

Governing Building Code: 2018 IBC

Design Specifications:

- ASCE 7-16
- ACI 318-14
- ACI 530-16
- AISI 360-16
- AISI 341-16
- AISI S100-16
- ASTM A1011

Design Loads:

Racking Loads (Assumed):	Wind Loads:	Seismic Loads:
• Dead Load: 100 lbs	• Occupancy: II	le: 1
• Live Load: 500 lbs	• Int. Wind: 5 psf	Ss: 0.659 g
		S1: 0.227 g
		Site Class: D (Assumed)
		Sds: 0.559 g
		Sd1: 0.363 g
		Seismic Design Category: D
		Seismic Force-Resisting System: O.F.C.
		Design Base Shear: Cs*W
		Cs: 0.129
		R: 1.5
		Analysis Procedure Used: E.L.F.P.

General:

- The structural systems shown on these documents have been designed for the final, in place usage of the structure based on the intended occupancy and code requirements. While general constructability has been considered, the structural systems have not been designed to accommodate specific construction means and methods that might be utilized by the Contractor.
- The Contractor shall field verify all existing dimensions prior to fabrication.
- The Contractor shall notify the Engineer of any observed discrepancies in dimensions, detailing, or other items as shown on the plans or specified prior to proceeding with work relating to said discrepancies.
- The Contractor shall not alter or modify work shown on the structural drawings without receiving written approval from the Engineer.
- The Contractor shall be responsible for supplying shop drawings for structural steel and post installed anchors. Shop drawings must be reviewed for conformance with the means, methods, techniques, sequences, and operations of construction, and safety precautions and programs incidental thereto, all of which are the sole responsibility of the Contractor, and shall be stamped "approved" by the Contractor prior to submittal. Shop drawings submitted without the Contractor's stamped approval will be returned "rejected". All shop drawings shall be reviewed by the Structural Engineer prior to construction.
- See architectural, mechanical, and electrical drawings for other pertinent information related to the structural work and coordinate as required. These structural drawings are intended to be included in a complete set of construction documents, including but not limited to, architectural drawings, civil drawings, and mechanical/electrical/plumbing drawings. Contractor shall verify coordination of these drawings with contents of above drawing sets specified and only proceed with bidding and construction after such has taken place.
- The building and the independent structural components shown in these documents are not structurally stable until all connections, framing, permanent bracing, and interior and exterior concrete slabs on grade are complete and have achieved their design strength. Contractor is solely responsible for maintaining structural stability during erection and construction. Temporary bracing systems shall remain in place until all structural work is complete.
- The Contractor is responsible for verifying all existing dimensions and conditions of the existing building and reporting discrepancies from the assumed conditions shown on the structural drawings to the Engineer of record prior to fabrication and erection of any member.
- The Contractor shall coordinate the roof drainage system with the Architect as required to ensure that no more than 3 1/2" of water can accumulate before entering an overflow drainage system.
- Reference the specification for additional requirements.

Structural Engineer Site Observations:

- The contract structural drawings & specifications represent the finished structure, and, except where specifically shown, do not indicate the method or means of construction. The Contractor shall supervise and direct the work and shall be solely responsible for all construction means, methods, procedures, techniques, and sequence.
- The Engineer shall not have control nor charge of and shall not be responsible for, construction means, methods, techniques, sequences, or procedures, for safety precautions & programs in connection with the work, for the acts or omission of the Contractor, subcontractor, or any other persons performing any of the work, or for the failure of any of them to carry out the work in accordance with the contract documents.

Post-Installed Anchors:

- Post-Installed anchors shall only be used where specified in the construction documents.
- The Contractor shall obtain written approval from the Engineer prior to installing post-installed anchors for mis-placed anchors.
- Care shall be taken with placing post-installed anchors to avoid damaging existing reinforcement.
- The holes shall be drilled and cleaned in accordance with the manufacturer's specifications.
- Post-installed anchors shall meet ACI 318 Appendix D criteria. The following are acceptable post-installed anchors:

All screw anchors referred to in these drawings shall be one of the following:
 - Hilti KH-EZ
 - Powers Wedge Bolt+
 - Simpson Strong-Tie Titen HD
 - Or Approved Equivalent

Structural Steel:

- All structural steel shall conform to the following:

Miscellaneous Steel: ASTM A36
- Bolts shall be as follows:

Connection Bolts: ASTM A325
- Welding shall conform to the latest publication of applicable codes set forth by the American Welding Society. Welding electrodes shall be E70XX.
- All exterior steel exposed to weather shall be primed and painted or hot-dipped galvanized and painted per Architect unless noted other wise.

Rack Metal Framing:

- All rack structural framing, misc. shapes, and accessories shall be designed in accordance with the latest edition of the American Iron and Steel Institute (AISI) "Specification for the Design of Cold-Formed Steel Structural Members, and shall be of type, size, gage and spacing shown on the drawings.
- All 16 gage and heavier rack structural framing shall be formed from corrosion-resistant steel corresponding to the requirements of ASTM A446, with a minimum yield strength of 50 ksi. All 18 gage and lighter rack structural framing and accessories shall be formed from corrosion-resistant steel corresponding to the requirements of ASTM A446, with a minimum yield strength of 33 ksi.
- Prior to fabrication of framing, the Contractor shall submit fabrication and erection drawings to the Architect/Engineer for approval.
- Prefabricated panels shall be square, with components attached in a manner to prevent racking and minimize distortion while lifting. The Contractor shall provide temporary bracing where required.
- All framing components shall be cut squarely for attachment to perpendicular members, or as required, for angular fit against abutting members. Splicing of axial loaded members is not permitted.
- Axially loaded studs shall be installed in a manner which will assure that their ends are positioned against the inside of the track web prior to fastening. Studs shall be securely fastened to both flanges of the top and bottom track.
- Fastening of components shall be with self-drilling screws or welding. Wire tying of components shall not be permitted. Screws shall be of sufficient size to ensure the strength of connection. All connections shall be made with a minimum of (2) #10 screws or 1/8" fillet weld two inches long, unless other wise noted. All welds shall be touched up with a zinc-rich paint.
- Rack structural framing shall be securely anchored to the supporting structure as shown on the drawings. Abutting lengths of rack structural framing shall be securely anchored to a common structural element, butt-welded or spliced together.
- Provision for structure vertical movement shall be provided where indicated on the drawings.
- Minimum thickness values of framing specified in gage values on drawings are as follows:

Minimum Design Thickness (in.)	Design Thickness (in.)	Inside Corner Radius (in.)	Gage No. (Reference Only)
18	0.0188	0.0843	25
27	0.0283	0.0796	22
30	0.0312	0.0781	20 - Drywall
33	0.0346	0.0764	20 - Structural
43	0.0451	0.0712	18
54	0.0566	0.0849	16
68	0.0713	0.1069	14
97	0.1017	0.1525	12

NOTE: Minimum Thickness represents 95% of the design thickness and is the minimum acceptable thickness delivered to the job site based on Section A3.4 of the 1996 AISI Specification.

Special Inspector:

- The following items require special inspection in accordance with the building code.
 - Structural steel fabrication
 - Structural steel bolting & welding
 - Post installed anchors in masonry & concrete
- The Contractor shall request special inspection of the items listed above prior to those items becoming inaccessible & unobservable due to progression of the work.
- The Special Inspector shall be a qualified person who shall demonstrate competence, to the satisfaction of the building official, for inspection of the particular type of construction or operation requiring special inspection.
- The Special Inspector shall observe the work assigned for conformance with the approved design drawings and specifications.
- The Special Inspector shall furnish inspection reports to the Building Official, the Engineer and Architect of record, and other designated persons. All discrepancies shall be brought to the immediate attention of the Contractor for correction, then if uncorrected, to the proper design authority and to the Building Official.
- The Special Inspector shall submit a final signed report stating whether the work requiring special inspection was, to the best of the inspector's knowledge, in conformance with the approved plans and specifications and the applicable workmanship provisions of the governing building codes.

Structural Steel:

- Field Welding: Inspection is required for single-pass fillet welds, multi-pass fillet welds, complete- and partial-penetration groove welds, floor and roof deck welding, and stairs and railing systems. Prior to the start of the work, materials, qualifications of welding procedures and welder qualifications shall be verified. Provide continuous or periodic inspection of the structural welding as indicated in Table 1704.3 of the referenced IBC. Inspections may occur periodically, as defined below. A visual inspection to ensure proper type, size, length and quality of all field welds is required prior to work being concealed by other materials.
 - Periodic inspection: "Periodic" is defined as generally once a week at a minimum, and more often as needed to observe work requiring inspections, as outlined above, prior to being covered by subsequent construction.
- Test Reporting: Test results must be reported to BSE and the General Contractor in writing within 24 hours of testing, via fax or email. Reports must contain the project name, the date of the test and the location of the test.

ABBREVIATIONS LIST

&	AND
@	AT
°	DEGREES
=	EQUALS
'	FEET
>	GREATER THAN
≥	GREATER THAN OR EQUAL TO
"	INCHES
<	LESS THAN
≤	LESS THAN OR EQUAL TO
-	MINUS, NEGATIVE
+	PLUS
±	PLUS OR MINUS
A.F.F.	ABOVE FINISHED FLOOR
ALT.	ALTERNATE
ARCH.	ARCHITECT
BLDG.	BUILDING
BM.	BEAM
B.O.S.	BOTTOM OF STEEL
BOT.	BOTTOM
C.J.	CONTROL/CONSTRUCTION JOINT
C.L.	CENTER LINE
C.M.U.	CONCRETE MASONRY UNIT
CLG.	CEILING
CLR.	CLEAR
COL.	COLUMN
CONC.	CONCRETE
CONT.	CONTINUOUS
COORD.	COORDINATE
CTR.	CENTER
DIA.	DIAMETER
DN.	DOWN
DWG.	DRAWING
E.J.	EXPANSION JOINT
E.O.R.	ENGINEER OF RECORD
EA.	EACH
EL.	ELEVATION
ELEV.	ELEVATION
ENG.	ENGINEER
EQ.	EQUAL
EQUIP.	EQUIPMENT
ETC.	ET CETERA
EXIST.	EXISTING
EXT.	EXTERIOR
F.A.	FACE
F.B.E.	FOOTING BEARING ELEVATION
F.F.E.	FINISHED FLOOR ELEVATION
F.S.	FAR SIDE
FT.	FOOT/FEET
FTG.	FOOTING/FOUNDATION
G.C.	GENERAL CONTRACTOR
GALV.	GALVANIZED
GYP.	GYPSUM
HORIZ.	HORIZONTAL
IN	INCHES
J.B.E.	JOIST BEARING ELEVATION
JT.	JOINT
L.F.	LINEAR FEET
LB.	POUND
LLH	LONG LEG HORIZONTAL
LLV	LONG LEG VERTICAL
M.B.M.	METAL BUILDING MANUFACTURER
M.E.P.	MECHANICAL ELECTRICAL PLUMBING
MAX.	MAXIMUM
MIN.	MINIMUM
MISC.	MISCELLANEOUS
N.A.	NOT APPLICABLE
N.S.	NEAR SIDE
N.T.S.	NOT TO SCALE
Ø	DIAMETER
P.E.M.B.	PRE-ENGINEERED METAL BUILDING
PL.	PLATE
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
R	RADIUS
REQ.	REQUIRED
SF	SQUARE FEET
SIM.	SIMILAR
SPA.	SPACING
SPEC.	SPECIFICATION
SQ.	SQUARE
T.O.C.	TOP OF CONCRETE
T.O.F.	TOP OF FOOTING
T.O.S.	TOP OF STEEL
T.O.W.	TOP OF WALL
THRU.	THROUGH
TYP.	TYPICAL
U.N.O.	UNLESS NOTED OTHERWISE
VERT.	VERTICAL
W.W.F.	WELDED WIRE FABRIC
WT.	WEIGHT
W/	WITH
W/O	WITHOUT

SHEET LIST

Sheet Number	Sheet Name
SR0.0	GENERAL NOTES
SR1.0	RACK FRAMING PLAN
SR2.0	TYPICAL RACK FRAMING DETAILS
SR2.1	TYPICAL RACK FRAMING DETAILS
SR2.2	TYPICAL RACK FRAMING DETAILS

MATERIALS LEGEND

ALUMINIUM	
CONCRETE	
EARTH	
GRAVEL	
GROUT	
GYPSUM	
INSULATION - RIGID	
MASONRY - BRICK	
MASONRY - CMU	
PLYWOOD	
STEEL	
TILT / PRE-CAST	

SYMBOLS LEGEND

	<u>DETAIL</u>
01	DRAWING NUMBER
S1.0	SHEET NUMBER
	AREA OF DETAIL
	<u>ELEVATION</u>
01	DRAWING NUMBER
S1.0	SHEET NUMBER
	<u>SECTION</u>
01	DRAWING NUMBER
S1.0	SHEET NUMBER
TYP.	

	<u>BEAM DESIGNATION</u>
W16x26(12)C=3/4	CAMBER OF BEAM IN INCHES
HSS 4x4x5/16	SHEAR STUD COUNT
	BEAM TYPE & SIZE

	<u>COLUMN DESIGNATION</u>
PL	COLUMN SIZE
PL	COLUMN TYPE

	<u>FOOTING DESIGNATION</u>
F1	FOOTING MARK
F.B.E.=500	BEARING ELEVATION

	<u>PIER DESIGNATION</u>
P1	FOOTING MARK
T.O.P.=500	TOP OF PIER ELEVATION

	<u>COLUMN GRID</u>
8.8	GRID DESIGNATION

MOMENT CONNECTION

NORTH ARROW

REVISION DESIGNATION

JOIST BEARING ELEVATION

SLAB THICKNESS TRANSITION

NEW STORE



GAP INC.
STORE DEVELOPMENT
2 FOLSOM STREET
SAN FRANCISCO, CA 94105

ORACLE ID:

140261

STORE NUMBER:

7341

STORE LOCATION:

STATION PARK
230 NE PROMONTORY
SPACE C-120
FARMINGTON, UT 84025

DESIGN TYPE: DERBY B
GENERATION: 21034
PROTOTYPE DATE: 1/8/2021
OPENING: 2021

ARCHITECT INFO:



ARCHITECT OF RECORD:

MARIAH MEYER
8131 METCALF AVE
SUITE 300
OVERLAND PARK, KS 66204

www.brbranch.com

TEL: 913-262-9095
FAX: 913-262-9044

CONSULTANT INFO:



BSE Structural Engineers LLC
11320 West 79th Street
Lenexa, Kansas 66214
Phone 913.492.7400
www.BSEstructural.com
Project No: 21-060

PROFESSIONAL STAMP:

ISSUE TYPE:

LL/PERMIT/BID: 02/19/21

REVISIONS:

REVISION #1: XX/XX/XX

TITLE SHEET:

GENERAL NOTES

SHEET NUMBER:

SR0.0