



March 20, 2014

Old Dominion Freight Line – 185 Rand Rd – Portland, ME

Employee Count

Position	Current (2014)	5 Year Projection
P&D Drivers	14	20
Line haul Drivers	4	5
Dock Workers	4	8
Supervisors	2	2
Dispatch	1	1
Office Clerk	1	2
Sales	1	2
Manager	1	1
Total Count	28	41

Phase I – Existing Building Renovation (Currently in Plan Review)

Construction Type: Type II B

Occupancy Type: Office/Shop – Business, non-separated use per 508.3 and Table 508.4
 Dock – S-1 Storage

Allowable Area: Business – 23,000 SF / Table 503
 Dock – 17,500 SF / Per Table 503

Actual Area: Office/Shop – 1,096 + 2,335 = 3,431 SF
 Dock – 5,406 SF

Total Area: 8,837 SF

Floor Area per Occupant: Per Table 1004.1.1 – 100 SF for Business Occupancy
 500 SF for Warehouse Occupancy

Occupant Load: Office – Business Occupancy – 3,431 / 100 SF per person = 34.3 Occupants
 Dock – Storage Occupancy – 5,406 / 500 SF per person = 10.81 Occupants

Exits Required: Office – Business – per Table 1015.1 – 49 occupants or less require 1 Exit
Dock – Storage S-1 – Under 29 Occupants require 1 exit

Exits Provided: Office – 2 Shop - 2
Dock – 2

Exit Units Provided: Office – 33” clear width / .2 (per section 1005.1) = 165 occupants x 2 exits = 330 occupants
Shop – 33” clear width / .2 (per section 1005.1) = 165 occupants x 2 exits = 330 occupants
Dock – 33” clear width / .2 (per section 1005.1) = 165 occupants x 2 exits = 330 occupants

Separation Requirements: Per Table 508.4 – No Separation Requirement

We are providing Separation to accommodate a future dock addition.

Separation Proposed: Per Section 707 – Fire Barriers per Table 707.3.9 - 3 Hr. separation required. Proposing to use UL Assembly U-419

Travel Distance: Per Table 1016.1 – 200’ for a building without sprinkler system

Fire Door and Fire Shutter Requirements: 3 hr. per Table 715.4
Doors – Quantity 2 (3 Hr. door, frames and hardware required.)
Fire Shutters - Quantity 5 (3 Hr. fire shutters on fusible link)

Phase II– Dock Expansion

Phase II consists of adding 5,735 SF of dock area.

Occupancy Type: Dock: Storage S-1

Allowable Area: 17,500 SF per Table 503

Actual Area: 11,192 SF (total)
Actual area is below 12,000 SF that requires automatic sprinkler system per 903.2.9

Occupant Load: Dock – Storage Occupancy – 11,192 / 500 SF per person = 22.38 Occupants

Exits Required: Dock – Storage S-1 – Under 29 Occupants require 1 exit
Exits Provided: Dock – 2

Exit Units Provided: Dock – 33” clear width / .2 (per section 1005.1) = 165 occupants x 2 exits = 330 occupants

Travel Distance: Per Table 1016.1 – 200’ for a building without sprinkler system

Building Length: Dock – 225’

Plumbing Fixtures

Phase I

(Office & Shop) $3,431 \text{ SF} / 100 \text{ SF per Person} = 34.3$ people round up to 35 /2 (Men & Women) = 17.5 Ea.

(Dock) $5,406 \text{ SF} / 500 \text{ SF per Person} = 10.81$ people-round up to 11 (Dock workers are usually Men)

Required Fixtures:	Office		Dock		Total	
	M	W	M	W	M	W
Water Closets	2	3	2	0	4	3
Urinals	1	0	0	0	1	0
Lavatories	1	1	1	1	2	2

Drinking Fountains: 1 High /1 Low

Mop Sink: 1 Provided

Phase II

(Dock) $5,735 \text{ SF} / 500 \text{ SF per Person} = 11.47$ people-round up to 12 (Dock workers are usually Men)

Phase II adds 0 water closets, 0 lavatories, and 1 sink