

Deborah M. Franco, Esq.
VP, Clean Energy & Sustainability

October 9, 2020

Electronic Filing

Aida Camacho-Welch
Office of the Secretary
NJ Board of Public Utilities
44 South Clinton Avenue, 3rd Floor
P. O. Box 350
Trenton, NJ 08625-0350

Re: In the Matter of the Petition of South Jersey Gas Company for Authorization to Construct and Operate Transmission Pipeline Pursuant to N.J.A.C. 14:7-1.4 BPU Docket No. GE19121539

Dear Secretary Camacho-Welch:

Enclosed please find the Amended Petition and Exhibits in the above referenced matter. Due to the pandemic, and in accordance with the New Jersey Board of Public Utilities (“BPU”) March 19, 2020 and May 20, 2020 Orders issued in BPU Docket No. EO20030254, hard copies are not being provided at this time, but can be provided at a later time, as needed.

Please do not hesitate to contact me with any questions you may have. Thank you for your attention to this matter.

Respectfully submitted,



Deborah M. Franco

DMF:caj
Enclosures

cc: See attached service list

**IN THE MATTER OF THE PETITION OF SOUTH JERSEY GAS COMPANY
FOR AUTHORIZATION TO CONSTRUCT AND OPERATE TRANSMISSION
PIPELINE PURSUANT TO N.J.A.C. 14:7-1.4**

BPU DOCKET NO. GE19121539

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**STATE OF NEW JERSEY
BOARD OF PUBLIC UTILITIES**

**IN THE MATTER OF THE PETITION :
OF SOUTH JERSEY GAS COMPANY :
FOR AUTHORIZATION TO CONSTRUCT :
AND OPERATE TRANSMISSION :
PIPELINE PURSUANT TO N.J.A.C. 14:7-1.4 : DOCKET NO. GE19121539**

AMENDED PETITION AND EXHIBITS

Deborah M. Franco, Esq.
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October 9, 2020

STATE OF NEW JERSEY
BOARD OF PUBLIC UTILITIES

IN THE MATTER OF THE PETITION : AMENDED PETITION
OF SOUTH JERSEY GAS COMPANY :
FOR AUTHORIZATION TO CONSTRUCT : DOCKET NO. GE19121539
AND OPERATE TRANSMISSION :
PIPELINE PURSUANT TO N.J.A.C. 14:7-1.4 :

TO THE HONORABLE COMMISSIONERS OF THE BOARD OF PUBLIC UTILITIES

I. INTRODUCTION

In accordance with N.J.A.C. 14:7-1.4, South Jersey Gas Company (“South Jersey”, “Petitioner”, or the “Company”), a public utility corporation of the State of New Jersey with its principal office at One South Jersey Place, Atlantic City, New Jersey, requests that this Honorable Board of Public Utilities (the “Board”) grant approval, on an expedited basis, to install a new, approximately 9-mile natural gas transmission pipeline (the “Project”). The Project will consist of approximately 7.1 miles of 16-inch diameter pipeline and approximately 1.6 miles of 8-inch diameter pipeline, with an alignment that will run through the City of Vineland, Cumberland County, New Jersey. As discussed in this Petition, the proposed Project is critical to ensuring the continuation of safe and reliable service to South Jersey’s customers. In support of this Petition, South Jersey states as follows:

1. South Jersey is engaged in the transmission, distribution, transportation, and sale of natural gas within its defined service territory in the State of New Jersey. South Jersey’s service territory includes all or portions of the following counties: Atlantic, Burlington, Camden, Cape May, Cumberland, Gloucester and Salem. Within its service territory, South Jersey serves

approximately 393,000 customers. The Company operates a network of 146.3 miles of transmission pipelines, 6,551 miles of distribution mains, and 315,475 service lines that total 6,697.3 miles in length.

2. South Jersey is obligated to ensure that it is able to provide safe, adequate and proper natural gas service to meet the current and future demand needs within its defined service territory.

Communications and correspondence concerning this Petition should be sent as follows:

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3. Attached hereto and made a part hereof are the following Exhibits:
- i. **Exhibit A** - Technical Design Specifications which contain a detailed description of the proposed Project;
 - ii. **Exhibit B** - Project Drawings;
 - iii. **Exhibit C** – Alternative Route Drawings;
 - iv. **Exhibit D** – List of Structures Within 100 Feet; and
 - v. **Exhibit E** – Form of Public Notice

II. PROJECT DESCRIPTION

4. N.J.A.C. 14:7-14 requires the prior authorization and approval from the Board for the construction and operation of any natural gas pipeline to be operated in excess of 250 pounds

per square inch gauge (psig), which pipeline is to be located within 100 feet of any building intended for human occupancy.

5. The proposed Project will consist of a new approximately 9-mile natural gas transmission pipeline that will include approximately 7.1 miles of 16-inch diameter pipeline and approximately 1.6 miles of 8-inch diameter pipeline. The alignment will run through the City of Vineland, Cumberland County, New Jersey. South Jersey anticipates initiating construction of the Project upon the receipt of all necessary permits with an in-service date in 2023. The Project will pass through the City of Vineland along county and municipal road rights-of-way commencing at a location in the City of Vineland and ending in the connection to the Company's 700 psig pipeline system in the vicinity of the Union Road Regulator Station in the City of Vineland. The 16-inch diameter transmission pipeline will be designed, constructed, tested and certified for a maximum allowable operating pressure of 700 psig. The 8-inch diameter transmission pipeline will be designed, constructed, tested and certified for a maximum allowable operating pressure of 350 psig. A detailed description of the Project's technical design specifications is attached hereto as Exhibit "A", with Project drawings contained in Exhibit "B".

6. For the 16-inch diameter natural gas transmission pipeline, there are 203 structures for human occupancy within 100 feet of the proposed Project, including approximately 178 residential structures and 25 commercial structures. For the 8-inch diameter natural gas transmission pipeline, there are 28 structures for human occupancy, including approximately 28 residential structures and 0 commercial structures. A list of each structure within 100 feet of the proposed Project is attached as Exhibit D and includes the lot and block number, addresses and distance from the proposed Project.

7. The proposed Project will connect a South Jersey-owned liquefied natural gas (“LNG”) facility to be located in Vineland, New Jersey (“Vineland LNG Facility”) to the Company’s existing system. The Vineland LNG Facility will consist of a 2 BCF storage, liquefaction and vaporization plant located at the geographic center of South Jersey’s system in Vineland, New Jersey. South Jersey anticipates the Vineland LNG Facility to be in service by the 3rd Quarter of 2023. The Vineland LNG Facility represents a non-pipeline redundancy solution that is critical to ensuring that the Company can continue to provide safe and reliable service without interruption in the event of a major pipeline failure. Thus, the proposed Project is vital to guarding against the threat of an outage on a peak design day caused by a disruption in pipeline service. In addition to providing necessary redundancy benefits, the Vineland LNG Facility is expected to facilitate job creation and economic development and has local government and community support in the City of Vineland.

III. THE NEED FOR THE PROJECT

8. South Jersey is the provider of last resort to over 390,000 customers, the majority of which represent households and businesses that depend on safe and reliable service to meet their heating needs and for other critical applications such as cooking and hot water heating. Throughout the Company’s service territory, dozens of schools, hospitals, first responders and government buildings count on the Company to support their vital operations.

9. South Jersey is obligated to ensure that it is able to provide safe, adequate and proper natural gas service to meet customer demand needs and manage against the loss of gas supply in a manner that enables the Company to provide service to all its firm customers under all load conditions.

10. In the last several years, various incidents have occurred that support the need for gas utilities to implement system redundancy measures to address the concern of risk of potential off-system pipeline failures, including one that significantly impacted New Jersey which occurred near Delmont, Pennsylvania in April, 2016. That incident, which occurred on the Spectra Energy Texas Eastern Pipeline system (“Spectra”), resulted in a force majeure event lasting 20 days that impacted a considerable portion of the eastern areas, including 3 New Jersey utilities.

11. In response to the Spectra incident, the Board convened two table top exercises, “Pilot Light” in 2017 and “Pilot Light 2” in 2019, to model the impact of a comparable interstate pipeline failure on the distribution systems of New Jersey gas utilities. These table top exercises demonstrated that a major pipeline incident could have profound effects on natural gas customers, with over 600,000 customer outages lasting up to six weeks. These table tops support the need for more diverse gas supplies to achieve adequate system redundancy.

12. South Jersey is particularly vulnerable to a significant off-system event because of its reliance on gas supplies delivered by only two interstate pipelines through eight city gate stations located along the northern and western edge of the Company’s service territory: Transcontinental Gas Pipeline Company, LLC and Columbia Gas Transmission, LLC. Adding to this vulnerability is the fact that both suppliers feed into the northwest portion of South Jersey’s service territory, far from the Company’s largest areas of customer base to the east and southeast resulting in long critical pipelines within our service territory.

13. The Company estimates that the loss of interstate supply during peak day usage could result in 130,000 to 248,000 customer outages. Restoration costs and associated impacts

to local communities, business, essential service and local governments are of particular concern with outages of these magnitude.

14. South Jersey has the obligation to serve its firm customers under all load conditions. Thus, the risk associated with the loss of supply from one or both of the interstate pipelines supplying the Company's distribution system must be addressed in a manner that most effectively mitigates the impact on South Jersey's customers. As explained above, the proposed Project is critical to ensuring an adequate gas supply on even the coldest days and will enable South Jersey's gas distribution system to safely and reliably operate to satisfy customer demands throughout South Jersey's service areas in the event of a disruption in pipeline service on a peak day.

IV. PROJECT SPECIFICATIONS

15. Pursuant to N.J.A.C. 14:7-1.18, this Petition constitutes notice to the Board setting forth the Project specifications. The Project will comply with all applicable Federal and State requirements as well as South Jersey's independent standards.

16. The Project will be fully contained within the limits of the City of Vineland, Cumberland County. As noted above, the Project will consist of an approximate 9-mile natural gas transmission pipeline, including approximately 7.1 miles of 16-inch diameter pipeline and approximately 1.6 miles of 8-inch diameter pipeline. An overview map of the Project, including the proposed route as well as detailed plan drawings are attached hereto as Exhibit "B".

17. The Project will be constructed in accordance with N.J.A.C. 14:7-1.1 *et seq.* and the Federal Regulations applicable to Transportation of Natural and Other Gas by Pipeline, Part 192, Title 49 of the Code of Federal Regulations. Specifically, for the 16-inch pipeline, the

material for open trench construction for this Project will consist of carbon steel welded pipe with 0.375-inch wall thickness. The 16-inch pipeline will be manufactured in accordance with the applicable American Petroleum Institute (“API”) Standard 5L with a specified minimum yield strength (“SMYS”) of 65,000 pounds per square inch (“psi”) and a minimum yield strength of 65,000 psi. For the 8-inch pipeline, the material for open trench construction for this Project will be consist of carbon steel welded pipe with 0.277-inch wall thickness. The 8-inch pipeline will be manufactured in accordance with the applicable API Standard 5L with SMYS of 52,000 psi and a minimum yield strength of 52,000 psi.

18. Both the 16-inch and 8-inch transmission pipelines will primarily be externally coated with Pritec, an extruded polyethylene jacket (40 mils) applied over a butyl rubber mastic adhesive (10 mils) and protected against corrosion by an impressed current cathodic protection system. In localized areas where the method of installation will be by HDD, the pipe will have a corrosion protection coating of 14-16 mils of Fusion Bond Epoxy covered by an additional outer mechanical protective coating of 40 mils of Powercrete. The transmission pipeline will be subject to 100 percent non-destructive radiographic inspection testing on all field welds. Further detailed project specifications are included in Exhibit “A”.

19. The Project, which is designed for a Class 4 Location, will be designed and constructed in compliance with the requirements of N.J.A.C. 14:7-1.3 and 49 C.F.R. 192.150, including inspection accessibility and remote operating valves in accordance with 49 C.F.R. 192.935.

20. Pursuant to N.J.A.C. 14:7-1.14, post-construction but pre-service, the 16-inch transmission pipeline will be hydrostatically pressure tested to at least 1,050 psig for a 24 hour period in conformance with all applicable Federal and State requirements. This will stress the

16-inch (.500 wall) pipe to 34.46% of SMYS. Pursuant to N.J.A.C. 14:7-1.14, post-construction but pre-service, the 8-inch transmission pipeline will be hydrostatically pressure tested to at least 525 psig for a 24 hour period in conformance with all applicable Federal and State requirements. This will stress the 8-inch (.277 wall) pipe to 14.58% of SMYS. Certification of a successful post-construction hydrostatic pressure test will be submitted in compliance with N.J.A.C. 14:7-1.14 and 1.26.

21. The Project will be located within the public rights-of-way and will be constructed in roadways under the jurisdiction of the following municipalities and county:

- 16-inch transmission pipeline
 - Cumberland County, 7.1 miles (100%)
 - Elm Road
 - S. Delsea Drive
 - W. Elmer Road
 - E. Elmer Road
 - S. Main Road
 - S. Spring Road
 - Dante Ave
- 8-inch transmission pipeline
 - Cumberland County, 1.6 miles (100%)
 - Elm Road
 - S. Orchard Road

22. As noted above, South Jersey is prepared to begin construction at the start of the 2nd Quarter of 2021 and complete the Project in the 2nd Quarter of 2023.

V. APPROVALS

23. The proposed Project requires the following approvals and applications:
- a. Utility Highway Occupancy/Road Opening Permits from Cumberland County;
 - b. An application for Certification of its Soil Erosion and Sediment Control Plan to the Cumberland County Soil Conservation District; and
 - c. Local planning/zoning land use approvals, as needed, from the City of Vineland.

VI. ALTERNATIVES ANALYSIS

24. The company analyzed three possible routes for the 16-inch transmission pipeline portion of the Project, as depicted in the map attached hereto as Exhibit “C”, including the following:

- Primary Route: Elmer Road
 - Approximately 7.1 miles along Elm Road and W. Elmer Road from S Mill Road to Union Road. Along this route is a total of 366 units within 100 feet of the project alignment including four churches, a credit union, family entertainment center, a preschool and two senior centers.
- Alternative Route A: Grant Ave
 - Approximately 8.0 miles along Elm Road, S Orchard Road, Garrison Road, Delsea Drive, Grant Ave, Lincoln Ave, and Dante Ave from S Mill Road to Cornucopia Ave. Along this route is a total of 388 units within 100 feet of the project alignment including four churches, NJ Army National Reserve, drive in movie theater, an independent living facility, a school, and a temple.
- Alternative Route B: Sherman Ave
 - Approximately 8.75 miles along Elm Road, S Orchard Road, Sherman Ave, Hance Bridge Road, Panther Road, and Dante Ave from S Mill

Road to Cornucopia Ave. Along this route is a total of 401 units within 100 feet of the project alignment including three churches, a school, multiple office buildings and a funeral home.

Elmer Road, the Primary Route, was selected as the best route for the 16-inch transmission pipeline part of the Project due to fewer occupied buildings in close proximity and the shortest overall distance. There was no alternative route analysis done for the 8-inch transmission pipeline portion of the Project due to the small length relative to the overall Project scope.

VII. PUBLIC PARTICIPATION

25. In anticipation of a public hearing to be held in the area of the Project, South Jersey has prepared a list depicting all structures within 100 feet of the Project's path, including the addresses as well as block and lot numbers, distance from the Project, survey stations and references to alignment drawings. As noted above, this list is attached hereto as Exhibit "D".

26. Once a public hearing is scheduled, South Jersey will publish notice of this Petition and of the public hearing in a local newspaper and serve written notice of the public hearing upon owners of the properties identified in Exhibit "D", as well as on local officials in the City of Vineland.

27. A copy of the proposed form of public notice is attached hereto as Exhibit "E".

VIII. REQUEST FOR EXPEDITED RELIEF

28. As explained above, the Project will allow the Company to ensure an adequate gas supply during peak periods and enable South Jersey's gas distribution system to safely and reliably operate to satisfy customer demands throughout South Jersey's service areas in the event

of a disruption in pipeline service. To ensure that the Project is completed without delay, South Jersey respectfully requests expedited review of this Petition. This will help facilitate the continuation of safe and reliable service to South Jersey customers in the immediate future and for the years to come.

IX. CONCLUSION

For the reasons stated above, South Jersey requests that the Board:

- A. Retain jurisdiction over this matter and designate a Commissioner as Presiding Officer;
- B. Approve South Jersey's request to construct and operate the approximately 9-mile long natural gas transmission pipeline consisting of approximately 7.1 miles of 16-inch transmission pipeline and approximately 1.6 miles of 8-inch transmission pipeline in Cumberland County, as herein described;
- C. Approve South Jersey's request for expedited treatment; and
- D. Approve any other relief deemed just and equitable.

Respectfully submitted,

South Jersey Gas Company



By: Deborah M. Franco, Esq.
VP, Clean Energy & Sustainability
SJI

Dated: October 9, 2020

VERIFICATION

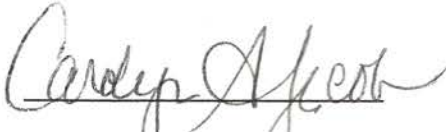
I, Brent Schomber, of full age, being duly sworn according to law, upon my oath, depose and say:

1. I am Vice President, Operations of South Jersey Gas, and I am authorized to make this verification on behalf of the Company.
2. I have reviewed the within petition and the information contained therein is true according to the best of my knowledge, information and belief.



Brent Schomber
Vice President, SJG Operations

Sworn to and subscribed
before me this 9TH day
of October 2020


CAROLYN A. JACOBS

NOTARY PUBLIC OF NEW JERSEY

My Commission Expires October 28, 2023



EXHIBIT A

EXHIBIT A
SPECIFICATIONS AND CODE REQUIREMENTS

16" AND 8" PIPELINE THROUGH CITY OF VINELAND IN CUMBERLAND
COUNTY, NEW JERSEY

49 CFR PART 192 - Transportation of Natural Gas and Other Gas by Pipeline:
Minimum Federal Safety Standards

N.J.A.C. 14:7 Natural Gas Pipelines

Class Location -USDOT 192.5/NJAC 14:7-1.3

South Jersey Gas Company's Standard criteria is to design all pipelines for Class 4 locations. The design of the pipeline shall be for Class 4 locations and shall comply with NJAC 14:7-1.3. The actual class locations include Class 1, Class 2 and Class 3 as defined by USDOT 192.5.

16" PIPE INSTALLED VIA OPEN TRENCH

Pipe Specification -USDOT 192.55

The 16" pipe shall be API 5L, Grade X-65, electric resistance welded, 0.375" wall thickness.

Design Operating Pressure -USDOT 192.105

Class 4 Location (Design Criteria):

Design Factor	F = 0.40
Longitudinal Joint Factor	E = 1.0 (ERW)
Temperature Factor	T = 1.0 (250 degrees F. and less)
Min. Yield Strength	S = 65,000 psi

Design Pressure "P" for 16" Pipe (0.375 Wall)

Outside Diameter	D = 16.000"
Wall Thickness	t = 0.375"

Formula

$$P = \frac{2St}{D} \times F \times E \times T$$

$$P = \frac{2(65,000) \times (0.375)}{16.000} \times 0.40 \times 1.0 \times 1.0 = 1,218.75 \text{ psig}$$

In accordance with API-5L table 26 for Pipe Grade between X42 to X120 of diameters between 8.625 inches to 20.000 inches per footnote b where “It is not necessary that the test pressure exceed 2970 psi”, the pipe was pressure tested to at least 2970 psig at the pipe mill. The Project Pipeline will be designed, constructed and certified to Class 4 requirements with a MAOP of 700 psig. The percent of yield strength at this pressure is:

Formula

$$\text{Operating Stress} = \frac{PD}{2t}$$

$$\text{Operating Stress (0.375 Wall)} = \frac{(700) \times (16)}{2(0.375)} = 14,933.33\text{psi}$$

$$\% \text{ Yield (0.375 Wall)} = \frac{14,933.33}{65,000} \times 100 = 22.97\% \text{ at MAOP}$$

8” PIPE INSTALLED VIA OPEN TRENCH

Pipe Specification -USDOT 192.55

The 8” pipe shall be API 5L, Grade X-52, electric resistance welded, 0.277” wall thickness.

Design Operating Pressure -USDOT 192.105

Class 4 Location (Design Criteria):

Design Factor	F = 0.40
Longitudinal Joint Factor	E = 1.0 (ERW)
Temperature Factor	T = 1.0 (250 degrees F. and less)
Min. Yield Strength	S = 52,000 psi

Design Pressure “P” for 8” Pipe (0.277 Wall)

Outside Diameter	D = 8.625”
Wall Thickness	t = 0.277”

Formula

$$P = \frac{2St}{D} \times F \times E \times T$$

$$P = \frac{2(52,000) \times (0.277)}{8.625} \times 0.40 \times 1.0 \times 1.0 = 1,336.02 \text{ psig}$$

In accordance with API-5L table 26, the pipe was pressure tested to at least 2,840 psig at the pipe mill. The Project Pipeline will be designed, constructed and certified to Class 4 requirements with a MAOP of 350 psig. The percent of yield strength at this pressure is:

Formula

$$\text{Operating Stress} = \frac{PD}{2t}$$

$$\text{Operating Stress (0.277 Wall)} = \frac{(350) \times (8.625)}{2(0.277)} = 5,449.01 \text{ psi}$$

$$\% \text{ Yield (0.277 Wall)} = \frac{5,449.01}{52,000} \times 100 = 10.48\% \text{ at MAOP}$$

Pipelines near Railroads and Highways – N.J.A.C. 14:7-1.8

The pipeline shall be designed in accordance with Conrail’s CE-8 Specifications entitled “Specifications for Pipeline Occupancy of Consolidated Rail Corporation Property” where the pipeline intersects or runs parallel to a railroad. The pipeline shall be designed in accordance with Section 653 “Gas” of N.J.D.O.T.’s 2007 Standard Specifications for Road & Bridge Construction”.

Projections – N.J.A.C. 14.7-1.13

All portions of the pipeline which protrude above the ground shall be conspicuously painted in accordance with the Steel Structures Painting Council’s Paint Application Specification SSPC-PA 1-64 and enclosed and secured within a chain link fence.

Meter and Regulator Stations: Electric Installation – N.J.A.C. 14:7-1.15

All electric equipment and wiring in the meter, regulator and above ground valve facilities shall be designed and installed in accordance with the National Electrical Code and ANSI/NFPA 70.

Operator Reporting Requirements – N.J.A.C. 14.7-1.26

Pressure test records shall be submitted within one month after the test date and include the pressure and temperature recording charts, dead weight test records, other records of pressure and temperature readings and calibration records for recording instruments used during the pressure test.

Valve Specification -USDOT 192.145

All valves shall meet the minimum requirements of API 6D and South Jersey Gas Company specifications, which constitute a supplement to API 6D. All valves

shall be ANSI 600-lb. Class. Each point on the pipeline shall be within 2 ½ miles of a sectionalizing block valve.

Pipe Flanges -USDOT 192.147

All pipe flanges shall be carbon steel weld neck 600-lb. R.F. ANSI B16.5, MSS SP-44, or equivalent.

Pipe Fittings -USDOT 192.149

Welding elbows shall be ANSI B16.9, ASTM A-234 WP91.

Welding tees shall be ANSI B16.9, ASTM A-234 WP91.

Welding caps shall be ANSI B16.9, ASTM A-234 WP91.

Welding reducers shall be ANSI B16.9, ASTM A-234 WP91 concentric type.

Each steel butt-welding fitting shall have pressure and temperature ratings based on stresses for pipe of the same or equivalent material. The actual bursting strength of the fitting shall at least equal the computed bursting strength of pipe of the designated material and wall thickness, as determined by a prototype that was tested to at least the pressure required for the pipeline.

Passage of Internal Inspection Devices -USDOT 192.150

The pipeline, valves and fittings shall accommodate the passage of internal inspection devices.

Fabricated Components -USDOT 192.153

All fabricated components shall be constructed using regularly manufactured butt-welding fittings.

Welded Branch Connection -USDOT 192.155/NJAC 14:7-1.7

Full-size and reduced-sized branch connections shall be fabricated using manufactured forged steel fittings such as weld-o-lets made by Bonney Forge or equivalent.

Supports and Anchors -USDOT 192.161

Underground piping shall be continuously supported by a firm graded trench bottom of consolidated undisturbed soil.

Carrier pipe entering or leaving a casing shall be continuously supported on thoroughly compacted soil.

All above ground pipe supports shall be made of non-combustible material and shall not be welded or firmly secured to the pipe.

Transmission Line Valves -USDOT 192.179/ NJAC 14:7-1.10

The pipeline shall have in-line valves installed at each end and valves at 5 mile intervals. The operating device to open or close the valve shall be readily accessible and protected from damage through an enclosed gear housing and roadbox extension assembly. Each section of the transmission line shall have a blow down valve with enough capacity allow the transmission line to be blown

down as rapidly as practicable. The blowdown discharge shall be designed in accordance with USDOT 192.179.

Qualification of Welding Procedures -USDOT 192.225/NJAC 14:7-1.6

All welding procedures shall be qualified under API 1104.

Qualification of Welders -USDOT 192.227

All welders shall be qualified using procedures qualified under API 1104.
A written record shall be kept of each welder qualified.

Miter Joints -USDOT 192.233

No mitered joints will be allowed on this pipeline.

Inspection and Test of Welds -USDOT 192.241

A visual examination shall be performed on all welded joints and they shall meet the requirements of API 1104.

Non-Destructive Testing -USDOT 192.243/NJAC 14:7-1.6

All new welded joints shall be radiographed 100% and meet the standards of API 1104.

All radiographic testing shall be performed by trained, experienced persons and meet the standards of API 1104.

Oversight of field welding will be by welding inspectors qualified by the Company on the basis of training and experience.

Repair or Removal of Defects -USDOT 192.245

Any weld that is determined to be unacceptable under API 1104 shall be removed or repaired. All repairs shall be in completed in accordance with written weld repair procedures that have been qualified under API 1104.

Oversight of Construction Activity -USDOT 192.305/NJAC 14:7-1.24

Oversight of pipeline construction activity will be by inspectors qualified by the Company on the basis of knowledge and experience in all areas of work to be inspected and meet all requirements of the of the Company's qualification of pipeline personnel.

Directional Drilling Operations NJAC 14:7-1.25

A plan and profile which depicts all subsurface facilities in proximity has been prepared for all proposed horizontal directional drilling (HDD) locations within the project.

All subsurface facilities will be located by test hole prior to HDD operations.

Instrumentation approved by the Company will be provided, used and maintained to accurately locate the drilling/reaming head during HDD operations.

All HDD pipe shall be supported by roller assemblies.

A Company qualified inspector shall be physically present on site at all times when subsurface utilities are being crossed by HDD.

Bends and Elbows -USDOT 192.313-315/ NJAC 14:7-1.7

All changes in direction shall be made using field bending equipment or manufactured elbows as indicated on the drawings. All field bends shall have a smooth contour. No wrinkle bends shall be allowed.

Protection from Hazards -USDOT 192.317

The pipeline shall be designed and constructed to avoid any hazards that may cause the pipeline to move or sustain any abnormal loads. The pipeline located above ground that is located in the vicinity of vehicular traffic shall be protected from accidental damage by concrete bollards.

Installation of Pipe in a Ditch -USDOT 192.319

The pipeline shall be installed in a ditch with a firm graded bottom free of large stones, clods, rubbish, wood and welding rods. The ditch shall be backfilled with material free of large stones, clods, rubbish, wood and welding rods and in a manner to avoid damaging to the coating of the pipe.

Casing -USDOT 192.323

All casings for the pipeline shall be designed to withstand the superimposed loads. The ends of the casing shall be sealed and the casing shall be vented.

Underground Clearance -USDOT 192.325

The pipeline shall be installed maintaining a minimum 12" of clearance from any other underground structure.

Cover -USDOT 192.327/NJAC 14:7-1.12

The pipeline shall be installed with a minimum cover of 48".

External Corrosion Control: Buried or Submerged Pipelines Installed After July 31, 1971 -USDOT 192.455

All piping shall be protected from external corrosion by mill applied coating, except field joints which will be coated with heat shrink sleeves. A cathodic protection system shall be designed and installed to protect this pipeline.

External Corrosion Control: Protective Coating -USDOT 192.461/NJAC 14:7-1.11

All piping shall be protected from external corrosion by mill applied coating, except field joints which will be coated with heat shrink sleeves.

External Corrosion Control: Cathodic Protection -USDOT 192.463

A cathodic protection system shall be designed and installed to protect this pipeline.

External Corrosion Control: Test Stations -USDOT 192.469/.471

This pipeline shall have sufficient test stations for electrical measurement to determine the adequacy of cathodic protection. The test station wires shall be connected to the pipeline so as to remain mechanically secure and electrically conductive.

Internal Corrosion Control: Design and Construction of Transmission Line -USDOT 192.476

The pipeline shall be designed and constructed to reduce the risk that liquids will collect in the line. The pipeline shall be designed to allow the use of pigs and smart pigs for the removal of liquids and the monitoring of internal corrosion.

Atmospheric Corrosion Control: General -USDOT 192.479

All above ground pipeline facilities shall be coated and sealed via Flame Sprayed TSA (Thermal Sprayed Aluminum). The Flame Sprayed TSA shall be applied in accordance with NACE No. 12/AWS C2.23M/SSPC-cs 23.00 – Specification for the Application of Thermal Spray Coatings (Metallizing) of Aluminum, Zinc, and Their Alloys and Composites for the Corrosion Protection of Steel.

Strength Test Requirements for a Steel Pipeline to Operate at Hoop Stress of 30 Percent or More of SMYS -USDOT 192.503/.505/.619 NJAC 14:7-1.14

A static pressure test, with water, shall be performed for a minimum 24-hour period at 1,050 psig (min) on 16" piping which will stress the 16 inch (0.375 wall) pipe to 34.46 percent of SMYS and at 525 psig (min) on 8" piping which will stress the 8 inch (0.277 wall) pipe to 14.58 percent of SMYS.

Records -USDOT 192.517

All records of static pressure and leak tests shall be retained for the life of the pipeline. The proposed route of this pipeline is shown on the drawings entitled 16"/8" Vineland Project – Prepared for South Jersey Gas, dated December 9, 2019, prepared by Henkels & McCoy, Inc.

MAOP -USDOT -192.619

The MAOP of the 16 inch pipeline will be 700 psig. The 16 inch pipeline shall not be operated in excess of 700 psig. The MAOP of the 8 inch pipeline will be 350 psig. The 8 inch pipeline shall not be operated in excess of 350 psig.

Odorization of Gas -USDOT 192.625/NJAC 14:7-1.16

The gas in this pipeline will be odorized so that the gas concentration in air of one-fifth of the lower explosive is detectable by smell.

Tapping Pipelines Under Pressure -USDOT 192.627

All tapping and stop-offs will be performed by a qualified crew.

Purging of Pipelines -USDOT 192.629

The new pipeline shall be purged into service using natural gas. This procedure will be done in a manner which will not allow a hazardous mixture of gas and air to form.

Pipeline Marker -USDOT 192.707 / NJAC 14:7-1.11

Pipeline markers shall be installed at all locations as outlined in this section of Subpart 192. In addition, for pipe 16” or more in diameter, marking tape consisting of one 12 inch wide strip or two 6 inch wide strips shall be installed side-by-side in any trenched in place piping.

What Additional Preventive and Mitigative Measures Must an Operator Take? -USDOT 192.935

All above ground sectionalizing block valves shall be designed to be remote control valves (RCV).

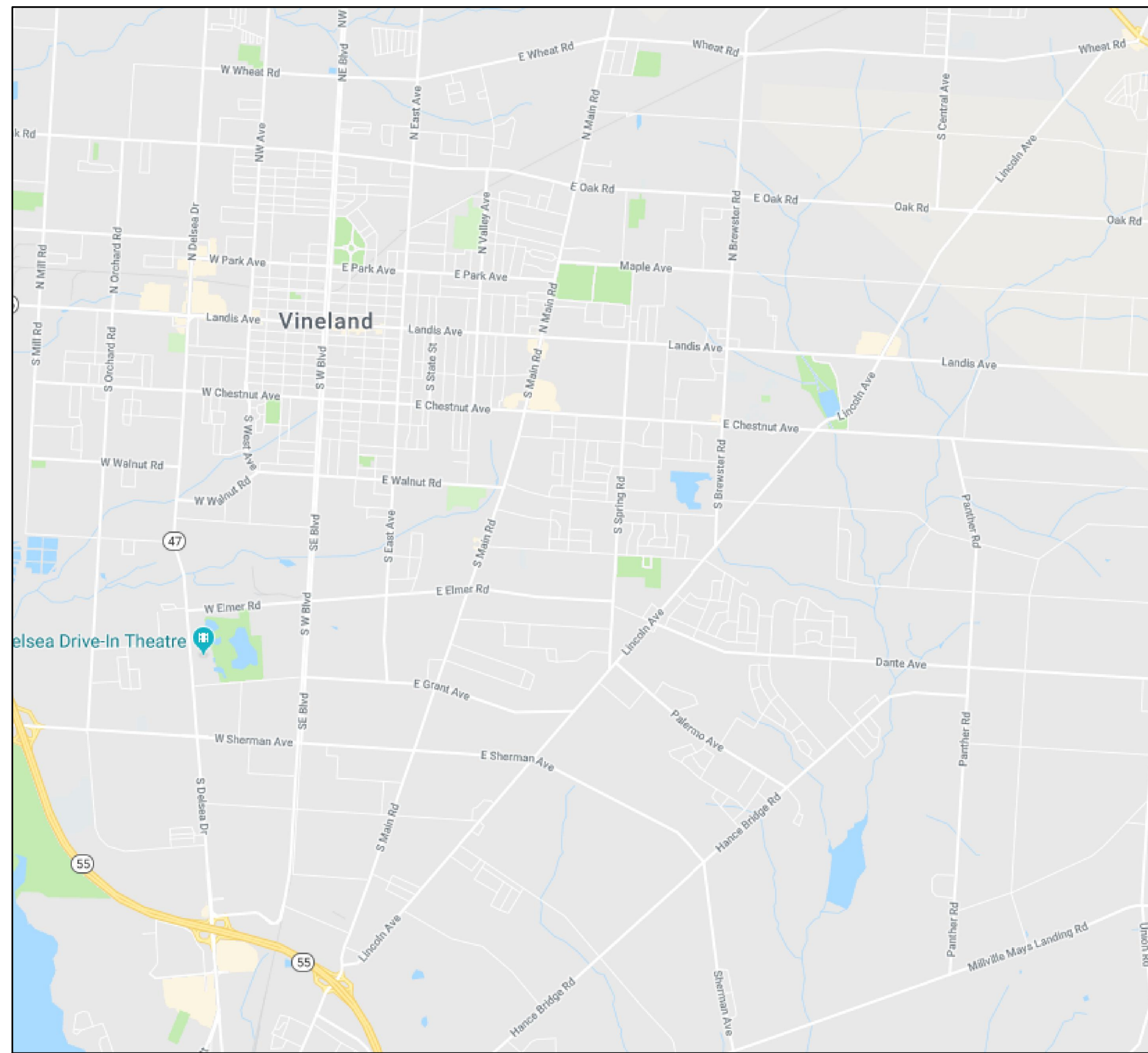
EXHIBIT B

16"/8" VINELAND PROJECT

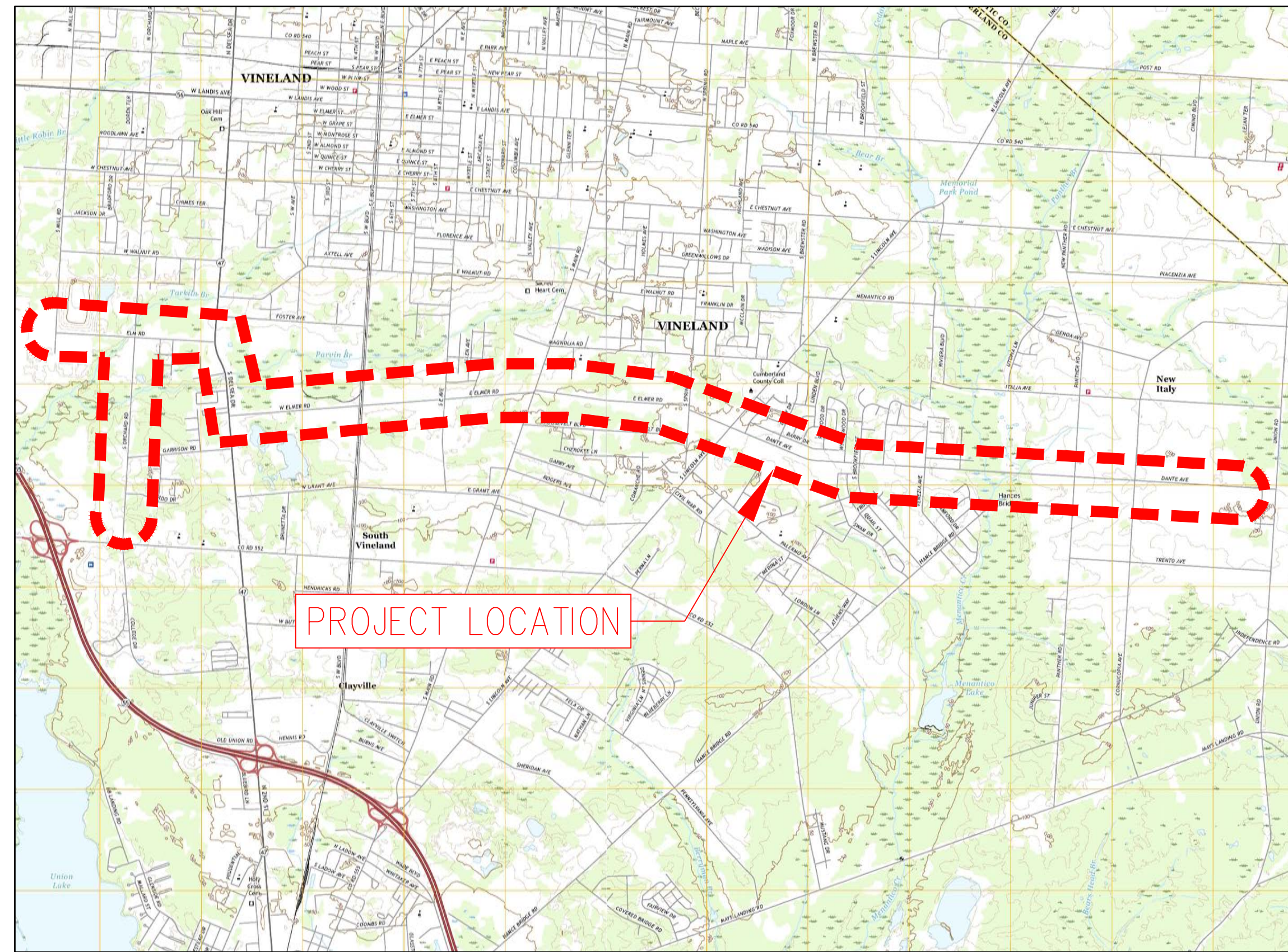
CITY OF VINELAND

CUMBERLAND COUNTY, NJ

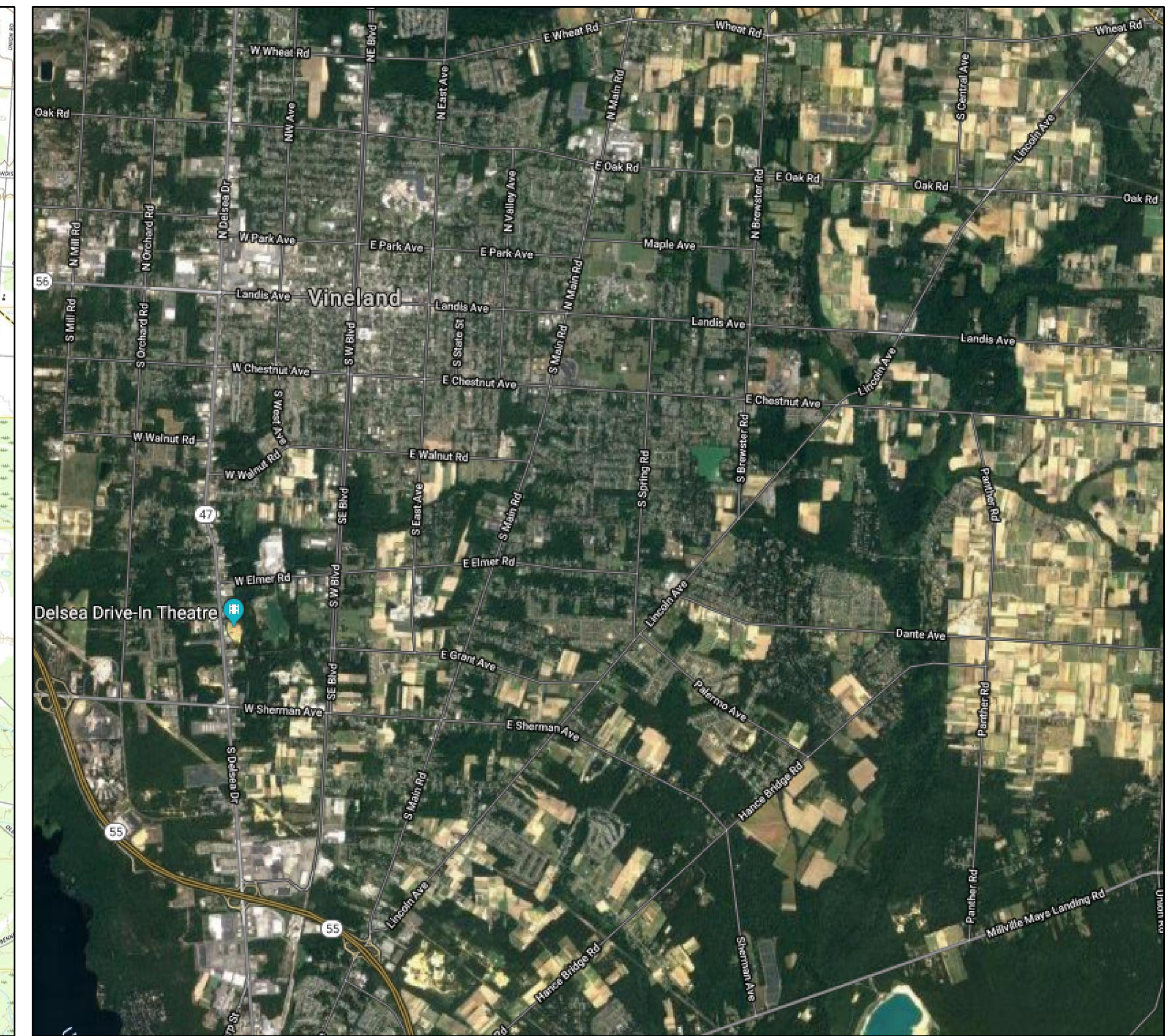
SOUTH JERSEY GAS



VICINITY MAP



USGS 7.5 MIN. LOCATION MAP (NOT TO SCALE)
[QUADRANGLE]



OVERVIEW MAP

EXECUTIVE SUMMARY:

1. APPROXIMATELY 37,600 LF OF 16" O.D., X65 WRAPPED STEEL PIPE
2. APPROXIMATELY 8,759 LF OF 8.625" O.D., X52 WRAPPED STEEL PIPE

PRELIMINARY
NOT FOR CONSTRUCTION

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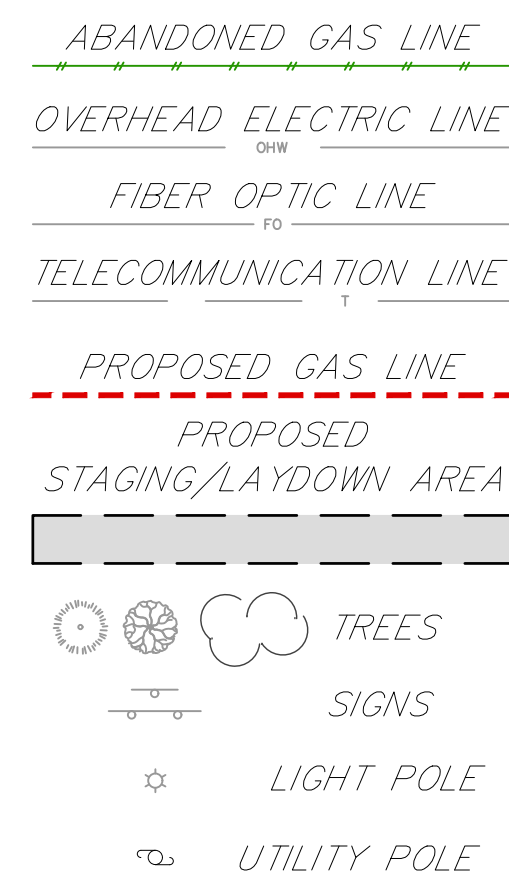
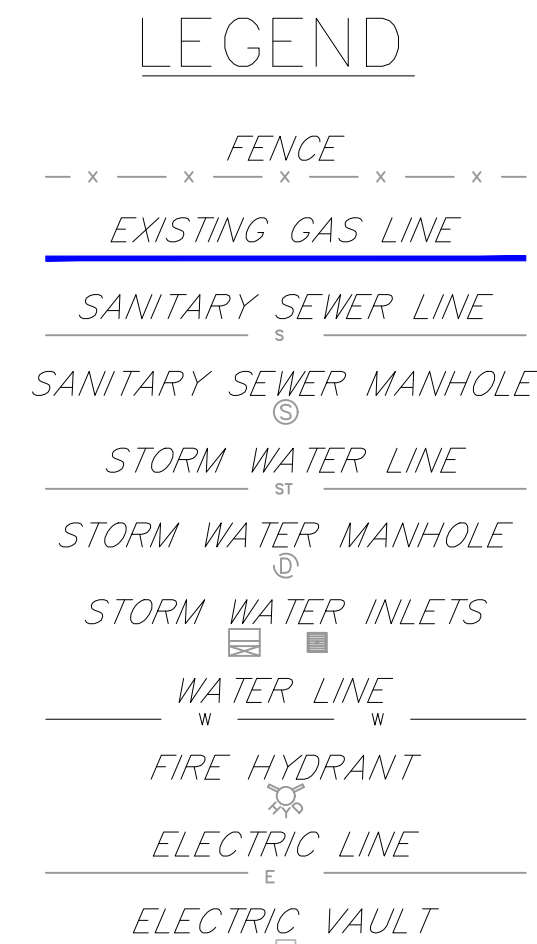
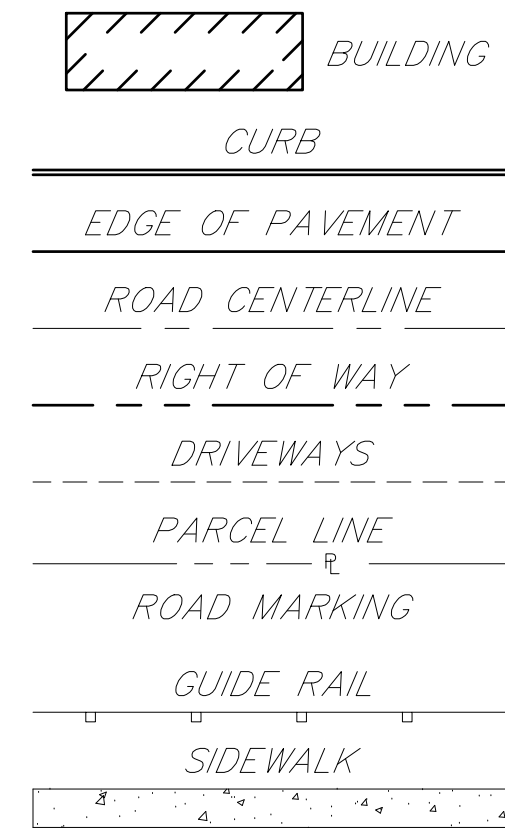
PETER WILDERS, PE
NJ LICENSE #24GE04327300

HMI
TECHNICAL SOLUTIONS
A HUBBARD & WOOD Group Company
VALLEY SQUARE THREE, STE. 200
512 TOWNSHIP LINE RD.
BLUE BELL, PA 1
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SOUTH JERSEY GAS
1 SOUTH JERSEY PLAZA, FOLSOM, N.J. 08037
TELEPHONE: (609) 561-9000 FAX: (609) 704-1802
PROPOSED 16"/8" STEEL GAS MAIN EXTENSION
CUMBERLAND DIVISION
COVER SHEET
16"/8" VINELAND PROJECT

CITY OF VINELAND	CUMBERLAND COUNTY	NJ
DRAWN BY SC	DATE 05/03/19	PLATE MAP
CHECKED BY DPK	SCALE NOT TO SCALE	MAP
APPROVED BY FZ	SHEET 1 OF 33	DWG. NO. CD-C

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5/29/2019
dkrupa



GENERAL NOTES:

- WHEN THE DEPTH OF TRENCH EXCEEDS 5 FT. A TRENCH BOX OR SHORING WILL BE REQUIRED.
- ANY DRAINAGE INSTALLED AS PART OF THIS PERMIT IS THE RESPONSIBILITY OF THE PERMITTEE/CONTRACTOR TO MAINTAIN.
- MAINTENANCE OF ALL SIGNS AND PAVEMENT MARKINGS ARE THE RESPONSIBILITY OF THE PERMITTEE/CONTRACTOR.
- THE PERMITTEE/CONTRACTOR MUST CONTACT THE NEW JERSEY ONE-CALL SYSTEM AT 1-800-272-1000, THREE WORKING DAYS PRIOR TO THE START OF WORK TO HAVE ALL UTILITIES MARKED IN THE WORK AREA.
- THE PERMITTEE/CONTRACTOR SHALL RESTORE ANY DRAINAGE STRUCTURE, PIPE, UTILITY, PAVEMENT, CURBS, SIDEWALKS, LANDSCAPED AREAS, OR SIGNAGE DISTURBED DURING CONSTRUCTION TO THEIR ORIGINAL CONDITION.
- EXISTING UTILITIES AND STORM DRAINAGE SYSTEMS ARE SHOWN TO ALERT THE PERMITTEE/CONTRACTOR TO THEIR PRESENCE AND THE PERMITTEE/CONTRACTOR IS SOLELY RESPONSIBLE FOR DETERMINING ACTUAL LOCATIONS AND ELEVATIONS OF ALL UTILITIES AND STORM DRAINAGE SYSTEMS INCLUDING SERVICES. APPROXIMATE LOCATIONS OF EXISTING UTILITIES AND SURFACE FEATURES ARE BASED ON FIELD SURVEY, AND/OR NJ ONE-CALL RESPONSES.
- EXISTING TOPOGRAPHY OBTAINED FROM NEW JERSEY GEOGRAPHIC INFORMATION NETWORK.
- PARCEL AND RIGHT-OF-WAY INFORMATION OBTAINED FROM NEW JERSEY GEOGRAPHIC INFORMATION NETWORK.
- CONTRACTOR TO COORDINATE WITH CITY OF VINELAND PRIOR TO CONSTRUCTION TAKING PLACE.
- ANY ACTIVITY PERFORMED ON AN ACE FACILITY IDENTIFIED AS A COVERED TASK MUST BE COMPLETED BY AN INDIVIDUAL(S) WITH THE PROPER OPERATOR QUALIFICATIONS.
- CONTRACTOR TO FIELD VERIFY ALL DIMENSIONS AND FOREIGN UTILITIES PRIOR TO START OF WORK.
- ALL PIPE SHALL BE INSTALLED AT A MINIMUM OF 48 INCHES BELOW GRADE.
- PIPE SHALL BE INSPECTED PRIOR TO INSTALLATION. DAMAGED AND/OR MISSING PIPE COATING SHALL BE PROPERLY REPAIRED IN FIELD.
- PIPE SHALL BE TESTED TO XXXPSIG FOR XX HOURS.
- CONTRACTORS MUST COMPLY WITH ALL LOCAL, STATE AND FEDERAL REGULATIONS REGARDING THE USE AND DISPOSAL OF EXCESS MATERIAL.
- CRITICAL BEND RADIUS OF PIPE AS ESTABLISHED PER MANUFACTURER SPECIFICATIONS AND/OR SJG CONSTRUCTION MANUAL SHALL NOT BE EXCEEDED.
- PIPE STRUNG ALONG THE RIGHT-OF-WAY SHALL BE PLACED ON PADDING AND PADDED ROLLERS USED DURING OPERATIONS.
- CONTRACTOR SHALL FOLLOW ALL LOCAL AND NJDOT TRAFFIC CONTROL PROCEDURES WHILE WORKING WITHIN PUBLIC AND/OR STATE RIGHT-OF-WAY.

CONSTRUCTION SEQUENCE: (TBD)

PERMITS REQUIRED	
-	-
-	-
-	-

**PRELIMINARY
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SHEET INDEX

PAGE NO.	DRAWING NO.	DESCRIPTION	16" WS FOOTAGE	8" WS FOOTAGE	LAST REVISED
1 OF 33	CD-C	COVER	-	-	12/9/2019
2 OF 33	CD-N	GENERAL NOTES	-	-	12/9/2019
3 OF 33	CD-1	16"/8" WS - STA. 0+00 TO 14+50	1,450	1,450	12/9/2019
4 OF 33	CD-2	16"/8" WS - STA. 14+50 TO 29+25	1,475	1,115	12/9/2019
5 OF 33	CD-3	16" WS - STA. 29+25 TO 44+00	1,475	-	12/9/2019
6 OF 33	CD-4	16" WS - STA. 44+00 TO 58+75	1,486	-	12/9/2019
7 OF 33	CD-5	16" WS - STA. 58+75 TO 73+50	1,478	-	12/9/2019
8 OF 33	CD-6	16" WS - STA. 73+50 TO 88+25	1,474	-	12/9/2019
9 OF 33	CD-7	16" WS - STA. 88+25 TO 103+00	1,475	-	12/9/2019
10 OF 33	CD-8	16" WS - STA. 103+00 TO 117+75	1,475	-	12/9/2019
11 OF 33	CD-9	16" WS - STA. 117+75 TO 132+50	1,475	-	12/9/2019
12 OF 33	CD-10	16" WS - STA. 132+50 TO 147+25	1,475	-	12/9/2019
13 OF 33	CD-11	16" WS - STA. 147+25 TO 162+00	1,475	-	12/9/2019
14 OF 33	CD-12	16" WS - STA. 162+00 TO 176+75	1,466	-	12/9/2019
15 OF 33	CD-13	16" WS - STA. 176+75 TO 191+50	1,475	-	12/9/2019
16 OF 33	CD-14	16" WS - STA. 191+50 TO 206+25	1,474	-	12/9/2019
17 OF 33	CD-15	16" WS - STA. 206+25 TO 221+00	1,475	-	12/9/2019
18 OF 33	CD-16	16" WS - STA. 221+00 TO 235+75	1,493	-	12/9/2019
19 OF 33	CD-17	16" WS - STA. 235+75 TO 250+50	1,481	-	12/9/2019
20 OF 33	CD-18	16" WS - STA. 250+50 TO 265+25	1,475	-	12/9/2019
21 OF 33	CD-19	16" WS - STA. 265+25 TO 280+00	1,478	-	12/9/2019
22 OF 33	CD-20	16" WS - STA. 280+00 TO 294+75	1,475	-	12/9/2019
23 OF 33	CD-21	16" WS - STA. 294+75 TO 309+50	1,475	-	12/9/2019
24 OF 33	CD-22	16" WS - STA. 309+50 TO 324+25	1,475	-	12/9/2019
25 OF 33	CD-23	16" WS - STA. 324+25 TO 339+00	1,475	-	12/9/2019
26 OF 33	CD-24	16" WS - STA. 339+00 TO 353+75	1,475	-	12/9/2019
27 OF 33	CD-25	16" WS - STA. 353+75 TO 368+50	1,475	-	12/9/2019
28 OF 33	CD-26	16" WS - STA. 368+50 TO 375+66	720	-	12/9/2019
29 OF 33	CD-27	8" WS - STA. 0+00 TO 14+50	-	1,435	12/9/2019
30 OF 33	CD-28	8" WS - STA. 14+50 TO 29+25	-	1,475	12/9/2019
31 OF 33	CD-29	8" WS - STA. 29+25 TO 44+00	-	1,475	12/9/2019
32 OF 33	CD-30	8" WS - STA. 44+00 TO 58+75	-	1,475	12/9/2019
33 OF 33	CD-31	8" WS - STA. 58+75 TO 62+09	-	334	12/9/2019

BILL OF MATERIALS

ITEM	STOCK #	DESCRIPTION	QTY	UNITS
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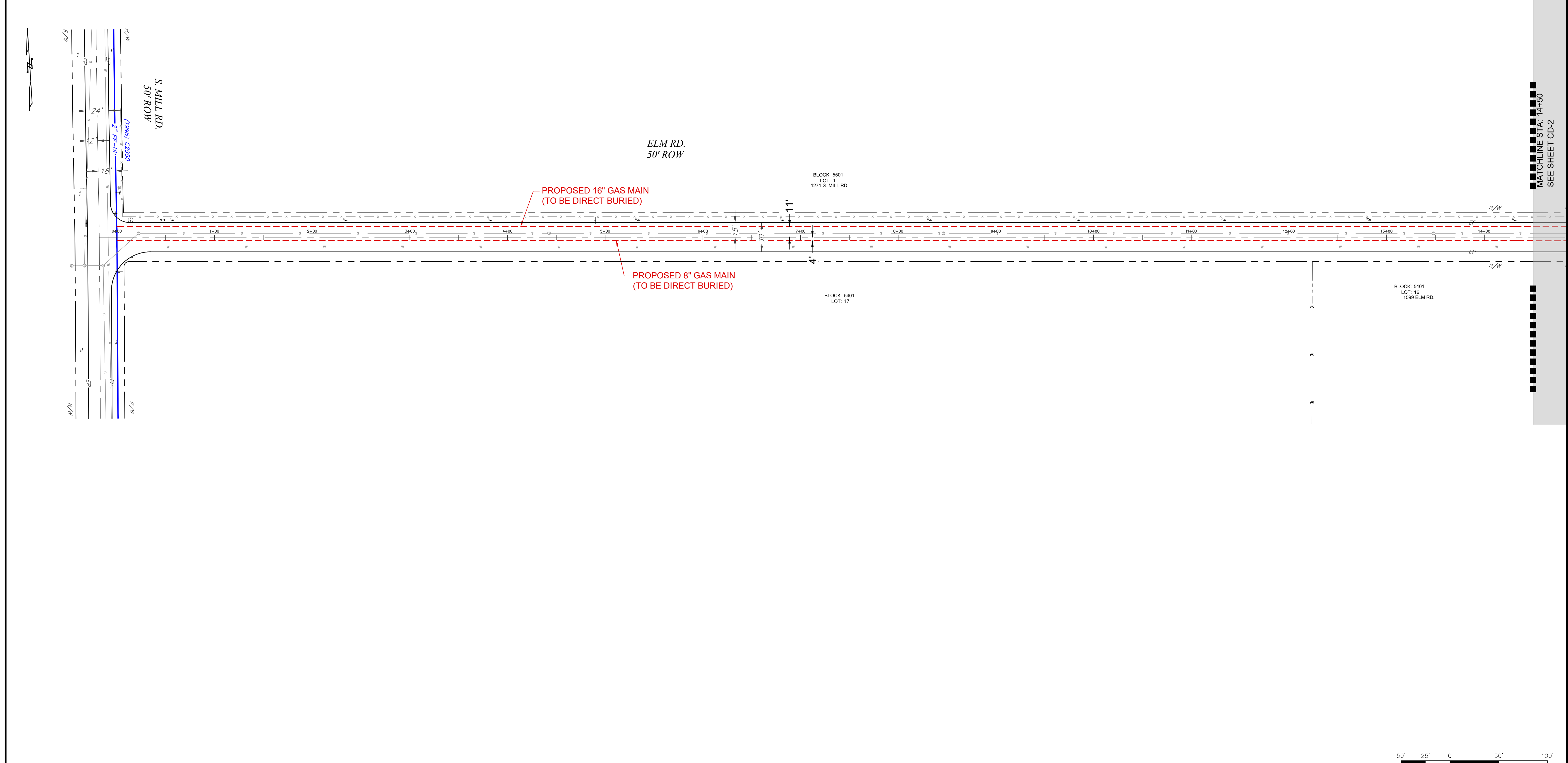
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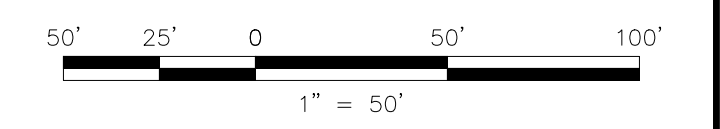
AMI
TECHNICAL SOLUTIONS
A HANSON GROUP COMPANY
VALLEY SQUARE THREE, STE. 200
512 TOWNSHIP LINE RD.
BLUE BELL, PA 1
P: 484-344-2161

SOUTH JERSEY GAS
1 SOUTH JERSEY PLAZA, FOLSOM, N.J. 08037
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PROPOSED 16"/8" STEEL GAS MAIN EXTENSION
CUMBERLAND DIVISION
GENERAL NOTES
16"/8" VINELAND PROJECT
CITY OF VINELAND CUMBERLAND COUNTY NJ
DRAWN BY SC DATE 05/03/19 PLATE MAP
CHECKED BY DPK SCALE NOT TO SCALE MAP
APPROVED BY FZ SHEET 2 OF 33 DWG. NO. CD-N

COUNTY	CUMBERLAND COUNTY		
MUNICIPALITY	CITY OF VINELAND		
OWNER & PARCEL	ELM RD. PUBLIC ROW		
STATION	0+00		14+50
FOOTAGE	1,450' / 1,450'		
MATERIAL	16" O.D. 0.375" WALL, X65 WRAPPED STEEL PIPE / 8" O.D. 0.277" WALL, X52 WRAPPED STEEL PIPE		



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PETER WILDERS, PE
NJ LICENSE #24GE04327300

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DRAWN BY	SC	DATE	05/03/19	PLATE MAP
CHECKED BY	DPK	SCALE	1"=50'	MAP
APPROVED BY	FZ	SHEET	3 OF 33	DWG. NO.

SOUTH JERSEY GAS

1 SOUTH JERSEY PLAZA, FOLSOM, N.J. 08037
TELEPHONE: (609) 561-9000 FAX: (609) 704-1802

PROPOSED 16"/8" STEEL GAS MAIN EXTENSION
CUMBERLAND DIVISION
ALIGNMENT 1

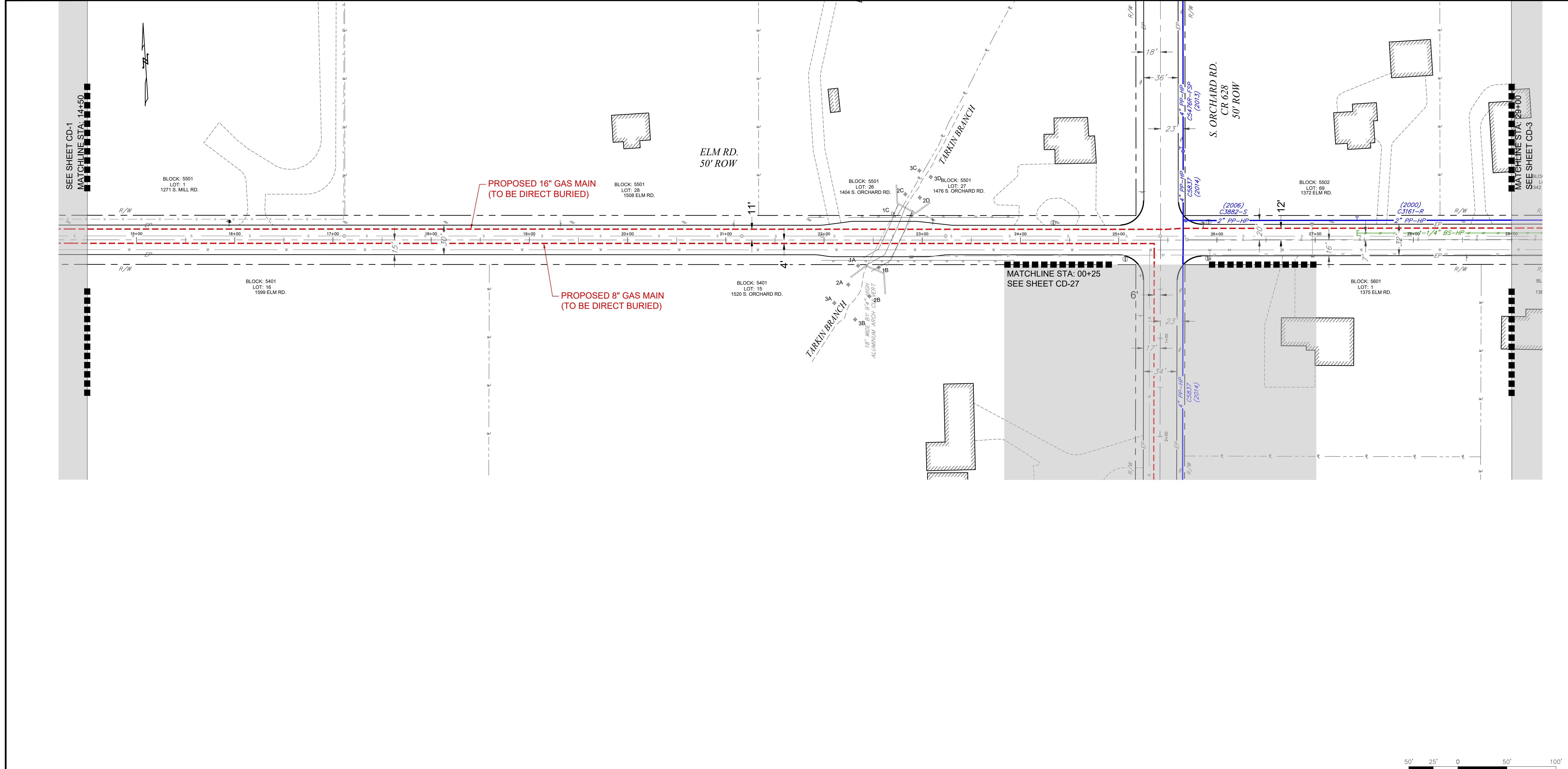
16"/8" VINELAND PROJECT
ELM RD.
CUMBERLAND COUNTY NJ

DWG. NO. CD-1

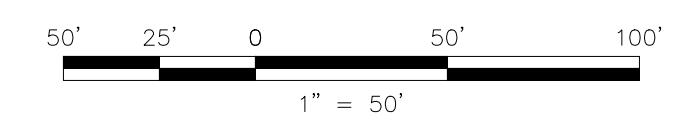
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5/29/2019
dkrupa

COUNTY	CUMBERLAND COUNTY	
MUNICIPALITY	CITY OF VINELAND	
OWNER & PARCEL	ELM RD. PUBLIC ROW	
STATION	14+50	29+00
FOOTAGE	1,450' / 1,107'	
MATERIAL	16" O.D. 0.375" WALL, X65 WRAPPED STEEL PIPE / 8" O.D. 0.277" WALL, X52 WRAPPED STEEL PIPE	



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3	PRELIMINARY BASEMAPS FOR FILING		12/09/19
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PETER WILDERS, PE
NJ LICENSE #24GE04327300

HMI
TECHNICAL SOLUTIONS

A HUBBARD & HUBBARD Group Company

VALLEY SQUARE THREE, STE. 200
512 TOWNSHIP LINE RD.
BLUE BELL, PA 1
P: 484-344-2161

DRAWN BY	SC	DATE	05/03/19	PLATE MAP
CHECKED BY	DPK	SCALE	1"=50'	MAP
APPROVED BY	FZ	SHEET	4 OF 33	DWG. NO. CD-2

SOUTH JERSEY GAS

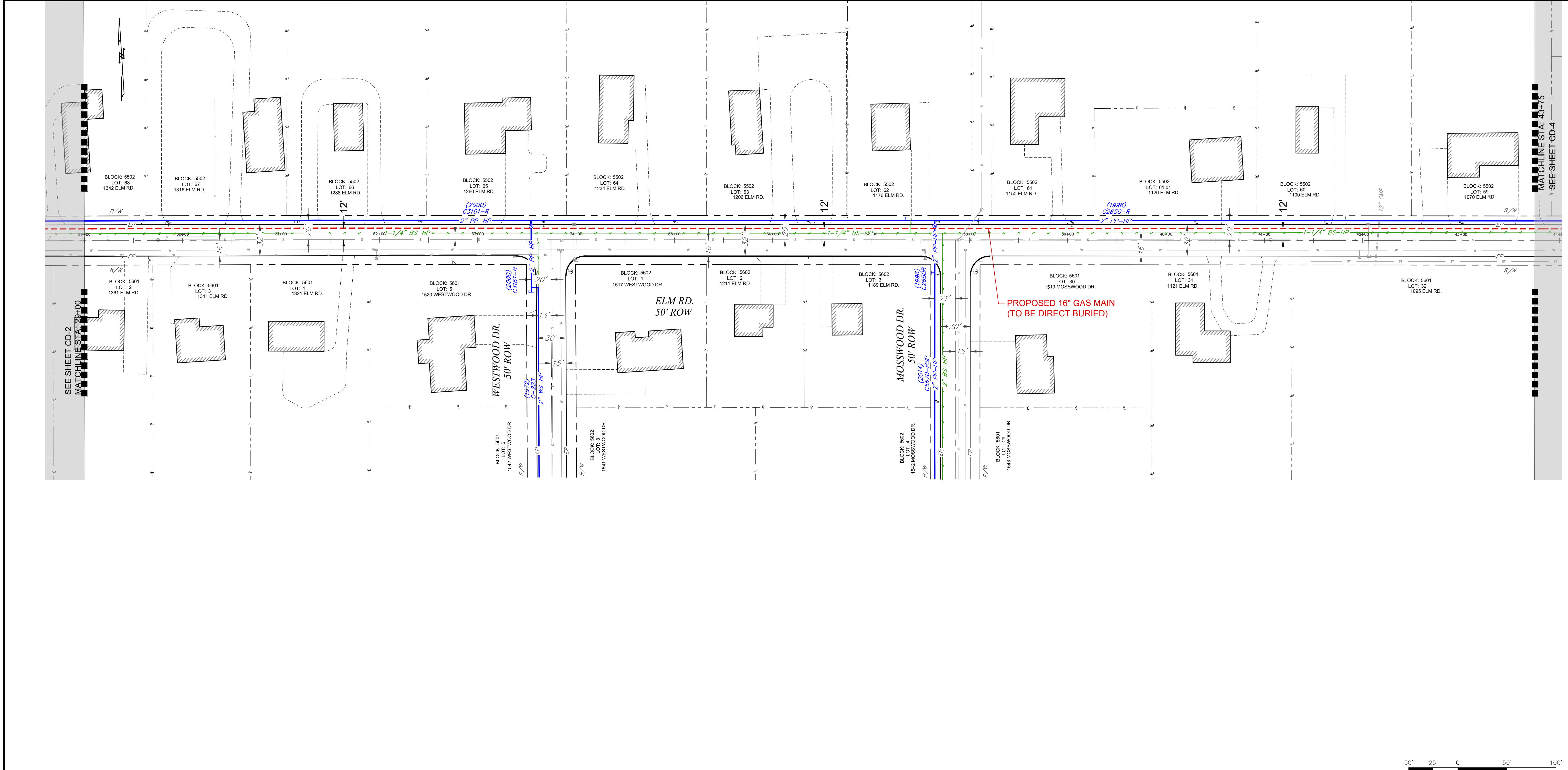
1 SOUTH JERSEY PLAZA, FOLSOM, N.J. 08037
TELEPHONE: (609) 561-9000 FAX: (609) 704-1802

PROPOSED 16"/8" STEEL GAS MAIN EXTENSION
CUMBERLAND DIVISION
ALIGNMENT 2

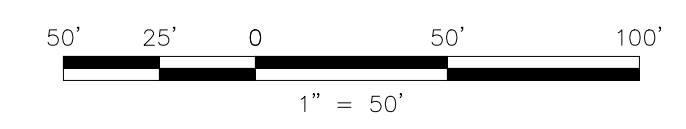
16"/8" VINELAND PROJECT
ELM RD.
CUMBERLAND COUNTY NJ

P:\Projects\Active\Pipeline\SIG (South Jersey Gas)\Elmer Road Reliability Project\3. Execution\CAD\Elmer Road Reliability Project IFR.dwg
5/29/2019
dkrupa

COUNTY	CUMBERLAND COUNTY		
MUNICIPALITY	CITY OF VINELAND		
OWNER & PARCEL	ELM RD. PUBLIC ROW		
STATION	29+00		43+75
FOOTAGE	1,475'		
MATERIAL	16" O.D. 0.375" WALL, X65 WRAPPED STEEL PIPE		



**PRELIMINARY
NOT FOR CONSTRUCTION**



UTILITY LOCATIONS (SEWER, WATER, STORM SEWER, GAS, ETC.) ARE BASED ON SURVEY LOCATION AND RECORD DATA AS PROVIDED BY THE MUNICIPALITIES AND / OR UTILITY COMPANY.

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ONE CALL

CALL BEFORE YOU DIG
1-800-272-1000

TO LOCATE UNDERGROUND UTILITIES
IF YOU'RE GOING TO DIG, BLAST OR DRILL
THREE (3) WORKING DAYS NOTICE

REMEMBER
IT'S THE LAW!

Dig Safely.

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PETER WILDERS, PE
NJ LICENSE #24GE04327300

HMI
TECHNICAL SOLUTIONS

A **PERKINS+WILL** Group Company

VALLEY SQUARE THREE, STE. 200
512 TOWNSHIP LINE RD.
BLUE BELL, PA 1
P: 484-344-2161

DRAWN BY	SC	DATE	05/03/19	PLATE MAP
CHECKED BY	DPK	SCALE	1"=50'	MAP
APPROVED BY	FZ	SHEET	5 OF 33	DWG. NO.

SOUTH JERSEY GAS

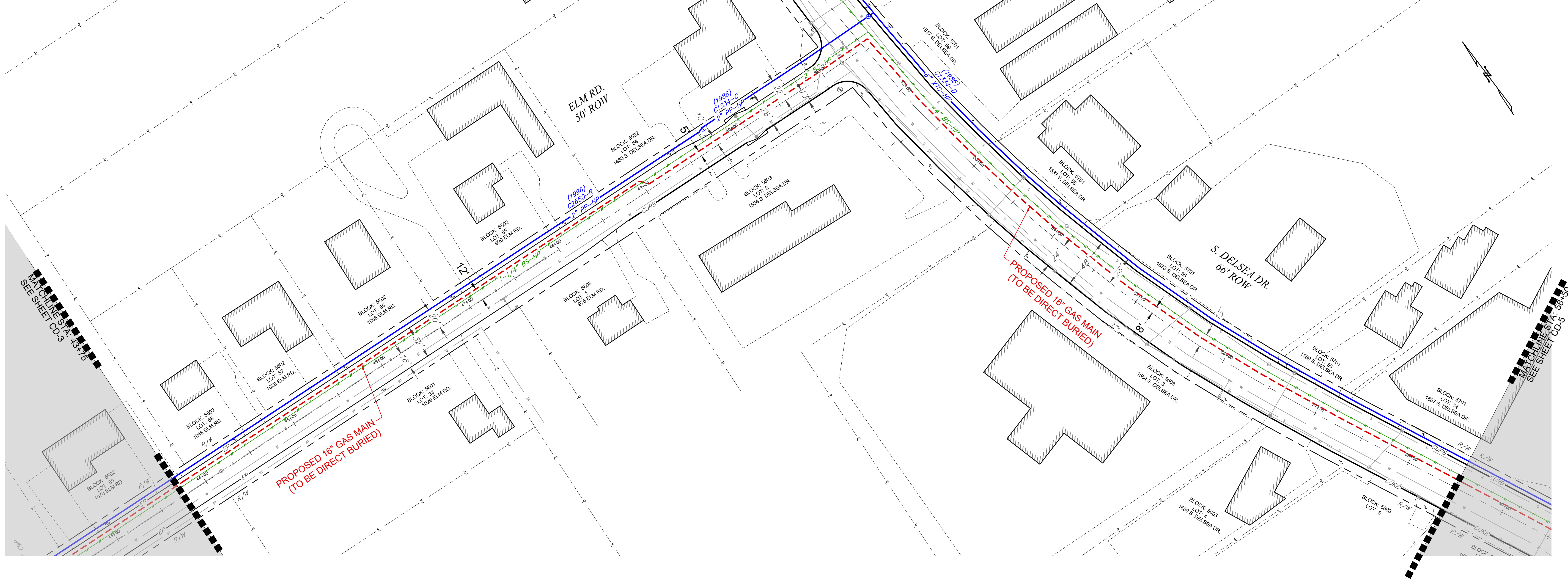
1 SOUTH JERSEY PLAZA, FOLSOM, N.J. 08037
TELEPHONE: (609) 561-9000 FAX: (609) 704-1802

PROPOSED 16" STEEL GAS MAIN EXTENSION
CUMBERLAND DIVISION
ALIGNMENT 3

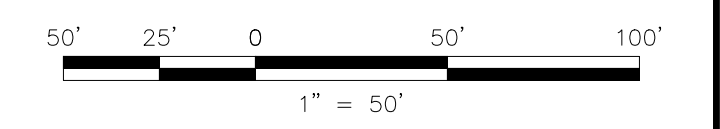
16" 8" VINELAND PROJECT
ELM RD.
CUMBERLAND COUNTY NJ

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5/29/2019
dkrupa

COUNTY	CUMBERLAND COUNTY	
MUNICIPALITY	CITY OF VINELAND	
OWNER & PARCEL	ELM RD. & S. DELSEA DR. PUBLIC ROW	
STATION	43+75	58+50
FOOTAGE	1478'	
MATERIAL	16" O.D. 0.375" WALL, X65 WRAPPED STEEL PIPE	



PRELIMINARY
NOT FOR CONSTRUCTION



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PETER WILDERS, PE
NJ LICENSE #24GE04327300

HMI
TECHNICAL SOLUTIONS

A **PERKINS+WILL** Group Company

VALLEY SQUARE THREE, STE. 200
512 TOWNSHIP LINE RD.
BLUE BELL, PA 1
P: 484-344-2161

DRAWN BY	SC	DATE	05/03/19	PLATE MAP
CHECKED BY	DPK	SCALE	1"=50'	MAP
APPROVED BY	FZ	SHEET	6 OF 33	DWG. NO.

SOUTH JERSEY GAS
1 SOUTH JERSEY PLAZA, FOLSOM, N.J. 08037
TELEPHONE: (609) 561-9000 FAX: (609) 704-1802

PROPOSED 16" STEEL GAS MAIN EXTENSION
CUMBERLAND DIVISION
ALIGNMENT 4

16" 8" VINELAND PROJECT
ELM RD. & S. DELSEA DR.
CUMBERLAND COUNTY

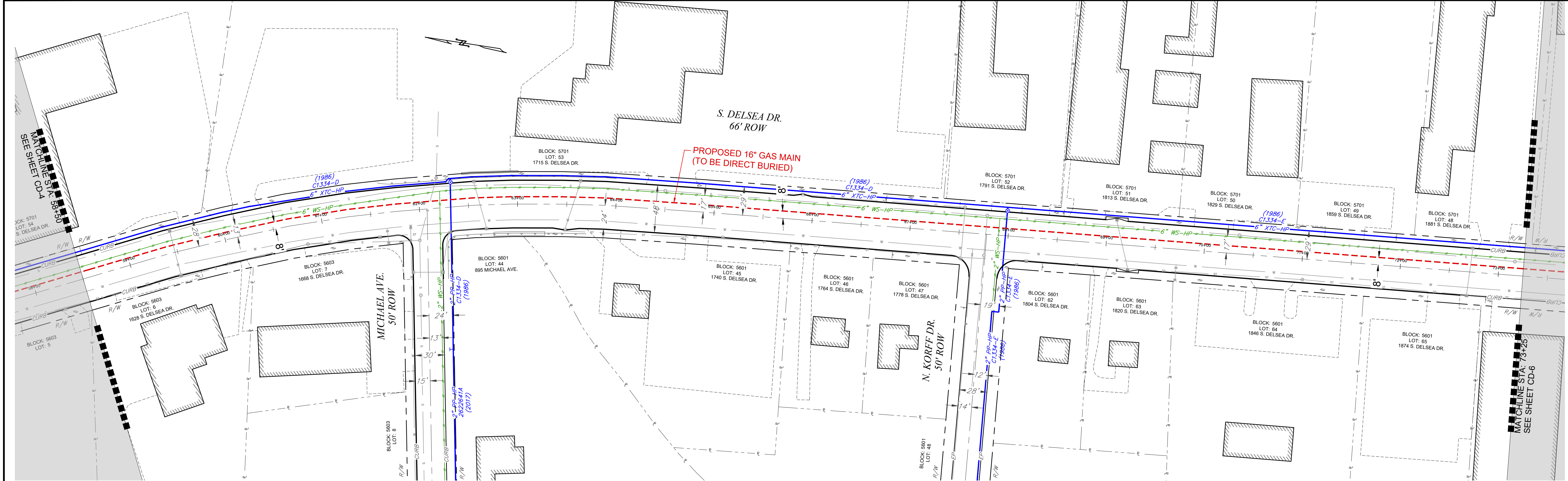
CITY OF VINELAND NJ

PLATE NO. CD-4

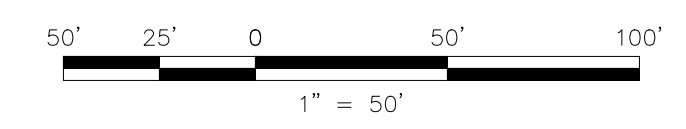
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5/29/2019
dkrupa

DRAWING LOCATION
LAST DATE SAVED
LAST SAVE BY

COUNTY	CUMBERLAND COUNTY		
MUNICIPALITY	CITY OF VINELAND		
OWNER & PARCEL	S. DELSEA DR. PUBLIC ROW		
STATION	58+50	1,470'	73+25
FOOTAGE			
MATERIAL	16" O.D. 0.375" WALL, X65 WRAPPED STEEL PIPE		



**PRELIMINARY
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PETER WILDERS, PE
NJ LICENSE #24GE04327300

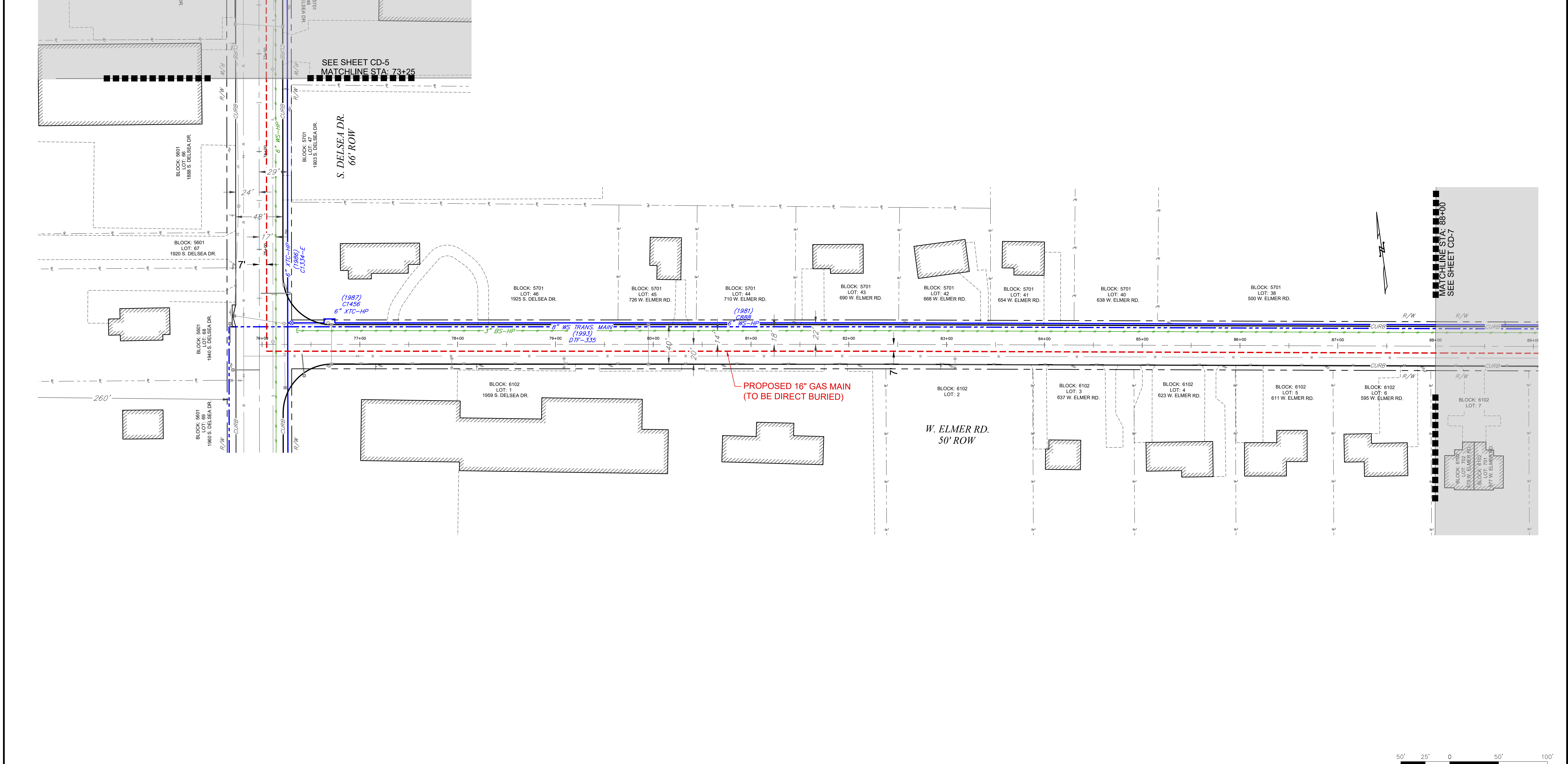
HMI
TECHNICAL SOLUTIONS
A HUBBARD & WOOD Group Company
VALLEY SQUARE THREE, STE. 200
512 TOWNSHIP LINE RD.
BLUE BELL, PA 1
P: 484-344-2161

DRAWN BY	SC	DATE	05/03/19	PLATE MAP
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APPROVED BY	FZ	SHEET	7 OF 33	DWG. NO.

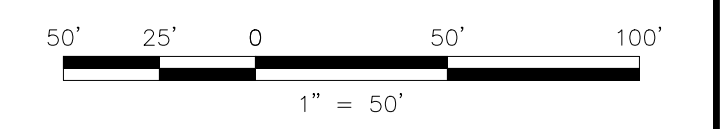
SOUTH JERSEY GAS
1 SOUTH JERSEY PLAZA, FOLSOM, N.J. 08037
TELEPHONE: (609) 561-9000 FAX: (609) 704-1802
PROPOSED 16" STEEL GAS MAIN EXTENSION
CUMBERLAND DIVISION
ALIGNMENT 5
16" 8" VINELAND PROJECT
S. DELSEA DR.
CUMBERLAND COUNTY NJ
CITY OF VINELAND

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5/29/2019
dkrupa

COUNTY	CUMBERLAND COUNTY		
MUNICIPALITY	CITY OF VINELAND		
OWNER & PARCEL	S. DELSEA DR. & W. ELMER RD. PUBLIC ROW		
STATION	73+25		88+00
FOOTAGE	1,474'		
MATERIAL	16" O.D. 0.375" WALL, X65 WRAPPED STEEL PIPE		



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PETER WILDERS, PE
NJ LICENSE #24GE04327300

HMI
TECHNICAL SOLUTIONS
A HANOVERS-ROWE Group Company
VALLEY SQUARE THREE, STE. 200
512 TOWNSHIP LINE RD.
BLUE BELL, PA 1
P: 484-344-2161

DRAWN BY	SC	DATE	05/03/19	PLATE MAP
CHECKED BY	DPK	SCALE	1"=50'	MAP
APPROVED BY	FZ	SHEET	8 OF 33	DWG. NO.

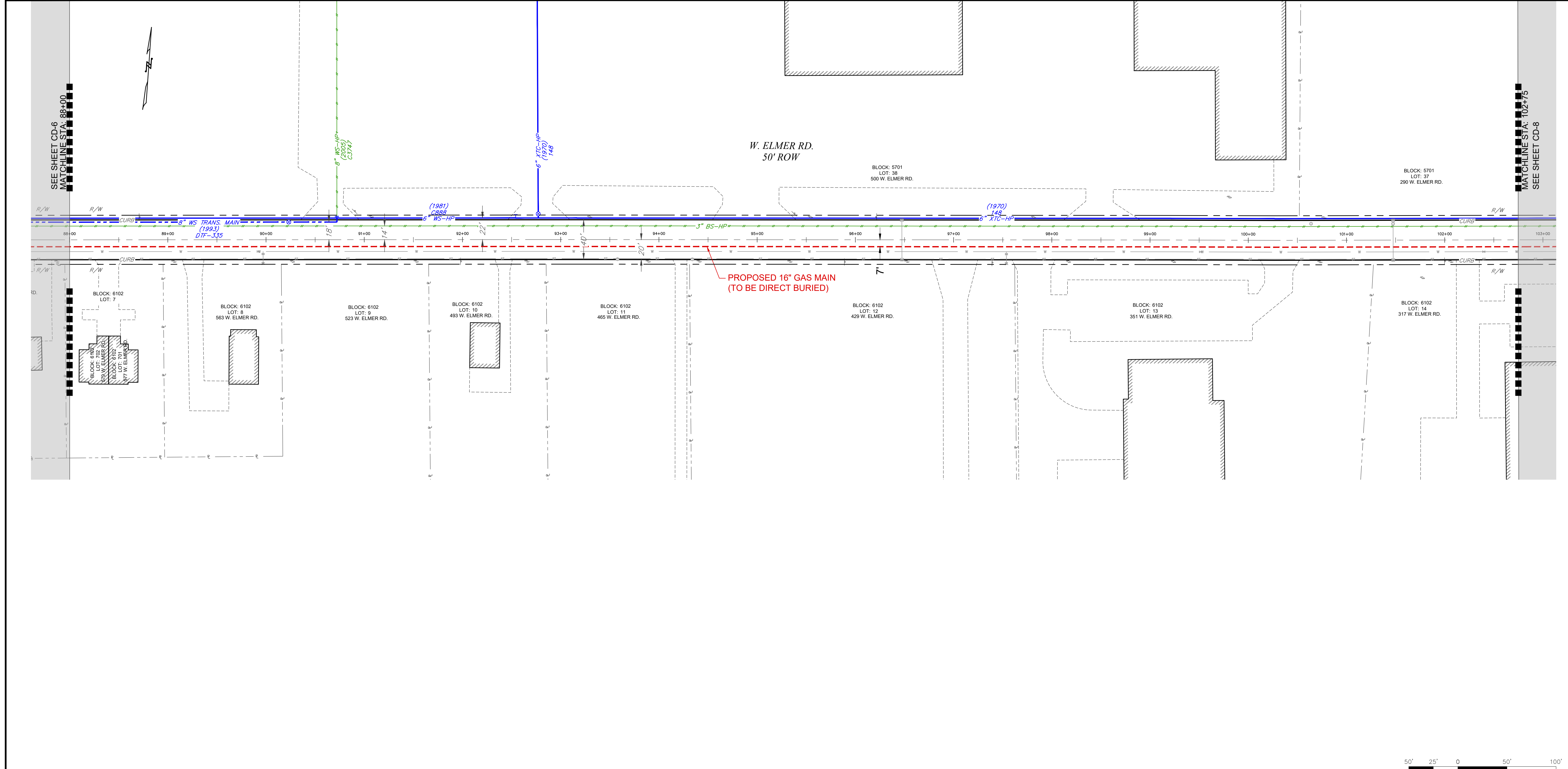
SOUTH JERSEY GAS
1 SOUTH JERSEY PLAZA, FOLSOM, N.J. 08037
TELEPHONE: (609) 561-9000 FAX: (609) 704-1802

PROPOSED 16" STEEL GAS MAIN EXTENSION
CUMBERLAND DIVISION
ALIGNMENT 6
16" 8" VINELAND PROJECT
S. DELSEA DR. & W. ELMER RD.
CUMBERLAND COUNTY NJ

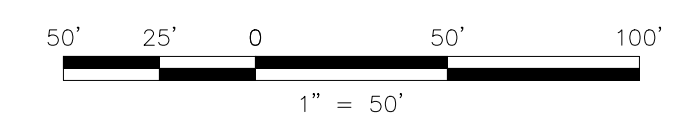
DWG. NO. CD-6

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5/29/2019
dkrupa

COUNTY	CUMBERLAND COUNTY		
MUNICIPALITY	CITY OF VINELAND		
OWNER & PARCEL	W. ELMER RD. PUBLIC ROW		
STATION	88+00		102+75
FOOTAGE	1,475'		
MATERIAL	16" O.D. 0.375" WALL, X65 WRAPPED STEEL PIPE		



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PETER WILDERS, PE
NJ LICENSE #24GE04327300

HMI
TECHNICAL SOLUTIONS

A HUBBARD-BROWN Group Company

VALLEY SQUARE THREE, STE. 200
512 TOWNSHIP LINE RD.
BLUE BELL, PA 1
P: 484-344-2161

DRAWN BY	SC	DATE	05/03/19	PLATE MAP
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APPROVED BY	FZ	SHEET	g OF 33	DWG. NO.

SOUTH JERSEY GAS

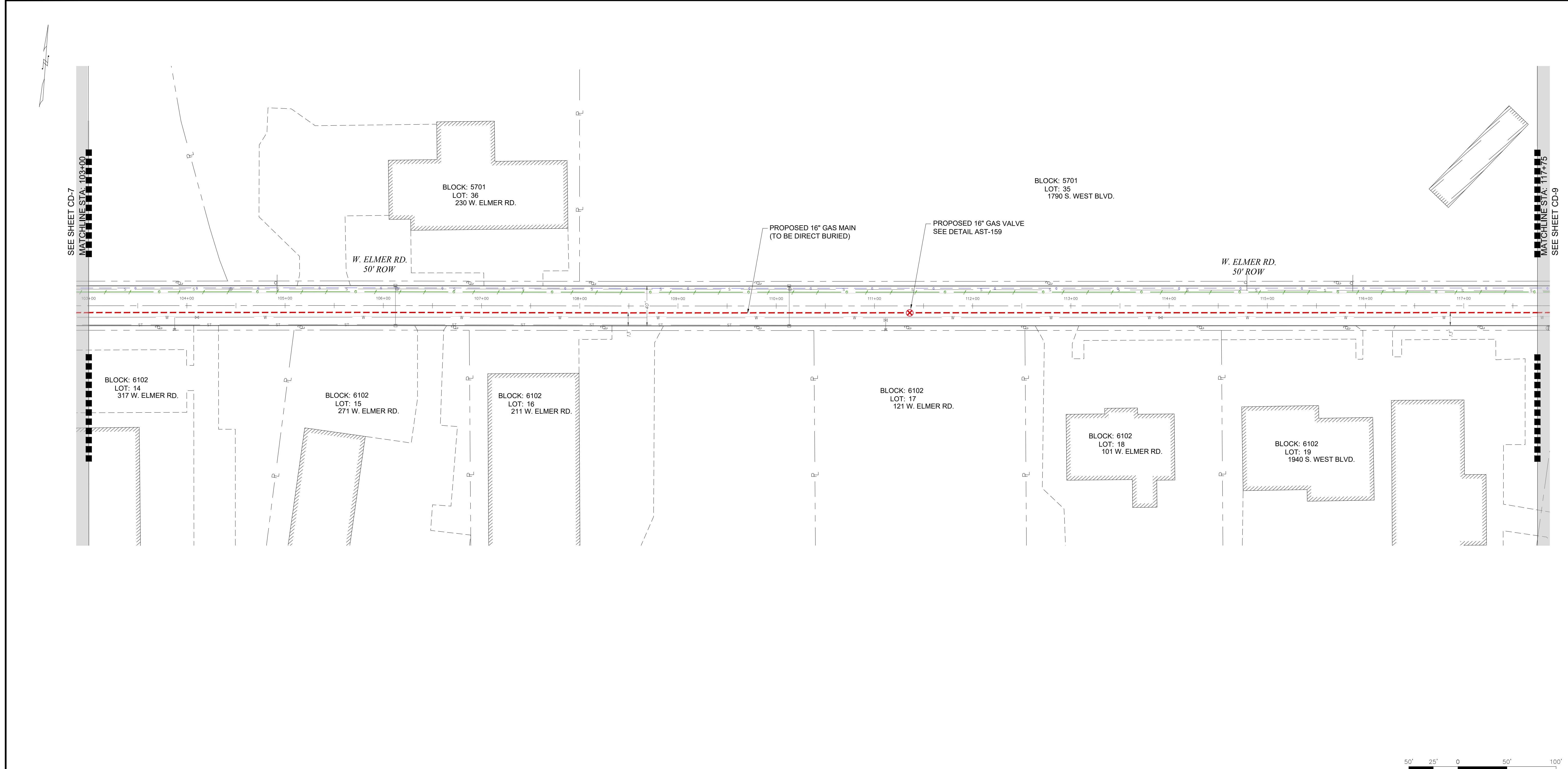
1 SOUTH JERSEY PLAZA, FOLSOM, N.J. 08037
TELEPHONE: (609) 561-9000 FAX: (609) 704-1802

PROPOSED 16" STEEL GAS MAIN EXTENSION
CUMBERLAND DIVISION
ALIGNMENT 7

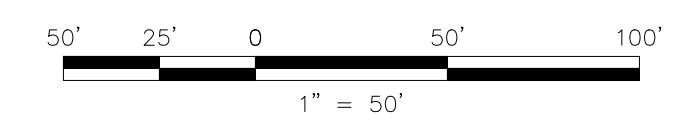
16"8" VINELAND PROJECT
W. ELMER RD.
CUMBERLAND COUNTY NJ

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5/29/2019
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COUNTY	CUMBERLAND COUNTY	
MUNICIPALITY	CITY OF VINELAND	
OWNER & PARCEL	W. ELMER RD. PUBLIC ROW	
STATION	103+00	117+75
FOOTAGE	1,475'	
MATERIAL	16" O.D., X65 WRAPPED STEEL PIPE	



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PETER WILDERS, PE
NJ LICENSE #24GE04327300

HMI
TECHNICAL SOLUTIONS
A HANOVERS BROS. Group Company
VALLEY SQUARE THREE, STE. 200
512 TOWNSHIP LINE RD.
BLUE BELL, PA 1
P: 484-344-2161

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SOUTH JERSEY GAS
1 SOUTH JERSEY PLAZA, FOLSOM, N.J. 08037
TELEPHONE: (609) 561-9000 FAX: (609) 704-1802

PROPOSED 16" STEEL GAS MAIN EXTENSION
CUMBERLAND DIVISION
ALIGNMENT 8

16" / 8" VINELAND PROJECT
W. ELMER RD.
CUMBERLAND COUNTY NJ

DWG. NO. CD-8

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