| Halswell Road | Construction | | | | | | | | | | | |
|------------------------------------------|---------------------------------------------------------------------------------|------------------------------------------|----------------------------------------------|--|--|--|--|--|--|--|--|--|
| Para Jamas | Construction: 2023-2025 | | | | | | | | | | | |
| Bus lanes | New bus lanes, road widening, traffic light upgrades, new shared path/footpaths | | | | | | | | | | | |
| | Units | Emissions Factor Unit | Sources and notes | | | | | | | | | |
| Do Intervention | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| Material Quantities Estimate | | | / | | | | | | | | | |
| Construction Final Lan | | | | | | | | | | | | |
| Construction Fuel Use Diesel | 70,620 L | 0.0027 tCO2e/L | MfE 2020 | | | | | | | | | |
| | | | | | | | | | | | | |
| Construction Materials Concrete | 141 tonnes | 0.11 tCO2e/tonne | AECOM derived factor (See assumptions below) | | | | | | | | | |
| Steel | 81 tonnes | 2.85 tCO2e/tonne | MfE 2020 | | | | | | | | | |
| | | | | | | | | | | | | |
| Road Surface | 40000 | 0.0022 4002-4 | IS Calculator NZ v2.0 | | | | | | | | | |
| Crushed rock or recycled material Gravel | - tonnes | 0.0032 tCO2e/tonne 0.0182 tCO2e/tonne | IS Calculator NZ v2.0 | | | | | | | | | |
| Bitumen | - tonnes | 0.3966 tCO2e/tonne | IS Calculator NZ v2.0 | | | | | | | | | |
| | | | | | | | | | | | | |
| Asphalt | 15,097 tonnes | 0.0542 tCO2e/tonne | IS Calculator NZ v2.0 | | | | | | | | | |
| Project Breakdown Total | 1,255 tonnes of CO2e | | | | | | | | | | | |
| | | | | | | | | | | | | |
| Calculated Emissions | | 16 18 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 | | | | | | | | | | |
| Best estimate of calculated emissions | 1,255 tonnes of CO2e | "IN" WI | | | | | | | | | | |
| | | 11 6 12 | | | | | | | | | | |

Assumptions

Emissions for construction have been calculated from data provided by Waka Kotahi for this project. When possible assumptions have been made in a consistent manner to ensure comparability between projects. Refer to construction schedule worksheet for indicative schedule of quantities of concrete, steel, aggregates, gravels and fuels used during construction.

Based on previous research for Waka Kotahi, only emissions from the largest emission sources from construction of infrastructure projects have been estimated (concrete, steel, aggregates, asphalt, and on-site fuel Materials and works related to bridge abutments have been included where relevant

Fuel used in the construction is assumed to be 2 litres of diesel for every m3 of earth works (AECOM derived fuel-use ratio).

The following were not included in the estimate: fuel used in quarrying activity; emissions from the transportation of construction materials to/from site.

Emission factors are sourced from MfE's 2020 Guide (see link below) where appropriate, or from the ISCA-IS Calculator v2.0.

https://environment.govt.nz/publications/measuring-emissions-detailed-guide-2020/

The ISCA-IS Calculator v2.0 is available for ISCA members at https://www.isca.org.au/Tools-and-Resources

The emission factor for concrete is based on MfE 2020 and ISCA guidance and is based on a standard concrete mix.

use).

TE MANATO WAYA MINISTRY OF TRANSPORT

| 1.1 Envir 2 Earth 2.1 Site C 2.2 Strip topso 2.3 Sprea 2.4 Cut t Cu Cu Cu 2.6 Form 2.7 Full in 2.8 Tree 3 Grou EXCL 4 Drain 4.1 Supp DN 4.2 Supp Sir Do Strip A.3 Storm 1.1 2.2 4.3 Storm 1.2 4.4 Cont 4.5 Soft F 4.6 Conn 10 Wi 4.7 De 4.8 Wate Wa | ironmental Compliance | LS LS m3 m3 m3 m3 m3 m4 m5 m6 m m m m each each each each each each | Quantity 1 1 0 0 0 3355 10020 EXCLUDED 590 3000 1 91 680 0 15 8 6 20 | Concrete t or m3 12.74 t 95.2 t | 3.458 t 25.84 t | Asphalt t or m3 | Aggregates t or m3 | 6710 20040 1180 1500 | N/A N/A N/A 0 value 0 value 0 value 0 value 21/m3 earthworks 21/m3 earthworks 21/m3 earthworks 21/m3 earthworks N/A Calculation provided by AECOM quantity surveyor |
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| 1.1 Envir 2 Earth 2.1 Site C 2.2 Strip topso 2.3 Spree 2.4 Cut t Cu Cu Cu 2.6 Form 2.7 Full in 2.8 Tree 3 Grou EXCL 4 Drair 4.1 Supp DN 4.2 Supp Sir Do Strip Mo Mo Tr 2.2 4.3 Storm 2.2 4.4 Soft F 4.6 Conn 10 Wi 4.7 De 4.8 Wate Wa | ronmental Compliance hworks Clearance topsoil, screen, stockpile and remove tailings and unsuitable to its waste and topsoil from stockpile or imported to fill to waste offsite tut to waste offsite tut to waste bituminous material tut to waste clean fill tut to waste contaminated land (RISK ITEM) mation Filling import of 250 mm topsoil Protection und Improvements LUDED image ply and install pipes in 255 pipe (including backfill) in 1050 Pipe (including backfill) ply and install drainage structures ingle sump (to detail SD 325) with grate and frame (to SD 301/5) tructures - DN1800 manholes todification of Existing Sumps todification of Existing Sumps todification of Existing Wastewater Manhole reatment Filterra units (tree pits) Local connections to treatment mwater Pipe Removal 25 mm diameter RCRRJ Pipe (concrete surrounded) memoval of Existing Structures (900x 900 MH and smaller) ironmental Compensation along the lines of Development tributions rates Raft Foundation nection to Kerb (2m stub pipe Lateral) | m3 m3 m3 m3 m3 m3 m4 m3 m4 m2 LS | 1 0 0 0 3355 10020 EXCLUDED 590 3000 1 | 95.2 t | | | | 6710 20040 1180 1500 | N/A 0 value 0 value 0 value 0 value 2l/m3 earthworks 2l/m3 earthworks 2l/m3 earthworks 2l/m3 earthworks N/A Calculation provided by AECOM quantity surveyor |
| 2.1 Site C 2.2 Strip topsc 2.3 Sprea 2.4 Cut to Cu | Clearance to topsoil, screen, stockpile and remove tailings and unsuitable to waste and topsoil from stockpile or imported to fill to waste offsite tut to waste bituminous material tut to waste clean fill tut to waste contaminated land (RISK ITEM) mation Filling import of 250 mm topsoil to Protection und Improvements LUDED inage ply and install pipes inage ply and install drainage structures ingle sump (to detail SD 325) with grate and frame (to SD 301/5) tructures - DN 1800 manholes lodification of Existing Sumps lodification of Existing Wastewater Manhole reatment Filterra units (tree pits) Local connections to treatment mwater Pipe Removal 25 mm diameter RCRRJ Pipe (concrete surrounded) emoval of Existing Structures (900x 900 MH and smaller) irromental Compensation along the lines of Development tributions rates Raft Foundation nection to Kerb (2m stub pipe Lateral) | m3 m3 m3 m3 m3 m3 m3 m4 m2 LS | 0 0 0 0 3355 10020 EXCLUDED 590 3000 1 | 95.2 t | | | | 6710 20040 1180 1500 | 0 value 0 value 0 value 0 value 2l/m3 earthworks 2l/m3 earthworks 2l/m3 earthworks 2l/m3 earthworks N/A Calculation provided by AECOM quantity surveyor |
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| 2.6 Form 2.7 Full in 2.8 Tree 3 Grou EXCL 4 Drain 4.1 Supp DN 4.2 Supp Sin Do Sti Min Mo Tr 22 4.3 Storm 22 4.4 Soft F 4.6 Conn 10 Wi 4.7 De 4.8 Wate Wa | int to waste contaminated land (RISK ITEM) mation Filling import of 250 mm topsoil Protection und Improvements LUDED inage ply and install pipes IN 225 pipe (including backfill) IN 1050 Pipe (including backfill) ply and install drainage structures ingle sump (to detail SD 325) with grate and frame (to SD 301/5) rouble sump (to detail SD 325) with grate (to SD 301/5) tructures - DN1800 manholes Indification of Existing Sumps Indification of Existing Wastewater Manhole reatment Filterra units (tree pits) Local connections to treatment mwater Pipe Removal 25 mm diameter RCRRJ Pipe (concrete surrounded) emoval of Existing Structures (900x 900 MH and smaller) rommental Compensation along the lines of Development tributions rates Raft Foundation nection to Kerb (2m stub pipe Lateral) | m3 m2 LS m m m m each each each each each | 91 680 0 15 8 6 | 95.2 t | | | | 20040 1180 1500 | 2I/m3 earthworks 2I/m3 earthworks 2I/m3 earthworks N/A Calculation provided by AECOM quantity surveyor |
| 2.6 Form 2.7 Full in 2.8 Tree 3 Grou EXCL 4 Drain 4.1 Supp DN 4.2 Supp Sir Do Str Mo Mo Tr 6.1 6.2 4.3 Storm 22 4.3 Storm 10 4.5 Soft F 4.6 Conn 10 Wi 4.7 De 4.8 Wate Wa | mation Filling import of 250 mm topsoil Protection und Improvements LUDED inage ply and install pipes in225 pipe (including backfill) ply and install drainage structures ingle sump (to detail SD 325) with grate and frame (to SD 301/5) puble sump (to detail SD 325) with grate (to SD 301/5) tructures - DN1800 manholes lodification of Existing Sumps lodification of Existing Wastewater Manhole reatment Filterra units (tree pits) Local connections to treatment mwater Pipe Removal 25 mm diameter RCRRJ Pipe (concrete surrounded) emoval of Existing Structures (900x 900 MH and smaller) irronmental Compensation along the lines of Development tributions rates Raft Foundation nection to Kerb (2m stub pipe Lateral) | m2 LS m m m each each each each each each | 590 3000 1 1 91 680 0 15 8 | 95.2 t | | | | 1500 l | 2l/m3 earthworks N/A Calculation provided by AECOM quantity surveyor |
| 2.8 Tree 3 Grou EXCL 4 Drain 4.1 Supp DN 4.2 Supp Sir Do Str Mo Tr 2.2 4.3 Storn 2.2 4.4 Conn 10 Wi 4.7 De 4.8 Wate Wa | und Improvements LUDED inage ply and install pipes in225 pipe (including backfill) in1050 Pipe (including backfill) ply and install drainage structures ingle sump (to detail SD 325) with grate and frame (to SD 301/5) inuble sump (to detail SD 325) with grate (to SD 301/5) inutuctures - DN1800 manholes Indification of Existing Sumps Indification of Existing Wastewater Manhole ireatment Filterra units (tree pits) Local connections to treatment mwater Pipe Removal 25 mm diameter RCRIJ Pipe (concrete surrounded) emoval of Existing Structures (900x 900 MH and smaller) irronmental Compensation along the lines of Development tributions rates Raft Foundation nection to Kerb (2m stub pipe Lateral) | m m each each each each each each | 91 680 0 15 8 | 95.2 t | | | | | N/A Calculation provided by AECOM quantity surveyor |
| ## EXCL ## Drain ## Drai | inage ply and install pipes PN225 pipe (including backfill) PN1050 Pipe (including backfill) ply and install drainage structures ingle sump (to detail SD 325) with grate and frame (to SD 301/5) POUDLE sump (to detail SD 325) with grate (to SD 301/5) PUTUCTURES - DN1800 manholes Indification of Existing Sumps Indification of Existing Wastewater Manhole PRETAIL TO SET T | m each each each each each each | 0 15 8 6 | 95.2 t | | | | | |
| ## EXCL ## Drain ## Drai | inage ply and install pipes PN225 pipe (including backfill) PN1050 Pipe (including backfill) ply and install drainage structures ingle sump (to detail SD 325) with grate and frame (to SD 301/5) POUDLE sump (to detail SD 325) with grate (to SD 301/5) PUTUCTURES - DN1800 manholes Indification of Existing Sumps Indification of Existing Wastewater Manhole PRETAIL TO SET T | m each each each each each each | 0 15 8 6 | 95.2 t | | | | | |
| 4.1 Supp DN 4.2 Supp Sir Dc Str Mc Tr 1.1 1.2 4.3 Storn 22 4.4 Envir Contr 4.5 Soft F 4.6 Conn 10 Wi 4.7 De 4.8 Wate Wa | ply and install pipes N225 pipe (including backfill) N1050 Pipe (including backfill) ply and install drainage structures ingle sump (to detail SD 325) with grate and frame (to SD 301/5) pouble sump (to detail SD 325) with grate (to SD 301/5) tructures - DN1800 manholes lodification of Existing Sumps lodification of Existing Wastewater Manhole reatment Filterra units (tree pits) Local connections to treatment mwater Pipe Removal 25 mm diameter RCRRJ Pipe (concrete surrounded) memoval of Existing Structures (900x 900 MH and smaller) irronmental Compensation along the lines of Development tributions rates Raft Foundation nection to Kerb (2m stub pipe Lateral) | m each each each each each each | 0 15 8 6 | 95.2 t | | | | | |
| 4.1 Supp DN 4.2 Supp Sir Dc Str Mc Tr 1.1 1.2 4.3 Storn 22 4.4 Envir Contr 4.5 Soft F 4.6 Conn 10 Wi 4.7 De 4.8 Wate Wa | ply and install pipes N225 pipe (including backfill) N1050 Pipe (including backfill) ply and install drainage structures ingle sump (to detail SD 325) with grate and frame (to SD 301/5) pouble sump (to detail SD 325) with grate (to SD 301/5) tructures - DN1800 manholes lodification of Existing Sumps lodification of Existing Wastewater Manhole reatment Filterra units (tree pits) Local connections to treatment mwater Pipe Removal 25 mm diameter RCRRJ Pipe (concrete surrounded) memoval of Existing Structures (900x 900 MH and smaller) irronmental Compensation along the lines of Development tributions rates Raft Foundation nection to Kerb (2m stub pipe Lateral) | m each each each each each each | 0 15 8 6 | 95.2 t | | | | | |
| 4.2 Supp Sir Do Str Mo Mo Tr 22 4.3 Storn 22 4.4 Envir Contr 4.5 Soft F 4.6 Conn 10 Wi 4.7 De 4.8 Wate | IN 1225 pipe (including backfill) IN 1050 Pipe (in | m each each each each each each | 0 15 8 6 | 95.2 t | | | | | |
| 4.2 Supp Sir Do Str Mo Mo Tr 2.2 4.3 Storn 2.2 4.4 Conn 10 Wi 4.7 De 4.8 Wate Wa | ply and install drainage structures ingle sump (to detail SD 325) with grate and frame (to SD 301/5) couble sump (to detail SD 325) with grate (to SD 301/5) tructures - DN1800 manholes lodification of Existing Sumps lodification of Existing Wastewater Manhole reatment Filterra units (tree pits) Local connections to treatment mwater Pipe Removal 25 mm diameter RCRRJ Pipe (concrete surrounded) emoval of Existing Structures (900x 900 MH and smaller) ironmental Compensation along the lines of Development tributions rates Raft Foundation nection to Kerb (2m stub pipe Lateral) | m each each each each each each | 0 15 8 6 | 95.2 t | | | | | 119/07/21 |
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| 1.1 | rection to Kerb (2m stub pipe Lateral) | each each each each each | 15 8 6 | 7.65 t | _ | | | | 19/07/21 |
| Stri Mo Mo Tr Tr 22 4.3 Storn 22 4.4 Envir Contr 4.5 Soft F 4.6 Conn 10 Wi 4.7 De 4.8 Wate Wa | tructures - DN1800 manholes Idodification of Existing Sumps Idodification of Existing Wastewater Manhole Ireatment Filterra units (tree pits) Local connections to treatment Immater Pipe Removal 25 mm diameter RCRRJ Pipe (concrete surrounded) Idenoval of Existing Structures (900x 900 MH and smaller) Ironmental Compensation along the lines of Development Itributions rates Raft Foundation Inection to Kerb (2m stub pipe Lateral) | each each each each | 8 | 7.65 t | | | | | Value 0 Calculation provided by AECOM quantity su veyo |
| ## Mode | Indification of Existing Sumps Indification of Existing Wastewater Manhole Treatment Filterra units (tree pits) Local connections to treatment mwater Pipe Removal 25 mm diameter RCRRJ Pipe (concrete surrounded) memoval of Existing Structures (900x 900 MH and smaller) ironmental Compensation along the lines of Development tributions rates Raft Foundation nection to Kerb (2m stub pipe Lateral) | each each each each | 6 | | 1.35 t | | | | 19/07/21 N/A |
| 4.4 Storm 22 Ree 4.4 Evolution 4.5 Soft F 4.6 Conn 10 Wi 4.7 De 4.8 Wate | reatment Filterra units (tree pits) Local connections to treatment mwater Pipe Removal 25 mm diameter RCRRJ Pipe (concrete surrounded) emoval of Existing Structures (900x 900 MH and smaller) ironmental Compensation along the lines of Development tributions rates Raft Foundation nection to Kerb (2m stub pipe Lateral) | each each | 20 | | | | | | N/A N/A |
| 2 4.3 Storm 22 Re 4.4 Envir Contr 4.5 Soft F 4.6 Conn 10 Wi 4.7 De 4.8 Wate | Local connections to treatment mwater Pipe Removal 25 mm diameter RCRRJ Pipe (concrete surrounded) emoval of Existing Structures (900x 900 MH and smaller) ironmental Compensation along the lines of Development tributions rates Raft Foundation nection to Kerb (2m stub pipe Lateral) | each | | | | | | | |
| 4.4 Envir Control 4.5 Soft F 4.6 Conn 10 Wi 4.7 De 4.8 Wate | 25 mm diameter RCRRJ Pipe (concrete surrounded) emoval of Existing Structures (900x 900 MH and smaller) ironmental Compensation along the lines of Development tributions rates Raft Foundation nection to Kerb (2m stub pipe Lateral) | m | 12 12 | | | | | | Considered imma erial Considered immat rial |
| 4.4 Envir Contu | emoval of Existing Structures (900x 900 MH and smaller) ironmental Compensation along the lines of Development tributions rates Raft Foundation nection to Kerb (2m stub pipe Lateral) | m | | | | | | 1 | Calc lation provided by AECOM quantity surveyo |
| 4.4 Envir Control 4.5 Soft F 4.6 Conn 10 Wi 4.7 De 4.8 Wate | ronmental Compensation along the lines of Development tributions rates Raft Foundation nection to Kerb (2m stub pipe Lateral) | each | 60 | 8.4 t | 2.28 t | | | 1 | 19/07/21 Considered immaterial |
| 4.5 Soft F 4.6 Conn 10 Wi 4.7 De 4.8 Wate Wa | Raft Foundation nection to Kerb (2m stub pipe Lateral) | m2 | 16300 | | | | | 32600 I | Ass med earthworks to be 1m deep and 2l/m3 |
| 4.7 De 4.8 Wate Wa | | m | 680 | | | | | / ~ 7 | Considered immaterial |
| 4.7 De 4.8 Wate | טט וווח טוameter Pipe | aa -t- | 70 | | | | | | Calculation provided by AECOM quantity surveyo |
| 4.7 De 4.8 Wate Wa | · | each each | 70 70 | 7 t | 2.66 t | | | 21 | 19/07/21 N/A |
| Wa Pro | lewatering (Risk Item) | | EXCLUDED | | | | | | |
| Pr | | | | | | | | | Calculation provided by AECOM quantity surveyor |
| | /atermain DN040 roperty Connections | m each | 100 | 10 t | 3.8 t | | 7 / | | 19/07/21 Considered immaterial |
| l l | • | each | 3 | | | | | | Considered immaterial |
| 5 Pave | ement and Surfacing | | | | | | | | |
| | ove existing kerb and channels to dump offsite | m | 2750 | | | . \/ | | | Assumed existing kerb to be 2m wide and 0.5m c 2l/m3 earthworks moved |
| | struct new Kerb and Channel | m | 4350 | | | | | | Counted below |
| 5.3 Medi Ne | lew Mountable Kerb (to detail SD 603). | m | 2000 | | | X | | | |
| 10 | 00 mm infill 00 mm exposed aggregate | m2 m2 | 1350 1350 | | | 202.5 t 202.5 t | | | 1.5t/m3 1.5t/m3 |
| Cons 635 | struct median island nosing (shaping and concrete infill) to SD | each | 7 | | | | | | N/A |
| | dential vehicle crossing cutdowns nmercial vehicle crossing cutdown (inc. concrete beam) | m m | 420 27 | | | | | | N/A N/A |
| | ply, place and compact AP65 sub base ply, place and compact M4 AP40 basecourse | m3 m3 | 4900 2600 | 4 | 4 | 7350 t 39 0 t | | | 1.5t/m3 1.5t/m3 |
| Millin | ply and place AC14 (55 mm nominal depth) ng out existing AC (50 mm depth) and disposal of spoil to | m2 | 17030 | | | 1404.975 t | | | 1.5t/m3 |
| Item) | aining southern side of Urban Section Halswell Road (<i>Provisional</i> 1) ply and place AC14 (55 mm nominal depth) to remaining southern | m2 | 3090 | | | | | 3090 I | 2l/m3 earthworks moved |
| side o | of Urban Section Halswell Road (Provisional Item) tpath Details | m2 | 3090 | | | 254.925 t | | | 1.5t/m3 |
| 1 75 | 5 mm compacted AP40 Basecourse upply and place asphaltic concrete AC5 (20mm) | m2 m2 | 8717 8717 | | | 980.6625 t 261.51 t | | | 1.5t/m3 1.5t/m3 |
| 5.15 3.5 m | m Residential Vehicle Crossing (to detail SD 607) | | | | 10. | | | | |
| | 25 mm compacted AP40 Basecourse upply and place asphaltic concrete DG7 (25mm) | m2 m2 | 2200 2200 | 1, 6 | | 412.5 t 82.5 t | | | 1.5t/m3 1.5t/m3 |
| | nmercial Vehicle Crossing (to detail SD 607) 50 mm compacted AP65 Subbase | m2 | 100 | 1 | | 22.5 t | | | 1.5t/m3 |
| 2 12 | 25 mm compacted AP40 Basecourse upply and place asphaltic concrete DG7 (25mm) | m2 m2 | 100 | | | 18.75 t 3.75 t | | | 1.5t/m3 1.5t/m3 |
| 5.17 Supp | ply and installation of Tactile Pavers | LS LS | 1 | | | 3.73 (| | | N/A N/A |
| 5.18 Supp | ply and installation of Directional Pavers | LS | | | | | | | IN/A |
| | ific Services nanent road marking removal by blasting | LS | | | | | | | N/A |
| 8.2 100 r | mm white edge line | m | 9400 105 | | | | | | N/A N/A |
| 8.4 150 r | mm white continuity line mm double yellow continuous centreline | m m | 45 | | | | | | N/A N/A |
| 8.6 Text | t (stop, give way etc.) | each | 1200 100 75 | | | | | | N/A N/A N/A |
| 8.8 Bus S | Stop Markings | each each | 75 | | | | | | N/A |
| Su | turised Coloured Surfacing upply and apply apple green surfacing for bus lanes (with approved | m ² | 2100 | | | | | | N/A N/A |
| ag | ggregates to attain specified skid resistance). upply and apply apple green lane line for bus lanes | m2 m | 9400 | | | | | | N/A N/A |
| 8.1 Supp | ply and install new traffic signs | each LS | 50 | | | | | | N/A N/A |
| 8.12 New | r Traffic Signals | | 2 | | | | | | N/A N/A |
| Mi | hree leg Midblock crossing (single stage) | ea ea | 2 | | | | | | N/A |
| | our leg more than two lanes in each direction grade Existing Traffic Signals | ea | 1 | | | | | | N/A N/A |
| | our leg (All approaches) Stops Infrastructure | ea | 3 | | | | | | N/A |
| Ne | lew real time display | each | 7 | | | | | | N/A N/A N/A |
| | | each each | 3 2 | | | | | | N/A |
| 9 Sanı | vice Relocations | | | | | | | | N/A N/A |
| | ties identification, potholing and protection | LS | 1 | | | | | | |
| Liaiso | son, coordination, management of service authorities and supply | LS | 1 | | | | | | N/A N/A |
| g.2 facilit | ities/TM etc on quote, service relocations and underground overhead powerlines | LS | 1 | | | | | | N/A N/A |
| 9.4 Stree | et Lights | | | | | | | | Calculation provided by AECOM quantity surveyor |
| | • | each | 55 | | 41.25 t | | | | 19/07/21 |
| Ca | abling | m | 5000 | | | | | | Considered immaterial |
| | dscaping | | | | | | | | |
| | ss areas - hydroseeded love and dispose of existing trees including roots | m2 each | 3000 36 | | | | | | N/A N/A |
| 10.3 Trees | es | each each | 26 14 | | | | | | N/A N/A |
| | dscape Defects Maintenance & Reporting | mth | 24 | | | | | | N/A |
| 11 Traf | fic Management and Temporary Works | | | | | | | | |
| 11.1 Insta | allation and removal. | LS weeks | 1 78 | | | | | | |
| 2 114111 | | | ,,, | | | | | | |
| | iminary and General w for preliminary and general | % | 15% | | | | | | |
| | · | | . 3,0 | | | | | | |
| | aordinary Construction Costs | | | | | | | | |
| EXCL | LUDED | | | | | | | | |

| | | | | | | I | | I | | | | I | | |
|--------------------|-------------------------------------------------------------------------------------------------------|----------|---------------|----------|---------|----------|---------|----------|---------|------------|---------|--------|---------|--------------------|
| Schedule of Prices | | Material | Material Unit | Material | Unit | Material | Unit | Material | Unit | Material | Unit | | | |
| Code | Description | Unit | Quantity | Concrete | t or m3 | Steel | t or m3 | Asphalt | t or m3 | Aggregates | t or m3 | Fuel | I or kg | Assumptions/ Notes |
| | Risk Items | | | | | | | | | | | | | |
| | Coal Tar Disposal (RISK ITEM) | | | | | | | 1 | | | | | | |
| | Excavate and remove existing coal tar contaminated material using approved methodology to Kate Valley | tonne | 955.5 | | | | | | | | | | | |
| | Heritage (RISK ITEM) | | | | | | | 1 | | | | | | |
| | Archaeological inputs | hr | 480 | | | l | | 1 | | | | 1 | | |
| | Pavement surfacing (RISK ITEM) | | | | | | | 1 | | | | | | |
| | Milling out existing AC (50 mm depth) and disposal of spoil | m2 | 8960 | | | | | | | | | | | |
| | Supply and place AC14 (55 mm nominal depth) | m2 | 8960 | | | | | | | | | | | |
| | Pavement structure (RISK ITEM) | | | | | | | 1 | | | | | | |
| | Milling out existing AC (50 mm depth) and disposal of spoil | m2 | 200 | | | | | 1 | | | | | | |
| | Supply and place AC14 (55 mm nominal depth) | m2 | 200 | | | | | | | | | | | |
| | Remove existing kerb and channels to dump offsite | m | 40 | | | | | | | | | | | |
| | Construct new Kerb and Channel | m | 40 | | | | | | | | | | | |
| | Side Street Tie in (RISK ITEM) | | | | | | | | | | | | | |
| | Supply, place and compact AP65 sub base | m3 | 3570 | | | | | | | | | | | |
| | Supply, place and compact M4 AP40 basecourse | m3 | 3570 | | | | | | | | | | | |
| | Ground Conditions - Pavement (RISK ITEM) | | | | | | | | | | | | | |
| | Cut to waste offsite | m3 | 3750 | | | | | l | | | | | | |
| | Supply and place bulkfill | m3 | 3750 lotal | 141 | | <u> </u> | t | 15,097 | | | | 70,620 | | |