



- Nigel Nixon and Partners- NNP is an international firm of port advisors who work on a wide variety of projects worldwide.
- NNP have been established for over forty five years and have built on a reputation as leaders in the field of heavy-duty pavement design. Other expertise extends to market studies, economic analysis, due diligence, planning, design, costing, procurement and implementation.
- In 1994 the company was incorporated in the United States located at its headquarters in Dallas, with representation in U.K., France, Brazil, Caribbean, India and Singapore.
- We are fortunate to secure repeat business with many of our clients and have worked with many of them for most of the time we have been in business.





- An Owner's mission values and their stakeholder requirements have been understood and implemented on numerous NNP projects.
- NNP as a global consultant focuses its vision on cost effectiveness and cost certain delivery at minimal risk to any Owner.
- Our philosophy and mission is to maximise an Owner's best possible return on their investment by focusing on minimizing Owner risk, establishing a best value project and striving at all times for a cost certain deliverable and optimal solution.
- It is through experience in procuring a truly commercially driven solution led by the project's business plan that NNP would be of great benefit to any potential Owner or Bank.
- Many Project Owners have valued the commercial approach and philosophy in project delivery that NNP implements.
- NNP looks to blend its teams wide experience to provide complementary skills to offer a total integrated service.





#### Team Leaders





#### Key Capabilities

#### Pavement Design & Appraisal

- Pavement rehabilitation
- Condition surveys
- Testing
- Computer analysis & evaluation
- Asset management & maintenance
- Expert witness

#### Port Equipment

- Equipment planning
- Procurement
- Condition survey
- Maintenance survey
- Refurbishment
- Wire rope cables
- Structural analysis

#### Economic analysis

- Commercial due diligence
- Feasibility studies
- Investment appraisal
- Traffic forecasting
- Market studies
- Funder representation
- Letter of reliance of authority

#### Key Capabilities

#### Port Development & Investment

- Financing/investment
- Concession/ Lease agreements
- Finance/build/lease
- Equipment and construction procurement
- Site selection

#### Port Operations

- Operations due diligence
- Terminal operating system
- Terminal planning
- Dynamic simulation
- Operational layout
- Equipment and HR analyses (OPEX/CAPEX)
- Business planning

#### Port Infrastructure

• Infrastructure due diligence

- Concept planning
- Back land design
- Yard utilities design
- Yard buildings design
- Detailed design

#### Port Procurement & Implementation

- Construction & project management
- Planning & building consents
- Construction monitoring
- Owner representation
- Cost consultancy



#### Worldwide Experience

United States of America Port of San Francisco Port of Oakland Port of Tacoma Port of Seattle Port of Los Angeles Port of Long Beach Port of Corpus Christi Port of Houston Freeport Port of Galveston Port of Beaumont **Gulf Port** Port of New Orleans St Louis River Term Port of Mobile Port of Tampa Port of Miami Port of Fort Lauderdale Port Everglades Jaxport, Jacksonville Port of Savannah SCPA. Charleston Port of Virginia Port of Paulsborough Port of New York New Jersey Greensborough, Albany Massport, Boston **Dutch Harbor** North Cape, Alaska

Canada Port of Montreal Milton, Toronto Port of St Johns Port of Vancouver Caribbean, Central and South America New CT Tuxpan Mexico Mexico Port of Acapulco Port of Guaymas Mexico Port of Lazaro Cardenas Mexico Port Cuzamil Mexico Port of Belize Belize Porto Centrale Brazil Bahamas Port of Freeport Gordon Quay Jamaica Port Lafito Haiti/ Port Lisas Trinidad Port of Moin Costa Rica San Juan Puerto Rico Europe Port of Bristol UK Port of Dover UK Port of Felixstowe UK Port of Harwich UK Port of Hull UK UK Port of Ipswich ABP, Immingham UK Port of London UK

Port of Liverpool

UK

Port of Mostyn UK UK **Purfleet Thames Terminal** Port of Ramsgate UK UK Tees and Hartlepool PA Port of Southampton UK Port of Sunderland UK **Thamesport** UK Belgium MPET, Antwerp Port of Zeebrugge Belgium Port of Limassol Cyprus Finland Port of Vaasa Port of Le Havre France Port of Lyon France Port of Marseille France Port of Paris France Port of La Rochelle France Port of Rouen France Port of St Malo France Port of Saint Nazaire France Port of Hamburg Germany Port Dublin Ireland Port of Cork Ireland Riga Commercial PortLatvia Port Rotterdam Holland Port of Gdansk Poland Port Constanta Romania Port of St Petersburg Russia Port Gothenburg Sweden Algeciras PA Spain Port Vera Ukraine

Africa Port Said Egypt San Pedro **Ivory Coast** Abidjan Ivory Coast Port of Mombasa Kenya Namport Walvis Bay Namibia Port Harcourt Nigeria Namanve CT Uganda Mauritius Mauritius ICT Middle East **Bahrain Ports Authority** Bahrain Uhm Qasr Iraq Port Mina Sulman **Oman** Asia Port of Bangkok Thailand Port of Sattahip Thailand PSA Kepple Harbour Singapore Keelung CT Taiwan Port Xiamen China Oceania Port Botany Australia Port of Brisbane Australia Port of Freemantle Australia

New

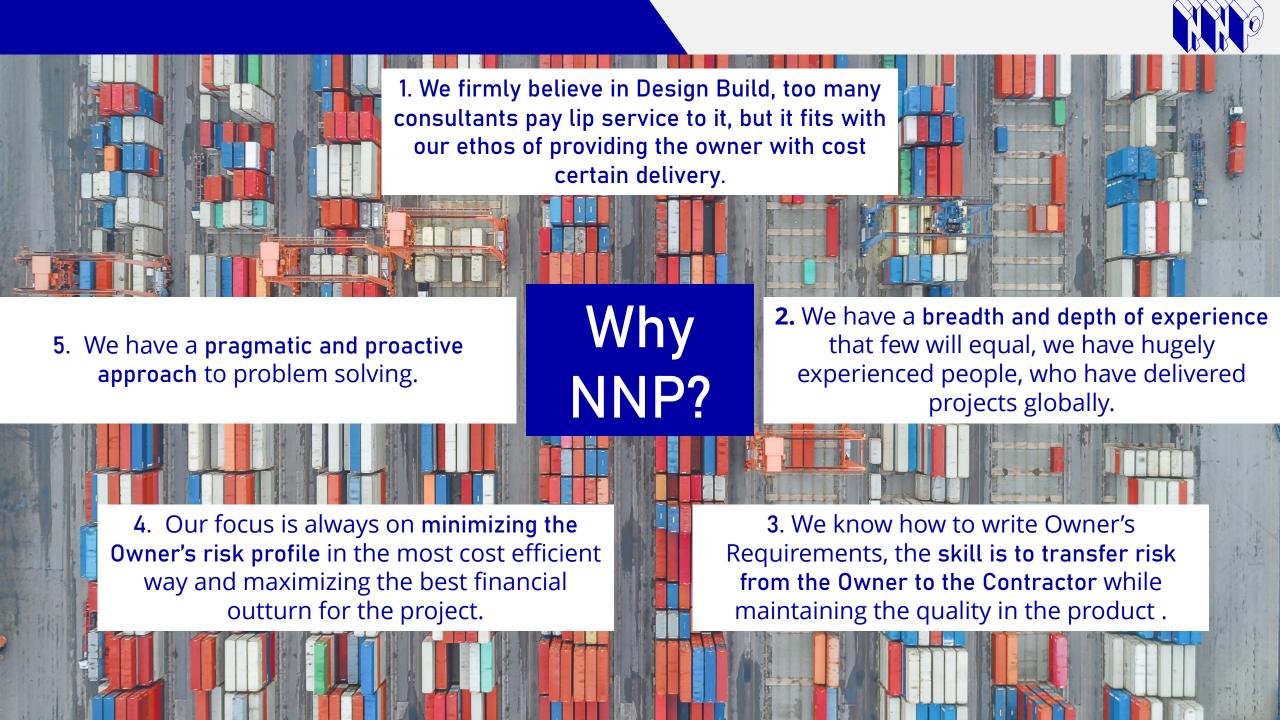
Zealand

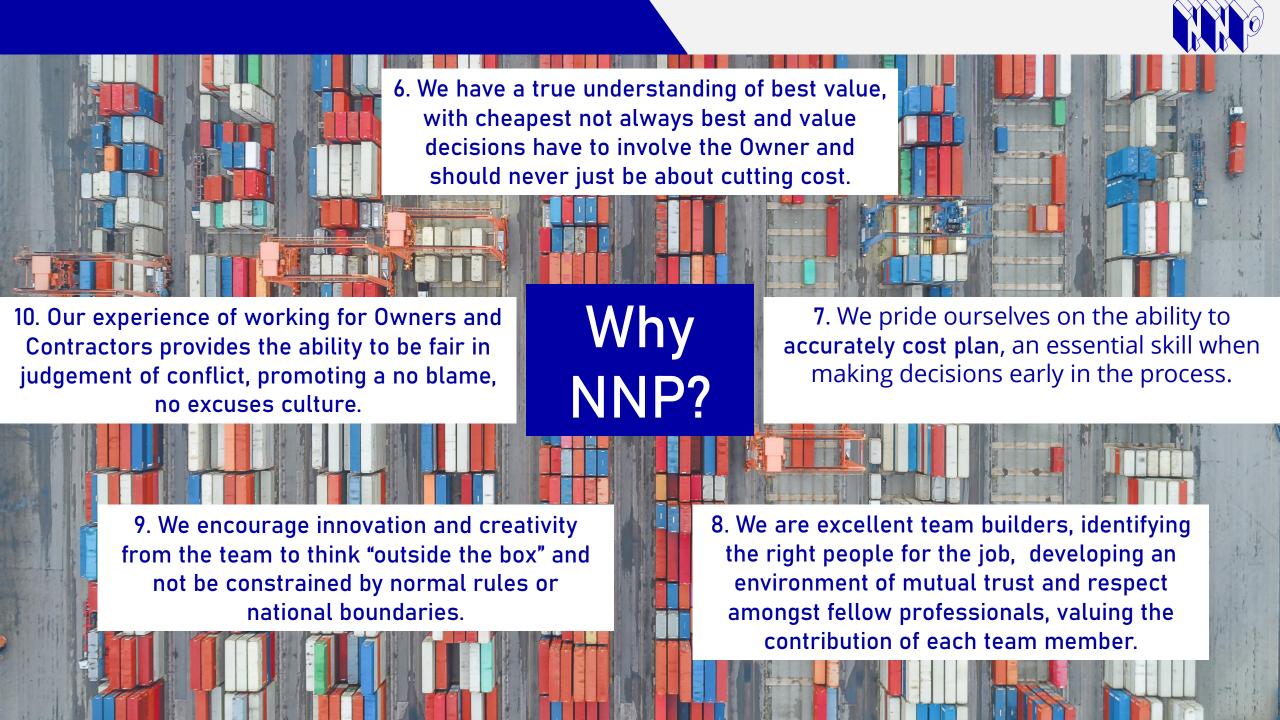
Port of Tauranga

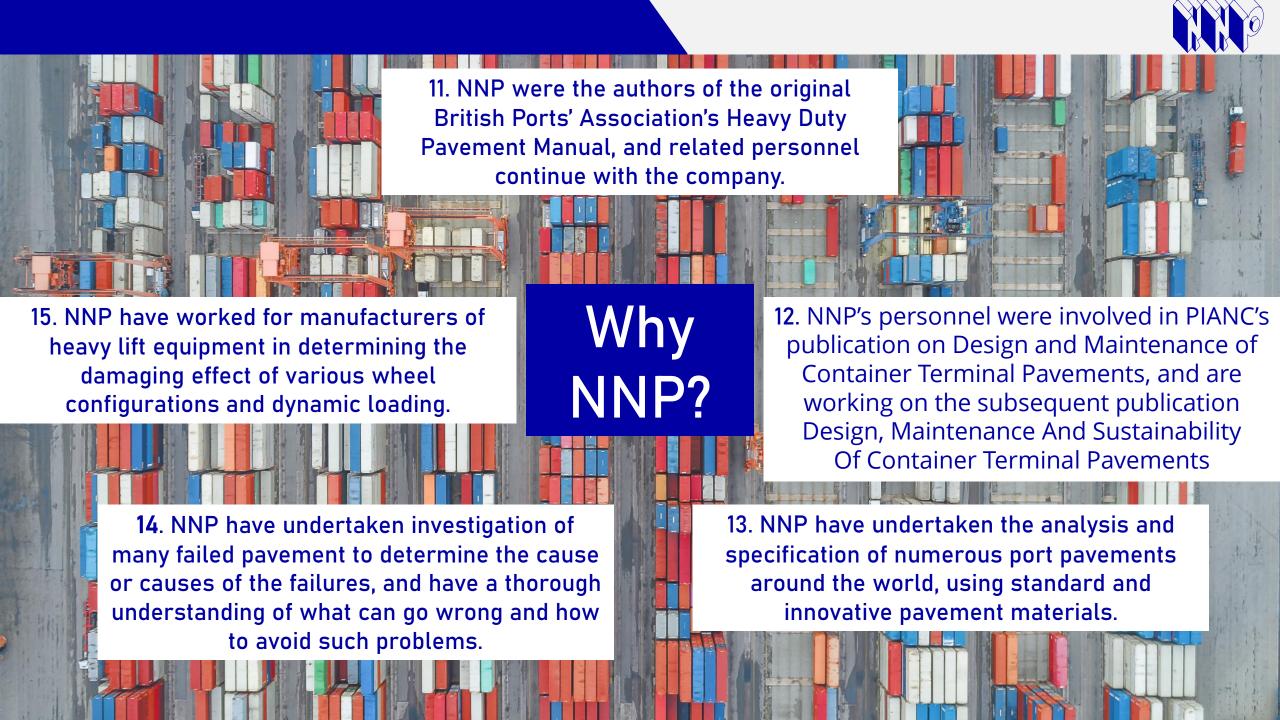


# Project Map













### **Experience Strategic Partner**

Louisiana Gateway Terminal, Plaquemines

- NNP were engaged as strategic advisors to LA23 Development Company (LA23) for the implementation of the container terminal that forms part of the Louisiana Gateway development in the Plaquemines Parish, South of the City of New Orleans. NNP undertook an independent commercial study to validate the viability of the project and developed a masterplan for the phased implementation and full build out of a container facility that will ultimately provide eight berths for ocean container vessels and river container barges, and a container terminal of approximately 200 acres. NNP also provided technical support for some of the project's specifics that required early consideration such as the supply of LPG to fuel some of the proposed vessels.
- NNP led investigations and studies to support the process of obtaining the US Corps of Engineers permits for the initial phase.
- In order to achieve the completion phase one in the best possible time, NNP instigated an RFQ / RFP process to select the best possible contractor partner, a key to the overall project delivery. A Progressive Design Build approach was used to select the successful contractor to be part of the implementation team at the earliest possible time, driving the development design, managing the project risk and ensuring a buildable design to provide a cost certain design build proposal.







#### Experience Owner's Representative

#### **Delaware Container Terminal**

- NNP were engaged as Owner's Representative for the implementation of Phase One of the Delaware Container Terminal, Wilmington, DE.
- To achieve the completion of Phase One in the best possible time, NNP instigated an RFQ / RFP process to select the best possible contractor partner, a key to the overall project delivery. The Progressive Design Build approach was used to select the successful contractor to be part of the implementation team at the earliest possible time, driving the development design, managing the project risk and ensuring a buildable design to provide a cost certain design build proposal.





- Berths 5 and 6 at the Barbours Cut Terminal of the Port of Houston are operated by APM Terminals. The pavements at this facility have been constructed in a number of different phases over the past thirty years. The pavements consist of jointed reinforced concrete over lime treated clay subgrade. Over this period the severity of loading from container handling operations has increased and the pavements were exhibiting several signs of distress. Some areas required the use of steel plates and periodic repairs to remain serviceable. Several sections of the pavement had failed prematurely, within a few years of construction. In 2009 Nigel Nixon and Partners, Inc. were appointed as a sub-consultant to Lockwood Andrews and Newnam, Inc. to undertake an investigation into the pavement condition and to develop remedial measures to reinstate the pavements to a serviceable condition.
- For this Maintenance Improvement Project NNP provided teams to undertake a condition survey of the pavements while the terminal remained in operation. This was supplemented by borings and non-destructive testing to assess the residual pavement strength. NNP analyzed traffic loadings, environmental and geotechnical data, and prepared designs, details and specifications for the repairs in the grounded and wheeled yards, and for the circulation roads within the terminal. This three year project also involves regular site visits during construction to agree the remedial areas with the contractor as the pavement continues to degrade. Construction has been undertaken on a rolling program with the contractor only being able to work on limited areas in the terminal. Work is due to be complete by the end of 2011.

#### Berths 5 & 6 Pavement Rehabilitation-Barbours cut, Port of Houston, Texas, USA





- In 2007 the Alabama State Ports Authority and APM Terminals formed a joint venture to construct a new 80 acre container terminal in Mobile. This Capital Improvement Project involved the development of a new terminal with two 1,000ft. berths. The backlands area for the new terminal would be constructed over reclaimed fill of variable quality. The original pavement system considered for the project was full depth asphalt concrete. However, the requirement for the future introduction of RTGs would mean that runway beams would need to be constructed in the pavement to avoid rutting under the channelized wheel loads. APM Terminals hired Han Padron Associates (now Halcrow), to undertake the design work for the terminal buildings and backlands for the terminal. Han Padron Associates subcontracted Nigel Nixon and Partners to assist and advise on all paving issues.
- In addition to assisting with the design of the asphalt concrete pavement, NNP developed preliminary pavement sections for a roller compacted concrete alternative capable of use by RTGs. It involved the design of the pavements for the grounded yard, the empty or wheeled yard and the circulation roadways. NNP analysed traffic loadings, environmental and geotechnical data, and prepared preliminary designs, details and specifications for each pavement option. The successful contractor was required to prepare a final design of the roller compacted concrete pavement for review. NNP reviewed the contractor's proposals that were based upon mix designs produced from locally available materials. Site visits were also undertaken to monitor the pavement construction work. The first phase of construction was completed in 2009.

#### Mobile Container Terminal, Alabama State Ports, Alabama, USA





- To ensure that the Port of Walvis Bay will play a role as a container transhipment hub on the southwest coast of Africa as well as a gateway to land-locked countries, the Namibian Ports Authority (Namport) has launched a new deep water container terminal project at the south end of the port. The terminal will be constructed on reclaimed land connected to the port by a causeway with road and rail links. Following feasibility studies and preliminary design, in 2013, the port sought tenders from a number of international design and build contractors.
- Nigel Nixon and Partners, Inc.'s services included assisting the Port Authority in the selection of a design and build contractor with specific emphasis on the pavements in the terminal access roads, truck gate, maintenance facility and rail yard. We reviewed the design proposals from the three shortlisted contractors and prepared a report on inconsistencies and viability of the alternative approaches. We also participated in the preferred contractor interviews.
- Work on the project is currently ongoing and Nigel Nixon and Partners are reviewing the contractor's design proposals for the filling and pavement work. Pavement systems include asphalt, concrete pavers and reinforced concrete pavement and RTG runways. Settlement of the terminal and related problems are of particular concern owing to the diatomaceous character of some of the underlying and dredge materials.

# Walvis Bay Container Terminal Development Project, Walvis Bay, The Republic of Namibia





- City of St. Louis Municipal River Terminal is a 27-acre general purpose cargo facility, on the Mississippi River. Containers and other cargo are moved between barges and trucks or rail using a mobile crane. In 2008, flooding of the river causes significant damage to the South Dock, and a subsequent study by the local Development Corporation found that the dock was at the end of its structural life, and that the wharf could fail in the near future. With the aid of an EDA grant, the City is reconstructing the wharf and providing a new aggregate surface for the mobile crane operations. The project is being undertaken on a design and build basis by St Louis Bridge Construction, with ABS Consulting and Halcrow as the engineers.
- Nigel Nixon and Partners prepared the crane pad design for Halcrow. We developed the subgrade properties with the geotechnical consultant and analyzed the loading conditions under the crane tracks to design a geogrid reinforced aggregate crane pad. NNP considered designs for both geogrid and geocell options, with the former being the most cost effective. NNP also prepared the specification for the crane pad construction and reviewed the properties of potential aggregate materials.

#### South Dock Crane Pad, St. Louis Municipal River Terminal, Missouri, USA





- Freightliner redeveloped their intermodal terminal at the Port of Southampton in the United Kingdom in 2004. The terminal used shuttle carriers and reach stackers for container handling operations between the adjacent marine terminal and for loading the containers onto or off of rail cars. The pavement design took maximum advantage of the residual strength of the existing pavements when they were on the same alignment by using them as the base for the new pavements. New pavement was constructed where the two did not coincide. Pavement problems started to develop in a few areas soon after the works had been completed. Following a number of localized surface repairs that did not hold up, Freightliner commenced legal proceedings against the contractor and design consultant. In 2010 Nigel Nixon and Partners, Inc. were appointed to investigate the issues and to provide expert witness services on behalf of the consultant.
- NNP's scope of services included a thorough review of the pavement design and construction records and visiting the facility to undertake an inspection of the pavements and to observe the operations of the shuttle carriers and reach stackers. The scope also included reviewing the results of previous investigations on the failed pavement and underlying subgrade materials to determine the causes of the pavement distress. NNP also undertook an analysis of the loading conditions and carried out a design check of the pavement section. Such designs focused on the likely container handling equipment's dynamic loading at the location of pavement issues. NNP prepared an expert report concluding that the problems were related to construction issues rather than design matters. NNP subsequently participated in mediation proceedings where the case settled.

#### Freightliner Terminal Investigation, Port of Southampton, United Kingdom





- Xiamen Haicang Xinhaida Container Terminals Co Ltd. is developing a new container terminal at the Port of Xiamen in Fujian Province in China, which they will subsequently operate. The terminal is to be operated by electrically powered RTGs operating on reinforced concrete runways in a concrete paver surfaced pavement. The subgrade consists of various fill materials that have been treated with several different techniques to minimize settlement. CMA CGM Group is a major shareholder in this company. The project was designed by the Chinese Design institute. They appointed Nigel Nixon and Partners, Inc. to review the design and construction work for the terminal, and advise on any appropriate work that needed to be performed such that the terminal would meet their requirements.
- For this Capital Improvement Project NNP reviewed the design and appropriate input parameters for compliance with our client's requirements. We established a testing plan for the varying subgrade conditions to verify that the pavement would remain serviceable through the operator's tenure, and advised on remedial measures to deal with residual consolidation potential that could adversely affect the facility. NNP visited the project in 2010 during the construction works and reviewed the quality of the construction and compliance with the design documents. For non- compliant issues we proposed additional testing and remedial measures. Work is ongoing and the project will be completed this year.

#### Xinhaida Container Terminal, Port of Xiamen, People's Republic of China





- Jaxport have developed a new intermodal container transfer facility Port of Jacksonville Fl in USA The terminal is to be operated on RCC surfaced pavement. The subgrade consists of various fill materials that have been treated with several different techniques to minimize settlement. The successful design and build contractor, Dana Kenyon, appointed Nigel Nixon and Partners, Inc. to review the design and construction work for the terminal, and advise on any appropriate work that needed to be performed such that the terminal would meet their requirements.
- For this Capital Improvement Project NNP reviewed the design and appropriate input parameters for compliance with the client's requirements. We established a testing plan for the varying subgrade conditions and the RCC mix design to verify that the pavement would remain serviceable through the operator's tenure, and advised on remedial measures to deal with residual consolidation potential that could adversely affect the facility. NNP visited the project in 2015 during the construction works and reviewed the quality of the construction and compliance with the design documents. For non-compliant issues we proposed additional testing and remedial measures.

Jaxport's New Intermodal Container Transfer Facility, Dames Point, Jacksonville, Florida, USA





- Namport are developing a new deep water container terminal at Walvis Bay, Namibia. The terminal is to be operated on Concrete Paver surfaces pavement. The subgrade comprises dredged fill materials that have been treated with several different techniques to minimize settlement. The Port Authority appointed Nigel Nixon and Partners, Inc. to help judicate on the design and build bids, review the design and construction work for the terminal, and advise on any appropriate work that needed to be performed such that the terminal would meet their requirements.
- For this Capital Project NNP reviewed the design and appropriate input parameters for compliance with the client's requirements. We established a testing plan for the varying subgrade conditions and the CBM mix design to verify that the pavement would remain serviceable through the operator's tenure, and advised on remedial design measures to deal with residual differential settlement potential that could adversely affect the facility. NNP visited the project in 2016 during the construction works and reviewed the quality of the construction and compliance with the design documents. For non-compliant issues we proposed additional testing and remedial measures. NNP Inc ran a design Workshop with the Contractor's design team.

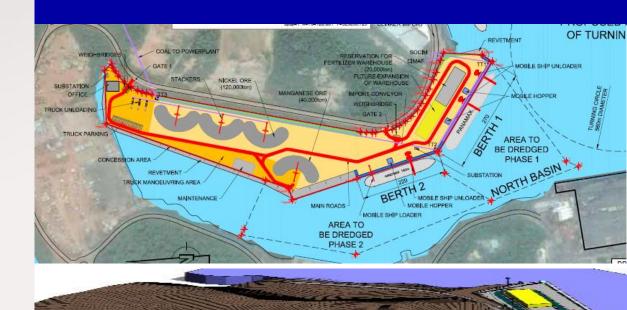
#### Namport's New Deep Water Container Terminal, Walvis Bay, Namibia





- NGE a French Civil Works contractor was participating in the as bidder in the Design & Build of a Dry Bulk Cargo Terminal in San Pedro Ivory Coast
- NGE requested NNP to develop the Concept Design for the all the surface platform from paving design, MEP works design including surface rainwater drainage, wastewater network design, lighting, electrical MV & LV network design, CCTV.
- NNP developed preliminary pavement sections for a roller compacted concrete alternative capable of use. It involved the design of the pavements for the grounded yard, the empty or wheeled yard and the circulation roadways. NNP analyzed traffic loadings, environmental and geotechnical data, and prepared preliminary designs, details and specifications for each pavement option.
- Services included also LOD350 BIM Model of the infrastructure allowing NGE easy quantity take-off of the materials, excavation & reclaiming volumes.

#### San Pedro Dry Bulk Cargo Terminal - Conceptual Design San Pedro - Ivory Coast





- Full forensic investigations into the cause of the premature failure of the terminal in the largest container terminal in Europe.
- NNP also prepared specifications, costings, calculations drawings and design methodology for the recommended repairs. Also provided support during the procurement of those repairs and ensuing supervision.

#### MSC PSA European Terminal Antwerp - Belgium





- NNP were responsible for the design of a new RCC pavement.
  The project comprised the development of 11,000 m2 concrete yard
  extension for the storage of containers. The site was located
  adjacent to the existing Bertschi yard on a brown field site which
  had previously been used for storage of materials and empty
  containers.
- The scheme included the design of a Roller Compacted Concrete yard and a lime and cement stabilised grade surface. The use of RCC and ground stabilisation removed a significant volume of material import and export and reduced vehicle movements during construction. Existing concrete foundations and sections of hardstanding were crushed to provide material for the pavement foundation. The yard was designed to tight tolerances to allow the safe stacking of containers while providing adequate surface water drainage. The drainage network included heavy duty slot drains to maximise upstream storage and was designed to attenuate the surface water from the new yard requiring the design of 900m3 balancing pond and a pumping station to the existing outfall.
- Despite the challenges of a sloping site with variable ground conditions and existing concrete foundations, levels to the existing yard had to match. The use of RCC removed the need for reinforcement, reduced joints and allowed early access for the user as well as having significant environmental advantages.

#### Bertschi Teeside, UK New Inland Container Terminal





- Terminal Link is investigating the opportunity of developing a new container terminal in Brazil. The project would be a container terminal with 1400 m quay length and 76 ha of yard area.
- Terminal Link have appointed Nigel Nixon and Partners, Inc. to act as their designer for a Preliminary Functional Analysis (Berth, Yard, Gates, Equipment) and a Preliminary Conceptual Design (Pavement, Fencing, gates, Buildings, Electricity, CCTV, Hydraulic, IT system, Terminal Equipment, CAPEX> 300 MUSD)

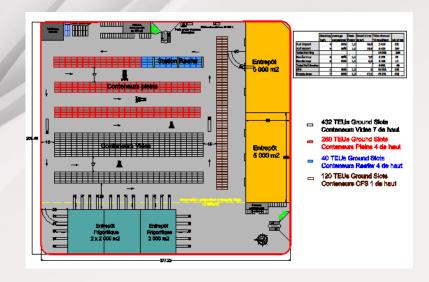


#### Terminal Link- CMA CGM, Container Terminal, Brazil

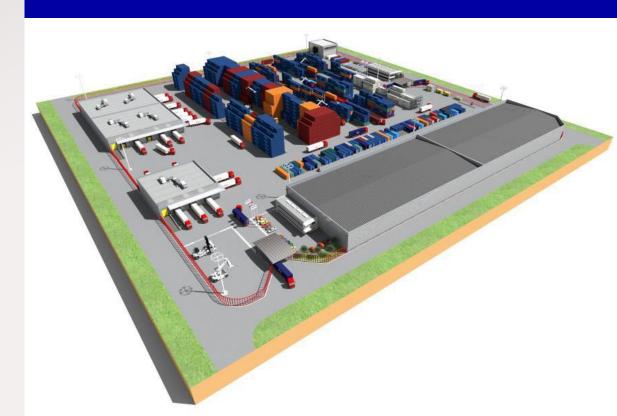




- CCIS is looking the opportunity of developing a logistic zone and a container terminal in Africa: yard area : 6,5 ha, Reefer Warehouses: 3x 2 000 m2, Warehouse: 2 x 5 0000 m2
- CCIS have appointed Nigel Nixon and Partners, Inc. to act as their designer for a Preliminary Functional Analysis (Berth, Yard, Gates, Equipment) and a Preliminary Conceptual Design (Pavement, Fencing, gates, Buildings, Electricity, CCTV, Hydraulic, IT system, Terminal Equipment, CAPEX> 15 MUSD)



# CC Inland Service- CMA CGM, Dry Port, Africa





#### Terminal Link Texas - Bayport, Houston

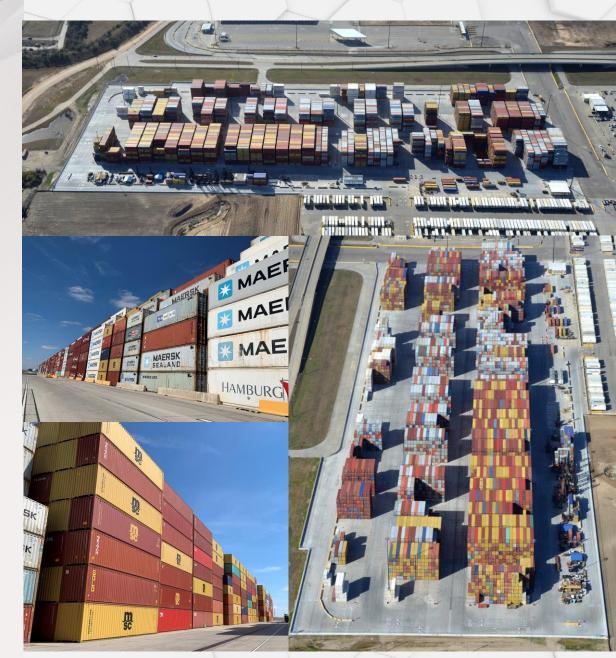
- Construction completed in July 2018, a 25 acre empty container yard linked to the Bayport container terminal.
- The first Design Build project undertaken on Port Houston property, this \$19 million contract was bid to a limited list of pre-selected contractors with a minimal Owner's Requirement.
- The contractor was encouraged to bring innovation within his proposal and to deliver cost certainty.





Houston Terminal LLC - Bayport, Houston

- Construction completed in December 2020, a 26 acre empty container yard linked to the Bayport container terminal.
- The procurement route was Design Build, using the knowledge and experience gained on the West yard for Terminal Link, the overall project value is \$23 million including infrastructure work undertaken for the Port of Houston.

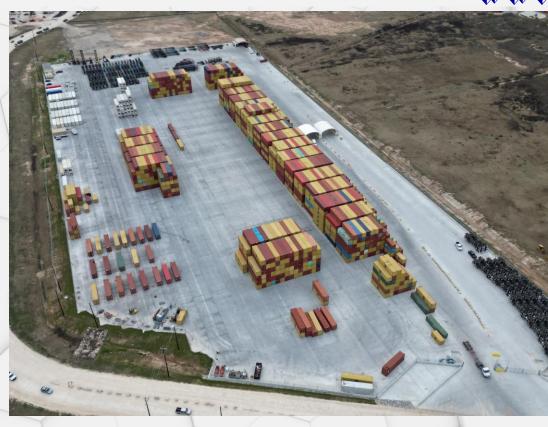




#### **C&C Houston Bayport**

- Completed late 2022, on time and within budget, a 21.5 acre empty container and chassis yard off dock from the Bayport container terminal.
- The procurement route for this project was Design Build, however given the shorter lease duration, the design life of the facility is reduced and thus promotes reduced capital costs.







Hoyer, Pasadena, Texas

- During 2023, Hoyer undertook improvements to their existing 14.7 acre facility. Works comprised new concrete pavement, wash rack installation, pump house construction and upgrade to the fabric and the internal office space of the existing two-storey building.
- The project was let in packages to specialist contractors. NNP provided Owner's Representative services to Hoyer.













#### Transhipment Facility- Airbus, UK

- Design Management, Project
   Management and Owner's
   Representation for Airbus SAS of a
   berth, storage area and maintenance
   facility to transfer wings for the A380
   Airbus from a barge to a ro-ro vessel via
   a modified linkspan bridge.
- Works included new wharf structures, in-water piled grillage structure, dolphins and fendering. Project Value £2,100,000.









- Nigel Nixon and Partners Inc have undertaken feasibility studies, design work, peer reviews and/or site observation services, condition surveys, due diligence and lease exit advice on the following selected port projects on the West Coast of North America:
- Deltaport Container Terminal, SSA Port of Vancouver, BC Canada
- Terminal 5, APL Terminal Port of Seattle, WA USA
- Berths 30, 31 and 32 Trapac/MOL Port of Oakland, CA USA
- Berths 22, 23 and 24 Ports America [Old Maersk Terminal] Port of Oakland, CA USA
- Berths 50 55 Port of Oakland, CA USA
- Berths 231-234, ITS Terminal Port of Long Beach, CA USA
- Pier G APMT Terminal Port of Long Beach, CA USA
- Pier J K Line Port of Long Beach, CA USA
- Hanjin Intermodal Yard Port of Long Beach, CA USA
- Pier 300 APL Port of Los Angels
- Evergreen Terminal Port of Los Angeles
- Pier 400 APMT Port of Los Angeles, CA USA
- Matson Terminal Port of Los Angeles, CA USA
- Berth 110 China Shipping Port of Los Angeles, CA USA





#### Elsewhere in the world NNP have undertaken Due Diligence at:

- Red Sea Gateway Terminal (RSGT), Jeddah Islamic Port, Saudi Arabia.
- · Port of Newcastle, NSW, Australia.
- · Moorebank Inter-Modal Terminal (IMT), Australia
- Port Botany, Third Terminal, NSW Australia
- Maher Terminal, New York.
- King Fahd Industrial Port, Saudi Arabia
- · Port of Tanjung Pelepas
- Port of Melbourne, Victoria.
- Port of New York & New Jersey.
- Flinders Port Adelaide Container Terminal, Australia











- · Kemarie Groyne Development, Pakistan
- PICT, Pakistan Due Diligence Study
- LCTPC Lazaro Cardenas Container Terminal, Mexico Phase 1 and Phase 2
- KMT Westport Klang, Malaysia
- Jakarta International Container Terminal (JICT) Indonesia
- Kwangyang International Terminals (KIT), Indonesia Due Diligence and Project
- Hutchison Busan Container Terminal, Busan, Korea Due Diligence
- Hutchison Gamman Container Terminal Gamman, Korea Due Diligence and Project Management
- Laem Chabang Eastern Seaport, Thailand Container Terminals Due Diligence and Project Management









- Chittagong New Container Terminal (NCT), Bangladesh Due Diligence Study
- Port of Colombo, Sri Lanka Due Diligence Study
- Tanzania International Container Terminal Due Diligence and Project Management
- Port of Banana, DR Congo Due Diligence Study & Pre Feasibility
   Study
- Djibouti Port, Djibouti Due Diligence Study of Dry Bulk and General Cargo Handling Facilities
- Port of Tema, Ghana Due Diligence
- Port of Takoradi, Ghana Due Diligence
- Port of Mombasa Kenya Due Diligence Study









### Experience Planning

Terminal Link Texas - Bayport, Houston

#### **Planning**

- CMA / China Merchant / Ports America
- Development of an empty container terminal
- 25 acres inc 2 acres CFS
- \$19m
- NNP Provided Planning, Paving Design, Cost Consultancy and Owner's Representative services



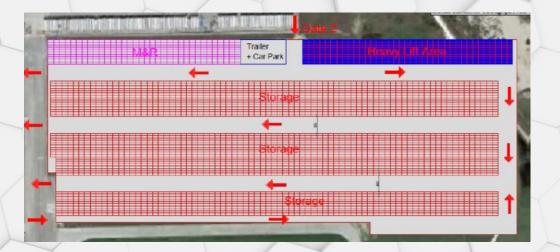




Houston Terminal LLC - Bayport, Houston

### **Planning**

- Terminal Investment Ltd / Ceres
- Development of an empty container terminal
- 26 acres inc 2 acres CFS
- \$23m
- NNP Provided Planning, Paving Design, Cost Consultancy and Owner's Representative services



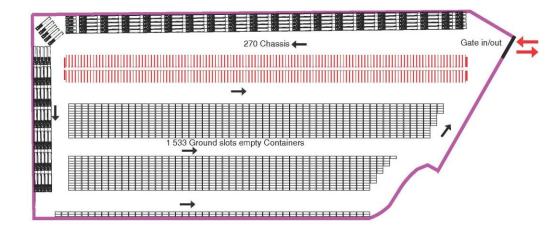




### **C&C Houston Bayport**

### **Planning**

- Medlog / Integrated Industries Inc
- Development of an empty container terminal
- 21.5 acres
- \$14m
- NNP Provided Planning, Paving Design, Cost Consultancy and Owner's Representative services







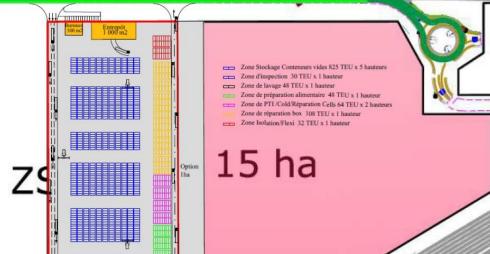
### Le Havre - France

- Development of a logistic zone and inland container terminal
- 10 hectares
- 20m Euro

### Fos - France

- Development of a logistic zone and inland container terminal
- 5 hectares
- 10m Euro





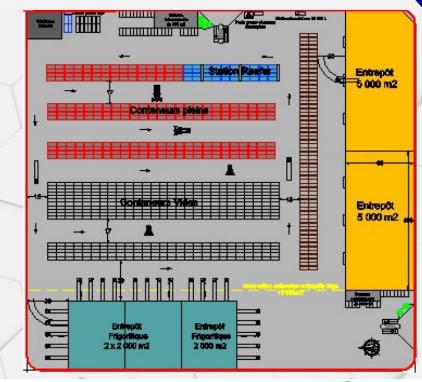


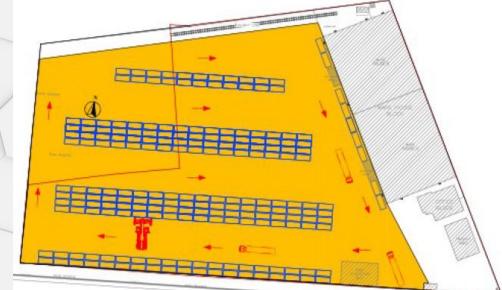
## Abidjan - Ivory Coast

- Development of a logistic zone and inland container terminal
- 6.5 hectares
- 16,000 m2 of warehouses
- 15m Euro

### Kampala - Uganda

- Development of an inland container terminal
- 2 hectares
- 2,000 m2 of warehouses
- 6m Euro





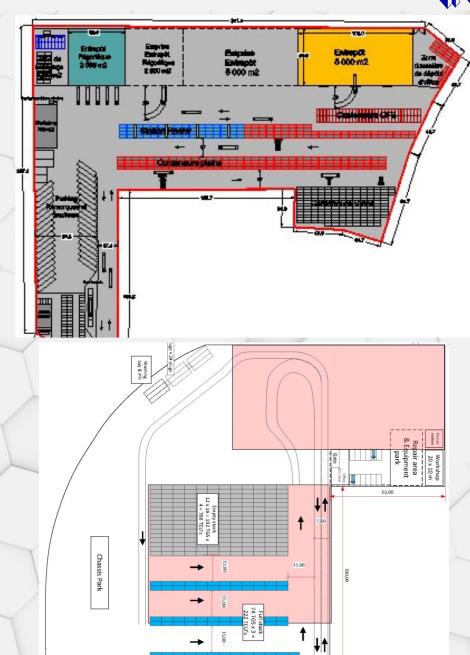


### Dakar - Senegal

- Development of a logistic zone and inland container terminal
- 6.5 hectares
- 15,000 m2 of warehouses
- 15m Euro

### Chicago - United States of America

- Development of an inland container terminal and truck storage
- 7.5 acres
- \$1.5m







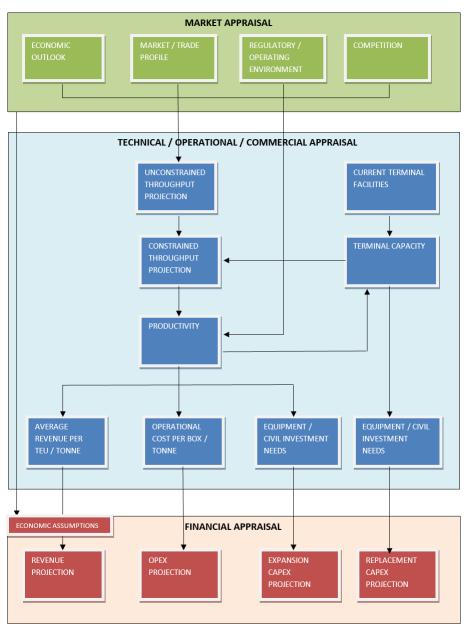
## Finance

- The NNP team is led by Gerald Williams who has over 25 years of cumulative investment banking experience, focussing on structuring and arranging investment opportunities for infrastructure and transportation assets.
- Strategy: The NNP team has acted as strategic advisor to, or executing for, multiple investors and closed end fund initiators in the structuring, creation, financial analysis, acquisition or sale of portfolios and individual assets.
- Spectrum of Activity: Identifying suitable opportunities, structuring the bespoke finance solution, coordination of acquisition, negotiation of the entire execution of the financing and management of the project during the entire term until liquidation. The NNP team are experienced in various fund structures, tax driven, asset driven, leveraged and unleveraged financings, lease financings, restructurings and the placement of senior and mezzanine debt and equity capital.

- Deal Making: The NNP team has executed more than US\$ 5 billion of financings, acquisitions and dispositions across a wide array of infrastructure and transportation asset classes.
- Commercial Analysis: Determine optimal asset selection and development strategy. Analyze market drivers for project and advise as to optimal funding structure. Assist with identification of any additional third-party requirements (legal, tax, asset management).
- Communication: The NNP team has extensive experience establishing and managing closed end funds and in effectively communicating with, and reporting to, financial institutions.



## Commercial Analysis Methodology







#### NNP CAPABILITY STATEMENT

- As authors of the Internationally renowned BPA Heavy Duty Port Paving Design methods, as well as instigators of the structural design for element paving, two and three dimensional geogrids, NNP is recognized as an international expert in heavy duty paving design for both Dry and Wet Ports
- NNP's experienced pavement designers and experts provide advice on all generic paving solutions having designed, supervised and monitored millions of m<sup>3</sup> of heavy duty paving worldwide for dry and wet port owners, contractors, shipping lines, tenants, rail road companies, logistic providers and equipment suppliers.
- 3) Working with local geotechnical engineers NNP generally establishes full testing regimes embracing both destructive and non-destructive testing. Rather than the traditional role of geotechnical engineers advising on soil strength parameters, NNP prefers to process the collated data and develop themselves the strength properties of the materials underlying the pavement box for pavement design purposes.
- 4) NNP has their own port planners to interrogate the operations over the pavements in order to assess and compute the loadings for pavement design purposes. This specialist role augments well with the operators as value is added to the entire Capex and Opex calculations, where modifications to the operations in order to save infrastructure costs where appropriate adds owner value.
- 5) NNP also costs designs with their own cost consultants, working in tandem with the designers ensuring that each design option offered is separately priced to enable a commercial pavement selection process.
- 6) NNP uses their own and other recognized design methods to develop their pavement designs for each generic pavement solution, using differing base and sub base layers and utilizing local materials wherever possible and strengthening with material treatment and or reinforcement where appropriate.
- NNP considers and selects either rigid or flexible pavements, depending on settlement characteristics or the defined pavement serviceability criteria.
- NNP ensures clients are advised on performance expectations, life cycle assessment and are advised on the full cost of the recommended maintenance regimes.
- Owing to NNP's experience and authorship of pavement design methods they are fully capable of determining correct pavement selection and designs, which are neither over nor under designed.
- (0) NNP has experience in all generic pavements including but not limited to RCC, Reinforced Un-Reinforced Concrete, Asphalt Concrete, Pavers, Resin Reinforced Asphalt, two and three dimensional geogrids, fabrics where appropriate and either lime or cement material treatment.
- 11) NNP has particular expertise in rehabilitating existing pavements over bad ground and undertaking condition surveys. Their knowledge and experience in assessing residual pavement strengths utiliting destructive and non-destructive testing ensures that any strengthening and overlayment or renewals are kept to a minimum. This is especially relevant when clients are considering densification, use and or equipment change within an existing site.
- 12) NNP can provide a full design and supervisory service, concept designs only, preliminary designs for a design and build Owner's Requirements and advising on Contractor's proposals



- for requirement compliance. Also NNP provides review work and red lining of plans and documents.
- 13) NNP also provide high level strategic paving advice on any paving issues, failures or when differing uses are expected
- NNP also offers project management, owner representation and cost advisory services.
- 15) NNP offers feasibility studies embracing preliminary port designs, planning, equipment selection, and other infrastructure other than paving.
- 16) NNP also assembles 'best in class' teams for Port Due Diligence work for either M&A or Concession opportunities, the teaming depending on location and nature of the investment.

#### SUMMARY

#### NNP's Core Skills

- Pavement Design Analysis and specification of heavy duty pavements for wet and dry ports
  using traditional and innovative paving materials.
- Pavement Assessment Condition surveys and destructive and non-invasive testing to assess serviceability life and residual strength.
- Pavement Rehabilitation Design and specification of strengthening and re-profiling measures
  to increase service life and load capacity.
- Peer Reviews Vetting of pavement proposals by other design consultants for sufficiency or value engineering purposes.
- Failure Analysis Investigation of pavement failures and identification of contributing factors with proposal of remedial measures.
- Expert Witness Preparation of expert testimony and appearance in mediation, arbitration and court proceedings related to pavement failures.
- Operational Analysis, Planning, Costings, Asset Maintenance, Supervision
- Project Management, Owners Representation, Due Difigence, Concessions, Feasibility studies

#### Why NNP?

- Over 30 years of specializing in pavement related work.
- Designed many million m<sup>2</sup> of heavy duty port pavements.
- Authors of heavy duty pavement design methods and related publications.
- Projects in over twenty different countries.

# Capability Capacity



#### Capacity Certificate

I undersigned, Chris Fetters, hereby certify that Nigel Nison and Partners Inc. achieved on behalf of:

#### LA 23 Development Company

#### the following assignments:

- · Name of the project: Louisiana's Gateway Terminal
- Scope of Work:

Strategic Development Advice Commercial Appraisal Study and Assisting Financial Modelling Concept Master Planning and Operational Planning

Throughput and Capacity Analysis

Managing Concept Design and Permit Applications

Vetting Potential Vendors Labor and Union Negotiations

Procurement of Design Builder to Deliver Phase 1a of the Project

Procurement of Port Equipment.

Liaison with BCOs, Rail, Industrial, Logistic and Potential Terminal Operators.

- · Construction: New 66-acre container terminal and 2,750ft wharf
- · Construction Cost: \$500M (Phase 1a)

This assignment was fulfilled with professionalism, expertise and due care, meeting all LA23's expectations.

This certificate was issued with all advantages thereto pertaining.

in Baton Rouge, Date April 30, 2022.

Chris Fetts

LA23 Development Compan



#### Capacity Certificate

Landersigned, Robert Marsholf, hereby certify that Migel Moon and Partners inc. Adheved on behalf of:

#### Houston Terminal LLC

#### the following assignments:

- Name of the project: East Empty Container Yord, Boyport, Houston
- Stope of War

Feardaility Operational Planning and Cost Consultancy

Preparation of Owner's Requirements Design, Specification and Contract Decomentation.

Owner's Representative role throughout the Project.

Powement Design and Design Coordination

- Construction: New 25-acre empty centainer terminal
- Construction Cost: \$25.6M

This acquirement was failfilled with professionalism, exportise, and due care, receiving all Houston Technica's expectations.

This certificate was issued with all advertages thereto pertaining.

In Houston, Date March 16, 2021.

Rute MU

Houston Terminal U.C General Manager



#### Capacity Certificate

I undersigned, Greg Linbeck, hereby certify that Nigel Nixon and Partners Inc. achieved on

#### Terminal Link Texas

the following assignments:

- Name of the project: West Empty Container Yard, Bayport, Houston
- · Scope of Work:

Feasibility Operational Planning and Cost Consultancy

Preparation of Owner's Requirements Design, Specification and Contract Documentation.

Owner's Representative Throughout the Project.

Pavement Design

- Construction: New 25-acre empty container terminal
- Construction Cost: \$19M

This assignment was fulfilled with professionalism, expertise and due care, meeting all Terminal Link Texas's expectations.

This certificate was issued with all advantages thereto pertaining.

In Houston, Date March 22, 2021.



Terminal Link Texas General Manager



#### Capacity Certificate

I undersigned, Leonard Imperial, horeby certify that Nigel Nixon and Partners Inc. achieved on behalf of:

#### **C&C Houston Bayport**

the following assignments:

- Name of the project: Empty Container & Chassis Yard, Bayport, Houston
- Scope of Work:

Feasibility Operational Planning and Cost Consultancy

Preparation of Owner's Requirements Design, Specification and Contract Documentation.

Owner's Representative Throughout the Project.

Pavement Design

- · Construction: New 21.5-acre empty container terminal
- Construction Cost: \$14M

This assignment was fulfilled with professionalism, expertise and due care, meeting all C&C Houston Bayport's expectations.

This certificate was issued with all advantages thereto pertaining.

In Houston, Date November 8, 2022.

Leonard Impe

Director - Intermodal Network Operations MSC (USA) Inc





#### Capacity Certificate

I undersigned, Harold Kunst, hereby certify that Nigel Nixon and Partners Inc. achieved on

#### MSC PSA EUROPEAN TERMINAL

FORENSIC INVESTIGATIONS INTO EXISTING TERMINAL PAVING - DETERMINING CAUSE OF FAILURE AND DESIGN OF THE PAVEMENT REPAIRS

Pavement renewal project: MSC PSA EUROPEAN TERMINAL - ANTWERP BELGIUM

Undertaking forensic investigations of the terminal platforms, determining cause of distress, preparation of new Pavement design for the new terminal repairs, Specification and Contract Documentation. Supporting MPET throughout the procurement process and providing construction advice.

Construction: Renovation front quay container terminal

Construction Cost: \$25M

This assignment was fulfilled with professionalism, expertise and due care, meeting all MPET's expectations.

This certificate was issued with all advantages thereto pertaining.

In Antwerp , 2 november, 2022.

CEO MPET - Harold Kunst

#### Halcrow

#### Capacity Certificate

I undersigned, Bill Paparis PE, Vice President, hereby certify that Nigel Nixon and Partners Inc. achieved on behalf of:

the following assignments:

- Name of the project: St. Louis Municipal River Terminal
- Scope of Work:
- Assist Prime Consultants Halcrow (now CH2MHill) in the development of an economical supporting heavy duty surfaced area in the wharf handling area and in the provision of value engineering advice.
- > Preparation of specifications and advice during construction.

New equipped Container deep river terminal in the River Port of St Louis, USA

Construction Cost: \$19M

This assignment was fulfilled with professionalism, expertise and due care, meeting all HAL CROW'S expectations.

This certificate was issued with all advantages thereto pertaining.

In New York, Date 13/8/2014.

HALCROW VICE PRESIDENT

pt/projects/n - container terminals & port services/dratid - st louis bridge designbuild wharf rehabl/40 contracts and agreements/44 subconsultants/capacity certificate - rigel nixon & partners.doox



#### Capacity certificate

I, the undersigned, Namport Port Engineer Elzevir Gelderbloem, Pr. Eng

Hereby certify that Nigel Nixon and Partners Inc achieved on behalf of:

The following assignments:

- Name of the project : Clarification of Pavement Design and Serviceability
- Scope of works :

Assist Port Authority in the selection of design and build contractor with specific emphasis on the container paying areas and rail yards. Interview Contractor and make recommendations. Review Contractors design for entire paved areas and make ammendments and provide value engineering advice. Requirement for supervision works and general pavement attendance

New equipped Container deep water terminal in reclaimed land at Walvis Bay with road and rail link

- Constuction costs : ZAR 3,400,000,000 (3.4 billion)

This assignment was fulfilled with professionalism, expertise and due care, meeting all NAMPORT'S expectations.

This certificate was issued with all advantages thereto pertaining. In Walvis Bay, Date 14 August 2014

> Elzevir Gelderbloem, Pr. Eng Solar Ho

> > NAMPORT PORT ENGINEER



# Capability Capacity

#### MAHA CAPITAL PARTNERS

#### **Completion Certificate**

I undersigned, Hijab Fysel, acting as Senior Vice President & Risk Officer of Maha Capital Partners LLC, hereby certify that Nigel Nixon and Partners Inc. ("NNP") achieved on behalf of:

#### Maha Capital Partners LLC ("Company")

the following assignments:

- . Name of the project: Port of Misurata [MEP] Libya
- · Scope of Wor

Undertake a technical due diligence study of the terminal, including an on-site visit Address all MEP Infrastructure

Advise on market considerations

Comment on the existing terminal's condition and issues/opportunities identified

Comment on opportunities to improve performance of the terminal

Recommend to what extent the new owner should upgrade the terminal to applicable standards and

Indertake a Tariff Study.

We are pleased to confirm that this assignment was fulfilled by NNP with professionalism, expertise and due care, meeting all the Company's expectations in this respect.

This certificate was issued for information purposes only, it is solely intended for NNP and may not be disclosed to any third party or person (other than NNP), except to the extent required by law or regulation; and no liability may be sought from or found against the Company, any of its affiliates nor any of their respective representatives in relation to or arising out of the existence, contents or disclosure of this certificate.

Issued in Doha, Qatar - on 14 November, 2024.

Hijab Fyel Hijab Fyel (Hov IX, 2024 13:24 (3MT+3)

Hijab Fysel, Senior Vice President & Risk Officer Maha Capital Partners LLC



#### **Capacity Certificate**

I undersigned, Dipl Eng DUMITRU Cojocea, hereby certify that Nigel Nixon and Partners Inc. achieved on behalf of:

#### PORR CONSTRUCT S.R.L.

#### DEVELOPMENT OF CONSTANTA CONTAINER TERMINAL - ROMANIA

the following assignments:

Name of the project: DEVELOPMENT OF CONSTANTA CONTAINER TERMINAL - ROMANIA

Scope of Wor

Preparation of Pavement design for the new terminal expansion for DPW, Specification and Contract Documentation.

Construction: "Modernization and development of the capacity of the port of Constanta development of the port infrastructure in development area A, MOL II-5 Constanța South Port by expanding the port platform facilitating multimodal transport"

Construction Cost: € 47.00 M

This assignment was fulfilled with professionalism, expertise and due care, meeting all Porr's expectations.

This certificate was issued with all advantages thereto pertaining.

In Bucharest, Date 28 October 2022





#### Capacity Certificate

I undersigned, Michael Kopecky, hereby certify that Nigel Nixon and Partners Inc. achieved on

#### Hoyer Group USA

the following assignments:

- Name of the project: 9938 Chemical Road, Pasadena, Houston, TX
- Scope of Work:

Owner's Representation and Cost Consultancy

Constructio

Complete reconstruction of 8 acres of empty and laden ISO tank storage yard

Construction of new pump room, steam pad, wash rack installation and inspection building

Internal refit of office facilities, replacement roof and wall cladding of office and tank maintenance building

Construction Cost: \$10M

This assignment was fulfilled with professionalism, expertise and due care, meeting all Hover's expectations.

This certificate was issued with all advantages thereto pertaining.

In Houston, Date December 12, 2023.

Michael Kopecky

Hoyer Group USA



# Capability Capacity

#### BOTBLEK

#### Capacity Certificate

I, the undersigned, Matt Hollamby, Terminal Manager, hereby certify that Mark Smallridge achieved on behalf of Patrick Stevedores, the following assignments:

Name of the Project: Port Botany Terminal, Port Botany, New South Wales, Australia

Scope of Services : > Expert witness services on behalf of the terminal operator in relation to

payement failures in a new marine terminal.

> Set up major destructive and non-destructive testing program Undertake reviews of design and construction documentation

> Prepare expert report for legal proceedings.

Construction Work: Pavement Investigation

370.000m2 Expert witness services 1 U

Construction Costs: Not Applicable

These assignments were fulfilled with professionalism, expertise and due care, meeting all of Patrick Stevedores expectations.

This certificate was issued with all advantages thereto pertaining.

Matt Hollamby Terminal Manager Patrick Stevedores

#### A=COM

#### Capacity Certificate

I undersigned, Philip Hadfield, hereby certify that Nigel Nixon and Partners Inc. achieved on

#### AECOM Technical Services, Inc.

the following assignment:

- Name of the project: Hugh Leatherman, Sr. Container Terminal Development, North Charleston, SC, for South Carolina Port Authority
- · Scope of Work: Pavement Design, specifications, drawings and Design Coordination of approximately 280 acres of backland heavy duty paving for Phases 1 and 2 of the new container terminal development
- · Construction: New 280 acres container terminal
- Construction Cost: Estimated \$330 million for Phases 1 and 2 terminal development

This assignment was fulfilled with professionalism, expertise and due care, fulfilling the requirements of the contract and meeting AECOM's expectations.

This certificate was issued with all advantages thereto pertaining.

In Long Beach, CA, dated January 17, 2022.

Philip Hadfield, PE Vice President, Ports and Marine Practice AECOM Technical Services, Inc. 999 Town & Country Road Orange, CA 92868

Capacity Certificate

CCIS CMA CGM

I undersigned, Eric Bonnemalson, hereby certify that Nigel Nixon and Partners Inc. achieved on behalf of:

#### CCIS, Lagos, Nigeria

the following assignments:

. BEACHLAND CONSULTIUM TERMINAL LIMITED - CCIS, Lagos, Nigeria

Scope of Work:

- . Undertake a site visit in Lagos for construction works review, meet with designers and contractors to collect drawings and design of (dredging, quay, foundations of the fixed quay crane, yard and networks: drainage, electric, lighting, firefighting, water supply....)
- . Undertake an engineering sanity check & due diligence on drawings and
- . Provide an estimation of the design & build timeline (to compare with contractors proposed timeline)
- . Prepare an organizational chart of the project (owners, owners Rep, Designers, contractors, advisors, consultants ...)
- . Advise & comment on capabilities of contractors involved in the

Construction: New Containers Storage yard 36.000 sqm

Construction Cost: \$15M

This assignment was fulfilled with professionalism, expertise and due care, meeting all CCIS - CMA CGM expectations.

This certificate was issued with all advantages thereto

pertaining. In Marseille, Date October 10, 2022.

Eric Bonnemaison





#### Certificat de Satisfaction

Je soussigné Sylvain Bourgois, Directeur du pôle Développement Portuaire

Certifie que Cédric CORBIERRE a réalisé avec professionnalisme et conformément à nos attentes les

Etude sur la pertinence de l'utilisation de véhicules autoguidés (AGV) pour les transferts de conteneurs sur le terminal fluvial de Romainville

- Faisabilité technique de l'utilisation d'AGV pour le transfert du site de traitement à la plateforme portuaire fluviale.
- Faisabilité économique:

Pour évaluer la pertinence de l'utilisation d'AGV pour les transferts entre le centre de tri et la plateforme portuaire, un comparatif économique entre la solution AGV et la solution standard sélectionnée (camion) a été effectuée. Ce comparatif prend en compte les coups dinvestissements initiaux (CAPEX), de maintenance (OPEX) et la variation en termes d'emplois.



#### APM TERMINALS

#### Capacity Certificate

), the undersigned, Lee Barco, Principal Engineer, hereby certify that Nigel Nixon and Partners, Inc. achieved on behalf of APM Terminals, the following assignments:

Name of the Project: Mobile Container Terminal, Mobile, Alabama

Scope of Services: > Design of heavy duty asphalt concrete payement for the new container

terminal, considering five differing load cases: -loaded container stack area, chassis parking and empty container stack areas, truck gate and circulation

roadways, maintenance area and POV parking. > Preparation of subgrade stabilization, base construction and asphalt

concrete paying details and specifications. > Assist project team in contractor selection.

> Review of contractor proposed alternate roller compacted concrete

pavement designs, specifications and details.

Visiting site to observe pavement construction

> Agree end of works defects.

Construction Work: > Subgrade stabilization 8.000m<sup>2</sup> > Light duty AC gavement

> Medium duty RCC pavement 170,000m Heavy duty RCC pavement > RCC pavement joint sealing

Construction Costs: \$18.6 Million (USD)

These assignments were fulfilled with professionalism, expertise and due care, meeting all of APM Terminals' expectations.

This pertificate was issued with all advantages thereto pertaining.

Principal Engineer

#### APM TERMINALS

#### **Capacity Certificate**

I, the undersigned, Lee Barco, Principal Engineer, hereby certify that Nigel Nixon and Partners, Inc. achieved on behalf of APM Terminals, the following assignments:

Name of the Project: Houston Terminal Pavement Repairs, Barbours Cut, Houston, Texas

Scope of Services : > Detailed paving condition assessment, including visual, destructive and

non-destructive testing.

> Design of rehabilitation of terminal pavement for three differing load cases: - loaded container stack areas, empty container stack areas, chassis parking and circulation roadways.

cement concrete paying details and specifications.

Assist terminal operator in contractor selection. > Visiting site to observe pavement construction.

> Agree end of work defects.

Construction Work : > Condition survey > PCC payement demplition 12.000m 12,000m > Subgrade preparation > Subbase construction > PCC pavement reinstatement 12,000m

> Slab lacking 3.000m<sup>3</sup> > PCC pavement joint repairs 1,000m > PCC pavement joint sealing 40,000m

Construction Costs: \$5.3 million (USD)

These assignments were fulfilled with professionalism, expertise and due care, meeting all of APM Terminals' expectations.

This certificate was issued with all advantages thereto pertaining.

Principal Engineer

#### BOTOLCK

#### Capacity Certificate

I, the undersigned, Matt Hollamby, Terminal Manager, hereby certify that Mark Smallridge achieved on behalf of Patrick Stevedores, the following assignments:

Name of the Project: Berth 8/9, Port of Brisbane, Queensland, Australia

Scope of Services : > Expert witness services on behalf of the terminal operator in relation to

payement failures in a new marine terminal.

Set up major destructive and non-destructive testing program. > Undertake reviews of design and construction documentation.

> Prepare expert report for legal proceedings.

174,000m2 Construction Work: Pavement Investigation

Expert witness services 1 U

Construction Costs: Not Applicable

These assignments were fulfilled with professionalism, expertise and due care, meeting all of Patrick

This certificate was issued with all advantages thereto pertaining

Matt Hollamby Terminal Manager Patrick Stevedores







Nigel Nixon Chairman





Mark Smallridge

President





#### Education

BSC (Hons) Engineering

Professional Qualifications CEng FICE PE

Years' experience

45 years

Languages

English

French

Expertise

Value Added Design

Value Management

Procurement and Delivery

Leadership

#### <u>Publications</u>

Fifteen papers from 1984 to 2018 at international conferences on port logistics, rehab of port structures and pavement engineering

#### Personal Profile

Nigel has worldwide experience in managing, planning, design, procurement and construction of many major civil engineering and building projects involving harbors, marine terminals, container, intermodal, automotive yards, airfields and logistic facilities worldwide. A member of UK Port Advisors, he regularly acts as an Expert on a number of construction legal related cases. He enjoys a worldwide reputation as an expert in port related pavement infrastructure and has chaired a number of Port conferences globally as well as a regular conference speaker. A leader in major transport related projects in 60 Countries across the globe.

#### Career History

9 years design engineer (South Africa) and construction Contract Manager.

Since 1979 principal of Nigel Nixon and Partners. He served as the Company's Chairman, Managing Director and Project Director on many of the firm's structural, civil, road and paving works internationally.

#### Recent Project Experience

Having described Nigel's considerable experience in Maritime developments throughout the world he has over the last five years led the design and procurement of a number of major new and refurbished dry and wet port related and intermodal facilities, including but not limited to:

- New Deep Water Container Terminal and adjoining Logistic Park,
- New Container Terminal infrastructure design, South Carolina,
- Major extension to an existing container terminal at the Port of New York New Jersey, USA
- 4 new terminal facilities within the Port of Houston, Texas USA
- 200 acre new river side development for wind Farm manufacture and waterside distribution in New York State, USA.
- New Container Terminals in Caribbean
- Owner's representative on a number of "roll out" internal dry ports in 15 different locations globally
- Major port refurbishment works in a European Port
- New Intermodal terminal and densification projects in Canada and
- Acting as Paving expert in the Ports of Los Angeles, Antwerp, Gulf Port, Port Beaumont, Port Houston, Port Ringaskiddy, Teesport, Goole, Bristol, Southampton, Namibia and Seychelles
- New Port DD work and studies in Mombasa, Chittagong, Gdansk, Iraq and Haiti.



#### Education

BSC (Hons) Civil Engineering **Professional** Qualifications

CEng PE

Affiliations

ASCE

ICE

PIANC

ACI

Years' experience

40 years

Languages

English

Expertise

Pavement Design

**Expert Witness** 

#### **Publications**

Seven papers from 1982 to 2015 on port pavement engineering

#### Personal Profile

Mark has worldwide experience in civil engineering analysis and design and has specialized in pavement related work. Mark has been involved in the development of pavement design methods for port operations and for segmental paving systems, has undertaken forensic investigation of pavement failures and has served as an expert witness. He has undertaken the design of pavements for ports, airports and railyards as well as for commercial, civic and private projects throughout the US.

#### Career History

Starting with Nigel Nixon and Partners in the U.K. in 1981, Mark has participated in the majority of the company's US projects since 1985 he has managed the US office since 1995.

#### **Project Experience**

Extensive experience in analyzing traffic loadings and environmental data to prepare pavement designs, details and specifications; reviewing contractor submittals during construction; investigation and upgrading of pavements; designing pavement rehabilitation, overlay and inlay works.

- Bayport (Various Projects), Port Houston, TX: Container terminal
- Berth 30, Port of Oakland, CA: Container terminal
- Evergreen Terminal, Port of Los Angeles, CA: Container terminal
- Piers A, G and J, Port of Long Beach, CA: Container terminals
- NYCT Intermodal Yard, Howland Hook, NJ: Intermodal yard
- Berths 5 and 6, Barbours Cut Terminal, TX: : Container terminal
- ExpressRail, Port Elizabeth, NJ: Intermodal terminal.
- Mobile Container Terminal, Alabama State Ports, AL:
- Conrail Rail Yard, North Bergen, NJ: Intermodal rail yard
- Pier 300, Port of Los Angeles, CA: Container terminal
- Port of Savannah, GA: Container terminal
- Terminal 5 Expansion, Port of Seattle, WA: Container terminal
- Haniin ILY, Port of Long Beach, CA: On-dock intermodal rail vard
- Port of Miami, FL: Container terminal
- Berth 55-56, Port of Oakland, CA: Container terminal
- Berths 6 & 7 Barbours Cut, TX: Container terminal.
- Tivoli Terminal, Port of Cork, Ireland: Container terminal
- Port of Xaimen, China: Container terminal.
- Gordon Quay, Port of Kingston, Jamaica: Container terminal.
- Globe Terminal, Keelung Harbour, Taiwan: Off-dock container
- Berths 8 and 9 Port of Brisbane, Australia: Container terminal
- Port of Southampton Freightliner Terminal, UK:
- Delta Port, Canada: Container terminal
- Surrey Docks, Canada: Container terminal

**Project Director** Keith Abraham







Education BSC (Hons) Building

Professional Qualifications MCIOB

Years' experience

37 years

Languages English

Expertise Cost Planning

Project Delivery

Construction Scheduling

Procurement

Publications

Bringing Design Build to the Port Sector - ASCE 2019

#### Personal Profile

Keith has excellent presentation and interpersonal skills, able to build and work within a team to achieve quality results within a pressurized environment. Keith has an excellent recent record of delivering projects on time with minimal or no work change orders. His particular skill is the ability to accurately predict project costs and procure contractors to deliver cost certainty leaving the project owner with minimal risk.

#### Career History

12 years working for national and international construction companies specializing in construction planning, methodology, design management, bid management and delivering design build projects in many sectors.

25 years as Project Director, delivering projects from owner concept, feasibility, costing, design team integration, budget and timeline setting, seeing projects through to procurement, contractor selection, project implementation and compliance.

#### Recent Project Experience

Louisiana's Gateway Terminal - LA 23 Devco, Plaquemines, Louisiana: Strategic advice, timeline, cost and procurement lead for 66-acre container terminal, CNG Facility and 2,750 ft wharf on Mississippi River.

Delaware Container Terminal - Enstructure, Wilmington, DE: Owner's Representative for Phase 1 for 80-acre container terminal and 1.550 ft wharf on Delaware River. Procured using the Progressive Design Build model.

Bayport, West Empty Container Yard - Terminal Link Texas, Houston, Texas: Owner's Representative, 25-acre empty container yard linked to the Bayport container terminal. \$19 million contract procured on a Design Build basis. Also represented the funder through a letter of reliance.

Bayport, East Empty Container Yard - Houston Terminal LLC, Houston, Texas: Owner's Representative, 26-acre empty container yard linked to the Bayport container terminal. \$23 million contract procured on a Design Build basis.

Bayport, Inland Container & Chassis Yard - C&C, Houston, Texas; Owner's Representative, 21.5-acre empty container yard for a joint venture between IIC and Medlog. \$14 million contract procured on a Design Build basis.

Hoyer, Pasadena, Texas: Providing Owner's Representative support, 14-acre existing facility, comprising 8 acre full depth payement renewal, wash rack and pump room installation, re-fit offices and re-cladding existing building.

Port of Belize, Belize City: Owner's Representative responsible for cost planning, design management and empowering local engineering consultancy to control the project at a local level. A \$4 million project includes an in-place cement stabilization of existing lime rock surface.

Termont, Montreal: Provided procurement advice and assistance for the installation of beams to support a new Rail Mounted Gantry crane.

#### **Andrew Griffiths**







#### Education

BA (Hons) Economics / Politics - University of Leeds, UK

MBA - University of Brighton, UK

#### Professional Qualifications

Association for Project Management (APMP) IPMA Level D Qualification, Managing Successful Programs (MSP)

#### Expertise Economic Analysis, Traffic Forecasting,

Investment Appraisal, Market Studies, Cost Benefit Analysis, Improvement and Planning, Commercial Due Diligence, Project Management.

#### Personal Profile

Andrew has combined specialisation in general management with operational, commercial and contractual aspects of the port and shipping industries as well as port master planning, market appraisal, traffic analysis, financial planning and design and development of business models and plans. He has undertaken a number of due diligence projects covering a range of port and shipping operations for financial institutions. He is a qualified project manager and has led a number of international and multi-disciplinary projects.

#### Career History

Andrew is an experienced consultant who has spent 30 years working in the maritime industry and public sector with world wide experience. He has held senior positions in a major shipping company latterly as a Commercial Director, and in port and shipping management teams. His focus in the last 10 years has been on the provision of shipping, trade and port project feasibility and market studies and due diligence port projects, including the provision of freight forecasts, the competitive analysis of port and shipping markets and the development and appraisal of port business plans.

#### **Project Experience**

- Commercial Study, forecasting and financial modelling for greenfield port in USA.
- Due Diligence for an LPG Gas Terminal in Mombasa, Kenya
- Valuation and Due Diligence for worldwide port assets for US Financial Institution.
- Due Diligence and feasibility study on the JNPT Container Terminal 4 in Mumbai, India
- An Overview and Outlook for the Global Ethane Market a focus on sourcing US Ethane
- U.A.E. LPG Market Study and Technical Analysis
- · Commercial study for a new container terminal in the Port of Philadelphia
- Analysis of the competitive position of Philadelphia
- FUTURE TRENDS IN SHIP SIZES AND SHIP SIZE DISTRIBUTIONS PORT OF SINGAPORE
- Commercial and Technical Appraisal of Mediterranean Container Transhipment Terminal
- Masterplanning for Multi-modal Coal Transportation Corridor in South Sumatra ( Pelindo
- Feasibility Study for Iron Ore Distribution Hub in Saudi Arabia
- · Commercial feasibility of consolidating, storing, blending and exporting coal from the South Sumatera coal fields via the Musi River.
- Market Study and forecast for concession in the Port of Chittagong, Bangladesh.
- Due Diligence, MarKet Study and Traffic forecast for concession for a new port in Agaba,
- Market Study and feasibility study for a new terminal in Chennai, India



Cedric Corbierre

Port Operations Planner



**David Fanthorpe** 

#### Pavement Engineer





Personal Profile

Career History

Project Experience

Cedric has been with NNP since 2015.

Cedric has many years' experience in management of infrastructure projects and in management of port terminals.

Cedric has acquired an extensive experience in management of large-scale International port projects covering financing, legal, operational and technical issues.

Cedric started his career as a Head of Port Engineering Services within an

South Carolina Port Authority, HLT Charleston new deep sea

Paris River Container Terminal Syctom Bobigny, Automated Guided

CMA CGM Brazil e-RTG Container Terminal (1MTEU, 76ha, 1400 mL

CCIS West Africa Inland Container Depot (10ha), Layout, Feasibility

World Bank – SETEC Analysis of San Pedro Port Layout Ivory Coast

CMA CGM - Caribbean area CMA CGM loading hub layout - Kingston

- Jamaica 2600 lm (-18m) wharf, 520000 m<sup>2</sup> open yard area, 26

CMA CGM - Extension of Terminal Link Texas container terminal -

CMA CGM - Petkim container terminal development- Izmir - Turkey

CMA CGM - Loading hub layout - Point Lisas - Trinidad y Tobago 300

lm wharf, 60000m2 container yard, 3 gantry cranes, 10 RTG. €82M

CMA CGM – Reorganization and extension of La Pointe des Grives

CMA CGM - Container port terminal - Guadeloupe Island

Optimization options for storage and handling operations.

container port terminal - Martinique Island Optimization options

CMA CGM - ALTERCO Dry port - Algeria Improvement options and

765 lm (-16m) wharf, 270000 m2 container yard, 7 gantry cranes, 10

3000 lm (-18m) wharf, 90 0000 m2 open yard area, 30 gantry cranes,

Misurata Free Zone (MFZ) – New Deep sea container port – Libya

CCIS Uganda/ Kampala Inland Container Depot (7ha), Layout.

Vehicle feasibility study (functional, technical and financial analysis)

container terminal (280 Acres) Functional Analysis

guay) Functional Analysis, Layout, Conceptual Design

60 RTG €800M, Port master plan and feasibility study.

gantry cranes, 60 RTG. 380 M€ Kingston port

Houston - US 50000 m<sup>2</sup> empty container yard.

Reach Stackers, 30 terminal trucks. €275M

analyzing extension options.

engineering consulting company, moving to CMA CGM as a Project



Education

A-levels

Professional Qualifications

HTEC Civil

Years'

30 years

Expertise

Languages English

**Publications** 



O-levels

Engineering

experience

Industrial **Pavement** Design and materials specification



Personal Profile

David has over 30 years experience in highway construction and maintenance specialising in construction materials technology. My technical ability and knowledge is supported by sound and wide practical international experience of construction techniques, site practice, materials behaviour, materials production, and construction processes. This experience is a vital element to my overall knowledge and enables me to deliver solutions that are not only sound technically but which are practical and "buildable". The design of Port pavements often has to accommodate poor and variable ground conditions. I have investigated and determined the cause(s) of failure of many container port pavements. From forensic investigations I have written technical specifications for materials and construction based on the use of locally available materials. This knowledge and experience has resulted in him providing expert witness legal support.

#### Career History

David's 30 years' experience in materials design, inspection and testing includes over 14 years' international experience in analytical design of heavy duty pavements for ports and highways. David has international experience as Expert witness in connection with the design, and construction of industrial, marine and highway pavements. He has been a member of the British Standards Institute (BSI) committee for the development of BS 6349-9 Port Surfacing and a member of the Britpave task groups for (a) the development of an Airfield Paving Handbook and (b) the development of an RCC specification for highways and marine industrial pavements in the UK and working group for PIANC Report 165 Design and Maintenance of Container Terminal Pavements

#### **Project Experience**

- MPET, Antwerp pavement investigation and refurbishment design
- Port of Felixstowe, UK new slip-form concrete pavement design and
- Teesside, UK- new Roller Compacted Concrete pavement design and stabilization of poor soils
- Milton Intermodal Terminal, Toronto design of new asphalt pavement for reach stacker operations and concrete pavement for truck gate access and
- Expert witness Port of Caucedo. Failure of concrete block pavement and asphalt pavement
- Expert witness Port of Brisbane. Failure of concrete block pavement
- Expert witness Peel Ports. Failed RCC pavement
- San Pedro dry bulk terminal new pavement concrete block and asphalt pavement design
- Port of Bristol advice for repair of recently constructed RCC pavement
- Maritime EMG Rail Terminal review of third party pavement design
- DP World Berbera Somaliland new concrete block pavement design for RTG loaded container operation and empty container handling yard
- CSX Intermodal facility, Pittsburgh. New concrete pavement design for RTG container handling operations
- PNCT, New York. Design of major refurbishment of existing asphalt



M.Sc.

C.Eng.

MBA

Years' experience

25 years

Expertise

Port Management. operations and equipment

Port Strategy

Masterplanning development

Port Engineering, Procurement and Construction

Management

French

English

Languages



Ian Cairns Consultant







Education

**British Masters** License Foreign Going, Class 1, Unlimited Tonnage

Years' experience 40 years

Expertise

Terminal Operation

Labor Relations

Languages English

#### Personal Profile

Over 40 years in the Maritime Industry, spent largely in Vessel and Terminal Operations and General Management. The majority, of this time has been spent in North America, latterly as CEO of Terminal Link USA overseeing the Terminal Investments of the CMA CGM Group in North America. Terminal Link is a JV between the CMA CGM Group and China Merchants.

Responsible for setting up Joint Ventures for Stevedoring & Terminal Operations, In Mobile, Houston, Miami and Long Beach, as well as performing terminal evaluations throughout the USA, Canada, the Caribbean and South America.

#### Career History

On the Commercial side prior to joining the CMA CGM Group, I was Chartering Manager for GE Power Systems, moving Power Stations and related cargoes around the world, also helped integrate the Wind Division of Enron into GE Power Systems (GE Wind). Set up the logistics for the first Wind Farm in the Irish Sea and in Colorado as well as preliminary work for US East Coast wind farm locations.

Previous experience as GM for the National Shipping Company of Saudi Arabia, and early sea experience with the Ocean Group UK.

#### Relevant Experience

- Served as a Board Member on several Boards including US Labor
- Board positions with SFCT (South Florida Container Terminal) TL Texas (Terminal Link Texas) Board Director USMX (United States Maritime Alliance) Board Director PMA (Pacific Maritime Association. Board Director NYSA (New York Shipping Association. Served as a Trustee on several USMX and NYSA Trust Funds with the ILA including the NYSA-ILA Pension Fund. President SIMAS (Shipping Industry Mutual Assurance Society)

#### Richard Jennings







Years' experience

35 years

Languages English

Expertise

ASM

Commercial Due Diligence

Market Studies

Feasibility Studies

Financing

Corporate Restructuring

Operations

#### Personal Profile

Richard is a highly experienced commercially focused consultant who has over 35 years' experience working in the global ports, logistics and infrastructure sectors. He has previously held senior executive board level positions in major operators in the UK, Europe, Latin America, USA, Africa and Asia. His experience includes managerial responsibility for M&A, fund raising, port development, leading commercial growth of port and logistic operations, restructuring, personnel development, port operations, inland transportation and logistics.

#### Career History

Richard brings over 10-years of corporate board experience across multiple countries and jurisdictions gained in European, global and UK terminal infrastructure businesses with varying ownership structures including institutional and private. He has travelled and worked extensively throughout the globe.

#### Recent Experience

With a focus on the Dry Bulk and General Cargo sectors, Richard is a handson inspirational leader with a record of leading complex development and acquisition projects, attracting capital, building successful international infrastructure businesses, driving growth, and managing diverse organizations through cultural change.

Richard has extensive experience in port M&A and Commercial Due Diligence processes, and leading Market and Feasibility Studies in both an employed and advisory capacity. Projects and positions include:

- · OT Logistics SA, Poland (Advisory)
- African Ports & Corridors Holdings (Advisory)
- · African Ports & Corridors Holdings (Advisory)
- Cemineral Ltd UK (Advisory)
- ZonesCorp Abu Dhabi (Advisory)
- East Anglia Offshore Wind (Advisory)
- Gearbulk Shipping Bermuda (Advisory)
- Polo Operadores Portuários Brazil (Advisor)
- Impala Terminals / Trafigura, Geneva (Executive: COO)
  - Porto Sudeste, Brazil.
  - Barrancabermeja, Colombia.
  - Lubumbashi, Democratic Republic of Congo.
  - Burnside, Louisiana USA.
  - o Dar es Salaam, Tanzania.
  - Antwerp, Belgium.
  - Developed a network of port and inland metals terminals in
- Euroports, Luxembourg (Executive : CCO)
- Solent Stevedores, UK (Executive : Director)
- · Associated British Ports, UK (Executive : Development Director)



Doug Campbell

Consultant





<u>Years'</u> experience

Languages English

45 years

Expertise
Business
Development

Offshore Industries

Logistics Wind Power Personal Profile

Doug's excellent business development skills have been developed through a career of combining operations management with capital equipment sales. All positions held required extensive sales and marketing efforts to generate revenue for departments and / or companies being managed. Integrating operations management with technical sales & commercial negotiations was a key element in securing orders for offshore related service and rental contracts, and large bespoke capital equipment packages.

#### Career History

Doug brings 45-years of sales and business development experience servicing the oil and gas, lifting, logistics and offshore sectors. In recent times he founded the US Offshore Wind Round Table and co-founded the Offshore Wind Breakfast Club

#### Recent Experience

Senior Sales Manager for Huisman Equipment, a worldwide operating company delivering step changing technical solutions to world's leading companies in the oil & gas, renewables, leisure and civil industries. Products included Cranes, Pipelay Equipment, Drilling Equipment, Winches, Vessel Designs and Specials.

Senior Sales Manager for National Oilwell Varco, a worldwide leader in providing major mechanical components for land and offshore drilling rigs, complete land drilling and well servicing rigs, tubular inspection and internal tubular coatings, drill string equipment, lifting and handling equipment, and a broad offering of downhole drilling motors, bits and tools.

General Manager, Offshore Cranes, for Liebherr Nenzing Crane Co. is a Houston based subsidiary of Liebherr Holdings GMBH, a US\$ 13 billion per annum privately owned corporation based in Zurich Switzerland. They specialized in the manufacture of various types of cranes used in a multitude of industries including, offshore oil & gas, construction, etc. The Houston based offshore division realizes approximately US\$ 15-20 million in annual turnover via new equipment sales and after sales services.

Offshore Sales Manager for Favelle Favco, a publicly owned leading manufacturer of offshore & construction cranes with corporate headquarters located in Kuala Lumpur, Malaysia. Favelle Favco's USA operations were based in Harlingen, Texas, which included a 10 acre manufacturing facility.

Service Manager for SeaTrax Inc, a leading U.S. manufacturer of hydraulic, offshore cranes with a revenue base of approximately \$50 million per annum. SeaTrax cranes were supplied to owners and / or operators of offshore drilling rigs, production platforms, drill ships.

#### Jabir BEN HAJ TAIEB

#### Project Manager





Education

Engineering

**Professional** 

Business &

Management

experience

Years'

25 years

Expertise

Industrial

Languages

English

French

Spanish

Arabic

Project

Ports

Qualifications

Master

Personal Profile

I started my career in 1997 as a technical & commercial for an international oil & gas group prior to move to several industries as EPC project manager, continuously improving my competences in project management & contracting, sales & business development.

#### Career History

NIGEL NIXON & PARTNERS OCTOBER 2017 to Present

Project Manager

BE ENGINEERING CONSULTANTS MAY 2020 to Present

Project Manager

beBIMENERGIES OCTOBER 2017 to Present

BIM Manager

TRACTEBEL ENGIE JULY 2012 TO SEPT 2017

Head of Gas & LNG Product

BESIX GROUP - BELGIUM JANUARY 2007 TO JUNE 2012

Head of Industrial Projects

EPE ENGINEERING - LIEGE - BELGIUM - May 2004 to December 2006

Projects Construction Manager

PYRONICS INTERNATIONAL - BELGIUM March 2002 to April 2004

Procurement & Logistic Manager

#### Project Experience

- 2020 PIZANO DRY PORT
- 2020 MPET Rails Cracks Project
- 2020 MPET Pavement Investigation
- 2020 EXPANSION OF LPG TERMINAL
- 2019 LUB OIL PLANT EPC BID MANAGEMENT
- 2019 KAMPALA DRY PORT
- 2018 MATADI PORT
- 2018 SAN PEDRO TERMINAL
- 2013 2017 Contract Manager Uruguay LNG Import Terminal
- 2012 2013 Head of Gas & LNG
- 2010: OYALA Equatorial Guinea Besix Camp Implementation
- 2010: Quay 52 Douala Cameroon
- 2009 2011: EDEA Cameroun Spillage Gates Construction
- 2008 2010 EG LNG Jetty Warranty Manager
- 2008 Handing over Bioko LNG Export Jetty
- 2008 2010 AIN SOKHNA Egypt Ammonia Unloading Jetty
- 2007 2008: Milford Heaven UK South Hook LNG Jetty
- 2005 2007 France Arcis-Sur-Aube Brown coal grinding & power plant



Mihut Motrescu

**Project Director** 







Education M-Ena

Professional Qualifications

MBA

Years' experience

26 years

Languages

Romanian

English Dutch

Spanish

Russian

Expertise

Project & Asset Management

Contract & Change Management

Business Development

Design & Engineering

**Publications** 

Five papers / articles

#### Personal Profile

Mihut has a solid background in engineering infrastructure with wide international experience and cross-sector exposure. Good strategic appreciation and vision, able to build teams and implement sophisticated plans to support business needs. Self-driven and reliant, leading by example and through collaboration. Strong interpersonal skills to engage, motivate and lead through relentless change.

#### Career History

6 years working as a design engineer in Southern Africa.

2 years in worldwide material procurement.

18 years in design, head of infrastructure and project manager for container terminal operator.

#### Recent Project Experience

Responsible for planning and overseeing the early implementation/ramp-up phase of new, zero greenhouse emission, sea container terminals with investment/concession values of \$420m / \$2.7b. Concerned with establishing the business, creating the organization (business & technical), mapping the stakeholders, obtaining permits and licenses, scoping the technical assets (civil engineering, equipment, IT and automation) and procuring consultancy & advisory services.

In charge with all aspects concerning the engineering infrastructure of 8 multi-commodity, existing, sea and inland terminals. Transition from portfolio to centralized governance within a fluctuating market and regulated environment. Responsibilities included:

- Development of infrastructure strategy, standards, policies and tools covering technical, procurement, contracting, safety and business reporting
- Control of \$30-35mil. total annual budget
- · Set-up of central team, functions and competencies unifying corporate procedures and terminal live operations
- Coordination of master development plans and major upgrade projects
- Deployment of ERP infrastructure module, capable to monitor asset condition, prioritize M&R needs, enable procurement and support

Aggressive CAPEX adjustment without compromising service reliability &

Oversaw the infrastructure needs of multi-commodity marine projects (ports and terminals, green/blue/brownfields, sea-river-inland, MDB-EPC-Dredgers).

Managed complex deliverables for public-private stakeholders and international finance institutions for tenders, concessions, and M&A transactions. Projects included Badagry mega-greenfield (Nigeria) and Ningbo-Zhousan super-port expansion (China)

#### Rodrigo Tavares Paiva

#### Curriculum Vitae



#### Education

- Master's degree: Industrial Engineering -Transportation. PUC-RJ - 2006
- Post-graduation: Economic Engineering. UERJ - 2003
- Bachelor's degree: Economics. UFRJ - 2000
- Course: Finance Management FGV - 2001
- Post-graduation: Professor of Macroeconomics. UERJ - 2005

#### Years' experience

20 years

#### Expertise

Infrastructure Projects

Business Development

Project Management

Economics

Finance

#### Languages

English

Portuguese

French

Spanish

#### Personal Profile

Specialized in Infrastructure projects with large experience in business development, project management and market and feasibility studies. Has worked in projects in Latin America and North America for global and local companies such as Vale. Santos Brasil, CSN, and others, Has leaded seaports, airports, roads and shipyards projects with more than USD 2 billion capex.

#### Career History

- MIND ESTUDOS E PROJETOS Director Business Development and port consulting leader
- LabTrans/UFSC Ad Hoc Port Planning & Strategic Senior
- Halcrow do Brasil Maritime Leader Brazil
- Planave S/A Estudos e Projetos de Engenharia Manager of logistics and port consulting
- Wilson, Sons Group Positon: Project Coordinator
- Planave S/A Estudos e Projetos de Engenharia Positon: Project manager

#### Project Experience

- Technical and financial evaluation of dry bulk cargo terminals in Ciudad Guayana - Venezuela:
- · Elaboration of the Master Plan of Port of São Francisco do Sul in Santa Catarina/Brazil
- Development of technical feasibility study for the operations of a river barges Transport Company in Paraná & Paraguay River. Products: soy, wood and mining products. Position: Coordinator
- Leasing process support, feasibility study and government relations support for cooper concentrate terminal in Maranhão/Brazil
- . Development of the Basic engineering design: Heavyweight equipment and consumable inland terminals in Pará/Brazil
- Study of the port and maritime logistic evaluation for receiving operational raw materials and shipping finished products -Pará/Brazil and Saint John's/Canada:
- Management of the development of a Basic Engineering, Environmental Licenses & Government Relations Support of a Cellulose Seaport Terminal in Maranhão/Brazil

