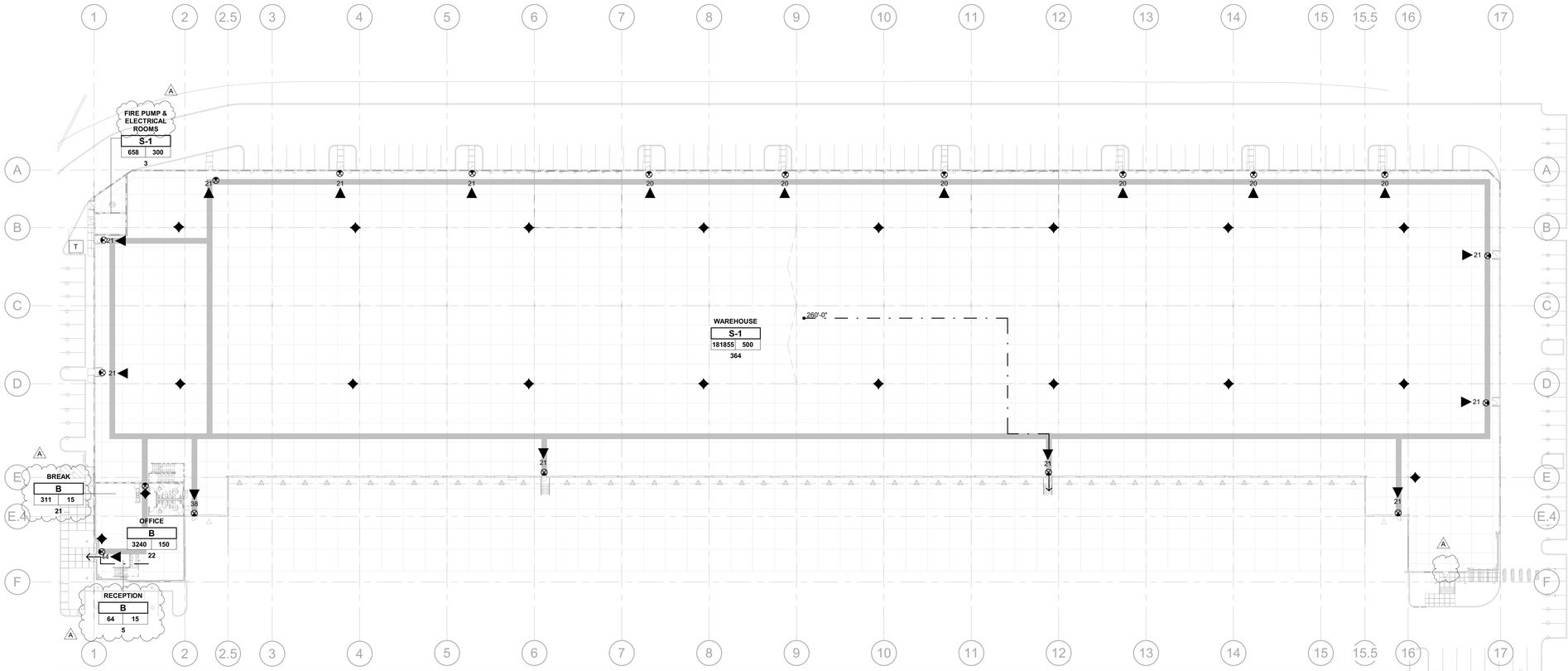
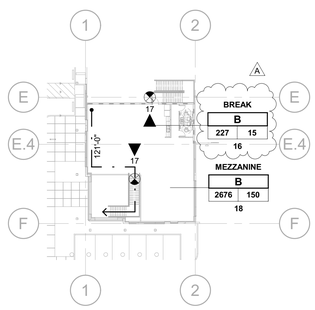


1 G1.10 CODE ANALYSIS OVERALL PLAN
1/32" = 1'-0"



2 G1.10 CODE ANALYSIS MEZZANINE
1/32" = 1'-0"

BUILDING CODE DATA

GENERAL CODE ANALYSIS:

- CONSTRUCTION TYPE: V-B, TWO STORY
- FIRE PROTECTION: NFPA 13 - ESFR AUTOMATIC FIRE SPRINKLER
- OCCUPANCY: (B), AND (S-1) OCCUPANCY, BASED ON TABLE 508.4 SEPARATED OCCUPANCIES, NO SEPARATION IS REQUIRED.

MECHANICAL VENTILATION PER OSSC 1202.1, TO BE PROVIDED. SEE MECH.

BUILDING HEIGHT (TABLE 503):

ALLOWABLE: 60'-0" / 2 STORIES
PROVIDED: 43'-10" / 2 STORIES

UNLIMITED AREA BUILDING (SEE SECTION 507):

BUILDING HAS MORE THAN 60' YARDS ON THE WEST AND NORTH SIDE, IS ONLY ONE LEVEL ABOVE GRADE, AND IS EQUIPPED THROUGHOUT WITH AN NFPA 13 - ESFR AUTOMATIC FIRE SPRINKLER SYSTEM.

EXCEPTIONS - BUILDING HAS LESS THAN 60' YARDS ON EAST AND SOUTH SIDE TO THE PROPERTY LINE, IN ORDER TO MEET REQUIREMENT OF 507.4 ON THE SOUTH SIDE A CODE APPEAL (ID: 23979) HAS BEEN SUBMITTED WITH A NO-BUILT EASEMENT WITH THE ADJACENT PROPERTY OWNER TO MAINTAIN THE 60' OPEN SPACE.

THE EAST WALL OF THE BUILDING IS A 3-HOUR WALL WITH 3-HOUR OPENING PROTECTIVES COMPLIANT WITH SECTION 507.2.1 FOR REDUCED OPEN SPACE OF AT LEAST 40' FOR NOT MORE THAN 75% OF THE PERIMETER OF THE BUILDING

FIRST FLOOR AREA SCHEDULE

ROOM NAME	OCCUAPNCY TYPE	AREA	OCCUPANCY LOAD FACTOR	TOTAL OCCUPANTS
OFFICE	B	3240 SF	150	22
FIRE PUMP & ELECTRICAL ROOMS	S-1	658 SF	300	3
WAREHOUSE	S-1	181855 SF	500	364
BREAK	B	311 SF	15	21
RECEPTION	B	64 SF	15	5
TOTAL		186128 SF		415

MEZZANINE AREA SCHEDULE

ROOM NAME	OCCUAPNCY TYPE	AREA	OCCUPANCY LOAD FACTOR	TOTAL OCCUPANTS
BREAK	B	227 SF	15	16
MEZZANINE	B	2676 SF	150	18
TOTAL		2903 SF		34

BUILDING PLUMBING FIXTURE COUNT (TABLE 2902.1)

OCCUPANT TOTALS
B 82/2 = 41 PER GENDER
S-1 367/2 = 184 PER GENDER

MEN

TOILETS: B (1:25) <50 SF = 1.64
S-1 (1:100) = 1.84
TOTAL = **3.48 REQUIRED, 4 PROVIDED**

LAVATORIES: B (1:40) = 1.03
S-1 (1:100) = 1.84
TOTAL = **2.87 REQUIRED, 3 PROVIDED**

WOMEN

TOILETS: B (1:25) <50 SF = 1.64
S-1 (1:100) = 1.84
TOTAL = **3.48 REQUIRED, 4 PROVIDED**

LAVATORIES: B (1:40) = 1.03
S-1 (1:100) = 1.84
TOTAL = **2.87 REQUIRED, 3 PROVIDED**

FIRE PROTECTION - CHAPTER 9

BASED ON 2019 OREGON FIRE CODE
OFC SECTION 509.1

ROOMS CONTAINING CONTROLS FOR AIR CONTAINING SYSTEMS, SPRINKLER RISERS AND VALVES, OR OTHER FIRE DETECTION, SUPPRESSION OR CONTROL ELEMENTS SHALL BE IDENTIFIED FOR THE USE OF THE FIRE DEPARTMENT.

SIGNS REQUIRED TO IDENTIFY FIRE PROTECTION EQUIPMENT AND EQUIPMENT LOCATIONS TO BE APPROVED BY THE FIRE CODE OFFICIAL.

WHERE REQUIRED AND APPROVED BY THE FIRE CODE OFFICIAL UTILITIES ARE TO BE LEGIBLY MARKED TO IDENTITY THE JANITOR SPACE IT SERVES.

PENETRATIONS THROUGH FIRE RESISTANCE RATED WALLS SHALL MEET ALL REQUIREMENTS PER SECTION 714 AS WELL AS FIRE RESISTANCE RATED WALLS TO MEET FIRE STOPPING PER SPECIFICATION 07 84 00

SECTION 903 - AUTOMATIC SPRINKLER SYSTEMS
FULLY SPRINKLERED NFPA-13 ESFR FIRE SYSTEM

SECTION 906 PORTABLE FIRE EXTINGUISHERS
PROVIDE (1) FIRE EXTINGUISHER WITH RATING OF NOT LESS THAN 2-A:10-B:C FOR EACH 3,000 SF OF FLOOR AREA. TRAVEL FROM ANY PORTION OF BUILDING NOT TO EXCEED 75'.

OFC APPENDIX D FIRE APPARATUS ACCESS ROADS
SEE SHEET C1.00 FOR AERIAL FIRE APPARATUS ACCESS.

OFC CHAPTER 32 - HIGH-PILED COMBUSTIBLE STORAGE
BUILDING IS DESIGNED TO ACCOMMODATE HIGH-PILED STORAGE PER OFC TABLE 3206.2:

- AN AUTOMATIC SPRINKLER SYSTEM IS PROVIDED IN ACCORDANCE WITH OFC SECTION 3206.4
- FIRE DETECTION SYSTEM IS NOT REQUIRED PER TABLE 3206.2
- BUILDING ACCESS IS PROVIDED PER OFC SECTION 3206.6
- SMOKE AND HEAT REMOVAL IS NOT REQUIRED PER TABLE 3206.2 FOOTNOTE 1: AUTOMATIC FIRE-EXTINGUISHING SYSTEM PROVIDED IN ACCORDANCE WITH OFC 3207 AND 3208
- DRAFT CURTAINS ARE NOT REQUIRED PER TABLE 3206.2

FIRE RESISTANCE - OSSC CHAPTER 6

TABLE 601 - FIRE RESISTIVE REQUIREMENTS

EXTERIOR BEARING WALL - TYP	NR
INTERIOR BEARING WALL	NR
EXTERIOR NON-BEARING WALL	NR
INTERIOR NON-BEARING WALL	NR
STRUCTURAL FRAME	NR
FLOOR	NR
ROOF	NR
SHAFTS (707.3.1	NR
FIRE PUMP ROOM (913.2.1 EXCEPTION 1)	1-HR

NON REQUIRED FIRE RESISTIVE
ELECTRICAL ROOM 1-HR

ENERGY CODE REQUIREMENTS

2019 OREGON ZERO ENERGY READY COMMERCIAL CODE (2019 OSSC - 1301)
NEW BUILDING TO INCLUDE THE OREGON ZERO ENERGY READY COMPLIANCE FORM, INCLUDING A ZERO CODE CALCULATOR REPORT (ZERO-CODE.ORG/ENERGY-CALCULATOR/)

CLIMATE ZONE: MIXED MARINE 4C (ASHRAE STANDARD 169, TABLE B-1)

SHELL BUILDING:

VERTICAL FENESTRATION AREA: 4,891 SF
WALL AREA: 77,764 SF
PERCENTAGE OF FENESTRATION: 6%

SKYLIGHT(48) AREA: 2,592 SF
ROOF AREA: 184,163 SF
PERCENTAGE OF SKYLIGHT 1.4%

NOTE: OFFICE IS CONDITIONED, WAREHOUSE IS SEMIHEATED

TABLE 5.5-4	REQUIRED R-VALUE	PROVIDED R-VALUE	MAX U-FACTOR	PROVIDED U-FACTOR	MAX SHGC	PROVIDED SHGC
WINDOW - CONDITIONED	--	--	0.38	0.388	0.36	0.35
WINDOW - SEMIHEATED	--	--	0.73	0.388	NR	0.35
ENTRANCE DOOR - CONDITIONED	--	--	0.68	0.515	0.36	0.239
ENTRANCE DOOR - SEMIHEATED	--	--	0.77	0.515	NR	--
OPAQUE DOOR- SWINGING	--	--	0.37	0.08	--	--
OPAQUE DOOR- ROLL-UP - SEMIHEATED	--	--	0.36	0.14	--	--
SKYLIGHT - SEMIHEATED 0-3% OF ROOF [1]	--	--	1.15	0.71	NR	0.31
MASS WALLS - SEMIHEATED	NR	NR	--	--	--	--
MASS WALLS - CONDITIONED	R-9.5 CI	R-13, R-8 CI	--	--	--	--
FRAMED WALLS - INTERIOR [2]	R-13	R-19	--	--	--	--
ROOF - CONDITIONED	R-30 CI	R-30 CI	--	--	--	--
ROOF - SEMIHEATED	R-10 CI	R-30 CI	--	--	--	--
SOUND ATTENUATION	--	R-13	--	--	--	--
SLAB ON GRADE - CONDITIONED	R-15 FOR 24"	--	--	--	--	--
SLAB ON GRADE - SEMIHEATED	NR	NR				

CI = CONTINUOUS INSULATION

1. R-5 MINIMUM RIGID INSULATION AT ALL SKYLIGHT CURBS.
2. PER ASHRAE 5.5.2, IF A BUILDING CONTAINS ANY SEMIHEATED SPACE, THE SEMI-EXTERIOR BUILDING ENVELOPE SHALL COMPLY WITH THE REQUIREMENTS FOR SEMIHEATED SPACE.

ADDITIONAL INFORMATION:
A. CONTINUOUS AIR BARRIER SHALL BE PROVIDED IN CONDITIONED PORTION OF BUILDING ENVELOPE ONLY, PER ASHRAE 5.4.3.1 (PER ASHRAE 5.4.3.1, EXCEPTION 1, CONTINUOUS AIR BARRIER IS NOT REQUIRED IN SEMIHEATED SPACES IN CLIMATE ZONES 0-6).
- ALL COMPONENTS CLEARLY IDENTIFIED
- ALL JOINTS AND PENETRATIONS SEALED
- SHALL EXTEND OVER ALL SURFACES OF THE BUILDING ENVELOPE
- DESIGNED TO RESIST POSITIVE AND NEGATIVE PRESSURES
- MATERIALS
  i. PLYWOOD - MIN 3/8"
  ii. EXTRUDED POLYSTYRENE INSULATION BOARD
  iii. INTERIOR GYPSUM BOARD - MIN 1/2"
  iv. SINGLE PLY ROOF MEMBRANE
  v. CAST IN PLACE CONCRETE

B. DOCK SEALS TO BE INSTALLED AT ALL ACTIVE DOORS PRIOR TO OCCUPANCY WITH TI PER ASHRAE 5.4.3.3
C. VESTIBULES, WHERE REQUIRED PER TO ASHRAE 5.4.3.4 BE INSTALLED W/ TI.
D. INSULATION SHALL BE MARKED IN A MANNER THAT WILL ALLOW A DETERMINATION OF COMPLIANCE PER ASHRAE 5.8.1.1.
E. FENESTRATION SHALL BE MARKED WITH U-FACTOR, SOLAR HEAT GAIN COEFFICIENT, VISIBLE TRANSMITTANCE, AND AIR LEAKAGE RATING PER ASHRAE 5.8.2.2
F. PER ASHRAE 5.4.3.1.3, BUILDING SHALL BE TESTED FOR AIR LEAKAGE RATE OF THE BUILDING ENVELOPE, NOT TO EXCEED 0.40 CFM/SF.
G. PROVIDE MIN 1-PERM VAPOR RETARDER AT WARM SIDE (WINTER) OF ALL FULL HEIGHT WALLS IN CONDITIONED SPACE (OFFICE).

MEANS OF EGRESS

EXIT ACCESS TRAVEL DISTANCE (SECTION 1017)

MAXIMUM DISTANCE ALLOWED: 300'-0"
MAXIMUM DISTANCE PROPOSED: 215'-0"

COMMON PATH OF TRAVEL (TABLE 1006.2.1)

MAXIMUM DISTANCE ALLOWED: 100'-0"
MAXIMUM DISTANCE PROPOSED: 37'-0"

MEANS OF EGRESS SIZING (SECTION 1005)

FIRST FLOOR: 415 OCCUPANTS (0.2) = 83"
3 EXITS REQUIRED
18 EXITS, 576" PROVIDED

SECOND FLOOR: 34 OCCUPANTS (0.3) = 10"
2 EXIT REQUIRED
2 EXITS, 108" PROVIDED

1019.3 OCCUPANCIES OTHER THAN GROUPS I-2 AND I-3
EXCEPTION 1
EXIT ACCESS STAIRWAYS AND RAMPS THAT SERVE OR ATMOSPHERICALLY COMMUNICATE BETWEEN ONLY TWO STORIES ARE NOT REQUIRED TO BE ENCLOSED. SUCH INTERCONNECTED STORIES SHALL NOT BE OPEN TO OTHER STORIES

SECTION 1008 - MEANS OF EGRESS ILLUMINATION

- PROVIDE MEANS OF EGRESS ILLUMINATION AT A MINIMUM OF ONE FOOT CANDLE AT PATH OF EGRESS TO MEET SECTION 1008. EXTEND 5'-0" OUTSIDE EGRESS DOORS.
- WAREHOUSE/ OFFICE PROVIDE
  - EMERGENCY POWER FOR MIN 90 MINUTES. (BATTERY BACK-UP)
  - AVERAGE INITIAL ILLUMINATION OF 1 FOOT-CANDLE(11 LUX)
  - MAXIMUM UNIFORMITY RATIO OF 40 : 1
  - SEE FLOOR PLANS FOR PATH

SECTION 1010 - DOORS, GATES AND TURNSTILES

- EXTERIOR DOORS SIZED AND HARDWARE PROVIDED TO MEET SECTION. SEE FLOOR PLAN AND DOOR HARDWARE. ALL DOOR HARDWARE TO COMPLY WITH ADA REQUIREMENTS. SEE SPEC'S.
- THRESHOLDS TO COMPLY WITH 1010.1.7
- HARDWARE ON DOORS REQUIRED TO BE ACCESSIBLE SHALL COMPLY WITH 1008.1.9.1
- HARDWARE HEIGHT TO COMPLY WITH 1010.1.9.2
- LOCKS AND LATCHES TO COMPLY 1010.1.9.4
- BOLT LOCKS ARE NOT PERMITTED UNLESS MEETING 1010.1.9.5 EXCEPTIONS
- THE UNLATCHING OF ANY DOOR OR LEAF SHALL COMPLY 1010.1.9.6

SECTION 1013 - EXIT SIGNS

- PROVIDE EXIT SIGNAGE TO MEET SECTION 1013.1.

SECTION 1028 - EXIT DISCHARGE

- ALL EXITS DISCHARGE AT GROUND LEVEL

SYMBOLS LEGEND

0 — NUMBER OF OCCUPANTS SERVED BY EGRESS ACCESS

OFFICE — ROOM NAME
B — OCCUPANCY TYPE
3000 150 — OCCUPANCY LOAD FACTOR
20 — NUMBER OF OCCUPANTS
ROOM SQUARE FOOTAGE

EXIT SIGN PER 1011.1

FIRE EXTINGUISHER CABINET

DISTANCE TRAVELED PATH

44" CLEAR EGRESS PATH WITH EMERGENCY POWER LIGHTING PER OSSC 1006.2. EXTEND TO 5'-0" OUTSIDE EXTERIOR DOORS.

PROVIDE:
- EMERGENCY POWER FOR MINIMUM 90 MINUTES. (BATTERY BACK UP)
- AVERAGE INITIAL ILLUMINATION OF 1 FOOT CANDLE (11 LUX)
- MINIMUM ILLUMINATION AT ANY POINT OF 0.1 FOOT- CANDLE (1 LUX)
- MAXIMUM TO MINIMUM UNIFORMITY RATIO OF 40 TO 1, MAXIMUM

GENERAL NOTES

A. THIS SHEET IS MEANT FOR CODE REVIEW PURPOSES ONLY.
B. SEE SHEET A1.10, A1.11, AND A1.12 FOR ADDITIONAL PLAN INFORMATION.
C. EMERGENCY LIGHTING ALONG THE EGRESS PATH SHALL NOT BE LESS THAN 1 FOOTCANDLE AT THE FLOOR LEVEL AT ALL POINTS ALONG THE EGRESS PATH. A MAXIMUM-TO-MINIMUM ILLUMINATION UNIFORMITY RATIO OF 40:1 SHALL NOT BE EXCEEDED TO MEET ALL REQUIREMENTS OF SECTION 1008.
D. SECTION 1010.1.1 REQUIRES A CLEAR DOOR WIDTH OF 32". ALL PROVIDED DOORS COMPLY.

GOVERNING CODES

2019 OREGON STRUCTURAL SPECIALTY CODE
2019 OREGON ZERO ENERGY READY COMMERCIAL CODE
2019 OREGON MECHANICAL SPECIALTY CODE
2017 OREGON ELECTRICAL SPECIALTY CODE
2017 OREGON PLUMBING CODE
2019 OREGON FIRE CODE
ICC A117.1-2009 ACCESSIBILITY

FOR JURISDICTIONAL USE

Architecture ▪ Interiors
Planning ▪ Engineering

Portland, OR
503.224.9560
Vancouver, WA
360.695.7879
Seattle, WA
206.749.9993
www.mcknze.com

MACKENZIE.
DESIGN DRIVEN | CLIENT FOCUSED

© MACKENZIE 2020 ALL RIGHTS RESERVED
THESE DRAWINGS ARE THE PROPERTY OF MACKENZIE AND ARE NOT TO BE USED OR REPRODUCED IN ANY MANNER, WITHOUT PRIOR WRITTEN PERMISSION

REGISTERED ARCHITECT
MICHAEL J. RUETER
PORTLAND, OREGON
6836
STATE OF OREGON

Print Record

Revision Record

A	12/21/2020	Plan Check Response #1

NORTHWEST LOGISTICS 1
NORTHWEST LOGISTICS
3860 NW YEON AVE
PORTLAND OR, 97210

PROLOGIS®

4380 SW MACADAM AVE, SUITE 285 PORTLAND, OR 97239

Date 12.21.2020
Project No. 2190306.00

Sheet Title
CODE ANALYSIS

Sheet No.
G1.10

■ Released for Construction
□ Not Released for Construction

PERMIT SET: 9/11/20