

# SPECIFICATIONS

continued from Sheet A-5

## 16782 - Liquid Crystal Display Television

- A.** Supply and install the LCD display television complete with tilt, wall mounting kit in location as shown on the Drawings, and connect to power and signal feed location. Unit shall be Sony, Bravia, Model N° KDL65W5100 with internal power supply, NTSC tuner, stereo speakers, audio and video input up to 1080/60p, 65 inch diagonal display, VGA PC interface, viewing angle 178°, ATSC digital tuner, 10 bit 1920x1080 TFT matrix LCD backlight technology, full function remote control and sleep mode. Manufacturers include Sony, Panasonic, Toshiba, LG or alternate accepted manufacturer.
- B.** Deliver unit to the site in factory sealed, unopened carton after the building has been enclosed and interior air and substrate temperatures are stable. Inspect for damage on receipt. Protect unit carton from damage, or other construction activities and weather. Store in dry areas at temperatures above 55 degrees F.
- C.** Exact rough-in and support requirements are packaged with the unit. Verify that surfaces to receive the unit are true and plumb. Verify that blocking and backings have been installed as required for mount anchorage. Report any unacceptable conditions. Commencement of installation indicates acceptance of all field conditions.
- D.** Provide all necessary installation accessories. Attach mount onto back of unit with supplied bolts and install assembly onto wall using screws or fasteners as recommended by the manufacturer. Secure unit to framing, support or cabinetry as recommended in the manufacturer's printed installation instructions. Power, data and signal connection points may require adjustment. Ensure all feeds are inspected and passed before hook-up.
- E.** Make all input and output connections with cables adjusted to the shortest possible length. Bundle cables in clear plastic spiral organizers. Power cord shall be affixed separately. Protect unit from damage or theft and maintain design environmental conditions.
- F.** Submit Product data sheet for unit type, include rough-in for utility connections, power and services and clearances, trim or closure pieces required.

## 16782 - Furniture

- A.** Mobile screen panels shall be powder coated, extruded aluminum frame, 5'-6" high with an extension to within one inch of the floor for a total height of 7'-0". The frame shall have extruded magnetic - rubber edge strips for joining panels together. The panel shall be supported on 3 foot peg legs with glides, interchangeable to casters. The screen panel shall either a fabric, tackable surface with rigid fiberglass core or porcelainized steel marker board surfaces on a honeycomb core. Acceptable manufacturers include Krueger International (K). All Terrain Screen or accepted alternate manufacturer. Optional intermediate horizontal and vertical rails (Tool Rail) for attachment of additional furniture system components shall be a noted on the Drawings.
- B.** The mobile Presentation Lectern shall be as manufactured by Oklahoma Sound, Model N° WZD, from Global Industries N°256878. The unit frame shall be constructed of 18 gage, powder coated, steel with square tube corners. Top and sides shall be 1" thick cherry finished melamine laminate over steel panels slotted for ventilation. The unit shall be equipped with a VGA console that connects to an LCD projector (OFC). A pass-through plate shall allow connection to a laptop and document camera. Top surface shall have an integrated pop-up lectern for presentation notes. Unit shall include a slide-out side shelf with fold-down door and pull handle, as well as, a 16"L x 14"W flip-up side shelf to expand the work space. Below a lockable storage drawer and cabinet drawers shall be provided. A 20' long power cord with 6-outlet power strip and data cord shall be mounted in the lectern and be fully retractable. The fully assembled unit shall move on 4" locking swivel casters.

## 15400 - Plumbing - General

- A.** The work includes all hot and cold water distribution, waste and vent piping, new plumbing fixtures and trim, and all other plumbing items needed for a complete and operating installation and as shown on the Drawings. All work and materials shall be in full accordance with the latest governing California Plumbing Codes, State Regulations and local ordinances. Furnish any extra work or materials required to comply with these laws or rules and regulations whether or not specifically shown or specified. Obtain and pay for all permits required in the installation of this work. All on-site water pipe shall be chlorinated and tested by an approved agency and the results submitted to the City Inspection Division.
- B.** The Contractor shall be responsible for the construction and installation for all plumbing systems including domestic water supply and distribution system, waste and vent systems, fuel gas piping system, including all related trenching and backfilling, sleeves through concrete work, flashing of pipes through water-proof membranes and drainage items outside of building as shown on the Drawings.
- C.** Plumbing Drawings are diagrammatic and are intended to show the design intent of fixtures, equipment, etc. Make adjustments as required by structural conditions, governing authorities, and coordination by other trades without additional cost to the Owner. Provide all related items including, sleeves, flashings, supports and anchors.
- D.** Accurately determine the best methods, materials, exact locations, routing, etc. Coordinate design with other trades and layout of structural systems. Install all piping in concealed locations. Slope sanitary and storm piping for proper drainage per Code requirements. Horizontal vent piping runs greater than 5'-0" shall slope up.
- E.** Install all piping in concealed locations unless otherwise indicated. Provide brass or copper nipples from copper pipe to fixture supplies. Provide escutcheons where piping passes through walls, floors, or ceiling in exposed locations. Use di-electrical union connectors at all copper-to-galvanized steel or iron piping. Test all piping per local codes prior to enclosing or covering. Seismically brace all piping in accordance with the latest edition of the "Guidelines for Seismic Restraints of Mechanical Systems and Plumbing Piping Systems", latest edition.
- F.** Provide threaded copper or brass nipples or fittings at valves and all stops at fixtures. Provide escutcheons at all exposed interior finished penetrations. Provide flashing and sealing at all interior sound or fire rated partitions, and exterior and roof penetrations.
- G.** Plumbing Fixtures shall be as scheduled. Furnish and complete with all items of trim, valves, supplies, traps, hangers, grounds and supports, etc as required for a complete installation. Attach assemblies securely to blocking or framing. Test all systems and protect finished installations ready for use.
- H.** All domestic hot and cold water pipe shall be Copper Type L hard-drawn with wrought copper fittings and 95-5 solder.
- I.** Sanitary waste and vent piping 4 inches diameter or less, below slab or outside the building below grade shall be service weight cast-iron soil pipe with compression neoprene gasket fittings equal to MG Coupling.
- J.** Sanitary waste and vent piping above slab inside the building shall be service weight cast iron no-hub soil pipe with no-hub fittings.
- K.** Hazard waste piping and vent piping underground shall be Duriron (no equal).
- L.** Drains: Floor-drains shall be Zurn Z-415 with strainer, trap primer connection, 5 inch with NB top polished, or equal.
- M.** All nipples shall be JPS brass. All P-traps shall be chrome-plated, 17 gage brass.
- N.** Shock absorbers: Zurn Z-17- Series, or equal. One per fixture. Water hammer arresters: Sioux Chief, Josam, Watts, Zurn or accepted alternate manufacturer.
- O.** Vinyl Adhesive Piping Labels shall indicate function and flow direction, 1-1/8 inches by 8 inches long, with black arrows and lettering on color-coded background per ANSI A13.1 standards. Manufacturer: Lab-Safety Supply or equal.
- P.** Insulate hot water piping with 1" Owens Corning fiberglass 25 ASJ-SSL-2 with self sealing lap and all service jacket. Provide 0.016 aluminum jacketing for outdoor use. Install per manufacturer's printed instructions. Insulate "P" trap and cold & hot water lines under accessible fixtures with Truebro Lav-Guard-2, N° 100 Series, white color.
- Q.** Indoor gas piping: Schedule 40 black steel with malleable iron fittings indoors. Outdoor piping shall be galvanized steel pipe and malleable iron fittings. Lines shall be coated with "Plexco" (Chevron) "Plex-guard" polyethylene coated or accepted alternate manufacturer, approved for underground use. Coating and field wrapping shall conform to Sections 1211.6 and 1211.10 of the 2007 California Plumbing Code.
- R.** Condensate drain piping shall be type 'L' copper. Condensate drain piping indoors shall be insulated with 1/2" fiberglass insulation.
- S.** Trap primer: E&S, Zurn or equal. Provide Zurn Z-1460 square wall access panel with nickel bronze polished top finish, 7"x7" nominal size.
- T.** Submit for approval to the Architect and Owner 6 sets catalog cut sheets, samples and lists of all incidental fittings and other required materials. Submit Shop Drawings to show piping layouts.

## 15520 - Heating, Ventilating, and Air-conditioning - Repair

- A.** Furnish, and install HVAC modifications designed, engineered and approved by a Mechanical Engineer licensed in the State of California The completed HVAC modification Plans shall be submitted separately by the Contractor for this project. The total nonclosable opening area between adjacent thermal zones (ie. halls, stairwells or other openings) shall be less than or approved equal to 40 square feet. All remaining zonal boundary areas shall be separated by permanent floor to ceiling walls and / or fully solid operable doors capable of restricting free air movement when in the closed position.
- B.** Supply and install, complete and operational all heating and ventilating system components including: variable air volume terminals, re-heat terminals, exhaust ventilation, revisions to the duct work, air outlets, return air grills, piping and temperature controls for pneumatic operation of the system complete with re-activation and placement of thermostats and reprogramming and balancing of the system and monitoring of the performance of the adjacent floors. All incidental work, material or supports necessary for the mounting of equipment and running of ducts including cutting and patching and safing of floor / ceiling assemblies.
- C.** HVAC equipment, materials and installations shall comply with the latest provisions and interpretive regulations and be certified to the California Energy Commission by the manufacturer and installer, to be in compliance with the California Appliance Efficiency Standards and Title 24 Energy Compliance Standards. Units shall have permanent marking as to area or spaces served.
- D.** Make every effort to coordinate the systems with structural requirements. Study Drawings and premises to determine the best methods, exact locations, routing of piping and ductwork; Coordinate with trades; Comply with all governing authorities; Layout system to avoid conflicts with structural components.
- E.** Equipment shall be tested, adjusted and balanced in order to assure proper functioning and air distribution. Balancing shall be done by a qualified technician with the proper equipment. The Contractor shall provide written evidence that air flows are balanced and supply adequate and Code minimum flows to each space and room.
- F.** All duct work shall be constructed of sheet-metal and shall conform to the construction standards of the "Duct Manual and Sheet Metal Construction for Ventilating and Air Conditioning Systems", latest edition, of the Sheet Metal and Air Conditioning Contractors National Association, or ASHRAE "Guide", latest edition and be insulated per Title-24 notes. Any ducts exposed to weather shall be watertight. Thermally insulate all supply and return air ducts.
- G.** Submit to the Architect Product data sheets for all materials before beginning work. Shop Drawings shall show all ductwork layout and Equipment locations. Installation instructions for all listed equipment shall be provided to the field inspector at time of inspection. Material installed without approval is subject to immediate removal.

## 16000 - Electrical - General

- A.** Furnish, and install all Electrical Systems designed, engineered and approved by a Electrical Engineer licensed in the State of California The completed Electrical Plans shall be submitted separately by the Contractor for this project.
- B.** All work and materials shall comply with the latest provisions and interpretive regulations of: National Electrical Code (NEC), Underwriters Laboratories (UL), Inc., National Electrical manufacturer's Association (NEMA), California Administrative Codes (CAC Titles), State Fire Marshal, Cal - OSHA, local rules, regulations and standards including local utility companies. Furnish any work or materials required to comply with these laws or rules and regulations whether or not specifically shown or specified. When a better quality, larger capacity or larger size is called for than that required by the above ordinances, rules and regulations, the provisions of these specifications shall take precedence.
- C.** The Contractor shall furnish, install, maintain and remove after construction is completed, temporary lighting and power for the work area, so that construction work can be performed safely.
- D.** Supply and install, complete and operational all electrical systems including: feeders, panelboards, branch circuits, lighting fixtures with lamps, switches, receptacles, grounding systems; power connection to other work including all heating, ventilating, air conditioning and plumbing equipment, including disconnect switches, conduits, wiring, boxes and fittings; telephone terminal board feeder raceways, conduit to grounding points, raceways with pull wires and outlet boxes; computer main and secondary hub feeders, gutters, conduit to grounding points, raceways with pull wires and terminal boxes; all incidental work, material or supports necessary for the mounting of equipment including cutting and patching.
- E.** Make all electrical connections including hook-ups of controls, thermostats, relays, signaling devices, alarms, etc., so as to have the building continue to be operational during and after construction of this Project.
- F.** Provide, secure and pay for all permits, licenses, fees, inspections required to begin, perform and complete the installation of this work.
- G.** Submit to the Architect Product data sheets for all materials before beginning work. Material installed without approval is subject to immediate removal.

- Scheduled Surfaces:** Furnish and apply painter's finish or stain (clear finish) to all interior and exterior, new and previously coated or factory primed surfaces of the building. Where a space or surface is indicated to be painted, include the painting of exposed piping, duct work and all other contiguous surfaces in the work, unless otherwise indicated. "Exterior" surfaces shall be construed to include those on the exterior of the building including entry areas. All roof mounted galvanized, primed or unfinished material including exposed wood blocking or trim shall be painted. Painter's finish is not required on factory finished items such as acoustic tile and grid, wall louvers, stall partitions, and other pre-finished mechanical and electrical items. Further "natural" materials such as concrete pavers, ceramic tile, laminated plastic veneers, bronze, brass, copper, stainless steel, plated items, clear anodized aluminum or identifying devices shall not be painted. Finally, interior of mechanical shafts and duct work (except as scheduled: flat black immediately behind grilles or diffusers)

## Painting Schedule:

- Exterior Galvanized Metal:  
Etc: Dev-prep 88  
1st coat: DevFlex 4020 metal Primer.  
2nd and 3rd coat: Professional 2200 Flat Acrylic or Durus303B Gloss Acrylic.
  - Miscellaneous Metal:  
Primer: (Shop-primed) DevFlex 4020 metal Primer, if exposed  
2nd and 3rd coat: Durus3028 Gloss Acrylic
  - Interior Gypsum Wallboard:  
Primer: 972 Acry-Flex High High PVA Primer/sealer  
1st and 2nd coat: 1685 Dura-Poxy, 100% acrylic, eggshell Enamel
  - Interior Concrete Block (previously painted):  
1st and 2nd coat: 1685 Dura-Poxy, 100% acrylic, eggshell Enamel
  - Metal Framing:  
Primer: DevFlex 4020 shop-prime (if not Galvanized)
  - Wood Work, Wood Doors:  
Stain: one coat (as required or specified for color)  
Sanding Sealer: one coat  
Two coats Woodprime Aquacrylic Transparent Finish. Sand lightly between coats with steel wool.
  - Interior Wood Trim, etc:  
Primer: Ultra-hide 1020 Acrylic Undercoat  
2nd and 3rd coat: Ultra-hide 1412 Enamel, Eggshell
  - Interior Metal:  
Primer: DevFlex 4020 metal Primer  
2nd coat: Ultra-hide 1020 Acrylic Undercoat  
3rd coat: Ultra-hide 1412 Enamel, Eggshell
- 10110 - Boards**
- A.** Horizontal sliding Marker Board: Claridge ADP Lemco, or approved equal. Field Installed Series. Composition: Porcelain on 22 gauge steel, particleboard core and 0.015 inch aluminum backing sheet, Color: G33, jet black, Trim: Anodized Satin Aluminum, Hangers: concealed and continuous. Provide blocking as required. See Drawings for arrangement and size.
- B.** Accessories: 238T Chalk tray, 69T Continuous display rail with cork inset, 158T side trim, 67T mullion as required. Display rail: 8-7000T combination map hook/paper holder with two inch display rail. Map Board shall have full surface clear 40 mil vinyl protection sheet.
- D.** Install according to manufacturer's printed instructions and detailed installation sheets. Provide blocking as required.
- E.** Submit product data sheets and Shop Drawings for each type and size of board as shown on the Drawings.
- 10800 - Galley Accessories** (Owner furnished and installed)
- A.** Manufacturer: Bobrick, American Specialties or accepted alternate manufacturer.
- B.** Paper Towel Dispenser: B4262
- C.** Liquid Soap Dispensers: B2111 (ASI N°0343).

## 11132 - Projection Screen

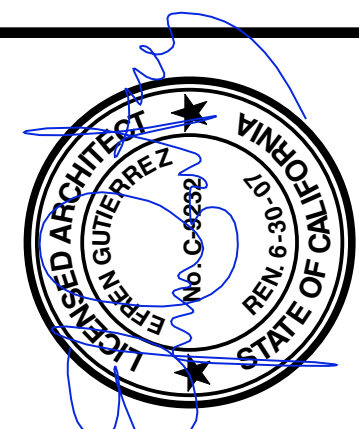
- A.** Projection screen shall be HDTV format 6'-6" by 11'-7", glass beaded, heavy seamless matte white, flame retardant and mildew resistant with high power black masking border. Screen shall be mounted to rigid metal roller, 6 inches diameter mounted to reinforced brackets with self aligning bearings. Case shall be primer coated metal with reinforced brackets for mounting to structure. Acceptable manufacturers include: Draper, Arisan, Series 'E', Da-Lite; or accepted alternate manufacturer.
- B.** Screen motor control shall be three wire reversing type, 120 volt, 2.5 amp with ball bearings, thermal overload cutout and integral interlocking gears. Actuation shall be controlled by three button wireless (infrared) remote. Unit shall have adjustable limit switches, stop action shall be possible without coasting. Roller shall be 3 inch diameter.
- C.** Install at location as noted according to manufacturer's printed instructions. Position to allow access clearances. Set cover and finish to conceal location. Set case flush with finished ceiling. Provide acoustic ceiling angles all around.
- D.** Submit cut sheet and installation Shop Drawings.

## 11136 - Motorized Projector Lift

- A.** Electrically operated ceiling recessed projector lift to lower projector for operation including operating mechanism, motor, controls, limit switches, controls, mounting hardware, wiring, and other components required for complete operation. Lift shall be provided with factory installed cables for RGB, Video, and Control. Closure panel shall be recessed to accept acoustical ceiling panel with powder coat paint finish and mating trim ring.
- B.** Equipment support pan: 2-3/4 by 20 by 20 inches, 1/8 inch steel pan with powder coated finish for attachment of suspended projector. Motors for projector lifts shall be certified by Underwriters Laboratory (UL), Inc. and shall bear UL label. Acceptable manufacturers include Draper, Inc..
- C.** Projector automatically lowered from ceiling store position to show position. Projector raised from show position to store position. Travel automatically stopped by factory set limit switches. Low voltage control shall be provided with 3 button switches with portable, remote control hand held transmitters or to interface with a master control system connected to a single low voltage control unit. Operation shall be limited by a wall mounted, separate key operated switch.
- D.** Coordinate layout and installation of projector lifts with ceiling construction and related components penetrating or above ceilings such as lighting fixtures, mechanical equipment, and ductwork. Coordinate requirements for blocking, structural supports, bracing, and ceiling openings to ensure adequate means for installation of lifts. Coordinate requirements for power supply conduit, and wiring required for projector lifts and controls.
- E.** Where acoustical ceiling panels are to be adhered to mount closure, provide and coordinate required tolerances and weight restrictions. Coordinate interface and installation of projector lift controls with provision of motorized screen.
- F.** Deliver products in manufacturer's original, unopened, undamaged containers with labels intact.
- G.** Install projector lifts and controls at locations and heights indicated on Drawings. Comply with manufacturer's written instructions. Threaded steel suspension rods shall be used to install and seismically brace lifts to structure above. Other methods may be engineered and detailed on Shop Drawings to accommodate specific conditions.
- H.** Test motorized projector lifts to verify that lifts, controls, limit switches, closures, and other operating components are functional. Correct deficiencies. Demonstrate operation of lifts to Owner's designated representatives.
- I.** Protect projection lifts after installation from damage from construction operations. Remove and replace damaged components or entire unit as required to provide units in their original, undamaged condition.
- J.** Submit Shop Drawings showing dimensions, method of attachment, structural support, lateral bracing, and electrical wiring. Also submit Samples of finishes and Manufacturer's installation and maintenance instructions. Submit engineering calculations for bracing to resist seismic loads. Identify suspension rods, bracing, and other support components as required for Project application.

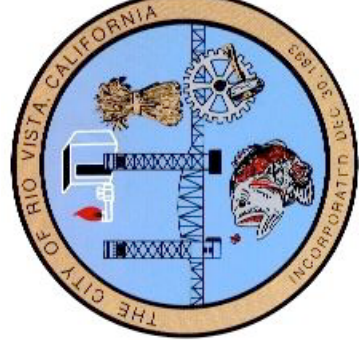
## 12512 - Vertical Louver Blinds

- A.** Provide and install vertical louver blinds at all windows including attachments required for installation in locations as shown on the Drawings. Vertical Louver Blinds with PVC, curved vanes free hanging type; with metal bead chain control for tilting and braided cord loop for traverse control. All visible aluminum components and accessories: Clear anodized. Vanes colors will be selected by the Architect from the full range of the manufacturer's palette including any premium colors.
- B.** Manufacturers include: Hunter Douglas "Vertical Blind"; Louver Drape, Inc.'s "Model MRCS"; Springs Window Fashions Div., Inc.'s "Ball-Grabber Contract, Graber G-71 SuperVue Vertical Blinds"; or approved alternate manufacturer.
- C.** Deliver and store packaged products in original containers with seals unbroken and labels intact until time of use. Store delivered products in clean, safe, dry area.
- D.** Examine construction to support, adjust and verify that dimensions are correct. Insure adequate blocking and support has been installed before vertical louver blind installation. Commencement of installation of vertical louver blinds indicates acceptance of field conditions and adjacent structure.
- E.** Schedule installation of items to occur after application of exposed finishes wherever installation will not damage exposed finish surfaces and completion of finishes will not impede installation.
- F.** Install items in accordance with approved manufacturer's recommendations and reviewed Shop Drawings. Employ mechanics skilled in installations required. Install in all windows as scheduled on the Drawings. Install with approved manufacturer's brackets and fasteners as required to penetrate material to which attached.
- G.** Submit Product Data for all unit types. Also submit Shop Drawings: Show locations and methods of attachment. Submit Manufacturer's standard color palette for selection; other Samples only as requested.



GUTIERREZ / ASSOCIATES  
architects

Revisions:



RIO VISTA EOC REMODEL  
APN: 15-1-114

FIRE STATION

360 MAIN STREET, RIO VISTA, CA 94571

CITY OF RIO VISTA, FIRE DEPARTMENT

350 Main Street, Rio Vista, California 94571

Sheet Reference:

ABBREVIATED SPECIFICATIONS continued

Date: 24 January 2012

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