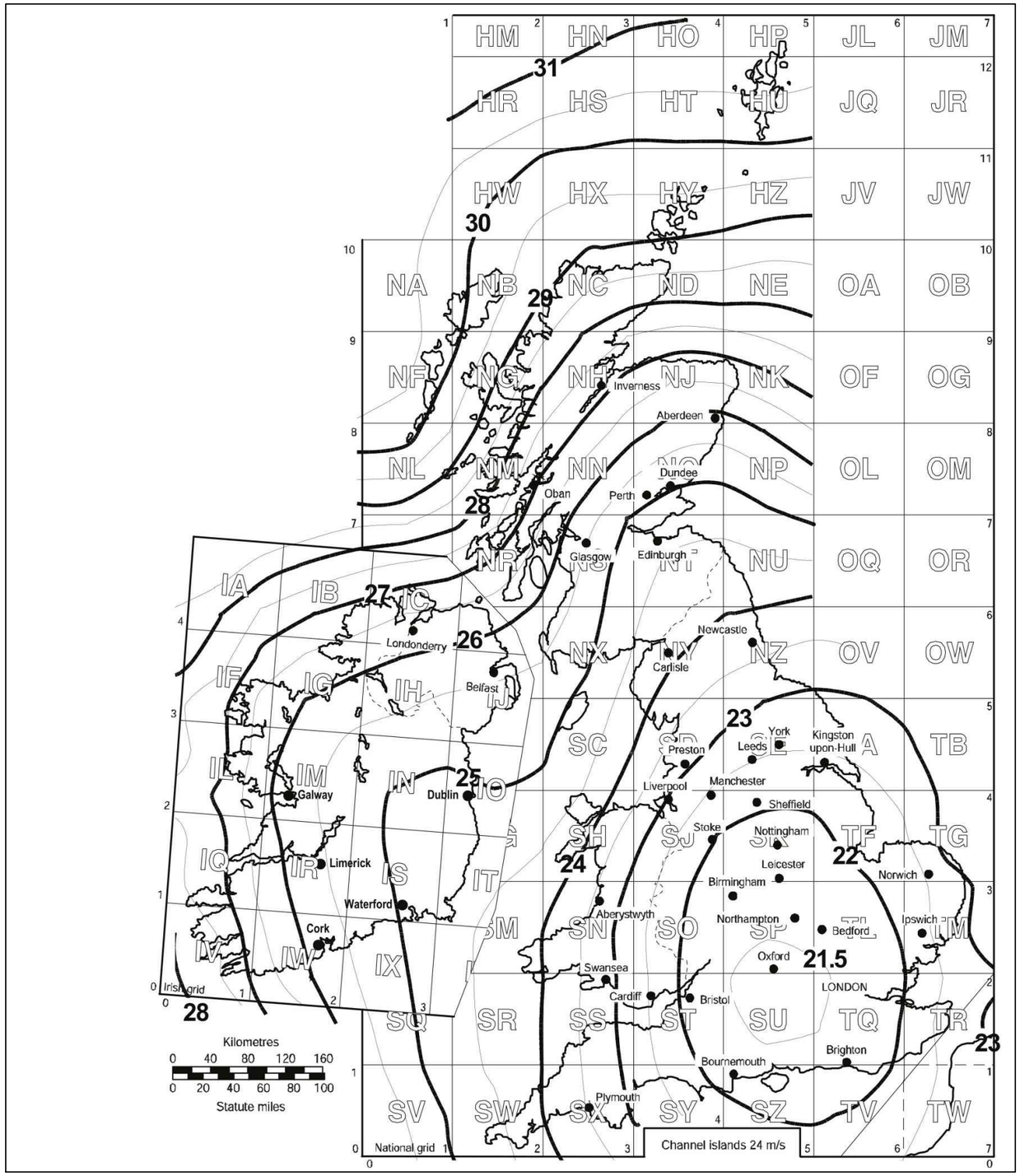
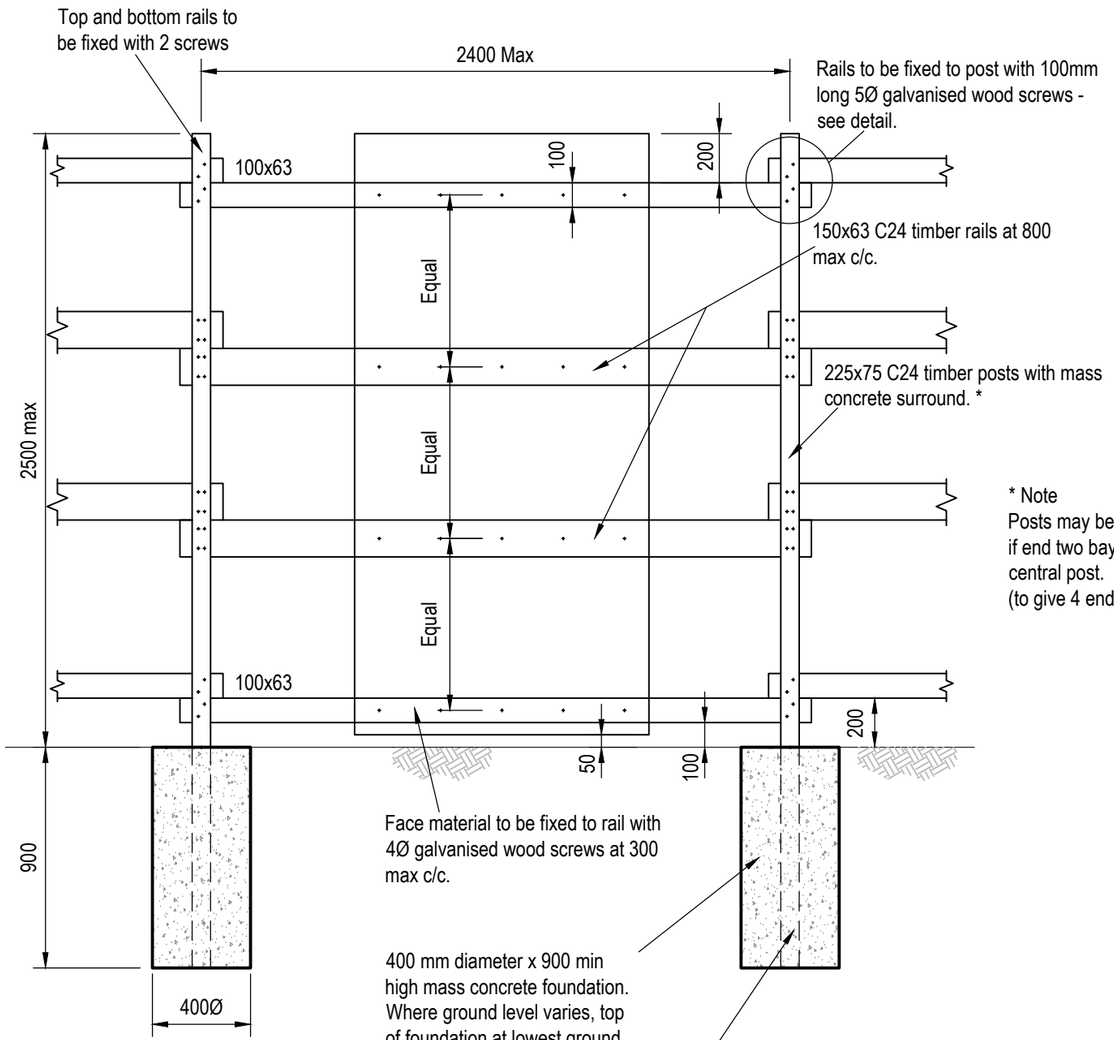


B	Construction issue.	06.09.21

PERSIMMON

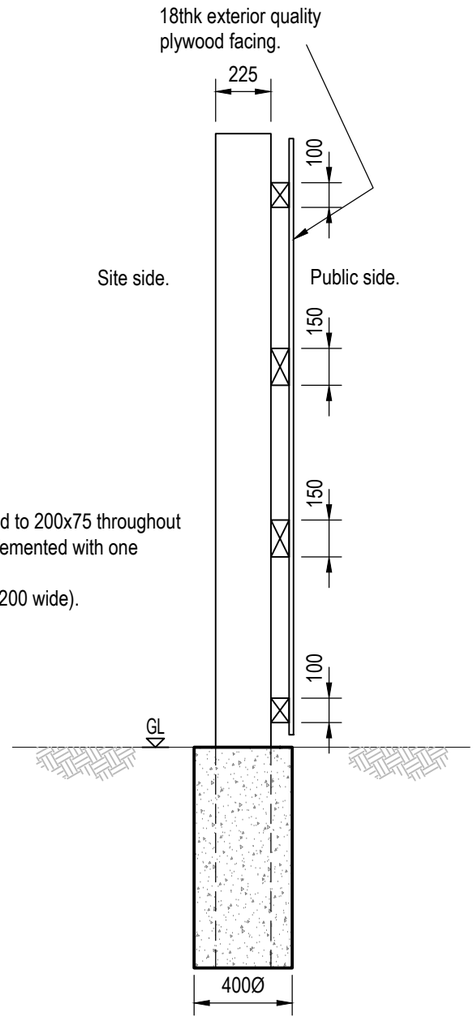
Drawing Title
TEMPORARY WORKS
WIND SPEED MAP

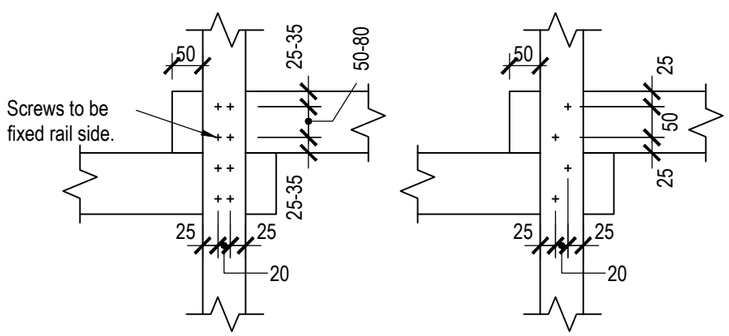
Project Title	Date	Scale	Drawn
TEMPORARY WORKS STANDARD DETAILS	17.08.21	NTS	JL
Drawing Status: CONSTRUCTION	Dwg. Ref.: PH/TWD/001		Rev.: B



Design is to TWF Hoardings - A Guide to Good Practice.

* Note
Posts may be reduced to 200x75 throughout if end two bays supplemented with one central post.
(to give 4 end bays 1200 wide).





1. All timber shall be strength class C24 to BS5628-2.
2. All timber is to be pre- treated with a pressure applied wood preservative. Timber posts to comply with class 4.1 to BS EN 335-2 : 2006, for exterior use in contact with ground and/or fresh water. Timber rails to comply with class 3.2 to BS EN 335-2 : 2006, for exterior use above ground in an unprotected environment.
3. Facing material to be min 18 thick exterior quality plywood to class 3.2 of BSEN 335 and bonding class 3 of BSEN 314-2.
4. All panel to rail and rail to post fixings are to be by galvanised wood screws to BS EN ISO 1461. All holes for screws to be pre-drilled.
5. All foundation concrete to be GEN1 concrete.
6. Hoarding design allows for.
   - A maximum peak velocity pressure based on a site wind speed of 23.4m/s at a 2 year design life.
     (equivalent to a 50 year site wind speed of 28.2 m/s.)
   - A working wind pressure of 0.36 KN/m² in conjunction with a minimum notional horizontal load (pedestrian load) of 0.74KN/m acting 1.2m above ground.

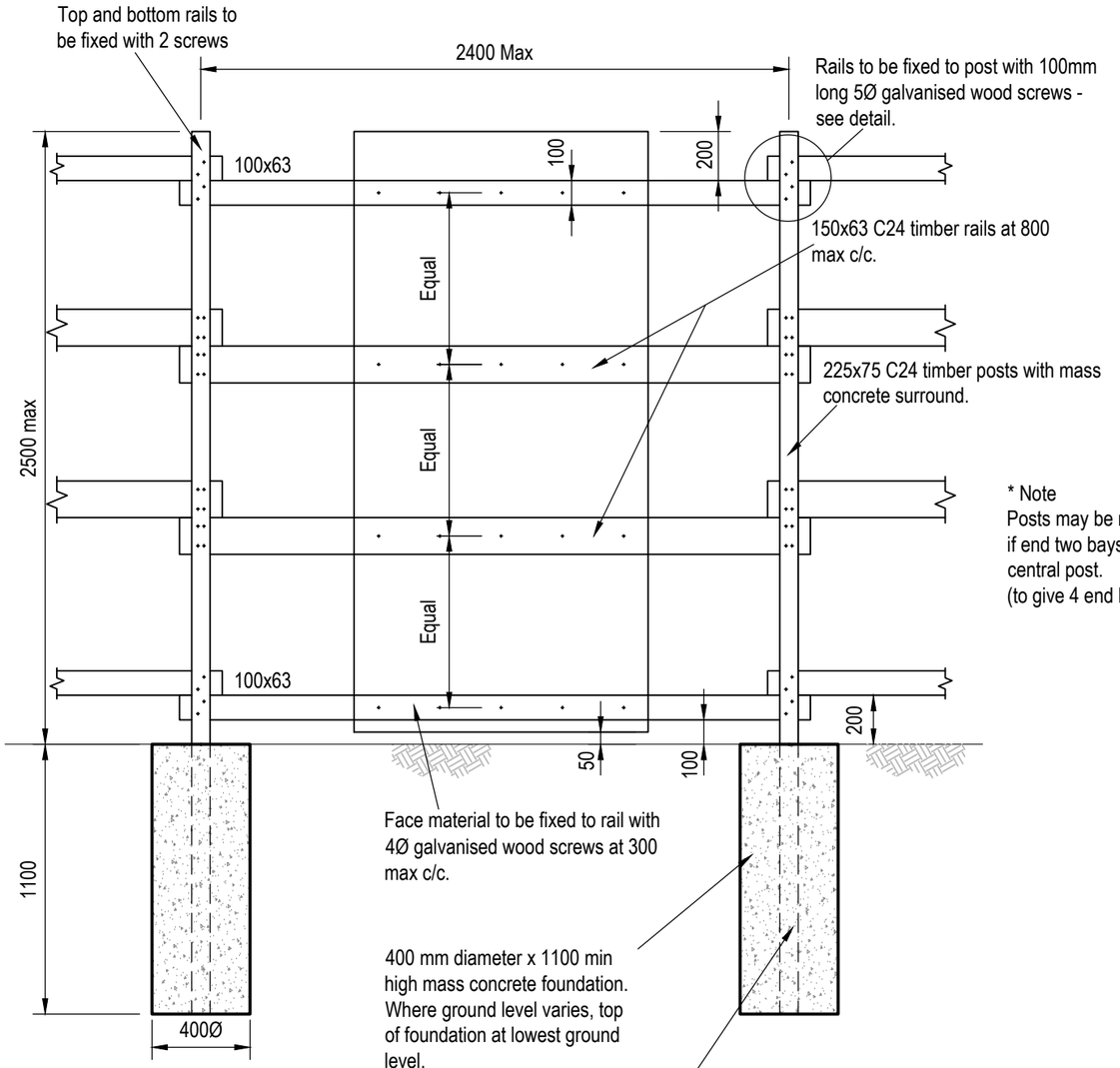
   For higher site wind speeds and/or crowd loading, refer to separate details.
7. Assumed ground conditions are firm to stiff clay (Cu >50kN/m2) with a safe bearing capacity of at least 100kN/m² and a maximum 200mm depth of top soil. Ground conditions are to be verified on site prior to construction. where there is an increased depth of topsoil, foundations to be deepened on site to suit. It is assumed that all foundations will be placed in ground which is level or at a slope not exceeding 1 in 12. All foundations to be placed at least 1.0m away from a slope which is steeper than 1 in 12 but less than 1 in 4. All foundations to be placed at least 1.5m away from a slope which is steeper than 1 in 4 but less than 1 in 2. Note:- Site specific details required for foundations cast into ground steeper than 1 in 12. Where foundation is placed in loose topsoil the depth must be increased equal to the depth of loose topsoil.
8. Hoardings placed in the vicinity of a flagpole or free standing signboard are to be separated from the flagpole or signboard by at least 450 mm.
9. Maximum design life is to be 2 years.

B	Construction issue.	06.09.21

PERSIMMON

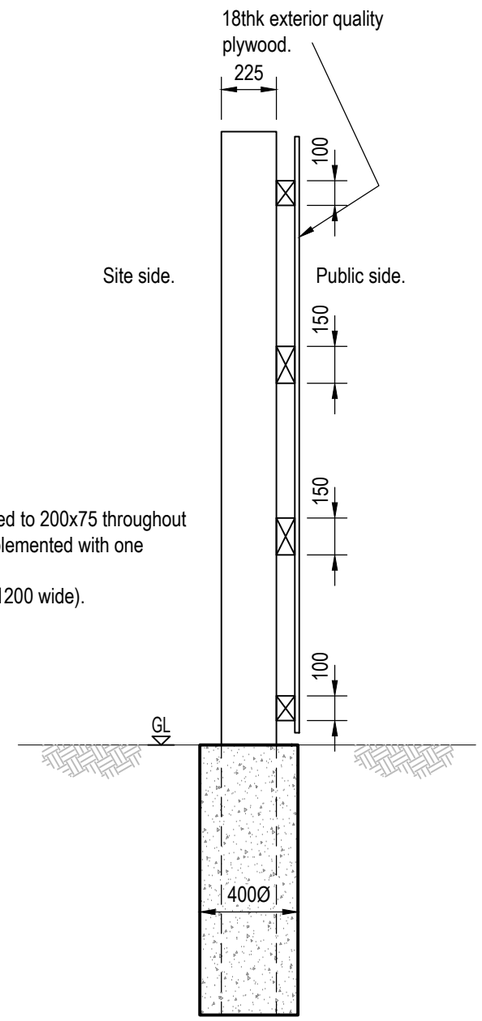
Drawing Title: SITE HOARDINGS SHEET 1 CLAY SOILS

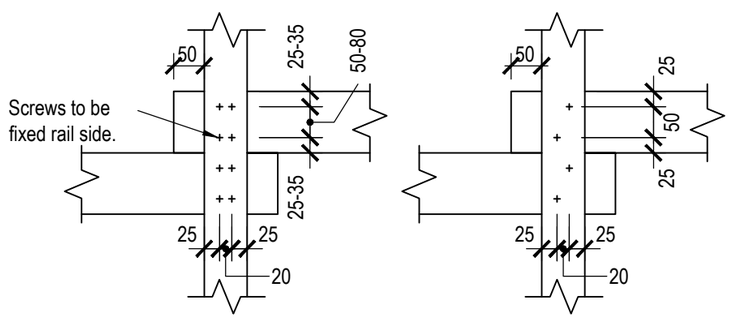
Project Title	Date	Scale	Drawn
TEMPORARY WORKS STANDARD DETAILS	17.08.21	1:10 1:25	JL
Drawing Status: CONSTRUCTION	Dwg. Ref.: PH/TWD/010		Rev.: B



Design is to TWF Hoardings - A Guide to Good Practice.

* Note
Posts may be reduced to 200x75 throughout if end two bays supplemented with one central post.
(to give 4 end bays 1200 wide).





1. All timber shall be strength class C24 to BS5628-2.
2. All timber is to be pre- treated with a pressure applied wood preservative. Timber posts to comply with class 4.1 to BS EN 335-2 : 2006, for exterior use in contact with ground and/or fresh water. Timber rails to comply with class 3.2 to BS EN 335-2 : 2006, for exterior use above ground in an unprotected environment.
3. Facing material to be min 18 thick exterior quality plywood to class 3.2 of BSEN 335 and bonding class 3 of BSEN 314-2.
4. All panel to rail and rail to post fixings are to be by galvanised wood screws to BS EN ISO 1461. All holes for screws to be pre-drilled.
5. All foundation concrete to be GEN1 concrete.
6. Hoarding design allows for.
   - A maximum peak velocity pressure based on a site wind speed of 23.4m/s at a 2 year design life. (equivalent to a 50 year site wind speed of 28.2 m/s.)
   - A working wind pressure of 0.36 KN/m² in conjunction with a minimum notional horizontal load (pedestrian load) of 0.74KN/m acting 1.2m above ground.

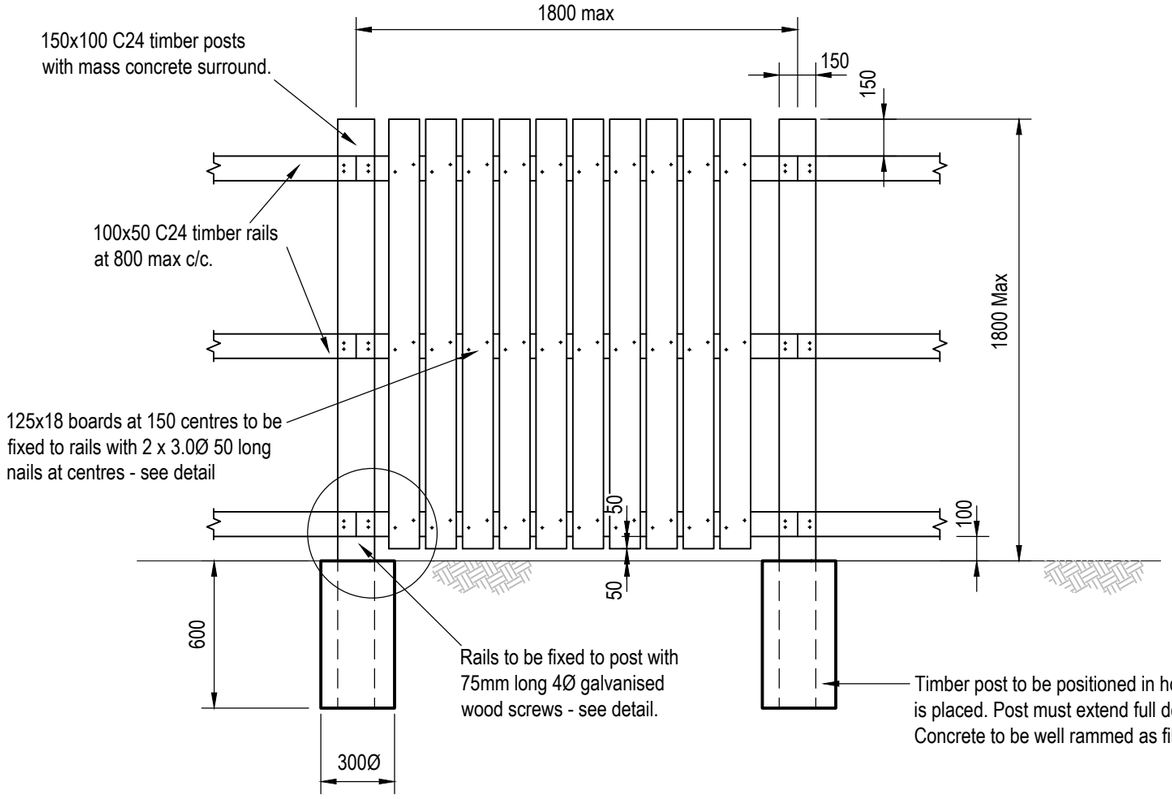
   For higher site wind speeds and/or crowd loading, refer to separate details.
7. Assumed ground conditions are medium dense sand or gravel (SPT N>10) with a safe bearing capacity of at least 100kN/m² and a maximum 200mm depth of top soil. Ground conditions are to be verified on site prior to construction. where there is an increased depth of topsoil, foundations to be deepened on site. It is assumed that all foundations will be placed in ground which is level or at a slope not exceeding 1 in 12. All foundations to be placed at least 1.0m away from a slope which is steeper than 1 in 12 but less than 1 in 4. All foundations to be placed at least 1.5m away from a slope which is steeper than 1 in 4 but less than 1 in 2. Note:- Site specific details required for foundations cast into ground steeper than 1 in 12. Where foundation is placed in loose topsoil the depth must be increased equal to the depth of loose topsoil.
8. Hoardings placed in the vicinity of a flagpole or free standing signboard are to be separated from the flagpole or signboard by at least 450 mm.
9. Maximum design life is to be 2 years.

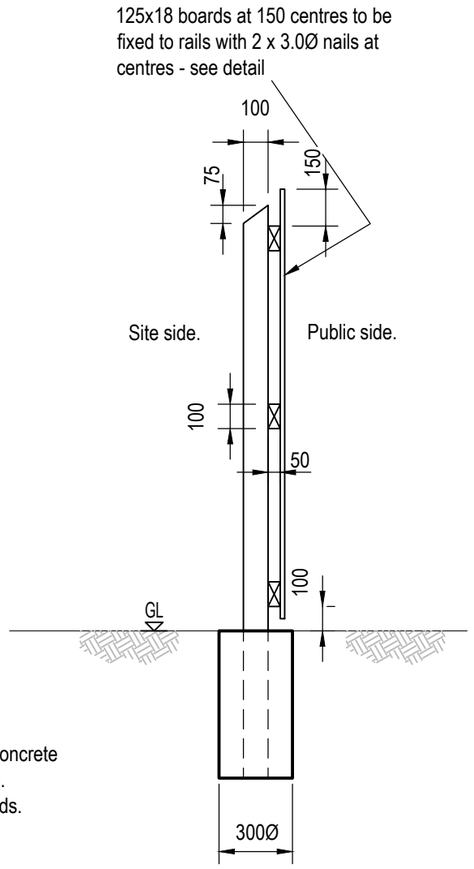
B	Construction issue.	06.09.21

PERSIMMON

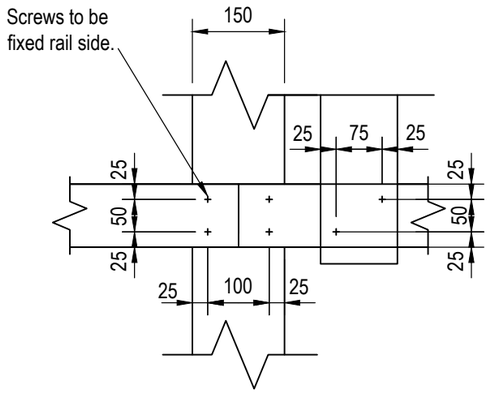
Drawing Title: SITE HOARDINGS SHEET 2 GRANULAR SOILS

Project Title	Date	Scale	Drawn
TEMPORARY WORKS STANDARD DETAILS	17.08.21	1:10 1:25	JL
Drawing Status: CONSTRUCTION	Dwg. Ref.: PH/TWD/011		Rev.: B





1. All timber shall be strength class C24 to BS5628-2.
2. All timber is to be pre-treated with a pressure applied wood preservative. Timber posts to comply with class 4.1 to BS EN 335-2 : 2006, for exterior use in contact with ground and/or fresh water. Timber rails to comply with class 3.2 to BS EN 335-2 : 2006, for exterior use above ground in an unprotected environment.
3. All rail to post fixings are to be by galvanised wood screws to BS EN ISO 1461. All holes for screws to be pre-drilled.
4. All board to rail fixings are to be by galvanised nails to BS EN ISO 1461. All holes for nails are to be pre-drilled
5. All foundation concrete to be GEN1 concrete.
6. Fence design allows for
A maximum dynamic wind pressure based on a site wind speed of 21.5 m/s at a 2 year design life. This is equivalent to a site 50 year wind speed of 25.2 m/s. For higher wind speeds refer to separate details.
7. Assumed ground conditions are firm to stiff clay with a safe bearing pressure of at least 100KN/m² and a maximum 200mm depth of top soil. Ground conditions are to be verified on site prior to commencement of construction. Where the depth of topsoil exceeds 200mm foundation to be deepened to suit.



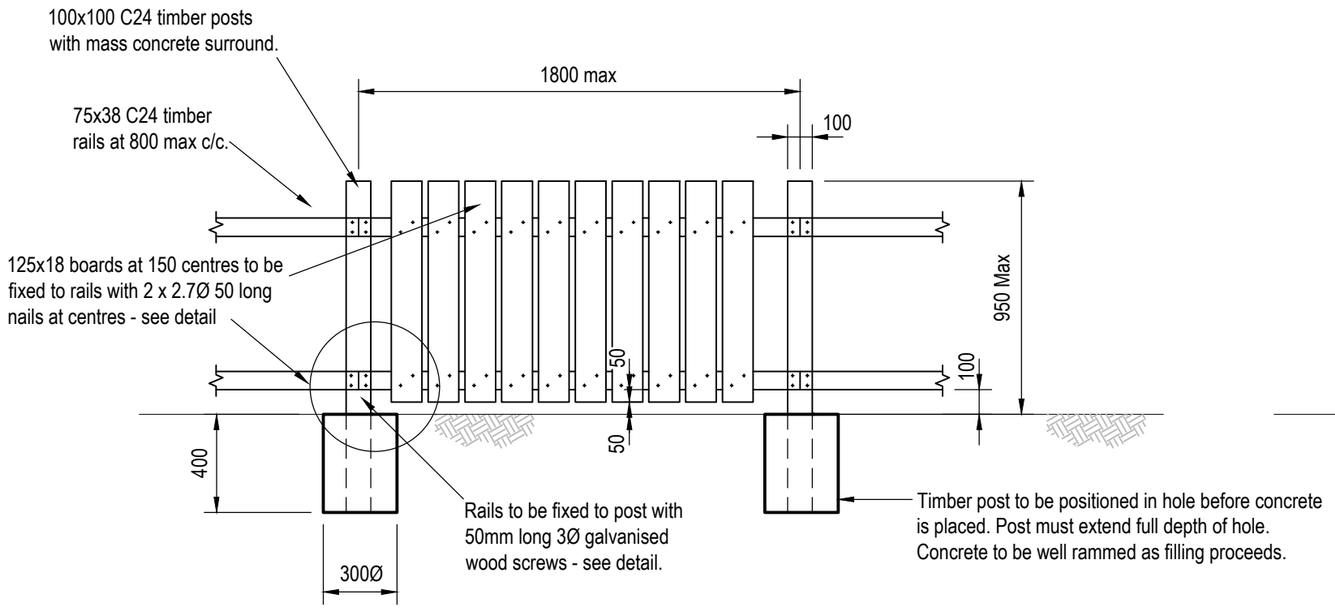
1. Where foundation placed in loose top soil the depth must be increased equal to the depth of the loose top soil.
2. It is assumed that all foundations will be placed in ground which is level or at a slope not exceeding 1 in 12. All foundations to be placed at least 1.0m away from a slope which is steeper than 1 in 12 but less than 1 in 4. All foundations to be placed at least 1.5m away from a slope which is steeper than 1 in 4 but less than 1 in 2. Note:- Site specific details required for foundations cast into ground steeper than 1 in 12.
3. Max design life is to be 2 years.

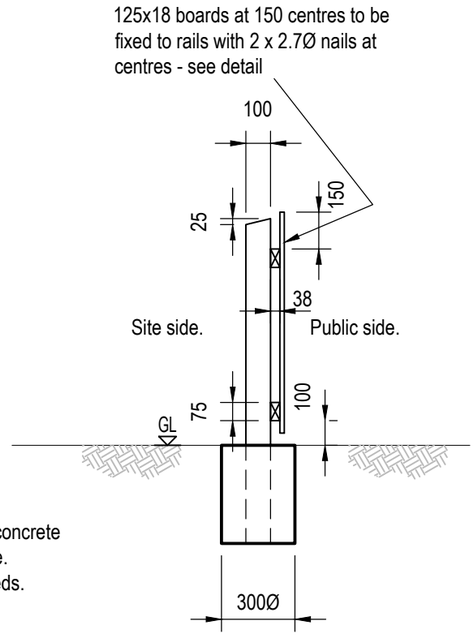
B	Construction issue.	06.09.21

PERSIMMON

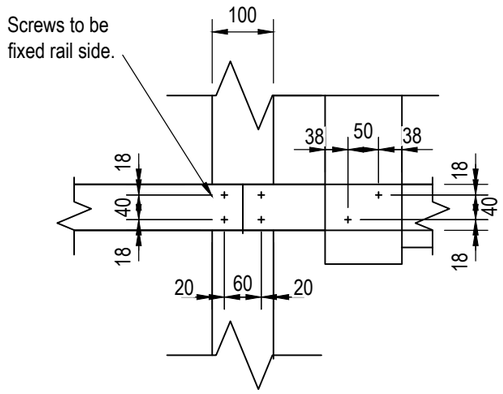
Drawing Title: SITE FENCES HIT/MISS
SHEET 1 - 1.8m (CLAY SOILS)

Project Title	Date	Scale	Drawn
TEMPORARY WORKS STANDARD DETAILS	17.08.21	1:10 1:25	JL
Drawing Status: CONSTRUCTION	Dwg. Ref.: PH/TWD/020		Rev.: B





1. All timber shall be strength class C24 to BS5628-2.
2. All timber is to be pre-treated with a pressure applied wood preservative. Timber posts to comply with class 4.1 to BS EN 335-2 : 2006, for exterior use in contact with ground and/or fresh water. Timber rails to comply with class 3.2 to BS EN 335-2 : 2006, for exterior use above ground in an unprotected environment.
3. All rail to post fixings are to be by galvanised wood screws to BS EN ISO 1461. All holes for screws to be pre-drilled.
4. All board to rail fixings are to be by galvanised nails to BS EN ISO 1461. All holes for nails are to be pre-drilled
5. All foundation concrete to be GEN1 concrete.
6. Fence design allows for
   A maximum dynamic wind pressure based on a site wind speed of 21.5 m/s at a 2 year design life. This is equivalent to a site 50 year wind speed of 25.2 m/s. For higher wind speeds refer to separate details.
7. Assumed ground conditions are firm to stiff clay with a safe bearing pressure of at least 100KN/m² and a maximum 200mm depth of top soil. Ground conditions are to be verified on site prior to commencement of construction. Where the depth of topsoil exceeds 200mm foundation to be deepened to suit.



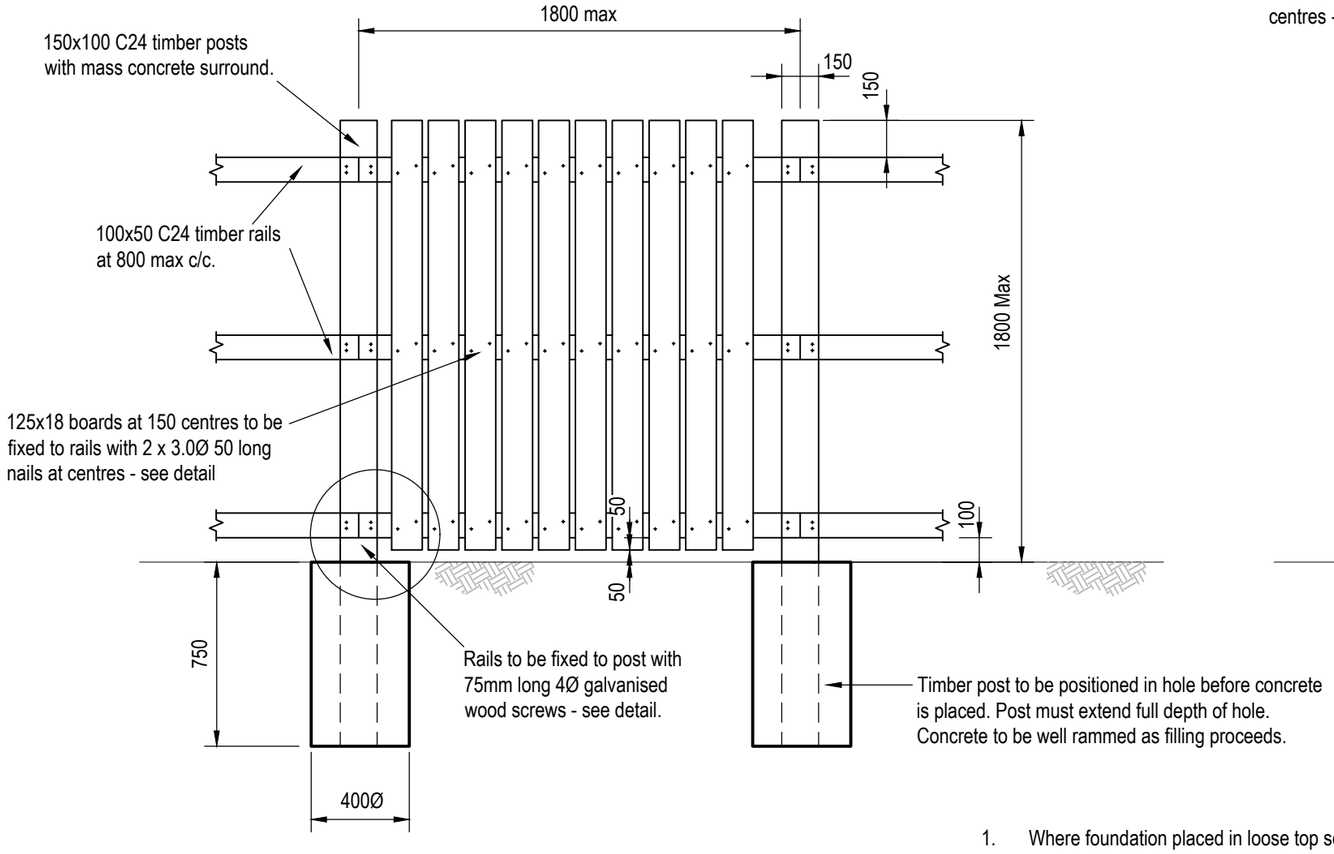
1. Where foundation placed in loose top soil the depth must be increased equal to the depth of the loose top soil.
2. It is assumed that all foundations will be placed in ground which is level or at a slope not exceeding 1 in 12. All foundations to be placed at least 1.0m away from a slope which is steeper than 1 in 12 but less than 1 in 4. All foundations to be placed at least 1.5m away from a slope which is steeper than 1 in 4 but less than 1 in 2. Note:- Site specific details required for foundations cast into ground steeper than 1 in 12.
3. Max design life is to be 2 years.

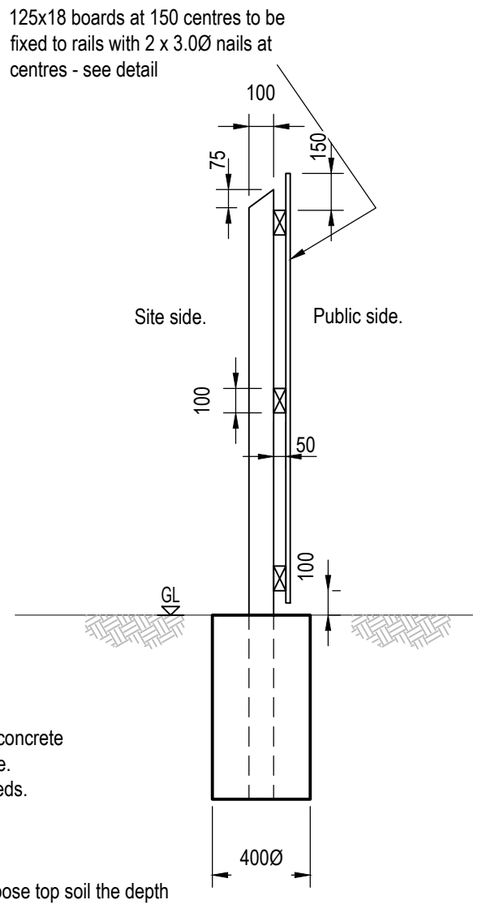
B	Construction issue.	06.09.21

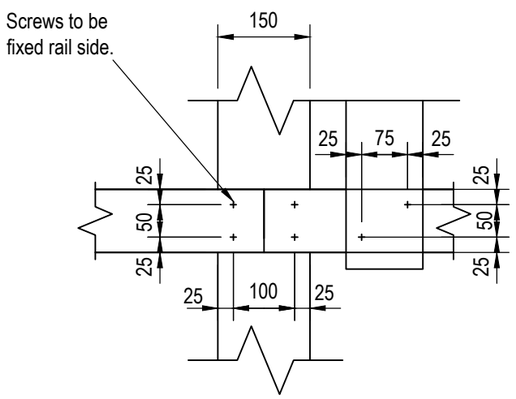
PERSIMMON

Drawing Title
SITE FENCES HIT/MISS
SHEET 2 - 0.95m (CLAY SOILS)

Project Title	Date	Scale	Drawn
TEMPORARY WORKS STANDARD DETAILS	17.08.21	1:10 1:25	JL
Drawing Status: CONSTRUCTION	Dwg. Ref.: PH/TWD/021		Rev.: B







1. All timber shall be strength class C24 to BS5628-2.
2. All timber is to be pre-treated with a pressure applied wood preservative. Timber posts to comply with class 4.1 to BS EN 335-2 : 2006, for exterior use in contact with ground and/or fresh water. Timber rails to comply with class 3.2 to BS EN 335-2 : 2006, for exterior use above ground in an unprotected environment.
3. All rail to post fixings are to be by galvanised wood screws to BS EN ISO 1461. All holes for screws to be pre-drilled.
4. All board to rail fixings are to be by galvanised nails to BS EN ISO 1461. All holes for nails are to be pre-drilled
5. All foundation concrete to be GEN1 concrete.
6. Fence design allows for
   A maximum dynamic wind pressure based on a site wind speed of 21.5 m/s at a 2 year design life. This is equivalent to a site 50 year wind speed of 25.2 m/s. For higher wind speeds refer to separate details.
7. Assumed ground conditions are firm to stiff clay with a safe bearing pressure of at least 100KN/m² and a maximum 200mm depth of top soil. Ground conditions are to be verified on site prior to commencement of construction. Where the depth of topsoil exceeds 200mm foundation to be deepened to suit.

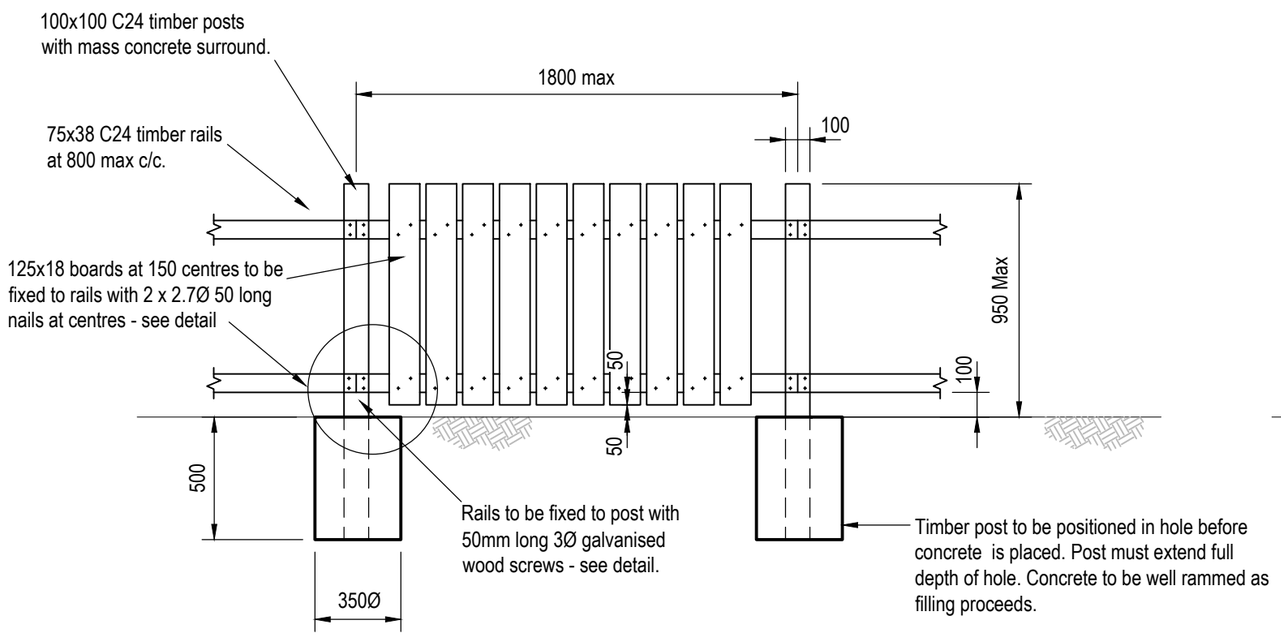
1. Where foundation placed in loose top soil the depth must be increased equal to the depth of the loose top soil.
2. It is assumed that all foundations will be placed in ground which is level or at a slope not exceeding 1 in 12. All foundations to be placed at least 1.0m away from a slope which is steeper than 1 in 12 but less than 1 in 4. All foundations to be placed at least 1.5m away from a slope which is steeper than 1 in 4 but less than 1 in 2. Note:- Site specific details required for foundations cast into ground steeper than 1 in 12.
3. Max design life is to be 2 years.

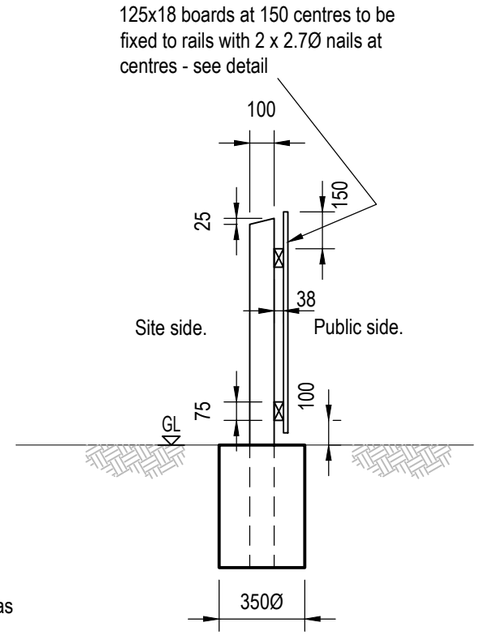
B	Construction issue.	06.09.21

PERSIMMON

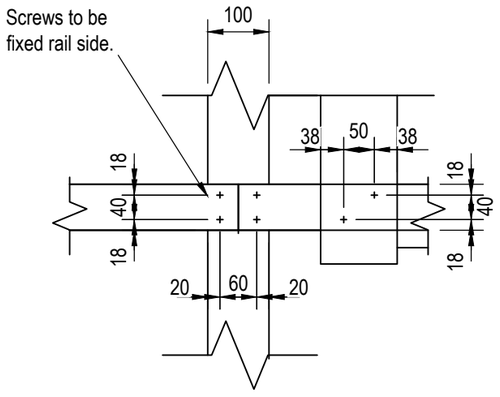
Drawing Title
SITE FENCES HIT/MISS
SHEET 3 - 1.8m (GRANULAR SOILS)

Project Title	Date	Scale	Drawn
TEMPORARY WORKS STANDARD DETAILS	17.08.21	1:10 1:25	JL
Drawing Status: CONSTRUCTION	Dwg. Ref.: PH/TWD/022		Rev.: B





1. All timber shall be strength class C24 to BS5628-2.
2. All timber is to be pre-treated with a pressure applied wood preservative. Timber posts to comply with class 4.1 to BS EN 335-2 : 2006, for exterior use in contact with ground and/or fresh water. Timber rails to comply with class 3.2 to BS EN 335-2 : 2006, for exterior use above ground in an unprotected environment.
3. All rail to post fixings are to be by galvanised wood screws to BS EN ISO 1461. All holes for screws to be pre-drilled.
4. All board to rail fixings are to be by galvanised nails to BS EN ISO 1461. All holes for nails are to be pre-drilled
5. All foundation concrete to be GEN1 concrete.
6. Fence design allows for
   A maximum dynamic wind pressure based on a site wind speed of 21.5 m/s at a 2 year design life. This is equivalent to a site 50 year wind speed of 25.2 m/s. For higher wind speeds refer to separate details.
7. Assumed ground conditions are firm to stiff clay with a safe bearing pressure of at least 100KN/m² and a maximum 200mm depth of top soil. Ground conditions are to be verified on site prior to commencement of construction. Where the depth of topsoil exceeds 200mm foundation to be deepened to suit.



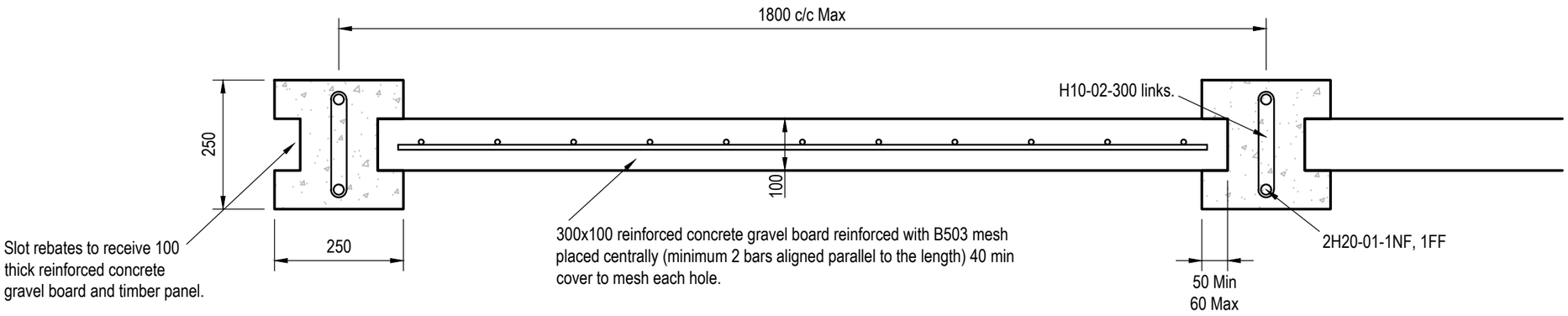
1. Where foundation placed in loose top soil the depth must be increased equal to the depth of the loose top soil.
2. It is assumed that all foundations will be placed in ground which is level or at a slope not exceeding 1 in 12. All foundations to be placed at least 1.0m away from a slope which is steeper than 1 in 12 but less than 1 in 4. All foundations to be placed at least 1.5m away from a slope which is steeper than 1 in 4 but less than 1 in 2. Note:- Site specific details required for foundations cast into ground steeper than 1 in 12.
3. Max design life is to be 2 years.

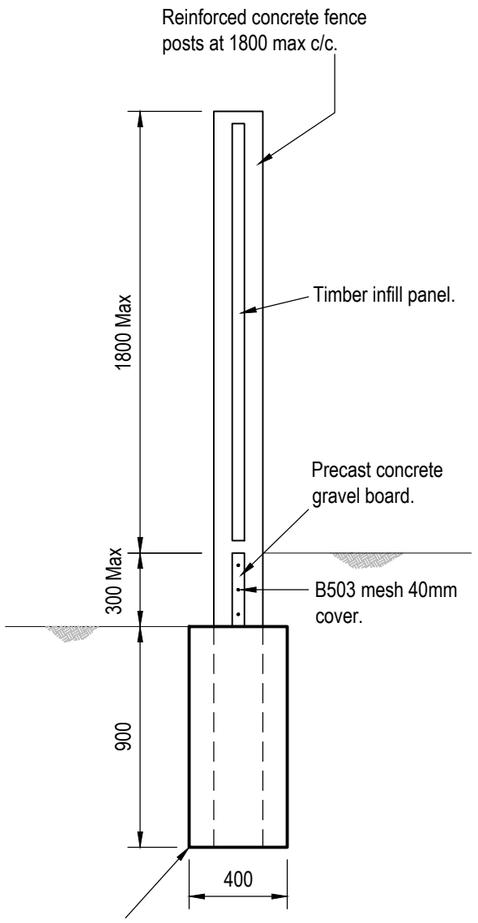
B	Construction issue.	06.09.21

PERSIMMON

Drawing Title: SITE FENCES HIT/MISS SHEET 4 - 0.95m (GRANULAR SOILS)

Project Title	Date	Scale	Drawn
TEMPORARY WORKS STANDARD DETAILS	17.08.21	1:10 1:25	JL
Drawing Status: CONSTRUCTION	Dwg. Ref.: PH/TWD/023		Rev.: B





Post to be positioned in hole before concrete is placed. Post must extend full depth of hole. Concrete to be well rammed as filling proceeds.

1. All timber shall be strength class C24 to BS5628-2.
2. All timber is to be pre-treated with a pressure applied wood preservative. Timber panels to comply with class 3.2 to BS EN 335-2 : 2006, for exterior use above ground in an unprotected environment.
3. All foundation concrete to be designated mix RC 35 to BS8500-1.
4. All reinforcement is to be deformed type 2 high yield steel to BS4449. All mesh reinforcement to BS4449.
5. Minimum cover to be 50mm generally, 40 mm in gravel board.
6. All precast concrete is to be compacted with a poker vibrator and cured and protected from frost for at least seven days after casting.
7. All exposed vertical and horizontal edges of concrete shall have 25x25 chamfer. Chamfer shall extend to 150 below finished ground level.
8. Fence design allows for

   A maximum dynamic wind pressure based on a site wind speed of 21.5 m/s at a 2 year design life. This is equivalent to a site 50 year wind speed of 25.2 m/s. For higher wind speeds refer to separate details.
9. Assumed ground conditions are firm to stiff clay with a safe bearing pressure of at least 100KN/m² and a maximum 200mm depth of top soil.
   Ground conditions are to be verified on site prior to commencement of construction.
   Where the depth of topsoil exceeds 200mm foundation to be deepened to suit.
10. Where foundation placed in loose top soil the depth must be increased equal to the depth of the loose top soil.
11. It is assumed that all foundations will be placed in ground which is level or at a slope not exceeding 1 in 12.
    All foundations to be placed at least 1.0m away from a slope which is steeper than 1 in 12 but less than 1 in 4.
    All foundations to be placed at least 1.5m away from a slope which is steeper than 1 in 4 but less than 1 in 2.
    Note:- Site specific details required for foundations cast into ground steeper than 1 in 12.

BAR BENDING SCHEDULE FOR POST REINFORCEMENT

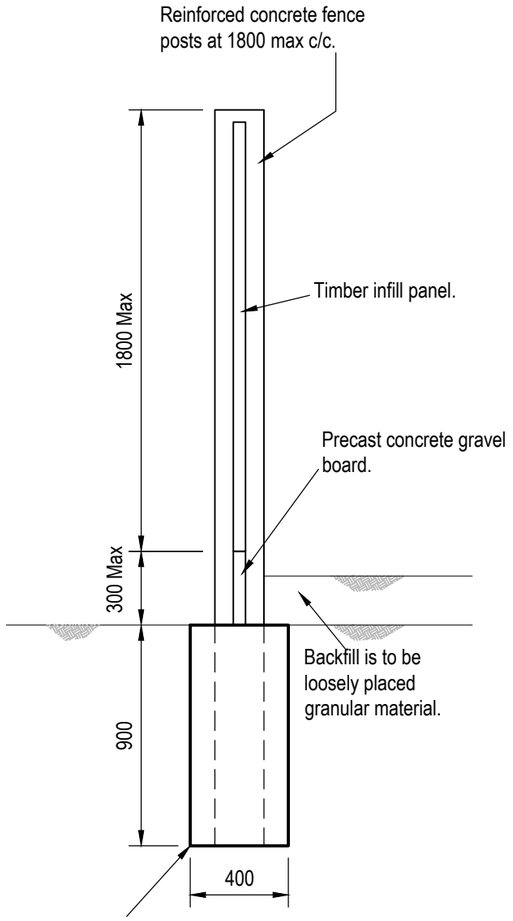
Bar Mark	Type and Size	No of Mbrs	No of bars in each	Total No	Length of each bar	Shape code	A	B	C
01	H20	1	2	2	2850	00	2850		
02	H10	1	11	11	625	33	150	60	130

B	Construction issue.	06.09.21

PERSIMMON

Drawing Title: SITE FENCES CONCRETE SHEET 5 - 1.8m (CLAY SOILS)

Project Title	Date	Scale	Drawn
TEMPORARY WORKS STANDARD DETAILS	17.08.21	1:10 1:25	JL
Drawing Status: CONSTRUCTION	Dwg. Ref.: PH/TWD/024		Rev.: B

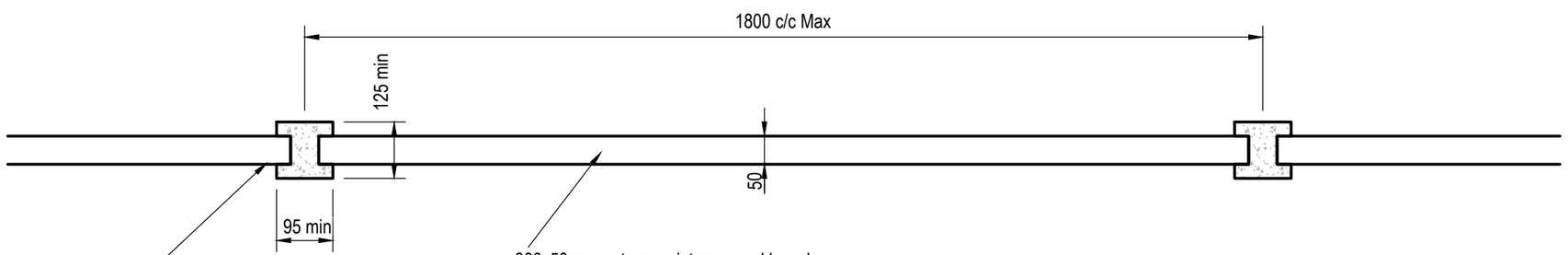


400 x 400 x 900 min high mass concrete foundation. Where ground level varies, top of foundation at lowest ground level.

Post to be positioned in hole before concrete is placed. Post must extend full depth of hole. Concrete to be well rammed as filling proceeds.

1. All timber shall be strength class C24 to BS5628-2.
2. All timber is to be pre-treated with a pressure applied wood preservative. Timber panels to comply with class 3.2 to BS EN 335-2 : 2006, for exterior use above ground in an unprotected environment.
3. All foundation concrete to be designated mix GEN 1 to BS8500-1.
4. All reinforcement is to be deformed type 2 high yield steel to BS4449. All mesh reinforcement to BS4449.
5. Fence design allows for

   A maximum dynamic wind pressure based on a site wind speed of 21.5 m/s at a 2 year design life. This is equivalent to a site 50 year wind speed of 25.2 m/s. For higher wind speeds refer to separate details.
   Max 200 thickness soil retained height,
   2.5 kN/m² surcharge.
6. Details of fence posts and gravel board are not known. Post assumed to contain at least 2H12 bars with 20 cover, 1FF, 1NF, and to be minimum 95x125 dimension.
7. The design must be used in temporary situations only, it is possible that some panels may be dislodged in high winds, and may need to be replaced.
   The detail must not be adopted in critical locations.
8. Assumed ground conditions are firm to stiff clay with a safe bearing pressure of at least 100KN/m² and a maximum 200mm depth of top soil.
   Ground conditions are to be verified on site prior to commencement of construction.
   Where the depth of topsoil exceeds 200mm foundation to be deepened to suit.
9. Where foundation placed in loose top soil the depth must be increased equal to the depth of the loose top soil.
10. It is assumed that all foundations will be placed in ground which is level or at a slope not exceeding 1 in 12.
    All foundations to be placed at least 1.0m away from a slope which is steeper than 1 in 12 but less than 1 in 4.
    All foundations to be placed at least 1.5m away from a slope which is steeper than 1 in 4 but less than 1 in 2.
    Note:- Site specific details required for foundations cast into ground steeper than 1 in 12.



Slot rebates to receive 50 thick concrete gravel board and timber panel.

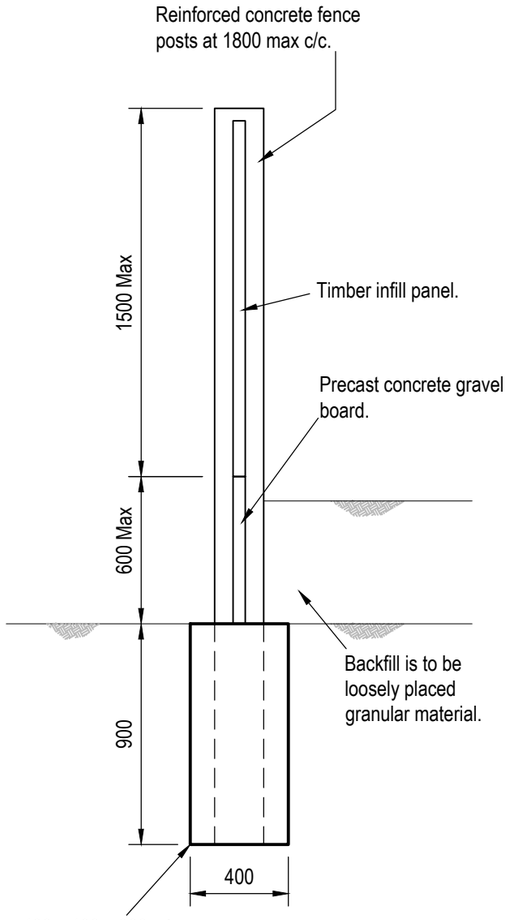
300x50 concrete proprietary gravel board. Details of reinforcement (if any) are not known. It is unlikely that the gravel board will be able to accommodate shock load and it is possible that a fracture may occur and gravel boards may require replacement locally.

B	Construction issue.	06.09.21

PERSIMMON

Drawing Title: SITE FENCES CONCRETE SHEET 6 - 2.1m (CLAY SOILS)

Project Title	Date	Scale	Drawn
TEMPORARY WORKS STANDARD DETAILS	17.08.21	1:10 1:25	JL
Drawing Status: CONSTRUCTION	Dwg. Ref.: PH/TWD/025		Rev.: B

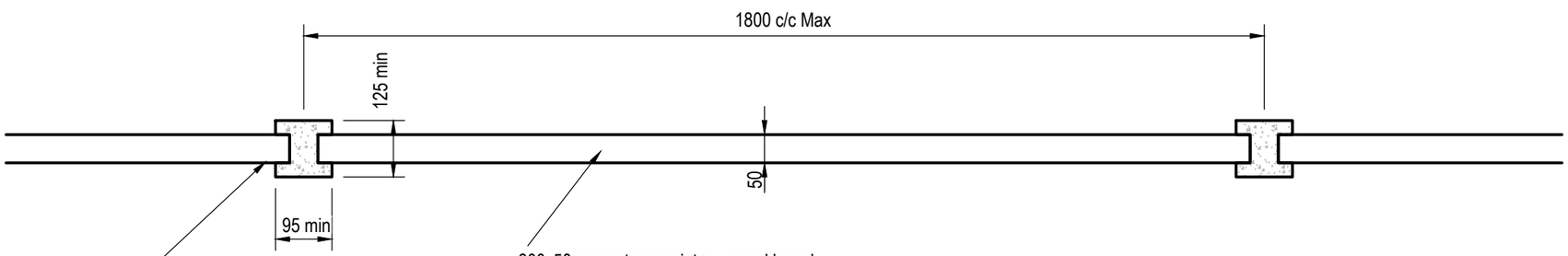


400 x 400 x 900 min high mass concrete foundation. Where ground level varies, top of foundation at lowest ground level.

Post to be positioned in hole before concrete is placed. Post must extend full depth of hole. Concrete to be well rammed as filling proceeds.

1. All timber shall be strength class C24 to BS5628-2.
2. All timber is to be pre-treated with a pressure applied wood preservative. Timber panels to comply with class 3.2 to BS EN 335-2 : 2006, for exterior use above ground in an unprotected environment.
3. All foundation concrete to be designated mix GEN 1 to BS8500-1.
4. All reinforcement is to be deformed type 2 high yield steel to BS4449. All mesh reinforcement to BS4449.
5. Fence design allows for

   A maximum dynamic wind pressure based on a site wind speed of 21.5 m/s at a 2 year design life. This is equivalent to a site 50 year wind speed of 25.2 m/s. For higher wind speeds refer to separate details.
   Max 500 thickness soil retained height, surcharge loads are not permitted.
6. Details of fence posts and gravel board are not known. Post assumed to contain at least 2H12
   bars with 20 cover, 1FF, 1NF, and to be minimum 95x125 dimension.
7. The design must be used in temporary situations only where surcharge loading can be prevented, it is possible that some panels may be dislodged in high winds, and may need to be replaced.
   The detail must not be adopted in critical locations.
8. Assumed ground conditions are firm to stiff clay with a safe bearing pressure of at least 100KN/m² and a maximum 200mm depth of top soil.
   Ground conditions are to be verified on site prior to commencement of construction.
   Where the depth of topsoil exceeds 200mm foundation to be deepened to suit.
9. Where foundation placed in loose top soil the depth must be increased equal to the depth of the loose top soil.
10. It is assumed that all foundations will be placed in ground which is level or at a slope not exceeding 1 in 12.
    All foundations to be placed at least 1.0m away from a slope which is steeper than 1 in 12 but less than 1 in 4.
    All foundations to be placed at least 1.5m away from a slope which is steeper than 1 in 4 but less than 1 in 2.
    Note:- Site specific details required for foundations cast into ground steeper than 1 in 12.



Slot rebates to receive 50 thick concrete gravel board and timber panel.

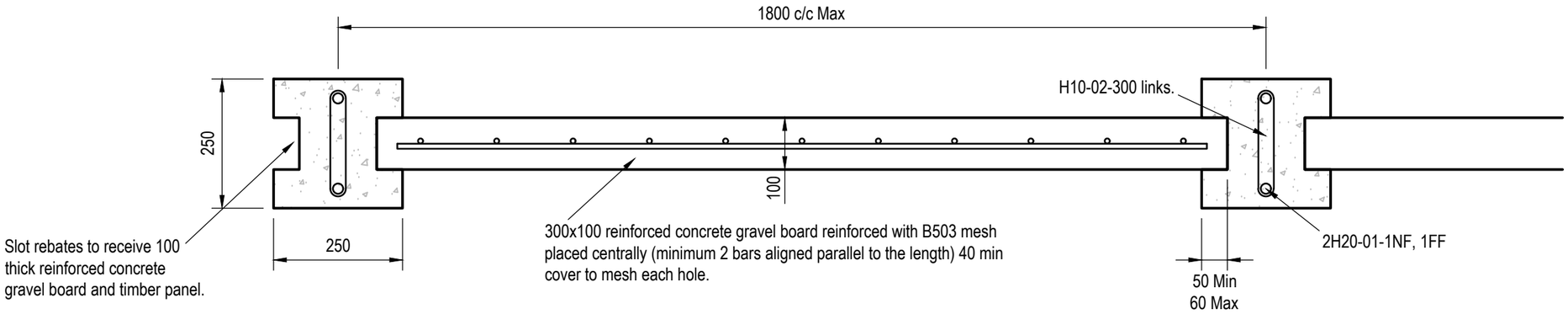
300x50 concrete proprietary gravel board. Details of reinforcement (if any) are not known. It is unlikely that the gravel board will be able to accommodate shock load and it is possible that a fracture may occur and gravel boards may require replacement locally.

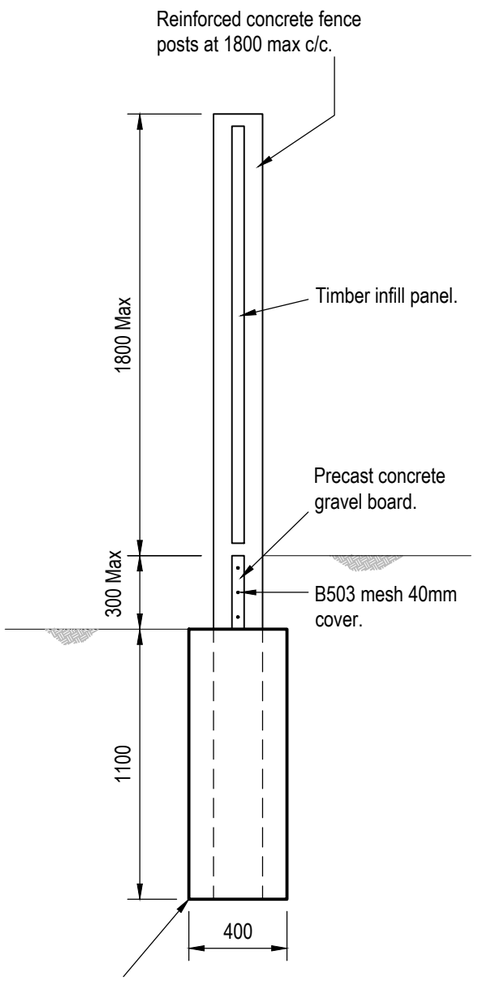
B	Construction issue.	06.09.21

PERSIMMON

Drawing Title: SITE FENCES CONCRETE SHEET 7 - 2.1m (CLAY SOILS)

Project Title	Date	Scale	Drawn
TEMPORARY WORKS STANDARD DETAILS	17.08.21	1:10 1:25	JL
Drawing Status: CONSTRUCTION	Dwg. Ref.: PH/TWD/026		Rev.: B





Post to be positioned in hole before concrete is placed. Post must extend full depth of hole. Concrete to be well rammed as filling proceeds.

1. All timber shall be strength class C24 to BS5628-2.
2. All timber is to be pre-treated with a pressure applied wood preservative. Timber panels to comply with class 3.2 to BS EN 335-2 : 2006, for exterior use above ground in an unprotected environment.
3. All foundation concrete to be designated mix RC 35 to BS8500-1.
4. All reinforcement is to be deformed type 2 high yield steel to BS4449. All mesh reinforcement to BS4449.
5. Minimum cover to be 50mm generally, 40 mm in gravel board.
6. All precast concrete is to be compacted with a poker vibrator and cured and protected from frost for at least seven days after casting.
7. All exposed vertical and horizontal edges of concrete shall have 25x25 chamfer. Chamfer shall extend to 150 below finished ground level.
8. Fence design allows for

   A maximum dynamic wind pressure based on a site wind speed of 21.5 m/s at a 2 year design life. This is equivalent to a site 50 year wind speed of 25.2 m/s. For higher wind speeds refer to separate details.
9. Assumed ground conditions are medium dense sand or gravel (SPT>10) with a safe bearing pressure of at least 100KN/m² and a maximum 200mm depth of top soil. Ground conditions are to be verified on site prior to commencement of construction.
   Where the depth of topsoil exceeds 200mm foundation to be deepened to suit.
10. Where foundation placed in loose top soil the depth must be increased equal to the depth of the loose top soil.
11. It is assumed that all foundations will be placed in ground which is level or at a slope not exceeding 1 in 12. All foundations to be placed at least 1.0m away from a slope which is steeper than 1 in 12 but less than 1 in 4. All foundations to be placed at least 1.5m away from a slope which is steeper than 1 in 4 but less than 1 in 2. Note:- Site specific details required for foundations cast into ground steeper than 1 in 12.

BAR BENDING SCHEDULE FOR POST REINFORCEMENT

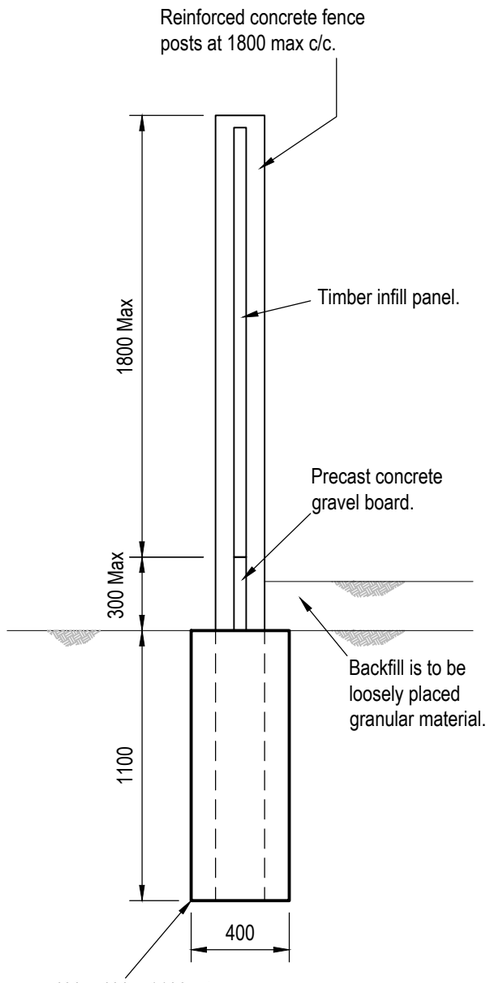
Bar Mark	Type and Size	No of Mbrs	No of bars in each	Total No	Length of each bar	Shape code	A	B	C
01	H20	1	2	2	2850	00	2850		
02	H10	1	11	11	625	33	150	60	130

B	Construction issue.	06.09.21

PERSIMMON

Drawing Title: SITE FENCES CONCRETE SHEET 8 - 1.8m (GRANULAR SOILS)

Project Title	Date	Scale	Drawn
TEMPORARY WORKS STANDARD DETAILS	17.08.21	1:10 1:25	JL
Drawing Status: CONSTRUCTION	Dwg. Ref.: PH/TWD/027		Rev.: B

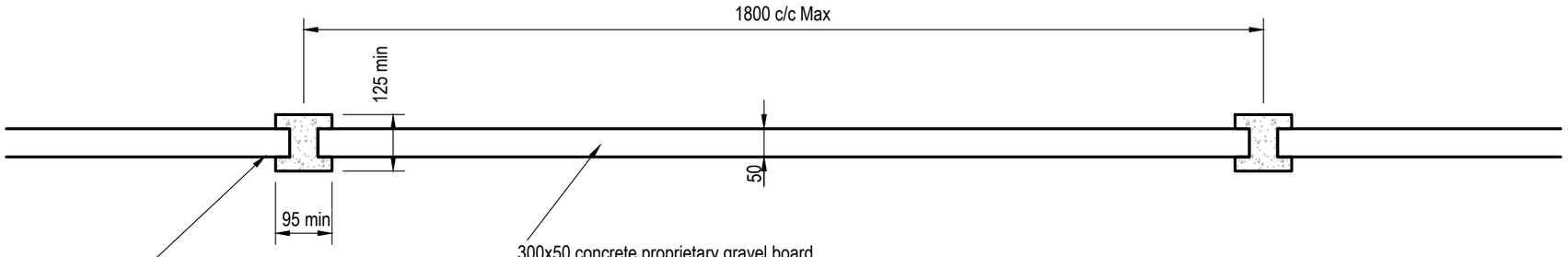


400 x 400 x 1100 min high mass concrete foundation. Where ground level varies, top of foundation at lowest ground level.

Post to be positioned in hole before concrete is placed. Post must extend full depth of hole. Concrete to be well rammed as filling proceeds.

1. All timber shall be strength class C24 to BS5628-2.
2. All timber is to be pre-treated with a pressure applied wood preservative. Timber panels to comply with class 3.2 to BS EN 335-2 : 2006, for exterior use above ground in an unprotected environment.
3. All foundation concrete to be designated mix GEN 1 to BS8500-1.
4. All reinforcement is to be deformed type 2 high yield steel to BS4449. All mesh reinforcement to BS4449.
5. Fence design allows for

   A maximum dynamic wind pressure based on a site wind speed of 21.5 m/s at a 2 year design life. This is equivalent to a site 50 year wind speed of 25.2 m/s. For higher wind speeds refer to separate details.
   Max 200 soil retained height, 2.5 kN/m² surcharge.
6. Details of fence posts and gravel board are not known. Post assumed to contain at least 2H12 bars with 20 cover, 1NF, 1FF, and to be minimum 95x125 dimensions.
7. The design must be used in temporary situations only, it is possible that some panels may be dislodged in high winds
   and may need to be replaced.
   The detail must not be adopted in critical locations
8. Assumed ground conditions are medium dense sand or gravel (SPT>10) with a safe bearing pressure of at least 100KN/m² and a maximum 200mm depth of top soil. Ground conditions are to be verified on site prior to commencement of construction.
   Where the depth of topsoil exceeds 200mm foundation to be deepened to suit.
9. Where foundation placed in loose top soil the depth must be increased equal to the depth of the loose top soil.
10. It is assumed that all foundations will be placed in ground which is level or at a slope not exceeding 1 in 12. All foundations to be placed at least 1.0m away from a slope which is steeper than 1 in 12 but less than 1 in 4. All foundations to be placed at least 1.5m away from a slope which is steeper than 1 in 4 but less than 1 in 2. Note:- Site specific details required for foundations cast into ground steeper than 1 in 12.



Slot rebates to receive 50 thick concrete gravel board and timber panel.

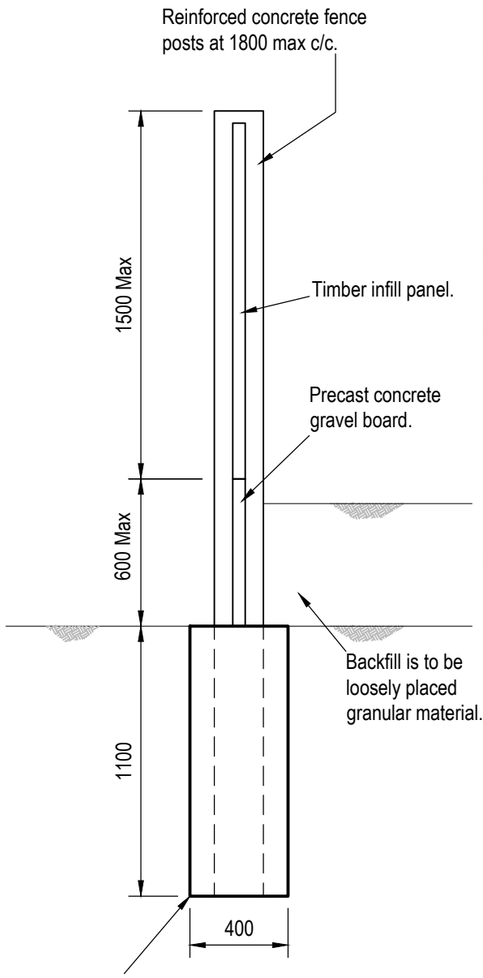
300x50 concrete proprietary gravel board. Details of reinforcement (if any) are not known. It is unlikely that the gravel board will be able to accommodate shock load and it is possible that a fracture may occur and gravel boards may require replacement locally.

B	Construction issue.	06.09.21

PERSIMMON

Drawing Title: SITE FENCES CONCRETE SHEET 9 - 1.8m (GRANULAR SOILS)

Project Title	Date	Scale	Drawn
TEMPORARY WORKS STANDARD DETAILS	17.08.21	1:10 1:25	JL
Drawing Status: CONSTRUCTION	Dwg. Ref.: PH/TWD/028		Rev.: B

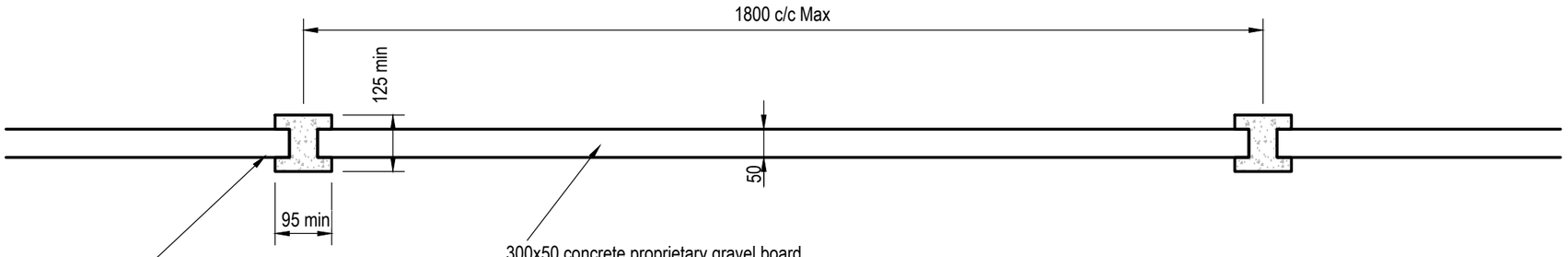


400 x 400 x 1100 min high mass concrete foundation. Where ground level varies, top of foundation at lowest ground level.

Post to be positioned in hole before concrete is placed. Post must extend full depth of hole. Concrete to be well rammed as filling proceeds.

1. All timber shall be strength class C24 to BS5628-2.
2. All timber is to be pre-treated with a pressure applied wood preservative. Timber panels to comply with class 3.2 to BS EN 335-2 : 2006, for exterior use above ground in an unprotected environment.
3. All foundation concrete to be designated mix GEN 1 to BS8500-1.
4. All reinforcement is to be deformed type 2 high yield steel to BS4449. All mesh reinforcement to BS4449.
5. Fence design allows for

   A maximum dynamic wind pressure based on a site wind speed of 21.5 m/s at a 2 year design life. This is equivalent to a site 50 year wind speed of 25.2 m/s. For higher wind speeds refer to separate details.
   Max 500 thickness soil retained height, surcharge loads are not permitted.
6. Details of fence posts and gravel board are not known. Post assumed to contain at least 2H12 bars with 20 cover, 1NF, 1FF, and to be minimum 95x125 dimensions.
7. The design must be used in temporary situations only where surcharge loading can be prevented, it is possible that some panels may be dislodged in high winds and may need to be replaced.
   The detail must not be adopted in critical locations
8. Assumed ground conditions are medium dense sand or gravel (SPT>10) with a safe bearing pressure of at least 100KN/m² and a maximum 200mm depth of top soil. Ground conditions are to be verified on site prior to commencement of construction.
   Where the depth of topsoil exceeds 200mm foundation to be deepened to suit.
9. Where foundation placed in loose top soil the depth must be increased equal to the depth of the loose top soil.
10. It is assumed that all foundations will be placed in ground which is level or at a slope not exceeding 1 in 12. All foundations to be placed at least 1.0m away from a slope which is steeper than 1 in 12 but less than 1 in 4. All foundations to be placed at least 1.5m away from a slope which is steeper than 1 in 4 but less than 1 in 2. Note:- Site specific details required for foundations cast into ground steeper than 1 in 12.



Slot rebates to receive 50 thick concrete gravel board and timber panel.

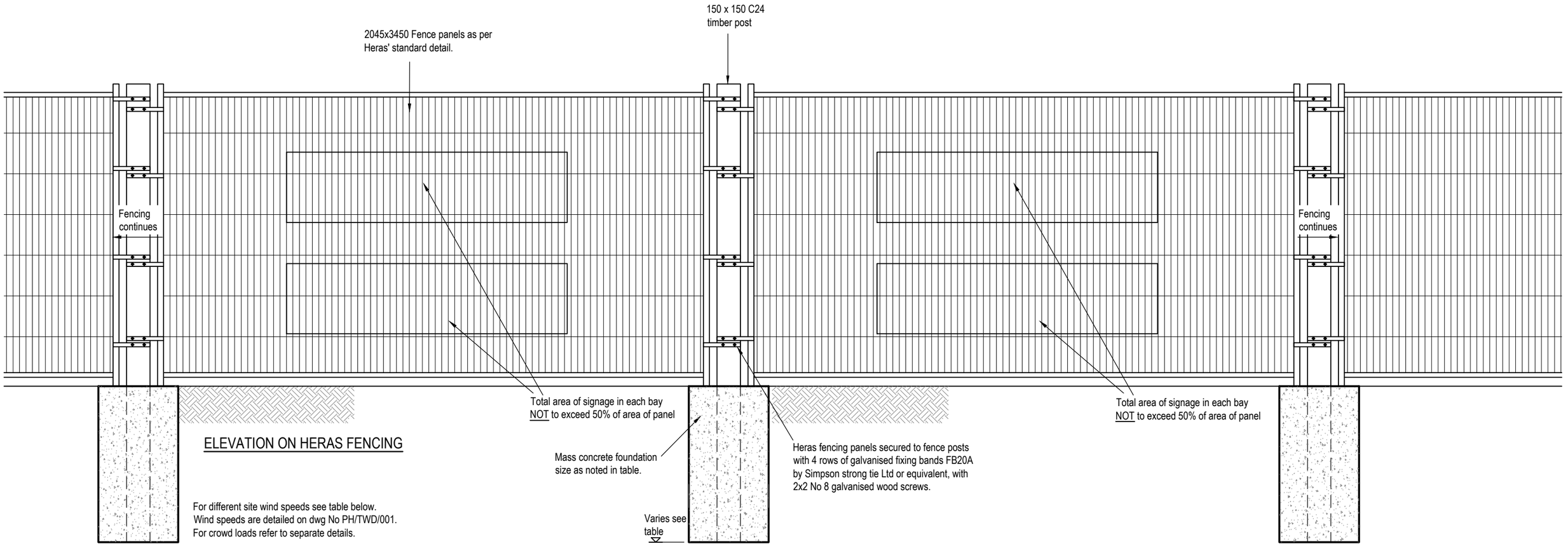
300x50 concrete proprietary gravel board. Details of reinforcement (if any) are not known. It is unlikely that the gravel board will be able to accommodate shock load and it is possible that a fracture may occur and gravel boards may require replacement locally.

B	Construction issue.	06.09.21

PERSIMMON

Drawing Title: SITE FENCES CONCRETE SHEET 10 - 2.1m (GRANULAR SOILS)

Project Title	Date	Scale	Drawn
TEMPORARY WORKS STANDARD DETAILS	17.08.21	1:10 1:25	JL
Drawing Status: CONSTRUCTION	Dwg. Ref.: PH/TWD/029		Rev.: B



ELEVATION ON HERAS FENCING

For different site wind speeds see table below.
Wind speeds are detailed on dwg No PH/TWD/001.
For crowd loads refer to separate details.

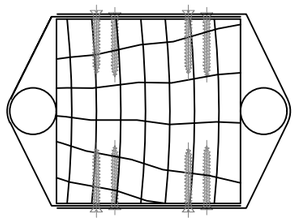
CLAY SOILS	TOWN TERRAIN Up to 22m/s Up to 50m altitude Min 100km from the sea.	TOWN TERRAIN Up to 23.5m/s Up to 100m altitude Min 10km from the sea.	TOWN TERRAIN Up to 25.0m/s Up to 150m altitude Min 2km from the sea.	COUNTRY TERRAIN Up to 22m/s Up to 50m altitude Min 100km from the sea.	COUNTRY TERRAIN Up to 23.5m/s Up to 100m altitude Min 10km from the sea.	COUNTRY TERRAIN Up to 25.0m/s Up to 150m altitude Min 2km from the sea.
FOUNDATION SIZE	300Ø x 1050	300Ø x 1050	300Ø x 1050	300Ø x 1050	300Ø x 1050	300Ø x 1050

GRANULAR SOILS	TOWN TERRAIN Up to 22m/s Up to 50m altitude Min 100km from the sea.	TOWN TERRAIN Up to 23.5m/s Up to 100m altitude Min 10km from the sea.	TOWN TERRAIN Up to 25.0m/s Up to 150m altitude Min 2km from the sea.	COUNTRY TERRAIN Up to 22m/s Up to 50m altitude Min 100km from the sea.	COUNTRY TERRAIN Up to 23.5m/s Up to 100m altitude Min 10km from the sea.	COUNTRY TERRAIN Up to 25.0m/s Up to 150m altitude Min 2km from the sea.
FOUNDATION SIZE	400Ø x 1200	400Ø x 1200	400Ø x 1200	400Ø x 1200	400Ø x 1200	400Ø x 1350

TABLE 1 : VARIATIONS OF RECOMMENDATIONS FOR DIFFERENT LOADING CONDITIONS

TOWN TERRAIN :- Where there are built up areas around the full extent of the site, within 100m of the boundary and extending at least 2km.
COUNTRY TERRAIN:- All areas which are not defined as town terrain.

Heras fencing panels secured to fence posts with 4 rows of galvanised fixing bands FB20A by Simpson strong tie Ltd or equivalent, with 2x2 No 8 galvanised wood screws.



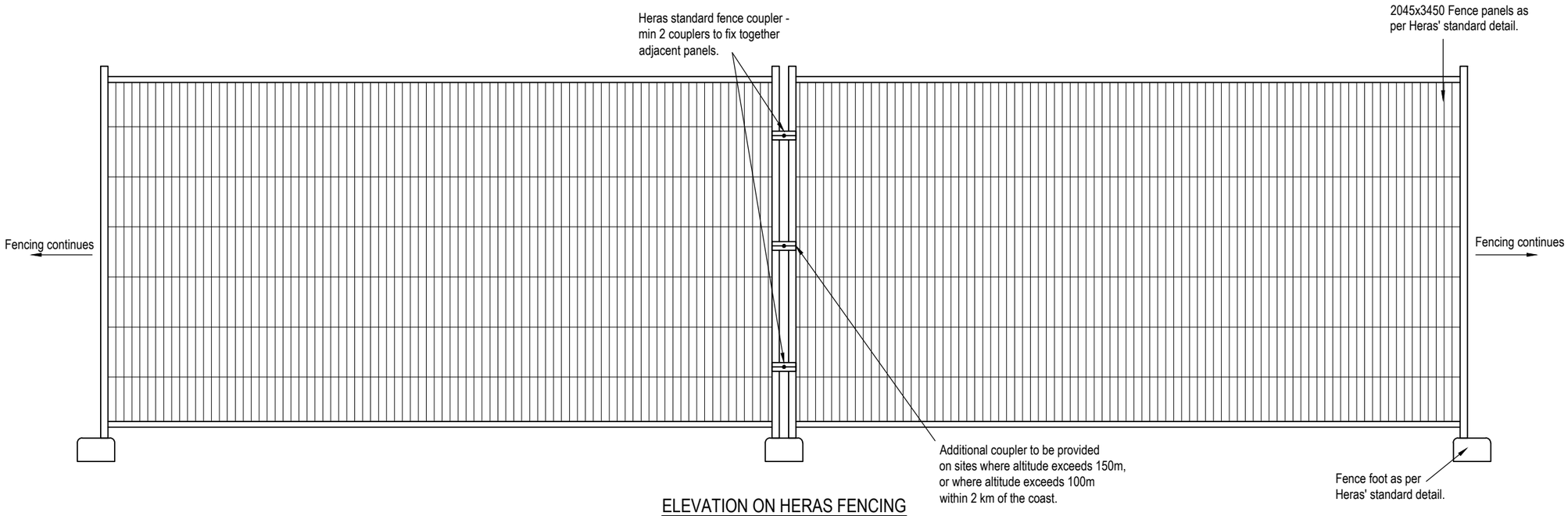
1. All timber shall be strength class C24 to BS5628-2.
2. All timber is to be pre- treated with a pressure applied wood preservative. Timber posts to comply with class 4.1 to BS EN 335-2 : 2006, for exterior use in contact with ground and/or fresh water.
3. Assumed ground conditions are firm to stiff clay (Cu > 40 kN/m²) or medium dense sand and gravel (N > 8) with a safe bearing pressure of 75 KN/m² and a maximum of 200mm depth of top soil.
4. Ground conditions are to be verified on site prior to commencement of construction. Where there is an increased depth of topsoil, foundations to be deepened to suit.
5. Wind speeds are detailed on drawing PH/TWD/001.

B	Construction issue.	06.09.21

PERSIMMON

Drawing Title: HERAS FENCING WITH CONCRETE FOUNDATIONS

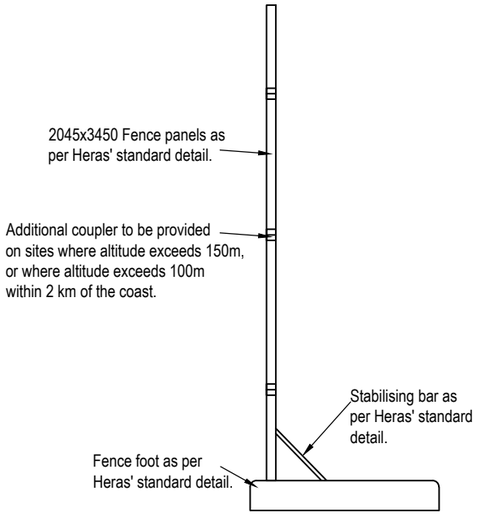
Project Title	Date	Scale	Drawn
TEMPORARY WORKS STANDARD DETAILS	17.08.21	1:5 1:25	JL
Drawing Status: CONSTRUCTION	Dwg. Ref.: PH/TWD/030		Rev.: B



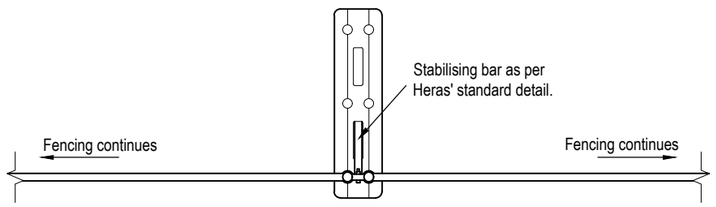
ELEVATION ON HERAS FENCING

NOTE: THIS ARRANGEMENT ASSUMES THAT THE HERAS FENCING WILL BE LEFT AS OPEN MESH WITHOUT SHEETING OR HOARDING.
NOT SUITABLE FOR SHEETED OR HOARDED PANELS.

THE PANELS HAVE LIMITED WIND RESISTANCE AND SHOULD NOT BE USED IN CRITICAL LOCATIONS IN WINDY CONDITIONS.
USE TO BE LIMITED TO TIMES WHEN WIND SPEED IS LESS THAN 25 MPH.



SECTION THROUGH HERAS FENCING AT FOOT



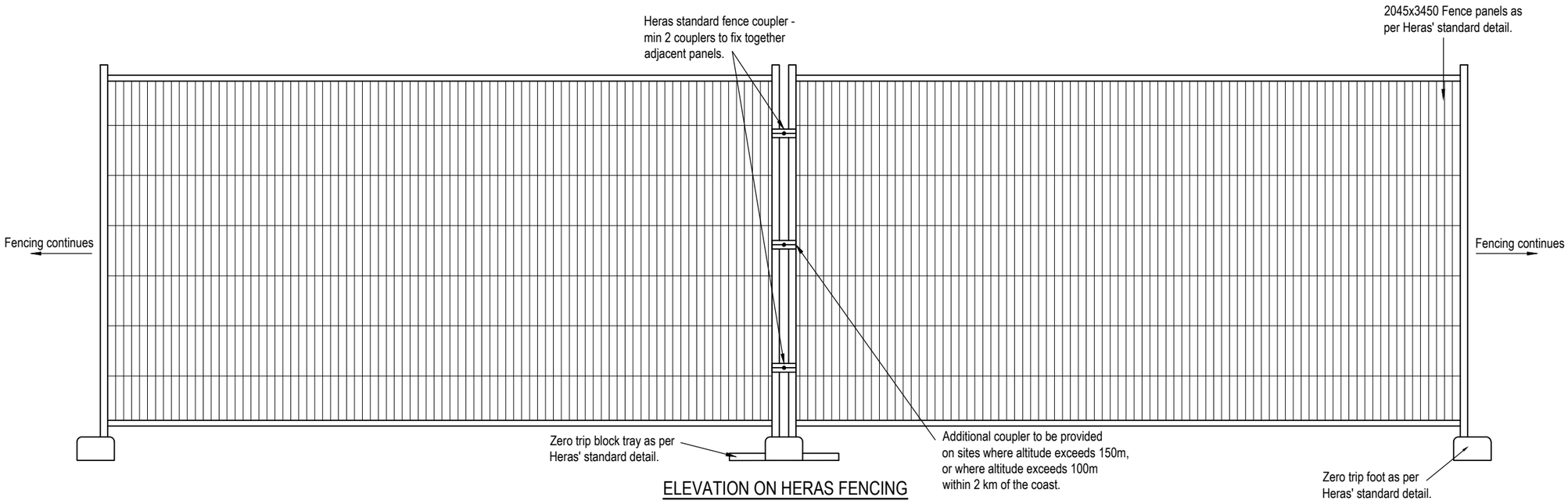
PLAN ON HERAS FENCING

B	Construction issue.	06.09.21

PERSIMMON

Drawing Title: HERAS FENCING DETAIL

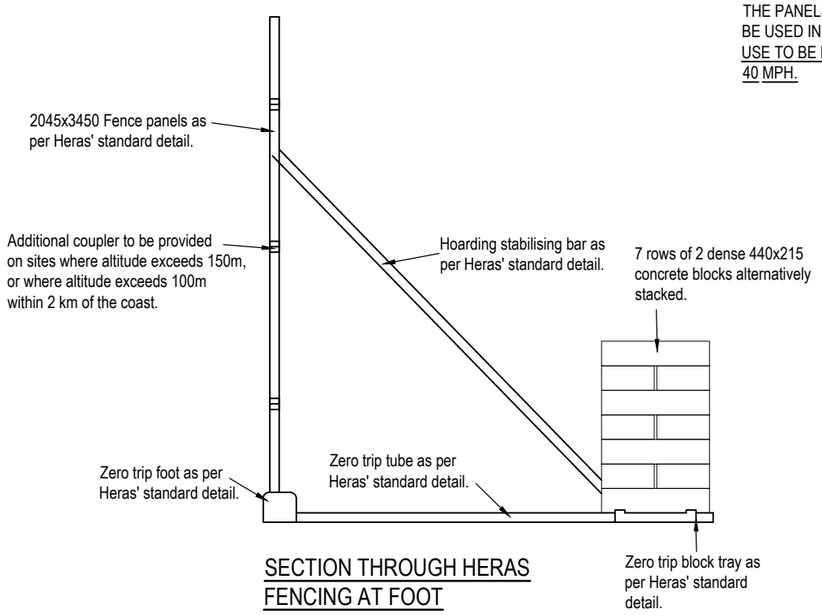
Project Title	Date	Scale	Drawn
TEMPORARY WORKS STANDARD DETAILS	17.08.21	1:25	JL
Drawing Status	**Dwg. Ref.**		**Rev.**
CONSTRUCTION	PH/TWD/031		B



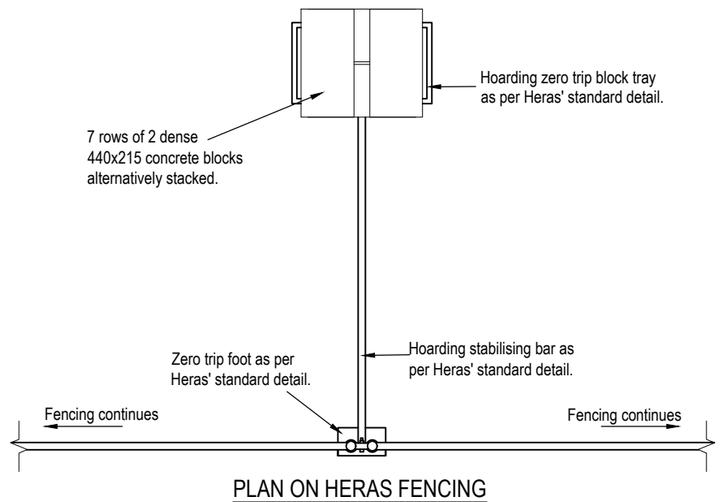
ELEVATION ON HERAS FENCING

NOTE: THIS ARRANGEMENT ASSUMES THAT THE HERAS FENCING WILL BE LEFT AS OPEN MESH WITHOUT SHEETING OR HOARDING.
NOT SUITABLE FOR SHEETED OR HOARDED PANELS.

THE PANELS HAVE LIMITED WIND RESISTANCE AND SHOULD NOT BE USED IN CRITICAL LOCATIONS IN WINDY CONDITIONS.
USE TO BE LIMITED TO TIMES WHEN WIND SPEED IS LESS THAN 40 MPH.



SECTION THROUGH HERAS FENCING AT FOOT



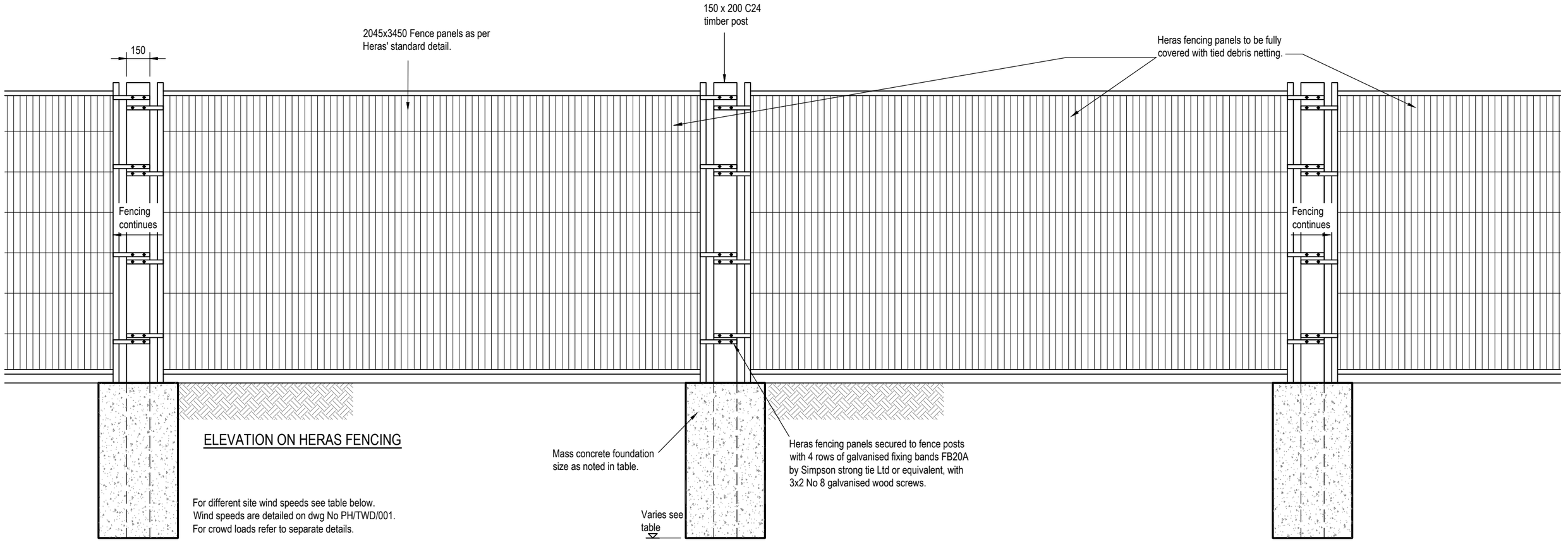
PLAN ON HERAS FENCING

B	Construction issue.	06.09.21

PERSIMMON

Drawing Title: HERAS FENCING DETAIL

Project Title	Date	Scale	Drawn
TEMPORARY WORKS STANDARD DETAILS	17.08.21	1:25	JL
Drawing Status	**Dwg. Ref.**		**Rev.**
CONSTRUCTION	PH/TWD/032		B



ELEVATION ON HERAS FENCING

For different site wind speeds see table below.
Wind speeds are detailed on dwg No PH/TWD/001.
For crowd loads refer to separate details.

CLAY SOILS	TOWN TERRAIN Up to 22m/s Up to 50m altitude Min 100km from the sea.	TOWN TERRAIN Up to 23.5m/s Up to 100m altitude Min 10km from the sea.	TOWN TERRAIN Up to 25.0m/s Up to 150m altitude Min 2km from the sea.	COUNTRY TERRAIN Up to 22m/s Up to 50m altitude Min 100km from the sea.	COUNTRY TERRAIN Up to 23.5m/s Up to 100m altitude Min 10km from the sea.	COUNTRY TERRAIN Up to 25.0m/s Up to 150m altitude Min 2km from the sea.
FOUNDATION SIZE	300Ø x 1150	300Ø x 1150	300Ø x 1150	300Ø x 1150	300Ø x 1150	300Ø x 1250

GRANULAR SOILS	TOWN TERRAIN Up to 22m/s Up to 50m altitude Min 100km from the sea.	TOWN TERRAIN Up to 23.5m/s Up to 100m altitude Min 10km from the sea.	TOWN TERRAIN Up to 25.0m/s Up to 150m altitude Min 2km from the sea.	COUNTRY TERRAIN Up to 22m/s Up to 50m altitude Min 100km from the sea.	COUNTRY TERRAIN Up to 23.5m/s Up to 100m altitude Min 10km from the sea.	COUNTRY TERRAIN Up to 25.0m/s Up to 150m altitude Min 2km from the sea.
FOUNDATION SIZE	400Ø x 1400	400Ø x 1400	400Ø x 1400	400Ø x 1400	400Ø x 1400	400Ø x 1400

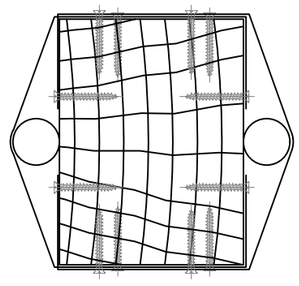
TABLE 1 : VARIATIONS OF RECOMMENDATIONS FOR DIFFERENT LOADING CONDITIONS

TOWN TERRAIN :- Where there are built up areas around the full extent of the site, within 100m of the boundary and extending at least 2km.

COUNTRY TERRAIN:- All areas which are not defined as town terrain.

1. All timber shall be strength class C24 to BS5628-2.
2. All timber is to be pre- treated with a pressure applied wood preservative. Timber posts to comply with class 4.1 to BS EN 335-2 : 2006, for exterior use in contact with ground and/or fresh water.
3. Assumed ground conditions are firm to stiff clay (Cu > 40 kN/m²) or medium dense sand and gravel (N > 8) with a safe bearing pressure of 75 KN/m² and a maximum of 200mm depth of top soil.
4. Ground conditions are to be verified on site prior to commencement of construction. Where there is an increased depth of topsoil, foundations to be deepened to suit.
5. Wind speeds are detailed on drawing PH/TWD/001.

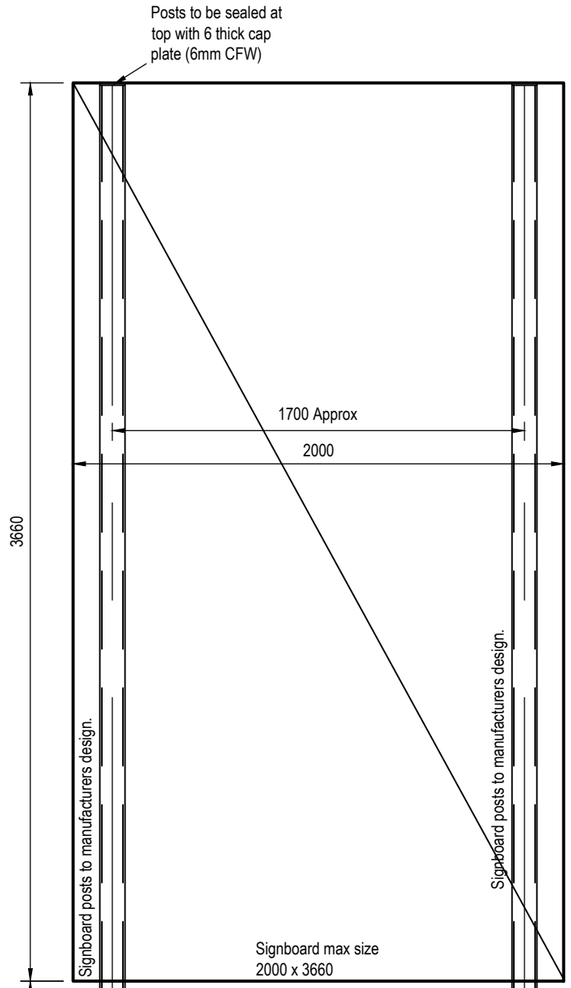
Heras fencing panels secured to fence posts with 4 rows of galvanised fixing bands FB20A by Simpson strong tie Ltd or equivalent, with 3x2 No 8 galvanised wood screws.



PERSIMMON

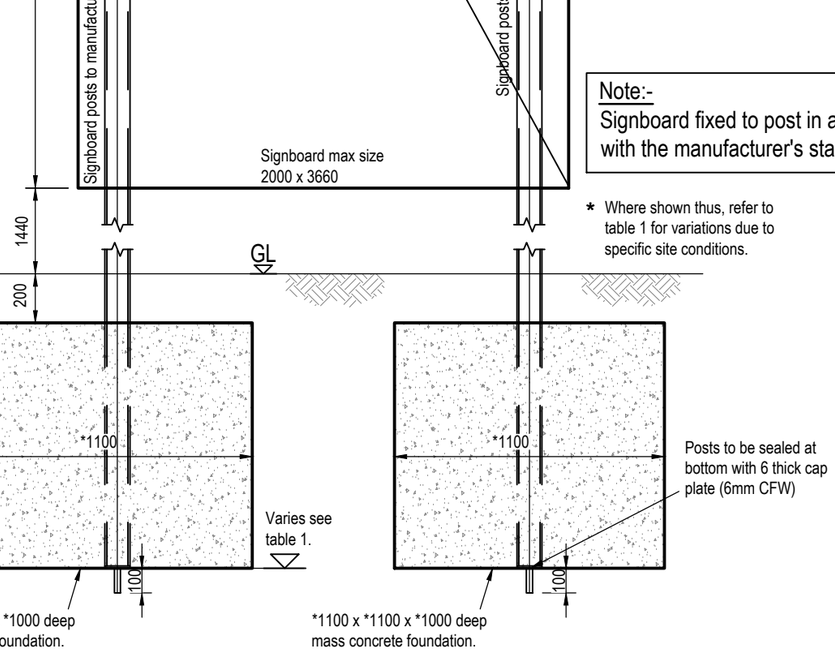
Drawing Title: HERAS FENCING WITH CONCRETE FOUNDATIONS FULLY SHEETED

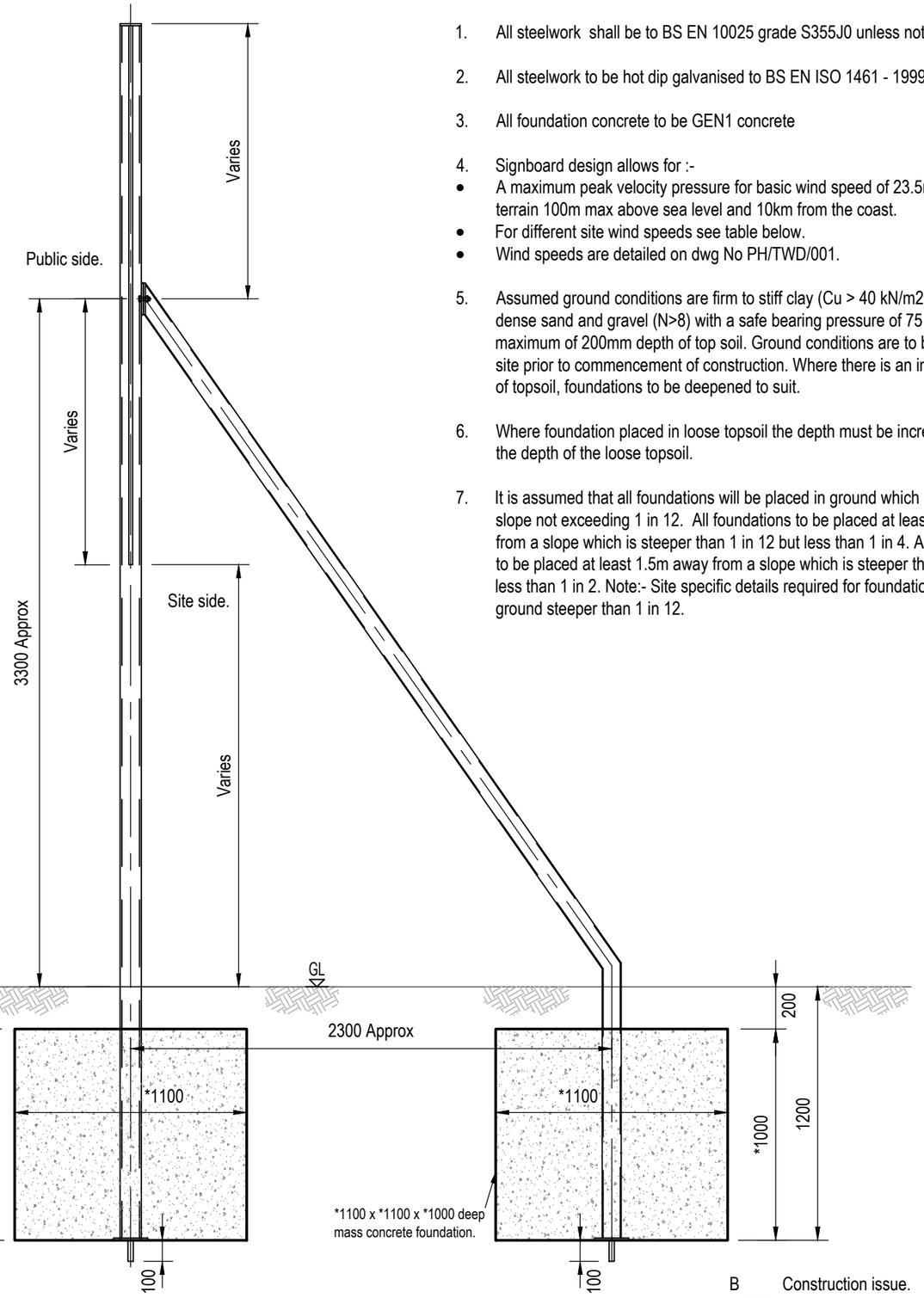
Project Title	Date	Scale	Drawn
TEMPORARY WORKS STANDARD DETAILS	10.09.21	1:5 1:25	JL
Drawing Status	**Dwg. Ref.**		**Rev.**
CONSTRUCTION	PH/TWD/033		A



Note:-
Signboard fixed to post in accordance with the manufacturer's standard details.

* Where shown thus, refer to table 1 for variations due to specific site conditions.





1. All steelwork shall be to BS EN 10025 grade S355J0 unless noted otherwise
2. All steelwork to be hot dip galvanised to BS EN ISO 1461 - 1999
3. All foundation concrete to be GEN1 concrete
4. Signboard design allows for :-
   - A maximum peak velocity pressure for basic wind speed of 23.5m/s in country terrain 100m max above sea level and 10km from the coast.
   - For different site wind speeds see table below.
   - Wind speeds are detailed on dwg No PH/TWD/001.
5. Assumed ground conditions are firm to stiff clay (Cu > 40 kN/m2)or medium dense sand and gravel (N>8) with a safe bearing pressure of 75 KN/m² and a maximum of 200mm depth of top soil. Ground conditions are to be verified on site prior to commencement of construction. Where there is an increased depth of topsoil, foundations to be deepened to suit.
6. Where foundation placed in loose topsoil the depth must be increased equal to the depth of the loose topsoil.
7. It is assumed that all foundations will be placed in ground which is level or at a slope not exceeding 1 in 12. All foundations to be placed at least 1.0m away from a slope which is steeper than 1 in 12 but less than 1 in 4. All foundations to be placed at least 1.5m away from a slope which is steeper than 1 in 4 but less than 1 in 2. Note:- Site specific details required for foundations cast into ground steeper than 1 in 12.

	TOWN TERRAIN Up to 22m/s Up to 50m altitude Min 100km from the sea.	COUNTRY TERRAIN Up to 22m/s Up to 50m altitude Min 100km from the sea.	TOWN TERRAIN Up to 23.5m/s Up to 100m altitude Min 10km from the sea.	COUNTRY TERRAIN Up to 23.5m/s Up to 100m altitude Min 10km from the sea.	TOWN TERRAIN Up to 25.0m/s Up to 150m altitude Min 2km from the sea.	COUNTRY TERRAIN Up to 25.0m/s Up to 150m altitude Min 2km from the sea.
FOUNDATION SIZE	1000 x 1000 x 800	1000 x 1000 x 900	1000 x 1000 x 1000	1100 x 1100 x 1000	1200 x 1200 x 1000	1250 x 1250 x 1000
BASE LEVEL	(1000)	(1100)	(1200)	(1200)	(1200)	(1200)

For different site wind speeds see table below.
Wind speeds are detailed on dwg No PH/TWD/001.

TOWN TERRAIN :- Where there are built up areas around the full extent of the site, within 100m of the boundary and extending at least 2km.

COUNTRY TERRAIN:- All areas which are not defined as town terrain.

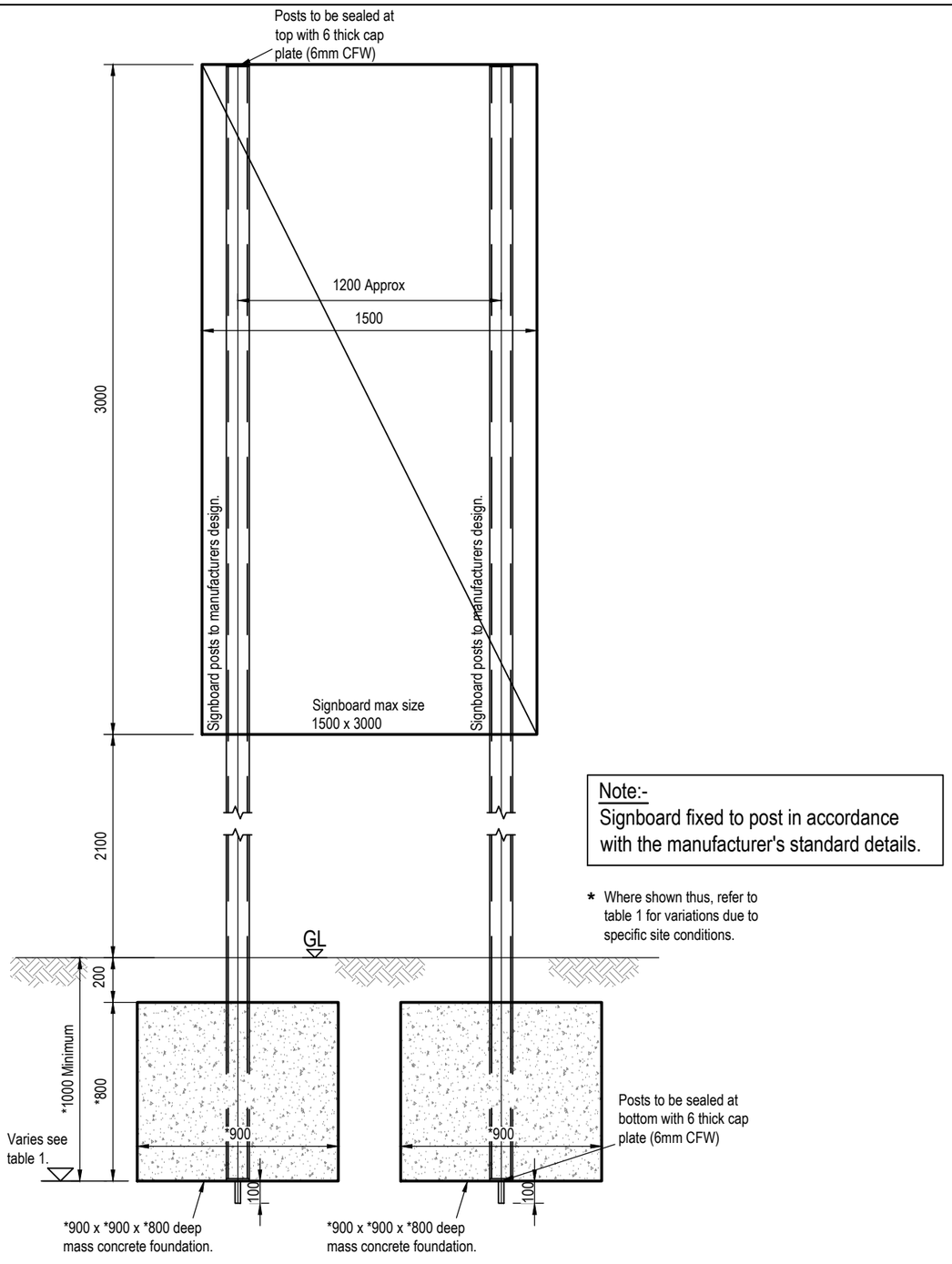
TABLE 1 : VARIATIONS OF RECOMMENDATIONS FOR DIFFERENT LOADING CONDITIONS

B	Construction issue.	06.09.21

PERSIMMON

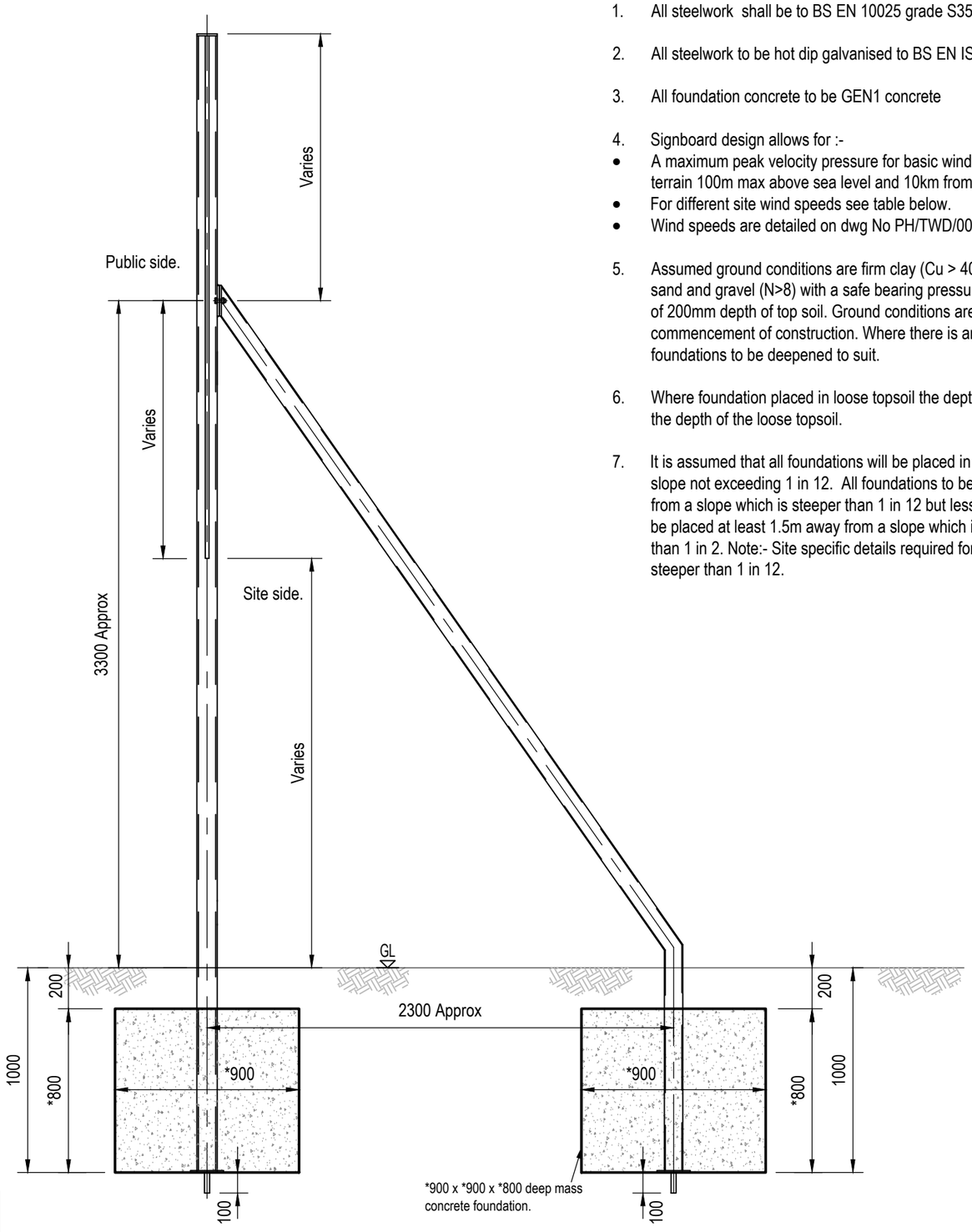
Drawing Title: SIGN BOARDS SHEET 1 2.00m x 3.66m

Project Title	Date	Scale	Drawn
TEMPORARY WORKS STANDARD DETAILS	17.08.21	1:25	JL
Drawing Status: CONSTRUCTION	Dwg. Ref.: PH/TWD/040		Rev.: B



Note:-
Signboard fixed to post in accordance with the manufacturer's standard details.

* Where shown thus, refer to table 1 for variations due to specific site conditions.



1. All steelwork shall be to BS EN 10025 grade S355J0 unless noted otherwise
2. All steelwork to be hot dip galvanised to BS EN ISO 1461 - 1999
3. All foundation concrete to be GEN1 concrete
4. Signboard design allows for :-
   - A maximum peak velocity pressure for basic wind speed of 23.5m/s in country terrain 100m max above sea level and 10km from the coast.
   - For different site wind speeds see table below.
   - Wind speeds are detailed on dwg No PH/TWD/001.
5. Assumed ground conditions are firm clay (Cu > 40 kN/m2) or medium dense sand and gravel (N>8) with a safe bearing pressure of 75 KN/m² and a maximum of 200mm depth of top soil. Ground conditions are to be verified on site prior to commencement of construction. Where there is an increased depth of topsoil, foundations to be deepened to suit.
6. Where foundation placed in loose topsoil the depth must be increased equal to the depth of the loose topsoil.
7. It is assumed that all foundations will be placed in ground which is level or at a slope not exceeding 1 in 12. All foundations to be placed at least 1.0m away from a slope which is steeper than 1 in 12 but less than 1 in 4. All foundations to be placed at least 1.5m away from a slope which is steeper than 1 in 4 but less than 1 in 2. Note:- Site specific details required for foundations cast into ground steeper than 1 in 12.

For different site wind speeds see table below.
Wind speeds are detailed on dwg No PH/TWD/001.

	TOWN TERRAIN Up to 22m/s Up to 50m altitude Min 100km from the sea.	COUNTRY TERRAIN Up to 22m/s Up to 50m altitude Min 100km from the sea.	TOWN TERRAIN Up to 23.5m/s Up to 100m altitude Min 10km from the sea.	COUNTRY TERRAIN Up to 23.5m/s Up to 100m altitude Min 10km from the sea.	TOWN TERRAIN Up to 25.0m/s Up to 150m altitude Min 2km from the sea.	COUNTRY TERRAIN Up to 25.0m/s Up to 150m altitude Min 2km from the sea.
FOUNDATION SIZE	750 x 750 x 800	800 x 800 x 800	900 x 900 x 750	900 x 900 x 800	1000 x 1000 x 800	1000 x 1000 x 1000
BASE LEVEL	(1000)	(1000)	(950)	(1000)	(1000)	(1200)

TABLE 1 : VARIATIONS OF RECOMMENDATIONS FOR DIFFERENT LOADING CONDITIONS

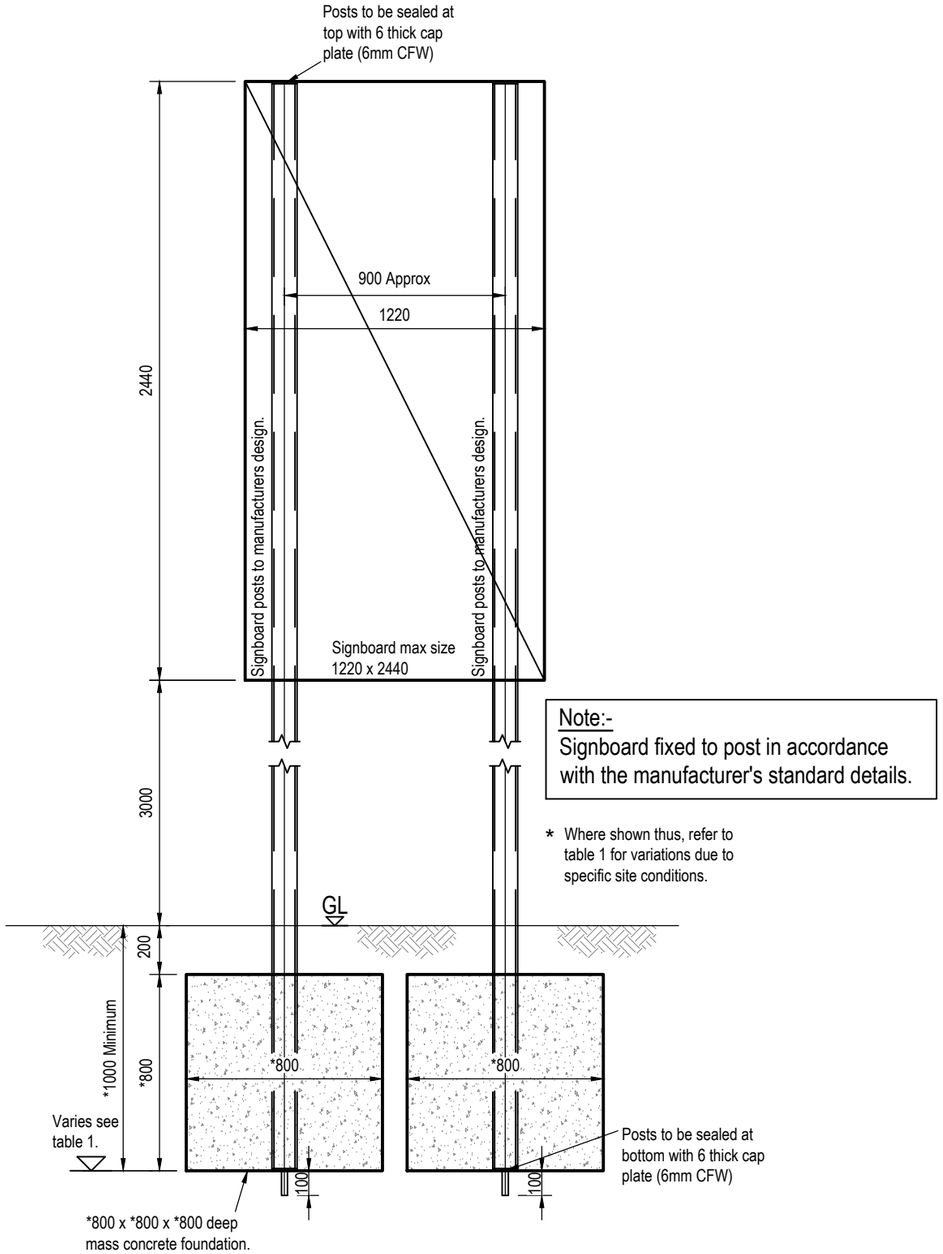
TOWN TERRAIN :- Where there are built up areas around the full extent of the site, within 100m of the boundary and extending at least 2km.
COUNTRY TERRAIN:- All areas which are not defined as town terrain.

B	Construction issue.	06.09.21

PERSIMMON

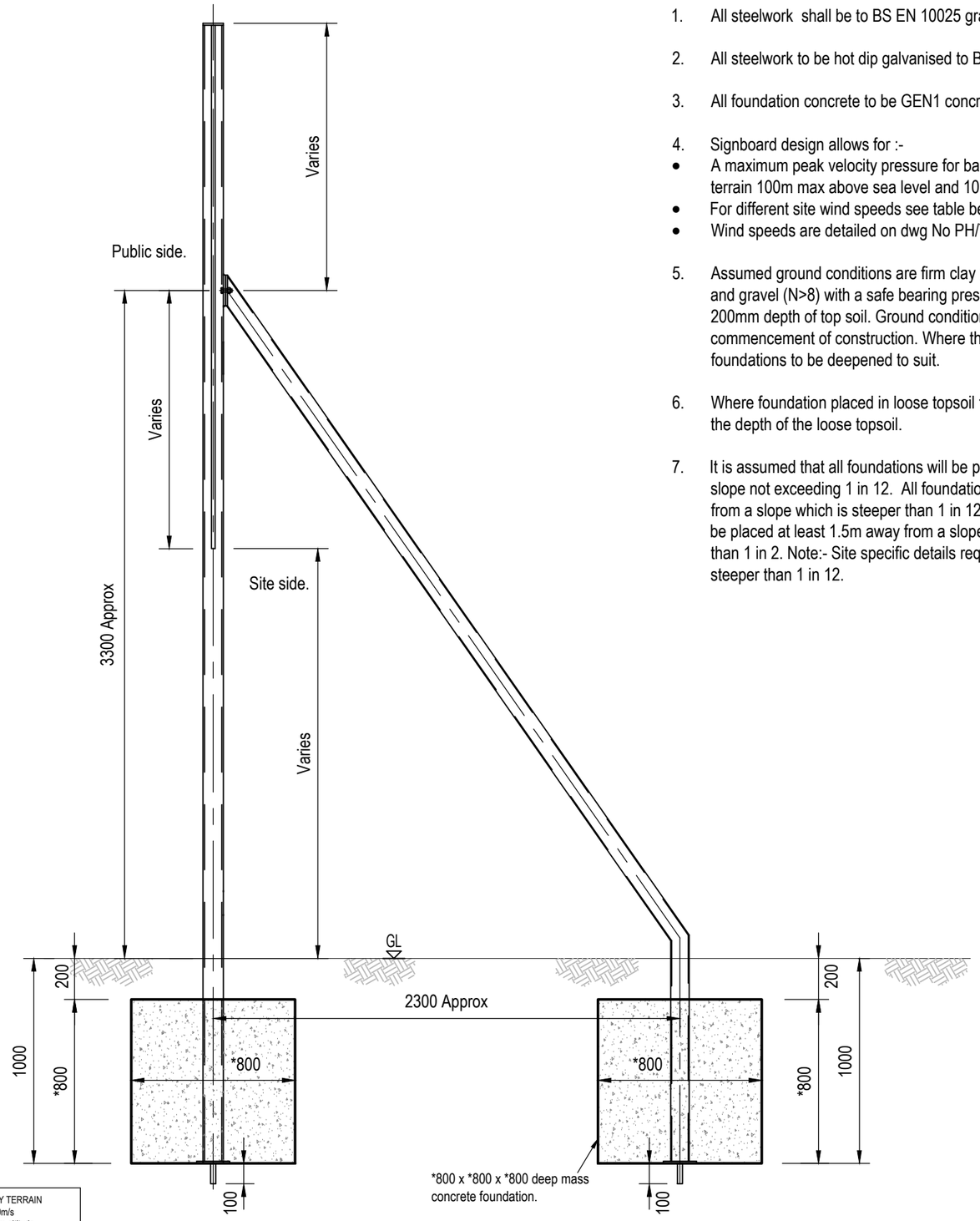
Drawing Title: SIGN BOARDS SHEET 2 1.50m x 3.00m

Project Title	Date	Scale	Drawn
TEMPORARY WORKS STANDARD DETAILS	17.08.21	1:25	JL
Drawing Status: CONSTRUCTION	Dwg. Ref.: PH/TWD/041		Rev.: B



Note:-
Signboard fixed to post in accordance with the manufacturer's standard details.

* Where shown thus, refer to table 1 for variations due to specific site conditions.



1. All steelwork shall be to BS EN 10025 grade S355J0 unless noted otherwise
2. All steelwork to be hot dip galvanised to BS EN ISO 1461 - 1999
3. All foundation concrete to be GEN1 concrete
4. Signboard design allows for :-
   - A maximum peak velocity pressure for basic wind speed of 23.5m/s in country terrain 100m max above sea level and 10km from the coast.
   - For different site wind speeds see table below.
   - Wind speeds are detailed on dwg No PH/TWD/001.
5. Assumed ground conditions are firm clay (Cu > 40 kN/m2)or medium dense sand and gravel (N>8) with a safe bearing pressure of 75 KN/m² and a maximum of 200mm depth of top soil. Ground conditions are to be verified on site prior to commencement of construction. Where there is an increased depth of topsoil, foundations to be deepened to suit.
6. Where foundation placed in loose topsoil the depth must be increased equal to the depth of the loose topsoil.
7. It is assumed that all foundations will be placed in ground which is level or at a slope not exceeding 1 in 12. All foundations to be placed at least 1.0m away from a slope which is steeper than 1 in 12 but less than 1 in 4. All foundations to be placed at least 1.5m away from a slope which is steeper than 1 in 4 but less than 1 in 2. Note:- Site specific details required for foundations cast into ground steeper than 1 in 12.

For different site wind speeds see table below.
Wind speeds are detailed on dwg No PH/TWD/001.

	TOWN TERRAIN Up to 22m/s Up to 50m altitude Min 100km from the sea.	COUNTRY TERRAIN Up to 22m/s Up to 50m altitude Min 100km from the sea.	TOWN TERRAIN Up to 23.5m/s Up to 100m altitude Min 10km from the sea.	COUNTRY TERRAIN Up to 23.5m/s Up to 100m altitude Min 10km from the sea.	TOWN TERRAIN Up to 25.0m/s Up to 150m altitude Min 2km from the sea.	COUNTRY TERRAIN Up to 25.0m/s Up to 150m altitude Min 2km from the sea.
FOUNDATION SIZE	750 x 750 x 700	750 x 750 x 700	750 x 750 x 800	800 x 800 x 800	900 x 900 x 800	1000 x 1000 x 800
BASE LEVEL	(900)	(900)	(1000)	(1000)	(1000)	(1000)

TABLE 1 : VARIATIONS OF RECOMMENDATIONS FOR DIFFERENT LOADING CONDITIONS

TOWN TERRAIN :- Where there are built up areas around the full extent of the site, within 100m of the boundary and extending at least 2km.

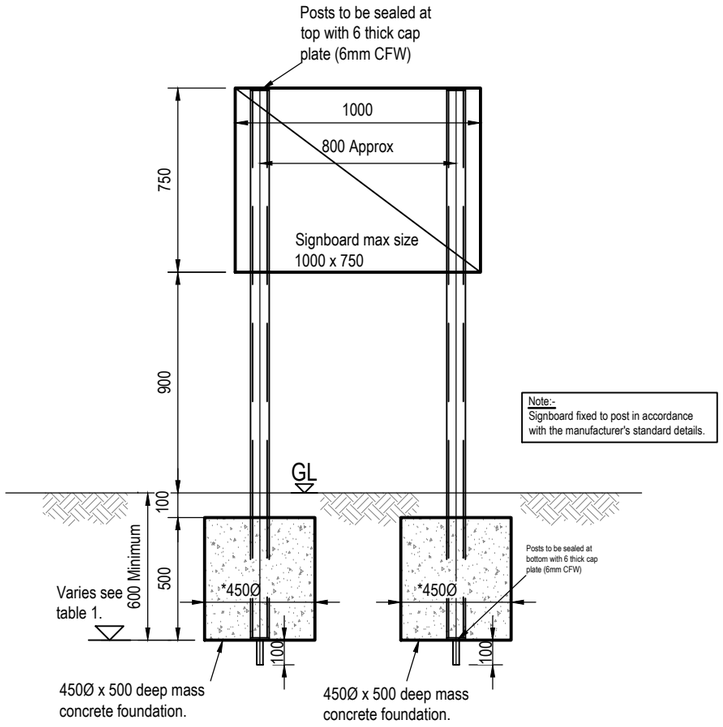
COUNTRY TERRAIN:- All areas which are not defined as town terrain.

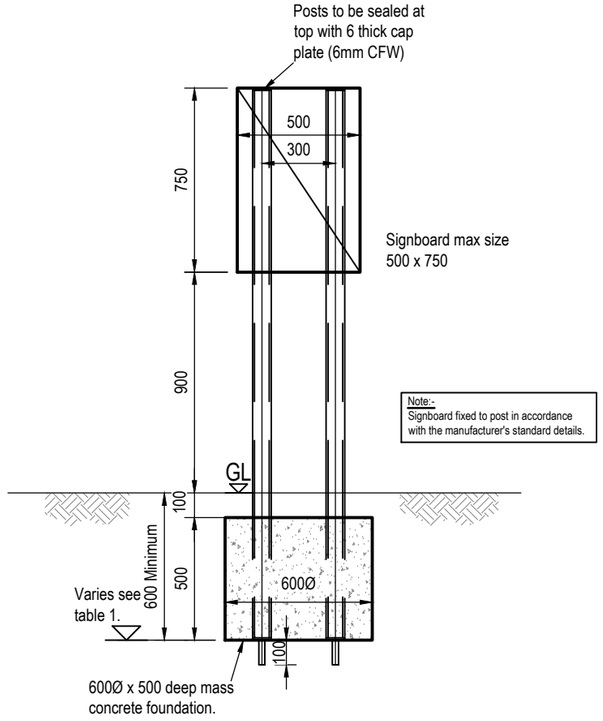
B	Construction issue.	06.09.21

PERSIMMON

Drawing Title: SIGN BOARDS SHEET 3 1.22m x 2.44m

Project Title	Date	Scale	Drawn
TEMPORARY WORKS STANDARD DETAILS	17.08.21	1:25	JL
Drawing Status: CONSTRUCTION	Dwg. Ref.: PH/TWD/042		Rev.: B





1. All steelwork shall be to BS EN 10025 grade S355J0 unless noted otherwise

2. All steelwork to be hot dip galvanised to BS EN ISO 1461 - 1999

3. All foundation concrete to be GEN1 concrete

4. Signboard design allows for :-
- A maximum peak velocity pressure for basic wind speed of 25m/s in country terrain 150m max above sea level and min 2km from the coast.
- For different site wind speeds refer to separate details.
- Wind speeds are detailed on dwg No PH/TWD/001.

5. Assumed ground conditions are firm clay (Cu > 40 kN/m2)or medium dense sand and gravel (N>8) with a safe bearing pressure of 75 KN/m² and a maximum of 200mm depth of top soil. Ground conditions are to be verified on site prior to commencement of construction. Where there is an increased depth of topsoil, foundations to be deepened to suit.

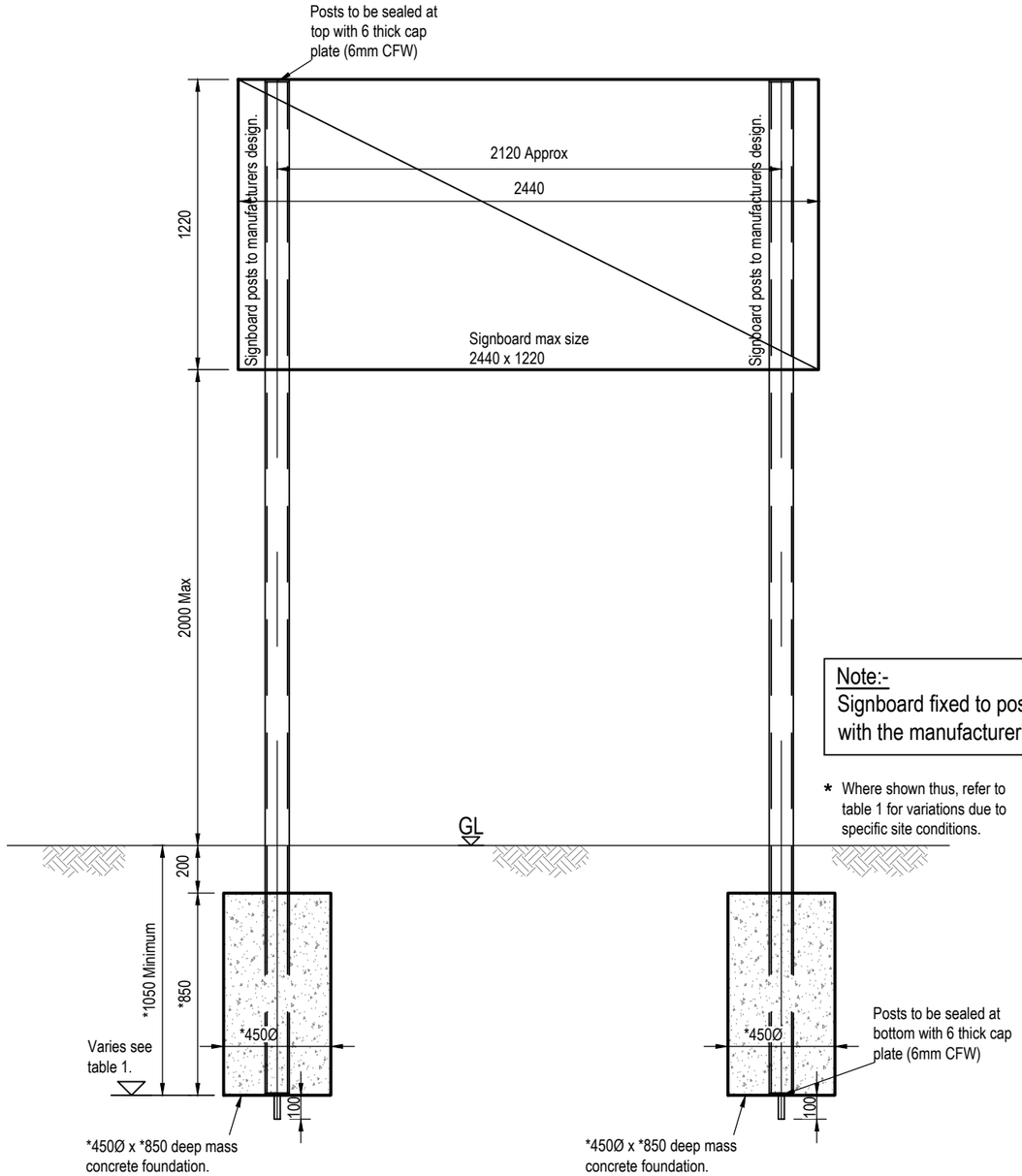
6. Where foundation placed in loose topsoil the depth must be increased equal to the depth of the loose topsoil.

7. It is assumed that all foundations will be placed in ground which is level or at a slope not exceeding 1 in 12. All foundations to be placed at least 1.0m away from a slope which is steeper than 1 in 12 but less than 1 in 4. All foundations to be placed at least 1.5m away from a slope which is steeper than 1 in 4 but less than 1 in 2. Note:- Site specific details required for foundations cast into ground steeper than 1 in 12.

B	Construction issue.	06.09.21

PERSIMMON

Drawing Title: SIGN BOARDS SHEET 4 1.00m x 0.75m & 0.50m x 0.75m			
Project Title: TEMPORARY WORKS STANDARD DETAILS	Date: 17.08.21	Scale: 1:25	Drawn: JL
Drawing Status: CONSTRUCTION	Dwg. Ref.: PH/TWD/043		Rev.: B



1. All steelwork shall be to BS EN 10025 grade S355J0 unless noted otherwise

2. All steelwork to be hot dip galvanised to BS EN ISO 1461 - 1999

3. All foundation concrete to be GEN1 concrete

4. Signboard design allows for :-
- A maximum peak velocity pressure for basic wind speed of 23.5m/s in country terrain 100m max above sea level and 10km from the coast.
- For different site wind speeds see table below.
- Wind speeds are detailed on dwg No PH/TWD/001.

5. Assumed ground conditions are firm to stiff clay (Cu > 40 kN/m2)or medium dense sand and gravel (N>8) with a safe bearing pressure of 75 KN/m² and a maximum of 200mm depth of top soil. Ground conditions are to be verified on site prior to commencement of construction. Where there is an increased depth of topsoil, foundations to be deepened to suit.

6. Where foundation placed in loose topsoil the depth must be increased equal to the depth of the loose topsoil.

7. It is assumed that all foundations will be placed in ground which is level or at a slope not exceeding 1 in 12. All foundations to be placed at least 1.0m away from a slope which is steeper than 1 in 12 but less than 1 in 4. All foundations to be placed at least 1.5m away from a slope which is steeper than 1 in 4 but less than 1 in 2. Note:- Site specific details required for foundations cast into ground steeper than 1 in 12.

For different site wind speeds see table below.
Wind speeds are detailed on dwg No PH/TWD/001.

	TOWN TERRAIN Up to 22m/s Up to 50m altitude Min 100km from the sea.	COUNTRY TERRAIN Up to 22m/s Up to 50m altitude Min 100km from the sea.	TOWN TERRAIN Up to 23.5m/s Up to 100m altitude Min 10km from the sea.	COUNTRY TERRAIN Up to 23.5m/s Up to 100m altitude Min 10km from the sea.	TOWN TERRAIN Up to 25.0m/s Up to 150m altitude Min 2km from the sea.	COUNTRY TERRAIN Up to 25.0m/s Up to 150m altitude Min 2km from the sea.
FOUNDATION SIZE	450Ø x 700	450Ø x 800	450Ø x 800	450Ø x 850	450Ø x 900	450Ø x 1000
BASE LEVEL	(900)	(1000)	(1000)	(1050)	(1100)	(1200)

TABLE 1 : VARIATIONS OF RECOMMENDATIONS FOR DIFFERENT LOADING CONDITIONS

TOWN TERRAIN :- Where there are built up areas around the full extent of the site, within 100m of the boundary and extending at least 2km.

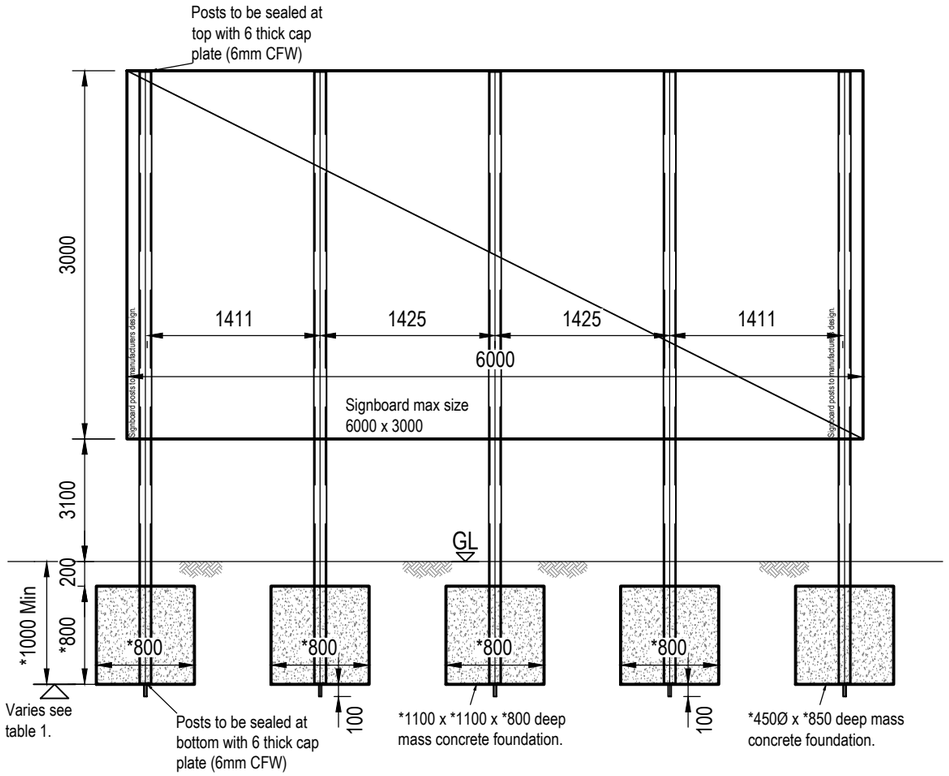
COUNTRY TERRAIN:- All areas which are not defined as town terrain.

B	Construction issue.	06.09.21

PERSIMMON

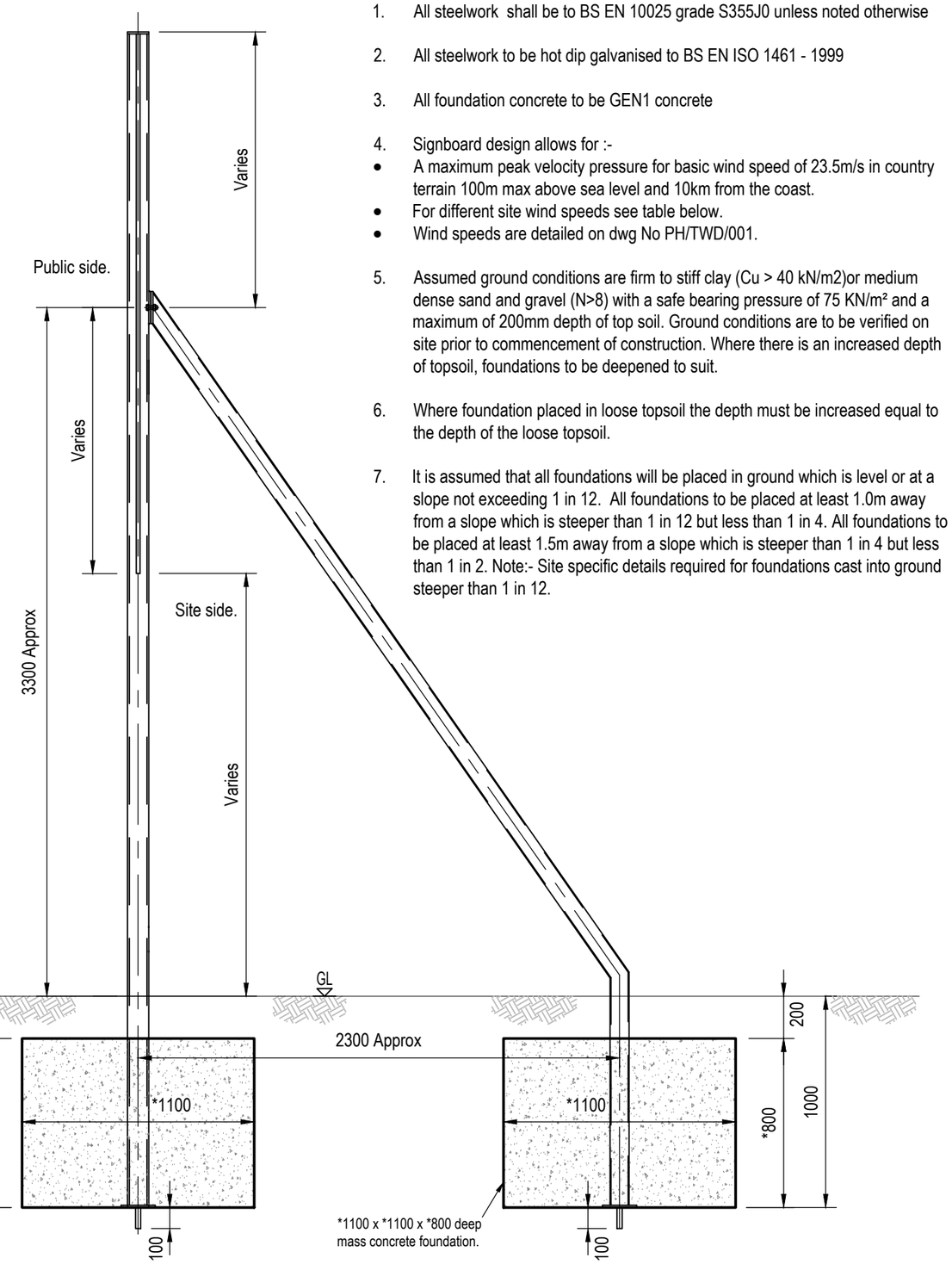
Drawing Title: SIGN BOARDS SHEET 1 2.44m x 1.22m

Project Title	Date	Scale	Drawn
TEMPORARY WORKS STANDARD DETAILS	17.08.21	1:25	JL
Drawing Status: CONSTRUCTION	Dwg. Ref.: PH/TWD/044		Rev.: B



Note:-
Signboard fixed to post in accordance with the manufacturer's standard details.

* Where shown thus, refer to table 1 for variations due to specific site conditions.



1. All steelwork shall be to BS EN 10025 grade S355J0 unless noted otherwise
2. All steelwork to be hot dip galvanised to BS EN ISO 1461 - 1999
3. All foundation concrete to be GEN1 concrete
4. Signboard design allows for :-
   - A maximum peak velocity pressure for basic wind speed of 23.5m/s in country terrain 100m max above sea level and 10km from the coast.
   - For different site wind speeds see table below.
   - Wind speeds are detailed on dwg No PH/TWD/001.
5. Assumed ground conditions are firm to stiff clay (Cu > 40 kN/m2)or medium dense sand and gravel (N>8) with a safe bearing pressure of 75 KN/m² and a maximum of 200mm depth of top soil. Ground conditions are to be verified on site prior to commencement of construction. Where there is an increased depth of topsoil, foundations to be deepened to suit.
6. Where foundation placed in loose topsoil the depth must be increased equal to the depth of the loose topsoil.
7. It is assumed that all foundations will be placed in ground which is level or at a slope not exceeding 1 in 12. All foundations to be placed at least 1.0m away from a slope which is steeper than 1 in 12 but less than 1 in 4. All foundations to be placed at least 1.5m away from a slope which is steeper than 1 in 4 but less than 1 in 2. Note:- Site specific details required for foundations cast into ground steeper than 1 in 12.

For different site wind speeds see table below.
Wind speeds are detailed on dwg No PH/TWD/001.

	TOWN TERRAIN Up to 22m/s Up to 50m altitude Min 100km from the sea.	COUNTRY TERRAIN Up to 22m/s Up to 50m altitude Min 100km from the sea.	TOWN TERRAIN Up to 23.5m/s Up to 100m altitude Min 10km from the sea.	COUNTRY TERRAIN Up to 23.5m/s Up to 100m altitude Min 10km from the sea.	TOWN TERRAIN Up to 25.0m/s Up to 150m altitude Min 2km from the sea.	COUNTRY TERRAIN Up to 25.0m/s Up to 150m altitude Min 2km from the sea.
FOUNDATION SIZE	1000 x 1000 x 800	1000 x 1000 x 800	1100 x 1100 x 800	1100 x 1100 x 800	1200 x 1200 x 900	1200 x 1200 x 1000
BASE LEVEL	(1000)	(1000)	(1000)	(1000)	(1100)	(1200)

TABLE 1 : VARIATIONS OF RECOMMENDATIONS FOR DIFFERENT LOADING CONDITIONS

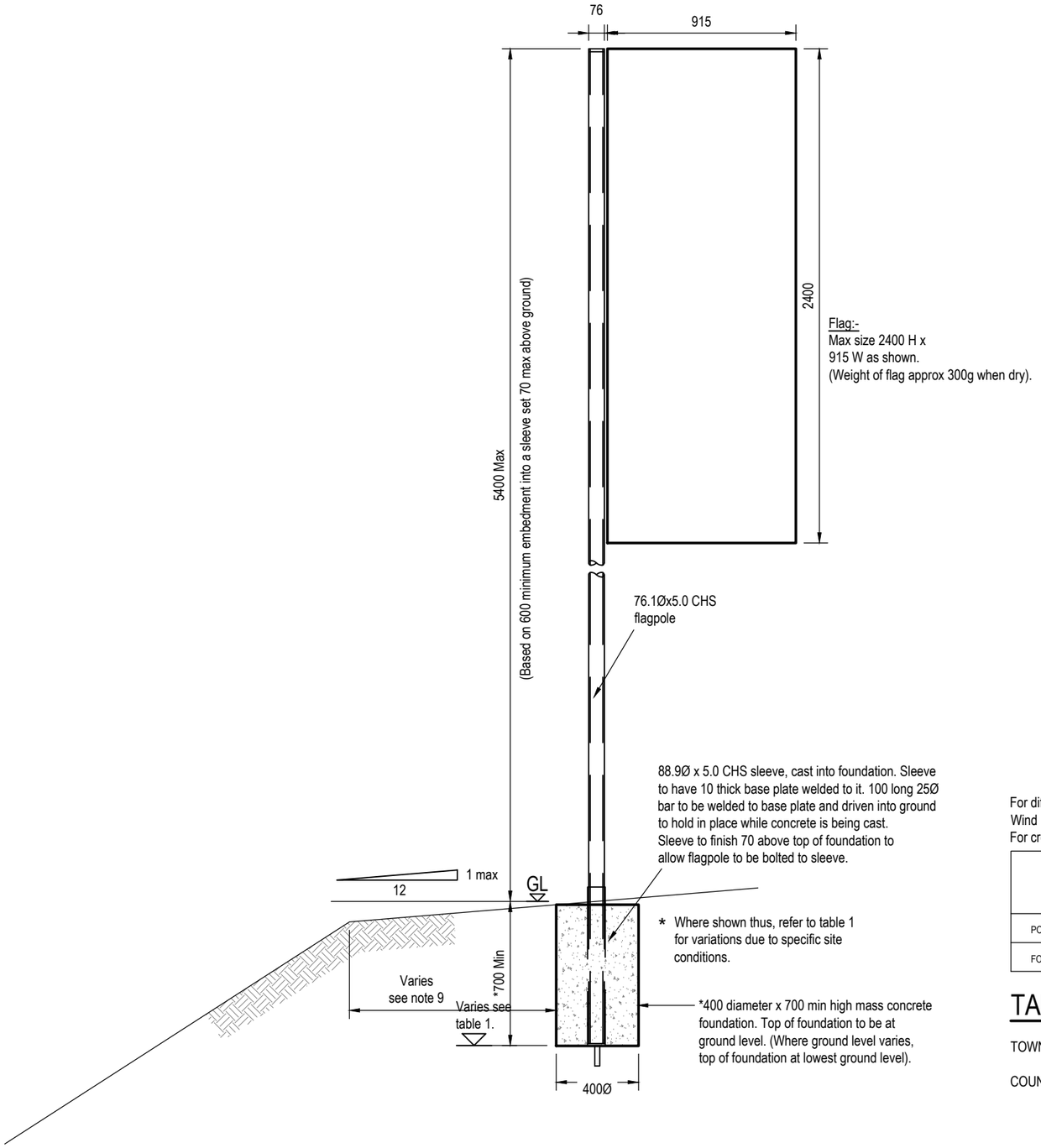
TOWN TERRAIN :- Where there are built up areas around the full extent of the site, within 100m of the boundary and extending at least 2km.
COUNTRY TERRAIN:- All areas which are not defined as town terrain.

B	Construction issue.	06.09.21

PERSIMMON

Drawing Title: SIGN BOARDS SHEET 6 6.00m x 3.00m

Project Title	Date	Scale	Drawn
TEMPORARY WORKS STANDARD DETAILS	17.08.21	1:50	JL
Drawing Status: CONSTRUCTION	Dwg. Ref.: PH/TWD/045		Rev.: B



1. All steelwork to be to BSEN 10025 grade S355 unless noted otherwise.
2. All steelwork to be hot dip galvanised to BSEN ISO 1461-1999.
3. All foundation concrete to be GEN1 concrete.
4. Flagpole and foundation design allows for a maximum peak velocity pressure for basic wind speed of 23.5m/s in country terrain 100m max above sea level and 100km from the coast. For different site wind speeds see table below. Wind speeds are detailed on dwg No PH/TWD/001. Maximum flag size 2400 high x 915 wide.
5. Assumed ground conditions are firm to stiff clay (Cu > 40kN/m²) with a safe bearing capacity of at least 75kN/m² and a maximum 200mm depth of top soil. Ground conditions are to be verified on site prior to commencement of construction. Where there is an increased depth of topsoil, foundations to be deepened to suit.
6. Max design life to be 2 years.
7. Where flagpoles are positioned in the vicinity of a hoarding or fence, they must be separated from the fence or hoarding by at least 450mm.
8. Where foundation placed in loose top soil the depth must be increased equal to the depth of the loose top soil.
9. It is assumed that all foundations will be placed in ground which is level or at a slope not exceeding 1 in 12. All foundations to be placed at least 1.0m away from a slope which is steeper than 1 in 12 but less than 1 in 4. All foundations to be placed at least 1.5m away from a slope which is steeper than 1 in 4 but less than 1 in 2.

Note:- Site specific details required for foundations cast into ground steeper than 1 in 12.

For different site wind speeds see table below.
Wind speeds are detailed on dwg No PH/TWD/001.
For crowd loads refer to separate details.

	TOWN TERRAIN Up to 22m/s Up to 50m altitude Min 100km from the sea.	COUNTRY TERRAIN Up to 22m/s Up to 50m altitude Min 100km from the sea.	TOWN TERRAIN Up to 23.5m/s Up to 100m altitude Min 10km from the sea.	COUNTRY TERRAIN Up to 23.5m/s Up to 100m altitude Min 10km from the sea.	TOWN TERRAIN Up to 25.0m/s Up to 150m altitude Min 2km from the sea.	COUNTRY TERRAIN Up to 25.0m/s Up to 150m altitude Min 2km from the sea.
POST SIZE	76.1 x 5.0 CHS	76.1 x 5.0 CHS	76.1 x 5.0 CHS	76.1 x 5.0 CHS	76.1 x 5.0 CHS	76.1 x 5.0 CHS
FOUNDATION SIZE	400Ø x 600	400Ø x 650	400Ø x 700	400Ø x 750	400Ø x 750	400Ø x 800

TABLE 1 : VARIATIONS OF RECOMMENDATIONS FOR DIFFERENT LOADING CONDITIONS

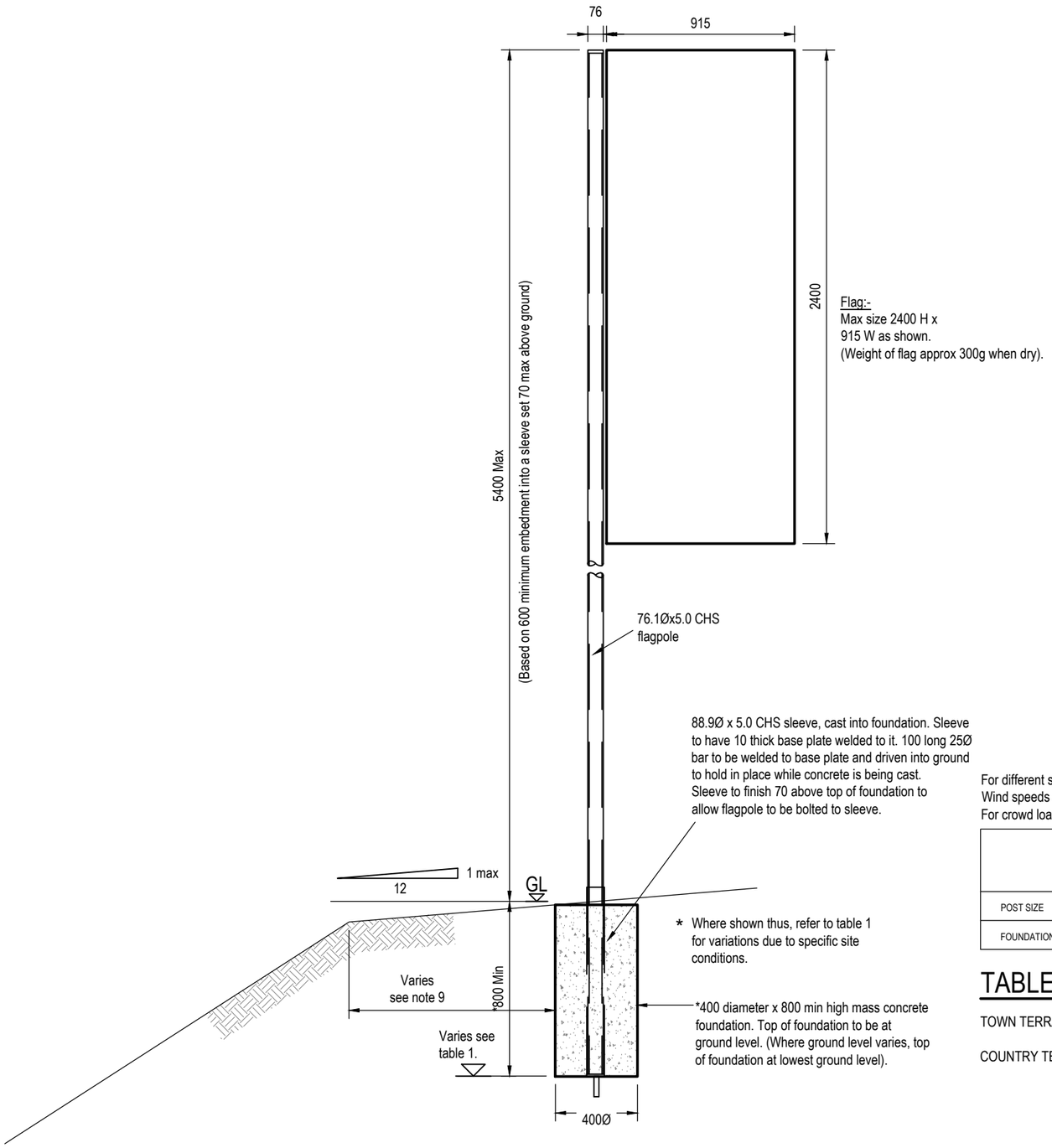
TOWN TERRAIN :- Where there are built up areas around the full extent of the site, within 100m of the boundary and extending at least 2km.
COUNTRY TERRAIN:- All areas which are not defined as town terrain.

B	Construction issue.	06.09.21

PERSIMMON

Drawing Title: FLAG POLE CLAY SOILS

Project Title	Date	Scale	Drawn
TEMPORARY WORKS STANDARD DETAILS	17.08.21	1:25	JL
Drawing Status: CONSTRUCTION	Dwg. Ref.: PH/TWD/046		Rev.: B



1. All steelwork to be to BSEN 10025 grade S355 unless noted otherwise.
2. All steelwork to be hot dip galvanised to BSEN ISO 1461-1999.
3. All foundation concrete to be GEN1 concrete.
4. Flagpole and foundation design allows for a maximum peak velocity pressure for basic wind speed of 23.5m/s in country terrain 100m max above sea level and 100km from the coast. For different site wind speeds see table below. Wind speeds are detailed on dwg No PH/TWD/001. Maximum flag size 2400 high x 915 wide.
5. Assumed ground conditions are medium dense sand or gravel (SPT N<8) with a safe bearing capacity of at least 75kN/m² and a maximum 200mm depth of top soil. Ground conditions are to be verified on site prior to commencement of construction. Where there is an increased depth of topsoil, foundations to be deepened to suit.
6. Max design life to be 2 years.
7. Where flagpoles are positioned in the vicinity of a hoarding or fence, they must be separated from the fence or hoarding by at least 450mm.
8. Where foundation placed in loose top soil the depth must be increased equal to the depth of the loose top soil.
9. It is assumed that all foundations will be placed in ground which is level or at a slope not exceeding 1 in 12. All foundations to be placed at least 1.0m away from a slope which is steeper than 1 in 12 but less than 1 in 4. All foundations to be placed at least 1.5m away from a slope which is steeper than 1 in 4 but less than 1 in 2.

Note:- Site specific details required for foundations cast into ground steeper than 1 in 12.

For different site wind speeds see table below.
Wind speeds are detailed on dwg No PH/TWD/001.
For crowd loads refer to separate details.

	TOWN TERRAIN Up to 22m/s Up to 50m altitude Min 100km from the sea.	COUNTRY TERRAIN Up to 22m/s Up to 50m altitude Min 100km from the sea.	TOWN TERRAIN Up to 23.5m/s Up to 100m altitude Min 10km from the sea.	COUNTRY TERRAIN Up to 23.5m/s Up to 100m altitude Min 10km from the sea.	TOWN TERRAIN Up to 25.0m/s Up to 150m altitude Min 2km from the sea.	COUNTRY TERRAIN Up to 25.0m/s Up to 150m altitude Min 2km from the sea.
POST SIZE	76.1 x 5.0 CHS	76.1 x 5.0 CHS	76.1 x 5.0 CHS	76.1 x 5.0 CHS	76.1 x 5.0 CHS	76.1 x 5.0 CHS
FOUNDATION SIZE	400Ø x 700	400Ø x 750	400Ø x 850	400Ø x 900	450Ø x 850	450Ø x 900

TABLE 1 : VARIATIONS OF RECOMMENDATIONS FOR DIFFERENT LOADING CONDITIONS

TOWN TERRAIN :- Where there are built up areas around the full extent of the site, within 100m of the boundary and extending at least 2km.

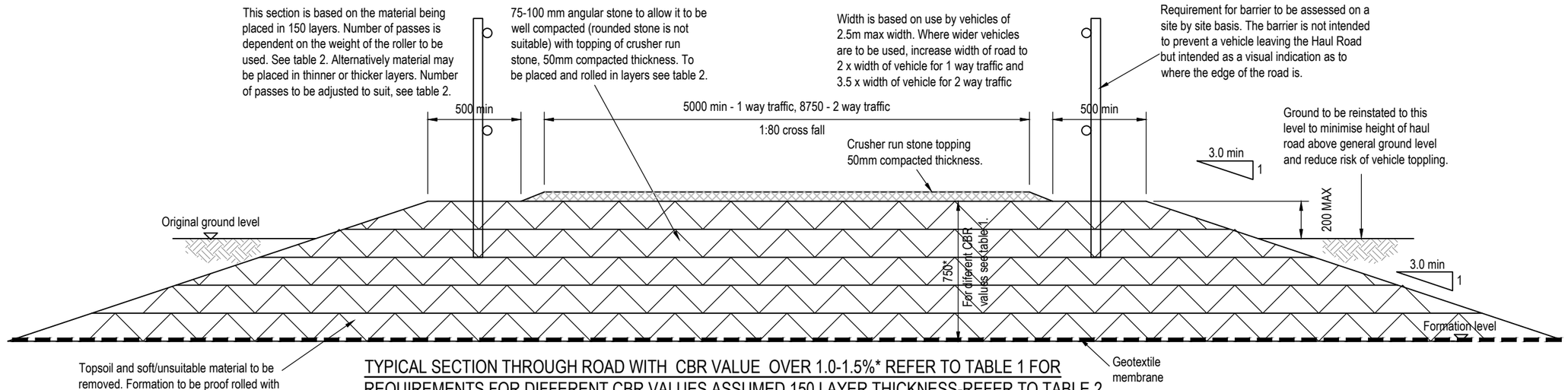
COUNTRY TERRAIN:- All areas which are not defined as town terrain.

B	Construction issue.	06.09.21

PERSIMMON

Drawing Title: FLAGPOLE GRANULAR SOILS

Project Title	Date	Scale	Drawn
TEMPORARY WORKS STANDARD DETAILS	17.08.21	1:25	JL
Drawing Status: CONSTRUCTION	Dwg. Ref.: PH/TWD/047		Rev.: B

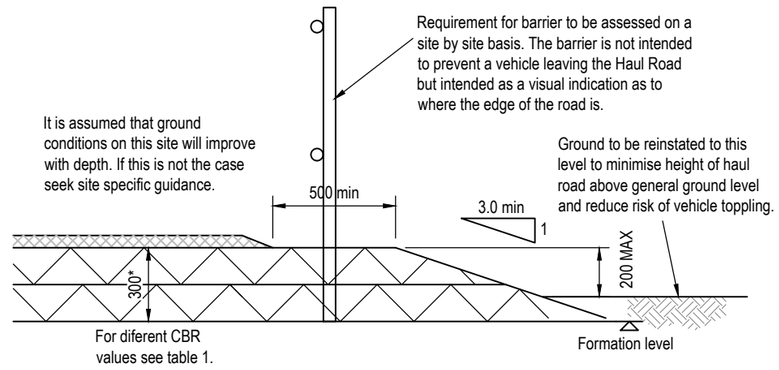


TYPICAL SECTION THROUGH ROAD WITH CBR VALUE OVER 1.0-1.5%* REFER TO TABLE 1 FOR REQUIREMENTS FOR DIFFERENT CBR VALUES ASSUMED 150 LAYER THICKNESS-REFER TO TABLE 2.

CBR VALUE	EQUIVALENT Cu (kN/m²)	UNREINFORCED CONSTRUCTION THICKNESS (MIN)	GEOTEXTILE
* 1.0 - 1.5%	25 - 35	750	Lotrak 2800
1.5 - 2.0%	35 - 47	550	Lotrak 2800
2.0 - 3.0%	47 - 68	450	Lotrak 1800
3.0 - 5.0%	68 - 100	400	Lotrak 1800
** Over 5.0%	Over 100	300	N/A

* Examples used
** in sections

TABLE 1 : THICKNESS OF STONE REQUIRED FOR DIFFERENT CBR VALUES



TYPICAL SECTION THROUGH ROAD WITH CBR VALUE OVER 5%** REFER TO TABLE 1 FOR REQUIREMENTS FOR DIFFERENT CBR VALUES ASSUMED 150 LAYER THICKNESS-REFER TO TABLE 2

Note :-
Formation must not be exposed for long periods of time and allowed to become saturated and softened. If the surface has deteriorated, it must be scraped again to remove soft material.

VIBRATORY ROLLER WITH SPECIFIED WEIGHT PER METRE OF VIBRATING ROLL	MAX LAYER THICKNESS	MIN NUMBER OF PASSES
Over 2300 - 2900 kg	110	3
	150	5
	250	11
Over 2900 - 3600 kg	110	3
	150	5
	250	10
Over 3600 - 4300 kg	110	2
	150	4
	250	8
Over 4300 kg	110	2
	150	3
	250	6

TABLE 2 : DETAILS OF HAUL ROAD COMPACTION REQUIREMENTS TO SUIT DIFFERENT ROLLERS AND LAYER THICKNESS

DESIGN ASSUMPTIONS :-

1. Short term design life, requiring repairs when rut depth becomes excessive, typically after 3 months. Design life may be extended but it is likely that substantial rebuilding will be required. Based on permissible rut depth of 225mm. In winter months more frequent repairs may be required. Design follows the method in the Loktrak Geotextiles Design Guide (Don and Low Ltd).

2. Ground conditions assume minimum safe bearing capacity of 50 kN/m² and a CBR of at least 1%.

3. Design assumes approx 300 passes of 80 kN standard axle over a 3 month period - equivalent to 25 passes per day of JCB 535 telehandler or 1 x 44 ton truck per week plus 2 concrete wagon deliveries per day. The design does not allow for crane outrigger loading. Specific details to be assessed for each site individually.

4. This arrangement may be used when the consequence of a vehicle leaving the road are not particularly severe. To be assessed on a site-specific basis. It may be necessary in some circumstances to provide additional edge protection or to increase the road width to suit.

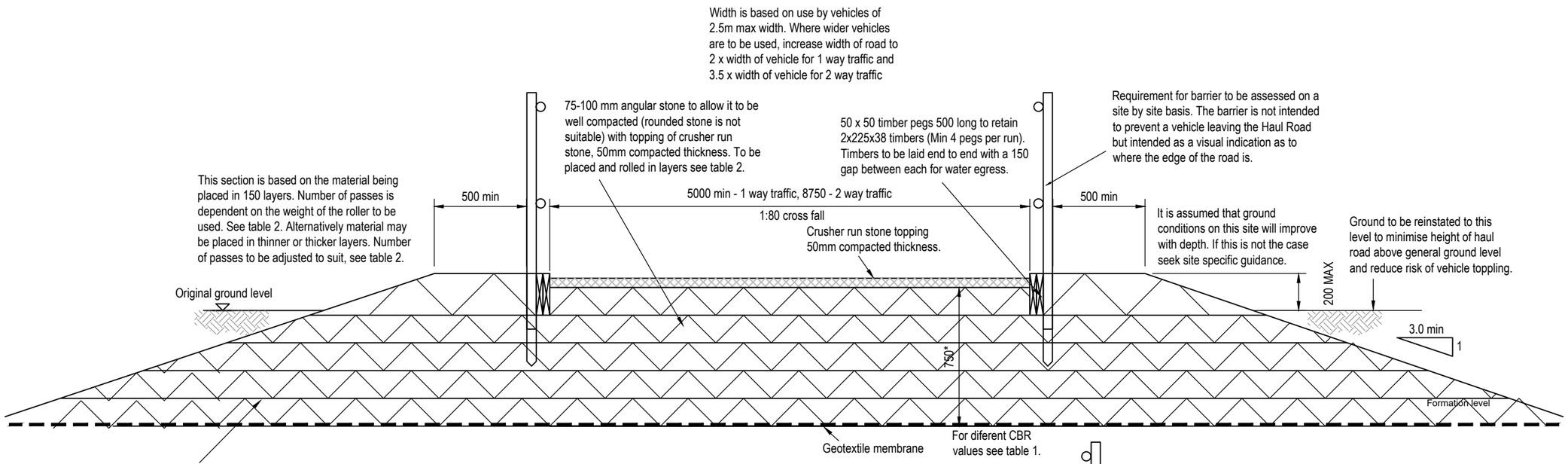
5. Loktrak geotextiles manufactured by Don and Low Ltd.

B	Construction issue.	06.09.21

PERSIMMON

Drawing Title: TEMPORARY HAUL ROAD SHORT TERM LOW USAGE SHEET 1

Project Title	Date	Scale	Drawn
TEMPORARY WORKS STANDARD DETAILS	17.08.21	1:25	JL
Drawing Status: CONSTRUCTION	Dwg. Ref.: PH/TWD/050		Rev.: B

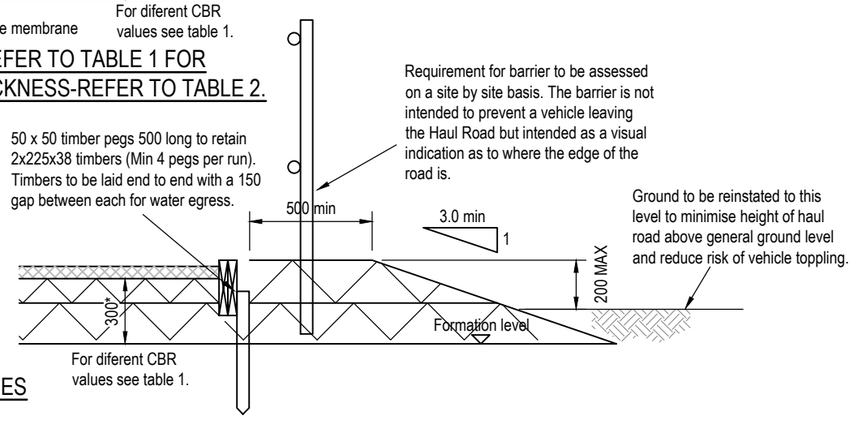


TYPICAL SECTION THROUGH ROAD WITH CBR VALUE OVER 1.0-1.5%* REFER TO TABLE 1 FOR REQUIREMENTS FOR DIFFERENT CBR VALUES ASSUMED 150 LAYER THICKNESS-REFER TO TABLE 2.

CBR VALUE	EQUIVALENT Cu (kN/m²)	UNREINFORCED CONSTRUCTION THICKNESS (MIN)	GEOTEXTILE
* 1.0 - 1.5%	25 - 35	750	Lotrak 2800
1.5 - 2.0%	35 - 47	550	Lotrak 2800
2.0 - 3.0%	47 - 68	450	Lotrak 1800
3.0 - 5.0%	68 - 100	400	Lotrak 1800
** Over 5.0%	Over 100	300	N/A

* Examples used
** in sections

TABLE 1 : THICKNESS OF STONE REQUIRED FOR DIFFERENT CBR VALUES



TYPICAL SECTION THROUGH ROAD WITH CBR VALUE OVER 5%** REFER TO TABLE 1 FOR REQUIREMENTS FOR DIFFERENT CBR VALUES ASSUMED 150 LAYER THICKNESS-REFER TO TABLE 2

Note :-
Formation must not be exposed for long periods of time and allowed to become saturated and softened. If the surface has deteriorated, it must be scraped again to remove soft material.

VIBRATORY ROLLER WITH SPECIFIED WEIGHT PER METRE OF VIBRATING ROLL	MAX LAYER THICKNESS	MIN NUMBER OF PASSES
Over 2300 - 2900 kg	110	3
	150	5
	250	11
Over 2900 - 3600 kg	110	3
	150	5
	250	10
Over 3600 - 4300 kg	110	2
	150	4
	250	8
Over 4300 kg	110	2
	150	3
	250	6

TABLE 2 : DETAILS OF HAUL ROAD COMPACTION REQUIREMENTS TO SUIT DIFFERENT ROLLERS AND LAYER THICKNESS

DESIGN ASSUMPTIONS :-

1. Short term design life, requiring repairs when rut depth becomes excessive, typically after 3 months. Design life may be extended but it is likely that substantial rebuilding will be required. Based on permissible rut depth of 225mm. In winter months more frequent repairs may be required. Design follows the method in the Loktrak Geotextiles Design Guide. (Don and Low Ltd)

2. Ground conditions assume minimum safe bearing capacity of 50 kN/m² and a CBR of at least 1%.

3. Design assumes approx 300 passes of 80 kN standard axle over a 3 month period - equivalent to 25 passes per day of JCB 535 telehandler or 1 x 44 ton truck per week plus 2 concrete wagon deliveries per day. The design does not allow for crane outrigger loading. Specific details to be assessed for each site individually.

4. This arrangement may be used when the consequence of a vehicle leaving the road are not particularly severe. To be assessed on a site-specific basis. It may be necessary in some circumstances to provide additional edge protection or to increase the road width to suit.

5. Loktrak geotextile manufactured by Don and Low Ltd.

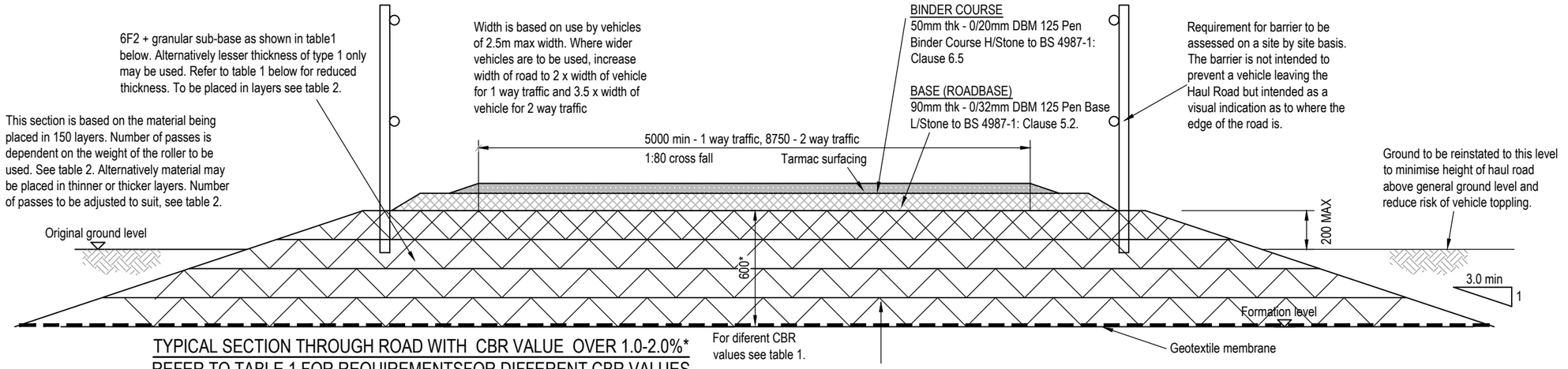
B	Construction issue.	06.09.21

PERSIMMON

Drawing Title: TEMPORARY HAUL ROAD SHORT TERM LOW USAGE SHEET 2

Project Title	Date	Scale	Drawn
TEMPORARY WORKS STANDARD DETAILS	17.08.21	1:25	JL

Drawing Status	Dwg. Ref.	Rev.
CONSTRUCTION	PH/TWD/051	B



TYPICAL SECTION THROUGH ROAD WITH CBR VALUE OVER 1.0-2.0%*
REFER TO TABLE 1 FOR REQUIREMENTSFOR DIFFERENT CBR VALUES
ASSUMED 150 LAYER THICKNESS-REFER TO TABLE 2.

CBR VALUE	EQUIVALENT Cu (kN/m²)	UNREINFORCED CONSTRUCTION 6F2 + TYPE 1 THICKNESS (MIN)	UNREINFORCED CONSTRUCTION TYPE 1 ONLY THICKNESS (MIN)	GEOTEXTILE
* 1.5 - 2.0%	35 - 47	450/150	400	Lotrak 2800
2.0 - 3.0%	47 - 68	350/150	300	Lotrak 1800
3.0 - 5.0%	68 - 100	300/150	270	Lotrak 1800
** Over 5.0%	Over 100	250/150	225	N/A

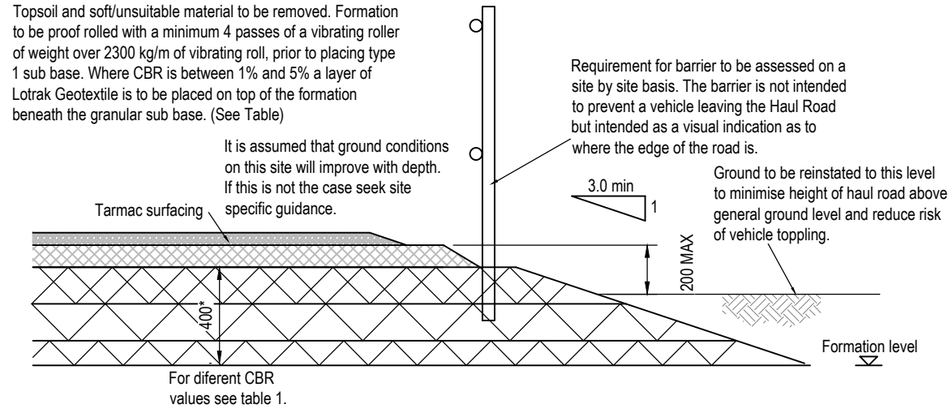
Alternative road construction using type 1 stone only. Not shown on this drawing.

* Examples used
** in sections

TABLE 1 : THICKNESS OF STONE REQUIRED FOR DIFFERENT CBR VALUES

VIBRATORY ROLLER WITH SPECIFIED WEIGHT PER METRE OF VIBRATING ROLL	MAX LAYER THICKNESS	MIN NUMBER OF PASSES
Over 2300 - 2900 kg	110	3
	150	5
	250	11
Over 2900 - 3600 kg	110	3
	150	5
	250	10
Over 3600 - 4300 kg	110	2
	150	4
	250	8
Over 4300 kg	110	2
	150	3
	250	6

TABLE 2 : DETAILS OF HAUL ROAD COMPACTION REQUIREMENTS
TO SUIT DIFFERENT ROLLERS AND LAYER THICKNESS



TYPICAL SECTION THROUGH ROAD WITH CBR VALUE OVER 5%**
REFER TO TABLE 1 FOR REQUIREMENTS FOR DIFFERENT CBR VALUES
ASSUMED 150 LAYER THICKNESS-REFER TO TABLE 2

Note :-
Formation must not be exposed for long periods of time and allowed to become saturated and softened. If the surface has deteriorated, it must be scraped again to remove soft material.

DESIGN ASSUMPTIONS :-

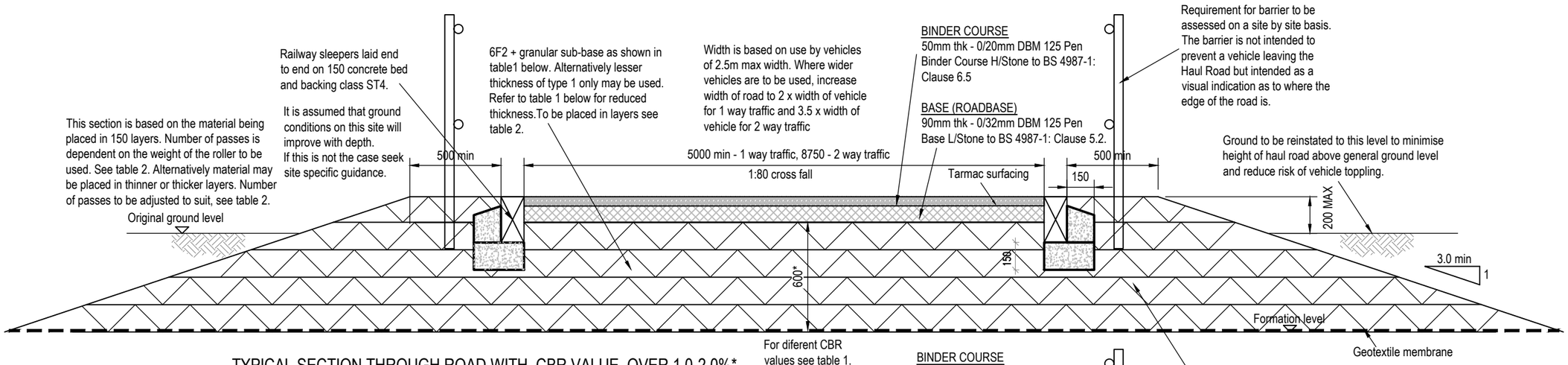
1. Semi permanent design life, when it is not practical to carry out repairs .
2. Ground conditions assume minimum safe bearing capacity of 50 kN/m² and a CBR of at least 1%.
3. Design allows for frequent use by heavy site vehicles equivalent to 1 x 75 tonne dump truck per day for 6 weeks, 25 x 24 tonne trucks per day for 2 years and 25 concrete wagon deliveries per day for 2 years.
4. This arrangement may be used when the consequence of a vehicle leaving the road are not particularly severe. To be assessed on a site-specific basis. It may be necessary in some circumstances to provide additional edge protection or to increase the road width to suit.
5. Loktrak geotextile manufactured by Don and Low Ltd.

B	Construction issue.	06.09.21

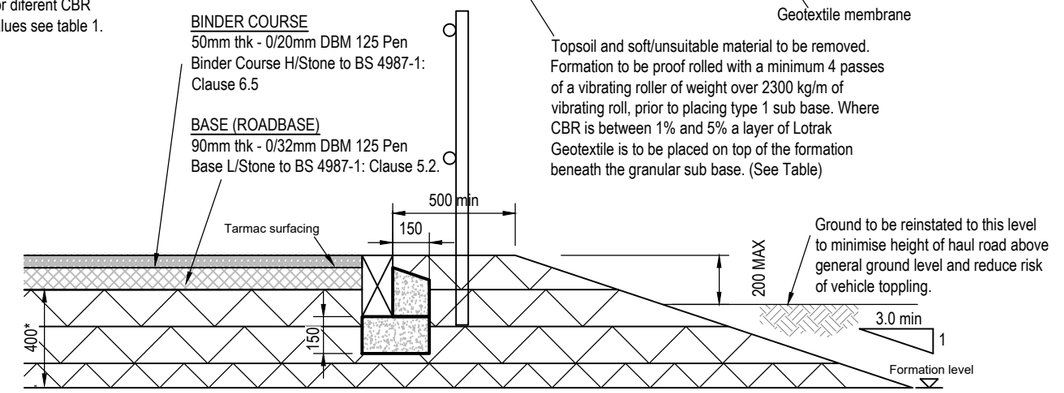
PERSIMMON

Drawing Title: LONG TERM HAUL ROAD FREQUENT USE SHEET 1

Project Title	Date	Scale	Drawn
TEMPORARY WORKS STANDARD DETAILS	17.08.21	1:25	JL
Drawing Status: CONSTRUCTION	Dwg. Ref.: PH/TWD/052		Rev.: B



TYPICAL SECTION THROUGH ROAD WITH CBR VALUE OVER 1.0-2.0%*
REFER TO TABLE 1 FOR REQUIREMENTSFOR DIFFERENT CBR VALUES
ASSUMED 150 LAYER THICKNESS-REFER TO TABLE 2.



TYPICAL SECTION THROUGH ROAD WITH CBR VALUE OVER 5%**
REFER TO TABLE 1 FOR REQUIREMENTS FOR DIFFERENT CBR VALUES
ASSUMED 150 LAYER THICKNESS-REFER TO TABLE 2

* Examples used
** in sections

CBR VALUE	EQUIVALENT Cu (kN/m²)	UNREINFORCED CONSTRUCTION 6F2 + TYPE 1 THICKNESS (MIN)	UNREINFORCED CONSTRUCTION TYPE 1 ONLY THICKNESS (MIN)		GEOTEXTILE
* 1.5 - 2.0%	35 - 47	450/150	400	Alternative road construction using type 1 stone only. Not shown on this drawing.	Lotrak 2800
2.0 - 3.0%	47 - 68	350/150	300		Lotrak 1800
3.0 - 5.0%	68 - 100	300/150	270		Lotrak 1800
** Over 5.0%	Over 100	250/150	225		N/A

TABLE 1 : THICKNESS OF STONE REQUIRED FOR DIFFERENT CBR VALUES

VIBRATORY ROLLER WITH SPECIFIED WEIGHT PER METRE OF VIBRATING ROLL	MAX LAYER THICKNESS	MIN NUMBER OF PASSES
Over 2300 - 2900 kg	110	3
	150	5
	250	11
Over 2900 - 3600 kg	110	3
	150	5
	250	10
Over 3600 - 4300 kg	110	2
	150	4
	250	8
Over 4300 kg	110	2
	150	3
	250	6

TABLE 2 : DETAILS OF HAUL ROAD COMPACTION REQUIREMENTS
TO SUIT DIFFERENT ROLLERS AND LAYER THICKNESS

Note :-
Formation must not be exposed for long periods of time and allowed to become saturated and softened.
If the surface has deteriorated, it must be scraped again to remove soft material.

Note :-
These details may cause some surface erosion of the stone at the side of the road and will need to be monitored in service. It is possible that more positive drainage may be required.

DESIGN ASSUMPTIONS :-

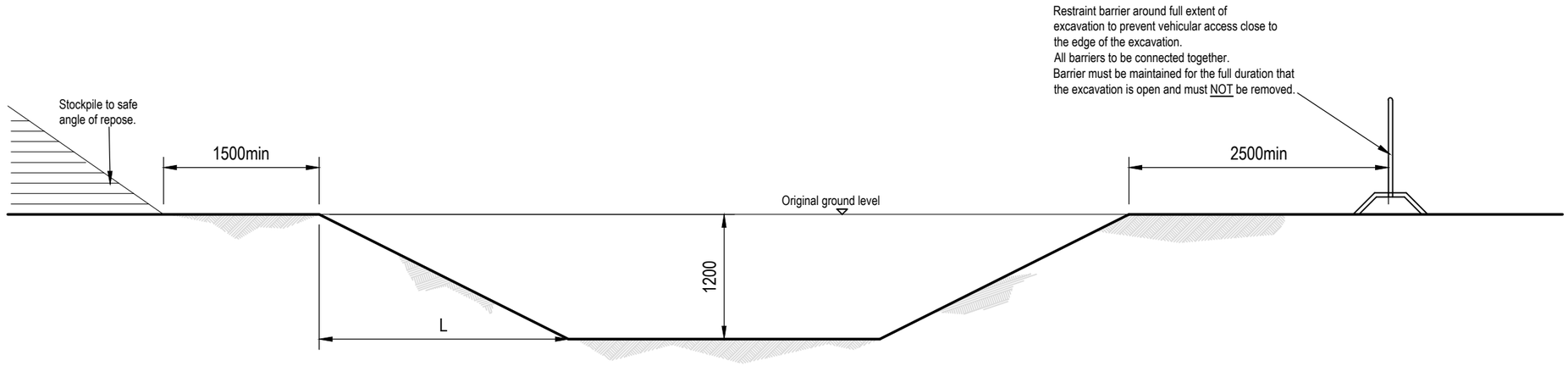
1. Semi permanent design life, when it is not practical to carry out repairs .
2. Ground conditions assume minimum safe bearing capacity of 50 kN/m² and a CBR of at least 1%.
3. Design allows for frequent use by heavy site vehicles equivalent to 1 x 75 tonne dump truck per day for 6 weeks, 25 x 24 tonne trucks per day for 2 years and 25 concrete wagon deliveries per day for 2 years.
4. This arrangement provides some enhanced edge protection. If consequences of a vehicle leaving the road are particularly severe, it may be necessary to increase the road width or provide additional guarding. To be assessed on a site specific basis.
5. Loktrak geotextile manufactured by Don and Low Ltd.

B	Construction issue.	06.09.21

PERSIMMON

Drawing Title: LONG TERM HAUL ROAD FREQUENT USE SHEET 2

Project Title	Date	Scale	Drawn
TEMPORARY WORKS STANDARD DETAILS	17.08.21	1:25	JL
Drawing Status: CONSTRUCTION	Dwg. Ref.: PH/TWD/053		Rev.: B



NOTE: If in any doubt of suitability of excavation proposals, inform Eastwood and Partners.

LENGTH L FOR 1.2M HIGH EXCAVATION		
MATERIAL	DRY SITE	WET SITE
Boulders	1.71	2.07
Cobbles	1.71	2.07
Gravel	2.07	6.80
Sand	2.07	6.80
Silt	3.29	13.70
Soft Clay	2.07	6.80
Firm Clay	1.71	3.29
Stiff Clay	1.43	2.57
Peat Soft Non-fibrous	6.80	13.70
Peat Firm Non-fibrous	4.47	6.80
Peat Firm Fibrous	1.71	3.29
Peat Stiff Fibrous	1.71	2.57

Design recommendations are based on CIRIA report 97 - Trenching Practice.

GENERAL NOTES

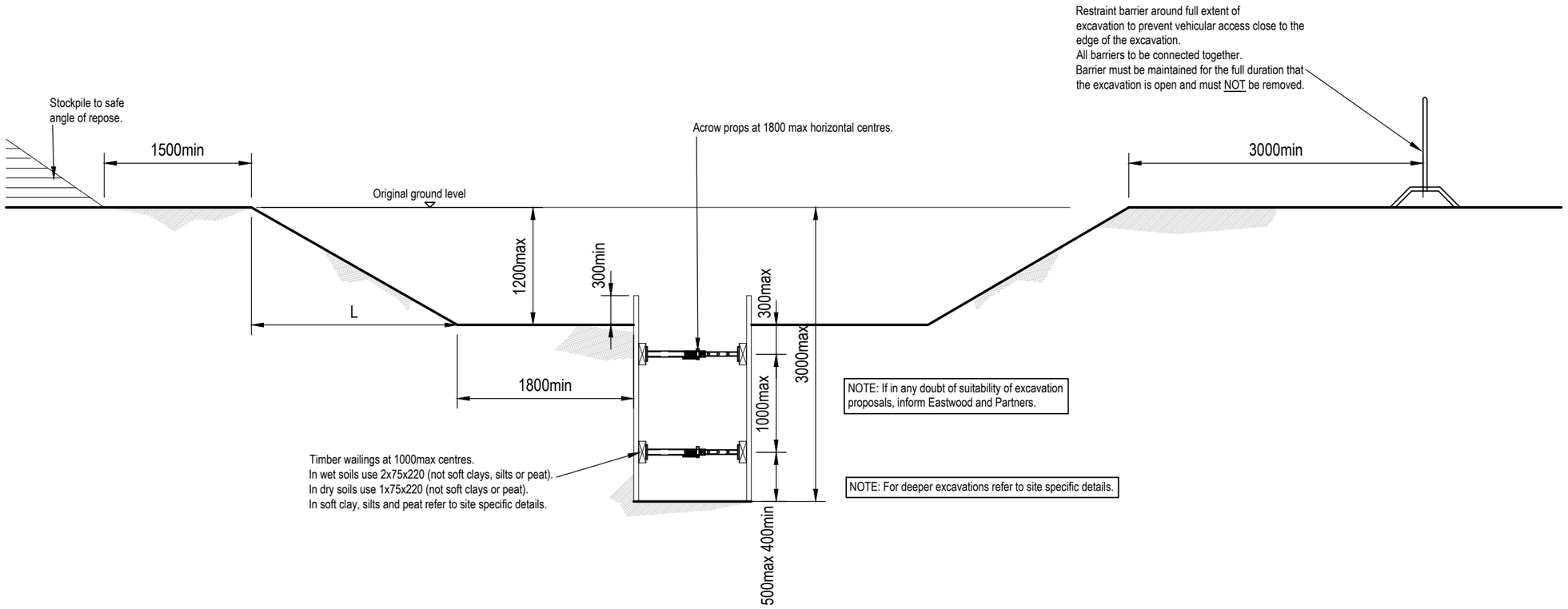
1. For slopes less than 1200 high, battered length may be interpolated linearly.
2. Stockpiled materials and other surcharge loads must not be located closer than 1500 to the top of the excavation as shown.
3. Restraint barrier is to be provided to prevent access by construction traffic within 2500 of top of excavation.
4. Where ground level varies by more than 300 on opposite sides of excavation, refer to Temporary Works Designer for site specific advice.
5. Recommendations are based on a temporary condition where the excavation is open for no longer than 14 days.
6. A wet site is submerged or shows widespread seepage from excavated faces. A dry site has minor or no seepage from excavated faces and minor or no surface run-off.
7. It may be possible to steepen slopes if more detailed ground investigation information is available.
8. For wet ground conditions some slope lengths may be impractical, and dewatering should be considered.
9. To ensure safe working in excavations due care must be taken.
10. PPE must be worn at all times by everyone in the excavation.
11. The depth of the water table must be considered at all times and dewatering may be required.

B	Construction issue.	06.09.21

PERSIMMON

Drawing Title
EXCAVATION GUIDANCE
FOR BATTERED TRENCHES
NOT GREATER THAN 1.2m DEPTH

Project Title	Date	Scale	Drawn
TEMPORARY WORKS STANDARD DETAILS	17.08.21	1:50	JL
Drawing Status: CONSTRUCTION	Dwg. Ref.: PH/TWD/060		Rev.: B



INDICATIVE SEQUENCE OF WORKING WITH TRENCH SHEETING

1. Installation of sheeting, excavation and insertion of walings is to be undertaken in stages until the full excavation depth is achieved. This is to ensure that the trench is supported at all times.
2. Excavate ground sufficiently to allow top waling frame to be positioned.
3. Locate walings and props in position.
4. Drive sheet piles initially to at least 500mm below the top row of walings.
5. Tighten props.
6. Continue to drive piles to 500mm min below next row of walings or to maximum depth if possible.
7. Excavate minimum amount to allow next row of walings and props to be installed.
8. Install walings and props.
9. Excavate to base.

LENGTH L FOR 1.2M HIGH EXCAVATION		
MATERIAL	DRY SITE	WET SITE
Boulders	1.71	2.07
Cobbles	1.71	2.07
Gravel	2.07	6.80
Sand	2.07	6.80
Silt	3.29	13.70
Soft Clay	2.07	6.80
Firm Clay	1.71	3.29
Stiff Clay	1.43	2.57
Peat Soft Non-fibrous	6.80	13.70
Peat Firm Non-fibrous	4.47	6.80
Peat Firm Fibrous	1.71	3.29
Peat Stiff Fibrous	1.71	2.57

Design recommendations are based on CIRIA report 97 - Trenching Practice.

GENERAL NOTES

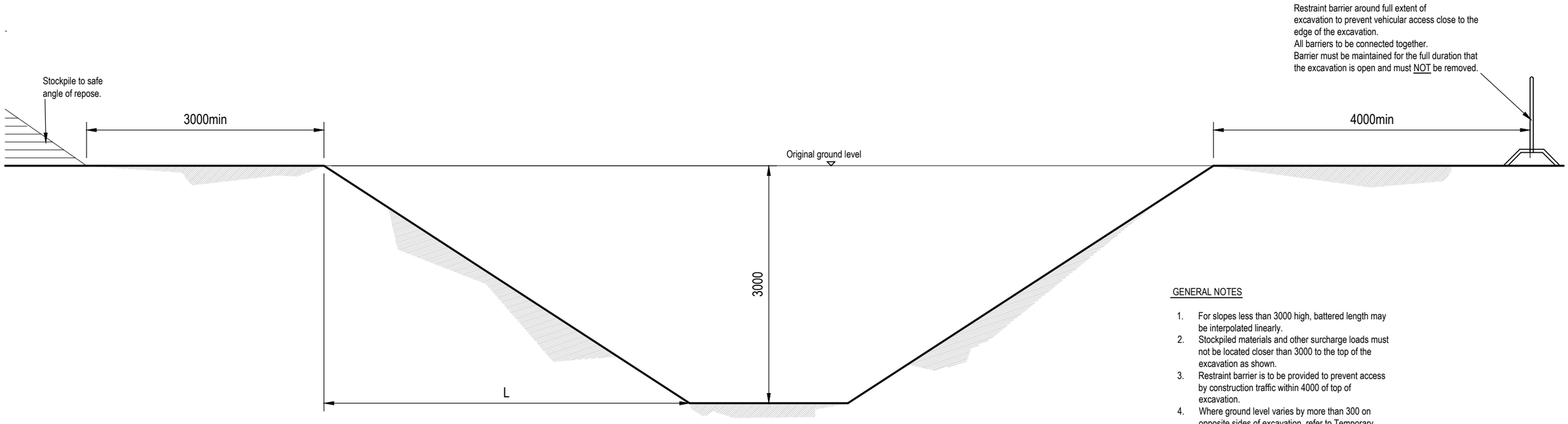
1. For slopes less than 1200 high, battered length may be interpolated linearly.
2. Stockpiled materials and other surcharge loads must not be located closer than 1500 to the top of the excavation as shown.
3. Restraint barrier is to be provided to prevent access by construction traffic within 3000 of top of excavation.
4. Where ground level varies by more than 300 on opposite sides of excavation, refer to Temporary Works Designer for site specific advice.
5. Recommendations are based on a temporary condition where the excavation is open for no longer than 14 days.
6. A wet site is submerged or shows widespread seepage from excavated faces. A dry site has minor or no seepage from excavated faces and minor or no surface run-off.
7. It may be possible to steepen slopes if more detailed ground investigation information is available.
8. For wet ground conditions some slope lengths may be impractical, and dewatering should be considered.
9. To ensure safe working in excavations due care must be taken.
10. PPE must be worn at all times by everyone in the excavation.
11. The depth of the water table must be considered at all times and dewatering may be required.
12. Ensure trench walls are vertical and cleanly dug.
13. Install the trench support as the excavation proceeds.
14. Minimise and fill voids behind support.
15. Ensure all slack is taken up in struts.
16. Use good quality back fill on completion and ensure adequate compaction.
17. Ground level surcharge is not to exceed 10kN/m².
18. Max slope across trench to be 1in4.
19. All sheets must be toed in. Wailings to extend at least twice the thickness of the wailings beyond the strut.
20. Wailings must be supported by hangers or puncheons, and struts by lip blocks or other means.
21. When entering excavations a tied ladder or other approved safe means of access must be used.

B	Construction issue.	06.09.21

PERSIMMON

Drawing Title
EXCAVATION GUIDANCE
FOR BATTERED TRENCHES
NOT GREATER THAN 3.0m DEPTH

Project Title	Date	Scale	Drawn
TEMPORARY WORKS STANDARD DETAILS	17.08.21	1:50	JL
Drawing Status: CONSTRUCTION	Dwg. Ref.: PH/TWD/061		Rev.: B



NOTE: If in any doubt of suitability of excavation proposals, inform Eastwood and Partners.

LENGTH L FOR 3.0M HIGH EXCAVATION		
MATERIAL	DRY SITE	WET SITE
Boulders	4.28	5.18
Cobbles	4.28	5.18
Gravel	5.18	17.00
Sand	5.18	17.00
Silt	8.23	NOT SUITABLE
Soft Clay	5.18	17.00
Firm Clay	4.28	8.23
Stiff Clay	3.57	6.43
Peat Soft Non-fibrous	NOT SUITABLE	NOT SUITABLE
Peat Firm Non-fibrous	NOT SUITABLE	NOT SUITABLE
Peat Firm Fibrous	4.28	8.24
Peat Stiff Fibrous	4.28	6.43

Design recommendations are based on CIRIA report 97 - Trenching Practice.

GENERAL NOTES

1. For slopes less than 3000 high, battered length may be interpolated linearly.
2. Stockpiled materials and other surcharge loads must not be located closer than 3000 to the top of the excavation as shown.
3. Restraint barrier is to be provided to prevent access by construction traffic within 4000 of top of excavation.
4. Where ground level varies by more than 300 on opposite sides of excavation, refer to Temporary Works Designer for site specific advice.
5. Recommendations are based on a temporary condition where the excavation is open for no longer than 14 days.
6. A wet site is submerged or shows widespread seepage from excavated faces. A dry site has minor or no seepage from excavated faces and minor or no surface run-off.
7. It may be possible to steepen slopes if more detailed ground investigation information is available.
8. For wet ground conditions some slope lengths may be impractical, and dewatering should be considered.
9. To ensure safe working in excavations due care must be taken.
10. PPE must be worn at all times by everyone in the excavation.
11. The depth of the water table must be considered at all times and dewatering may be required.

B	Construction issue.	06.09.21

PERSIMMON

Drawing Title
EXCAVATION GUIDANCE
FOR BATTERED TRENCHES
NOT GREATER THAN 3.0m DEPTH

Project Title	Date	Scale	Drawn
TEMPORARY WORKS STANDARD DETAILS	17.08.21	1:50	JL
Drawing Status: CONSTRUCTION	Dwg. Ref.: PH/TWD/062		Rev.: B

Note :-
Potential risk of tyre damage if vehicles are allowed to drive over slab edge.
To be assessed on site specific basis, and chamfer provided as note 5 if required.

675 high wall of double skin blockwork across front edge of slab with 550 long return at each end.
Edge protection is to be considered on other sides of the slab unless fencing is provided.

Note :-
The blockwork wall is intended as a visual warning and NOT a vehicle restraint barrier.
If a vehicle restraint barrier is required, this shall consist of an Armco rail and 127 x 76 posts at 1500c/c bolted to the slab.

2650 approx x 2000

215

675

250* thick concrete slab reinforced with A393 mesh top and bottom.

See note 5.

GL

150 min

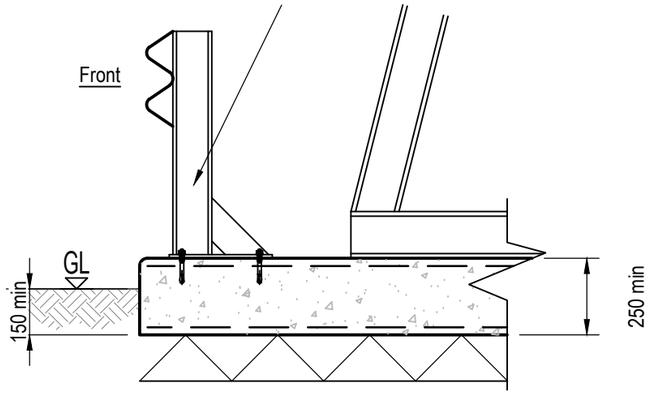
GL

250 min

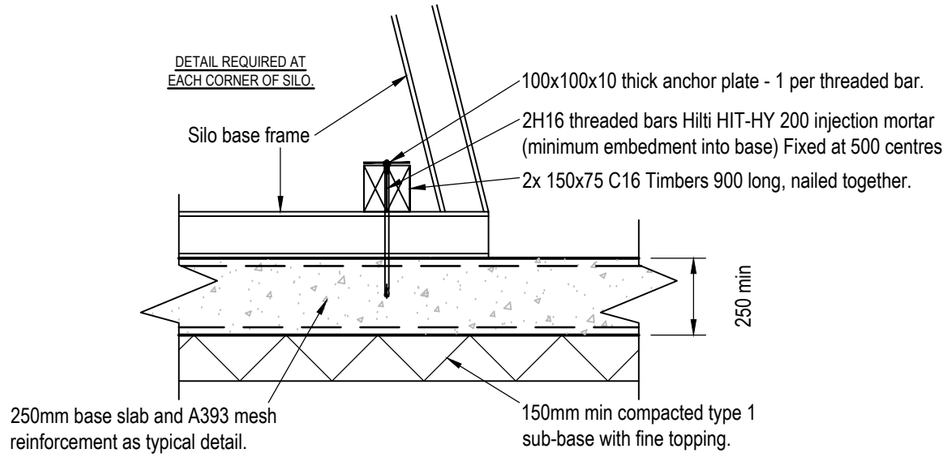
8000min x 3200min - DOUBLE
4000min x 3200min - SINGLE
*See note 4

Formation to be proof rolled with a minimum 4 passes by a vibrating roller of weight of at least 2300kg/m of vibrating roll. All soft spots to be excavated and replaced with 6F2 granular material, compacted in layers. Assumed minimum safe bearing capacity = 80kN/m² - to be checked on site.

150 min compacted type 1 sub-base with fines topping.



SECTION THROUGH SLAB EDGE IF AN ARMCO RAIL IS USED (SEE PLAN).



SILO BASE FIXING DETAIL

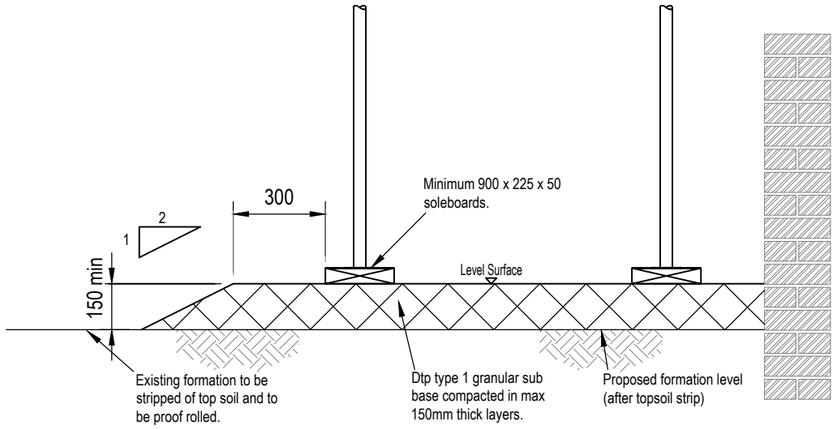
1. All structural concrete to be designated mix RC 35 to BS 8500-1
2. All mesh reinforcement to be type 2 high yield steel to BS 4483
3. Minimum cover to be 50mm top, bottom and sides
4. All concrete to be compacted with a poker vibrator, cured and protected from frost for at least 7 days after casting.
5. Where required, all exposed vertical and horizontal edges of concrete shall have 25 x 25 chamfer. Chamfer shall extend to 150 below finished ground level.

B	Construction issue.	06.09.21

PERSIMMON

Drawing Title: MORTAR SILO FOUNDATION

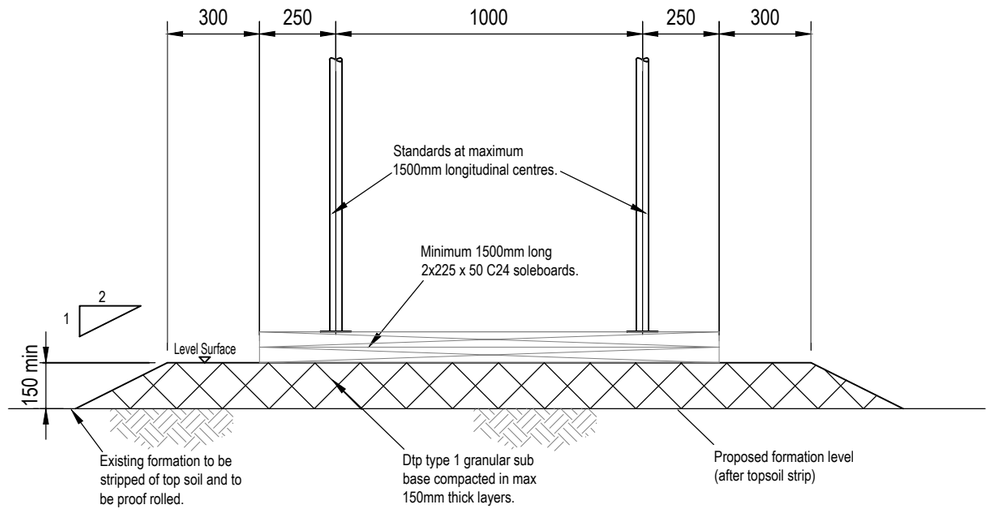
Project Title	Date	Scale	Drawn
TEMPORARY WORKS STANDARD DETAILS	17.08.21	1:20	JL
Drawing Status: CONSTRUCTION	Dwg. Ref.: PH/TWD/070		Rev.: B



BASE FOR STANDARD SCAFFOLD

Notes :-

1. Maximum leg load on a standard = 5.0kN.
2. Required bearing capacity for sub grade is 75 kN/m².
   For example firm clay or well compacted granular fill.



BASE FOR SCAFFOLD LOADING BAY

Notes :-

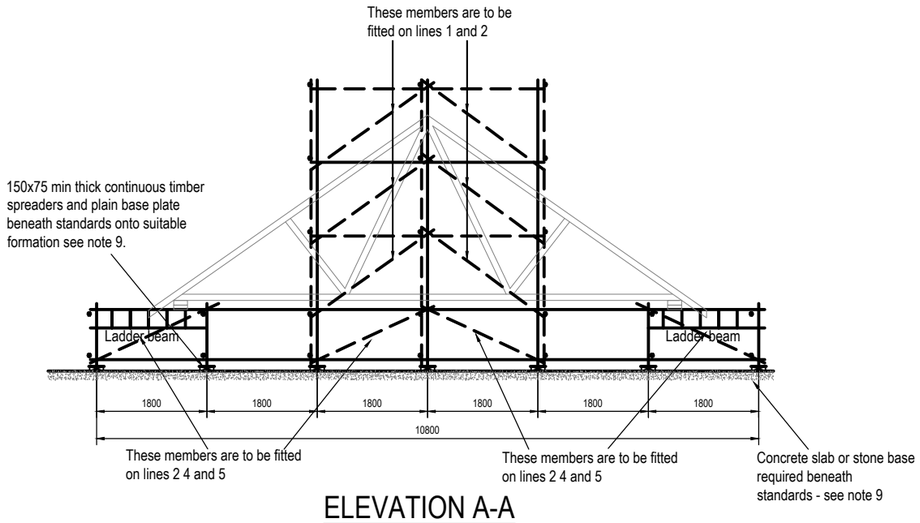
1. Maximum leg load on a standard = 11.5kN.
2. Required bearing capacity for sub grade is 75 kN/m².
   For example firm clay or well compacted granular fill.

B	Construction issue.	06.09.21

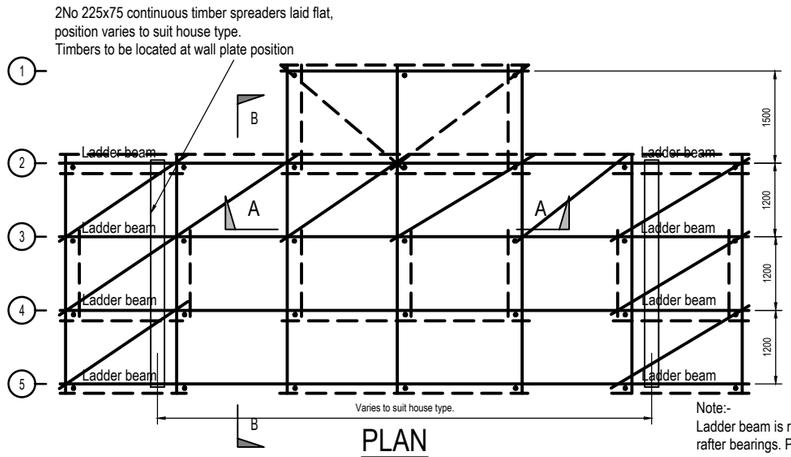
PERSIMMON

Drawing Title: SCAFFOLD BASES

Project Title	Date	Scale	Drawn
TEMPORARY WORKS STANDARD DETAILS	17.08.21	1:20	JL
Drawing Status: CONSTRUCTION	Dwg. Ref.: PH/TWD/080		Rev.: B



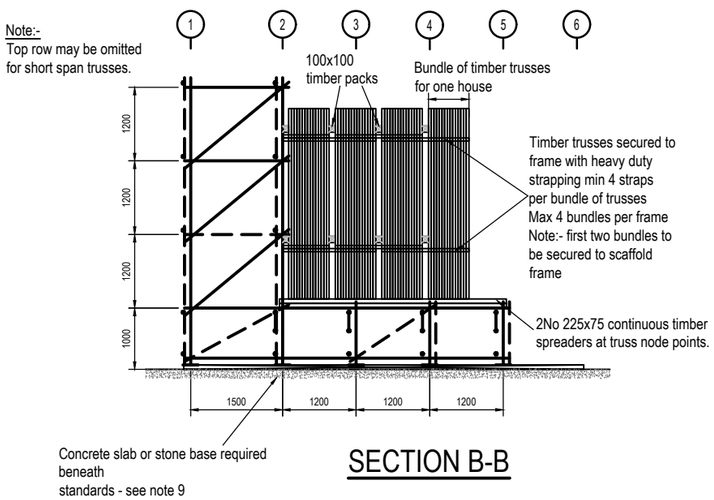
ELEVATION A-A



PLAN

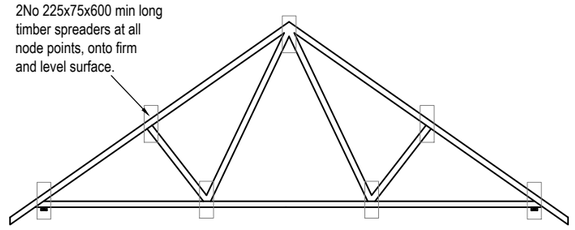
Note:-
Ladder beam is required to support truss rafter bearings. Position of ladder beam is to suit bearing of trusses in the 1st or 2nd (or both) bays from each end.

DETAILS OF STORAGE OF TRUSSED RAFTERS (LONG TERM)

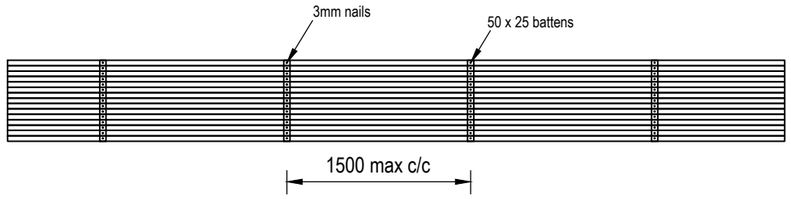


SECTION B-B

Scaffolding to be erected in strict accordance with BS EN 12812:2008
Falsework-performance requirements and general design and National access and scaffolding confederation
NASC TG20:13
Site manager to receive 'Handover certificate' for completed tower from scaffolder prior to allowing any loading.



DETAILS OF STORAGE OF TRUSSED RAFTERS (SHORT TERM TRUSSES LAID FLAT) MAX HEIGHT 1.0m



PLAN SHOWING BATTEN REQUIREMENTS ON TOP CHORDS OF STORED TRUSSES.

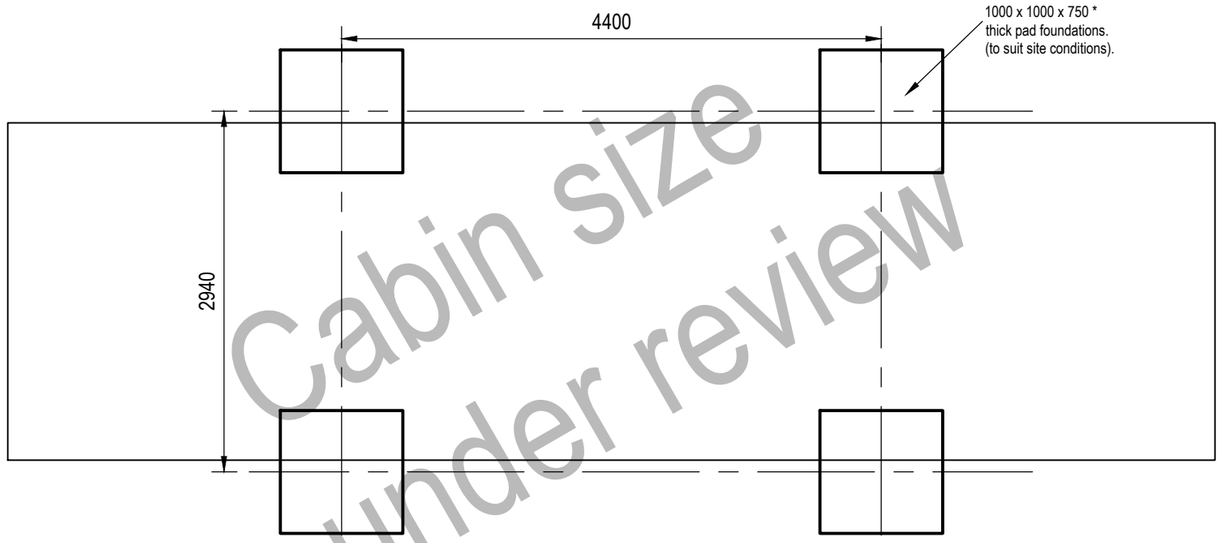
1. To avoid distortion and prevent damage, trussed rafters are to be stored clear of the ground, either flat on level bearers placed under joints (for short term storage only) or vertically and propped (for long term storage).
2. Where trusses are to be stored for more than 2 days, trusses to be protected with covers, fixed with a gap at the bottom for ventilation.
3. Where stored vertically, timber bearers are to be provided at the wallplate positions. All timbers stored vertically are to be secured to scaffold framework with heavy duty strapping.
4. Extreme care is required when removing the bindings from a bundle of trusses. To protect against destabilisation of a bundle of trusses, timber battens to be fixed across the bundle at 1.5m max centres with a part driven nail into each truss to allow safe removal of a single truss when the bindings have been removed.
5. All damaged trusses are to be replaced and NOT repaired.
6. All timber is to be strength class C16 to BS EN 338-2009
7. All scaffold tubes are to be BS EN 39 "as new condition"
8. All ladder beams, transoms and standards to be secured using 90° couplers to be fitted to top and bottom of ladder beam. All scaffolding fittings are to be load bearing class B unless noted otherwise.
9. All standards are to be supported on 75x225 timber spreader plates, min 900 length, 450 each side of standard. If the formation does not consist of a concrete oversite or a firm undisturbed natural ground with a safe bearing capacity of at least 100kN/m² and granular nature, the formation is to be stripped to receive 300 thickness of type 1 granular sub base and proof rolled before placing sub base and spreader plates. Maximum leg load = 12.2 kN
10. The Contractor must verify the adequacy of the ground/foundations to support the props
11. The stability and safety of the equipment during construction is the responsibilty of the Contractor.

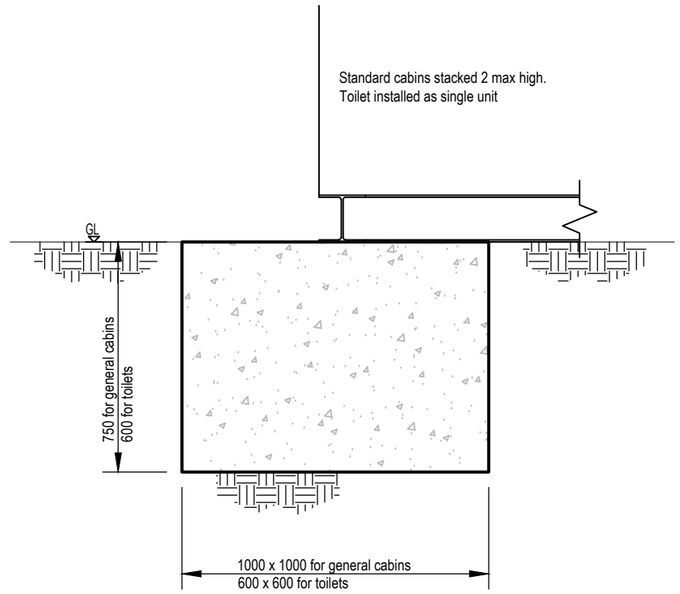
B	Construction issue.	06.09.21

PERSIMMON

Drawing Title: TEMPORARY SUPPORT FOR TRUSSED RAFTERS

Project Title	Date	Scale	Drawn
TEMPORARY WORKS STANDARD DETAILS	17.08.21	1:50 1:100	JL
Drawing Status: CONSTRUCTION	Dwg. Ref.: PH/TWD/081		Rev.: B





Note :-
Foundations cast on firm undisturbed natural ground with a minimum safe bearing capacity
of 100 kN/m², to be checked on site *.
Where necessary foundation to be thickened with mass concrete onto suitable bearing.

All foundation concrete is to be GEN1 medium workability.

Design assumes the use of 32' x 9' galvanised steel cabins (weight approx 4.5 tons) and 21' x 8' mild steel cabins (weight approx 3.0 tons) by Pasuda hire.
General cabins to be stacked 2 high.
Single unit used for toilet facilities.
Foundation size and spacing may need to be altered for other cabin types

Size	sbc 50 kN/m²	sbc 75 kN/m²	sbc 100 kN/m²
2 x 32' x 9'	1500 x 1500 x 900	1200 x 1200 x 750	1000 x 1000 x 750
1 x 21' x 8'	900 x 900 x 600	750 x 750 x 500	600 x 600 x 450

B	Construction issue.	06.09.21

PERSIMMON

Drawing Title: SITE CABIN FOUNDATIONS

Project Title	Date	Scale	Drawn
TEMPORARY WORKS STANDARD DETAILS	17.08.21	1:20 1:50	JL
Drawing Status: CONSTRUCTION	Dwg. Ref.: PH/TWD/090		Rev.: B