

## CHARLESTON INTERNATIONAL MANUFACTURING CENTER AT BUSHY PARK

BERKELEY COUNTY, SC

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## CHARLESTON INTERNATIONAL MANUFACTURING CENTER AT BUSHY PARK BERKELEY COUNTY, SC

# **SITE OVERVIEW**



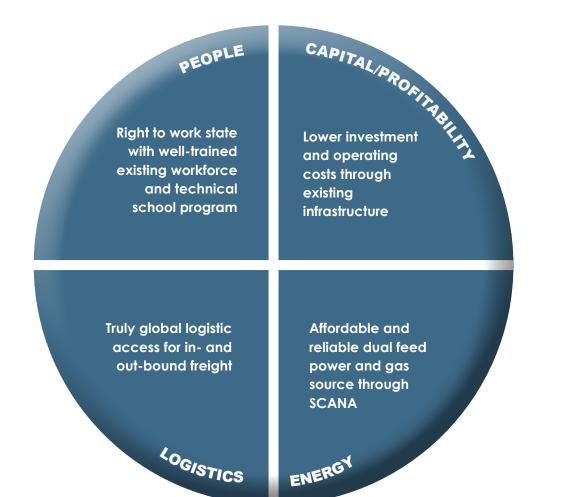
## About Charleston International Manufacturing Center at Bushy Park

Charleston International Manufacturing Center at Bushy Park (CIMC) is located in an industrial area in Berkeley County, South Carolina about 5 miles east of the City of Goose Creek. The site is bordered on the east by the Cooper River and on the west by the Back River. The Back River serves as the water supply for the site. The Cooper River is a brackish, tidal river which offers marine access to the Atlantic Ocean. CIMC and surrounding areas are zoned heavy industrial and are home to several manufacturing companies and military installations.

## Vision Statement

Always Safe, Always Reliable, Always Growing and Exceeding Expectations







## CIMC Culture and Operating Philosophy

## INTEGRITY

SAFETY QUALITY OF SERVICES compliance with applicable laws and regulations.

Conduct business fairly, impartially, in an

ethical and proper manner, and in full

Occupational and process.

Meeting requirements all the time.

RESPONSIBILITY

INNOVATION

COMMITMENT

Health, safety, environment and community.

Engineered and quality products; workforce training and advancement; investments that generate lower logistics, operational, and investment costs.

Every minute of every day.



## Meet the Neighbors: CIMC's Current Tenants

## Lanxess Rubber Chemicals

- » Vulcanization for automotive tires
- » Peptizers used in rubber manufacturing

#### **Kemira Chemicals**

- » Paper dyes
- » Tolling phthalocyanides for Sun Chemicals
- » Specialty chemicals for ink jet applications

#### **Sun Chemicals**

» Organic pigments for automotive paints and plastics

#### Symrise

» Flavors and fragrances, menthol, sunscreens, and aroma esters

#### **AGFA** Corporation

» Medical X-ray and technical imaging on site regional distribution center

#### **Phillips Industrial Services**

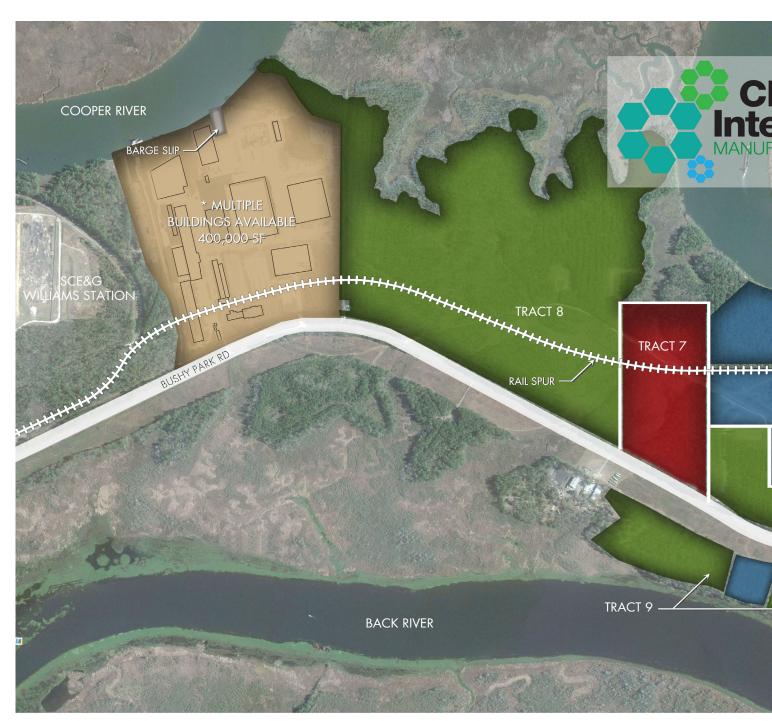
» Industrial and marine painting, epoxy floor systems, fireproofing, hydroblasting, water jetting, industrial vacuuming

#### Nexans

» Manufacturer of high voltage and submarine cable

#### **Evonik**

» Manufacturer of silica for tire production



AVAILABLE SITE	S DEVELOPMENT ACRES	<b>EXISTING TENANTS</b>		LEGEND
TRACT 1	+/- 27 AC	AGFA 🛷	s member of the DIC group	AVAILABLE SI
TRACT 2	+/- 11 AC	Mexans	Charleston	OCCUPIED SI
TRACT 3	+/- 9 AC	JVexans	MANUFACTURING CENTER at Bushy Park	AVAILABLE BU
TRACT 4	+/- 5 AC	JACOBS		UTILITIES
TRACT 5	+/- 60 AC	KOMICO		NITROGEN
TRACT 6	+/- 5 AC	Kemira		STEAM DISTRIBUTION
TRACT 7	+/- 27 AC	LANXESS		POTABLE WATER
TRACT 8	+/- 213 AC	Energizing Chemistry		COMPRESSED AIR
TRACT 9	+/- 18 AC			WASTE WATER





## Occupational Safety

## Safety is the Culture at Bushy Park

» Safety training and awareness is constant

## Focus of Safety in Two Areas

#### **OSHA** Compliance

» CIMC has had one recordable injury in the last 8 years

## Process Safety Management Compliance

- » No PSM recordable incidents or injuries
- » A PSM Audit was conducted in 2015 and CIMC was found to be in full compliance



# Why invest in site infrastructure when you can **invest in your core business**?

CIMC is a full service industrial park that can significantly reduce your up-front investment costs through existing infrastructure and services. We offer a complete suite of technical infrastructure services for manufacturing and industry.

- » Steam
- » Electric
- » Process Water
- » Potable Water
- » Firewater
- » Refrigeration
- » Compressed Air
- » Nitrogen Gas
- » Site Security
- » Solid Waste Management
- » Specialized Maintenance

- » Engineering
- » Contractor Management
- » Purchasing and Accounting
- » Voice/data Telecommunications
- » Cafeteria
- » Safety and Industrial Hygiene
- » Medical Protection
- » Environmental Regulatory Affairs
- » Fire Protection
- » Emergency Response



## Location, location, location

CIMC at Bushy Park is a heavy industrial zone located on deep water via the Cooper River with barge slip access and rail access via rail spur

CIMC at Bushy Park is located less than 10 minutes from I-26 and I-526

International accessibility for inbound and outbound freight through port as well as two-day truck and four-day rail window to midwest

Access to talented labor pool in a right to work state – Strong military presence provides well trained human capital for manufacturers

Region attracts 20k people annually to add to existing labor source as a result of high quality of life in region

2<sup>nd</sup> largest cluster of industrial engineers in US



Our neighbors are part of our heavy industry environment

#### **Nucor Steel**

300 acre campus. Manufactures sheets of steel and ships via rail and barge. Dock can handle ocean-going vessels 575 feet long and 90 feet wide. Employs 850 people.

#### **BP/Amoco**

490 acre site. One of the world's largest producers of Purified Terephtalic Acid (PTA), a chemical feedstock used to make polyester products. 400 employees.

#### Military

Employs more than 29,700 people in the region, with 47% on active duty and 53% civilian. Military payroll plus local purchases made by military contributes \$3.5 billion to the local economy. Local military contractors estimate their impact exceeds \$642 million annually.

#### SPAWAR—US Space and Naval Warfare Systems Center

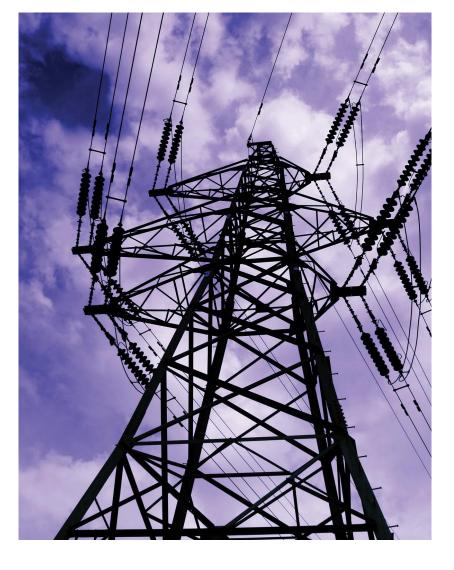
The work associated with SPAWAR is helping drive a growing base of defense contractors involved in the development and installation of sophisticated electronics.

#### **Naval Weapons Station**

US Naval Weapons station includes two state-of-the-art naval nuclear power training commands and the only water-free naval weapons storage facility in the continental US.

#### Automotive & Aerospace Industry

The automotive and aerospace industry is making more than \$2 billion investment with the creation of over 3,500 new jobs in the Charleston area.



## Electrical Infrastructure Access

CIMC is located 1.5 miles south of SCANA Williams Station (primary power source)

CIMC is fed from north and south through a power loop which has separate access to grids to allow feed without the use of the Williams Station

CIMC experienced only 22 minutes of power outages in the last 10 years

Immediate proximity to strategic military facility enhances CIMC's priority status

## Our Commitment to You

A safe, reliable and competitive environment

Employee oriented culture centered around

- » Engineered and quality products and
- » Workforce training and advancement

We care about our employees' well being and invest in amenities that cater to their needs

Your business success is our main focus and we have the resources to get you there

A site location and existing investment that will generate lower logistics, operational, and investment costs

A quality of life in Charleston for you, your employees and your customers second to none





## CHARLESTON INTERNATIONAL MANUFACTURING CENTER







# CIMC NORTH BERKELE COUNTY, SOUTH CAROLINA



art propally why



## **BUILDINGS**:



## SITE FEATURES:

94-ACRE INDUSTRIAL FACILITY OVER 400,000 SF BUILDING SPACE OVER 800,000 SF OUTDOOR LAYDOWN AREA 1,000 FT OF FRONTAGE ON COOPER RIVER DEEP WATER BARGE SLIP WITH ACCESS TO ATLANTIC OCEAN CSX RAIL SPUR (Q1 2018) CLASS 1000 PHARMACEUTICAL CLEAN ROOM 200 TON SHUTTLE CRANE MULTIPLE BRIDGE CRANES SOLAR FARM (Q3 2017)

## LEGEND

EXISTING BUILDINGS

EXISTING PADS



Stantec Stantec C 4969 Cer

Stantec Consulting 4969 Centre Pointe Dr. Ste 200 North Charleston, SC 29418 Tel: 843-740-7700 www.stantec.com

MARCH 2017 NOTE: THIS DRAWING WAS PRODUCED USING ONLY AERIAL DATA AND IS FOR GRAPHIC PURPOSES ONLY.



## Industrial Services Specifications

CIMC provides a variety of infrastructure and site services to tenants. Some of these services are designated as required and must be purchased by tenants to maintain overall site integrity. Other services are optional and can be elected by tenants:

#### **Required Services**

Medical Services (Emergency Care) Fire Protection Services Site Security Services HSE Services (Required) Pipe Racks Yards & General Facilities Services Data Telecommunications Services

## **Optional Services**

Medical Services (Occupational) HSE Services (Optional) Waste Management Services Maintenance Storeroom Services Cafeteria Services Human Resources Purchasing Services Voice Telecommunications Services

Fees for these services are based on headcount, asset base and utility usage requirements. CIMC will provide a preliminary estimate of fees for the required services and any requested optional services based on receipt of this information from you.



## Utilities

CIMC offers the following utility services a detailed overview of which can be found below:

## **Utility Services**

- » Electrical
- » Steam
- » Compressed Air
- » Process Water
- » Domestic Water
- » Nitrogen
- » Refrigeration
- » Waste Water Treatment (Sun Chemical)
- » Non-Contact Cooling Water
- » Natural Gas

## Service Specifications

## Electricity

CIMC receives electricity from SCE&G through a single 115 KV transmission line. In the two substations feeding the line, SCE&G has automatic breaker reclosing systems that are used if a problem occurs on the line. CIMC distributes 13.8 KV from the main load center to site customers or to power transformers lowering the voltage to 480V or 2400V.

## Steam

Saturated steam is generated in three package boilers with a total installed capacity of 140,600 kg/hr and a practical capacity of 81,650 kg/hr. Boiler #3 is capable of firing natural gas or No. 2 fuel oil, and is considered the primary boiler. Boilers No. 1 and No. 2 are back-up boilers capable of firing natural gas or No. 6 fuel. Steam is available to customers at 6 bar and 30 bar.



## **Compressed Air**

The system has eight air compressors with their associated filters and coolers, five air dryers, one volume tank, a priority valve system, and the distribution piping. Currently, the site plant air requirements are supplied from the eight air compressors with a total capacity of 19,539 m3/ hour. Compressed air is supplied at a minimum pressure 5.65 bar and a typical dew point of < -5 deg. C.

#### **Process Water**

The Site Process Water System consists of a river pumping station, a treatment plant, an elevated water tower, and the distribution piping. The system consists of many components to pump, treat and distribute process water to customers throughout the Site. The site plant water system is made up of parallel clarifier and filter trains with a total capacity of 16,353 m3/day. Recycled non-contact cooling water supplements the system with an additional 4,906 m3/day. Minimum pressure supplied is 5 bar.

## **Potable Water**

The Berkeley County Water & Sanitation Authority is the supplier of potable water to CIMC. The Site Potable Water System consists of only the piping to distribute the Berkeley County potable water to the site's various customers for drinking and other domestic use. The most significant usage is for safety showers and sprinkler systems.

## Nitrogen

Currently, the site nitrogen gas requirements are supplied by a cryogenic system owned, operated and maintained by Praxair. The system includes bulk liquid nitrogen storage tanks with atmospheric / steam evaporators that provide nitrogen gas sufficient to meet plant demand during power outages and maintenance. CIMC distributes the nitrogen gas to the site customers.

## Refrigeration

The CIMC refrigeration system supplies anhydrous ammonia to various locations throughout the site. The system consists of three compressors providing a total cooling capacity of 1,500 tons.

## Wastewater Treatment - Tower Biology

The Tower Biology system is an above-ground aerobic, activated sludge treatment system consisting of equalization, neutralization, primary treatment, biological treatment, and sludge dewatering. The sustainable capacity is 14,969 kg/day BOD5. The system is designed with a significant amount of flexibility in dealing with spills and abnormal events. Spills can be routed to the buffer tank or one of the three equalization tanks. It is not necessary for tenants to install additional equalization equipment to deal with abnormal events. Pretreatment is not required.

## Stormwater Management

The Charleston International Manufacturing Center at Bushy Park has an elaborate storm water collection system located within two drainage areas. Each of the drainage areas has associated holding ponds and outfalls.



## Geotechnical Considerations

Terracon Consultants, Inc has performed numerous geotechnical investigations at Charleston International Manufacturing Center at Bushy Park which includes over 70 soil tests in and around the site. The soil stratigraphy in this area is relatively homogeneous and characteristic of the South Carolina Coastal Plain. The soil stratigraphy generally consists of relatively young geologic deposits of sands, silts, and clays overlying much older marl deposits which are the basement layer for geotechnical design in the Charleston, South Carolina area.

These soils are generally well suited for shallow foundation support for typical industrial structures. However, very large, heavily loaded structures/equipment may require deep foundation support. Deep foundations in the Charleston area typically consist of prestressed concrete piles driven into the marl formation. Pre-stressed concrete piles are cast locally and provide an economical solution to deep foundation support in the Charleston area.

In addition to design under structural loading, soils in South Carolina must also be evaluated under seismic loads in accordance with the International Building Code. Charleston experienced a large earthquake in 1886 and seismic hazards are increased locally. From a geotechnical perspective, the main concern from seismic loading is liquefaction which can cause settlements and reductions in foundation bearing capacity. If excessive, these hazards may require mitigation in the form of ground improvement.

Terracon has successfully completed the geotechnical design for the Nexans project within CIMC, which included foundation support for an over 400 foot tall tower. While the tower required driven pile support using local pre-stressed concrete piles, the main building and its components are supported on shallow foundations. In addition, the liquefaction hazard at the site was found to be relatively low and ground improvement mitigation was not required.

#### Subsurface Conditions: Groundwater

Groundwater was estimated at a depth of approximately 4 to 6 feet below the ground surface. Groundwater levels tend to fluctuate with seasonal and climatic variations, as well as with construction activities. As such, the possibility of groundwater level fluctuations should be considered when developing the design and construction plans for the project. The groundwater table should be checked prior to construction to assess its effect on site work and other construction activities.

#### **Foundation Considerations**

Terracon has extensive experience with the soils within the Charleston International Manufacturing Center at Bushy Park. Based upon the data collected from this preliminary investigation shown below, the soils encountered at CIMC would be considered typical for the local area. These soils can generally support light to medium industrial floor loads with shallow foundation/slab on grade construction. CHARLESTON INTERNATIONAL MANUFACTURING CENTER AT BUSHY PARK BERKELEY COUNTY, SC

# LOGISTICS



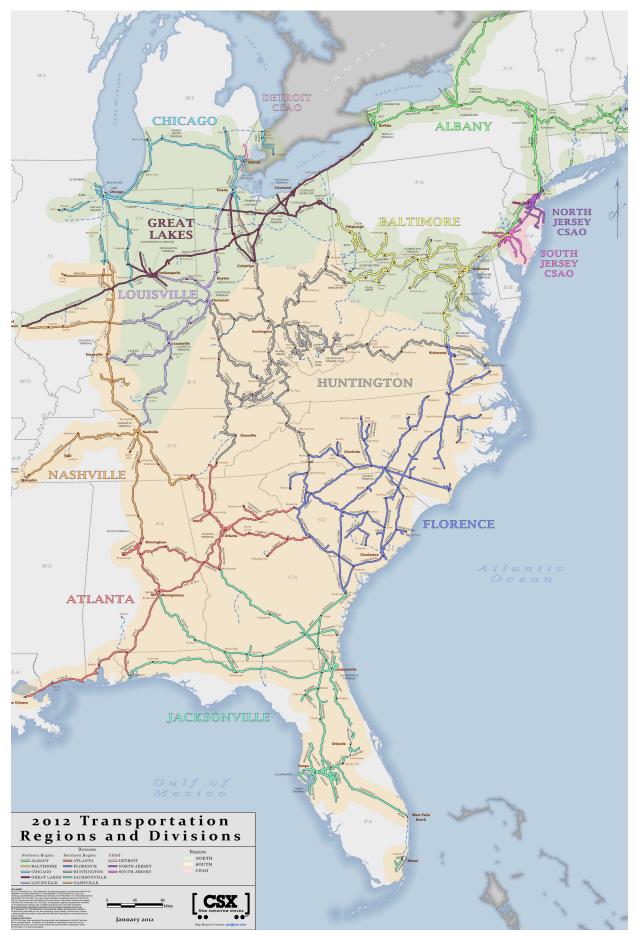
## One Stop, Endless Connections: CIMC Offers Multimodal Access

CIMC at Bushy Park has multimodal access through direct access to the Atlantic Ocean via the Cooper River, rail access through a Class 1 rail carrier and two interstate highways less than 15 miles from the site.

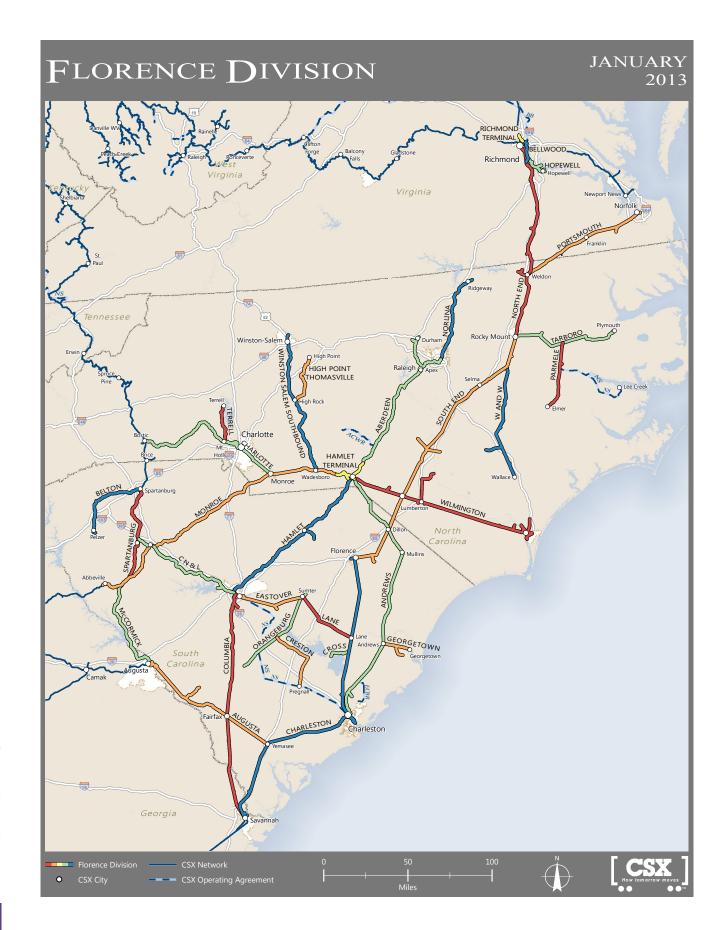
## Railroad Infrastructure to Charleston International Manufacturing Center at Bushy Park

An existing loop track serviced by CSX is located at the SCE&G Williams Station, approximately 3,000 linear feet from the CIMC northern property line. A +/- 10,800 linear foot rail spur serving CIMC will be fully operational by January 2018 and runs from Williams Station through CIMC to Block C-15.

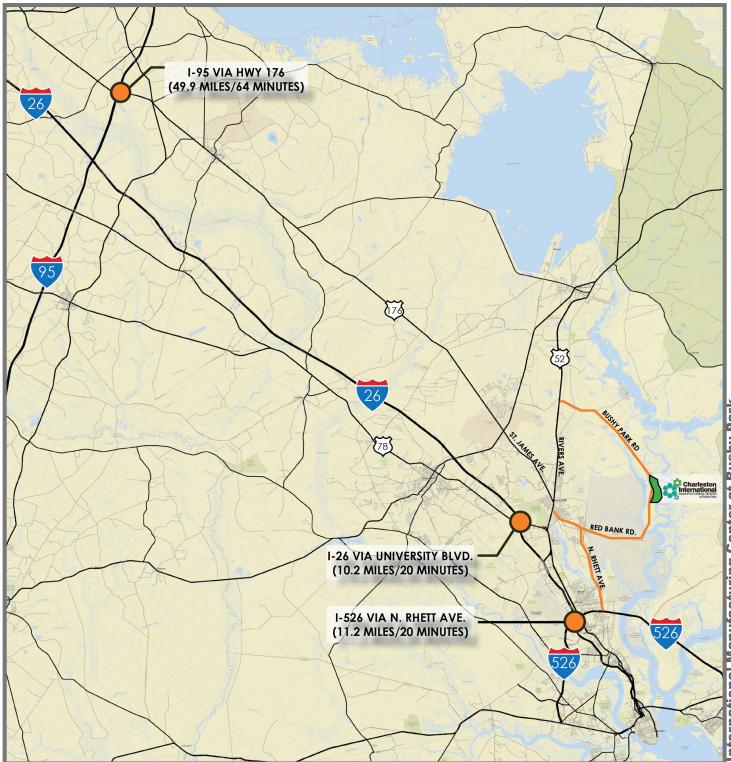
## CSX Regional Map



## CSX Local Division Map



## Unparalleled Infrastructure & Accessibility



- » Strategically located half way between New York and Miami.
- » South Carolina is crisscrossed by five interstate highways, offering east-west and north-south access to the rest of the United States.

## South Carolina State Ports Authority

## **\$2 billion CAPEX Plan**

- » Increase the competitiveness of SCSPA ports
- » \$1.3 billion investment from SCSPA
- » \$700+ million from state for infrastructure
- » Ship channels > Marine terminals > Inland network

With a +10% growth rate from CY 2015 to CY 2016, SCSPA is the fastest growing of the major US container ports since 2011

Between 2011-2013, the SCSPA captured 72% of the container growth that occurred in its port range. Savannah, Wilmington, and Jacksonville combined totaled 28%

## SCSPA is the most productive port in North America

- » 42 moves/hour/crane
- » 23-minute truck turn
- » 60% more efficient than typical West Coast ports

## Deepest draft in the port range will help you leverage deep water to gain economy of scale

## and carrier access

- » 48 feet depth, compared to 42 feet in Savannah and 40 feet in Wilmington and Jacksonville
- » Only port able to take full advantage of tidal lift
- » Post-Panamax ready port means, unlike other area ports, you're not risking your next-generation supply chain around a port with lastgeneration capabilities.





### **Port Incentives**

- » Volume Incentive. Up to \$100/TEU on annual volume growth off withholding or corporate income tax.
- » **Capital Investment Incentive.** Up to \$1 million. Off withholding or corporate income tax. Must invest \$40 million and create 100 new jobs.
- » **Flexibility.** Free-time. Demurrage. Late or weekend gates. Custom solutions. We'll work with you.



P

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41

**North Charleston** 

AIF 155

-

ORTH CHARLESTON

NS

CSX

S H W E S L A EY L

17

2012 LOWCOUNTRYMAPS NE FOR ILLUSTRATIVE PURPOSES ONLY

30

North Charleston 28NM to sea buoy | 5 miles to railhead

Veterans 24NM to sea buoy 1 4 miles to railhead

Wando Welch 22 NM to sea buoy | 12 miles to railhead

Columbus Street 20NM to sea buoy | 6 miles to railhead

Union Pier 19NM to sea buoy | 7 miles to railhead

NS Norfolk Southern RAIL YARD

17

S A

CSX CSX RAIL YARD

526

Wando Welch

M

Veterans

526

New Terminal

**AIR DRAFT** 

155 ft MHW

CHARLESTON

26

AIR DRAFT 186 ft MHW

**Columbus St** 

**Union** Pier

MAIN CHANNEL DEPTH: 45 feet MLW ENTRANCE CHANNEL DEPTH: 47 feet MLW two-way traffic in the channel