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*Colonial Secretary's Office Perth,  
April 15, 1853.*

HIS Excellency the Governor has been pleased to direct the publication of the following Reports from Mr A. C. Gregory and Lieut. Crossman, R.E., respecting Lines of Road between Perth and Albany.

By His Excellency's command,  
W. A. SANFORD,  
Colonial Secretary.

*Perth, January 25, 1853.*

SIR,—Having accompanied Lieutenant Crossman, R.E., in the examination of the country from Perth to Kojonup, and thence to Bunbury, with the view of selecting the most eligible line of communication between Perth and Albany, I herewith furnish a sketch of the country, shewing the relative positions and distances with regard to the line which appears to combine in the greatest degree, shortness of distance, supply of water and feed, firm soil, absence of steep declivities, and opening more direct communication with country available for pastoral and agricultural purposes.

For a description of the line from Perth to the Hotham River I beg to refer to my letter of the 18th December, 1851. From the Hotham the nature of the country renders a slight deviation to the Eastward advisable, to take advantage of a level valley, to about 6 miles North of the Williams river, where it joins the present road from York to Albany, which with some slight amendments in detail, would be the best line, as it passes through the most fertile portion of the country, and crossing the Williams, Arthur, and Beau-

fort, higher up, these rivers would be more easily bridged, and thus leave only 80 miles of new line (from Batt's mill to the Williams) to be cleared in order to open the communication from Perth to Kojonup and Albany, as the remainder of the present road would be available for the rest of the distance, until it could be amended and cleared.

From Kojonup we proceeded by the Bunbury road, to 10 miles West of the crossing of the Collie, the road being moderately good for that distance though sandy in places. We then endeavored to find a pass from the high land, traversed by the road, to the valley of the Preston river, the difference of level being nearly 1000 feet, but the rocky and abrupt nature of the country rendered the search unavailing, and although could the descent be accomplished, the valley of the Preston affords an excellent line of level road to Bunbury, and thus avoids the most objectionable and steepest portion of the present road, this detour to the South would so much increase the distance, that it would be more objectionable than the hills and gullies it now crosses. It is however probable that the valley of the Preston would afford a good ascent by some of its Southern gullies, which might be made available in the direct line towards Albany, by crossing the Blackwood considerably below the present road and passing 30 miles S.W. of Kojonup to the N.W. bend of the Gordon, and then by the Kent and Hay rivers, join the road about 10 miles South of Mount Barker. Of this line (which I understand it is the intention of Lieut. Crossman to examine) I can only speak from having at various

times traversed a great portion of the country it passes through, which does not present any great difficulties, the principal being the sandy nature of the soil and the increased size of the Blackwood and Gordon. I cannot however recommend either this line or the present one from Bunbury, unless some weighty considerations, unconnected with the expense of constructing and maintaining the road, or the rapidity of transit bear directly on the subject.

From Bunbury I returned by the road to the Williams to complete the examination of the country between that river and the Hotham, and ascertained the existence of a good line the whole distance, and then returned to Perth by a route a few miles to the West of the line marked on the plan, but found the country intersected by high ridges and deep vallies which render the country unsuited for a line of road.

It is probable that a more minute examination of the direct line of country will shew many points for improvement in the details of the road, but two of the horses having knocked up in the first 50 miles, I was obliged to return them to Perth, which greatly circumscribed our operations, as the riding horses were consequently encumbered with the extra weight of provisions, &c.

While at Bunbury I accompanied Mr Eliot to the Preston river, where some shales supposed to belong to the coal formation had been discovered by that gentleman and Mr C. Clifton. Comparing these shales with those adjoining the coal seams on the Irwin and FitzGerald rivers, I consider them as promising indications of the existence of Coal in the vicinity, which its position would render valuable, as it is only 8 miles from the port of Bunbury. The geological position of these shales favour the idea that they are a continuation of the coal measures which have been traced from the Greenough South to the Moore river, while the existence of fragments of coal in the recent tertiary limestones of Garden Island, and portions of bituminous limestone in those near Bunbury render it probable that there is a continuance of the carboniferous series extending along the whole Western base of the granite hills of the Darling Range, though in most places covered to a considerable depth by the new red sandstone, which is developed so extensively in Australia.

I have the honor to be, Sir,

Your obedient servant,

A. C. GREGORY,

*Assistant Surveyor.*

The Honourable  
The Surveyor General,  
&c., &c., &c.

LIEUT. CROSSMAN, R.E., TO THE CONTROLLER GENERAL CONCERNING THE

PROPOSED ROAD FROM PERTH TO KING GEORGE'S SOUND.

*Western Australia, Albany,*

*King George's Sound,*

*January 19th, 1853.*

SIR,—I have the honor to report that I have examined the country through which the road from Perth to Albany would run, as proposed by Mr A. Gregory.

On leaving Perth we rode down the new road to the Canning, which is at present being cleared by the native prisoners from Perth. For the first five miles the road runs over a very soft sandy country, at about 6 miles from Perth. The ground is much firmer and continues so as far as the Canning; this river we crossed about half a mile above Davis' farm.

I would wish to state here that on a mere exploration of the main line of road, we had not time to examine the rivers carefully enough, to determine upon exactly the best spots for bridging them, so can only report as to the nature of the banks, &c., close to where we happened to hit them.

The spot where we crossed the Canning seemed a very good place for throwing a bridge across; the banks on each side approach pretty closely to each other. The distance between them is about 100 yards. The river rises about 20 feet but from its proximity to the hills, and from its running parallel to them, it must rise very suddenly after heavy rains. After crossing the Canning we kept on an old track to Kelmscott a distance of 6 miles, this ran generally over firm ground, but here and there over patches of loose sand; these however, I have no doubt, might be avoided by keeping closer to the river, so increasing the distance by perhaps a quarter of a mile; we then kept the Serpentine road for 3 miles. These 3 miles were pretty good generally running over firm and gritty soil, there were a few patches of loose sand not to be avoided; we kept this road as far as Middleton's place, turning into the hills there and keeping by the side of the Neeregen Brook for 6 miles, travelling generally about a S.E. course; by the side of this brook a good road may be made, the ascent is very easy and very little clearing will be required. The country is very stony but no large rocks are in the way.

There is but very little feed after leaving Kelmscott, some land though of very limited extent, might be brought into cultivation immediately before entering the hills; there is good water in this brook all the year round, a small bridge would be required across it, good stone and timber are close at hand, and there is never any great rush of water. We then crossed some very stony hills, where the clearing will be heavy; there are no steep ascents, but some expense will be incurred in moving or breaking up the large blocks of ironstone so thickly scattered upon the

ridges; the road would then run along a narrow ridge for about 10 miles, the gulleys on the North side of this ridge run into the Canning, those on the South into the Serpentine; the road along this will be tolerably level generally running in a S.E. direction, but still the clearing of the mahogany trees and breaking up of the blocks of ironstone will be heavy work; water may be obtained in any of the gulleys by sinking, but the feed is very indifferent and we saw no good land.

After leaving this ridge we struck down into a valley and crossed a small brook, where a small bridge will be required (the distance of this brook from Perth is about 36 miles); we then ascended another hill the ascent of which was the steepest we experienced on the journey, the slope being not quite 1 in 10; crossed two more stony ridges and small watercourses in the valleys between them, and after travelling about 2 miles struck into a valley running in about a S.S.E. direction to the foot of Mount Randall; in this valley a very good road may be made by keeping along the foot of the rising ground.

The nature of all the vallies in this part of the country is—sand in the bottom, ironstone grit at the foot of the hills, the ironstone blocks and mahogany trees increasing in number and size as you ascend on to the ridges.

After leaving this valley which we kept for about 2 miles, two more ridges are crossed and the watercourses in the valleys between them, no bridge will be required across these as they are but small and the bottoms are very firm, all that will be wanted will be the sloping off of the banks on each side. After crossing these ridges the road will run down a long valley in a general course of about S.E. by S. for about 9 miles, here and there passing over some patches of heavy sand but good materials for road making are close at hand, or if the foot of the hills or the Western side of the valley were kept, a firmer road could be made, though the clearing would be heavier. About 5 miles down this valley or about 46 miles from Perth, there is some indifferent feed, very coarse but the best we saw in the hills; 2 miles further on there is a large swamp where there is water all the year round; after leaving this swamp we went down the valley for a distance of 2 miles, and then crossed over an ironstone ridge into another valley of much the same nature as the last, running in about a S.E. by S. direction; here the road may be considered to be clear of the Darling Range; the road in this valley will have to wind about a little to avoid the various spurs of land running out; the valley is about 5 miles long and but little clearing will be required; the white gum country now commences and the clearing becomes comparatively light. The road after leaving the valley will run over an undulating iron-

stone country of this nature, and a very good one will easily be made; some of the ridges which we crossed were certainly rather steep but I have no doubt these can be avoided by making the road wind a little; in the vallies too the soil is rather sandy but good material is at hand everywhere; this sort of country we travelled over for about 5 miles and then hit upon a valley running down to the Bannister River a distance of about  $2\frac{1}{2}$  miles, in this valley very little clearing will be required, the trees are white gum, and the ground is covered with ironstone grit. On the Bannister there was a little feed by the side of the river.

As all the rivers now to be crossed are rivers of pools and much of the same nature, I will defer speaking concerning the bridging of them till I have finished the general report. After crossing the Bannister the road will be carried in a slanting direction up rather a steep hill, when the top of the high land is obtained, it will run down a gully with a very gentle descent the whole way to the Hotham River, the distance between the Hotham and Bannister is about 9 miles very little clearing will be required, and a good hard road can easily be made. On the Hotham the feed is pretty good but there is a great quantity of poison all along the banks of these rivers, when the flats are left and the ridges are ascended. On leaving the Hotham we travelled over a very steep country, part of the way our course was S.S.E. and then we had to go due South down a gully, the banks of which were very steep, until we came upon the Williams River. Some parts of this country were altogether too steep and rough for a road.

We struck the Williams River near the townsite of Williamsburg; the feed was very good and there seemed some extent of country fit for cultivation. We found no water except in the rivers, but by digging tanks in any of the vallies or on the faces of the hills where you can get good land drainage and where the soil is not sandy, a plentiful supply of water may be ensured throughout the whole year almost everywhere.

After crossing the Williams we had to ride about 3 miles up the river before we could find a tolerably easy ascent up the hills on the left bank; the hills here are grassy, and generally but little clearing would be required, in some few places however the grass trees are very thick. After ascending the hills a very good road can be made to the Arthur River over a white gum ironstone country; some of the ground becomes very soft in winter and drains must be dug to carry off the water; we passed one spring about 2 miles from the Williams and saw no more water till within a mile of the Arthur, which we struck about 10 miles below where the present York and Kojenup road crosses

it. The feed on the Arthur was not very good; the pools of water were very large.

After crossing the Arthur we ascended a grassy range of hills with ironstone on the summit; the ascent was easy; we then descended into the Beaufort Plains, a large extent of country here must be flooded in winter and a long causeway will be required. The distance between the Arthur and Beaufort is about 6 miles, and on the whole a good road can be made. On the Beaufort the feed is but indifferent. After crossing this river we directed our course to Kojenup, but found that the road would have to run over such a loose sandy country, that we struck into the York road at the southern part of what are called the Beaufort Plains, and about 15 miles from Kojenup. The road hence to Kojenup runs in one or two places over steep ironstone ridges but these I imagine can be avoided; there is feed and water in a gully 7 miles from Kojenup; the road from this gully to Kojenup is very good and runs over a grassy country.

I would propose that the road be not carried in a direct line from the Hotham River to Kojenup, but that it should run from that river in a more Easterly direction, so as to come into the present York and Kojenup road near where this road crosses the Williams River; this would not increase the distance more than 8 or 10 miles, and I think there are several reasons why it should be carried so:—1st. The bad country we crossed between the Hotham and Williams would be avoided, and Mr Gregory informs me that a very good level road may be made from the Hotham to near the townsite of Bannister. 2ndly. There is some very good land on the Williams where the present road crosses it, and also on the Martup Hills where it crosses the Beaufort; for this there is no equivalent on the more direct line. 3rdly. The heavy sandy country between the Beaufort and Kojenup is avoided, and 4thly. A very fair road is already cleared for 60 miles. The bridging on both lines will be about the same, there will have also to be some alteration in the present line near the Beaufort Hills, as it is there rather steep but this can easily be done.

At Kojenup there is some very good land and the feed is very good; a good crop of hay might be got off the townsite every year: there is however a scarcity of fresh water, the springs are all very brackish; however if tanks were dug I have no doubt an ample supply of fresh water could be ensured throughout the whole year; and I would beg to recommend that the detachment of Enrolled Pensioners stationed there be employed on this work. There is now, at a place called Quin Quin, on the Sound road  $\frac{1}{2}$  a mile from the Barracks, a tank where fresh water can be got most part of the sun-

mer, but it is not large enough to ensure a supply throughout the whole year; this I would recommend to be enlarged, deepened, and well fenced round to keep wild horses and cattle from it. There is also another place about  $\frac{1}{4}$  of a mile N.W. of the Barracks, which it would be well to have enlarged and kept clear.

One or two of the Pensioners to whom land has been granted at Kojenup have commenced breaking up the ground, the soil is very good.

Kojenup would be a good place for a horse breeding establishment. There is a sheep station at Wokalup about 4 miles S.E. from Kojenup, but there is a great quantity of poison in the district.

After leaving Kojenup the road for the first 5 miles is not very good and a much more direct, level, and firm line, can be made by keeping down a valley a little to the Westward of the present road; from the 6 to the 18 mile gulleys (from Kojenup, the road is very good and hard, it is in some places at present very soft in winter but this can be easily remedied. The clearing is very light, the timber being white gum and the soil gritty (ironstone). Small causeways are required across gulleys 16 and 18 miles from Kojenup.

There is water to the Eastward of the Road in a small well 15 miles from Kojenup this requires enlarging and cleaning; at 17 and 18 miles from Kojenup there is water but very brackish, the feed also is scanty. After leaving the 18 mile gully the road runs over some rather steep ironstone ridges, but the ascents of these can be lightened by changing the course a little. There is a well of good water and feed (E of road) in "Slab Hut Gully" 22 miles from Kojenup; here and there are patches of sandy ground to be crossed, but they are of no extent and plenty of ironstone is generally at hand; the clearing is very light, the timber being white gum and in some places raspberry jam trees.

At Batt's Gully 27 miles from Kojenup there is a well of water (E of road); from this to the Gordon the road is very good. At the Gordon the feed is indifferent; there is freshwater in two large pools a little distance away from the road and in each side of it; the pools between which the road immediately passes contain salt water.

After crossing the Gordon the road is carried up an easy ascent, and over bare sandy plains nearly totally destitute of trees for a distance of 6 miles; in some places the sand is loose and heavy; but generally the soil is not of such a nature as to cut up with moderate traffic.

After leaving the plains it runs over an undulating ironstone country to Lake Matilda, a distance of 15 miles from the Gordon; water might be obtained by sinking in a round swamp about 10 miles from the Gordon; at Lake Matilda the feed is pretty fair, the water E of road is

the best. From Lake Matilda the road runs through a grassy country as far as Kindinup, where there is a sheep station and farm; the distance is 6 miles, there are one or two places where causeways will be required as the ground becomes very soft in winter. After leaving Kindinup the road generally is not so good, as it has to cross several gulleys falling into and joining the Kalgan River; the soil is generally firm but the clearing heavy except in the valleys. There is water in a round swamp (W. of road) 4 miles from Kindinup, at Craigies Well (E. of road) 0 miles, and at the old barracks at Mount Barker 11 miles from Kindinup; there is some good feed and some pretty good land at the Plains 2 miles North of Mount Barker; the road will require some making across these Plains, and the clearing will be heavy at the foot of the hill.

From Mount Barker to Kojerup, a swamp 27 miles from King George's Sound, the road runs through a generally sandy country; some steep ironstone ridges are to be crossed, and a causeway is required across a creek about 8 miles from Mount Barker. At Kojerup there is no feed, and in fact there is no feed between Mount Barker Plains and the Sound, but the whole road from Kojerup is very well watered, and on the whole is a very good road. From Kojerup to Chokerup, 16 miles from the Sound, the road is very good, level, and firm. From Chokerup to the 12 mile gully the road is very good; the 12 mile bridge and causeway require repairing. From this to Albany the road runs over an undulating ironstone country, sandy in the valleys and as you approach the Sound, but good material is at hand. Causeways are required across the 6, 5, and 3 mile gulleys. From Kojenup to the Sound, 96 miles.

**BRIDGES.**—I now have to mention what Bridges will be required on this line:

The Swan is already bridged.

The Canning we crossed about  $\frac{1}{4}$  mile above Davis' farm; the distance between the banks on each side is about 300 feet, rise of water about 20 feet.

Small bridges required across the Neeregen Brook and the Gulleys 30 and 36 miles from Perth; these would not be expensive, good stone and timber is close at hand, and there is never any great rush of water.

All the rivers now to be crossed are rivers of pools, only running in winter; their rise is generally very sudden; the bridges would be carried across between two pools, and I conceive there would be no difficulty in throwing bridges across any of them; there are generally flats of tolerably good land on each side of them, flooded in winter after heavy rains; no heavy masses of timber are carried down these rivers. The clear space to be spanned in each would be about the width of the widest pool, over the remainder a

causeway with large openings left here and there would be sufficient.

The whole distance at the Bannister required to be crossed would be about 60 yards, and the river rises about 8 feet.

At the Hotham 120 yards, and the river rises about 12 feet.

At the Williams much the same as at the Hotham, and this river rises also about 42 feet.

At the Arthur and Beaufort much larger bridges and much larger causeways will be required; the former river rises about 15 feet and the latter about 12.

Over the 7 mile Gully (from Kojenup) a small bridge of perhaps 20 feet span will be required.

Between Kojenup and the Sound the only bridge of any magnitude would be over the Gordon; the whole distance to be bridged would be about 200 feet; the river rises about 10 feet; a few bridges and causeways will be required across some of the gulleys but none of any consequence.

Good timber is close at hand on the banks of all these rivers.

**FEED AND WATER.**—Between Kelmescott and the Bannister there is very little feed, and little or no land that could be brought into cultivation; here and there in the vallies amongst the hills there are small patches but of no extent. By sinking tanks or wells water may be obtained anywhere. There is some very coarse feed and good water 48 miles from Perth, and 28 from where the road enters the hills. At the Bannister 62 and Hotham 70 from Perth there is feed and water. At the Williams where the road would hit the present York and Kojenup road, there is some good land, there is at present a horse station there; this also would be the point from which, if ever required, branch mails to York and Bunbury would start; it is nearly equidistant from both, and there are already roads to both places. The road from Bunbury to the Williams was formed by a party cutting sandalwood, and by all accounts is a very good one. This place is 100 miles from Perth, 80 from York, about 90 from Bunbury. There is some good land at the Martup Hills on the Beaufort, and at Kojenup. Between Kojenup and the Sound at the Gordon here however the land is very poor; at Mount Barker Plains and at Kindinup there is some tolerably good land. The whole of this country however is very well watered, and I would beg to recommend that in making the road, the party employed have orders to dig tanks or sink wells at intervals of 10 miles.

**ROAD VIA FREMANTLE AND BUNBURY.**

It is not necessary that I say much concerning the present roads from Perth to Fremantle, and from Fremantle to Bunbury, as they are so well known; I can merely say that although they are very level, there is no corresponding distance

ou the proposed line via Kelmscott, which runs over a country so ill adapted for a good road. After leaving Bunbury and before entering the hills the present road runs over a plain 3 miles in breadth; over this although a good road can be made, at present it is almost impassable in winter. The pass through the hills is very bad, I may almost say impracticable, but however this can be avoided by going up the South bank of the Preston River; a road is already made for about 30 miles up to Millars station, and beyond that a very good level road may be made for about 30 miles more up the same river, and keeping along a branch of it which runs from the Eastward; there will be one rather steep ascent before striking into the present road, which it will hit about 6 miles from the Collie River. On the banks of the Preston there is some extent of very good land and good feed for cattle. About 7 miles from Bunbury Mr Eliot pointed out some coal shale which certainly gave good indications of coal in the vicinity, and the district is well worthy of careful examination. But although a very good road can certainly be made up the Preston River, and running through a fine country it will increase the distance between Bunbury and Kojenup by upwards of 20 miles, so making the whole distance from Perth to King George's Sound 60 miles more than by Kelmscott: this however would be part of any road running under the hills, and going directly across from Bunbury to Albany. For about 10 miles W. of the Collie the present road runs over a tolerable level country though sandy in many places; between the Collie and where the originally marked road hits the Blackwood, it runs over a tolerably level country, though it is very sandy and heavily timbered in places. I may mention here that the present road leaves the line originally marked by Mr Gregory about 8 miles from the crossing place of the Blackwood, and runs over a very steep hill, a hill far too steep for any road to be carried over; Mr Gregory's line not only avoids this hill but it hits the Blackwood at a place where the feed is very good. Between this point and the crossing place, one or two causeways will be required across some low land which seems to be below the level of high floods. Between the Blackwood and the 18 mile Gully (from Kojenup), the country is rather steep and sandy, and it does not seem that the steep hills on the present line can well be avoided. Between the 18 mile Gully and Kojenup the road is very good, and there is always water in the 18 and 7 mile Gulleys. This road runs into the present York and Kojenup road about a mile and a quarter North of the barracks.

**BRIDGING.**—The first bridge after leaving Fremantle would be required over the Murray at Mandurah; this would be an

expensive undertaking; the ferryboat cannot sometimes be worked on account of the strong set of the current.

The Collie is already bridged at the first place where the road crosses it.

The next river on the present line is the Ferguson, the banks of this river, where crossed, are rather steep and a bridge of 30 or 40 feet span would be required, the river rises about 10 feet.

The Collie would have to be bridged again twice—at 43 miles from Bunbury and again at 61 miles; at the former place about 250 feet would require to be bridged over, at the latter about 30 feet: rise about 8 feet.

The Blackwood would require a large bridge; I do not conceive that a much better place could be found than where the old bridge was thrown across; the width of the water way in summer is about 80 feet, and from the water to where the bank rises on the right bank 60 feet; on the left bank a long causeway would be required; the river rises very suddenly and sometimes to the height of 30 feet after very heavy floods.

Across the 18 and 7 mile Gulleys causeways of from 80 to 90 yards in length and about 8 feet in height will be required.

**FEED AND WATER.**—At Rockingham (Kay's) 27½ miles from Perth.

At Mandurah (Sutton's) 47 miles from Perth.

Well sunk (W. of road) 64 (no feed).

Peppermint Grove (feed and water) 73 [excellent feed within 150 yards to a considerable extent.]

Clarke's, 83

Australind, 102

Bunbury, 110

There are farms 20 miles from Bunbury on the present line of road, and if the road by the banks of the Preston were adopted, there would always be an abundant supply of feed and water.

At the Collie 153 and 163 miles from Perth there is good water but the feed is scanty; where the originally marked road hits the Blackwood 7 miles from the crossing place and 181 miles from Perth, there is some very good feed on the flats by the side of the river. At the 18 and 7 mile Gulleys 193 and 204 miles from Perth the feed is very poor but there is always plenty of water to the South of the road. Between Kojenup and the Sound as before.

I have also the honor to report that I examined the country under the hills between the Brunswick and Preston Rivers and found that a very good level road could be made there, without some making it would be very soft in winter as it runs over the same sort of country as the Bunbury and Kojenup crosses before entering the hills, which, as I mentioned before is almost impassable in winter.

There would be no difficulty in crossing any of the rivers. A line of road has been

marked from near the Harvey to the Brunswick under the hills, known by the name of the "Ommanney Road"; down this the road might be carried and cross the Brunswick at the same place near which there is a very good point for throwing a bridge across. After crossing the Brunswick the road could not be carried in a Southerly direction but would have to bend a good deal to the Westward as a spur of the Darling Range here runs out some distance. The Collie would be crossed below its junction with the Henty and the best place seems to be a little below the "upper ford" and in the town-site of "Waterloo." A bridge of 200 feet span would be required. The road would then run in nearly a southern direction crossing the Ferguson near Higgins' farm, where a bridge of 60 feet span would be required, and crossing the Preston near or a little below Boyanup, where a bridge of some magnitude would be required, the banks are steep but I have no doubt a very good place and where the span is not so great may easily be found. Here the road would come into the line on the South bank of the Preston and I have the honor to inform you that as soon as my horses are somewhat refreshed I intend exploring the country more fully between Bunbury and Albany.

The following tables will shew the distances from the principal places on the various roads:—

KELMSCOTT.

Perth to Kelmscott .....	18 miles.
" Mount Randall .....	40 "
" Bannister River .....	65 "
" Hotham River .....	72* "
" Williams River .....	102 "
" Arthur River .....	127 "
" Beaufort .....	135 "
" Kojenup .....	160 "
" Gordon River .....	106 "
" Mount Barker .....	230 "
" King George's Sound .....	260 "

\*The road which I would beg to recommend will be about 6 or 8 miles longer than this which is the most direct line—266 miles.

YORK.

Perth to Guildford .....	8½ miles
" York .....	60 "
" Dale River .....	70 "
" Robins' Hut .....	86 "
" Staunton Spring ...	102 "
" Hotham River .....	110 "
" Williams River ...	138 "
" Arthur River .....	158 "
" Beaufort River .....	172 "
" Kojenup ...	197 "
" Gordon River .....	233 "
" Mount Barker .....	267 "
" King George's Sound .....	297 "

The road from York to Kojenup I never travelled but from all accounts it is a tolerably good one.

BUNBURY.

Perth to Fremantle .....	12½ miles
" Rockingham .....	27½ "
" Mandurah .....	47 "
" Clarke's .....	83 "
" Australind .....	102 "
" Bunbury .....	110 "
" Collie River .....	153 "
" Upper Collie .....	163 "
" Blackwood .....	180 "
" Kojenup .....	210 "
" Gordon River .....	246 "
" Mount Barker .....	280 "
" King George's Sound .....	310 "

If the road was carried up the South bank of the Preston the whole distance would be about 330 miles.

Line under the hills probably 280 miles

From this it appears that the Kelmscott line brings King George's Sound 30 miles nearer than the York line, and upwards of 40 than the Bunbury line.

The Kelmscott line runs through a country much better adapted for road-making than the Bunbury line and the pass through the hills is better than the pass on the York Road. Taking into consideration the nature of the country through which the various lines of road runs for agricultural or pastoral purposes, the York Line has the advantage. The road under the hill would certainly open up some very fine country and would be of great service to the Southern districts.

All the lines are all equally well watered of the three roads to King George's Sound via Kelmscott, York and Bunbury, the first in my opinion in an Engineering point of view is the best.

I have the honor to be

Sir,

Your most obedient servant,

W. CROSSMAN.

Royal Engineer's.

LIEUT. CROSSMAN, R. E., to the *Comptroller General, in continuation.*

*Kojenup, Western Australia,*

*February 10th, 1853.*

SIR,—In continuation of my report dated "Albany, Jan. 20th, 1853," I have the honor to state that after further examination of the country between Albany and Bunbury, I have been enabled to discover that, a direct and on the whole a very good road may be made between these two places, in conjunction with the proposed line under the Darling Range from Perth to the Preston River.

The road after passing under the hills through Kelmscott, Pinjarrah, and Waterloo, and after crossing the Preston River about 5 miles below Boyanup, would have to be carried along the left bank of that river for about 34 miles; for the first 14 nearly S.E., then 15 miles nearly E, and 5 miles nearly due S. It would cross what is generally called the South Branch about 26 miles from Boyanup, and keep

along the left bank of a branch which comes from the South and East.

It would have to be carried about a quarter of a mile from the river, in order to keep it clear of the bends, and would run through a perfectly level country rather thickly covered with grass trees, but over firm ground. The land along this river and on the hills near it is very good, and there is excellent feed for cattle as well as a constant supply of water.

I examined the country to see if the road could not be carried away from the river in a due S.E. direction, but found the country very steep and perfectly impracticable for making a road; however I observed that the gulleys and even many of the hills in that district were covered with good grass.

The road after running South for 5 miles, must be carried across the Preston; here as well as at the South Branch small bridges will be required; it will then ascend a gentle slope on to an undulating ironstone country, a nature of country over which a good road may almost always be made. Between this point in a S.E. direction over the same sort of country, passing over a few sandy patches of the same nature as on the present Bunbury and Kojenup road between the Collie and the Blackwood, but not of such large extent. The timber is principally mahogany and white gum; the clearing will not be heavy except on some ironstone ridges, which must be crossed, but these are not steep.

Creeks are crossed running to the North at about 11 and 16 miles from the Preston; in these water may be easily obtained.

About 3 miles from the Blackwood the line will pass through some very good land, principally in the gulleys running down to the river and on the sides of the hills; the latter are generally covered with grass trees. We saw no poison to the Westward of the Blackwood. On the banks and in the bed of the river there is very good feed for cattle, and good sheep feed on the sides of the hills. The Blackwood will require a very large bridge, and further examination will be necessary before the best point for crossing it can be determined; good material is close at hand for a timber bridge; there is no limestone, I believe nearer than at Bunbury. The descent to this river on the right bank and ascent from it on the left bank are very easy.

After crossing the Blackwood the road will still run in a S.E. direction, keeping up a large open valley for about 4 miles, passing over an undulating ironstone country to the river Tweed, a large tributary to the Blackwood falling into it about 40 miles below the present crossing place.

From the Blackwood to the Tweed the distance is about 12 miles. For about 5 miles of this part of the road E. from the

Blackwood, there is a vast quantity of poison of the "Gastrolobium" species, and I may mention that this is the only part of the country in this line between the Preston and Gordon where we saw any poison. On the Tweed river, which we rode up for 5 miles, there is a large extent of country available for agricultural and pastoral purposes, and there are a great many gulleys running down to this river on which there is good soil. There are some fine pools of water in this river, but where the road would cross it a causeway with a few holes for the escape of the water would be all required.

From the Tweed to the Tone (a tributary of the Gordon) the road runs S.E. for 16 miles; for the first part of it over an open white gum ironstone country, crossing several valleys across which causeways but of no great size would be required. Before reaching the Tone the road will have to be carried down rather a steep ironstone range, thickly timbered with mahogany. In this river there are fine pools of good water, but the soil was not very good when we crossed it.

From the Tone to the Gordon, a distance of 12 miles, the road will run over an undulating open white gum country, crossing valleys at 11, 7, and 5 miles from the latter river; these valleys must be very wet in the winter, and causeways will be required across all. The descent to the Gordon on the right bank is very easy; we crossed it at a place called Yeeriminup, where there is now a cattle station. There is good feed for cattle near the river, and some patches of good land on the hills on the left bank, but poison on the ridges. The river will require a very long bridge, as there are wide flats on both sides flooded in winter.

From the Gordon to the Hay River the country will require further examination, before the exact course the road will have to take can be determined. The hills on the left bank although not high, are intersected by rather steep and deep gulleys for a distance of about 3 miles from the river, but I do not doubt but that a more practicable pass can be found through them than the one by which I came.

After leaving these hills the road will run over an undulating white gum and mahogany ironstone country for about 5 miles, crossing several gulleys running into the Gordon.

The rest of the road to the head of the Hay River, is covered with swamps and almost impenetrable mahogany and spearwood thickets, but is very level. In making a road the scrubs may be cut through but the swamps will have to be avoided, and so cause the road to wind about a good deal, increasing the distance by perhaps 5 or 6 miles. The head of the Denmark River is crossed about 18 miles from the Gordon and we passed several freshwater lagoons with coarse feed on banks.