



NEW SERVICE BACKBOARD ON POLE PO
SCALE: 1:20

BACKBOARD STRUCTURAL DETAIL
SCALE: 1:20

- NOTES:
- NEW PVC CONDUIT AND 'LL' ACCESS FITTING, SIZED AS PER EXISTING
 - NEW TECK CABLE AND LIQUID TIGHT TECK CONNECTORS, SIZED TO SUIT EXISTING RECEPTACLES.
 - NEW LIGHTING CONTACTOR AND PHOTO CELL TO REPLACE NSPI LIGHTING DISCONNECT SWITCH FOR CONTROL OF NEW WHARF LIGHTS.
 - ALL SPARE CONDUITS TO BE STUBBED UP 150mm A.F.G. AND CAPPED c/w NYLON PULL CORD.

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|-------|---------|----------|--------------------|---------------------|-------------|
| VOLTS | 120/240 | PANEL | PANEL A (EXISTING) | TYPE | 1 |
| PHASE | 1 | LOCATION | WHARF | MAINS | 250 AMPS |
| WIRE | 3 | FED FROM | NSPI TRANSFORMER | MAIN BREAKER | 200 AMPS |
| | | | | BRANCH BREAKER I.C. | 10KA MTG. S |

| DESIGNATION | KW | | WIRE SIZE | CIR NO. | BKR | A | | B | | DESIGNATION |
|--|-------|-------|-----------|---------|-----|---|---|---|--|-------------------------------------|
| | A | B | | | | A | B | | | |
| SPACE | | | | 1 | | | | | | SPACE |
| SPACE | | | | 3 | | | | | | SPACE |
| SPACE | | | | 5 | | | | | | SPACE |
| SPACE | | | | 7 | | | | | | SPACE |
| SPACE | | | | 9 | | | | | | SPACE |
| 1/4 20A TL RECEPTACLE @ NEW PP3 | | 1.92 | 12/4/12 | 11 | 20A | | | | | 20A TL RECEPTACLE @ POLE P3 |
| 3. 30A TL RECEPTACLE @ POLE P2 | 2.88 | | | 13 | 30A | | | | | 30A TL RECEPTACLE @ POLE P2 |
| 2. WHARF LIGHTING | | 1.176 | 12 | 15 | 15A | | | | | WHARF LIGHTING |
| 2. FLOATING DOCK LIGHTING | 0.708 | | 12 | 17 | 15A | | | | | FLOATING DOCK LIGHTING |
| 3. 20A TL RECEPTACLE @ PP1 | | 1.92 | | 19 | 20A | | | | | 20A TL RECEPTACLE @ PP1 |
| 3. 20A TL RECEPTACLE @ PP2 | | 1.92 | | 21 | 20A | | | | | 20A TL RECEPTACLE @ PP2 |
| 3. 20A DUPEX GFCI RECEPTACLE @ DERRICK | | 1.92 | | 23 | 20A | | | | | 20A DUPEX GFCI RECEPTACLE @ DERRICK |
| 3. 20A TL RECEPTACLE @ PANEL | | 1.92 | | 25 | 20A | | | | | 20A TL RECEPTACLE @ PANEL |
| 3. 30A TL RECEPTACLE @ PANEL | | 2.88 | | 27 | 30A | | | | | 30A TL RECEPTACLE @ PANEL |
| 3. DERRICK | | 1.194 | | 29 | 2P | | | | | DERRICK |
| | | | | 31 | 30A | | | | | |

NOTES:

- SUPPLY AND INSTALL NEW 1P,20A BREAKER IN EXISTING SPACE.
- REMOVE EXISTING 1P,20A BREAKER. SUPPLY AND INSTALL NEW 1P,15A BREAKER.
- EXISTING BREAKER FEEDING AN EXISTING LOAD.
- CIRCUIT CONDUCTORS TO INCREASE IN SIZE TO ALLOW FOR VOLTAGE DROP

FEEDER EXISTING

⊕ "A" TOTAL 14.121 KW
⊕ "B" TOTAL 15.837 KW

TOTAL LOAD 29.958 KW 124.825 AMPS @ 240V

LOAD CALCULATION (DEMAND)

- RECEPTACLE LOAD (CEC 78-056)
 - 2 - 120V, 30 AMP TWIST LOCK RECEPTACLES - EXISTING = 4.800 kW
 - 6 - 120V, 20 AMP TWIST LOCK RECEPTACLES - EXISTING = 6.240 kW
 - 1 - 120V, 20 AMP TWIST LOCK RECEPTACLE - NEW = 1.200 kW
 - 4 - 120V, 20 AMP GFCI DUPEX RECEPTACLES - EXISTING = 4.800 kW
 - SUBTOTAL = 17.040 kW
- WHARF LIGHTING
 - 7 - 168 WATT AREA LIGHTS = 5 x 168 = 1.176kW
 - 4 - 177 WATT FLOOD LIGHTS = 4 x 177 = 0.708 kW
 - SUBTOTAL = 1.884 kW
- DERRICK (NON-CONTINUOUS LOAD)
 - 1 x 2.0HP x 746W = 1.492 kW x 80% = 1.194 kW
 - SUBTOTAL = 1.194 kW
- LIGHTING CONTACTOR = 0.500kW

TOTAL LOAD = 24.240 kW
1.884 kW
1.194 kW
0.500 kW
27.818 kW

TOTAL = 27.818 kW @ 240 VOLTS x 1.25 = 34.7725 kVA
SERVICE LOADING = 34.7725 kVA/240 VOLTS = 144.8854 AMPS

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|---|---------------------------------|---------------|
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| WHARF EXTENSION | | |
| EASTERN PASSAGE HALIFAX COUNTY NOVA SCOTIA | | |
| drawing | | dessin |
| MAIN SERVICE DETAILS AND PANEL SCHEDULE | | |
| designed | G. BOWSER | conçu |
| date | MARCH 2017 | |
| drawn | K. WOLFE | dessiné |
| date | MARCH 2017 | |
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