## PHYSICAL DEMANDS DESCRIPTION (PDD)

|                        | June 16, 200       |                    |               |            |       |          |        |   | nalyst Je                         | nnifer Yorke B. Sc. (Hons Kin)  |  |
|------------------------|--------------------|--------------------|---------------|------------|-------|----------|--------|---|-----------------------------------|---|--|
| Depa                   | artment Hig        | h Rise Residential |               |            | J     | lob Tit  | le Ele | ctrician  |                                   | Company Nortown Electric  |  |
| j                      |                    |                    |               | *FREQUENCY |       |          |        | LOAD<br>(object/tool)   |                                   |   |  |
|                        | PHYSICAI           | L DEMANDS          | Not Component | Seldom     | Minor | Required | Major  | Maximum<br>(Kg)   | Usual (Kg)                        | COMMENTS  |  |
| STRENGTH               | Lifting            |                    |               |            | X     |          |        | 20  | 5                                 | Lifting materials off floor; Loads above 23 Kg lifted by 2 workers                |  |
|                        | Carrying           |                    |               |            |       |          | Х      | 20  | 5                                 | A tool belt is worn to carry tools – hammer drill (approx. 5Kg); carrying conduit |  |
|                        | Pushing            |                    |               |            | X     |          |        |   |                                   | Pushing conduit into plastic casings  |  |
|                        | Pulling            |                    |               |            |       | Х        |        |   |                                   | Wire pulling through conduit  |  |
|                        | Handling           |                    |               |            |       |          | Х      | 20  | 1.5                               | Materials and tools handling (eg. Cordless drill)                                 |  |
| Æ                      | Throwing           |                    | X             |            |       |          |        |   |                                   |   |  |
| $\mathbf{S}\mathbf{I}$ | Gripping           | Power Grasp        |               |            |       | X        |        |   |                                   | Drilling; Tying conduit to rebar  |  |
|                        |                    | Pinch Grasp        |               |            |       | X        |        |   |                                   | Gripping wires; picking up small materials  |  |
|                        | Reaching           | Above Shoulder     |               |            |       | X        |        |   |                                   | Overhead work   |  |
|                        |                    | Below Shoulder     |               |            | X     |          |        |   |                                   | Plug installations; wire pulling  |  |
|                        |                    | To the Side        |               |            | X     |          |        |   |                                   | Awkward positions during overhead installations                                   |  |
|                        | Shoulder Abduction |                    |               | X          |       |          |        |   |                                   |   |  |
|                        |                    | Flexion            |               |            |       | X        |        | Overhead work; Wire pulling                                   |                                   |   |  |
|                        | Hip                | Abduction          |               |            | X     |          |        | Used for  | Used for balance during slab work |   |  |
|                        |                    | Flexion/Extension  |               | X          |       |          |        |   |                                   |   |  |
| 7.0                    | Wrist              | Radial/Ulnar Devn  |               |            |       | X        |        | Conduit tying; hammer use                                     |                                   |   |  |
| Ä                      |                    | Pronate/Supinate   |               |            | X     |          |        | Screwdriver use   |                                   |   |  |
| POSTURES               | Trunk              | Flexion            |               |            |       |          | X      | Slab work (attaching conduit to rebar), installation of plugs |                                   |   |  |
| $\mathbf{S}\mathbf{I}$ |                    | Extension          |               |            | X     |          |        | Overhead work; ladder work                                    |                                   |   |  |
| 2                      |                    | Side Bend          |               |            | X     |          |        | Overhead work; ladder work                                    |                                   |   |  |
|                        |                    | Twist              |               |            | X     |          |        |   | ,                                 | ndder work  |  |
|                        |                    | Flexion            |               |            |       |          | X      |   |                                   | ng plugs & low level work   |  |
|                        | Neck               | Extension          |               |            |       | X        |        | Overhead installation of conduit, lighting fixtures           |                                   |   |  |
|                        |                    | Side Bend          |               | X          |       |          |        |   |                                   |   |  |
|                        |                    | Twist              |               | X          |       |          |        |   |                                   |   |  |
|                        | Sitting            |                    | X             |            |       |          |        | Work is   | performe                          | d standing, crouching or kneeling   |  |
|                        | Standing           |                    |               |            |       |          | X      |   |                                   |   |  |
|                        | Walking            |                    |               |            |       |          | X      |   |                                   |   |  |
| 7                      | Climbing           |                    |               |            |       | X        |        | Climbin   | g stairs &                        | ladders   |  |
| E.                     |                    |                    | X             |            |       |          |        |   |                                   |   |  |
| MOBILITY               | Crouching          |                    |               |            | X     |          |        | Putting in plug fixtures; low level finishing                 |                                   |   |  |
| 10                     | Kneeling           |                    |               |            | X     |          |        |   | Installation of plugs             |   |  |
| $\mathbf{Z}$           | Balancing          |                    |               |            |       |          | X      | Ladder use, carrying things up stairs, uneven terrain on slab |                                   |   |  |
|                        | Foot               | One Foot           |               |            |       | X        |        | Kneeling & slab work  |                                   |   |  |
|                        | Action             | Feet               |               |            |       |          | X      |   |                                   |   |  |
|                        | Fine Finger        | r Movements        |               |            |       | X        |        | Selection   | n & insert                        | ion of wire into switches, plugs, etc.  |  |

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REQUIRED = Frequent Repetition for 25%-50% of job MAJOR = Frequent Repetition for more than 50% of job

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| PHYSICAL DEMANDS   |                                |                        |                  | *FREQUENCY |       |          |       |   |
|--------------------|--------------------------------|------------------------|------------------|------------|-------|----------|-------|---|
|                    |                                |                        | Not<br>Component | Seldom     | Minor | Required | Major | COMMENTS  |
| SENSORY/PERCEPTUAL | Hearing                        | Conversations          |                  |            | Х     |          |       | During initial organization & to organize fixture & conduit layout                          |
|                    |                                | Other Sounds           |                  |            | Х     |          |       | Sound of overheard crane movement; emergency alarms   |
|                    | Vision                         | Far                    |                  |            |       | X        |       | Past 5 feet; seeing potential obstacles, conduit layout                                     |
|                    |                                | Near                   |                  |            |       |          | X     | Rough-in & finishing of fixtures; conduit installation                                      |
|                    |                                | Colour                 |                  |            |       | X        |       | Used in installation of plugs/switches, wire identification                                 |
|                    |                                | Depth                  |                  |            |       | Х        |       | Used in installation of plugs, switches & lighting fixtures                                 |
|                    | Perception                     | Spatial – organization |                  |            |       | X        |       | Conduit & fixture layout during slab work   |
|                    |                                | Form - recognition     |                  |            |       | Х        |       | Distinguishing plug fixtures from switch fixtures, etc.                                     |
|                    | Feeling                        |                        |                  |            |       |          | Х     |   |
|                    | Reading                        |                        |                  |            | X     |          |       | Initial layout of fixtures during slab  |
| SE                 | Writing                        |                        |                  | X          |       |          |       | Used to mark out layout of fixtures during slab   |
| •1                 | Keying/Typing                  |                        | Х                |            |       |          |       |   |
|                    | Speech                         |                        |                  |            | X     |          |       | Communicating work accomplished and work to be done   |
|                    | Outside Work                   |                        |                  |            |       | X        |       | Slab work & work on unfinished floors   |
|                    | Hot                            |                        |                  | Х          |       |          |       | Average max. temp. (for the GTA) in July is 29C. Work continues during hot weather.         |
|                    | Cold                           |                        |                  | Х          |       |          |       | Work continues during the winter months – extreme cold limits ability to work               |
|                    | Humid                          |                        |                  |            | Х     |          |       | Usually the weather is humid during the summer months – work continues during humid weather |
| WORK ENVIRONMENT   | Dry                            |                        |                  |            |       |          | Х     | Outdoor slab work stops during heavy rain; work mostly in dry weather/environments          |
| Œ                  | Dust                           |                        |                  |            |       |          | X     | Construction site; drywall dust   |
| Ź                  | Vapour Fumes                   |                        |                  |            | Х     |          |       | Oil spray used during slab work, paint  |
| <b>O</b>           | Noise                          |                        |                  |            |       |          | Х     | Construction equipment, drilling, sawing, crane movement                                    |
| VII                | Vibration                      | Whole Body             | X                |            |       |          |       |   |
| Z                  |                                | Upper Extremity        |                  |            | X     |          |       | Drilling  |
| ₹<br>E             | Contact Stress                 |                        |                  |            |       | X        |       | Drilling, wire pulling, etc.  |
| )R]                | Striking with Hand/Fist        |                        | X                |            |       |          |       | Striking is accomplished with hand tools (eg. Hammer)                                       |
| MC                 | Moving Objects                 |                        |                  |            |       | X        |       |   |
|                    | Hazardous Machines             |                        | X                |            |       |          |       | Tools used are safe with proper protocol  |
|                    | Electrical                     |                        |                  |            |       |          | X     |   |
|                    | Sharp Tools                    |                        |                  |            | X     |          |       | Conduit cutters   |
|                    | Radiant/Thermal Energy         |                        | X                |            |       |          |       |   |
|                    | Slippery                       |                        |                  | X          |       |          |       | The slab can become slippery when it rains  |
|                    | Congested Worksite             |                        |                  |            |       |          | X     |   |
|                    | Chemical Irritants             |                        | X                |            |       |          |       |   |
|                    | Works Independent but in Group |                        |                  |            |       |          | X     | Work is primarily in at least groups of 2   |
| CONDITIONS         | Operate Equipment/Machinery    |                        |                  |            |       | X        |       | Drills  |
| TIC                | Machine Paced                  |                        |                  |            | X     |          |       | Depends on work rate of other trades (eg. Iron workers)                                     |
| Į (į               | Production Quotas              |                        |                  |            |       |          | X     | Work must be done in a specific timeframe   |
| CO                 | Deadline Pressures             |                        |                  |            | X     |          |       | Fairly quick, continuous work rate  |
|                    | Irregular/Ex                   | tended Hours           |                  | X          |       |          |       |   |
|                    |                                |                        |                  |            | *FRE  | QUEN     | NCY   |   |

**Prepared by:** Jennifer Yorke B. Sc. (Hon. Kin.)

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Supervised by: Syed Naqvi, PhD, CCPE (Ergonomist, OHCOW Inc.) & Gary Majesky (IBEW L.U. 353)

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