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## Physical Demands Analysis

### Journeyman Finishing Carpenter

Prepared for:  
Alberta Construction Association

<b>Job Title:</b>	Journeyman Finishing Carpenter	<b>Assessment Location:</b>	Edmonton, AB	<b>Data Collection Date:</b>	September 23, 2020
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<b>Completed By:</b>	Joanna Ellingson, BKin	<b>Submitted on:</b>	April 6, 2021
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<b>Disclaimer:</b>	The Physical Demands noted in this report may vary depending on company and location. Please contact the company directly to confirm this physical demands analysis is an accurate representation of the specific job title for the specific location.
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<b>Work Schedule:</b>	<b>Shift Duration:</b> 4 days/week, 9.5 hours/day; 1 day/week, 8.25 hours/day <b>Break Schedule:</b> Total of 1 hour break per day / 2-15 minute coffee breaks, 1-30 minute lunch break <b>Shift Rotation:</b> Not applicable <b>On call is required:</b> No <b>Overtime required:</b> No; but may be available upon Foreman discretion
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<b>Education / Experience:</b>	<b>Education required:</b> A Journeyman Carpenter has participated in a 4 year program including 8 weeks of in school training and 1,560 hours of on the job training per year. <b>Hours required for position:</b> A minimum of 6,240 hours of on the job training is completed during the Apprenticeship Carpenter program. <b>Tickets that may be required (not limited to):</b> Fall protection, Elevated Work Platform (EWP), First Aid, WHMIS, Construction Safety Training Systems (CSTS) and Basic Safety Orientation (BSO).
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<b>Labour Provider:</b>	N/A
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<b>Job Overview:</b>	As a Journeyman Carpenter, the worker is required to complete carpentry tasks including preparing, installing and completing demolition tasks that are set by the worker's Foreman. The Journeyman may work alone or may work with an Apprentice Carpenter.		
	% of shift		% of shift
	2%	Tailgate talk	<ul style="list-style-type: none"><li>The Carpenter's plan for the day including progress on site thus far and from previous day, plan for remaining projects required and updates on any changes required for remaining projects.</li><li>Discuss any safety concerns/hazards and updates related to the day's work.</li><li>Hazard assessment discussion and where Carpenters will be working for the day.</li></ul>

	2%	Stretching	<ul style="list-style-type: none"> <li>Completing a stretch with the crew before starting the day's work.</li> </ul>
	5%	Set up/gathering tools and equipment	<ul style="list-style-type: none"> <li>Depending on tasks outlined for the day, retrieving the appropriate tools and equipment required.</li> <li>Coordination with Journeyman Carpenter and Foreman for tasks as required.</li> </ul>
	Up to 10%	Site/task planning	<ul style="list-style-type: none"> <li>Planning tasks for the day and most efficient way to complete the tasks required.</li> </ul>
	Up to 5%	Paperwork	<ul style="list-style-type: none"> <li>Completing required paperwork including Daily Pre-Task Hazard Analysis.</li> </ul>
	Up to 69%	Carpentry tasks	<ul style="list-style-type: none"> <li>Tasks including: cutting, grinding, assembly, installation, demolition, etc.</li> </ul>
	5%	Clean up/storing tools and equipment	<ul style="list-style-type: none"> <li>Cleaning all tools and equipment used throughout the day as well as cleaning site/areas worked throughout the day.</li> <li>Storing tools and equipment in specified storage area on site.</li> </ul>
	Up to 5%	Paperwork	<ul style="list-style-type: none"> <li>Completing required paperwork including Daily Pre-Task Hazard Analysis.</li> </ul>
	2%	Safety meeting	<ul style="list-style-type: none"> <li>Completed every Friday at 12:30 pm to discuss topics of safety (directed by Foreman) and to address any safety concerns in detail.</li> </ul>

<b>Equipment/Tools:</b>	<ul style="list-style-type: none"> <li>Chop saw (27 lbs.)</li> <li>Table saw</li> <li>Circular saw (13 lbs.)</li> <li>Dustless concrete grinder (37 lbs.)</li> <li>Hand held drills (4 lbs.)</li> <li>Hammer drills (10 lbs.)</li> <li>Hammer</li> <li>Level</li> <li>Scissor lift</li> <li>Grinder (5 lbs.)</li> <li>Nail gun (3 lbs.) and case (13 lbs.)</li> <li>Extension cords (up to 15 lbs.)</li> <li>Tool belt (21 lbs.)</li> <li>Ladders</li> <li>Caulking guns</li> <li>Shovel (6 lbs.)</li> <li>Sledge hammer (10 lbs.)</li> <li>Leaf blower</li> <li>Concrete sealer (15 lbs. empty)</li> <li>3 ¼ Plywood sheets – 4 x 8 sheets (up to 66 lbs.)</li> <li>Pen/pencil</li> </ul>
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	<ul style="list-style-type: none"> <li>• Utility knife</li> <li>• Tape measure</li> <li>• Pliers</li> <li>• Cat's paw (~1 lbs.)</li> <li>• Wrench</li> <li>• Flat bar (~1 lbs.)</li> <li>• Flush cutter</li> <li>• Concrete</li> <li>• Chalk lines</li> </ul>
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<b>Exposures / Environment:</b>	<ul style="list-style-type: none"> <li>• Noise exposure</li> <li>• Vibration exposure</li> <li>• Dim lighting</li> <li>• Dust (concrete/wood) exposure</li> <li>• Heat/Cold weather extremes</li> <li>• Wind</li> <li>• Icy/slippy surfaces</li> <li>• Tripping hazards</li> <li>• Working at heights</li> <li>• Chemical fumes (caulking gun)</li> <li>• Glue/adhesive fumes</li> </ul>
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<b>Personal Protective Equipment Required:</b>	<ul style="list-style-type: none"> <li>• Hard hat</li> <li>• Steel toed boots</li> <li>• Gloves</li> <li>• CSA safety glasses</li> <li>• Safety vest or high visibility stripes</li> <li>• Long pants</li> <li>• Kneeling pads</li> </ul>
<b>Personal Protective Equipment as Required:</b>	<ul style="list-style-type: none"> <li>• Fall arrest protection</li> <li>• Hearing protection</li> <li>• Head lamps</li> <li>• Dust masks</li> <li>• Splash goggles (concrete dust)</li> </ul>

NOC STRENGTH LEVEL KEY	
Strength Level	Definition
<b>Limited (Lim)</b>	Up to 5 kg (11 pounds)
<b>Light (L)</b>	5 kg to 10 kg (11 – 22 pounds)
<b>Medium (M)</b>	10 kg to 20 kg (22 – 44 pounds)
<b>Heavy (H)</b>	Greater than 20 kg (44 pounds plus)

*\*Strength Level Key based on the National Occupational Classification*

FREQUENCY KEY		
Frequency	% of Workday	Hours – Based on 8 hour Workday
Not Required (N/R)	0%	0
Rarely (R)	1 – 5%	<25 min/day
Occasionally (O)	6 – 33%	25 min to 2 hours 40 min/day
Frequently (F)	34 – 66%	2 hours 41 min to 5 hours 17 min/day
Constantly (C)	67 – 100%	5 hours 18 min to 8 hours/day

*\*Frequency Key based on WCB Alberta Recommendations*

Job Demand	Frequency / NOC Strength Level					Details/ Measurements
	N/R	R	O	F	C	
Material Handling:						
Floor to Waist Level Lifting			H	L		Lifting plywood (66 lbs.) and materials from floor onto workstation table, lifting various tools and equipment during set up and clean up, throughout site as required, lifting grinders (5 lbs.), chop saw (27 lbs.), circular saw (13 lbs.), nail gun and case (3/13 lbs.), etc. throughout shift during cutting, grinding, assembly, installation and demolition phases.
Knee to Waist Level Lifting			H	L		Lifting plywood (66 lbs.) and materials onto workstation table, lifting various tools and equipment during set up and clean up, throughout site as required, lifting grinders (5 lbs.), chop saw (27 lbs.), circular saw (13 lbs.), nail gun and case (3/13 lbs.), etc. throughout shift during cutting, grinding, assembly, installation and demolition phases.
Waist to Waist Level Lifting			H	L		Lifting plywood (66 lbs.) and materials from truck to cart/workstation table, lifting various tools and equipment during set up and clean up, throughout site as required, lifting grinders (5 lbs.), chop saw (27 lbs.), circular saw (13 lbs.), nail gun and case (3/13 lbs.), etc. throughout shift during cutting, grinding, assembly, installation and demolition phases.
Waist to Chest Level Lifting			M	L		Lifting plywood (66 lbs.) during installation/demolition phases, lifting various tools and equipment during set up and clean up, throughout site as required, lifting grinders (5 lbs.), various saws, nail gun and case (3/13 lbs.), etc. throughout shift during cutting, grinding, assembly, installation and demolition phases at higher levels.

<b>Waist to Shoulder Level Lifting</b>		M	L			Lifting plywood (66 lbs.) during installation/demolition phases, lifting various tools and equipment during set up and clean up, throughout site as required, lifting grinders (5 lbs.), various saws, nail gun and case (3/13 lbs.), etc. throughout shift during cutting, grinding, assembly, installation and demolition phases at higher levels.
<b>Waist to Overhead Level Lifting</b>		M	L			Lifting plywood (66 lbs.) during installation/demolition phases, lifting various tools and equipment during set up and clean up, throughout site as required, lifting grinders (5 lbs.), various saws, nail gun and case (3/13 lbs.), etc. throughout shift during cutting, grinding, assembly, installation and demolition phases at higher levels.
<b>Front Carry</b>		H				Carrying plywood (66 lbs.), various materials and tools/equipment during set up and clean up, throughout site as required during all phases.
<b>Right / Left-handed Carry (Dominant Hand)</b>		H	M			Carrying various materials, tools and equipment including circular saw (13 lbs.), extension cords (up to 15 lbs.), grinders (5 lbs.), nail gun and case (13 lbs.) during set up and clean up, various phases (assembly, installation, demolition).
<b>Shoulder Carry</b>		L				Carrying 2 x 4 studs, extension cords (up to 15 lbs.), etc.
<b>Static Pushing/Pulling (Force)</b>		H				Sheeting a wall, form work aligning, etc.
<b>Dynamic Pushing/Pulling (Force)</b>			H	L		Pushing workstation table (43 lbs. of force), pushing vacuum, pushing plywood on cart (33 lbs.), pushing various materials through table saw (55 lbs. of force), pushing various equipment to cut/assemble/install materials (grinder, various saws, etc.), pushing hammer, flat bar and other hand tools, pushing wheelbarrow, pallet jacks.

\*It is recommended that anything greater than 50 lbs., the worker use assistive equipment or use a 2 person lifting method.

Job Demand	Frequency					Details/Measurements
	N/R	R	O	F	C	
Upper Extremity Work:						
Hand Gripping					X	Gripping power/hand tools, during material handling tasks (listed above), during cutting, grinding, assembly, installation and demolition phases.
Pinch Gripping			X			When completing backing tasks, using pen/pencil while completing measurements, picking up or using drill bits and nails, etc.
Upper Extremity Coordination					X	Using power/hand tools, during material handling tasks (listed above), during cutting, grinding, assembly, installation and demolition phases.
Reaching Forward				X		Using table and circular saw, during assembly and installation tasks, retrieving materials including plywood, etc.
Overhead Shoulder Level Reaching			X			Reaching to place plywood down on floor/cart, setting up/cleaning higher levels of work station on site, working at/above shoulder height on ladders/scaffoldings during installation and demolition, etc.
Below Shoulder Level Reaching				X		Using power/hand tools at workstation or during installation and demolition, setting up/cleaning lower levels of work station on site, working below shoulder during cutting, grinding, assembly, installation and demolition tasks.
Throwing		X				Throwing rope when hoisting.

Job Demand	Frequency					Details/Measurements
	N/R	R	O	F	C	
Positional Work:						
Trunk Flexion (Bending)				X		Using equipment and tools (circular saw, hammer, level) on lower level surfaces, working on below waist levels, framing wall, during installation and demolition phases, set up and clean up as required.
Trunk Rotation (Twisting)			X			During assembly, installation and demolition phases, working in awkward and confined spaces, set up and clean up as required.

<b>Kneeling</b>			X			Working on lower level work spaces during installation and demolition as required, installing lumber, working in awkward and confined spaces.
<b>Crawling</b>			X			Working on lower level work spaces during installation and demolition as required, installing lumber, working in awkward and confined spaces.
<b>Crouching</b>			X			Working on lower level work spaces during installation and demolition as required, installing lumber, working in awkward and confined spaces.
<b>Squatting</b>			X			Working on lower level work spaces during installation and demolition as required, working in awkward spaces.
<b>Neck Flexion</b>				X		During cutting, grinding, assembly, installation and demolition phases, completing measurements, during set up and clean up, checking surroundings at work site, etc.
<b>Neck Extension</b>			X			During assembly, installation and demolition phases at higher levels, completing measurements at higher levels, during set up and clean up, checking surroundings at work site, etc.
<b>Neck Rotation</b>				X		During cutting, grinding, assembly, installation and demolition phases, completing measurements, during set up and clean up, checking surroundings at work site, etc.

Job Demand	Frequency					Details/Measurements
	N/R	R	O	F	C	
Static Work:						
Sitting			X			During breaks, working on ground level areas.
Static Standing				X		While using equipment and tools, during cutting, grinding, assembly, installation and demolition phases, during task/site planning.
Balancing				X		Throughout site (indoors/outdoors) and while using ladders.

Job Demand	Frequency					Details/Measurements
	N/R	R	O	F	C	
Ambulation:						
Walking: Level Surfaces				X		Walking throughout side (indoors/outdoors); frequency depending on progress of site (beginning vs. finishing stages).
Walking: Uneven Surfaces			X			Walking throughout side (indoors/outdoors); frequency depending on progress of site (beginning vs. finishing stages).
Walking: Slopes		X				Dependent on site (outdoors).
Jumping	X					Not required.
Running	X					Not required.

Job Demand	Frequency					Details/Measurements
	N/R	R	O	F	C	
Climbing:						
Stairs		X				Throughout site to access various levels.
Ladder			X			While working on higher level areas including ceiling and roof work.
Other		X				Accessing scissor lifts, scaffolds.



**PHOTOS OF TASKS AND WORK ENVIRONMENT**

**Figure 1: Cutting a piece of cherry plywood using a table saw.**



**Figure 2: Applying finish to cherry plywood.**



If you have any questions, and/or would like to discuss this assessment and report further, I can be reached at (780) 429-4761.

Sincerely,

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**Joanna Ellingson, BKin**  
**Kinesiologist**

**SITE SPECIFIC JOB DEMAND ADDITIONS:**

Job Demand	Frequency					Details/Measurements
	N/R	R	O	F	C	
Site Specific Job Demand:						
Vibration				X		While using power/hand tools during cutting, grinding, assembly, installation and demolition phases.
Writing			X			During measurements and completing Daily Pre-Task Hazard Analysis.

### Validation Agreement

<b>Job Title:</b>	Journeyman Carpenter
<b>Data Collection Date:</b>	September 23, 2020

We the undersigned have reviewed the Physical Demands Analysis for this position and agree that the physical demands documented in this report are representative of the true demands of the tasks associated with the job title as assessed on the date listed above.

<b>Completed by:</b>	Joanna Ellingson, BKin	Lifemark Clinician Name and Credentials
<b>Approved by:</b>		Management Representative
<b>Approved by:</b>		Worker Representative
<b>Approved by:</b>		Labour Provider Representative