Roof

Metal Deck on Steel Bar Joists 15 psf Metal Deck on Structural Steel 15 psf 5" NW Concrete on 2" Metal Deck on 85 psf Steel Bar Joists

Roof Collateral Load 5 psf Floor Live Loads

100 psf Lobbies/Corridors/Assembly Areas 50 psf Offices 40 psf School Classrooms Snow Loads

5880 ft. ASL Elevation Ground Snow Load 50 psf Flat Roof Snow Load 41 psf

Wind Design Data Analysis Procedure IBC Alternate All Heights Method

> Basic Wind Speed, V 110 mph Nominal Wind Speed, Vasd. 85 mph Risk Category Wind Exposure

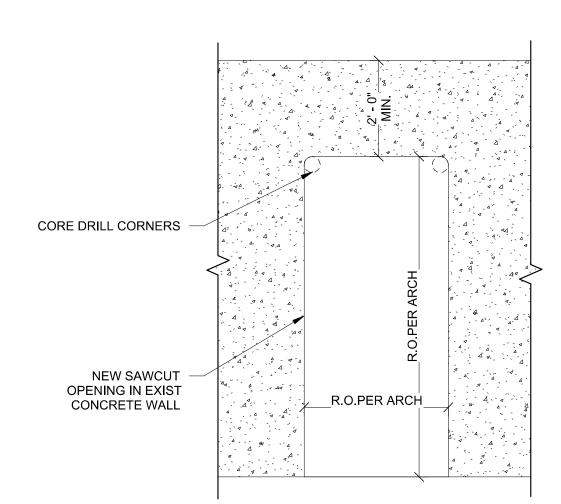
Seismic Design Data

Analysis Procedure ASCE7 Equivalent Lateral Force Procedure 0.431 0.087 Site Class Sds 0.418 Sd1 0.139

Seismic Design Category **Deflection Criteria**

> Deflection Limits used for design and that shall be used for design of delegated design items shall meet the minimum requirements of the building code and the following additional criteria for service load deflections. Service live loads shall be the greater of Roof or Floor Live Load, the 10 year MRI wind speed load, or the 50 year MRI snow load. Total Load shall be the full Dead Load plus Live Loads in accordance with the service load combinations of the building code. Flexible finishes are considered to be drywall, wood, metal panels, or similar. Brittle Finishes are considered to be Ceramic Tile, Stone, Masonry, or similar.

	Component Roof Framing: Supporting plaster or brittle ceiling finish	<u>Limit</u> L/360	<u>Load Type</u> Service Live Load
	Roof Framing: Gypsum board or flexible ceiling finish	L/240	Service Live Load
	Roof Framing: not supporting ceiling Floor Framing: Carpet,wood, and flexible flooring Floor Framing: Marble or Natural Stone flooring	L/180 L/360 L/720	Service Live Load Service Live Load Total Load
	Roof or Floor Framing: at Operable Partition Wall	L/1200	Service Live Load
	Roof or Floor Framing: gypsum board finish ceiling areas with partition walls	0.5 inch	Service Live Load
	Roof or Floor Framing: supporting acoustical grid ceiling with partitions	1 inch	Service Live Load
	Wall Framing: Masonry or Stone veneer or cladding	H/600	Service Live Load
	Wall Framing: Plaster, Stucco, or Brittle Finish Cladding	H/360	Service Live Load
,	Wall Framing: Gypsum Board Cladding	H/240	Service Live Load
,	Wall Framing: Flexible Finish Cladding	H/120	Service Live Load
	Wall Headers and Spandrels: Flexible Finish Cladding	L/360	Service Live Load
	Wall Headers and Spandrels: Flexible Finish Cladding	0.5 inch	Service Live Load
	Wall Headers and Lintels: Masonry, Stone, or Brittle Finish cladding	L/600	Total Load
	Wall Headers and Lintels: Masonry, Stone, or Brittle Finish Cladding	0.3 inch	Total Load
,	Wall Headers: Operable Exterior Wall System	L/720	Total Load
	Wall Headers: Operable Exterior Wall System	0.25 inch	Total Load



2 CONCRETE WALL - DOOR OPENING ELEVATION 1/2" = 1'-0"

Cold Formed Steel Framing:

- 1 Cold formed steel framing shall be designed for loads and deflection criteria given. Calculations and shop drawings shall be signed and sealed by an Engineer registered in the project state. Submit calculations and shop drawings to the Engineer for review.
- 2 Cold formed steel framing design and construction shall conform to the AISI North American Specification for the Design of Cold-Formed Steel Structural Members.
- 3 Minimum yield strength (Fy) for cold formed steel framing members shall be 33000 psi for 18 Gauge (43mils) and thinner. Minimum yield strength (Fy) shall be 50000 psi for 16 Gauge (54 mils) and thicker.
- 4 All cold formed steel studs, trusses, track, bridging and accessories shall be formed from steel having a G-60 galvanized coating conforming to ASTM A653 and C955.

Concrete and Masonry Anchors:

- 1 Expansion Bolts are to be Kwik Bolt TZ manufactured by Hilti, Inc. Install in accordance with ICC Report ESR-917 or approved update, including standard embedment depths, unless noted otherwise. Proposed substitutions shall have equal or greater capacity and shall be submitted to the engineer for review with product data and code approval reports.
- 2 Epoxy grouted anchors installed in concrete are to be HIT-Z anchor rods or HAS threaded rods or reinforcing steel installed using HY-200 Adhesive Anchoring System manufactured by Hilti, Inc. Install in accordance with ICC Report ESR-3187 or approved update, including standard embedment depths, unless noted otherwise. Proposed substitutions shall have equal or greater capacity and shall be submitted to the engineer for review with product data and code approval reports.

General Requirements:

- 1 Structural erection and bracing: The structural drawings illustrate the completed structure with all elements in their final positions supported and braced. The contractor, in the proper sequence, shall provide shoring and bracing as may be required during construction to achieve the final completed structure. Contact engineer for consultation (not in contract) as required.
- 2 Shop drawings: Submit shop and erection drawings for all structural steel, structural aluminum, miscellaneous steel, steel joists and girders, steel deck, masonry reinforcing steel, engineer to review prior to fabrication. This review is for general compliance with the intent of the structural design. The manufacturing or fabrication of any items prior to written review of the shop drawings will be at the risk of the contractor. The architect and/or contractor are responsible for checking quantities, dimensions and coordination with other trades.
- 3 Dimensions: Check all dimensions against field and architectural drawings prior to construction. Do not scale drawings.
- 4 Construction practices: The general contractor is responsible for means, methods, techniques, sequences and procedures for construction of this project. Notify structural engineer of omissions or conflicts between the working drawings and existing conditions.
- 5 Coordinate requirements for mechanical/electrical/plumbing penetrations through structural elements with structural engineer. Prior to installation of such equipment or other items to be attached to the structure, the contractor shall obtain approval for connections and support. Contractor shall furnish required hangers, connections, etc. required for installation of such items, unless specifically noted on plans.
- 6 Jobsite safety is the sole responsibility of the contractor. All methods used for construction shall be in accordance with the latest edition of the IBC.
- 7 The structural engineer may make periodic observation visits to the jobsite for determination of general conformance with the construction documents. Such observation visits shall not replace required inspections by the governing authorities or serve as "special inspections" as may be required by the International Building Code.
- 8 Though every effort has been made to provide a complete and clear set of construction documents, discrepancies or omissions may occur. Release of these drawings anticipates cooperation and continued communication between the contractor, architect and engineer to provide the best possible structure. These drawings have been prepared for the use of a qualified contractor experienced in the construction techniques and systems depicted.

<u>Deferred Submittals:</u>

1 When received and reviewed by the Engineer of Record, the following submittal items will be submitted to the building official for review and approval:

DOWEL SCHEDULE

SIZE

1/2"

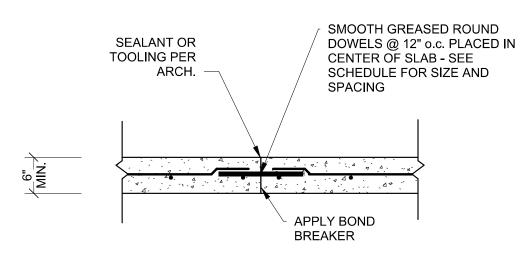
3/4"

LENGTH

12"

14"

Cold form steel framing



TYP CONSTRU	JCTION JOINT
SAWCUT EDGE OF — EXISTING SLAB, TOOLING & SEALANT PER ARCH	SMOOTH GREASED ROUND DOWELS PER SCHEDULE @ 12" o.c., DRILL INTO EXIST SLAB
ZL	
EXISTING CONCRETE SLAB ON GRADE	NEW SLAB ON GRADE PER PLAN

CONSTRUCTION JOINT - NEW TO EXISTING SLAB



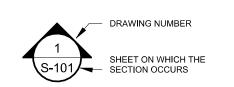
SYMBOLS LEGEND

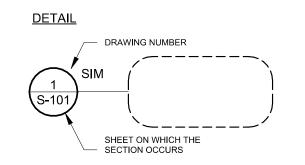
REVISION MARK ELEVATION MARK SECTION CUT LABEL

ELEVATION VIEW LABEL

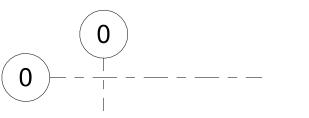
SHEET ON WHICH THE

SECTION OCCURS





STRUCTURAL GRID LINE

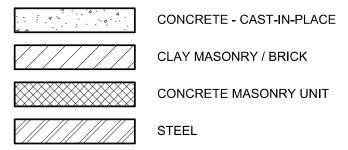


BEAM POCKET

BEAM HANGER

JOIST OR RAFTER BEARING

MATERIALS LEGEND



DIMENSIONED LUMBER WOOD BLOCKING

NATIVE EARTH COMPACTED EARTH

PLYWOOD

GRAVEL SAND / GRANULAR FILL

GYPSUM WALL BOARD

ABBREVIATIONS

@ AT AB ANCHOR BOLT AFF ABOVE FINISHED FLOOR ALT ALTERNATIVE / ALTERNATE ANCH ANCHOR ARCH ARCHITECT B. BOTTOM OF BF BOTTOM OF FOOTING BLDG BUILDING BM BEAM вот воттом BRG BEARING BW BOTTOM OF WALL C STEEL CHANNEL CANT CANTILEVER CF COLD FORMED CIP CAST IN PLACE CJ CONTROL JOINT CJP COMPLETE JOINT PENETRATION PC PRECAST CL CENTER LINE CLR CLEAR(ANCE) CMU CONCRETE MASONRY UNIT COL COLUMN CONC CONCRETE CONT CONTINUOUS / CONTINUE

DET DETAIL DIA DIAMETER DIM DIMENSION (E) / EXIST EXISTING EA EACH

EJ EXPANSION JOINT EMBED EMBEDMENT **ENGR ENGINEER** EO EDGE OF EQ EQUAL ES EACH SIDE EW EACH WAY **EXP EXPANSION** EXT EXTERIOR

(F) FUT FUTURE F'c 28 DAY CONCRETE STRENGTH FD FLOOR DRAIN FDN FOUNDATION

FF / FFE FINISH FLOOR (ELEVATION) FOEW FACE OF EXISTING WALL FOS FACE OF STUD

FRP FIBER REINFORCED PANEL FT FOOT FTG FOOTING Fv SHEAR STRENGTH

Fy YIELD STRENGTH GA GAUGE GALV GALVANIZED GB GYPSUM BOARD

GC GENERAL CONTRACTOR GL GLU-LAM LUMBER GWB GYPSUM WALL BOARD GYP GYPSUM

HAS HEADED ANCHOR STUD HGR HANGER HOOK STANDARD REINFORCING HOOK HORIZ HORIZONTAL

HSS HOLLOW STEEL SECTION HT HEAVY TIMBER ID INSIDE DIAMETER

IN INCH

INSUL INSULATION INT INTERIOR

KLF KIPS PER LINEAL FOOT KSF KIPS PER SQUARE FOOT KSI KIPS PER SQUARE INCH

L ANGLE LAP LAP SPLICE Ld DEVELOPMENT LENGTH LLBB LONG LEG BACK TO BACK LLH LONG LEG HORIZONTAL LLV LONG LEG VERTICAL LONG LONGITUDINAL LSL LAMINATED STRAND LUMBER LSLP LONG SLOTTED HOLE PARALLEL LSLT LONG SLOTTED HOLE TRANSVERSE LVL LAMINATED VENEER LUMBER

M MOMENT MAS MASONRY MATL MATERIAL MAX MAXIMUM MECH MECHANICAL MFD MANUFACTURED MIN MINIMUM MIR MIRROR(ED) MTL METAL

LW LIGHTWEIGHT

NA NOT APPLICABLE NIC NOT IN CONTRACT NOM NOMINAL NTS NOT TO SCALE NW NORMAL WEIGHT

OAE OR APPROVED EQUAL OC ON CENTER(S) OD OUTSIDE DIAMETER OH OVERHEAD / OVERHANG OPNG OPENING OPP OPPOSITE

OSB ORIENTED STRAND BOARD OSL ORIENTED STRAND LUMBER OVS OVERSIZED HOLE (P) PRO PROPOSED

P AXIAL LOAD PAF POWDER ACTUATED FASTENER PARTBD PARTICLEBOARD

PEMB PRE-ENGINEERED METAL BUILDING PL PLATE PLF POUNDS PER LINEAL FOOT

PLY PLYWOOD PRELIM PRELIMINARY PSF POUNDS PER SQUARE FOOT PSI POUNDS PER SQUARE INCH PT PRESSURE TREATED

PT POST TENSION (ED)

QTY QUANTITY

R REACTION RAD RADIUS RD ROOF DRAIN REF REFERENCE / REFER TO REINF REINFORCE / REINFORCING REQD REQUIRED

RO ROUGH OPENING RTU ROOF TOP UNIT SF SQUARE FOOT/FEET

SIM SIMILAR

SLBB SHORT LEG BACK TO BACK SPEC SPECIFICATION (S) SS STAINLESS STEEL SSLP SHORT SLOTTED HOLE PARALLEL SSLT SHORT SLOTTED HOLE TRANSVERSE

STD STANDARD STL STEEL STRUCT STRUCTURE / STRUCTURAL SUSP SUSPENDED SYST SYSTEM

T TOP OF: DECK, CONCRETE, BEAM, PARAPET, STEEL, WALL T&B TOP AND BOTTOM T&G TONGUE AND GROOVE TOW TOP OF WALL TRANS TRANSVERSE TYP TYPICAL

UNO UNLESS NOTED OTHERWISE

V SHEAR LOAD VERT VERTICAL VIF VERIFY IN FIELD VNR VENEER

W WIDE FLANGE WASH. WASHER WCV WALL COVERING WD WOOD WD BLK WOOD BLOCKING WDB WOOD BASE WDF WOOD FLOORING WDT WOOD TRIM WDV WOOD VENEER WDW WINDOW WF WIDE FLANGE

WP WORK POINT WPT WALL PROTECTION WT WINDOW TREATMENT WT STEEL TEE SECTION WWR WELDED WIRE REINFORCING

XPS EXTRUDED POLYSTYRENE # NUMBER / POUND

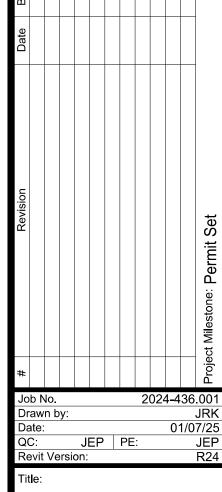
& AND @ AT



tion

 $\boldsymbol{\omega}$

9 8 **(** Blak olle



GENERAL NOTES ANNOTATIONS, & CONCRETE **DETAILS**

S-001

