

13000 SW 2nd St Beaverton, OR 97005



VICINITY MAP

BEAVERTON HIGH SCHOOL THEATRE UPGRADES

1:	ADMINISTRATION
ADDRESS:	
	BEAVERTON HIGH SCHOOL
	13000 SW 2nd STREET
	BEAVERTON, OR 97005
TIONAL AUTHO	RITY:
	CITY OF BEAVERTON
BLE CODE:	
	2019 OREGON STRUCTURAL SPECIALITI CODE 2019 OSSC APPENDIX CHAPTER N
	2020 OREGON ELECTRICAL SPECIALTY CODE
	2020 OREGON PLUMBING SPECIALTY CODE
	NFPA 101 (NOTE: LOCAL CODE WILL TAKE PRECEDENCE. DEVIATIONS
	FROM NFPA IN INDIVIDUAL SECTIONS.)
APTER 11:	
	NOT AT LEGABLE TO THOP OSED SCOTE
D SUBMITTALS	:
	ELECTRICAL & PRODUCTION LIGHTING
	151164010000
3: USE AND OC	CCUPANCY CLASSIFICATION
NCY CLASSIFIC	ATION (Section 303 & 304)
	EDUCATIONAL OCCUPANCY FOR STUDENTS

PROJECT SCOPE

ACCOMMODATE THE NEW RIGGING.

(VERIFY IN FIELD).

opsis

920 NW 17th Ave. Portland, OR 97209 503.525.9511 www.opsisarch.com

OWNER

ARCHITECT

STRUCTURAL DCI ENGINEERS Fax: 503.242.2449

ELECTRICAL

THEATRE Phone: 415.956.4100 Contact: Jill Collins

SHEET INDEX

DATA CO COVER SHEET

ARCHITECTURAL AUDITORIUM FLOOR PLAN A1.00 **ENLARGED FLOOR PLANS & ELEVATION** A1.01

STRUCUTRAL S0.01 STRUCTURAL GENERAL NOTES, LEGEND AND ABBREVIATIONS

S1.00 STRUCTURAL LADDER/PLATFORM PLAN & DETAILS

ELECTRICAL E0.1 SYMBOLS LIST AND GENERAL NOTES - ELECTRICAL E2.1 LEVEL 2 CEILING PLAN - ELECTRICAL

PRODUCTION

PR1.11 PRODUCTION RIGGING: PLANS PR1.12 PRODUCTION RIGGING: SECTION PR1.13 PRODUCTION RIGGING: SECTION

THEATRE IMPROVEMENTS CONSIST OF INSTALLING NEW MANUAL LINESETS AT THE STAGE AND MODIFYING EXISTING STRUCTURAL BRACKETS AT THE GALLERY TO

IN ADDITION, THE EXISTING LADDER FROM THE GALLERY TO THE HIGH WALKING GRID IS TO BE DEMOLISHED AND REPLACED WITH TWO NEW CAGED LADDERS AND A TRANSFER PLATFORM. AT THE WALKING GRID WHERE THE NEW LADDER IS INSTALLED, THE EXISTING GUARDRAIL WILL NEED TO BE MODIFIED TO PROVIDE ACCESS TO THE GRID. AT THE EXISTING LADDER LOCATION, A NEW GUARDRAIL IS TO BE INSTALLED

BID / PERMIT



BEAVERTON SCHOOL DISTRICT 16550 SW Merlo Road Beaverton, Oregon 97003 Phone: 503.356.4571 Contact: Jeff Hamman **OPSIS ARCHITECTURE** 920 NW 17th Avenue Portland, Oregon 97209 Phone: 503.525.9511 Fax: 503.525.0440 Contact: Mark Stoller 400 SW Sixth Avenue, Suite 605 Portland, Oregon 97204 Phone: 503.242.2448 Contact: Shirley Chalupa INTERFACE ENGINEERING 100 SW Main Street, Suite 1600 Portland, Oregon 97204 Phone: 503.382.2266 Fax: 503.382.2262 Contact: David Chesley THE SHALLECK COLLABORATIVE 1553 Martin Luther King Jr Way Berkeley, California 94709



1 \mathbf{O} E N Ш





1 AUDITORIUM FLOOR PLAN - LEVEL 1 1/8" = 1'-0"



opsis

_____ Project Owner: BEAVERTON SCHOOL DISTRICT Project Name: **BEAVERTON HIGH SCHOOL** THEATRE UPGRADES Project Adress: 13000 SW 2nd St Beaverton, OR 97005 -----COPYRIGHT 2017 OPSIS ARCHITECTURE LLP ALL RIGHTS RESERVED THESE DRAWINGS ARE THE PROPERTY OF OPSIS ARCHITECTURE LLP AND ARE NOT TO BE USED OR REPRODUCED IN ANY MANNER, WITHOUT PRIOR WRITTEN PERMISSION. Revisions to Sheet No. Revision Date BID / PERMIT Status: 01.13.20 Date: Sheet Title AUDITORIUM FLOOR PLAN

Key Plan

Sheet No. A1.00

Job No.

4771-01



11 A1.01 **LADDER PLANS** 1/2" = 1'-0"





1 A1.01 (E) FLY GALLERY BRACKETS





opsis

Project Owner: **BEAVERTON SCHOOL** DISTRICT

Key Plan

Project Name: **BEAVERTON HIGH SCHOOL** THEATRE UPGRADES Project Adress: 13000 SW 2nd St Beaverton, OR 97005

-----COPYRIGHT 2017 OPSIS ARCHITECTURE LLP ALL RIGHTS RESERVED THESE DRAWINGS ARE THE PROPERTY OF OPSIS ARCHITECTURE LLP AND ARE NOT TO BE USED OR REPRODUCED IN ANY MANNER, WITHOUT PRIOR WRITTEN PERMISSION.

Revisions to Sheet No. Revision

Date

Status:

BID / PERMIT

01.13.20 Date: Sheet Title ENLARGED FLOOR PLANS & ELEVATION

Sheet No.

A1.01 _____ Job No. 4771-01

STRUCTURAL - GENERAL NOTES

GENERAL REQUIREMENTS

<u>GOVERNING CODE</u>: The design and construction of this project is governed by the "Oregon Structural Specialty Code (OSSC)", 2019 Edition, hereafter referred to as the OSSC, as adopted and modified by the City of Beaverton, **OR** understood to be the Authority Having Jurisdiction (AHJ).

NARRATIVE: The scope of work includes the structural design of the following items: Additional of a new line-set anchored to concrete wall

• Alterations made to an existing walkway to accommodate the new line-set New caged ladder with intermediate landing platform

REFERENCE STANDARDS: Refer to Chapter 35 of 2019 OSSC. Where other Standards are noted in the drawings, use the latest edition of the standard unless a specific date is indicated. Reference to a specific section in a code does not relieve the contractor from compliance with the entire standard.

- **<u>DEFINITIONS</u>**: The following definitions cover the meanings of certain terms used in these notes:
- "Architect/Engineer" The Architect of Record and the Structural Engineer of Record.
- "Structural Engineer of Record" (SER) The structural engineer who is licensed to stamp & sign the structural documents for the project. The SER is responsible for the design of the Primary Structural System
- "Submit for review" Submit to the Architect/Engineer for review prior to fabrication or construction.
- "Per Plan" Indicates references to the structural plans, elevations and structural general notes.

SPECIFICATIONS: Refer to the project specifications issued as part of the contract documents for information supplemental to these drawings.

<u>OTHER DRAWINGS</u>: Refer to the architectural, mechanical, electrical, civil and plumbing drawings for additional information including but not limited to: dimensions, elevations, slopes, door and window openings, non-bearing walls, stairs, finishes, drains, waterproofing, railings, mechanical unit locations, and other nonstructural items. **<u>STRUCTURAL DETAILS</u>**: The structural drawings are intended to show the general character and extent of the project

and are not intended to show all details of the work. Use entire detail sheets and specific details referenced in the plans as "typical" wherever they apply. Similarly, use details on entire sheets with "typical" in the name wherever they apply. **<u>STRUCTURAL RESPONSIBILITIES</u>**: The structural engineer (SER) is responsible for the strength and stability of the

primary structure in its completed form. **COORDINATION:** The Contractor is responsible for coordinating details and accuracy of the work; for confirming and corre-

lating all quantities and dimensions; for selecting fabrication processes; for techniques of assembly; and for performing work in a safe and secure manner.

MEANS, METHODS and SAFETY REQUIREMENTS: The contractor is responsible for the means and methods of construction and all job related safety standards such as OSHA and DOSH (Department of Occupational Safety and Health). **TEMPORARY SHORING, BRACING:** The contractor is responsible for the strength and stability of the structure during construction and shall provide temporary shoring, bracing and other elements required to maintain stability until the structure is complete. It is the contractor's responsibility to be familiar with the work required in the construction documents and the requirements for executing it properly.

CONSTRUCTION LOADS: Loads on the structure during construction shall not exceed the design loads as noted in DE-SIGN CRITERIA & LOADS below or the capacity of partially completed construction as determined by the Contractor's SSE for Bracing/Shoring.

CHANGES IN LOADING: The contractor has the responsibility to notify the SER of any architectural, mechanical, electrical, or plumbing load imposed onto the structure that differs from, or that is not documented on the original Contract Documents (architectural / structural / mechanical / electrical or plumbing drawings).

NOTE PRIORITIES: Plan and detail notes and specific loading data provided on individual plans and detail drawings supplements information in the Structural General Notes.

DISCREPANCIES: In case of discrepancies between the General Notes, Specifications, Plans/Details or Reference Standards, the Architect/Engineer shall determine which shall govern. Discrepancies shall be brought to the attention of the Architect/Engineer before proceeding with the work. Should any discrepancy be found in the Contract Documents, the Contractor will be deemed to have included in the price the most expensive way of completing the work, unless prior to the submission of the price, the Contractor asks for a decision from the Architect as to which shall govern. Accordingly, any conflict in or between the Contract Documents shall not be a basis for adjustment in the Contract Price.

SITE VERIFICATION: The contractor shall verify all dimensions and conditions at the site. Conflicts between the drawings and actual site conditions shall be brought to the attention of the Architect/Engineer before proceeding with the

ADJACENT UTILITIES: The contractor shall determine the location of all adjacent underground utilities prior to earthwork, foundations, shoring, and excavation. Any utility information shown on the drawings and details is approximate and not necessarily complete.

ALTERNATES: Alternate products of similar strength, nature and form for specified items may be submitted with adeguate technical documentation (proper test report, etc.) to the Architect/Engineer for review. Alternate materials that are submitted without adequate technical documentation or that significantly deviate from the design intent of materials specified may be returned without review. Alternates that require substantial effort to review will not be reviewed unless authorized by the Owner.

DESIGN CRITERIA AND LOADS

OCCUPANCY:	Risk Category of Building per 2019 OSSC Tat			
DESIGN LIVE LOADS	AREA	LIVE LOADS (PSF) UNO	REMARKS	5 & FOOT-
	Handrails & Pedestrian Guardrails	50 PLF or 200 LB	(1)	
	Catwalks (limited access)	40	300 lbs	

(1) Top rail shall be designed to resist 50 PLF line load or 200 lb point load applied in any direction at any point. Intermediate rails (all those except the handrail), balusters and panel fillers shall be designed to withstand a horizontally applied normal load of 50 LB on an area not to exceed 1 ft square. These three loads are to be considered separately with worst case used for design.

SUBMITTALS

to the SER for review.

SUBMIT FOR REVIEW: SUBMITTALS of shop drawings, and product data are required for items noted in the individual materials sections and for bidder designed elements.

UBMITTAL REVIEW PERIOD: Submittals shall be made in time to provide a minimum of TWO WEEKS or 10 WORKING DAYS for review by the Architect/Engineer prior to the onset of fabrication.

<u>GENERAL CONTRACTOR'S PRIOR REVIEW</u>: Prior to submission to the Architect/Engineer, the Contractor shall review the submittal for completeness. Dimensions and quantities are not reviewed by the SER, and therefore, must be verified by the General Contractor. Contractor shall provide any necessary dimensional details requested by the Detailer and provide the Contractor's review stamp and signature before forwarding to the Architect/Engineer.

SHOP DRAWING REVIEW: Once the contractor has completed his review, the SER will review the submittal for general conformance with the design concept and the contract documents of the building and will stamp the submittal according-

ly. Markings or comments shall not be construed as relieving the contractor from compliance with the project plans and specifications, nor departures there from. The SER will return submittals in the form they are submitted in (either hard copy or electronic). For hard copy submittals, the contractor is responsible for submitting the required number of copies

INSPECTIONS, QUALITY ASSURANCE VERIFICATIONS AND TEST REQUIREMENTS

SPECIAL INSPECTIONS, VERIFICATIONS and TESTS: Special Inspections, Verifications and Testing shall be done in accordance with OSSC Chapter 17 and the STATEMENT OF SPECIAL INSPECTIONS herein per OSSC Sections 1704 and 1705, as applicable.

SPECIAL INSPECTION AGENCY and SPECIAL INSPECTORS: Owner shall retain an "approved agency" per OSSC 703 to provide Special Inspections for the project. Special Inspectors shall be qualified persons per OSSC 1704.2.1.

STATEMENT OF SPECIAL INSPECTIONS. Special Inspections and Testing per OSSC Sections 1704 and 1705 are required for the following:

FABRICATION SHOP INSPECTION: Where off-site Fabrication of gravity LOAD BEARING MEMBERS & ASSEMBLIES is performed. Special Inspector shall verify that the fabricator complies with OSSC 1704.2.5

STRUCTURAL STEEL per OSSC 1704.2.5.1

A qualified Special Inspector of an "approved agency" providing Quality Assurance (QA) Special Inspections for the project shall review and confirm the Fabricator and Erector's Quality Control (QC) procedures for completeness and adequacy relative to AISC 360-10 Chapter N, the AISC 303 Code of Standard Practice, AWS D1.1-2010 Structural Welding Code and 2019 OSSC code requirements for the fabricator's scope of work. QA Agency providing Special Inspections shall provide personnel meeting the minimum qualification re-

quirements for Inspection and Nondestructive Testing NDT per AISC 360-10 Section N4. Verify Fabricator and Erector Quality Control Program per AISC 360-10 Section N2.

- Visual Welding Inspection of welds by both QC and QA personnel shall be per tables listed in AISC 360
- Section N5. • Inspection Tasks for Welding
- Prior to Welding per AISC 360-10 Table N5.4-1
- During Welding per AISC 360-10 Table N5.4-2 After Welding per AISC 360-10 Table N5.4-3
- Inspection Tasks for Bolting per AISC 360-10 Section N5.6
- Prior to Bolting per AISC 360-10 Table N5.6-1 Not required for snug-tight joints.

Architect/Engineer and the Authority Having Jurisdiction for review.

- During Bolting per AISC 360-10 Table N5.6-2 Not required for snug-tight joints.
- After Bolting per AISC 360-10 Table N5.6-3 • Additional Inspection tasks per AISC 360-10 Section N5.7
- Inspection for Composite Construction shall be done per AISC 360-10 Section N6.

POST-INSTALLED ANCHORS TO CONCRETE AND MASONRY: shall comply with OSSC Section 1703. Inspections shall be in accordance with the requirements set forth in the approved ICC Evaluation Report and as indicated by the design requirements specified on the drawings. Refer to the POST INSTALLED ANCHORS section of these notes for anchors that are the basis of the design. Special inspector shall verify anchors are as specified in the POST INSTALLED ANCHORS section of these notes or as otherwise specified on the drawings. Substitutions require approval by the SER and require substantiating calculations and current 2019 OSSC recognized ICC Evaluation Services (ES) Report. Special Inspector shall document in their Special Inspection Report compliance with each of the elements required within the applicable ICC Evaluation Services (ES) Report.

INSPECTION SUBMITTALS: Special inspection reports shall be provided on a weekly basis. Final special inspection eports will be required by each special inspection firm per OSSC 1704.2.4. Submit copies of all inspection reports to the

BAR GRATING

MATERIALS: Provide steel per ASTM A569 or A36.

CONTRACTOR RESPONSIBILITY: Prior to issuance of the building permit, the Contractor is required to provide the Authority Having Jurisdiction a signed, written acknowledgement of the Contractor's responsibilities associated with the above Statement of Special Inspections addressing the requirements listed in OSSC Section 1704.4. Contractor is referred to OSSC Sections 1705.11.5 and 1705.11.6 for architectural and MEP building systems that may be subject to additional inspections (based on the building's designated Seismic Design Category listed in the CRITERIA), including anchorage of HVAC ductwork containing hazardous materials, piping systems and mechanical units containing flammable, combustible or highly toxic materials, electrical equipment used for emergency or standby power, exterior wall pan-

POST-INSTALLED ANCHORS (INTO CONCRETE)

REFERENCE STANDARDS: Conform to: 1) OSSC Chapter 19 "Concrete"

els and suspended ceiling systems.

2) ACI 318-11 "Building Code Requirements for Structural Concrete" 3) OSSC Chapter 21 "Masonry"

4) ACI 530-11/ASCE 5-11/TMS402-11 "Building Code Requirements for Masonry Structures"

POST-INSTALLED ANCHORS: Install only where specifically shown in the details or allowed by SER. All post-Installed anchors types and locations shall be approved by the SER and shall have a current ICC-Evaluation Service Report that provides relevant design values necessary to validate the available strength exceeds the required strength. Submit current manufacturer's data and ICC ESR report to SER for approval regardless of whether or not it is a pre-approved anchor. Anchors shall be installed in strict accordance to ICC-ESR and manufacturer's instructions. No reinforcing bars shall be damaged during installation of post-installed anchors. Special inspection shall be per the TESTS and INSPEC-TIONS section. Anchor type, diameter and embedment shall be as indicated on drawings. 1. ADHESIVE ANCHORS: The following Adhesive-type anchoring systems have been used in the design and

shall be used for anchorage to CONCRETE, as applicable and in accordance with corresponding current ICC ESR report. Drilled-in anchor embedment lengths shall be as shown on drawings, or not less than 7 times the anchor nominal diameter (7D).

a. HILTI "HIT-HY 200" - ICC ESR-3187 for anchorage to CONCRETE with embedment depth less than or equal to 20 bar diameters

b. HILTI "HIT-RE 500 SD" – ICC ESR-2322 for anchorage to CONCRETE with any embedment depth c. SIMPSON "SET-XP" – ICC ESR 2508 for anchorage to CONCRETE

d. POWERS "PE1000" – ICC ESR-2583 for anchorage to CONCRETE

EXPANSION ANCHORS: The following Expansion type anchors are pre-approved for anchorage to CON-RETE or MASONRY in accordance with corresponding current ICC ESR report:

a. HILTI "KWIK BOLT TZ" – ICC ESR-1917 for CONCRETE Only b. SIMPSON "STRONG-BOLT 2" – ICC ESR-3037 for CONCRETE Only

c. POWERS "POWER-STUD + SD1" – ICC ESR-2818 for CONCRETE Only

SCREW ANCHORS: The following Screw type anchor is pre-approved for anchorage to CONCRETE or ASONRY in accordance with corresponding current ICC ESR report:

a. SIMPSON "TITEN HD" - ICC ESR-2713 for CONCRETE Only and ICC ESR-1056

b. POWERS "WEDGE-BOLT +" - ICC ESR-2526 for CONCRETE Only

c. HILTI "HUS-EZ" - ICC ESR-3027 for anchorage to CONCRETE Only

STRUCTURAL STEEL

standards

FABRICATION:

WELDING:

ERECTION:

<u>MATERIALS</u>:

limited to:

REFERENCE STANDARDS: Conform to: OSSC Chapter 22 – "Steel"

ANSI/AISC 303-10 – "Code of Standard Practice for Steel Buildings & Bridges" AISC – "Manual of Steel Construction", Fourteenth Edition (2010)

 ANSI/AISC 360-10 – "Specification for Structural Steel Buildings" 5) AWS D1.1:2010 – "Structural Welding Code – Steel"

SUBMITTALS: Submit the following documents to the SER for review:

SHOP DRAWINGS complying with AISC 360 Sections M1and N3 and AISC 303 Section 4.

(2) <u>ERECTION DRAWINGS</u> complying AISC 360 Sections M1and N3 and AISC 303 Section 4. Make copies of the following documents "Available upon Request" to the SER or Owner's Inspection Agency in electronic or printed form prior to fabrication per AISC 360 Section N3.2 requirements:

(1) Fabricator's written Quality Control Manual that includes, as a minimum: a. Material Control Procedures

Inspection Procedures Non-conformance Procedures

(2) Steel & Anchor Rod suppliers' Material Test Reports (MTR's) indicating the compliance with specifications. Fastener manufacturer's Certification documenting conformance with the specification. (4) Filler metal manufacturer's product data for SMAW, FCAW and GMAW indicating:

a. Product specification compliance Recommended welding parameters

Recommended storage and exposure requirements including baking d. Limitations of use

(5) Welded Headed (Shear) Stud Anchors Manufacturer's certification indicating the meet specifications. Weld Procedure Specifications (WPS's) for shop and field welding.

 Manufacturer's Certificates of Conformance for electrodes, fluxes and gases (welding consumables). (8) <u>Procedure Qualification Records (PQR's)</u> for WPS's that are not prequalified in accordance with AWS.

Structural steel materials shall conform to materials and requirements listed in AISC 360 section A3 including, but not Channel (C) & Angle (L) Shapes .ASTM A36, Fy = 36 ksi Δ STM Δ 36 EV = 36 kg Structural Plate (PL) Hollow Structur

(9) <u>Welding personnel Performance Qualification Records (WPQR)</u> and continuity records conforming to AWS

	AOTIM ADD, Ty = 00 KM	
Hollow Structural Section – Square/Rect (HSS).	ASTM A500, Grade B	Fy = 46 ksi
Structural Pipe, (PIPE) 12" dia. and less	ASTM A53, Grade B	Fy = 35 ksi
High Strength, Heavy Hex Structural Bolts	ASTM A325/F1852, Type	1 or 3, Plain
Heavy Hex Nuts	.ASTM A563, Grade and F	inish per RCSC Table 2.1
Washers (Hardened Flat or Beveled)	ASTM F436, Grade and F	inish per RCSC Table 2.1
Anchor Rods (Anchor Bolts, typical)	ASTM F1554, Gr. 36	
Mild Threaded Rods	ASTM A36,	Fy = 36 ksi
		-

STRUCTURAL JOINTS USING HIGH-STRENGTH BOLTS ASTM A325-N bolts – "threads NOT excluded in the shear plane".

High-strength bolted joints have been designed as "BEARING" connections. Provide ASTM Bolt Grade and Type as specified in the <u>Materials</u> section above. Provide Washers over outer ply of slotted holes and oversize holes per RCSC Table 6.1. 5) Provide Nut and Washer grades, types and finishes conforming to RCSC specification Table 2.1.

6) Provide fastener assemblies from a single supplier. Joint Types shall be:

a. ST - "Snug Tight", for typical beam end "shear" connections, unless noted otherwise. 8) Install bolts in joints in accordance with the RCSC Specification Section 8 and Table 4.1. 9) Inspection is per RCSC Section 9.

1) Conform to AISC 360 Section M2 "Fabrication" and AISC 303 Section 6 "Shop Fabrication".

2) Quality Control (QC) shall conform to: a. AISC 360 Chapter N "Quality Control and Quality Assurance" and

AISC 303 Section 8 "Quality Control". c. Fabricator and Erector shall establish and maintain written Quality Control (QC) procedures per AISC

360 section N3. d. Fabricator shall perform self-inspections per AISC 360 section N5 to ensure that their work is performed in accordance with Code of Standard Practice, the AISC Specification, Contract Documents and the Ap-

plicable Building Code e. QC inspections may be coordinated with Quality Assurance inspections per Section N5.3 where fabricators QA procedures provide the necessary basis for material control, inspection, and control of the workmanship expected by the Special Inspector.

1) Welding shall conform to AWS D1.1 with Prequalified Welding Processes except as modified by AISC 360 section J2. Welders shall be qualified in accordance with AWS D1.1 requirements. 2) Use 70ksi strength, low-hydrogen type electrodes (E7018) or E71T as appropriate for the process selected. 3) Welding of high strength anchor rods is prohibited unless approved by Engineer. 4) Welding of headed stud anchors shall be in accordance with AWS D1.1 Chapter 7 "Stud Welding".

1) Conform to AISC 360 Section M4 "Erection" and AISC 303 Section 7 "Erection" 2) Conform to AISC 360 Chapter N "Quality Control and Quality Assurance" and AISC 303 Section 8.

a. The Erector shall maintain detailed erection quality control procedures that ensure that the work is performed in accordance with these requirements and the Contract Documents. 3) Steel work shall be carried up true and plumb within the limits defined in AISC 303 Section 7.13.

 High strength bolting shall comply with the RCSC requirements including RCSC Section 7.2 "Required Testing", as applicable and AISC 360 Chapter J, Section M2.5 and Section N5.6. 5) Welding of HEADED STUD ANCHORS shall be in accordance with AWS D1.1 Chapter 7 "Stud Welding. 6) Provide Headed (Shear) Stud Anchors welded through the metal deck to tops of beams denoted in plans.

7) The contractor shall provide temporary bracing and safety protection required by AISC 360 Section M4.2 and AISC 303 Section 7.10 and 7.11.

PROTECTIVE COATING REQUIREMENTS:

1) SHOP PAINTING: Conform to AISC 360 Section M3 and AISC 303 Section 6.5 unless otherwise specified by the project specifications.

2) INTERIOR STEEL: a. Unless noted otherwise, **do not paint** any of the steel surfaces meeting the following conditions: Concealed by the interior building finishes

• Fireproofed, • Embedded in concrete,

• Specially prepared as a "faying surface" for Type-SC "slip-critical" connections including bolted connections that form a part of the Seismic Force Resisting System governed by AISC 341 unless the coating conforms to requirements of the RCSC Bolt Specification and is approved by the Engineer. • Welded; if area requires painting, do not paint until after weld inspections and non-destructive testing requirement, if any, are satisfied.

b. Interior steel, exposed to view, shall be painted with one coat of shop primer unless otherwise indicated in the project specifications. Field touch-ups to match the finish coat or as otherwise indicated in the project specifications.

ARCHITECTURALLY EXPOSED STRUCTURAL STEEL: Steel identified by the Architect on the architectural drawings as Architecturally Exposed Structural Steel, (AESS) shall conform to AISC 303 Section 10.

DESIGN STANDARDS: Conform to: I) ANSI/AISC 360-10 – "Specification for Structural Steel Buildings"

2) OSHA and similar State agency safety requirements in the layout, details, and construction of all handrail, ladders, cages and elevated platforms.

Bar Grating:

- 1) Unless noted otherwise, provide welded steel grating conforming to ASTM A1011-10 at elevated platforms consisting of 1-1/4" x 3/16" bearing bars spaced at 3/16" on centers with cross members spaced at 4" on centers. 2) Maximum design grating span is 6'-0" for aforementioned bearing bar sizes with a maximum 1/4" deflection under
- 100 psf loading. Grating substitutions shall meet this performance requirement. 3) Provide banding at edges, pipe penetrations, cutouts, and stair and ladder landings with bar matching bearing bar strength or toe-plates where required for protection. Weld banding at each end and at every fourth bar where bearing bars are interrupted by penetrations.
- 4) Cut-outs around equipment shall maintain an even clearance of 2" between the toe-plate and the surface of equipment (insulation where applicable). Cut-outs for pipes shall center at the pipe's center and shall have a diameter of the flange for the pipe's size and weight plus 2" to provide a clearance of 1" around the flange to ac-
- commodate the pipe's passage. 5) Layout and fabricate grating panels such that bearing bars of adjacent panels align. Junctions of bearing bars and crossbars shall be fully fused with no deduction in the bearing bar. 6) Stair treads shall have non-skid nosing and shall be bolted to stringers with A307 bolts.

Grating Anchorage:

-) Secure grating to support framing with manufacturer's recommended fastening system that securely anchors the grating per plan details, without loosening under vibrations, and allows removal & replacement for mainte-
- 2) Non-removable grating shall be welded to support members with 2" long x 3/16" fillet welds at every eighth bearing bar and every other cross member at each side of grating panel.
- 3) Removable grating shall be fastened to support members with: a. Anchor clips with thru-bolts (ASTM A307 galv)
- 4) Repair damaged finishes as required.

nance. Provide a minimum of four anchor locations per panel and at not more than 48 inches along supports.

MARK	DESCRIPTION	MARK	DESCRIPTION		
F2.0	FOOTING SYMBOL (REFER TO SPREAD FOOTING SCHEDULE)	I	INDICATES WIDE FLANGE COLUMN		
$\langle 1P \rangle$	PILE CAP SYMBOL (REFER TO PILE CAP SCHEDULE)		INDICATES HOLLOW STRUCTURAL SECTION (HSS) COLUMN OR TUBE STEEL (TS) COLUMN		
1	TILT-UP/PRECAST CONCRETE WALL CONNECTION SYMBOL (REFER TO CONNECTION DETAIL)	0	INDICATES HOLLOW STRUCTURAL SECTION (HSS) COLUMN OR STEEL PIPE COLUMN		
2W4	SHEAR WALL SYMBOL (REFER TO SHEAR WALL SCHEDULE)		INDICATES WOOD POST		
1	REVISION TRIANGLE		INDICATES BUNDLED STUDS		
1	TILT-UP/PRECAST CONCRETE WALL PANEL NUMBER (REFER TO TILT-UP/ PRECAST CONCRETE WALL ELEVATIONS)		INDICATES CONCRETE COLUMN		
$\langle 1 \rangle$	CMU WALL REINFORCING SYMBOL (REFER TO CMU WALL REINFORCING SCHEDULE)		INDICATES PRECAST CONCRETE COLUMN		
8"	CONTINUITY PLATE LENGTH (REFER TO TYPICAL DETAIL)	-	INDICATES MOMENT FRAME CONNECTION		
DS	INDICATES DOUBLE SHEAR CONNECTION (REFER TO THE DOUBLE SHEAR PLATE CONNECTIONS DETAIL)		INDICATES CANTILEVER CONNECTION		
00TB	INDICATES REINFORCING TYPE (REFER TO THE REINFORCING SCHEDULE)	•—	INDICATES DRAG CONNECTION		
(SR_)	INDICATES NUMBER OF STUD RAIL REQUIRED AT COLUMN (REFER TO STUD RAIL DETAILS)	<	INDICATES WOOD OR STEEL STUD WALL		
	ROOF/FLOOR DIAPHRAGM NAILING SYMBOL (REFER TO DIAPHRAGM NAILING SCHEDULE)	\$ <u>777777</u> \$	INDICATES MASONRY/CMU WALL		
C1 XX"xXX"	STEEL/CONCRETE COLUMN SYMBOL (REFER TO STEEL COLUMN SCHEDULE)	<u></u>	INDICATES CONCRETE/TILT-UP CONCRETE WALL		
/FTG = X'-X	ELEVATION SYMBOL (T/ REFERS TO COMPONENT THAT THE ELEVATION REFERENCES)		INDICATES WOOD OR STEEL STUD SHEAR WALL		
3	STUD BUBBLE (INDICATES NUMBER OF STUDS REQUIRED IF EXCEEDS NUMBER SPECIFIED IN PLAN NOTE)	\$\$	INDICATES BEARING WALL BELOW		
ŝ	INDICATES STEP IN FOOTING (REFER TO TYPICAL STEP IN FOOTING DETAIL)	¢\$	INDICATES EXISTING WALL		
X SX.X	DETAILS OR SECTION CUT (DETAIL NUMBER/SHEET NUMBER)		POST-TENSION DEAD END (PLAN)		
00 S0.0	DETAILS OR SECTION CUT IN PLAN VIEW (DETAIL NUMBER/SHEET NUMBER)	← I →	POST-TENSION STRESSING END (PL		
X/SXX.XX	INDICATES LOCATION OF CONCRETE WALLS, SHEAR WALLS OR BRACED FRAME ELEVATIONS	, 3 , ,	POST-TENSION PROFILE (PLAN) (IN INCHES)		
0-	SPAN INDICATOR (INDICATES EXTENTS OF FRAMING MEMBERS OR OTHER STRUCTURAL COMPONENTS)	┝╺╉╎┲╌	INTERMEDIATE STRESSING (PLAN)		
	INDICATES DIRECTION OF DECK SPAN				

L	Angle	EXT	Exterior	PSF	Pounds per Square
AB	Anchor Bolt	FD	Floor Drain		Foot
ADDL	Additional	FDN	Foundation	PSI	Pounds Per Square
ADH	Adhesive	FIN	Finish		Inch
ALT	Alternate	FLR	Floor	PSL	Parallel Strand
ARCH	Architectural	FRP	Fiberglass Reinforced Plastic		Lumber
B or BOT	Bottom	FRT	Fire Retardant Treated	P-T	Post-Tensioned
B/	Bottom Of	FTG	Footing	PT	Pressure Treated
BLDG	Building	F/	Face of	R	Radius
BLKG	Blocking	GA	Gage	RD	Roof Drain
BMU	Brick Masonry Unit	GALV	Galvanized	REF	Refer/Reference
BP	Baseplate	GEOTECH	Geotechnical	REINF	Reinforcing
BRBF	Buckling Restrained	GL	Glue Laminated Timber	REQD	Required
	Braced Frame	GWB	Gypsum Wall Board	RET	Retaining
BRG	Bearing	HDR	Header	SCBF	Special Concentric
BTWN	Between	HF	Hem-Fir		Braced Frame
С	Camber	HGR	Hanger	SCHED	Schedule
CL	Centerline	HD	Hold-down	SFRS	Seismic Force-
CLT	Cross-Laminated	HORIZ	Horizontal		Resisting System
	Timber	HP	High Point	SHTHG	Sheathing
СВ	Castellated Beam	HSS = TS	(Hollow Structural Section)	SIM	Similar
CIP	Cast in Place	IBC	International Building	SMF	Special Moment
CJ	Construction or		Code		Frame
	Control Joint	ID	Inside Diameter	SOG	Slab on Grade
CJP	Complete Joint	IE	Invert Elevation	SP	Southern Pine
	Penetration	IF	Inside Face	SPEC	Specification
CLR	Clear	INT	Interior	SQ	Square
CLG	Ceiling	k	Kips	SR	Studrail
CMU	Concrete Masonry	KSF	Kips Per Square Foot	SF	Square Foot
	Unit	LF	Lineal Foot	SST	Stainless Steel
COL	Column	LL	Live Load	STAGG	Stagger/Staggered
CONC	Concrete	LLH	Long Leg Horizontal	STD	Standard
CONN	Connection	LLV	Long Leg Vertical	STIFF	Stiffener
CONST	Construction	LP	Low Point	STL	Steel
CONT	Continuous	LONGIT	Longitudinal	STRUCT	Structural
C'SINK	Countersink	LSL	Laminated Strand Lumber	SWWJ	Solid Web Wood
CTRD	Centered	LVL	Laminated Veneer Lumber		Joist
DIA	Diameter	MAS	Masonry	SYM	Symmetrical
DB	Drop Beam	MAX	Maximum	Т	Тор
DBA	Deformed Bar Anchor	MECH	Mechanical	T/	Top Of
DBL	Double	MEZZ	Mezzanine	T&B	Top & Bottom
DEMO	Demolish	MFR	Manufacturer	TC AX LD	Top Chord Axial Load
DEV	Development	MIN	Minimum	TCX	Top Chord Extensior
DF	Douglas Fir	MISC	Miscellaneous	TDS	Tie Down System
DIAG	Diagonal	NIC	Not In Contract	T&G	Tongue & Groove
DIST	Distributed	NLT	Nail-Laminated	THKND	Thickened
DL	Dead Load		Timber	THRD	Threaded
DN	Down	NTS	Not To Scale	THRU	Through
DO	Ditto	OC	On Center	TRANSV	Transverse
DP	Depth/Deep	OCBF	Ordinary Concentric Braced	IYP	lypical
DWG	Drawing		Frame	OBC	Unitorm Building
(E)	Existing	OD	Outside Diameter		Code
EA	Each	OF	Outside Face	UNO	Unless Noted
	Each Face	OPNG	Opening		Otherwise
EL EC	Elevation	UPP OVPC		UKIM	Unreinforced
ELEC	Electrical	OVVSJ	Open VVeb Steel Joist		iviasonry Unit
ELEV	Elevator	OVVVVJ	Open VVeb VVood Joist	VERI	Vertical
EMBED	Embedment	PL DAF	Plate	VV	VVIDe
EU	Equal	PAF	Powaer Actuated Fastener	VV/	VVITN
EQUIP	Equipment	PC DEDD	Precast	VV/O	VVIthout
EVV	Each VVay	PEKP	Perpendicular	VVHS	vvelded Headed Stud
	Expansion		Mywood		
EXPJI	Expansion Joint		Partial Penetration	VVVVF	vvelaed VVire Fabric
		PKEFAB	Pretabricated	±	Plus or Minus



CIVIL / STRUCTURAL © Copyright 03.2018 D'Amato Conversano Inc. All Rights Reserved This document, and the ideas and designs may not be reused, in whole or in part, without written permission from D'Amato Conversano Inc. D'Amato Conversano Inc. disclaims any responsibility for its unauthorized use.

-OR PERMIT
ese drawings are sufficiently complete for submission to the jurisdiction having authority for permit. The Contractor shall not use these
awings for construction until Contractor receives written approval for use in construction by the jurisdiction having authority and DCI

Project Owner: **BEAVERTON SCHOOL** DISTRICT

Project Name: **BEAVERTON HIGH SCHOOL** THEATRE UPGRADES Project Adress: 13000 SW 2nd St Beaverton, OR 97005

Revisions to Sheet No. Revision

Date

BID/PERMIT Status

01.13.2020 Sheet Title **STRUCTURAL GENERAL NOTES,** LEGEND AND **ABBREVIATIONS**

S0.0²

16031-0008

Sheet No.

DCI Job No.









921 SW Washington Street, Suite 560 Portland, Oregon 97205 P: (503) 242-2448 www.dci-engineers.com © Copyright 03.2018 D'Amato Conversano Inc. All Rights Reserved This document, and the ideas and designs may not be reused, in whole or in part, without written permission from D'Amato Conversano Inc. D'Amato Conversano Inc. disclaims any responsibility for its unauthorized use.



Project Name: **BEAVERTON HIGH SCHOOL** THEATRE UPGRADES

Project Owner:

DISTRICT

BEAVERTON SCHOOL

Project Adress: 13000 SW 2nd St Beaverton, OR 97005

Revisions to Sheet No. Revision

Date

BID/PERMIT Status

01.13.2020 Sheet Title STRUCTURAL LADDER/PLATFORM PLAN & DETAILS

Sheet No.



DCI Job No. 16031-0008

AFC AFF ANSI AWG A AHJ		Connections	<u>s / Equipment</u>
AFF ANSI AWG A AHJ	ABOVE FINISHED CEILING		COMBINATION AD IUSTABLE ERECUENCY DRIV
ANSI AWG A AHJ	ABOVE FINISHED FLOOR	VFD	DISCONNECT SWITCH
A A AHJ			
AHJ	AMPERES. AMBER	⊠ ⊦	COMBINATION MOTOR STARTER/FUSED DISCO
	AUTHORITY HAVING JURISDICTION		
AIC	AVAILABLE INTERRUPTING CAPACITY		
BAS	BUILDING AUTOMATION SYSTEM	F	HEAVY DUTY FUSED DISCONNECT SWITCH
CA	CABLE		
		o –	
C	CONDUIT CLOSE CONTROL	(J) OR [J]	JUNCTION BOX
OORD	COORDINATE		
CU	COPPER	n	MOTOR CONNECTION
dB	DECIBEL	0	
(X)	DEMOLISH		
		D'	NON-FUSED DISCONNECT SWITCH
	DIMENSION		
DIV	DIVISION		
DN	DOWN	T	TRANSFORMER
DWG	DRAWING		
EA	EACH	FSD	FIRE SMOKE DAMPER
EMT	ELECTRICAL METALLIC TUBING		
EL F			
с EF	EXHAUST FAN	SD	SMOKE DAMPER
FA	FIRE ALARM		
-MC	FLEXIBLE METAL CONDUIT	~	
FT	FOOT, FEET	Ŷ	WALL-MOUNTED JUNCTION BOX
FBO	FURNISHED BY OTHERS	A	
, GND		<u>General</u>	
3FCI GEI		(\mathbf{x})	
GFP		(\mathbf{x})	DETAIL NUMBER AND SHEET LOCATION
HT	HEIGHT		
ID	IDENTIFICATION	(xx-x)	EQUIPMENT IDENTIFICATION
IN	INCH, INCHES	LOCATION	
IEEE	INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS		
IG	ISOLATED GROUND	$\langle 1 \rangle$	KEYED NOTE
KV			
KW	KILOVOLT AMPERES	1000 B 100	
ED		—×—×—	DEMOLISH
FMC	LIQUIDTIGHT FLEXIBLE METAL CONDUIT		
LV	LOW VOLTAGE		EXISTING WORK
OCP	MAXIMUM OVERCURRENT PROTECTION		EXISTING WORK
1IN			
ICA			NEW WORK
	MOTOR CONTROL CENTER		
MTD	MOUNT, MOUNTED	<u>Lighting</u>	
IEC	NATIONAL ELECTRIC CODE		COMBINATION EXIT SIGN CEILING MOUNTED A
ESC	NATIONAL ELECTRIC SAFETY CODE		EMERGENCY EGRESS LIGHTING WITH BATTER
EMA	NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION		INDICATES DIRECTION IF SHOWN
N E)		4-4	COMBINATION EXIT SIGN WALL MOUNTED AND
=) N)	NEW LUMINARE IN EXISTING LUCATION	Ø	EMERGENCY EGRESS LIGHTING WITH BATTER
ヽ) /A			
I.C.	NOT IN CONTRACT	*	EXIT SIGN CEILING MOUNTED, ARROW(S) INDI
rs	NOT TO SCALE	8	SHOWN
C	ON CENTER	ALC: 4.40 - 444	
FCI	OWNER FURNISHED, CONTRACTOR INSTALLED	8	EXIT SIGN WALL MOUNTED, ARROW(S) INDICA
NL	PANEL	T	
'H			
			RECESSED 1' X 4' LUMINAIRE
TY	QUANTITY		
(R)	RELOCATE		RECESSED 1' X 4' LUMINAIRE CONNECTED TO
RFI	REQUEST FOR INFORMATION		SAFETY CIRCUIT OR WITH INTEGRAL EMERGE
EQD	REQUIRED		
RMC	RIGID METAL CONDUIT		RECESSED 2' X 2' LUMINAIRE
RM	ROOM		
SHI			RECESSED 2' X 2' LUMINAIRE CONNECTED TO
חדי			SAFETY CIRCUIT OR WITH INTEGRAL EMERGE
TD	SWITCHBOARD	ز ککت	CONNECTED TO UNSWITCHED CIRCUIT
STD SPD VBD	TO BE DETERMINED		
STD SPD WBD TBD	TRANSFORMER		RECESSED 2' X 4' LUMINAIRE
STD SPD WBD TBD FMR			
STD SPD VBD BD FMR VSS	TRANSIENT VOLTAGE SURGE SUPPRESSOR		
STD SPD WBD TBD FMR VSS TYP	TRANSIENT VOLTAGE SURGE SUPPRESSOR TYPICAL		RECESSED 2 X 4 LOWINAIRE CONNECTED TO
TD PD VBD BD MR (SS YP JL	TRANSIENT VOLTAGE SURGE SUPPRESSOR TYPICAL UNDERWRITERS LABORATORIES		SAFETY CIRCUIT OR WITH INTEGRAL EMERGE
TD PD VBD BD MR 'SS YP JL PS	TRANSIENT VOLTAGE SURGE SUPPRESSOR TYPICAL UNDERWRITERS LABORATORIES UNINTERRUPTIBLE POWER SUPPLY		SAFETY CIRCUIT OR WITH INTEGRAL EMERGE CONNECTED TO UNSWITCHED CIRCUIT
TD PD /BD BD MR 'SS YP JL PS DN	TRANSIENT VOLTAGE SURGE SUPPRESSOR TYPICAL UNDERWRITERS LABORATORIES UNINTERRUPTIBLE POWER SUPPLY UNLESS OTHERWISE NOTED		RECESSED 2 X 4 LUMINAIRE CONNECTED TO SAFETY CIRCUIT OR WITH INTEGRAL EMERGE CONNECTED TO UNSWITCHED CIRCUIT
TD PD VBD BD ™R ′SS YP JL PS ON ✓ PS	TRANSIENT VOLTAGE SURGE SUPPRESSOR TYPICAL UNDERWRITERS LABORATORIES UNINTERRUPTIBLE POWER SUPPLY UNLESS OTHERWISE NOTED VOLTS, VOLTAGE WEATHERPROOF		RECESSED 2 X 4 LOMINAIRE CONNECTED TO SAFETY CIRCUIT OR WITH INTEGRAL EMERGE CONNECTED TO UNSWITCHED CIRCUIT RECESSED LUMINAIRE
rd 20 20 20 MR SS 20 K V L 25 N V P 1/	TRANSIENT VOLTAGE SURGE SUPPRESSOR TYPICAL UNDERWRITERS LABORATORIES UNINTERRUPTIBLE POWER SUPPLY UNLESS OTHERWISE NOTED VOLTS, VOLTAGE WEATHERPROOF WITH		RECESSED 2 X 4 LUMINAIRE CONNECTED TO SAFETY CIRCUIT OR WITH INTEGRAL EMERGE CONNECTED TO UNSWITCHED CIRCUIT RECESSED LUMINAIRE
D D BD WRS (P L SN (P // O	TRANSIENT VOLTAGE SURGE SUPPRESSOR TYPICAL UNDERWRITERS LABORATORIES UNINTERRUPTIBLE POWER SUPPLY UNLESS OTHERWISE NOTED VOLTS, VOLTAGE WEATHERPROOF WITH WITHOUT		RECESSED 2 X 4 LOMINAIRE CONNECTED TO SAFETY CIRCUIT OR WITH INTEGRAL EMERGE CONNECTED TO UNSWITCHED CIRCUIT RECESSED LUMINAIRE RECESSED LUMINAIRE CONNECTED TO EMERG
D D D D A R S P - S N - S N - / O	TRANSIENT VOLTAGE SURGE SUPPRESSOR TYPICAL UNDERWRITERS LABORATORIES UNINTERRUPTIBLE POWER SUPPLY UNLESS OTHERWISE NOTED VOLTS, VOLTAGE WEATHERPROOF WITH WITHOUT		RECESSED 2 X 4 LOMINAIRE CONNECTED TO SAFETY CIRCUIT OR WITH INTEGRAL EMERGE CONNECTED TO UNSWITCHED CIRCUIT RECESSED LUMINAIRE RECESSED LUMINAIRE CONNECTED TO EMERGE
	TRANSIENT VOLTAGE SURGE SUPPRESSOR TYPICAL UNDERWRITERS LABORATORIES UNINTERRUPTIBLE POWER SUPPLY UNLESS OTHERWISE NOTED VOLTS, VOLTAGE WEATHERPROOF WITH WITHOUT		RECESSED 2 X 4 LUMINAIRE CONNECTED TO SAFETY CIRCUIT OR WITH INTEGRAL EMERGE CONNECTED TO UNSWITCHED CIRCUIT RECESSED LUMINAIRE RECESSED LUMINAIRE CONNECTED TO EMERGE CIRCUIT SURFACE MOUNTED 2' X 2' LUMINAIRE CONNECTED

0

•

ELECTRICAL SYMBOL LIST

<u>/ Equipment</u>	•	SURFACE OR PENDANT MOUNTED LUMINAIRE CONNECTED TO EMERGENCY/LIFE SAFETY CIRCUIT OR WITH INTEGRAL EMERGENCY		SPECIAL PURPOSE RECEPTACLE. LETTER CODE DEN RECEPTACLE CONFIGURATION
COMBINATION ADJUSTABLE FREQUENCY DRIVE WITH SAFETY DISCONNECT SWITCH		BATTERY CONNECTED TO UNSWITCHED CIRCUIT	\otimes	LX-XXR = NEMA CONFIGURATION TWIST-LOCK RECE X-XXR = NEMA CONFIGURATION STRAIGHT BLADE R P = PENDANT MOUNT WITH CORD GRIPS. VERIFY PE X = COORDINATE RECEPTACLE CONFIGURATION WI
COMBINATION MOTOR STARTER/FUSED DISCONNECT SWITCH				BEING SUPPLIED
HEAVY DUTY FUSED DISCONNECT SWITCH	ΨŪŢ	WALL MOUNTED 6" WIDE LUMINAIRE	os	P = PASSIVE INFRARED D = DUAL TECHNOLOGY U = ULTRASONIC, 360 DEG RANGE
	⋤●⋥	WALL MOUNTED 6" WIDE LUMINAIRE CONNECTED TO EMERGENCY/LIFE SAFETY CIRCUIT OR WITH INTEGRAL EMERGENCY		H = ULTRASONIC, HALLWAY PATTERN v (LOWERCASE) = VACANCY CONTROL DESIGNATIO
JUNCTION BOX		BATTERY CONNECTED TO UNSWITCHED CIRCUIT	61	WALL MOUNTED OCCUPANCY SENSOR P = PASSIVE INFRARED
	ΓΟŢ	WALL MOUNTED 12" WIDE LUMINAIRE		D = DUAL TECHNOLOGY v (LOWERCASE) = VACANCY CONTROL DESIGNATIO
MOTOR CONNECTION	Ţ₽Ţ	WALL MOUNTED 12" WIDE LUMINAIRE CONNECTED TO EMERGENCY/LIFE SAFETY CIRCUIT OR WITH INTEGRAL EMERGENCY	ssH	WALL MOUNTED OCCUPANCY SENSOR/SWITCH S = PASSIVE INFRARED WITH INTEGRAL "OFF" SWITCH T = DUAL RELAY PASSIVE INFRARED WITH TWO INTE
NON-FUSED DISCONNECT SWITCH		BATTERT CONNECTED TO UNSWITCHED CIRCOT	<u> </u>	D = PASSIVE INFRARED WITH INTEGRAL DIMMER TO v (LOWERCASE) = VACANCY CONTROL DESIGNATIO
TRANSFORMER	Q	WALL MOUNTED LUMINAIRE		MULTIPLE CHANNEL SURFACE METAL RECEPTACLE F
	•	WALL MOUNTED LUMINAIRE CONNECTED TO EMERGENCY/LIFE SAFETY CIRCUIT OR WITH INTEGRAL EMERGENCY BATTERY		INDICATED
FIRE SMOKE DAMPER	Miscellaneou		0	PHOTO ELECTRIC SWITCH D = CONTINUOUS DIMMING PHOTOCELL S = SWITCHED PHOTOCELL
	mooonanooa	BRANCH CIRCUIT WIRING. ARROW INDICATES HOME RUN TO PANEL		SINGLE POLE SWITCH
SMORE DAMPER	#10	NOTED OTHERWISE. SHORT TICK MARKS INDICATE PHASE CONDUCTORS. LONG TICK MARKS INDICATE NEUTRAL		3 = THREE-WAY SWITCH 4 = FOUR-WAY SWITCH
WALL-MOUNTED JUNCTION BOX	B-27,29,31.	CONDUCTORS. A SINGLE CURVED TICK MARK INDICATES INSULATED GREEN GROUND CONDUCTOR. SECOND CURVED TICK MARK		a THRU z (LOWERCASE) = LUMINAIRE CONTROL DES D = DIMMER
		STRIPE) CONDUCTOR.	\$	F = FAN SPEED CONTROL K = KEY OPERATED SWITCH L = LIGHTED HANDLE
DETAIL NUMBER AND SHEET LOCATION	\leq	BRANCH PANEL		M = MANUAL MOTOR STARTER WITH THERMAL OVER P = SWITCH WITH PILOT LIGHT
	~			S = SENTRY SWITCH T = INTERVAL TIMER
EQUIPMENT IDENTIFICATION		CIRCUIT BREAKER		V = UOW VOLTAGE SWITCH
		DRY TYPE TRANSFORMER	<u>Telecommuni</u>	ICATIONS RACEWAY ONLY DATA/TELEPHONE OUTLET, PROVIDE
KEYED NOTE	an L an			BACK BOX AND SINGLE GANG ADAPTER PLATE WITH PULLSTRING TO ACCESSIBLE CEILING SPACE.
DEMOLISH	4	FLUSH WALL MOUNTED BRANCH PANEL	V	(MULTIPLE LETTERS INDICATE MULTIPLE OPTIONS) A = ABOVE COUNTER
	GB			F = FLUSH CEILING MOUNTED R = SURFACE MOUNTED ON RACEWAY
EXISTING WORK			-	RACEWAY ONLY TELEPHONE OUTLET. PROVIDE DOU BACK BOX AND SINGLE GANG ADAPTER PLATE WITH
NEW WORK		MAIN DISTRIBUTION PANEL / SUB DISTRIBUTION PANEL		PULLSTRING TO ACCESSIBLE CEILING SPACE. SEE LE LIST AT DATA/TELEPHONE OUTLET FOR OPTIONS.
	<u>Raceways</u>			
COMBINATION EXIT SIGN CEILING MOUNTED AND DUAL HEAD EMERGENCY EGRESS LIGHTING WITH BATTERY PACK. ARRROW(S) INDICATES DIRECTION IF SHOWN		CONDUIT CONCEALED IN WALL OR CEILING SPACE		
COMBINATION EXIT SIGN WALL MOUNTED AND DUAL HEAD EMERGENCY EGRESS LIGHTING WITH BATTERY PACK. ARRROW(S)		CONDUIT ROUTED BELOW FLOOR / GRADE		
EXIT SIGN CEILING MOUNTED, ARROW(S) INDICATES DIRECTION IF	•	CONDUIT ELLED DOWN		
SHOWN	0			
RECESSED 1' X 4' LUMINAIRE	\longrightarrow	CONDUIT/WIRING CONTINUATION		
RECESSED 1' X 4' LUMINAIRE CONNECTED TO EMERGENCY/LIFE SAFETY CIRCUIT OR WITH INTEGRAL EMERGENCY BATTERY CONNECTED TO UNSWITCHED CIRCUIT		CONDUIT/WIRING STUBBED OUT WITH END CAP OR INSULATED PLASTIC BUSHING		
RECESSED 2' X 2' LUMINAIRE	~~~~~	FLEXIBLE CONDUIT		
	Switches and	Receptacles		
SAFETY CIRCUIT OR WITH INTEGRAL EMERGENCY BATTERY CONNECTED TO UNSWITCHED CIRCUIT		DUPLEX RECEPTACLE (MULTIPLE LETTERS INDICATE MULTIPLE OPTIONS) A = ABOVE COUNTER		
RECESSED 2' X 4' LUMINAIRE		B = CLOCK HANGER C = FLUSH CEILING MOUNTED F = FMERGENCY		
RECESSED 2' X 4' LUMINAIRE CONNECTED TO EMERGENCY/LIFE SAFETY CIRCUIT OR WITH INTEGRAL EMERGENCY BATTERY		F = ARC FAULT PROTECTED BY BREAKER IN PANEL G = GROUND FAULT CIRCUIT INTERRUPTER H = HOSPITAL GRADE		
	Φ	K = CHILD RESISTANT COVER L = ISOLATED GROUND P = PENDANT MOUNTED WITH CORD GRIPS. VERIFY PENDANT		
		LENGTH R1 = HALF SWITCHED BY OCCUPANCY SENSOR RELAY R2 = FULLY SWITCHED BY OCCUPANCY SENSOR RELAY		
RECESSED LUMINAIRE CONNECTED TO EMERGENCY/LIFE SAFETY CIRCUIT		S = SPLIT WIRED T = TAMPER RESISTANT SHUTTERED RECEPTACLE U = USB PORT(S)		
SURFACE MOUNTED 2' X 2' LUMINAIRE CONNECTED TO EMERGENCY/LIFE SAFETY CIRCUIT OR WITH INTEGRAL EMERGENCY BATTERY CONNECTED TO UNSWITCHED CIRCUIT		W = WEATHERPROOF CONTINUOUS USE COVER, GFCI PROTECTED, WITH WEATHER-RESISTANT RECEPTACLE		
SURFACE MOUNTED 2' X 4' LUMINAIRE		DUPLEX RECEPTACLE, FLUSH FLOOR		
SURFACE MOUNTED 2' X 4' LUMINAIRE CONNECTED TO EMERGENCY/LIFE SAFETY CIRCUIT OR WITH INTEGRAL EMERGENCY		DOUBLE DUPLEX RECEPTACLE, FLUSH FLOOR		
SURFACE OR PENDANT MOUNTED 1' X 4' LUMINAIRE		DOUBLE DUPLEX RECEPTACLE. SEE LETTER CODE LIST AT DUPLEX RECEPTACLE FOR OPTIONS		
SURFACE OR PENDANT MOUNTED 1'X 4' LUMINAIRE CONNECTED TO	۲	EQUIPMENT ELECTRICAL CONNECTION		
EMERGENCY/LIFE SAFETY CIRCUIT OR WITH INTEGRAL EMERGENCY BATTERY CONNECTED TO UNSWITCHED CIRCUIT				
	Leading there COMBINATION MOTOR STARTER/EUGED DISCONNECT SWITCH IEAAYD DUTY FUSED DISCONNECT SWITCH IEAAYD DUTY FUSED DISCONNECT SWITCH JUNCTION BOX MOTOR CONNECTION NON-FUSED DISCONNECT SWITCH TRANSFORMER FIRE SMOKE DAMPER SMOKE DAMPER WALL-MOUNTED JUNCTION BOX DETAIL NUMBER AND SHEET LOCATION EQUIPMENT IDENTIFICATION EVEN DOTE DETAIL NUMBER AND SHEET LOCATION EQUIPMENT IDENTIFICATION EVEN DOTE DETAIL NUMBER AND SHEET LOCATION EVEN DOTE DEMOLISH EVEN DOTE DEMOLISH EVEN DOTE DEMOLISH EVEN TORE DEMOLISH EVEN TORE DEMOLISH EVEN TORE EVEN TORE COMBINATION EXIT SIGN CELLING MOUNTED AND DUAL HEAD EVENDERCENCY EVENTS IGN WILL MOUNTED AN	LEQUIPMENT CONTROL ARC WITH SATE TY CONSIDERT SWITCH COMBINATION MOTOR STARTER/FUGED DISCONNECT SWITCH HEAVY DUTY FUGED DISCONNECT SWITCH HEAVY DUTY FUGED DISCONNECT SWITCH HEAVY DUTY FUGED DISCONNECT SWITCH HEAVY DUTY FUGED DISCONNECT SWITCH ILUNCTION BOX MITTOR CONNECTION NON-FUGED DISCONNECT SWITCH PRESSIONE DAMPER SWORE DAMPER PRESSIONE DAMPER SWORE DAMPER SWORE DAMPER SWORE DAMPER SWORE DAMPER SWORE DAMPER COMBINATION DUTY DUTY DISCONNECT SWITCH EQUIPMENT DENTRICATION REVED NOTE COMBINITION SUT SIGN CELLING MOUNTED AND DUAL HEAD DEMOLISH COMBINITION SUT SIGN CELLING MOUNTED AND DUAL HEAD DEMOLISH RECENSION NEW WORK COMBINITION SUT SIGN CELLING MOUNTED AND DUAL HEAD DEMOLISH RECENSION NUMCATES DIRECTION IN SHOTN NUMCATES DIRECTION IN SHOTN RECENSION RECENSION CELLING MOUNTED AND DUAL HEAD DEMOLISH RECENSION TO A TLUMINATE RECENSION TO A TLUMINATE RECEN	LEQUINDING DOUBLIC OF ALL CALL AND AN ENDED NOT THE ANTHONY DOUBLIC OF ALL CALL AND AN ENDER NOT THE ANALY DOUBLIC OF ALL CALL AND	LEMANNESSES LEMAN

ODE DENOTES

LOCK RECEPTACLE IT BLADE RECEPTACLE VERIFY PENDANT LENGTH RATION WITH EQUIPMENT

GNATION

SIGNATION

ITCH DFF" SWITCH TWO INTEGRAL "OFF"

IMMER TO OFF. SIGNATION

PTACLE RACEWAY WITH CEPTACLES AS

FROL DESIGNATION

MAL OVERLOAD

T. PROVIDE DOUBLE GANG ATE WITH 1" C. AND

E CEILING

DVIDE DOUBLE GANG .ATE WITH 3/4" C. AND .CE. SEE LETTER CODE 'TIONS.

SHEET INDEX

E0.1 SYMBOLS LIST AND GENERAL NOTES - ELECTRICAL

E2.1 LEVEL 2 CEILING PLAN -ELECTRICAL









Key Plan

_____ Job No.

4728-01



1 LEVEL 2 CEILING PLAN - ELECTRICAL 0' 4' 8' 16' 1/4" = 1'-0"

ргојест 2018-0475 сомтаст Lauren Krueger 100 SW Main St. Suite 1600 Portland, OR 97204 TEL 503.382.2266 FAX 503.382.2262 www.interfaceengineering.com







Key Plan



_____ Job No. 4728-01







ABBREVIATIONS VIF = VERIFY IN FIELD AFF = ABOVE FINISHED FLOOR NIC = NOT IN CONTRACT HT = HEIGHTTYP = TYPICAL FM = FLUSH MOUNT SM = SURFACE MOUNT OH = OUTLET HEIGHT (E) = EXISTING

MAX = MAXIMUM Date: Sheet Title PRODUCTION ONLY. REFERENCE OTHER ARCHITECTURAL AND ENGINEERING DOCUMENTS FOR RELATED AREAS. Sheet No. PR1.11 Job No. 4728-01

RIGGING GENERAL NOTES 1. THIS SHEET IS INTENDED TO PROVIDE RIGGING INFORMATION 2. SHOW ATTACHMENT BACKING REQUIREMENTS ON SHOP DRAWINGS. 3. SEE SPECIFICATIONS FOR PRODUCT AND INSTALLATION CRITERIA.



Date

Revisions to Sheet

No. Revision

THESE DRAWINGS ARE THE PROPERTY OF OPSIS ARCHITECTURE LLP AND ARE NOT TO BE USED OR REPRODUCED IN ANY MANNER, WITHOUT PRIOR WRITTEN PERMISSION.

Project Adress: 13000 SW 2nd St Beaverton, OR 97005 Key Plan

Project Name: **BEAVERTON HIGH** SCHOOL THEATRE UPGRADES

Project Owner: BEAVERTON SCHOOL DISTRICT

The Shalleck Collaborative Inc. lanning and Design of Theatres and Production Systems 1553 Martin Luther King Jr Way Berkeley, CA 94709 tel 415-956-4100 www.shalleck.com

opsis

Consultant Logo

www.opsisarch.com



1 TRANSVERSE SECTION THROUGH STAGE



- CRITERIA.

Sheet No. PR1.12 Job No. 4728-01

THESE DRAWINGS ARE THE PROPERTY OF OPSIS ARCHITECTURE LLP AND ARE NOT TO BE USED OR REPRODUCED IN ANY MANNER, WITHOUT PRIOR WRITTEN PERMISSION.

Revisions to Sheet No. Revision

Date

Project Adress: 13000 SW 2nd St Beaverton, OR 97005 Key Plan

Project Name: **BEAVERTON HIGH** SCHOOL THEATRE

UPGRADES

Project Owner: **BEAVERTON SCHOOL** DISTRICT

The Shalleck Collaborative Inc. lanning and Design of Theatres and Production Systems 1553 Martin Luther King Jr Way Berkeley, CA 94709 tel 415-956-4100 www.shalleck.com

opsis

Consultant Logo

www.opsisarch.com



1 TRANSVERSE SECTION THROUGH STAGE

CONTROL PANEL (AT STAGE LEVEL)

2 CYC BATTEN ELECTRICAL RISER







ABBREVIATIONS VIF = VERIFY IN FIELD AFF = ABOVE FINISHED FLOOR NIC = NOT IN CONTRACT HT = HEIGHTHI = HEIGHITYP = TYPICALFM = FLUSH MOUNTSM = SURFACE MOUNTOH = OUTLET HEIGHT(E) = EXISTING**RIGGING GENERAL NOTES** 1. THIS SHEET IS INTENDED TO PROVIDE RIGGING INFORMATION ONLY. REFERENCE OTHER ARCHITECTURAL AND ENGINEERING DOCUMENTS FOR RELATED AREAS. 2. SHOW ATTACHMENT BACKING REQUIREMENTS ON SHOP DRAWINGS. 3. SEE SPECIFICATIONS FOR PRODUCT AND INSTALLATION

CRITERIA.

_____ Sheet Title PRODUCTION **RIGGING: SECTION** Sheet No. PR1.13 Job No. 4728-01



Revisions to Sheet

No. Revision

THESE DRAWINGS ARE THE PROPERTY OF OPSIS ARCHITECTURE LLP AND ARE NOT TO BE USED OR REPRODUCED IN ANY MANNER, WITHOUT PRIOR WRITTEN PERMISSION.

Date

Project Adress: 13000 SW 2nd St Beaverton, OR 97005 Key Plan

www.opsisarch.com

Consultant Logo

1553 Martin Luther King Jr Way Berkeley, CA 94709

Project Owner:

Project Name:

UPGRADES

BEAVERTON HIGH

SCHOOL THEATRE

DISTRICT

BEAVERTON SCHOOL

The Shalleck Collaborative Inc. anning and Design of Theatres and Production Systems

tel 415-956-4100 www.shalleck.com

SOUTHRIDGE HIGH SCHOOL

9625 SW 125TH AVE. **BEAVERTON, OR 97008**





CHAPTER PROJECT

JURISDIC APPLICAB

VICINITY MAP

CODE ANALYSIS

CHAPTER 1:	ADMINISTRATION
PROJECT ADDRESS:	SOUTHRIDGE HIGH SCHOOL 9625 SW 125th AVE BEAVERTON, OR 97008
JURISDICTIONAL AUTHO	RITY: CITY OF BEAVERTON
APPLICABLE CODE:	2019 OREGON STRUCTURAL SPECIALTY CODE 2019 OSSC APPENDIX CHAPTER N 2020 OREGON ELECTRICAL SPECIALTY CODE 2020 OREGON PLUMBING SPECIALTY CODE NFPA 101 (NOTE: LOCAL CODE WILL TAKE PRECEDENCE. DEVIATIONS FROM NFPA IN INDIVIDUAL SECTIONS.)
OSSC CHAPTER 11:	NOT APPLICABLE TO PROPOSED SCOPE
TAX LOT:	

1S128DD00300

CHAPTER 3: USE AND OCCUPANCY CLASSIFICATION OCCUPANCY CLASSIFICATION (Section 303 & 304)

EDUCATIONAL OCCUPANCY FOR STUDENTS GROUP E

*PER SECTION 303.1.3: ASSEMBLY SPACES IN A GROUP E BUILDING ARE NOT INTENDED TO BE REGULATED AS SEPARATE GROUP A OCCUPANCIES, REGARDLESS OF THEIR FLOOR AREA, BUT RATHER AN EXTENSION OF THE GROUP E CLASSIFICATION.

PROJECT SCOPE

opsis

920 NW 17th Ave. Portland, OR 97209 503.525.9511 www.opsisarch.com

SHEET INDEX

DATA CO COVER SHEET

ARCHITECTURAL

A1.00 AUDITORIUM FLOOR PLAN

ELECTRICAL

SYMBOL LIST & GENERAL NOTES ELECTRICAL E0.1 AUDITORIUM FLOOR PLAN LEVEL 1 ELECTRICAL E2.1

OWNER

BEAVERTON SCHOOL DISTRICT 16550 SW Merlo Road Beaverton, Oregon 97003 Phone: 503.356.4571 Contact: Jeff Hamman ARCHITECT **OPSIS ARCHITECTURE** 920 NW 17th Avenue Portland, Oregon 97209 Phone: 503.525.9511 Fax: 503.525.0440 Contact: Mark Stoller ELECTRICAL INTERFACE ENGINEERS 100 SW Main Street, Suite 1600 Portland, Oregon 97204 Phone: 503.382.2266 Fax: 503.382.2262 Contact: Lauren Krueger THEATRE THE SHALLECK COLLABORATIVE

THEATRE IMPROVEMENTS CONSIST OF NEW WORK LIGHTING TO REPLACE EXISTING FIXTURES AT THE GRID, EXISTING WALL MOUNTED STEP LIGHTING FIXTURES TO BE REPLACED THROUGHOUT THE AUDITORIUM. IN ADDITION, CONDITION OF ELECTRICAL RACEWAY IS TO BE VERIFIED AND IN GOOD CONDITION.

BID / PERMIT



1553 Martin Luther King Jr Way Berkeley, California 94709 Phone: 415.956.4100 Contact: Jill Collins



S (\mathbf{D}) Ш C M 0 S



1 A1.00 | AUDITORIUM FLOOR PLAN - LEVEL 1 1/8" = 1'-0"



opsis

Consultant Logo

Key Plan

Project Owner: **BEAVERTON SCHOOL** DISTRICT Project Name: SOUTHRIDGE HIGH SCHOOL Project Adress: 9625 SW 125TH AVE. **BEAVERTON, OR 97008** _____ COPYRIGHT 2017 OPSIS ARCHITECTURE LLP ALL RIGHTS RESERVED THESE DRAWINGS ARE THE PROPERTY OF OPSIS ARCHITECTURE LLP AND ARE NOT TO BE USED OR REPRODUCED IN ANY MANNER, WITHOUT PRIOR WRITTEN PERMISSION. Revisions to Sheet Date No. Revision BID / PERMIT Status: 01.13.20 Date: Sheet Title AUDITORIUM FLOOR PLAN Sheet No. A1.00 Job No.

4771-01

	ons	<u>Connectio</u>
AFC	ABOVE FINISHED CEILING	
AFF	ABOVE FINISHED FLOOR	VFD
ANSI		
A	AMPERES, AMBER	R
AHJ	AUTHORITY HAVING JURISDICTION	
AIC	AVAILABLE INTERRUPTING CAPACITY	
BAS	BUILDING AUTOMATION SYSTEM	F
CA		
CLG	CEILING	5
С	CONDUIT, CLOSE, CONTROL	C
COORD	COORDINATE	
CU	COPPER	다
(X) ab		
DTL	DETAIL	
DIA	DIAMETER	Ţ
DIM	DIMENSION	
DIV	DIVISION	FSD
	DRAWING	<u> </u>
EA	EACH	
EMT	ELECTRICAL METALLIC TUBING	SD
EL	ELEVATION	
E	EMERGENCY	O
EF (F)	EAMAUST FAN EXISTING	J
(L) FA	FIRE ALARM	
FMC	FLEXIBLE METAL CONDUIT	J
FT	FOOT, FEET	
FBO	FURNISHED BY OTHERS	0
, GND GECI	GROUND FALLI T CIRCUIT INTERRUPTER	Ĭ
GFI	GROUND FAULT INTERRUPTER	General
GFP	GROUND FAULT PROTECTION	
HT	HEIGHT	$\begin{pmatrix} x \\ x \end{pmatrix}$
ID		\bigcirc
	INCH, INCHES	$\left(xx - x \right)$
IG	ISOLATED GROUND	
KV	KILOVOLT	LOOAHON
KVA	KILOVOLT AMPERES	$\langle 1 \rangle$
KW		\Box
	LIQUIDTIGHT FLEXIBLE METAL CONDUIT	
LV	LOW VOLTAGE	X
<i>I</i> OCP	MAXIMUM OVERCURRENT PROTECTION	
MIN	MINIMUM	
MCA		
MCC	MISCELLANEOUS MOTOR CONTROL CENTER	
T, MTD	MOUNT, MOUNTED	
NEC	NATIONAL ELECTRIC CODE	
NESC		Lighting
NEMA N	NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION	
N/A	NOT APPLICABLE	DXXd
N.I.C.	NOT IN CONTRACT	
NTS	NOT TO SCALE	₩
		<u> </u>
PNI	OWNER FORMISTED, CONTRACTOR INSTALLED PANEL	
PH	PHASE	⊗
PVC	POLY-VINYL-CHLORIDE	
PWR	POWER	$\overline{\otimes}$
QTY		T
(rk) RFI	REQUEST FOR INFORMATION	
REQD	REQUIRED	
RMC	RIGID METAL CONDUIT	
RM	ROOM	
SHT	SHEET STANDARD	
510	SURGE PROTECTION DEVICE	
SPD		
SPD SWBD	SWITCHBOARD	
SPD SWBD TBD	TO BE DETERMINED	
SPD SWBD TBD XFMR	TO BE DETERMINED TRANSFORMER	
SPD SWBD TBD XFMR TVSS TVP	TO BE DETERMINED TRANSFORMER TRANSIENT VOLTAGE SURGE SUPPRESSOR	
SPD SWBD TBD XFMR TVSS TYP UL	TO BE DETERMINED TRANSFORMER TRANSIENT VOLTAGE SURGE SUPPRESSOR TYPICAL UNDERWRITERS LABORATORIES	
SPD SWBD TBD XFMR TVSS TYP UL UPS	TO BE DETERMINED TRANSFORMER TRANSIENT VOLTAGE SURGE SUPPRESSOR TYPICAL UNDERWRITERS LABORATORIES UNINTERRUPTIBLE POWER SUPPLY	
SPD SWBD TBD XFMR TVSS TYP UL UPS UON	TO BE DETERMINED TRANSFORMER TRANSIENT VOLTAGE SURGE SUPPRESSOR TYPICAL UNDERWRITERS LABORATORIES UNINTERRUPTIBLE POWER SUPPLY UNLESS OTHERWISE NOTED	
SPD SWBD TBD XFMR TVSS TYP UL UPS UON V	TO BE DETERMINED TRANSFORMER TRANSIENT VOLTAGE SURGE SUPPRESSOR TYPICAL UNDERWRITERS LABORATORIES UNINTERRUPTIBLE POWER SUPPLY UNLESS OTHERWISE NOTED VOLTS, VOLTAGE	
SPD SWBD TBD XFMR TVSS TYP UL UPS UON V WP W/	TO BE DETERMINED TRANSFORMER TRANSIENT VOLTAGE SURGE SUPPRESSOR TYPICAL UNDERWRITERS LABORATORIES UNINTERRUPTIBLE POWER SUPPLY UNLESS OTHERWISE NOTED VOLTS, VOLTAGE WEATHERPROOF WITH	
SPD SWBD TBD XFMR TVSS TYP UL UPS UON V WP W/ WP W/	TO BE DETERMINED TRANSFORMER TRANSIENT VOLTAGE SURGE SUPPRESSOR TYPICAL UNDERWRITERS LABORATORIES UNINTERRUPTIBLE POWER SUPPLY UNLESS OTHERWISE NOTED VOLTS, VOLTAGE WEATHERPROOF WITH WITHOUT	

Connections	/ Equipment	<u>ulu</u>	DRY TYPE TRANSFORMER
VFD	COMBINATION ADJUSTABLE FREQUENCY DRIVE WITH SAFETY DISCONNECT SWITCH	uhu	
R	COMBINATION MOTOR STARTER/FUSED DISCONNECT SWITCH	-	FLUSH WALL MOUNTED BRANCH PANEL
F	HEAVY DUTY FUSED DISCONNECT SWITCH	GB	GROUND BAR
Ø	MOTOR CONNECTION		MAIN DISTRIBUTION PANEL / SUB DISTRIBUTION PANEL
с.	NON-FUSED DISCONNECT SWITCH	Raceways	CONDUIT CONCEALED IN WALL OR CEILING SPACE
	TRANSFORMER		CONDUIT ROUTED BELOW FLOOR / GRADE
FSD	FIRE SMOKE DAMPER	•	CONDUIT ELLED DOWN
S	SMOKE DAMPER	0	CONDUIT ELLED UP
0	CEILING MOUNTED JUNCTION BOX	\longrightarrow	CONDUIT/WIRING CONTINUATION
J	FLOOR MOUNTED JUNCTION BOX		CONDUIT/WIRING STUBBED OUT WITH END CAP OR INSULATED PLASTIC BUSHING
ହ	WALL-MOUNTED JUNCTION BOX	~~~~~	FLEXIBLE CONDUIT
<u>General</u>		Switches and	I Receptacles DUPLEX RECEPTACLE (MULTIPLE LETTERS INDICATE MULTIPLE
(Å)	DETAIL NUMBER AND SHEET LOCATION		OPTIONS) A = ABOVE COUNTER B = CLOCK HANGER C = ELUSH CEILING MOUNTED
	EQUIPMENT IDENTIFICATION		E = EMERGENCY F = ARC FAULT PROTECTED BY BREAKER IN PANEL G = GROUND FAULT CIRCUIT INTERRUPTER
$\langle 1 \rangle$	KEYED NOTE	Φ	H = HOSPITAL GRADE K = CHILD RESISTANT COVER L = ISOLATED GROUND
—×—×—	DEMOLISH		F - FEINDAINT MOUNTED WITH CORD GRIPS. VERIFY PENDANT LENGTH R1 = HALF SWITCHED BY OCCUPANCY SENSOR RELAY R2 = FULLY SWITCHED BY OCCUPANCY SENSOR RELAY
	EXISTING WORK		S = SPLIT WIRED T = TAMPER RESISTANT SHUTTERED RECEPTACLE U = USB PORT(S)
	NEW WORK		W = WEATHERPROOF CONTINUOUS USE COVER, GFCI PROTECTED, WITH WEATHER-RESISTANT RECEPTACLE
Lighting		\square	DUPLEX RECEPTACLE, FLUSH FLOOR
	EMERGENCY EGRESS LIGHTING WITH BATTERY PACK. ARRROW(S) INDICATES DIRECTION IF SHOWN	•	DOUBLE DUPLEX RECEPTACLE, FLUSH FLOOR
\$₹	COMBINATION EXIT SIGN WALL MOUNTED AND DUAL HEAD EMERGENCY EGRESS LIGHTING WITH BATTERY PACK. ARRROW(S) INDICATES DIRECTION IF SHOWN	#	DOUBLE DUPLEX RECEPTACLE. SEE LETTER CODE LIST AT DUPLEX RECEPTACLE FOR OPTIONS
8	EXIT SIGN CEILING MOUNTED, ARROW(S) INDICATES DIRECTION IF SHOWN	۲	EQUIPMENT ELECTRICAL CONNECTION
™	EXIT SIGN WALL MOUNTED, ARROW(S) INDICATES DIRECTION IF SHOWN		SPECIAL PURPOSE RECEPTACLE. LETTER CODE DENOTES RECEPTACLE CONFIGURATION LX-XXR = NEMA CONFIGURATION TWIST-LOCK RECEPTACLE
	RECESSED 1' X 4' LUMINAIRE	\otimes	X-XXR = NEMA CONFIGURATION STRAIGHT BLADE RECEPTACLE P = PENDANT MOUNT WITH CORD GRIPS. VERIFY PENDANT LENGTH X = COORDINATE RECEPTACLE CONFIGURATION WITH EQUIPMENT BEING SUPPLIED
	RECESSED 1' X 4' LUMINAIRE CONNECTED TO EMERGENCY/LIFE SAFETY CIRCUIT OR WITH INTEGRAL EMERGENCY BATTERY CONNECTED TO UNSWITCHED CIRCUIT	_	CEILING MOUNTED OCCUPANCY SENSOR P = PASSIVE INFRARED D = DUAL TECHNOLOGY
	RECESSED 2' X 2' LUMINAIRE	os	U = ULTRASONIC, 360 DEG RANGE H = ULTRASONIC, HALLWAY PATTERN v (LOWERCASE) = VACANCY CONTROL DESIGNATION
	RECESSED 2' X 2' LUMINAIRE CONNECTED TO EMERGENCY/LIFE SAFETY CIRCUIT OR WITH INTEGRAL EMERGENCY BATTERY CONNECTED TO UNSWITCHED CIRCUIT	©5-H	WALL MOUNTED OCCUPANCY SENSOR P = PASSIVE INFRARED D = DUAL TECHNOLOGY v (LOWERCASE) = VACANCY CONTROL DESIGNATION WALL MOUNTED OCCUPANCY SENSOR/SWITCH
	RECESSED 2' X 4' LUMINAIRE	ssH	S = PASSIVE INFRARED WITH INTEGRAL "OFF" SWITCH T = DUAL RELAY PASSIVE INFRARED WITH TWO INTEGRAL "OFF" SWITCHES
	RECESSED 2' X 4' LUMINAIRE CONNECTED TO EMERGENCY/LIFE SAFETY CIRCUIT OR WITH INTEGRAL EMERGENCY BATTERY CONNECTED TO UNSWITCHED CIRCUIT		U = PASSIVE INFRARED WITH INTEGRAL DIMMER TO OFF. v (LOWERCASE) = VACANCY CONTROL DESIGNATION MULTIPLE CHANNEL SURFACE METAL RECEPTACLE RACEWAY
Ø	RECESSED LUMINAIRE		WITH LOW VOLTAGE DIVIDERS, LENGTH AND RECEPTACLES AS INDICATED PHOTO FLECTRIC SWITCH
	RECESSED LUMINAIRE CONNECTED TO EMERGENCY/LIFE SAFETY CIRCUIT	0	D = CONTINUOUS DIMMING PHOTOCELL S = SWITCHED PHOTOCELL SINGLE POLE SWITCH
	SURFACE MOUNTED 2' X 2' LUMINAIRE CONNECTED TO EMERGENCY/LIFE SAFETY CIRCUIT OR WITH INTEGRAL		2 = DOUBLE POLE SWITCH 3 = THREE-WAY SWITCH 4 = FOUR-WAY SWITCH
	SURFACE MOUNTED 2' X 4' LUMINAIRE	*	a THRU z (LOWERCASE) = LUMINAIRE CONTROL DESIGNATION D = DIMMER F = FAN SPEED CONTROL K = KEY OPERATED SWITCH
	SURFACE MOUNTED 2' X 4' LUMINAIRE CONNECTED TO	\$	L = LIGHTED HANDLE M = MANUAL MOTOR STARTER WITH THERMAL OVERLOAD P = SWITCH WITH PILOT LIGHT
	EMERGENCY BATTERY CONNECTED TO UNSWITCHED CIRCUIT		S = SENTRY SWITCH T = INTERVAL TIMER W = WEATHERPROOF SWITCH V = LOW VOLTAGE SWITCH
	SURFACE OR PENDANT MOUNTED 1'X 4' LUMINAIRE CONNECTED	<u>Telecommuni</u>	ICATIONS RACEWAY ONLY DATA/TELEPHONE OUTLET. PROVIDE DOUBLE
•	EVERGENCY/LIFE SAFETY CIRCUIT OR WITH IN FEGRAL EMERGENCY BATTERY CONNECTED TO UNSWITCHED CIRCUIT SURFACE OR PENDANT MOUNTED LUMINAIRE CONNECTED TO EMERGENCY/LIFE SAFETY CIRCUIT OR WITH INTEGRAL	V	GANG BACK BOX AND SINGLE GANG ADAPTER PLATE WITH 1" C. AND PULLSTRING TO ACCESSIBLE CEILING SPACE. (MULTIPLE LETTERS INDICATE MULTIPLE OPTIONS) A = ABOVE COUNTER
	EMERGENCY BATTERY CONNECTED TO UNSWITCHED CIRCUIT		F = FLUSH CEILING MOUNTED ABOVE ACCESSIBLE CEILING F = FLUSH CEILING MOUNTED R = SURFACE MOUNTED ON RACEWAY RACEWAY ONLY TELEPHONE OUTLET. PROVIDE DOUBLE GANG
<u>∓0</u> ∓	WALL MOUNTED 6" WIDE LUMINAIRE	•	BACK BOX AND SINGLE GANG ADAPTER PLATE WITH 3/4" C. AND PULLSTRING TO ACCESSIBLE CEILING SPACE. SEE LETTER CODE LIST AT DATA/TELEPHONE OUTLET FOR OPTIONS.
∓●∓	WALL MOUNTED 6" WIDE LUMINAIRE CONNECTED TO EMERGENCY/LIFE SAFETY CIRCUIT OR WITH INTEGRAL		
\Box	EWERGENCY BATTERY CONNECTED TO UNSWITCHED CIRCUIT		
	WALL MOUNTED 12" WIDE LUMINAIRE CONNECTED TO EMERGENCY/LIFE SAFETY CIRCUIT OR WITH INTEGRAL		
- <u>-</u>	EMERGENCY BATTERY CONNECTED TO UNSWITCHED CIRCUIT		
¥	WALL MOUNTED LUMINAIRE CONNECTED TO EMERGENCY/LIFE		
⊈ Miscellaneou	SAFETY CIRCUIT OR WITH INTEGRAL EMERGENCY BATTERY CONNECTED TO UNSWITCHED CIRCUIT		
#10 	BRANCH CIRCUIT WIRING. ARROW INDICATES HOME RUN TO PANEL WITH CIRCUITS AS NOTED. WIRE SIZE IS #12 AWG MINIMUM UNLESS NOTED OTHERWISE. SHORT TICK MARKS INDICATE PHASE CONDUCTORS. LONG TICK MARKS INDICATE NEUTRAL CONDUCTORS. A SINGLE CURVED TICK MARK INDICATES INSULATED GREEN GROUND CONDUCTOR. SECOND CURVED TICK MARK INDICATES "ISOLATED GROUND" (GREEN INSULATION WITH YELLOW STRIPE) CONDUCTOR.		

 \leq

BRANCH PANEL

ELECTRICAL SYMBOL LIST



E2.1 AUDITORIUM FLOOR PLAN - LEVEL 1 - ELECTRICAL



opsis

Consultant Logo

Key Plan



_____ Project Owner: BEAVERTON SCHOOL DISTRICT Project Name: SOUTHRIDGE HIGH SCHOOL Project Adress: 9625 SW 125TH AVE. **BEAVERTON, OR 97008** _____ COPYRIGHT 2017 OPSIS ARCHITECTURE LLP ALL RIGHTS RESERVED THESE DRAWINGS ARE THE PROPERTY OF OPSIS ARCHITECTURE LLP AND ARE NOT TO BE USED OR REPRODUCED IN ANY MANNER, WITHOUT PRIOR WRITTEN PERMISSION. -----Revisions to Sheet Date No. Revision _____ **BID/PERMIT** Status: 01.13.20 Date: Sheet Title SYMBOL LIST AND GENERAL NOTES ELECTRICAL

Sheet No. E0.1 _____ Job No. **2019-0350**

	LUMINAIRE SCHEDULE										
						UL/IP			INPUT		
TYPE	DESCRIPTION	HOUSING	SHIELDING	MOUNTING	FINISH	RATING	DRIVER/POWER SUPPLY	LIGHT SOURCE	WATTS	MFG/CATALOG #	NOTES
'HA'	SMALL LED STEPLIGHT FOR THEATRE CHAIR INSTALLATION FOR AISLE LIGHTING; NOMINAL 2.5IN W x 4.5IN H x 2IN D; LUMINAIRE NOT TO EXCEED 2IN DEPTH	ALUMINUM	NA	INSTALLED IN EXISTING THEATRE CHAIRS	BLACK	UL DAMP	INTEGRAL DRIVER; ELV DIMMING	450 NOMINAL LUMENS; 3000K LED; >80CRI	3.0	COLE LIGHTING L111 SERIES; NICOR LED, CLOUDBAY, OR APPROVED	NEW LUMINAIRE TO REPLACE EXISTING LUMINAIRE. SEE LUMINAIRE SCHEDULE NOTE 9.
'HB'	RECESSED LED STEPLIGHT; NOMINAL 12IN W x 7-13/16IN H x 4IN D	DIE FORMED STEEL	LOUVERED FACEPLATE	RECESSED IN WALL	BLACK	UL DAMP	INTEGRAL DRIVER; 0-10V DIMMING	430 NOMINAL LUMENS; >80CRI	7.2	COLE LIGHTING 2153W-HO SERIES; OR APPROVED	NEW LUMINAIRE TO REPLACE EXISTING LUMINAIRE
'HC'	SURFACE MOUNTED LED STRIPLIGHT; NOMINAL 2.35IN W x 2.75IN H x 48IN L	COLD ROLLED STEEL	SQUARE ACRYLIC LENS	SURFACE MOUNTED	BLACK		REMOTE DRIVER; 0-10V DIMMING	10000 NOMINAL LUMENS; 3000K LED; >80CRI	77.0	FSC LIGHTING L28645 SERIES; OR APPROVED	REMOTE DRIVER TO BE LOCATED ON TOP OF GRID DECK
	SCHEDULE NOTES										
1	THIS LUMINAIRE SCHEDULE IS NOT COMPLE	ETE WITHOUT A C	OPY OF THE PROJ	ECT MANUAL COM	JTAINING THE E	ELECTRICAL SPE	ECIFICATIONS.				
2	DIMMING CONTROL PROTOCOL (0-10VDC, L	INE VOLTAGE, DAI	LI, ETC.) COMPATIE	3LE WITH LIGHTIN	G CONTROL SY	STEM AS SPEC	IFIED AND SHOWN ON DRAWINGS.				
3	PROVIDE +/- 12 INCH ADJUSTABILITY IN AIR(CRAFT CABLE LEN	IGTH WHERE USEI	כ.							
4	COORDINATE ALL CEILING TYPES WITH LUN	JINAIRE LOCATION	NS PRIOR TO ORDI	ERING LUMINAIRE	S. COORDINAT	TE INSTALLATIO	N WITH REFLECTED CEILING PLAN.				
5	SPECIFIED MANUFACTURERS ARE APPROV	ED TO SUBMIT BI	D. INCLUSION DOE	S NOT RELIEVE N	IANUFACTURE	R FROM SUPPLY	ING PRODUCT AS DESCRIBED.				
6	PROVIDE SUBMITTALS THAT INCLUDE THE I	LUMINAIRE, LAMP	AND BALLAST INF	ORMATION OF EA	CH LUMINAIRE,	WITH APPLICAE	BLE OPTIONS CLEARLY CHECKED OF	R HIGHLIGHTED. SUBMITTAL	S NOT INCLU	DING THIS INFORMATION WILL	BE RETURNED AS REJECTED
7	REMOTE BALLASTS/DRIVERS: UL LISTED FC	R THEIR APPLICA	TION. BALLASTS/	ORIVERS MARKED	AS UL RECOGI	NIZED COMPON	ENT BUT NOT UL LISTED ARE SUBJE	CT TO REMOVAL AND REPL	ACEMENT AT	NO COST TO OWNER.	



AUDITORIUM PLAN - LEVEL 1 - LIGHTING 0' 4' 8' 16' 1/8" = 1'-0"

8 REFER TO FLOOR PLANS FOR LOCATION, CIRCUITING, AND SWITCH LEG FOR EACH REMOTE DRIVER. LABEL ALL REMOTE DRIVERS TO SHOW LUMINAIRE TYPE IDENTIFICATION AND SOURCE CIRCUIT. PROVIDE WIRING BETWEEN REMOTE DRIVER AND LUMINAIRE AS RECOMMENDED BY MANUFACTURER. DO NOT EXCEED MAXIMUM DISTANCE RECOMMENDED BY MANUFACTURER BETWEEN DRIVER AND FURTHEST LUMINAIRE.



A. WHERE LUMINAIRES ARE REPLACED IN EXISTING LOCATIONS, CONNECT TO EXISTING CIRCUIT FROM ARCHITECTURAL RELAY PANEL.

○ <u>SHEET KEYNOTES</u> 1. DEMO AND REPLACE EXISTING LUMINAIRES ATTACHED TO

UNDERSIDE OF GRIDIRON. INTERCEPT AND EXTEND EXISTING CIRCUIT FROM ARCHITECTURAL RELAY PANEL TO FEED REMOTE DRIVERS FOR NEW LUMINAIRES. LOCATE REMOTE DRIVERS ON TOP SIDE OF GRIDIRON SO AS NOT TO CONFLICT WITH RIGGING.

2. INSPECT EXISTING SECOND ELECTRIC RACEWAY WIRING FOR DAMAGE AND REPLACE AS NECESSARY. 3. LUMINAIRES AND ASSOCIATED HARDWARE FOR ALTERNATE #1



INTERFACE ENGINEERING PROJECT 2019-0350 CONTACT Lauren Krueger 100 SW Main Street, Suite 1600 Portland, OR 97204 TEL 503.382.2266 www.interfaceengineering.com

Key Plan

Project Owner: **BEAVERTON SCHOOL** DISTRICT

Project Name: SOUTHRIDGE HIGH SCHOOL Project Adress: 9625 SW 125TH AVE.

BEAVERTON, OR 97008 _____ COPYRIGHT 2017 OPSIS ARCHITECTURE LLP ALL RIGHTS RESERVED THESE DRAWINGS ARE THE PROPERTY OF OPSIS ARCHITECTURE LLP AND ARE NOT TO BE USED OR REPRODUCED IN ANY MANNER, WITHOUT PRIOR WRITTEN PERMISSION.

Revisions to Sheet No. Revision

Status:

Date:

Sheet Title

PLAN LEVEL 1

Sheet No.

ELECTRICAL

E2.1

Job No. **2019-0350**

Date

BID/PERMIT

AUDITORIUM FLOOR

01.13.20







VICINITY MAP

ADMINISTRATION WESTVIEW HIGH SCHOOL 4200 NW 185th AVE PORTLAND, OR 97229

WASHINGTON COUNTY 2019 OREGON STRUCTURAL SPECIALTY CODE 2019 OSSC APPENDIX CHAPTER N 2020 OREGON ELECTRICAL SPECIALTY CODE 2020 OREGON PLUMBING SPECIALTY CODE NFPA 101 (NOTE: LOCAL CODE WILL TAKE PRECEDENCE. DEVIATIONS

NOT APPLICABLE TO PROPOSED SCOPE

FROM NEPA IN INDIVIDUAL SECTIONS.)

1N1190002300 CHAPTER 3: USE AND OCCUPANCY CLASSIFICATION

OCCUPANCY CLASSIFICATION (Section 303 & 304) EDUCATIONAL OCCUPANCY FOR STUDENTS

*PER SECTION 303.1.3: ASSEMBLY SPACES IN A GROUP E BUILDING ARE NOT INTENDED TO BE REGULATED AS SEPARATE GROUP A OCCUPANCIES, REGARDLESS OF THEIR FLOOR AREA, BUT RATHER AN EXTENSION OF THE GROUP E CLASSIFICATION.

PROJECT SCOPE

THEATRE IMPROVEMENTS CONSIST OF UPGRADING THE PRODUCTION LIGHTING SYSTEM. AT THE BLACK BOX, NEW EMERGENCY LIGHTING WILL BE ADDED. EXISTING STEP LIGHTING FIXTURES AND WORK LIGHTS WILL BE REPLACED.

opsis

920 NW 17th Ave. Portland, OR 97209 503.525.9511 www.opsisarch.com

OWNER

BEAVERTON SCHOOL DISTRICT 16550 SW Merlo Road Beaverton, Oregon 97003 Phone: 503.356.4571 Contact: Jeff Hamman ARCHITECT **OPSIS ARCHITECTURE** 920 NW 17th Avenue Portland, Oregon 97209 Phone: 503.525.9511 Fax: 503.525.0440 Contact: Mark Stoller ELECTRICAL INTERFACE ENGINEERS 100 SW Main Street, Suite 1600 Portland, Oregon 97204 Phone: 503.382.2266

THEATRE

SHEET INDEX

DATA CO COVER SHEET

AUDITORIUM

ELECTRICAL

E0.1 SYMBOL LIST & GENERAL NOTES ELECTRICAL E2.1 AUDITORIUM FLOOR PLAN LEVEL 1 ELECTRICAL AUDITORIUM FLOOR PLAN LEVEL 2 AND 3 ELECTRICAL E2.2

PRODUCTION

L1.11	PRODUCTION LIGHTING:	LEVEL 1 PLAN
L1.12	PRODUCTION LIGHTING:	LEVEL 2 PLAN
L1.13	PRODUCTION LIGHTING:	LEVEL 3 PLAN
L3.01	PRODUCTION LIGHTING:	SINGLE LINE DIAGRAM
L3.02	PRODUCTION LIGHTING:	SCHEDULES

- PL4.01 PRODUCTION LIGHTING: DETAILS
- A1.00 AUDITORIUM FLOOR PLAN

BID / PERMIT



Fax: 503.382.2262 Contact: Lauren Krueger

THE SHALLECK COLLABORATIVE 1553 Martin Luther King Jr Way Berkeley, California 94709 Phone: 415.956.4100 Contact: Jill Collins





plotted: 1/13/2020 11:36:16 F





Key Plan



	ons	<u>Connectio</u>
AFC	ABOVE FINISHED CEILING	
AFF	ABOVE FINISHED FLOOR	VFD
ANSI		
A	AMPERES, AMBER	R
AHJ	AUTHORITY HAVING JURISDICTION	
AIC	AVAILABLE INTERRUPTING CAPACITY	
BAS	BUILDING AUTOMATION SYSTEM	F
CA		
CLG	CEILING	5
С	CONDUIT, CLOSE, CONTROL	C
COORD	COORDINATE	
CU	COPPER	다
(X) ab		
DTL	DETAIL	
DIA	DIAMETER	T
DIM	DIMENSION	
DIV	DIVISION	FSD
	DRAWING	<u> </u>
EA	EACH	
EMT	ELECTRICAL METALLIC TUBING	SD
EL	ELEVATION	
E	EMERGENCY	O
EF (F)	EAMAUST FAN EXISTING	J
(L) FA	FIRE ALARM	
FMC	FLEXIBLE METAL CONDUIT	J
FT	FOOT, FEET	
FBO	FURNISHED BY OTHERS	0
, GND GECI	GROUND FALLI T CIRCUIT INTERRUPTER	Ĭ
GFI	GROUND FAULT INTERRUPTER	General
GFP	GROUND FAULT PROTECTION	
HT	HEIGHT	$\begin{pmatrix} x \\ x \end{pmatrix}$
ID		\bigcirc
	INCH, INCHES	$\left(xx - x \right)$
IG	ISOLATED GROUND	
KV	KILOVOLT	LOOAHON
KVA	KILOVOLT AMPERES	$\langle 1 \rangle$
KW		\Box
	LIQUIDTIGHT FLEXIBLE METAL CONDUIT	
LV	LOW VOLTAGE	XX
<i>I</i> OCP	MAXIMUM OVERCURRENT PROTECTION	
MIN	MINIMUM	
MCA		
MCC	MISCELLANEOUS MOTOR CONTROL CENTER	
T, MTD	MOUNT, MOUNTED	
NEC	NATIONAL ELECTRIC CODE	
NESC		Lighting
NEMA N	NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION	
N/A	NOT APPLICABLE	DXXd
N.I.C.	NOT IN CONTRACT	
NTS	NOT TO SCALE	₩
		<u> </u>
PNI	OWNER FORMISTED, CONTRACTOR INSTALLED PANEL	
PH	PHASE	⊗
PVC	POLY-VINYL-CHLORIDE	
PWR	POWER	$\overline{\otimes}$
QTY		T
(rk) RFI	REQUEST FOR INFORMATION	
REQD	REQUIRED	
RMC	RIGID METAL CONDUIT	
RM	ROOM	
SHT	SHEET STANDARD	
510	SURGE PROTECTION DEVICE	
SPD		
SPD SWBD	SWITCHBOARD	
SPD SWBD TBD	TO BE DETERMINED	
SPD SWBD TBD XFMR	TO BE DETERMINED TRANSFORMER	
SPD SWBD TBD XFMR TVSS TVP	TO BE DETERMINED TRANSFORMER TRANSIENT VOLTAGE SURGE SUPPRESSOR	
SPD SWBD TBD XFMR TVSS TYP UL	TO BE DETERMINED TRANSFORMER TRANSIENT VOLTAGE SURGE SUPPRESSOR TYPICAL UNDERWRITERS LABORATORIES	
SPD SWBD TBD XFMR TVSS TYP UL UPS	TO BE DETERMINED TRANSFORMER TRANSIENT VOLTAGE SURGE SUPPRESSOR TYPICAL UNDERWRITERS LABORATORIES UNINTERRUPTIBLE POWER SUPPLY	
SPD SWBD TBD XFMR TVSS TYP UL UPS UON	TO BE DETERMINED TRANSFORMER TRANSIENT VOLTAGE SURGE SUPPRESSOR TYPICAL UNDERWRITERS LABORATORIES UNINTERRUPTIBLE POWER SUPPLY UNLESS OTHERWISE NOTED	
SPD SWBD TBD XFMR TVSS TYP UL UPS UON V	TO BE DETERMINED TRANSFORMER TRANSIENT VOLTAGE SURGE SUPPRESSOR TYPICAL UNDERWRITERS LABORATORIES UNINTERRUPTIBLE POWER SUPPLY UNLESS OTHERWISE NOTED VOLTS, VOLTAGE	
SPD SWBD TBD XFMR TVSS TYP UL UPS UON V WP W/	TO BE DETERMINED TRANSFORMER TRANSIENT VOLTAGE SURGE SUPPRESSOR TYPICAL UNDERWRITERS LABORATORIES UNINTERRUPTIBLE POWER SUPPLY UNLESS OTHERWISE NOTED VOLTS, VOLTAGE WEATHERPROOF WITH	
SPD SWBD TBD XFMR TVSS TYP UL UPS UON V WP W/ WP W/	TO BE DETERMINED TRANSFORMER TRANSIENT VOLTAGE SURGE SUPPRESSOR TYPICAL UNDERWRITERS LABORATORIES UNINTERRUPTIBLE POWER SUPPLY UNLESS OTHERWISE NOTED VOLTS, VOLTAGE WEATHERPROOF WITH WITHOUT	

Connections	/ Equipment	<u>ulu</u>	DRY TYPE TRANSFORMER
VFD	COMBINATION ADJUSTABLE FREQUENCY DRIVE WITH SAFETY DISCONNECT SWITCH	uhu	
R	COMBINATION MOTOR STARTER/FUSED DISCONNECT SWITCH	-	FLUSH WALL MOUNTED BRANCH PANEL
F	HEAVY DUTY FUSED DISCONNECT SWITCH	GB	GROUND BAR
Ø	MOTOR CONNECTION		MAIN DISTRIBUTION PANEL / SUB DISTRIBUTION PANEL
с.	NON-FUSED DISCONNECT SWITCH	Raceways	CONDUIT CONCEALED IN WALL OR CEILING SPACE
	TRANSFORMER		CONDUIT ROUTED BELOW FLOOR / GRADE
FSD	FIRE SMOKE DAMPER	•	CONDUIT ELLED DOWN
S	SMOKE DAMPER	0	CONDUIT ELLED UP
0	CEILING MOUNTED JUNCTION BOX	\longrightarrow	CONDUIT/WIRING CONTINUATION
J	FLOOR MOUNTED JUNCTION BOX		CONDUIT/WIRING STUBBED OUT WITH END CAP OR INSULATED PLASTIC BUSHING
ହ	WALL-MOUNTED JUNCTION BOX	~~~~~	FLEXIBLE CONDUIT
<u>General</u>		Switches and	I Receptacles DUPLEX RECEPTACLE (MULTIPLE LETTERS INDICATE MULTIPLE
(Å)	DETAIL NUMBER AND SHEET LOCATION		OPTIONS) A = ABOVE COUNTER B = CLOCK HANGER C = ELUSH CEILING MOUNTED
	EQUIPMENT IDENTIFICATION		E = EMERGENCY F = ARC FAULT PROTECTED BY BREAKER IN PANEL G = GROUND FAULT CIRCUIT INTERRUPTER
$\langle 1 \rangle$	KEYED NOTE	Φ	H = HOSPITAL GRADE K = CHILD RESISTANT COVER L = ISOLATED GROUND
—×—×—	DEMOLISH		F - FEINDAINT MOUNTED WITH CORD GRIPS. VERIFY PENDANT LENGTH R1 = HALF SWITCHED BY OCCUPANCY SENSOR RELAY R2 = FULLY SWITCHED BY OCCUPANCY SENSOR RELAY
	EXISTING WORK		S = SPLIT WIRED T = TAMPER RESISTANT SHUTTERED RECEPTACLE U = USB PORT(S)
	NEW WORK		W = WEATHERPROOF CONTINUOUS USE COVER, GFCI PROTECTED, WITH WEATHER-RESISTANT RECEPTACLE
Lighting		\square	DUPLEX RECEPTACLE, FLUSH FLOOR
	EMERGENCY EGRESS LIGHTING WITH BATTERY PACK. ARRROW(S) INDICATES DIRECTION IF SHOWN	•	DOUBLE DUPLEX RECEPTACLE, FLUSH FLOOR
\$₹	COMBINATION EXIT SIGN WALL MOUNTED AND DUAL HEAD EMERGENCY EGRESS LIGHTING WITH BATTERY PACK. ARRROW(S) INDICATES DIRECTION IF SHOWN	#	DOUBLE DUPLEX RECEPTACLE. SEE LETTER CODE LIST AT DUPLEX RECEPTACLE FOR OPTIONS
8	EXIT SIGN CEILING MOUNTED, ARROW(S) INDICATES DIRECTION IF SHOWN	۲	EQUIPMENT ELECTRICAL CONNECTION
™	EXIT SIGN WALL MOUNTED, ARROW(S) INDICATES DIRECTION IF SHOWN		SPECIAL PURPOSE RECEPTACLE. LETTER CODE DENOTES RECEPTACLE CONFIGURATION LX-XXR = NEMA CONFIGURATION TWIST-LOCK RECEPTACLE
	RECESSED 1' X 4' LUMINAIRE	\otimes	X-XXR = NEMA CONFIGURATION STRAIGHT BLADE RECEPTACLE P = PENDANT MOUNT WITH CORD GRIPS. VERIFY PENDANT LENGTH X = COORDINATE RECEPTACLE CONFIGURATION WITH EQUIPMENT BEING SUPPLIED
	RECESSED 1' X 4' LUMINAIRE CONNECTED TO EMERGENCY/LIFE SAFETY CIRCUIT OR WITH INTEGRAL EMERGENCY BATTERY CONNECTED TO UNSWITCHED CIRCUIT	_	CEILING MOUNTED OCCUPANCY SENSOR P = PASSIVE INFRARED D = DUAL TECHNOLOGY
	RECESSED 2' X 2' LUMINAIRE	os	U = ULTRASONIC, 360 DEG RANGE H = ULTRASONIC, HALLWAY PATTERN v (LOWERCASE) = VACANCY CONTROL DESIGNATION
	RECESSED 2' X 2' LUMINAIRE CONNECTED TO EMERGENCY/LIFE SAFETY CIRCUIT OR WITH INTEGRAL EMERGENCY BATTERY CONNECTED TO UNSWITCHED CIRCUIT	©5-H	WALL MOUNTED OCCUPANCY SENSOR P = PASSIVE INFRARED D = DUAL TECHNOLOGY v (LOWERCASE) = VACANCY CONTROL DESIGNATION WALL MOUNTED OCCUPANCY SENSOR/SWITCH
	RECESSED 2' X 4' LUMINAIRE	ssH	S = PASSIVE INFRARED WITH INTEGRAL "OFF" SWITCH T = DUAL RELAY PASSIVE INFRARED WITH TWO INTEGRAL "OFF" SWITCHES
	RECESSED 2' X 4' LUMINAIRE CONNECTED TO EMERGENCY/LIFE SAFETY CIRCUIT OR WITH INTEGRAL EMERGENCY BATTERY CONNECTED TO UNSWITCHED CIRCUIT		U = PASSIVE INFRARED WITH INTEGRAL DIMMER TO OFF. v (LOWERCASE) = VACANCY CONTROL DESIGNATION MULTIPLE CHANNEL SURFACE METAL RECEPTACLE RACEWAY
Ø	RECESSED LUMINAIRE		WITH LOW VOLTAGE DIVIDERS, LENGTH AND RECEPTACLES AS INDICATED PHOTO FLECTRIC SWITCH
	RECESSED LUMINAIRE CONNECTED TO EMERGENCY/LIFE SAFETY CIRCUIT	0	D = CONTINUOUS DIMMING PHOTOCELL S = SWITCHED PHOTOCELL SINGLE POLE SWITCH
	SURFACE MOUNTED 2' X 2' LUMINAIRE CONNECTED TO EMERGENCY/LIFE SAFETY CIRCUIT OR WITH INTEGRAL		2 = DOUBLE POLE SWITCH 3 = THREE-WAY SWITCH 4 = FOUR-WAY SWITCH
	SURFACE MOUNTED 2' X 4' LUMINAIRE	*	a THRU z (LOWERCASE) = LUMINAIRE CONTROL DESIGNATION D = DIMMER F = FAN SPEED CONTROL K = KEY OPERATED SWITCH
	SURFACE MOUNTED 2' X 4' LUMINAIRE CONNECTED TO	\$	L = LIGHTED HANDLE M = MANUAL MOTOR STARTER WITH THERMAL OVERLOAD P = SWITCH WITH PILOT LIGHT
	EMERGENCY BATTERY CONNECTED TO UNSWITCHED CIRCUIT		S = SENTRY SWITCH T = INTERVAL TIMER W = WEATHERPROOF SWITCH V = LOW VOLTAGE SWITCH
	SURFACE OR PENDANT MOUNTED 1'X 4' LUMINAIRE CONNECTED	<u>Telecommuni</u>	ications RACEWAY ONLY DATA/TELEPHONE OUTLET. PROVIDE DOUBLE
•	EVERGENCY/LIFE SAFETY CIRCUIT OR WITH IN FEGRAL EMERGENCY BATTERY CONNECTED TO UNSWITCHED CIRCUIT SURFACE OR PENDANT MOUNTED LUMINAIRE CONNECTED TO EMERGENCY/LIFE SAFETY CIRCUIT OR WITH INTEGRAL	V	GANG BACK BOX AND SINGLE GANG ADAPTER PLATE WITH 1" C. AND PULLSTRING TO ACCESSIBLE CEILING SPACE. (MULTIPLE LETTERS INDICATE MULTIPLE OPTIONS) A = ABOVE COUNTER
	EMERGENCY BATTERY CONNECTED TO UNSWITCHED CIRCUIT		F = FLUSH CEILING MOUNTED ABOVE ACCESSIBLE CEILING F = FLUSH CEILING MOUNTED R = SURFACE MOUNTED ON RACEWAY RACEWAY ONLY TELEPHONE OUTLET. PROVIDE DOUBLE GANG
<u>∓0</u> ∓	WALL MOUNTED 6" WIDE LUMINAIRE	•	BACK BOX AND SINGLE GANG ADAPTER PLATE WITH 3/4" C. AND PULLSTRING TO ACCESSIBLE CEILING SPACE. SEE LETTER CODE LIST AT DATA/TELEPHONE OUTLET FOR OPTIONS.
∓●∓	WALL MOUNTED 6" WIDE LUMINAIRE CONNECTED TO EMERGENCY/LIFE SAFETY CIRCUIT OR WITH INTEGRAL		
\Box	EWERGENCY BATTERY CONNECTED TO UNSWITCHED CIRCUIT		
	WALL MOUNTED 12" WIDE LUMINAIRE CONNECTED TO EMERGENCY/LIFE SAFETY CIRCUIT OR WITH INTEGRAL		
- <u>-</u> -	EMERGENCY BATTERY CONNECTED TO UNSWITCHED CIRCUIT		
¥	WALL MOUNTED LUMINAIRE CONNECTED TO EMERGENCY/LIFE		
⊈ Miscellaneou	SAFETY CIRCUIT OR WITH INTEGRAL EMERGENCY BATTERY CONNECTED TO UNSWITCHED CIRCUIT		
#10 	BRANCH CIRCUIT WIRING. ARROW INDICATES HOME RUN TO PANEL WITH CIRCUITS AS NOTED. WIRE SIZE IS #12 AWG MINIMUM UNLESS NOTED OTHERWISE. SHORT TICK MARKS INDICATE PHASE CONDUCTORS. LONG TICK MARKS INDICATE NEUTRAL CONDUCTORS. A SINGLE CURVED TICK MARK INDICATES INSULATED GREEN GROUND CONDUCTOR. SECOND CURVED TICK MARK INDICATES "ISOLATED GROUND" (GREEN INSULATION WITH YELLOW STRIPE) CONDUCTOR.		

 \leq

BRANCH PANEL

ELECTRICAL SYMBOL LIST



E0.1 SYMBOL LIST AND GENERAL NOTES - ELECTRICAL E2.1 AUDITORIUM FLOOR PLAN - LEVEL 1 - ELECTRICAL E2.2 AUDITORIUM FLOOR PLAN - LEVEL 2 AND 3 - ELECTRICAL



opsis

Consultant Logo

Key Plan



_____ Project Owner: BEAVERTON SCHOOL DISTRICT Project Name: WESTVIEW HIGH SCHOOL Project Adress: 4200 NW 185TH AVE PORTLAND, OR 97229 -----COPYRIGHT 2017 OPSIS ARCHITECTURE LLP ALL RIGHTS RESERVED THESE DRAWINGS ARE THE PROPERTY OF OPSIS ARCHITECTURE LLP AND ARE NOT TO BE USED OR REPRODUCED IN ANY MANNER, WITHOUT PRIOR WRITTEN PERMISSION. -----Revisions to Sheet Date No. Revision **BID/PERMIT** Status:

01.13.20 Date: Sheet Title SYMBOL LIST AND GENERAL NOTES ELECTRICAL ____

Sheet No.

E0.1 Job No. **2019-0350**

	LUMINAIRE SCHEDULE										
						UL/IP	DRIVER/POWER		INPUT		
TYPE	DESCRIPTION	HOUSING	SHIELDING	MOUNTING	FINISH	RATING	SUPPLY	LIGHT SOURCE	WATTS	MFG/CATALOG #	NOTES
'HA'	SMALL LED STEPLIGHT FOR THEATRE CHAIR INSTALLATION FOR AISLE LIGHTING; NOMINAL 2.5IN W x 4.5IN H x 2.125IN D	ALUMINUM	NA	INSTALLED IN EXISTING THEATRE CHAIRS	BLACK	UL DAMP	INTEGRAL DRIVER; ELV DIMMING	450 NOMINAL LUMENS; 3000K LED; >80CRI	3.0	COLE LIGHTING L111 SERIES; NICOR LED, CLOUDBAY, OR APPROVED	NEW LUMINAIRE TO REPLACE EXISTING LUMINAIRE. SEE LUMINAIRE SCHEDULE NOTE 9.
'HB'	RECESSED LED STEPLIGHT; NOMINAL 12IN W x 7.8125IN H x 4IN D	DIE FORMED STEEL	LOUVERED FACEPLATE	RECESSED IN WALL	BLACK	UL DAMP	INTEGRAL DRIVER; 0-10V DIMMING	430 NOMINAL LUMENS; 3000K LED; >80CRI	7.2	COLE LIGHTING 252 SERIES; OR APPROVED	NEW LUMINAIRE TO REPLACE EXISTING LUMINAIRE
'HBR'	RECESSED LED STEPLIGHT W/ INTEGRAL RECEPTACLE; NOMINAL 12IN W x 7.8125IN H x 4IN D	DIE FORMED STEEL	LOUVERED FACEPLATE	RECESSED IN WALL	BLACK	UL DAMP	INTEGRAL DRIVER; 0-10V DIMMING	430 NOMINAL LUMENS; 3000K LED; >80CRI	7.2	COLE LIGHTING 252 SERIES; OR APPROVED	CONSULT MANUFACTURER FOR FACEPLATE LAYOUT AND INSTALLATION; NEW LUMINAIRE TO REPLACE EXISTING LUMINAIRE
'HC'	RECESSED LED STEPLIGHT W/ INTEGRAL RECEPTACLE; NOMINAL 12IN W x 7.8125IN H x 4IN D	DIE FORMED STEEL	LOUVERED FACEPLATE	RECESSED IN WALL	BLACK	UL DAMP	INTEGRAL DRIVER; 0-10V DIMMING	215 NOMINAL LUMENS; BLUE LED	3.6	COLE LIGHTING 252 SERIES; OR APPROVED	
'HD'	WALL MOUNTED LED FLUSH MOUNT GUARD SCONCE; NOMINAL 5IN DIA x 9.5IN H	ALUMINUM	FROSTED GLOBE	WALL MOUNTED 1'-0" OVER DOOR	BLACK	UL DAMP	INTEGRAL DRIVER; TRIAC DIMMING	1600 NOMINAL LUMENS; 3000K LED; >90CRI	17.0	BARNLIGHT BLE-F-CGG SERIES; OR APPROVED	
'HE'	SURFACE MOUNTED LED STRIPLIGHT; NOMINAL 3.44IN W x 2.29IN H x 48IN L	COLD ROLLED STEEL	FLAT FROSTED ACRYLIC	SURFACE MOUNTED	BLACK	UL DAMP	INTEGRAL DRIVER; 0-10V DIMMING	5000 NOMINAL LUMENS; 3000K LED; >80CRI	36.0	LITHONIA CLX SERIES; OR APPROVED	
'HES'	SUSPENDED LED STRIPLIGHT; NOMINAL 3.44IN W x 2.29IN H x 48IN L	COLD ROLLED STEEL	FLAT FROSTED ACRYLIC	SUSPENDED FROM CEILING, ALIGN BOTTOM OF LUMINAIRE TO BOTTOM OF SURROUNDING MEP SYSTEMS	BLACK	UL DAMP	INTEGRAL DRIVER; 0-10V DIMMING	5000 NOMINAL LUMENS; 3000K LED; >80CRI	36.0	LITHONIA CLX SERIES; OR APPROVED	
'HF'	SURFACE MOUNTED LED WORKLIGHT W/ ADJUSTABLE YOKE AND PIPE CLAMP; NOMINAL 12IN W x 6IN D x 8.05IN H	ALUMINUM	DIFFUSE LENS	SURFACE MOUNTED TO BATTEN	BLACK	UL DRY	INTEGRAL DRIVER	10000 NOMINAL LUMENS; 3000K LED; >90CRI	130.0	ALTMAN LIGHTING LED WORKLIGHT SERIES; OR APPROVED	PROVIDE L5-20P TWIST-LOCK PLUG TO CONNECT TO BATTEN

NOTES	
1	THIS LUMINAIRE SCHEDULE IS NOT COMPLETE WITHOUT A COPY OF THE PROJECT MANUAL CONTAINING THE ELECTRICAL SPECIFICATIONS.
2	DIMMING CONTROL PROTOCOL (0-10VDC, LINE VOLTAGE, DALI, ETC.) COMPATIBLE WITH LIGHTING CONTROL SYSTEM AS SPECIFIED AND SHOWN ON DRAWINGS.
3	PROVIDE +/- 12 INCH ADJUSTABILITY IN AIRCRAFT CABLE LENGTH WHERE USED.
4	COORDINATE ALL CEILING TYPES WITH LUMINAIRE LOCATIONS PRIOR TO ORDERING LUMINAIRES. COORDINATE INSTALLATION WITH REFLECTED CEILING PLAN.
5	SPECIFIED MANUFACTURERS ARE APPROVED TO SUBMIT BID. INCLUSION DOES NOT RELIEVE MANUFACTURER FROM SUPPLYING PRODUCT AS DESCRIBED.
6	PROVIDE SUBMITTALS THAT INCLUDE THE LUMINAIRE, LAMP AND BALLAST INFORMATION OF EACH LUMINAIRE, WITH APPLICABLE OPTIONS CLEARLY CHECKED OR HIGHLIGHTED. SUBMITTALS NOT INCLUDING THIS INFORMATION WILL BE RETURNED AS REJECTED BY THE ENGINEER OF RECORD.
7	REMOTE BALLASTS/DRIVERS: UL LISTED FOR THEIR APPLICATION. BALLASTS/DRIVERS MARKED AS UL RECOGNIZED COMPONENT BUT NOT UL LISTED ARE SUBJECT TO REMOVAL AND REPLACEMENT AT NO COST TO OWNER.
8	REFER TO FLOOR PLANS FOR LOCATION, CIRCUITING, AND SWITCH LEG FOR EACH REMOTE DRIVER. LABEL ALL REMOTE DRIVERS TO SHOW LUMINAIRE TYPE IDENTIFICATION AND SOURCE CIRCUIT. PROVIDE WIRING BETWEEN REMOTE DRIVER AND LUMINAIRE AS RECOMMENDED BY MANUFACTURER. DO NOT EXCEED MAXIMUM DISTANCE RECOMMENDED BY MANUFACTURER BETWEEN DRIVER AND FURTHEST LUMINAIRE.
9	PROVIDE MOCKUP INSTALLATION OF LUMINAIRE, FOR APPROVAL BY DESIGN TEAM AND OWNER, TO VERIFY COMPATABILITY WITH EXISTING ARCHITECTURE PRIOR TO SUBMITTAL APPROVAL.



GENERAL SHEET

- A. CONTROL ALL THEATER WORK AND STAGE LIG ARCHITECTURAL RELAY PANEL. RELAY DESIGN BY "R#". ROUTE EMERGENCY LIGHTING VIA EME TRANSFER SYSTEM 'ELTS'. REFER TO THEATRI CONTROL INFORMATION.
- FOR EACH 20A, 120V CIRCUIT, PROVIDE 2 #10 0 3/4" CONDUIT.
- C. REFER TO THEATRICAL PL SERIES DRAWINGS I CIRCUIT QUANTITY FOR PRODUCTION LIGHTING CONNECTION POINTS. PROVIDE #10 CU WIRE M CIRCUIT HOMERUNS UNLESS OTHERWISE NOT

○ SHEET KEYNOTES

- 1. PROVIDE WIRE GUTTER FOR REUSE OF EXIST PANEL FEEDER.
- 2. CONNECT LUMINAIRES TO NEXT AVAILABLE SI EXISTING EMERGENCY LIGHTING TRANSFER S
- 3. DEMO EXISTING ARCHITECTURAL RELAY PANE CONNECTION TO NEW ARCHITECTURAL RELAY TO THEATRICAL DRAWINGS FOR MORE INFORM
- 4. DEMO EXISTING PRODUCTION LIGHTING RELA PROVIDE CONNECTION TO NEW PRODUCTION PANEL. REFER TO THEATRICAL DRAWINGS FO INFORMATION.
- 5. PROVIDE 20A, 208V, 1PH CONNECTION TO CON RACK (CER) FROM NEXT AVAILABLE SPARE BR 'B'.REFER TO THEATRICAL DRAWINGS FOR MO
- PROVIDE 20A, 208V, 1PH CONNECTION TO EME CONTROLLER (DEBC) FROM NEXT AVAILABLE ON PANEL 'E2I'.REFER TO THEATRICAL DRAWI INFORMATION INFORMATION.
- 7. REPLACE EXISTING TWIST-LOCK RECEPTACLE RECEPTACLE AND CONNECT TO EXISTING CIR
- 8. LUMINAIRES AND ASSOCIATED HARDWARE F

NOTES	onsis
LIGHTING VIA IGNATIONS INDICATED EMERGENCY LIGHTING TRICAL DRAWINGS FOR	opoio
0 CU, 1 #10 CU GND., IN	
GS FOR LOCATION AND TING POWER E MINIMUM FOR IOTED.	
<u>S</u>	
STING DIMMER	920 NW 17th Ave.
SPARE BREAKER OF R SWITCH (ELTS).	Portland, OR 97209 503.525.9511
NEL AND PROVIDE AY PANEL. REFER DRMATION.	Stamp
LAY PANEL AND DN LIGHTING RELAY FOR MORE	STERED PROFESSO STERED PROFESSO UNGINEESSO 52190PE
ONTROL EQUIPMENT BREAKER ON PANEL MORE INFORMATION.	OREGON PLICALY 14, 1998 54 NORMAN CHES
MERGENCY BYPASS E SPARE BREAKER WINGS FOR MORE	EXPIRES: 12/31/19
LE WITH DUPLEX CIRCUIT.	Consultant Logo
FOR ALTERNATE #1.	
	PROJECT 2019-0350
	CONTACT Lauren Krueger
	Portland, OR 97204

TEL 503.382.2266 www.interfaceengineering.com

Key Plan

Project Owner: **BEAVERTON SCHOOL** DISTRICT

Project Name: WESTVIEW HIGH SCHOOL Project Adress: 4200 NW 185TH AVE PORTLAND, OR 97229

_____ COPYRIGHT 2017 OPSIS ARCHITECTURE LLP ALL RIGHTS RESERVED THESE DRAWINGS ARE THE PROPERTY OF OPSIS ARCHITECTURE LLP AND ARE NOT TO BE USED OR REPRODUCED IN ANY MANNER, WITHOUT PRIOR WRITTEN PERMISSION.

Revisions to Sheet No. Revision

Date

BID/PERMIT Status: 01.13.20 Date: Sheet Title AUDITORIUM FLOOR PLAN LEVEL 1 ELECTRICAL Sheet No. E2.1

Job No. **2019-0350**



LEVEL 2 LIGHTING PLAN - OVERALL 0'<u>4'</u>16 1/8" = 1'-0"

NO SCALE

		THEATRE PRO	ODUCT	ION LIG	HTING LOAD	CALCULATIO	NS		
Panel / Equipment Name	Purpose of Equipment	Equipment Voltage	# Circuits	# Receptacles	Load per Receptacle (VA)	Total Load per Panel (VA)	Demand Load (VA)	Demand Load (Amps)	Panel Capacity (Amps)
PRP1	Production Relay Panel	208Y/120-volt, 3-phase, 4-wire	48	48	575	27600	18800	52	200
PRP2	Production Relay Panel	208Y/120-volt, 3-phase, 4-wire	48	48	575	27600	18800	52	200
NOTES REGARDING THESE	LOAD CALCULATIONS:					I			1
1. EACH DIMMER RACK AND EACH CIRCUIT SERVES EXAC	D THEATRICAL LIGHTING REL TLY ONE RECEPTACLE FOR T	AY PANEL LISTED ABOVE INCLUDES C THEATRICAL LIGHTING.	IRCUIT BREAK	ERS FOR BRANCH	H CIRCUIT OVERCURRENT PR	OTECTION. UNLESS OTHERW	/ISE NOTED,		
2. LOAD CALCULATIONS AR	2. LOAD CALCULATIONS ARE PERFORMED BASED ON OESC 220.14(I) AND OESC 220.44 FOR DEMAND FACTORS FOR RECEPTACLES IN NON-DWELLING UNITS.								
3. TO PROVIDE A MORE COI EQUIPMENT LIST.	NSERVATIVE LOAD RESULT, I	RECEPTACLES ARE CALCULATED AT 57	75VA INSTEAD	OF 180VA, SINC	E 575VA REFLECTS THE LARG	EST INCANDESCENT PLUG-IN	I LOAD ACCORDING T	O THE THEATRICAL CON	ISULTANT'S
4. IN ALL CASES, RECEPTACL	ES FOR THEATRICAL LIGHTII	NG ARE PROVIDED IN COMPLIANCE V	VITH OESC 520).44.					

GENERAL SHEET NOTES OPSIS

- A. CONTROL ALL THEATER WORK AND STAGE LIGHTING VIA ARCHITECTURAL RELAY PANEL. RELAY DESIGNATIONS INDICATED BY "R#". ROUTE EMERGENCY LIGHTING VIA EMERGENCY LIGHTING TRANSFER SYSTEM 'ELTS'. REFER TO THEATRICAL DRAWINGS FOR CONTROL INFORMATION.
- FOR EACH 20A, 120V CIRCUIT, PROVIDE 2 #10 CU, 1 #10 CU GND., IN 3/4" CONDUIT.
- C. REFER TO THEATRICAL PL SERIES DRAWINGS FOR LOCATION AND CIRCUIT QUANTITY FOR PRODUCTION LIGHTING POWER CONNECTION POINTS. PROVIDE #10 CU WIRE MINIMUM FOR CIRCUIT HOMERUNS UNLESS OTHERWISE NOTED.

○ <u>SHEET KEYNOTES</u>

- 1. PROVIDE 200A MAIN CIRCUIT BREAKER. 2. FURNISHED UNDER DIV. 11, INSTALLED UNDER DIV. 26. INTERCEPT AND EXTEND FEEDERS AND ALL BRANCH CIRCUITS TO NEW EQUIPMENT TO BRING ALL NEW AND EXISTING LOADS INTO SERVICE. PROVIDE MINIMUM #10 AWG CONDUCTORS FOR ALL BRANCH CIRCUITS FED FROM THIS PANEL.
- 3. REPLACE EXISTING TWIST-LOCK RECEPTACLE WITH DUPLEX RECEPTACLE AND CONNECT TO EXISTING CIRCUIT.

FEEDER SCHEDULE A,C,S,X A=Aluminum

C=Conduit only S=Service secondary X=Seperately derived system 1004 4 #2 CU, 1 #8 CU GND., IN 1 1/4" C.

2004 4 #3/0 CU, 1 #6 CU GND., IN 2" C.

3 ONE-LINE POWER DISTRIBUTION DIAGRAM

5. REFER TO THEATRICAL LIGHTING DRAWINGS FOR CIRCUIT ASSIGNMENTS AND RECEPTACLE DETAILS.

920 NW 17th Ave. Portland, OR 97209 503.525.9511 www.opsisarch.com ____ Stamp

 $N \Delta h \Lambda$ EXPIRES: 12/31/19

Consultant Logo

_____ Key Plan

Project Owner: **BEAVERTON SCHOOL** DISTRICT

Project Name: WESTVIEW HIGH SCHOOL Project Adress: 4200 NW 185TH AVE PORTLAND, OR 97229

_____ COPYRIGHT 2017 OPSIS ARCHITECTURE LLP ALL RIGHTS RESERVED THESE DRAWINGS ARE THE PROPERTY OF OPSIS ARCHITECTURE LLP AND ARE NOT TO BE USED OR REPRODUCED IN ANY MANNER, WITHOUT PRIOR WRITTEN PERMISSION.

Revisions to Sheet No. Revision

Date

BID/PERMIT Status: 01.13.20 Date:

Sheet No.

E2.2

Job No. **2019-0350**

ABBREVIATIONS VIF = VERIFY IN FIELD AFF = ABOVE FINISHED FLOOR NIC = NOT IN CONTRACT HT = HEIGHTTYP = TYPICAL FM = FLUSH MOUNT SM = SURFACE MOUNT OH = OUTLET HEIGHT (E) = EXISTING

LIGHTING GENERAL NOTES 1. THIS SHEET IS INTENDED TO PROVIDE PRODUCTION LIGHTING SYSTEM INFORMATION ONLY. REFERENCE OTHER PRODUCTION SYSTEMS, ARCHITECTURAL AND ENGINEERING DOCUMENTS FOR RELATED AREAS. 2. REFERENCE SPECIFICATIONS AND ELECTRICAL DRAWINGS FOR DIVISION 26 INSTALLATION REQUIREMENTS HL = HOUSE LEFT HR = HOUSE RIGHT 3. ALL CIRCUITS SHALL HAVE A DEDICATED HOMERUN UNLESS SR = STAGE RIGHT OTHERWISE INDICATED. SL = STAGE LEFT SIM = SIMILAR 4. ALL CIRCUITS SHALL HAVE A DEDICATED NEUTRAL. ALL POWER OPP = OPPOSITE DEVICE BOXES SHALL HAVE AT LEAST ONE DEDICATED GROUND NTS = NOT TO SCALE HOMERUN TO THE DIMMER RACK. MIN = MINIMUM MAX = MAXIMUM 5. REUSE EXISTING BACKBOXES, WIRING AND CONDUIT AS POSSIBLE. DEMO ANY UNUSED WIRING, BACKBOXES, CONTROL PANELS AND

CONDUIT FROM SYSTEM BEING REPLACED.

	920 NW 17th Ave. Portland, OR 97209 503.525.9511 www.opsisarch.com Stamp
	Consultant Logo The Shalleck Collaborative Inc.
	Planning and Design of Theatres and Production Systems 1553 Martin Luther King Jr Way tel 415-956-4100 Berkeley, CA 94709 www.shalleck.com
	Key Plan
	Project Owner: BEAVERTON SCHOOL DISTRICT
	Project Name: WESTVIEW HIGH SCHOOL Project Adress: 4200 NW 185TH AVE
N LIGHTING SYMBOL KEY	PORTLAND, OR 97229 COPYRIGHT 2017 OPSIS ARCHITECTURE LLP ALL RIGHTS RESERVED THESE DRAWINGS ARE THE PROPERTY OF OPSIS ARCHITECTURE LLP AND ARE NOT TO BE USED OR REPRODUCED IN ANY MANNER, WITHOUT PRIOR WRITTEN PERMISSION. Revisions to Sheet No. Revision
PRODUCTION LIGHTING POWER DEVICE 	
 CIRCUITS AMPERAGE NUMBER OF CIRCUITS DEVICE LOCATION PRODUCTION LIGHTING CONTROL DEVICE DEVICE TYPE-DEVICE NUMBER E - NETWORK TAP EE - DOUBLE NETWORK TAP ET - NETWORK TERMINAL DEVICE DEVICE LOCATION 	Date: 01.13.2020 Sheet Title PRODUCTION LIGHTING: LEVEL 1 PLAN
 ARCHITECTURAL LIGHTING CONTROL DEVICE DEVICE TYPE-DEVICE NUMBER 2P - 2 BUTTON STATION 5P - 5 BUTTON STATION LC - TOUCH SCREEN STATION DEVICE LOCATION 	Sheet No. PL1.11
 NEMA 5-20R DUPLEX POWER RECEPTACLE INTEGRAL TO DEVICE, 120V, 20A, CONSTANT 	Job No. 4758-01

1 <u>LEVEL 2 PLAN</u> 3/16" = 1'-0"

DEMO (E) RECEPTACLE BOX AS THIS LOCATION -TYPICAL

X-# 3 @ 20A 1 LIGHTING GENERAL NOTES 1. THIS SHEET IS INTENDED TO PROVIDE PRODUCTION LIGHTING SYSTEM INFORMATION ONLY. REFERENCE OTHER PRODUCTION **K** SYSTEMS, ARCHITECTURAL AND ENGINEERING DOCUMENTS FOR RELATED AREAS. 2. REFERENCE SPECIFICATIONS AND ELECTRICAL DRAWINGS FOR DIVISION 26 INSTALLATION REQUIREMENTS HL = HOUSE LEFT HR = HOUSE RIGHT 3. ALL CIRCUITS SHALL HAVE A DEDICATED HOMERUN UNLESS SR = STAGE RIGHT OTHERWISE INDICATED. SL = STAGE LEFT SIM = SIMILAR 4. ALL CIRCUITS SHALL HAVE A DEDICATED NEUTRAL. ALL POWER OPP = OPPOSITE DEVICE BOXES SHALL HAVE AT LEAST ONE DEDICATED GROUND NTS = NOT TO SCALE HOMERUN TO THE DIMMER RACK. MIN = MINIMUM MAX = MAXIMUM 5. REUSE EXISTING BACKBOXES, WIRING AND CONDUIT AS POSSIBLE. DEMO ANY UNUSED WIRING, BACKBOXES, CONTROL PANELS AND CONDUIT FROM SYSTEM BEING REPLACED.

	920 NW 17th Ave. Portland, OR 97209 503.525.9511 www.opsisarch.com Stamp
	Consultant Logo The Shalleck Collaborative Inc. Inning and Design of Theatres and Production Systems St33 Martin Lutther King Jr Way St34 Martin Lutther King Jr Way St34 Martin Lutther King Jr Way State Action Martin Lutther King Jr Way State Action
	Key Plan
	Project Owner: BEAVERTON SCHOOL DISTRICT
	Project Name: WESTVIEW HIGH SCHOOL Project Adress: 4200 NW 185TH AVE 07.17.19 OT.17.19 OT.17.19 COPYRIGHT 2017 OPSIS ARCHITECTURE LLP ALL RIGHTS RESERVED COPYRIGHT 2017 DPSIS ARCHITECTURE LLP ALL RIGHTS RESERVED
PRODUCTION LIGHTING POWER DEVICE —PRODUCTION LIGHTING POWER DEVICE —DEVICE TYPE-DEVICE NUMBER B - RECEPTACLE BOX BT - TERMINAL DEVICE	Revisions to Sheet No. Revision Date
 CIRCUITS AMPERAGE NUMBER OF CIRCUITS DEVICE LOCATION PRODUCTION LIGHTING CONTROL DEVICE DEVICE TYPE-DEVICE NUMBER E - NETWORK TAP EE - DOUBLE NETWORK TAP ET - NETWORK TERMINAL DEVICE DEVICE LOCATION 	Status: BID/PERMIT Date: 01.13.2020 Sheet Title PRODUCTION LIGHTING: LEVEL 2 PLAN
 ARCHITECTURAL LIGHTING CONTROL DEVICE DEVICE TYPE-DEVICE NUMBER 2P - 2 BUTTON STATION 5P - 5 BUTTON STATION LC - TOUCH SCREEN STATION DEVICE LOCATION NEMA 5-20P DUPLEY POWER DECEMPT CVE 	Sheet No. PL1.12 Job No.
— NEMA 5-20K DUPLEX POWER RECEPTACLE INTEGRAL TO DEVICE, 120V, 20A, CONSTANT	4758-01

1 GRIDIRON LEVEL PLAN 3/16" = 1'-0"

ABBREVIATIONS

VIF = VERIFY IN FIELD AFF = ABOVE FINISHED FLOOR NIC = NOT IN CONTRACT HT = HEIGHTTYP = TYPICAL FM = FLUSH MOUNT SM = SURFACE MOUNT OH = OUTLET HEIGHT (E) = EXISTING

HL = HOUSE LEFT HR = HOUSE RIGHT SR = STAGE RIGHT SL = STAGE LEFT SIM = SIMILAR OPP = OPPOSITE NTS = NOT TO SCALE MIN = MINIMUM MAX = MAXIMUM

LIGHTING GENERAL NOTES

- 1. THIS SHEET IS INTENDED TO PROVIDE PRODUCTION LIGHTING SYSTEM INFORMATION ONLY. REFERENCE OTHER PRODUCTION SYSTEMS, ARCHITECTURAL AND ENGINEERING DOCUMENTS FOR RELATED AREAS.
- 2. REFERENCE SPECIFICATIONS AND ELECTRICAL DRAWINGS FOR DIVISION 26 INSTALLATION REQUIREMENTS
- 3. ALL CIRCUITS SHALL HAVE A DEDICATED HOMERUN UNLESS OTHERWISE INDICATED.
- 4. ALL CIRCUITS SHALL HAVE A DEDICATED NEUTRAL. ALL POWER DEVICE BOXES SHALL HAVE AT LEAST ONE DEDICATED GROUND HOMERUN TO THE DIMMER RACK.
- 5. REUSE EXISTING BACKBOXES, WIRING AND CONDUIT AS POSSIBLE. DEMO ANY UNUSED WIRING, BACKBOXES, CONTROL PANELS AND CONDUIT FROM SYSTEM BEING REPLACED.

	920 NW 17th Ave. Portland, OR 97209 503.525.9511 www.opsisarch.com Stamp
	Consultant Logo The Shalleck Collaborative Inc. Planning and Design of Theatres and Production Systems 1553 Martin Luther King Jr Way Strekeley, CA 94709
	Key Plan
	Project Owner: BEAVERTON SCHOOL DISTRICT
	Project Name: WESTVIEW HIGH SCHOOL Project Adress: 4200 NW 185TH AVE JOURT LAND, OR 97229 COPYRIGHT 2017 OPSIS ARCHITECTURE LLP ALL RIGHTS RESERVED THESE DRAWINGS ARE THE PROPERTY OF OPSIS ARCHITECTURE LLP AND ARE NOT TO BE USED OR REPRODUCED IN ANY MANNER, WITHOUT PRIOR WRITTEN PERMISSION.
BOL KEY Ver device ER	Revisions to Sheet No. Revision Date
ROL DEVICE R K TAP NAL DEVICE	Status: BID/PERMIT Date: 01.13.2020 Sheet Title PRODUCTION LIGHTING: LEVEL 3 PLAN
ONTROL DEVICE R N N FATION RECEPTACLE	Sheet No. PL1.13 Job No.
0A, CONSTANT	4758-01

ALL LOW VOLTAGE WIRE PROVIDED, INSTALLED, AND TERMINATED BY DIVISION 26. STANDARD BACKBOXES PROVIDED BY DIVISION 26, UNLESS SURFACE MOUNTED OR A CUSTOM SPECIALTY BOX

ALL CONDUIT FOR LOW VOLTAGE PLC DEVICES SHALL BE 1" MIN DIAMETER UNLESS OTHERWISE NOTED

	THEATRICAL LIGHTING CONTROL DEVICE SCHEDULE							
		NETW	ORK TAPS					
DEVICE TYPE	DEVICE NUMBER	TAP-QTY	TAP-ID	DEVICE DETAIL	FINISH	MOUNTING REF	NOTES	
EE	1	2	1-2	5/PL4.01	BLACK	IN FLOOR BOX		
E	2	1	3	4/PL4.01	BLACK	SM @ OH		
EE	3	2	4-5	5/PL4.01	BLACK	SM @ OH		
EE	4	2	6-7	5/PL4.01	BLACK	SM @ OH		
E	5	1	8	4/PL4.01	BLACK	SM @ OH		
E	6	1	9	4/PL4.01	BLACK	SM @ OH		
EE	7	2	10-11	5/PL4.01	BLACK	SM ADJACENT TO (E) OUTLET		
E	8	1	12	4/PL4.01	BLACK	SM ADJACENT TO (E) OUTLET		
E	9	1	13	4/PL4.01	BLACK	SM ADJACENT TO (E) OUTLET		
E	10	1	14	4/PL4.01	BLACK	SM ADJACENT TO (E) OUTLET		
E	11	1	15	4/PL4.01	BLACK	SM ADJACENT TO (E) OUTLET		
E	12	1	16	4/PL4.01	BLACK	SM ADJACENT TO (E) OUTLET		
E	13	1	17	4/PL4.01	BLACK	8/PL401		
E	14	1	18	4/PL4.01	BLACK	8/PL401		
E	15	1	19	4/PL4.01	BLACK	8/PL401		
E	16	1	20	4/PL4.01	BLACK	8/PL401		
E	17	1	21	4/PL4.01	BLACK	SM ADJACENT TO (E) OUTLET		
ET	18	1	22	4/PL4.01	BLACK	9/PL401		
ET	19	1	23	4/PL4.01	BLACK	9/PL401		
ET	20	1	24	4/PL4.01	BLACK	9/PL401		
ET	21	1	25	4/PL4.01	BLACK	9/PL401		

1 DEVICE SCHEDULES

	1	THEAT	RICAL LIGH	TING POV	VER DEV	ICE SCHEDULE	
		RELAY	CIRCUITS				
DEVICE TYPE	DEVICE NUMBER	CIRCUIT QTY	CIRCUIT #	DEVICE DETAIL	FINISH	MOUNTING REF	NOTES
В	1	1	1		BLACK	SM @ (E) OH	
В	2	2	2-3	7/PL4.01	BLACK	SM @ (E) OH	
В	3	1	6		BLACK	IN (E) FLOORBOX	
В	4	2	7-8		BLACK	IN (E) FLOORBOX	
B	5	1	9	/	BLACK	IN (E) FLOORBOX	
B	6	2	2-3	7/PL4.01	BLACK	SM @ (E) OH	
B	7	1	10		BLACK	IN (E) FLOORBOX	
B	8	1	11		BLACK	IN (E) FLOORBOX	
D R	9	1	12	7/PI 4 01	BLACK	$\frac{IN(E) FLOOKBOA}{SM @ (F) OH}$	
B	10	1	4-5 12	//11/4.01	BLACK	IN (E) FLOORBOX	
B	12	2	14-15		BLACK	IN (E) FLOORBOX	
B	13	1	16		BLACK	IN (E) FLOORBOX	
В	14	2	4-5	7/PL4.01	BLACK	SM @ (E) OH	
В	15	2	17-18	7/PL4.01	BLACK	SM @ (E) OH	
В	16	3	19-21	7/PL4.01	BLACK	SM @ (E) OH	
В	17	3	22-24	7/PL4.01	BLACK	SM @ (E) OH	
В	18	3	25-27	7/PL4.01	BLACK	SM @ (E) OH	
B	19	3	28-30	7/PL4.01	BLACK	SM @ (E) OH	
B	20	4	31-34	7/PL4.01	BLACK	SM @ (E) OH	
B	21	3	35-37	7/PL4.01	BLACK	$\frac{SM @ (E) OH}{CH}$	
B	22	4	38-41	7/PL4.01	BLACK	SM @ (E) OH	
D R	23	3	42-44	7/PL4.01	BLACK	SM @ (E) OH	
B	24	1	45-40	$7/PL_{1.01}$	BLACK	SM @ (E) OH	
B	$\frac{-5}{26}$	1	47	7/PL4.01	BLACK	SM @ (E) OH	
B	27	15	49-63	7/PL4.01	BLACK	8/PL401	
B	28	12	64-75	7/PL4.01	BLACK	8/PL401	
В	29	11	76-86	7/PL4.01	BLACK	8/PL401	
В	30	6	87-92	7/PL4.01	BLACK	8/PL401	
В	31	2	93-94	7/PL4.01	BLACK	SM @ (E) OH	
В	32	1	95	7/PL4.01	BLACK	SM @ (E) OH	
B	33	1	96	7/PL4.01	BLACK	SM @ (E) OH	
BT	34	15	49-63		BLACK	9/PL4.01	
BT	35	12	64-75		BLACK	9/PL4.01	
BL	36	11	76-86		BLACK	9/PL4.01	
R.L.	37	6	87-92		BLACK	9/PL4.01	

THEATRICAL LIGHTING PUSHBUTTON SCHEDULE						
DEVICE TYPE	DEVICE NUMBER	LCD-SCREEN	DEVICE DETAIL	FINISH	MOUNTING	NOTES
LC	1	YES	3/PL4.01	CUSTOM	SM @ SH	
2P	2		2/PL4.01	BLACK	SM @ SH	
2P	3		2/PL4.01	BLACK	SM @ SH	
2P	4		2/PL4.01	BLACK	SM @ SH	
LC	5	YES	3/PL4.01	BLACK	SM @ SH	
5P	6		2/PL4.01	BLACK	SM @ SH	
2P	7		2/PL4.01	BLACK	SM @ SH	
2P	8		1/PL4.01	BLACK	SM @ SH	
2P	9		2/PL4.01	BLACK	SM @ SH	
LC	10	YES	3/PL4.01	BLACK	SM @ (E) SH	
2P	11		1/PL4.01	BLACK	SM @ (E) SH	
2P	13		1/PL4.01	BLACK	SM @ (E) SH	
2P	14		1/PL4.01	BLACK	SM @ (E) SH	
2P	15		1/PL4.01	BLACK	SM @ (E) SH	
2P	16		1/PL4.01	BLACK	SM @ (E) SH	
2P	17		2/PL4.01	BLACK	SM @ SH	

ABBREVIATIONS

VIF = VERIFY IN FIELD AFF = ABOVE FINISHED FLOOR NIC = NOT IN CONTRACT HT = HEIGHT TYP = TYPICAL FM = FLUSH MOUNT SM = SURFACE MOUNT OH = OUTLET HEIGHT

(E) = EXISTING

LIGHTING GENERAL NOTES

- 1. THIS SHEET IS INTENDED TO PROVIDE PRODUCTION LIGHTING SYSTEM INFORMATION ONLY. REFERENCE OTHER PRODUCTION SYSTEMS, ARCHITECTURAL AND ENGINEERING DOCUMENTS FOR RELATED AREAS.
- 2. REFERENCE SPECIFICATIONS AND ELECTRICAL DRAWINGS FOR DIVISION 26 INSTALLATION REQUIREMENTS 3. ALL CIRCUITS SHALL HAVE A DEDICATED HOMERUN UNLESS
- 4. ALL CIRCUITS SHALL HAVE A DEDICATED NEUTRAL. ALL POWER DEVICE BOXES SHALL HAVE AT LEAST ONE DEDICATED GROUND HOMERUN TO THE DIMMER RACK.

OTHERWISE INDICATED.

5. REUSE EXISTING BACKBOXES, WIRING AND CONDUIT AS POSSIBLE. DEMO ANY UNUSED WIRING, BACKBOXES, CONTROL PANELS AND CONDUIT FROM SYSTEM BEING REPLACED.

ABBREVIATIONS VIF = VERIFY IN FIELD AFF = ABOVE FINISHED FLOOR

NIC = NOT IN CONTRACT HT = HEIGHT TYP = TYPICAL FM = FLUSH MOUNT SM = SURFACE MOUNT OH = OUTLET HEIGHT (E) = EXISTING

LIGHTING GENERAL NOTES

- . THIS SHEET IS INTENDED TO PROVIDE PRODUCTION LIGHTING SYSTEM INFORMATION ONLY. REFERENCE OTHER PRODUCTION SYSTEMS, ARCHITECTURAL AND ENGINEERING DOCUMENTS FOR RELATED AREAS.
- DIVISION 26 INSTALLATION REQUIREMENTS
- 3. ALL CIRCUITS SHALL HAVE A DEDICATED HOMERUN UNLESS OTHERWISE INDICATED.
- 4. ALL CIRCUITS SHALL HAVE A DEDICATED NEUTRAL. ALL POWER DEVICE BOXES SHALL HAVE AT LEAST ONE DEDICATED GROUND HOMERUN TO THE DIMMER RACK.
- 5. REUSE EXISTING BACKBOXES, WIRING AND CONDUIT AS POSSIBLE. DEMO ANY UNUSED WIRING, BACKBOXES, CONTROL PANELS AND CONDUIT FROM SYSTEM BEING REPLACED.