy efficient rated motor
- Replace pulleys and belts
- Pressure flush all condensation drains and wash pans
- Clean blower wheel to remove all dirt, dust and debris to a “like new” condition (no dirt in the blades)
- Repair or replace all necessary door hardware
- Roof access on every building to include mechanical wells
- No Greenheck or Aeon equipment

Hydronic

- Chemically wash to remove all debris from water coils
- Flush to ensure maximum flow through coils
- Replace damaged or missing mesh guards on supply air grills
- Rebalance blower wheels
- Properly insulate hydronic lines in U/V and attic spaces
- Test and replace any malfunctions actuating valves

Gas/Heat

- Vacuum heat section to remove all dirt and debris
- Replace inducer assembly (i.e. motor, blower wheel, gaskets)
- Test all limit safety devices, replace defective components

Air Conditioning

- Chemically wash all evaporative coils, condensate pans, drains (to be free of all dirt and debris)
- Test all connections for compressors, contractors, pressure safety devices. Repair or replace as needed

Make-up Air Units

Manufacturer: Dayton Cook, Alliance, Sterling

- Gas line hook up should be staggered away from vent/flue pipe

Duct Cleaning

- Modernizations- no duct cleaning in drawings

25 INTEGRATED AUTOMATION

255000 DIRECT DIGITAL CONTROL AND ENERGY MANAGEMENT SYSTEM

System

- The system shall be Niagara N4 with open license supervisory controller(s) and shall be compatible with the existing district-wide system. The use of Niagara AX or Niagara will be determined by CUSD during project design based on the project's scope of work. Only BacNET or LON network protocols are allowed. All BacNET and LON network wires will be green.
- A Graphic User Interface (GUI) must be integrated into the District's server
- District Operators must have direct access to override all control outputs (digital and analog) at the JACE level of control. All control outputs and inputs must be clearly named with a function and point description.
- The programmable control requirements of the DDC/EMS shall include (based on equipment design and sequence of operations), but not limited to:
 - Heating and Cooling set point adjustments
 - Scheduled occupancy routines including holidays
 - Custom tailored reporting
 - Critical condition alarming
 - PID control on analog outputs
 - Hot water reset
 - Economizer/Purge
 - Separate Modes as required by control sequence

HVAC Equipment Control

- All HVAC equipment must be controlled by EMS – exceptions are allowed but only with district approval (Kitchens, IDF rooms)
- Control sequences must be Title 24 compliant

Interior Lighting

- Shall not be controlled by EMS – only by exception of and with District approval

Exterior Lighting

- All exterior lighting (except athletic fields) must be controlled by EMS incorporating photocell, schedule, and override capabilities
- If lighting control panels (LCP's) are installed in addition to the EMS controls, the LCP must be compatible with and integrated into the District's EMS

Relocatable Portables

- Shall not be controlled by EMS – local programmable thermostats will be used. Wireless thermostats are acceptable with CUSD approval.

26 ELECTRICAL

260000 ELECTRICAL

**NOTE: STRANDED WIRE ONLY-NO SOLID WIRE THROUGH OUT ENTIRE PROJECT (Except MC cable)
Through conduits ½ diameter or larger**

Main power

Manufacturer: Square D, GE, or district approved equivalent

- Vary depending on location
- Engineer specified and approved by district

Portables

- Stand-alone TC can for all low voltage connections
- Power distribution panel for all portables panelboards
- Provide security fencing around main disconnects and/or fire risers

PlayFields

- Power pedestal located near fields/courts (locking cabinets)
- Weather tight and waterproof 110 access
- Track finish line - Christy box (N18) with extension, J hooks, (both sides of finish line)

Interior classroom walls

- Commercial spec grade

Projection walls

- Quad outlet

Conference Room

- GFI floor boxes with power and data

Amphitheater

- Weather tight and waterproof GFI receptacle mounted at light pole or pedestal when possible

MPR

- Lighting control should allow to dim lights near the projection screen and still allow lighting in other sections of the MPR

Light standards

- Meet Title 24 requirements
- Wall mounted or pole mounted lights
- No exterior bollard lighting (path lighting)
- No in-ground lighting
- Able to receive an "Automatic Demand" signal from ISO (Independent System Operator) in structures exceeding 10,000 sf. Per Title 24

Marquee/school sign

- Stubbed out conduit run to designated panel
- Christy box at marquee pedestal
- Pathway back to main office – 2 separate conduit (1 data and 1 electricity) - 1" minimum or larger PVC

Internal campus

- Title 24 compliant
- LED 4000K to 5000K fixtures
- Lighting Contactor controlled by EMS for exterior lighting
- One exterior lighting zone
- 24 " depth for all conduit
- ¾" or larger PVC conduit underground

Parking lot

- Title 24 compliant
- LED 4000K to 5000K fixtures
- Lighting Contactor controlled by EMS for exterior lighting
- 24 "depth for all conduit

Office

- Title 24 compliant
- LED 4000K to 5000K fixtures
- Lighting zones
- LED technology

Classroom

- Title 24 compliant
- LED technology 4000K-5000K fixtures
- Lighting zones
- Hardwired controls, preferred
- Use drop-in light fixtures (2'x4') for t-bar ceilings
- *No CREE smartcast*

Christy box lids

- Lockable with tamper proof lid

Power Density Values by location (W/sf)

- Auditorium / MPR Building– 1.5 maximum allowed lighting power
- Classroom Building– 1.1 maximum allowed lighting power
- Library Building– 1.3 maximum allowed lighting power
- Office Building – .08 maximum allowed lighting power
- School Building – 1.0 maximum allowed lighting power

Daylight Harvesting sensor (California Energy Building Standards)

- Designed by electrical engineer and approved by district
- Title 24 compliant- address mandatory requirements for daylighting
- Additional lighting controls are required in daylight zones to automatically shut off lighting when sufficient daylight is available

Color rendition index/contrast

Manufacturer- N-Lighting or district approved equivalent (**not Cree**)

- 10 year warranty preferred if cost effective
- 80 CRI minimum/ 2:1 target uniformity (prefer 90 CRI when possible)

Electronic Theater Controls- Color Source Series

Manufacturer: ETC or district approved equivalent

- ColorSource Spot – Spot fixture for “front lighting”
- Mounted in the ceiling above the audience
- ColorSource PAR – wash fixture for “down light and back light”
- Mounted in the ceiling area above the stage / platform area

Solar Asset Management

Manufacturer: DECK monitoring system or district approved equivalent

- Solar-ready sites per Title 24
- No ground mount, no roof mount
- Data cable to connect to network
- Use as shade structures whenever possible
- Cleaning – as needed based on drop in performance

27 COMMUNICATIONS

270000 COMMUNICATIONS

Power

Uninterrupted Power Supply (UPS)

Manufacturer: N1 Critical Technologies Lithium-Ion UPS System or district approved equivalent

Main Crossconnect/ Horizontal Cross Connect

Manufacturer- Leviton or district approved equivalent

Miscellaneous Equipment- Rack surge suppression power strip

Manufacturer- Triplite

- Metal housing with LED
- Adjustable rack mount hardware

Conduit

- Underground communication boxes- contractor provided
- Communication Vaults- district approved
- Underground cable rack hooks/ extensions/ J hook cradle-
Manufacturer: Inwesco
- Surface mount entrance cabinets- contractor provided
- Metallic pillboxes and terminal can-
Manufacturer: Hoffman
- Conduit- see detailed specs.
- Textile inner duct –
Manufacturer: Maxcell- Carlon
- Riser-
Manufacturer: Carlon
- Duct bank locating cable – 3” wide, orange, 4 mils
- Inter-duct-
Manufacturer: Carlon
- Outlet Boxes-
Manufacturer: RANDL Inc.
- Floor boxes-
Manufacturer: Wiremold
- Surface mount raceway (SMR)- all cables inside walls when possible
- Cable tray system-
Manufacturer: B-Line
- Ladder rack cable runway-
Manufacturer: Cooper
- Wire basket cable runway –
Manufacturer: Chatsworth
- Cabling support system-
Manufacturer: Erico, Cooper B-Line
- Fire stop systems-
Manufacturer: Specified Technologies, 3M, Hilti
- Single entry system/ re-enterable fire stop –
Manufacturer: STI
- Grounding/ bonding systems-
Manufacturer: Chatsworth

Structured Cabling System

Work Area Subsystem

- Patch cords – Cat-6
- Modular inserts and jacks- data (blue), voice (white), wireless (yellow), A/V (gray), camera (purple), **lighting control (green)**
- Wall plates- white, keystone opening.
- Blank Insert- match raceway or device plate.
- Blank wall plate- stainless steel.
- Surface mount raceway insert-

Manufacturer: Wiremold or Panduit

Horizontal Distribution Cabling

Copper station cable-

Manufacturer: Superior Essex or District Approved

Horizontal copper cross-connect cabling

Manufacturer: Superior Essex or District Approved

- Backbone Cabling

Fiber optic backbone cabling –

Manufacturer: Berk-Tek or District Approved

Copper system backbone cabling

Manufacturer: Superior Essex or District Approved

Telecommunications Room

Patch cords – Cat-6 owner provided and owner installed

Horizontal cable termination equipment

Manufacturer: Leviton

Backbone cable termination equipment

Manufacturer: Leviton

Fiber termination panels

Manufacturer: Leviton Opt X Ultra (no exceptions)

MDF rack mount fiber panel-

Manufacturer: Leviton Opt X Ultra (no exceptions)

Fiber optic OSP Splice Enclosures

Manufacturer: Leviton

Copper terminal panels

Manufacturer: Circa Enterprise Inc

OSP protection fuse

Manufacturer; Circa Enterprise Inc

Cabinets, Racks and Enclosures

Remote equipment cabinet

Manufacturer: Chatsworth or district approved equivalent

Wall mounted cabinets

Manufacturer: Chatsworth

Floor mount 2 post, 4 post racks

Manufacturer: Chatsworth

Floor mount cabinets-

Manufacturer: Chatsworth

Outdoor wireless access point enclosure

Manufacturer: Pentair

Cable support system

Ladder rack cable runway

Manufacturer: Chatsworth

Intercom/PA

Manufacturer: – Carehawk, Valcom (Class Connection), Bogen (Quantum)

- School safety paging and evacuation tones, distributed MDF/IDF electronic architecture atomic timing synchronization with class change tones, multiple programmable schedules for each zone, two-way loud speaking internal communication and paging, program distribution- user friendly
- VoIP based controller (Gateway)
- Contractor must provide accurate reference list for all speakers indicating either architectural number (room number) or port number (site speaker map)
- Audio paging amplifier – minimum of ½ watt to all intercom speakers, 2 watts to paging speakers and 15 watts to paging horns
- Interior recess mounted wall/ceiling speakers- 8” cone, with transformer- 25- or 70-volt installations, speaker – 65Hz- 17KHz w power rating of 8W, sensitivity- 93 dB, 1 W, 1 meter, voice coil – ¾” with 5 oz. magnet
- Recess Wall Mounted or Flush Mount Horns- double re-entrant type horn loudspeaker with integral driver, impervious to weather and vandalism, constructed of ABS plastic, drivers @ 15 W, frequency response @ 480Hz-14 KHz, sensitivity @ 106 dB, 1 W, 1 meter, transformer – dual voltage multi-tap 25 or 70 volt installation, 180 degree conical

Speaker Housings/Horn

Manufacturer: Atlas Sound or district approved equivalent

Phone

Manufacturer: District Approved

- District provided and district installed
- Volp technology
- Emergency phone line to be installed in designated location

Clock

Wireless Clock System

Manufacturer: Sappling, American Time and Signal or Rauland

- Analog synchronous system
- Connect master clock to the network
- Transmitter- FCC part 90 approved
- Secondary 13” analog Clock

MPR AV System

Manufacturer: Extron 200H

- Architect designed and district approved
- Projector is district approved

Assistive Listening Systems

Manufacturer: Telex, Williams Sound, Shure

- **Infrastructure only** for use of portable system in all areas of campus
- Do not include devices in project (district provided, district installed)
- ADA compliant
- FM wireless, 57 channels (frequency agile with seek button), 80 dB SNR or greater end-to-end, mono or stereo headset jack
- **If purchased** system shall include: carrying case, LT-700 port FM. display transmitter, LA 261 lavalier microphone or LA-278 behind-the-head microphone, LR-400 port display FM receiver, LA-164 ear speaker or optional LA-166 neck loop, complete set of AA NiMH batteries and charging system

Engineer Specified System (MPR sound system)

Speakers

Manufacturer: Electrovoice Evis series- ZX3

DSP Controller:

Do not spec – only with CUSD prior approval

Audio mixer/switcher-

Manufacturer: Rane MLM 103, Shure SCM8000, TOA 9000M2 series W/ appropriate option cards

Audio video controller

Manufacturer: Extron

Wiring

Manufacturer: Belden, West Penn Wire.

Audio amplifier

Manufacturer: QSC, Yamaha or Electrovoice, Model# CPS4.5.

Hand Held Wireless microphone-

Wall mounted UST projector – Owner furnished, contractor installed and configured.

Actiontek Screenbeam 750W - Owner furnished, contractor installed and configured.

Wallplate with USB/**two HDMI**/3.5mm audio – **contractor** furnished, contractor installed and configured.

COVID – W1408-WH-P-A-ALT

COVID – CWP 0010-USB-BA-Ac8”

- Contractor to provide 3.5mm, USB, and active HDMI cable that connects from this wallplate to the audio input on the projector.
- The 3.5mm cable is to be provided by the contractor and is to be connected to the wallplate to the audio input on the projector.

Two ceiling mounted speakers - contractor furnished, contractor installed and configured.

Extron 42-120-13, FF 120T Speakers (1 pair)

Extron Amp -contractor furnished, contractor installed and configured.

Manufacturer: Shure

Hand held Wireless Microphone

Manufacturer: Shure, Model# SM86

Microphone stand

Manufacturer: Atlas Sound, Model # MS-12CE

Microphone cables

Manufacturer: Shure, Model# C25B.

Manufacturer: Denon DN-300Z Media Player w/ Bluetooth Receiver

Personal listening system

Manufacturer: Telex, Model# ST-300 and battery charger Telex# BC-100.

Power sequencer

Manufacturer: Surge X, Model # SEQ

Secondary power strip sequencer –

Manufacturer: Surge X, Model# SX1115RL.

Sound equipment cabinet

Manufacturer: Middle Atlantic, Model# SR-44-32.

Master and remote location to overhead speakers- Multi-Point Array System w audio mixing and switching of multiple inputs

28 ELECTRONIC SAFETY AND SECURITY

282300 VIDEO SURVEILLANCE

Manufacturer: Arrecont, or district approved equivalent

- Camera minimum per site- Elementary (25), Intermediate (40) and HS (50) camera locations
- Able to transmit over the LAN
- IP based camera (no analog)
- Shall terminate in the IDF room or Telecom closets
- Vandal resistant
- WDR (Wide dynamic range)- 90 dB
- Drivers compatible with Exacq Vision Enterprise VMS software

Interior/Exterior Mini **Dual** Dome Cameras

- Day/Night with WDR, power over ethernet, 1080p (HD), Varifocal lens, H.264 or better compression
- Flush, surface, pole, wall or corner mounted

Exterior Fixed Megapixel Cameras

- Day/night with WDR, power over ethernet, 3 to 5 MP, Varifocal lens
- H.264 or better compression, outdoor rated (IP66)
- Flush, surface, pole, wall or corner mounted

Intrusion Alarm and Access System

Manufacturer: Sonitrol

283100 FIRE ALARM SYSTEM

Manufacturer: Fire Alarm- Gamewell FCI-E3 only

- Meet NFPA 72 level 0 guidelines

32

EXTERIOR IMPROVEMENTS

320000 EXTERIOR IMPROVEMENTS

Turf Type and Condition

- Hybrid 419
- Rototilled @ 6" depth
- Amendment @ 6" depth with recommendation from soil sample. Soil Sample Report delivered to Grounds Manager.
- Sod or stolon application (no stolon application after July 1st)
- Hydro seed with district approval only

Turf Maintenance

- Based off of soil sample report, maintain weed-free, fertilize at least 3 applications during growth season. CUSD Grounds to determine fertilizer based on soil sample.
- Weed free for 60 days growth/maintenance period by contractor after final acceptance by district
- Use of reel style mower at 1" height (mowed once a week)
- Turf health maintained during modernization
- 1 year healthy turf warranty after notice of completion

329300 PLANTS

Plant Type and Condition

Manufacturer: Use local vendors when possible: Belmont, McCalls Nursery, Green Hills

Refer to district approved plant and shrub list

- Planting specs are as recommended by the engineer
- Rototilled 6" depth
- Amendment @ 6" depth with recommendation from soil sample. With final grade 4" lower to allow for mulch. Soil Sample Report should be shared with the District.
- Minimum size- fully rooted but not root bound
- Grade nursery stock – (plant material shall be the size of the container)
- Mulch – 4" compacted depth, walk-on type (1/2 -1" size) without debris (ALW Greens Best)
- Fertilize – commercial homogeneous granular pellet

Plant Maintenance

- 1 year healthy landscape warranty after notice of completion
- Maintain weed-free planter for 60 days
- Landscape health maintained during modernization
- 60 days growth maintenance by contractor after final acceptance by district

Tree Types and Condition

Manufacturer: Belmont, McCalls, Green Hills

Refer to district approved tree list

Refer to district approved tree planting zones

- Hole must be twice the size of the root ball
- Amend with recommendation from soil sample
- Seating wall or tree grate required in heavy traffic areas – inner campus (see concrete)
- Design of tree grate – cast iron, circular pattern to allow for growth
- Root barriers must be used along hard-scaped areas (see concrete)
- Inner-campus tree locations, and tree materials to be approved by district representatives **before planting and irrigation**

328400 PLANTING IRRIGATION

System Warranty

- 1 year warranty after notice of completion

Control System

- **Manufacturer:** clock/software- RainMaster, Toro or district approved equivalent
- 2 hand-held remote controllers (Field, Office) (2 for elementary and 5 for Ed Center)
- Evapotranspiration ready
- Coaches controller on all ball fields
- Manual switch with automated valve – located in dugout
- Ethernet needs to be provide to clock

Water Supply Flow Meter/Master Valve

- **Manufacturer:** Netafim hydrometer or district approved equivalent
- 4" model - LHM4FG1-MELNO (for normally open)
- leads back to computer

Valve

- **Manufacturer:** Toro Irritrol 100 series, Hunter or district approved equivalent

Booster Pump

- **Manufacturer:** Site One or district approved equivalent
- Service provider is "Green Tech" if Site One is used. Water Tronics could be used as second option.
- Size determined by the engineer/landscape architect
- Field verify during design
- Variable flow
- Electronic controls located in covered/shaded canopy
- Outside air cooled
- 10 year warranty

Matched Precipitation Rates

- Determined by the landscape engineer

Central System

- Site connected to the central system
- Site connected to District Office
- Site connected to weather station or on-line service

Moisture/Rain Sensors

- **Manufacturer:** To be aligned with clock manufacturer
- 2 remote control hand- held units (per district recommendations)(2 for elementary and 5 for Ed Center)
- Aligned with manufacturer of the control system
- Remote control activation

Quick couplers

- Located in turf along 1st and 3rd base line on ball fields (as close to dug outs as possible)
- Hose bibs or quick couplers located near amphitheater for custodial use

323119 DECORATIVE METAL FENCES AND GATES

Wrought Iron Fences – For all kindergarten/preschool playground

- 4 " x 4 " tube steel corner posts
- Pickets are 1" x 1", 4" on center
- Top and bottom rail are 2"x 2"
- Meet current CBC and DSA regulations for ADA accessible gate

323113 CHAIN LINK FENCES AND GATES

Manufacturer: Local district preference

- 2" mesh, 9 gauge fabric, galvanized before weaving
- Chain link with knuckle selvage at top and bottom, galvanized before weaving
- 6' Height minimum at perimeter of campus
- Pool fencing – 10' high, mesh at 1" (per county health/safety code)
- Tack-welded post caps at ends and corners
- ADA accessible walk gates
- One "Z" gates at field areas and one per blacktop area
- ADA Accessible hardware and ADA width
- Hardware- heavy duty malleable iron hinge
- Mow strip – 18" at fence base, when used in turf
- Meet current CBC and DSA regulations for ADA accessible gate.
- Example - Von Duprin - exit devices #22 w IC cylinder and housing (see section 087000)

Access Gates

- Kindergarten gates (1) 10' opening with 2 swing gates
- Parking lot swing gates
- Hot dipped galvanized with reflection tape
- Vehicle access gate for;
 - Elementary -2 access points, 20' opening with double swinging gates including approach for emergency and maintenance vehicles. Add 6'x20' landing after gate with 45-degree angles
 - Intermediate/High School – a single or double A-Frame swing gate depending on road size 12' maximum for swing gate
 - Athletic Fenced Facilities: 20' opening with double swinging gates including approach for emergency and maintenance vehicles
 - Track – 4' High fencing around perimeter of track
 - Finish line fencing – a minimum 20' x 20' cut out for timing and photo station with concrete pad and electrical outlet
 - 2 man gates
 - (2) 20' opening with double swinging gates for emergency and maintenance vehicles

Tennis Courts

- 15' high perimeter chain link fence with 1 ¾" mesh, 9 gauge fabric, galvanized before weaving with protective fabric wind screen.
- Fencing between courts at 4' height
- Meet current CBC and DSA regulations for ADA accessible gate.
- Example - Von Duprin - exit devices #22 w IC cylinder and housing (see section 087000)
- Spectator seating – raised concrete seating area at high school and intermediate (see section 033000)

321216 ASPHALT PAVING

- Refer to district deferred maintenance program for maintenance information.
- Architect/Engineer team shall use soils report (as a minimum) recommendation for paving sections.
- Meet or exceeds CBC and DSA/ADA regulations with relation to slopes and access.
- Any trenches and cut outs will be slurry sealed
- 12" compacted soil, 4" aggregate base – class 2, soil sterilant, capped with 2" asphalt concrete type B "1/2 aggregate", asphaltic based seal coat
- All asphalt must be striped after being slurry sealed

321723 PAVEMENT MARKINGS

- See Finishes

Athletic Specifications Appendix

AREA OF FOCUS	DETAILS
General conditions	<ul style="list-style-type: none"> • Number of fields – 3 • Turf- 95% coverage • Grade/Drainage- no standing water/soggy areas • Concrete- meet CUSD concrete specifications (see concrete) • Include all bases, pegs, pitching rubber and home plate for ballfields • 4" of native soil to be removed from all ball fields before clean top soil or ball mix is brought in
Backstop	<ul style="list-style-type: none"> • 30' high chain link backstop, 2" mesh, 9 gauge fabric, galvanized before weaving • All posts have tack-welded post caps • All backstop boards at 41" off center of large poles (2 lower posts per 10' span between large posts) • ADA access to backstop • Horizontal rails (Top 2 middle, Butt and Bottom) • Composite backboards – 3/4" Hole slotted to 1 1/4" Width elongated bolt hole in galvanized angle (install per Manufacturer specs) • Repaint using flat paint only
Dugout	<ul style="list-style-type: none"> • 2 un-slatted chain link dugouts per diamond • Concrete should extend from dugout to end of fence • Schedule 40 2" line and 4" end post • 4' wide field access for each dugout • 10' high front, 8' high back, 7'6" wide, 60' long • Concrete floors – slab extended to end of backstop • 36' long aluminum team bench- legs bolted to the concrete. • Coaches controller (see irrigation spec)
Spectator seating	<ul style="list-style-type: none"> • 5 row aluminum bleacher with concrete slab- home and visitor • Minimum 6' wide concrete walk between bleacher pads in addition to mow strip
Additional field space	<p>Manufacturer: district approved</p> <ul style="list-style-type: none"> • 2 additional portable backstop w side wings, grass fields for B and C softball teams
Infield	<ul style="list-style-type: none"> • Dirt infield – clean topsoil baseball and softball
Soccer Fields	<ul style="list-style-type: none"> • 3 fields- varying sizes • Turf- 95% coverage • Grade/Drainage- no standing water/soggy areas
Goals	<ul style="list-style-type: none"> • Portable (CJSL purchase)
AREA OF FOCUS	DETAILS
Volleyball	<p>Manufacturer: Nets- LA Steelcraft #VBP25-BG or</p> <ul style="list-style-type: none"> • 2 courts • Poles w sleeves and locking caps • Pole storage location on play court surface near fence
Basketball	<p>Manufacturer: LA Steelcraft Model #1256 (single), #12056 (double)</p> <ul style="list-style-type: none"> • 6 courts • 4 courts @ 9' rims • 2 courts @ 10' rims • Adjustable backboard – LA Steelcraft mounts • Tackwell collar – 4 locations w/ 6 1/2 bolts per collar
Tetherball	<ul style="list-style-type: none"> • 6 courts • Poles w sleeves and compression cover to fit flush w/ top of sleeve, sleeve w/ cap
4 square courts	<ul style="list-style-type: none"> • 6 courts
Hop scotch area	<ul style="list-style-type: none"> • 4 courts
Equipment	<ul style="list-style-type: none"> • No rust, bent, broken, worn out or damaged items
Striping	<ul style="list-style-type: none"> • See building conditions (Alert-a-Light Traffic Paint, no semi-gloss)

	<ul style="list-style-type: none"> • Minimal fading or peeling
Concrete mow strip	<ul style="list-style-type: none"> • 18" surrounding courts • Valley gutter if adjacent to play equipment

AREA OF FOCUS	DETAILS
Long jump	<ul style="list-style-type: none"> • 10' x 20' pit w/ 12" concrete border, 18" deep w/ fill sand • Rubber jump board- 6" x 24" • Grass runway • CUSD will install
Shot Put ring	<ul style="list-style-type: none"> • 8'x8' cement pad, flush w/ grass surface • Aluminum toe board (removable) w painted 7' ring • Grass pit • CUSD will install
Pull-up Bars	<ul style="list-style-type: none"> • No longer needed
AREA OF FOCUS	DETAILS
Athletic storage room (Elementary)	<ul style="list-style-type: none"> • 300 sq. feet minimum • Open shelving w/ adjustable shelving racks • 4 tall cabinets – locking • Space for upper storage of large equipment

Elementary

AREA OF FOCUS	DETAILS
Field	<ul style="list-style-type: none"> • Turf – > 95% coverage • Grade/Drainage- no standing water/soggy areas • Concrete (see concrete)
Equipment	<ul style="list-style-type: none"> • Gooseneck goal post- safety yellow • ADA drinking fountain at snack bar/restroom area • ADA compliant – HAWS model #3300G (hi/lo)
Spectator seating	<ul style="list-style-type: none"> • 580 minimum each side • ADA access to field and seating • Aluminum bleachers
Electrical Outlets	<ul style="list-style-type: none"> • Each side of field-outlets in Christy boxes
AREA OF FOCUS	DETAILS
Backstops 8 th grade baseball 7 th grade baseball	<ul style="list-style-type: none"> • Number of fields – 2 • Turf- > 95% coverage • Grade/Drainage- no standing water/soggy areas • Concrete- meet CUSD concrete specifications (see concrete) • 30' high chain link backstop, 2" mesh, 9 gauge fabric, galvanized before weaving • All posts have tack-welded post caps • All backstop boards at 41" off center of large poles (2 lower posts per 10' span between large posts) • ADA access to backstop • Horizontal rails (Top 2 middle, Butt and Bottom) • Composite backboards – 3/4" Hole slotted to 1 1/4" width elongated bolt hole in galvanized angle (install per manufacturer specs) • Repaint using flat paint only
Infield	<ul style="list-style-type: none"> • Dirt infield- existing soil to be excavated and replace with clean fill dirt from Rosenbalm's • Turf infield • Build clay pitching mound per District Standards • Install bases, base pegs, mound and home plate
Dugout	<p>Manufacturer: district approved</p> <ul style="list-style-type: none"> • 2 un slatted chain link dugouts per diamond • 4' wide field access for each dugout • 10' high front, 8' high back, 7'6" wide, 60' long • Concrete floors – slab extended to end of backstop • Schedule 40 2" line with 4" end post • 36' long aluminum team bench – legs bolted in concrete • Coaches controller (see irrigation spec)
Spectator seating	<ul style="list-style-type: none"> • 10 row aluminum bleacher with concrete slab (home and visitor) • Minimum 6' wide concrete walk between bleacher pads
Equipment	<ul style="list-style-type: none"> • Batting cages (site funded) - 4 1/2" OD diameter, galvanized post w/ post cap, 6 5/8" OD galvanized corner post w post cap, 3/8" - 16 x 1 1/2" shank length turn eye bolt • Unfenced home and visitor bullpen • Electronic scoreboard (site funded) • Coaches controller • Electrical outlets- both sides of the field, at end of dugout, inside fence
Drinking fountain	<ul style="list-style-type: none"> • 1 ADA accessible outside each dugout • ADA compliant – HAWS model #3300G (hi/lo)
AREA OF FOCUS	DETAILS
Backstops 8 th grade softball 7 th grade softball	<ul style="list-style-type: none"> • Number of fields- 2 • Turf- > 95% coverage • Grade/Drainage- no standing water/soggy areas • Concrete- meet CUSD concrete specifications (see concrete) • 30' high chain link backstop, 2" mesh, 9 gauge fabric, galvanized before weaving

Intermediate

	<ul style="list-style-type: none"> • All posts have tack-welded post caps • All backstop boards at 41" off center of large poles (2 lower posts per 10' span between large posts) • ADA access to backstop • Horizontal rails (Top 2 middle, Butt and Bottom) • Composite backboards – 3/4" Hole slotted to 1 1/4" Width elongated bolt hole in galvanized angle (install per Manufacturer specs) • Repaint using flat paint only
Infield	<ul style="list-style-type: none"> • Dirt infield- clean topsoil • All dirt infield
Dugout	<p>Manufacturer: district approved</p> <ul style="list-style-type: none"> • 2 un slatted chain link dugouts per diamond • 4' wide field access for each dugout • 10' high front, 8' high back, 7'6" wide, 55' long • Concrete floors – slab extended to end of backstop • 36' long aluminum team bench – legs bolted in concrete • Coaches controller (see irrigation spec)
Spectator seating	<ul style="list-style-type: none"> • 5 row aluminum bleacher with concrete slab (home and visitor) • Minimum 6' wide concrete walk between bleacher pads
Equipment	<ul style="list-style-type: none"> • Batting cages (site funded) • Unfenced home and visitor bullpen • Coaches controller • Electrical outlets- both sides of the field, at end of dugout, inside fence
Drinking fountain	<ul style="list-style-type: none"> • 1 ADA accessible outside each dugout • ADA compliant – HAWS model #3300G (hi/lo)
AREA OF FOCUS	DETAILS
	<ul style="list-style-type: none"> • 2 fields • Turf- > 95% coverage • Grade/Drainage- no standing water/soggy areas
Goals	<ul style="list-style-type: none"> • Portable (district funded)
AREA OF FOCUS	DETAILS
Track	<ul style="list-style-type: none"> • Clay mix (70:30 infield ball mix from Rosenbalm's) • 400 meter w/ 9 lanes
Runways	<ul style="list-style-type: none"> • All-weather polyurethane • Striping and stencils – contractor installed with CUSD approval, minimum fading and peeling
High jump pits	<ul style="list-style-type: none"> • 2 - all-weather surface "D" end
Long jump/ Triple jump pits	<ul style="list-style-type: none"> • 2 – 1 competition and 1 practice meeting length requirement • 10'x 30' pit w/concrete border and 18" curb w/ fill sand • 1 wood-embedded jump board- triple jump • 1 wood-embedded jump board- long jump • All-weather polyurethane
Shot Put ring	<ul style="list-style-type: none"> • 2 shot put rings and grass throwing pits • 10'x10' cement pads w/ aluminum toe board, 12" deep, 84" diameter • Internal boundary ring – 7', aluminum
Discus ring	<ul style="list-style-type: none"> • 1 discus ring and grass throwing area w/cage and netting • 10'x10' cement pads w/ aluminum toe board, 12" deep, 98 1/2" diameter • Internal boundary ring – aluminum
Equipment	<ul style="list-style-type: none"> • Timers and starting blocks • Storage building- "fieldhouse" • Concession stand • Hurdles

AREA OF FOCUS	DETAILS
	<ul style="list-style-type: none"> • Number of courts- 6 • Signage- "Rules" on ¾" plywood backing
Surface	<ul style="list-style-type: none"> • Concrete- reinforced concrete slab with color textured play surface • See concrete standards
Fencing/gates	<ul style="list-style-type: none"> • 15' high perimeter chain link fence w/ 1 ¾" mesh, 9 gauge fabric, galvanized before weaving w/ protective fabric wind screen • ADA accessible walk gates • Fencing between courts
Spectator seating	<ul style="list-style-type: none"> • Raised concrete seating area
Lighting controls	<p>Manufacturer: Wattstopper, Leviton, Greengate, nLite/Synergy</p> <ul style="list-style-type: none"> • Overhead lights for each court • Automated controls
Equipment	<ul style="list-style-type: none"> • Netting apparatus • Drinking fountains
AREA OF FOCUS	DETAILS
Basketball	<ul style="list-style-type: none"> • Number of courts- 9 each
Volleyball	<ul style="list-style-type: none"> • Number of courts- 9 each
Tennis Court Surface	<ul style="list-style-type: none"> • Single coat - concrete primer, Single coat- Acrylic Resurfacer, 3 coats Sport Court Acrylic color (interior) and 2-3 coats of Sports Court Acrylic on exterior (out of bounds) areas • Concrete seating area • Power at each court light standard • Signage- "Rules" on ¾" plywood backing • Hose bibs secured to fence posts – every other court • Courts to be numbered • Meets or exceeds CBC and DSA/ADA regulations
Tennis Court Striping	<ul style="list-style-type: none"> • Plexipave Innercourt – Dark Green Outercourt- Medium Green 3" baselines in lieu of 4" baselines • Minimal fading, peeling
Equipment	<ul style="list-style-type: none"> • Pole configuration • Netting • Sleeve w/ cap
Concrete mow strip	<ul style="list-style-type: none"> • 18" - see concrete standards

AREA OF FOCUS	DETAILS
Field/Stadium	<ul style="list-style-type: none"> • Turf – > 95% coverage • Grade/Drainage- no standing water/soggy areas • Concrete – meet engineering specification
Equipment	<ul style="list-style-type: none"> • Gooseneck goal post- safety yellow • ADA drinking fountain • ADA compliant – HAWS model #3300G (hi/lo)
Spectator seating	<p>Stadium - 4,500 min. on home and 2,000 on visiting side</p> <p>Varsity practice - 580 seat bleachers on concrete slab</p> <ul style="list-style-type: none"> • Educational Centers have seating on home and visitor • ADA access to field and seating
Fieldhouse/ Athletic storage	<ul style="list-style-type: none"> • Minimum of 8 electrical and data receptacles • Phone access • Restrooms w/ drinking fountain adjacent • Bare concrete flooring (team room and restroom) • 2 separate meeting rooms at stadiums (1 at sites without stadium) • 2 white boards (4'x16') on opposite long walls of the team room • Office space w/ ice machine infrastructure (power, floor drain/water supply) • Heating/cooling- package unit <p>Storage</p> <ul style="list-style-type: none"> • Minimum of 900 sq. ft. for athletic equipment storage • Roll up door – 9' to field • Double door access <p>Fitness Center</p> <ul style="list-style-type: none"> • Rubber floor tiles • Power and data raceway along all walls • 2 whiteboards 4'x16' • Double door access w/ center mullion
Concession Stand	<ul style="list-style-type: none"> • Minimum of 8 electrical receptacle, proper voltage for equipment (separate fuses) • 2 large rollup coiling doors • Infrastructure for ice machine • Infrastructure for soda dispenser • Stainless steel counter tops • Infrastructure for refrigerator • Stainless Steel countertops and sinks • Deep pot sink with swivel faucet • Mounted oscillating fans • Exhaust fans • Flooring – bare concrete w/ 6" cove base • Lighting- weather resistant housing • Signage • Finish- Floor to ceiling FRP • Hose bib at exterior of building • Storage / Custodial area w/ mop sink
Restrooms	<ul style="list-style-type: none"> • Restrooms w/ drinking fountain • Bare concrete flooring (team room and restroom) • Hand dryers • Sink • Toilet/Urinal • Finish- bare concrete
Press Box	<ul style="list-style-type: none"> • Power, data, and access point • Scoreboard electrical infrastructure • Flooring- bare concrete • Sliding windows or “up-hinged” window facing field • Windows at both sides of press box for air flow

High School

	<ul style="list-style-type: none"> • Stainless steel countertops • Banner infrastructure - cabling • Marque signage • ADA access • Elevator to press box
Stadium Sound System	<p>PA system</p> <ul style="list-style-type: none"> • Sound system in press box (data, power, phone, cabling) • Wired for on-field PA • Wired for wireless coaches headsets
Electrical Outlets	<ul style="list-style-type: none"> • Each side of field – in concrete wall
Lighting	<ul style="list-style-type: none"> • Engineer designed
Flag pole	<ul style="list-style-type: none"> • 1 flag pole w/ ground illumination pointing at flag
AREA OF FOCUS	DETAILS
Backstops	<ul style="list-style-type: none"> • Number of fields – 3 (Varsity, JV, and Freshmen) • Turf- > 95% coverage • Grade/Drainage- no standing water/soggy areas • Concrete- meet CUSD concrete specifications (see concrete) • 30' high chain link backstop, 2" mesh, 9 gauge fabric, galvanized before weaving • All posts have tack-welded post caps • All backstop boards at 41" off center of large poles (2 lower posts per 10' span between large posts) • ADA access to backstop • Horizontal rails (Top 2 middle, Butt and Bottom) • Composite backboards – 3/4" hole slotted to 1 1/4" width elongated bolt hole in galvanized angle (install per manufacturer specs) • Repaint using flat paint only • Varsity Field only- outfield drainage, herring-bone configuration
Infield	<ul style="list-style-type: none"> • JV and Freshmen- clean fill dirt • Varsity – cinder/clay 70:30 mix
Dugout	<p>Varsity, JV, and Freshmen:</p> <ul style="list-style-type: none"> • 2 un slatted chain link dugouts per diamond • 4' wide opening at the end of each dugout • Concrete floors – slab extended to end of backstop • Accessible drinking fountain inside each dugout • ADA compliant – HAWS model #3300G (hi/lo) • Coaches controller (see irrigation spec) at home side of field <p>Varsity only:</p> <ul style="list-style-type: none"> • 36' long aluminum team bench wall mounted • Painting of dugouts site funded and maintained • Open front with protection fabric • 2 - 4' wide galvanized and vinyl padded front dugout screens, with 4' opening, and (1) 15' long, 3' tall galvanized and vinyl padded coaches screen between backstop and field off dugout • Stairs to spectator section adjacent to the dugout • Dugout dimensions - 10' high front, 8' high back, 8' wide, 60' long • LED ceiling lighting in dugout • Drainage outside of dugout – valley gutter from left field fence to right field fence w/ drains at both sides of dugout • Storage closet – concrete enclosed <p>JV and Freshmen only:</p> <ul style="list-style-type: none"> • 2- 4' wide field access at each end of dugouts • 10' high front, 8' high back, 7'6" wide, 60' long

	<ul style="list-style-type: none"> • 36' long aluminum team bench – legs bolted into the concrete • Schedule 40 2" line with 4" end post
Spectator seating	<p>Varsity:</p> <ul style="list-style-type: none"> • Stadium type seating for 1,200 minimum • Colored foam protection pad on concrete backstop wall <p>JV and Freshmen:</p> <ul style="list-style-type: none"> • 5 row aluminum bleacher w/ concrete slab • 6' wide concrete walk between bleacher pads
Equipment	<p>Varsity:</p> <ul style="list-style-type: none"> • Fenced home and visitor bullpen • Electronic scoreboard • Power and data outlets (press box, dugout) • Lockable, slatted storage area- separate from field (portable batting cage, pitching screens) • Field tarp storage area integrated into stadium depending on design <p>JV and Freshmen:</p> <ul style="list-style-type: none"> • Batting cages (site funded) • Unfenced home and visitor bullpen • Electrical outlets at home plate on spectator side of fence/at the end of the dugout inside fence
Drinking fountain	<ul style="list-style-type: none"> • 1 ADA accessible outside each dugout • ADA compliant – HAWS model #3300G (hi/lo)
Lighting	<p>Varsity:</p> <ul style="list-style-type: none"> • Field lighting at Varsity stadium • Emergency exit lighting • Flag pole illumination- flag pole 30'
Building Accessories	<p>Varsity:</p> <ul style="list-style-type: none"> • Press Box • Vertical lift • CMU ticket booth (not portable) • Portable concession stand adjacent • Storage area under stadium seating
Fence/Foul Pole	<p>Varsity:</p> <ul style="list-style-type: none"> • Foul pole with screen • Decomposed granite warning track- 13' wide • Back fence w/ visibility screen and yellow protection cap • Batters eye (site funded)
AREA OF FOCUS	DETAILS
Backstops	<ul style="list-style-type: none"> • Number of fields-3 (Varsity, JV and Freshmen) • Turf- > 95% coverage • Grade/Drainage- no standing water/soggy areas • Concrete- meet CUSD concrete specifications (see concrete) • 30' high chain link backstop, 2" mesh, 9 gauge fabric, galvanized before weaving • All posts have tack-welded post caps • All backstop boards at 41" off center of large poles (2 lower posts per 10' span between large posts) • ADA access to backstop • Horizontal rails (Top 2 middle, Butt and Bottom) • Composite backboards – 3/4" hole slotted to 1 1/4" width elongated bolt hole in galvanized angle (install per manufacturer specs) • Repaint using flat paint only
Infield	<ul style="list-style-type: none"> • Varsity – cinder/clay 70:30 mix- site will fund additional infield conditioners

	<ul style="list-style-type: none"> JV/Freshmen – clean fill dirt
Dugout	<p>Manufacturer: district approved</p> <ul style="list-style-type: none"> Open front with protection fabric 2 - 4' wide field access to the field Back fence at 10' with 6'8" tall dugout opening at field level, 8' high back, 4' high front galvanized protection fence w/ vinyl padding, 7'6" wide, 55' long 5' bracing in dugout roof – 4' increments Chain link dugouts per diamond- slatted roof and sides 4' wide field access for each dugout – 3 field access points Concrete floors – slab extended to end of backstop 36' long aluminum team bench legs bolted into concrete Coaches controller (see irrigation spec) on home side
Spectator seating	<p>Varsity:</p> <ul style="list-style-type: none"> Stadium seating for 750 minimum CMU Block wall bleacher enclosure Equipment storage under stadium <p>JV and Freshmen:</p> <ul style="list-style-type: none"> 5 row aluminum bleacher with concrete slab (home and visitor) Minimum 6' wide concrete walk between bleacher pads
Equipment	<p>Varsity:</p> <ul style="list-style-type: none"> Batting cages (site funded) Fenced home and visitor bullpen Electronic scoreboard PA system in press box (see existing locations) Lighting- engineered specifications Power outlets in dugouts, at ADA drinking faucet area (both sides of the field), and off the field behind home plate spectator side of fence <p>JV and Freshmen:</p> <ul style="list-style-type: none"> Unfenced home and visitor bullpen Electrical outlets- behind home plate on spectator side, and at first and third base behind fence
Drinking fountain	<ul style="list-style-type: none"> 1 ADA accessible outside each dugout ADA compliant – HAWS model #3300G (hi/lo)
Lighting	<p>Varsity:</p> <ul style="list-style-type: none"> Field lighting at Varsity stadium Emergency exit lighting Flag pole illumination – pole 30'
Building Accessories	<p>Varsity:</p> <ul style="list-style-type: none"> Press Box Vertical lift CMU ticket booth (not portable) Portable concession stand adjacent
Fence/Foul Pole	<p>Varsity:</p> <ul style="list-style-type: none"> Foul pole with screen Back fence w/ visibility screen and yellow protection cap
Restrooms	<ul style="list-style-type: none"> Separate men's and women's facility
AREA OF FOCUS	DETAILS
	<ul style="list-style-type: none"> 1 Varsity@ HS Other soccer fields – 9 @ Ed Centers, 2 @ HS Turf- > 95% coverage Grade/Drainage- no standing water/soggy areas
AREA OF FOCUS	DETAILS
Track	<ul style="list-style-type: none"> All-weather surface, Mondo or Polyurethane 400 meter w/ 9 lanes

Runways	<ul style="list-style-type: none"> All weather surface- Mondo or Polyurethane Striping and stencils – minimum fading and peeling
High jump pits	<ul style="list-style-type: none"> 2 - all-weather surface “D” end
Long jump/Triple jump pits	<ul style="list-style-type: none"> 2 competition and 1 practice meeting length requirement All-weather runway to match track 10’x30’ pit w/ 18” concrete border w/fill sand 1 wood jump board and 3 painted boards at competition pits, all painted boards at practice pit Striping and stencils – minimum fading and peeling
Pole Vault Pits	<ul style="list-style-type: none"> 2 pits Pole vault plant box (44”x23”x16”) w/ cover to match runway All weather runway to match the track Striping and stencils – minimum fading and peeling
Shot Put ring	<ul style="list-style-type: none"> 2 shot put rings Concrete slab – 10’x10’ w/ aluminum ring Fiberglass throw board DG-filled pits w/ 4”x 6” wood edging
Discus ring	<ul style="list-style-type: none"> 2 rings – 1 ring competition 1 practice Concrete slab- 12’x12’ w/ 8’3” aluminum ring Discus cage will vary
Equipment	<ul style="list-style-type: none"> Timers and starting blocks (site funded) Adjustable hurdles Storage building adjacent Portable concession stand Adjacent restrooms w/ drinking fountains Data and electrical receptacle access at inside and outside of finish line w/ weather proof outlet box Finish line fencing – 4’x 6’ cut out for timing/photo station 8 row spectator bleachers- ADA accessible 4’ fencing around perimeter of the track
AREA OF FOCUS	DETAILS
	<ul style="list-style-type: none"> Number of courts- 12 Signage- “Rules” on ¾” plywood backing Hose bibs secured to fence posts – every other court Courts to be numbered
Surface	<ul style="list-style-type: none"> Concrete- reinforced concrete slab with color textured play surface per engineered specifications See concrete standards
Fencing/gates	<ul style="list-style-type: none"> 15’ high perimeter chain link fence w/ 1 ¾” mesh, 9 gauge fabric, galvanized before weaving w/ protective screen ADA accessible walk gates Fencing between courts at 4’ high to allow for movement between courts
Spectator seating	<ul style="list-style-type: none"> Raised concrete seating area for 180 minimum w/ shade structure Shade structure framed w/ top bracing for corrugated metal roofing or protective screen. Electrical outlets embedded in the ends of seating structure
Lighting controls	<p>Manufacturer: Wattstopper, Leviton, Greengate, nLite/Synergy</p> <ul style="list-style-type: none"> Overhead lights for each court Automated controls- logic control software program Electrical outlet at light poles
Equipment	<ul style="list-style-type: none"> Netting apparatus
AREA OF FOCUS	DETAILS
Basketball/Volleyball	<ul style="list-style-type: none"> Number of courts- 12

	<ul style="list-style-type: none"> • Post and sleeves w/ cap and post storage • Backboard and rim- height @ 10' • Adjustable backboard – LA Steelcraft mounts • Tackwell collar – 4 locations w/ 6- ½" bolts per collar • Netting apparatus
Surface	<ul style="list-style-type: none"> • Refer to CUSD deferred maintenance study on paving • Meets or exceeds CBC and DSA/ADA regulations
Striping	<ul style="list-style-type: none"> • Minimal fading, peeling
Concrete mow strip	<ul style="list-style-type: none"> • see concrete standards