

WYEBRIDGE JUNCTION, MONMOUTH

Junction Capacity and Pedestrian Improvements

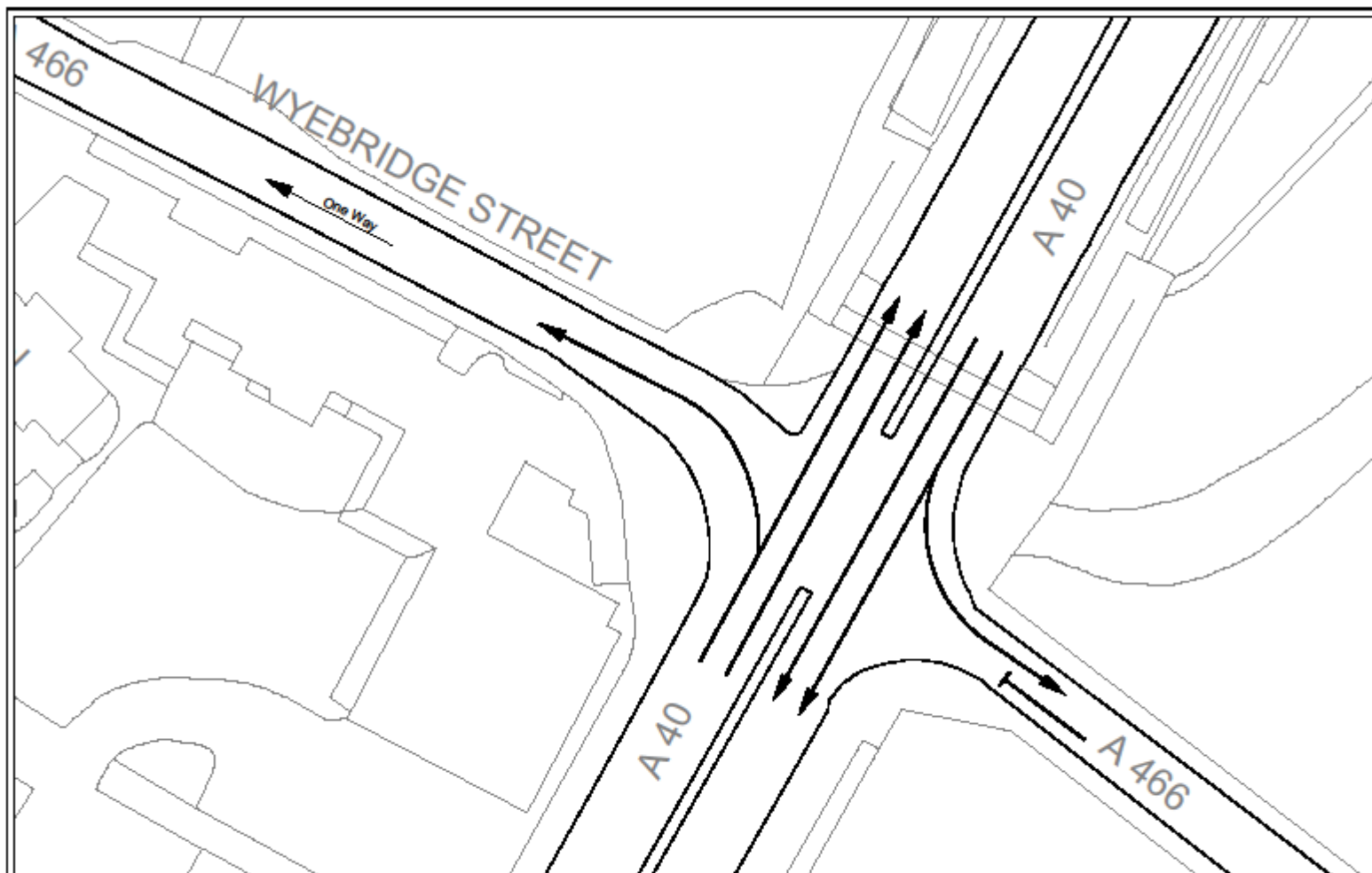

**Presentation to Central Monmouthshire Area Committee
18th July 2018**

Wyebridge Junction Improvement

- ▣ History
- ▣ Current A40 built in 1960's as a town bypass
- ▣ It separates Wyesham from rest of Monmouth
- ▣ Signal controlled junction established
- ▣ Subsequently Wyebridge Street made one way away from A40

Wyebriidge Junction Improvement

- ▣ Traffic Signals Operation
- ▣ Two stages:-
 - ▣ 1. Both A40 approaches – two lanes
 - ▣ Right turns banned – no conflicting movements
- ▣ 2. A446 Wyebriidge approach
- ▣ No pedestrian stage
- ▣ The only pedestrian facility is a subway

MONMOUTHSHIRE
COUNTY COUNCIL
1996

ROGER HOGGINS
HEAD OF INFRASTRUCTURE, NETWORKS
AND SUSTAINABILITY

Job Title
Wyebridge, Monmouth

Drawing Title
Wyebridge Junction Traffic Signals - Phase 1

Drawn By
GK

Scale
1:500

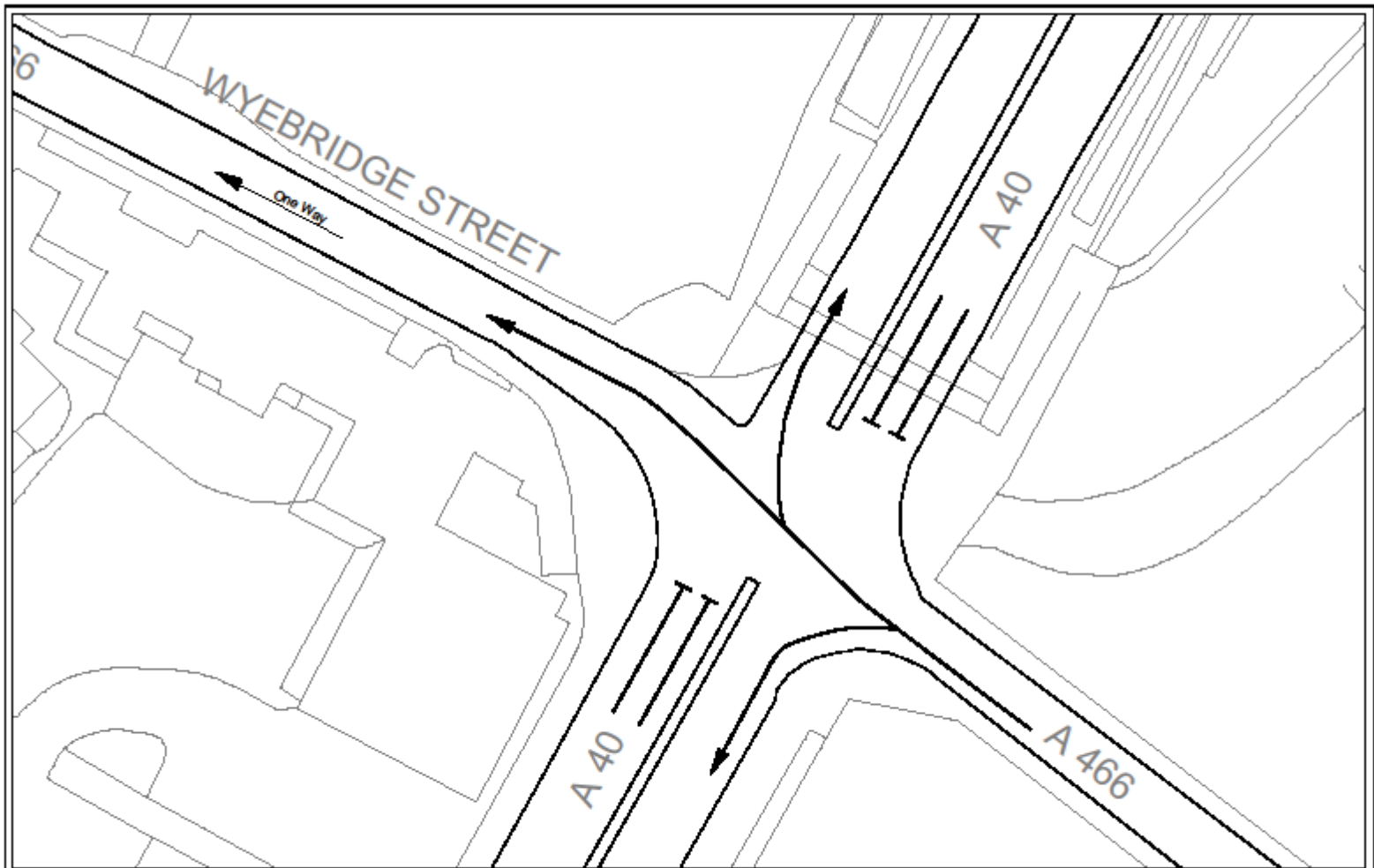
Checked
PW

Date
28/08/13

Drawing No.
1488

THIS MAP IS REPRODUCED FROM ORDNANCE SURVEY MATERIAL WITH THE PERMISSION OF ORDNANCE SURVEY ON BEHALF OF THE CONTRACTORS OF THE MONMOUTHSHIRE COUNTY OFFICE. UNAUTHORISED REPRODUCTION WITHOUT WRITTEN CONSENT AND MAY LEAD TO PROSECUTION OR CIVIL PROCEEDINGS. MONMOUTHSHIRE COUNTY COUNCIL. LAMB13.002

Rev
+




ROGER HOGGINS
 HEAD OF INFRASTRUCTURE, NETWORKS
 AND SUSTAINABILITY

Job Title
Wyebridge, Monmouth

Drawing Title
Wyebridge Junction Traffic Signals - Phase 2

Drawn By
GK

Scale
1:500

Checked
PW

Date
28/08/13

Drawing No.
1489

THIS MAP IS REPRODUCED FROM ORDNANCE SURVEY MATERIAL WITH THE PERMISSION OF ORDNANCE SURVEY ON BEHALF OF THE CONTRACTOR. ALL RIGHTS RESERVED. UNAUTHORISED REPRODUCTION WITHOUT WRITTEN CONSENT AND MAY LEAD TO PROSECUTION OR CIVIL PROCEEDINGS. MONMOUTHSHIRE COUNTY COUNCIL, LAMBETH, 2002.

Rev
 1





Wyebriidge Junction Improvement

- ▣ Issues
- ▣ Junction operating over capacity
- ▣ Extensive queuing and delays at times on A40 southbound and A466 Wyebriidge approaches
- ▣ Intimidating subway with blind 90 degree bends causing personal safety concerns
- ▣ At night some pedestrians cross on carriageway
- ▣ Air quality

Wyebriidge Junction Improvement

- ▣ A40 Traffic Flows (July 2011)
- ▣ Southbound – 21751 vehs/day
- ▣ Northbound – 16993 vehs/day
- ▣ Typical inbalance 4500 vehs/day

Queuing through Dixton Roundabout



And back towards England



Wyebridge Junction Improvement

- ▣ What capacity improvements are possible?
- ▣ Existing controls efficient, only two phases
- ▣ No improvement possible with existing layout
- ▣ Hence two outline options considered
- ▣ 1) Widening Wyebridge
- ▣ 2) Widening A40 southbound approach

Wyebridge Junction Improvement

- ▣ 1) Widening Wyebridge
- ▣ Limited traffic benefits
- ▣ CADW not in favour
- ▣ Option not progressed

Wyebriidge Junction Improvement

- ▣ 2) Widening A40 Southbound Approach
- ▣ Between Rowing Club Underpass and Signals
- ▣ Greater capacity improvements
- ▣ CADW agreeable in principle
- ▣ Option developed further

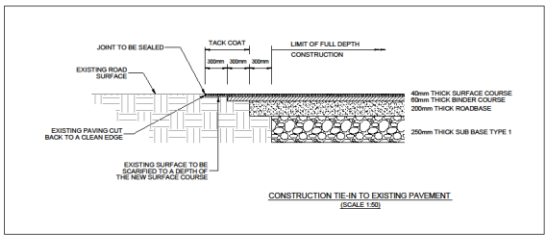
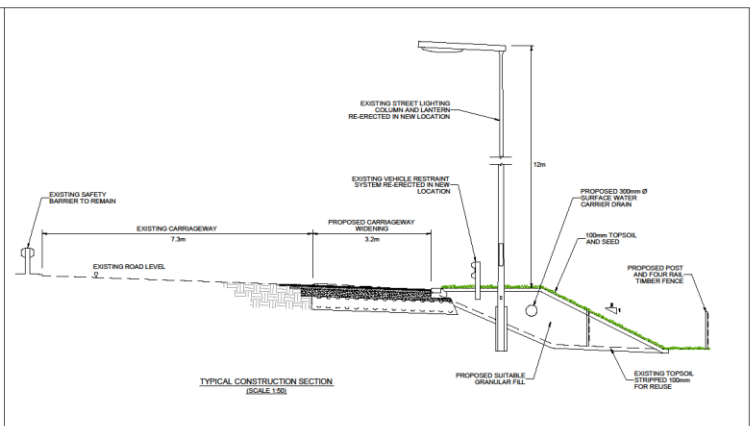
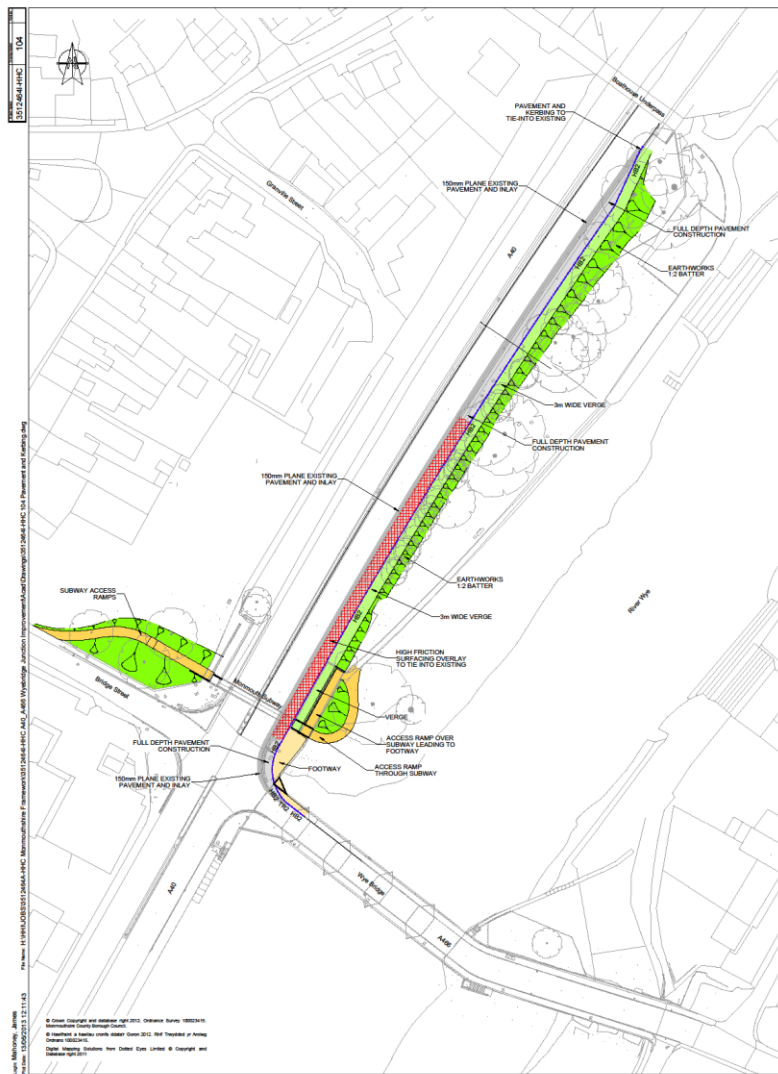
Wyebriidge Junction Improvement

- ▣ What pedestrian improvements are possible?
- ▣ Land constraints in 1960 led to double ramp design on each side of A40
- ▣ Subsequent Wyebriidge Street building demolition
- ▣ and Riverside land
- ▣ Allow sharp bends to be eliminated

Wyebridge Junction Improvement

- ▣ Features
- ▣ Local widening creates 170m third s'bound lane
- ▣ Dedicated for left turning traffic
- ▣ Existing two lanes for straight ahead traffic
- ▣ Bridge arch widening to accommodate footway
- ▣ Straight pedestrian ramp on town approach
- ▣ Curved pedestrian ramp on riverside

35124641-HHC 1:50



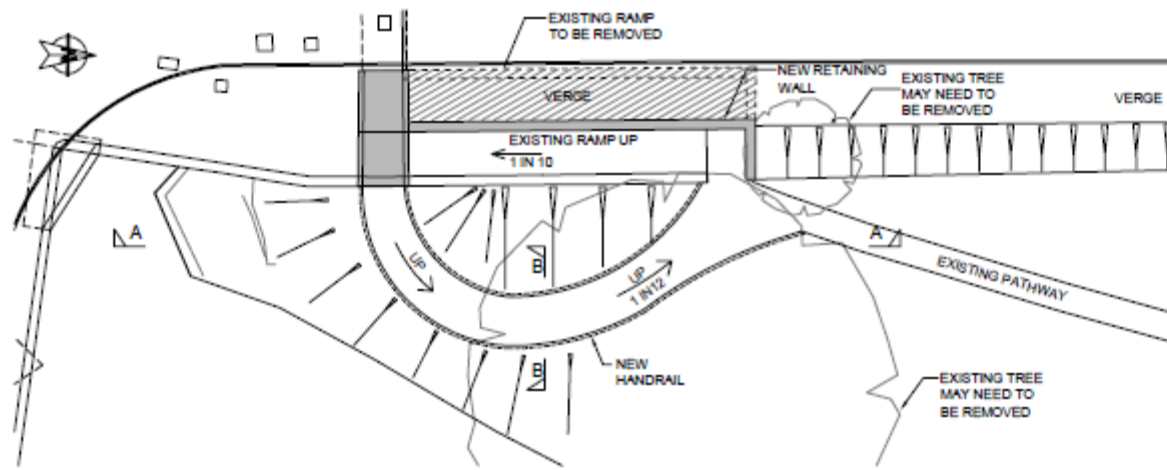
KEY	
HRB	HALF BATTERED KERB (LAID ON EDGE) 125mm x 250mm
TRB	TRANSITION KERB 125mm x 250mm
---	EDGE OF CARRIAGEWAY WITH KERB TYPE REFERENCE
■	FULL DEPTH PAVEMENT CONSTRUCTION - 525mm THICK, CONSISTING OF: 40mm SURFACE COURSE 80mm BINDER COURSE 200mm ROAD BASE 225mm SUB BASE TYPE 1
■	TI-E IN EXISTING PAVEMENT
■	HIGH FRICTION SURFACING OVERLAY - 5mm THICK
■	FOOTWAY CONSTRUCTION - 100mm THICK, CONSISTING OF: 20mm SURFACE COURSE 40mm BINDER COURSE 100mm SUB BASE TYPE 1
■	SUBWAY ACCESS RAMPS
■	VERGE - 100mm TOPSOIL AND SEED
■	EARTHWORKS - 100mm TOPSOIL AND SEED
—	PROPOSED STRUCTURE

- NOTES**
- DO NOT SCALE FROM THIS DRAWING. USE FIGURED DIMENSIONS ONLY.
 - ALL LEVELS ARE IN METRES ABOVE ORDNANCE DATUM (A.O.D.).
 - TO BE READ IN CONJUNCTION WITH 100 & 1700 SERIES DRAWINGS.
 - FOR DETAILS OF SUBWAY, RETAINING WALLS AND FOOTWAY RAMPS, REFER TO 1700 SERIES DRAWINGS.

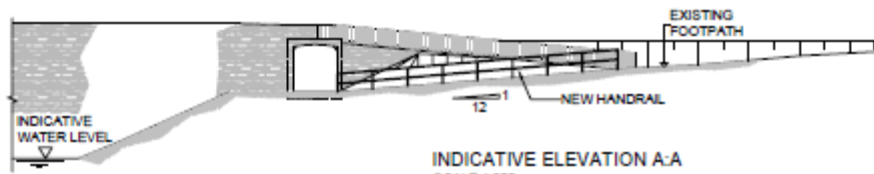
Rev	Desc	By	CHK	APP
DRAFT				
PARSONS BRINCKERHOFF				
WYEBRIDGE JUNCTION IMPROVEMENT OPTION 1				
PAVEMENT AND KERBING LAYOUT				
Client	BB	Contract	JM	
Prepared	JM	Approved		
Date	25/04/2013	Scale	1:500	A1
35124641-HHC		104		
© Copyright Parsons Brinckerhoff				

© Crown Copyright and Database right (2012). Ordnance Survey 100019174. Information created from Ordnance Survey data. All rights reserved.
 © Parsons Brinckerhoff 2013. All rights reserved.
 This drawing is the property of Parsons Brinckerhoff and is not to be used for any other project without the written consent of Parsons Brinckerhoff.
 Design: Parsons Brinckerhoff. Drawn: Parsons Brinckerhoff. Checked: Parsons Brinckerhoff. Approved: Parsons Brinckerhoff.

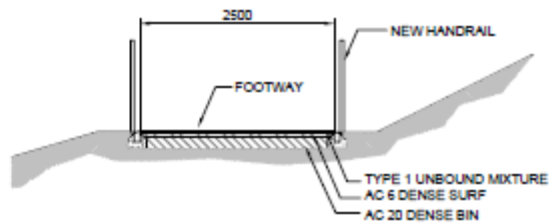
www.parsonsbrinckerhoff.com
 3512464-HHC
 1704
 15/03/2015
 10:23:25
 3512464-HHC
 1704
 15/03/2015
 10:23:25
 3512464-HHC
 1704
 15/03/2015
 10:23:25



PLAN (1:12 APPROXIMATE 19.5m LONG)
SCALE 1:200



INDICATIVE ELEVATION A:A
SCALE 1:200



SECTION B:B
SCALE 1:50

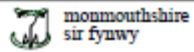
DRAFT

1. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE.
2. ONLY WRITTEN DIMENSIONS SHALL BE USED DO NOT SCALE
3. WALLS OF PROPOSED SUBWAY EXTENSION AND PROPOSED RETAINING WALLS TO BE FLUTED TO MATCH EXISTING SUBWAY APPEARANCE.
4. EXISTING TREES TO BE REMOVED TO ALLOW CONSTRUCTION OF NEW ACCESS RAMP TO SUBWAY.
5. NEW FOOTPATH DRAINAGE TO CONNECTED INTO EXISTING SYSTEM.
6. ELEVATION SHOWN IS INDICATIVE.

No.	Date	Description	No.	By	App.



20 Colindale Avenue
London NW9 1QB
UK
Tel: 44 (0)20 2962 7000
Fax: 44 (0)20 2962 7001



WYEBRIDGE JUNCTION
IMPROVEMENT
OPTION 1

PROPOSED EAST
SUBWAY ACCESS RAMP
GENERAL ARRANGEMENT

Drawn: BJ	Checked: JSS
Designed: JSS	Reviewed: JSS
Date: 15/03/2015	Scale: 1:100
Project No: 3512464-HHC	Sheet No: 1704
3512464-HHC	1704

© Copyright Parsons Brinckerhoff



Wyebridge Junction Improvement

- ▣ Traffic Benefits
- ▣ Currently A40 southbound and Wyebridge approaches at 100% peak period capacity, and
- ▣ A40 southbound exceeds 100% at pm peak
- ▣ Scheme improves PRC by 11.5%
- ▣ Southbound saturation flow increased by 48%
- ▣ Peak period queues much reduced

Wyebriidge Junction Improvement

- ▣ Pedestrian Benefits
- ▣ Straight approach to subway from town
- ▣ Open view spiral approach from bridge
- ▣ New ramps at 1 in 12 (existing 1 in 10)
- ▣ Links to Granville Street and boathouse retained

Wyebriidge Junction Improvement

- ▣ Air Quality
- ▣ Two NO₂ monitoring sites adjacent A40
- ▣ Recent readings exceed 40ug/cm
- ▣ Likely to soon be Air Quality Management Area
- ▣ Local residents campaigning for particulate level monitoring
- ▣ And for noise level reduction

Wyebriidge Junction Improvement

- ▣ Land acquisition
- ▣ Land take all within MCC or WG control

Wyebriidge Junction Improvement

- ▣ Summary of Benefits
- ▣ Junction operating within capacity at all times
- ▣ More conducive pedestrian environment
- ▣ Air quality improvement

Wyebriidge Junction Improvement

- ▣ Site Constraints
- ▣ Habitats Regulations Assessment
- ▣ Site of Special Scientific Interest
- ▣ Special Conservation Area
- ▣ Bridge is a Listed Structure (CADW)
- ▣ Site of Archaeological Interest
- ▣ A40 Embankment is Flood Defence
- ▣ Flood Consent

Wyebriidge Junction Improvement

- ▣ Buildability
- ▣ Three distinct phases
 - ▣ Widening western arch
 - ▣ Extending subway and realigning approaches
 - ▣ Widening A40
- ▣ Widening arch is the most problematic
- ▣ Involves working from riverbed
- ▣ Closing footway

Wyebridge Junction Improvement

- ▣ **Buildability**
- ▣ **Pedestrians to be accommodated**
- ▣ **Vehicles to be accommodated**
- ▣ **Services**
 - ▣ **BT**
 - ▣ **Welsh Water**
 - ▣ **WPD**
 - ▣ **British Gas**

Wyebriidge Junction Improvement

- ▣ Studies and Reports
- ▣ Preliminary Safety Audit
- ▣ Preliminary Environmental Assessment
- ▣ Air Quality Assessment
- ▣ Flood Considerations
- ▣ Ground/Site Investigation
- ▣ Design Considerations
- ▣ Construction Methodology Report

Wyebriidge Junction Improvement

- ▣ Town Side Pedestrian Ramp
- ▣ BT diversion cost £450k
- ▣ Car Park Proposal
- ▣ Works Deferred

Wyebriidge Junction Improvement

- ▣ Costs

- ▣ Current estimate £3 - £3.5m

- ▣ Next steps

- ▣ Bid for further Local Transport Fund monies

- ▣ Public Exhibition

- ▣ Detailed design and contract preparation

- ▣ Could be constructed late spring – autumn 2018

Wyebriidge Junction Improvement

- ❑ **Other options previously considered**
- ❑ **Dixton Roundabout to Hadnock Road**
 - ❑ - no logical tie in on east bank
- ❑ **A40 Monnow Bridge – A466 Redbrook Road**
 - ❑ - awkward roundabout tie in at Monnow Bridge, not acceptable to WG
 - ❑ - land acquisition and property demolition
 - ❑ - cost

What next?

- ▣ **Public Exhibition/ Consultation 2017 – positive support for scheme**
- ▣ **Funding**
 - Bid to WG TFG unsuccessful based upon value of scheme
 - WG offer of Pinch Point Funding subject to conditions:
 - MCC to complete WelTAG
 - MCC to make £300k contribution and accept risk
- ▣ **Programme**
 - August 2018 – finalise design incl. WelTAG and invite tenders
 - November 2018 – award contract
 - February 2019 – commence works (9 – 12 month duration)
- ▣ **Next key action:**
 - Seek member support for capital contribution / acceptance of risk