

Scheme Title: 1. Staining Surface Water (SW) Drainage Improvements

Description of Scheme:

This project involves improvements to the existing surface water (SW) drainage system in the vicinity of Eddleston Close, Staining.

A recent study by Jacobs on behalf of Lancashire CC Lead Local Flood Authority (LLFA), “*acknowledged that there was an extensive history of highway and sewer flooding within the area, which could suggest a wider drainage issue. The Surface Water Management Plan (SWMP) also noted reports of riparian owners who had blocked local drainage ditches.*” There have been frequent SW flooding issues in the southern side of Eddleston Close, there are two existing SW culverts running parallel to each other, both culverts run west to east and are ultimately connected to the main public surface water sewer in Staining.

This issues with the site are:-

- Surface water runoff originating from adjacent open fields including the field of Staining Church of England Primary School;
- Poor condition of culverted sections; blockages of highway drainage and gullies; and high levels of SW runoff.
- The invert levels of the two culverts are at odds with each other. The older culvert in the rear gardens of Eddleston Close has a lower invert level than the newer culvert located in The Nook.
- The internal arrangement of the connecting manhole of the two culverts causes problems with the flow of the SW from the Eddleston Close culvert, causing the culvert to ‘back up’, chambers to flood gardens and the ground being frequently boggy.
- Land to the west of Eddleston Close – within Blackpool BC (BBC) area - has until recently, had its perimeter ditch infilled by the owner, thus making worse the effect of SW runoff from the Primary School and adding to the SW runoff discharge into Eddleston Close. Action by BBC has resulted in the riparian owner re-opening the ditch.

Although the ditch to the west of Eddleston Close has been re-opened, there are still issues with the volume of the SW runoff from the higher ground levels to the north and west. Therefore, in accordance with the Jacobs / LLFA report, it is proposed to attenuate SW runoff before it enters the ditch, by constructing a SuDS basin in the south west area of the Primary School, using the excavated material to form bunds. The outlet would be a swale channel leading to the drainage ditch, with some localised regrading and levelling undertaken to prevent standing water.

Following a further drainage survey on behalf of LCC LLFA, further problems with backflow, cross flow and benching within manhole chambers were discovered within the two culverts. These are necessary works to reduce future flow problems, so it is proposed to re-construct/repair, two chambers in The Nook, two chambers in McLaren Close and, two chambers in Elizabeth Close, one in Eddleston Close.

The project will depend on the co-operation of the Primary School governors, adjacent landowners, homeowners, the Parish Council and, LCC LFFA.

Capital cost plan:

Cost Heading	Description	Total £
Swale and bund	Creation of a natural looking seeded hollow and bank	10,000
Grading and Levelling	Localised regrading to the Northern Boundary	6,000
Detention Basin & landscaping	Increase size of circular wet well	16,000
New Manholes & Culvert Repairs	Redress flow and cross flow issues	25,000
Preliminaries	Site offices, compound, welfare, fencing 15%	6,000
Contingencies		2,000
Total Scheme Cost:		£65,000

Outputs (i.e. details of what the investment will specifically deliver):

- To mitigate and attenuate the surface water runoff effecting the area of Eddleston Close & The Nook using SuDS methods
- To repair and improve the existing surface water culverts servicing Eddleston Close, The Nook, and remedial works to chambers in McLaren Close & Elizabeth Close to improve flow so as not to effect Eddleston Close & The Nook.
- To meet statutory health and safety and industry requirements

Contribution to corporate objectives (i.e. how does the project achieve or help deliver priorities within the corporate plan):

- Environment - Provide coastal defences and drainage infrastructure to protect against flooding
- Environment - Enhance the natural environment

Budget Resource Requirements

Breakdown of initial capital costs and future revenue implications

Estimated Total Capital costs of bid: £ 65,000

Annual additional Revenue costs arising from the bid: £ NIL

OR

Future Annual Revenue Savings achievable as a result of the bid: £ NIL

Please provide any further details of revenue savings below:

Value and phasing of bid:				
2021/22 £65,000	2022/23 £000	2023/24 £000	2024/25 £000	Additional capital investment required (i.e. the value of the bid)
Existing resources in the Capital Programme relating to this scheme:				
2021/22 £000	2022/23 £000	2023/24 £000	2024/25 £000	Existing capital resources in the approved Capital Programme
Estimated timescales for the bid:				
Start Date April 2021			Completion Date March 2022	

Project Risks (outline any risks to delivery of the project and how these will be mitigated)		
Risk	Impact	Mitigating Action
Inclement weather and heavy ground frustrates works contract	Increase cost and disturbance	Work planned for summer months, and Detention Basin during school holidays.
Multiple landowners and subsequent claims	Increased costs	Early engagement is required with landowners, riparian owners. Close liaison with Parish Council, Lancashire CC LLFA, Staining FLAG, Primary
Downtime during works on culvert coincides with adverse weather resulting in flooding	Increased costs and disturbance	Work planned for spring / summer months and auxiliary pump for over pumping provided

Endorsement of bid by Director		
Signature 	Position: Director of Development Services ...	Date 15 December 2020