



LUMSDEN
& CARROLL
CIVIL ENGINEERING





OUR EXPERTISE...



DRAINAGE

BRIDGE WORKS

HIGHWAY & INFRASTRUCTURE

PUBLIC REALM

UTILITIES

FRAMEWORKS

REMEDICATION

PUMPING STATIONS/M & E WORKS

COMMERCIAL BUILD

OUR STORY...

ENVIRONMENT

Sustainability is a major focus for today's companies, not least to those involved in construction who have a lasting effect on the world in which we live. Being acutely aware of our impact upon the environment we act to minimize any negative effects of our activity and always seek to make full use of sustainable materials and methods. Within the Esh Group, we have formed a joint venture with Aggregate Industries, Bardon Esh, that recycles construction waste and we have established facilities at our satellite offices to separate waste materials for recycling. Lumsden & Carroll have also achieved ISO 14001 Accreditation in Environmental Management Systems.



QUALITY

Quality and continuous improvement in all areas of service delivery are central to the company ethos and are reflected in all operational areas. Compliance and accreditation to BS EN ISO 9001:2000 has been achieved & maintained.

OUR STAFF

People are at the heart of our business and are crucial to the delivery of the company's promises. In order for the business to move forward we need the right people with the right skills with the right outlook. Through our recruitment process we aim to build the strongest team possible by ensuring that the company's values are aligned to those of the individual. We are proud of our people, and we value them as our most important asset and by consequence have achieved the 'Investors In People' status.



TRAINING

The Company has a comprehensive Training Scheme which has been designed and developed for all grades and disciplines of personnel in the organisation. Employees are actively encouraged supported to seek further qualifications for their personal development and the corporate growth of Lumsden & Carroll

OUR SUPPLY CHAIN

Lumsden & Carroll is committed to developing relationships with both clients and suppliers up and down the supply chain. The company has preferred relationships with a number of key suppliers for goods and services, which are continuously reviewed. We strongly believe in the principles of partnering and understand that the benefits to all parties cannot be realised without a support of a well-managed supply chain.

HEALTH & SAFETY

Lumsden & Carroll is proud of its good Health and Safety record. The Company Health & Safety Policy is constantly reviewed and updated to meet legislative changes and developments. Specific Health & Safety training is delivered to employees both in the classroom setting and in the workplace using external and in-house personnel. Lumsden & Carroll have achieved accreditation in ISO 18001.



ADDED VALUE

Added Value is our approach to managing our economic, environmental and social impacts. We are committed to the communities which provide our direct workforce and we recognise the impact which we have on the local economy and on those communities.



OPERATIONAL AREAS





A1M BARTON – DISHFORTH

As principal drainage contractor for 2 sections of the new 22km motorway improvement in North Yorkshire we installed 47,000Lm of main drainage (filter & carrier) with another 38,000Lm of fin drainage. The project, the 3rd largest scheme for the Highways Agency in England in 2009 was undertaken on behalf of a JV between Carillion/Morgan Est.

Project Duration & Value
9 months, £2.3 million



DRUM INDUSTRIAL ESTATE, BIRTLEY

The works at the Drum Industrial Estate, Birtley comprised of a sewer installation for an existing watercourse diversion and on-site storage attenuation using the "Tubosider" pipe system.

Project Duration & Value
3 months, £0.5 million



ST PETERS, SUNDERLAND

Environmental improvements to existing Northumbrian Water Combined Sewer Overflow (CSO) by the installation of a new 7.5m diameter shaft to a depth of 13m on the line of the existing sea outfall. Works included the installation of 2 no. stainless steel powered screens placed on insitu concrete walls at the base of the shaft. Mechanical and electrical works were included within the contract to link to the nearby pumping station.

Project Duration & Value
7 months, £0.8 million



CHESTER-LE-STREET, CO DURHAM

Works were undertaken to 3 areas to alleviate the risk of flooding to residential properties throughout the Chester-le-Street area, requiring continual community interaction, rolling road closures and restricted access to properties through vehicular diversions. Existing pipe work was upgraded and several CSO structures constructed throughout the town.

Project Duration & Value
9 months, £2.3 million



PRESTON VILLAGE, NORTH TYNESIDE

Works involved the construction of a storm detention tank of approximately 3,500m³ capacities. located within the First Team pitch area at North Shields Rugby Club in Preston Village with segregation of works imperative to ensure the health and safety to the public viewing the games. On completion of the works new flood lights were installed around the First Team Pitch. The tank consists of 15 no. Weholite HDPE pipes of 1.5m diameter and one of 1.8m diameter with a 300mm HDPE half channel and benching. The overall tank footprint is approx 120m in length by 34m wide with six Weholite HDPE access shafts for inspection and cleaning at each end and buried access blank flanges to cover six manholes at the centre of the tank. Two permanent access tracks have been constructed providing access for NWL tankers to the manholes at each end of the tank formed using 'Hoofmark Golpla' reinforced grass.

Project Duration & Value
6 months, £2 million



Commended for C.E.C.A Project of the Year Award

ULLSWATER GARDENS, SOUTH SHIELDS

The works, on behalf of NWL, comprised the diversion of the sewer upstream of Ullswater Gardens via a 1.5m to 2.1m diameter sewer and manholes to a new storm storage tank, approximately 112m long x 60m wide x 3m deep within a grassed public recreation area. The tank was constructed of insitu reinforced concrete with precast concrete cover-slabs. Works included; creating 11,000m³ of storage space; site returned to public recreation area with new goal posts; 20,000m³ of soil removed with 100% recycled on this or other sites; 8,000m³ of concrete poured in 16 working weeks; and 550 tonnes of steel reinforcement fixed.

Project Duration & Value
6 months, £3.5 million



TYNE TUNNEL

On behalf of Bouygues Travaux Publics, Principal Contractor for the New Tyne Crossing, we are carrying out the diversion of two sewers, which clash with the alignment of the proposed Tunnel on the North bank of the river. The Tyne Interceptor Sewer carries flows from a large area of North Tyneside and Newcastle, to the nearby Howden Waste Water treatment works. The Interceptor Overflow Sewer discharges high flows, in times of storm to the River Tyne. Both of these sewers are 1500m diameter and are being installed up to 8 metres deep in made ground, which is variable in nature.

Project Duration & Value
5 Months , £1.2 Million



Commended for C.E.C.A Project of the Year Award

BILLINGHAM SEWERAGE TREATMENT WORKS

Installation of 3.5km of new pumping main and 3 ½ km of gravity discharge pipe work to meet a new Environment Agency (EA) discharge consent running from Billingham Sewerage Treatment Works to the A178 between Seaton Carew STW and Seaton Carew Headwork's. Works included construction and integration of a new transfer pumping station, installation of a temporary bailey bridge and pipe bridges and timber heading. A 4.5m deep under track crossing of the East Coast Main Line, as well crossing of an existing Ethylene Pipeline were required, with works bordering a SSSI site crossing a large habitat of Great Crested Newts, where works had to be carried out within special newt fencing.

Project Duration & Value
14 months, £2.7 million

DRAINAGE

DRAINAGE



SHIREMOOR BYPASS PHASE 2 BRIDGE

Construction of a 46m span bridge to take the Shiremoor Bypass over the Blyth and Tyne Railway, under the supervision of Network Rail. The bridge construction consisted of large concrete foundations and abutments, with weathering steel beams supporting an insitu concrete deck, and PC parapet units. Also constructed - large earthworks embankments and sewer diversions

Project Duration & Value

13 months, £3.3 million



TANNERS BANK & SHIELDS ROAD

Refurbishment of Metro bridges for NEXUS. Works included repainting bridges, pointing and repair works to abutments and wing walls, repairs and replacement of parapets, investigation of current condition of the structures and remedial works to suit.

Project Duration & Value

4 months, £0.3 million



ROAD OVER RAIL BRIDGE

Work comprised the identification and construction of vehicle safety fencing layouts at 11 bridges carrying vehicular traffic over the East Coast Main Line Railway, which were identified in the wake of the fatal train crash at Great Heck. Each bridge site was surveyed jointly with representatives of North Yorkshire County Council, and the most effective and cost effective solution was jointly agreed.

Project Duration & Value

12 months, £0.06 million per bridge



A1231 BRIDGE MAINTENANCE

Works comprised maintenance to 4no bridges and consisted of removal of carriageway, bridge deck waterproofing and testing of concrete. The bridges were then re-waterproofed with the carriageway reinstated. Testing & concrete repairs of abutments and replacement of reinforced steel to concrete was then carried out. During this process the carriageways below the bridges remained fully operational.

Project Duration & Value

4 months, £0.7 million



WORLDS END BRIDGE, THIRSK

Demolition of reinforced concrete bridge deck and abutments, and the construction of reinforced concrete abutments, composite bridge deck and brick clad reinforced concrete parapets. The project was carried out with the minimum disruption to traffic. A temporary bridge was used to allow the construction of half of the bridge on line, and the second half was constructed with traffic running on the newly constructed bridge deck under single way traffic control.

Project Duration & Value

5 months, £0.4 million



KIPHILL, STANLEY

This design and build project involved high level of collaboration between client, the Highways Authority and Durham County Council regarding layout and aesthetics of the project. Our designer, Durham County Council Bridges Section, was involved in early consultations, to produce a design that incorporated value engineering from the outset. The scheme comprised removal of existing steel plate girder bridge deck, demolition of existing abutments, earthworks, grouting and piling for new abutments, road and footpath re-alignment, construction of a new junction and alterations to existing highways and footpaths. The bridge construction is a tied arch of 60m. span over an existing heavily trafficked highway.

Project Duration & Value

12 months, £1.2 million



Commended for I.C.E for Excellence in Concept, Design and Execution of Civil Engineering Works

MYTON ON SWALE, NORTH YORKSHIRE

The extent of the works involved replacing the concrete bridge deck, repairing and replacing structural elements of the superstructure, repainting the bridge and repairing and replacing damaged and missing brickwork. The bridge is more than 200ft long with a central span of 100ft. The central span is made of three curved cast iron ribs 2ft 6ins deep, and the bridge contained about 70 tons of cast iron and wrought iron. The project was commended by the Institution of Civil Engineers in their National Competition.

Project Duration & Value

4 months, £0.5 million



ILFORD ROAD TO JESMOND

Refurbishment of 5no Metro bridges, which comprise of brick arched bridges supporting road traffic over the Metro train system. Nightshift works, (with trains stopped and overhead lines isolated between midnight and 04:00hrs) which includes removal and replacement of defective brickwork to arches and pointing works to abutments and wing walls, stitching of masonry with stainless dowels, grouting of voids. Dayshift works include closure of roads to allow the top of the brick arches to be exposed, supporting services, placing new concrete protection and waterproofing to be applied prior to backfilling, relaying kerbs and resurfacing.

Project Duration & Value

8 months, £0.6 million



ACKLAM ROAD, MIDDLESBROUGH

Works were undertaken on this busy arterial route on the East side of the City to help manage new and existing traffic flows. The scheme comprised the construction of new roundabout, road improvements, drainage (including large diameter storage pipes) and diversions of services to allow safe access to a new housing development and manage existing traffic flows during peak periods.

Project Duration & Value
6 months, £0.5 million



SHIREMOOR BYPASS

Design and build project for Bowey Homes and The Duke of Northumberland, which involved major earthworks and ground stabilisation, service diversions and dualling of an existing road leading to the new road infrastructure. The design accommodated a sustainable drainage system by constructing a balancing pond. The main road works were followed by the provision of a further infrastructure package for the housing developer on the project.

Project Duration & Value
12 months, £3.8 million



CHILTON MOOR.

Estate Roads, sewers and plotwork construction. Engineering factors during the construction involved vibro pilling to foundations, remediation of the plot and garden area and timber headings for the off site sewer construction across existing carriageways due to the high volume of existing services.

Project Duration & Value
7 months, £1.5 million



WHEATRIDGE PARK, SEATON DELAVAL

Works to Wheatridge Park were carried out on behalf of Bellway Homes and involved construction of new estate roads and sewerage systems with offsite storage tanks. The project involved intensive dewatering of the ground and remediation for the plot construction.

Project Duration & Value
10 months, £1million



RAINTON BRIDGE, SUNDERLAND

Design and build project for the City of Sunderland. The project was to provide infrastructure to the Rainton Bridge South Business Park to facilitate the commercial development of Phase 2 of the Rainton Bridge South Site. The scheme comprised earthworks, construction of new highways, footpaths and alterations to existing highways. The works included provision of street lighting and drainage (with on site attenuation), diversion of existing and provision of new utility apparatus. Adjacent to the site is a site of significant scientific interest (SSSI) which required special measures to be followed for both temporary and permanent works.

Project Duration & Value
9 months, £2.4 million



THE AVENUE, MIDDLESBROUGH

The existing highway structure along the length of The Avenue had suffered significant failures resulting in settlement and cracking. The new works entailed the reconstruction of the existing carriageway and footways together with new lining and signing, pedestrian guard rail, bollards and associated drainage works. No service diversions were planned and the works brief involved working around the live services. Works were carried out in five phases with a minimum period of five weeks per phase. Due to various road closures and diversions special measures were taken for the local community including; temporary car park for residents with manned security, refuge collections moved outside of works areas for collection and returned, liaison with local schools and programmed works around church services.

Project Duration & Value
5 months, £0.4 million



DUNSTON STAITHS, GATESHEAD

Works were undertaken throughout highly contaminated land allowing a new large mixed housing development on the banks of the River Tyne. A large remediation scheme was undertaken before the construction and installation of roads, sewers and plot works, followed by hard landscaping and paving works including the installation of street furniture. The award winning design of the properties was carried out by Wayne Hemingway.

Project Duration & Value
3 years, £5 million



WESTOE CROWN VILLAGE

This mixed housing development comprised 780 houses, flats and bungalows constructed on pile and deep fill concrete foundations complete with gas proof membranes throughout the old Westoe Colliery which was classified as a highly contaminated brownfield site. Due to Hydrocarbons and heavy metals within the ground two separate methods of remediation were carried out to seal off the contaminated ground. All drainage installed was fitted with nitrile rings 'Hydrocarbon resistant' due to contaminants with eco surface water drainage systems constructed to allow surface water to be collected in large geotextile lined pits, acting as soak away letting water back into the ground. Any water that would not filter was piped into a storm water system via a Hydrobrake. 8000m of road and footways was constructed along with 4000m of utility services floowed by both hard and soft landscaping works including large paved areas and parks and tree lined walkways.

Project Duration & Value
8 years, £16 million

HIGHWAY

INFRASTRUCTURE



Commended for R.I.C.S Renaissance Award

PANAMA SKATE PARK, WHITLEY BAY

This Design & Build project created a skate park within the existing 'bowl' of the landscape, via design consultation with skateboarders, BMX users and roller bladders. The 1000m² area incorporates 2 bowl, ramps, driveways and walls. Works included grouting of coal seams as part of the ground remediation works prior to drainage installation, facing decorative sandstone and retaining walls.

Project Duration & Value

5 months, £0.3 million



SKIPTON BUS STATION

This project was for North Yorkshire County Council, for the construction of a new Bus Station. It was part of an innovative Public transport hub, and forms part of a scheme to regenerate the town centre of Skipton. The Bus Station is of steel framed construction, incorporating Taxi and car parking facilities, there are extensive paved areas to accommodate bus parking and movements from the near by canal to the shopping centre

Project Duration & Value

5 months, £1.2 million



EARLS HOUSE HOSPITAL, DURHAM

The utility works, valued at £0.4m, consisted the diversion of the existing gas, water and hydrant mains allowing extension to the existing services to facilitate the new PFI building. Enabling works and highway improvements were also undertaken in seven critical sequential phases to suit strict client and customer requirements.

Project Duration & Value

6 months, £2.6 million



WARKWORTH NORTHERN TRUNK MAIN

Installation of a new 250mm Meter and Bypass arrangement involving 18" Cast Iron and Steel Linestops and a 450mm Ductile Iron Linestop with associated thrust blocks. The existing system was bypassed with 400mm HPPE SDR 11 to maintain flow as the pressure encountered was up to 12 Bar. All pipework was tested, chlorinated, flushed and sampled before the Linestops were removed and the bypass pipework dismantled.

Project Duration & Value

2 months, £0.2 million



CIVIC HEART, CHESTER LE STREET

The project comprised repairs to the walls and channel, and the replacement of the reinforced concrete roof slab of Cong Burn culvert in order to enable increased vehicle loadings and facilitate the re-development of the market place. It also included the installation of new drainage and hard landscaping, as well as the provision of new market stalls. The construction of a feature archway and public event area using high quality finishes was undertaken in close liaison with the Council's appointed artist.

Project Duration & Value

8 months, £1.6 million



UNIVERSITY OF LEEDS

Works were undertaken to reinvigorate key external areas outside of the Main Hall and Student Union Building. Existing paving's were removed and replaced with high end imported granite kerbs, tree grilles and cast stone surrounds, followed by the installation of new street furniture. Environmental considerations were undertaken throughout the project with recycled materials being used; including recycled stone, eco sand and block paving manufactured from recycled materials. Coordination and interaction between ourselves and the University was key to allow the scheme to be undertaken successfully and with minimal disruption, avoiding key dates such as fresher's week and receiving of exam results. Segregation of work areas was key throughout due to the densely populated Campus environment.

Project Duration & Value

11 months, £1.4 million



TRUNK MAIN CLEANING PROGRAMME

This contract involves the cleaning and lining, where necessary, of a varied size range of strategic trunk water mains throughout the Newcastle and South Tyneside area. The 52 km length of main to be cleaned/ lined is divided into 35 different working sections, which travel through densely populated urban areas along with main arterial traffic routes into Newcastle itself, calling for a high degree of planning and co-ordination. Customer supplies are maintained during the working period by the installation of various overland bypass service pipes along with other enabling works which are completed prior to works on each section commencing. The works are being carried out for client NWL, and in turn overseen by the Drinking Water Inspectorate (DWI).

Project Duration & Value

3 years, £3 million per year



WHITLEY BAY FLOOD ELEVATION

Designed to alleviate flooding in the Monkseaton area of Whitley Bay, the works consisted of the construction of a 15m dia x 10m deep storm retention tank equipped with ITT Flygt pumping and mixing equipment. The tank is linked to the existing sewer system and designed to take storm flows beyond the capacity of the sewer. Using an ultrasonic level system in the downstream sewer, the retained effluent is pumped back into the sewer once the storm has subsided. Working to NWL standards the Mechanical and Electrical design and installation was carried out by L&C's newly created M&E Section. Equipment designed and installed included the Control Panel, Kiosk, all ductile pipe (EN598). All electrical field wiring was installed and tested to the latest 17th Edition regulations, with the functional process being monitored via NWL's Regional Telemetry System.

Project Duration & Value

6 months, £0.7 million

PUBLIC REALM

UTILITIES



NWL WASTEWATER FRAMEWORKS

As Framework Partners with NWL we undertake work within the Central Area of the Wastewater Networks for both Minor and Major works.

FA04-04 MINOR WORKS WASTEWATER NETWORKS FRAMEWORK

Comprises reactive & planned repairs & maintenance (including 24 hour, 7 days a week emergency cover) of wastewater networks, combined sewerage overflows, sewer flooding, new development works and other minor wastewater network capital schemes. The works are divided into three categories; Emergency works – short duration with rapid response time, valued between £500 up to £20K; Small planned works – other small works with short durations which are programmable, valued between £500 up to £50K; Individual projects – these are generally smaller sewerage schemes, valued up to £150K each. We have worked with NWL for over 15 years and employs a dedicated workforce specialising in this type of work.

FA04-02 WASTEWATER NETWORKS MAJOR WORKS FRAMEWORK

In 2005 we were also appointed as a Framework Contractor for the Major Works Framework comprising of schemes such as combined sewerage overflows (CSOs), sewer replacement, new development and other major capital schemes. These Contracts are based on the NEC Engineering Construction Contract and are either; Priced contracts with Activity Schedule; Target contract with Activity Schedule or BOQ; These works involve working alongside Design Consultants to complete the schemes and often involve value engineering to the benefit of the Client.

Project Durations & Values

6 years from 2005, £15 million per annum



NWL STRATEGIC MAINS CAPITAL WORKS

Since 2001 we have carried out works on the Strategic Mains Contract and in 2005 were awarded a 5 year contract based on a Schedule of Rates. The contract is divided into 3 key areas working on mains from 225mm diameter to 1800mm diameter:

- Conditional Assessments – excavating & exposing strategic water mains for assessment of their condition and subsequent backfill & reinstatement
- Construction of Analysis Points – excavating and exposing strategic water mains, drilling and fixing an analysis valve and constructing a chamber around the valve. The analysis chambers vary in size from 1800mm diameter precast concrete chambers to specially designed and constructed chambers
- Maintenance of Assets – removing covers and frames and the subsequent repair and/or renewal

In addition to this we have also carried out works relating to strategic mains including confined space entries, emergency repair response and excavations for repairs. All operatives working on this contract are required to carry the National Water Hygiene card (Blue Card).

Due to the success of this contract, in 2009 we were awarded the Warkworth Northern Trunk Main Distribution Meter Contract which includes intrusive works.

Project Duration & Value

Continuous since 2001, £1 million per annum



YORKSHIRE WATER R&M FRAMEWORK

The reactive Repair & Maintenance (R&M) Framework was successfully secured in 2008 and represents the first contract the Company has been awarded by Yorkshire Water Services.

The works are varied and comprise 24 hours a day, 7 days a week reactive response to problems on the Yorkshire Water sewerage network in their North and East regions. The framework is divided into two key elements – Engineering Repairs and Restoration of Service.

Engineering Repairs include dig down repairs to sewers (patch repairs, relay & reline), construction and refurbishment of manholes, ironwork inspections & replacements plus cyclical inspection of Yorkshire Water assets and subsequent planned maintenance.

The second element of the works is Restoration of Service and is carried out by our own in house jetting fleet, procured in 2009, which operates successfully throughout the region.

In addition, supplementary work is carried out specifically in relation to DG5 Internal Flooding, where pro-active quadrant surveys and associated jetting works are completed, to prevent internal flooding to at risk properties.

Project Duration & Value

5 years from 2008, £3 million per annum



ENVIRONMENT AGENCY MINOR WORKS FRAMEWORK NORTH REGION

Since 2001 we have been working with the Environment Agency as a minor works framework contractor. In 2008 we were awarded a 4 year framework for the North East and Yorkshire hydrometric networks and approximately £2 million per annum.

The term maintenance framework contract with the Environment Agency is for the provision of environmental improvements and flood relief works consisting of the following piling works, flood defence embankments, river diversions, river improvements, concrete structures, erosion protection, revetment works, culverts & drainage, weirs, gauging station infrastructure, fish passes, minor building works, trash screens & safety rails, creating habitats for wildlife and working in environmentally sensitive areas, e.g. SSSI sites.

In addition to the above and due to nature of the works, temporary works have often been necessary which include constructing access roads, fencing, tree felling, cofferdams, stanking, fluming and over-pumping.

The contract is based on NEC Short Contract over 4 years with works packages up to £250K covering the North East and Yorkshire hydrometric networks and is approximately £2 million per annum.

Project Duration & Value

Continuous since 2001, £2 million per annum



FRAMEWORKS

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LUMSDEN & CARROLL

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