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Comhairle Contae Thiobraid Árann
Tipperary County Council

Tipperary County Council

Templemore Infilling Works

Planning Report



PROJECT NAME: Templemore Infill Works

REPORT NAME: Planning Report

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1.0 INTRODUCTION

1.1 BACKGROUND

TOBIN Consulting Engineers have been appointed by Tipperary County Council to prepare a planning application for works associated with the infilling of the River Mall in the town of Templemore, Co. Tipperary. The proposed site is located in the town centre of Templemore, see Figure 1. The River Mall in Templemore (herein referred to as the proposed development), County Tipperary, is no longer a functioning watercourse following separate flood relief diversion works carried out by the OPW.

To facilitate the proposed works, Tipperary County Council are applying for Planning Permission in accordance with Section 177AE of Planning and Development Act 2000, as amended, for the proposed Development and this Planning Report provides a summary of the documentation submitted as part of the Planning Application and collates the main conclusions of the Reports submitted.

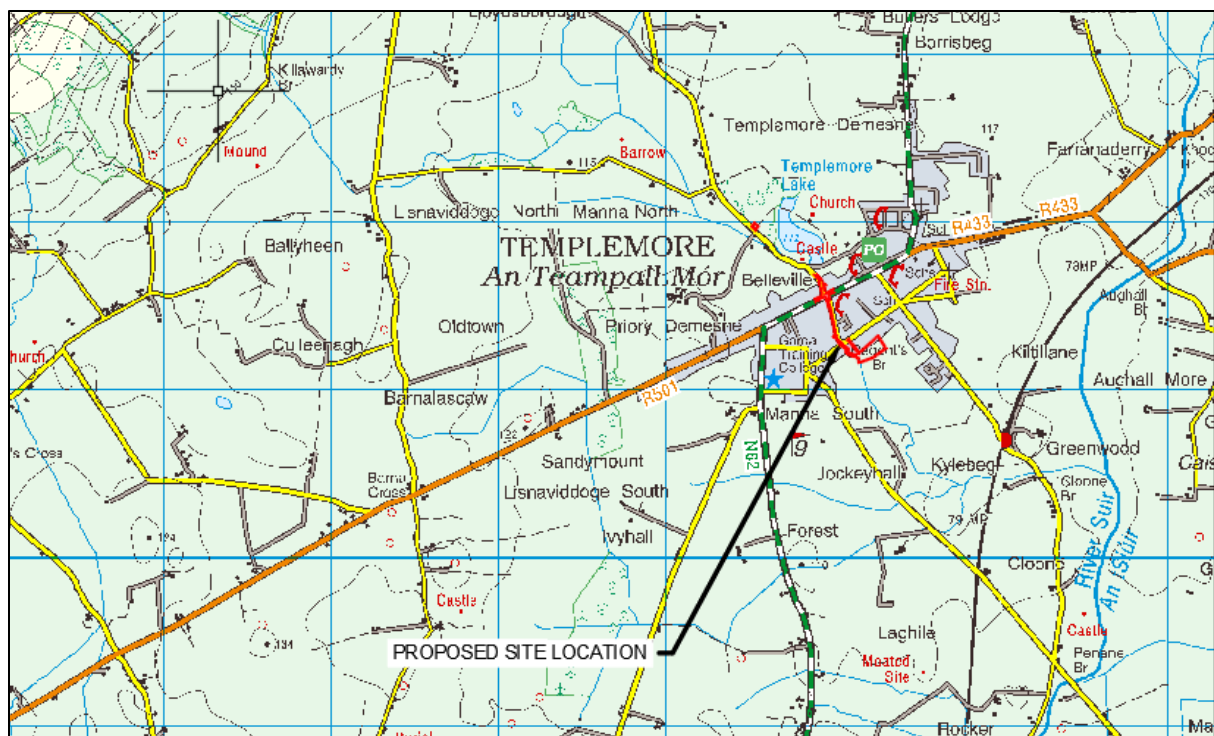


Figure 1 - Templemore Infilling Works Location

2.0 PLANNING APPLICATION DOCUMENTATION

The planning application pack consists of 6 copies of the following documentation:

1. Planning Report (this document)
2. Plans and Elevations, consisting of:

Drawing Number	Drawing Title	Scale 1 in X
11007-2000	Proposed Site Location -OS MAP- DISCOVERY SERIES 59	20000
11007-2001	Key Plan to Existing Site Layout	2000
11007-2002	Key Plan to Existing Site Layout	500
11007-2003	Key Plan to Existing Site Layout	500
11007-2004	Key Plan to Existing Site Layout	500
11007-2005	Key Plan to Existing Site Layout	500
11007-2006	Existing Site Layout (Sheet 1 of 9)	200
11007-2007	Existing Site Layout (Sheet 2 of 9)	200
11007-2008	Existing Site Layout (Sheet 3 of 9)	200
11007-2009	Existing Site Layout (Sheet 4 of 9)	200
11007-2010	Existing Site Layout (Sheet 5 of 9)	200
11007-2011	Existing Site Layout (Sheet 6 of 9)	200
11007-2012	Existing Site Layout (Sheet 7 of 9)	200
11007-2013	Existing Site Layout (Sheet 8 of 9)	200
11007-2014	Existing Site Layout (Sheet 9 of 9)	200
11007-2015	Proposed Site Layout Key Plan	2000
11007-2016	Proposed Site Layout	500
11007-2017	Proposed Site Layout	500
11007-2018	Proposed Site Layout	500
11007-2019	Proposed Site Layout	500
11007-2020	Proposed Site Layout (Sheet 1 of 9)	200
11007-2021	Proposed Site Layout (Sheet 2 of 9)	200
11007-2022	Proposed Site Layout (Sheet 3 of 9)	200
11007-2023	Proposed Site Layout (Sheet 4 of 9)	200
11007-2024	Proposed Site Layout (Sheet 5 of 9)	200
11007-2025	Proposed Site Layout (Sheet 6 of 9)	200
11007-2026	Proposed Site Layout (Sheet 7 of 9)	200
11007-2027	Proposed Site Layout (Sheet 8 of 9)	200
11007-2028	Proposed Site Layout (Sheet 9 of 9)	200
11007-2029	Typical Details	NTS
11007-2030	Typical Cross Section Details	As Shown
11007-2031	Typical Cross Section Details	As Shown
11007-2032	N62 Intersection Geometry	250
11007-2033	Walls and Amenity Areas	250
11007-2034	Traffic Signs and Road Markings	250

11007-2035	Key Plan to Landscaping	1250
11007-2036	Proposed Landscape Works (Sheet 1 of 4)	250
11007-2037	Proposed Landscape Works (Sheet 2 of 4)	250
11007-2038	Proposed Landscape Works (Sheet 3 of 4)	250
11007-2039	Proposed Landscape Works (Sheet 4 of 4)	250
11007-2040	Site Notice Locations	2000
11007-2041	Typical Headwall Details	1:10
11007-2042	Proposed Wall Details	As Shown

Table 1- Drawing Register

3. Natura Impact Statement prepared by Tobin Consulting Engineers
4. Environmental Impact Assessment Screening Report prepared by Tobin Consulting Engineers
5. Preliminary Construction Management Plan prepared by Tobin Consulting Engineers
6. Road Improvement Scheme Preliminary Design Report (N62TY_076.0)
7. Road Safety Audit
8. Quality Audit Report
9. Site Notice
10. Newspaper Advert
11. Letters to Prescribed Bodies

, we have also included a soft copy of all documents in the form of a USB.

3.0 PROPOSED DEVELOPMENT WORKS

As noted previously, the proposed development is located along the River Mall in the town of Templemore, Co. Tipperary (See Figure 1).

There are 26 surface water outfalls and existing drains currently flowing into this redundant channel area from both the east and west banks, as established during a survey of the channel carried out by Tipperary County Council in 2017. Tipperary County Council are proposing to collect these surface water outfalls with a 750mm-900 mm Ogee drainage header pipe constructed in the dry riverbed channel. The pipeline will terminate downstream at the existing interceptor by connecting to the existing interceptor.

Project Description:

Following the completion of the Mall River (Templemore) Flood Relief Scheme, a section (approximately 805m) of abandoned riverbed channel will remain in Templemore, County Tipperary. There is no river flow in this old channel. It is located on the edge of Templemore town centre and runs southwards from opposite the Templemore Town Park to Talavera, just south of Small's Bridge.

The Proposed Development will consist of the following works:

- i. The construction of a 900mm drainage header pipe in the existing redundant channel section of the River Mall and manholes.
- ii. Provision for the connection of 26 existing surface water outfalls, currently discharging to the redundant channel section of the River Mall, to the 900mm drainage header pipe along with all accommodation works.
- iii. The infilling of the redundant channel section, including pipe surround of the 900mm drainage header pipe, to match existing ground elevations surrounding the river channel.
- iv. Provision of a footpath and grass area over the infilled river from Templemore Town Park pedestrian entrance to a point 100m south in the direction of the N62, behind an existing stone wall / parapet.
- v. Provision of approximately 100m of new footway adjacent to the Blackcastle Road to the junction of the N62 (at Young's garage), with a footway width by 1.8m which and reduced carriageway width.
- vi. Removal of existing parapet wall to create an AC hardstanding area adjacent to Youngs garage.
- vii. The demolition of approximately 50m of existing stone wall and bridge parapet north of the N62 to allow for the construction of a new proposed footway to match existing from O'Dwyer Bridge.
- viii. Provision of improvement works north of O'Dwyer bridge for approximately 40m to include increasing corner radius, installation of aggregate bollards and hard landscaping area.

-
- ix. Widening of approximately 30 m of the carriageway crossing, by means of removing the existing parapet wall on the north side and realigning the parapet wall on the southern side of O'Dwyer bridge along the N62, whilst maintaining the existing lane configurations.
 - x. The demolition of approximately 15m of existing stone wall and bridge parapet south of the N62 to allow for improvement works to include a new footway, increased corner radius and increase sight lines between The Mall Road and the N62.
 - xi. Construction of approximately 70m AC hard standing area over the existing channel south of the N62 and maintenance of the existing stone wall / parapet.
 - xii. The demolition of sections of existing stone walls to allow for the construction of a new proposed footpath from O'Dwyer Bridge to the Templemore Town Park.
 - xiii. Construction of a proposed stone wall separating the property boundaries and the proposed footpath, along with associated streetscape works at O'Dwyer Bridge.
 - xiv. Landscape works to match existing surrounding environment at the Templemore town park.
 - xv. Construction of proposed hardstand/pavement over existing channel at Youngs Garage and Templemore Motor Works.
 - xvi. Demolition of existing bridge structures at residential accesses where existing channel is to be infilled.
 - xvii. Landscape works to match existing surrounding environment from Templemore Motor Works, in a southerly direction, to the outfall to the existing River Mall.
 - xviii. Construction of discharge headwalls.
 - xix. Construct new agricultural entrance approximately 180m south of O'Dwyer's bridge on the western side of the Mall Road.

4.0 CIVIL ENGINEERING DESIGN

4.1 SURFACE WATER DRAINAGE OVERVIEW

Following the completion of the River Mall (Templemore) Flood Relief Scheme, a section of redundant channel (approximately 805m) remains in the town of Templemore, County Tipperary. There are currently 26 surface water outfalls and existing drains discharging surface water into this redundant channel area, from both the east and west banks of the channel, as established during a survey of the River Mall in 2017, carried out by Tipperary County Council. It is proposed to collect these existing surface water outfalls with a 900 mm Ogee drainage header pipe, to be constructed in the redundant channel.

4.2 OUTFALL PIPES

There are 26 existing surface water outfall pipes and drainage culverts discharging into the redundant channel area between Shortt's Bridge and Small's Bridge. These are located on both east and west channel banks at varying elevations and diameters. Table 2-1 provides details on the 26 existing surface water outfalls discharging to the redundant channel area.

No.	Diameter (mm)	Invert Level (mAod)	Approx. Chainage (m) from Shortt's Bridge	Riverbank
1	100	110.15	125	West
4	100	110.30	215	West
5	100	110.37	230	West
6	Drain	109.09	310	West
7	150	110.38	335	West
8	150	110.22	408	West
9	150	110.22	418	West
10	200	110.16	484	West
11	150	110.53	180	East
12	150	110.51	192	East
13	150	110.35	225	East
14	150	110.45	228	East
15	150	110.41	230	East
16	150	110.44	234	East
17	150	110.44	238	East
18	110	110.26	256	East
19	250	110.31	277	East

20	150	110.59	283	East
21	150	110.64	290	East
22	Drain	109.13	308	East
23	225	110.11	327	East
24	300	110.34	354	East
25	150	110.10	359	East
26	150	110.39	316	East
27	150	110.39	326	East
28	150	110.39	334	East

Table 2- Existing Surface Water Outfalls

The discharge capacities of the surface water discharges to the existing redundant channel area have been calculated using the Colebrook - White equation, which provides the most accurate results to assist in gravity pipe design. Hydraulic flow charts published in "Tables for hydraulic design of pipes, sewers and channels" 7th edition is most commonly used to simplify the Colebrook - White equation. The max discharge capacity of the existing surface water outfalls has been calculated at 1,100l/s.

Sewers for adoption 7th edition as published by The Water Research Centre stipulates a minimum roughness coefficient (ks) of 0.6mm for surface water sewer design and a minimum velocity of 1.0m/sec pipe full flow for self-cleansing velocity. Due to the historical nature of the existing surface water outfalls, specific details are unknown. An average gradient of 1:75 (mean gradient for 150mm pipe in Building Regulations 1997 Technical Guidance Document H - Drainage and Waste Water Disposal) has been assumed and full flow conditions from all the lateral outfalls to be connected into the new main drainage line.

The Colebrook - White equation has also been used to select a proposed diameter for the discharge header pipe designed to capture surface water discharges from the existing outfalls. The proposed drainage header pipe has been designed so that the velocities achieved fall within the limits of 0.8 and 3.0m/sec as set out in 'Recommendations for Site Development Works' as published by the Department for the Environment.

The proposed drainage header pipe terminates south of Small's Bridge (approx. 150m), out falling to the existing River Mall. The header pipe will terminate at the upstream side of an existing oil interceptor prior to discharging to the River Mall to prevent contamination.

4.3 PROPOSED INFILL WORKS

The River Mall (Templemore) Flood Relief Scheme excavated approximately 20,600m³ of material. Most of this material consists of sub-soil and naturally excavated alluvial soils, till deposits and bedrock. Where possible, local material excavated as part of the flood relief scheme will be used for infilling the redundant channel.

Placing and compacting of the excavated material, or imported material, shall be as per the TII Publications of Standards for Drainage Design and Construction. Suitability of this material for reuse as infill shall be assessed prior to its use. Classification of the material as non-hazardous inert spoil for reuse shall be required to avoid any requirement for a waste transfer or waste discharge license.

4.4 SURFACE FINISHES

Primary Pedestrian Areas: A concrete footpath is proposed to match existing from O'Dwyer's Bridge to Templemore Town Park.

Secondary Pedestrian Areas/Streetscape: It is proposed to use "Tobermore Fusion" or similar type precast concrete granite aggregate slabs in sizes 600x400x80mm and 400x400x80mm in silver grey and mid grey colour aggregate at streetscape area at O'Dwyer's Bridge.



Figure 2 - Surface Finish - Secondary Pedestrian areas

Vehicular Trafficked Areas: The areas located at Young's Garage and at Templemore Motor Works have the potential for future vehicular trafficking and as such will have a macadam finish.

Green Areas: The areas located at Templemore Town Park and withing existing residential properties to the south of O'Dwyer's Bridge will have a topsoil surface seeded with grass.

5.0 ROAD SAFETY IMPROVEMENT SCHEME

The site location is shown in Figure 1, with the scheme running north - south crossing the N62 national road. The proposed road improvement works at this location include:

- I. Provision of a footpath and grass area over the infilled river from Templemore Town Park pedestrian entrance to a point 40m south in the direction of the N62, behind an existing stone wall / parapet.
- II. Provision of approximately 100m of new footway adjacent to the Blackcastle Road to the junction of the N62 (at Young's garage), with a footway width by 1.8m which and reduced carriageway width.
- III. Removal of existing parapet wall to create an AC hardstanding area adjacent to Youngs garage.
- IV. The demolition of approximately 50m of existing stone wall and bridge parapet north of the N62 to allow for the construction of a new proposed footway to match existing from O'Dwyer's Bridge.
- V. Provision of improvement works north of O'Dwyer's bridge for approximately 40m to include increasing corner radius, installation of aggregate bollards and hard landscaping area.
- VI. Widening of the carriageway crossing O'Dwyer's bridge along the N62.
- VII. The demolition of approximately 15m of existing stone wall and bridge parapet south of the N62 to allow for improvement works to include a new footway, increased corner radius and increase sight lines between The Mall Road and the N62.
- VIII. Construction of approximately 70m AC pavement over the existing channel south of the N62 and maintenance of the existing stone wall / parapet.
- IX. Proposed vehicular access to the infilled area approximately 50m south of the N62 on The Mall Road and modification to 2 no. existing access to dwellings on the western side of The Mall Road.

A preliminary design report (N62TY_076.0), road safety audit and quality audit report have been included as part of the planning application pack.

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