

Los Angeles Southwest College - Campus Standards Matrix

Note: Campus preferences are indicated first followed by additional manufacturers which are being considered by the College and/or the District).

This Campus Standard Matrix is to be used as a guide. In case there is a valid need to deviate from these Standards, a written request will need to be submitted in writing and a formal written approval will be required by the Campus Maintenance & Operations (M&O). This is a living document and is updated regularly.

These Standards are not to be deviated from and for the purpose of Value Engineering. The college will have the right to refuse and have changed on contractor expense.

STANDARD	CAMPUS ALTERNATIVES
DIV. 07: THERMAL & MOISTURE PROTECTION	
ROOFING	
GENERAL	Sarnafli, Modified Bitumen 30-yr Garland, no single ply. Build-up roof multi-ply (district Standards)
FIREPROOFING	
GENERAL	Monokote, KAFCO, PDI
DIV. 08: OPENINGS	
HARDWARE	
KEYS	BEST SFIC Cores 1CK7B21-626, BEST 1AK1B21 NiAg Key Blanks, BEST 7 PIN
CYLINDERS	BEST 1E72, 1E74 (sole-source)
LEVER LOCKSETS	SCHLAGE "ND" RHODES, L9000-06-626 finish is satin chrome,
Lockset	Best 9K Serials, Schlage Mortise, Schlage ND Serials
CABINET LOCKSETS	OLYMPUS, Haworth, HON
HINGES	HAGER, IVES, MARKAR 300 SERIES, CONTINUOUS Stainless Steel
EXIT DEVICES	VON DUPRIN-98 SERIES, Cylinder Dogging,, XP @ EXTERIOR
KEY REMOVABLE MULLION POST for double door exit device opening	(NON FIRE) VON DUPRIN KR4954, (FIRE RATED) VON DUPRIN KR9954
CLOSER	LCN -4041, LCN-4040 EDA or HEDA, XP, Swing to Wall
ADA COMPLIANT PEDESTRIAN SWING DOOR OPERATOR	Record 8100 series automatic door opener, surface mount installed application, for doors weighing less than 350 LBS.

CARD READER	HID-ICLASS SE 13.56 MGHZ, R40 Typ. For iClass card (sole-source). Requires ICLASS Standard Capability, 920NTNTEK00000 (typical model) Able to work with the Lenel System
ELECTRIC STRIKES: RIM EXIT DEVICES	HES -9500 FRAME MOUNTED, HES-9600 MULLION MOUNTED
ELECTRIC CYLINDRICAL LOCKS	HES 8300 ,field modification, cutting Fire Door frame SHALL NOT BE PERMITTED
ELECTRIC STRIKES : MORTISE LOCKS	HES 1006, field modification, cutting of Fire Door Frame SHALL NOT be permitted.
KEY SYSTEMS	BEST KABA PEAKS 7-PIN
DIV. 09: FINISHES	
FLOOR/ WALL FINISHES	
CARPET	Tandus 36X36 (District contract in effect, mold and mildew resistant Or EQUAL
RESILIENT FLOORING	FORBO or EQUAL, Estri, Armstrong, Mannington, Parterre, International, (Mold Resistant)
CARPET MODULES	Tandus 36X36 (District contract in effect) mold resistant
RESILIENT TILES/SHEET FLOORING	FORBO or EQUAL, Estri, Armstrong, Mannington, Parterre, International
HARD SURFACE (GYMNASIUM)	MONDO, Aacer, Noble House, Teraflex,
WALL BASE	Roppe, Burke
RAISED FLOORING SYSTEMS	Tate, Interface AR, Maxcess, Smith
PORCELAIN TILE-CERAMIC	Specific to design standard with installation floor to ceiling
WALL COVERINGS	Ultra Hide, Vista Paint, Benjamin
PAINT	Dulux, ICI, Dunn Edwards, Frazee, Sherwin Williams, No Custom Colors
COATINGS	Dulux, ICI, Master Coating, Technologies, Scuffmaster
CEILING SYSTEMS	
ACOUSTICAL TILE	Armstrong, USG, 2X4 preferred
GRID SYSTEM	Armstrong, USG, 2X4 preferred
DIV. 10: SPECIALTIES	
SOAP & PAPER TOWEL DISPENSERS	CLEA, BRADLEY, BOBRICK WAXIE, APC(LT-108) Quick Touch, SuperMax Jumbo Tissue dispenser(SuperMax#855807), SuperMax Jumbo tissue Dispenser with Stub Roll (SuperMax Plus #855806)

Toilet paper dispensers	Jumbo
HAND DRYER	BOBRICK, Trim Line-Surface-Mounted ADA dryer B-7120 (22-ga mild steel zinc plated w/ high-gloss white epoxy paint finish)
BATHROOM PARTITIONS	BOBRICK, Bradley, Trespa, Santana, Flush metal, Accurate
RESTROOM ACCESSORIES	BOBRICK, Bradley
LOCKERS	Debourgh, Lyon, Penco, Republic
STORAGE/TRANSFER	Tyga-Box System or EQUAL
FIRE EXTINGUISHERS/ CABINET W/LOCKS	
GENERAL	Larsens, Potter Roeme, JL Industries (KEY # LL24)
DIV. 11: EQUIPMENT	
FOOD SERVICE EQUIPMENT	Hobart, Wolfe, Dwyer
KITCHEN, APPLIANCES	Chambers, KitchenAid
DIV. 12: FURNISHINGS	
BLEACHERS	
INTERIOR, GYMNASIUM, TELESCOPIC, STND.	Irwin Telescopic, Studisteel
WINDOW COVERING	
SOLAR SHADE	Mecho Shade or EQUAL
BLINDS - VERTICAL/ HORIZONTAL	Levelor, Rivera, Hunter-Douglas
BIKE RACK	
GENERAL	Match existing Bike Racks at Cox Annex. Brandir, Cycloops (frames to be of a lockable design),
DIV. 13: SPECIAL CONSTRUCTION	
MODULAR STRUCTURES	GE, Capital, Williams Scotsman, Aurora
DIV. 14: CONVEYING EQUIPMENT	
STANDARD ELEVATORS	Mitsubishi, Thyssen Krupp (Dover), (Check with LASC Facilities personnel for project specific preferences)
CONTROLLER	MOTION CONTROLS.....CONTROLLER CANNOT BE PROPRIETARY
ELEVATOR DOORS Graffiti proof interior	GAL DOOR EQUIPMENT
ELEVATOR CAB LIGHT FIXTURE	ERIM FIXTURES

WHEELCHAIR LIFTS	Mitsubishi, Thyssen Krupp (Dover) (Check with LASC Facilities personnel for project specific preferences)
EXIT STAIR EVACUATION CHAIRS	Garaventa Evacuation chairs, EVACU-TRAC CD7 or better
DIV. 21: FIRE SUPPRESSION	
HYDRANTS	James Jones or EQUAL
DIV. 22: PLUMBING	
PIPE	
DOMESTIC, /POTABLE	C900 BLUE, COPPER K, #80 PVC
UNDERGROUND WATER IRRIGATION PIPING	Schedule 40 and Schedule 80 PVC ½" TO 3"
UNDERGROUND SANITARY PIPING	CAST IRON, SDR-35
ABOVE GROUND SANITARY PIPING	CAST IRON TYLER PIPE/DWV COPPER
PIPE TUBING AND FITTINGS	C-900, MEGA LUG FTGS APPROVED CI CONN FLANGE
STEEL PIPE FUEL GAS/NATURAL GAS	BLACK SCH 40 INDOOR ONLY W/ SIMILAR FTGS
STEEL PIPE WATER OR AIR	Galvanized Domestic Only NO SUBSTITUTE
BRASS PIPE	Red Brass, Schedule 40
COPPER TUBING	Type "K" or "TYPE L" GRADES ONLY, NO "M", No Substitutes
BRASS SCHEDULE 40 SOLDER JOINT FTG's	Domestic
SCREWED FITTINGS	Domestic
GAS PIPING UNDERGROUND	POLY PIPE, STEEL TRANSITION, YELLOW TRACER WIRE, BUTT FUSION OR SOCKET
BUILDING DRAIN, WASTE & VENT	CAST IRON NO HUB, NO HUB COUPLINGS, CAST IRON, FTGS./DWV COPPER
PIPE AND FITTINGS	Standard D2751-88 Cast Iron, no-hub pipe and fittings (waste)
PLUMBING FIXTURES	
TOILET FIXTURES (Low Flow, Viterous China)	American Standard, Zurn, Kohler, 1.28 GPF (Sloan valves)
SINKS	American Standard, Kohler (Vitreous China Lavatories)
KITCHEN SINKS	Elkay, Kohler (Stainless Steel) (or as determined acceptable by LASC)
SERIVCE SINKS	American Standard, Zurn
URINALS (Low Flow)	American Standard, Sloan, Kohler

URINALS (Waterless)	Falcon, Kohler,Sloan (or as determined acceptable by LASC) Subject to review by LASC
FAUCETS	Chicago-automatic, OR MANUAL ONLY, NO ZURN OR SUBSTITUTE
FLUSH VALVES - TOILETS, URINALS	Sloan ONLY, MANUAL OR SENSOR...NO ZURN OR SUB, 1.28 GPF
DOMESTIC WATER HEATER	RHEEM, A.O SMITH,BRADFORD WHITE
CIRCULATING PUMP	BELL & GOSSETT, GRUNDFOS WITH EQUAL TIMERS IF NECESSARY/NO SUBSTITUTE
PLUMBING VALVES AND ACCESSORIES	
GENERAL	NIBCO OR EQUAL DOMESTIC PRODUCT ONLY, LEAD FREE WHERE APPLICABLE/ NO SUBSTITUTE
EXPANSION TANKS	AMTROL, Bell & Gossett, Watts
BACKFLOW PREVENTERS	Watts, Zurn, WILKINS
EXTINGUISHERS/CABINETS	Larsens, Potter Roeme, JL Industries
CLEAN OUTS	J.R. Smith, Zurn,
FLOOR DRAINS	J.R. Smith, Zurn, MIFAB
TRAP PRIMERS	PPP Inc., MIFAB (use for system having low-flow fixtures)
ROOF DRAINS	J.R. Smith, Zurn, Josam
BALL VALVES	NIBCO (BRASS, FULL PORT)
GATE VALVES	NIBCO (UNION BONNET, RAISED STEM)
GLOBE VALVES	NIBCO (BRASS)
CHECK VALVES	NIBCO (BRASS)
VALVES(WATER, BELOW GROUND)	STOCKHAM (CAST IRON FLANGED AWWA WITH OPERATING NUT)
EMERGENCY EYEWASH & SHOWER	
EMERGENCY EYEWASH & SHOWERS	Haws, Encon, Bradley, Watersaver
WATER FOUNTAINS	
DRINKING	Haws, Halsey Taylor, Bobrick
DIV. 23: HEATING, VENTILLATION & AIR CONDITIONING (HVAC)	(MUST HAVE BACNET CONTROL PANEL TO TALK TO CAMPUS NETWORK)
A/C UNITS, ROOF MOUNTED	(GAS ELECTRICS/HEAT PUMPS)CARRIER,YORK & TRANE
A/C UNITS WALL MOUNTED	BARD, HEAT PUMPS, TRANE
AIR HANDLERS – CUSTOM	TEMTROL, UNITED METAL PRODUCTS, TRANE, ENERGY LABS
AIR HANDLERS	CARRIER, YORK, TRANE
HVAC HYDRONIC CONTROL VALVE	BELIMO TWO WAY

HVAC HEATING & COOLING CONTROL VALVE	BELIMO PICCV TWO WAY WITH RESERVING SWITCH
HVAC HYDRONIC PIPE FLANGE ADAPTER CONNECTIONS	OMNI,
MOTORS	BALDOR, GE, DAYTON
PUMPS	PACO, BELL & GOSSETT, ARMSTRONG
COOLING TOWERS	BALTIMORE AIR COIL, MARLEY, EVAPCO (STAINLESS STEEL)
OTHER FILTERS	AMERICAN, FAN & TRIDERN, 3-M
BOILER CONTROLS-HOT WATER	Raypack condensening boiler 98% efficient
BOILER CONTROLS-STEAM	Parker
FAN COILS DX	Carrier, York, Trane
COMPUTER ROOM AC UNITS	APC, LIEBERT, DATA AIRE
CHILLED WATER FAN COILS	Carrier, York, Trane, Magic air
AIR COOLED CHILLER	Carrier, York, Trane,
CENTRIFUGAL WATER-COOLED CHILLER	Carrier, York, Trane,
SCREW-TYPE AIR COOLED CHILLER	Carrier, York, Trane,
SCREW-TYPE WATER COOLED CHILLER	Carrier, York, Trane,
SCROLL-TYPE AIR COOLED CHILLER	Carrier, York, Trane,
CHILLER-GENERAL	Carrier, York, Trane,
ABSORBTION CHILLER	Carrier, York, Trane,
OTHER ABSORBTION CHILLER	BROAD, THERMAX
VENTILATORS AND EXHAUST FANS	COOK, GREENHECK
FIRE SMOKE DAMPER	BELIMO W/ END SWITCH TO COMMUNICATE TO EMS, RUSKIN AND KRUGER
VARIABLE FREQUENCY DRIVES	ABB, DANFOSS, TOSHIBA (With BACnet compatibility)
HYDRONIC PIPING	CARBON STEEL, SCH 80, INSULATED PVC PERMA PIPE, THERMACOR AND ROVANCO
Water Treatment flushing Chilled/ Hot	Must meet industrial standards testing reports to be review with LASC staff before connecting to Central Plant
AIR CONIDITIONING THERMOSTAT	TOTAL LINE, 3-HEATING/2-COOL/HEATPUM/DIGTIAL 7 DAY PROGRAMMABLE PIN P 374-2800
THERMOSTAT LOCK BOX	HONEYWELL/LARGE OPQUE/PINTG 512B1007
DIV. 25: INTEGRATED AUTOMATION	
ENERGY MANAGEMENT SYSTEM	Alerton-Climatec (sole-source)
DIV. 26: ELECTRICAL	

ELECTRICAL FIXTURES	
INTERIOR LIGHT FIXTURES(LED), Fluoresces No incandesce light fixture	Prudential, Lithonia, HE Williams, Lightolier, must meet DLC, Energy Star requirments
CONNECT WITH EMERGENCY LIGHTS	Alerton to emergency grid
EXIT SIGNS	LED, Active Safety™, Pentico, or equal
ELECTRONIC WIRELESS WALL CLOCKS	MATCH EXISTING Campus Clock system Visiplex, TYCO SimplexGrinnell ONLY NO SUB
INTERIOR SUSPENDED LIGHTS	Prudential, Lithonia
LIGHTING/INDOOR-OUTDOOR	
VANDAL PROOF LIGHTING FIXTURES	Rude, Stanco, Sequoia, BE, Lucalux, Matalux
LANDSCAPING FIXTURES	
EXTERIOR LIGHTS-PARKING LOT	LED, (Lamp wattage to match existing)
LIGHT SENSORS	“Watt Stopper”, LUTRON, match existing or Equal
PARKING LOT	Philips, Gardco, Gullwing LED GL 13 & GL 18
ATHLETIC FIELD	Musco
ELECTRICAL EQUIPMENT	
MAIN SWITCHBOARD	Square D, GE, Cutler Hammer. Selection to match existing
MAIN DISTRIBUTION SWITCHBOARDS	Square D, GE, Cutler Hammer. Selection to match existing
DRY TYPE TRANSFORMERS	Square D, GE, Cutler Hammer.
MAGNETIC MOTOR STARTERS	Square D, GE, Cutler Hammer.
	Dialog Plus Controller
SOFT START MOTOR STARTERS	Square D, GE, Cutler Hammer.
PANELBOARDS	Square D, GE, Cutler Hammer.
MCC (MOTOR CONTROL CENTERS)	Square D, GE, Cutler Hammer.
DRIVES	ABB, Toshiba, Square D (Must be VFD)
ELECTRICAL FINISH FACE PLATES	STAINLESS FINISH PLATES
ELECTRIC VEHICLES/ CHARGERS	
ELECTRICAL VEHICLES AND CHARGERS	Taylor Dunn, Honda
CHARGER Mfr	Taylor Dunn, Honda
EMERGENCY POWER SYSTEM-GRID MATRIX	
CONNECT WITH SUMP PUMPS	Alerton to emergency grid
CONNECT WITH CO2 SENSORS	Alerton to emergency grid
CONNECT WITH EMS/CMMS	Alerton to emergency grid

EMERGENCY MANAGEMENT SYSTEM	
EMERGENCY MANAGEMENT SYSTEM	Alerton-Climatec
ENERGY MANAGEMENT SYSTEM	Alerton-Climatec
FIRE PROTECTION	Tyco SimplexGrinnell Sole Source no sub Mass Notification Speaker Stroll
ELECTRONICS	Alerton
LIGHTING SUPPLIES	F28-W,F25-w,T8,90LPW,85CRI, HI Performance (T8F32T8/XL/SPXxx/Hi/ECO)
LIGHT BULBS, FLOURESCNETS T-8's	Sylvania, GE, Phillips, 4100K, Min 90 CRI, (Sylvania Preferred), LED
BALLASTS	Sylvania, Phillips, GE (Sylvania Preferred), NEMA-Premium Ballast only, Programmed-Start Electronic Ballast for frequent switching only. Ballast Factor 1.00
OTHER	
EMERGENCY POWER SYSTEMS	
GENERATORS	Onan, Caterpillar,APC, Kohler Must have DPF within 100m of K-12
UPS	APC, EATON
DIV. 27: COMMUNICATIONS	
27 05 00 COMMON RESULTS FOR COMM	
Structured Cabling System Warranty	Minimum 20 year warranty
27 05 26 GROUNDING & BONDING	
Bus Bar	Lyncote XIT, Chatsworth, Hargar
27 05 28 PATHWAYS FOR COMM SYSTEMS	
EMT Conduits & Couplings & Connectors	Appleton, Crouse-Hinds
Conduit Supports	Kindorf, Unistrut, Thomas & Betts
Hangers & Cable Ties	Chatsworth Products, Cooper B-Line, Caddy, Mono
Metal Outlet Boxes - Double Gang, Extra Deep	Appleton, Raco, Steel City
Pull Boxes and Cabinets	Hoffman Enclosures, Wire Guard
Cable Tray	Cooper B-Line
27 05 43 UG DUCTS & RACEWAY FOR COMM	
Manholes	Utility Vault (Oldcastle), Jensen, Brooks
Pull boxes	Utility Vault (Oldcastle), Jensen, Brooks w/ Spring Loaded LID
MH/PB Hardware	INWESCO products
Conduits (Schedule 40 or Type C)	Carlon
Detectable Warning Tape	Carlon

Pull, Rope 1700 lb tensile strength	Carlton
Bonding ribbon (In vaults)	INWESCO Cat 12A55
Bonding ribbon clamps (In vaults)	INWESCO Cat 12A56
Fargo Clamp	INWESCO Cat 12A57
Ground Rod	INWESCO Cat 12A60
Ground Inserts (Cast Bronze)	INWESCO Cat 12H69
Manhole Lids	Alhambra Foundry , Preferred Round covers
Manhole Ladders	Alhambra Foundry - Model A-3382 w/ A3383 Support bar
27 11 00 COMM EQUIP. ROOM FITTINGS	
Ladder Racks	Chatsworth Products, Homaco, Square D
Equipment Racks	APC NetShelter, SIEMON VERSAPOD, Ortronics, Panduit
Wall-Mounted Cabinets	Cooper B-Line DAMAC
Horizontal Managers	SIEMON WM - 145-5, Chatsworth, Ortronics and APC
Fiber Optic Terminals (FOT's)-Housing	SIEMON RIC-3-72-01, Panduit and Systimax
Fiber Terminal Adapters and Connectors	SIEMON RIC-FLC6-01 and connectors, Panduit and Systimax
Plywood	Arch. Wood Protection, Chemco, National Plywood Industries, 1" minimum
Fire Retardant Paint	Flamort Co., Inc., FireNoMore International, International Fire Retardants, Inc. or EQUAL
Patch panels	SIEMON Z-MAX CAT6A/F/ UTP Shielded or equal, Panduit and Systimax
Cable Tags & Splice Labels	3M, Panduit, Tech Products
Protector Panels	Circa, Emerson, CommScope, Cook
27 13 00 COMM BACKBONE CABLING	
Fiber Tube Cable (OSP and Riser)	Sumitomo Electric FutureFLEX
Fiber Cable - OSP and Riser	Sumitomo Electric FutureFLEX ABF-50U OM4
Copper OSP Cable	General Cable, Superior Essex, CommScope
Splice Cases - Outside	Preformed, 3M, PSI
Splice Cases - Inside	Reliable, 3M
Splice Bay & Relay Labels	3M, 5000 Scotchlite Decal System
ABF Tube Clips	Sumitomo Electric FutureFLEX
27 15 00 COMM HORIZONTAL CABLING	
Station Cabling	SIEMON Cat 6A, F/UTP Plenum-rated, Shielded, Panduit and Systimax
Jacks	SIEMON Z-MAX 6A Shielded, Panduit and Systimax

Faceplates	SIEMON, Panduit and Systimax
Emergency Phone	Talk-A-Phone ETP-WM & ETP-MT/R bases w/ VOIP 500D, Talk-A-Phone Analog Blue Phone match existing on Campus
Elevator Phone	Talk-A-Phone VOIP 500D or as current future upgrade, Talk-A-Phone Analog
27 40 00 AUDIO VISUAL	
CONTROL SYSTEM	CRESTRON DIGITAL MEDIA, UTELOGY, Extron
PROJECTOR	PANASONIC, NEC-Minimum 1920 x 1080 resolution, Laser/LED, HDBase T Connectivity 2-power 200m Lens w/ image shift in all directions
PROJECT SCREEN	DA-LITE, ELITE
LECTERN	SPECTRUM FREEDOM XRS, FORBES-AV, VREM AV
DOCUMENT CAMERA	WOLFFVISION, SAMSUNG, ALMO
MICROPHONE	SHURE
NETWORK SWITCH	Cisco Catalyst IP Based-POE+, upgradable to latest technical advances
ANNOTATION DEVICE	SMART TECHNOLOGIES, POLYVISION, STEELCASE
INTERACTIVE DISPLAY/WHITEBOARD	SMART TECHNOLOGIES Smart Technologies, Epson, Panasonic, POLYVISION, STEELCASE
CLASSROOM LIGHTING CONTROL	CRESTON, LUTRON, EXTRON
SPEAKERS	JBL, Extron and Crestron, QSC
PC COMPUTERS	HP
LECTURE CAPTURE	Ensemble
DIV. 28: ELECTRONIC SAFETY & SECURITY	
28 10 00 ELECTRONIC ACCESS CONTROL	
Card Readers	HID ICLASS SE contactless smart card (R40 type) - no sub. Requires ICLASS Standard Compatibility, 920NTNTEK00000 (Typical model)
Software	Lenel OnGuard
Controllers	Lenel OnGuard. LNL 3300
28 20 00 ELECTRONIC SURVEILLANCE	
CCTV Cameras	Review this section to District Standards
High Definition / MEGA Pixel	ARECONT VISION MEGAVIDEO SERIES
Digital VIDEO to IP ENCODER	AXIS: Q741
System Server	Lenel Enterprise NVR
Recording System	NETAPP FAS2240 or newer
TV Panels	Samsung

WIRELESS ACCESS POINTS	
Indoor Access Points	Cisco Series- latest technologies
Outdoor Access Points	Cisco Series- latest technologies W/NEMA 4 ENCLOSURE
NETWORK SWITCHES	
Data Switches	Cisco Catalyst IP Based-POE+
FIRE ALARM SYSTEM	
GENERAL	SimplexGrinnell Tyco with Mass Notification
FIRE ALARM PULL STATION	SimplexGrinnell Tyco CAT 45 KEY
SPEAKER/STROLL AMBER ALERT	SimplexGrinnell Tyco W/ MASS NOTIFICATION
DIV. 32: EXTERIOR IMPROVEMENTS	
IRRIGATION SYSTEMS	Match existing Campus Irrigation System REVIEW WITH LASC GARDENING STAFF
IRRIGATION CONTROLLLER	Toro TMC-424E Series, Irritol TMC 424 Series
CONTROLLER REMOTE SITE MANAGEMENT	Toro TriComm Site Management
CONTROLLER HAND-HELD REMOTE CONTROL	Toro TMR-1
CONTROLLER ENCLOSURE	V.I.T. Strong Box SB-xxSS with QP, CSA, RGVRS Options
RAIN SENSOR	Toro TRS
CONTROL WIRE - COMMON	Paige P7001D 12 AWG White
CONTROL WIRE - HOT	Paige P7001D 14 AWG Colored
WATERPROOF WIRE CONNECTOR	Spears DS-500 Dri-Splice
GROUNDING ROD	Paige 182007 with Paige 1820037P Connection
DIELECTRIC CONNECTION	Approved by Electrical Engineer
BOOSTER PUMP	Barrett Irriboost with Variable Speed Drive and SS Enclosure
BASKET STRAINER	Yardney SBx-T Series, Purple
BASKET STRAINER ENCLOSURE	V.I.T. Strong Box SBBC-xxSS with QP Option
PRESSURE REGULATOR	Wilkins 500 Series
MASTER VALVE	Toro 220 Brass or Toro P-220S Platic, or Rainbird P22o Brass series with Pressure regulator
FLOW SENSOR	Toro TFS Series
FERTILIZER INJECTOR	EZ-FLO EZ Series
GATE VALVE (2" and SMALLER)	Nibco T-113 Series
GATE VALVE (2 1/2" and LARGER)	Nibco F-619-SON Series

BIRD DETERRANTS	EAGLE EYE BIRD CONTROL OR EQUAL
GROUND PREPARATION FOR LANDSCAPING	NO CONCRETE OR ASPHALT ANT NO , AGGREGATE OVER 1/4" , NEW TOP SOIL REQUIRED TOP 6"
BALL VALVE (2" and SMALLER)	Nibco T-585-70 Series
AIR RELEASE VALVE	Cla-Val #33-A Series
QUICK COUPLING VALVE	Rain Bird #44-NP or TORO #44 NP Series
ELECTRIC CONTROL VALVE	Toro 220 Brass, Toro P-220S Plastic, or Rainbird P-220 brass series
DRIP ZONE VALVE KIT	Toro TPV Series
VALVE BOX	NDS Pro Plus Series (green plastic with purple bolt-down cover)
MAINLINE PIPING (6" and LARGER)	Pacific Plastics or equal CL200 PVC Gasketed - Purple
MAINLINE PIPING (2" - 4")	Pacific Plastics or equal CL315 Solvent-Weld PVC - Purple
MAINLINE PIPING (1 1/2" and SMALLER)	Pacific Plastics or equal SCH 40 Solvent-Weld PVC – Purple or Sch 80 PVC
LATERAL LINE PIPING	Pacific Plastics or equal SCH 40 Solvent-Weld PVC – Purple, or SCH 80 PVC
PIPE / WIRE SLEEVING	Pacific Plastics or equal SCH 40 Solvent-Weld PVC
PIPE FITTINGS (MAINLINE)	Spears or equal SCH 80 PVC
PIPE FITTINGS (LATERAL LINES)	Spears or equal SCH 40 PVC
ARTIFICIAL TURF COOLING SYSTEM HEADS	Toro TS90TP Series
LARGE TURF ROTOR HEADS	Toro TR70P Series
MEDIUM ROTOR HEADS	Toro T5 Series
SMALL ROTOR HEADS	Toro 570Z-PRX-COM-E with Toro Precision Rotating Nozzle
FIXED SPRAY HEADS	Toro 570Z-PRX-COM-E with Toro Precision Spray Nozzle
FLOOD BUBBLER	Toro 570Z-PRX-COM-E with Toro FB-PC Nozzle
TREE ROOT WATERING SYSTEM	Rain Bird RWS Series
DRIP LINE SYSTEMS	Toro DL2000 RGP-xxx-xx-E Series
DRIP SYSTEM FITTINGS / ACCESSORIES	Toro - Miscellaneous
LANDSCAPE DESIGN	
LARGE TREES	Cedrus deodora, Deodar cedar
	Platanus racemosa, California sycamore
	Quercus agrifolia, Coast live oak
MEDIUM TREES PRIMARILY FOR SHADE	Cinnamomum camphora, Camphor tree

	Jacaranda mimosifolia, Jacaranda
	Liriodendron arnoldii, Tulip tree
	Platanus acerifolia 'Yarwoodii', Yarwood plane tree
	Podocarpus gracilior, Fern pine
	Quercus ilex, Holly oak
	Ulmus parvifolia 'Drake', Drake Chinese elm
SMALL TREES FOR FLOWERS & FRAGRANCE	Agonis flexusa, Peppermint tree
	Arbutus 'Marina', Marina strawberry tree
	Bauhinia 'Blakeana' Hong Kong orchid tree
	Callistemon viminalis, Weeping bottle brush
	Cassia leptophylla, Gold medallion tree
	Eucalyptus erythricorys, Red cap gum
	Eucalyptus torquata, Coral gum
	Lagerstromia indica, Crape myrtle
	Laurus nobolis, Sweet bay
	Lyonothamus asplenifolius, Catalina ironwood
	Magnolia "Little gem", Little gem magnolia
	Pistacia chinensis, Chinese pistace
	Tabebuia lpe, Pink trumpet tree
PALMS	Brahea armata, Mexican blue palm
	Chamaerops humilis, Mediterranean fan palm
	Cycas revoluta, Sago palm
	Trachycarpus fortunei, Winmill palm
	Washingtonia filifera, California fan palm
	Washingtonia robusta, Mexican fan palm
SHRUBS INACTIVE AREAS	Achillea sp., Yarrow
	Arctostaphylos 'Sunset', Sunset manzanita
	Berberis 'Golden abundance' Oregon grape
	Carpenteria Calif., Bush anemone
	Fremontedendron 'California gold', California fremontia
	Garrya eliptica, Coast silk tassle
	Heteromeles arbutifolia, Toyon

	Heuchera sp., Alum root
	Penstemon 'Margarita BOP', Penstemon
	Rhamnus calif. 'San Bruno's mound', Coffeeberry
	Rhus integrifolia, Lemonade berry
	Ribes sanguineum, Pink flowering currant
	Ribes viburnifolium, Catalina evergreen currant
	Romneya coulteri, Matilija poppy
SHRUBS IN IRRIGATED AREAS	Agave attenuata, Fox tail agave
	Anigozanthus sp., Kangaroo paw
	Baccharis pilularis 'Pigeon point', Coyote bush
	Callistemon 'Little John' Little John bottlebrush
	Cistus sp., Rockrose
	Coelonema pulchrum, Pink breath of heaven
	Cotoneaster sp., Cotoneaster
	Elaeagnus pungens, Silverberry
	Hemerocallis sp., Daylily
	Juniperus sp., Juniper
	Lantana sp., Lantana
	Leptospermum sp., Australian tea tree
	Ligustrum texanum, Texas privet
	Myrtus communis, Myrtle
	Osmanthus fragrans, Sweet olive
	Phormium tenax, Flax
	Pittosporum tobira sp., Tobira
	Raphiolepis indica sp., Indian hawthorne
	Rosmarinus officinalis, Rosemary
	Viburnum tinus sp., Laurustinus
	Westringia fruticosa, Coast rosemary

Exterior Finishes, Materials & Color Palette

- Plaster

- Brick
- CMU
- Concrete
- Steel
- Glazing
- Anti-Graffiti Coatings
- Paint & Color Palette

Interior Finishes, Materials & Color Palette

- Floor & Wall Tile & Grout
- Resilient Flooring & Base
- Carpet Tile
- Acoustical Ceiling Tile
- Wall Covering – Fabric Wrapped Panels
- Paint & Color Palette
- Toilet Compartments
- Restroom Accessories
- Drinking Fountains

Fixtures, Furnishings & Equipment

- Modular Casework
- Laboratory Casework
- Instruction Boards (White Boards, Tack Boards, etc.)
- Projectors and Projection Screens
- Flat Panel Monitors
- Modular Furniture
- Loose and Fixed Seating
- Work Surfaces

LACCD has developed the following standards for IT infrastructure and technology systems, please use them as the baseline for implementing technology solutions at LASC. LASC Standard would meet or beat these standards. These standards are accessible at [BuildLACCD IT Standards](#)

- [Data Centers R1 \(11.8.2013\)](#)
- [Data Centers R0 \(3.1.2009\)](#)
- [Infrastructure Standard R0 \(3.1.2009\)](#)
- [Structured Cabling Systems R2 \(11.8.2013\)](#)
- [Structured Cabling Systems R1 \(9.29.2010\)](#)
- [Structured Cabling Systems R0 \(3.1.2009\)](#)
- [Smart Classroom R1 \(12.9.2011\)](#)