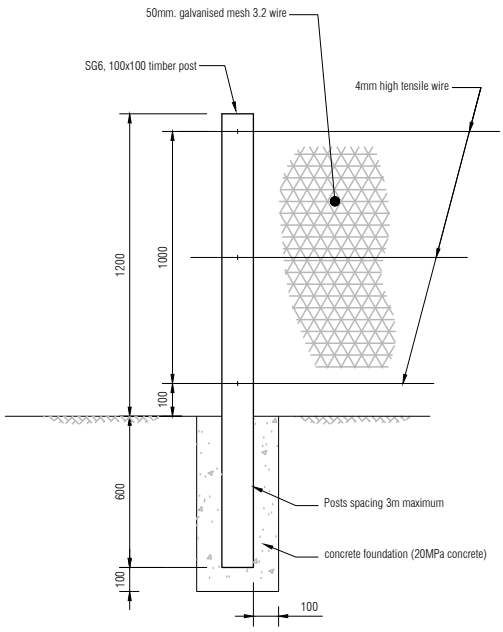
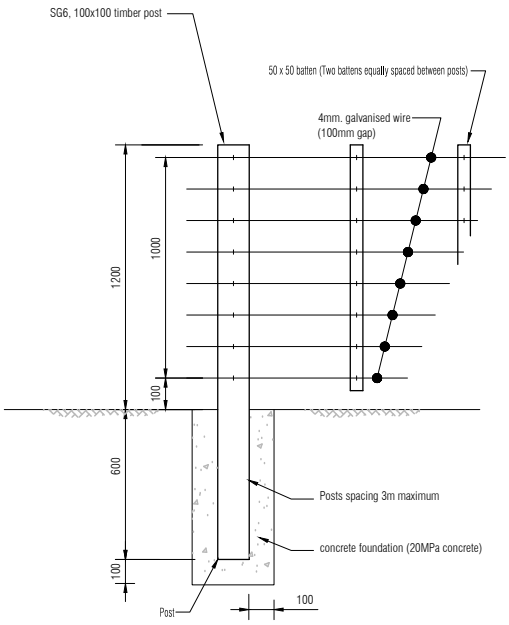
Fences drawing index

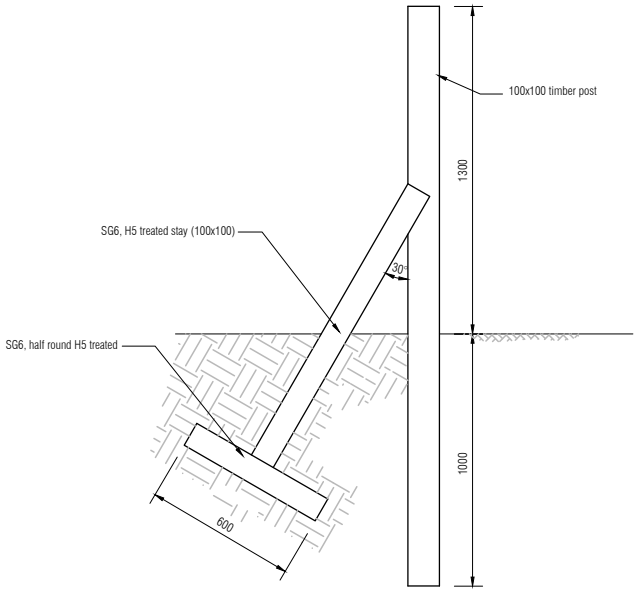
SED_NO	SED_Version	Title	Last Published	Comments
FE0000	B	Fences drawing index	14/02/2020 as working draft	Minor changes
FE0001	B	Fence type A and B	14/02/2020 as working draft	Minor changes
FE0002	B	Fence type C	14/02/2020 as working draft	Minor changes
FE0003	B	Fence type E	14/02/2020 as working draft	Minor changes
FE0004	B	Fence type F part one of three	14/02/2020 as working draft	Minor changes
FE0005	B	Fence type F part two of three	14/02/2020 as working draft	Minor changes
FE0006	B	Fence type F part three of three	14/02/2020 as working draft	Minor changes
FE0007	B	Typical picket fence detail	14/02/2020 as working draft	Minor changes
FE0008	C	Typical wire fence detail A	14/02/2020 as working draft	Minor changes
FE0009	C	Typical wire fence detail B	14/02/2020 as working draft	Minor changes
FE0010	B	Handrail type A & B	14/02/2020 as working draft	Minor changes
FE0011	B	Access barrier chain	14/02/2020 as working draft	Minor changes
FE0012	B	Wooden bollard & chain fence details	14/02/2020 as working draft	Minor changes



WIRE FENCE TYPE A



WIRE FENCE TYPE B



STRAINER POST AND STAY TYPICAL DETAIL
(AT CORNERS / AT CHANGE OF DIRECTION)

NOTES

1. All dimensions are in millimeters and levels are in metres.
2. All workmanship of timber elements shall be in accordance with AS/NZS 1720.1 and NZS 3604
3. All timber members shall have a minimum level of durability as specified in NZS 3602 and NZS3604
4. All timber battens shall be H4 treated unless otherwise
5. Timber batterns shall be spaced equally between the posts
6. All Timber connections shall be grade 316 stainless steel stainless steel unless noted otherwise
7. All timber posts shall be H5 treated unless noted otherwise
8. Final tension of all free wires to be 1100N
9. All cut ends of timber shall be treated with end grain wood preservative for high pressure preservative treated timber.

CHIEF APPROVED ENGINEER

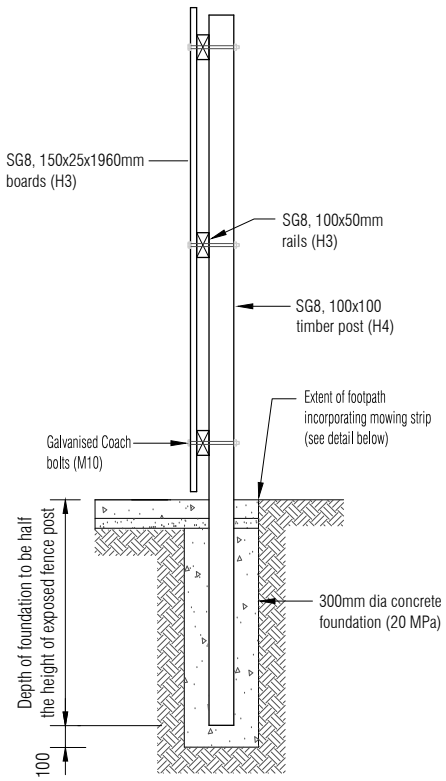
TDM TECHNICAL STANDARDS

Fence type A and B

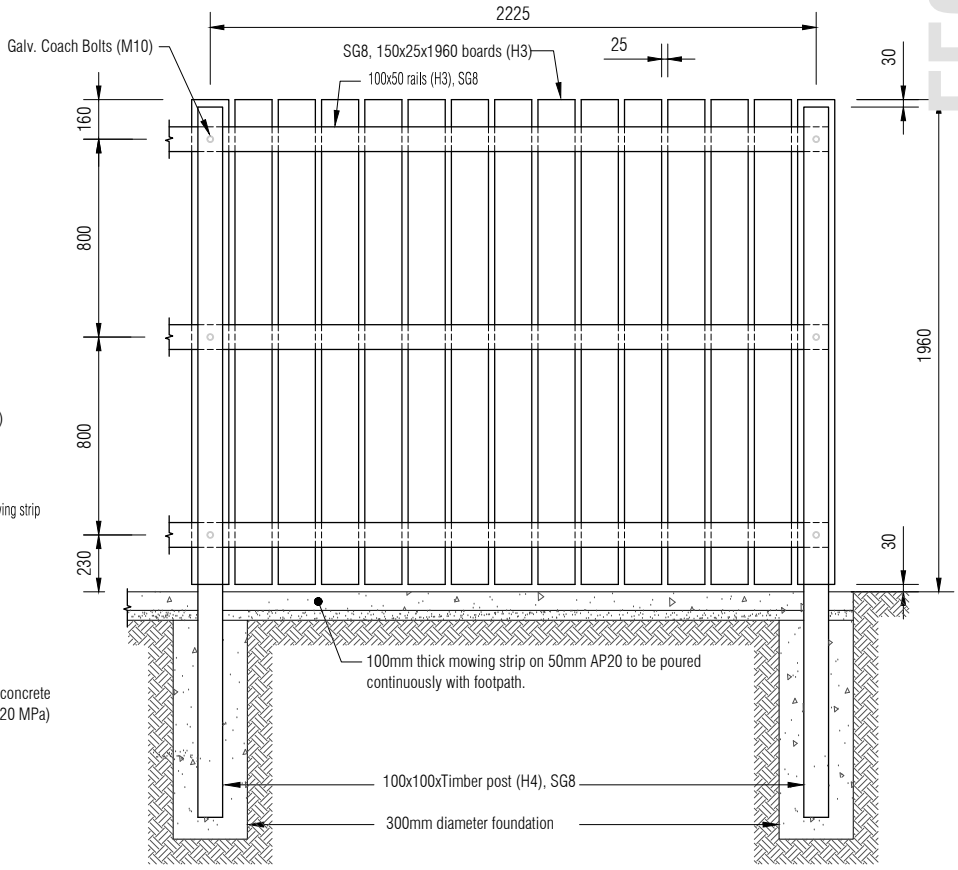
Date: 14/11/2024

SED No. FE0001

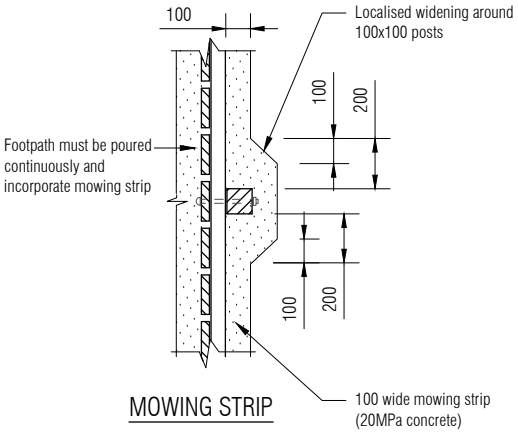
Version B



SIDE ELEVATION FENCE TYPE C



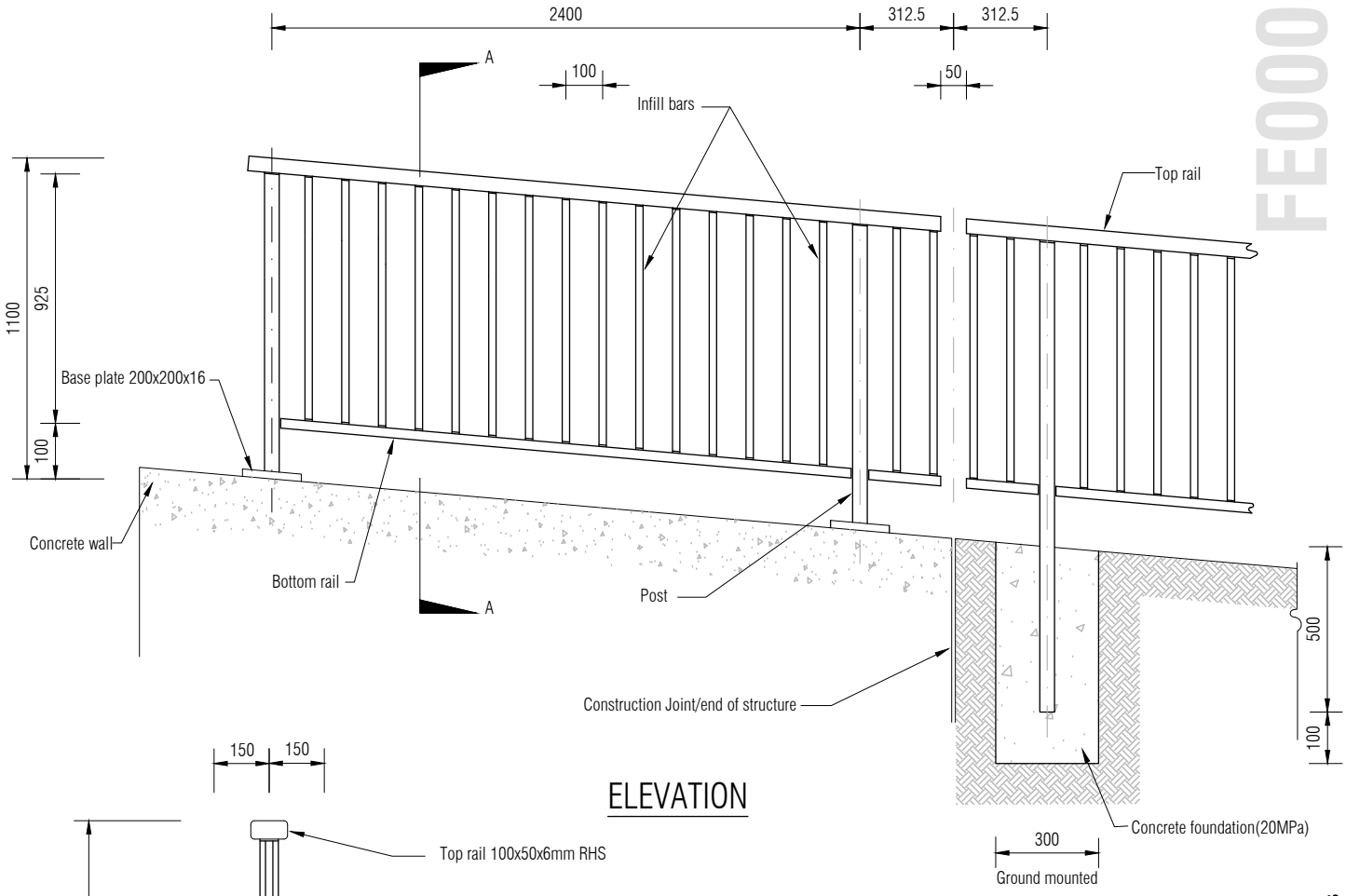
ELEVATION FENCE TYPE C



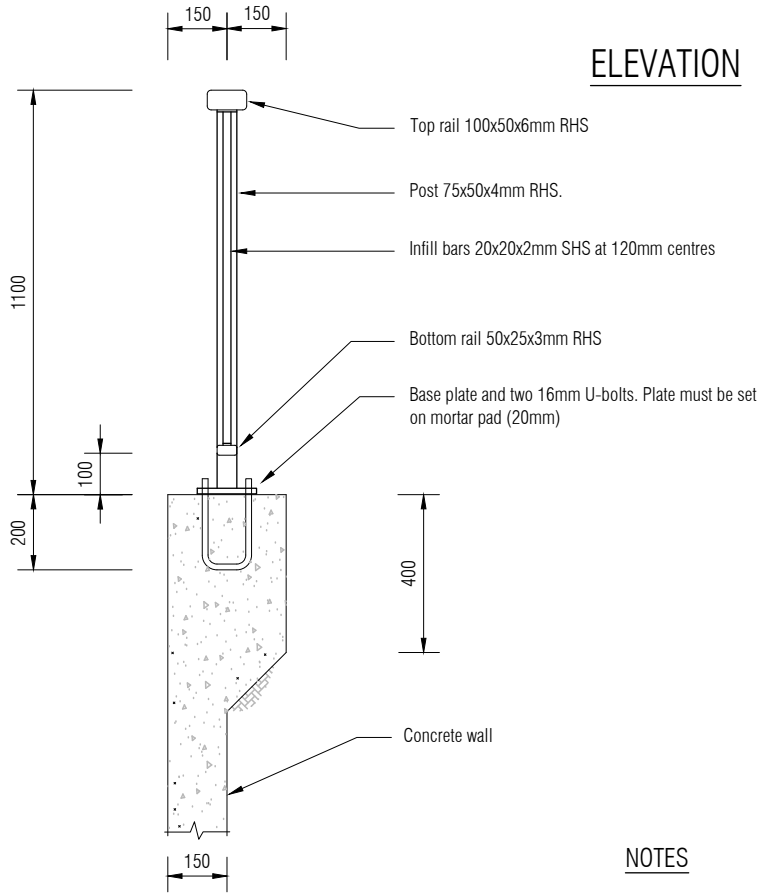
MOWING STRIP

NOTES

1. All dimensions are in millimeters and levels are in metres.
2. All workmanship of timber elements shall be in accordance with AS/NZS 1720.1 and NZS 3604
3. All timber members shall have a minimum level of durability as specified in NZS 3602 and NZS3604
4. All timber posts shall be H4 treated, all timber boards and rails shall be H3 treated
5. All Timber connections shall be grade 316 stainless steel unless noted otherwise
6. All concrete workmanship and materials shall be in accordance with the current version of NZS3101 and NZS3109



ELEVATION



SECTION A-A

NOTES

1. All dimensions are in millimeters and levels are in metres.
2. All steel components must be hot dip galvanized in accordance with AS/NZS4680
3. Fence Type E is designed to comply with minimum imposed action for barriers, Type C3 (Table 3.3 of AS/NZS 1170.1)
4. Structural steel sections shall be hot dip galvanized for corrosion protection to suit the corrosion category in accordance with New Zealand standards to provide a time for first maintenance of at least 25 years
5. Structural steel hollow sections shall be grade C350
6. All structural steel work design and fabrication to be in accordance with NZS3404 and AS/NZS 5131
7. All splices on top and bottom rails must be sleeved

CHIEF APPROVED ENGINEER

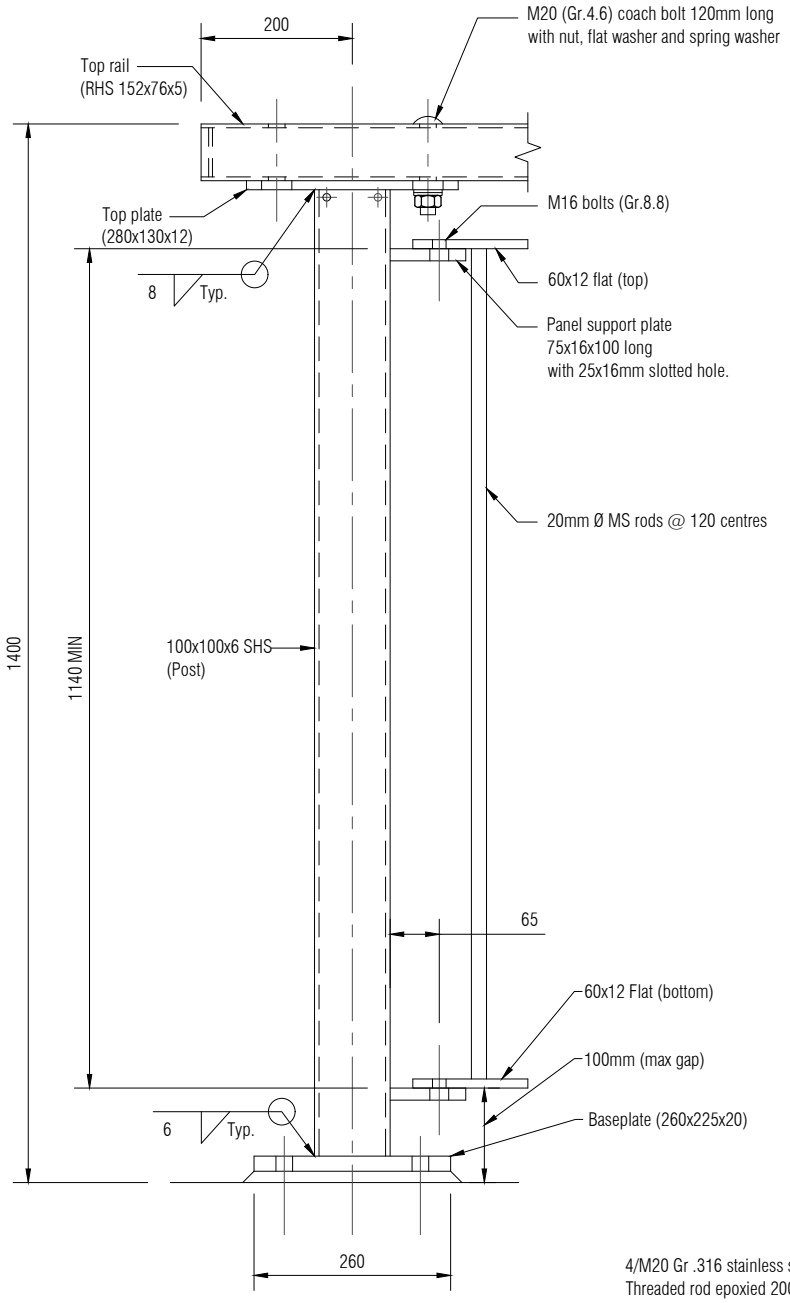
TDM TECHNICAL STANDARDS

Fence type E

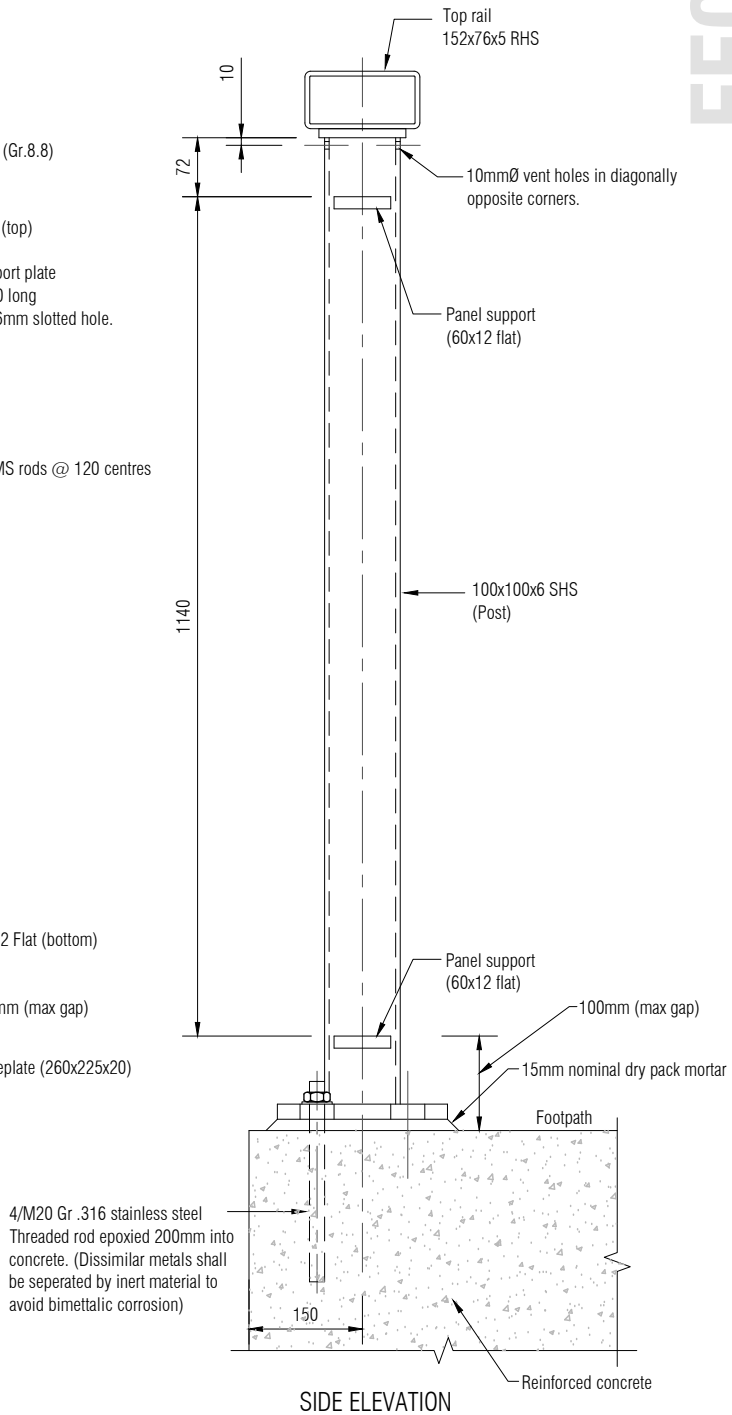
Date: 14/11/2024

SED No. FE0003

Version B



HANDRAIL POST



SIDE ELEVATION

NOTES

1. All dimensions are in millimetres and levels are in metres.
2. All steel components must be hot dip galvanised in accordance with AS/NZS4680
3. The Fence type F is designed to comply with minimum imposed action for barriers, type C3 (table 3.3 of AS/NZS 1170.1)
4. Structural steel sections shall be hot dip galvanised for corrosion protection to suit the corrosion category in accordance with NZ standards to provide a time for first maintenance of at least 25 years.
5. Structural hollow sections shall be grade C350
6. All steel work design and fabrication to be in accordance with NZS3404 & AS/NZS 5131.

CHIEF ENGINEER APPROVED

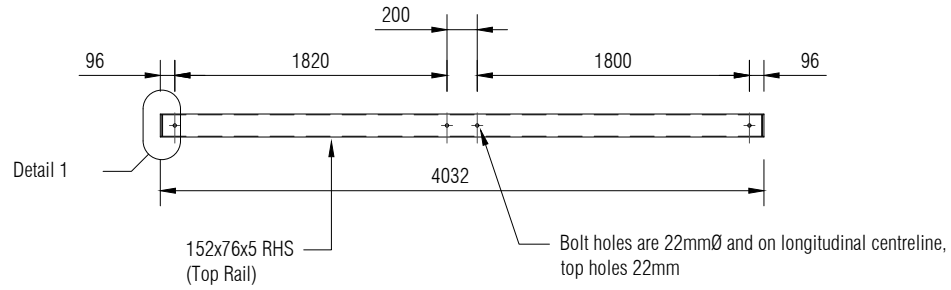
TDM TECHNICAL STANDARDS

Fence type F (Sheet 1 of 3)

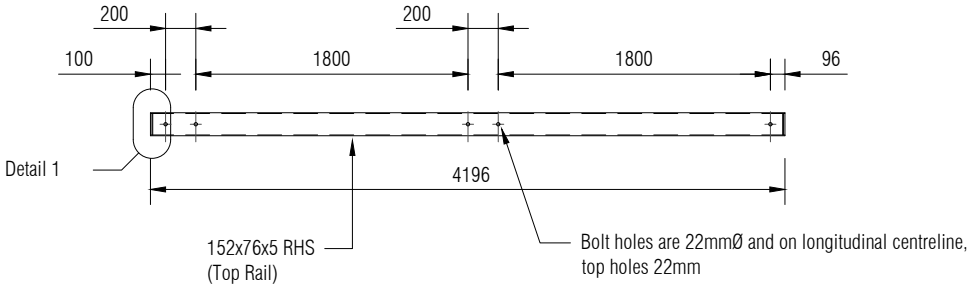
Date: 14/11/2024

SED No. FE0004

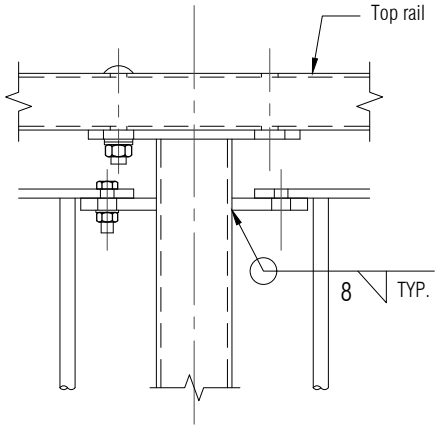
Version B



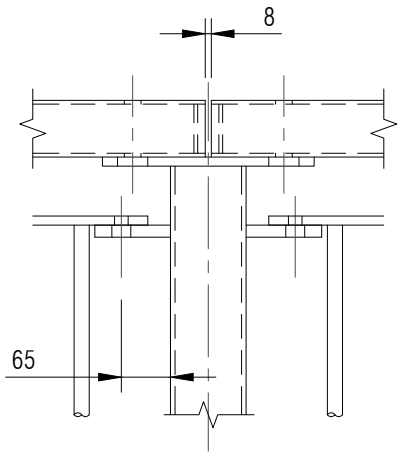
PLAN - TOP RAIL



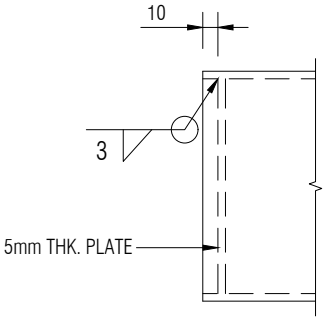
PLAN - END TOP RAIL



TOPRAIL CONTINUOUS



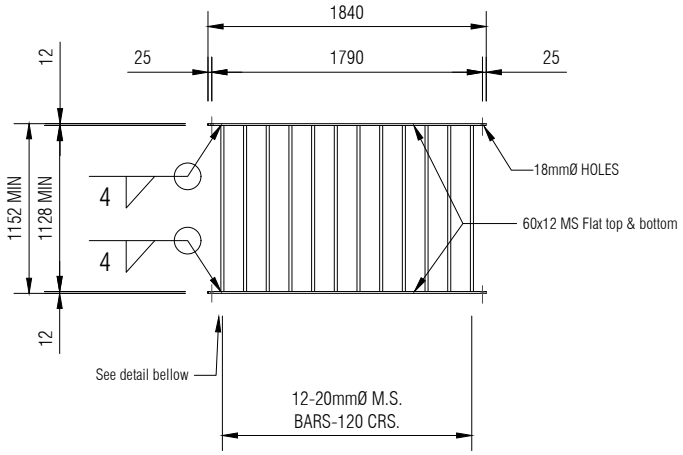
TOPRAIL JOINT



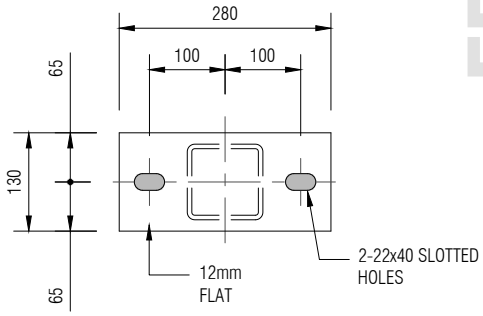
DETAIL 1

NOTES

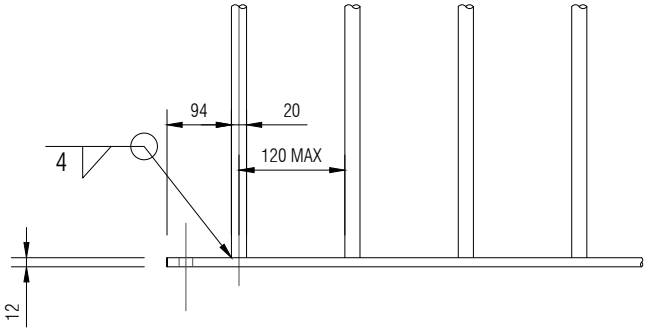
1. All dimensions are in millimetres and levels are in metres.
2. All steel components must be hot dip galvanised in accordance with AS/NZS4680
3. The Fence type F is designed to comply with minimum imposed action for barriers, type C3 (table 3.3 of AS/NZS 1170.1)
4. Structural steel sections shall be hot dip galvanised for corrosion protection to suit the corrosion category in accordance with NZ standards to provide a time for first maintenance of at least 25 years.
5. Structural hollow sections shall be grade C350
6. All steel work design and fabrication to be in accordance with NZS3404 & AS/NZS 5131.



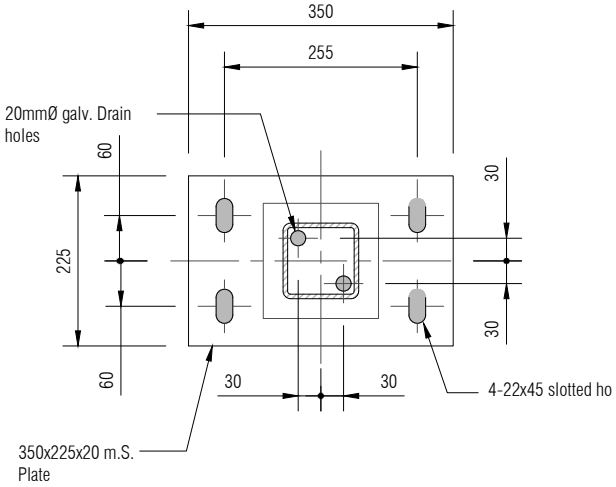
PANEL Mk 1 DETAILS



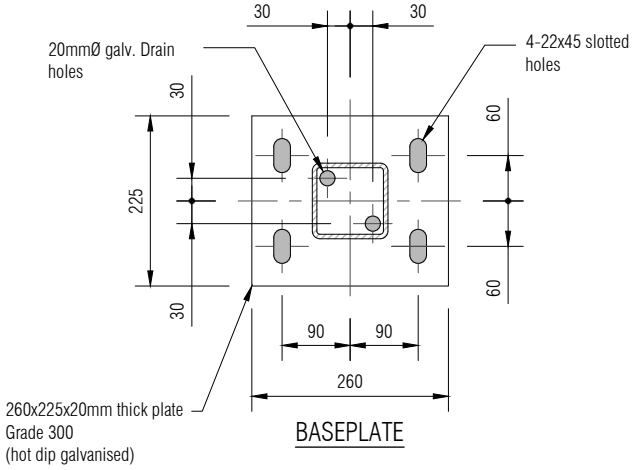
TOP PLATES



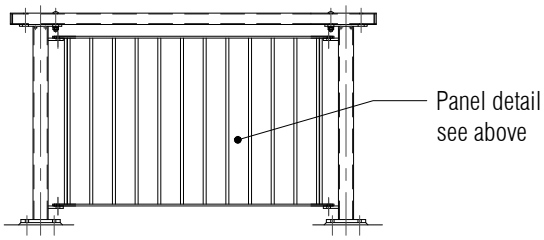
PANEL Mk 1 RAIL DETAIL



END POST BASEPLATE



BASEPLATE



ASSEMBLED FENCE

NOTES

1. All dimensions are in millimetres and levels are in metres.
2. All steel components must be hot dip galvanised in accordance with AS/NZS4680
3. The Fence type F is designed to comply with minimum imposed action for barriers, type C3 (table 3.3 of AS/NZS 1170.1)
4. Structural steel sections shall be hot dip galvanised for corrosion protection to suit the corrosion category in accordance with NZ standards to provide a time for first maintenance of at least 25 years.
5. Structural hollow sections shall be grade C350
6. All steel work design and fabrication to be in accordance with NZS3404 & AS/NZS 5131.

CHIEF ENGINEER APPROVED

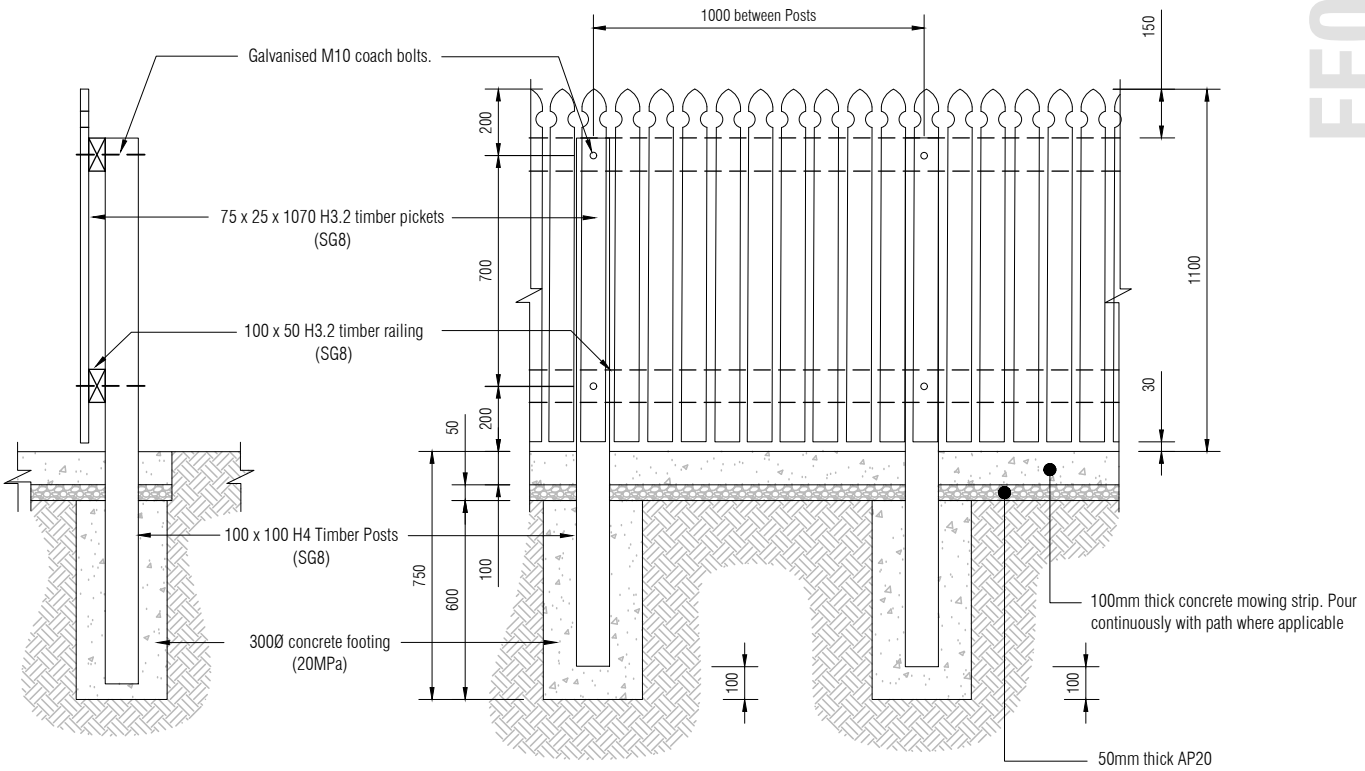
TDM TECHNICAL STANDARDS

Fence type F (Sheet 3 of 3)

Date: 14/11/2024

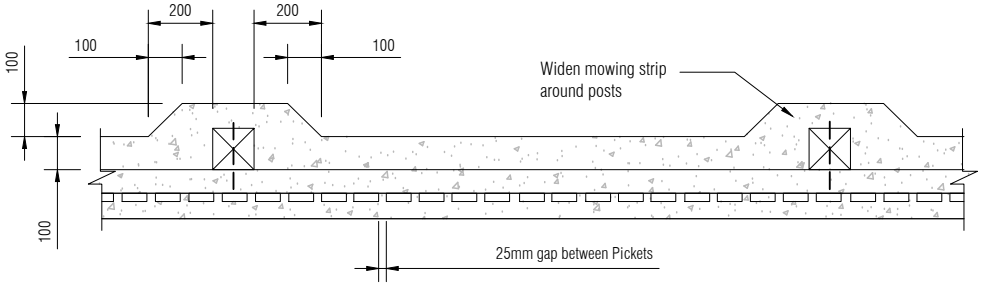
SED No. FE0006

Version B



TYPICAL SIDE ELEVATION

TYPICAL FRONT ELEVATION



TYPICAL PLAN

NOTES

1. All dimensions are in millimetres and levels are in metres.
2. All workmanship of timber elements shall be in accordance with AS/NZS 1720.1 and NZS 3604
3. All timber elements must have a minimum level of durability as specified in NZS 3602 and NZS 3604
4. All timber posts shall be H4 treated, all timber railing and pickets shall be H3 treated
5. All timber connections shall be Grade 316 stainless steel unless otherwise
6. All concrete workmanship and materials shall be in accordance with the current version of NZS 3101 and NZS 3109.

CHIEF APPROVED ENGINEER

TDM TECHNICAL STANDARDS

Typical picket fence detail

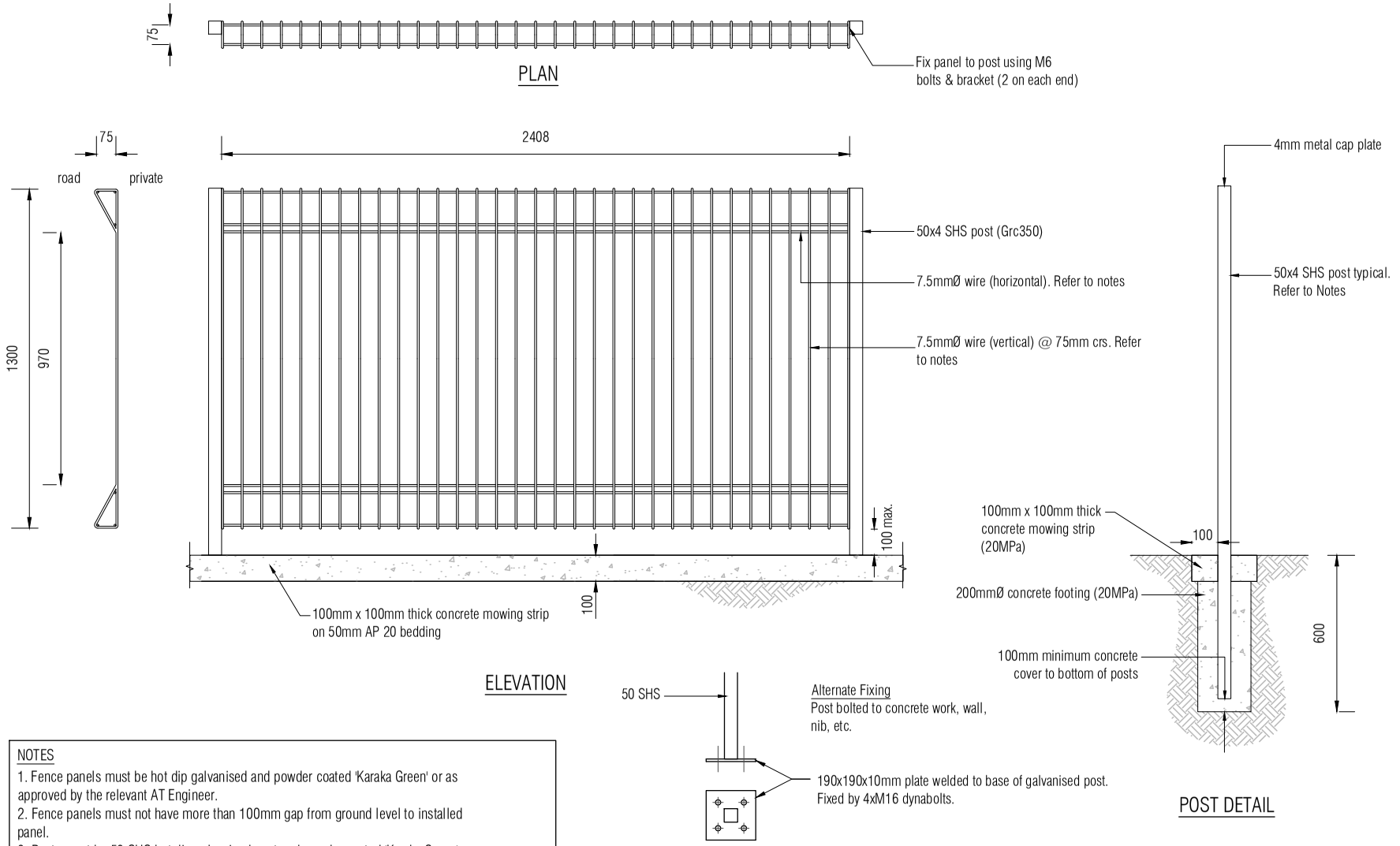
Date: 14/11/2024

SED No. FE0007

Version B

TDM TECHNICAL STANDARDS

Typical wire fence detail A



NOTES

1. Fence panels must be hot dip galvanised and powder coated 'Karaka Green' or as approved by the relevant AT Engineer.
2. Fence panels must not have more than 100mm gap from ground level to installed panel.
3. Posts must be 50 SHS hot dip galvanised post and powder coated 'Karaka Green' or as approved by the relevant AT Engineer.
4. Posts must be installed vertical.
5. Sharp edges of the panel are to be rounded off before galvanising.
6. Tolerances on overall dimensions of the finished panel to be 25mm and bars to be placed within 2mm of their true location.

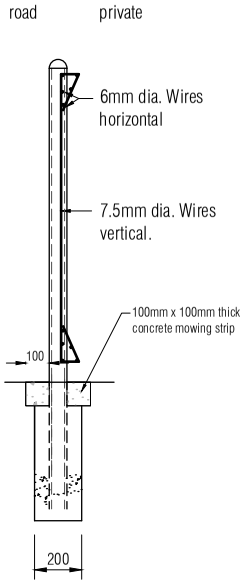
SED No. FE0008

Version C

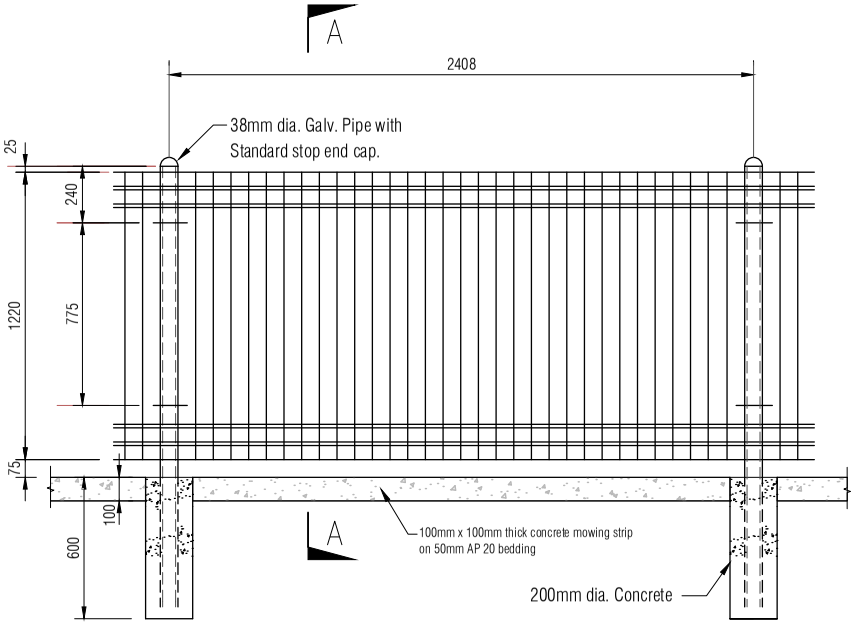
Date: 14/11/2024

TDM TECHNICAL STANDARDS

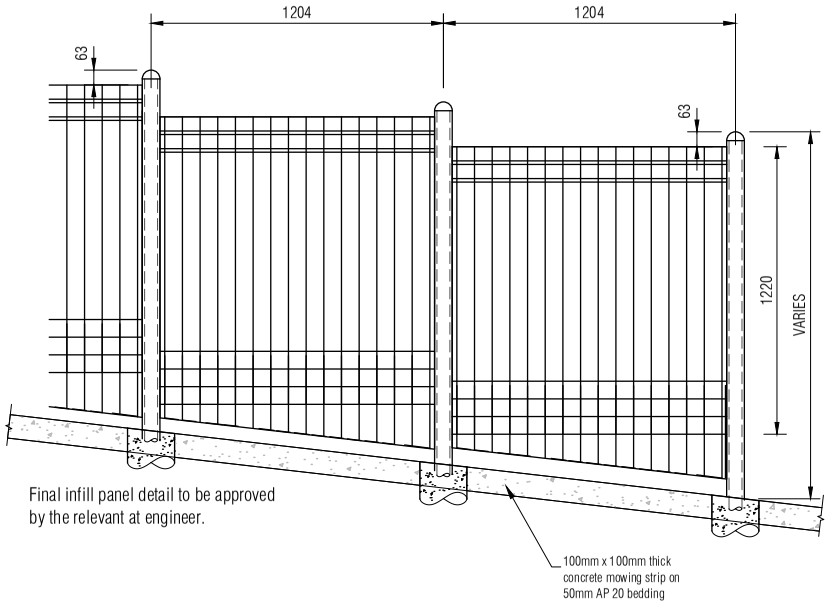
Typical wire fence detail B



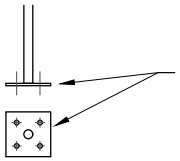
A-A



ELEVATION



FENCE OVER STEEP SECTIONS



Alternate Fixing

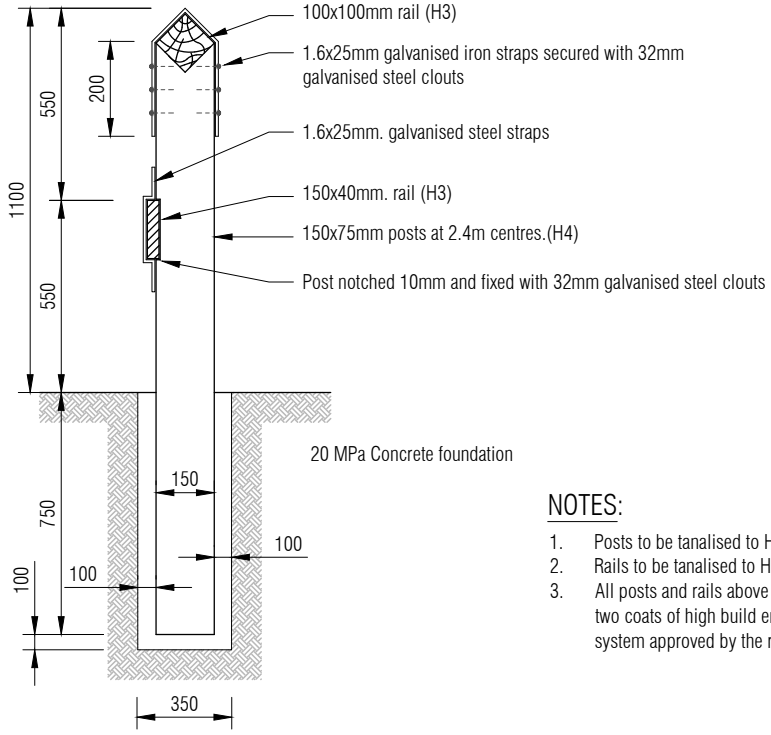
Post bolted to concrete work, wall, nib, etc.

190x190x10mm plate welded to base of galvanised pipe. Fixed by 4 x M16 dynabolts.

NOTES

1. All dimensions are in millimetres and levels are in metres.
2. All steel rods shall be welded to comply with AS/NZS 4671
3. Tolerance on overall dimensions of the finished panel shall be 25mm and steel rods to be placed within 2mm of their true location
4. Panels shall be galvanized to AS/NZS 4680

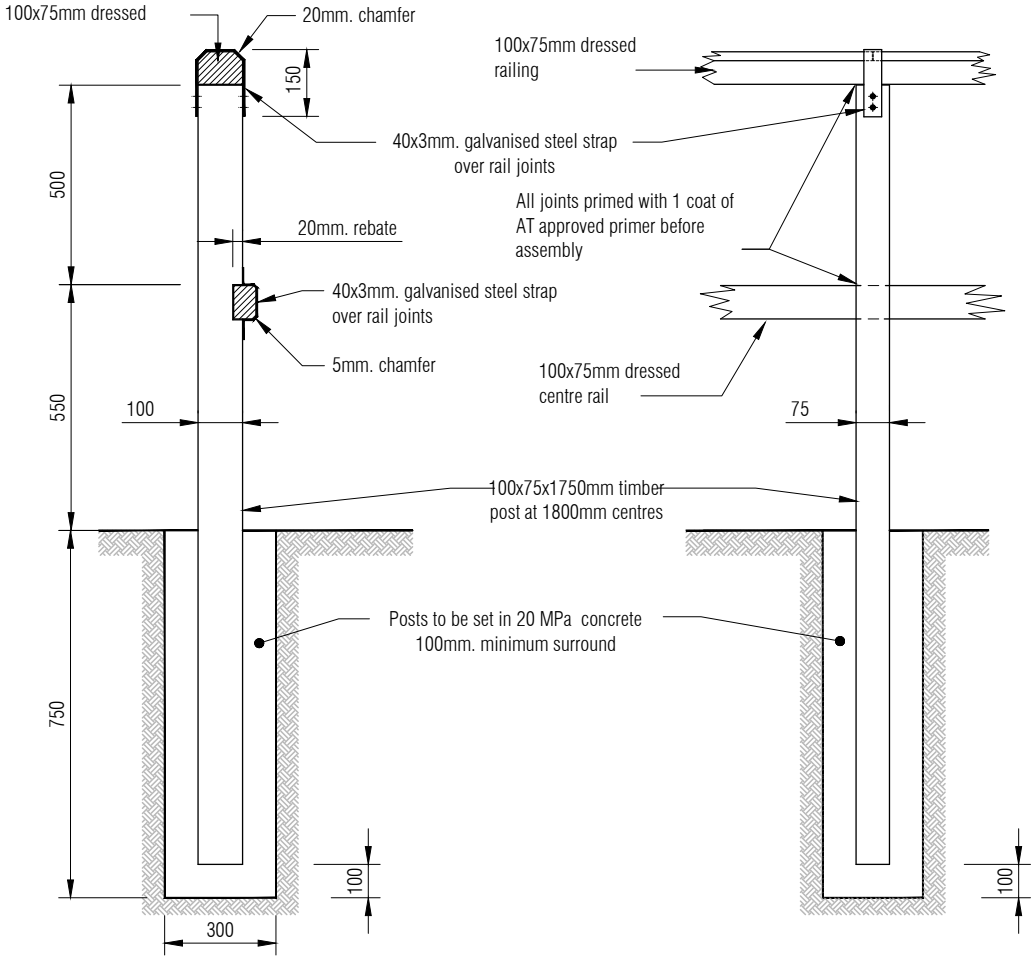
SED No. FE0009 | Version C | Date: 14/11/2024



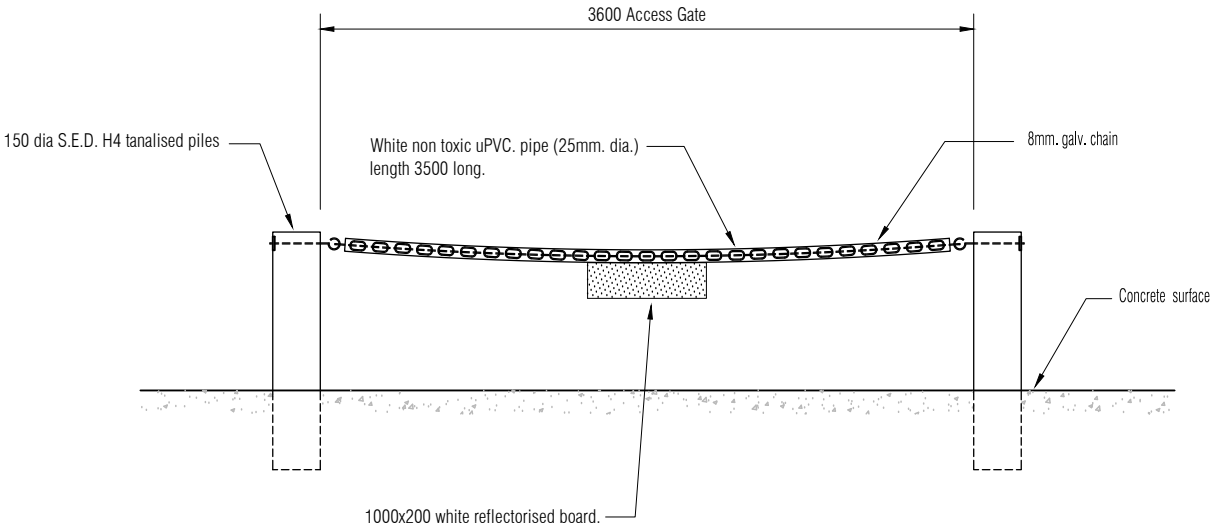
NOTES:

1. Posts to be tanalised to H4 standard.
2. Rails to be tanalised to H3 standard.
3. All posts and rails above ground are to be treated with two coats of high build enamel or similar painting system approved by the relevant AT Engineer.

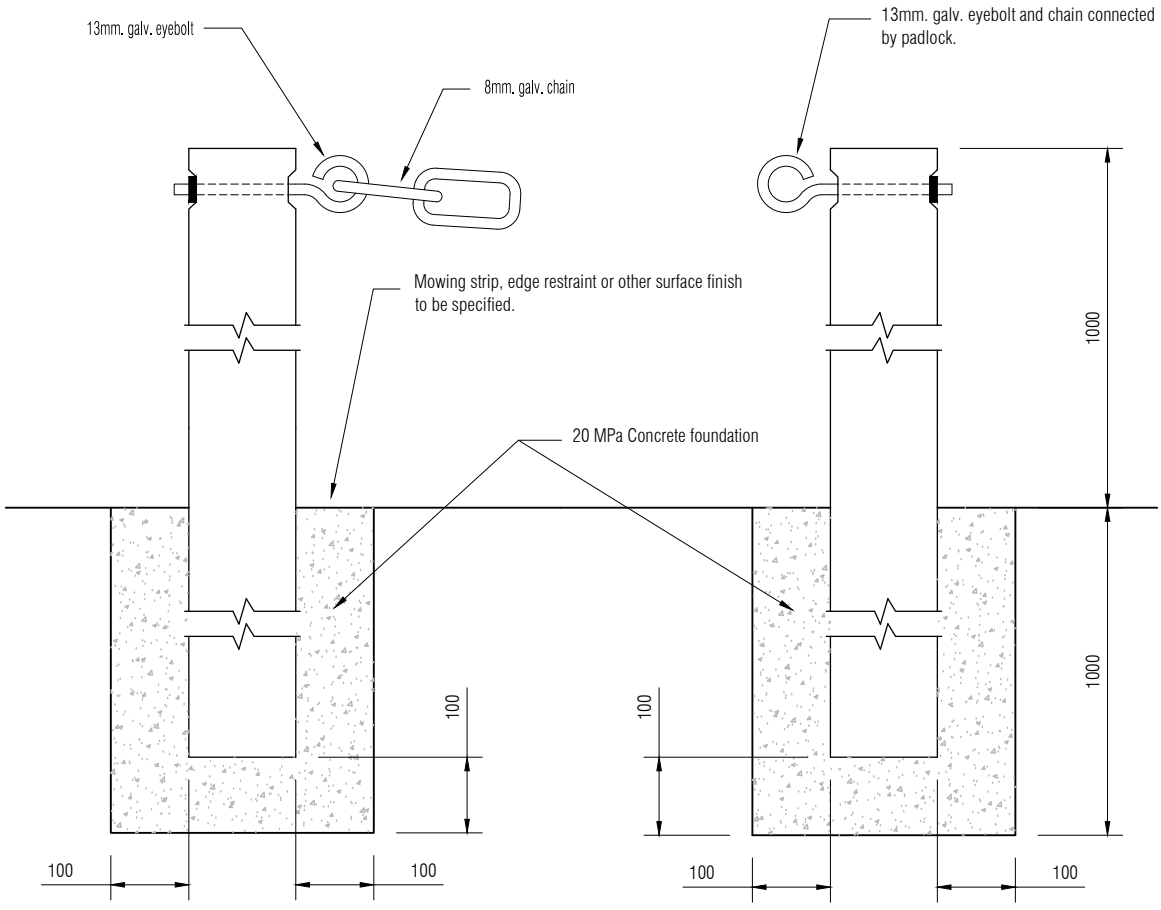
HANDRAIL TYPE A



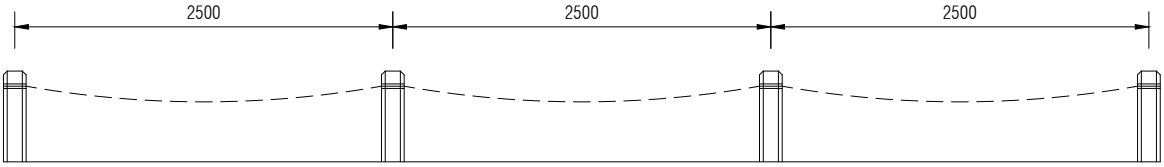
HANDRAIL TYPE B, END AND SIDE ELEVATION



ELEVATION

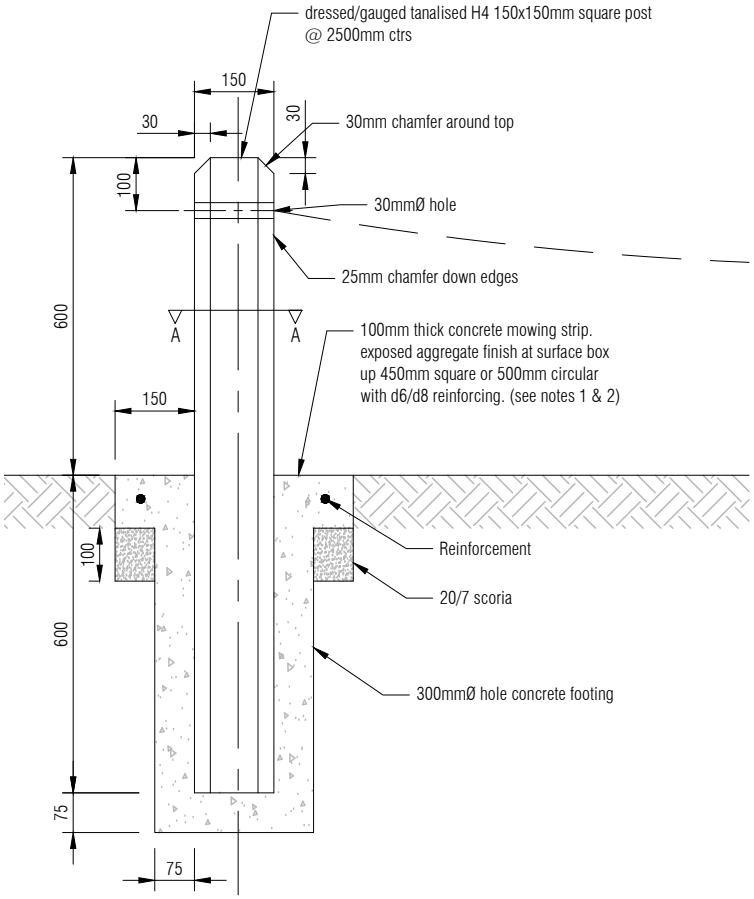


DETAIL

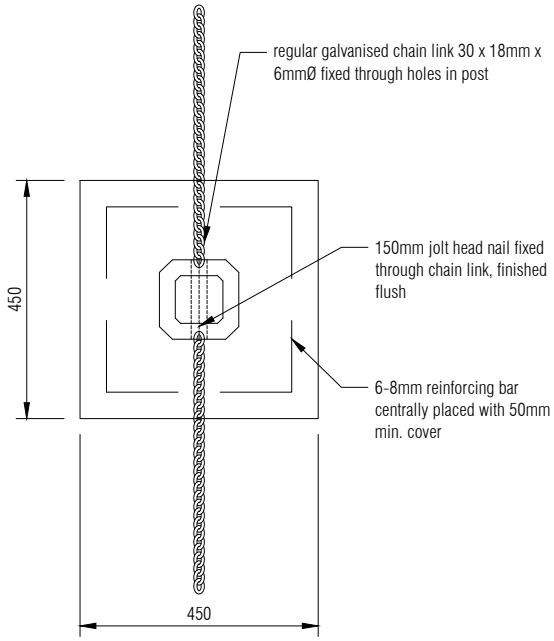


NOTE:
where bollards are used without chain they should be placed @ 1500mm ctrs (and must have no holes in posts)

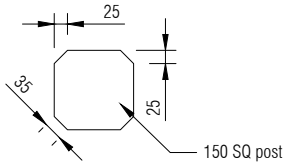
ELEVATION



TYPICAL SECTION



PLAN



SECTION AA

NOTES

1. Slab finish 10-13mm aggregate, exposed using Auckland Transport approved product to provide even aggregate finish and waterblasted to remove slurry and produce even exposed finish.
2. Reinforcing bar 6-8mm, centrally placed, ensure minimum 50mm coverage of concrete.
3. Reinstate with topsoil & grassing to be flush with concrete.
4. All concrete must be 20Mpa

CHIEF APPROVED ENGINEER

TDM TECHNICAL STANDARDS

Wooden bollard & chain fence details

Date: 14/11/2024

SED No. FE0012

Version B