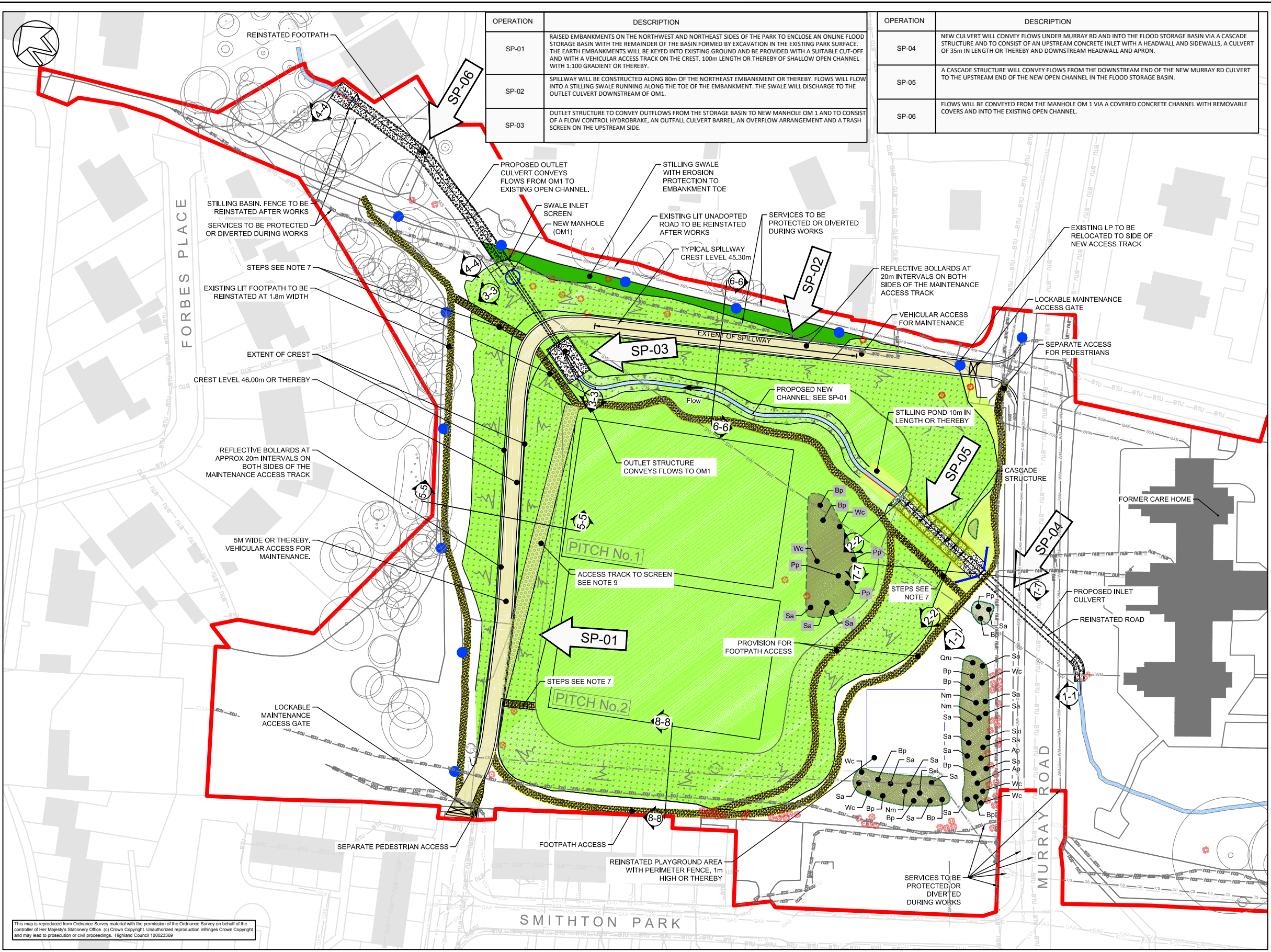


OPERATION	DESCRIPTION
SP-01	RAISED EMBANKMENTS ON THE NORTHWEST AND NORTHEAST SIDES OF THE PARK TO ENCLOSE AN ONLINE FLOOD STORAGE BASIN WITH THE REMAINDER OF THE BASIN FORMED BY EXCAVATION IN THE EXISTING PARK SURFACE. THE EARTH EMBANKMENTS WILL BE KEYED INTO EXISTING GROUND AND BE PROVIDED WITH A SUITABLE CUT-OFF AND WITH A VEHICULAR ACCESS TRACK ON THE CREST. 100m LENGTH OR THEREBY OF SHALLOW OPEN CHANNEL WITH 1:100 GRADIENT OR THEREBY.
SP-02	SPILLWAY WILL BE CONSTRUCTED ALONG 80m OF THE NORTHEAST EMBANKMENT OR THEREBY. FLOWS WILL FLOW INTO A STILLING SWALE RUNNING ALONG THE TOE OF THE EMBANKMENT. THE SWALE WILL DISCHARGE TO THE OUTLET CULVERT DOWNSTREAM OF OM1.
SP-03	OUTLET STRUCTURE TO CONVEY OUTFLOWS FROM THE STORAGE BASIN TO NEW MANHOLE OM 1 AND TO CONSIST OF A FLOW CONTROL HYDROBRAKE, AN OUTFALL CULVERT BARREL, AN OVERFLOW ARRANGEMENT AND A TRASH SCREEN ON THE UPSTREAM SIDE.

OPERATION	DESCRIPTION
SP-04	NEW CULVERT WILL CONVEY FLOWS UNDER MURRAY RD AND INTO THE FLOOD STORAGE BASIN VIA A CASCADE STRUCTURE AND TO CONSIST OF AN UPSTREAM CONCRETE INLET WITH A HEADWALL AND SIDEWALLS, A CULVERT OF 35m IN LENGTH OR THEREBY AND DOWNSTREAM HEADWALL AND APRON.
SP-05	A CASCADE STRUCTURE WILL CONVEY FLOWS FROM THE DOWNSTREAM END OF THE NEW MURRAY RD CULVERT TO THE UPSTREAM END OF THE NEW OPEN CHANNEL IN THE FLOOD STORAGE BASIN.
SP-06	FLOWS WILL BE CONVEYED FROM THE MANHOLE OM 1 VIA A COVERED CONCRETE CHANNEL WITH REMOVABLE COVERS AND INTO THE EXISTING OPEN CHANNEL.

- Notes**
- These plans are in accordance with the requirements of Section 60 and Schedule 2 of the Flood Risk Management (Scotland) Act 2009.
 - Information received from statutory undertakers has been used to identify approximate locations of services, exact locations of these services will be determined during detailed design.
 - Drawing to be read in conjunction with:
SC-JBA-00-00-DR-C-0100
SC-JBA-02-06-DR-C-0101
SC-JBA-02-06-DR-C-0102
SC-JBA-02-06-DR-C-0103
SC-JBA-02-06-DR-C-0104
SC-JBA-00-00-RP-Z-0006_FPS Document
 - The location, horizontal and vertical extents of the operations may vary by those limits (where applied) as noted in the Description of the Flood Protection Scheme.
 - Diversion of any statutory undertaker apparatus will be carried out by or on behalf of the statutory undertaker under its own statutory powers.
 - Where existing fencing is removed to facilitate works it will be replaced with new fencing to match.
 - Steps to have timber risers with gravel filled goings and be provided with timber stringers and timber handrails.
 - Warning signage and depth boards to be placed around park.
 - Surface of access track to screen to be permeable grass crete paving.
 - Flood embankment side slopes vary from 1:3 max to approx 1:6.
 - New gravel footpath with Hoggin finish constructed in line with Highland Council Road and Transport Guidelines section 7.
 - Flood Embankment to be sown with wildflower mix (to be specified).
 - Proposed Areas of new tree planting. The areas around the playground (located at the south-east of the site, by junction of Murray Road and Smithton Park) may vary in size subject to the constraints of the proposed services diversion and the re-installation of the playground.

This is the plan marked SC-JBA-02-06-DR-C-0100 referred to in the Smithton & Culloden Flood Protection Scheme 2016 made by The Highland Council.



Rev.	Date	Drawn	Designed	Checked	SC	Approved	Comments		
P4.0							Comments For Consultation		
Rev.	19/04/16	Drawn	JR	Designed	SC	Checked	SC	Approved	RD
P3.0							Comments For Consultation		
Rev.	08/04/16	Drawn	AC	Designed	SC	Checked	SC	Approved	RD
P2.0							Comments Proposed tree planting and existing trees to be removed added. Existing footpath reinstated, entrances to maintenance area modified, access gates added, annotation updated. Redline boundary updated.		
Rev.	03/02/16	Drawn	JR	Designed	SC	Checked	RD	Approved	DB
P1.2							Comments Title and revision number updated.		
Rev.	16/10/15	Drawn	JR	Designed	ST	Checked	SC	Approved	
P1.1							Comments Legend updated, element and description added.		
Rev.	22/09/15	Drawn	JR	Designed	ST	Checked	SC	Approved	
Client Approval								Status	
A - Approved								S4	
B - Approved with Revisions									
C - Do Not Use									
Purpose of Issue									
For Consultation									

JBA

Port Neuk
1 Longcraig Road
South Queensferry
EDINBURGH
EH30 9TD
United Kingdom
www.jbaconsulting.com
t +44 (0)131 3192940
f +44 (0)845 8627772
e info@jbaconsulting.com

Project
Smithton & Culloden Flood Protection Scheme

Title
Flood Protection Scheme Drawings
Zone 2 Smithton Park Plan
Sheet 1 of 1

Client
The Highland Council
Comhairle na Gàidhealtachd

The property of this drawing and design vested in Jeremy Benn Associates Ltd. It shall not be reproduced in whole or in part, nor disclosed to a third party, without the prior written consent of Jeremy Benn Associates Ltd.

Scale	1:500 @ A1	Drawn:	S. Ortigosa	10/09/15
		Designed:	C. Robertson	10/09/15
		Checked:	S. Cooney	10/09/15
		Approved:	R. Dobson	10/09/15
Project Number:	2013s7134	Drawing Number	SC-JBA-02-06-DR-C-0100	Revision
				P4.0

LEGEND

	OPEN CHANNEL WATERCOURSE		REPROFILLED GROUND		GRASSCRETE SURFACE
	NEW BRIDGE		FLOOD EMBANKMENT SEE NOTES		PROPOSED AREAS OF NEW TREE PLANTING SEE NOTES
	EROSION PROTECTION		FLOOD STORAGE BASIN		RETAINING WALL
	CONCRETE STRUCTURE		EMBANKMENT TOE PROTECTION AND SWALE PROTECTION		LIMITS OF LAND AFFECTED BY OPERATIONS AND OF LAND UPON WHICH ENTRY IS REQUIRED FOR THE PURPOSES OF CARRYING OUT THE OPERATIONS
	GRAVEL FOOTPATH		GRAVEL VEHICLE ACCESS TRACK TO FPS STRUCTURES FOR MAINTENANCE		

EXISTING SERVICES

— SW —	SURFACE WATER SEWER	○	EXISTING TREES (TO BE RETAINED)
— CS —	COMBINED SEWER	⊗	TREES TO BE REMOVED (ALL OTHER TREES TO BE RETAINED)
— FS —	FOUL SEWER	●	5m HINGED LIGHTING COLUMN
— WM —	WATER MAIN	⊗	SECTION MARKER
— BTU —	BT OVERHEAD		
— BTU —	BT UNDERGROUND		
— ECO —	ELECTRICITY OVERHEAD		
— ECU —	ELECTRICITY UNDERGROUND		
— GAS —	GAS		

COMPENSATORY PLANTING KEY

● Qru	RED OAK
● Ap	SYCAMORE
● Nm	N. MAPLE
● Sa	ROWAN
● Sxi	S. WHITEBEAM
● Wc	CHERRY
● Bp	BIRCH
● Pp	BIRD CHERRY

This map is reproduced from Ordnance Survey material with the permission of the Ordnance Survey on behalf of the controller of Her Majesty's Stationery Office. (c) Crown Copyright. Unauthorized reproduction infringes Crown Copyright and may lead to prosecution or civil proceedings. Highland Council 100023369