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SECTION 09 7726

WALL SURFACING FILMS

PART 1 GENERAL

1.01 SUMMARY

A. Section Includes:
   1. Wall surfacing graphic films applied to following substrates:
      a. Exterior Surfaces:
         1) Portland Cement Plaster walls with fine finish.
         2) Cast-in-Place Concrete with smooth troweled finish.

B. Related Sections:
   1. Section 03 3000: Cast-in-Place Concrete
   2. Section 09 2400: Portland Cement Plaster

1.02 REFERENCES

A. California Code of Regulations (CCR), Title 24, Part 2, California Building Code (CBC), Volumes 1 and 2, 2016 edition.

B. ASTM International (ASTM):
   1. ASTM E 84 – Standard Test Method for Surface Burning Characteristics of Building Materials

C. National Fire Protection Association (NFPA):
   1. NFPA 255 – Standard Method of Test of Surface Burning Characteristics of Building Materials.

D. UL, LLC (UL):
   1. UL 723 – Standard Test for Surface Burning Characteristics of Building Materials.

E. South Coast Air Quality Management District (SCAQMD):
   1. Rule 1168 – Adhesive and Sealant Applications.

1.03 SUBMITTALS

A. Product Data:
   1. Manufacturer's product data for each type of product specified.
      a. Include data on physical characteristics, durability, fade resistance, and flame resistance characteristics.
      b. Include data on VOC content for adhesives.

B. Installation Instructions:
   1. Manufacturer's written installation instructions for each type of product specified.

C. Samples:
   1. Minimum of four 12 inches by 12 inches samples of each digitally printed film for color and pattern as indicated on Drawings for verification.
      a. Include digitally printed wall surfacing film with overlaminate on each sample.
   2. Minimum of three full-width samples:
      a. Minimum of 48 inches high by not less than 36 inches long.
      b. For each digitally printed wall surfacing film, including overlaminate.
   3. Prepare samples from same ink dye lot to be used for Work

D. Certification:
   1. Product certificates signed by manufacturers of wall surfacing film certifying that their products comply with specified requirements.
   2. Provide written evidence that materials proposed for use, conform to recommendations of wall surfacing film manufacturer for warranted installations.

E. Maintenance Instructions:
   1. Two copies of manufacturer's printed instructions for maintenance of installed Work.
      a. Include one copy for inclusion in maintenance manuals specified under Division 01.

1.04 QUALITY ASSURANCE

A. Substitutions:
   1. Wall surfacing films submitted for approval as equal to specified wall surfacing films must be equal in every respect, including color selection.
   2. Submittals to include full range of colors and manufacturer's written specification.
   3. Color/Pattern:
      a. Match Architect's samples for color, pattern, and graphics.
   4. Comply with requirements for substitutions in Division 01.

B. Applicators Qualifications:
   1. Work of this Section to be performed by firm regularly engaged in installation of wall surfacing films of types and qualities specified.

1.05 DELIVERY, STORAGE, AND HANDLING

A. Deliver materials to Project Site in original packages or containers clearly labeled to identify manufacturer, brand name, quality or grade, and fire performance characteristics.

B. Store materials inside well-ventilated area protected from weather, moisture, soiling, extreme temperatures, and humidity.

C. Maintain room temperature within storage area at not less than 70 degrees F during period materials are stored.

1.06 PROJECT CONDITIONS

A. Space Enclosure and Environmental Limitations:
   1. Do not install wall covering until completion of following:
      a. Space is enclosed and weatherproof.
      b. Wet-work in space is completed and nominally dry
      c. Work above is complete.

B. Maintain ambient-temperature within building at not less than 68 degrees F for minimum of 72 hours prior to beginning of installation.
   1. Ensure that ambient temperature and humidity conditions are and will be continuously maintained at values near those indicated for final occupancy.
   2. Do not apply adhesive when substrate surface temperature or ambient temperature is below 55 degrees F.
   3. Humidity: Not to exceed 90 percent.

C. Ventilation:
   1. Provide continuous ventilation during installation
      a. For not less than time recommended by wall covering manufacturer for full drying or curing.

D. Wall Conditions:
   1. Ensure that wall surface is clean, dry, structurally sound, and free of mildew, grease, dust, or other stains.
   2. Prime wall surfaces with quality wall primer as approved by manufacturer.
      a. Comply with requirements specified in Section 09 9100.

1.07 REGULATORY REQUIREMENTS

A. Fire Performance Characteristics:
   1. Provide materials bearing UL label and marking and complying with following fire resistance characteristics:
      a. Digitally Printed Wall Surfacing Film:
         1) Class A Rating in accordance with ASTM E 84/NFPA 255 (Tunnel Test).
            a) Flame Spread Index: 15
            b) Smoke Developed Index: 25

1.08 WARRANTY

A. Submit manufacturer's limited five-year written warranty against manufacturing defects.
   1. Warrant wall surfacing film materials, when adhered to sound surface with manufacturer’s recommended procedures and adhesive, to be free of manufacturing defects for period of 5 years from date of Owner’s acceptance of Project.

PART 2 PRODUCTS

2.01 MATERIALS

A. Wall Surfacing Film:
   1. 3M Envision Print Wrap Film SV480mC as manufactured by 3M Commercial Solutions, St. Paul, MN

2.02 ACCESSORIES

A. Primer and Adhesive:
   1. Manufacturer's recommended primers and adhesives, manufactured expressly for use with each type of wall film on substrates as indicated.
   2. Provide materials conforming to SCAQMD Rules 1113 and 1168, and which are mildew-resistant and non-staining to wall film.

PART 3 EXECUTION

3.01 EXAMINATION

A. Examine substrates for compliance with requirements for moisture content and other conditions affecting performance of Work of this Section.
   1. Complete finishing operations, including painting, before beginning installation of wall film materials.
   2. Ensure that wall surfaces specified to receive wall film materials are dry and free from dirt, grease, loose paint, and scale.
   3. Do not proceed with installations until unsatisfactory conditions have been corrected.

3.02 PREPARATION

A. Surface Preparation:
   1. Gypsum Board Surfaces:
      a. Recess screws.
      b. Repair irregular tape joints, sand and remove dust.
   2. Sand high spots and spackle low areas of gypsum board surfaces to eliminate imperfections that may telegraph through wall film installation.
   3. Ensure gypsum board surfaces scheduled to receive wall film are properly primed under Section 09 9100.
      a. Apply surface sealer to gypsum drywall which will permit subsequent removal of wall film without damage to paper facing.
      b. Prime substrate as recommended by manufacturer.
   2. Exterior Portland Cement Plaster:
      a. Sand high spots and fill in low areas of plaster surfaces to eliminate imperfections that may telegraph through wall film installation.
      a. Ensure plaster surfaces scheduled to receive wall film are properly primed under Section 09 9100.

B. Clean substrates of substances that could impair wall covering bond, including mold, mildew, oil, grease, incompatible primers, and dirt.

C. Acclimatize wall film materials by removing from packaging in area of installation not less than 24 hours before application.

3.03 INSTALLATION – GENERAL

A. Comply with wall film manufacturer's written installation instructions applicable to products and applications indicated, except where more stringent requirements apply.

B. Remove excess adhesive and residue along finished seams in accordance with manufacturer's instructions.

3.04 CLEANING

A. Use cleaning methods recommended by wall film manufacturer.

B. Replace strips that cannot be cleaned.

C. Upon completion of Work, remove surplus materials, rubbish, and debris resulting from wall covering installation and leave areas of Work in neat, clean condition.

END OF SECTION 09 7726

SECTION 27 4116

INTEGRATED AUDIO-VIDEO SYSTEMS AND EQUIPMENT

PART 1 GENERAL

1.01 SCOPE OF WORK

A. The work under this section includes all Cabling. All specified Audiovisual Systems Equipment to be Owner Furnished and Owner Installed as part of Furniture, Fixtures and Equipment (FF&E) phase of this project as indicated on the drawings and mentioned in these specifications.

B. It is the intent of the Drawings and Specifications, for the Contractor to install all AVS cabling only, unless otherwise specified.

C. Schedule is paramount to the project's success. With this, the Contractor will have to be a team player, continually working with the team to facilitate expeditious design, procurement, and construction processes.

D. Project Summary
   1. Digital Signage System
      a. Visitor's Staging Area (outside of W-134) and Home Team Staging Area W-147, There shall be a display system with wall mounted LED display, in outdoor protective case. The display shall have source inputs from owner furnished network connected, digital media players.
   2. Aquatic Center
      a. Aquatic Center shall have sound system that shall cover the pool area and bleachers. Sound system shall include wall mounted speakers, one (1) wireless microphone system and one (1) audio/microphone input wall mounted panel. The audio input panel shall have both microphone and line level (MP3 music player) audio inputs located in a protective box near pool area. There shall be an ADA compliant Assistive Listening System (ALS) provided. The wireless microphone system reception and ALS transmission antennas shall be mounted on outside of building for proper reception. The sound system shall be controlled by a touch panel located in the equipment rack and wall mounted control panel located in a protective box near pool area. The system equipment shall be located in a steel equipment rack shared with Multi-purpose Athletic Event Center AV equipment and located in the A/V Closet W203.
   3. Team Rooms; **W111**~~W-113~~, **W122**, ~~W-130~~, **W132, W148,** ~~W-137~~, **Y107**, ~~Y-106~~, and **Y119**, ~~Y-304~~, typical.
      a. Team rooms shall receive a multi-media presentation system. There shall be a display system that shall have a wall mounted LED display. The sources to the display shall be from laptop computer inputs, local PC computer, document camera and wireless presentation gateway. Sound shall be heard through ceiling mounted speakers and an ADA compliant ALS output connection panel for use with portable ALS systems. The system shall be controlled through a lectern top touch panel interface. The system equipment shall be housed in an equipment rack.

4. Athletic Training Room; **W115**~~W-124~~
    a. The Athletic Training room shall have a multi-media presentation. There shall be a display system consisting of five (5) wall mounted LED displays. There shall be an input plate located below each display for laptop inputs and other media devices. There shall be a local PC computer and wireless presentation gateways. Sound shall be heard though ceiling mounted pendant speakers and an ADA compliant ALS output connection panel for use with portable ALS systems. There shall be a control panel located at each display location as well as one (1) master touch panel interface located on wall near rack. Equipment shall be housed in an equipment rack.
5. Aquatic Coach's Conference Room W-164
    a. Conference room shall have a presentation system that shall include a display mounted on wall. Source inputs shall be from a wall plate located below the display with HDMI, VGA and Audio connections. Sound shall be heard through speakers built into the display. The display shall be controlled through hand held remote supplied by display manufacturer.
6. Multi-purpose Athletic Event Center; W-201
    a. Multi-purpose Athletic Event Center shall be used for presentations, events and meetings. There shall be a presentation system with a display system that shall include a ceiling mounted projector with a projection lift, ceiling recessed motorized projection screen and a wall mounted LED display. Sources to the display system shall be from Blu-Ray disk player, document camera, laptop computer inputs, local PC Computer with wireless keyboard and mouse, and wireless presentation gateway. There shall be two (2) presentation lectern location floor boxes. There shall be an additional Input/output panel located in rear wall of room. Connections shall include HDMI inputs output, Audio Input and Output. Sound shall be heard through ceiling mounted speakers. The system shall be controlled through two touch panel interfaces, one located on presenter's lectern and the second wall mounted in rear of room. a touch panel interface. Equipment shall be housed in a steel equipment rack shared with Aquatics AV system equipment located in A/V Closet **W205**,~~W203~~.
7. A/V Control Office; W-159
    a. Control Room shall house two (2) AV equipment racks. The racks will house the AV equipment for Pool area and Soccer fields.
8. Soccer and Lacrosse Fields
    a. The Soccer and Lacrosse fields shall have sound systems that shall cover the field and bleacher areas. Sound systems shall include pole mounted speakers, wireless microphone system and one (1) audio/microphone input field panel per field. The audio input panel shall have both microphone and line level (MP3 music player) audio inputs. There shall be an ADA compliant Assisted Listening System provided. The wireless microphone system reception and ALS transmission antennas shall be mounted on outside of building for proper reception. The sound system shall be controlled by a touch panel located in the equipment rack. The system equipment shall be located in a steel equipment rack and located in the A/V Closet W203. There shall also be a camera system.

The camera system shall be used by instructors and students to review their game performance. The cameras shall be pole mounted, weather proof Pan/Tilt/Zoom, HD, PoE and connected to the colleges network. Camera feeds shall be recorded to a designated College server for viewing via WEB pages.

9. Volleyball Courts
    a. Volleyball courts shall receive a camera system. Each court will have infrastructure for two (2) Broadcast Quality Pan/Tilt/Zoom IP based Cameras each. The camera system shall be used by instructors and students to review their game performance. The cameras shall be pole mounted, weather proof Pan/Tilt/Zoom, HD, PoE and connected to the colleges network. Camera feeds shall be recorded to a designated College server with storage and streaming software for viewing a cameras feed via WEB pages.
10. Softball Field
    a. Softball field shall have a sound system that shall cover the field and bleacher areas. Sound system shall include pole mounted speakers, wireless microphone system and one (1) audio/microphone input field panel. The audio input field panel shall have both microphone and line level (MP3 music player) audio inputs. There shall be an ADA compliant Assisted Listening System provided. The wireless microphone system reception and ALS transmission antennas shall be mounted on outside of building for proper reception. The sound system shall be controlled by a touch panel located in the equipment rack. The system equipment shall be located in a steel equipment rack.
    b. The field shall have infrastructure for four (4) Broadcast quality cameras each. Cameras shall be located on building at First base and Third base lines, Home base on press box cover and a camera mounted on from score board to view entire field. The camera system shall be used by instructors and students to review their game performance. The cameras shall weather proof Pan/Tilt/Zoom, HD, PoE and connected to the colleges network. Camera feeds shall be recorded to a designated College server with storage and streaming software for viewing a cameras feed via WEB pages.

1.02 RELATED WORK, STANDARDS, DOCUMENTS AND PUBLICATIONS

A. Documents affecting work of this section include, but are not necessarily limited to, General Conditions, Supplementary Conditions and sections of all Divisions of these specifications.

B. All applicable portions shall apply to this section as though written herein completely.

C. Contractor is responsible to reference all Architectural, Mechanical, Electrical, and Structural Drawings for additional information about pathways and or obstructions.

1.03 GENERAL REQUIREMENTS

A. Manufacturer: The term “manufacturer” shall be defined as the company, or group of companies, that produces the products meeting the requirements of Section 2 of this document. The manufacturer shall have a minimum of ten (10) years’ experience in manufacturing products of this type and shall be ISO 9001 Certified.

B. Contractor: The term “contractor” shall be defined as the company, or group of companies, that installs the products per Section 3 of this document. The contractor selected to provide the installation of this system shall be certified by the manufacturer in all aspects of design, installation and testing of the products described herein.
   1. The Contractor shall hold a valid State of California C-7 Low-Voltage license, shall have completed at least ten (10) projects of equal scope, shall have been in business of furnishing and installing systems of this scope and magnitude for at least five (5) years, and capable of being bonded to assure the Owner’s Project Manager of performance and satisfactory service during the guarantee period.
   2. The Contractor shall hold all other licenses required by the legally constituted authorities having jurisdiction over the work.
   3. All work shall be performed under the supervision of a company accredited by the manufacturer and such accreditation must be presented.
   4. The Contractor shall be a manufacturer’s authorized distributor and warrantee station for the equipment offered and shall maintain a fully equipped service organization capable of furnishing adequate repair service to the equipment. The Contractor must be certified by the manufacturer a minimum of 180 days prior to bid opening.
   5. The Contractor selected for this Project must adhere to the engineering, installation and testing procedures and utilize the authorized manufacturer components and distribution channels in provisioning this Project.
   6. Personnel: Use adequate numbers of skilled workers who are thoroughly trained and experienced with the specified requirements and the methods needed for proper performance of the AV systems installation work specified herein.
   7. Designated Project Manager: Provide a designated Project Manager in responsible charge of the Project Site during all phases of installation and testing of the work of this specification.

1.04 QUALITY ASSURANCE

A. To maintain a high degree of quality assurance, the Contractor shall, without exception, use the parts and supplies as specified on the drawings and in this specification.

B. For any proposed product substitution or when the Contractor intends to include an “or equal” product in the bid pricing, provide a substitution request submittal to the Owner’s Project Manager for review no later than fifteen (15) calendar days prior to Bid submittal. This report shall include:
   1. Description of how the proposed product(s) will impact meeting the project completion date, indicate item(s) with lead times and expected delivery date(s).
   2. Itemized cost comparisons between the proposed product(s) and the listed product(s).
   3. Detailed technical analysis of the electrical and mechanical specification differences between the proposed product(s) and the listed product(s).
   4. ETL “Verified” or UL “Verified” test lab documentation for the proposed product(s), component(s) and assemblies.
   5. Proposed product identification, manufacturer literature (specifications and cut sheets).
   6. Name, address and contact information of several similar projects where the proposed product(s) have been used.

7. Name, address and contact information of the proposed product(s) manufacturer's local representative.
8. Sample proposed product(s) manufacturer's warranty.

C. The Owner's Design Team/Project Manager must approve any proposed product(s) substitution item in writing. The Owner's Design Team/Project Manager reserves the right to require a complete sample of any proposed product(s) and may request a sample tested by an independent testing consultant to prove equality. The decision of the Owner's Design Team/Project Manager regarding equality of proposed product(s) items will be final.

D. If a proposed product(s) is given final acceptance by the Owner's Project Manager, the Contractor shall reimburse the Owner's Design Team/Project Manager for the costs to review the proposed product(s) substitution(s), and for any additional engineering charges, and shall pay all charges of other trades resulting from this product(s) use, at no cost to the Owner.

E. It is a mandatory requirement that a single Contractor perform the work described in this specification.

1.05 BID SUBMITTAL REQUIREMENTS

A. Pre-Qualification Certificates: Provide current training certificates for design, engineering, installation and testing of the proposed products.

B. Manufacturer Tests: Contractor shall submit all manufacturer test information prior to installation. If equivalent product(s) are substituted, the equivalent product(s) must show demonstrated and documented equivalence to the product(s) specified.

C. Bid Forms: Contractor shall submit completed the detailed bid forms provided with this specification. Lump sum bids will not be accepted.

D. Project Narrative: Contractor shall submit a summary of the scope of work, in Contractor's own words, illustrating a complete and thorough understanding of the project. The narrative shall include, but not be limited to room by room scope of work, project staffing and duration, quality assurance procedures and methodology, problem escalation procedures, and project schedule.

E. Proposed Solution: The Contractor shall provide manufacturers cut-sheets for all the proposed materials that meet the requirements listed / described in Section 2 of this specification. On each cut sheet, provide an indicating arrow next to each part number of proposed material.

F. A resume of qualification shall be submitted with the Contractor's bid indicating the following:
1. The Contractor shall hold a valid State of California C-7 Low-Voltage license, shall have completed at least ten (10) projects of equal scope, shall have been in business of furnishing and installing systems of this scope and magnitude for at least five (5) years, and capable of being bonded to assure the Owner's Project Manager of performance and satisfactory service during the guarantee period.
2. The Contractor shall hold all other licenses required by the legally constituted authorities having jurisdiction over the work.

3. A technical resume of experience for the Contractor's Project Manager who will be assigned to this project. This individual will remain as Project Manager for the duration of the project. The Contractor may change Project Managers only with the Owner's Project Manager's written approval.
4. All personnel performing work on this project must have successfully completed the manufacturer's installation training course prior to performance of any work on this project. Accreditation will consist of individual employee certifications issued by the manufacturer. Copies of certification of such training must be presented prior to any work performed on this project. A list of technical product installation training attended by the Contractor's personnel within the past two (2) years that will install the Contractor shall be submitted with the response.

G. The Contractor shall furnish a letter from the manufacturer, which certifies that the contractor is the Authorized Distributor and that the equipment shall be installed according to manufacturer intended practices. The Contractor shall also furnish a written guarantee from the manufacturer that they will have a service representative assigned to this area for the life of the equipment.

H. The Contractor shall submit a detailed Bill of Materials developed for the project. The Bill of Materials shall contain a complete list of every component, part or device by part description, manufacturer and manufacturer's part number, quantity and unit of measure. See example format below. Product cut sheets shall be organized to match the order listed in the bill of materials. All cut sheets shall be numbered sequentially with matching page numbers indicated on the Bill of Materials. If more than one-part number appears on a cut sheet, Contractor shall identify the proposed part with a RED arrow or RED circle.

Description	MFG & Part #	Quantity	Unit of Measure	Price
Speaker	ElectroVoice	1	Each	$

I. This information may be used by the Owner to evaluate the Contractor's general understanding of the project scope during the bid evaluation. Errors/Omissions from this bill of material do not relieve the AVS contractor from providing all material, components, labor, etc., as outlined in this specification and on the drawings to provide a complete and useable AVS system.

J. Provide 3 copies of the above information at bid time.

1.06 POST AWARD SUBMITTALS: SUBMIT WITHIN THIRTY (30) DAYS OF AWARD.

A. Submittals shall be in three (3) deliverables, the first submittal shall be equipment cut sheets and equipment index in PDF format. The second submittal shall be electronic reproducible shop drawings including single line block drawings, equipment rack elevations, equipment locations, and mounting details (as pdf). The third submittal shall be control panel layouts, see below in paragraph G:
   1. A statement of sub-contractors, franchises, distributorship, dealerships, arrangements and agreements with manufacturers of equipment to be used for this work.
   2. Complete bill of quantities, including all material, components, devices and equipment required for this work. The bill of quantities shall be tabulated respective of each and every system as specified, in the order of the specification section 2 below, and shall contain the following information for each item listed:

a. Quantity
b. Description
c. Manufacturer's name and model number
d. Manufacturer's specification sheet

B. Samples approved by the architect, of all finishes/materials which will be visible to the public. Including at least receptacles and controls with associates trim plate and each type of loudspeaker baffle and/or grille.

C. Functional Diagrams: single-line block diagram showing interconnection of all components, receptacles, terminal blocks. Include terminal and cable numbers, all system and component labels. Show detailed system component information including but not limited to manufacturer's name, model number, any specialized part number option and all input and output connection information, for each piece of equipment. No drawing codes shall be permitted. Provide one (1) full-scale original or photograph (not blueprint) copy for each system. All shop drawing shall follow The AVIXA (InfoComm) standard ANSI-J-STD-710 for audio, video, and control.

D. Equipment rack elevation drawings scaled (1-1/2" = 1'-0" or larger):
1. Front Elevations: include equipment designation, manufacturer's name, model number, rack location and rack designation.
2. Rear Elevations: include AC power wire-ways and route of wiring harnesses.

E. Samples for approval by the architect of all finishes/materials that will be visible to the public including at least receptacles and controls with associated trim plate and each type of loudspeaker baffle and/or grille.

F. Contractor fabricated items, detailed drawings showing all components, devices and equipment, including dimensions, component values, terminal designations, types, locations, manufacturer's name and model number.

1.07 GENERAL SYSTEM PRODUCT, INSTALLATION AND OVERALL SYSTEM WARRANTY

A. Prior to Owner acceptance, the Contractor shall provide to the Owner’s Project Manager, a manufacturers product and performance warranty. This will require a submittal of the required pre-job certification registration forms as well as the required project closing information. The Owner will only acknowledge acceptance upon submittal of a valid manufacturer’s warranty.

B. Manufacturer’s Site Certifications will not be accepted.

C. The warranty shall commence from the date of the Owners final written acceptance of the completed project.

D. All conditions for obtaining the manufacturer’s warranty shall be the sole responsibility of the Contractor.

1.08 SPECIFIC SYSTEM PRODUCT, INSTALLATION AND OVERALL SYSTEM WARRANTY

A. Prior to Owner acceptance, the Contractor shall provide to the Owner’s Project Manager, a manufacturers product and performance warranty. This will require a submittal of the required pre-job certification registration forms as well as the required

project closing information. The Owner will only acknowledge acceptance upon submittal of a valid manufacturer's warranty.

B. The warranty shall commence from the date of the Owners final written acceptance of the completed project.

C. All conditions for obtaining the manufacturer's warranty shall be the sole responsibility of the Contractor.

D. The Contractor shall maintain a competent service organization and shall, if requested, submit a service maintenance agreement to the Owner after the end of the guarantee period.

E. A typewritten notice shall be posted at the equipment rack that shall indicate the firm, address and telephone number to call when service is necessary. The notice shall be mounted in a neatly finished metal frame with a clear plastic window and securely attached to the inside of the door.

PART 2 PRODUCTS AND AUDIOVISUAL SYSTEM SCOPE OF WORK

2.01 ACCEPTABLE MANUFACTURERS

A. It is the responsibility of the bidder to ensure that the proposed product meets or exceeds every standard set forth in these specifications and the equipment's technical data sheets.

B. The functions and features specified are vital to the operation of this facility. Therefore, inclusion of a component's manufacturer in the list of acceptable manufacturers does not release the Contractor from strict compliance with the requirements of this specification.

2.02 SYSTEM FUNCTIONS AND CAPABILITIES:

A. The Audiovisual Systems (AVS) equipment will be housed in the AVS rack. The AVS shall be controlled by a control system for the system functionality.

B. The AVS shall comply with AVIXA A102.01:2017 Audio Coverage Uniformity in Listener Area.

C. The AVS shall provide clear, natural sound uniformly distributed throughout the designated areas. The system shall utilize speakers as shown on the plans. These quantities shall be considered as the minimum quantity required. If additional speakers are needed to meet the requirements of section 2.02 sections C thru G below, the Contractor shall include all costs for added speakers in the base bid.

D. The system shall have adequate dynamic range without audible clipping or distortion to accommodate all types of program material. Audio, Digital Signal Processing shall be employed in the designated rooms to insure smooth frequency response, high acoustical gain before feedback. When at maximum level, the system shall operate without audible distortion, rattles and buzzes. All switching shall be silent and without pops and or transients.

E. The system frequency response shall be within +/- 2dB from a curve which is flat from 80Hz to 4kHz and decreasing 3dB per octave from a relative level of 0 dB from 4kHz to 10kHZ. There shall be a minimum 12dB roll-off above 10 kHz and below 63 Hz. Uniformity of coverage of the system at seated ear height (42") shall be within +/- 3dB in the 4kHz 1/3 octave band at any seat location using pink noise as a test signal.

F. System noise shall not exceed an equivalent input noise of -120dB based on a 20KHz-noise bandwidth. The predominant noise component in the system output under any operating condition shall be that of the input stage.

G. The sound level capability of program material levels produced in all seats shall be at least 105dB when measured with a scaled filter. There shall be at least 6dB of amplifier headroom.

H. The system shall provide clear audio to all areas covered by the system. Each speaker zone shall be wired discretely to the correct zone on the amplifier. See AVS drawings for exact location.

I. Contractor will review and assess the appropriate Lens Throw length between the video projectors and the projection screens to ensure optimum picture sizing and focus. Make all adjustments necessary, including projector keystone correction (if the projector cannot be placed in the optimum location) and lens shift to achieve the image size and shape required.

J. Provide full video projector calibration and adjustments for optimal picture quality for all used inputs. Provide proper aspect ratio configuration for 16:9 and 16:10 sources. Set all projector configuration presets required for control system recall coordination and provide with final system documentation.

K. Verify image Contrast to perform to AVIXA (INFOCOMM) 3M-2011, Projected Image System Contrast Ratio.

L. Provide full flat panel monitor display calibration and adjustments for optimal picture quality for a single HDMI, DisplayPort (DP) or DVI-D input. Provide proper aspect ratio configuration for 16:9 and 16:10 sources. Use a test generator (I.E. Extron VTG Series, Hall Research PGA-VHD, or Teledyne 780): for all setup verification, and verify proper image configuration with the all inputs. (Contract the Owner’s Technical Representative prior to final adjustment to coordinate).

M. Controls: Adjust all controls to achieve the specified performance. Provide covers for all level controls, as appropriate to prevent unauthorized gain changes. Contractor will confirm that all control system operations are properly programmed and repeatable.

N. Testing Report: Provide a letter/report documenting the results of these preliminary tests, including amplifier gain/level settings, DSP Gain & EQ filter settings, and AV equalization curves for review by the AV Design Consultant.

O. See wiring device section of this specification for wiring device plate cover labeling requirements.

P. See drawings for panel board schedule directory installation requirements.

Q. See conduit installation section of this specification for conduit labeling requirements.

R. Software Programming
   1. General
      a. Except when otherwise agreed in writing the client shall retain legal and beneficial ownership of all Intellectual Property, including source code, created by the Contractor, their employees and sub-Contractors.
      b. The Contractor must allow sufficient time for the programming of all software configurable audio, video and control systems. Contractors must evaluate the systems functional requirements and user interface and then allow time in their bid accordingly. The system description as well as the end user interview will provide the Contractor with the necessary information needed to proceed with the programming. Any questions as to the systems functional requirements must be sent in written RFI form to the Owner and Consultant. All programming schemes must be submitted to the Owner and Consultant for approval before programming starts. This includes the appearance of all user interfaces, touch panel layouts, preset and sub-preset information (acquired through client interviews), and speaker control schemes. The Contractor will also submit a narrative for the control system concept to the Consultant for approval. The Contractor is to interview the Owner and their representatives to acquire the necessary information needed to allow for the proper programming of this system. The Contractor, after interviewing the Owner, will then submit a written report stating his interpretation of the Owner's requirements for approval by Consultant. Only after the Owner and Consultant have approved the programming report may the Contractor proceed with the programming of this system.
      c. All equipment that is connected to the Owner's local area network and is configurable via the local area network must have its equipment software installed onto Owner furnished dedicated computers by the owners Information Technology Staff unless otherwise indicated. The Contractor is to allot time to test equipment software loaded on the Owner's computers which are to be identified by the Owner and/or Consultant. The computers will be programmed to emulate user interfaces throughout the facility. The Contractor shall coordinate all software deployment over IP with the Owner's Information technology department.
      d. Control system minimum programming outlined below:
         1) The Contractor shall allot time, as needed for on-site control system programming with the Owner representative.
         2) All serial controlled devices must have bi-directional communication with the control system. All control functions locally available on each device must be accessible via the remote-control system.
            All locally gestured control functions must mirror on the control system user interface. In other words, if a volume control is adjusted on a DSP interface that adjustment must register on the control interface.

3) Control system shall be used to power up and down connected equipment where indicated. The control system shall control the volume levels for the program audio, wireless microphones if applicable, select video sources and media input panel (MIP) in the floor boxes and wall plates, transport and control functionality for playback equipment from the wall mounted 7" and 5" and a table top 7" LCD control panel in the room. The control panel may require a POE injector located in the AV rack or behind the display.

2.03 AUDIOVISUAL SYSTEM PRODUCTS

A. The system shall utilize AV products as shown on the Plans and listed below. All AV equipment listed shall be Owner Furnished, Owner Installed (O.F.O.I.) as part of College FF&E with the exception of equipment listed as Contractor Furnished, Contractor Installed (C.F.C.I.) otherwise and all Cabling and fixtures. These products shall be considered to be the minimum quantity, performance, functionality and quality levels. If additional and/or upgraded components are needed to meet the performance requirements of this specification, the Contractor shall include all costs for such added and/or upgraded components in the base bid.

B. Digital Signage System
   1. Display System:
      Visitor's Staging Area (outside of W-134) and Home Team Staging Area W-147
      a. DISP1-1 and DISP1-2, 2-Each, Panasonic TH-50EQ1U, 55" 4K LED Display.
      b. 2-Each, TV Shield Pro 55-60" Outdoor Weatherproof TV/ Display Enclosure.

C. Aquatic Center
   1. Audio System:
      a. DSP1-1, 1-Each, Extron DMP 128 Plus AT, Digital Signal Processor with Dante.
      b. WMRX1-1, 1-Each, Shure QLXD 124/58, Wireless Microphone system with hand held Transmitter and belt pack transmitter with Lapel Mic.
      c. 2-Each, Shure SB900A, Lithium-Ion Rechargeable Battery.
      d. 1-Each, Shure SBC800, Charger.
      e. ANT1-1 and ANT1-2, 2-Each, Winegard Flat Wave-Air-Antenna, Outdoor Amplified HDTV Antenna. C.F.C.I.
      f. AMP1-1, 2-Each, QSC CX702, 2-Channel Power Amplifier.
      g. SPKR1-1 to SPKR1-4, 4-Each, ElectroVoice Sx600, High Output 2‑Way Loudspeaker with SuperSAM Mounting Bracket, All Weather.
      h. MICINT1-1, 1-Each, Atterotech unD6IO, Dante™ Networked Audio Wall Plate - 4x2 Multi I/O connection wall plate.
      i. CAM1-1 to CAM1-4, 4-Each, AXIS 4K Pan/Tilt/Zoom IP based Cameras in weather proof cases.
   2. Control System:
      a. TP1-1, 1-Each, TLP Pro 725M, 7" Wall Mount Touchlink Pro Touchpanel.
      b. CP1-1, 1-Each, Extron MLC Plus 200, MediaLink Plus Controller.
      c. 1-Each, Extron RM 5, Rack Mount Kit for TLP Pro 725M.
      d. CNTL1-1, 1-Each, Extron IPCP Pro 350, IP Link Pro Control Processor.
      e. POEINJ1-1 and POEINJ1-2, 2-Each, Extron XTP PI 100, Power Injector.
   3. Assistive Listening System:

a. ALSTX1-1, 1-Each, Listen Technologies LS-55-072, Listen IDSP Prime Level III Stationary RF System (72 MHZ).

4. Misc.: Note: AV Equipment Rack shared with Multi-purpose Athletic Event Center AV System and located in w203
   a. 1-Each, Furman PL-PROC, 20A Power Conditioner with Lights, Voltmeter. 1-Each, Middle Atlantic D2, 2-RU locking drawer.
   b. 1-Each, Middle Atlantic WR 44-32, 44RU Roll-out and Equipment Rack.
   c. 1-Each, Middle Atlantic WPFD-44, Plexi Front Door.
   d. 1-Each, Middle Atlantic MW-4QFT-FC, Fan Top, 220 CFM, W/Controller.

D. Team Rooms, **W111** ~~W-113~~, **W122**, ~~W-130~~, **W132, W148,** ~~W-137~~, **Y107**, ~~Y-106~~, and **Y119**, ~~Y-304~~, typical.

1. Display System:
   a. DISP1-1, 1-Each, Panasonic TH-65EQ1U, 65” 4K LED Display.
   b. 1-Each, Chief Mfg. XSM1U, X-Large Fusion Micro-Adjustable Fixed Wall Display Mount.
2. Digital Video System:
   a. DTPSWT1-1, 1-Each, Extron IN1608xi IPCP MA 70, Eight Input HDCP-Compliant Scaling Presentation Switcher with DTP Extension, Amplifier & Control Processor.
   b. DTPTX1-1, 1-Each, Extron DTP2 T 211, 4K/60 HDMI DTP2 Transmitter with Audio Embedding.
   c. DTPRX1-1, 1-Each, Extron DTP2 R 211, 4K/60 HDMI DTP2 Receiver with Audio De-Embedding.
   d. WIPS1-1, 1-Each, Extron ShareLink 200, Wireless Collaboration Gateway.
   e. PC1-1, 1-Each PC Computer with Wireless Keyboard & Mouse.
   f. BD1-1, 1-Each, TASCAM BD-01U, Blu-ray, DVD, and CD media Player.
3. Audio System:
   a. SPKR1-1 to SPKR1-6, 6-Each, Extron SF 26CT, SoundField XD 6.5" Two-Way Ceiling Speaker with 8" Composite Back Can and 70/100 V Transformer, White. **(C.F.C.I.)**
4. Control System:
   a. TP1-1, 1-Each, Extron TLP Pro 725T, 7" Tabletop TouchLink Pro Touchpanel.
5. Assistive Listening System:
   a. ALS1-1, 1-Each, Custom Rack Panel, 1/8” THICK, with 1/8” TRS Jack, and laser engraved: “ASSISTIVE LISTENING SYSTEM OUTPUT”.
6. Misc.:
   a. 1-Each, Equipment rack and metal door.
   b. 1-Each, Furman PL-PLUS C, 15A Power Conditioner with Lights, Voltmeter. 1-Each, Presenters Lectern with equipment rack & door.

E. Athletic Training Room, W-124
1. Display System:
   a. DISP1-1 to DISP1-3, 3-Each, Panasonic TH-55EQ1U, 55” 4K LED Display.
   b. 3-Each, Chief Mfg. LSM1U, Large Fusion Micro-Adjustable Fixed Wall Display Mount.
2. Digital Video System:
   a. DTPSWT1-1, 1-Each, Extron DTP CrossPoint 106 4K IPCP MA 70, 10x8 Seamless 4K Scaling Presentation Matrix Switcher with Amplifier and Processor.

b. DTPTX1-1 to DTPTX1-3, 3-Each, Extron DTP T UWP 4K 232 D, Two Input DTP Transmitter for HDMI and VGA with Audio Embedding - Decorator-Style Wallplate.
c. DTPRX1-1 to DTPRX1-3, 3-Each, Extron DTP2 R 211, 4K/60 HDMI DTP2 Receiver with Audio De-Embedding.
d. WIPS1-1, 1-Each, Extron ShareLink 200, Wireless Collaboration Gateway.
e. PC1-1, 1-Each PC Computer with Wireless Keyboard & Mouse.
f. BD1-1, 1-Each, TASCAM BD-01U, Blu-ray, DVD, and CD media Player.

3. Audio System:
   a. SPKR1-1 to SPKR1-6, 6-Each, Extron SF 26PT, SoundField XD 6.5" Two-Way Pendant Speaker and 70/100 V Transformer, White. **(C.F.C.I.)**
4. Control System:
   a. TP1-1 to TP1-3, 3-Each, Extron TLP Pro 520T, 5" Wall Mount TouchLink Pro Touchpanel.
   b. NETSWT1-1, 1-Each, PoE D-LINK, Network Switch, 16-Ports
5. Assistive Listening System:
   a. ALS1-1, 1-Each, Custom Rack Panel, 1/8” THICK, with 1/8” TRS Jack, and laser engraved: “ASSISTIVE LISTENING SYSTEM OUTPUT”.
6. Misc.:
   a. 1-Each, Middle Atlantic PTRK-2126MDK, Portable Equipment Rack with 4” Casters and Table Top.
   b. 1-Each, Middle Atlantic D2, 2-RU Locking Drawer.
   c. 1-Each, Furman PL-PLUS C, 15A Power Conditioner with Lights, Voltmeter.

F. Aquatics Coach’s Conference Room, W-164
1. Display System:
   a. DISP1-1, 1-Each, Panasonic TH-55EQ1U, 55” 4K LED Display.
   b. 1-Each, Chief Mfg. LSM1U, Large Fusion Micro-Adjustable Fixed Wall Display Mount.
2. Digital Video System:
   a. MIP1-1, 1-Each, 2-Gang Plate with HDMI, VGA & A 3/5MM Audio connectors. 1/8” Aluminum, White powder coated with Laser engraved labeling.

G. Multi-purpose Athletic Event Center, W-201
1. Display System:
   a. PROJ1-1, 1-Each, Panasonic PT-RZ770WU, 7,000 Lumens, Laser Solid Shine Projector, standard lens, Digital Link, White.
   b. LIFT1-1, 1-Each, Draper Scissor Lift SL6 - 115V, # 300271 with Plenum case, low voltage motor control & low voltage wall switch. **(C.F.C.I.)**
   c. SCN1-1, 1-Each, Draper Access V Electric Screen, 72 1/2” H X 116” W, Total Top: 12" BLACK, 115 VAC Motor *Hook Up Left * With Built-In LVC-LV, and LVC-S Low Voltage Wall Switch, # 121225. **(C.F.C.I.)**
   d. DISP1-1, 1-Each, Panasonic TH-75EQ1W, 75” LED display
   e. 1-Each, Chief Mfg. LSM1U, Large Fusion Micro-Adjustable Fixed Wall Display Mount.
2. Digital Video System:
   a. DTPSWT1-1, 1-Each, Extron IN1608xi IPCP MA 70, Eight Input HDCP-Compliant Scaling Presentation Switcher with DTP Extension, Amplifier & Control Processor.

b. DTPSWT2-1, 1-Each, Extron DTP CrossPoint 84 4K IPCP MA 70, 8x4 Seamless 4K Scaling Presentation Matrix Switcher with amplifier and control processor.
c. WIPS1-1, 1-Each, Extron ShareLink 200, Wireless Collaboration Gateway.
d. PC1-1, 1-Each PC Computer with Wireless Keyboard & Mouse.
e. BD1-1, 1-Each, TASCAM BD-01U, Blu-ray, DVD, and CD media Player.
f. DTPTX1-1, 1-Each, Extron DTP T HWP 4K 231 D, DTP Transmitter for HDMI - Decorator-Style Wallplate.
g. DTPTX2-1, 1-each, Extron DTP2 T 211, 4K/60 HDMI DTP2 Transmitter with Audio Embedding
h. DTPRX1-1, 2-Each, Extron DTP2 R 211, 4K/60 HDMI DTP2 Receiver with Audio De-Embedding.
i. DTPRX2-1, 1-Each, Extron DTP R HWP 4K 231 D, DTP Receiver for HDMI Decora-Style Wallplate.

3. Audio System:
   a. SPKR1-1 to SPKR1-**9** ~~12~~, **9** ~~12~~-Each, Extron SF 26CT, SoundField XD 6.5" Two-Way Ceiling Speaker with 8" Composite Back Can and 70/100 V Transformer, White. **(C.F.C.I.)**
   b. MIC1-1, 1-Each, Shure MX418SE/C, 18" Goose Neck Microphone with Shock Mount.
   c. WMRX1-1, 1-Each, Shure QLXD124/58 Wireless Microphone System with Hand Held Transmitter and belt pack transmitter with Lapel Microphone.
   d. 2-Each, Shure SB900A, Lithium-Ion Rechargeable Battery.
   e. 1-Each, Shure SBC800, Charger.
   f. INT3-1, 1-Each, RDL D-XLR3M, XLR 3-pin Male Jack on Decora Wall Plate
4. Control System:
   a. TP1-1, 1-Each, Extron TLP Pro 725T, 7" Tabletop TouchLink Pro Touch panel.
   b. TP2-1, 1-Each, Extron TLP Pro 725M, 7" Wall Mount TouchLink Pro Touch panel.
   c. 1-Each, Network Switch with PoE, for AV LAN only not to be connected to Campus LAN
5. Assistive Listening System:
   a. ALS1-1, 1-Each, Listen Technologies LS-55-072, Listen IDSP Prime Level III Stationary RF System (72 MHZ).
6. Misc.: AV Rack shared with Aquatic Center Sound Equipment.
   1-Each, Decora 3-Gang wall plate cover.
   INT1-1 and INT1-2, 2-Each, custom floor box plate with Laser engraved labeling
      1-Each, DTP Shielded RJ45, "DTP IN"
      2-Each, RJ45, "AV LAN-1" & "AV LAN-2"
      1-Each, XLF-F, "MIC IN"

H. A/V Control Office, W-159

I. Soccer & Lacrosse Fields
   1. Digital Camera System:
      a. CAM1-1 to CAM1-6, 6-Each, AXIS P1368-E Camera.
         1) 4K Resolution
         2) 30 FPS Minimum
         3) Field of View: Horizontal: 72° to 45°, Vertical 40° to 25°.
         4) Video Compression: H.264, MPEG-4 Part 10/AVC
         1) Digital PTZ

2. Audio System:
    a. DSP1-1, 1-Each, Extron DMP 128 Plus AT, Digital Signal Processor with Dante.
    b. WMRX1-1 and WMRX1-2, 1-Each, Shure QLXD 124/58, Wireless Microphone system with hand held Transmitter and belt pack transmitter with Lapel Mic.
    c. 4-Each, Shure SB900A, Lithium-Ion Rechargeable Battery.
    d. 2-Each, Shure SBC800, Charger.
    e. ANT1-1 and ANT1-2, 2-Each, Winegard Flat Wave-Air-Antenna, Outdoor Amplified HDTV Antenna.
    f. ANTDA1-1 & ANT1-2, 1-Set each, Shure UA221 Antenna Splitters.
    g. AMP1-1, 2-Each, QSC CX702, 2-Channel Power Amplifier.
    h. SPKR1-1 to SPKR1-4, 4-Each, Community R.5-94TZ, Loudspeakers and mounting brackets, for fields.
    i. SPKR2-1 to SPKR2-x, x-Each, Community W2-218, 8-inch Compact Premium Performance Two-Way Loudspeakers with mounting brackets.
    j. MICINT1-1 and MICINT1-2, 2-Each, Atterotech unD6IO, Dante Networked Audio Wall Plate - 4x2 Multi I/O connection wall plate.
3. Control System:
    a. TP1-1, 1-Each, TLP Pro 725M, 7" Wall Mount Touchlink Pro Touchpanel.
    b. CP1-1 & CP1-2, 2-Each, Extron MLC Plus 200, MediaLink Plus Controller.
    c. 1-Each, Extron RM 5, Rack Mount Kit for TLP Pro 725M.
    d. CNTL1-1, 1-Each, Extron IPCP Pro 350, IP Link Pro Control Processor.
4. Assistive Listening System:
    e. ALSTX1-1, 1-Each, Listen Technologies LS-55-072, Listen IDSP Prime Level III Stationary RF System (72 MHZ).
5. Misc.:
    a. 2-Each, Furman PL-PROC, 20A Power Conditioner with Lights, Voltmeter.
    b. 1-Each, Middle Atlantic WR 44-32, 44RU Roll-out and Equipment Rack.
    c. 1-Each, Middle Atlantic WPFD-44, Plexi Front Door.
    d. 1-Each, Middle Atlantic MW-4QFT-FC, Fan Top, 220 CFM, W/Controller.

J. Volleyball Courts
1. Digital Camera System:
    b. CAM1-1 to CAM1-11, 1-Each, AXIS P1368-E Camera.
        5) 4K Resolution
        6) 30 FPS Minimum
        7) Field of View: Horizontal: 72° to 45°, Vertical 40° to 25°.
        8) Video Compression: H.264, MPEG-4 Part 10/AVC
        9) Digital PTZ

K. Softball Field
1. Display System: (Dugouts)
    a. DISP1-1 & DISP1-2, 2-Each, Sunbrite SB-4217HD, 42” Pro Series Direct Sun-Outdoor TV in protective case.
    b. 2-Each, Sunbrite SB-WM-F-M-BL, Outdoor Weatherproof Fixed Mount.
    c. MPLYR1-1, 2-Each Digital Signage Media Player.
2. Digital Camera System:
    a. CAM1-1 to CAM1-4, 4-Each, AXIS P1368-E Camera.
        1) 4K Resolution
        2) 30 FPS Minimum
        3) Field of View: Horizontal: 72° to 45°, Vertical 40° to 25°.

4) Video Compression: H.264, MPEG-4 Part 10/AVC
5) Digital PTZ

3. Audio System:
   a. DSP1-1, 1-Each, Extron DMP 128 Plus AT, Digital Signal Processor with Dante.
   b. WMRX1-1, 1-Each, Shure QLXD 124/58, Wireless Microphone system with hand held transmitter and belt pack transmitter with lapel mic.
   c. 2-Each, Shure SB900A, Lithium-Ion Rechargeable Battery.
   d. 1-Each, Shure SBC800, Charger.
   e. ANT1-1 and ANT1-2, 2-Each, Winegard Flat Wave-Air-Antenna, Outdoor Amplified HDTV Antenna.
   f. ANTINJ1-1 and ANTINJ1-2, 2-Each, Winegard Power over RF injectors, included with Antenna.
   g. AMP1-1, 1-Each, QSC CX902, 2-Channel Power Amplifier, (Field).
   h. AMP2-1, 1-Each, QSC CX302V, 2-Channel Power Amplifier, (Bleachers).
   i. SPKR1-1 to SPKR1-4, **(S2 on drawing)** 4-Each, Community R.5-94Z, Loudspeaker, with Mounting Bracket, All Weather, for field.
   j. SPKR2-1 to SPKR2-4, **(S3 on drawing)** 4-Each, Community R.15COAX, Loudspeaker, with Mounting Bracket, All Weather, for bleachers.
   k. MICINT1-1, 1-Each, Atterotech unD6IO, Dante Networked Audio Wall Plate - 4x2 Multi I/O connection wall plate.
4. Control System:
   a. TP1-1, 1-Each, TLC Pro 521M, 5" Wall Mount Touchlink Pro Touchpanel Controller.
   b. 1-Each, Extron RM 1, Rack Mount Kit, 3-RU.
   c. POEINJ1-1 and POEINJ1-2, 2-Each, Extron XTP PI 100, Power Injector.
5. Assistive Listening System:
   a. ALSTX1-1, 1-Each, Listen Technologies LS-55-072, Listen IDSP Prime Level III Stationary RF System (72 MHZ).
6. Racks and Misc.:
   a. 1-Each, Middle Atlantic SR-24-28, 24RU Pivoting Wall Rack.
   b. 1-Each, Middle Atlantic FD-24, 24RU Solid Front Door with lock.
   c. 1-Each, Middle Atlantic UQFP-4RT, Fan Panel, 100 CFM, 27DB, W/ Remote Thermistor.
   d. 1-Each, Middle Atlantic D3, 3RU locking drawer.
   e. 2-Each, Furman PL-PRO C, 20A Power Conditioner with Lights, Voltmeter.

L. ADA-COMPLIANT, ASSISTIVE LISTENING SYSTEM: A complete system shall be furnished and installed as part of OFOI FF&E, to meet the latest ADA 2010 requirements for hard-of-hearing for each system.

Furnish portable receivers in as indicated in the table below. The Stationary Assistive Listening System shall be integrated into and work in conjunction with the sound reinforcement systems. Mount the necessary stationary transmitters into the equipment racks or a wall cabinet and adjust as required for total coverage of seating areas Assistive Listening Transmitters shall operate in the RF or IR frequency range.

1. *Note: As per Paragraph C ADA Table 219.3 below, provide the number of receivers, ear sets, rechargeable batteries and charging units and for a fully functional and compliant Assistive Listening System per ADA requirements.
2. ADA Table 219.3 Receivers for Assistive Listening Systems

Capacity of Seating in Assembly Area	Minimum Number of Required Receivers 4%	Minimum Number or Required Receivers Required to be Hearing Aid Compatible 50%
50 or less	2	2
51 to 200	A. 2, plus 1 per 25 seats over 50 seats[1]	2
201 500	B. 2, plus 1 per 25 seats over 50 seats[1]	C. 1 per 4 receivers[1]
501 to 1000	D. 20, plus 1 per 33 seats over 500 seats[1]	E. 1 per 4 receivers[1]
1001 to 2000	F. 35, plus 1 per 50 seats over 1000 seats[1]	G. 1 per 4 receivers[1]
2001 and over	H. 55, plus 1 per 100 seats over 2000 seats[1]	I. 1 per 4 receivers[1]

3. Note: 1. or fraction thereof.

2.04 GENERAL PRODUCTS FOR SYSTEMS

A. CABLE – ALL SPACES
   1. XTP/DTP (HDBaseT), Digital Video Cable, Shielded Twisted Pair Cable, Plenum Rated, shall be Extron XTP/DTP 24P only, (Quantity as required). Terminations shall be Extron Shielded RJ-45, XTP DTP 24 Plugs only.
   2. Distributed Loudspeaker 18-2, 18 AWG, 2-conductor Plenum Rated (70 volt): Belden, or equal.
   3. Loudspeaker 14-2, 14 AWG, 2-conductor OSP Plenum Rated: Belden, or equal.
   4. Analog Microphone/Line Level cable, 2-22 (22 AWG conductor, jacketed, shielded, twisted-pair) plenum rated: Belden or equal.

5. Control System Device Control (RS232, Relay or Contact Closure): (Dual 22 AWG shielded twisted pairs with individual drain wires; each pair is color-coded Red/Black and Green/White to simplify identification.) Plenum Rated: Belden or equal.
6. Data Cable Category 6A, Plenum, shall conform to specifications sections 271300 & 271500 Communications Cabling.
7. Data Cable Category 6A, OSP, shall conform to specifications sections 271300 & 271500 Communications Cabling.
8. Coaxial, RF Cable for ALS Transmitter, RG-58 Plenum (inside buildings) or OSP for (outside buildings) rated for less than 50'.
9. Coaxial, RF Cable for ALS Transmitter, RG-8 Plenum (inside buildings) or OSP (outside buildings) rated for more than 50'.

PART 3 EXECUTION

3.01 GENERAL INSTALLATION REQUIREMENTS

A. The installation, configuration, and wiring of the system shall be executed in accordance with the drawings and the equipment manufacturer's wiring diagrams. Should any variations in these requirements occur, the Contractor shall notify the Owner's Project Manager before making any changes. It shall be the responsibility of the manufacturer-authorized distributor of the approved equipment to install the equipment and guarantee the system to operate as per plans and specifications.

B. Furnish all conductors, equipment plugs, terminal strips, etc., and labor to install a complete and operable system.

C. The cables within the rack or cabinets shall be labeled/numbered for identification following the AVIXA (InfoComm) F501.01:2015, Cable Labeling of Audiovisual Systems, standard unless otherwise directed.

D. Splices of cables in underground pull boxes are not permitted unless otherwise noted on the drawings.

E. The labor employed by the Contractor shall be regularly employed in the installation and repair of audiovisual systems and shall be acceptable to the Owner's Project Manager to engage in the installation and service of this system.

F. The Contractor shall thoroughly clean all equipment and materials. All exposed parts of the equipment, cabinets, and other equipment shall be left in a clean condition, unblemished and free of all dirt, dust, smudges, spots, fingerprints, etc. The Contractor shall remove all debris and rubbish created in the course of this project. The Contractor shall thoroughly clean all buildings of any dirt, debris, rubbish, marks, etc., caused by the performance of this work.

G. The system must meet all local and other prevailing codes.

H. All cabling installations shall be performed by qualified technicians.

I. All cabling shall be splice free unless otherwise noted on drawings.

J. In order to ensure the least amount of cable untwisting, it is required that all cables shall be stripped using a special tool.

K. The use of lubricants (i.e. Yellow 77) to facilitate the installation of cables in conduits is highly discouraged. If such a lubricant must be used, the AVS Contractor shall verify the acceptability of the lubricant to be used with the cable manufacturer, prior to using such a lubricant. Lubricants that harden after installation are not allowed.

L. Under no circumstance are "channel locks" or other pliers to be used.

M. Cables may be run exposed above ceilings, provided the cabling is supported independent of other utilities such as conduits, pipes, and the ceiling support systems. The Contractor shall include all costs in base bid for any additional supports/seismic bracing required by the Local Authority having Jurisdiction. The cables shall not be laid directly on the ceiling panels. The use of hook and loop ties shall be done in accordance with the cable manufacturer's requirements. The cable jacket composition must meet local and all other prevailing fire and safety codes – “Plenum Rated” cable shall be used.

N. All fire rated walls penetrated by Contractor shall be sealed by use of a non-permanent fire blanket or other method in compliance with the current edition of NFPA and the NEC or other prevailing code and must be a system listed by UL. The Contractor must not use concrete or other non-removable substance for fire stopping on cable trays, wire ways or conduits. Contractors who use this method will be required to replace all cables affected and provide the original specified access to each effected area. This requirement also applies to maintaining fire ratings of all floors penetrated by conduits or devices designated for use by voice and data cabling.

O. All equipment racks shall be bolted to the floor by the Contractor in the location shown on drawings. The earthquake mounting brackets that come with each rack kit shall be screwed to studs, not drywall.

P. Any cable damaged or exceeding recommended installation parameters during installation shall be replaced by the Contractor before final acceptance at no cost to the Owner.

Q. The cable’s minimum bend radius and maximum pulling tension shall not be exceeded.

R. Cable raceways, when required, shall not be filled greater than 40% of cross sectional area.

3.02 SPECIFIC SYSTEM INSTALLATION REQUIREMENTS

A. All Audiovisual cabling used throughout this project shall comply with the requirements as outlined in the NEC Articles 725, 760, 770, and 800 and the appropriate local codes. All copper cabling shall bear UL listed type CMP (Plenum Rated). All fiber optic cabling shall bear OFNP (Plenum Rated). Contractor is responsible for installing appropriately rated cable for the environment in which it is installed. For cables run outside of a building to outdoor speakers, the cable shall be Outdoor Plant Rated (OPR) or Direct Burial cable and must be run in conduit point to point. For longer cable runs between buildings fiber optic cable shall be used, the fiber cable shall be run in conduits.

B. Cable Pathways:
   1. In suspended ceiling and raised floor areas where duct, cable trays or conduit are not available, the Contractor shall bundle cabling with half inch hook and loop strips, but not deforming the cable geometry. Cable bundles shall be supported via "J" hooks attached to the existing building structure and framework at a maximum of five (5) foot intervals. Plenum rated hook and loop ties will be used in all appropriate areas. The Contractor shall adhere to the manufacturers' requirements for bending radius and pulling tension of all cables.
   2. Cables or J hooks shall not be attached to lift out ceiling grid supports or laid directly on the ceiling grid.
   3. Cables or J hooks shall not be attached to or supported by fire sprinkler heads or delivery systems or any environmental sensor located in the ceiling air space.
   4. Where additional conduit(s)/sleeve(s) are required, but not provided by the electrical contractor, the Contractor shall be responsible to provide such conduit(s)/sleeve(s). Conduit(s) and sleeve(s) shall be of suitable material, sized, installed, fire-stopped, and grounded as required by the NEC, ANSI/TIA/EIA standards and all other applicable codes and standards. Any conduit(s) and sleeve(s) added by the Contractor shall be approved by the Owner's Project Manager prior to rough-in.

C. The Contractor shall be responsible for damage to any surfaces or work disrupted as a result of his work. Repair of surfaces, including painting, shall be included as necessary.

D. Rack mounted equipment shall be grounded via the chassis, in accordance with manufacturer's instructions. The equipment chassis shall be bonded to the rack/cabinet using one of the following methods:
   1. If the equipment has a separate grounding hole or stud, use a # 6 AWG ground wire from the chassis ground hole/stud to the rack grounding bus if required.
   2. If the manufacturer suggests grounding via the chassis mounting flanges, use tri-lobular thread-forming screws (not self-tapping or sheet metal screws) to attach the equipment to the rack/cabinet rails. If the equipment mounting flanges are painted, remove the paint and apply an anti-oxidant, or use tri-lobular thread-forming screws and two (2) "Type B" internal-external tooth lock washers to safely ground equipment to the rack.
   3. All equipment racks shall be grounded to the AC outlet box or building ground by a # 6 AWG Green ground wire attached to the Grounding lug in the rack.

3.03 GENERAL INSTALLATION DESCRIPTION

A. The labor employed by the Contractor shall be regularly employed in the installation and repair of Audiovisual Systems and shall be acceptable to the owner and architect to engage in the installation and service of this system.

B. The Contractor shall thoroughly clean all equipment and materials. All exposed parts of the equipment, cabinets, and other equipment shall be left in a clean condition, unblemished and free of all dirt, dust, smudges, spots, fingerprints, etc., The Contractor shall remove all debris and rubbish occasioned by the work from the site. The Contractor shall thoroughly clean all buildings of any dirt, debris, rubbish, marks, etc., Caused by the performance of this work.

C. Labeling

1. Wiring Labels: At all connection points for all types of cable & wiring, a label strip shall be attached at both ends of the cable following the AVIXA (InfoComm) F501.01:2015 Cable Labeling of Audiovisual Systems, standard unless otherwise directed, indicating the name/number of that cable or wire as follows:
    a. At internal locations (inside racks, cabinets, or boxes), a pressure sensitive label shall be used.
    b. At external locations, a printed label covered with clear shrink wrap or approved labeling system shall be used.
2. Equipment Labels: All active components shall have labels at the front and rear.
    a. Labels shall be applied plumb and neat and shall not cover any equipment lights, recessed controls, or control labels.
    b. Front labels shall indicate functional use of equipment.
    c. Rear labels shall indicate system schematic reference designation.
3. Contractor Label: Contractor name plate shall be attached to a blank panel inside each equipment rack or group of racks.
    a. Name plate shall be printed, self-adhesive type and shall be no larger than 1-3/4" high by 6" wide. Alternatively, name plate may be preprinted onto a 1RU blank panel.
    b. Name plate shall contain Contractor's name, city/state address and phone number.

D. Equipment Rack and Equipment Testing and Adjusting Procedures: Conduct procedures in fabrication shop following the AVIXA (InfoComm) 10:2013 Audiovisual Systems Performance Verification procedure. Verify safe and proper operation of all components, devices, or equipment, establish nominal signal levels within the systems and verify the absence of extraneous or degrading signals. Make all preliminary adjustments and document the setting of all controls, parameters of all corrective networks, voltages at key system interconnection points, gains and losses, as applicable. Submit test report with color photographs of each equipment rack, front and back. Perform at least the following procedures:
    1. Preliminary: Verify:
        a. Grounding of devices and equipment. Integrity of signal and electrical system ground connections.
        b. Proper provision of power to devices and equipment.
        c. Integrity of all insulation, shield terminations and connections.
        d. Integrity of soldered connections. Absence of solder splatter, solder bridges.
        e. Absence of debris of any kind, tools, etc.
        f. Routing and dressing of wire and cable.
        g. All wiring, including polarity and continuity, including conformance with wire designations on running sheets, field and shop drawings.
        h. Mechanical integrity of all support provisions.
        i. All wiring in racks on horizontal lacing bars and vertical cable paths shall have Velcro cable wraps, no Zip Ties shall be allowed. If Zip Ties are used, they shall be replaced at the Contractor’s expense.
    2. Rig temporary power and grounding: Comply with all applicable Codes, regulations and ordinances.
    3. Determine the proper sequence of energizing systems to minimize the risk of damage. Energize. Burn in for at least 48 hours
    4. All equipment racks shall be bolted to the floor by the Contractor (unless noted) once the Owner determines the exact location for each rack. The earthquake mounting brackets that come with each rack kit shall be screwed to studs, not

drywall. All equipment shall be serviceable in the racks final location – the need to unbolt racking equipment to access or service equipment is not acceptable.

3.04 PROJECT DIRECTION

A. Single Point of Contact: Contractor will provide a single point of contact, i.e., Project Manager, to speak for the Contractor and to provide the following functions:
   1. Initiate and coordinate tasks with Owner's Project Manager, and others as specified by Owner's Project Manager.
   2. Provide day-to-day direction and on-site supervision of Contractor personnel.
   3. Ensure conformance with all Contract provisions.
   4. Participate in weekly site project meetings.
   5. This individual will remain as Project Manager for the duration of the project. The Contractor may change Project Managers only with the Owner's Project Manager's written approval.

3.05 PLANNING, ENGINEERING AND SUBMITTALS

A. Planning meetings and schedule: Within thirty (30) calendar days after the date of award of the Contract, an initial planning meeting will be held with the successful bidder to clarify all requirements (systems, services, distribution methods, etc.), identify responsibilities, and schedule the events that will transpire during the implementation of the project. Within one (1) week of this initial meeting, the contractor shall provide a written report and project schedule to clearly document the events and responsibilities associated with the project.

B. Within Thirty (30) calendar days after the date of award of the Contract, the Contractor shall submit three copies of the complete submission to the Owner's Project Manager for review. The submission shall consist of four major sections with each section separated with index tabs. Each page in the submission shall be numbered chronologically and shall be summarized in the index.
   1. The first section shall be the "index" which shall include the project title and address, name of the firm submitting the bid and name of the Owner.
   2. The second section shall contain the comparative specification listing, including a complete listing of the characteristics of the equipment to be furnished next to all of the specified equipment's features and functions as stated in the specifications and data sheets.
   3. The third section shall contain an original manufacturer data sheet for every component listed in the drawings or specifications.
   4. The fourth section shall contain a designation schedule for each system component location and complete "E" size (30" x 42"), unless otherwise specified, bond drawings, showing system wiring plans. The drawings shall be professionally drafted, generated on AutoDesk AutoCAD 2010 computer design software. These drawings shall also include:

C. As-Built/Closeout Documentation: Within fifteen (15) days after the completion of work (signed off by Owner), the Contractor shall provide a complete Contractor-provided set of professionally drafted "E" size (30" x 42"), unless otherwise noted, reproducible bond as-built drawings, generated on AutoDesk AutoCAD 2014 computer design software. Contractor will supply to Owner one set of CDs containing all as-builts.

D. As-Built Documentation Display in each equipment rack location: Within fifteen (15) days after the completion of work, the Contractor shall install a complete Contractor-provided, professionally drafted as-built floor plan in color in each equipment rack room mounting frame. Each floor plan, generated on AutoDesk AutoCAD 2014 computer design software and printed in black and white, shall depict all audiovisual jack locations in each room with an audiovisual system and all other areas. The Contractor will provide to Owner one set of CDs containing all as-built.

E. Controls: Adjust all controls to achieve the specified performance. Provide security covers for all level controls, as appropriate to prevent unauthorized gain changes. Contractor will confirm that all control system operations are properly programmed and repeatable.

F. Testing Report: Provide a letter/report documenting the results of these preliminary tests, including amplifier gain/level settings, crossover filter settings, and AV equalization curves for review by the Owner and the AV Design Consultant.

G. Qualification for Acceptance: After completing preliminary testing, the Contractor shall furnish the Construction Manager with the letter/report documenting the results of the preliminary tests and five (5) copies of "as-built" wiring diagrams of the entire system including the connection numbers, and their locations. The receipt of this documentation will constitute the Contractor's acknowledgment that the installation is complete and conforms to this specification and is ready to be reviewed and tested by the Owner and the AV Design Consultant.

H. Acceptance Test: The Consultant, Owner's Representative and/or Construction Manager will be present during the acceptance testing and require the assistance and cooperation of the Contractor. Provide personnel who participated in the actual installation and preliminary testing and adjustment of the audiovisual systems.
   1. Equipment cabinet keys and any tamper-proof fastener tools must be available to the Owner and the AV Design Consultant. Delays associated with failure to access the equipment will be back-charged to the Contractor at the AV Design Consultant's current hourly rates.
   2. Each major component shall be demonstrated to function, as specified.
   3. Measurements: Further electrical and acoustical measurements may be performed at the discretion of the Owner and/or Owner’s Representatives. Acoustical test equipment will be supplied by the Contractor. Such measurements may include sound pressure levels, uniformity of coverage, distortion, or other pertinent characteristics.
   4. The Contractor shall provide a laptop with all manufacturer supplied configuration software necessary for communicating with DSP Audio Matrix Mixers. A review of system settings may be required for either of the programmable units at the Owner and the AV Design Consultant’s request, and settings may be adjusted if necessary.

I. Such tests may be performed on any piece of equipment or system. If any test shows the equipment or system is defective or does not comply with the specifications, the Contractor shall perform any remedies at his expense and pay the subsequent expenses of any retesting required.

J. Delays: If the acceptance of the system is delayed because it does not meet the specification requirements, the Contractor shall reimburse the Owner for all expenses of consultants retained to represent the Owner during the final acceptance testing. This will include costs associated with travel to the site and include reimbursable business travel expenses.

3.06 INSTALLATION

A. All installation shall be done in conformance with ANSI/TIA/EIA and AVIXA (InfoComm) standards and manufacturers installation guidelines. The Contractor shall ensure that the maximum pulling tensions of the specified distribution cables are not exceeded and cable bends maintain the proper radius during the placement of the facilities. Failure to follow the appropriate guidelines will require the Contractor to provide, in a timely fashion, any additional material and labor necessary to properly rectify the situation to the satisfaction and written approval of the Owner's Project Manager. This shall also apply to any and all damages sustained to the cables by the Contractor during the implementation.
   1. Bonding and Grounding: The Contractor shall be responsible for providing an approved ground at all racks. The Contractor shall also be responsible for ensuring ground continuity by properly bonding all appropriate cabling, closures, cabinets, service boxes, and racks. All grounds shall consist of #6 AWG copper wire and shall be supplied from an approved building ground and bonded to the main electrical ground. Grounding must be in accordance with the NEC, NFPA, ANSI-J-STD-607-A and all local codes and practices.
   2. Power Separation: The Contractor shall not place any low voltage and speaker cabling alongside power lines, or share the same conduit, channel or sleeve with in racks.
   3. Miscellaneous Equipment: The Contractor shall provide any necessary screws, anchors, clamps, hook & loop ties, distribution rings, wire molding, miscellaneous grounding and support hardware, etc., necessary to facilitate the installation of the System.
   4. Special Equipment and Tools: It shall be the responsibility of the Contractor to furnish any special installation equipment or tools necessary to properly complete the System. This may include, but is not limited to, tools for terminating cables, testing and splicing equipment for copper/fiber cables, communication devices, jack stands for cable reels, or cable winches.
   5. Labeling: The Contractor shall be responsible for printed labels for all cables and cords, distribution frames, and outlet locations, according to the specifications. No labels are to be written by hand. The labeling shall follow the AVIXA (InfoComm) F51.01:2015 standard unless otherwise directed.

3.07 DAMAGES

A. The Contractor will be held responsible for any and all damages to portions of the building caused by it, its employees or subcontractors; including but not limited to:
   1. Damage to any portion of the building caused by the movement of tools, materials or equipment.

2. Damage to any component of the construction of spaces.
3. Damage to the electrical distribution system.
4. Damage to the electrical, mechanical and/or life safety or other systems caused by inappropriate operation or connections made by the Contractor or other actions of Contractor.
5. Damage to the materials, tools and / or equipment of the Owner, its consultants, agents and leases tenants.

3.08 PENETRATIONS OF WALLS FLOORS AND CEILINGS

A. Unless specifically shown on the drawings, the Contractor shall make no penetration of floors, walls or ceiling without the prior written approval of the Owner's Project Manager.

B. Any penetrations through acoustical walls or other walls for cable pathways shall be sleeved by the Contractor. Sleeves shall consist of metallic conduit deburred and grommeted on both ends, with flanges or other means to prevent the sleeve from slipping or falling out of the partition. Sleeves shall extend a minimum of 6" on both sides of the partition. Outside perimeter of sleeves shall be sealed against sound, air, heat, or as required by partition design. Inside of sleeve shall be sealed similarly after installation of all cabling. Cables shall be independently supported on either side of the sleeve. Sleeves shall not be used as cable supports. Additional requirements in compliance with applicable code shall apply.

C. Any penetrations through fire-rated walls for cable pathways/cables shall be sealed by the Contractor as required by code and as directed by Owner's Project Manager. The Contractor shall be required to work together with the General Contractor and the Electrical Contractor to coordinate and develop all fire stopping methods prior to any cable installation. The Contractor shall also, prior to the commencement of on-site activities, submit to Owner's Project Manager, details of any special systems to be used.

3.09 TESTING/WARRANTY

A. The Contractor shall provide competent, factory-trained engineers and/or technicians, authorized by the manufacturer of the AVS, to technically supervise and participate during all tests for the systems. All performance testing shall follow the AVIXA (InfoComm) 10:2013 Audiovisual Systems Performance Verification procedure.

3.10 COMPLETION OF WORK

A. At the completion of the System, the Contractor shall restore to its former condition, all aspects of the project site and on a daily basis, shall remove all waste and excess materials, rubbish debris, tools and equipment resulting from or used in the services provided under this Contract All clean up, restoration, and removal noted above shall be by the Contractor and at no cost to Owner. If the Contractor fails in its duties under this paragraph, Owner may upon notice to the Contractor perform the necessary clean up and deduct the costs thereof from any amounts due or to become due to the Contractor. It shall be the Contractor's responsibility to remove trash from the areas it is working in and bring trash and debris to the Contractor provided dumpster.

3.11 INSPECTION

A. On-going inspections shall be performed during construction by the Owner's Project Manager. All work shall be performed in a quality manner and the overall appearance shall be clean, neat and orderly.

3.12 MISCELLANEOUS PROJECT REQUIREMENTS SYSTEM DOCUMENTATION, TRAINING, AND FIELD SUPPORT

A. Operation and Maintenance Manuals: As part of the "Close Out" documents, for each system, provide five (5) copies of system manuals per system. Manuals shall be in adequately sized three-ring binders, clearly labeled on spine. Manuals shall contain the following:
   1. Service Reference Cover Sheet: Provide a cover sheet with Audiovisual Contractor name, address, Email, WEB Address, telephone and Fax numbers.
   2. System Operation Instructions: Step-by-step operating instructions based on the control system touch panel (if applicable) for the basic day-to-day use of the system including power activation, connection of source devices, adjustment of volume levels, selection of sources, etc. Include illustrations and references to individual equipment manuals as necessary.
   3. Equipment Manuals: Include copies of individual equipment operation manuals separated by tabbed dividers. Order the manuals in nominal signal path order (i.e. sources first, amplifiers/loudspeakers last), followed by control system manuals, followed by miscellaneous manuals.
   4. Equipment List: List all system equipment including, connectors and specialty hardware, by manufacturer and model and serial number.

      a. As-built Drawings: Provide reduced 11"x17" foldout "as built" functional diagrams in clear plastic binder sleeves. Fold and insert drawings so that drawing title is clearly visible at the front of the sleeve. Five (5) half or full-size drawing sets are also to be provided for clearer system reference.
      b. Provide software programmable device configuration files to the Owner for all control system interfaces and computer-based files, and the DSP Audio Matrix Mixer. Store files on site in the system documentation binders in disk sleeves. Provide the files on CD-ROM.

B. Training: Provide as needed system training to operator(s) designated by the Owner. Training time is to be non-contiguous, in multiple separate sessions. Training sessions are to be videotaped upon Owner request.

3.13 MISCELLANEOUS SUPPORT REQUIREMENTS

A. Upon approval of shop drawings and equipment submittals, Contractor shall immediately place orders for all required materials, components, and supplies especially long lead items. In addition, Contractor shall secure and forward written confirmations (including orders and shipping dates) direct from each manufacturer/vendor to the Owner's Project Manager.

B. Contractor shall expedite shipment of all materials, components and supplies, as necessary to ensure the successful completion of the Project by the date required. All costs for expediting shall be included within Contractor's pricing as provided below.

C. The system/network cost herein shall include administration/maintenance training for at least ten Owner's representatives with a minimum allotment of sixteen hours. All training shall include written and/or video materials that shall remain the property of Owner. If materials are written, they shall be provided in quantities sufficient for each person trained; if materials are video, one copy of each will be required. The administration/maintenance training shall include, but not be limited to, the following:
   1. Review of as-built documentation, including a site demonstration.
   2. All warranty information.

3.14 AV SYSTEM AND/OR NETWORK TESTING

A. Upon completion of installation, Contractor shall execute all of the required tests as summarized in this specification. When all such tests have been completed to Owner's satisfaction and Manufacturer's specifications, Contractor shall give the Owner written notice thereof.

B. Contractor must assume responsibility of assuring that the AV system and/or network installed operates properly, including any required coordination with other suppliers.

3.15 FINAL ACCEPTANCE

A. The Owner or Owner's representative may visit the site during the installation of the system to ensure that correct installation practices are being followed.

B. The Owner or Owner's representative will conduct a final job review once the Contractor has finished the job. This review will take place within one week after the Contractor notifies the owner.

C. Two copies of all certification data and drawings for all identifications shall be provided to the Owner before the owner's review.

D. The Owner or Owner's representative will review the installation and certification data prior to the system acceptance.

E. The Owner or Owner's representative may test some of the systems features to ensure that the certification data is correct. If a substantial discrepancy is found, the Owner reserves the right to have an independent consultant perform a certification of the entire system. If such a procedure is undertaken, the cost of the testing will be billed back to the Contractor.

F. In the event that repairs, or adjustments are necessary, the AVS Contractor shall make these repairs at his own expense. All repairs shall be completed within 5 days from the time they are discovered.

G. The Contractor shall hand to the owner a copy of any applicable installation specific software configurations in CD format.

END OF SECTION 27 4116

SECTION 32 1413

PRECAST CONCRETE UNIT PAVING

PART 1 GENERAL

1.01 SUMMARY

A. Section Includes:
   1. Precast Concrete Unit Paving Work, consisting of, but not necessarily limited to:
      a. Precadt Concrete Unit Pavers
      b. Mortar and Grout
      c. Installation of reinforcing steel furnished under Section 03 3000
      d. Control Joints

B. Related Sections:
   1. Section 07 9200: Joint Sealants; sealant and backer rod for joints in precast concrete unit paving.
   2. Section 32 1100: Basr Course; aggregate base under sand bed.

1.02 REFERENCES

A. California Code of Regulations (CCR), Title 24, Part 2, California Building Code (CBC), Volumes 1 and 2, 2016 edition.

B. ASTM International (ASTM):
   1. ASTM C 33 – Standard Specification for Concrete Aggregates.
   2. ASTM C 136 – Standard Test Method for Sieve Analysis of Fine and Coarse Aggregates.
   3. ASTM C 140 – Standard Test Methods for Sampling and Testing Concrete Masonry Units and Related Units.
   4. ASTM C 144 – Standard Specification for Aggregate for Masonry Mortar.
   5. ASTM C 936 – Standard Specification for Solid Concrete Interlocking Paving Units.
   6. ASTM C 979 – Pigments for Integrally Colored Concrete.
   7. ASTM D 698 – Standard Test Method for Laboratory Compaction Characteristics of Soil Using Standard Effort (12,000 ftIbf/ft' (600 kN-m/m ')).
   8. ASTM D 1557 – Test Method for Laboratory Compaction Characteristics of Soil Using Modified Effort (56,000 ft-Ibf/ft' (2,700 kN-m/m')).
   9. ASTM D 2940 – Specification for Graded Aggregate Material for Bases or Subbases for Highways or Airports.

C. Interlocking Concrete Pavement Institute (lCPI):
   1. ICPI Tech Spec technical bulletins.

1.03 SUBMITTALS

A. Product Data:
   1. Manufacturer's literature describing products, including pavers, mortars and grouts, and installation instructions.

2. Furnish material safety data sheets (MSDS) to Contractor for safe handling of specified materials and products.

B. Shop Drawings:
   1. Manufacturer's drawings and details:
      a. Indicate perimeter conditions, relationship to adjoining materials and assemblies
      b. Include expansion and control joints, concrete paver layout, patterns, color arrangement,. installation and setting details.
      c. Provide shop drawings drawn to scale.

C. Sieve Analysis:
   1. Complying with ASTM C 136 for grading of bedding and joint sand.

D. Certificates:
   1. Manufacturer's certification of concrete pavers by ICPI as having met applicable ASTM standards.
      a. Paver units shipped without certification will be rejected.
      b. Copy of installation subcontractor's current certificate from ICPI Concrete Paver Installer Certification program.

E. Test Reports:
   1. Material Test results from an independent testing laboratory for compliance of paving unit requirements to ASTM C 936.

F. Samples:
   1. Concrete Pavers:
      a. Minimum of four representative full-size samples of each paver type, thickness, color, and finish, indicating range of color variation and texture expected in finished installation.
      b. Colors:
         1) As selected by Architect from manufacturer's available colors.
   2. Accepted samples become standard of acceptance for Work.

1.04 QUALITY ASSURANCE

B. Installing Subcontractor Qualifications:
   1. Has successfully completed concrete paver installation similar in design, material, and extent indicated for this Project.
   2. Holds current certificate from ICPI Concrete Paver Installer Certification program.

C. Mock-Up:
   1. Construct mock-up of paver area of approximately 7 feet by 7 feet.
      a. Use this area to determine surcharge of bedding sand layer, joint sizes, lines, laying patterns, colors, and texture of Project.
         1) Evaluate need for protective pads when compacting paving units with architectural finishes.
      b. Acceptec mock-up will be used as standard by which Work will be judged.
      c. Subject to acceptance by Architect, mock-up may be retained as part of finished work.

d. When mock-up is not part of paver system, demolish and remove from Project Site after completion and acceptance for Project concrete unit paving Work.

2. Examination Criteria:
   a. Examination, selection, and approval are for purpose of achieving final installation of concrete unit paving with greatest possible uniformity of appearance based on following criteria:
      1) Conformance with testing and quality assurance measures as specified.
      2) Color and texture matching per approved mock-up for range, random variation, and finish.
      3) Conformance to Contract Documents and approved shop drawings within specified dimensions and tolerances.
      4) Other criteria as specified.
   b. Non-conformance with above criteria is grounds for removal and replacement of Work at no cost to Owner.
   c. Determination that Work complies with specified criteria wil be made by Architect.

1.05 DELIVERY, STORAGE, AND HANDLING

A. Refer to manufacturer's ordering instructions and lead-time requirements to avoid construction delays.

B. Deliver materials in manufacturer's original, unopened, undamaged containers packaging with Identification labels intact.
   1. Coordinate delivery and paving schedule to minimize interference with normal use of buildings adjacent to paving.
   2. Deliver concrete pavers to Project Site in steel banded, plastic banded, or plastic wrapped packaging capable of transfer by fork lift or clamp lift.
   3. Unload pavers at Project Site in such manner that no damage occurs to product.
   4. Protect cementitious materials against exposure to moisture.

C. Storage and Protection:
   1. Store and protect materials so that they are kept free from mud, dirt, and other foreign materials.
   2. Store concrete paver cleaners and sealers per manufacturer's instructions..

1.06 PROJECT CONDITIONS

B. Environmental Conditions:
   1. Do not place unit masonry when temperature is below 40 degrees F, unless Architect approves and Contractor provides means for preventing damage from freezing before and after placement.
   2. Do not install materials under following conditions:
      a. Sand or pavers during heavy rain.
      b. Saturated sand
      c. Concrete unit pavers on saturated sand.

B. Protection:
   1. Protect surrounding Work as required against damage from paving Work.

2. Satisfactorily clean and correct damage to surrounding Work resulting from masonry Work.
3. Take necessary means and precautions to protect paver units from moisture absorption during shipping, storage on Project Site, during placement prior to grouting

PART 2 PRODUCTS

2.01 MANUFACTURER

A. Basis-of-Design:
   1. Desing of concrete unit paving is based on products as manufactured by Acker-Stone Industries, Corona, CA.

B. Subject to compliance with specified requirements, comparable products may be submitted by alternate manufacturers in accordance with requirements for product substitutions specified in Division 01 Sections and following:
   1. Submit items listed in “Submittals” Article and as specified in Section 01 3300, for evaluation of proposed system.
   2. Complete project shop drawings for similar project may be submitted for evaluation purposes, however shop drawings specific to this Project will be required from successful bidder.
   3. Furnish documentation that tests have been made for identical products within ranges of specified performance criteria.

2.02 MATERIALS

A. Interlocking Concrete Paver Units:
   1. Include Following:
      a. Paver Type:
         1) California Collection
      b. Material Standard:
         1) Comply with material standards set forth in ASTM C 936.
      c. b. Color and Finish
         1) As selected by Architect.
      d. Color Pigment Material Standard:
         1) Comply with ASTM C 979.
      e. Size:
         1) Nominal 6 inches x 12 inches x 8 cm (5-7/8 inches x 11-3/4 inches x 3-1/8 inches)
      f. Average Compressive Strength:
         1) 8,000 psi with no individual unit under 7,200 psi.
      g. Average Water Absorption:
         1) Complying with ASTM C 140:
            a) 5 percent with no unit greater than 7 percent.

2.03 BEDDING AND JOINT SAND

A. Provide bedding and Joint sand as follows:
   1. Clean, non-plastic, free from deleterious or foreign matter, symmetrically shaped, natural or manufactured from crushed rock.
   2. Do not use stone dust.

3. Do not use limestone screenings or sand for bedding that does not conform to grading requirements of ASTM C 33.
4. Do not use mason sand, or sand conforming to ASTM C144 for bedding sand.

Table 1: Grading Requirements for Bedding Sand:

Gradation for Bedding Sand (ASTM C 33)	
Sieve Size:	**Percent Passing:**
3/8 inches	100
No. 4	95 to 100
No. 8	80 to 100
No. 16	50 to 85
No. 30	25 to 60
No. 50	5 to 30
No. 100	0 to 10
No. 200	0 to 1

Table 1: Grading Requirements for Bedding Sand:

Gradation for Bedding Sand (ASTM C 33)	
Sieve Size:	**Percent Passing:**
No. 4	100
No. 8	95 to 100
No. 16	70 to 100
No. 30	40 to 75
No. 50	10 to 35
No. 100	2 to 15
No. 200	0 to 5

5. Sieve according to ASTM C 136.
6. Bedding Sand Material Requirements:
   a. Conform to grading requirements of ASTM C 33 with modifications as shown in Table 1.
7. Joint Sand Material Requirements:
   a. Conform to grading requirements of ASTM C 144 as shown with modifications in Table 2, or meet requirements for bedding sand as shown in Table 1.

2.04 EDGE RESTRAINTS

A. Where not otherwise retained, provide edge restraints installed around perimeter of interlocking concrete paving unit areas as follows:
   1. Material:
      a. As indicated on Drawings.

2.05 ACCESSORIES

A. Provide accessory materials as follows:
   1. Geotextile Filter Fabric:
      a. Class A, non-woven material having following physical properties:

Property:	Test Reference:	Type: 90 N
Grab Strength lbs, Min.	ASTM D 4632	90
Elongation, Minimum (at peal< load) %, Max.	ASTM D 4632	50
Puncture Strength, lbs, Min.	ASTM D 3787	45
Permitivity, Sec. , Min.	ASTM D 4491	0.7
Burst Strength psi, Min.	ASTM D 3786	180
Toughness, lbs, Min.	% Elongation x Grab Strength	5,500
Ultraviolet Resistance % Strength Retained at 500 Weatherometer Hours	ASTM D 4355	70

B. Base Course:
   1. Provide base course material conforming to requirements of Section 32 1100.

2.06 SOURCE QUALITY CONTROL

A. Source Limitations for Precast Concrete Paver Units:
   1. Obtain precast concrete paver units of uniform texture and color, or uniform blend within ranges accepted for these characteristics, with units from same batch, through one source from single manufacturer.
   2. Use only one source for precast concrete paver units throughout Work.

PART 3 EXECUTION

3.01 EXAMINATION

A. Acceptance of Site Verification of Conditions:
   1. Inspect, accept and certify in writing to paver installation subcontractor that Site conditions meet specifications for following items prior to installation of concrete pavers:
      a. Verify that subgrade preparation, compacted density and elevations conform to specified requirements.
      b. Verify that geotextiles, if applicable, have been placed according to Drawings.
      c. Verify that aggregate base materials, thickness, compacted density, surface tolerances and elevations conform to specified requirements.
      d. Provide written density test results for soil subgrade, aggregate base materials to Architect, Owner, Contractor, and paver installation subcontractor.
      e. Verify location, type, and elevations of edge restraints
   2. Do not proceed with installation of bedding sand and concrete pavers until subgrade soil and base conditions are corrected by Contractor or designated subcontractor.

3.02 PREPARATION

A. Verify base is dry, certified by General Contractor as meeting material, installation and grade specifications.

B. Verify that base and geotextile is ready to support sand, edge restraints, and, pavers and imposed loads.

C. Edge Restraint Preparation:
   1. Mount directly to finished base.
      a. Do not install on bedding sand.
   2. Minimum distance from outside edge of base to spikes:
      a. Equal to thickness of the base.

3.03 INSTALLATION

A. Spread bedding sand evenly over the base course and screed to a nominal 1 inch thickness.
   1. Spread bedding sand evenly over the base course and screed rails, using the rails and/or edge restraints to produce a nominal 1 inch thickness, allowing for specified variation in the base surface.
      a. Do not disturb screeded sand.
      b. Screeded area shall not substantially exceed that which is covered by pavers in one day.
      c. Do not use bedding sand to fill depressions in the base surface.Place bars where noted in accordance with ACI 315 and CBC 2104A and do not disturb after start of masonry placement.

B. Lay pavers in patterns shown on Drawings.
   1. Make horizontal adjustments to laid pavers as required.

C. Provide joints between pavers between 1/16 inch and 3/16 inch wide.
   1. Not more than 5 percent of joints are to exceed 1/4 inch wide to achieve straight bond lines.

D. Joint (Bond) Lines:
   1. Do not deviate more than plus 0r minus 1/2 inch over 50 feet from string lines.

E. Fill gaps at edges of paved area cut pavers or edge units.

F. Cut pavers to be placed along edge with double blade paver splitter or masonry saw.

G. Adjust bond pattern at pavement edges such that cutting of edge pavers is minimized.
   1. Cut pavers at edges as indicated on the drawings.]

H. Keep skid steer and forklift equipment off newly laid pavers that have not received initial compaction and joint sand.

I. Use low-amplitude plate compactor capable of at least minimum of 5,000 Ibf at frequency of 75 to 100 Hhz to vibrate pavers into sand.
   1. Remove cracked or damaged pavers and replace with new units.

J. Simultaneously spread, sweep and compact dry joint sand into joints continuously until full.
   1. This will require at least 4 passes with plate compactor.
   2. Do not compact within 6 feet of unrestrained edges of paving units.

K. Work within 6 feet of laying face must be left fully compacted with sand-filled joints at end of each day or compacted upon acceptance of Work.
   1. Cover laying face or incomplete areas with plastic sheets overnight if not closed with cut and compacted pavers with joint sand to prevent exposed bedding sand from becoming saturated from rainfall.

L. Remove excess sand from surface when installation is complete.

M. Allow excess joint sand to remain on surface to protect pavers from damage from other trades.
   1. Remove excess sand when directed by Architect.

N. Broom clean surface be after removal of excess joint sand.

3.04 FIELD QUALITY CONTROL

A. Final surface tolerance from grade elevations:
   1. Not to deviate more than 3/8 inch over 10 feet.
   2. Use straightedge, flexible straightedge. or transit depending on surface slope and contours.

B. Check final surface elevations for conformance to drawings.

C. Lippage:
   1. Not greater than 1/8 inch difference in height between adjacent pavers.

3.05 JOINT SAND STABILIZATION

A. Apply joint sand stabilization materials to concrete pavers in accordance with manufacturer's written recommendations.

3.06 PROTECTION

A. After Work of this Section is complete, Contractor is responsible for protecting Work from damage due to subsequent construction activity on Project Site.

END OF SECTION 32 1413

SECTION 32 9300

PLANTS

PART 1 - GENERAL

1.01 SUMMARY

A. Section Includes:
   1. Plants.
   2. Tree-watering devices.
   3. Landscape edgings.

1.02 DEFINITIONS

A. Backfill: The earth used to replace or the act of replacing earth in an excavation.

B. Pesticide: A substance or mixture intended for preventing, destroying, repelling, or mitigating a pest. Pesticides include insecticides, miticides, herbicides, fungicides, rodenticides, and molluscicides. They also include substances or mixtures intended for use as a plant regulator, defoliant, or desiccant. Some sources classify herbicides separately from pesticides.

C. Planting Soil: Existing, on-site soil; imported soil; or manufactured soil that has been modified with soil amendments and perhaps fertilizers to produce a soil mixture best for plant growth. See Section 32 9113 "Soil Preparation" for drawing designations for planting soils.

D. Root Flare: Also called "trunk flare." The area at the base of the plant's stem or trunk where the stem or trunk broadens to form roots; the area of transition between the root system and the stem or trunk.

1.03 PREINSTALLATION MEETINGS

A. Preinstallation Conference: Conduct conference at Project site.

1.04 ACTION SUBMITTALS

A. Product Data: For each type of product.

B. Samples of each type of mulch.

1.05 INFORMATIONAL SUBMITTALS

A. Product certificates.

B. Sample warranty.

1.06 CLOSEOUT SUBMITTALS

A. Maintenance Data: Recommended procedures to be established by Owner for maintenance of plants during a calendar year.

1.07 QUALITY ASSURANCE

A. Installer's Field Supervision: Require Installer to maintain an experienced full-time supervisor on Project site when work is in progress.
   1. Pesticide Applicator: State licensed, commercial.

B. Provide quality, size, genus, species, and variety of plants indicated, complying with applicable requirements in ANSI Z60.1.

1.08 DELIVERY, STORAGE, AND HANDLING

A. Deliver bare-root stock plants within 24 hours of digging. Immediately after digging up bare-root stock, pack root system in wet straw, hay, or other suitable material to keep root system moist until planting. Transport in covered, temperature-controlled vehicles, and keep plants cool and protected from sun and wind at all times.

B. Do not prune trees and shrubs before delivery. Protect bark, branches, and root systems from sun scald, drying, wind burn, sweating, whipping, and other handling and tying damage. Do not bend or bind-tie trees or shrubs in such a manner as to destroy their natural shape. Provide protective covering of plants during shipping and delivery. Do not drop plants during delivery and handling.

C. Handle planting stock by root ball.

D. Store bulbs, corms, and tubers in a dry place at 60 to 65 deg F until planting.

E. Deliver plants after preparations for planting have been completed, and install immediately. If planting is delayed more than six hours after delivery, set plants and trees in their appropriate aspect (sun, filtered sun, or shade), protect from weather and mechanical damage, and keep roots moist.

1.09 WARRANTY

A. Special Warranty: Installer agrees to repair or replace plantings and accessories that fail in materials, workmanship, or growth within specified warranty period.
   1. Failures include, but are not limited to, the following:
      a. Death and unsatisfactory growth, except for defects resulting from abuse, lack of adequate maintenance, or neglect by Owner.
      b. Structural failures including plantings falling or blowing over.
   2. Warranty Periods: From date of Substantial Completion.
      a. Trees, Shrubs, Vines, and Ornamental Grasses: 12 months.
      b. Ground Covers, Biennials, Perennials, and Other Plants: 12 months.

PART 2 - PRODUCTS

2.01 PLANT MATERIAL

A. General: Furnish nursery-grown plants true to genus, species, variety, cultivar, stem form, shearing, and other features indicated in Plant List, Plant Schedule, or Plant Legend indicated on Drawings and complying with ANSI Z60.1; and with healthy root systems developed by transplanting or root pruning.

Provide well-shaped, fully branched, healthy, vigorous stock, densely foliated when in leaf and free of disease, pests, eggs, larvae, and defects such as knots, sun scald, injuries, abrasions, and disfigurement.

B. Root-Ball Depth: Furnish trees and shrubs with root balls measured from top of root ball, which begins at root flare according to ANSI Z60.1. Root flare shall be visible before planting.

2.02 FERTILIZERS

A. Planting Tablets: Tightly compressed chip-type, long-lasting, slow-release, commercial-grade planting fertilizer in tablet form. Tablets shall break down with soil bacteria, converting nutrients into a form that can be absorbed by plant roots.
   1. Size: [5-gram] [10-gram] [21-gram] <Insert size> tablets.
   2. Nutrient Composition: 20 percent nitrogen, 10 percent phosphorous, and 5 percent potassium, by weight plus micronutrients.

2.03 MULCHES

A. Organic Mulch: See plans for wood mulch specification.

B. Mineral Mulch: See plans for decomposed granite specification.

2.04 WEED-CONTROL BARRIERS

A. Nonwoven Geotextile Filter Fabric: Polypropylene or polyester fabric, 3 oz./sq. yd. minimum, composed of fibers formed into a stable network so that fibers retain their relative position. Fabric shall be inert to biological degradation and resist naturally encountered chemicals, alkalis, and acids.

B. Composite Fabric: Woven, needle-punched polypropylene substrate bonded to a nonwoven polypropylene fabric, 4.8 oz./sq. yd..

2.05 PESTICIDES

A. General: Pesticide registered and approved by the EPA, acceptable to authorities having jurisdiction, and of type recommended by manufacturer for each specific problem and as required for Project conditions and application. Do not use restricted pesticides unless authorized in writing by authorities having jurisdiction.

2.06 LANDSCAPE EDGINGS

A. As indicated and specified on plans.

2.07 TREE-WATERING DEVICES

A. As indicated on irrigation plan.

PART 3 - EXECUTION

3.01 PLANTING AREA ESTABLISHMENT

A. General: Prepare planting area for soil placement and mix planting soil according to Section 32 9113 "Soil Preparation."

B. Placing Planting Soil: agricultural soils report.

C. Before planting, obtain Architect's acceptance of finish grading; restore planting areas if eroded or otherwise disturbed after finish grading.

3.02 EXCAVATION FOR TREES AND SHRUBS

A. Planting Pits and Trenches: Excavate circular planting pits.
   1. Excavate planting pits with sides sloping inward at a 45-degree angle. Excavations with vertical sides are unacceptable. Trim perimeter of bottom leaving center area of bottom raised slightly to support root ball and assist in drainage away from center. Do not further disturb base. Ensure that root ball will sit on undisturbed base soil to prevent settling. Scarify sides of planting pit smeared or smoothed during excavation.
   2. Excavate approximately two times as wide as ball diameter.
   3. Do not excavate deeper than depth of the root ball, measured from the root flare to the bottom of the root ball.

B. Backfill Soil: Subsoil and topsoil removed from excavations may be used as backfill soil unless otherwise indicated. Per agricultural soils report.

3.03 TREE, SHRUB, AND VINE PLANTING

A. Inspection: At time of planting, verify that root flare is visible at top of root ball according to ANSI Z60.1. If root flare is not visible, remove soil in a level manner from the root ball to where the top-most root emerges from the trunk. After soil removal to expose the root flare, verify that root ball still meets size requirements.

B. Roots: Remove stem girdling roots and kinked roots. Remove injured roots by cutting cleanly; do not break.

C. Set each plant plumb and in center of planting pit or trench with root flare 1 inch above adjacent finish grades.
   1. Backfill: Planting soil <Insert drawing designation>.[For trees, use excavated soil for backfill.]
   2. Container-Grown Stock: Carefully remove root ball from container without damaging root ball or plant.
   3. Backfill around root ball in layers, tamping to settle soil and eliminate voids and air pockets. When planting pit is approximately one-half filled, water thoroughly before placing remainder of backfill. Repeat watering until no more water is absorbed.

4. Place planting tablets equally distributed around each planting pit when pit is approximately one-half filled. Place tablets beside the root ball about 1 inch from root tips; do not place tablets in bottom of the hole.
   a. Quantity: Per agricultural soils report.
5. Continue backfilling process. Water again after placing and tamping final layer of soil.

D. Slopes: When planting on slopes, set the plant so the root flare on the uphill side is flush with the surrounding soil on the slope; the edge of the root ball on the downhill side will be above the surrounding soil. Apply enough soil to cover the downhill side of the root ball.

3.04 TREE, SHRUB, AND VINE PRUNING

A. Remove only dead, dying, or broken branches. Do not prune for shape.

B. Prune, thin, and shape trees, shrubs, and vines as directed by Architect.

C. Prune, thin, and shape trees, shrubs, and vines according to standard professional horticultural and arboricultural practices. Unless otherwise indicated by Architect, do not cut tree leaders; remove only injured, dying, or dead branches from trees and shrubs; and prune to retain natural character.

D. Do not apply pruning paint to wounds.

3.05 GROUND COVER AND PLANT PLANTING

A. Set out and space ground cover and plants other than trees, shrubs, and vines as indicated on Drawings in even rows with triangular spacing.

B. Use planting soil for backfill.

C. Dig holes large enough to allow spreading of roots.

D. Work soil around roots to eliminate air pockets and leave a slight saucer indentation around plants to hold water.

E. Water thoroughly after planting, taking care not to cover plant crowns with wet soil.

F. Protect plants from hot sun and wind; remove protection if plants show evidence of recovery from transplanting shock.

3.06 PLANTING AREA MULCHING

A. Install weed-control barriers before mulching according to manufacturer's written instructions. Completely cover area to be mulched, overlapping edges a minimum of 6 inches and secure seams with galvanized pins.

B. Mulch backfilled surfaces of planting areas and other areas indicated.
   1. Trees in Turf Areas: Apply organic mulch ring of ~~4 inch~~ **3-inch** average thickness, with 24-inch radius around trunks or stems. Do not place mulch within 3 inches of trunks or stems.

2. Organic Mulch in Planting Areas: Apply of ~~4-inch~~ **3-inch** average thickness of organic mulch over whole surface of planting area, and finish level with adjacent finish grades. Do not place mulch within 3 inches <Insert distance> of trunks or stems.

3.07 EDGING INSTALLATION

A. Concrete mow curbs per plan.

3.08 PLANT MAINTENANCE

A. Maintain plantings by pruning, cultivating, watering, weeding, fertilizing, mulching, restoring planting saucers, resetting to proper grades or vertical position, and performing other operations as required to establish healthy, viable plantings.

B. Fill in, as necessary, soil subsidence that may occur because of settling or other processes. Replace mulch materials damaged or lost in areas of subsidence.

C. Apply treatments as required to keep plant materials, planted areas, and soils free of pests and pathogens or disease. Use integrated pest management practices when possible to minimize use of pesticides and reduce hazards. Treatments include physical controls such as hosing off foliage, mechanical controls such as traps, and biological control agents.

D. Apply pesticides and other chemical products and biological control agents according to authorities having jurisdiction and manufacturer's written recommendations. Coordinate applications with Owner's operations and others in proximity to the Work. Notify Owner before each application is performed.

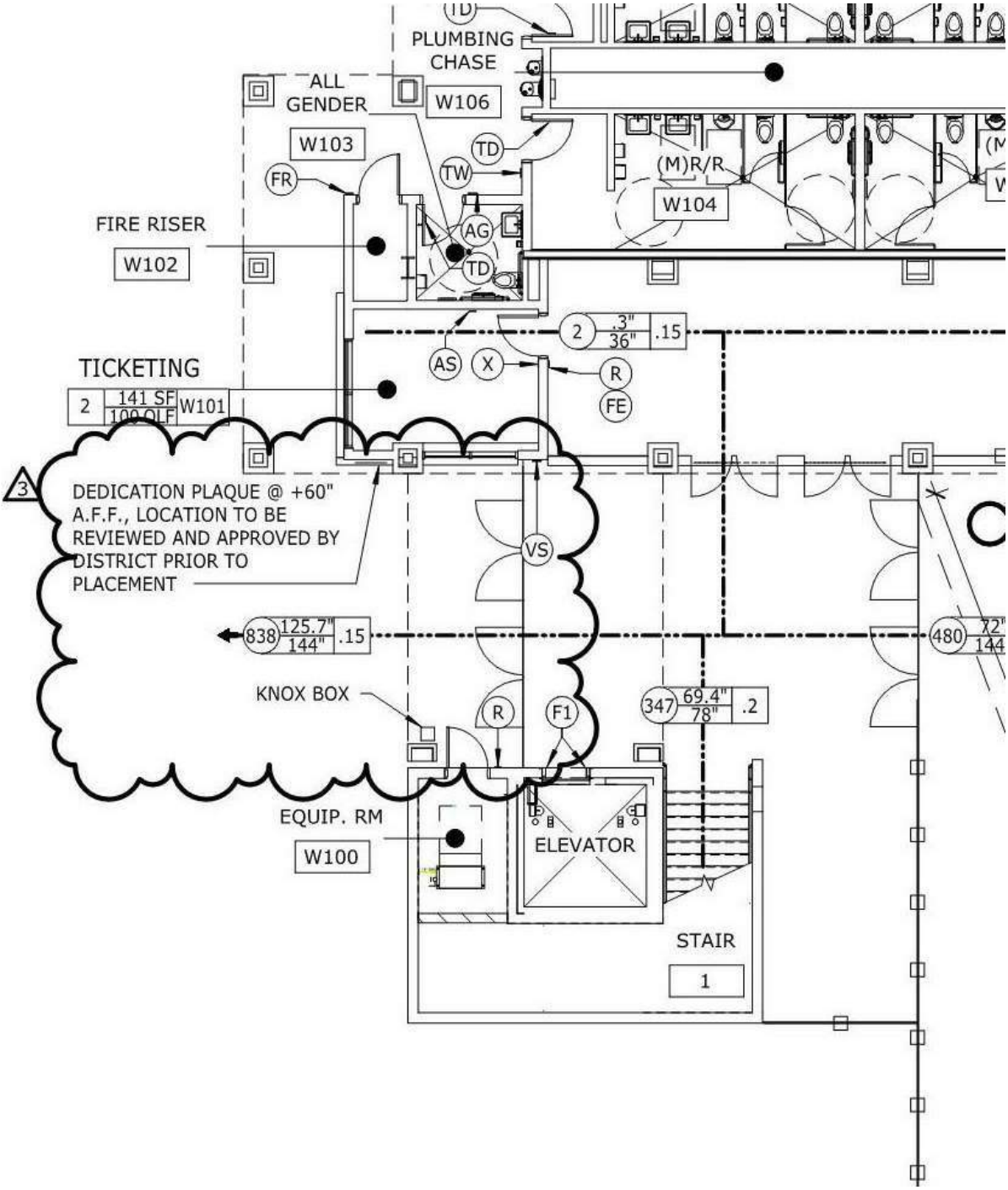
E. Protect plants from damage due to landscape operations and operations of other contractors and trades. Maintain protection during installation and maintenance periods. Treat, repair, or replace damaged plantings.

F. At time of Substantial Completion, verify that tree-watering devices are in good working order and leave them in place. Replace improperly functioning devices.

3.09 MAINTENANCE SERVICE

A. Maintenance Service: Provide maintenance by skilled employees of landscape Installer. Maintain as required in "Plant Maintenance" Article. Begin maintenance immediately after plants are installed and continue until plantings are acceptably healthy and well established, but for not less than maintenance period below:
   1. Maintenance Period for Trees and Shrubs: 12 months from date of Substantial Completion.
   2. Maintenance Period for Ground Cover and Other Plants: Six months from date of Substantial Completion.

END OF SECTION 32 9300



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architecture
westbergwhite
14471 CHAMBERS RD, SUITE 210
TUSTIN, CA 92780
(714) 508-1780 508-1790 FAX

ARCHITECT:

LICENSED ARCHITECT PAUL CHRISTIAN WESTBERG STATE OF CALIFORNIA

PROJECT:

LIBERAL ARTS CAMPUS

KINESIOLOGY LABS and AQUATIC CENTER

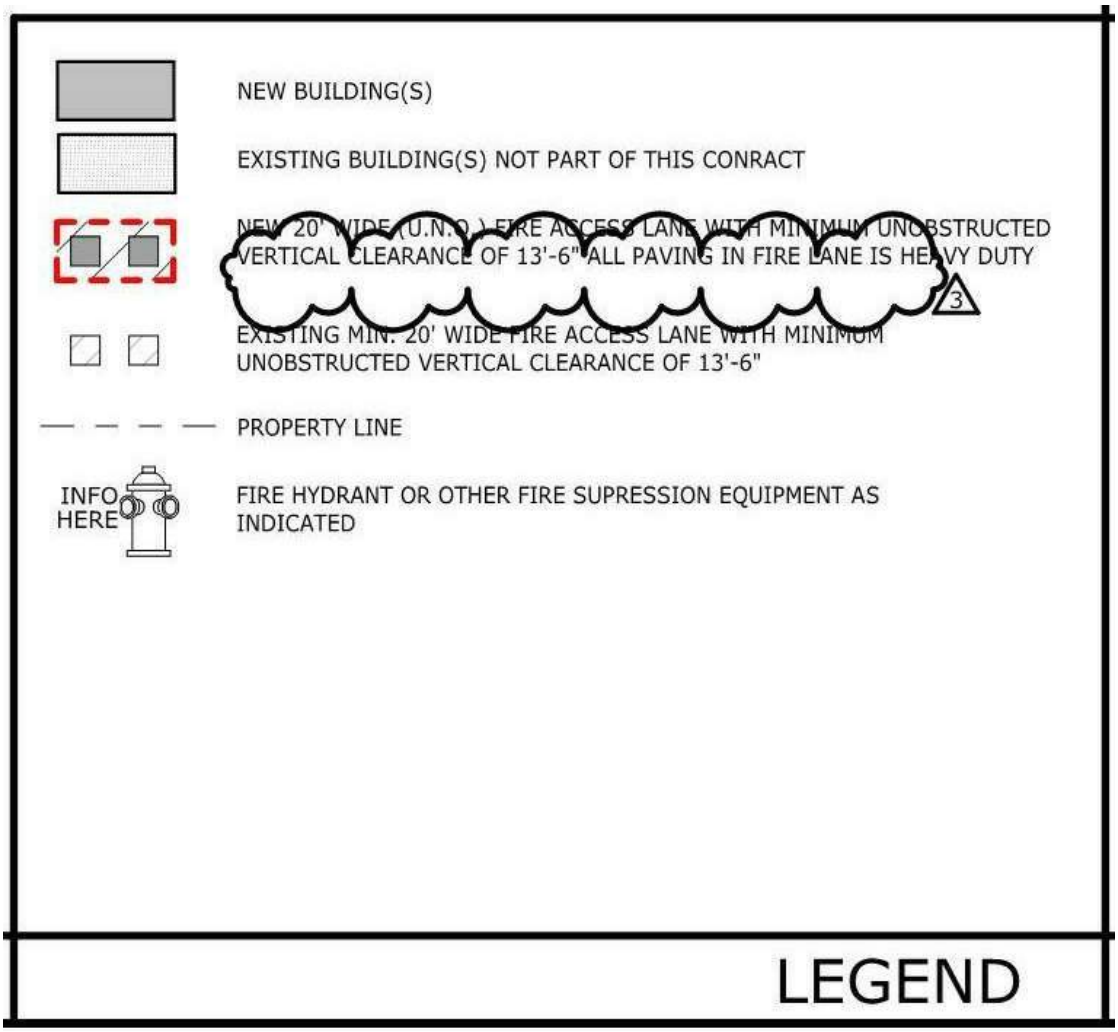
LONG BEACH CITY COLLEGE

SHEET DESCRIPTION:

REVISED SIGNAGE PLAN 1/G004 (N.T.S.)

DSA FILE NO: 19-C3	DATE: 12/17/19
DSA #: 03-119628	JOB NO: 16042.01
ADDENDA #: 03	DRAWN: EM / JC
CCD #:	SHEET
BULLETIN #:	SKA-57
RFI #:	

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architecture
westbergwhite
14471 CHAMBERS RD, SUITE 210
TUSTIN, CA 92780
(714) 508-1780 508-1790 FAX

ARCHITECT:

LICENSED ARCHITECT PAUL WESTBERG STATE OF CALIFORNIA

PROJECT:

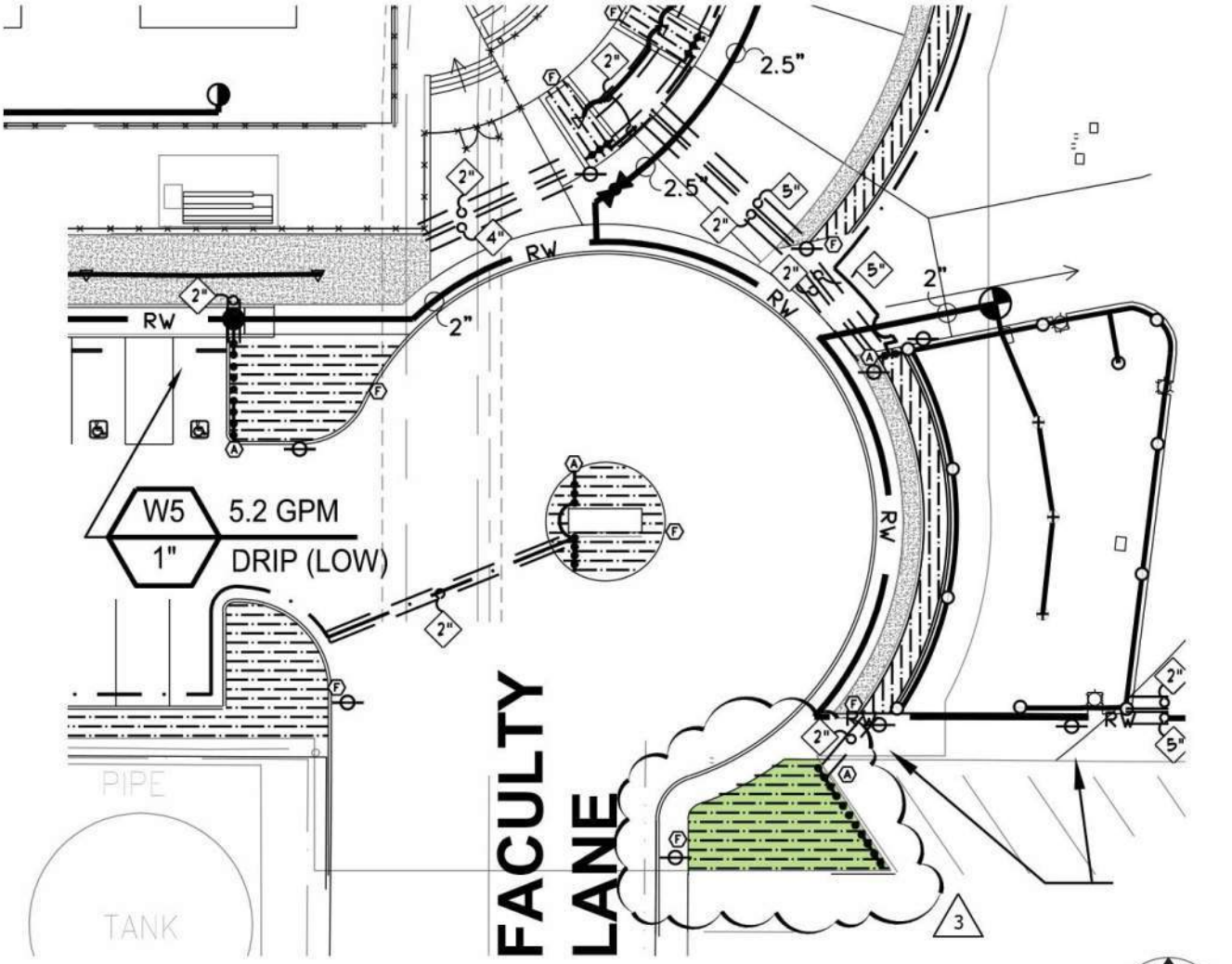
LIBERAL ARTS CAMPUS
KINESIOLOGY LABS and AQUATIC CENTER
LONG BEACH CITY COLLEGE

SHEET DESCRIPTION:

FIRE ACCESS PLAN REVISED LEGEND F001 AND F002

DSA FILE NO: 19-C3	DATE: 12/17/19
DSA #: 03-119628	JOB NO: 16042.01
ADDENDA #: 03	DRAWN: EM / JC
CCD #:	SHEET
BULLETIN #:	SKA-58
RFI #:	

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SCALE: 1"=30'-0"

0' 15' 30' 60' 120'

RW AS APPROVED

SCH 40 PURPLE PVC MAINLINE PIPE - 4" WITH SCHEDULE 200 BELL AND GASKET WITH DUCTILE IRON PUSH-ON FITTINGS AND MECHANICAL JOINT RESTRAINTS. 2" THROUGH 3" WITH SCHEDULE 80 PVC FITTINGS. SCHEDULE 40 PURPLE PVC MAINLINE PIPE - 1 1/2" AND SMALLER WITH SCHEDULE 40 PVC FITTINGS SOLVENT WIELD. 18" MIN. COVER. ALL MAINLINE TO BE INSTALLED WITH TRACER WIRE. 24" MIN. COVER.

architecture
westbergwhite
14471 CHAMBERS RD, SUITE 210
TUSTIN, CA 92780
(714) 508-1780 508-1790 FAX

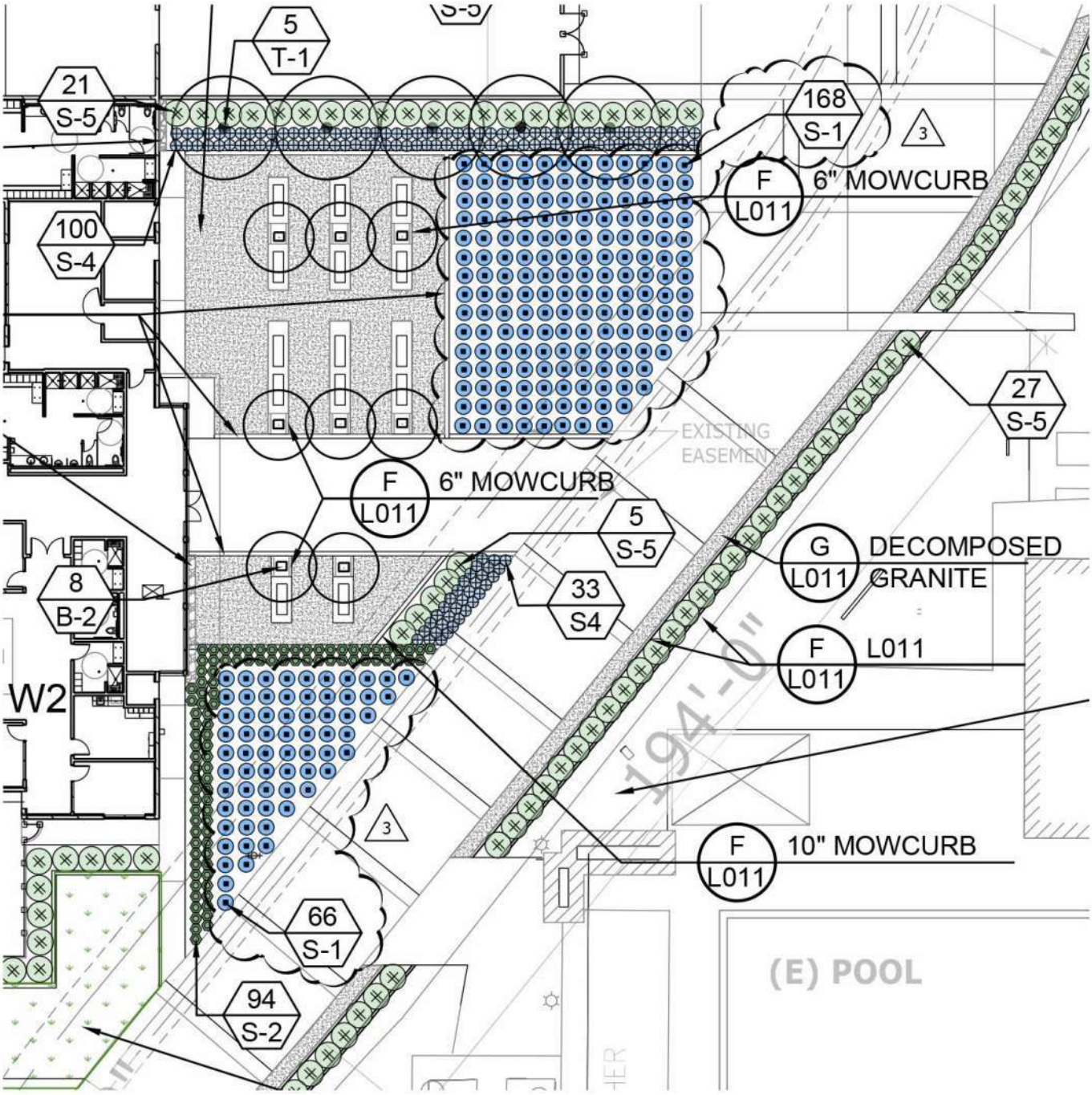
ARCHITECT:

REGISTERED LANDSCAPE ARCHITECT
W. STONE No. 1891
Signature
SEPTEMBER 30, 2021
Expiration Date
12/16/19
Date
STATE OF CALIFORNIA

PROJECT:
LIBERAL ARTS CAMPUS
KINESIOLOGY LABS and AQUATIC CENTER
LONG BEACH CITY COLLEGE

DSA FILE NO: 19-C3	DATE: 12-16-19
DSA #: 03-119628	JOB NO: 16042.01
ADDENDA #: 03	DRAWN: LF/TMO
CCD #:	SHEET
BULLETIN #:	SKL-01
RFI #:	

SHEET DESCRIPTION:
L001 & L003
IRRIGATION PLAN & LEGEND



SCALE: 1"=30'-0"

0' 15' 30' 60' 120'

architecture
westbergwhite
14471 CHAMBERS RD, SUITE 210
TUSTIN, CA 92780
(714) 508-1780 508-1790 FAX

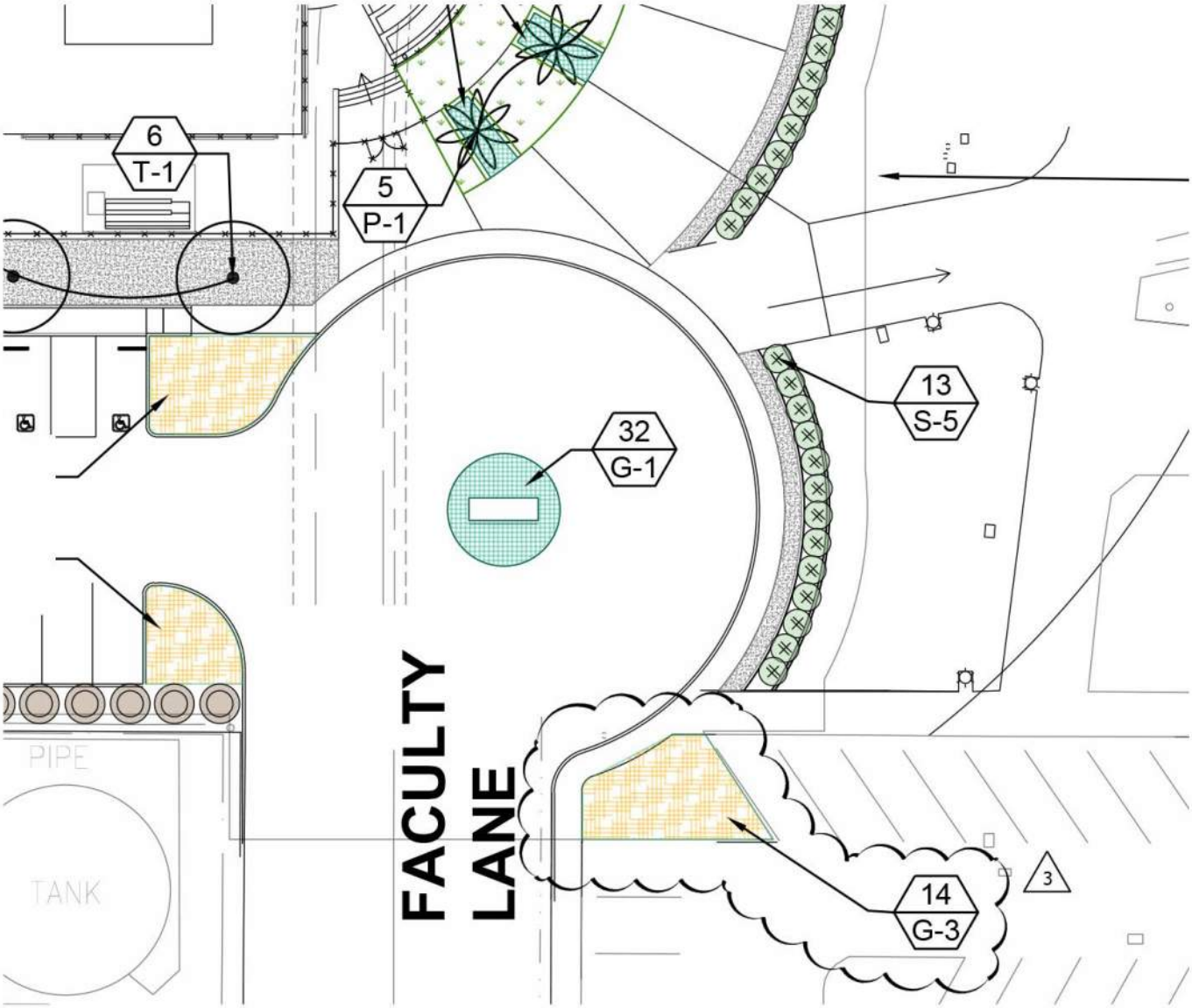
ARCHITECT:

REGISTERED LANDSCAPE ARCHITECT
W. STONE No. 891
Signature
SEPTEMBER 30, 2021
Expiration Date
12/16/19
Date
STATE OF CALIFORNIA

PROJECT:
LIBERAL ARTS CAMPUS
KINESIOLOGY LABS and AQUATIC CENTER
LONG BEACH CITY COLLEGE

SHEET DESCRIPTION:
L009
PLANTING PLAN

DSA FILE NO: 19-C3	DATE: 12-16-19
DSA #: 03-119628	JOB NO: 16042.01
ADDENDA #: 03	DRAWN: LF/TMO
CCD #:	SHEET
BULLETIN #:	SKL-02
RFI #:	



SCALE: 1"=30'-0"

0' 15' 30' 60' 120'

architecture
westbergwhite
14471 CHAMBERS RD, SUITE 210
TUSTIN, CA 92780
(714) 508-1780 508-1790 FAX

ARCHITECT:

REGISTERED LANDSCAPE ARCHITECT
W. STONE No. 891
Signature
SEPTEMBER 30, 2021
Expiration Date
12/16/19
Date
STATE OF CALIFORNIA

PROJECT:
LIBERAL ARTS CAMPUS
KINESIOLOGY LABS and AQUATIC CENTER
LONG BEACH CITY COLLEGE

SHEET DESCRIPTION:
L009
PLANTING PLAN

DSA FILE NO: 19-C3	DATE: 12-16-19
DSA #: 03-119628	JOB NO: 16042.01
ADDENDA #: 03	DRAWN: LF/TMO
CCD #:	SHEET
BULLETIN #:	SKL-03
RFI #:	

BUFFER SHRUBS

	B-1	CALLISTEMON VIMINALIS 'SLIM'	SLIM BOTTLEBRUSH	15 GAL.	4' O.C.	LOW	124
	B-2	ELAEOCARPUS DECIPIENS	JAPANESE BLUEBERRY TREE	24" BOX	8' O.C.	MOD	81
	B-3	RHAMNUS CALIFORNICA	COFFEE BERRY	15 GAL	8' O.C.	LOW	67

SHRUBS & ACCENTS

3	S-1	AGAVE 'BLUE GLOW'	BLUE GLOW AGAVE	5 GAL	3' O.C.	LOW	234
	S-2	ALOE 'BLUE ELF'	BLUE ELF ALOE	1 GAL	18" O.C.	LOW	254
	S-3	EREMOPHILA GLABRA 'GREY HORIZON'	GREY EMU BUSH	5 GAL	5' O.C.	LOW	62
	S-4	DIANELLA REVOLUTA 'CLARITY BLUE'	CLARITY BLUE FLAX LILY	5 GAL	24" O.C.	LOW	133
	S-5	OLEA EUR. 'MONTARA'	LITTLE OLLIE DWARF OLIVE	5 GAL	3' O.C.	LOW	452

GROUNDCOVER

	G-1	COMPACTED DECOMPOSED GRANITE	DESERT GOLD	-	-	-	22,555 SF
	G-1	SENECIO MANDRALISCAE	KLEINIA	1 GAL	3' O.C.	LOW	185 (1,667 SF)
3	G-3	LANTANA 'NEW GOLD'	NEW GOLD LANTANA	1 GAL	6' O.C.	LOW	34 (1,113 SF)
	G-4	PEA GRAVEL WITH WEED BARRIER FABRIC & ALUMINUM EDGING	2" LAYER OF PEA GRAVEL ALONG BUILDING EDGE AT LANDSCAPE AREAS	3/8"-1/2"	16" WIDE STRIPS	-	- (109 SF)

SHRUBS & ACCENTS



AGAVE 'BLUE GLOW'
BLUE GLOW AGAVE

3

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TUSTIN, CA 92780
(714) 508-1780 508-1790 FAX

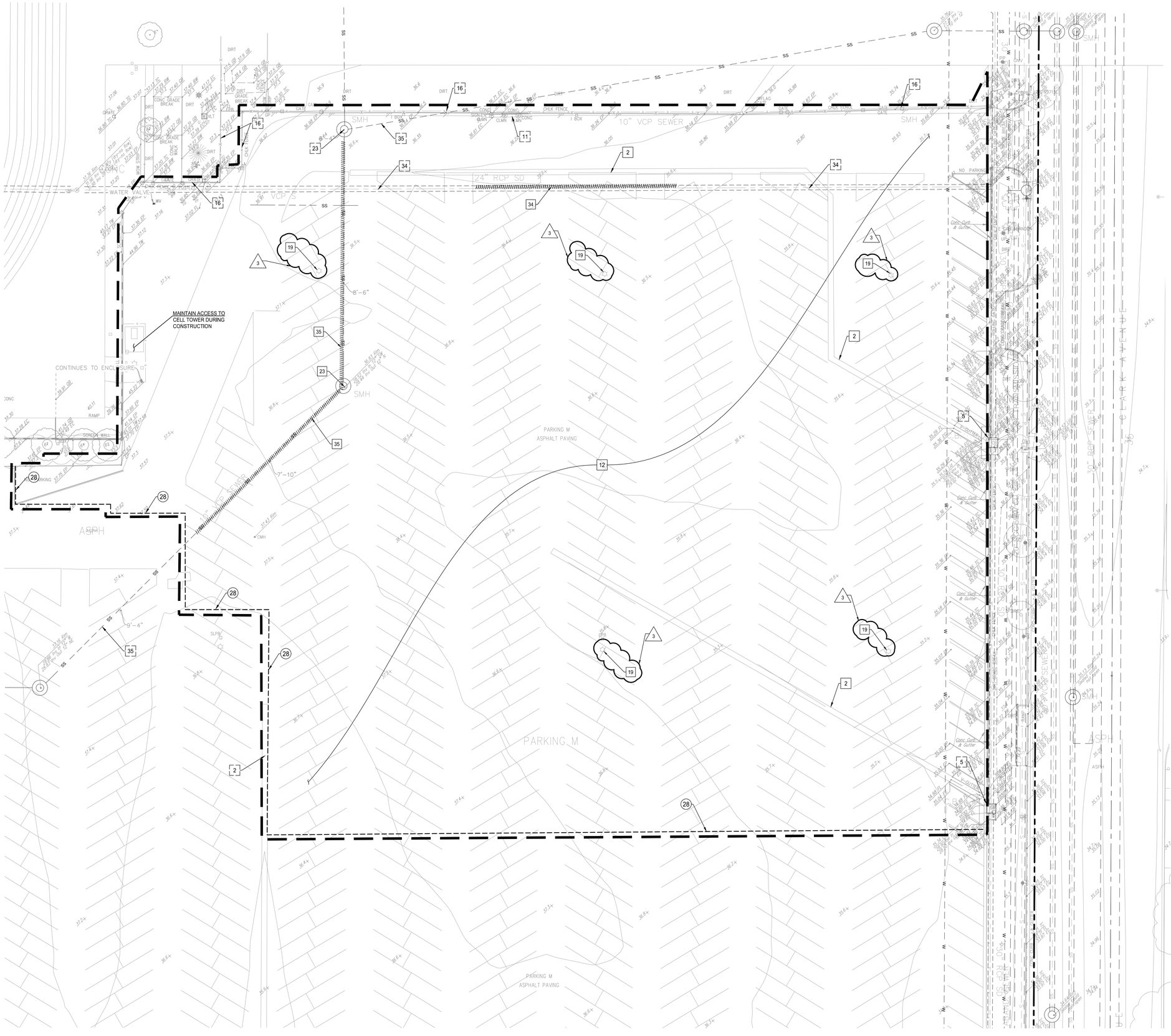
ARCHITECT:

REGISTERED LANDSCAPE ARCHITECT
W. STONE No. 891
Signature
SEPTEMBER 30, 2021
Expiration Date
12/16/19
Date
STATE OF CALIFORNIA

PROJECT:
LIBERAL ARTS CAMPUS
KINESIOLOGY LABS and AQUATIC CENTER
LONG BEACH CITY COLLEGE

DSA FILE NO: 19-C3	DATE: 12-16-19
DSA #: 03-119628	JOB NO: 16042.01
ADDENDA #: 03	DRAWN: LF/TMO
CCD #:	SHEET
BULLETIN #:	SKL-04
RFI #:	

SHEET DESCRIPTION:
L011 & L012
PLANTING LEGEND & IMAGERY



DEMOLITION NOTES:

- CONSTRUCT
- EXISTING TO REMAIN -PROTECT IN PLACE
- EXISTING TO REMOVE
- REMOVE & RELOCATE
- ADJUST TO GRADE
- BY OTHERS

1. CONCRETE SIDEWALK. *ASSUME 4.5" CONCRETE AND 4" BASE.
2. CONCRETE GUTTER
3. CONCRETE CURB & GUTTER
4. MOW STRIP
5. CONCRETE CATCH BASIN
6. CURB RAMP
7. BALL WALL
8. UTILITY BOX
9. PARKING SIGN/POST/FOOTINGS
10. TREE
11. SCOREBOARD AND FOUNDATIONS
12. ASPHALT CONCRETE/BASE. *ASSUME 7" ASPHALT CONCRETE. ASSUME 3.5" ASPHALT CONCRETE FOR SOFTBALL FIELD.
13. BUILDING/STRUCTURE/ FOOTINGS. *ASSUME 12" X 24" X 24" BUILDING FOOTING.
14. SPEED BUMP
15. CONCRETE PAD/BASE. *ASSUME 4.5" CONCRETE AND 4" BASE.
16. FENCE/POSTS/FOOTINGS.

*ASSUME POSTS EVERY 6' WITH 12" X 36" FOOTING.

17. TURF
18. TENNIS COURT/SLAB/BASE/ APPURTENANCES. *ASSUME 4.5" CONCRETE AND 4" BASE.
19. LIGHT/POLE/FOOTINGS, SALVAGE LED LAMPS AND POLES.
20. BASEBALL INFIELD
21. BLEACHERS
22. BOLLARDS
23. SEWER MANHOLE
24. DRINKING FOUNTAIN
25. LANDSCAPE
26. DUGOUT
27. STORAGE CONTAINER
28. SAW CUT EXISTING PAVEMENT
29. IRRIGATION VALVE
30. PAY STATION
31. POST/FOOTINGS
32. HOSEBIB
33. WATER LINE
34. STORM DRAIN LINE
35. SANITARY SEWER LINE
36. AREA DRAIN

* EXISTING FOOTING AND PAVEMENT SECTIONS ARE ASSUMES FOR BIDDING PURPOSES. CONTRACTOR TO PROVIDE UNIT PRICING.

LEGEND

- LIMITS OF SITE DEMOLITION (SEE NOTE 1)
- PROPERTY LINE
- SAWCUT LINE
- EXISTING BUILDING TO BE REMOVED (SEE HAZARDOUS BUILDING MATERIAL SURVEY REPORT BY NINYO AND MOORE, APRIL 10, 2018.)
- 280 — EXISTING CONTOUR ELEVATION
- SD — EXISTING STORM DRAIN LINE (18" OR LARGER)
- SD — EXISTING STORM DRAIN LINE (SMALLER THAN 18")
- SS — EXISTING SANITARY SEWER LINE (15" OR LARGER)
- SS — EXISTING SANITARY SEWER LINE (SMALLER THAN 15")
- W — EXISTING WATER LINE
- RW — EXISTING RECLAIMED WATER LINE
- E — EXISTING ELECTRICAL LINE
- G — EXISTING GAS LINE
- T — EXISTING TELECOMMUNICATION LINE
- COM — EXISTING COMMUNICATION LINE

NOTES:

1. SITE DEMOLITION SHALL INCLUDE THE DEMOLITION OF STRUCTURES, BUILDINGS AND MODULAR UNITS, VEGETATION, GRASS, GRASS ROOTS, SHRUBS, TREE STUMPS, TREES, UPTURNED STUMPS, TREE ROOTS, BRUSH, MASONRY, CONCRETE, BITUMINOUS SURFACES, TRACK SURFACE, BLEACHERS, HARDCOURT SURFACES, INTERNAL CAMPUS FENCING AND GATES NECESSARY TO CONSTRUCT THE PROJECT. THE PROJECT SITE SHALL BE CLEARED AND GRUBBED, AND ALL MISCELLANEOUS TRASH WITHIN THE LIMITS OF DEMOLITION SHALL BE REMOVED.
2. REFERENCE MECHANICAL, ELECTRICAL AND TELECOMMUNICATION PLANS FOR DEMOLITION OF M, E, & T UTILITIES AND STRUCTURES. EXISTING M, E, & T UTILITIES AND STRUCTURES ARE NOT SHOWN ON THIS PLAN.
3. REFER TO LANDSCAPE PLANS FOR TREE PROTECTION AND REMOVALS.
4. SHOULD ANY EXISTING UTILITY NOT SHOWN HEREON BE ENCOUNTERED, THE CONTRACTOR SHALL NOTIFY THE OWNER AND ENGINEER PRIOR TO DEMOLITION OR CONSTRUCTION.
5. CONTRACTOR TO MAINTAIN ACCESS TO EXISTING SURROUNDING FACILITIES, AS REQUIRED BY THE DISTRICT, FOR THE DURATION OF CONSTRUCTION.
6. ALL EXISTING UTILITY STRUCTURES TO REMAIN SHALL BE ADJUSTED TO MATCH NEW GRADE. PROVIDE PEDESTRIAN AND TRAFFIC RATED RIMS, COVERS, AND GRATES FOR RELOCATED OR ADJUSTED UTILITY STRUCTURES.

811 Know what's below. Call before you dig.

20' 10' 0' 20' 40'

GRAPHIC SCALE
SCALE: 1" = 20'

STATE:

ARCHITECT:

architecture
westbergwhite
14471 CHAMBERS RD, SUITE 210
TUSTIN, CA 92780
(714) 508-1780 508-1790 FAX

CONSULTANT:

PSOMAS
555 South Flower Street, Suite 4300
Los Angeles, CA 90071
Tel. (213) 223-1400 Fax (213) 223-1444

REGISTERED PROFESSIONAL ENGINEER ALISEN J. WETMORE No. C69927 CIVIL STATE OF CALIFORNIA

PROJECT NAME:

LIBERAL ARTS CAMPUS
KINESIOLOGY LABS and AQUATIC CENTER
4901 EAST CARSON STREET
LONG BEACH, CA 90806

CLIENT:

LONG BEACH CITY COLLEGE
4901 EAST CARSON STREET
LONG BEACH, CA 90806

Rev.	Date	Description
3	12/16/19	Addendum 3

JOB NO: 1WES380201
DATE: 09/18/19
DRAWN: AS
CHECK: AW
ARCHITECT:
ENGINEER:

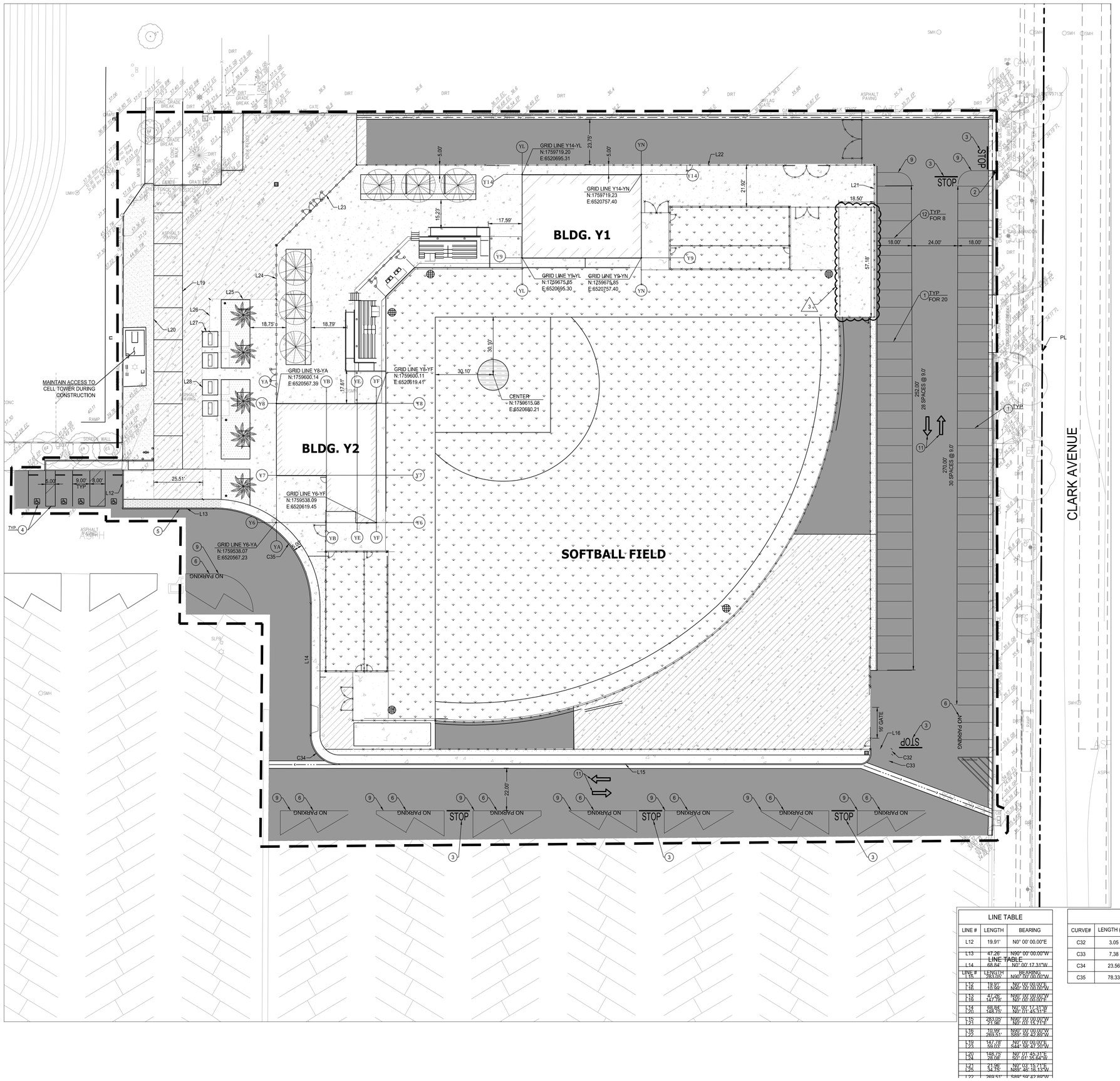
SHEET DESCRIPTION:

DEMOLITION PLAN

SHEET NO:

C1.05 3

Plotted: 12/16/2019 8:38:50 AM :: Saved: 12/16/2019 8:38:34 AM :: W:\1WES380201\ENGR\SHEETS\C1.05.dwg :: hynno.oguslin



LEGEND:

- LIMITS OF CIVIL WORK
- PROPERTY/BOUNDARY LINE
- RED CURB MARKING
- CONCRETE PAVEMENT* PER DETAIL 4/ SHEET C9.01
- ASPHALT PAVEMENT PER DETAIL 3/ SHEET C9.01
- SYNTHETIC TURF AREA PER ARCHITECTURAL PLANS
- LANDSCAPE AREA PER LANDSCAPE PLANS
- HEAVY DUTY CONCRETE PAVEMENT* PER DETAIL 2/ SHEET C9.01
- SAND VOLLEY BALL COURT PER ARCHITECTURAL PLANS
- DECOMPOSED GRANITE PER LANDSCAPE PLANS
- CRUSHED BASE PER ARCHITECTURAL PLANS
- CLAY PITCHER AREA PER ARCHITECTURAL PLANS

* SEE NOTE 4.

NOTE:
REFER TO CORRESPONDING GRADING SHEET AND REFERENCED DETAILS FOR PAVEMENT SECTIONS.

CONSTRUCTION NOTES:

◯ CONSTRUCT

1. PARKING SPACE STRIPING, 4" WHITE PAINT, SEE DETAIL 3/SHEET C9.03.
2. "STOP" SIGN (RI-1) -30".
3. "STOP" PAVEMENT MARKING PER CALTRANS STD. PLAN A24D.
4. ACCESSIBLE PARKING PER ARCHITECTURAL PLANS DETAIL 9/ SHEET A006.
5. RED CURB MARKING PER DETAIL 2/ SHEET F002.
6. 12" HIGH "NO PARKING" WHITE PAINTED LETTERS PER CALTRANS STD. PLAN A24E.
7. NOT USED.
8. NOT USED.
9. 12" WIDE WHITE LIMIT LINE STRIPE PER CALTRANS STD. PLAN A24E.
10. "YIELD" PAVEMENT MARKING AND LINE PER CALTRANS STD. PLANS A24D AND A24E.
11. TYPE 1 10' ARROW PER CALTRANS STD. PLAN A24A.
12. PARKING SPACE STRIPING, 4" WHITE PAINT, WITH WHEEL STOP.
13. ELECTRIC VEHICLE SPACE STRIPING.

BENCHMARK:

COUNTY OF LONG BEACH BENCHMARK NO. 533-A
FOUND BOLT IN PCC CURB 65.0' NORTH OF THE NORTH CURB LINE AT THE NORTHEAST CORNER OF CARSON STREET AND LAKEWOOD BOULEVARD

ELEVATION = 41.511 FEET ADJUSTMENT= 1971 (NAVD88)

HORIZONTAL CONTROL:

LOCALIZED DATUM BASED UPON NORTH AMERICAN DATUM OF 1983 (NAD 83) AFTER BEING REDUCED TO GROUND COORDINATED

PLANE CONTROL:

LOCALIZED SYSTEM BASED UPON CALIFORNIA COORDINATE SYSTEM (CCS) 83, ZONE 5 REDUCED TO GROUND COORDINATES.

VERTICAL CONTROL:

NATIONAL GEODETIC VERTICAL DATUM OF 1929 (NGVD 29)

SIGNAGE AND STIPING NOTES:

1. DIMENSIONS SHOWN ARE TO FACE OF CURB, FACE OF BUILDING AND FACE OF WALL.
2. REFERENCE ARCHITECTURAL PLANS FOR ADDITIONAL DIMENSIONS AND HARDSCAPE LAYOUT.
3. GRID LINES SHOWN ARE REFERENCED FROM ARCHITECTURAL PLANS.
4. REFERENCE ARCHITECTURAL PLANS FOR CONCRETE COLOR.
5. TRAFFIC STRIPING, PAVEMENT MARKINGS AND RAISED PAVEMENT MARKERS SHALL BE PER STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION STANDARD PLANS AND SPECIFICATIONS, CURRENT EDITION.
6. ALL TRAFFIC STRIPING AND PAVEMENT MARKINGS SHALL BE PAINTED WITH 2 COATS UNLESS OTHERWISE NOTED.
7. ALL SIGNS SHALL BE PER STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATION AND CALIFORNIA MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (CAMUTCD), CURRENT EDITION.
8. REMOVAL OF ALL CONFLICTING STRIPING AND MARKINGS SHALL BE BY WET SANDBLASTING.
9. ALL PARKING LOT STRIPING SHALL BE 4" WHITE PAINT UNLESS OTHERWISE NOTED.
10. LANE WIDTHS SHALL BE MEASURED BETWEEN THE CENTERLINES OF EACH ADJACENT SINGLE OR DOUBLE STRIPE OR TOP OF CURB AS APPROPRIATE.
11. STRIPING SHALL BE MARKED AND APPROVED BY THE FIELD ENGINEER PRIOR TO FINAL INSTALLATION.
12. COORDINATE LOCATION OF SIGNAGE WITH LOCATIONS OF TREES AND PLANTING TO ENSURE VISIBILITY.

Know what's below. Call before you dig.

20' 10' 0' 20' 40'
GRAPHIC SCALE
SCALE: 1" = 20'

LINE TABLE		
LINE #	LENGTH	BEARING
L12	19.91'	N0° 00' 00.00"E
L13	47.26'	N90° 00' 00.00"W
L14	68.84'	N0° 00' 17.31"W
L15	283.05'	N90° 00' 00.00"W
L16	19.91'	N0° 00' 00.00"E
L18	10.66'	N90° 00' 00.00"W
L13	47.26'	N90° 00' 00.00"W
L18	147.78'	N0° 00' 00.00"E
L14	68.84'	N0° 00' 17.31"W
L21	148.75'	N0° 01' 45.31"E
L15	283.05'	N90° 00' 00.00"W
L21	21.96'	N0° 03' 15.71"E
L16	10.99'	N90° 00' 00.00"W
L22	269.51'	S89° 59' 42.89"W
L19	147.78'	N0° 00' 00.00"E
L23	58.03'	S44° 58' 41.20"W
L20	148.73'	N0° 01' 45.31"E
L24	28.08'	S0° 01' 35.64"W
L21	21.96'	N0° 03' 15.71"E
L25	34.75'	N89° 46' 16.13"W
L22	269.51'	S89° 59' 42.89"W

CURVE TABLE				
CURVE#	LENGTH (FT.)	RADIUS (FT.)	DELTA	TANGENT (FT.)
C32	3.05	6.00	29°07'10"	1.56
C33	7.38	6.00	70°29'00"	4.24
C34	23.56	15.00	90°00'00"	15.00
C35	78.33	50.01	89°44'40"	49.78

STATE:

ARCHITECT:
architecture
westbergwhite
14471 CHAMBERS RD, SUITE 210
TUSTIN, CA 92780
(714) 508-1780 508-1790 FAX

CONSULTANT:
PSOMAS
555 South Flower Street, Suite 4300
Los Angeles, CA 90071
Tel. (213) 223-1400 Fax (213) 223-1444

REGISTERED PROFESSIONAL ENGINEER ALISEN J. NEVAND No. C69927 CIVIL STATE OF CALIFORNIA

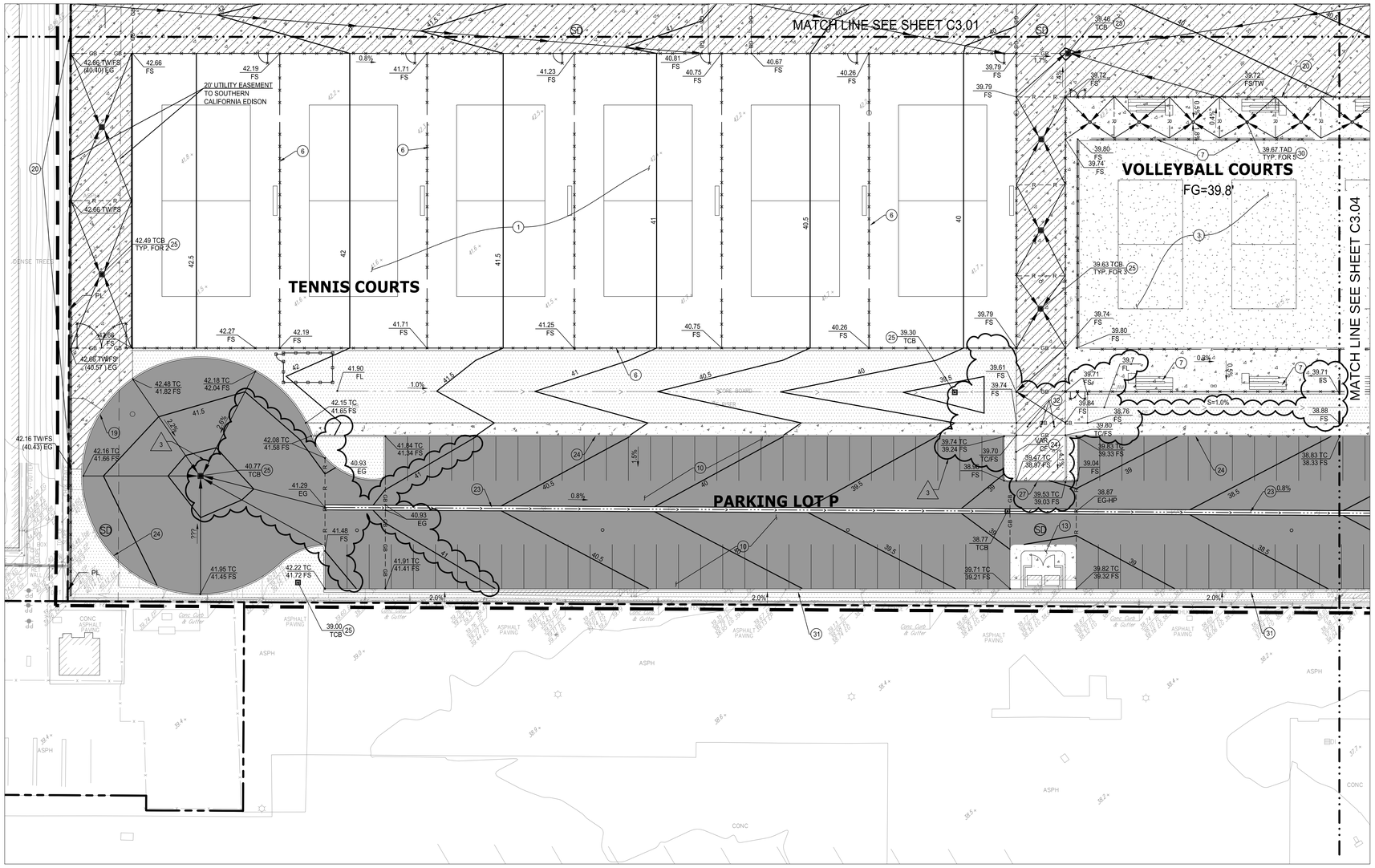
PROJECT NAME:
LIBERAL ARTS CAMPUS
KINESIOLOGY LABS and AQUATIC CENTER
4901 EAST CARSON STREET
LONG BEACH, CA 90806

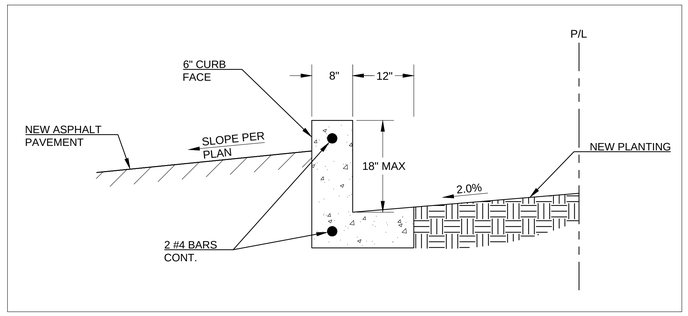
CLIENT:
LONG BEACH CITY COLLEGE
4901 EAST CARSON STREET
LONG BEACH, CA 90806

Rev.	Date	Description
1	11/07/19	Addendum 1
3	12/16/19	Addendum 3

JOB NO: 1WES380201
DATE: 09/18/19
DRAWN: AS
CHECK: AW
ARCHITECT:
ENGINEER:
SHEET DESCRIPTION:
HORIZONTAL CONTROL AND STRIPING PLAN
SHEET NO:
C2.05 3

Plotted: 12/16/2019 8:52:20 AM :: Saved: 12/16/2019 8:51:41 AM :: w:\1WES680201\ENGR\SHEETS\C2.05.dwg :: hynna.agustin





1 | 18" CONCRETE CURB AND 12" GUTTER DETAIL

C3.03 | REF. HEREON | SCALE: NTS

CONSTRUCTION NOTES:

- CONSTRUCT
- EXISTING TO REMAIN -PROTECT IN PLACE
- EXISTING TO REMOVE
- REMOVE & RELOCATE
- ADJUST TO GRADE
- WORK BY OTHERS

1. TENNIS COURT PER ARCHITECTURAL DESIGN
2. SYNTHETIC TURF PER ARCHITECTURAL PLAN
3. VOLLEYBALL FIELD PER ARCHITECTURAL PLAN
4. AQUATIC CENTER PER ARCHITECTURAL PLAN
5. BUILDING PER ARCHITECTURAL PLAN
6. FENCE PER ARCHITECTURAL PLAN
7. BLEACHERS PER ARCHITECTURAL PLAN
8. LANDSCAPE AREA
9. CONCRETE CURB AND GUTTER PER SPPWC STD. PLAN 120-2
10. ASPHALT PAVEMENT PER DETAIL 3/SHEET C9.01
11. INSTALL FILTER IN EXISTING CATCH BASIN
12. BENCH PER ARCHITECTURAL PLAN
13. CONCRETE PAVEMENT PER DETAIL 4/SHEET C9.01. REFERENCE ARCHITECTURAL PLANS FOR CONCRETE COLOR AND FINISH.
14. STAIRS PER ARCHITECTURAL PLAN
15. HEAVY DUTY CONCRETE PER DETAIL 2/SHEET C9.01
16. TRUNCATED DOMES PER ARCHITECTURAL DETAIL
17. TERRACED SEATING PER ARCHITECTURAL PLAN
18. SOFTBALL FIELD PER ARCHITECTURAL PLAN
19. 6" ROLLED CURB PER DETAIL 1/ SHEET F002
20. FENCE ON CURB DETAIL 5/SHEETC9.03
21. SCOREBOARD
22. DRIVEWAY APPROACH PER CITY OF LONG BEACH STANDARD PLAN, SEE DETAIL HEREON.
23. LONGITUDINAL GUTTER PER SPPWC STD PLAN 122-2
24. 6" CURB PER SPPWC STD PLAN 120-2
25. 24" X 24" CATCH BASIN PER BROOKS 2424CB OR EQUAL WITH PEDESTRIAN RATED GRATE. INSTALL FILTER PER DETAIL 9/C9.01
26. RAMP PER ARCHITECTURAL PLAN
27. 0" CURB
28. PARKWAY DRAIN. SEE CORRESPONDING UTILITIES PLAN.
29. NYLOPLAST BASIN PER DETAIL 2/SHEET C9.03
30. AREA DRAIN
31. 18" CONCRETE CURB AND 12" GUTTER PER DETAIL 2/SHEET C9.01 1/SHEETC3.03
32. REMOVABLE BOLLARDS SEE DETAIL 1/ SHEET A008

LEGEND:

- LIMITS OF CIVIL WORK
- PROPERTY LINE
- OVERHANG
- PROPOSED BUILDING
- EXISTING CONTOURS
- 40 — PROPOSED 1 FT CONTOURS
- 40.5 — PROPOSED 0.5 FT CONTOURS
- FLOW LINE
- FLOW PATH
- R — R — R — RIDGE LINE
- SAWCUT LINE
- CONCRETE PAVEMENT* PER DETAIL 4/ SHEET C9.01
- ASPHALT PAVEMENT PER DETAIL 3/ SHEET C9.01
- SYNTHETIC TURF AREA PER ARCHITECTURAL PLANS
- LANDSCAPE AREA PER LANDSCAPE PLANS
- HEAVY DUTY CONCRETE PAVEMENT* PER DETAIL 2/ SHEET C9.01
- DECOMPOSED GRANITE PER LANDSCAPE PLANS
- CRUSHED ROCK PER ARCHITECTURAL PLANS
- CLAY PITCHER AREA PER ARCHITECTURAL PLANS

Know what's below. Call before you dig.

NOTES:

1. ALL EXISTING UTILITY STRUCTURES TO REMAIN SHALL BE ADJUSTED TO MATCH NEW GRADE. PROVIDE PEDESTRIAN AND TRAFFIC RATED RIMS, COVERS, AND GRATES FOR RELOCATED OR ADJUSTED UTILITY STRUCTURES. PEDESTRIAN RATED GRATES SHALL BE PER 2013 CBC 11B - 302.3

20' 10' 0' 20' 40'

GRAPHIC SCALE

SCALE: 1" = 20'

STATE:

ARCHITECT:

architecture
westbergwhite
14471 CHAMBERS RD, SUITE 210
TUSTIN, CA 92780
(714) 508-1780 508-1790 FAX

CONSULTANT:

PSOMAS
555 South Flower Street, Suite 4300
Los Angeles, CA 90071
Tel. (213) 223-1400 Fax (213) 223-1444

REGISTERED PROFESSIONAL ENGINEER ALYSON J. WETLAND No. C69927 CIVIL STATE OF CALIFORNIA

PROJECT NAME:

LIBERAL ARTS CAMPUS
KINESIOLOGY LABS and AQUATIC CENTER
4901 EAST CARSON STREET
LONG BEACH, CA 90806

CLIENT:

LONG BEACH CITY COLLEGE
4901 EAST CARSON STREET
LONG BEACH, CA 90806

Rev.	Date	Description
1	12/16/19	Addendum 3

JOB NO: tWES380201
DATE: 09/18/19
DRAWN: AS
CHECK: AW
ARCHITECT:
ENGINEER:

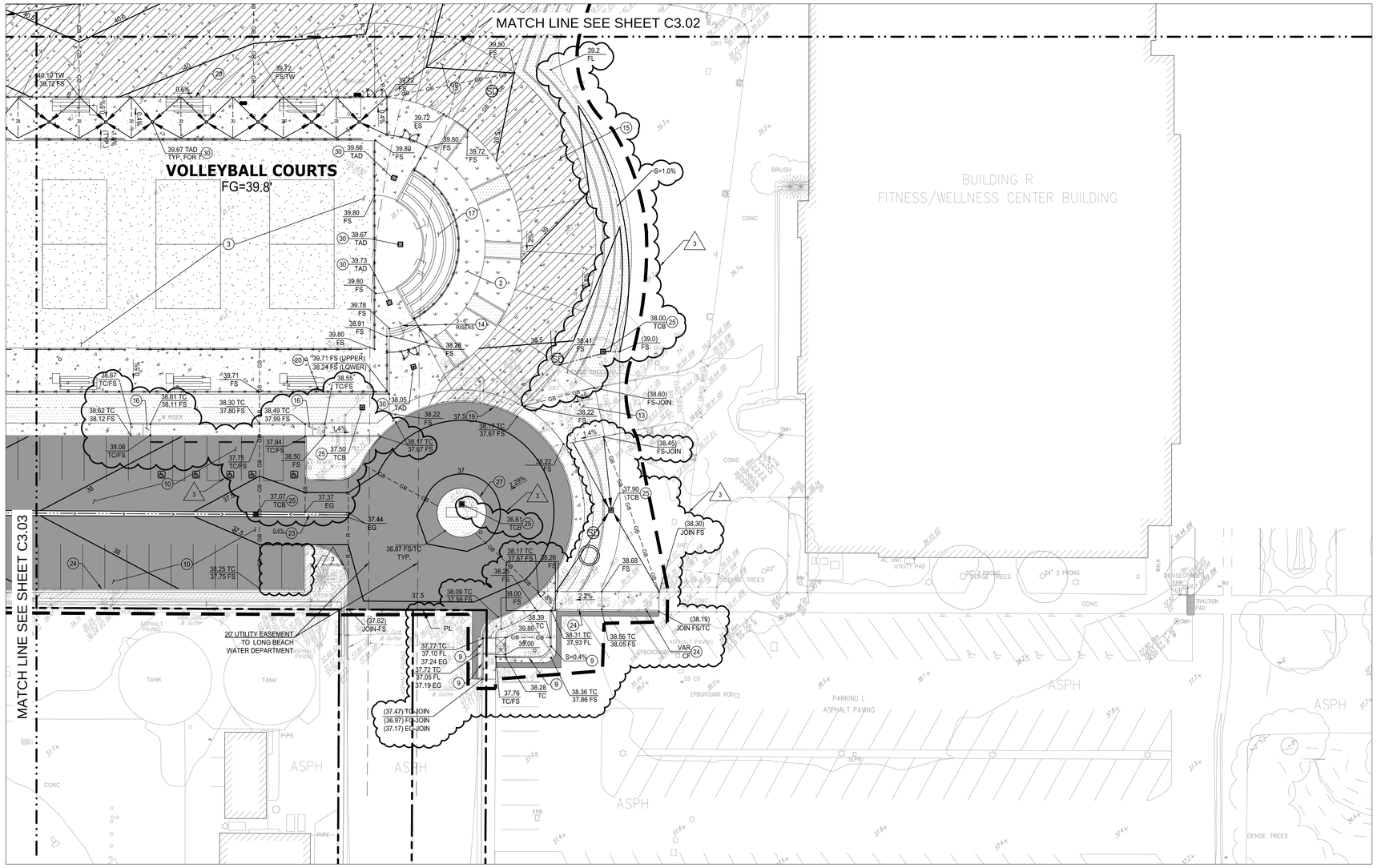
SHEET DESCRIPTION:

GRADING PLAN

SHEET NO:

C3.03 3

Plotted – 12/16/2019 8:40:44 AM :: Saved – 12/16/2019 8:40:25 AM :: W:\tWES380201\ENGR\SHEETS\C3.03.dwg :: hynno.agustin



CONSTRUCTION NOTES:

- CONSTRUCT
- EXISTING TO REMAIN -PROTECT IN PLACE
- EXISTING TO REMOVE
- REMOVE & RELOCATE
- ADJUST TO GRADE
- WORK BY OTHERS

1. TENNIS COURT PER ARCHITECTURAL DESIGN
2. SYNTHETIC TURF PER ARCHITECTURAL PLAN
3. VOLLEYBALL FIELD PER ARCHITECTURAL PLAN
4. AQUATIC CENTER PER ARCHITECTURAL PLAN
5. BUILDING PER ARCHITECTURAL PLAN
6. FENCE PER ARCHITECTURAL PLAN
7. BLEACHERS PER ARCHITECTURAL PLAN
8. LANDSCAPE AREA
9. CONCRETE CURB AND GUTTER PER SPPWC STD. PLAN 120-2
10. ASPHALT PAVEMENT PER DETAIL 3/SHEET C9.01
11. INSTALL FILTER IN EXISTING CATCH BASIN
12. BENCH PER ARCHITECTURAL PLAN
13. CONCRETE PAVEMENT PER DETAIL 4/SHEET C9.01, REFERENCE ARCHITECTURAL PLANS FOR CONCRETE COLOR AND FINISH.
14. STAIRS PER ARCHITECTURAL PLAN
15. HEAVY DUTY CONCRETE PER DETAIL 2/SHEET C9.01
16. TRUNCATED DOMES PER ARCHITECTURAL DETAIL
17. TERRACED SEATING PER ARCHITECTURAL PLAN
18. SOFTBALL FIELD PER ARCHITECTURAL PLAN
19. 6" ROLLED CURB PER DETAIL 1/ SHEET F002
20. FENCE ON CURB DETAIL 5/SHEETC9.03
21. SCOREBOARD
22. DRIVEWAY APPROACH PER CITY OF LONG BEACH STANDARD PLAN. SEE DETAIL HEREON.
23. LONGITUDINAL GUTTER PER SPPWC STD PLAN 122-2
24. 6" CURB PER SPPWC STD PLAN 120-2
25. 24" X 24" CATCH BASIN PER BROOKS 2424CB OR EQUAL WITH PEDESTRIAN RATED GRATE, INSTALL FILTER PER DETAIL 9/C9.01
26. RAMP PER ARCHITECTURAL PLAN
27. 6" CURB
28. PARKWAY DRAIN. SEE CORRESPONDING UTILITIES PLAN.
29. NYLOPLAST BASIN PER DETAIL 2/SHEET C9.03
30. AREA DRAIN
31. 18" CONCRETE CURB AND 12" GUTTER PER DETAIL 1/SHEETC3.03
32. REMOVABLE BOLLARDS SEE DETAIL 1/ SHEET A008

LEGEND:

- LIMITS OF CIVIL WORK
- PROPERTY LINE
- OVERHANG
- PROPOSED BUILDING
- EXISTING CONTOURS
- PROPOSED 1 FT CONTOURS
- PROPOSED 0.5 FT CONTOURS
- FLOW LINE
- FLOW PATH
- RIDGE LINE
- SAWCUT LINE
- CONCRETE PAVEMENT* PER DETAIL 4/ SHEET C9.01
- ASPHALT PAVEMENT PER DETAIL 3/ SHEET C9.01
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- LANDSCAPE AREA PER LANDSCAPE PLANS
- HEAVY DUTY CONCRETE PAVEMENT* PER DETAIL 2/ SHEET C9.01
- DECOMPOSED GRANITE PER LANDSCAPE PLANS
- CRUSHED ROCK PER ARCHITECTURAL PLANS
- CLAY PITCHER AREA PER ARCHITECTURAL PLANS

811 Know what's below. Call before you dig.

NOTES:

1. ALL EXISTING UTILITY STRUCTURES TO REMAIN SHALL BE ADJUSTED TO MATCH NEW GRADE. PROVIDE PEDESTRIAN AND TRAFFIC RATED RIMS, COVERS, AND GRATES FOR RELOCATED OR ADJUSTED UTILITY STRUCTURES. PEDESTRIAN RATED GRATES SHALL BE PER 2013 CBC 11B - 302.3

20' 10' 0' 20' 40'
GRAPHIC SCALE
SCALE: 1" = 20'

STATE:

ARCHITECT:
architecture
westbergwhite
14471 CHAMBERS RD, SUITE 210
TUSTIN, CA 92780
(714) 508-1780 508-1790 FAX

CONSULTANT:
PSOMAS
555 South Flower Street, Suite 4300
Los Angeles, CA 90071
Tel. (213) 223-1400 Fax (213) 223-1444

REGISTERED PROFESSIONAL ENGINEER ALICEN J. METZAD No. C69927 CIVIL STATE OF CALIFORNIA

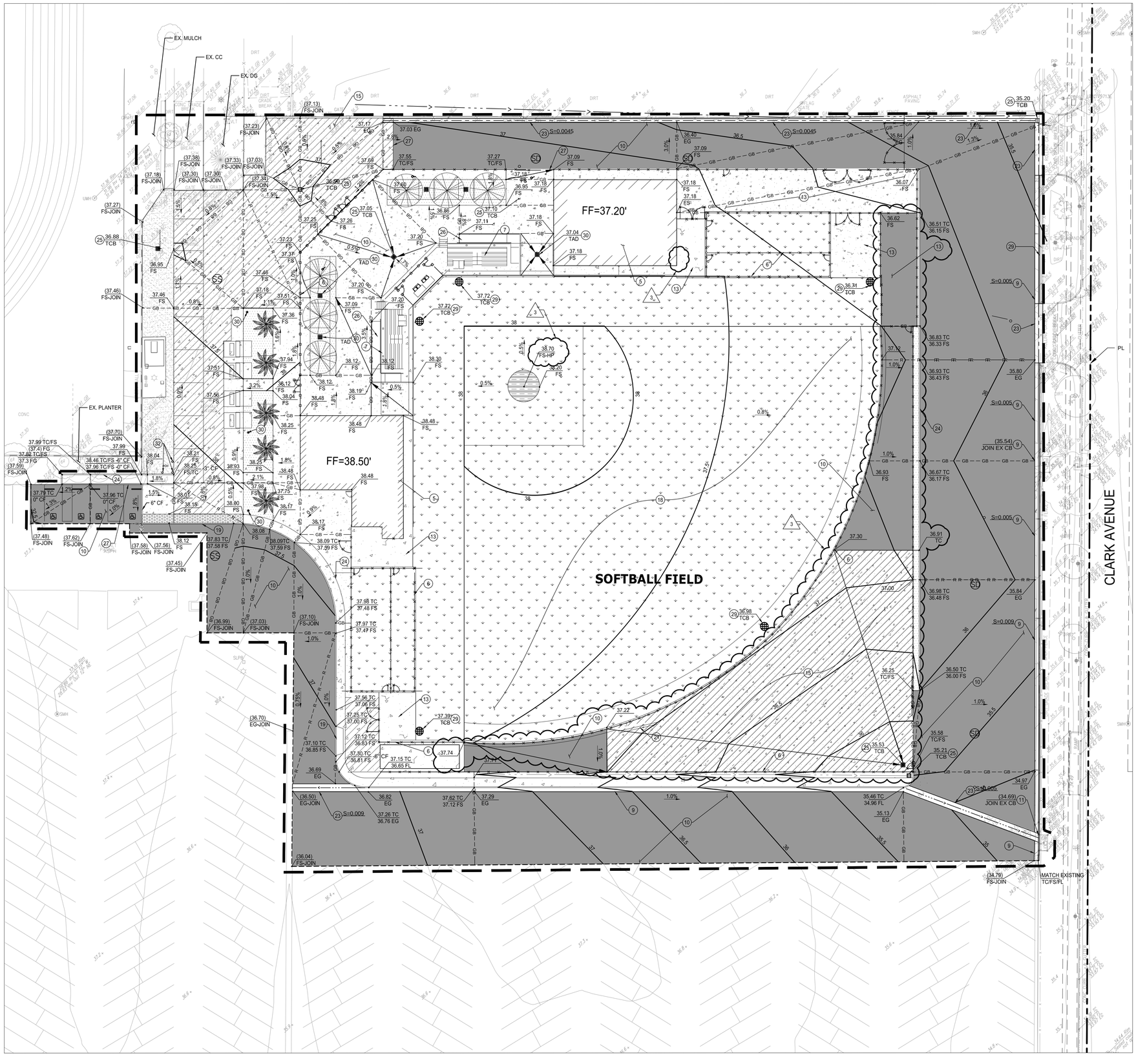
PROJECT NAME:
LIBERAL ARTS CAMPUS
KINESIOLOGY LABS and AQUATIC CENTER
4901 EAST CARSON STREET
LONG BEACH, CA 90806

CLIENT:
LONG BEACH CITY COLLEGE
4901 EAST CARSON STREET
LONG BEACH, CA 90806

Rev.	Date	Description
2	12/5/19	Addendum 2
3	12/16/19	Addendum 3

JOB NO: 1WES380201
DATE: 09/18/19
DRAWN: AS
CHECK: AW
ARCHITECT:
ENGINEER:
SHEET DESCRIPTION:
GRADING PLAN
SHEET NO:
C3.04 3

Plotted — 12/16/2019 8:59:24 AM :: Saved — 12/16/2019 8:59:01 AM :: W:\1WES380201\ENGR\SHEETS\c3.04.dwg :: hymo.agustin



CONSTRUCTION NOTES:

- CONSTRUCT
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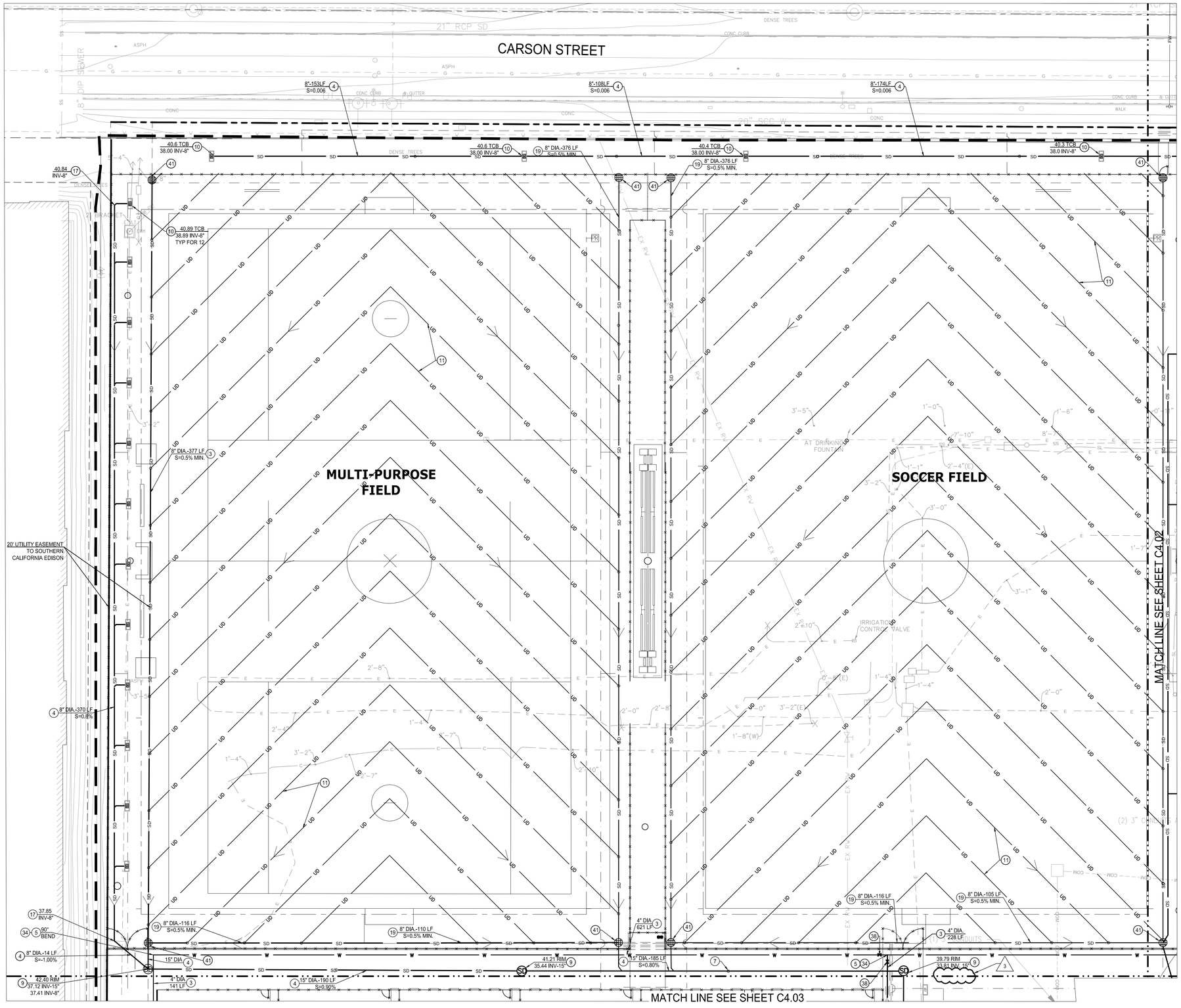
Rev.	Date	Description
1	1/10/19	Addendum 1
3	12/16/19	Addendum 3

JOB NO: 1WES380201
DATE: 09/18/19
DRAWN: AS
CHECK: AW
ARCHITECT:
ENGINEER:

SHEET DESCRIPTION:
GRADING PLAN

SHEET NO:
C3.05
3

Plotted: 12/16/2019 8:40:05 AM :: Saved: 12/16/2019 8:39:49 AM :: W:\1WES682201\ENGR\SHEETS\C3.05.dwg :: hynna.agustin



CONSTRUCTION NOTES:

- CONSTRUCT
- EXISTING TO REMAIN -PROTECT IN PLACE
- EXISTING TO REMOVE
- REMOVE & RELOCATE
- ADJUST TO GRADE
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1. SANITARY SEWER LINE PVC (SDR 35)/ SIZE, LEGNTH, AND SLOPE PER PLAN. PIPE BEDDING AND TRENCH PER DETAIL 6/SHEET C9.01.
2. FIRE WATER SERVICE LINE (PVC C-900, CL 200) PIPE SIZE AND LENGTH PER PLAN.
3. WATER LINE, (PVC C-900, CL 200), SIZE AND LENGTH PER PLAN. PIPE BEDDING AND TRENCH PER DETAIL 6/SHEET C9.01.
4. STORM DRAIN LINE-PVC (SDR 35) . SIZE, LENGTH, AND SLOPE PER PLAN. PIPE BEDDING AND TRENCH PER DETAIL 6/SHEET C9.01.
5. INSTALL DUCTILE IRON MECHANICAL JOINT FITTING, CLASS 350 RATED WORKING PRESSURE PER AWWA STANDARD C110. SIZE PER ADJOINING PIPE AND TYPE PER PLAN. PROTECT WITH PETROLEUM WAX TAPE PER AWWA STANDARD C217.09, PETROLATUM AND PETROLEUM WAX TAPE COATING FOR THE EXTERIOR OF CONNECTIONS AND FITTINGS FOR STEEL WATER PIPELINES.
6. CONNECT TO EXISTING WATER LINE. CONTRACTOR TO FIELD VERIFY LOCATION, DEPTH, SIZE , AND CONDITION PRIOR TO CONSTRUCTION. *SEE NOTE 24 HEREON.
7. CLEANOUT PER SPPWC STD. PLAN 321-2.
8. PLUMBING CONNECTION. SEE PLUMBING PLANS FOR CONTINUATION.
9. STORM DRAIN MANHOLE PER SPPWC STD. PLAN 312-2.
10. CATCH BASIN PER GRADING PLAN
11. 1"X12" FLAT DRAIN PER DETAIL 6/SHEET C-9.03.
12. STUB OUT FOR HOSEBIB.
13. FIRE HYDRANT PER DETAIL 1/SHEET C9.01.
14. SADDLE CONNECTION PER SPPWC STD. PLAN 340-2.
15. DOMESTIC WATER METER , HOT TAP AND SERVICE LATERAL TO BE INSTALLED BY LBWD. *SEE NOTE 24 HEREON.
16. CONNECT TO EXISTING SANITARY SEWER. CONTRACTOR TO FIELD VERIFY LOCATION, DEPTH, SIZE , AND CONDITION PRIOR TO CONSTRUCTION.
17. PVC FITTING (SDR 35). TYPE PER PLAN, SIZE PER ADJOINING PIPE.
18. SANITARY SEWER MANHOLE PER SPPWC STD. PLAN 200-3.
19. TURF SUBDRAIN PER PER DETAIL 1/SHEET C-9.03.
20. UTILITY CROSSING PER DETAIL 5/SHEET C-9.01.
21. CONTECH INLINE CDS UNIT PER DETAIL 2/SHEETC9.02. VOLUME=30,700 CF, Q=2.47 CFS.
22. STORM DRAIN LINE- RCP. SIZE, LENGTH, AND SLOPE PER PLAN. D LOAD=2000.
23. PARKWAY DRAIN PER SPPWC STD 151-2, S=72".
24. FIRE DEPARTMENT CONNECTION (FDC) PER DETAIL 1/C9.02.
25. DOUBLE DETECTOR CHECK VALVE ASSEMBLY. SIZE PER ADJOINING PIPE. INCLUDE OS&Y WITH TAMPER SWITCH. AMES 4000SS 0R EQUAL PER DETAIL 5/ SHEET C9.04.
26. PIPE CONNECTION TO EXISTING STORM DRAIN PER SPPWC STD PLAN 335-2.
27. NOT USED.
28. HOSE BIB.
29. 20'x20'x14' DEEP JENSEN PRECAST DETENTION RESERVOIR WITH MANHOLE COVER. INSTALL STORM DRAIN SUMP PUMP PER DETAIL 3/C9.02
30. STUB OUT FOR FIELD COOLING. SEE LANDSCAPE PLANS FOR CONTINUATION.
31. 4" PERFORATED STORM DRAIN HDPE PIPE PER ARCH PLAN.
32. ABANDONED IN PLACE EXISTING UTILITY PIPE. CONTRACTOR SHALL CUT AND CAP. FILL WITH SLURRY.
33. REDUCED PRESSURE PRINCIPLE BACKFLOW PREVENTOR.
34. THRUST BLOCK PER DETAIL 8/SHEET C9.01.
35. CONTECH INLINE CDS UNIT PER DETAIL 4/C9.02. VOLUME=9390 CF, Q=0.62 CFS.
36. CONNECT TO EXISTING CATCH BASIN.
37. FIRE HYDRANT AND VALVE PER DETAIL 1/ SHEET C9.01.
38. GATE VALVE PER DETAIL 7/SHEET C9.01.
39. POST INDICATOR VALVE
40. FIRE HYDRANT, SERVICE LATERAL, AND HOT TAP TO BE INSTALLED BY LONG BEACH WATER DEPARTMENT.
41. NYOPLAST BASIN PER GRADING PLAN AND DETAIL 2/SHEET C9.03.
42. REPLACE IN KIND AREAS IMPACTED BY TRENCH OUTSIDE LIMITS OF WORK.
43. AREA DRAIN PER GRADING PLAN.
44. TRANSITION STRUCTURE PER SPPWC STD PLAN 340-2.
45. CHECK VALVE (FLANGED AWWA SWING CHECK VALVE, MANUFACTURED BY SMITH-COOPER; OR APPROVED EQUIVALENT). SIZE PER ADJOINING PIPE.

LEGEND:

- LIMITS OF CIVIL WORK
- PROPERTY LINE
- LONG BEACH CITY WATER LINE EASEMENT
- FLOW LINE
- W — PROPOSED WATER LINE
- FW — PROPOSED FIRE WATER LINE
- SS — PROPOSED SANITARY SEWER LINE
- SD — PROPOSED STORM DRAIN LINE
- UD — PROPOSED UNDER DRAIN PERFORATED PIPE
- SD — EXISTING STORM DRAIN
- W — EXISTING WATER
- SS — EXISTING SANITARY SEWER
- POINT OF CONNECTION
- PROPOSED STORM DRAIN MANHOLE
- PROPOSED SANITARY SEWER MANHOLE
- PROPOSED CATCH BASIN
- PROPOSED FIRE DEPARTMENT CONNECTION
- PROPOSED POST INDICATOR VALVE
- PROPOSED DOUBLE DETECTOR CHECK VALVE
- PROPOSED FIRE HYDRANT

20' 10' 0' 20' 40'
GRAPHIC SCALE
SCALE: 1" = 20'

Know what's below. Call before you dig.

NOTES:

1. REFERENCE MECHANICAL, ELECTRICAL AND TELECOMMUNICATION PLANS FOR DEMOLITION OF M, E, & T UTILITIES AND STRUCTURE.
2. CONTRACTOR SHALL VERIFY LOCATION AND DEPTH OF EXISTING PIPE PRIOR TO CONSTRUCTION. CONTRACTOR SHALL COORDINATE WITH COLLEGE PRIOR TO CONNECTION.
3. UTILITY LINES TO BE REMOVED, SHALL BE REMOVED IN THEIR ENTIRETY AND PROPERLY DISPOSED OF.\
4. EXISTING UNDERGROUND UTILITIES AND IMPROVEMENTS ARE SHOWN IN THEIR APPROXIMATE LOCATIONS BASED UPON RECORD INFORMATION AVAILABLE AT THE TIME OF PREPARATION OF PLANS. NO GUARANTEE IS MADE AS TO THE ACCURACY OR COMPLETENESS OF THE INFORMATION SHOWN. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE EXISTENCE AND/OR LOCATION OF THOSE UTILITIES SHOWN ON THESE PLANS. ANY ADDITIONAL COSTS INCURRED AS A RESULT OF CONTRACTOR'S FAILURE TO VERIFY LOCATIONS OF EXISTING UTILITIES PRIOR TO BEGINNING OF CONSTRUCTION IN THEIR VICINITY SHALL BE BORNE BY THE CONTRACTOR AND ASSUMED INCLUDED IN THE CONTRACT.
5. PRIOR TO INSTALLATION, ALL PLANS AND SPECIFICATIONS SHALL BE APPROVED BY DSA. REFER TO DSA IR A-25 FOR DESIGN, INSTALLATION, AND MAINTENANCE GENERAL REQUIREMENTS.
6. INSPECTIONS ARE REQUIRED: 1) PRIOR TO THRUST BLOCKS, 2) FOR HYDROSTATIC TESTING, AND 3) FOR FLUSH.
7. INSTALLATION, INSPECTION, AND TESTING SHALL CONFORM TO 2016 EDITIONS CFC, NFPA 13, AND NFPA 24.
8. PRIVATE FIRE HYDRANTS SHALL BE APPROVED WET BARREL STYLE WITH A MINIMUM OF ONE 2 ½ " AND ONE 4" OUTLET. THE 4" OUTLET SHALL FACE THE FIRE DEPARTMENT ACCESS ROAD. ALL OUTLETS SHALL BE PROVIDED WITH NATIONAL STANDARDS THREADS (NST). NFPA 24, 7.1.1.2.
9. FIRE HYDRANTS SUPPLY PIPING SHALL BE MINIMUM OF SIX INCHES IN DIAMETER. THE CENTER OF THE HOSE OUTLETS SHALL BE NOT LESS THAN 18" ABOVE FINAL GRADE OR, WHERE LOCATED IN A HOSE HOUSE, 12" ABOVE THE FLOOR. NFPA 21. 7.1.1 AND 7.3.3.
10. FIRE HYDRANTS SHALL BE MINIMUM OF 40 FEET FROM ALL STRUCTURES. NFPA 24, 7.2.3.
11. A KEYED GATE VALVE SHALL BE PROVIDED FOR EACH HYDRANT IN AN ACCESSIBLE LOCATION. VALVES SHALL NOT BE LOCATED IN PARKING STALLS. NFPA 24, 7.1.1.1.
12. ALL PIPING SHALL BE LISTED FOR USE IN FIRE PROTECTION SERVICE AND COMPLY WITH AWWA STANDARDS (CLASS 150 MIN.) CLASS 200 PIPE SHALL BE USED WHERE THE PRESSURE MAY EXCEED 150 PSI. NFPA 24, 10.1.1.
13. ALL BOLTED JOINTS SHALL BE CLEANED AND THOROUGHLY COATED WITH ASPHALT OR OTHER CORROSION RETARDING MATERIAL AFTER INSTALLATION. NFPA 24 10.4.1.1.
14. BACKFILL SHALL BE WELL TAMPED LAYERS TO CONSIST OF 6" MINIMUM BED OF CLEAN FILL SAND OR PEA GRAVEL BELOW AND 12" ABOVE THE PIPE (TOTAL 18" MIN.) NFPA 24, 10.9.1.
15. FITTINGS SHALL BE OF AN APPROVED TYPE. NFPA 24, 10.2.1.
16. A MINIMUM OF 30" OF COVER, FROM FINISH GRADE TO THE TOP OF THE PIPE, SHALL BE PROVIDED. WHEN SURFACE LOADS ARE EXPECTED, A MINIMUM OF 36" COVER SHALL BE PROVIDED. NFPA 24, 10.4.2.2.2 AND 10.3.
17. THRUST BLOCKS, OR OTHER APPROVED METHOD OF THRUST RESTRAINT, SHALL BE PROVIDED WHEREVER PIPE CHANGE DIRECTION. BACK-FILL BETWEEN THE JOINTS TO PREVENT MOVEMENT OF THE PIPE. PROVIDE DETAILS AND CALCULATIONS FOR SIZING THRUST BLOCKS BASE ON ACTUAL SOIL CONDITIONS. NFPA 24, 10.6.
18. A HYDROSTATIC TEST (200 PSI FOR TWO HOURS OR 50 PSI OVER MAXIMUM STATIC PRESSURE. WHICHEVER IS GREATER) SHALL BE PERFORMED. NFPA 24, 10.10.2.2.1.
19. THE SYSTEM SHALL BE THOROUGHLY FLUSHED BEFORE CONNECTION IS MADE TO OVERHEAD PIPING. FLOW SHALL BE THROUGH A MINIMUM 4" HOSE OF PIPE. NFPA 24, 10.10.2.1.
20. ALL CONTROL VALVES SHALL BE LOCKED IN THE OPEN POSITION. VALVES SHALL BE MONITORED IF THEY SERVE 6 OR MORE SPRINKLER HEADS. CBC/CFC 903.4
21. ALL CONTROL VALVES SHALL LISTED INDICATING TYPE UNLESS A NON-INDICATING VALVE, SUCH AS AN UNDERGROUND GATE VALVE WITH APPROVED ROADWAY BOX COMPLETE WITH T-WRENCH, IS ACCEPTABLE TO AUTHORITY HAVING JURISDICTION (AHJ). NFPA 24, 6.1.1.
22. POST INDICATING VALVES (PIV)SHALL BE TESTED TO INSURE THE THE "TARGETS" (OPEN, CLOSED) ARE CLEARLY IDENTIFIED WHEN VALVE IS OPENED AND CLOSED. NFPA 24, 10.10.1 AND 14.1.
23. TESTS SHALL BE MADE BY THE INSTALLING CONTRACTOR IN THE PRESENCE OF THE (AHJ). PROVIDE A COMPLETED CONTRACTOR'S MATERIAL AND TEST CERTIFICATE FOR UNDERGROUND PIPING TO DSA. NFPA 24, 10.10, 14.1, AND CFC 901.5 AND 6.
24. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING WITH LBWD AND PAYING FOR NEW WATER SERVICE CONNECTIONS. REQUIRED ENGINEERING EXHIBITS WILL BE PROVIDED BY THE ENGINEER.

STATE:

ARCHITECT:
architecture
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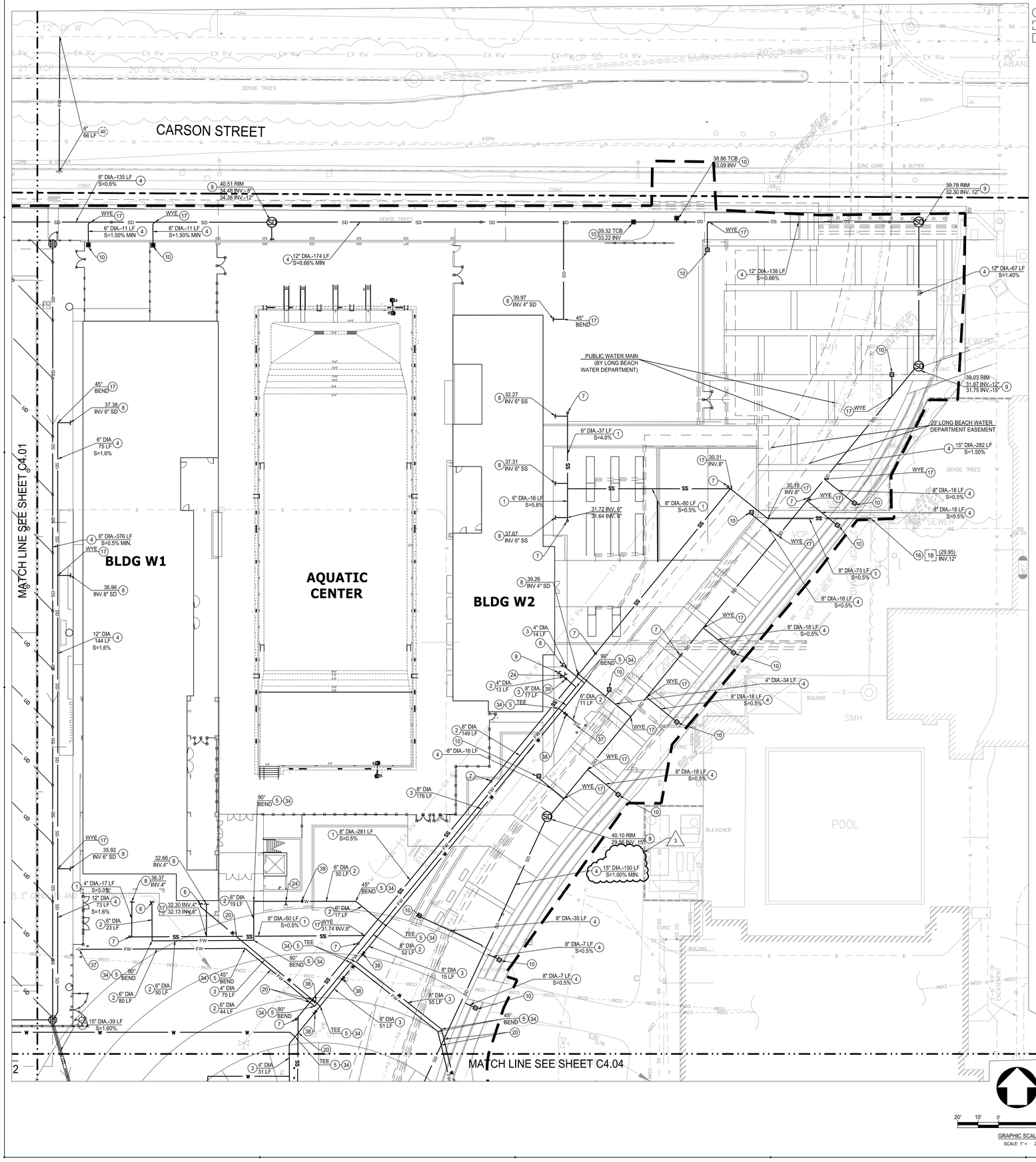
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	Rev. Date	Description
1	11/07/19	Addendum 1
2	12/16/19	Addendum 3

JOB NO: 1WES380201
DATE: 09/18/19
DRAWN: AS
CHECK: AW
ARCHITECT:
ENGINEER:
SHEET DESCRIPTION:
CIVIL UTILITY PLAN
SHEET NO: C4.01 3

Plotted :: 12/16/2019 9:14:27 AM :: Saved :: 12/16/2019 9:06:04 AM :: w:\1WES680201\ENGR\SHEETS\C4.01 .dwg :: emma.harrison



CONSTRUCT
EXISTING TO REMAIN -PROTECT IN PLACE
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27. NOT USED.
28. HOSE BIB.
29. 20'x20'x14' DEEP JENSEN PRECAST DETENTION RESERVOIR WITH MANHOLE COVER. INSTALL STORM DRAIN SUMP PUMP PER DETAIL 3/C9.02
30. STUB OUT FOR FIELD COOLING. SEE LANDSCAPE PLANS FOR CONTINUATION.
31. 4" PERFORATED STORM DRAIN HDPE PIPE PER ARCH PLAN.
32. ABANDONED IN PLACE EXISTING UTILITY PIPE. CONTRACTOR SHALL CUT AND CAP. FILL WITH SLURRY.
33. REDUCED PRESSURE PRINCIPLE BACKFLOW PREVENTOR.
34. THRUST BLOCK PER DETAIL 8/SHEET C9.01.
35. CONTECH INLINE CDS UNIT PER DETAIL 4/C9.02. VOLUME=9390 CF, Q=0.62 CFS.
36. CONNECT TO EXISTING CATCH BASIN.
37. FIRE HYDRANT AND VALVE PER DETAIL 1/ SHEET C9.01.
38. GATE VALVE PER DETAIL 7/SHEET C9.01.
39. POST INDICATOR VALVE
40. FIRE HYDRANT, SERVICE LATERAL, AND HOT TAP TO BE INSTALLED BY LONG BEACH WATER DEPARTMENT.
41. NYOPLAST BASIN PER GRADING PLAN AND DETAIL 2/SHEET C9.03.
42. REPLACE IN KIND AREAS IMPACTED BY TRENCH OUTSIDE LIMITS OF WORK.
43. AREA DRAIN PER GRADING PLAN.
44. TRANSITION STRUCTURE PER SPPWC STD PLAN 340-2.
45. CHECK VALVE (FLANGED AWWA SWING CHECK VALVE, MANUFACTURED BY SMITH-COOPER; OR APPROVED EQUIVALENT). SIZE PER ADJOINING PIPE.

LEGEND:

- LIMITS OF CIVIL WORK
- PROPERTY LINE
- LONG BEACH CITY WATER LINE EASEMENT
- FLOW LINE
- W — PROPOSED WATER LINE
- FW — PROPOSED FIRE WATER LINE
- SS — PROPOSED SANITARY SEWER LINE
- SD — PROPOSED STORM DRAIN LINE
- UD — PROPOSED UNDER DRAIN PERFORATED PIPE
- SD — EXISTING STORM DRAIN
- W — EXISTING WATER
- SS — EXISTING SANITARY SEWER
- POINT OF CONNECTION
- SD — PROPOSED STORM DRAIN MANHOLE
- SS — PROPOSED SANITARY SEWER MANHOLE
- PROPOSED CATCH BASIN
- PROPOSED FIRE DEPARTMENT CONNECTION
- PROPOSED POST INDICATOR VALVE
- PROPOSED DOUBLE DETECTOR CHECK VALVE
- PROPOSED FIRE HYDRANT

NOTES:

1. REFERENCE MECHANICAL, ELECTRICAL AND TELECOMMUNICATION PLANS FOR DEMOLITION OF M, E, & T UTILITIES AND STRUCTURE.
2. CONTRACTOR SHALL VERIFY LOCATION AND DEPTH OF EXISTING PIPE PRIOR TO CONSTRUCTION. CONTRACTOR SHALL COORDINATE WITH COLLEGE PRIOR TO CONNECTION.
3. UTILITY LINES TO BE REMOVED, SHALL BE REMOVED IN THEIR ENTIRETY AND PROPERLY DISPOSED OF.\
4. EXISTING UNDERGROUND UTILITIES AND IMPROVEMENTS ARE SHOWN IN THEIR APPROXIMATE LOCATIONS BASED UPON RECORD INFORMATION AVAILABLE AT THE TIME OF PREPARATION OF PLANS. NO GUARANTEE IS MADE AS TO THE ACCURACY OR COMPLETENESS OF THE INFORMATION SHOWN. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE EXISTENCE AND/OR LOCATION OF THOSE UTILITIES SHOWN ON THESE PLANS. ANY ADDITIONAL COSTS INCURRED AS A RESULT OF CONTRACTOR'S FAILURE TO VERIFY LOCATIONS OF EXISTING UTILITIES PRIOR TO BEGINNING OF CONSTRUCTION IN THEIR VICINITY SHALL BE BORNE BY THE CONTRACTOR AND ASSUMED INCLUDED IN THE CONTRACT.
5. PRIOR TO INSTALLATION, ALL PLANS AND SPECIFICATIONS SHALL BE APPROVED BY DSA. REFER TO DSA IR A-25 FOR DESIGN, INSTALLATION, AND MAINTENANCE GENERAL REQUIREMENTS.
6. INSPECTIONS ARE REQUIRED: 1) PRIOR TO THRUST BLOCKS, 2) FOR HYDROSTATIC TESTING, AND 3) FOR FLUSH.
7. INSTALLATION, INSPECTION, AND TESTING SHALL CONFORM TO 2016 EDITIONS CFC, NFPA 13, AND NFPA 24.
8. PRIVATE FIRE HYDRANTS SHALL BE APPROVED WET BARREL STYLE WITH A MINIMUM OF ONE 2 ½" AND ONE 4" OUTLET, THE 4" OUTLET SHALL FACE THE FIRE DEPARTMENT ACCESS ROAD. ALL OUTLETS SHALL BE PROVIDED WITH NATIONAL STANDARDS THREADS (NST). NFPA 24, 7.1.1.2.
9. FIRE HYDRANTS SUPPLY PIPING SHALL BE MINIMUM OF SIX INCHES IN DIAMETER. THE CENTER OF THE HOSE OUTLETS SHALL BE NOT LESS THAN 18" ABOVE FINAL GRADE OR, WHERE LOCATED IN A HOSE HOUSE, 12" ABOVE THE FLOOR. NFPA 21, 7.1.1 AND 7.3.3.
10. FIRE HYDRANTS SHALL BE MINIMUM OF 40 FEET FROM ALL STRUCTURES. NFPA 24, 7.2.3.
11. A KEYED GATE VALVE SHALL BE PROVIDED FOR EACH HYDRANT IN AN ACCESSIBLE LOCATION. VALVES SHALL NOT BE LOCATED IN PARKING STALLS. NFPA 24, 7.1.1.1.
12. ALL PIPING SHALL BE LISTED FOR USE IN FIRE PROTECTION SERVICE AND COMPLY WITH AWWA STANDARDS (CLASS 150 MIN.) CLASS 200 PIPE SHALL BE USED WHERE THE PRESSURE MAY EXCEED 150 PSI. NFPA 24, 10.1.1.
13. ALL BOLTED JOINTS SHALL BE CLEANED AND THOROUGHLY COATED WITH ASPHALT OR OTHER CORROSION RETARDING MATERIAL AFTER INSTALLATION. NFPA 24 10.4.1.1.
14. BACKFILL SHALL BE WELL TAMPED LAYERS TO CONSIST OF 6" MINIMUM BED OF CLEAN FILL SAND OR PEA GRAVEL BELOW AND 12" ABOVE THE PIPE (TOTAL 18" MIN.) NFPA 24, 10.9.1.
15. FITTINGS SHALL BE OF AN APPROVED TYPE. NFPA 24, 10.2.1.
16. A MINIMUM OF 30" OF COVER, FROM FINISH GRADE TO THE TOP OF THE PIPE, SHALL BE PROVIDED. WHEN SURFACE LOADS ARE EXPECTED, A MINIMUM OF 36" COVER SHALL BE PROVIDED. NFPA 24, 10.4.2.2.2 AND 10.3.
17. THRUST BLOCKS, OR OTHER APPROVED METHOD OF THRUST RESTRAINT, SHALL BE PROVIDED WHEREVER PIPE CHANGE DIRECTION. BACK-FILL BETWEEN THE JOINTS TO PREVENT MOVEMENT OF THE PIPE. PROVIDE DETAILS AND CALCULATIONS FOR SIZING THRUST BLOCKS BASE ON ACTUAL SOIL CONDITIONS. NFPA 24, 10.6.
18. A HYDROSTATIC TEST (200 PSI FOR TWO HOURS OR 50 PSI OVER MAXIMUM STATIC PRESSURE, WHICHEVER IS GREATER) SHALL BE PERFORMED. NFPA 24, 10.10.2.2.1.
19. THE SYSTEM SHALL BE THOROUGHLY FLUSHED BEFORE CONNECTION IS MADE TO OVERHEAD PIPING. FLOW SHALL BE THROUGH A MINIMUM 4" HOSE OF PIPE. NFPA 24, 10.10.2.1.
20. ALL CONTROL VALVES SHALL BE LOCKED IN THE OPEN POSITION. VALVES SHALL BE MONITORED IF THEY SERVE 6 OR MORE SPRINKLER HEADS. CBC/CFC 903.4
21. ALL CONTROL VALVES SHALL LISTED INDICATING TYPE UNLESS A NON-INDICATING VALVE, SUCH AS AN UNDERGROUND GATE VALVE WITH APPROVED ROADWAY BOX COMPLETE WITH T-WRENCH, IS ACCEPTABLE TO AUTHORITY HAVING JURISDICTION (AHJ). NFPA 24, 6.1.1.
22. POST INDICATING VALVES (PIV)SHALL BE TESTED TO INSURE THE THE "TARGETS" (OPEN, CLOSED) ARE CLEARLY IDENTIFIED WHEN VALVE IS OPENED AND CLOSED. NFPA 24, 10.10.1 AND 14.1.
23. TESTS SHALL BE MADE BY THE INSTALLING CONTRACTOR IN THE PRESENCE OF THE (AHJ). PROVIDE A COMPLETED CONTRACTOR'S MATERIAL AND TEST CERTIFICATE FOR UNDERGROUND PIPING TO DSA. NFPA 24, 10.10, 14.1, AND CFC 901,5 AND 6.
24. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING WITH LBWD AND PAYING FOR NEW WATER SERVICE CONNECTIONS. REQUIRED ENGINEERING EXHIBITS WILL BE PROVIDED BY THE ENGINEER.

20' 10' 0' 20' 40'
GRAPHIC SCALE
SCALE: 1" = 20'

Know what's below. Call before you dig.

STATE:

ARCHITECT:
architecture
westbergwhite
14471 CHAMBERS RD, SUITE 210
TUSTIN, CA 92780
(714) 508-1780 508-1790 FAX

CONSULTANT:
PSOMAS
555 South Flower Street, Suite 4300
Los Angeles, CA 90071
Tel. (213) 223-1400 Fax (213) 223-1444

REGISTERED PROFESSIONAL ENGINEER
ALDEN J. WETLAND
No. C69927
CIVIL
STATE OF CALIFORNIA

PROJECT NAME:
LIBERAL ARTS CAMPUS
KINESIOLOGY LABS and AQUATIC CENTER
4901 EAST CARSON STREET
LONG BEACH, CA 90806

CLIENT:
LONG BEACH CITY COLLEGE
4901 EAST CARSON STREET
LONG BEACH, CA 90806

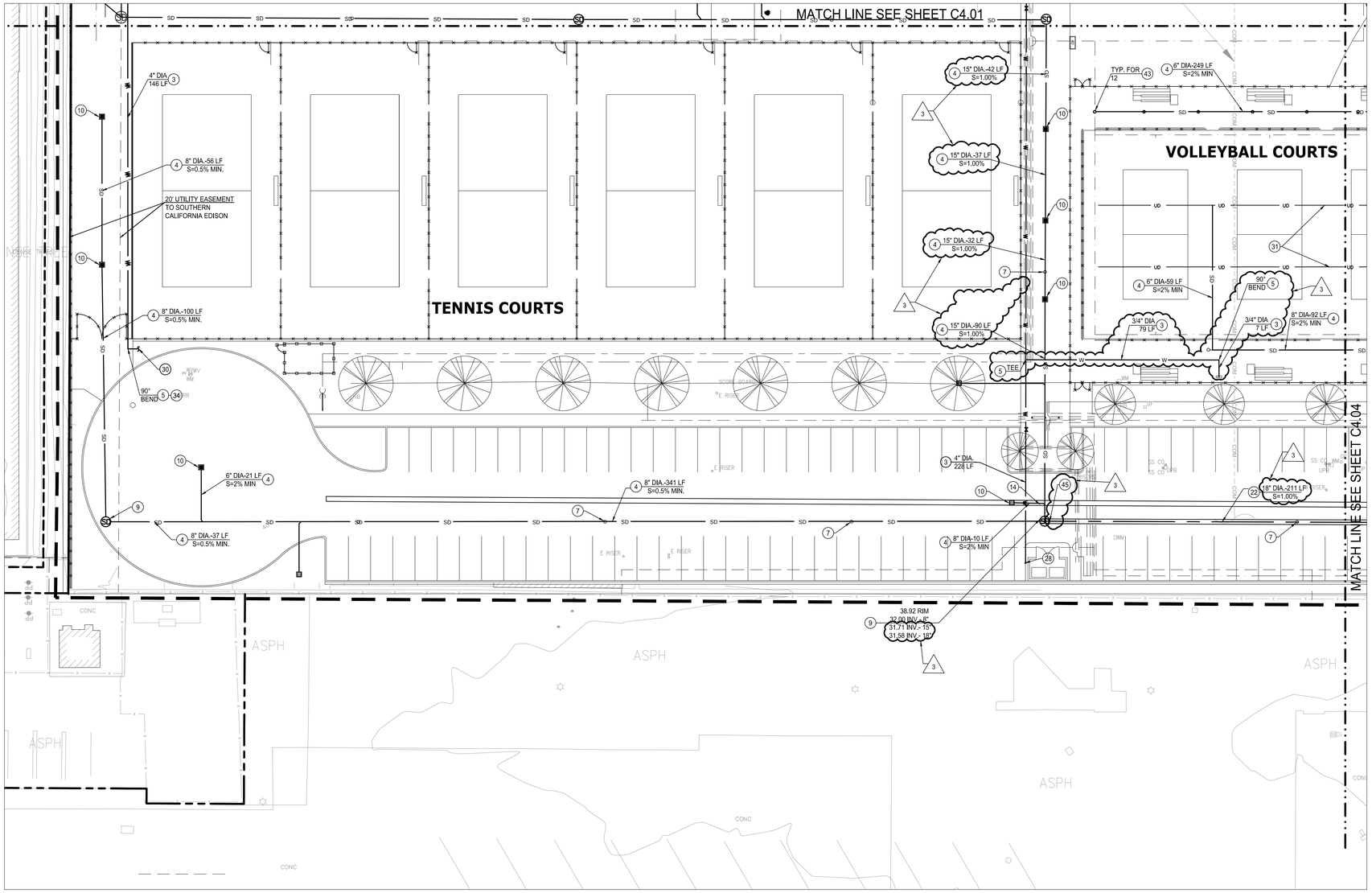
Rev.	Date	Description
2	12/16/19	Addendum 3

JOB NO: 1WES380201
DATE: 09/18/19
DRAWN: AS
CHECK: AW
ARCHITECT:
ENGINEER:

SHEET DESCRIPTION:
CIVIL UTILITY PLAN

SHEET NO:
C4.02
3

Plotted: 12/16/2019 9:15:09 AM :: Saved: 12/16/2019 9:05:47 AM :: W:\1WES380201\ENGR\SHEETS\C4.02.dwg :: emma.harrison



CONSTRUCTION NOTES:

- CONSTRUCT
- EXISTING TO REMAIN -PROTECT IN PLACE
- EXISTING TO REMOVE
- REMOVE & RELOCATE
- ADJUST TO GRADE
- WORK BY OTHERS

1. SANITARY SEWER LINE PVC (SDR 35)/ SIZE, LEGNTH, AND SLOPE PER PLAN. PIPE BEDDING AND TRENCH PER DETAIL 6/SHEET C9.01.
2. FIRE WATER SERVICE LINE (PVC C-900, CL 200) PIPE SIZE AND LENGTH PER PLAN.
3. WATER LINE, (PVC C-900, CL 200), SIZE AND LENGTH PER PLAN. PIPE BEDDING AND TRENCH PER DETAIL 6/SHEET C9.01.
4. STORM DRAIN LINE-PVC (SDR 35) . SIZE, LENGTH, AND SLOPE PER PLAN. PIPE BEDDING AND TRENCH PER DETAIL 6/SHEET C9.01.
5. INSTALL DUCTILE IRON MECHANICAL JOINT FITTING, CLASS 350 RATED WORKING PRESSURE PER AWWA STANDARD C110. SIZE PER ADJOINING PIPE AND TYPE PER PLAN. PROTECT WITH PETROLEUM WAX TAPE PER AWWA STANDARD C217.09, PETROLATUM AND PETROLEUM WAX TAPE COATING FOR THE EXTERIOR OF CONNECTIONS AND FITTINGS FOR STEEL WATER PIPELINES.
6. CONNECT TO EXISTING WATER LINE. CONTRACTOR TO FIELD VERIFY LOCATION, DEPTH, SIZE , AND CONDITION PRIOR TO CONSTRUCTION. *SEE NOTE 24 HEREON.
7. CLEANOUT PER SPPWC STD. PLAN 321-2.
8. PLUMBING CONNECTION. SEE PLUMBING PLANS FOR CONTINUATION.
9. STORM DRAIN MANHOLE PER SPPWC STD. PLAN 312-2.
10. CATCH BASIN PER GRADING PLAN
11. 1"X12" FLAT DRAIN PER DETAIL 6/SHEET C-9.03.
12. STUB OUT FOR HOSEBIB.
13. FIRE HYDRANT PER DETAIL 1/SHEET C9.01.
14. SADDLE CONNECTION PER SPPWC STD, PLAN 340-2.
15. DOMESTIC WATER METER , HOT TAP AND SERVICE LATERAL TO BE INSTALLED BY LBWD. *SEE NOTE 24 HEREON.
16. CONNECT TO EXISTING SANITARY SEWER. CONTRACTOR TO FIELD VERIFY LOCATION, DEPTH, SIZE , AND CONDITION PRIOR TO CONSTRUCTION.
17. PVC FITTING (SDR 35). TYPE PER PLAN, SIZE PER ADJOINING PIPE.
18. SANITARY SEWER MANHOLE PER SPPWC STD. PLAN 200-3.
19. TURF SUBDRAIN PER PER DETAIL 1/SHEET C-9.03.
20. UTILITY CROSSING PER DETAIL 5/SHEET C-9.01.
21. CONTECH INLINE CDS UNIT PER DETAIL 2/SHEETC9.02. VOLUME=30,700 CF, Q=2.47 CFS.
22. STORM DRAIN LINE- RCP. SIZE, LENGTH, AND SLOPE PER PLAN. D LOAD=2000.
23. PARKWAY DRAIN PER SPPWC STD 151-2. S=72".
24. FIRE DEPARTMENT CONNECTION (FDC) PER DETAIL 1/C9.02.
25. DOUBLE DETECTOR CHECK VALVE ASSEMBLY. SIZE PER ADJOINING PIPE. INCLUDE OS&Y WITH TAMPER SWITCH. AMES 4000SS OR EQUAL PER DETAIL 5/ SHEET C9.04.
26. PIPE CONNECTION TO EXISTING STORM DRAIN PER SPPWC STD PLAN 335-2.
27. NOT USED.
28. HOSE BIB.
29. 20'x20'x14' DEEP JENSEN PRECAST DETENTION RESERVOIR WITH MANHOLE COVER. INSTALL STORM DRAIN SUMP PUMP PER DETAIL 3/C9.02
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- FLOW LINE
- PROPOSED WATER LINE
- PROPOSED FIRE WATER LINE
- PROPOSED SANITARY SEWER LINE
- PROPOSED STORM DRAIN LINE
- PROPOSED UNDER DRAIN PERFORATED PIPE
- EXISTING STORM DRAIN
- EXISTING WATER
- EXISTING SANITARY SEWER
- POINT OF CONNECTION
- PROPOSED STORM DRAIN MANHOLE
- PROPOSED SANITARY SEWER MANHOLE
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- PROPOSED POST INDICATOR VALVE
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- PROPOSED FIRE HYDRANT

20' 10' 0' 20' 40'

GRAPHIC SCALE
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RETROFIT

Know what's below. Call before you dig.

STATE:

ARCHITECT:

architecture
westbergwhite
14471 CHAMBERS RD, SUITE 210
TUSTIN, CA 92780
(714) 508-1780 508-1790 FAX

CONSULTANT:

PSOMAS
555 South Flower Street, Suite 4300
Los Angeles, CA 90071
Tel. (213) 223-1400 Fax (213) 223-1444

REGISTERED PROFESSIONAL ENGINEER ALISON J. WETLAND No. C69927 CIVIL STATE OF CALIFORNIA

PROJECT NAME:

LIBERAL ARTS CAMPUS
KINESIOLOGY LABS and AQUATIC CENTER
4901 EAST CARSON STREET
LONG BEACH, CA 90806

CLIENT:

LONG BEACH CITY COLLEGE
4901 EAST CARSON STREET
LONG BEACH, CA 90806

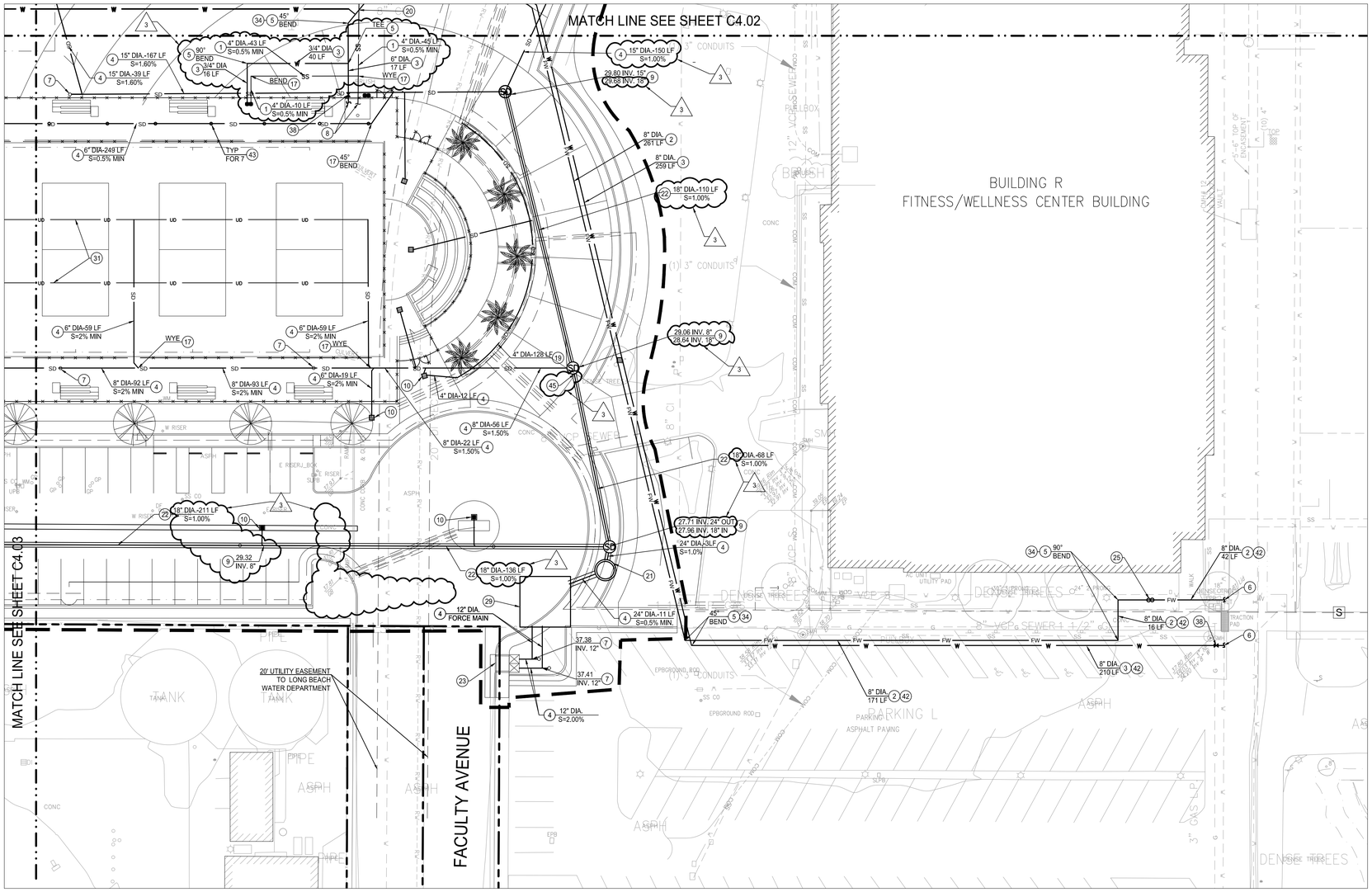
Rev.	Date	Description
1	12/16/19	Addendum 3

JOB NO: 1WES380201
DATE: 09/18/19
DRAWN: AS
CHECK: AW
ARCHITECT:
ENGINEER:

SHEET DESCRIPTION:
CIVIL UTILITY PLAN

SHEET NO:
C4.03

Plotted: 12/16/2019 9:13:29 AM :: Saved: 12/16/2019 9:05:29 AM :: W:\1WES680201\ENGR\SHEETS\C4.03.dwg :: emma.harrison



CONSTRUCTION NOTES:

- ○ CONSTRUCT
- ⊏○ EXISTING TO REMAIN -PROTECT IN PLACE
- □ EXISTING TO REMOVE
- □○ REMOVE & RELOCATE
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42. REPLACE IN KIND AREAS IMPACTED BY TRENCH OUTSIDE LIMITS OF WORK.
43. AREA DRAIN PER GRADING PLAN.
44. TRANSITION STRUCTURE PER SPPWC STD PLAN 340-2.
45. CHECK VALVE (FLANGED AWWA SWING CHECK VALVE, MANUFACTURED BY SMITH-COOPER; OR APPROVED EQUIVALENT). SIZE PER ADJOINING PIPE. (3)

LEGEND:

- LIMITS OF CIVIL WORK
- PROPERTY LINE
- LONG BEACH CITY WATER LINE EASEMENT
- FLOW LINE
- W — PROPOSED WATER LINE
- FW — PROPOSED FIRE WATER LINE
- SS — PROPOSED SANITARY SEWER LINE
- SD — PROPOSED STORM DRAIN LINE
- UD — PROPOSED UNDER DRAIN PERFORATED PIPE
- SD — EXISTING STORM DRAIN
- W — EXISTING WATER
- SS — EXISTING SANITARY SEWER
- POINT OF CONNECTION
- (SD) PROPOSED STORM DRAIN MANHOLE
- (SS) PROPOSED SANITARY SEWER MANHOLE
- PROPOSED CATCH BASIN
- PROPOSED FIRE DEPARTMENT CONNECTION
- PROPOSED POST INDICATOR VALVE
- PROPOSED DOUBLE DETECTOR CHECK VALVE
- PROPOSED FIRE HYDRANT

20' 10' 0' 20' 40'
GRAPHIC SCALE
SCALE: 1" = 20'

Know what's below. Call before you dig.

NOTES:

1. REFERENCE MECHANICAL, ELECTRICAL AND TELECOMMUNICATION PLANS FOR DEMOLITION OF M, E, & T UTILITIES AND STRUCTURE.
2. CONTRACTOR SHALL VERIFY LOCATION AND DEPTH OF EXISTING PIPE PRIOR TO CONSTRUCTION. CONTRACTOR SHALL COORDINATE WITH COLLEGE PRIOR TO CONNECTION.
3. UTILITY LINES TO BE REMOVED, SHALL BE REMOVED IN THEIR ENTIRETY AND PROPERLY DISPOSED OF.\
4. EXISTING UNDERGROUND UTILITIES AND IMPROVEMENTS ARE SHOWN IN THEIR APPROXIMATE LOCATIONS BASED UPON RECORD INFORMATION AVAILABLE AT THE TIME OF PREPARATION OF PLANS. NO GUARANTEE IS MADE AS TO THE ACCURACY OR COMPLETENESS OF THE INFORMATION SHOWN. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE EXISTENCE AND/OR LOCATION OF THOSE UTILITIES SHOWN ON THESE PLANS. ANY ADDITIONAL COSTS INCURRED AS A RESULT OF CONTRACTOR'S FAILURE TO VERIFY LOCATIONS OF EXISTING UTILITIES PRIOR TO BEGINNING OF CONSTRUCTION IN THEIR VICINITY SHALL BE BORNE BY THE CONTRACTOR AND ASSUMED INCLUDED IN THE CONTRACT.
5. PRIOR TO INSTALLATION, ALL PLANS AND SPECIFICATIONS SHALL BE APPROVED BY DSA. REFER TO DSA IR A-25 FOR DESIGN, INSTALLATION, AND MAINTENANCE GENERAL REQUIREMENTS.
6. INSPECTIONS ARE REQUIRED: 1) PRIOR TO THRUST BLOCKS, 2) FOR HYDROSTATIC TESTING, AND 3) FOR FLUSH.
7. INSTALLATION, INSPECTION, AND TESTING SHALL CONFORM TO 2016 EDITIONS CFC, NFPA 13, AND NFPA 24.
8. PRIVATE FIRE HYDRANTS SHALL BE APPROVED WET BARREL STYLE WITH A MINIMUM OF ONE 2 ½ " AND ONE 4" OUTLET. THE 4" OUTLET SHALL FACE THE FIRE DEPARTMENT ACCESS ROAD. ALL OUTLETS SHALL BE PROVIDED WITH NATIONAL STANDARDS THREADS (NST). NFPA 24, 7.1.1.2.
9. FIRE HYDRANTS SUPPLY PIPING SHALL BE MINIMUM OF SIX INCHES IN DIAMETER. THE CENTER OF THE HOSE OUTLETS SHALL BE NOT LESS THAN 18" ABOVE FINAL GRADE OR, WHERE LOCATED IN A HOSE HOUSE, 12" ABOVE THE FLOOR. NFPA 21, 7.1.1 AND 7.3.3.
10. FIRE HYDRANTS SHALL BE MINIMUM OF 40 FEET FROM ALL STRUCTURES. NFPA 24, 7.2.3.
11. A KEYED GATE VALVE SHALL BE PROVIDED FOR EACH HYDRANT IN AN ACCESSIBLE LOCATION. VALVES SHALL NOT BE LOCATED IN PARKING STALLS. NFPA 24, 7.1.1.1.
12. ALL PIPING SHALL BE LISTED FOR USE IN FIRE PROTECTION SERVICE AND COMPLY WITH AWWA STANDARDS (CLASS 150 MIN.) CLASS 200 PIPE SHALL BE USED WHERE THE PRESSURE MAY EXCEED 150 PSI. NFPA 24, 10.1.1.
13. ALL BOLTED JOINTS SHALL BE CLEANED AND THOROUGHLY COATED WITH ASPHALT OR OTHER CORROSION RETARDING MATERIAL AFTER INSTALLATION. NFPA 24 10.4.1.1.
14. BACKFILL SHALL BE WELL TAMPED LAYERS TO CONSIST OF 6" MINIMUM BED OF CLEAN FILL SAND OR PEA GRAVEL BELOW AND 12" ABOVE THE PIPE (TOTAL 18" MIN.) NFPA 24, 10.9.1.
15. FITTINGS SHALL BE OF AN APPROVED TYPE, NFPA 24, 10.2.1.
16. A MINIMUM OF 30" OF COVER, FROM FINISH GRADE TO THE TOP OF THE PIPE, SHALL BE PROVIDED, WHEN SURFACE LOADS ARE EXPECTED, A MINIMUM OF 36" COVER SHALL BE PROVIDED. NFPA 24, 10.4.2.2.2 AND 10.3.
17. THRUST BLOCKS, OR OTHER APPROVED METHOD OF THRUST RESTRAINT, SHALL BE PROVIDED WHEREVER PIPE CHANGE DIRECTION. BACKFILL BETWEEN THE JOINTS TO PREVEINT MOVEMENT OF THE PIPE. PROVIDE DETAILS AND CALCULATIONS FOR SIZING THRUST BLOCKS BASE ON ACTUAL SOIL CONDITIONS. NFPA 24, 10.6.
18. A HYDROSTATIC TEST (200 PSI FOR TWO HOURS OR 50 PSI OVER MAXIMUM STATIC PRESSURE, WHICHEVER IS GREATER) SHALL BE PERFORMED. NFPA 24, 10.10.2.2.1.
19. THE SYSTEM SHALL BE THOROUGHLY FLUSHED BEFORE CONNECTION IS MADE TO OVERHEAD PIPING. FLOW SHALL BE THROUGH A MINIMUM 4" HOSE OF PIPE. NFPA 24, 10.10.2.1.
20. ALL CONTROL VALVES SHALL BE LOCKED IN THE OPEN POSITION. VALVES SHALL BE MONITORED IF THEY SERVE 6 OR MORE SPRINKLER HEADS. CBC/CFC 903.4
21. ALL CONTROL VALVES SHALL LISTED INDICATING TYPE UNLESS A NON-INDICATING VALVE, SUCH AS AN UNDERGROUND GATE VALVE WITH APPROVED ROADWAY BOX COMPLETE WITH T-WRENCH, IS ACCEPTABLE TO AUTHORITY HAVING JURISDICTION (AHJ). NFPA 24, 6.1.1.
22. POST INDICATING VALVES (PIV)SHALL BE TESTED TO INSURE THE THE "TARGETS" (OPEN, CLOSED) ARE CLEARLY IDENTIFIED WHEN VALVE IS OPENED AND CLOSED. NFPA 24, 10.10.1 AND 14.1.
23. TESTS SHALL BE MADE BY THE INSTALLING CONTRACTOR IN THE PRESENCE OF THE (AHJ). PROVIDE A COMPLETED CONTRACTOR'S MATERIAL AND TEST CERTIFICATE FOR UNDERGROUND PIPING TO DSA. NFPA 24, 10.10, 14.1, AND CFC 901.5 AND 6.
24. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING WITH LBWD AND PAYING FOR NEW WATER SERVICE **CONNECTIONS. REQUIRED ENGINEERING EXHIBITS WILL BE PROVIDED BY THE ENGINEER.**

STATE:

ARCHITECT:
architecture
westbergwhite
14471 CHAMBERS RD, SUITE 210
TUSTIN, CA 92780
(714) 508-1780 508-1790 FAX

CONSULTANT:
PSOMAS
555 South Flower Street, Suite 4300
Los Angeles, CA 90071
Tel. (213) 223-1400 Fax (213) 223-1444

REGISTERED PROFESSIONAL ENGINEER ALVEN J. WE'LAND No. C69927 CIVIL STATE OF CALIFORNIA

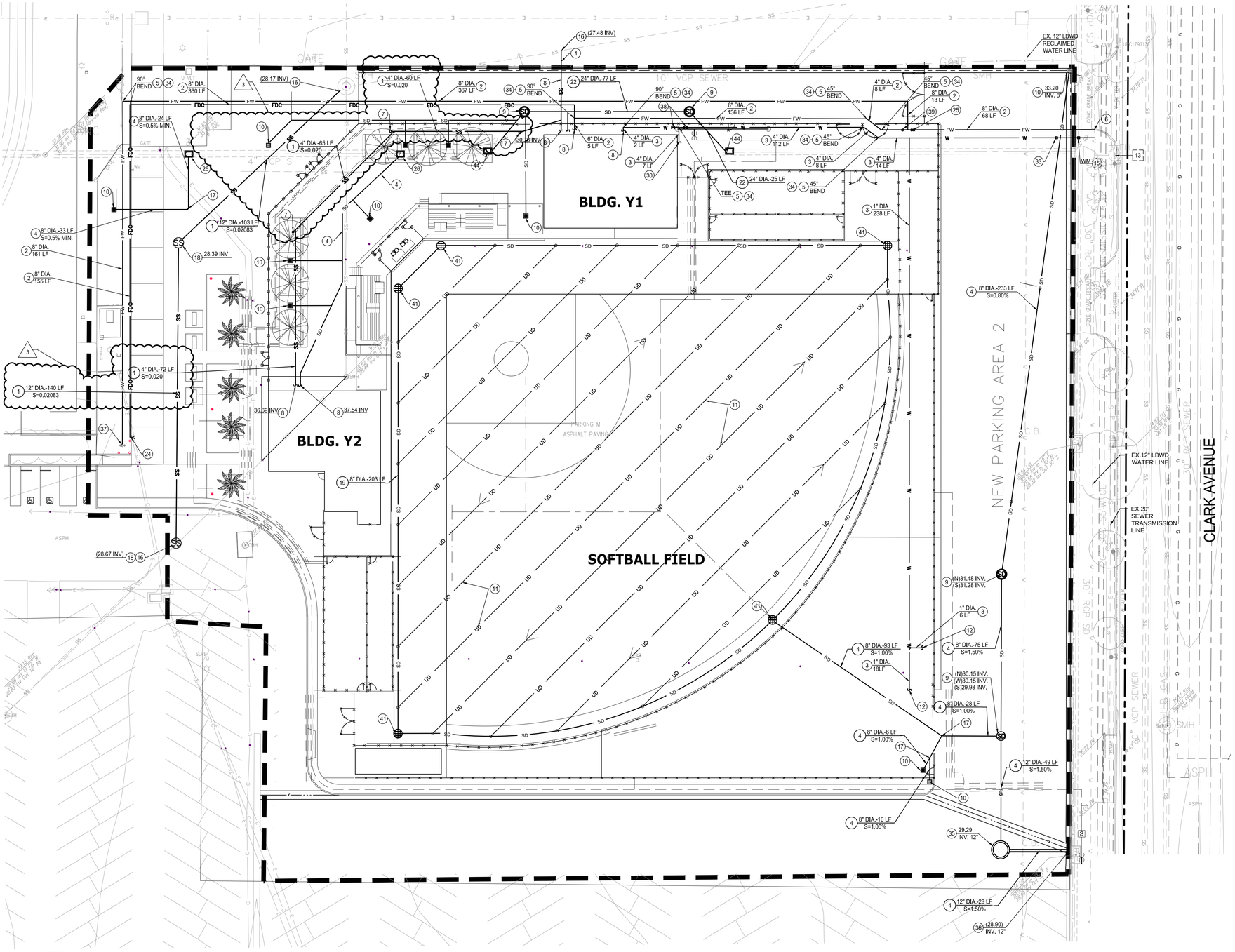
PROJECT NAME:
LIBERAL ARTS CAMPUS
KINESIOLOGY LABS and AQUATIC CENTER
4901 EAST CARSON STREET
LONG BEACH, CA 90806

CLIENT:
LONG BEACH CITY COLLEGE
4901 EAST CARSON STREET
LONG BEACH, CA 90806

Rev.	Date	Description
1	11/01/19	Addendum 1
2	12/03/19	Addendum 2
3	12/16/19	Addendum 3

JOB NO: 1WES380201
DATE: 09/18/19
DRAWN: AS
CHECK: AW
ARCHITECT:
ENGINEER:
SHEET DESCRIPTION:
CIVIL UTILITY PLAN
SHEET NO: C4.04 (3)

Plotted: 12/16/2019 9:12:47 AM :: Saved: 12/16/2019 9:01:50 AM :: W:\1WES380201\LNDR\SHEETS\C4.04.dwg :: emma.harrison



CONSTRUCTION NOTES:

- CONSTRUCT
- EXISTING TO REMAIN -PROTECT IN PLACE
- EXISTING TO REMOVE
- REMOVE & RELOCATE
- ADJUST TO GRADE
- WORK BY OTHERS

1. SANITARY SEWER LINE PVC (SDR 35)/ SIZE, LEGNTH, AND SLOPE PER PLAN. PIPE BEDDING AND TRENCH PER DETAIL 6/SHEET C9.01.
2. FIRE WATER SERVICE LINE (PVC C-900, CL 200) PIPE SIZE AND LENGTH PER PLAN.
3. WATER LINE, (PVC C-900, CL 200), SIZE AND LENGTH PER PLAN. PIPE BEDDING AND TRENCH PER DETAIL 6/SHEET C9.01.
4. STORM DRAIN LINE-PVC (SDR 35) , SIZE, LENGTH, AND SLOPE PER PLAN. PIPE BEDDING AND TRENCH PER DETAIL 6/SHEET C9.01.
5. INSTALL DUCTILE IRON MECHANICAL JOINT FITTING, CLASS 350 RATED WORKING PRESSURE PER AWWA STANDARD C110. SIZE PER ADJOINING PIPE AND TYPE PER PLAN. PROTECT WITH PETROLEUM WAX TAPE PER AWWA STANDARD C217.09, PETROLATUM AND PETROLEUM WAX TAPE COATING FOR THE EXTERIOR OF CONNECTIONS AND FITTINGS FOR STEEL WATER PIPELINES.
6. CONNECT TO EXISTING WATER LINE. CONTRACTOR TO FIELD VERIFY LOCATION, DEPTH, SIZE , AND CONDITION PRIOR TO CONSTRUCTION. *SEE NOTE 24 HEREON.
7. CLEANOUT PER SPPWC STD, PLAN 321-2.
8. PLUMBING CONNECTION. SEE PLUMBING PLANS FOR CONTINUATION.
9. STORM DRAIN MANHOLE PER SPPWC STD. PLAN 312-2.
10. CATCH BASIN PER GRADING PLAN
11. 1"X12" FLAT DRAIN PER DETAIL 6/SHEET C-9.03.
12. STUB OUT FOR HOSEBIB.
13. FIRE HYDRANT PER DETAIL 1/SHEET C9.01.
14. SADDLE CONNECTION PER SPPWC STD. PLAN 340-2.
15. DOMESTIC WATER METER , HOT TAP AND SERVICE LATERAL TO BE INSTALLED BY LBWD. *SEE NOTE 24 HEREON.
16. CONNECT TO EXISTING SANITARY SEWER. CONTRACTOR TO FIELD VERIFY LOCATION, DEPTH, SIZE , AND CONDITION PRIOR TO CONSTRUCTION.
17. PVC FITTING (SDR 35). TYPE PER PLAN. SIZE PER ADJOINING PIPE.
18. SANITARY SEWER MANHOLE PER SPPWC STD. PLAN 200-3.
19. TURF SUBDRAIN PER PER DETAIL 1/SHEET C-9.03.
20. UTILITY CROSSING PER DETAIL 5/SHEET C-9.01.
21. CONTECH INLINE CDS UNIT PER DETAIL 2/SHEETC9.02. VOLUME=30,700 CF, Q=2.47 CFS.
22. STORM DRAIN LINE- RCP. SIZE, LENGTH, AND SLOPE PER PLAN. D LOAD=2000.
23. PARKWAY DRAIN PER SPPWC STD 151-2. S=72".
24. FIRE DEPARTMENT CONNECTION (FDC) PER DETAIL 1/C9.02.
25. DOUBLE DETECTOR CHECK VALVE ASSEMBLY. SIZE PER ADJOINING PIPE. INCLUDE OS&Y WITH TAMPER SWITCH. AMES 4000SS OR EQUAL PER DETAIL 5/ SHEET C9.04.
26. PIPE CONNECTION TO EXISTING STORM DRAIN PER SPPWC STD PLAN 335-2.
27. NOT USED.
28. HOSE BIB.
29. 20'x20'x14' DEEP JENSEN PRECAST DETENTION RESERVOIR WITH MANHOLE COVER. INSTALL STORM DRAIN SUMP PUMP PER DETAIL 3/C9.02
30. STUB OUT FOR FIELD COOLING. SEE LANDSCAPE PLANS FOR CONTINUATION.
31. 4" PERFORATED STORM DRAIN HDPE PIPE PER ARCH PLAN.
32. ABANDONED IN PLACE EXISTING UTILITY PIPE. CONTRACTOR SHALL CUT AND CAP. FILL WITH SLURRY.
33. REDUCED PRESSURE PRINCIPLE BACKFLOW PREVENTOR.
34. THRUST BLOCK PER DETAIL 8/SHEET C9.01.
35. CONTECH INLINE CDS UNIT PER DETAIL 4/C9.02. VOLUME=9390 CF, Q=0.62 CFS.
36. CONNECT TO EXISTING CATCH BASIN.
37. FIRE HYDRANT AND VALVE PER DETAIL 1/ SHEET C9.01.
38. GATE VALVE PER DETAIL 7/SHEET C9.01.
39. POST INDICATOR VALVE
40. FIRE HYDRANT, SERVICE LATERAL, AND HOT TAP TO BE INSTALLED BY LONG BEACH WATER DEPARTMENT.
41. NYOPLAST BASIN PER GRADING PLAN AND DETAIL 2/SHEET C9.03.
42. REPLACE IN KIND AREAS IMPACTED BY TRENCH OUTSIDE LIMITS OF WORK.
43. AREA DRAIN PER GRADING PLAN.
44. TRANSITION STRUCTURE PER SPPWC STD PLAN 340-2.

LEGEND:

- LIMITS OF CIVIL WORK
- PROPERTY LINE
- LONG BEACH CITY WATER LINE EASEMENT
- FLOW LINE
- PROPOSED WATER LINE
- PROPOSED FIRE WATER LINE
- PROPOSED SANITARY SEWER LINE
- PROPOSED STORM DRAIN LINE
- PROPOSED UNDER DRAIN PERFORATED PIPE
- EXISTING STORM DRAIN
- EXISTING WATER
- EXISTING SANITARY SEWER
- POINT OF CONNECTION
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- PROPOSED POST INDICATOR VALVE
- PROPOSED DOUBLE DETECTOR CHECK VALVE
- **PROPOSED FIRE HYDRANT**

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24. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING WITH LBWD AND PAYING FOR NEW WATER SERVICE CONNECTIONS. REQUIRED ENGINEERING EXHIBITS WILL BE PROVIDED BY THE ENGINEER.

20' 10' 0' 20' 40'
GRAPHIC SCALE
SCALE: 1" = 20'

RE ITEM DRAWN

811
Know what's below.
Call before you dig.

STATE:

ARCHITECT:
architecture
westbergwhite
14471 CHAMBERS RD, SUITE 210
TUSTIN, CA 92780
(714) 508-1780 508-1790 FAX

CONSULTANT:
PSOMAS
555 South Flower Street, Suite 4300
Los Angeles, CA 90071
Tel. (213) 223-1400 Fax (213) 223-14

REGISTERED PROFESSIONAL ENGINEER
ALISON J. WETMORE
No. C69927
CIVIL
STATE OF CALIFORNIA

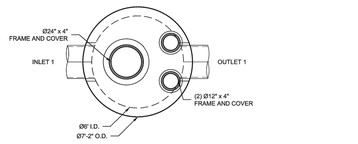
PROJECT NAME:
LIBERAL ARTS CAMPUS
KINESIOLOGY LABS and AQUATIC CENTER
4901 EAST CARSON STREET
LONG BEACH, CA 90806

CLIENT:
LONG BEACH CITY COLLEGE
4901 EAST CARSON STREET
LONG BEACH, CA 90806

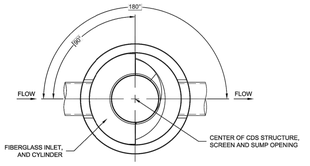
Rev.	Date	Description
1	12/03/19	Addendum 2
2	12/16/19	Addendum 3

JOB NO: 1WES380201
DATE: 09/18/19
DRAWN: AS
CHECK: AW
ARCHITECT:
ENGINEER:
SHEET DESCRIPTION:
CIVIL UTILITY PLAN
SHEET NO:
C4.05

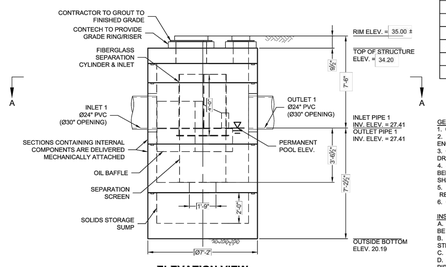
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PLAN VIEW



SECTION A-A



ELEVATION VIEW

MATERIAL LIST (PROVIDED BY CONTECH)

COUNT	DESCRIPTION	INSTALLED BY
1	FIBERGLASS INLET AND CYLINDER	CONTECH
1	4700 micron, 3' O.D. x 3.04' SEP. SCREEN	CONTECH
1	SEALANT FOR JOINTS (BY PRECASTER)	CONTRACTOR
3 PLC	GRADE RINGS/RISERS	CONTRACTOR
1	Ø24" x 4" FRAME & COVER, EJ#41600389, OR EQUIV.	CONTRACTOR
2	Ø12" x 4" FRAME & COVER, EJ#41610201, OR EQUIV.	CONTRACTOR

SITE DESIGN DATA

WATER QUALITY FLOW RATE	2.47 CFS
PEAK FLOW RATE	TBD
RETURN PERIOD OF PEAK FLOW	TBD

GENERAL NOTES
1. CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
2. FOR FABRICATION DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHT, PLEASE CONTACT YOUR CONTECH ENGINEERED SOLUTIONS LLC REPRESENTATIVE. www.ContechES.com
3. CDS WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING. CONTRACTOR TO CONFIRM STRUCTURE MEETS REQUIREMENTS OF PROJECT.
4. STRUCTURE SHALL MEET AASHTO HS-20 LOAD RATING, ASSUMING EARTH COVER OF 0' - 2', AND GROUNDWATER ELEVATION AT, OR BELOW, THE OUTLET PIPE INVERT ELEVATION. ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNDWATER ELEVATION. CASTINGS SHALL MEET AASHTO M306 AND BE CAST WITH THE CONTECH LOGO.
5. IF REQUIRED, PVC HYDRAULIC SHEAR PLATE IS PLACED ON SHELF AT BOTTOM OF SCREEN CYLINDER. REMOVE AND REPLACE AS NECESSARY DURING MAINTENANCE CLEANING.
6. CDS STRUCTURE SHALL BE PRECAST CONCRETE CONFORMING TO ASTM C-478 AND AASHTO LOAD FACTOR DESIGN METHOD.

INSTALLATION NOTES
A. ANY SUB-BASE, BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
B. CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE CDS MANHOLE STRUCTURE.
C. CONTRACTOR TO INSTALL JOINT SEALANT BETWEEN ALL STRUCTURE SECTIONS AND ASSEMBLE STRUCTURE.
D. CONTRACTOR TO PROVIDE, INSTALL, AND GROUT INLET AND OUTLET PIPE(S). MATCH PIPE INVERTS WITH ELEVATIONS SHOWN. ALL PIPE CENTERLINES TO MATCH PIPE OPENING CENTERLINES.
E. CONTRACTOR TO TAKE APPROPRIATE MEASURES TO ASSURE UNIT IS WATER TIGHT, HOLDING WATER TO FLOWLINE INVERT MINIMUM. IT IS SUGGESTED THAT ALL JOINTS BELOW PIPE INVERTS ARE GROUTED.

STRUCTURE WEIGHT
APPROXIMATE HEAVIEST PICK = 15500 LBS.
STRUCTURE IS DELIVERED IN 4 PIECES

MAX FOOTPRINT = Ø7'-2"

CONTECH
PROPOSAL
DRAWING

CDS3030-6-C - 600930-10
LONG BEACH CITY COLLEGE
LONG BEACH, CA
###

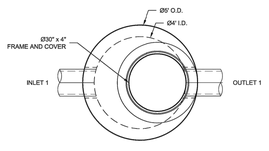
CONTECH ENGINEERED SOLUTIONS LLC
9025 Centre Pointe Drive, Suite 400
West Chester, OH 45069
800.338.1122 513.645.7000 513.645.7993 FAX
www.ContechES.com

DATE: 07/12/19 | SCALE: 1/4" = 1'-0"
DESIGNED: RWR | DRAWN: SJM
CHECKED: ### | APPROVED: ###
PROJECT No.: 600930 | SEQUENCE No.: 10
SHEET: 1 or 1

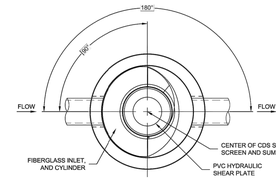
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5850 / PR80127

MARK	DATE	REVISION DESCRIPTION	BY

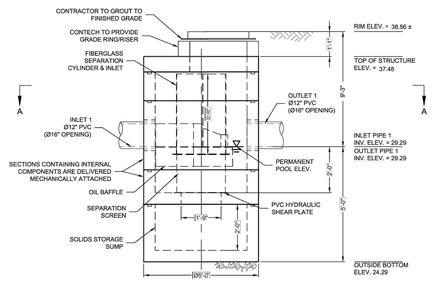
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PLAN VIEW



SECTION A-A



ELEVATION VIEW

MATERIAL LIST (PROVIDED BY CONTECH)

COUNT	DESCRIPTION	INSTALLED BY
1	FIBERGLASS INLET AND CYLINDER	CONTECH
1	4700 micron, 2' O.D. x 1.67' SEP. SCREEN	CONTECH
1	3/16 INCH PVC HYDRAULIC SHEAR PLATE *	CONTECH
1	SEALANT FOR JOINTS (BY PRECASTER)	CONTRACTOR
1 PLC	GRADE RINGS/RISERS	CONTRACTOR
1	Ø30" x 4" FRAME & COVER, EJ#41600484, OR EQUIV.	CONTRACTOR

* SEE HYDRAULIC SHEAR PLATE DETAIL

SITE DESIGN DATA

WATER QUALITY FLOW RATE	0.62 CFS
PEAK FLOW RATE	TBD
RETURN PERIOD OF PEAK FLOW	TBD

GENERAL NOTES
1. CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
2. FOR FABRICATION DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHT, PLEASE CONTACT YOUR CONTECH ENGINEERED SOLUTIONS LLC REPRESENTATIVE. www.ContechES.com
3. CDS WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING. CONTRACTOR TO CONFIRM STRUCTURE MEETS REQUIREMENTS OF PROJECT.
4. STRUCTURE SHALL MEET AASHTO HS-20 LOAD RATING, ASSUMING EARTH COVER OF 0' - 2', AND GROUNDWATER ELEVATION AT, OR BELOW, THE OUTLET PIPE INVERT ELEVATION. ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNDWATER ELEVATION. CASTINGS SHALL MEET AASHTO M306 AND BE CAST WITH THE CONTECH LOGO.
5. IF REQUIRED, PVC HYDRAULIC SHEAR PLATE IS PLACED ON SHELF AT BOTTOM OF SCREEN CYLINDER. REMOVE AND REPLACE AS NECESSARY DURING MAINTENANCE CLEANING.
6. CDS STRUCTURE SHALL BE PRECAST CONCRETE CONFORMING TO ASTM C-478 AND AASHTO LOAD FACTOR DESIGN METHOD.

INSTALLATION NOTES
A. ANY SUB-BASE, BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
B. CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE CDS MANHOLE STRUCTURE.
C. CONTRACTOR TO INSTALL JOINT SEALANT BETWEEN ALL STRUCTURE SECTIONS AND ASSEMBLE STRUCTURE.
D. CONTRACTOR TO PROVIDE, INSTALL, AND GROUT INLET AND OUTLET PIPE(S). MATCH PIPE INVERTS WITH ELEVATIONS SHOWN. ALL PIPE CENTERLINES TO MATCH PIPE OPENING CENTERLINES.
E. CONTRACTOR TO TAKE APPROPRIATE MEASURES TO ASSURE UNIT IS WATER TIGHT, HOLDING WATER TO FLOWLINE INVERT MINIMUM. IT IS SUGGESTED THAT ALL JOINTS BELOW PIPE INVERTS ARE GROUTED.

STRUCTURE WEIGHT
APPROXIMATE HEAVIEST PICK = 6000 LBS.
STRUCTURE IS DELIVERED IN 4 PIECES

MAX FOOTPRINT = Ø6'

CONTECH
PROPOSAL
DRAWING

CDS2015-4-C - 600930-20
LONG BEACH CITY COLLEGE
LONG BEACH, CA
###

CONTECH ENGINEERED SOLUTIONS LLC
9025 Centre Pointe Drive, Suite 400
West Chester, OH 45069
800.338.1122 513.645.7000 513.645.7993 FAX
www.ContechES.com

DATE: 07/12/19 | SCALE: 3/8" = 1'-0"
DESIGNED: RWR | DRAWN: SJM
CHECKED: ### | APPROVED: ###
PROJECT No.: 600930 | SEQUENCE No.: 20
SHEET: 1 or 1

PRECS
LAYOUT 4A
2015-4-FGIS
5850 / PR80127

MARK	DATE	REVISION DESCRIPTION	BY

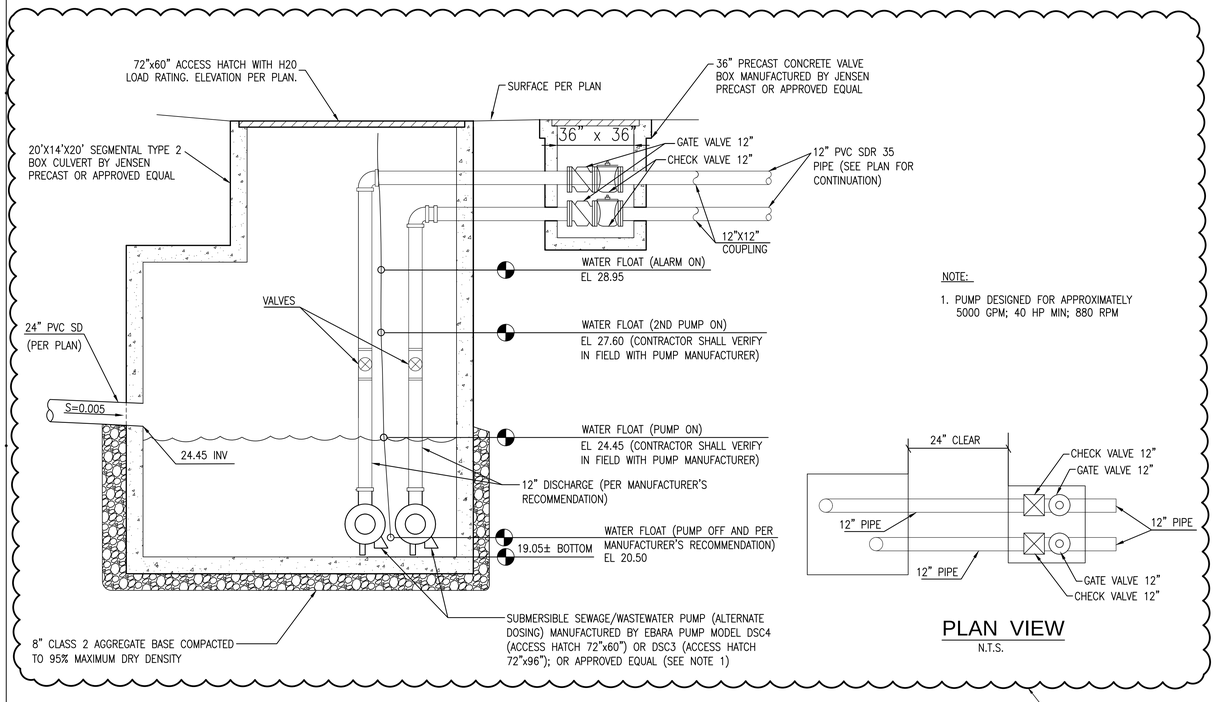
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48" DIAMETER CONTECH CDS UNIT

NOT TO SCALE — 4 / C9.02

72" DIAMETER CONTECH CDS UNIT

NOT TO SCALE — 2 / C9.02



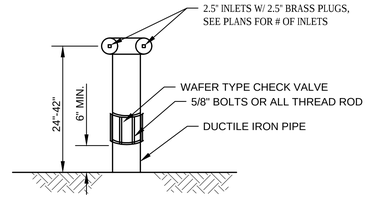
NOTE:

1. PUMP DESIGNED FOR APPROXIMATELY 5000 GPM; 40 HP MIN; 880 RPM

PLAN VIEW
N.T.S.

STORM DRAIN SUMP PUMP

NOT TO SCALE — 3 / C9.02



NOTES:
1. INSTALL CHECK VALVE IMMEDIATELY DOWNSTREAM OF FDC.
2. PROVIDE PLACARD INDICATING BUILDINGS OR AREAS BEING SERVED
3. FDC SHALL BE U.L. LISTED AND/OR F.M. APPROVED
4. FDC SHALL BE PAINTED RED ON ANY EXPOSED SURFACES SUBJECT TO RUST OR CORROSION. COUPLING THREADS, OPERATION MECHANISMS, ANY COMPONENTS OR PORTION OF THE VALVE WHERE THE APPLICATION OF PAINT WOULD VIOLATE THE LISTING OR HINDER ITS OPERATION SHALL NOT BE PAINTED. 2015 IFC, SECTION 912.7
5. FDC SIGN SHALL INDICATE THE TYPE OF SYSTEM, ADDRESS, AND BUILDINGS SERVED BY THE FDC, AND SYSTEM PUMPING PRESSURE. SIGNS SHALL BE PROVIDED AS OUTLINED IN 2016 CFC, SECTION 912.5.

FDC AND PIV DETAIL

NOT TO SCALE — 1 / C9.02

STATE:

ARCHITECT:

architecture
westbergwhite
14471 CHAMBERS RD, SUITE 210
TUSTIN, CA 92780
(714) 508-1780 508-1790 FAX

CONSULTANT:

PSOMAS
555 South Flower Street, Suite 4300
Los Angeles, CA 90071
Tel. (213) 223-1400 Fax (213) 223-1444

REGISTERED PROFESSIONAL ENGINEER
ALLEN J. RETLAND
No. C69927
CIVIL
STATE OF CALIFORNIA

PROJECT NAME:

LIBERAL ARTS CAMPUS
KINESIOLOGY LABS and AQUATIC CENTER
4901 EAST CARSON STREET
LONG BEACH, CA 90806

CLIENT:

LONG BEACH CITY COLLEGE
4901 EAST CARSON STREET
LONG BEACH, CA 90806

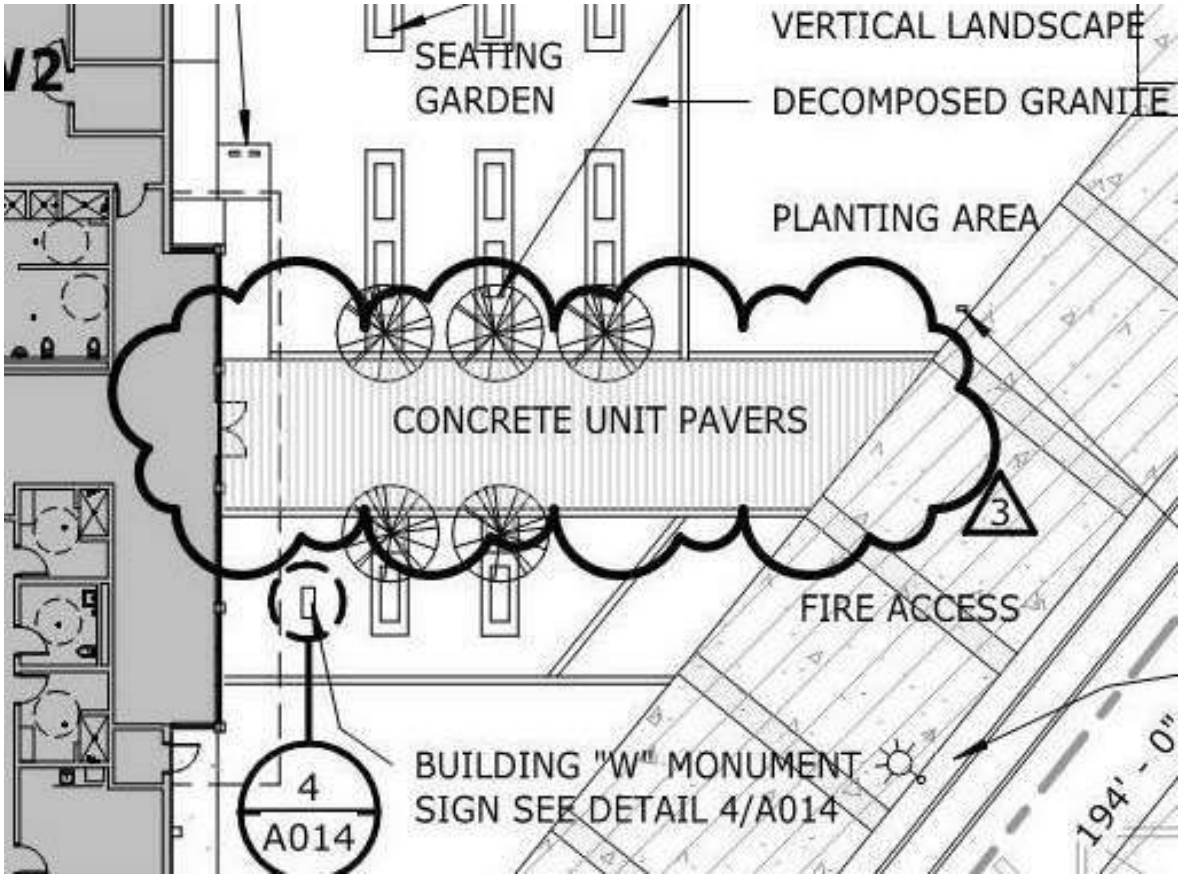
Rev.	Date	Description
2	12/16/19	Addendum 3

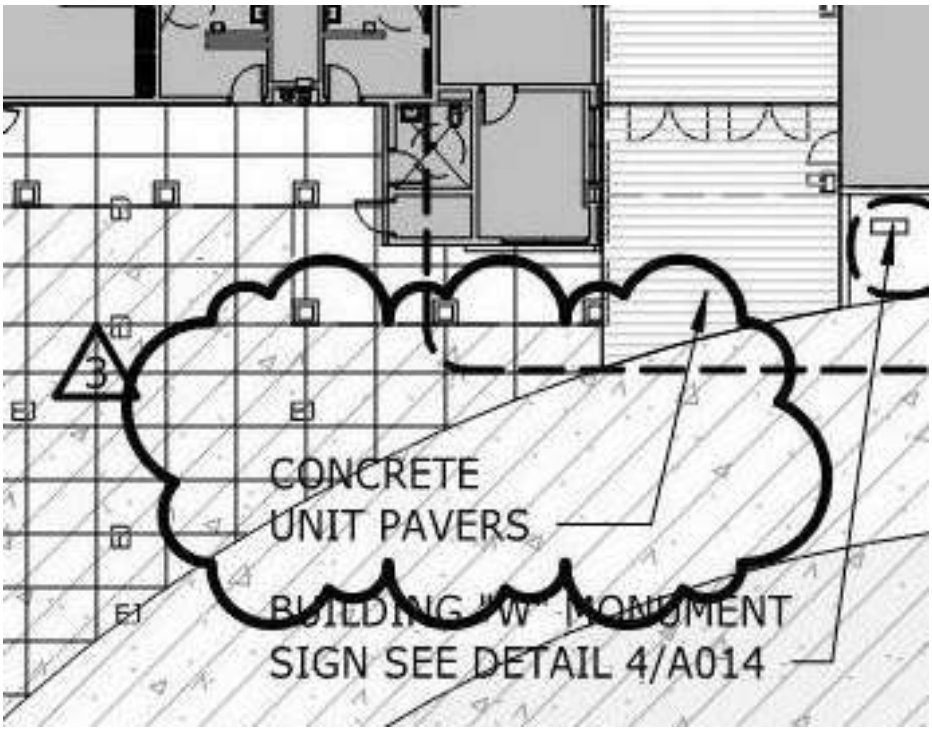
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DATE: 09/18/19
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CHECK: AW
ARCHITECT:
ENGINEER:

SHEET DESCRIPTION:
CIVIL DETAILS

SHEET NO:
C9.02 — 3

Plotted = 12/16/2019 9:13:43 AM :: Saved = 12/16/2019 8:43:36 AM :: W:\1WES380201\ENGR\SHEETS\C9.02.dwg :: emma.harrison





12/15/2019 11:36:39 AM SKA59

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westbergwhite
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ARCHITECT:

LICENSED ARCHITECT PAUL CHRISTIAN WESTBERG C-19101 EXP 8-31-21 STATE OF CALIFORNIA

PROJECT:

LIBERAL ARTS CAMPUS

KINESIOLOGY LABS and AQUATIC CENTER

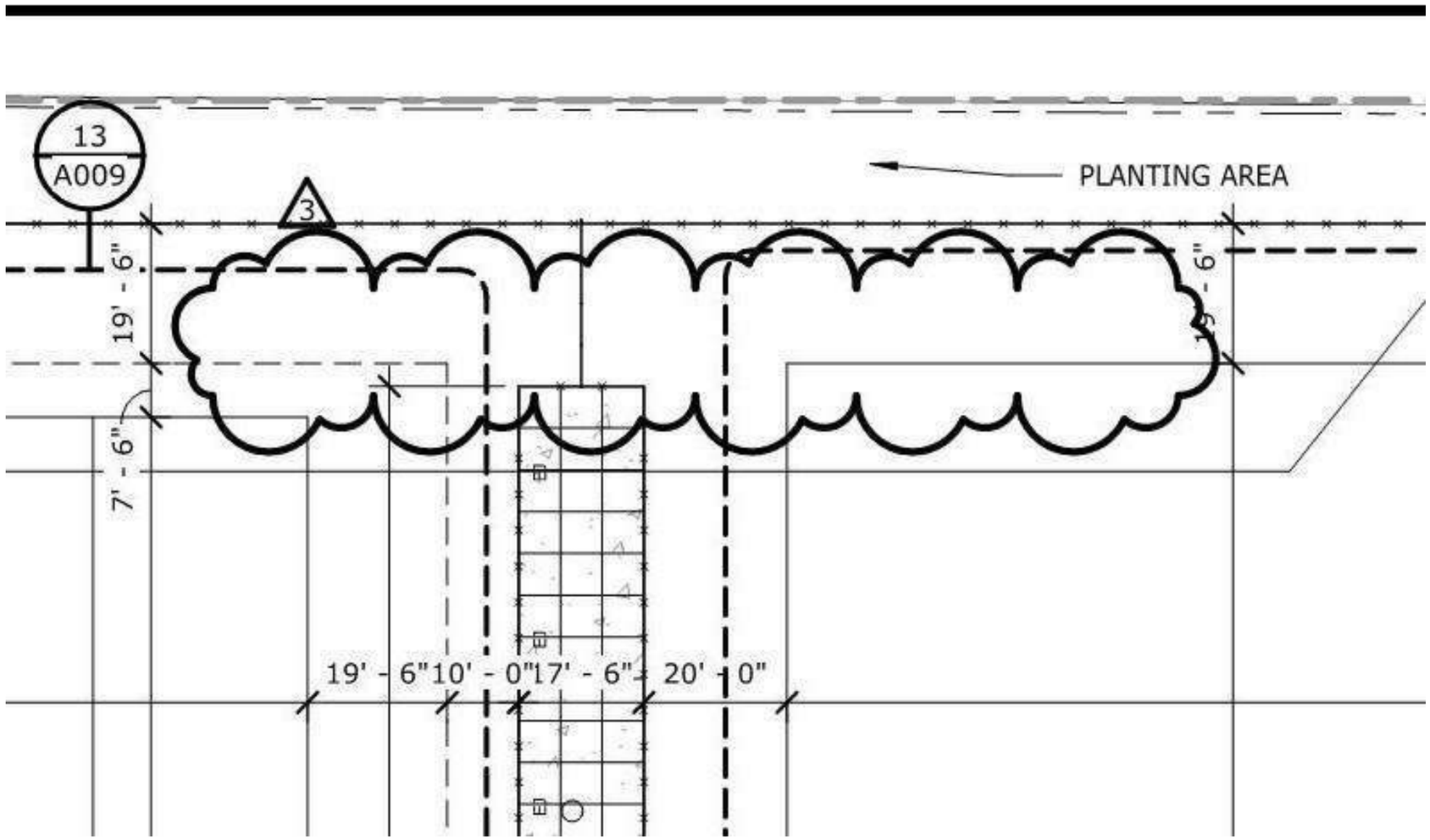
LONG BEACH CITY COLLEGE

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DSA #: 03-119628	JOB NO: 16042.01
ADDENDA #: 03	DRAWN: EM / JC
CCD #:	SHEET
BULLETIN #:	SKA-59
RFI #:	

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ARCHITECT:

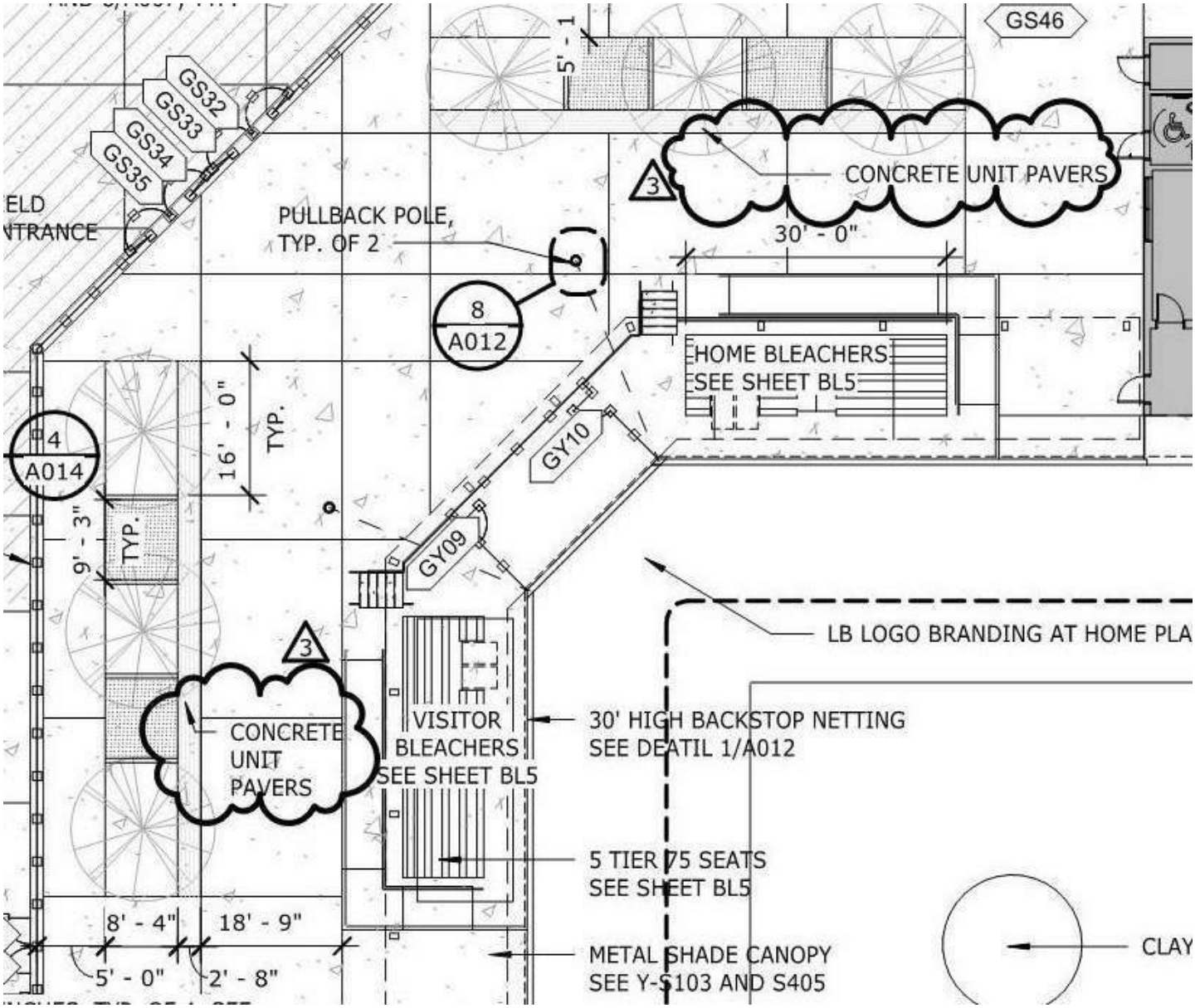
LICENSED ARCHITECT
PAUL [illegible] WESTBERG
STATE OF CALIFORNIA

PROJECT:
LIBERAL ARTS CAMPUS
KINESIOLOGY LABS and AQUATIC CENTER
LONG BEACH CITY COLLEGE

SHEET DESCRIPTION:
ENLARGED PARTIAL SITE PLAN - NORTH SIDE REVISED DETAIL 1/A001
(N.T.S.)

DATE:	12/17/19
JOB NO:	16042.01
DRAWN:	EM / JC
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BULLETIN #:	
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SHEET
SKA-60



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ARCHITECT:

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PAUL CHRISTIAN WESTBERG
STATE OF CALIFORNIA

PROJECT:

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KINESIOLOGY LABS and AQUATIC CENTER

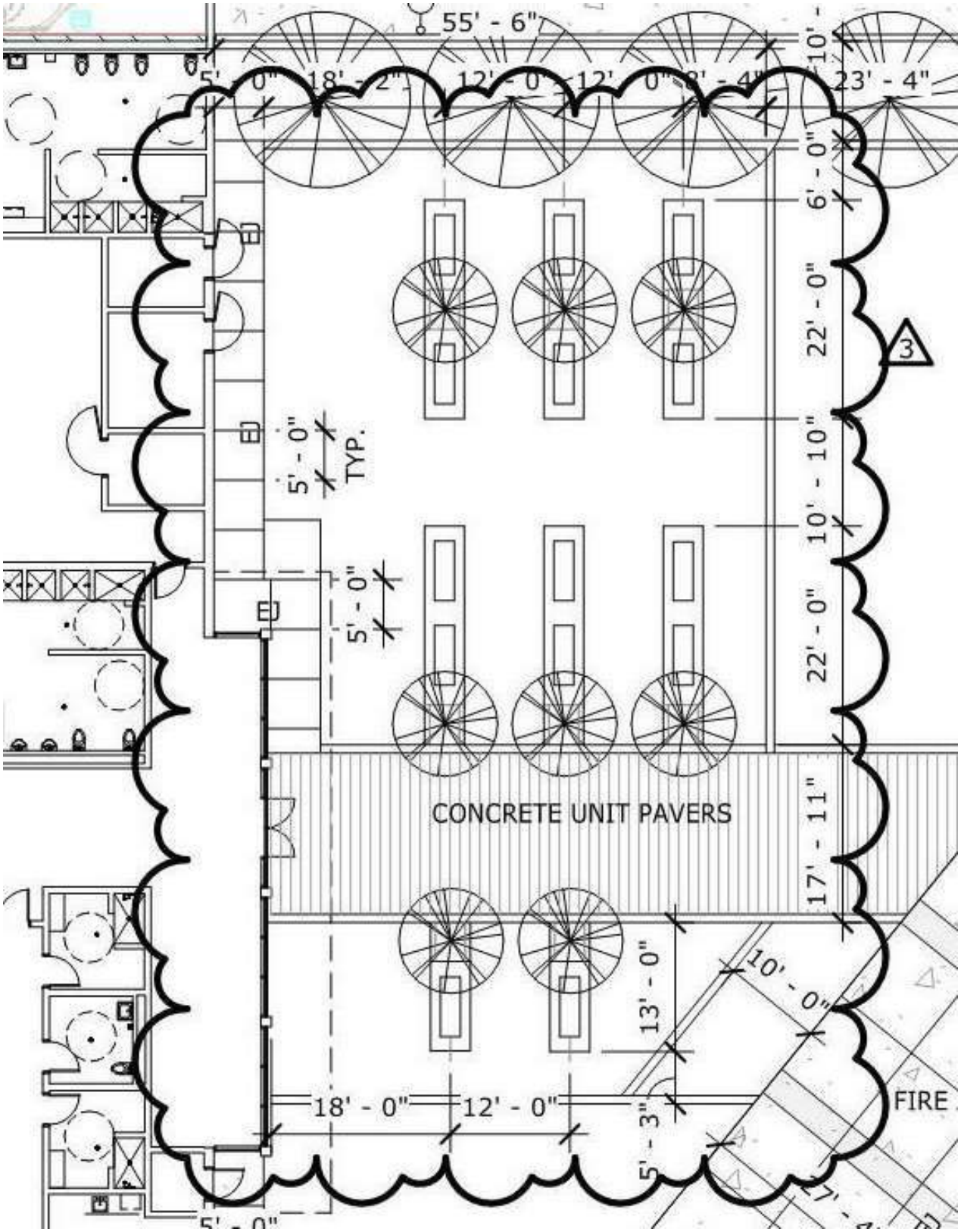
LONG BEACH CITY COLLEGE

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ADDENDA #: 03	DRAWN: EM / JC
CCD #:	SHEET
BULLETIN #:	SKA-61
RFI #:	

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PROJECT:

LIBERAL ARTS CAMPUS

KINESIOLOGY LABS and AQUATIC CENTER

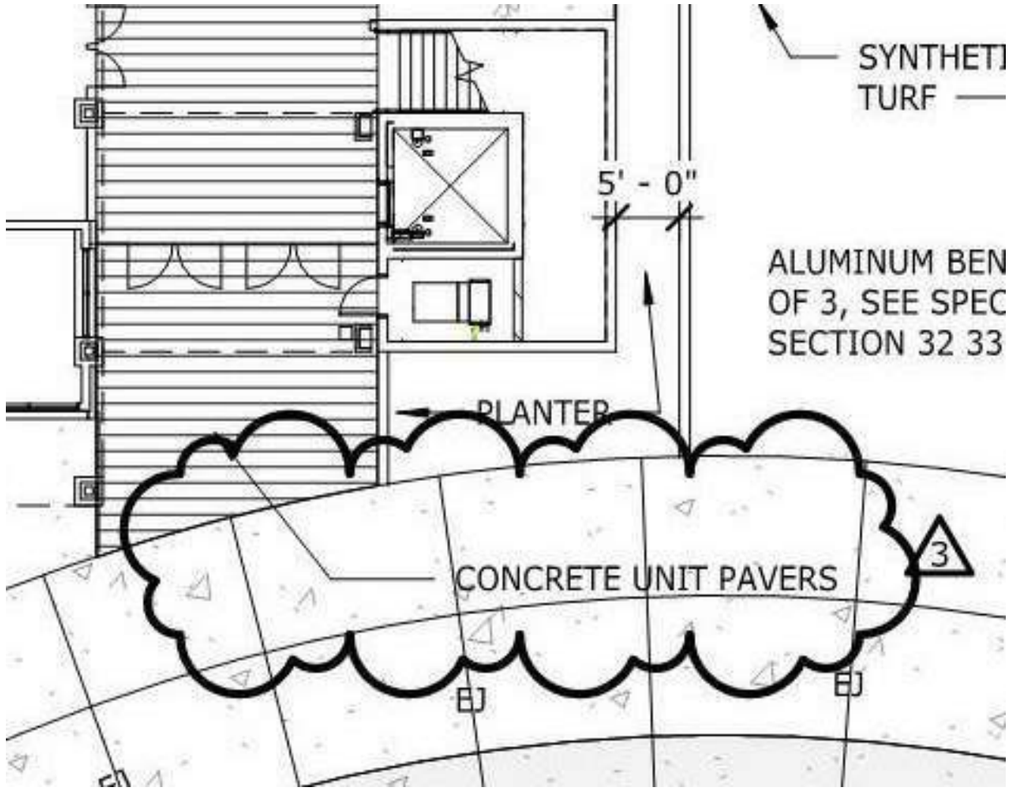
LONG BEACH CITY COLLEGE

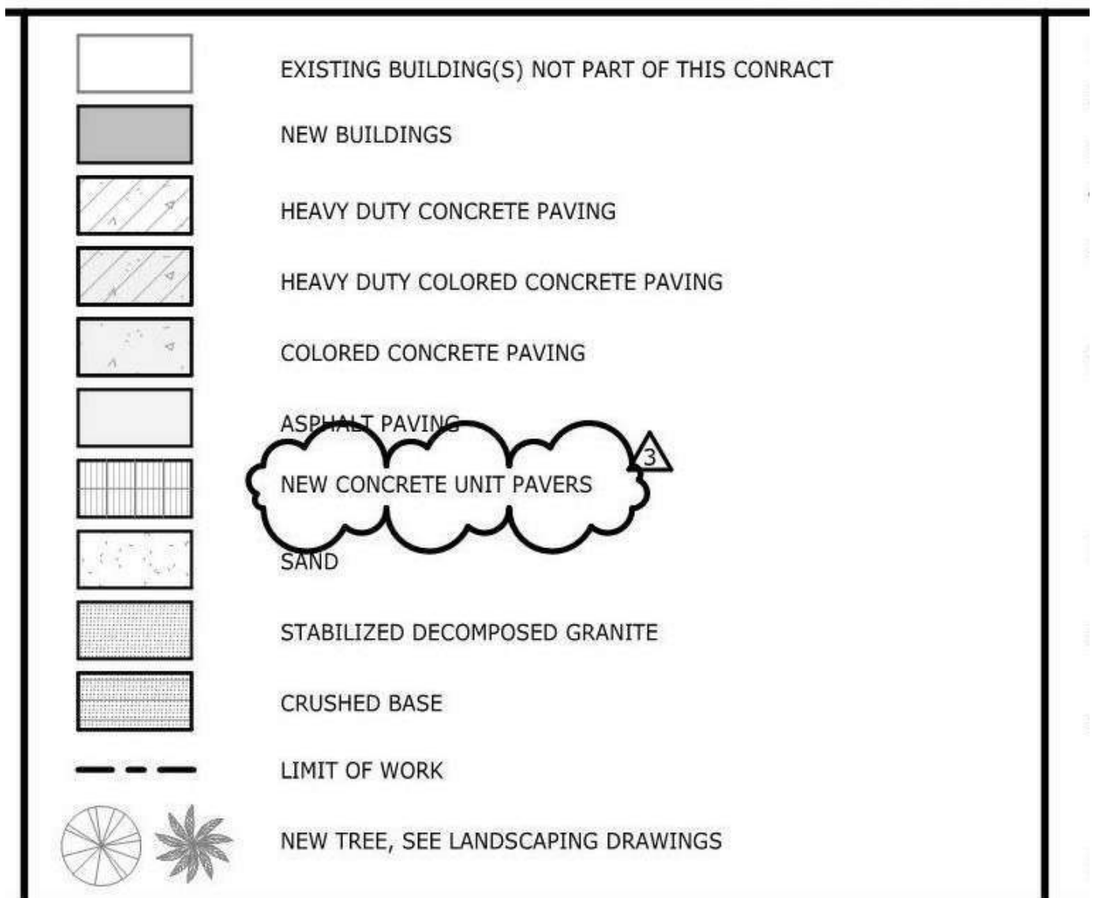
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1/A003 (N.T.S.)

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DSA #: 03-119628	JOB NO: 16042.01
ADDENDA #: 03	DRAWN: EM / JC
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SITE RENOVATION LEGEND

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ARCHITECT:

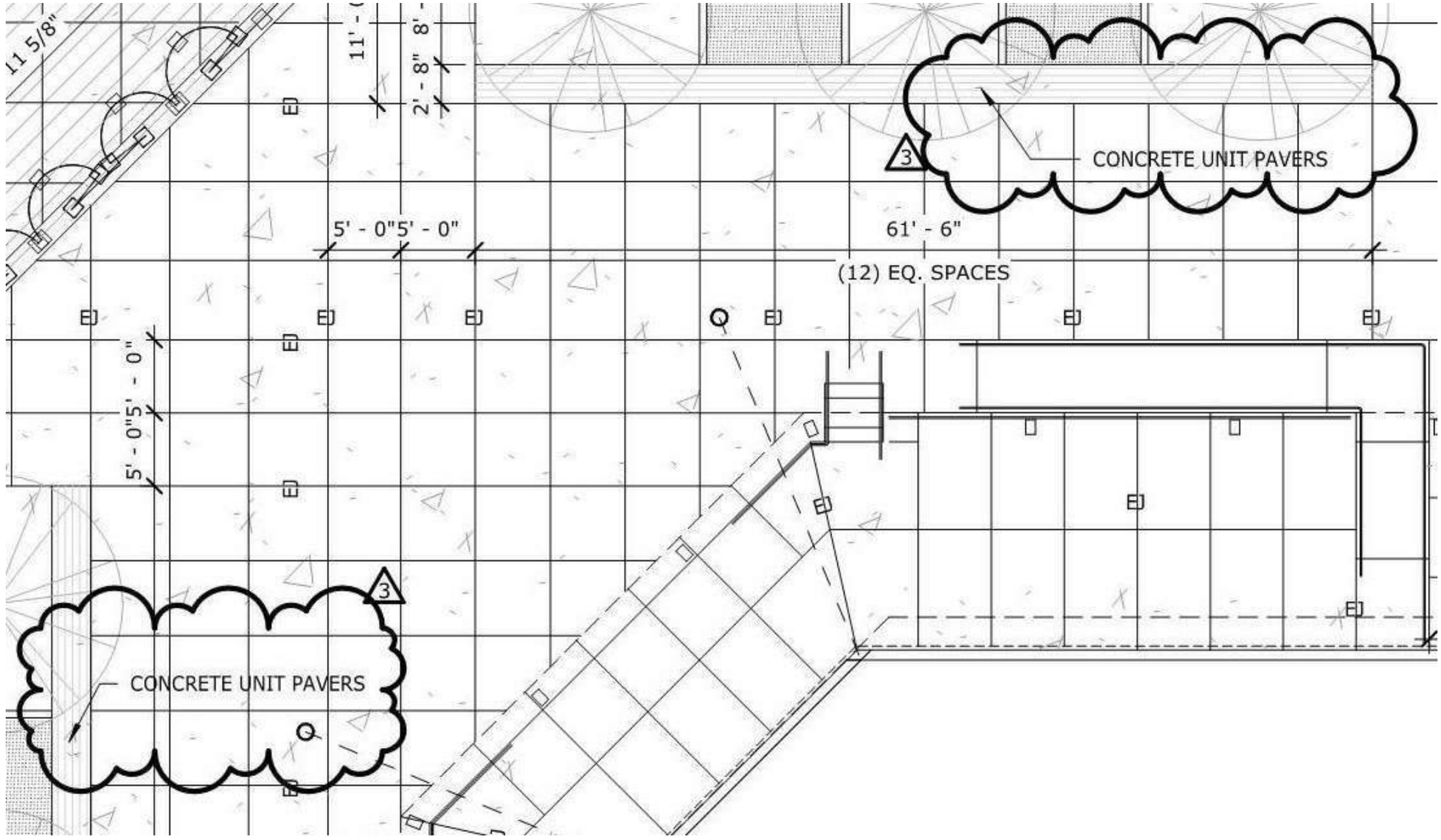
LICENSED ARCHITECT
PAUL [illegible] WESTBERG
STATE OF CALIFORNIA
[illegible]

PROJECT:
LIBERAL ARTS CAMPUS
KINESIOLOGY LABS and AQUATIC CENTER
LONG BEACH CITY COLLEGE

SHEET DESCRIPTION:
ENLARGED PAVING PLAN REVISED DETAIL 2/A003 AND LEGEND (N.T.S.)

DATE:	12/17/19
JOB NO:	16042.01
DRAWN:	EM / JC
DSA FILE NO:	19-C3
DSA APP NO:	03-119628
ADDENDA #:	03
CCD #:	
BULLETIN #:	
RFI #:	

SHEET
SKA-63



westbergwhite architecture

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TUSTIN, CA 92780
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ARCHITECT:

LICENSED ARCHITECT
PAUL EMIL WESTBERG
No. 11
EXP. 08-31
STATE OF CALIFORNIA

PROJECT:
LIBERAL ARTS CAMPUS
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LONG BEACH CITY COLLEGE

SHEET DESCRIPTION:
ENLARGED PAVING PLAN REVISED DETAIL 1/A003.2 (N.T.S.)

DATE:	12/17/19
JOB NO:	16042.01
DRAWN:	EM / JC
DSA FILE NO:	19-C3
DSA APP NO:	03-119628
ADDENDA #:	03
CCD #:	
BULLETIN #:	
RFI #:	

SHEET
SKA-64

NOTE:
6" MAX. OFFSET BETWEEN FENCE MESH AND NETTING MESH
CONTRACTOR TO COORDINATE FOOTING LOCATIONS

2 POST NETTING DETAILS N.T.S.

NOTE:
FOR ADDITIONAL INFORMATION SEE 2/A012

6 NET SECTION DETAIL N.T.S.

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ARCHITECT:

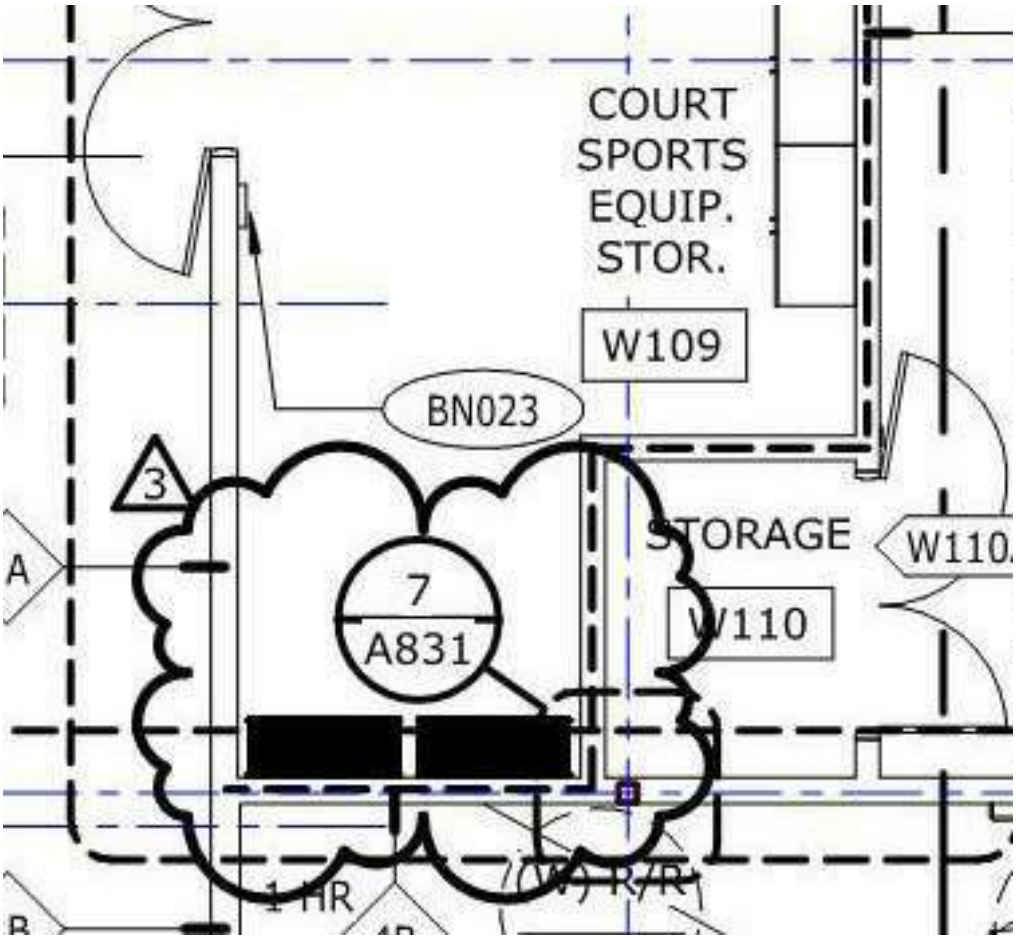
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[illegible]
EXP [illegible]

PROJECT:
LIBERAL ARTS CAMPUS
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LONG BEACH CITY COLLEGE

SHEET DESCRIPTION:
REVISED DETAILS 1, 2, 5 AND 6/A012 (N.T.S.)

DATE:	12/17/19
JOB NO:	16042.01
DRAWN:	EM / JC
DSA FILE NO:	19-C3
DSA APP NO:	03-119628
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ARCHITECT:

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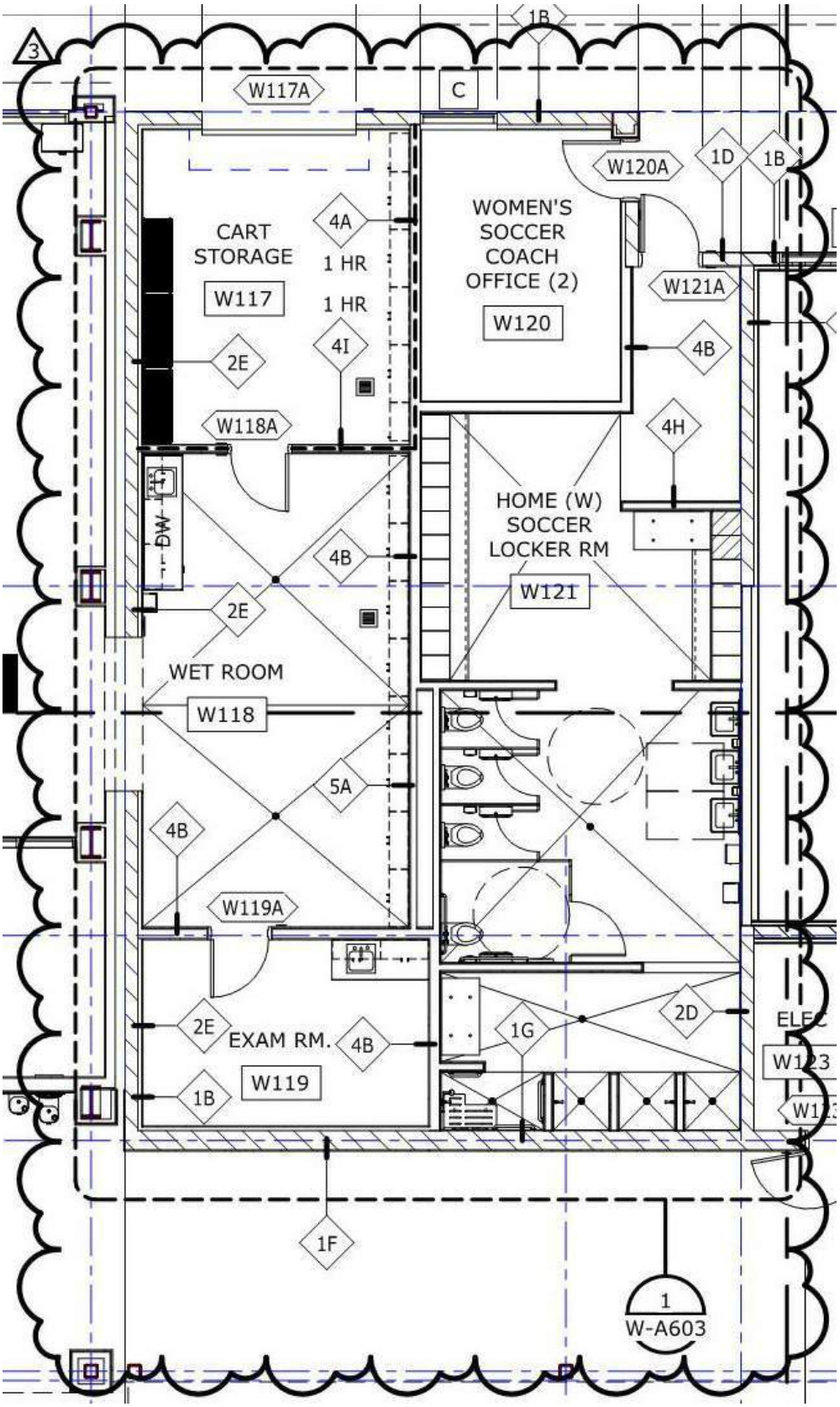
LIBERAL ARTS CAMPUS
KINESIOLOGY LABS and AQUATIC CENTER
LONG BEACH CITY COLLEGE

SHEET DESCRIPTION:

BLDG. 'W1' PARTIAL FIRST FLOOR PLAN SOUTH END 1/W-A101.1 (N.T.S.)

DSA FILE NO: 19-C3	DATE: 12/17/19
DSA #: 03-119628	JOB NO: 16042.01
ADDENDA #: 03	DRAWN: EM / JC
CCD #:	SHEET
BULLETIN #:	SKA-66
RFI #:	

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ARCHITECT:

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PROJECT:

LIBERAL ARTS CAMPUS

KINESIOLOGY LABS and AQUATIC CENTER

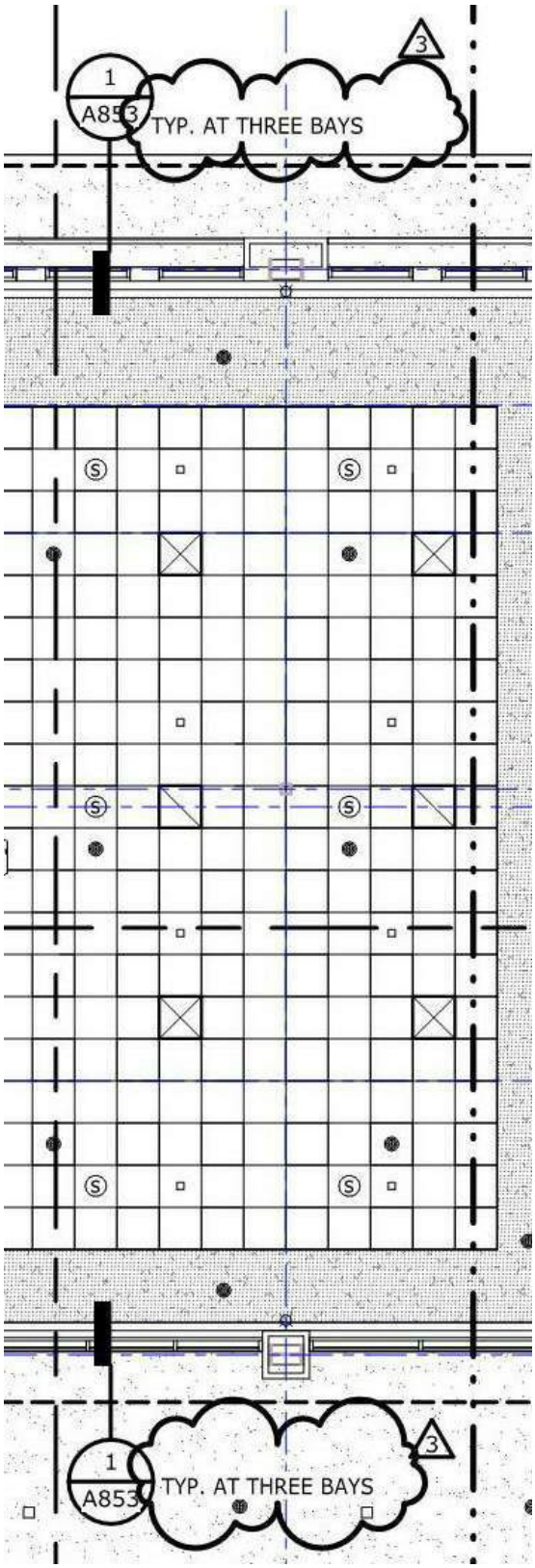
LONG BEACH CITY COLLEGE

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DSA FILE NO: 19-C3	DATE: 12/17/19
DSA #: 03-119628	JOB NO: 16042.01
ADDENDA #: 03	DRAWN: EM / JC
CCD #:	SHEET
BULLETIN #:	SKA-67
RFI #:	

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ARCHITECT:

LICENSED ARCHITECT PAUL WESTBERG STATE OF CALIFORNIA

PROJECT:

LIBERAL ARTS CAMPUS

KINESIOLOGY LABS and AQUATIC CENTER

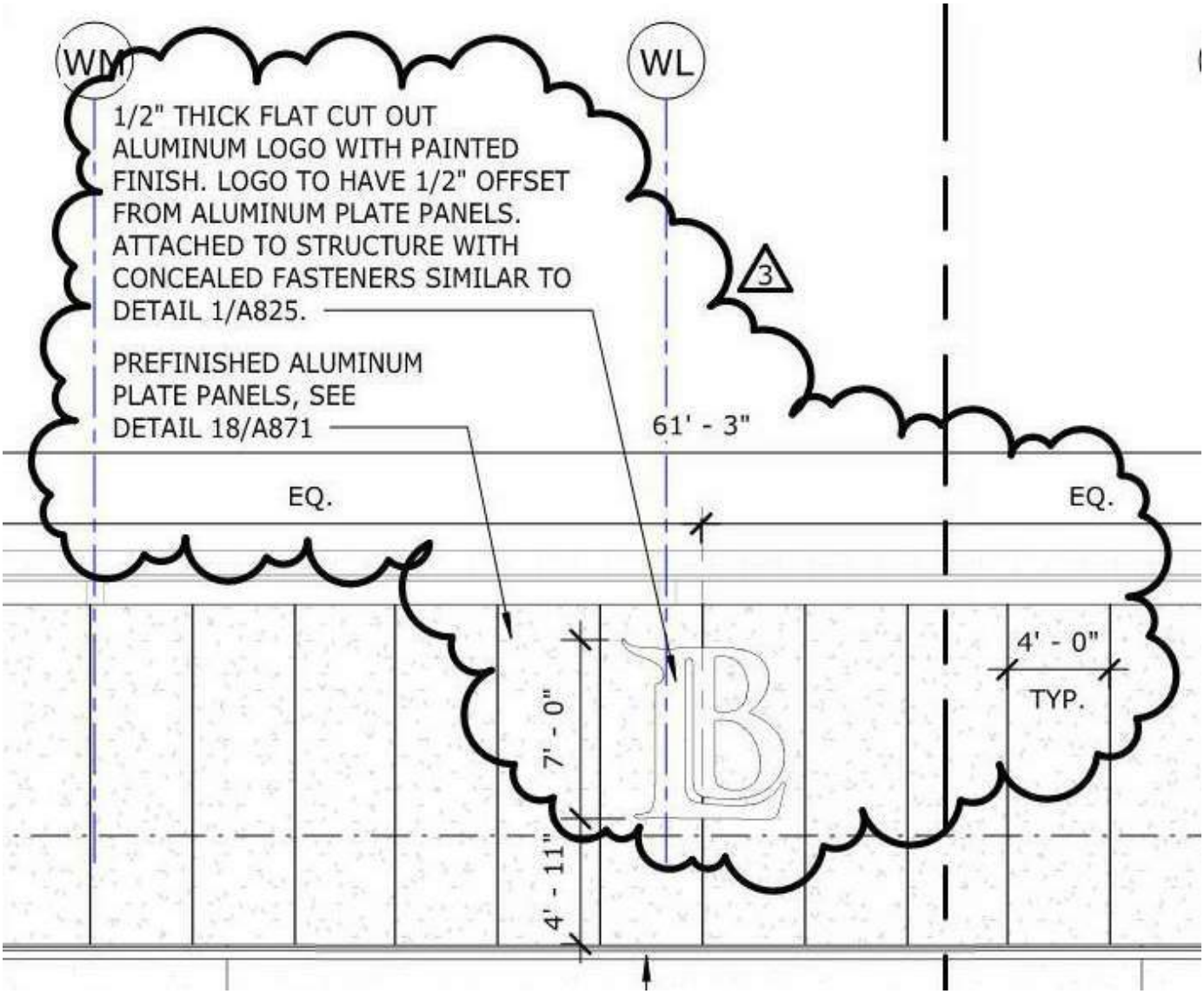
LONG BEACH CITY COLLEGE

SHEET DESCRIPTION:

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DSA FILE NO: 19-C3	DATE: 12/17/19
DSA #: 03-119628	JOB NO: 16042.01
ADDENDA #: 03	DRAWN: EM / JC
CCD #:	SHEET
BULLETIN #:	SKA-68
RFI #:	

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ARCHITECT:

LICENSED ARCHITECT PAUL CHRISTIAN WESTBERG STATE OF CALIFORNIA

PROJECT:

LIBERAL ARTS CAMPUS

KINESIOLOGY LABS and AQUATIC CENTER

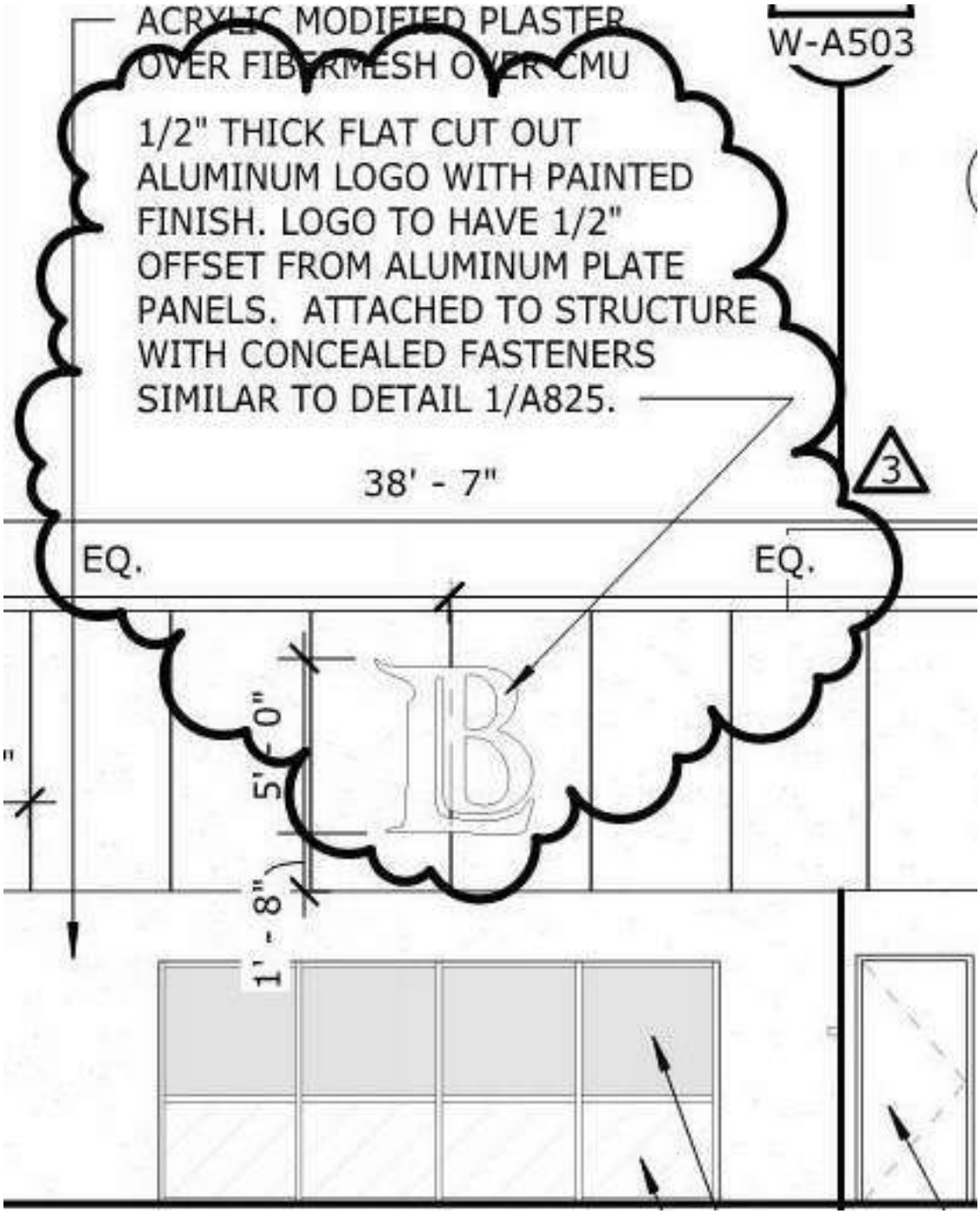
LONG BEACH CITY COLLEGE

SHEET DESCRIPTION:

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REVISED DETAIL 2/W-A402 (N.T.S.)

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DSA #: 03-119628	JOB NO: 16042.01
ADDENDA #: 03	DRAWN: EM / JC
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BULLETIN #:	SKA-69
RFI #:	

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ARCHITECT:

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PROJECT:

LIBERAL ARTS CAMPUS

KINESIOLOGY LABS and AQUATIC CENTER

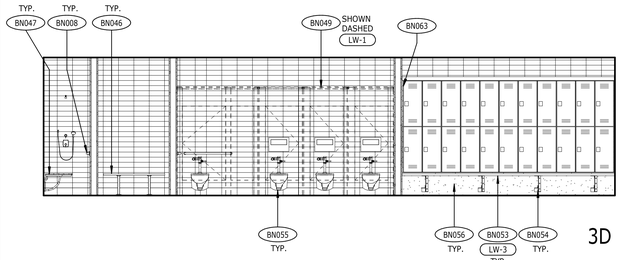
LONG BEACH CITY COLLEGE

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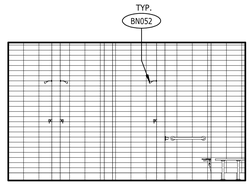
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DSA FILE NO: 19-C3	DATE: 12/17/19
DSA #: 03-119628	JOB NO: 16042.01
ADDENDA #: 03	DRAWN: EM/JC
CCD #:	SHEET
BULLETIN #:	SKA-70
RFI #:	

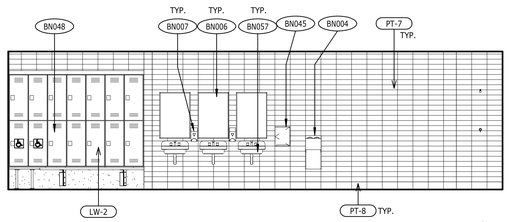
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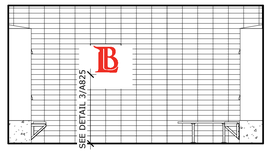
3D



3C



3B

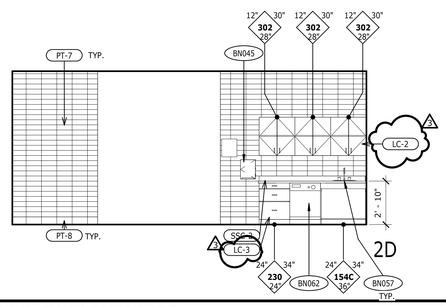


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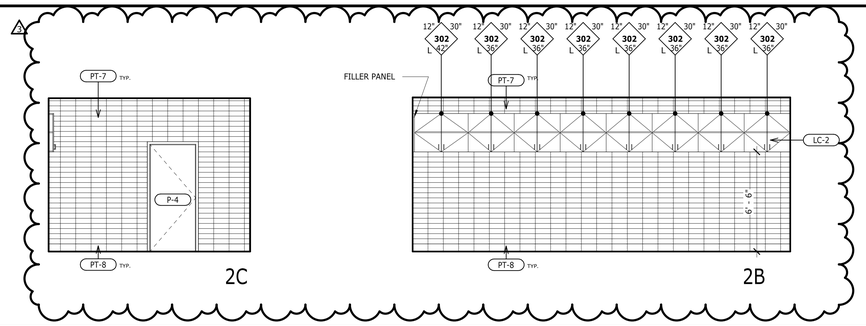
BN004	ELECTRIC HAND DRYER, RECESSED, 4" MAXIMUM PROJECTION
BN006	STAINLESS STEEL FRAMED MIRROR, 24" WIDE X 36" TALL
BN007	SOAP DISPENSER, SURFACE-MOUNTED (OFCI)
BN008	STAINLESS STEEL GRAB BAR 1-1/2" NOMINAL DIAMETER
BN045	ROLL PAPER TOWEL DISPENSER, STAINLESS STEEL, WALL-MOUNTED
BN046	ACCESSIBLE BENCH, 17" MAXIMUM HEIGHT
BN047	FOLDING SHOWER BENCH, 17" MAXIMUM HEIGHT
BN048	ACCESSIBLE LOCKER
BN049	SOLID PHENOLIC TOILET PARTITION
BN052	SURFACE MOUNT SHOWER. REFER TO PLUMBING DRAWINGS.
BN053	LOCKER BENCH, SEE DETAIL 1/A861
BN054	LOCKER BRACKET FOR BENCH
BN055	WALL MOUNTED TOILET, SEE PLUMBING DRAWINGS.
BN056	CONCRETE LOCKER BASE
BN057	LAVATORY. SEE A600 SHEETS FOR LEGEND FOR MOUNTING HEIGHTS AND PLUMBING DRAWINGS FOR MORE INFORMATION.
BN062	DISHWASHER
BN063	INSTALL FILLER PANEL TO MATCH LOCKER MATERIAL AND FINISH

W121 - INTERIOR ELEVATIONS

1/4" = 1' - 0" | 3



2D

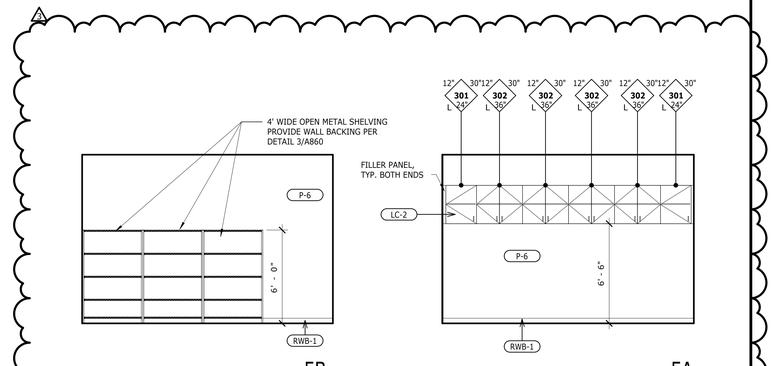




2A

W118 - INTERIOR ELEVATIONS

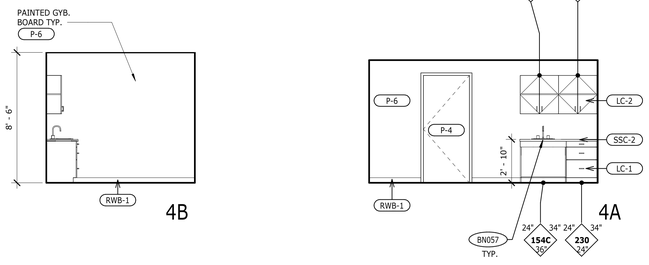
1/4" = 1' - 0" | 2



5B 5A

W117 - INTERIOR ELEVATIONS

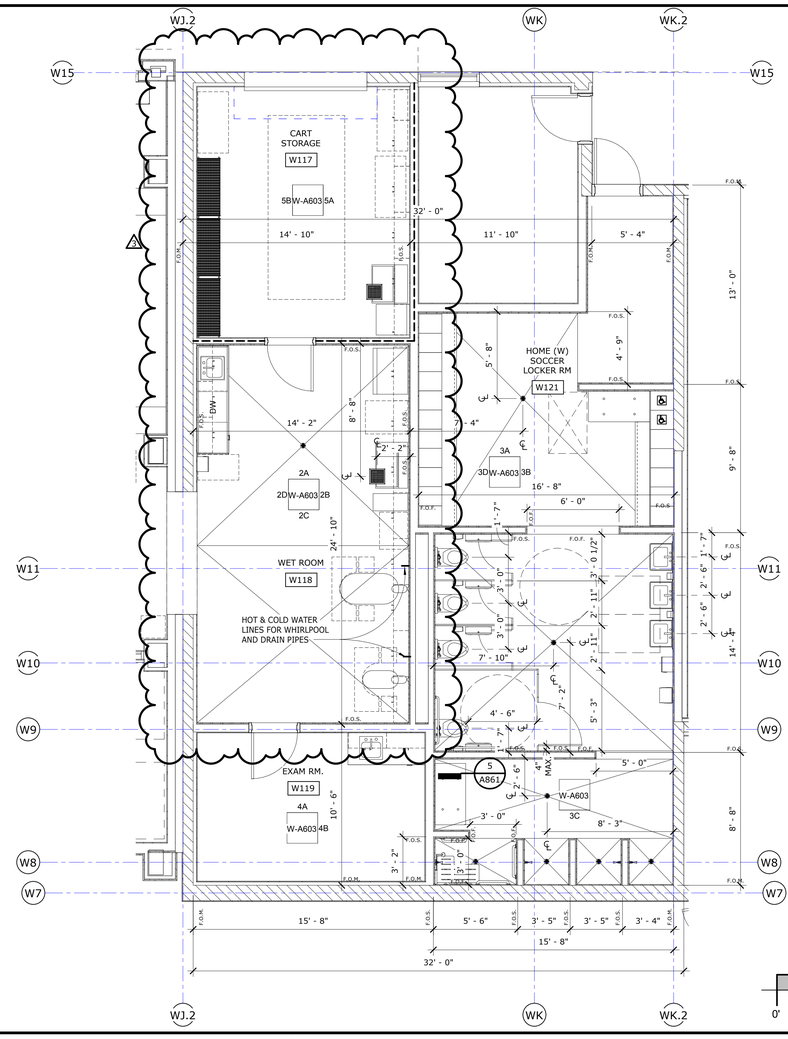
1/4" = 1' - 0" | 5



4A

W119 - INTERIOR ELEVATIONS

1/4" = 1' - 0" | 4



ENLARGED TOILET AND LOCKER FLOOR PLAN

1/4" = 1'-0" | 1

NOTE:

1) FOR TYPICAL TOILET FIXTURE AND ACCESSORY MOUNTING HEIGHTS SEE 'ACC. REQUIREMENTS LEGEND' NOTES ON THIS SHEET.

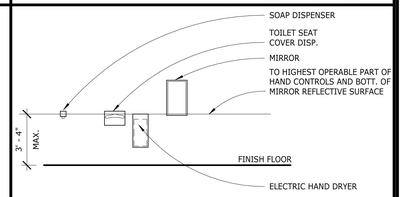
2) FOR TYPICAL CLEARANCES OF TOILET ROOM FIXTURES AND ACCESSORIES SEE 'ACC. MOUNTING LEGEND' ON THIS SHEET.

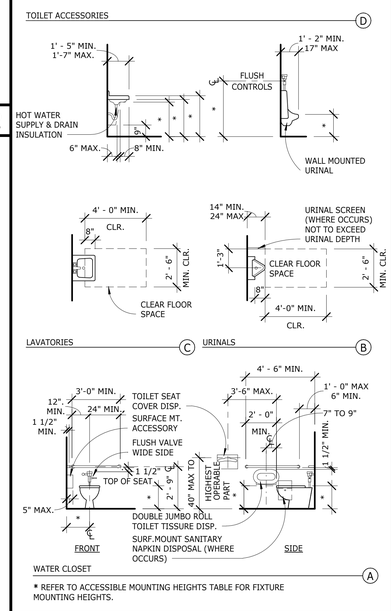
3) TYP. CABINET ANCHORAGE, REFER TO DETAILS 5/A860 (METAL STUD) OR 6/A860 (CMU)

4) ALL FLOORS SLOPING TO DRAIN TO BE NO MORE THAN 1/8" PER FOOT (1% MAX.) IN ALL DIRECTIONS

5) COAT HOOKS TO BE PROVIDED ON INSIDE FACE OF DOORS IN ALL GENDER RESTROOMS AND ON INSIDE FACE OF STALL DOORS IN MEN/WOMENS RESTROOMS. SEE DETAIL 8/G007 FOR REACH RANGES.

KEYNOTES





ALL DIMENSIONS TO FACE OF FINISH, UNLESS NOTED OTHERWISE

ACCESSIBILITY REQUIREMENTS

ITEM	A- ADULT DIMENSIONS (AGE 12 AND OVER) A (Inches)
TOILET CENTERING FROM WALL	17 - 18
TOILET SEAT HEIGHT/DIMENSIONS TO TOP OF SEAT	17 - 19
GRAB BAR HEIGHT	33 - 36
TOILET PAPER IN FRONT OF TOILET	7 - 9
NAPKIN DISPOSAL AT TOILET	SEE ELEV. A/- ABOVE
PAPER TOWEL DISPENSER OR MIRROR HEIGHT	40 MAX.
LAVATORY/SINK TOP HEIGHT	34 MAX.
LAVATORY KNEE CLEARANCE	27 MIN.
SINK KNEE CLEARANCE AT LAVATORY LIP EDGE	29 MIN.
URINAL LIP HEIGHT	17 MAX.
URINAL FLUSH HANDLE HEIGHT	44 MAX.
DRINKING FOUNTAIN BUBBLER HEIGHT	36 MAX.
DRINKING FOUNTAIN KNEE CLEARANCE	27 MIN.
RAMP/STAIR HANDRAIL HEIGHT	34 - 38
SHOWER SEAT HEIGHT	17 - 19 MAX.

ACC. MOUNTING LEGEND

ACCESSIBLE WORKSTATION / CLEAR SPACE: 30" x 48" (U.N.O.)

ACCESSIBLE CLEAR SPACE: 5' DIAMETER TURNING SPACE

12" 30" / 302 / 28" — CASEWORK TAG, SEE 1/A860 FOR ADDITIONAL INFORMATION, AND SEE DETAILS 5 AND 6/A860 FOR ANCHORAGE.

PT-7 — COLOR TAG, SEE COLOR SCHEDULE SHEET A704

FLOOR PLAN LEGEND

architecture
westbergwhite
14471 CHAMBERS RD, SUITE 210
TUSTIN, CA 92780
(714) 508-1780 508-1790 FAX

LICENSED ARCHITECT — PAUL WESTBERG — C-11045 EXP.9-2019 — STATE OF CALIFORNIA

STATE:

ARCHITECT:

CONSULTANT:

PROJECT NAME:

LIBERAL ARTS CAMPUS
KINESIOLOGY LABS and AQUATIC CENTER
4901 EAST CARSON STREET
LONG BEACH, CA 90806

CLIENT:

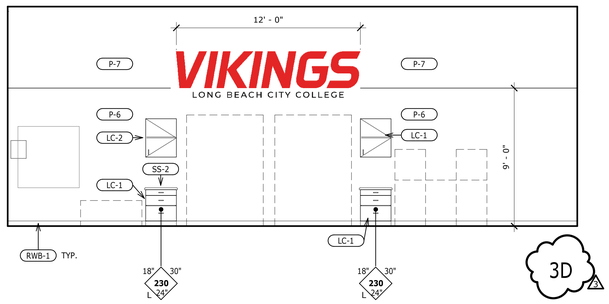
LONG BEACH CITY COLLEGE
4901 EAST CARSON STREET
LONG BEACH, CA 90806

No.	Rev. Date	Description
3	12-17-19	ADDENDUM 3

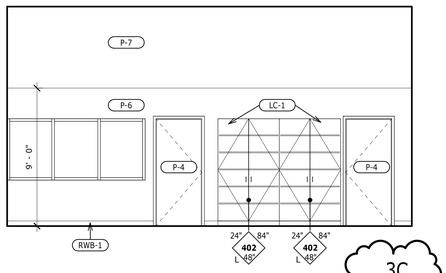
JOB NO:	16042.01
DATE:	09/18/19
DRAWN:	MS / EM / AN
CHECK:	JC
ARCHITECT:	PDW
ENGINEER:	

SHEET DESCRIPTION:
ENLARGED SHOWER / LOCKER PLAN AND INTERIOR ELEVATIONS

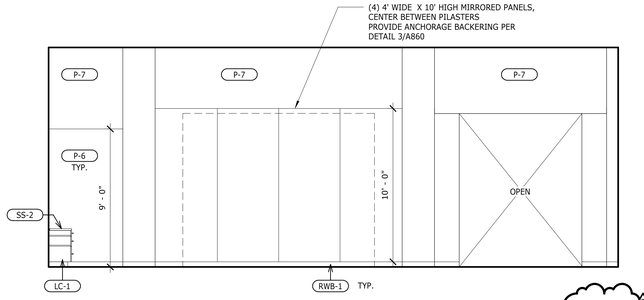
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W-A603



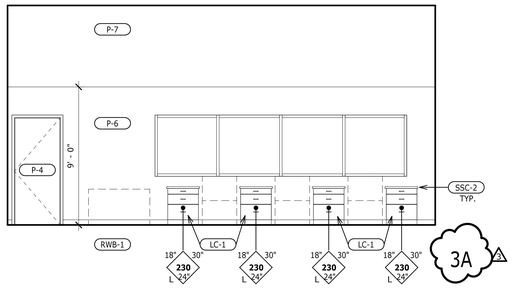
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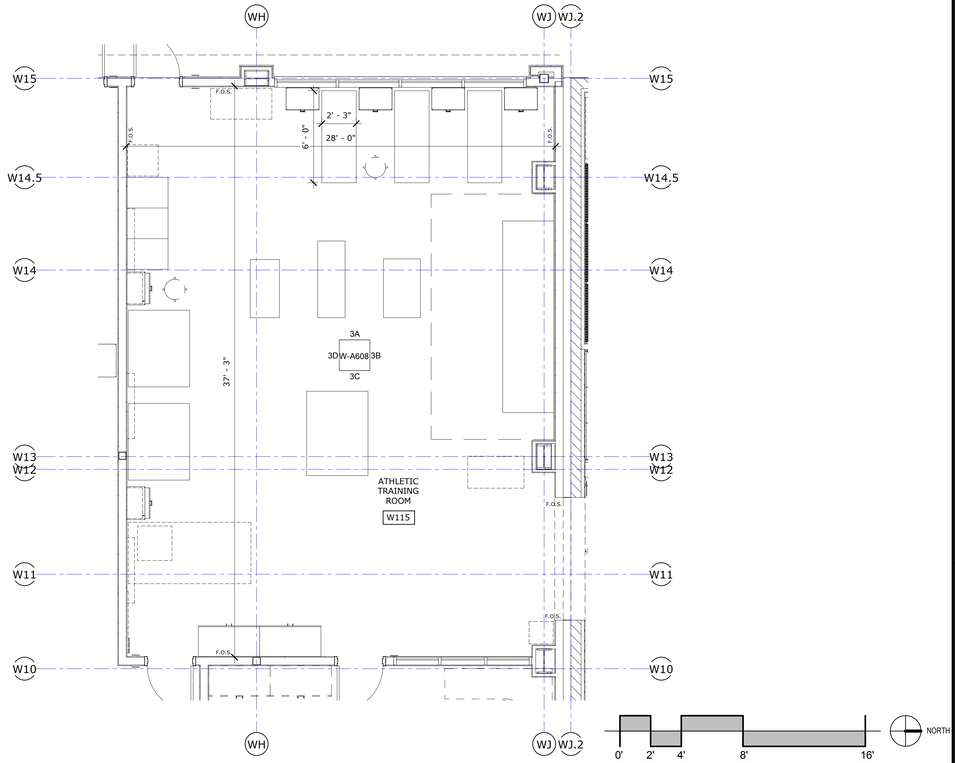
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3B

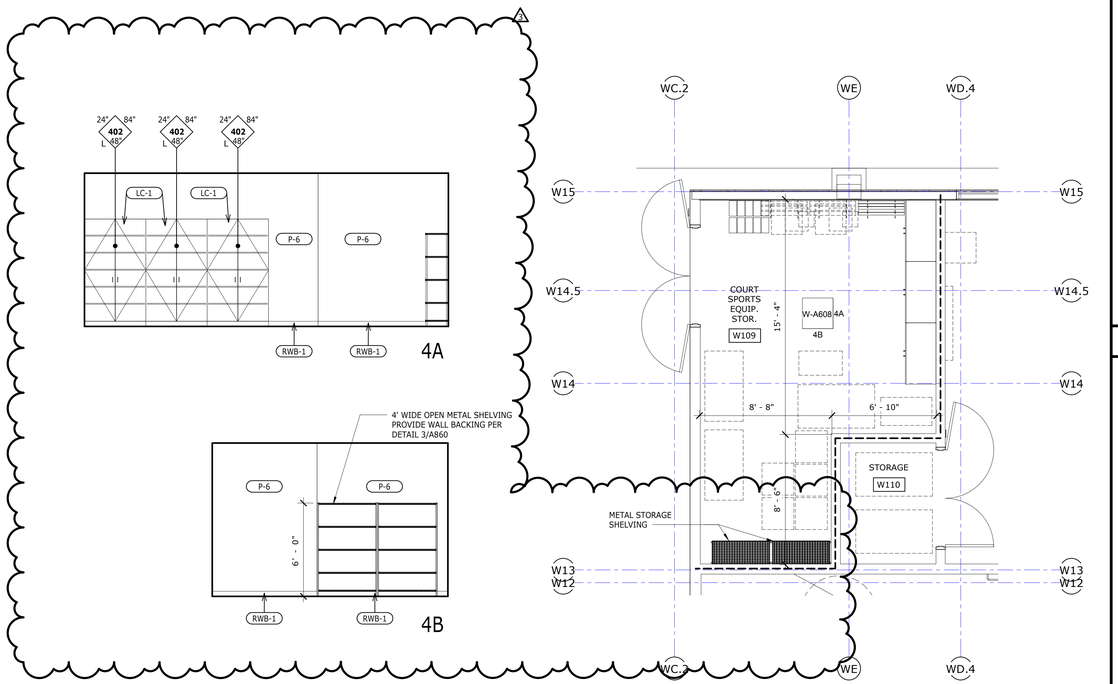


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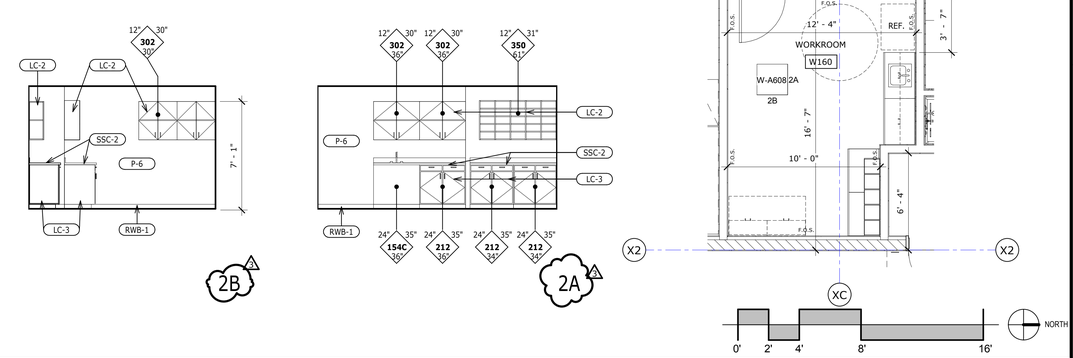
ENLARGED ATHLETIC TRAINING ROOM FLOOR PLAN & INTERIOR ELEVATIONS

1/4" = 1' - 0" | 3



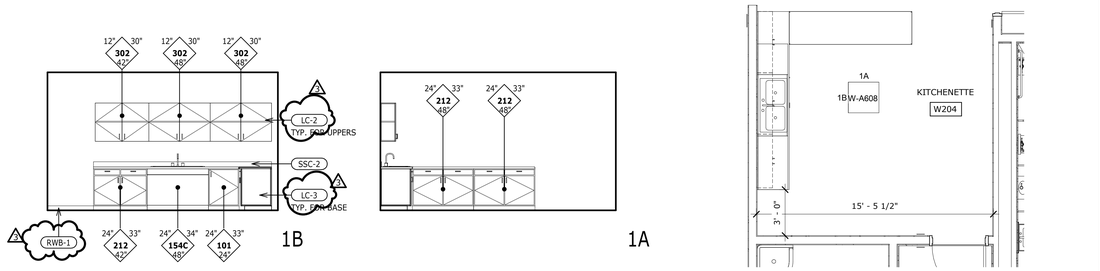
ENLARGED COURT SPORTS EQUIP. STOR. FLOOR PLAN & INTERIOR ELEVATIONS

1/4" = 1' - 0" | 4



ENLARGED WORKROOM FLOOR PLAN & INTERIOR ELEVATIONS

1/4" = 1' - 0" | 2



ENLARGED KITCHENETTE FLOOR PLAN & INTERIOR ELEVATIONS

1/4" = 1' - 0" | 1

STATE:

ARCHITECT:

architecture
westbergwhite
14471 CHAMBERS RD, SUITE 210
TUSTIN, CA 92780
(714) 508-1780 508-1790 FAX

LICENSED ARCHITECT PAUL DENNIS WESTBERG STATE OF CALIFORNIA C-11045 EXP.9-2019

CONSULTANT:

PROJECT NAME:

LIBERAL ARTS CAMPUS
KINESIOLOGY LABS and AQUATIC CENTER
4901 EAST CARSON STREET
LONG BEACH, CA 90806

CLIENT:

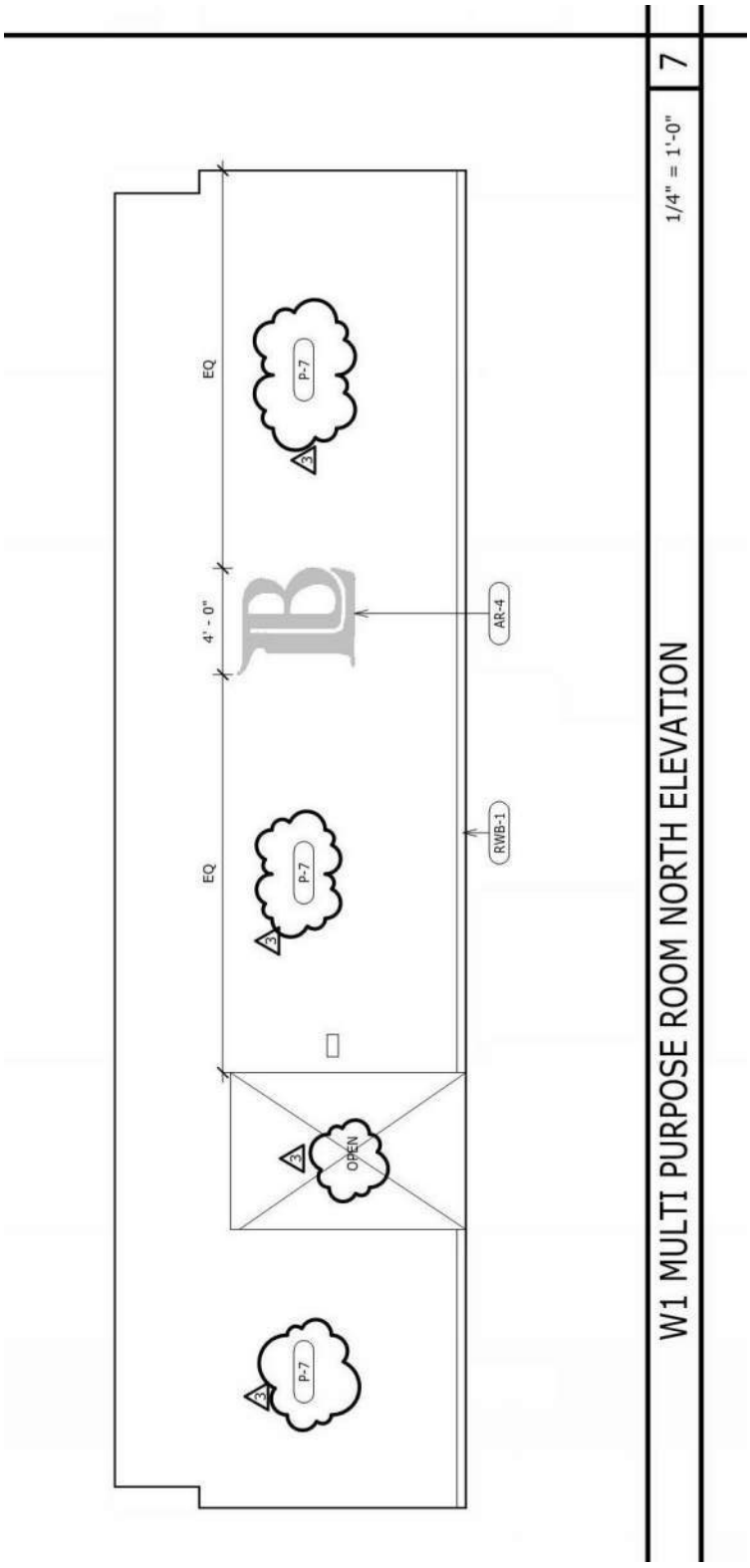
LONG BEACH CITY COLLEGE
4901 EAST CARSON STREET
LONG BEACH, CA 90806

No.	Rev. Date	Description
3	12-17-19	ADDENDUM 3

JOB NO: 16042.01
DATE: 09/18/19
DRAWN: EM / MS
CHECK: JC
ARCHITECT: PDW
ENGINEER:

SHEET DESCRIPTION:
ENLARGED PLANS & INTERIOR ELEVATIONS

SHEET NO:
A W-A608



12/16/2019 7:49:38 AM SKA71

architecture
westbergwhite
14471 CHAMBERS RD, SUITE 210
TUSTIN, CA 92780
(714) 508-1780 508-1790 FAX

ARCHITECT:

LICENSED ARCHITECT PAUL WESTBERG STATE OF CALIFORNIA

PROJECT:

LIBERAL ARTS CAMPUS

KINESIOLOGY LABS and AQUATIC CENTER

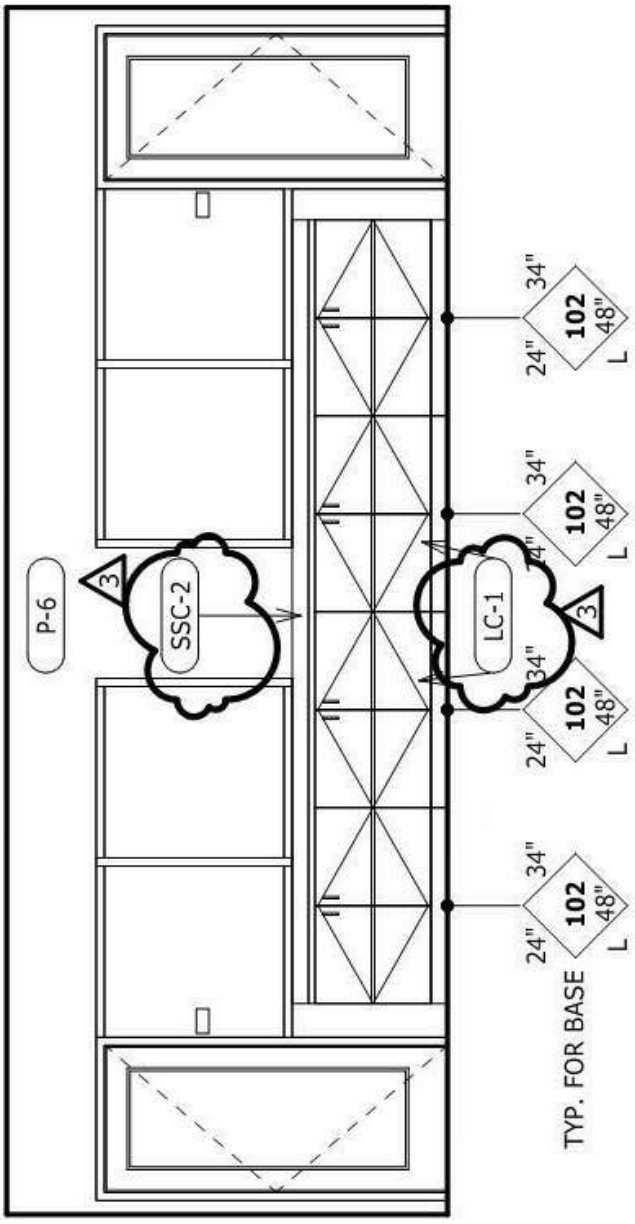
LONG BEACH CITY COLLEGE

SHEET DESCRIPTION:

INTERIOR ELEVATIONS REVISED DETAIL 7/W-A609 (N.T.S.)

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DSA #: 03-119628	JOB NO: 16042.01
ADDENDA #: 03	DRAWN: EM / JC
CCD #:	SHEET
BULLETIN #:	SKA-71
RFI #:	

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W2 OFFICE CIRC. WEST ELEV. - W156

1/4" = 1'-0"

5

12/16/2019 7:49:38 AM SKA72

architecture
westbergwhite
14471 CHAMBERS RD, SUITE 210
TUSTIN, CA 92780
(714) 508-1780 508-1790 FAX

ARCHITECT:

LICENSED ARCHITECT PAUL WESTBERG STATE OF CALIFORNIA

PROJECT:

LIBERAL ARTS CAMPUS

KINESIOLOGY LABS and AQUATIC CENTER

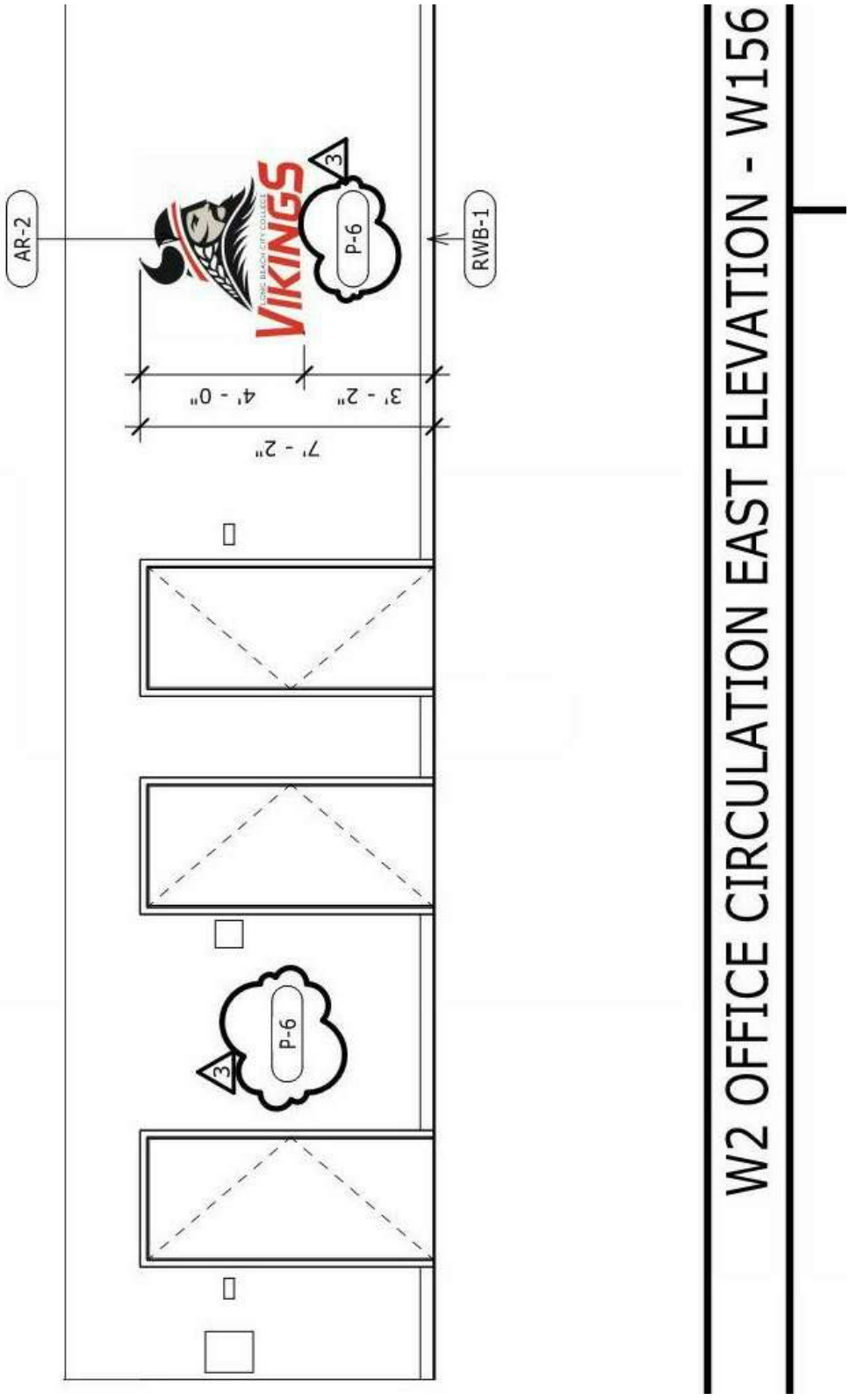
LONG BEACH CITY COLLEGE

SHEET DESCRIPTION:

INTERIOR ELEVATIONS REVISED DETAIL 5/W-A609 (N.T.S.)

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DSA #: 03-119628	JOB NO: 16042.01
ADDENDA #: 03	DRAWN: EM / JC
CCD #:	SHEET
BULLETIN #:	SKA-72
RFI #:	

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W2 OFFICE CIRCULATION EAST ELEVATION - W156

12/16/2019 7:49:38 AM SKA73

architecture
westbergwhite
14471 CHAMBERS RD, SUITE 210
TUSTIN, CA 92780
(714) 508-1780 508-1790 FAX

ARCHITECT:

LICENSED ARCHITECT PAUL WESTBERG STATE OF CALIFORNIA

PROJECT:

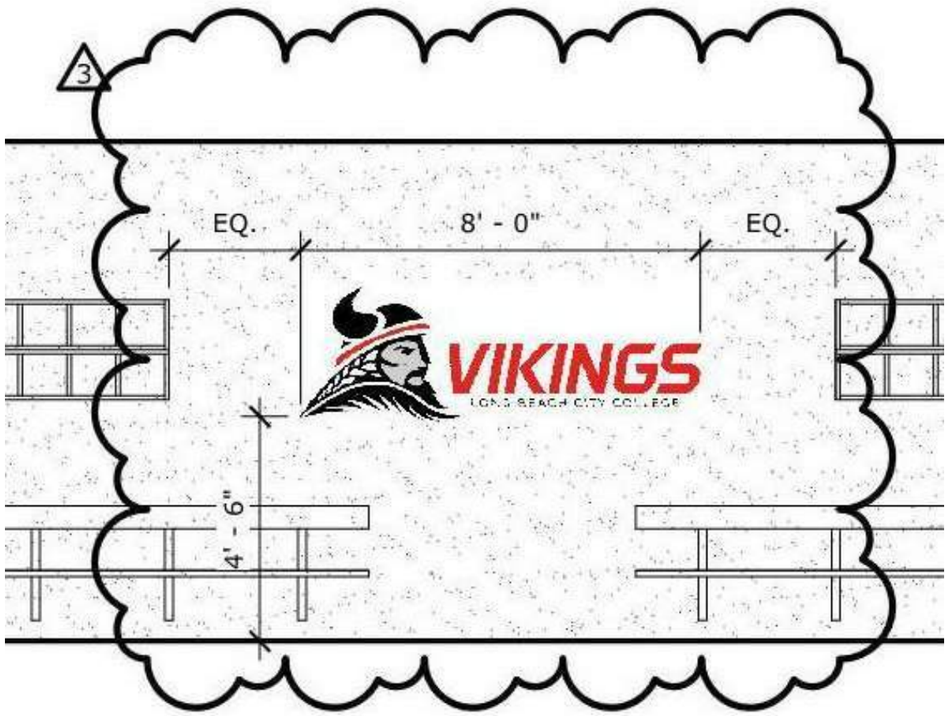
LIBERAL ARTS CAMPUS
KINESIOLOGY LABS and AQUATIC CENTER
LONG BEACH CITY COLLEGE

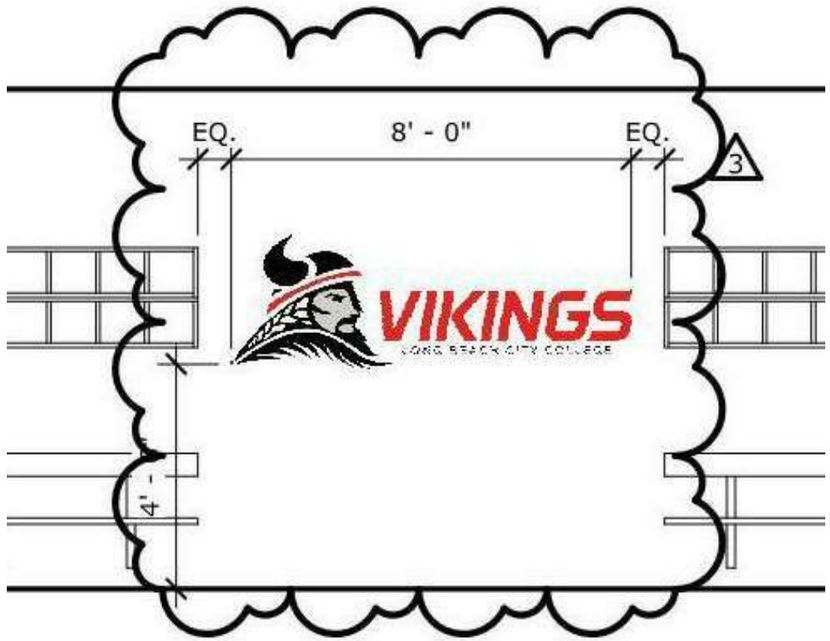
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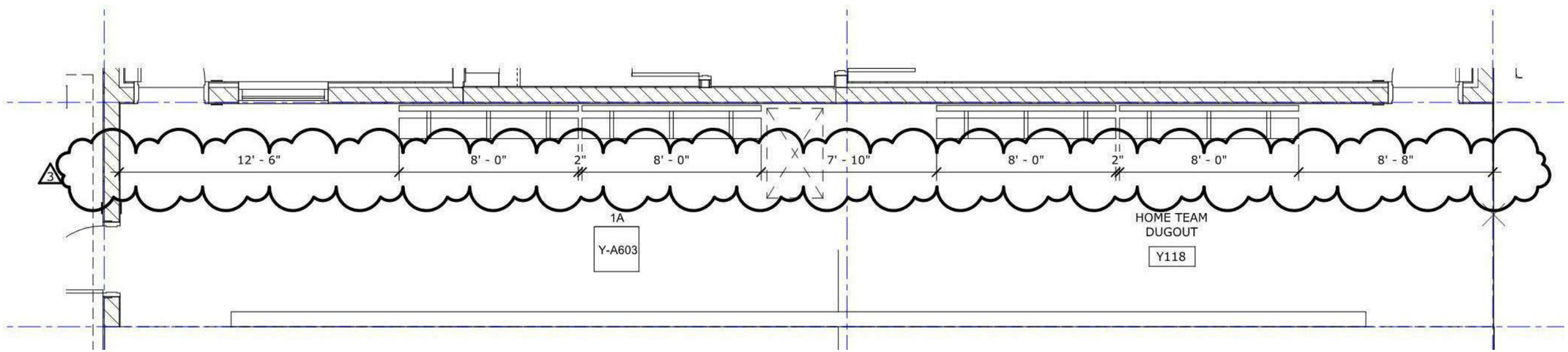
INTERIOR ELEVATIONS REVISED DETAIL 2/W-A609 (N.T.S.)

DSA FILE NO: 19-C3	DATE: 12/17/19
DSA #: 03-119628	JOB NO: 16042.01
ADDENDA #: 03	DRAWN: EM / JC
CCD #:	SHEET
BULLETIN #:	SKA-73
RFI #:	

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architecture
westbergwhite
14471 CHAMBERS RD, SUITE 210
TUSTIN, CA 92780
(714) 508-1780 508-1790 FAX

ARCHITECT:

LICENSED ARCHITECT
PAUL [illegible] WESTBERG
STATE OF CALIFORNIA
[illegible]

PROJECT:
LIBERAL ARTS CAMPUS
KINESIOLOGY LABS and AQUATIC CENTER
LONG BEACH CITY COLLEGE

SHEET DESCRIPTION:
ENLARGED PLANS AND INTERIOR ELEVATIONS REVISED DETAILS 1 AND 3/Y-A603 (N.T.S.)

DATE:	12/17/19
JOB NO:	16042.01
DRAWN:	EM / JC
DSA FILE NO:	19-C3
DSA APP NO:	03-119628
ADDENDA #:	03
CCD #:	
BULLETIN #:	
RFI #:	

SHEET
SKA-74

BUILDING 'W'

FIRST FLOOR

NO.	NAME	FLOOR FINISH	FLOOR BASE	WALL FINISH NORTH FIN	NORTH MAT'L	EAST FIN	EAST MAT'L	SOUTH FIN	SOUTH MAT'L	WEST FIN	WEST MAT'L	CEILING MAT'L	CEILING FIN	CASEWORK FACE MATERIAL	COUNTERTOP MATERIAL	REMARKS
W	POOL															
W	DECK															
W100	EQUIP. RM															
W101	TICKETING	BBT	RUBBER	PE	GB	PE	GB	PE	GB	PE	GB	ACT	FACTORY			
W102	FIRE RISER	CONC	RUBBER	PE	WRGB	PE	WRGB	PE	WRGB	PE	WRGB	WRGB	PF			
W103	ALL GENDER	CONC	PT	FACTORY	PT	FACTORY	PT	FACTORY	PT	FACTORY	PT	WRGB	PSG			
W104	(M)R/R	CONC	PT	FACTORY	PT	FACTORY	PT	FACTORY	PT	FACTORY	PT	WRGB	PSG			
W105	(M) R/R	CONC	PT	FACTORY	PT	FACTORY	PT	FACTORY	PT	FACTORY	PT	WRGB	PSG			
W106	PLUMBING CHASE	CONC		UNFINISHED	EXPOSED	UNFINISHED	EXPOSED	UNFINISHED	EXPOSED	UNFINISHED	EXPOSED	EXPOSED	UNFINISHED			
W107	(W) R/R	CONC	PT	FACTORY	PT	FACTORY	PT	FACTORY	PT	FACTORY	PT	WRGB	PSG			
W108	(W) R/R	CONC	PT	FACTORY	PT	FACTORY	PT	FACTORY	PT	FACTORY	PT	WRGB	PSG			
W109	COURT SPORTS EQUIP. STOR.	CONC	RUBBER	PF	ARGB	PF	ARGB	PF	ARGB	PF	ARGB	ARGB	PF	LAMINATE		
W110	STORAGE	RUBBER SPORT	RUBBER	PF	GB	PF	GB	PF	GB	PF	GYPBOARD	ACT	FACTORY			
W111	SHARED TEAM ROOM	RUBBER SPORT	RUBBER	PE	ARGB	PE	ARGB	PE	ARGB	PE	ARGB	ACT	FACTORY			
W112	CUSTODIAL	CONC	RUBBER	PF	WRGB	PF	FRP	FACTORY	FRP	FACTORY	WRGB	WRGB	PF			
W113	ALL GENDER	CONC	PT	FACTORY	PT	FACTORY	PT	FACTORY	PT	FACTORY	PT	WRGB	PSG			
W114	PASSAGEWAY	PT	PT	PE	ARGB	PE	ARGB	PE	ARGB	PE	ARGB	ACT	FACTORY			
W115	ATHLETIC TRAINING ROOM	RUBBER SPORT	RUBBER	PE	GB	PE	GB	PE	GB	PE	GB	EXPOSED	PF	LAMINATE	SOILD SURFACE	NORTH WALL-TO RECIEVE FULL HEIGHT MIRRORS/PARTIAL WALLS-SEE PLAN
W116	ADJUNCT FACULTY OFFICE (3)	CPT	RUBBER	PE	GB	PE	GB	PE	GB	PE	GB	ACT	FACTORY			
W117	CART STORAGE	CONC	RUBBER	PF	ARGB	PF	ARGB	PF	ARGB	PF	ARGB	WRGB	PF			
W118	WET ROOM	CONC	PT	FACTORY	PT	FACTORY	PT	FACTORY	PT	FACTORY	PT	EXPOSED	PF	LAMINATE	SOILD SURFACE	
W119	EXAM RM.	BBT	RUBBER	PE	GB	PE	GB	PE	GB	PE	GB	ACT	FACTORY	LAMINATE	SOILD SURFACE	
W120	WOMEN'S SOCCER COACH OFFICE (2)	CPT	RUBBER	PE	GB	PE	GB	PE	GB	PE	GB	ACT	FACTORY			
W121	HOME (W) SOCCER LOCKER RM	PT/CONC/RUBBER SPORT	RUBBER	FACTORY	PT	FACTORY	PT	FACTORY	PT	FACTORY	PT	WRGB	PSG			TILE FULL HEIGHT, WALLS IN SHOWER AREA (ALL WALLS), RESTROOM AREA ALL WALLS
W122	TEAM ROOM	RUBBER SPORT	RUBBER	PE	ARGB	PE	ARGB	PE	ARGB	PE	ARGB	ACT	FACTORY			
W123	ELEC	CONC	RUBBER	PF	GB	PF	GB	PF	GB	PF	GB	EXPOSED	UNFINISHED			
W124	I.T.	CONC	RUBBER	PF	GB	PF	GB	PF	GB	PF	GB	EXPOSED	UNFINISHED			
W125	STORAGE	CONC	RUBBER	PF	GB	PF	GB	PF	GB	PF	GB	ACT	FACTORY			
W126	HOME (M) SOCCER LOCKER RM	PT/CONC/RUBBER SPORT	PT	FACTORY	PT	FACTORY	PT	FACTORY	PT	FACTORY	PT	WRGB	PSG			TILE FULL HEIGHT, WALLS IN SHOWER AREA (ALL WALLS), RESTROOM AREA ALL WALLS
W127	MEN'S SOCCER COACH OFFICE (2)	CPT	RUBBER	PE	GB	PE	GB	PE	GB	PE	GB	ACT	FACTORY			
W128	ATHLETIC STORAGE	CONC	RUBBER	PF	MASONRY	PF	ARGB	PF	ARGB	PF	MASONRY	EXPOSED	PF			
W129	FACILITIES STORAGE	CONC	RUBBER	PF	GB	PF	MASONRY	PF	MASONRY	PF	MASONRY	EXPOSED	PF			
W130	VESTIBULE	CONC	RUBBER	PE	ARGB	PE	ARGB	PE	ARGB	PE	ARGB	WRGB	PE			
W131	VISITOR (M) AQUATIC LOCKER RM	PT/CONC	RUBBER	FACTORY	PT	FACTORY	PT	FACTORY	PT	FACTORY	PT	WRGB	PSG			
W132	VISITOR TEAM RM	RUBBER SPORT	RUBBER	PE	ARGB	PE	ARGB	PE	ARGB	PE	ARGB	ACT	FACTORY			
W133	VESTIBULE	CONC	RUBBER	PE	ARGB	PE	ARGB	PE	ARGB	PE	ARGB	WRGB	PE			
W134	VISITOR (W) AQUATIC LOCKER ROOM	PT/CONC	RUBBER	FACTORY	PT	FACTORY	PT	FACTORY	PT	FACTORY	PT	WRGB	PSG			
W135	POOL EQUIPMENT	CONC	RUBBER	PF	ARGB	PF	MASONRY	PF	ARGB	PF	MASONRY	EXPOSED	PF			
W136	MECHANICAL ROOM	CONC	RUBBER	PF	MASONRY	PF	MASONRY	PF	ARGB	PF	MASONRY	EXPOSED	UNFINISHED			
W137	OUTDOOR POOL EQUIPMENT STORAGE	CONC	N/A	FACTORY	EXT. PLASTER	FACTORY	METAL FENCE	FACTORY	EXT. PLASTER	N/A	CHAIN LINK					
W138	OUTDOOR ATHLETIC FIELD EQUIPMENT STORAGE	CONC	N/A	FACTORY	EXT. PLASTER	N/A	CHAIN LINK	FACTORY	EXT. PLASTER	N/A	CHAIN LINK					
W140	CO2/ACID ROOM	CONC	CONC	UNFINISHED	MASONRY	UNFINISHED	MASONRY	UNFINISHED	MASONRY	UNFINISHED	MASONRY	EXPOSED	PF			HIGH PERFORMANCE PAINT, TYPE C. AT EXPOSED DECK AND STEEL
W141	CHLORINE ROOM	CONC	CONC	UNFINISHED	MASONRY	UNFINISHED	MASONRY	UNFINISHED	MASONRY	UNFINISHED	MASONRY	EXPOSED	PF			HIGH PERFORMANCE PAINT, TYPE C. AT EXPOSED DECK AND STEEL
W142	MECHANICAL ROOM	CONC		UNFINISHED	MASONRY	UNFINISHED	MASONRY	UNFINISHED	MASONRY	UNFINISHED	MASONRY	EXPOSED	PF			
W143	POOL PUMP & EQUIP. RM	CONC	RUBBER	FACTORY	MASONRY	FACTORY	MASONRY	FACTORY	MASONRY	FACTORY	MASONRY	EXPOSED	PF			
W144	AV CONTROL OFFICE	BBT	RUBBER	PE	GB	PE	GB	PE	GB	PE	GB	ACT	FACTORY			
W145	VESTIBULE	CONC	RUBBER	PE	ARGB	PE	ARGB	PE	ARGB	PE	ARGB	WRGB	PE			
W146	WOMEN'S AQUATICS HOME TEAM LOCKER RM	PT/CONC	PT	FACTORY	PT	FACTORY	PT	FACTORY	PT	FACTORY	PT	WRGB	PSG			TILE FULL HEIGHT, WALLS IN SHOWER AREA (ALL WALLS), RESTROOM AREA ALL WALLS
W147	HOME OUTDOOR STAGING	CONC		FACTORY	EXT. PLASTER	FACTORY	EXT. PLASTER	FACTORY	EXT. PLASTER			EXT. PLASTER	FACTORY			
W148	HOME TEAM RM	RUBBER SPORT	RUBBER	PE	ARGB	PE	ARGB	PE	ARGB	PE	ARGB	ACT	FACTORY			
W149	CHAIR STORAGE	RUBBER SPORT	RUBBER	PF	ARGB	PF	ARGB	PF	ARGB	PF	ARGB	ACT	FACTORY			
W150	ELECT.	CONC	RUBBER	PF	GB	PF	GB	PF	GB	PF	GB	GB	PF			
W151	IDF	CONC	RUBBER	PF	GB	PF	GB	PF	GB	PF	GB	GB	PF			
W152	VESTIBULE	CONC	RUBBER	PE	ARGB	PE	ARGB	PE	ARGB	PE	ARGB	WRGB	PE			
W153	MEN'S AQUATICS HOME TEAM LOCKER RM	PT/CONC	PT	FACTORY	PT	FACTORY	PT	FACTORY	PT	FACTORY	PT	WRGB	PSG			TILE FULL HEIGHT, WALLS IN SHOWER AREA (ALL WALLS), RESTROOM AREA ALL WALLS
W154	ALL GENDER	CONC	PT	FACTORY	PT	FACTORY	PT	FACTORY	PT	FACTORY	PT	WRGB	PSG			
W155	LOBBY	PT	PT	PE	ARGB	FACTORY	GLASS	PE	ARGB	PE	ARGB	LINEAR SUSPENDED	FACTORY			WEST WALL-TO RECIEVE GRAPHIC WALLCOVERING
W156	INT. CIRCUL.	CPT	RUBBER	PE	GB	PE	GB	PE	GB	PE/FACTORY	GB/GLASS	ACT	FACTORY			EAST WALL-TO RECIEVE GRAPHIC WALLCOVERING
W157	WOMEN'S AQUATICS COACH LOCKER ROOM	CONC	PT	FACTORY	PT	FACTORY	PT	FACTORY	PT	FACTORY	PT	WRGB	PSG			
W158	ALL GENDER	CONC	PT	FACTORY	PT	FACTORY	PT	FACTORY	PT	FACTORY	PT	WRGB	PSG			
W159	MEN'S AQUATICS COACH LOCKER ROOM	CONC	PT	FACTORY	PT	FACTORY	PT	FACTORY	PT	FACTORY	PT	WRGB	PSG			TILE FULL HEIGHT, WALLS IN SHOWER AREA (ALL WALLS), RESTROOM AREA ALL WALLS
W160	WORKROOM	BBT	RUBBER	PE	GB	PE	GB	PE	GB	PE	GB	ACT	FACTORY	LAMINATE	SOLID SURFACE	
W161	FIRE RISER	CONC	RUBBER	PF	WRGB	PF	WRGB	PF	WRGB	PF	WRGB	WRGB	PF			
W162	KINESIOLOGY ADJUNCT FACULTY OFFICE	CPT	RUBBER	PE	GB	PE	GB	PE	GB	PE/FACTORY	GB/GLASS	ACT	FACTORY			
W163	AQUATICS HEAD COACH (1) OFFICE	CPT	RUBBER	PE	GB	FACTORY	GLASS	PE	GB	PE/FACTORY	GB/GLASS	ACT	FACTORY			
W164	AQUATICS CONFERENCE ROOM	CPT	RUBBER	PE	GB	FACTORY	GLASS	PE	GB	PE/FACTORY	GB/GLASS	ACT	FACTORY			
W165	AQUATICS ASSIS. COACHES (3) OFFICE	CPT	RUBBER	PE	GB	FACTORY	GLASS	PE	GB	PE/FACTORY	GB/GLASS	ACT	FACTORY			
W166	AQUATICS HEAD COACH (1) OFFICE	CPT	RUBBER	PE	GB	PE/FACTORY	GB/GLASS	PE	GB	PE/FACTORY	GB/GLASS	ACT	FACTORY			

BUILDING 'W'

SECOND FLOOR

NO.	NAME	FLOOR FINISH	FLOOR BASE	WALL FINISH NORTH FIN	NORTH MAT'L	EAST FIN	EAST MAT'L	SOUTH FIN	SOUTH MAT'L	WEST FIN	WEST MAT'L	CEILING MAT'L	CEILING FIN	CASEWORK FACE MATERIAL	COUNTERTOP MATERIAL	REMARKS
W201	MULTI-PURPOSE ATHLETIC EVENT CENTER	CPT	RUBBER	PE	ARGB	PE	ARGB	PE/WALLCOVE RING	ARGB	PE	ARGB	GB/ACT	FACTORY			
W202	ALL GENDER	CONC	PT	FACTORY	PT	FACTORY	PT	FACTORY	PT	FACTORY	PT	WRGB	PSG			
W203	CUSTODIAL	CONC	RUBBER	PF	ARGB	FACTORY	FRP	FACTORY	FRP	FACTORY	FRP	WRGB	PF			
W204	KITCHENETTE	BBT	RUBBER	PE	ARGB	PE	ARGB	PE	ARGB	PE	ARGB	ACT	FACTORY	LAMINATE	SOLID SURFACE	TOP AND BACKSPLASH
W205	A/V CLOSET	CONC	RUBBER	PF	GB	PF	GB	PF	GB	PF	GB	EXPOSED	PF			
W206	ELECTRICAL	CONC	RUBBER	PF	GB	PF	GB	PF	GB	PF	GB	EXPOSED	PF			
W207	STORAGE ROOM	CONC	RUBBER	PE	ARGB	PE	ARGB	PE	ARGB	PE	ARGB	ACT	FACTORY			
W208	(M) R/R	CONC	PT	FACTORY	PT	FACTORY	PT	FACTORY	PT	FACTORY	PT	WRGB	PSG	LAMINATE SKIRT	SOLID SURFACE	
W209	(W) R/R	CONC	PT	FACTORY	PT	FACTORY	PT	FACTORY	PT	FACTORY	PT	WRGB	PSG	LAMINATE SKIRT	SOLID SURFACE	

ROOM FINISH SCHEDULE

1. FOR TYPICAL SYMBOLS AND ABBREVIATIONS, SEE SHEET G001.
2. SEE INTERIOR ELEVATIONS SHEETS FOR MULTIPLE FINISHES.
3. SEE REFLECTED CEILING PLANS FOR CEILING HEIGHTS.
4. ALL GROUT TO BE SEALED PER SPECIFICATIONS.
5. ALL FINISHES WILL COMPLY WITH CBC, CFC, AND TITLE 19 CCR.
   (a) Class C interior finish materials shall be permitted for wainscotting or paneling of not more than 1,000 square feet of applied surface area in the grade lobby where applied directly to a noncombustible base or over furring strips applied to a noncombustible base and fireblocked as required by Section 803.4.1.
   (b) In exit enclosures of buildings less than three stories in height of other than Group I-3, Class B interior finish for nonsprinklered buildings and Class C interior finish for sprinklered buildings shall be permitted.
   (c) Requirements for rooms and enclosed spaces shall be based upon spaces enclosed by partitions. Where a fire-resistant rating is required for structural elements, the enclosing partitions shall extend from the floor to the ceiling. Partitions that do not comply with this shall be considered enclosing spaces and the rooms or spaces on both sides shall be considered one. In determining the applicable requirements for rooms and enclosed spaces, the specific occupancy thereof shall be the governing factor regardless of the group classification of the building or structure.

FINISH GENERAL NOTES

FLOOR/BASE:

(E)	EXISTING
AWF	ATHLETIC WOOD FLOOR SYSTEM
BRICK	BRICK MASONRY
BBT	BIO BASED TILE
CONC	CONCRETE
CPT	CARPET
CT	CERAMIC TILE
CTCB	CERAMIC TILE COVED BASE
HB	HEAVY BROOM (CONCRETE FINISH ONLY)
LB	LIGHT BROOM (CONCRETE FINISH ONLY)
MB	MEDIUM BROOM (CONCRETE FINISH ONLY)
PT	PORCELIAN TILE
QT	QUARRY TILE
QTCB	QUARRY TILE COVED BASE
RB	RESILIENT BASE
SV	SHEET VINYL
SVB	SHEET VINYL BASE W/ INTEGRAL COVE
TSVB	TOP SET VINYL BASE
VCT	VINYL COMPOSITION TILE
VET	VINYL ENHANCED TILE
VRB	VENTED RUBBER BASE
HW	HARDWOOD
PT	PORCELAIN TILE

WALL/CEILING:

ACT 1	2x4 ACOUSTICAL CEILING TILE SYSTEM
ACT 2	2x2 ACOUSTICAL CEILING TILE SYSTEM
ACT 3	WATER RESISTANT SUSPENDED ACOUSTICAL TILE
ARGB	ABUSE RESISTANT GYPSUM BOARD
AMGB	ABUSE RESISTANT - MOISTURE AND MOLD RESISTANT GYPSUM BOARD
CBB	CEMENTITIOUS BACKER BOARD
CMU	CONCRETE MASONRY UNIT
CONC	CONCRETE
CP	CEMENT PLASTER
CT	CERAMIC TILE
F	FACTORY FINISH
FRP	FIBERGLASS REINFORCED PANEL
GAT	12"x12" GLUE ON ACOUSTICAL TILE
GB	GYPSUM WALLBOARD
GP	GYPSUM PLASTER
HIGB	HI-IMPACT GYPSUM WALLBOARD
HIMGB	HI-IMPACT MOISTURE AND MOLD RESISTANT GYPSUM BOARD
MGB	MOISTURE AND MOLD RESISTANT GYPSUM BOARD
PF	PAINT FLAT
PE	PAINT EGGSHELL
PSG	PAINT SEMI-GLOSS
PG	PAINT GLOSS
PL	PLASTIC LAMINATE
PT	PORCELAIN TILE
SGB	SUSPENDED GYPSUM BOARD CEILING SYSTEM
SMGB SYSTEM	SUSPENDED MOISTURE AND MOLD RESISTANT GYPSUM BOARD CEILING
SS	STAINLESS STEEL
SWS	STOREFRONT WINDOW SYSTEM
VFTB	VINYL FABRIC TACKBOARD
WM	WIRE MESH
WRGB	WATER RESISTANT GYPSUM BOARD

FINISH ABBREVIATIONS

STATE:

ARCHITECT:

architecture
westbergwhite
14471 CHAMBERS RD, SUITE 210
TUSTIN, CA 92780
(714) 508-1780 508-1790 FAX

LICENSED ARCHITECT PAUL WESLEY WESTBERG STATE OF CALIFORNIA C-11045 EXP.9-2019

CONSULTANT:

PROJECT NAME:

LIBERAL ARTS CAMPUS
KINESIOLOGY LABS and AQUATIC CENTER
4901 EAST CARSON STREET
LONG BEACH, CA 90806

CLIENT:

LONG BEACH CITY COLLEGE
4901 EAST CARSON STREET
LONG BEACH, CA 90806

No.	Rev. Date	Description
3	12-17-19	ADDENDUM 3

JOB NO: 16042.01
DATE: 09/18/19
DRAWN: AG
CHECK: JC
ARCHITECT: PDW
ENGINEER:

SHEET DESCRIPTION:
ROOM FINISH SCHEDULE

SHEET NO:
A703.1

BUILDING 'Y'

FIRST FLOOR

ROOM NO.	ROOM NAME	FLOOR FINISH	FLOOR BASE	WALL FINISH NORTH FIN	NORTH MAT'L	EAST FIN	EAST MAT'L	SOUTH FIN	SOUTH MAT'L	WEST FIN	WEST MAT'L	CEILING MAT'L	CEILING FIN	CASEWORK FACE MATERIAL	COUNTERTOP MATERIAL	REMARKS
Y101	ALL GENDER	CONC	PT	FACTORY	PT	FACTORY	PT	FACTORY	PT	FACTORY	PT	WRGB	PSG			
Y102	CUSTODIAL	CONC	RUBBER	PF	WRGB	FACTORY	FRP	FACTORY	FRP	PF	WRGB	WRGB	PF			
Y103	ROOF ACCESS	CONC	RUBBER	PF	GB	PF	GB	PF	GB	PF	GB	GB	PF			
Y104	ELECT.	CONC	RUBBER	PF	GB	PF	GB	PF	GB	PF	GB	EXPOSED	UNFINISHED			
Y105	IDF ROOM	CONC	RUBBER	PF	GB	PF	MASONRY	PF	GB	PF	GB	EXPOSED	UNFINISHED			
Y106	VISITING TEAM DUGOUT	RUBBER SPORT	RUBBER	PE	GP	VINYL COATED	CHAIN LINK	VINYL COATED	CHAIN LINK	PE	GP	EXPOSED	UNFINISHED			
Y107	VISITOR TEAM ROOM	RUBBER SPORT	RUBBER	PE	ARGB	PE	GP	PE	ARGB	PE	ARGB	ACT	FACTORY			
Y108	FACILITIES STORAGE	CONC	RUBBER	PF	ARGB	PF	MASONRY	PF	GP	PF	GP	EXPOSED	UNFINISHED			
Y109	(W) R/R	CONC	PT	FACTORY	PT	FACTORY	PT	FACTORY	PT	FACTORY	PT	WRGB	PSG			
Y110	PLUMBING CHASE	CONC		UNFINISHED	EXPOSED STUD	UNFINISHED	EXPOSED STUD	UNFINISHED	EXPOSED STUD	UNFINISHED	EXPOSED STUD	EXPOSED	UNFINISHED			
Y111	(M)R/R	CONC	PT	FACTORY	PT	FACTORY	PT	FACTORY	PT	FACTORY	PT	WRGB	PSG			
Y112	OFFICE (3)	RUBBER SPORT	RUBBER	PE	GB	PE	GB	PE	MASONRY	PE	MASONRY	ACT	FACTORY			
Y113	ALL GENDER	CONC	PT	FACTORY	PT	FACTORY	PT	FACTORY	PT	FACTORY	PT	WRGB	PSG			
Y114	FIRE RISER	CONC	RUBBER	PF	MASONRY	PF	GB	PF	GB	PF	GB	EXPOSED	UNFINISHED			
Y115	VESTIBULE	RUBBER SPORT	RUBBER	PE	ARGB	PE	ARGB	PE	ARGB	PE	ARGB	GB	PE			TILE FULL HEIGHT, WALLS IN SHOWER AREA (ALL WALLS), RESTROOM AREA ALL WALLS
Y116	HOME TEAM LOCKER RM	PT/CONC/RUBBER SPORT	PT	FACTORY	PT	FACTORY	PT	FACTORY	PT	FACTORY	PT	WRGB	PSG			
Y117	VESTIBULE	RUBBER SPORT	RUBBER	PE	ARGB	PE	ARGB	PE	ARGB	PE	ARGB	GB	PE			
Y118	HOME TEAM DUGOUT	RUBBER SPORT	RUBBER	PE	MASONRY	VINYL COATED	CHAIN LINK	VINYL COATED	CHAIN LINK	PE	MASONRY	EXPOSED	PE			
Y119	HOME SOFTBALL TEAM RM	RUBBER SPORT	RUBBER	PE	ARGB	PE	ARGB	PE	ARGB	PE	ARGB	ACT	FACTORY			
Y120	CHAIR STORAGE	RUBBER SPORT	RUBBER	PE	ARGB	PE	ARGB	PF	ARGB	PF	ARGB	ACT	FACTORY			
Y121	EQUIPMENT STORAGE	CONC	RUBBER	PF	ARGB	PF	ARGB	PF	ARGB	PF	ARGB	GB	PF			
Y122	ROOF ACCESS	CONC	RUBBER	PF	GB	PF	GB	PE	GB	PF	GB	GB	PF			
Y150	BATTING CAGE	FIELD TURF			CHAIN LINK		CHAIN LINK		CHAIN LINK		CHAIN LINK					
Y151	BULLPEN	FIELD TURF			CHAIN LINK		CHAIN LINK		CHAIN LINK		CHAIN LINK					
Y152	HOME BLEACHER															
Y153	SCORE KEEPER															
Y154	VISITOR BLEACHER															
Y155	BULLPEN	FIELD TURF			CHAIN LINK		CHAIN LINK		CHAIN LINK		CHAIN LINK					
Y156	BATTING CAGE	FIELD TURF			CHAIN LINK		CHAIN LINK		CHAIN LINK		CHAIN LINK					

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WALL/CEILING:

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ACT 2	2x2 ACOUSTICAL CEILING TILE SYSTEM
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WRGB	WATER RESISTANT GYPSUM BOARD

ROOM FINISH SCHEDULE

FINISH ABBREVIATIONS

STATE:

ARCHITECT:
architecture
westbergwhite
14471 CHAMBERS RD, SUITE 210
TUSTIN, CA 92780
(714) 508-1780 508-1790 FAX

LICENSED ARCHITECT PAUL DENNIS WESTBERG STATE OF CALIFORNIA C-11045 EXP.9-2019

CONSULTANT:

PROJECT NAME:

LIBERAL ARTS CAMPUS
KINESIOLOGY LABS and AQUATIC CENTER
4901 EAST CARSON STREET
LONG BEACH, CA 90806

CLIENT:

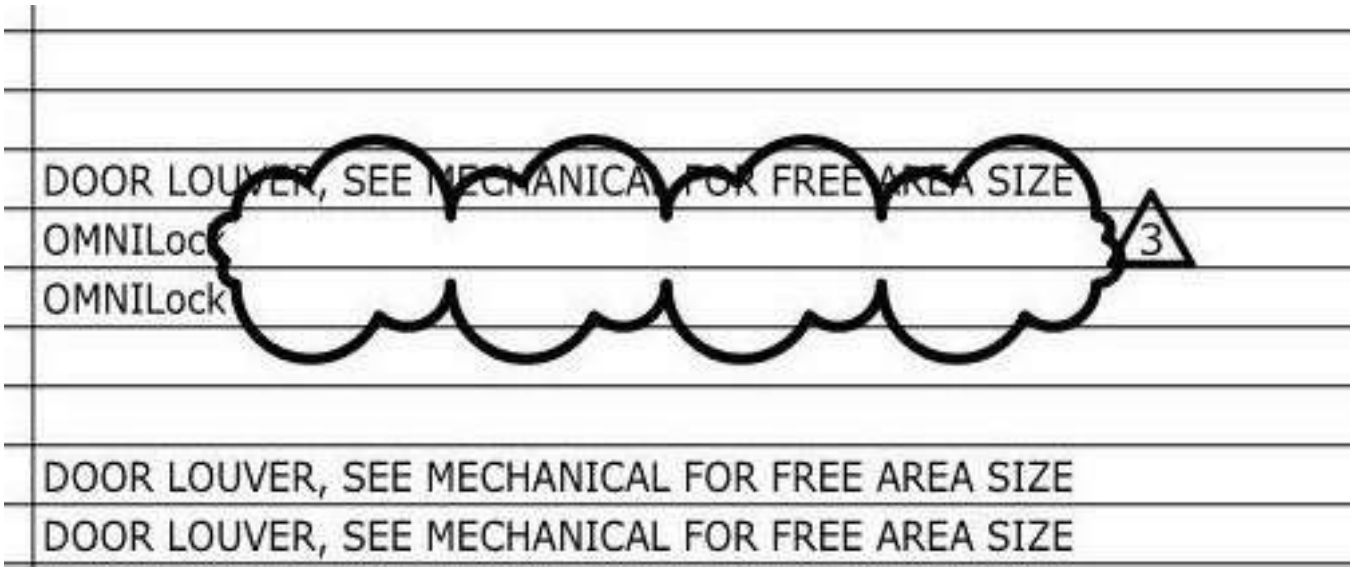
LONG BEACH CITY COLLEGE
4901 EAST CARSON STREET
LONG BEACH, CA 90806

No.	Rev. Date	Description
3	12-17-19	ADDENDUM 3

JOB NO: 16042.01
DATE: 09/18/19
DRAWN: AG
CHECK: JC
ARCHITECT: PDW
ENGINEER:

SHEET DESCRIPTION:
ROOM FINISH SCHEDULE CONT.

SHEET NO:
A703.2



3

Gate Gw20: Provide Von Duprin Local Alarm Hardware to match what is provide in Hardware Set 19.

For fence and gate posts at Gw20 and Gw21: At second floor adjacent to gridline WJ.2 posts are to be connected to cmu wall below per detail 7/S303.

12/15/2019 12:58:58 PM SKA75

architecture
westbergwhite
14471 CHAMBERS RD, SUITE 210
TUSTIN, CA 92780
(714) 508-1780 508-1790 FAX

ARCHITECT:

LICENSED ARCHITECT PAUL WESTBERG STATE OF CALIFORNIA

PROJECT:
LIBERAL ARTS CAMPUS
KINESIOLOGY LABS and AQUATIC CENTER
LONG BEACH CITY COLLEGE

SHEET DESCRIPTION:
BLDG. 'W' DOOR SCHEDULE A701 REVISED NOTE
DOOR W155A (N.T.S.)

DSA FILE NO: 19-C3	DATE: 12/17/19
DSA #: 03-119628	JOB NO: 16042.01
ADDENDA #: 03	DRAWN: EM / JC
CCD #:	SHEET
BULLETIN #:	SKA-75
RFI #:	

C:\Users\emercado\Documents\c16042 KLAC_Master_emercado@wwarch.com.rvt

06 4000 ARCHITECTURAL WOODWORK	WILSONART,LAMINATE	OFFICES, ATC(W115), EXAM RM(W119), COURT SPORTS EQU. STORAGE(W109)	LC-1	PHANTOM PEARL 8211K-28	LAMINATE
	WILSONART,LAMINATE	ALL OFFICES, KITCHENETTE (W204), EXAM RM(W119), WET RM (118), WORK RM(160), ATC(W115)	LC-2	PLATINUM D315-60	LAMINATE
	WILSONART,LAMINATE	KITCHENETTE(W204), WET RM(118), WORK RM(160)	LC-3	LOFT OAK 7968K-12	LAMINATE
	WILSONART, SOLID SURFACE	KITCHENETTE & MISC WORK SURFACES	SSC-2	WHITE STONE 9208CS	SOLID SURFACE
06 6000 PLASTIC FABRICATIONS	3 FORM, CHROMA	EXTERIOR, TOWER -ALL FOUR SIDES	AR-1	COLOR/STYLE: CUSTOM COLOR TO MATCH LB RED	FINISH/THICKNESS: VELLUM F04/ 2" THICK
	3 FORM, KODA XT	INTERIOR, TICKET OFFICE/W2 OFFICE COORIDOR	AR-2	COLOR/STYLE: CMP CUSTOM HIGH RESOLUTION & WHITE OUT W01	FINISH/THICKNESS: SANDSTONE/ 5/8" THICK
	3 FORM, CHROMA	INTERIOR, LOCKER ROOMS	AR-3	COLOR/STYLE: CRANBERRY R17 & REFLECT E01	FINISH/THICKNESS: VELLUM 04/ 5/8" THICK
	3 FORM, CHROMA	INTERIOR,MULTI PURPOSE ROOM	AR-4	COLOR/STYLE: GLACIER D05 & REFLECT E01	FINISH/THICKNESS: VELLUM 04/ 5/8" THICK
	-/NAME PLATE	W2 LOBBY CORRIDOR W155 (RECORDS WALL)	AR-5	COLOR/STYLE: CLEAR	FINISH/THICKNESS: 1/4"
	-/PANEL	W2 LOBBY CORRIDOR W155 (RECORDS WALL)	AR-6	COLOR/STYLE: FROSTED	FINISH/THICKNESS: 5/16"

09 6500 (CONT.) RESILIANT FLOORING	MONDO-SPORT IMPACT FLOORING-INDOOR	ATC ROOM-ACCENT	RF-2b	141 RED	
	MONDO-SPORT IMPACT FLOORING-INDOOR	HOME SOCCER, HOME AQUATICS, ALL TEAM ROOMS, STORAGE-W110	RF-2c	018 DARK GREY	
	MONDO - SUPER X PERFORMANCE FLOORING OUTDOOR	DUGOUTS/SOFTBALL	RF-3	P30	
10 5129 PHENOLIC LOCKERS	SOLID PHENOLIC LOCKERS (BLACK)	LOCKER ROOMS	LW-2	REGIMENTAL RED D12K-18 (MATTE FINISH)	TITAN SOLID PHENOLIC W/ WILSONART LAMINATE
	SOLID PHENOLIC LOCKER BENCHES (BLACK)	LOCKER ROOMS	LW-3	BLACK 1595 (MATTE FINISH)	TITAN SOLID PHENOLIC W/ WILSONART LAMINATE

32 1313 CONCRETE PAVERS	ACKER - STONE IND., CONCRETE PAVERS
	ACKER - STONE IND., CONCRETE PAVERS
	ACKER - STONE IND., CONCRETE PAVERS
	ACKER - STONE IND., CONCRETE PAVERS

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ARCHITECT:

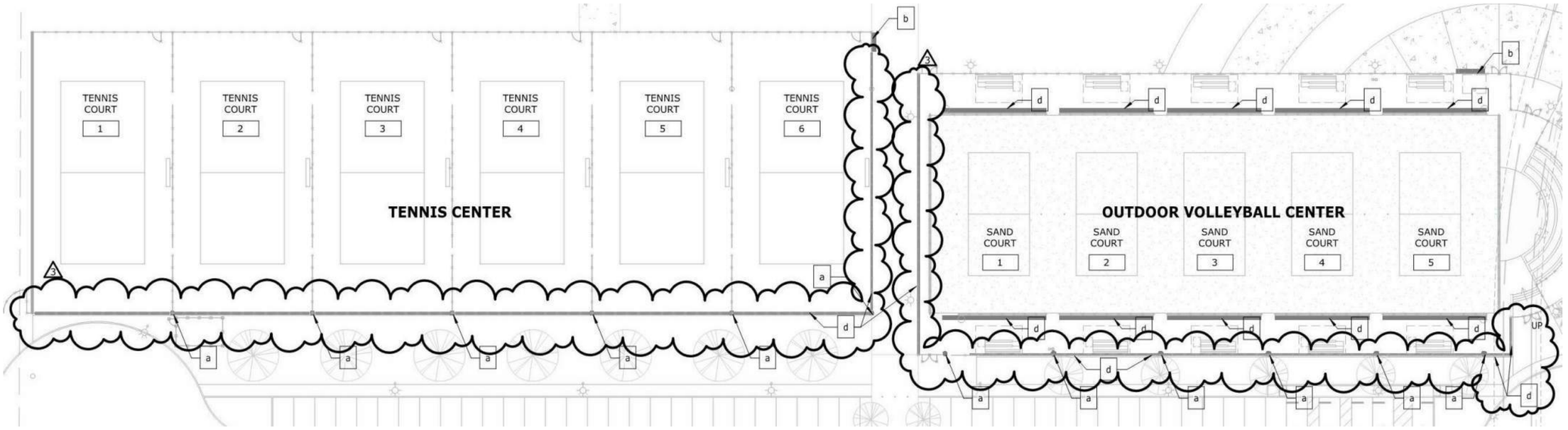
LICENSED ARCHITECT PAUL EMMETT WESTBERG (C-11) EXP 08/31/21 STATE OF CALIFORNIA

PROJECT:
LIBERAL ARTS CAMPUS
KINESIOLOGY LABS and AQUATIC CENTER
LONG BEACH CITY COLLEGE

SHEET DESCRIPTION:
COLOR SCHEDULE REVISED NOTES A704 (N.T.S.)

DATE:	12/17/19
JOB NO:	16042.01
DRAWN:	EM / JC
DSA FILE NO:	19-C3
DSA APP NO:	03-119628
ADDENDA #:	03
CCD #:	
BULLETIN #:	
RFI #:	

SHEET
SKA-76



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ARCHITECT:

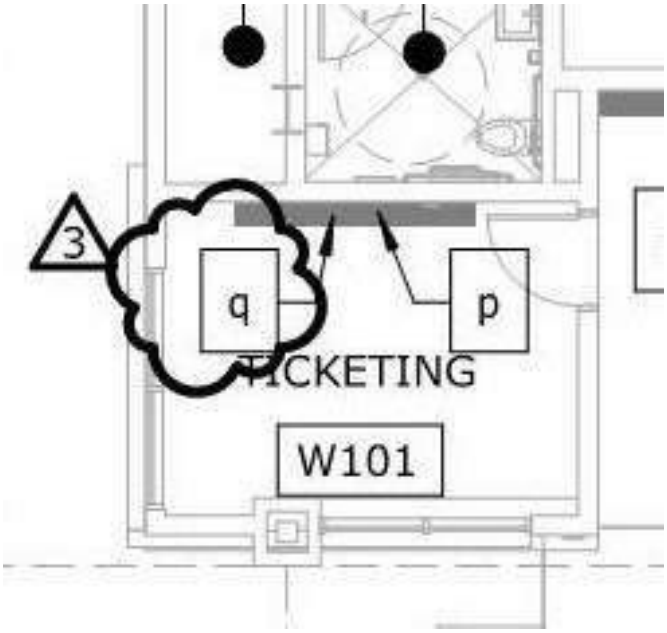
LICENSED ARCHITECT
PAUL [illegible] WESTBERG
STATE OF CALIFORNIA

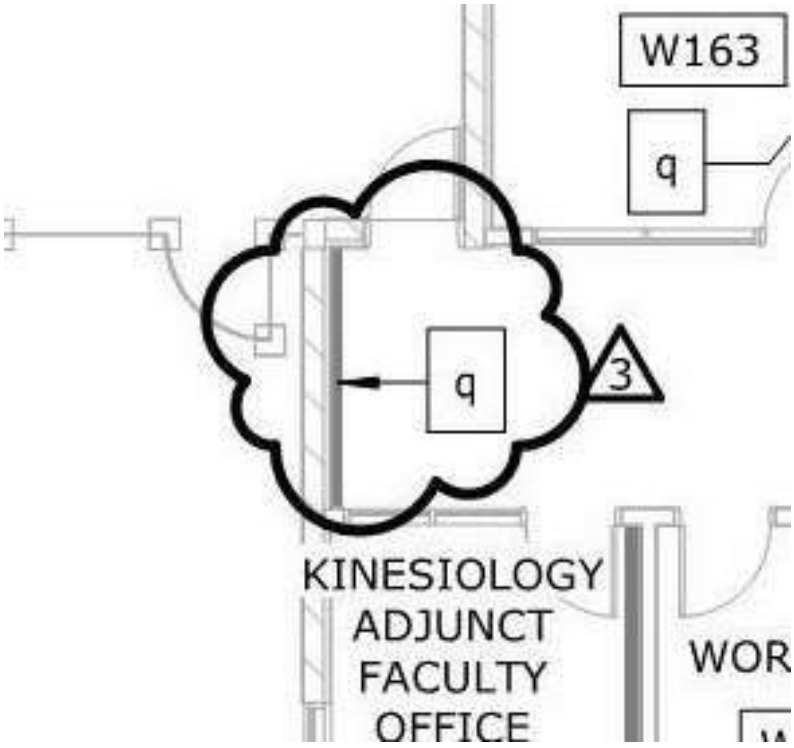
PROJECT:
LIBERAL ARTS CAMPUS
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SHEET DESCRIPTION:
NORTH SITE BRANDING PLAN REVISED DETAIL 1/A820

DATE:	12/17/19
JOB NO:	16042.01
DRAWN:	EM / JC
DSA FILE NO:	19-C3
DSA APP NO:	03-119628
ADDENDA #:	03
CCD #:	
BULLETIN #:	
RFI #:	

SHEET
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12/15/2019 11:36:43 AM SKA78

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PROJECT:

LIBERAL ARTS CAMPUS

KINESIOLOGY LABS and AQUATIC CENTER

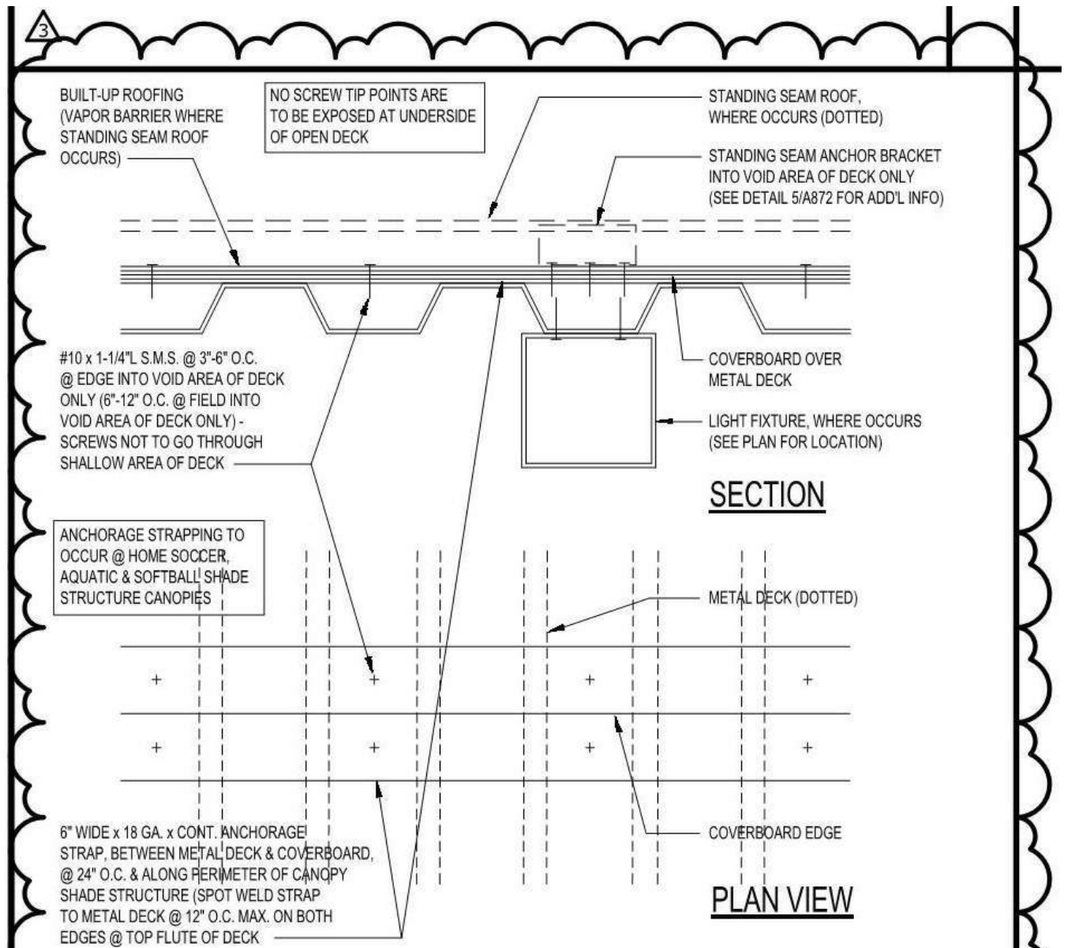
LONG BEACH CITY COLLEGE

SHEET DESCRIPTION:

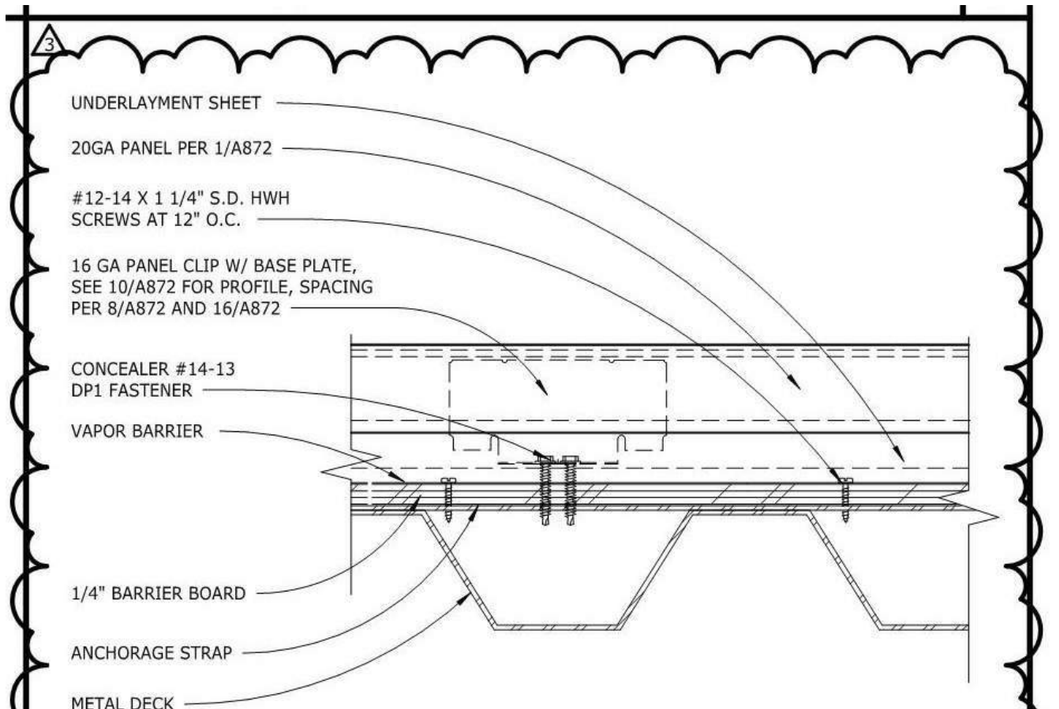
BLDG 'W1' AND 'W2' BRANDING PLANS REVISED
DETAILS 1 AND 2/A821

DSA FILE NO: 19-C3	DATE: 12/17/19
DSA #: 03-119628	JOB NO: 16042.01
ADDENDA #: 03	DRAWN: EM / JC
CCD #:	SHEET
BULLETIN #:	SKA-78
RFI #:	

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ANCHORAGE CONCEALING DETAIL 3" = 1'-0" 17



NOTE: SEE DETAIL 17/A872 FOR ANCHORAGE STRAP INFORMATION

STANDING SEAM O/ MTL DECK 3" = 1'-0" 5

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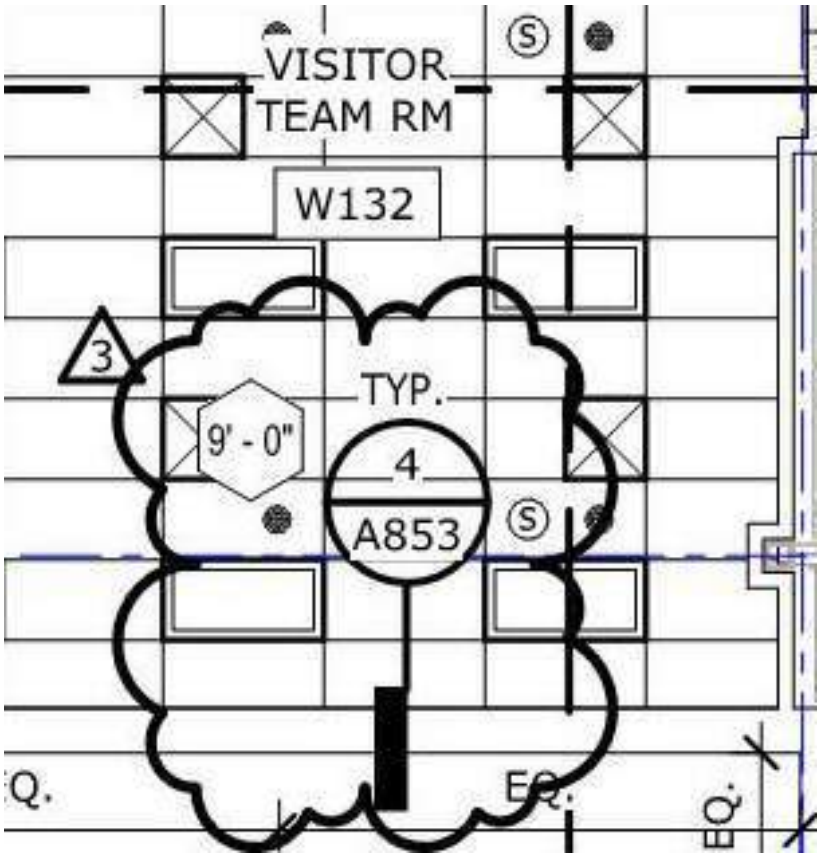
LICENSED ARCHITECT PAUL EDWARD WESTBERG STATE OF CALIFORNIA

PROJECT:
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LONG BEACH CITY COLLEGE

SHEET DESCRIPTION:
REVISED AND NEW ROOF DETAILS A872 (N.T.S.)

DATE:	12/17/19
JOB NO:	16042.01
DRAWN:	EM / JC
DSA FILE NO:	19-C3
DSA APP NO:	03-119628
ADDENDA #:	03
CCD #:	
BULLETIN #:	
RFI #:	

SHEET
SKA-79



12/16/2019 7:49:38 AM SKA80

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ARCHITECT:

LICENSED ARCHITECT PAUL CHRISTIAN WESTBERG STATE OF CALIFORNIA

PROJECT:

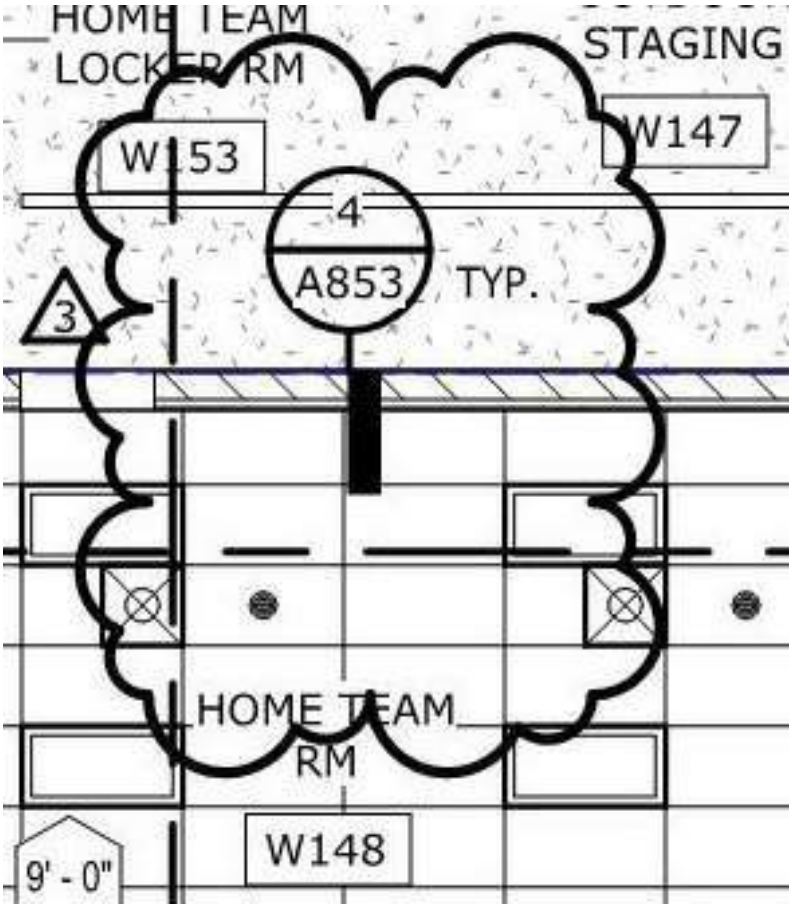
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LONG BEACH CITY COLLEGE

SHEET DESCRIPTION:

BLDG. 'W1' PARTIAL FIRST FLOOR REFLECTED CEILING PLAN REVISED DETAIL 1/W-A201.2

DSA FILE NO: 19-C3	DATE: 12/17/19
DSA #: 03-119628	JOB NO: 16042.01
ADDENDA #: 03	DRAWN: EM / JC
CCD #:	SHEET
BULLETIN #:	SKA-80
RFI #:	

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PROJECT:

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SHEET DESCRIPTION:

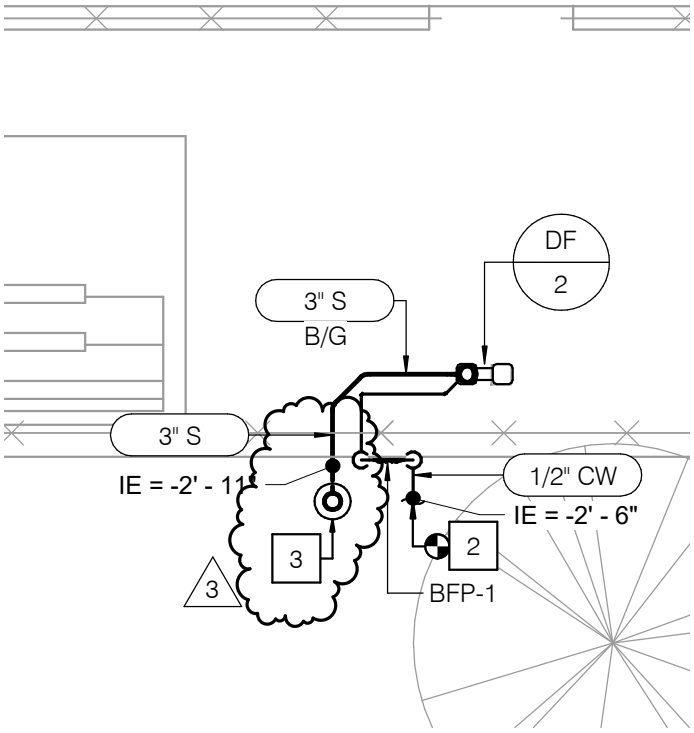
BLDG. 'W2' REFLECTED CEILING PLAN REVISED
DETAIL 1/W-A203

DSA FILE NO: 19-C3	DATE: 12/17/19
DSA #: 03-119628	JOB NO: 16042.01
ADDENDA #: 03	DRAWN: EM / JC
CCD #:	SHEET
BULLETIN #:	SKA-81
RFI #:	

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NOTES

1. FOR CONTINUATION REFER TO CIVIL UTILITY PLAN C4.03.
2. FOR CONTINUATION REFER TO CIVIL UTILITY PLAN C4.04.
3. SANITARY LINE TO DISCHARGE INTO THE A DRYWELL JUST OUTSIDE THE VOLLEYBALL FIELD AS SHOWN. REFER TO DETAIL 6/ P-605



THIS SKETCH MODIFYS DRAWING W-P102

12/15/2019 10:32:57 PM SKP-9

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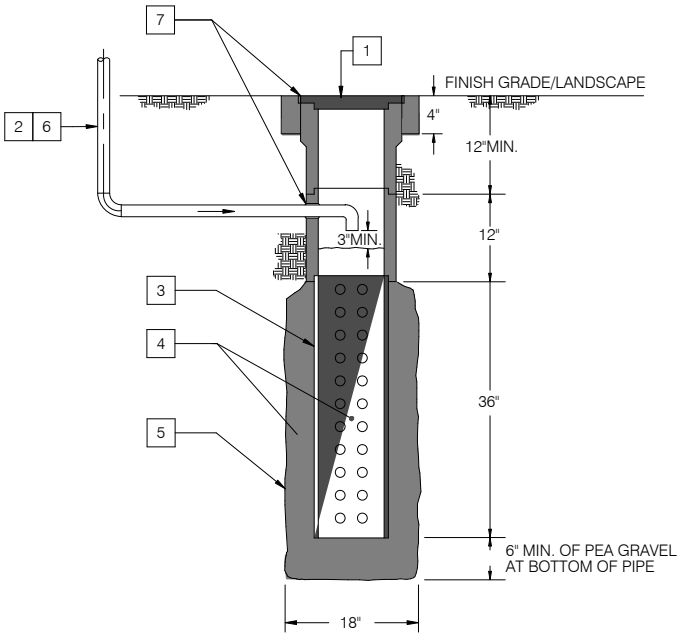
SHEET DESCRIPTION:
SAND VOLLEYBALL FIELD SITE PLAN DRINKING FOUNTAIN AT THE SW CORNER

DSA FILE NO: 19-C3	DATE: 12-16-2019
DSA #: 03-119628	JOB NO: 16042.01
ADDENDA #: 3	DRAWN: SK
CCD #:	SHEET
BULLETIN #:	SKP-9
RFI #:	

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3

DETAIL NOTES	
1	8" DIA. TRAFFIC WEIGHT GALVANIZED COVER WITH BROOKS CONCRETE YARD BOX LABELED "WASTE". LOCATE 4 FT. MINIMUM AWAY FROM DRINKING FOUNTAIN, PREFERABLY IN A LANDSCAPE AREA.
2	WASTE PIPE FROM FREE-STANDING DRINKING FOUNTAIN. SEE FLOOR PLANS FOR ROUTING. PROVIDE 3" MINIMUM AIR GAP TO TOP OF PEA GRAVEL.
3	PROVIDE 8"□ x 3 FT. DEEP SECTION OF PERFORATED PVC PIPE.
4	FILL PIPE AND SURROUND PIPE WITH PEA GRAVEL.
5	FILTER FABRIC WRAPPING SHALL BE USED BETWEEN THE GRAVEL AND UNDISTURBED SOIL. THE FABRIC SHALL BE PERMEABLE, NON-WOVEN AND SHALL BE MANUFACTURED FROM POLYESTER, NYLON OR POLYPROPYLENE.
6	PIPE PROTECTION: ALL UNDERGROUND METALLIC PIPE WETHER BURIED OR ENCASED SHALL BE WRAPPED WITH ANTI-CORROSIVE 20 MIL PVC TAPE OR INSTALLED IN 8 MIL POLYETHYLENE SLEEVE CONFORMING TO ASTM D-1248 AND/OR ANSI/AWWA C105/A21.5.
7	CAULK AROUND OPENING



6 DRYWELL DETAIL - FROM DRINKING FOUNTAIN

NO SCALE

THIS SKETCH MODIFYS DRAWING P605

12/15/2019 10:32:57 PM SKP-10

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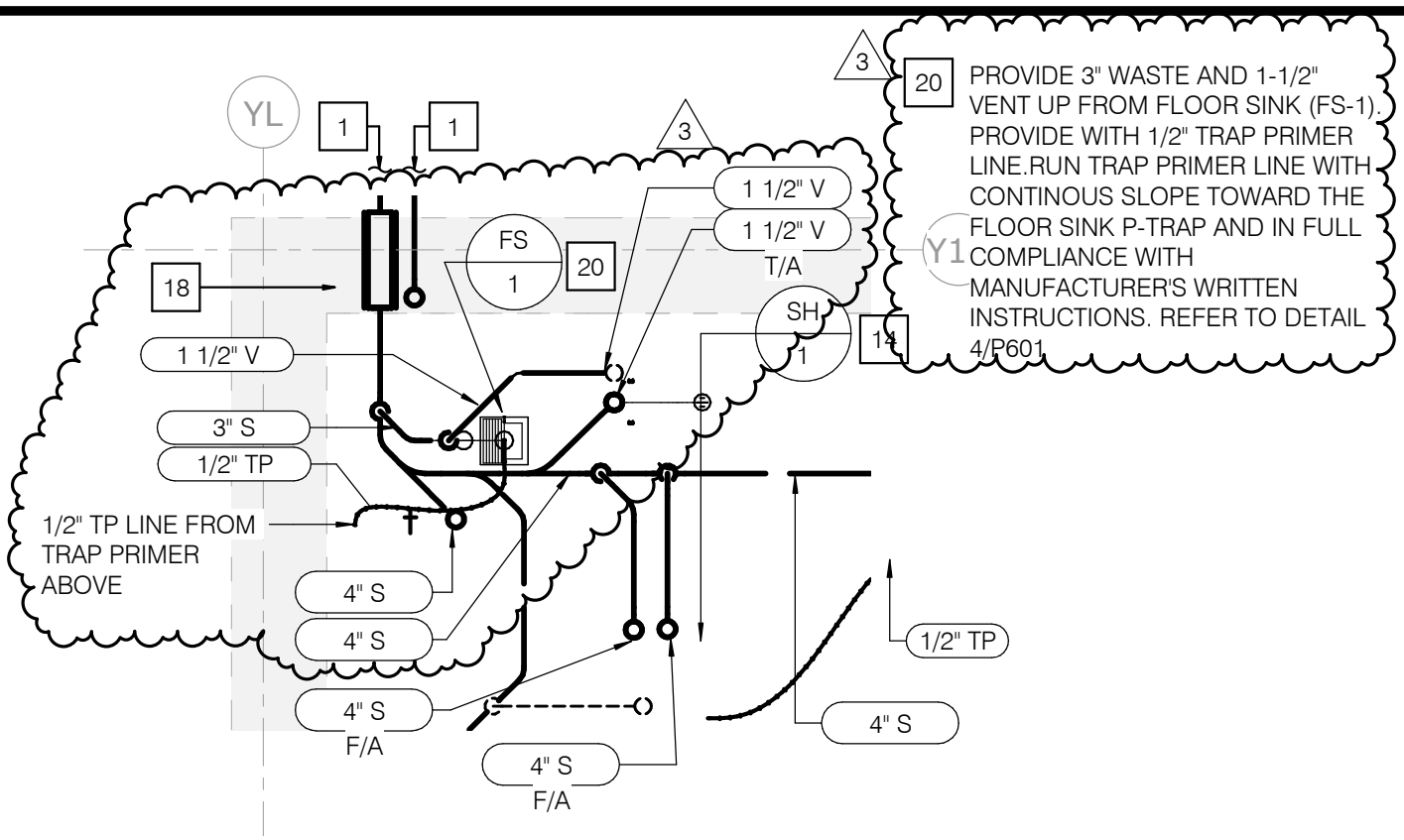
ARCHITECT:

PROJECT:
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LONG BEACH CITY COLLEGE

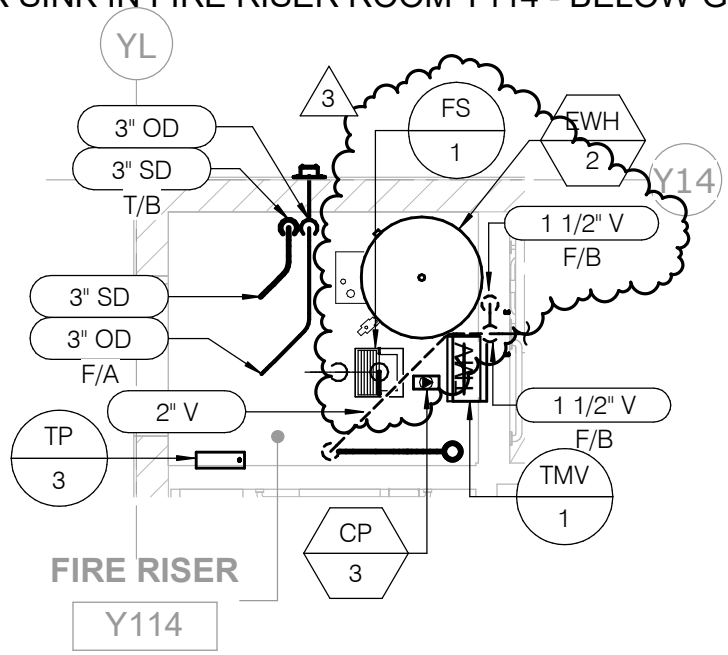
SHEET DESCRIPTION:
DRYWELL DETAIL

DSA FILE NO: 19-C3	DATE: 12-16-2019
DSA #: 03-119628	JOB NO: 16042.01
ADDENDA #: 3	DRAWN: SK
CCD #:	SHEET
BULLETIN #:	SKP-10
RFI #:	

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FLOOR SINK IN FIRE RISER ROOM Y114 - BELOW GRADE (W&V)



FLOOR SINK IN FIRE RISER ROOM Y114 - ABOVE GRADE (W&V)

THIS SKETCH MODIFYS DRAWING P311

12/15/2019 10:32:58 PM SKP-11

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SHEET DESCRIPTION:
FIRE RISER ROOM Y114 FLOOR SINK

DSA FILE NO: 19-C3	DATE: 12-16-2019
DSA #: 03-119628	JOB NO: 16042.01
ADDENDA #: 3	DRAWN: SK
CCD #:	SHEET
BULLETIN #:	SKP-11
RFI #:	

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LIGHT FIXTURE SCHEDULE

TYPE	DESCRIPTION	LOAD	LAMP TYPE	MTG.	VOLTAGE	MANUFACTURER / REMARKS	NOTES
E3A	WALLPACK MOUNTED - 2167 LM	20 W	LED	W	UNV	RAYON TECH D: T630LED-20-UNI12-40-T2-MTO #LIGMAN LIGHTING USA: UVK-30001-21w-T2-W40-07-120/277v	
E3B	WALLPACK MOUNTED - 1083 LM	10 W	LED	W	UNV	RAYON TECH D: T630LED-10-UNI12-40-T2-MTO #LIGMAN LIGHTING USA: UVK-30001-21w-T2-W40-07-120/277v	
E3C	WALLPACK MOUNTED - 2167 LM	20 W	LED	W	UNV	RAYON TECH D: T630LED-20-UNI12-40-T4-MTO #LIGMAN LIGHTING USA: UVK-30001-21w-T4-W40-07-120/277v	
E3D	WALLPACK MOUNTED - 3251 LM	30 W	LED	W	UNV	RAYON TECH D: T630LED-30-UNI12-40-T4-MTO #LIGMAN LIGHTING USA: UVK-30001-28w-T4-W40-07-120/277v	
E6	RECESSED INGRADE UPLIGHT	21 W	LED	IG	277	WE-EF: 611-3021-277V #TARGETTI: KPLM-10-GMB-FL-L1-40-1E2525-1DU2521	
E9A	LINEAR INGRADE UPLIGHT - 2FT	22 W	LED	IG	277	INSIGHT MIG-11-40K-ASYD-24"-277-DIM-AS-PGS-SK #TARGETTI:JE-R-10-WW-24-40-C-LV-1E2749	
E9B	LINEAR INGRADE UPLIGHT - 3FT	21 W	LED	IG	277	INSIGHT MIG-7-40K-ASYD-36"-277-DIM-AS-PGS-SK #TARGETTI:JE-R-10-WW-36-40-C-LV-1E2750	3
E12	STEM LIGHT POLE	40 W	LED	PO		EVERGREEN LIGHTING: ARG-P6-12'-40LED-(FINISH PER ARCHITECT)-CF-4100K #LIGMAN LIGHTING USA:UVA-20001-39w-W40-07-120/277v-DIM	
E13A	POLE MOUNT SITE LTG, TYPE IV DISTRIBUTION, 20FT	75 W	LED	PO	UNV	LITHONIA MRM LED 740 530 40K SPA MVOLT SPA DDBXD SSS POLE FINISH TO BE	NOTES

SHEET DESCRIPTION:
SCHEDULES

SHEET NO:
E002

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SHEET DESCRIPTION:
ELECTRICAL SKETCH - 03

DATE: 12-16-2019
JOB NO: 16042.01
DRAWN: LH
DSA FILE NO: 19-C3
DSA APP NO: 03-119628
ADDENDA #: 3
CCD #:
BULLETIN #:
RFI #:

SHEET
SKE-07

LIGHTING CONTROL RELAY SCHEDULE 'LCP-W1A': BUILDING 'W1'

RELAY #	MULTI-CONTROL ZONE	DESCRIPTION	RELAY TYPE	TIME CLOCK & PHOTOCELL	PANEL	CIRCUIT #	BRANCH CIRCUIT	REMARKS
R1	-	BLDG W1 1ST FL. EXTERIOR DOWNLIGHT	ON/OFF & 0-10V DIMMING	YES	W4L3	13	1"C - 2#10, 1#10 G, (2#14 CTRL)	NOTE: 2
R2		BLDG W1 1ST FL. EXTERIOR LINEAR RECESSED	ON/OFF & 0-10V DIMMING	YES	W4L3	13	1"C - 2#10, 1#10 G, (2#14 CTRL)	NOTE: 2
R3	A	BLDG W1 1ST FL. EXTERIOR DOWNLIGHT SOUTH	ON/OFF & 0-10V DIMMING	YES	W4L3	13	1"C - 2#10, 1#10 G, (2#14 CTRL)	NOTE: 2
R4	A	EMERGENCY BLDG W1 1ST FL. EXTERIOR DOWNLIGHT...	EMERGENCY SHUNT ON/OFF & 0-10V...	YES	INVW1	1	1"C - 2#10, 1#10 G, (2#14 CTRL)	NOTE: 1,2
R5		BLDG W1 1ST FL. EXTERIOR LINEAR RECESSED	ON/OFF & 0-10V DIMMING	YES	W4L3	13	1"C - 2#10, 1#10 G, (2#14 CTRL)	NOTE: 2
R6		BLDG W1 1ST FL. EXTERIOR RECESSED SPOTLIGHT	ON/OFF & 0-10V DIMMING	YES	W4L3	13	1"C - 2#10, 1#10 G, (2#14 CTRL)	NOTE: 2
R7	B	BLDG W1 1ST FL. EXTERIOR DOWNLIGHT NORTH	ON/OFF	YES	W4L3	15	3/4"C-2#10, 1#10 G	
R8	B	EMERGENCY BLDG W1 1ST FL. EXTERIOR DOWNLIGHT NORTH	EMERGENCY SHUNT ON/OFF	YES	INVW1	2	3/4"C-2#10, 1#10 G	NOTE: 1
R9	C	BLDG W1 1ST FL. EXTERIOR LINEAR RECESSED NORTH	ON/OFF	YES	W4L3	15	3/4"C-2#10, 1#10 G	
R10	C	EMERGENCY BLDG W1 1ST FL. EXTERIOR LINEAR RECESSED NORTH	EMERGENCY SHUNT ON/OFF	YES	INVW1	2	3/4"C-2#10, 1#10 G	NOTE: 1
R11	D	EMERGENCY BLDG W1 EXTERIOR WALLPACK MOUNTED NORTH	EMERGENCY SHUNT ON/OFF	YES	INVW1	2	3/4"C-2#10, 1#10 G	NOTE: 1
R12	D	BLDG W1 EXTERIOR WALLPACK MOUNTED NORTH	ON/OFF	YES	W4L3	15	3/4"C-2#10, 1#10 G	
R13		BLDG W1 1ST FL. EXTERIOR WALL MOUNT NORTH	ON/OFF	YES	W4L3	15	3/4"C-2#10, 1#10 G	
R14		SOCCER FIELD CANOPY	ON/OFF	YES	W4L3	29	3/4"C-2#10, 1#10 G	
R15		SPARE 1P-20 AMP RELAY						
R16		SPARE 1P-20 AMP RELAY						

3

SHEET DESCRIPTION:
SCHEDULES

SHEET NO:
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SHEET DESCRIPTION:
ELECTRICAL SKETCH - 04

DATE: 12-16-2019
JOB NO: 16042.01
DRAWN: LH
DSA FILE NO: 19-C3
DSA APP NO: 03-119628
ADDENDA #: 3
CCD #:
BULLETIN #:
RFI #:

SHEET
SKE-08

PANEL: W4L3

LOCATION: ELEC W123 | VOLTAGE/PHASE: 480/277 Wye,3PH,4W | FED FROM: W4DP2

FLOOR: FIRST FLOOR | BUS AMPS: 225 A | RATING 14 KAIC

MOUNTING: SURFACE | MAIN BREAKER: 225 A

CKT	TYPE	LOAD	BKR/POLE		A	B	C	A	B	C	BKR/POLE		LOAD	TYPE	CKT
1	L	FEED TO PANEL 'W4L4'	125 A	3	7224 VA			0 VA			1	20 A	SPARE	--	2
3	--	--	--	--		4386 VA			0 VA		1	20 A	SPARE	--	4
5	--	--	--	--			3800 VA			0 VA	1	20 A	SPARE	--	6
7	L	LTG SOUTH 1ST FL	20 A	1	2334 VA			0 VA			1	20 A	SPARE	--	8
9	L	LTG NORTH 1ST FL	20 A	1		2258 VA			0 VA		1	20 A	SPARE	--	10
11	L	LTGS NORTH 1ST FL.	20 A	1			1789 VA			0 VA	1	20 A	SPARE	--	12
13	L	BLDG W1 EXT. LTGS SOUTH	20 A	1	1134 VA			0 VA			1	20 A	SPARE	--	14
15	L	BLDG W1 EXT. LTGS NORTH	20 A	1		351 VA			0 VA		1	20 A	SPARE	--	16
17	L	POOL LTG WEST: 'LP-1'	20 A	3			1289 VA			0 VA	1	20 A	SPARE	--	18
19	--	--	--	--	1289 VA			0 VA			1	20 A	SPARE	--	20
21	--	--	--	--		1289 VA			0 VA		1	20 A	SPARE	--	22
23	L	LP1 PNL PHASE CONTROL-LINK	20 A	3			0 VA			0 VA	1	20 A	SPARE	--	24
25	--	--	--	--	0 VA			0 VA			1	20 A	SPARE	--	26
27	--	--	--	--		0 VA			0 VA		1	20 A	SPARE	--	28
29	L	SOCCER FIELD CANOPY	20 A	1			780 VA			0 VA	1	20 A	SPARE	--	30
31	--	SPARE	20 A	1	0 VA			0 VA			1	20 A	SPARE	--	32
33	--	SPARE	20 A	1		0 VA			0 VA		1	20 A	SPARE	--	34
35	--	SPARE	20 A	1			0 VA			0 VA	1	20 A	SPARE	--	36
37	--	SPARE	20 A	1	0 VA			0 VA			--	--	SPACE	--	38
39	--	SPARE	20 A	1		0 VA			0 VA		--	--	SPACE	--	40
41	--	SPARE	20 A	1			0 VA			0 VA	--	--	SPACE	--	42

3

LOAD TYPE KEY:

N= NON CONTINUOUS M=MECH EQUIP

R=RECEPTACLE R=RECEPTACLE

L=LIGHTING K=KITCHEN

TOTAL A:	11981 VA	44 A
TOTAL B	8283 VA	30 A
TOTAL C:	7658 VA	28 A

LOAD TYPE	CONNECTED	DEMAND FACTOR	ESTIMATED	PANEL TOTALS		
L	27923 VA	125.00%	34904 VA			
				TOTAL LOAD:	27923 VA	34 A
				TOTAL DEMAND LOAD:	34904 VA	42 A

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ARCHITECT:

PROJECT:
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SHEET DESCRIPTION:
ELECTRICAL SKETCH - 05

SHEET DESCRIPTION:
PANEL SCHEDULES

SHEET NO:
E005

DATE: 12-16-2019
JOB NO: 16042.01
DRAWN: LH
DSA FILE NO: 19-C3
DSA APP NO: 03-119628
ADDENDA #: 3
CCD #:
BULLETIN #:
RFI #:

SHEET
SKE-09

PANEL: W2P4

LOCATION: ELECTRICAL W206 | VOLTAGE/PHASE: 120/208 Wye,3PH,4W | FED FROM: T-W2P4

FLOOR: SECOND FLOOR | BUS AMPS: 225 A | RATING 10 KAIC

MOUNTING: SURFACE | MAIN BREAKER: 225 A

CKT	TYPE	LOAD	BKR/POLE		A	B	C	A	B	C	BKR/POLE		LOAD	TYPE	CKT
1	R	RECPT MULTI-PURPOSE...	20 A	1	900 VA			1600 VA			1	20 A	COFFEEMAKER RECEPTACLE	R	2
3	R	RECPT MULTI-PURPOSE...	20 A	1		540 VA			1600 VA		1	20 A	COFFEEMAKER RECEPTACLE	R	4
5	R	RECPT MULTI-PURPOSE...	20 A	1			900 VA			1600 VA	1	20 A	TOASTER RECEPTACLE	R	6
7	R	RECPT RESTROOM/CUSTODIAL	20 A	1	360 VA			1600 VA			1	20 A	MICROWAVE RECEPTACLE	R	8
9	R	RECPT RESTROOM/CUSTODIAL	20 A	1		360 VA			1600 VA		1	20 A	MICROWAVE RECEPTACLE	R	10
11	R	WP CONV. RECEPTACLES	20 A	1			360 VA			600 VA	1	20 A	DISHWASHER RECEPTACLE	R	12
13	R	RECPT 2ND FL. WEST END	20 A	1	900 VA			800 VA			1	20 A	REFRIGERATOR RECEPTACLE	R	14
15	R	RECPT 2ND FL. EAST END	20 A	1		900 VA			100 VA		2	20 A	FC-3&FC-4 FANCOILS ELEC &...	M	16
17	R	RECPT STRG/KITCHENETTE	20 A	1			360 VA			100 VA	--	--	--	--	18
19	R	RECPT STRG/KITCHENETTE	20 A	1	360 VA			740 VA			1	20 A	DRINKING FOUNTAIN	N	20
21	R	RECPT STRG/KITCHENETTE	20 A	1		360 VA			60 VA		1	20 A	RST RM VALVES	R	22
23	R	RECPT ELEC RM	20 A	1			180 VA			600 VA	1	20 A	MLT PURP - PROJ & SCRN...	P	24
25	P	VAVS 2ND FL SOUTH END.	20 A	1	80 VA			800 VA			1	20 A	MLT PURP - PROJECTOR	R	26
27	P	2ND FL.FIRE SMOKER DAMPER	20 A	1		80 VA			500 VA		1	20 A	MLT PURP - TV	R	28
29	M	EF-1 RSTRM ROOF	30 A	1			1176 VA			1200 VA	1	20 A	MLT PURP - LECTERN FLR...	R	30
31	R	GARBAGE DISPOSAL KITCHEN	20 A	1	1000 VA			0 VA			1	20 A	SPARE	--	32
33	R	WOMENS RM HANDDRYER	20 A	1		1400 VA			0 VA		1	20 A	SPARE	--	34
35	R	MENS RM HANDDRYER	20 A	1			1400 VA			0 VA	1	20 A	SPARE	--	36
37	P	FIRE ALARM POWER RPS-W1	20 A	1	500 VA			0 VA			1	20 A	SPARE	--	38
39	P	LIGHTING CONTROLS	20A	1		200 VA			0 VA		1	20 A	SPARE	--	40
41	M	MECHSHADE RM 201	20 A	1			1000 VA			0 VA	1	20 A	SPARE	--	42
43	M	MECHSHADE RM 201	20 A	1	1000...			0 VA			1	20 A	SPARE	--	44
45	M	MECHSHADE RM 201	20 A	1		1000...			0 VA		1	20 A	SPARE	--	46
47	M	MECHSHADE RM 201	20 A	1			1000...			0 VA	1	20 A	SPARE	--	48
49	--	SPARE	20 A	1	0 VA			0 VA			1	20 A	SPACE	--	50
51	--	SPARE	20 A	1		0 VA			0 VA		1	20 A	SPACE	--	52
53	--	SPARE	20 A	1			0 VA			0 VA	1	20 A	SPACE	--	54
55	--	SPARE	20 A	1	0 VA			0 VA			--	--	SPACE	--	56
57	--	SPARE	20 A	1		0 VA			0 VA		--	--	SPACE	--	58
59	--	SPARE	20 A	1			0 VA			0 VA	--	--	SPACE	--	60

3

LOAD TYPE KEY:

N= NON CONTINUOUS M=MECH EQUIP

R=RECEPTACLE R=RECEPTACLE

L=LIGHTING K=KITCHEN

TOTAL A:	10640 VA	91 A
TOTAL B	8700 VA	73 A
TOTAL C:	10476 VA	90 A

LOAD TYPE	CONNECTED	DEMAND FACTOR	ESTIMATED	PANEL TOTALS		
N	740 VA	100.00%	740 VA			
R	22240 VA	72.48%	16120 VA			
M	5376 VA	105.47%	5670 VA	TOTAL LOAD:	29816 VA	83 A
P	1460 VA	100.00%	1460 VA	TOTAL DEMAND LOAD:	23990 VA	67 A

architecture
westbergwhite
14471 CHAMBERS RD, SUITE 210
TUSTIN, CA 92780
(714) 508-1780 508-1790 FAX

ARCHITECT:

PROJECT:
LIBERAL ARTS CAMPUS
KINESIOLOGY LABS and AQUATIC CENTER
LONG BEACH CITY COLLEGE

SHEET DESCRIPTION:
ELECTRICAL SKETCH - 06

SHEET DESCRIPTION:
PANEL SCHEDULES

SHEET NO:
E006

DATE: 12-16-2019
JOB NO: 16042.01
DRAWN: LH
DSA FILE NO: 19-C3
DSA APP NO: 03-119628
ADDENDA #: 3
CCD #:
BULLETIN #:
RFI #:

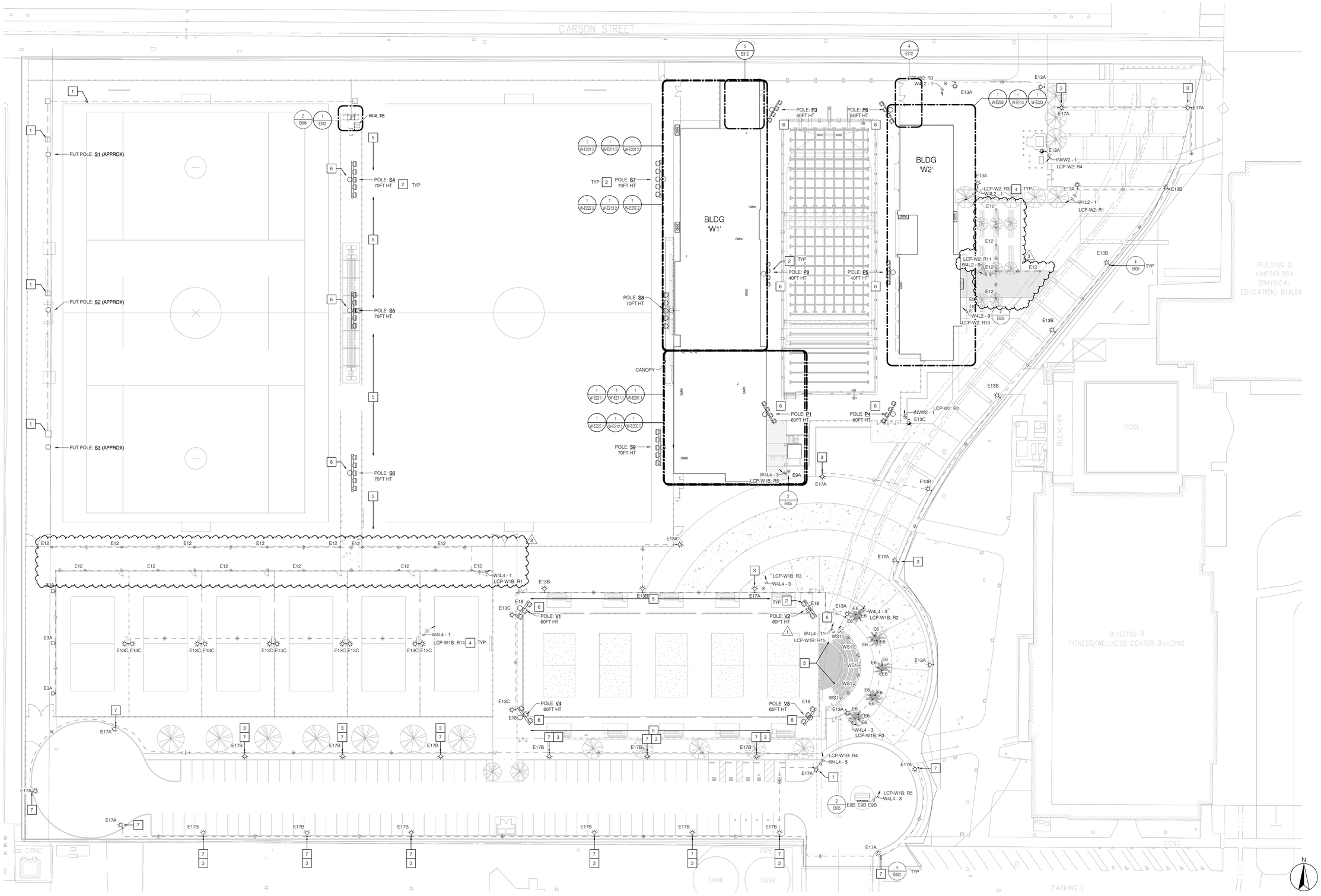
SHEET
SKE-10

GENERAL NOTES

1. ALL CIRCUITING, GROUNDING, BONDING, AND OTHER ELECTRICAL INSTALLATIONS SHALL COMPLY WITH ARTICLE 680 OF THE CALIFORNIA AND LOCAL ELECTRICAL CODES, AS WELL AS BUILDING AND APPLICABLE POOL CODES. REFER TO AQUATIC DESIGNERS PLANS FOR ADDITIONAL DETAILS AND REQUIREMENTS.
2. UON, EXTERIOR CIRCUITS SHALL BE #10 MINIMUM AND 1 IN. CONDUIT MINIMUM.
3. REFER TO LIGHTING CONTROL RELAY SCHEDULES ON SHEET E003 FOR SITE LIGHTING CONTROLS.
4. REFER TO SHEETS E603 FOR LIGHTING CONTROL DETAILS.
5. ROUTE CIRCUITS OUTSIDE OF FIELD OF PLAY AREAS.
6. AVOID LOCATING CIRCUITS AND HAND-HOLES THROUGH DRAINAGE AREAS, GUTTERS, AND BASINS. COORDINATE INFIELD WITH CIVIL AND LANDSCAPING TRADES.
7. FOR FIXTURES AND HANDHOLES LOCATED IN PLANTERS/LAWNS, LOCATE FLUSH TO CURB EDGE. COORDINATE LOCATIONS WITH CIVIL AND LANDSCAPE
8. ORIENT BOLLARD FIXTURES TO AIM ONTO WALKWAYS.
9. PROVIDE HAND-HOLES FOR EVERY 100FT OF LIGHTING CIRCUIT RUN. FIELD COODINATE QUANTITY, CONSOLIDATE WHERE POSSIBLE. HAND-HOLES SHALL BE PLACED IN PLANTERS; TURF AND HARDSCAPE SHALL BE AVOIDED. ORIENT PARALLEL TO HARDSCAPE EDGES.
10. VERIFY EXACT LOCATION FOR SPORTS LIGHTING POLES WITH ARCHITECT PRIOR TO ROUGH-ON AND INSTALLATION.

NOTES

1. PROVIDE THREE 4" TRENCHED CONDUITS AND HANDHOLES FOR FUTURE SPORTS LIGHTING (ONE FOR EACH HANDHOLE). RUN PARALLEL TO BRANCH CIRCUITS NOTED ON SHEET E104. COORDINATE HAND-HOLE LOCATIONS TO MATCH LIGHTS POLES ON OPPOSITE FIELD SIDE. COORDINATE WITH SCE EASEMENT ALONG WEST PROPERTY LINE.
2. REFER TO SPORTS LIGHTING PLANS FOR MORE INFORMATION ON POLE LIGHTS (E800 SERIES).
3. PROVIDE POLE MOUNTED MOTION SENSOR (SEE E002 LIGHT FIXTURE SCHEDULE NOTE #6).
4. REFER TO LIGHTING CONTROL SCHEDULES ON SHEET E003.
5. PROVIDE EMERGENCY EGRESS LIGHTING CIRCUITS TO SPORTS POLES AT FIELDS AND VOLLEYBALL COURTS FROM INVERTERS INVSP AND INVVP. REFER TO E804, E809-E814 SPORTS LIGHTING FOR EGRESS PHOTOMETRICS.
6. PROVIDE DEDICATED RACEWAYS FOR EMERGENCY CIRCUITS SERVING SPORTS LIGHTING.
7. PROVIDE TRAFFIC RATED FOOTING 30 IN. ABOVE FINISHED GRADE. DECREASE POLE LENGTH TO MAINTAIN CONSISTENT MOUNTING ELEVATION WITH SURROUNDING FIXTURES.



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STATE:

ARCHITECT:

architecture
westbergwhite
14471 CHAMBERS RD, SUITE 210
TUSTIN, CA 92780
(714) 508-1780 508-1790 FAX

CONSULTANT:

P2S ENG
Long Beach | Los Angeles
San Diego | San Jose
p2sinc.com

PROJECT NAME:

LIBERAL ARTS CAMPUS
KINESIOLOGY LABS and AQUATIC CENTER
4901 EAST CARSON STREET
LONG BEACH, CA 90806

CLIENT:

LONG BEACH CITY COLLEGE
4901 EAST CARSON STREET
LONG BEACH, CA 90806

No.	Rev. Date	Description
1	11/07/19	Addendum 01
3	12/16/19	Addendum 03

JOB NO: 16042.01
DATE: 09/18/19
DRAWN: CN
CHECK: LH
ARCHITECT: PDW
ENGINEER:

SHEET DESCRIPTION:
BLDG 'W', LIGHTING SITE PLAN

SHEET NO:

E103

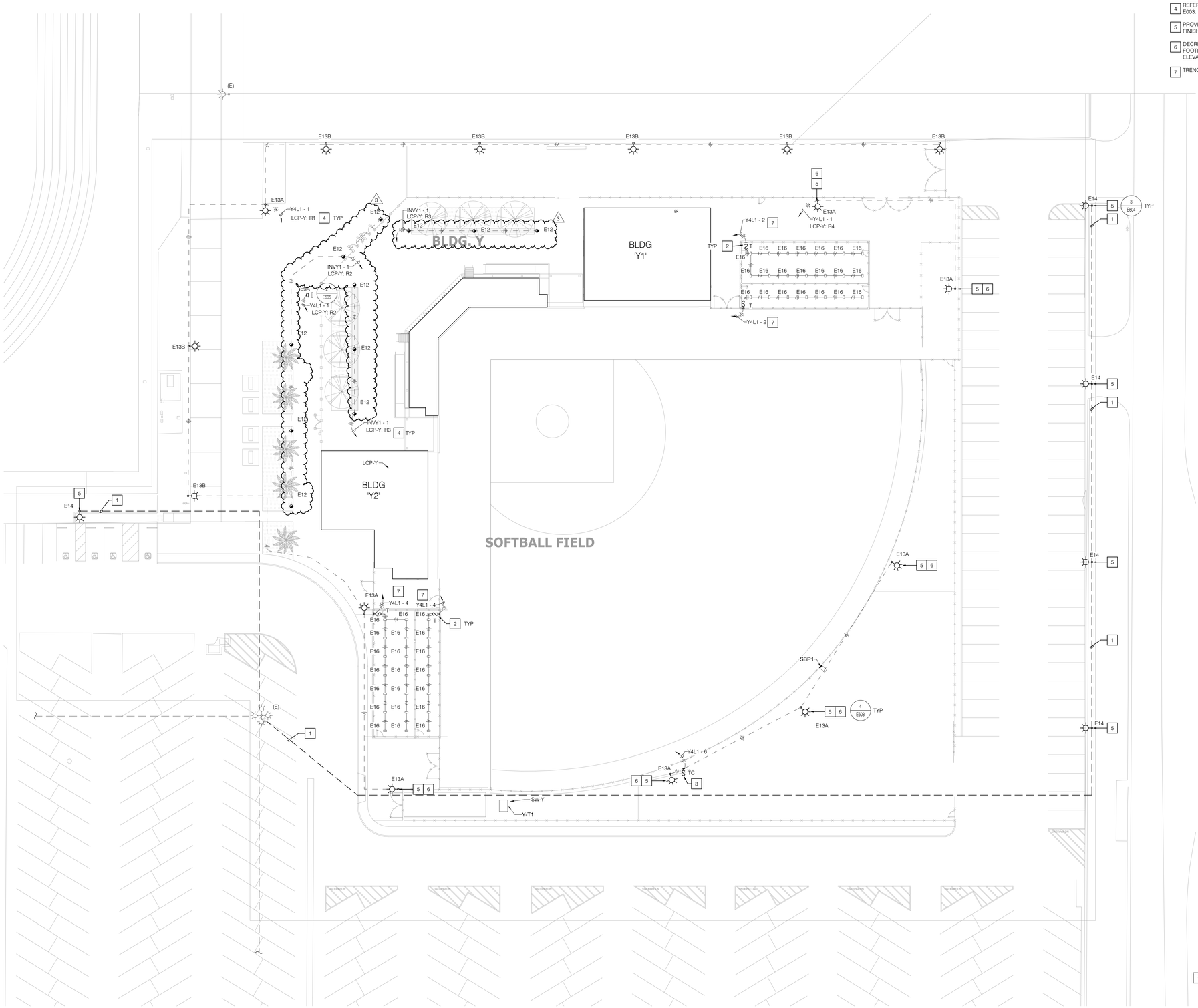
P2S No. J9032

GENERAL NOTES

1. UON, EXTERIOR CIRCUITS SHALL BE #10 MINIMUM AND 1 IN. CONDUIT MINIMUM.
2. ROUTE ALL CIRCUITS OUTSIDE OF PLAY FIELD AREAS. REFER TO SHEET E106 FOR APPROXIMATE ROUTE.
3. REFER TO LIGHTING CONTROL RELAY SCHEDULES ON SHEET E003 FOR SITE LIGHTING CONTROLS.
4. REFER TO SHEETS E603 FOR LIGHTING CONTROL DETAILS.
5. AVOID LOCATING CIRCUITS AND HAND-HOLES THROUGH DRAINAGE AREAS, GUTTERS, AND BASINS. COORDINATE INFIELD WITH CIVIL AND LANDSCAPING TRADES.
6. FOR FIXTURES AND HANDHOLES LOCATED IN PLANTERS/LAWNS, LOCATE FLUSH TO CURB EDGE. COORDINATE LOCATIONS WITH CIVIL AND LANDSCAPE
7. PROVIDE HAND-HOLES FOR EVERY 100FT OF LIGHTING CIRCUIT RUN. FIELD COODINATE QUANTITY, CONSOLIDATE WHERE POSSIBLE. HAND-HOLES SHALL BE PLACED IN PLANTERS; TURF AND HARDSCAPE SHALL BE AVOIDED. ORIENT PARALLEL TO HARDSCAPE EDGES.

NOTES

1. PROVIDE 2P-480V CONNECTION TO EXISTING PARKING AREA LIGHT CIRCUIT SAFED OFF FROM DEMOLITION (FED FROM PANEL 'A', SEE SHEET ED101 KEYNOTE #6). PROVIDE EXTENSION TO EXISTING CIRCUITS IN-KIND, ACCOUNT FOR 4°C - 4#4,2#8G XHHW. DISPERSE LOAD EVENLY BETWEEN CIRCUITS.
2. PROVIDE 277V 'TIMER' SWITCHES. INCLUDE STRUT MOUNTING TO FENCE POSTS. INCLUDE A LOCKABLE, WEATHERPROOF COVER.
3. PROVIDE 277V 'TIME CLOCK' SWITCH. INCLUDE STRUTMOUNT TO ADJACENT FENCE OF SCOREBOARD POSTS. INCLUDE A LOCKABLE, WEATHERPROOF COVER.
4. REFER TO LIGHTING CONTROL SCHEDULES ON SHEET E003.
5. PROVIDE TRAFFIC RATED FOOTING 30 IN. ABOVE FINISHED GRADE.
6. DECREASE POLE LENGTH WITH RESPECT TO ADDITIONAL FOOTING HEIGHT TO MAINTAIN CONSISTENT MOUNTING ELEVATION WITH SURROUNDING FIXTURES.
7. TRENCH HOMERUNS FROM CANOPY.



1 EXISTING CIRCUIT LOAD CHANGE, PANEL A:
(PER KEYNOTE #1 THIS SHEET AND KEYNOTE # 6 SHEET ED101)

- 5344 WATTS (REMOVE 16 FIXTURES, 334W EA)
+ 1670 WATTS (ADD 5 FIXTURES, 334W EA)

3674 WATTS SPARE CAPACITY TO PANEL 'A'

Scale: 1" = 20'-0"

STATE:

ARCHITECT:

architecture
westbergwhite
14471 CHAMBERS RD, SUITE 210
TUSTIN, CA 92780
(714) 508-1780 508-1790 FAX

CONSULTANT:

P2S ENG
Long Beach | Los Angeles
San Diego | San Jose
p2sinc.com

PROJECT NAME:

LIBERAL ARTS CAMPUS
KINESIOLOGY LABS and AQUATIC CENTER
4901 EAST CARSON STREET
LONG BEACH, CA 90806

CLIENT:

LONG BEACH CITY COLLEGE
4901 EAST CARSON STREET
LONG BEACH, CA 90806

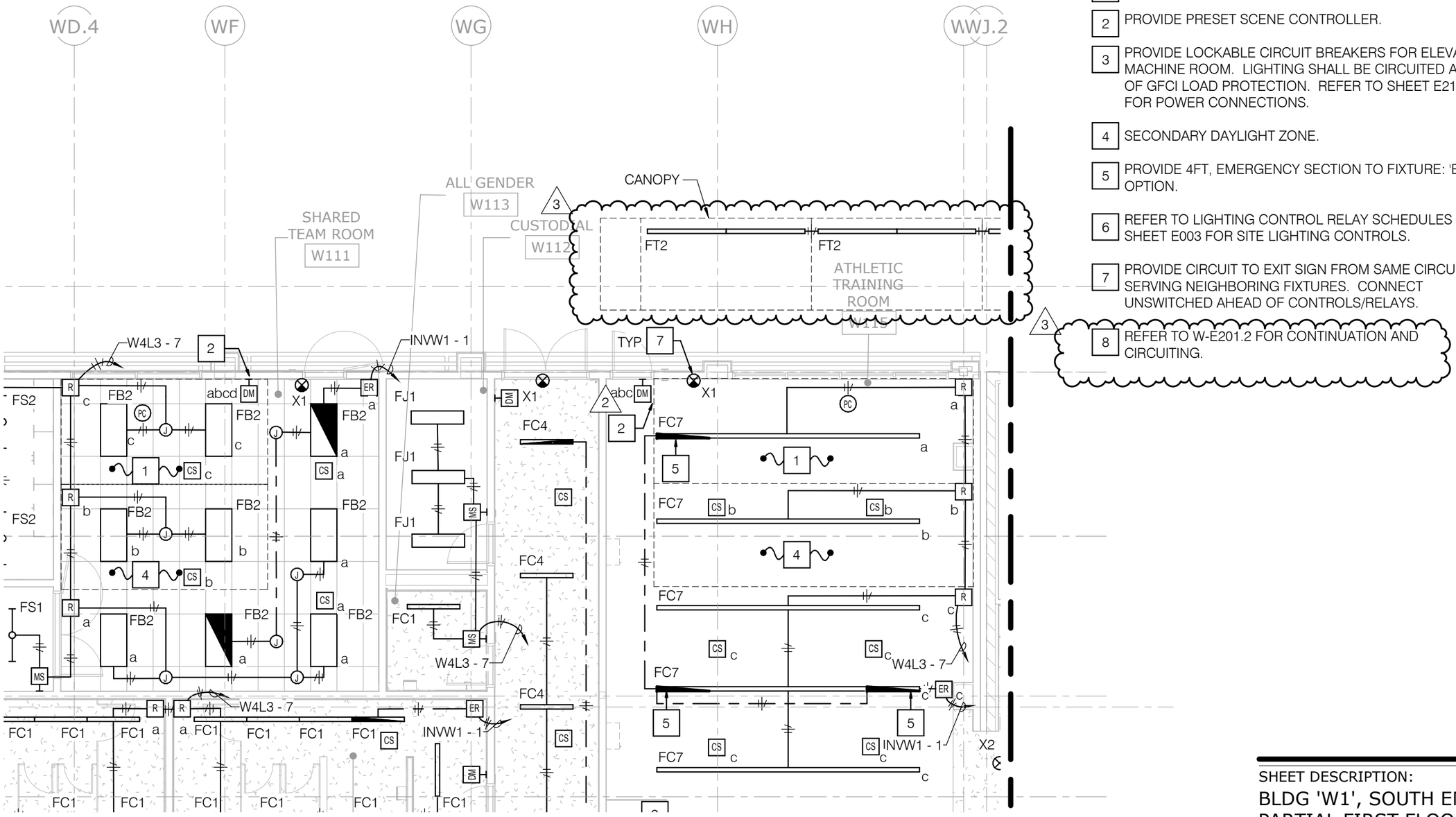
No.	Rev. Date	Description
3	12/16/19	Addendum 03

JOB NO:	16042.01
DATE:	09/18/19
DRAWN:	CN
CHECK:	WM
ARCHITECT:	PDW
ENGINEER:	

SHEET DESCRIPTION:
BLDG 'Y', LIGHTING SITE PLAN

SHEET NO:

E105



NOTES

1. PRIMARY DAYLIGHT ZONE.
2. PROVIDE PRESET SCENE CONTROLLER.
3. PROVIDE LOCKABLE CIRCUIT BREAKERS FOR ELEVATOR MACHINE ROOM. LIGHTING SHALL BE CIRCUITED AHEAD OF GFCI LOAD PROTECTION. REFER TO SHEET E211.1 FOR POWER CONNECTIONS.
4. SECONDARY DAYLIGHT ZONE.
5. PROVIDE 4FT, EMERGENCY SECTION TO FIXTURE: 'EC' OPTION.
6. REFER TO LIGHTING CONTROL RELAY SCHEDULES ON SHEET E003 FOR SITE LIGHTING CONTROLS.
7. PROVIDE CIRCUIT TO EXIT SIGN FROM SAME CIRCUIT SERVING NEIGHBORING FIXTURES. CONNECT UNSWITCHED AHEAD OF CONTROLS/RELAYS.
8. REFER TO W-E201.2 FOR CONTINUATION AND CIRCUITING.

Scale: 1/8" = 1'-0"

SHEET DESCRIPTION:
BLDG 'W1', SOUTH END - PARTIAL FIRST FLOOR LIGHTING PLAN

SHEET NO:
W-E201.1

architecture
westbergwhite
14471 CHAMBERS RD, SUITE 210
TUSTIN, CA 92780
(714) 508-1780 508-1790 FAX

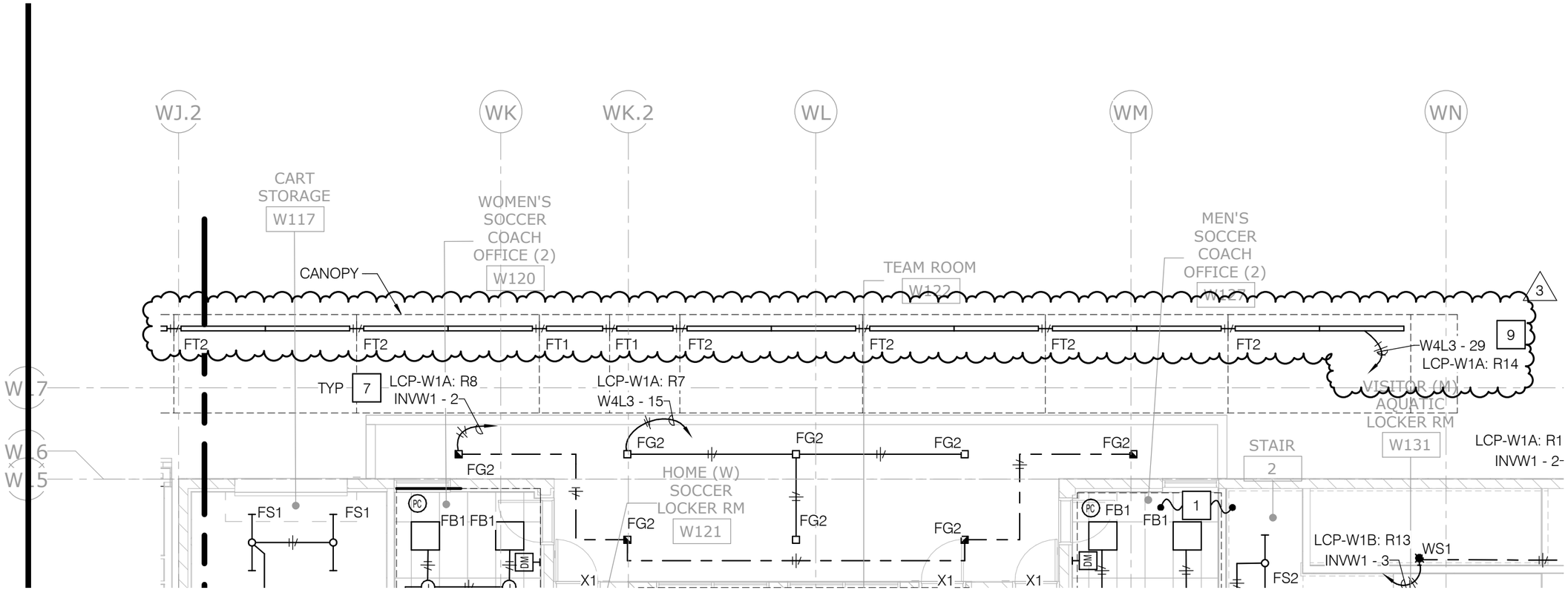
ARCHITECT:

PROJECT:
LIBERAL ARTS CAMPUS
KINESIOLOGY LABS and AQUATIC CENTER
LONG BEACH CITY COLLEGE

SHEET DESCRIPTION:
ELECTRICAL SKETCH - 06

DATE:	12-16-2019
JOB NO:	16042.01
DRAWN:	LH
DSA FILE NO:	19-C3
DSA APP NO:	03-119628
ADDENDA #:	3
CCD #:	
BULLETIN #:	
RFI #:	

SHEET
SKE-11



NOTES

1. PRIMARY DAYLIGHT ZONE.
2. PROVIDE PRESET SCENE CONTROLLER.
3. PROVIDE PENDANT MOUNTNG OF SENSOR AT SAME LEVEL OF FIXTURE.
4. SECONDARY DAYLIGHT ZONE.
5. PROVIDE UL924 RELAY FOR EMERGENCY FIXTURES (FUNCTIONAL DEVICES 'ESRBE277C', OR APPROVED EQUAL). PROVIDE CONNECTION TO BOTH TOGGLE SWITCH AND UNSWITCHED FEEDS (DETAIL 6, E603).
6. PROVIDE 4FT, EMERGENCY SECTION TO FIXTURE: 'EC' OPTION.
7. REFER TO LIGHTING CONTROL RELAY SCHEDULES ON SHEET E003 FOR SITE LIGHTING CONTROLS.
8. PROVIDE CIRCUIT TO EXIT SIGN FROM SAME CIRCUIT SERVING NEIGHBORING FIXTURES. CONNECT UNSWITCHED AHEAD OF CONTROLS/RELAYS.
9. PROVIDE TRENCH HOMERUNS FROM CANOPY.

Scale: 1/8" = 1'-0"

SHEET DESCRIPTION:
BLDG 'W1', NORTH END - PARTIAL FIRST FLOOR LIGHTING PLAN

SHEET NO:
W-E201.2

architecture
westbergwhite
14471 CHAMBERS RD, SUITE 210
TUSTIN, CA 92780
(714) 508-1780 508-1790 FAX

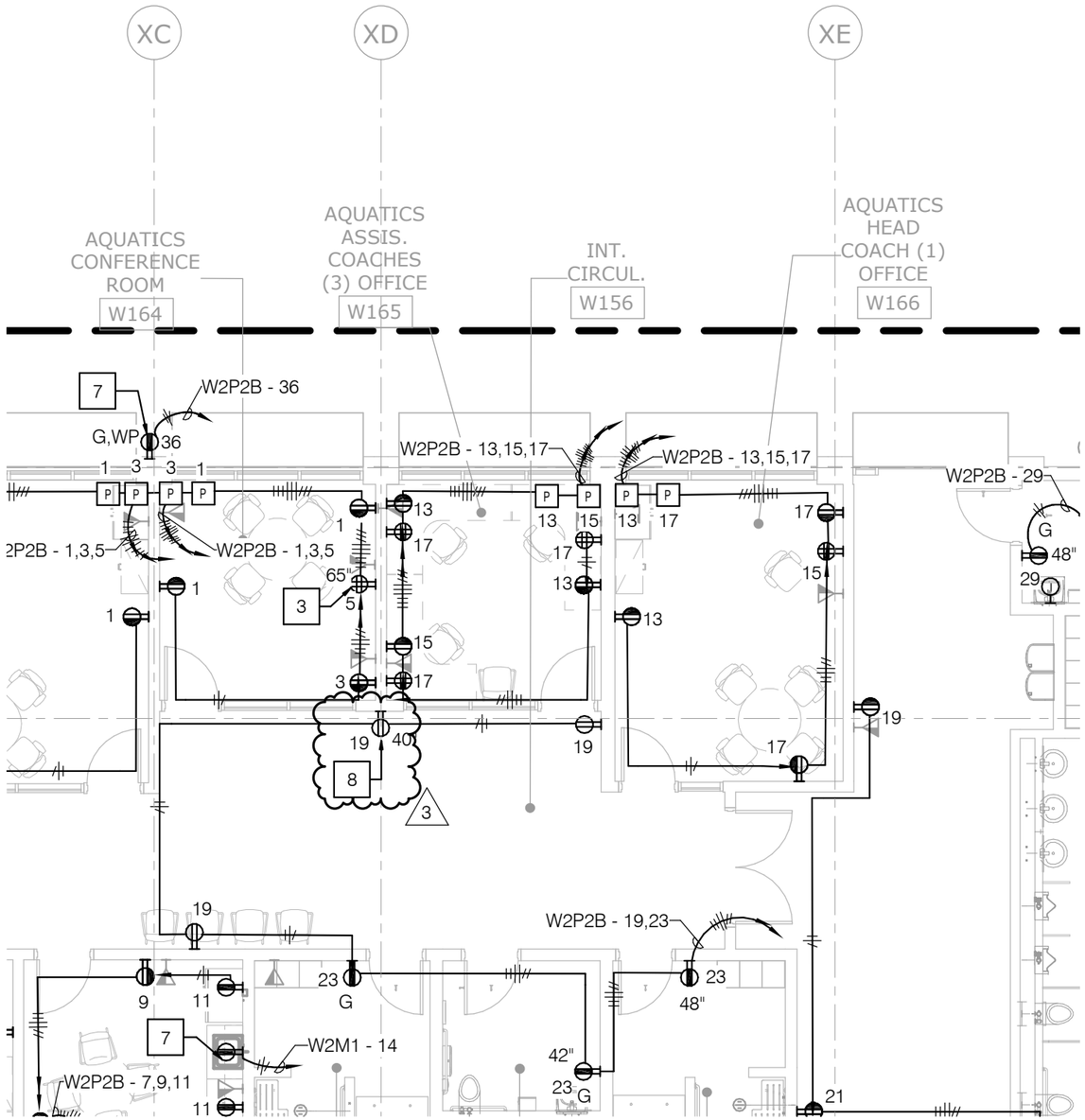
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PROJECT:
LIBERAL ARTS CAMPUS
KINESIOLOGY LABS and AQUATIC CENTER
LONG BEACH CITY COLLEGE

SHEET DESCRIPTION:
ELECTRICAL SKETCH - 06

DATE: 12-16-2019
JOB NO: 16042.01
DRAWN: LH
DSA FILE NO: 19-C3
DSA APP NO: 03-119628
ADDENDA #: 3
CCD #:
BULLETIN #:
RFI #:

SHEET
SKE-12



NOTES

1. REFER TO POOL MECHANICAL AND CONSTRUCTION PLANS FOR ELECTRICAL REQUIREMENTS AND DETAILS. BEFORE ENERGIZING ANY BUILDING EQUIPMENT, ALL COMPLIANCE TO RESPECTIVE POOL CODES MUST BE MET, WITH PARTICULAR ATTENTION TO ARTICLE 680 OF THE CALIFORNIA ELECTRICAL CODE.
2. PROVIDE 208/120V CIRCUIT TO SCOREBOARDS, INCLUDE NEUTRAL. INCLUDE LOCKABLE, GFCI BREAKER FOR EACH.
3. PROVIDE 120V CIRCUIT TO TELEVISION.
4. PROVIDE DEDICATED 120V CIRCUIT FOR COPIER.
5. PROVIDE 120V CIRCUIT TO AV RACK.
6. PROVIDE STAINLESS STEEL / CHLORINE CORROSIVE RESISTANT EQUIPMENT AND HARDWARE IN SPACE.
7. PROVIDE 120V CIRCUIT TO GARBAGE DISPOSAL.
8. ORIENT RECEPTACLE HORIZONTALLY TO BACKSPLASH.

N

Scale: 1/8" = 1'-0"

SHEET DESCRIPTION:
BLDG 'W2', FIRST FLOOR POWER PLAN

SHEET NO:
W-E213

architecture
westbergwhite
14471 CHAMBERS RD, SUITE 210
TUSTIN, CA 92780
(714) 508-1780 508-1790 FAX

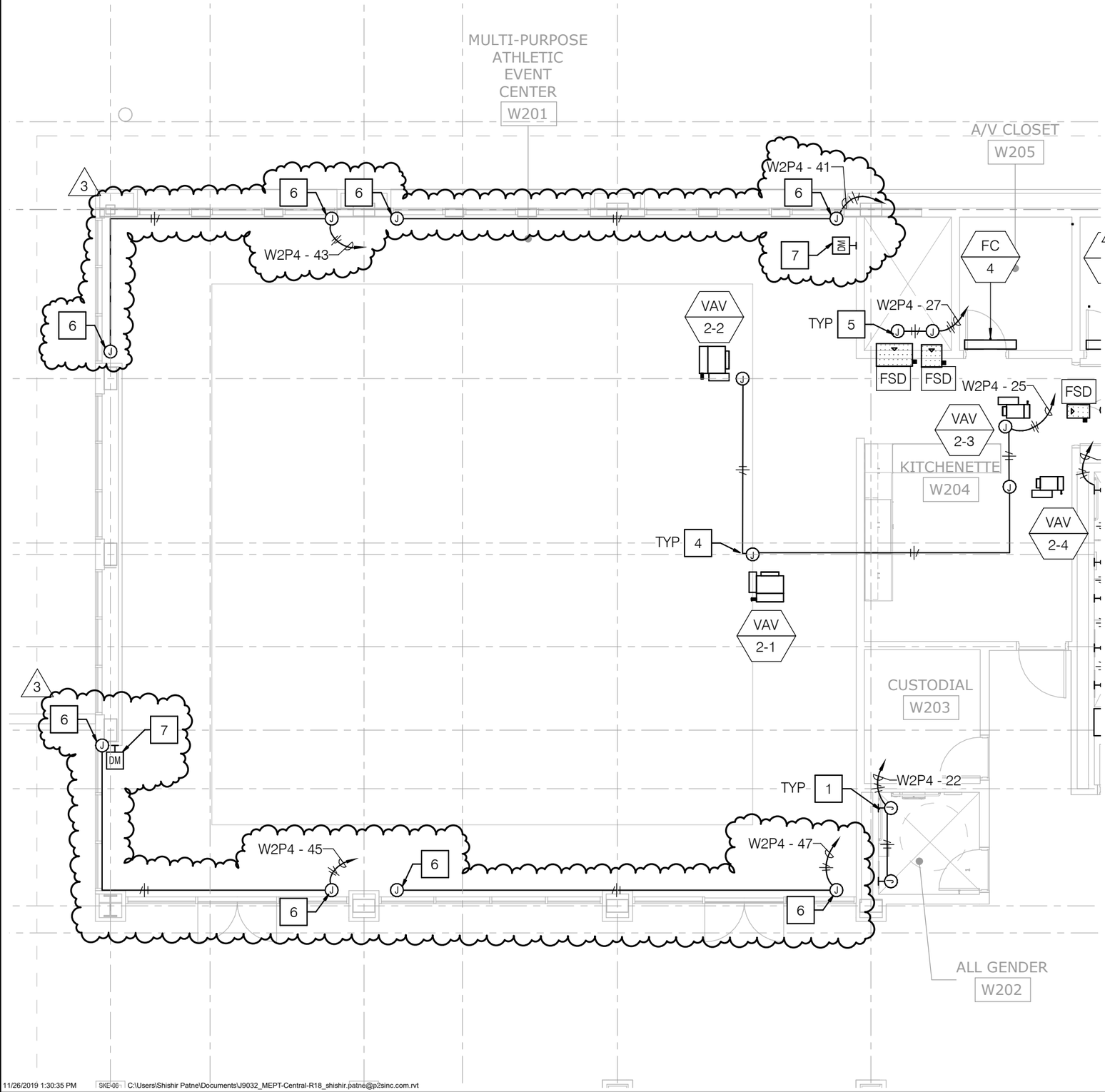
ARCHITECT:

PROJECT:
LIBERAL ARTS CAMPUS
KINESIOLOGY LABS and AQUATIC CENTER
LONG BEACH CITY COLLEGE

SHEET DESCRIPTION:
ELECTRICAL SKETCH - 06

DATE:	12-16-2019
JOB NO:	16042.01
DRAWN:	LH
DSA FILE NO:	19-C3
DSA APP NO:	03-119628
ADDENDA #:	3
CCD #:	
BULLETIN #:	
RFI #:	

SHEET
SKE-13



NOTES

1. PROVIDE 120V CONNECTION TO AUTOMATIC VALVES. COORDINATE WITH PLUMBING TRADES FOR ADDITIONAL DETAILS.
2. PROVIDE 120V CONNECTION TO DRINKING FOUNTAINS.
3. PROVIDE 120V CONNECTION TO HAND DRYERS.
4. PROVIDE 120V CONNECTION TO VAV(S).
5. PROVIDE 120V CONNECTION TO FSD(S).
6. PROVIDE MECHANICAL SHADE SYSTEM. INCLUDE THE FOLLOWING: 120V CONNECTION; RAISE LOWER SWITCHING (SEE KEYNOTE #7); SHADE CONTROL MODULES, SPLITTERS, AND AUXILIARY AND NETWORK CONNECTIONS. ADDITIONAL SPECIFICATIONS BY ARCHITECT. (MECHOSHADE 512 IQ2 SERIES, OR APPROVE EQUAL).
7. SWITCH FOR MECHANICAL SHADES. CONSOLIDATE WITH LIGHTING CONTROLS WHERE POSSIBLE (NLIGHT NSHADE, ECLYPSE, FRESCO, NPOD). COORDINATE FURTHER WITH LIGHTING CONTROLS VENDOR.

Scale: 1/8" = 1'-0"

SHEET DESCRIPTION:
BLDG 'W1', SOUTH END - PARTIAL SECOND FLOOR AUXILIARY PLAN

SHEET NO:
W-E222.1

architecture
westbergwhite
14471 CHAMBERS RD, SUITE 210
TUSTIN, CA 92780
(714) 508-1780 508-1790 FAX

ARCHITECT:

PROJECT:
LIBERAL ARTS CAMPUS
KINESIOLOGY LABS and AQUATIC CENTER
LONG BEACH CITY COLLEGE

SHEET DESCRIPTION:
ELECTRICAL SKETCH - 06

DATE: 12-16-2019
JOB NO: 16042.01
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DSA FILE NO: 19-C3
DSA APP NO: 03-119628
ADDENDA #: 3
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BULLETIN #:
RFI #:

SHEET
SKE-14

ANNOTATION LEGEND

SYMBOL	DESCRIPTION
C	OSP EQUIPMENT CALLOUT
-	NOTE CALLOUT
- / -	DETAIL CALLOUT - NUMBER ON TOP DENOTES DETAIL NUMBER - NUMBER ON BOTTOM DENOTES SHEET DETAIL IS SHOWN
1	BUILDING NUMBER
(N)	NEW UNDERGROUND CONDUIT
(N)	NEW BUILDING CONDUIT
	CONDUIT TURNED UP
	CONDUIT TURNED DOWN
	CONDUIT WITH CAP
	CONDUIT SLEEVE

SECURITY LEGEND

	CARD READER WITH KEY PAD (HID 921 SERIES - TYPICAL, AND 910 SERIES AT MULLION MOUNT LOCATIONS)
	FIXED WALL MOUNT CAMERA PROVIDE AND INSTALL CAMERA PER CAMERA SCHEDULE DETAIL 2/T4.02. PROVIDE AND INSTALL (1) CAT6 CABLE/JACK. PROVIDE AND INSTALL 5S J-BOX WITH SINGLE GANG MUDRING AND 1" CONDUIT STUBBED TO AN ACCESSIBLE CEILING SPACE.
	FIXED CEILING MOUNT CAMERA PROVIDE AND INSTALL CAMERA PER CAMERA SCHEDULE DETAIL 4/T4.02. PROVIDE AND INSTALL (1) CAT6 CABLE/JACK. PROVIDE AND INSTALL 5S J-BOX WITH SINGLE GANG MUDRING AND 1" CONDUIT STUBBED TO AN ACCESSIBLE CEILING SPACE.
REX	REQUEST TO EXIT DEVICE
SDC	SECURITY DOOR CONTACT
ELM	ELECTRONIC LOCKING MECHANISM
P	PANIC/ DURESS BUTTON
K	ARMING STATION
ACP	ALARM CONTROL PANEL
AEP	ALARM EXPANSION PANEL
M	MOTION DETECTOR
OMNI	OMNI-LOCK
GW	GATEWAY

MECHANICAL COMPONENT ANCHORAGE NOTES:

ALL MECHANICAL COMPONENTS SHALL BE ANCHORED AND INSTALLED PER THE DETAILS ON THE DSA APPROVED CONSTRUCTION DOCUMENTS. WHERE NO DETAIL IS INDICATED, THE FOLLOWING COMPONENTS SHALL BE ANCHORED OR BRACED TO MEET THE FORCE AND DISPLACEMENT REQUIREMENTS PRESCRIBED IN THE 2016 CBC, SECTIONS 1616A.1.18 THROUGH 1616A.1.26 AND ASCE 7-10 CHAPTER 13, 26 AND 30.

1. ALL PERMANENT EQUIPMENT AND COMPONENTS.
2. TEMPORARY OR MOVABLE EQUIPMENT THAT IS PERMANENTLY ATTACHED (E.G. HARD WIRED) TO THE BUILDING UTILITY SERVICES SUCH AS ELECTRICITY, GAS OR WATER.
3. MOVABLE EQUIPMENT WHICH IS STATIONED IN ONE PLACE FOR MORE THAN 8 HOURS AND HEAVIER THAN 400 POUNDS ARE REQUIRED TO BE ANCHORED WITH TEMPORARY ATTACHMENTS.

THE FOLLOWING MECHANICAL COMPONENTS SHALL BE POSITIVELY ATTACHED TO THE STRUCTURE, BUT NEED NOT BE DETAILED ON THE PLANS. THESE COMPONENTS SHALL HAVE FLEXIBLE CONNECTIONS PROVIDED BETWEEN THE COMPONENT AND ASSOCIATED DUCTWORK, PIPING, AND CONDUIT:

A. COMPONENTS WEIGHING LESS THAN 400 POUNDS AND HAVE A CENTER OF MASS LOCATED 4 FEET OR LESS ABOVE THE ADJACENT FLOOR OR ROOF LEVEL THAT DIRECTLY SUPPORT THE COMPONENT.

B. COMPONENTS WEIGHING LESS THAN 20 POUNDS, OR IN THE CASE OF DISTRIBUTED SYSTEMS, LESS THAN 5 POUNDS PER FOOT, WHICH ARE SUSPENDED FROM A ROOF OR FLOOR OR HUNG FROM A WALL.

FOR THOSE ELEMENTS THAT DO NOT REQUIRE DETAILS ON THE APPROVED DRAWINGS, THE INSTALLATION SHALL BE SUBJECT TO THE APPROVAL OF THE DESIGN PROFESSIONAL IN GENERAL RESPONSIBLE CHARGE OR THE STRUCTURAL ENGINEER DELEGATED RESPONSIBILITY AND THE DSA DISTRICT STRUCTURAL ENGINEER. THE PROJECT INSPECTOR WILL VERIFY THAT ALL COMPONENTS AND EQUIPMENT HAVE BEEN ANCHORED IN ACCORDANCE WITH ABOVE REQUIREMENTS.

PIPING AND DUCTWORK DISTRIBUTION SYSTEM BRACING NOTE:

PIPING AND DUCTWORK DISTRIBUTION SYSTEMS SHALL BE BRACED TO COMPLY WITH THE FORCES AND DISPLACEMENTS PRESCRIBED IN ASCE 7-10 SECTION 13.3 AS DEFINED IN ASCE 7-10 SECTION 13.6.8, 13.6.7, 13.6.5.6, AND 2016 CBC SECTIONS 1616A.1.23, 1616A.1.24, 1616A.1.25 AND 1616A.1.26.

THE METHOD OF SHOWING BRACING AND ATTACHMENTS TO THE STRUCTURE FOR THE IDENTIFIED DISTRIBUTION SYSTEM ARE AS NOTED BELOW. WHEN BRACING AND ATTACHMENTS ARE BASED ON A PREAPPROVED INSTALLATION GUIDE (E.G., SMACNA OR OSHPD OPM), COPIES OF THE BRACING SYSTEM INSTALLATION GUIDE OR MANUAL SHALL BE AVAILABLE ON THE JOBSITE PRIOR TO THE START OF AND DURING THE HANGING AND BRACING OF THE DISTRIBUTION SYSTEMS.THE STRUCTURAL ENGINEER OF RECORD SHALL VERIFY THE ADEQUACY OF THE STRUCTURE TO SUPPORT THE HANGER AND BRACE LOADS.

MP ☐ MD ☐ PPC☐ E**X** - OPTION 1: DETAILED ON THE APPROVED DRAWINGS WITH PROJECT SPECIFIC NOTES AND DETAILS.
MP ☐ MD ☐ PPC☐ E ☐ - OPTION 2: SHALL COMPLY WITH THE APPLICABLE OSHPD PRE-APPROVED (OPM#) #_____
MP ☐ MD ☐ PPC☐ E ☐ - OPTION 3: SHALL COMPLY WITH THE SMACNA SEISMIC RESTRAINT MANUAL, OSHPD EDITION (2009), INCLUDING ANY ADDENDA. FASTENERS AND OTHER ATTACHMENTS NOT SPECIFICALLY IDENTIFIED IN THE SMACNA SEISMIC RESTRAINT MANUAL, OSHPD EDITION, ARE DETAILED ON THE APPROVED DRAWINGS WITH PROJECT SPECIFIC NOTES AND DETAILS. THE DETAILS SHALL ACCOUNT FOR THE APPLICABLE SEISMIC HAZARD LEVEL AND CONNECTION LEVEL_____FOR THE PROJECT AND CONDITIONS.

TELECOM LEGEND

	VOICE / DATA OUTLET - WALL MOUNTED. PROVIDE AND INSTALL (2) CAT 6A BLUE CMP CABLES / JACKS TERMINATED IN A 4-PORT FACEPLATE AT 18" AFF. PROVIDE AND INSTALL 5S J-BOX WITH SINGLE GANG MUDRING AND 1-1/4" CONDUIT LOCATION. PROVIDE BUSHINGS AND PULLSTRING, U.O.N.
X	DATA OUTLET - WALL MOUNTED. PROVIDE AND INSTALL (2) QUANTITY OF CAT 6A BLUE CMP CABLES / JACKS TERMINATED IN A 6-PORT FACEPLATE AT 18" AFF. PROVIDE AND INSTALL 5S J-BOX WITH SINGLE GANG MUDRING AND 1-1/4" CONDUIT LOCATION. PROVIDE BUSHINGS AND PULLSTRING, U.O.N.
TV	DATA OUTLET. PROVIDE AND INSTALL (2) CAT6A BLUE CMP CABLES AND (1) RG-6 CABLE. JACKS TERMINATED IN A CONSOLIDATED 5S BACK BOX AT THE DESIGNATED HEIGHT AS SHOWN ON DRAWINGS. REFER TO AUDIOVISUAL SHEETS FOR CONSOLIDATED BACK BOX TYPE. PROVIDE BUSHINGS AND PULLSTRING, U.O.N. MOUNT OUTLET AT 60" AFF U.O.N.
W	WALL PHONE OUTLET - WALL MOUNTED. PROVIDE AND INSTALL (2) CAT 6A BLUE CMP CABLE TERMINATED ON A STAINLESS STEEL WALL PHONE FACE PLATE AT 48" AFF. PROVIDE AND INSTALL 5S JBOX WITH 1-1/4" CONDUIT LOCATION. PROVIDE BUSHINGS AND PULLSTRING, U.O.N.
EP	EMERGENCY BLUE PHONE. PROVIDE AND INSTALL EP-MFG. BACK-BOX AND (1) 1-1/4" CONDUIT AT 42" AFF. WITH IN-SET EP BACKBOX. PROVIDE AND INSTALL (1) CAT6A CMP CABLE.
	DATA OUTLET - FLOORBOX. PROVIDE AND INSTALL (4) CAT 6A BLUE CMP CABLES / JACKS TERMINATED IN FLOOR BOX, U.O.N. PROVIDE AND INSTALL 1-1/4" CONDUIT TO NEAREST FURRED WALL , ROUTE CONDUIT ABOVE FINISHED CEILING. PROVIDE BUSHINGS AND PULLSTRING, U.O.N.
	DATA OUTLET - POKE THRU. PROVIDE AND INSTALL (4) CAT 6A BLUE CMP CABLES / JACKS TERMINATED IN FLOOR BOX, U.O.N. PROVIDE AND INSTALL 1-1/4" CONDUIT TO NEAREST FURRED WALL. ROUTE CONDUIT ABOVE FINISHED CEILING. PROVIDE BUSHINGS AND PULLSTRING, U.O.N.
F	VOICE/DATA SYSTEMS FURNITURE OUTLET. PROVIDE AND INSTALL (2) CAT 6A BLUE CMP CABLES/ JACKS TERMINATED IN 3-PORT FURNITURE MOUNT FACEPLATE WITH BLANK INSERT.
	FURNITURE FEED DEDICATED JUNCTION BOX. PROVIDE AND INSTALL 5S JUNCTION BOX RACO 260 OR APPROVED EQUAL 2-GANG AND PLATE WITH (2) 2" CONDUITS. FOR COMMUNICATIONS CABLING ONLY.
	FLOOR MOUNTED FURNITURE FEED. PROVIDE AND INSTALL 2" CONDUITS AS REQUIRED TO SERVE FURNITURE SYSTEM AS SHOWN ON THE DRAWINGS. ROUTE CONDUIT TO NEAREST FURRED WALL. FOR COMMUNICATIONS CABLING ONLY.
WAP	WIRELESS ACCESS POINT OUTLET - CEILING MOUNTED. PROVIDE AND INSTALL (2) CAT 6A BLUE CMP CABLES / JACKS TERMINATED IN A SURFACE MOUNT BOX ABOVE FINISHED CEILING. CEILING LOCATIONS PROVIDE AND INSTALL 4S JBOX WITH 1-1/4" CONDUIT LOCATION PROVIDE BUSHINGS AND PULLSTRING, U.O.N. TERMINATE CABLES ON JACKS IN 2-PORT FACE PLATE.
WAP	WIRELESS ACCESS POINT OUTLET - WALL MOUNTED. PROVIDE AND INSTALL (2) CAT 6A BLUE CMP CABLES / JACKS TERMINATED IN A 2-PORT FACEPLATE AT NOTED HEIGHT AFF. PROVIDE AND INSTALL 4S JBOX WITH 1-1/4" CONDUIT LOCATION, BUSH AND PROVIDE PULLSTRING, U.O.N.
V	DATA OUTLET - CEILING MOUNTED. PROVIDE AND INSTALL (2) CAT 6A BLUE CMP CABLES / JACKS TERMINATED IN A 2-PORT FACEPLATE AT FINISHED CEILING. (NOTE: AT HAROLD CEILING LOCATIONS PROVIDE AND INSTALL 4S JBOX WITH 1-1/4" CONDUIT LOCATION. PROVIDE BUSHINGS AND PULLSTRING, U.O.N.)
	PAD MOUNTED NETWORK ENCLOSURE WITH OPTICAL FIBER TERMINATION.
	CABLE TRAY, SIZE AS NOTED
	LADDER RACK, SIZE AS NOTED
	19" X 7' EQUIPMENT RACK

NOTE:
SEE LBCC STANDARD OUTLET INFORMATION AND DEVICE OUTLET SIZES ON SHEET T002 FOR ADDITIONAL INSTALLATION INFORMATION

TELECOM DEMO NOTES

INTRA BUILDING

1. CONTRACTOR SHALL VERIFY THAT ALL WORKING SERVICES ARE TRANSFERRED FROM OLD CABLES TO THE NEW NETWORK. THIS INCLUDES BUT IS NOT LIMITED TO, SERVICE TO PAY PHONES, MONITORING DEVICES, EMERGENCY PHONES, ELEVATOR PHONES, AS WELL AS SWITCH SERVICES, AND NON SWITCH SERVICES (IE: ISDN, HICAP, T-1 LINES).
2. AFTER EXISTING VOICE AND DATA SERVICES ARE CUTOVER TO THE NEW NETWORK, REMOVE ALL NON-WORKING COPPER RISER AND ENTRANCE CABLES. REMOVE ALL ABANDONED TERMINATION BLOCKS, JUMPERS AND EQUIPMENT.
3. DEMOLITION PLAN TO BE REVIEWED AND APPROVED BY LBCC REPRESENTATIVE PRIOR TO WORK. REMOVE ABANDONED FIBER OPTIC CABLES AND TERMINATING EQUIPMENT UNLESS SPECIFICALLY INDICATED OR DIRECTED BY A IT DEPARATMENT DISTRICT REPRESENTATIVE.

INTRA BUILDING

1. THE COPPER CABLE PLAN INDICATES THE COPPER CABLES TO BE REMOVED UPON COMPLETION OF CUTTING THEM OVER TO A NEW CONFIGUIRATION. THESE CABLES AND ANY OTHER ABANDONED (CUT AT BOTH ENDS) COPPER CABLES SHALL BE REMOVED.
2. ANY ABANDONED (CUT AT BOTH ENDS) COAXIAL CABLE SHALL BE REMOVED.
3. CHECK WITH PROJECT CONSTRUCTION MANAGEMENT TEAM PRIOR TO REMOVING ANY EXISTING MEDIA.
4. CONTRACTOR SHALL DISCONNECT AND REMOVE ALL VOICE/DATA CABLES BACK TO (E) BDF/IDF AND PROPERLY DISPOSED OF.

ABBREVIATIONS

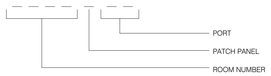
ABBREVIATION	DESCRIPTION
(#)	NUMBER IS QUANTITY
0dBm	STANDARD-LEVEL RATIO OF MEASUREMENT THAT REPRESENTS A ZERO-DECIBEL READING FROM ONE MILLIWATT OF POWER
A OR AMP	AMPERES
A/E	ARCHITECT/ENGINEER
ACCU	AIR COOLED CONDENSING UNIT
ADA	AMERICANS WITH DISABILITIES ACT
AFF	ABOVE FINISHED FLOOR
AH	AMPERE HOUR
AHJ	AUTHORITY HAVING JURISDICTION
AHU	AIR HANDING UNIT
AIA	AMERICAN INSTITUTE OF ARCHITECTS
AIC	AMPERE INTERRUPTING CAPACITY
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE
AP	ACCESS POINT
ARCH.	ARCHITECT; ARCHITECTURAL
ASHRAE	AMERICAN SOCIETY OF HEATING, REFRIGERATING, AND AIR-CONDITIONING ENGINEERS
ASP	ALUMINUM, STEEL, POLYETHYLENE
ASTM®	AMERICAN SOCIETY FOR TESTING AND MATERIALS
AWG	AMERICAN WIRE GAUGE
B/BUR	BURIED
BACnet®	BUILDING AUTOMATION AND CONTROL NETWORK – BROADCAST MANAGEMENT DEVICE
BC	BONDING CONDUCTOR
BDF	BUILDING DISTRIBUTION FRAME
BIC	BUILDING INDUSTRY CONSULTANT
BICSI	BUILDING INDUSTRY CONSULTING SERVICES
BMS	BUILDING MANAGEMENT SYSTEM
BTU	BRITISH THERMAL UNIT
C	COMMUNICATIONS (LOW-VOLTAGE CABLING OR OPTICAL FIBER CABLE)
C.O.	CONDUIT ONLY WITH PULL WIRE
CA	CONSTRUCTION ADMINISTRATION (ARCHITECTURAL PHASE)
CAD	COMPUTER AIDED DESIGN
CAM	COMPUTER-AIDED MANUFACTURING
CATV	COMMUNITY ANTENNA TELEVISION (CABLE TELEVISION)
CBC	COMMUNICATIONS BONDING CONDUCTOR
CBSC	CALIFORNIA BUILDING STANDARDS COMMISSION
CCTV	CLOSED CIRCUIT TELEVISION
CD	CONSTRUCTION DESIGN (ARCHITECTURAL PHASE)
CDMA	CODE DIVISION MULTIPLE ACCESS
CEC	CALIFORNIA ELECTRICAL CODE
CF/CI	CONTRACTOR FURNISHED / CONTRACTOR INSTALLED
CKT	CIRCUIT
CM	CONSTRUCTION MANAGER
CMP	COMMUNICATIONS PLENUM (CABLE JACKET RATING)
CMR	COMMUNICATIONS RISER (CABLE JACKET RATING)
CP	CONSOLIDATION POINT
CSI	CONSTRUCTION SPECIFICATION INSTITUTE
CT	CABLE TRAY
D	DELTA – REFERS TO A DOCUMENTED CHANGE IN DWG OR SPECS AFTER PUBLISHED
DAS	DISTRIBUTED ANTENNA SYSTEM
DB	DIRECT-BURIED OR DUCT BANK
dc	DIRECT CURRENT
DIST	DISTRIBUTION
DL	DUCTLINER (INNERDUCT)
DSA	DEPARTMENT OF STATE ARCHITECTS
DWG	DRAWING
E	ELECTRICAL
E/W	EQUIPPED WITH
EA	EACH
EBC	EQUIPMENT BONDING CONDUCTOR
EF	ENTRANCE FACILITY
EMI	ELECTROMAGNETIC INTERFERENCE
EMS	EMERGENCY MANAGEMENT SYSTEM
EMT	ELECTRICAL METALLIC TUBING
ENT	ELECTRICAL NONMETALLIC TUBING
EQUIP	EQUIPMENT
EXIST / (E)	EXISTING
FA	FIRE ALARM
FACP	FIRE ALARM CONTROL PANEL
FCC	FEDERAL COMMUNICATION COMMISSION
FCU	FAN COIL UNIT
FD	FLOOR DISTRIBUTION
FDC	OPTICAL – FIBER DISTRIBUTION CENTER
FDDI	(OPTICAL) FIBER DISTRIBUTED DATA INTERFACE
FDR	FEEDER
FEP	FLUORINATED ETHYLENE PROPYLENE
FEXT	FAR END CROSSTALK
FIC	FACILITY INTERFACE CODE
FIN.	FINISH
FIXT	FIXTURE
FLR	FLOOR
FO	FIELD ORDER
FOC	FIBER OPTIC CABLE
FOR	FIELD OBSERVATION REPORT
FPN	FINE PRINT NOTE
FS	FIRESTOP (DEFINED BY "T-RATING – TEMPERATURE-TRANSFER & "F-RATING = FLAME) – MAY ALSO HAVE A "SMOKE-TRANSFER" REQUIREMENT
FT	FEET
FTP	FIELD TERMINATED PLUG
FTU	FIBER TERMINAL UNIT
GA	GAUGE
Gb	GIGABIT
GFI	GROUND FAULT INTERRUPTER
GND	GROUND
GPR	GROUND POTENTIAL RISE
GRC	GALVANIZED RIGID CONDUIT
H	HOUR
HVAC	HEATING, VENTILATION, AND AIR CONDITIONING
I	CURRENT
IB	INTELLIGENT BUILDING
ICEA	INSULATED CABLE ENGINEERS ASSOCIATION, INC.
ID	INSIDE DIAMETER OR INSIDE DIMENSION
IDC	INSULATION DISPLACEMENT CONDUCTOR
IDF	INTERMEDIATE DISTRIBUTION FRAME
IEC	INTERNATIONAL ELECTROTECHNICAL COMMISSION
IEEE	INSTITUTE OF ELECTRICAL AND ELECTRONIC ENGINEERS
IG	ISOLATED GROUND
IR	INFRARED
ISO	INTERNATIONAL ORGANIZATION OF STANDARDIZATION
ISP	INTERNET SERVICE PROVIDER
JB	JUNCTION BOX
KP	OMNI-LOCK
LAC	LIBERAL ARTS CAMPUS
LBCC	LONG BEACH CITY COLLEGE
LBCCD	LONG BEACH CITY COLLEGE DISTRICT
LED	LIGHT EMITTING DIODE
LVD	LOW VOLTAGE DISCONNECT
M	METER
MAC	MEDIA ACCESS CONTROL
MB	MEGABIT
MDF	MAIN DISTRIBUTION FRAME
MH	MAINTENANCE HOLE(OSP CONFINED SPACE)
MHT	MOUNTING HEIGHT
MM	MULTIMODE
MM	MULTI-MODE
MSDS	MATERIAL SAFETY DATA SHEET
MTG.	MOUNTING
MTU	MULTI TENNENT UNIT
MUTOA	MULTI-USER TELECOMMUNICATION OUTLET ASSEMBLY
MUX	MULTIPLEXER
N	NORTH
ND	NETWORK DEVICE
NE	NETWORK ENCLOSURE
NEC	NATIONAL ELECTRICAL CODE
NEMA	NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION
NESC	NATIONAL ELECTRICAL SAFETY CODE
NEXT	NEAR END CROSSTALK
NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
NIC	NOT IN CONTRACT
NIU	NETWORK INTERFACE UNIT
NO.	NUMBER
OAR	OWNER APPROVED REPRESENTATIVE
OD	OUTSIDE DIAMETER
OF	OPTICAL FIBER
OF/CI	OWNER FURNISHED / CONTRACTOR INSTALLED
OSHA	OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION
OSHPD	CALIFORNIA OFFICE OF STATEWIDE HEALTH PLANNING AND DEVELOPMENT
OSP	OUTSIDE PLANT
OTDR	OPTICAL TIME DOMAIN REFLECTOMETER
PA	PUBLIC ADDRESS SYSTEM
PB	PULL BOX
PCC	PACIFIC COAST CAMPUS
PH	PHASE
PIC	PLASTIC INSULATED CONDUCTOR
PLT	PLANT
PNL	PANEL
POC	POINT OF CONNECTION
POTS	PLAN OLD TELEPHONE SERVICE
PR	PAIR
PRO	PROTECTED TERMINAL
PSF	POUNDS PER SQUARE FOOT
PSU	POWER SUPPLY UNIT
PTP	POINT-TO-POINT
PVC	POLYVINYL CHLORIDE
PWR	POWER
REC/RECPT	RECEPTACLE
REQD	REQUIRED
RET	REMOTE TERMINAL
RM	ROOM
RMC	RIGID METAL CONDUIT
RMS	RACK MOUNTED SPACE
RNC	RIGID NONMETALLIC CONDUIT
RU	RACK UNIT
S	SOUTH
SAC	SECURITY AND ACCESS CONTROL
SCS	STRUCTURED CABLING SOLUTION
SD	SCHEMATIC DESIGN
SF	SQUARE FEET OF MORE THAN 150
SFF	SMALL FORM FACTOR
SHT	SHEET
SL	SLEEVE
SM	SINGLE MODE
SNR	SIGNAL TO NOISE RATIO
SP	SINGLE POLE
SPD	SURGE PROTECTION DEVICE
SPECS	SPECIFICATIONS
SQ	SQUARE
SR	SURFACE RUNWAY
STA	STATION
STD	OPTICAL FIBER STRAND
STP	SHIELDED TWISTED-PAIR
SW	SWITCH
SYS	SYSTEM
T	TEMPERATURE
T&C	TERMS AND CONDITIONS
TBB	TELECOMMUNICATIONS BONDING BACKBONE
TDD	TELECOMMUNICATIONS DEVICE FOR THE DEAF
TDMM	TELECOMMUNICATIONS DISTRIBUTION METHODS MANUAL
TE	TELECOMMUNICATIONS ENCLOSURE
TEL	TELEPHONE
TELCO	TELEPHONE UTILITY
TERM.	TERMINATION
TGB	TELECOMMUNICATIONS GROUNDING BUSBAR
TIA	TELECOMMUNICATIONS INDUSTRY ASSOCIATION
TMGB	TELECOMMUNICATIONS MAIN GROUNDING BUSBAR
TP	TRANSITION POINT
TR	TELECOMMUNICATIONS ROOM OR SPACE
TTB	TELEPHONE TERMINAL BOARD
TV	TELEVISION
TYP	TYPICAL
UD	UNDERGROUND DUCT
UG	UNDERGROUND
UL	UNDERWRITERS LABORATORIES INC.
UON	UNLESS OTHERWISE NOTED
UPS	UNINTERRUPTIBLE POWER SUPPLY
UTC	UNDERCARPET TELECOMMUNICATIONS CABLE
UTP	UNSHIELDED TWISTED PAIR
V	VOLTS
V-A	VOLT-AMPERES
VESDA	VERY EARLY SMOKE DETECTION APPARATUS
W	WATTS
W/	WITH
W/O	WITHOUT
WAO	WORK AREA OUTLET/ WORK STATION OUTLET
WBS	WORK BREAKDOWN STRUCTURE
WiFi	WIRELESS FIDELITY
WP	WATERPROOF OUTLET BOX
WS	WORK STATION
WW	WIRE WAY
µm	MICRON: ONE MILLIONTH OF A METER (0.000001 METER); ALSO MICROMETER – MEASUREMENT MOST COMMON USED WITH MULTI-MODE FIBER (MM)
µV/m	MICROVOLTS PER METER
℃	DEGREES CELSIUS
℉	DEGREES FAHRENHEIT

GENERAL NOTES

1. ALL TELECOMMUNICATIONS WORK SHALL COMPLY WITH THE LATEST EDITION OF THE LBCC TELECOMMUNICATIONS INFRASTRUCTURE STANDARDS AND CURRENT INDUSTRY RECOGNIZED BEST PRACTICES. THESE STANDARDS HAVE BEEN ESTABLISHED TO EXCEED ALL CURRENT CODE AND INDUSTRY STANDARD INSTSALLATION PRACTICE. ANY ITEMS THAT RAISE QUESTION SHALL BE BROUGHT TO THE ATTENTION OF THE CONSTRUCTION MANAGER AND LBCC REPRESENTATIVE IN WRITING. IT IS ALWAYS A BEST PRACTICE TO PROVIDE THE AHJ WITH DETAIL ON ANY AND ALL CONSTRUCTION ITEMS THAT COULD BE QUESTIONED BY THE AHJ. THE PROJECT DOCUMENTATION PACKAGE ASSOCIATED LBCC STANDARD ARE NOT TO BE INTERPRETED NOR CONSIDERED AS AUTHORIZATION TO DEVIATE FROM ANY CODE OR REGULATION. IT IS THE CONTRACTORS RESPONSIBILITY TO VALIDATE THAT THESE REQUIREMENTS WILL MEET THE EQUIPMENT MANUFACTURER'S REQUIREMENT TO PROVIDE LBCC WITH A MINIMUM 20-YEARS SCS FOR ALL LABOR AND MATERIALS WARRANTIES.
2. IN THE EVENT OF A CONFLICT OR INCONSISTENCY BETWEEN ITEMS INDICATED ON THE PLANS AND/OR SPECIFICATIONS OR WITH AHJ REQUIREMENTS, THE DOCUMENT WHICH PRESCRIBES AND ESTABLISHES THE COMPLETE JOB OR THE HIGHER STANDARD SHALL PREVAIL. ALL DISCREPANCIES ARE TO BE BROUGHT TO THE ATTENTION OF THE CONSTRUCTION MANAGER AND THE LBCC REPRESENTATIVE IN WRITING IMMEDIATELY UPON DISCOVERY
3. OMISSIONS FROM THE DRAWINGS OR SPECIFICATIONS OR THE MISDESCRIPTION OF DETAILS OF WORK WHICH ARE CLEAR AND NECESSARY TO CARRY OUT THE INTENT OF THE DRAWINGS AND SPECIFICATIONS, OR WHICH ARE CUSTOMARILY PERFORMED SHALL NOT RELIEVE THE CONTRACTOR FROM PERFORMING SUCH OMITTED OR MISDESCRIBED DETAILS OF THE WORK. THE CONTRACTOR SHALL NOTIFY THE CONSTRUCTION MANAGER AND LBCC REPRESENTATIVE UPON IDENTIFICATION OF SUCH OMISSIONS, MISDESCRIPTION, AND UNCLEAR DIRESTIONS IMMEDIATELY. THE CONTRACTOR SHALL PERFORM ALL PROJECT TASKS AND ASSEMBLY BUILDS AS PER INDUSTRY STANDARDS AND MANUFACTURER'S REQUIREMENTS ALONG WITH COORDINATING AND WORKING WITH LBCC TO CORRECT SUCH DOCUMENTATION ERRORS.
4. THE CONTRACTOR SHALL CHECK ALL DRAWINGS FURNISHED IMMEDIATELY UPON THEIR RECEIPT AND PROMPTLY NOTIFY LBCC OF ANY DISCREPANCIES. THIS INCLUDES BUT NOT LIMITED TO, DISCREPANCIES BETWEEN DRAWINGS AND SPECIFICATIONS, OR DRAWINGS AND MANUFACTURER INSTALLATION INSTRUCTIONS THAT WILL CAUSE EXTENDED WARRANTY ISSUES, OR DRAWINGS AND GOVERNING CODES AND BEST PRACTICES. THE CONTRACTOR SHALL BRING TO THE ATTENTION OF THE CONSTRUCTION MANAGER AND LBCC REPRESENTATIVE ANY DISCREPANCIES BETWEEN DRAWINGS AND HOW THE CONTRACTOR NORMALLY DELIVERS THE SERVICES DESCRIBED IN THE DRAWINGS OR SPECIFICATIONS.
5. ALL MATERIALS AND EQUIPMENT FURNISHED AND INSTALLED SHALL BE NEW AND FREE FROM ANY KNOWN DEFECT. ALL EQUIPMENT SHALL BEAR THE UNDERWRITERS LABORATORIES LABEL (UL™) LISTING, CLASSIFIED, AND/OR PERFORMANCE VERIFIED MARK OR FROM A LBCC APPROVED ALTERNATIVE TESTING ORGANIZATION. ALL MATERIALS SHALL BE INSTALLED AND USED IN THE MANNER FOR WHICH THE MANUFACTURER INTEND THEM FOR. THIS APPLIES FOR BOTH PIECE PARTS AND COMPLETE FUNCTIONING ASSEMBLIES.
6. CONTRACTOR IS REQUIRED TO RECEIVE WRITTEN APPROVAL FOR ALL RECOMMENDED AND REQUIRED WORK DEVIATIONS AND CLARIFICATIONS TO THE PLANS AND SPECIFICATIONS OF THIS PROJECT BY LBCC AND ITS REPRESENTATIVES PRIOR TO ANY FIELD ACTIVITY.
7. ALL WORK MUST BE COMPLETED IN A NEAT AND WORKMAN LIKE MANNER. LBCC DEMANDS THE UTMOST PROFESSIONALISM WHEN WORK IS BEING PERFORMED CAMPUS AND ALL CONTRACTORS TO THAT LEVEL OF PROFESSIONALISM. THE WORK SITE SHALL BE KEPT CLEAN AND FREE FROM DEBRIS. IT IS EVERY CONTRACTOR AND ALL THEIR REPRESENTATIVE'S RESPONSIBILITY TO GUARD AGAINST ANY DAMAGE TO LBCC PROPERTY AND THE IMMEDIATE REPAIR IF ANY DAMAGE IS CAUSED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONDUCTING A FINAL CLEANUP OF THE WORK SITE PRIOR TO FINAL SYSTEM ACCEPTANCE AS PART OF THE PUNCH-LIST PROCESS.
8. THE CONTRACTOR SHALL NOT BORE, NOTCH, OR IN ANY WAY CUT INTO ANY STRUCTURAL MEMBER WITHOUT WRITTEN APPROVAL FROM LBCC, ARCHITECT, STRUCTURAL ENGINEER, AND DSA. WITH PERMISSION FROM THE ABOVE AND PRIOR TO ALL CUTTING, DRILLING, NOTCHING, CORING, ETC. OF CONCRETE STRUCTURE AND FAÇADE THESE SURFACES SHALL BE SCANNED FOR GROUND PENETRATING RADAR USED TO ACCURATELY LOCATE REBAR, POST-TENSION CABLES & RODS, CONDUITS, AND ANY OTHER EMBEDDED POTENTIAL OBSTRUCTIONS TO ENSURE THAT NO DAMAGE IS CAUSED TO ANY STRUCTURAL REINFORCEMENTS.
9. FOR THE PURPOSE OF CLEARNESS AND LEGIBILITY THE TELECOM DRAWINGS ARE ESSENTIALLY DIAGRAMMATIC. THE SIZE AND LOCATION OF EQUIPMENT IS SHOWN TO SCALE WHEREVER POSSIBLE. THE CONTRACTOR SHALL VERIFY ALL FIELD CONDITIONS WITH INFORMATION INDICATED ON THE DRAWINGS AND DESCRIBED IN THE SPECIFICATION SECTIONS WHERE TELECOM WORK INTERFACES WITH OTHER TRADES
10. THE CONTRACTOR SHALL TAKE SPECIAL PRECAUTIONS WHEN WORKING IN AREAS WITH EXISTING CEILINGS AND SHALL BE RESPONSIBLE FOR REMOVAL AND REPLACEMENT OF CEILING TILES WITHOUT DAMAGING OR SOILING THE CEILING TILES. CHIPPED, DAMAGED, CRACKED, OR BROKEN TILES ARE THE CONTRACTORS RESPONSIBILITY TO REPLACE WITH LIKE TILES.
11. ALL FOOTAGES IDENTIFIED ON DRAWINGS OR SCALED OFF OF DRAWINGS ARE TO BE CONSIDERED ESTIMATES AND ARE REQUIRED TO BE FIELD VERIFIED BY CONTRACTOR PRIOR TO ORDERING OF MATERIAL
12. ALL CABLE TRAYS, LADDER (TYPE) RACKING, CONDUIT, EQUIPMENT RACKS, PROTECTION PANELS, AND CABLE SHEATHS SHALL BE BONDED TO AN APPROVED TELECOMMUNICATIONS BONDING ASSEMBLY.
13. ACCORDING TO TIA STANDARDS AND BICSI METHODOLOGIES PULL-BOXES LOCATED WITHIN A STRUCTURE ARE TO BE PLACED AT 100' INCREMENTS AND PROPERLY SPACED IN RUNS OF MORE THAN 150' PULL-BOXES ARE TO BE PLACED IN CONDUIT RUNS THAT EXCEED A MAXIMUM OF 180-DEGREES IN CHANGES OF DIRECTION. TELECOMMUNICATIONS PULL-BOXES ARE TO BE SIZED AT A MINIMUM OF TWELVE (12) TIMES THE DIAMETER OF THE LARGEST CONDUIT. PULL-BOXES SHOULD NOT BE USED FOR CHANGES OF DIRECTION. THESE STANDARDS ARE TO BE ADHERED TO WHERE EVER PRACTICAL AND ANY DEVIATION TO THESE STANDARDS REQUIRES A SHOP-DRAWING, IF DISCOVERED DURING THE SUBMITTAL PHASE, TO REMEDIATE THE ISSUE OR BY AN RFI DURING THE CONSTRUCTION INSTALLATION PHASE. LBCC MAY ELECT TO INCREASE THE CONDUIT SIZE OR QUANTITY OF CONDUITS TO MITIGATE THE ISSUE FOR THE EXCESS LENGTH, ADDITIONAL QUANTITY OF CHANGES OF DIRECTION, AND/OR THE REDUCED SIZE OF PULL-BOXES WITHIN THE GIVEN PATHWAY. THE CONTRACTOR IS REQUIRED TO HAVE APPROVAL IN WRITING PRIOR TO

Cable Useage Chart				
Cable Type	**Manufacturer**	**Product #**	**Function**	**Project Note**
OS2 - Optical Fiber	Corning	Altos/Freedom	OSP	Loose-tube - Indoor/outdoor
OM4 - Optical Fiber	Corning	Altos/Freedom	OSP	Loose-tube - Indoor/outdoor
OM4 - Optical Fiber	Corning	MIC	Backbone	Armored - aqua CMP coating
OSP - PE-89	General	PE-89	Backbone	Include primary protectors
ARMM	General	ARMM	Riser	CMR Jacket
Coaxual	Belden	RG-11	CATV	CMP Jacket
4-Pair UTP - CMP	CommScope	Category 6A	Data	PoE+ Maximum
4-Pair UTP - CMP	CommScope	Category 6A	VoIP	PoE+ Maximum
4-Pair UTP - CMP - (2)	CommScope	Category 6A	Wireless	PoE+ Maximum
4-Pair UTP - CMP	CommScope	Category 6A	IP - PA	PoE+ Maximum
4-Pair UTP - CMP	CommScope	Category 6A	IP - Clock	PoE+ Maximum
4-Pair UTP - CMP	CommScope	Category 6A	IP - Security	PoE+ Maximum
4-Pair UTP - CMP	CommScope	Category 6A	IP Controls	PoE+ Maximum
4-Pair UTP - CMP	CommScope	Category 6A	IP - Camera	PoE+ Maximum
1-Pair 16AWG/Shielded - CMP	CommScope	Category 6A	Data	PoE+ Maximum

HORIZONTAL CABLE NUMBER

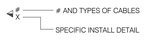


STANDARD OUTLET INFORMATION

A NUMBER INDICATES A SPECIFIC NUMBER OF CABLES DIFFERENT THAN THE DEFAULT NUMBER OF CABLES (AS DEFINED IN SYMBOLS LIST, AND BY THE TIPS DOCUMENT).

A NUMBER PREFACED BY "C" INDICATES A SPECIFIC QUANTITY OF COAX CONNECTIONS.

A NUMBER PREFACED BY "F" INDICATES A SPECIFIC QUANTITY OF FIBER CONNECTIONS.



W	WALL PHONE JACK @ +42" AFF (ADA)
H	WALL JACK @ +84" AFF (SECURITY CAMERAS, LCD TVS, ETC.)
WP	WEATHERPROOF
AV	AUDIO VIDEO CABLES (SPECIFIC USE, INSTALLED POINT TO POINT).
X	EMPTY (OUTLET WITH NO CABLE, FUTURE USE).
F	FURNITURE SYSTEM JACK

DEVICE CONDUIT SIZES

- (A) 1"C. WITH 5S x 2-7/8" J-BOX
- (B) 1-1/4"C. WITH 5S x 2-7/8" J-BOX
- (C) 2"C. WITH 5S x 3-1/4" J-BOX, RACO #260 OR APPROVED EQUAL.
- (D) 2"C. WITH NON-SNAG BUSHING AND BONDING RING AT CABLE TRAY.
- (E) 3"C. WITH NON-SNAG BUSHING AT BOTH ENDS AND BONDING RING AT CABLE TRAY.
- (F) 1-1/2"C. WITH 5S x 3-1/4" BACKBOX RACO #260 OR APPROVED EQUAL.
- (G) 4"C. WITH NON-SNAG BUSHING AT THE BOTH ENDS AND BONDING RING AT CABLE TRAY.

NOTES:

1. ALL CONDUIT AND SLEEVES ARE REQUIRED TO BE PROPERLY FIRE-STOPPED. MANUFACTURER OF FIRE STOP STANDARD DOCUMENTATION FOR EACH LOCATION TO BE PART OF AS-BUILT DOCUMENTATION PACKAGE. INCLUDED WITH WRITEN DOCUMENTATION AND FORM, PROVIDE TIMESTAMP PICTURE OF EACH FIRE-STOP LOCATION.
2. CONDUITS FOR WORK AREA OUTLETS IN OPEN CEILING ENVIRONMENTS SHALL EXTEND TO CABLE TRAY OR IDF. NO EXPOSED CATEGORY CABLING BE INSTALLED ON J-HOOKS IN OPEN OR HARD LID CEILING AREAS U.O.N.
3. CONDUITS EXTENDING TO CABLE TRAY SHALL BE FITTED WITH BONDING RING THAT WILL ACCOMMODATE A MINIMUM OF #6 TBC CONNECTED TO CABLE TRAY FOR MANUFACTURERS INSTALLATION REQUIREMENTS. CONDUIT END SHALL BE FITTED WITH NON-SNAG BUSHING. ANY CONDUIT PROVIDING PATHWAY TO A CABLE TRAY OR IDF SHALL BE REQUIRED TO BE FITTED WITH A CABLE "WATER-FALL" TO MAINTAIN CABLE INSTALLATION BEND RATIOS.
4. CONDUITS LESS THAN 48" ARE SLEEVES AND REQUIRE SUPPORT ON BOTH SIDES OF PENETRATION (SEE DETAIL T-606/6)

Task Responsibility Matrix					
Task	**GC**	**EC**	**CC**	**IT**	**Campus**
Disconnection of services to defined Demolition Area				√	
Removal of conduit and OSP cables	√				
Trenching and installation of OSP conduit and vaults		√			
Pad(s) for Network Enclosures	√				
Installation of OSP backbone cable			√		
Installation of cable tray and "J"-hooks			√		
Installation of WAO and backbone conduits		√			
Installation of wall/post mounted cabinets/pull-box(s)			√		
Installation of sleeves		√			
IDF - 3/4" fire rated plywood (ring walls) w/ (2) coats of fire retardent paint	√				
IDF - Bonding backbone and coordintaiton with Electrician for connection to building bonding conductor			√		
IDF - Anchoring of equipment and overhead cable racking			√		
Installation of fire stop		√			
Placement of optical fiber cable			√		
Placement of UTP OSP/Backbone cabling			√		
Placement of horizontal cabling			√		
Termination and Testing of all Low-voltage/signal cabling			√		
Power Y105 and Y115	√				
HVAC Y105		√			
Power for (4) N.E. T10					
Coordination with the elevator contractor		√	√		
Coordination with irrigating and landscape control contractor		√	√		
Legend					
General Contractor	GC				
Electrical Contractor	EC				
Communications Contractor	CC				
LBCC Information Technology	IT				
LBCC Construction Management	Campus				

CONDUIT FILL FOR COMMSCOPE 1091B CATEGORY 6A CMP BLUE CABLE					
CONDUIT - TRADE SIZE					
Trade Size		**Conduit I.D. (in)**	**Conduit Area**	**Fill Area**	**# Cables**
1/2	(16mm)	0.622	0.30	0.12	1
3/4	(21mm)	0.824	0.53	0.21	3
1	(27mm)	1.049	0.86	0.35	5
1-1/4	(35mm)	1.380	1.49	0.60	9
1-1/2	(41mm)	1.610	2.03	0.81	12
2	(53mm)	2.067	3.35	1.34	21
2-1/2	(63mm)	2.731	5.85	2.34	36
3	(78mm)	3.356	8.84	3.54	55
3-1/2	(91mm)	3.834	11.54	4.62	72
4	(103mm)	4.334	14.75	5.90	92

NOTES:

1. SINGLE CONDUIT OR GROUP OF CONDUITS SHALL BE REQUIRED TO LEAVE A MINIMUM OF 25% FUTURE CABLE GROWTH U.O.N.
2. CONDUITS SHALL BE FITTED WITH "WATERFALL" (A.K.A SHOE HORN) TO MAINTAIN CATEGORY CABLE MAXIMUM BEND RATIOS.

STATE:

ARCHITECT:

architecture
westbergwhite
14471 CHAMBERS RD, SUITE 210
TUSTIN, CA 92780
(714) 508-1780 508-1790 FAX

CONSULTANT:

P2S ENG
Long Beach | Los Angeles
San Diego | San Jose
p2sinc.com



PROJECT NAME:

LIBERAL ARTS CAMPUS
KINESIOLOGY LABS and AQUATIC CENTER
4901 EAST CARSON STREET
LONG BEACH, CA 90806

CLIENT:

LONG BEACH CITY COLLEGE
4901 EAST CARSON STREET
LONG BEACH, CA 90806

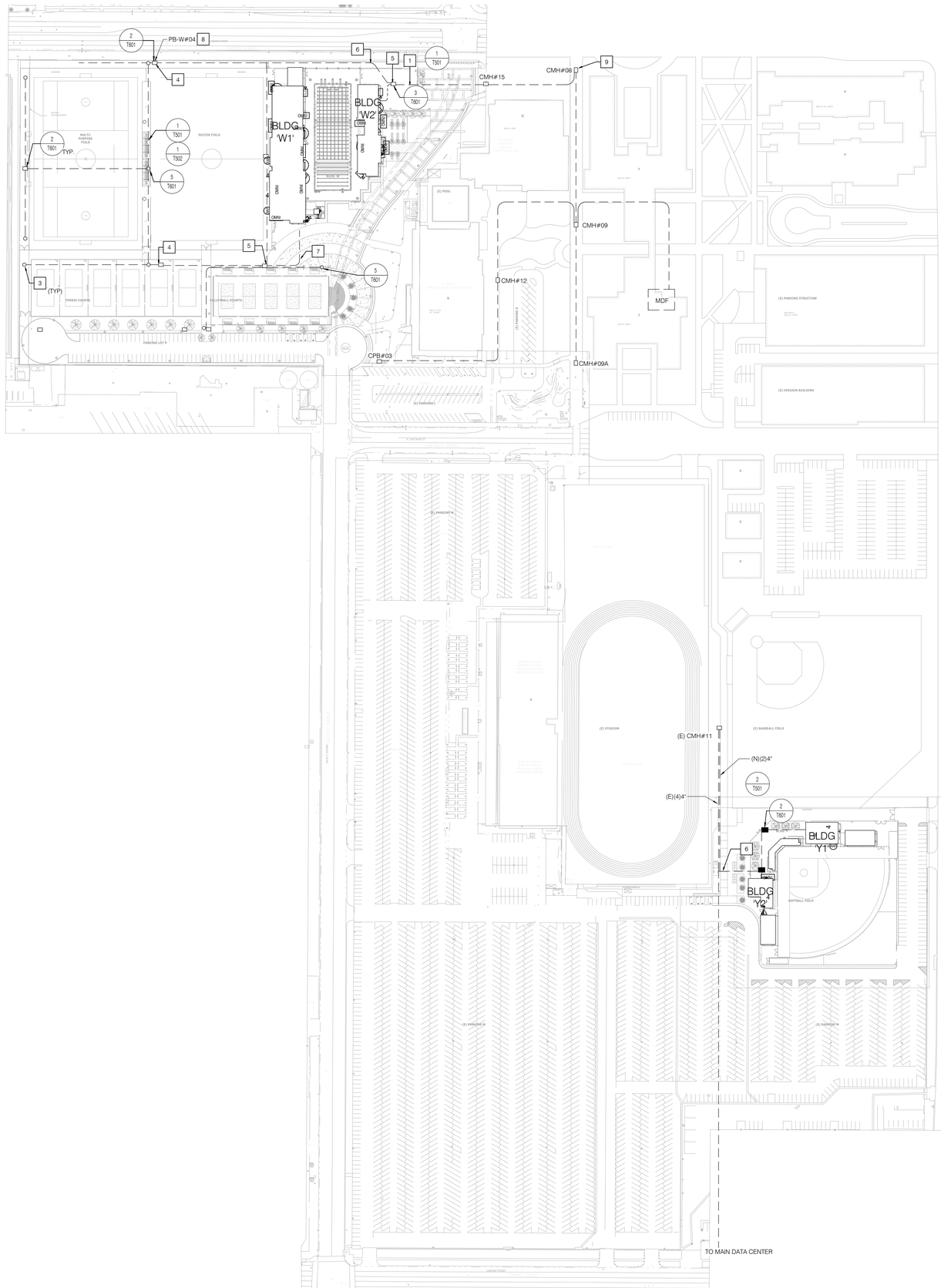
No.	Rev. Date	Description

JOB NO: 16042.01
DATE: 09/18/19
DRAWN: Author
CHECK: Checker
ARCHITECT: PDW
ENGINEER:

SHEET DESCRIPTION:
GENERAL NOTES, LEGEND, ABBREVIATIONS AND SHEET INDEX

SHEET NO:

T002



GENERAL NOTES

1. ALL OSP CONDUITS SHALL START WITH BELL END LEAVING THE MAINTANCE SPACE.
2. ALL OSP CONDUITS SHALL TRANSITION TO RGD FOR LAST STICK PLUS SWEEP UP.
3. ALL CONDUCTIVE CONDUIT ENDS SHALL BE FITTED WITH BONDING RING.
4. ALL CONDUITS SHALL HAVE NON-SNAG BUSHINGS AND FITTED WITH COTTON MEASURING CORD (AKA MULE TAPE).
5. ALL "Y" PULLBOXES SHALL HAVE A COMMON BONDING BUS BY CONTRACTOR.
6. ALL CAT6A CABLES WITH END TERMINATED PLUGS SHALL BE REQUIRED TO BE TESTED WITH TESTOR CABLES OF MPTL TEST.
7. ALL TRENCH LINES SHALL BE ENCASED, FULL-LENGTH LOCATION TAPE, AND LOCATORS PLACED AT 10' INCREMENTS.
8. ALL END DEVICE CABLES SHALL BE TERMINATED TO A Tii PRIMARY PROTECTOR BEFORE CONNECTING TO NETWORK PORT.
9. FURNISH AND INSTALL (1) 3-CELL FABRIC INNER DUCTS IN ALL CONDUITS WITH BACK BONE.

NOTES

1. PROVIDE (6) 4" CONDUITS.
2. PROVIDE ADDITIONAL CONDUIT ROUTE REQUIRES TRENCHING WITH OSP SPACES.
3. PROVIDE MODIFIED TRAFFIC CABINET WITH 19" RACK. REQUIRES PAD AND (2) DEDICATED 120V/20A CIRCUITS.
4. PROVIDE LOCATION OF 2436-360C PULL-BOX.
5. PROVIDE LOCATION OF R17P36-40C PULL-BOX/VAULT.
6. PROVIDE LOCATION OF RECOMMENDED 22° OR 45° ELBOS RATHER THAN 90° SWEEPS.
7. PROVIDE PROPOSED PRIMARY OPTICAL FIBER FEED FROM MAIN CAMPUS CORES.
   - LBCC NETWORK-EQUIPMENT IS, OPOI
   - CONDUIT SYSTEMS, IDFS, OUTDOOR CABINETS WITH PAD, OPTICAL AND CATEGORY 6A CABLE WILL MAKE UP A TURN-KEY INFRASTRUCTURE SOLUTION THAT INCLUDES MANUFACTURER'S EXTENDED PERFORMANCE WARRANTY. 3
8. PROVIDE (1) 2" CONDUIT FROM PB-W#04 TO SCORE BOARD OUTLET.
9. PROVIDE OPTICAL FIBER CONNECT TO BUILDING T MDF. 3
   - 48 STRAND OS2
   - 24 STRAND OM4
   - CORNING ALTOS GLASS, TERMINATED ON APL-LC CONNECTORS

N

Scale: 1" = 100'-0"

STATE:

ARCHITECT:

architecture
westbergwhite
14471 CHAMBERS RD, SUITE 210
TUSTIN, CA 92780
(714) 508-1780 508-1790 FAX

CONSULTANT:

P2S ENG
Long Beach | Los Angeles
San Diego | San Jose
p2sinc.com

MYNOR PEREZ HENDERSON No. E22361 ELECTRICAL STATE OF CALIFORNIA

PROJECT NAME:

LIBERAL ARTS CAMPUS
KINESIOLOGY LABS and AQUATIC CENTER
4901 EAST CARSON STREET
LONG BEACH, CA 90806

CLIENT:

LONG BEACH CITY COLLEGE
4901 EAST CARSON STREET
LONG BEACH, CA 90806

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ARCHITECT: PDW
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SHEET NO:

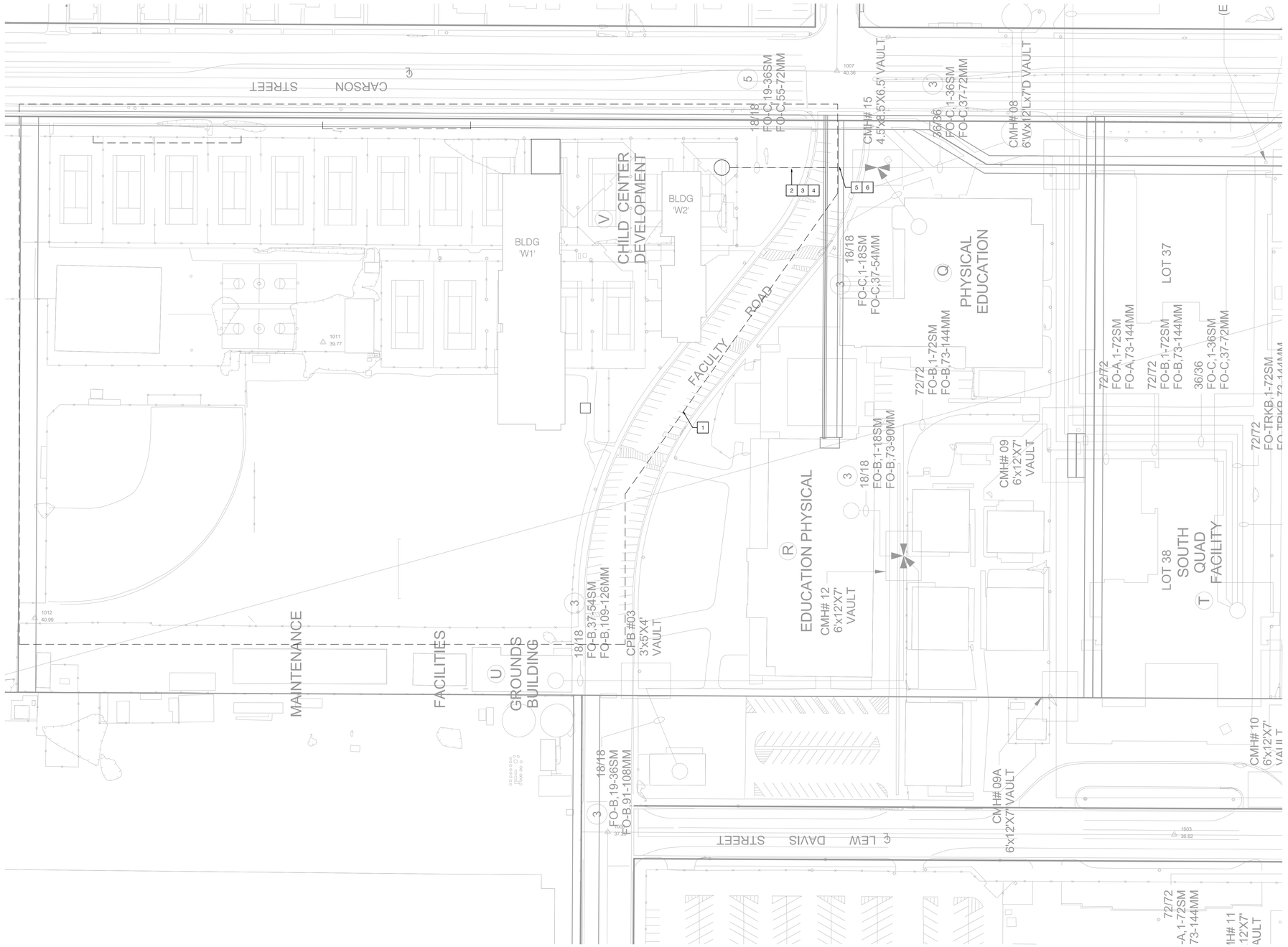
T101

GENERAL NOTES

1. SEE SHEET T001 FOR ADDITIONAL DEMO NOTES.

NOTES

1. AT MDF DISCONNECT ACTIVE OPTICAL FIBER CONNECTION. DISCONNECT VOICE/SIGNAL CROSS-CONNECTS FROM BACKBONE UTP CABLE.
2. AT CMH#15 IDENTIFY CABLES TO CHILD DEVELOPMENT.
3. AT CHILD DEVELOPMENT DISCONNECT ALL CABLES TO CMH#15 .
4. AT CMH#15 PULLBACK, COIL, AND PROTECT IN PLACE BOTH BACKBONE UTP AND BACKBONE COAXIAL CABLE . REMOVE 18/18 BACKBONE OPTICAL FIBER CABLE AND LIGHT MONITOR TRUNK CABLE STRANDS FROM MDF AND RECORD TEST RESULTS ON AS-BUILT DOCUMENTATION PACKAGE.
5. INTERCEPT CONDUITS-CUT AND FIT WITH DUCT PLUGS AND COTTON MEASURE LINE (MULE-TAPE) FOR FUTURE USE ONCE LOW-VOLTAGE CONDUITS ARE REMOVED.
6. REMOVE ALL CABLING FROM PATHWAY TO POINT WHERE FUTURE SPLICE OR IDF/BDF TERMINATION POINT CAN BE USED IN FUTURE.



STATE:

ARCHITECT:

architecture
westbergwhite
14471 CHAMBERS RD, SUITE 210
TUSTIN, CA 92780
(714) 508-1780 508-1790 FAX

CONSULTANT:

P2S ENG
Long Beach | Los Angeles
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p2sinc.com



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KINESIOLOGY LABS and AQUATIC CENTER
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4901 EAST CARSON STREET
LONG BEACH, CA 90806

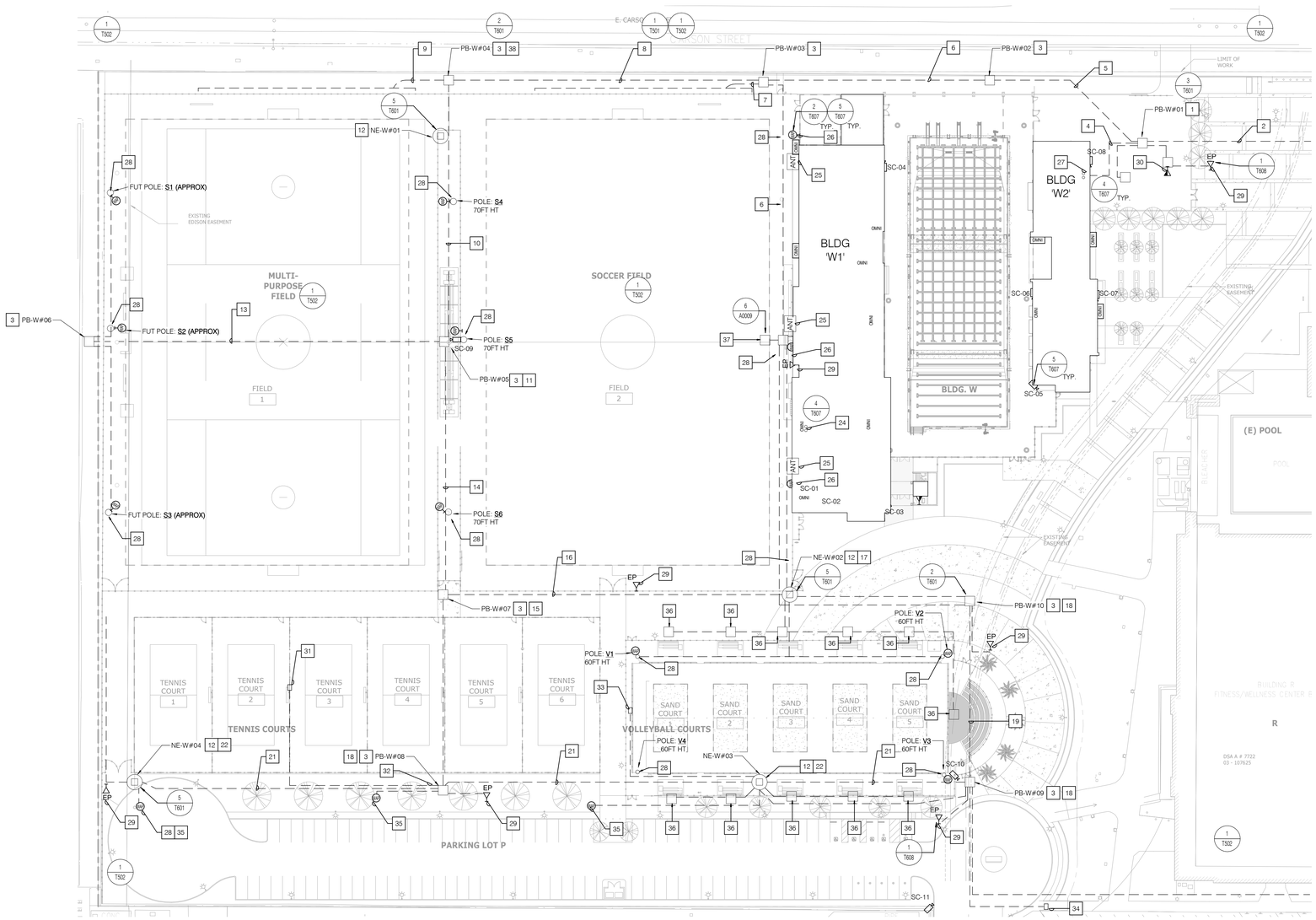
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DRAWN:	Author
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ENGINEER:	

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SITE DEMOLITION PLAN

SHEET NO:

T101D



GENERAL NOTES

1. ALL OSP CONDUITS SHALL START WITH BELL END LEAVING THE MAINTANCE SPACE.
2. ALL OSP CONDUITS SHALL TRANSITION TO RGD FOR LAST STICK PLUS SWEEP UP.
3. ALL CONDUCTIVE CONDUIT ENDS SHALL BE FITTED WITH BONDING RING.
4. ALL CONDUITS SHALL HAVE NON-SNAG BUSHINGS AND FITTED WITH COTTON MEASURING CORD (AKA MULE TAPE).
5. ALL "W" PULLBOXES SHALL HAVE A COMMON BONDING BUS BY CONTRACTOR.
6. ALL CAT6A CABLES WITH END TERMINATED PLUGS SHALL BE REQUIRED TO BE TESTED WITH TESTOR CABLES OF MTPL TEST.
7. ALL TRENCH LINES SHALL BE ENCASED, FULL-LENGTH LOCATION TAPE, AND LOCATORS PLACED AT 10' INCREMENTS.
8. ALL END DEVICE CABLES SHALL BE TERMINATED TO A Tii PRIMARY PROTECTOR BEFORE CONNECTING TO NETWORK PORT.
9. FURNISH AND INSTALL (1) 3-CELL FABRIC INNER DUCTS IN ALL BACK BONE CONDUITS.
10. SEE SHEETS T501 AND T502 FOR OSP PATHWAY AND SPACES CONNECTIVITY.
11. CONDUITS ON ROOF SHALL NOT REST ON ROOF. CONDUITS SHALL BE SUPPORTED OFF ROOF SURFACE WITH CADDY PYRAMID SUPPORTS.
12. ALL SPEAKERS CABLE REQUIRES DEDICATED PATHWAY.
13. POLE AND OVERHANG LOCATIONS MOUNTED END-DEVICES, SHALL INCLUDE CPCI RIGID STEEL CONDUIT STRAPPED TO POLE, AND UP TO DEFINED HEIGHT TO LOCATION OF END DEVICE ENVIRONMENT BACK-BOX SHALL BE INCLUDED WITH ALL LOCATIONS. GROUNDING AND BONDING OF ALL METAL CONDUIT SHALL BE INCLUDED FOR ALL CONDUIT LOCATIONS IN THIS PROJECT.
14. CONTRACTOR SHALL COORDINATE CONDUIT INTO PEDESTAL OF 40' LIGHT POLES AND PROVIDE SEAL-TIGHT AND UP TO 15' WHERE LV/SIGNAL MOUNTING LOCATION AND CATEGORY 6A CABLE. CONTRACTOR SHALL PROVIDE UV RATED CATEGORY 6A FOR ANY DEVICE THAT SHALL BE EXPOSED TO THE ELEMENTS.
15. EACH END DEVICE LOCATION SHOWN IN T102 AND T502 SHALL BE FURNISHED AND (2) OSP CAT6A CABLE (UON).
16. ALL CONDUIT CHANGES OF DIRECTION SHALL BE FACTORY SWEEPS SUPPORTING CATEGORY CABLING MANUFACTURER'S BEND THRESHOLDS FOR CERTIFICATION FOR MEETING EXTENDED WARRANTY REQUIREMENTS.

NOTES

1. PROVIDE (1) PB-W#01 4448 HL VAULT AND INSTALL MANUFACTURERS INSTALLATION REQUIREMENTS.
2. PROVIDE (4) 4" PIPE INTERCEPT CONDUITS FROM POINT WHERE CONDUITS WERE CAPPED FOR 'FUTURE'.
3. PROVIDE PB-W#02 2336 FPB INSTALLED PER MANUFACTURER'S INSTALLATION REQUIREMENTS.
4. PROVIDE (6) 4" AND (2) 2" CONDUITS FROM PB-W#01 TO BDF.
5. PROVIDE (2) 4" AND (2) 2" CONDUITS FROM PB-W#01 TO PB-W#02.
6. PROVIDE (2) 4" AND (2) 2" CONDUITS FROM PB-W#02 TO PB-W#03.
7. PROVIDE (1) 2" CONDUIT TO 10" X 10" X 6" NEMA 3R PULLBOX MOUNTED TO THE PEDESTAL OF THE SCOREBOARD. PROVIDE WEATHER RATED BACK BOX FOR SCOREBOARD WAO AND FOR SCOREBOARD MOUNTED WAP.
8. PROVIDE (2) 4" AND (1) 2" FROM PB-W#03 TO PB-W#04.
9. PROVIDE (1) 2" CONDUIT TO 10" X 10" X 6" NEMA 3R PEDESTAL OF THE SCOREBOARD. PROVIDE WEATHER RATED BACKBOX FOR SCOREBOARD WAO AND FOR MOUNTED WAP.
10. PROVIDE (2) 4" AND (2) 2" FROM PB-W#05 MCH 2" WILL TRANSITION TO UV RATED 2" AND EXTEND UP CONTROL SUPPORT TO WAO LOCATION TO MOUNT OPCI-WAP.
11. PROVIDE (1) 2336 FPB FOR PB-W#05 THAT INCLUDES (4) 2" CONDUITS TO PEDESTAL NE-W#01. INSTALL BP AS PER MANUFACTURERS INSTALLATION REQUIREMENTS. FURNISH AND INSTALL MANUFACTURER RECOMMENDED PEDESTAL FOR NE-W#01.
12. PROVIDE 5' COMPOSITE NETWORK ENCLOSURES PER MANUFACTURERS INSTALLATION REQUIREMENTS. CONTRACTOR SHALL BE RESPONSIBLE FOR A CABINET MANUFACTURERS APPROVED PEDESTAL WITH CONDUIT ENTRANCES FOR (4) 2" CONDUITS. DEDICATED 120V/20A CIRCUIT ON A GFI QUAD OUTLET.
13. PROVIDE PB-W#06 AS A 2336 FPB WITH (2) 2" CONDUITS TO PB-W#05. PROVIDE AND INSTALL CONDUIT AND OSP CABLE DROP TO END DEVICES.
14. PROVIDE (2) 4" AND END DEVICE CONDUITS TO OSP RATED WAO. CONNECT FROM NETWORK ENCLODURE CABINET AND SUPPORTING CONDUIT SYSTEM.
15. PROVIDE 2336 FPB WITH (2) 4" CONDUTIS CONNECTS TO 2336 FPB FOR PB-W#05, PB-W#08, PB-W#10.
16. PROVIDE (2) 4" CONDUITS FROM PB-W-#07 TO PB-W#10 AND INCLUDE (2) 2" CONDUITS FROM PB-W#07 TO NE-#02.
17. PROVIDE 5' COMPOSITE NETWORK ENCLOSURE WITH MANUFACTURERS RECOMMENDED PEDESTAL. PROVIDE AND INSTALL (2) 2" CONDUITS TO PB-W#07, (2) 2" CONDUITS TO PB-W#10, (5) 1-1/2" CONDUITS TO OUTDOOR RATED WAO TO SUPPORT OPCI END DEVICES.
18. PROVIDE 2336 FPB INSTALLED ON A MANUFACTURER'S INSTALLATION REQUIRED PEDESTAL. CONTRACTOR TO FOLLOW ALL MANUFACTURER'S INSTALLATION REQUIREMENTS.
19. PROVIDE (2) 4" CONDUITS BETWEEN PB-W#10 AND PB-W# 09.
20. PROVIDE (2)4" CONDUITS BETWEEN PB-W#09 AND PB-W# 08. (2) 2" CONDUITS TO NE-W#03. (2) 2" CONDUITS FROM NE-W#03 TO PB-W#08, (4) 1-1/2" CONDUITS TO OUTDOOR RATED WAO TO SUPPORT OPCI END DEVICES.
21. PROVIDE (2) 3" CONDUITS FROM PB-W#08 TO NE-W#04 (3) 1-1/2" CONDUITS TO OUTDOOR RATED WAO TO SUPPORT OPCI END DEVICES.
22. PROVIDE (1) 5' COMPOSITE NETWORK ENCLOSURE TO ALL MANUFACTURER'S INSTALLATION REQUIREMENTS INCLUDING PEDESTAL TO ATTACH N.E. TO. PROVIDE AND INSTALL (4) 1-1/2" CONDUITS TO OUTDOOR RATED WAO TO SUPPORT OPCI END DEVICES.
23. PROVIDE OFCI MULTI-LENS CAMERA FOR MULTI-VIEW UPTO 360 DEGREES.
24. PROVIDE (2) 2" AND (1) 4" CONDUIT SLEEVES FROM A/V ROOM W-205 THROUGH ROOF. (2) 2" SHALL BE FITTED WITH WEATHER HANDS. (1) 4" CONDUIT SHALL BE FITTED WITH (5) PORT WEAHER-HEAD FOR (3) CONNECTIONS TO A/V DIRECTIONAL ANTENNAS.
25. PROVIDE 2" CONDUIT FROM 4" WEATHER-HEAD TO EACH ANTENNA LOCATION. ANTENNA MOUNTING AS PER MANUFACTURER REQUIREMENT FOR SIESMIN AREA OF INSTALL.
26. PROVIDE OUTDOOR END DEVICE LOCATION PER DETAIL T607/#5 FOR THESE LOCATIONS. CABLE SHALL ORIGINATE FROM GROUND FLOOR CEILING.
27. PROVIDE (2) 2" CONDUIT SLEEVES FROM IDF. W-151 THROUGH ROOF. CONDUIT ENDS SHALL BE FITTED WITH WEAHTER-HEADS.
28. PROVIDE AND INSTALL CONDUIT FROM CLOSETS COMM-PULL-BOX TO LIGHT POLE BASE AND COORDINATE WITH ELECTRICAL CONTRACTOR TO BRING CONDUIT INTO POLE AND PROVIDE SEAL-TIGHT PATHWAY UP POLE TO 15' WHERE LV/COMM MOUNTING BRACKET ATTACHMENT.
29. PROVIDE AND INSTALL EMERGENCY PHONE WITH PEDESTAL. ADD 2" CONDUIT INTO LV-BACKBONE CONDUIT SYSTEM. ALSO PROVIDE (2) CAT6A OSP CABLES.
30. PROVIDE AND INSTALL DATA OUTLET FOR MAINTENANCE YARD SWITCHBOARD.ADD 2" CONDUIT INTO LV-BACKBONE CONDUIT SYSTEM. ALSO PROVIDE (2) CAT6A OSP CABLES.
31. PROVIDE AND INSTALL (1) 2" CONDUIT AND 10' x 17" PULL-BOX FOR FUTURE CAMERA.
32. PROVIDE AND INSTALL 2" CONDUIT AND 10' X 17" PULL-BOX WITH 1-1/4" CONDUIT TO WGHT POLE-COORDNIATE CONDUIT WITH LIGHTING CONTRACTOR.
33. PROVIDE AND INSTALL (1)2" CONDUIT TO VOLLEY BALL-SCORE BOARD TERMINATE CONDUIT EXTENSION IN SCORE BOARD CONTROLLER HOUSING COORDINATE CONDUIT AND CABLE INSTALLATION WITH SCORE BOARD VENDOR PLACE 10' X 17" PULL-BOX NEAR SCOREBOARD PEDISTAL.
34. PROVIDE AND INSTALL (1) 2" CONDUIT WITH 10' X 10' PULL-BOX FOR IP CONNECTION TO IRRIGATION CONTROLS COORDINATE CONDUIT FROM IT-PB TO LANDSCAPE PB WITH IRRIGATION CONTROLS CONTRACTOR PROVIDE OSP CAT-6A TO NEW PULL-BOX TERMINATE AND PATCH AT NEW#03 CABINET.
35. WAP FINAL LOCATION TO BE FIELD DETERMINED. COORDINATE WITH EXISTING LIGHT POLES.
36. PROVIDE AND INSTALL CONDUIT PATHWAY WITH HAND-HOLE ACCESS INTO CAMERA POLE. PROVIDE LOW VOLTAGE CABLE ROUTING TO POLE MOUNTED WEATHER RATED BACK-BOX. INCLUDE (1) CAT6A OSP CONNECTION TO N.E.CABINET. SEE SHEET TAV101 FOR ADDITIONAL DETAILS.
37. PROVIDE AND INSTALL ABOVE GROUND NEMA 3 RATED 8' X 6' X 6' PULL-BOX WITH RE-ENTERABLE HINGED LID. PROVIDE (4) CAT6A OSP CONNECTION INTO GROUND FLOOR IDF.
38. PROVIDE AND INSTALL (1) 2" UNDERGROUND CONDUIT FROM PULL-BOX-W#04 TO ELECTRICAL INVERTERS. COORDINATE CONDUIT TERMINATION AT INVERTERS WITH ELECTRICAL INSTALLATION CONTRACTOR. INCLUDE (2) CATEGORY 6A-OSP CABLES TO INVERTER(S) TERMINATE ON FTP AT NE-W#01 TERMINATE ON CPCI PATCH PANEL AND PROVIDE (2) 6 FOOT PATCH CORDS FOR NETWORK CONNECTIONS.

N

Scale: 1" = 40'-0"

STATE:

ARCHITECT:

architecture
westbergwhite
14471 CHAMBERS RD, SUITE 210
TUSTIN, CA 92780
(714) 508-1780 508-1790 FAX

CONSULTANT:

P2S ENG
Long Beach | Los Angeles
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PROJECT NAME:

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KINESIOLOGY LABS and AQUATIC CENTER
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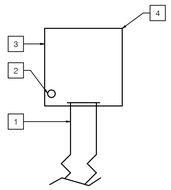
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3	12/16/19	Addendum 03

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ENGINEER:

SHEET DESCRIPTION:
ENLARGED SITE PLAN - NORTH END

SHEET NO:

T102

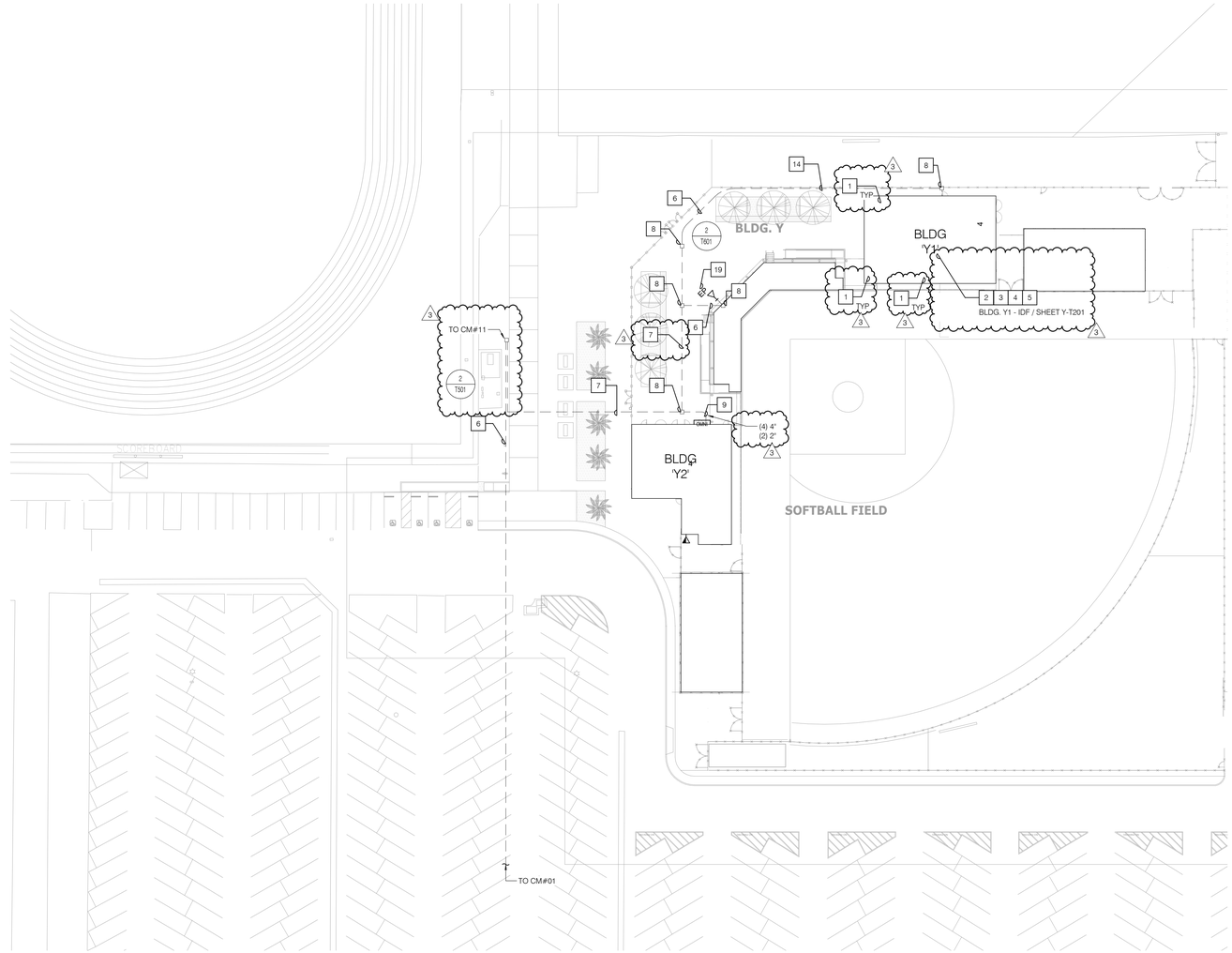


NOTES

1. FURNISH AND INSTALL (1) 2" CONDUIT TO ROOF OF STRUCTURE AND TERMINATE IN ROOF MOUNTED PB-Y-#04.
2. FURNISH AND INSTALL TBB BONDING AND EARTHING TERMINAL. ALL CONDUIT BONDING RINGS AND TBL.
3. FURNISH AND INSTALL 18" X 18" X 10" NEMA 3R PULL-BOX FOR DISTRIBUTION OF CAT6A OSP CABLES FOR END DEVICES.
4. FURNISH AND INSTALL 1-1/4" CONDUITS WITH COMPRESSION FITTINGS, OUTDOOR RATED J-BOX, AND CONTROL. PROVIDE FIELD TERMINATED PLUGS ON ALL CAT6A OSP CABLES SUPPORTIVE CAMSRASAND WAPS.

2 PULLBOX Y-#04 ROOF

SCALE: NONE



Scale: 1" = 40'-0"

GENERAL NOTES

1. ALL OSP CONDUITS SHALL START WITH BELL END LEAVING THE MAINTANCE SPACE.
2. ALL OSP CONDUITS SHALL TRANSITION TO RGD FOR LAST STICK PLUS SWEEP UP.
3. ALL CONDUCTIVE CONDUIT ENDS SHALL BE FITTED WITH BONDING RING.
4. ALL CONDUITS SHALL HAVE NON-SNAG BUSHINGS AND FITTED WITH COTTON MEASURING CORD (AKA MULE TAPE).
5. ALL "Y" PULLBOXES SHALL HAVE A COMMON BONDING BUS BY CONTRACTOR.
6. ALL CAT6A CABLES WITH END TERMINATED PLUGS SHALL BE REQUIRED TO BE TESTED WITH TESTOR CABLES OF MTPL TEST.
7. ALL TRENCH LINES SHALL BE ENCASED, FULL-LENGTH LOCATION TAPE, AND LOCATORS PLACED AT 10' INCREMENTS.
8. ALL END DEVICE CABLES SHALL BE TERMINATED TO A Tii PRIMARY PROTECTOR BEFORE CONNECTING TO NETWORK PORT.
9. FURNISH AND INSTALL (1) 3-CELL FABRIC INNER DUCTS IN ALL CONDUITS WITH BACK BONE.
10. ANY LOW VOLTAGE BACK BOX WITH 2-GANG MUD RING AT CEILING LEVEL SHALL BE FLUSH WITH THE FINISHED CEILING.

NOTES

1. WAO SHALL BE ROOF MOUNTED WITH WEATHER PROOF BACKBOX AND COMPRESSION FITTING ON ALL CONDUIT CONNECTIONS AND TERMINATIONS.
2. ALL CABLING SUPPORTING OUTDOOR MOUNTED END DEVICES SHALL BE INDOOR AND UV-RATED FOR THE ENVIRONMENT.
3. OUTDOOR END DEVICE CABLING SHALL BE TERMINATED ON FIELD TERMINATION PLUG.
4. LOCATION OF 12R4 CABINET FOR NETWORK CONNECTION. FURNISH AND INSTALL CABINET WITH EXHAUST FANS AND MOUNTING RACK.
5. FURNSIH AND INSTALL 12-STRANDS OF OS2 TERMINATED ON LC CONNECTORS FROM IDF IN ROOM # Y105. CORNING HOUSING WITH CCH MODULE TO ACCOMODATE APC-LC CPCI TERMINATION ON ALL OPTICAL FIBER STRANDS.
6. FURNSIH AND INSTALL 22° OR 45° EXTEND SWOOP TO PATHWAY.
7. FURNISH AND INSTALL (2) 4" CONDUITS FROM CV____ TO PULL-BOX Y#01.
8. FURNISH AND INSTALL (1) PULL-BOX Y-#01 2336 FPB. FOLLOW ALL MANUFACTURER'S REQUIREMENTS.
9. FURNISH AND INSTALL (4) 4" AND (2) 2" FROM PULL-BOX Y# 01 TO IDF ROOM Y105 PROVIDE RE-ENTERABLE DUCT PLUGS IN ALL CONDUITS ENTERING Y#01 ALONG WITH INDIVIDUAL COTTON MEASURING CORD (MULE-TAPE).
10. FURNISH AND INSTALL (2) 4" AND (3) 2" CONDUITS FROM PULL-BOX Y#01 TO PULL-BOX Y#02.
11. FURNISH AND INSTALL (2) 2" CONDUITS WITH RGD SWEEPS INTO WALL MOUNTED PB-Y#05 - 18"X18"X10" NEMA 3 PULL-BOX WITH HINGED LID AND CLASP.
12. FURNISH AND INSTALL (2) 2" SLEEVES FROM PB-Y#05 INTO STRUCTURE AND INTO ACCESSIBLE CEILING.
13. FURNISH AND INSTALL (1) 2" SLEEVE FROM PB-Y#05 UP TO ROOF AND TERMINATED IN OUTDOOR RATED PB-Y#05 CONNECTING VIA CPCI CONDUIT TO WEATHER RATED BACKBOX WITH RE-ENTERABLE COVER.
14. FURNISH AND INSTALL (2) 4" AND (1) 2" CONDUITS FROM PB-Y#02 TO WALL MOUNTED PB-Y#03 WITH RGD SWEEPS UP INTO PB.
15. FURNISH AND INSTALL ROOF MOUNTED DEVICES IN CONDUIT WITH COMPRESSION FITTINGS AND WEATHER RATED BACKBOX WITH RE-ENTERABLE COVER.
16. INDOOR AND UV-RATED CABLE SHALL BE TERMINATED ON FIELD TERMINATED PLUG.
17. PROVIDE PEDISTAL FOR LOW-VOLTAGE CABLE DISTRIBUTION.
18. PROVIDE (2) 2" CONDUITS
19. PROVIDE AND INSTALL EMERGENCY PHONE WITH PEDESTAL.

STATE:

ARCHITECT:

architecture
westbergwhite
14471 CHAMBERS RD, SUITE 210
TUSTIN, CA 92780
(714) 508-1780 508-1790 FAX

CONSULTANT:

P2S ENG
Long Beach | Los Angeles
San Diego | San Jose
p2sinc.com

MYNOR PEREZ HENDERSON No. E22361 ELECTRICAL STATE OF CALIFORNIA

PROJECT NAME:

LIBERAL ARTS CAMPUS
KINESIOLOGY LABS and AQUATIC CENTER
4901 EAST CARSON STREET
LONG BEACH, CA 90806

CLIENT:

LONG BEACH CITY COLLEGE
4901 EAST CARSON STREET
LONG BEACH, CA 90806

No.	Rev. Date	Description
3	12/16/19	Addendum 03

JOB NO: 16042.01
DATE: 09/18/19
DRAWN: CN
CHECK: JK
ARCHITECT: PDW
ENGINEER:

SHEET DESCRIPTION:
ENLARGED SITE PLAN - SOUTH END

SHEET NO:

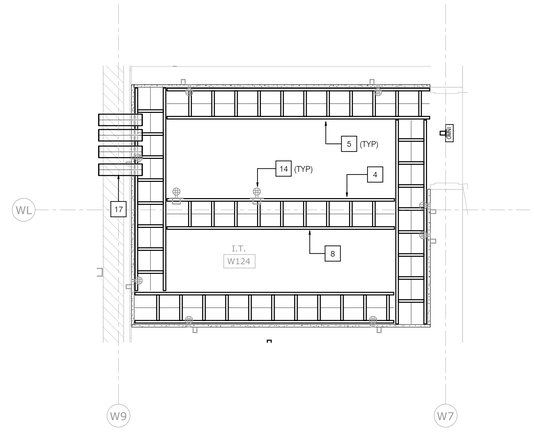
T103

GENERAL NOTES

1. ALL UNDERGROUND CONDUITS SHALL TRANSITION TO RIGID STEEL THE LAST STICK PLUS SWEEP UP INTO BDF.
2. ALL CONDUITS SHALL BE FITTED WITH RE-ENTRABLE DUCT PLUGS AND COTTON MEASURING LINE (AKA "MULE-TAPE").
3. ANY LOW VOLTAGE BACK BOX WITH 2-GANG MUD RING AT CEILING LEVEL SHALL BE FLUSH WITH THE FINISHED CEILING.

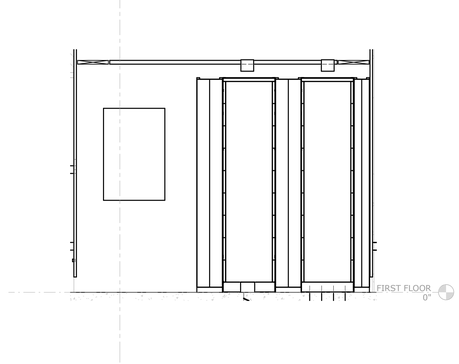
NOTES

1. EQUIPMENT RACK FURNISH SERVICES TO TURN RACK 90° SO RACK IS FACING ROOM ENTRY.
2. 4" CONDUITS ENTERING THROUGH DECK SHALL EXTEND ABOVE SLAB BY A MINIMUM OF 3" AND SHALL BE FITTED WITH BONDING RING AND NON-SNAG BUSHING.
3. FURNISH AND INSTALL 2RU CAT6A, 48 PORT COMMSCOPE PATCH PANELS IN NEW RACK. PANELS FOR HORIZONTAL CABLE TERMINATIONS. PROVIDE QUANTITY NEEDED FOR 25% GROWTH.
4. FURNISH AND INSTALL 12" CABLE TRAY AT APPROXIMATELY 7' 4" A.F.F.
5. LADDER RACK SHALL BE ATTACHED TO TOP OF EQUIPMENT RACK.
6. WALL MOUNTED KRONE BLOCK. TERMINATE NEW 25 PAIR COPPER ON KRONE BLOCK.
7. FURNISH AND INSTALL 7'X19" 2-POST EQUIPMENT RACKS. ANCHOR RACK TO FLOOR. SEE DETAIL 5/T601. FIELD COORDINATE EXACT LOCATION WITH DISTRICT REPRESENTATIVE PRIOR TO INSTALLATION. GROUND NEW EQUIPMENT RACK VIA 3/0 CONDUCTOR TO (E) GROUNDING BAR IN ROOM.
8. FURNISH AND INSTALL 12" WIDE LADDER RACK WITH CABLE RUNWAY ELEVATION KIT ATTACHED TO RACK TOP MOUNTING PLATE AT +86" AFF. REFER TO DETAILS ON SHEET T603 FOR ADDITIONAL INFORMATION.
9. PROVIDE NEW ACX FIRE TREATED PLYWOOD BACKBOARD ALONG ALL (4) WALL WHERE NEW LADDER RACK IS TO BE INSTALLED. PROVIDE HEIGHT AS REQUIRED TO ALLOW NEW LADDER RACK TO BE MOUNTED TO BACKBOARD. BACKBOARD SHALL BE SEALED WITH PRIMER AND PAINTED WITH TWO COATS OF FIRE RETARDANT PAINT. ALL SCREW HOLES SHALL BE PATCHED AND SANDED SMOOTH PRIOR TO PAINTING.
10. FURNISH AND INSTALL CCH44 OPTICAL FIBER TERMINATION UNIT (FTU). TEST AND LABEL ALL OPTICS WITH ROOM AND BUILDING DESIGNATION.
11. FURNISH AND INSTALL 2RU HORIZONTAL WIRE MANAGER BETWEEN EACH PATCH PANEL.
12. FURNISH AND INSTALL 6" DOUBLE SIDED VERTICAL WIRE MANAGER.
13. FURNISH AND INSTALL 10" DOUBLE SIDED VERTICAL WIRE MANAGER.
14. FURNISH AND INSTALL 120V, 20A QUAD RECEPTACLE MOUNTED TO LADDER RACK ABOVE. VERIFY INSTALLATION REQUIREMENTS FOR EQUIPMENT RACKS PRIOR TO ROUGH-IN.
15. SPACE DEDICATED FOR FUTURE RACK.
16. SPACE DEDICATED FOR FUTURE 6" DOUBLE SIDED VERTICAL WIRE MANAGER.
17. FURNISH AND INSTALL (4) 4" CONDUITS



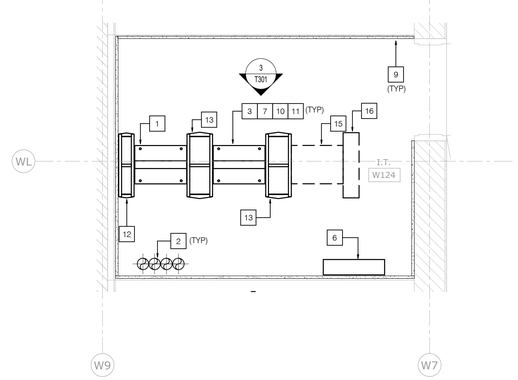
2 BLDG W1 - IDF ROOM W124 LADDER RACK LAYOUT

SCALE: 1/2" = 1'-0"



3 BLDG W1 - IDF ROOM W124 ELEVATION

SCALE: 1/2" = 1'-0"



1 BLDG W1 - IDF ROOM W124

SCALE: 1/2" = 1'-0"

STATE:

ARCHITECT:

architecture
westbergwhite
14471 CHAMBERS RD, SUITE 210
TUSTIN, CA 92780
(714) 508-1780 508-1790 FAX

CONSULTANT:

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p2sinc.com



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LONG BEACH, CA 90806

No.	Rev. Date	Description
1	11/07/19	Addendum 01

JOB NO: 16042.01

DATE: 09/18/19

DRAWN: CN

CHECK: JK

ARCHITECT: PDW

ENGINEER:

SHEET DESCRIPTION:
BLDG 'W1', ENLARGED FLOOR PLANS - ROOM W124

SHEET NO:

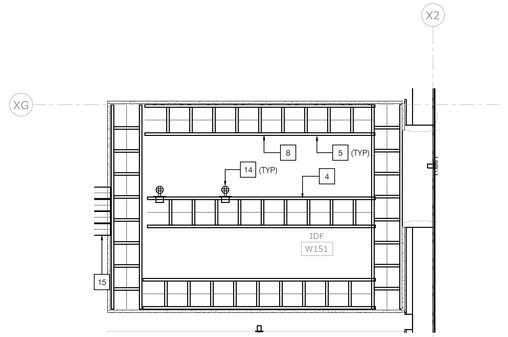
T301

GENERAL NOTES

1. ALL UNDERGROUND CONDUITS SHALL TRANSITION TO RIGID STEEL THE LAST STICK PLUS SWEEP UP INTO BDF.
2. ALL CONDUITS SHALL BE FITTED WITH RE-ENTRABLE DUCT PLUGS AND COTTON MEASURING LINE (AKA "MULE-TAPE").
3. ANY LOW VOLTAGE BACK BOX WITH 2-GANG MUD RING AT CEILING LEVEL SHALL BE FLUSH WITH THE FINISHED CEILING.

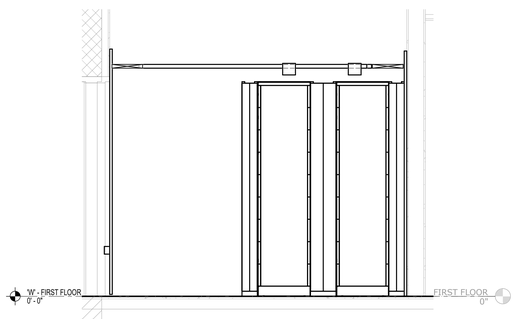
NOTES

1. EQUIPMENT RACK FURNISH SERVICES TO TURN RACK 90° SO RACK IS FACING ROOM ENTRY.
2. 4" CONDUITS ENTERING THROUGH DECK SHALL EXTEND ABOVE SLAB BY A MINIMUM OF 3" AND SHALL BE FITTED WITH BONDING RING AND NON-SNAG BUSHING.
3. FURNISH AND INSTALL 2RU CAT6A, 48 PORT COMMSCOPE PATCH PANELS IN NEW RACK. PANELS FOR HORIZONTAL CABLE TERMINATIONS. PROVIDE QUANTITY NEEDED FOR 25% GROWTH.
4. FURNISH AND INSTALL 12" CABLE TRAY AT APPROXIMATELY 7'-4" A.F.F.
5. LADDER RACK SHALL BE ATTACHED TO TOP OF EQUIPMENT RACK.
6. WALL MOUNTED KRONE BLOCK. TERMINATE NEW 25 PAIR COPPER ON KRONE BLOCK.
7. FURNISH AND INSTALL 7'X19" 2-POST EQUIPMENT RACKS. ANCHOR RACK TO FLOOR. SEE DETAIL 5/T601. FIELD COORDINATE EXACT LOCATION WITH DISTRICT REPRESENTATIVE PRIOR TO INSTALLATION. GROUND NEW EQUIPMENT RACK VIA 3/0 CONDUCTOR TO (E) GROUNDING BAR IN ROOM.
8. FURNISH AND INSTALL 12" WIDE LADDER RACK WITH CABLE RUNWAY ELEVATION KIT ATTACHED TO RACK TOP MOUNTING PLATE AT +86" AFF. REFER TO DETAILS ON SHEET T603 FOR ADDITIONAL INFORMATION.
9. PROVIDE NEW ACX FIRE TREATED PLYWOOD BACKBOARD ALONG ALL (4) WALL WHERE NEW LADDER RACK IS TO BE INSTALLED. PROVIDE HEIGHT AS REQUIRED TO ALLOW NEW LADDER RACK TO BE MOUNTED TO BACKBOARD. BACKBOARD SHALL BE SEALED WITH PRIMER AND PAINTED WITH TWO COATS OF FIRE RETARDANT PAINT. ALL SCREW HOLES SHALL BE PATCHED AND SANDED SMOOTH PRIOR TO PAINTING.
10. FURNISH AND INSTALL CCH44 OPTICAL FIBER TERMINATION UNIT (FTU). TEST AND LABEL ALL OPTICS WITH ROOM AND BUILDING DESIGNATION.
11. FURNISH AND INSTALL 2RU HORIZONTAL WIRE MANAGER BETWEEN EACH PATCH PANEL.
12. FURNISH AND INSTALL 6" DOUBLE SIDED VERTICAL WIRE MANAGER.
13. FURNISH AND INSTALL 10" DOUBLE SIDED VERTICAL WIRE MANAGER.
14. FURNISH AND INSTALL 120V, 20A QUAD RECEPTACLE MOUNTED TO LADDER RACK ABOVE. VERIFY INSTALLATION REQUIREMENTS FOR EQUIPMENT RACKS PRIOR TO ROUGH-IN.
15. FURNISH AND INSTALL (4) 4" CONDUITS.



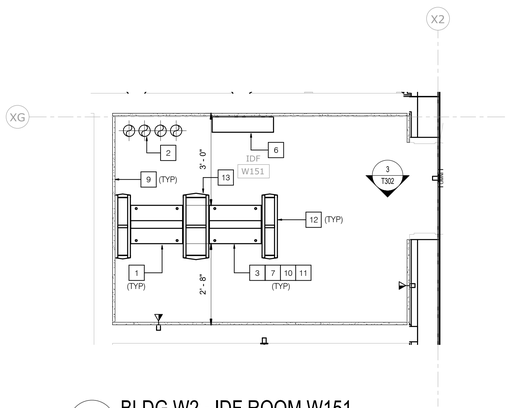
2 BLDG W2 - IDF ROOM W151 LADDER RACK LAYOUT

SCALE: 1/2" = 1'-0"



3 BLDG W2 - IDF ROOM W151 ELEVATION

SCALE: NONE



1 BLDG W2 - IDF ROOM W151

SCALE: 1/2" = 1'-0"

STATE:

ARCHITECT:

architecture
westbergwhite
14471 CHAMBERS RD, SUITE 210
TUSTIN, CA 92780
(714) 508-1780 508-1790 FAX

CONSULTANT:

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KINESIOLOGY LABS and AQUATIC CENTER
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LONG BEACH, CA 90806

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LONG BEACH, CA 90806

No.	Rev. Date	Description
1	11/07/19	Addendum 01

JOB NO: 16042.01
DATE: 09/18/19
DRAWN: CN
CHECK: JK
ARCHITECT: PDW
ENGINEER:

SHEET DESCRIPTION:
BLDG 'W2', ENLARGED FLOOR PLANS - ROOM W151

SHEET NO:

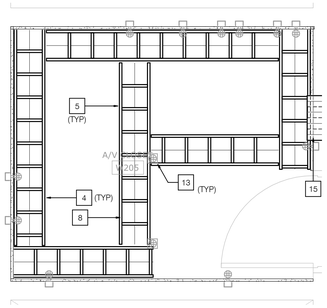
T302

GENERAL NOTES

1. ALL UNDERGROUND CONDUITS SHALL TRANSITION TO RIGID STEEL THE LAST STICK PLUS SWEEP UP INTO BDF.
2. ALL CONDUITS SHALL BE FITTED WITH RE-ENTRABLE DUCT PLUGS AND COTTON MEASURING LINE (AKA "MULE-TAPE").
3. ANY LOW VOLTAGE BACK BOX WITH 2-GANG MUD RING AT CEILING LEVEL SHALL BE FLUSH WITH THE FINISHED CEILING.

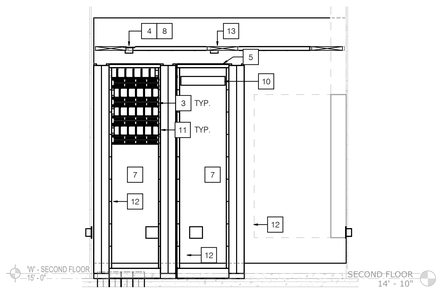
NOTES

1. EQUIPMENT RACK FURNISH SERVICES TO TURN RACK 90° SO RACK IS FACING ROOM ENTRY.
2. 4" CONDUITS ENTERING THROUGH DECK SHALL EXTEND ABOVE SLAB BY A MINIMUM OF 3" AND SHALL BE FITTED WITH BONDING RING AND NON-SNAG BUSHING.
3. FURNISH AND INSTALL 2RU CAT6A, 48 PORT COMMSCOPE PATCH PANELS IN NEW RACK. PANELS FOR HORIZONTAL CABLE TERMINATIONS. PROVIDE QUANTITY NEEDED FOR 25% GROWTH.
4. FURNISH AND INSTALL 12" CABLE TRAY AT APPROXIMATELY 7' 6" A.F.F.
5. LADDER RACK SHALL BE ATTACHED TO TOP OF EQUIPMENT RACK.
6. WALL MOUNTED KRONE BLOCK. TERMINATE NEW 25 PAIR COPPER ON KRONE BLOCK.
7. FURNISH AND INSTALL 7'X19" 2-POST EQUIPMENT RACKS. ANCHOR RACK TO FLOOR. SEE DETAIL 5/T601. FIELD COORDINATE EXACT LOCATION WITH DISTRICT REPRESENTATIVE PRIOR TO INSTALLATION. GROUND NEW EQUIPMENT RACK VIA 3/0 CONDUCTOR TO (E) GROUNDING BAR IN ROOM.
8. FURNISH AND INSTALL 12" WIDE LADDER RACK WITH CABLE RUNWAY ELEVATION KIT ATTACHED TO RACK TOP MOUNTING PLATE AT +/- 86" AFF. REFER TO DETAILS ON SHEET T603 FOR ADDITIONAL INFORMATION.
9. PROVIDE NEW ACX FIRE TREATED PLYWOOD BACKBOARD ALONG ALL (4) WALL WHERE NEW LADDER RACK IS TO BE INSTALLED. PROVIDE HEIGHT AS REQUIRED TO ALLOW NEW LADDER RACK TO BE MOUNTED TO BACKBOARD. BACKBOARD SHALL BE SEALED WITH PRIMER AND PAINTED WITH TWO COATS OF FIRE RETARDANT PAINT. ALL SCREW HOLES SHALL BE PATCHED AND SANDED SMOOTH PRIOR TO PAINTING.
10. FURNISH AND INSTALL CCH04 OPTICAL FIBER TERMINATION UNIT (FTU). TEST AND LABEL ALL OPTICS WITH ROOM AND BUILDING DESIGNATION.
11. FURNISH AND INSTALL 2RU HORIZONTAL WIRE MANAGER BETWEEN EACH PATCH PANEL.
12. FURNISH AND INSTALL 6" DOUBLE SIDED VERTICAL WIRE MANAGER.
13. FURNISH AND INSTALL 120V, 20A QUAD RECEPTACLE MOUNTED TO LADDER RACK ABOVE. VERIFY INSTALLATION REQUIREMENTS FOR EQUIPMENT RACKS PRIOR TO INSTALLATION.
14. AV RACK CPCI
15. PROVIDE AND INSTALL (4) 4" CONDUITS



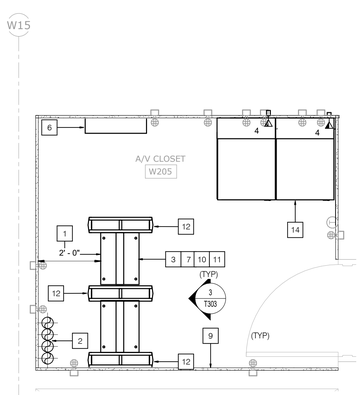
2 BLDG W1 - AV ROOM W205 LADDER RACK LAYOUT

SCALE: 1/2" = 1'-0"



3 BLDG W1 - AV ROOM W205 ELEVATION

SCALE: 1/2" = 1'-0"



1 BLDG W1 - AV ROOM W205

SCALE: 1/2" = 1'-0"

STATE:

ARCHITECT:

architecture
westbergwhite
14471 CHAMBERS RD, SUITE 210
TUSTIN, CA 92780
(714) 508-1780 508-1790 FAX

CONSULTANT:

P2S ENG
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KINESIOLOGY LABS and AQUATIC CENTER
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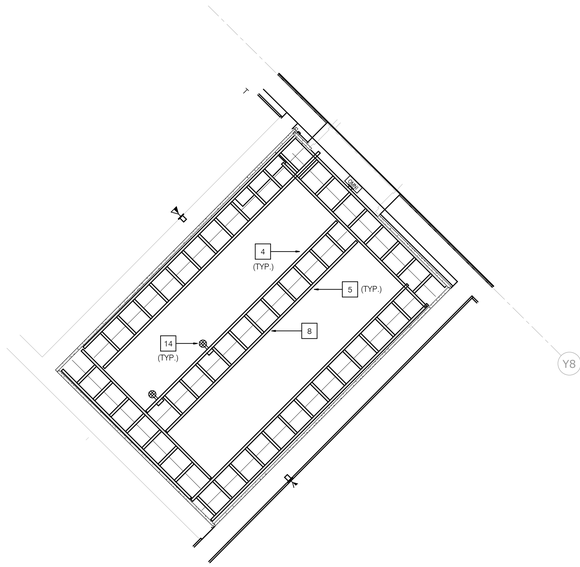
No.	Rev. Date	Description
1	11/07/19	Addendum 01
3	12/16/19	Addendum 03

JOB NO: 16042.01
DATE: 09/18/19
DRAWN: CN
CHECK: JK
ARCHITECT: PDW
ENGINEER:

SHEET DESCRIPTION:
BLDG 'W1', ENLARGED FLOOR PLANS - ROOM W205

SHEET NO:

T303



2 BLDG Y - IDF ROOM Y105 LADDER RACK LAYOUT

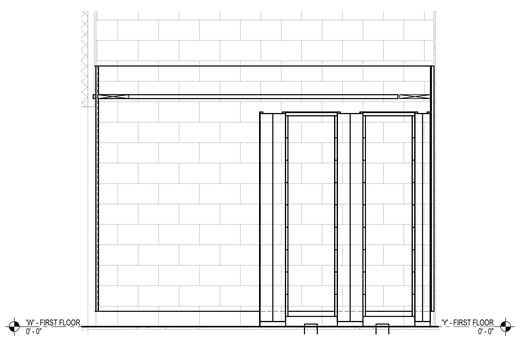
SCALE: 1/2" = 1'-0"

GENERAL NOTES

1. ALL UNDERGROUND CONDUITS SHALL TRANSITION TO RIGID STEEL THE LAST STICK PLUS SWEEP UP INTO BDF.
2. ALL CONDUITS SHALL BE FITTED WITH RE-ENTRABLE DUCT PLUGS AND COTTON MEASURING LINE (AKA 'MULE-TAPE').
3. ANY LOW VOLTAGE BACK BOX WITH 2-GANG MUD RING AT CEILING LEVEL SHALL BE FLUSH WITH THE FINISHED CEILING.

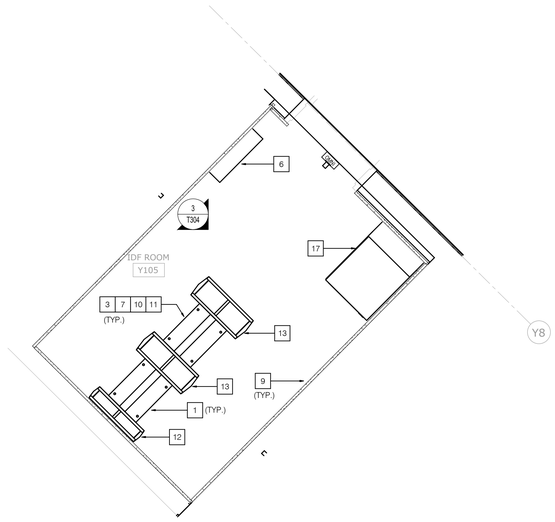
NOTES

1. EQUIPMENT RACK FURNISH SERVICES TO TURN RACK 90° SO RACK IS FACING ROOM ENTRY.
2. NOT USED.
3. FURNISH AND INSTALL 2RU CAT6, 48 PORT ADC/KRONE PATCH PANELS IN NEW RACK. PANELS FOR HORIZONTAL CABLE TERMINATIONS. PROVIDE QUANTITY NEEDED FOR 25% GROWTH.
4. 24" CABLE TRAY AT APPROXIMATELY 11' A.F.F. SHALL REMAIN IN PLACE.
5. LADDER RACK ATTACHED TO TOP OF (E)EQUIPMENT RACK SHALL REMAIN IN PLACE.
6. WALL MOUNTED KRONE BLOCK. TERMINATE NEW 25 PAIR COPPER ON KRONE BLOCK.
7. FURNISH AND INSTALL NEW 7'X19" 2-POST EQUIPMENT RACK. ANCHOR RACK TO FLOOR. SEE DETAIL 4/T6.01. FIELD COORDINATE EXACT LOCATION WITH DISTRICT REPRESENTATIVE PRIOR TO INSTALLATION. GROUND NEW EQUIPMENT RACK VIA 3/0 CONDUCTOR TO (E) GROUNDING BAR IN ROOM.
8. FURNISH AND INSTALL 12" WIDE LADDER RACK WITH CABLE RUNWAY ELEVATION KIT ATTACHED TO RACK TOP MOUNTING PLATE AT +86" AFF. TYPE TO MATCH EXISTING. PROVIDE CONNECTION TO (E)LADDER RACK AT (E) EQUIPMENT RACK. REFER TO DETAILS ON SHEET T6.01A FOR ADDITIONAL INFORMATION.
9. PROVIDE NEW AC FIRE TREATED PLYWOOD BACKBOARD ALONG WALL WHERE NEW LADDER RACK IS TO BE INSTALLED. PROVIDE HEIGHT AS REQUIRED TO ALLOW NEW LADDER RACK TO BE MOUNTED TO BACKBOARD. BACKBOARD SHALL BE SEALED WITH PRIMER AND PAINTED WITH TWO COATS OF FIRE RETARDANT PAINT. ALL SCREW HOLES SHALL BE PATCHED AND SANDED SMOOTH PRIOR TO PAINTING.
10. FURNISH AND INSTALL 72 PORT FIBER TERMINATION UNIT (FTU). TEST AND LABEL ALL OPTICS WITH ROOM AND BUILDING DESIGNATION.
11. FURNISH AND INSTALL 2RU HORIZONTAL WIRE MANAGER BETWEEN EACH PATCH PANEL.
12. FURNISH AND INSTALL 6" DOUBLE SIDED VERTICAL WIRE MANAGER.
13. FURNISH AND INSTALL 10" DOUBLE SIDED VERTICAL WIRE MANAGER.
14. FURNISH AND INSTALL 120V, 20A QUAD RECEPTACLE MOUNTED TO LADDER RACK ABOVE. VERIFY INSTALLATION REQUIREMENTS FOR EQUIPMENT RACKS PRIOR TO ROUGH-IN.
15. FURNISH AND INSTALL 4RU CORNING OPTICAL FIBER CENTER AS PER T5.01A/DETAIL #2, NOTE #6.
16. FURNISH AND INSTALL HIGH BAND 25 100PR TERMINATION PANEL AS PER T5.01A/DETAIL #2, NOTE #5.
17. AV RACK. REFER TO AUDIOVISUAL SHEETS



3 BLDG Y - IDF ROOM Y105 ELEVATION

SCALE: NONE



1 BLDG Y - IDF ROOM Y105

SCALE: 1/2" = 1'-0"

STATE:

ARCHITECT:

architecture
westbergwhite
14471 CHAMBERS RD, SUITE 210
TUSTIN, CA 92780
(714) 508-1780 508-1790 FAX

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ENGINEER:

SHEET DESCRIPTION:
BLDG 'Y', ENLARGED FLOOR PLANS - ROOM Y105

SHEET NO:

T304

Motion Detector Schedule

Motion Detector #	Ref. Sheet #	Door #	Room# - Location	Detector Type
MA-001	W-T203		Rm. # W-1XX (south of W164)	ISC-CDL1-W15G
MA-002	W-T203		W164	ISC-CDL1-W15G
MA-003	W-T203		W165	ISC-CDL1-W15G
MA-001	W-T203		W1XX (South of W164)	ISC-CDL1-W15G
MA-002	W-T203		W164	ISC-CDL1-W15G
MA-003	W-T203		W165	ISC-CDL1-W15G
MA-004	W-T203		W166	ISC-CDL1-W15G
MA-005	W-T203		W148	ISC-CDL1-W15G
MA-006	W-T203		W155 - North	ISC-CDL1-W15G
MA-007	W-T203		W155 - South	ISC-CDL1-W15G
MA-008	W-T203		W162	ISC-CDL1-W15G
MA-009	W-T201.1		W109	ISC-CDL1-W15G
MA-010	W-T201.1		W111	ISC-CDL1-W15G
MA-011	W-T201.1		W115	ISC-CDL1-W15G
MA-012	W-T201.2		W120	ISC-CDL1-W15G
MA-013	W-T201.2		W127	ISC-CDL1-W15G
MA-014	W-T201.2		W128	ISC-CDL1-W15G
MA-015	W-T201.2		W129	ISC-CDL1-W15G
MA-016	W-T201.2		W135	ISC-CDL1-W15G
MA-017	W-T201.2		W132	ISC-CDL1-W15G
MA-018	W-T201.2		W119	ISC-CDL1-W15G
MA-019	W-T202.1		W204	ISC-CDL1-W15G
MA-020	Y-T201		Y105	ISC-CDL1-W15G
MA-021	Y-T201		Y107	ISC-CDL1-W15G
MA-022	Y-T201		Y108	ISC-CDL1-W15G
MA-023	Y-T201		Y112	ISC-CDL1-W15G
MA-024	Y-T201		Y121	ISC-CDL1-W15G

NOTE:
ALL MOTION DETECTORS SHALL FOLLOW LBCC CAMPUS STANDARDS (ADT) ALL CABLING PATHWAYS, CABLING, END DEVICES, IDF ADT EQUIPMENT WITH POWER, INTERFACES TO F.A. AND LBCC-IT, TESTING AND COMMISIONING WITH LBCC-FAC AND DSA ARE ALL REQUIRED ELEMENTS OF THE FULLY FUNCTIONING TURN-KEY PHYSICAL SECURITY SYSTEM FOR THE LBCC-KLAC COMPLEX.

2 MOTION DETECTOR SCHEDULE

NO SCALE

Camera Schedule (3)

Camera #	Ref. DWG. #	Grid	Type	Room # - Location	Mount/Housing	Camera Label	Notes
SC-01	T102		Axis - P3707-PE	North-west corner of W1			
SC-02	T102		Axis - P3707-PE	North-west corner of W1			
SC-03	T102		Axis - P3707-PE	West center W1			
SC-04	T102		Axis - P3707-PE	Lower East Side W1			
SC-05	T102		Axis - P3707-PE	North-west corner W2			
SC-06	T102		Axis - P3707-PE	North Center W2			
SC-07	T102		Axis - P3707-PE	South Center W2			
SC-08	T102		Axis - P3707-PE	South-east W2			
SC-09	T102		Axis - P3707-PE	Center of Soccer Field			
SC-10	T102		Axis - P3717-PLE	South-West corner of Volyball Courts			
SC-11	T102		Axis - P3717-PLE	South-West Corner of New Park lot			
SC-12	Y-T201		Axis - P3717-PLE	North -East Corner near Y121			
SC-13	Y-T201		Axis - P3717-PLE	North -East Corner near Y121			
SC-14	Y-T201		Axis - P3717-PLE	North-West corner near Y114			
SC-15	Y-T201		Axis - P3717-PLE	Sout-West corner near Y112			
SC-16	Y-T201		Axis - P3717-PLE	Norht-East corner near Y105			
SC-17	Y-T201		Axis - P3717-PLE	South-East corner near Y106			
SC-18	Y-T201		Axis - P3717-PLE	North- West Corner near Y111			
SC-19	Y-T201		Axis - P3717-PLE	South-West corner near Y111			
SC-20	Y-T201		Axis - P3717-PLE	North-West corner near Y101			
SC-21	W-T202.2		Axis - P3717-PLE	West outside W211			
SC-22	W-T202.2		Axis - P3717-PLE	Center near door to stairwell #2			
SC-23	W-T202.2		Axis - P3717-PLE	East near door to W212			
SC-24	W-T202.1		Axis - P3717-PLE	South-West corner of Rm. #W201			
SC-25	Y-T201		Axis - P3717-PLE	Home team dugout			
SC-26	Y-T201		Axis - P3717-PLE	Home team dugout			
SC-27	Y-T201		Axis - P3717-PLE	Home Base Camera			
SC-28	W-T203		Axis - P3717-PLE	South-East corner nera W162			
SC-29	W-T203		Axis - P3717-PLE	Middle-West outside W148			
SC-30	W-T203		Axis - P3717-PLE	W2 Corridor			
SC-31	W-T203		Axis - P3717-PLE	W2 Corridor			
SC-32	W-T203		Axis - P3717-PLE	W2 Corridor			
SC-33	W-T201.1		Axis - P3717-PLE	Elevator W1 level one			
SC-34	W-T201.2		Axis - P3717-PLE	North Center W1 near W120			
SC-35	W-T201.2		Axis - P3717-PLE	North Center W1 near W121			
SC-36	W-T201.2		Axis - P3717-PLE	North Center W1 near Stair 2			
SC-37	W-T201.2		Axis - P3717-PLE	South Center W1 near W134			
SC-38	W-T201.2		Axis - P3717-PLE	North East W1 near W129			
SC-39	W-T201.2		Axis - P3717-PLE	North East W1 near W129 Stairway			
SC-40	W-T201.2		Axis - P3717-PLE	East Center W1			
SC-41	W-T201.1		Axis - P3717-PLE	South hallway outside of W116			
SC-42	W-T201.2		Axis - P3717-PLE	North hallway outside of W119			
SC-43	W-T201.2		Axis - P3717-PLE	North hallway outside of W130			
SC-44	W-T202.2		Axis - P3717-PLE	North Second Floor Stair #2			
SC-45	W-T202.2		Axis - P3717-PLE	North Second Floor Stair #3			

1 OPOI CAMERA SCHEDULE

NO SCALE

3

STATE:

ARCHITECT:

architecture
westbergwhite
14471 CHAMBERS RD, SUITE 210
TUSTIN, CA 92780
(714) 508-1780 508-1790 FAX

CONSULTANT:

P2S ENG
Long Beach | Los Angeles
San Diego | San Jose
p2sinc.com

Mark Henderson — No. E22361 — ELECTRICAL — STATE OF CALIFORNIA

PROJECT NAME:

LIBERAL ARTS CAMPUS
KINESIOLOGY LABS and AQUATIC CENTER
4901 EAST CARSON STREET
LONG BEACH, CA 90806

CLIENT:

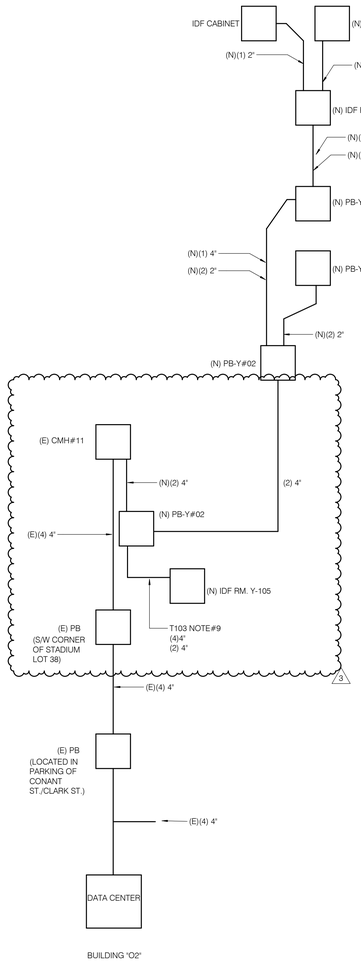
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4901 EAST CARSON STREET
LONG BEACH, CA 90806

No.	Rev. Date	Description
1	11/07/19	Addendum 01
3	12/16/19	Addendum 03

JOB NO: 16042.01
DATE: 09/18/19
DRAWN: CN
CHECK: JK
ARCHITECT: PDW
ENGINEER:

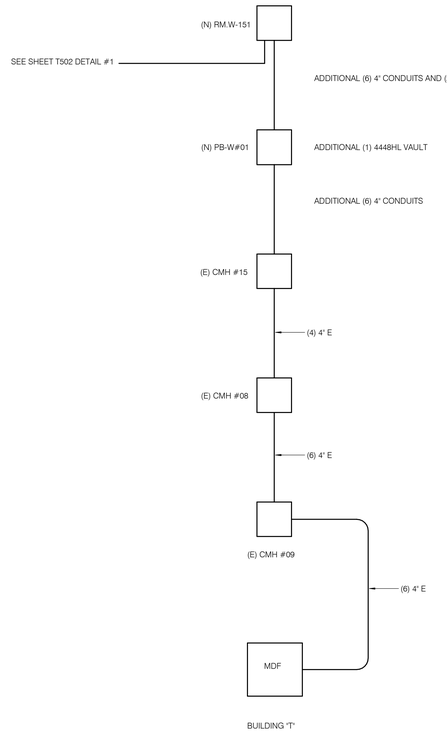
SHEET DESCRIPTION:
SCHEDULES

SHEET NO:
T401



2 BLDG. "Y" BACKBONE PATHWAY (SINGLE-LINE)

SCALE: NONE



1 BLDG. "W" BACKBONE PATHWAY (SINGLE-LINE)

SCALE: NONE

STATE:

ARCHITECT:

architecture
westbergwhite
14471 CHAMBERS RD, SUITE 210
TUSTIN, CA 92780
(714) 508-1780 508-1790 FAX

CONSULTANT:

P2S ENG
Long Beach | Los Angeles
San Diego | San Jose
p2sinc.com



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LONG BEACH, CA 90806

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4901 EAST CARSON STREET
LONG BEACH, CA 90806

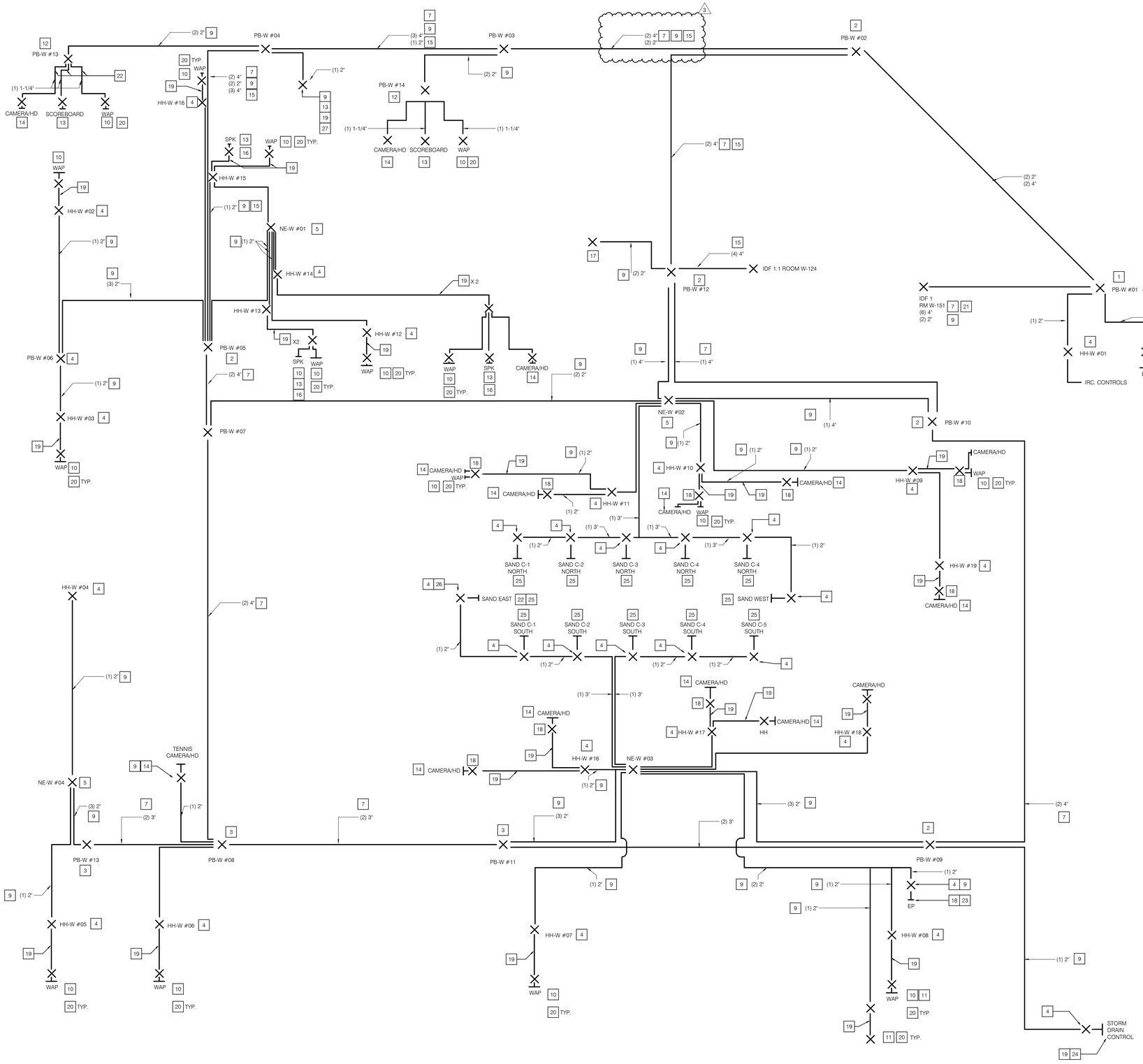
No.	Rev. Date	Description
3	12/16/19	Addendum 03

JOB NO: 16042.01
DATE: 09/18/19
DRAWN: CN
CHECK: JK
ARCHITECT: PDW
ENGINEER:

SHEET DESCRIPTION:
SINGLE LINE RISER DIAGRAM

SHEET NO:

T501



1 T502 - KLAC- LOW-VOLTAGE/SIGNAL CONDUIT SINGLE-LINE DIAGRAM

SCALE: NONE

GENERAL NOTES

1. INSTALL PERSONNEL SHALL BE TRAINED IN FABRIC INNERDUCT INSTALLATION PIOR TO THIS PROJECT
2. ALL CONDUIT ENDS SHALL BE FITTED WITH NON-SNAG BUSHINGS
3. ALL METAL END CONDUIT AND ALL METAL HARDWARE SHALL BE BONDED WITH A MINIMUM #6 TBC
4. ALL OPTICAL FIBER AND UTP COPPER SHALL BE TESTED TO ANSI/TIA-568D SERIES REQUIREMENTS FOR OS2, OM4, AND CATEGORY 6A.
5. ALL PULL-BOXES SHALL BE A MINIMUM 36" DEEP
6. VAULT, PULL-BOX, AND HAND HOLES SHALL ALL HAVE COVERS MARKED "COMMUNICATIONS"
7. ALL OSP PATHWAYS AND SPACES SHALL BE INSTALLED PER MANUFACTURERS INSTALLATION REQUIREMENTS IN AN ENVIRONMENT PREPARED FOR OSP INSTALLATION USING BICSI OSP STANDARDS AND BEST PRACTICE METHOLOGIES.
8. CONDUIT SYSTEM SHALL SUPPORT ALL LV/SIGNAL AV DEVICES IDENTIFIED ON SHEETS T101,T102, TAV101, E104, AND A009.

EQUIPMENT NOTES

1. PROVIDE AND INSTALL 4'-X 4'-X 4'-4" OLD CASTLE VAULT 4448 HL, PLUS RISER AND TRAFFIC HINGED 2 PIECE COVERS AND GALV. FRAME WITH COVER MARKED, "COMMUNICATIONS".
2. PROVIDE AND INSTALL 36" X 24" X 36" OLD CASTLE PULL-BOX 2336 RPB, PLUS RISER. AND TRAFFIC LID MARKED, "COMMUNICATIONS".
3. PROVIDE AND INSTALL 26-1/4" X 38" X 36" OLD CASTLE 2436 PULL-BOX WITH TRAFFIC RATED LID MARKED, "COMMUNICATIONS".
4. PROVIDE AND INSTALL 10" X 17" OLD CASTLE CHRISTY B-1017 HAND HOLE WITH COVER.
5. PROVIDE AND INSTALL AP AM-47-P-2636-24RN NETWORK ENCLOSURE WITH (100CFM FAN, SUNSHADE, 19" RACKING, QUAD POWER OUTLET, MOUNTING PLINTH, DOOR STOP, GROUNDING HARDWARE. CABLE ENTRANCE PLATE FOR CUSTOM CONFIGURATION AND PUNCH, DOOR GASKET, HINGE, HANDLE/LATCH) REQUIRES (2) 120V/20A (INSIDE ENCLOSURE).
6. PROVIDE AND INSTALL DEDICATED 15' X 8' PEDISTAL/POLE FOR WAP LOCATIONS.
7. PROVIDE AND INSTALL CONDUIT FITTED WITH 2 X (3) CELL FABRIC INNER-DUCT (EACH CONDUIT).
8. PROVIDE AND INSTALL CONDUIT FITTED WITH 1 X (3) CELL FABRIC INNER-DUCT (EACH CONDUIT).
9. PROVIDE AND INSTALL CONDUIT FITTED WITH 1 X (2) CELL FABRIC INNER-DUCT (EACH CONDUIT).
10. PROVIDE AND INSTALL OPCI WIRELESS ACCESS POINT (AP) WITH CPCI ARUBA MOUNTING ARM TO JOINT USE POLE WITH DEDICATED PATHWAY FOR OSP CATEGORY 6A UTP CABLE TERMINATED ON AN ANSI/TIA-568.D-2 COMPLIANT-FIELD TERMINATED PLUG. NOTE (2) ABOVE APPLIES TO ALL INSTALLATION LOCATIONS ON THIS PROJECT SCOPE.
11. PROVIDE AND INSTALL OPCI CAMERA WITH CPCI AXIS MOUNTING ARM FOR A 360° DEGREE CAMERA TO JOINT-USE POLE WITH DEDICATED PATHWAY FOR OSP CATEGORY 6A UTP CABLE TERMINAED ON AN ANSI/TIA-568.D-2 COMPLIANT-FIELD TERMINATED PLUG.
12. PROVIDE AND INSTALL NEMA 3R 10" X 10" X 6" PULL-BOX ATTACHED (ABOUT GROUND) TO SCOREBOARD BRACING FOUNDATION.
13. PROVIDE AND INSTALL WEATHER RATED 5S X 3-7/8" DEEP BACK-BOX FITTED WITH A RE-ENTERABLE COVER FOR CORD MANAGEMENT IF REQUIRED. FOR MANUFACTURE CONNECTIONS THAT REQUIRE CONNEC TO CONTROLLER HOUSING A 1" SEAL-TIGHT CONNECTION SHALL BE INCLUDED WITH REQUIRED FITTINGS FOR A COMPLETE PATHWAY.
14. PROVIDE AND INSTALL OPCI BROADCAST CAMERA WITH CPCI CAMERA MOUNTING ARM FROM APPROVED CAMERA MANUFACTURER FOR JOINT-USE POLE WITH DEDICATED PATHWAY FOR OSP CATEGORY 6A UTP CABLE TERMINATED ON AN ANSI/TIA-568.D-2 COMPLIANT FIELD TERMINATED PLUG. FOR AV EQUIPMENT SCHEDULE SEE SHEET INDEX TAV001
15. PROVIDE AND INSTALL DEDICATED CONDUIT IN ROUTE THAT SHALL ONLY BE USED FOR AUDIO POWERED SPEAKER CONNECTIONS.
16. PROVIDE AND INSTALL CPCI BROADCAST SPEAKER AS PER CUTSHEET OR LBCC APPROVED EQUAL MOUNTED ON SPEAKER MANUFACTURE APPROVED MOUNTING BRACKET ATTACHED TO JOINT-USE POLE WITH DEDICATED PATHWAY FOR AMPLIFIED SPEAKER CONNECTION. FOR AV EQUIPMENT SCHEDULE SEE SHEET INDEX TAV001
17. PROVIDE AND INSTALL LEGRAND IN-GROUND POWER/DATA/AUDIOVISUAL TERMINATION BOX FOR SCORER TABLE BOX REQUIRE SEPERATE CONDUIT FOR POWER AND LOW-VOLTAGE SIGNAL DATA CONNECTIONS TERMINATED IN IDF-RM-W-124 ON Tii-CAT6A PRIMARY PROTECTION BLOCKS MOUNTED ON WALL WITH PATCH CORD CONNECT TO EQUIPMENT RACK. INCLUDE PATHWAY EXTENSION INTO SCORE KEEPERS TABLE LOW-VOLTAGE RECEPTACLES. PROVIDE AND TEST (6) CAT6A CABLES RUN TO IDF FOR AV CONNECTIONS.
18. PROVIDE AND INSTALL MODIFIED TENNIS COURT PERIMETER FENCE POST WITH PATHWAY AND MOUNTING BRACKET FOR OPCI BROADCAST CAMERA AND WAP BRACKET. POLE SHALL BE CENTER OF COURT EAST/WEST AS COURT RUNS NORTH/SOUTH AND FOR (1) CAMERA LOCATION LOCATE CAMERA AT CENTER COURT EAST OF COURT #5.
19. PROVIDE CONDUIT REDUCT TO 1" TRANSITION CONDUIT THROUGH PEDISTAL TO INTERIOR LOW-VOLTAGE PATHWAY (SEPERATE) PATHWAY REQUIRED FOR ALL JOINT-USE POLES WITH POWER.
20. PROVIDE M20 METRIC FITTING FOR ARUBA OUTDOOR WIRELESS ACCESS POINT THAT RESUCES DOWN TO 1/2" CONDUIT COUPLING FOR A SEAL-TIGHT CONNECTION INTO JOINT-USE POLE.
21. PROVIDE CONDUIT TRANSITION FROM PVC-SCH-60 TO RGD FOR LAST STICK AND SWEEP UP INTO IDF. CONDUIT SHALL EXTEND MINIMUM 3" AFF AND BE FITTED WITH
    - BONDING RING ACCOMMODATE MINIMUM #6 TBC
    - NON SNAG BUSHING
    - COTTON PULL MEASURING CORD (MULE-TAPE)
    - PAIR OF COMMSCOPE (JACKMOON) DUCT PLUGS
22. PROVIDE (1) 1-1/4" RGD OR IMT CONDUIT TO EACH NETWORK PORT LOCATION. ((1)-CAMERA, (1)-SCOREBOARD, (1) WAP) WITH WEATHER RATED BACK-BOX AND RE-ENTERABLE CORD ACCESS COVER.
23. PROVIDE AND CONSTRUCT EP-PHONE PEDISTAL PAD PER MANUFACTURER REQUIREMENTS. CONDUITS PENETRATING PAD SHALL BE INSTALLED AS ENTRANCE CONDUITS WITH TRANSITION TO RGD AT SWEEP UP. ALSO THE SAME BONDING REQUIREMENTS AS BDF CONDUIT ENTRANCE.
24. PROVIDE(1) 2" CONDUIT FROM PB-W#01 TO HH-W #20 FOR CIVIL STORM DRAIN PUMP. EXTEND (1) 1" CONDUIT IN CONTROL HOUSING FOR PUMP. COORDINATE LOCATION OF CONDUIT WITH PUMP EQUIPMENT CONTRACTOR. PROVIDE (1) CAT6A OSP CONNECTION INTO NE-W #03 CABINET.
25. PROVIDE AND INSTALL CONDUIT CONNECTION, HAND HOLE, POLE (WITH LV PATHWAY) NEMA 3 BACKBOX, AND NETWORK CONNECTION FOR BROADCAST CAMERA. SEE SHEET TAV101 FOR ADDITIONAL INSTALLATION AND EQUIPMENT REQUIREMENTS.
26. PROVIDE AND CONDUIT CONNECTION, HAND-HOLE, POLE (WITH LV PATHWAY) NEMA 3 - BACKBOX, (2) NETWORK CONNECTIONS FOR FUTURE SCOREBOARD.
27. PROVIDE AND INSTALL (1) 2" UNDERGROUND CONDUIT FROM PULL-BOX W#04 TO ELECTRICAL INVERTERS. COORDINATE CONDUIT TERMINATION AT INVERTERS WITH ELECTRICAL INSTALLATION CONTRACTOR. INCLUDE (2) CATEGORY 6A-OSP CABLES TO INVERTER(S) TERMINATE ON FTP AT THE INVERTER(S) AND AT THE NE-W#01 TERMINATE ON CPCI PATCH PANEL AND PROVIDE (2) 6 FOOT PATCH CORDS FOR NETWORK CONNECTIONS.

STATE:

ARCHITECT:
architecture
westbergwhite
14471 CHAMBERS RD, SUITE 210
TUSTIN, CA 92780
(714) 508-1780 508-1790 FAX

CONSULTANT:
P2S ENG
Long Beach | Los Angeles
San Diego | San Jose
p2sinc.com



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KINESIOLOGY LABS and AQUATIC CENTER
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LONG BEACH, CA 90806

CLIENT:

LONG BEACH CITY COLLEGE

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LONG BEACH, CA 90806

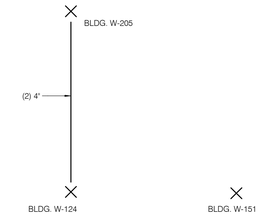
No.	Rev. Date	Description
1	11/07/19	Addendum 01
3	12/16/19	Addendum 03

JOB NO:	16042.01
DATE:	09/18/19
DRAWN:	Author
CHECK:	Checker
ARCHITECT:	PDW
ENGINEER:	

SHEET DESCRIPTION:
SINGLE LINE RISER DIAGRAM

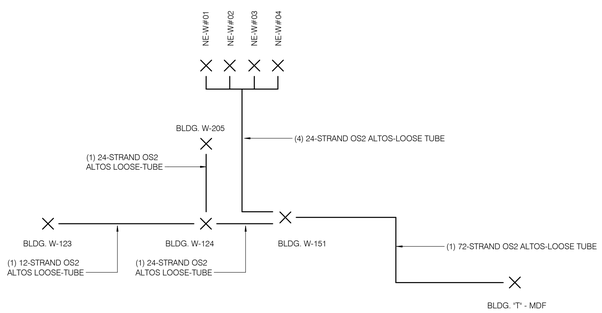
SHEET NO:

T502



2 LOW VOLTAGE/SIGNAL CONDUIT RISER

SCALE: NONE

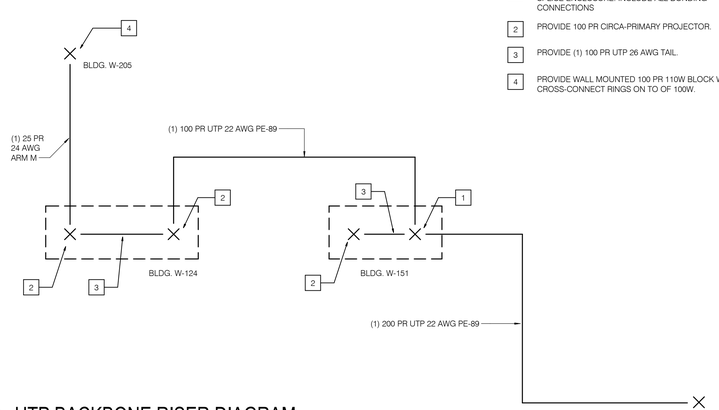


NOTES

1. PROVIDE ALL TERMINATIONS SHALL BE LC CONNECTOR
2. PROVIDE: (48) DUAL LC PATCH CORDS 3M
   (8) DUAL LC PATCH CORDS 7M
   (4) DUAL LC PATCH CORDS 10M
3. TEST EACH STRAND BI-DIRECTIONAL.
4. PROVIDE: (1) 12-STD OS2 CONNECTION
   (1) CCH APC-LC
   (1) WALL MOUNT CCH WITH (1) APC-LC CCH

3 OPTICAL FIBER RISER DIAGRAM

SCALE: NONE



NOTES

1. PROVIDE SPLICE WITH 710 MODULES AND RE-ENTERABLE SPLICE ENCLOSURE. INCLUDE ALL BONDING CONNECTIONS
2. PROVIDE 100 PR CIRCA-PRIMARY PROJECTOR.
3. PROVIDE (1) 100 PR UTP 26 AWG TAIL.
4. PROVIDE WALL MOUNTED 100 PR 110W BLOCK WITH CROSS-CONNECT RINGS ON TO OF 100W.

1 UTP BACKBONE RISER DIAGRAM

SCALE: NONE

STATE:

ARCHITECT:

architecture
westbergwhite
14471 CHAMBERS RD, SUITE 210
TUSTIN, CA 92780
(714) 508-1780 508-1790 FAX

CONSULTANT:

P2S ENG
Long Beach | Los Angeles
San Diego | San Jose
p2sinc.com



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KINESIOLOGY LABS and AQUATIC CENTER
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LONG BEACH, CA 90806

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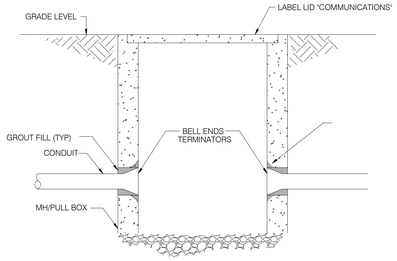
No.	Rev. Date	Description

JOB NO: 16042.01
DATE: 09/18/19
DRAWN: Author
CHECK: Checker
ARCHITECT: PDW
ENGINEER:

SHEET DESCRIPTION:
SINGLE LINE RISER DIAGRAM

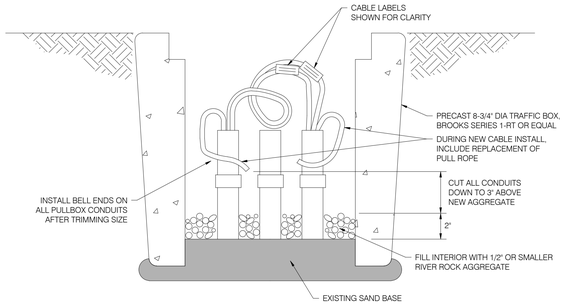
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T503



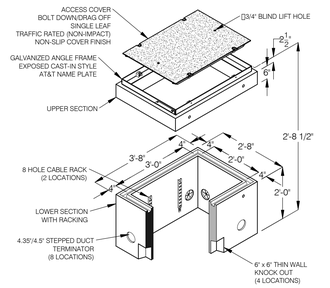
6 TYPICAL (E) MH/PULL BOX CONDUIT TERMINATIONS

NO SCALE



4 PULLBOX CV-120 LABELING

NO SCALE



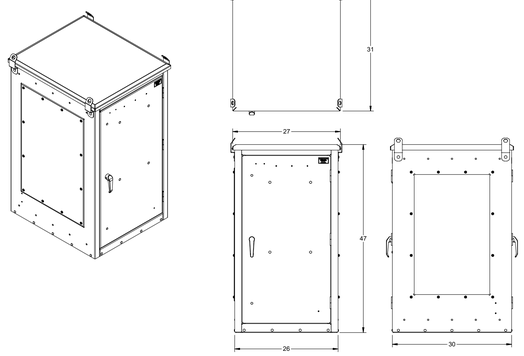
2 PULLBOX

NO SCALE

NOTES

1. PULL BOX SHALL BE FITTED WITH OPTIONAL SECTION TO ACHIEVE A FINISHED INSIDE DEPTH OF 36".
2. ALL CONDUIT ENTRIES SHALL BE MADE WITH PULL-BOX MANUFACTURER REQUIREMENTS NO HAMMER DRILLING SHALL BE ACCEPTABLE IN PULL-BOX INSTALLATION U.O.N.
3. ALL CONDUITS SHALL BE BELL ENDED.

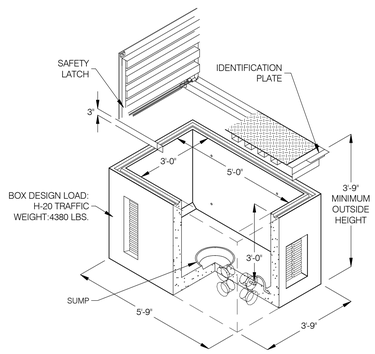
CPCI CABINET SHALL INCLUDE: (3)
1. 100 CFM FAN KIT
2. 19" EQUIPMENT RACKING FROM AND REAR
3. 120V 20A POWER QUAD
4. CABINET BONDING
5. PAD AND BRACING



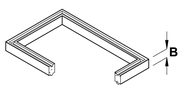
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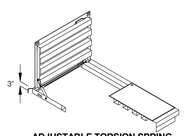
5 INDEPENDENCE SERIES ENCLOSURE (AMERICAN PRODUCTS) OR APPROVED EQUAL

NO SCALE



OPTIONAL RISERS (EXTENSIONS)		
MODEL NO.	B	WEIGHT
35-R6	6"	420 LBS.
35-R12	12"	840 LBS.



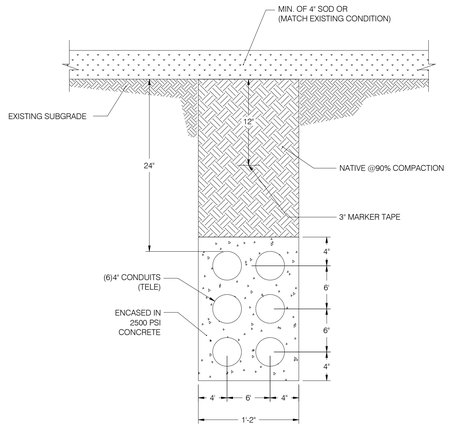


ADJUSTABLE TORSION SPRING ASSISTED COVERS (NON-SLIP SURFACE)

* HEAVY TRAFFIC RATED LID SHALL BE REQUIRED FOR KLAC INSTALLATION.

3 4' x 4' x 4' PULLBOX

NO SCALE



NOTES:

1. ALL PAVEMENT THICKENSSES ARE APPROXIMATE. CONTRACTOR SHALL MATCH EXISITNG THICKNESS OR DIMENSIONS SHOWN. WHICHEVER IS GREATER.
2. APPLY TACK COAT PER SPECS. PROVIDE SMOOTH TRANSITION BETWEEN NEW AND EXISTING PAVEMENT SURFACES.

1 TRENCH DETAIL - (6) 4" CONDUIT

NO SCALE

STATE:

ARCHITECT:

architecture
westbergwhite
14471 CHAMBERS RD, SUITE 210
TUSTIN, CA 92780
(714) 508-1780 508-1790 FAX

CONSULTANT:

P2S ENG
Long Beach | Los Angeles
San Diego | San Jose
p2sinc.com

MECHANICAL PROFESSIONAL ENGINEER — Mynor Perez Henderson — No. E22361 — ELECTRICAL — STATE OF CALIFORNIA

PROJECT NAME:

LIBERAL ARTS CAMPUS
KINESIOLOGY LABS and AQUATIC CENTER
4901 EAST CARSON STREET
LONG BEACH, CA 90806

CLIENT:

LONG BEACH CITY COLLEGE
4901 EAST CARSON STREET
LONG BEACH, CA 90806

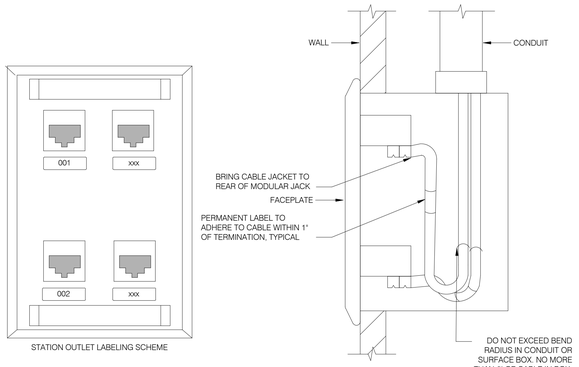
No.	Rev. Date	Description
3	12/16/19	Addendum 03

JOB NO: 16042.01
DATE: 09/18/19
DRAWN: CN
CHECK: JK
ARCHITECT: PDW
ENGINEER:

SHEET DESCRIPTION:
DETAILS

SHEET NO:

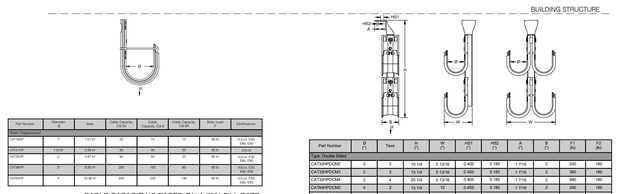
T601



DETAIL NOTES:
COLORS INDICATED ARE FOR STANDARD FACEPLATES. REFER TO TELECOM CONFIGURATION SCHEDULE FOR OTHER COLORS.

6 STANDARD OUTLET

NO SCALE



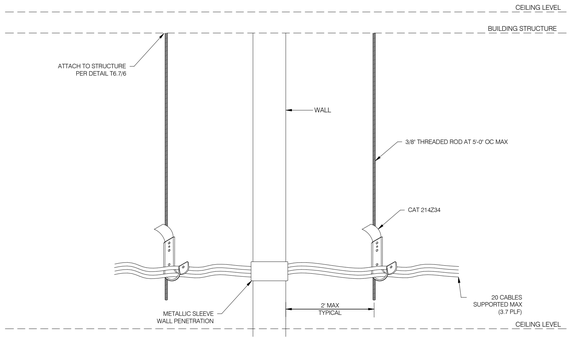
Part Number	Diameter (Ø)	Area	Cable Capacity, 100 lb.	Cable Capacity, 200 lb.	Cable Capacity, 400 lb.	Static Load (F.S. = 5)	Certifications
J-Hook Recommended							
J4TH4HP	4"	1.07 in²	80	70	10	400 lb	cULus (LR, 500-358)
J4TH6HP	1 5/16"	2.08 in²	160	140	25	400 lb	cULus
J4TH8HP	2"	3.97 in²	160	80	25	400 lb	cULus (LR, 500-358)
J4TH8HP	2"	3.97 in²	320	320	80	400 lb	cULus (LR, 500-358)
J4TH4HP	4"	13.40 in²	320	320	140	1600 lb	cULus (LR, 500-358)

CABLE CAPACITY IS BASED ON A 70% FILL RATE.

Part Number	Ø (")	Tiers	H (")	W (")	HS1 (")	HS2 (")	A (")	B (")	F1 (lb)	F2 (lb)
Type: Double Sided										
CAT2HPDCM2	2	2	10 1/4	5 13/16	0.405	0.185	1 7/16	2	240	180
CAT2HPDCM3	2	3	15 1/4	5 13/16	0.405	0.185	1 7/16	2	360	180
CAT2HPDCM4	2	4	20 1/4	5 13/16	0.405	0.185	1 7/16	2	480	180
CAT6HPDCM2	4	2	10 1/4	10	0.405	0.185	1 7/16	2	240	180
CAT6HPDCM3	4	3	22 3/4	10	0.405	0.185	1 7/16	2	360	180
CAT6HPDCM4	4	4	30 1/4	10	0.405	0.185	1 7/16	2	480	180

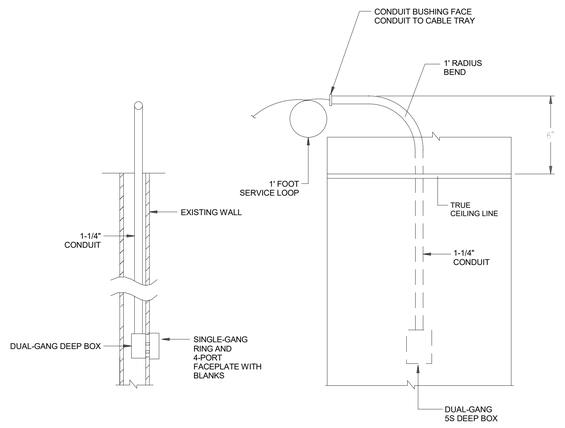
Part Number	Ø (")	Tiers	H (")	W (")	HS1 (")	HS2 (")	A (")	B (")	F1 (lb)	F2 (lb)
Type: Single Sided										
CAT2HPSCM2	2	2	10 1/4	3 5/16	0.405	0.185	1 7/16	2	120	120
CAT2HPSCM3	2	3	15 1/4	3 5/16	0.405	0.185	1 7/16	2	180	180
CAT2HPSCM4	2	4	20 1/4	3 5/16	0.405	0.185	1 7/16	2	240	180
CAT6HPSCM2	4	2	10 1/4	5 7/16	0.405	0.185	1 7/16	2	120	120
CAT6HPSCM3	4	3	22 3/4	5 7/16	0.405	0.185	1 7/16	2	180	180
CAT6HPSCM4	4	4	30 1/4	5 7/16	0.405	0.185	1 7/16	2	240	180

STATIC LOADS REPRESENT MAXIMUM LOAD LIMIT OF J-HOOK TREE. STATIC LOAD LIMIT OF EACH J-HOOK IS 60LB.



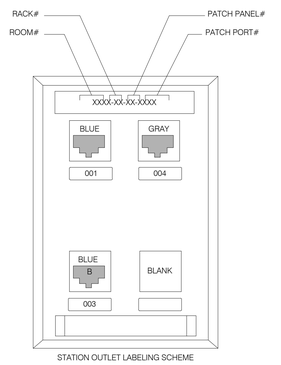
4 TYPICAL J-HOOK INSTALLATION

NO SCALE

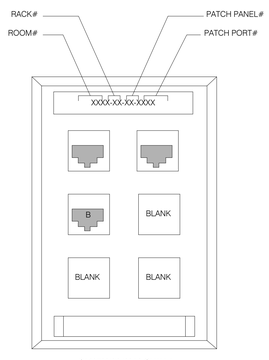


2 TYPICAL OUTLET CONCEALED CONDUIT

NO SCALE



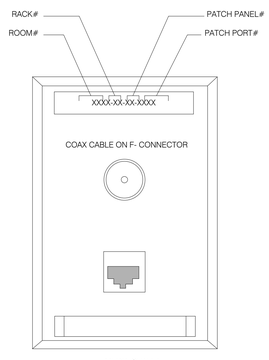
STATION OUTLET LABELING SCHEME



STANDARD DATA OUTLET

NOTES: PROVIDE (3) CAT 6A CABLES (CONTRACTOR TO DETERMINE IF EXISTING) TERMINATED ON RJ-45 JACKS AT THE FACEPLATE. PROVIDE BLANKS FOR SPARE JACKS.

MOUNT OUTLET AT +18" AFF UNLESS OTHERWISE NOTED.



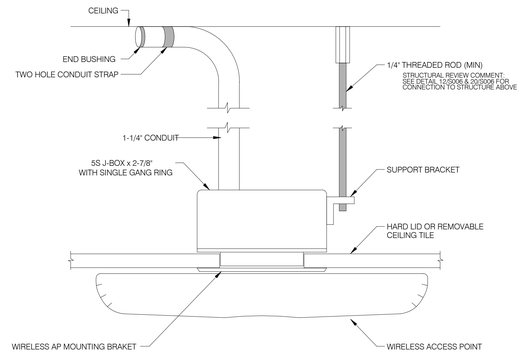
MEDIA OUTLET

NOTES: PROVIDE (1) RG-6 CABLE TERMINATED ON COMPRESSION F TYPE CONNECTOR AT THE FACEPLATE. PROVIDE (1) CAT 6A CABLE (CONTRACTOR TO DETERMINE IF EXISTING) TERMINATED ON AN RJ-45 JACK AT THE FACEPLATE.

MOUNT OUTLET AT +60" AFF UNLESS OTHERWISE NOTED.

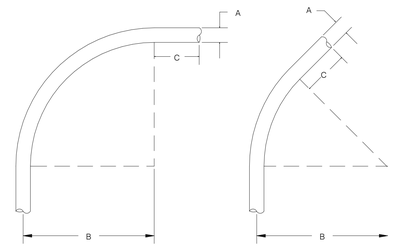
5 STANDARD OUTLET

NO SCALE



3 CEILING MOUNTED WIRELESS ACCESS POINT

NO SCALE



	A	B	C
SIZE	O.D.	MIN.	MIN.
2"	2.375	21"	3-1/2"
3"	3.500	31"	3-1/4"
4"	4.500	40"	3"

REF: EIA/TIA 569 TABLE 5.2-1

1 TYPICAL CONDUIT BEND RADIUS

NO SCALE

STATE:

ARCHITECT:
architecture
westbergwhite
14471 CHAMBERS RD, SUITE 210
TUSTIN, CA 92780
(714) 508-1780 508-1790 FAX

CONSULTANT:
P2S ENG
Long Beach | Los Angeles
San Diego | San Jose
p2sinc.com
Mark Henderson No. E22361 REGISTERED PROFESSIONAL ENGINEER ELECTRICAL STATE OF CALIFORNIA

PROJECT NAME:
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KINESIOLOGY LABS and AQUATIC CENTER
4901 EAST CARSON STREET
LONG BEACH, CA 90806

CLIENT:
LONG BEACH CITY COLLEGE
4901 EAST CARSON STREET
LONG BEACH, CA 90806

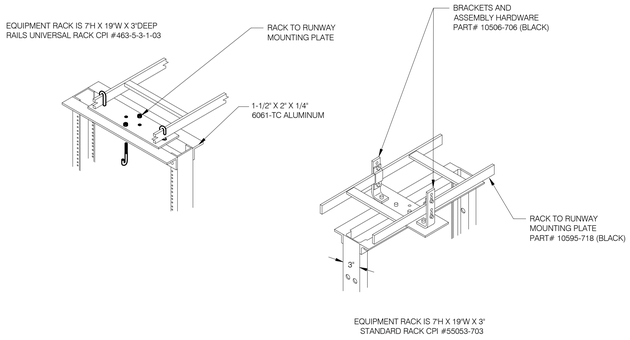
No.	Rev. Date	Description

JOB NO: 16042.01
DATE: 09/18/19
DRAWN: CN
CHECK: JK
ARCHITECT: PDW
ENGINEER:
SHEET DESCRIPTION: DETAILS

SHEET NO:
T602

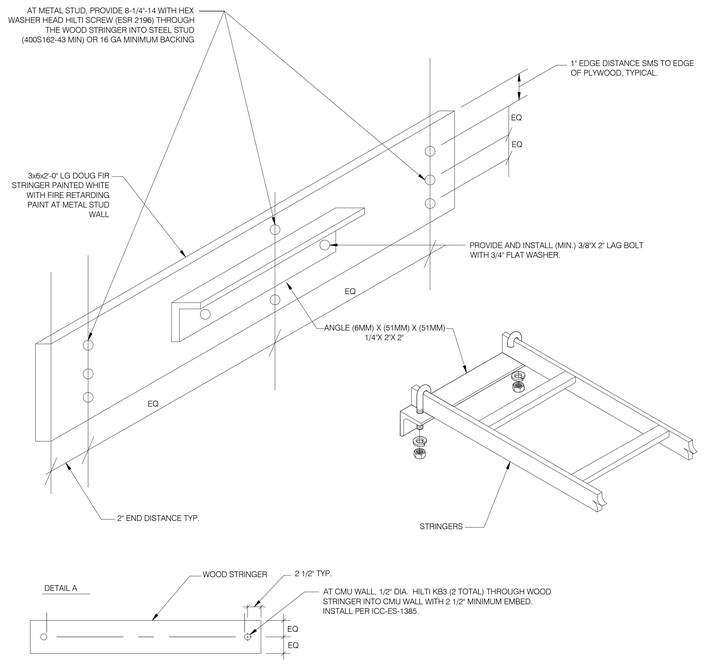
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P2S No. J9032



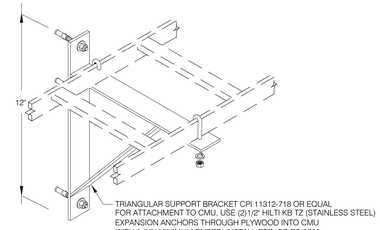
6 RUNWAY ELEVATION KIT

NO SCALE



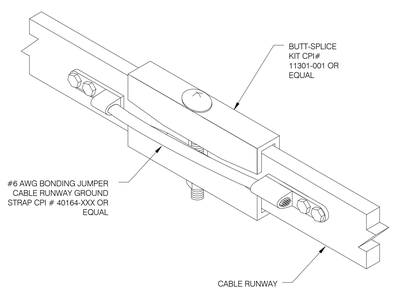
4 WALL MOUNTING DETAIL

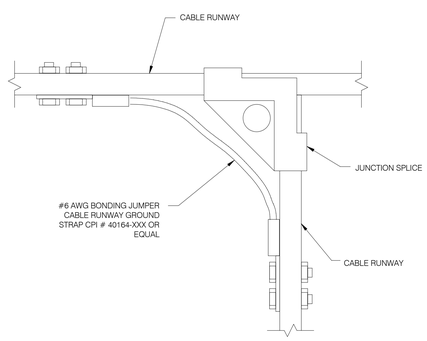
NO SCALE



2 TRIANGLE RUNWAY SUPPORT KIT

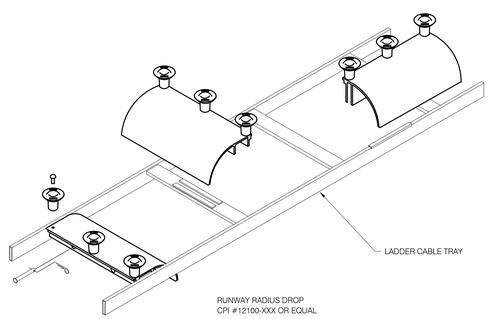
NO SCALE





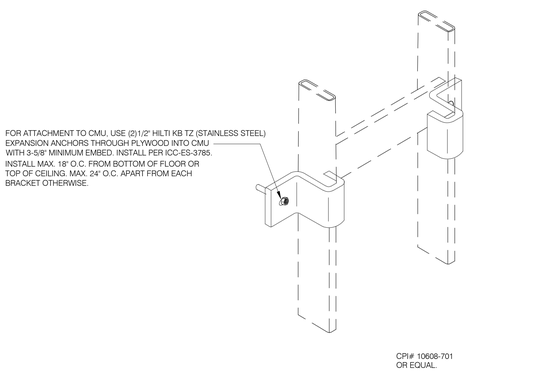
5 JUNCTION/BUTT SPLICE AND BONDING DETAILS

NO SCALE



3 LADDER RACK RUNWAY RADIUS DROP

NO SCALE



1 VERTICAL WALL BRACKET

NO SCALE

STATE:

ARCHITECT:

architecture
westbergwhite
14471 CHAMBERS RD, SUITE 210
TUSTIN, CA 92780
(714) 508-1780 508-1790 FAX

CONSULTANT:

P2S ENG
Long Beach | Los Angeles
San Diego | San Jose
p2sinc.com

PROJECT NAME:

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4901 EAST CARSON STREET
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CLIENT:

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4901 EAST CARSON STREET
LONG BEACH, CA 90806

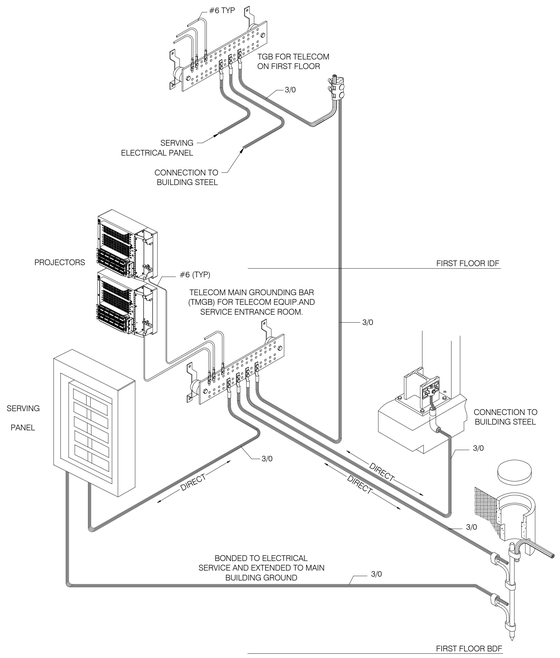
No.	Rev. Date	Description

JOB NO: 16042.01
DATE: 09/18/19
DRAWN: CN
CHECK: JK
ARCHITECT: PDW
ENGINEER:

SHEET DESCRIPTION:
DETAILS

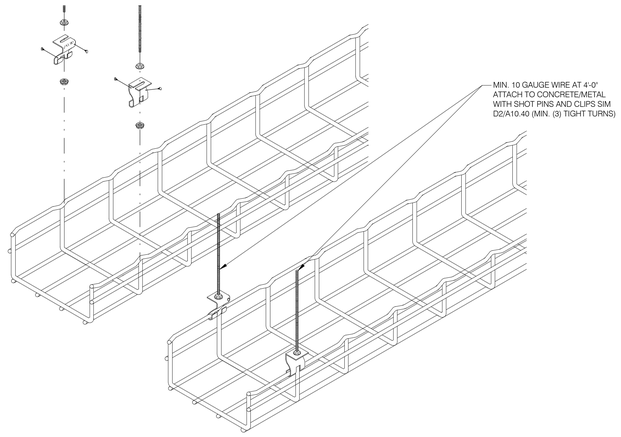
SHEET NO:

T603



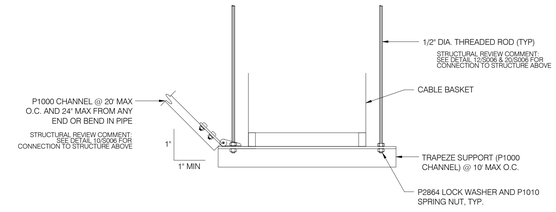
6 TYPICAL GROUNDING DIAGRAM

NO SCALE



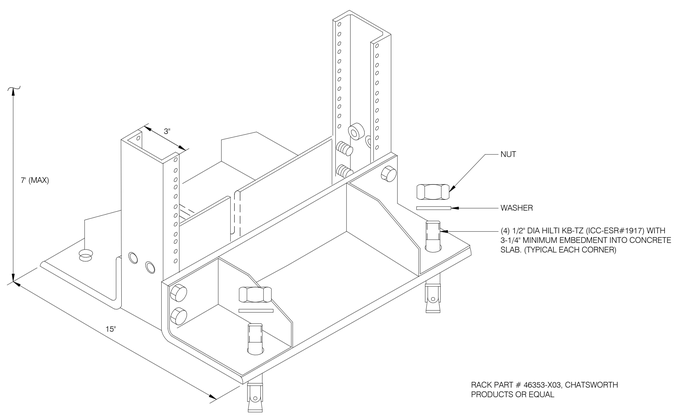
4 CABLETRAY INSTALLATION

NO SCALE



2 TYPICAL BRACING OF PIPES ON TRAPEZE

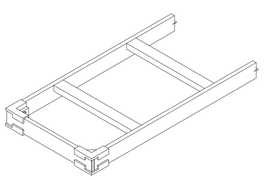
NO SCALE



MAX. WEIGHT = 1500 # (SLAB ON GRADE)
MAX. WEIGHT = 890 # (LEVEL 2: CONCRETE OVER METAL DECK)

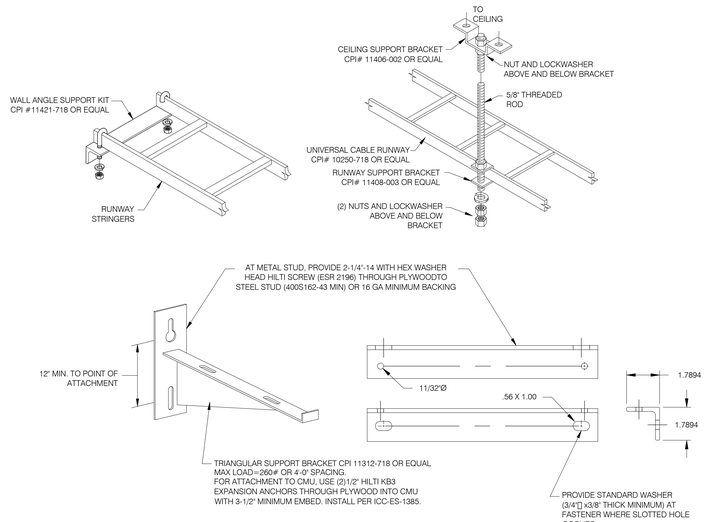
5 CONCRETE FLOOR MOUNTED RACK (2-POST)

NO SCALE



3 RUNWAY WALL ANGLE SUPPORT

NO SCALE



1 RUNWAY WALL/CEILING SUPPORT KIT

NO SCALE

STATE:

ARCHITECT:

architecture
westbergwhite
14471 CHAMBERS RD, SUITE 210
TUSTIN, CA 92780
(714) 508-1780 508-1790 FAX

CONSULTANT:

P2S ENG
Long Beach | Los Angeles
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CLIENT:

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4901 EAST CARSON STREET
LONG BEACH, CA 90806

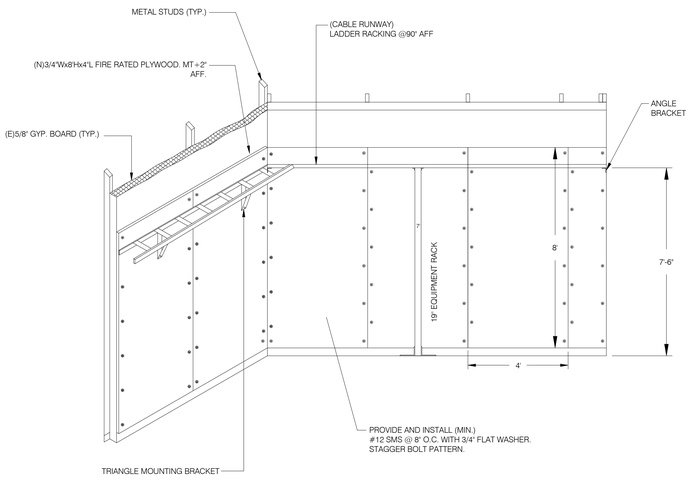
No.	Rev. Date	Description

JOB NO: 16042.01
DATE: 09/18/19
DRAWN: CN
CHECK: JK
ARCHITECT: PDW
ENGINEER:

SHEET DESCRIPTION:
DETAILS

SHEET NO:

T604



6 BACKBOARD INSTALLATION

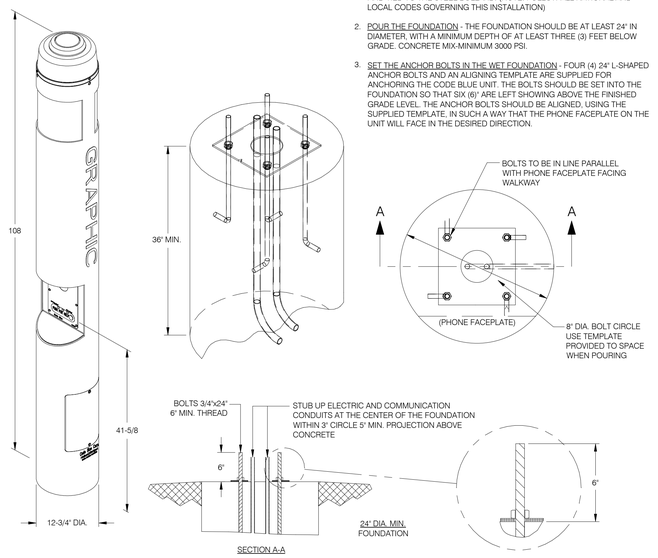
NO SCALE

WIRING

1. PULL POWER AND PHONE LINE UP THROUGH THE CONDUITS - A MINIMUM OF TWO FEET OF WIRE MUST BE AVAILABLE FROM THE CONDUIT FOR ELECTRICAL AND COMMUNICATIONS WIRING.

FOUNDATION

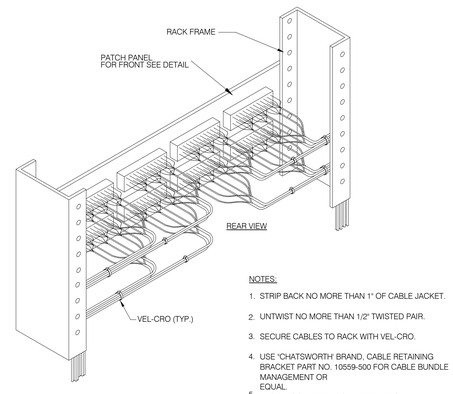
1. CONDUIT - ELECTRICAL AND TELEPHONE LINE CONDUIT, WITH A MAXIMUM COMBINED DIAMETER OF FOUR (4) INCHES, SHOULD BE RUN UP THROUGH THE CENTER OF THE FOUNDATION HOLE. A MINIMUM OF FOUR (4) INCHES AND A MAXIMUM OF SIX (6) INCHES OF CONDUIT ABOVE THE FINISHED GRADE LEVEL IS REQUIRED. TO ENSURE PROPER GROUNDING, A 1/2" X 8' COPPER ROD SHOULD BE INSERTED IN THE CENTER OF THE FOUNDATION AND TIED TO THE STEEL BOLLARD. (NOTE: FOLLOW ALL NATIONAL AND LOCAL CODES GOVERNING THIS INSTALLATION)
2. POUR THE FOUNDATION - THE FOUNDATION SHOULD BE AT LEAST 24" IN DIAMETER, WITH A MINIMUM DEPTH OF AT LEAST THREE (3) FEET BELOW GRADE. CONCRETE MIX-MINIMUM 3000 PSI.
3. SET THE ANCHOR BOLTS IN THE WET FOUNDATION - FOUR (4) 24" L-SHAPED ANCHOR BOLTS AND AN ALIGNING TEMPLATE ARE SUPPLIED FOR ANCHORING THE CODE BLUE UNIT. THE BOLTS SHOULD BE SET INTO THE FOUNDATION SO THAT SIX (6)" ARE LEFT SHOWING ABOVE THE FINISHED GRADE LEVEL. THE ANCHOR BOLTS SHOULD BE ALIGNED, USING THE SUPPLIED TEMPLATE, IN SUCH A WAY THAT THE PHONE FACEPLATE ON THE UNIT WILL FACE IN THE DESIRED DIRECTION.



EMERGENCY PHONE FOUNDATION DETAIL

4 PEDESTAL MOUNT EMERGENCY PHONE

NO SCALE

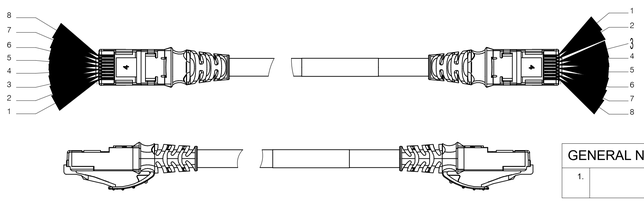


NOTES:

1. STRIP BACK NO MORE THAN 1" OF CABLE JACKET.
2. UNTWIST NO MORE THAN 1/2" TWISTED PAIR.
3. SECURE CABLES TO RACK WITH VEL-CRO.
4. USE "CHATSWORTH' BRAND, CABLE RETAINING BRACKET PART NO. 10559-500 FOR CABLE BUNDLE MANAGEMENT OR EQUAL
5. TAG & DOCUMENT EACH TERMINATION.

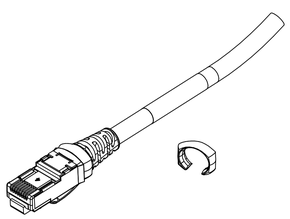
2 DATA PATCH PANEL

NO SCALE



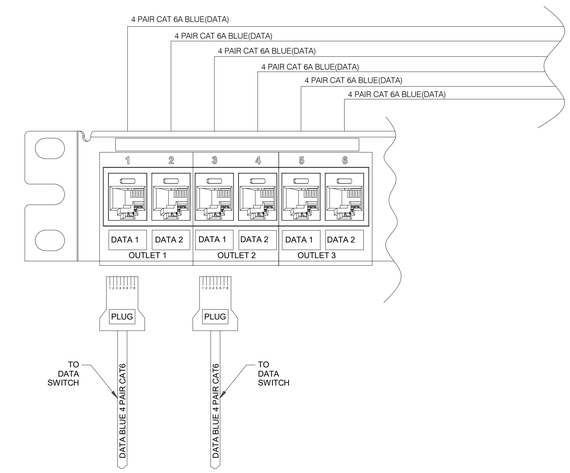
GENERAL NOTES	
1.	

MODULAR CORD WIRING CHART		
CONDUCTOR COLORS	PIN # (8 POSITION PLUG) STRAIGHT THROUGH (T568A/B), SEE NOTE 6	
	END A	END B
BLUE/ STRIPED	5	5
BLUE	4	4
ORANGE/ STRIPED	1	1
ORANGE	2	2
GREEN/ STRIPED	3	3
GREEN	6	6
BROWN/ STRIPED	7	7
BROWN	8	8



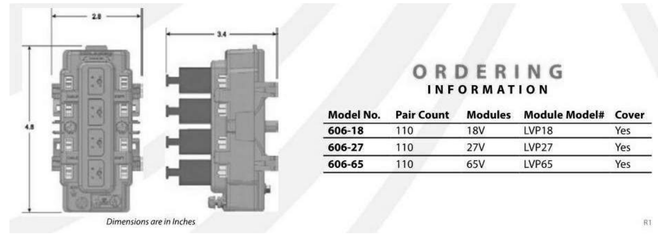
5 SKINNY PATCH CAT6A, 28 AWG STRANDED, SHIELDED PATCH CORDS

NO SCALE



3 CAT6 DATA PATCH PANEL PIN AND JACK ASSIGNMENTS

NO SCALE



ORDERING INFORMATION

Model No.	Pair Count	Modules	Module Model#	Cover
606-18	110	18V	LVP18	Yes
606-27	110	27V	LVP27	Yes
606-65	110	65V	LVP65	Yes

R1

NOTES	
1	24 PORT OPTICAL FIBER PATCH PANEL.
2	24"x48"x24" HEAVY DUTY DUAL SWING WALL MOUNT CABINET WITH INTEGRAL FANS AND POWERSTRIP. MIDDLE ATLANTIC CWR SERIES. (300 LB STATIC LOAD CAPACITY)
3	GROUND AND BOND ALL CABLES AND EQUIPMENT PER NEC CODE. GROUND CABINET TO ELECTRICAL QUAD BOX WITH #6 AWG.
4	48 PORT CAT 6A ANGLED PATCH PANEL, PROVIDE AS REQUIRED +25% FOR GROWTH.
5	CONTRACTOR TO WALL MOUNT ENCLOSURE USING INSTALLATION INSTRUCTION PROVIDED BY MANUFACTURER. THE RACK SHALL BE MOUNTED ON 3/4" THICK FIRE RETARDANT AC PLYWOOD BACKBOARD, PER SPECIFICATIONS.
6	DATA SWITCH TO BE PROVIDED BY LBWD.
7	ELECTRICAL QUAD 120V, 20 AMP DEDICATED CIRCUIT-SEE ELECTRICAL PLANS.
9	1 RU WIRE MANAGER.

1 TII CAT 6 PROTECTOR MODULES

NO SCALE

STATE:

ARCHITECT:

architecture
westbergwhite
14471 CHAMBERS RD, SUITE 210
TUSTIN, CA 92780
(714) 508-1780 508-1790 FAX

CONSULTANT:

P2S ENG
Long Beach | Los Angeles
San Diego | San Jose
p2sinc.com

PROJECT NAME:

LIBERAL ARTS CAMPUS
KINESIOLOGY LABS and AQUATIC CENTER
4901 EAST CARSON STREET
LONG BEACH, CA 90806

CLIENT:

LONG BEACH CITY COLLEGE
4901 EAST CARSON STREET
LONG BEACH, CA 90806

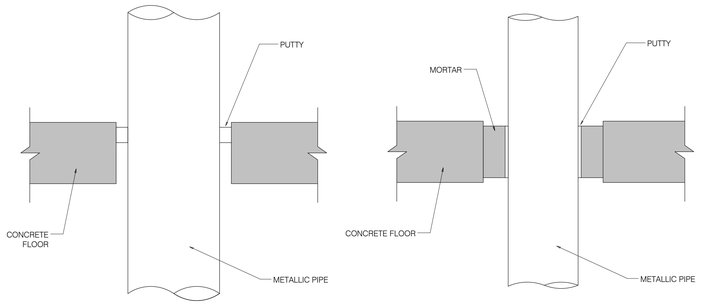
No.	Rev. Date	Description

JOB NO: 16042.01
DATE: 09/18/19
DRAWN: CN
CHECK: JK
ARCHITECT: PDW
ENGINEER:

SHEET DESCRIPTION:
DETAILS

SHEET NO:

T605

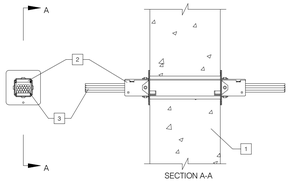


UL SYSTEM NO. C-AJ-1090
F RATING - 2HR - T RATING - 0 HR
STEEL OR IRON PIPE: 6", EMT 4"
ANNULUS: NOMINAL 11/16"
PUTTY DEPTH: 1"
FORMING MATERIAL: OPTIONAL

UL SYSTEM NO. C-AJ-8055
F RATING - 2HR - T RATING - 0 HR
STEEL OR IRON PIPE: 6", EMT 4"
ANNULUS: 1" TO 6 1/2"
SPECSEAL MORTAR DEPTH: 3 1/2"
SPECSEAL PUTTY PAD: 1 LAYER ENCIRCLING

6 (FIRESTOP) METALLIC PIPE PENETRATIONS - CONCRETE/MASONRY FLOOR

NO SCALE



SYSTEM NO. W-J-3130
F RATING - 2 HR
T RATINGS - 1-1/4 AND 1-3/4 HR

NOTES FOR THIS DETAIL

1. WALL ASSEMBLY - MIN 6 IN. (152 MM) THICK REINFORCED LIGHTWEIGHT OR NORMAL WEIGHT (100-150 PCF OR 1600-2400 KG/M3) CONCRETE WALL. WALL MAY ALSO BE CONSTRUCTED OF ANY UL CLASSIFIED CONCRETE BLOCKS*. OPENING TO BE MAX 2 IN. DIAM OR MAX 1/4 IN. (6 MM) LARGER THAN WIDTH AND HEIGHT DIMENSIONS OF FIRESTOP DEVICE.
2. FIRESTOP DEVICE* - ONE FIRESTOP DEVICE MODULE CONSISTING OF A 1.4 BY 1.4 BY 10-1/2 IN. (36 BY 36 BY 267 MM) LONG GALV STEEL TUBE WITH AN INTUMESCENT MATERIAL LINING. FIRESTOP DEVICE MODULE TO BE INSTALLED IN ACCORDANCE WITH THE ACCOMPANYING INSTALLATION INSTRUCTIONS. THE SPACE BETWEEN THE FIRESTOP DEVICE MODULE AND THE PERIPHERY OF THE OPENING SHALL BE MIN 0 IN. (0 MM, POINT CONTACT) TO MAX 1/8 IN. (3.2 MM). FIRESTOP DEVICE MODULE(S) SECURED IN PLACE BY MEANS OF STEEL WALL PLATES INSTALLED WITH GASKETING MATERIAL SUPPLIED WITH PRODUCT. STEEL WALL PLATES INSTALLED ON BOTH SIDES OF WALL AND SECURED TO EACH DEVICE BY MEANS OF STEEL SET SCREWS PROVIDED WITH DEVICE. THE FIRESTOP DEVICE MODULE IS TO BE INSTALLED WITH ENDS PROJECTING AN EQUAL DISTANCE BEYOND EACH SURFACE OF THE WALL ASSEMBLY.
3. CABLES - WITHIN THE LOADING AREA FOR EACH FIRESTOP DEVICE MODULE, THE CABLES MAY REPRESENT A 0 TO 100 PERCENT VISUAL FILL. CABLE FILL TO BE DISTRIBUTED AT A UNIFORM HEIGHT ACROSS THE WIDTH OF THE FIRESTOP DEVICE MODULE. CABLES TO BE RIGIDLY SUPPORTED ON BOTH SIDES OF THE WALL ASSEMBLY. ANY COMBINATION OF THE FOLLOWING TYPES OF CABLES MAY BE USED:

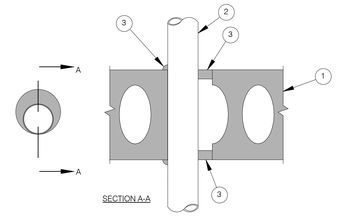
   A. MAX FOUR PAIR NO. 22 AWG (OR SMALLER) COPPER CONDUCTOR DATA CABLE WITH POLYVINYL CHLORIDE (PVC) OR PLENUM RATED JACKETING AND INSULATION.

   C. MAX RG/U COAXIAL CABLE WITH FLUORINATED ETHYLENE INSULATION AND JACKETING.

   D. FIBER OPTIC CABLE WITH POLYVINYL CHLORIDE (PVC) OR POLYETHYLENE (PE) JACKET AND INSULATION HAVING A MAX DIAM OF 1/4 IN. (6 MM). THE T RATING IS 1-1/4 HR OR 1-3/4 HR.

4 TYPICAL 2-HOUR WALL TELECOM CABLE FIRE STOP (CONCRETE)

NO SCALE



System No. F-A-1011
F Rating - 2 Hr
T Rating - 2 Hr

NOTES FOR THIS DETAIL

1. FLOOR OR WALL ASSEMBLY - MIN 6 IN. THICK UL CLASSIFIED HOLLOW-CORE **PRECAST CONCRETE UNITS*** . FLOOR MAY ALSO BE CONSTRUCTED OF ANY MIN 6 IN. THICK REINFORCED LIGHTWEIGHT OR NORMAL WEIGHT (100-150 PCF) CONCRETE. MAX DIAM OF OPENING IS 2 IN.

SEE **PRECAST CONCRETE UNITS** (CFTV) CATEGORY IN THE FIRE RESISTANCE DIRECTORY FOR NAMES OF MANUFACTURERS.

2. THROUGH PENETRANTS - ONE METALLIC PIPE, CONDUIT OR TUBING TO BE INSTALLED EITHER CONCENTRICALLY OR ECCENTRICALLY WITHIN THE FIRESTOP SYSTEM. PIPE, CONDUIT OR TUBING TO BE RIGIDLY SUPPORTED ON BOTH SIDES OF FLOOR ASSEMBLY. THE ANNULAR SPACE BETWEEN PIPE, CONDUIT OR TUBING AND PERIPHERY OF OPENING SHALL BE MIN OF 0 IN. (POINT CONTACT) TO MAX 7/8 IN. THE FOLLOWING TYPES AND SIZES OF METALLIC PIPES, CONDUITS OR TUBINGS MAY BE USED:

A. **STEEL PIPE** - NOM 1 IN. DIAM (OR SMALLER) SCHEDULE 5 (OR HEAVIER) STEEL PIPE.
B. **CONDUIT** - NOM 1 IN. DIAM (OR SMALLER) STEEL ELECTRICAL METALLIC TUBING OR STEEL CONDUIT.
C. **COPPER TUBING** - NOM 1 IN. DIAM (OR SMALLER) TYPE L (OR HEAVIER) COPPER TUBE.
D. **COPPER PIPE** - NOM 1 IN. DIAM (OR SMALLER) REGULAR (OR HEAVIER) COPPER PIPE.

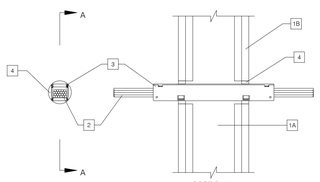
3. FILL,VOID OR CAVITY MATERIALS* - CAULK OR SEALANT - MIN 1/2 IN. THICKNESS OF FILL MATERIAL APPLIED WITHIN ANNULUS, FLUSH WITH EACH SURFACE OF FLOOR. MIN 1/2 IN. DIAM BEAD OF CAULK OR SEALANT APPLIED TO THE PENETRANT/CONCRETE INTERFACE AT THE POINT CONTACT LOCATION ON BOTH SIDES OF FLOOR.

3M COMPANY - CP 25WB+ CAULK OR FB-3000 WT SEALANT.

*BEARING THE UL CLASSIFICATION MARK

2 TYPICAL 2-HOUR WALL/FLOOR FIRE STOPPING (CONCRETE)

NO SCALE



SYSTEM NO. W-L-3256
F RATINGS-1 AND 2 HR
T RATINGS-1, 1-1/4 AND 1-3/4 HR

NOTES FOR THIS DETAIL

1. WALL ASSEMBLY - THE 1 OR 2 HR FIRE-RATED GYPSUM BOARD/STUD WALL ASSEMBLY SHALL BE CONSTRUCTED OF THE MATERIALS AND IN THE MANNER DESCRIBED WITHIN THE INDIVIDUAL U300 OR U400 SERIES WALL OR PARTITION DESIGNS IN THE UL FIRE RESISTANCE DIRECTORY AND SHALL INCORPORATE THE FOLLOWING CONSTRUCTION FEATURES:

   A. STUDS - WALL FRAMING SHALL CONSIST OF EITHER WOOD STUDS OR STEEL CHANNEL STUDS. WOOD STUDS TO CONSIST OF NOM 2 BY 4 IN. (51 BY 102 MM) LUMBER SPACED MAX 16 IN. (406 MM) OC. STEEL STUDS TO BE MIN 3-1/2 IN. (89 MM) WIDE AND SPACED MAX 24 IN. (610 MM) OC.

   B. GYPSUM BOARD* - THICKNESS, TYPE, NUMBER OF LAYERS AND FASTENERS AS SPECIFIED IN THE INDIVIDUAL WALL AND PARTITION DESIGN. OPENING IN GYPSUM BOARD TO ACCOMMODATE FIRESTOP DEVICE TO BE MAX 3 IN. (76 MM) WIDE BY MAX 2-1/2 IN. (64 MM) HIGH, OR NOM 2 IN. (51 MM) DIAMETER. THE HOURLY F RATING OF THE FIRESTOP SYSTEM IS DEPENDENT UPON THE HOURLY RATING OF THE WALL IN WHICH IT IS INSTALLED.
2. CABLES - WITHIN THE LOADING AREA FOR EACH FIRESTOP DEVICE MODULE, THE CABLES MAY REPRESENT A 0 TO 100 PERCENT VISUAL FILL. CABLE FILL TO BE DISTRIBUTED AT A UNIFORM HEIGHT ACROSS THE WIDTH OF THE FIRESTOP DEVICE MODULE. CABLES TO BE RIGIDLY SUPPORTED ON BOTH SIDES OF THE WALL ASSEMBLY. ANY COMBINATION OF THE FOLLOWING TYPES OF CABLES MAY BE USED:

   A. MAX FOUR PAIR NO. 22 AWG (OR SMALLER) COPPER CONDUCTOR DATA CABLE WITH POLYVINYL CHLORIDE (PVC) OR PLENUM RATED JACKETING AND INSULATION.

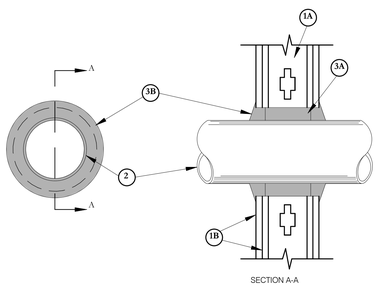
   B. MAX RG/U COAXIAL CABLE WITH FLUORINATED ETHYLENE INSULATION AND JACKETING.

   C. FIBER OPTIC CABLE WITH POLYVINYL CHLORIDE (PVC) OR POLYETHYLENE (PE) JACKET AND INSULATION HAVING A MAX DIAM OF 1/4 IN. (6 MM). THE T RATING IS 1 HR AND 1-3/4 HR IN 1 HR AND 2 HR RATED WALLS, RESPECTIVELY, WHEN NO CABLES ARE INSTALLED IN FIRESTOP DEVICE. THE T RATING IS 1 HR AND 1-1/4 HR IN 1 HR AND 2 HR RATED WALLS, RESPECTIVELY, WHEN CABLES ARE INSTALLED IN FIRESTOP DEVICE.
3. FIRESTOP DEVICE* - FIRESTOP DEVICE CONSISTS OF A 1.4 BY 1.4 BY 10-1/2 IN. (36 BY 36 BY 267 MM) LONG GALV STEEL TUBE WITH AN INTUMESCENT MATERIAL LINING. FIRESTOP DEVICE TO BE INSTALLED IN ACCORDANCE WITH THE ACCOMPANYING INSTALLATION INSTRUCTIONS. PRIOR TO INSTALLATION WITHIN WALL, LID REMOVED FROM DEVICE TO CAPTURE GROUPED CABLES. AFTER INSTALLATION OF CABLES, LID REPLACED AND SNAPPED INTO PLACE. DEVICE SLID ALONG CABLES INTO WALL SUCH THAT LID IS ON TOP AND ENDS PROJECT AN EQUAL DISTANCE FROM THE APPROXIMATE CENTERLINE OF THE WALL ASSEMBLY. THE SPACE BETWEEN THE DEVICE AND THE PERIPHERY OF THE OPENING SHALL BE MIN 0 IN. (0 MM, POINT CONTACT) TO MAX 1/2 IN. (13 MM).
4. FILL, VOID OR CAVITY MATERIAL* - SEALANT - MIN 5/8 IN. (16 MM) THICKNESS OF SEALANT TO BE APPLIED IN ANNULAR SPACE BETWEEN FIRESTOP DEVICE AND PERIPHERY OF OPENING ON EACH SIDE OF WALL ASSEMBLY. NOM 3/8 IN. (10 MM) DIAM BEAD OF FILL MATERIAL APPLIED AT THE POINT CONTACT LOCATION BETWEEN THE FIRESTOP DEVICE AND GYPSUM BOARD WALL ON BOTH SIDES OF THE WALL ASSEMBLY. SPECIFIED TECHNOLOGIES INC - SPECSEAL 100, 101, 102, 105, 120 OR 129 SEALANT, SPECSEAL LCI SEALANT, SPECSEAL LC150 SEALANT OR PENSIL 300 SILICONE SEALANT

5 TYPICAL 1-HOUR/2-HOUR WALL FIRE STOP (GYPSUM)

NO SCALE

System No. W-L-1009
F Rating — 2 Hr
T Rating — 0 Hr
L Rating At Ambient — Less Than 1 CFM/sq ft
L Rating At 400 F — Less Than 1 CFM/sq ft



NOTES FOR THIS DETAIL

1. WALL ASSEMBLY — THE FIRE RATED GYPSUM WALLBOARD/STUD WALL ASSEMBLY SHALL BE CONSTRUCTED OF THE MATERIALS AND IN THE MANNER SPECIFIED IN THE INDIVIDUAL U300 OR U400 SERIES WALL AND PARTITION DESIGNS IN THE UL FIRE RESISTANCE DIRECTORY AND SHALL INCLUDE THE FOLLOWING CONSTRUCTION FEATURES:

   A. STUDS — WALL FRAMING MAY CONSIST OF EITHER WOOD STUDS OR STEEL CHANNEL STUDS. WOOD STUDS TO CONSIST OF NOM 2 BY 4 IN. (51 BY 104 MM) LUMBER SPACED 16 IN. (406 MM) OC. STEEL STUDS TO BE MIN 2-1/2 IN. (64 MM) WIDE AND SPACED MAX 24 IN. (610 MM) OC.
   B. GYPSUM BOARD* — TWO LAYERS OF NOM 5/8 IN. (16 MM) THICK GYPSUM WALLBOARD, AS SPECIFIED IN THE INDIVIDUAL WALL AND PARTITION DESIGN. MAX DIAM OF OPENING IS 14-1/4 IN. (362 MM).

2. THROUGH PENETRANTS — ONE METALLIC PIPE, CONDUIT OR TUBING TO BE CENTERED WITHIN THE FIRESTOP SYSTEM. PIPE, CONDUIT OR TUBING TO BE RIGIDLY SUPPORTED ON BOTH SIDES OF WALL ASSEMBLY. THE FOLLOWING TYPES AND SIZES OF METALLIC PIPES, CONDUITS OR TUBINGS MAY BE USED:

   A. STEEL PIPE — NOM 12 IN. (305 MM) DIAM (OR SMALLER) SCHEDULE 10 (OR HEAVIER) STEEL PIPE. A NOM ANNULAR SPACE OF 3/4 IN. (19 MM) IS REQUIRED WITHIN THE FIRESTOP SYSTEM.
   B. STEEL PIPE — NOM 4 IN. (102 MM) DIAM (OR SMALLER) SCHEDULE 5 (OR HEAVIER) STEEL PIPE. A NOM ANNULAR SPACE OF 3/4 IN. (19 MM) IS REQUIRED WITHIN THE FIRESTOP SYSTEM.
   C. CONDUIT — NOM 4 IN. (102 MM) DIAM (OR SMALLER) STEEL ELECTRICAL METALLIC TUBING OR STEEL CONDUIT. A NOM ANNULAR SPACE OF 3/4 IN. (19 MM) IS REQUIRED WITH THE FIRESTOP SYSTEM.
   D. COPPER TUBING — NOM 2 IN. (51 MM) DIAM (OR SMALLER) TYPE L (OR HEAVIER) COPPER TUBING. A NOM ANNULAR SPACE OF 3/4 IN. (19 MM) IS REQUIRED WITHIN THE FIRESTOP SYSTEM.

3. FIRESTOP SYSTEM — THE FIRESTOP SYSTEM SHALL CONSIST OF THE FOLLOWING:

   A. PACKING MATERIAL — MIN 3 IN. (76 MM) THICKNESS OF MIN 4 PCF (64 KG/M3) MINERAL WOOL BATT INSULATION FIRMLY PACKED INTO OPENING AS A PERMANENT FORM. PACKING MATERIAL TO BE RECESSED FROM BOTH SURFACES OF WALL AS REQUIRED TO ACCOMMODATE THE REQUIRED THICKNESS OF FILL MATERIAL.
   B. FILL, VOID OR CAVITY MATERIAL* — SEALANT — MIN 1 IN. (25 MM) THICKNESS OF FILL MATERIAL APPLIED WITHIN THE ANNULUS ON BOTH SURFACES OF WALL. ADDITIONAL FILL MATERIAL TO BE INSTALLED SUCH THAT A MIN 1/4 IN. (6 MM) CROWN IS FORMED AROUND THE PENETRATING ITEM.
   C. 3M COMPANY — TYPES FB-1000 NS, FB-2000 OR FB-2000+.

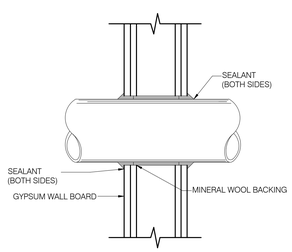
*BEARING THE UL CLASSIFICATION MARK

3 TYPICAL 1-HOUR/2-HOUR WALL FIRE STOPPING (GYPSUM)

NO SCALE

NOTES FOR THIS DETAIL

1. F RATING: 2 HOURS
   T RATING: 0 HOURS
2. STEEL PIPE: 6" COPPER PIPE OR TUBING: 4"
3. SEALANT DEPTH: 1/4" (WITHIN ANNULUS) + 1/4" CROWN
4. FORMING MATERIAL: NOM 4 PCF MINERAL WOOL
5. TIGHTLY PACKED TO A 1" DEPTH



1 UL SYSTEM W-L-1033

NO SCALE

STATE:

ARCHITECT:

architecture
westbergwhite
14471 CHAMBERS RD, SUITE 210
TUSTIN, CA 92780
(714) 508-1780 508-1790 FAX

CONSULTANT:

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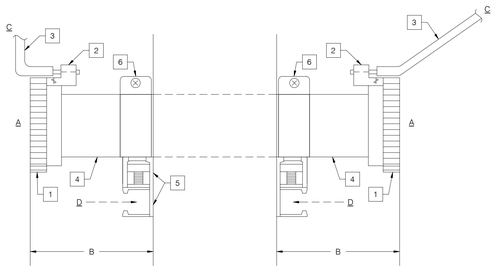
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SHEET NO:

T606



DEFINITION: SLEEVE IS ANY CONDUIT LESS THAN 48" THAT SHALL REQUIRE BRACING ON BOTH SIDES OF PENETRATION.

GENERAL NOTES

A. ALL SLEEVES REQUIRE FIRE STOP U.O.N.

B. THIS DISTANCE IS MANDATED BY THE RATING OF THE BARRIER BEING PENETRATED.

C. TELECOMMUNICATIONS BONDING CONDUCTOR (TBC) SHALL BE A MINIMUM #6 STRAND CONDUCTOR. JACKET OF TBC SHALL BE MANDATED BY THE ENVIRONMENT IT WILL BE INSTALLED IN.

D. U-CHANNEL ATTACHMENT SHALL BE LOCATED AT A STUD OR FOR THROUGH PENETRATIONS THIS CAN BE ATTACHED VIA A 3/8" THROUGH BOLT.

NOTES

1. NON-SNAG BUSHING
2. CONDUIT BOND RING THAT SHALL ACCOMMODATE A MINIMUM #6 AWG TBC.
3. TBC
4. SLEEVE
5. 2" U-CHANNEL
6. CONDUIT CLAMP

6 CONDUIT - SLEEVE PENETRATION

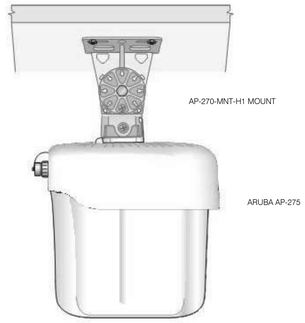
NO SCALE



		NUMBER OF OPENINGS				CTN. QTY
PART NO.	SIZE	4	3	2	1	
E998J	2"	-	.995	.745	.529	5

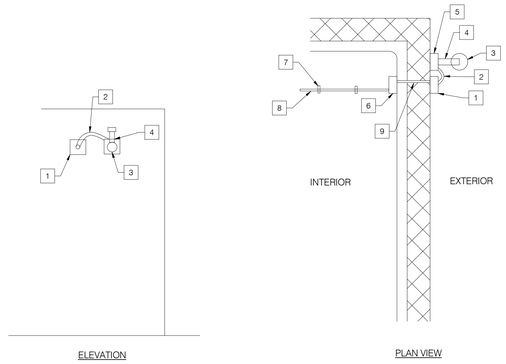
4 WEATHERHEAD SERVICE ENTRANCE FITTING SCHEDULE

NO SCALE



2 ACCESS POINT MOUNTING BRACKET

NO SCALE



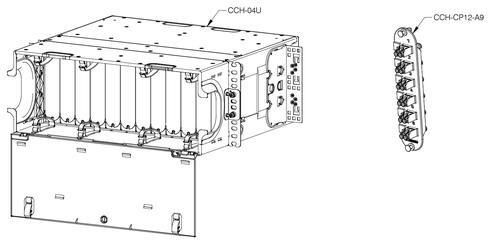
ELEVATION PLAN VIEW

DETAIL NOTES

1. PROVIDE (1) 5S X 2-7/8" DEEP WEATHER RATED BACK-BOX W/ 2-GANG GASKETED RING AND RE-ENTERABLE HINGED COVER.
2. PROVIDE ½" SEAL-TIGHT (REQUIRES UV RATED) CONNECTION FROM BACK-BOX TO END DEVICE MOUNTING BACK-BOX W/ SEAL-TIGHT TO COMPRESSION FITTING CONNECTIONS TO ACHIEVE A WEATHER TIGHT PATHWAY CONNECTION.
3. INSTALL OPCI END DEVICE THAT SHALL BE INSTALLED PER MANUFACTURER'S REQUIREMENTS AND MEET LBCC STANDARD INSTALLATION TO MEET EXTENDED WARRANTY REQUIREMENTS.
4. INSTALL CPCI END-DEVICE MOUNTING ARM THAT SHALL MEET MANUFACTURER INSTALLATION REQUIREMENTS FOR THE SEISMIC ZONE THE END DEVICE SHALL BE INSTALLED IN.
5. ALL MOUNTING ARMS AND ATTACHMENTS SHALL BE A SINGLE-MANUFACTURER SOLUTION OR AN APPROVED CLIENT "ATTACHMENT-ASSEMBLY", THAT MEETS THE SEISMIC REQUIREMENTS FOR THE INSTALLATION AREA.
6. PROVIDE 5S X 2-7/8" DEEP BACK-BOX. PROVIDE A 1" SLEEVE THROUGH WALL (BARRIER) TO WEATHER-RATED 5S BACK-BOX. EXTERIOR OF SLEEVE INSIDE THE PENETRATION SHALL BE SEALED WITH A LBCC APPROVED MOISTURE-BLOCKING MATERIAL RECOMMENDED FOR THE APPLICATION IT SHALL BE USED FOR.
7. PROVIDE EMT CONDUIT CLAMPS SPACED A MAXIMUM OF 4' INCREMENTS, AT ALL CHANGES OF DIRECTION (MORE THAN 45°), WITHIN 1' OF CONDUIT TERMINATION. SUPPORT CONDUIT CLAMP WITH A 3/8" TREADED-ROD ATTACHED TO THE UNDERSIDE OF THE DECK ABOVE VIA A 3/8" X 5-1/2" WEDGE-BOLT AND A FEMALE/FEMALE 3/8" THREADED COUPLING.
8. PROVIDE (1) 1-1/4" CONDUIT SUPPORTED EVERY 4' MAXIMUM INCREMENTS AND WITHIN 1' OF ALL J-BOX, CABLE TRAY, WAO CONDUIT STUB-UP, PULL-BOX OR CHANGE OF DIRECTION (MORE THAN 45°), ETC. CONDUIT SHALL BE FITTED WITH BONDING RING AT THE CABLE-TRAY, END-OF-LINE PULL-BOX, IDF TERMINAL END, ETC. AND ALL CONDUIT TERMINATIONS SHALL BE FITTED WITH NON-SNAG BUSHINGS.
9. PROVIDE A 1" SLEEVE PENETRATING THE OUTSIDE WALL. CONDUIT PENETRATION SHALL BE FITTED WITH A LBCC APPROVED MOISTURE BLOCKING COMPOUND PRIOR TO INSTALLATION OF THE SLEEVE PRIOR TO INSTALLATION OF THE BACK-BOXES THAT SHALL BE FITTED WITH A CONDUIT CONNECTOR THAT SHALL ATTACH TO THE SLEEVE VIA AN APPROVED CONDUIT FITTING.

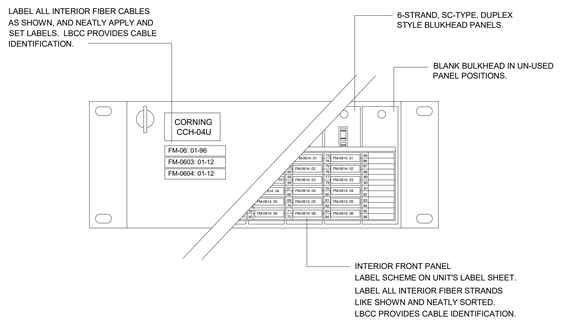
5 OUTSIDE END DEVICE DETAIL

NO SCALE



3 LBCC IT STANDARD 4RU FDC

NO SCALE



2. UNIT SHOWN IS SYSTIMAX 1000 G2 MODEL WITH 6-STRAND BULKHEAD FIBER PANELS, LBCC STANDARD.
3. EACH PANEL CONTAINS THE SAME CABLE TYPE, EITHER MULTI-MODE (CAN INCLUDE 50UM) OR SINGLE-MODE, BUT NEVER MIXED MODE TYPES.

1 FIBER PATCH PANEL LABEL SCHEME, 96-PORT UNIT

NO SCALE

STATE:

ARCHITECT:

architecture
westbergwhite
14471 CHAMBERS RD, SUITE 210
TUSTIN, CA 92780
(714) 508-1780 508-1790 FAX

CONSULTANT:

P2S ENG
Long Beach | Los Angeles
San Diego | San Jose
p2sinc.com

MARK HENDERSON No. E22361 ELECTRICAL STATE OF CALIFORNIA

PROJECT NAME:

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KINESIOLOGY LABS and AQUATIC CENTER
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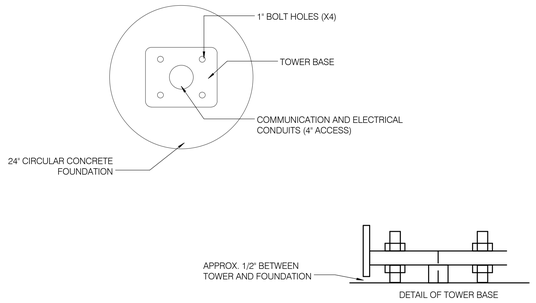
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SHEET DESCRIPTION:
DETAILS

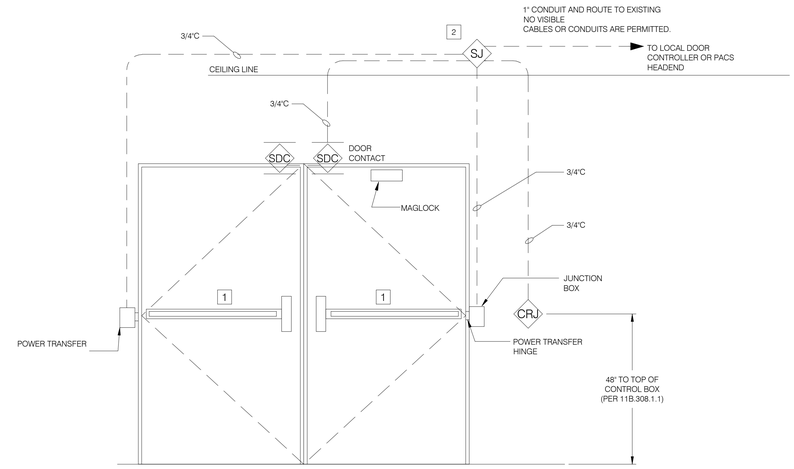
SHEET NO:

T607



4 EMERGENCY PHONE ANCHOR BOLT MOUNTING DETAIL

NO SCALE



LEGEND

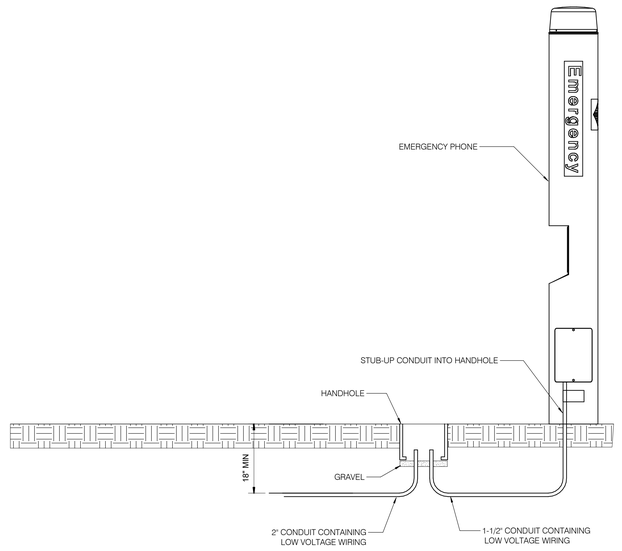
SYMBOL	DESCRIPTION
SDC	SECURITY DOOR CONTACT.
SJ	SECURITY JUNCTION BOX 4-11/16" SQ.
CRJ	CARD READER JUNCTION BOX 4"SQ. WITH SINGLE GANG MUD RING AND STAINLESS STEEL COVER.

NOTES

1. PANIC/EXIT DEVICE WITH INTEGRAL REQUEST TO EXIT FUNCTIONALITY
2. CONTRACTOR SHALL PROVIDE AND INSTALL A CATEGORY 6A CABLE FROM NEAREST IDF TO THIS BOX WITH A 3 METER SLACK LOOP.

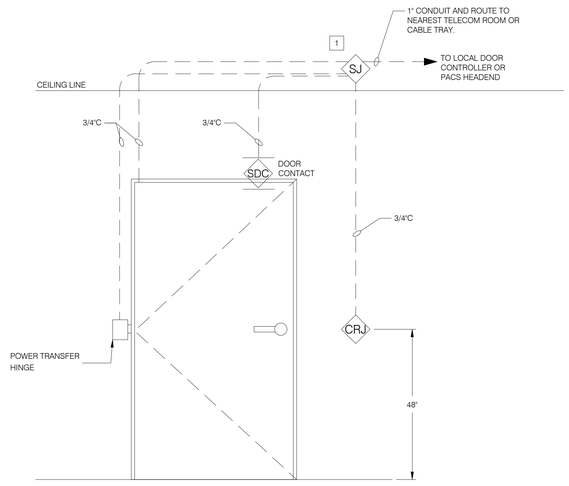
2 ELECTRIFIED LOCKSET W/ POWER TRANSFER HINGE - DOUBLE DOOR

NO SCALE



3 EMERGENCY PHONE CONDUIT PATH

SCALE: NONE



LEGEND

SYMBOL	DESCRIPTION
SDC	SECURITY DOOR CONTACT.
SJ	SECURITY JUNCTION BOX 4-11/16" SQ.
CRJ	CARD READER JUNCTION BOX 4"SQ. WITH SINGLE GANG MUD RING AND STAINLESS STEEL COVER.

NOTES

1. CONTRACTOR SHALL PROVIDE AND INSTALL A CATEGORY 6A CABLE FROM NEAREST IDF TO THIS BOX WITH A 3 METER SLACK LOOP.

1 ELECTRIFIED LOCKSET W/ POWER TRANSFER HINGE - SINGLE DOOR

NO SCALE

STATE:

ARCHITECT:

architecture
westbergwhite
14471 CHAMBERS RD, SUITE 210
TUSTIN, CA 92780
(714) 508-1780 508-1790 FAX

CONSULTANT:

P2S ENG
Long Beach | Los Angeles
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p2sinc.com

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LONG BEACH CITY COLLEGE
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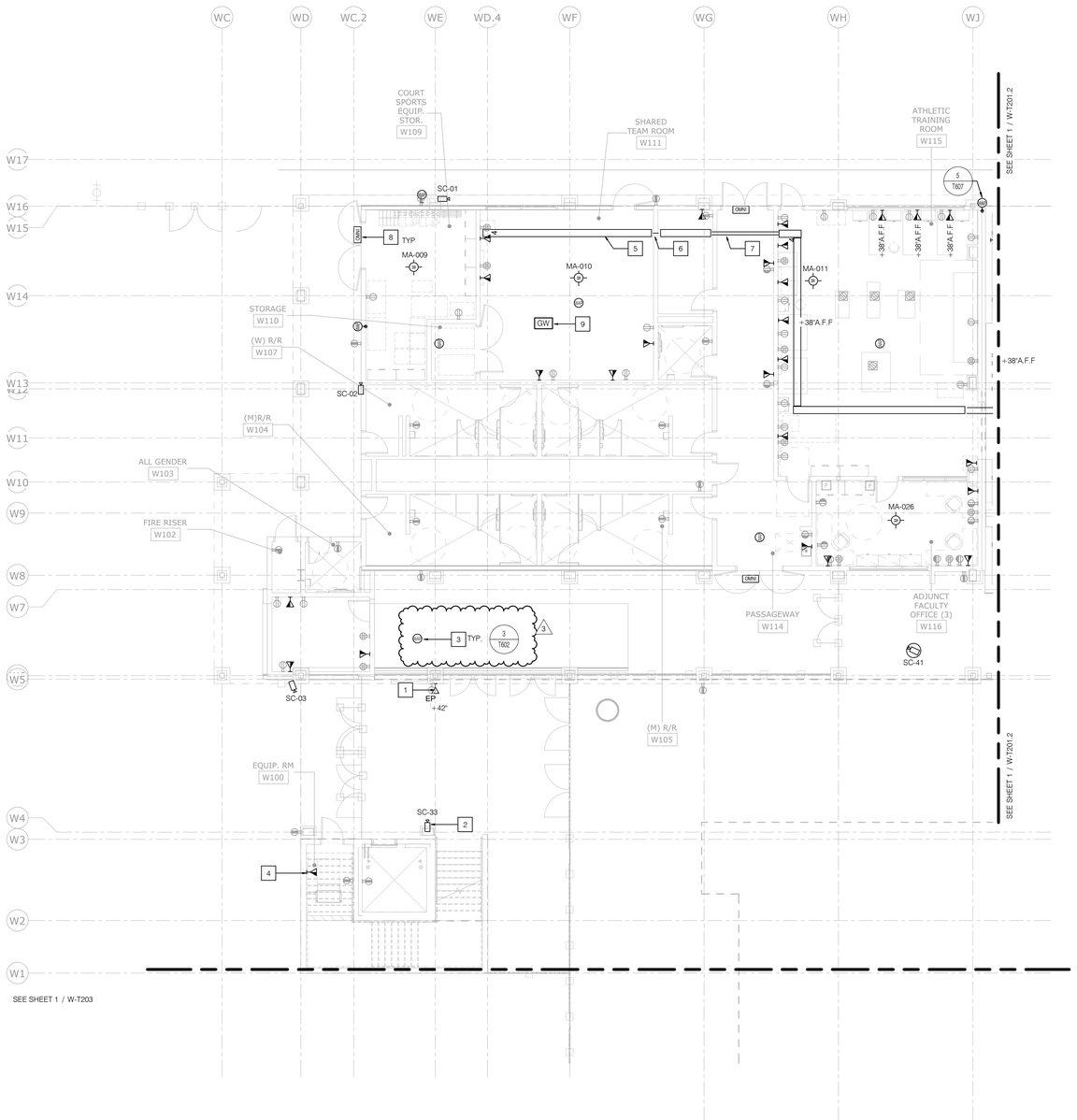
No.	Rev. Date	Description
2	11/25/19	Addendum 02

JOB NO: 16042.01
DATE: 09/18/19
DRAWN: Author
CHECK: Checker
ARCHITECT: PDW
ENGINEER:

SHEET DESCRIPTION:
DETAILS

SHEET NO:

T608



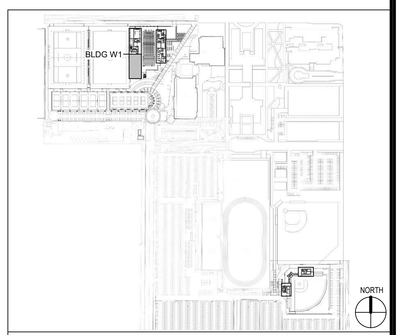
GENERAL NOTES

1. WORK AREA OUTLET(WAO) SHALL CONSIST OF 1-1/4" EMT CONDUIT WITH A 5S*2-7/8" DEEP BACK-BOX WITH A SINGLE GANG MUD-RING.
2. CONDUIT SHALL EXTEND 6" ABOVE FINISHED LAY-IN CEILING.
3. FOR HARD-LID ENVIRONMENT ALL WAO CONDUIT SHALL EXTEND TO NEAREST ACCESS CABLE TRAY OR HOME-RUN TO IDF.
4. ALL WAO SHALL HAVE 1M OF SLACK LOOP COILED AT THE CONDUIT ABOVE THE BACK-BOX.
5. WAO AT COUNTER SHALL BE ABOVE THE FINISHED COUNTER(38" A.F.F FOR KLAC PROGRAM)OR SHALL REQUIRE CONTRACTOR TO PROVIDE CORD PASS-THRU WITH FINISHED GROMMET.
6. ALL HORIZONTAL CABLING AND INNER-DUCT SHALL MEET OR EXCEED CMP RATING.
7. CMP CABLING FOR CAMERA OR WAP SHALL NOT BE PERMITTED TO EXPOSED TO DIRECT SUNLIGHT UNLESS PRIOR APPROVAL IN WRITING AND APPROVED BY GENERAL CONTRACTOR.
8. ALL OSP CONDUITS SHALL START WITH BELL END LEAVING THE MAINTANCE SPACE.
9. ALL OSP CONDUITS SHALL TRANSITION TO RGD FOR LAST STICK PLUS SWEEP UP.
10. ALL CONDUCTIVE CONDUIT ENDS SHALL BE FITTED WITH BONDING RING.
11. ALL CONDUITS SHALL HAVE NON-SNAG BUSHINGS AND FITTED WITH COTTON MEASURING CORD (AKA MULE TAPE).
12. ALL "Y" PULLBOXES SHALL HAVE A COMMON BONDING BUS BY CONTRACTOR.
13. ALL CAT6A CABLES WITH END TERMINATED PLUGS SHALL BE REQUIRED TO BE TESTED WITH TESTOR CABLES OF MTPL TEST.
14. ALL TRENCH LINES SHALL BE ENCASED, FULL-LENGTH LOCATION TAPE, AND LOCATORS PLACED AT 10' INCREMENTS.
15. ALL END DEVICE CABLES SHALL BE TERMINATED TO 4 Tii PRIMARY PROTECTOR BEFORE CONNECTING TO NETWORK PORT.
16. FURNISH AND INSTALL (1) 3-CELL FABRIC INNER DUCTS IN ALL CONDUITS WITH BACK BONE.
17. CABLING SHALL BE INSTALLED BY A CONTRACTOR WITH CURRENT COMMSCOPE CERTIFICATION TO ADD THIS PROJECT TO THE CURRENT 25 YEAR EXTENDED WARRANTY.
18. ANY LOW VOLTAGE BACK BOX WITH 2-GANG MUD RING AT CEILING LEVEL SHALL BE FLUSH WITH THE FINISHED CEILING.

NOTES

1. FURNISH AND INSTALL BLUE LIGHT PHONE WALL MOUNTED AT ADA HEIGHT. BLUELIGHT BACKBOX WILL NEED TO BE INSET IN WALL (3)
2. FURNISH AND INSTALL OPCI INFRASTRUCTURE MULTI-LENS AXIS CAMERA. INFRASTRUCTURE AND CABLING IS OPCI INCLUDE LBCC AND MANUFACTURER INSTALLATION REQUIREMENTS. CAT6A CABLES SHALL BE TERMINATED WITH FIELD TERMINATED JACKS AND TESTED WITH MPTL ADAPTER.
3. FURNISH AND INSTALL CEILING MOUNTED 4S BACKBOX WITH SINGLE-GANG RING AND ARUBA AP MOUNTING BRACKET AND CAT6A PATCH-CORDS FOR OFCI WAP. TERMINATE (2) CAT6A CABLES WITH FIELD TERMINATED JACKS AND TESTED WITH MPTL ADAPTER. (3)
4. PROVIDE AND INSTALL WAO FOR ELEVATOR PHONE. CONTRACTOR SHALL COORDINATE CABLE TERMINATION WITH ELEVATOR CONTROLS CONTRACTOR
5. FURNISH AND INSTALL 12" X 4" CABLE TRAY.
6. FURNISH AND INSTALL 4" SLEEVES.
7. FURNISH AND INSTALL (2) 4" CONDUITS
8. CONTRACTOR SHALL PROVIDE AND INSTALL OMNI LOCK. CONTRACTOR SHALL COORDINATE SELECTION OF SPECIFIC OMNILOCK MODEL REQUIRED WITH DIVISION 8 CONTRACTOR. PROVIDE AND INSTALL INFRASTRUCTURE AS SHOWN IN DETAIL 1/T608 FOR SINGLE DOOR AND 2/T608 FOR DOUBLE DOOR.
9. CONTRACTOR SHALL PROVIDE AND INSTALL GATEWAY PER SPECIFICATIONS. LOCATION OF GATEWAY SHOWN ON DRAWINGS IS DIAGRAMATIC IN NATURE, AND CONTRACTOR SHALL PROVIDE, LOCATE, AND INSTALL A SUFFICIENT NUMBER OF GATEWAYS TO ALLOW FOR FULL SYSTEM OPERATIONS. GATEWAYS SHALL BE CABLED WITH CATEGORY 6A CABLING TO NEAREST IDF. (3)

Scale: 1/8" = 1'-0"



KEYMAP

STATE:

ARCHITECT:

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westbergwhite
14471 CHAMBERS RD, SUITE 210
TUSTIN, CA 92780
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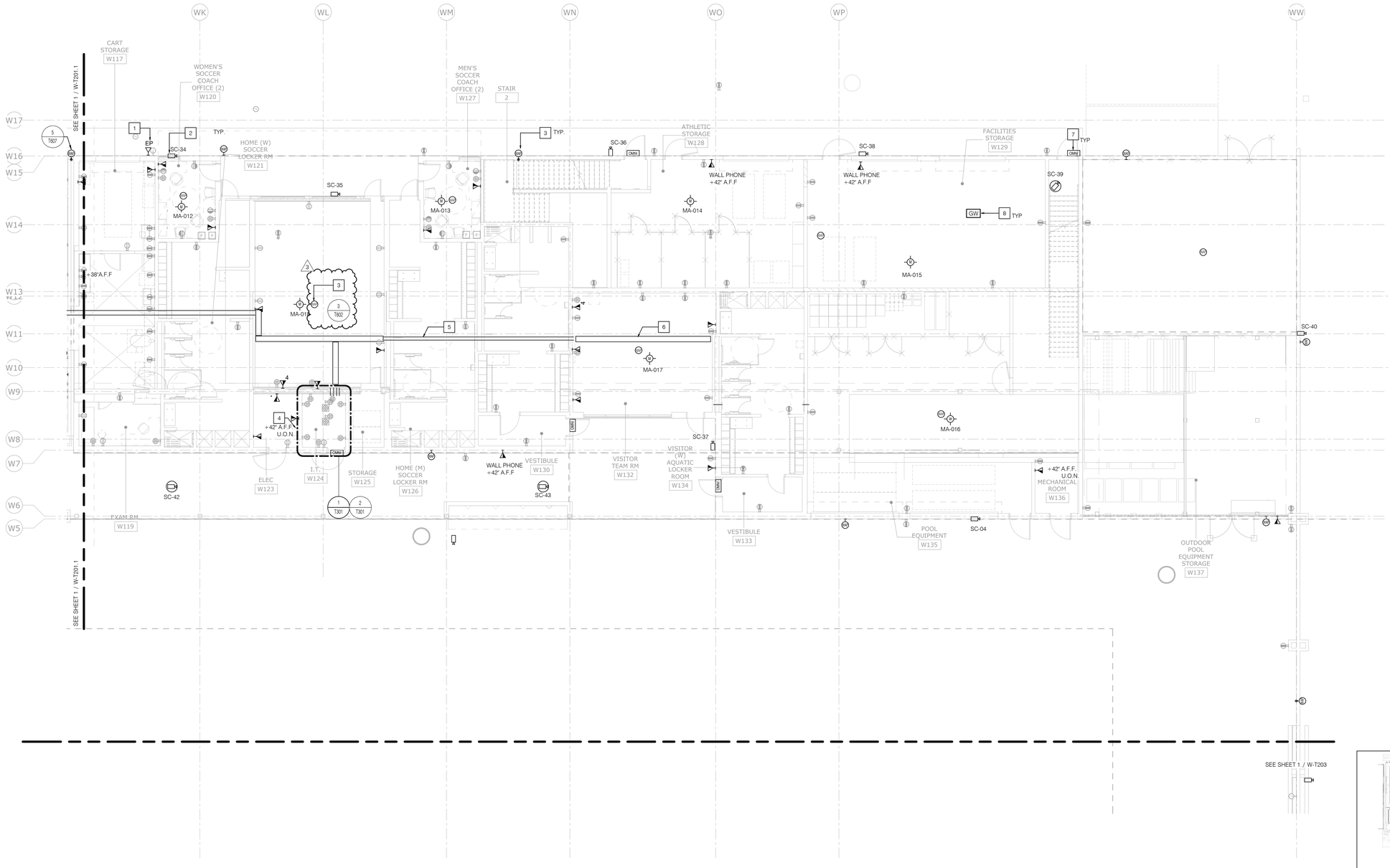
No.	Rev. Date	Description
1	11/07/19	Addendum 01
2	11/25/19	Addendum 02
3	12/16/19	Addendum 03

JOB NO: 16042.01
DATE: 09/18/19
DRAWN: CN
CHECK: JK
ARCHITECT: PDW
ENGINEER:

SHEET DESCRIPTION:
BLDG 'W1', SOUTH END - PARTIAL FIRST FLOOR TELECOM PLAN

SHEET NO:

W-T201.1

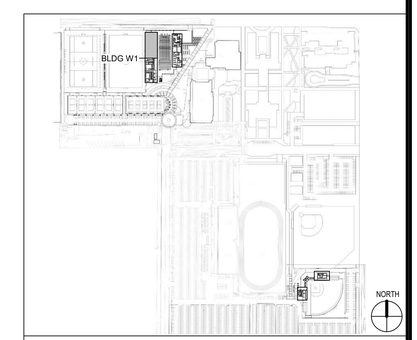


GENERAL NOTES

1. WORK AREA OUTLET(WAO) SHALL CONSIST OF 1-1/4" EMT CONDUIT WITH A 55*2-7/8" DEEP BACK-BOX WITH A SINGLE GANG MUD-RING.
2. CONDUIT SHALL EXTEND 6" ABOVE FINISHED LAY-IN CEILING.
3. FOR HARD-LID ENVIRONMENT ALL WAO CONDUIT SHALL EXTEND TO NEAREST ACCESS CABLE TRAY OR HOME-RUN TO IDF.
4. ALL WAO SHALL HAVE 1M OF SLACK LOOP COILED AT THE CONDUIT ABOVE THE BACK-BOX.
5. WAO AT COUNTER SHALL BE ABOVE THE FINISHED COUNTER(38" A.F.F FOR KLAC PROGRAM)OR SHALL REQUIRE CONTRACTOR TO PROVIDE CORD PASS-THRU WITH FINISHED GROMMET.
6. ALL HORIZONTAL CABLING AND INNER-DUCT SHALL MEET OR EXCEED CMP RATING.
7. CMP CABLING FOR CAMERA OR WAP SHALL NOT BE PERMITTED TO EXPOSED TO DIRECT SUNLIGHT UNLESS PRIOR APPROVAL IN WRITING AND APPROVED BY GENERAL CONTRACTOR.
8. ALL OSP CONDUITS SHALL START WITH BELL END LEAVING THE MAINTANCE SPACE.
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13. ALL CAT6A CABLES WITH END TERMINATED PLUGS SHALL BE REQUIRED TO BE TESTED WITH TESTOR CABLES OF MTPL TEST.
14. ALL TRENCH LINES SHALL BE ENCASED, FULL-LENGTH LOCATION TAPE, AND LOCATORS PLACED AT 10' INCREMENTS.
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NOTES

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4. PROVIDE AND INSTALL O.F. OS2 CONDUIT FOR FA CONTROLLER.
5. PROVIDE AND INSTALL (2) 4" CONDUITS
6. PROVIDE AND INSTALL 12" X 4" CABLE TRAY
7. CONTRACTOR SHALL PROVIDE AND INSTALL OMNI LOCK. CONTRACTOR SHALL COORDINATE SELECTION OF SPECIFIC OMNILOCK MODEL REQUIRED WITH DIVISION 8 CONTRACTOR. PROVIDE AND INSTALL INFRASTRUCTURE AS SHOWN IN DETAIL 1/T608 FOR SINGLE DOOR AND 2/T608 FOR DOUBLE DOOR.
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KEYMAP

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STATE:

ARCHITECT:

architecture
westbergwhite
14471 CHAMBERS RD, SUITE 210
TUSTIN, CA 92780
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KINESIOLOGY LABS and AQUATIC CENTER
4901 EAST CARSON STREET
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CLIENT:

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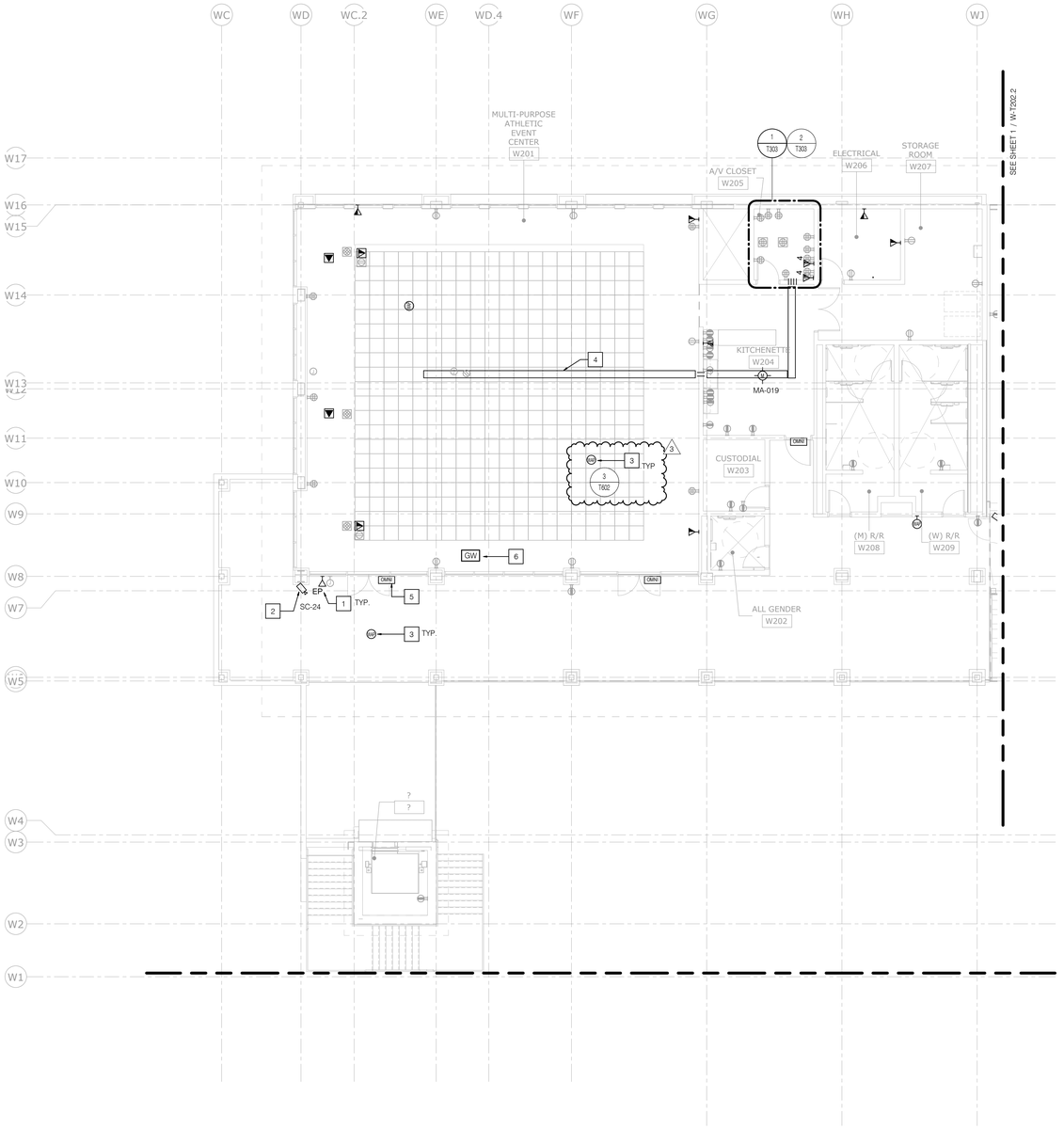
No.	Rev. Date	Description
1	11/07/19	Addendum 01
2	11/25/19	Addendum 02
3	12/16/19	Addendum 03

JOB NO: 16042.01
DATE: 09/18/19
DRAWN: CN
CHECK: JK
ARCHITECT: PDW
ENGINEER:

SHEET DESCRIPTION:
BLDG 'W1', NORTH END - PARTIAL FIRST FLOOR TELECOM PLAN

SHEET NO:

W-T201.2



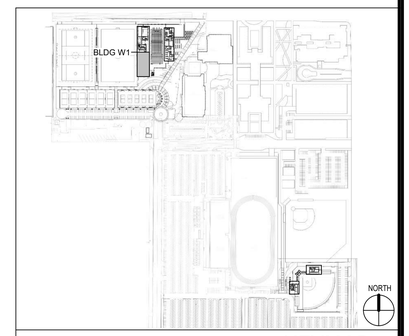
GENERAL NOTES

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NOTES

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14471 CHAMBERS RD, SUITE 210
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No.	Rev. Date	Description
1	11/07/19	Addendum 01
2	11/25/19	Addendum 02
3	12/16/19	Addendum 03

JOB NO: 16042.01

DATE: 09/18/19

DRAWN: CN

CHECK: JK

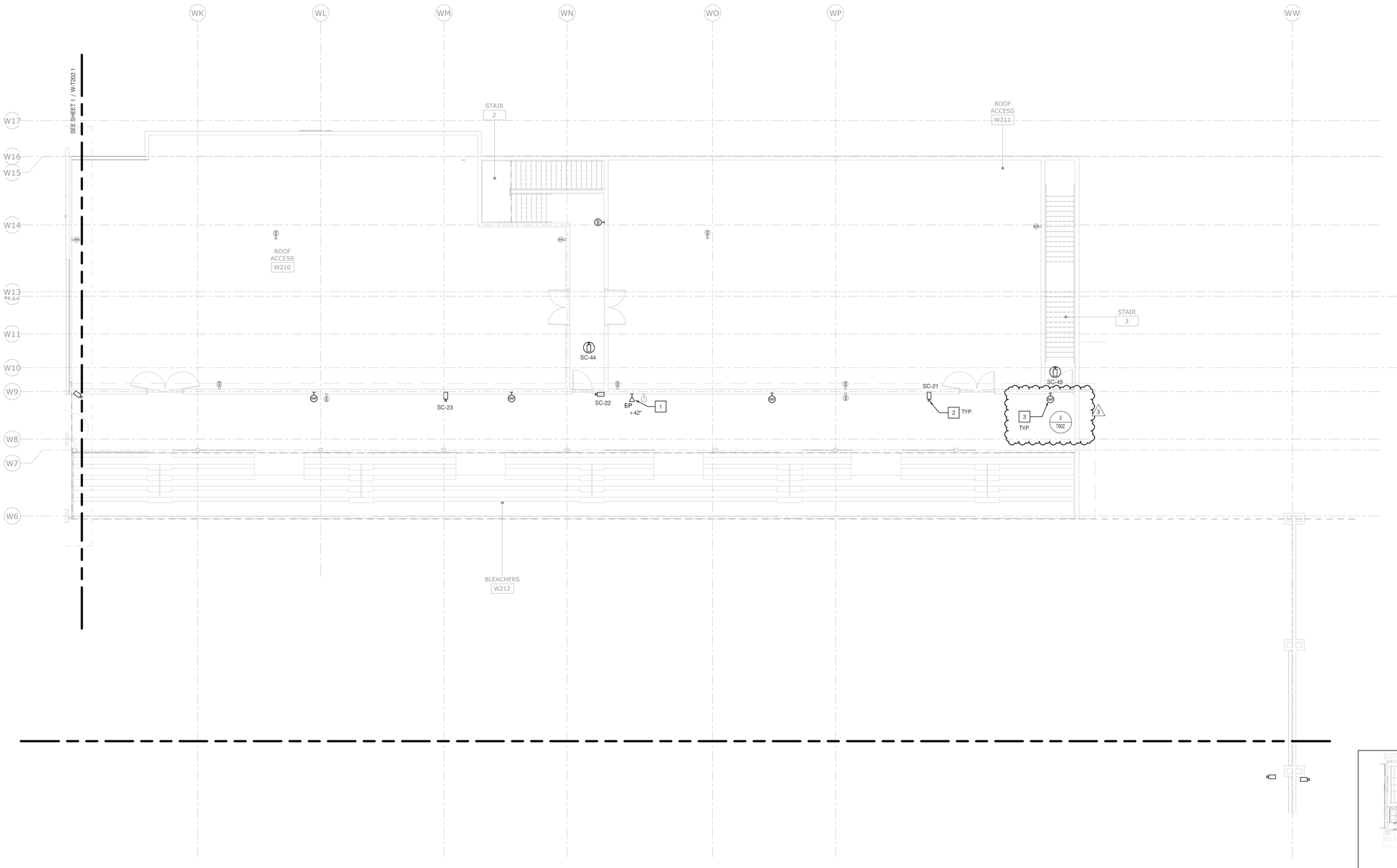
ARCHITECT: PDW

ENGINEER:

SHEET DESCRIPTION:
BLDG 'W1', SOUTH END - PARTIAL SECOND FLOOR TELECOM PLAN

SHEET NO:

W-T202.1

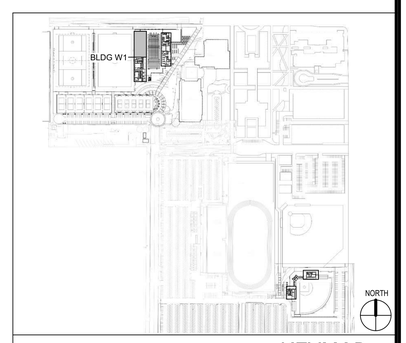


GENERAL NOTES

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NOTES

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KEYMAP

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No.	Rev. Date	Description
3	12/16/19	Addendum 03

JOB NO: 16042.01
DATE: 09/18/19
DRAWN: CN
CHECK: JK
ARCHITECT: PDW
ENGINEER:

SHEET DESCRIPTION:
BLDG 'W1', NORTH END - PARTIAL SECOND FLOOR TELECOM PLAN

SHEET NO:

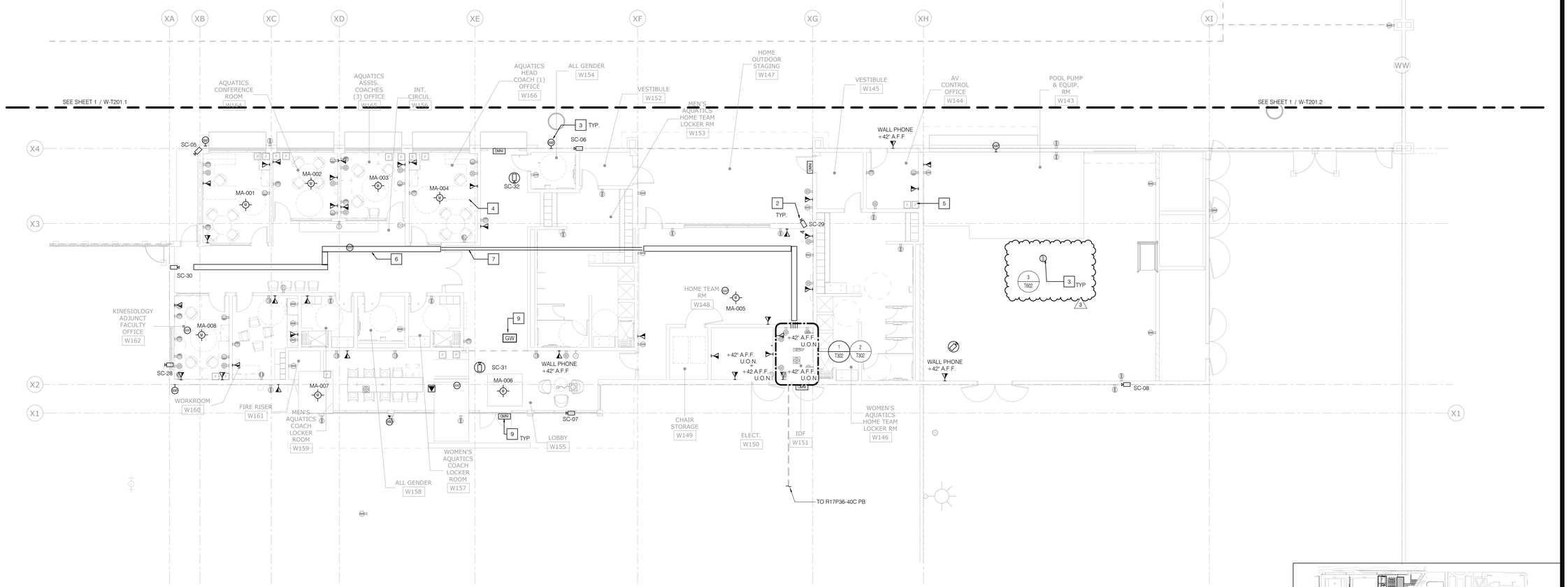
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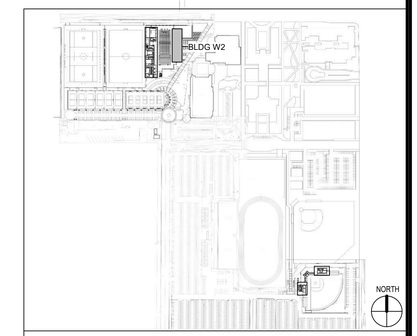
GENERAL NOTES

1. WORK AREA OUTLET(WAO) SHALL CONSIST OF 1-1/4" EMT CONDUIT WITH A 5S*2-7/8" DEEP BACK-BOX WITH A SINGLE GANG MUD-RING.
2. CONDUIT SHALL EXTEND 6" ABOVE FINISHED LAY-IN CEILING.
3. FOR HARD-LID ENVIRONMENT ALL WAO CONDUIT SHALL EXTEND TO NEAREST ACCESS CABLE TRAY OR HOME-RUN TO IDF.
4. ALL WAO SHALL HAVE 1M OF SLACK LOOP COILED AT THE CONDUIT ABOVE THE BACK-BOX.
5. WAO AT COUNTER SHALL BE ABOVE THE FINISHED COUNTER(38" A.F.F FOR KLAC PROGRAM)OR SHALL REQUIRE CONTRACTOR TO PROVIDE CORD PASS-THRU WITH FINISHED GROMMET.
6. ALL HORIZONTAL CABLING AND INNER-DUCT SHALL MEET OR EXCEED CMP RATING.
7. CMP CABLING FOR CAMERA OR WAP SHALL NOT BE PERMITTED TO EXPOSED TO DIRECT SUNLIGHT UNLESS PRIOR APPROVAL IN WRITING AND APPROVED BY GENERAL CONTRACTOR.
8. ALL OSP CONDUITS SHALL START WITH BELL END LEAVING THE MAINTANCE SPACE.
9. ALL OSP CONDUITS SHALL TRANSITION TO RGD FOR LAST STICK PLUS SWEEP UP.
10. ALL CONDUCTIVE CONDUIT ENDS SHALL BE FITTED WITH BONDING RING.
11. ALL CONDUITS SHALL HAVE NON-SNAG BUSHINGS AND FITTED WITH COTTON MEASURING CORD (AKA MULE TAPE).
12. ALL "W" PULLBOXES SHALL HAVE A COMMON BONDING BUS BY CONTRACTOR.
13. ALL CAT6A CABLES WITH END TERMINATED PLUGS SHALL BE REQUIRED TO BE TESTED WITH TESTOR CABLES OF MTPL TEST.
14. ALL TRENCH LINES SHALL BE ENCASED, FULL-LENGTH LOCATION TAPE, AND LOCATORS PLACED AT 10' INCREMENTS.
15. ALL END DEVICE CABLES SHALL BE TERMINATED TO A Tii PRIMARY PROTECTOR BEFORE CONNECTING TO NETWORK PORT.
16. FURNISH AND INSTALL (1) 3-CELL FABRIC INNER DUCTS IN ALL CONDUITS WITH BACK BONE.
17. CABLING SHALL BE INSTALLED BY A CONTRACTOR WITH CURRENT COMMSCOPE CERTIFICATION TO ADD THIS PROJECT TO THE CURRENT 25 YEAR EXTENDED WARRANTY.
18. ANY LOW VOLTAGE BACK BOX WITH 2-GANG MUD RING AT CEILING LEVEL SHALL BE FLUSH WITH THE FINISHED CEILING.

NOTES

1. FURNISH AND INSTALL BLUE LIGHT PHONE WALL MOUNTED AT ADA HEIGHT.
2. FURNISH AND INSTALL OPCI INFRASTRUCTURE MULTI-LENS AXIS CAMERA. INFRASTRUCTURE AND CABLING IS OPCI INCLUDE LBCC AND MANUFACTURER INSTALLATION REQUIREMENTS. CAT6A CABLES SHALL BE TERMINATED WITH FIELD TERMINATED JACKS AND TESTED WITH MPTL ADAPTER.
3. FURNISH AND INSTALL CEILING MOUNTED 4S BACKBOX WITH SINGLE-GANG RING AND ARUBA AP MOUNTING BRACKET AND CAT6A PATCH-CORDS FOR OFCI WAP. TERMINATE (2) CAT6A CABLES WITH FIELD TERMINATED JACKS AND TESTED WITH MPTL ADAPTER.
4. LOCATION OF OWNER PROVIDED CONTRACTOR INSTALLED SCOREBOARD CONTROLLER (SYS-6 HOST).
5. PROVIDE (12) STRAND MM(OM4) (6) STRAND SM(OS2) TO IDF TERMINATE IN WALL OPTICAL FIBER CONTROL.
6. FURNISH AND INSTALL 12" X 4" CABLE TRAY
7. PROVIDE AND INSTALL (2) 4" CONDUITS
8. CONTRACTOR SHALL PROVIDE AND INSTALL OMNI LOCK. CONTRACTOR SHALL COORDINATE SELECTION OF SPECIFIC OMNILOCK MODEL REQUIRED WITH DIVISION 8 CONTRACTOR. PROVIDE AND INSTALL INFRASTRUCTURE AS SHOWN IN DETAIL 1/T608 FOR SINGLE DOOR AND 2/T608 FOR DOUBLE DOOR.
9. CONTRACTOR SHALL PROVIDE AND INSTALL GATEWAY PER SPECIFICATIONS. LOCATION OF GATEWAY SHOWN ON DRAWINGS IS DIAGRAMATIC IN NATURE, AND CONTRACTOR SHALL PROVIDE, LOCATE, AND INSTALL A SUFFICIENT NUMBER OF GATEWAYS TO ALLOW FOR FULL SYSTEM OPERATIONS. GATEWAYS SHALL BE CABLED WITH CATEGORY 6A CABLING TO NEAREST IDF.





KEYMAP

Scale: 1/8" = 1'-0"

STATE:

ARCHITECT:

architecture
westbergwhite
14471 CHAMBERS RD, SUITE 210
TUSTIN, CA 92780
(714) 508-1780 508-1790 FAX

CONSULTANT:

P2S ENG
Long Beach | Los Angeles
San Diego | San Jose
p2sinc.com

PROJECT NAME:

LIBERAL ARTS CAMPUS
KINESIOLOGY LABS and AQUATIC CENTER
4901 EAST CARSON STREET
LONG BEACH, CA 90806

CLIENT:

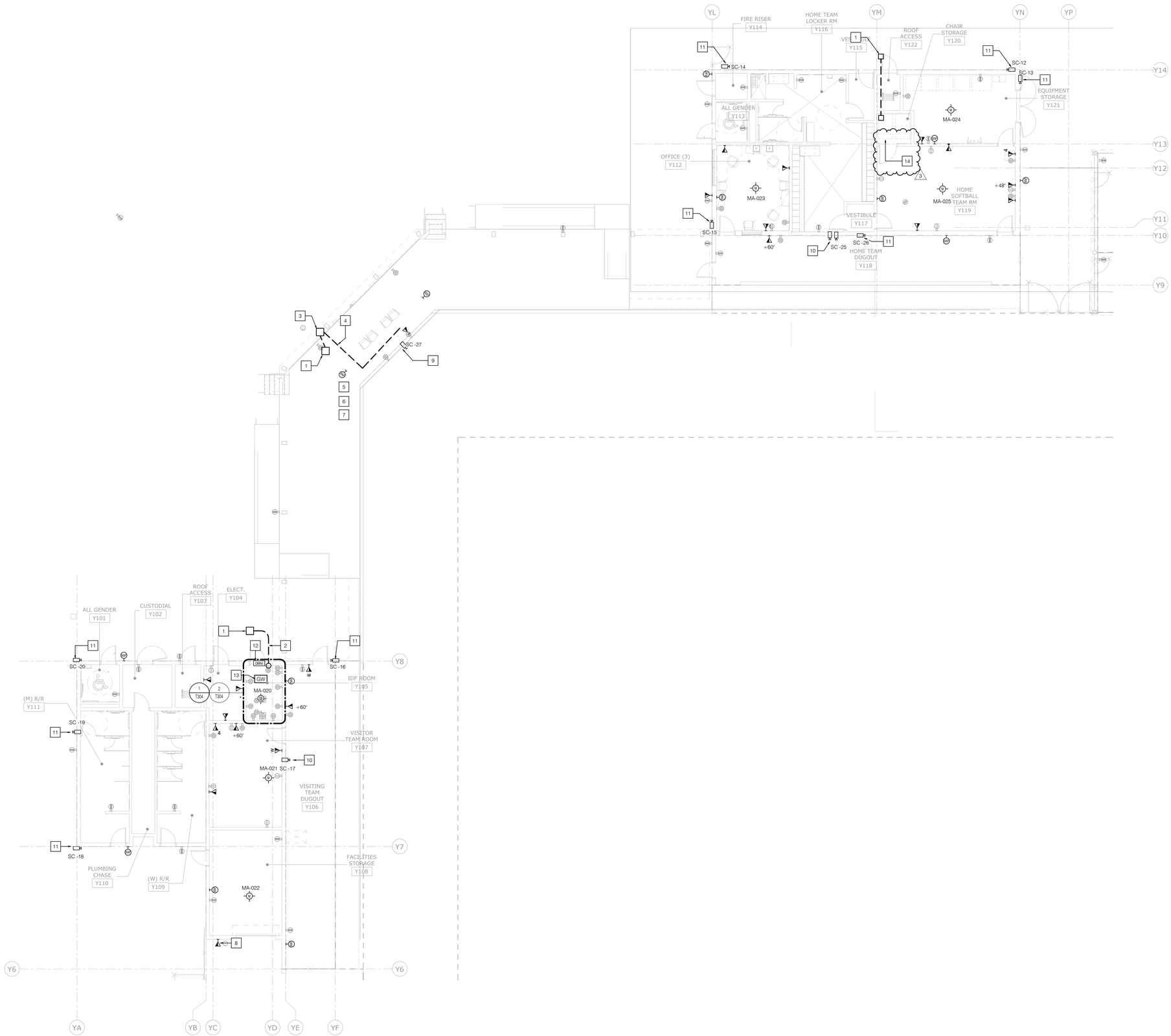
LONG BEACH CITY COLLEGE
4901 EAST CARSON STREET
LONG BEACH, CA 90806

No.	Rev. Date	Description
1	11/07/19	Addendum 01
2	11/25/19	Addendum 02
3	12/16/19	Addendum 03

JOB NO: 16042.01
DATE: 09/18/19
DRAWN: CN
CHECK: JK
ARCHITECT: PDW
ENGINEER:

SHEET DESCRIPTION:
BLDG 'W2', PARTIAL FIRST FLOOR TELECOM PLAN

SHEET NO:
W-T203



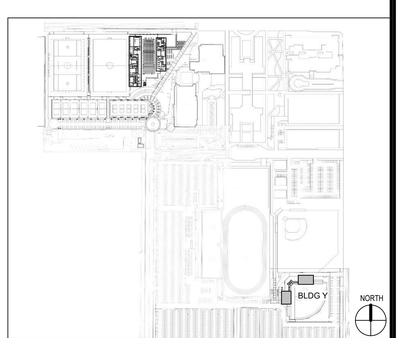
NOTES

1. FURNISH AND INSTALL (1) PULL-BOX Y-#01 2336 FPB. FOLLOW ALL MANUFACTURER'S REQUIREMENTS.
2. FURNISH AND INSTALL (4) 4" AND (2) 2" FROM PULL-BOX Y#01 TO IDF ROOM Y105 PROVIDE RE-ENTERABLE DUCT PLUGS IN ALL CONDUITS ENTERING Y#01 ALONG WITH INDIVIDUAL COTTON MEASURING CORD (MULE-TAPE).
3. PROVIDE PEDISTAL FOR LOW-VOLTAGE CABLE DISTRIBUTION.
4. PROVIDE (2) 2" CONDUITS
5. FURNISH AND INSTALL (2) 2" CONDUITS WITH RGD SWEEPS INTO WALL MOUNTED PB-Y#05 - 18"X18"X10" NEMA 3 PULL-BOX WITH HINGED LID AND CLASP.
6. FURNISH AND INSTALL (2) 2" SLEEVES FROM PB-Y#05 INTO STRUCTURE AND INTO ACCESSIBLE CEILING.
7. FURNISH AND INSTALL (1) 2" SLEEVE FROM PB-Y#05 UP TO ROOF AND TERMINATED IN OUTDOOR RATED PB-Y#05 CONNECTING VIA CPCI CONDUIT TO WEATHER RATED BACKBOX WITH RE-ENTERABLE COVER.
8. WALL MOUNTED IRRIGATION CONTROLS.
9. PROVIDE (1) 1-1/4" CONDUIT PENETRATION TO ROOF FOR CAT6A CONNECTION TO BROADCAST CAMERA.
10. PROVIDE OUTSIDE BACKBOX FOR WALL MOUNTED BROADCAST CAMERA LOCATION.
11. CCTV OUTSIDE BACKBOX FOR WALL MOUNTED SECURITY CAMERA LOCATION.
12. CONTRACTOR SHALL PROVIDE AND INSTALL OMNI LOCK. CONTRACTOR SHALL COORDINATE SELECTION OF SPECIFIC OMNILOCK MODEL REQUIRED WITH DIVISION 8 CONTRACTOR. PROVIDE AND INSTALL INFRASTRUCTURE AS SHOWN IN DETAIL 1/T608 FOR SINGLE DOOR AND 2/T608 FOR DOUBLE DOOR.
13. CONTRACTOR SHALL PROVIDE AND INSTALL GATEWAY PER SPECIFICATIONS. LOCATION OF GATEWAY SHOWN ON DRAWINGS IS DIAGRAMATIC IN NATURE, AND CONTRACTOR SHALL PROVIDE, LOCATE, AND INSTALL A SUFFICIENT NUMBER OF GATEWAYS TO ALLOW FOR FULL SYSTEM OPERATIONS. GATEWAYS SHALL BE CABLED WITH CAT6/CPCI CABLING TO EDGE SWITCH.
14. SEE NOTES #1 -5 ON SHEET T103 FOR ADDITIONAL CPCI IDF EQUIPMENT AND INFRASTRUCTURE CONNECTIVITY.

3

N

Scale: 1/8" = 1'-0"



KEYMAP

STATE:

ARCHITECT:

architecture
westbergwhite
14471 CHAMBERS RD, SUITE 210
TUSTIN, CA 92780
(714) 508-1780 508-1790 FAX

CONSULTANT:

P2S ENG
Long Beach | Los Angeles
San Diego | San Jose
p2sinc.com

REGISTERED PROFESSIONAL ENGINEER — CHARLES HENDERSON — No. E22361 — ELECTRICAL — STATE OF CALIFORNIA

PROJECT NAME:

LIBERAL ARTS CAMPUS
KINESIOLOGY LABS and AQUATIC CENTER
4901 EAST CARSON STREET
LONG BEACH, CA 90806

CLIENT:

LONG BEACH CITY COLLEGE
4901 EAST CARSON STREET
LONG BEACH, CA 90806

No.	Rev. Date	Description
	01/05/19	95%CD
2	11/25/19	Addendum 02
3	12/16/19	Addendum 03

JOB NO: 16042.01
DATE: 09/18/19
DRAWN: CN
CHECK: JK
ARCHITECT: PDW
ENGINEER:

SHEET DESCRIPTION:
BLDG 'Y', FIRST FLOOR TELECOM PLAN

SHEET NO:

Y-T201

AUDIOVISUAL LEGEND

SYMBOL	DESCRIPTION
-	NOTE CALLOUT
- -	DETAIL CALLOUT - NUMBER ON TOP DENOTES DETAIL NUMBER - NUMBER ON BOTTOM DENOTES SHEET DETAIL IS SHOWN
1	BUILDING NUMBER
	CONCEALED CONDUIT
	EXPOSED CONDUIT
	UNDERGROUND CONDUIT
	FUTURE CONDUIT
	CABLE TO BE REMOVED
	EXISTING CABLE TO BE ABANDONED OR RETURNED
	CONDUIT TURNED UP
	CONDUIT TURNED DOWN
	CONDUIT WITH CAP
1G	PROVIDE A SINGLE GANG BACKBOX WITH (1) 1-1/4" CONDUIT SPACE. MOUNT AT 18" AFF U.O.N. ON DRAWINGS.
2G	PROVIDE A DOUBLE GANG BACKBOX WITH (2) 1-1/4" CONDUITS SPACE. MOUNT AT 18" AFF U.O.N. ON DRAWINGS.
3G	PROVIDE A THREE GANG BACKBOX WITH (3) 1-1/4" CONDUITS SPACE. MOUNT AT 18" AFF U.O.N. ON DRAWINGS.
AV	PROVIDE A CEILING MOUNTED TWO GANG BACKBOX.
AV	PROVIDE A FLOOR MOUNTED JUNCTION BOX. PROVIDE 1-1/4" CONDUIT TO NEAREST WALL AND STUB TO ACCESSIBLE CEILING SPACE.
COLT	PROVIDE A CONDUIT COLLECTOR BOX SIZED AT 6" x 6" x 3". REFER TO CONDUIT QUANTITY AND SIZE ON DRAWINGS. CONDUIT STUBBED TO ACCESSIBLE CEILING SPACE.
S	SCREEN RAISE LOWER SWITCH. PROVIDE A SINGLE GANG GACKBOX WITH (1) 1" CONDUIT TO LOW VOLTAGE CONTROL. MOUNT AT 48" AFF U.O.N. ON DRAWINGS.
V AV P	CONSOLIDATED POWER, DATA, AND AV WALL BOX. CHIEF PAC 525. PROVIDE (2) 1-1/4" CONDUITS STUBBED UP TO ACCESSIBLE CEILING SPACE FOR AV U.O.N. HOMERUN FOR POWER AND IT REQUIRED.
V AV D	CONSOLIDATED POWER, DATA, AND AV FLOORBOX OR POKE THRU. FOR FLOORBOX, PROVIDE EVOLUTION EFBBS WITH (2) 1-1/4" CONDUITS STUBBED UP TO ACCESSIBLE CEILING SPACE FOR AV U.O.N. FOR POKE THRU, PROVIDE EVOLUTION 8AT WITH (2) 1-1/4" CONDUITS STUBBED TO ACCESSIBLE CEILING FOR AV. CONDUIT SHALL BE HOMERUN FOR POWER AND IT REQUIRED.
CP	WALL MOUNTED AV CONTROL PANEL. REFER TO AUDIOVISUAL BOX AND CONDUIT SCHEDULES FOR INFRASTRUCTURE REQUIREMENTS.
CP	TABLE MOUNTED AV CONTROL PANEL
VC	WALL MOUNTED VOLUME CONTROL
CAM	WALL MOUNTED VIDEO CONFERENCING CAMERA
CAM	CEILING MOUNTED VIDEO CONFERENCING CAMERA
M	CEILING MOUNTED MICROPHONE
M	TABLE MICROPHONE
S	WALL MOUNTED SPEAKER
S	CEILING MOUNTED SPEAKER
ANT	AV ANTENNA, WIRELESS MIC. OR ALS
SW	AV SPEAKER, SUB-WOOFER
TP	TOUCH PANEL, WALL MOUNTED
	FLAT PANEL DISPLAY (SIZE AS NOTED ON DRAWINGS)
	PROJECTION SCREEN (SIZE AS NOTED ON DRAWINGS)
	PROJECTOR
WAP	WIRELESS ACCESS POINT OUTLET - CEILING MOUNTED. PROVIDE AND INSTALL (2) CAT 6A CABLES / JACKS TERMINATED IN A SURFACE MOUNT BOX ABOVE FINISHED CEILING. (NOTE: AT HARDLID CEILING LOCATIONS PROVIDE AND INSTALL 4S JBOX WITH 1-1/4" CONDUIT STUBBED TO ACCESSIBLE CEILING LOCATION. PROVIDE BUSHINGS AND PULLSTRING, U.O.N. TERMINATE CABLES ON JACKS IN 2-PORT FACE PLATE.
WAP	WIRELESS ACCESS POINT OUTLET - WALL MOUNTED. PROVIDE AND INSTALL (2) CAT 6A CABLES / JACKS TERMINATED IN A 2-PORT FACEPLATE AT NOTED HEIGHT AFF. PROVIDE AND INSTALL 4S JBOX WITH 1-1/4" CONDUIT STUBBED TO ACCESSIBLE CEILING LOCATION, BUSH AND PROVIDE PULLSTRING, U.O.N.

NOTE:
SEE LBCC STANDARD OUTLET INFORMATION AND DEVICE OUTLET SIZES ON SHEET T002 FOR ADDITIONAL INSTALLATION INFORMATION.

AUDIOVISUAL DIAGRAM ABBREVIATIONS

ABBREVIATION	DESCRIPTION
2-GANG / DP	2-GANG DEEP ELECTRICAL BOX
ADAx-x	AUDIO DISTRIBUTION AMPLIFIER
ACMBx-x	AUDIO COMBINER/SPLITER MODULE
AFMRXx-x	AM/FM OFF AIR BROADCAST RECEIVER
AMPx-x	AUDIO AMPLIFIER
ANTx-x	ANTENNA
ANTDAx-x	ANTENNA DISTRIBUTION AMP/SPLITTER
AVBx-x	AUDIO VIDEO TO USB BRIDGE
BDx-x	BLU-RAY UNIVERSAL DISK PLAYER
BPTXx-x	BELT PACK MICROPHONE TRANSMITTER
CAMx-x	CAMERA
CATVx-x	CATV RECEIVER
CBLKx-x	CONTROL BUS TERMINAL BLOCK
CDx-x	CD PLAYER
CNTLx-x	CONTROL PROCESSOR
CODECx-x	VIDEO CONFERENCING CODEC
CPx-x	CONTROL PANEL, GENERIC
DISPx-x	DISPLAY
DLIFTx-x	DISPLAY LIFT, IN FURNATURE
DMSWTx-x	CRESTRON DIGITAL MEDIA SWITCHER
DMRXx-x	CRESTRON DIGITAL MEDIA RECEIVER
DMRXx-x	CRESTRON DIGITAL MEDIA RECEIVER
DSPx-x	DIGITAL SIGNAL PROCESSOR, AUDIO
DTPSWTx-x	EXTRON DTP SWITCHER
DTPRXx-x	EXTRON DTP RECEIVER
DTPTXx-x	EXTRON DTP TRANSMITTER
DSPx-x	DIGITAL SIGNAL PROCESSOR, AUDIO
DTPSWTx-x	EXTRON DTP SWITCHER
FBPx-x	FLOOR BOX PANEL
GNMICx-x	GOOSE NECK MICROPHONE
HDMIDAx-x	HDMI DISTRIBUTION AMPLIFIER
HHMTXx-x	HAND HELD MICROPHONE TRANSMITTER
IPODx-x	IPOD/IPHONE/MP3 PLAYER
KBDMx-x	KEYBOARD & MOUSE
KVMx-x	KEYBOARD, VIDEO AND MOUSE SWITCHER
LVCx-x	LOW VOLTAGE MOTOR CONTROLLER
MACx-x	APPLE MAC COMPUTER
MIXx-x	AUDIO MIXING CONSOLE
NETSWTx-x	NETWORK SWITCH
PCx-x	PC COMPUTER
PROJx-x	PROJECTOR
PROCx-x	VIDEO PROCESSOR, GENERIC
PRTSx-x	PARTITION SENSOR
RACKx-x	EQUIPMENT RACK
RCDRx-x	RECORDER, AUDIO/VIDEO
SCNx-x	PROJECTION SCREEN
SWTx-x	AUDIO/VIDEO SWITCH, GENERIC
TPx-x	TOUCH PANEL
UPSx-x	AV UN-INTERUPTIBLE POWER SUPPLY
VCx-x	VOLUME CONTROL, ATTENUATOR
WAPAVx-x	AV WIRELESS ACCESS POINT
WMRXx-x	WIRELESS MICROPHONE SYSTEM RECEIVER
XFRMx-x	TRANSFORMER, AUDIO
XTPSWTx-x	EXTRON XTP SWITCHER
XTPRXx-x	EXTRON XTP RECEIVER
XTPTXx-x	EXTRON XTP TRANSMITTER

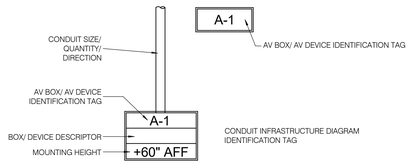
- NUMBER ON LEFT DENOTES EQUIPMENT TYPE.
- NUMBER ON RIGHT DENOTES EQUIPMENT QUANTITY

REFERENCE WILL BE MADE TO ANSI Y1.1, MILITARY STANDARD IN THE EVENT ABBREVIATIONS NOT MENTIONED HEREIN ARE USED, ABBREVIATIONS, AND OTHER STANDARD INDUSTRY CONVENTIONS.

SCOPE OF WORK

- INSTALL EMPTY CONDUIT RACEWAY SYSTEM BETWEEN FIRST FLOOR IDF AND SECOND FLOOR ROOMS AS INDICATED.
- RESTORE ARCHITECTURAL FINISHES (FLOOR, WALL, CEILING) BEING DISTURBED BY THE WORK TO ORIGINAL CONDITION.
- PROVIDE THROUGH PENETRATION FIRE-STOPPING AT ALL RATED FLOOR/WALL BARRIER.
- ALL SLEEVES (BOTH ENDS) & CONDUITS THAT END INTO AN IDF OR AT A CABLE TRAY SHALL BE FIRE-STOPPED WITH AN APPROVED ASSEMBLE CONSISTING OF AN APPROPRIATE AMOUNT OF MINERAL WOOL (SAFING INSULATION) & RE-ENTERABLE INTUMESCENT FIRESTOP PUTTY INSTALLED AS PER ALL MANUFACTURERS INSTRUCTIONS AND APPROVED FOR USE BY THE CONSTRUCTION MANAGER.

AV INFRASTRUCTURE IDENTIFIER KEY



GENERAL ABBREVIATIONS

ABBREVIATION	DESCRIPTION
A OR AMP	AMPERES
ADA	AMERICANS WITH DISABILITIES ACT
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AHJ	AUTHORITY HAVING JURISTICTION
ALS	ASSISTIVE LISTENING SYSTEM
ARCH.	ARCHITECT; ARCHITECTURAL
AVC	AUDIOVISUAL CONTRACTOR
AWG	AMERICAN WIRE GAUGE
BTU	BRITISH THERMAL UNITS
C	CONDUIT
CKT	CIRCUIT
CLG.	CEILING
C.O.	CONDUIT ONLY WITH PULL WIRE
CSC	CAPTURED SCREW CONNECTOR
DWG	DRAWING
EA	EACH
E.C.	ELECTRICAL CONTRACTOR
ELEC.	ELECTRIC
EMT	ELECTRICAL METALLIC TUBING
ENT	ELECTRICAL NONMETALLIC TUBING
EQUIP	EQUIPMENT
EXIST / (E)	EXISTING
FB	FLOOR BOX
FIN.	FINISH
FIXT	FIXTURE
FLR	FLOOR
FOC	FIBER OPTIC CABLE
FT.	FEET, MEASUREMENT
G.C.	GENERAL CONTRACTOR
GND	GROUND
H., W., D., L.	HEIGHT, WIDTH, DEPTH, LENGTH
IC	INTERCOM
IDF	INTERMEDIATE DISTRIBUTION FRAME
IN.	INCHES, MEASUREMENT
ISOGND	ISOLATED GROUND
JB	JUNCTION BOX
LTG.	LIGHTING
MDF	MAIN DISTRIBUTION FRAME
MH	MOUNTING HEIGHT
MM	MULTIMODE
MTG.	MOUNTING
N	NORTH
NEC	NATIONAL ELECTRICAL CODE
NEMA	NATIONAL ELEC. MANUFACTURERS' ASSOC.
NIC	NOT IN CONTRACT
N.C.	NORMALLY CLOSED, CONTACT
N.O.	NORMALLY OPEN, CONTACT
NO. OR #	NUMBER
N.T.S	NOT TO SCALE
O.F.C.I.	OWNER FURNISHED CONTRACTOR INSTALLED
O.F.O.I.	OWNER FURNISHED OWNER INSTALLED
OFE	OWNER FURNISHED EQUIPMENT
PH	PHASE
PNL	PANEL
PWR	POWER
P.O.C.	POINT OF CONNECTION
POE	POWER OVER ETHERNET
REC/RECEPT	RECEPTACLE
REQD	REQUIRED
RM	ROOM
SF	SQUARE FEET
SHT	SHEET
SM	SINGLE MODE
SPECS	SPECIFICATIONS
SW	SWITCH
TECHGND	TECHNICAL GROUND
TB	TERMINAL BLOCK
TYP	TYPICAL
TERM	TERMINATION
UG	UNDERGROUND
U.O.N.	UNLESS OTHERWISE NOTED
V	VOLTS
V-A	VOLT-AMPERES
W	WATTS
W/	WITH
W/O	WITHOUT

REFERENCE WILL BE MADE TO ANSI Y1.1, MILITARY STANDARD IN THE EVENT ABBREVIATIONS NOT MENTIONED HEREIN ARE USED, ABBREVIATIONS, AND OTHER STANDARD INDUSTRY CONVENTIONS.

GENERAL NOTES

1. ALL AUDIOVISUAL WORK SHALL COMPLY WITH THE LATEST EDITION OF THE INFOCOMM AND TIA INFRASTRUCTURE STANDARDS AND ALL OTHER APPLICABLE FEDERAL, STATE AND LOCAL CODES. WHERE THE CONSTRUCTION DOCUMENTS INDICATE MORE RESTRICTIVE REQUIREMENTS, THE DOCUMENTS SHALL GOVERN BUT THE CONSTRUCTION DOCUMENTS SHALL NOT BE INTERPRETED AS AUTHORITY TO VIOLATE ANY CODE OR REGULATION.
2. IN THE EVENT OF A CONFLICT OR INCONSISTENCY BETWEEN ITEMS INDICATED ON THE PLANS AND/OR SPECIFICATIONS OR WITH CODE REQUIREMENTS, THE NOTE SPECIFICATION OR CODE WHICH PRESCRIBES AND ESTABLISHES THE MORE COMPLETE JOB OR THE HIGHER STANDARD SHALL PREVAIL.
3. OMISSIONS FROM THE DRAWINGS OR SPECIFICATIONS OR THE MIS-DESCRIPTION OF DETAILS OF WORK WHICH ARE CLEAR AND NECESSARY TO CARRY OUT THE INTENT OF THE DRAWINGS AND SPECIFICATIONS, OR WHICH ARE CUSTOMARILY PERFORMED, SHALL NOT RELIEVE THE CONTRACTOR FROM PERFORMING SUCH OMITTED OR MIS-DESCRIBED DETAILS OF THE WORK BUT THEY SHALL BE PERFORMED AS IF FULLY AND CORRECTLY SET FORTH AND DESCRIBED IN THE DRAWINGS AND SPECIFICATIONS.
4. THE CONTRACTOR SHALL CHECK ALL DRAWINGS FURNISHED IMMEDIATELY UPON THEIR RECEIPT AND SHALL PROMPTLY NOTIFY THE OWNER OF ANY DISCREPANCIES.
5. ALL MATERIALS AND EQUIPMENT SHALL BE NEW AND SHALL BEAR THE UNDERWRITERS LABEL (UL) AND SHALL BE INSTALLED IN THE MANNER FOR WHICH THEY ARE DESIGNED AND APPROVED.
6. THE CONTRACTOR SHALL NOT BORE, NOTCH OR IN ANYWAY CUT INTO ANY STRUCTURAL MEMBER WITHOUT WRITTEN APPROVAL FROM THE ARCHITECT OR STRUCTURAL ENGINEER.
7. FOR PURPOSES OF CLEARNESS AND LEGIBILITY THE AUDIOVISUAL DRAWINGS ARE ESSENTIALLY DIAGRAMMATIC. THE SIZE AND LOCATION OF EQUIPMENT IS SHOWN TO SCALE WHEREVER POSSIBLE. THE CONTRACTOR SHALL VERIFY ALL CONDITIONS, DATA INFORMATION AS INDICATED ON THE DRAWINGS AND IN THE SPECIFICATION SECTIONS WHERE TELECOM WORK INTERFACES WITH OTHER TRADES.
8. CONTRACTOR TO SEE ELECTRIC DRAWINGS FOR STATION CABLE PATHWAYS.
9. USE "J" HOOKS FOR THE BULK OF THE AUDIOVISUAL CABLE DISTRIBUTION WHERE CONDUIT IS SUPPLIED WITHIN THE SAME ROOM. DO NOT USE CEILING TILE WIRE HANGERS, WATER OR ELECTRICAL PIPES, OR LIGHT FIXTURES TO HANG CABLE. CABLE MUST BE A MINIMUM OF SIX INCHES ABOVE THE CEILING TILE AND MUST NOT COME WITHIN TWELVE INCHES OF A LIGHT FIXTURE.
10. ALL AUDIOVISUAL CABLES SHALL BE NEATLY DRESSED AND SECURED EVERY FIVE FEET AT A MINIMUM. WITHIN AUDIOVISUAL EQUIPMENT RACKS, ALL CABLE SHALL BE DRESSED WITH VELCRO WRAPS ONLY NO PLASTIC CABLE TIES SHALL BE ALLOWED. EXCEPTIONS ONLY FOR AC & DC POWER CABLES.
11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVAL AND REPLACEMENT OF CEILING TILE INCLUDING REPLACEMENT OF BROKEN OR DAMAGED TILES.
12. ALL LOCATIONS PASSING THROUGH A FIRE OR A SMOKE BARRIER MUST BE FIRE STOPPED USING APPROVED (UL CLASSIFIED) FIRE STOP MATERIAL INSTALLED, PER THE MANUFACTURER'S INSTRUCTIONS.
13. ALL AUDIOVISUAL CABLE SHALL BE PLACED WITH A MINIMUM 1 METER MAINTENANCE LOOP ABOVE CEILING AT EACH LOCATION.
14. CONDUIT SHALL BE FILLED TO MAXIMUM 40% CAPACITY (PER STANDARD) BEFORE UTILIZING ANOTHER VACANT CONDUIT.
15. ALL AUDIOVISUAL PANELS, PLATES, AND TERMINALS INCLUDING EXISTING SHALL BE PROPERLY IDENTIFIED USING THE STANDARD OWNER INTERNAL DISTRIBUTION NUMBERING SCHEME. ALL LABELS BE PREPRINTED OR TYPED.
16. EACH OSP CABLE SHALL BE EQUIPPED WITH A PERMANENT LABEL INDICATING CABLE TYPE, PAIR OR OPTIC COUNTS, DISTANT END AND CABLE LENGTH. BOTH ENDS SHALL OF EACH CABLE SHALL BE SO LABELED.
17. FIBER CABLE SHALL BE PLACED WITH SIX FOOT (6) MAINTENANCE LOOP AT BOTH ENDS OF THE RUN. THE MAINTENANCE LOOP SHALL BE SECURED IN SUCH A MANNER TO PROVIDE PROTECTION DURING SUBSEQUENT CABLE PULLS.
18. ANY DEVIATIONS FROM PLANS OR SPECIFICATIONS MUST BE APPROVED IN WRITING BY THE ENGINEER AND DISTRICT REPRESENTATIVE.
19. ALL NEW DIGITAL MEDIA, XTP/DTP, HDBASE-T CABLES & SHIELDED CONNECTORS SHALL BE TESTED AND DOCUMENTED USING A PAIR SCANNER SPECIFICALLY DESIGNED TO TEST THE TYPE OF CABLE INSTALLED (CATEGORY 6A SHIELDED). TEST RESULTS SHALL BE ONE PAGE PER AND NOTED WITH THE CABLE/JACK NUMBERING SCHEME THAT IS STANDARDIZED FOR THE OWNER.
20. ALL WORK MUST BE COMPLETED IN A NEAT AND PROFESSIONAL MANNER. THE WORK SITE SHALL BE KEPT CLEAN AND ALL DAMAGE TO DISTRICT PROPERTY REPAIRED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONDUCTING A FINAL CLEANUP OF THE WORK SITE PRIOR TO FINAL SYSTEM ACCEPTANCE.
21. ALL AUDIO AND SPEAKER CABLE SHALL BE TESTED END-TO-END AND THE RESULTS (LOSS IN DB) NOTED ON A SEPARATE TYPED SHEET.
22. LADDER RACK SHALL BE PLACED IN MDF AS SHOWN ON DRAWINGS AND AS REQUIRED TO PROPERLY SECURE CABLES AND WIRE.
23. ALL FOOTAGES ON DRAWINGS ARE ESTIMATED AND MUST BE VERIFIED BY CONTRACTOR PRIOR TO ORDERING MATERIAL.
24. ALL CABLE TRAYS, LADDER RACKS, CONDUIT, EQUIPMENT RACKS, PROTECTOR PANELS, AND CABLE SHEATHS SHALL BE BONDED & GROUNDED TO EQUIPMENT GROUND WITH #6 WIRE.
25. CABLE SPLICING WILL NOT BE ALLOWED.
26. PULL ROPES SHALL BE PLACED IN ALL VACANT CONDUITS.
27. ALL CHANGES TO STRUCTURES (BUILDING, DRILLING, CORING, ETC.) NOT SHOWN ON THE DRAWINGS SHALL BE APPROVED IN WRITING BY STRUCTURAL ENGINEER.
28. ALL AUDIOVISUAL CABLE SHALL BE PLACED INTO CEILING AND WALL SPACES UNLESS SPECIFICALLY NOTED IN THE CONTRACT DOCUMENTS. NO CABLES SHALL BE PLACED EXPOSED BUT MUST BE INSTALLED WITHIN CONDUIT, WALL AND CEILING SPACES, OR SURFACE MOUNTED RACEWAY.
29. PULL BOXES MUST BE USED ON ANY INTRA-BUILDING CONDUIT RUN MORE THAN 100 FEET IN LENGTH OR WITH MORE THAN 180 DEGREES OF BEND. PULL BOXES SHALL BE A MINIMUM OF TWELVE (12) TIMES THE DIAMETER OF THE LARGEST CONDUIT. ALL COMMUNICATIONS CONDUIT SHALL ENTER AND LEAVE PULL BOXES IN THE SAME DIRECTION - NO RIGHT ANGLE BENDS WILL BE ALLOWED WITHIN PULL BOXES.
30. THE ARCHITECTURAL, FURNITURE AND FINISH CONFIGURATIONS ILLUSTRATED ON THE AUDIOVISUAL DRAWINGS ARE FOR REFERENCE ONLY. REFER TO THE ARCHITECTURAL DRAWINGS FOR SPECIFICATIONS AND REQUIREMENTS.

AV COMPONENT ANCHORAGE NOTE

ALL MECHANICAL, PLUMBING, AND ELECTRICAL COMPONENTS SHALL BE ANCHORED AND INSTALLED PER THE DETAILS ON THE DSA APPROVED CONSTRUCTION DOCUMENTS. WHERE NO DETAIL IS INDICATED, THE FOLLOWING COMPONENTS SHALL BE ANCHORED OR BRACED TO MEET THE FORCE AND DISPLACEMENT REQUIREMENTS PRESCRIBED IN THE 2016 CBC, SECTIONS 1616A.1.18 THROUGH 1616A.1.26 AND ASCE 7-10 CHAPTER 13, 26 AND 30.

1. ALL PERMANENT EQUIPMENT AND COMPONENTS.
2. TEMPORARY OR MOVABLE EQUIPMENT THAT IS PERMANENTLY ATTACHED (E.G. HARD WIRED) TO THE BUILDING UTILITY SERVICES SUCH AS ELECTRICITY, GAS OR WATER.
3. MOVABLE EQUIPMENT WHICH IS STATIONED IN ONE PLACE FOR MORE THAN 8 HOURS AND HEAVIER THAN 400 POUNDS OR HAS A CENTER OF MASS LOCATED 4 FEET OR MORE ABOVE THE ADJACENT FLOOR OR ROOF LEVEL THAT DIRECTLY SUPPORT THE COMPONENT ARE REQUIRED TO BE ANCHORED WITH TEMPORARY ATTACHMENTS.

THE FOLLOWING MECHANICAL AND ELECTRICAL COMPONENTS SHALL BE POSITIVELY ATTACHED TO THE STRUCTURE, BUT THE ATTACHMENT NEED NOT BE DETAILED ON THE PLANS. THESE COMPONENTS SHALL HAVE FLEXIBLE CONNECTIONS PROVIDED BETWEEN THE COMPONENT AND ASSOCIATED DUCTWORK, PIPING, AND CONDUIT:

A. COMPONENTS WEIGHING LESS THAN 400 POUNDS AND HAVE A CENTER OF MASS LOCATED 4 FEET OR LESS ABOVE THE ADJACENT FLOOR OR ROOF LEVEL THAT DIRECTLY SUPPORT THE COMPONENT.

B. COMPONENTS WEIGHING LESS THAN 20 POUNDS, OR IN THE CASE OF DISTRIBUTED SYSTEMS, LESS THAN 5 POUNDS PER FOOT, WHICH ARE SUSPENDED FROM A ROOF OR FLOOR OR HUNG FROM A WALL.

FOR THOSE ELEMENTS THAT DO NOT REQUIRE DETAILS ON THE APPROVED DRAWINGS, THE INSTALLATION SHALL BE SUBJECT TO THE APPROVAL OF THE DESIGN PROFESSIONAL IN GENERAL RESPONSIBLE CHARGE OR THE STRUCTURAL ENGINEER DELEGATED RESPONSIBILITY AND THE DSA DISTRICT STRUCTURAL ENGINEER. THE PROJECT INSPECTOR WILL VERIFY THAT ALL COMPONENTS AND EQUIPMENT HAVE BEEN ANCHORED IN ACCORDANCE WITH ABOVE REQUIREMENTS.

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W-TAV201.2	BLDG 'W1', NORTH END - PARTIAL FIRST FLOOR AUDIO VISUAL PLAN
W-TAV202.1	BLDG 'W1', SOUTH END - PARTIAL SECOND FLOOR AUDIO VISUAL PLAN
W-TAV203	BLDG 'W2' - PARTIAL FIRST FLOOR AUDIO VISUAL PLAN
Y-TAV201	BLDG 'Y', FIRST FLOOR AUDIO VISUAL PLAN
W-TAV301	BLDG 'W1', SHARED TEAM ROOM W111, AV FLOOR AND RCP
W-TAV302	BLDG 'W1', ATHLETIC TRAINING ROOM W115, AV FLOOR AND RCP
W-TAV303	BLDG 'W1', TEAM ROOM W122, AV FLOOR AND RCP
W-TAV304	BLDG 'W1', TEAM ROOM W132, AV FLOOR AND RCP
W-TAV305	BLDG 'W1' MPR. ATHLETIC EVENT CENTER W201, AV FLOOR AND RCP
W-TAV306	BLDG 'W1', MPR. ATHLETIC EVENT CENTER W201, ELEVATIONS
W-TAV307	BLDG 'W2', HOME TEAM ROOM W148, AV FLOOR AND RCP
W-TAV308	BLDG 'W2', AQUATICS COACH CONFERENCE ROOM W-164
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Y-TAV302	BLDG 'Y', VISITOR TEAM ROOM Y119, AV FLOOR AND RCP
TAV501	AUDIO VISUAL SYSTEM DIAGRAMS
TAV502	AUDIO VISUAL SYSTEM DIAGRAMS
TAV503	AUDIO VISUAL SYSTEM DIAGRAMS
TAV504	AUDIO VISUAL SYSTEM DIAGRAMS
TAV505	AUDIO VISUAL SYSTEM DIAGRAMS
TAV506	AUDIO VISUAL SYSTEM DIAGRAMS
TAV507	AUDIO VISUAL SYSTEM DIAGRAMS
TAV601	DETAILS
TAV602	DETAILS

STATE:

ARCHITECT:

architecture
westbergwhite
14471 CHAMBERS RD, SUITE 210
TUSTIN, CA 92780
(714) 508-1780 508-1790 FAX

CONSULTANT:

P2S ENG
Long Beach | Los Angeles
San Diego | San Jose
p2sinc.com



PROJECT NAME:

LIBERAL ARTS CAMPUS
KINESIOLOGY LABS and AQUATIC CENTER
4901 EAST CARSON STREET
LONG BEACH, CA 90806

CLIENT:

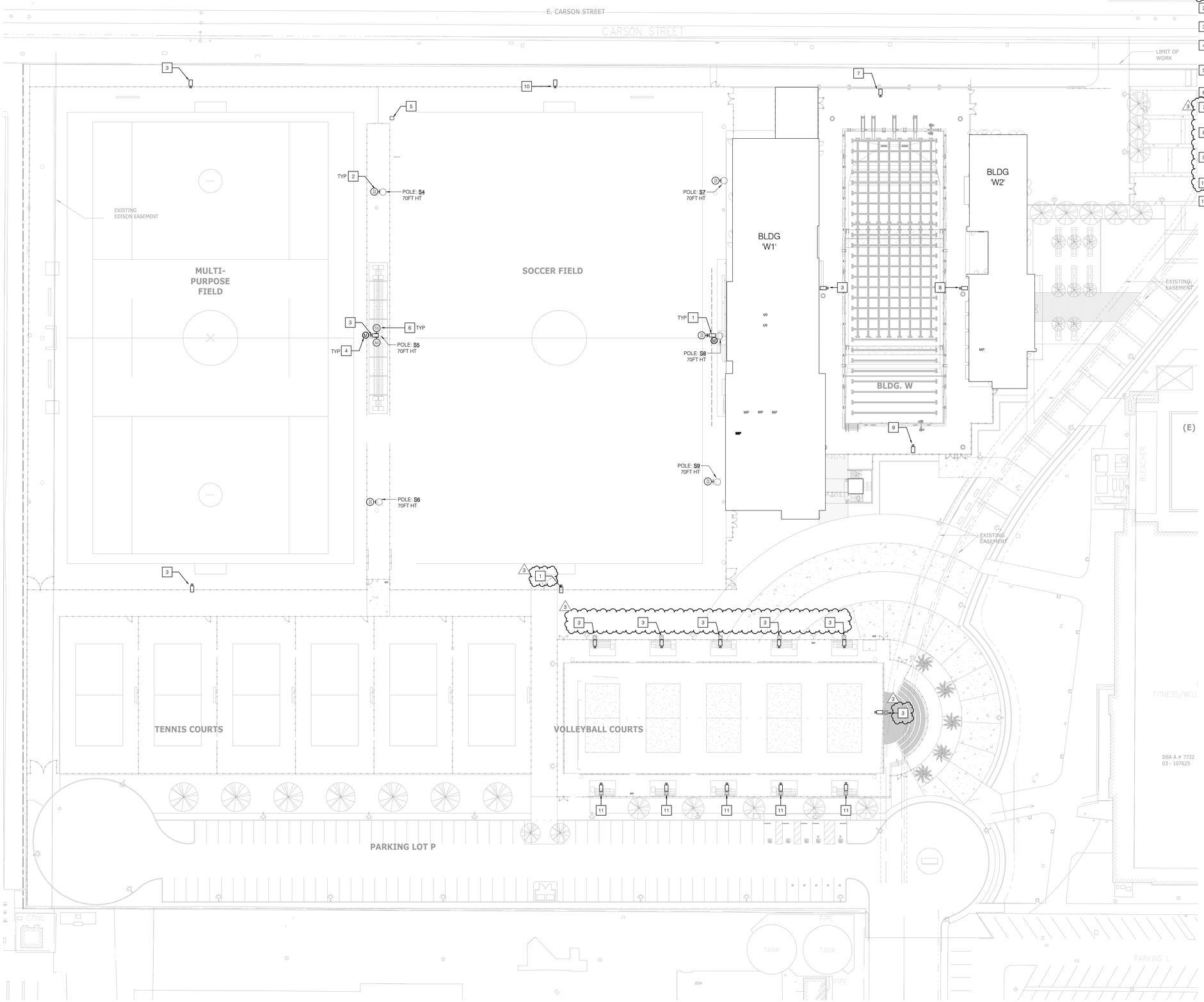
LONG BEACH CITY COLLEGE
4901 EAST CARSON STREET
LONG BEACH, CA 90806

No.	Rev. Date	Description
2	11/25/19	Addendum 02

JOB NO: 16042.01
DATE: 09/18/19
DRAWN: CN
CHECK: ST
ARCHITECT: PDW
ENGINEER:

SHEET DESCRIPTION:
GENERAL NOTES, LEGEND, ABBREVIATIONS AND SHEET INDEX

SHEET NO:
TAV001



NOTES

1. AV/BROADCAST CAMERA O.F.O.I.
2. SPEAKERS MOUNTED ON TOP OF FIELD LIGHTING POLE COVERING FIELD.
3. PROVIDE INFRASTRUCTURE FOR FUTURE AV/ BROADCAST CAMERAS
4. MIC INPUT PANEL, LOCATED IN OUTDOOR RATED ENCLOSURE. PROVIDE (1) 2" CONDUIT TO AV CONDUIT COLLECTOR BOX FOR SOCCER FIELD RACK.
5. OUTDOOR RATED FIELD J-BOX WITH (1) 2" CONDUIT TO 2ND FLOOR AV CONDUIT COLLECTOR (COL2) BOX FOR SOCCER FIELDS AV RACK.
6. SPEAKERS COVERING BLEACHERS.
7. AV/BROADCAST CAMERA, O.F.O.I., MOUNTED AT +11FT ON COLUMN. PROVIDE 1 1/2" CONDUIT TO IDF IN ROOM W151.
8. WALL MOUNTED AV/BROADCAST CAMERA, O.F.O.I. MOUNTED AT +11FT. PROVIDE 1 1/2" CONDUIT TO IDF IN ROOM W151.
9. AV/BROADCAST CAMERA, O.F.O.I., MOUNTED AT +11FT ON COLUMN WITH ADDITIONAL STEEL POLE. PROVIDE 1 1/2" CONDUIT TO IDF IN ROOM W151.
10. AV/BROADCAST CAMERA, O.F.O.I. MOUNTED ON FENCE POST.
11. PROVIDE AND INSTALL MOOG P1600 16 FT. FIXED POLE WITH AV/BROADCAST CAMERA MOUNTED AT 15FT. PROVIDE AND INSTALL 1-1/4" CONDUIT TO NEAREST FIELD IDF.

N

Scale: 1" = 30'-0"

STATE:

ARCHITECT:

architecture
westbergwhite
14471 CHAMBERS RD, SUITE 210
TUSTIN, CA 92780
(714) 508-1780 508-1790 FAX

CONSULTANT:

P2S ENG
Long Beach | Los Angeles
San Diego | San Jose
p2sinc.com

PROJECT NAME:

LIBERAL ARTS CAMPUS
KINESIOLOGY LABS and AQUATIC CENTER
4901 EAST CARSON STREET
LONG BEACH, CA 90806

CLIENT:

LONG BEACH CITY COLLEGE
4901 EAST CARSON STREET
LONG BEACH, CA 90806

No.	Rev. Date	Description
3	12/16/19	Addendum 03

JOB NO: 16042.01
DATE: 09/18/19
DRAWN: CN
CHECK: ST
ARCHITECT: PDW
ENGINEER:

SHEET DESCRIPTION:
BLDG 'W', AUDIO VISUAL SITE PLAN ENLARGED

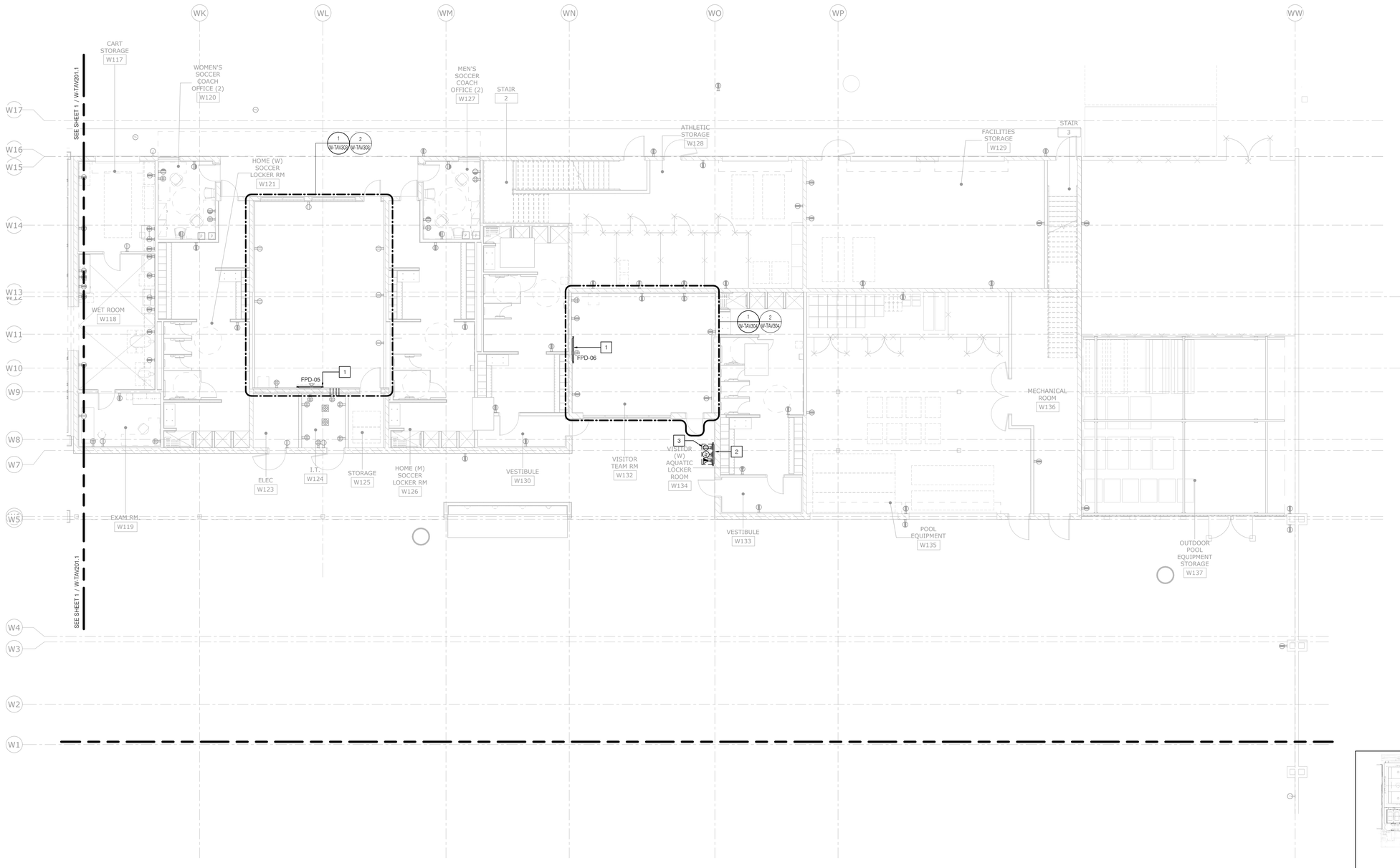
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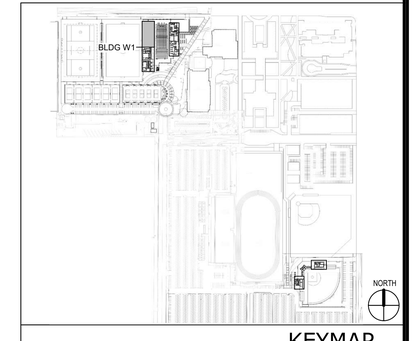
TAV101

NOTES

3

1. 65" WALL MOUNTED LED VIDEO DISPLAY, O.F.O.I.
2. 55" LED DISPLAY MOUNTED IN WEATHERPROOF CASE O.F.O.I.
3. DISPLAY BACK BOX, CHIEF MFG PAC 525, C.F.C.I.





KEYMAP

Scale: 1/8" = 1'-0"

STATE:

ARCHITECT:

westbergwhite architecture
14471 CHAMBERS RD, SUITE 210
TUSTIN, CA 92780
(714) 508-1780 508-1790 FAX

CONSULTANT:

P2S ENG
Long Beach | Los Angeles
San Diego | San Jose
p2sinc.com

Mark Henderson No. E22361 ELECTRICAL STATE OF CALIFORNIA

PROJECT NAME:

LIBERAL ARTS CAMPUS
KINESIOLOGY LABS and AQUATIC CENTER
4901 EAST CARSON STREET
LONG BEACH, CA 90806

CLIENT:

LONG BEACH CITY COLLEGE

4901 EAST CARSON STREET
LONG BEACH, CA 90806

No.	Rev. Date	Description
3	12/16/19	Addendum 03

JOB NO: 16042.01
DATE: 09/18/19
DRAWN: CN
CHECK: ST
ARCHITECT: PDW
ENGINEER:

SHEET DESCRIPTION:
BLDG 'W1', NORTH END - PARTIAL FIRST FLOOR AUDIO VISUAL PLAN

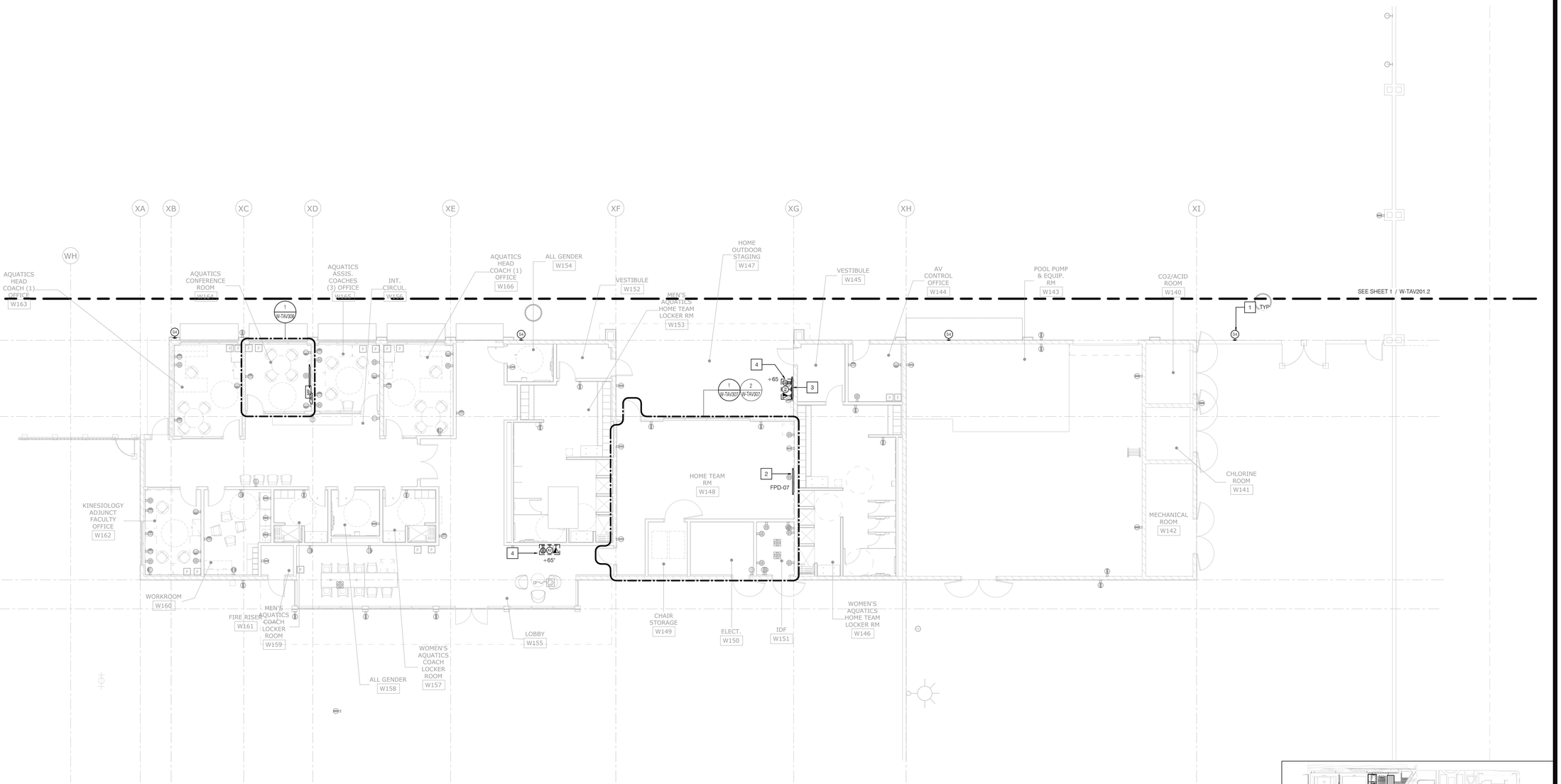
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W-TAV201.2

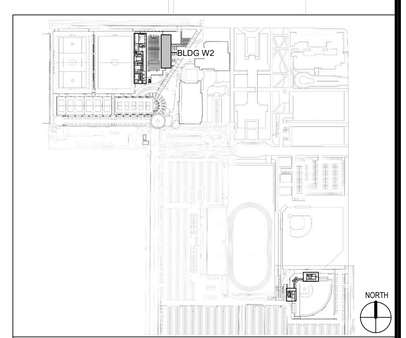
NOTES

3

1. SPEAKERS MOUNTED ON BUILDING COVERING POOL, C.F.C.I.
2. 65" WALL MOUNTED LED VIDEO DISPLAY, O.F.O.I.
3. 55" LED DISPLAY MOUNTED IN WEATHERPROOF CASE, O.F.O.I.
4. DISPLAY BACKBOX, CHIEF MFG PAC 525, C.F.C.I.



Scale: 1/8" = 1'-0"



KEYMAP

STATE:

ARCHITECT:

architecture
westbergwhite
14471 CHAMBERS RD, SUITE 210
TUSTIN, CA 92780
(714) 508-1780 508-1790 FAX

CONSULTANT:

P2S ENG
Long Beach | Los Angeles
San Diego | San Jose
p2sinc.com



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KINESIOLOGY LABS and AQUATIC CENTER
4901 EAST CARSON STREET
LONG BEACH, CA 90806

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LONG BEACH CITY COLLEGE
4901 EAST CARSON STREET
LONG BEACH, CA 90806

No.	Rev. Date	Description
3	12/16/19	Addendum 03

JOB NO: 16042.01

DATE: 09/18/19

DRAWN: CN

CHECK: ST

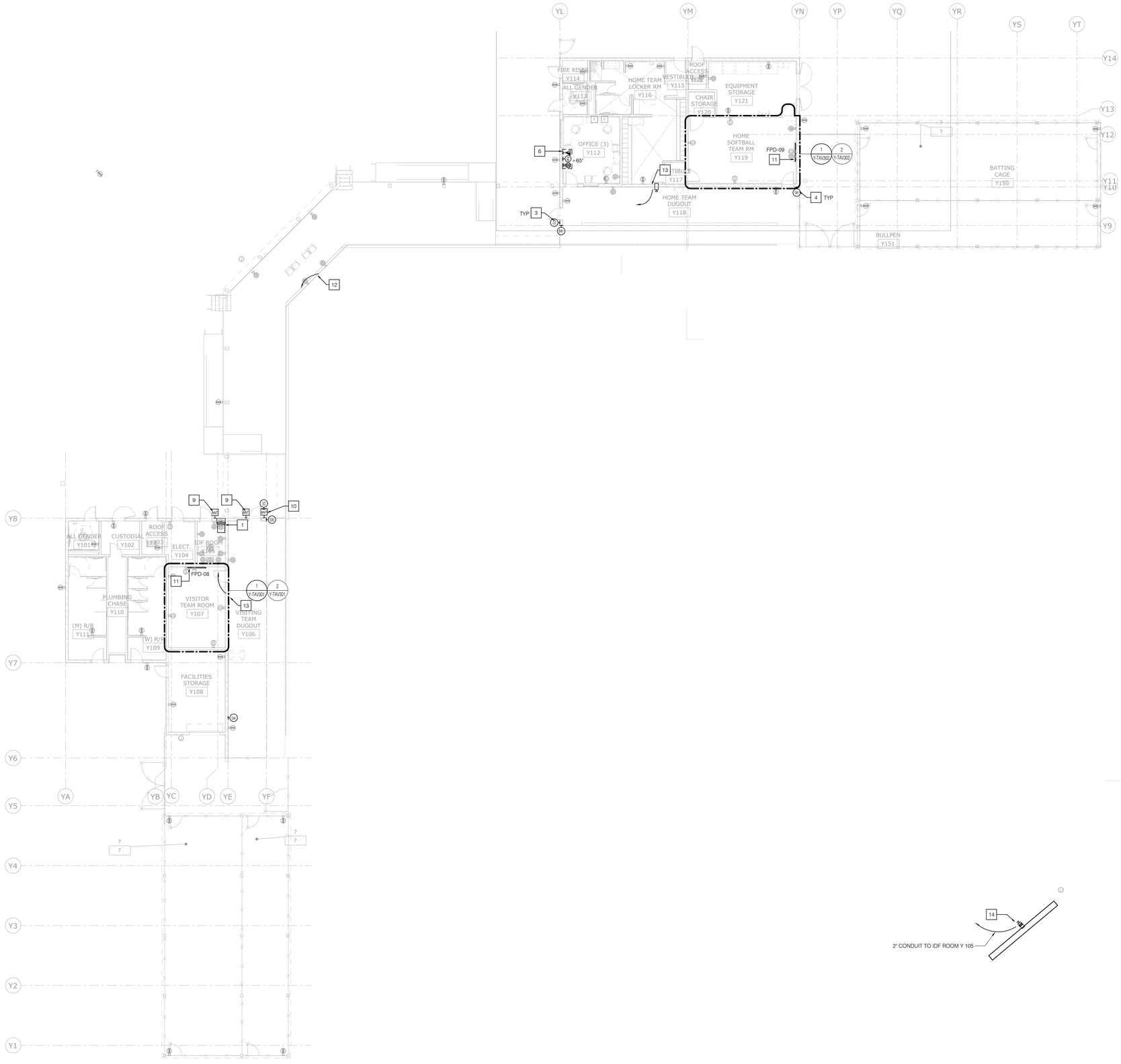
ARCHITECT: PDW

ENGINEER:

SHEET DESCRIPTION:
BLDG 'W2' - PARTIAL FIRST FLOOR AUDIO VISUAL PLAN

SHEET NO:

W-TAV203



NOTES

3 | 1 | AV EQUIPMENT RACK, O.F.O.I. & (COL1) CONDUIT COLLECTOR BOX. PROVIDE 6" X 6" X 24" GUTTER WITH COVE MOUNTED ABOVE RACK. C.F.C.I.

2 | NOT USED

3 | 3 | SPEAKERS FACING BLEACHERS. PROVIDE 1-GANG OUTDOOR RATED BOX WITH GASKET COVER AND (1) 1" CONDUIT TO AV CONDUIT COLLECTOR BOX IN IDF Y105, C.F.C.I.

4 | SPEAKERS FACING FIELD. PROVIDE 1-GANG OUTDOOR RATED BOX WITH GASKET COVER AND (1) 1" CONDUIT TO AV CONDUIT COLLECTOR BOX IN IDF Y105. C.F.C.I.

5 | NOT USED

3 | 6 | DISPLAY BACKBOX FOR FUTURE DISPLAY C.F.C.I.

7 | NOT USED

8 | NOT USED

3 | 9 | ANTENNA FOR WIRELESS MICROPHONE SYSTEM. AT 10' A.F.F. PROVIDE 1-GANG FLUSH OUTDOOR RATED BOX WITH GASKET COVER AND (1) 1" CONDUIT COLLECTOR BOX AT RACK IN IDF Y105 C.F.C.I.

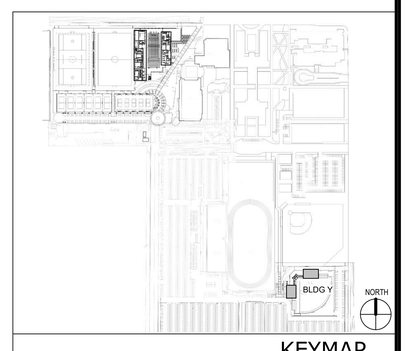
10 | ANTENNA FOR ALS, AT 8' A.F.F. PROVIDE 1-GANG FLUSH BOX WITH COVER AND (1) 1" CONDUIT TO AV CONDUIT COLLECTOR BOX AT RACK IN IDF Y105 C.F.C.I.

11 | 65" FLAT PANEL DISPLAY O.F.O.I.

12 | AV/BROADCAST CAMERA, O.F.O.I. MOUNTED ON ROOF METAL DECK AT 10' 6" WITH 1 1/4" CONDUIT TO IDF IN ROOM Y105.

13 | AV/BROADCAST CAMERA WALL MOUNTED AT 12', O.F.O.I.

14 | AV/BROADCAST CAMERA MOUNTED ABOVE SCOREBOARD. O.F.O.I.



N

Scale: 3/32" = 1'-0"

KEYMAP

STATE:

ARCHITECT:

architecture
westbergwhite
14471 CHAMBERS RD, SUITE 210
TUSTIN, CA 92780
(714) 508-1780 508-1790 FAX

CONSULTANT:

P2S ENG
Long Beach | Los Angeles
San Diego | San Jose
p2sinc.com



PROJECT NAME:

LIBERAL ARTS CAMPUS
KINESIOLOGY LABS and AQUATIC CENTER
4901 EAST CARSON STREET
LONG BEACH, CA 90806

CLIENT:

LONG BEACH CITY COLLEGE
4901 EAST CARSON STREET
LONG BEACH, CA 90806

No.	Rev. Date	Description
1	11/07/19	Addendum 01
3	12/16/19	Addendum 03

JOB NO: 16042.01
DATE: 09/18/19
DRAWN: CN
CHECK: ST
ARCHITECT: PDW
ENGINEER:

SHEET DESCRIPTION:
BLDG 'Y', FIRST FLOOR AUDIO VISUAL PLAN

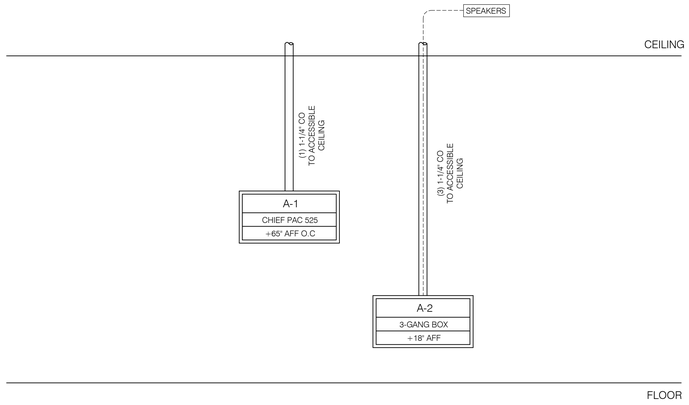
SHEET NO:

Y-TAV201

NOTES

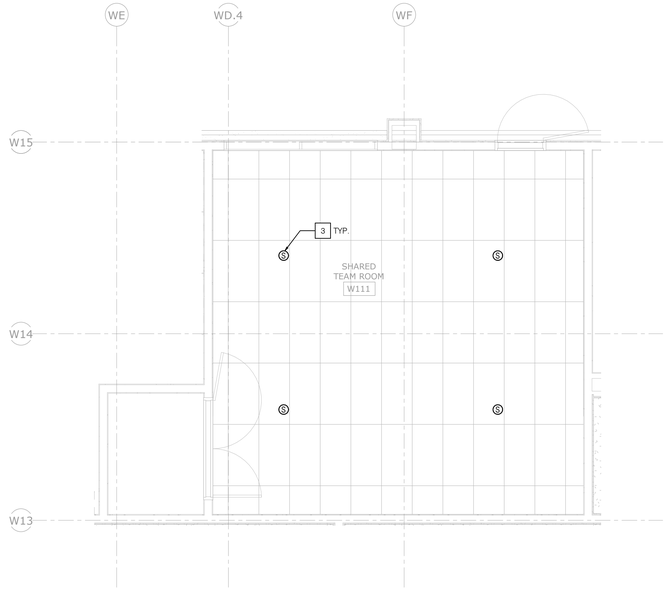
3

1. 65" WALL MOUNTED LED VIDEO DISPLAY, O.F.O.I.
2. AV WALL BOX, C.F.C.I.
3. CEILING MOUNTED SPEAKER, C.F.C.I.
4. AV EQUIPMENT RACK IN INSTRUCTOR'S STATION, O.F.O.I.
5. LED DISPLAY BACK BOX, CHIEF PAC 525, C.F.C.I.



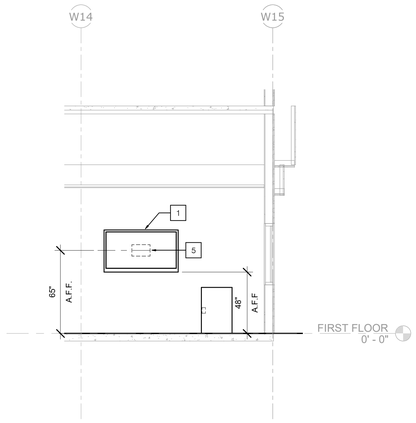
4 AV CONDUIT INFRASTRUCTURE

SCALE: NONE



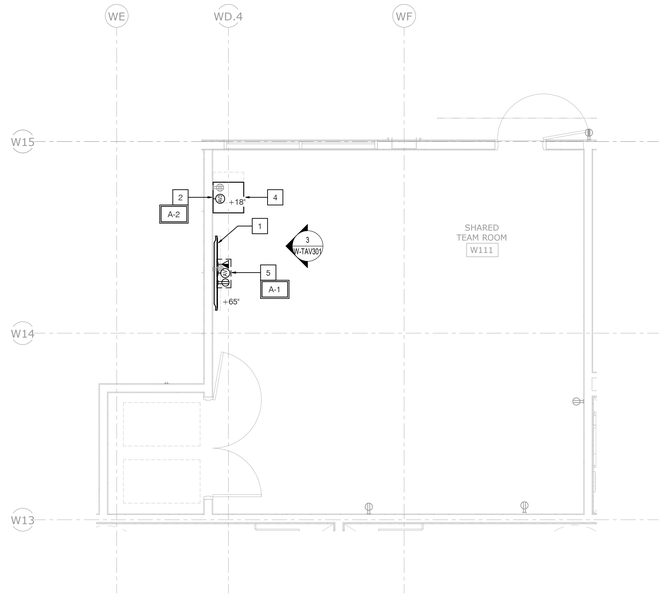
2 AUDIOVISUAL CEILING PLAN, SHARED TEAM ROOM W111

SCALE: 1/4" = 1'-0"



3 AUDIOVISUAL ELEVATION, SHARED TEAM ROOM W111

SCALE: 1/4" = 1'-0"



1 AUDIOVISUAL FLOOR PLAN, SHARED TEAM ROOM W111

SCALE: 1/4" = 1'-0"

STATE:

ARCHITECT:

architecture
westbergwhite
14471 CHAMBERS RD, SUITE 210
TUSTIN, CA 92780
(714) 508-1780 508-1790 FAX

CONSULTANT:

P2S ENG
Long Beach | Los Angeles
San Diego | San Jose
p2sinc.com

PROJECT NAME:

LIBERAL ARTS CAMPUS
KINESIOLOGY LABS and AQUATIC CENTER
4901 EAST CARSON STREET
LONG BEACH, CA 90806

CLIENT:

LONG BEACH CITY COLLEGE
4901 EAST CARSON STREET
LONG BEACH, CA 90806

No.	Rev. Date	Description
2	11/25/19	Addendum 02
3	12/16/19	Addendum 03

JOB NO: 16042.01

DATE: 09/18/19

DRAWN: CN

CHECK: ST

ARCHITECT: PDW

ENGINEER:

SHEET DESCRIPTION:
BLDG 'W1', SHARED TEAM ROOM W111, AV FLOOR AND RCP

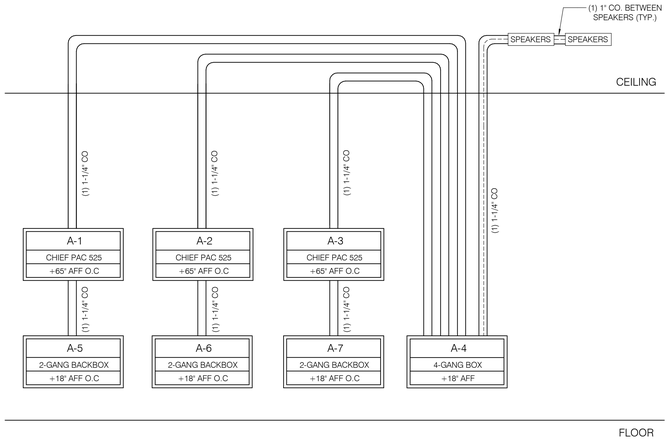
SHEET NO:

W-TAV301

NOTES

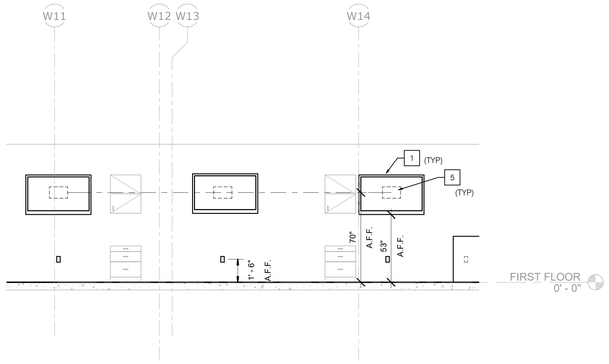
3

1. 55" WALL MOUNTED LED VIDEO DISPLAY WITH SWING ARM, O.F.O.I.
2. AV WALL BOX, C.F.C.I.
3. PENDANT MOUNTED SPEAKER, C.F.C.I.
4. AV EQUIPMENT RACK IN INSTRUCTORS STATION, C.F.C.I.
5. LED DISPLAY BACK BOX, CHIEF PAC 525, C.F.C.I.
6. MIP, MEDIA INPUT/OUTPUT PANEL WITH HDMI INPUT & OUTPUT, AUDIO INPUT & OUTPUT, O.F.O.I.



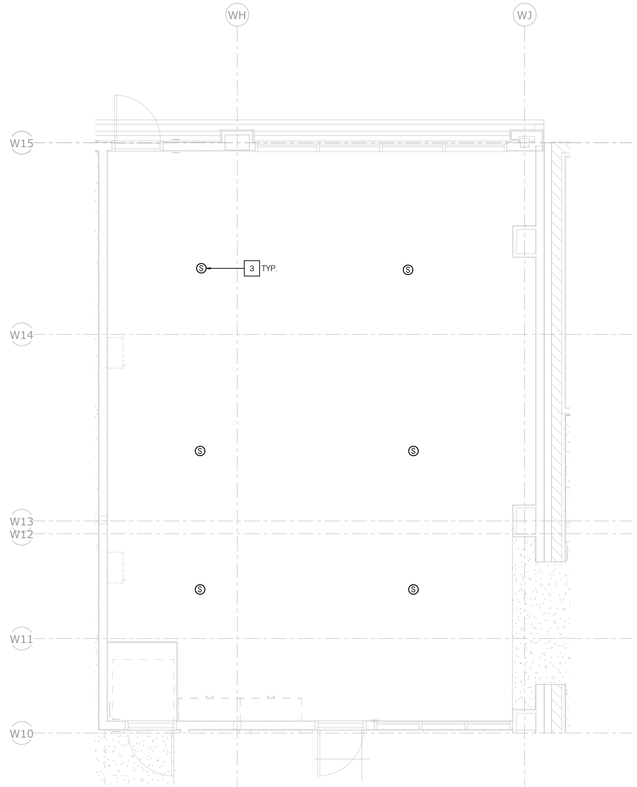
4 AV CONDUIT INFRASTRUCTURE

SCALE: NONE



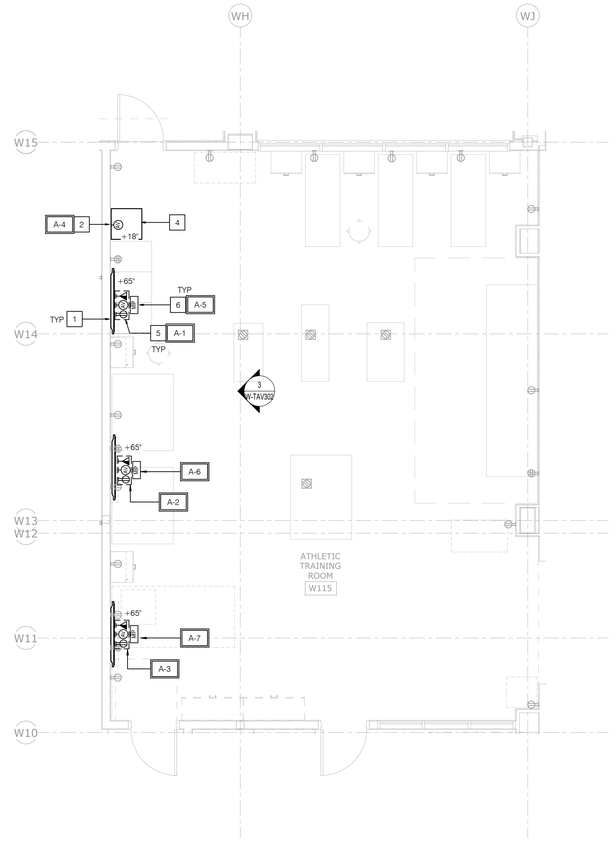
3 AUDIOVISUAL WEST ELEVATION, ATHLETIC TRAINING ROOM W115

SCALE: 1/4" = 1'-0"



2 AUDIOVISUAL CEILING PLAN, ATHLETIC TRAINING ROOM W115

SCALE: 1/4" = 1'-0"



1 AUDIOVISUAL FLOOR PLAN, ATHLETIC TRAINING ROOM W115

SCALE: 1/4" = 1'-0"

STATE:

ARCHITECT:

architecture
westbergwhite
14471 CHAMBERS RD, SUITE 210
TUSTIN, CA 92780
(714) 508-1780 508-1790 FAX

CONSULTANT:

P2S ENG
Long Beach | Los Angeles
San Diego | San Jose
p2sinc.com

PROJECT NAME:

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KINESIOLOGY LABS and AQUATIC CENTER
4901 EAST CARSON STREET
LONG BEACH, CA 90806

CLIENT:

LONG BEACH CITY COLLEGE
4901 EAST CARSON STREET
LONG BEACH, CA 90806

No.	Rev. Date	Description
2	11/25/19	Addendum 02
3	12/16/19	Addendum 03

JOB NO: 16042.01
DATE: 09/18/19
DRAWN: CN
CHECK: ST
ARCHITECT: PDW
ENGINEER:

SHEET DESCRIPTION:
BLDG 'W1', ATHLETIC TRAINING ROOM W115, AV FLOOR AND RCP

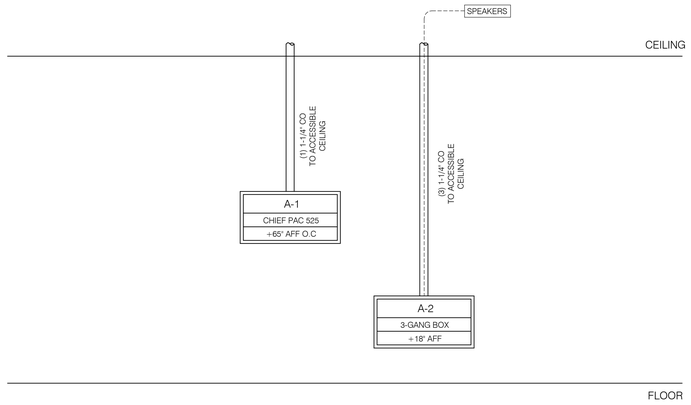
SHEET NO:

W-TAV302

NOTES

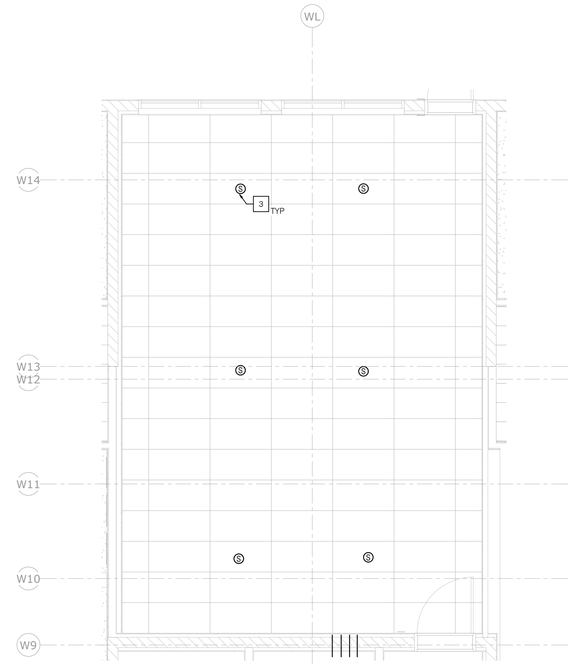
3

1. 65" WALL MOUNTED LED VIDEO DISPLAY, O.F.O.I.
2. AV WALL BOX, C.F.C.I.
3. CEILING MOUNTED SPEAKER, C.F.C.I.
4. AV EQUIPMENT RACK IN INSTRUCTOR'S STATION, O.F.O.I.
5. LED DISPLAY BACK BOX, CHIEF PAC 525, C.F.C.I.



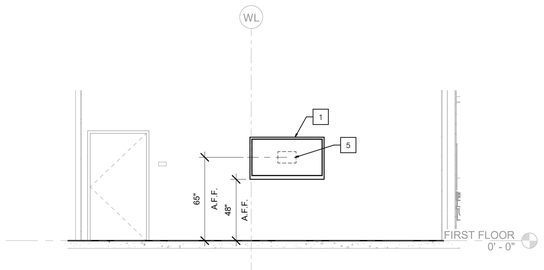
4 AV CONDUIT INFRASTRUCTURE

SCALE: NONE



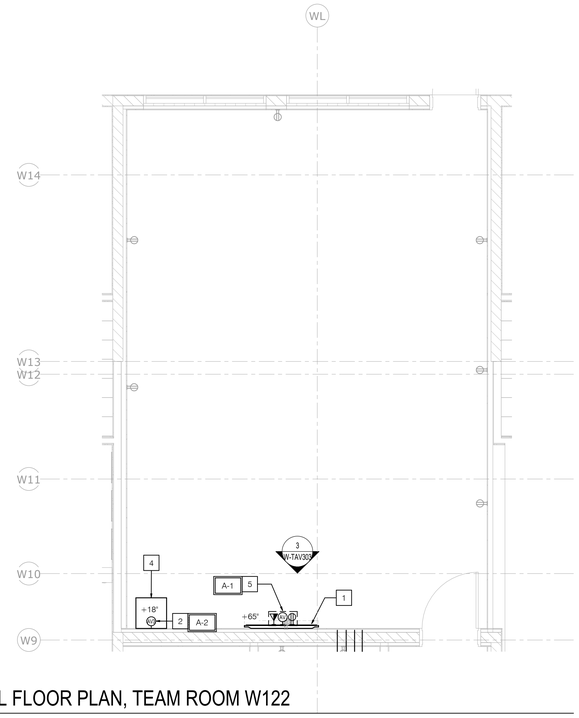
2 AUDIOVISUAL CEILING PLAN, TEAM ROOM W122

SCALE: 1/4" = 1'-0"



3 AUDIOVISUAL ELEVATION, TEAM ROOM W122

SCALE: 1/4" = 1'-0"



1 AUDIOVISUAL FLOOR PLAN, TEAM ROOM W122

SCALE: 1/4" = 1'-0"

STATE:

ARCHITECT:

architecture
westbergwhite
14471 CHAMBERS RD, SUITE 210
TUSTIN, CA 92780
(714) 508-1780 508-1790 FAX

CONSULTANT:

P2S ENG
Long Beach | Los Angeles
San Diego | San Jose
p2sinc.com



PROJECT NAME:

LIBERAL ARTS CAMPUS
KINESIOLOGY LABS and AQUATIC CENTER
4901 EAST CARSON STREET
LONG BEACH, CA 90806

CLIENT:

LONG BEACH CITY COLLEGE
4901 EAST CARSON STREET
LONG BEACH, CA 90806

No.	Rev. Date	Description
2	11/25/19	Addendum 02
3	12/16/19	Addendum 03

JOB NO: 16042.01

DATE: 09/18/19

DRAWN: CN

CHECK: ST

ARCHITECT: PDW

ENGINEER:

SHEET DESCRIPTION:
BLDG 'W1', TEAM ROOM W122, AV FLOOR AND RCP

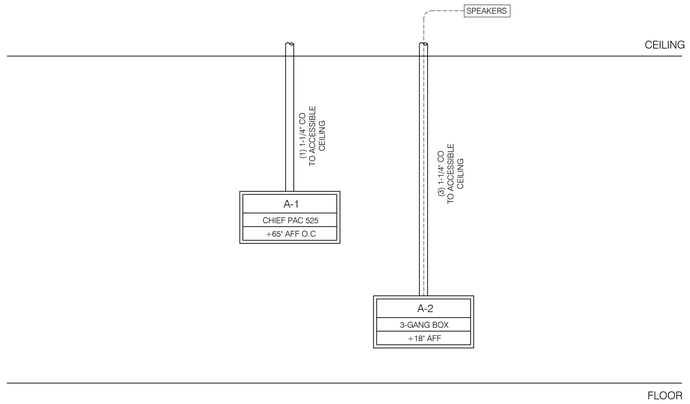
SHEET NO:

W-TAV303

NOTES

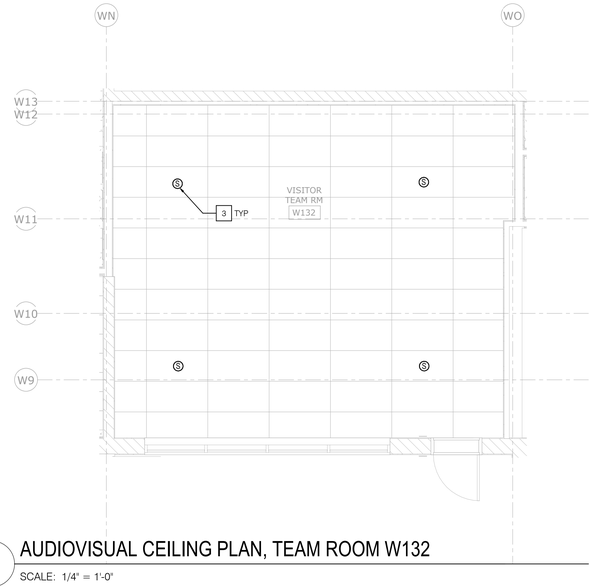
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1. 65" WALL MOUNTED LED VIDEO DISPLAY, O.F.O.I.
2. AV WALL BOX, C.F.C.I.
3. CEILING MOUNTED SPEAKER, C.F.C.I.
4. AV EQUIPMENT RACK IN INSTRUCTOR'S STATION, O.F.O.I.
5. LED DISPLAY BACK BOX, CHIEF PAC 525, C.F.C.I.



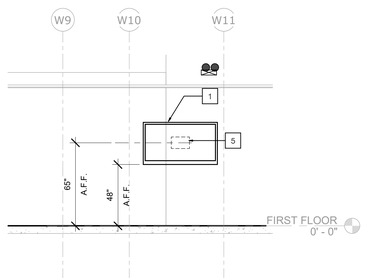
4 AV CONDUIT INFRASTRUCTURE

SCALE: NONE



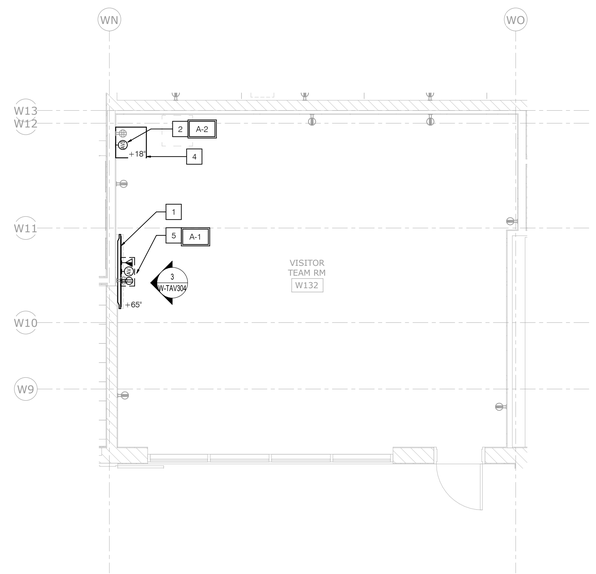
2 AUDIOVISUAL CEILING PLAN, TEAM ROOM W132

SCALE: 1/4" = 1'-0"



3 AUDIOVISUAL ELEVATION, TEAM ROOM W132

SCALE: 1/4" = 1'-0"



1 AUDIOVISUAL FLOOR PLAN, TEAM ROOM W132

SCALE: 1/4" = 1'-0"

STATE:

ARCHITECT:

architecture
westbergwhite
14471 CHAMBERS RD, SUITE 210
TUSTIN, CA 92780
(714) 508-1780 508-1790 FAX

CONSULTANT:

P2S ENG
Long Beach | Los Angeles
San Diego | San Jose
p2sinc.com

STATE OF CALIFORNIA PROFESSIONAL ENGINEER
Mark Henderson
No. E22361
ELECTRICAL

PROJECT NAME:

LIBERAL ARTS CAMPUS
KINESIOLOGY LABS and AQUATIC CENTER
4901 EAST CARSON STREET
LONG BEACH, CA 90806

CLIENT:

LONG BEACH CITY COLLEGE
4901 EAST CARSON STREET
LONG BEACH, CA 90806

No.	Rev. Date	Description
2	11/25/19	Addendum 02
3	12/16/19	Addendum 03

JOB NO: 16042.01

DATE: 09/18/19

DRAWN: CN

CHECK: ST

ARCHITECT: PDW

ENGINEER:

SHEET DESCRIPTION:
BLDG 'W1', TEAM ROOM W132, AV FLOOR AND RCP

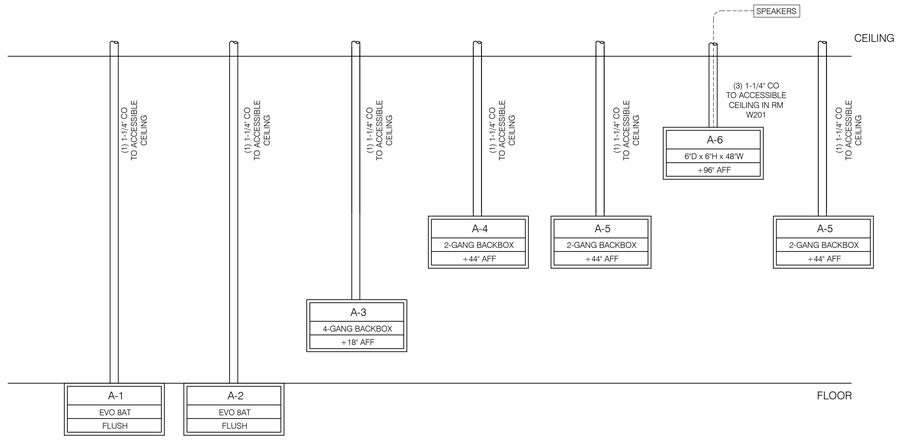
SHEET NO:

W-TAV304

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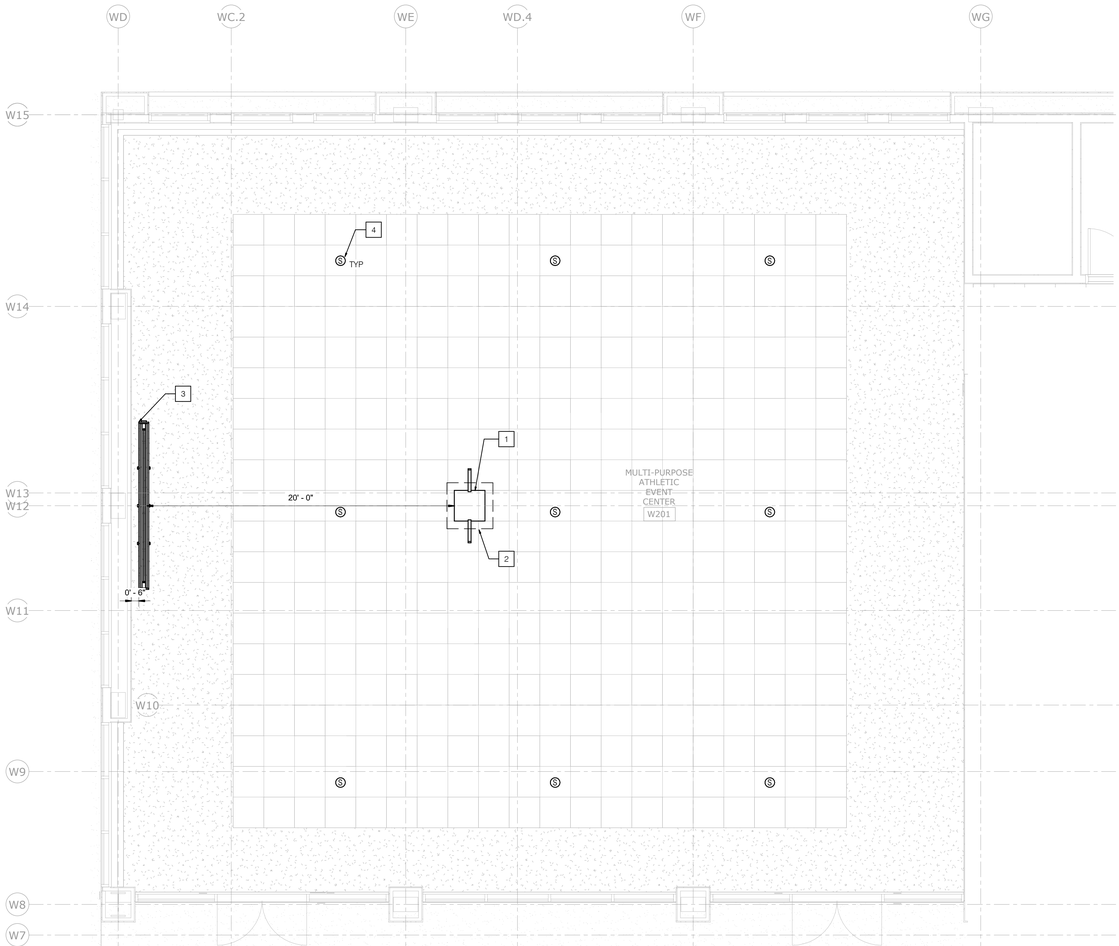
3

1. PROJECTOR, CEILING MOUNTED, O.F.O.I. WITH PROJECTOR LIFT
2. PROJECTION LIFT, C.F.C.I.
3. PROJECTION SCREEN, MOTORIZED, CEILING RECESSED, C.F.C.I.
4. SPEAKER, CEILING MOUNTED, C.F.C.I.
5. AV FLOOR BOX, C.F.C.I.
6. TOUCH PANEL CONTROL SYSTEM INTERFACE, O.F.O.I.
7. PROJECTION SCREEN LIFT LOW VOLTAGE SWITCH AND PROJECTION LIFT LOW VOLTAGE SWITCH, C.F.C.I.
8. 6"X6"X48" GUTTER WITH COVER MOUNTED ABOVE RACK, C.F.C.I.
9. AV EQUIPMENT RACKS FOR POOL/SOCCER FIELDS AND MULTI-PURPOSE ATHLETIC EVENT CENTER, O.F.O.I.
10. MIP, MEDIA INPUT/OUTPUT PANEL WITH HDMI INPUT & OUTPUT, AUDIO INPUT & OUTPUT, O.F.O.I.



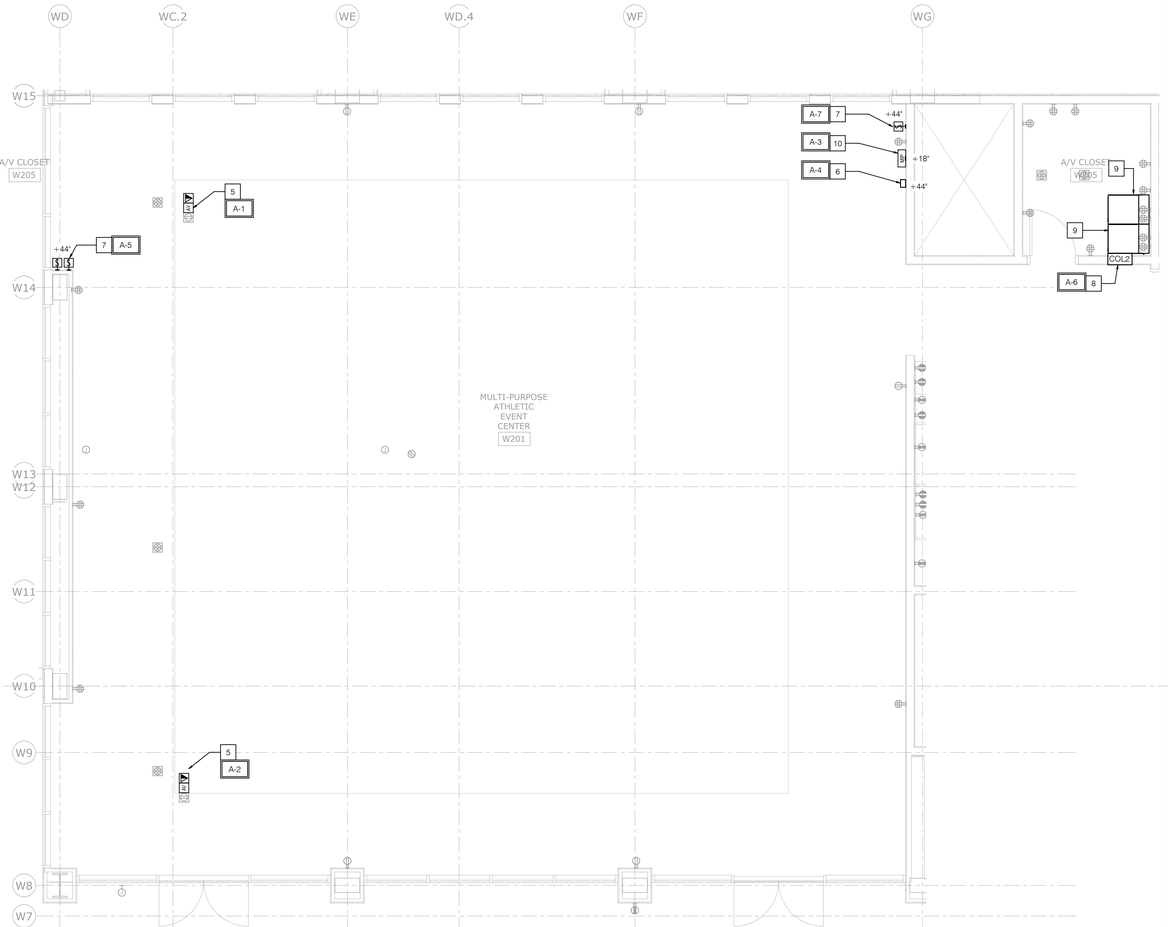
3 AV CONDUIT INFRASTRUCTURE

SCALE: NONE



2 AUDIOVISUAL CEILING PLAN, MULTI-PURPOSE ATHLETIC EVENT CENTER W201

SCALE: 1/4" = 1'-0"



1 AUDIOVISUAL FLOOR PLAN, MULTI-PURPOSE ATHLETIC EVENT CENTER W201

SCALE: 1/4" = 1'-0"

12/17/2019 9:32:01 AM C:\Users\James Gecosala\Documents\CAD Drawings_R18\J9032_MEPT-Central-R18_james.gecosala.rvt

STATE:

ARCHITECT:

architecture
westbergwhite
14471 CHAMBERS RD, SUITE 210
TUSTIN, CA 92780
(714) 508-1780 508-1790 FAX

CONSULTANT:

P2S ENG
Long Beach | Los Angeles
San Diego | San Jose
p2sinc.com



PROJECT NAME:

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4901 EAST CARSON STREET
LONG BEACH, CA 90806

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4901 EAST CARSON STREET
LONG BEACH, CA 90806

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JOB NO: 16042.01

DATE: 09/18/19

DRAWN: CN

CHECK: ST

ARCHITECT: PDW

ENGINEER:

SHEET DESCRIPTION:
BLDG 'W1' MPR. ATHLETIC EVENT CENTER W201, AV FLOOR AND RCP

SHEET NO:

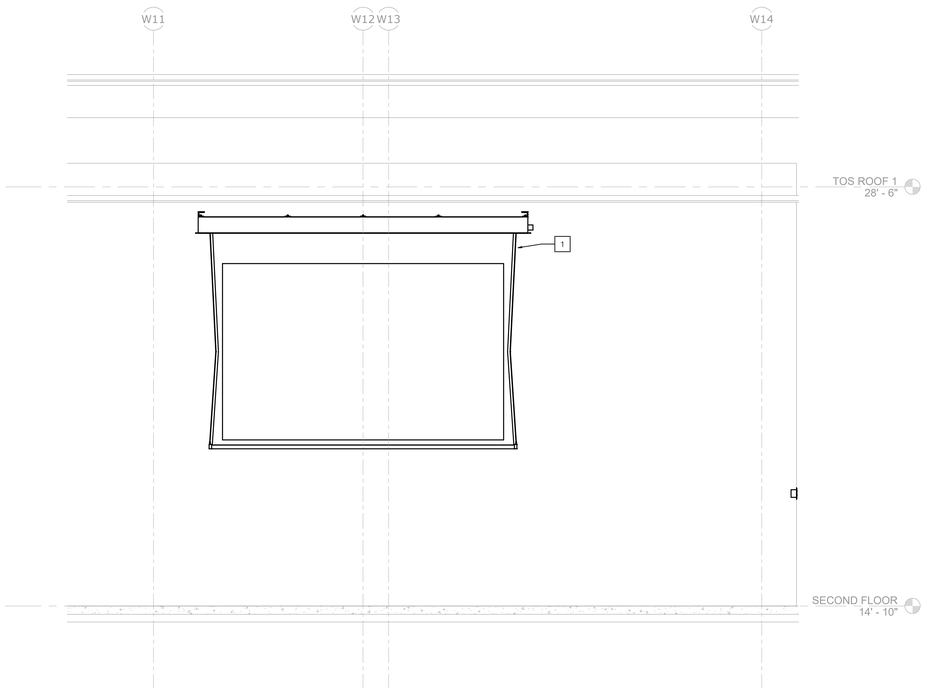
W-TAV305

P2S No. J9032

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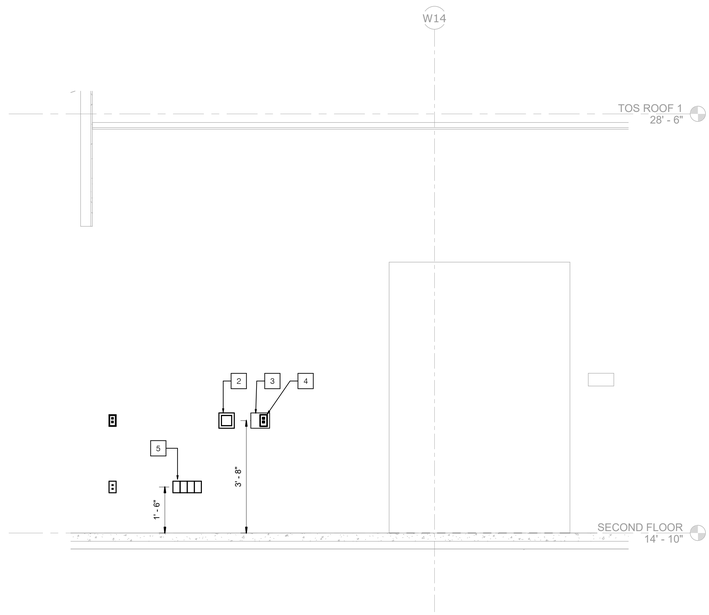
3

1. PROJECTION SCREEN, MOTORIZED, CEILING RECESSED, C.F.C.I.
2. TOUCH PANEL CONTROL SYSTEM INTERFACE MOUNTED AT 44", O.F.O.I.
3. PROJECTION SCREEN LIFT LOW VOLTAGE SWITCH MOUNTED AT 44", C.F.C.I.
4. PROJECTION LIFT LOW VOLTAGE SWITCH, C.F.C.I.
5. MIP, MEDIA INPUT/OUTPUT PANEL WITH HDMI INPUT & OUTPUT, AUDIO INPUT & OUTPUT, O.F.O.I.



2 AUDIOVISUAL WEST ELEVATION, MULTI-PURPOSE ATHLETIC EVENT CENTER W201

SCALE: 1/2" = 1'-0"



1 AUDIOVISUAL EAST ELEVATION, MULTI-PURPOSE ATHLETIC EVENT CENTER W201

SCALE: 1/2" = 1'-0"

STATE:

ARCHITECT:

architecture
westbergwhite
14471 CHAMBERS RD, SUITE 210
TUSTIN, CA 92780
(714) 508-1780 508-1790 FAX

CONSULTANT:

P2S ENG
Long Beach | Los Angeles
San Diego | San Jose
p2sinc.com



PROJECT NAME:

LIBERAL ARTS CAMPUS
KINESIOLOGY LABS and AQUATIC CENTER
4901 EAST CARSON STREET
LONG BEACH, CA 90806

CLIENT:

LONG BEACH CITY COLLEGE
4901 EAST CARSON STREET
LONG BEACH, CA 90806

No.	Rev. Date	Description
3	12/16/19	Addendum 03

JOB NO: 16042.01

DATE: 09/18/19

DRAWN: Author

CHECK: ST

ARCHITECT: PDW

ENGINEER:

SHEET DESCRIPTION:
BLDG 'W1', MPR. ATHLETIC EVENT CENTER W201, ELEVATIONS

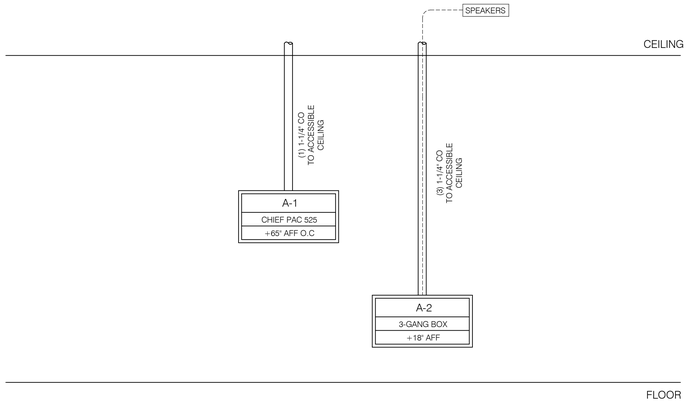
SHEET NO:

W-TAV306

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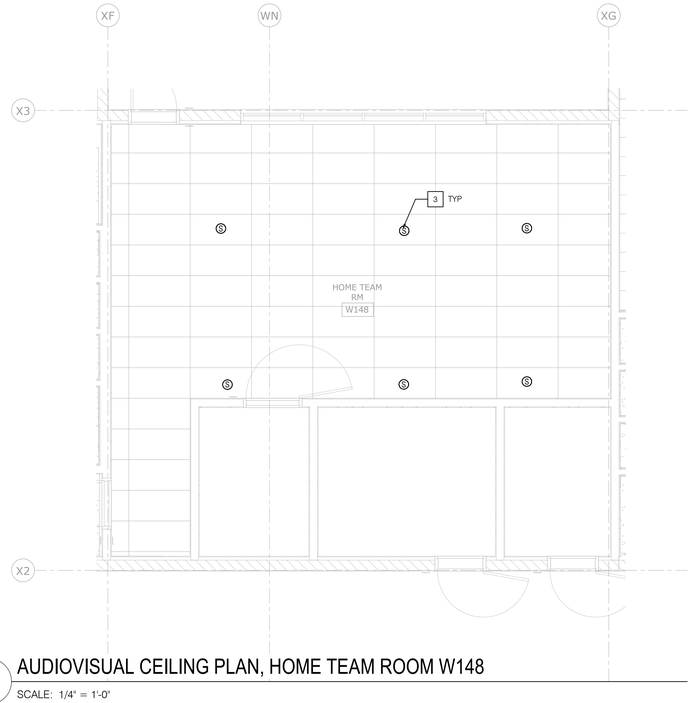
△3

1. 70" WALL MOUNTED LED VIDEO DISPLAY, O.F.O.I.
2. AV WALL BOX, C.F.C.I.
3. CEILING MOUNTED SPEAKER, C.F.C.I.
4. AV EQUIPMENT RACK IN INSTRUCTORS STATION, O.F.O.I.
5. LED DISPLAY BACK BOX, CHIEF PAC 525, C.F.C.I.



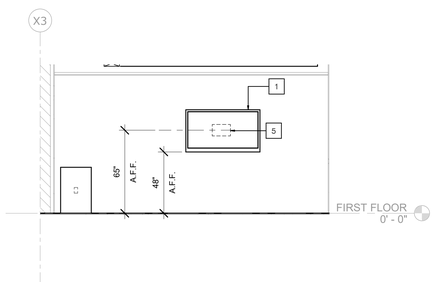
4 AV CONDUIT INFRASTRUCTURE

SCALE: NONE



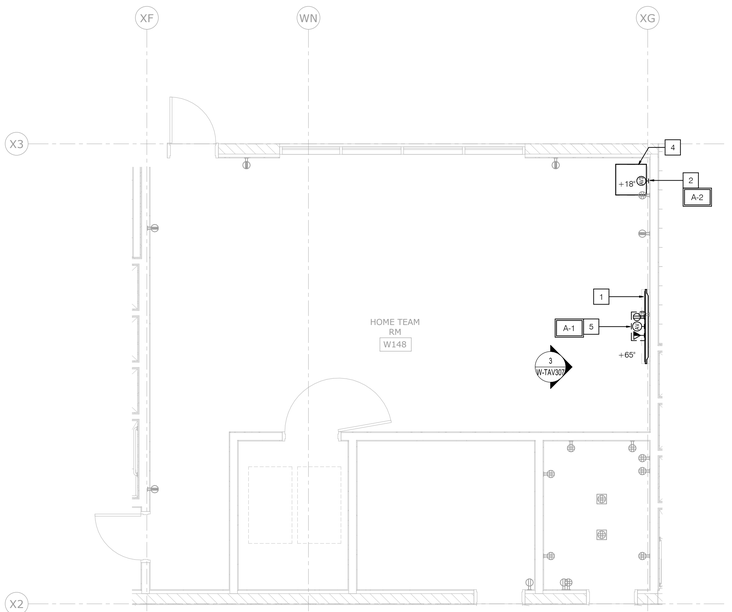
2 AUDIOVISUAL CEILING PLAN, HOME TEAM ROOM W148

SCALE: 1/4" = 1'-0"



3 AUDIOVISUAL ELEVATION, HOME TEAM ROOM W148

SCALE: 1/4" = 1'-0"



1 AUDIOVISUAL FLOOR PLAN, HOME TEAM ROOM W148

SCALE: 1/4" = 1'-0"

STATE:

ARCHITECT:

architecture
westbergwhite
14471 CHAMBERS RD, SUITE 210
TUSTIN, CA 92780
(714) 508-1780 508-1790 FAX

CONSULTANT:

P2S ENG
Long Beach | Los Angeles
San Diego | San Jose
p2sinc.com



PROJECT NAME:

LIBERAL ARTS CAMPUS
KINESIOLOGY LABS and AQUATIC CENTER
4901 EAST CARSON STREET
LONG BEACH, CA 90806

CLIENT:

LONG BEACH CITY COLLEGE
4901 EAST CARSON STREET
LONG BEACH, CA 90806

No.	Rev. Date	Description
2	11/25/19	Addendum 02
3	12/16/19	Addendum 03

JOB NO: 16042.01

DATE: 09/18/19

DRAWN: CN

CHECK: ST

ARCHITECT: PDW

ENGINEER:

SHEET DESCRIPTION:
BLDG 'W2', HOME TEAM ROOM W148, AV FLOOR AND RCP

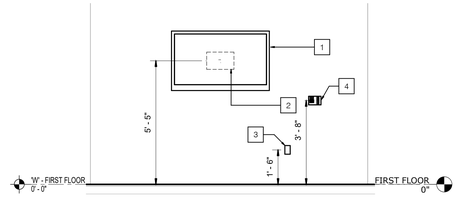
SHEET NO:

W-TAV307

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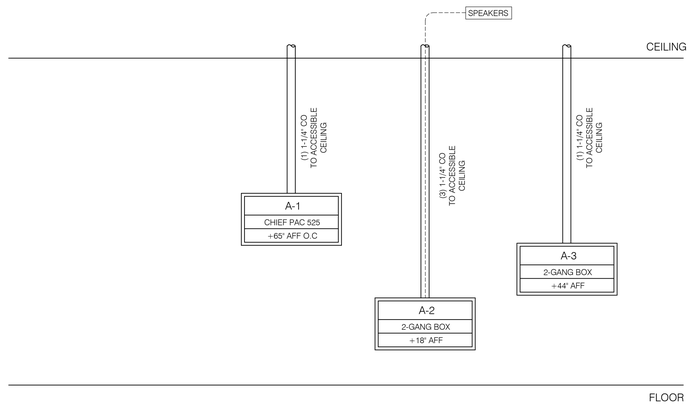
3

1. 55" LED DISPLAY, O.F.O.I.
2. DISPLAY BACK BOX, C.F.C.I.
3. MIP, MEDIA INPUT PANEL, O.F.O.I.
4. CONTROL PANEL, O.F.O.I.



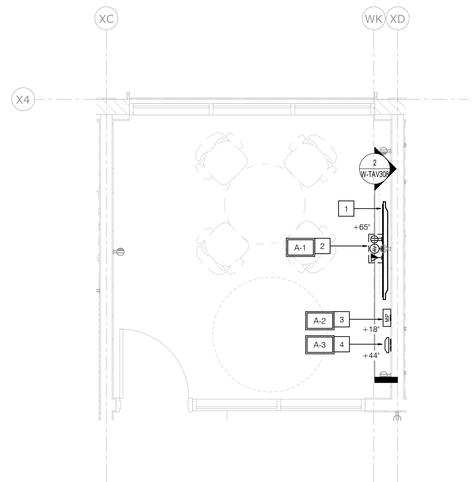
2 AUDIOVISUAL ELEVATION, AQUATICS COACH CONFERENCE ROOM W-164

SCALE: 3/8" = 1'-0"



3 AV CONDUIT INFRASTRUCTURE

SCALE: NONE



1 AUDIOVISUAL FLOOR PLAN, AQUATICS COACH CONFERENCE ROOM W-164

SCALE: 3/8" = 1'-0"

STATE:

ARCHITECT:

westbergwhite architecture
14471 CHAMBERS RD, SUITE 210
TUSTIN, CA 92780
(714) 508-1780 508-1790 FAX

CONSULTANT:

P2S ENG
Long Beach | Los Angeles
San Diego | San Jose
p2sinc.com

STATE OF CALIFORNIA — JAMES HENDERSON — No. E22361 — ELECTRICAL

PROJECT NAME:

LIBERAL ARTS CAMPUS
KINESIOLOGY LABS and AQUATIC CENTER
4901 EAST CARSON STREET
LONG BEACH, CA 90806

CLIENT:

LONG BEACH CITY COLLEGE
4901 EAST CARSON STREET
LONG BEACH, CA 90806

No.	Rev. Date	Description
2	11/25/19	Addendum 02
3	12/16/19	Addendum 03

JOB NO: 16042.01
DATE: 09/18/19
DRAWN: Author
CHECK: Checker
ARCHITECT: PDW
ENGINEER:

SHEET DESCRIPTION:
BLDG 'W2', AQUATICS COACH CONFERENCE ROOM W-164

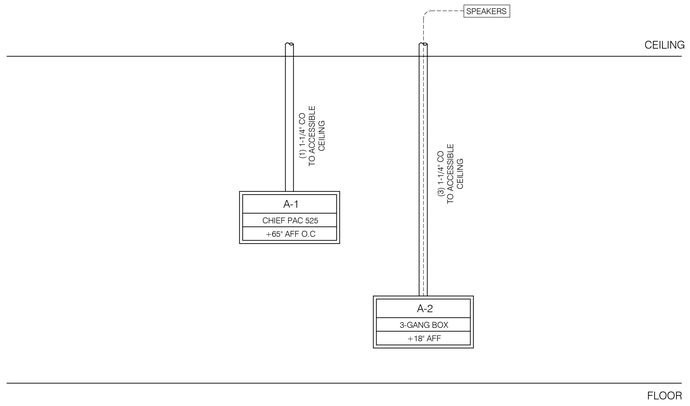
SHEET NO:

W-TAV308

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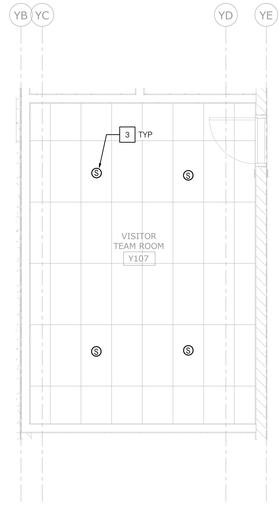
3

1. 70" WALL MOUNTED LED VIDEO DISPLAY, O.F.O.I.
2. AV WALL BOX, C.F.C.I.
3. CEILING MOUNTED SPEAKER, C.F.C.I.
4. AV EQUIPMENT RACK IN INSTRUCTORS STATION, O.F.O.I.
5. LED DISPLAY BACK BOX, CHIEF PAC 525, C.F.C.I.



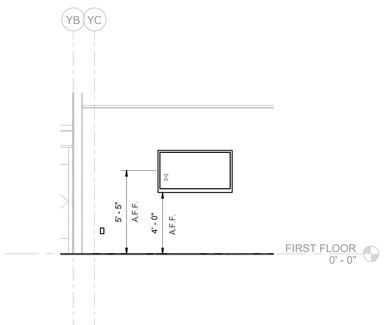
4 AV CONDUIT INFRASTRUCTURE

SCALE: NONE



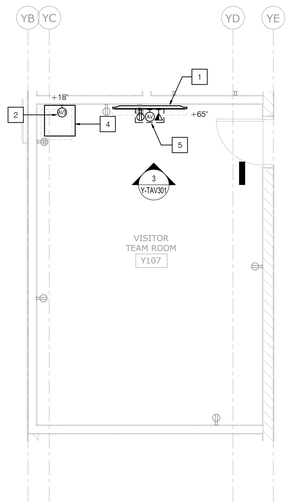
2 AUDIOVISUAL CEILING PLAN, VISITOR TEAM ROOM Y107

SCALE: 1/4" = 1'-0"



3 AUDIOVISUAL ELEVATION, VISITOR TEAM ROOM Y107

SCALE: 1/4" = 1'-0"



1 AUDIOVISUAL FLOOR PLAN, VISITOR TEAM ROOM Y107

SCALE: 1/4" = 1'-0"

STATE:

ARCHITECT:

architecture
westbergwhite
14471 CHAMBERS RD, SUITE 210
TUSTIN, CA 92780
(714) 508-1780 508-1790 FAX

CONSULTANT:

P2S ENG
Long Beach | Los Angeles
San Diego | San Jose
p2sinc.com

STATE OF CALIFORNIA — JAMES HENDERSON — No. E22361 — ELECTRICAL

PROJECT NAME:

LIBERAL ARTS CAMPUS
KINESIOLOGY LABS and AQUATIC CENTER
4901 EAST CARSON STREET
LONG BEACH, CA 90806

CLIENT:

LONG BEACH CITY COLLEGE
4901 EAST CARSON STREET
LONG BEACH, CA 90806

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JOB NO: 16042.01

DATE: 09/18/19

DRAWN: CN

CHECK: ST

ARCHITECT: PDW

ENGINEER:

SHEET DESCRIPTION:
BLDG 'Y', VISITOR TEAM ROOM Y107, AV FLOOR AND RCP

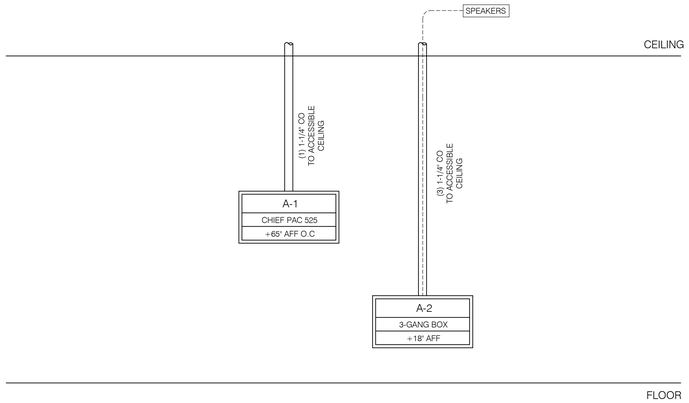
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Y-TAV301

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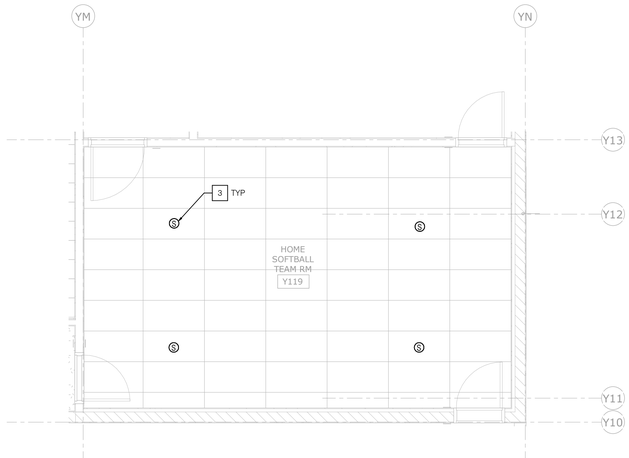
△3

1. 70" WALL MOUNTED LED VIDEO DISPLAY, O.F.O.I.
2. AV WALL BOX, C.F.C.I.
3. CEILING MOUNTED SPEAKER, C.F.C.I.
4. AV EQUIPMENT RACK IN INSTRUCTORS STATION, O.F.O.I.
5. LED DISPLAY BACK BOX, CHIEF PAC 525, C.F.C.I.



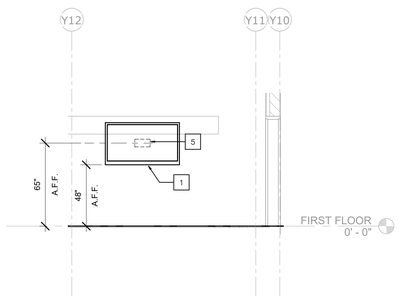
4 AV CONDUIT INFRASTRUCTURE

SCALE: NONE



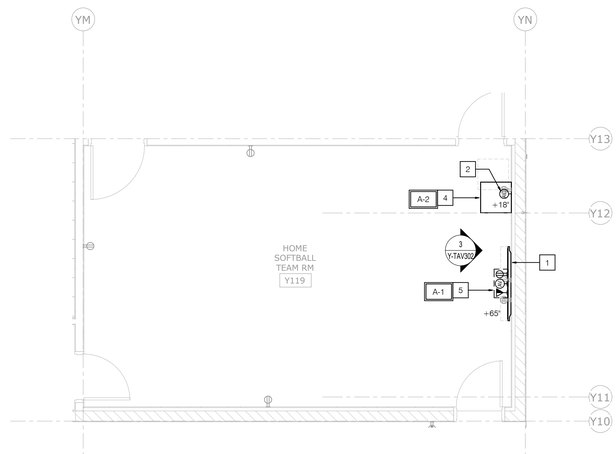
2 AUDIOVISUAL CEILING PLAN, HOME SOFTBALL TEAM ROOM Y119

SCALE: 1/4" = 1'-0"



3 AUDIOVISUAL ELEVATION, HOME SOFTBALL TEAM ROOM Y119

SCALE: 1/4" = 1'-0"



1 AUDIOVISUAL FLOOR PLAN, HOME SOFTBALL TEAM ROOM Y119

SCALE: 1/4" = 1'-0"

STATE:

ARCHITECT:

westbergwhite architecture
14471 CHAMBERS RD, SUITE 210
TUSTIN, CA 92780
(714) 508-1780 508-1790 FAX

CONSULTANT:

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LONG BEACH, CA 90806

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2	11/25/19	Addendum 02
3	12/16/19	Addendum 03

JOB NO: 16042.01

DATE: 09/18/19

DRAWN: CN

CHECK: ST

ARCHITECT: PDW

ENGINEER:

SHEET DESCRIPTION:
BLDG 'Y', VISITOR TEAM ROOM Y119, AV FLOOR AND RCP

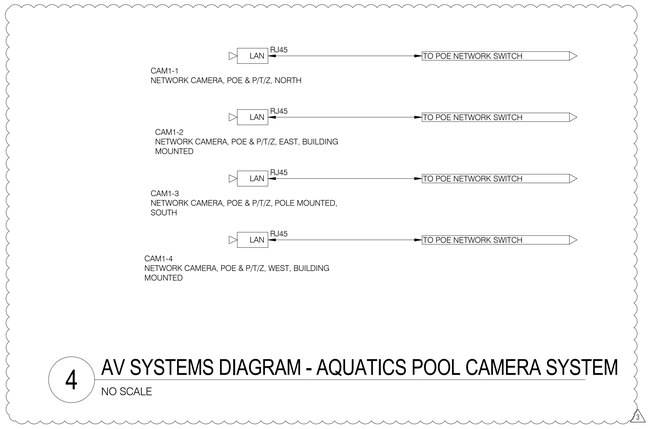
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Y-TAV302

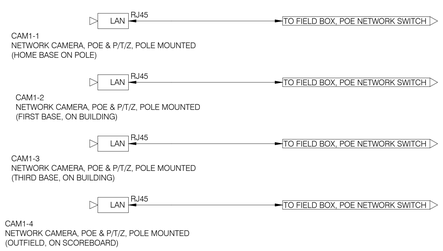
P2S No. J9032

PLAN NOTES:

1 CABLE, DATA, CAT-6, OSP, SEE SPECIFICATIONS SECTION 271300 & 271500



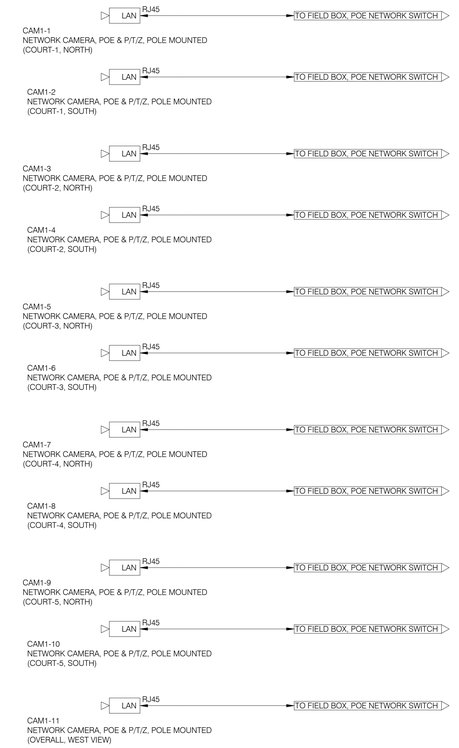
4 AV SYSTEMS DIAGRAM - AQUATICS POOL CAMERA SYSTEM
NO SCALE



3 AV SYSTEMS DIAGRAM - SOFTBALL FIELD CAMERA SYSTEM
NO SCALE



2 AV SYSTEMS DIAGRAM - SOCCER FIELDS CAMERA SYSTEM
NO SCALE



1 AV SYSTEMS DIAGRAM - VOLLEYBALL COURTS CAMERA SYSTEM
NO SCALE

STATE:

ARCHITECT:

architecture
westbergwhite
14471 CHAMBERS RD, SUITE 210
TUSTIN, CA 92780
(714) 508-1780 508-1790 FAX

CONSULTANT:

P2S ENG
Long Beach | Los Angeles
San Diego | San Jose
p2sinc.com

JAMES HENDERSON GECOSALA No. E22361 ELECTRICAL STATE OF CALIFORNIA

PROJECT NAME:

LIBERAL ARTS CAMPUS
KINESIOLOGY LABS and AQUATIC CENTER
4901 EAST CARSON STREET
LONG BEACH, CA 90806

CLIENT:

LONG BEACH CITY COLLEGE
4901 EAST CARSON STREET
LONG BEACH, CA 90806

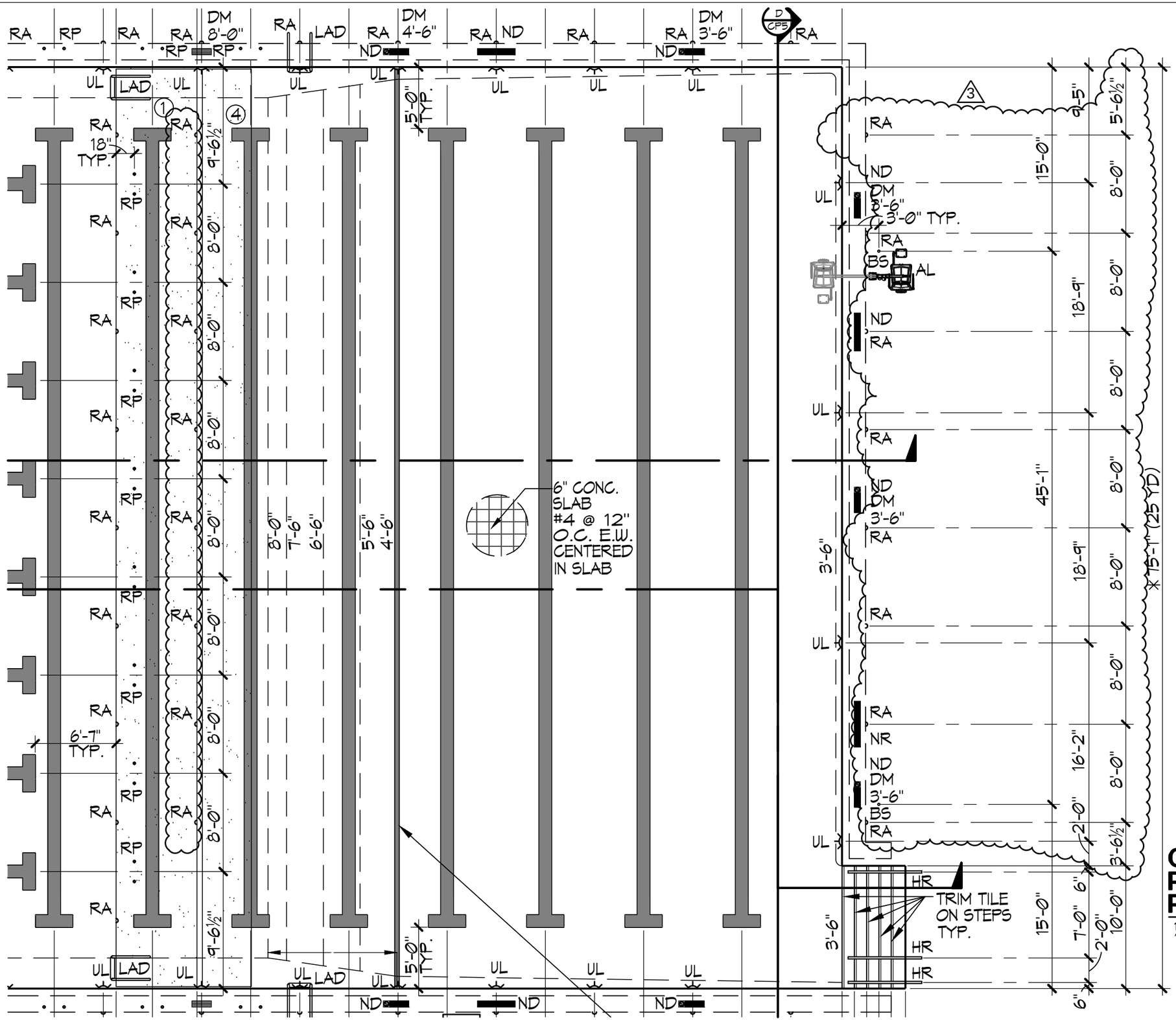
No.	Rev. Date	Description

JOB NO: 16042.01
DATE: 09/18/19
DRAWN: Author
CHECK: Checker
ARCHITECT: PDW
ENGINEER:

SHEET DESCRIPTION:
AUDIO VISUAL SYSTEM DIAGRAMS

SHEET NO:

TAV507



COMPETITION POOL LAYOUT PLAN

⅛"=1'-0"

AQUATIC DESIGN GROUP
2226 Faraday Ave. Carlsbad, CA 92008
AquaticDesignGroup.com
760.438.8400

architecture westbergwhite
14471 CHAMBERS RD, SUITE 210
TUSTIN, CA 92780
(714) 508-1780 508-1790 FAX

ARCHITECT:
LICENSED ARCHITECT SCOTT J. FERRELL C-36222 REN 12/31/21 STATE OF CALIFORNIA

PROJECT:
LIBERAL ARTS CAMPUS
KINESIOLOGY LABS and AQUATIC CENTER
LONG BEACH CITY COLLEGE

SHEET DESCRIPTION:
COMPETITION POOL LAYOUT PLAN

DATE:	12-17-19
JOB NO:	16042.02
DRAWN:	NFC
DSA FILE NO:	19-C3
DSA APP NO:	03-119628
ADDENDA #:	03
CCD #:	
BULLETIN #:	
RFI #:	
SHEET	SKPL-01

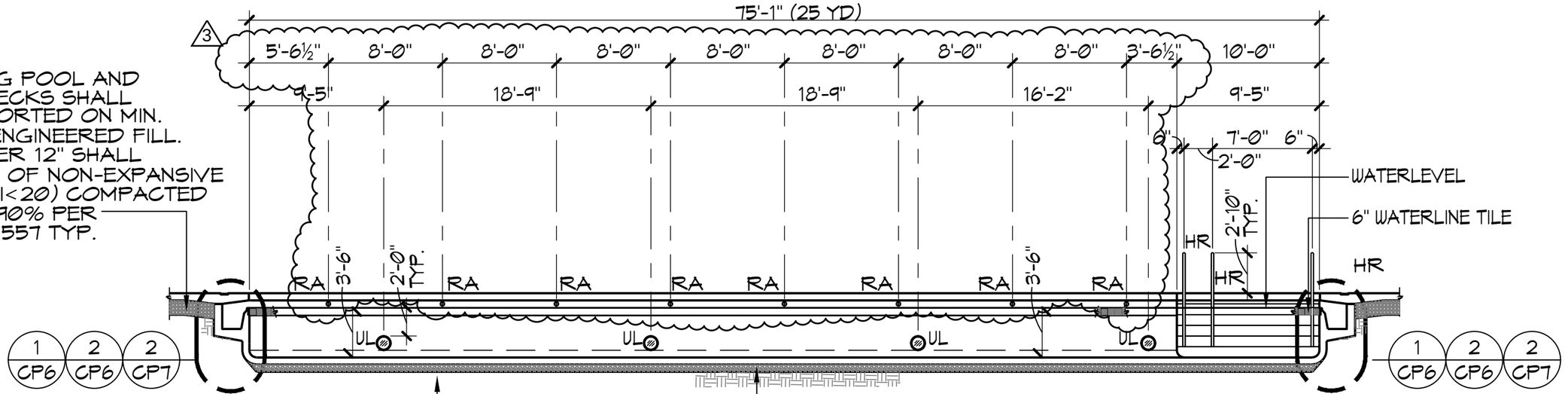
AQUATIC
DESIGN GROUP
2226 Faraday Ave. Carlsbad, CA 92008
AquaticDesignGroup.com
760.438.8400

architecture
westbergwhite
14471 CHAMBERS RD, SUITE 210
TUSTIN, CA 92780
(714) 508-1780 508-1790 FAX

ARCHITECT:

LICENSED ARCHITECT
SCOTT J. FERRELL
C-36222
REN 12/31/21
STATE OF CALIFORNIA

SWIMMING POOL AND POOL DECKS SHALL BE SUPPORTED ON MIN. 30" OF ENGINEERED FILL. THE UPPER 12" SHALL CONSIST OF NON-EXPANSIVE SOILS (EI<20) COMPACTED TO MIN. 90% PER ASTM D1557 TYP.



SWIMMING POOL AND POOL DECKS SHALL BE SUPPORTED ON MIN. 30" OF ENGINEERED FILL. THE UPPER 12" SHALL CONSIST OF NON-EXPANSIVE SOILS (EI<20) COMPACTED TO MIN. 90% PER ASTM D1557 TYP.

PROVIDE 6" OF ¾" CRUSHED ROCK OR CLASS 2 PERMEABLE BASE UNDER POOL FLOOR OVER ENGINEERED FILL TYP.

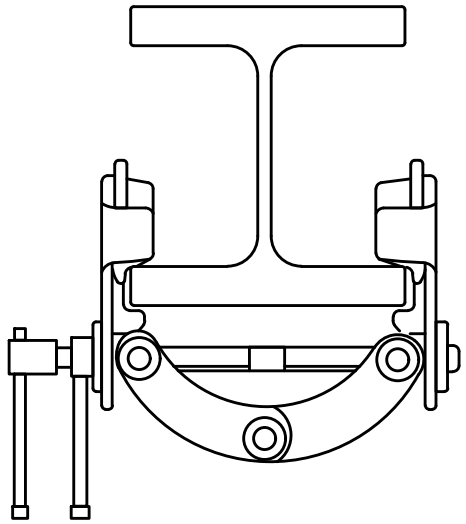
COMPETITION POOL SECTION

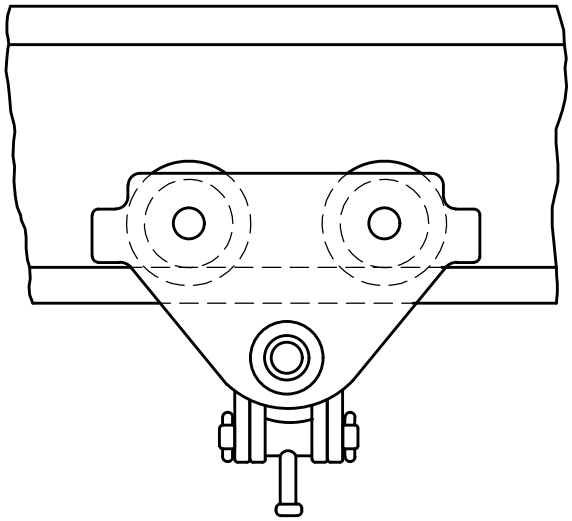
⅛"=1'-0"

PROJECT:
LIBERAL ARTS CAMPUS
KINESIOLOGY LABS and AQUATIC CENTER
LONG BEACH CITY COLLEGE

SHEET DESCRIPTION:
COMPETITION POOL SECTION

DATE:	12-17-19
JOB NO:	16042.02
DRAWN:	NFC
DSA FILE NO:	19-C3
DSA APP NO:	03-119628
ADDENDA #:	03
CCD #:	
BULLETIN #:	
RFI #:	
SHEET	SKPL-02





3

BEAM CLAMP TROLLEY

SCALE: NONE

NOTE:

1 TON CAPACITY BEAM CLAMP WITH INTEGRAL TROLLEY AND HOIST SYSTEM, ATTACH TO TROLLEY BEAM AS SHOWN ON 3/S4.05

LICENSED ARCHITECT
SCOTT J. FERRELL
C-26222
REN. 12/31/21
STATE OF CALIFORNIA

architecture
westbergwhite
14471 CHAMBERS RD, SUITE 210
TUSTIN, CA 92780
(714) 508-1780 508-1790 FAX

CONSULTANT:
AQUATIC
DESIGN GROUP
2226 Faraday Ave. Carlsbad, CA 92008
AquaticDesignGroup.com
760.438.8400

PROJECT:
Long Beach City College
KINESIOLOGY LABS and AQUATIC CENTER
LONG BEACH COMMUNITY COLLEGE DISTRICT

SHEET DESCRIPTION:
BEAM CLAMP TROLLEY
NEW DETAIL 8/MR5

DSA FILE NO: 19-C3	DATE: 12-17-19
DSA #: 03-119628	JOB NO: 16042.01
ADDENDA #: #03	DRAWN: NFC
CCD #:	SHEET
BULLETIN #:	SKPL-03
RFI #:	