

PREM 19/937



● PART 1 ends:-



8. 2. 82

PART 2 begins:-

9. 2. 82



CONFIDENTIAL

rus 8/2

PRIME MINISTERFIXED CROSS-CHANNEL LINK: CPRS MEMO 5 FEBRUARY

1. The CPRS accepts Transport's arguments that it would be reasonable to have a reciprocal compensation guarantee if either Government abandoned the project. They believe that there is a need for a Government guarantee against a political decision to cancel the project.
2. In my memorandum of 5 February 1982 I argued that it is difficult to determine whether an action is political or commercial. If there is disagreement between the two governments over commercial viability and one wishes to withdraw, then it seems to me very difficult to avoid representing this as a political reason. But it may be nothing of the kind. I cannot see how a viable agreement can distinguish the purely political reasons from commercial justifications.
3. I agree with the CPRS view that no guarantee should be given by Government regarding the completion of the project. They suggest instead that the UK promoter give a guarantee to Government. I am not sure what is the underlying rationale for the promoter guarantee, as distinct from the Government guarantee. CPRS anticipate that if the tunnel is not completed then the Government takes over the existing asset (plus any agreed forfeit). This certainly adds to the promoters incentive to finish the job - but since they will have sunk hundreds of millions anyway, I suspect that is incentive enough.
4. But I am perfectly certain that the promoter guarantee will cost Government something. Just as there is no free lunch, so there is no free guarantee. For example, the price which the Government would have to pay for such a completion guarantee would take the form of the Government, on its part, guaranteeing all the necessary links and administrative arrangements. If these were delayed, then the Government would pay a forfeit.
5. And if the promoter faced not merely the unforeseen cost overruns but also the loss of all his equity (and more), he will clearly demand a premium for such a remote but devastating contingency.

/6. On the whole

CONFIDENTIAL

CONFIDENTIAL

- 2 -

6. On the whole I am nervous about providing a completion guarantee either way. As I understand it, the BSC consortium did not envisage a completion guarantee from Government, and I suspect they would shy away from providing one unless there was a suitable quid pro quo.

8 February 1982



ALAN WALTERS

CONFIDENTIAL

CONFIDENTIAL

P.0645  
PRIME MINISTER

---

FIXED CROSS-CHANNEL LINK  
E(82)7 and 9

BACKGROUND

In E(82)7 The Secretary of State for Transport seeks approval of the line he wishes to take on reciprocal guarantees between the United Kingdom and French Governments, in the event of agreement to build a link, and on the requirements for private sector financing of the project. In E(82)9 the Central Policy Review Staff (CPRS) recommend an alternative approach to the problem of private sector financing.

2. The immediate issue is confined to these questions of guarantees and of financing arrangements. The Secretary of State for Transport will put forward a comprehensive report in March dealing with the technical, economic and financial considerations which will form a basis for the Government's decision on whether to go ahead and if so when and with what sort of link. He needs guidance in the meantime on the financing questions so that he can give a steer to the further work.

MAIN ISSUES

3. The French Government insist that if the link is to go ahead they must be able to exchange reciprocal compensation guarantees with the United Kingdom Government. Under these reciprocal guarantees either Government would reimburse the costs of the other if work on the link was abandoned as a result of:

- either (i) a political decision to withdraw
- or (ii) failure of the Government's 'chosen instrument' i.e. on the UK side the failure of the private sector promoters.

CONFIDENTIAL

CONFIDENTIAL

The costs to be paid to the other side would include those directly incurred by Government and those of the contractors. The Secretary of State for Transport believes that if there is agreement on these reciprocal guarantees the French will drop their pressure for the Governments to be able to regulate tariffs.

4. In public statements the Government has made it clear that it is seeking proposals that can be financed without recourse to public funds but it has acknowledged the need to give some guarantee or indemnity to the private promoter against a political decision to cancel the project. A reciprocal guarantee covering political withdrawal by either Government is consistent with this position; the CPRS do not question the judgment that a reciprocal compensation guarantee, extended to cover failure of the chosen instrument, will be necessary.

5. The difference between the Secretary of State for Transport and the CPRS is on how best to deal with the failure of the Government's chosen instrument. The Secretary of State for Transport believes that, if it is accepted that the reciprocal guarantee must be given, it is better to reinforce the UK promoter by a completion guarantee whereby, in the last resort, the Government would step in to ensure the provision of finance to enable the project to be completed. The CPRS recommend that the completion guarantee should be given to the Government by the promoter and not the other way round.

6. The Secretary of State for Transport's proposals for a completion guarantee are set out in paragraphs 14-18 of E(82)7. He envisages that to give him a sharp incentive to raise the money from the markets, without recourse to the Government, the promoter would lose all or part of his equity share in the link and could face (unspecified) financial penalties if the Government's guarantee were called; he does not say whether there would be any limit on the Government's obligation to secure additional financing to ensure completion. He advises, in paragraph 18 of E(82)7, that such a completion guarantee would make it much easier for the

CONFIDENTIAL

promoters to raise finance on a basis less dependent on assurances from the two railway companies; this is no doubt because while the equity would be at risk - probably 5-10 per cent of total financing costs - loans would not.

7. The CPRS point out that, notwithstanding the possibility of penalties, the promoter would appear to have an open-ended right, under the Secretary of State for Transport's approach, to call on the Government for additional financing. They advise that the more commercial approach would be for the Government to seek a completion guarantee from the promoter backed by a charge on the promoter's business and assets and involving the financiers of the loans in some of the risks. If the promoter then failed the Government would take the initiative, could appoint a receiver, and could choose between the alternatives listed in paragraph 5 of E(82)9 and including withdrawal from the scheme. The CPRS suggest that if it is thought that this approach could lead to difficulties in raising finance there must be doubts about the financial viability of the project.

8. The Secretary of State for Transport, in paragraph 19 of E(82)7, seeks agreement that the French Government's requirement for reciprocal guarantees covering not only the political risk but also failure of the chosen investment, should be accepted as a basis for further discussions and that he should further explore possible private sector financing arrangements. Whatever view is taken on the relative merits of the alternative approaches to completion guarantees, this does not seem satisfactory. The Committee cannot agree to reciprocal compensation guarantees relating to failure of the chosen instrument without being clear what would be the contingent financial liabilities that the Government would be accepting; and that will not become clear until there have been further discussions with the prospective private sector promoters and their financial advisers. This points to agreeing a basis for further discussions but not to going so far as to give a firm commitment on covering failure of the chosen instrument.



CONFIDENTIAL

HANDLING

9. After the Secretary of State for Transport has introduced his paper you will wish to ask Mr Ibbs to explain the CPRS' alternative approach. The Committee will then wish to hear the views of the Chancellor of the Exchequer.

10. The main questions before the Committee are:-

(i) Whether to give reciprocal compensation guarantees related to a political decision by either Government to withdraw.

(ii) Whether to extend such reciprocal guarantees to failure of the chosen instrument.

(iii) If so, whether to adopt the approach recommended by the Secretary of State for Transport or by the CPRS.

(iv) What should be said at this stage to the French Government.

11. The Committee may conclude that the right course is for the Secretary of State for Transport to seek further advice from Schrodgers, who are advising his Department, on the options including that suggested by the CPRS. The French might be told that the Government would be willing, in the event of the link going ahead, to enter into reciprocal compensation guarantees related to political withdrawal and that it was willing to examine further the possibility of extending these guarantees to cover failure of the chosen instrument on either side. It would be made clear, however, that the Government's decision on the latter point would depend on the outcome of further discussions with the private sector interests involved.

CONFIDENTIAL

CONCLUSIONS

12. In the light of the discussion you will wish to sum up with reference to the four main questions listed above and so to give the Secretary of State for Transport guidance on the line he is to take pending further discussion by the Committee of his substantive proposals in March.

*Pg*

P L GREGSON

8 February 1982



From the Secretary of State

The Rt Hon David Howell MP  
Secretary of State for Transport  
Department of Transport  
2 Marsham Street  
London, SW1P 3EB

8 February 1982

Dear David,

FIXED CROSS-CHANNEL LINK

In advance of E Committee's discussion tomorrow on your paper E(82)7, it might be useful for me to let you and colleagues know of my concern at the implications of the French proposal for reciprocal guarantees. The proposition is that we guarantee to pay all French costs in the event of a failure of the United Kingdom promoter. To my mind, this is unacceptable for two main reasons:-

a we have given our word, in repeated public pledges, that any fixed link would be a private sector project dependent on free market economics and finance, without any Government financial involvement directly or by guarantee. To do otherwise would be a particular breach of faith with the shipping industry. Yet this would be the inevitable consequence of the proposition before us; and

b we are asked to accept an open-ended commitment of the kind which proved so expensive for Concorde. We should be tied to the forecasting accuracy and operating efficiency of the United Kingdom promoter; tied also to the effects on the project of outside factors affecting its economics; and generally at the mercy of the French.

I am sending copies of this letter to the Prime Minister, E Committee colleagues, Sir Robert Armstrong and Robin Tibbs.

Yours

John Biffen

7 1982



11/11/82

CONFIDENTIAL

Prime Minister  
5 February 1982  
ALAN WALTERS We are edging

towards commitment on the  
Channel Tunnel.

MUS 5/2

PRIME MINISTER

FIXED CROSS CHANNEL LINK

"Political Cancellation" Guarantee

1. Transport's memorandum of 4 February asks colleagues to agree that the French requirement of a reciprocal guarantee be accepted. This specifies that all French costs would be reimbursed by the UK Government if work on the link "was abandoned either as a result of a decision by the British Government or a failure of its chosen instrument".
2. The difficulty with such an agreement is that there may very well be good reasons for Britain, as distinct from France, to withdraw from the project. Costs may overrun even the overruns, but more important, traffic, and particularly rail traffic, may be much less than initially forecast. (Such an outcome is quite common in projects, as in the case of the third London Airport.) In order to withdraw more or less unscathed we would have to get the agreement of the French. Their judgement, or their political interests, might be quite different from ours. They are much more committed to rail transport and may well see a rail tunnel as a method of ensuring much British traffic for French railways.
3. In any case British unilateral action would be represented as a political cancellation, in spite of the fact that it may, as far as Britain is concerned, make good commercial and economic sense to withdraw.
4. I am also very doubtful whether the provision of this reciprocal guarantee can be used as a bargaining counter to persuade the French to drop effectively their regulation of fares. The French Government will speak with one voice in the promoters boards. And it is easy to rationalise a regulated tariff as simply being against abuse of monopoly power.

Completion Guarantee

5. Transport's memorandum suggests that a completion guarantee is necessary to reinforce the position of the UK promoters. They

/seem to regard

CONFIDENTIAL

seem to regard it as a desirable concomitant of the political cancellation guarantee. However my contacts with the Eurobridge and Euroroute groups confirmed that they were not asking for any such completion guarantee.

6. Their paragraph 18 suggests that this completion guarantee is thought to be required only for the rail tunnel. It is alleged that it would enable the promoters to raise finance more easily. Indeed it would.
7. You will recall that we were asked to give a completion guarantee on the gas gathering pipeline. We refused to entertain any such commitment because of the contingent liability involved. I believe the same argument applies here.

#### Options for Decision

8. It is very likely that, from the British side at least, we shall be pressed to go ahead with a rail-only tunnel. It is argued that the technology is known and tested, and that it involves least commitment of investment resources. But what emerges clearly from all the papers, and from a little reflection, is that rail traffic is declining, certainly relatively and probably absolutely. The most rapid growth has been, and undoubtedly will continue to be in road vehicles both freight and passenger. The rail tunnel would be very much an act of faith in the resuscitation of rail. It would be regarded, like electrification, as a commitment to British Rail - whatever the financial cost. (It would also reinforce the unionised rail industry in competition with the largely non-unionised road haulage and passenger industries.) I suspect that we must face the restructuring and slimming of BR in the near future. A rail only tunnel would prejudice at least part of that process.

#### Conclusion

9. There is an argument for the Government entering into a political cancellation guarantee. But I am very uncertain that one can find a form of words which serves the purpose of providing a political cancellation guarantee and at the same time gives us adequate freedom to withdraw or dispose of our interests, if commercial circumstances suggest that that is a wise course.

/10. I can see

CONFIDENTIAL

- 3 -

10. I can see serious arguments against the completion guarantee. I do not think it the promoters require it in the case of the Euroroute or, I believe, the Eurobridge. It seems to be the brain-child of the rail tunnel promoters. I think it would be wise, even at this stage, to indicate that you are aware of the great disadvantages of a rail-only tunnel and all the monopoly implications that follow from it.

5 February 1982



ALAN WALTERS

CONFIDENTIAL

file



Transport

dl

10 DOWNING STREET

From the Private Secretary

25 January 1982

Dear Anthony,

Fixed Channel Link

cc CO  
HO  
FO  
HMU  
D/Ind  
DES  
D/M  
MAFF  
DOT  
D/N  
CFO  
PGO  
MOD  
DOE  
NIO  
CAZ

The Prime Minister was grateful for your Secretary of State's undated minute on a fixed Channel link, with which he enclosed a paper he proposed sending to the House of Commons Transport Committee.

The Prime Minister is content for him to send the paper in its present form. She has commented that paragraph 18 looks to be a stumbling block so far as the construction of a link is concerned; but the issues raised by this reflection are for the E Committee discussion envisaged by your Secretary of State, and do not affect the present paper.

I am sending copies of this letter to the Private Secretaries to the members of E Committee.

Yours sincerely,  
Michael Scholar

Anthony Mayer, Esq.,  
Department of Transport.

CONFIDENTIAL

dl

(F)

Prime Minister

cc AD  
DW

Both Alan Walters and David

A.W.  
public

Prime Minister

Wolfson are concerned about growing expectations about the Channel/Brunnel if it is not to come to fruition

FIXED CHANNEL LINK - as it will not if extensive government guarantees are needed

; as may well be if a monopoly rail link is chosen. But these doubts are for the E Discussion. Agree, meanwhile, this non-committting

Since our discussion in E Committee on 3 December paper?

my officials have been continuing their joint studies with the French. M. Fiterman and I have both just received the officials' interim report. This discusses the three main areas of study; technical feasibility, economics, legal and financial questions. It sets out and explores the problems but makes no recommendations. A final report is due at the end of February.

ML 22/1

Yes -  
Parent  
looks to  
be =  
shuttle  
made  
not

The French Prime Minister, M. Mauroy, is to visit the Calais area on 23 January in a series of provincial tours. He will discuss the possibilities of a fixed link and I understand that he is likely to make use of some of the information in the interim report while not revealing its existence. The press are bound to pick up what he says.

I am due to meet the House of Commons Transport Committee next month to discuss a fixed link in the light of their report last year. I would like to give them some indication of the conclusions that are beginning to emerge from the joint studies before the media make them public. I attach the paper I intend sending to them on Thursday, 21 January which sets out the main content of the interim report on the three main areas of study but remains non-committal about the line the Government may eventually take.

/  
not yet  
sent to the  
Committee  
- awaiting  
your clearance

It would be helpful if before the study group write their final report we could have a further discussion in E Committee. I expect to put a full memorandum to the Committee early in February.

I am sending a copy of this to members of E.

DA.

DAVID HOWELL

19.1.82



## FIXED CHANNEL LINK

### Memorandum by Secretary of State for Transport

#### Introduction

1. The Transport Committee of the House of Commons' report on their study of a fixed Channel link was published on 6 March 1981. Since then, discussions have continued with promoters of various possible schemes and information provided by them has been analysed. A preliminary analysis, produced under the aegis of the Dover Harbour Board, of the case for improvement of existing ferry services as an alternative to construction of a fixed link has been received and studied. A more developed analysis is expected shortly.
2. Discussions have also been opened between British and French officials. In September 1981 the British Prime Minister and the French President agreed that a joint study group of officials should be set up to advise the two Ministers of Transport whether a fixed Channel link would be in the best overall interests of both countries and on the available options. The joint study group was at once set up and the material already assembled in the Department's Channel Tunnel Unit was made available to the French. The following sections explain the conclusions that are beginning to emerge from the various technical, economic, financial and juridical studies carried out.

#### Technical Studies

3. The Study Group has examined all the main options for a fixed link - bored tunnels, submerged tubes, bridges and mixed solutions. Attention has been paid not only to the general problems associated with each type but also to the particular difficulties attendant on construction in an international waterway.
4. The Group's work, while not complete, tends to endorse the conclusions reached by the Committee, that is to say, the options fall broadly into two categories:

bored tunnels, where the technology is relatively well proven and no problems of maritime safety would be involved; and



the remaining solutions where, to a great or less degree, innovatory design concepts, materials or construction techniques are involved and major issues of maritime safety and law arise.

There would also be important environmental and ecological issues. But, whereas the issues raised by tunnels would be entirely landward and of a familiar character, the other solutions would also involve problems of maritime ecology, possibly of international significance.

5. Significantly, different timescales seem to be inherent in the two categories of scheme. Construction of a bored tunnel could begin after a relatively short period for preparation and design. The knowledge and data gained from the project abandoned in 1975 could help condense the time required. Although some technical problems associated with the tunnels in the previous project remained to be resolved, they were relatively minor and it is reasonable to assume that the answers to them could be found within the compass of the normal design process.

6. If a solution offering a drive-through road link was in principle preferred, further extensive tests and investigations to establish the basic feasibility of the scheme would be necessary. The Study Group has considered the more important areas of uncertainty, including those noted by the Committee during its hearings - for example, structural stability, durability and maintenance, availability of construction equipment, and protection against collision by ships. Until the uncertainties had been satisfactorily resolved it would not be possible to take very far the necessary consultations with the international maritime authorities. These consultations could be lengthy, and only when they had been substantially complete would it be possible to prepare detailed working drawings and the programming of resources for construction. Until this process had been completed cost estimates would necessarily remain unreliable.

7. Choice between the different forms any fixed link might take will have to take into account these important differences in timescale, which the Group is studying further. It is also examining the operational implications of each type of link.



### Economic Studies

8. The economic studies are covering matters closely connected with those discussed by the Committee in its Report. As the Committee recognised, the key question is not whether the existing modes of cross-Channel traffic could handle the prospective levels of traffic, but whether they could do so more effectively than any of the forms of fixed link. The answer to this question depends partly on how the total market would grow (both in the absence of a fixed link and as a result of generation by the link) and partly on what improvements in relative competitiveness the existing modes would be able to achieve.

9. The Study Group has examined critically the forecasts of traffic adopted by the various promoters and has used a range of figures for the purposes of sensitivity testing. It has considered material provided by the group representing the Dover Harbour Board (DHB) and the principal ferry operators which gave evidence to the Committee on possible developments of existing modes. The Dover group has further work in hand and hopes to complete a comprehensive statement of its position at about the time the Anglo-French studies will be reaching their closing stages. A critical question will be how far the ferries may realise potential reductions in costs the early work has suggested may be available.

10. The Study Group is preparing a comparison of the cost in resource terms of conveying the traffic forecast for each type of fixed link with the cost of conveying the same traffic by the existing modes, taking into account such improvements in efficiency as the latter are likely to achieve. The inputs to the comparison are necessarily subject to varying degrees of uncertainty and sensitivity analysis is being used to indicate the extent to which the results should also be regarded as uncertain.

11. As the Committee noted, other factors than just relative economic cost need to be taken into account in the final decision. However, the wider social, environmental and strategic implications could be dissimilar on the two sides of the Channel. It has, therefore, been agreed that these factors should not form part of the joint studies but that instead each side should examine them separately from its own national viewpoint in whatever manner it felt most appropriate. These separate studies are in progress.



12. One matter which can be examined only from the specifically UK standpoint is the important question of the return which the British Railways Board would secure on any investment which it had to make in association with the actual fixed link. The calculation would need to take into account the wider effects on the Board's corporate finances resulting from secondary traffic generated by the link and from the displacement of existing services. Work on this is in progress between the Board and my Department.

### Finance

13. My predecessor, in his statement in the House on 19 March 1980 and subsequently in his evidence to the Committee, made clear that the Government was seeking proposals that could be financed without recourse to public funds. He qualified this broad principle in three respects by acknowledging that:

- a. the Government would need to give some guarantee or indemnity to the private promoter against a political decision to cancel the project;
- b. that some associated public sector investment by BR or on roads might be necessary;
- c. in the case of a rail link there would need to be a contract between the railways and the link proprietors, which would assure the railways of rights to minimum usage of the link in return for agreed tariffs.

That has been the basis on which all discussions with promoting groups have taken place. I am glad to note that the Committee were also of the opinion that the burden of financing a fixed link should fall overwhelmingly on the private sector.

14. None of the groups has been able to produce more than an outline of its financing plan because the capital market cannot be approached with a firm prospectus in advance of a decision on which, if any, scheme should be implemented. We have, however, sought to achieve as clear an understanding as possible of the groups' outline plans with a view to judging how far each of them would be compatible with our criteria and, equally important, whether, if put to the test in the market, it would be realisable.



15. Some promoters have drawn attention to the need they perceive for:

- (a) Completion guarantees. In some cases the promoters have required from Government an explicit long-stop completion guarantee, ie an undertaking to fund the completion of the project should the private standby facilities prove insufficient. Even where a guarantee has not been stipulated the Government would need to be satisfied that no liability could fall on the public sector in the event of the private entity running into difficulties;
- (b) guarantees of revenue from BRB and SNCF. In the case of the bored tunnel schemes some promoters envisage that the bulk of their capital would be raised on the strength of a contract with the railways which might demand payments high relative to the railways' prospective earnings from traffic using the link.

16. At this stage therefore it cannot be said that any of the financing proposals fully meet the Government's criteria, though discussions with promoters continue.

17. The French Government accept the UK Government's wish to limit UK public sector involvement in any eventual link, and the Study Group is presently examining how the organisation structure for a link could knit together public and private sector bodies on opposite sides of the Channel.

18. The French Government have however indicated that they would seek from the UK Government (and would in return themselves provide) a guarantee that in the event of a failure to complete the link as a result of political action by one Government or of failure by its chosen instrument the Government of the defaulting country would reimburse the Government and the chosen instrument of the other all the costs incurred up to the date of default.

19. There have been suggestions - notably in the European Parliament - that the European Community might be able to assist in some way. This may prove helpful, but it is apparent that there are difficulties still to be overcome - not least the absence at present of wholly suitable Community instruments. The scope for



Community involvement cannot be conclusively discussed until the UK and French Governments have reached the decisions of principle to which the present studies are intended to lead.

Next Steps

20. I hope that my French colleague and I will receive the officials' full advice this Spring. The next steps will depend on the conclusions we subsequently come to. I would expect that a joint announcement would then be made of the two Governments' views on whether or not a fixed link would be in the best interests of both countries and, if so, the form it should take. If the decision was in favour of a bored tunnel, I would hope to select quickly a commercial group to develop plans and undertake construction and an early start would be possible. If it was considered that the feasibility of a drive-through road link warranted further study, I would need to consider with my French colleague how the necessary work should be carried forward.

7 8 JAN 1982





P.0603

PRIME MINISTER

Fixed Cross-Channel Link  
(E(81)121, 122 and 124)

## BACKGROUND

The then Minister of Transport announced in the House in March 1980 that the Government was prepared to consider proposals for a fixed cross-Channel link, financed privately.

2. Three types of scheme have been put forward:

- a. bored tunnels, operated as a railway, perhaps with a "motorail" facility;
- b. bridges;
- c. immersed tubes.

Euroroute (backed by Mr Ian MacGregor) propose a scheme which combines bridges and immersed tubes.

3. Since the last Anglo-French summit, British and French officials have been jointly studying the prospects for a fixed cross-Channel link.

4. In his memorandum E(81)121 the Secretary of State for Transport seeks the Committee's views on the approach his officials should take in discussion with the French up until the end of February, when they are due to report. He proposes that officials should aim to clarify the three main options:

- a. a quick start on a bored tunnel;
- b. a thorough study of bridges or tubes;
- c. reliance on existing services.

5. In his memorandum E(81)122 the Chief Secretary argues that if a fixed link goes ahead it will in effect be a public sector project; and that the probable rate of return is not high enough to justify it. He concludes that the French should be told of the Government's doubts about whether a fixed link is worthwhile. He also proposes that the Secretary of State for Transport should bring this question back to E early in the New Year.

6. The CPRS memorandum, E(81)124, sets out some of the main questions raised by the fixed link proposals. In particular the CPRS underlines the importance of the overall economic assessment, as opposed to the technological and organisational aspects.

#### MAIN ISSUES

7. The purpose of the meeting is not to take final decisions on the merits of a fixed cross-Channel link but to give guidance on the next phase of discussions with the French. This does however require very careful consideration. The French, with good reason, feel that they have already been let down once by the British Government over the Channel link. We must therefore be careful to avoid misleading them about our attitude to the project. It should also be borne in mind that the link may well be more advantageous economically to the French than to ourselves - for example in terms of stimulating growth in the underdeveloped areas of North West France. At some stage in the discussions this could be useful to us - possibly in securing terms which suited us better or getting the French to take a larger share of the project. It does however mean that the French input into any joint studies needs to be examined very critically from the point of the UK's national economic interest. We must be particularly careful to avoid being drawn into premature commitment to the project.

#### Public sector v private sector

8. It may be useful for the Committee to take a preliminary view on how far it is realistic to assume private sector financing of the project. The Chief Secretary argues that a completely private project is not possible. The tunnel operators want some sort of Government guarantee of traffic levels, and the French would want a completion guarantee and perhaps control of tariffs. The best that can be hoped for is a 'hybrid' scheme - a public sector project financed by capital raised directly from the market. The Secretary of State for Transport appears to accept this. If the Committee agree that this is a realistic

assessment, it would be desirable to confirm that the project should not be ruled out on these grounds, provided that the economic case is made out in due course.

#### Economic return

9. The second main issue on which the Committee may wish to have a preliminary discussion is the economic return. If Ministers share the Chief Secretary's view that the rates of return forecast for a bored tunnel appear inadequate in relation to the risk, the right course would be, as he suggests, to have an economic appraisal independently of the joint studies with the French and an early report back to the Committee. Work on evaluating the other schemes is less advanced but it seems unlikely (see para 10 below) that they will offer a higher rate of return.

#### Alternative schemes

10. Thirdly some Ministers may wish to make preliminary comments on the merits of the various alternative schemes. The Secretary of State for Transport's assessment is broadly as follows:

- a. bored tunnels are likely to yield as high a rate of return as bridges or tubes;
- b. immersed tunnels or bridges across the Channel raise much greater technical difficulties and uncertainties than tubes;
- c. a bored tunnel is the only feasible option if legislation is to be passed in 1982-83 (and construction started in 1984).

11. The Secretaries of State for Industry and for the Environment may wish to comment on the relative benefits of the various schemes for the steel and construction industries. The Secretary of State for Trade may draw attention to the problems for navigation in the Dover Straits, one of the world's busiest shipping lanes, which would be caused by any scheme other than a bored tunnel. Ministers may also wish to express a view on how much importance they attach to an early start on the project, since this consideration argues strongly in favour of the bored tunnel option.

Tactics with the French

12. The Committee's preliminary views on these main issues will need to be taken into account in formulating the line for the next round of talks with the French. In particular if most members of the Committee share the Chief Secretary's scepticism about the economic return, it may, as he suggests, be necessary to give some indication of this to the French, while avoiding any premature termination of the joint studies. It would also be useful to make clear the United Kingdom's wish to maximise private sector involvement within the inevitable constraints, and to convey any preliminary views about the relative merits of the bored tunnel as opposed to the other proposed schemes.

## HANDLING

13. As well as the Secretary of State for Transport, the Chief Secretary, Treasury and Mr Ibbs, the Secretaries of State for Trade and Industry and the Foreign and Commonwealth Secretary or the Lord Privy Seal are likely to have comments.

## CONCLUSIONS

14. You will wish to record conclusions on the following:

- i. whether the Committee is ready to reach any preliminary views on:
  - a. the extent of public sector involvement in the project which would be tolerable;
  - b. the likelihood that the project will have an adequate rate of return;
  - c. the relative merits of the bored tunnel as against other proposed schemes;
- ii. depending on i., the line to be taken in the next round of discussions with the French;
- iii. whether, as proposed by the Chief Secretary, Treasury, the Secretary of State for Transport should be invited to report back to the Committee with an economic appraisal, independent of the joint studies with the French, and a detailed note on the prospects for private sector financing.

*PLG*  
P L GREGSON

2 December 1981



JS

Trans 9/17

10 DOWNING STREET

From the Private Secretary

26 November 1981

CHANNEL LINK

The Prime Minister was grateful for the Chief Secretary's minute of 16 November, the contents of which she has carefully noted.

I am sending copies of this letter to Roderic Lyne (FCO), John Rhodes (Department of Trade) and David Edmonds (Department of the Environment).

M. C. SCHOLAR

Terry Mathews, Esq.,  
HM Treasury.

JS

I have passed the gist of this  
to Mr Mayer & Mr Howell's Office.  
f.a.

(1)

Prime Minister *Ant*

Michael Alexander

as para 5 below: I am not sure  
why Mr McGregor needs your approval to  
see Pres Mitterand - or that you wish at this  
stage to imply that degree of governmental approval.  
But if you do, the Embassy can of course act with  
the Elysée. Do you wish them to do so?

CHANNEL TUNNEL

1. Sir John Howard came to see me this morning.
2. When he and Mr Ian McGregor came to see the Prime Minister on 17th November, Sir John asked the Prime Minister whether she would "facilitate" a meeting between Ian McGregor and President Mitterand.
3. The Prime Minister said that Sir John should discuss this point with David Howell.
4. Apparently, after the Prime Minister had left the meeting on that day, David Howell said that he would be quite happy for Mr McGregor to meet President Mitterand. Michael Scholar may have heard that part of the conversation although I did not.
5. Sir John repeated this morning the request that Mr McGregor should have the Prime Minister's approval to meet the French President.
6. Over to you, or Michael Scholar, please!

*Ant - 30/11*

*Mr Scholar did not.  
Would you like me  
to check on Mr Howell's  
views?*

*P.S. - It must not  
indicate that I am  
refusing him to see the  
President. I am not  
because I think  
subversive  
maneuvering  
say*

25.11.81

cc. Michael Scholar

*He doesn't need  
my approval - but  
can certainly*

IAN GOW

*have it. However he cannot  
that I endorse his particular  
plan. no.*

for enquiries dial the number  
shown in your instructions  
**TELECOM**

for enquiries dial the number  
shown in your dialling instructions  
**Telegram**

for enquiries dial the number  
shown in your dialling instructions  
**TELECOM**

number  
instructions  
**Telegram**  
for enquiries dial the number  
shown in your dialling instructions

British  
**TELECOM**  
for enquiries dial the number  
shown in your dialling instructions  
T 1291  
**Telegra**

262936 ITGLF G  
889113 PO SW G

ZCZC LFT054 CLF5482 BRU251 2/1396  
GBXX BU BEBR 165  
BRUXELLES 165/163 24 1030

*fs. Hunt*



URGENT  
MRS MARGARET THATCHER PRIME MINISTER  
10 DOWNING STREET  
LONDON SW1

APPEAL FOR COMMUNITY SUPPORT FOR CHANNEL TUNNEL AT HEADS OF  
GOVERNMENT SUMMIT EUROPEAN PARLIAMENT RECENTLY ACCEPTED RESOLUTION  
SIGNED BY A MAJORITY OF MEMBERS CALLING FOR COMMUNITY BACKING  
FOR CHANNEL TUNNEL IN VIEW OF SIGNIFICANT SOCIAL AND ECONOMIC  
BENEFITS THIS WOULD BRING TO MANY MEMBER STATES IN TERMS GREATLY  
INCREASED TRAFFIC ON RAILWAY SYSTEMS THROUGHOUT EUROPE AND  
MUCH ENHANCED JOB PROSPECTS IN HARD PRESSED STEEL INDUSTRY AND  
DEVELOPMENT AREAS ON BOTH SIDES OF TUNNEL AS REPORTED IN LONDON  
TIMES NOVEMBER 20TH WE HAVE ISSUED JOINT APPEAL ON BEHALF OF  
EUROPEAN DEMOCRAT AND LIBERAL MEMBERS OF EUROPEAN PARLIAMENT  
URGING HEADS OF GOVERNMENT THIS WEEK TO MAKE JOINT STATEMENT  
ON COMMUNITY SUPPORT AS WE FEEL NO TIME SHOULD BE LOST IN  
STARTING THIS SOUND PROJECT WITH ITS JOB CREATING POTENTIAL  
WE NOW APPEAL TO YOU DIRECTLY THROUGH THIS PERSONAL MESSAGE  
JAMES MOORHOUSE EUROPEAN DEMOCRATIC GROUP SPOKESMAN ON  
TRANSPORT CORNELIS BERKHOUWER LIBERALS FORMER PRESIDENT  
OF EUROPEAN PARLIAMENT

COL 10 SW1 20TH

262936 ITGLF G  
889113 PO SW G

LEJEDISUM

LEJEDISUM

LEJEDISUM

LEJEDISUM

LEJEDISUM

LEJEDISUM

LEJEDISUM

LEJEDISUM

LEJEDISUM

LEJEDISUM

1 2 3 4 5 6 7 8 9 10 11 12

24 NOV 1981

CONFIDENTIAL

Transport.



DEPARTMENT OF TRANSPORT  
2 MARSHAM STREET LONDON SW1P 3EB

Michael Scholar Esq  
Private Secretary to the  
Prime Minister  
10 Downing Street  
LONDON SW1

NBPM

24 November 1981

Dear Michael,

PRIME MINISTER'S MEETING WITH MR IAN MACGREGOR ABOUT THE  
FIXED CHANNEL LINK: 17 NOVEMBER

Thank you for your letter of 17 November recording what happened at this meeting. In it you recorded Mr MacGregor and Sir John Howard commenting that the Chesapeake Bay Bridge/Tunnel in the United States had not suffered any collisions from shipping during the last seven years. Just for the record, you might like to know that in fact there <sup>although not within</sup> have been five collisions (the last seven years) between ships and the bridge/tunnel. These severely disrupted the operations of the bridge/tunnel and caused users to seek alternative routes because of fear of a repetition.

I am copying this letter to Ian Ellison (Department of Industry) and David Wright (Cabinet Office).

Yours,

Anthony Mayer

R A J MAYER  
Private Secretary

CONFIDENTIAL

12-5-1944

11 12 1 2 3  
4 5 6 7 8 9 0

CONFIDENTIAL



*Transport*

*Am*

Secretary of State for Transport

CHANNEL LINK

I was pleased to see from your minute of 27 October and 9 November to the Prime Minister that the discussions which you and your officials are holding with your French opposite numbers have got off to a good start.

I appreciate that once work begins on the examination of the more likely options, the questions of guarantees and financing will require close co-operation between your Department and the Treasury. This is only right. But I suggest that FCO officials will also need to be closely involved, given the effects in France caused by our withdrawal from the previous project, the possible involvement of European Community finances or guarantees this time round, and the international legal aspects.

There is the additional point that M. Fiterman is the leading Communist Minister in the new French Administration. We will need to take particular care in our bilateral discussions with him and his Ministry.

I am sending copies of this minute to the Prime Minister, the Chancellor of the Exchequer and to the Secretaries of State for Trade and the Environment.

18 November 1981

CONFIDENTIAL

AM 8 11



SUBJECT



FILE

VLS

cc Masked

10 DOWNING STREET

From the Private Secretary

17 November 1981

Prime Minister's Meeting on the Channel Tunnel

Many thanks for your letter of 12 November to Caroline Stephens. We were also grateful for Ian Ellison's letter of 13 November.

Mr. Ian MacGregor and Sir John Howard had a short meeting with the Prime Minister this morning to discuss the Euro-route fixed Channel link. The Secretaries of State for Industry and Transport were also present. Much of the discussion was taken up in an explanation of the way in which the Euro-route link would work. Mr. MacGregor emphasised the importance he attached to this link being suitable for car and lorry traffic, so as to increase competition in the vital area of transport overseas. The Prime Minister acknowledged the attractions of this feature of the scheme. The Secretary of State for Industry enquired about the likelihood of accidents taking place, either collisions from shipping or from inflammable or explosive cargoes on the bridge itself. Mr. MacGregor and Sir John Howard cited the parallel of the Chesapeake Bay bridge in the United States, which had not suffered any collisions from shipping during the last seven years. They both thought it important further to institutionalise the movement of traffic in the Channel, and believed that a bridge would be helpful in this aim: it would be possible to have control exercised from the middle of the Channel rather than from its edges. They acknowledged the difficulties of international law that lay ahead of the proposal. These, they suggested, would perhaps be simplified if the United Kingdom and France were both able to adopt a 12-mile limit.

The Prime Minister enquired about the timing of the pay-back period for the project. Mr. MacGregor argued that this could be very short. Given the possibilities for modular construction of the link, it would be possible to fabricate many components simultaneously in different parts of the United Kingdom and France. This would permit the construction period to be telescoped. He expected a rate of return, after taking account of inflation, of around 7 per cent on a reasonable estimate of the likely traffic flows and tariffs.

The Prime Minister enquired about finance. Mr. MacGregor was confident of the ability of the proposed Bridge and Tunnel Authority to raise private finance. The Secretary of State for

/ Industry

CONFIDENTIAL

SPG

CONFIDENTIAL

- 2 -

Industry pointed out that there might be problems about scoring this as private finance, in view of the belief by the French side that it would be necessary to have guarantees against political cancellation, to ensure completion in the event of the inability of the private sector to complete, and in relation to the loan financed.

Sir John Howard asked the Prime Minister whether she would be able to arrange for Mr. MacGregor and himself to see President Mitterrand. In reply, the Prime Minister enquired about the present position of the French. The Secretary of State for Transport said that they had so far given no positive steer. Discussions were taking place with them this week, and the aim was to sift through the main options by December, and to concentrate on a narrow range of options thereafter, with a view to providing a final joint report at the end of February 1982.

I am sending copies of this letter to Ian Ellison (Department of Industry) and David Wright (Cabinet Office).

M. C. SCHOLAR

Anthony Mayer, Esq.,  
Department of Transport.

CONFIDENTIAL

(4)

Prime Minister  
←

MUS 17/11

ms

PRIME MINISTER

## CHANNEL LINK

I have seen David Howell's minute of 9 November and welcome his proposal to bring forward quickly a paper for collective discussion of the main issues raised by a channel link. The prospect of rapid progress in discussion with the French means we can delay no longer in taking stock of the economic costs and benefits of this major investment project. This is all the more urgent because of the difficulties which are becoming apparent in securing acceptable arrangements for private finance. I hope therefore it will prove possible to discuss the paper before high level contacts with the French progress much further.

2. I am copying this minute to the Foreign Secretary and to the Secretaries of State for Trade and the Environment.

L. B.

LEON BRITTAN  
16 November 1981

1. 1. 1. 1. 1. 1.

11 12 1  
10 9 8 2 3  
7 6 5 4

THE  
COMING





Mr Schlar ✓

10 DOWNING STREET

→ Mr ~~Reckitt~~  
~~Mr Hoskyns~~

Please see the attached.

The PM is seeing Mr MacGregor  
at 0930 next Tuesday  
to discuss his Eurovante  
proposals. If you have any  
comments, perhaps you  
could give them to Michael  
Schlar by Monday evening.

We have no comments  
(esp. at such short notice)  
13/11 Obviously much effort  
will be needed to analyse  
both cost/benefit & risk for  
Euro.vante vs other projects. It

EUROROUTE: BRIEF FOR PRIME MINISTER'S MEETING WITH MR MACGREGOR, BSC.  
17 NOVEMBER 1981

## BACKGROUND

### EuroRoute

1. EuroRoute is a Group set up by Redpath Dorman Long (a BSC subsidiary) and Sir Robert McAlpine & Sons Ltd. It is advised by Lazard Brothers (on finance) Mott, Hay & Anderson (on engineering) and Coopers & Lybrand (on traffic and revenue). Mr MacGregor, Chairman of BSC, originated the EuroRoute scheme for a fixed Channel link. His interest stems largely from involvement in the Chesapeake Bay crossing, a similar scheme built in the USA. He discussed it with the Secretary of State (Mr Fowler) on 11 February. A note on BSC's involvement is at Annex A. Sir John Howard is an engineer who has also shown a keen interest in the proposal.

### The Scheme

2. The EuroRoute project (March 1981) is one of eight schemes submitted, and proposes a combined viaduct bridge and immersed tube for road and rail. Twin viaducts from the English and French coasts span inshore shipping lanes carrying roadways to artificial islands (where frontier controls would be located) at the edges of the main shipping lanes (8 - 10 km out). The roadways then continue in immersed tubes alongside a railway which is in immersed tube throughout. The railway is an essential part of the ventilation for the road. Three ventilation islands are needed as well as the two main islands.

### Cost

3. EuroRoute estimates that the link, including road infrastructure at portals would cost about £3,800M at mid 1980 prices (nearly £4,000M at Jan 1981 prices). This estimate excludes the cost of rail facilities at portals, rolling stock, and inland road and rail infrastructure which could add more than £500M to the total cost (Jan 1981 prices).

## Traffic

The proposed link would cater for all types of road and rail traffic, for which EuroRoute gives the following estimates for traffic in 2000:

rail passengers (m. crossings)	10
passengers with cars (m. crossings)	9.1
rail freight (m. tonnes)	4.2
road freight (m. tonnes)	8.6

## Finance

5. The promoters are confident of their ability to raise private finance, including provision for overruns but have not specified likely sources. The amount of equity would be small, though some loan finance might involve a degree of participation in profits. Government indemnities covering political cancellation, delay in provision of public sector infrastructure, interference in commercial operation and changes in the tax laws would be required.

## Current Position

6. <sup>Decision in the year it was</sup> Mr Fowler hoped that a decision in principle on a fixed Channel link might be reached by the end of 1981, but initial discussions with French officials suggest that the French Government may need a little longer. Some provisional conclusions should be reached in early 1982 but it is not yet possible to be certain how detailed these will be. Mr Howell's minute of 27 October (at Annex B) gives the background.

## Provisional DTP View of Scheme

7. The proposal is very ambitious, but well thought out and presented. EuroRoute's financial and engineering consultants are amongst the best in the world, and much detailed planning has gone into the scheme. However, the scheme combines the practical problems of bridges with those of immersed tubes in a difficult location; bored tunnels would avoid these difficulties but could not provide for direct road transit.

There would be serious navigational problems. The Channel is the world's busiest international waterway. During construction, the laying rigs for the tubes would be stationary and huge prefabricated sections would be on tow in the Channel. Once completed, the inshore viaducts (which could not economically be proofed against every type of collision damage) and artificial/ventilation islands would pose a serious permanent hazard to shipping. Reaching an international agreement on the placing of obstructions in the Channel would involve lengthy and complex negotiations. There are no precedents for dredging and laying tube sections at such depths and in such weather conditions. No equipment capable of doing this work exists. The scheme is costly and there is a high risk of time overrun, caused by the need to develop special equipment, carry out extensive geological surveys and undertake complex negotiations (within the Inter-Governmental Maritime Consultative Organisation). There is a significant risk of a shipping incident during construction. Should the structure be abandoned before completion, or damaged thereafter, obstructions in the Channel would have to be removed which might cost as much as had been spent up to that time. Since the company might not be able to pay for removal or repair, or arrange insurance, liability could well fall on the two Governments.

8. Much of the inspiration for this scheme comes from the Chesapeake Bay crossing in the USA. While it is of similar scale, there are several important differences between this crossing and the proposed Channel Link. Chesapeake Bay is within US national waters, it is relatively shallow and lightly trafficked, mostly by US Navy ships. (It has, nevertheless, been hit 5 times since being opened.) The Chesapeake Bay crossing is not thought to operate profitably.

#### Views of the Department of Industry

9. Annex A sets out Department of Industry's views as BSC sponsor.

In summary three of the schemes under consideration are steel intensive -

EuroRoute itself, and two bridge schemes. The remaining options, mostly bored tunnels, would use much less steel but would provide some welcome business to BSC. In every case we must assume that at least half the steel would come from France. The relative shares of UK orders taken by BSC and by private steel makers depends on the types of steel required, but BSC would expect to gain 80-95 per cent of the orders for EuroRoute (but rather less for either of the bridges).

10. All three schemes would help to safeguard jobs and improve profitability in BSC and, to a lesser extent, in the private sector. But the effects would not be dramatic. If BSC gained the maximum share of steel orders for EuroRoute, that might safeguard about 400 jobs over 5 years in BSC (but not create new ones) and might add up to £5M a year to the Corporation's profits. These results would be proportionately reduced for the less steel-intensive schemes.

11. The effect on Redpath Dorman Long, BSC's constructional steelwork subsidiary, would be welcome. It is a prime candidate for privatisation, and the prospects of a major flow of new work would improve the likelihood of privatisation if current negotiations for a merger with Trafalgar House fell through.

#### EuroRoute Publicity

12. EuroRoute has conducted a well managed publicity campaign, concentrated largely on the scheme's direct effect on the UK economy, and in particular, on employment. EuroRoute claims that about 100,000 jobs could be created for 4 or 5 years in the UK alone, largely in depressed areas where the structure might be prefabricated. EuroRoute has done some fairly intensive lobbying in Parliament and maintained contact with officials (including French officials).

#### LINE TO TAKE

13. EuroRoute should not be offered any direct encouragement in view of the British doubts as to practicability and cost and the French Government's need to consider further.

14. Hence, the Prime Minister is recommended to give Mr MacGregor's presentation a full hearing and to assure him that bilateral discussions with the French will consider all available options, including EuroRoute, and in particular, none of the schemes submitted to the Secretary of State will be excluded from the joint study.

15. As to timing, Mr MacGregor might be reassured that HMG and the French are pressing on with the fastest practicable timetable, but that we might need a little longer than the rest of 1981 in which to reach some decisions of principle.

#### POINTS TO MAKE

16. Technology: This is a very ambitious scheme, some elements of which stretch the limits of existing technology (dredging and laying tubes at these depths and in such exposed and busy waters). Why is such an option considered preferable to one of the simpler options such as either a bored tunnel or a straightforward bridge?

17. Employment: EuroRoute claims that 100,000 jobs would be created in the UK alone. Would a further 100,000 jobs be created in France? Can we be sure that the prefabricated tunnel and viaduct sections will be made in the UK? What longer term employment gains and losses have been estimated following completion?

18. Capital Costs: What is the likelihood of serious time and cost overruns? How does the possibility of cost overrun affect the raising of finance?

19. Timetable: Discussions with the French have recently begun and a final decision will therefore take rather longer than originally expected. How does this fit in with EuroRoute's timetable for developing the scheme and raising the finance?

20. Monopoly: Unlike some smaller scale options (particularly the single track rail 6 metre tunnel), this form of link might establish a dominant position in the short sea market. Any disruption of services through the link would thus have very serious consequences. Why should the two Governments put all their eggs in one basket? Has EuroRoute any detailed thoughts on the degree of Government pricing control that might be necessary in the link's operation?

21. France: How strong is support in France? What benefits would accrue there?

#### CONCLUDING REMARKS

22. Mr MacGregor and Sir John Howard might be thanked for their presentation and reassured that a decision will be taken by the two Governments as soon as practically possible. They should also be reminded that both Governments will have to contemplate the likely consequences of a fixed link (or of no fixed link) very carefully before that decision is reached.

FROM  
SIR JOHN HOWARD, D.L., D.Sc., F.I.C.E.

VICTORY HOUSE,  
MEETING HOUSE LANE,  
CHATHAM, KENT, ME4 4PP.  
MEDWAY (0634) 402040

20 August 1981

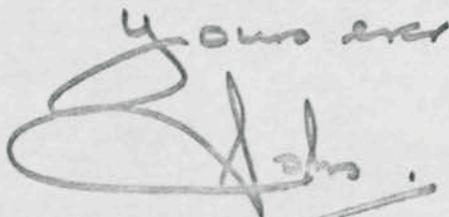
Ian Gow Esq MP  
10 Downing Street  
London SW1

*Dear Ian.*

As requested by Mr Ian MacGreggor, I am enclosing herewith a brief confidential memorandum on the EuroRoute project for the Prime Minister to see before the meeting with her, which you have kindly said you would arrange.

I hope this meets your requirements. I assume you have already had the brief version of the Scheme, but please let me know if you require further copies.

Kindest regards,

*Yours ever*  


John Howard

To the  
Prime Minister

EUROROUTE

Free Enterprise Road and Rail Channel Crossing

The EuroRoute proposal for a combined road and rail fixed channel crossing was conceived by Mr. Ian MacGregor (Chairman of the British Steel Corporation) and is based on similar successful fixed water crossings carried out at Chesapeake Bay (U.S.A.), Hong Kong and in other parts of the world. The main feature of its design is based on the modular system of prefabrication adopted for the building of the Mulberry Harbour in 1943 and its methods are now extensively used by oil companies operating in the North Sea.

The route to be followed would be from North of Folkestone to Cap Gris Nez. The EuroRoute system is a combination of 'above' and 'below' water construction which, for psychological and ventilation reasons, it is important to reduce to a minimum the length below water. Two large concrete islands built on the coast would be floated and sunk into position 19 Km apart, one each side of the main deep water shipping channel. Between these two islands submerged tunnel units would carry 4 road lanes for vehicular traffic and 2 rail lines. These two islands would be quite extensive and would be used for customs and other facilities.

From the English coast to the West Island the roads will be carried above water on viaducts and likewise from the East Island to the French coast.

It must be stressed that this is a free enterprise scheme financed entirely without relying on money from the taxpayer or from any nationalized industry.

It is known that the British Government is now considering several forms of a fixed channel crossing but an early decision is now awaited as to which project the British Government is going to encourage.

Will they choose :-

(a) a rail connection alone by tunnel (bored or submerged) without any provision for vehicular traffic, considered to be of limited usefulness  
or

(b) a combined road and rail crossing such as EuroRoute which would cater

for the needs of the 21st Century and beyond, which if we are going to remain in Europe must be considered of importance.

If the crossing is left as a monopoly in the hands of the two Nationalized industries, the British and French Railways, both influenced by strong Trade Unions, there must always be a risk to the public and industry by interruption to a regular service and doubt as to whether it would be possible to operate an economic fare structure.

The construction of a bored tunnel alone would allow work being carried out only at its two ends and would throw considerable congestion on these two localities, particularly in Kent. It relies mainly on one type of labour and would do little to relieve the national unemployment problem. Moreover its construction could be easily disrupted by industrial action, delaying completion and increasing the cost of financing it.

The EuroRoute, although more costly, is a complete answer to the channel crossing problem. It is designed on the unit or modular form of construction, a method well tried by the construction industry and would not disturb unduly the environment of Kent as the design enables units to be built round the coast of England, Wales and Scotland (and to a lesser extent in Northern Ireland) and mainly at many different places of high unemployment. These units, in steel and concrete, are built at many points round our coast, towed by water and correctly sunk in position on the site of the channel crossing thus largely relieving construction traffic on our roads.

This dispersal system of construction involves many small firms as well as large in the construction and general engineering industries and because of its wide national spread can be less affected by strikes or industrial disputes and brings in greater competition to cheapen the work.

On the question of employment our experts have made a close study of the extra labour required for carrying out this project on a dispersal basis and they estimate that throughout its 4 year construction period it would employ an average of an additional 100,000 men and women on the U.K. side alone and to operate the scheme afterwards 1,000 persons would be required. Whilst the final design has still to be completed it is sufficiently far advanced now for close estimates of the final cost of completion to be made and, what is equally important,

to state that the work can be started and sub-contracts placed before the end of 1982 provided a government policy decision is reached by October, 1981.

Discussions with British Rail have taken place over the past 12 months and our offer to them is to build a twin rail track in a submerged tunnel from Folkestone to the French coast (to link with Paris and Brussels) and as well to build the new London terminal which they say will be required, all free of capital cost to them. When completed the railways would lease the facilities from the EuroRoute Operating Company. British Rail are attracted by these proposals.

Monopoly. It is realized that the British Government, before granting what amounts to a monopoly to private enterprise, would want to safeguard the users position for the future. Presumably an Act of Parliament would be required into which a toll and fare structure would be incorporated and if necessary a date provided for the future when the assets of the EuroRoute Operating Company would revert to the British and French Governments. Although the Governments might require representation on the operating company's board, it should be understood that since private enterprise will be carrying all the risks it must, within reasonable limits, be allowed to get on with the job and planning facilities as far as they are required must be forthcoming without delays.

It is realized that the Dover Strait is one of the busiest shipping lanes in the world, therefore the EuroRoute crossing is designed to meet the requirements of the Inter-Governmental maritime Consultative Organisation (I.M.C.O.) particularly to enforce the traffic separation scheme now in existence. Navigation and monitoring aids will be provided on an extensive scale to give warning of the crossing and to increase safety, emergency craft will be stationed at or near the Crossing to give assistance, something which is not in existence today.

The Capital Cost of the EuroRoute project, that is for a combined structure to carry both road and rail, at 1980 figures is estimated to be £3.8 bn allowing for reasonable contingencies. Traffic forecasts have been carefully made and rechecked and the promoters' expert advisers are satisfied that this is a sound commercial proposition provided that it is free enterprise controlled.

Messrs. Lazard Brothers of London, who have advised EuroRoute since its inception are satisfied that this can be financed in the London, Paris, Brussels and New York markets without recourse to public funds provided there is

Government assurance that once work has started it will be allowed to be completed. They believe that it will be easier to finance because its construction is less likely to suffer from industrial disruption and can be brought into use in a shorter time. As far as the European Parliament is concerned, all U.K. members of the three political parties have had details of the project and many have expressed their support for it.

The Technical Advisers to the EuroRoute project are :-

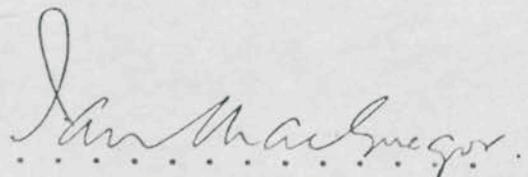
- Finance - Lazard Brothers & Co. Ltd.
- Engineering Studies - Mott Hay & Anderson.
- Traffic and Revenue - Coopers and Lybrand Assoc. Ltd.

The following firms are promoting EuroRoute and some have given much of their skill in perfecting the scheme :-

- Redpath Dorman Long Ltd. British Shipbuilders Ltd.
- Robert Mac Alpine Ltd. Boots Railway Engineering Ltd.
- John Howard & Coy Ltd. Technip S.A., Paris.
- Fairclough Construction Ltd. Zanen Verstoep N.V., Holland.
- Trafalgar House Ltd. Raymond International Ltd.

Full details of the EuroRoute Scheme was placed before the Minister of Transport in March 1981 and a brief version of the Scheme is attached herewith.

Because we believe that this project is of such great National and European importance and would enhance the prestige of the present Government for its imaginative concept and for the fact that it must have a very stimulating effect on employment, starting we would hope before the next General Election, it is considered right that its details should be brought to the notice of the Prime Minister.



18th August, 1981.



1981 IX 25

12:59

10 DOWNING STREET

From the Private Secretary

24 September, 1981.

This letter is to confirm the Prime Minister's meeting on Tuesday, 17 November at 9.30 to discuss the channel tunnel. I have also invited Ian MacGregor of British Steel and Sir John Howard who is an engineer. Mr. MacGregor and Sir John asked for the meeting, and the Prime Minister agreed to see them. I enclose a copy of Ian MacGregor's paper to the Prime Minister entitled "Euroroute".

I would be grateful if you could send us a brief in conjunction with the Department of Industry to reach us by close of play on Friday, 13 November.

TO <i>Mr Murray</i>	COPIES TO
FOR A DVICE (AND DRAFT REPLY IF APPROPRIATE)	<i>P/M</i>
PLEASE BY:	<i>P/Bee</i>
<i>9/11/81</i>	<i>Mr Murray</i>
	<i>Miss Mueller</i>
	<i>Mr Bennett</i>
	<i>L. Higham</i>
	<i>Mr Conway</i>

CAROLINE STEPHENS

Anthony Mayer, Esq.,  
Department of Transport.



IMPLICATIONS FOR THE UK STEEL INDUSTRY OF EUROROUTE AND THE MAIN ALTERNATIVE SCHEMES.

A. Tonnages of steel required

1. EuroRoute and the main alternative schemes would take about 5 years to construct. Steel usage would be spread fairly evenly over the period. French producers would be likely to supply up to half the steel required. On this basis, the schemes compare as follows:

TONNES OF FINISHED STEEL

SCHEME:	Euroroute	Bridge A— "Eurobridge"	Bridge B— "Link into Europe"	Twin 7 metre rail tunnel	Single 6 metre rail tunnel
PROJECT LEADERS:	BSC/Redpath Dorman Long	Pell Frieschman/ Sir Frederick Snow	Freeman Fox and Partners	"Channel Tunnel Developments 1981" Consortium— Wimpey/Tarmac	British Rail/ SNCF
TONNAGES.					
Total tonnage	900,000	900,000	550,000	70,000	35,000
Total UK share	500,000	450,000	275,000	35,000	17,500
Annual UK share	100,000	90,000	55,000	7,000	3,500

B. EuroRoute: type and source of steel required

2. There are three possible ways of building EuroRoute. The bridge viaducts for carrying road traffic to and from the off-shore islands would be a constant factor, requiring 35,000 tonnes of steel plate a year from BSC (the UK private sector steel producers make virtually no plate).



3. But the submerged sections - the 36 kilometre rail tunnel, and the twin road tunnels running for 19 kilometres between the offshore islands - could be built either of:

- (a) concrete reinforced with steel; or
- (b) tubes made from steel plate; or
- (c) a mixture of the two.

4. While the choice would not markedly affect the total tonnage of steel required for the scheme, it would dictate the relative use made of reinforcing steel and steel plate. And, because the UK private sector steel makers (principally Sheerness Steel, Manchester Steel, and Allied Steel and Wire) are involved in producing the former but not the latter, it would in turn affect their potential share in the project. The estimated effect is as follows (all figures approximate):

Scheme (a) (Reinforced concrete)		Scheme (b) (Steel tubes)		Scheme (c) (Mixture)	
BSC share	Private Sector	BSC share	Private Sector	BSC share	Private Sector

TONNES OF FINISHED STEEL PER YEAR

Type of steel

Structural steel -  
bridges:

Structural steel -  
tubes:

Reinforcing steel:

Other share (allocated):

Total:

35,000	-	35,000	-	35,000	-
-	-	38,000	-	8,000	-
32,500	17,500	7,800	4,200	27,300	14,700
15,000		15,000		15,000	
<u>100,000</u>		<u>100,000</u>		<u>100,000</u>	



Scheme (a) (Reinforced concrete)		Scheme (b) (Steel tubes)		Scheme (c) (Mixture)	
BSC share	Private Sector	BSC share	Private Sector	BSC share	Private Sector

PERCENTAGE OF SUPPLIES\*

79%	21%	95%	5%	83%	17%
-----	-----	-----	----	-----	-----

\* Excluding quantity under "Other (share unallocated)".

5. Comparable estimates for the other main schemes are not available. But the basic amount of BSC-supplied steel plate required for viaduct bridges in all three variants of EuroRoute (35,000 tonnes per annum) would be more or less matched by the tonnage needed for towers and bridge decks in either of the Bridge schemes (at about 30,000 tonnes per annum). In addition, the two Bridge schemes would require, respectively, 60,000 and 25,000 tonnes per annum of UK-produced steel wire. Private sector UK steel firms—in particular, GKN, Bridons, and Allied Steel and Wire — would stand to gain the bulk of the orders, with BSC benefitting as well through supplying the second and third of those firms with the necessary basic steel.

C. Effect of EuroRoute and alternative schemes on employment in the steel industry

6. The three variants of EuroRoute would provide firm employment in BSC for 300-400 men over the 5-year period. Of the alternative schemes, Bridge A would have much the same effect; Bridge B about half that; and the rail tunnels very little indeed. The effect of any of the schemes on employment in the private steel sector is difficult to estimate at present but would be less than for BSC.

7. The jobs involved in BSC (and in the private sector) would probably not be additional — the extra tonnage required would not warrant bringing on additional plant or shifts. Depending on the plant loading position, the tonnage might simply replace less profitable export orders.



#### D. Effect on BSC's plants

8. For EuroRoute scheme (a), based on reinforced concrete tunnels, the extra throughput of steel plate would benefit Scunthorpe, Hartlepool and the Scottish plate mills. It would represent about 5% of BSC's annual capacity to produce plate. In reinforcing steel, the throughput would represent about 3% of Scunthorpe's annual production of the billets from which reinforcement steel is made.

#### E. Effect on BSC's profitability

9. The effect would depend on whether the steel required for EuroRoute (or for one of the other steel-intensive schemes) represented additional production by BSC or was used as a substitute for less profitable export orders. The former would maximise the benefits, though either would help to improve profitability by guaranteeing a firm level of orders over 5 years. But the effect should not be exaggerated. Even if BSC were assumed to supply all the steel required for the two most steel intensive projects (EuroRoute and Bridge A) - and, as noted above, the UK private sector would in fact take a share - then increased profits in the range £10-£50 per tonne of steel supplied would increase BSC's profitability by only about £1-£5 million per year. While a useful sum, such a range would not have a dramatic effect on BSC's overall results.

#### F. Effect on Redpath Dorman Long Ltd (RDL)

10. RDL is BSC's constructional engineering subsidiary and the joint leader, with BSC itself, in the EuroRoute consortium. It lost £7 million in 1980/81 on a turnover of £83 million. As one of BSC's peripheral businesses, it is a prime candidate for privatisation.

11. Although its recent unprofitability coupled with the effects of the recession on its prospects have made a sale difficult, negotiations are now in progress for a merger with Trafalgar House (the details of which have yet to be completed). Construction of EuroRoute would involve RDL as a fabricator of steel for the viaduct bridges, as well as for the tunnel units to the extent that these were made from steel plate rather than reinforced concrete. In addition, RDL would stand to participate in the overall project management and to act as sub-contractor for civil engineering projects on and off the construction site. The capacity of the company would probably have to be increased to cope with the extra work. Intensive use of RDL's facilities, coupled with a regular and increased throughput of standardised construction work, would do much to restore RDL to profitability.

Prime Minister

CHANNEL LINK

The purpose of this minute is to inform you of developments since your meeting with President Mitterand on 10-11 September and to indicate how I see matters developing.

Contact with French officials, including a senior member of M Fiterman's "cabinet", was established very quickly. They have been friendly and constructive - even enthusiastic. But they are not inclined to rush matters. They emphasise - and here they are reflecting the general philosophy of the new administration - the need for a thorough study of regional, employment and other social effects in full "concertation" with local interests. They have made it clear that this is not possible given their late start to reach a decision in principle by the end of the year as my predecessor had hoped. They suggest that, by February of next year, it should be possible to narrow down the options for detailed study but no more.

This would make it difficult to have legislation - probably a rather complex hybrid bill - ready for the 1982/83 session. We shall have a clearer view at official level, of the French position on 28 October. I shall be meeting M Fiterman at dinner the same evening and will pursue this with him further.

Meanwhile on our side we are pressing ahead with our studies on a timescale which would enable us to hold to that objective. I expect to receive a report from Sir Alec Cairncross, my special adviser, in the next few weeks. Complementary studies by my own officials will be completed around the same time. I intend, very shortly

16c/10

thereafter, to concentrate my own thinking on a very short list of schemes - at least for a first phase in the development of cross-channel links: the French are putting emphasis on the need to build potential for development into any modest beginning.

French ideas on finance for their half of the project are limited at the moment to the public sector, although not to central government. There could be problems here in arranging a proper balance of powers and rights with an exclusively private consortium on this side of the Channel. The prospects of financing the UK half of the project without any risk whatsoever to Government funds remain, both for this and other reasons, less clear than I would like and it will be important to avoid commitment until the issues on this are clarified. Concentrating the thought - and competition - of promoters on a narrower range of schemes should help with this problem.

I will keep you informed of developments and as the next step will let you know the outcome of my conversation with M Fiterman on 28 October.

I am copying this minute to the Chancellor of the Exchequer, the Foreign and Commonwealth Secretary and to the Secretaries of State for Trade and the Environment.

DG.

D H

27 October 1981

R H

*Sir 16/11*  
*Stephens*  
*Transport*

13 November, 1981

I gather you spoke to Derek Howe today about the meeting next Tuesday. I did in fact write to you on 24 September and enclose a copy of my letter. In addition, I spoke to your Secretary on the same date confirming the meeting.

CAROLINE STEPHENS

Sir John Howard, DL DSc FICE

*A*



DEPARTMENT OF INDUSTRY  
 ASHDOWN HOUSE  
 123 VICTORIA STREET  
 LONDON SW1E 6RB

TELEPHONE DIRECT LINE 01-212 3301  
 SWITCHBOARD 01-212 7676

PS/ *Secretary of State for Industry*

13 November 1981

Miss Caroline Stephens  
 Private Secretary to the  
 Prime Minister  
 10 Downing Street  
 London SW1

*ms*

*Dear Caroline*

PRIME MINISTER'S MEETING ON THE CHANNEL TUNNEL

The Department of Transport are providing briefing for this meeting to which we have contributed. Since preparing our briefing we have seen - as a result of your kind intervention - a copy of the note for the meeting prepared by BSC. The Prime Minister may find it helpful to have some comments on the note prepared by Department of Industry officials.

2 The Annex to the BSC paper, describing EuroRoute's effects on the UK steel industry, is satisfactory as far as it goes and confirms that the implications of the scheme for employment and profitability at BSC would not be dramatic. The Annex, however, contains not a word about the alternatives to EuroRoute. Any steel-intensive scheme, whether EuroRoute or one of the two bridges, would bring some benefit to BSC. As sponsors of EuroRoute, the Corporation have no interest in drawing attention to the point but it is one which the Prime Minister will wish to have in mind during the discussion with Mr MacGregor.

3 There is one new point in BSC's paper worth noting. The Introduction records that British Shipbuilders (BS) are amongst the "financial subscribers" now associated with the scheme. Officials do not know the precise nature of BS's involvement but the reason for the link is that EuroRoute would involve work at shipyards. BSC themselves estimate that:



- a assembly of deck units would employ 100 men for 4 years at each of 6-8 sites, some of them shipyards;
- b a further 6-8 sites would be required for assembly of tunnel units, each of which would employ 150 men and would almost certainly be based on existing shipyards with launching slipways;
- c if the tunnel sections of EuroRoute were built of steel tubes rather than reinforced concrete, assembly of the tubes would put still more work to the shipyards.

(a) and (b) alone could entail firm employment in shipyards for between 1,000 and 2,000 men over 4 years, although the extent to which these jobs would be additional is not at present clear.

*Yours sincerely*

*Ian Ellison*

IAN ELLISON  
Private Secretary



DEPARTMENT OF TRANSPORT  
2 MARSHAM STREET LONDON SW1P 3EB

Miss C M Stephens  
Private Secretary to  
the Prime Minister  
10 Downing Street  
LONDON  
SW1

B/R 16/11/81

12 November 1981

Dear Caroline,

Thank you for your letter of 24 September about the Prime Minister's meeting with Mr MacGregor and Sir John Howard on 17 November to discuss the fixed Channel link. I attach two copies of a brief for the Prime Minister.

I confirm that Mr Howell will be attending the meeting. I am sending a copy of this letter and enclosure to Ian Ellison and David Wright.

Yours,  
Anthony Mayer  
R A J MAYER  
Private Secretary

EUROROUTE: BRIEF FOR PRIME MINISTER'S MEETING WITH MR MACGREGOR BSC.  
17 NOVEMBER 1981

## BACKGROUND

### EuroRoute

1. EuroRoute is a Group set up by Redpath Dorman Long (a BSC subsidiary) and Sir Robert McAlpine & Sons Ltd. It is advised by Lazard Brothers (on finance) Mott, Hay & Anderson (on engineering) and Coopers & Lybrand (on traffic and revenue). Mr MacGregor, Chairman of BSC, originated the EuroRoute scheme for a fixed Channel link. His interest stems largely from involvement in the Chesapeake Bay crossing, a similar scheme built in the USA. He discussed it with the Secretary of State (Mr Fowler) on 11 February. A note on BSC's involvement is at Annex A. Sir John Howard is an engineer who has also shown a keen interest in the proposal.

### The Scheme

2. The EuroRoute project (March 1981) is one of eight schemes submitted, and proposes a combined viaduct bridge and immersed tube for road and rail. Twin viaducts from the English and French coasts span inshore shipping lanes carrying roadways to artificial islands (where frontier controls would be located) at the edges of the main shipping lanes (8 - 10 km out). The roadways then continue in immersed tubes alongside a railway which is in immersed tube throughout. The railway is an essential part of the ventilation for the road. Three ventilation islands are needed as well as the two main islands.

### Cost

3. EuroRoute estimates that the link, including road infrastructure at portals would cost about £3,800M at mid 1980 prices (nearly £4,000M at Jan 1981 prices). This estimate excludes the cost of rail facilities at portals, rolling stock, and inland road and rail infrastructure which could add more than £500M to the total cost (Jan 1981 prices).

## Traffic

4. The proposed link would cater for all types of road and rail traffic, for which EuroRoute gives the following estimates for traffic in 2000:

rail passengers (m. crossings)	10
passengers with cars (m. crossings)	9.1
rail freight (m. tonnes)	4.2
road freight (m. tonnes)	8.6

## Finance

5. The promoters are confident of their ability to raise private finance, including provision for overruns but have not specified likely sources. The amount of equity would be small, though some loan finance might involve a degree of participation in profits. Government indemnities covering political cancellation, delay in provision of public sector infrastructure, interference in commercial operation and changes in the tax laws would be required.

## Current Position

6. <sup>Earlier in the year it was</sup> ~~Mr Fowler~~ hoped that a decision in principle on a fixed Channel link might be reached by the end of 1981, but initial discussions with French officials suggest that the French Government may need a little longer. Some provisional conclusions should be reached in early 1982 but it is not yet possible to be certain how detailed these will be. Mr Howell's minute of 27 October (at Annex B) gives the background.

## Provisional DTP View of Scheme

7. The proposal is very ambitious, but well thought out and presented. EuroRoute's financial and engineering consultants are amongst the best in the world, and much detailed planning has gone into the scheme. However, the scheme combines the practical problems of bridges with those of immersed tubes in difficult location; bored tunnels would avoid these difficulties but could not provide for direct road transit.

There would be serious navigation problems. The Channel is the world's busiest international waterway. During construction, the laying rigs for the tubes would be stationary and huge prefabricated sections would be on tow in the Channel. Once completed, the inshore viaducts (which could not economically be proofed against every type of collision damage) and artificial/ventilation islands would pose a serious permanent hazard to shipping. Reaching an international agreement on the placing of obstructions in the Channel would involve lengthy and complex negotiations. There are no precedents for dredging and laying tube sections at such depths and in such weather conditions. No equipment capable of doing this work exists. The scheme is costly and there is a high risk of time overrun, caused by the need to develop special equipment, carry out extensive geological surveys and undertake complex negotiations (within the Inter-Governmental Maritime Consultative Organisation). There is a significant risk of a shipping incident during construction. Should the structure be abandoned before completion, or damaged thereafter, obstructions in the Channel would have to be removed which might cost as much as had been spent up to that time. Since the company might not be able to pay for removal or repair, or arrange insurance, liability could well fall on the two Governments.

8. Much of the inspiration for this scheme comes from the Chesapeake Bay crossing in the USA. While it is of similar scale, there are several important differences between this crossing and the proposed Channel Link. Chesapeake Bay is within US national waters, it is relatively shallow and lightly trafficked, mostly by US Navy ships. (It has, nevertheless, been hit 5 times since being opened.) The Chesapeake Bay crossing is not thought to operate profitably.

#### Views of the Department of Industry

9. Annex A sets out Department of Industry's views as BSC sponsor.

In summary three of the schemes under consideration are steel intensive -

Can we  
check  
we are  
checking

EuroRoute itself, and two bridge schemes. The remaining options, mostly bored tunnels, would use much less steel but would provide some welcome business to BSC. In every case we must assume that at least half the steel would come from France. The relative shares of UK orders taken by BSC and by private steel makers depends on the types of steel required, but BSC would expect to gain 80-95 per cent of the orders for EuroRoute (but rather less for either of the bridges).

10. All three schemes would help to safeguard jobs and improve profitability in BSC and, to a lesser extent, in the private sector. But the effects would not be dramatic. If BSC gained the maximum share of steel orders for EuroRoute, that might safeguard about 400 jobs over 5 years in BSC (but not create new ones) and might add up to £5M a year to the Corporation's profits. These results would be proportionately reduced for the less steel-intensive schemes.

11. The effect on Redpath Dorman Long, BSC's constructional steelwork subsidiary, would be welcome. It is a prime candidate for privatisation, and the prospects of a major flow of new work would improve the likelihood of privatisation if current negotiations for a merger with Trafalgar House fell through.

#### EuroRoute Publicity

12. EuroRoute has conducted a well managed publicity campaign, concentrated largely on the scheme's direct effect on the UK economy, and in particular, on employment. EuroRoute claims that about 100,000 jobs could be created for 4 or 5 years in the UK alone, largely in depressed areas where the structure might be prefabricated. EuroRoute has done some fairly intensive lobbying in Parliament and maintained contact with officials (including French officials).

#### LINE TO TAKE

13. EuroRoute should not be offered any direct encouragement in view of the British doubts as to practicability and cost and the French Government's need to consider further.

14. Hence, the Prime Minister is recommended to give Mr MacGregor's presentation a full hearing and to assure him that bilateral discussions with the French will consider all available options, including EuroRoute, and in particular, none of the schemes submitted to the Secretary of State will be excluded from the joint study.

15. As to timing, Mr MacGregor might be reassured that HMG and the French are pressing on with the fastest practicable timetable, but that we might need a little longer than the rest of 1981 in which to reach some decisions of principle.

#### POINTS TO MAKE

16. Technology: This is a very ambitious scheme, some elements of which stretch the limits of existing technology (dredging and laying tubes at these depths and in such exposed and busy waters). Why is such an option considered preferable to one of the simpler options such as either a bored tunnel or a straightforward bridge?

17. Employment: EuroRoute claims that 100,000 jobs would be created in the UK alone. Would a further 100,000 jobs be created in France? Can we be sure that the prefabricated tunnel and viaduct sections will be made in the UK? What longer term employment gains and losses have been estimated following completion?

18. Capital Costs: What is the likelihood of serious time and cost overruns? How does the possibility of cost overrun affect the raising of finance?

19. Timetable: Discussions with the French have recently begun and a final decision will therefore take rather longer than originally expected. How does this fit in with EuroRoute's timetable for developing the scheme and raising the finance?

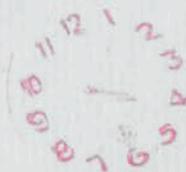
20. Monopoly: Unlike some smaller scale options (particularly the single track rail 6 metre tunnel), this form of link might establish a dominant position in the short sea market. Any disruption of services through the link would thus have very serious consequences. Why should the two Governments put all their eggs in one basket? Has EuroRoute any detailed thoughts on the degree of Government pricing control that might be necessary in the link's operation?

21. France: How strong is support in France? What benefits would accrue there?

#### CONCLUDING REMARKS

22. Mr MacGregor and Sir John Howard might be thanked for their presentation and reassured that a decision will be taken by the two Governments as soon as practically possible. They should also be reminded that both Governments will have to contemplate the likely consequences of a fixed link (or of no fixed link) very carefully before that decision is reached.

11 2 NOV 1981





IMPLICATIONS FOR THE UK STEEL INDUSTRY OF EUROROUTE AND THE MAIN ALTERNATIVE SCHEMES.

A. Tonnages of steel required

1. EuroRoute and the main alternative schemes would take about 5 years to construct. Steel usage would be spread fairly evenly over the period. French producers would be likely to supply up to half the steel required. On this basis, the schemes compare as follows:

TONNES OF FINISHED STEEL

SCHEME:	Euroroute	Bridge A— "Eurobridge"	Bridge B— "Link into Europe"	Twin 7 metre rail tunnel	Single 6 metre rail tunnel
PROJECT LEADERS:	BSC/Redpath Dorman Long	Pell Frieschman/ Sir Frederick Snow	Freeman Fox and Partners	"Channel Tunnel Developments 1981" Consortium— Wimpey/Tarmac	British Rail/ SNCF
TONNAGES.					
Total tonnage	900,000	900,000	550,000	70,000	35,000
Total UK share	500,000	450,000	275,000	35,000	17,500
Annual UK share	100,000	90,000	55,000	7,000	3,500

B. EurRoute: type and source of steel required

2. There are three possible ways of building EuroRoute. The bridge viaducts for carrying road traffic to and from the off-shore islands would be a constant factor, requiring 35,000 tonnes of steel plate a year from BSC (the UK private sector steel producers make virtually no plate).



3. But the submerged sections - the 36 kilometre rail tunnel, and the twin road tunnels running for 19 kilometres between the offshore islands - could be built either of:

- (a) concrete reinforced with steel; or
- (b) tubes made from steel plate; or
- (c) a mixture of the two.

4. While the choice would not markedly affect the total tonnage of steel required for the scheme, it would dictate the relative use made of reinforcing steel and steel plate. And, because the UK private sector steel makers (principally Sheerness Steel, Manchester Steel, and Allied Steel and Wire) are involved in producing the former but not the latter, it would in turn affect their potential share in the project. The estimated effect is as follows (all figures approximate):

Scheme (a) (Reinforced concrete)		Scheme (b) (Steel tubes)		Scheme (c) (Mixture)	
BSC share	Private Sector	BSC share	Private Sector	BSC share	Private Sector

TONNES OF FINISHED STEEL PER YEAR

Type of steel

Plates - viaduct bridges:	35,000	-	35,000	-	35,000	-
Plates - steel tubes:	-	-	38,000	-	8,000	-
Reinforcing steel:	32,500	17,500	7,800	4,200	27,300	14,700
Other (share unallocated):	15,000		15,000		15,000	
<b>Total:</b>	<u>100,000</u>		<u>100,000</u>		<u>100,000</u>	



Scheme (a) (Reinforced concrete)		Scheme (b) (Steel tubes)		Scheme (c) (Mixture)	
BSC share	Private Sector	BSC share	Private Sector	BSC share	Private Sector

PERCENTAGE OF SUPPLIES\*

79%	21%	95%	5%	83%	17%
-----	-----	-----	----	-----	-----

\* Excluding quantity under "Other (share unallocated)".

5. Comparable estimates for the other main schemes are not available. But the basic amount of BSC-supplied steel plate required for viaduct bridges in all three variants of EuroRoute (35,000 tonnes per annum) would be more or less matched by the tonnage needed for towers and bridge decks in either of the Bridge schemes (at about 30,000 tonnes per annum). In addition, the two Bridge schemes would require, respectively, 60,000 and 25,000 tonnes per annum of UK-produced steel wire. Private sector UK steel firms—in particular, GKN, Bridons, and Allied Steel and Wire — would stand to gain the bulk of the orders, with BSC benefitting as well through supplying the second and third of those firms with the necessary basic steel.

C. Effect of EuroRoute and alternative schemes on employment in the steel industry

6. The three variants of EuroRoute would provide firm employment in BSC for 300-400 men over the 5-year period. Of the alternative schemes, Bridge A would have much the same effect; Bridge B about half that; and the rail tunnels very little indeed. The effect of any of the schemes on employment in the private steel sector is difficult to estimate at present but would be less than for BSC.

7. The jobs involved in BSC (and in the private sector) would probably not be additional — the extra tonnage required would not warrant bringing on additional plant or shifts. Depending on the plant loading position, the tonnage might simply replace less profitable export orders.



D. Effect on BSC's plants

8. For EuroRoute scheme (a), based on reinforced concrete tunnels, the extra throughput of steel plate would benefit Scunthorpe, Hartlepool and the Scottish plate mills. It would represent about 5% of BSC's annual capacity to produce plate. In reinforcing steel, the throughput would represent about 3% of Scunthorpe's annual production of the billets from which reinforcement steel is made.

E. Effect on BSC's profitability

9. The effect would depend on whether the steel required for EuroRoute (or for one of the other steel-intensive schemes) represented additional production by BSC or was used as a substitute for less profitable export orders. The former would maximise the benefits, though either would help to improve profitability by guaranteeing a firm level of orders over 5 years. But the effect should not be exaggerated. Even if BSC were assumed to supply all the steel required for the two most steel intensive projects (EuroRoute and Bridge A) - and, as noted above, the UK private sector would in fact take a share - then increased profits in the range £10-£50 per tonne of steel supplied would increase BSC's profitability by only about £1-£5 million per year. While a useful sum, such a range would not have a dramatic effect on BSC's overall results.

F. Effect on Redpath Dorman Long Ltd (RDL)

10. RDL is BSC's constructional engineering subsidiary and the joint leader, with BSC itself, in the EuroRoute consortium. It lost £7 million in 1980/81 on a turnover of £83 million. As one of BSC's peripheral businesses, it is a prime candidate for privatisation.

11. Although its recent unprofitability coupled with the effects of the recession on its prospects have made a sale difficult, negotiations are now in progress for a merger with Trafalgar House (the details of which have yet to be completed). Construction of EuroRoute would involve RDL as a fabricator of steel for the viaduct bridges, as well as for the tunnel units to the extent that these were made from steel plate rather than reinforced concrete. In addition, RDL would stand to participate in the overall project management and to act as sub-contractor for civil engineering projects on and off the construction site. The capacity of the company would probably have to be increased to cope with the extra work. Intensive use of RDL's facilities, coupled with a regular and increased throughput of standardised construction work, would do much to restore RDL to profitability.

Prime Minister

CHANNEL LINK

The purpose of this minute is to inform you of developments since your meeting with President Mitterand on 10-11 September and to indicate how I see matters developing.

Contact with French officials, including a senior member of M Fiterman's "cabinet", was established very quickly. They have been friendly and constructive - even enthusiastic. But they are not inclined to rush matters. They emphasise - and here they are reflecting the general philosophy of the new administration - the need for a thorough study of regional, employment and other social effects in full "concertation" with local interests. They have made it clear that this is not possible given their late start to reach a decision in principle by the end of the year as my predecessor had hoped. They suggest that, by February of next year, it should be possible to narrow down the options for detailed study but no more.

This would make it difficult to have legislation - probably a rather complex hybrid bill - ready for the 1982/83 session. We shall have a clearer view at official level, of the French position on 28 October. I shall be meeting M Fiterman at dinner the same evening and will pursue this with him further.

Meanwhile on our side we are pressing ahead with our studies on a timescale which would enable us to hold to that objective. I expect to receive a report from Sir Alec Cairncross, my special adviser, in the next few weeks. Complementary studies by my own officials will be completed around the same time. I intend, very shortly

16/9/10

thereafter, to concentrate my own thinking on a very short list of schemes - at least for a first phase in the development of cross-channel links: the French are putting emphasis on the need to build potential for development into any modest beginning.

French ideas on finance for their half of the project are limited at the moment to the public sector, although not to central government. There could be problems here in arranging a proper balance of powers and rights with an exclusively private consortium on this side of the Channel. The prospects of financing the UK half of the project without any risk whatsoever to Government funds remain, both for this and other reasons, less clear than I would like and it will be important to avoid commitment until the issues on this are clarified. Concentrating the thought - and competition - of promoters on a narrower range of schemes should help with this problem.

I will keep you informed of developments and as the next step will let you know the outcome of my conversation with M Fiterman on 28 October.

I am copying this minute to the Chancellor of the Exchequer, the Foreign and Commonwealth Secretary and to the Secretaries of State for Trade and the Environment.

DG.

D H

27 October 1981



**Road and Rail Channel Crossing**

**Proposal in brief**

**May 1981**

EUROROUTE

PROPOSAL IN BRIEF

CONTENTS

	Page
1. INTRODUCTION	1
2. DESCRIPTION OF SCHEME	2
3. FORM OF CONSTRUCTION	3
4. CONSTRUCTION PROGRAMME	5
5. SHIPPING AND NAVIGATION	6
6. ENVIRONMENT	7
7. OPERATION AND CONTROL	8
8. COST ESTIMATES	8
9. TRAFFIC AND REVENUES	9
10. FINANCE	9
11. EMPLOYMENT AND RESOURCES	10

Illustrations following page 2

## 1. INTRODUCTION

The EuroRoute Proposal for a combined road and rail fixed Channel crossing is put forward by a consortium at present led by the British Steel Corporation and Redpath Dorman Long Limited. A Joint Venture of firms is at present being formed.

The advisers to the Group, who have been involved in the preparation of the Proposal, are:

Finance	-	Lazard Brothers & Co., Limited
Engineering Studies	-	Mott, Hay & Anderson
Traffic & Revenue	-	Coopers & Lybrand Associates, Limited

The EuroRoute crossing will be of major and practical benefit to the U.K. and her European partners. The design is the single most effective combination of road and rail facilities. It is planned to meet the current and future needs of business and leisure travel and freight transport between Britain and Europe - the country's largest and fastest growing market. By providing both a road and rail crossing, maximum flexibility of this international asset will be ensured to cater both for future needs and for changes in the relative costs of different methods of transport.

The EuroRoute design has been developed after intensive research and satisfies the various technical problems raised by a fixed cross-Channel link. Built within the scope of available technology, the prefabricated structure will allow work to be spread over a number of locations and then assembled on site, maximising employment opportunities and reducing to a minimum the risks of increased costs and production delays. These factors should assist in the obtaining of private financing and thus contribute to reducing difficult decisions about public expenditure. The EuroRoute offers social and economic advantages without cost to the public purse or to the environment.

At all stages security has been a prime consideration. Security of design, security of financing, protection of the user, safety of shipping and the use of standard construction techniques have contributed to this aim. The provision of road and rail alternatives enables management to be split into two separate entities, preventing problems of monopoly control.

The positive benefits of a Channel crossing are potentially enormous, but to realise them it is essential that any cross-Channel link should provide the most effective access to all users and meet in full the needs of the present and the future. The EuroRoute is the most effective answer to those needs.

The project is described in detail in the document entitled "EuroRoute - Proposal for Road and Rail Channel Crossing", submitted to the Department of Transport in March 1981. The following pages describe the proposal in brief.

## 2. DESCRIPTION OF SCHEME

The EuroRoute crossing is designed to provide a fixed Channel link for both road and rail traffic.

The crossing incorporates two 2-lane carriageways and two rail tracks. The railway is carried in submerged tube tunnel throughout the crossing. The road carriageways are carried on twin viaducts across the inshore shipping zones of the Channel, and in a common submerged tube tunnel structure with the railway beneath the main shipping lanes. The transition for road traffic from viaduct to tunnel takes place within offshore artificial islands constructed at the boundary of the main shipping lanes.

The overall length of the crossing, excluding onshore approaches, is approximately 36km. The central tunnel section beneath the main shipping lanes is approximately 19km long.

Viaducts rather than tunnels are employed to carry the road across the inshore zones so as to minimise the length in tunnel. This will keep the tunnel section within known limits for driver reaction and allow a sufficiently rapid response time for emergency services.

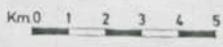
The twin viaducts will be approximately 1km apart and will each carry one carriageway of the road. This arrangement will ensure that the crossing can be kept open to traffic even in the unlikely event of a ship colliding with one viaduct. Inshore shipping will be served by special navigation openings, at which increased spans and clearances will be provided.

In addition to the main offshore islands at the boundaries of the shipping lanes, three intermediate islands will be constructed to carry ventilation shafts down to the central section of the tunnel. Two of these ventilation islands will be in line with existing sandbanks in the Channel.

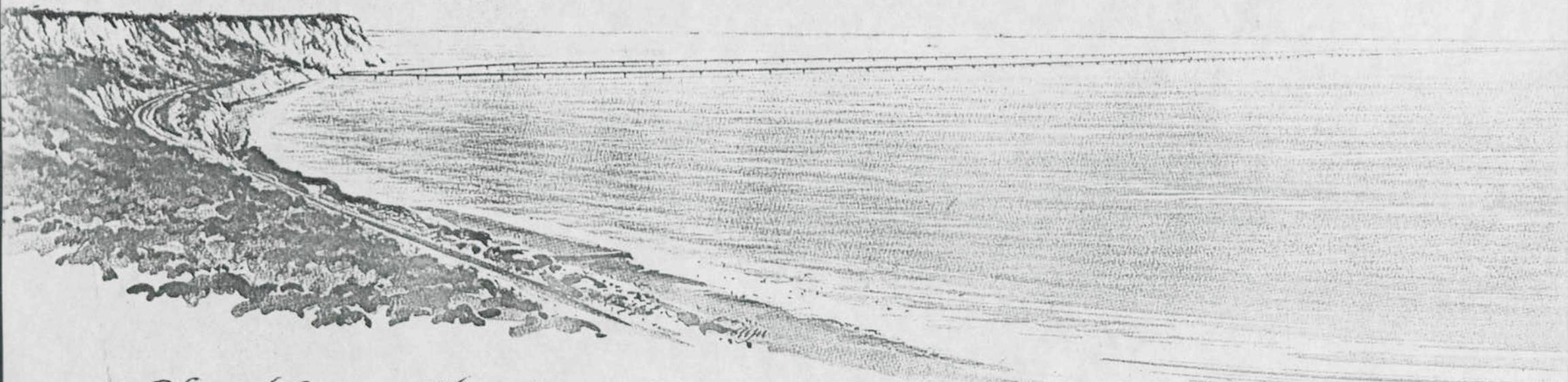


Adapted from portions of BA Chart no. 1892  
 by the sanction of the controller,  
 Hydrographic Department, Admiralty,  
 Stationery Office and of the  
 Hydrographer of the Navy

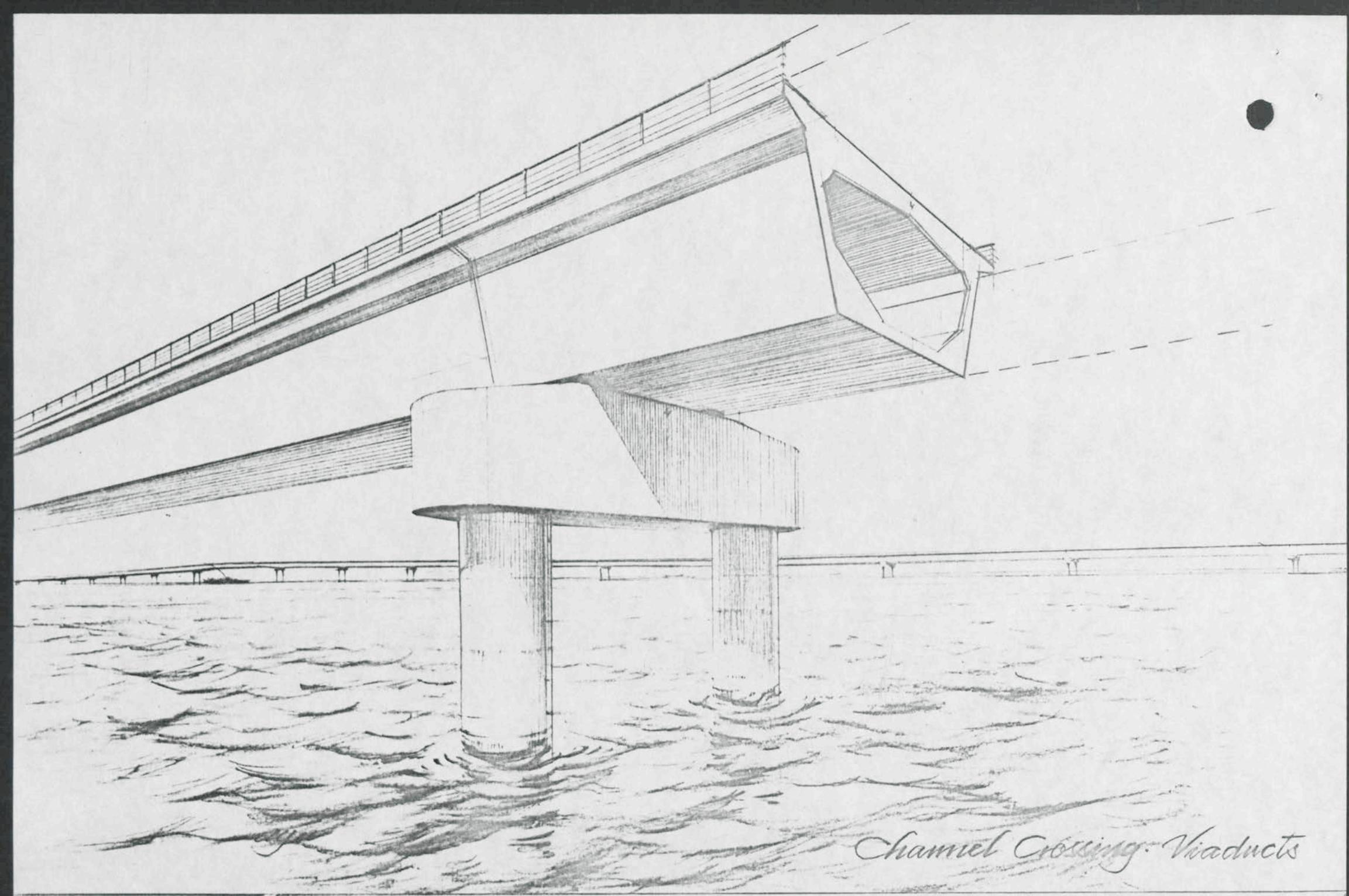
- KEY:
- SEPARATION ZONES
  - ROADS (SURFACE)
  - - - ROADS (TUNNEL)
  - RAILWAY (SURFACE)
  - - - RAILWAY (TUNNEL)
  - - - COMBINED



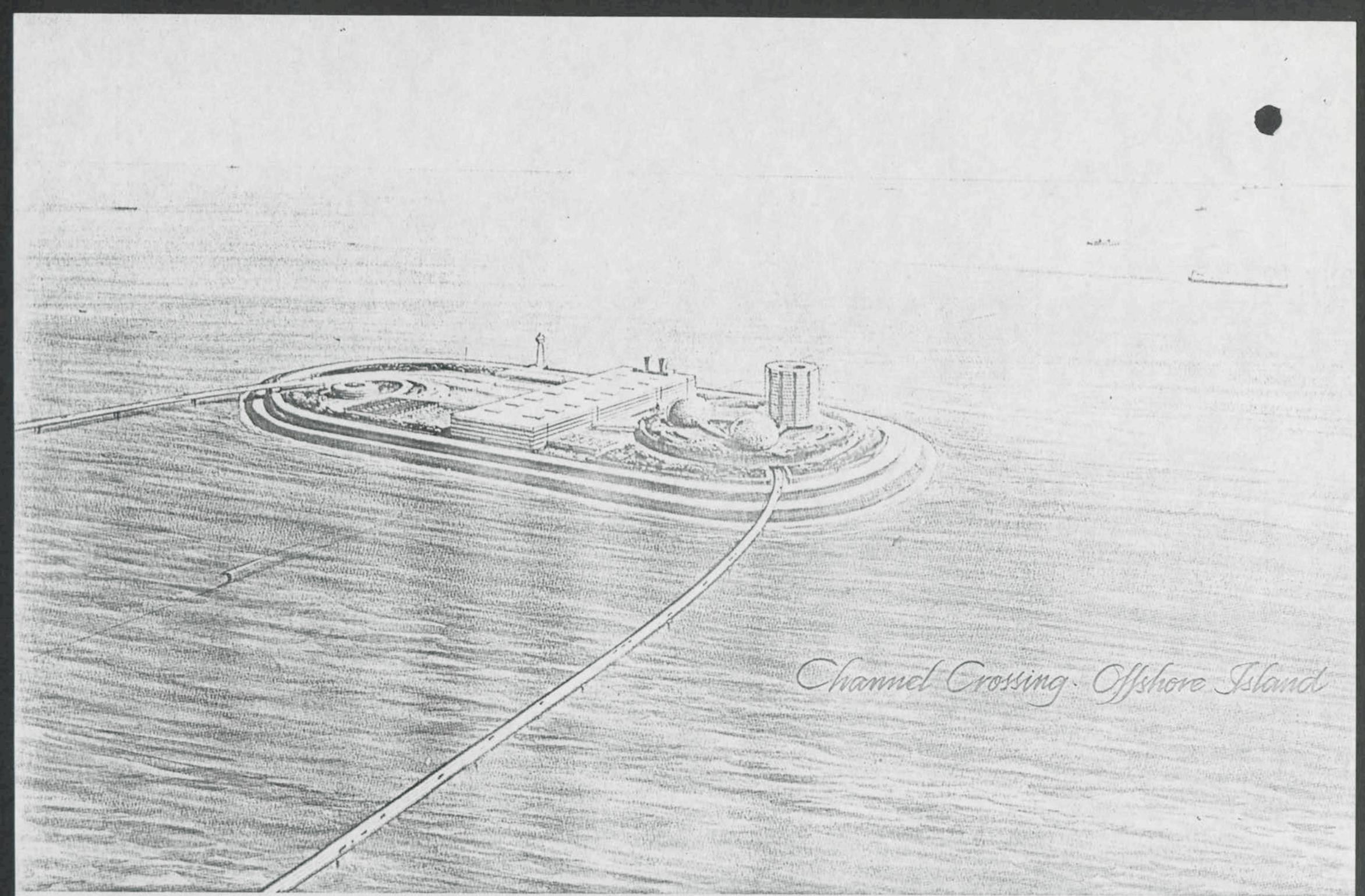
<p>EUROROUTE  <b>ROAD AND RAIL CHANNEL          CROSSING</b></p>	
<p>KEY PLAN</p>	
<p>Mott, Hay &amp; Anderson          Consultants, London</p>	<p>Drawing no. <b>1</b></p>



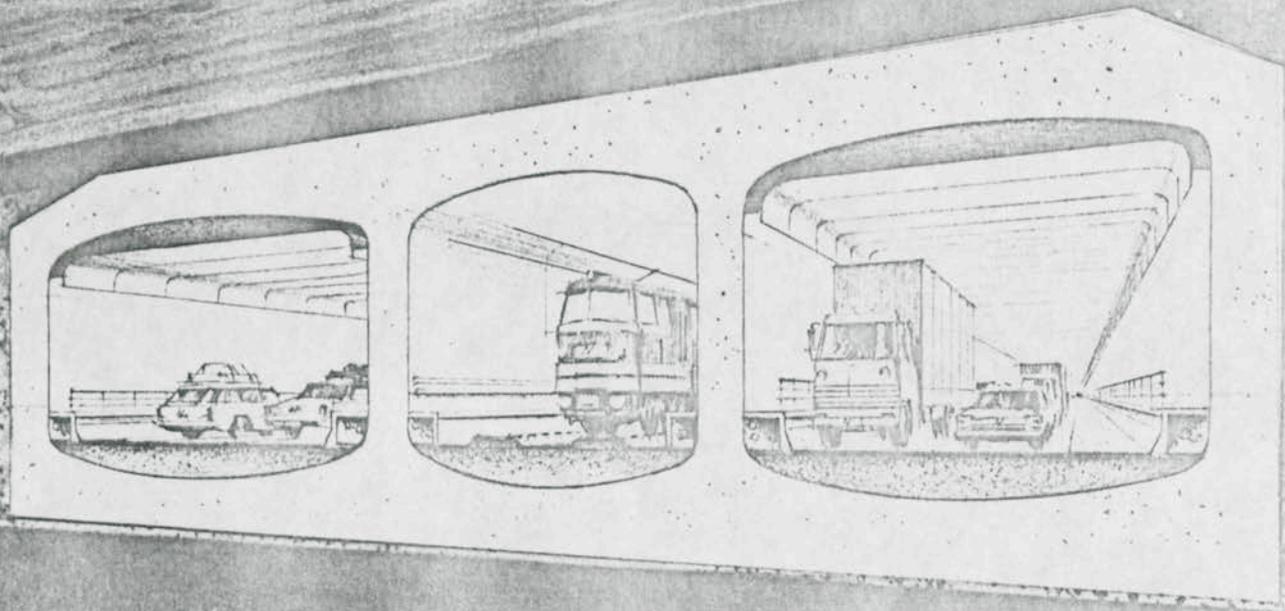
*Channel Crossing. Viaducts at English Coast.*



*Channel Crossing Viaducts*



*Channel Crossing. Offshore Island*



*Channel Crossing - Submerged Tunnel*

The alignment has been fixed in principle to give the most suitable connections with existing and planned motorways and railways in England and France, while providing feasible conditions for construction in the Channel (see Drawing No 1).

Proposals at the English coast and inland are designed to have virtually no effect on the environment of Kent. The inshore viaducts reach the coast at low level at Abbot's Cliff, and the road is then carried inland in tunnel as far as the Alkham Valley, where it joins the proposed A20 improvement road between Folkestone and Dover. The A20 will link directly to the M20, and thence to the M25 orbital motorway around London. The railway is carried from the coast to Holywell, just north of Folkestone, in tunnel and will then follow the route envisaged for a rail-only Channel crossing as far as the existing main line between London and Dover.

In England, no major surface roadworks beyond those proposed in the Government's 1980 White Paper on roads will be needed as a result of the crossing.

The present study has not investigated in detail the planning of road and rail links in France, but it is envisaged that no serious difficulties in locating suitable routes to conform with planning and environmental requirements will arise.

The combined road and rail crossing will provide adequate capacity for the foreseeable future as well as considerable operational flexibility.

### 3. FORM OF CONSTRUCTION

The greatest possible use will be made of prefabricated modular construction. The major benefits of this will be firstly in allowing fabrication to be spread widely over various locations in the U.K. and continental Europe, including existing yards and dry dock facilities (c.f. Fig. 11.1), and secondly in giving a substantially reduced period of construction by allowing work to be carried out simultaneously at many different points.

Modular construction is proposed for the viaducts, submerged tunnels and structural cores of the artificial islands. The large prefabricated units will be brought to the site of the crossing from the fabrication areas by sea.

#### Road Viaducts

The viaducts consist of a series of simply supported spans, each 125 m long. Piers are formed from large diameter steel or concrete cylindrical piles, driven or drilled into the seabed. The piles are connected by a cross-head above water level, which supports the bridge deck units. These units consist of prefabricated steel boxes, with orthotropic plate decks carrying the roadway.

The 125m long bridge deck units will be prefabricated complete at coastal sites or shipyards before being launched, and towed by sea to site. They will then be lifted out of the water, cleaned and painted, and carried by barge to be placed in their final position by floating crane.

The level of the viaducts will be such that the soffits are well clear of the highest predicted wave. The soffit level is currently planned to be 15m above mean high water, subject to detailed consideration of shipping and safety requirements. At the navigation openings for inshore shipping, special spans will be provided. The viaducts will rise locally to give at least 35m clearance above mean high water at these spans.

#### Submerged Tunnels

Both the rail-only submerged tunnel across the inshore zones of the Channel and the combined road and rail submerged tunnel across the central zone will be formed from 125m long concrete elements, cast individually in special basins. The elements are designed to be buoyant, and are floated on completion by flooding the casting basins. They are then towed to the site of the tunnel by sea.

At the site, the elements are sunk onto a prepared bed and joined to form a continuous tunnel structure. They will be located either on the seabed or in trench below the seabed, depending upon local conditions.

The tunnels will be heavily protected and armoured to ensure that damage from any cause cannot occur.

This form of construction technique has already been adopted in other parts of the world to give an economic method for building sub-aqueous tunnels.

#### Offshore Islands

Following the considerable experience gained by British contractors with the placing of very large structures in the North Sea, it is proposed that the two main offshore islands and the three

intermediate ventilation islands should be constructed by placing a large central concrete element, forming the island's core, on the seabed. This will then be surrounded with rock and hydraulic fill to form sloping protective flanks to the islands. The flanks will be heavily armoured. In the case of the main offshore islands, these units will be built up from large sub-assemblies, and will contain the spiral ramps carrying the roads between viaduct and tunnel levels. The British main offshore island will be extended by the placing of additional hydraulic fill to give a surface area sufficient for the location of frontier and toll facilities on the island (this will avoid the environmental disadvantages of locating these facilities on the mainland in Kent).

#### Feasibility of Construction

Initial discussions with the Hydraulics Research Station at Wallingford indicate that hydraulic effects arising from construction of the artificial islands, tunnels and other works in the Channel should not be unduly difficult to deal with, although detailed model testing will be necessary to confirm this.

The plant and equipment required for construction in the Channel are within available technology, and, where not already in commission, may be designed and built in the periods of time allowed in the project programme.

#### Tunnel Ventilation

The tunnel ventilation system for road traffic will be designed to cope safely with the worst conditions created by exhaust fumes with the crossing operating at full capacity. The scheme proposes the use of the railway tunnel in the central section as a fresh air inlet duct: preliminary calculations indicate that this concept, which reduces capital costs appreciably, is feasible. Fresh air will be introduced and exhaust air expelled at the three intermediate ventilation islands and the main islands.

Additional ventilation to deal with railway requirements, including emergency conditions, will be provided.

#### 4. CONSTRUCTION PROGRAMME

A four phase programme is proposed for development and construction of the project. Phase I will cover detailed studies to

confirm the feasibility and cost of the project, and legislative documents will be drawn up. In Phase II, legislative powers will be obtained and detailed design and preparatory work will be carried out. The preparatory work will include the construction of accesses, working sites and casting basins and the ordering of long lead items. Phase III will cover the main construction of the crossing up to the opening of the first road carriageway to traffic. Provided that all necessary preparatory work is carried out in Phase II, Phase III may be completed in the very short period of 4 years. During Phase IV, the railway and the second road carriageway will be constructed and opened to traffic.

On the assumption of the deposit of a Bill in Parliament in late 1982, with Royal Assent following in August 1983, it is estimated that the first roadway could be opened to traffic in early 1989.

## 5. SHIPPING AND NAVIGATION

The Dover Strait is one of the busiest waterways in the world, with up to 500 shipping movements per day. Shipping is regulated by a traffic separation scheme, requiring through traffic to keep within defined lanes. The present scheme is contravened frequently, and shipping accidents occur, although their frequency has been reduced markedly since the introduction of the separation scheme.

The EuroRoute crossing is designed to meet the requirements of the Inter-Governmental Maritime Consultative Organisation (IMCO), and particularly to facilitate enforcement of the traffic separation scheme. In particular, the artificial islands are located in such a way as to delineate the lane boundaries in the central section of the Channel. In addition, lane discipline will be imposed on all but the smallest shipping in the inshore zones. These measures will reduce very considerably the possibility of contravening the separation scheme, and will lead to an increase in safety. The reduction of cross-Channel ferry movements resulting from construction of the scheme will also have a major effect in reducing collision risks.

Navigation and monitoring aids will be located at the artificial islands and elsewhere to assist ships on passage and to give

warning of the presence of the crossing. Emergency craft will also be stationed at or near the crossing to give assistance to vessels in difficulty.

## 6. ENVIRONMENT

The EuroRoute scheme has been planned specifically to minimise environmental impact, and it is expected that the overall result of the scheme will be to improve rather than worsen the effects of traffic on the environment in the general area of the approaches to the crossing. In particular, it may be noted that, in England, all the roads necessary to carry traffic to the crossing are already planned or under construction, and the scheme will tend to concentrate traffic on motorways properly designed with adequate capacities and reduce traffic on overloaded local roads. In addition, the most difficult facilities to locate in England because of land requirements, namely the toll and frontier facilities, are planned to be at the British main offshore island. In France, the combined road and rail crossing is expected to bring important benefits to the depressed regions of Pas de Calais and beyond.

The most sensitive area affected by the crossing is the rural landscape at the English coast, designated as an area of outstanding natural beauty. This area will be traversed by the road and rail approaches mainly in tunnel, and environmental intrusion as a result of the scheme will be kept to a small level. At Abbot's Cliff, where the crossing meets the coast, the viaducts will be as low as possible to minimise their visual effect in comparison with the great scale of the cliffs: at this point the cliffs are approximately 140m high, whereas the height of the top of the viaducts will be about 15m above sea level.

Rail facilities onshore will require similar land areas as for rail-only Channel crossing schemes. No new rail links to the crossing are envisaged in England.

## 7. OPERATION AND CONTROL

The road and rail sections of the crossing will be operated entirely independently for normal running. Road traffic will be controlled from a main control centre at which traffic conditions, equipment status and alarm systems will be monitored. This centre will be in contact with the police and other authorities, and will be able to initiate action in an emergency.

The railway will be operated from two control centres, one in England and one in France. In certain types of emergency, in which common operation of the road and rail facilities was required, overall control would revert to the main control centre.

Emergency personnel and equipment will be available to deal with fire, accident or breakdown. Evacuation of the rail or road tunnels can be carried out in safety. The ventilation system and other facilities will be designed to provide safe conditions in all emergencies.

Crossovers will be provided at either coast and at the main offshore islands to allow traffic to change from one carriageway to another, or to be directed back to the coast if a section of the crossing had to be closed in an emergency.

Various precautions, including the installation of internal and external surveillance devices, will be taken to minimise the risk of sabotage. The various structural elements will be designed specifically to maintain their integrity in an attack.

## 8. COST ESTIMATES

The capital cost of construction of the crossing at mid-1980 prices is estimated to be £3,800 million. Expenditure up to the completion of Phase III and the opening of the first roadway to traffic is estimated to be £2,850 million.

The cost attributable to the rail-only elements of the crossing is estimated to be £650 million.

The proposed scheme is capable of modification and reduction in scale to accommodate a single rail track only. In this case, the total estimated cost of the crossing is £3,600 million.

## 9. TRAFFIC AND REVENUES

Traffic forecasts for the EuroRoute crossing have been made by Coopers & Lybrand Associates, based partly on work completed in 1979 for the European Commission and partly on new work commissioned for this proposal. Forecasts take account of alternative growth rates for the UK and continental Europe, changes in relative pricing between road and rail transport, changes in journey characteristics and other relevant factors, and give a relationship between external economic factors and demand for travel and freight haulage. Projected traffic on the EuroRoute crossing in the year 2000 is, for the central (low growth) case, 19.1m passengers and 12.9m tonnes of freight. For the high growth case, the projections for the year 2000 are 27.5m passengers and 19.6m tonnes of freight.

On the central case hypotheses, the road capacity of the crossing is reached in about the year 2025. At this time rail capacity is not expected to be fully used, and further rail growth could take place.

On the basis of the revenue forecasts derived from the central case traffic projections, the internal rate of return of the scheme in real terms (i.e. after allowing for inflation) is estimated to be 7%. Sensitivity calculations show that this rate of return is robust to variations in revenues, costs and construction over-runs.

## 10. FINANCE

Lazards are financial advisers to the EuroRoute Group and to the Proposal and have exceptionally wide international connections and experience with major capital projects.

This Proposal is bigger but simpler than its competitors. It can be built more quickly, with work spread to many locations and employs simple, well proven techniques with minimum risks - these factors will be attractive to providers of finance.

It must be a matter of judgement what balance to strike between reduced risks, greater costs, shorter construction and other factors. A three-stage building programme in which the over-

whelming proportion of the finance is committed just prior to the second stage (Phase III) while an initial commitment of some full risk money is made prior to completion of legislative, Treaty and other formalities, will dramatically advance the date when the facility can be brought into service.

Equipment and supplies could be sourced almost throughout Europe and may easily be directed to and generate employment in distressed areas in England and France.

The advanced but simple technical solutions incorporated in the Proposal, and its considerable capacity to accept growing and changing traffic patterns, assure the cash flow required.

The main national and international potential sources of money have been reviewed. It is suggested that Governments are unlikely to be willing to give the concessionaires unlimited rights indefinitely to exploit a de-facto monopoly, and that, consequently, conventional distinctions between "debt" and "equity" may be blurred.

While the attitude of the French and British Governments will be of paramount importance, the support of the EEC and of others will also be crucial. At least an Anglo-French Treaty will be necessary, in addition to the domestic enabling legislation.

An Owning Entity need not necessarily be owned by the Governments, nor by the contractors nor by the Managers. Nor need ownership and control run together. It is too soon to anticipate the final commercial, legal and financial structure, but provided that the political decisions in London, Paris and Brussels are sufficient, it is considered that the EuroRoute Proposal could be financed without any necessary recourse to public funds.

## 11. EMPLOYMENT AND RESOURCES

Total employment in the construction, shipbuilding and construction-related industries is estimated to be over 260,000 man-years. Overall employment, including subsidiary

employment generated as a result of the project's construction, is estimated to give a total employment figure for the full construction period of over 500,000 man-years. Average employment will reach over 100,000 per annum.

The modular form of construction and phasing sequence proposed mean that major employment will be generated very rapidly after final commitment to the project.

As a result of the major distribution of work over a wide range of locations made possible by the large element of prefabrication, employment during construction at the British and French coastal sites will be comparatively small. The combined workforce at these sites is estimated to be no greater than 12,000 per annum at the peak.

Some of the possible sites for fabrication and quarrying in the UK are shown in Figure 11.1.

- Casting basin site
- ▲ Shipyard/steelwork fabrication site
- Quarry site



SOME OF THE POSSIBLE SITES FOR FABRICATION & QUARRYING IN THE U.K.

Figure 11.1

*Mr Alexander  
Seam  
Toumpod**Prime Minister**WR  
9/n*

Prime Minister

*M*

CHANNEL LINK

I undertook in my minute to you of 27 October to let you know the outcome of any discussion with M Fiterman the following evening.

This and the official discussions which preceded it were very satisfactory.

The French now seem persuaded of the advantages of a short though thorough study leading to a decision by the end of February on whether there should be a fixed link and, if so, on the nature of that link. To this end officials are working towards a first sift of options by December and concentration on a narrow range of options thereafter.

I must record that the French side raised the question of guarantees of various kinds: against political cancellation; to ensure completion in the event of inability of the UK private sector group to complete; in relation to loan finance raised by the UK group. There are problems here undoubtedly. But I am by no means persuaded that they are insuperable. Since I believe there may be possibilities for arriving at a solution acceptable both to the French Government and to us, Treasury officials will be co-operating with mine in an early exploration of the French position so that we can see what options are open to us.



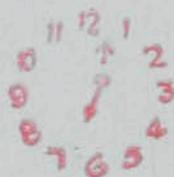
In the light of the progress made with the French, I intend to bring the main issues, for example financing, economic appraisal and timing, to you and our colleagues in the next few weeks, though I recognise that we may not be able to resolve them until the final joint report is available at the end of February.

I am copying this minute to the Chancellor of the Exchequer, the Foreign and Commonwealth Secretary and to the Secretaries of State for Trade and the Environment.

DAVID HOWELL

9 November 1981

-9 NOV 1981



CK

Sub  
Transport

30 October 1981

CHANNEL LINK

The Prime Minister has seen and taken note of the Secretary of State for Transport's minute to her of 27 October on this subject.

I am sending copies of this letter to John Kerr (HM Treasury); Francis Richards (Foreign and Commonwealth Office); John Rhodes (Department of Trade) and David Edmonds (Department of the Environment).

M. O'D. B. ALEXANDER

Anthony Mayer, Esq.,  
Department of Transport.

GA

(2)

*Ronnie Anster*

Prime Minister

CHANNEL LINK

*me*

The purpose of this minute is to inform you of developments since your meeting with President Mitterand on 10-11 September and to indicate how I see matters developing.

Contact with French officials, including a senior member of M Fiterman's "cabinet", was established very quickly. They have been friendly and constructive - even enthusiastic. But they are not inclined to rush matters. They emphasise - and here they are reflecting the general philosophy of the new administration - the need for a thorough study of regional, employment and other social effects in full "concertation" with local interests. They have made it clear that it is not possible given their late start to reach a decision in principle by the end of the year as my predecessor had hoped. They suggest that, by February of next year, it should be possible to narrow down the options for detailed study but no more.

This would make it difficult to have legislation - probably a rather complex hybrid bill - ready for the 1982/83 session. We shall have a clearer view at official level, of the French position on 28 October. I shall be meeting M Fiterman at dinner the same evening and will pursue this with him further.

Meanwhile on our side we are pressing ahead with our studies on a timescale which would enable us to hold to that objective. I expect to receive a report from Sir Alec Cairncross, my special adviser, in the next few weeks. Complementary studies by my own officials will be completed around the same time. I intend, very shortly



thereafter, to concentrate my own thinking on a very short list of schemes - at least for a first phase in the development of cross-channel links: the French are putting emphasis on the need to build potential for development into any modest beginning.

French ideas on finance for their half of the project are limited at the moment to the public sector, although not to central government. There could be problems here in arranging a proper balance of powers and rights with an exclusively private consortium on this side of the Channel. The prospects of financing the UK half of the project without any risk whatsoever to Government funds remain, both for this and other reasons, less clear than I would like and it will be important to avoid commitment until the issues on this are clarified. Concentrating the thought - and competition - of promoters on a narrower range of schemes should help with this problem.

I will keep you informed of developments and as the next step will let you know the outcome of my conversation with M Fiterman on 28 October.

I am copying this minute to the Chancellor of the Exchequer, the Foreign and Commonwealth Secretary and to the Secretaries of State for Trade and the Environment.

DG  
~

D H

27 October 1981

Handwritten text, mostly illegible due to fading and bleed-through.

Handwritten text, mostly illegible due to fading and bleed-through.

Handwritten text, mostly illegible due to fading and bleed-through.

27 OCT 1981

001121  
000000  
000000  
000000  
000000  
000000  
000000

Handwritten text, mostly illegible due to fading and bleed-through.





B/F when

per  
Scholar  
in the

10 DOWNING STREET

MR. SCHOLAR

You ought to be aware that  
this meeting is going to  
take place, as you will  
be coping!

*ES*

24 September, 1981.



10 DOWNING STREET

*From the Private Secretary*

24 September, 1981.

This letter is to confirm the Prime Minister's meeting on Tuesday, 17 November at 9.30 to discuss the channel tunnel. I have also invited Ian MacGregor of British Steel and Sir John Howard who is an engineer. Mr. MacGregor and Sir John asked for the meeting, and the Prime Minister agreed to see them. I enclose a copy of Ian MacGregor's paper to the Prime Minister entitled "Euroroute".

I would be grateful if you could send us a brief in conjunction with the Department of Industry to reach us by close of play on Friday, 13 November.

CAROLINE STEPHENS

Anthony Mayer, Esq.,  
Department of Transport.



10 DOWNING STREET

*From the Private Secretary*

24 September, 1981.

I am hoping to speak to your Office on the telephone this afternoon, but as I am off to Australia with the Prime Minister first thing tomorrow morning, I thought I should drop you a line.

As I look after the Prime Minister's diary, Ian Gow asked me to set up a meeting to discuss the "Euroroute". This I have done for Tuesday, 17 November, at 9.30, and I hope it will be convenient for you to be present. I have also invited Mr. Ian MacGregor, the Secretary of State for Industry and the Secretary of State for Transport. I have sent Mr. Jenkin and Mr. Howell a copy of Mr. MacGregor's paper entitled "Euroroute" - "Free Enterprise Road and Rail Channel Crossing", but if you consider they require anything further for the meeting, I would be grateful if you could send it direct to the relevant department.

For information, it will be Mr. Michael Scholar from this Office who will be dealing with this meeting.

(MISS CAROLINE STEPHENS)

Sir John Howard

*Spoke to Sir John  
rec a telephone  
cf. 24/9*



10 DOWNING STREET

*From the Private Secretary*

24 September, 1981.

I am writing to confirm that the meeting to discuss the channel tunnel will take place at 9.30 on Tuesday, 17 November, and that Sir John Howard, the Secretary of State for Industry, and the Secretary of State for Transport will be present. I have sent Mr. Jenkin and Mr. Howell Mr. MacGregor's paper entitled "Euroroute", but would be grateful if you could send them anything else that you consider relevant to the meeting, as they will be preparing a brief for the Prime Minister.

CAROLINE STEPHENS

David Prior, Esq.  
British Steel Corporation.

CF

22 September 1981

Proposals for a Channel Link

Thank you for your letter of 16 September with which you sent me some notes on the main proposals for a fixed link across the Channel. It was good of you to go to so much trouble, and I am sure that it will be helpful to have the information.

As you will have seen from the newspapers, the Prime Minister and President Mitterrand announced at their Press Conference on 11 September that joint Anglo-French studies on all the main schemes would be put in hand immediately and that the first meeting between officials of the two countries would take place within a month.

C A WHITMORE

J. C. Chapman, Esq.

SD

CHAPMAN and DOWLING

Consulting Engineers

J. C. Chapman  
PhD FEng FICE FRINA FIStructE

P. J. Dowling  
PhD FEng FICE MRINA FIStructE MASCE

41 Oathall Road,  
Haywards Heath,  
Sussex RH16 3EG. England.  
Telephone: (0444) 454934  
Telex: 87515  
Cables: Chapdowl Haywards Heath

16th September 1981

Mr. Clive Whitmore  
10 Downing Street  
London SW1

*Dear Clive*

Proposals for a Channel Link

Some time ago I promised you some information on the issues surrounding the Channel Link. The report which I had in mind to send to you was oriented towards a specific proposal and I thought it better to give you brief notes on each of the main proposals.

I hope you find them of some use.

*Yours sincerely*

*Jack.*

PROPOSALS FOR A FIXED LINK ACROSS THE CHANNEL

- (1) Various proposals have been made over the last 150 years or so. The trial bore of 1890, which is unlined, still exists.
- (2) The scheme of 1973 was for a twin bored tunnel plus service tunnel. The two main tunnels were each to be of 7m diameter and would have accommodated both conventional trains and ferry trains, the latter requiring a 7m tunnel. Ferry trains would have motorway capacity and would satisfy the foreseen demand.

The service tunnel was to serve as a pilot tunnel to test the ground and the techniques of boring and lining the tunnel. Subsequently it would have provided ventilation and emergency services.

The tunnels were to be bored by a machine which incorporated means of erecting the concrete segments which would form the tunnel lining. A short length of the service tunnel was successfully bored and lined. It has performed satisfactorily over the intervening years.

It is equally possible to use a cast iron lining, and the French were proposing this for their half of the tunnel. The decision is more political than technical. Concrete is cheaper but a larger volume must be excavated. Cast iron would help BSC but there is the commercial risk of late delivery from a monopoly supplier. At the cross-overs between the main tunnels and at the cross-links between the running tunnels and the service tunnel bolted cast iron segments would in any case be needed.

- (3) A submerged tube tunnel consists of prefabricated lengths of tunnel, constructed in reinforced concrete or in steel, which are lowered into a previously dredged trench in the seabed and then joined together and covered over. Each length would incorporate the running and service tunnels with dividing walls and cross passages.

This system has a number of advantages but would require the development of special equipment for dredging the trench and for handling the units in a seaway.

When the Secretary of State announced that a tunnel would have to be privately financed, proposals then being made for a submerged tube tunnel were dropped.

- (4) Bridges have been designed to carry both road and rail traffic and are technically feasible both from a navigational and from a structural point of view.

The cost would be much greater than that of the twin tunnel but a bridge would be less vulnerable to strikes. The "drive on" facility of a bridge would be very attractive to users, especially when in due course Customs delays have been eliminated.

No doubt collisions with the protective works would occur from time to time (though with much less frequency than collisions now occur between ships) and a crashing (or attacking) aircraft could cause serious damage. Fire, collision between vehicles or derailment would be less serious than in a tunnel.

- (5) BSC are now proposing a combination of bridge and submerged tube tunnel. The concept is to build bridges consisting of relatively short spans in the shallow waters on each side of the Channel, and to build a submerged tube tunnel between artificial islands on each side of the deep water navigation channel. Road traffic would cross the bridges and then enter the tunnel which would be short enough (17Km) for ventilation problems to be overcome, albeit with difficulty. Rail traffic would be in a submerged tube throughout, the road and rail tubes being connected over the length of the navigation channel.

This solution is ingenious but would require the development of special dredging and handling equipment. The cost would be very high and the timescale extended. The risk of collision and fire if vehicles carrying inflammable or toxic material were permitted to pass through the tunnel would need to be carefully considered.

- (6) British Rail are proposing a single 6m running tunnel, plus service tunnel, which is large enough for conventional trains. They state that they are satisfied they can run a satisfactory service of conventional trains in the single tunnel and that ferry trains form no part of their commercial thinking. They have produced a joint report with SNCF putting forward this proposal.

They maintain privately that it is politically necessary for them to promote this limited scheme, partly because of the environmental and Union opposition which they are convinced the ferry train scheme would engender, partly because they believe it to be in their commercial interest to restrict the scheme to conventional trains, and partly because they do not want a throughput agreement based on the cost of a larger diameter tunnel.

At the same time they recognise that it makes sense to provide for the possibility of ferry trains in the future and fully expect that the Government will require the tunnel to be 7m in diameter. They are insistent however that this initiative must come from the Government and not from them.

- (7) A joint company has been formed by Wimpey and Tarmac, the two largest U.K. contractors, together with two merchant banks, to finance and manage the design and construction of the tunnel. They propose that a single bored running tunnel of 7m diameter plus service tunnel should be built initially, so that in due course a second 7m tunnel would enable a ferry train service to operate. This proposal is in line with recommendations of the Select Committee on Transport. They would of course be prepared to build any other scheme which might eventuate, provided it could be financed.

They have been in discussion with British Rail, whose co-operation is needed, and who seem prepared to join forces with a promoter. However, they are still insisting that they will only do this if the promoter commits himself to the 6m tunnel.

This creates a dilemma for the promoter in seeking to become the Government's "chosen instrument". He does not wish to take a stance which can be seen to be irresponsible from a national standpoint, yet he needs to ally himself with B Rail. Furthermore he is aware that the staff of the Channel Tunnel Study group in MOT, who presumably advise the Secretary of State, favour not only the 7m tunnel but tend to discount the alleged political obstacles and believe we should go ahead now with the twin tunnel.

- (8) Costain have proposed shortening the 6m tunnel by steepening the end gradients, which would be overcome by the use of additional locomotives. I do not think this is a very practical proposition and B Rail seem to share this opinion.
- (9) On broad national economic criteria, the 1973 decision to opt for ferry trains plus conventional trains in two tunnels seems just as valid today as it was then. It was arrived at after an extensive engineering and economic study. It would I think be the easiest scheme to finance.

However, there are cogent reasons against going for the full scheme initially, which the Select Committee recognised. In particular they considered that the full scheme would necessitate a public inquiry, and it is believed this would delay passage of the enabling Bill and treaty ratification beyond the life of the present Parliament.

They also took the view that an immediate ferry train scheme would largely eliminate the present ferry traffic, resulting in a monopoly which would leave us vulnerable to stoppages for whatever reason.

- 0) The construction of a fixed link would benefit Britain, France and the EEC. It is thought to be financeable without increasing the PSBR (though some form of guarantee would be required).

Recognising the political realities and the need to gain the co-operation of BR and SNCF it seems to make sense to proceed with a single 7m diameter tunnel plus service tunnel. The Government could provide the relatively small cost of the extra metre diameter, which could be recovered from the ferry train company in due course.

This decision would not rule out the possibility of a road bridge or bridge/tunnel being built as an alternative to the second tunnel. The additional metre would in any case be beneficial, since for a given speed it would reduce the locomotive power requirement due to the smaller aerodynamic drag, with a further benefit in respect of a smaller temperature rise.

JCC

14/9/81

11 SEP 1981



Sir John Howard DL DSc FICE  
Victory House  
Meeting House Lane  
Chatham, Kent  
ME4 4PP

25th August 1981

Euro-Route - Free Enterprise Road and  
Rail Channel Crossing

Thank you very much for your letter of  
20th August, together with its enclosure.

The Prime Minister would be glad to see  
you and Mr Ian MacGregor in order to  
discuss this project.

The Prime Minister has asked that Sir  
Keith Joseph and Mr Norman Fowler should  
also be present at the meeting.

My secretary will be in touch with yours  
about a date as soon as this can be  
arranged.

IAN GOW

FROM  
SIR JOHN HOWARD, D.L., D.Sc., F.I.C.E.

VICTORY HOUSE,  
MEETING HOUSE LANE,  
CHATHAM, KENT, ME4 4PP.  
MEDWAY (0634) 402040

20 August 1981

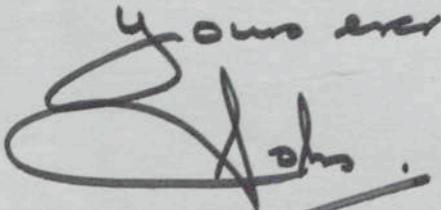
Ian Gow Esq MP  
10 Downing Street  
London SW1

*Dear Ian.*

As requested by Mr Ian MacGreggor, I am enclosing herewith a brief confidential memorandum on the EuroRoute project for the Prime Minister to see before the meeting with her, which you have kindly said you would arrange.

I hope this meets your requirements. I assume you have already had the brief version of the Scheme, but please let me know if you require further copies.

Kindest regards,

*Yours ever*  


John Howard

EUROROUTE

Free Enterprise Road and Rail Channel Crossing

The EuroRoute proposal for a combined road and rail fixed channel crossing was conceived by Mr. Ian MacGregor (Chairman of the British Steel Corporation) and is based on similar successful fixed water crossings carried out at Chesapeake Bay (U.S.A.), Hong Kong and in other parts of the world. The main feature of its design is based on the modular system of prefabrication adopted for the building of the Mulberry Harbour in 1943 and its methods are now extensively used by oil companies operating in the North Sea.

The route to be followed would be from North of Folkestone to Cap Gris Nez. The EuroRoute system is a combination of 'above' and 'below' water construction which, for psychological and ventilation reasons, it is important to reduce to a minimum the length below water. Two large concrete islands built on the coast would be floated and sunk into position 19 Km apart, one each side of the main deep water shipping channel. Between these two islands submerged tunnel units would carry 4 road lanes for vehicular traffic and 2 rail lines. These two islands would be quite extensive and would be used for customs and other facilities.

From the English coast to the West Island the roads will be carried above water on viaducts and likewise from the East Island to the French coast.

It must be stressed that this is a free enterprise scheme financed entirely without relying on money from the taxpayer or from any nationalized industry.

It is known that the British Government is now considering several forms of a fixed channel crossing but an early decision is now awaited as to which project the British Government is going to encourage.

Will they choose :-

(a) a rail connection alone by tunnel (bored or submerged) without any provision for vehicular traffic, considered to be of limited usefulness  
or

(b) a combined road and rail crossing such as EuroRoute which would cater

for the needs of the 21st Century and beyond, which if we are going to remain in Europe must be considered of importance.

If the crossing is left as a monopoly in the hands of the two Nationalized industries, the British and French Railways, both influenced by strong Trade Unions, there must always be a risk to the public and industry by interruption to a regular service and doubt as to whether it would be possible to operate an economic fare structure.

The construction of a bored tunnel alone would allow work being carried out only at its two ends and would throw considerable congestion on these two localities, particularly in Kent. It relies mainly on one type of labour and would do little to relieve the national unemployment problem. Moreover its construction could be easily disrupted by industrial action, delaying completion and increasing the cost of financing it.

The EuroRoute, although more costly, is a complete answer to the channel crossing problem. It is designed on the unit or modular form of construction, a method well tried by the construction industry and would not disturb unduly the environment of Kent as the design enables units to be built round the coast of England, Wales and Scotland (and to a lesser extent in Northern Ireland) and mainly at many different places of high unemployment. These units, in steel and concrete, are built at many points round our coast, towed by water and correctly sunk in position on the site of the channel crossing thus largely relieving construction traffic on our roads.

This dispersal system of construction involves many small firms as well as large in the construction and general engineering industries and because of its wide national spread can be less affected by strikes or industrial disputes and brings in greater competition to cheapen the work.

On the question of employment our experts have made a close study of the extra labour required for carrying out this project on a dispersal basis and they estimate that throughout its 4 year construction period it would employ an average of an additional 100,000 men and women on the U.K. side alone and to operate the scheme afterwards 1,000 persons would be required. Whilst the final design has still to be completed it is sufficiently far advanced now for close estimates of the final cost of completion to be made and, what is equally important,

to state that the work can be started and sub-contracts placed before the end of 1982 provided a government policy decision is reached by October, 1981.

Discussions with British Rail have taken place over the past 12 months and our offer to them is to build a twin rail track in a submerged tunnel from Folkestone to the French coast (to link with Paris and Brussels) and as well to build the new London terminal which they say will be required, all free of capital cost to them. When completed the railways would lease the facilities from the EuroRoute Operating Company. British Rail are attracted by these proposals.

Monopoly. It is realized that the British Government, before granting what amounts to a monopoly to private enterprise, would want to safeguard the users position for the future. Presumably an Act of Parliament would be required into which a toll and fare structure would be incorporated and if necessary a date provided for the future when the assets of the EuroRoute Operating Company would revert to the British and French Governments. Although the Governments might require representation on the operating company's board, it should be understood that since private enterprise will be carrying all the risks it must, within reasonable limits, be allowed to get on with the job and planning facilities as far as they are required must be forthcoming without delays.

It is realized that the Dover Strait is one of the busiest shipping lanes in the world, therefore the EuroRoute crossing is designed to meet the requirements of the Inter-Governmental maritime Consultative Organisation (I.M.C.O.) particularly to enforce the traffic separation scheme now in existence. Navigation and monitoring aids will be provided on an extensive scale to give warning of the crossing and to increase safety, emergency craft will be stationed at or near the Crossing to give assistance, something which is not in existence today.

The Capital Cost of the EuroRoute project, that is for a combined structure to carry both road and rail, at 1980 figures is estimated to be £3.8 bn allowing for reasonable contingencies. Traffic forecasts have been carefully made and rechecked and the promoters' expert advisers are satisfied that this is a sound commercial proposition provided that it is free enterprise controlled. Messrs. Lazard Brothers of London, who have advised EuroRoute since its inception are satisfied that this can be financed in the London, Paris, Brussels and New York markets without recourse to public funds provided there is

Government assurance that once work has started it will be allowed to be completed. They believe that it will be easier to finance because its construction is less likely to suffer from industrial disruption and can be brought into use in a shorter time. As far as the European Parliament is concerned, all U.K. members of the three political parties have had details of the project and many have expressed their support for it.

The Technical Advisers to the EuroRoute project are :-

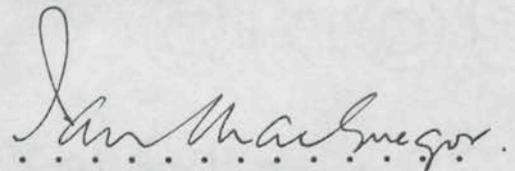
Finance -	Lazard Brothers & Co. Ltd.
Engineering Studies -	Mott Hay & Anderson.
Traffic and Revenue -	Coopers and Lybrand Assoc. Ltd.

The following firms are promoting EuroRoute and some have given much of their skill in perfecting the scheme :-

Redpath Dorman Long Ltd.	British Shipbuilders Ltd.
Robert Mac Alpine Ltd.	Boots Railway Engineering Ltd.
John Howard & Coy Ltd.	Technip S.A., Paris.
Fairclough Construction Ltd.	Zanen Verstoep N.V., Holland.
Trafalgar House Ltd.	Raymond International Ltd.

Full details of the EuroRoute Scheme was placed before the Minister of Transport in March 1981 and a brief version of the Scheme is attached herewith.

Because we believe that this project is of such great National and European importance and would enhance the prestige of the present Government for its imaginative concept and for the fact that it must have a very stimulating effect on employment, starting we would hope before the next General Election, it is considered right that its details should be brought to the notice of the Prime Minister.



18th August, 1981.

2018/81



**Road and Rail Channel Crossing**

**Proposal in brief**

**May 1981**

EUROROUTE

PROPOSAL IN BRIEF

CONTENTS

	Page
1. INTRODUCTION	1
2. DESCRIPTION OF SCHEME	2
3. FORM OF CONSTRUCTION	3
4. CONSTRUCTION PROGRAMME	5
5. SHIPPING AND NAVIGATION	6
6. ENVIRONMENT	7
7. OPERATION AND CONTROL	8
8. COST ESTIMATES	8
9. TRAFFIC AND REVENUES	9
10. FINANCE	9
11. EMPLOYMENT AND RESOURCES	10

Illustrations following page 2

## 1. INTRODUCTION

The EuroRoute Proposal for a combined road and rail fixed Channel crossing is put forward by a consortium at present led by the British Steel Corporation and Redpath Dorman Long Limited. A Joint Venture of firms is at present being formed.

The advisers to the Group, who have been involved in the preparation of the Proposal, are:

Finance	-	Lazard Brothers & Co., Limited
Engineering Studies	-	Mott, Hay & Anderson
Traffic & Revenue	-	Coopers & Lybrand Associates, Limited

The EuroRoute crossing will be of major and practical benefit to the U.K. and her European partners. The design is the single most effective combination of road and rail facilities. It is planned to meet the current and future needs of business and leisure travel and freight transport between Britain and Europe - the country's largest and fastest growing market. By providing both a road and rail crossing, maximum flexibility of this international asset will be ensured to cater both for future needs and for changes in the relative costs of different methods of transport.

The EuroRoute design has been developed after intensive research and satisfies the various technical problems raised by a fixed cross-Channel link. Built within the scope of available technology, the prefabricated structure will allow work to be spread over a number of locations and then assembled on site, maximising employment opportunities and reducing to a minimum the risks of increased costs and production delays. These factors should assist in the obtaining of private financing and thus contribute to reducing difficult decisions about public expenditure. The EuroRoute offers social and economic advantages without cost to the public purse or to the environment.

At all stages security has been a prime consideration. Security of design, security of financing, protection of the user, safety of shipping and the use of standard construction techniques have contributed to this aim. The provision of road and rail alternatives enables management to be split into two separate entities, preventing problems of monopoly control.

The positive benefits of a Channel crossing are potentially enormous, but to realise them it is essential that any cross-Channel link should provide the most effective access to all users and meet in full the needs of the present and the future. The EuroRoute is the most effective answer to those needs.

The project is described in detail in the document entitled "EuroRoute - Proposal for Road and Rail Channel Crossing", submitted to the Department of Transport in March 1981. The following pages describe the proposal in brief.

## 2. DESCRIPTION OF SCHEME

The EuroRoute crossing is designed to provide a fixed Channel link for both road and rail traffic.

The crossing incorporates two 2-lane carriageways and two rail tracks. The railway is carried in submerged tube tunnel throughout the crossing. The road carriageways are carried on twin viaducts across the inshore shipping zones of the Channel, and in a common submerged tube tunnel structure with the railway beneath the main shipping lanes. The transition for road traffic from viaduct to tunnel takes place within offshore artificial islands constructed at the boundary of the main shipping lanes.

The overall length of the crossing, excluding onshore approaches, is approximately 36km. The central tunnel section beneath the main shipping lanes is approximately 19km long.

Viaducts rather than tunnels are employed to carry the road across the inshore zones so as to minimise the length in tunnel. This will keep the tunnel section within known limits for driver reaction and allow a sufficiently rapid response time for emergency services.

The twin viaducts will be approximately 1km apart and will each carry one carriageway of the road. This arrangement will ensure that the crossing can be kept open to traffic even in the unlikely event of a ship colliding with one viaduct. Inshore shipping will be served by special navigation openings, at which increased spans and clearances will be provided.

In addition to the main offshore islands at the boundaries of the shipping lanes, three intermediate islands will be constructed to carry ventilation shafts down to the central section of the tunnel. Two of these ventilation islands will be in line with existing sandbanks in the Channel.

The alignment has been fixed in principle to give the most suitable connections with existing and planned motorways and railways in England and France, while providing feasible conditions for construction in the Channel (see Drawing No 1).

Proposals at the English coast and inland are designed to have virtually no effect on the environment of Kent. The inshore viaducts reach the coast at low level at Abbot's Cliff, and the road is then carried inland in tunnel as far as the Alkham Valley, where it joins the proposed A20 improvement road between Folkestone and Dover. The A20 will link directly to the M20, and thence to the M25 orbital motorway around London. The railway is carried from the coast to Holywell, just north of Folkestone, in tunnel and will then follow the route envisaged for a rail-only Channel crossing as far as the existing main line between London and Dover.

In England, no major surface roadworks beyond those proposed in the Government's 1980 White Paper on roads will be needed as a result of the crossing.

The present study has not investigated in detail the planning of road and rail links in France, but it is envisaged that no serious difficulties in locating suitable routes to conform with planning and environmental requirements will arise.

The combined road and rail crossing will provide adequate capacity for the foreseeable future as well as considerable operational flexibility.

### 3. FORM OF CONSTRUCTION

The greatest possible use will be made of prefabricated modular construction. The major benefits of this will be firstly in allowing fabrication to be spread widely over various locations in the U.K. and continental Europe, including existing yards and dry dock facilities (c.f. Fig. 11.1), and secondly in giving a substantially reduced period of construction by allowing work to be carried out simultaneously at many different points.

Modular construction is proposed for the viaducts, submerged tunnels and structural cores of the artificial islands. The large prefabricated units will be brought to the site of the crossing from the fabrication areas by sea.

#### Road Viaducts

The viaducts consist of a series of simply supported spans, each 125 m long. Piers are formed from large diameter steel or concrete cylindrical piles, driven or drilled into the seabed. The piles are connected by a cross-head above water level, which supports the bridge deck units. These units consist of prefabricated steel boxes, with orthotropic plate decks carrying the roadway.

The 125m long bridge deck units will be prefabricated complete at coastal sites or shipyards before being launched, and towed by sea to site. They will then be lifted out of the water, cleaned and painted, and carried by barge to be placed in their final position by floating crane.

The level of the viaducts will be such that the soffits are well clear of the highest predicted wave. The soffit level is currently planned to be 15m above mean high water, subject to detailed consideration of shipping and safety requirements. At the navigation openings for inshore shipping, special spans will be provided. The viaducts will rise locally to give at least 35m clearance above mean high water at these spans.

#### Submerged Tunnels

Both the rail-only submerged tunnel across the inshore zones of the Channel and the combined road and rail submerged tunnel across the central zone will be formed from 125m long concrete elements, cast individually in special basins. The elements are designed to be buoyant, and are floated on completion by flooding the casting basins. They are then towed to the site of the tunnel by sea.

At the site, the elements are sunk onto a prepared bed and joined to form a continuous tunnel structure. They will be located either on the seabed or in trench below the seabed, depending upon local conditions.

The tunnels will be heavily protected and armoured to ensure that damage from any cause cannot occur.

This form of construction technique has already been adopted in other parts of the world to give an economic method for building sub-aqueous tunnels.

#### Offshore Islands

Following the considerable experience gained by British contractors with the placing of very large structures in the North Sea, it is proposed that the two main offshore islands and the three

intermediate ventilation islands should be constructed by placing a large central concrete element, forming the island's core, on the seabed. This will then be surrounded with rock and hydraulic fill to form sloping protective flanks to the islands. The flanks will be heavily armoured. In the case of the main offshore islands, these units will be built up from large sub-assemblies, and will contain the spiral ramps carrying the roads between viaduct and tunnel levels. The British main offshore island will be extended by the placing of additional hydraulic fill to give a surface area sufficient for the location of frontier and toll facilities on the island (this will avoid the environmental disadvantages of locating these facilities on the mainland in Kent).

#### Feasibility of Construction

Initial discussions with the Hydraulics Research Station at Wallingford indicate that hydraulic effects arising from construction of the artificial islands, tunnels and other works in the Channel should not be unduly difficult to deal with, although detailed model testing will be necessary to confirm this.

The plant and equipment required for construction in the Channel are within available technology, and, where not already in commission, may be designed and built in the periods of time allowed in the project programme.

#### Tunnel Ventilation

The tunnel ventilation system for road traffic will be designed to cope safely with the worst conditions created by exhaust fumes with the crossing operating at full capacity. The scheme proposes the use of the railway tunnel in the central section as a fresh air inlet duct: preliminary calculations indicate that this concept, which reduces capital costs appreciably, is feasible. Fresh air will be introduced and exhaust air expelled at the three intermediate ventilation islands and the main islands.

Additional ventilation to deal with railway requirements, including emergency conditions, will be provided.

#### 4. CONSTRUCTION PROGRAMME

A four phase programme is proposed for development and construction of the project. Phase I will cover detailed studies to

confirm the feasibility and cost of the project, and legislative documents will be drawn up. In Phase II, legislative powers will be obtained and detailed design and preparatory work will be carried out. The preparatory work will include the construction of accesses, working sites and casting basins and the ordering of long lead items. Phase III will cover the main construction of the crossing up to the opening of the first road carriageway to traffic. Provided that all necessary preparatory work is carried out in Phase II, Phase III may be completed in the very short period of 4 years. During Phase IV, the railway and the second road carriageway will be constructed and opened to traffic.

On the assumption of the deposit of a Bill in Parliament in late 1982, with Royal Assent following in August 1983, it is estimated that the first roadway could be opened to traffic in early 1989.

## 5. SHIPPING AND NAVIGATION

The Dover Strait is one of the busiest waterways in the world, with up to 500 shipping movements per day. Shipping is regulated by a traffic separation scheme, requiring through traffic to keep within defined lanes. The present scheme is contravened frequently, and shipping accidents occur, although their frequency has been reduced markedly since the introduction of the separation scheme.

The EuroRoute crossing is designed to meet the requirements of the Inter-Governmental Maritime Consultative Organisation (IMCO), and particularly to facilitate enforcement of the traffic separation scheme. In particular, the artificial islands are located in such a way as to delineate the lane boundaries in the central section of the Channel. In addition, lane discipline will be imposed on all but the smallest shipping in the inshore zones. These measures will reduce very considerably the possibility of contravening the separation scheme, and will lead to an increase in safety. The reduction of cross-Channel ferry movements resulting from construction of the scheme will also have a major effect in reducing collision risks.

Navigation and monitoring aids will be located at the artificial islands and elsewhere to assist ships on passage and to give

warning of the presence of the crossing. Emergency craft will also be stationed at or near the crossing to give assistance to vessels in difficulty.

## 6. ENVIRONMENT

The EuroRoute scheme has been planned specifically to minimise environmental impact, and it is expected that the overall result of the scheme will be to improve rather than worsen the effects of traffic on the environment in the general area of the approaches to the crossing. In particular, it may be noted that, in England, all the roads necessary to carry traffic to the crossing are already planned or under construction, and the scheme will tend to concentrate traffic on motorways properly designed with adequate capacities and reduce traffic on overloaded local roads. In addition, the most difficult facilities to locate in England because of land requirements, namely the toll and frontier facilities, are planned to be at the British main offshore island. In France, the combined road and rail crossing is expected to bring important benefits to the depressed regions of Pas de Calais and beyond.

The most sensitive area affected by the crossing is the rural landscape at the English coast, designated as an area of outstanding natural beauty. This area will be traversed by the road and rail approaches mainly in tunnel, and environmental intrusion as a result of the scheme will be kept to a small level. At Abbot's Cliff, where the crossing meets the coast, the viaducts will be as low as possible to minimise their visual effect in comparison with the great scale of the cliffs: at this point the cliffs are approximately 140m high, whereas the height of the top of the viaducts will be about 15m above sea level.

Rail facilities onshore will require similar land areas as for rail-only Channel crossing schemes. No new rail links to the crossing are envisaged in England.

## 7. OPERATION AND CONTROL

The road and rail sections of the crossing will be operated entirely independently for normal running. Road traffic will be controlled from a main control centre at which traffic conditions, equipment status and alarm systems will be monitored. This centre will be in contact with the police and other authorities, and will be able to initiate action in an emergency.

The railway will be operated from two control centres, one in England and one in France. In certain types of emergency, in which common operation of the road and rail facilities was required, overall control would revert to the main control centre.

Emergency personnel and equipment will be available to deal with fire, accident or breakdown. Evacuation of the rail or road tunnels can be carried out in safety. The ventilation system and other facilities will be designed to provide safe conditions in all emergencies.

Crossovers will be provided at either coast and at the main offshore islands to allow traffic to change from one carriageway to another, or to be directed back to the coast if a section of the crossing had to be closed in an emergency.

Various precautions, including the installation of internal and external surveillance devices, will be taken to minimise the risk of sabotage. The various structural elements will be designed specifically to maintain their integrity in an attack.

## 8. COST ESTIMATES

The capital cost of construction of the crossing at mid-1980 prices is estimated to be £3,800 million. Expenditure up to the completion of Phase III and the opening of the first roadway to traffic is estimated to be £2,850 million.

The cost attributable to the rail-only elements of the crossing is estimated to be £650 million.

The proposed scheme is capable of modification and reduction in scale to accommodate a single rail track only. In this case, the total estimated cost of the crossing is £3,600 million.

## 9. TRAFFIC AND REVENUES

Traffic forecasts for the EuroRoute crossing have been made by Coopers & Lybrand Associates, based partly on work completed in 1979 for the European Commission and partly on new work commissioned for this proposal. Forecasts take account of alternative growth rates for the UK and continental Europe, changes in relative pricing between road and rail transport, changes in journey characteristics and other relevant factors, and give a relationship between external economic factors and demand for travel and freight haulage. Projected traffic on the EuroRoute crossing in the year 2000 is, for the central (low growth) case, 19.1m passengers and 12.9m tonnes of freight. For the high growth case, the projections for the year 2000 are 27.5m passengers and 19.6m tonnes of freight.

On the central case hypotheses, the road capacity of the crossing is reached in about the year 2025. At this time rail capacity is not expected to be fully used, and further rail growth could take place.

On the basis of the revenue forecasts derived from the central case traffic projections, the internal rate of return of the scheme in real terms (i.e. after allowing for inflation) is estimated to be 7%. Sensitivity calculations show that this rate of return is robust to variations in revenues, costs and construction over-runs.

## 10. FINANCE

Lazards are financial advisers to the EuroRoute Group and to the Proposal and have exceptionally wide international connections and experience with major capital projects.

This Proposal is bigger but simpler than its competitors. It can be built more quickly, with work spread to many locations and employs simple, well proven techniques with minimum risks - these factors will be attractive to providers of finance.

It must be a matter of judgement what balance to strike between reduced risks, greater costs, shorter construction and other factors. A three-stage building programme in which the over-

whelming proportion of the finance is committed just prior to the second stage (Phase III) while an initial commitment of some full risk money is made prior to completion of legislative, Treaty and other formalities, will dramatically advance the date when the facility can be brought into service.

Equipment and supplies could be sourced almost throughout Europe and may easily be directed to and generate employment in distressed areas in England and France.

The advanced but simple technical solutions incorporated in the Proposal, and its considerable capacity to accept growing and changing traffic patterns, assure the cash flow required.

The main national and international potential sources of money have been reviewed. It is suggested that Governments are unlikely to be willing to give the concessionaires unlimited rights indefinitely to exploit a de-facto monopoly, and that, consequently, conventional distinctions between "debt" and "equity" may be blurred.

While the attitude of the French and British Governments will be of paramount importance, the support of the EEC and of others will also be crucial. At least an Anglo-French Treaty will be necessary, in addition to the domestic enabling legislation.

An Owning Entity need not necessarily be owned by the Governments, nor by the contractors nor by the Managers. Nor need ownership and control run together. It is too soon to anticipate the final commercial, legal and financial structure, but provided that the political decisions in London, Paris and Brussels are sufficient, it is considered that the EuroRoute Proposal could be financed without any necessary recourse to public funds.

## 11. EMPLOYMENT AND RESOURCES

Total employment in the construction, shipbuilding and construction-related industries is estimated to be over 260,000 man-years. Overall employment, including subsidiary

employment generated as a result of the project's construction, is estimated to give a total employment figure for the full construction period of over 500,000 man-years. Average employment will reach over 100,000 per annum.

The modular form of construction and phasing sequence proposed mean that major employment will be generated very rapidly after final commitment to the project.

As a result of the major distribution of work over a wide range of locations made possible by the large element of prefabrication, employment during construction at the British and French coastal sites will be comparatively small. The combined workforce at these sites is estimated to be no greater than 12,000 per annum at the peak.

Some of the possible sites for fabrication and quarrying in the UK are shown in Figure 11.1.

EUROROUTE ROAD & RAIL CHANNEL

CROSSING



- Casting basin site
- ▲ Shipyard/steelwork fabrication site
- Quarry site



SOME OF THE POSSIBLE SITES FOR FABRICATION & QUARRYING IN THE U. K.

Figure 11.1

*Washing box*

**British Railways Board**



**CROSS  
CHANNEL  
RAIL LINK**

**April 1981**

# Contents

---

Introduction	2
Market	3
Charges	3
Proposed Services	4
Safety	6
The Scheme	6, 7, 8
Capital Costs	8
Financial Evaluation	9
Energy	9
Regional Effects	10, 11
What Now?	12

## Introduction

The debate regarding the creation of a fixed link between England and France continues. The Select Committee on Transport has recently published a report on their analysis of the whole issue although the final decision as to whether such a fixed link should be provided and if so what form it should take must however rest with the British and French Governments themselves.

This brochure outlines the scheme for such a link proposed by British Railways as representing a technically sound and financially viable means of linking the railway systems of Britain and the Continent. It corresponds closely with the preferred solution of the Select Committee and will, in the view of the railways enable them to provide on a profitable basis, a greatly improved standard of service for passenger, freight and parcels traffic. At the same time, it will have a minimal effect on the environment and on the established pattern of employment in the areas concerned.

The relevant technical and economic studies leading to these conclusions have been carried out jointly with both the French and Belgian railway authorities.

The recent work confirms the findings of earlier preliminary work on the scheme (results of which were published in Britain in 1979). However, it has also underlined the fact that whilst the construction of the actual tunnel is unlikely to present any serious difficulties, particular attention must be given to the way in which such a tunnel is linked with the existing transport infrastructure of the two countries. As a result the railways have devoted a great deal of effort to an examination of these aspects and they are confident that they are presenting a complete scheme covering the full implications of moving both passengers and freight from origin to destination, and not merely one which deals with the Channel crossing in isolation.

## The Market

There has been a very substantial increase in passenger and freight traffic across the Channel over the last decade and this increase has taken place largely in air traffic, accompanied cars and roll on/roll off freight. Considerable advances have also been made in rail business and further developments are planned, but the scope for these must always be limited by the need to change modes at the two Channel ports.

British Rail has carried out, with the help of a number of experienced independent firms of Consultants, a detailed analysis of the market for Cross Channel traffic – both passenger and freight and all the indications are that despite current economic difficulties, the underlying trend is one of continuing growth. From this base, forecasts have been made of the amount of passenger and freight traffic that will be attracted to through rail services via a tunnel.

### Forecast Traffic Levels

Traffic	1990	2000
Passengers (millions)	6.2*	7.9
Freight (million tonnes)†	5.1	6.1
Parcels (tonnes)	4,300	12,900

### Notes

\*The calculations indicated that passenger carryings in 1990 would be in the range 6.2m–7.0m; the lower figure was adopted for the purposes of the study.

†The vast majority of freight traffic between the UK and Northern Europe has been excluded from the potential, although diversion of some of this traffic to the Tunnel is conceivable. To allow for the build up of traffic following the opening of the Tunnel the forecasts for 1990 and 1991 have been reduced.

## Charges

It is not possible – some eight to ten years before the opening date – to be precise as to the level of passenger fares or freight rates that will be applied to through rail services via the Tunnel. Much will depend on the market conditions applying at the time. However, the following are the principles on which the project has been evaluated:

### Passenger

There will be a wide range of fares, ranging from bargain fares for special

groups to first class fares for business travel. *In real terms, they will be well below comparable air fares.*

### Freight

The market for freight traffic is highly volatile, but in general, operators' costs are bound to increase at least in line with general trends. Competitive pressures will continue and it has been assumed that *rates for transit via the tunnel, in real terms, will be below those available by existing means at the present time.*

## Proposed Services

### General

The fact that the project provides for only a single line railway obviously means that special operating arrangements have had to be devised. The train service through the tunnel will be operated by means of a system of 'convoys', each consisting of some 10 trains in one direction, followed by a similar number of trains in the opposite direction.

In order to make the most efficient use of this system, both passenger and freight trains will be scheduled to operate in the tunnel at roughly the same speed and will complete the journey from one end to the other in just over half an hour. The capacity of the tunnel will be 60 trains (passenger and freight) per day in each direction, although in the light of experience scope may be found for some increase in this number as traffic develops over the years.

Provision has been made to close the tunnel for six hours each night in order to ensure a high standard of maintenance.

### Passenger

A basic service of passenger trains composed of specially constructed modern rolling stock will operate between London and Paris and London and Brussels (via Lille), giving best journey times as follows:

London-Paris	4½ hours
London-Lille	3 hours
London-Brussels	4¼ hours

An indication of the type of service that will be possible is given on the opposite page.

Passengers travelling to and from south-east Kent will be able to join or alight from certain through trains at a station on the Southern Region main line near Folkestone.

A number of night sleeper services will operate between Folkestone and a number of continental centres with connecting services to and from London. In addition there will also be motorail services between Folkestone and certain Continental centres.

### Freight

Direct trains of wagons and containers will operate between centres in Great Britain and the Continent, eliminating the costs and delays caused at present by the need to change modes of transport at the ports. BR's Freightliner and Speedlink services will thus be integrated with those of their counterparts on the Continent, and together they will be able to offer a greatly improved standard of service to the customer.

Special arrangements will be made for traffic to and from either south-east England or northern France by the provision of facilities for the transfer of containers from road to rail, and vice versa, at Folkestone and Lille.

### Parcels

Parcels traffic, carried in passenger trains, will have the benefit of a rapid, reliable direct service between the capital cities and the popular 'Red Star' service will, in effect be extended to include important Continental destinations.

## Proposed Services

Notional Timetable of Basic Passenger Service at Opening

London	Brussels	Paris	Paris	Brussels	London
dep.	arr.	arr.	dep.	dep.	arr.
06.50	—	12.20			
06.55	12.05	—			
09.05	—	14.35	07.25	—	11.00
09.20	—	14.50	—	07.50	11.05
			07.40	—	11.15
09.25	14.40	—			
09.45	15.00	—	—	08.15	11.25
09.50	—	15.20	10.25	—	13.55
09.55	15.05	—	—	10.50	14.05
12.20	—	17.50	10.40	—	14.15
12.25	17.40	—	—	11.15	14.25
12.50	—	18.20	13.25	—	16.55
12.55	18.05	—	—	13.50	17.05
			13.40	—	17.15
15.20	—	20.50	—	14.15	17.25
15.25	20.40	—			
			16.25	—	19.55
15.50*	—	21.20	—	16.50	20.05
15.55	21.05	—			
			—	17.15	20.25
17.50	—	23.20	16.55	—	20.35
17.55	23.05	—	19.00	—	22.25
18.10*	—	23.40			
18.20	—	23.50			
18.25	23.40	—	—	19.15	22.30
			19.15	—	22.55
			—	19.50	23.05

All times are local and assume that Belgian and French time will continue to be 1 hour in advance of British time through the year.

\* Alternative timings in the light of the demand at the opening date.

# Safety

In view of the unique character of a single track tunnel of this length, a special study has been made of the different aspects of safety.

The whole question has been the subject of consultations with the Secretary of State's Chief Inspecting Officer, and further detailed discussions will take place prior to the opening.

# The Scheme

## The Tunnel

The railway scheme for the tunnel itself provides for:

- (i) A single track railway tunnel with a diameter of around 6.0m linking Holy Well (near Folkestone) in England with Beussingue (near Calais) in France. It will be capable of accepting all standard Continental gauge rolling stock;
- (ii) A pilot/service tunnel of 4.5m diameter running parallel with the main tunnel and linked to it by cross passages.

Both tunnels would be bored by machine through the strata of lower chalk and lined with prefabricated concrete segments. This is a well tried technique and particularly suited to the geological conditions under the Channel which have been extensively surveyed over the years.

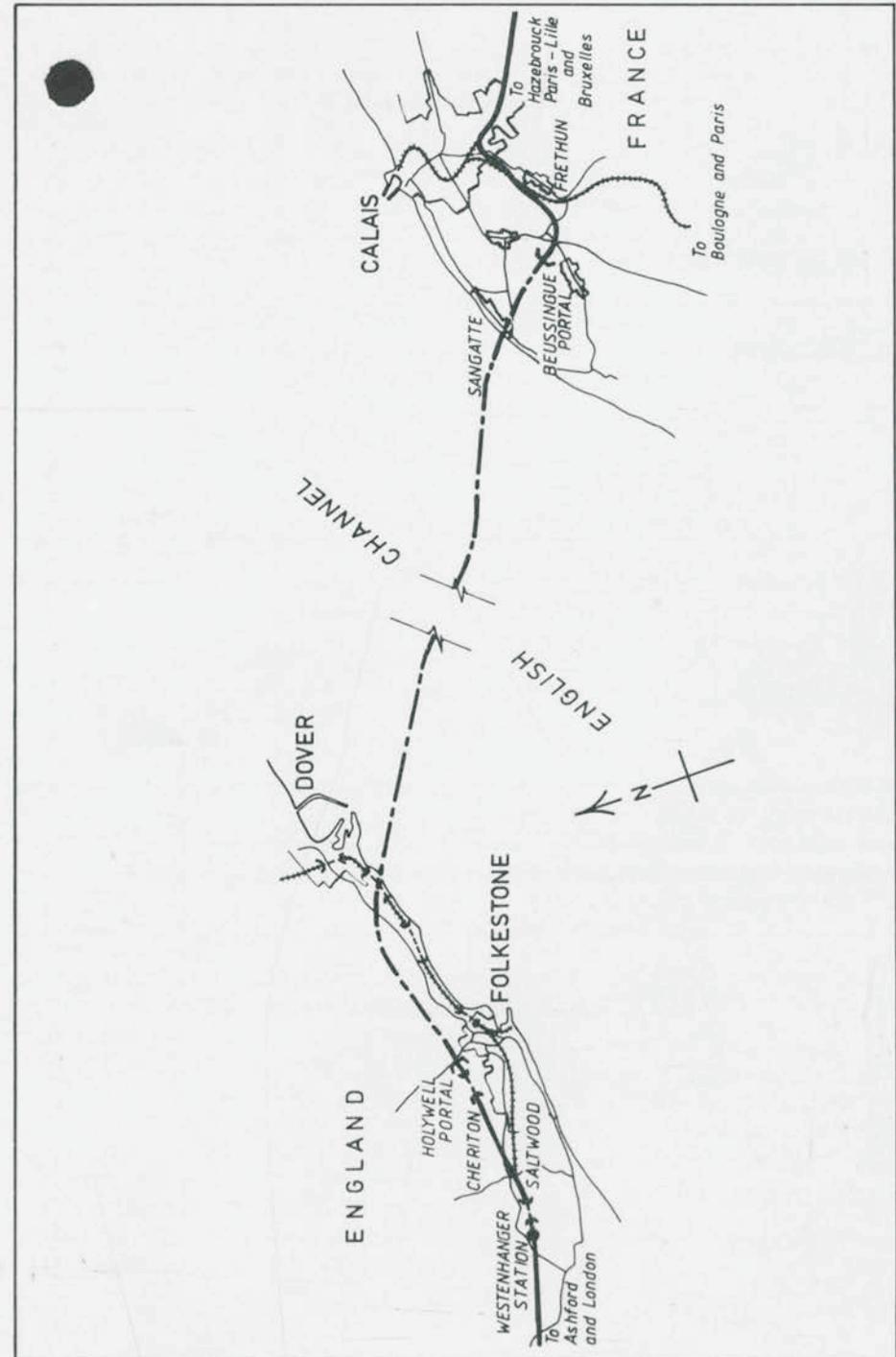
The construction will incorporate all the necessary safety and other devices necessary for the efficient and safe operation of the railway and in particular, equipment will be installed to give early warning of any untoward incident, either in the tunnel itself or on any of the trains.

## Installations at the British Portal

There will be a number of installations at or near the tunnel entrances not only to provide links with the existing railway lines of the British and French railways, but also to ensure the efficient operation of the tunnel itself. In England it will be necessary to provide:

- A road/rail Container transfer terminal for traffic to and from Kent and Sussex;
- A number of holding sidings and a maintenance depot;
- A passenger station, for interchange with local services and for international long distance sleeper and motorail services.

Current plans assume that the majority of these facilities will be located at Cheriton (on the site originally proposed for the terminal in the previous major scheme) with a passenger station at Saltwood, the point at which the tunnel line will join the existing Southern Region main line. Detailed consultations have taken place and are continuing with the County and Local Authorities concerned regarding the scope and precise location of these facilities.



## The Scheme

### Other railway facilities within the UK

The existing railway facilities on the Southern Region are, in general, fully committed to existing services and, whilst the withdrawal of the boat trains will release sufficient line capacity, it will be necessary to provide for an improvement to the terminal facilities in London. The present plan is that a number of the 'business' services will use the existing station at

Victoria, but that it will be necessary to deal with the residue which should then follow on at some other location. A number of different sites have been examined and the whole question is at present the subject of detailed consultation with the Local Authorities and other interests involved; no final decision will be taken until his process has been completed.

## Capital Costs

The table below sets out at end 1980 price levels, the total capital costs of the tunnel and of the associ-

ated works so far as Great Britain is concerned:

Item	Cost (£m)
Total cost of tunnel and fixed equipment	765
Cost of associated infrastructure adjacent to British Portal (including land costs)	83

*It should be noted that the cost will be spread over a period of about seven years and so far as the tunnel is concerned will be shared between Britain and France.*

## Financial Evaluation

The evaluation carried out to assess the return on the total capital and operational costs of the tunnel, its associated fixed equipment and of the installations at the portals shows a rate of return, in real terms, of just below 10%.

A number of sensitivity tests were applied to the results and these showed that the project is financially robust and can stand quite major variations in the estimated levels of costs and receipts and still give an attractive rate of return. Some indication of this can be seen in the following examples:

Assumption	Internal Rate of Return
Base Case	9.5%
<i>Receipts</i> 20% Shortfall in total receipts 10% Improvements in total receipts	7.9% 10.3%
<i>Capital Cost of Fixed Works</i> 20% Increase in costs	8.2%
<i>Construction Time</i> Two years delay in completion	8.6%

## Energy

A further bonus from the project is the opportunity for fuel conservation. Already, it is widely accepted that electrified railways, using power generated from a variety of sources, will play an increasing role in freight and passenger movement as oil becomes scarcer and still more expensive.

The Channel Tunnel forms part of this energy-saving strategy for the future. It takes four times the amount of fuel to carry a passenger between London and Paris by air than it will by train through the tunnel, and compared with road, through freight trains via the tunnel will offer a two to one advantage.

## Regional Effects

A tunnel linking England with France must, for obvious reasons be located in the south-east of England, but it should not be thought that benefits will be limited to this part of the country. Whilst the basic daytime passenger service will run between London and Paris and Brussels, connections will be available with the rest of the Inter-City network and the forecasts show that some two million passengers from and to areas north and west of London will benefit from the improved facilities which will reduce overall surface journey times by at least two hours.

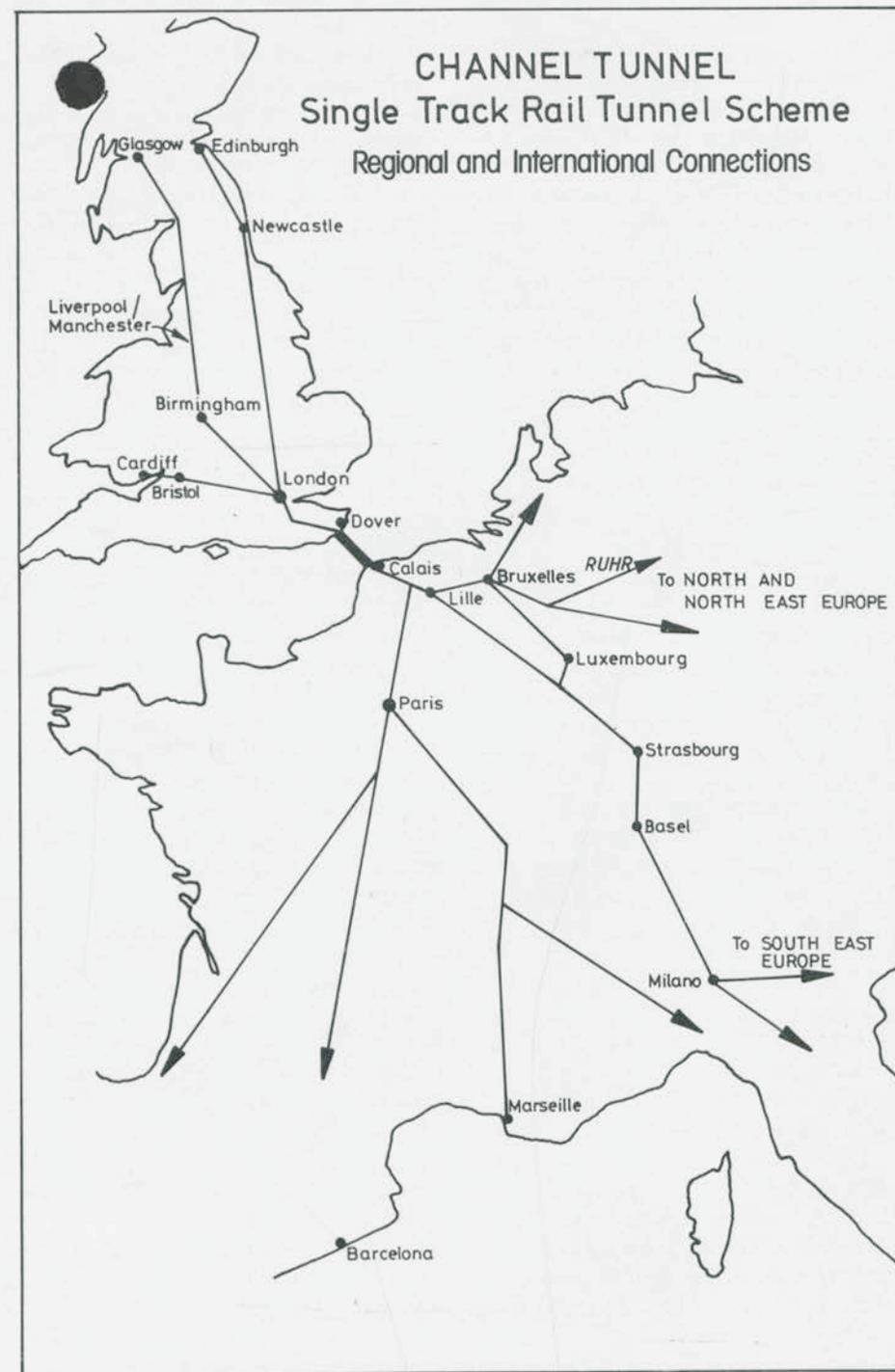
For the freight customer the benefit to areas other than the South-East will be even more marked. Some 70% (three and a half million tonnes) of the traffic expected to use the through freight trains will originate or terminate beyond London. The improvement in transit times and reliability as a result of the introduction of through services will be significant in all areas. For example, a container which at present takes about a week (door to door) from the north of England to Basel will do the same journey in about half the time.

Proposed Transit Times for Freight Services  
Scotland and North of England to the Continent

To	Days	To	Days
BELGIUM NETHERLANDS NORTHERN FRANCE	2	AUSTRIA NORTHERN SPAIN	4
SOUTH OF FRANCE GERMANY NORTHERN ITALY SWITZERLAND	3	SOUTHERN SPAIN SOUTHERN ITALY	5

The scheme is not designed to achieve any dramatic change in the overall pattern of traffic movement to and from the Continent. Nearly all the trains to and from the Continent will run through at least as far as London and only very limited road/rail interchange facilities are planned for the South of England. The vast majority of road traffic will continue to use the existing wide range of maritime services. It is unlikely that there will be

pressure for any large scale industrial development in the south-east as a result of these improvements, as there might well be with a road-orientated scheme for a fixed link. Indeed, the existence of a network of fast rail freight services, linking the tunnel with the main provincial centres, could well result in areas away from the South-East becoming more attractive for industrial development.



## What Now?

---

The Secretary of State for Transport has indicated that for any project to receive support from the British Government, the British portion must be capable of being financed from the private sector. This poses a number of problems – but the analysis carried out so far by BR, with the help of their financial advisers, indicates that it should be possible to devise a 'package' that will meet the requirements of the Government.

He has also indicated that, together with the French Minister of Transport, he hopes to be in a position to reach a decision in principle before the end of 1981 as to what if any scheme should go forward.

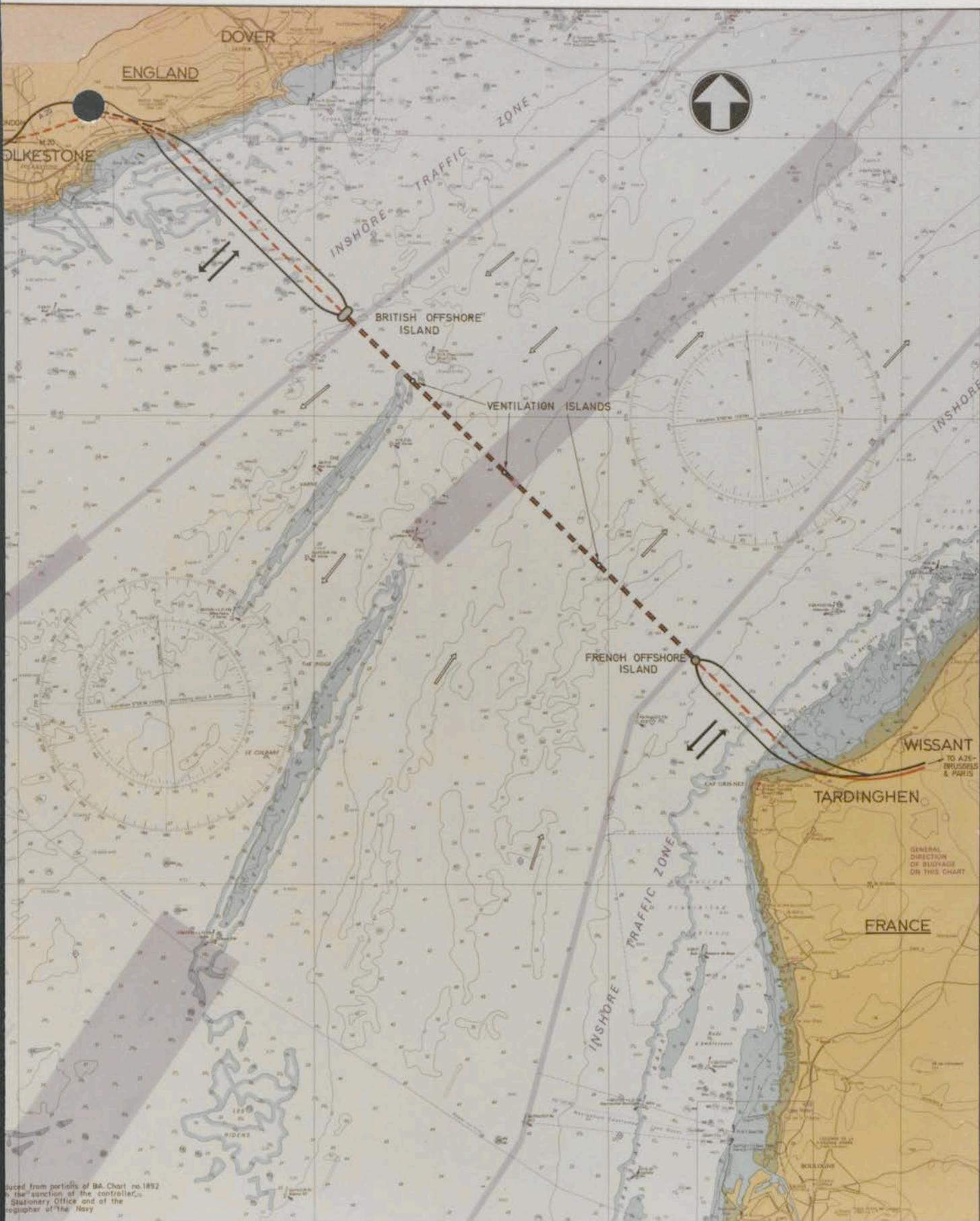
British Railways believe that their scheme closely corresponding as it does to that recommended by the Select Committee, will provide the nation with an asset of immeasurable value which will have minimum impact on the environment. It involves a relatively modest outlay and offers an attractive financial return in real terms of some 9% to 10%. It is financially robust and is regarded favourably by the vast majority of the many interests who have been consulted.

Given a decision to proceed with the scheme and to provide the necessary railway installations outside the tunnel area, the project should be completed in 1989 or 1990.

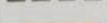
British Rail can understand the thinking behind the proposal that, as an insurance for the future, a tunnel of slightly larger diameter should be considered, but a tunnel of 6m in diameter is all that is necessary for conventional rail traffic and for this reason the Railways would not themselves seek to promote anything larger. Certainly they would be opposed to a single track scheme which sought at a substantial cost in terminal installations and specialised rolling stock to restrict artificially the growth of conventional rail traffic by superimposing on top of the through rail service a shuttle service for carrying road vehicles.

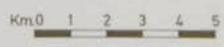
**It is right and proper that this question should be debated, but this should be done within the timescale laid down and should not be allowed to delay decision and implementation.**





Derived from portions of BA Chart no. 1892  
 by the sanction of the Controller,  
 Hydrographic Office and of the  
 Hydrographer of the Navy

- KEY:**
-  SEPARATION ZONES
  -  ROADS (SURFACE)
  -  ROADS (TUNNEL)
  -  RAILWAY (SURFACE)
  -  RAILWAY (TUNNEL)
  -  COMBINED

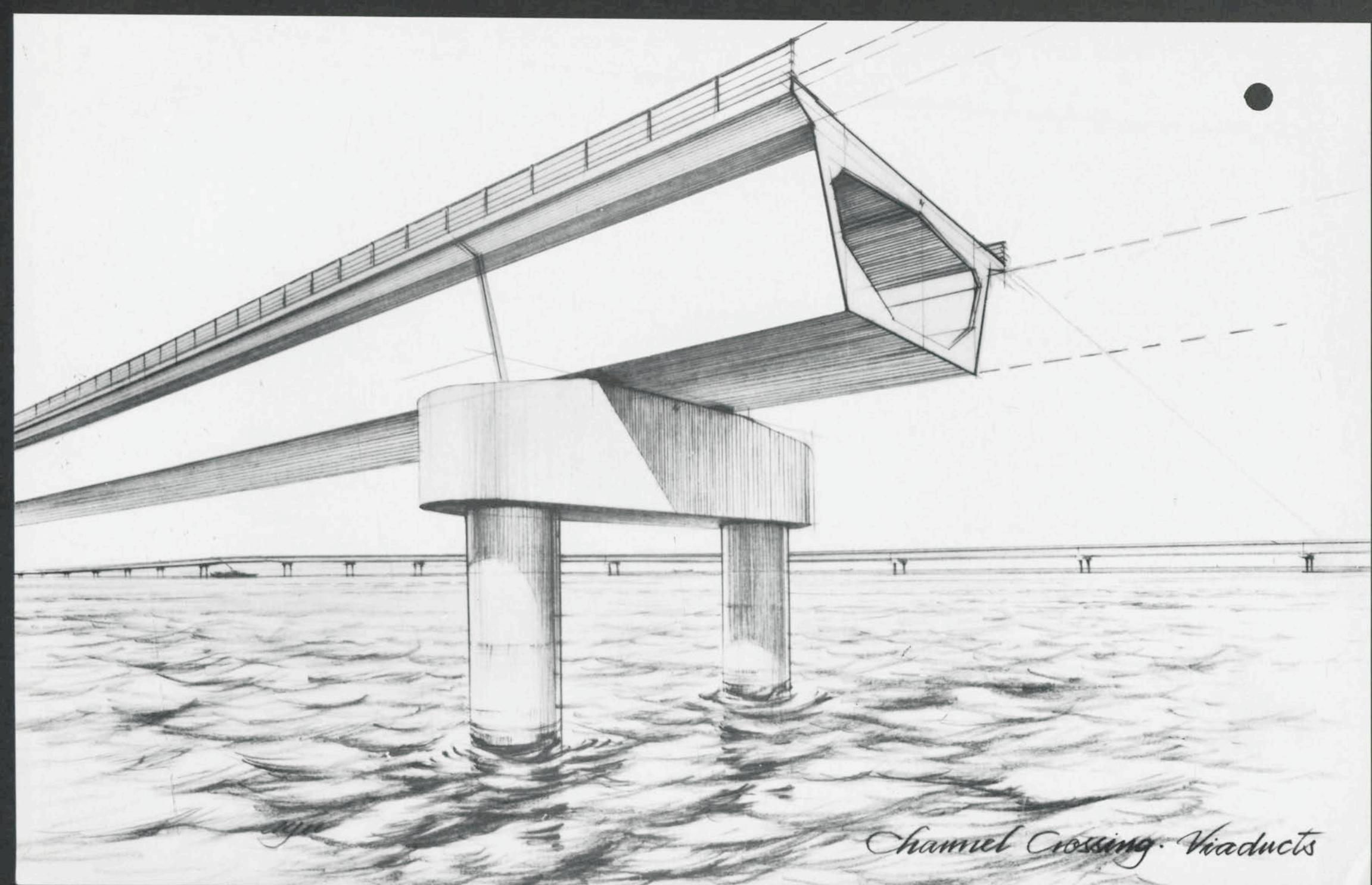


EUROROUTE  
 ROAD AND RAIL CHANNEL  
 CROSSING

KEY PLAN

Mott, Hay & Anderson  
 Consultants, London.

Drawing no. 1



*Channel Crossing. Viaducts*



*Channel Crossing - Offshore Island*



*Channel Crossing - Submerged Tunnel*



*Channel Crossing. Viaducts at English Coast.*

Transport 

FOR THE INFORMATION OF THE PRESS

Please Note EMBARGO: NOT FOR PUBLICATION, BROADCAST OR USE ON CLUB TAPES BEFORE 11:00 a.m. G.M.T. ON FRIDAY 6TH MARCH 1981  
HOUSE OF COMMONS TRANSPORT COMMITTEE

The Channel Link

The Report of the House of Commons Transport Committee on The Channel Link is being published on Friday 6th March 1981 at 11.00 a.m. (Second Report from the Transport Committee, Session 1980-81, House of Commons Paper No. 155-I).

Mr Tom Bradley, MP, Chairman of the Committee, will hold a press conference to coincide with the publication of the Report at 11:00 a.m. on Friday 6th March in Committee Room No.17 at the House of Commons.

The Report follows an inquiry which the Committee decided to undertake on 25 March 1980 into "the possibility of the construction of a fixed link for the transportation of passengers, vehicles and freight across the English Channel financed by private risk capital". Oral evidence was taken in public on sixteen occasions between 13 May and 11 November 1980; this has already been published as House of Commons Paper 599-i to xvi, Session 1979-80, and will be reproduced as Volume II of the Report. The Committee also received more than a hundred written submissions, most of which will be published in Volume III of the Report.

The Committee have approved the following summary of the Report and its conclusions.

SUMMARY

I INTRODUCTORY (Paragraphs 1 to 19)

In their Introduction (paragraphs 1 to 7) the Committee explain the purpose of the inquiry and list the organisations and individuals who gave oral evidence to them. The Committee stress that it was not their intention to endorse a single proposal by a single promoting group or to recommend the adoption of any one scheme without further examination by the House or the Government. They hoped, however to be able to submit recommendations to the House which would enable Members to take a view about the desirability, in principle, of proceeding with the construction of a fixed Channel Link and which would narrow the range of options on the capacity and form of such a link in order to allow detailed planning and a final choice to be made in an orderly and expeditious fashion (paragraph 3).

Paragraphs 8 to 19 recount the history of the Channel Tunnel project abandoned in January 1975, and summarise the financing arrangements envisaged for that project.

## II THE NEED FOR A NEW CHANNEL LINK (Paragraphs 20 to 35)

Paragraphs 20 to 26 discuss the growth of cross-Channel traffic since the early 1970's. In paragraph 26 the Committee draw attention to (i) the extent to which traffic growth has equalled or exceeded Government and other forecasts, (ii) the continuing upward trend in the growth of cross-Channel traffic and (iii) "the impressive resourcefulness of port authorities and ferry, hovercraft and other operators in creating the facilities required to meet the great increase in demand".

Paragraphs 27 to 30 discuss future cross-Channel traffic growth. The projections of freight traffic contained in the study prepared for the European Commission by Coopers & Lybrand Associates and SETEC Economie are accepted as "not unreasonable" (Paragraph 29) and those for passenger traffic are described as "a reasonable guide to likely overall passenger traffic growth" (Paragraph 30).

In paragraphs 31 to 35 the Committee discuss the desirability of a fixed Channel link. They note that very little evidence has materialised opposing the principle of a fixed link (paragraph 31) and draw attention to the employment potential of a major capital investment project of this kind (Paragraph 34). In the light of these considerations they conclude that they are in favour of facilitating the construction of a fixed Channel Link (Paragraph 35).

## III THE MAIN OPTIONS (Paragraphs 36 to 49)

In paragraphs 36 to 43 the Committee summarise the main options for fixed Channel links submitted to and considered by them during the inquiry. The Committee stress that, at the time they were made to them, most submissions were of an extremely tentative nature, that many details had yet to be sorted out, and that some estimates of costs, traffic and returns had to be treated with caution.

A more detailed summary of the evidence submitted by proposing groups is contained in Annex B to the Report.

Paragraphs 44 to 49 discuss the "do-nothing" option. The Committee emphasise (Paragraph 47) that they "have no reason to question the view that existing modes could, if necessary, be expanded to a capacity sufficient to cope with all forecast increases in the demand for cross-Channel traffic". They conclude, however, that it is not the role of Parliament "to prevent the development of new modes which would fairly compete with existing operators, even if some existing operators were to suffer in consequence" (Paragraph 49).

#### IV ASSESSMENT OF THE OPTIONS (Paragraphs 50 to 108)

This part of the Report discusses a number of key factors to be considered in the choice of a fixed Channel link option, and summarises the Committee's main conclusions in relation to these factors.

The Committee emphasise (Paragraph 51) the uncertainties relating to (i) the means of financing a Channel link, (ii) the acceptability of any favoured option to the French Government and other European Governments, and (iii) the organisation and management of the construction and operation of a fixed link; and conclude that these matters "cannot be fully resolved until an initial decision in favour of a particular option has been taken".

Technical problems and feasibility; paragraphs 52 to 57 discuss the technical feasibility of the main options, a matter considered further in Annex D to the Report. The Committee believe that "the conclusions reached by the Governments during the 1960's about the relative acceptability of alternative methods of constructing a fixed Channel link remain broadly valid" (Paragraph 53)

Although they acknowledge the greater confidence amongst engineers about the feasibility of alternative constructional methods (paragraph 54) and recognise the greater transport facilities to be offered by a cross-Channel bridge or submerged tube (Paragraph 55), the Committee conclude that "if it is considered desirable to proceed with the choice of a fixed link option and to undertake its construction within the reasonably near future and with reasonable certainty about the construction time and cost involved, that option must inevitably take the form of some kind of bored railway tunnel." If, however, the intention to reach a decision in 1981 were abandoned, and if private interests were meanwhile prepared to invest in further design and development work, the Committee believe that the submerged tube option "might prove to be an acceptable alternative". Suspension bridge proposals continue to be regarded by the Committee as "more remote" (Paragraph 57)

Environmental considerations: paragraphs 58 to 74 discuss the main environmental considerations applying to a choice of fixed link.

The Committee conclude that "in terms of environmental and possible energy considerations a rail only tunnel offers significant potential advantages, assuming that the railways are able to attract traffic away from the road and ferry systems". They believe, however, that the real environmental and energy benefits will depend on the ability of BR and its continental partners to achieve such a transfer of traffic (paragraph 63).

The Committee discuss the likely environmental effects of a fixed Channel link on Kent, and conclude that "the overwhelming weight of local opinion in Kent is in favour of the BR single bore railway proposal or a commercial equivalent, if any link at all is to be constructed, and opposed to any link which might increase the total volume of road traffic in Kent or which might create major new environmental problems arising from the reception, parking, loading and unloading of cars and heavy goods vehicles" (Paragraph 73).

The Committee recommend that the Nature Conservancy Council should be invited to undertake a new survey of the wildlife and geological/geomorphical implications of any decision in principle in favour of a fixed Channel link (Paragraph 74).

Regional economic considerations: paragraphs 75 to 84 discuss some of the regional economic considerations applying to a choice of fixed Channel link. The Committee conclude that, "at least so far as the more modest fixed link proposals are concerned, the advantages and disadvantages to Kent are likely to be in balance in the longer term, although in the short term there may be important, and locally severe, effects on employment."

The Committee believe that "it will clearly be necessary for the Government to undertake a full examination of the economic consequences of any decision to construct a fixed link, both in relation to Kent and to other regions of the United Kingdom, and to make whatever contingency arrangements may be necessary to cope with, in particular, the short-term employment problems which may follow the opening of a new link". Such a study, however, need not precede a decision in principle unless serious consideration were to be given to a facility providing a direct cross-Channel road link (paragraph 84).

Implications for other modes: paragraphs 85 to 97 discuss the implications for other transport modes of a fixed channel crossing. The Committee briefly discuss the implications for the shipping industry and the Channel ports, and conclude that "All the evidence we have received points to the conclusion that the Kent ports, although likely to suffer a minor set back in their development as a result of the BR scheme, would in all probability be able to continue in operation and to recover their position as cross-Channel traffic continued to grow. The same could not, however, be said in respect of schemes which involved an immediate and overwhelming transfer of road vehicle traffic away from the ports. In those cases the prospects for the Channel ports could be bleak" (Paragraph 97)

Dangers of a cross-Channel monopoly: In paragraphs 98 to 103 the Committee examine the dangers of the creation of a monopoly or near-monopoly situation in the cross-Channel market. They conclude that "it would be contrary to the national interest for any project to be proceeded with which sought to provide through a single structure for the great bulk of cross Channel traffic, which sought to place such capacity - even if in diverse modes - under the control of a single owning and operating authority, or which, in order to become and remain commercially viable, needed to render unprofitable the services provided by most other conventional cross-Channel operators"( Paragraph 102). Moreover, they believe that "This consideration could lend weight to arguments in favour of staging the introduction of new facilities in line with increases in demand" (Paragraph 103).

Commercial viability: In paragraphs 104 to 108 the Committee examine the commercial viability of the proposed fixed link options. Although they stress the limited extent of the information available on this subject, they conclude from the available evidence that "all the schemes suggested to us have a good chance of becoming commercially profitable but that some of the larger schemes, involving much greater initial capital, will take a considerable time after construction to justify themselves, and are much more dependent for their justification on the achievement of a high rate of economic growth. So far as the railway tunnel schemes are concerned it is possible that, in the long run, a higher return on capital may result if provision is made, either now or at an intermediate stage after the initial project, for facilities for ferrying cars and lorries, particularly if high economic growth rates are achieved" (Paragraph 108).

#### V NARROWING THE OPTIONS (Paragraphs 109 to 139)

The Committee recall their conclusion (in paragraph 57) that, if a fixed link is to be proceeded with in the relatively near future, "it must take the form of some kind of conventional bored tunnel", and conclude, moreover, that "the primary facilities offered by the link will be restricted to the railway mode" (Paragraph 110).

The critical question, however, is whether, if constructed at all, a tunnel should provide some kind of facility for the carriage of accompanied road freight and passenger vehicles (paragraph 111). The restriction of the tunnel's capacity to conventional rail traffic would be in the railways' commercial interests, would prove more acceptable to environmental interests and local authorities in Kent, and would create less of a challenge to other cross-Channel operators (paragraphs 112-3). But, in the Committee's view, "to embark upon a major new facility for cross-Channel traffic which totally and for all time ignored the present majority preference for road transportation must be a questionable proposition and could only be justified if there were very good grounds for supposing that the creation of a rail only link could effect a significant transfer of traffic from the roads and for believing that such a transfer would be desirable in the national interest" (paragraph 114).

The Committee therefore consider in more detail (in paragraphs 115-126) traffic forecasts for a rail only tunnel (a further examination of which is contained in Annex C to the Report). The Committee comment that "Notwithstanding the care that BR have taken in attempting to make realistic forecasts of the freight traffic potential of a rail only tunnel, there is possibly a greater element of risk attaching to their forecasts than to those for a tunnel with a road vehicle carrying capacity" (Paragraph 119). Overall, the evidence suggests that BR are not being unduly optimistic, and that their forecasts may in some respects even prove conservative. However, the much higher Coopers & Lybrand freight forecasts for the years after the opening of the tunnel suggest that "if the BR proposal were to be accepted in principle there would be good grounds.....for provision to be made at the outset for the possible future development of the tunnel's facilities" (Paragraph 125)

The preferred strategy: The Committee conclude that "although a rail only tunnel is likely to generate sufficient freight and passenger traffic to prove commercially viable, a more ambitious tunnel scheme could well prove to be more economically attractive in the long term and also has a lower commercial risk attached to it" (paragraph 127).

Although the Committee would see no reason not to recommend the acceptance of the BR scheme to the House and the Government if it were the only option available (Paragraph 128), they do not believe "that it would be sensible or responsible for the House or the Government to support a new, and very expensive, link across the Channel which would preclude the provision of a road vehicle ferrying facility and which would therefore involve the construction of an entirely separate fixed link if such a facility were to be required in the future" (paragraph 130).

The Committee "accordingly recommend that serious consideration should be given to the construction of a single track 6.85 metre railway tunnel across the Dover Straits" (Paragraph 131)

In order to emphasise their wish to ensure that the railways have every opportunity to exploit the new link without the need to plan immediately for road based traffic also, the Committee further recommend "that legislation should be put before Parliament to provide powers initially for the construction of a tunnel of up to 6.85 metres internal diameter and such land based facilities as are required for the rail only link. If it is subsequently decided that the expansion of facilities to cater for road vehicle ferrying is desirable, further legislative powers will be required from Parliament and, if necessary, a separate public consultation and inquiry procedure will need to be adopted" (Paragraph 133).

Because of the long term importance of keeping open the option of expanding the tunnel's facilities and the very much greater costs which would, by general consent, be involved in the construction of a separate large tunnel or the cost and inconvenience which would be involved in subsequently enlarging the bore of the first tunnel from 6 to 7 metres, the Committee think that "there may be a case for treating the additional cost of the enlarged tunnel as a public investment for the future which should not fall on the private developers of the initial scheme" (paragraph 135).

#### VI FINANCE (Paragraphs 140 to 157)

In paragraphs 140 to 151 the Committee summarise the Government's position and the attitude of promoters towards the financing of a fixed Channel link. In the light of the recent evidence of the Secretary of State's willingness to contemplate certain basic forms of guarantees and of the serious interest in banking circles to reach a solution based primarily on private capital the Committee believe "that a form of financial package acceptable to both the Government and the financial interests may be in sight" (Paragraph 152).

The Committee nonetheless advise the House "to examine closely the terms and consequences of any public guarantees which may be offered by the Government" (paragraph 155).

Although the Committee "believe it right that the burden of financing a fixed Channel link should fall overwhelmingly on the private sector" (Paragraph 156), they think that "the Government may have to review its refusal to invest any money at all in the project if a relatively small injection of public funds were to prove to be the key to the provision of an acceptable financial package" (Paragraph 157).

#### VII FURTHER STEPS (Paragraphs 158 to 164)

The Committee comment that the most critical factor in any decision to proceed with a revived Channel link project is the attitude of the French Government and authorities, and recall the reluctance of the French Government to make any public commitment at this stage in the light of what they understandably regard as a breach of faith by the British Government in 1975. The Committee hope that "informal discussions between officials of the French and British Transport Ministries will be sufficiently detailed to ensure that whatever preliminary decisions are arrived at by the British Government they will as far as possible take account of the acceptability of the proposals to the French Government" (paragraphs 158-160).

The Committee recommend that "if the Government wish to proceed to formal negotiations with the French authorities their next step should be to submit outline proposals for a fixed link scheme to the House. These proposals should take the form of a White Paper containing both the Secretary of State's response to our Report and the results of his assessment of the proposals submitted to him, together with recommendations concerning a preferred option or options and proposed methods of managing and financing the project. This White Paper should be debated by the House on a substantive motion allowing the opportunity of a clear decision on the principles involved" (Paragraph 161). Meanwhile, a number of separate studies (including the regional, economic and social impacts of the proposed link, and the other transport infrastructure implications) may need to be pursued (paragraph 162).

#### VIII CONCLUSIONS (Paragraphs 165 to 167)

The Committee conclude that all the indications are that a scheme of the kind preferred by them - a single track railway tunnel built to dimensions which would permit the expansion of services at a later date - "will prove reasonably acceptable to public opinion and the interests directly involved, and will be financially profitable. It will also, in our view, give a much needed boost to railway transport in this country and provide the nation with a mode of Channel crossing which will bring benefits in terms of time and comfort" (Paragraph 166).

The Committee believe, moreover that "the evidence suggests that there is a wealth of enthusiasm, expertise and goodwill amongst those who have made proposals to us and to the Secretary of State which may now be pooled to achieve a result which should be to the long term benefit of the country and in the short term could provide a substantial fillip to British industry." (Paragraph 167).

#### Note to Editors

The Report on the Channel Link was considered by the Transport Committee at meetings on Wednesday 28th January and Wednesday 4th February and was finally approved by them on Wednesday 11th February.

The Members of the Committee at the time of the approval of the Report were: Mr. Tom Bradley (Chairman), Mr. Gordon A.T. Bagier, Mr. Sydney Bidwell, Mr. Neil Carmichael, Mr. Harry Cowans, Mr. Stephen Dorrell, Mr. Den Dover, Mr. Peter Fry, Mr. Barry Porter, Sir David Price, and Mr. Gary Waller.

Tauson

NOTE FOR THE FILE

The channel link

M. Wahl of President Giscard's office telephoned me yesterday to say that he had been approached by someone whom he described as a very important figure in the French construction industry who had told him that the Prime Minister wanted to reopen the question of a cross-channel link. According to M. Wahl's contact, Mrs. Thatcher was talking about a channel bridge which would carry both trains and cars. The Prime Minister was said to be pressing to set up a Franco/British Committee to study such a project.

M. Wahl said that he would have to report this approach to President Giscard but before he did so, he would like to establish whether what had been reported to him about the Prime Minister's views was true.

After consulting the Prime Minister, I rang M. Wahl back later in the evening to tell him that there was no truth in what his contact had told him. Our belief was that the report he had received had originated from a private and informal meeting which the Prime Minister had had with Mr. Ian MacGregor, the new Chairman of the British Steel Corporation, in mid November. The discussion on that occasion had ranged very widely, and in the course of it Mr. MacGregor had advocated the construction of a channel tunnel (not a bridge). Obviously he was hoping that in any such project there would be substantial orders for BSC. The Prime Minister had, however, done no more than express interest in Mr. MacGregor's idea and had not in any way lent her support for it or committed herself to it. As far as she was concerned, the position on a possible channel link was as Mr. Fowler and his French colleague, M. Hoeffel, had left it at their meeting shortly before Christmas. It was not clear how much M. Wahl knew about this meeting, and I therefore recounted to him the essentials of Mr. Fowler's minute of 22 December 1980 to the Prime Minister.

/ M. Wahl

M. Wahl said that he was grateful for this explanation of the Prime Minister's attitude to a possible channel link and he would report accordingly to the President, making it clear that the account he had been given of the Prime Minister's views had been heavily embroidered. I said that I was glad that he had felt able to check the story with us before mentioning it to President Giscard.

*MW.*

21 January 1981

CONFIDENTIAL

R H

*Transport*

2 January, 1981

The Prime Minister was grateful for the Minister of Transport's report, in his minute of 22 December, of his discussions with M. Hoeffel on the question of a fixed Channel link.

I am sending copies of this letter to Peter Jenkin (HM Treasury), Francis Richards (Foreign and Commonwealth Office) and David Wright (Cabinet Office).

**M. A. PATTISON**

A Mayger Esq  
Department of Transport

CONFIDENTIAL

*So*

cc Press  
Mr Duguid 2/11



Prime Minister

**CONFIDENTIAL**

MND 29/11/16

ms

PRIME MINISTER

You will wish to know the outcome of my recent meeting with my French opposite number on the question of a fixed Channel link.

My meeting with M. Hoeffel was fairly encouraging. He had spoken to President Giscard about our interest in a fixed link if the right privately financed scheme could be found. He went out of his way to underline the importance of cooperation between us on transport matters. And, although he indicated clearly that the French Government does not want any overt moves until after the Presidential election, my strong impression was that there is considerable interest on the French side in reviving a suitable project; and that they would welcome a private capital approach.

I am expecting to receive next month details of the single bore tunnel scheme being developed by the two Railways and also various other proposals - for bridges as well as tunnels - from various private consortia. In addition I hope to have advice from the five Merchant Banks involved last time on private financing prospects; whilst the Select Committee's Report on their Inquiry should be to hand about the same time.

We shall then be in a position in which I can begin seriously to make progress in forming a view on whether a good commercial scheme exists which could be privately financed and on which Britain and France could agree.

ms

**CONFIDENTIAL**

**CONFIDENTIAL**

At this stage some joint study would obviously be essential. I have accordingly arranged to see M. Hoeffel again shortly after the Presidential elements; and he readily agreed that, meanwhile, informal technical discussions should continue between the two Railways and between officials. I remain hopeful - as I told the Select Committee last month - that preliminary joint conclusions might be possible by the end of next year.

Copies of this minute go to Geoffrey Howe, Peter Carrington and Sir Robert Armstrong.

*N.F.*

NORMAN FOWLER  
22 December 1980

**CONFIDENTIAL**

IN CONFIDENCE



10 DOWNING STREET

5 December 1980

THE PRIME MINISTER

*Baron Philippe de Rothschild*

Thank you for your letters of 20 and 28 November about the enquiries you have been making of President Giscard's senior staff on the subject of a fixed cross-Channel link. It is kind of you to keep me informed of the views of the French Government. I understand their attitude on the renewal of interest in a fixed link and have taken careful note of your offer of good offices.

I was glad to learn that you will be lunching with Norman Fowler and Christopher Soames on 18 December. They have of course seen our correspondence and I am sure that at your meeting you will together be able to clarify the issues further.

*Yours sincerely*  
*Margaret Thatcher*

Baron Phillipe de Rothschild



Trans 007

✓ MHP

Foreign and Commonwealth Office  
London SW1

7 August 1980

*Mr Willis,*

You wrote to Norman Fowler on 17 July commenting on his minute to the Prime Minister of 10 March about the British Rail Channel tunnel scheme. I have since seen his reply of 29 July.

It is clear that the immigration and customs facilities to be provided will be an important factor in any project. Not only are there implications for public sector manpower and finance but the nature of these arrangements may well affect the ability of any fixed channel link to realise its potential as a rapid and direct means of travel.

We shall maintain an interest in your proposals as they develop. In the meantime I would like to comment on your suggestion that the costs of immigration control might be passed on to the passengers themselves. I see objections of principle to this. Immigration control is eventually for the national benefit and so it can be argued that it is the taxpayer rather than the traveller who should pay the cost. It is true that the traveller makes a contribution if he has to pay for a visa but we have deliberately, by bilateral agreement, removed this impediment to free travel between ourselves and all the countries of Western Europe. A charge for immigration services levied on travellers, either  
/directly

The Rt Hon William Whitelaw CH MC MP  
Secretary of State for the Home Department  
Queen Anne's Gate  
London SW1

CONFIDENTIAL

directly or as an element in the fare, could be seen in some measure as an impediment to travel. It would be particularly unfortunate if such a charge were to be levied in a discriminatory way on travellers using the fastest link between Britain and the Continent.

More specifically, in the Community context, such a proposal might be considered a barrier to the free movement of labour and could be challenged in the European Court. The Commission and a number of our continental partners are already querying our system of immigration control at ports of entry, <sup>as</sup> shown for instance by the Commission's recent submission in the Pieck case (where the European Court has ruled against the present arrangements under which passports of Community nationals are endorsed with a limited leave to enter) and their continued failure to understand our lone opposition to a proposal which would make employment of illegal immigrants a criminal offence.

The whole drift of Community policy is towards relaxing barriers to travel between Member States as far as possible; the introduction of a travel tax or similar charge would therefore be damaging to our relations with the Community in a sensitive area of policy.

I am copying this letter to the Prime Minister, other members of the Cabinet, Norman Fowler and Sir Robert Armstrong.

*your w  
lan*

CONFIDENTIAL

- 8 AUG 1980





30 JUL 1960

41 42 1 2  
40 3  
43 4  
44 5



Prime Minister

Transport 4.

For information. New transport links

QUEEN ANNE'S GATE LONDON SW1H 9AT  
mean more immigration staff, with  
all expenses at present  
met by AMG.

Dear Norman

MAP 21/vii

17 July 1980

I have seen a copy of your minute of 10th March to the Prime Minister and other papers about the proposals of a fixed channel link. We are putting a note about the immigration control implications to the House of Commons Transport Committee.

There seems to be general agreement to the idea that no public money should be involved in any project that is adopted. I think it is only right, however, to make it clear to colleagues that any scheme will need extra staff for immigration control purposes.

My officials have already had some explanatory talks with British Rail about their tunnel scheme. Although one can make only the most tentative estimates at this stage, the indications are that at least 150 immigration staff would be needed to provide adequate controls at the 3 termini now being considered (West Brompton, Victoria and near the tunnel portal). There may, of course, be some reductions of staff at existing ports once the tunnel is open but the indications are that they would be small. The tunnel will generate extra traffic. Moreover, although the operating system may be efficient so far as British Rail resources are concerned, it requires more immigration officers for a given number of passengers than the system at, say, Heathrow or the channel ports.

The Channel Tunnel is not the only scheme in the transport field with similar staffing implications. Stansted and the 4th terminal at Heathrow will also need more immigration officers - perhaps 520 between them. Similar considerations must apply as regards Customs Officers.

I would not suggest that immigration staffing considerations should be the determining factor in major projects of this kind but they do need to be taken into account in costings. At present they do not figure in the British Rail equation because the Government picks up the bill and provides the necessary staff. Perhaps we should look at ways of passing on such costs to the people who buy tickets to travel rather than leaving them for the taxpayer to meet.

I am sending copies of this letter to the Prime Minister and other members of Cabinet and to Sir Robert Armstrong.

11 8 JUL 1980



CONFIDENTIAL

Transports  
file 1/10

SIR ROBERT ARMSTRONG

CHANNEL TUNNEL

I have spoken on the telephone to Mr. Fowler's Office and have put to them the points in paragraph 3 of your minute to me of 18 March on this subject. They undertook to brief the Minister accordingly.

M. O'D. B. ALEXANDER

19 March 1980

SP

# HOUSE OF COMMONS

Wednesday 19 March 1980

The House met at half-past  
Two o'clock

## PRAYERS

[Mr. SPEAKER in the Chair]

## ORAL ANSWERS TO QUESTIONS

### TRANSPORT

#### Dipped Headlights

1. **Mr. Knox** asked the Minister of Transport what representations he has received about the need to make the use of dipped headlights compulsory in built-up areas.

**The Parliamentary Secretary to the Ministry of Transport (Mr. Kenneth Clarke):** A number of representations have been received, mainly from the Night Safety Advisory Bureau, in favour of requiring the universal use of headlamps at night. There have also been representations against it.

**Mr. Knox:** Will my hon. Friend confirm that there is some evidence to show that dipped headlights are safer than side-lights in built-up areas? Will he consider introducing legislation to make the use of dipped headlights compulsory in those areas?

**Mr. Clarke:** Many people use dipped headlights at night. I do. However, it is a matter of individual judgment. At present, the Government cannot contemplate introducing any legislation to make the use of dipped headlights compulsory.

**Mr. Temple-Morris:** In his reasonable way, will my hon. Friend bear in mind that there are two sides to this argument? Does he accept that in inner urban areas a motorist finds it difficult to see pedestrians if he faces a stream of oncoming traffic that is using headlights?

**Mr. Clarke:** I know that there are two sides to the argument. However, the

decision should be left to the individual judgment of motorists. The Government could not successfully make the use of headlights compulsory.

#### Highway Surfaces (Condition)

2. **Mr. Hardy** asked the Minister of Transport what is his estimate of the cost of damage to vehicles or other property during 1980-81 as a result of unsatisfactory highway surfaces.

**Mr. Kenneth Clarke:** There is not yet any objective evidence to suggest that the condition of road surfaces generally is deteriorating seriously, or that the cost in real terms of wear and tear to vehicles and property is rising.

**Mr. Hardy:** Is the Minister aware that an increasing number of motorists show growing distress and face mounting bills as a result of those unsatisfactory roads? Will he make clear that responsibility for next year rests with this Administration and not with local authorities? It is unfair that local authorities should receive the brunt of such criticism.

**Mr. Clarke:** Many motorists criticise the standards of highway maintenance. An objective study, the national road condition survey, is being carried out to investigate the position. Responsibility rests with local authorities. They should make the best use of the resources that we make available. They must make their own decisions about priorities for road maintenance in their areas.

#### Channel Tunnel

3. **Mr. Spriggs** asked the Minister of Transport if he will make a statement on progress in planning the Channel tunnel.

11. **Mr. Whitehead** asked the Minister of Transport what recent discussions he has held concerning the Channel tunnel.

**The Minister of Transport (Mr. Norman Fowler):** I have been examining preliminary proposals by British and French railways for a single track rail-only Channel tunnel. More needs to be done before the full implications of the scheme can be judged and variations might offer different advantages. I await with interest the full proposals which are due to be put to me this summer.

The decision to have a tunnel or any other link across the Channel must firstly be for the French and ourselves, and would need suitable arrangements between the two Governments. The cost of any scheme would be very large and I should make clear now that the Government cannot contemplate finding expenditure on this scale from public funds. However, if a scheme is commercially sound, I see no reason why private risk capital should not be available.

I look forward to receiving any specific proposals, including those on which British Railways are working, which would attract genuine risk capital.

**Mr. Spriggs:** Will the right hon. Gentleman give an undertaking that work will commence on boring the Channel tunnel by 1981? Will he further undertake that, once that work has commenced, there will be continuity of operation until completion?

**Mr. Fowler:** I cannot give such an undertaking. British Railways have not put forward their final scheme. We hope that schemes will come forward that can then be examined. However, they must meet the criteria. No public expenditure is available. The schemes must, therefore, attract private capital.

**Mr. John Wells:** Will my right hon. Friend give an assurance that there will be no parliamentary delay? Will he ensure that a simple enabling Bill is brought forward at the earliest opportunity once the schemes have been prepared? My right hon. Friend has mentioned risk capital. Will he assure the House that EEC transport infrastructure funds would be acceptable?

**Mr. Fowler:** Legislation will be necessary to deal with the first point, and the House will want to consider that legislation.

Concerning the possible EEC regulation on infrastructure, we welcome the Commission's initiative in proposing infrastructure aid. The Channel tunnel would be a natural candidate. At this stage no such regulation exists.

**Mr. Booth:** Does the Minister accept that there is a strange contrast between his absolute refusal to consider transport

integration in a national context? His apparent willingness to consider it here in an international context? Does he agree that the proposal for the Channel tunnel, which is limited in scope compared with the previous proposal, offers an energy-efficient form that would facilitate freightliner services across Europe from this country? If it is of considerable public advantage, why make that development dependent upon it facilitating private profit? Finally, will the right hon. Gentleman lay before the House a green Paper so that we can debate the many implications that the proposal has for other forms of transport?

**Mr. Fowler:** It was the right hon. Gentleman's Government who ruled out public expenditure and cancelled the Channel project. It beggars belief for the right hon. Gentleman to come forward with such suggestions at this stage. The proposal is at an early stage, but, given the right scheme, there is a good opportunity for an enterprise that could be profitable and serve the national interest. I believe that the proposal would be widely welcomed by the public.

**Mr. Costain:** Does my right hon. Friend recall that in the previous proposal—

**Mr. Snape:** "Can I have a contract?"

**Mr. Costain:** Because it was a one-user project, certain guarantees had to be given to the effect that the interest would be met by the Government? Does my right hon. Friend's announcement preclude that guarantee?

**Mr. Fowler:** We are looking for genuine private risk capital, but I do not preclude consideration of guarantees in the wider area.

**Mr. Ogden:** Does the right hon. Gentleman agree that he is being a cautious Christian and that he has already seen a sufficient number of studies to decide on the project? We have British machinery for the boring, British Railways want to use the tunnel and there are interested freight and passenger users. The cost would be less than one Jumbo jet over the whole building period of the tunnel. Has the right hon. Gentleman given approval in principle? If we and others outside can find the money, will he allow us to go ahead?

**Mr. Fowler:** I thought that I had made it clear that, provided the details are right—and that is the whole point of what I am saying—there are good prospects for the tunnel. I know the hon. Gentleman's consistent interest in the subject over a long period, but I remind him that British Railways have not yet provided me with a complete scheme. He should interpret my statement as much more hopeful than any he received from his right hon. and hon. Friends.

**Several Hon. Members rose—**

**Mr. Speaker:** I shall call one more hon. Member from either side on this question, and then we shall move on.

**Mr. Alan Clark:** Is my right hon. Friend aware that there is disappointment that his guarded statement at the beginning has deteriorated? He now appears to be expressing approval of the proposal and believes that it will be in the national interest. Will my right hon. Friend accept that there is a strong political element involved in the project, whose purpose is to tie us more closely to the European Community? Will he deny published reports that he has been under strong pressure from interests in the Community urgently to approve the proposal?

**Mr. Fowler:** I assure my hon. Friend that I am under no pressure. My hon. Friend should see the matter in this way: there has been a growth of traffic across the Channel, which is likely to increase. Providing we get the right Scheme, a Channel tunnel would be the sensible way of meeting that public demand.

**Mr. Whitehead:** Will the Minister accept that, had the Channel tunnel existed, I should not have had to rely only on the airlines and would have been here five minutes earlier to congratulate him on his excellent statement? Will he confirm that nothing in the various studies he has so far seen seriously contradicts the cost estimates put forward by British Rail and SNCF at 1978 prices?

**Mr. Fowler:** I congratulate the hon. Gentleman. I know the problems that he had in getting here. None of the reports that I have contradicted the impression that the British Railways scheme, under the assessment that they are mak-

ing, is viable. However, I emphasise that we shall look at all schemes. I am asking Sir Alec Cairncross to widen his remit to take in a study of all schemes submitted to me.

**High-Speed Rolling Stock**

5. **Mr. David Watkins** asked the Minister of Transport whether any proposals have been put to him by the British Railways Board for further investment in main line high-speed rolling stock.

**Mr. Fowler:** I have not received any proposals since those referred to in my reply of 23 January to my hon. Friend the Member for Sheffield, Halam (Mr. Osborn).

**Mr. Watkins:** Is the right hon. Gentleman aware that on the East Coast main line between London, the North-East of England, and Scotland, many Inter-City trains are seriously overcrowded and the position is constantly worsening? Will he accept that that demonstrates an urgent need for additional rolling stock?

**Mr. Fowler:** I am aware of the complaints of overcrowding on that line. However, approval has been given for 95 high-speed trains, and 60 of these are already in service.

**Mr. Adley:** Is my right hon. Friend aware that, regarding investment in high-speed rolling stock, electrification or the Channel tunnel, British Railways feel increasingly that they could obtain funds other than Government funds were they not restrained by current legislation? Is my right hon. Friend considering discussions with the chairman of British Railways to change the financial relationship between the Government and British Railways over profitable new investment?

**Mr. Fowler:** I am starting discussions with the chairman of British Railways, and am prepared to consider that point.

**Mr. Flannery:** Is the Minister aware that, although the trials and building of the high-speed rolling stock took place in the Derby area, the line from Sheffield to St. Pancras is steadily deteriorating and a diversion is necessary on the main line from Edinburgh to complete the journey in 3½ hours? Will he take action? Is he aware that South Yorkshire believes that it is considered a non-viable area

because it does not have a proper rail connection?

**Mr. Fowler:** I do not accept that generalisation. We have recently approved four high-speed trains on the East Coast main line. I am prepared further to consider the position of Sheffield.

**Mr. Gummer:** I understand that my right hon. Friend is to visit my constituency in the autumn. When he does so will he note the great need for high-speed anything on the line to Norwich? When he considers these proposals, will he bear in mind the bad journey that he will experience on his way to Diss?

**Mr. Fowler:** I am not sure that I regard that as the best way to persuade me to visit my hon. Friend's constituency. I shall certainly look at transport provision, including rail provision, in the East of England.

#### "Towards a Commuters' Charter"

8. **Mr. Haselhurst** asked the Minister of Transport what analysis he has made of the British Railways Board's publication "Towards a Commuters' Charter"; and if he will make a statement.

**Mr. Fowler:** I am anxious to see an improvement in commuter services. I therefore welcome the commuters' charter, especially since it helps define the service improvements that the customer wants. I also attach great importance to the inquiry by the Monopolies and Mergers Commission on the efficiency and quality of service of British Rail's London commuter services.

**Mr. Haselhurst:** Is my right hon. Friend aware that he could make a major contribution to improving commuter services, particularly between London and the North-East, if, in concert with his right hon. Friend the Secretary of State for the Environment, he allowed British Railways to pull down Liverpool Street Station, brick by brick, and redevelop it?

**Mr. Fowler:** I shall certainly discuss that rather drastic proposal with the chairman of the British Railways Board. As for the general issue of improving commuter services, particularly those in my hon. Friend's constituency, I emphasise again the importance that I place on the

examination of those services by the Monopolies and Mergers Commission.

**Mr. Snape:** Does the right hon. Gentleman agree that no other railway in the world moves as many commuters in a day as does Southern Region? Will he take this opportunity to dissociate himself from the silly comments of his right hon. Friend the Minister for Consumer Affairs in connection with the investigation of commuter services, especially since the right hon. Lady usually rides around in a Rolls-Royce and not a commuter train?

**Mr. Fowler:** I back entirely what my right hon. Friend said about the importance of the Monopolies and Mergers Commission's investigation into the efficiency and quality of commuter services. I agree with the hon. Gentleman's first remarks, but the efficiency and quality of commuter services has not been investigated in this way before. I think that it is in the interests of commuters, and that, after all, is what we are about in transport policy.

**Mr. Higgins:** Is my right hon. Friend aware that there are probably far more people in favour of improving commuter services than there are in favour of the Channel tunnel? Will he therefore make clear that, when he says that public funds are not to be used on the Channel tunnel, he is referring also to public funds under the control of British Rail which could be used for commuter services and other purposes?

**Mr. Fowler:** My right hon. Friend takes me back one stage. I do not complain about that, but I do not agree with the division that he is making. Clearly the impact on commuter services is a matter which we shall study when we look in detail at the Channel tunnel schemes that are put forward. I disagree when my right hon. Friend says that the Channel tunnel will not be of great benefit. I believe that it will be of benefit both to the public and to the railway industry.

**Mr. Prescott:** Will the right hon. Gentleman give a commitment that if the inquiry into commuter services in the South-East establishes that there is a lack of investment in that area he will raise public money and provide the appropriate investment for those services?

cc Euro Pol (Budget) P16



Ref: A01709

CONFIDENTIAL

MR. ALEXANDER

Channel Tunnel

In his minute of 10th March the Minister of Transport sought the Prime Minister's agreement to a draft Parliamentary statement, to be made on 19th March, about the Government's attitude to the construction of a Channel Tunnel. Mr. Pattison's letter of 13th March conveyed the Prime Minister's approval of the statement, which is indeed unexceptionable; but since the minute itself refers to the possibility of Community support the Prime Minister may find it helpful to have this note on the Tunnel's possible relationship to our net contribution problem.

2. The Commission of the European Community are interested in this question: the Channel Tunnel was identified as potentially eligible for Community finance in the Green Paper on transport infrastructure they issued last November, and Commissioner Burke gave support to the idea at a news conference in London earlier this week to publicise a study of the project prepared by consultants at the request of the Commission. The Commission's recent paper on supplementary receipts for the United Kingdom mentioned expenditure on transport infrastructure and measures designed to link the United Kingdom more closely to the rest of the Community as possible candidates for extra Community spending in the context of an overall solution to our Budget problem.

3. In fact, while it is likely that aid for a Channel Tunnel would appeal to our partners on communautaire grounds, it can have no direct relevance to our budget problem for two reasons. First, the timescale of the project, once approved, is such that no significant benefit could accrue to the United Kingdom from Community funds for several years. Second, since it is not the intention to provide any Government finance, any contribution from the Community to the cost of the Tunnel could not be in substitution for planned Government expenditure. Thus while Community support for a private venture might produce a resource gain, it could not of itself have the desired effect of reducing our net Budget contribution or the PSBR.

CONFIDENTIAL



CONFIDENTIAL

4. It might accordingly be worth your sending the Minister of Transport's Office a second letter, cautioning Mr. Fowler against giving any impression, in answer to supplementaries, that Community finance for a Channel Tunnel can make any substantive contribution to a solution of our Budget problem at the March European Council. He could do this by making it clear, if he was asked about this in supplementaries, that any Community financial support for a Channel Tunnel was unlikely to be forthcoming in time to help with the solution of our immediate Budget problem.

(Robert Armstrong)

18th March 1980

CONFIDENTIAL

PRIME MINISTER

told Mr Fowler's office by telephone that he should <sup>Transpnd</sup> answer during Questions; also told CDL's office and Chief Whip's office. PA

Channel Tunnel

MJS

Last week Mr. Fowler sent you a draft statement on the Channel Tunnel (Flag A). You approved it.

He would now like to make the statement tomorrow, following his Questions; and has written to secure agreement to this course of action (Flag B).

Although I would not want to press objections too far, his statement is not very dramatic and may be a bit of a damp squib. What is more, I am not sure Mr. Fowler is equipped to deal with all the possible supplementaries which could arise about our relationship with France and Community matters more generally. It would be unfortunate if he put his foot in it at this delicate stage in our negotiations with the EEC. In my view, he could perfectly well give the information in response to a question he has from Leslie Spriggs at Q3. Notwithstanding these doubts, are you content for Mr. Fowler to make an oral statement tomorrow?

MJS

I don't see that there is anything to make a statement about? (but it be done by written answer or in reply to an oral question. The relevant information could be compressed into 3 sentences. Otherwise I fear a great anti-chinese note)

18 March 1980



DEPARTMENT OF TRANSPORT  
2 MARSHAM STREET LONDON SW1P 3EB

Nick Sanders Esq  
Private Secretary to  
the Prime Minister  
10 Downing Street  
LONDON  
SW1

18 March 1980

*Dear Nick*

The Prime Minister agreed last week the general line of the statement Mr Fowler proposes to make tomorrow, Wednesday 19 March, about the Channel Tunnel. At that stage Mr Fowler thought it would be reasonable to take the opportunity of Question 3 on the Order paper and simply make the statement in the course of Questions.

After talking to the Leader of the House today however, he thinks it would be more appropriate to make a statement at the end of Questions. The Channel Tunnel is an important issue, in which there is increasing interest both in the House and outside and the Minister's statement represents a significant change from the previous Administration's approach. There might be criticism if he did not make an oral statement on such an important issue part from possible complaints that he was using up a large part of Question Time on one issue when there were a number of important questions on the Order Paper.

I am copying this letter to the Private Secretaries to the Leader of the House of Commons, the Leader of the House of Lords, the Paymaster General, and the Chief Whips. We will circulate final text of the statement tomorrow in the normal way.

/two  
/a

*Yours*

*Genie*

MRS E C FLANAGAN  
Private Secretary

110 MAR 1960





Secretary of State for Industry

*Transport MAP*

DEPARTMENT OF INDUSTRY  
ASHDOWN HOUSE  
123 VICTORIA STREET  
LONDON SW1E 6RB  
TELEPHONE DIRECT LINE 01-212 3301  
SWITCHBOARD 01-212 7676

17 March 1980

The Rt Hon Norman Fowler MP  
Minister of Transport  
Department of Transport  
2 Marsham Street  
London SW1

*Jan Norman*

Thank you for copying to me your letter of 10 March to the Prime Minister on the Government attitude towards construction of the Channel Tunnel.

I agree that at this stage we are not in a position to take a firm view. As you suggest, we need to examine further the various alternatives open to us while at the same time emphasising the limits of the Government role. I think your draft statement makes these points quite clear.

I am copying this letter to Cabinet colleagues and Sir Robert Armstrong.

*Jan*

*Kerr*

CONFIDENTIAL

VLS.



FILE

CC	CO	NIO	D/Ind
	SO	WO	HMT
	PGO	D/Env	F20
	CSO	MAFF	LCO
	DES	LPS	HO
	D/N	D/Envp	
	DOT	LPO	
	CDL	MOD	
	DHSS		

10 DOWNING STREET

From the Private Secretary

13 March 1980

*Transport*

The Prime Minister has seen the Minister of Transport's minute of 10 March about proposals for a fixed Channel link. (As you know from previous exchanges, the Prime Minister will want to ensure that the bridge option is not discarded prematurely.)

The Prime Minister is content that your Minister should make a Statement on the lines proposed, offering encouragement to the concept, but making it clear that Government financial support is not contemplated. She would, therefore, be content with the text enclosed with Mr. Fowler's minute.

You will no doubt clear the timing and form of the Statement in the usual way in due course.

I am sending copies of this letter to the Private Secretaries to other members of Cabinet and to David Wright (Cabinet Office).

M. A. PATTISON

Mrs. E. C. Flanagan,  
Department of Transport.

CONFIDENTIAL

*df*

PRIME MINISTER

Mr. Fowler proposes to announce Government encouragement for further private sector work on a Channel tunnel.

Other Ministers (notably the Chancellor) are likely to want to comment. I bring this to your attention now because Mr. Fowler is coming in tomorrow for a general talk with you. You will perhaps wish to await comments from colleagues before agreeing to the statement. You might also want to ensure that the bridge option is given a fair run - this was drawn to your attention recently.

11 March 1980

PRIME MINISTER

You will have seen that there has been increasing press interest recently in the Channel Tunnel. I have now completed my initial examination of British Rail's scheme for a single bore rail Tunnel and I will need to make a statement on this when I next face oral questions on 19 March. I think it would be right to give some indication at the same time of the Government's general attitude to the construction of a fixed Channel link.

I attach a draft of the statement that I would propose to make. It is clear that we must keep options entirely open. There can be no question in current circumstances of public money. A decision to go ahead with the French could at the right time be a powerful indication of improving relations with the French and the Community generally and there is also the real possibility of Community support for a fixed link. But this is clearly not the right time.

On the other hand I see no advantage in adopting the Labour Government's negative stance and ruling out all possibility of a link being built. If private capital can be attracted - and I believe it could to the right project - it seems to me entirely right that we should do what we can as Government to create the right climate for a successful link to be built. The statement makes it clear that there is no prospect of any public money and that the Government's role is therefore restricted to the necessary task of treaty arrangements

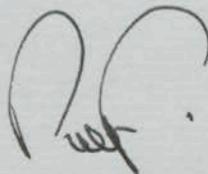
CONFIDENTIAL

and so on. But it also says that within those limitations the Government will consider proposals sympathetically. We thus have a positive stance, but no commitment.

You will see that the statement says relatively little about the British Rail project itself. The work Sir Alec Cairncross and my Department have done on the scheme so far raises questions about the economic return if the scheme is restricted to classic rail traffic. If a car ferry operation were added there would probably be a better return and the scheme might attract private capital. But this would be a more controversial scheme.

British Rail's definitive proposals are due to reach me in July and the various private groups who are working on alternative schemes are likely to submit them soon. I hope you will agree that this preliminary statement, with its firm emphasis on private interests, will provide the right framework against which to consider them.

I am copying this minute to Cabinet colleagues and to Sir Robert Armstrong.



---

NORMAN FOWLER  
10 March 1980

CONFIDENTIAL

CONFIDENTIAL

DRAFT STATEMENT ON CHANNEL TUNNEL

As the House knows, I have been examining with the assistance of Sir Alec Cairncross preliminary proposals by the British and French Railways for a single bore rail-only Channel Tunnel. There are also a number of other schemes for fixed channel links on which the House may want to have my general views at this stage.

I have no reason to doubt the technical feasibility of the British Rail scheme. But more needs to be done to provide a basis for judging its full implications and it may be that variants of the scheme could offer different advantages. I therefore await with interest the full proposals which the Railways Board are due to put to me this summer.

On the general question, the decision to have a link across the Channel must be for the French and ourselves in the first place. We would need treaty arrangements between the two Governments. There would also be wider European implications. But for any of the possible schemes the construction costs would be very large and I should make it clear now that the Government cannot contemplate finding expenditure on this scale from public funds. However, if a scheme is commercially sound, I see no reason why private risk capital should not be available.

I shall be interested to learn of proposals in this form including those on which British Rail are working. I will be prepared to consider them in the context of necessary consultations with the European and domestic interests concerned.

CONFIDENTIAL



*Await Mr Fowler's minute*

*Transport 14/29/2*



DEPARTMENT OF TRANSPORT  
2 MARSHAM STREET LONDON SW1P 3EB

Mike Pattison Esq  
Private Secretary to  
the Prime Minister  
10 Downing Street  
LONDON  
SW1

25 February 1980

*Dear Mike*

You asked in your letter of 14 February whether the bridge options for a fixed channel link had been entirely dismissed.

The short answer is 'no'. But they look pretty unlikely runners. They are likely to be three or four times the cost of the railways scheme and there could be considerable political problems because of interference with shipping. We understand one or two bridge schemes are in preparation by private interests and the Cooper and Lybrand study for the EEC Commission (whose report has been received but not yet released) has also considered bridge options.

Now that Mr Fowler has received Sir Alec Cairncross' preliminary views on the British Rail proposal for a tunnel, he will be writing to the Prime Minister very shortly about the Statement he is committed to making to the House. This is bound to be a holding statement because there are some questions still to be answered about the BR scheme as well as the other options and the outstanding question of ~~BR~~<sup>EEC</sup> money. An important question to be decided over the next year or so will be what alternatives, if any, are worth looking at and how this should be done. The availability of private risk capital will obviously be a major factor. But Mr Fowler will be covering all these points in his minute to the Prime Minister.

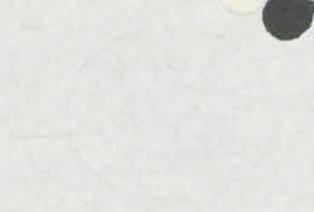
*Yours*

*Gene*

MRS E C FLANAGAN  
Private Secretary

26 FEB 1980

12 1 2 3 4 5 6 7 8 9 10 11 12



[The body of the document contains several paragraphs of extremely faint, illegible text, likely bleed-through from the reverse side of the page. The text is too light to transcribe accurately.]

file 516

Management

14 February 1980

There was some correspondence between our offices in the second half of last year about further study on a Channel tunnel. Sir Alec Cairncross is now preparing advice on a single track scheme.

The subject of a fixed transport link across the Channel has been raised with the Prime Minister once or twice recently. She has now asked me to find out whether the bridge option has been entirely dismissed. She understands that the EEC commissioned a study on a fixed link from Coopers and Lybrand. This presumably considered both bridge and tunnel options.

I would be grateful for any comments you may have on the status of the bridge possibility, and your views as to whether there is likely to be any further research or discussion on this alternative.

M. A. PATTISON

Miss E.C. Flanagan,  
Department of Transport

✓

PRIME MINISTER

CHANNEL BRIDGE

I enclose a letter, which is self-explanatory, from Nigel Seymer, one of the members of the CPS Study Group on Transport.

Seymer spoke to me about this at the reception at St Stephen's Club last Monday. I have had his letter, which was rather badly typed, retyped. The subject is outside the normal remit of the Policy Unit, but is obviously important.

*John*

*John*

JOHN HOSKYNS  
11 February 1980

*We might ask Norman  
John check the status of play.  
OK*

Nigel

*We would be grateful if you could phone  
this. Thanks.*

*Andrew*

COPY

Bathealton Court  
Taunton

6 February 1980

John Hoskyns Esq  
10 Downing Street

Dear John

The Channel Bridge

When we spoke on the phone just now, following our chat at the CPS party on Monday, you suggested that I should set down on paper what is worrying me about the way the possibility of a Channel Bridge is being handled.

What worries me is the danger, as I see it, that the case for a bridge - which could carry both road and rail traffic - is in some danger of going by default because the base for it is not being pushed by anybody with resources to back it, whereas the case for a single-track rail tunnel is of course being actively pushed by BR and SNCF - and the rail lobby seems to be strong both in London and in Brussels.

I heard yesterday from a partner in Freeman, Fox and Partners that the Coopers and Lybrand study on the effect of a fixed link, commissioned a year ago by the EEC, is not being published for the time being. Might this be because it is too favourable to the case for a bridge, and has therefore incurred the displeasure of the rail lobby?

As regards the Government's attitude, we know that Fowler commissioned Cairncross to report on the case for the single-track rail tunnel; but not to look at the case for a bridge. The EEC study was at least concerned with all types of link. But what nobody has been doing is finding answers to the outstanding questions regarding a bridge - notably as regards its effect on navigation in the Straits.

I might mention here that I attended a seminar on navigation in the Straits held by the Nautical Institute last May. On that occasion Captain Emden, RN, who is in charge of HM Coastguard surveillance of the Straits, told me that he favoured a bridge - because it would eliminate the cross-traffic.

In this country, the RAC has taken the lead in putting the case for the bridge before the Government (the BRF is a broken reed in this matter, partly because their membership includes the ferry operators). The RAC wrote to Fowler on 30 August, expressing the fear that there was a "real danger of premature decisions" being taken - in favour of a rail tunnel.

Fowler wrote back on 8 October, saying that no final decision would be taken without public debate, but pointing out that "so far no other fixed proposals" (ie other than the BR proposal) "have been formally submitted".

This is quite true: no bridge proposal has been FORMALLY submitted. At the same time Fowler's civil servants have been informed of the results of work done by Freeman, Fox over a year ago - in which I played some part.

The question I want to raise is this: on a matter of such great national importance, why does our transport ministry have to wait for a private

body to submit bridge proposals? Is it not (as I am inclined to think) a dereliction of duty on their part to fail to investigate fully all aspects of the bridge possibility?

It is perhaps worth mentioning that the Danish Government decided many years ago that the best type of fixed link across the Great Belt (10 miles wide) would be a road and rail bridge. If the Danes have got it right then we shall have got it wrong if we go for a rail tunnel: it's as simple as that.

Yours sincerely

Nigel Seymer



TRANSPORT MFJ  
cc D/Trans  
700  
HMT

10 DOWNING STREET

THE PRIME MINISTER

7 November 1979

Original in CF

Dear Horace,

Thank you for your letter of 19 October about EEC interest in a possible fixed transport link across the Channel. I agree about the potential importance of a link to London and the South East, and indeed to the whole country, and I recognise the efforts you have made to focus public attention on this.

The EEC Commissioners have not yet agreed on their paper about Community support for transport "infrastructure". Its publication, originally expected early this year, has been substantially delayed.

However there are already indications that the Commission sees a fixed Channel link as a candidate for some kind of Community help. Let us see what the paper says before we commit ourselves. We must also have regard to other calls on our budget.

Yours  
Margaret

Sir Horace Cutler, O.B.E.



Transp/MSK  
file

10 DOWNING STREET

*From the Private Secretary*

1 October 1979

The Prime Minister has seen your letter to me of 27 September, seeking her approval to the announcement of Sir Alec Cairncross' appointment to advise on the single track Channel Tunnel Scheme.

The Prime Minister is content for your Minister to go ahead as he proposes.

**N. J. SANDERS**

Mrs B E Riddell,  
Department of Transport



DEPARTMENT OF TRANSPORT  
2 MARSHAM STREET LONDON SW1P 3EB

N Sanders Esq  
Private Secretary to  
The Prime Minister  
10 Downing Street

1  
PRIME MINISTER

Content for the announcement to  
be made next week? *MS*  
27 September 1979

*Yes out*

*Dear Nick*

CHANNEL TUNNEL

*attached /*

In his letter of 24 July my Minister sought the Prime Minister's approval to Sir Alec Cairncross' appointment to advise on the British Rail single track Channel Tunnel Scheme. Your letter of 30 July gave the Prime Minister's approval, subject to certain conditions, and you have since indicated the Prime Minister's wish to be kept informed of progress in advance of any public announcement.

/ Sir Alec has now agreed to undertake this task and my Minister wishes to make an early announcement of his appointment as in the draft Press Notice enclosed, preferably next week.

I should be glad to know whether the Prime Minister is content that he should go ahead.

*Yours sincerely*

*Barbara Riddell*

MRS B E RIDDELL  
Private Secretary

DRAFT PRESS NOTICE

Norman Fowler, Minister of Transport, has appointed Sir Alec Cairncross to advise him on the new British Rail proposal for a single track rail tunnel under the Channel.

Sir Alec headed the Advisory Group on the previous Channel Tunnel proposal which was cancelled in 1975.

A report on the new proposal was submitted to Mr Fowler earlier this year by British Rail, after joint studies with French Railways. He has since been studying this report, but will not form a view on it until he has the expert opinion of Sir Alec Cairncross. The Government is not, of course, committed to this proposal or to any other fixed cross-Channel link.

NOTE TO EDITORS

Sir Alec Cairncross is Chancellor of the University of Glasgow. He was Master of St Peter's College, Oxford 1969-78 and Head of the Government Economic Services 1964-69.

The BR/SNCF Report covers technical, financial and economic aspects of a single-track rail tunnel through which "flights" of passenger and freight trains would run. This would provide a direct passenger service between London and Paris and London and Brussels. It would also link the freight networks of British Rail and the continental railways. BR and SNCF are now developing the initial feasibility study into a more definitive proposal.

28 SEP 1979

11 12 1  
9 4 2  
8 7 6 5 4 3

Transport

cc HO  
FCO  
HMT  
DPI  
LPO  
DM  
MAFF  
DOT  
DN  
CS, HMT  
CSD  
CO

TMP

**CONFIDENTIAL**



10 DOWNING STREET

From the Private Secretary

30 July 1979

Dear Geie

THE CHANNEL TUNNEL

The Prime Minister has seen the Minister of Transport's minute of 24 July. She is content that Sir Alec Cairncross should be asked to undertake the study which Mr. Fowler proposes, on the clear understanding that there is no commitment at this stage. No doubt you will also meet the point made by the Chancellor of the Exchequer in the second paragraph of his minute of 27 July.

I am copying this letter to the Private Secretaries to the Members of E, David Laughrin (Civil Service Department) and Martin Vile (Cabinet Office).

You are

Nick Saden

Mrs. E.C. Flanagan,  
Department of Transport.

**CONFIDENTIAL**

MFJ

CONFIDENTIAL



Treasury Chambers, Parliament Street, SW1P 3AG  
01-233 3000

PRIME MINISTER

I have seen Norman Fowler's minute to you of 24 July suggesting that Sir Alec Cairncross should be asked to advise on British Rail's Channel Tunnel proposals.

2. I see no objection to this, provided that we maintain our non-committal attitudes towards the concept of a crossing. However, if Sir Alec's remit is to extend to the financing of the proposal and its institutional framework i.e. the choice of public or private sector finance (where I understand that the British Rail study makes no specific proposals), I suggest that he should be asked to consult the Treasury.

3. I am sending copies of this minute to Norman Fowler, Members of 'E' Committee, Sir Ian Bancroft and Sir John Hunt.

A handwritten signature in dark ink, appearing to be 'G.H.'.

G.H.

27 July 1979

CONFIDENTIAL

with TL  
DIP papers

28 JUL 1979



CONFIDENTIAL



PRIME MINISTER

CHANNEL TUNNEL

I have seen Norman Fowler's minute to you of 24 July about the renewal of interest in the Channel Tunnel. I think that we should press ahead with studies of this project which I believe would in the long run be a major contribution to our trading links with Europe. It would also be another area where we should be seen to be acting in the interests of the EEC as a whole. Obviously we must examine every way of minimising the cost to the Exchequer by involving private sector capital and assistance from the EEC. I think a study by Sir Alec Cairncross on the prospects for this project would be a helpful springboard.

I am copying this minute to members of E, Sir Ian Bancroft and to Sir John Hunt.

A handwritten signature in blue ink, consisting of the letters 'J' and 'N' in a stylized, cursive font.

J.N.

Department of Trade  
26 July 1979

27 JUL 1979



COMMUNICATIONS

Prime Minister

1

**CONFIDENTIAL**

This seems alright provided it is made clear that it does not involve any commitment at this stage to build the tunnel. Mr. Milt (Flask) favours the proposed study.

PRIME MINISTER

*Yes - I should like the study to go ahead now.*

Agree, provided the Chancellor is content?

*IL 27/7*

You may have noticed that there has been a recent renewal of interest in the idea of a Channel Tunnel. British Rail have just completed a joint study with the French Railways of a possible rail link; the EEC Commission are looking at a number of other possibilities as part of a wider study of Community infrastructure; and the Greater London Council have also expressed interest in the idea again. As a result I am increasingly being pressed about the Government's attitude.

The idea is not one which fits easily into present economic circumstances, and the simple answer must be that even the relatively cheaper rail scheme is, at £325m for the UK share, far too expensive for us to consider seriously just now. But I think it could be a mistake to rule it out entirely on those grounds, without any more detailed consideration. The rail scheme does seem to have some prospect of viability and there is therefore a real chance this time of involving private sector capital from both here and abroad, and there may be a prospect of assistance from the EEC as well. In any case, work could not start on any tunnel before the early 1980s when our economic situation may be different. But to judge the viability of British Rail's and other ideas we need to do some further work.

**CONFIDENTIAL**

**CONFIDENTIAL**

What I would like to do therefore, with your agreement, is to ask Sir Alec Cairncross, who headed the Advisory Group which reported on the earlier project, to look at the rail scheme and the general proposition and let me have his advice. This would, of course, be without any Government commitment to whether there should be a crossing or not and I would make this clear. Sir Alec's views command a great deal of respect in this field and his appointment would help us practically, in giving us an independent and informed assessment. Whatever the eventual outcome, there are also presentational advantages.

If you agree, and Sir Alec is prepared to accept, I would announce his appointment within the next few weeks. My Department will of course consult the Civil Service Department about the terms of his appointment.

I am copying this minute to members of E, Sir Ian Bancroft and to Sir John Hunt.

N.F.

NORMAN FOWLER  
24 JULY 1979

**CONFIDENTIAL**

24 JUL 1979

