

**IN THE ENVIRONMENT COURT
WELLINGTON REGISTRY**

**I TE KŌTI TAIAO O AOTEAROA
TE WHANGANUI-A-TARA ROHE**

ENV-2023-WLG-000005

UNDER	the Resource Management Act 1991 (the Act)
IN THE MATTER	the direct referral of applications for resource consents and notices of requirement under sections 87G and 198E of the Act for the Ōtaki to North of Levin Project
BY	WAKA KOTAHI NEW ZEALAND TRANSPORT AGENCY Applicant

**STATEMENT OF EVIDENCE OF SEAN MALLON ON BEHALF OF
KĀPITI COAST DISTRICT COUNCIL**

**INTERCHANGE AT TAYLORS ROAD AND THE NEED FOR A SUITABLE ALTERNATIVE
ARTERIAL CONNECTION IN THE VICINITY OF THE SOUTHERN INTERCHANGE**

Dated: 26 September 2023

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A. INTRODUCTION

- [1] My name is Sean Mallon. I am Group Manager of Infrastructure Services at Kāpiti Coast District Council (“**Council**” or “**KCDC**”). I have been in that position since 2011. I have worked in the local Government Infrastructure Engineering sector for the last 30 years and hold a New Zealand Certificate in Engineering (N.Z.C.E).
- [2] I was involved in the initial design and designation process for the Peka to Ōtaki (“**PP2Ō**”) Project as one of the primary Council activity leads. I was also involved in the contract tender and award process, providing input from Council on the proposals received by Waka Kotahi. I have also been involved in the delivery of the PP2Ō Project as a member of the Waka Kotahi Project Management Board (Council representative) and was responsible for signing off the Principal Requirements approvals from a Road Controlling Authority on behalf of Council throughout the project.
- [3] I was also involved the initial options elevation process (run by Waka Kotahi) for the Ōtaki to North of Levin (“**Ō2NL**”) Project and have had oversight of Council input (and provided input on behalf of Council) with regards to this process.
- [4] On 1 November 2022, Waka Kotahi issued a notice of requirement (“**NoR**”) to the Council for the Ō2NL Project. The Ō2NL Project is the last section of the Wellington Northern Corridor to be constructed by Waka Kotahi. It will improve the safety and resilience of the section of road between Ōtaki to north of Levin as well as increase transport choice for the area’s growing population. A four-kilometre length of the proposed new highway is located within Kāpiti District. The balance is located within Horowhenua District.

B. SUMMARY

- [5] The Ō2NL Project includes the Taylors Road Interchange. The Taylors Road Interchange is proposed to connect Taylors Road onto existing State Highway 1 (“**SH1**”) to provide direct access to the southern interchange (and thence to destinations further south via the PP2Ō Expressway, and to

destinations further north via SH1) as shown in Figure 1 of Appendix A of my evidence.

- [6] The design of the Taylors Road Interchange included in the NoR maintains the existing Taylors Road (local road) connection from the existing SH1 via an underpass (Waitohu Stream Bridge) under the PP2Ō Expressway. This local connection is proposed to be an alternative connection in the event that an incident were to occur between the Southern Ōtaki Interchange and the Taylors Road Interchange.
- [7] The Council supports the Ō2NL Project but considers that the existing local road connection to SH1 via the underpass (Waitohu Stream Bridge) under the PP2Ō Expressway is not suitable as an alternative connection. The Council seeks that a safe and resilient two-way alternative arterial connection be provided between Taylors Road and SH1.
- [8] Waka Kotahi has advised Council staff that it will investigate amending the design of the interchange during the next phase of design (detailed design) to determine whether a two-way local arterial connection in the vicinity of Taylors Road can be provided. The Council is working with Waka Kotahi on an agreement in relation to this.
- [9] The conditions of the designation should enable such a connection, as recommended by Mr Dunlop in his s198D Report. My evidence suggests a condition which will enable this flexibility at detailed design stage.

C. SCOPE OF EVIDENCE

- [10] My evidence addresses the following:
 - (a) The background and history to the proposed design of the interchange at Taylors Road and how the current connection to SH1 via the underpass (Waitohu Stream Bridge) under the PP2Ō Expressway came to be;
 - (b) The reasons why such a connection is not suitable as an alternative connection, and why a different alternative connection needs to be provided as part of the Ō2NL Project; and

- (c) Discussions with Waka Kotahi about this issue, and the need to enable (in the consent conditions for the designation for the Ō2NL Project) an alternative two-way arterial connection at detailed design stage.

[11] In preparing this evidence I have reviewed the following:

- (a) Stage 5: Additional MCA Processes and Outcomes 2021 document.
- (b) The NoR for the Ō2NL Project as lodged with the Council, including Volume II Supporting Information and Assessment of Environmental Effects (“AEE”).
- (c) The Transport Technical Assessment by Philip Jeremy Peet attached as Technical Assessment A to the AEE.
- (d) The s198D Report of David Dunlop (Transportation) for the Council.
- (e) The s198D Report of Helen Anderson (Planning) for the Council and Horowhenua District Council.
- (f) The statement of evidence of Lonnie Dalzell (Project Overview) on behalf of Waka Kotahi NZ Transport Agency dated 4 July 2023.
- (g) The statement of evidence of Philip Jeremy Peet (Transport) on behalf of Waka Kotahi NZ Transport Agency dated 4 July 2023.
- (h) The Joint Statement of the Transport witnesses dated 24 July 2023.
- (i) The statement of evidence of David Dunlop on behalf of the Council dated 26 September 2023.

D. BACKGROUND TO THE PROPOSED DESIGN OF THE INTERCHANGE AT TAYLORS ROAD

Roads of national significance

- [12] Within the National Land Transport Programme (“NLTP”) 2009-2012, the government identified seven roads of national significance (“RoNS”) which were essential routes requiring significant investment. These routes were

identified in the Government Policy Statement on Land Transport for proactive improvements and to encourage economic growth.

- [13] The Wellington Northern Corridor (Levin to Wellington) was one of the seven identified RoNS routes. The Wellington Northern Corridor includes Transmission Gully, Mackays to Peka Expressway and PP2Ō, all of which have been completed and are in operation. The Ō2NL Highway is the last project in the Wellington Northern Corridor.

PP2Ō

- [14] Designation D0109 and associated regional council consents for the PP2Ō Expressway were approved by a Board of Inquiry (“**BoI**”) in February 2014. That approval included a connection at Taylors Road directly to SH1 via a “T” intersection as shown in Figure 2 of Appendix A to my evidence.
- [15] In June 2016, Waka Kotahi issued the Council a NoR for an alteration to Designation D0109 under section 181(1) of the RMA (Council ref: RM160124). The alteration sought to close the Taylors Road ‘T’ intersection onto SH1 and connect Taylors Road to Ōtaki via a link road under the PP2Ō Expressway as shown in Figure 3 of Appendix A to my evidence. The alteration proposed that a dedicated bridge structure (Bridge 11) be constructed to allow Taylors Road to connect to SH1 to the south on the eastern side of the Expressway.
- [16] The reason why Waka Kotahi sought to amend the NoR to provide for Bridge 11 was for transport safety reasons. A safety audit identified concerns with the ‘T’ intersection of Taylors Road and SH1 at the northern end of the PP2Ō Expressway, therefore Waka Kotahi wished to construct an alternative design to connect Taylors Road to the south.
- [17] Council supported RM160124 on the basis that the alteration was reasonably necessary for achieving the objectives of the requiring authority and the potential adverse effects on the environment were generally consistent with the designation approved by the BoI. Council provided recommendations on the alteration to Waka Kotahi, as the requiring authority, in October 2016.

- [18] In October 2017, Waka Kotahi issued the Council a further notice of requirement for an alteration to Designation D0109 under section 181(3) of the RMA (Council ref: RM170272). This alteration proposed to extend Taylors Road approximately 100m to the south, to pass under the new Waitohu Stream Bridge, and connect back to SH1 which continues onto the Ōtaki township, as shown in Figure 4 of Appendix A to my evidence.
- [19] The reason for RM170272 was to remove Bridge 11. By realigning Taylors Road under the Waitohu Stream Bridge, Bridge 11 was no longer required and could be deleted. A consequence of removing Bridge 11 is that the alignment could be lowered, reducing the bulk of the Expressway and the volume of earthworks required would also be reduced. The amendment would also assist with stormwater and flood management for the project as the removal of the structure would allow the installation of a series of circular culverts under the Expressway.
- [20] During the RM170272 process, Council raised concerns with Waka Kotahi relating to the geometry and resilience of the proposed Taylors Road alignment. The alignment of the road connecting Taylors Road and SH1 included four small radius 90 degree (or more) turns, and the land under the bridge is also prone to flooding. In floods larger than the 5% AEP event, overbank flood plain flows are intended to pass along Taylors Road under the bridge.
- [21] Waka Kotahi gave an assurance that those concerns would be addressed if the Ō2NL Project progressed. On that basis, and to enable construction of PP2Ō to continue, the Council accepted a much lower design standard than Council would generally accept for a local road. Council provided a recommendation back to Waka Kotahi on the alteration in April 2018. This allowed the PP2Ō Project to continue and avoided significant delays to the construction timetable.
- [22] The PP2Ō Expressway was subsequently completed and was opened in December 2022.

Ō2NL

- [23] Detailed Business Case (“**DBC**”) Multi-Criteria Analysis (“**MCA**”) workshops were held by Waka Kotahi between August 2017 and November 2020. The purpose of these workshops were to allow stakeholders to input into the MCA process for Ō2NL alternative options which would feed into Waka Kotahi’s decision making on the project.

- [24] The Ō2NL Project identified the need for a suitable secondary arterial route, with an option presented through the MCA workshops for a local road connection (existing SH1) to be grade separated and cross the Ō2NL Highway corridor in the vicinity of Taylors Road and continue south to the Ōtaki township. This option was identified in the MCA as *Option 1: Taylors Road re-connection across Ō2NL* and is shown in Figure 5 of Appendix A of my evidence. The existing Taylors Road arrangement under the Waitohu Stream Bridge would be utilised for local traffic only and would not need to be relied on as an alternative route in the event of an incident between the Taylors Road Interchange and the north Ōtaki interchange on the new highway.

- [25] At DBC MCA Workshop 4, November 2020, Option 1 was recommended. KCDC supported this option even though it retained the existing Taylors Road arrangement as this would only be a local road connection with a new alternative arterial connection being provided across the new highway.

- [26] Following Waka Kotahi’s identification of a preferred local road connection in November 2020, further design investigation was undertaken. In March 2021, as a consequence of further design investigations, Waka Kotahi identified that additional MCAs were required to assist its decision making on key design elements.

- [27] This identified an option of improved local access to the new highway resulting in a half interchange concept being proposed by Waka Kotahi (providing a northbound off ramp, and a southbound on ramp only) at Taylors Road. Accordingly, the half interchange option (which maintained the existing Taylors Road arrangement under the Waitohu Stream Bridge and excluded the new alternative arterial connection across the highway) was presented as an alternative option to Option 1. This is referred to as

Option 2: Taylors Road half interchange and is shown in Figure 6 of Appendix A of my evidence.

[28] For Option 1 and Option 2, unweighted scores were assessed by Waka Kotahi using a 6-point scoring scale. Option 1 was preferred under the unweighted scoring, and under all of the weighted scoring scenarios with the exception of the economic weighted scenario.

[29] The MCA outcome document stated:

The MCA assessor noted they were concerned with both options from a safety and geometric perspective, but preferred Option 1 over Option 2. Key concerns cited for Option 2 included it would result in a poor geometric alignment (e.g. three sharp bends, including two 90-degree bends), would not cater with overland flood flow / paths and would not be in keeping with what is expected for a rural arterial road. The MCA assessor did acknowledge that Option 2 would provide superior local access for north Ōtaki to the new highway however.

[30] Even though Option 1 scored the highest and was preferred by the MCA assessment criteria, both Options 1 and 2 were recommended to be advanced to the DBC for further consideration.

[31] Waka Kotahi then undertook further consultation with the Council and with Horowhenua District Council. KCDC expressed concerns with Option 2 as the Council considered that option was only suitable for local access due to the geometry of the road not being suitable for an arterial connection and the alignment under the Waitohu Stream Bridge making the road impassable in a flood event greater than 5% AEP. These concerns are substantiated by the MCA outcome document.

[32] Notwithstanding Council's comments, Option 2 was preferred by Waka Kotahi and was incorporated into the Ō2NL DBC which proposed "*a half interchange with south facing ramps near Taylors Road and the connection to the new PP2Ō Expressway.*"

- [33] Option 2 was included in the NoR for the Ō2NL Project as part of the Taylors Road Interchange when it was lodged with the Council on 1 November 2022.
- [34] The Council supports the Ō2NL Project. However since Option 2 was incorporated into the DBC, KCDC have continued to raise its concerns and requested a suitable two-way alternative arterial connection be incorporated into the design (as was initially proposed as part of Option 1).
- [35] Council remains of the view that the existing alternative local connection via the underpass (Waitohu Stream Bridge) under the PP2Ō Expressway is not suitable as an alternative arterial connection because of the geometric design of the road, its low speed limits and poor resilience to flooding. If an incident were to occur between the Southern Ōtaki Interchange and Taylors Road Interchange, all traffic from the new highway would need to be diverted to the north via the existing Taylors Road arrangement under the Waitohu Stream Bridge. That existing local road arrangement is not suitable for that purpose.

E. SECTION 198D REPORT – DAVID DUNLOP

- [36] In his section 198D report for KCDC, David Dunlop identified his concerns about the Taylors Road Interchange and the reasons why he considers a two-way arterial connection should be provided.
- [37] The Transport JWS dated 24 July 2023 ("**Transport JWS**") records that the transport witnesses discussed four potential options which are attached to the Transport JWS. It should be noted that those options, as numbered in the Transport JWS, are not numbered the same as the options included in the MCA. The options identified in the Transport JWS were as follows:

- (i) The current proposal (Taylors Road Half Interchange) ("**Option 1**")¹;
- (ii) No connectivity but two-way secondary arterial ("**Option 2**")²;

¹ Described as 'Option 2: Taylors Road Half Interchange' in the DBC MCA.

² Described as 'Option 1: Local Road Connection Across O2NL (Taylors Road Reconnection)' in the DBC MCA.

- (iii) Full half interchange with two-way secondary arterial (“**Option 3**”); and
- (iv) Two-way secondary arterial with north bound off ramp only (“**Option 4**”).

[38] As recorded in the Transport JWS, all of the transport experts agreed that Option 3 (which provides a two-way secondary arterial access between Taylors Road and the existing SH1) is the best overall outcome from a transportation perspective. While Mr Dunlop prefers Option 2, for the reasons set out in his evidence, I can confirm that the Council would be comfortable with Option 3 because from the Council’s perspective, it would rather see an interchange than no interchange.

[39] Option 3, the half interchange, provides greater connectivity to the new highway for local residents while still providing a suitable alternative arterial connection. The half interchange also supports future increased densities and development directly north of Ōtaki.

[40] Option 3 would also provide a suitable two-way alternative arterial connection between Taylors Road and the current state highway which the Council considers is necessary for the following reasons:

- It will provide a safe and resilient two-way connection to the south via a new arterial road for all communities located north of Ōtaki.
- It will provide north - south movement on parallel roads.

[41] Options 3 and 4 were not considered as part of the MCA workshops.

F. RESOLUTION OF THIS ISSUE

[42] Council staff have raised their concerns with Waka Kotahi through regular meetings held post the NoR being lodged. During those discussions, Waka Kotahi has acknowledged the Council’s concerns in relation to the lack of a safe, resilient two-way alternative arterial connection. Waka Kotahi has advised Council staff that it will investigate amending the design of the interchange during the next phase of design (detailed design) to determine

whether a two-way local arterial connection in the vicinity of Taylors Road can be provided. Mr Dalzell has suggested that Waka Kotahi and the Council enter into a side agreement to record this. As at the date that this evidence is filed, the Council and Waka Kotahi are yet to finalise that agreement.

[43] Whilst the Transport JWS records Mr Peet's view that an alternative connection cannot be accommodated within the corridor, Mr Dunlop has (post conferencing) developed an initial design which confirms that a connection can in fact be provided within the land designated in the NoR for the Ō2NL Project.

[44] The following designation condition would allow flexibility for Waka Kotahi to provide a suitable alternate arterial connection in the vicinity of Taylors Road at the Outline Plan of Works stage:

Notwithstanding condition DGA1 of this designation, Waka Kotahi may construct, operate and maintain a two-way local arterial connection in the vicinity of the southern half interchange at Taylors Road which provides an alternative connection between Taylors Road and the existing State Highway 1 (in addition to the existing underpass under the Waitohu Stream Bridge). The two-way local arterial connection shall be in general accordance with the layout shown in Figures 1 and 2 of the Environment Court evidence of David Dunlop on behalf of Kāpiti Coast District Council dated 26 September 2023 or may consist of a different layout to that shown in Figures 1 and 2 of that evidence provided that any such layout:

a) meets the safety requirements of the road controlling authorities in the exercise of their statutory functions and has been subject to an independent safety audit; and

b) must be passable in flood events greater than 5% AEP.

G. CONCLUSION

[45] A suitable alternative two-way arterial connection between Taylors Road and the existing SH1 is important for the reasons set out in my evidence. The existing connection is not suitable as an alternative connection, and was only ever intended to be a temporary solution.

[46] Waka Kotahi has agreed to investigate this during the next phase of design. The conditions imposed on the designation should therefore enable a suitable alternative connection to be provided and included in the Outline Plan of Works.

Sean Mallon

26 September 2023

Appendix A

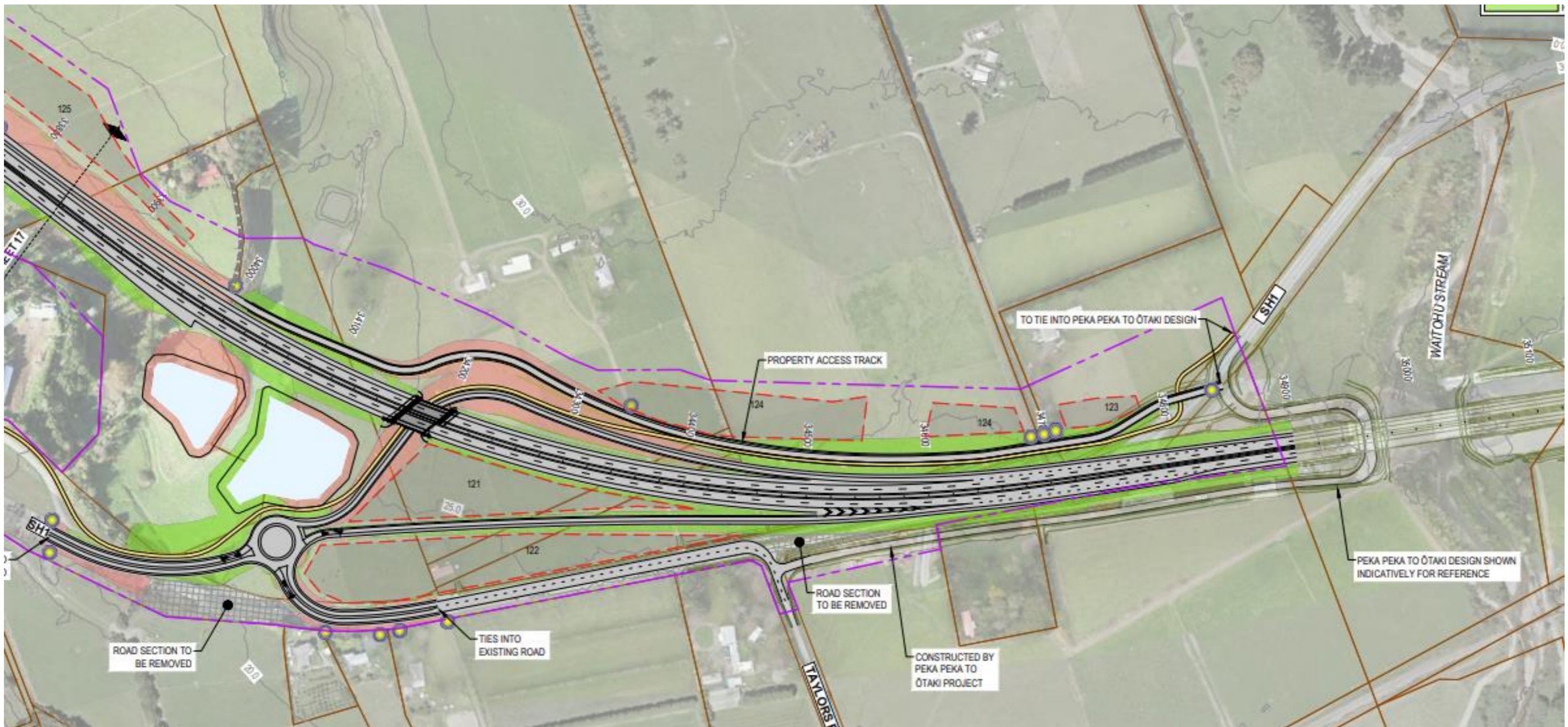


Figure 1 - Design of Taylors Road Interchange included in Notice of Requirement as lodged with the Council

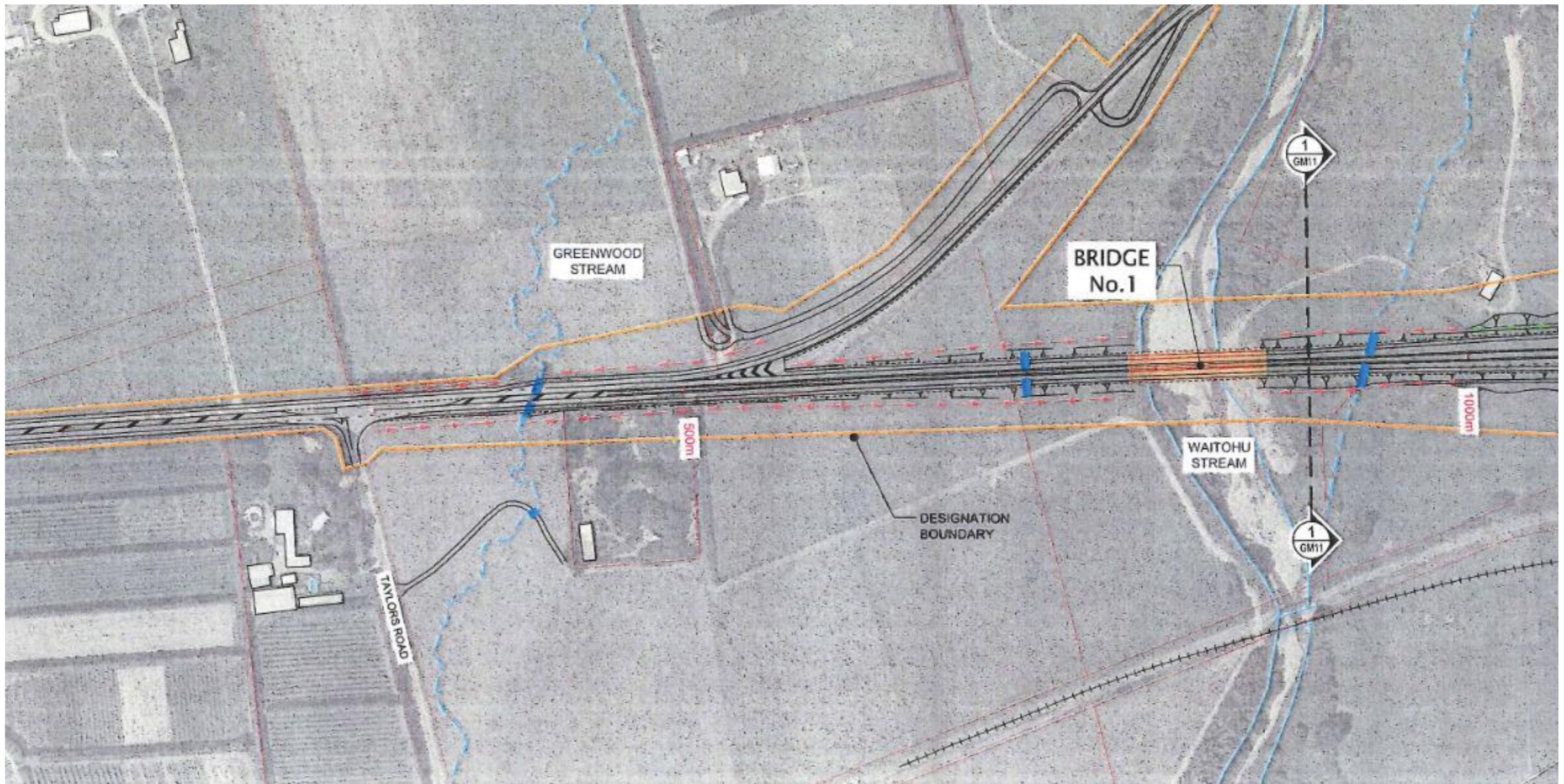


Figure 2- Design of Taylors Road connection with State Highway 1 ('T' Intersection) as approved by the PP20 Board of Inquiry



Figure 3 - Plan showing Taylors Road Alteration under PP20 Expressway

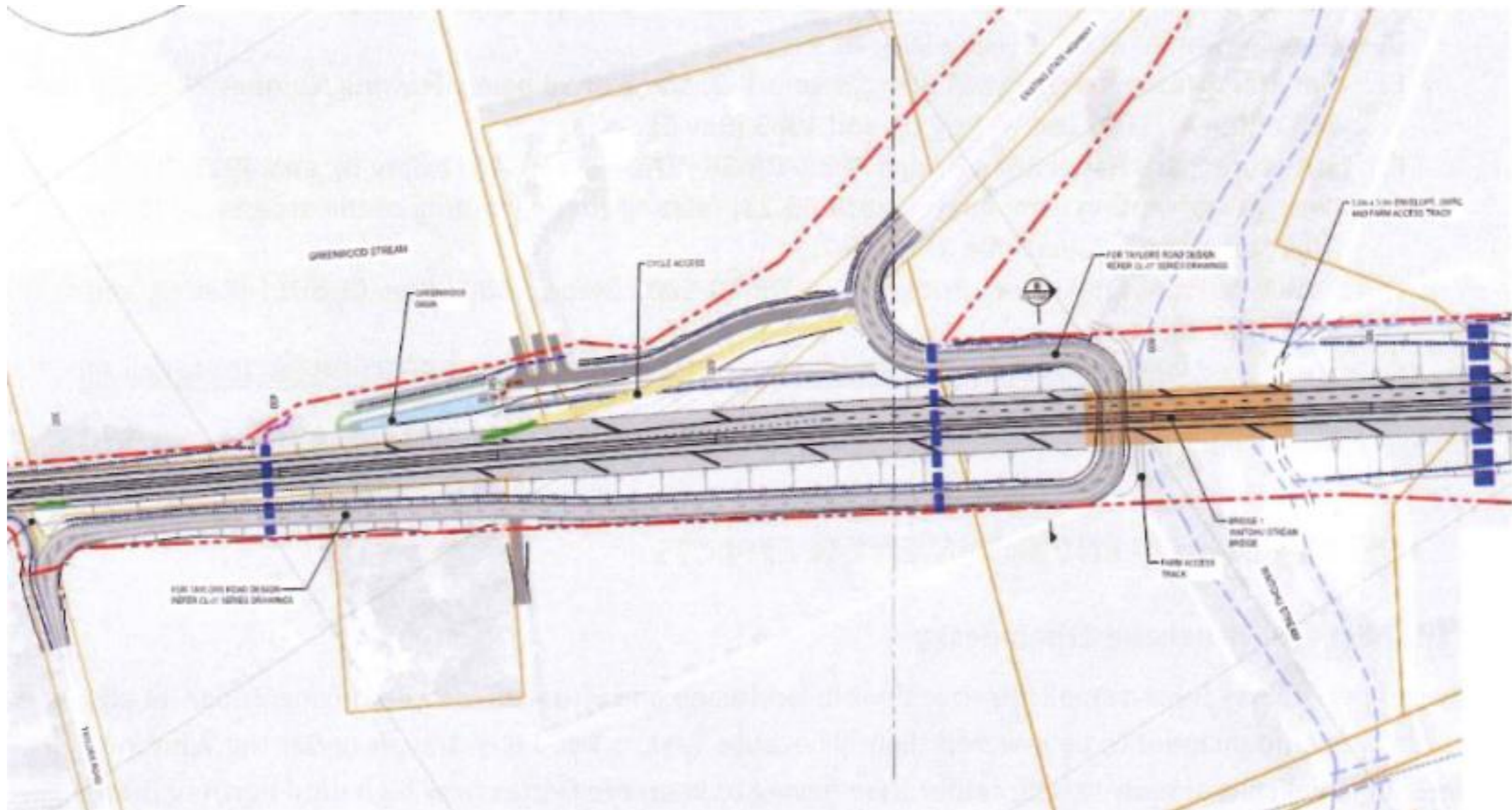


Figure 4- Plan showing Taylors Road Alteration under Waitohu Stream Bridge

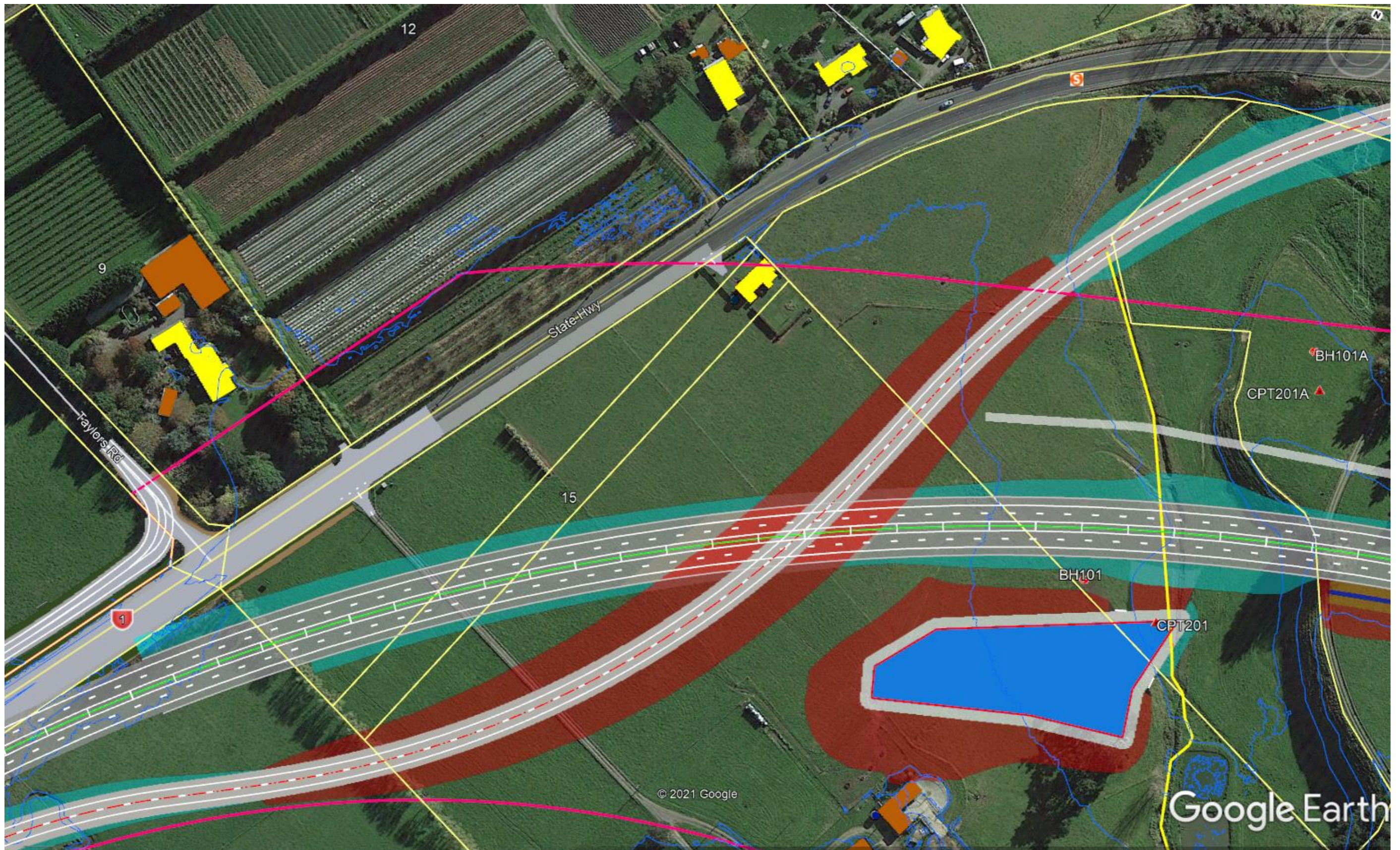


Figure 5 - MCA Option 1 local road connection across O2NL

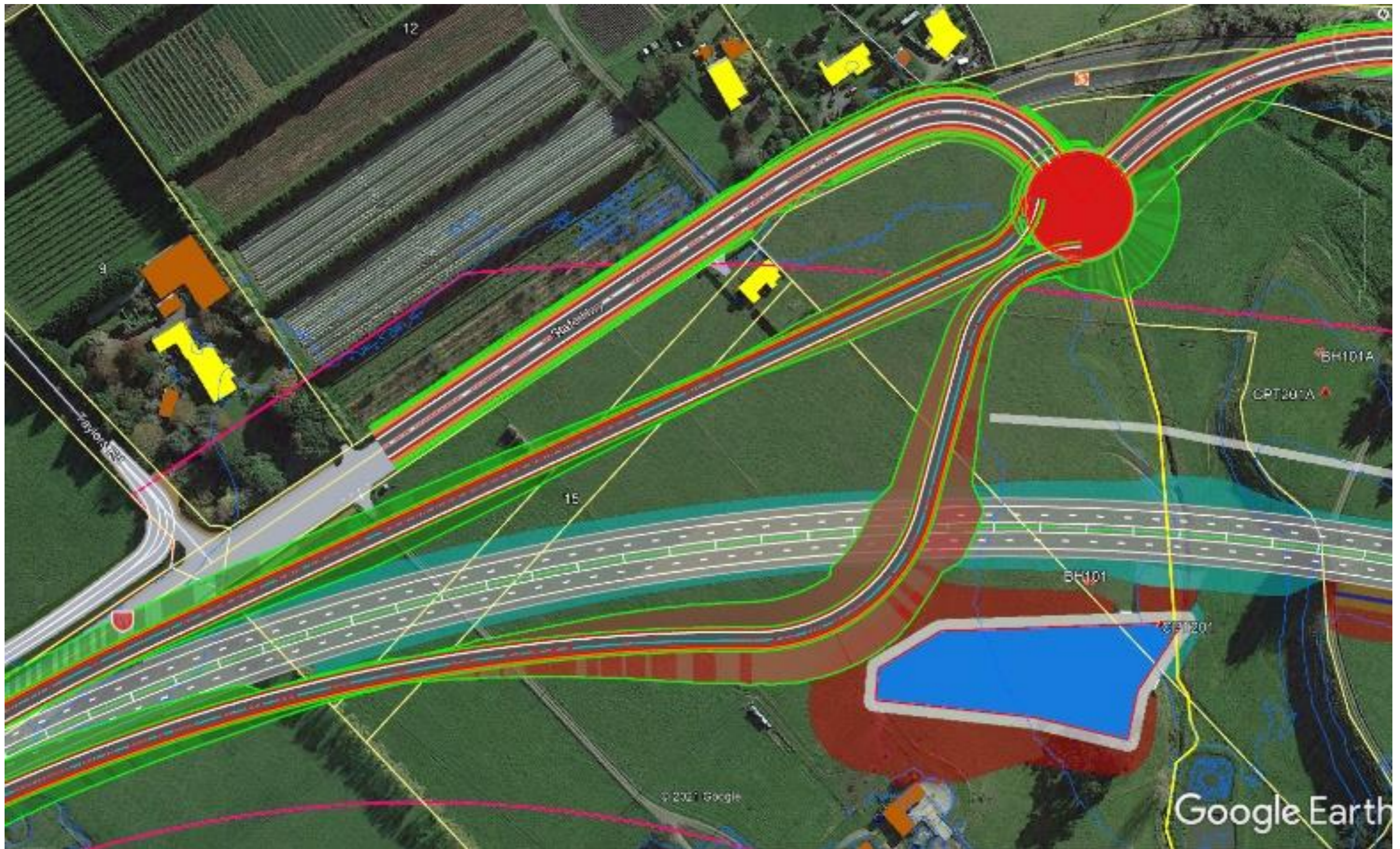


Figure 6 - MCA Option 2 Taylors Road half interchange