

COUNTY OF UNION

DEPARTMENT OF ENGINEERING, PUBLIC WORKS & FACILITIES MANAGEMENT Joseph A. Graziano Sr., Director

BOARD OF CHOSEN FREEHOLDERS MEMO TO:

ALL PROSPECTIVE BIDDERS

BETTE JANE KOWALSKI

FROM:

Thomas O. Mineo

Chair

County Engineer

ALEXANDER MIRABELLA

Vice Chairman

DATE:

December 9, 2019

ANGEL G. ESTRADA

RE:

ADDENDUM NUMBER 2

ANGELA R. GARRETSON

BA#47-2019 – 2020 RESURFACING PROJECT

SERGIO GRANADOS

VARIOUS MUNICIPALITIES, COUNTY OF UNION, NEW JERSEY

UNION COUNTY ENGINEERING PROJECT #2018-020

CHRISTOPHER HUDAK

KIMBERLY PALMIERI-MOUDED

This is in response to questions received for the above referenced project:

ANDREA F. STATEN

REBECCA WILLIAMS

Please be advised that the quantities listed on the bid item/unit price proposal sheets do not coincide with the summary of quantity sheets for the individual streets in the plans provided.

EDWARD T. OATMAN County Manager

AMY C. WAGNER Deputy County Manager

ROBERT E. BARRY, ESQ. County Counsel

JAMES E, PELLETTIERE, RMC Clerk of the Board

R.1 The responsive bidder should refer to the Bid Sheets 4-6 and the Estimate of Quantities on Plan Sheet 3.00 provided in Addendum #1 for the total quantities to be included in the overall project. The quantities in the table shown on Plan Sheet 3.00 does not directly coincide with the summation of totals for each individual sheet as additional "If and Where Directed" quantities have been established to account for additional construction activities that may have to take place due to unforeseen conditions. Also, general contract items and "If and Where Directed" items such as Traffic Control, Fuel and Price Adjustments, etc. may not be listed on an individual street basis, but are included in the overall project bid quantities.

THOMAS O. MINEO, P.E. County Engineer, Director, Division of Engineering

Q.2 A plan was not included for Ninth Avenue, Roselle

R.2 Ninth Avenue, from Locust Street to Chestnut Street, Roselle, as identified on the key map, is not included in the project scope and is not in the Contract Documents, therefore there is no plan sheet for this road.

DEPARTMENT OF ENGINEERING, PUBLIC WORKS & FACILITIES MANAGEMENT Joseph A. Graziano Sr., Director

BOARD OF CHOSEN FREEHOLDERS	Q.3	For item 39, "Sealing of Cracks", a quantified total for each street was not included on each respective plan to reflect a bid quantity total of 100,000
BETTE JANE KOWALSKI Chair		linear feet.
ALEXANDER MIRABELLA Vice Chairman	R.3	Take notice that Item 39, Sealing of Cracks in Hot Mix Asphalt Surface Course, shall be an "If and Where Directed" item to be applied to any the
ANGEL G. ESTRADA		roads listed below and depicted on the attached map referencing the County of Union Resurfacing Project in 2015:
ANGELA R. GARRETSON		
Sergio Granados	•	Amsterdam Avenue
CHRISTOPHER HUDAK	•	East Broad Street Front Street
KIMBERLY PALMIERI-MOUDED	•	Galloping Hill Road
Andrea F. Staten	•	Hillside Avenue
REBECCA WILLIAMS	•	LaGrande Avenue / Laurel Place Morris Avenue
EDWARD T. OATMAN County Manager	•	Mountain Avenue Raritan Avenue
AMY C. WAGNER Deputy County Manager	•	Scott Avenue South Avenue
ROBERT E. BARRY, Esq. County Counsel	•	South Broad Street West Third Avenue
James E. Pellettiere, RMC Clerk of the Board		

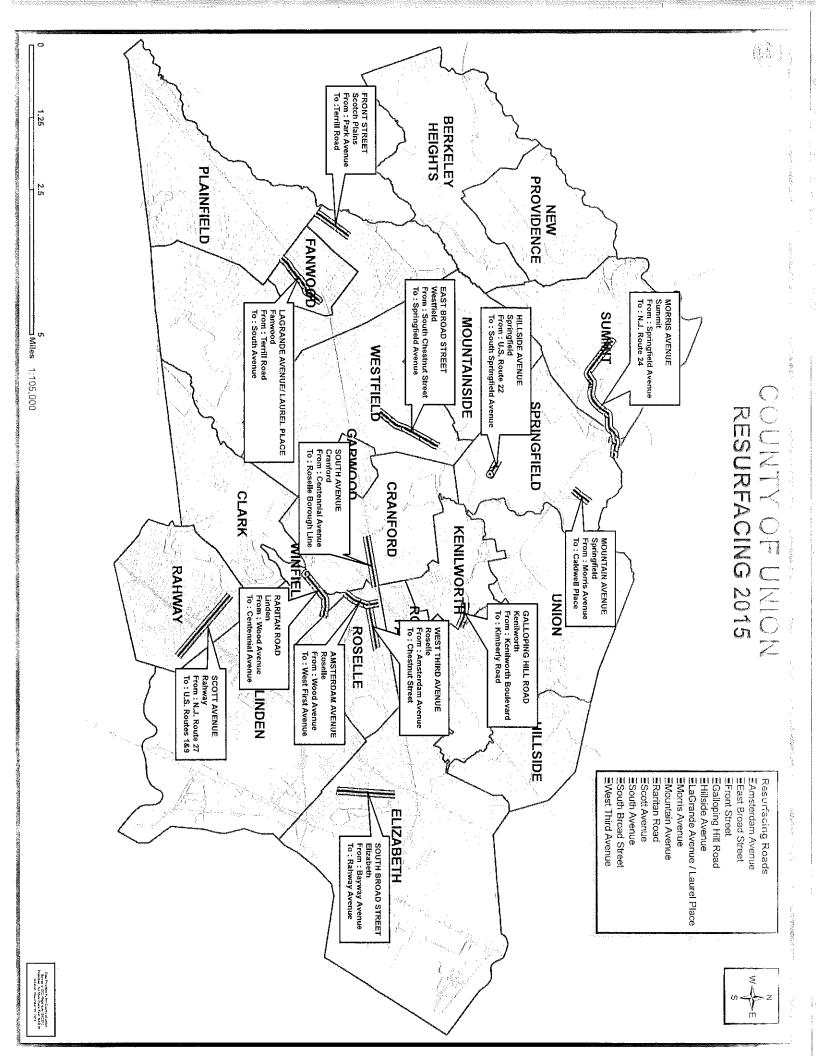
ATTACHMENT: Map referencing the County of Union Resurfacing Project 2015

THOMAS O. MINEO, P.E.
County Engineer,
Director, Division of Engineering

Bidders must acknowledge receipt of this Addendum and submit with original bid submission packet. (Copy of Acknowledgement of Addendum Number 2 dated December 9, 2019 is attached).

ADDENDUM NUMBER 2 DATED: DECEMBER 9, 2019

10



ACKNOWLEDGMENT OF ADDENDUM

COUNTY OF UNION

ADDENDUM NUMBER 2 DATED: December 9, 2019

2020 RESURFACING PROJECT, VARIOUS MUNICIPALITIES COUNTY OF UNION, NEW JERSEY

BA#47-2019

(Name of Construction /Public Works Project)

Local Unit Reference Number

(Project or Bid Number)

Date Received

Pursuant to N.J.S.A. 40A:11-23.1a., the undersigned bidder, hereby acknowledges receipt of the following notices, revisions, or addenda to the bid advertisement, specifications or bid documents. By indicating date of receipt, bidder acknowledges the submitted bid takes into account the provisions of the notice, revision or addendum. Note that the County of Union's record of notice to bidders shall take precedence and that failure to include provisions of changes in a bid proposal may be subject for rejection of the bid.

How Received (mail,

or Title of Addendum/Revision	fax, pick-up, etc.)		
ADDENDUM NUMBER 2:		***************************************	<i>"</i>
Cover Memo: Response to Questions received.			
Attachment: Map referencing the County of Union Resurfacing Project in 2015.			
ACKNOWLEDGMENT BY BIDDER:		-	
NAME OF BIDDER:			
ORIGINAL SIGNATURE:	***		
PRINTED NAME AND TITLE:			
DATE:		· · · · · · · · · · · · · · · · · · ·	



COUNTY OF UNION

DEPARTMENT OF ENGINEERING, PUBLIC WORKS & FACILITIES MANAGEMENT Joseph A. Graziano Sr., Director

BOARD OF CHOSEN FREEHOLDERS MEMO TO:

ALL PROSPECTIVE BIDDERS

BETTE JANE KOWALSKI Chair

FROM:

Thomas O. Mjae

County Engineer

ALEXANDER MIRABELLA Vice Chairman

DATE:

December 3, 2019

December 3, 2019 is attached).

ANGEL G. ESTRADA

RE:

ADDENDUM NUMBER 1

ANGELA R. GARRETSON

BA#47-2019 - 2020 RESURFACING PROJECT

VARIOUS MUNICIPALITIES, COUNTY OF UNION, NEW JERSEY

SERGIO GRANADOS

UNION COUNTY ENGINEERING PROJECT #2018-020

CHRISTOPHER HUDAK

KIMBERLY PALMIERI-MOUDED

Attached is Addendum Number 1 dated December 3, 2019 for the above referenced

project.

Andrea F. Staten REBECCA WILLIAMS

The change is a reduction in quantities for various items throughout the bid sheets.

EDWARD T. OATMAN County Manager

Bidders must acknowledge receipt of this Addendum and submit with original bid submission packet. (Copy of Acknowledgement of Addendum Number 1 dated

AMY C. WAGNER Deputy County Manager

ROBERT E. BARRY, ESQ. County Counsel

JAMES E, PELLETTIERE, RMC Clerk of the Board

THOMAS O. MINEO, P.E. County Engineer, Director, Division of Engineering

> ADDENDUM NUMBER 1 DATED: DECEMBER 3, 2019

ACKNOWLEDGMENT OF ADDENDUM

COUNTY OF UNION

ADDENDUM NUMBER 1 DATED: December 3, 2019

2020 RESURFACING PROJECT, VARIOUS MUNICIPALITIES COUNTY OF UNION, NEW JERSEY

BA#47-2019

(Project or Bid Number)

(Name of Construction / Public Works Project)

Pursuant to N.J.S.A. 40A:11-23.1a., the undersigned bidder, hereby acknowledges receipt of the following notices, revisions, or addenda to the bid advertisement, specifications or bid documents. By indicating date of receipt, bidder acknowledges the submitted bid takes into account the provisions of the notice, revision or addendum. Note that the County of Union's record of notice to bidders shall take precedence and that failure to include provisions of changes in a bid proposal may be subject for rejection of the bid.

Local Unit Reference Number or Title of Addendum/Revision	How Received (mail, fax, pick-up, etc.)	Date Received	
ADDENDUM NUMBER 1:			
Bid Sheets:			
Replace Bid Sheets Page B-1, B-2, and B-3 with			
Revised Bid Sheets Page B-1, B-2, and B-3.			
Plan Sheets:			
Replace Plan Sheet 3.00 dated 11-11-19 with			
Revised Plan Sheet 3.00, Rev. 1 dated 11-26-19			
ACKNOWLEDGMENT BY BIDDER:			
NAME OF BIDDER:	L. Address Control of the Control of		
ORIGINAL SIGNATURE:	*	 .	
PRINTED NAME AND TITLE:			
DATE:			

Bidder's N	ame	

BID FORM

I/We have carefully examined the plans, specifications, and advertisement for bid for the

2020 RESURFACING PROJECT VARIOUS MUNICIPALITIES COUNTY OF UNION, NEW JERSEY BA#47-2019; Union County Engineering Project #2018-020

that is on file in the Union County Division of Engineering. I/We have inspected the site of the work and will contract to do all the work and furnish all materials mentioned in said plans and specifications. Work will be accomplished in the manner prescribed therein.

BASE BID ITEMS:

ITEM NO	DESCRIPTION	UNIT	CONTRACT QUANTITY	UNIT PRICE	AMOUNT
1	PORTABLE VARIABLE MESSAGE SIGN	UNIT	4		
2	TRAFFIC CONTROL TRUCK WITH MOUNTED CRASH CUSHION	UNIT	2		
3	TRAFFIC CONTROL MEASURES	LS	1		
4	FLOODLIGHTS FOR NIGHTTIME OPERATIONS	UNIT	4		
5	TRAFFIC DIRECTOR, FLAGGER	ALLOW	1	\$30,000.00	\$30,000.00
6	TRAFFIC DIRECTOR, UNIFORM POLICE	ALLOW	1	\$500,000.00	\$500,000.00
7	EXCAVATION, UNCLASSIFIED (IF & WHERE DIRECTED)	CY	4,930		
8	MILLING, 2" VARIABLE DEPTH	SY	369,390	[
9	DAYTIME MILLING	DAY	5		
10	DAYTIME PAVING	DAY	5		
11	DENSE-GRADED AGGREGATE BASE COURSE, VARIABLE THICKNESS (IF & WHERE DIRECTED)	CY	4,930		
12	HOT MIX ASPHALT PAVEMENT REPAIR (EXCAVATION, 4" DGA, 6" BASE COURSE) (IF & WHERE DIRECTED)	SY	7,350		
13	HOT MIX ASPHALT SURFACE COURSE 9.5M64, 2" THICK	TON	42,540		·
14	HOT MIX ASPHALT LEVELING COURSE 9.5M64, VARIABLE THICKNESS	TON	4,260		
15	FUEL PRICE ADJUSTMENT	ALLOW	1	\$20,900.00	\$20,900.00
16	ASPHALT PRICE ADJUSTMENT	ALLOW	1	\$41,300.00	\$41,300.00
17	TYPE N-ECO CURB PIECE (6"-8") WITH ADJACENT CURB REPLACEMENT	UNIT	16		
18	BICYCLE SAFE GRATE	UNIT	21		

REVISED B-1
ADDENDUM NUMBER 1
DATED: DECEMBER 3, 2019

Bidder's I	Name	

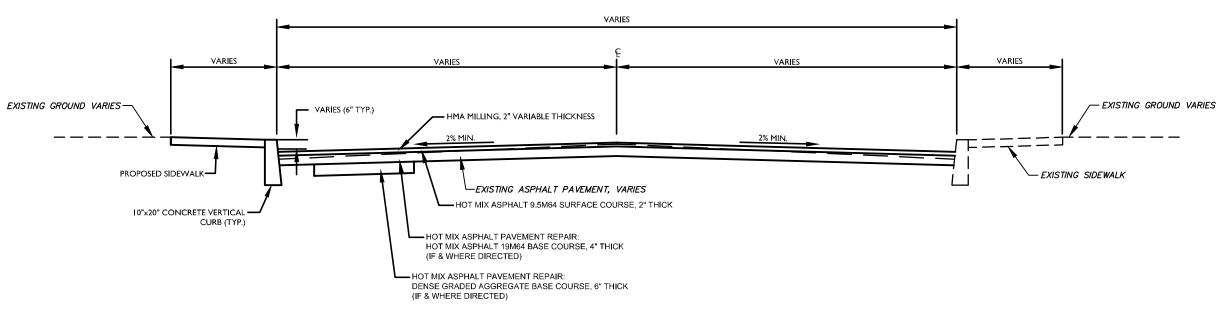
19	ECO HEAD CURB ADAPTOR, FACEPLATE (IF & WHERE DIRECTED)	UNIT	10	
20	RESET MANHOLE CASTING WITH EXISTING FRAME AND COVER	UNIT	454	
21	RESET MANHOLE CASTING WITH NEW FRAME AND COVER	UNIT	50	
22	RESET INLET CASTING	UNIT	313	
23	RECONSTRUCT INLET	UNIT	14	
24	INLET, TYPE B	UNIT	2	
25	10"x20" CONCRETE VERTICAL CURB	LF	2,930	
26	GRANITE BLOCK CURB	LF	640	
27	CONCRETE SIDEWALK, 4" THICK	SY	100	
28	CONCRETE SIDEWALK, REINFORCED, 6" THICK	SY	2,750	
29	DETECTABLE WARNING SURFACE (CAST-IN-PLACE)	SY	150	
30	RESET BRICK PAVER	SY	60	
31	RETAINING WALL	SF	200	
32	TRAFFIC STRIPES, THERMOPLASTIC, 4"	LF	240,760	
33	TRAFFIC MARKINGS LINES, THERMOPLASTIC, RUMBLE STRIP	LF	400	
34	TRAFFIC MARKINGS LINES, THERMOPLASTIC, 8"	LF	12,470	
35	TRAFFIC MARKINGS LINES, THERMOPLASTIC, 12"	LF	17,000	
36	TRAFFIC MARKINGS LINES, THERMOPLASTIC, 24"	LF	4,010	
37	TRAFFIC MARKINGS SYMBOLS, THERMOPLASTIC	SF	19,720	·
38	RAISED PAVEMENT MARKER	UNIT	2,500	
39	SEALING OF CRACKS IN HOT MIX ASPHALT SURFACE COURSE	LF	100,000	
40	STREET NAME SIGN, TYPE DF WITH BREAKAWAY SUPPORT	SF	1,650	
41	ACCESSORY PANEL, TYPE DF	SF	1,650	
42	LOOP DETECTORS (IF & WHERE DIRECTED)	LF	500	
43	IMAGE DETECTION SYSTEM (IF & WHERE DIRECTED)	UNIT	2	
44	TREE REMOVAL, OVER 36" (IF & WHERE DIRECTED)	UNIT	10	

•	
	WINDOWS THE TOTAL
Written	Figures
WITHIAN	I I UT I E S

Bio	dder's Name
BID CONTINGENCY: (To be used if and when dire	cted by the County)
ONE-HUNDRED FIFTY THOUSAND DOLLARS Written	\$150,000.00 Figures
TOTAL BASE BID ITEMS PLUS BID CONTINGENC	Y AMOUNT:
Written	Figures

NOTE: Bid Contingency may include one-half of one percent of contract amount set aside for local training if and when directed by the County.

PAY ITEM			
NO.	DESCRIPTION	UNIT	QUANTITY
1	PORTABLE VARIABLE MESSAGE SIGN	UNIT	4
2	TRAFFIC CONTROL TRUCK WITH MOUNTED CRASH CUSHION	UNIT	2
3	TRAFFIC CONTROL MEASURES	LS	1
4	FLOODLIGHTS FOR NIGHTTIME OPERATIONS	UNIT	4
5	TRAFFIC DIRECTOR, FLAGGER	ALLOW	1
6	TRAFFIC DIRECTOR, UNIFORM POLICE	ALLOW	1
7	EXCAVATION, UNCLASSIFIED (IF & WHERE DIRECTED)	CY	4930
8	MILLING, 2" VARIABLE DEPTH	SY	369390
9	DAYTIME MILLING	DAY	5
10	DAYTIME PAVING	DAY	5
11	DENSE-GRADED AGGREGATE BASE COURSE, VARIABLE THICKNESS (IF & WHERE DIRECTED)	CY	4930
12	HOT MIX ASPHALT PAVEMENT REPAIR (EXCAVATION, 4" DGA, 6" BASE COURSE) (IF & WHERE DIRECTED)	SY	7350
13	HOT MIX ASPHALT SURFACE COURSE 9.5M64, 2" THICK	TON	42540
14	HOT MIX ASPHALT LEVELING COURSE 9.5M64, VARIABLE THICKNESS	TON	4260
15	FUEL PRICE ADJUSTMENT	ALLOW	1
16	ASPHALT PRICE ADJUSTMENT	ALLOW	1
17	TYPE N-ECO CURB PIECE (6"-8") WITH ADJACENT CURB REPLACEMENT	UNIT	16
18	BICYCLE SAFE GRATE	UNIT	21
19	ECO HEAD CURB ADAPTOR, FACEPLATE (IF & WHERE DIRECTED)	UNIT	10
20	RESET MANHOLE CASTING WITH EXISTING FRAME AND COVER	UNIT	454
21	RESET MANHOLE CASTING WITH NEW FRAME AND COVER	UNIT	50
22	RESET INLET CASTING	UNIT	313
23	RECONSTRUCT INLET	UNIT	14
24	INLET, TYPE B	UNIT	2
25	10"x20" CONCRETE VERTICAL CURB	LF	2930
26	GRANITE BLOCK CURB	LF	640
27	CONCRETE SIDEWALK, 4" THICK	SY	100
28	CONCRETE SIDEWALK, REINFORCED, 6" THICK	SY	2750
29	DETECTABLE WARNING SURFACE (CAST-IN-PLACE)	SY	150
30	RESET BRICK PAVER (IF & WHERE DIRECTED)	SY	60
31	RETAINING WALL (IF & WHERE DIRECTED)	SF	200
32	TRAFFIC STRIPES, THERMOPLASTIC, 4"	LF	240760
33	TRAFFIC MARKINGS LINES, THERMOPLASTIC, RUMBLE STRIP	LF	400
34	TRAFFIC MARKINGS LINES, THERMOPLASTIC, 8"	LF	12470
35	TRAFFIC MARKINGS LINES, THERMOPLASTIC, 12"	LF	17000
36	TRAFFIC MARKINGS LINES, THERMOPLASTIC, 24"	LF	4010
37	TRAFFIC MARKINGS SYMBOLS, THERMOPLASTIC	SF	19720
38	RAISED PAVEMENT MARKER	UNIT	2500
39	SEALING OF CRACKS IN HOT MIX ASPHALT SURFACE COURSE	LF	100000
40	STREET NAME SIGN, TYPE DF WITH BREAKAWAY SUPPORT	SF	1650
41	ACCESSORY PANEL, TYPE DF	SF	1650
42	LOOP DETECTORS (IF & WHERE DIRECTED)	LF	500
43	IMAGE DETECTION SYSTEM (IF & WHERE DIRECTED)	UNIT	2
44	TREE REMOVAL, OVER 36" (IF & WHERE DIRECTED)	UNIT	10



TYPICAL CROSS SECTION

NOT TO SCALE





JOSEPH R. VENEZIA

NEW JERSEY PROFESSIONAL
ENGINEER - LICENSE NUMBER: GE45473

CONSTRUCTION PLANS

FOR

2020 ROAD RESURFACING PROJECT UNION COUNTY

PROJECT # 2018-020

UNION COUNTY NEW JERSEY



RED BANK OFFICE
Corporate Headquarters
331 Newman Springs Road
Suite 203
Red Bank, NJ 07701

Phone: 732.383.1950 Fax: 732.383.1984

SCALE: DATE: DRAWN BY: CH AS SHOWN 11/11/19 ES PROJECT NUMBER: DRAWING NAME:

9005024G C-CVER
TITLE:
QUANTITY TABLE &

TYPICAL CROSS SECTION

NUMBER:

00

SPECIFICATIONS

FOR

2020 RESURFACING PROJECT VARIOUS MUNICIPALITIES COUNTY OF UNION, NEW JERSEY

BA#47-2019; UNION COUNTY ENGINEERING PROJECT #2018-020

NOVEMBER 2019

UNION COUNTY OFFICIALS BOARD OF CHOSEN FREEHOLDERS

Bette Jane Kowalski, Chair
Alexander Mirabella, Vice Chairman
Angel G. Estrada, Freeholder
Angela R. Garretson, Freeholder
Sergio Granados, Freeholder
Christopher Hudak, Freeholder
Kimberly Palmieri-Mouded, Freeholder
Andrea F. Staten, Freeholder
Rebecca Williams, Freeholder

CLERK OF THE BOARD

James E. Pellettiere, RMC

COUNTY MANAGER

Edward T. Oatman

DEPARTMENT OF ENGINEERING, PUBLIC WORKS AND FACILITIES MANAGEMENT

Joseph A. Graziano, Sr., CPWM
Director, Department of Engineering, Public Works and
Facilities Management

COUNTY ENGINEER DIVISION OF ENGINEERING

Thomas O. Mineo, P.E. 2325 South Avenue Scotch Plains, New Jersey 07076 Telephone: (908) 789-3675 Fax: (908) 789-3674

Prepared by: Maser Consulting, P.A.

331 Newman Springs Road, Suite 203 Red Bank, New Jersey 07701

T: 732-383-1950 F: 732-383-1984

COUNTY OF UNION NOTICE TO BIDDERS

Sealed bids will be received by the assistant director of the Division of Purchasing, or her designee, at the County of Union, New Jersey on December 19, 2019 at 10:30 a.m., prevailing time, in the 3rd Floor Conference Room, U.C. Administration Building, 10 Elizabethtown Plaza, Elizabeth, New Jersey for:

2020 RESURFACING PROJECT VARIOUS MUNICIPALITIES COUNTY OF UNION, NEW JERSEY BA#47-2019; UNION COUNTY ENGINEERING PROJECT #2018-020

Bid Packages may be obtained at no charge by registering and downloading at http://ucnj.org/bid-specs. Bid Packages may also be obtained in person from the Division of Engineering at 2325 South Avenue, Scotch Plains, New Jersey 07076 between 8:30 a.m. and 4:00 p.m. weekdays upon payment of a non-refundable money order or bank check in the amount of \$275.00 made payable to the County of Union. No Personal / Company checks will be accepted. Requests for mailing of specifications will not be honored. For further information please call 908-789-3675.

The County reserves the right to reject any and all bids and to waive any and all informalities in the bid in accordance with the New Jersey Local Public Contracts Law.

Bids shall be submitted in a sealed envelope and clearly marked with the subject of the bid, name and address of the bidder, phone & fax number, and date of the bid opening. Each bid must be delivered to reach the Division of Purchasing prior to the stated time of the opening of the bids. The County will not be responsible for late delivery by the U.S. Mail or any other carrier. If hand delivered, please note that parking and security access at the County Complex may cause delays and bidders should take them into consideration in order to submit a timely bid. **No** late bids will be accepted.

Bidders are required to comply with the requirements of N.J.S.A. 10:5-31 et seq. and N.J.A.C. 17:27.

MICHELE HAGOPIAN, ASSISTANT DIRECTOR OF PURCHASING



NB-1

Revised: 2019.04.02

2020 RESURFACING PROJECT VARIOUS MUNICIPALITIES COUNTY OF UNION, NEW JERSEY

BA#47-2019; Union County Engineering Project #2018-020

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Section 3: QUALIFICATIONS OF BIDDERS AND REQUIRED SUBMISSIONS

Section 4: INTERPRETATIONS AND ADDENDA

Section 5: OBLIGATION OF BIDDER TO INSPECT SITE AND CONTRACT DOCUMENTS

Section 6: BID AND PERFORMANCE GUARANTEE Section 7: COMMENCEMENT AND COMPLETION

Section 8: BIDDER AFFIDAVIT Section 9: BID SECURITY

Section 10: LABOR AND MATERIALS

Section 11: INSURANCE REQUIREMENTS

Section 12: INDEMNIFICATION REQUIREMENTS

Section 13: ROYALTIES AND PATENTS

Section 14: PLANS AND SPECIFICATIONS

Section 15: GUARANTEE AGAINST DEFECTIVE WORK

Section 16: TRAFFIC AND STREET MAINTENANCE

Section 17: CONTRACTOR'S EMPLOYEES

Section 18: OWNERSHIP DISCLOSURES REQUIRED

Section 19: NON-COLLUSION AFFIDAVIT

Section 20: EQUAL EMPLOYMENT OPPORTUNITY COMPLIANCES
Section 21: COMPLIANCE WITH NEW JERSEY PREVAILING WAGE ACT

Section 22: BRAND NAME OR EQUAL

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Section 24: NUMBER OF WORKING DAYS

Section 25: PROMPT PAYMENT OF CONSTRUCTION CONTRACTS (NJ Prompt Payment Act)

Section 26: STOPPING WORK ON ACCOUNT OF BAD WEATHER

Section 27: ACCESS FOR OTHER CONTRACTORS Section 28: CONDEMNED MATERIALS AND WORK

Section 29: STORAGE

Section 30: FINAL CLEAN UP

Section 31: SUB-LETTING OF WORK

Section 32: SAFETY

Section 33: QUALITY, SAFETY AND PERFORMANCE STANDARDS Section 34: MATTERS NOT MENTIONED IN CONTRACT DOCUMENTS

Section 35: PERMITS

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Section 37: CHANGE ORDERS

Section 38: SUPPLEMENTAL WORK

Section 39: FORM OF CONTRACT

Section 40: PROGRESS PAYMENTS

Section 41: INSPECTION

Section 42: DAMAGES

Section 43: LIQUIDATED DAMAGES

Section 44: AFFIRMATIVE ACTION REQUIREMENTS Section 45: INVESTMENT ACTIVITES WITH IRAN

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(N.J.S.A. 34:11-56.48 et seq)

Section 47: UTILITIES

Section 48: MATERIAL COMPLIANCE AND SHOP DRAWINGS

Section 49: PRECONSTRUCTION

Section 50: DISPUTES UNDER THE CONTRACT

Section 51: CONTRACTOR BUSINESS REGISTRATION CERTIFICATE

(New Mandatory Requirement – Effective 1/18/2010

Section 52: BID PROTEST - LEGAL FEES AND COSTS

Section 53: AMERICAN GOODS AND PRODUCTS WHERE POSSIBLE

Section 54: NEW JERSEY PAY-TO-PLAY REQUIREMENTS

Section 55: STATEMENT OF EQUIPMENT TO BE USED IN CONSTRUCTION

Section 56: NEW JERSEY SALES AND USE TAX REQUIREMENTS

BIDDING DOCUMENTS

Bid Document Submission Checklist

Bidding Documents

Bid Form

Consent of Surety

Bidder Signature Page

Bidder Disclosure Statement

Subcontractor Identification Statement: List of Subcontractors

Subcontractor Identification Certification

Acknowledgement of Addendum

Contractor Business Registration Certificate

Affirmative Action Requirement

Experience Statement

Certificate of Bidder Showing Ability to Perform Contract

Non-Collusion Affidavit

Contractor Registration Advisement

Americans with Disabilities Act

Statement of Bidder's Qualifications

Contractor Performance Record

Affidavit Regarding List of Disbarred, Suspended or Disqualified Bidders

Prior Negative Experience Questionnaire-Certification

Contractor's Certification of Compliance - New Jersey Prevailing Wage Act

Uncompleted Contracts Affidavit

Certificate of Insurance Statement

Collection of Use Tax on Sales to Local Governments Statement

Time of Completion

Disclosure of Investment Activities in Iran

STANDARD SPECIFICATION FORM - SS-1

NEW JERSEY PREVAILING WAGE DETERMINATION DOCUMENTS

PROJECT TECHNICAL SPECIFICATIONS

TOC-2 Revised: 2017.10.26

UNION COUNTY BOARD OF CHOSEN FREEHOLDERS INSTRUCTIONS TO BIDDERS AND FORMS

DEFINITIONS

Wherever reference is made to the County, Title of Project, Bidder, or Vendor/Contractor they shall be as follows:

OWNER/COUNTY:

Union County Board of Chosen Freeholders UC Administration Building, 6th Floor 10 Elizabethtown Plaza Elizabeth, New Jersey 07207

ADDRESS BIDS AND SUBMIT TO:

Union County Division of Purchasing UC Administration Building, 3rd Floor 10 Elizabethtown Plaza Elizabeth, NJ 07207

Attn: Michele Hagopian, Assistant Director, Division of Purchasing

Telephone: 908-527-4130 Facsimile: 908-558-2548

TITLE OF PROJECT: 2020 Resurfacing Project, Various Municipalities

County of Union, New Jersey

BA#47-2019; Union County Engineering Project #2018-020

BIDDER: Bidder shall be a single overall contract bidder

ENGINEER: MASER CONSULTING, P.A.

COUNTY ENGINEER AND/OR CONSTRUCTION MANAGER (as applicable):

COUNTY ENGINEER:

Thomas O. Mineo, P.E. Union County
Division of Engineering 2325 South Avenue
Scotch Plains, NJ 07076

Office: (908) 789-3675 Facsimile: (908) 789-3674 Email: tmineo@ucnj.org

CONSTRUCTION MANAGER: MASER CONSULTING, P.A.

GENERAL SPECIFICATIONS

1. BID FORM

Bids for this Work will be enclosed in a sealed envelope addressed to the Purchasing Division, County of Union, New Jersey, Union County Administration Building, 10 Elizabethtown Plaza, Elizabeth, New Jersey 07207, with the full name of the Project clearly marked on the outside. Refer to the sheet marked "Notice of Bid (Advertisement)" for the correct name of the Project. Bidders must submit their bids on the attached pricing sheet (Bid Form), in a sealed envelope addressed to the County and bearing on the outside: the name of the Bidder, Bidder's business address, and the title of the Project.

The Division of Purchasing will receive the bids for this Work at the Union County Administration Building, 10 Elizabethtown Plaza, Elizabeth, New Jersey on the date and time noted on the sheet marked "**Notice of Bid (Advertisement)**".

The County will not assume responsibility for bids forwarded by mail. It is the individual's responsibility to see that the bids are presented to the Purchasing Division at the time and at the place designated.

Bids will be accepted only on the Bid Form supplied. Bids on forms other than the original supplied herein will be rejected. The "complete" Bid Documents includes the Bid Bond, Bid Form, Bidder's Checklist, Consent of Surety, Ownership Disclosure Certification, Non-Collusion Affidavit, and any other documents noted in these Instructions to Bidders or Contract Document to be submitted with this Bid.

The bidder will state in the bidding sheet the price per unit of measure for each scheduled Item of Work for which he will agree to carry out the Work, and the Total Bid Price for the construction of the Project.

The prices in the Bid Form shall be typed or written in pen and ink. Erasures or alterations must be initialed by the bidder in ink.

The bidding sheet for this Project may include a fixed amount as a Bid Allowance. If applicable, all bidders are required to add this fixed amount to their base bid and to include this additional amount in their Bid Bond. This sum will be included in the Contract as well as the performance, labor and materials bond. Payment by the County will be made to the Contractor from these funds only upon the completion of extra Work pursuant to a written Change Order(s) signed by the County's Engineer or his designee and the Contractor, prior to the commencement of such Work. Work commenced prior to written approval by the County shall be done at Contactor's risk. Such payment will only be in the amount agreed to by the parties, in writing in the Change Order(s). See Section 37, Change Orders, of these general specifications for further details.

Refer to Bid Document Submission Checklist for all required documents.

In the event there is a discrepancy between the unit price given and the extended total, the unit price will govern. Any discrepancies will be mathematically adjusted.

Insert applicable alternates, if any have been specified, applicable to the Bidder's Work. All alternates MUST be bid upon. Any Bidder's failure to do so will be deemed a material, non-waivable defect and shall render the bid nonresponsive. The Bidder shall clearly designate whether the change in price is an addition or subtraction, by using either a "+" sign or the word "addition", or in the alternative, a "-"sign or the word "minus". If there is no other change in price, the Bidder shall insert "NC" or "No Charge".

When two or more low bids are equal in all respects, awards will be made according to the provisions of N.J.S.A. 40A:11-6.1(d).

Where unit prices have already been established by the Contract Documents, the Bidder agrees that such unit prices shall prevail. All unit prices, whether filled in by the Bidder or established by the Contract Documents, shall become part of the Contract. No bid will be considered or award made, unless applicable unit prices, as required, are filled in.

The County reserves the right to reject any or all bids and also reserves the right to waive any informality in the bids received so long as said waiver is not of a response which is considered to be material and non-waivable pursuant to law.

The County of Union has the right to reject any and all bids from any bidder that is in, or contemplates bankruptcy of any chapter of nature. Said bidder shall notify the County, in writing, of any condition or knowledge of the same.

Conditional bids will not be accepted. Bids may be withdrawn prior to the advertised time for the opening of bids or authorized postponement thereof or in accordance with the provisions of N.J.S.A. 40A:11-23.3 discussed below. Bids received after the advertised time shall not be considered. Bidders shall be solely responsible for premature opening or late delivery of bids not properly marked, addressed, or directed.

2. WITHDRAWAL OF BID DUE TO MISTAKE

N.J.S.A. 40A:11-23.3 authorizes a bidder to request withdrawal of a public works bid due to a mistake on the part of the bidder. A mistake is defined by N.J.S.A. 40A:11-2(42) as a clerical error that is an unintentional and substantial computational error or an unintentional omission of a substantial quantity of labor, material, or both, from the final bid computation.

A bidder claiming a mistake under N.J.S.A. 40A:11-23.3 must submit a request for withdrawal, **in writing**, by certified or registered mail to Michele Hagopian, Assistant

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Director, Division of Purchasing, County of Union, New Jersey, Union County Administration Building, 10 Elizabethtown Plaza, Elizabeth, New Jersey 07207. The bidder must request withdrawal of a bid due to a mistake, as defined by the law, within five business days after the receipt and opening of the bids. Since the bid withdrawal request shall be effective as of the postmark of the certified or registered mailing, Michele Hagopian, Assistant Director of the Division of Purchasing or his designee may contact all bidders, after bids are opened, to ascertain if any bidders wish to, or already have exercised a request to withdraw their bid pursuant to N.J.S.A. 40A:11-23.3.

A bidder's request to withdraw the bid **shall** contain evidence, including any pertinent documents, demonstrating that a mistake was made. Such documents and relevant written information shall be reviewed and evaluated by the County's designated staff pursuant to the statutory criteria of N.J.S.A. 40A:11-23.3.

The County will not consider any written request for a bid withdrawal for a mistake, as defined by N.J.S.A. 40A:11-2(42), by a bidder in the preparation of a bid proposal unless the postmark of the certified or registered mailing is within the five business days following the opening of bids.

3. QUALIFICATIONS OF BIDDERS AND REQUIRED SUBMISSIONS

The County may make such investigation as it deems necessary to determine the ability of the Bidders to perform the Work, which includes investigation of any and all subcontractors listed with the bid. The Bidder shall furnish any information and data for this purpose as the County may request.

4. INTERPRETATIONS AND ADDENDA

Any explanation desired by a bidder regarding the meaning or interpretation of the Contract Documents must be requested in writing to the County Engineer or Design Professional as the case may be and with reasonable time allowed for a reply to reach bidders before submission of their bids. Any interpretation or instruction made by the County Engineer will be in the form of an addendum to the Contract Documents or clarification and will be furnished to all prospective bidders. Oral explanations or instructions given before the award of the Contract will not be binding. Bidders are required to bring to the attention of the County Engineer, the discovery of any apparent ambiguity, inconsistency, error, discrepancy, omission in the Contract Documents for interpretation and correction at least ten (10) working days before opening of bids with the exception of Saturdays, Sundays and holidays.

All Addenda issued through the Offices of the County Engineer are amendments to the Contract Documents and shall be considered in preparing bids. Same shall become part of the Contract Documents.

Addenda take precedence over all earlier documents and over each other according to the latest date. Addenda unless themselves interpretive remain subject to interpretation the same as any other document incorporated in the Contract.

Addenda may be issued by the County Engineer up to seven (7) working days prior to the opening of bids. Failure of any bidder to receive an addendum shall not relieve such bidder from the obligation imposed by such addendum. Bidders are to keep themselves currently acquainted with the Contract Documents during the entire bidding period and make inquiry on their own initiative as to issuance of any Addenda. Receipts of all Addenda shall be acknowledged on the "Acknowledgement of Receipt of Changes" included in the bid package and must be submitted with the bid.

5. OBLIGATION OF BIDDER TO INSPECT SITE AND CONTRACT DOCUMENTS

At the time of the opening of bids, each Bidder will be presumed to have inspected the site(s) and to have read, and be thoroughly familiar with the Contract Documents. The failure or neglect of any Bidder to receive or examine any form, instrument, or document shall in no way relieve any Bidder from any obligation in respect to its bid.

The Bidder shall examine the contents of the Project Manual and the set of Drawings and assure itself that all pages of the Specifications, Drawings, and other Contract Documents are included in the documents obtained for bidding purposes. Should the Specifications, Drawings, and other Contract Documents be incomplete, the Bidder shall notify the County Engineer in writing, who will supply the Bidder with any missing pages of Specifications, Drawings, or other Contract Documents. The lack of such written notification by the Bidder will be construed as evidence that the Specifications, Drawings, or other Contract Documents supplied it for bidding purposes are full and complete and as a waiver of any subsequent claim to the contrary.

6. BID AND PERFORMANCE GUARANTEE

Each bidder must furnish a Bid Bond, Certified Check or Bank Cashier's Check in the amount of ten percent (10%) of the Bid. Checks shall be drawn to the order of the County of Union, New Jersey, not to exceed \$20,000.

Each bidder must furnish with the bid a certificate from a Surety Company, i.e. Consent of Surety, stating that in the event of the contract being awarded to said bidder, such Surety Company will provide the Contractor with Bonds guaranteeing the faithful performance of the Work in accordance with the plans and specifications, and the payment for labor, materials, and all other indebtedness which may accrue on the account of this Work. A Performance, Labor and Materials bond will be furnished by the Contractor upon an award of Contract, and will be in the amount of 100% of the contract price.

G-5 Revised: 2017.10.26 A one-year Maintenance Bond will be required upon acceptance of the Project by the County in the amount as stated in Section 15 of the General Specifications. Bonds will be written by a firm authorized to issue the bonds under the laws of the State of New Jersey and be in a form acceptable to the County Counsel.

N.J.S.A. 40A:11-1.1 et seq. allows the prime Contractor to furnish the Performance Security for his Subcontractors. The County of Union requires Performance Security to be furnished by the prime contractor for the entire job in the total amount of the contract.

The County of Union shall award the contract or reject all bids within sixty (60) days; except that the bids of any bidders who consent thereto may, at the request of the County be held for consideration for such longer periods as may be agreed.

The County will return all certified checks or cashier's checks after the proposals have been opened, read, tabulated and checked except those of the three (3) bidders who have bid the lowest total price for carrying out the Project. The County will return the checks of these bidders when a contract is awarded to the successful bidder within ten (10) days after the award of the contract.

If the successful bidder refuses or neglects to sign the said Agreement and furnish the required bonds, the Bid Bond will be held and used by the County to offset any damages for such refusal or neglect.

7. COMMENCEMENT AND COMPLETION

Work will not commence until a Notice to Proceed is received from the County Engineer.

Upon substantial completion of the Project, the Contractor must request a joint inspection with the County Engineer. Upon completion of this inspection, the County Engineer will prepare a list of incomplete or incorrect items (punch list) and have Contractor initial and date same. The Contractor shall rectify all deficiencies noted on the punch list within 30 calendar days of receipt of the list. The County Engineer may approve extensions for extenuating circumstances.

8. BIDDER AFFIDAVIT

All Bidders are required to complete, sign, and submit with their Bid, the attached "Affidavit Regarding List of Debarred, Suspended or Disqualified Bidders". (See form enclosed)

9. BID SECURITY

All Bidders are required to submit a form of Bid Security with their bids. (Bid Bond or Certified Funds)

The Bid Security shall be in the amount of ten percent (10%) of the Bid, but not in excess of Twenty Thousand Dollars (\$20,000.00), and payable to the order of the "County of Union."

10. LABOR AND MATERIALS

The prices will cover all costs of any nature incident to and growing out of the Work, including all labor, material, equipment, transportation, loss by damage or destruction of the Project, settlement of damages, and for replacement of defective work or materials. N.J.S.A. 54:32B-1 et seq. exempts all materials sold to the County of Union from sales or use taxes and should not be included in the prices provided on the Bidding Sheet.

11. INSURANCE REQUIREMENTS

The County of Union requires all contractors to be able to comply with the following insurance requirements. In the event a bid is accepted by the County, the contractor must accept the applicable insurance requirements, as set forth below, as part of any contract awarded to it by the County.

Contractor shall carry and maintain at all times while the contract is in full force and effect, the following insurance coverage with an insurance company or companies acceptable to the County, with limits not less than those shown below. A Certificate of Insurance shall be filed with the County <u>prior</u> to commencement of any Work indicating the following:

- a) Commercial General Liability (CGL): Coverage for all operations including, but not limited to, contractual, products and completed operations, and personal injury with limits no less than \$5,000,000 per occurrence/\$10,000,000 aggregate. The County of Union, its Board of Chosen Freeholders, officers, employees, agents and servants shall be included as an additional insured. Coverage is provided on a primary and non-contributory basis to the County of Union, et al.
- b) Automobile Liability: Coverage for all owned, non-owned and hired vehicles with limits not less than \$5,000,000 per occurrence, combined single limits (CSL) or its equivalent.
- c) Workers Compensation: As required by the State of New Jersey and Employers Liability with limits not less than \$1,000,000 per accident for bodily injury or disease.

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- d) Professional Liability (if design/build): Coverage with limits not less than \$1,000,000 per occurrence or claim, \$2,000,000 aggregate
- e) Contractor's Pollution Legal Liability and/or Asbestos Legal Liability and/or Errors & Omissions (if project involves environmental hazards): Coverage with limits no less than \$1,000,000 per occurrence or claim/\$2,000,000 aggregate.
- f) Builders Risk (for major renovations): During the course of construction utilizing an "All Risk" coverage form with limits equal to the completed value of the project and no coinsurance penalty provisions.

Where applicable, a waiver of subrogation in favor of the County of Union, its Board of Chosen Freeholders, officers, employees, agents, servants and the State of New Jersey is to be included in those policies of insurance where permitted by law.

Notice of Cancellation: Each insurance policy required above shall provide that coverage shall not be canceled, except with notice to the Entity.

Special Risks or Circumstances: The County reserves the right to modify these requirements, including limits, based on the nature of the risk, prior experience, insurer, coverage, or other special circumstances.

12. INDEMNIFICATION REQUIREMENTS

The County of Union requires all bidders to accept the following indemnification requirements in the event the County accepts their bid. The Contract awarded by the County to the successful bidder will contain the following provision:

"To the fullest extent permitted by law the Contractor shall indemnify and hold harmless the owner and the owner's consultants, agents, representatives, and employees from and against any and all claims, damages, losses, costs, and expenses, including, but not limited to attorneys' fees, legal costs and legal expenses arising out of or resulting from the performance of the Contractor's work under this contract, provided that such claim, damage, loss, cost, or expense is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property (other than the work itself) caused or alleged to be caused by the negligent acts, negligent omissions, and/or fault of the Contractor, anyone directly or indirectly employed or retained by the Contractor, or anyone for whose acts the Contractor may be liable regardless of whether caused in part by the negligent act or omission of a party indemnified hereunder provided it is not caused by the sole negligence of a party indemnified hereunder. Contractor shall further indemnify and hold harmless the County and the County's consultants, agents, representative, and employees from and against any and all claims, damages, losses, costs, and expenses, including, but not limited to attorneys' fees, legal costs and legal expenses, arising out of or resulting from performance of the work, provided that such claim, damage, loss,

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cost, or expense is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property (other than the work itself) caused or alleged to be caused by the negligent acts, negligent omissions, and/or fault of the County or the County's consultants, agents, representatives, or employees and arises out of this project and provided such claim, damage, loss, cost, or expense is not caused by the sole negligence of a party indemnified hereunder."

13. ROYALTIES AND PATENTS

The Contractor shall pay all royalties and license fees. He shall defend all suits or claims for infringement of any patent rights and shall hold the County harmless from loss on account thereof.

14. PLANS AND SPECIFICATIONS

In carrying out the Work, the plan(s) and the specifications will be followed by the Contractor. Minor alterations in the plan may be made or permitted by the County Engineer from time to time and, if no additional Work is necessary, there will be no additional charge for carrying out such minor alterations.

The Contractor shall provide the County Engineer a set of reproducible as-built drawings upon completion of the Project. The Contractor shall maintain an updated construction progress plan in the Project field office at all times.

When applicable, The New Jersey Department of Transportation Standard Specifications for Road and Bridge Construction, as amended, and Supplemental Specifications for State Aid Projects, herein after referred to as the "Standard Specifications", are made a part of these specifications and contract for the improvements, and will govern the construction of this Project, the material used and the execution of this Project, except as revised and modified herein. The references to these specifications are given herein for the purpose of aiding in the rapid location of the description of the various items herein specified. The entire Work must be carried on and completed to the satisfaction of the County. The Standard Specifications are amended as follows:

"Any reference to the Commissioner, Department, Department Laboratory, Engineer or Inspector should be redefined to be the County of Union".

15. GUARANTEE AGAINST DEFECTIVE WORK

Prior to final payment being made or before the release of the performance security required by Section 3 above, the Contractor and Surety shall execute and deliver to the County an original Maintenance Bond with an original signature and seal having a penal sum equal to:

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- A) One hundred percent (100%) of the final adjusted Contract amount, if such amount is \$50,000.00 or less;
- B) Fifty percent (50%) of the final adjusted Contract amount, if such amount be greater than \$50,000.00 but less than \$250,000.00; and,
- C) Twenty-five percent (25%) of the final adjusted contract amount, if such amount is \$250,000.00 or more.

The Bond and Surety shall be satisfactory to the Union County Counsel. The Surety shall hold a Certificate of Authorization to do business in the State of New Jersey and shall conform to P.L. 1995 c.384, codified as N.J.S.A. 2A:44-143, 144. The Surety Disclosure Statement and Certification required by N.J.S.A. 2A: 44-143, 144, shall be attached to the Bond. Such Maintenance Bond shall remain in full force and effect for a period of one (1) year from the date of Final Completion. Such Maintenance Bond shall also provide that the Contractor and the Surety guarantee to replace for the said period of one (1) year from the date of Final Completion, all Work performed and/or all materials furnished that were not performed or were not furnished in accordance to the terms and performance requirements of the Contract Documents, and will make good any defects thereof which become apparent before the expiration of one (1) year. If, during that period, any part of the Project, in the judgment of the Engineer, is found defective, the Contractor will repair or replace same within five (5) days of receipt of notice from the County Engineer. If the Contractor refuses or neglects to do such Work in the time specified, the County Engineer may have the Work done by others and the Contractor or his Surety thereof will pay the cost.

The Contractor will furnish the County a Maintenance Bond for a percentage of the final adjusted contract price, as stated above. The one (1) year period will start the day of Final Completion of Project by the County. Final payment is conditional on the receipt of a maintenance bond in a form acceptable to County Counsel.

16. TRAFFIC AND STREET MAINTENANCE

The Work must be started and performed by the Contractor in such a manner as to minimize delays to the traveling public. It must be completed in a timely fashion, with little or no inconvenience to traffic and pedestrians, where such inconvenience may be avoided.

All municipal, county, and state roadways shall remain open to traffic unless otherwise provided for in the technical specifications.

If modified traffic patterns are authorized in order to provide a safe working or traveling environment, the Contractor is responsible for providing all equipment, barrels, cones, signs, and barricades to implement the work zone and detours, unless otherwise specified in the technical specifications. All work zones and detours shall be

G-10 Revised: 2017.10.26 established in accordance with the technical plans and specifications if provided or in strict compliance with the current version of the Manual for Uniform Traffic Control Devices (MUTCD). The Contractor shall obtain approval for these work zones and detour plans from the Municipal Police or applicable police agency and the Union County Bureau of Traffic Maintenance prior to implementation.

All traffic control plans shall provide for safe movement of vehicular, bicycle, and pedestrian traffic. Particular attention shall be given to requirements of the Americans with Disabilities Act.

No portion of any street or alleyway may be used for the storage of any materials or equipment without the approval of the Municipal Police or other applicable police agency. Sidewalks, gutters, drains, fire hydrants and private drives shall be maintained for their intended use unless specifically approved by the County Engineer.

Upon suspension of Work, at the end of the day or for protracted periods, the Contractor shall remove all rubbish and materials from the Work site to the approved storage/staging location. All road cuts, saw cuts, and trenches that may pose hazard to vehicular, pedestrian, or bicycle traffic, to include handicapped users, shall be filled to the surface of the roadway or sidewalk. At no time will steel plates or settled trenches be allowed at the daily suspension of Work, unless specifically approved by the County Engineer.

Use of Traffic Control Officers shall be determined by the County in accordance with the provisions of N.J.S.A. 40A:11-23.1(c). If applicable to the Project, the County shall have provided an allowance for same as set forth in the Bid Form.

With respect to pedestrian traffic, the Contractor shall install signs restricting access of the general public and, as necessary, Union County employees to the area of construction. The Contractor shall provide safe access to required areas and place physical barriers to restricted areas. These barriers may range from caution tape to actual barriers, at the direction of the County Engineer.

17. CONTRACTOR'S EMPLOYEES

The Contractor must employ only suitable and competent labor in the Work, and must remove from the Work any incompetent, unsuitable, or disorderly person upon complaint from the County Engineer.

The parties to any contract resulting from this proposal do hereby agree that the provisions of N.J.S.A. 10:2-1 through 10:2-4 (discrimination in employment on public works contracts): 34:11-56.25 et seq. (payment of prevailing rate of wages determined pursuant to N.J.S.A. 34:11-56.30 by the Commissioner), and the Rules and Regulations

G-11 Revised: 2017.10.26 promulgated pursuant thereto, are hereby made a part of any contract and are binding upon them.

There will be no discrimination against any employee who is employed in the Work to be covered by any contract resulting from this bid because of age, race, creed, color, national origin, ancestry, marital status or sex.

Any person, firm, or corporation violating the provisions of this Section will be deemed and judged a disorderly person.

18. OWNERSHIP DISCLOSURES REQUIRED

Pursuant to P.L. 1977, N.J.S.A. 52:25-24.2, the Bidder shall submit with its Bid, or prior to receipt of bids, a statement setting forth the names and addresses of all stockholders in the corporation or partnership bidding who own ten percent (10%) or greater interest therein. (See forms attached)

19. NON-COLLUSION AFFIDAVIT

The Bidder shall submit with its bid either the attached completed "Non-Collusion Affidavit" or a statement of non-collusion with verbiage similar to same.

20. EQUAL EMPLOYMENT OPPORTUNITY COMPLIANCES

The successful bidder shall be required to complete and submit an Initial Project Workforce Report, New Jersey Department of Treasury Form AA-201, upon notification of award. Failure to submit this completed form may result in the Contract being terminated.

The successful bidder shall also be required to submit a copy of its Monthly Project Workforce Report, New Jersey Department of Treasury Form AA-202, to the New Jersey Department of Treasury's Division of Public Contracts Equal Employment Opportunity Compliance and to the Board.

21. COMPLIANCE WITH NEW JERSEY PREVAILING WAGE ACT

The County of Union, in order to fulfill the requirements of N.J.S.A. 34:11-56.25 et seq, requires that the following additional conditions be strictly followed. The bidders represent that he is not listed or is not on record in the Office of the Commissioner or the Department of Labor and Industry as one who failed to pay prevailing wages in accordance with the provisions of this Act. The bidder agrees to the inclusion of a contract provision upon award which specifically requires said Contractor to fully comply with each and all of the requirements of the aforesaid Act as it relates to prevailing rates

G-12 Revised: 2017.10.26 of wages on public contracts as set forth in the New Jersey Prevailing Wage Act, P.L. 1963, Chapter 150 and P.L. 1974, Chapter 64.

A Copy of the Prevailing Wage Rates is attached for your reference. Applicable rates are those wages and fringe benefit rates in effect on the date the contract is awarded. All predetermined rate increases listed at the time the contract award must also be paid, beginning on the dates specified. Rates may change between the time of issuance of this determination and the award of the public works contract. Therefore, prior to the award of the contract, verification must be made with the Public Contracts section, to insure that the rates contained in this determination are still prevailing.

The Contractor agrees to abide and be bound by each and all of the said statutory provisions with respect to the payment of prevailing rates of wages, and acknowledges that the County reserves the right to terminate the Contractor's (or his subcontractors') right to proceed with the scope of Work, or such portion thereof that relates to the failure to pay prevailing rates of wages. In such event or under the terms of N.J.S.A. 34:11-56.27, the Contractor and his surety will be liable to the County of Union for any excess costs occasioned by such a violation.

The Contractor or subcontractors for this Project will post the Prevailing Wage Rates for each craft and classification involved as determined by the Commissioner of Labor and Industry, including the effective date of any changes thereof, in prominent and easily accessible places at the site of the Work or at such place or places as are used by them to pay workmen their wages.

The County of Union requires a copy of payroll records from the Contractor and subcontractors. Payroll records shall be submitted with each voucher request for payment. Prevailing wage rates may be obtained from the New Jersey Labor, Division of Workplace Standards, Public Contracts Section, (609-292-2259).

In addition to compliance with the New Jersey Prevailing Wage Act, the County requires compliance with procedures established by Resolution No. 2014-0408 adopted by the Union County Board of Chosen Freeholders on May 8, 2014. The resolution is furnished in Section 51 of these General Specifications.

UNION LABOR IS PREFERRED ON ALL COUNTY WORK

The foregoing reference to specific laws will not be deemed to be a limitation of obligation of the Contractor to perform his obligations in full compliance with the provisions and requirements of all federal and state statues and local ordinances applicable to the Work to be done under the contract.

It is agreed and understood that any contracts and/or orders placed as a result of this proposal will be governed and construed and the rights and obligations of the parties hereto will be determined in accordance with the laws of the State of New Jersey.

Upon completion of the Work, the Contractor will furnish a Certification of Compliance with the New Jersey Prevailing Wage Act. The certificate in a form acceptable to County Counsel is a condition of the final payment. (See form attached)

22. BRAND NAME OR EQUAL

When the Specifications, Forms, and other Contract Documents use "brand name or equivalent" or similar language, the listed brand name shall serve as a reference or point of comparison for the functional or operational characteristic desired for the goods or services being requested. Where a bidder attempts to submit an equivalent product for a brand name, it shall be the responsibility of the bidder to fully describe and document the product to be provided with the bid in order to establish the equivalence claim.

- A. If the Bidder proposes to offer substitute goods as an equal to those specified herein, the bidder shall so indicate with the Bid Proposal. For the purposes of this paragraph, a proposed item shall be considered equal to goods specified herein if:
 - 1. The County, in its sole discretion, determines that: (i) the goods conform substantially, even with deviations, to the brand name goods specified herein; (ii) the goods are equal to or greater than the brand name goods specified herein in terms of quality, durability, functionality, appearance, strength and design; (iii) the goods are capable, at least as well as the brand name goods specified herein, or performing with existing equipment; and (iv) the goods do not cost the County more than the brand name goods specified herein costs the County.
- B. To offer substitute goods as an equal to those specified herein, it is necessary that:
 - The Bidder submits sufficient information with its bid to permit the County to determine that the goods are equivalent to the brand name goods specified herein, including, but not necessarily limited to the brand, catalog number and specifications/data sheets;
 - 2. The Bidder fully identifies and describes the variations of the goods from the brand name goods specified herein

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- on a separate sheet that is to be submitted with the bid proposal. Bidder's literature WILL NOT suffice in explaining exceptions to these specifications.
- 3. The Bidder certifies that the goods (i) are similar in substance to the brand name goods specified, and (ii) are suited to the same use as the item specified;
- C. The County shall be allowed a reasonable time within which to evaluate the Bidder's proposal to offer substitute goods as an equal to those specified herein. The County shall be the sole judge of acceptability. No "or-equal" goods shall be ordered, delivered, assembled, set-up or utilized until the County's evaluation is complete. The County's determination as to equivalency shall be deemed final and absolute.

In the event the Bidder does not provide sufficient supporting documentation with the bid, it will be presumed and required that the brand name goods and services as described in the specifications will be provided.

23. LINES AND GRADES

Normally, horizontal and vertical control points will be provided in the technical specifications. All other surveying will be the responsibility of the Contractor unless otherwise noted.

24. NUMBER OF WORKING DAYS

In accordance with N.J.S.A. 40A:11-17, the Work for the within Project shall be completed as specified on the Time of Completion Form. See form attached

There shall be taken a deduction from the contract price, or any wages paid by the County, to any inspector(s) necessarily employed by it on the Work, for any number of days in excess of the number allowed in the specifications.

25. PROMPT PAYMENT OF CONSTRUCTION CONTRACTS (NJ Prompt Payment Act)

Pursuant to N.J.S.A. 2A:30A-1 et seq., payment to the Contractor, other than for Work done pursuant to a contact allowance, where applicable, shall be processed and paid as follows:

1. All contractor bills shall be either approved for payment, or notice provided as to why the bill or any portion of it will not be approved by the representative(s) of the governing body no later than the

G-15 Revised: 2017.10.26 public meeting following 20 calendar days of the billing date as defined in the statute.

2. If the billing is approved, said bill shall be paid in the payment cycle following the meeting.

26. STOPPING WORK ON ACCOUNT OF BAD WEATHER

Work must only be performed in weather suitable for the type of construction planned or underway. Extremes in temperature, humidity, precipitation, evaporation, etc. can detrimentally affect the constructed product. Refer to the Standard and Technical Specifications for specific items.

27. ACCESS FOR OTHER CONTRACTORS

The Contractor for this Work will give proper access to other contractors who may be employed upon the Project and must not hinder or delay unnecessarily any Work that may be progressing under other contracts.

28. CONDEMNED MATERIALS AND WORK

Any materials and or part of the Work that may be condemned by the County Engineer will be removed and replaced by the Contractor or otherwise rectified, as may be directed by the County Engineer. No payment will be made upon the Work until such faulty work has been made good as may be directed. In the event the Contractor refuses or neglects to make good such faulty work, he will be deemed to have abandoned the contract and proceedings may be taken against him as provided herein.

29. STORAGE

In the event that it is necessary for the Contractor to stockpile or store materials or equipment on the job site, the Contractor shall inform the County of such necessity and the County may offer available space, if any, for storage of such materials or equipment. The Contractor shall use said space only for such purpose. Any and all materials which may be stored in such space or which may be brought onto the job site at any time by the Contractor will be at the Contractor's sole risk. The County will not be responsible for loss of or damage to said materials or equipment for any cause whatsoever. The Contractor shall take necessary measures to protect any such storage area and shall be responsible for any and all damages.

30. FINAL CLEAN UP

Upon completion of the Work, the Contractor will remove all equipment, unused materials, rubbish, etc., and will repair, or replace in an a manner acceptable to the

G-16 Revised: 2017.10.26 County Engineer, all areas that may have been damaged in the prosecution of the Work. Same shall be a condition precedent to final payment. Should said Contractor fail to comply with this requirement, the County shall undertake the clean-up with its own forces and charge the cost of same against the Contractor's contract balance.

31. SUB-LETTING OF WORK

Except for the List of Subcontractors, pursuant to N.J.S.A. 40A:11-16 (See form attached), no portion of the Work will be sublet by the Contractor to any other entities, except with the consent of the County Engineer. A complete list of subcontractors must be submitted to the County Engineer at the preconstruction meeting. If the job does not warrant a preconstruction meeting, the Contractor must submit such list prior to the start of Work.

All Subcontractors will be subject to N.J.S.A. 34:11-56 et al.

N.J.S.A. 40A:11-16 requires the bidder to list in the bid sheets the name or names of all subcontractors involved in the following types of Work: plumbing and gas fitting and all kindred work, steam and hot water heating, ventilating apparatus, steam power plants and kindred work, electrical work, ornamental iron work, and structural steel. In addition, the County may require the identification of specific additional subcontractors. If these trades are expected to be part of the contract, such subcontractors should be listed on the "Subcontractor Identification Statement List of Subcontractors" and Bidder shall certify same on the accompanying sheet titled "Subcontractor Identification Certification". (See forms attached) Bidder's failure to submit these two forms shall be considered a material defect and result in rejection of Bidder's bid. Substitutions of any listed subcontractors pursuant to N.J.S.A. 40A:11-16 will not be permitted except with the consent of the County Engineer.

32. SAFETY

The Contractor shall observe all rules and regulations of the Federal, State, and local health officials. Attention is directed to Federal, State, and local laws, rules, and regulations concerning construction safety and health standards. The Contractor shall not require any worker to work in surroundings or under conditions that are unsanitary, hazardous, or dangerous to the worker's health or safety.

The Contractor shall admit to the site, without delay and without the presentation of an inspection warrant, any inspector of OSHA or other legally responsible agency involved in safety and health administration upon presentation of proper credentials.

The Contractor shall make available to the Contractor's employees, subcontractors, the County Engineer, and the public, all information pursuant to OSHA 29 CFR Part 1926.59 of The Hazard Communication Standard 29 CFR 1910.1200, and shall also maintain a file on each job site containing all Material Safety Data Sheets (MSDS) for

G-17 Revised: 2017.10.26 products in use at the Project. These Material Safety Data Sheets shall be made available to the Engineer upon request.

The Contractor shall at all times conduct the Work to provide for the safety and convenience of the general public and protection of persons and property. The safety provisions of applicable laws, OSHA regulations, building and construction codes, and the rules and regulations of the New Jersey Department of Labor and Workforce Development and Commerce shall be observed.

33. QUALITY, SAFETY AND PERFORMANCE STANDARDS

All goods and services must be constructed and provided with the highest quality materials and workmanship. It is the intent of these specifications that only equipment equal to, or exceeding, the standard specified will be acceptable in order to protect the safety of the occupants of the Building.

34. MATTERS NOT MENTIONED IN CONTRACT DOCUMENTS

Any Work, material, or method, not specifically described in these specifications, but shown upon the plans of the Work, will be carried out as shown on said plan.

35. PERMITS

The Contractor will obtain all necessary permits required by law and provide the County with necessary approvals prior to commencement of permitted Work.

36. CONTRACTOR TO PROVIDE PROOF OF PAYMENT

Upon the completion of the Work, the Contractor will furnish a General Release as proof that all claims for labor, materials, etc., have been settled by the Contractor. The General Release, in a form acceptable to County Counsel, is a condition of final payment.

37. CHANGE ORDERS

Change Order Procedures shall comply with N.J.A.C. 5:30-11.1 et seq., "Change Orders and Open End Contracts" and subsequent provisions of the New Jersey Administrative Code.

38. SUPPLEMENTAL WORK

In case any supplemental work is necessary, it will be performed by the Contractor at a price fixed by agreement between the Contractor and the County Engineer and approved by the County as specified in Section 36. The Contractor will do no supplemental work on any character, for which the Contractor will demand pay, except upon the written order of the County.

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39. FORM OF CONTRACT

The Contract will be subject to all statutory provisions on the matter of Public Works, Public Contracts, The Law Against Discrimination, the Laws Governing Affirmative Action and Prevailing Rates of Wages under the laws of New Jersey.

The Agreements shall be executed by both parties not later than twenty-one (21) days from the date of the award by the County (Sundays and holidays excluded); however, such time frame may be extended by agreement of the parties.

40. PROGRESS PAYMENTS

Monthly progress payments will be made based on the value of labor and materials incorporated in the Work and of materials suitably stored at the site. An itemized schedule of values shall be submitted with each Application for Payment.

(Refer to the Owner/Contractor Agreement for Retainage and other conditions pertaining to payment and the application of N.J.S.A. 2A:30A-1 et seq.)

All Applications for Payment shall be accompanied by paid invoices for materials incorporated in the Work and for materials suitably stored at the site, and affidavit(s) by Subcontractors whose Work was included in the next to the last application to the effect such Work and such materials have been paid for.

No payment shall be made without Contractor having provided all submittals set forth in this Section, and the approval of same by the County.

For contracts exceeding \$100,000.00, monthly payments will be made on the Work to the extent of 98% of the value of the Work done which is considered to be retainage.

For contracts less than \$100,000.00, monthly payments will be on the Work to the extent of 90% of the value of the Work done. In lieu of the retainage, the Contractor will, at his option, deposit with the County Counsel negotiable bearer bonds of the State of New Jersey or any political subdivision thereof, equal to the amount otherwise withheld as retainage.

When the Project is completed, the final cost of the Project will be based on actual quantities of authorized Work done under each item scheduled in the bidding sheet and approved Change Orders, if any. The money due to the Contractor as determined by said final certificate after deduction of previous monthly payments on account, will be paid to the Contractor in accordance with the terms of the contract dealing with Prompt Payment, providing, however that before such final payment is

G-19 Revised: 2017.10.26 made, all outstanding claims against the Contractor must be satisfied. Before final payment is released, the Contractor must furnish: a) Maintenance Bond (see Section 6 of these general specifications); b) Certification of Compliance, New Jersey Prevailing Wage Act (see Sections 21 and 51); and c) General Release (see Section 36) in a form satisfactory to County Counsel; d) complete set of as-built plans in the latest AutoCad on compact disc; and e) a complete set of in-progress photos in jpg, jpeg, or bmp digital format on a compact disc.

41. INSPECTION

The Work must be done in accordance with the plans and specifications, and will be inspected by the County Engineer. An inspector may be placed upon the Work at any time by the County Engineer to see that the plans, specifications, and instructions of the County Engineer are carried out. In connection herewith, bidders are referred to N.J.S.A. 40A:11-17.

42. DAMAGES

The Contractor will be held responsible for all damages that may occur to Work, or to persons or property by reason of the nature of the Work or from the elements, or by reason of inadequate protection of the Work, or from any carelessness or negligence on his part or on the part of his employees. The County will withhold payments on the Work until all suits or claims for damages sustained on, or by reason of, this Work will have been settled by the Contractor.

The construction and final completion of this Work will be guaranteed by the Contractor. Any damages that may be done to the Work or any part thereof, by the elements or otherwise, during its construction, will be made good by the Contractor.

43. LIQUIDATED DAMAGES

If the Project is not completed within the time specified herein or within such further time as may have been granted by the County Engineer, then the Contractor hereby agrees to pay to the County as liquidated damages, but not as a penalty, \$1,000.00 per day for each and every calendar day that he is in default on time to complete the Work. The said sum will be deducted from moneys due the Contractor and if the damages exceed this amount, then the Contractor or his Surety Company will pay the excess. These damages may be waived at the option of the County.

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44. AFFIRMATIVE ACTION REQUIREMENTS

EXHIBIT B (Revised 4/10)

MANDATORY EQUAL EMPLOYMENT OPPORTUNITY LANGUAGE N.J.S.A. 10:5-31 et seq. (P.L. 1975, C. 127) N.J.A.C. 17:27

CONSTRUCTION CONTRACTS

During the performance of this contract, the contractor agrees as follows:

The contractor or subcontractor, where applicable, will not discriminate against any employee or applicant for employment because of age, race, creed, color, national origin, ancestry, marital status, affectional or sexual orientation, gender identity or expression, disability, nationality or sex. Except with respect to affectional or sexual orientation and gender identity or expression, the contractor will ensure that equal employment opportunity is afforded to such applicants in recruitment and employment, and that employees are treated during employment, without regard to their age, race, creed, color, national origin, ancestry, marital status, affectional or sexual orientation, gender identity or expression, disability, nationality or sex. Such equal employment opportunity shall include, but not be limited to the following: employment, up-grading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided by the Public Agency Compliance Officer setting forth provisions of this nondiscrimination clause.

The contractor or subcontractor, where applicable will, in all solicitations or advertisements for employees placed by or on behalf of the contractor, state that all qualified applicants will receive consideration for employment without regard to age, race, creed, color, national origin, ancestry, marital status, affectional or sexual orientation, gender identity or expression, disability, nationality or sex.

The contractor or subcontractor will send to each labor union, with which it has a collective bargaining agreement, a notice, to be provided by the agency contracting officer, advising the labor union or workers' representative of the contractor's commitments under this act and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

The contractor or subcontractor, where applicable, agrees to comply with any regulations promulgated by the Treasurer, pursuant to N.J.S.A. 10:5-31 et seq., as amended and supplemented from time to time and the Americans with Disabilities Act.

When hiring or scheduling workers in each construction trade, the contractor or subcontractor agrees to make good faith efforts to employ minority and women workers in each construction trade consistent with the targeted employment goal prescribed by N.J.A.C. I7:27-7.2; provided, however, that the Division may, in its discretion, exempt a contractor or subcontractor from

G-21 Revised: 2017.10.26 compliance with the good faith procedures prescribed by the following provisions, A, B and C, as long as the Division is satisfied that the contractor or subcontractor is employing workers provided by a union which provides evidence, in accordance with standards prescribed by the Division, that its percentage of active "card carrying" members who are minority and women workers is equal to or greater than the targeted employment goal established in accordance with N.J.A.C. I7:27-7.2. The contractor or subcontractor agrees that a good faith effort shall include compliance with the following procedures:

- If the contractor or subcontractor has a referral agreement or arrangement with a union for a construction trade, the contractor or subcontractor shall, within three business days of the contract award, seek assurances from the union that it will cooperate with the contractor or subcontractor as it fulfills its affirmative action obligations under this contract and in accordance with the rules promulgated by the Treasurer pursuant to N.J.S.A. 10:5-31 et. seg., as supplemented and amended from time to time and the Americans with Disabilities Act. If the contractor or subcontractor is unable to obtain said assurances from the construction trade union at least five business days prior to the commencement of construction work, the contractor or subcontractor agrees to afford equal employment opportunities minority and women workers directly, consistent with this chapter. If the contractor's or subcontractor's prior experience with a construction trade union, regardless of whether the union has provided said assurances, indicates a significant possibility that the trade union will not refer sufficient minority and women workers consistent with affording equal employment opportunities as specified in this chapter, the contractor or subcontractor agrees to be prepared to provide such opportunities to minority and women workers directly, consistent with this chapter, by complying with the hiring or scheduling procedures prescribed under (B) below; and the contractor or subcontractor further agrees to take said action immediately if it determines that the union is not referring minority and women workers consistent with the equal employment opportunity goals set forth in this chapter.
- (B) If good faith efforts to meet targeted employment goals have not or cannot be met for each construction trade by adhering to the procedures of (A) above, or if the contractor does not have a referral agreement or arrangement with a union for a construction trade, the contractor or subcontractor agrees to take the following actions:
- (I) To notify the public agency compliance officer, the Division, and minority and women referral organizations listed by the Division pursuant to N.J.A.C. 17:27-5.3, of its workforce needs, and request referral of minority and women workers;
- (2) To notify any minority and women workers who have been listed with it as awaiting available vacancies;
- (3) Prior to commencement of work, to request that the local construction trade union refer minority and women workers to fill job openings, provided the contractor or subcontractor has a referral agreement or arrangement with a union for the construction trade;
- (4) To leave standing requests for additional referral to minority and women workers with the local construction trade union, provided the contractor or subcontractor has a referral agreement or arrangement with a union for the construction trade, the State Training and Employment Service and other approved referral sources in the area;

- (5) If it is necessary to lay off some of the workers in a given trade on the construction site, layoffs shall be conducted in compliance with the equal employment opportunity and non-discrimination standards set forth in this regulation, as well as with applicable Federal and State court decisions;
- (6) To adhere to the following procedure when minority and women workers apply or are referred to the contractor or subcontractor:
- (i) The contactor or subcontractor shall interview the referred minority or women worker.
- (ii) If said individuals have never previously received any document or certification signifying a level of qualification lower than that required in order to perform the work of the construction trade, the contractor or subcontractor shall in good faith determine the qualifications of such individuals. The contractor or subcontractor shall hire or schedule those individuals who satisfy appropriate qualification standards in conformity with the equal employment opportunity and non-discrimination principles set forth in this chapter. However, a contractor or subcontractor shall determine that the individual at least possesses the requisite skills, and experience recognized by a union, apprentice program or a referral agency, provided the referral agency is acceptable to the Division. If necessary, the contractor or subcontractor shall hire or schedule minority and women workers who qualify as trainees pursuant to these rules. All of the requirements, however, are limited by the provisions of (C) below.
- (iii) The name of any interested women or minority individual shall be maintained on a waiting list, and shall be considered for employment as described in (i) above, whenever vacancies occur. At the request of the Division, the contractor or subcontractor shall provide evidence of its good faith efforts to employ women and minorities from the list to fill vacancies.
- (iv) If, for any reason, said contractor or subcontractor determines that a minority individual or a woman is not qualified or if the individual qualifies as an advanced trainee or apprentice, the contractor or subcontractor shall inform the individual in writing of the reasons for the determination, maintain a copy of the determination in its files, and send a copy to the public agency compliance officer and to the Division.
- (7) To keep a complete and accurate record of all requests made for the referral of workers in any trade covered by the contract, on forms made available by the Division and submitted promptly to the Division upon request.
- (C) The contractor or subcontractor agrees that nothing contained in (B) above shall preclude the contractor or subcontractor from complying with the union hiring hall or apprenticeship policies in any applicable collective bargaining agreement or union hiring hall arrangement, and, where required by custom or agreement, it shall send journeymen and trainees to the union for referral, or to the apprenticeship program for admission, pursuant to such agreement or arrangement. However, where the practices of a union or apprenticeship program will result in the exclusion of minorities and women or the failure to refer minorities and women consistent with the targeted county employment goal, the contractor or subcontractor shall consider for employment persons referred pursuant to (B) above without regard to such agreement or arrangement; provided further, however, that the contractor or subcontractor shall

G-23 Revised: 2017.10.26 not be required to employ women and minority advanced trainees and trainees in numbers which result in the employment of advanced trainees and trainees as a percentage of the total workforce for the construction trade, which percentage significantly exceeds the apprentice to journey worker ratio specified in the applicable collective bargaining agreement, or in the absence of a collective bargaining agreement, exceeds the ratio established by practice in the area for said construction trade. Also, the contractor or subcontractor agrees that, in implementing the procedures of (B) above, it shall, where applicable, employ minority and women workers residing within the geographical jurisdiction of the union.

After notification of award, but prior to signing a construction contract, the contractor shall submit to the public agency compliance officer and the Division an initial project workforce report (Form AA 201) electronically provided to the public agency by the Division, through its website, for distribution to and completion by the contractor, in accordance with N.J.A.C. 17:27-7. The contractor also agrees to submit a copy of the Monthly Project Workforce Report once a month thereafter for the duration of this contract to the Division and to the public agency compliance officer.

The contractor agrees to cooperate with the public agency in the payment of budgeted funds, as is necessary, for on-the-job and/or off-the-job programs for outreach and training of minorities and women.

(D) The contractor and its subcontractors shall furnish such reports or other documents to the Division of Public Contracts Equal Employment Opportunity Compliance as may be requested by the Division from time to time in order to carry out the purposes of these regulations, and public agencies shall furnish such information as may be requested by the Division of Public Contracts Equal Employment Opportunity Compliance for conducting a compliance investigation pursuant to <u>Subchapter IO of the Administrative Code (NJAC 17:27)</u>.

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45. INVESTMENT ACTIVITIES IN IRAN

Pursuant to P.L. 2012, c.25, codified as N.J.S.A. 2:32-55 et seq., prohibits State and local public contracts with persons or entities engaging in certain investment activities in energy or finance sectors of Iran.

46. COMPLIANCE WITH THE PUBLIC WORKS CONTRACTOR REGISTRATION ACT - (N.J.S.A. 34:11-56.48 et. seq.)

Pursuant to the above-referenced law, Bidders are required to be registered with the New Jersey Department of Labor and Workforce Development and to possess a current certificate by said Department indicating compliance with the Act prior to the time and date that bids are received. Bidders are notified of this requirement of their compliance. Such certificates or applications shall also be provided for each Subcontractor furnishing plumbing and gas fitting, steam and hot water heating and ventilating apparatus, and all kindred work, steam power plants and kindred work, electrical work, structural steel and ornamental iron work, and such other subcontractors as the specifications require relative to prior identification.

47. UTILITIES

Attention of the bidder is directed to the fact that the approximate locations of known utility structures and facilities that may be encountered within and adjacent to the limits of the Work are shown on the plans and described herein. The accuracy and completeness of this information is not guaranteed by the County Engineer and the bidder is advised to ascertain for himself all the facts concerning the location of these and other utilities.

The Contractor will not proceed with his Work until he has made diligent inquiries of all public utility and municipal officials to determine the exact location of all-underground structures and pipes within the site of the Project. The Contractor will notify utility owners not less than ten (10) days in advance of the time he proposes to perform any Work that will endanger or affect their facilities in compliance with **New Jersey One-Call**. In excavating in any part of the Work, care must be taken not to remove or damage any gas, water, sewer, or other pipe, conduit, or structure, - public or private - without the concurrence of the owner and the County Engineer. The Contractor will, at his own expense, shore up, secure and maintain a continuous flow in such structures, and will keep them in repair until final acceptance of the Work.

When pipes or other structures are encountered or when the removal, relocation or protection of these utilities are necessary in carrying out the Project as planned, the Contractor will cooperate with the owner of said utilities and will permit the owners or their agents access to the site of the Work in order to relocate or protect their facilities

G-25 Revised: 2017.10.26 and not hinder or delay unnecessarily the Work of the owners in moving same. No extra allowance of payment will be made to the Contractor for the use of any materials, equipment, etc., or for the performance of any Work in connection with the moving of said structures unless the Contractor is specifically ordered by the County Engineer to furnish such materials, equipment, or services. If directed by the County Engineer to do any Work or furnish any materials or equipment, payment will be allowed the Contractor in accordance with the unit prices bid for such Work, or, if such items are not scheduled in the proposal, such Work shall be allowed "Supplemental Work" as provided in Section 39 of these general specifications. The corporations, companies, agencies or municipalities owning or controlling the utilities, and the name, and telephone numbers are listed in the beginning of the Technical Specifications.

48. MATERIAL COMPLIANCE AND SHOP DRAWINGS

The Contractor will require the manufacturer or supplier to furnish three (3) copies of Certification of Compliance with each delivery of materials, components and manufactured items for the Project. Two (2) copies will be furnished to the County Engineer; one copy will be retained by the Contractor. Certificates of Compliance will contain the following information:

- 1. Project to which material is consigned;
- 2. Name of the Contractor to which the material is supplied;
- 3. Kind of material supplied;
- 4. Quantity of material represented by the Certificate;
- Means of identifying the consignment, such as label marking, seal number, etc.;
- 6. Date and method of shipment;
- 7. That the material is in conformity with the pertinent specifications stated in the certificate; and
- 8. Signature of a person having legal authority to bind the supplier.

The Contractor will submit to the County Engineer for his approval five (5) copies of complete and fully detailed shop or working drawings for those items listed in the beginning of the technical specifications.

Each drawing will identify the name of the job, location and Contractor.

All drawings will be approved in accordance with the standard specifications. Refer to the Technical Specifications for specific items.

All materials or articles used in the Work will be of American manufacture, insofar as same are available, in conformance with N.J.S.A. 40A:11-18.

49. PRECONSTRUCTION

In order to provide full coordination of this Project among the parties concerned, the County Engineer will arrange for a preconstruction meeting between the Contractor, County Engineer and other interested parties as soon as possible after the contract is executed. At this meeting the Contractor will present his proposed schedule of Work which shall be subject to review and approval of the County through its designated representatives.

50. DISPUTES UNDER THE CONTRACT

A dispute arising under the Contract shall be submitted in writing to the County Engineer with all facts and supporting data. The County Engineer will review the dispute and issue his decision or request additional facts or documentation after which he will render his decision.

In the event the dispute is not then resolved, the matter shall, pursuant to law, be submitted to mediation before being submitted to a court of competent jurisdiction venued in Union County.

The County Engineer will notify the County Counsel when a matter is to be submitted to mediation. The County Counsel will communicate with the parties and inform them of the procedures to be followed in making such a submission.

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51. CONTRACTOR BUSINESS REGISTRATION CERTIFICATE New Mandatory Requirement -Effective 1/18/2010

The recently enacted **P.L. 2009, c.315**, requires that effective January 18, 2010; a contracting agency must receive proof of the bidder's business registration prior to the award of a contract. However, the proof must show that the bidder was in fact registered with the State of New Jersey Department of the Treasury, Division of Revenue and obtained the business registration prior to the receipt of bids.

If subcontractors are named on the bid, proof of the business registration for each subcontractor must be provided prior to the award of bid. Similarly to the bidder, the proof must show that each subcontractor was registered with the State of New Jersey Department of the Treasury, Division of Revenue and obtained the business registration prior to the receipt of bids.

	ousiness registration shall be A copy of a Business Registration Certificate issued by the Department of reasury, Division of Revenue; or A copy of the web version provided by the NJ Division of Revenue, or
_	nline at http://www.state.nj.us/treasury/revenue/busregcert.htm . Click the "online" en select "Register for Tax and Employer Purposes or call the Division at 609-292.

Note: A NJ Certificate of Authority is <u>not</u> acceptable.

FAILURE to submit proof of registration of the bidder or any subcontractor named on the bid prior to the award of contract shall be cause to reject the bid.

FAILURE of the bidder or any subcontractor named on the bid to be <u>registered</u> prior to the receipt of bids is cause for a **MANDATORY REJECTION** of bids. (A NON-WAIVABLE DEFECT). This covers construction Work as well as non-construction bids.

IN ADDITION:

N.J.S.A. 52:32-44 imposes the following requirements on Contractors and all subcontractors that knowingly provide goods or perform services for a Contractor fulfilling this contract:

- 1) the Contractor shall provide written notice to its subcontractors and suppliers to submit proof of business registration to the Contractor;
- subcontractors through all tiers of a project must provide written notice to their subcontractors and suppliers to submit proof of business registration and subcontractors shall collect such proofs of business registration and maintain them on file;

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- prior to receipt of final payment from a contracting agency, the Contractor must submit to the contacting agency an accurate list of all subcontractors and suppliers or attest that none was used; and,
- 4) during the term of this contract, the Contractor and its affiliates shall collect and remit, and shall notify all subcontractors and their affiliates that they must collect and remit, to the Director, New Jersey Division of Taxation, the use tax due pursuant to the Sales and Use Tax Act, (*N.J.S.A.* 54:32B-1 *et seq.*) on all sales of tangible personal property delivered into this State.

A Contractor, subcontractor or supplier who fails to provide proof of business registration or provides false business registration information shall be liable to a penalty of \$25 for each day of violation, not to exceed \$50,000 for each business registration copy not properly provided or maintained under a contract with a contracting agency. Information on the law and its requirements are available by calling (609) 292-9292.

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52. BID PROTEST – LEGAL FEES AND COSTS

In the event a Bidder unsuccessfully challenges a Bid Submission by filing an action in a court of law concerning same, said Bidder shall be responsible for payment of reasonable legal costs and fees incurred by the County relating to said protest.

53. AMERICAN GOODS AND PRODUCTS WHERE POSSIBLE

Bidder shall comply with the requirements of N.J.S.A. 40A:11-18 and use only manufactured and farm products of the United States, wherever available, for the Project.

54. NEW JERSEY PAY-TO-PLAY REQUIREMENTS

This Contract is required by law to be publicly advertised for bids. As such, lists of political contributions pursuant to N.J.S.A. 19:44A-1 et seq. are NOT REQUIRED to be provided with the bids.

55. STATEMENT OF EQUIPMENT TO BE USED IN CONSTRUCTION

Pursuant to N.J.S.A. 40A:11-20 entitled Certificate of Bidder Showing Ability to Perform Contract, the County requires a Certification from all bidders submitting a bid showing that the Bidder owns, leases, or controls all necessary equipment required by the Project Plans and Specifications. All bidders shall provide this information at the time of the bid opening using the attached form entitled, "CERTIFICATE OF BIDDER SHOWING ABILITY TO PERFORM CONTRACT".

If the Bidder is not the actual owner of the equipment, it shall state the source from which the equipment will be obtained and shall attach a certificate from the owner or person in control of the equipment demonstrating that the equipment owner has granted the Bidder control of the requisite equipment during such time as may be necessary for completion of the portion of the contract for which the equipment is necessary.

56. NEW JERSEY SALES AND USE TAX REQUIREMENTS,

Contractors are required to comply with the following:

New Jersey Sales and Use Tax Requirements: All contractors with subcontractors, or any of their affiliates, who enter into contracts for the provision of goods or services with or for New Jersey local government entities, are required to collect and remit to the New Jersey Director of Taxation in the Department of the Treasury the use tax due on all of their sales of tangible personal property delivered into the State of New Jersey pursuant to the "Sales and Use Tax Act," (N.J.S.A. 54:32B-1 et seq.),

G-30 Revised: 2017.10.26 regardless of whether the tangible personal property is intended for a contract with the contracting agency. This tax shall be remitted for the term of the Contract.

For purposes herein "affiliate" shall mean any entity that: (a) directly, indirectly, or constructively controls another entity, (b) is directly, indirectly, or constructively controlled by another entity, or (c) is subject to the control of a common entity. For purposes of the immediately preceding sentence, an entity controls another entity if it owns, directly or indirectly, more than fifty percent (50%) of the ownership interest in that entity. NJSA 52:32-44(g)(3).

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Bidder's Name	:

EDWARD T. OATMAN COUNTY MANAGER

MICHELE HAGOPIAN, ASSISTANT DIRECTOR DIRECTOR / DIVISION OF PURCHASING

BID DOCUMENT SUBMISSION CHECKLIST

ALL SIGNATURES AND SEALS SHALL BE ORIGINALS UNLESS OTHERWISE SPECIFIED BID SHEETS SHOULD NOT BE SUBMITTED DOUBLE SIDED PAGES, (SINGLE SIDE ONLY)

EACH BIDDER SHOULD COMPLETE THIS FORM AND INITIAL EACH ENTRY. DATE COMPLETED:
PLEASE SUBMIT BID DOCUMENTS ON SINGLE SIDED PAPER ONLY, WITH THE EXCEPTION OF THE SURETY AND BID BOND DOCUMENTS.
N ACCORDANCE WITH THE BID SPECIFICATIONS I HAVE REVIEWED, COMPLETED / EXECUTED AND INCLUDED THE FOLLOWING FORMS:
Bid Form Page (Signed, Dated and Bid on all alternatives applicable to the Work).
Security in the form of: Bid bond in an amount equal to 10% of the total amount of this bid not to exceed \$20,000.00; or Certified check or cashier's check in the amount of 10% of this bid not to exceed \$20,000.00
Consent of Surety form signed by a Surety Company if the total amount of your Bid is over \$36,000.00. If your bid is accepted, the Surety Company that provided the Consent shall be required to furnish a Performance, Labor and Materials Bond in the amount of 100% of the award of the contract. The County of Union has provided its Consent of Surety form for your use. The use of this form by your Surety Company will expedite the bid review process and eliminate the possibility of having your bid rejected. If, however, you should need to use another form, please use language similar to that used of the Union County form and avoid making any additions or deletions to the Union County form language In lieu of the Consent of Surety you may submit a Certified Check in the full amount of the bid.
STATEMENT OF BIDDER OWNERSHIP. Pursuant to N.J.S.A. 52:25-24.2, which includes BOTH of the following documents:
Bidder Signature PageBidder Disclosure Statement (Fill out 2 pages completely)
SUBCONTRACTOR IDENTIFICATION. Pursuant to N.J.S.A. 40A:11-16, which includes BOTH of the following documents:
 Subcontractor Identification Statement: List of Subcontractors (only for certain types of work) Subcontractor Identification Certification
Acknowledgement of Addendum form: (This form is to be used only when an addendum has been added to the specifications).
A copy of the State of New Jersey Department of the Treasury, Division of Revenue, Business Registration Certificate ("BRC") should be included with the bids as it must be received by the Country prior to the award of the contract. The BRC provided <u>must show</u> that the Bidder was registered at the time of receipt of bids or the bid will be rejected.
A copy of the State of New Jersey Department of the Treasury, Division of Revenue, Business Registration Certificate ("BRC") of all named or listed subcontractors (List of Subcontractors) in a Construction bid should be included with the bid as the BRC(s) must be received by the County prior to the award of the contract. Each subcontractor's certificate provided <u>must show</u> that the subcontractor was registered at the time of the receipt of bids or the bid will be rejected.

Reviewed the Contract Documents (including any permits the County or its professionals may have

obtained), Work, Site, Locality, and Local Conditions and Laws and Regulations that in any manner may affect Cost, Progress, Performance or Furnishing of Work.

_____ Reviewed Bond Requirements

_____ Provided Proof of Compliance with New Jersey Prevailing Wage Act

_____ Reviewed Form of Owner/Contractor Agreement and General Conditions to the Contract

NOTE: QUESTIONS PERTAINING TO THIS BID ARE TO BE DIRECTED TO DIVISION OF ENGINEERING AT 908-789-3675

Bidder's Name

BIDDING DOCUMENTS

The Bidding Documents consist of the following items:

- ADDENDA, if issued
- CLARIFICATIONS, if issued
- INSTRUCTION TO BIDDERS
- BID FORM
- SPECIFICATIONS: As outlined in the Table of Contents and included in the Project Manual.
- DRAWINGS: As per List of Drawings, indicated on the Project Title Sheet.

BID FORM

I/We have carefully examined the plans, specifications, and advertisement for bid for the

2020 RESURFACING PROJECT VARIOUS MUNICIPALITIES COUNTY OF UNION, NEW JERSEY BA#47-2019; Union County Engineering Project #2018-020

that is on file in the Union County Division of Engineering. I/We have inspected the site of the work and will contract to do all the work and furnish all materials mentioned in said plans and specifications. Work will be accomplished in the manner prescribed therein.

BASE BID ITEMS:

ITEM NO	DESCRIPTION	UNIT	CONTRACT QUANTITY	UNIT PRICE	AMOUNT
1	PORTABLE VARIABLE MESSAGE SIGN	UNIT	4		
2	TRAFFIC CONTROL TRUCK WITH MOUNTED CRASH CUSHION	UNIT	2		
3	TRAFFIC CONTROL MEASURES	LS	1		
4	FLOODLIGHTS FOR NIGHTTIME OPERATIONS	UNIT	4		
5	TRAFFIC DIRECTOR, FLAGGER	ALLOW	1	\$30,000.00	\$30,000.00
6	TRAFFIC DIRECTOR, UNIFORM POLICE	ALLOW	1	\$500,000.00	\$500,000.00
7	EXCAVATION, UNCLASSIFIED (IF & WHERE DIRECTED)	CY	7,780		
8	MILLING, 2" VARIABLE DEPTH	SY	449,740		
9	DAYTIME MILLING	DAY	5		
10	DAYTIME PAVING	DAY	5		
11	DENSE-GRADED AGGREGATE BASE COURSE, VARIABLE THICKNESS (IF & WHERE DIRECTED)	CY	7,750		
12	HOT MIX ASPHALT PAVEMENT REPAIR (EXCAVATION, 4" DGA, 6" BASE COURSE) (IF & WHERE DIRECTED)	SY	9,320		
13	HOT MIX ASPHALT SURFACE COURSE 9.5M64, 2" THICK	TON	51,790		
14	HOT MIX ASPHALT LEVELING COURSE 9.5M64, VARIABLE THICKNESS	TON	5,190		
15	FUEL PRICE ADJUSTMENT	ALLOW	1	\$25,600.00	\$25,600.00
16	ASPHALT PRICE ADJUSTMENT	ALLOW	1	\$50,400.00	\$50,400.00
17	TYPE N-ECO CURB PIECE (6"-8") WITH ADJACENT CURB REPLACEMENT	UNIT	17		
18	BICYCLE SAFE GRATE	UNIT	24		

Bidder's	Name			

19	ECO HEAD CURB ADAPTOR, FACEPLATE (IF & WHERE	UNIT	10	
20	DIRECTED) RESET MANHOLE CASTING WITH EXISTING FRAME AND COVER	UNIT	562	
21	RESET MANHOLE CASTING WITH NEW FRAME AND COVER	UNIT	50	
22	RESET INLET CASTING	UNIT	382	
23	RECONSTRUCT INLET	UNIT	14	
24	INLET, TYPE B	UNIT	2	
25	10"x20" CONCRETE VERTICAL CURB	LF	3,100	
26	GRANITE BLOCK CURB	LF	680	
27	CONCRETE SIDEWALK, 4" THICK	SY	100	
28	CONCRETE SIDEWALK, REINFORCED, 6" THICK	SY	2,890	
29	DETECTABLE WARNING SURFACE (CAST-IN-PLACE)	SY	160	
30	RESET BRICK PAVER	SY	60	
31	RETAINING WALL	SF	200	
32	TRAFFIC STRIPES, THERMOPLASTIC, 4"	LF	298,210	
33	TRAFFIC MARKINGS LINES, THERMOPLASTIC, RUMBLE STRIP	LF	400	
34	TRAFFIC MARKINGS LINES, THERMOPLASTIC, 8"	LF	14,720	
35	TRAFFIC MARKINGS LINES, THERMOPLASTIC, 12"	LF	20,140	
36	TRAFFIC MARKINGS LINES, THERMOPLASTIC, 24"	LF	5,070	
37	TRAFFIC MARKINGS SYMBOLS, THERMOPLASTIC	SF	24,300	
38	RAISED PAVEMENT MARKER	UNIT	2,500	
39	SEALING OF CRACKS IN HOT MIX ASPHALT SURFACE COURSE	LF	100,000	
40	STREET NAME SIGN, TYPE DF WITH BREAKAWAY SUPPORT	SF	1,650	
41	ACCESSORY PANEL, TYPE DF	SF	1,650	
42	LOOP DETECTORS (IF & WHERE DIRECTED)	LF	500	
43	IMAGE DETECTION SYSTEM (IF & WHERE DIRECTED)	UNIT	2	
44	TREE REMOVAL, OVER 36" (IF & WHERE DIRECTED)	UNIT	10	

Written	Figures

BID CONTINGENCY: (To be used if and when directed by the County)				
ONE-HUNDRED FIFTY THOUSAND DOLLARS Written	\$150,000.00 Figures			
TOTAL BASE BID ITEMS PLUS BID CONTINGENCY AMOUNT:				
Written	Figures			

Bidder's Name___

NOTE: Bid Contingency may include one-half of one percent of contract amount set aside for local training if and when directed by the County.

Revised: 10/19/17

Bidder's Name	:

CONSENT OF SURETY TO ACCOMPANY PROPOSAL (BID)

(r	nereinafter called Surety), organized and existing under the la	iws of the State of
d	uly authorized and qualified to transact business in the State	of New Jersey, in
consideration of the sum of	One Dollar (\$1.00), lawful money of the United States of Am	erica, to it in hand
paid, receipt whereof is he	reby acknowledged, and in consideration, hereby certifies a	and agrees that if
the contract for which the a	ttached proposal is made be awarded to	(hereinafter
called Contractor) for the p	erformance of certain work and labor or the supplying of ce	rtain materials, or
both, as more particularly	set forth in said proposal and described for purposes of thi	s instrument as a
proposal for	to the COUNTY OF UNION and if Contractor s	hall enter into the
contract, Surety will becom	e bound as surety for its faithful performance, labor and mate	erial payment and
will provide the Contractor	with a performance, labor and material payment bond in the	full amount of the
contract price.		
NATE	NAME OF BOUR AND COLUMN	_
NOTE: Expiration date	NAME OF INSURANCE COMPANY	
Needed if Annual	ADDRESS:	
Surety		
	- CONTRACTOR - CON	
	ORIGINAL SIGNATURE ATTORNEY-IN-FACT FOR INSURANCE CO.	

NOTE: PROOF OF AUTHORITY OF OFFICERS OF SURETY COMPANY TO EXECUTE THIS DOCUMENT MUST BE SUBMITTED.

Bidder's Name

BIDDER SIGNATURE PAGE

THE BIDDER MUST READ THE FOLLOWING INSTRUCTIONS TO COMPLETE THIS PAGE:

- 1. If doing business under a <u>trade name, partnership or a sole proprietorship</u>, you must submit the bid under exact title of the trade name, partnership, or proprietorship, and the bid must be signed by either the <u>owner</u>, or a <u>partner</u> and <u>witnessed</u> by a <u>notary public</u>.
- 2. If a <u>Corporation</u>, the bid must be signed by the <u>President</u> or <u>Vice President</u> and <u>witnessed</u> by a <u>Corporate Secretary</u> (corporate title must be exact) and <u>affix corporate seal</u>. If a Corporate Secretary does not exist, President or Vice President's signature shall be witnessed by a Notary Public.
- 3. Other persons <u>authorized</u> by <u>corporate resolution</u> to execute agreements in its behalf may also sign the bid documents (pages). <u>Copy of a resolution must accompany the bid</u>.
- 4. The person who signs this bid form **must also** sign the **Non-Collusion Affidavit**.
- 5. You <u>cannot</u> witness your own signature.

		NAME OF BIDDER
ORIGINAL SIGNATURE CORPORATE SECRETARY		ADDRESS OF BIDDER
PRINT NAME AND TITLE CORPORATE SECRETARY		TEL: FAX: E-Mail:
	BY:	ORIGINAL SIGNATURE
Corporate Seal		
		PRINT OR TYPE NAME AND TITLE

WARNING: IF YOU FAIL TO FULLY, ACCURATELY, AND COMPLETELY SUPPLY THE INFORMATION REQUESTED ON THIS PAGE, YOUR BID MAY BE REJECTED.

STATEMENT OF OWNERSHIP DISCLOSURE

N.J.S.A. 52:25-24.2 (P.L. 1977, c.33, as amended by P.L. 2016, c.43)

This statement shall be completed, certified to, and included with all bid and proposal submissions. Failure to submit the required information is cause for automatic rejection of the bid or proposal.

<u>Name</u>	of Organization:
Organi	ization Address:
Part]	${f I}$ Check the box that represents the type of business organization:
So	le Proprietorship (skip Parts II and III, execute certification in Part IV)
No	on-Profit Corporation (skip Parts II and III, execute certification in Part IV)
Fo	r-Profit Corporation (any type) Limited Liability Company (LLC)
Pa	rtnership
Ot	her (be specific):
Part ?	<u>II</u>
	The list below contains the names and addresses of all stockholders in the corporation who own 10 percent or more of its stock, of any class, or of all individual partners in the partnership who own a 10 percent or greater interest therein, or of all members in the limited liability company who own a 10 percent or greater interest therein, as the case may be. (COMPLETE THE LIST BELOW IN THIS SECTION)
	OR
	No one stockholder in the corporation owns 10 percent or more of its stock, of any class, or no individual partner in the partnership owns a 10 percent or greater interest therein, or no member in the limited liability company owns a 10 percent or greater interest therein, as the case may be. (SKIP TO PART IV)

(Please attach additional sheets if more space is needed):

Bidder's Name

Name of Individual or Business Entity	Home Address (for Individuals) or Business Address

<u>Part III</u> DISCLOSURE OF 10% OR GREATER OWNERSHIP IN THE STOCKHOLDERS, PARTNERS OR LLC MEMBERS LISTED IN PART II

If a bidder has a direct or indirect parent entity which is publicly traded, and any person holds a 10 percent or greater beneficial interest in the publicly traded parent entity as of the last annual federal Security and Exchange Commission (SEC) or foreign equivalent filing, ownership disclosure can be met by providing links to the website(s) containing the last annual filing(s) with the federal Securities and Exchange Commission (or foreign equivalent) that contain the name and address of each person holding a 10% or greater beneficial interest in the publicly traded parent entity, along with the relevant page numbers of the filing(s) that contain the information on each such person. Attach additional sheets if more space is needed.

Website (URL) containing the last annual SEC (or foreign equivalent) filing	Page #'s

Please list the names and addresses of each stockholder, partner or member owning a 10 percent or greater interest in any corresponding corporation, partnership and/or limited liability company (LLC) listed in Part II **other than for any publicly traded parent entities referenced above**. The disclosure shall be continued until names and addresses of every noncorporate stockholder, and individual partner, and member exceeding the 10 percent ownership criteria established pursuant to N.J.S.A. 52:25-24.2 has been listed. **Attach additional sheets if more space is needed.**

Bidder's Name	
---------------	--

Stockholder/Partner/Member and Corresponding Entity Listed in Part II	Home Address (for Individuals) or Business Address

Part IV Certification

I, being duly sworn upon my oath, hereby represent that the foregoing information and any attachments thereto to the best of my knowledge are true and complete. I acknowledge: that I am authorized to execute this certification on behalf of the bidder/proposer; that the *County of Union* is relying on the information contained herein and that I am under a continuing obligation from the date of this certification through the completion of any contracts with *County of Union* to notify the *County of Union* in writing of any changes to the information contained herein; that I am aware that it is a criminal offense to make a false statement or misrepresentation in this certification, and if I do so, I am subject to criminal prosecution under the law and that it will constitute a material breach of my agreement(s) with the, permitting the *County of Union* to declare any contract(s) resulting from this certification void and unenforceable.

Full Name (Print):	Title:	
Signature:	Date:	

Diduct 5 Name	Bidder's Name				
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SUBCONTRACTOR IDENTIFICATION STATEMENT LIST OF SUBCONTRACTORS

This form is ONLY required for plumbing and gas fitting, steam and hot water heating and ventilating apparatus, steam power plants, electrical work, structural steel, ornamental iron work, and any other trades required to be identified by the specifications (including, but not limited, to satisfying any DPMC Classification requirements).

CHECK THIS BOX IF NONE OF THE ABOVE LISTED TRADES OR THOSE REQUIRED TO BE IDENTIFIED IN THE SPECIFICATIONS ARE TO BE USED TO PERFORM THE WORK In compliance with N.J.S.A. 40A:11-16 and the bid specifications, the undersigned hereby lists the name or names of the following subcontractors: Company Name: Address:_____ Subcontract Amount: \$_____ Telephone: Specific Scope of Work Subcontracted: License No. _____ Company Name: Telephone: _____ Subcontract Amount: \$_____ Specific Scope of Work Subcontracted: License No. Company Name: Address: Telephone: Subcontract Amount: \$_____ Specific Scope of Work Subcontracted: License No. _____ IF MORE THAN THREE SUBCONTRACTORS, PLEASE COPY THIS SHEET AS NECESSARY AND ATTACH TO THE BID PACKAGE. (Continued on following page)

Bidder's Name	

SUBCONTRACTOR IDENTIFICATION CERTIFICATION

Note the law does not permit the listing of alternate subcontractors. However, multiple subcontractors for the same trade are permitted to be named provided the bidder meets the following requirements:

- Bidder identifies each subcontractor named for that category;
- Bidder states the scope of work, goods and services (the portion of the work) to be performed by each subcontractor; and
- Bidder provides the price quote provided by each subcontractor.

The bidder is advised that any change of subcontractor(s) from ones listed herein is subject to the County's approval. Change of subcontractor(s) will be approved only if made for good cause and not as a result of an arbitrary purpose.

The undersigned Bidder certifies and declares that the subcontractors listed above shall be used as subcontractors to complete certain portions of the work in this project as set forth in N.J.S.A. 40A: 11-16.

Witness		NAME OF BIDDER
Date		-
		ADDRESS
	Ву:	
		ORIGINAL SIGNATURE ONLY
		PRINT NAME AND TITLE

Bidder's Name		

ACKNOWLEDGMENT OF ADDENDUM

COUNTY OF UNION

(Name of Construction /Public	Works Project) (Project of	or Bid Number)
following notices, revisions, or ad- indicating date of receipt, bidder a notice, revision or addendum. N	1a., the undersigned bidder, here denda to the bid advertisement, specknowledges the submitted bid take ote that the County of Union's recude provisions of changes in a bid provisions of changes in a bid provisions.	pecifications or bid documents. By is into account the provisions of the ord of notice to bidders shall take
Local Unit Reference Number or Title of Addendum/Revision	How Received (mail, fax, pick- up, etc.)	Date Received
	46 , 510.)	
ACKNOWLEDGMENT BY BIDDE	R:	
NAME OF BIDDER:		
ORIGINAL SIGNATURE:		
PRINTED NAME AND TITLE:		
DATE:		

Bidder's	Name

CONTRACTOR BUSINESS REGISTRATION CERTIFICATE

New Mandatory Requirement - Effective 1/18/2010

The recently enacted **P.L. 2009, c.315**, requires that effective January 18, 2010; a contracting agency must receive proof of the bidder's business registration prior to the award of a contract. However, the proof must show that the bidder was in fact registered with the State of New Jersey Department of the Treasury, Division of Revenue and obtained the business registration prior to the receipt of bids.

If subcontractors are named on the bid, proof of the business registration for each subcontractor must be provided prior to the award of bid. Similarly to the bidder, the proof must show that each subcontractor was registered with the State of New Jersey Department of the Treasury, Division of Revenue and obtained the business registration prior to the receipt of bids.

Proof of b	ousiness registration shall be
	A copy of a Business Registration Certificate issued by the Department of the Treasury,
Divis	sion of Revenue; or
	A copy of the web version provided by the NJ Division of Revenue, or
0	online at www.nj.gov/treasury/revenue/taxreg.htm. Click the "online" link and then select

Register online at www.nj.gov/treasury/revenue/taxreg.htm. Click the "online" link and then select "Register for Tax and Employer Purposes or call the Division at 609-292-1730.

Note: A NJ Certificate of Authority is <u>not</u> acceptable.

FAILURE to submit proof of registration of the bidder or any subcontractor named on the bid prior to the award of a contract shall be cause to reject the bids.

FAILURE of the bidder or any subcontractor named on the bid to be <u>registered</u> prior to the receipt of bids is cause for a **MANDATORY REJECTION** of bids. (A NON-WAIVABLE DEFECT). This covers construction work as well as non-construction bids.

IN ADDITION:

The contractor shall provide written notice to all **subcontractors and suppliers** not specifically named on the bid of the responsibility to register and submit proof of business registration to the contractor. The requirement of proof of business registration extends down through all levels (tiers) of the project.

Before final payment on the contract is made by the contracting agency, the contractor shall submit an accurate list and the proof of business registration of each subcontractor or supplier used in the fulfillment of the contract, or shall attest that no subcontractors were used.

For the term of the contract, the contractor and each of its affiliates and a subcontractor and each of its affiliates [N.J.S.A. 52:32-44(g)(3)] shall collect and remit to the Director, New Jersey Division of Taxation, the use tax due pursuant to the Sales and Use Tax Act on all sales of tangible personal property delivered into this State, regardless of whether the tangible personal property is intended for a contract with a contracting agency.

A business organization that fails to provide a copy of a business registration as required pursuant to section 1 of P.L.2001,c.134 (C.52:32-44 et al.) or subsection e. or f. of section 92 of P.L.1977,c.110 (C.5:12-92), or that provides false business registration information under the requirements of either of those sections, shall be liable for a penalty of \$25 for each day of violation, not to exceed \$50,000 for each business registration copy not properly provided under a contract with a contracting agency.

Bidder's N	Name			
Bidder's N	Name			

BUSINESS REGISTRATION

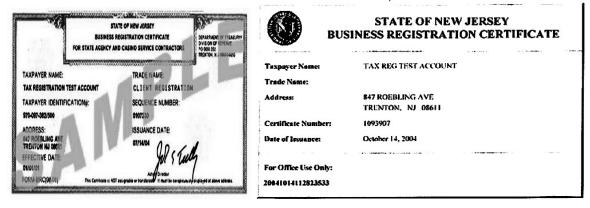
Mandatory Requirement

P.L. 2009, c.315, requires that effective January 18, 2010; a contracting agency must receive proof of the bidder's business registration prior to the award of a contract. However, the proof must show that the bidder was in fact registered with the State of New Jersey Department of the Treasury, Division of Revenue and obtained the business registration prior to the receipt of bids.

If subcontractors are named on the bid, proof of the business registration for each must be provided prior to the award of a contract. Similarly to the bidder, the proof must show that each subcontractor was registered with the State of New Jersey Department of the Treasury, Division of Revenue and obtained the business registration prior to the receipt of bids.

Proof of business registration shall be:

- A copy of a Business Registration Certificate issued by the Department of Treasury, Division of Revenue; or
- A copy of the web printed version provided by the NJ Division of Revenue



ATTACH BRC HERE	

Bidder's Name	

AFFIRMATIVE ACTION REQUIREMENT

REQUIRED AFFIRMATIVE ACTION EVIDENCE

General Requirements of P.L. 1975, c. 127: You are hereby put on notice that:

CONSTRUCTION CONTRACTS: The successful contractor must submit within three (3) days of the notice of intent to award or the signing of the contract the initial project manning report (A.A.201). This report should be submitted at the time the signed contract is returned to the County of Union. Attention: *Affirmative Action Officer*.

If the successful contract <u>does not submit the initial project manning report</u> (A.A.201) within the three (3) days from the time the signed contract is returned to the County of Union, the County of Union <u>WILL</u> declare the contractor <u>non-responsive and award the contract to the next lowest responsible bidder.</u>

NAME OF BIDDER
ORIGINAL SIGNATURE
PRINT OR TYPE NAME AND TITLE
DATE THIS FORM IS COMPLETED

е			
ı	е	е	e

EXPERIENCE STATEMENT

I hereby certify that my company has performed the following private or public work, which is relevant to this bid. I further certify that my company has never defaulted under any contract. Should you not sign this form due to prior defaults, please provide details on an attached sheet.

Witness	-	NAME OF BIDDER
Date	-	
		ADDRESS
	Ву	ORIGINAL SIGNATURE ONLY
		PRINT NAME AND TITLE

YOU MAY ATTACH ADDITIONAL SHEETS, BUT YOU MUST SIGN AND WITNESS THIS SHEET.

Bidder's Name	_
---------------	---

CERTIFICATE OF BIDDER SHOWING ABILITY TO PERFORM CONTRACT

STATE OF NEW JERSEY /		
COUNTY OF	Specify, if Other) SS:
	,	
I,State of		, of the (City, Town, Borough, etc.) of, of full age, being duly sworn according
to law on my oath depose and sa	ay that:	, or rull age, being duly sworn according
I am	of the firm of	,
the Bidder making the proposal f	or the above named Project	t ("Contractor"), and that I executed said
proposal with full authority to do	so; and that said Contractor	, pursuant to N.J.S.A. 40A:11-20, certifies
that it owns, leases or controls al	Il the necessary equipment	required by the Plans, Specifications and
Advertisements under this Bids a	are asked for.	
If the Bidder is not the actual own	ner or lessee of any such ed	quipment, then the Bidder shall attach to this
Certificate information identifying	the source from which the	equipment will be obtained, and such
information shall be accompanie	d by a certificate from the o	wner or person in control of the equipment
definitively granting to the Bidder	the control of the equipmen	nt required during such time as may be
necessary for the completion of t	that portion of the contract.	
(Also type or print name of affian	t under signature)	
Bv:		

Bidder's Name	:

NON-COLLUSION AFFIDAVIT

(N.J.S.A. 52:34-15)

STATE OF	<u>)</u>
COUNTY OF) SS :
above named project, and that I execute has not, directly or indirectly, entered into taken any action in restraint of free, com that all statements contained in said prop knowledge that the COUNTY OF UNION	f, in the County of, of full age, being duly sworn according to law, on my oath, the enamed project, and that I executed the said proposal for the ed the said proposal with full authority to do so; that said bidder o any agreement, participation in any collusion, or otherwise upetitive bidding in connection with the above named project; and posal and in this Affidavit are true and correct, and made with full N, NEW JERSEY relies upon the truth of the statements contained ontained in the affidavit in awarding the contract for the said
contract upon an agreement or understa	g agency has been employed or retained to solicit or secure such anding for a commission, percentage, brokerage or contingent fee, established commercial or selling agencies maintained by 15).
	NAME OF BIDDER
	ORIGINAL SIGNATURE ONLY
	NOTE: The person who signed the bidder signature page for the bidder should sign this form also.
Subscribed and sworn before me thisday of, 20	
Notary Public of the State of My commission expires:	

WARNING: IF YOU FAIL TO FULLY, ACCURATELY, AND COMPLETELY FILL OUT THIS AFFIDAVIT OF NON-COLLUSION, YOUR BID MAY BE REJECTED.

Bidder's	Name

Contractor Registration Advisement

For Public Works Projects

A new law, known as "The Public Works Contractor Registration Act" (P.L. 1999, c.238), became effective April 11, 2000. Under the Act, no contractor/subcontractor will be permitted to bid on or engage in any contract for public work, as defined in Section 2 of P.L. 1963, c.150 (C:34:11-56.26), unless that contractor/subcontractor is registered with the New Jersey Department of Labor and Workforce Development. The Act provides that upon registration with the Department, a public works contractor/subcontractor will be issued a certificate by the Department indicating compliance with the Act's requirements. The registration fee has been set at \$300.00 per year. Upon the effective date of the Act, public bodies will be expected to request production of such a certificate from those bidding on or engaging in public works projects.

It is important to note that the term "contractor," is defined in the, Act as, "a person, partnership, association, joint stock company, trust, corporation or other legal business entity or successor thereof who enters into a contract which is subject to the provision of the "New Jersey Prevailing Wage Act," P.L. 1963, c.150 (C.34:11-56.25, et seq.) for the construction, reconstruction, demolition, alteration, repair or maintenance of a public building regularly open to and used by the general public or a public institution, and includes any subcontractor or lower tier subcontractor as defined herein: except that, for the purposes of the act, no pumping station, treatment plant or other facility associated with utility and environmental construction, reconstruction, demolition, alteration, repair or maintenance shall be regarded as a public building regularly open to and used by the general public or a public institution."

Registration forms, copies of the Act, and other relevant information can be obtained by contacting:

Contractor Registration Unit
New Jersey Department of Labor and Workforce Development
Division of Wage & Hour Compliance
PO Box 389
Trenton, New Jersey 08625-0389
Telephone: 609-292-9464
Fax: 609-633-8591

E-mail: contreg@dol.state.nj.us

Bidder's Name	

AMERICANS WITH DISABILITIES ACT

EQUAL OPPORTUNITY FOR INDIVIDUALS WITH DISABILITIES

The contractor and the County of Union (hereafter "Owner") do hereby agree that the provisions of Title II of the Americans With Disabilities Act of 1990 (the "Act") (42 US.C. S12101 et seq.), which prohibits discrimination on the basis of disability by public entities in all services, programs and activities provided or made available by public entities, and the rules and regulations promulgated pursuant thereunto, are made a part of this contract. In providing any aid, benefit, or service on behalf of the Owner pursuant to this contract, the contractor agrees that the performance shall be in strict compliance with the Act. In the event the contractor, its agents, servants, employees, or subcontractors violate or are alleged to have violated the Act during the performance of this contract, the contractor shall defend the Owner in any action or administrative proceeding commenced pursuant to this Act. The contractor shall indemnify, protect, and save harmless the Owner, its agents, servants, and employees from and against any and all suits, claims, losses, demands, or damages of whatever kind or nature arising out of or claimed to arise out of the alleged violation. The contractor shall, at its own expense, appear, defend, and pay any and all charges for legal services and any and all costs and other expenses arising from such action or administrative proceeding or incurred in connection therewith. In any and all complaints brought pursuant to the Owner's grievance procedure, the contractor agrees to abide by any decision of the Owner which is rendered pursuant to said grievance procedure. If any action or administrative proceeding results in an award of damages against the Owner, or if the Owner incurs any expense to cure a violation of the ADA which has been brought pursuant to its grievance procedure, the contractor shall satisfy and discharge the same at its own expense.

The Owner shall, as soon as practicable after a claim has been made against it, give written notice thereof to the contractor along with full and complete particulars of the claim. If any action or administrative proceeding is brought against the Owner or any of its agents, servants, and employees, the Owner shall expeditiously forward or have forwarded to the contractor every demand, complaint, notice, summons, pleading, or process received by the Owner or its representatives.

It is expressly agreed and understood that any approval by the Owner of the services provided by the contractor pursuant to this contract will not relieve the contractor of the obligation to comply with the Act and to defend, indemnify, protect, and save harmless the Owner pursuant to this paragraph.

It is further agreed and understood that the Owner assumes no obligation to indemnify or save harmless the contractor, its agents, servants, employees and subcontractors for any claim which may arise out of their performance of this Agreement. Furthermore, the contractor expressly understands and agrees that the provisions of this indemnification clause shall in no way limit the contractor's obligations assumed in this Agreement, nor shall they be construed to relieve the contractor from any liability, nor preclude the Owner from taking any other actions available to it under any other provisions of this Agreement or otherwise at law.

Name	(Please print or type)
Signature	Date

Bidder's Name	
---------------	--

STATEMENT OF BIDDER'S QUALIFICATIONS

All questions must be answered and the data given must be clear and comprehensive. <u>This statement must be notarized</u>. Questions may be answered on separate attached sheets. The Bidder may submit any additional information it desires.

('	rermanent Main Office Address)
(V	Vhen Organized)
(If	a Corporation, where incorporated)
Ni pr	umber of years your organization has been engaged in construction or contracting busines esent firm or trade name?
	ow many years of experience in construction work has your organization had (a) as a general particular and a subcontractor?
	ontracts on hand: (Attach a list or table showing gross amounts of each Contract and the opropriate dates of completion)
_	
G	eneral character of work performed by you
Ha	ave you ever failed to complete any work awarded to you?
	ave you ever defaulted on a Contract? If so, complete details, including whe

Bidder's Name	
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STATEMENT OF BIDDER'S QUALIFICATIONS - (continued)

11.	Has any officer or partner of your organization ever failed to complete a construction contract handled in its own name? If so, state name of individual, name of owner, location and type of project, and reason for the failure to complete.
12.	List your major equipment available for this Contract.
13.	Experience in the construction work similar in importance to this Project.
14.	Have you had any material adverse changes from the trades as listed in NJ Notice of Classification within last five (5) years? If so, list prior classification.
15.	Background and experience of the principal members of your organization, including the officers.

Individual's Name	Present Position or Office	Yrs. of Construction Experience	Magnitude & Type of Work	In What Capacity

16.	Bank Reference. (Name, Address, Phone, Representative)				
17.	Will you, upon request, fill out a detailed financial statement?				
18.	The undersigned, hereby authorizes and requests any person, firm or corporation to furnish ar information requested by the proper agency in verification of the responses comprising this Statement of Bidder's Qualifications.				
19.	Bidder's telephone number, fax	x number and e-mail address (if applicable).			
	Phone	<u> </u>			
	Fax	<u> </u>			
	E-mail	<u> </u>			
	Mobile				
Dated	at	this day of _, 20			
BIDDE	ER (Signature)	<u> </u>			
BIDDE	ER (Print Name)	<u> </u>			
Subsc this	ribed and sworn to before me day of	, 20			
` ,	Notary Public of New Jersey/ y Other State				

Bidder's Name_____

NOTE: FAILURE TO COMPLETE AND SUBMIT THIS DOCUMENT WITH YOUR PROPOSAL MAY RESULT IN A REJECTION OF YOUR BID.

My Commission Expires______, 20__.

е			
ı	е	е	e

CONTRACTOR PERFORMANCE RECORD

List all contracts completed by you below or provide separate form.

Name of Owner	Name & Location of Project: Type Of Work	Prime or Sub- Cont.	Engineer or Architect in Charge for Owner	Contract Price (Omit Cost)	Date Completed	Was Time* Extension Necessary	Were Any Penalties Imposed	Were Liens* Claims or Stop Notice Filed

^{*} If answer is YES, provide explanation of details in connection with non-completion of contracts, time extensions, penalties imposed, labor troubles, liens, claims and notices filed against contracts listed in preceding item "Performance Record" on an attached sheet.

NOTE: FAILURE TO COMPLETE AND SUBMIT THIS DOCUMENT WITH YOUR PROPOSAL MAY RESULT IN A REJECTION OF YOUR BID.

Bidder's Name

CONTRACTOR PERFORMANCE RECORD CERTIFICATION

The information above is true and complete to the best of my knowledge and belief.

(Name of Organization)

(Signature)

(Title)

Subscribed and sworn to before me

this ______ day of ______, 20___.

(Seal) Notary Public of New Jersey/
Specify Other State

My Commission Expires______, 20__.

Bidder's	Name

AFFIDAVIT REGARDING LIST OF DEBARRED, SUSPENDED OR DISQUALIFIED BIDDERS

STATE OF NEW JERSEY /)
COUNTY OF	v, if Other) SS:
I, State of to law on my oath depose and say that:	, of the (City, Town, Borough, etc.) of, of full age, being duly sworn according
authority to do so. Said Bidder is not at the tin	of the firm of, named Project. I have executed the said Proposal with full ne of the making this bid included on the New Jersey State of Debarred, Suspended or Disqualified Bidders as a result y.
	Name of Contractor
	By:(Signature of Authorized Representative)
Subscribed and sworn to before me this day of	, 20
(Seal) Notary Public of New Jersey/ Specify Other State	
My Commission Expires	, 20

NOTE: FAILURE TO COMPLETE AND SUBMIT THIS DOCUMENT WITH YOUR PROPOSAL MAY RESULT IN A REJECTION OF YOUR BID.

Bidder's Name	:

PRIOR NEGATIVE EXPERIENCE QUESTIONNAIRE (N.J.S.A. 40A:11-4)

mediation, or other contr failed to provide or perfo	actually stipulat	ed a vice	en found, through either court adjudication, arbitration, alternate dispute resolution mechanism, to have: as; or failed to complete a contract in a timely manner; ar a prior contract with a public entity?
yes	'	10	If yes, please provide full, detailed explanation.
to utilize the services of	another contrac		aulted on a contract, thereby requiring a public entity o provide the goods or perform the services or to
yes	1	10	If yes, please provide full, detailed explanation.
			aulted on a contract, thereby requiring a public entity ontract or tender of the costs of completion?
yes		no	If yes, please provide full, detailed explanation.
the agencies or department	ent of the execu	ıtive	n debarred or suspended from contracting with any o branch of the State of New Jersey at the time of the on failure to perform a contact for goods or services
yes	1	10	If yes, please provide full, detailed explanation.
	within the past ten (10) y to look to your surety for yes Within the past ten (10) y to look to your surety for yes Within the past ten (10) y to look to your surety for yes Within the past ten (10) y the agencies or departm contract award, where the with a public entity?	mediation, or other contractually stipulat failed to provide or perform goods or set or otherwise performed unsatisfactorily to the services of another contract correct or complete the contract?	mediation, or other contractually stipulated a failed to provide or perform goods or service or otherwise performed unsatisfactorily underyes

PRIOR NEGATIVE EXPERIENCE CERTIFICATION

day of, 20	ents are true and accurate as of	this
Name of Contractor		
By(Signature of Authorized Represent	cative)	
Subscribed and sworn to before me		
this day of	, 20	
(Seal) Notary Public of New Jersey/ Specify Other State		
My Commission Evoires	20	

NOTE: FAILURE TO COMPLETE AND SUBMIT THIS DOCUMENT WITH YOUR PROPOSAL MAY RESULT IN A REJECTION OF YOUR BID.

Bidder's Name	:

TO BE COMPLETED ONLY WHEN FINAL PAYMENT IS REQUESTED

CONTRACTOR'S CERTIFICATION OF COMPLIANCE - NEW JERSEY PREVAILING WAGE ACT

TO:	County of Union Division of Engineering	CONTRACT:
	2325 South Avenue	
	Scotch Plains, New Jersey 07076	
PROJ	IECT:	
	cordance with the requirements of the Indersigned contractor on the public work	New Jersey Prevailing Wage Act, N.J.S.A. 34:11-56 et al 's being performed for:
	co	DUNTY OF UNION
		ith the contract requirements regarding the payment of the "The New Jersey Prevailing Wage Act" N.J.S.A. 34:11-5
	CONTRACTOR: ADDRESS:	
	BY:	ORIGINAL SIGNATURE ONLY
_	E OF NEW JERSEY NTY OF	
Being	by me duly sworn according to law, on	his oath deposes
of	ays thatisisthe above named	contractor, and that
the fa	cts set forth in the above statement are	true.
	cribed and sworn before me	
this	day of, 200	
	y Public:	
My Co	ommission Expires:	

* N.J.S.A. 34:11-56.33 requires the contractor and subcontractor to file written statements with the public body in form satisfactory to the Commissioner certifying to the amounts then due and owing from such contractor and subcontractor filing such statement to any and all workmen for wages due on account of the public work, setting forth therein the names of the persons whose wages are unpaid and the amount due to each respectively. Union County will withhold the amount so deducted for the benefit of the workmen whose wages are unpaid as shown by the verified statement filed, and will pay directly to any workman the amount shown by such statement to be due to him for such wages. Such payment shall thereby discharge the obligation of the contractor to the person receiving such payment to the extent of the amount thereof.

Bidder's l	Name		

UNCOMPLETED CONTRACTS AFFIDAVIT (To be Submitted with DPMC Form 701)

PURSUANT TO N.J.A.C. 17:19-2.13, BIDDER DECLARES THE FOLLOWING WITH RESPECT TO ITS UNCOMPLETED CONTRACTS, ON ALL WORK, FROM WHATEVER SOURCE (PUBLIC AND PRIVATE), BOTH IN NEW JERSEY AND FROM OTHER GOVERNMENTAL JURISDICTIONS				
ENTITY	PROJECT TITLE	ORIGINAL CONTRACT AMOUNT	UNCOMPLETED AMOUNT AS OF BID OPENING DATE	NAME AND TELEPHONE NUMBER OF PARTY TO BE CONTACTED FROM ENTITY FOR VERIFICATION
_				

TOTAL AMOUNT OF UNCOMPLETED CONTRACTS \$		
Sworn and Subscribed to Before me	BIDDER:	
This, 20	(Signature)	
Notary Public	(Print Name)	

NOTE: FAILURE TO COMPLETE AND SUBMIT THIS DOCUMENT WITH YOUR PROPOSAL MAY RESULT IN A REJECTION OF YOUR BID.

Bidder's Name

CERTIFICATE OF INSURANCE STATEMENT

The Bidder fully understands the County of Union insurance requirements as stated in the Instructions to Bidders as well as the Owner/Contractor Agreement and agrees to provide all insurance required by these documents <u>prior</u> to the issuance of the Notice to Proceed.

BIDDER (Signature)	_
BIDDER (Print Name)	_

NOTE: FAILURE TO COMPLETE AND SUBMIT THIS DOCUMENT WITH YOUR PROPOSAL MAY RESULT IN A REJECTION OF YOUR BID.

Bidder's Name

COLLECTION OF USE TAX ON SALES TO LOCAL GOVERNMENTS STATEMENT

The Bidder fully understands the requirements of the use tax on sales to local governments as stated in the General Conditions to the Contract for Construction and the Instructions to Bidders, and agrees at all times to comply with the "Contractor Use Tax Collection Legislation", as defined therein, and the terms relating thereto contained in the Contract Documents.

DIDDED (O' ()	
BIDDER (Signature)	
BIDDER (Print Name)	_

NOTE: FAILURE TO COMPLETE AND SUBMIT THIS DOCUMENT WITH YOUR PROPOSAL MAY RESULT IN A REJECTION OF YOUR BID.

Bidder's Name_		
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TIME OF COMPLETION

Bidder's Name	

COUNTY OF UNION NEW JERSEY Division of Purchasing DISCLOSURE OF INVESTMENT ACTIVITIES IN IRAN FORM

Solicitation Nu	Solicitation Number: Vendor/Bidder:						
		PART 1					
		CERTIFICATION UST COMPLETE PART 1 BY CHECKING ONE OF THE BOXES OF THE BOXES WILL RENDER THE PROPOSAL NON-RESPONSIVE					
must complete that affiliates, is identificated activities in Irac Vendors/Bidders Vendor's/Bidders of the law, s/he	the certification below to attest, un ntified on the State of New Jerse an. The Chapter 25 list is fou as must review this list prior to per's proposal non-responsive. If a shall take action as may be appro-	or entity that submits a bid or proposal or otherwise proposes to enter into or renew a contract deep penalty of perjury, that neither the person nor entity, nor any of its parents, subsidiaries, or y, Department of the Treasury's Chapter 25 list as a person or entity engaged in investment and on the Department's website at http://www.state.nj.us/treasury/pdf/Chapter25List.pdf completing the below certification. Failure to complete the certification will render a the Director of the Division of Purchase and Property finds a person or entity to be in violation operate and provided by law, rule or contract, including but not limited to, imposing sanctions g the party in default and seeking debarment or suspension of the party.					
		CHECK THE APPROPRIATE BOX					
☐ A. OR	parents, subsidiaries, or	ablic Law 2012, c.25, that neither the Vendor/Bidder listed above nor any of its affiliates is listed on the N.J. Department of Treasury's list of entities determined to activities in Iran pursuant to P.L. 2012, c. 25 ("Chapter 25 List"). Disregard Part 2 to Certification below.					
□ В.	affiliates is listed on the description of the activities such information will res	above because the Vendor/Bidder and/or one or more of its parents, subsidiaries, or the Department's Chapter 25 list. I will provide a detailed, accurate and precise ies in Part 2 below and sign and complete the Certification below. Failure to provide sult in the proposal being rendered as non-responsive and appropriate penalties, fines assessed as provided by law.					
If you checked I subsidiaries or a	Box "B" above, provide a detailed	PART 2 AL INFORMATION RELATED TO INVESTMENT ACTIVITIES IN IRAN d, accurate and precise description of the activities of the Vendor/Bidder, or one of its parents, tivities in Iran by completing the information below.					
DESCRIPTION DURATION OF ANTICIPATED VENDOR/BIDE VENDOR/BIDE	P TO VENDOR/BIDDER: OF ACTIVITIES: FENGAGEMENT: CESSATION DATE:						
any attachments information con completion of a herein; that I am to criminal pros	hereto, to the best of my knowled tained herein, and that the Vene my contract(s) with the County of a aware that it is a criminal offense ecution under the law, and it will	CERTIFICATION Description on behalf of the Vendor/Bidder, that the foregoing information and ge are true and complete. I acknowledge that the County of Union, New Jersey is relying on the dor/Bidder is under a continuing obligation from the date of this certification through the Union to notify the County of Union in writing of any changes to the information contained to make a false statement or misrepresentation in this certification. If I do so, I will be subject all constitute a material breach of my agreement(s) with the County of Union, permitting the grown this certification void and unenforceable.					
Signature		Date					
Print Name and	Title						

Bidder's Name

Revised: 10/19/17

STANDARD SPECIFICATIONS

The Standard Specifications for Road and Bridge Construction of New Jersey Department of Transportation, 2019 Edition; is added to and/or amended elsewhere herein by the Notice to Contractors (Advertisement), Proposal, Information for Bidders, General Conditions, Supplemental Conditions, Project Plans, and Supplementary Specifications; shall, insofar as technical requirements are involved, govern in the execution of this project.

Such Standard Specifications are made a part of these Specifications by this reference and will not be repeated herein. It is the responsibility of prospective bidders to familiarize themselves with these Standard Specifications, copies of which may be examined at the office of the Engineer and may be obtained, upon payment of the cost thereof, from:

Department of Transportation State of New Jersey 1035 Parkway Avenue Trenton, New Jersey 08625

The Notice to Contractors (Advertisement), Proposal, General Conditions, Special Provisions, Project Plans and/or Supplementary Specifications shall govern and prevail in the case of conflict between them and the Standard Specifications.

In these Standard Specifications the words "COMMISSIONER" or "DEPARTMENT" shall refer to and mean the person, persons, body, board or agent legally empowered to enter into contracts and otherwise legally act for the Owner. The word "STATE" shall refer to and mean the professional engineering representative of the Owner as hereinbefore defined and the word "ENGINEER" shall refer to and mean the professional engineering representative of the Owner as hereinbefore defined and the word "INSPECTOR" shall mean the authorized project representative of the Engineer with the authority as hereinbefore defined. The word "LABORATORY" shall mean and refer to the Engineer who may, at his discretion, and with the consent of the Owner, employ qualified technical personnel or testing laboratories to assist him in fulfilling the duties normally assigned to the "LABORATORY" in these Standard Specifications.

When reference is made herein to the bulletins, standards, specifications, publications or requirements of the American Association of State Highway Official (AASHO), the American Concrete Institute (ACI), the American Society of Civil Engineers (ASCE) or similar national or regional societies, associations, institutes or organizations; the requirements of the bulletins, specifications, publications or requirements referred to shall be considered a part of these Specifications by such reference and shall not be repeated herein but shall have the same import and be as binding as if herein set forth in full.



STATE OF NEW JERSEY

Department of Labor and Workforce Development
Division of Wage and Hour Compliance - Public Contracts Section
PO Box 389
Trenton, NJ 08625-0389

PREVAILING WAGE RATE DETERMINATION

The New Jersey Prevailing Wage Act (N.J.S.A. 34:11-56.25 et seq.) requires that the Department of Labor and Workforce Development establish and enforce a prevailing wage level for workers engaged in public works in order to safeguard their efficiency and general well being and to protect them as well as their employers from the effects of serious and unfair competition.

Prevailing wage rates are wage and fringe benefit rates based on the collective bargaining agreements established for a particular craft or trade in the locality in which the public work is performed. In New Jersey, these rates vary by county and by the type of work performed.

Applicable prevailing wage rates are those wages and fringe benefits in effect on the date the contract is awarded. All pre-determined rate increases listed at the time the contract is awarded must also be paid, beginning on the dates specified. Rates that have expired will remain in effect until new rates are posted.

Prevailing Wage Rate

The prevailing wage rate for each craft will list the effective date of the rate and the following information:

W =Wage Rate per Hour

B = Fringe Benefit Rate per Hour*

T = Total Rate per Hour

* Fringe benefits are an integral part of the prevailing wage rate. Employers not providing such benefits must pay the fringe benefit amount directly to the employee each payday. Employers providing benefits worth less than the fringe benefit amount must pay the balance directly to the employee each payday.

Unless otherwise stated in the Prevailing Wage Rate Determination, the fringe benefit rate for overtime hours remains at the straight time rate.

When the Overtime Notes in the Prevailing Wage Rate Determination state that the overtime rates are "inclusive of benefits," the benefit rate is increased by the same factor as the wage rate (i.e. multiplied by 1.5 for time and one-half, multiplied by 2 for double time, etc.).

Apprentice Rate Schedule

An "apprentice" is an individual who is registered with the United States Department of Labor - Office of Apprenticeship and enrolled in a certified apprenticeship program during the period in which they are working on the public works project.

The apprentice <u>wage</u> rate is a percentage of the journeyman wage rate, unless otherwise indicated. The apprentice <u>benefit</u> rate is the full journeyman benefit rate, unless otherwise indicated.

If there is no apprentice rate schedule listed, the individual must be paid at least the journeyman rate even if that individual is in a certified apprentice program for that trade.

If there is no ratio of apprentices to journeymen listed for a particular craft, then the ratio shall be one (1) apprentice to every four (4) journeymen.

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Comments/Notes

For each craft listed there will be comments/notes that cover the definition of the regular workday, shift differentials, overtime, recognized holidays, and any other relevant information.

Public Works Contractor Registration

The Public Works Contractor Registration Act (N.J.S.A. 34:11-56.48, et seq.) requires that **all** contractors, subcontractors, or lower tier subcontractors who are working on or who bid on public works projects register with the Department of Labor and Workforce Development. Applications are available at www.nj.gov/labor (click on Wage & Hour and then go to Registration & Permits).

Pursuant to N.J.S.A. 34:11-56.51:

No contractor shall bid on any contract for public work as defined in section 2 of P.L.1963, c. 150 (C.34:11-56.26) unless the contractor is registered pursuant to this act. No contractor shall list a subcontractor in a bid proposal for the contract unless the subcontractor is registered pursuant to P.L.1999, c.238 (C.34:11-56.48 et seq.) at the time the bid is made. No contractor or subcontractor, including a subcontractor not listed in the bid proposal, shall engage in the performance of any public work subject to the contract, unless the contractor or subcontractor is registered pursuant to that act.

Snow Plowing

Snow plowing contracts are <u>not</u> subject to the New Jersey Prevailing Wage Act or the Public Works Contractor Registration Act.

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County - UNION

Craft: Air Conditioning & Refrigeration - Service and Repair

PREVAILING WAGE RATE

	05/10/19
Journeyman (Mechanic)	W39.08
	B24.87
	T63.95

Craft: Air Conditioning & Refrigeration - Service and Repair

APPRENTICE RATE SCHEDULE

INTERVAL		PERIC	DD AND RAT	ES					
As Shown	Mo. 1-3	Mo. 4-12	2nd Year	3rd Year	4th Year	5th Year	Wage = %	of Jnymn	Wage
Wage and Bene	50%	55%	60%	65%	75%	85%	Bene = %	of Jnymn	Bene

Ratio of Apprentices to Journeymen - 1:4

APPRENTICE RATE SCHEDULE FOR THOSE APPRENTICES ENTERING PROGRAM AFTER 3-1-13:

INTERVAL PERIOD AND RATES

As Shown 1st Year 2nd Year 3rd Year 4th Year 5th Year Wage =% of Jnymn Wage Wage and Benefit 40% 50% 60% 70% 80% Bene. =% of Jnymn Bene

Craft: Air Conditioning & Refrigeration - Service and Repair COMMENTS/NOTES

THESE RATES MAY BE USED FOR THE FOLLOWING:

- Service/Repair/Maintenance Work to EXISTING facilities.
- Replacement or Installation of air conditioning and refrigeration equipment when the combined tonnage does not exceed 15 tons for refrigeration, or 25 tons for air conditioning.
- Replacement or Installation of "packaged" or "unitary" rooftop-type units when the combined tonnage of the units does not exceed 75 tons.

NOTE: These rates may NOT be used for any work in new construction (including work on new additions).

The regular workday shall consist of 8 hours, starting between 6:00 AM and 10:00 AM, Monday through Friday.

SHIFT DIFFERENTIALS:

- The second and third shifts shall be paid an additional 15% of the hourly rate.
- All shifts must run for a minimum of 5 consecutive days.

OVERTIME:

Hours worked in excess of 8 per day or before or after the regular workday, that are not shift work, and all hours on Saturday shall be paid at time and one-half the hourly rate, inclusive of benefits. All hours on Sunday and holidays shall be paid at double the hourly rate, inclusive of benefits.

RECOGNIZED HOLIDAYS: New Year's Day, Presidents' Day, Memorial Day, July 4th, Labor Day, Veterans' Day, Thanksgiving Day, Christmas Day.

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County - UNION

Craft: Boilermaker PREVAILING WAGE RATE

	01/01/19
Foreman	W49.72
	B44.34
	T94.06
General Foreman	W51.72
	B45.34
	T97.06
Journeyman	W44.72
	B42.70
	T87.42
	1

Craft: Boilermaker APPRENTICE RATE SCHEDULE

INTERVAL		PERIC	DD AND RAT	ES					
1000 Hours	65%	70%	75%	80%	85%	90%	95%		
Benefit =	36.36	37.26	38.18	39.07	39.39	40.89	41.79		

Ratio of Apprentices to Journeymen - *

* 1 apprentice will be allowed for the first 5 journeymen, 1 apprentice for the next 10 journeymen and 1 apprentice for each succeeding 20 journeymen up to a maximum of 5 apprentices per contractor on any one job.

Craft: Boilermaker COMMENTS/NOTES

HIGH WORK: All apprentices working on the erection, repair, or dismantling of smoke stacks, standpipes, or water towers shall be paid the Journeyman rate.

The regular workday shall consist of 8 hours, between 8:00 AM and 4:30 PM.

SHIFT DIFFERENTIALS:

- The second shift shall work 7½ hours and receive 8 hours pay, at a rate equal to the regular hourly rate plus 10%.
- The third shift shall work 7 hours and receive 8 hours pay, at a rate equal to the regular hourly rate plus 20%.
- For "Municipal Water Works" projects only, the following shall apply: Two, four day, 10 hour shifts may be worked at straight time Monday through Thursday. The day shift shall work four days, at 10 hours, for 10 hours pay. The second shift shall work four days, at nine and a half hours, for 10 hours pay, plus 10% the hourly rate for new work and .25 cents on repair work. Friday may be used as a make-up day at straight time, due to weather conditions, hoilday or any other circumstances beyond the employer's control.

OVERTIME:

- Hours in excess of 8 per day, Monday through Friday, and all hours on Saturdays shall be paid at time and one-half the hourly rate. All hours on Sundays and holidays (except Labor Day) shall be paid at double the hourly rate. All hours on Labor Day shall be paid at four times the hourly rate.
- If any other craft employed by the same contractor, or a subcontractor thereof, receives double time in lieu of time and one-half, then the Boilermaker shall receive double time in lieu of time and one-half.
- For "Municipal Water Works" projects only, the following shall apply: Four 10 hour days may be worked Monday through Thursday at straight time. Friday may be used as a make-up day for a day lost to inclement weather, holiday or other conditions beyond the control of the employer. Overtime shall be paid for any hours that exceed 10 hours per day or 40 hours per week.

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County - UNION

RECOGNIZED HOLIDAYS: New Year's Day, Washington's Birthday, Memorial Day, July 4th, Labor Day, Presidential Election Day, Veterans' Day, Thanksgiving Day, Christmas Day. Sunday holidays observed the following Monday.

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County - UNION

Craft: Boilermaker - Minor Repairs PREVAILING WAGE RATE

	01/01/19
Foreman	W32.80
	B16.37
	T49.17
General Foreman	W33.30
	B16.37
	T49.67
Mechanic	W31.30
	B16.37
	T47.67

Craft: Boilermaker - Minor Repairs COMMENTS/NOTES

NOTE: These rates apply to MINOR REPAIR WORK ONLY (repair work in the field for which the contract amount does not exceed \$125,000.00).

OVERTIME:

Hours in excess of 8 per day, Monday through Friday, and all hours on Saturdays shall be paid at time and one-half the hourly rate. All hours on Sundays and holidays (except Labor Day) shall be paid at double the hourly rate. All hours on Labor Day shall be paid at four times the hourly rate.

RECOGNIZED HOLIDAYS: New Year's Day, Washington's Birthday, Good Friday, Memorial Day, July 4th, Labor Day, Presidential Election Day, Thanksgiving Day, day after Thanksgiving, Christmas Day. Saturday holidays observed the following Monday.

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County - UNION

Craft: Bricklayer, Stone Mason PREVAILING WAGE RATE

	11/01/19
Deputy Foreman	W46.56
	B33.17
	T79.73
Foreman	W49.56
	B33.17
	T82.73
Journeyman	W43.56
	B33.17
	T76.73

Craft: Bricklayer, Stone Mason APPRENTICE RATE SCHEDULE

INTERVAL		PERIOD AND RATES								
6 Months	40%	50%	55%	60%	65%	70%	75%	80%		
Benefits	3.86	4.83	5.31	5.80	21.83	23.27	24.72	26.15		

Ratio of Apprentices to Journeymen - 1:5

Craft: Bricklayer, Stone Mason COMMENTS/NOTES

APPRENTICE RATE SCHEDULE AS OF 11-1-19:

INTERVAL PERIOD AND RATES

6 Months 40% 50% 55% 60% 65% 70% 75% 80% Benefits 3.92 4.90 5.39 5.88 21.92 23.37 24.82 26.26

The regular workday shall consist of 8 hours, between 6:00 AM and 4:30 PM.

SHIFT DIFFERENTIALS:

- When a 2 shift schedule (including a day shift) is established, the first, or day shift, shall be established on an 8 hour basis. The second shift shall be established on an 8 hour basis, and receive the regular rate plus 10%, inclusive of benefits.
- When a three shift schedule is established, the first shift shall be established on an 8 hour basis, the second shift on a 7.5 hour basis, and the third shift on a 7 hour basis. The first shift shall receive the regular hourly rate, the second shift shall receive the regular rate plus 10%, inclusive of benefits, and the third shift shall receive the regular rate plus 15%, inclusive of benefits.
- When there is no day shift, and a second or third shift is established, it shall be established on an 8 hour basis. The second shift shall receive the regular rate plus 10%, inclusive of benefits, and the third shift shall receive the regular rate plus 15%, inclusive of benefits.
- When an irregular shift must be established, this shift shall receive the regular rate plus 10%, inclusive of benefits.

OVERTIME:

- The first 2 hours in excess of 8 per day, or before or after the regular workday that are not shift work, Monday through Friday, shall be paid at time and one-half the regular rate, inclusive of benefits. Any additional overtime shall be paid at double the regular rate, inclusive of benefits. The first 10 hours on Saturday shall be paid at time and one-half the

11/8/2019 Page 7 of 71

County - UNION

regular rate, inclusive of benefits. Any additional overtime shall be paid at double the regular rate, inclusive of benefits. All hours on Sundays and holidays shall be paid at double the regular rate, inclusive of benefits.

- Saturday may be used as a make-up day for hours lost to inclement weather.
- When Bricklayers/Stone Masons work on Saturday with Laborers, and no other crafts are working on the project for the day, benefits may be paid at straight time. If other crafts are present, the applicable overtime rate for benefits shall be paid.

RECOGNIZED HOLIDAYS: New Year's Day, President's Day, Memorial Day, July 4th, Labor Day, Veterans' Day, Thanksgiving Day, Christmas Day. Sunday holidays will be observed the following Monday.

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County - UNION

Craft: Carpenter PREVAILING WAGE RATE

05/10/19	05/01/20
W58.00	W60.27
B33.64	B34.98
T91.64	T95.25
W50.43	W51.36
B29.33	B29.90
T79.76	T81.26
	W58.00 B33.64 T91.64 W50.43 B29.33

Craft: Carpenter APPRENTICE RATE SCHEDULE

INTERVAL		PERIOD AND RATES									
Yearly	40%	55%	65%	80%	90%						
Benefit	57% of	Appren	tice	Wage Rate	for all	intervals	+ \$0.59				

Ratio of Apprentices to Journeymen - 1:3

Craft: Carpenter COMMENTS/NOTES

APPRENTICE RATE SCHEDULE AS OF 5-1-20:

INTERVAL PERIOD AND RATES Yearly 40% 55% 65% 80% 90%

Benefit 57% of apprentice wage rate for all intervals + \$0.63

FOREMAN REQUIREMENTS:

- When there are 2 or more Carpenters on a job, 1 shall be designated as a Foreman.
- When there are 21 or more Carpenters on a job, 2 shall be designated as Foremen.

The regular workday shall consist of 8 hours, starting between 7:00 AM and 9:00 AM.

SHIFT DIFFERENTIALS:

- When a 2 shift schedule (including a day shift) is established, the day shift shall be established on an 8 hour basis. The second shift shall be established on an 8 hour basis, and receive the regular rate plus 15%, inclusive of benefits.
- When a three shift schedule is established, the first shift shall be established on an 8 hour basis, the second shift on a 7.5 hour basis, and the third shift on a 7 hour basis. The first shift shall receive the regular hourly rate, the second shift shall receive the regular rate plus 15% and the third shift shall receive the regular rate plus 20%, inclusive of benefits.
- When there is no day shift, and a second or third shift is established, it shall be established on an 8 hour basis. The second shift shall receive the regular rate plus 15% and the third shift shall receive the regular rate plus 20%, inclusive of benefits.

OVERTIME:

- All hours in excess of 8 per day, or before or after an established shift that are not shift work, and all hours on Saturdays shall be paid at time and one-half the hourly rate, inclusive of benefits. All hours on Sundays and holidays shall be paid at double the hourly rate, inclusive of benefits.
- Four 10-hour days may be worked, Monday to Thursday, at straight time. Friday may be used as a make-up day for a day lost due to inclement weather. If Friday is not a make-up day, all hours on Friday shall be paid at time and one-half

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the hourly rate, inclusive of benefits.

RECOGNIZED HOLIDAYS: New Year's Day, Presidents' Day, Memorial Day, July 4th, Labor Day, Presidential Election Day, Veterans' Day, Thanksgiving Day, Christmas Day. Sunday holidays observed the following Monday.

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Craft: Carpenter - Resilient Flooring PREVAILING WAGE RATE

	05/10/19
Foreman	W58.00
roroman	B33.55
	T91.55
Journeyman	W50.43
	B29.24
	T79.67

Craft: Carpenter - Resilient Flooring APPRENTICE RATE SCHEDULE

INTERVAL		PERIOD AND RATES									
Yearly	40%	55%	65%	80%	90%						
Benefit	57%	of	Appren	tice	Wage Rate	for all	intervals	+ \$0.49			

Ratio of Apprentices to Journeymen - *

Craft: Carpenter - Resilient Flooring

COMMENTS/NOTES

FOREMAN REQUIREMENTS:

- On any job where there are 4 or more Carpenters of Resilient Flooring, 1 must be designated a Foreman.

FOR SYNTHETIC TURF INSTALLATION ONLY:

- The rate shall be 90% of the wage and benefit rate.

The regular workday consists of 8 hours, starting between 6:00 AM and 9:00 AM.

SHIFT DIFFERENTIALS:

- When a 2 shift schedule (including a day shift) is established, the day shift, shall be established on an 8 hour basis. The second shift shall be established on an 8 hour basis, and receive the regular wage rate plus 15%.
- When a three shift schedule is established, the first shift shall be established on an 8 hour basis, the second shift on a 7.5 hour basis, and the third shift on a 7 hour basis. The first shift shall receive the regular wage rate, the second shift shall receive the regular wage rate plus 15% and the third shift shall receive the regular wage rate plus 20%.
- When there is no day shift, and a second or third shift is established, it shall be established on an 8 hour basis. The second shift shall receive the regular wage rate plus 15% and the third shift shall receive the regular wage rate plus 20%.

OVERTIME:

- Hours in excess of 8 per day or 40 per week, or before or after the regular workday, Monday through Friday, shall be paid at time and one-half the wage rate. Saturday may be used as a make-up day, at straight time, up to 8 hours, for hours lost to reasons beyond the control of the employer, up to a total of 40 hours per week; hours in excess of 8 on Saturday shall then be paid at time and one-half the wage rate. If Saturday is not a make-up day, all hours on Saturday shall be paid at time and one-half the wage rate. All hours on Sundays and holidays shall be paid at double the wage rate.
- Four 10-hour days may be worked, Monday to Thursday, at straight time. Friday may be used as a make-up day for hours lost to reasons beyond the control of the employer. If Friday is not a make-up day, all hours on Friday shall be paid at time and one-half the wage rate.

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^{* 1} apprentice shall be allowed to every 2 journeymen or major fraction therof. No more than 3 apprentices on any one job or project.

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RECOGNIZED HOLIDAYS: New Year's Day, Presidents' Day, Memorial Day, July 4th, Labor Day, Presidential Election Day, Veterans' Day, Thanksgiving Day, Christmas Day. Sunday holidays will be observed the following Monday.

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Craft:	Cement Ma	ison	PF	REVAILING	WAGE RATI	E					
	See "Bricklayer, Stone Mason" Rates										
Craft:	Craft: Cement Mason APPRENTICE RATE SCHEDULE										
INTE	ERVAL		PERIO	DD AND RAT	ES						
Ratio o	of Apprentice	es to Journey	men - 1:4					•			
Craft:	Ratio of Apprentices to Journeymen - 1:4 Craft: Cement Mason COMMENTS/NOTES										
See	: "Bricklayer	, Stone Maso	on" Rates								

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Craft: Diver PREVAILING WAGE RATE

	06/18/19	05/01/20
Diver	W59.74 B47.47	W0.00 B0.00
	T107.21	T108.71
Tender	W48.00	W0.00
	B47.47	B0.00
	T95.47	T96.97

Craft: Diver COMMENTS/NOTES

NOTE: All dive crews must consist of a Tender, a Diver, and a standby Diver (standby Diver is the same rate as a Diver).

DEPTH & PENETRATION RATES: Divers shall be paid the following depth and penetration rates, in addition to the regular hourly rate, when applicable:

AIR DIVES: MIXED GAS DIVES:

0-59 feet: No additional wage 60-74 feet: + \$0.25 per foot 75-125 feet: + \$1.00 per foot 75-125 feet: + \$2.00 per foot

PENETRATION DIVES:

126-200 feet: + \$1.50 per foot 201-275 feet: + \$1.75 per foot 276-350 feet: + \$2.00 per foot 351-425 feet: + \$2.50 per foot

OVERTIME:

Hours in excess of 8 per day, Monday through Friday, and all hours on Saturdays shall be paid at time and one-half the hourly rate. All hours on Sundays and holidays shall be paid at double the hourly rate.

RECOGNIZED HOLIDAYS: New Year's Day, Presidents' Day, Memorial Day, July 4th, Labor Day, Veterans' Day, Presidential Election Day, Thanksgiving Day, Christmas Day. Veterans' Day may be switched with the day after Thanksgiving.

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Craft: Dockbuilder PREVAILING WAGE RATE

	06/18/19	05/01/20		
Foreman	W55.20	W0.00		
	B47.47	B0.00		
	T102.67	T104.17		
Foreman	W54.40	W0.00		
(Concrete Form Work)	B34.36	B0.00		
	T88.76	T90.26		
Journeyman	W48.00	W0.00		
	B47.47	B0.00		
	T95.47	T96.97		
Journeyman	W47.30	W0.00		
(Concrete Form Work)	B34.36	B0.00		
	T81.66	T83.16		

Craft: Dockbuilder APPRENTICE RATE SCHEDULE

INTERVAL		PERIOD AND RATES									
Yearly	19.20	9.20 24.00 31.20 38.40									
Benefit	31.56	for all	intervals								

Ratio of Apprentices to Journeymen - *

* When there are 4 or fewer Dockbuilders on a job, no more than 1 may be an apprentice. When there are 5 or more Dockbuilders, there may be 1 apprentice for every 5 Dockbuilders.

Craft: Dockbuilder COMMENTS/NOTES

APPRENTICE RATE SCHEDULE FOR CONCRETE FORM WORK ONLY:

INTERVAL PERIOD AND RATES
Yearly 18.92 23.65 30.75 37.84

Benefits 23.60 for all intervals

CREOSOTE HANDLING:

When handling creosote products on land piledriving, floating marine construction, and construction of wharves, the worker shall receive an additional \$0.25 per hour.

HAZARDOUS WASTE WORK:

- Hazardous waste removal work on a state or federally designated hazardous waste site where Level A, B, or C personal protection is required: an additional 20% of the hourly rate, per hour.
- Hazardous waste removal work in Level D, or where personal protection is not required: an additional \$1.00 per hour.

CERTIFIED WELDER: When required on the job by the project owner, a Certified Welder shall receive an additional \$1.00 per hour.

FOREMAN REQUIREMENTS:

The first Dockbuilder on the job shall be designated a Foreman.

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OVERTIME:

Hours in excess of 8 per day, Monday through Friday, and all hours on Saturdays shall be paid at time and one-half the hourly rate. All hours on Sundays and holidays shall be paid at double the hourly rate.

RECOGNIZED HOLIDAYS: New Year's Day, Presidents' Day, Memorial Day, July 4th, Labor Day, Veterans' Day, Presidential Election Day, Thanksgiving Day, Christmas Day. Veterans' Day may be switched with the day after Thanksgiving.

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Craft: Drywall Finisher PREVAILING WAGE RATE

	11/01/18
Foreman	W43.95
	B24.40
	T68.35
General Foreman	W45.94
	B24.40
	T70.34
Journeyman	W39.95
	B24.40
	T64.35

Craft: Drywall Finisher APPRENTICE RATE SCHEDULE

INTERVAL		PERIOD AND RATES								
6 Months	40%	0% 50% 60% 70% 80% 90%								
Benefits	Intervals	1 to 2 =	10.65	Intervals	3 to 4 =	13.17	Intervals	5 to 6 =	16.25	

Ratio of Apprentices to Journeymen - 1:4

Craft: Drywall Finisher COMMENTS/NOTES

The regular workday shall consist of 8 hours between 7:00 AM and 5:30 PM.

SHIFT DIFFERENTIALS:

- The second shift shall receive an additional 10% of the hourly rate, per hour, and the third shift shall receive an additional 15% of the hourly rate, per hour.
- When 3 shifts are worked, the second shift shall receive 8 hours pay for 7.5 hours of work, and the third shift shall receive 8 hours pay for 7 hours of work.
- Shift work must run for a minimum of 5 consecutive workdays.

OVERTIME:

- Hours in excess of 8 per day, Monday through Friday, and all hours on Saturdays shall be paid at time and one-half the regular rate, inclusive of benefits. All hours on Sundays and holidays shall be paid at double the regular rate, inclusive of benefits.
- Saturday or Sunday may be used to make up a day lost to inclement weather, at straight time.

RECOGNIZED HOLIDAYS: New Year's Day, Memorial Day, July 4th, Labor Day, Presidential Election Day, Veterans' Day, Thanksgiving Day, Christmas Day. Saturday holiday observed the preceding Friday. Sunday holiday observed the following Monday.

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Craft: Electrician PREVAILING WAGE RATE

	06/24/19	06/01/20	05/31/21
Cable Splicer	W62.74	W63.83	W64.92
	B36.71	B37.99	B39.29
	T99.45	T101.82	T104.21
Foreman (11-20	W66.73	W67.90	W69.05
Journeymen)	B39.04	B40.41	B41.78
	T105.77	T108.31	T110.83
Foreman (1-3	W62.74	W63.83	W64.92
Journeymen)	B36.71	B37.99	B39.29
	T99.45	T101.82	T104.21
Foreman (4-10	W65.59	W66.74	W67.87
Journeymen)	B38.38	B39.72	B41.07
	T103.97	T106.46	T108.94
General Foreman (21-30	W68.44	W69.64	W70.82
Journeymen)	B40.04	B41.44	B42.85
	T108.48	T111.08	T113.67
General Foreman (31-60	W74.15	W75.44	W76.72
Journeymen)	B43.38	B44.89	B46.42
	T117.53	T120.33	T123.14
General Foreman (61+	W75.29	W76.60	W77.90
Journeymen)	B44.05	B45.58	B47.13
	T119.34	T122.18	T125.03
Journeyman	W57.03	W58.03	W59.02
	B33.37	B34.54	B35.72
	T90.40	T92.57	T94.74
Sub-Foreman	W65.02	W66.16	W67.28
	B38.03	B39.37	B40.71
	T103.05	T105.53	T107.99

Craft: Electrician APPRENTICE RATE SCHEDULE

INTERVAL		PERIOD AND RATES									
Yearly	40%	49%	58%	68%	80%		of Jour	neyman	Wage	Rate	
Benefit	40%	49%	58%	68%	80%		of Jour	neyman	Benefit	Rate	

Ratio of Apprentices to Journeymen - 2:3

Craft: Electrician COMMENTS/NOTES

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THESE RATES ALSO APPLY TO THE FOLLOWING:

- -All burglar and fire alarm work.
- -All fiber optic work.
- -Teledata work in new construction.
- -Teledata work involving 16 Voice/Data Lines or more.

The regular workday shall be 8 hours, between 8:00 AM and 4:30 PM.

FOREMAN REQUIREMENTS:

- 1 to 3 Journeymen- 1 must be a Foreman (Foreman/1-3 Journeymen rate).
- -4 to 10 Journeymen- 1 must be a Foreman (Foreman/4-10 Journeymen rate).
- -11 to 20 Journeymen- 1 must be Foreman (Foreman/11-20 Journeymen rate) and 1 must be a Sub-Foreman.
- -21 to 30 Journeymen- 1 must be a General Foreman (General Foreman/21-30 Journeymen rate) and 2 must be a Sub-Foreman.
- -31 to 40 Journeymen- 1 must be a General Foreman (General Foreman/31-40 Journeymen rate) and 3 must be a Sub-Foreman.
- -41 to 50 Journeymen- 1 must be a General Foreman (General Foreman/31-60 Journeymen rate) and 4 must be a Sub-Foreman.
- -51 to 60 Journeymen- 1 must be a General Foreman (General Foreman/31-60 Journeymen rate) and 5 must be a Sub-Foreman.
- -61+ Journeymen- 1 must be a General Foreman (General Foreman/61+ Journeymen rate) and 6 must be a Sub-Foreman.

SHIFT DIFFERENTIALS:

- Shift work must run for a minimum of 5 consecutive workdays.
- 2nd Shift (4:30 PM to 12:30 AM) shall receive 8 hours pay for 7.5 hours work + an additional 10% of the regular rate, per hour, inclusive of benefits.
- 3rd Shift (12:30 AM to 8:00 AM) shall receive 8 hours pay for 7 hours work + an additional 15% of the regular rate, per hour, inclusive of benefits.

OVERTIME:

Hours in excess of 8 per day, or outside of the regular workday, Monday through Friday, and all hours on Saturdays, shall be paid at time and one-half the regular rate, inclusive of benefits. All hours on Sundays and holidays shall be paid at double the regular rate, inclusive of benefits.

RECOGNIZED HOLIDAYS: New Year's Day, Presidents' Day, Memorial Day, July 4th, Labor Day, Presidential Election Day, Veterans' Day, Thanksgiving Day, Christmas Day.

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Craft: Electrician - Teledata (15 Voice/Data Lines & Less)

PREVAILING WAGE RATE

	10/28/19	11/02/20
Master	W56.16	W57.42
Technician/General	B30.89	B31.58
Foreman	T87.05	T89.00
Senior Technician/Lead	W51.41	W52.56
Foreman	B28.27	B28.91
(21-30 Workers on Job)	T79.68	T81.47
Technician A/Foreman	W49.25	W50.35
(11-20 Workers on Job)	B27.08	B27.69
	T76.33	T78.04
Technician B/Working	W47.09	W48.15
Foreman	B25.90	B26.47
(4-10 Workers on Job)	T72.99	T74.62
Technician C/Journeyman	W43.20	W44.17
(1-3 Workers on Job)	B23.76	B24.29
	T66.96	T68.46

Craft: Electrician - Teledata (15 Voice/Data Lines & Less)

APPRENTICE RATE SCHEDULE

INTERVAL	PERIOD AND RATES								
6 Months				66%	72%	79%	86%		
Benefits				11.81	12.89	14.14	15.40		

Ratio of Apprentices to Journeymen - 2:3

Craft: Electrician - Teledata (15 Voice/Data Lines & Less)

COMMENTS/NOTES

APPRENTICE RATE SCHEDULE FOR THOSE APPRENTICES ENTERING PROGRAM AFTER 10-31-14:

INTERVAL PERIOD AND RATES

6 Months 35% 35% 40% 43% 48% 54% 61% 67% 74% 81% Benefits 6.76 6.76 7.16 7.70 8.59 9.66 10.82 11.99 13.25 14.51

NOTES:

- These rates are for service, maintenance, moves, and/or changes affecting
- 15 Voice/Data (teledata) lines or less. These rates may NOT be used for any teledata work in new construction (including additions) or any fiber optic work.
- The number of Teledata workers on the jobsite is the determining factor for which Foreman category applies .

The regular workday shall be 8 hours, between 8:00 AM and 4:30 PM.

SHIFT DIFFERENTIALS:

- Shift work must run for a minimum of 5 consecutive workdays.

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- 2nd Shift (4:30 PM to 12:30 AM) shall receive 8 hours pay for 7.5 hours work + an additional 10% of the regular rate, per hour, inclusive of benefits.
- 3rd Shift (12:30 AM to 8:00 AM) shall receive 8 hours pay for 7 hours work + an additional 15% of the regular rate, per hour, inclusive of benefits.

OVERTIME:

Hours in excess of 8 per day, or outside of the regular workday, Monday through Friday, and all hours on Saturdays, shall be paid at time and one-half the regular rate, inclusive of benefits. All hours on Sundays and holidays shall be paid at double the regular rate, inclusive of benefits.

RECOGNIZED HOLIDAYS: New Year's Day, Presidents' Day, Memorial Day, July 4th, Labor Day, Presidential Election Day, Veterans' Day, Thanksgiving Day, Christmas Day.

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Craft:	Electrician - Teledata (16 Instruments & More)	PREVAILING WAGE RATE
	See "Electrician" Rates	
Craft:	Electrician - Teledata (16 Instruments & More)	COMMENTS/NOTES
See	ELECTRICIAN Rates	

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Craft: Electrician- Outside Commercial

PREVAILING WAGE RATE

	06/24/19	06/01/20	05/31/21
Cable Splicer	W63.04	W64.14	W65.22
•	B36.41	B37.69	B38.97
	T99.45	T101.83	T104.19
Certified Welder	W60.17	W61.22	W62.26
	B34.75	B35.97	B37.21
	T94.92	T97.19	T99.47
Equipment Operator	W57.31	W58.31	W59.29
	B33.10	B34.26	B35.43
	T90.41	T92.57	T94.72
Foreman (1-3	W63.04	W64.14	W65.22
Journeymen workers on	B36.41	B37.69	B38.97
job)	T99.45	T101.83	T104.19
Foreman (4-10	W65.90	W67.06	W68.19
Journeymen workers on	B38.06	B39.40	B40.75
job)	T103.96	T106.46	T108.94
General Foreman (11-20	W67.05	W68.22	W69.37
Journeymen workers on	B38.73	B40.08	B41.45
job)	T105.78	T108.30	T110.82
General Foreman (21-30	W68.77	W69.97	W71.16
Journeymen workers on	B39.72	B41.11	B42.52
job)	T108.49	T111.08	T113.68
General Foreman (31-60	W74.50	W75.80	W77.08
Journeymen workers on	B43.03	B44.54	B46.06
job)	T117.53	T120.34	T123.14
General Foreman (61+	W75.65	W76.96	W78.27
Journeymen workers on	B43.69	B45.22	B46.77
job)	T119.34	T122.18	T125.04
Groundman	W34.39	W34.99	W35.58
	B19.87	B20.56	B21.26
	T54.26	T55.55	T56.84
Journeyman	W57.31	W58.31	W59.29
Lineman/Technician	B33.10	B34.26	B35.43
	T90.41	T92.57	T94.72
Sub-Foreman	W65.33	W66.47	W67.60
	B37.73	B39.06	B40.40
	T103.06	T105.53	T108.00

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Craft: Electrician- Outside Commercial APPRENTICE RATE SCHEDULE

INTERVAL		PERIOD AND RATES								
1000 Hours	60%	65%	70%	75%	80%	85%	90%			
Benefits	57.75% of	Journey	man	wage	+ \$.01					

Craft: Electrician- Outside Commercial

COMMENTS/NOTES

EFFECTIVE 6-1-20- The apprentice benefit rate shall be 58.75% + \$.01.

EFFECTIVE 5-31-21- The apprentice benefit rate shall be 59.75% + \$.01.

* FOR UTILITY WORK PLEASE SEE STATEWIDE RATES

The regular worday shall be 8 hours, between 8:00 AM and 4:30 PM.

FOREMAN REQUIREMENTS:

- 1 to 3 Journeymen- 1 must be a Foreman (Foreman/1-3 Journeymen rate).
- -4 to 10 Journeymen- 1 must be a Foreman (Foreman/4-10 Journeymen rate).
- -11 to 20 Journeymen- 1 must be Foreman (Foreman/11-20 Journeymen rate) and 1 must be a Sub-Foreman.
- -21 to 30 Journeymen- 1 must be a General Foreman (General Foreman/21-30 Journeymen rate) and 2 must be a Sub-Foreman.
- -31 to 40 Journeymen- 1 must be a General Foreman (General Foreman/31-40 Journeymen rate) and 3 must be a Sub-Foreman.
- -41 to 50 Journeymen- 1 must be a General Foreman (General Foreman/31-60 Journeymen rate) and 4 must be a Sub-Foreman.
- -51 to 60 Journeymen- 1 must be a General Foreman (General Foreman/31-60 Journeymen rate) and 5 must be a Sub-Foreman.
- -61+ Journeymen- 1 must be a General Foreman (General Foreman/61+ Journeymen rate) and 6 must be a Sub-Foreman.

SHIFT DIFFERENTIALS:

Shift work must run for a minimum of 5 consecutive workdays.

2nd Shift (4:30 PM to 12:30 AM): 8 hrs. pay for 7.5 hrs. work + an additional 10% of the regular rate, inclusive of benefits.

3rd Shift (12:30 AM to 8:00 AM): 8 hrs. pay for 7 hrs. work + an additional 15% of the regular rate per hour, inclusive benefits.

OVERTIME:

Hours in excess of 8 per day, or outside of the regular workday, Monday through Friday, and all hours on Saturdays, shall be paid at time and one-half the regular rate, inclusive of benefits. All hours on Sundays and holidays shall be paid at double the regular rate, inclusive of benefits.

RECOGNIZED HOLIDAYS:

New Year's Day, Presidents' Day, Memorial Day, July 4th, Labor Day, Presidential Election Day, Veterans' Day, Thanksgiving Day and Christmas Day.

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County - UNION

Craft: Electrician-Utility Work (North) PR	REVAILING WAGE RATE
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Rates are located in the "Statewide" rate package

Craft: Electrician-Utility Work (North)

APPRENTICE RATE SCHEDULE

INTERVAL		PERIOD AND RATES								
* 6 Months	60%	65%	70%	75%	80%	85%	90%			
Benefits	67% of	Appren	tice	Wage	Rate	for all	intervals			

Craft: Electrician-Utility Work (North) COMMENTS/NOTES

Electrician-Utility Work (North) rates are located in the "Statewide" rate package.

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^{*} The apprentice wage rate is paid at the percentage of the Journeyman Lineman wage rate located in the "Statewide" rate package.

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Rates are located in the "Statewide" rate package

Craft: Electrician-Utility Work (South)

APPRENTICE RATE SCHEDULE

INTERVAL		PERIOD AND RATES										
6 Months	28.53	30.91	33.29	35.66	38.04	40.42	42.80					
Benefits	25.01	26.41	27.83	29.24	30.65	32.05	33.47					

Craft: Electrician-Utility Work (South) COMMENTS/NOTES

Electrician-Utility Work (South) rates are located in the "Statewide" rate package.

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Craft: Elevator Constructor PREVAILING WAGE RATE

	05/10/19	03/17/20	03/17/21	03/17/22	03/17/23
Journeyman	W66.95	W69.56	W72.29	W75.14	W77.49
	B40.93	B41.92	B42.92	B43.91	B45.57
	T107.88	T111.48	T115.21	T119.05	T123.06

Craft: Elevator Constructor APPRENTICE RATE SCHEDULE

INTERVAL		PERIOD AND RATES										
Yearly	29.85	36.82	43.52	50.21								
Benefits	32.71	33.51	34.80	36.09								

Ratio of Apprentices to Journeymen - 1:1

Craft: Elevator Constructor COMMENTS/NOTES

APPRENTICE RATE SCHEDULE AS OF 3-17-20: INTERVAL PERIOD AND RATES

Yearly 31.03 38.26 45.21 52.17

Benefits 33.38 34.20 35.55 36.89

APPRENTICE RATE SCHEDULE AS OF 3-17-21:

 INTERVAL
 PERIOD AND RATES

 Yearly
 32.27
 39.76
 46.99
 54.22

 Benefits
 34.05
 34.91
 36.30
 37.70

APPRENTICE RATE SCHEDULE AS OF 3-17-22:

 INTERVAL
 PERIOD AND RATES

 Yearly
 33.56
 41.33
 48.84
 56.36

 Benefits
 34.72
 35.61
 37.05
 38.50

APPRENTICE RATE SCHEDULE AS OF 3-17-23:

 INTERVAL
 PERIOD AND RATES

 Yearly
 34.60
 42.62
 50.37
 58.12

 Benefits
 36.02
 36.94
 38.50
 39.95

The regular workday shall consist of either 7 or 8 hours to be established at the beginning of the project, between 7:00 AM and 4:30 PM.

OVERTIME:

For all hours worked before or after the regular workday, Monday through Friday, and all hours on Saturday and Sunday, shall be paid at double the hourly rate. Holiday pay is one days wages (8 hours) plus double the hourly rate for all hours worked.

RECOGNIZED HOLIDAYS: New Year's Day, Presidents' Day, Good Friday, Memorial Day, July 4th, Labor Day, Columbus

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Day, Veterans' Day, Thanksgiving Day and the day after, Christmas Day. Saturday holidays shall be observed on the previous Friday and Sunday holidays shall be observed on the following Monday.

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Craft: Elevator Modernization & Service

PREVAILING WAGE RATE

	05/10/19	03/17/20	03/17/21	03/17/22	03/17/23
Journeyman	W52.44	W54.56	W56.77	W59.09	W60.89
	B39.90	B40.86	B41.82	B42.79	B44.41
	T92.34	T95.42	T98.59	T101.88	T105.30

Craft: Elevator Modernization & Service

APPRENTICE RATE SCHEDULE

INTERVAL		PERIOD AND RATES										
Yearly	29.85	28.84	34.09	39.33								
Benefits	32.66	33.13	34.36	35.58								

Ratio of Apprentices to Journeymen - 1:1

Craft: Elevator Modernization & Service

COMMENTS/NOTES

APPRENTICE RATE SCHEDULE AS OF 3-17-20: INTERVAL PERIOD AND RATES

Yearly 31.03 30.01 35.46 40.92

Benefits 33.33 33.82 35.09 36.36

APPRENTICE RATE SCHEDULE AS OF 3-17-21:

 INTERVAL
 PERIOD AND RATES

 Yearly
 32.27
 31.22
 36.90
 42.58

 Benefits
 34.00
 34.50
 35.83
 37.15

APPRENTICE RATE SCHEDULE AS OF 3-17-22:

 INTERVAL
 PERIOD AND RATES

 Yearly
 33.56
 32.50
 38.41
 44.32

 Benefits
 34.67
 34.20
 35.20
 37.94

APPRENTICE RATE SCHEDULE AS OF 3-17-23:

 INTERVAL
 PERIOD AND RATES

 Yearly
 34.60
 33.49
 39.58
 45.67

 Benefits
 35.97
 36.53
 37.95
 39.38

MODERNIZATION (addition, replacement, refurbishing, relocation, or changes in design or appearance, of elevator equipment in existing buildings):

- The regular workday consists of 8 hours, between 7:00 AM and 4:30 PM.

- Overtime:

Hours in excess of 8 per day, or before or after the regular workday, Monday through Friday, and all hours on Saturday and Sunday shall be paid at time and one-half the hourly rate. Holiday pay is one days wages (8 hours) plus time and one-half the hourly rate for all hours worked.

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SERVICE (repair or replacement of parts for the purpose of maintaining elevator equipment in good operating condition):

- The regular workday consists of 8 hours, between 6:00 AM and 6:00 PM.
- Overtime:

Hours in excess of 8 per day, or before or after the regular workday, Monday through Friday, and all hours on Saturday shall be paid at time and one-half the hourly rate. All hours on Sunday and holidays shall be paid at double the hourly rate.

RECOGNIZED HOLIDAYS (Modernization and Service): New Year's Day, Presidents' Day, Good Friday, Memorial Day, July 4th, Labor Day, Columbus Day, Veterans' Day, Thanksgiving Day and the day after, Christmas Day. Saturday holidays shall be observed on the previous Friday and Sunday holidays shall be observed on the following Monday.

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Craft: Glazier PREVAILING WAGE RATE

	05/01/19
* Leadman	W49.11 B25.06 T74.17
Foreman	W52.81 B23.62 T76.43
General Foreman	W54.81 B23.75 T78.56
Journeyman	W48.81 B23.36 T72.17

Craft: Glazier APPRENTICE RATE SCHEDULE

INTERVAL		PERIOD AND RATES										
6 Months	50%	55%		60%	65%		70%	75%				
Benefits	Intervals	1 to 2 =	9.11	Intervals	3 to 4 =	11.71	Intervals	5 to 6 =	13.20			

Ratio of Apprentices to Journeymen - 1:4

Craft: Glazier COMMENTS/NOTES

Hazard/Height Pay: +\$1.00 per hour

* When there are three (3) men working on a jobsite for three (3) days or longer, 1 Journeyman may be designated as a Leadman for the duration of the job, provided he has his OSHA certification.

FOREMAN REQUIREMENTS:

- When there are 4 or more Glaziers on a job, 1 must be designated a Foreman.
- When there are 15 or more Glaziers on a job, 1 must be designated a General Foreman.

The regular workday shall consist of 8 hours, between 7:00 AM and 5:30 PM, Monday to Friday.

SHIFT DIFFERENTIALS:

- The second shift shall receive an additional 10% of the hourly rate, per hour, and the third shift shall receive an additional 15% of the hourly rate, per hour.
- When 3 shifts are worked, the second shift shall receive 8 hours pay for 7.5 hours of work, and the third shift shall receive 8 hours pay for 7 hours of work.

OVERTIME:

Hours in excess of 8 per day, or before or after the regular workday Monday through Friday, and all hours on Saturdays shall be paid at time and one-half the regular rate. All hours on Sundays and holidays shall be paid at double the regular

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rate.

RECOGNIZED HOLIDAYS: New Year's Day, Memorial Day, July 4th, Labor Day, General Election Day, Veterans' Day, Thanksgiving Day, Christmas Day. Saturday holiday observed the preceding Friday. Sunday holiday observed the following Monday.

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County - UNION

Craft: Heat & Frost Insulator PREVAILING WAGE RATE

	09/24/19
Foreman	W57.02
	B32.67
	T89.69
General Foreman	W59.36
	B33.78
	T93.14
Journeyman	W55.24
	B32.11
	T87.35

Craft: Heat & Frost Insulator APPRENTICE RATE SCHEDULE

INTERVAL		PERIOD AND RATES										
Yearly	25.79	30.59	36.89	43.16								
Benefits	19.07	22.58	24.92	27.16								

Ratio of Apprentices to Journeymen - 1:3

Craft: Heat & Frost Insulator COMMENTS/NOTES

NOTE: These rates apply to the installing of insulation on hot and cold mechanical systems.

The regular workday shall be 8 hours between 8:00 AM and 4:30 PM.

SHIFT DIFFERENTIAL:

- Shift work must run for a minimum of 5 consecutive workdays.
- Second Shift shall work 7.5 hours and receive 8 hours pay, at the regular rate, plus 25% per hour.
- Third Shift shall work 7 hours and receive 8 hours pay, at the regular rate, plus 30% per hour.

OVERTIME:

The first 2 hours in excess of 8 per day, hours outside of the regular workday Monday through Friday that are not shift work, and the first 10 hours on Saturday, shall be paid at time and one-half the regular rate, inclusive of benefits. All hours in excess of 10 per day, and all hours on Sunday and holidays (except Labor Day) shall be paid at double the regular rate, inclusive of benefits. All hours on Labor Day shall be paid at triple the regular rate, inclusive of benefits.

RECOGNIZED HOLIDAYS: New Year's Day, President's Day, Memorial Day, July 4th, Labor Day, Veterans' Day, Presidential Election Day, Thanksgiving Day and Christmas Day. Sunday holidays observed the following Monday.

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Craft: Heat & Frost Insulator - Asbestos Worker PREVAILING WAGE RATE

	09/24/19
Asbestos Helper	W36.89
Abatement	B24.92
	T61.81
· ·	B24.92

Craft: Heat & Frost Insulator - Asbestos Worker APPRENTICE RATE SCHEDULE

INTERVAL		PERIOD AND RATES											
	SEE	НЕАТ &	FROST	INSULAT									
				OK .									

Ratio of Apprentices to Journeymen - 1:3

Craft: Heat & Frost Insulator - Asbestos Worker COMMENTS/NOTES

NOTE: These rates apply only to the removal of insulation materials/asbestos from mechanical systems, including containment erection and demolition, and placing material in appropriate containers.

The regular workday shall be 8 hours between 8:00 AM and 4:30 PM.

SHIFT DIFFERENTIALS:

- Shift work must run for a minimum of 5 consecutive workdays.
- The second shift shall work 7.5 hours and receive 8 hours pay at the regular rate, plus 25% per hour.
- The third shift shall work 7 hours and receive 8 hours pay at the regular rate, plus 30% per hour.

OVERTIME: The first 2 hours in excess of 8 per day, hours outside of the regular workday Monday through Friday that are not shift work, and the first 10 hours on Saturday, shall be paid at time and one-half the regular rate, inclusive of benefits. All hours in excess of 10 per day, and all hours on Sunday and holidays (except Labor Day) shall be paid at double the regular rate, inclusive of benefits. All hours on Labor Day shall be paid at triple the regular rate, inclusive of benefits.

RECOGNIZED HOLIDAYS: New Year's Day, Presidents' Day, Memorial Day, July 4th, Labor Day, Veterans' Day, Presidential Election Day, Thanksgiving Day and Christmas Day. Sunday holidays observed the following Monday.

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Craft: Ironworker PREVAILING WAGE RATE

	07/01/19	07/01/20
Rod /Fence Foreman	W45.39	W0.00
	B47.12	B0.00
	T92.51	T94.26
Rod/Fence Journeyman	W42.39	W0.00
	B47.12	B0.00
	T89.51	T91.26
Structural Foreman	W47.44	W0.00
	B47.12	B0.00
	T94.56	T96.56
Structural Journeyman	W44.44	W0.00
	B47.12	B0.00
	T91.56	T93.56

Craft: Ironworker APPRENTICE RATE SCHEDULE

INTERVAL		PERIOD AND RATES									
6 Months	50%	9% 60% Yearly 70% 80% 90%									

Ratio of Apprentices to Journeymen - 1:4

Craft: Ironworker COMMENTS/NOTES

HAZARDOUS WASTE WORK: On hazardous waste removal work on a state or federally designated hazardous waste site where the Ironworker is required to wear Level A,B, or C personal protection: +\$3.00 per hour

The regular workday consists of 8 hours between 6:00 AM and 4:30 PM.

FOREMAN REQUIREMENTS:

When there are 2 or more Ironworkers on a job, 1 shall be designated a Foreman.

SHIFT DIFFERENTIALS:

- When a 2 shift schedule is established, the first, or day shift, shall be established on an 8 hour basis. The second shift shall be established on an 8 hour basis, and receive the regular rate plus 15%.
- When a three shift schedule is established, the first shift shall be established on an 8 hour basis, the second shift on a 7.5 hour basis, and the third shift on a 7 hour basis. The first shift shall receive the regular hourly rate, the second shift shall receive the regular rate plus 15%, and the third shift shall receive the regular rate plus 20%.
- When there is no day shift, and a second or third shift is established, it shall be established on an 8 hour basis.
- When an irregular shift is established for the Ironworker (Structural) classification, the rate shall be paid at time and one-half the regular rate, inclusive of benefits. When an irregular shift is established for the Rod/Fence classification, the shift shall be established on an 8 hour basis and receive the regular rate, plus 20%.

OVERTIME:

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- All hours in excess of 8 per day, or before or after an established shift that are not shift work, and all hours on Saturday, shall be paid at time and one-half the regular rate, inclusive of benefits. All hours on Sunday and holidays shall be paid at double the hourly rate, inclusive of benefits. Saturday may be used as a make-up day for a day lost to inclement weather. If Saturday is not a make-up day, all hours on Saturday shall be paid at time and one-half the hourly rate, inclusive of benefits.
- Four 10-hour days may be worked, Monday to Thursday, at straight time. Friday may be used as a make-up day for a day lost to inclement weather. If Friday is not a make-up day, all hours on Friday shall be paid at time and one-half the hourly rate, inclusive of benefits.

RECOGNIZED HOLIDAYS: New Year's Day, Presidents' Day, Memorial Day, July 4th, Labor Day, Presidential Election Day, Veterans Day, Thanksgiving Day, Christmas Day.

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County - UNION

Craft: Laborer - Asbestos & Hazardous Waste Removal

PREVAILING WAGE RATE

	10/24/19
Journeyman (Handler)	W32.48 B22.81 T55.29

Craft: Laborer - Asbestos & Hazardous Waste Removal

APPRENTICE RATE SCHEDULE

INTERVAL		PERIOD AND RATES									
Yearly	19.49	22.74	25.98	29.23							
Benefits	21.16	for	all	intervals							

Ratio of Apprentices to Journeymen - *

Craft: Laborer - Asbestos & Hazardous Waste Removal

COMMENTS/NOTES

NOTE: These rates apply to work in connection with Asbestos, Radiation, Hazardous Waste, Lead, Chemical, Biological, Mold Remediation and Abatement.

The regular workday shall be 8 hours.

OVERTIME:

- Hours in excess of 8 per day, Monday through Saturday, and all hours on Sunday and holidays shall be paid at time and one-half the regular rate.
- Benefits on ALL overtime hours shall be paid at straight time.

RECOGNIZED HOLIDAYS: New Year's Day, President's Day, Good Friday, Easter, Memorial Day, July 4th, Labor Day, Presidential Election Day, Veterans' Day, Thanksgiving Day, Christmas Day. (Holidays start at 12:00 am).

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^{*} Ratio of apprentices to journeymen shall not be more than one apprentice for the first journeyman and no more than (1) apprentice for each additional three (3) journeymen.

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Craft: Laborer - Building PREVAILING WAGE RATE

	05/01/19	05/01/20
Class A Journeyman	W34.05	W0.00
	B29.52	B0.00
	T63.57	T64.87
Class B Journeyman	W33.55	W0.00
	B29.52	B0.00
	T63.07	T64.37
Class C Journeyman	W28.52	W0.00
	B29.52	B0.00
	T58.04	T59.34
Foreman	W38.31	W0.00
	B29.52	B0.00
	T67.83	T69.13
General Foreman	W42.56	W0.00
	B29.52	B0.00
	T72.08	T73.38

Craft: Laborer - Building APPRENTICE RATE SCHEDULE

INTERVAL		PERIOD AND RATES									
6 Months	60%	% 70% 80% 90%									
Benefit	26.27	26.27	26.27	26.27							

Ratio of Apprentices to Journeymen - *

Craft: Laborer - Building COMMENTS/NOTES

CLASS A: Specialist laborer including mason tender or concrete pour crew; scaffold builder (scaffolds up to 14 feet in height); operator of forklifts, Bobcats (or equivalent machinery), jack hammers, tampers, motorized tampers and compactors, vibrators, street cleaning machines, hydro demolition equipment, riding motor buggies, conveyors, burners; and nozzlemen on qunite work.

CLASS B: Basic laborer - includes all laborer work not listed in Class A or Class C.

CLASS C: Janitorial-type light clean-up work associated with the TURNOVER of a project, or part of a project, to the owner. All other clean-up work is Class B.

The regular workday shall be 8 hours between 6:00 AM and 6:00 PM.

SHIFT DIFFERENTIALS:

- Shift work must run for a minimum of 5 consecutive workdays.
- When a 2-shift schedule is worked, including a day shift, both shifts shall be established on the basis of 8 hours pay for 8 hours worked. The second shift shall receive the regular rate plus an additional 10%.
- When a 3-shift schedule is worked, the day shift shall be established on the basis of 8 hours pay for 8 hours worked, the second shift shall be established on the basis of 8 hours pay for 7.5 hours worked, and the third shift shall be established

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^{*} Ratio of apprentices to journeymen shall not be more than one apprentice for the first journeyman and no more than (1) apprentice for each additional three (3) journeymen.

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on the basis of 8 hours pay for 7 hours worked. The day shift shall receive the regular rate, the second shift shall receive the regular rate plus an additional 10%, and the third shift shall receive the regular rate plus an additional 15%.

- When a second or third shift is worked with no day shift, the second or third shift shall be established on the basis of 8 hours pay for 8 hours worked. The second shift shall receive the regular rate plus an additional 10%, and the third shift shall receive the regular rate plus an additional 15%.

OVERTIME:

- Hours in excess of 8 per day, or outside the regular workday that are not shift work, Monday through Friday, and all hours on Saturdays shall be paid at time and one-half the regular rate. Saturday may be used as a make-up day (paid at straight time) for a day lost to inclement weather, or for a holiday that is observed during the work week, Monday through Friday. All hours on Sundays and holidays shall be paid at double the regular rate.
- Four 10-hour days may be worked Monday to Thursday, at straight time, with Friday used a make-up day for a day lost to inclement weather. If Friday is not a make-up day, all hours on Friday shall be paid at time and one-half the regular rate.
- Benefits on ALL overtime hours shall be paid at time and one-half.

RECOGNIZED HOLIDAYS: New Year's Day, Presidents' Day, Memorial Day, July 4th, Labor Day, Presidential Election Day, Veterans' Day, Thanksgiving Day, Christmas Day. Sunday holidays observed the following Monday.

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County - UNION

Craft:	Laborer - Heavy & General	PREVAILING WAGE RATE
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Rates are located in the "Statewide" rate package

Craft: Laborer - Heavy & General APPRENTICE RATE SCHEDULE

INTERVAL		PERIOD AND RATES									
1000 Hours	60% 70% 80% 90%										
Benefit	20.28	for	all	intervals							

Ratio of Apprentices to Journeymen - *

Craft: Laborer - Heavy & General

COMMENTS/NOTES

As of 3-1-19, benefits shall be \$21.03. As of 3-1-20, benefits shall be \$21.78.

Heavy & General Laborer rates are located in the "Statewide" rate package.

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^{*} No more than 1 apprentice for the first journeyman and no more than 1 apprentice for each additional 3 journeymen.

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Craft: Laborer-Residential and Modular Construction

PREVAILING WAGE RATE

	05/03/19	04/01/20
* Skilled Tradesman (only	W26.20	W26.55
applies to Modular	B5.45	B5.45
Construction)	T31.65	T32.00
Foreman (person directing	W30.20	W30.55
crew, regardless of his	B5.45	B5.45
skill classification)	T35.65	T36.00
Laborer	W22.20	W22.55
	B5.45	B5.45
	T27.65	T28.00
Laborer (for single family	W16.70	W17.05
and stand-alone duplex	B2.95	B2.95
owned by single owner)	T19.65	T20.00

Craft: Laborer-Residential and Modular Construction

APPRENTICE RATE SCHEDULE

INTERVAL		PERIOD AND RATES								
As shown	800 hours	00 hours 600 hours 600 hours								
wage & benefits	70%	80%	90%							

Ratio of Apprentices to Journeymen-

One (1) apprentice shall be allowed for the first journeyman on site and no more than one (1) additional apprentice for each additional three (3) journeymen on site.

Craft: Laborer-Residential and Modular Construction

COMMENTS/NOTES

* SKILLED TRADESMAN-

any worker doing work not typically done by a Building Laborer. Some examples are installing interior doors, sheet rock, hooking up appliances, installing light fixtures, installing railing systems, etc. Please note where local building codes require that certain work be performed under the supervision of a licensed tradesman (i.e. Plumber, Electrician, etc.) Laborers shall work under such supervision.

RESIDENTIAL CONSTRUCTION- All residential construction (not commercial), single-family, stand-alone duplex houses, townhouses and multi-family buildings of not more than four (4) floors. Each housing unit must be fully and independently functional; each housing unit must have its own kitchen and bathroom. The definition includes all incidental items such as site work, parking areas, utilities, streets and sidewalks. Please note the construction must be Residential in nature. A First Floor at or below grade may contain commercial space not to exceed 50% square footage of the floor; at least 50% of the First Floor must contain living accommodations or related nonresidential uses (e.g. laundry space, recreation/hobby rooms, and/or corridor space). Basement stories below grade used for storage, parking, mechanical systems/equipment, etc., are considered basement stories which are not used in determining the building's height even if used for storage purposes. In addition, barracks and dormitories are not considered residential projects.

MODULAR RESIDENTIAL CONSTRUCTION- all aspects of modular residential construction (not commercial) at the site of installation of structures of no more than four (4) stories, including all excavation and site preparation, footings and

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foundation systems whether poured on-site or prefabricated, all underground waterproofing, underground utilities, concrete slabs, sidewalks, driveways, paving, hardscape and landscaping. Please note the construction must be Residential as defined above. All work performed by the Set Crew (the crew of workers who set the modular boxes on the foundation), including the rigging, setting, attaching and assembly of all modules and structural members, preparation of the foundation to accept modules, such as sill plates, connection of all in-module and under-module connections including, but not limited to, plumbing, electrical, HVAC, fire suppression, CATS, telephone, television/internet, and fiber optic, the building or installation of any porches or decks regardless of material or method of construction, the on-site installation of, or completion of any roof system, doors, windows and fenestrations, including flashing, gutter and soffit systems, waterproofing, insulation and interior and exterior trim work, and painting. Please note that modular construction does not include on-site stick built construction, tip up construction or panel built construction.

The regular workday shall be 8 hours between 6:00 AM and 6:00 PM.

OVERTIME:

Hours worked in excess of 8 per day/40 per week, Monday through Saturday, and all hours worked on Sunday and holidays shall be paid at time and one-half the hourly rate.

RECOGNIZED HOILDAYS:

New Year's Day, Martin Luther King Day, Memorial Day, July 4th, Labor Day, Thanksgiving Day and Christmas Day.

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Craft: Millwright PREVAILING WAGE RATE

	05/01/19
Foreman	W58.26 B34.39 T92.65
Journeyman	W50.66 B29.99 T80.65

Craft: Millwright APPRENTICE RATE SCHEDULE

INTERVAL		PERIOD AND RATES									
6 Months	40%	0% 45% 50% 55% 60% 65% 70% 75% 85% 95%								95%	
Benefits	58% of	Appren	tice	Wage	Rate	for all	intervals	+ \$.60			

Ratio of Apprentices to Journeymen - 1:3

Craft: Millwright COMMENTS/NOTES

FOREMAN REQUIREMENTS:

- When there are 2 or more Millwrights on a job, 1 shall be designated as a Foreman.
- When there are 21 or more Millwrights on a job, 2 shall be designated as Foremen.

The regular workday shall consist of 8 hours, starting between 7:00 AM and 9:00 AM.

SHIFT DIFFERENTIALS:

- When a 2 shift schedule (including a day shift) is established, the day shift shall be established on an 8 hour basis. The second shift shall be established on an 8 hour basis, and receive the regular rate plus 15%, inclusive of benefits.
- When a three shift schedule is established, the first shift shall be established on an 8 hour basis, the second shift on a 7.5 hour basis, and the third shift on a 7 hour basis. The first shift shall receive the regular hourly rate, the second shift shall receive the regular rate plus 15% and the third shift shall receive the regular rate plus 20%, inclusive of benefits.
- When there is no day shift, and a second or third shift is established, it shall be established on an 8 hour basis. The second shift shall receive the regular rate plus 15% and the third shift shall receive the regular rate plus 20%, inclusive of benefits.

OVERTIME:

- All hours in excess of 8 per day, or before or after an established shift that are not shift work, and all hours on Saturdays shall be paid at time and one-half the hourly rate, inclusive of benefits. All hours on Sundays and holidays shall be paid at double the hourly rate, inclusive of benefits.
- Four 10-hour days may be worked, Monday to Thursday, at straight time. Friday may be used as a make-up day for a day lost due to inclement weather. If Friday is not a make-up day, all hours on Friday shall be paid at time and one-half the hourly rate, inclusive of benefits.

RECOGNIZED HOLIDAYS: New Year's Day, Presidents' Day, Memorial Day, July 4th, Labor Day, Presidential Election Day, Veterans' Day, Thanksgiving Day, Christmas Day. Sunday holidays will be observed the following Monday.

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County - UNION

Craft: Operating Engineer I	PREVAILING WAGE RATE
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Rates are located in the "Statewide" rate package

Craft: Operating Engineer APPRENTICE RATE SCHEDULE

INTERVAL	PERIOD AND RATES									
Yearly	60%	70%	80%	90%						

Ratio of Apprentices to Journeymen - *

Craft: Operating Engineer COMMENTS/NOTES

Operating Engineer rates are located in the "Statewide" rate package.

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^{* 1} apprentice for each piece of heavy equipment. At least 10 pieces of heavy equipment or a minimum of 5 Operating Engineers must be on site.

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Craft:	Operating Engineer - Field Engineer	PREVAILING WAGE RATE
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Rates are located in the "Statewide" rate package

Craft: Operating Engineer - Field Engineer

APPRENTICE RATE SCHEDULE

INTERVAL		PERIOD AND RATES								
Yearly	70%	75%	of Rod/	Chainman	Wage					
Yearly			80%	90%	Transit/	Instrument	man	Wage		

Ratio of Apprentices to Journeymen - *

Craft: Operating Engineer - Field Engineer

COMMENTS/NOTES

Operating Engineer - Field Engineer rates are located in the "Statewide" rate package.

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^{*} No more than 1 Field Engineer Apprentice per Survey Crew.

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Craft: Painter - Bridges PREVAILING WAGE RATE

	05/03/19
Foreman	W59.81
	B28.74
	T88.55
General Foreman	W61.81
	B28.74
	T90.55
Journeyman	W54.81
	B28.74
	T83.55

Craft: Painter - Bridges APPRENTICE RATE SCHEDULE

INTERVAL		PERIOD AND RATES								
6 Months	40%	50%			60%	70%		80%	90%	
Benefits	Intervals	1 to 2 =	10.00	Intervals	3 to 4 =	12.27	Intervals	5 to 6 =	15.28	

Ratio of Apprentices to Journeymen - 1:4

Craft: Painter - Bridges COMMENTS/NOTES

These rates apply to: All bridges that span waterways, roadways, railways and canyons. All tunnels, overpasses, viaducts and all appurtenances.

FOREMEN REQUIREMENTS:

- When there are 4 or more Painters on a job, 1 shall be designated a Foreman.
- When there are 15 or more Painters on a job, 1 shall be designated a General Foreman.

The regular workday shall consist of 8 hours between 7:00 AM and 5:30 PM.

SHIFT DIFFERENTIALS:

- The second shift shall receive an additional 10% of the hourly rate, per hour, and the third shift shall receive an additional 15% of the hourly rate, per hour.

OVERTIME:

- Hours in excess of 8 per day, Monday through Friday, and all hours on Saturdays and Sundays shall be paid at time and one-half the regular rate. All hours on holidays shall be paid at double the regular rate.
- Saturday or Sunday may be used to make up a day lost to inclement weather, at straight time.
- Four 10-hour days may be worked, at straight time, Monday through Friday.

RECOGNIZED HOLIDAYS: New Year's Day, President's Day, Memorial Day, July 4th, Labor Day, Presidential Election Day, Veterans' Day, Thanksgiving Day, Christmas Day. Saturday holiday observed the preceding Friday. Sunday holiday observed the following Monday.

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County - UNION

Craft: Painter - Line Striping PREVAILING WAGE RATE

	05/03/19
Apprentice (1st year)	W26.44
	B11.65
	T38.09
Apprentice (2nd year)	W30.44
	B19.16
	T49.60
Foreman (Charge Person)	W39.09
	B19.94
	T59.03
Journeyman 1 (at least 1	W34.32
year of working exp. as a	B19.94
journeyman)	T54.26
Journeyman 2 (at least 2	W38.09
years of working exp. as a	B19.94
journeyman)	T58.03

Craft: Painter - Line Striping COMMENTS/NOTES

OVERTIME:

Hours in excess of 8 per day, Monday through Saturday, and all hours on Sundays and holidays shall be paid at time and one-half the hourly rate.

RECOGNIZED HOLIDAYS: New Year's Day, Presidents' Day, Memorial Day, July 4th, Labor Day, Veterans Day, Thanksgiving Day and Christmas Day. Veterans Day may be substituted for the day after Thanksgiving.

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County - UNION

Craft: Painter - New Construction PREVAILING WAGE RATE

	05/01/19	05/01/20
Foreman	W45.45	W47.45
	B24.35	B24.35
	T69.80	T71.80
General Foreman	W49.43	W51.43
	B24.67	B24.67
	T74.10	T76.10
Journeyman	W41.47	W43.47
	B24.04	B24.04
	T65.51	T67.51

Craft: Painter - New Construction APPRENTICE RATE SCHEDULE

INTERVAL	PERIOD AND RATES									
6 Months	40%	45%	55%	65%	70%	75%	80%	80%		
Benefits	8.05	8.05	10.05	10.05	11.05	11.05	14.05	14.05		

Ratio of Apprentices to Journeymen - 1:4

Craft: Painter - New Construction COMMENTS/NOTES

Spraying, sandblasting, lead abatement, work on tanks or stacks, work performed above 3 stories or 30 feet in height, or using swing scaffolds requires an additional 10% of the wage rate.

FOREMEN REQUIREMENTS:

- When there are 4 or more Painters on a job, 1 shall be designated a Foreman.
- When there are 15 or more Painters on a job, 1 shall be designated a General Foreman.

The regular workday shall consist of 8 hours between 7:00 AM and 5:30 PM.

SHIFT DIFFERENTIALS:

- The second shift shall receive an additional 10% of the hourly rate, per hour, and the third shift shall receive an additional 15% of the hourly rate, per hour.

OVERTIME:

- Hours in excess of 8 per day, or before or after the regular workday, Monday through Friday, and all hours on Saturdays shall be paid at time and one-half the regular rate. All hours on Sundays and holidays shall be paid at double the regular rate.
- Saturday or Sunday may be used to make up a day lost to inclement weather, at straight time.
- Four 10-hour days may be worked, at straight time, Monday through Friday.

RECOGNIZED HOLIDAYS: New Year's Day, President's Day, Memorial Day, July 4th, Labor Day, General Election Day, Veterans' Day, Thanksgiving Day, Christmas Day.

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County - UNION

Craft: Painter - Repainting PREVAILING WAGE RATE

	05/01/19	05/01/20
Foreman	W33.07	W33.92
	B19.95	B19.95
	T53.02	T53.87
General Foreman	W36.00	W36.85
	B20.10	B20.10
	T56.10	T56.95
Journeyman	W30.14	W30.99
	B19.77	B19.77
	T49.91	T50.76

Craft: Painter - Repainting APPRENTICE RATE SCHEDULE

INTERVAL		PERIC	DD AND RAT	ES				
	SEE	PAINTER	NEW	CONSTR	TION			

Ratio of Apprentices to Journeymen - 1:4

Craft: Painter - Repainting COMMENTS/NOTES

NOTE: These rates may only be used on jobs where no major alterations (only doing painting and carpeting with nothing else being changed in the office or on the project) occur, and where not more than 3 other trades are present on the job, but may NOT, under any circumstances, be used for work on bridges, stacks, elevated tank, or generating stations.

Spraying, sandblasting, lead abatement, work on tanks or stacks, work performed above 3 stories or 30 feet in height, or using swing scaffolds requires an additional 10% of the wage rate.

FOREMEN REQUIREMENTS:

- When there are 4 or more Painters on a job, 1 shall be designated a Foreman.
- When there are 15 or more Painters on a job, 1 shall be designated a General Foreman.

OVERTIME:

- Hours in excess of 8 per day and 40 per week shall be paid at time and one-half the regular rate. All hours on Sundays and holidays shall be paid at double the regular rate.
- Four 10-hour days may be worked, at straight time, Monday through Sunday.

RECOGNIZED HOLIDAYS: New Year's Day, President's Day, Memorial Day, July 4th, Labor Day, General Election Day, Veterans' Day, Thanksgiving Day, Christmas Day.

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County - UNION

Craft: Painter- Containment PREVAILING WAGE RATE

	05/04/17
Journeyman	W35.18
	B24.75
	T59.93

Craft: Painter- Containment COMMENTS/NOTES

NOTE: These rates shall require no painting, but used in a supporting capacity only, such as wrapping, boxing, fencing, etc. on tanks.

The regular workday shall consist of 8 hours between 7:00 AM and 5:30 PM.

SHIFT DIFFERENTIALS:

- The second shift shall receive an additional 10% of the hourly rate, per hour, and the third shift shall receive an additional 15% of the hourly rate, per hour.

OVERTIME:

- Hours in excess of 8 per day, Monday through Friday, and all hours on Saturdays and Sundays shall be paid at time and one-half the regular rate. All hours on holidays shall be paid at double the regular rate..
- Four 10-hour days may be worked, at straight time, Monday through Friday.

RECOGNIZED HOLIDAYS: New Year's Day President's Day, Memorial Day, July 4th, Labor Day, Presidential Election Day, Veterans' Day, Thanksgiving Day, Christmas Day. Saturday holiday observed the preceding Friday. Sunday holiday observed the following Monday.

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County - UNION

Craft: Painter-Elevated Water Tanks

PREVAILING WAGE RATE

	05/04/17
Foreman	W48.92 B24.92 T73.84
General Foreman	W50.92 B24.92 T75.84
Journeyman	W43.92 B24.92 T68.84

Craft: Painter-Elevated Water Tanks

APPRENTICE RATE SCHEDULE

INTERVAL		PERIC	DD AND RAT	ES			
	SEE	PAINTER	BRIDGES				

Craft: Painter-Elevated Water Tanks

COMMENTS/NOTES

These rates apply to: All new and repaint elevated water tanks (interior and exterior).

FOREMEN REQUIREMENTS:

- When there are 4 or more Painters on a job, 1 shall be designated a Foreman.
- When there are 15 or more Painters on a job, 1 shall be designated a General Foreman.

The regular workday shall consist of 8 hours between 7:00 AM and 5:30 PM.

SHIFT DIFFERENTIALS:

- The second shift shall receive an additional 10% of the hourly rate, per hour, and the third shift shall receive an additional 15% of the hourly rate, per hour.

OVERTIME:

- Hours in excess of 8 per day, Monday through Friday, and all hours on Saturdays and Sundays shall be paid at time and one-half the regular rate. All hours on holidays shall be paid at double the regular rate.
- Saturday or Sunday may be used to make up a day lost to inclement weather, at straight time.
- Four 10-hour days may be worked, at straight time, Monday through Friday.

RECOGNIZED HOLIDAYS: New Year's Day, President's Day, Memorial Day, July 4th, Labor Day, Presidential Election Day, Veterans' Day, Thanksgiving Day, Christmas Day. Saturday holiday observed the preceding Friday. Sunday holiday observed the following Monday.

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County - UNION

Craft: Painter-Structural Steel PREVAILING WAGE RATE

	05/04/17
Foreman	W47.87 B25.27 T73.14
General Foreman	W49.87 B25.27 T75.14
Journeyman	W42.87 B25.27 T68.14

Craft: Painter-Structural Steel APPRENTICE RATE SCHEDULE

INTERVAL		PERIC	DD AND RAT	ES			
	SEE	PAINTER	BRIDGES				

Craft: Painter-Structural Steel COMMENTS/NOTES

These rates apply to: All work in power plants (any aspect). On steeples, on dams, on hangers, transformers, substations, etc. and on open steel, whether new or repaint. All new work (excluding traditional commercial painting work) in refineries, tank farms, water/sewerage treatment facilities and on pipelines.

FOREMEN REQUIREMENTS:

- When there are 4 or more Painters on a job, 1 shall be designated a Foreman.
- When there are 15 or more Painters on a job, 1 shall be designated a General Foreman.

The regular workday shall consist of 8 hours between 7:00 AM and 5:30 PM.

SHIFT DIFFERENTIALS:

- The second shift shall receive an additional 10% of the hourly rate, per hour, and the third shift shall receive an additional 15% of the hourly rate, per hour.

OVERTIME:

- Hours in excess of 8 per day, Monday through Friday, and all hours on Saturdays and Sundays shall be paid at time and one-half the regular rate. All hours on holidays shall be paid at double the regular rate.
- Saturday or Sunday may be used to make up a day lost to inclement weather, at straight time.
- Four 10-hour days may be worked, at straight time, Monday through Friday.

RECOGNIZED HOLIDAYS: New Year's Day, President's Day, Memorial Day, July 4th, Labor Day, Presidential Election Day, Veterans' Day, Thanksgiving Day, Christmas Day. Saturday holiday observed the preceding Friday. Sunday holiday observed the following Monday.

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County - UNION

Craft: Paperhanger - New Construction

PREVAILING WAGE RATE

	05/01/19	05/01/20
Foreman	W46.75	W47.68
	B24.11	B24.11
	T70.86	T71.79
Journeyman	W41.68	W42.61
	B24.11	B24.11
	T65.79	T66.72

Craft: Paperhanger - New Construction

APPRENTICE RATE SCHEDULE

INTERVAL		PERIOD AND RATES								
	SEE	PAINTER	NEW	CONSTR	TION					

Ratio of Apprentices to Journeymen - 1:4

Craft: Paperhanger - New Construction

COMMENTS/NOTES

FOREMEN REQUIREMENTS:

- When there are 4 or more Paperhangers on a job, 1 shall be designated a Foreman.

The regular workday shall consist of 8 hours between 7:00 AM and 5:30 PM.

SHIFT DIFFERENTIALS:

- The second shift shall receive an additional 10% of the hourly rate, per hour, and the third shift shall receive an additional 15% of the hourly rate, per hour.

OVERTIME:

- Hours in excess of 8 per day, Monday through Friday, and all hours on Saturdays shall be paid at time and one-half the regular rate. All hours on Sundays and holidays shall be paid at double the regular rate.
- Saturday or Sunday may be used to make up a day lost to inclement weather, at straight time.
- Four 10-hour days may be worked, at straight time, Monday through Friday.

RECOGNIZED HOLIDAYS: New Year's Day, President's Day, Memorial Day, July 4th, Labor Day, General Election Day, Veterans' Day, Thanksgiving Day, Christmas Day.

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County - UNION

Craft: Paperhanger - Renovation PREVAILING WAGE RATE

	05/01/19	05/01/20
Foreman	W34.13	W35.15
	B19.81	B19.81
	T53.94	T54.96
Journeyman	W31.03	W31.96
	B19.81	B19.81
	T50.84	T51.77
I .	I	I

Craft: Paperhanger - Renovation APPRENTICE RATE SCHEDULE

INTERVAL	PERIC	DD AND RAT	ES				
	SEE	PAINTER	NEW	CONSTR	TION		

Ratio of Apprentices to Journeymen - 1:4

Craft: Paperhanger - Renovation COMMENTS/NOTES

NOTE: These rates may only be used on jobs where no major alterations occur, and where not more than 3 other trades are present on the job, but may NOT, under any circumstances, be used for work on bridges, stacks, elevated tanks, or generating stations.

FOREMEN REQUIREMENTS:

- When there are 4 or more Paperhangers on a job, 1 shall be designated a Foreman.

OVERTIME:

- Hours in excess of 8 per day and 40 per week shall be paid at time and one-half the regular rate.
- Four 10-hour days may be worked, at straight time, Monday through Sunday.

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Craft: Pipefitter PREVAILING WAGE RATE

	05/01/19
Foreman	W53.91 B44.03 T97.94
Journeyman	W50.16 B40.98 T91.14

Craft: Pipefitter APPRENTICE RATE SCHEDULE

INTERVAL		PERIOD AND RATES								
Yearly	35%	45%	55%	65%	75%					
Benefit	18.22	22.15	24.59	27.04	29.49					

Ratio of Apprentices to Journeymen - 1:5

Craft: Pipefitter COMMENTS/NOTES

APPRENTICE RATE SCHEDULE AS OF 5-1-19:

 INTERVAL
 PERIOD AND RATES

 Yearly
 35%
 45%
 55%
 65%
 75%

 Benefits
 20.35
 22.83
 25.31
 27.79
 30.28

FOREMAN REQUIREMENTS:

- When there are 2 or more Journeyman Pipefitters on a job, 1 shall be designated a Foreman.
- There shall be a Foreman for every 8 Journeyman Pipefitters on a job.

The regular workday shall be 8 hours between 7:00 AM and 3:30 PM.

SHIFT DIFFERENTIAL:

- 2nd Shift (3:30 PM-11:30 PM) shall work 7.5 hours and receive 8 hours pay at the regular rate, plus 10% per hour on the total rate.
- 3rd Shift (11:30 PM-7:00 AM) shall work 7 hours and receive 8 hours pay at the regular rate, plus 15% per hour on the total rate.

OVERTIME:

- All hours worked in excess of 8 per day, Monday through Friday, and all hours worked on Saturday, shall be paid at time and one-half, inclusive of benefits. All hours on Sunday and holidays shall be paid at double time, inclusive of benefits.
- By mutual agreement, employees may work four 10-hour days, Monday to Thursday, at straight time rate. Friday may be used as a make-up day for a day lost to inclement weather, and may be paid at straight time. If Friday is not a make-up day, the first 8 hours shall be paid at time and one-half, inclusive of benefits; hours in excess of 8 shall be paid at double time, inclusive of benefits.

SHIFT DIFFERENTIAL (Maintenance Work Only):

- 2nd Shift (3:30 PM-11:30 PM) shall work 7.5 hours and receive 8 hours pay at the regular rate, plus 10% per hour on the

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total rate.

- 3rd Shift (11:30 PM-7:00 AM) shall work 7 hours and receive 8 hours pay at the regular rate, plus 15% per hour on the total rate.

OVERTIME (Maintenance Work Only):

- All hours in excess of 8 per day, Monday through Saturday, shall be paid at time and one-half, inclusive of benefits. All hours on Sundays and holidays shall be paid at double time, inclusive of benefits.

NOTE: Maintenance work is work to repair, restore, or improve the efficiency of existing facilities. This does NOT apply to ANY new construction.

RECOGNIZED HOLIDAYS: New Year's Day, Presidents' Day, Memorial Day, July 4th, Labor Day, Presidential Election Day, Veterans' Day, Thanksgiving Day, Christmas Day. Sunday holidays are observed the following Monday.

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Craft:	Plasterer	PREVAILING WAGE RATE

See Bricklayer, Stone Mason Rates

Craft: Plasterer COMMENTS/NOTES

See BRICKLAYER, STONE MASON Rates

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Craft: Plumber PREVAILING WAGE RATE

	05/01/19
Foreman	W59.61
	B35.77
	T95.38
General Foreman	W63.47
	B35.77
	T99.24
Journeyman	W55.19
	B35.77
	T90.96

Craft: Plumber APPRENTICE RATE SCHEDULE

INTERVAL	PERIOD AND RATES									
Yearly	30%	45%	55%	65%	75%					
Benefits	13.35	19.71	21.51	23.34	25.13					

Ratio of Apprentices to Journeymen - *

Craft: Plumber COMMENTS/NOTES

APPRENTICE RATE SCHEDULE AS OF 5-1-19:

INTERVAL PERIOD AND RATES

Yearly 30% 45% 55% 65% 75% Benefits 14.19 20.58 22.41 24.26 26.08

FOREMAN REQUIREMENTS:

- On any job having 2 or more Plumbers, 1 must be designated a Foreman.
- On any job having 9 or more Plumbers, 2 shall be designated as Foremen.

The regular workday shall consist of 8 hours between 7:00 AM and 4:30 PM.

SHIFT DIFFERENTIALS:

- Shift work must continue for a minimum of 5 consecutive workdays.
- When two shifts are worked, the second shift shall work 7.5 hours and receive 8 hours pay, at a rate equal to the hourly rate plus 10%, inclusive of benefits.
- When a third shift is worked, the third shift shall work 7 hours and receive 8 hours pay, at a rate equal to the hourly rate plus 15%, inclusive of benefits.

OVERTIME:

- All hours in excess of 8 per day, or before of after the regular workday that are not shift work, Monday through Friday, and all hours on Saturday, shall be paid at time and one-half the regular rate, inclusive of benefits. All hours on Sunday and holidays, shall be paid at double the hourly rate, inclusive of benefits.
- Four 10-hour days may be worked, Monday to Thursday, at straight time. Friday may be used as a make-up day for a

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^{*} Employers may employ 1 apprentice on any job where 1 or 2 journeymen are employed. Thereafter, 1 apprentice may be employed for every 4 journeymen.

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day lost due to inclement weather. If Friday is not a make-up day, all hours on Friday shall be paid at time and one-half, inclusive of benefits.

RECOGNIZED HOLIDAYS: New Year's Day, Presidents' Day, Memorial Day, July 4th, Labor Day, Presidential Election Day, Veterans' Day, Thanksgiving Day, Christmas Day. Sunday holidays will be observed the following Monday.

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Craft: Roofer PREVAILING WAGE RATE

	07/17/19
Foreman	W41.77 B27.03 T68.80
Journeyman	W38.77 B27.03 T65.80

Craft: Roofer APPRENTICE RATE SCHEDULE

INTERVAL	PERIOD AND RATES									
6 Months	15.50	19.39	23.26	27.14	31.01	34.90				
Benefits	2.10	2.10	24.28	24.28	24.28	24.28				

Ratio of Apprentices to Journeymen - *

- * A) For roofing jobs that are of the 1 or single ply nature: 1:2 or fraction thereof
- B) For roofing jobs on new built up roofs: 1:3 or fraction thereof
- C) For roofing jobs that are of a tear-off nature: 1:2 or fraction thereof
- D) For roofing jobs {not requiring complete removal of existing systems, installation done over existing roof}: 1:3 or fraction thereof

Craft: Roofer COMMENTS/NOTES

APPRENTICE RATE SCHEDULE FOR THOSE APPRENTICES ENTERING PROGRAM AFTER 4-1-17:

INTERVAL PERIOD AND RATES

6 Months 15.50 19.39 23.26 25.20 27.14 29.08 31.01 34.90 Benefits 2.10 2.10 24.28 24.28 24.28 24.28 24.28 24.28

Pitch: +.50 per hour

Mop Man: +.30 per hour

The regular workday consists of 8 hours between 8:00 AM and 4:30 PM.

OVERTIME:

Hours in excess of 8 per day, or before or after the regular workday, Monday through Friday, and all hours on Saturdays, Sundays, and holidays shall be paid at time and one-half the regular rate.

RECOGNIZED HOLIDAYS: New Year's Day, Good Friday, Memorial Day, July 4th, Labor Day, Presidential Election Day, Veterans' Day, Thanksgiving Day, Christmas Day.

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County - UNION

Craft: Sheet Metal Sign Installation PREVAILING WAGE RATE

	04/03/19
Foreman	W36.79 B34.37 T71.16
Journeyman	W35.54 B34.37 T69.91

Craft: Sheet Metal Sign Installation APPRENTICE RATE SCHEDULE

INTERVAL	PERIOD AND RATES									
1000 hours	35%	40%	45%	50%	55%	60%	65%	70%	75%	80%
Benefits	11.63	13.26	14.88	16.52	18.57	20.23	21.90	23.56	25.23	26.90

Ratio of Apprentices to Journeymen - 1:3

Craft: Sheet Metal Sign Installation COMMENTS/NOTES

FOREMAN REQUIREMENT:

When there are 6 or more Sheet Metal Sign Installers on a job, 1 shall be designated a Foreman.

The regular workday consists of 8 hours, between 7:00 AM and 3:30 PM.

OVERTIME:

Hours before or after the regular workday, Monday though Friday, and all hours worked on Saturday shall be paid at time and one-half the hourly rate. All hours on Sunday and holidays shall be paid at double the hourly rate.

Four(4) 10 hour days may be worked, Monday through Friday, at straight time, for projects lasting at least one week in duration. The fifth day may be used as a make-up day at straight time for a day lost due to inclement weather. However, if the fifth day is not a make-up day, all hours worked will be paid at time and one-half the hourly rate.

RECOGNIZED HOLIDAYS: New Year's Day, Presidents' Day, Good Friday, Memorial Day, July 4th, Labor Day, Veterans' Day, Thanksgiving Day and the day after, Christmas Day. Saturday holidays observed the preceding Friday, Sunday holidays observed the following Monday.

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County - UNION

Craft: Sheet Metal Worker PREVAILING WAGE RATE

	07/15/19	06/01/20
Foreman	W52.36	W0.00
	B44.86	B0.00
	T97.22	T100.47
General Foreman	W53.36	W0.00
	B44.86	B0.00
	T98.22	T101.47
Journeyman	W48.86	W0.00
	B44.86	B0.00
	T93.72	T96.97

Craft: Sheet Metal Worker APPRENTICE RATE SCHEDULE

INTERVAL		PERIOD AND RATES									
Yearly	35%	45%	55%	65%	of	Journey	man	Wage	Rate		
Benefit	35%	45%	55%	65%	of	Journey	man	Benefit	Rate		

Ratio of Apprentices to Journeymen - 1:4

Craft: Sheet Metal Worker COMMENTS/NOTES

FOREMAN REQUIREMENTS:

- When there are 2 or more Sheet Metal Workers on a project, 1 must be designated a Foreman.
- When there are 17 or more Sheet Metal Workers on a project, 1 must be designated a General Foreman.
- When there is only 1 Sheet Metal Worker (1 Journeyman) on a project, he/she shall receive \$1.00 more than the regular Journeyman's rate.

The regular workday is 8 hours between 7:00 AM and 4:30 PM.

SHIFT DIFFERENTIAL:

- 2nd Shift (3:30 PM 12:00 AM): +17% of regular hourly rate
- Shift work must run for a minimum of 5 consecutive workdays.

OVERTIME:

- Hours in excess of 8 per day, or before or after the regular workday, that are not shift work, and the first 10 hours on Saturdays shall be paid at time and one-half of the regular rate, inclusive of benefits. Hours in excess of 10 per day on Saturday, and all hours on Sundays and holidays shall be at double the regular rate, inclusive of benefits.
- Four 10-hour days may be worked, Monday through Friday, at straight time, with hours in excess of 10 per day, and hours in excess of 40 per week paid at the overtime rates listed above.

RECOGNIZED HOLIDAYS: New Year's Day, Presidents' Day, Good Friday, Memorial Day, July 4th, Labor Day, Presidential Election Day, Veterans' Day, Thanksgiving Day, Christmas Day. Sunday holidays will be observed the following Monday.

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County - UNION

Craft: Sprinkler Fitter PREVAILING WAGE RATE

	07/02/19
Foreman	W66.15
	B30.12
	T96.27
General Foreman	W69.33
	B30.12
	T99.45
Journeyman	W61.90
	B30.12
	T92.02

Craft: Sprinkler Fitter APPRENTICE RATE SCHEDULE

INTERVAL	PERIOD AND RATES										
1000 Hours	80% 85%								85%		
Benefits						Intervals	9 to 10	Jourymn	Ben.		

APPRENTICE RATE SCHEDULE FOR THOSE APPRENTICES REGISTERED AS OF 7-1-13:

INTERVAL PERIOD AND RATES

1000 hours 25% 30% 40% 45% 55% 60% 70% 75% 85% 90%

Benefits 12.02 12.02 24.37 24.37 24.37 Intervals 7 to 10 receive Journeyman Ben.

Craft: Sprinkler Fitter COMMENTS/NOTES

The regular workday consists of 8 consecutive hours between 6:00 AM and 4:30 PM.

FOREMAN REQUIREMENTS:

- The first Sprinkler Fitter on the job must be designated a Foreman.
- On any job having 12 or more Sprinkler Fitters, one must be designated a General Foreman.

SHIFT DIFFERENTIALS:

- Shift work must run for a minimum of 2 consecutive workdays.
- 2nd and 3rd shift shall receive an additional 15% of the regular rate, per hour.
- Any "off hours" shift starting at 8:00 PM or later shall receive an additional 25% of the regular rate, per hour.

OVERTIME:

The first 2 hours in excess of 8 per day, after the regular workday that are not shift work, Monday through Friday, shall be paid at time and one-half the regular rate. Hours worked in excess of 10 per day, Monday through Friday, and all hours on Saturday, Sunday and holidays, shall be paid double the regular rate.

Four 10 hour days may be worked, Monday through Friday, at straight-time.

RECOGNIZED HOLIDAYS: New Year's Day, Presidents' Day, Good Friday, Memorial Day, July 4th, Labor Day, Presidential Election Day, Veterans Day, Thanksgiving Day, Christmas Day.

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County - UNION

Craft: Tile Finisher-Marble PREVAILING WAGE RATE

	07/01/19
Finisher	W47.41
	B34.64
	T82.05

Craft: Tile Finisher-Marble APPRENTICE RATE SCHEDULE

INTERVAL		PERIOD AND RATES										
750 Hours	40% 45% 50% 55% 60% 65% 70% 75% 85%							95%				

Ratio of Apprentices to Journeymen - 1:4

Craft: Tile Finisher-Marble COMMENTS/NOTES

OVERTIME:

Hours in excess of 7 per day, Monday through Friday, and the first 7 hours on Saturdays shall be paid at time and one half the regular rate, inclusive of benefits. Hours in excess of 7 on Saturdays and all hours on Sundays and holidays shall be paid at double the regular rate, inclusive of benefits.

RECOGNIZED HOLIDAYS: New Year's Day, Presidents' Day, Good Friday, Memorial Day, July 4th, Labor Day, Columbus Day, Veterans' Day, Thanksgiving Day and the day after, Christmas Day. Sunday holidays observed the following Monday.

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County - UNION

Craft: Tile Setter - Ceramic PREVAILING WAGE RATE

	06/03/19
Finisher	W45.54 B30.53 T76.07
Setter	W58.95 B34.00 T92.95

Craft: Tile Setter - Ceramic APPRENTICE RATE SCHEDULE

INTERVAL		PERIOD AND RATES										
750 Hours	35%	35% 40% 50% 55% 60% 65% 70% 75% 80% 90%								90%		

Ratio of Apprentices to Journeymen - 1:4

Craft: Tile Setter - Ceramic COMMENTS/NOTES

OVERTIME:

Hours in excess of 7 per day, and the first 10 hours on Saturdays shall be paid at time and one-half the hourly rate. All hours on Saturdays after 10 hours shall be paid double the hourly rate. All hours on Sundays and holidays shall be paid at double the hourly rate.

RECOGNIZED HOLIDAYS: New Year's Day, Memorial Day, July 4th, Labor Day, Thanksgiving Day, Christmas Day.

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County - UNION

Craft: Tile Setter - Marble PREVAILING WAGE RATE

	07/01/19
Tile Setter	W59.44
	B36.88
	T96.32

Craft: Tile Setter - Marble APPRENTICE RATE SCHEDULE

INTERVAL		PERIOD AND RATES										
750 Hours	40%	40% 45% 50% 55% 60% 65% 70% 75% 85% 95%								95%		

Ratio of Apprentices to Journeymen - 1:4

Craft: Tile Setter - Marble COMMENTS/NOTES

OVERTIME:

Hours in excess of 7 per day, Monday through Friday, and the first 7 hours on Saturdays shall be paid at time and one-half the regular rate, inclusive of benefits. Hours in excess of 7 on Saturdays, and all hours on Sundays and holidays shall be paid at double the regular rate, inclusive of benefits.

RECOGNIZED HOLIDAYS: New Year's Day, Presidents' Day, Good Friday, Memorial Day, July 4th, Labor Day, Columbus Day, Veterans' Day, Thanksgiving Day and the day after, Christmas Day. Sunday holidays observed the following Monday.

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County - UNION

Craft: Tile Setter - Mosaic & Terrazzo PREVAILING WAGE RATE

	07/01/19
Grinder or Assistant	W54.81 B36.42
	T91.23
Mechanic	W56.41
	B36.44
	T92.85
Terrazzo Resinous	W47.10
Worker	B29.47
	T76.57

Craft: Tile Setter - Mosaic & Terrazzo APPRENTICE RATE SCHEDULE

INTERVAL		PERIOD AND RATES									
750 Hours	50%	% 55% 60% 65% 70% 75% 85% 95% 100%									

Ratio of Apprentices to Journeymen - 1:5

Craft: Tile Setter - Mosaic & Terrazzo COMMENTS/NOTES

APPRENTICE RATE SCHEDULE FOR THOSE APPRENTICES ENTERING PROGRAM AFTER 7-1-17:

INTERVAL PERIOD AND RATES

1500 Hours 35% 45% 60% 70% 80% 90% 100%

The regular workday consists of 7 hours, between 8:00 AM and 3:30 PM.

OVERTIME:

- Hours in excess of 7 per day, or before or after the regular workday, Monday through Friday, and all hours on Saturdays shall be paid at time and one-half the hourly rate. All hours on Sundays and holidays shall be paid at double the hourly rate.

RECOGNIZED HOLIDAYS: New Year's Day, Presidents' Day, Good Friday, Monday after Easter, Memorial Day, July 4th, Labor Day, Columbus Day, Veterans' Day, Thanksgiving Day and the day after, Christmas Day. Sunday holidays observed the following Monday.

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County - UNION

Craft: Truck Driver PREVAILING WAGE RATE

	07/00/40	05/04/00
	07/09/19	05/01/20
Bucket, Utility,	W38.46	W39.21
Pick-up, Fuel	B37.05	B38.05
Delivery trucks	T75.51	T77.26
Dump truck, Asphalt	W38.46	W39.21
Distributor, Tack	B37.05	B38.05
Spreader	T75.51	T77.26
Euclid-type vehicles	W38.56	W39.31
(large, off-road	B37.05	B38.05
equipment)	T75.61	T77.36
Helper on Asphalt	W38.46	W39.21
Distributor truck	B37.05	B38.05
	T75.51	T77.26
Slurry Seal,	W38.46	W39.21
Seeding/Fertilizing/	B37.05	B38.05
Mulching truck	T75.51	T77.26
Straight 3-axle truck	W38.46	W39.21
	B37.05	B38.05
	T75.51	T77.26
Tractor Trailer	W38.56	W39.31
(all types)	B37.05	B38.05
	T75.61	T77.36
Vacuum or Vac-All	W38.46	W39.21
truck (entire unit)	B37.05	B38.05
	T75.51	T77.26
Winch Trailer	W38.66	W39.41
	B37.05	B38.05
	T75.71	T77.46

Craft: Truck Driver COMMENTS/NOTES

BLENDED RATE:

When a truck driver is performing work on the site and also serving as a material delivery driver, the driver shall be paid a "blended rate" which shall be 80% of the above-listed wage rates, plus the full benefit rate. This rate shall be used when the driver "round robins" for a minimum of 6 hours during the work day.

HAZARDOUS WASTE REMOVAL:

- On hazardous waste removal work on a State designated hazardous waste site where the driver is in direct contact with hazardous materials and when personal protective equipment is required for respiratory, skin, and eye protection, the driver shall receive an additional \$3.00 per hour (with or without protective gear).
- A hazardous waste related certified worker at a designated hazardous waste site who is not working in a zone requiring level A, B or C personal protection shall receive an additional \$1.00 per hour.

TRUCK FOREMAN: \$.75 cents per hour above regular rate. Overtime shall be increased accordingly.

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County - UNION

The regular workday shall be 8 hours, starting between 6:00 AM and 8:00 AM.

SHIFT DIFFERENTIAL:

- Shifts starting at 4:00 PM (2nd Shift): + \$3.00 per hour.
- Shifts starting at 12:00 AM (midnight/3rd Shift): time and one-half the hourly rate.
- Shifts starting at a time other than from 6:00 AM to 8:00 AM, when such hours are mandated by the project owner: + \$3.00 per hour.

OVERTIME:

- Hours in excess of 8 per day, or before or after the regular workday, Monday through Friday, that are not shift work, and all hours on Saturdays shall be paid at time and one-half the hourly rate. All hours on Sundays and holidays shall be paid at double the hourly rate.
- Employees may work four 10-hour days at straight time, Monday through Thursday, with Friday used as a make-up day for a lost day. If Friday is not a make-up day, then all hours on Friday shall be paid at time and one-half the hourly rate.
- -Benefits on overtime shall be \$36.80.

As of 5-1-20, benefits on overtime shall be \$37.80.

RECOGNIZED HOLIDAYS: New Year's Day, President's Day, Memorial Day (Decoration Day), July 4th, Labor Day, Presidential Election Day, Veteran's Day, Thanksgiving Day, Christmas Day. Sunday holidays will be observed the following Monday. The day after Thanksgiving may be substituted for Veteran's Day.

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County - UNION

Craft: Truck Driver-Material Delivery Driver

PREVAILING WAGE RATE

	04/01/19	04/01/20
Driver	W25.10	W25.60
	B15.25	B15.71
	T40.35	T41.31
		1

Craft: Truck Driver-Material Delivery Driver COMMENTS/NOTES

BLENDED RATE:

When a truck driver is performing work on the site and also serving as a material delivery driver, the driver shall be paid a "blended rate". See the "Truck Driver" craft for the blended rates.

Truck Foreman/Shop Steward: +\$0.25 per hour

SHIFT DIFFERENTIALS:

- 2nd Shift shall receive an additional \$0.50 per hour
- 3rd Shift shall receive time and one-half the hourly rate.

OVERTIME:

- Hours in excess of 8 per day, or before or after the regular workday that are not shift work, Monday through Friday, and all hours on Saturday shall be paid at time and one-half the hourly rate. All hours on Sunday and holidays shall be paid at double the hourly rate.

RECOGNIZED HOLIDAYS: New Year's Day, President's Day, Memorial Day (Decoration Day), July 4th, Labor Day, Presidential Election Day, Veterans' Day, Thanksgiving Day, Christmas Day. Sunday holidays will be observed the following Monday. The day after Thanksgiving may be substituted for Veterans' Day.

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County - UNION

Craft:	Welder	PREVAILING WAGE RATE
	Welder	
Craft:	Welder	COMMENTS/NOTES

Welders rate is the same as the craft to which the welding is incidental $\!.$

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STATEWIDE RATES

NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT PREVAILING WAGE RATE DETERMINATION

OPERATING ENGINEERS Rates Expiration Date:

{For apprentice rates refer to "Operating Engineers" apprentice rates in any county rate package}

The regular workday consists of 8 hours, Monday to Friday, between 6:00 AM and 4:30 PM.

SHIFT DIFFERENTIALS:

- Shift work must run for 5 consecutive workdays.
- When 2 shifts are worked, the second shift shall receive an additional 10% of the regular rate inclusive of benefits, per hour.
- When 3 shifts are worked, the second shift shall receive 8 hours pay for 7.5 hours of work, plus an additional 10% of the regular rate inclusive of benefits, per hour. The third shift shall receive 8 hours pay for 7 hours of work, plus an additional 15% of the regular rate inclusive of benefits, per hour.
- When such hours are mandated by the project owner, a shift that starts between 8:00 PM and midnight and ends by 6:00 AM Saturday, or that starts after 8:00 PM on Sunday, provided there are consecutive hours of work within the shift, shall receive an additional 15% of the regular rate, inclusive of benefits.
- On Highway, Road, Street, and Sewer projects irregular shifts starting between 5:00 PM and 12:00 AM may be worked Monday through Friday, and shall receive an additional 15% of the regular rate, inclusive of benefits. When working with other trades that receive a higher irregular shift rate, the Operating Engineer shall also receive the higher irregular shift rate.

OVERTIME:

- Hours in excess of 8 per day, or outside of the regular workday, Monday through Friday, that are not shift work, and all hours on Saturdays shall be paid at time and one-half the regular rate, inclusive of benefits. All hours on Sundays and holidays shall be paid at double the regular rate, inclusive of benefits.
- Four 10-hour days may be worked, Monday through Thursday, at straight time, with all hours on Friday paid at time and one-half the regular rate, inclusive of benefits.

RECOGNIZED HOLIDAYS: New Year's Day, Presidents' Day, Memorial Day, July 4th, Labor Day, Presidential Election Day, Veterans Day, Thanksgiving Day, Christmas Day. Sunday holidays observed the following Monday. When all trades on a particular job site agree, the day after Thanksgiving may be substituted for Veteran's Day.

On hazardous waste removal work or asbestos removal work, on a state or federally designated hazardous waste site, where the operating engineer is in direct contact with hazardous material and when personal protective equipment is required for respiratory, skin, and eye protection, the operating engineer shall receive an additional 20% of the hourly wage, per hour.

Hydro-Blaster

NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT

ENTIRE STATE PREVAILING WAGE RATE DETERMINATION

OPERATING ENGINEERS Rates Expiration Date: Effective Dates: 07/01/2019 Rate Fringe Total 33.85 85.38 51.53 **CLASSIFICATIONS:** A-Frame Backhoe (combination) Boom Attachment on loaders (Except pipehook) Boring & Drilling Machine Brush Chopper, Brush Shredder, Tree Shredder, Tree Shearer Bulldozer, finish grade Cableway Carryall Concrete Pump Concrete Pumping System (Pumpcrete & similar types) Conveyor, 125 feet or longer Drill Doctor (Duties include dust collector and maintenance) Front End Loader (2 cu. yds. but less than 5 cu. yds.) Grader, finish Groove Cutting Machine (ride-on type) Heater Planer Hoist: Outside Material Tower Hoist (all types including steam, gas, diesel, electric, air hydraulic, single and double drum, concrete, brick shaft caisson, snorkle roof, and other similar types, Except Chicago-boom type) * receives an additional \$1.00 per hour on 100 ft. up to 199 ft. total height, and an additional \$2.00 per hour on 200 ft. and over total height. Hydraulic Crane (10 tons & under) Hydraulic Dredge Hydro-Axe

NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT

ENTIRE STATE PREVAILING WAGE RATE DETERMINATION

Rates Expiration Date:

Effective	Dates:

OPERATING ENGINEERS

Rate	Fringe	Total
51.53	33.85	85.38

CLASSIFICATIONS:

Jack (screw, air hydraulic, power-operated unit, or console type, Except hand jack or pile load test type)

Log Skidder

Pan

Paver, concrete

Plate & Frame Filter Press

Pumpcrete (unit type)

Pumpcrete, Squeezecrete, or Concrete Pumping machine (regardless of size)

Scraper

Side Boom

Straddle Carrier (Ross and similar types)

Whiphammer

Winch Truck (hoisting)

NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT PREVAILING WAGE RATE DETERMINATION

ENTIRE STATE PREVAILING WAGE R

Rates Expiration Date:

Effective Dates:

OPERATING ENGINEERS

07/01/2019

Rate Fringe Total 49.62 33.85 83.47

CLASSIFICATIONS:

Asphalt Curbing Machine

Asphalt Plant Engineer

Asphalt Spreader

Autograde Curb Trimmer & Sidewalk Shoulder Slipform (CMI & similar types)

Autograde Curecrete Machine (CMI & similar types)

Autograde Tube Finisher & Texturing Machine (CMI & similar types)

Bar Bending Machines (Power)

Batcher, Batching Plant, & Crusher [On Site]

Belt Conveyor System

Boom-Type Skimmer Machine

Bridge Deck Finisher

Bulldozer (all sizes)

Captain (Power Boats)

Car Dumper (railroad)

Compressor & Blower unit for loading/unloading of concrete, cement, fly ash, or similar type materials (used independently or truck-mounted)

Compressor (2 or 3 battery)

Concrete Breaking Machine

Concrete Cleaning/Decontamination Machine

Concrete Finishing Machine

Concrete Saw or Cutter (ride-on type)

Concrete Spreader (Hetzel, Rexomatic & similar types)

Concrete Vibrator

Hopper

Hopper Doors (power operated)

Ladder (motorized)

NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT PREVAILING WAGE RATE DETERMINATION

ENTIRE STATE **OPERATING ENGINEERS Rates Expiration Date: Effective Dates:** 07/01/2019 Total Rate Fringe 49.62 33.85 83.47 **CLASSIFICATIONS:** Conveyors - under 125 feet Crane Signalman Crushing Machine Directional Boring Machine Ditching Machine - Small (Ditchwitch, Vermeer or similar types) Dope Pot - Mechanical (with or without pump) Dumpster Elevator Fireman Fork Lift (Economobile, Lull & similar types) Front End Loader (1 cu. yd. and over but less than 2 cu. yds.) Generator (2 or 3 battery) Giraffe Grinder Goldhofer/Hydraulic Jacking Trailer Grader & Motor Patrols Grout Pump Gunnite Machine (Excluding nozzle) Hammer - Vibratory (in conjunction with generator) Heavy Equipment Robotics - Operator/Technician Hoist (roof, tugger, aerial platform hoist, house car)

11/08/2019

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Tractor

Transfer Machines

NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT PREVAILING WAGE RATE DETERMINATION

OPERATING ENGINEERS	Rates Expiration Date :
Effective Dates:	

Effective Dates	s:			
07/01/2019				
Rate 49.62	Fringe 33.85	Total 83.47		
CLASSIFICA				
Laddervator				
Locomotive (I	Dinky-type)			
Maintenance U	Utility Man			
Master Enviro	onmental Mainter	nance Technician		
Mechanic				
Mixer (Except	t paving mixers)			
Pavement Bre ride-on type)		nted or small self-propelled		
Pavement Bre	aker - maintenan	ce of compressor or hydraulic unit		
Pipe Bending	Machine (power			
Pitch Pump				
Plaster Pump	(regardless of siz	re)		
Post Hole Dig	ger (post pounde	r, auger)		
Rod Bending	Machines			
Roller (black	top)			
Scale (power)				
Seamen Pulve	erizing Mixer			
Shoulder Wide	ener			
Silo				
Skimmmer M	achine (boom typ	ne)		
Steel Cutting	Machine (service	e & maintenance)		
Tamrock Drill	I			

11/08/2019

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NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT PREVAILING WAGE RATE DETERMINATION

ENTIRE STATE

OPERATING ENGINEERS Rates Expiration Date:

Effective Dates:

07/01/2019

Rate Fringe Total 49.62 33.85 83.47

CLASSIFICATIONS:

Tug Captains

Tug Master (Power Boats)

Ultra High Pressure Waterjet Cutting Tool System - Operator/Maintenance Technician

Vacuum Blasting Machine - Operator/Maintenance Technician

Vibrating Plant (used with unloading)

Welder & Repair Mechanic

Effective Dates:

07/01/2019

Rate Fringe Total 46.28 33.85 80.13

CLASSIFICATIONS:

Assistant Engineer/Oiler

Driller's Helper

Field Engineer - Transit man or Instrument man

Maintenance Apprentice (Deckhand)

Maintenance Apprentice (Oiler)

Mechanic's Helper

Off Road Back Dump

Tire Repair & Maintenance

Effective Dates:

07/01/2019

Rate Fringe Total 43.70 33.85 77.55

CLASSIFICATIONS:

Field Engineer - Rodman or Chainman

NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT PREVAILING WAGE RATE DETERMINATION

ENTIRE STATE

OPERATING ENGINEERS Rates Expiration Date :

Effective Dates:

07/01/2019

Rate Fringe Total 53.86 33.85 87.71

CLASSIFICATIONS:

Lead Engineer, Foreman Engineer, Safety Engineer (minimum)

NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT PREVAILING WAGE RATE DETERMINATION

ENTIRE STATE

OPERATING ENGINEERS Rates Expiration Date:

Effec	tivo	Das	toes
rattec	TIVE	1123	66.

Mucking Machine

Effective Dates:
07/01/2019
Rate Fringe Total
53.12 33.85 86.97
CLASSIFICATIONS:
Autograde Pavement Profiler (CMI & similar types)
Autograde Pavement Profiler - Recycle Type (CMI & similar types)
Autograde Placer/Trimmer/Spreader Combination (CMI & similar types)
Autograde Slipform Paver (CMI & similar types)
Backhoe (Excavator)
Central Power Plant
Concrete Paving Machine
Cranes, Derricks, Pile Drivers (all types), under 100 tons with a boom (including jib and/or leads) under 100 ft.
Draglines
Drill, Bauer, AMI and similar types
Drillmaster, Quarrymaster
Drillmaster/Quarrymaster (down-the-hole drill), rotary drill, self-propelled hydraulic drill, self-powered drill
Elevator Grader
Field Engineer-Chief of Party
Front End Loader (5 cu. yards or larger)
Gradall
Grader, Rago
Helicoptor Co-Pilot
Helicoptor Communications Engineer
Juntann Pile Driver
Locomotive (large)

NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT PREVAILING WAGE RATE DETERMINATION

ENTIRE STATE PREVAILING WAGE RATE DETERMINATION

Rates Expiration Date:

Effective	Dates:

OPERATING ENGINEERS

07	/N 1	121	010	

Rate Fringe Total 53.12 33.85 86.97

CLASSIFICATIONS:

Pavement & Concrete Breaker (Superhammer & Hoe Ram)

Pile Driver

Prentice Truck

Roadway Surface Grinder

Scooper (loader & shovel)

Shovel (Excavator)

Trackhoe (Excavator)

Tree Chopper with boom

Trenching Machine (cable plow)

Tunnel Boring Machine

Vacuum Truck

NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT PREVAILING WAGE RATE DETERMINATION

Rates Expiration Date:

Effective Dates:

OPERATING ENGINEERS

07/01/2019

Rate Fringe Total 47.99 33.85 81.84

CI	AS	SIF	ICA'	TIO	NC.
ᆫ	~	JII	-	110	110.

Chipper

Compressor (single)

Concrete Spreader (small type)

Conveyor Loader (Except elevator graders)

Engines, Large Diesel (1620 HP) & Staging Pump

Farm Tractor

Fertilizing Equipment (operation & maintenance)

Fine Grade Machine (small type)

Form Line Grader (small type)

Front End Loader (under 1 cubic yard)

Generator (single)

Grease, Gas, Fuel, & Oil Supply Trucks

Heaters (Nelson or other type)

Lights - portable generating light plant

Mixer, Concrete (small)

Mulching Equipment (operation & maintenance)

Power Broom or Sweeper

Pump (diesel engine & hydraulic - regardless of power)

Pump (larger than 2 inch suction, including submersible pumps)

Road Finishing Machine (small type)

Roller - grade, fill, or stone base

Seeding Equipment (operation & maintenance)

Sprinkler & Water Pump Trucks

NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT PREVAILING WAGE RATE DETERMINATION

ENTIRE STATE

OPERATING ENGINEERS Rates Expiration Date:

Effective Dates:

07/01/2019

Rate Fringe Total 47.99 33.85 81.84

CLASSIFICATIONS:

Steam Generator or Boiler

Stone Spreader

Tamping Machine (vibrating ride-on type)

Temporary Heating Plant (Nelson or other type, including proprane, natural gas, and flow-type units)

Water or Sprinkler Truck

Welding Machine (gas, diesel, or electric convertor, of any type)

Welding System - Multiple (rectifier transformer type)

Wellpoint Systems (including installation by bull gang and maintenance)

Effective Dates:

07/01/2019

Rate	Fringe	Total
54 94	33.85	88 79

CLASSIFICATIONS:

Helicoptor Pilot/Engineer

Effective Dates:

07/01/2019

Rate	Fringe	Total
59.62	33.85	93.47

CLASSIFICATIONS:

Cranes, Derricks, Pile Driver (all types), 100 tons and over and TOWER CRANE with boom (including jib and/or leads) 140 ft. and over

Effective Dates:

07/01/2019

Rate	Fringe	Total
58.62	33.85	92.47

CLASSIFICATIONS:

Cranes, Derricks, Pile Driver (all types), 100 tons and over and TOWER CRANE with boom (including jib and/or leads) from 100 ft. to 139 ft.

NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT PREVAILING WAGE RATE DETERMINATION

ENTIRE STATE

OPERATING ENGINEERS Rates Expiration Date:

Effective Dates:

07/01/2019

Rate Fringe Total 55.12 33.85 88.97

CLASSIFICATIONS:

Cranes, Derricks, Pile Driver (all types), under 100 tons with a boom (including jib and/or leads) 140 ft. and over

Effective Dates:

07/01/2019

Rate Fringe Total 57.62 33.85 91.47

CLASSIFICATIONS:

Cranes, Derricks, Pile Driver (all types), 100 tons and over and TOWER CRANE with a boom (including jib and/or leads) under 100 ft.

Effective Dates:

07/01/2019

Rate Fringe Total 54.12 33.85 87.97

CLASSIFICATIONS:

Cranes, Derricks, Pile Driver (all types), under 100 tons with a boom (including jib and/or leads) from 100 ft. to 139 ft.

NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT PREVAILING WAGE RATE DETERMINATION

STRUCTURAL STEEL ERECTION Rates Expiration Date:

{For apprentice rates refer to "Operating Engineers" apprentice rates in any county rate package}

The regular workday consists of 8 hours, Monday to Friday, between 6:00 AM and 4:30 PM.

SHIFT DIFFERENTIALS:

- Shift work must run for 5 consecutive workdays.
- When 2 shifts are worked, the second shift shall receive an additional 10% of the regular rate inclusive of benefits, per hour.
- When 3 shifts are worked, the second shift shall receive 8 hours pay for 7.5 hours of work, plus an additional 10% of the regular rate inclusive of benefits, per hour. The third shift shall receive 8 hours pay for 7 hours of work, plus an additional 15% of the regular rate inclusive of benefits, per hour.
- When such hours are mandated by the project owner, a shift that starts between 8:00 PM and midnight and ends by 6:00 AM Saturday, or that starts after 8:00 PM on Sunday, provided there are consecutive hours of work within the shift, shall receive an additional 15% of the regular rate, inclusive of benefits.
- On Highway, Road, Street, and Sewer projects irregular shifts starting between 5:00 PM and 12:00 AM may be worked Monday through Friday, and shall receive an additional 15% of the regular rate, inclusive of benefits. When working with other trades that receive a higher irregular shift rate, the Operating Engineer shall also receive the higher irregular shift rate.

OVERTIME:

- Hours in excess of 8 per day, or outside of the regular workday, Monday through Friday, that are not shift work, and all hours on Saturdays shall be paid at time and one-half the regular rate, inclusive of benefits. All hours on Sundays and holidays shall be paid at double the regular rate, inclusive of benefits.
- Four 10-hour days may be worked, Monday through Thursday, at straight time, with all hours on Friday paid at time and one-half the regular rate, inclusive of benefits.

RECOGNIZED HOLIDAYS: New Year's Day, Presidents' Day, Memorial Day, July 4th, Labor Day, Presidential Election Day, Veterans Day, Thanksgiving Day, Christmas Day. Sunday holidays observed the following Monday. When all trades on a particular job site agree, the day after Thanksgiving may be substituted for Veteran's Day.

On hazardous waste removal work or asbestos removal work, on a state or federally designated hazardous waste site, where the operating engineer is in direct contact with hazardous material and when personal protective equipment is required for respiratory, skin, and eye protection, the operating engineer shall receive an additional 20% of the hourly wage, per hour.

Effective Dates:

07/01/2019

Rate	Fringe	Total
56.75	33.85	90.60

CLASSIFICATIONS:

Helicopter Co-Pilot & Communications Engineer

NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT PREVAILING WAGE RATE DETERMINATION

ENTIRE STATE PREVAILING WAG

Rates Expiration Date:

Effective Dates:

07/01/2019

Rate Fringe Total 52.69 33.85 86.54

STRUCTURAL STEEL ERECTION

CLASSIFICATIONS:

A-Frame

Cherry Picker -10 tons or less (Over 10 tons use crane rate)

Hoist (all types Except Chicago-boom)

Jack (screw, air hydraulic, power-operated unit or console type, Except hand jack or pile load test type)

Side Boom

Straddle Carrier

NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT PREVAILING WAGE RATE DETERMINATION

STRUCTURAL STEEL ERECTION Rates Expiration Date :

Effective Dates:

Effective Dates:			
07/01/20	019		
Rate Fringe	Total		
50.03 33.85	83.88		
CLASSIFICATIONS:			
Aerial Platform Used On	Hoists		
Apprentice Engineer/Oile	er with Compressor or Welding Machine		
Captain (Power Boats)			
Compressor (2 or 3 in bat	tery)		
Concrete Cleaning/Decon	ntamination Machine Operator		
Conveyor or Tugger Hois			
Directional Boring Machine			
Elevator or House Car			
Fireman			
Forklift			
Generator (2 or 3)			
Heavy Equipment Robotics, Operator/Technician			
Maintenance Utility Man			
Master Environmental Maintenance Technician			
Tug Master (Power Boats)		
Ultra High Pressure Wate	rjet Cutting Tool System Operator/Maintenance Technician		
Vacuum Blasting Machine	e Operator/Maintenance Technician		

Welding Machines, Gas or Electric Converters on any type-2 or 3 in battery including diesels

NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT PREVAILING WAGE RATE DETERMINATION

ENTIRE STATE

STRUCTURAL STEEL ERECTION Rates Expiration Date:

Effective Dates:

07/01/2019

Rate Fringe Total 48.50 33.85 82.35

CLASSIFICATIONS:

Compressor (Single)

Generators

Welding Machines, Gas, Diesel, Or Electric Converters of any type-single

Welding System, Multiple (Rectifier Transformer Type)

Effective Dates:

07/01/2019

Rate Fringe Total 46.74 33.85 80.59

CLASSIFICATIONS:

Assistant Engineer/Oiler

Drillers Helper

Field Engineer - Transit/Instrument Man

Maintenance Apprentice (Deckhand)

Maintenance Apprentice (Oiler)

Off Road Back Dump

Effective Dates:

07/01/2019

Rate Fringe Total 54.31 33.85 88.16

CLASSIFICATIONS:

Lead Engineer, Foreman Engineer, Safety Engineer (Minimum)

Effective Dates:

07/01/2019

Rate Fringe Total 43.70 33.85 77.55

CLASSIFICATIONS:

Field Engineer - Rodman or Chainman

NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT PREVAILING WAGE RATE DETERMINATION

ENTIRE STATE

STRUCTURAL STEEL ERECTION Rates Expiration Date:

Effective Dates:

Rate	Fringe	Total
53.45	33.85	87.30

CLASSIFICATIONS:

Field Engineer-Chief of Party

Vacuum Truck

Effective Dates:

07/01/2019

Rate	Fringe	Total
61.64	33.85	95.49

CLASSIFICATIONS:

Cranes (all cranes, land or floating with booms, including jib, 140 ft. and over, above ground). Derricks (all derricks, land, floating or Chicago Boom type with booms including jib, 140 ft. and over, above ground), and Pile Drivers (all types) 100 tons and over and Tower Cranes.

Effective Dates:

07/01/2019

Rate	Fringe	Total	
59.98	33.85	93.83	

CLASSIFICATIONS:

Cranes (all cranes, land or floating with booms including jib, less than 140 ft. above ground), Derricks (all derricks. land, floating or Chicago Boom type with booms including jib, less than 140 ft. above ground), Pile Drivers (all types), 100 tons and over and Tower Crane.

Effective Dates:

07/01/2019

Rate	Fringe	Total
57.14	33.85	90.99

CLASSIFICATIONS:

Cranes (all cranes, land or floating with booms including jib, 140 ft. and over, above ground), Derricks (all derricks, land, floating or Chicago Boom type with booms including jib, 140 ft. and over, above ground), Pile Drivers (all types), under 100 tons.

Effective Dates:

07/01/2019

Rate	Fringe	Total
55 48	33.85	89 33

CLASSIFICATIONS:

Cranes (all cranes, land or floating with booms including jib, less than 140 ft. above ground), Derricks (all derricks, land, floating or Chicago Boom type with booms including jib, less than 140 ft. above ground), Pile Drivers (all types), under 100 tons.

NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT PREVAILING WAGE RATE DETERMINATION

ENTIRE STATE

STRUCTURAL STEEL ERECTION Rates Expiration Date:

Effective Dates:

07/01/2019

Rate Fringe Total 57.14 33.85 90.99

CLASSIFICATIONS:

Helicopter Pilot & Engineer

NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT PREVAILING WAGE RATE DETERMINATION

TEST BORING PRELIMINARY TO CONSTRUCTION-SOUTH/WEST Rates Expiration Date:

THESE RATES APPLY IN THE FOLLOWING COUNTIES ONLY:

Atlantic, Burlington, Camden, Cape May, Cumberland, Gloucester, Hunterdon, Mercer, Monmouth, Ocean, Salem, Sussex, Warren

The regular workday consists of 8 hours, Monday to Friday, between 6:00 AM and 4:30 PM.

SHIFT DIFFERENTIALS:

- Shift work must run for 5 consecutive workdays.
- When 2 shifts are worked, the second shift shall receive an additional 10% of the regular rate inclusive of benefits, per hour.
- When 3 shifts are worked, the second shift shall receive 8 hours pay for 7.5 hours of work, plus an additional 10% of the regular rate inclusive of benefits, per hour. The third shift shall receive 8 hours pay for 7 hours of work, plus an additional 15% of the regular rate inclusive of benefits, per hour.
- When such hours are mandated by the project owner, a shift that starts between 8:00 PM and midnight and ends by 6:00 AM Saturday, or that starts after 8:00 PM on Sunday, provided there are consecutive hours of work within the shift, shall receive an additional 15% of the regular rate, inclusive of benefits.
- On Highway, Road, Street, and Sewer projects irregular shifts starting between 5:00 PM and 12:00 AM may be worked Monday through Friday, and shall receive an additional 15% of the regular rate, inclusive of benefits. When working with other trades that receive a higher irregular shift rate, the Operating Engineer shall also receive the higher irregular shift rate.

OVERTIME:

- Hours in excess of 8 per day, or outside of the regular workday, Monday through Friday, that are not shift work, and all hours on Saturdays shall be paid at time and one-half the regular rate, inclusive of benefits. All hours on Sundays and holidays shall be paid at double the regular rate, inclusive of benefits.
- Four 10-hour days may be worked, Monday through Thursday, at straight time, with all hours on Friday paid at time and one-half the regular rate, inclusive of benefits.

RECOGNIZED HOLIDAYS: New Year's Day, Presidents' Day, Memorial Day, July 4th, Labor Day, Presidential Election Day, Veterans Day, Thanksgiving Day, Christmas Day. Sunday holidays observed the following Monday. When all trades on a particular job site agree, the day after Thanksgiving may be substituted for Veteran's Day.

On hazardous waste removal work or asbestos removal work, on a state or federally designated hazardous waste site, where the operating engineer is in direct contact with hazardous material and when personal protective equipment is required for respiratory, skin, and eye protection, the operating engineer shall receive an additional 20% of the hourly wage, per hour.

Effective Dates:

07/01/2019

Rate	Fringe	Total
53.12	33.85	86.97

CLASSIFICATIONS:

Driller

Effective Dates:

07	/0	1/	2	0	1	9

Rate	Fringe	Total
46.28	33.85	80.13

CLASSIFICATIONS:

Driller's Helper

NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT PREVAILING WAGE RATE DETERMINATION

FREE AIR TUNNEL JOBS Rates Expiration Date :

{For apprentice rates refer to "Heavy & General" apprentice rates in any county rate package}

The regular workday consists of 8 hours, starting at 7:00 AM or 8:00 AM.

SHIFT DIFFERENTIALS:

- Shifts must start at 3:00 PM, 4:00 PM, 12:00 AM, or 1:00 AM, to be considered shift work, except when the project owner mandates special hours of work in the job specifications, in which case those hours may be considered shift work.
- When such hours are mandated by the project owner, a shift that begins before midnight on Friday and ends on Saturday morning, or that begins at or after 8:00 PM on Sunday and ends on Monday morning may be paid at the shift differential rate.
- Shifts shall receive an additional \$3.00 per hour.

OVERTIME:

- Hours in excess of 8 per day, Monday through Friday, or outside of the regular workday that are not shift work, and all hours on Saturdays, shall be paid at time and one-half the hourly rate. All hours on Sundays and holidays shall be paid at double the hourly rate.
- Four 10-hour days may be worked, Monday through Thursday, at straight time, with Friday used as a make-up day for a day lost to inclement weather. If Friday is not a make-up day, all hours on Friday shall be paid at time and one-half the hourly rate.

RECOGNIZED HOLIDAYS: New Year's Day, Presidents' Day, Memorial Day, July 4th, Labor Day, Presidential Election Day, Veterans' Day, Thanksgiving Day, Christmas Day. Sunday holidays observed the following Monday. Veterans Day may be substituted for the day after Thanksgiving. However, in the trading of Veterans Day for the day after Thanksgiving, if overtime is worked on Veterans Day, it shall be paid at double the hourly rate.

Hazardous Waste Work:

- -where Level A, B, or C protection is required: + \$3.00/hr
- -other Hazardous Waste site: + \$1.00/hr

Effective Dates:

03/01/2019			03/01/2020
Rate	Fringe	Total	Total
44.25	31.53	75.78	78.28

CLASSIFICATIONS:

Walking Boss & Superintendent

Effective Dates:

03/01/2019			03/01/2020
Rate	Fringe	Total	Total
43.95	31.53	75.48	77.98

CLASSIFICATIONS:

Heading Foreman, Shaft Foreman, Rod Foreman, Electrician Foreman, Rigging Foreman

NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT PREVAILING WAGE RATE DETERMINATION

ENTIRE STATE

FREE AIR TUNNEL JOBS Rates Expiration Date :

Effective Dates:

03/01/2019			03/01/2020
Rate	Fringe	Total	Total
43.45	31.53	74.98	77.48

CLASSIFICATIONS:

Iron Foreman, Caulking Foreman, Form Foreman, Cement Finishing Foreman, Concrete Foreman, Track Foreman, Cleanup Foreman, Grout Foreman

Effective Dates:

03/01/2019			03/01/2020
Rate	Fringe	Total	Total
45.95	31.53	77.48	79.98

CLASSIFICATIONS:

Blaster

Effective Dates:

03/01/2019			03/01/2020
Rate	Fringe	Total	Total
42.90	31.53	74.43	76.93

CLASSIFICATIONS:

Top Labor Foreman

Effective Dates:

03/01/2019			03/01/2020
Rate	Fringe	Total	Total
42.55	31.53	74.08	76.58

CLASSIFICATIONS:

Skilled Men (including Caulker, Powder Carrier, all other skilled men)

Skilled Men (including Miner, Drill Runner, Iron Man, Conveyor Man, Manitenance Man, Safety Miner, Rigger, Block Layer, Cement Finisher, Tod Man)

Effective Dates:

03/01/2019			03/01/2020
Rate	Fringe	Total	Total
42.40	31.53	73.93	76.43

CLASSIFICATIONS:

Semi-Skilled Men (including Bell or Signal Man Top or Bottom, Form Worker & Mover, Concrete Worker, Shaft Man, Tunnel Laborer, Caulker's Helper, all other semi-skilled)

Semi-Skilled Men (including Miner's Helper, Chuck Tender, Track Man, Nipper, Brake Man, Derail Man, Cable Man, Hose Man, Gravel Man, Form Man)

NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT PREVAILING WAGE RATE DETERMINATION

ENTIRE STATE

FREE AIR TUNNEL JOBS Rates Expiration Date :

Effective Dates:

03/01/2019			03/01/2020
Rate	Fringe	Total	Total
42.00	31.53	73.53	76.03

CLASSIFICATIONS:

All Others (including Powder Watchman, Change House Attendant, Top Laborer)

NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT PREVAILING WAGE RATE DETERMINATION

ENTIRE STATE

DRILL FOR GROUND WATER SUPPLY Rates Expiration Date:

The well driller and/or helper may perform all work relative to the construction, finishing, and servicing of wells, pumps and borings for ground water supply. The present methods of well drilling entailing as they do, many diverse job operations calling for drilling, pump discharge, piping, and the operation of various types of related power equipment, shall all be within the job duties and functions of the well driller and/or helper. In the event that an extension of work should occur beyond water well drilling functions, into the field of general construction work, such extension of work would come under the appropriate rates listed elsewhere in this wage determination.

- For Work Hours, Shift Differentials, Overtime Rates, and Recognized Holidays see the "Operating Engineers" section of this wage determination.

Effective Dates:

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Rate	Fringe	Total
51.87	33.85	85.72

CLASSIFICATIONS:

Driller

Effective Dates:

07/01/2019

Rate	Fringe	Total	
45.03	33.85	78.88	

CLASSIFICATIONS:

Driller's Helper

NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT PREVAILING WAGE RATE DETERMINATION

OPERATING ENGINEERS MARINE-DREDGING Rates Expiration Date:

NOTE: These wage rates only apply to dredging and other marine construction activities occurring in navigable waters and their tributaries.

Boat crews carrying explosive material (dynamite, pourfex, and other similar materials) shall be paid at 120% of the hourly wage rate for hours engaged in handling of said materials. Employees required to possess a Hazardous Material Certification as a condition of employment shall be compensated at 120% of the hourly wage rate.

OVERTIME:

Hours in excess of 40 per week, and all hours on Saturdays and Sundays, shall be paid at time and one-half the hourly rate. All hours on holidays shall be paid at double the hourly rate.

RECOGNIZED HOLIDAYS: New Year's Day, Martin Luther King Day, Good Friday, Memorial Day, July 4th, Labor Day, Veterans' Day, Thanksgiving Day, Christmas Day. Sunday holidays observed the following Monday.

Effective Dates:

10/01/2019			10/01/2020
Rate	Fringe	Total	Total
40.31	14.60	54.91	56.71

CLASSIFICATIONS:

Lead Dredgerman, Operator, Leverman

Licensed Tug Operator (over 1000 HP)

Effective Dates:

10/01/2019			10/01/2020
Rate	Fringe	Total	Total
34.86	14.19	49.05	50.66

CLASSIFICATIONS:

Derrick Operator, Spider/Spill Barge Operator

Engineer, Electrician, Chief Welder, Chief Mate

Fill Placer, Operator II

Licensed Boat Operator

Maintenance Engineer

Effective Dates:

10/01/2019			10/01/2020
Rate	Fringe	Total	Total
32.82	14.04	46.86	48.39

CLASSIFICATIONS:

Certified Welder

NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT PREVAILING WAGE RATE DETERMINATION

ENTIRE STATE PREVAILING WAGE RATE DETERMINE

OPERATING ENGINEERS MARINE-DREDGING Rates Expiration Date :

Effective Dates:

10/01/2019			10/01/2020
Rate	Fringe	Total	Total
31.92	13.67	45.59	47.10

CLASSIFICATIONS:

Mate, Drag Barge Operator, Steward, Assistant Fill Placer

Welder

Effective Dates:

10/01/2019			10/01/2020
Rate	Fringe	Total	Total
30.89	13.59	44.48	45.95

CLASSIFICATIONS:

Boat Operator

Effective Dates:

10/01/2019			10/01/2020
Rate	Fringe	Total	Total
25.66	12.90	38.56	39.85

CLASSIFICATIONS:

Shoreman, Deckhand, Rodman, Scowman

Effective Dates:

10/01/2019			10/01/2020
Rate	Fringe	Total	Total
35.92	14.27	50.19	51.84

CLASSIFICATIONS:

Crane Operator

NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT PREVAILING WAGE RATE DETERMINATION

ENTIRE STATE

MICROSURFACING/SLURRY SEAL Rates Expiration Date :

THESE RATES APPLY IN THE FOLLOWING COUNTIES ONLY:

Atlantic, Burlington, Camden, Cape May, Cumberland, Gloucester, Mercer, Ocean, Salem

IN ALL OTHER COUNTIES use the Heavy and General Laborers - North "Slurry Seal Laborer" rates.

SHIFT DIFFERENTIALS:

Any shift starting at 3:30 PM or later shall receive an additional \$0.35/hr

OVERTIME:

Hours in excess of 8 per day or 40 per week shall be paid at time and one-half the hourly rate. All hours on holidays shall be paid at double the hourly rate.

RECOGNIZED HOLIDAYS: New Year's Day, Washington's Birthday, Memorial Day, July 4th, Labor Day, Presidential Election Day, Veterans' Day, Thanksgiving Day, Christmas Day.

Effective Dates:

03/01	2017
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Rate	Fringe	Total
36.50	21.27	57.77

CLASSIFICATIONS:

Foreman

Effective Dates:

03/01/2017

Rate	Fringe	Total
33.80	21.27	55.07

CLASSIFICATIONS:

Box man

Effective Dates:

Rate	Fringe	Total
31.75	21 27	53 02

CLASSIFICATIONS:

Microsurface/Slurry Preparation

Effective Dates:

03/01/2017

Rate	Fringe	Total
31.75	21.27	53.02

CLASSIFICATIONS:

Squeegee man

TERRITORY
ENTIRE STATE

NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT PREVAILING WAGE RATE DETERMINATION

MICROSURFACING/SLURRY SEAL Rates Expiration Date :

Effective Dates:

03/01/2017

Rate Fringe Total 30.30 21.27 51.57

CLASSIFICATIONS:

Cleaner, Taper

NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT PREVAILING WAGE RATE DETERMINATION

ENTIRE STATE

ASPHALT LABORERS - SOUTH Rates Expiration Date :

"THESE RATES APPLY IN THE FOLLOWING COUNTIES ONLY: Atlantic, Burlington, Camden, Cape May, Cumberland,

Gloucester, Mercer, Ocean, Salem

{For apprentice rates refer to "Laborer - Heavy & General" apprentice rates in any county rate package}

The regular workday consists of 8 hours, starting at 7:00 AM or 8:00 AM.

SHIFT DIFFERENTIALS:

- Shifts must start at 3:00 PM, 4:00 PM, 12:00 AM, or 1:00 AM, to be considered shift work, except when the project owner mandates special hours of work in the job specifications, in which case those hours may be considered shift work.
- When such hours are mandated by the project owner, a shift that begins before midnight on Friday and ends on Saturday morning, or that begins at or after 8:00 PM on Sunday and ends on Monday morning may be paid at the shift differential rate
- Shifts shall receive an additional \$3.00 per hour.

OVERTIME:

- Hours in excess of 8 per day, Monday through Friday, or outside of the regular workday that are not shift work, and all hours on Saturdays, shall be paid at time and one-half the hourly rate. All hours on Sundays and holidays shall be paid at double the hourly rate.
- Four 10-hour days may be worked, Monday through Thursday, at straight time, with Friday used as a make-up day for a day lost to inclement weather. If Friday is not a make-up day, all hours on Friday shall be paid at time and one-half the hourly rate.

RECOGNIZED HOLIDAYS: New Year's Day, Presidents' Day, Memorial Day, July 4th, Labor Day, Presidential Election Day, Veterans' Day, Thanksgiving Day, Christmas Day. Sunday holidays observed the following Monday. Veterans Day may be substituted for the day after Thanksgiving. However, in the trading of Veterans Day for the day after Thanksgiving, if overtime is worked on Veterans Day, it shall be paid at double the hourly rate.

Hazardous Waste Work:

- -where Level A, B, or C protection is required: + \$3.00/hr
- -other Hazardous Waste site: + \$1.00/hr

Effective Dates:

03/01/2019			03/01/2020
Rate	Fringe	Total	Total
43.75	31.53	75.28	77.78

CLASSIFICATIONS:

Paving Foreman

Effective Dates:

03/01/2019			03/01/2020
Rate	Fringe	Total	Total
42.30	31.53	73.83	76.33

CLASSIFICATIONS:

Head Raker

Effective Dates:

03/01/2019			03/01/2020
Rate	Fringe	Total	Total
42.15	31.53	73.68	76.18

CLASSIFICATIONS:

Raker, Screedman, Luteman

NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT PREVAILING WAGE RATE DETERMINATION

ENTIRE STATE

ASPHALT LABORERS - SOUTH Rates Expiration Date :

Effective Dates:

03/01/2019			03/01/2020
Rate	Fringe	Total	Total
41.90	31.53	73.43	75.93

CLASSIFICATIONS:

Tampers, Smoothers, Kettlemen, Painters, Shovelers, Roller Boys

Effective Dates:

03/01/2019			03/01/2020
Rate	Fringe	Total	Total
42.00	31.53	73.53	76.03

CLASSIFICATIONS:

Milling Controller

Effective Dates:

03/01/2019			03/01/2020
Rate	Fringe	Total	Total
42.20	31.53	73.73	76.23

CLASSIFICATIONS:

Traffic Control Coordinator

TERRITORY ENTIRE STATE

NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT PREVAILING WAGE RATE DETERMINATION

TEST BORING PRELIMINARY TO CONSTRUCTION-NORTH Rates Expiration Date:

THESE RATES APPLY IN THE FOLLOWING COUNTIES ONLY:

Bergen, Essex, Hudson, Middlesex, Morris, Passaic, Somerset, Union

SHIFT DIFFERENTIAL:

Employees on a shift other than between the hours of 8:00 AM and 5:00 PM shall receive an additional \$2.00 per hour.

OVERTIME:

Hours in excess of 8 per day, Monday through Friday, and all hours on Saturday shall be paid at time and one-half the regular rate. All hours on Sundays and holidays shall be paid at double the regular rate.

RECOGNIZED HOLIDAYS: New Year's Day, Memorial Day, July 4th, Labor Day, Thanksgiving Day, and Christmas Day. Sunday holidays observed the following Monday.

Hazardous Waste Pay (for Levels A, B, and C): an additional 15% of the hourly rate, per hour.

A newly hired Helper with no experience in the industry shall be paid as follows:

1st year on the job - 70% of Helper wage rate

2nd year on the job - 80% of Helper wage rate

3rd year on the job - 90% of Helper wage rate

All helpers receive full fringe benefit rate.

Effective Dates:

	10/18/201	9	10/18/2020	10/18/2021	10/18/2022
Rate	Fringe	Total	Total	Total	Total
32.62	28.05	60.67	62.42	64.17	65.92

CLASSIFICATIONS:

Helper (4th year helper)

Effective Dates:

	10/18/201	9	10/18/2020	10/18/2021	10/18/2022
Rate	Fringe	Total	Total	Total	Total
41.19	28.05	69.24	71.24	73.24	75.24

CLASSIFICATIONS:

Driller

Effective Dates:

10/18/2019		10/18/2020	10/18/2021	10/18/2022	
Rate	Fringe	Total	Total	Total	Total
47.23	28.05	75.28	77.28	79.28	81.28

CLASSIFICATIONS:

Foreman

NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT PREVAILING WAGE RATE DETERMINATION

ENTIRE STATE

HEAVY & GENERAL LABORERS - NORTH Rates Expiration Date :

THESE RATES APPLY IN THE FOLLOWING COUNTIES ONLY:

Bergen, Essex, Hudson, Hunterdon, Middlesex, Monmouth, Morris, Passaic, Somerset, Sussex, Union, Warren

{For apprentice rates refer to "Laborer - Heavy & General" apprentice rates in any county rate package}

The regular workday consists of 8 hours, starting at 7:00 AM or 8:00 AM.

SHIFT DIFFERENTIALS:

- Shifts must start at 3:00 PM, 4:00 PM, 12:00 AM, or 1:00 AM, to be considered shift work, except when the project owner mandates special hours of work in the job specifications, in which case those hours may be considered shift work.
- When such hours are mandated by the project owner, a shift that begins before midnight on Friday and ends on Saturday morning, or that begins at or after 8:00 PM on Sunday and ends on Monday morning may be paid at the shift differential rate.
- Shifts shall receive an additional \$3.00 per hour.

OVERTIME:

- Hours in excess of 8 per day, Monday through Friday, or outside of the regular workday that are not shift work, and all hours on Saturdays, shall be paid at time and one-half the hourly rate. All hours on Sundays and holidays shall be paid at double the hourly rate.
- Four 10-hour days may be worked, Monday through Thursday, at straight time, with Friday used as a make-up day for a day lost to inclement weather. If Friday is not a make-up day, all hours on Friday shall be paid at time and one-half the hourly rate.

RECOGNIZED HOLIDAYS: New Year's Day, Presidents' Day, Memorial Day, July 4th, Labor Day, Presidential Election Day, Veterans' Day, Thanksgiving Day, Christmas Day. Sunday holidays observed the following Monday. Veterans Day may be substituted for the day after Thanksgiving. However, in the trading of Veterans Day for the day after Thanksgiving, if overtime is worked on Veterans Day, it shall be paid at double the hourly rate.

Hazardous Waste Work:

- -where Level A, B, or C protection is required: + \$3.00/hr
- -other Hazardous Waste site: + \$1.00/hr

Effective Dates:

03/01/2019			03/01/2020
Rate	Fringe	Total	Total
41.50	31.53	73.03	75.53

CLASSIFICATIONS:

"D" Rate:

basic, landscape, asphalt, slurry seal, or railroad track laborer; utility meter installer; flagman; salamander tender; pitman; dumpman; rakers or tampers on cold patch work; wrappers or coaters of pipe; waterproofer; timberman; wagon drill or drill master helper; powder carrier; magazine tender; signal man; power buggy operator; tree cutter; operator of basic power tools

Effective Dates:

03/01/2019			03/01/2020
Rate	Fringe	Total	Total
42.20	31.53	73.73	76.23

CLASSIFICATIONS:

"C" Rate

pipe layer; laser man; conduit or duct line layer; operator of jack hammer, chipping hammer, pavement breaker, concrete cutter, asphalt cutter, sheet hammer, or walk-behind saw cutter; sandblaster; acetylene cutting or burning; wagon drill, directional drill, or hydraulic drill operator; drill master; core driller; traffic control coordinator; asphalt raker or lute man

NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT PREVAILING WAGE RATE DETERMINATION

ENTIRE STATE

HEAVY & GENERAL LABORERS - NORTH Rates Expiration Date :

Effective Dates:

03/01/2019			03/01/2020
Rate	Fringe	Total	Total
42.45	31.53	73.98	76.48

CLASSIFICATIONS:

"B" Rate:

concrete finisher; setter of brick or stone pavers; stone cutter; form setter; manhole, catch basin, or inlet builder; asphalt screedman; rammer; hardscaping; gunite nozzle man

Effective Dates:

03/01/2019			03/01/2020
Rate	Fringe	Total	Total
46.00	31.53	77.53	80.03

CLASSIFICATIONS:

"A" Rate:

blaster

Effective Dates:

	03/01/2020		
Rate	Fringe	Total	Total
43.75	31.53	75.28	77.78

CLASSIFICATIONS:

"FOREMAN" Rate:

labor foreman, asphalt foreman, drill foreman, pipe foreman, grade foreman, finisher foreman, concrete foreman

Effective Dates:

	03/01/201	03/01/2020	
Rate	Fringe	Total	Total
44.75	31.53	76.28	78.78

CLASSIFICATIONS:

"GENERAL FOREMAN" Rate

TERRITORY ENTIRE STATE

NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT PREVAILING WAGE RATE DETERMINATION

HEAVY & GENERAL LABORERS - SOUTH Rates Expiration Date :

THESE RATES APPLY IN THE FOLLOWING COUNTIES ONLY:

Atlantic, Burlington, Camden, Cape May, Cumberland, Gloucester, Mercer, Ocean, Salem

{For apprentice rates refer to "Laborer - Heavy & General" apprentice rates in any county rate package}

The regular workday consists of 8 hours, starting at 7:00 AM or 8:00 AM.

SHIFT DIFFERENTIALS:

- Shifts must start at 3:00 PM, 4:00 PM, 12:00 AM, or 1:00 AM, to be considered shift work, except when the project owner mandates special hours of work in the job specifications, in which case those hours may be considered shift work.
- When such hours are mandated by the project owner, a shift that begins before midnight on Friday and ends on Saturday morning, or that begins at or after 8:00 PM on Sunday and ends on Monday morning may be paid at the shift differential rate.
- Shifts shall receive an additional \$3.00 per hour.

OVERTIME:

- Hours in excess of 8 per day, Monday through Friday, or outside of the regular workday that are not shift work, and all hours on Saturdays, shall be paid at time and one-half the hourly rate. All hours on Sundays and holidays shall be paid at double the hourly rate.
- Four 10-hour days may be worked, Monday through Thursday, at straight time, with Friday used as a make-up day for a day lost to inclement weather. If Friday is not a make-up day, all hours on Friday shall be paid at time and one-half the hourly rate.

RECOGNIZED HOLIDAYS: New Year's Day, Presidents' Day, Memorial Day, July 4th, Labor Day, Presidential Election Day, Veterans' Day, Thanksgiving Day, Christmas Day. Sunday holidays observed the following Monday. Veterans Day may be substituted for the day after Thanksgiving. However, in the trading of Veterans Day for the day after Thanksgiving, if overtime is worked on Veterans Day, it shall be paid at double the hourly rate.

Hazardous Waste Work:

- -where Level A, B, or C protection is required: + \$3.00/hr
- -other Hazardous Waste site: + \$1.00/hr

Effective Dates:

	03/01/2020		
Rate	Fringe	Total	Total
41.50	31.53	73.03	75.53

CLASSIFICATIONS:

basic, landscape, or railroad track laborer; utility meter installer; flagman; salamander tender; pitman; dumpman; rakers or tampers on cold patch work; wrappers or coaters of pipe; waterproofers; tree cutter, timberman

Effective Dates:

	03/01/2020		
Rate	Fringe	Total	Total
41.50	31.53	73.03	75.53

CLASSIFICATIONS:

wagon drill or drill master helper; powder carrier; magazine tender; signal man

NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT PREVAILING WAGE RATE DETERMINATION

ENTIRE STATE

HEAVY & GENERAL LABORERS - SOUTH Rates Expiration Date :

Effective Dates:

	03/01/201	03/01/2020	
Rate	Fringe	Total	Total
42.20	31.53	73.73	76.23

CLASSIFICATIONS:

pipe layer; laser man; conduit or duct line layer; operator of jack hammer, chipping hammer, pavement breaker, concrete cutter, asphalt cutter, sheet hammer, or walk-behind saw cutter; sandblaster; acetylene cutting or burning

Effective Dates:

	03/01/2020		
Rate	Fringe	Total	Total
42.20	31.53	73.73	76.23

CLASSIFICATIONS:

wagon or directional drill operator; drill master

Effective Dates:

	03/01/201	03/01/2020	
Rate	Fringe	Total	Total
46.00	31.53	77.53	80.03

CLASSIFICATIONS:

blaster

Effective Dates:

	03/01/201	03/01/2020	
Rate	Fringe	Total	Total
43.75	31.53	75.28	77.78

CLASSIFICATIONS:

labor foreman, drill foreman, pipe foreman, grade foreman, finisher foreman, concrete foreman

Effective Dates:

	03/01/2020		
Rate	Fringe	Total	Total
44.75	31.53	76.28	78.78

CLASSIFICATIONS:

general foreman

NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT PREVAILING WAGE RATE DETERMINATION

ENTIRE STATE PREVAILING WAGE RATE DETERMINATION

Effective Dates:

	03/01/201	03/01/2020	
Rate	Fringe	Total	Total
42.45	31.53	73.98	76.48

HEAVY & GENERAL LABORERS - SOUTH

CLASSIFICATIONS:

concrete finisher; setter of brick or stone pavers; stone cutter; form setter; manhole, catch basin, or inlet builder; rammer; gunite nozzle

Rates Expiration Date:

TERRITORY ENTIRE STATE

NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT PREVAILING WAGE RATE DETERMINATION

PIPELINE - MAINLINE TRANSMISSION Rates Expiration Date :

These rates apply to the following: welding on Transportation Mainline pipe lines (cross-country pipe lines, or any segments thereof, transporting coal, gas, oil, water or other transportable materials, vapors or liquids, including portions of such pipe lines within private property boundaries up to the final metering station or connection - the point where a valve, consumer connection, or town border station divides mainline transmission lines or higher pressure lateral and branch lines from lower pressure distribution systems).

PER DIEM PAYMENT:

In addition to the total wage rate paid for each craft, the following per diem (per day) amounts must also be paid - Pipeline Journeyman: \$42.50; Pipeline Journeyman Welder: \$102.50; and Pipeline Helper: \$42.50. Note: in order to receive the per diem payment an employee must work a minimum of 8 hours in a 24 hour period.

NOTES:

- Journeymen employed as "stringer bead" welders and journeymen who are regularly employed as "hot-pass" welders shall receive \$1.00 per hour more than other journeymen.
- Welders running "stringer bead" or "hot-pass" on "cutouts" or "tie-ins" on a production basis shall be paid \$1.00 per hour above the journeymen rate.
- Whenever a welder helper is employed using a power buffer or power grinder immediately behind the stringer bead and/or hot-pass welders, and the pipe gang is set on a production basis, the helper shall be paid \$2.00 per hour above the helper rate.
- If back welding is performed inside a pipe under either or both of the following conditions, the welder engaged in the welding will receive \$3.00 per hour above the regular rate for the job only for the days on which such back welding is performed:
 - The employer elects, as a regular procedure, to back weld each line-up. This condition is not intended to apply to occasional back welding performed by the pipe gang to repair a bead, to rectify a "high-lo" condition or wall thickness, etc.
 - A welder is required to back weld a completed weld behind the firing line.
- If the welder helper is required to go inside the pipe for the purpose of brushing, buffing and grinding the weld, they shall receive a wage rate \$1.00 per hour above the regular

helper rate for the days involved.

- Welders working on "hot work" shall be paid \$2.00 per hour above the regular rate for each day engaged in such work. "Hot work' is defined as work on lines in service where there is the danger of fire or explosion.

The regular workday shall be 8 hours, between 8:00 AM and 4:30 PM.

OVERTIME:

Hours in excess of 8 per day, and all hours on Sundays shall be paid at time and one-half the regular rate, inclusive of benefits. All hours on holidays shall be paid at double the regular rate, inclusive of benefits.

RECOGNIZED HOLIDAYS: New Year's Day, July 4th, Labor Day, Thanksgiving Day, and Christmas Day. Sunday holidays observed the following Monday.

Effective Dates:

06/03/2019

Rate	Fringe	Total
54.64	32.30	86.94

CLASSIFICATIONS:

Pipeline Journeyman Welder

NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT PREVAILING WAGE RATE DETERMINATION

ENTIRE STATE

PIPELINE - MAINLINE TRANSMISSION Rates Expiration Date :

Effective Dates:

06/03/2019

Rate Fringe Total 54.64 32.30 86.94

CLASSIFICATIONS:

Pipeline Journeyman

Effective Dates:

06/03/2019

Rate Fringe Total 33.84 21.92 55.76

CLASSIFICATIONS:

Pipeline Helper

NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT PREVAILING WAGE RATE DETERMINATION

ENTIRE STATE

PIPELINE - GAS DISTRIBUTION Rates Expiration Date :

These rates apply to the following: welding on gas line distribution systems (that portion of the gas distribution system placed in streets, roads, subways, tunnels, viaducts, highways and easements which serves the users of gas).

SHIFT DIFFERENTIALS:

An "irregular" shift may start any time from 5:00 PM to 12:00 AM, Monday through Friday, and shall receive an additional 15% of the regular rate per hour, inclusive of benefits.

OVERTIME:

Hours in excess of forty per week, and all hours on Saturdays shall be paid at time and one-half the regular rate, inclusive of benefits. All hours on Sundays and holidays shall be paid at double the regular rate, inclusive of benefits.

RECOGNIZED HOLIDAYS: New Year's Day, Memorial Day, July 4th, Labor Day, Thanksgiving Day, and Christmas Day. Sunday holidays observed the following Monday.

Effective Dates:

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Rate	Fringe	Total
60.00	26.23	86.23

CLASSIFICATIONS:

Pipeline Journeyman Welder

Effective Dates:

11/08/2019

Rate	Fringe	Total
60.00	26.23	86.23

CLASSIFICATIONS:

Pipeline Journeyman

Effective Dates:

11/08/2019

Rate	Fringe	Total	
38.46	19.21	57.67	

CLASSIFICATIONS:

Pipeline Helper

NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT PREVAILING WAGE RATE DETERMINATION

ENTIRE STATE

ASPHALT LABORERS- NORTH Rates Expiration Date:

THESE RATES APPLY IN THE FOLLOWING COUNTIES ONLY:

Bergen, Essex, Hudson, Hunterdon, Middlesex, Monmouth, Morris, Passaic, Somerset, Sussex, Union, Warren {For apprentice rates refer to "Laborer - Heavy & General" apprentice rates in any county rate package} The regular workday consists of 8 hours, starting at 7:00 AM or 8:00 AM.

SHIFT DIFFERENTIALS:

- Shifts must start at 3:00 PM, 4:00 PM, 12:00 AM, or 1:00 AM, to be considered shift work, except when the project owner mandates special hours of work in the job specifications, in which case those hours may be considered shift work.
- When such hours are mandated by the project owner, a shift that begins before midnight on Friday and ends on Saturday morning, or that begins at or after 8:00 PM on Sunday and ends on Monday morning may be paid at the shift differential rate
- Shifts shall receive an additional \$3.00 per hour.

OVERTIME:

- Hours in excess of 8 per day, Monday through Friday, or outside of the regular workday that are not shift work, and all hours on Saturdays, shall be paid at time and one-half the hourly rate. All hours on Sundays and holidays shall be paid at double the hourly rate.
- Four 10-hour days may be worked, Monday through Thursday, at straight time, with Friday used as a make-up day for a day lost to inclement weather. If Friday is not a make-up day, all hours on Friday shall be paid at time and one-half the hourly rate.

RECOGNIZED HOLIDAYS: New Year's Day, Presidents' Day, Memorial Day, July 4th, Labor Day, Presidential Election Day, Veterans' Day, Thanksgiving Day, Christmas Day. Sunday holidays observed the following Monday. Veterans Day may be substituted for the day after Thanksgiving. However, in the trading of Veterans Day for the day after Thanksgiving, if overtime is worked on Veterans Day, it shall be paid at double the hourly rate.

Hazardous Waste Work:

- -where Level A, B, or C protection is required: + \$3.00/hr
- -other Hazardous Waste site: + \$1.00/hr

Effective Dates:

03/01/2019			03/01/2020	
Rate	Fringe	Total	Total	
43.75	31.53	75.28	77.78	

CLASSIFICATIONS:

Asphalt Foreman

Effective Dates:

03/01/2019			03/01/2020
Rate	Fringe	Total	Total
42.45	31.53	73.98	76.48

CLASSIFICATIONS:

Asphalt Screedman

Effective Dates:

03/01/2019			03/01/2020
Rate	Fringe	Total	Total
42.20	31.53	73.73	76.23

CLASSIFICATIONS:

Asphalt Raker or Lute Man

NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT PREVAILING WAGE RATE DETERMINATION

ENTIRE STATE

ASPHALT LABORERS- NORTH Rates Expiration Date :

Effective Dates:

03/01/2019			03/01/2020
Rate	Fringe	Total	Total
41.50	31.53	73.03	75.53

CLASSIFICATIONS:

Asphalt Laborer

NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT PREVAILING WAGE RATE DETERMINATION

ENTIRE STATE

ELECTRICIAN- UTILITY WORK (NORTH) Rates Expiration Date:

Electrician-Utility Work (North)

(For apprentice rates refer to Electrician-Utility Work (North) in any county rate package).

These rates apply to work contracted for by the following utility companies:

Public Service Electric & Gas Co. of NJ, GPU Energy, Borough of Madison Electric Department, Sussex Rural

Electric Cooperative, Rockland Utilities, and Butler Municipal Electric Co.

These rates do not apply to work on substations or switching stations.

For Utility work contracted for by a utility company other than those listed above or those listed under "Electrician-

Utility Work (South), see the "Outside Commercial Rates" for the county in which the jobsite is located.

* FOR OUTSIDE COMMERCIAL RATES PLEASE SEE COUNTY RATES

The regular workday is 8 hours, between 6:00 AM and 6:00 PM.

FOR EMERGENCY WORK ONLY: (emergency work is defined as work caused by storm, catastrophe, act of god, and circumstances beyond the control of the employer)-all hours of work shall be paid at double the hourly rate.

SHIFT DIFFERENTIALS:

Shift work must run for a minimum of 5 consecutive workdays.

2nd shift (between the hours of 4:30 PM and 1:00 AM): 8 hours of work + 17.3% of the regular rate, inclusive of benefits.

3rd shift (between the hours of 12:30 AM and 9:00 AM): 8 hours of work + 31.4% of the regular rate per hour, inclusive of benefits.

OVERTIME:

Hours in excess of 8 per day, or before or after the regular wokday Monday through Friday, that is not shift work, and all hours on Saturday shall be paid at time and one-half the regular rate, inclusive of benefits. All hours on Sundays and holidays shall be paid at double the hourly rate, inclusive of benefits.

Four 10-hour days may worked, at straight time, between 7:00 AM and 6:30 PM, Monday through Thursday.

RECOGNIZED HOLIDAYS:

New Year's Day, Presidents' Day, Memorial Day, July 4th, Labor Day, Presidential Election Day, Veterans' Day, Thanksgiving Day and Christmas Day, or day on which they are legally observed.

Effective Dates:

12/02/2018		12/01/2019	11/29/2020	
Rate	Fringe	Total	Total	Total
55.13	36.93	92.06	94.45	96.84

CLASSIFICATIONS:

Chief Lineman

Effective Dates:

12/02/2018		12/01/2019	11/29/2020	
Rate	Fringe	Total	Total	Total
52.01	34.84	86.85	89.11	91.36

CLASSIFICATIONS:

Journeyman Lineman

NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT PREVAILING WAGE RATE DETERMINATION

ELECTRICIAN- UTILITY WORK (NORTH) Rates Expiration Date :

Effective Dates:

12/02/2018		12/01/2019	11/29/2020	
Rate	Fringe	Total	Total	Total
52.01	34.84	86.85	89.11	91.36

CLASSIFICATIONS:

Special License Operator

Effective Dates:

12/02/2018		12/01/2019	11/29/2020	
Rate	Fringe	Total	Total	Total
51.49	34.49	85.98	88.22	90.44

CLASSIFICATIONS:

Transit Man

Effective Dates:

12/02/2018			12/01/2019	11/29/2020
Rate	Fringe	Total	Total	Total
49.93	33.45	83.38	85.53	87.70

CLASSIFICATIONS:

Line Equipment Operator

Effective Dates:

12/02/2018			12/01/2019	11/29/2020
Rate	Fringe	Total	Total	Total
43.69	29.27	72.96	74.84	76.73

CLASSIFICATIONS:

Dynamite Man

Effective Dates:

12/02/2018			12/01/2019	11/29/2020
Rate	Fringe	Total	Total	Total
65.01	43.55	108.56	111.38	114.19

CLASSIFICATIONS:

General Foreman

Effective Dates:

12/02/2018			12/01/2019	11/29/2020
Rate	Fringe	Total	Total	Total
59.81	40.07	99.88	102.47	105.05

CLASSIFICATIONS:

Assistant General Foreman

NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT PREVAILING WAGE RATE DETERMINATION

ELECTRICIAN- UTILITY WORK (NORTH) Rates Expiration Date :

Effective Dates:

12/02/2018			12/01/2019	11/29/2020
Rate	Fringe	Total	Total	Total
58.25	39.02	97.27	99.79	102.32

CLASSIFICATIONS:

Line Foreman

Effective Dates:

12/02/2018		12/01/2019	11/29/2020	
Rate	Fringe	Total	Total	Total
42.13	28.22	70.35	72.17	73.99

CLASSIFICATIONS:

Street Light Mechanical Leader

Effective Dates:

12/02/2018			12/01/2019	11/29/2020	
Rate	Fringe	Total	Total	Total	
40.05	26.83	66.88	68.62	70.34	

CLASSIFICATIONS:

Groundman Winch Operator

Effective Dates:

12/02/2018			12/01/2019	11/29/2020
Rate	Fringe	Total	Total	Total
40.05	26.83	66.88	68.62	70.34

CLASSIFICATIONS:

Groundman Truck Operator

Effective Dates:

12/02/2018			12/01/2019	11/29/2020	
Rate	Fringe	Total	Total	Total	
39.53	26.48	66.01	67.71	69.43	

CLASSIFICATIONS:

Street Light Mechanic

Effective Dates:

12/02/2018		12/01/2019	11/29/2020	
Rate	Fringe	Total	Total	Total
39.53	26.48	66.01	67.71	69.43

CLASSIFICATIONS:

Line Equipment Mechanic

TERRITORY ENTIRE STATE

NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT PREVAILING WAGE RATE DETERMINATION

PREVAILING WAGE RATE DETERMINATI

ELECTRICIAN- UTILITY WORK (NORTH)

Rates Expiration Date:

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12/02/2018			12/01/2019	11/29/2020
Rate	Fringe	Total	Total	Total
33.81	22.65	56.46	57.91	59.38

CLASSIFICATIONS:

Groundman 2nd Year

Effective Dates:

12/02/2018		12/01/2019	11/29/2020	
Rate	Fringe	Total	Total	Total
31.21	20.91	52.12	53.47	54.80

CLASSIFICATIONS:

Groundman 1st Year

Effective Dates:

12/02/2018		12/01/2019	11/29/2020	
Rate	Fringe	Total	Total	Total
51.49	34.49	85.98	88.22	90.44

CLASSIFICATIONS:

Line Equipment Foreman

NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT PREVAILING WAGE RATE DETERMINATION

ENTIRE STATE

ELECTRICIAN- UTILITY WORK (SOUTH) Rates Expiration Date:

Electrician-Utility Work (South)

(For apprentice rates refer to Electrician-Utility Work (South) in any county rate package).

These rates apply to work contracted for by the following utility company:

Atlantic City Electric.

These rates do not apply to work on substations or switching stations.

For utility work contracted for by a utility company other than the one listed above or those listed under "Electrician-

Utility Work (North), see the "Outside Commercial Rates" for the county in which the jobsite is located.

* FOR OUTSIDE COMMERCIAL RATES PLEASE SEE COUNTY RATES

The regular workday is 8 hours, between 7:00 AM and 4:30 PM.

FOR EMERGENCY WORK ONLY: (emergency work is defined as work caused by storm, catastrophe, act of god, and circumstances beyond the control of the employer)- all hours of work shall be paid at double the hourly rate.

SHIFT DIFFERENTIALS:

Shift work must run for a minimum of 5 consecutive workdays.

When two (2) or three (3) shifts are worked the following shall apply:

1st shift (between the hours of 8:00 AM and 4:30 PM)

2nd shift (between the hours of 4:30 PM and 12:30 AM): 8 hours of work + 10% of the regular rate of pay for 7.5 hours worked.

3rd shift (between the hours of 12:30 AM and 8:00 AM): 8 hours of work + 15% of the regular rate of pay for 7 hours worked.

OVERTIME:

Hours in excess of 8 per day, or before or after the regular wokday Monday through Friday, that is not shift work, and all hours on Saturday shall be paid at time and one-half the regular rate. All hours on Sundays and Holidays shall be paid double the hourly rate.

Four 10-hour days may be worked, at straight time, between 6:00 AM and 6:00 PM, Monday through Thursday with Friday used as a make-up day.

RECOGNIZED HOLIDAYS:

New Year's Day, Memorial Day, July 4th, Labor Day, Veterans' Day, Thanksgiving Day and Christmas Day or on days celebrated.

WORKING RULES:

There shall be a Foreman in charge of each work crew. No crews are to exceed twelve (12) men, including Foremen.

There shall be a General Foreman designated for transmission work when three (3) or more crews are on the same job and for distribution work where there are are more than twenty (20) employees on site.

A small job crew shall consist of five (5) or less employees, one (1) of the Journeyman Linemen in the crew shall be designated as a Small Job Foreman.

Work performed from ladders and/or mechanical lift equipment shall be the work of Linemen and/or Apprentices.

On new construction, fitting and framing poles, towers or structures may be done by Journeymen and/or Apprentices. Groundmen may assist, but may not perform any work which would be performed by Linemen if assembled in the air.

There shall be a Journeyman Lineman in each pole setting, erection, grounding, wire and cable-pulling crew of more than three (3) men.

Effective Dates:

12/02/2018

Rate	Fringe	Total
60.86	48.05	108.91

CLASSIFICATIONS:

General Foreman

NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT PREVAILING WAGE RATE DETERMINATION

ENTIRE STATE

ELECTRICIAN- UTILITY WORK (SOUTH) Rates Expiration Date:

Effective Dates:

12/02/2018

Rate Fringe Total 54.21 44.12 98.33

CLASSIFICATIONS:

Foreman

Effective Dates:

12/02/2018

Rate Fringe Total 51.35 42.44 93.79

CLASSIFICATIONS:

Small Job Foreman

Effective Dates:

12/02/2018

Rate Fringe Total 47.55 40.18 87.73

CLASSIFICATIONS:

Heavy Equipment Operator

Effective Dates:

12/02/2018

Rate Fringe Total 47.55 40.18 87.73

CLASSIFICATIONS:

Cable Splicer

Effective Dates:

12/02/2018

Rate Fringe Total 47.55 40.18 87.73

CLASSIFICATIONS:

Journeyman Lineman

Effective Dates:

12/02/2018

Rate Fringe Total 47.55 40.18 87.73

CLASSIFICATIONS:

Journeyman Welder

NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT PREVAILING WAGE RATE DETERMINATION

ENTIRE STATE

ELECTRICIAN- UTILITY WORK (SOUTH) Rates Expiration Date:

Effective Dates:

12/02/2018

Rate Fringe Total 47.55 40.18 87.73

CLASSIFICATIONS:

Journeyman Painter

Effective Dates:

12/02/2018

Rate Fringe Total 38.04 34.55 72.59

CLASSIFICATIONS:

Light Equipment Operator

Effective Dates:

12/02/2018

Rate Fringe Total 33.29 31.73 65.02

CLASSIFICATIONS:

Groundman Truck Driver

Effective Dates:

12/02/2018

Rate Fringe Total 30.91 30.31 61.22

CLASSIFICATIONS:

Groundman 3rd Year

Effective Dates:

12/02/2018

 Rate
 Fringe
 Total

 28.53
 28.91
 57.44

CLASSIFICATIONS:

Groundman 2nd Year

Effective Dates:

12/02/2018

Rate Fringe Total 26.15 27.51 53.66

CLASSIFICATIONS:

Groundman 1st Year

NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT PREVAILING WAGE RATE DETERMINATION

ENTIRE STATE

ELECTRICIAN- UTILITY WORK (SOUTH) Rates Expiration Date :

Effective Dates:

12/02/2018

Rate Fringe Total 20.92 24.41 45.33

CLASSIFICATIONS:

Flagman

NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT PREVAILING WAGE RATE DETERMINATION

HEAVY & GENERAL LABORERS- NEW TRANS HUDSON TUNNELS Rates Expiration Date:

THESE RATES APPLY TO CONSTRUCTION ON NEW TRANS HUDSON TUNNELS ONLY

{For apprentice rates refer to "Laborer - Heavy & General" apprentice rates in any county rate package}

The regular workday consists of 8 hours, starting at 7:00 AM or 8:00 AM.

SHIFT DIFFERENTIALS:

- Shifts must start at 3:00 PM, 4:00 PM, 12:00 AM, or 1:00 AM, to be considered shift work, except when the project owner mandates special hours of work in the job specifications, in which case those hours may be considered shift work.
- When such hours are mandated by the project owner, a shift that begins before midnight on Friday and ends on Saturday morning, or that begins at or after 8:00 PM on Sunday and ends on Monday morning may be paid at the shift differential rate.
- Shifts shall receive an additional \$3.00 per hour.

OVERTIME:

- Hours in excess of 8 per day, Monday through Friday, or outside of the regular workday that are not shift work, and all hours on Saturdays, shall be paid at time and one-half the hourly rate. All hours on Sundays and holidays shall be paid at double the hourly rate.
- Four 10-hour days may be worked, Monday through Thursday, at straight time, with Friday used as a make-up day for a day lost to inclement weather. If Friday is not a make-up day, all hours on Friday shall be paid at time and one-half the hourly rate.

RECOGNIZED HOLIDAYS: New Year's Day, Presidents' Day, Memorial Day, July 4th, Labor Day, Presidential Election Day, Veterans' Day, Thanksgiving Day, Christmas Day. Sunday holidays observed the following Monday. Veterans Day may be substituted for the day after Thanksgiving. However, in the trading of Veterans Day for the day after Thanksgiving, if overtime is worked on Veterans Day, it shall be paid at double the hourly rate.

Hazardous Waste Work:

- -where Level A, B, or C protection is required: + \$3.00/hr
- -other Hazardous Waste site: + \$1.00/hr

Effective Dates:

03/01/2019			03/01/2020
Rate	Fringe	Total	Total
66.38	31.53	97.91	101.16

CLASSIFICATIONS:

Walking Boss & Superintendent

Effective Dates:

03/01/2019			03/01/2020
Rate	Fringe	Total	Total
65.93	31.53	97.46	100.71

CLASSIFICATIONS:

Heading Foreman, Shaft Foreman, Rod Foreman, Electrical Foreman, Rigging Foreman

NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT PREVAILING WAGE RATE DETERMINATION

ENTIRE STATE

HEAVY & GENERAL LABORERS- NEW TRANS HUDSON TUNNELS Rates Expiration Date :

Effective Dates:

03/01/2019			03/01/2020
Rate	Fringe	Total	Total
65.18	31.53	96.71	99.96

CLASSIFICATIONS:

Iron Foreman, Caulking Foreman, Form Foreman, Cement Finishing Foreman, Concrete Foreman, Track Foreman, Clean-up Foreman, Grout Foreman

Effective Dates:

03/01/2019			03/01/2020
Rate	Fringe	Total	Total
68.93	31.53	100.46	103.71

CLASSIFICATIONS:

Blaster

Effective Dates:

03/01/2019			03/01/2020
Rate	Fringe	Total	Total
64.35	31.53	95.88	99.13

CLASSIFICATIONS:

Top Labor Foreman

Effective Dates:

03/01/2019			03/01/2020
Rate	Fringe	Total	Total
63.83	31.53	95.36	98.61

CLASSIFICATIONS:

Skilled Men (including Caulker, Powder Carrier, all other skilled men)

Skilled Men (including Miner, Drill Runner, Iron Man, Conveyor Man, Maintenance Man, Safety Miner, Rigger, Block Layer, Cement Finisher, Rod Man)

Effective Dates:

03/01/2019			03/01/2020
Rate	Fringe	Total	Total
63.60	31.53	95.13	98.38

CLASSIFICATIONS:

Semi-Skilled Men (including Bell or Signal Man top or bottom, Form Worker & Mover, Concrete Worker, Shaft Man, Tunnel Laborer, Caulker's Helper, all other semi-skilled)

Semi-Skilled Men (including Miner's Helper, Chuck Tender, Track Man, Nipper, Brake Man, Derail Man, Cable Man, Hose Man, Gravel Man, Form Man)

TERRITORY
ENTIRE STATE

NEW JERSEY DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT PREVAILING WAGE RATE DETERMINATION

HEAVY & GENERAL LABORERS- NEW TRANS HUDSON TUNNELS Rates Expiration Date :

Effective Dates:

	03/01/201	9	03/01/2020
Rate	Fringe	Total	Total
63.00	31.53	94.53	97.78

CLASSIFICATIONS:

All others (including Powder Watchman, Change House Attendant, Top Laborer, Job Steward)

TECHNICAL SPECIFICATIONS

CONDITIONS SPECIFIC TO THIS PROJECT

The 2020 County Aid Resurfacing Project consists of the resurfacing of 17.25 miles of roadway within Union County. The specific roads are as listed below:

- o West Grand Street from Roselle Municipal Line to Cherry Street
- o Brant Avenue from Parkway Circle to Westfield Avenue
- o Broad Street from Morris Avenue to Middle Avenue
- o Central Avenue from Wendy's Drive to the Garden State Parkway Circle
- o Galloping Hill Road from Route 28 to Magie Avenue
- o Martine, S. Martine from Portland Avenue to Raritan Road
 - Limits from South Avenue to King Street are omitted
- o Mountain Avenue from Caldwell Place to Briar Hill
- o North Stiles Street from Raritan Road to Valley Road
- o New Providence Road from Coles Avenue to Summit Lane
- o Passaic Street from Springfield Avenue to Chatham Municipal Line
- o Shunpike Road from Mountain Avenue to South Springfield Avenue
- o Summit Lane from W.R. Tracy Drive to New Providence Road
- o Valley Road from Central Ave. (GSP Circle) to Walnut Street
- West Jersey Street from Cherry Street to Linden Avenue
- o W.R. Tracy Drive from North Providence Road to Glenside Avenue
- West Broad Street from Route 28 to Lamberts Mill Road
- West Chestnut Street from Route 22 to Chestnut Street
- o West Inman Avenue from Route 27 to Bramhall Road
- o Woodbridge Road from Randolph Road from Hazlewood Avenue

The work will include, but will not be limited to, the milling and resurfacing of each roadway and the following associated work:

- Pavement repair prior to resurfacing
- Construction of accessible curb ramps
- Upgrade of stormwater drainage inlets
- Replacement and/or resetting of manhole castings
- Bridge deck repair and sawcutting of grooved surface
- Replacement or upgrade of damaged traffic signal loop detectors
- Upgrade or installation of street name signs
- Replacement of striping and pavement markings

Work along the roadside, including curb ramp, inlet and signage will be performed during the day. The remaining work, including milling, manhole work and paving will performed at night unless directed otherwise by the County.

Milling, manhole work, and paving will be performed during the day on the following roads:

• West Inman Avenue from Route 27 to Bramhall Road

Accessible curb ramps and existing non-compliant curb ramps will be constructed and/or reconstructed in compliance with ADA and PROWAG standards as needed. Granite block curb will be replaced to the extent

practical, but concrete curb will be constructed along the part of the curb ramp that is flush with the roadway pavement. The pavement along the curb ramps will be reconstructed in accordance with Union County standards prior to milling and paving. A detectable warning surface will be installed on all newly constructed and non-compliant existing curb ramps.

In compliance with NJDEP stormwater management regulations, Type B and D inlet curb pieces will be upgraded as needed to ensure the curb openings meet standards. All stream flow and concave grates and those with square openings will be replaced with bicycle-safe grates.

The pavement resurfacing will include milling to an average depth of two inches and resurfacing with hot-mix asphalt (HMA) 9.5M64 surface course of the same thickness. The 9.5M64 mix will also be used as a leveling course where necessary. Isolated base pavement repair prior to resurfacing will be performed as determined necessary by the County or our inspectors after milling. The County's standard pavement section will be used for base repair and curb restoration, including an HMA 19M64 base course six inches in thickness and a dense-graded aggregate base course four inches in thickness.

Worn manhole castings will be replaced as needed and manhole castings that do not correspond to the final roadway surface elevation will be reset using concrete in accordance with Union County standards.

Membrane waterproofing may be applied to selected concrete bridge decks. Crack sealing and deck repair will be performed as needed prior to the overlay operations. Any existing "Black Beauty" material will be removed from bridge decks that are to remain exposed. Grooves will be sawcut into exposed bridge decks in accordance with NJDOT standards.

Traffic signal loop detectors impacted by the project will be upgraded to video detection systems if feasible or replaced in kind as needed.

Street name signs will be installed or replaced at each intersection to upgrade the signs to meet Union County standards. Municipal standards meeting the County's approval will be used for street name signs in certain municipalities, such as the City of Summit.

Upon completion of the resurfacing operations, thermoplastic traffic markings will be installed along with plowable raised pavement markers.

Prior to construction, the contractor will perform a walk-through with the Engineer to confirm and verify project pavement limits, and location of miscellaneous pavement and curb repairs, ADA ramps, striping and other proposed improvements. Roadway, curb and drainage repair areas including the resetting of castings shall be performed prior to the placement of final HMA overlay. Milled areas adjacent to manholes and inlets within the roadway travel way shall provide a ramped HMA treatment to the satisfaction of the engineer to improve ride-ability to motorist to the greatest extent practical. Milled areas shall not remain exposed for more than 48 hours unless approved by the engineer.

All project roadways shall be closed to traffic throughout the milling and resurfacing operations unless otherwise directed by the engineer. All milling and resurfacing operations and other activities that require closure of travel through lanes will be performed during nighttime operations within the stipulated working hours.

Road closures for County roadways will be allowed between 9:00 PM and 6:00 AM. Road closure limitations for any NJDOT roadways will be conditional upon any applicable NJDOT permit restrictions.

Work that does not impact the travel way such as inlet, curb and sidewalk work shall be performed during daytime hours unless directed by the Engineer. Daytime work hours are from 7:00 a.m. to 4:00 p.m., Monday through Friday, excluding holidays.

Work within any portion of NJDOT Right-Of-Way (R.O.W.) including off-ramps closures, will be permitted between 9:00 AM and 3:00 PM, Monday through Friday. Additionally, any lane closures (within the NJDOT right of way) resulting from adjacent work, and or maneuvering space for construction equipment, shall be restricted to the above mentioned times. For nighttime closures of NJDOT roadways, NJDOT restricts the hours of operation between 10:00 PM and 6:00 AM. The Contractor is made aware of the different time restrictions for County and NJDOT roadways. The Contractor shall review any applicable NJDOT permits for further restrictions. These times indicate the road closure & opening times, respectively. Therefore, the contractor shall have all equipment and materials out of the NJDOT right of way and terminate all construction operations at the appropriate time (with adequate time for cleanup, material cooling, drying, curing, etc.), in order for the roads to be opened to traffic by the specified time. The County of Union will secure all NJDOT permits, where necessary, prior to construction. Other items to be installed including accessible curb ramps, street name signs, pavement reflectors, loop detectors and curb ramp delineation, shall be performed while traffic is maintained.

Note a closed road shall be open to traffic prior to initiating work requiring full closure on another road that is part of its detour route.

No construction equipment & material shall be stored within the County right-of-way. Resurfacing operations shall be terminated at the appropriate time (with adequate time for cleanup, material cooling, drying, curing, etc.), in order for the roads to be opened to traffic by the conclusion of the stipulated working hours. No work will be permitted on Saturdays, Sundays or Union County holidays.

Approximately 17.25 miles of County roads will be improved under this Program as follows:

Municipality	Street	From	То	Length /Miles
EL	W. Grand Street	Roselle Line /75' West of Park St.	Cherry St (EL)	1.23
CL	Brant Ave	Parkway Circle	Westfield Ave	0.33
SU	Broad Street	Morris Ave	Middle Ave	1.81
CL	Central Ave	Wendy's Drive (Approx)	GSP Circle	0.61
UN	Galloping Hill Road	Rt. 28	Magie Ave	0.6
SC/FA	Martine, S. Martine	Portland Ave	Raritan Rd	2.73
SP	Mountain Ave	Caldwell Place	30' South of Briar Hill	1.84
WI/LI	N. Stiles Street	Raritan Rd.	Valley Rd @ N. Stiles	0.94
MO	New Providence Road	Coles Ave.	Summit Lane	0.16
NE	Passaic Street	Springfield Ave	Chatham Line/Bridge	0.52
SP	Shunpike Rd	Mountain Ave	S. Springfield Ave	0.15
MO	Summit Lane	W.R. Tracy Drive	New Providence Road	0.48
CL	Valley Road	Central Ave. (GSP Circle)	Walnut St.	0.16
EL	W. Jersey Street	Cherry St	Linden Ave	0.41
MO	W.R. Tracy Drive	New Providence Rd	Glenside Ave	2.81
WE	West Broad Street	Rt. 28	Lamberts Mill Road	0.77
UN	West Chestnut Street	Rt. 22	Chestnut St	0.95
RA	West Inman Ave	Rt. 27	Bramhall Road	0.8
RA	Woodbridge Road	Randolph Rd.	Hazlewood Ave	0.2
			Total Mileage	17.25

A map showing the areas and extent of work are found on the cover sheet of the plan set.

Deviations from the standard curb-to-curb milling & resurfacing will be identified in field by the Engineer prior to construction.

The item described as: <u>Dense Graded Aggregate Base Course</u>, <u>Variable thickness</u>, shall be used on unpaved shoulder areas adjacent to the edge of pavement where drop-offs greater than 1.5 inches exist or will be created. Specific locations will be field verified by the Engineer prior to construction.

Accessible curb ramps shall be constructed prior to commencement of the milling and resurfacing operations. All curb ramps shall be constructed in accordance with the details shown herein. Adjacent along newly constructed curb and or sidewalk shall be restored to the satisfaction of the Engineer, and in accordance with these Specifications, at no cost to the County of Union. The construction details identify the restoration requirements. All materials, labor and costs associated with this restoration including sawcutting, excavation, dense graded aggregate base course and hot mix asphalt base course, shall be the sole responsibility of the contractor. Detectable warning surfaces shall be installed at all newly constructed ramps.

Resetting inlets and manholes to finished grade elevations is part of this contract. Castings, grates, curb pieces and covers that are broken shall be replaced as part of this contract at direction of the engineer as shown on the plans or as directed. In the areas where existing curb type inlets do not have adjacent curbing, new concrete curbing will be constructed on either side of said inlet.

When Reset Existing Casting is utilized, the Contractor shall remove the existing casting, reset and/or replace no more than 12" of the top of the inlet or manhole, add new bricks to bring the structure up to proper grade, parge the exposed surfaces both inside and out, and set the existing casting in a new mortar bed at the proper elevation for paving operations.

When Set Inlet Type __ Casting is utilized, the Contractor shall remove and dispose of the existing casting, reset and/or replace no more than 12" of the top of the inlet or manhole, add new bricks to bring the structure up to proper grade, parge the exposed surfaces both inside and out, provide a new casting, bicycle safe grate (and curb piece if necessary) and set the new casting in a new mortar bed at the proper elevation for paving operations.

All striping and pavement markings shall be replaced prior to the road being opened to traffic. Should this not be possible due to material and or manufacturer's specifications, temporary striping shall be installed in the interim, prior to the road being opened to traffic. Additionally, any and all pre-marking for permanent markings shall be completed prior to the close of each resurfacing operation day & prior to the road being opened to traffic. Permanent striping & markings shall then be installed within 24 hours of the roadway being resurfaced (and or originally opened to traffic). Temporary striping shall also be applied to all milled surfaces prior to the road being open to traffic. Separate payment will not be made for any temporary striping/markings. The costs thereof shall be included in the various pay items of the overall contract bid.

At the pre-construction meeting, the County shall provide the Contractor with the appropriate electrical and striping plans for the various signalized intersections within the project limits. In the event that the County does not have available striping plans for these areas, it will be the Contractor's responsibility to perform any & all field inventory, to confirm locations prior to milling operations. The Contractor will be responsible for notifying Ralph Lewis, Assistant Regional Electrical Supervisor, NJDOT Region North for all State Signalized Intersections. He can be reached at 973-648-2781.

Prior to the start of work, the Contractor shall go over the limits of all work with the Engineer or duly appointed representative.

Detours, work zone traffic control and all Maintenance and Protection of Traffic for full road closures will be planned, implemented and maintained by the County of Union. However, the Contractor shall be responsible for the Maintenance & Protection of Traffic for any construction operation performed at any time other than when the road is fully closed to traffic. These operations include the construction of curb & sidewalk; restoration associated with the various pay items; striping & pavement markings; the various raised pavement markings. Any loop detector operations not performed during the various operations where the road in question is fully closed, will also require the Contractor to perform any associated maintenance & protection of traffic. The County will perform construction inspection and materials testing.

The required time of completion for this project is 180 calendar days from the Notice to Proceed.

In addition to the standard resurfacing operations performed along each road (milling, resurfacing, striping & markings, raised pavement markings & street name signage), other items of miscellaneous work may also be warranted and will be described elsewhere in these specifications and the various construction details found in the contract plans. These items include: accessible curb ramps, loop detectors, miscellaneous inlet & manhole improvements, sidewalk, bridge deck repairs and installation of waterproof membranes and detectable warning surfaces.

Due to the size of this Program, punch list items will invariably arise. To minimize disruption to its citizens, the County shall require all punch list items brought to the contractor's attention to be rectified within seven (7) calendar days from receipt of said items. If said punch list items are not resolved to the satisfaction of the Engineer, within the specified time, liquidated damages, as specified in Section 43 of the General Specifications ('G' sheets of this specification) shall be pursued, commencing on the eighth calendar day.

The County retains the right to delete or substitute roads to be milled and paved under this contract. The County also retains the right to increase or decrease any and all quantities up to 25 percent of those estimated, at the unit prices bid.

Certified payroll records shall be produced and submitted on a bi-weekly basis to the County for all personnel involved with this project. The County shall withhold any and all payments until the certified payroll records are received.

Utility companies shall reset their valves, meters and manholes prior to construction. The Contractor shall make all necessary arrangements with the respective utility companies, to confirm that the appropriate number of each type of valve sleeves, covers, etc., are on-site. All work concerning these resets shall be in accordance with Sections: 105 & 650 as amended herein; except that this item will not be measured, and any/all payment associated with it shall be made part of the overall price bid for the project. No separate payment will be made for the resetting of utility valve boxes.

UNDER NO CIRCUMSTANCES WILL THE CONTRACTOR BE PERMITTED TO COMMENCE WITH THE RESURFACING OPERATIONS UNTIL ALL UTILITY VALVES HAVE BEEN RESET.

All roads under this contract requiring milling will be milled to a depth of two (2) inches. "To be constructed boxes" on the contract plans identify the estimated amount of material for each road. In cases where the road must be re-profiled, the locations will be pointed out to the contractor, who shall make the necessary adjustments to the milling machine to obtain said changes.

The contractor's attention is directed to the following signalized intersections, although the contractor shall be responsible for his/her own recognizance and site visits and this list shall not be considered comprehensive.

Municipality	Street	Signalized intersections
Clark	Central Avenue	Garden State Parkway Northbound On and Off Ramp, Garden State Parkway Southbound On and Off Ramp
Clark	Brane Avenue	Westfield Avenue
Clark	Valley Road	Walnut Avenue, Broadway
Elizabeth	West Jersey Street	Chilton Street, Cherry Street

Elizabeth	West Grand Street	Standish Street, Elmora Avenue, Grove Street, Chilton Street, Cherry Street
Elizabeth/Roselle Park	Galloping Hill Road	Lincoln Avenue, Westfield Avenue
Fanwood/Scotch Plains	Martine Avenue	Woodland Avenue, Midway Avenue, Watson Road, North Avenue, Route 28, West Broad Street, Cooper Road, Raritan Road
Linden/Winfield	North Stiles Street	Raritan Road, Valley Road
Mountainside	W.R. Tracey Drive	None
Mountainside	New Providence Road	None
Mountainside	Summit Lane	None
New Providence	Passaic Street	Springfield Avenue
Rahway	West Inman Avenue	St. Georges Avenue, Jefferson Avenue
Rahway	Woodbridge Road	Randolph Avenue, East Hazelwood Avenue
Springfield	Mountain Avenue	Hillside Avenue, Shunpike Road, Henshaw Avenue, Caldwell Place
Springfield	Shunpike Road	South Springfield Avenue, Mountain Avenue
Summit	Broad Street	Morris Avenue, Maple Street, Summit Avenue, Walnut Street, Ashwood Avenue, Springfield Avenue, Middle Avenue
Union	West Chestnut Street	Caldwell Avenue, Stuyvesant Avenue
Westfield	West Broad Street	None

Other structures exist along the roadways, including bridges, culverts, storm drainage facilities, sanitary sewers and utilities. It will be the sole responsibility of the Contractor to investigate & use due care when operating in their vicinity.

SPECIAL PROVISIONS

AUTHORIZATION OF CONTRACT

The Contract is authorized by the provisions of Title 40 of the New Jersey Statutes and their enacting regulations.

SPECIFICATIONS TO BE USED

The bound version of the 2019 Standard Specifications for Road and Bridge Construction of the New Jersey Department of Transportation as amended herein will govern the construction of this Project and the execution of the Contract.

General wage determinations issued under Davis-Bacon and related acts, published by US Department of Labor, may be obtained from the Davis-Bacon web site at http://www.access.gpo.gov/davisbacon/nj.html under the appropriate county; select the construction type.

Pay the prevailing wage rates determined by the United States Secretary of Labor and the New Jersey Department of Labor. If the prevailing wage rate prescribed for any craft by the United States Secretary of Labor is not the same as the prevailing wage rate prescribed for that craft by the New Jersey Department of Labor, pay the higher rate.

State wage rates may be obtained from the New Jersey Department of Labor & Workforce Development (Telephone: 609-292-2259) or by accessing the Department of Labor & Workforce Development's web site at http://lwd.dol.state.nj.us/labor/wagehour/wagehour_index.html The State wage rates in effect at the time of award are part of this Contract, pursuant to Chapter 150, Laws of 1963 (NJSA 34:11-56.25, et seq.).

If an employee of the Contractor or subcontractor has been paid a rate of wages less than the prevailing wage, the Department may suspend the Work, and declare the Contractor in default.

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If an employee of the Contractor or subcontractor has been paid a rate of wages less than the prevailing wage, the Department may suspend the Work, and declare the Contractor in default.

GENERAL

All awards shall be made subject to the approval of the New Jersey Department of Transportation. No construction shall start before approval of said award by the New Jersey Department of Transportation. Prior to the start of construction the contractor must submit a Material Questionnaire (SA-11) listing all sources of materials. Any materials used on the project from a non-approved New Jersey Department of Transportation source will be considered non-participating. The contractor is also notified that the District Office, Division of Local Aid and Economic Development must be notified of the construction commencement date at least five (5) calendar days prior to the start of construction.

Award of contract and subletting will not be permitted to, materials will not be permitted from, and use of equipment will not be permitted that is owned and/or operated by, firms and individuals included in the report of suspensions, debarments and disqualifications of firms and individuals as maintained by the Department of the Treasury, General Services Administration, CN-039, Trenton NJ 08625 (609-633-3990).

Payment for a pay item in the proposal includes all the compensation that will be made for the work of that item as described in the contract documents unless the "basis of payment" clause provides that certain work essential to that item will be paid for under another pay item.

Whenever any section, subsection, subpart or subheading is amended by such terms as changed to, deleted or added it is construed to mean that it amends that section, subsection, subpart or subheading of the 2019 Standard Specifications unless otherwise noted.

Whenever a reference to page number is made, unless otherwise noted, it refers to the bound version of the *New Jersey Department of Transportation 2019 Standard Specifications for Road and Bridge Construction*, as amended herein.

Henceforth in this supplementary specification whenever reference to the State, Commissioner, Department, Engineer or Inspector is made, it is construed to mean the UNION COUNTY ENGINEER.

Whenever reference to Title 27 is made, it is construed to mean Title 40.

Materials or assemblies as specified will be accepted on the basis of certificates of compliance stating that such materials or assemblies fully comply with the requirements of the contract.

Materials or assemblies used on the basis of certificates of compliance may be sampled and tested at any time and if found not to be in conformity with the contract requirements, will be subject to rejection whether in place or not. The Contractor shall require the manufacturer or supplier to furnish three copies of certificates of compliance with each delivery of materials, components and manufactured items that are acceptable by certification. Two (2) copies shall be furnished to the Owner, one (1) copy of which shall be sent to the NJDOT District Office, Bureau of Local Government Services through the Owner, and the Contractor shall retain one copy.

Certificates of compliance shall contain the following information:

- 1. Project and location to which the material is consigned.
- 2. Name of the Contractor to which the material is supplied.
- 3. Kind of material supplied.
- 4. Quantity of material represented by the certificate.

- 5. Means of identifying the consignment, such as label marking, seal number, etc.
- 6. Date and method of shipment.
- 7. Statement that the material has been tested and found in conformity with the pertinent contract requirements stated in the certificate.
- 8. Signature of a person having legal authority to bind the supplier.
- 9. Signature attested to by a Notary Public or other properly authorized person.

Payments relative to materials specified, shall be accepted on the basis of certificates of compliance shall not be made until the Engineer has in his possession an acceptable certificate of compliance.

FOREIGN MATERIALS

The attention of the Contractor is directed to all existing federal and state statutes and regulations that prohibit on any public work the use, by the Contractor or subcontractor, of materials produced or manufactured outside the United States of America. Exceptions to this prohibition, upon the findings of the Engineer, are allowed only where its enforcement would be inconsistent with the public interest or where the material is not produced or manufactured in the United States in sufficient quantities and of a sufficient quality.

If the Engineer finds that in the performance of the contract there has been a failure to comply with the provisions relative to foreign materials, he shall make public his findings and no other contract for the construction of any public work by this contracting agent shall be awarded to such Contractor, or to any partnership, association or corporation with which such Contractor is associated or affiliated, within a period of three years after such finding is made public.

Where the use of foreign material is allowed, such material shall be furnished in accordance with the following requirements:

- 1. Materials manufactured or produced outside the United States shall be delivered to a location, approved by the Engineer, where they shall be retained until examination can be completed.
- 2. The Contractor shall arrange, at his expense, any testing which the Engineer feel necessary to ascertain the acceptability of the material.
- 3. A certificate of compliance shall accompany each lot of foreign material. In addition, certified mill tests reports shall be attached to the certificate of compliance for those materials for which mill test reports are required and shall clearly identify the lot to which they apply. Certificates of compliance shall contain the following information:
 - A. Project to which the material is consigned.
 - B. Name of the Contractor to which the material is supplied.
 - C. Kind of material supplied.
 - D. Quantity of material represented by the certificate.
 - E. Means of identifying the consignment, such as label marking, seal number, etc.
 - F. Date and method of shipment.
 - G. Statement that the material has been tested and found in conformity with the pertinent contract requirements stated in the certificate.
 - H. Signature of a person having legal authority to bind the supplier.
 - I. Signature attested to by a notary public or other properly authorized person.

The following Sections of the Standard Specifications are deleted:

SECTION 102 - BIDDING REQUIREMENTS AND CONDITIONS SECTION 103 - AWARD AND EXECUTION OF CONTRACT

The above Sections of the Standard Specifications are changed to the requirements of the County of Union in the General Specifications herein.

The below Sections of the Standard Specifications have been changed to the requirements of the County of Union as stipulated herein, in the event of conflicts between the below sections and those of Union County, Union County stipulations shall govern.

SECTION 104 - SCOPE OF WORK SECTION 109 - MEASUREMENT AND PAYMENT

DIVISION 100 - GENERAL PROVISIONS

SECTION 101 - GENERAL INFORMATION

101.03 TERMS

THE FOLLOWING TERMS ARE CHANGED.

Completion

(3) IS CHANGED TO:

3. the Contractor has satisfactorily executed and delivered to the RE all documents, required forms, certifications, and proofs of compliance required by the Contract Documents, it being understood that the satisfactory execution and delivery of documents, certificates, and proofs of compliance is a requirement of the Contract.

Department: The County of Union.

RE, **Resident Engineer**, **or Engineer**: A representative of the County of Union.

SECTION 104 - SCOPE OF WORK

104.3.3 Types of Changes

- 3. Changes in the Character of Work.
 - a. Differing Site Condition.

THE SECOND PARAGRAPH IS CHANGED TO:

The Department will make payment for increased costs resulting from a Type 1 or Type 2 Differing Site Condition as a change in the character of work; however, the Department will not consider payment for a differing site condition unless the resulting change in cost exceeds \$7,500, unless the Contractor incurs cost as the result of multiple differing site conditions, with the cost of each separate differing site condition having a value of at least \$1,500 but not more than \$7,500. In this case the Department will consider making payment for such costs if the aggregate cost of the multiple differing site conditions exceeds \$7,500. If the change in cost exceeds these amounts, the Department will base the modification on the total cost of the change, and the Department will not deduct the threshold amount of \$7,500 from the cost of the change.

104.3.4 Contractual Notice

THE SECOND PARAGRAPH IS CHANGED TO:

Immediately provide written notice to the RE of a circumstance that is believed to be a change to the Contract. Include the following in the initial written notice:

- 1. A statement that this is a notice of a change.
- 2. The date when the circumstances believed to be a change was discovered.
- 3. A detailed and specific statement describing the nature and circumstances of the change.
- 4. If the change will or could affect costs to the Department.
- 5. If the change will or could affect Contract Time as specified in 108.11.01.C.

In addition to the hard copy of the notice, email the notice to the RE. It is not necessary to attach listed documents to the email.

104.3.8 Force Account

- 7. Equipment.
 - a. Contractor-Owned Equipment.

PART 1 IS CHANGED TO:

1 The Department will calculate the "rental" hourly rates by dividing the monthly rate by 176. The Department will not use weekly, daily, or hourly rates. The Department will apply rental hourly rates for every hour the equipment is in active use, except that for any 30-day period, the Department will limit the total amount paid for each piece of equipment to the monthly rate.

THE FOLLOWING PART IS ADDED:

6. The Department will make payment for costs for transporting equipment to and from the work site, if said costs are solely required as a direct result of the Force Account activity.

THE SECOND PARAGRAPH IS CHANGED TO:

The payment established is full payment for all equipment costs, including the cost of fuel, oil, lubrication, supplies, attachments, repairs, maintenance, depreciation, storage and incidentals.

10. Subcontractors.

THE SECOND PARAGRAPH IS CHANGED TO:

The Department will make payment for markup on subcontracted work at the rate of five (5) percent applied on the total amount of all costs for subcontracted force account work up to \$500,000 and 2% applied on the total amount of all costs for subcontracted force account work over \$500,000.

104.3.9 Delay Damages

- 1. Non-Productive Activity.
 - e. Equipment.

THE FIRST SENTENCE IS CHANGED TO:

If as the result of the delay, equipment cannot be used for any active work, and is directed by the RE to remain on the work site during the delay, the Department will make payment as specified in 104.03.08.7.a.5.

SECTION 105 - CONTROL OF WORK

105.5 WORKING DRAWINGS

THE NINTH PARAGRAPH IS CHANGED TO:

Submit working drawings for certification or approval as specified in <u>Table 105.05-1</u>. This list is not all inclusive. Ensure that the working drawings submitted for approval are signed and sealed by a Professional Engineer. The working drawings submitted for certification are not required to be signed and sealed by a Professional Engineer unless they alter the original Contract.

TABLE 105.05-1 IS CHANGED TO:

Table 105.05 1 - Working Drawing Submission Category			
Certified	Approved		
Breakaway I-Beam GA Sign Support Posts	Catalog Cuts (related to landscape Items)		
Bridge Drainage	Change in Structural Steel Details		
Bridge Railing and Fencing Anchorage System	Change of Pre-stressed Concrete Strand Patterns		
Catalog Cuts	Demolition Plans		
Composite Piles	Erection Plans		
DMS Sign Support Structure	High Load Multi-Rotational (HLMR) Bearings		
DMS Standard Ground Mounted	Isolation Bearings		
Elastomeric Bearings Pads	ITS System Drawings, including Block Diagrams		
Electrical Items Not Pre-Qualified	Machinery and Electrical Items for Movable Bridges		
Expansion Deck Joint Assembly Systems	Mechanically Stabilized Earth (MSE) Walls		
Modular Expansion Joint Assembly Pre-cast, Pre-stressed Concrete Beams and Piles	Other work shown on the Plans as conceptual		
Fabrication	Pre-cast Concrete Arch Structures		
Reinforced Elastomeric Bearings	Pre-cast Concrete Box Culverts		
Sign Legends	Pre-fabricated Modular Walls		
Sign Support Structures	Stay-In-Place Forms		
Structural Steel Fabrication	Temporary Sheeting and Cofferdams		
	Temporary Shielding		
	Temporary Structures		
	Value Engineering Plans		

1. Certified Working Drawings.

THE LAST SENTENCE OF THE FIRST PARAGRAPH IS CHANGED TO:

The Department will require 15 days for review and certification or rejection and return of certified working drawings.

2. Approved Working Drawings.

THE LAST SENTENCE OF THE FIRST PARAGRAPH IS CHANGED TO:

The Department will require 15 days for review and approval or rejection and return of working drawings.

105.07 Cooperation with Utilities.

THE FOLLOWING HAS BEEN ADDED

F. General. It is understood and agreed that the Contractor has considered in its Proposal all of the permanent and temporary utility facilities in their present, new, or relocated positions to the extent required by the Contract Documents and as revealed by its own investigations; is aware that utility service demands, adverse field conditions and emergencies may affect the Utility's ability to comply with the proposed schedules for utility work; is cognizant of the limited ability of the County to control the actions of the Utility(s), and has made allowances in its Proposal that it is not entitled to any Additional Compensation by reasons of delays, inconvenience or damage sustained by the Contractor due to any interference from utility facilities or the operation of moving or installing them. Similarly, the Contractor is deemed to understand that only limited extensions of time may be granted as specified in Subsection 108.11.

The Contractor shall notify, in writing, the Utilities involved of the nature and scope of the Project, and of its operations that may affect their facilities or property. The notice shall include an inquiry for all information required to determine the location of the existing utility facilities and the Contractor shall also provide the portion of the approved Preliminary Schedule relative to that respective Utility. Two copies of such notices and the Utility's responses shall be sent to the Resident Engineer prior to the start of Construction Operations. The Contractor shall also attend a Utility preconstruction conference prior to the start of Construction Operations.

The Contractor shall provide each Utility the portion of the approved Baseline CPM Schedule related to the respective Utility and any approved updates or revisions that affect that Utility. Information on the Utility(s), including the work to be performed by the Utility(s) on the Project, will be provided in the Special Provisions.

The corporations, companies, agencies, or municipalities owning or controlling the utilities, and the name, title, address, and telephone number of their local representative are attached herein.

Bidders are advised to verify the above information as its accuracy and completeness is not guaranteed by the County.

The Contractor is advised that the design for this Contract did not identify any anticipated utility conflicts. However, this Contract does require the Contractor to call the State's One Call System as specified in Subpart C., to verify that a conflict does not exist.

A pre-construction meeting will be held to enable full coordination of parties involved in this project. The County will arrange this meeting shortly after award of contract and prior to the start of any work and send an agenda and written invitations to municipal officials, utility owners and any other interested parties.

A minimum of five business days prior to the pre-construction meeting, the Contractor will provide the County, in writing, with the following:

- 1. Proposed work schedule;
- 2. List of Sub-Contractors;
- 3. List of material suppliers;
- 4. Certificates of Compliance for all materials and or assemblies, including: Raised Pavement Markings; Signs; Public Sidewalk Ramp Delineation, etc.;
- 5. Breakdown of any lump-sum items;
- 6. Shop drawings of all construction items.

THE CONTRACTOR WILL NOT COMMENCE WORK UNTIL THE ABOVE MATERIAL IS RECEIVED & APPROVED.

105.07.01 Working in the Vicinity of Utilities

C. Protection of Utilities.

THE FOURTH PARAGRAPH IS CHANGED TO:

Access within railroad right-of-way is restricted. Before beginning work within the railroad ROW or on railroad facilities, obtain the railroad's written approval for access, the method of construction, and the schedule of the work. Provide a copy of the submittal and approval to the RE. Comply with the railroad's requirements for working within the railroad right-of-way.

Mr. Vincent Milano (856-231-2049) of Conrail shall be contacted regarding the work within CONRAIL's ROW along Liberty Avenue, including coordination of CONRAIL's flaggers, if necessary.

THE FOLLOWING IS ADDED TO THE SIXTHPARAGRAPH:

Ensure that the work is performed following the railroad's access and safety restrictions.

SECTION 106 - CONTROL OF MATERIAL

106.7 CERTIFICATION OF COMPLIANCE

THE FOLLOWING IS ADDED:

106.7.1 Certification of Compliance

Submit manufacturer's Certifications of Compliance stating that the materials and/or assemblies fully comply with the requirements of the Contract when required by the Contract or requested by the Department.

Ensure that Manufacturer's Certification of Compliance contains the following information:

- 1. Project Name.
- 2. Name of the Contractor.
- 3. Material description.
- 4. Quantity of material represented by the certification.
- 5. Means of identifying the consignment, such as label marking or seal number.
- 6. Date and method of shipment.
- 7. A statement that the material conforms to the Contract material requirements and that representative samples have been sampled and tested.
- 8. If the submission is for an assembly of materials, a statement that the assembly conforms to the Contract.
- 9. Signature of a person having legal authority to bind the supplier.
- 10. Typed or printed name of the person who signed the certification.

Before incorporating the materials into the Project, obtain 3 copies of the manufacturer's Certifications of Compliance for materials, components, and manufactured items that are accepted by certification. Retain 1 copy and submit 2 copies to the RE. With the Certification of Compliance, provide a transmittal identifying the Item for which it is submitted. For products that contain steel or iron, attach additional documents as required by the certification procedures as specified in 106.07.02. The Contractor may submit the Certifications of Compliance electronically to the RE in a scanned document. Include the transmittal and all backup documentation in the scanned document.

The Department has the right to sample and test materials or assemblies accepted on the basis of Certifications of Compliance at any time. The Department will reject materials or assemblies, whether in place or not, if found not to be in conformance with the Contract requirements.

The Department will not make payment for an Item for which material is accepted on the basis of a Certification of Compliance until the RE has received the required Certification of Compliance and has inspected and accepted the material or assembly.

106.7.2 Certification for iron and steel

- A. Pre-cast Concrete Steel and Concrete Pipe Certification of Compliance. For precast concrete and concrete pipe items, a Buy America Compliance Plan is required to confirm that the material meets the Buy America requirements as specified in 106.03. The ME will periodically audit compliance with the program at the precast plant. If the precast concrete item is not inspected by ME, submit a Certification of Compliance for the precast concrete item as required in 106.07.01. When a Certification of Compliance is submitted, ensure that the Certification of Compliance contains a statement that the reinforcing steel used in the precast concrete item complies with the Buy America requirements as specified in 106.03
- B. Incidental Steel or Iron Components and Manufactured Products. Incidental steel and iron

components such as lifting hooks, tie wire, chairs, nuts, bolts and screws are not required to be certified for compliance with Buy America requirements. For manufactured products that are not made predominantly of steel, the steel components are not required to be certified for compliance with Buy America requirements.

C. Step Certification of Compliance. For products that contain steel or iron components and are not covered in 106.07.02.A or 106.07.02.B, step Certification of Compliance is required to confirm that the item meets the Buy America requirements as specified in 106.03. A step certification is a process under which each handler (e.g., supplier, fabricator, manufacturer, processor, coating facility) of the iron and steel components certifies that the steel and iron components were of domestic origin and that their step in the process was domestically performed.

Every step in the process from melting to coating must be performed in the United States in order for the steel or iron component to be considered domestic and must be documented by step certification. If a domestic source for a steel or iron component cannot be found, submit a request for waiver to the Department. Do not purchase non-domestic steel or iron components without the express written consent of the Department.

Ensure that 3 copies of the Contractor's Certification of Compliance (Form DC-17) and the step Certifications of Compliance are provided for items containing steel or iron. Retain 1 copy and submit 2 copies to the RE. The Contractor may submit the DC-17 and the step certifications electronically in a scanned document.

Ensure that step Certifications of Compliance contain the following information:

- 1. Name of the Company supplying the material.
- 2. Name and location of the Company the material was shipped to.
- 3. Material description.
- 4. Quantity of material represented by the Certification.
- 5. Means of identifying the consignment, such as label marking or seal number.
- 6. Date and method of shipment.
- 7. A statement that the material conforms to the Contract material requirements and to the Buy America requirements in 106.03.
- 8. A statement that all steel or iron components in the material or assembly were "melted and manufactured in the US," unless there is non-domestic steel or iron in the material or assembly.
- 9. If there is non-domestic steel or iron in the assembly, describe in detail the non-domestic steel or iron material and the quantity. Attach a copy of the Department's approval for the use of non-domestic steel or iron components.
- 10. Signature of a person having legal authority to bind the supplier.
- 11. Typed or printed name of the person who signed the certification.

The Department will not make payment for work containing steel or iron materials until the RE has received the required DC-17 and step Certifications of Compliance and has inspected and accepted the material or assembly.

SECTION 107 - LEGAL RELATIONS

107.04 NEW JERSEY CONTRACTUAL LIABILITY ACT

THE FOURTH PARAGRAPH IS CHANGED TO:

For purposes of determining the date of "completion of the contract" pursuant to N.J.S.A. 59:13-5, "completion of the contract" occurs on the date that the Contractor provides written notice to the Department of Acceptance or conditional Acceptance of the Proposed Final Certificate or the 30th day after the Department issues the Proposed Final Certificate, whichever event occurs first.

107.09 INDEPENDENT CONTRACTOR

THE ENTIRE SUBSECTION IS CHANGED TO:

The relationship of the Contractor to the State is that of an independent contractor. Conduct business consistent with such status. Do not hold out or claim to be an officer or employee of the Department by reason hereof. Do not make a claim, demand, or application to or for the rights or privileges applicable to an officer or employee of the Department, including, but not limited to, Workers Compensation Insurance, unemployment insurance benefits, social security coverage, or retirement membership or credit.

107. 11 RISKS ASSUMED BY THE CONTRACTOR

1. Risks of Loss or Damage to the Permanent Construction.

THE ENTIRE SUBSECTION IS CHANGED TO:

1. Risks of Loss or Damage to the Permanent Construction. Until Acceptance, and within the limits of the Project's work, the Contractor shall bear the risk of all loss or damage to all permanent construction and temporary construction performed under this Contract and to materials, whether or not it has received payment for such construction or materials under Subsection 109.05, 109.06, or 109.07, except payment will be made to the Contractor for the repair or replacement of any permanent element of the construction which has not been accepted by the Department, if the element of the work damaged is completed to the stage of serving its intended function and is subsequently damaged by accident by public traffic. In order to receive payment, the Contractor must supply satisfactory evidence that such damage was caused by a public traffic accident that was not caused by vandalism or by the equipment of the Contractor or any of its subcontractors or suppliers. Satisfactory evidence shall generally be limited to: accident reports filed with the Division of Motor Vehicles, police agencies or insurance companies; statements by reliable, unbiased eyewitnesses; identification of the vehicle involved in the accident. Physical evidence that the damage was caused by a motor vehicle (such as tire marks or broken headlight glass) will not be sufficient unless it can be clearly shown that the damage was not caused by the Contractor's vehicles or by vandalism. The Contractor shall take every precaution, as allowed by the Contract against injury or damage to any part of the construction or to materials by the action of the elements, the traveling public, vandalism, or from any other cause, whether arising from the execution or the non-execution of the work. The Contractor shall promptly repair, replace, and make good any such damage or loss without cost to the Department. The Contractor shall not bear such risk of loss or damage, which arises from acts of war or floods, tidal waves, earthquakes, cyclones, tornadoes,

hurricanes, or other cataclysmic natural phenomenon unless such loss or damage is covered by insurance.

THE FOLLOWING SUBSECTION IS ADDED:

107.17 COMMUNICATION WITH THE NEWS MEDIA

Do not communicate with the news media or issue a news release without obtaining a prior written approval from the Department.

SECTION 108 - PROSECUTION AND COMPLETION

108.1 SUBCONTRACTING

1. Values and Quantities.

THE FIRST PARAGRAPH IS CHANGED TO:

1. Values and Quantities. The total value of the work subcontracted may not exceed 50 percent of the Total Contract Price.

THE THIRD PARAGRAPH IS CHANGED TO:

If a partial quantity of work for a unit price Item is subcontracted, the Department will determine the value of the work subcontracted by multiplying the price of the Item by the quantity of units to be performed by the subcontractor.

THE FOURTH PARAGRAPH IS CHANGED TO:

If only a portion of work of a lump sum Item is subcontracted, the Department will determine the value of work subcontracted based on the value of the work subcontracted as indicated in the subcontract agreement and as shown in a breakdown of cost submitted by the Contractor.

108.2 COMMENCEMENT OF WORK

THE SUBPART 4 IN THE FIRST PARAGRAPH IS CHANGED TO:

4. Progress schedule as specified in 153.03

108.6 NIGHT OPERATIONS

THE FOLLOWING IS ADDED TO THE BEGINNING OF THE FIRST PARAGRAPH:

The Contractor shall be responsible for furnishing, maintaining, removal & or disposal of all equipment, material & manpower necessary for compliance with this sub-section.

2. Visibility Requirements for Workers and Equipment.

THE FIRST PARAGRAPH IS CHANGED TO:

Ensure that workers wear a 360° high-visibility retroreflective safety garment meeting ANSI/ISEA Class 3, Level 2 standards.

108.7 TRAFFIC CONTROL

THE FOLLOWING IS ADDED:

Working hours for this project are as follows:

Weekdays (Monday through Friday)
Day Time 7:00 am to 4:00 pm
Night Time 9:00 pm to 6:00 am

Weekends/Holidays

Not Allowed without Approval from Union County

108.7.1 Interference

THE FOLLOWING IS ADDED TO THIS SUB-SECTION:

It shall be the Contractor's responsibility to maintain driveway access for all adjacent property owners. In the event that industrial & commercial driveway access must be temporarily denied, as in the scenario where the milling and paving operations will restrict passage, the Contractor shall provide written notice to the Engineer and property owner at least five (5) working days in advance of the driveway closing.

When vehicular traffic is to be maintained within the scope of the Project, the **County** shall plan and implement the work to provide for the safe and convenient passage of such traffic. The **Contractor** shall cooperate in every way with County forces to ensure the safe and proper passage of said traffic.

HOWEVER, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ESTABLISHING & MAINTAINING ALL WORK ZONES FOR THE CONSTRUCTION OF HANDICAP RAMPS, MISCELLANEOUS CONCRETE SIDEWALK & CURB, VARIOUS STRIPING & PAVEMENT MARKINGS, AND REMOVAL & INSTALLATION OF RAISED PAVEMENT MARKINGS. ALL TRAFFIC CONTROL DEVICES & MANPOWER NECESSARY TO MAINTAIN SUCH WORK ZONES SHALL BE SUPPLIED, IMPLEMENTED AND REMOVED AT THE APPROPRIATE TIME BY THE CONTRACTOR, IN ACCORDANCE WITH THE 2009 EDITION OF THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS WITH REVISIONS 1 AND 2, DATED MAY 2012.

108.7.2 Changes to the Traffic Control Plan (TCP)

THIS ENTIRE SUB-SECTION IS CHANGED TO READ AS FOLLOWS:

The **County** shall be responsible for establishing and maintaining the proposed detour routes, and work zones (not including work zones for the construction of miscellaneous concrete work, manhole and inlet work, striping, & raised pavement markings), as well as the work area(s) itself, insofar as it relates to maintenance and protection of traffic operations. The Contractor shall provide Union County with a minimum of 48-hour notice of proposed roadway closures for milling and resurfacing operations.

Neither the Contractor nor his forces shall alter the detour route and associated traffic control devices place by the County in any way, unless otherwise directed by the Engineer. In this event, such alterations shall take place only in the presence of the Engineer, or duly appointed representative. *The Contractor shall notify the Engineer at least five (5) business days in advance of each proposed alteration.*

The Contractor shall receive a copy of the detour and traffic control plans proposed by the County. However, under no circumstances shall the Contractor implement any changes without prior approval from the Engineer. Standard NJDOT traffic control details are included in the bid plans.

The Traffic Control Plan is based on the requirements provided in the latest edition of the <u>Manual on Uniform Traffic Control Devices for Streets and Highways (MUTCD)</u>. The Contractor shall work in

accordance with the provisions of the traffic control or detour plan and shall only deviate from the plan as directed by the Engineer.

Additional traffic control plans may be added by the Engineer that better suits the type and nature of the work being performed. In this case, the Contractor shall follow the revised or new plan accordingly. The revised plan(s) shall be implemented as part of this item without additional compensation.

108.09 MAINTENANCE WITHIN THE PROJECT LIMITS

The following is added to this sub-section:

The Contractor shall not be responsible for removal of ice or snow from sections of roadways opened to traffic or for damage to the project caused by the operation of snowplows or other snow removal or deicing operations carried on by others under the supervision or direction of the County. The Contractor shall not be responsible for mowing unless an item for mowing is scheduled in the proposal form. However, the Contractor shall be responsible for the removal of all leaves, debris & other material on the road, prior to milling and resurfacing. The Contractor will also be responsible for street sweeping prior to resurfacing operations, and at the end of each day following milling operations.

108.11.01 Extensions to Contract Time

B. Types of Delays.

1. Non-Excusable Delays.

THE FOLLOWING IS ADDED:

For work performed by Utilities, delays up to 30 percent of the estimated duration specified in 105.07.02 are considered non-excusable. The duration includes both the advance notice and the completion of the work by the Utility.

For delays caused by Railroads, delays up to 30 percent of the estimated availability specified in 105.07 are considered non-excusable.

2. Excusable, Non-Compensable Delays.

b. Utilities.

THE FOLLOWING IS ADDED:

For delays caused by Railroads, when the availability to access is reduced by more than 30 percent greater than the estimated availability specified in 105.07.

THE LAST PARAGRAPH IS CHANGED TO:

If approved excusable, non-compensable delays exceed a total of 90 days, the time in excess of 90 days will become excusable and compensable as specified in 108.11.01.B.3.

108.19 COMPLETION AND ACCEPTANCE

THE FOLLOWING IS ADDED:

No Incentive Payment for Early Completion is specified for this project.

SECTION 109 - MEASUREMENT AND PAYMENT

109.1 MEASUREMENT OF QUANTITIES

THE SECOND PARAGRAPH IS DELETED:

109.2 SCOPE OF PAYMENT

THE THIRD SENTENCE OF THE FIRST PARAGRAPH IS CHANGED TO:

The Department will not make additional or separate payment for work or portion of work unless specifically provided for in the "Measurement and Payment" Subsection.

109.5 ESTIMATES

THE SECOND PARAGRAPH IS CHANGED TO:

The RE will provide a summary of the Estimate to the Contractor. Before the issuance of each payment, certify, on forms provided by the Department, that:

- Each subcontractor or supplier has been paid the amount due from the previous progress payment and shall be paid the amount due from the current progress payment and that full payment for any retainage withheld from a subcontractor has been or will be made within 30 days after the subcontractor's work has been satisfactorily completed; or
- There exists a valid basis under the terms of the subcontractor's or supplier's contract to withhold payment from the subcontractor or supplier, and therefore payment is withheld.

THE TENTH PARAGRAPH IS CHANGED TO:

The RE has the right to not process an Estimate when, in the judgment of the RE, the Work is not performed or proceeding as specified in the Contract or following the Department giving the Contractor and Surety notice of default as specified in 108.14.

DIVISION 150 - CONTRACT REQUIREMENTS

SECTION 151 - PERFORMANCE AND PAYMENT BOND

151.04 MEASUREMENT AND PAYMENT

THIS SUBSECTION IS DELETED AND REPLACED WITH THE FOLLOWING:

No separate payment will be made for performance bond and payment bond. All costs thereof shall be included in the various items of the proposal.

SECTION 152 - INSURANCE

152.3.2 Railroad Protective Liability Insurance

THE FOLLOWING IS ADDED TO THE FIRST PARAGRAPH:

Ensure the policy is endorsed to include per project aggregate.

Procure and maintain insurance coverage for the following railroad(s) at the specified amount:

Consolidated Rail Corporation (CONRAIL)

- Rail Road Protective Liability (RRP) Insurance
 - Not less than \$2,000,000.00 per occurrence, as a combined single limit for bodily injury and/or property damage
 - \$6,000,000.00 per annual agreement for damages arising out of more than one (1) occurrence.

It is estimated that less than 1% percent of the Project cost is located within or adjacent to the railroad right-of-way.

152.04 MEASUREMENT AND PAYMENT

THIS SUBSECTION IS DELETED AND REPLACED WITH THE FOLLOWING:

No separate payment will be made for insurance. All costs thereof shall be included in the various items of the proposal.

SECTION 153 - PROGRESS SCHEDULE

153.3.2 CPM Progress Schedule Updates

2. Tabular Reports.

THE FIRST SENTENCE OF THE FIRST PARAGRAPH IS CHANGED TO:

The RE may require 3 color paper copies of the longest path sort, total float sort, responsibility sort, area sort, and Gantt chart.

THE LAST PARAGRAPH IS CHANGED TO:

If the project falls behind schedule for non-excusable delays so that the schedule indicates that the Work will not be completed by the Completion date, as specified in 108.10, take the necessary steps to improve progress. Under such circumstances, the RE may direct the Contractor to increase the number of shifts, begin overtime operations, work extra days including weekends and holidays, and supplement its construction plant. Additionally, the RE may require the Contractor to submit for approval a recovery schedule showing how the Contractor proposes to meet the directed acceleration.

153.3.3 Bar Chart Progress Schedule and Updates

A. Schedule.

THE THIRD SENTENCE OF THE THIRD PARAGRAPH IS CHANGED TO:

Provide 3 color paper copies of a bar chart progress schedule or similar type that is acceptable to the RE for approval as follows:

153.04 MEASUREMENT AND PAYMENT

THE LIST OF PAY ITEMS IS DELETED AND REPLACED WITH THE FOLLOWING:

No separate payment will be made for schedule preparation. All costs thereof shall be included in the various items of the proposal.

SECTION 157 - CONSTRUCTION LAYOUT ANDMONUMENTS

157.03.01 Construction Layout

THE SEVENTH PARAGRAPH IS CHANGED TO:

Provide the Utilities with the layout needed to install relocated utility facilities and coordinate the Work. Ensure that relocated facilities do not conflict with proposed construction, including High Voltage Proximity Act conflicts.

157.04 MEASUREMENT AND PAYMENT

THIS SUBSECTION IS DELETED AND REPLACED WITH THE FOLLOWING:

No separate payment will be made for construction layout. All costs thereof shall be included in the various items of the proposal.

SECTION 159 - TRAFFIC CONTROL

THE FOLLOWING IS ADDED:

ALL WORKERS SHALL WEAR REFLECTORIZED GARMENTS, UTILIZING 360° VISIBILITY, AS SPECIFIED FOR TRAFFIC DIRECTORS.

When vehicular traffic is to be maintained within the scope of the Project, the **County** shall plan and implement the work to provide for the safe and convenient passage of such traffic. The **Contractor** shall cooperate in every way with County forces to ensure the safe and proper passage of said traffic.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR ESTABLISHING & MAINTAINING ALL WORK ZONES FOR THE CONSTRUCTION OF CURB RAMPS, SIDEWALK, CURB, MANHOLE AND INLET WORK, STRIPING, PAVEMENT MARKINGS AND RAISED PAVEMENT MARKINGS. ALL TRAFFIC CONTROL DEVICES WITHIN WORK ZONES SHALL BE ESTABLISHED IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS. ALL TRAFFIC CONTROL MEASURES SHALL BE SUPPLIED, IMPLEMENTED AND REMOVED AT THE APPROPRIATE TIME BY THE CONTRACTOR.

Contractor shall be responsible for notifying all property owners fronting his work area for any work not associated with the County's closure for milling and resurfacing operations. In the case of the milling and resurfacing operations, the County will notify the property owners. Contractor shall notify property owners a minimum of seven (7) days in advance of the proposed work. A sample project notice shall be provided to the Engineer for review and approval prior to mailing.

All traffic control devices shall comply with these Specifications and the <u>Standard Details for Traffic Control Devices</u> as developed by the New Jersey Department of Transportation.

All traffic control devices furnished by the Contractor shall be new, or in acceptable condition as defined by the American Traffic Safety Services Association (ATSSA), Quality Standards For Work Zone Traffic Control Devices – 3rd Edition. Traffic control devices damaged under this Contract as a result of carelessness or mishandling by the Contractor (i.e., running over cones or barrels with his equipment or splashing tar on traffic control devices, etc.) shall be replaced by the Contractor at no additional cost to the County. The Contractor shall replace damaged traffic control devices within one (1) calendar day. The County reserves the right to reject any traffic control device, which in their sole opinion does not satisfy the criteria of these Specifications, is damaged or otherwise incapable of providing the function for which it was intended. In this event, the Contractor shall replace the deficient traffic control devices and/or materials within one (1) calendar day. Upon completion of the Project, all traffic control devices and materials furnished by the Contractor shall be removed by the Contractor.

All signs furnished by the Contractor shall conform to the latest edition of the <u>Manual of Uniform Traffic</u> <u>Control Devices for Streets and Highways</u> and the <u>Manual of Standard Highway Signs published by the Federal Highway Administration</u>. All signs & traffic control devices shall be manufactured with, or incorporate 3M diamond grade material or approved equal. All signs shall be aluminum, with a thickness of 0.100 inches, and cut to Standard sizes.

Should the Contractor begin work prior to the work zone being properly established as described herein, the County shall assume no responsibility for tort liability issues arising from the Contractor's premature start. All liability and consequence arising from a premature start is solely the Contractor's. It should be noted that at the conclusion of the workday, any detour routes will be discontinued and the area under

construction reopened to traffic until the start of the following workday. Therefore, the Contractor shall ensure that all of his equipment and materials are removed from the roadway, the road clear of debris and all raised manholes, inlets and other appurtenances have traffic control devices (i.e., drums) placed over them. In this case the County may supply the traffic control devices to the Contractor and it shall be the Contractor's responsibility to place them where necessary.

In the event that the manhole, inlet or other appurtenance is within the traveled way and the placement of a traffic device would impede the flow of traffic, the manhole, inlet or other appurtenance shall be ramped in accordance with Construction Details with fresh hot mix asphalt material (either cold or hot mix). The use of millings to perform this operation will not be allowed.

159.3.1 TRAFFIC CONTROL COORDINATOR

THE FOLLOWING IS ADDED:

The Contractor shall be responsible for project maintenance within the project limits until acceptance. This maintenance shall consist of continuous and effective work prosecuted day by day, with adequate equipment and forces to the end that the roadway is kept in satisfactory condition at all times. In the case of a contract requiring the placing of a course upon a course or subgrade previously constructed, the Contractor shall maintain the previous course or subgrade during all construction operations.

Prior to the start of construction operations, the Contractor shall assign a supervisory-level employee to be the Traffic Control Coordinator. The Engineer and affected municipalities shall be notified as to the name & telephone number of this individual on a 24-hour, 7-day a week basis. A PAGER NUMBER FOR THIS PURPOSE WILL NOT SUFFICE. IF AND WHEN THE NUMBER IS CALLED, THE CONTRACTOR OR DULY APPOINTED AGENT MUST BE AVAILABLE TO ANSWER AND RESPOND TO THE EMERGENCY CALL. THE CONTRACTOR'S RESPONSE TIME TO EMERGENCIES THAT ARISE DURING THIS PROJECT SHALL BE WITHIN ONE (1) HOUR.

The Traffic Control Coordinator shall be responsible for ensuring that the Contractor meets all provisions of the current edition of the Manual on Uniform Traffic Control Devices for Streets and Highways, OSHA, ANSI and Title 39 of the New Jersey Statutes (the Uniform Motor Vehicle Laws of New Jersey). The Traffic Control Coordinator shall be the liaison between the Contractor and County for the duration of the project. It will be his/her responsibility to notify the Engineer when and where the Contractor's work force and equipment shall be throughout the workday. The Traffic Control Coordinator shall:

- Provide that all the Contractor's equipment and vehicles are properly stored and parked so as not to create a traffic hazard;
- Coordinate the Contractor's work schedule and need for traffic directors with the Engineer or duly appointed representative with regards to the maintenance and protection of traffic;
- Confirm the Contractor's compliance and cooperation with the Engineer with respect to the maintenance and protection of traffic;
- Reposition traffic control devices displaced by traffic or construction equipment;
- Notify County forces of damaged traffic control devices;
- Confirm that all traffic control devices moved or repositioned by the Contractor or his forces are placed in their original position;
- Coordinate all concrete construction work zones, including signage, traffic control devices and the appropriate manpower.

The Contractor shall maintain safe and adequate pedestrian access in, near or around the work site. Neither the Contractor's equipment nor debris and materials shall occupy any part of the sidewalk, path or traveled way that is not being constructed.

All equipment, materials, excavated material or debris shall be removed by the end of the workday. Material or debris left at the end of the day by the Contractor on, near or adjacent to the sidewalk or traveled way that is open to pedestrians and vehicles is subject to removal by the County forces. In this event, the costs associated with the removal will be deducted from monies owed the Contractor.

159.3.2 Traffic Control Devices

THE FOLLOWING IS ADDED AFTER THE FIRST PARAGRAPH:

Traffic Control devices shall be NCHRP-350 crash test compliant by the NJDOT and shall be duly certified, if necessary.

Newly purchased devices shall be NCHRP-350 compliant. A list of NCHRP 350 compliant and FHWA approved devices can be found at:

http://safety.fhwa.dot.gov/roadway_dept/policy_guide/road_hardware/

THE FOLLOWING SUBSECTION IS REPLACED IN ITS ENTIRETY WITH THE FOLLOWING:

6. Traffic Control Truck with Mounted Crash Cushions.

THE LAST SENTENCE IS CHANGED TO:

Submit drawings to the RE detailing the manner of securing the ballast, signed and sealed by a Professional Engineer, certifying that it is capable of withstanding the impact forces for which the impact attenuator is rated. Contractor shall provide Traffic Control Truck with Mounted Crash Cushion to aid in the placement of traffic control devices as needed for the duration of the project when directed.

THE FOLLOWING SUBSECTION IS ADDED:

8. Portable Construction Light Tower

The Contractor shall at the request of the RE provide Portable Construction Light Towers to assist Union County in establishing nighttime traffic control measures or for other purposes. The light towers shall provide sufficient illumination to meet night-time operations per Section 108.06. Portable tower shall provide a vehicular hitch for quick transport and removal. Contractor shall consult with Union County regarding hitch requirements for traffic control vehicles owned by the County.

159.03.06 TEMPORARY TRAFFIC STRIPES AND TEMPORARY TRAFFIC MARKINGS

THE ENTIRE TEXT IS CHANGED TO:

Apply temporary traffic stripes and markings when the ambient and surface temperatures are at least 45 $^{\circ}$ F and rising and the surface temperature is no more than 140 $^{\circ}$ F. Apply the traffic paint in a wet film thickness of 6 \pm 1 mil. Apply glass beads to the wet paint in a uniform pattern and at the rate of 12 pounds per gallon of paint. Ensure TRAFFIC STRIPES and TRAFFIC MARKINGS are applied within 14 days of placing temporary traffic stripes and markings unless directed by the RE.

159.03.08 TRAFFIC DIRECTION

A. Flagger.

THE FOLLOWING IS ADDED TO THIS SECTION:

Should the circumstances arise during any construction operations where the use of flaggers are not permitted by the <u>Motor Vehicle & Traffic Laws of New Jersey</u>. <u>Title 39</u>, specifically 39:4-57 and or 39:4-80 & 81, or any other section in Title 39, or in the opinion of the Engineer, where the limitations of such flaggers in the roadway do not optimize the safety of pedestrians & the motoring public, Off- Duty Police Traffic Directors shall be utilized. Under these circumstances, it shall be the Contractor's responsibility to coordinate & schedule all officers necessary for the appropriate construction phases; however, the County of Union will regulate the amount of & location of each director. The Contractor shall be responsible for paying prevailing wage rates for Police Traffic Directors, at the respective Municipal Police Department rate. Reimbursement for police traffic directors shall be based on the amount of actual person-hours provided by the respective municipalities. Reimbursement will not be made for any:

- differential overtime rate;
- vehicle charges;
- Administration fees, & or taxes.

Payment for police will be made from the allowance for the item Traffic Director, Uniform Police. The Contractor shall be required to produce proof of both payment & hours worked for each officer and flagger, at each post for each assignment. Should the Contractor fail to produce said proof, the County will withhold payment on this item until such time that adequate & satisfactory proof can be provided.

If CONRAIL requires flaggers for the work at Berkeley Heights Rail Road grade crossing, reimbursement shall be made to the contractor under the Traffic Director, Uniform Police Allowance pay item as a direct pass through with no contractor markup.

B. Police.

THIS SUBSECTION HAS BEEN REPLACED IN ITS ENTIRETY WITH THE FOLLOWING:

The Contractor shall coordinate with local police department from the impacted municipalities as to their requirements or compliance with State Law for police presence during working hours based on the proposed work activities. Contractor shall be responsible for scheduling all work and notifications with the local police to comply with local ordinance or police presences when work zones are required. The use of police services does not relinquish or diminish the Contractor's responsibilities for work zone safety nor shall they serve as a substitute for traffic director flaggers. County is not responsible for interruptions or delays to construction activities resulting from any failure of police presences at the work site.

159.04 MEASUREMENT AND PAYMENT

THE FOLLOWING SUBSECTION IS DELETED IN ITS ENTIRETY AND CHANGED TO THE FOLLOWING:

ItemPay UnitPORTABLE VARIABLE MESSAGE SIGNUNITTRAFFIC CONTROL TRUCK WITH MOUNTEDUNIT

CRASH CUSHION

TRAFFIC CONTROL MEASURES LUMP SUM

FLOODLIGHTS FOR NIGHTTIME OPERATIONS UNIT

TRAFFIC DIRECTOR, FLAGGER

TRAFFIC DIRECTOR, UNIFORM POLICE

DOLLAR (ALLOWANCE)

DOLLAR (ALLOWANCE)

THIS SUB-SECTION IS AMENDED AS FOLLOWS:

The County has included an allotted cost in the bid proposal for the presence of uniform police for this project. The Contractor shall provide invoice receipt from the various municipalities for work performed by uniform police, as well as the municipality requirements for police presence on public roadways for construction activity in justifying payment and reimbursement.

The Engineer shall direct the Contractor as to the number of traffic directors required per roadway. Under the circumstances where Police Traffic Directors may be utilized, the Contractor shall notify the respective Police Department at least four (4) business days (96 hours) in advance of requiring the traffic directors. Should there be a difference between the Engineer's requirement, and that of the Police Department, the Contractor shall immediately notify the Engineer and request clarification.

If the Contractor schedules more traffic directors than that which is directed by the Engineer, the additional directors will not be reimbursed and such payments will be the direct responsibility of the Contractor. In addition, if the Contractor cancels any work without prior notice to the affected Police Department and the Engineer, then any costs incurred from the respective Police Departments shall become the Contractor's responsibility. Police traffic director manpower not approved by the Engineer will not be reimbursed and shall become the Contractor's sole responsibility. The Contractor shall be responsible for establishing any and all escrow accounts that may be required by the various municipal Police Departments. The Contractor shall confirm specific details of hiring Traffic Directors with each respective Police Department.

Once the traffic directors are on the job, the County will direct the Contractor as to the dismissal time for such Traffic Directors. There will be no additional cost payment for Traffic Control Coordinator all costs for this work shall be paid in the various bid pay items.

Separate payment will not be made for relocating traffic control devices and the lighting systems used for nighttime operations as required or as directed. Separate payment will not be made for posts or stands for construction signs. Separate payment will not be made for lighting for nighttime operations, but all costs thereof shall be included in the prices bid for the various Bid Pay Items. Union County has included the bid pay item Floodlights for Nighttime Operations to assist County in setting Traffic Control devices at night when directed. Separate payment will not be made for traffic control coordinator but all costs thereof shall be included in the bid pay item "Traffic Control Measures." Separate payment will not be made for relocating temporary crash cushions as required or as directed. Separate payment will not be made for moving the traffic control truck units during the various stages of construction. Separate payment will not be made for escape ramps provided at the edges of pavement lifts or at excavations. All costs thereof shall be included in the prices bid for the various Pay Items scheduled in the Bid Sheets.

ALL PROPERTY OWNER NOTICES, TRAFFIC CONTROL DEVICES & MANPOWER NECESSARY TO MAINTAIN SUCH WORK ZONES UTILIZING THE NECESSARY DEVICES AND ITEMS, OTHER THEN THOSE STIPULATED TO BE PAID UNDER A SEPARATE BID PAY ITEM SHALL BE SUPPLIED, IMPLEMENTED AND REMOVED AT THE APPROPRIATE TIME BY THE CONTRACTOR. THE COST OF SUCH TRAFFIC CONTROL DEVICES, ANY RELOCATION OF SUCH, AND ASSOCIATED MANPOWER WILL BE PAID UNDER THE BID PAY ITEM "TRAFFIC CONTROL MEASURES."

Separate payment will not be made for traffic control and safety devices for those pay items not specifically identified for payment. All costs shall be included in the Bid Pay Item "Traffic Control Measures." Payment for Traffic Control Measures will be made based on an estimated percent complete of the project subject to approval by the RE.

SECTION 160 - PRICE ADJUSTMENTS

160.3.1 Fuel Price Adjustment

THROUGHOUT THIS SUBSECTION, TABLE 161.03.01-1 IS CHANGED TO TABLE 160.03.01-1

THE THIRD PARAGRAPH IS CHANGED TO:

If the as-built quantity of an Item listed in Table 160.03.01-1 differs from the sum of the quantities in the monthly Estimates, and the as-built quantity cannot be readily distributed among the months that the Item listed in Table 160.03.01-1 was constructed, then the Department will determine fuel price adjustment by distributing the difference in the same proportion as the Item's monthly Estimate quantity is to the total of the Item's monthly estimates.

THE 25TH LINE IN THE TABLE 160.03.01-1 IS CHANGED TO:

HOT MIX ASPHALT

BASE COURSE

2.50 Gallons per Ton

160.3.2 Asphalt Price Adjustment

NOTE 1 OF THE THIRD PARAGRAPH IS CHANGED TO:

1. The Department will determine the weight of asphalt binder for price adjustment by multiplying the percentage of new asphalt binder in the approved job mix formula by the weight of the item containing asphalt binder. If a Hot Mix Asphalt item has a payment unit other than ton, the Department will apply an appropriate conversion factor to determine the number of tons used.

THE FOURTH PARAGRAPH IS CHANGED AS FOLLOWS:

Asphalt price adjustments will not be made for Tack Coat and Prime Coat.

160.04 MEASUREMENT AND PAYMENT

THE FOLLOWING IS ADDED TO THIS SUB-SECTION:

Allowances for *Asphalt Price Adjustment* and *Fuel Price Adjustment* have been established in the bid proposal. The allowance amount will be adjusted based on the formulas established in the specifications for calculating price adjustments as needed.

Asphalt price adjustments will not be made for Tack Coat and Prime Coat.

SECTION 201 - CLEARING SITE

201.04 MEASUREMENT AND PAYMENT

THE SUB-SECTION IS DELETED AND REPLACED WITH THE FOLLOWING:

Separate payment will not be made for Stripping, Clearing Site, the removal of existing asphalt, pipe, bollards, inlets & castings, manholes & castings and other drainage structures; the removal of sidewalk, driveways, various types of curb and gutters; the removal of raised pavement markings (RPMs); the removal of various striping & marking material; the removal of loop detectors or loop detector leads; and the removal of existing signs to be replaced and or upgraded, unless otherwise provided in these supplementary specifications. All costs thereof shall be included in the various items of the proposal.

SECTION 202 - EXCAVATION

202.1 DESCRIPTION

THE FOLLOWING IS ADDED:

Excavation. Unclassified shall be used to correct any unforeseen poor sub-grade as revealed by the milling and or resurfacing operations below 12 inches from finished grade which is the proposed depth of the HMA Pavement Repair. Excavations within 12 inches from finished grade shall be included in the cost for Hot Mix Asphalt Pavement Repair. The 12-inch depth is equivalent to a 2 inch milled surface and a 10-inch depth as specified under the item for Hot Mix Asphalt Pavement Repair. For roads specified not to be milled, the 10-inch depth shall be measured as specified in Section 401.03.01.D. amended herein.

202.2 MATERIALS

THE FIRST IN THE LIST IS CHANGED TO:

202.03.03 Excavating Unclassified Material

A. Excavating.

THE FIRST PARAGRAPH IS CHANGED TO:

The Department, as the generator, is solely responsible for the designation of excavated material. Unclassified excavation consists of excavation and management of material of whatever nature encountered, except for regulated material, pavement removal and acid producing soil.

202.03.07 Reuse or Disposal of Excess Material

A. Reuse.

THE THIRD PARAGRAPH IS CHANGED TO:

Upon RE's approval, reuse excavated soil to widen or flatten slopes of embankment, to fade embankments into cuts, or as approved at other locations. Ensure that the excess material is not reused within a wetland, a transition area, a riparian zone, a flood hazard area or other regulated area without obtaining an appropriate NJDEP permit.

B. Disposal.

PARTS 1 AND 2 UNDER THE FIRST PARAGRAPH ARE CHANGED TO:

- 1. At least 10 days before disposing, submit the disposal procedure and location to the RE for approval. Do not dispose of excavation on property proposed to be used for parks, playgrounds, and other recreational purposes; residential facilities, and educational facilities; environmentally sensitive areas such as wetlands, and historic sites; or areas within sight of a State highway during all seasons.
- 2. Obtain the property owner's notarized authorization of the acceptance of the excess material and where it is being placed.

3.

202.04 MEASUREMENT AND PAYMENT

The following is deleted from the list of pay items:

<u>Item</u>
REMOVAL OF PAVEMENT
SOUARE YARD

THE FOLLOWING IS ADDED:

A nominal amount of cubic yards of this item has been included in the Bidding Sheets to establish a unit price. However, this amount does not reflect any material that may or may not be used. Payment for the item Excavation, Unclassified, will be the quantity as above described, at the price bid per cubic yard bid for the item **EXCAVATION**, **UNCLASSIFIED** in the Bidding Sheets.

The <u>Excavation</u>, <u>Unclassified</u> item shall include all work necessary to restore roadway shoulders, as indicated by the Engineer.

The removal of concrete base courses, concrete surface courses, & joints; i.e., sidewalks, driveways, curbs, roadway material, etc., will not be measured. Payment for such will be included under the various pay items in the Bidding Sheets.

Other material necessary for the restoration procedures will be paid for under various items in the Bidding Sheets. No separate payment will be made for shoulder restoration or restoration as a result of curb removal/installation.

Disposal of asphalt and concrete will be made to an NJDEP-approved recycling facility. The Contractor shall notify the Recycle Facility to provide the County with appropriate credit for recycling.

SECTION 302 - AGGREGATE BASE COURSE

302.01 DESCRIPTION

THE FOLLOWING IS ADDED:

Dense Graded Aggregate shall be used as base material in the roadway and as a surface course in shoulder areas as directed by the Engineer. This item may also be used for fill areas associated with Excavation, Unclassified.

Dense Graded Aggregate shall also be used in areas of uncurbed road sections where the edge of pavement drop-off is 1.5 inches or greater. DGA used for shoulder grading shall be produced by mixing RAP conforming to Sub-Section 901.05.04 of the Standard Specifications. The mixture shall be 50% Dense Graded Aggregate and 50% Recycled Asphalt Product (RAP) as defined by Section 901.10.03

302.04 MEASUREMENT AND PAYMENT.

THE FOLLOWING IS ADDED:

Payment for Dense Graded Aggregate, Variable Thickness will be made in Pavement Repairs Areas that exceed the pavement repair thickness, as set forth in the Hot Mix Asphalt Pavement Repair Detail provided in the contract plans.

No additional payment will be made for any materials used when restoring the roadway as a result of construction procedures involving curb and sidewalk installation.

RAP used in DGA as noted above will not be measured and no separate payment will be made. All costs thereof shall be included in the cost for Dense Graded Aggregate, Variable Thickness.

Payment for all material, preparation, grading, compaction, labor & placement shall be included in the overall price bid for the item Dense Graded Aggregate Base Course, Variable Thickness.

SECTION 401 - HOT MIX ASPHALT (HMA) COURSES

401.02.02 Equipment

THE LAST PARAGRAPH IS CHANGED TO:

When an MTV is used, install a paver hopper insert with a minimum capacity of 14 tons in the hopper of the HMA paver.

401.3.1 Preparing Existing Pavement

401.03.01. A Milling of HMA.

THE FOLLOWING IS ADDED AFTER THE FOURTH PARAGRAPH:

Sawcut at the limit of paving in driveways and at other limits requiring a neat edge between new and existing HMA.

THE LAST PARAGRAPH is changed to:

Milled areas shall not be left unpaved for longer than 24 hours, unless approved by the Engineer.

D. Repairing HMA Pavement.

THE ENTIRE TEXT IS CHANGED TO:

The item Hot Mixed Asphalt Pavement Repair will be used on those sections of roadway that require excavation due to unforeseen underlying conditions that are revealed after milling operations or prior to overlaying and, in the opinion of the Engineer, are unsuitable for the direct placement of the surface course. Hot Mixed Asphalt Pavement Repair shall also be used along new curb construction including areas with proposed accessible curb ramps.

Any debris created by this work shall be removed at the end of each workday and disposed of according to Subsection 201.03.09.

Note all labor, material & equipment necessary to construct Hot Mixed Asphalt Pavement Repair are included in this pay item. This work shall include all excavation/disposal up to 12 inches below finish grade, 4" of DGA and 6" of Hot Mixed Asphalt 19M64. Any excavation beyond twelve inches below finish grade shall be paid for separately under the appropriate pay item. Actual quantities per street shall be determined upon completion of milling for each street. Roadway construction shall be determined upon inspection by the Engineer and the contractor shall only provide work for this pay item as approved by the Engineer.

If potholes are discovered, notify the RE immediately. The RE may immediately direct repairs of small areas. The RE may require further evaluation of a large area to determine the need for additional milling and paving.

Sawcut existing Hot Mix Asphalt pavement to a maximum depth of 10 inches, or to the full depth of bound layers, whichever is less. Sawcut lines parallel and perpendicular to the roadway baseline and 3 inches away, at the closest point, from the damaged area to be repaired.

Remove damaged and loose material to a depth of at least 3 and no more than 10 inches below the level of milling within the boundary of the saw cuts to form rectangular openings with vertical sides. Shape and compact the underlying surface to produce a firm, level base. Ensure that the remaining pavement is not damaged.

Apply polymerized joint adhesive or tack coat to the vertical surfaces of the openings. Spread and grade Hot Mix Asphalt in the opening as directed by the RE. Ensure that the temperature of the HMA when placed is at least 250 °F, and compact as specified in 401.03.03.F. Compact areas not accessible to rollers with a flat face compactor. Compact until the top of the patch is flush with the adjacent pavement surface.

Reuse removed material as specified in 202.03.07.A.

401.3.2 Tack Coat and Prime Coat

TABLE 401.03.02-1 IS CHANGED TO:

Table 401.03.02-1 Tack Coat Application					
Material	Spraying Temp, °F	Gallons per Square Yard	Season		
Cut-Back Asphalt:					
RC-70	120 to 190	0.05 to 0.15	Oct 15 to Apr 15		
Emulsified Asphalt:					
RS-1	70 to 140	0.05 to 0.15	All year		
CRS-1	125 to 185	0.05 to 0.15	All year		
SS-1, SS-1h	70 to 140	0.05 to 0.15	All year		
CSS-1, CSS-1h	70 to 140	0.05 to 0.15	All year		

TABLE 401.03.02-2 IS CHANGED TO:

Table 401.03.02-2 Prime Coat Application				
Cut-Back Asphalt	Spraying Temp, °F	Gallons per Square Yard	Season	
MC-30	85 to 150	0.1 to 0.5	Oct 15 to Apr 15	
MC-70	120 to 190	0.1 to 0.5	Oct 15 to Apr 15	
Emulsified Asphalt:				
CSS-1	70 to 140	0.1 to 0.50	All year	

401.3.3 HMA Courses

D. Transportation and Delivery of HMA.

THE FIRST PARAGRAPH IS CHANGED TO:

Deliver HMA using HMA trucks in sufficient quantities and at such intervals to allow continuous placement of the material. Do not allow trucks to leave the plant within 1 hour of sunset unless nighttime lighting is provided as specified in 108.06. The RE will reject HMA if the HMA trucks do not meet the requirements specified in 1009.02. The RE will suspend construction operations if the Contractor fails to maintain a continuous paving operation. Before the truck leaves the plant, obtain a weigh ticket from a fully automatic scale. Before unloading, submit for each truckload a legible weigh ticket that includes the following:

1. Name and location of the HMA plant.

- 2. Project title.
- 3. Load time and date.
- 4. Truck number.
- 5. Mix designation.
- 6. Plant lot number.
- 7. Tare, gross, and net weight.

E. Spreading and Grading.

THE THIRD PARAGRAPH IS CHANGED TO:

Use an MTV for the construction of surface course in the traveled way. Ensure that the MTV independently delivers HMA from the HMA trucks to the HMA paver. Operate the MTV to ensure that the axle loading does not damage structures, roadway, or other infrastructure.

1. Longitudinal Joints.

THE FOLLOWING IS ADDED TO THIS SUB-SECTION:

When constructing the first lane, care shall be exercised in rolling so as not to displace the line and grade of the edges of the HMA. The joint in the surface course shall be offset from the lane lines by 6 inches except for the centerline of a roadway in which the joint shall fall between the double yellow traffic stripes.

A wedge joint shall be constructed when traffic is to be maintained and lift thickness is greater than $2^{-1}/4$ inches. A vertical edge joint will be permitted for lift thickness $2^{1}/4$ inches or less when traffic has to be maintained. For lift thickness greater than $2^{-1}/4$ inches and traffic is not required to be maintained, a vertical edge shall be utilized.

Longitudinal joints shall be constructed utilizing one of the following methods:

- A. Vertical Edge Joint. The paver shall be positioned so that in spreading, the HMA material uniformly overlaps the edge of the lane previously placed by 1 to 2 inches and shall be left sufficiently high to allow for compaction. In general, the height of the uncompacted HMA above the compacted HMA shall be ¹/₄ inch for each 1 inch of compacted mix. The overlapped HMA material being placed in the abutting lane shall be tightly crowded (bumped) over the joint. Any material in excess of the 1 to 2 inch overlap shall be pulled away from the joint and removed instead of broadcasting onto the new mat. When compacted, the new mat at the joint shall be even or slightly higher (Maximum ¹/₈ of an inch) than the previously placed adjoining mat. If the newly compacted mat results in a depression at the joint of ¹/₈ of an inch or more lower than the previously placed adjacent HMA layer, all paving operations shall cease until corrective action is taken by the Contractor to prevent reoccurrence. For all longitudinal joints that do not meet this requirement, the Contractor shall saw joints according to dimension guidelines of Subsection 404.19 and seal with an approved sealer.
- **B.** Wedge Joint. The sloped plate of the paver shall produce a wedge edge having a face slope of 3H: 1V. The plate shall be so constructed as to accommodate compacted layer thickness of 2 to 4 inches. The bottom of the sloped plate shall be mounted 1

inch above the existing surface. The plate shall be interchangeable on either side of the screed. The Contractor shall maintain the wedge configuration under traffic conditions.

All loose material shall be removed from the traveled way before opening to traffic. The rolling operation of the adjoining lane shall proceed as indicated in Subpart A above, except that care shall be taken to keep coarse aggregate away from the point where the wedge meets the surface of the previously placed lane.

To assure a true line, the paver shall closely follow lines or markings placed along the joint for alignment purposes. All longitudinal joints shall be constructed parallel to the centerlines within a tolerance of plus or minus 3 inches for every 100 linear feet. If this tolerance is not met, the mat shall be cut back to conform. The width and depth of overlapped material shall be kept uniform at all times. Overlapped material shall be luted back, pushing the material to the edge of the cold HMA mat and directly over the joint with the hot HMA mat. In no case shall excess material be broadcast across the new layer. All excess material shall be removed.

F. Compacting

THE FOLLOWING IS ADDED TO THIS SUB-SECTION:

When compacting the longitudinal edge of the first lanes placed using the wedge joint, the breakdown roller shall not extend more than 2 inches over the top of the sloped face of the wedge joint. The Contractor shall submit a plan, to ensure material at the wedge edge is properly seated and loose material is removed, for the Resident Engineer's approval prior to the commencement of paving operations.

Care shall be taken to prevent lateral displacement of the unconfined edge during the compaction operation. The edge of the drums of vibratory or static wheel rollers shall extend over the free edge of the mat by at least 6 inches. When compacting the joint, while paving the adjacent lane, the roller shall be placed on the newly placed HMA and overlap the joint by a distance of approximately 6 inches.

Alternate trips of the roller shall be terminated in stops approximately 2 feet from the preceding stop. When paving in echelon, rollers compacting the mat behind the lead paver shall maintain approximately 6 inches of uncompacted material adjacent to the second paver. After mix from the second paver is placed against the uncompacted edge of the mat from the first paver, the rollers shall compact the HMA on both sides of the joint.

H. Air Void Requirements.

THE FOLLOWING IS ADDED TO THE THIRD PARAGRAPH:

Inside shoulders less than 6 feet in width will not be included in other lots unless requested by the RE.

THE FOLLOWING IS ADDED AFTER THE THIRDPARAGRAPH:

If areas of existing shoulders are found to be insufficient to support the proposed HMA pavement and the required compaction cannot be achieved, notify the RE immediately. The RE may either

direct additional milling and paying to provide a suitable base to pave the proposed HMA, or waive coring and air void requirements in such shoulder areas.

J. Ride Quality Requirements

THIS SUBSECTION IS REPLACED WITH THE FOLLOWING:

Ride quality will be acceptable if the surface course is in substantial conformity with 1/8 inch in 10 feet surface tolerance. Should the surface be found not in conformity, the RE may direct paving operations be discontinued until mutually acceptable paving methods or equipment is utilized. Additional compensation, extension of contract time, or other concession will not be permitted because of revised methods or equipment necessary to produce an HMA surface in substantial conformity with a 1/8 inch in 10 feet surface tolerance.

401.03.05 Core Samples

THE LAST SENTENCE OF THE 2ND PARAGRAPH IS CHANGED TO THE FOLLOWING:

Apply an even coating of tack coat to sides of the hole. Place HMA in maximum lifts of 4 inches in the hole and compact each lift. Ensure that the final surface is 1/4 inch above the surrounding pavement surface.

401.04 MEASUREMENT AND PAYMENT

THE FOLLOWING IS ADDED TO THE LIST OF PAY ITEMS:

<u>Item</u>	Pay Unit
HOT MIX ASPHALT 9.5 M 64 LEVELING COURSE,	
VARIABLE THICKNESS	TON
DAYTIME MILLING	DAY
DAYTIME PAVING	DAY

THE FOLLOWING IS DELETED FROM THE LIST OF PAY ITEMS:

<u>Item</u>	Pay Unit
POLYMERIZED JOINT ADHESIVE	LINEAR FOOT
TACK COAT	GALLON
PRIME COAT	GALLON
SAWING AND SEALING JOINTS IN HOT MIX	
ASPHALT OVERLAY	LINEAR FOOT

THE FOLLOWING IS ADDED TO THIS SUBSECTION:

The pay items Daytime Milling and Daytime Paving will be paid based on the increase cost of paving and milling during the day in lieu of milling and paving at night on a Day unit basis.

The Department will make a payment adjustment for HMA air void quality by the following formula:

Pay Adjustment = $Q \times BP \times PPA$

Where:

BP = Bid Price

Q= Air Void Lot Quantity

PPA= air void PPA as specified in 401.03.03H.

The Department will make a payment adjustment for HMA thickness quality by the following formula:

Pay Adjustment = $Q \times BP \times PPA$

Where:

BP = Bid Price

Q= Thickness Lot Quantity

PPA= thickness PPA as specified in 401.03.03I

The Department will make a payment adjustment for HMA ride quality, as specified in 401.03.03J.

The County will not measure and will not make payment for the following items:

MTV

Test Strips

Quality Control for Compaction including comparison cores and nuclear density testing

All costs thereof shall be included in the prices bid for the various Hot Mix Asphalt items.

Pay Adjustments for Air Voids, Thickness and Ride Quality will be made according to Subsections 401.03.03.H, 401.03.3.I, and 401.03.03.J, respectively.

Disposal of asphalt will be made to an N.J.D.E.P. approved recycling facility. Prior to the start of operations, the Contractor shall notify the County of the location where the millings will be disposed. Disposal of the millings will be carried out in accordance with the Standard Specifications

Hot mix asphalt material for manhole, inlet and other ramping will not be measured. No separate payment will be made for this hot mix asphalt material.

HMA 19M64 Base Course shall be stone mix. Payment for HMA Base Course will be included under the item <u>HMA Payment Repair</u>, and will be measured by the actual square yards of asphalt installed at the appropriate depth indicated on the detail sheets.

An estimated amount of Hot Mix Asphalt Pavement Repair per has been included in the bid proposal. This pay item shall cover excavation and disposal up to 12 inches below finish grade, 4" of DGA and 6" of HMA 19M64 Base Course. However, this amount does not reflect any material that may or may not be used. Actual locations and quantities on each street will be determined by the Engineer upon completion of milling and inspection of the roadway base.

Where necessary & as directed by the Engineer, HMA 9.5M64 Mix will also be used as a Leveling Course, as specified in Section 902.

A *prime coat* will be applied to dense graded aggregate base prior to placement of hot mix asphalt pavement. Separate payment will not be made for prime coat.

A <u>tack coat</u> will be applied to all layers of hot mix asphalt courses, prior to placement of new hot mix asphalt course. In addition, a tack coat will be applied at the edges of the new pavement between paver passes. Separate payment will not be made for tack coat.

Sawing and sealing of joints in HMA overlays along bridge decks will not be measured for payment. All costs thereof shall be included in the price bid for HMA Surface Course.

SECTION 507 - CONCRETE BRIDGE DECK AND APPROACHES

507.04 MEASUREMENT AND PAYMENT

THE FOLLOWING IS ADDED TO THE LIST OF PAY ITEMS:

Item	Pay Unit
REPAIR OF CONCRETE DECK, SAWCUT & REPAIR CENTER	
JOINTS	LINEAR FOOT
REPAIR OF CONCRETE DECK, TYPE A	SQUARE FOOT

SECTION 513 - RETAINING WALLS

513.1 DESCRIPTION

This Section describes the requirements for constructing cast-in-place retaining walls, prefabricated modular wall systems, mechanically stabilized earth (MSE) wall systems, and other alternate retaining wall systems.

513.2 MATERIALS

513.2.1 Materials

Provide materials as specified:

Coarse Aggregate (No. 57)	
Soil Aggregate (I-9)	
Soil Aggregate (I-15)	
Concrete	
Mortar	
Curing Materials	
Precast Concrete Units	904.02
Reinforcement Steel	
Welded Wire Reinforcement	
Structural Steel Plates and Bars	905.01.04
High-Strength Steel Bolts	908.02
Coal Tar Epoxy Paint	<u>912.01.03</u>
Preformed Joint Filler	
Joint Sealer (Hot-Poured)	
Subsurface Drainage Geotextile	<u>919.01</u>
HDPE Geomembrane	<u>919.05</u>
Waterstops	

Provide soil reinforcement strips according to ASTM A 572, Grade 65. Provide tie strips according to ASTM A 1011, Grade 50.

For MSE Walls, use either Soil Aggregate, I-15 or Coarse Aggregate, No. 57. For Prefabricated Modular Retaining Walls and T-Wall, use either Soil Aggregate, I-9 or Coarse Aggregate, No. 57.

513.2.2 EQUIPMENT

Provide equipment as specified:

Vibrator	<u>1005.04</u>
Concrete Batching Plant	<u>1010.01</u>
Concrete Trucks	1010.02

513.3 CONSTRUCTION

513.3.1 Proprietary Retaining Walls

- 1. **Working Drawings.** At least 30 days before beginning the work, submit working drawings for approval that include, at a minimum, the following:
 - 1. Design calculations giving complete information as to the proposed method of fabrication and erection of precast units and related components.
 - 2. General notes, design parameters, soil characteristics, and factors of safety.
 - 3. An elevation view of the wall showing elevations at the top of the wall, the beginning, and at the end.
 - 4. Plan view of the wall showing the offset from the construction baseline to face of wall units at all changes in horizontal alignment.
 - 5. Distance from front of wall to the extreme limit of module.
 - 6. Typical sections of the wall indicating how internal drainage and surface drainage behind the wall is handled. Typical cross-sections of cut and fill sections. Limits and extent of select granular backfill material placed above original ground. Location of proposed ground line.
 - 7. Panel or unit length and size and designations.
 - 8. A numbered panel layout for fabrication and erection purposes.
 - 9. Typical panels, as well as special panels, such as at bends; dimensions necessary to construct the member; the location of reinforcement steel in the member; and the location of reinforcement attachment devices that are embedded in the panels.
 - 10. Designation of breaks in vertical alignments and elevations at whole stations and at 25-foot increments and treatment.
 - 11. All details for footings and leveling pads, including step details, locations, and elevations, and actual maximum bearing pressure.
 - 12. Architectural details, such as special facing finish, texture, and color.
 - 13. The location of the proposed final groundline.
 - 14. ROW limits and their relationship to the wall, with offsets and stations to corners.
 - 15. Location of any noise walls or sign structures near the wall by station and offsets.
 - 16. Centerline of any drainage structures or utilities behind and passing through or under walls.
 - Location of all piles on any adjoining structure's foundation plans with details to avoid any conflict.
 - 18. Connections to barriers, copings, signs, lights, railing, fences, noise barriers, or any other element.
 - 19. Details for the construction of walls and soil reinforcement around obstructions including bridge supports, drainage facilities, sign footings, or any other element.
 - 20. Details for required electrical systems, including highway lighting bases, junction boxes, and conduit.
 - 21. Limits and extent of common structure volume, such as excavation, volume of concrete,

reinforcement steel, and backfill.

- 22. Numbers and types of precast units/panels.
- 23. Manufacturer's recommendations, including suggested sequence of construction.
- 2. **Shipping, Handling, and Storing.** Ensure that the precast units have cured for at least 72 hours and have attained the minimum 28-day compressive strength before shipping.

Provide galvanized handling devices according to ASTM A 123. Store, transport, hoist, and handle units to prevent cracking or damage. After galvanizing, coat attachment surfaces not to be embedded in concrete with coal tar epoxy paint. Replace or repair units damaged by improper storing, transporting, or handling.

3. **Wall Foundation.** Excavate as specified in <u>202.03.03</u>. Shape and compact the underlying material to produce a firm, even surface. Obtain RE approval before finishing excavation. If the RE determines that the bottom of the excavation is unstable, undercut, backfill, and compact as directed by the RE. Grade the foundation for the structure level for a width that exceeds the length of the soil reinforcement by at least 2 feet.

Place concrete, as specified in <u>504.03.02.D</u>, for an unreinforced concrete leveling footing, or provide a precast concrete leveling pad according to the manufacturer's recommendations.

Before placing wall units, install underdrains and drainage pipes.

4. **Installing.** Provide 2 copies of the manufacturer's recommendations to the RE. If a section of wall is to be cast-in-place, construct the section as specified <u>504.03.02.D</u>. Obtain RE approval of the foundation for the structure before beginning erection. Install the units according to the manufacturer's recommendations. For erection, handle units with lifting devices set into the upper edge of the panels. Place units in a horizontal course. Do not place the subsequent course until the previous course is backfilled within 2 inches of the top of the course.

Provide external bracing for the initial course. While erecting each course, examine line, and grade, and correct deviations to prevent cumulative inaccuracies in alignment. Vertical tolerance and horizontal alignment tolerance shall not exceed 1/2 inch, when measured along a straightedge. Install joint filler and rubber pads according to the manufacturer's recommendations. Close joints at corners or angle points.

Ensure that all wall units above the first course interlock with the lower courses. Vertical joint openings on the wall's front face shall not exceed 3/4 inch. The front face vertical joints shall have 12-inch wide strips of subsurface drainage geotextile behind each joint starting 2 feet below grade.

5. **Back of Wall Drainage.** Place a stone pocket, subsurface drainage geotextile, and an 8-inch corrugated steel underdrain pipe as shown on the Plans.

When constructing weep holes, place ports or vents for equalizing hydrostatic pressure below low water. Use 4-inch PVC or unreinforced concrete drain pipe as forms for weep holes through concrete.

6. **Backfilling.** For MSE walls, place reinforcement perpendicular to the face of the wall, unless otherwise shown on the Plans or directed. Before placing soil reinforcement, compact the backfill material as specified in 513.03.01.G.

For modular bin walls, fill wall units 4 feet or less in height in 1 lift and then thoroughly compact with a vibratory tamping device. Fill wall units more than 4 feet in height in 2 approximately equal lifts and thoroughly compact after each layer is placed.

Backfill after erecting each course of wall units. Verify that the reinforcements and wall units are not damaged, disturbed, or misaligned while backfilling. Correct misalignment and remove and replace damaged units of the wall units before placing the next course. Backfill using 1 of the following materials:

1. **Soil Aggregate.** Do not exceed 10 inches loose measurement for the maximum lift thickness of the backfill. Decrease this lift thickness to obtain the specified density.

The ME will determine the optimum moisture content as specified in AASHTO T 99, Method C. Ensure that the moisture content of the backfill is uniform throughout each layer and has a placement moisture content that is less than or equal to the optimum moisture content.

Remove and rework backfill that has a placement moisture content in excess of the optimum moisture content until the moisture content is uniformly acceptable throughout the entire layer.

Ensure that backfill placed within 1 foot of a drainage structure or utility does not have any particle greater than 3 inches in maximum dimension.

Coarse Aggregate. Do not exceed 8 inch lift thickness of coarse aggregate. Place subsurface drainage geotextile at the interface of the coarse aggregate and regular roadway materials and embankments.

At each reinforcement strip level, level and compact the coarse aggregate before placing the reinforcement.

- 7. **Compacting**. Compact backfill material without damaging, disturbing, or misaligning the wall units before placing the next block level. Roughly level each course of backfill to an elevation approximately 2 inches above the level of the next course of units. Compact in a direction parallel to the wall. For MSE walls, do not use sheepsfoot or grid-type rollers for compacting backfill within the limits of the soil reinforcement. Compact for the specified material as follows:
 - 1. **Soil Aggregate.** With the exception of the 5-foot zone directly behind the units, compact soil aggregate with large, smooth drum, vibratory rollers using the density control method as specified in 203.03.02.D.

Within 5 feet of the wall, use small, single or double drum, hand operated, walk-behind vibratory rollers, or walk-behind vibrating plate compactors. Make at least 3 passes.

2. **Coarse Aggregate.** To provide the proper density of the broken stone, compact by making at least 4 passes with a vibratory roller that has a total operating weight of 8 to 10 tons. Set the roller in the vibratory mode between 1.5 and 2.5 mph.

Within 5 feet of the wall, use small, single or double drum, hand operated, walk-behind vibratory rollers, or walk-behind vibrating plate compactors. Make at least 3 passes.

When there is evidence of wall displacement or disturbance, compact with a smooth drum static roller.

At the end of each day's operation, slope the last placed layer of backfill away from the wall units to direct runoff of rainwater away from the wall face. Do not allow surface runoff from adjacent areas to enter the work site.

Ensure that the overall vertical tolerance of wall does not exceed 1/2 inch per 10 feet of wall height.

8. **HDPE Geomembrane Liner for MSE Walls**. Deliver HDPE geomembrane liner systems and store to prevent damage to the material beforeinstallation.

Before placing HDPE liner, ensure that the area to be lined is smooth and free of sharp objects or debris. Do not use equipment or tools that may damage the HDPE liner while handling, moving, or installing.

Place the HDPE liner below the pavement and just above the first row of reinforcements. Slope the HDPE liner to drain away from the wallunits.

Align seams parallel to the line of maximum slope. Overlap seams at least 2 feet and seam according to the manufacturer's recommendations. Conduct field testing of seams, according to the manufacturer's specifications, to verify satisfactory seaming conditions.

When backfilling, prevent damage to the HDPE liner system. Do not allow equipment or traffic within 10 feet of the HDPE liner. Slope the last placed level of backfill away from the wall units to direct runoff of rainwater away from the wall face. Do not allow surface runoff from adjacent areas to enter the work site.

513.3.2 Cast-in-Place Retaining Walls

Place reinforcement steel as specified in 504.03.01. Construct concrete as specified in 504.03.02.

513.04 MEASUREMENT AND PAYMENT

The Department will measure and make payment for Items as follows:

Item	Pay Unit
RETAINING WALL	SQUARE FOOT
RETAINING WALL, CAST-IN-PLACE, LOCATION NO	SQUARE FOOT

Additional Reference Material

Item Number List

The Department will make payment for reinforcement steel under REINFORCEMENT STEEL, and REINFORCEMENT STEEL, EPOXY-COATED as specified in <u>504.04</u> for reinforcement steel in cast-in-place retaining walls.

The Department will measure retaining walls by the square foot. The area measured is the product of the average height determined by extending the final ground lines at the top and bottom of the wall to a vertical plane of the front face of wall and the total length of wall shown.

SECTION 602 - DRAINAGE STRUCTURE

602.1 Description

THE FOLLOWING IS ADDED:

Contractor shall be responsible for reconstruction of inlets in the field as directed by the Engineer. Reconstruction shall include but not be limited to the reconstruction of inlet walls, backfilling, compaction, repair of all adjacent roadway and all else necessary and incidental thereto for the complete reconstruction of said inlets.

The County's Division of Public Works will inform the Contractor which inlets and/or manholes are to be reset and or replaced.

602.2 MATERIALS

602.3.3 Setting Castings, Resetting Castings, and Reconstructing Inlets and Manholes

THE FOLLOWING IS **ADDED**:

All manhole & inlet casting designated for setting or resetting shall be reset in Class B concrete to the appropriate grade or as specified by the Engineer. For a single course resurfacing, a 36- inch minimum circular ramp of hot mix HMA concrete will be placed about the periphery of the manhole leaving 1/2 inch of the head exposed. In the case where the Contractor uses cold mix asphalt concrete for convenience; it will be removed prior to placing the hot mix asphalt surface course.

For inlet or manhole castings to be reset that are determined to be broken, worn or otherwise unsuitable, the pay item **Set Inlet Type** __ **Casting** shall be used to compensate the Contractor for supplying the new casting and installing it to grade. The Contractor is to supply a complete new unit for inlet castings (i.e., frame, bicycle safe grate, 6 or 8-inch curb piece, associated bolt pads, backplate, etc.). All curb pieces shall be furnished with nameplate "Dump No Waste Drains to River" and 2D Brook Trout Design on both sides.

When Set Inlet Type __ Casting is utilized, the Contractor shall remove and dispose of the existing casting, reset and/or replace no more than 12" of the top of the inlet or manhole, add new bricks to bring the structure up to proper grade, parge the exposed surfaces both inside and out, provide a new casting, bicycle safe grate (and curb piece if necessary) and set the new casting in a new mortar bed at the proper elevation for paving operations.

Any curb type inlet grates encountered within the project limits not consisting of the following opening configurations: bicycle safe or flat oval openings, shall be removed, & replaced with the item **Bicycle Safe Grates**. This item will also be used to replace any worn, broken or otherwise unacceptable inlet grate.

All inlet grates within the project limits not deemed to be bicycle safe will be replaced. If the frame & grate are damaged by construction operations so they cannot be used, they shall be replaced without additional compensation.

If the manholes to be reset are broken, worn or otherwise unsuitable, then the pay item **Set Manhole Castings** will be used to compensate the Contractor for supplying the new casting and installing it to grade. The Contractor is to supply a complete new unit for manholes (i.e., frame & cover). **Note that all manhole**

specified herein are stormwater manholes and therefore, all covers shall be manufactured with pick-holes and vent holes.

Castings that are removed or replaced under this contract shall be delivered to the Union County Division of Public Works, located at 2371 South Avenue, Scotch Plains, NJ.

In areas of irregular pavement, it may be necessary to adjust the grade of existing inlets and manholes. In the event, that the Engineer considers the existing castings to be unsafe, the item following items may be used:

- Reset Inlet Casting
- Reset Manhole Casting with Existing Frame and Cover
- Reset Manhole Casting with New Frame and Cover

These Items will also be utilized:

- Where it is necessary to replace existing inlets and manholes, with material supplied by others. In this scenario, the Contractor will be responsible for the removal of the existing frame and cover, replacement with new material and the transport of such refuse material to a staging area. Staging areas for each road will be discussed at the preconstruction meeting. The supplier of the new material utilized will be responsible for the removal of the refuse material, from the staging area; &
- > Where it is necessary to repair damaged or unacceptable manhole and or inlet walls to a depth of 12 inches below the bottom of the casting. Masonry of existing structures shall be repaired as necessary, or as directed by the Engineer.
- ➤ When Reset Inlet Casting; Reset Manhole Casting with Existing Frame and Cover; or Reset Manhole Casting with New Frame and Cover is utilized, the Contractor shall remove the existing casting, reset and/or replace no more than 12" of the top of the inlet or manhole, add new bricks to bring the structure up to proper grade, parge the exposed surfaces both inside and out, and set the existing casting in a new mortar bed at the proper elevation for paving operations.

In the event, that the Engineer considers the condition of the inlet below 12" from existing grade to be in need of repair, the item following items may be used:

Reconstruct Inlet

Reconstruct Inlet will be utilized:

> Where it is necessary to repair damaged or unacceptable inlet walls below a depth of 12 inches below the bottom of the casting. Masonry of existing structures shall be repaired as necessary, or as directed by the Engineer. The Contractor shall remove the existing casting, add new bricks to bring the structure up to proper grade, parge the exposed surfaces both inside and out, and set the existing casting in a new mortar bed at the proper elevation for paving operations. Repairs shall be made to the Engineers satisfaction.

For manhole and inlet castings, the following *Campbell Foundry Company* Catalog Nos. or approved equivalents shall be used: Manhole, 1202B (frame, and cover); Extension Frame for Curb Type Inlets, 2701; Type B Inlet, Type 2618, casting, Type N- & Type J-ECO curb, back plate and bicycle grate.

Provided that the materials and dimensions are approved equivalent to the specified manhole and inlet models, (also refer to the Standard Construction Detail), such material can also be obtained from the

following:

- * Neenah Foundry Company Telephone (920) 725-7000 P.O. Box 729, Neenah, Wisconsin, 54957
- * Bridgestate Foundry Corporation Telephone (609) 346-4300 Suite 201N, 20 East Clementon Road, Gibbsboro, New Jersey 08026

All cast iron inlet curb pieces not conforming to current NJDEP Stormwater Regulations shall be removed & replaced. Curb piece replacements shall be accompanied by replacement of the adjacent curbs to each of the nearest joints in order to properly set the curb-piece. No separate payment shall be made for this curb work and shall be included in the overall price bid on the castings.

Baltimore inlets (granite slabs with curb openings and manholes) shall be reconstructed by removing the inlet wall to the depth necessary to reset the granite slab flush with the top of pavement elevation with mortar. Install an additional inlet and pipe along the inlet as indicated on the plans and details. Set a new manhole casting over the existing manhole opening to the required elevation and construct concrete curb and sidewalk along the structure and over the structure. All costs thereof except for the inlet and pipe shall be included in the unit price for "RESET MANHOLE CASTING WITH NEW FRAME AND COVER"

602.03.05 Extension Frames and Rings

The following is **added**:

Inlet and manhole extension frames may be used to raise existing inlet castings a maximum of 3-1/2". When existing castings are required to be raised more than 3-1/2", the item reset castings shall be used. The item reset castings shall also be used to alter grades and elevations up to 12".

602.03.09 Eco Head Curb Adaptor, Faceplate

Grate Plates shall consist of Retro steel plate and cam device manufactured from 0.25 inch thick, Corten brand, over 60,000 psi high strength/low alloy weathering steel, and conform to A588 grade. Mounting Bolts shall be of the button head cap configuration made of steel alloy, for example, 10-18 steel and shall conform in all respects to ASTM F835. Additional metal piece(s) shall be made of 10-18 steel alloy.

Steel plate shall be of uniform quality, of holes, shapes, and bends. No finish is required on Cor-ten steel. Material oxidizes to create its own weather barrier.

Each will plate will have a stainless steel badge with blue backround mechanically fastened to the center of the plate that reads: NO DUMPING, DRAINS TO WATERWAYS MADE IN USA & FISH SYMBOL.

Grate Plates shall be as manufactured by Campbell – ERS, S-Series, or an approved Equal. All costs associated with connecting Grate Plates to existing inlets shall be included in the unit price bid for the item.

602.04 MEASUREMENT AND PAYMENT

THE FOLLOWING ITEMS ARE ADDED:

<u>Item</u>	<u>Pay Unit</u>
RESET INLET CASTING	UNIT
RESET MANHOLE WITH EXISTING FRAME AND COVER	UNIT
RESET MANHOLE CASTING WITH NEW FRAME	UNIT
AND COVER	
RECONSTRUCT INLET	UNIT
ECO HEAD CURB ADAPTOR, FACEPLATE (IF & WHERE DIR.)	UNIT
TYPE N-ECO CURB PIECE (6"-8") WITH ADJACENT CURB	
REPLACEMENT	UNIT

The unit price bid for resetting castings shall include furnishing & placement of the concrete, as well as, protection of the castings in a manner satisfactory to the Engineer, during the time they are exposed to traffic. Separate payment will not be made for extension rings and frames. All costs thereof shall be included in the unit price bid for reset castings.

In the event that the If & Where quantities for castings, curb pieces and grates are not used, the County of Union shall not be responsible for reimbursement or storage of material. Any balance of new material shall be returned to the Contractor at no cost to the County of Union. All existing inlet & manhole castings, curb pieces & grates removed as salvage shall be delivered to the Union County Division of Public Works Facility located at 2371 South Avenue, Scotch Plains, NJ. The Contractor is advised that

unless directed by the Engineer, the Union County Public Works Facility will not be available for storing materials & equipment.

No separate payment shall be made for the connection of existing or proposed pipe to proposed, reconstructed or reset inlets or manholes. All costs thereof shall be included in the prices bid for each respective item.

SECTION 606 - SIDEWALKS, DRIVEWAYS, AND ISLANDS

606.01 Description.

THE FOLLOWING IS ADDED

Concrete sidewalk and ADA ramps shall be constructed prior to the milling and resurfacing phases of the project. All ADA ramps will be constructed in accordance with types specified on the plans and as directed and by the Engineer. Final ADA ramps location will be field delineated prior to the start of construction. Areas of new concrete sidewalk outside the areas of new ramps maybe requested by the Engineer as If and Where Directed.

Detectable warning surfaces shall be installed at all newly constructed handicap ramps & all existing ramps within the project limits, as specified herein. Detectable warning surfaces shall be installed in accordance with the **Americans with Disabilities Act Accessibility Guidelines (ADAAG)**, as approved by the FHWA Office of Management & Budget (OMB), on June 25, 2004, and as amended herein. Truncated Domes are the only detectable warning surfaces allowed by the ADAAG. Grooves & exposed aggregate will not be acceptable. Specifications in Section 406.8 of ADA Standards address the area that these warnings are to cover at the specified locations. For the Bidders convenience, Section 406.8 is summarized herein, however, Bidders are strongly urged to reference the full text, available online at http://www.access-board.gov/guidelines-and-standards/buildings-and-sites/about-the-ada-standards/ada-standards/single-file-version. Details depicting truncated dome layout & spacing are provided in the construction details of the contract plan set.

606.02.01 Materials.

THE FOLLOWING IS ADDED:

Materials for Detectable Warning Surfaces shall be Brick Red in color, and shall be abrasion, chemical, environmental and UV resistant. *The product used must be able to withstand all snow removal procedures.* All materials used shall be in compliance with ADAAG requirements for Detectable Warning Products. Material Compliance Documentation will be necessary for all detectable warning products, prior to the pre-construction meeting. When cured and or completed, the delineation shall be a truncated dome warning, slip resistant non-porous surface. All Cast-In- Place Detectable Warning Products shall be covered prior to applying appropriate curing compounds for new concrete sidewalk. Upon drying of curing material, detectable warning surfaces shall be uncovered for use.

606.3.2 Concrete Sidewalks, Driveways, and Islands.

THE FOLLOWING IS ADDED:

The Contractor shall include the cost of all sidewalk, apron and brick removal, excavation, material disposal, expansion joint material, reinforcement material (where necessary & directed by the Engineer), curing material, adjacent site restoration, and all other material necessary for the construction of handicap ramps, driveway aprons, and various types of sidewalk, in the cost of the various items listed above. The unit price bid for these items shall include all work described heretofore for these items.

Care should be exercised when excavating for the construction of sidewalk & curb that have Area Fire Alarm Actuators (Pull Boxes), and at signalized intersections. These areas may have direct

burial electrical leads and or conduit. Since the actual locations of these materials are unknown, the Contractor is strongly advised to contact the respective Fire Department for additional information, and or use extreme caution when excavating these areas. Any damage to existing conduit, buried electrical material, and or other buried material, while excavating for curb and handicap ramp items, shall be the sole responsibility of the Contractor to restore and or replace, to the satisfaction of the Engineer. No separate payment will be made for these repairs.

The various items for Concrete Sidewalk, consists of the removal and disposal of any existing concrete, brick or hot mix asphalt walks; excavation to the proper depth all around; setting forms as required; placing a 4" stone subbase as required; and pouring and finishing of concrete sidewalk and ramp as required at each location. After the stripping of forms, each site shall be cleaned and restored to match all adjacent conditions, including topsoil and seeding as required. The unit price given by the bidder shall include all work & restoration described hereto, for this item.

Disposal of concrete and asphalt will be made to an NJDEP approved recycling facility. The Contractor shall notify the Recycle Facility to provide the County with appropriate credit for recycling. Any brick pavers removed from the project shall be delivered to the respective Municipal Department of Public Works whence the material originated from.

A detailed listing of handicap ramps & detectable warning surfaces including specific curb and sidewalk quantities, have been incorporated into these specifications, and can be found at the rear of the Technical (T pages) Specifications. However, for the contractor's information, all ramps within the project limits new or otherwise shall be delineated with Detectable Warning Surfaces. The Contractor shall field visit and verify all locations for handicap ramp delineation with the Engineer prior to beginning work. New sidewalk shall meet existing sidewalk, at an existing or newly formed joint. The Contractor shall include the cost of all expansion joint materials in the unit prices.

Concrete for Concrete Sidewalks, shall be Gray, Class B, 4500 psi, 6% air-entrained, unless otherwise specified.

Concrete sidewalks shall be constructed in 4 ft. x 4 ft. squares using approved separators. An expansion joint shall be placed at 12-foot intervals. A 4-inch layer of *3/4-inch clean stone subbase* shall be placed immediately below the new concrete sidewalk. This 4-inch subbase shall be constructed in accordance with Section 208, except that payment will not be made this layer. The preparation and compaction of the subbase shall be made part of the unit price bid for the Concrete Sidewalk item.

E. Expansion Joints

THIS SUB-SECTION PART E IS CHANGED AS FOLLOWS:

Expansion joints shall be $\frac{1}{2}$ inch wide, placed at intervals of approximately <u>12 feet</u>, and shall be filled with preformed joint filler.

This work shall also consist of applying a color contrast and a slip resistant surface on Portland cement concrete sidewalks for the installation of detectable warning surfaces.

H. Protection and Curing.

THE LAST SENTENCE IS CHANGED TO:

Ensure vehicles and other loads are not placed on sidewalks, islands, and driveways until the concrete has attained compressive strength of 3000 pounds per square inch, as determined from two (2) concrete cylinders field cured according to AASHTO T 23.

THE FOLLOWING SUBSECTION IS ADDED:

J. Accessible Curb Ramps

All Accessible Curb Ramp areas shall be constructed using concrete, unless otherwise specified in these specifications. All new handicap ramps shall be applied with Detectable Warning Surfaces – Cast-In-Place Type. All existing ramps shall use the Detectable Warning Surfaces – Retrofit Type. Detectable Warning Surfaces shall be classified as follows:

- a) Cast In Place Tile shall be installed in the concrete in accordance with manufacturer's specifications. The cast in place tile shall be used for all new curb ramp construction.
- b) Retrofit Surface Mount Tile shall be installed on the surface of existing concrete curb ramps in accordance with manufacturer's specifications. This product must be able to withstand snow removal procedures. The manufacturer of such product shall provide documentation supporting such.

606.3.3 Detectable Warning Surfaces

THE FOLLOWING IS ADDED:

All pre-existing delineation materials must be removed prior to installing Detectable Warning Surfaces. The installation of Detectable Warning Surfaces shall be according to the corresponding construction details and the manufacturer's recommendation. All areas determined to have been damaged or not to be in conformance with the Specifications or the Plans shall be removed and replaced at no additional compensation to the State.

The item Detectable Warning Surfaces of the various types will be measured in units, based on the actual amount installed. Each unit installed shall be approximately 4 feet (ramp width) by 2 feet (running slope). The unit price bid for the item Detectable Warning Surfaces, shall include all material, equipment, labor & any grinding/removal procedures of any previous ramp delineation that may exist on the ramp to be treated. There will be no difference in price between the various products.

606.04 MEASUREMENT AND PAYMENT

THE FOLLOWING ITEMS ARE ADDED:

<u>Item</u> RESET BRICK PAVERS <u>Pay Unit</u> SQUARE FOOT

SECTION 607 - CURB

607.01 Description.

THE FOLLOWING IS ADDED:

These items shall consist of the removal and disposal of various types of curb, including: concrete, Belgian block, combination curb & gutter; and or hot mix asphalt concrete curb; excavation to the proper depth; setting forms as required; placing 6" stone base as required; and pouring and finishing of concrete curb and granite as required at each location, all in the process of constructing new accessible curb ramps. After the stripping of forms, each site will be cleaned and restored to match all adjacent conditions, including adjoining turf repair strips in accordance with Section 805.

The Contractor's attention is directed to the construction detail entitled "10 x 20 Concrete Curb." This detail identifies the typical pavement section necessary when restoring County Roads. The Contractor shall be responsible for improving all gutterlines within two (2) feet of proposed curb construction. Should the Contractor damage the roadway outside of these limits while excavating/installing adjacent curb, sidewalk and or ramps, the above-referenced detail shall be used for restoration procedures. The Contractor will be responsible for all material & labor necessary to improve the gutterline as directed by the Engineer AND to restore the damaged road section. No additional payment will be made for any material & labor involved with said work.

607.03.02 Concrete Vertical Curb and Concrete Sloping Curb

C. Installing Joints

The following is added to this sub-Section:

Expansion joints shall be provided opposite joints in abutting concrete surface course and at approximately equal distances of not more than 10 feet between joints. Joints shall be filled with preformed expansion joint filler, ½ inch thick, which shall be flush with the top and face. Between concrete curbs and concrete surface or base course, ½-inch, preformed, expansion-joint filler shall be installed and the joint shall be sealed with hot-poured joint sealer.

All materials and equipment necessary to complete the type of curb installation described in Section 607.03.02, where necessary, will also be included in the overall payment for this Item.

D. Placing Concrete.

THE ENTIRE TEXT IS CHANGED TO:

Place concrete for vertical curb and sloping curb as specified in 607.03.01.D, except that consolidation may be achieved by hand spading or internal mechanical vibrators.

607.03.04 Concrete Vertical Curb and Concrete Sloping Curb, Dowelled

D. Placing Concrete.

THE ENTIRE TEXT IS CHANGED TO:

Place concrete for vertical and sloping curb as specified in 607.03.02.D.

607.05 Granite Curb

THIS SUBSECTION HAS BEEN RENAMED AS FOLLOWS:

607.05 Belgian Block Curb

607.04 Measurement and Payment

THE FOLLOWING ITEMS ARE ADDED:

ItemPay UnitGRANITE BLOCK CURBLINEAR FOOT10" x 20" CONCRETE VERTICAL CURBLINEAR FOOT

The Contractor shall include the cost of all curb removal, excavation, material disposal, expansion joint material, curing material, adjacent site and pavement restoration and dowels (where required) in the cost of the curbs. All curbs shall be depressed at handicap ramps, in accordance with the respective construction details, included in these specifications. All materials, labor & equipment necessary to complete this work shall be included in the unit price bid for the curb item. The unit price bid for this item shall include all work described heretofore.

The construction of cheek walls associated with the installation of accessible curb ramps, as shown on the Construction Details for the various types, shall be paid for as 10" x 20" Concrete Vertical Curb.

SECTION 610 - TRAFFIC STRIPES, TRAFFIC MARKINGS AND RUMBLE STRIPS

610.01 Description

THE FOLLOWING IS ADDED TO THIS SECTION:

This item shall consist of furnishing and installing white & yellow pavement lines to HMA or Portland cement concrete surface. Thermoplastic Long-Life material shall be used for all permanent lines on hot mix asphalt concrete or Portland cement concrete surfaces, in accordance with these provisions and in conformance to the dimensions and locations shown on the plans or as established by the Engineer.

The Contractor shall replace all existing striping as shown on the plans in-kind or based on As-Built plans provided by the County unless otherwise directed by the engineer or as shown on the plans. Available As-Built traffic signal plans for County owned traffic signal will be provided at the preconstruction meeting. The Contractor shall be responsible for obtain traffic signal plans for NJDOT traffic signals from NJDOT Documents Unit. A list of traffic signal agency jurisdiction will be provided at the pre-construction meeting.

Traffic stripes and pavement markings of the various types, shall be installed prior to the roadway being opened for traffic, unless prior approval is obtained from the Engineer. Should this approval be granted, or such is not recommended by the Manufacturer of the material, the Contractor shall pre-mark the newly surfaced road, prior to such being opened to traffic, and in the presence of the Engineer's representative. The use of traffic control devices (i.e., cones or drums) to delineate traveled ways, crosswalks, stop bars, etc. will not be allowed.

Temporary tapes and/or paint may be utilized on milled surfaces only. No additional payment will be made for temporary traffic tape and or paint. All labor & materials necessary to install and remove temporary striping items shall be made part of the various striping items as described herein.

Under this contract, there may be locations in which existing striping conflicts with the proposed permanent striping. In this case, the Contractor or Sub-Contractor shall remove the existing striping as directed by the Engineer, and shall be considered as part of this item. No separate payment will be made for the removal of stripes or payement markings.

Installation of various Two-Way Plowable Pavement Reflectors & Castings, include removal of existing pavement reflectors and castings, and disposal of such, including the lenses when still intact.

Materials used on this project shall meet all manufacturers' specifications.

610.2.1 Materials

THE FOLLOWING MATERIALS ARE RENAMED TO:

Traffic Stripes 91	2.03.01
Traffic Markings91	2.03.02

610.2.2 Equipment.

The following is added:

The equipment for applying thermoplastic material shall be capable of providing continuous mixing and agitation of the material. The parts of the equipment conveying the material between the main reservoir and the shaping die shall be so constructed to prevent accumulation and clogging. The mixing and conveying parts and the shaping dies or spray gun shall be capable of maintaining the material at optimum plastic temperature. The equipment shall be so constructed to ensure continuous uniformity in the dimensions of the entire stripe or marking. The kettle provided for the melting and heating of the thermoplastic material shall be equipped with an automatic thermostat control device and heated by a controlled heat-transfer liquid rather than by a direct flame. The heating kettle and applicator shall be equipped and arranged to meet the National Board of Fire Underwriters and State and Federal regulations. The parts of the equipment that come in contact with the material shall be easily accessible for cleaning and maintenance.

All equipment for applying traffic stripes or traffic markings shall be equipped with glass bead dispensers of a type that will mechanically and automatically dispense beads uniformly on wet stripes or markings at the rates specified.

610.03 CONSTRUCTION

610.03.01 Long-Life Traffic Stripes

THE SUBPART HEADING AND THE ENTIRE TEXT IS CHANGED TO:

610.3.1 Traffic Stripes

- **A. Striping Plan.** At least 20 days before beginning the work, submit to the RE for approval a striping plan that includes:
 - 1. Schedule of operations for applying traffic stripes.
 - 2. Number and type of equipment.
 - 3. Manufacturer's recommendations for use of the materials, including, but not limited to, mixing ratios and application temperatures.
 - 4. Details on the means and methods for surface preparation
 - 5. Details on the means and methods for premarking
 - 6. Details on the proposed test strip such as location, length etc
- **B.** Surface Preparation. Immediately before striping the pavement surface, clean the surface of dirt, oil, grease, and foreign material, including curing compound on new concrete. Clean the surface two (2) inches beyond the perimeter of the stripes to be placed.
- C. Striping Test Strip. Before beginning striping operations, construct 1 or more striping test strips to demonstrate the Contractor's ability to meet the requirements specified in 610.03.01.D. For each striping test strip, apply striping to approximately 500 linear feet of pavement with the same striping procedure that will be used for the Project. Construct a test strip for each applicator unit and epoxy resin material used. Provide the RE with 50 test cards made of heavy stock paper measuring 8 inches by 2 inches, and two wet film thickness gauges. Construct additional test strips when major equipment repairs or adjustments are made or when the traffic stripes are determined to be defective. Construct additional test strips when traffic-striping operations are performed on multiple, non-continuous occasions. Perform additional test strips as requested by the RE. When the test strip is

compliance, as determined by the RE, proceed with striping operations. Each test strip may remain in place and become part of the finished stripes subject to the requirements of 610.03.01.E.

D. Applying Striping. Mix epoxy resin with an automatic proportioning and mixing machine, and hotspray the compound at a temperature of between 100 and 130 °F onto dry surfaces. Apply the compound with a wet film thickness of 20 ± 1 mil. Apply the material during dry weather conditions when the ambient temperature is a minimum of 45 °F and the surface temperature is a minimum of 50 °F. Adjust operations as required for the prevailing ambient and surface conditions to achieve a notrack drying time of 30 minutes or less.

Immediately after, or in conjunction with, the compound application, uniformly apply 12 pounds of large glass beads per gallon of epoxy resin to the compound. After applying the large glass beads, uniformly apply 12 pounds of small glass beads per gallon of epoxy resin to the compound.

Remove all compound that has been tracked or spilled outside of the intended placement areas.

E. Performance. Ensure that the traffic Stripes, show no fading, lifting, cracking, chipping for any reason including but not limited to traffic wear, maintenance activities including snow plowing, until Acceptance. Ensure that 60 days after application, traffic stripes have a minimum retroreflectance value of:

375 millicandelas per square meter per lux for white traffic stripe

250 millicandelas per square meter per lux for yellow traffic stripe

F. Defective work. Replace traffic stripes that are determined by the RE before Acceptance to be defective or that are damaged during construction. Remove defective stripes as specified in 610.03.08.

Replace an entire 10-foot skip line if the RE determines the stripe to have a deficiency.

If the RE determines, based upon calculated and measured yields, that the striping has a wet film thickness of less than 19 mils, restripe the entire length with 20 mils of new compound.

Provide the RE with an LTL-X Reflectometer that has been certified by the manufacturer as being calibrated within the last two years. The RE will test the retroreflectance of traffic stripes. Replace traffic stripes that do not meet the retroreflectance values indicated in 610.03.01.E. Replace the entire length of striping where improper curing or discoloration has occurred. Discoloration is localized areas or patches of brown or grayish colored compound. Where improper curing or discoloration occurs intermittently in intervals of 100 feet or less throughout the striping length, replace the entire length of striping from the beginning of the first occurrence until the end of the last occurrence, plus 5 feet on each end.

Replace the entire length of striping that has failed to bond to the pavement, or has chipped or cracked. Where more than 25 spots of chipping, cracking, or poor bonding have occurred within 1000 linear feet of striping, replace the entire 1000-foot length of striping as indicated in 610.03.01.E.

G. Opening to Traffic. Complete each application of all types of traffic stripes and allow to thoroughly dry before opening to traffic. At a minimum, delineate center lines on undivided roadways and broken lines between lanes before the traveled way is opened. The RE will determine when the traveled way can be opened to traffic.

610.3.2 Thermoplastic Traffic Markings

THE SUBPART HEADING AND THE ENTIRE TEXT IS CHANGED TO:

610.3.2 Traffic Markings

- **A. Marking Plan.** At least 20 days before beginning the work, submit to the RE for approval a marking plan that includes:
 - 1. Schedule of operations for applying traffic markings,
 - 2. Number and type of equipment,
 - 3. Manufacturer's recommendations for use of the materials, including mixing ratios and application temperatures.
 - 4. Details on the means and methods for surface preparation
 - 5. Details on the means and methods for premarking
- **B.** Surface Preparation. Immediately before marking the pavement surface, clean the surface of dirt, oil, grease, and foreign material, including curing compound on new concrete. Clean the surface 2 inches beyond the perimeter of the marking to be placed.
- **C. Applying Traffic Markings.** Place preformed thermoplastic or hot extruded thermoplastic traffic markings on thoroughly dry surfaces and during dry weather conditions. Apply using equipment and procedures that produce markings of the specified color, width, and thickness with well-defined edges, uniform retroreflectivity, and proper bonding to the pavement. Apply the thermoplastic material as follows:
 - **1. Preformed Thermoplastic.** Melt the preformed thermoplastic tape to bond the traffic markings permanently in position according to the manufacturer's recommendations.
 - Meet the minimum initial retroreflectance value, as specified in 610.03.01.D for thermoplastic tape, by applying additional glass beads to the hot-wet material in a uniform pattern as necessary.
 - **2. Extruded Thermoplastic.** Uniformly heat the thermoplastic material. When the ambient and surface temperatures are at least 50 °F, apply the melted material at a temperature of between 400 and 425 °F. Extrude the thermoplastic traffic markings on the HMA or concrete pavement ensuring a thickness of 90 ± 1 mils.
 - Immediately after, or in conjunction with the thermoplastic extrusion, uniformly apply glass beads to the wet material at a minimum rate of 10 pounds per 100 square feet of markings. Apply glass beads by mechanical means only.

THE FOLLOWING IS ADDED TO SUBSECTION C:

The traffic lines shall be applied in accordance with the manufacturer's installation instructions.

All traffic stripes, words, legends and markings shall conform to the current edition of the **Manual on Uniform Traffic Control Devices for Streets and Highways (MUTCD)** for size, color, shape and placement. Unless otherwise specified, striping widths and patterns shall be as follows:

All stop bars shall be 24" wide white lines. All longitudinal lines, broken or dashed, shall be installed as follows: 10-foot solid line with a 30-foot gap. All shoulder lines shall be 4" wide white line; lane lines at intersections shall be 8" wide white lines; crosswalk lines (perimeter) shall be 8" wide white lines.

Crosswalk cross hatching shall be 12" wide white at 3' center to center, utilizing the ladder type, regardless of the existing cross hatching width; crosswalk hatching shall be installed parallel to the road centerline and not perpendicular to the crosswalk. Traffic island gore hatching shall either be 24" wide white or yellow line, regardless of existing width. All crosswalks shall be 8 feet in width, with white perimeter lines as described above

All centerline markings shall be a four-inch wide double yellow line for the entire length of these roads. Additionally, the Contractor performing this work shall provide a six-inch wide gap between the double yellow lines for the placement of plowable raised pavement markers, either installed under this or future contracts. In the event that a six-inch wide gap is not provided, the Contractor shall remove that length of line not in compliance and reapply the material to provide the required gap distance without additional compensation. Openings 6" in length may be provided at 20 foot intervals along edge lines placed on the inside radius of super elevated curves, to avoid surface ponding.

Longitudinal lines shall be offset at least four (4) inches from construction joints of Portland cement concrete pavements and joints and shoulder breaks of hot mix asphalt concrete pavements.

All stray materials which result from the application of traffic marking lines and symbols shall be cleaned up and disposed of prior to opening the road to traffic and to the satisfaction of the Engineer. **The use of grinders or similar method will not be allowed on the new pavement surface.** Additionally where applicable, excess glass beads that are on the roadway surface shall be cleaned up prior to opening the road to traffic. The beads must be swept or vacuumed up. The use of blowers to clean the roadway surface of glass beads is not an acceptable method of removal.

When traffic lines are specified in the contract for newly paved asphalt concrete surfaces, they shall be applied before public traffic is allowed on the freshly paved surface. In snow removal states, the traffic lines should preferably be inlaid in the fresh surface during final rolling of the mat, but in any case they shall be applied before the close of the shift on the day that the surface is paved. These traffic lines can also be overlaid on existing pavement surfaces in accordance with the manufacturer's installation instructions.

THE FOLLOWING IS ADDED TO SUBSECTIOND:

- **D. Performance.** Ensure that the traffic markings show no fading, lifting, cracking, chipping for any reason including but not limited to traffic wear, maintenance activities including snow plowing, until Acceptance. Ensure that 60 days after application, traffic markings have a minimum retroreflectance value of:
 - 375 millicandelas per square meter per lux for white traffic markings
 - 250 millicandelas per square meter per lux for yellow traffic markings

At no additional compensation by the County, the Contractor shall remove all traffic paint where the striping or markings will not be directly under long-life material, replace long-life

traffic stripes or traffic markings damaged due to any sawing or sealing of joints in the HMA overlay, and replace all existing pavement reflectors that have been marred by striping or marking material as a result of improperly located traffic stripes or traffic markings.

E. Defective work. Replace thermoplastic traffic markings that are determined by the RE before Acceptance to be defective or that are damaged during construction. Remove defective markings as specified in 610.03.08.

Replace the entire area of thermoplastic traffic markings determined to be less than the required thickness, to have incorrect color or width, to have failed to bond to the pavement, or to have chipped or cracked. The minimum replacement area is an individual word or symbol, or for longitudinal lines the entire length from where the deficiency first occurs to where it no longer exists.

The RE will determine initial retroreflectance as follows:

Provide the RE with an LTL-X Reflectometer that has been certified by the manufacturer as being calibrated within the last two years. The RE will test the retroreflectance of traffic markings. Replace traffic markings that do not meet the retroreflectance values indicated in 610.03.02.D.

Complete each application of traffic markings and allow to thoroughly dry. All stray materials which result from the application of traffic lines and markings shall be cleaned up and disposed of prior to opening the road to traffic and to the satisfaction of the Resident Engineer. The use of grinders or similar method will not be allowed on newly paved surfaces. Additionally, where applicable, excess glass beads that are on the roadway surface shall be cleaned up prior to opening the road to traffic. The beads must be swept or vacuumed up - the use of blowers to clean the roadway surface of glass beads is not an acceptable method of removal.

F. Opening to Traffic. Complete each application of thermoplastic traffic markings and allow to thoroughly dry before opening to traffic. The RE will determine when the traveled way can be opened to traffic.

610.3.3 Raised Pavement Markings (RPM)

THE FOLLOWING HAS BEEN ADDED:

This specification covers a type of snow-plowable, durable, abrasion-resistant, retroreflective raised pavement marker designed for lane marking and delineation. The markers shall be designed to provide highly effective, long-life nighttime visibility.

All work associated with the installation of reflectors and castings, including road preparation, sand blasting, and use of epoxy and priming agents, etc., shall be included in the overall unit price bid for these items.

The marker shall be manufactured from an engineering thermoplastic polymer (polycarbonate) meeting ASTM Standard Specification for Plowable, Raised Retroreflective Pavement Markers D4383-96 and designed for superior impact resistance and weatherability. The marker shall incorporate an abrasion resistant ceramic hardcoat, microcube corner optics retroreflective lens, and pressure sensitive adhesive pad (excludes Model 194). These features are designed to provide long-lasting nighttime visibility by resisting breakage, providing optimal angularity, and adhering firmly to the casting. These markers are intended for application in a nodular iron holder (casting) with an adhesive.

The markers shall be durable, impact-resistant, abrasion-resistant, snow-plowable, raised, and retroreflective. The designed application of the marker is for longitudinal and gore markings on new and existing roads in snowplow regions.

All markers shall be applied in accordance with the manufacturer's recommendations.

Marker configurations shall be installed in accordance with NJDOT Standard Details as shown in the Contract Plans.

610.3.4 Removal of RPMs

THE ENTIRE TEXT IS CHANGED TO:

Remove RPMs as directed by the RE. Dispose of RPMs as specified in 201.03.09. If directed by the RE, fill the hole with HMA patch as specified in 159.03.07 except sawcutting is not required.

610.03.08 Removal of Traffic Stripes and Markings

THE FOLLOWING HAS BEEN ADDED:

Equipment for removing the various types of traffic stripes or traffic markings shall be designed with a vacuum system to remove all millings from the pavement surface and prevent airborne residue from escaping into the atmosphere. All equipment including traffic marking tape applicator and retrometer shall be duly calibrated and shall conform to manufacturer's requirements.

610.04 MEASUREMENT AND PAYMENT

THE FOLLOWING ITEM IS DELETED:

ItemPay UnitREMOVAL OF RPMUNIT

THE FOLLOWING ITEMS ARE ADDED:

ItemPay UnitTRAFFIC STRIPES, THERMOPLASTIC __"LINEAR FOOTTRAFFIC MARKINGS LINES, THERMOPLASTIC __"LINEAR FOOTTRAFFIC MARKINGS SYMBOLS, THERMOPLASTICSOUARE FOOT

THE FOLLOWING IS ADDED AT THE END OF THE SUBSECTION:

It shall be the responsibility of the Contractor performing this work to provide a breakdown of materials and footage applied at the end of each workday to the County. In the event of a discrepancy between the County and the Contractor's as-built quantity, both the County and the Contractor will re-measure all roads to resolve their differences. This will take place before final contract payment occurs.

In the event of a discrepancy between the County and the Contractor's as-built quantity, both the County and the Contractor will re-measure all roads to resolve their differences. This will take place before final contract payment occurs.

Removal of RPM's when directed by the RE shall be included in the bid pay items of the various RPM's types.

Traffic Stripes will be defined as the various colors and widths of lines used to designate lanes and shoulders on roadways. Payment for traffic stripes will be made for the number of linear feet installed, accepted and placed in accordance with the requirements of these and the manufacturer's specifications at the price bid per linear foot under the item TRAFFIC STRIPES, THERMOPLASTIC, __".

Traffic Markings Lines will be defined as the various types and materials for any pavement line not defined under "Traffic Stripes", such as diagonal gore lines, crosswalks, stop lines, etc. Payment for Traffic Markings Lines will be made for the number of linear feet installed, accepted and placed in accordance with the requirements of these and the manufacturer's specifications at the price bid per linear foot under the item TRAFFIC MARKINGS LINES, THERMOPLASTIC, "."

Traffic Markings Symbols will be defined as the various types and materials for words, arrows or other pavement symbols. Payment will be made for accepted and placed traffic markings symbols in accordance with the requirements of these and the manufacturer's specifications at the price bed per square foot under the item TRAFFIC MARKINGS SYMBOLS, THERMOPLASTIC.

Pavement markings of the various types will be paid for at the contract bid price per square foot that shall be full compensation for cleaning and preparing the pavement surface, furnishing and installing all materials and for all materials, labor, tools, equipment and incidentals necessary to complete the work.

No additional payment will be made for the removal of reflectors & castings.

The cost for the removal of traffic lines and markings including solid areas, letters, arrows, and other symbols from HMA and Portland cement concrete surfaces shall be included in the unit price bid for this item.

Traffic stripes and traffic markings lines will be paid for at the contract unit price, which shall be full compensation for cleaning and preparing the pavement surface, for furnishing and placing all materials, and for all materials, labor, tools, equipment and incidentals necessary to complete the work.

At no cost to the County, the Contractor shall remove all traffic paint where the striping or markings will be directly under proposed long-life material, replace long-life traffic stripes or traffic markings damaged due to any sawing or sealing of joints in the hot mix asphalt concrete overlay (resurfacing), and replace all existing pavement reflectors that have been marred by striping or marking material as a result of improperly located traffic stripes or traffic markings.

SECTION 612 - SIGNS

612.03.02 Type GA Breakaway and Non-Breakaway Support Guide Signs

THE SUBPART HEADING IS CHANGED TO:

612.3.2 Type GA Breakaway Support Guide Signs

C. Constructing Pedestals

THE SUBPART IS CHANGED TO:

Place reinforcement steel as specified in 504.03.01 before placing the concrete. Ensure that concrete placement complies with the limitations as specified in 504.03.02.C. Place concrete as specified in 504.03.02.F.

D. Erecting Posts

THE SUBPART IS CHANGED TO:

Erect posts as specified in 512.03.01.G.

THE FOLLOWING IS ADDED:

F. Constructing Anchor, Hinge, Bracket and Coupling Assemblies. At least 10 days before beginning the work, submit the manufacturer's installation guide and installer's certification to the RE.

Ensure that the installer is certified by the manufacturer.

Ensure that the manufacturer's representative is present during the foundation pour and the installation of the first sign. Install anchor, hinge, bracket and coupling assemblies according to the manufacturer's recommendations. The RE may require the system manufacturer's representative to be present at all times during the installation to provide on-site technical support.

THE SUBPART IS ADDED:

612.3.3 Relocate Signs

This item of work will consist of the relocation and resetting of existing signs as directed by the Engineer. Existing signs to be relocated or reset shall be carefully cataloged, removed without damage, stored and reinstalled as directed by Engineer. The Contractor shall to the greatest extent practical salvage and reuse existing sign posts. Signs and sign posts damaged shall be replaced at no cost to the County. This work shall also include setting of sign posts in concrete to the satisfaction of the Engineer.

THE FOLLOWING IS ADDED:

Payment for Guide Sign Supports of various types and associated appurtenances shall be paid under the bid pay item REGULATORY AND WARNING SIGNS.

THE FOLLOWING SECTION IS ADDED:

SECTION 612A - STREET SIGNS

612A.01 Description

This section describes the requirements for street signs within the project limits. The project will include salvaging existing signs supports and placement of new bracket and signs or the complete replacement of existing street signs.

All signs shall conform to the <u>2009 Manual of Uniform Traffic Control Devices</u>; and the <u>U.S.D.O.T. Manual of Standard Highway Signs</u>.

612A.02 Materials

All sign materials shall conform to material specifications of Section 612 of the NJDOT Standard Specifications for Road and Bridge Construction as amended as follows:

All signs shall be manufactured with, or incorporate diamond grade material. Alternate material meeting the requirements of ASTM TYPE 11 RETROREFLECTIVE SHEETING may be used, only when approved by the Engineer. All signs shall be aluminum, with a thickness of 0.100 inches.

Street Sign shall be approximately 10 inches in height and up to 36 inches in length depending on the amount of letters in each street name. Each sign shall also be double faced. All signs shall be green with white lettering. Six-inch Highway Gothic B font shall be used for all lettering. The street name sign identifying the County road shall be the primary sign, and therefore mounted at the top of the signpost. All top posts shall be 2-inch x 2-inch square, 16 gauge galvanized solid surface steel with a 0.100 minimum wall thickness. All posts shall be a minimum of 8 feet in length, base posts shall be a minimum of 3 feet in length.

612A.03 Construction

All sign construction methods shall conform to specifications of Section 612 of the NJDOT Standard Specifications for Road and Bridge Construction as amended as follows:

All posts & mounting brackets will need approval of the Engineer prior to installation.

Double-faced signs are designated as Type DF.

All salvage sign material other than posts shall be delivered to the Union County Bureau of Traffic Safety & Maintenance, at 2325 South Avenue, Scotch Plains, NJ.

Removal of the existing sign in its entirety, including any concrete footing, and restoration of the existing area, shall be included in the overall unit price bid for the above referenced items. A detailed listing of specific locations where each sign is to be installed is included in these specifications

Ground mounted Street Name Signs with Breakaway Supports shall be installed along the County Roads being resurfaced in the following manner:

- * At 4-way intersections, install 1 post at the far side of *each* approach (County road only);
- * At 3-way intersections, install 1 post at the far side of the County road approach, adjacent to the side street.

Accessory Panels - shall include signs, brackets & and other hardware.

<u>Breakaway Signs</u> - The breakaway system shall be installed at least 30 inches below grade. A listing of the signs in question has been provided in these specifications. The list includes street names as required to be identified on the signs & the amount of signs and posts.

612A.04 MEASUREMENT AND PAYMENT

The County will measure and make payment for items as follows:

ItemPay UnitSTREET NAME SIGN, TYPE DF, BREAKAWAY SUPPORTSQUARE FOOTACCESSORY PANEL, TYPE DFSQUARE FOOT

Payment for Street Name Signs, Type DF with Breakaway Supports, and Accessory Panels, Type DF, will be made for the quantity of material actually installed, at the unit price bid per square foot.

Street signs with new breakaway supports shall include all equipment, materials (posts, nuts, bolts, brackets, hardware, etc.) & labor necessary to fabricate, furnish, assemble & erect signs; removal and disposal of all existing street name signs encountered, along the County roads in question; installation of signs in a concrete foundation; and restoration to adjacent areas.

The unit price bid for this item shall include all necessary excavation for the removal of existing signs, restoration, posts & other materials as described above.

SECTION 651 - WATER

651.04 Measurement and Payment

THIS SUB-SECTION IS CHANGED AS FOLLOW:

The item *Reset Water Valve Box* shall not be measured and no separate payment will be made.

SECTION 653 - GAS

653.04 Measurement and Payment

THIS SUB-SECTION IS CHANGED AS FOLLOW:

The item *Reset Gas Valve Box* shall not be measured and no separate payment will be made.

SECTION 702 - TRAFFIC SIGNALS

702.03.09 Loop Detectors

THE FOLLOWING IS ADDED:

Loop detectors shall be installed only by certified Contractors qualified to perform this work. Prior to construction, the Contractor shall provide the name(s) of the individual(s) and/or firm that will be performing this work for review and approval by the Engineer. Installation of loop detectors shall only be done in the presence of the Engineer, or his duly appointed representative. Loop detectors shall be saw cut, placed and sealed in the milled surface prior to the new hot mix asphalt concrete surface course being placed.

Loop inductance readings shall be made prior to sealing the loop trench. In the event the loops are sealed before the inductance readings are made, reviewed and accepted by the Engineer, the Contractor shall reopen the trench and adjust the number of turns to achieve the required inductance. This shall be done without additional compensation.

Loop detector wire shall conform to IMSA Specifications No. 51-5-1984 and the size shall be No. 14 AWG. When installing loop wire in the conduit stub through the curb, its location shall be marked by Saw-cutting the curb at its actual location.

THE FOLLOWING SUBPARTS ARE ADDED:

702.03.13 Video Detection System with Modem

One video detector assembly shall be installed opposite each intersection approach under this contract. This item shall consist of furnishing and installing the video detector assembly on a traffic signal mast arm, mounting hardware, the drilling of the traffic signal mast arm, installing the grommet, video pigtail cable with round locking-type military style connector from the video detector assembly to the base of the traffic signal assembly and be incorporated into a video detection system as described hereafter. All assemblies shall be enclosed in weather tight aluminum housing.

All mounting brackets and hardware shall be finished to match the color of the single member arm and shaft assemblies upon which they will be mounted.

702.03.13 Resetting Junction Box Castings

Where indicated or directed, reset existing junction box castings by removing the castings, removing the junction box walls as needed and setting the casting to the required grade with mortar.

702.04 MEASUREMENT AND PAYMENT

THE FOLLOWING IS ADDED AT THE END OF THE SUBSECTION:

The unit price for Image Detector shall include providing wiring connections to the controller cabinet, using cable supplied by the manufacture. No separate payment for this wire will be made. Payment for this item will be made on a unit basis per intersection furnished and installed at the unit price bid for the items IMAGE DETECTOR in the bidding sheets. Separate payment will not be made for image detection controller units installed in the signal control cabinet. All costs thereof shall be included in the unit price bid for IMAGE DETECTOR.

SECTION 802 – TRIMMING AND REMOVING TREES

802.1 DESCRIPTION

This Section describes the requirements for removing trees and defective or undesirable limbs and for repairing injuries or wounds on existing trees.

802.2 MATERIALS

Provide materials as specified:

Topsoil	<u>917.01</u>
Fertilizer, 1-2-1 Ratio	<u>917.03</u>
Grass Seed Mixture (Type A-3)	917.05.01
Mulch	<u>917.06</u>
Disinfectant	<u>917.11.01</u>
Herbicide	917.11.03

802.3 CONSTRUCTION

802.3.1 Trimming Existing Trees

Notify the RE 3 days before beginning work. The Department will designate trees to be trimmed. Ensure that tree trimming is supervised by a skilled person. At least 7 days before beginning the work, submit the name and qualifications to the RE for approval.

Remove all dead, dying, diseased, interfering, objectionable, and weak branches. Do not remove healthy low branches unless directed. When removing the lower bottom branches of trees for underclearance, ensure a symmetrical appearance and minimize cuts to ensure normal sap flow.

Make clean cuts as close as possible to the trunk or parent limb, without cutting into the branch collar or leaving a protruding stub, so that closure can start. Cut branches that are too heavy to handle in multiple sections to prevent splitting or peeling of the bark. Where necessary, lower branches to the ground by ropes or equipment to prevent tree or property damage.

On trees known to be diseased, disinfect tools after each cut when there is a danger of transmitting the disease on tools.

Inspect old injuries, and trace those not closing properly and where callus growth is not already completely established.

Reuse waste material and debris resulting from trimming existing trees as specified in 202.03.07.A.

802.3.2 Removing Existing Trees

Notify the RE 3 days before beginning work. The Department will designate trees to be removed. Ensure that tree trimming is supervised by a person skilled in the work. At least 7 days before beginning the work, submit the name and qualifications to the RE for approval.

Fell trees to prevent damage to adjacent vegetation, structures, utility wires, and property. Remove trees and their stumps to at least 6 inches below the existing ground surface. Backfill stump holes with topsoil, and fertilize, seed, and mulch the area as specified in 806.03.01. In wooded areas and on slopes of 2H:1V or steeper, cut off stumps at the existing ground surface. Treat live stumps with herbicide immediately after cutting. If suckering occurs, apply herbicides or perform mechanical operations to ensure that regrowth does not occur.

Repair damage to remaining trees and vegetation as directed by the RE. Repair damaged turf areas as specified in 806.03.01.

Reuse waste material and debris resulting from tree removal as specified in 202.03.07.A.

802.04 MEASUREMENT AND PAYMENT

The Department will measure and make payment for Items as follows:

Item	Pay Unit
TRIMMING EXISTING TREE, OVER" TO" DIAMETER	UNIT
TRIMMING EXISTING TREE, OVER 36" DIAMETER	UNIT
TREE REMOVAL, OVER" TO" DIAMETER	UNIT
TREE REMOVAL, OVER 36" DIAMETER	UNIT

Additional Reference Material

Item Number List

The Department will determine the quantity of TRIMMING EXISTING TREES, OVER____" TO____" DIAMETER and TREE REMOVAL, OVER____" TO____" DIAMETER by the number of trees in each diameter category. The Department will measure the diameter of the tree 4-1/2 feet above the ground.

SECTION 901 - AGGREGATES

901.10.03 Virgin and RAP Mixture

3. Density Control

THE FOLLOWING IS **ADDED**:

When AASHTO T 310 (Direct Transmission Method, nuclear gauge method for measuring density and moisture content) is used to perform Compaction Acceptance Testing (Subsection 302.03.01), a representative sample of five tests for each 5,000 square yards lot will be taken.

SECTION 902 - ASPHALT

902.02.02 Composition of Mixtures

TABLE 902.02.02-2 IS CHANGED TO:

Table 902.02.02-2 Additional Fine Aggregate Requirements for HMA							
Tests	Test Method	Minimum Percent					
Uncompacted Void Content of Fine Aggregate	AASHTO T 304, Method A	45					
Sand Equivalent	AASHTO T 176	45					

902.02.04 Sampling and Testing

B. Sampling.

THIS ENTIRE PART IS CHANGED TO:

The ME will take a random sample from each 700 tons of production for volumetric acceptance testing and to verify composition. The ME will perform sampling according to AASHTO T 168, NJDOT B-2, or ASTM D 3665.

902.3.2 Mix Design

THE FOLLOWING IS ADDED TO THIS SUB-SECTION:

UNLESS OTHERWISE APPROVED BY THE ENGINEER, ONLY ONE SOURCE OF SUPPLY FOR HOT MIX ASPHALT MATERIAL MAY BE USED ON THE PROJECT.

THE FOURTH PARAGRAPH IS CHANGED TO:

The ME will test two (2) specimens to verify that the final JMF produces a mixture that has a minimum void content as specified in Table 902.03.03-1. The ME will determine percent air voids according to AASHTO T 209, and either NJDOT B-6 or AASHTO T 331.

902.3.3 Sampling and Testing

THE FOLLOWING IS ADDED TO THE FIRST PARAGRAPH:

Ensure that the mix meets the requirements as specified in 902.02.04.A, otherwise the RE or ME will reject the material.

THE SECOND PARAGRAPH IS CHANGED TO:

During production, the ME will take one random acceptance sample from each 700 tons of production to verify composition. Conduct air voids and drain down tests as directed by the ME.

THE FOURTH PARAGRAPH IS CHANGED TO:

The ME will perform sampling according to NJDOT B-2 or ASTM D 3665, and will perform testing for composition according to AASHTO T 308 or NJDOT B-5. Perform testing for air voids according to AASHTO T 209 and either NJDOT B-6 or AASHTO T 331. Perform testing for drain down according to NJDOT B-7 or NJDOT B-8.

902.04.03 Sampling and Testing

THE FIRST PARAGRAPH IS CHANGED TO:

Ensure that the mix meets the requirements as specified in 902.02.04.A, otherwise the RE or ME will reject the material. Maintain the temperature of the mix between 300 °F and 330 °F. Perform and meet requirements for quality control testing as specified in 902.02.04.C.

THE SECOND PARAGRAPH IS CHANGED TO:

During production, the ME will take one random acceptance sample from each 700 tons of production to verify composition. Conduct drain down tests as directed by the ME.

902.5.1 Composition of Mixture

THE FIFTH PARAGRAPH IS CHANGED TO:

For fine aggregate, use stone sand conforming to 901.05.02. Ensure that the combined fine aggregate in the mixture conforms to the requirements in Table 902.02.02-2.

902.5.2 Mix Design

THE FIRST PARAGRAPH IS CHANGED TO:

Design the SMA to meet the requirements in Table 902.05.02-1 and Table 902.05.02-2. Prepare the JMF according to AASHTO R 46. Determine the JMF at 4 percent air voids and 75 gyrations of the Superpave gyratory compactor.

TABLE 902.05.02-2 IS CHANGED TO:

Table 902.05.02-2 SMA Mixtures Volumetric For Design and Plant Production						
Property	Production Control Tolerances	Requirement				
Air Voids	±1%	4.0%				
Voids in Mineral Aggregate (VMA)	_	17.0% minimum				
VCA _{mix}	_	Less than VCA _{dry}				
Drain down @ production temperature	_	0.30% maximum				
Asphalt Binder Content (NJDOT B-5)	±0.15%	6% minimum				
Asphalt Binder Content (AASHTO T 308)	$\pm 0.40\%$	6% minimum				
Tensile Strength Ratio (AASHTO T 283)	-	80% minimum				

902.5.3 Sampling and Testing

THE FOLLOWING IS ADDED TO THE FIRST PARAGRAPH:

Ensure that the mix meets the requirements as specified in 902.02.04.A, otherwise the RE or ME will reject the material.

THE SECOND PARAGRAPH IS CHANGED TO:

During production at the plant, the ME will take a sample from each 700 tons of production to verify composition and air voids. Conduct drain down, VCAmix, VCAdry, and VMA testing as directed by the ME. Perform tests according to AASHTO R 46.

THE FOURTH PARAGRAPH IS CHANGED TO:

The ME will perform sampling according to NJDOT B-2 or ASTM D 3665, and will perform testing for composition according to AASHTO T 308, or NJDOT B-5. The ME will determine bulk specific gravity of the compacted sample according to AASHTO T 166 or AASHTO T 331. The ME will use the most current QC maximum specific gravity test result, obtained according to AASHTO T 209, in calculating the volumetric properties of the SMA. Perform testing for drain down according to AASHTO T 305.

902.06.03 Sampling and Testing

THE FOLLOWING IS ADDED TO THE FIRST PARAGRAPH:

Ensure that the mix meets the requirements as specified in 902.02.04.A, except that the temperature of the mix at discharge is required to be between 230 °F and 275 °F, otherwise the RE or ME will reject the material.

THE SECOND PARAGRAPH IS CHANGED TO:

During production, the ME will take one random acceptance sample from each 700 tons of production to verify composition. Conduct drain down tests as directed by the ME.

SECTION 903 - CONCRETE

903.02 Chemical Admixtures.

903.02.05 Corrosion Inhibitor Admixture

THE FOLLOWING IS ADDED:

Corrosion inhibitor products that are to be used in the fabrication of concrete items shall be as follows:

903.07 Quick-Setting Patch Materials

Use quick-setting patch material that is listed on the qualified products list (QPL) and is ready for mixing according to the manufacturer's recommendations. Follow the manufacturer's recommendations regarding the required water demand for the patching material. Use patching material that is concrete gray in color and contains no calcium chloride or other ingredients that cause corrosion to steel reinforcement. If adding coarse aggregate to patching material, use broken stone conforming to 901.03.01. Ensure that the material is quick-setting for use in concrete patching where fast setting, rapid strength gain, non-shrink, and high bond strength characteristics are needed. The materials engineer (ME) will add products to the QPL only after testing and evaluation in the field, after service for 1 year.

The classifications for quick-setting patch materials are as follows:

- 9. **Type 1A.** Suitable for use above water. Type 1A products have manufacturer specified mix proportions with aggregates that would preclude it from being classified as a Type 1. The ME will approve the mix proportions before adding the material to the QPL. The manufacturer shall provide mixing proportions, including the required type and size of aggregate and the proportion of patching material, aggregate/sand, and water. At least 10 days before the start of placement, propose aggregates for verification trial batching based on the manufacturer's pre-approved proportions. The ME will verify that the proposed quick setting patch mixture meets the required physical properties.
- 10. **Type 1B.** Suitable for use above water. Type 1B products are those products that have course aggregate, sand, or both pre-packaged with the cementitious material. The ME will test this material, including a field trial, prior to adding it to the QPL. The manufacturer shall designate the amount of aggregate and shall maintain the total aggregate within ±10 percent of this stated amount. The ME will randomly test the aggregate to ensure that the overall percentage of aggregate is within ±10 percent of the total and that the gradation on individual sieves does not vary more than ±10 percent from the gradation of the originally approved sample. The manufacturer shall use an aggregate supplier that is listed on the QPL. The ME will disapprove quick-setting patch material that fails to comply with the aggregate consistency requirements. If the manufacturer makes any changes to the formulation, the ME will require that the material be resubmitted for approval. Do not add additional aggregate in the field.

If liquid activator, other additives, adhesive, or bonding agents are integral to the performance of the patch material, the manufacturer shall provide the material so that 1 package of additive, activator, adhesive or bonding agent is required for 1 package of patch material. Mix patch material as specified in 903.03.04.

Use quick setting patch material that meets the requirements in <u>Table 903.07-1</u> when tested according to <u>NJDOT C-2</u>. Mix quick-setting patch according to the manufacturer's recommendations.

Table 903.07-1 Requirements for Quick Setting Patch Material Type 1A and 1B

Bond Strength

7-day (minimum)	1000 psi
28-day (minimum)	2000 psi
Expansion/ Shrinkage	
Cured in Water (maximum)	+0.20%
Cured in Air (maximum)	-0.20%
Difference (maximum)	0.30%
Durability	
Retained strength at 50 cycles (minimum)	90%
Visual condition rating at 50 cycles (maximum)	3
Permeability (maximum chloride content at 2 inches)	$2.5 \mathrm{lbs/yd^3}$
Compressive Strength	
3-hour (minimum)	2000 psi
1-day (minimum)	3000 psi
7-day (minimum)	4000 psi
28-day (minimum)	4500 psi
Time of Set in minutes (minimum)	15

THE FOLLOWING IS ADDED:

903.11 Membrane Waterproofing

As per the Manufacturer's Specifications

(NOT FOR USE WITH COLORED CONCRETE PRODUCTS)

Calcium Nitrite Based as produced by W.R. Grace & Company 2133 85th Street North Bergen, NJ 07047

Telephone: 201-869-5220

Calcium Nitrite Based as produced by The Euclid Chemical Company 5 Joanna Court

East Brunswick, NJ 08816 Telephone: 732-390-9770

Calcium Nitrite Based as produced by

Master Builders Inc. 798 Welsh Road

Huntingdon Valley, PA 19006 Telephone: 215-938-7501 Calcium Nitrite Based as produced by SIKA Corporation 201 Polito Avenue Lyndhurst, NJ 07071 Telephone: 800 - 933 - SIKA (7452)

Calcium Nitrite Based as produced by Great Eastern Technologies, LLC "Chem Strong CI" 515 Route 528 P. O. Box 3015 Lakewood, NJ 08701 Telephone: 888 - 452 – 9348

SECTION 911 - SIGNS, SIGN SUPPORTS, AND DELINEATORS

911.02.02 Breakaway Sign Supports for Ground Mounted Signs

THE ENTIRE SUBPART IS CHANGED TO:

Fabricate and construct breakaway sign supports for ground-mounted signs using materials conforming to the requirements in Table 911.02.02-1.

Table 911.02.02-1 Materials for Breakaway Sign Supports							
Item	Test Method	Type or Grade	Galvanizing				
Aluminum Materials (other than bracket)	911.01.01						
Bracket	B308	6061-T6					
Structural steel shapes	ASTM A709	Grade 36	ASTM A123				
Steel Sheet	ASTM A1011	Grade 36	ASTM A 653				
Bolts (except special bolt for coupling)	ASTM A325		ASTM A153				
Special bolt for coupling	ASTM A449		ASTM A153				
Cap Screw	ASTM A307		ASTM A153				
Lock Washer	ANSI B18-21-1		ASTM A153				
Nut	ASTM A563	Grade DH	ASTM A153				
Coupling	AMS 6378 F		ASTM A153				
Steel Hinge Plate	AISI 4130		ASTM 123				
Anchor Rod	AISI 1045						
Anchor Coil	AISI 1008						
Anchor Washer	908.04						
Anchor Ferrule	908.04						

Submit mill certificates for the component materials.

SECTION 912 - PAINTING, COATINGS, TRAFFIC STRIPES AND TRAFFIC MARKINGS

912.03.01 Epoxy Traffic Stripes

THE SUBPART HEADING IS CHANGED TO:

912.3.1 Traffic Stripes

B. Glass Beads.

THE FIRST PARAGRAPH IS CHANGED TO:

Submit certifications of compliance as specified in 106.07 for each lot of glass beads used on the Contract. For each lot of glass beads, submit test results indicating the parts per million of lead, antimony and arsenic as determined by testing according to Environmental Protection Agency testing method 3052 and testing method 6010B or 6010C. Ensure that glass beads do not contain more than 200 ppm of lead, 200 ppm of antimony, or 100 ppm of arsenic.

912.3.2 Thermoplastic Traffic Markings

THE SUBPART HEADING IS CHANGED TO:

912.3.2 Traffic Markings

THE SUB-SECTION SHALL BE REVISED AS FOLLOWS:

For traffic markings, use either preformed or hot extruded thermoplastic conforming to AASHTO M 249, except that for preformed thermoplastic, the minimum thickness requirement is 90 mils. Use beads conforming to AASHTO M 247, Type 1, with a moisture resistant coating. Ensure that glass beads do not contain more than 200 ppm of lead, 200 ppm of antimony, or 100 ppm of arsenic.

Submit certifications of compliance, as specified in 106.07, for each batch of materials used on the Contract. For each lot of glass beads, submit test results indicating the parts per million of lead, antimony and arsenic as determined by testing according to Environmental Protection Agency testing method 3052 and testing method 6010B or 6010C.

Thermoplastic for long-life traffic markings shall be hot extruded material. Thermoplastic material shall be applied to the road surface in a molten state by the *Ribbon/Extrude Method*, whereby, the suspended extrusion die has multi (four) sided control of the flow and shape of the materials. The thermoplastic shall conform to the requirements of AASHTO M 249, except as follows:

- 1. All thermoplastic material shall be applied at a *thickness of 125 mils*.
- 2. For white, the composition of the mixture shall be as follows:

Component	Percent by weight
Resin/Binder	22-26 percent
Glass Beads (pre-mix)	30 percent minimum
White Pigment	10 percent minimum
Calcium Carbonate and Inert Fillers	
(shall not contain silica other than as glass beads)	34-38 percent

3. Only yellow non-lead formulas shall be used, the composition of the mixture shall be as follows:

Component	Percent by weight
Resin/Binder	22-26 percent
Glass Beads (pre-mix)	30 percent minimum
Yellow Pigment	
Calcium Carbonate and Inert Fillers	_
(shall not contain silica other than as glass beads)	

The yellow material's combined totals of lead, cadmium, mercury, and hexavalent chromium shall not exceed 100 parts per million. The thermoplastic manufacturer shall certify, according to Sub-section 106.04, that the material will meet the requirements specified.

The material, when formed into traffic stripes & markings, shall be readily renewable by placing an overlay of new material directly upon an existing line of the same material. Such new material shall bond itself to the existing line in such a manner to avoid splitting and or separation. The thermoplastic material shall not deteriorate on contact with the following: Sodium Chloride, Calcium Chloride, or other de-icing chemicals; oil contents of paving materials and or vehicles.

912.3.3 Raised Pavement Markers (RPM)

THE FOLLOWING SUBSECTION HAS BEEN REPLACED IN ITS ENTIRETY AS FOLLOWS:

1.1 **REOUIREMENTS**

The marker shall meet the following specified requirements:

<u>1.2</u> Color

1.1.1 The marker body shall be produced in black. The color of the retroreflective lens shall be white, yellow, red, or as specified.

1.3 **Dimensions**

1.2.1 The typical dimensions of the marker shall be:

<u>Model</u>	190		19	94	198		
Height	0.4 in.	(10 mm)	0.52 in.	(13 mm)	0.4 in.	(10 mm)	
Width	1.9 in.	(48 mm)			1.65 in.	(42 mm)	
Length	3.95 in.	(100 mm)	3.9 in.	(99 mm)	3.95 in.	(100 mm)	
Face Angle	30°		35°		30 °		
Pad Thickness	.04 in.	(1.0 mm)			.04 in.	(1.0 mm)	
Footprint			0.23 in.	(5.8 mm)			

<u>1.4</u> Test Conditions

1.4.1 Unless otherwise specified, all test specimens shall be conditioned for 24 hours at $73.4^{\circ} F + 3.6^{\circ} F$ ($23.0^{\circ} C + 2.0^{\circ} C$)

1.5 Type Retroreflectance

1.5.1 Type retroreflectance refers to marker luminance measured using simplified viewing conditions as convenient means of describing uniformity of marker characteristics for quality control purposes when specifying a unique marker type. The white, yellow/amber, red, blue, or green markers shall have initial minimum retroreflectance values specified as the product of Tables 1 and 2 when measured in accordance with ASTM E809. The photometric quantity to be measured is the coefficient of retroreflected luminous intensity (R_I), expressed as millicandelas per lux (mcd/lx). One candela per lux equals 10.76 candelas per footcandle.

Table 1, Minimum R_I Values

Entrance angle $(\beta_2 = \beta_1 = 0^\circ)$	0°	±20°
Observation angle:	.2°	.2°
Minimum R _I (cd/ftcd)	3.0	1.2
Minimum R _I (mcd/lx)	279	112

Table 2, Color Multiplying Factors

			-		
Color	White	Yellow/Amber	Red	Blue	Green
Multiplying	1	0.6	0.25	0.1	0.33
Factor					

Performance Retroreflectance: Performance retroreflectance refers to marker luminance as viewed by the driver under standardized road and vehicle conditions. This property is often called "Driver Geometry Retroreflection." Measurement under simulated use conditions ensures that all geometric viewing angles are taken into account during testing, including the rotation angle, which is an important consideration when evaluating markers with prismatic retroreflective lenses. The markers shall have initial minimum retroreflectance values specified as the product of Table 2 and Table 3 when measured in accordance with ASTM E809. The photometric quantity to be measured is the coefficient of retroreflected luminous intensity (R_I),

expressed as millicandelas per lux (mcd/lx). One candela per lux equals 10.76 candelas per footcandle.

In Table 3, the angles referenced correspond to the entrance, rotation, and observation geometry for a driver in a standard vehicle with pavement markers placed on a lane line to the left of the vehicle. The measured value at each simulated distance is the sum of the marker coefficient of retroreflected luminous intensity from when illuminated by the simulated left and right headlights. Test set up and measurement geometry is illustrated in Figure 1.

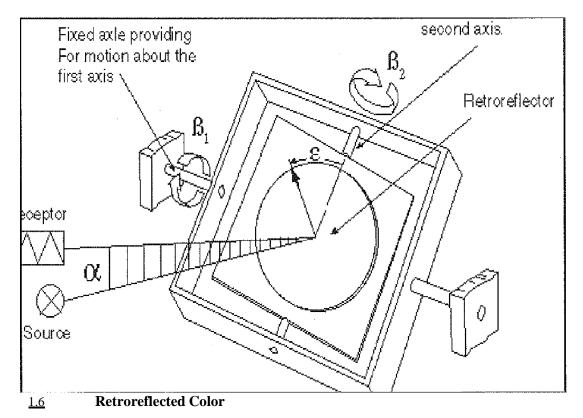
Table 3, R _I "Driver Geometry"

	alated ance Meters	Headlight	Observation Angle (α) (degrees)			Minimum R _I (mcd/lux) left + right	
100	30	Left	0.95	19	-2.0	-1.6	40
		Right	2.91	-72	4.6	-2.9	
300	91	Left	0.35	24	-0.7	-0.5	350
		Right	0.90	-69	1.4	-1.0	
500	152	Left	0.22	24	-0.4	-0.3	600
		Right	0.53	-68	0.8	-0.6	

Note: In laboratory testing Entrance Angles β_1 and β_2 are set to equal 0° and Left/Right Rotation

Angles ϵ are set to 20 °/-70 ° as an approximation with little loss of accuracy.

Figure 1, Driver Geometry (CIE Notation)



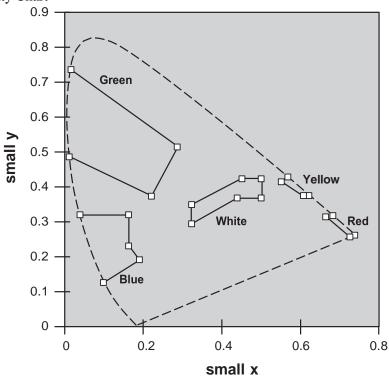
1.6.1 The retroreflected color of the markers shall lie within the respective retroreflected color gamut coordinates, plotted on the 1931 CIE Chromaticity (*x*, *y*) diagram, described in Table 3 and Figure 1 when tested in accordance with ASTM E811 using CIE Illuminant Source A and viewing conditions of 0.2° observation angle, 0° entrance angle. The source and receptor angular apertures shall each be 6 minutes of arc.

Table 4, Retroreflected Color Gamut Coordinates

	Wł	nite	Yel	low	Re	ed	Gre	een	Bl	ue
Point Number	X	у	X	у	X	у	X	у	X	у
1	0.310	0.348	0.545	0.424	0.650	0.330	0.009	0.733	0.039	0.320
2	0.453	0.440	0.599	0.439	0.668	0.330	0.288	0.520	0.160	0.320
3	0.500	0.440	0.609	0.390	0.734	0.265	0.209	0.395	0.160	0.240
4	0.500	0.380	0.597	0.390	0.721	0.259	0.012	0.494	0.183	0.218
5	0.440	0.380	-	-	-	-	-	-	0.088	0.142
6	0.310	0.283	-	-	-	-	-	-	-	-

If two points lie on the spectrum locus line, they must not be connected by a straight line, but rather should, in this case, be joined by the boundary of the spectrum locus.

Figure 1, CIE 1931 Chromaticity Chart



1.7 Adhesive Bond Strength

1.7.1 The adhesive bond strength for replacement markers (not installed in holders) will not be less than .08 MPa (12 psi) when measured in accordance with ASTM D4383.

1.8 Compressive Strength

1.8.1 The marker shall support a load of 2721kg (6,000 lbs) without breakage or significant deformation of the marker when tested in accordance with ASTM D4383. It is understood that significant deformation of the marker shall be 0.13 in. (3.2 mm).

a. Scratch Resistance

1.8.1 The marker shall meet ASTM D 4383-96 scratch resistance test. The coefficient of retroreflected luminous intensity of the markers shall be measured after subjecting the entire lens surface to 100 rubs with a 1 in. (25.4 mm) diameter flat pad of No. 3 coarse steel wool conforming to Federal Specification FF-W-1825A. A load of 50 ± 0.5 lb. (22 ± 2.0 kg.) is applied to the steel wool pad during testing. The markers shall meet the minimum retroreflective values specified as the product of values shown in Tables 1&2 and Tables 3&2.

1.9 Abrasion Resistance

1.9.1 The coefficient of retroreflected luminous intensity of the markers shall be measured after subjecting the entire lens surface to 100 grams per square centimeter of falling silica carbide per ASTM D968. The markers shall meet the minimum retroreflective values specified as the product of values shown in Tables 1&2 and Tables 3&2. Note: the marker will require indexing across the test plate to ensure all areas of the lens are subjected to the falling silica carbide.

a. Temperature Resistance

2.0.1 The marker shall comply with the initial minimum brightness requirements as specified as the product of values shown in Tables 1&2 after conditioning for 12 hours at $145^{\circ}F \pm 5^{\circ}F$ (62.7°C $\pm 2.5^{\circ}C$).

b. Impact Resistance

- 2.1.1 The marker shall pass both Level 1 and Level 2 tests for meeting the high performance impact resistance standard to insure a long life marker.
 - 2.1.1.1 <u>Level 1 Impact Test: Standard Specification.</u> The marker shall meet ASTM D4383-96 impact resistance test minimum requirement.

2.1.1.2 <u>Level 2 Impact Test: Performance Specification.</u>

The marker body shall display no cracking or breakage outside the impact area when tested according to ASTM D2444 Tup A, using a 1000 gm weight from a height of 1 meter. The marker shall be positioned in such a way that the Tup strikes top of the marker.

The marker lens shall display no cracking outside the impact area greater than ¼" (0.635 cm) when tested according to ASTM D2444 Tup A, using a 1000 gm weight from a height of 1 meter. The marker shall be placed in a fixture designed to hold the marker lens horizontal and positioned such that the TUP strikes the center of the lens.

2.2 Resistance to Penetration of Water

2.2.1 The markers shall be conditioned for 10 minutes at 145°F ± 5°F (62.7°C ± 2.5°C) and then immediately submerged in a water bath at 70°F ± 5°F (21°C ± 2.5°C) for 10 minutes. The markers should then be removed from the water bath, wiped dry with a soft cloth, visually inspected for penetration of water behind the lens, and measured for reflectivity in accordance with ASTM E809. The markers shall meet the initial minimum retroreflectance specified as the product of values shown values in Tables 1 & 2.

912.04 Temporary Traffic Stripes and Markings

912.4 Latex Paint

THE FOLLOWING SHALL BE ADDED TO THE BEGINNING OF THIS SUBPART:

Latex Traffic Paint shall only be utilized and accepted for use as temporary striping & marking of milled surfaces. All other striping & markings shall conform to Sub-sections 912.10.C, as amended herein. Temporary traffic marking tape may also be used; however, product will require approval of the Engineer, prior to any use.

912.4.1 Latex Paint

THE ENTIRE SUBPART TEXT IS CHANGED TO:

For temporary traffic stripes, use latex traffic paint that is a fast-drying white, or non-lead yellow, ready-mixed pigmented binder emulsified in water and capable of anchoring reflective glass beads that are separately applied. Ensure that the color matches FED-STD-595B color chip No. 33538 for yellow and No. 37886 for white. Ensure that the paint has a maximum no-track time of 120 seconds when applied in a wet film thickness of 15 ± 1 mil, at 140 °F, and with 12 pounds per gallon of glass beads. In addition, ensure that the finished product meets the following:

- 1. Volume of solids is a minimum 61 percent.
- 2. Total solids are a minimum of 77.5 percent total non-volatiles by weight, when tested according to ASTM D 2369.
- 3. Weight per gallon is a minimum 14 ± 0.2 pounds per gallon for each color.
- 4. Hegman Grind is a minimum of 2 Hegman when tested according to ASTM D 1210.
- 5. Viscosity is between 70 and 95 Krebs Units at 77 °F, when tested according to ASTM D 562.

Use glass beads conforming to AASHTO M247, Type 1, with a moisture resistance coating. Ensure that glass beads do not contain more than 200 ppm of lead, 200 ppm of antimony, or 100 ppm of arsenic.

Submit a certification of compliance, as specified in 106.07, for latex and glass beads. For each lot of glass beads, submit test results indicating the parts per million of lead, antimony and arsenic as determined by testing according to Environmental Protection Agency testing method 3052 and testing method 6010B or 6010C.

SECTION 914 – JOINT MATERIALS

914.03 POLYMERIZED JOINT ADHESIVE

TABLE 914.03-1 IS CHANGED TO:

Table 914.03-1 Requirements for Polymerized Joint Adhesive						
Property	Test Method	Requirement				
Cone Penetration, 25 °C	ASTM D 5329	60-100				
Flow, 60 °C	ASTM D 5329	5 mm maximum				
Resilience, 25 °C	ASTM D 5329	30% minimum				
Ductility, 4 °C	ASTM D 113	30 cm minimum				
Tensile Adhesion, 25 °C¹	ASTM D 5329	500% minimum				
Softening Point	ASTM D 36	77 °C minimum				
Asphalt Compatibility	ASTM D 5329	Pass				

^{1.} A precision estimate for this standard has not been developed, so it should not be used for acceptance or rejection of a material during product approval.

SECTION 1009 - HMA PLANT EQUIPMENT

1009.01 HMA PLANT

A. Requirements for HMA Mixing Plants.

THE FOLLOWING IS ADDED AFTER THE SECOND PARAGRAPH:

The HMA producer is required to have a quality control (QC) program plan approved annually by the ME as per Materials Approval Procedure MAP-102. The HMA producer is required to ensure that the QC plan conforms to the requirements outlined in the report entitled "Hot Mix Asphalt Quality Control Program Plan" prepared by the Department of Transportation and New Jersey Asphalt Paving Association. Failure to follow these requirements will result in rejection of HMA materials supplied by the HMA producer and removal of the HMA supplier from the QPL.

SECTION 1108 - DETECTABLE WARNINGSURFACES

General.

Detectable warnings shall consist of a surface of truncated domes aligned in a square grid pattern and shall comply with 1108.

Dome Size.

Truncated domes in a detectable warning surface shall have a base diameter of 0.9 inches (23 mm) minimum to 1.4 inches (36 mm) maximum, a top diameter of 50% of the base diameter minimum to 65% of the base diameter maximum, and a height of 0.2 inches (5 mm).

Dome Spacing.

Truncated domes in a detectable warning surface shall have a center-to-center spacing of 1.6 inches (41 mm) minimum and 2.4 inches (61 mm) maximum, and a base-to-base spacing of 0.65 inches (16 mm) minimum, measured between the most adjacent domes on square grid.

Contrast.

Detectable warning surfaces shall contrast visually with adjacent walking surfaces either light on dark or dark-on-light.

Size.

Detectable warning surfaces shall extend 24 inches (610 mm) minimum in the direction of travel and the full width of the curb ramp, landing, or blended transition.

1108.2.1 Curb Ramps and Blended Transitions.

The detectable warning surface shall be located so that the edge nearest the curb line is 6 inches (150 mm) minimum and 8 inches (205 mm) maximum from the curb line.

THE FOLLOWING IS ADDED TO THIS SECTION:

1) Material - The DWS panel is to be a homogenous glass and carbon composite which is colorfast and UC stable. Truncated domes are to be fiberglass reinforced. The DWS panel color is to be uniform throughout and shall not rely on any type of paint coating to achieve color stability.

2) Physical Characteristics:

Compressive Strength	28,900 psi	ASTM D 695
Flexural Strength	29,300 psi	ASTM D 790
Water Absorption	.07%	ASTM D 570
Slip Resistance	1.18 Dry/1.05 Wet	ASTM C 1028
Flame Spread Index	20	ASTM E 84
Salt Spray	No Change (200 hours)	ASTM B 117
Chemical Stain Testing	No Deterioration	ASTM 1308
Abrasion Resistance	549	ASTM C 501
Accelerated Weathering	Delta E \leq 5.0 (2,000 hours)	ASTM G 155
Tensile Strength	11,600 psi	ASTM D 638
Adhesion to Concrete (20° -180°)	No Delamination or Degradation	ASTM C 903
Freeze/Thaw/Heat	No Disintegration	ASTM C 1026

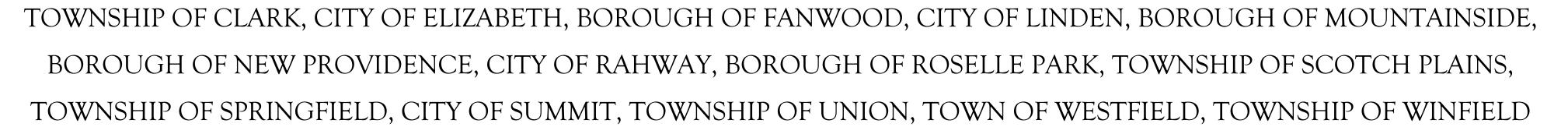
END TECHNICAL SPECIFICATIONS



COUNTY OF UNION BOARD OF CHOSEN FREEHOLDERS

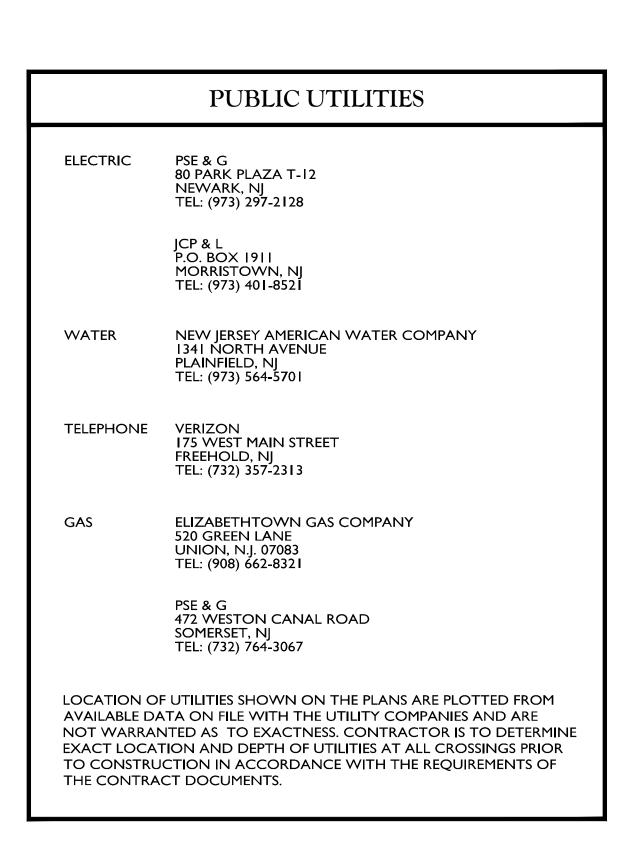
2020 ROAD RESURFACING PROJECT

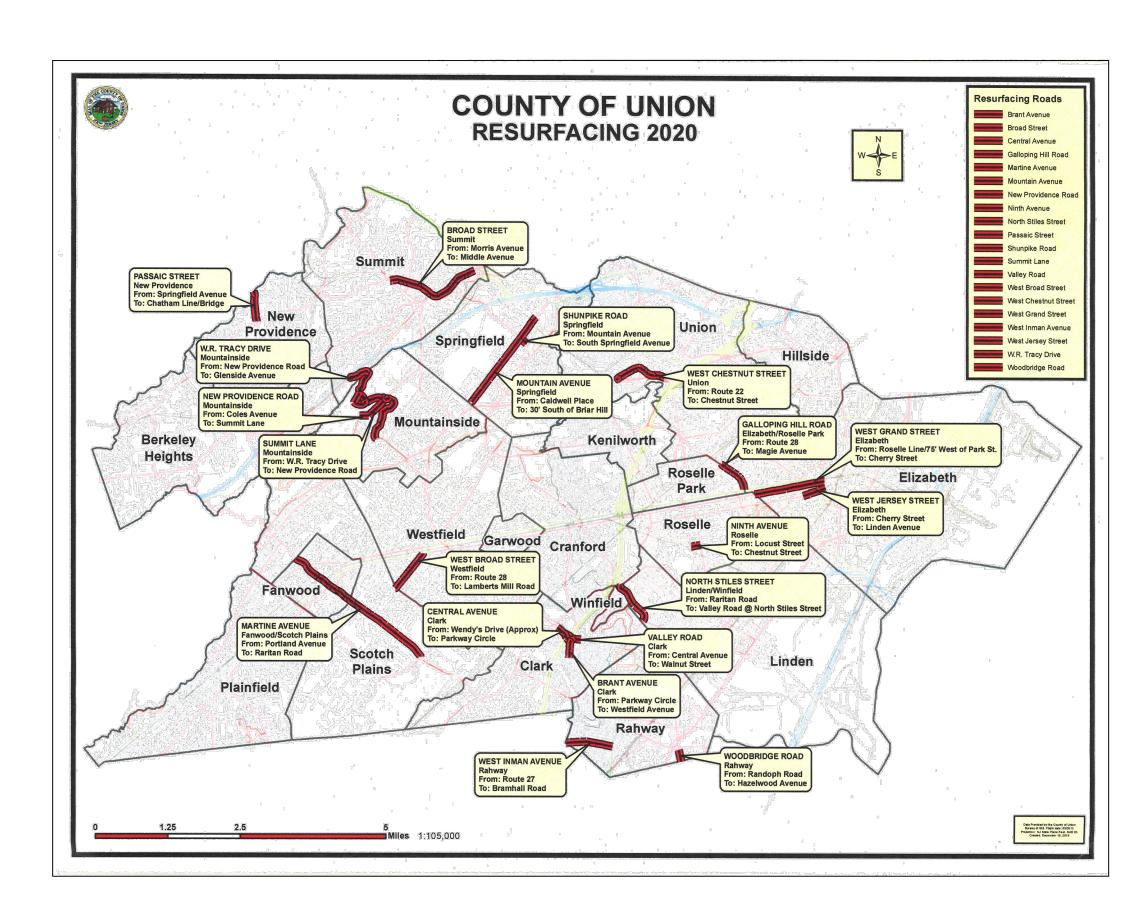
BA #47-2019; UNION COUNTY PROJECT #2018-020





UNION COUNTY, NEW JERSEY NOVEMBER 2019





	INDEX OF SHEETS						
SHT. No.	DESCRIPTION	LATEST REVISION					
1.00	COVER SHEET						
2.00	GENERAL NOTES & LEGEND						
3.00	QUANTITY TABLE & TYPICAL CROSS SECTION						
4.00 - 4.02	WEST INMAN AVENUE						
5.00 - 5.01	WOODBRIDGE ROAD						
6.00 - 6.02	NORTH STILES STREET						
7.00 - 7.01	CENTRAL AVENUE						
8.00 - 8.01	VALLEY ROAD						
9.00 - 9.01	BRANT AVENUE						
10.00 - 10.04	MOUNTAIN AVENUE						
11.00 - 11.01	SHUNPIKE ROAD						
12.00 - 12.05	W. R. TRACY DRIVE						
13.00 - 13.02	NEW PROVIDENCE ROAD/SUMMIT LANE						
14.00 - 14.03	WEST GRAND STREET						
15.00 - 15.01	WEST JERSEY STREET						
16.00 - 16.04	BROAD STREET						
17.00 - 17.01	PASSAIC STREET						
18.00 - 18.06	MARTINE AVENUE						
19.00 - 19.02	WEST CHESTNUT STREET						
20.00 - 20.02	GALLOPING HILL ROAD						
21.00 - 21.02	WEST BROAD STREET						
22.00 - 22.07	CONSTRUCTION DETAILS						

RECOMMENDED BY:	THOMAS MINEO, P.E. COUNTY ENGINEER, UNION COUNTY_	Man	DATE 11/12/19
APPROVED BY:	EDWARD OATMAN COUNTY MANAGER, UNION COUNTY_	Edward T. Oatman	DATE 1//12/19

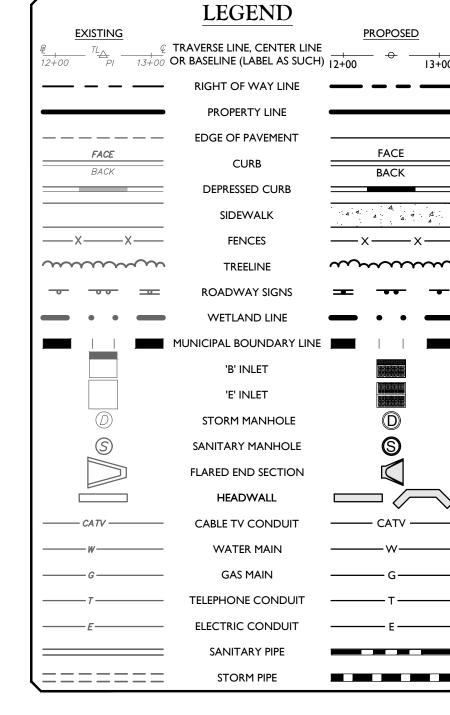
PROTECT YOURSELF ALL STATES REQUIRE NOTIFICATION OF EXCAVATORS, DESIGNERS, OR ANY PERSON	Montvale Mt. Arlington Mt. Laurel NEW YORK Albany New Windsor Westchester NEW MEXICO Albuquerque MARYLAND Columbia TEXAS College Station COLORADO Denver State of N.J. Certificate of Authorization: 24GA27986500 Copyright © 2019. Maser Consulting, All Rights Reserved. This drawing and all the information contained herein is authorized for use only by the party for whom the services were contracted or to whom it is certified. This drawing may not be copied, reused, disclosed, distributed or relied upon for any other purpose without the express written consent of Maser Consulting, P.A.									
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DRAWN BY DESCRIPTION										
REV DATE										
JOSEPH R. VENEZIA NEW JERSEY PROFESSIONAL ENGINEER - LICENSE NUMBER: GE45473										
FOR 2020 ROAD RESURFACING PROJECT UNION COUNTY PROJECT # 2018-020										
RED BANK OFFICE Corporate Headquarters 331 Newman Springs Road Suite 203 Red Bank, NJ 07701 Phone: 732.383.1950 Fax: 732.383.1984										
SCALE: DATE: DRAWN BY: CHECKED BY: AS SHOWN 11/11/19 ES JJR PROJECT NUMBER: DRAWING NAME: 19005024G C-CVER										
COVER SHEET										
SHEET NUMBER:										

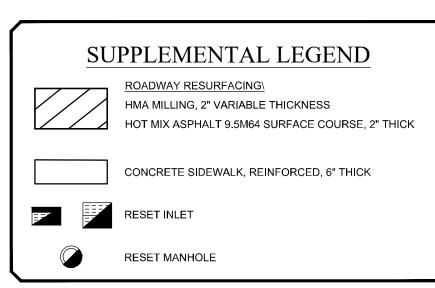
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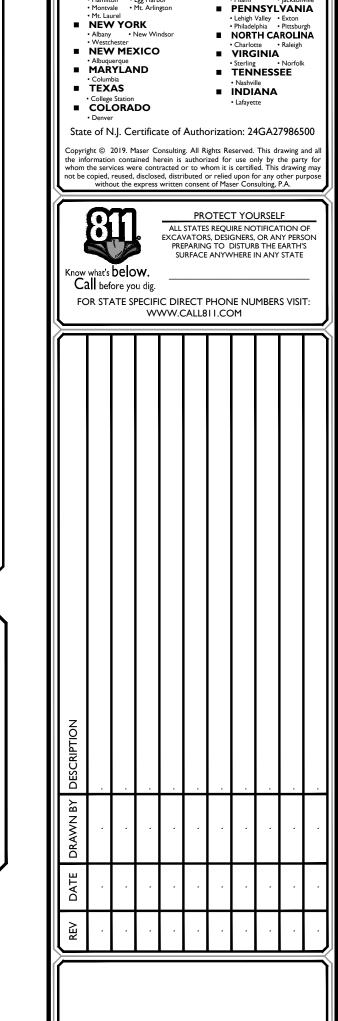
- I. CONSTRUCTION SHALL BE PERFORMED IN ACCORDANCE WITH THE 2019 NIDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AS AMENDED BY THE SUPPLEMENTARY SPECIFICATION.
- 2. TOPOGRAPHIC FEATURES SHOWN HEREON ARE BASED ON AERIAL MAPS AND ON FIELD OBSERVATIONS.
- 3. ALL DIMENSIONS AND GRADES SHOWN ON THE PLANS SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. CONTRACTOR SHALL NOTIFY OWNER OR MASER CONSULTING P.A. IF ANY DISCREPANCIES EXIST PRIOR TO PROCEEDING WITH CONSTRUCTION FOR NECESSARY PLAN OR GRADE CHANGES. NO EXTRA COMPENSATION SHALL BE PAID TO THE CONTRACTOR FOR WORK HAVING TO BE REDONE DUE TO DIMENSIONS OR GRADES SHOWN INCORRECTLY ON THESE PLANS IF SUCH NOTIFICATION HAS NOT BEEN GIVEN. ENGINEER RESERVES THE RIGHT TO CORRECT THESE DRAWINGS.
- 4. NO CONSTRUCTION ACTIVITY IS TO TAKE PLACE OUTSIDE OF THE LIMIT OF DISTURBANCE UNLESS DIRECTED BY THE ENGINEER. THE LIMIT OF DISTURBANCE IS WITHIN 2' OF THE LIMIT CONSTRUCTION.
- 5. AT THE END OF EACH WORKDAY, THE CONTRACTOR SHALL CLEAN AND REMOVE ALL CONSTRUCTION DEBRIS FROM ROADWAYS AND MAINTAIN SAFE ACCESS TO ALL HOMES AND BUSINESSES FOR PEDESTRIANS AND VEHICLES.
- 6. QUANTITIES FOR CONSTRUCT ITEMS SHOWN ARE APPROXIMATE. ENGINEER MAY ADJUST QUANTITIES IN THE FIELD.
- 7. CONTRACTOR IS RESPONSIBLE FOR VERIFICATION OF EXISTING TOPOGRAPHY AND UTILITY LOCATIONS PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION. ANY DISCREPANCIES SHALL BE PROVIDED TO THE ENGINEER IN WRITING IMMEDIATELY.
- 8. THE CONTRACTOR IS RESPONSIBLE TO CONSTRUCT THE PROJECT IN ACCORDANCE WITH THE CONTRACT DOCUMENTS. ALL PROPOSED CHANGES AFTER THE AWARD OF CONTRACT MUST BE APPROVED IN WRITING BY THE ENGINEER PRIOR TO CONSTRUCTION.
- 9. ALL ASPHALT REMOVED FROM THE PROJECT MUST BE TRANSPORTED TO AN APPROVED RECYCLING CENTER AND THE TONNAGE CERTIFIED TO THE OWNER. THERE SHALL BE NO SEPARATE PAYMENT FOR THIS EFFORT.
- 10. THE CONTRACTOR MUST NOT DEPOSIT EXCESS MATERIAL WITHIN THE MUNICIPAL LIMITS WITHOUT EXPRESS WRITTEN PERMISSION OF THE ENGINEER. THE CONTRACTOR IS RESPONSIBLE FRO THE DISPOSAL OF ALL EXCESS MATERIALS EXCAVATED AT THEIR OWN EXPENSE.
- II. ALL EXCAVATED MATERIALS ARE TO BE DISPOSED OF IN ACCORDANCE WITH NIDOT/NIDEP METHODS AND MEANS, OR TRANSPORTED AT THE DIRECTION OF THE OWNER.
- 12. SHOULD THE CONTRACTOR DISCOVER THAT THE EXISTING ROADWAY CONTAINS EXISTING CONCRETE SUBBASE OR COBBLE STONE, THEY SHALL MAKE ALL NECESSARY REQUIREMENTS FOR ITS REMOVAL WHERE REQUIRED. ALL COSTS ASSOCIATED WITH THIS SHALL BE PAID FOR UNDER EXCAVATION, UNCLASSIFIED.
- 13. THE CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORATION AND MAINTENANCE OF ALL ACCESS DRIVEWAYS AT ALL TIMES DURING CONSTRUCTION AT NO ADDITIONAL COST TO THE OWNER.
- 14. CONTRACTOR SHALL MAINTAIN ACCESS TO ALL PROPERTIES AND PROVIDE SAFE PASSAGE FOR PEDESTRIANS AT ALL TIMES DURING CONSTRUCTION.
- 15. THE CONTRACTOR SHALL MAINTAIN DUST CONTROL AT ALL TIMES DURING CONSTRUCTION AT NO ADDITIONAL COST TO THE OWNER.
- 16. CONTRACTOR SHALL KEEP THE SITE CLEAN AND SWEEP THE STREET AT THE END OF EACH WORK DAY.
- BLOCK CURB.
- 18. RESTORATION SHALL BE INCLUDED IN THE COST OF THE VARIOUS ITEMS IN THE PROPOSAL.
- 19. SUBBASE MATERIAL FOR SIDEWALKS CURB OR ASPHALT SHALL BE FREE OF ORGANICS AND OTHER UNSUITABLE MATERIALS. SHOULD SUBBASE BE DEEMED UNSUITABLE, SUBBASE IS TO BE REMOVED AND FILLED WITH APPROVED FILL MATERIAL COMPACTED TO 95% OPTIMUM DENSITY (% DETERMINED BY MODIFIED PROCTOR METHOD).
- 20. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING ALL SOFT YIELDING OR UNSUITABLE MATERIALS AND REPLACING WITH SUITABLE MATERIALS. ALL EXCAVATED OR FILLED AREAS SHALL BE COMPACTED TO 95% OF MODIFIED PROCTOR MAXIMUM DENSITY PER A.S.T.M. TEST D-1557. MOISTURE CONTENT AT TIME OF PLACEMENT SHALL NOT EXCEED 2% ABOVE NOR 3% BELOW OPTIMUM. CONTRACTOR SHALL SUBMIT A COMPACTION REPORT PREPARED BY A QUALIFIED, LICENSED, SOILS ENGINEER, CERTIFYING THAT THE SUBBASE WITHIN THE AREAS TO BE PAVED HAS BEEN COMPACTED IN ACCORDANCE WITH THESE PLANS AND SPECIFICATIONS.
- 21. THESE PLANS DO NOT PROVIDE FOR ANY STOCKPILE AREAS, IF THE CONTRACTOR OBTAINS ANY LOCATIONS FOR STOCKPILING THE ERODIBLE MATERIAL FOR THIS PROJECT, IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO HAVE A NJ LICENSED PROFESSIONAL ENGINEER PREPARE SOIL EROSION AND SEDIMENT CONTROL PLANS AND TO APPLY FOR AND OBTAIN PLAN CERTIFICATION FROM THE SOMERSET-UNION SOIL CONSERVATION DISTRICT.
- CLEARING SITE, INCLUDING TREE STUMPS IN THE RIGHT-OF-WAY FOR THE EXTENT OF THE PROIECT AREA, INCLUDE ALL COSTS FOR THE ABOVE IN THE VARIOUS ITEMS IN THE PROPOSAL.
- 23. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING UTILITY COMPANIES TO DETERMINE EACH COMPANY'S SCHEDULE FOR THE RELOCATING AND/OR RESETTING THEIR FACILITIES. THE CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR COORDINATING UTILITY WORK SO THAT ANY CONTRACT WORK TO BE PERFORMED BY THE CONTRACTOR DOES NOT INTERFERE WITH OR DELAY THE EFFORTS OF THE UTILITY COMPANIES.
- 24. EXISTING UTILITY INFORMATION SHOWN HEREON HAS BEEN COLLECTED FROM VARIOUS SOURCES AND IS NOT GUARANTEED AS TO ACCURACY OR COMPLETENESS. THE CONTRACTOR SHALL CONTACT THE SAFE DIG HOTLINE (I-800-272-1000) AND VERIFY ALL INFORMATION TO HIS SATISFACTION PRIOR TO ANY EXCAVATION. WHERE EXISTING UTILITIES ARE TO BE CROSSED BY PROPOSED CONSTRUCTION, TEST PITS SHALL BE DUG BY THE CONTRACTOR TO ASCERTAIN EXISTING INVERTS, MATERIALS AND SIZE. TEST PIT INFORMATION SHALL BE GIVEN TO THE ENGINEER PRIOR TO 64. TRAFFIC DIRECTORS, UNIFORM POLICE SHALL BE COORDINATED WITH EACH MUNICIPALITY, AS NEEDED. CONSTRUCTION TO PERMIT ADJUSTMENTS AS MAY BE REQUIRED TO AVOID UTILITY CONFLICTS.
- 25. CONTRACTOR SHALL PROVIDE AND MAINTAIN TEMPORARY RAMPS AROUND ALL EXPOSED UTILITY CASTINGS, BOTH PUBLIC AND PRIVATE WHICH HAVE BEEN UNCOVERED DURING CONSTRUCTION.
- 26. THE CONTRACTOR IS RESPONSIBLE FOR LOCATING EXISTING TRAFFIC SIGNAL LOOP DETECTORS AND LEADS. ONCE IDENTIFIED, THE CONTRACTOR SHALL NOTIFY THE ENGINEER AND WHEN GIVEN THE DIRECTION, TO REMOVE. THE CONTRACTOR SHALL NOT REMOVE LOOP DETECTORS AND LEADS UNLESS HE IS DIRECTED TO BY THE ENGINEER.
- 27. PRIVATE UTILITY COMPANIES MUST BE CONTACTED BY THE CONTRACTOR SO THAT PRIVATELY OWNED CASTINGS WILL BE RESET AS REQUIRED.
- 28. ALL GAS AND WATER VALVES, MANHOLES, AND INLETS SHALL BE RESET TO FINISH GRADE.
- 29. DENSE GRADED AGGREGATE BASE COURSE SHALL BE INSTALLED IF & WHERE DIRECTED.
- 30. TACK COAT SHALL BE IN ACCORDANCE WITH SECTION 401.03.02.
- 31. INSTALLATION OF HOT MIX ASPHALT SURFACE COURSE SHALL NOT BE PERMITTED UNTIL THE BASE COURSE IS APPROVED BY THE ENGINEER. THE ENGINEER MAY DIRECT THE CONTRACTOR TO MAKE CORRECTIVE MEASURES TO THE BASE COURSE PRIOR TO THE INSTALLATION OF THE SURFACE COURSE AT NO ADDITIONAL COST TO THE OWNER.
- 32. UNLESS ECHELON PAVING IS USED, ALL JOINTS RESULTING FROM THE PAVING OPERATIONS SHALL BE CONSIDERED COLD JOINTS AND POLYMERIZED JOINT ADHESIVE SHALL BE APPLIED IN ACCORDANCE WITH THE NJDOT SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, 2007, UNDER SUBSECTION 401.03.03 E. I.b COLD JOINT PAVING.
- 33. THE MAXIMUM LENGTH OF LONGITUDINAL COLD JOINT IS 300 FEET OR UP TO 500 FEET IF DIRECTED BY THE ENGINEER. NO LONGITUDINAL COLD JOINTS ARE TO BE LEFT EXPOSED AT THE END OF THE DAY'S WORK OR OVERNIGHT.
- 34. CONTRACTOR SHALL MAINTAIN EXISTING DRAINAGE PATTERNS WHEN RECONSTRUCTING OR OVERLAYING UNLESS OTHERWISE SHOWN OR DIRECTED BY THE ENGINEER. CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY QUESTIONABLE DRAINAGE AREAS SO THAT FIELD ADJUSTMENTS CAN BE MADE TO ELIMINATE PONDING.
- 35. EXISTING GUTTERLINE GRADES ARE TO BE MAINTAINED EXCEPT AS OTHERWISE SHOWN ON PLAN OR DIRECTED BY THE ENGINEER.

- 36. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING POSITIVE DRAINAGE DURING AND AFTER CONSTRUCTION. ANY SITUATIONS OF PONDING MUST BE PROVIDED TO THE ENGINEER IN WRITING TO MAKE CORRECTIVE MEASURES.
- 37. ALL EXISTING DRAINAGE STRUCTURES SHALL BE CLEANED PRIOR THE START OF CONSTRUCTION. NO SEPARATE COSTS
- 38. THE EDGES OF THE BASE COURSE ITEMS SHALL BE PARALLEL TO THE ROADWAY CENTERLINE AND RECTANGULAR IN SHAPE. ALL EDGES SHALL BE VERTICAL.
- 39. EXISTING ROOF OR SUMP PUMP DRAINS ALONG PROPERTIES IN THE LOCATION OF PROPOSED CURB SHALL BE EXTENDED THROUGH THE PROPOSED CURB. ALL MATERIAL AND WORK SHALL BE PAID FOR THROUGH THE APPROPRIATE CURB PAY
- 40. PRIOR TO EXCAVATION FOR THE PROPOSED CURB RAMPS, THE ENGINEER AND THE CONTRACTOR SHALL REVIEW THE EXISTING CONDITIONS AT THE LOCATION OF THE PROPOSED ADA COMPLIANT CURB RAMPS AND DETERMINE THE BEST APPROACH FOR CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE FOR ALL SURVEY AND LAYOUT NECESSARY TO PROVIDE PUBLIC SIDEWALK CURB RAMPS THAT COMPLY WITH THE DETAILS. NO SEPARATE PAYMENT SHALL BE MADE FOR SURVEY AND LAYOUT.
- 41. ALL NON-CONFORMING CURB RAMPS CONSTRUCTED BY THE CONTRACTOR SHALL BE REPLACED AS DIRECTED BY THE ENGINEER TO CONFORM WITH CURRENT ADA REQUIREMENTS AT NO ADDITIONAL COST TO THE OWNER.
- 42. PUBLIC SIDEWALK CURB RAMPS WILL BE PAID AS CONCRETE SIDEWALK, REINFORCED, 6" THICK.
- 43. NEW DRIVEWAY APRONS SHALL NOT EXCEED 8% SLOPE. DRIVEWAY REPAIRS SHALL BE MADE WHERE NECESSARY TO LIMIT DRIVEWAY GRADES.
- 44. THE CONTRACTOR SHALL MEASURE AND RECORD THE ACTUAL SIZE, LOCATION AND CONFIGURATION OF EXISTING TRAFFIC STRIPES AND MARKINGS AND REPLACE IN KIND OR AS DIRECTED BY THE ENGINEER. THERE WILL BE NO SEPARATE PAYMENT FOR THIS TASK.
- 45. LOCATIONS OF GAS AND WATER VALVES SHOWN ARE APPROXIMATE. THERE MAY BE MORE THAN SHOWN ON CONSTRUCTION PLANS. CONTRACTOR IS RESPONSIBLE FOR RESETTING ALL VALVE CASTINGS, REGARDLESS OF WHAT IS SHOWN ON PLANS. COSTS OF RESETTING GAS AND WATER VALVES SHALL NOT BE MEASURED AND NO SEPARATE PAYMENT WILL BE MADE.
- 46. RESTORE TURF AREAS WITH 4" THICK BORROW TOPSOILING, FERTILIZING & SEEDING, TYPE 'A-3', & STRAW MULCHING.
- 47. THE TOPSOIL USED FOR THIS PROJECT SHALL BE IN STRICT CONFORMANCE TO THE PROJECT SPECIFICATIONS, ANY TOPSOIL NOT MEETING THE SPECIFICATIONS SHALL BE REMOVED AND REPLACED AT THE CONTRACTOR'S EXPENSE.
- 48. CONTRACTOR SHALL SUBMIT SEED BAG TICKETS TO THE ENGINEER FOR APPROVAL PRIOR TO PLACING SEED.
- 49. CONTRACTOR SHALL ESTABLISH A FULL STAND OR GRASS WITH NO BARE PATCHES, CRABGRASS OR WEEDS.
- 50. PAVEMENT SAWCUT SHALL BE LIMITED ONLY TO THE DEPTH OF MILLING AT THE TIME OF CONSTRUCTION. ALL DEBRIS FROM REMOVAL OPERATIONS SHALL BE REMOVED FROM THE SITE AT THE TIME OF EXCAVATION. STOCKPILING OF DEBRIS WILL NOT BE PERMITTED.
- . NO SEPARATE PAYMENT WILL BE MADE FOR EXCAVATION OR FOR REMOVAL OF MATERIAL BELOW THE LIMITS OF THE HMA MILLING PAY ITEM, OR THAT REQUIRED FOR CONSTRUCTION OF CURB, SIDEWALK, OR OTHER ITEMS SHOWN ON THE PLANS. ALL COSTS FOR THE WORK, INCLUDING DISPOSAL, SHALL BE INCLUDED IN THE PRICES BID IN THE VARIOUS ITEMS SCHEDULED IN THE PROPOSAL.
- 52. ALL TRAFFIC STRIPES AND MARKINGS SHALL BE LONG-LIFE THERMOPLASTIC.
- 17. THE QUANTITY FOR BACKSIDE CURB FOR ADA RAMPS ARE INCLUDED IN THE TOTAL LENGTH OF CONCRETE AND GRANITE 53. THE COMMENCEMENT OF MILLING AND HOT MIX ASPHALT OVERLAY WORK SHALL NOT BEGIN UNTIL THE COMPLETION OF ANY CONCRETE WORK IN THAT AREA.
 - 54. SCOPE OF WORK SHALL BE LIMITED TO INCLUDE CONCRETE SIDEWALK, CURB, CURB RAMPS, CONCRETE DRIVEWAY APRONS, MILLING, PAVING, AND MODIFYING DRAINAGE INLET GRATES AND HEAD PIECES.
 - 55. CONCRETE VERTICAL CURB AND/OR GRANITE BLOCK CURB LIMITS SHALL BE AS DIRECTED IN FIELD BY THE ENGINEER.
 - 56. ENGINEER WILL DIRECT CONTRACTOR TO LIMITS AND TRANSITIONS BETWEEN 10" X 20" CONCRETE VERTICAL CURB AND GRANITE BLOCK CURB. NO SEPARATE PAYMENT WILL BE MADE FOR TRANSITIONS.
 - 57. CONTRACTOR SHALL NOT MILL IN EXCESS OF AREA TO BE PAVED WITHIN THE SAME DAY OF WORK.
 - 58. ANY OBJECTS LOCATED WITHIN THE SIDEWALK AREAS SHOULD BE RESET/RELOCATED TO ACCOMMODATE THE CONSTRUCTION OF THE PROPOSED ADA RAMPS. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE 2019 NJDO $^{ extsf{T}}$ STANDARD DETAILS. NO SEPARATE PAYMENT SHALL BE MADE FOR THIS EFFORT.
 - 59. ANY REQUIRED TEMPORARY SIGNAGE FOR PARKING PROHIBITION SHALL BE COORDINATED WITH THE OWNER, AND OBTAINED AND PLACED 48 HOURS PRIOR TO CONSTRUCTION ACTIVITIES. NO SEPARATE PAYMENT SHALL BE MADE FOR THIS EFFORT.
- 22. NO SEPARATE PAYMENT SHALL BE MADE FOR SAWCUTTING, REMOVAL OF CURB, SIDEWALK, OR CONCRETE PAVEMENT, OR 60. SHOULD A TREE OR TREE ROOTS IMPACT ANY PROPOSED CONSTRUCTION, A TREE EXPERT MUST BE HIRED BY THE CONTRACTOR TO EVALUATE WHETHER THE TREE CAN BE SAVED OR IF IT WILL NEED TO BE REMOVED. NO SEPARATE PAYMENT SHALL BE MADE FOR THIS EFFORT. ALL COSTS SHALL BE INCLUDED IN THE VARIOUS ITEMS IN THE PROPOSAL
 - 61. WHERE TREES CAN BE SAVED, AND IT IS DETERMINED THAT ROOT CUTTING MAY DAMAGE THE TREE, A CURB BREAK SHALL BE PLACED AT THE LIMITS OF TREE IMPACT AND A STEEL CURB FACE PLATE SHALL BE INSTALLED. NO SEPARATE PAYMENT SHALL BE MADE FOR THIS EFFORT.
 - 62. THE CONTRACTOR IS RESPONSIBLE FOR ALL TRAFFIC CONTROL MEASURES.
 - 63. MAINTENANCE AND PROTECTION OF PEDESTRIAN TRAFFIC CONTROL WILL CONFORM WITH MUTCD AND NIDOT STANDARDS AS WELL AS ANY LOCAL MUNICIPAL REQUIREMENTS.

 - 65. ANY DETOUR PLANS REQUIRED BY THE OWNER AND/OR LOCAL POLICE DEPARTMENT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PREPARE AND PROVIDE FOR REVIEW PRIOR TO CONSTRUCTION.
 - 66. ANY SIGNS LOCATED WITHIN THE SIDEWALK AREAS SHOULD BE RESET/RELOCATED IN ACCORDANCE WITH THE STANDARD NIDOT STANDARD DETAILS. SEPARATE PAYMENT WILL NOT BE MADE FOR RESETTING OBJECTS LOCATED IN THE SIDEWALK. THE COST SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE REPLACEMENT OF SIDEWALKS, UNLESS PAYMENT FOR SUCH WORK IS SPECIFIED IN THE PROPOSAL.







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■ FLORIDA

■ NEW JERSEY

JOSEPH R. VENEZIA

NEW IERSEY PROFESSIONAL **ENGINEER - LICENSE NUMBER: GE45473**

CONSTRUCTION PLANS

2020 ROAD RESURFACING PROJECT UNION COUNTY PROJECT # 2018-020

> UNION COUNTY NEW JERSEY



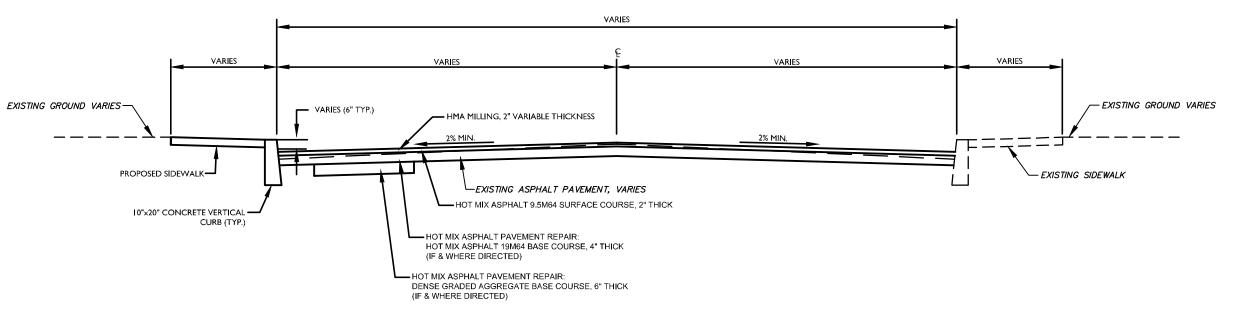
RED BANK OFFICE 31 Newman Springs Road Suite 203 Red Bank, NJ 07701 Phone: 732.383.1950

Fax: 732.383.1984 AS SHOWN 11/11/19 DRAWING NAME:

19005024G -CVER

GENERAL NOTES & LEGEND

	ESTIMATE OF QUANTITIES							
PAY ITEM								
NO.	DESCRIPTION	UNIT	QUANTITY					
1	PORTABLE VARIABLE MESSAGE SIGN	UNIT	4					
2	TRAFFIC CONTROL TRUCK WITH MOUNTED CRASH CUSHION	UNIT	2					
3	TRAFFIC CONTROL MEASURES	LS	1					
4	FLOODLIGHTS FOR NIGHTTIME OPERATIONS	UNIT	4					
5	TRAFFIC DIRECTOR, FLAGGER	ALLOW						
6	TRAFFIC DIRECTOR, UNIFORM POLICE	ALLOW						
7	EXCAVATION, UNCLASSIFIED (IF & WHERE DIRECTED)	CY	7780					
8	MILLING, 2" VARIABLE DEPTH	SY	449740					
9	DAYTIME MILLING	DAY	5					
10	DAYTIME PAVING	DAY	5					
11	DENSE-GRADED AGGREGATE BASE COURSE, VARIABLE THICKNESS (IF & WHERE DIRECTED)	CY	7750					
12	HOT MIX ASPHALT PAVEMENT REPAIR (EXCAVATION, 4" DGA, 6" BASE COURSE) (IF & WHERE DIRECTED)	SY	9320					
13	HOT MIX ASPHALT SURFACE COURSE 9.5M64, 2" THICK	TON	51790					
14	HOT MIX ASPHALT LEVELING COURSE 9.5M64, VARIABLE THICKNESS	TON	5190					
15	FUEL PRICE ADJUSTMENT	ALLOW						
16	ASPHALT PRICE ADJUSTMENT	ALLOW						
17	TYPE N-ECO CURB PIECE (6"-8") WITH ADJACENT CURB REPLACEMENT	UNIT	17					
18	BICYCLE SAFE GRATE	UNIT	24					
19	ECO HEAD CURB ADAPTOR, FACEPLATE (IF & WHERE DIRECTED)	UNIT	10					
20	RESET MANHOLE CASTING WITH EXISTING FRAME AND COVER	UNIT	562					
21	RESET MANHOLE CASTING WITH NEW FRAME AND COVER	UNIT	50					
22	RESET INLET CASTING	UNIT	382					
23	RECONSTRUCT INLET	UNIT	14					
24	INLET, TYPE B	UNIT	2					
25	10"x20" CONCRETE VERTICAL CURB	LF	3100					
26	GRANITE BLOCK CURB	LF	680					
27	CONCRETE SIDEWALK, 4" THICK	SY	100					
28	CONCRETE SIDEWALK, REINFORCED, 6" THICK	SY	2890					
30	DETECTABLE WARNING SURFACE (CAST-IN-PLACE)	SY	160					
31	RESET BRICK PAVER (IF & WHERE DIRECTED)	SY SF	60 200					
32	RETAINING WALL (IF & WHERE DIRECTED) TRAFFIC STRIPES, THERMOPLASTIC, 4"	LF	298210					
33	TRAFFIC STRIPES, THERMOPLASTIC, 4 TRAFFIC MARKINGS LINES, THERMOPLASTIC, RUMBLE STRIP	LF	400					
34	TRAFFIC MARKINGS LINES, THERMOPLASTIC, ROMBLE STRIF	LF	14720					
35	TRAFFIC MARKINGS LINES, THERMOPLASTIC, 12"	LF	20140					
36	TRAFFIC MARKINGS LINES, THERMOPLASTIC, 24"	LF	5070					
37	TRAFFIC MARKINGS SYMBOLS, THERMOPLASTIC	SF	24300					
38	RAISED PAVEMENT MARKER	UNIT	2500					
39	SEALING OF CRACKS IN HOT MIX ASPHALT SURFACE COURSE	LF	100000					
40	STREET NAME SIGN, TYPE DF WITH BREAKAWAY SUPPORT	SF	1650					
41	ACCESSORY PANEL, TYPE DF	SF	1650					
42	LOOP DETECTORS (IF & WHERE DIRECTED)	LF	500					
43	IMAGE DETECTION SYSTEM (IF & WHERE DIRECTED)	UNIT	2					
44	TREE REMOVAL, OVER 36" (IF & WHERE DIRECTED)	UNIT	10					
	THE REMOVAL OVER 30 (II & WHERE DIRECTED)	LOIVII	10					



TYPICAL CROSS SECTION

NOT TO SCALE



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Joseph NVIII

JOSEPH R. VENEZIA

NEW JERSEY PROFESSIONAL

ENGINEER - LICENSE NUMBER: GE45473

CONSTRUCTION PLANS

FOR
2020 ROAD
RESURFACING
PROJECT
UNION COUNTY

UNION COUNTY NEW JERSEY

PROJECT # 2018-020



RED BANK OFFICE
Corporate Headquarters
331 Newman Springs Road
Suite 203
Red Bank, NJ 07701

Phone: 732.383.1950
Fax: 732.383.1984

DATE: DRAWN BY: CHECKED

MN 11/11/19 ES IIB

SCALE: DATE: DRAWN BY: CH AS SHOWN 11/11/19 ES PROJECT NUMBER: DRAWING NAME:

QUANTITY TABLE &
TYPICAL CROSS SECTION

SHEET NUMBER:

	W. INMAN ADA RAMPS										
			CURB RAMP LAYOUT			QUANTITIES					
STATION	STATION OFFSET	CURB RAMP TYPE	PERPENDICULAR	PARALLEL	DIAGONAL	COMBINATION	10"x20" CONC. VERTICAL CURB (LF)	GRANITE BLOCK CURB (LF)	CONCRETE SIDEWALK, REINFORCED, 6" THICK (SY)	DETECTABLE WARNING SURFACE (SY)	
0+26	LT	1	✓				15	-	10	1	
0+37	LT	1	✓				15	-	10	1	
0+43	RT	7		✓			15	-	10	1	
0+46	RT	7		✓			15	-	10	1	
7+19	LT	1				✓	15	-	15	1	
7+21	RT	1	✓				15	-	15	1	
7+30	LT	4				✓	15	-	15	1	
7+31	RT	4				✓	15	-	15	1	
7+84	LT	4				✓	15	-	15	1	
7+85	RT	4				✓	15	-	15	1	
7+94	LT	1	✓				15	-	15	1	
7+95	RT	1	✓				15	-	15	1	
32+16	LT	1	✓				15	-	15	1	
34+65	LT	5		✓			15	-	15	1	

	W. INMAN INLET TYPES & LOCATIONS										
STATION	STATION OFFSET	EXISTING INLET TYPE		QUANTITIES							
STATION	OFFSET	EXISTING INLET TIPE	BICYCLE SAFE GRATE	CURB PIECE	PLATE	RESET	RECONSTRUCT				
5+71	LT	В				✓					
5+72	RT	B w/DRIVEWAY PLATE				✓					
7+88	LT	В				✓					
8+11	LT	В				✓					
24+40	LT	В				✓					
27+06	LT	В				✓					
27+14	RT	В				✓					
29+64	LT	В				✓					
29+92	RT	В				✓					
32+09	LT	В		✓		✓					
34+67	LT	В		✓		✓					
37+33	LT	В				✓					

AY ITEM NO.	DESCRIPTION	UNIT	QUANTI
1	PORTABLE VARIABLE MESSAGE SIGN	UNIT	-
2	TRAFFIC CONTROL TRUCK WITH MOUNTED CRASH CUSHION	UNIT	-
3	TRAFFIC CONTROL MEASURES	LS	-
4	FLOODLIGHTS FOR NIGHTTIME OPERATIONS	UNIT	-
5	TRAFFIC DIRECTOR, FLAGGER	ALLOW	-
6	TRAFFIC DIRECTOR, UNIFORM POLICE	ALLOW	-
7	EXCAVATION, UNCLASSIFIED (IF & WHERE DIRECTED)	CY	322
8	MILLING, 2" VARIABLE DEPTH	SY	1933
9	DAYTIME MILLING	DAY	-
10	DAYTIME PAVING	DAY	-
11	DENSE-GRADED AGGREGATE BASE COURSE, VARIABLE THICKNESS (IF & WHERE DIRECTED)	CY	322
12	HOT MIX ASPHALT PAVEMENT REPAIR (EXCAVATION, 4" DGA, 6" BASE COURSE) (IF & WHERE DIRECTED)	SY	387
13	HOT MIX ASPHALT SURFACE COURSE 9.5M64, 2" THICK	TON	2224
14	HOT MIX ASPHALT LEVELING COURSE 9.5M64, VARIABLE THICKNESS	TON	222
15	FUEL PRICE ADJUSTMENT	ALLOW	-
16	ASPHALT PRICE ADJUSTMENT	ALLOW	-
17	TYPE N-ECO CURB PIECE (6"-8") WITH ADJACENT CURB REPLACEMENT	UNIT	2
18	BICYCLE SAFE GRATE	UNIT	-
19	ECO HEAD CURB ADAPTOR, FACEPLATE (IF & WHERE DIRECTED)	UNIT	-
20	RESET MANHOLE CASTING WITH EXISTING FRAME AND COVER	UNIT	39
21	RESET MANHOLE CASTING WITH NEW FRAME AND COVER	UNIT	-
22	RESET INLET CASTING	UNIT	12
23	RECONSTRUCT INLET	UNIT	-
24	INLET, TYPE B	UNIT	-
25	10"x20" CONCRETE VERTICAL CURB	LF	210
26	GRANITE BLOCK CURB	LF	-
27	CONCRETE SIDEWALK, 4" THICK	SY	-
28	CONCRETE SIDEWALK, REINFORCED, 6" THICK	SY	190
29	DETECTABLE WARNING SURFACE (CAST-IN-PLACE)	SY	14
30	RESET BRICK PAVER	SY	-
31	RETAINING WALL	SF	-
32	TRAFFIC STRIPES, THERMOPLASTIC, 4"	LF	9040
33	TRAFFIC MARKINGS LINES, THERMOPLASTIC, RUMBLE STRIP	LF	-
34	TRAFFIC MARKINGS LINES, THERMOPLASTIC, 8"	LF	506
35	TRAFFIC MARKINGS LINES, THERMOPLASTIC, 12"	LF	565
36	TRAFFIC MARKINGS LINES, THERMOPLASTIC, 24"	LF	67
37	TRAFFIC MARKINGS SYMBOLS, THERMOPLASTIC	SF	814
38	RAISED PAVEMENT MARKER	UNIT	-
39	SEALING OF CRACKS IN HOT MIX ASPHALT SURFACE COURSE	LF	-
40	STREET NAME SIGN, TYPE DF WITH BREAKAWAY SUPPORT	SF	-
41	ACCESSORY PANEL, TYPE DF	SF	-
42	LOOP DETECTORS (IF & WHERE DIRECTED)	LF	-
43	IMAGE DETECTION SYSTEM (IF & WHERE DIRECTED)	UNIT	-
44	TREE REMOVAL, OVER 36" (IF & WHERE DIRECTED)	UNIT	 -



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NEW JERSEY PROFESSIONAL

ENGINEER - LICENSE NUMBER: GE45473

CONSTRUCTION PLANS

FOR 2020 ROAD RESURFACING PROJECT **UNION COUNTY** PROJECT # 2018-020

CITY OF RAHWAY UNION COUNTY **NEW JERSEY**

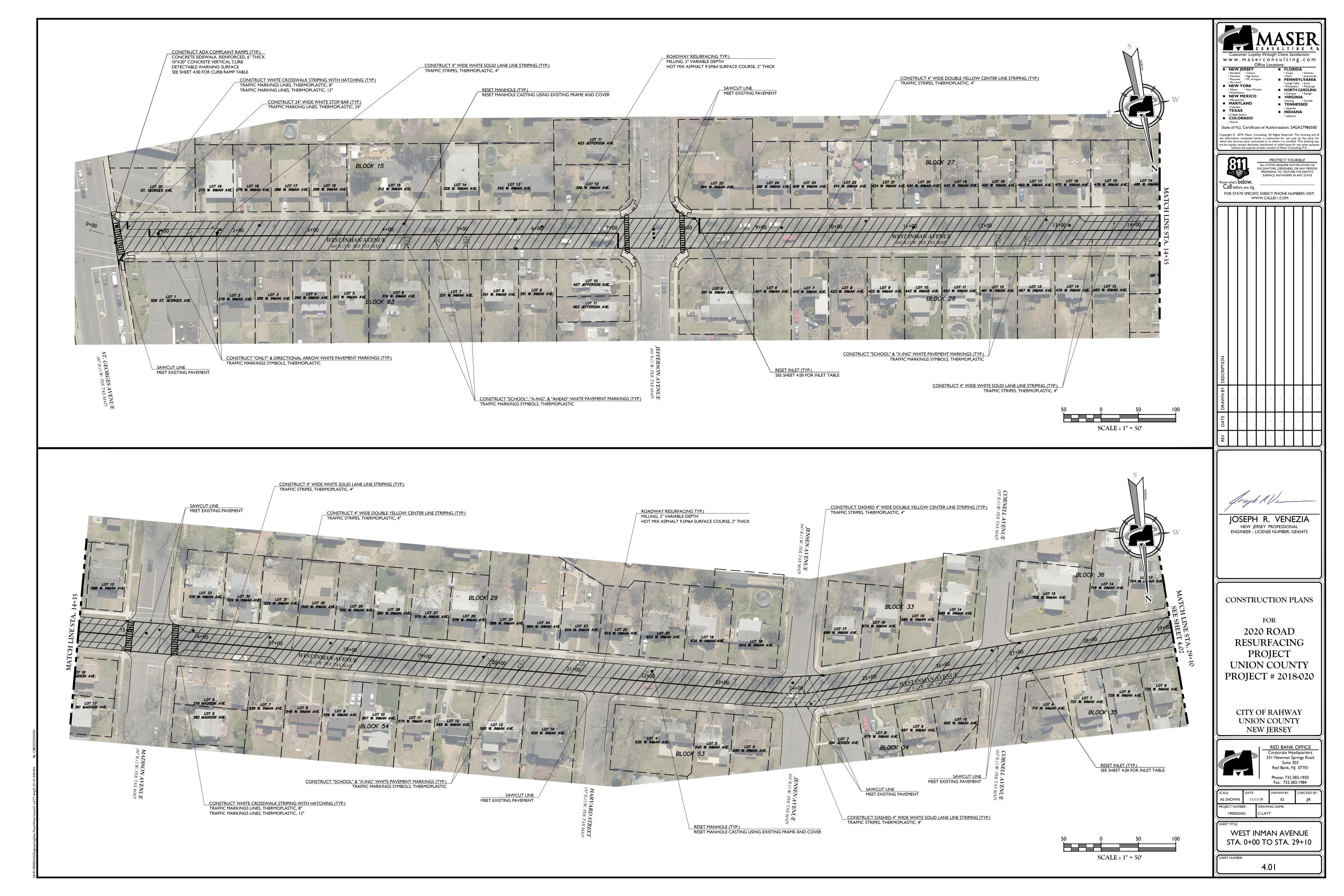


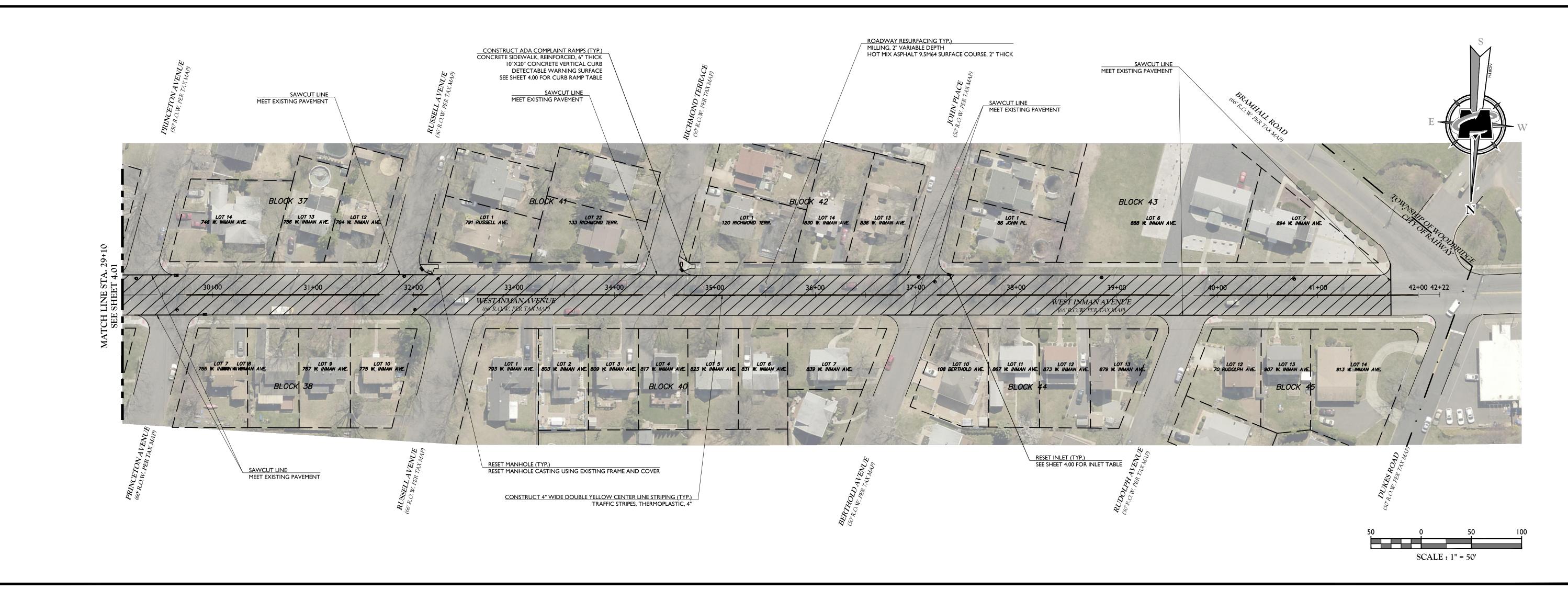
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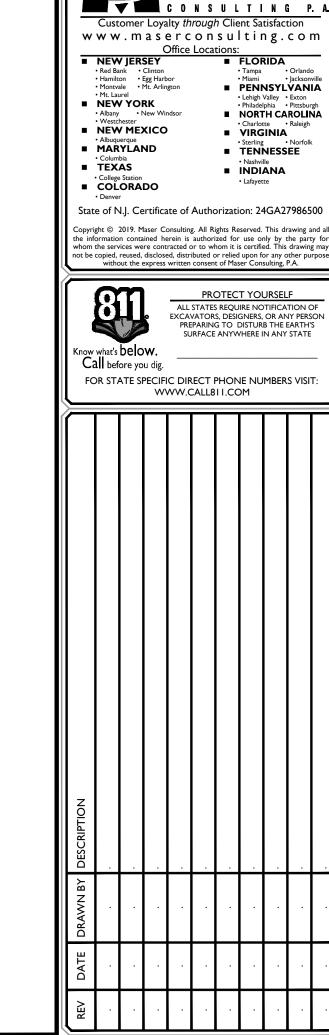
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PROJECT NUMBER:

WEST INMAN AVENUE QUANTITY SHEET







Joseph HVII

JOSEPH R. VENEZIA

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ENGINEER - LICENSE NUMBER: GE45473

CONSTRUCTION PLANS

FOR

2020 ROAD

RESURFACING

PROJECT

UNION COUNTY

PROJECT # 2018-020

CITY OF RAHWAY UNION COUNTY NEW JERSEY



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DATE: DRAWN BY: CHECKED
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SCALE: DATE: DRAW
AS SHOWN 11/11/19
PROJECT NUMBER: DRAWING NAI
19005024G C-LAYT

5024G C-LAYT

WEST INMAN AVENUE STA. 29+10 TO STA. 42+22

SHEET NUMBER:

	WOODBRIDGE ADA RAMPS										
CURB RAMP LAYOUT					QUANTITIES						
STATION	OFFSET	CURB RAMP TYPE	PERPENDICULAR	PARALLEL					DETECTABLE WARNING SURFACE (SY)		
0+44	LT	3				✓	15	-	12	1	
0+59	RT	3				√	20	-	15	1	
0+61	LT	3				✓	15	-	12	1	

	WOODBRIDGE INLET TYPES & LOCATIONS										
CTATION	OFFRET	EXISTING INLET TYPE		QUA	ANTITIES						
STATION	OFFSET	EXISTING INLET TYPE	BICYCLE SAFE GRATE	CURB PIECE	PLATE	RESET	RECONSTRUCT				
0+87	RT	В				✓					
1+44	LT	Е				✓					
2+12	RT	A				✓					
2+96	RT	В		✓		✓					
3+99	RT	A				✓					
4+02	LT	В				✓					
6+47	RT	В				✓					
6+49	LT	В				✓					
6+52	RT	В				✓					
7+30	RT	В				✓					
8+31	RT	В				✓					
8+31	LT	В				✓					
9+51	LT	В				✓					
9+57	RT	В				✓					
9+62	RT	В				✓					

PAY ITEM NO.	DESCRIPTION	UNIT	QUANTI
1	PORTABLE VARIABLE MESSAGE SIGN	UNIT	-
2	TRAFFIC CONTROL TRUCK WITH MOUNTED CRASH CUSHION	UNIT	-
3	TRAFFIC CONTROL MEASURES	LS	-
4	FLOODLIGHTS FOR NIGHTTIME OPERATIONS	UNIT	-
5	TRAFFIC DIRECTOR, FLAGGER	ALLOW	-
6	TRAFFIC DIRECTOR, UNIFORM POLICE	ALLOW	-
7	EXCAVATION, UNCLASSIFIED (IF & WHERE DIRECTED)	CY	105
8	MILLING, 2" VARIABLE DEPTH	SY	6023
9	DAYTIME MILLING	DAY	-
10	DAYTIME PAVING	DAY	-
11	DENSE-GRADED AGGREGATE BASE COURSE, VARIABLE THICKNESS (IF & WHERE DIRECTED)	CY	105
12	HOT MIX ASPHALT PAVEMENT REPAIR (EXCAVATION, 4" DGA, 6" BASE COURSE) (IF & WHERE DIRECTED)	SY	126
13	HOT MIX ASPHALT SURFACE COURSE 9.5M64, 2" THICK	TON	693
14	HOT MIX ASPHALT LEVELING COURSE 9.5M64, VARIABLE THICKNESS	TON	69
15	FUEL PRICE ADJUSTMENT	ALLOW	-
16	ASPHALT PRICE ADJUSTMENT	ALLOW	-
17	TYPE N-ECO CURB PIECE (6"-8") WITH ADJACENT CURB REPLACEMENT	UNIT	1
18	BICYCLE SAFE GRATE	UNIT	-
19	ECO HEAD CURB ADAPTOR, FACEPLATE (IF & WHERE DIRECTED)	UNIT	-
20	RESET MANHOLE CASTING WITH EXISTING FRAME AND COVER	UNIT	8
21	RESET MANHOLE CASTING WITH NEW FRAME AND COVER	UNIT	-
22	RESET INLET CASTING	UNIT	15
23	RECONSTRUCT INLET	UNIT	-
24	INLET, TYPE B	UNIT	-
25	10"x20" CONCRETE VERTICAL CURB	LF	50
26	GRANITE BLOCK CURB	LF	-
27	CONCRETE SIDEWALK, 4" THICK	SY	-
28	CONCRETE SIDEWALK, REINFORCED, 6" THICK	SY	39
29	DETECTABLE WARNING SURFACE (CAST-IN-PLACE)	SY	3
30	RESET BRICK PAVER	SY	-
31	RETAINING WALL	SF	-
32	TRAFFIC STRIPES, THERMOPLASTIC, 4"	LF	4125
33	TRAFFIC MARKINGS LINES, THERMOPLASTIC, RUMBLE STRIP	LF	-
34	TRAFFIC MARKINGS LINES, THERMOPLASTIC, 8"	LF	407
35	TRAFFIC MARKINGS LINES, THERMOPLASTIC, 12"	LF	517
36	TRAFFIC MARKINGS LINES, THERMOPLASTIC, 24"	LF	253
37	TRAFFIC MARKINGS SYMBOLS, THERMOPLASTIC	SF	444
38	RAISED PAVEMENT MARKER	UNIT	-
39	SEALING OF CRACKS IN HOT MIX ASPHALT SURFACE COURSE	LF	-
40	STREET NAME SIGN, TYPE DF WITH BREAKAWAY SUPPORT	SF	-
41	ACCESSORY PANEL, TYPE DF	SF	-
42	LOOP DETECTORS (IF & WHERE DIRECTED)	LF	-
43	IMAGE DETECTION SYSTEM (IF & WHERE DIRECTED)	UNIT	-
44	TREE REMOVAL, OVER 36" (IF & WHERE DIRECTED)	UNIT	-

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ENGINEER - LICENSE NUMBER: GE45473

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FOR 2020 ROAD RESURFACING PROJECT **UNION COUNTY** PROJECT # 2018-020

> CITY OF RAHWAY UNION COUNTY **NEW JERSEY**



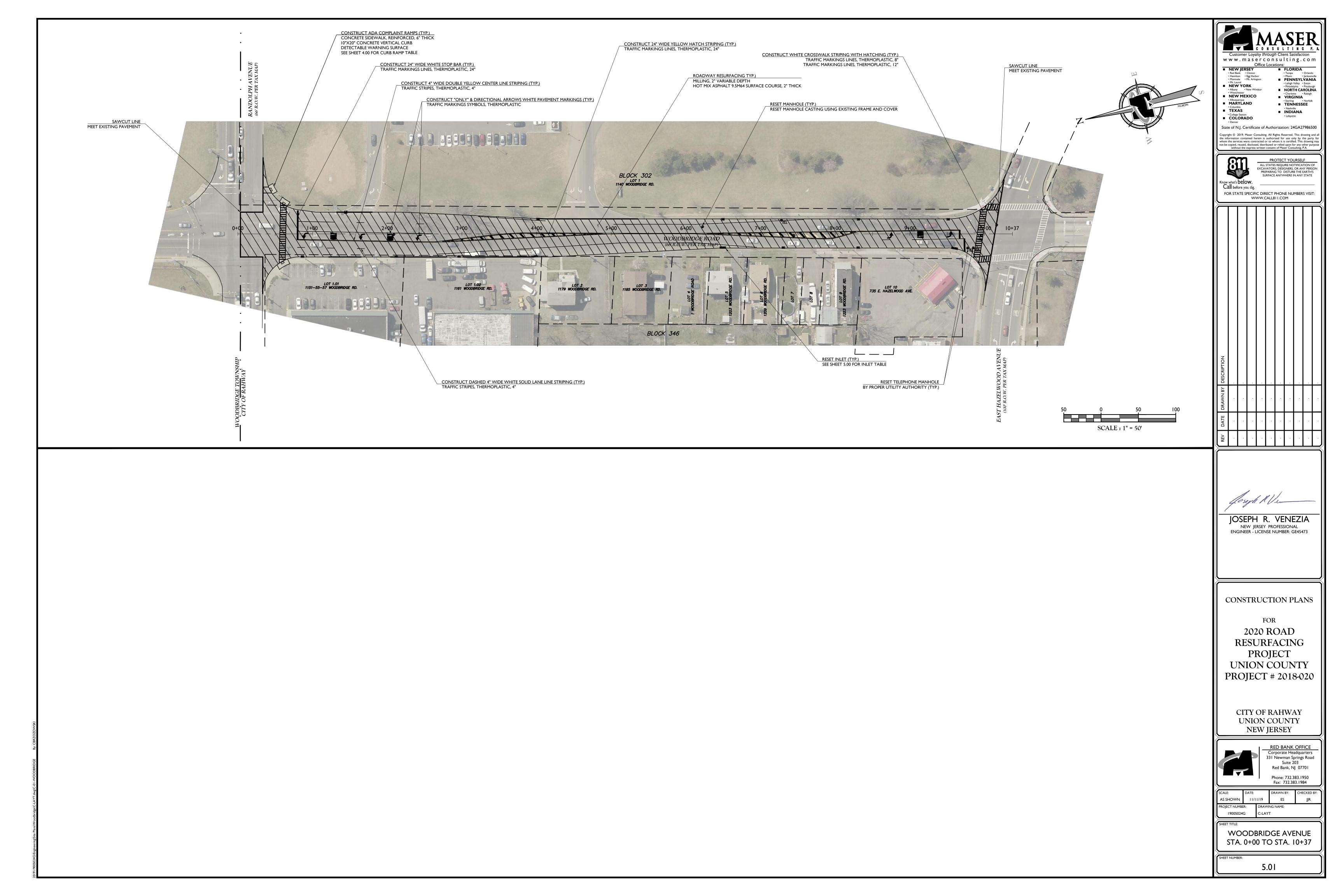
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331 Newman Springs Road
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AS SHOWN
PROJECT NUMBER:

WOODBRIDGE AVENUE

QUANTITY SHEET



			NORTH STILES INLET TYP	ES & LOCATIONS			
CTATION	OFFOFT	EVICTING INITET TYPE			QUANTITIES		
STATION	OFFSET	EXISTING INLET TYPE	BICYCLE SAFE GRATE	CURB PIECE	PLATE	RESET	RECONSTRUCT
1+71	RT	В				✓	
2+15	LT	В				✓	
3+32	RT	В				✓	
5+48	LT	В				✓	
7+14	RT	В				✓	
7+18	LT	В				✓	
7+30	RT	В				✓	
7+32	LT	В				✓	
8+20	RT	В				✓	
16+87	RT	В				✓	
16+89	LT	В				✓	
18+33	RT	В				✓	
18+58	LT	В				✓	
18+94	RT	В				✓	
18+92	LT	В				✓	
19+52	RT	В				✓	
30+55	RT	A				✓	
30+57	LT	A				✓	
30+98	LT	В				✓	
30+98	RT	А				✓	

PAY ITEM NO.	DESCRIPTION	UNIT	QUA
1	PORTABLE VARIABLE MESSAGE SIGN	UNIT	
2	TRAFFIC CONTROL TRUCK WITH MOUNTED CRASH CUSHION	UNIT	
3	TRAFFIC CONTROL MEASURES	LS	
4	FLOODLIGHTS FOR NIGHTTIME OPERATIONS	UNIT	
5	TRAFFIC DIRECTOR, FLAGGER	ALLOW	
6	TRAFFIC DIRECTOR, UNIFORM POLICE	ALLOW	
7	EXCAVATION, UNCLASSIFIED (IF & WHERE DIRECTED)	CY	3
8	MILLING, 2" VARIABLE DEPTH	SY	21
9	DAYTIME MILLING	DAY	
10	DAYTIME PAVING	DAY	
11	DENSE-GRADED AGGREGATE BASE COURSE, VARIABLE THICKNESS (IF & WHERE DIRECTED)	CY	3
12	HOT MIX ASPHALT PAVEMENT REPAIR (EXCAVATION, 4" DGA, 6" BASE COURSE) (IF & WHERE DIRECTED)	SY	4
13	HOT MIX ASPHALT SURFACE COURSE 9.5M64, 2" THICK	TON	24
14	HOT MIX ASPHALT LEVELING COURSE 9.5M64, VARIABLE THICKNESS	TON	2
15	FUEL PRICE ADJUSTMENT	ALLOW	
16	ASPHALT PRICE ADJUSTMENT	ALLOW	
17	TYPE N-ECO CURB PIECE (6"-8") WITH ADJACENT CURB REPLACEMENT	UNIT	
18	BICYCLE SAFE GRATE	UNIT	
19	ECO HEAD CURB ADAPTOR, FACEPLATE (IF & WHERE DIRECTED)	UNIT	
20	RESET MANHOLE CASTING WITH EXISTING FRAME AND COVER	UNIT	:
21	RESET MANHOLE CASTING WITH NEW FRAME AND COVER	UNIT	
22	RESET INLET CASTING	UNIT	
23	RECONSTRUCT INLET	UNIT	
24	INLET, TYPE B	UNIT	
25	10"x20" CONCRETE VERTICAL CURB	LF	
26	GRANITE BLOCK CURB	LF	
27	CONCRETE SIDEWALK, 4" THICK	SY	
28	CONCRETE SIDEWALK, REINFORCED, 6" THICK	SY	
29	DETECTABLE WARNING SURFACE (CAST-IN-PLACE)	SY	
30	RESET BRICK PAVER	SY	
31	RETAINING WALL	SF	
32	TRAFFIC STRIPES, THERMOPLASTIC, 4"	LF	16
33	TRAFFIC MARKINGS LINES, THERMOPLASTIC, RUMBLE STRIP	LF	
34	TRAFFIC MARKINGS LINES, THERMOPLASTIC, 8"	LF	3
35	TRAFFIC MARKINGS LINES, THERMOPLASTIC, 12"	LF	3
36	TRAFFIC MARKINGS LINES, THERMOPLASTIC, 24"	LF	3
37	TRAFFIC MARKINGS SYMBOLS, THERMOPLASTIC	SF	14
38	RAISED PAVEMENT MARKER	UNIT	
39	SEALING OF CRACKS IN HOT MIX ASPHALT SURFACE COURSE	LF	
40	STREET NAME SIGN, TYPE DF WITH BREAKAWAY SUPPORT	SF	
41	ACCESSORY PANEL, TYPE DF	SF	
42	LOOP DETECTORS (IF & WHERE DIRECTED)	LF	
43	IMAGE DETECTION SYSTEM (IF & WHERE DIRECTED)	UNIT	
44	TREE REMOVAL, OVER 36" (IF & WHERE DIRECTED)	UNIT	

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> CITY OF LINDEN UNION COUNTY **NEW JERSEY**



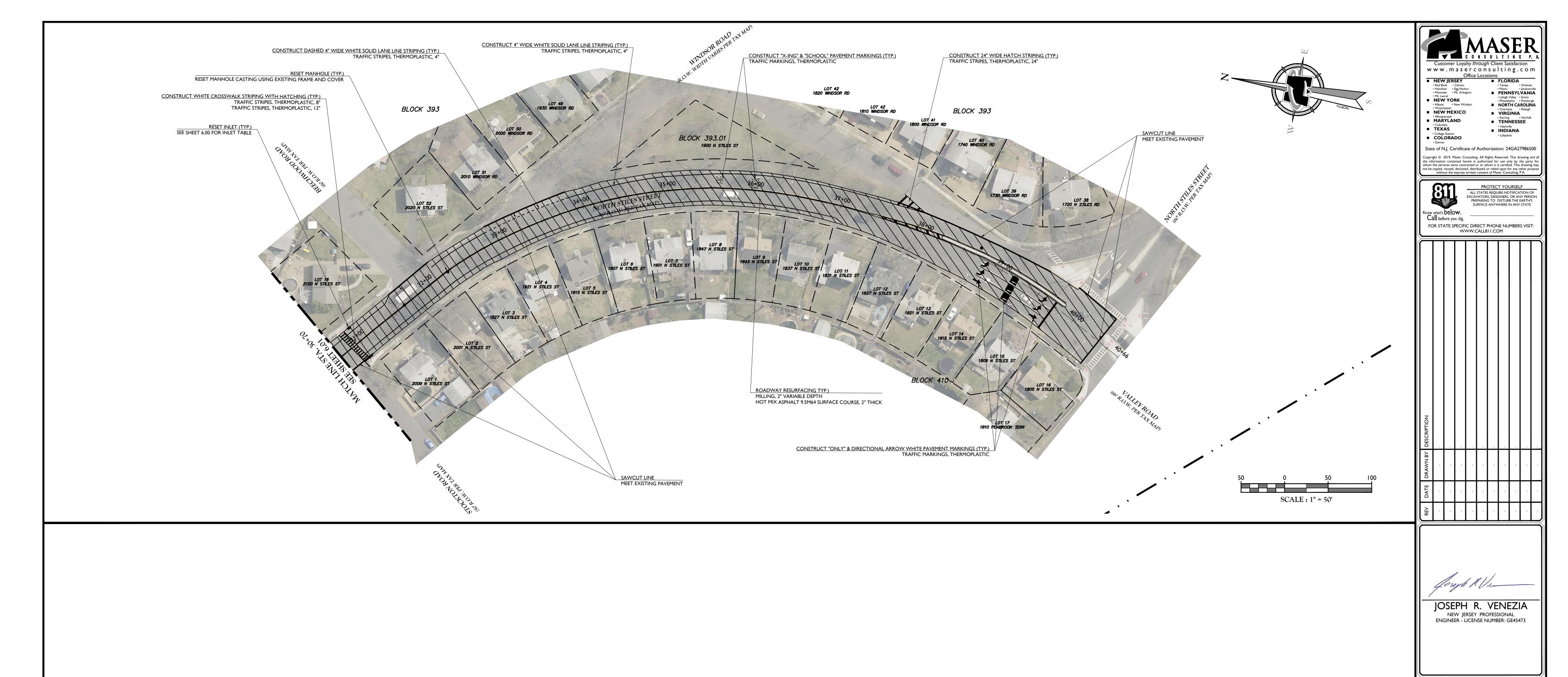
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AS SHOWN PROJECT NUMBER:

NORTH STILES STREET QUANTITY SHEET





CONSTRUCTION PLANS

FOR
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RESURFACING
PROJECT
UNION COUNTY
PROJECT # 2018-020

CITY OF LINDEN UNION COUNTY NEW JERSEY



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CCALE: DATE: DRAWN BY:

AS SHOWN 11/11/19 ES

PROJECT NUMBER: DRAWING NAME:

NORTH STILES STREET

STA. 30+70 TO STA. 44+60

SHEET NUMBER:

			CENTRAL INLET TYPES 8	& LOCATIONS			
STATION	OFFSET	EXISTING INLET TYPE		QI	UANTITIES		
STATION	OFFSET	EXISTING INLET TYPE	BICYCLE SAFE GRATE	CURB PIECE	PLATE	RESET	RECONSTRUCT
1+34	LT	В	✓	✓		✓	
3+96	RT	В				✓	
5+78	LT	В	✓	✓		✓	
6+05	RT	В	✓	✓		✓	
7+29	RT	В				✓	
7+64	LT	В				✓	
7+82	RT	В				✓	
8+97	LT	В				✓	
9+88	LT	В				✓	
10+67	SB CONNECT.	В				✓	
10+73	SB CONNECT.	В				✓	
12+08	LT	В				✓	
12+13	LT	В				✓	
13+18	RT	В				✓	
13+60	RT	В				✓	
13+51	NB CONNECT.	В				✓	
13+66	NB CONNECT.	E				✓	
13+71	NB CONNECT.	В				✓	
13+72	NB CONNECT.	В				✓	
13+96	LT	В				✓	
14+00	LT	В				✓	
14+09	NB CONNECT.	В				✓	

PAY ITEM NO.	DESCRIPTION	UNIT	QUANTI [*]
1	PORTABLE VARIABLE MESSAGE SIGN	UNIT	
2	TRAFFIC CONTROL TRUCK WITH MOUNTED CRASH CUSHION	UNIT	-
3	TRAFFIC CONTROL MEASURES	LS	-
4	FLOODLIGHTS FOR NIGHTTIME OPERATIONS	UNIT	-
5	TRAFFIC DIRECTOR, FLAGGER	ALLOW	-
6	TRAFFIC DIRECTOR, UNIFORM POLICE	ALLOW	-
7	EXCAVATION, UNCLASSIFIED (IF & WHERE DIRECTED)	CY	270
8	MILLING, 2" VARIABLE DEPTH	SY	15935
9	DAYTIME MILLING	DAY	-
10	DAYTIME PAVING	DAY	-
11	DENSE-GRADED AGGREGATE BASE COURSE, VARIABLE THICKNESS (IF & WHERE DIRECTED)	CY	270
12	HOT MIX ASPHALT PAVEMENT REPAIR (EXCAVATION, 4" DGA, 6" BASE COURSE) (IF & WHERE DIRECTED)	SY	320
13	HOT MIX ASPHALT SURFACE COURSE 9.5M64, 2" THICK	TON	1835
14	HOT MIX ASPHALT LEVELING COURSE 9.5M64, VARIABLE THICKNESS	TON	184
15	FUEL PRICE ADJUSTMENT	ALLOW	-
16	ASPHALT PRICE ADJUSTMENT	ALLOW	_
17	TYPE N-ECO CURB PIECE (6"-8") WITH ADJACENT CURB REPLACEMENT	UNIT	3
18	BICYCLE SAFE GRATE	UNIT	3
19	ECO HEAD CURB ADAPTOR, FACEPLATE (IF & WHERE DIRECTED)	UNIT	
20	RESET MANHOLE CASTING WITH EXISTING FRAME AND COVER	UNIT	16
21	RESET MANHOLE CASTING WITH NEW FRAME AND COVER	UNIT	-
22	RESET INLET CASTING	UNIT	22
23		UNIT	-
	RECONSTRUCT INLET INLET, TYPE B		-
24		UNIT	
25	10"x20" CONCRETE VERTICAL CURB	LF	-
26	GRANITE BLOCK CURB	LF ov	-
27	CONCRETE SIDEWALK, 4" THICK	SY	-
28	CONCRETE SIDEWALK, REINFORCED, 6" THICK	SY	-
29	DETECTABLE WARNING SURFACE (CAST-IN-PLACE)	SY	-
30	RESET BRICK PAVER	SY	-
31	RETAINING WALL	SF	-
32	TRAFFIC STRIPES, THERMOPLASTIC, 4"	LF	8260
33	TRAFFIC MARKINGS LINES, THERMOPLASTIC, RUMBLE STRIP	LF	-
34	TRAFFIC MARKINGS LINES, THERMOPLASTIC, 8"	LF	-
35	TRAFFIC MARKINGS LINES, THERMOPLASTIC, 12"	LF	230
36	TRAFFIC MARKINGS LINES, THERMOPLASTIC, 24"	LF	770
37	TRAFFIC MARKINGS SYMBOLS, THERMOPLASTIC	SF	5060
38	RAISED PAVEMENT MARKER	UNIT	-
39	SEALING OF CRACKS IN HOT MIX ASPHALT SURFACE COURSE	LF	-
40	STREET NAME SIGN, TYPE DF WITH BREAKAWAY SUPPORT	SF	-
41	ACCESSORY PANEL, TYPE DF	SF	-
42	LOOP DETECTORS (IF & WHERE DIRECTED)	LF	-
43	IMAGE DETECTION SYSTEM (IF & WHERE DIRECTED)	UNIT	-
44	TREE REMOVAL, OVER 36" (IF & WHERE DIRECTED)	UNIT	-

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JOSEPH R. VENEZIA

NEW JERSEY PROFESSIONAL

ENGINEER - LICENSE NUMBER: GE45473

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FOR 2020 ROAD RESURFACING PROJECT **UNION COUNTY** PROJECT # 2018-020

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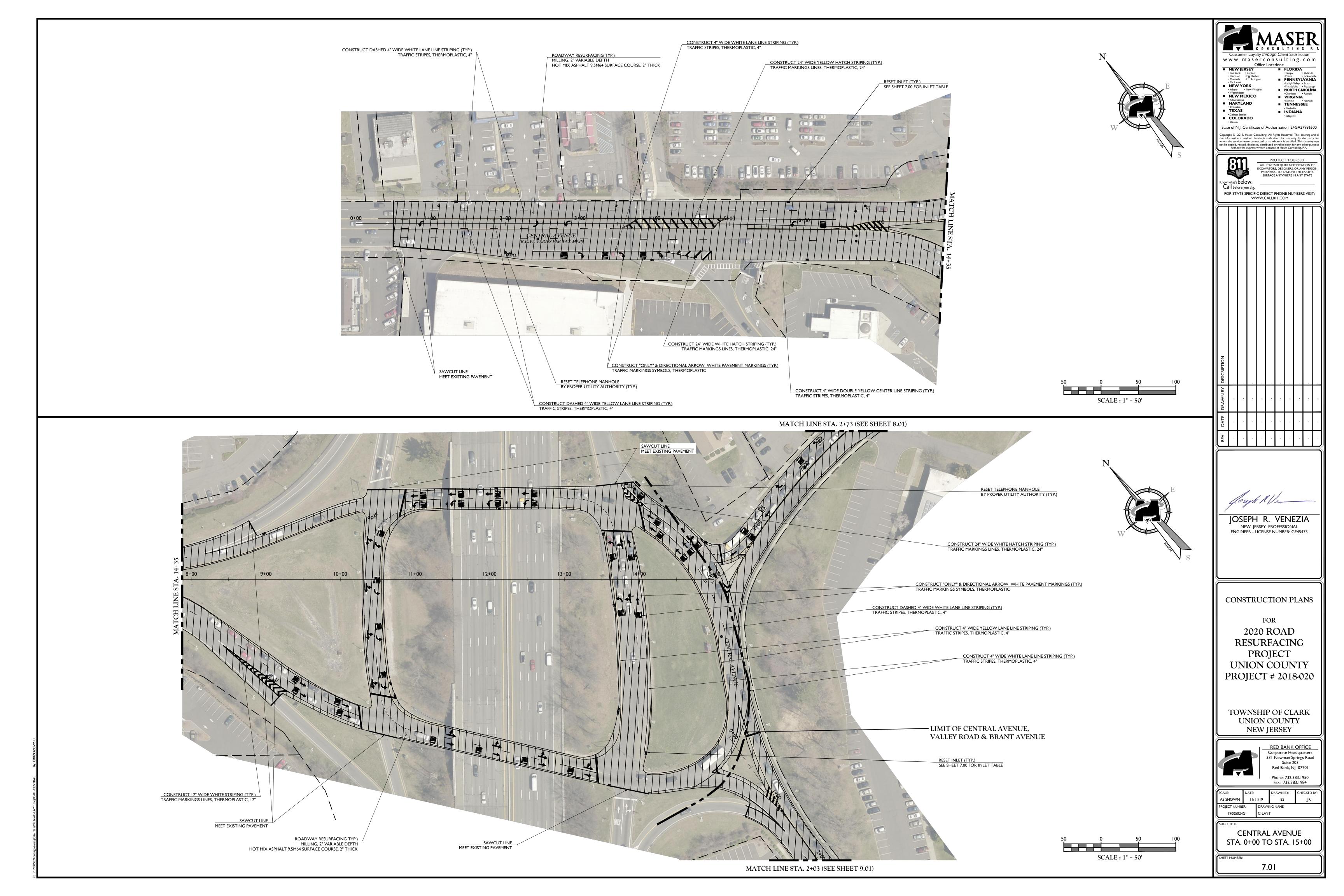


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AS SHOWN
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CENTRAL AVENUE QUANTITY SHEET



	VALLEY INLET TYPES & LOCATIONS													
CTATION	OFFRET	EVICTING INLET TYPE		QUANTITIES										
STATION	OFFSET	EXISTING INLET TYPE	BICYCLE SAFE GRATE	CURB PIECE	PLATE	RESET	RECONSTRUCT							
0+07	RT	В				✓								
0+32	LT	В				✓								
7+07	LT	В		✓		✓								

PAY ITEM NO.	DESCRIPTION	UNIT	QUANTI [*]
1	PORTABLE VARIABLE MESSAGE SIGN	UNIT	
2	TRAFFIC CONTROL TRUCK WITH MOUNTED CRASH CUSHION	UNIT	-
3	TRAFFIC CONTROL MEASURES	LS	-
4	FLOODLIGHTS FOR NIGHTTIME OPERATIONS	UNIT	-
5	TRAFFIC DIRECTOR, FLAGGER	ALLOW	-
6	TRAFFIC DIRECTOR, UNIFORM POLICE	ALLOW	-
7	EXCAVATION, UNCLASSIFIED (IF & WHERE DIRECTED)	CY	91
8	MILLING, 2" VARIABLE DEPTH	SY	5199
9	DAYTIME MILLING	DAY	-
10	DAYTIME PAVING	DAY	-
11	DENSE-GRADED AGGREGATE BASE COURSE, VARIABLE THICKNESS (IF & WHERE DIRECTED)	CY	91
12	HOT MIX ASPHALT PAVEMENT REPAIR (EXCAVATION, 4" DGA, 6" BASE COURSE) (IF & WHERE DIRECTED)	SY	109
13	HOT MIX ASPHALT SURFACE COURSE 9.5M64, 2" THICK	TON	598
14	HOT MIX ASPHALT LEVELING COURSE 9.5M64, VARIABLE THICKNESS	TON	60
15	FUEL PRICE ADJUSTMENT	ALLOW	-
16	ASPHALT PRICE ADJUSTMENT	ALLOW	-
17	TYPE N-ECO CURB PIECE (6"-8") WITH ADJACENT CURB REPLACEMENT	UNIT	1
18	BICYCLE SAFE GRATE	UNIT	-
19	ECO HEAD CURB ADAPTOR, FACEPLATE (IF & WHERE DIRECTED)	UNIT	-
20	RESET MANHOLE CASTING WITH EXISTING FRAME AND COVER	UNIT	6
21	RESET MANHOLE CASTING WITH NEW FRAME AND COVER	UNIT	-
22	RESET INLET CASTING	UNIT	3
23	RECONSTRUCT INLET	UNIT	-
24	INLET, TYPE B	UNIT	-
25	10"x20" CONCRETE VERTICAL CURB	LF	-
26	GRANITE BLOCK CURB	LF	-
27	CONCRETE SIDEWALK, 4" THICK	SY	-
28	CONCRETE SIDEWALK, REINFORCED, 6" THICK	SY	-
29	DETECTABLE WARNING SURFACE (CAST-IN-PLACE)	SY	-
30	RESET BRICK PAVER	SY	-
31	RETAINING WALL	SF	-
32	TRAFFIC STRIPES, THERMOPLASTIC, 4"	LF	3240
33	TRAFFIC MARKINGS LINES, THERMOPLASTIC, RUMBLE STRIP	LF	-
34	TRAFFIC MARKINGS LINES, THERMOPLASTIC, 8"	LF	488
35	TRAFFIC MARKINGS LINES, THERMOPLASTIC, 12"	LF	665
36	TRAFFIC MARKINGS LINES, THERMOPLASTIC, 24"	LF	99
37	TRAFFIC MARKINGS SYMBOLS, THERMOPLASTIC	SF	1068
38	RAISED PAVEMENT MARKER	UNIT	-
39	SEALING OF CRACKS IN HOT MIX ASPHALT SURFACE COURSE	LF	-
40	STREET NAME SIGN, TYPE DF WITH BREAKAWAY SUPPORT	SF	-
41	ACCESSORY PANEL, TYPE DF	SF	-
42	LOOP DETECTORS (IF & WHERE DIRECTED)	LF	-
43	IMAGE DETECTION SYSTEM (IF & WHERE DIRECTED)	UNIT	-
44	TREE REMOVAL, OVER 36" (IF & WHERE DIRECTED)	UNIT	-

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JOSEPH R. VENEZIA

NEW JERSEY PROFESSIONAL
ENGINEER - LICENSE NUMBER: GE45473

CONSTRUCTION PLANS

FOR 2020 ROAD RESURFACING PROJECT **UNION COUNTY** PROJECT # 2018-020

TOWNSHIP OF CLARK UNION COUNTY **NEW JERSEY**



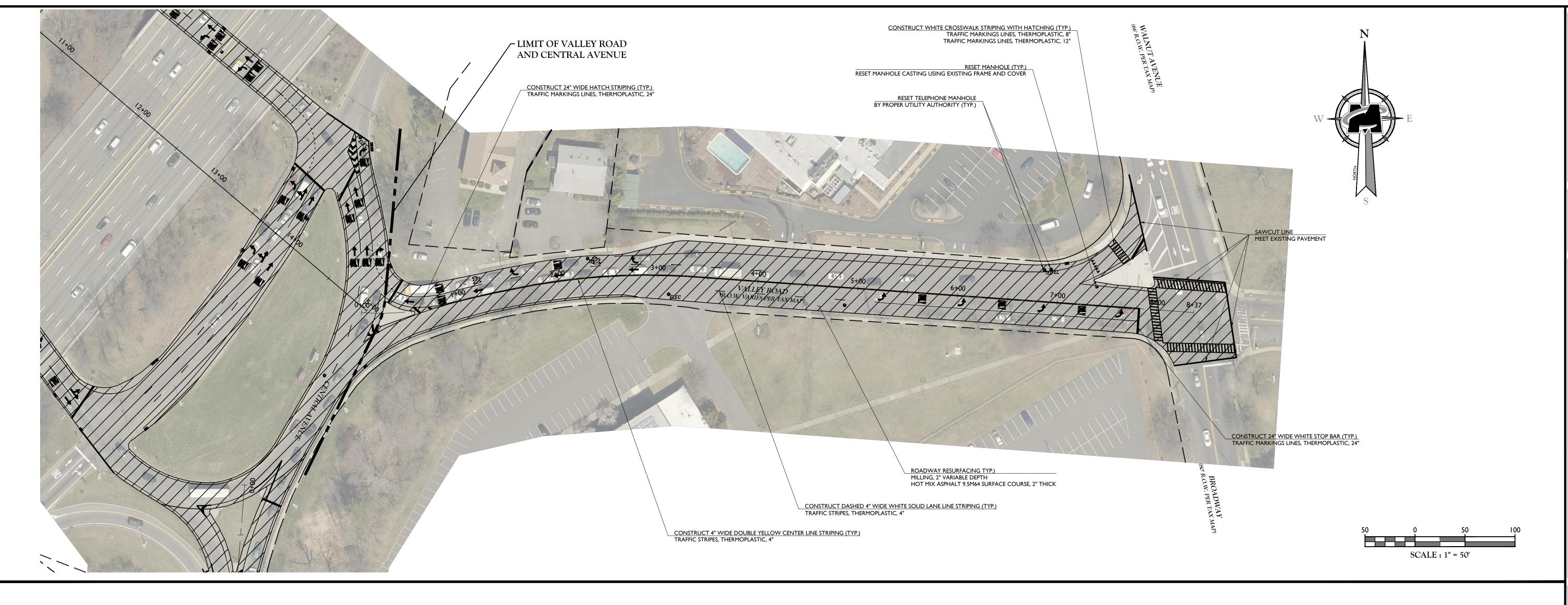
RED BANK OFFICE

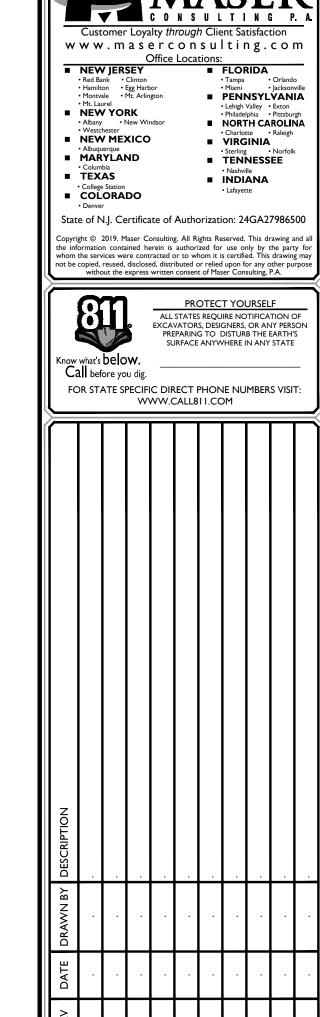
Corporate Headquarters
331 Newman Springs Road
Suite 203
Red Bank, NJ 07701 Phone: 732.383.1950 Fax: 732.383.1984

AS SHOWN
PROJECT NUMBER:

VALLEY ROAD

QUANTITY SHEET





Joseph MV1.

JOSEPH R. VENEZIA

NEW JERSEY PROFESSIONAL
ENGINEER - LICENSE NUMBER: GE45473

CONSTRUCTION PLANS

FOR

2020 ROAD

RESURFACING

PROJECT

UNION COUNTY

PROJECT # 2018-020

TOWNSHIP OF CLARK UNION COUNTY NEW JERSEY



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Red Bank, NJ 07701
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T NIJIMRER: DRAWING NAME:

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PROJECT NUMBER: DRAWING NAME:
19005024G C-LAYT

VALLEY ROAD STA. 0+00 TO STA. 8+37

SHEET NUMBI

	BRANT ADA RAMPS														
			CURB RAMP LAYOUT						QUANTITIES						
STATION	OFFSET	CURB RAMP TYPE	PERPENDICULAR	PARALLEL	DIAGONAL	COMBINATION	10"x20" CONC. VERTICAL CURB (LF)	GRANITE BLOCK CURB (LF)	CONCRETE SIDEWALK, REINFORCED, 6" THICK (SY)	DETECTABLE WARNING SURFACE (SY)					
5+51	RT	5		✓			15	-	10	1					
6+07	RT	3				✓	25	-	20	1					
8+34	LT	3				✓	25	-	20	1					
8+81	LT	3				✓	25	-	20	1					
11+55	RT	3				✓	25	-	20	1					
14+42	LT	3				✓	25	-	20	1					
14+50	RT	7		✓			30	-	15	1					

	BRANT INLET TYPES & LOCATIONS													
CTATION	OFFOFT	EVICTING INLET TYPE			QUANTITIES									
STATION	OFFSET	EXISTING INLET TYPE	BICYCLE SAFE GRATE	CURB PIECE	PLATE	RESET	RECONSTRUCT							
3+78	LT	В				✓								
3+79	RT	В				✓								
6+21	RT	В				✓								
6+32	LT	В				✓								
10+92	RT	В				✓								
11+13	LT	В				✓								
11+70	RT	В				✓								

PAY ITEM NO.	DESCRIPTION	UNIT	QUANTI
1	PORTABLE VARIABLE MESSAGE SIGN	UNIT	-
2	TRAFFIC CONTROL TRUCK WITH MOUNTED CRASH CUSHION	UNIT	-
3	TRAFFIC CONTROL MEASURES	LS	
4	FLOODLIGHTS FOR NIGHTTIME OPERATIONS	UNIT	-
5	TRAFFIC DIRECTOR, FLAGGER	ALLOW	-
6	TRAFFIC DIRECTOR, UNIFORM POLICE	ALLOW	-
7	EXCAVATION, UNCLASSIFIED (IF & WHERE DIRECTED)	CY	130
8	MILLING, 2" VARIABLE DEPTH	SY	7400
9	DAYTIME MILLING	DAY	-
10	DAYTIME PAVING	DAY	-
11	DENSE-GRADED AGGREGATE BASE COURSE, VARIABLE THICKNESS (IF & WHERE DIRECTED)	CY	130
12	HOT MIX ASPHALT PAVEMENT REPAIR (EXCAVATION, 4" DGA, 6" BASE COURSE) (IF & WHERE DIRECTED)	SY	151
13	HOT MIX ASPHALT SURFACE COURSE 9.5M64, 2" THICK	TON	850
14	HOT MIX ASPHALT LEVELING COURSE 9.5M64, VARIABLE THICKNESS	TON	85
15	FUEL PRICE ADJUSTMENT	ALLOW	-
16	ASPHALT PRICE ADJUSTMENT	ALLOW	-
17	TYPE N-ECO CURB PIECE (6"-8") WITH ADJACENT CURB REPLACEMENT	UNIT	-
18	BICYCLE SAFE GRATE	UNIT	-
19	ECO HEAD CURB ADAPTOR, FACEPLATE (IF & WHERE DIRECTED)	UNIT	-
20	RESET MANHOLE CASTING WITH EXISTING FRAME AND COVER	UNIT	19
21	RESET MANHOLE CASTING WITH NEW FRAME AND COVER	UNIT	-
22	RESET INLET CASTING	UNIT	7
23	RECONSTRUCT INLET	UNIT	-
24	INLET, TYPE B	UNIT	-
25	10"x20" CONCRETE VERTICAL CURB	LF	170
26	GRANITE BLOCK CURB	LF	-
27	CONCRETE SIDEWALK, 4" THICK	SY	-
28	CONCRETE SIDEWALK, REINFORCED, 6" THICK	SY	125
29	DETECTABLE WARNING SURFACE (CAST-IN-PLACE)	SY	7
30	RESET BRICK PAVER	SY	-
31	RETAINING WALL	SF	-
32	TRAFFIC STRIPES, THERMOPLASTIC, 4"	LF	3500
33	TRAFFIC MARKINGS LINES, THERMOPLASTIC, RUMBLE STRIP	LF	-
34	TRAFFIC MARKINGS LINES, THERMOPLASTIC, 8"	LF	200
35	TRAFFIC MARKINGS LINES, THERMOPLASTIC, 12"	LF	960
36	TRAFFIC MARKINGS LINES, THERMOPLASTIC, 24"	LF	165
37	TRAFFIC MARKINGS SYMBOLS, THERMOPLASTIC	SF	300
38	RAISED PAVEMENT MARKER	UNIT	-
39	SEALING OF CRACKS IN HOT MIX ASPHALT SURFACE COURSE	LF	-
40	STREET NAME SIGN, TYPE DF WITH BREAKAWAY SUPPORT	SF	-
41	ACCESSORY PANEL, TYPE DF	SF	-
42	LOOP DETECTORS (IF & WHERE DIRECTED)	LF	-
43	IMAGE DETECTION SYSTEM (IF & WHERE DIRECTED)	UNIT	-
44	TREE REMOVAL, OVER 36" (IF & WHERE DIRECTED)	UNIT	-

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NEW JERSEY PROFESSIONAL
ENGINEER - LICENSE NUMBER: GE45473

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FOR 2020 ROAD RESURFACING PROJECT **UNION COUNTY** PROJECT # 2018-020

TOWNSHIP OF CLARK UNION COUNTY **NEW JERSEY**

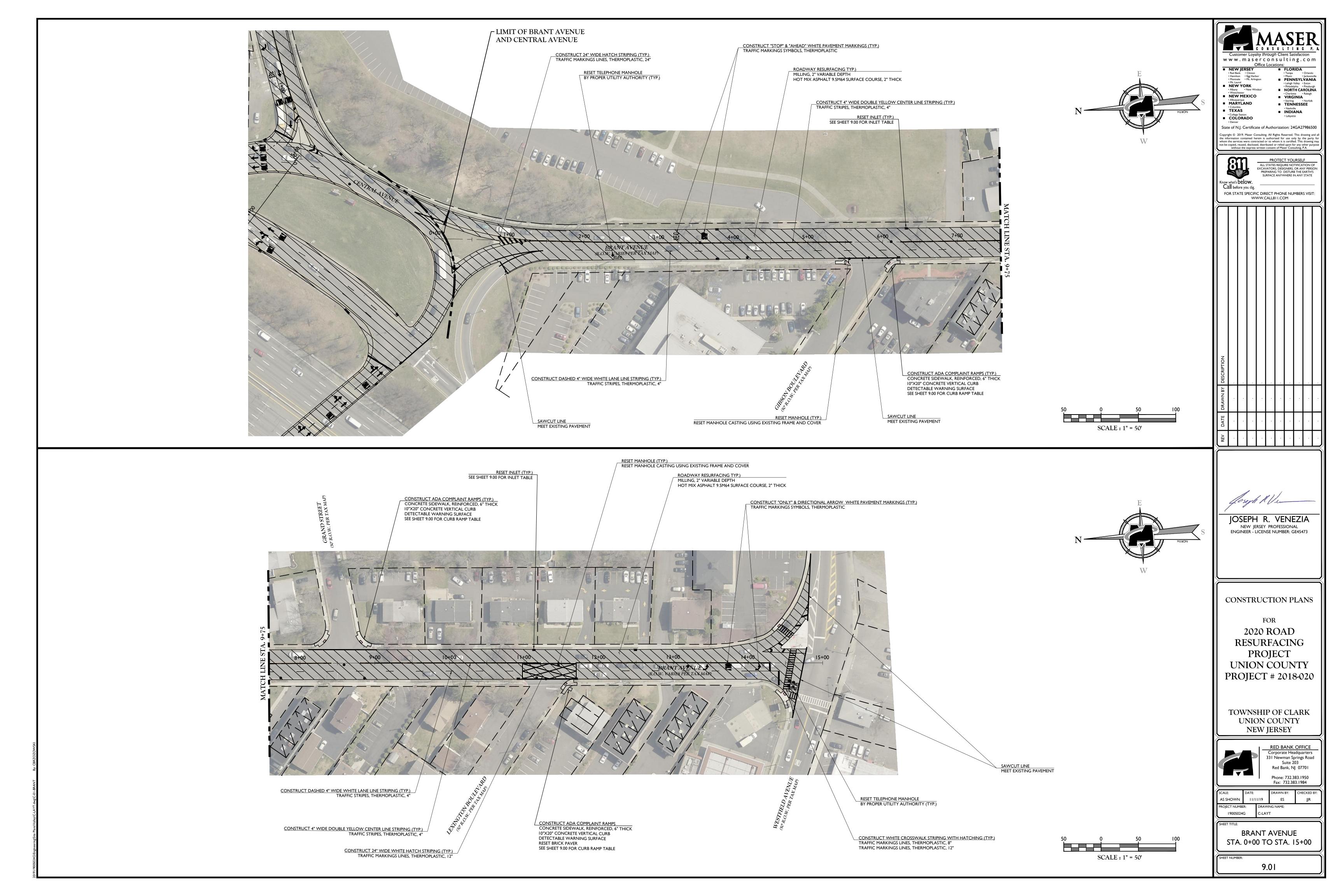


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AS SHOWN
PROJECT NUMBER:

BRANT AVENUE QUANTITY SHEET



						MOUNTAIN ADA F	RAMPS			
				CURB RAM	P LAYOUT			(QUANTITIES	
STATION	OFFSET	CURB RAMP TYPE	PERPENDICULAR	PARALLEL	DIAGONAL	COMBINATION	10"x20" CONC. VERTICAL CURB (LF)	GRANITE BLOCK CURB (LF)	CONCRETE SIDEWALK, REINFORCED, 6" THICK (SY)	DETECTABLE WARNING SURFACE (SY)
4+23	LT	3				✓	15	10	25	1
6+96	LT	3				✓	25	-	25	1
7+45	LT	2			✓		15	5	20	1
15+22	LT	2			✓		15	5	20	1
15+63	LT	2			✓		15	5	20	1
15+84	RT	4				✓	15	-	15	1
17+80	LT	6		✓			15	5	15	1
18+23	LT	6		✓			25	15	10	1
20+45	LT	2			✓		15	5	20	1
20+83	LT	2			✓		15	5	20	1
23+44	LT	2			✓		15	5	20	1
91+63	RT	6		✓			15	-	15	1
96+66	LT	6		✓			20	10	25	1
97+13	LT	3				✓	15	5	10	1
97+18	LT	4				✓	15	-	10	1

STATION	OFFOFT	EVICTING INITET TYPE			QUANTITIES		
STATION	OFFSET	EXISTING INLET TYPE	BICYCLE SAFE GRATE	CURB PIECE	PLATE	RESET	RECONSTRUC
7+68	LT	В				✓	
8+02	RT	В				✓	
9+55	LT	В					
12+39	LT	В				✓	
12+39	RT	В				✓	
15+08	LT	В					
15+75	LT	В				✓	
16+22	RT	В				✓	
24+75	RT	В				✓	
24+82	LT	В				✓	
25+26	RT	В				✓	
25+28	LT	В				✓	
35+96	LT	В				✓	
36+10	RT	В					✓
37+29	RT	В				√	
38+25	RT 	В				✓	
39+30	RT . –	В					✓
39+46	LT ·-	В				✓	
39+84	LT	В				✓	
52+71	LT 	A -					✓
52+90	RT	B -				√	
54+84	LT	E				√	
54+87	RT	UNDERSIZED B				√	
60+58	LT	В				√	
61+43	LT	В				√	
61+44	RT	В				√	
63+45 67+07	LT LT	В				√	
70+36	LT	В В		√		√	
71+36	RT	В		Ť		√	
71+30	LT	В				V ✓	
71+37	RT	В				→	
72+68	LT	В				→	
75+47	LT	В				→	
75+51	LT	В				→	
76+32	LT	B w/DRIVEWAY				→	
76+34	RT	B				· ·	
77+17	LT	В					√
79+32	LT	В				√	
81+23	LT	В				· ·	
83+54	LT	В				✓	
88+00	LT	В				· ·	
88+02	RT	В				✓	
88+26	LT	A					✓
88+27	RT	В				✓	
89+61	RT	В				✓	
90+50	LT	В				✓	
91+16	RT	В				✓	
92+63	LT	В				✓	
92+64	RT	В				✓	
93+88	RT	В				✓	
96+12	RT	В				✓	
96+45	LT	В		1		✓	

PAY ITEM NO.	DESCRIPTION	UNIT	QUANTI [*]
1	PORTABLE VARIABLE MESSAGE SIGN	UNIT	
2	TRAFFIC CONTROL TRUCK WITH MOUNTED CRASH CUSHION	UNIT	-
3	TRAFFIC CONTROL MEASURES	LS	
4	FLOODLIGHTS FOR NIGHTTIME OPERATIONS	UNIT	-
5	TRAFFIC DIRECTOR, FLAGGER	ALLOW	-
6	TRAFFIC DIRECTOR, UNIFORM POLICE	ALLOW	-
7	EXCAVATION, UNCLASSIFIED (IF & WHERE DIRECTED)	CY	823
8	MILLING, 2" VARIABLE DEPTH	SY	47006
9	DAYTIME MILLING	DAY	-
10	DAYTIME PAVING	DAY	-
11	DENSE-GRADED AGGREGATE BASE COURSE, VARIABLE THICKNESS (IF & WHERE DIRECTED)	CY	823
12	HOT MIX ASPHALT PAVEMENT REPAIR (EXCAVATION, 4" DGA, 6" BASE COURSE) (IF & WHERE DIRECTED)	SY	987
13	HOT MIX ASPHALT SURFACE COURSE 9.5M64, 2" THICK	TON	5406
14	HOT MIX ASPHALT LEVELING COURSE 9.5M64, VARIABLE THICKNESS	TON	541
15	FUEL PRICE ADJUSTMENT	ALLOW	-
16	ASPHALT PRICE ADJUSTMENT	ALLOW	-
17	TYPE N-ECO CURB PIECE (6"-8") WITH ADJACENT CURB REPLACEMENT	UNIT	1
18	BICYCLE SAFE GRATE	UNIT	-
19	ECO HEAD CURB ADAPTOR, FACEPLATE (IF & WHERE DIRECTED)	UNIT	-
20	RESET MANHOLE CASTING WITH EXISTING FRAME AND COVER	UNIT	-
21	RESET MANHOLE CASTING WITH NEW FRAME AND COVER	UNIT	-
22	RESET INLET CASTING	UNIT	46
23	RECONSTRUCT INLET	UNIT	5
24	INLET, TYPE B	UNIT	-
25	10"x20" CONCRETE VERTICAL CURB	LF	250
26	GRANITE BLOCK CURB	LF	75
27	CONCRETE SIDEWALK, 4" THICK	SY	-
28	CONCRETE SIDEWALK, REINFORCED, 6" THICK	SY	270
29	DETECTABLE WARNING SURFACE (CAST-IN-PLACE)	SY	15
30	RESET BRICK PAVER	SY	-
31	RETAINING WALL	SF	-
32	TRAFFIC STRIPES, THERMOPLASTIC, 4"	LF	3188
33	TRAFFIC MARKINGS LINES, THERMOPLASTIC, RUMBLE STRIP	LF	-
34	TRAFFIC MARKINGS LINES, THERMOPLASTIC, 8"	LF	1498
35	TRAFFIC MARKINGS LINES, THERMOPLASTIC, 12"	LF	2498
36	TRAFFIC MARKINGS LINES, THERMOPLASTIC, 24"	LF	220
37	TRAFFIC MARKINGS SYMBOLS, THERMOPLASTIC	SF	1610
38	RAISED PAVEMENT MARKER	UNIT	-
39	SEALING OF CRACKS IN HOT MIX ASPHALT SURFACE COURSE	LF	-
40	STREET NAME SIGN, TYPE DF WITH BREAKAWAY SUPPORT	SF	-
41	ACCESSORY PANEL, TYPE DF	SF	-
42	LOOP DETECTORS (IF & WHERE DIRECTED)	LF	-
43	IMAGE DETECTION SYSTEM (IF & WHERE DIRECTED)	UNIT	-
44	TREE REMOVAL, OVER 36" (IF & WHERE DIRECTED)	UNIT	-

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JOSEPH R. VENEZIA

NEW JERSEY PROFESSIONAL

ENGINEER - LICENSE NUMBER: GE45473

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> TOWNSHIP OF SPRINGFIELD UNION COUNTY **NEW JERSEY**



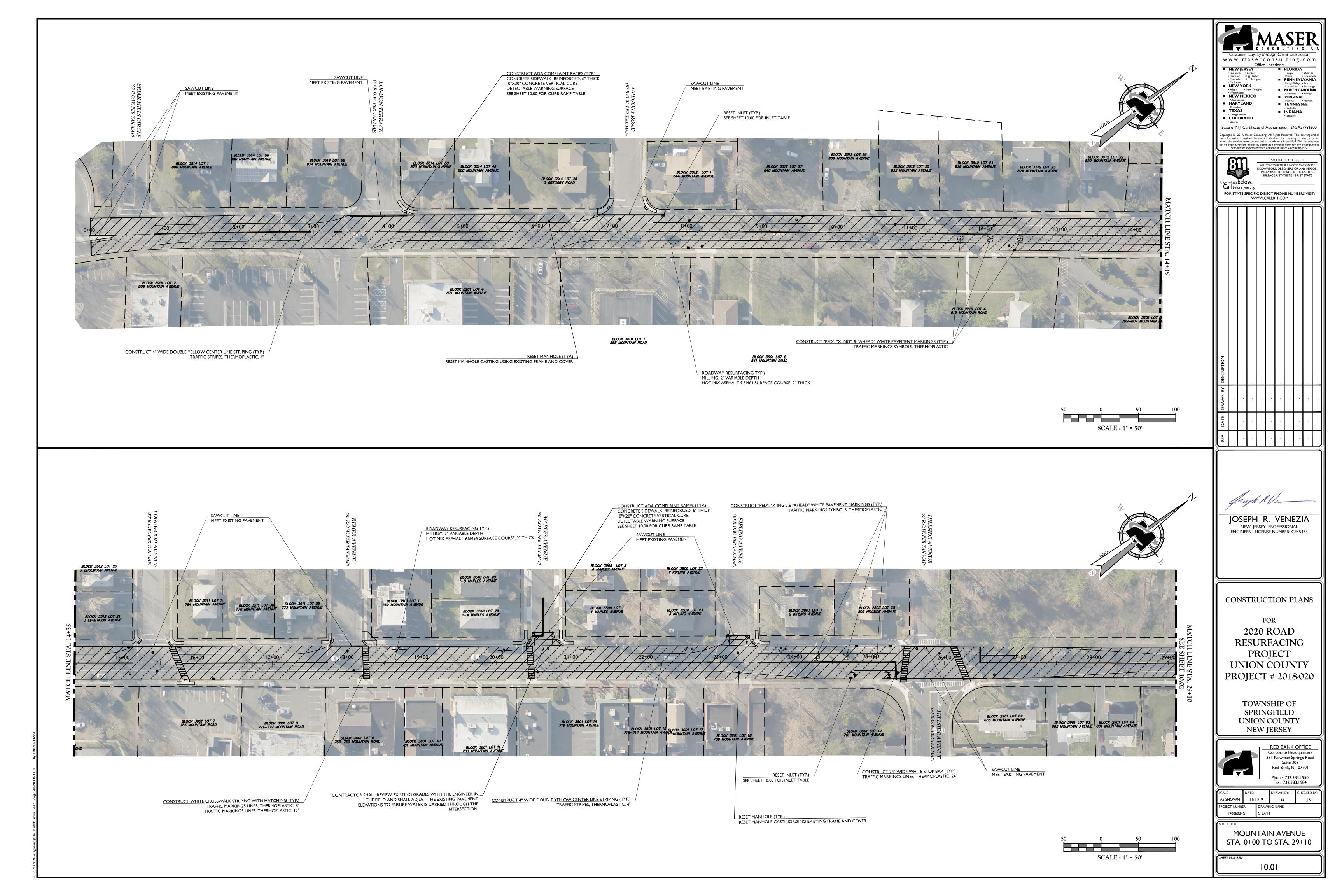
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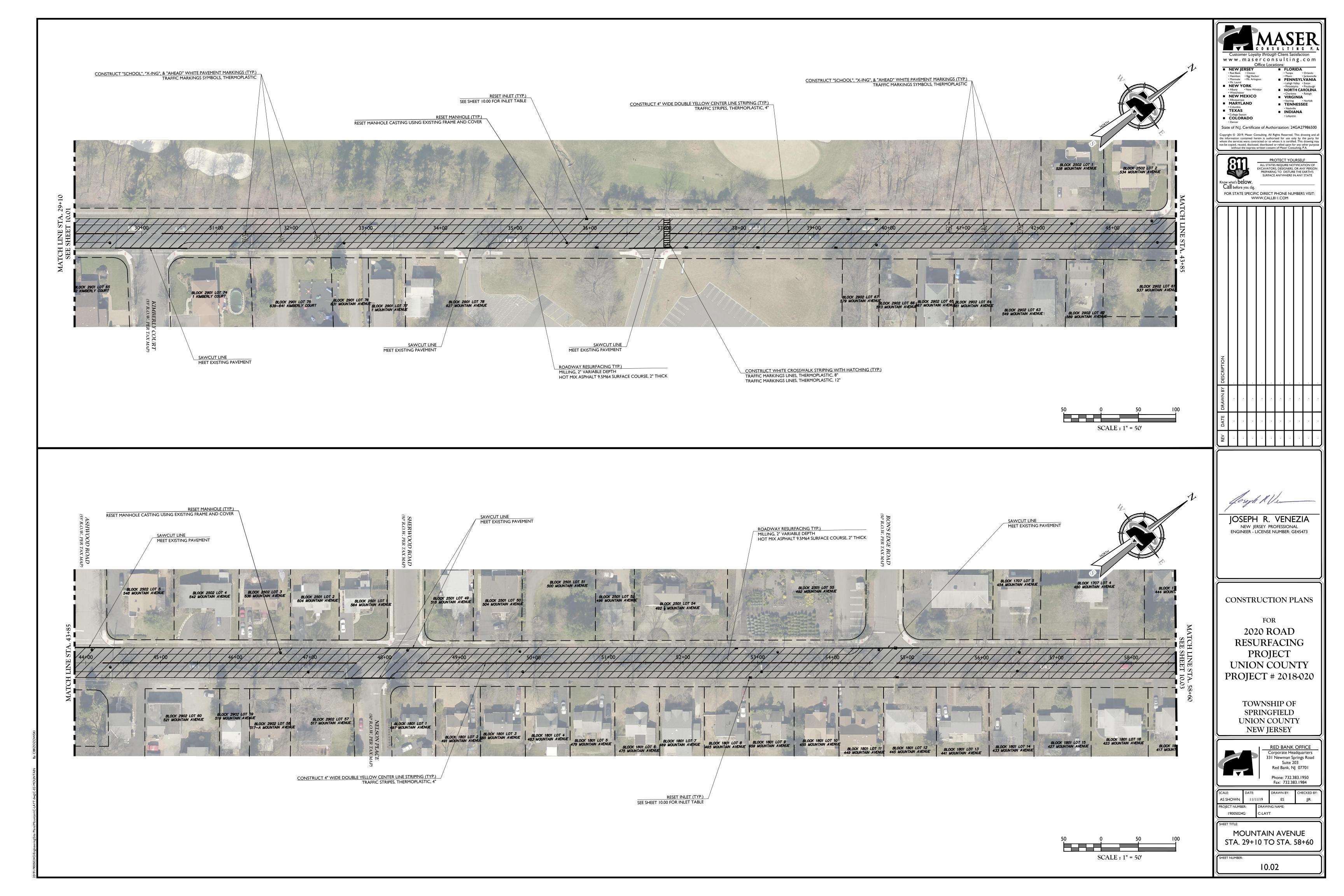
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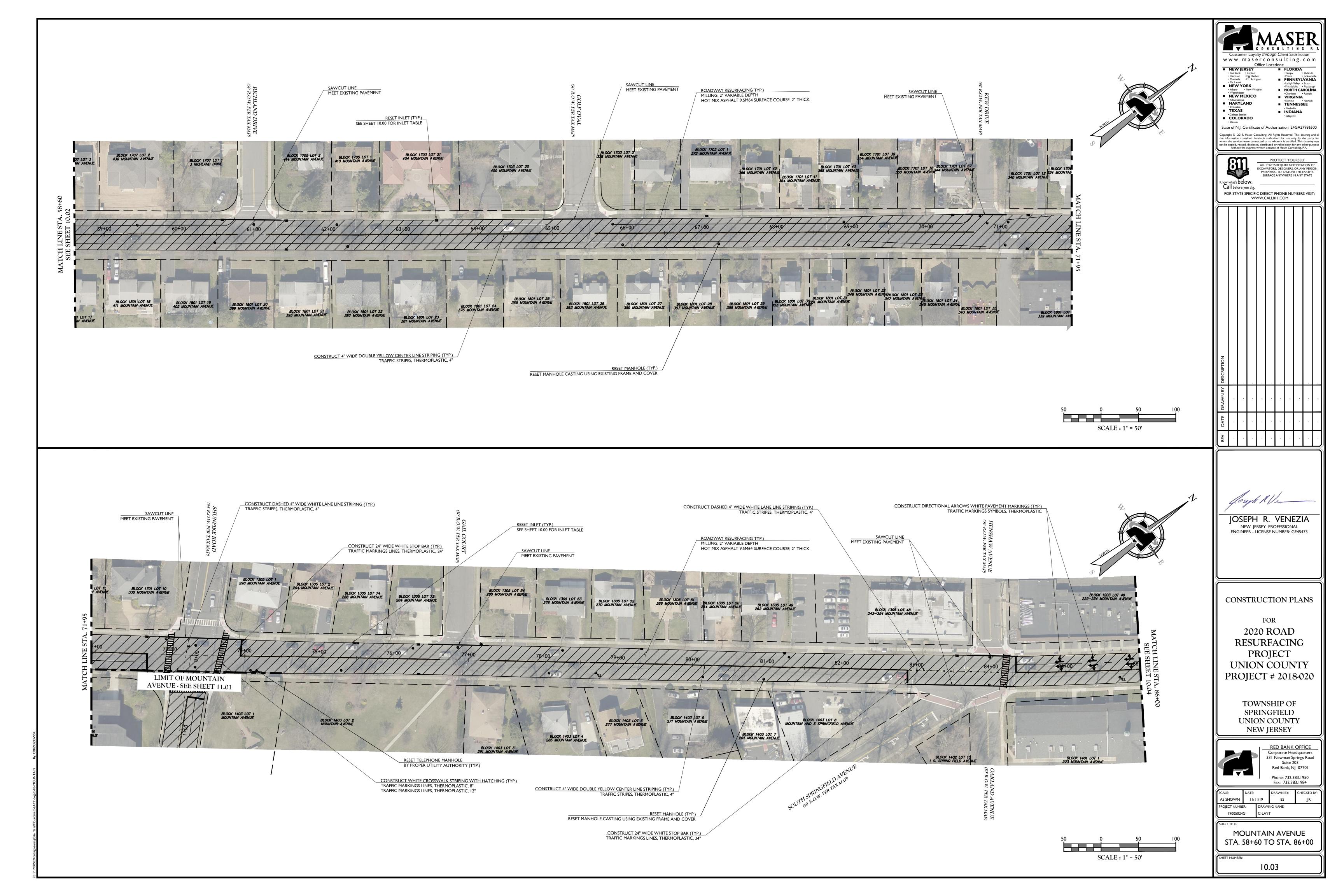
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PROJECT NUMBER:

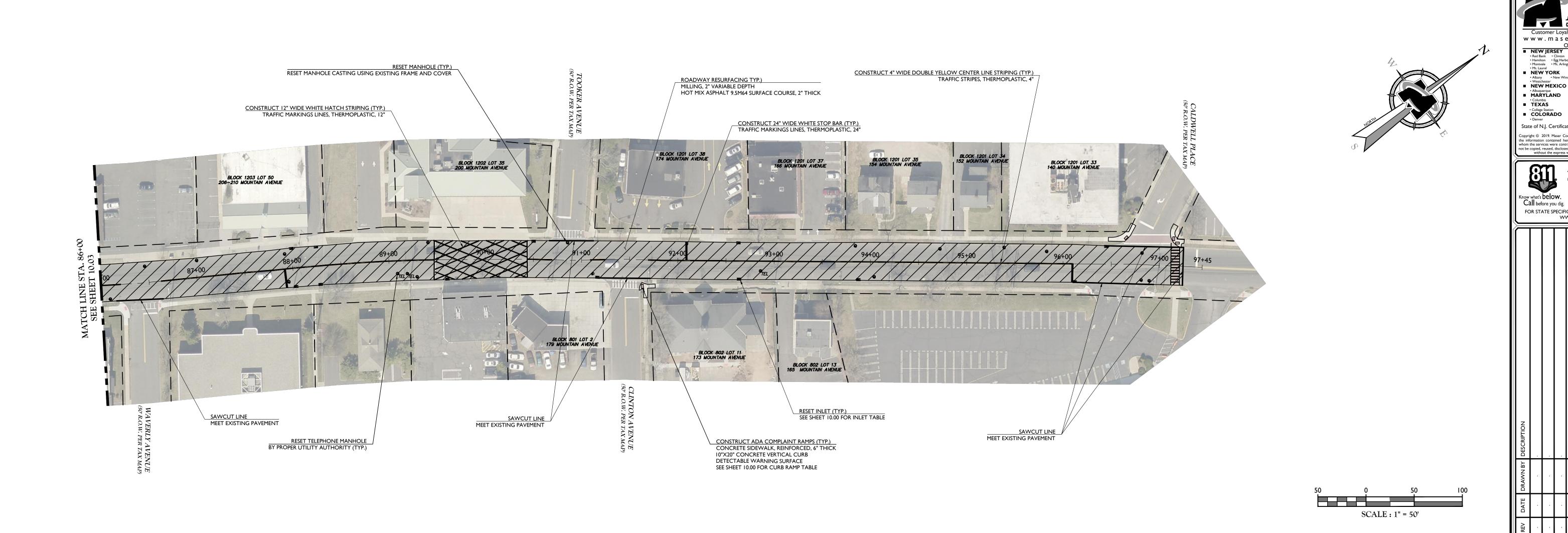
MOUNTAIN AVENUE

QUANTITY SHEET









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as shown

MOUNTAIN AVENUE STA. 86+00 TO STA. 97+45

						SHUNPIKE ADA F	RAMPS			
				CURB RAMF	PLAYOUT				QUANTITIES	
STATION	OFFSET	CURB RAMP TYPE	PERPENDICULAR	PARALLEL	DIAGONAL	COMBINATION	10"x20" CONC. VERTICAL CURB (LF)	GRANITE BLOCK CURB (LF)	CONCRETE SIDEWALK, REINFORCED, 6" THICK (SY)	DETECTABLE WARNING SURFACE (SY)
6+47	LT	3				✓	30	-	20	1
6+89	LT	4				✓	15	-	20	1

			SHUNPIKE INLET TYPES &	& LOCATIONS			
STATION	OFFSET	EXISTING INLET TYPE			QUANTITIES		
STATION	OFFSET	EXISTING INLET TIPE	BICYCLE SAFE GRATE	CURB PIECE	PLATE	RESET	RECONSTRUCT
1+94	LT	В	✓			✓	
1+95	RT	В	√			√	

PAY ITEM NO.	DESCRIPTION	UNIT	QUANTIT
1	PORTABLE VARIABLE MESSAGE SIGN	UNIT	-
2	TRAFFIC CONTROL TRUCK WITH MOUNTED CRASH CUSHION	UNIT	-
3	TRAFFIC CONTROL MEASURES	LS	
4	FLOODLIGHTS FOR NIGHTTIME OPERATIONS	UNIT	-
5	TRAFFIC DIRECTOR, FLAGGER	ALLOW	-
6	TRAFFIC DIRECTOR, UNIFORM POLICE	ALLOW	-
7	EXCAVATION, UNCLASSIFIED (IF & WHERE DIRECTED)	CY	64
8	MILLING, 2" VARIABLE DEPTH	SY	3684
9	DAYTIME MILLING	DAY	 -
10	DAYTIME PAVING	DAY	<u> </u>
11	DENSE-GRADED AGGREGATE BASE COURSE, VARIABLE THICKNESS (IF & WHERE DIRECTED)	CY	64
12	HOT MIX ASPHALT PAVEMENT REPAIR (EXCAVATION, 4" DGA, 6" BASE COURSE) (IF & WHERE DIRECTED)	SY	77
13	HOT MIX ASPHALT SURFACE COURSE 9.5M64, 2" THICK	TON	424
14	HOT MIX ASPHALT LEVELING COURSE 9.5M64, VARIABLE THICKNESS	TON	43
15	FUEL PRICE ADJUSTMENT	ALLOW	-
	ASPHALT PRICE ADJUSTMENT		
16	TYPE N-ECO CURB PIECE (6"-8") WITH ADJACENT CURB REPLACEMENT	ALLOW	+
17		UNIT	-
18	BICYCLE SAFE GRATE	UNIT	2
19	ECO HEAD CURB ADAPTOR, FACEPLATE (IF & WHERE DIRECTED)	UNIT	-
20	RESET MANHOLE CASTING WITH EXISTING FRAME AND COVER	UNIT	5
21	RESET MANHOLE CASTING WITH NEW FRAME AND COVER	UNIT	-
22	RESET INLET CASTING	UNIT	2
23	RECONSTRUCT INLET	UNIT	-
24	INLET, TYPE B	UNIT	2
25	10"x20" CONCRETE VERTICAL CURB	LF	45
26	GRANITE BLOCK CURB	LF	-
27	CONCRETE SIDEWALK, 4" THICK	SY	-
28	CONCRETE SIDEWALK, REINFORCED, 6" THICK	SY	40
29	DETECTABLE WARNING SURFACE (CAST-IN-PLACE)	SY	2
30	RESET BRICK PAVER	SY	-
31	RETAINING WALL	SF	-
32	TRAFFIC STRIPES, THERMOPLASTIC, 4"	LF	1399
33	TRAFFIC MARKINGS LINES, THERMOPLASTIC, RUMBLE STRIP	LF	-
34	TRAFFIC MARKINGS LINES, THERMOPLASTIC, 8"	LF	233
35	TRAFFIC MARKINGS LINES, THERMOPLASTIC, 12"	LF	299
36	TRAFFIC MARKINGS LINES, THERMOPLASTIC, 24"	LF	50
37	TRAFFIC MARKINGS SYMBOLS, THERMOPLASTIC	SF	167
38	RAISED PAVEMENT MARKER	UNIT	-
39	SEALING OF CRACKS IN HOT MIX ASPHALT SURFACE COURSE	LF	-
40	STREET NAME SIGN, TYPE DF WITH BREAKAWAY SUPPORT	SF	-
41	ACCESSORY PANEL, TYPE DF	SF	-
42	LOOP DETECTORS (IF & WHERE DIRECTED)	LF	_
43	IMAGE DETECTION SYSTEM (IF & WHERE DIRECTED)	UNIT	_
44	TREE REMOVAL, OVER 36" (IF & WHERE DIRECTED)	UNIT	_

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CONSTRUCTION PLANS

FOR 2020 ROAD RESURFACING PROJECT **UNION COUNTY** PROJECT # 2018-020

> TOWNSHIP OF SPRINGFIELD UNION COUNTY **NEW JERSEY**



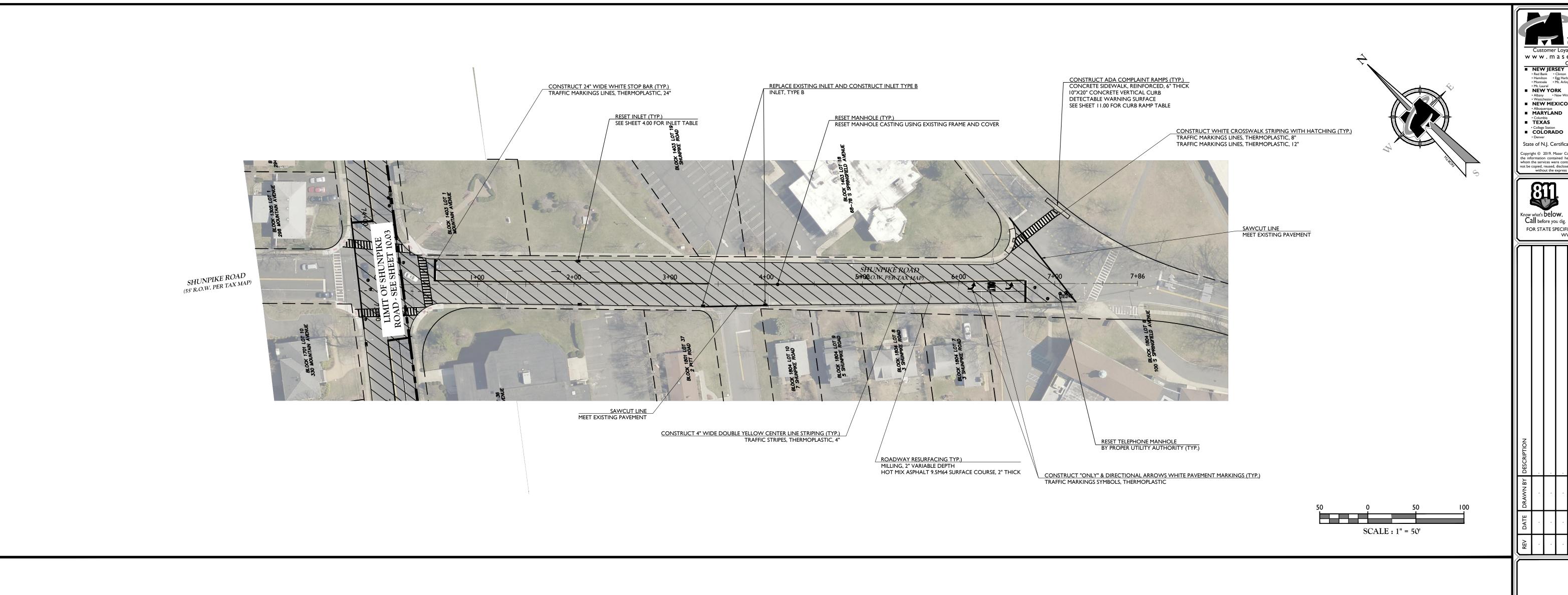
RED BANK OFFICE

Corporate Headquarters
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Suite 203
Red Bank, NJ 07701 Phone: 732.383.1950 Fax: 732.383.1984

AS SHOWN
PROJECT NUMBER:

SHUNPIKE ROAD

QUANTITY SHEET



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JOSEPH R. VENEZIA NEW JERSEY PROFESSIONAL ENGINEER - LICENSE NUMBER: GE45473

CONSTRUCTION PLANS

FOR 2020 ROAD RESURFACING PROJECT **UNION COUNTY** PROJECT # 2018-020

> TOWNSHIP OF SPRINGFIELD **UNION COUNTY NEW JERSEY**



RED BANK OFFICE
Corporate Headquarters
331 Newman Springs Road Suite 203 Red Bank, NJ 07701

Phone: 732.383.1950 Fax: 732.383.1984

as shown

SHUNPIKE ROAD STA. 0+00 TO STA. 7+75

		W.R. TRAC	Y DRIVE - INLET TYPE	S & LOCATION	S		
				QUAN	NTITIES		
STATION	OFFSET	EXISTING INLET TYPE	BICYCLE SAFE				
			GRATE	CURB PIECE	PLATE	RESET	RECONSTRUCT
4+71	RT	2' X 2' HANDHOLE				✓	
7+44	LT	2' X 2' HANDHOLE				✓	
7+44	RT	2' X 2' HANDHOLE				✓	
16+34	LT	2' X 2' HANDHOLE				✓	
24+12	RT	А				✓	
24+40	RT	А				✓	
42+73	LT	2' X 2' HANDHOLE				✓	
45+21	LT	2' X 2' HANDHOLE				✓	
46+40	LT	E	✓			✓	
46+58	LT	2' X 2' HANDHOLE				✓	
57+21	LT	А	✓			✓	
67+89	LT	2' X 2' HANDHOLE				✓	
80+73	LT	2' X 2' HANDHOLE				✓	
80+85	RT	2' X 2' HANDHOLE				✓	
82+26	RT	А				✓	
84+95	LT	E				✓	
87+53	LT	2' X 2' HANDHOLE				✓	
89+32	LT	2' X 2' HANDHOLE				✓	
92+98	RT	2' X 2' HANDHOLE				✓	
98+10	LT	2' X 2' HANDHOLE				✓	

AY ITEM NO.	DESCRIPTION	UNIT	QUANTII
1	PORTABLE VARIABLE MESSAGE SIGN	UNIT	-
2	TRAFFIC CONTROL TRUCK WITH MOUNTED CRASH CUSHION	UNIT	-
3	TRAFFIC CONTROL MEASURES	LS	-
4	FLOODLIGHTS FOR NIGHTTIME OPERATIONS	UNIT	-
5	TRAFFIC DIRECTOR, FLAGGER	ALLOW	-
6	TRAFFIC DIRECTOR, UNIFORM POLICE	ALLOW	-
7	EXCAVATION, UNCLASSIFIED (IF & WHERE DIRECTED)	CY	510
8	MILLING, 2" VARIABLE DEPTH	SY	30622
9	DAYTIME MILLING	DAY	-
10	DAYTIME PAVING	DAY	-
11	DENSE-GRADED AGGREGATE BASE COURSE, VARIABLE THICKNESS (IF & WHERE DIRECTED)	CY	510
12	HOT MIX ASPHALT PAVEMENT REPAIR (EXCAVATION, 4" DGA, 6" BASE COURSE) (IF & WHERE DIRECTED)	SY	612
13	HOT MIX ASPHALT SURFACE COURSE 9.5M64, 2" THICK	TON	3522
14	HOT MIX ASPHALT LEVELING COURSE 9.5M64, VARIABLE THICKNESS	TON	352
15	FUEL PRICE ADJUSTMENT	ALLOW	-
16	ASPHALT PRICE ADJUSTMENT	ALLOW	-
17	TYPE N-ECO CURB PIECE (6"-8") WITH ADJACENT CURB REPLACEMENT	UNIT	-
18	BICYCLE SAFE GRATE	UNIT	2
19	ECO HEAD CURB ADAPTOR, FACEPLATE (IF & WHERE DIRECTED)	UNIT	-
20	RESET MANHOLE CASTING WITH EXISTING FRAME AND COVER	UNIT	-
21	RESET MANHOLE CASTING WITH NEW FRAME AND COVER	UNIT	-
22	RESET INLET CASTING	UNIT	20
23	RECONSTRUCT INLET	UNIT	-
24	INLET, TYPE B	UNIT	-
25	10"x20" CONCRETE VERTICAL CURB	LF	-
26	GRANITE BLOCK CURB	LF	-
27	CONCRETE SIDEWALK, 4" THICK	SY	-
28	CONCRETE SIDEWALK, REINFORCED, 6" THICK	SY	-
29	DETECTABLE WARNING SURFACE (CAST-IN-PLACE)	SY	-
30	RESET BRICK PAVER	SY	-
31	RETAINING WALL	SF	-
32	TRAFFIC STRIPES, THERMOPLASTIC, 4"	LF	41307
33	TRAFFIC MARKINGS LINES, THERMOPLASTIC, RUMBLE STRIP	LF	-
34	TRAFFIC MARKINGS LINES, THERMOPLASTIC, 8"	LF	-
35	TRAFFIC MARKINGS LINES, THERMOPLASTIC, 12"	LF	_
36	TRAFFIC MARKINGS LINES, THERMOPLASTIC, 24"	LF	24
37	TRAFFIC MARKINGS SYMBOLS, THERMOPLASTIC	SF	
38	RAISED PAVEMENT MARKER	UNIT	-
39	SEALING OF CRACKS IN HOT MIX ASPHALT SURFACE COURSE	LF	
40	STREET NAME SIGN, TYPE DF WITH BREAKAWAY SUPPORT	SF	-
41	ACCESSORY PANEL, TYPE DF	SF	-
42	LOOP DETECTORS (IF & WHERE DIRECTED)	LF	-
43	IMAGE DETECTION SYSTEM (IF & WHERE DIRECTED)	UNIT	-
44	TREE REMOVAL, OVER 36" (IF & WHERE DIRECTED)	UNIT	-

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JOSEPH R. VENEZIA

NEW JERSEY PROFESSIONAL

ENGINEER - LICENSE NUMBER: GE45473

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FOR 2020 ROAD RESURFACING PROJECT **UNION COUNTY** PROJECT # 2018-020

> BOROUGH OF MOUNTAINSIDE UNION COUNTY **NEW JERSEY**



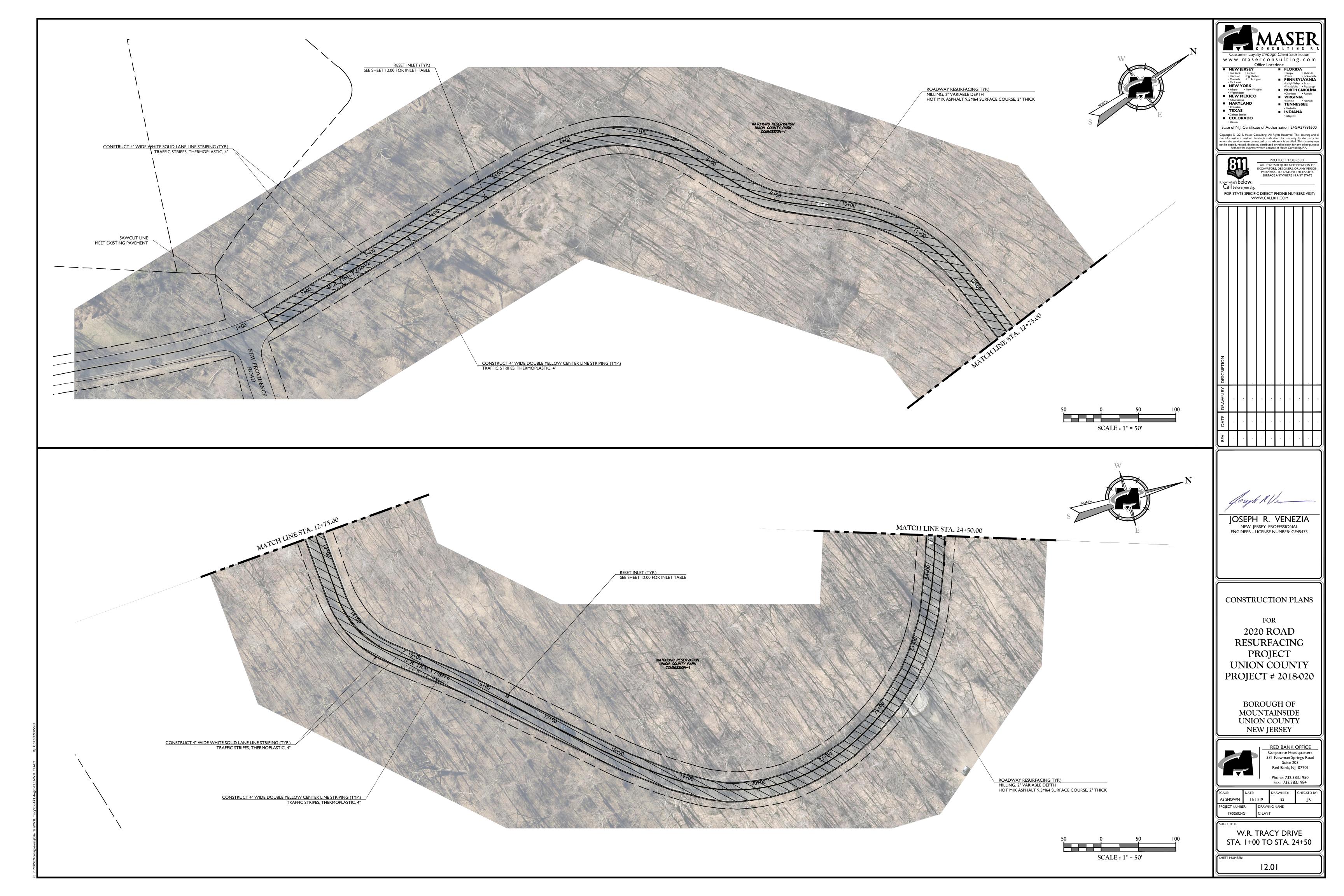
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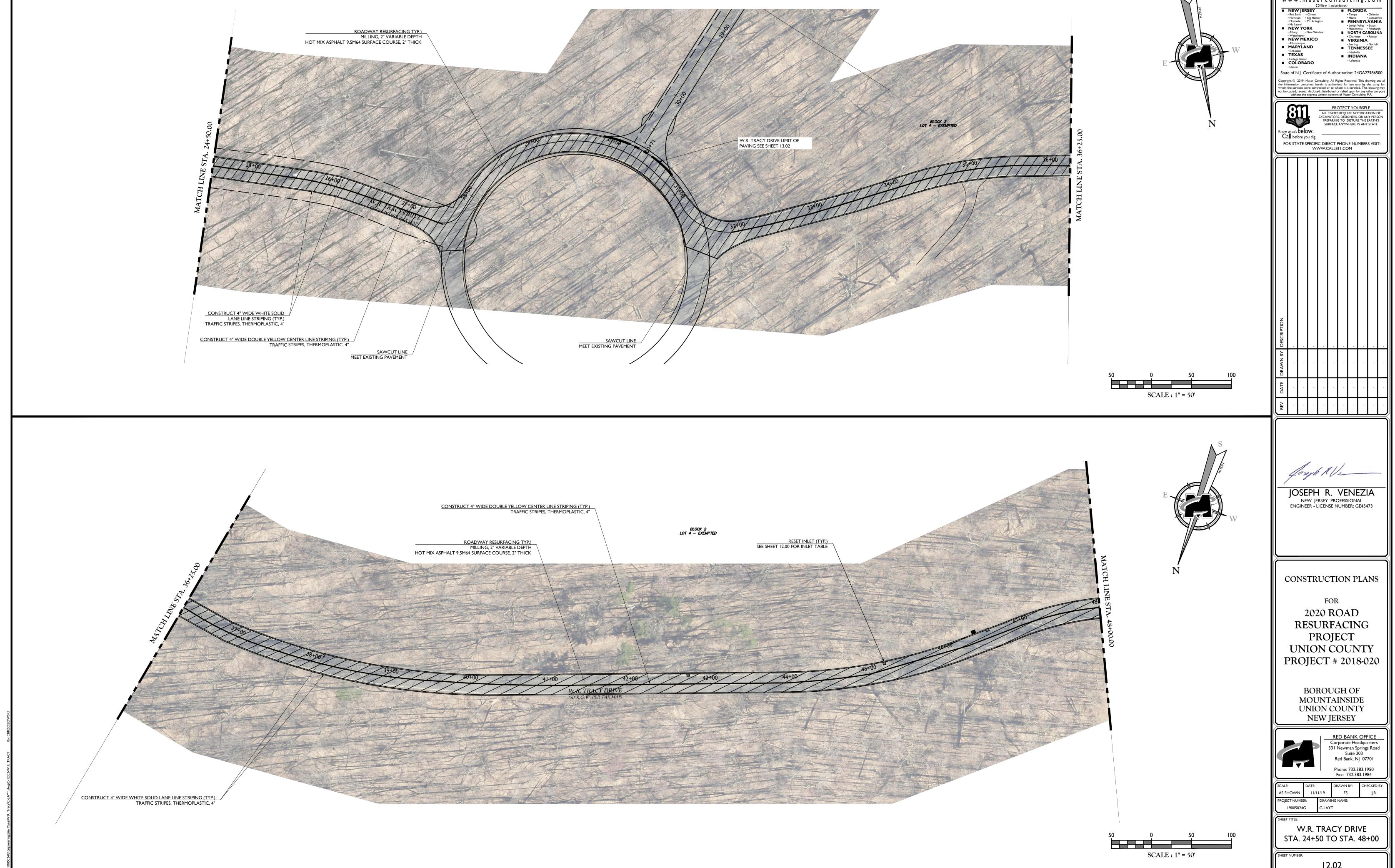
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AS SHOWN
PROJECT NUMBER:

W.R. TRACY DRIVE

QUANTITY SHEET

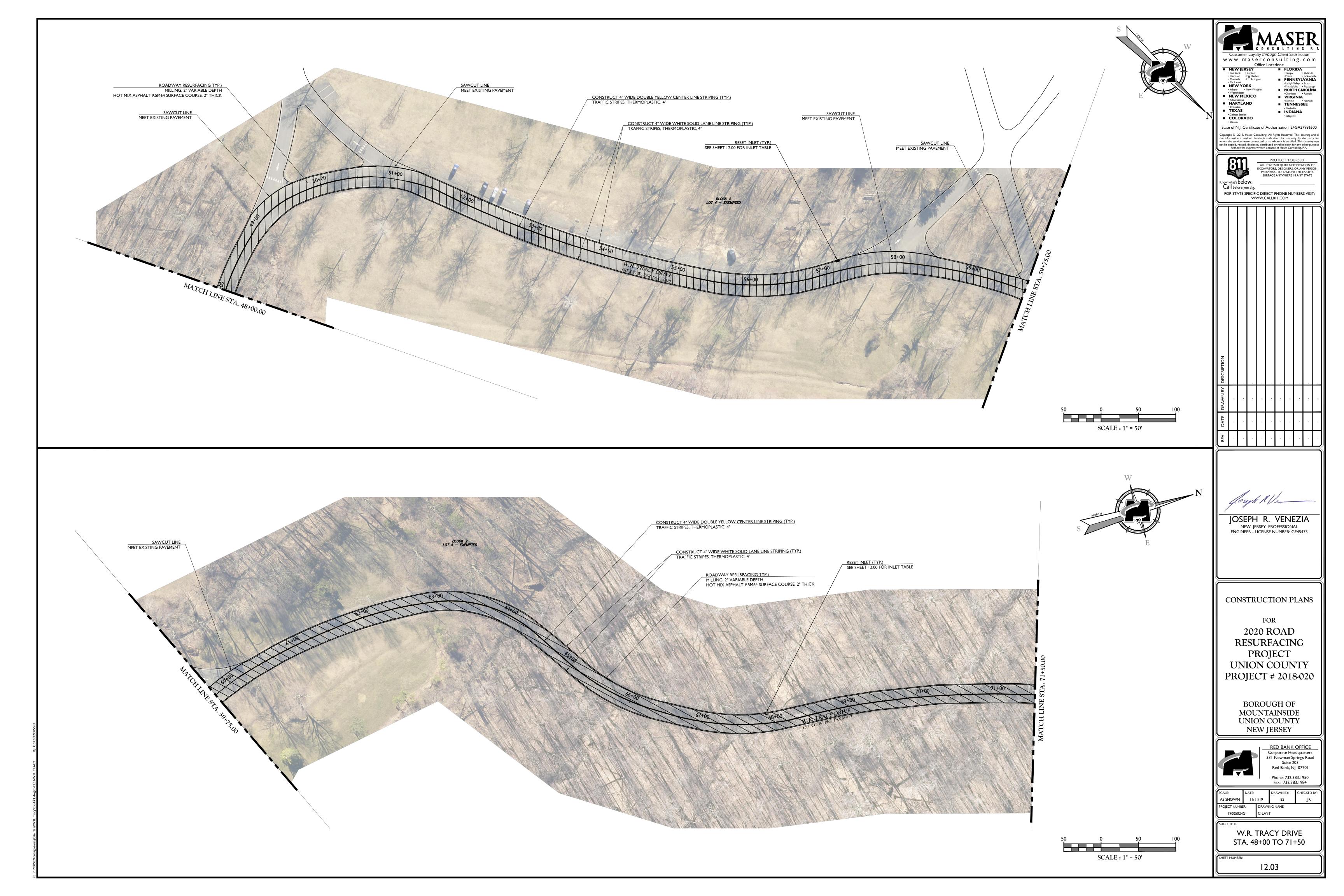


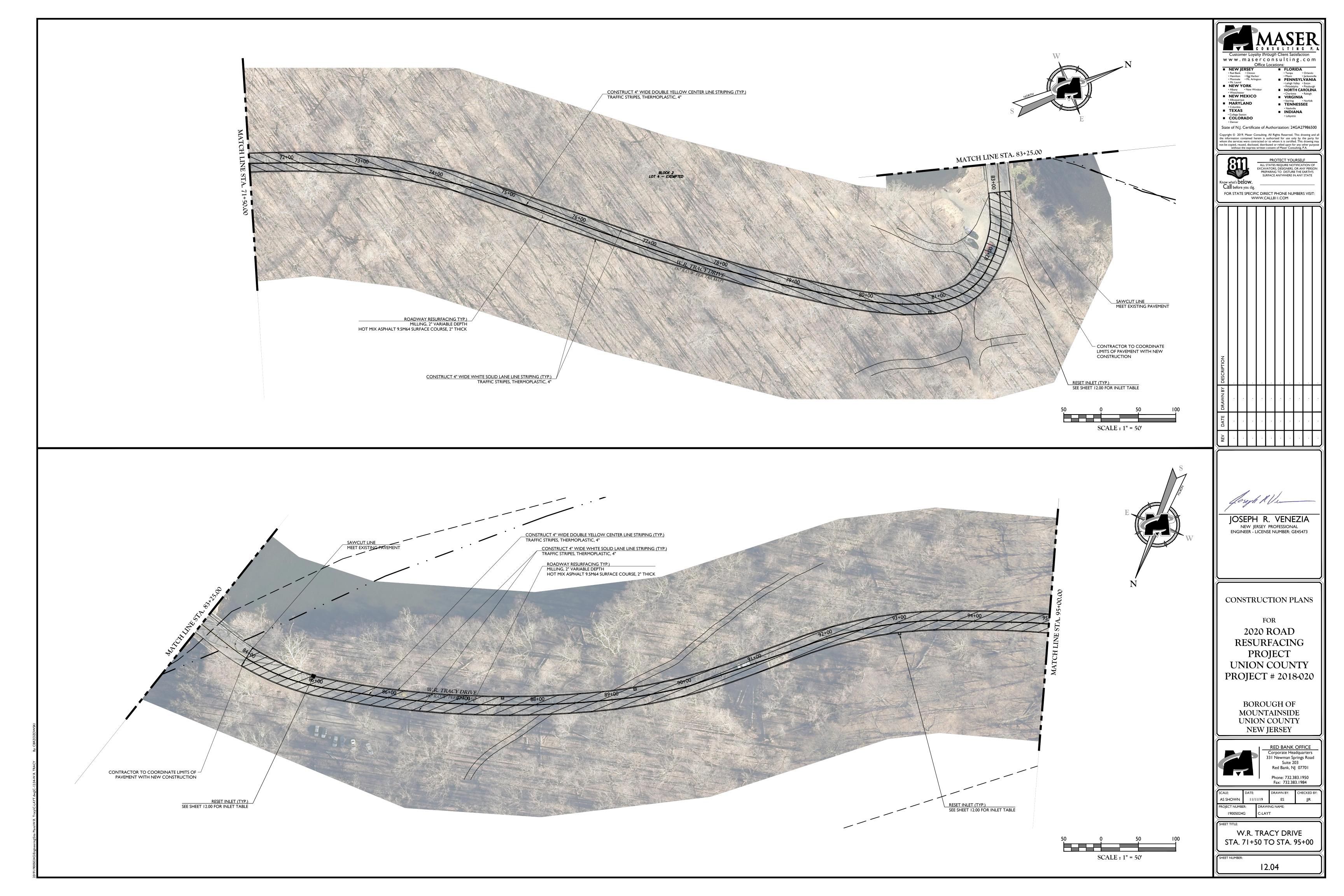


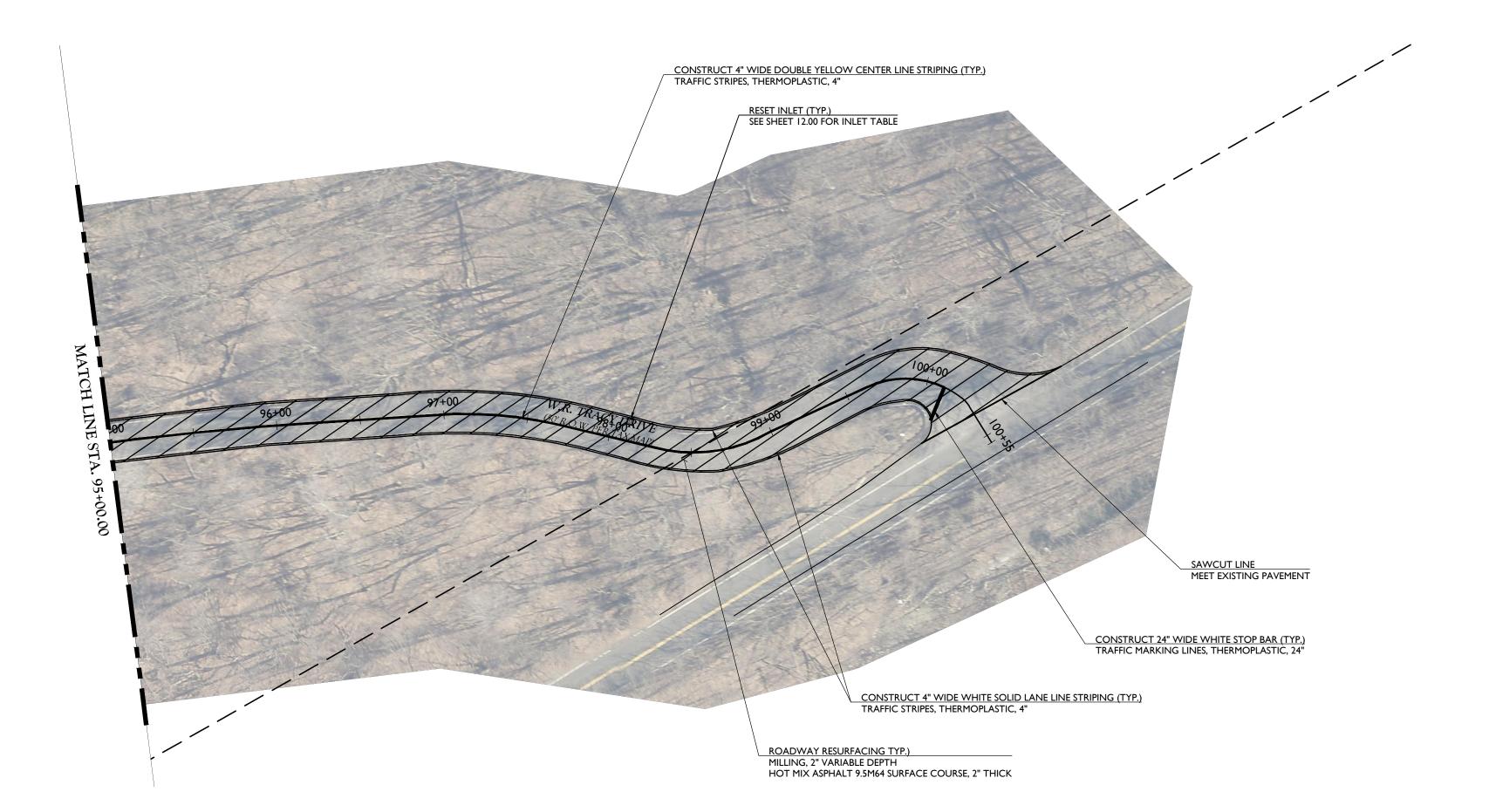
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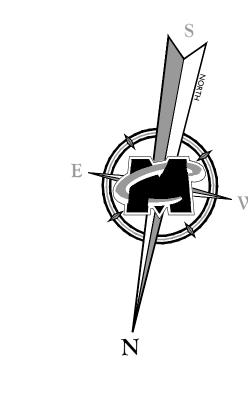
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		S	CALE:	: 1" = 50	0'	

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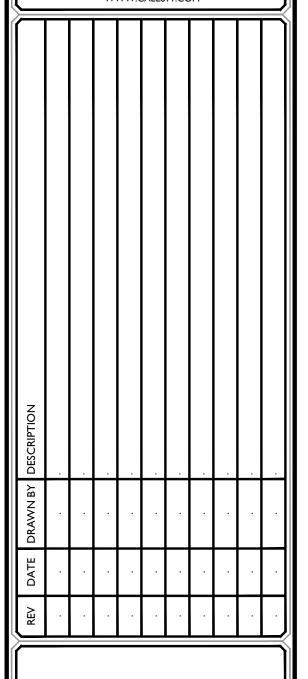


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ENGINEER - LICENSE NUMBER: GE45473

CONSTRUCTION PLANS

FOR 2020 ROAD RESURFACING PROJECT **UNION COUNTY**

PROJECT # 2018-020

UNION COUNTY **NEW JERSEY**



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AS SHOWN
PROJECT NUMBER:

W.R. TRACY DRIVE STA. 95+00 TO STA. 100+55

	SUMMIT LANE & NEW PROVIDENCE ROAD - INLET TYPES & LOCATIONS													
		EXISTING INLET		QUANTITIES										
STATION	OFFSET	TYPE	BICYCLE SAFE GRATE	CURB PIECE	PLATE	RESET								
1+34	LT	В	✓	✓		✓								
1+39	RT	В	✓			✓								
4+91	RT	В	✓			✓								
4+97	LT	В	✓			✓								
9+34	LT	В				✓								
10+40	RT	В				✓								
16+98	RT	В	✓			✓								
17+00	LT	В	✓			✓								
22+50	RT	В				✓								
22+50	LT	В				✓								
30+41	LT	В				✓								
30+45	RT	В				✓								

PAY ITEM NO.	DESCRIPTION	UNIT	QUANT
1	PORTABLE VARIABLE MESSAGE SIGN	UNIT	_
2	TRAFFIC CONTROL TRUCK WITH MOUNTED CRASH CUSHION	UNIT	-
3	TRAFFIC CONTROL MEASURES	LS	-
4	FLOODLIGHTS FOR NIGHTTIME OPERATIONS	UNIT	-
5	TRAFFIC DIRECTOR, FLAGGER	ALLOW	-
6	TRAFFIC DIRECTOR, UNIFORM POLICE	ALLOW	-
7	EXCAVATION, UNCLASSIFIED (IF & WHERE DIRECTED)	CY	195
8	MILLING, 2" VARIABLE DEPTH	SY	1167
9	DAYTIME MILLING	DAY	-
10	DAYTIME PAVING	DAY	-
11	DENSE-GRADED AGGREGATE BASE COURSE, VARIABLE THICKNESS (IF & WHERE DIRECTED)	CY	195
12	HOT MIX ASPHALT PAVEMENT REPAIR (EXCAVATION, 4" DGA, 6" BASE COURSE) (IF & WHERE DIRECTED)	SY	233
13	HOT MIX ASPHALT SURFACE COURSE 9.5M64, 2" THICK	TON	134
14	HOT MIX ASPHALT LEVELING COURSE 9.5M64, VARIABLE THICKNESS	TON	134
15	FUEL PRICE ADJUSTMENT	ALLOW	-
16	ASPHALT PRICE ADJUSTMENT	ALLOW	_
17	TYPE N-ECO CURB PIECE (6"-8") WITH ADJACENT CURB REPLACEMENT	UNIT	-
18	BICYCLE SAFE GRATE	UNIT	6
19	ECO HEAD CURB ADAPTOR, FACEPLATE (IF & WHERE DIRECTED)	UNIT	1
20	RESET MANHOLE CASTING WITH EXISTING FRAME AND COVER	UNIT	4
21	RESET MANHOLE CASTING WITH NEW FRAME AND COVER	UNIT	-
22	RESET INLET CASTING	UNIT	12
23	RECONSTRUCT INLET	UNIT	-
24	INLET, TYPE B	UNIT	-
25	10"x20" CONCRETE VERTICAL CURB	LF	-
26	GRANITE BLOCK CURB	LF	-
27	CONCRETE SIDEWALK, 4" THICK	SY	-
28	CONCRETE SIDEWALK, REINFORCED, 6" THICK	SY	-
29	DETECTABLE WARNING SURFACE (CAST-IN-PLACE)	SY	-
30	RESET BRICK PAVER	SY	
31	RETAINING WALL	SF	
32	TRAFFIC STRIPES, THERMOPLASTIC, 4"	LF	1259
33	TRAFFIC MARKINGS LINES, THERMOPLASTIC, RUMBLE STRIP	LF	-
34	TRAFFIC MARKINGS LINES, THERMOPLASTIC, 8"	LF	
35	TRAFFIC MARKINGS LINES, THERMOPLASTIC, 12"	LF	-
36	TRAFFIC MARKINGS LINES, THERMOPLASTIC, 24"	LF	-
37	TRAFFIC MARKINGS SYMBOLS, THERMOPLASTIC	SF	-
38	RAISED PAVEMENT MARKER	UNIT	-
39	SEALING OF CRACKS IN HOT MIX ASPHALT SURFACE COURSE	LF	
40	STREET NAME SIGN, TYPE DF WITH BREAKAWAY SUPPORT	SF	_
41	ACCESSORY PANEL, TYPE DF	SF	-
42	LOOP DETECTORS (IF & WHERE DIRECTED)	LF	-
43	IMAGE DETECTION SYSTEM (IF & WHERE DIRECTED)	UNIT	_
44	TREE REMOVAL, OVER 36" (IF & WHERE DIRECTED)	UNIT	_

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ENGINEER - LICENSE NUMBER: GE45473

CONSTRUCTION PLANS

FOR 2020 ROAD RESURFACING PROJECT **UNION COUNTY** PROJECT # 2018-020

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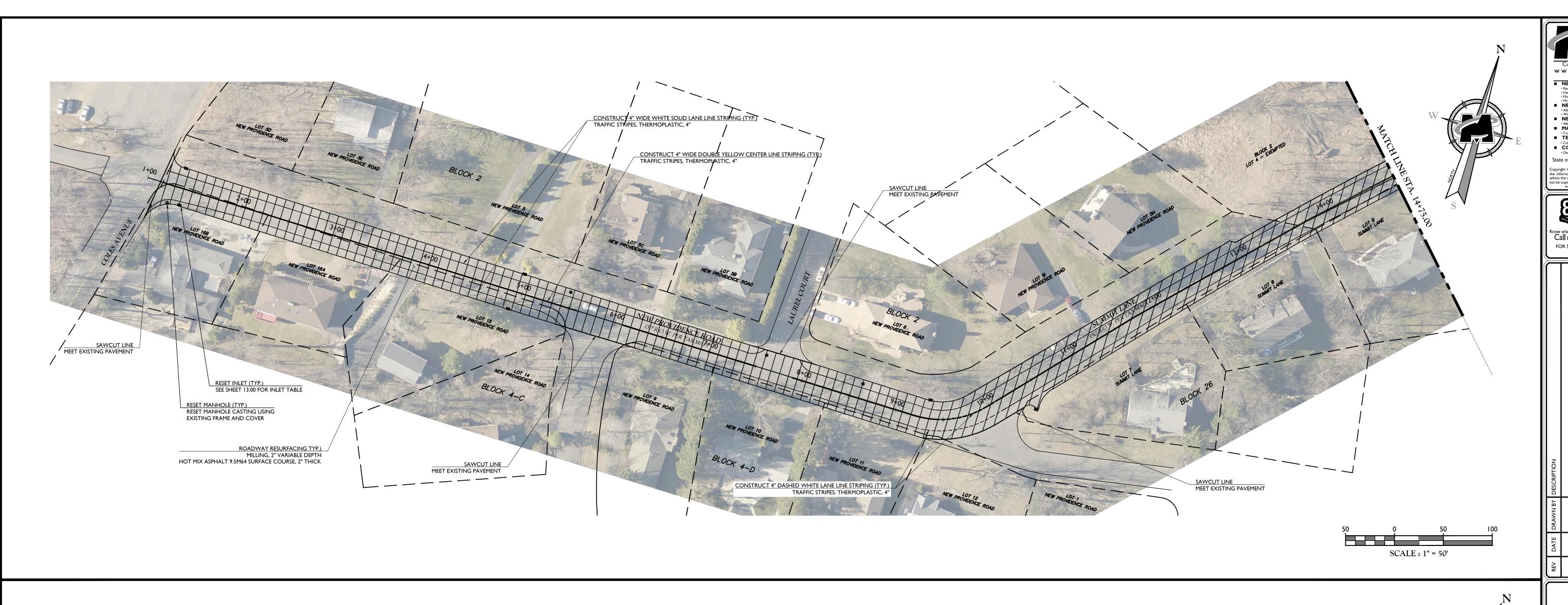


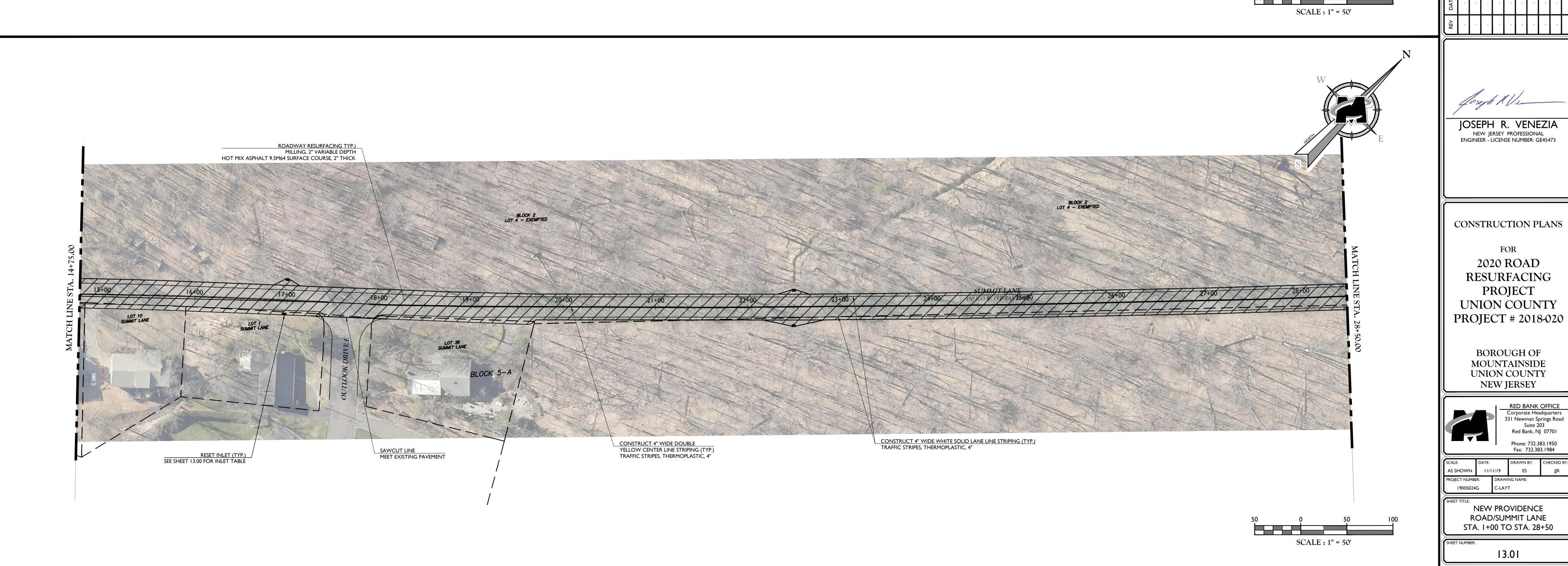
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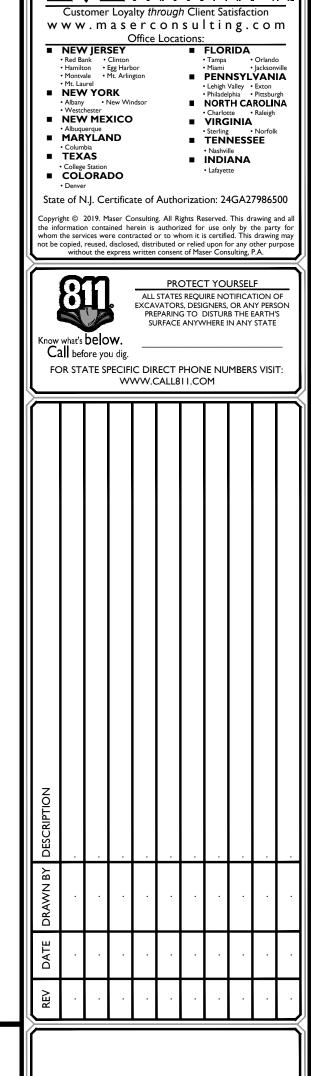
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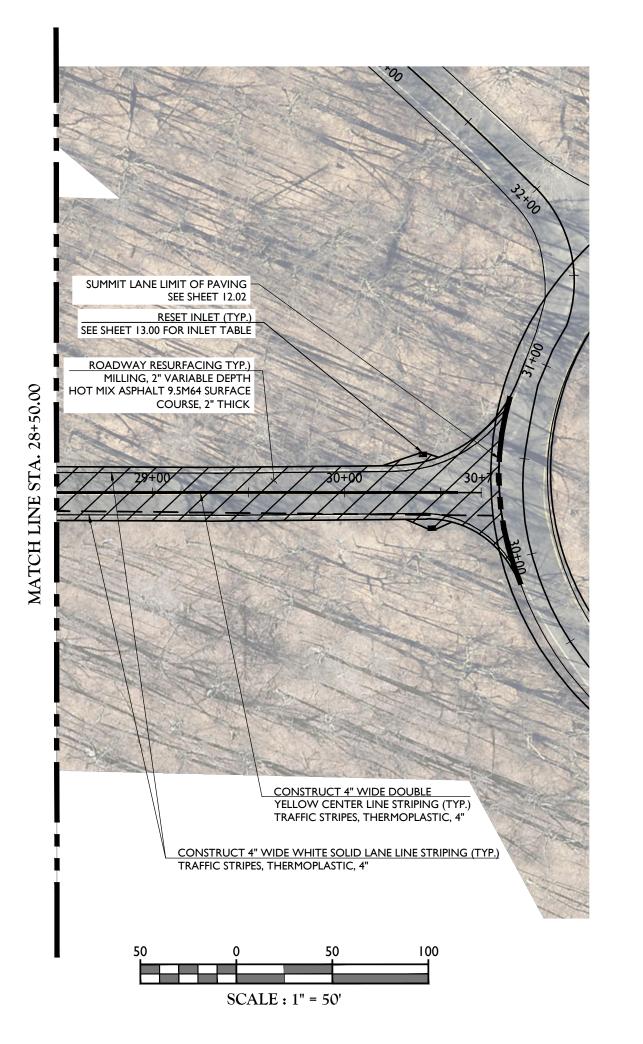
NEW PROVIDENCE ROAD/SUMMIT LANE QUANTITY SHEET

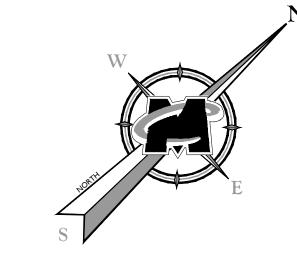












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NEW PROVIDENCE ROAD/SUMMIT LANE

STA. 28+50 TO STA. 30+71

						W. GRAND ADA F	RAMPS			
				CURB RAM	P LAYOUT				QUANTITIES	
STATION	OFFSET	CURB RAMP TYPE	PERPENDICULAR	PARALLEL	DIAGONAL	COMBINATION	10"x20" CONC. VERTICAL CURB (LF)	GRANITE BLOCK CURB (LF)	CONCRETE SIDEWALK, REINFORCED, 6" THICK (SY)	DETECTABLE WARNING SURFACE (SY)
0+85	RT	4				✓	25	-	20	1
1+22	RT	4				✓	15	-	20	1
10+39	RT	3				✓	20	-	20	1
10+46	LT	4				✓	10	-	15	1
10+47	RT	3				✓	20	-	20	1
10+88	LT	3				✓	25	-	25	1
10+88	RT	4				✓	10	-	15	1
19+04	RT	6		✓			15	-	20	1
19+62	RT	6		✓			15	-	15	1
27+56	LT	1			✓		15	10	10	1
27+66	RT	1			✓		15	10	10	1
28+24	LT	1			✓		15	10	10	1
28+26	RT	1			✓		15	10	10	1
30+75	RT	3				✓	20	-	15	1
30+95	RT	2	✓				15	-	15	1
40+43	RT	4				✓	15	-	15	1
40+54	RT	4				✓	15	-	15	1
40+97	RT	3				✓	15	-	15	1
40+98	RT	3				✓	15	-	15	1
48+18	RT	6		✓			15	-	15	1
48+51	RT	6		✓			15	-	15	1
56+64	LT	3			✓		20	-	15	1
56+68	LT	3			✓		20	-	15	1
56+75	RT	4				✓	20	-	15	1
56+82	RT	4				✓	20	-	10	1
57+11	RT	3			✓		20	-	15	1
57+17	RT	3			✓		20	-	15	1
57+23	LT	4				✓	15	-	15	1
57+29	LT	4				✓	15	-	10	1

			W. GRAND INLET TYPES	S & LOCATIONS							
CTATION	OFFOFT	EVICTING INITET TYPE	QUANTITIES								
STATION	OFFSET	EXISTING INLET TYPE	BICYCLE SAFE GRATE	CURB PIECE	PLATE	RESET	RECONSTRUCT				
0+81	LT	UNDERSIZED B				✓					
1+00	RT	В		✓			✓				
3+18	RT	В		✓		√					
7+92	RT	Е				√					
7+96	LT	В				√					
10+93	RT	В				√					
19+07	LT	В	✓	✓		√					
19+28	LT	UNDERSIZED B				√					
27+56	RT	В		✓		✓					
27+60	LT	В				✓					
29+48	LT	В				✓					
34+53	RT	В				✓					
34+73	LT	UNDERSIZED B				✓					
40+53	RT	В		✓			✓				
40+54	LT	UNDERSIZED B				✓					
40+98	LT	UNDERSIZED B				✓					
41+03	RT	В		✓			✓				
48+47	RT	Е				✓					
48+52	LT	В		✓		✓					
57+25	LT	UNDERSIZED B				✓					
64+98	LT	В				✓					

PAY ITEM NO.	DESCRIPTION	UNIT	QUANTI [*]
1	PORTABLE VARIABLE MESSAGE SIGN	UNIT	-
2	TRAFFIC CONTROL TRUCK WITH MOUNTED CRASH CUSHION	UNIT	-
3	TRAFFIC CONTROL MEASURES	LS	-
4	FLOODLIGHTS FOR NIGHTTIME OPERATIONS	UNIT	-
5	TRAFFIC DIRECTOR, FLAGGER	ALLOW	-
6	TRAFFIC DIRECTOR, UNIFORM POLICE	ALLOW	-
7	EXCAVATION, UNCLASSIFIED (IF & WHERE DIRECTED)	CY	516
8	MILLING, 2" VARIABLE DEPTH	SY	29473
9	DAYTIME MILLING	DAY	-
10	DAYTIME PAVING	DAY	-
11	DENSE-GRADED AGGREGATE BASE COURSE, VARIABLE THICKNESS (IF & WHERE DIRECTED)	CY	516
12	HOT MIX ASPHALT PAVEMENT REPAIR (EXCAVATION, 4" DGA, 6" BASE COURSE) (IF & WHERE DIRECTED)	SY	619
13	HOT MIX ASPHALT SURFACE COURSE 9.5M64, 2" THICK	TON	3389
14	HOT MIX ASPHALT LEVELING COURSE 9.5M64, VARIABLE THICKNESS	TON	339
15	FUEL PRICE ADJUSTMENT	ALLOW	-
16	ASPHALT PRICE ADJUSTMENT	ALLOW	-
17	TYPE N-ECO CURB PIECE (6"-8") WITH ADJACENT CURB REPLACEMENT	UNIT	7
18	BICYCLE SAFE GRATE	UNIT	1
19	ECO HEAD CURB ADAPTOR, FACEPLATE (IF & WHERE DIRECTED)	UNIT	-
20	RESET MANHOLE CASTING WITH EXISTING FRAME AND COVER	UNIT	60
21	RESET MANHOLE CASTING WITH NEW FRAME AND COVER	UNIT	_
22	RESET INLET CASTING	UNIT	18
23	RECONSTRUCT INLET	UNIT	3
24	INLET, TYPE B	UNIT	_
25	10"x20" CONCRETE VERTICAL CURB	LF	500
26	GRANITE BLOCK CURB	LF	40
27	CONCRETE SIDEWALK, 4" THICK	SY	_
28	CONCRETE SIDEWALK, REINFORCED, 6" THICK	SY	280
29	DETECTABLE WARNING SURFACE (CAST-IN-PLACE)	SY	20
30	RESET BRICK PAVER	SY	60
31	RETAINING WALL	SF	_
32	TRAFFIC STRIPES, THERMOPLASTIC, 4"	LF	13860
33	TRAFFIC MARKINGS LINES, THERMOPLASTIC, RUMBLE STRIP	LF	-
34	TRAFFIC MARKINGS LINES, THERMOPLASTIC, 8"	LF	1662
35	TRAFFIC MARKINGS LINES, THERMOPLASTIC, 12"	LF	2036
36	TRAFFIC MARKINGS LINES, THERMOPLASTIC, 24"	LF	259
37	TRAFFIC MARKINGS SYMBOLS, THERMOPLASTIC	SF	660
38	RAISED PAVEMENT MARKER	UNIT	-
39	SEALING OF CRACKS IN HOT MIX ASPHALT SURFACE COURSE	LF	_
40	STREET NAME SIGN, TYPE DF WITH BREAKAWAY SUPPORT	SF	_
41	ACCESSORY PANEL, TYPE DF	SF	_
42	LOOP DETECTORS (IF & WHERE DIRECTED)	LF	_
43	IMAGE DETECTION SYSTEM (IF & WHERE DIRECTED)	UNIT	_
	TREE REMOVAL, OVER 36" (IF & WHERE DIRECTED)		+
44	THE HEINSVAL, OVER OF (II & WITEHE DINEOTED)	UNIT	-

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JOSEPH R. VENEZIA

NEW JERSEY PROFESSIONAL
ENGINEER - LICENSE NUMBER: GE45473

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FOR 2020 ROAD RESURFACING PROJECT **UNION COUNTY** PROJECT # 2018-020

CITY OF ELIZABETH UNION COUNTY **NEW JERSEY**



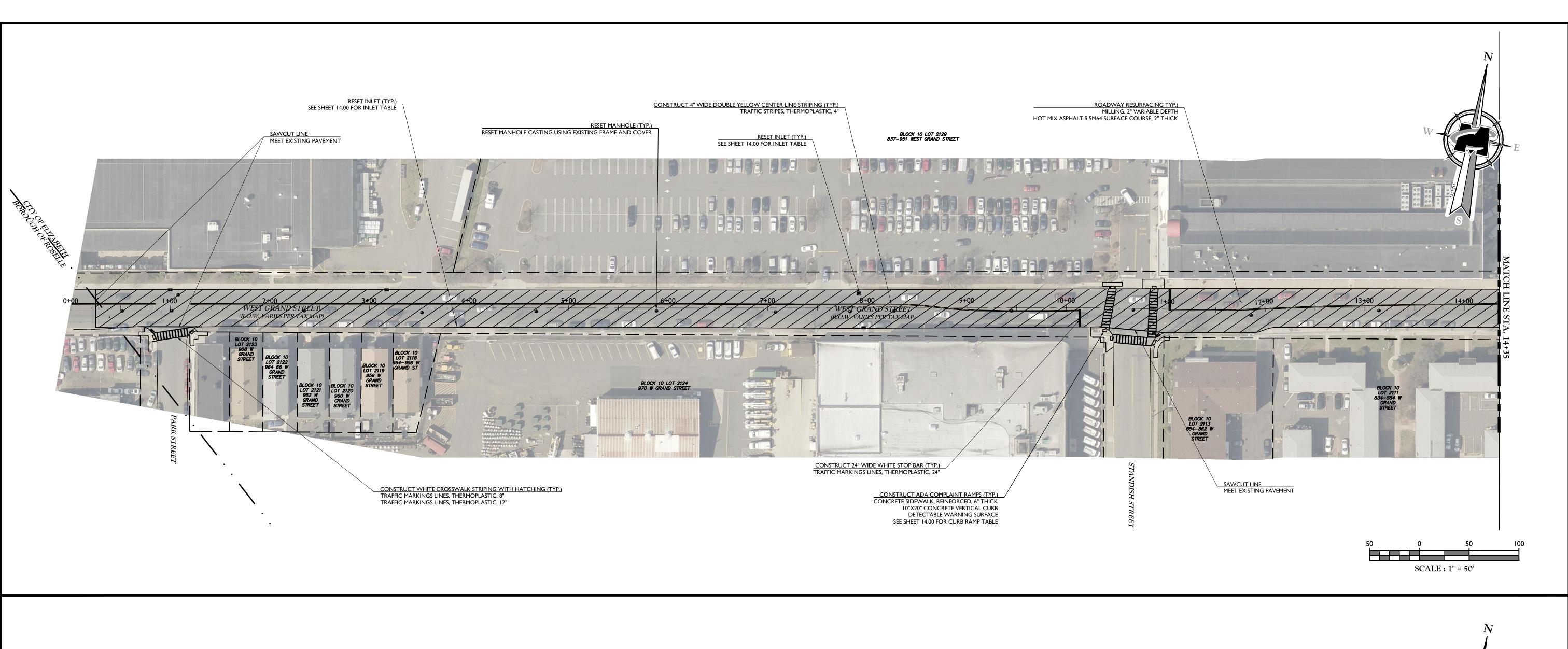
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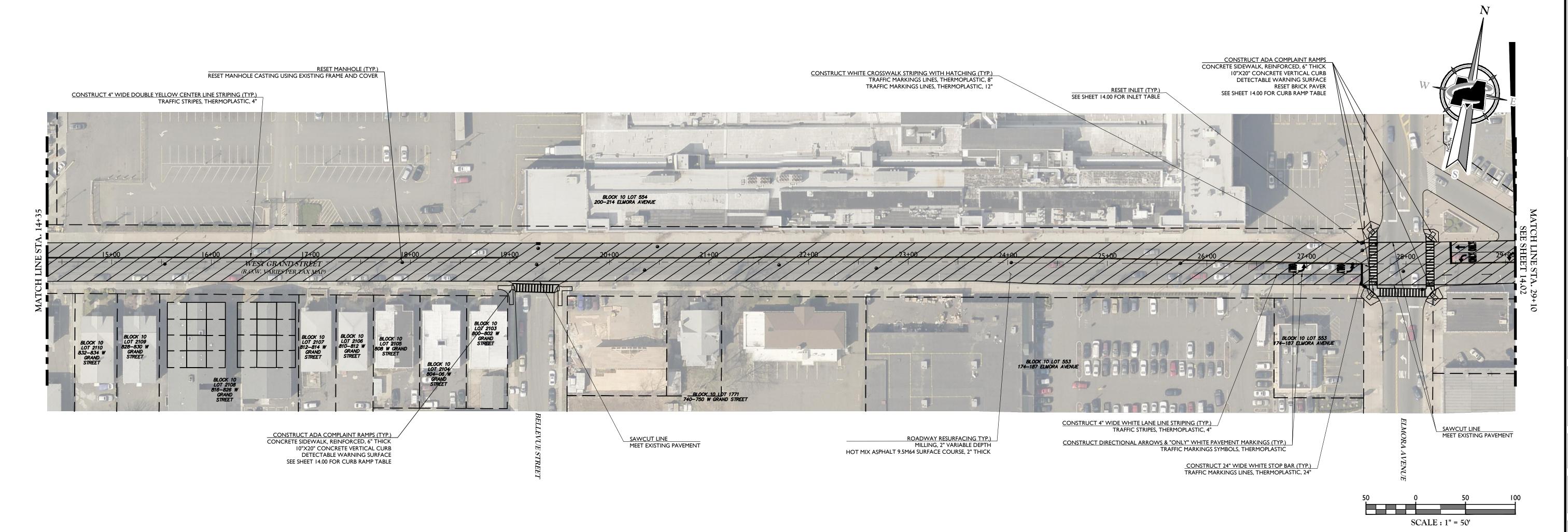
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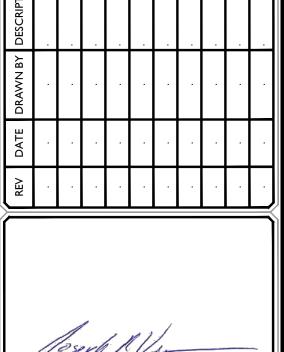
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PROJECT # 2018-020

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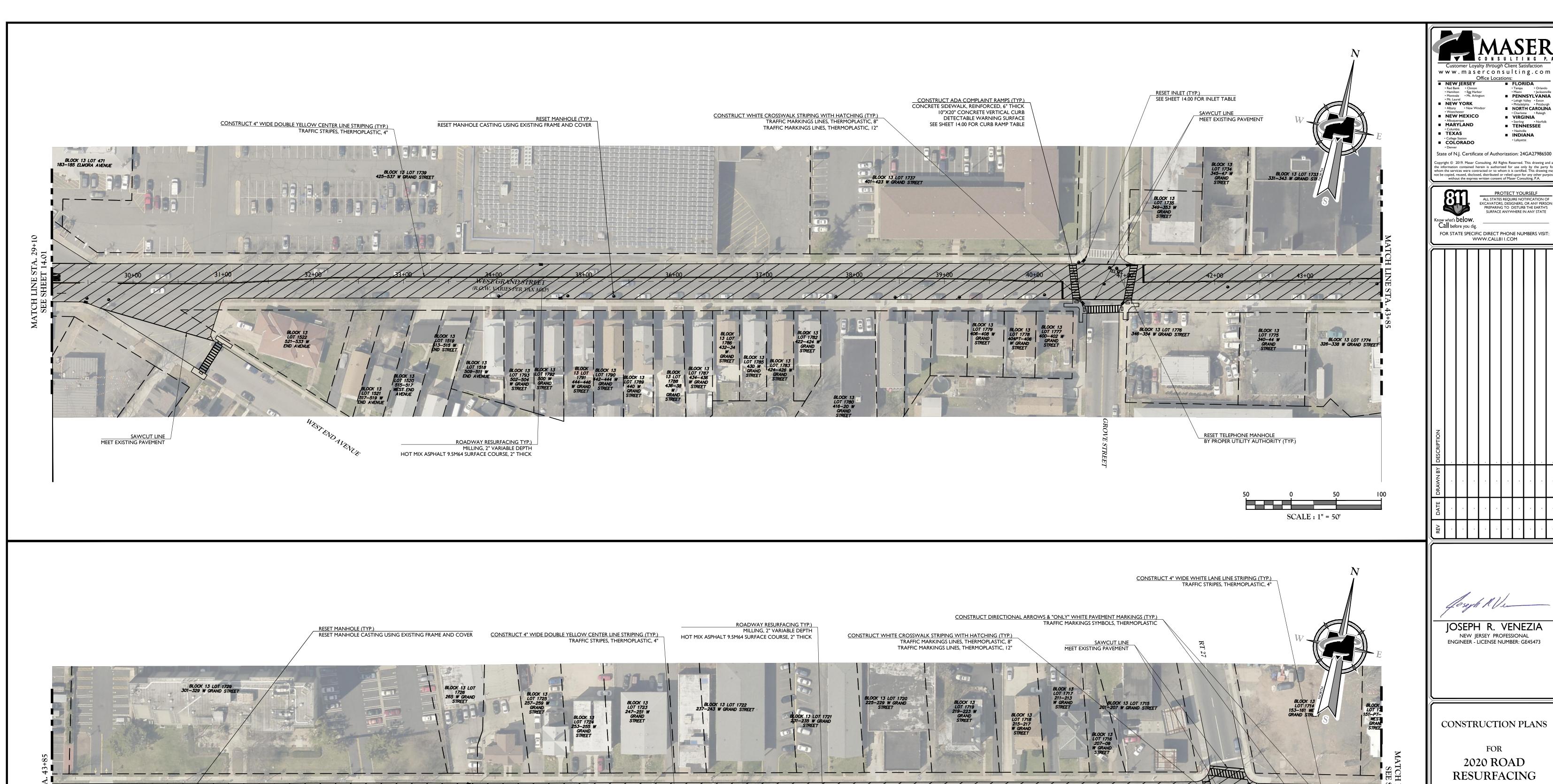


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WEST GRAND STREET STA. 0+00 TO STA. 29+10



SAWCUT LINE MEET EXISTING PAVEMENT

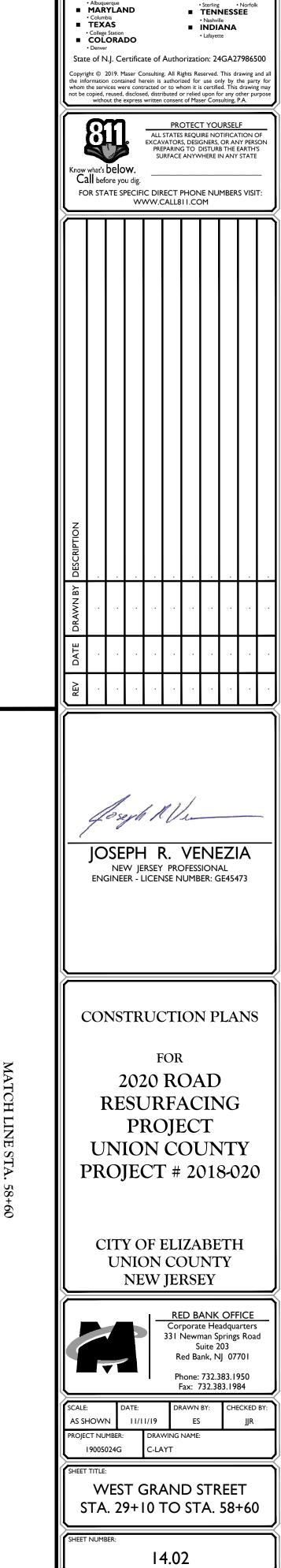
CONSTRUCT ADA COMPLAINT RAMPS (TYP.)
CONCRETE SIDEWALK, REINFORCED, 6" THICK

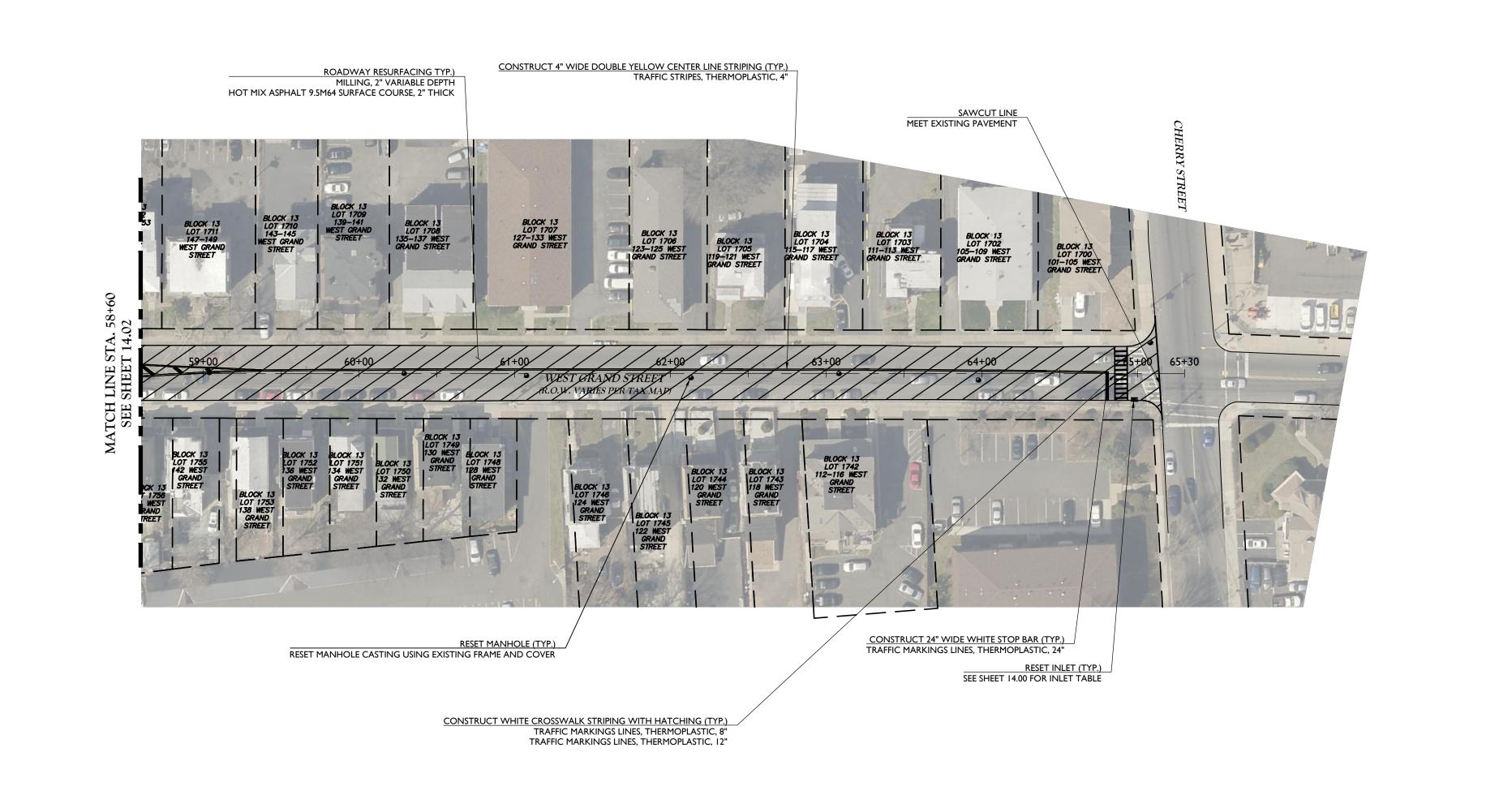
10"X20" CONCRETE VERTICAL CURB DETECTABLE WARNING SURFACE SEE SHEET 14.00 FOR CURB RAMP TABLE CONSTRUCT 24" WIDE YELLOW HATCH STRIPING (TYP.)
TRAFFIC MARKINGS LINES, THERMOPLASTIC, 24"

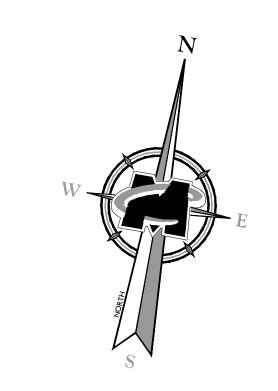
RESET INLET (TYP.)
SEE SHEET 14.00 FOR INLET TABLE

CONSTRUCT 24" WIDE WHITE STOP BAR (TYP.)
TRAFFIC MARKINGS LINES, THERMOPLASTIC, 24"

SCALE: 1" = 50'







SCALE: 1" = 50'

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FOR 2020 ROAD RESURFACING PROJECT **UNION COUNTY** PROJECT # 2018-020

CITY OF ELIZABETH UNION COUNTY **NEW JERSEY**



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Phone: 732.383.1950 Fax: 732.383.1984

as shown

WEST GRAND STREET STA. 58+60 TO STA. 65+30

	WEST JERSEY ADA RAMPS														
				CURB RAMI	P LAYOUT				QUANTITIES						
STATION	OFFSET	CURB RAMP TYPE	PERPENDICULAR	PARALLEL	DIAGONAL	COMBINATION	10"x20" CONC. VERTICAL CURB (LF)	GRANITE BLOCK CURB (LF)	CONCRETE SIDEWALK, REINFORCED, 6" THICK (SY)	DETECTABLE WARNING SURFACE (SY)					
0+47	LT	2			✓		20	-	20	1					
0+88	RT	6		✓			25	-	15	1					
1+14	RT	6		✓			25	-	15	1					
1+36	LT	2	✓				20	-	20	1					
22+20	RT	1			✓		40	-	50	2					
22+39	LT	3				✓	30	-	25	1					

			WEST JERSEY INLET TYP	ES & LOCATIONS	3		
CTATION	OFFSET	EVICTING INLET TYPE			QUANTITIES		
STATION	STATION OFFSET	EXISTING INLET TYPE	BICYCLE SAFE GRATE	CURB PIECE	PLATE	RESET	RECONSTRUCT
0+40	RT	В				✓	
0+64	RT	E				✓	
1+41	RT	В				✓	
7+15	RT	В				✓	
22+11	RT	В				✓	
22+25	RT	В				✓	
22+46	LT	В				✓	

PAY ITEM NO.	DESCRIPTION	UNIT	QUA
1	PORTABLE VARIABLE MESSAGE SIGN	UNIT	
2	TRAFFIC CONTROL TRUCK WITH MOUNTED CRASH CUSHION	UNIT	
3	TRAFFIC CONTROL MEASURES	LS	
4	FLOODLIGHTS FOR NIGHTTIME OPERATIONS	UNIT	
5	TRAFFIC DIRECTOR, FLAGGER	ALLOW	
6	TRAFFIC DIRECTOR, UNIFORM POLICE	ALLOW	
7	EXCAVATION, UNCLASSIFIED (IF & WHERE DIRECTED)	CY	-
8	MILLING, 2" VARIABLE DEPTH	SY	8
9	DAYTIME MILLING	DAY	
10	DAYTIME PAVING	DAY	
11	DENSE-GRADED AGGREGATE BASE COURSE, VARIABLE THICKNESS (IF & WHERE DIRECTED)	CY	1
12	HOT MIX ASPHALT PAVEMENT REPAIR (EXCAVATION, 4" DGA, 6" BASE COURSE) (IF & WHERE DIRECTED)	SY	
13	HOT MIX ASPHALT SURFACE COURSE 9.5M64, 2" THICK	TON	1
14	HOT MIX ASPHALT LEVELING COURSE 9.5M64, VARIABLE THICKNESS	TON	1
15	FUEL PRICE ADJUSTMENT	ALLOW	
16	ASPHALT PRICE ADJUSTMENT	ALLOW	
17	TYPE N-ECO CURB PIECE (6"-8") WITH ADJACENT CURB REPLACEMENT	UNIT	
18	BICYCLE SAFE GRATE	UNIT	
19	ECO HEAD CURB ADAPTOR, FACEPLATE (IF & WHERE DIRECTED)	UNIT	
20	RESET MANHOLE CASTING WITH EXISTING FRAME AND COVER	UNIT	
21	RESET MANHOLE CASTING WITH NEW FRAME AND COVER	UNIT	
22	RESET INLET CASTING	UNIT	
23	RECONSTRUCT INLET	UNIT	
24	INLET, TYPE B	UNIT	
25	10"x20" CONCRETE VERTICAL CURB	LF	,
26	GRANITE BLOCK CURB	LF	
27	CONCRETE SIDEWALK, 4" THICK	SY	
28	CONCRETE SIDEWALK, REINFORCED, 6" THICK	SY	,
29	DETECTABLE WARNING SURFACE (CAST-IN-PLACE)	SY	
30	RESET BRICK PAVER	SY	
31	RETAINING WALL	SF	
32	TRAFFIC STRIPES, THERMOPLASTIC, 4"	LF	4
33	TRAFFIC MARKINGS LINES, THERMOPLASTIC, RUMBLE STRIP	LF	
34	TRAFFIC MARKINGS LINES, THERMOPLASTIC, 8"	LF	8
35	TRAFFIC MARKINGS LINES, THERMOPLASTIC, 12"	LF	į
36	TRAFFIC MARKINGS LINES, THERMOPLASTIC, 24"	LF	,
37	TRAFFIC MARKINGS SYMBOLS, THERMOPLASTIC	SF	4
38	RAISED PAVEMENT MARKER	UNIT	
39	SEALING OF CRACKS IN HOT MIX ASPHALT SURFACE COURSE	LF	
40	STREET NAME SIGN, TYPE DF WITH BREAKAWAY SUPPORT	SF	
41	ACCESSORY PANEL, TYPE DF	SF	
42	LOOP DETECTORS (IF & WHERE DIRECTED)	LF	
43	IMAGE DETECTION SYSTEM (IF & WHERE DIRECTED)	UNIT	
44	TREE REMOVAL, OVER 36" (IF & WHERE DIRECTED)	UNIT	



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NEW JERSEY PROFESSIONAL
ENGINEER - LICENSE NUMBER: GE45473

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FOR 2020 ROAD RESURFACING PROJECT **UNION COUNTY** PROJECT # 2018-020

CITY OF ELIZABETH UNION COUNTY **NEW JERSEY**

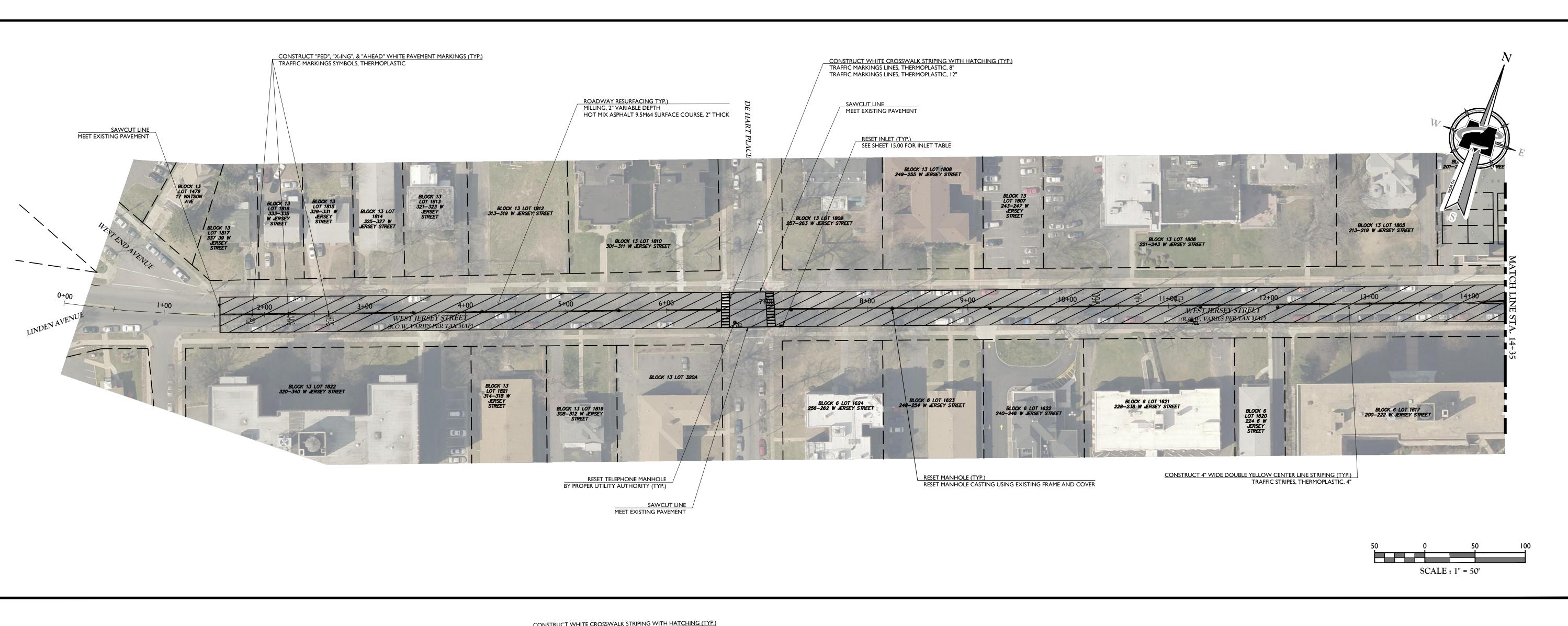


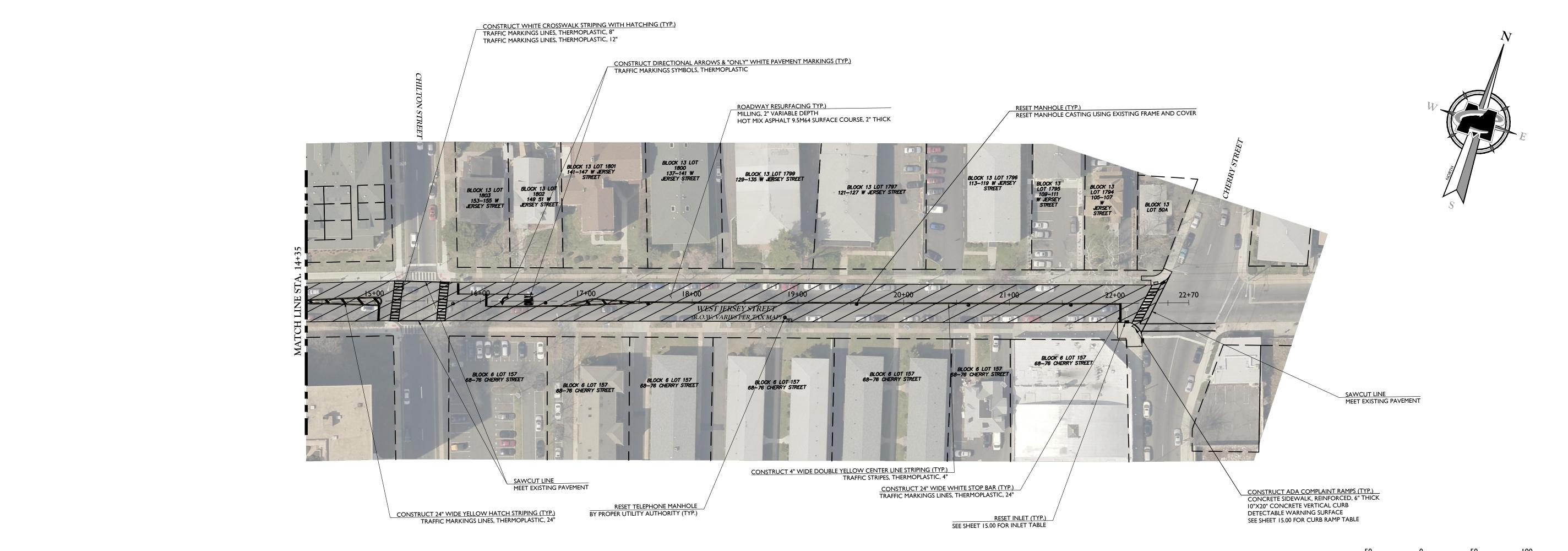
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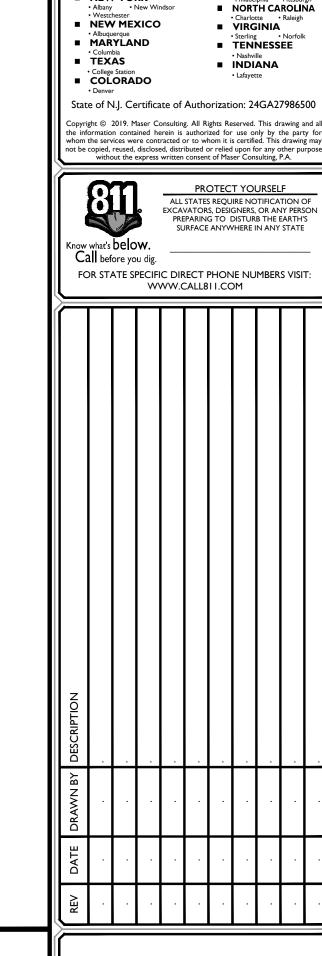
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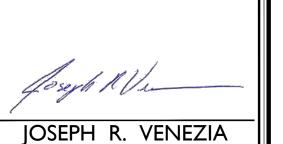
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PROJECT # 2018-020

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WEST JERSEY STREET STA. 0+00 TO STA. 22+70

SCALE: 1" = 50'

						BROAD ADA RA	AMPS					
			CURB RAMP LAYOUT					QUANTITIES				
STATION	OFFSET	CURB RAMP TYPE	PERPENDICULAR	PARALLEL	DIAGONAL	COMBINATION	10"x20" CONC. VERTICAL CURB (LF)	GRANITE BLOCK CURB (LF)	CONCRETE SIDEWALK, REINFORCED, 6" THICK (SY)	DETECTABLE WARNING SURFACE (SY)		
26+33	RT	1	✓				20	5	20	1		
26+77	RT	4		✓			8	7	15	1		
58+80	LT	6				✓	8	4	10	1		
58+93	RT	6				✓	15	15	20	1		
59+12	LT	6				✓	8	10	10	1		
59+26	RT	6				✓	8	10	15	1		
61+90	LT	6				✓	8	10	15	1		
62+09	RT	6				✓	8	10	15	1		
62+25	LT	6				✓	8	10	15	1		
62+42	RT	6				✓	8	10	15	1		
64+41	LT	6				✓	8	10	15	1		
64+57	RT	6				✓	8	10	15	1		
64+79	LT	6				✓	8	10	15	1		
64+93	RT	6				✓	8	10	15	1		
66+92	LT	6				✓	8	10	20	1		
67+08	RT	5		✓			8	10	10	1		
67+31	LT	3			✓		20	5	15	1		
67+45	RT	6				✓	8	10	15	1		
75+48	RT	3			✓		20	5	10	1		
75+83	LT	5		✓			8	10	10	1		
75+95	RT	6				✓	10	10	15	1		
76+34	LT	5		✓			8	10	10	1		
78+94	RT	6				✓	15	10	15	1		
79+40	RT	6				✓	8	10	15	1		
83+39	LT	5		✓			8	10	10	1		
84+13	LT	5		✓			10	10	15	1		
85+35	LT	5		✓			8	10	10	1		
85+69	LT	5		✓			8	10	10	1		
88+59	RT	1	✓				22	-	26	1		
88+64	RT	1	✓				22	-	26	1		
88+65	LT	4	✓				10	-	15	1		
88+68	RT	1	✓				22	-	26	1		

			BROAD INLET TYPES	& LOCATIONS						
STATION OFFSET EXISTING I		EXISTING INLET TYPE	NI ET TYPE QUANTITIES							
STATION	OFFSET	EXISTING INLET TIPE	BICYCLE SAFE GRATE	CURB PIECE	PLATE	RESET	RECONSTRUC			
0+19	LT	В				✓				
0+71	RT	В				✓				
2+65	RT	В				✓				
5+39	LT	В				✓				
7+16	RT	В				✓				
9+02	RT	В				✓				
25+92	RT	В				✓				
27+38	LT	В				✓				
27+58	LT	В				✓				
30+24	RT	В				✓				
33+42	LT	В				✓				
33+42	RT	В				✓				
35+77	LT	В				✓				
36+24	RT	В				✓				
36+56	LT	В				✓				
42+80	LT	В				✓				
48+84	RT	В				✓				
54+27	LT	В				✓				
54+32	LT	В				✓				
61+75	LT	В				✓				
61+85	RT	В				✓				
64+36	LT	В				✓				
64+37	RT	В				✓				
66+83	RT	В				✓				
66+89	LT	В				✓				
69+77	LT	В				✓				
69+86	RT	В				✓				
70+70	RT	В				✓				
71+30	LT	В				✓				
75+32	RT	В				✓				
75+51	LT	В				✓				
78+81	RT	В				✓				
81+46	LT	В				✓				
83+27	LT	В				✓				
84+27	RT	В				✓				
88+25	LT	В				✓				

PAY ITEM NO.	DESCRIPTION	UNIT	QUANTITY
1	PORTABLE VARIABLE MESSAGE SIGN	UNIT	-
2	TRAFFIC CONTROL TRUCK WITH MOUNTED CRASH CUSHION	UNIT	-
3	TRAFFIC CONTROL MEASURES	LS	-
4	FLOODLIGHTS FOR NIGHTTIME OPERATIONS	UNIT	-
5	TRAFFIC DIRECTOR, FLAGGER	ALLOW	-
6	TRAFFIC DIRECTOR, UNIFORM POLICE	ALLOW	-
7	EXCAVATION, UNCLASSIFIED (IF & WHERE DIRECTED)	CY	808
8	MILLING, 2" VARIABLE DEPTH	SY	46186
9	DAYTIME MILLING	DAY	-
10	DAYTIME PAVING	DAY	-
11	DENSE-GRADED AGGREGATE BASE COURSE, VARIABLE THICKNESS (IF & WHERE DIRECTED)	CY	770
12	HOT MIX ASPHALT PAVEMENT REPAIR (EXCAVATION, 4" DGA, 6" BASE COURSE) (IF & WHERE DIRECTED)	SY	970
13	HOT MIX ASPHALT SURFACE COURSE 9.5M64, 2" THICK	TON	5311
14	HOT MIX ASPHALT LEVELING COURSE 9.5M64, VARIABLE THICKNESS	TON	531
15	FUEL PRICE ADJUSTMENT	ALLOW	-
16	ASPHALT PRICE ADJUSTMENT	ALLOW	-
17	TYPE N-ECO CURB PIECE (6"-8") WITH ADJACENT CURB REPLACEMENT	UNIT	-
18	BICYCLE SAFE GRATE	UNIT	-
19	ECO HEAD CURB ADAPTOR, FACEPLATE (IF & WHERE DIRECTED)	UNIT	-
20	RESET MANHOLE CASTING WITH EXISTING FRAME AND COVER	UNIT	80
21	RESET MANHOLE CASTING WITH NEW FRAME AND COVER	UNIT	-
22	RESET INLET CASTING	UNIT	36
23	RECONSTRUCT INLET	UNIT	_
24	INLET, TYPE B	UNIT	_
25	10"x20" CONCRETE VERTICAL CURB	LF	354
26	GRANITE BLOCK CURB	LF	261
27	CONCRETE SIDEWALK, 4" THICK	SY	-
28	CONCRETE SIDEWALK, REINFORCED, 6" THICK	SY	483
29	DETECTABLE WARNING SURFACE (CAST-IN-PLACE)	SY	32
30	RESET BRICK PAVER	SY	-
31	RETAINING WALL	SF	-
32	TRAFFIC STRIPES, THERMOPLASTIC, 4"	LF	21039
33	TRAFFIC MARKINGS LINES, THERMOPLASTIC, RUMBLE STRIP	LF	-
34	TRAFFIC MARKINGS LINES, THERMOPLASTIC, 8"	LF	2349
35	TRAFFIC MARKINGS LINES, THERMOPLASTIC, 12"	LF	4038
36	TRAFFIC MARKINGS LINES, THERMOPLASTIC, 24"	LF	969
37	TRAFFIC MARKINGS SYMBOLS, THERMOPLASTIC	SF	2653
38	RAISED PAVEMENT MARKER	UNIT	-
39	SEALING OF CRACKS IN HOT MIX ASPHALT SURFACE COURSE	LF	_
40	STREET NAME SIGN, TYPE DF WITH BREAKAWAY SUPPORT	SF	-
41	LOOP DETECTORS (IF & WHERE DIRECTED)	LF	-
42	IMAGE DETECTION SYSTEM (IF & WHERE DIRECTED)	UNIT	-
43	TREE REMOVAL, OVER 36" (IF & WHERE DIRECTED)	UNIT	_

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ENGINEER - LICENSE NUMBER: GE45473

CONSTRUCTION PLANS

FOR 2020 ROAD RESURFACING PROJECT **UNION COUNTY** PROJECT # 2018-020

> CITY OF SUMMIT UNION COUNTY **NEW JERSEY**

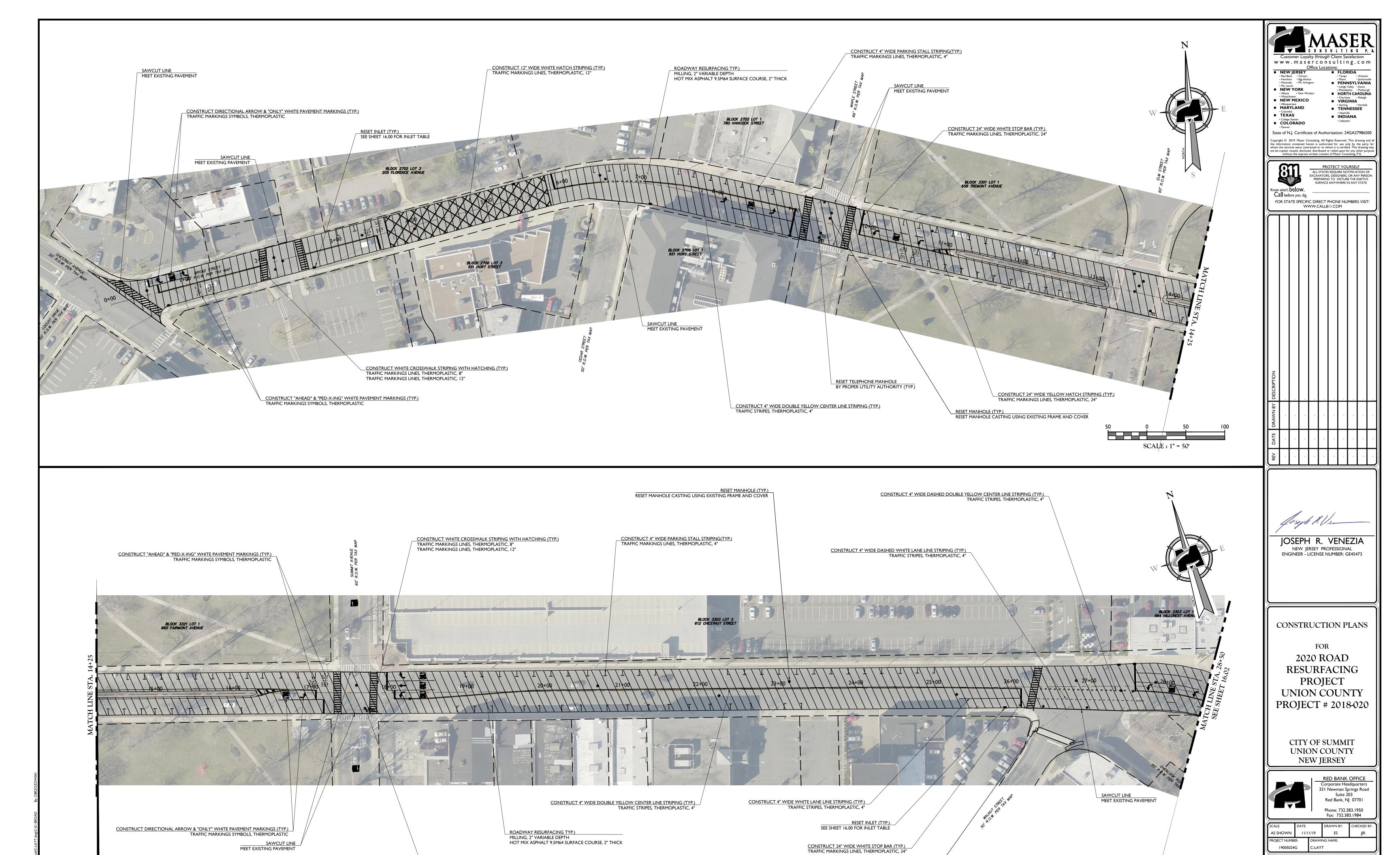


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331 Newman Springs Road
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Red Bank, NJ 07701 Phone: 732.383.1950 Fax: 732.383.1984

AS SHOWN
PROJECT NUMBER:

BROAD STREET QUANTITY SHEET



CONSTRUCT ADA COMPLAINT RAMPS (TYP.)
CONCRETE SIDEWALK, REINFORCED, 6" THICK
10"X20" CONCRETE VERTICAL CURB

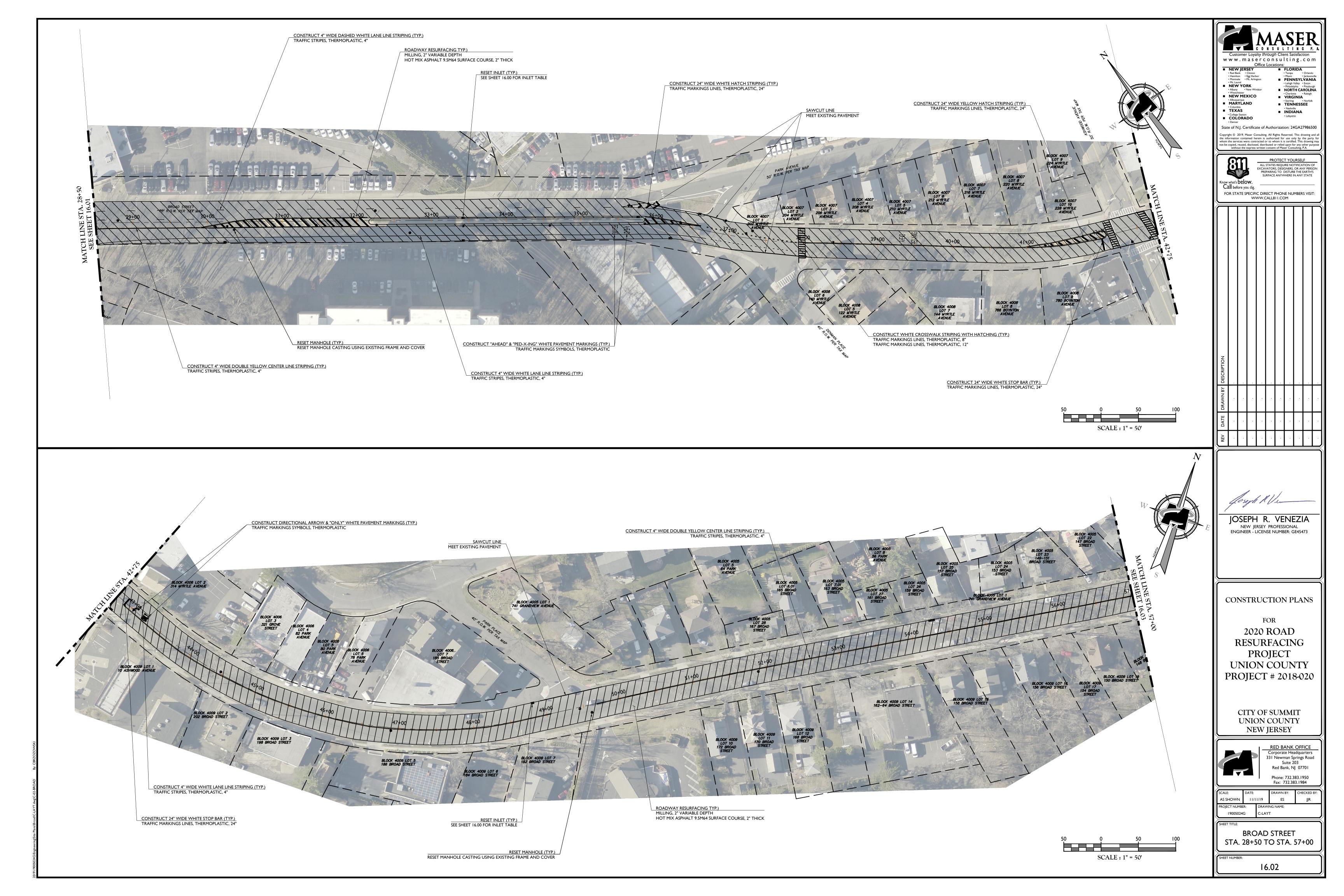
DETECTABLE WARNING SURFACE SEE SHEET 16.00 FOR CURB RAMP TABLE

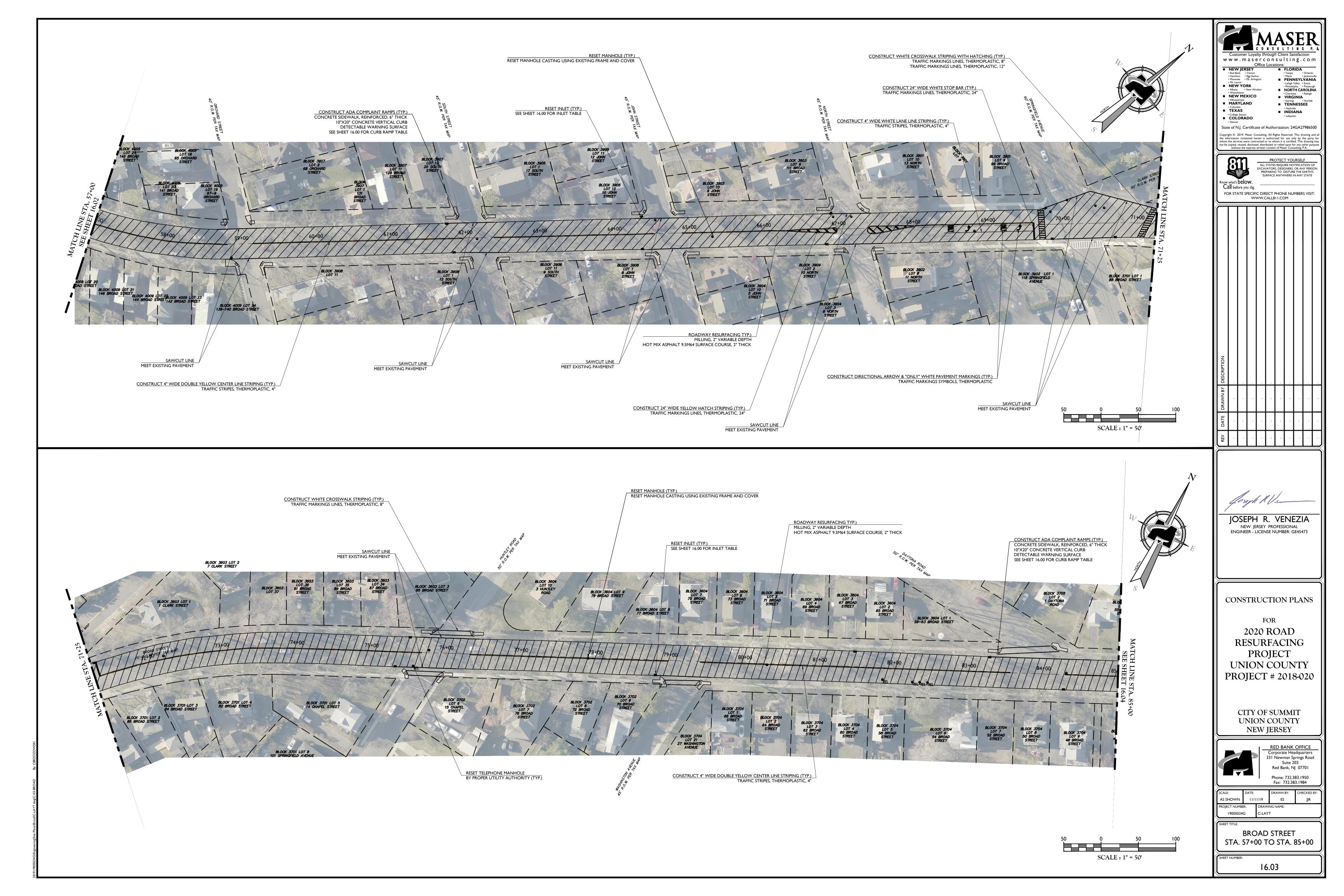
RESET TELEPHONE MANHOLE
BY PROPER UTILITY AUTHORITY (TYP.)

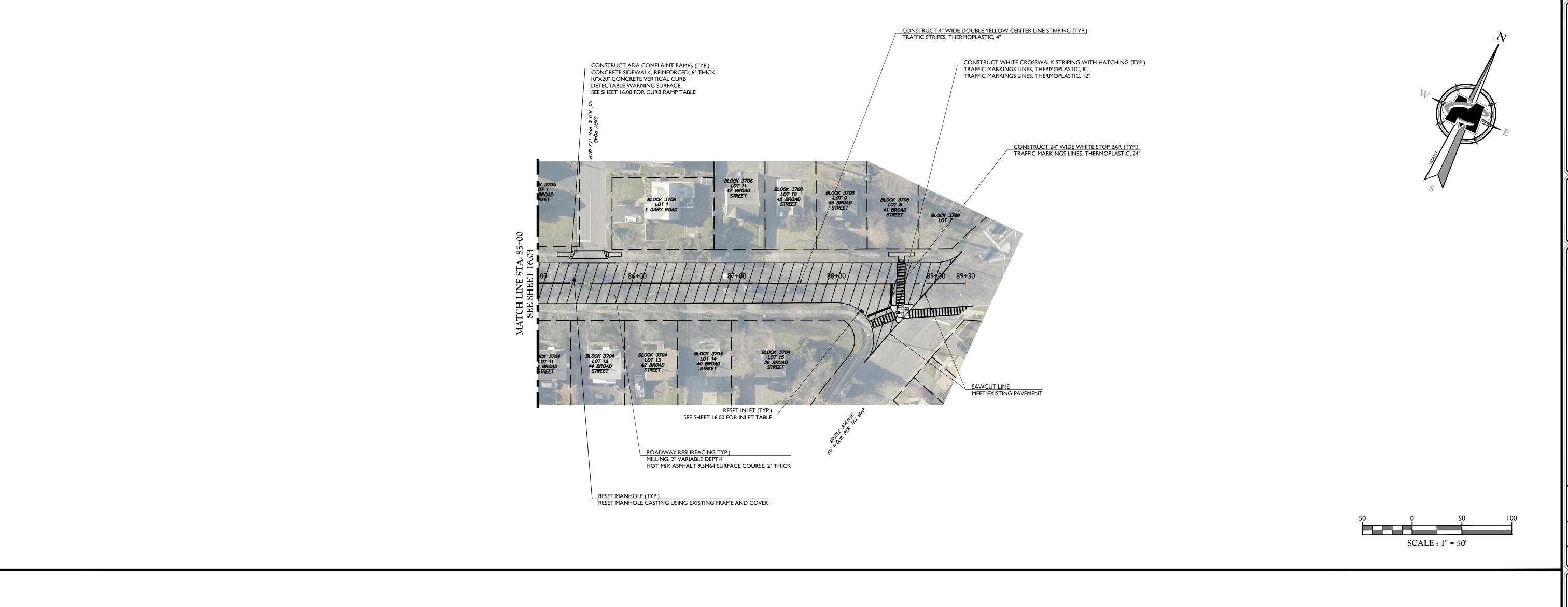
BROAD STREET

STA. 0+00 TO STA. 28+50

SCALE : 1" = 50'







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JOSEPH R. VENEZIA

NEW JERSEY PROFESSIONAL ENGINEER - LICENSE NUMBER: GE45473

CONSTRUCTION PLANS

FOR 2020 ROAD RESURFACING PROJECT **UNION COUNTY** PROJECT # 2018-020

> CITY OF SUMMIT **UNION COUNTY NEW JERSEY**



Suite 203 Red Bank, NJ 07701 Phone: 732.383.1950 Fax: 732.383.1984

as shown

BROAD STREET STA. 85+00 TO STA. 89+30

	PASSAIC STREET - INLET TYPES & LOCATIONS								
STATION	OFFSET	EXISTING INLET TYPE	QUANTITIES						
			BICYCLE SAFE GRATE	CURB PIECE	PLATE	RESET	RECONSTRUCT		
1+04	LT	В				✓			
2+97	RT	В				✓			
3+23	LT	E					✓		
5+35	RT	E	✓						
6+76	LT	В				✓			
15+47	LT	В					✓		
21+43	RT	В					✓		
21+96	LT	В		✓		✓			
26+15	LT	В				✓			
26+42	RT	В				✓			
27+46	LT	В					✓		
27+73	RT	В					✓		

PAY ITEM NO.	DESCRIPTION	UNIT	QUANTITY
1	PORTABLE VARIABLE MESSAGE SIGN	UNIT	-
2	TRAFFIC CONTROL TRUCK WITH MOUNTED CRASH CUSHION	UNIT	-
3	TRAFFIC CONTROL MEASURES	LS	-
4	FLOODLIGHTS FOR NIGHTTIME OPERATIONS	UNIT	-
5	TRAFFIC DIRECTOR, FLAGGER	ALLOW	-
6	TRAFFIC DIRECTOR, UNIFORM POLICE	ALLOW	-
7	EXCAVATION, UNCLASSIFIED (IF & WHERE DIRECTED)	CY	204
8	MILLING, 2" VARIABLE DEPTH	SY	12213
9	DAYTIME MILLING	DAY	-
10	DAYTIME PAVING	DAY	-
11	DENSE-GRADED AGGREGATE BASE COURSE, VARIABLE THICKNESS (IF & WHERE DIRECTED)	CY	204
12	HOT MIX ASPHALT PAVEMENT REPAIR (EXCAVATION, 4" DGA, 6" BASE COURSE) (IF & WHERE DIRECTED)	SY	244
13	HOT MIX ASPHALT SURFACE COURSE 9.5M64, 2" THICK	TON	1404
14	HOT MIX ASPHALT LEVELING COURSE 9.5M64, VARIABLE THICKNESS	TON	140
15	FUEL PRICE ADJUSTMENT	ALLOW	-
16	ASPHALT PRICE ADJUSTMENT	ALLOW	-
17	TYPE N-ECO CURB PIECE (6"-8") WITH ADJACENT CURB REPLACEMENT	UNIT	1
18	BICYCLE SAFE GRATE	UNIT	1
19	ECO HEAD CURB ADAPTOR, FACEPLATE (IF & WHERE DIRECTED)	UNIT	-
20	RESET MANHOLE CASTING WITH EXISTING FRAME AND COVER	UNIT	19
21	RESET MANHOLE CASTING WITH NEW FRAME AND COVER	UNIT	-
22	RESET INLET CASTING	UNIT	6
23	RECONSTRUCT INLET	UNIT	5
24	INLET, TYPE B	UNIT	-
25	10"x20" CONCRETE VERTICAL CURB	LF	-
26	GRANITE BLOCK CURB	LF	-
27	CONCRETE SIDEWALK, 4" THICK	SY	-
28	CONCRETE SIDEWALK, REINFORCED, 6" THICK	SY	-
29	DETECTABLE WARNING SURFACE (CAST-IN-PLACE)	SY	-
30	RESET BRICK PAVER	SY	-
31	RETAINING WALL	SF	-
32	TRAFFIC STRIPES, THERMOPLASTIC, 4"	LF	9798
33	TRAFFIC MARKINGS LINES, THERMOPLASTIC, RUMBLE STRIP	LF	-
34	TRAFFIC MARKINGS LINES, THERMOPLASTIC, 8"	LF	248
35	TRAFFIC MARKINGS LINES, THERMOPLASTIC, 12"	LF	246
36	TRAFFIC MARKINGS LINES, THERMOPLASTIC, 24"	LF	27
37	TRAFFIC MARKINGS SYMBOLS, THERMOPLASTIC	SF	330
38	RAISED PAVEMENT MARKER	UNIT	-
39	SEALING OF CRACKS IN HOT MIX ASPHALT SURFACE COURSE	LF	-
40	STREET NAME SIGN, TYPE DF WITH BREAKAWAY SUPPORT	SF	-
41	ACCESSORY PANEL, TYPE DF	SF	_
42	LOOP DETECTORS (IF & WHERE DIRECTED)	LF	_
43	IMAGE DETECTION SYSTEM (IF & WHERE DIRECTED)	UNIT	_
44	TREE REMOVAL, OVER 36" (IF & WHERE DIRECTED)	UNIT	

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Customer Loyalty through Client Satisfaction

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NEW JERSEY PROFESSIONAL

ENGINEER - LICENSE NUMBER: GE45473

CONSTRUCTION PLANS

FOR 2020 ROAD RESURFACING PROJECT **UNION COUNTY** PROJECT # 2018-020

NEW PROVIDENCE UNION COUNTY **NEW JERSEY**

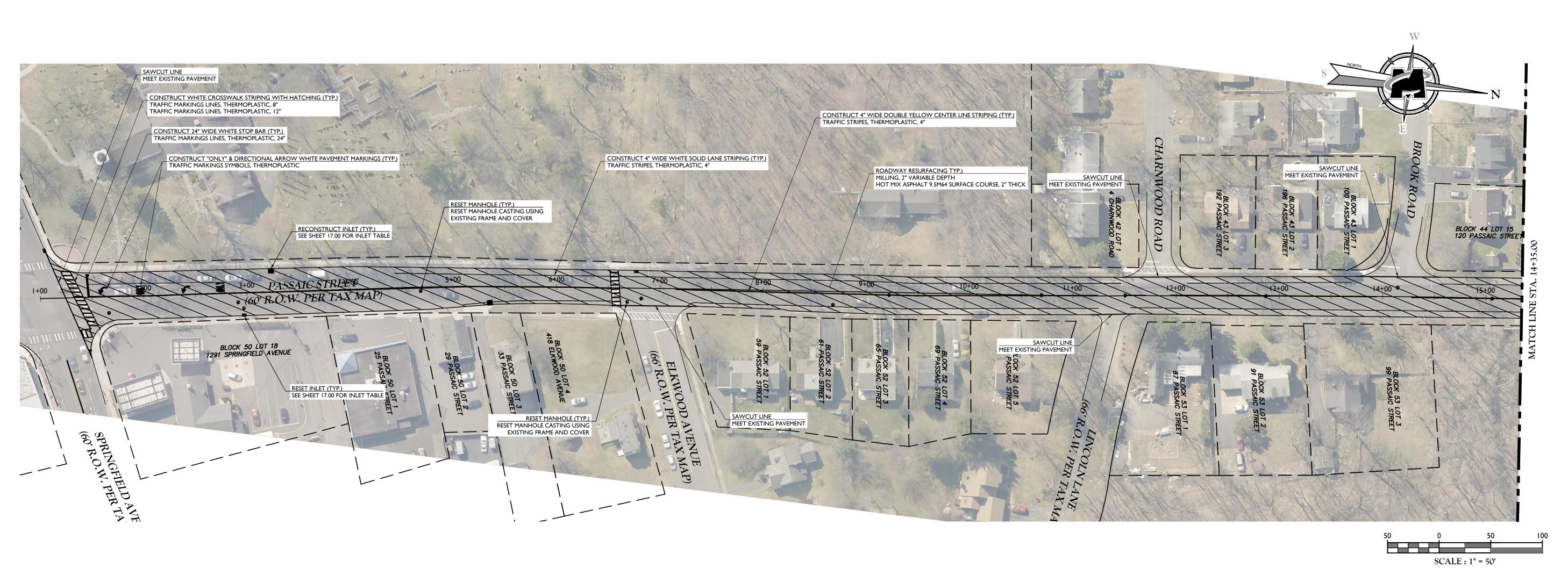


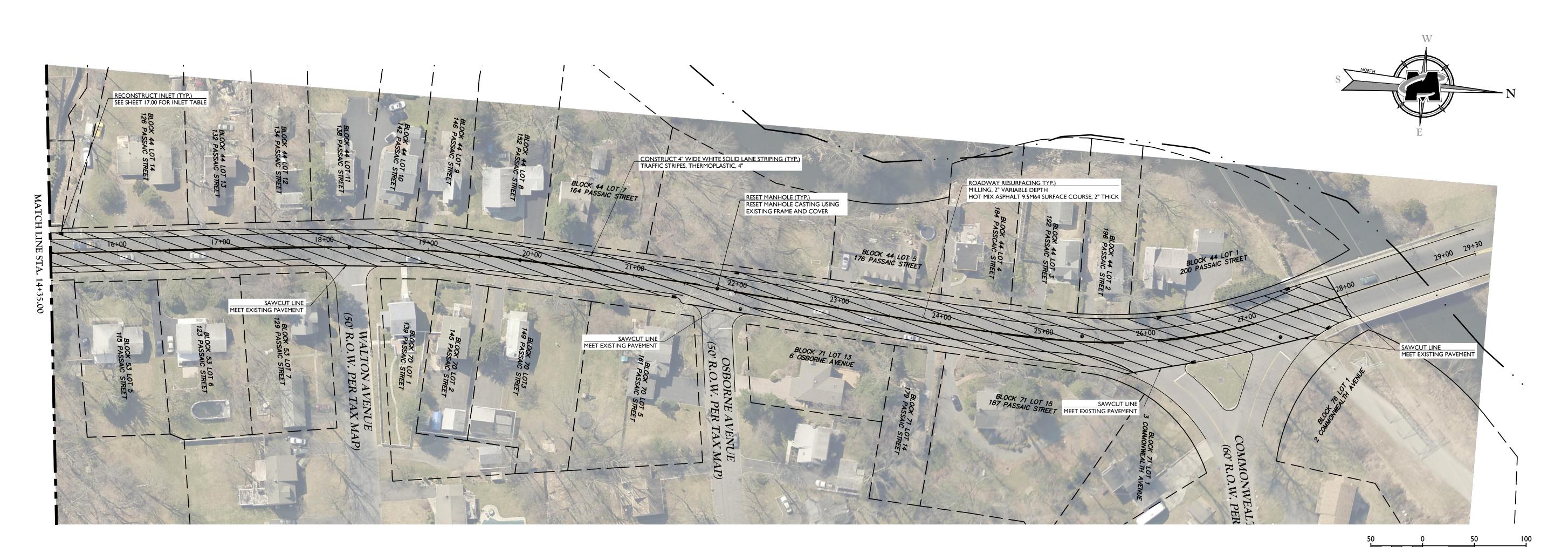
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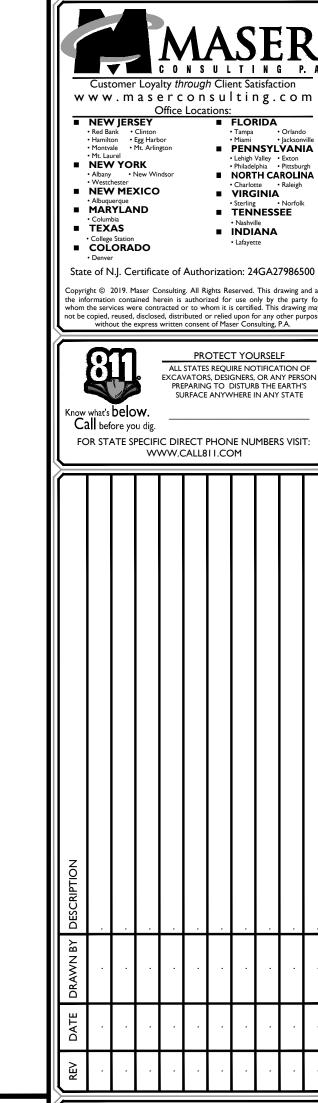
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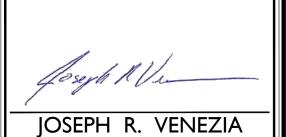
AS SHOWN
PROJECT NUMBER:

PASSAIC STREET **QUANTITY SHEET**









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CONSTRUCTION PLANS

2020 ROAD RESURFACING PROJECT **UNION COUNTY**

PROJECT # 2018-020

NEW PROVIDENCE **UNION COUNTY NEW JERSEY**



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:	DATE:		DRAWN BY:
HOWN	11/1	1/19	ES
CT NUMBE	R:	DRAWI	NG NAME:

PASSAIC STREET STA. I+00 TO STA. 29+30

SCALE : 1" = 50'

						MARTINE ADA R	AMPS			
				CURB RAM	P LAYOUT			•	QUANTITIES	
STATION	OFFSET	CURB RAMP TYPE	PERPENDICULAR	PARALLEL	DIAGONAL	COMBINATION	10"x20" CONC. VERTICAL CURB (LF)	GRANITE BLOCK CURB (LF)	CONCRETE SIDEWALK, REINFORCED, 6" THICK (SY)	DETECTABLE WARNING SURFACE (SY)
3+39	LT	5		✓			10	5	10	1
3+88	LT	5		✓			10	5	10	1
6+12	LT	5		✓			10	5	10	1
6+63	LT	5		✓			10	5	10	1
16+92	LT	5		✓			10	5	10	1
103+40	RT	6				✓	30	5	25	1
103+77	RT	6				✓	10	5	20	1

		1	MARTINE INLET TYPES		OLIANITITIE O		
STATION	OFFSET	EXISTING INLET TYPE		1	QUANTITIES		
		_	BICYCLE SAFE GRATE	CURB PIECE	PLATE	RESET	RECONSTRUC
3+92	LT 	В	√			~	
4+00	RT	В	✓			✓	
6+68	RT	В				✓	
6+72	LT	В				✓	
10+96	LT	В				✓	
11+01	RT	В				✓	
16+81	LT	В				√	
65+02	LT	В				√	
71+11	RT	В				√	
71+12	LT	В				√	
72+50	RT	E				√	
73+97	RT	В				✓	
75+22	LT	В				✓	
78+71	LT	В				✓	
79+03	RT	В				✓	
79+05	LT	В				✓	
80+10	LT	В				✓	
84+54	LT	В				✓	
90+95	LT	В				✓	
95+62	RT	В				✓	
101+35	LT	В				✓	
103+33	RT	В				✓	
107+03	LT	В				✓	
108+81	RT	В				✓	
111+53	LT	В				✓	
112+06	RT	В				✓	
112+11	RT	В				✓	
116+92	RT	В				✓	
116+97	RT	В				✓	
141+89	RT	В				√	
144+86	RT	В	✓			✓	
145+49	LT	В				✓	
145+49	RT	В				✓	
146+00	RT	В				√	

PAY ITEM NO.	DESCRIPTION	UNIT	QUANTITY
1	PORTABLE VARIABLE MESSAGE SIGN	UNIT	-
2	TRAFFIC CONTROL TRUCK WITH MOUNTED CRASH CUSHION	UNIT	-
3	TRAFFIC CONTROL MEASURES	LS	-
4	FLOODLIGHTS FOR NIGHTTIME OPERATIONS	UNIT	-
5	TRAFFIC DIRECTOR, FLAGGER	ALLOW	-
6	TRAFFIC DIRECTOR, UNIFORM POLICE	ALLOW	-
7	EXCAVATION, UNCLASSIFIED (IF & WHERE DIRECTED)	CY	937
8	MILLING, 2" VARIABLE DEPTH	SY	53538
9	DAYTIME MILLING	DAY	-
10	DAYTIME PAVING	DAY	-
11	DENSE-GRADED AGGREGATE BASE COURSE, VARIABLE THICKNESS (IF & WHERE DIRECTED)	CY	937
12	HOT MIX ASPHALT PAVEMENT REPAIR (EXCAVATION, 4" DGA, 6" BASE COURSE) (IF & WHERE DIRECTED)	SY	1124
13	HOT MIX ASPHALT SURFACE COURSE 9.5M64, 2" THICK	TON	6157
14	HOT MIX ASPHALT LEVELING COURSE 9.5M64, VARIABLE THICKNESS	TON	616
15	FUEL PRICE ADJUSTMENT	ALLOW	-
16	ASPHALT PRICE ADJUSTMENT	ALLOW	-
17	TYPE N-ECO CURB PIECE (6"-8") WITH ADJACENT CURB REPLACEMENT	UNIT	-
18	BICYCLE SAFE GRATE	UNIT	3
19	ECO HEAD CURB ADAPTOR, FACEPLATE (IF & WHERE DIRECTED)	UNIT	-
20	RESET MANHOLE CASTING WITH EXISTING FRAME AND COVER	UNIT	75
21	RESET MANHOLE CASTING WITH NEW FRAME AND COVER	UNIT	-
22	RESET INLET CASTING	UNIT	34
23	RECONSTRUCT INLET	UNIT	-
24	INLET, TYPE B	UNIT	-
25	10"x20" CONCRETE VERTICAL CURB	LF	90
26	GRANITE BLOCK CURB	LF	35
27	CONCRETE SIDEWALK, 4" THICK	SY	-
28	CONCRETE SIDEWALK, REINFORCED, 6" THICK	SY	95
29	DETECTABLE WARNING SURFACE (CAST-IN-PLACE)	SY	7
30	RESET BRICK PAVER	SY	-
31	RETAINING WALL	SF	-
32	TRAFFIC STRIPES, THERMOPLASTIC, 4"	LF	37222
33	TRAFFIC MARKINGS LINES, THERMOPLASTIC, RUMBLE STRIP	LF	-
34	TRAFFIC MARKINGS LINES, THERMOPLASTIC, 8"	LF	1515
35	TRAFFIC MARKINGS LINES, THERMOPLASTIC, 12"	LF	2283
36	TRAFFIC MARKINGS LINES, THERMOPLASTIC, 24"	LF	463
37	TRAFFIC MARKINGS SYMBOLS, THERMOPLASTIC	SF	2763
38	RAISED PAVEMENT MARKER	UNIT	-
39	SEALING OF CRACKS IN HOT MIX ASPHALT SURFACE COURSE	LF	-
40	STREET NAME SIGN, TYPE DF WITH BREAKAWAY SUPPORT	SF	-
41	ACCESSORY PANEL, TYPE DF	SF	-
42	LOOP DETECTORS (IF & WHERE DIRECTED)	LF	-
43	IMAGE DETECTION SYSTEM (IF & WHERE DIRECTED)	UNIT	-
44	TREE REMOVAL, OVER 36" (IF & WHERE DIRECTED)	UNIT	-

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ENGINEER - LICENSE NUMBER: GE45473

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BOROUGH OF FANWOOD/TOWNSHIP OF SCOTCH PLANS UNION COUNTY **NEW JERSEY**

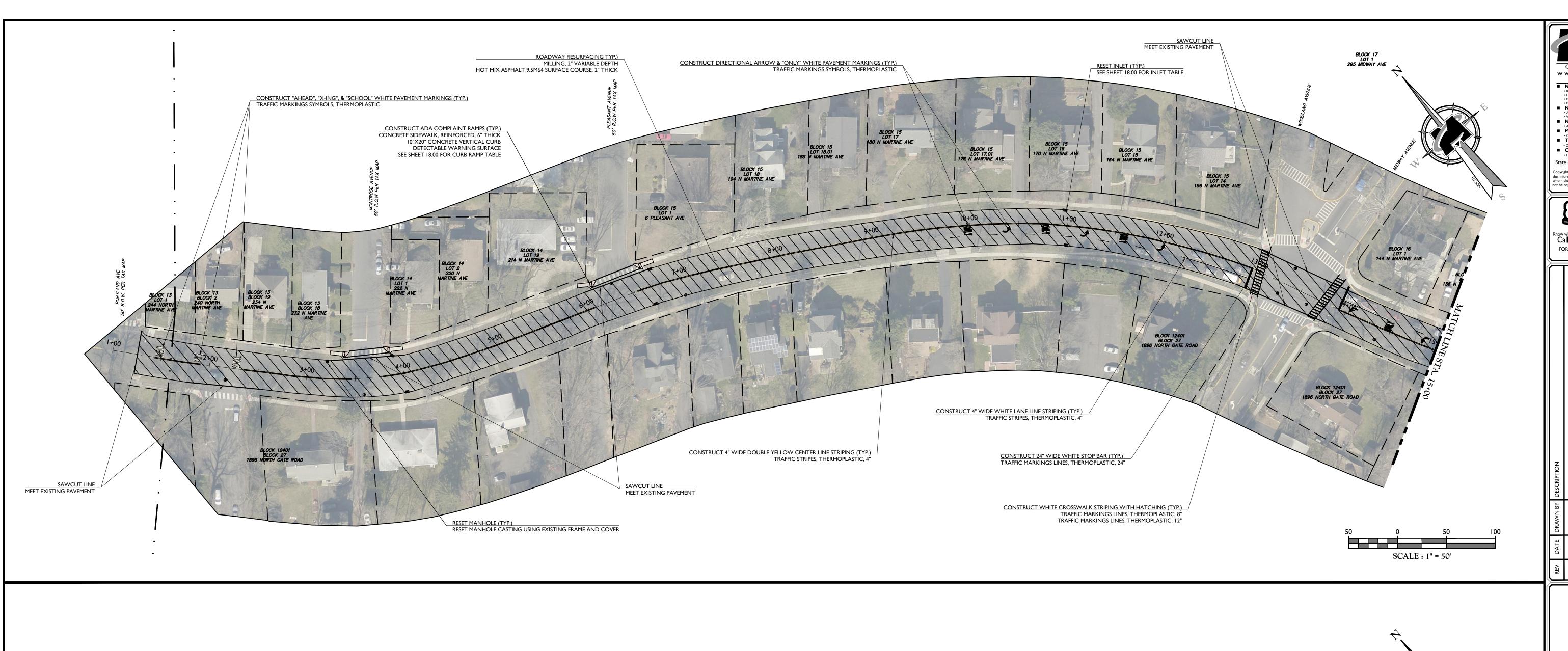


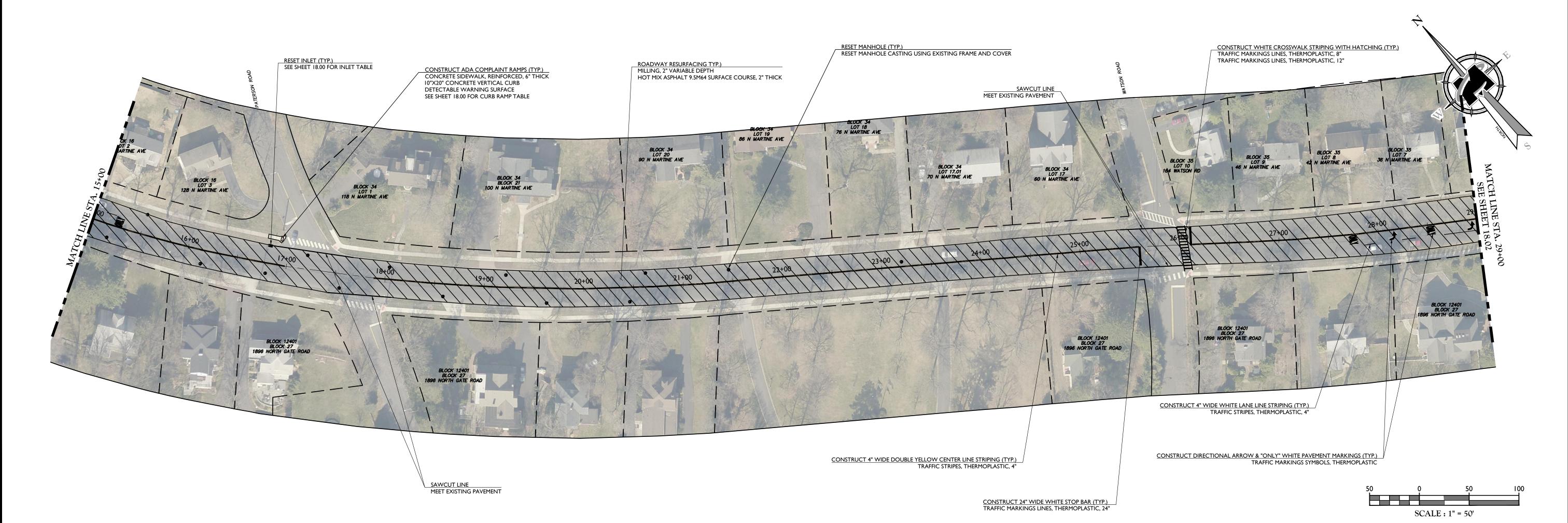
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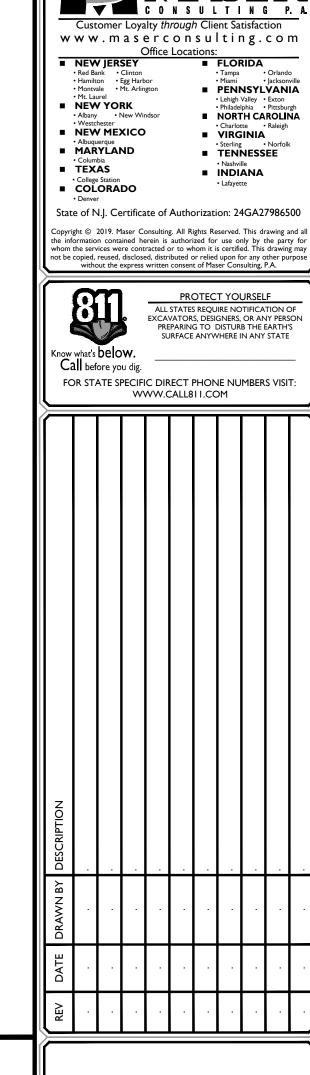
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AS SHOWN
PROJECT NUMBER:

MARTINE AVENUE QUANTITY SHEET









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CONSTRUCTION PLANS

FOR 2020 ROAD RESURFACING PROJECT **UNION COUNTY** PROJECT # 2018-020

BOROUGH OF FANWOOD/TOWNSHIP OF SCOTCH PLANS **UNION COUNTY NEW JERSEY**

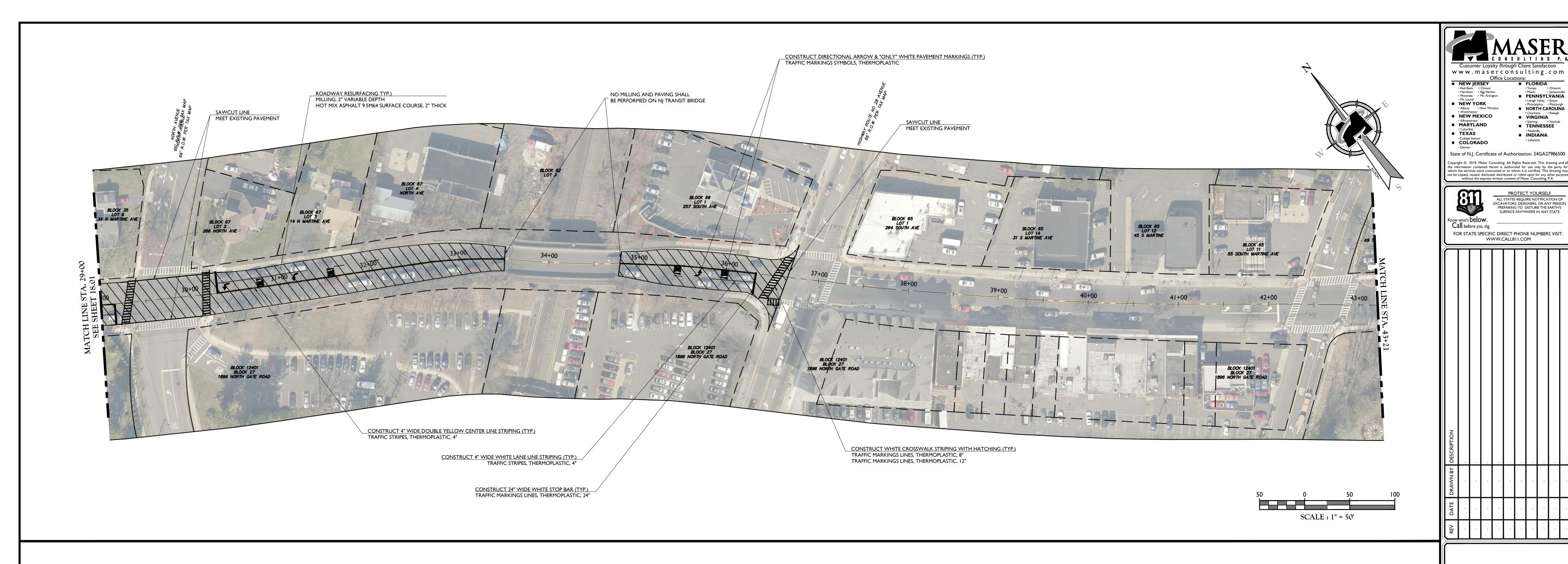


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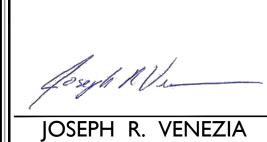
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> MARTINE AVENUE STA. 1+00 TO STA. 29+00







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BOROUGH OF FANWOOD/TOWNSHIP OF SCOTCH PLANS **UNION COUNTY NEW JERSEY**



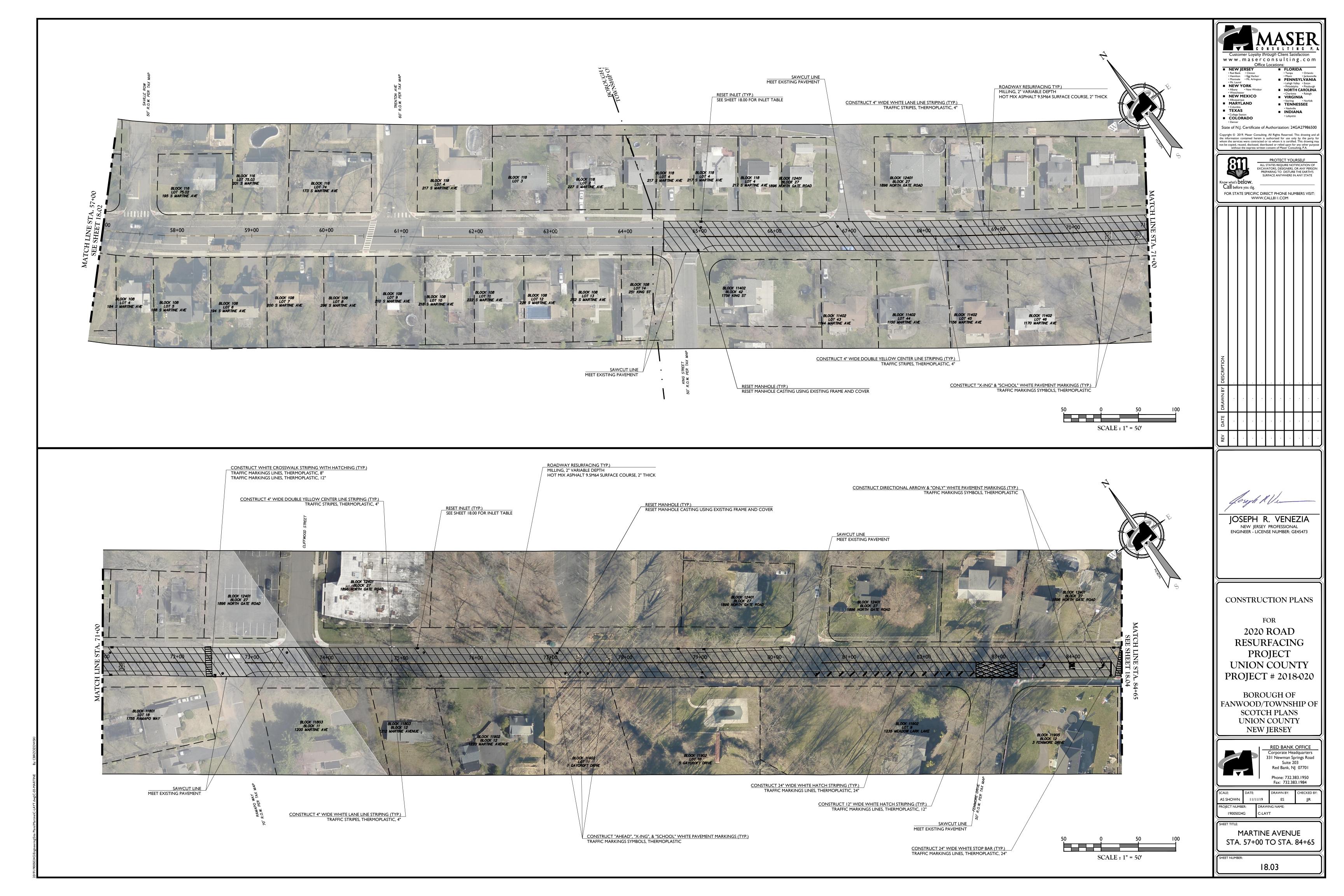
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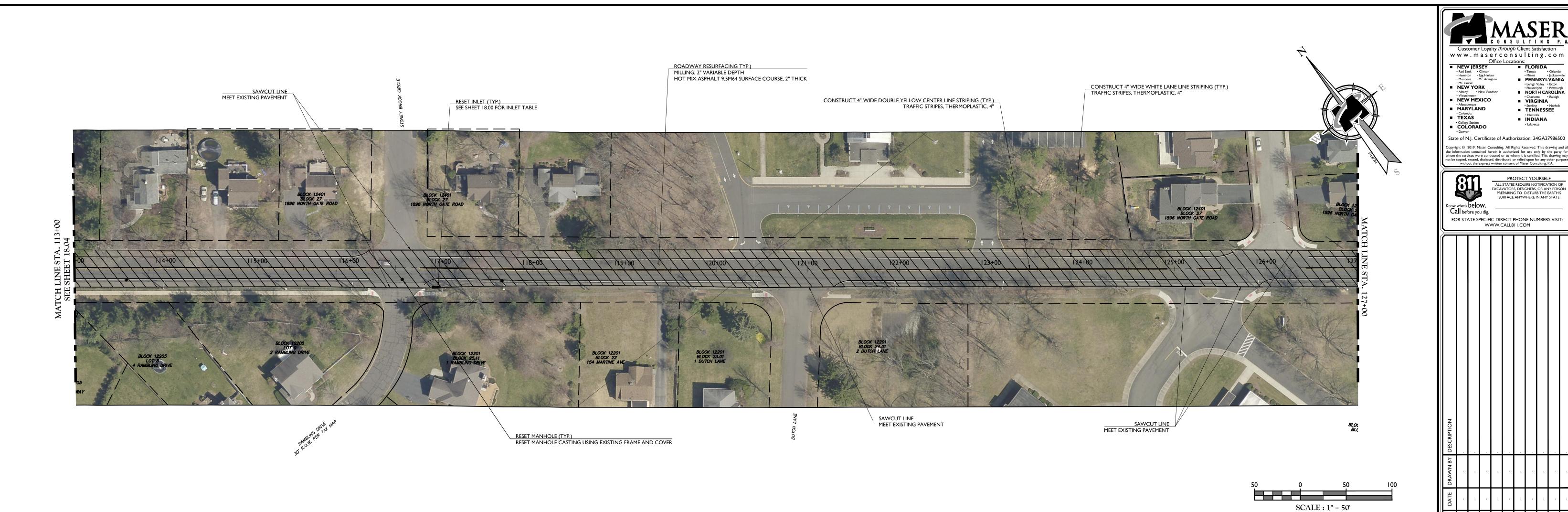
MARTINE AVENUE STA. 29+00 TO STA. 57+00

18.02

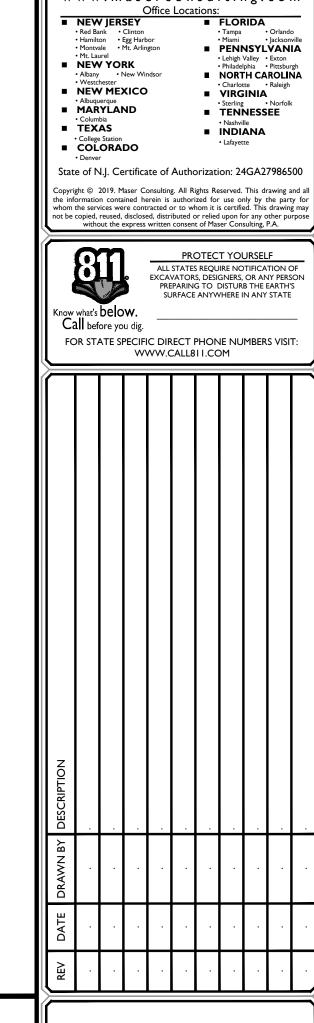
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BOROUGH OF FANWOOD/TOWNSHIP OF SCOTCH PLANS **UNION COUNTY NEW JERSEY**

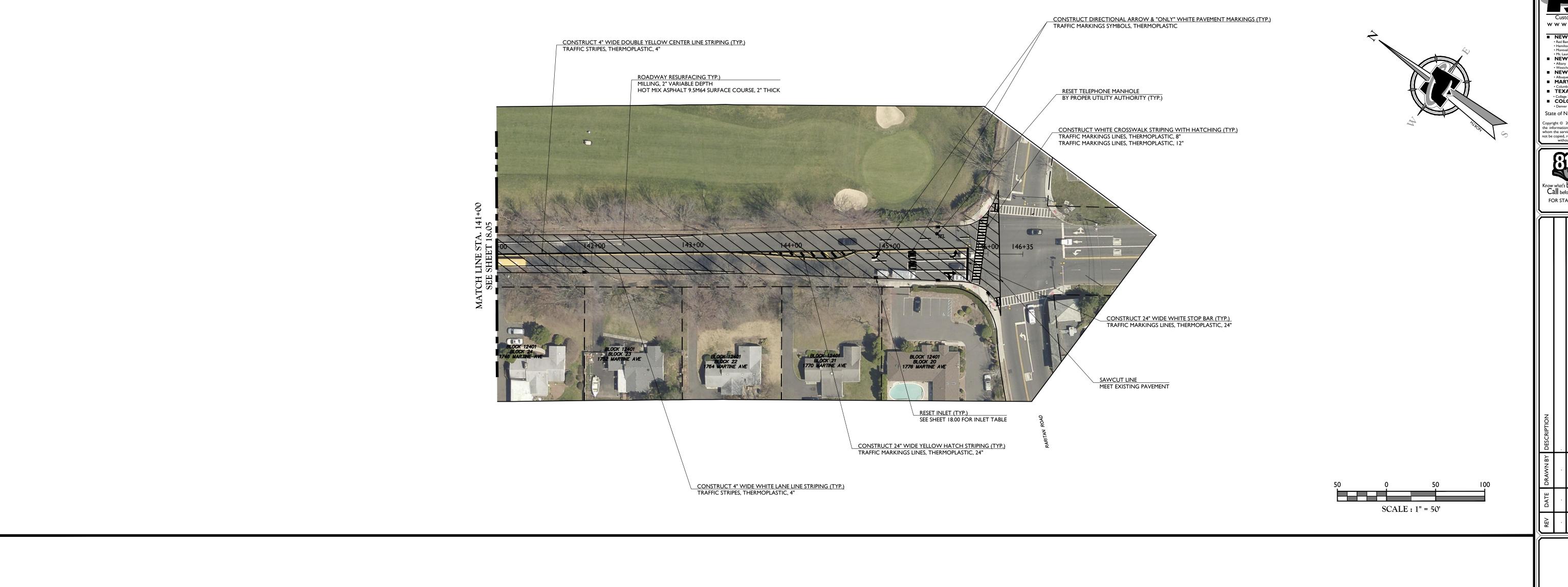


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MARTINE AVENUE STA. 113+00 TO STA. 141+00

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ENGINEER - LICENSE NUMBER: GE45473

CONSTRUCTION PLANS

FOR
2020 ROAD
RESURFACING
PROJECT
UNION COUNTY
PROJECT # 2018-020

BOROUGH OF FANWOOD/TOWNSHIP OF SCOTCH PLANS UNION COUNTY NEW JERSEY



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Phone: 732.383.1950 Fax: 732.383.1984

CALE: DATE: DRAWN BY: CHAS SHOWN 11/11/19 ES
PROJECT NUMBER: DRAWING NAME:

MARTINE AVENUE

STA. 141+00 TO STA. 146+35

SHEET NUMBER:

	WEST CHESTNUT ADA RAMPS										
				CURB RAM	PLAYOUT			1	QUANTITIES		
STATION	OFFSET	CURB RAMP TYPE	PERPENDICULAR	PARALLEL	DIAGONAL	COMBINATION	10"x20" CONC. VERTICAL CURB (LF)	GRANITE BLOCK CURB (LF)	CONCRETE SIDEWALK, REINFORCED, 6" THICK (SY)	DETECTABLE WARNING SURFACE (SY)	
13+37	RT	6				✓	35	-	25	1	
13+72	RT	4			✓	✓	15	-	15	1	
16+15	LT	7		✓	✓		30	-	25	1	
16+54	LT	7		✓	✓		30	-	25	1	
23+55	RT	4			✓	✓	15	-	20	1	
24+07	RT	6				✓	10	-	15	1	
26+47	RT	4			✓	✓	15	-	15	1	
26+85	RT	4			✓	✓	25	-	20	1	
28+92	LT	4			✓	✓	15	-	20	1	
29+42	LT	4			✓	✓	15	-	10	1	
29+50	LT	4			✓	✓	15	-	10	1	
35+08	LT	4				✓	15	-	20	1	
36+89	LT	4			✓	✓	15	-	15	1	
37+27	LT	7		✓	✓		35	-	20	1	
39+42	LT	7		✓	✓		35	-	20	1	
39+68	LT	7		✓	✓		35	-	20	1	
41+92	LT	7		✓	✓		35	-	20	1	
42+23	LT	4			✓	✓	15	-	20	1	

				QUANTITIES									
STATION	OFFSET	EXISTING INLET TYPE	BICYCLE SAFE GRATE	CURB PIECE	PLATE	RESET	RECONSTRUC						
2+31	LT	В				√							
2+53	RT	В				√							
6+48	RT	Е				✓							
7+56	RT	В				√							
7+60	RT	В				✓							
7+61	LT	В				✓							
11+02	LT	В				✓							
11+54	RT	В				✓							
11+59	LT	В				✓							
14+19	LT	В				✓							
14+23	RT	В				✓							
16+68	LT	В				✓							
16+70	RT	В				✓							
20+22	RT	В				✓							
23+42	RT	В				✓							
24+44	RT	В				✓							
24+65	LT	В				✓							
26+39	LT	В				✓							
26+39	RT	В				✓							
26+99	LT	В				✓							
26+98	RT	В				✓							
28+75	LT	В				✓							
29+61	RT	В				✓							
29+56	LT	В				✓							
31+60	LT	В				✓							
34+55	LT	В				✓							
35+81	LT	В				✓							
36+93	LT	Е				✓							
39+32	LT	В				✓							
39+65	LT	В				✓							
41+84	LT	В				✓							
42+80	LT	В				✓							
42+83	RT	В				✓							
43+08	RT	В				✓							
43+22	LT	В				✓							

PAY ITEM NO.	DESCRIPTION	UNIT	QUANTI
1	PORTABLE VARIABLE MESSAGE SIGN	UNIT	-
2	TRAFFIC CONTROL TRUCK WITH MOUNTED CRASH CUSHION	UNIT	-
3	TRAFFIC CONTROL MEASURES	LS	-
4	FLOODLIGHTS FOR NIGHTTIME OPERATIONS	UNIT	-
5	TRAFFIC DIRECTOR, FLAGGER	ALLOW	-
6	TRAFFIC DIRECTOR, UNIFORM POLICE	ALLOW	-
7	EXCAVATION, UNCLASSIFIED (IF & WHERE DIRECTED)	CY	382
8	MILLING, 2" VARIABLE DEPTH	SY	2183
9	DAYTIME MILLING	DAY	-
10	DAYTIME PAVING	DAY	-
11	DENSE-GRADED AGGREGATE BASE COURSE, VARIABLE THICKNESS (IF & WHERE DIRECTED)	CY	382
12	HOT MIX ASPHALT PAVEMENT REPAIR (EXCAVATION, 4" DGA, 6" BASE COURSE) (IF & WHERE DIRECTED)	SY	459
13	HOT MIX ASPHALT SURFACE COURSE 9.5M64, 2" THICK	TON	2511
14	HOT MIX ASPHALT LEVELING COURSE 9.5M64, VARIABLE THICKNESS	TON	251
15	FUEL PRICE ADJUSTMENT	ALLOW	-
16	ASPHALT PRICE ADJUSTMENT	ALLOW	-
17	TYPE N-ECO CURB PIECE (6"-8") WITH ADJACENT CURB REPLACEMENT	UNIT	-
18	BICYCLE SAFE GRATE	UNIT	-
19	ECO HEAD CURB ADAPTOR, FACEPLATE (IF & WHERE DIRECTED)	UNIT	_
20	RESET MANHOLE CASTING WITH EXISTING FRAME AND COVER	UNIT	37
21	RESET MANHOLE CASTING WITH NEW FRAME AND COVER	UNIT	-
22	RESET INLET CASTING	UNIT	35
23	RECONSTRUCT INLET	UNIT	-
24	INLET, TYPE B	UNIT	_
25	10"x20" CONCRETE VERTICAL CURB	LF	405
26	GRANITE BLOCK CURB	LF	_
27	CONCRETE SIDEWALK, 4" THICK	SY	_
28	CONCRETE SIDEWALK, REINFORCED, 6" THICK	SY	335
29	DETECTABLE WARNING SURFACE (CAST-IN-PLACE)	SY	18
30	RESET BRICK PAVER	SY	-
31	RETAINING WALL	SF	_
32	TRAFFIC STRIPES, THERMOPLASTIC, 4"	LF	9770
33	TRAFFIC MARKINGS LINES, THERMOPLASTIC, RUMBLE STRIP	LF	-
34	TRAFFIC MARKINGS LINES, THERMOPLASTIC, 8"	LF	1066
35	TRAFFIC MARKINGS LINES, THERMOPLASTIC, 12"	LF	504
36	TRAFFIC MARKINGS LINES, THERMOPLASTIC, 24"	LF	147
37	TRAFFIC MARKINGS SYMBOLS, THERMOPLASTIC	SF	884
38	RAISED PAVEMENT MARKER	UNIT	-
39	SEALING OF CRACKS IN HOT MIX ASPHALT SURFACE COURSE	LF	-
40	STREET NAME SIGN, TYPE DF WITH BREAKAWAY SUPPORT	SF	-
41	ACCESSORY PANEL, TYPE DF	SF	-
42	LOOP DETECTORS (IF & WHERE DIRECTED)	LF	-
43	IMAGE DETECTION SYSTEM (IF & WHERE DIRECTED)	UNIT	-
44	TREE REMOVAL, OVER 36" (IF & WHERE DIRECTED)	UNIT	-

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JOSEPH R. VENEZIA

NEW JERSEY PROFESSIONAL

ENGINEER - LICENSE NUMBER: GE45473

CONSTRUCTION PLANS

FOR 2020 ROAD RESURFACING PROJECT **UNION COUNTY** PROJECT # 2018-020

TOWNSHIP OF UNION UNION COUNTY **NEW JERSEY**

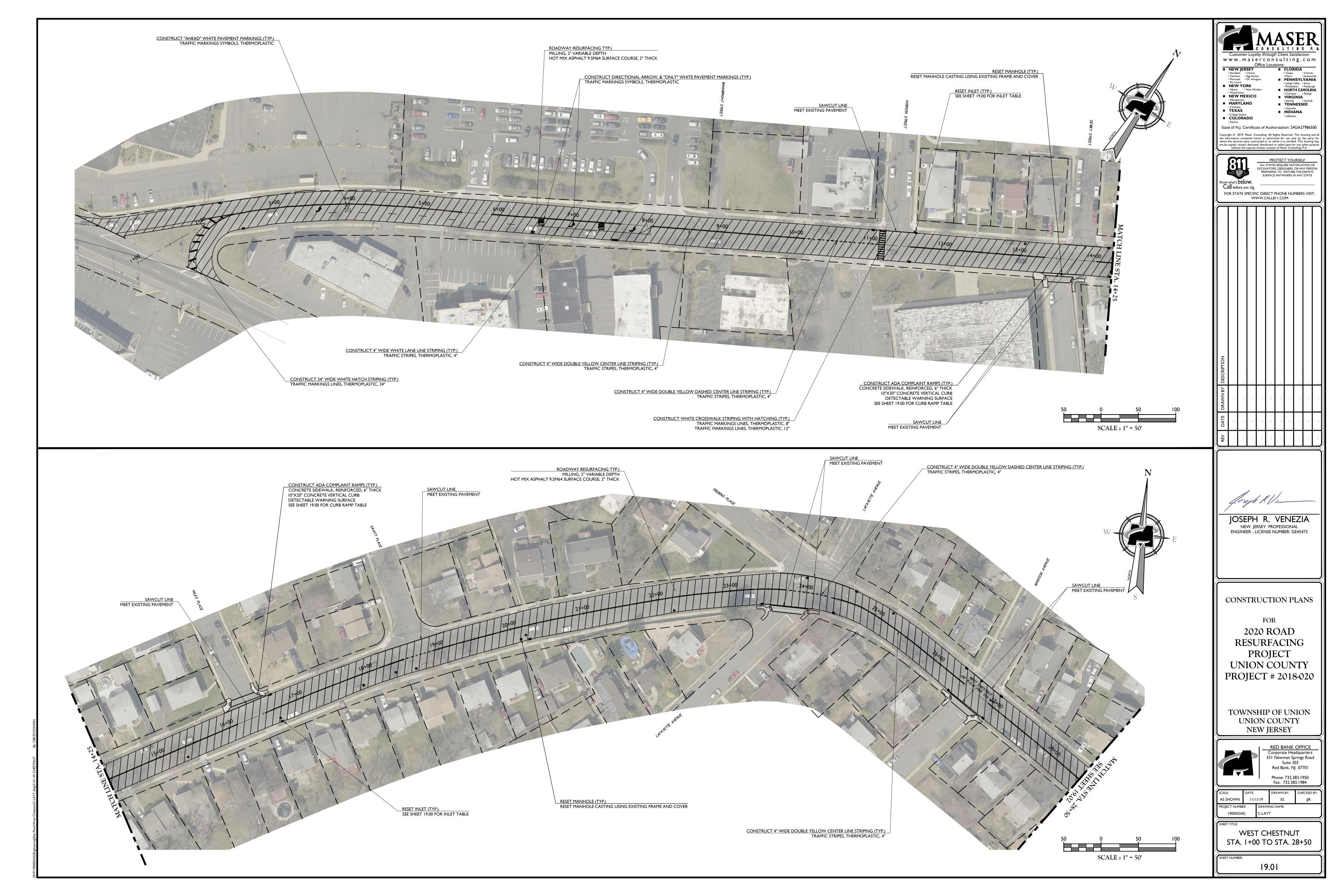


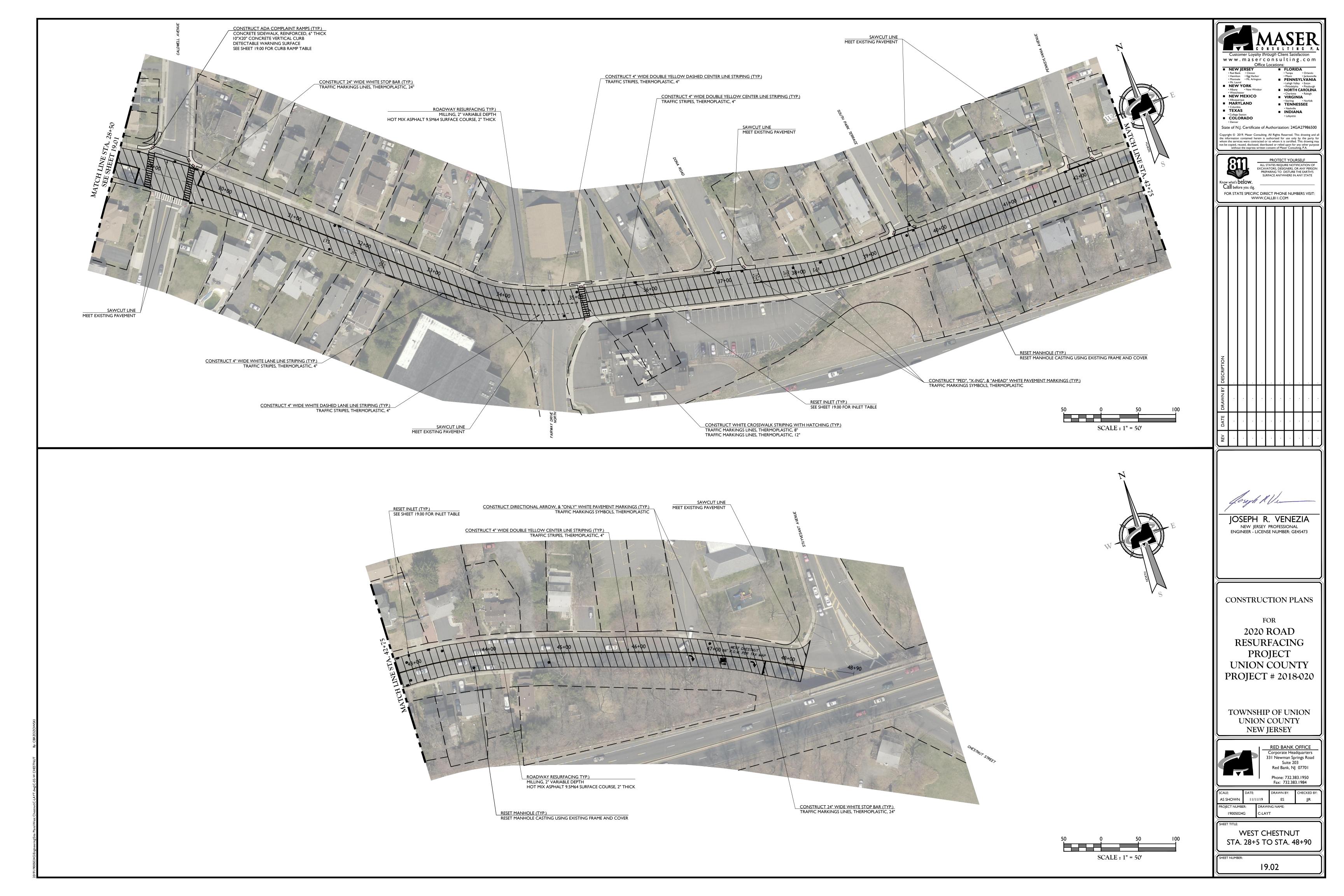
RED BANK OFFICE

Corporate Headquarters
331 Newman Springs Road
Suite 203
Red Bank, NJ 07701 Phone: 732.383.1950 Fax: 732.383.1984

AS SHOWN
PROJECT NUMBER:

WEST CHESTNUT QUANTITY SHEET





			GALLOPING HILL INLET TY	PES & LOCATIONS	3							
STATION	OFFSET	EVISTING INLET TYPE		QUANTITIES								
STATION	STATION OFFSET	EXISTING INLET TYPE	BICYCLE SAFE GRATE	CURB PIECE	PLATE	RESET	RECONSTRUCT					
18+38	LT	В				✓						
19+46	RT	UNDERSIZED B				✓						
19+83	LT	В	✓			✓						
20+51	LT	В	✓			✓						
22+23	LT	В	✓			✓						
32+47	RT	В					√					

PAY ITEM NO.	DESCRIPTION	UNIT	QUA
1	PORTABLE VARIABLE MESSAGE SIGN	UNIT	
2	TRAFFIC CONTROL TRUCK WITH MOUNTED CRASH CUSHION	UNIT	
3	TRAFFIC CONTROL MEASURES	LS	
4	FLOODLIGHTS FOR NIGHTTIME OPERATIONS	UNIT	
5	TRAFFIC DIRECTOR, FLAGGER	ALLOW	
6	TRAFFIC DIRECTOR, UNIFORM POLICE	ALLOW	
7	EXCAVATION, UNCLASSIFIED (IF & WHERE DIRECTED)	CY	2
8	MILLING, 2" VARIABLE DEPTH	SY	13
9	DAYTIME MILLING	DAY	
10	DAYTIME PAVING	DAY	
11	DENSE-GRADED AGGREGATE BASE COURSE, VARIABLE THICKNESS (IF & WHERE DIRECTED)	CY	2
12	HOT MIX ASPHALT PAVEMENT REPAIR (EXCAVATION, 4" DGA, 6" BASE COURSE) (IF & WHERE DIRECTED)	SY	2
13	HOT MIX ASPHALT SURFACE COURSE 9.5M64, 2" THICK	TON	1:
14	HOT MIX ASPHALT LEVELING COURSE 9.5M64, VARIABLE THICKNESS	TON	1
15	FUEL PRICE ADJUSTMENT	ALLOW	
16	ASPHALT PRICE ADJUSTMENT	ALLOW	
17	TYPE N-ECO CURB PIECE (6"-8") WITH ADJACENT CURB REPLACEMENT	UNIT	
18	BICYCLE SAFE GRATE	UNIT	
19	ECO HEAD CURB ADAPTOR, FACEPLATE (IF & WHERE DIRECTED)	UNIT	
20	RESET MANHOLE CASTING WITH EXISTING FRAME AND COVER	UNIT	
21	RESET MANHOLE CASTING WITH NEW FRAME AND COVER	UNIT	
22	RESET INLET CASTING	UNIT	
23	RECONSTRUCT INLET	UNIT	
24	INLET, TYPE B	UNIT	
25	10"x20" CONCRETE VERTICAL CURB	LF	
26	GRANITE BLOCK CURB	LF	
27	CONCRETE SIDEWALK, 4" THICK	SY	
28	CONCRETE SIDEWALK, REINFORCED, 6" THICK	SY	
29	DETECTABLE WARNING SURFACE (CAST-IN-PLACE)	SY	
30	RESET BRICK PAVER	SY	
31	RETAINING WALL	SF	
32	TRAFFIC STRIPES, THERMOPLASTIC, 4"	LF	5
33	TRAFFIC MARKINGS LINES, THERMOPLASTIC, RUMBLE STRIP	LF	
34	TRAFFIC MARKINGS LINES, THERMOPLASTIC, 8"	LF	1
35	TRAFFIC MARKINGS LINES, THERMOPLASTIC, 12"	LF	2
36	TRAFFIC MARKINGS LINES, THERMOPLASTIC, 24"	LF	
37	TRAFFIC MARKINGS SYMBOLS, THERMOPLASTIC	SF	1
38	RAISED PAVEMENT MARKER	UNIT	
39	SEALING OF CRACKS IN HOT MIX ASPHALT SURFACE COURSE	LF	
40	STREET NAME SIGN, TYPE DF WITH BREAKAWAY SUPPORT	SF	
41	ACCESSORY PANEL, TYPE DF	SF	
42	LOOP DETECTORS (IF & WHERE DIRECTED)	LF	
43	IMAGE DETECTION SYSTEM (IF & WHERE DIRECTED)	UNIT	
44	TREE REMOVAL, OVER 36" (IF & WHERE DIRECTED)	UNIT	

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NEW JERSEY PROFESSIONAL

ENGINEER - LICENSE NUMBER: GE45473

CONSTRUCTION PLANS

FOR 2020 ROAD RESURFACING PROJECT **UNION COUNTY** PROJECT # 2018-020

CITY OF ELIZABETH/BOROUGH OF ROSELLE PARK UNION COUNTY **NEW JERSEY**



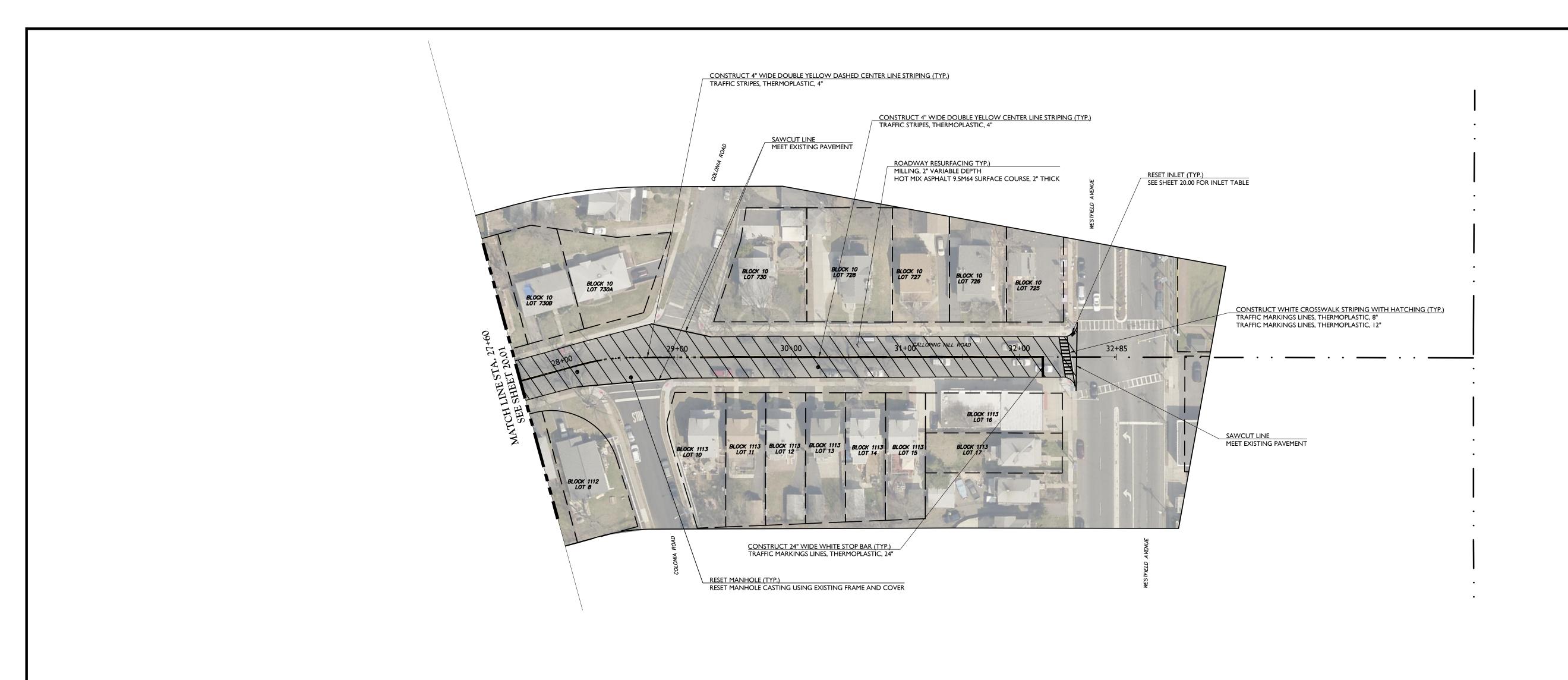
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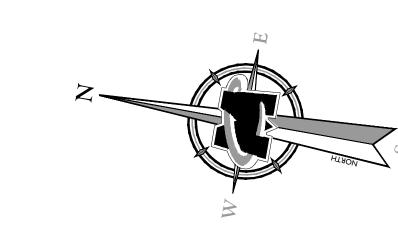
Corporate Headquarters
331 Newman Springs Road
Suite 203
Red Bank, NJ 07701 Phone: 732.383.1950 Fax: 732.383.1984

AS SHOWN
PROJECT NUMBER:

GALLOPING HILL ROAD QUANTITY SHEET







SCALE : 1" = 50'

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NEW JERSEY PROFESSIONAL

ENGINEER - LICENSE NUMBER: GE45473

CONSTRUCTION PLANS

FOR

2020 ROAD

RESURFACING

PROJECT

UNION COUNTY

PROJECT # 2018-020

CITY OF
ELIZABETH/BOROUGH OF
ROSELLE PARK
UNION COUNTY
NEW JERSEY



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CCALE: DATE: DRAWN BY: CH AS SHOWN 11/11/19 ES PROJECT NUMBER: DRAWING NAME:

7005024G C-LAYT

GALLOPING HILL ROAD STA. 27+60 TO STA. 32+85

SHEET NUMBER:

						WEST BROAD ADA	RAMPS				
				CURB RAM	P LAYOUT		QUANTITIES				
STATION	STATION OFFSET CURB RAMP TYPE	CURB RAMP TYPE	PERPENDICULAR	PARALLEL	DIAGONAL	COMBINATION	10"x20" CONC. VERTICAL CURB (LF)	GRANITE BLOCK CURB (LF)	CONCRETE SIDEWALK, REINFORCED, 6" THICK (SY)	DETECTABLE WARNING SURFACE (SY)	
11+26	LT	3			✓	✓	20	10	25	1	
11+63	LT	7		✓	✓		15	10	15	1	
14+08	RT	6				✓	10	10	10	1	
14+56	RT	6				✓	10	10	10	1	
14+52	LT	4			✓	✓	10	5	20	1	
17+48	RT	4				✓	20	10	25	1	
17+87	RT	6				✓	10	10	10	1	
20+61	RT	4			✓	✓	10	5	20	1	
21+05	RT	6				✓	10	10	10	1	
22+00	LT	6				✓	10	10	10	1	
22+46	RT	4				✓	15	-	15	1	
22+51	LT	3			✓	✓	20	10	30	1	
31+82	RT	4			✓	✓	10	5	20	1	
31+93	LT	4			✓	✓	10	5	20	1	
32+31	RT	4			✓	✓	10	5	20	1	
32+43	LT	3			✓	✓	20	10	30	1	

			WEST BROAD INLET TYP	ES & LOCATIONS							
STATION	OFFSET	EXISTING INLET TYPE	QUANTITIES								
STATION OF SET	EXISTING INLET TIPE	BICYCLE SAFE GRATE	CURB PIECE	PLATE	RESET	RECONSTRUCT					
13+91	RT	В				✓					
13+95	LT	В				✓					
17+46	RT	В				✓					
20+36	RT	В				✓					
20+44	RT	В				✓					
22+52	RT	В				✓					
22+66	LT	В				✓					
25+89	RT	В				✓					
25+89	LT	В				✓					
29+23	RT	В				✓					
31+72	RT	В				✓					
35+46	LT	В				✓					
39+62	RT	В				✓					

PAY ITEM NO.	DESCRIPTION	UNIT	QUANTI
1	PORTABLE VARIABLE MESSAGE SIGN	UNIT	_
2	TRAFFIC CONTROL TRUCK WITH MOUNTED CRASH CUSHION	UNIT	-
3	TRAFFIC CONTROL MEASURES	LS	-
4	FLOODLIGHTS FOR NIGHTTIME OPERATIONS	UNIT	-
5	TRAFFIC DIRECTOR, FLAGGER	ALLOW	-
6	TRAFFIC DIRECTOR, UNIFORM POLICE	ALLOW	-
7	EXCAVATION, UNCLASSIFIED (IF & WHERE DIRECTED)	CY	293
8	MILLING, 2" VARIABLE DEPTH	SY	16724
9	DAYTIME MILLING	DAY	-
10	DAYTIME PAVING	DAY	-
11	DENSE-GRADED AGGREGATE BASE COURSE, VARIABLE THICKNESS (IF & WHERE DIRECTED)	CY	293
12	HOT MIX ASPHALT PAVEMENT REPAIR (EXCAVATION, 4" DGA, 6" BASE COURSE) (IF & WHERE DIRECTED)	SY	351
13	HOT MIX ASPHALT SURFACE COURSE 9.5M64, 2" THICK	TON	1923
14	HOT MIX ASPHALT LEVELING COURSE 9.5M64, VARIABLE THICKNESS	TON	192
15	FUEL PRICE ADJUSTMENT	ALLOW	-
16	ASPHALT PRICE ADJUSTMENT	ALLOW	-
17	TYPE N-ECO CURB PIECE (6"-8") WITH ADJACENT CURB REPLACEMENT	UNIT	-
18	BICYCLE SAFE GRATE	UNIT	-
19	ECO HEAD CURB ADAPTOR, FACEPLATE (IF & WHERE DIRECTED)	UNIT	-
20	RESET MANHOLE CASTING WITH EXISTING FRAME AND COVER	UNIT	26
21	RESET MANHOLE CASTING WITH NEW FRAME AND COVER	UNIT	-
22	RESET INLET CASTING	UNIT	13
23	RECONSTRUCT INLET	UNIT	-
24	INLET, TYPE B	UNIT	-
25	10"x20" CONCRETE VERTICAL CURB	LF	210
26	GRANITE BLOCK CURB	LF	125
27	CONCRETE SIDEWALK, 4" THICK	SY	-
28	CONCRETE SIDEWALK, REINFORCED, 6" THICK	SY	290
29	DETECTABLE WARNING SURFACE (CAST-IN-PLACE)	SY	16
30	RESET BRICK PAVER	SY	-
31	RETAINING WALL	SF	-
32	TRAFFIC STRIPES, THERMOPLASTIC, 4"	LF	7259
33	TRAFFIC MARKINGS LINES, THERMOPLASTIC, RUMBLE STRIP	LF	-
34	TRAFFIC MARKINGS LINES, THERMOPLASTIC, 8"	LF	987
35	TRAFFIC MARKINGS LINES, THERMOPLASTIC, 12"	LF	1088
36	TRAFFIC MARKINGS LINES, THERMOPLASTIC, 24"	LF	-
37	TRAFFIC MARKINGS SYMBOLS, THERMOPLASTIC	SF	994
38	RAISED PAVEMENT MARKER	UNIT	-
39	SEALING OF CRACKS IN HOT MIX ASPHALT SURFACE COURSE	LF	-
40	STREET NAME SIGN, TYPE DF WITH BREAKAWAY SUPPORT	SF	-
41	ACCESSORY PANEL, TYPE DF	SF	-
42	LOOP DETECTORS (IF & WHERE DIRECTED)	LF	-
43	IMAGE DETECTION SYSTEM (IF & WHERE DIRECTED)	UNIT	-
44	TREE REMOVAL, OVER 36" (IF & WHERE DIRECTED)	UNIT	-

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NEW JERSEY PROFESSIONAL

ENGINEER - LICENSE NUMBER: GE45473

CONSTRUCTION PLANS

FOR 2020 ROAD RESURFACING PROJECT **UNION COUNTY** PROJECT # 2018-020

TOWN OF WESTFIELD UNION COUNTY **NEW JERSEY**

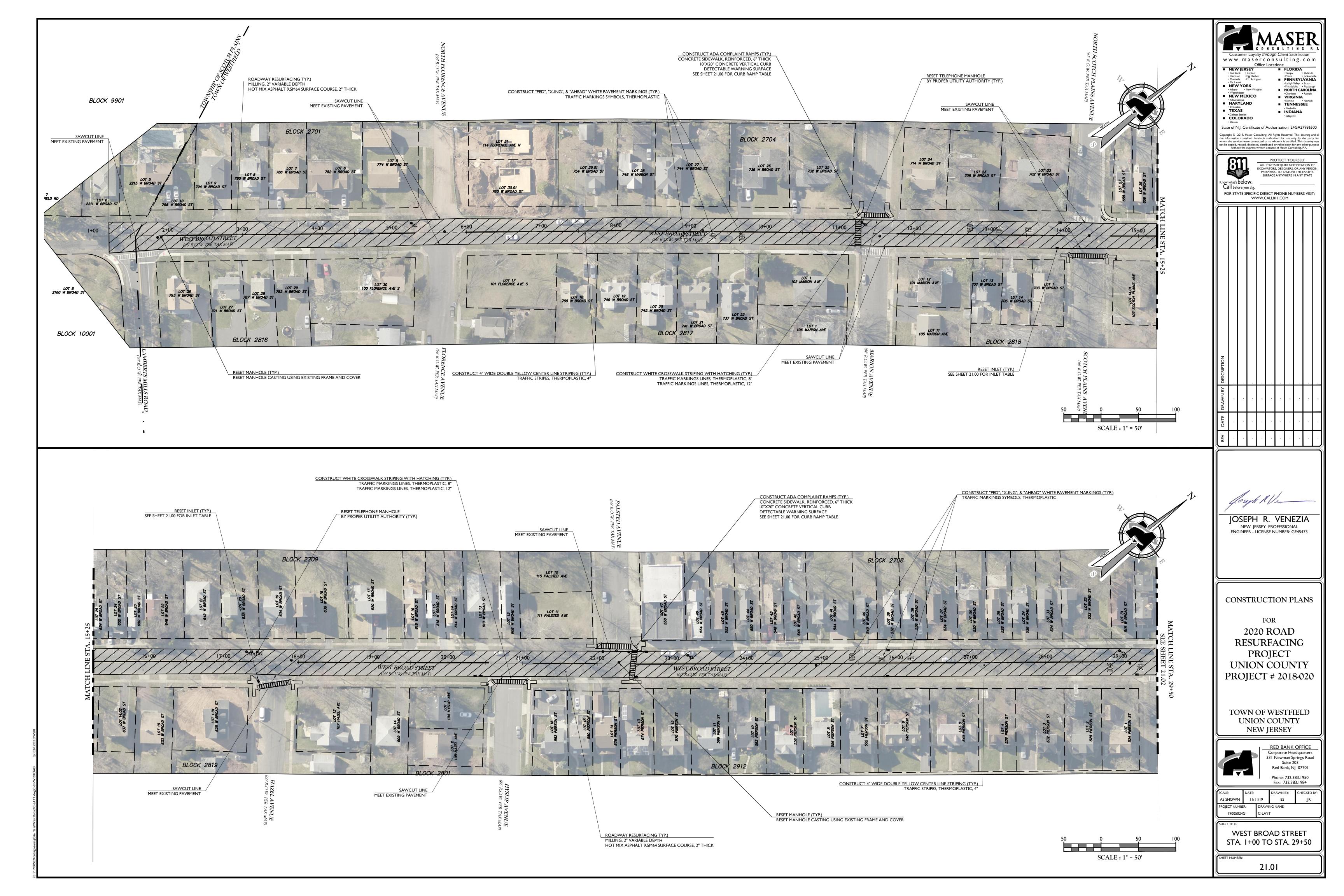


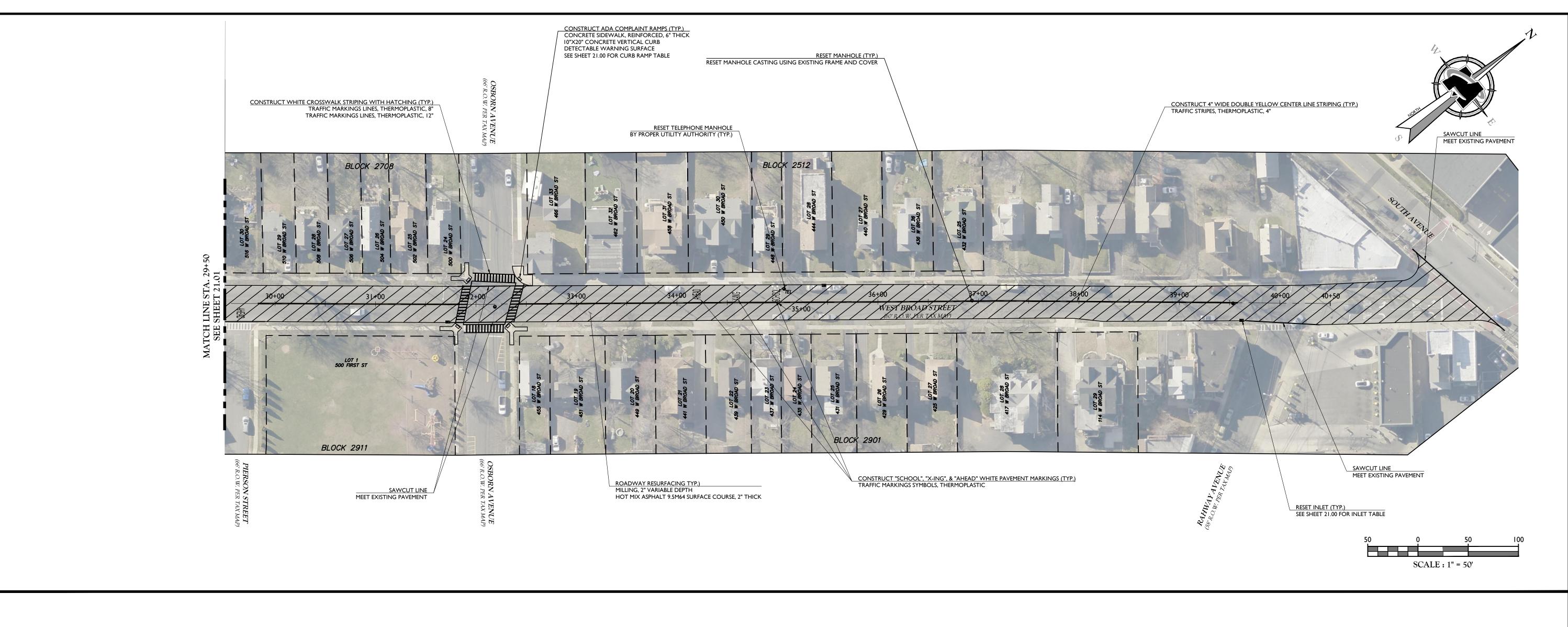
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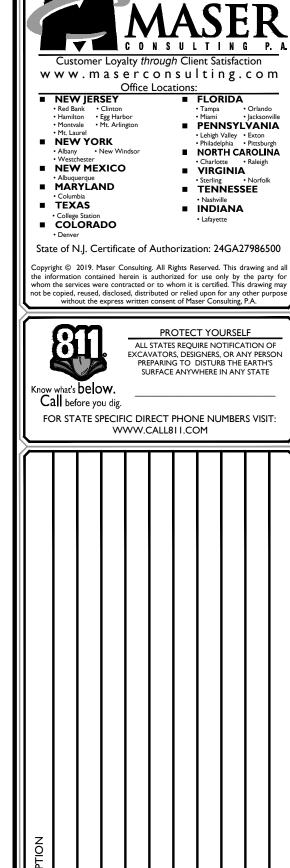
Corporate Headquarters
331 Newman Springs Road
Suite 203
Red Bank, NJ 07701 Phone: 732.383.1950 Fax: 732.383.1984

AS SHOWN
PROJECT NUMBER:

WEST BROAD STREET QUANTITY SHEET







JOSEPH R. VENEZIA NEW JERSEY PROFESSIONAL ENGINEER - LICENSE NUMBER: GE45473

CONSTRUCTION PLANS

FOR 2020 ROAD RESURFACING PROJECT **UNION COUNTY** PROJECT # 2018-020

TOWN OF WESTFIELD **UNION COUNTY NEW JERSEY**



RED BANK OFFICE
Corporate Headquarters
331 Newman Springs Road Suite 203 Red Bank, NJ 07701

Phone: 732.383.1950 Fax: 732.383.1984

as shown

WEST BROAD STREET

STA. 29+50 TO 40+50

. ALL POSTS SHALL BE OF ADEQUATE LENGTH TO MEET THE REQUIREMENTS FOR ERECTION AS STATED IN THE CURRENT "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS" AND AS INDICATED BELOW. 2. ALL SMALL SIGN SUPPORTS SHALL BE OF THE BREAKAWAY TYPE WITH EXCEPTION OF THOSE INSTALLED BEHIND GUIDE RAIL OR OTHER ROADSIDE BARRIER. 3. ALL STEEL POSTS AND BRACKETS SHALL BE CUT, BENT AND HOLES PUNCHED AND DRILLED BEFORE GALVANIZING. GALVANIZING SHALL BE IN CONFORMANCE WITH CURRENT A.S.T.M. A 123. 4. ALL STEEL U-POST SIGN SUPPORTS MUST BE INSTALLED FACING THE PREDOMINANT TRAFFIC FLOW. A MOUNTING BRACKET SHOULD BE USED ON SIDE MOUNTED SIGNS SUCH AS "ONE WAY" SIGNS INSTALLED IN MEDIANS. 5. SIGN PANEL SIZES SHALL DETERMINE POST TYPE AND NUMBER AS SHOWN ON THIS DETAIL. 6. BOLTS SHALL NOT PROTRUDE MORE THAN 3/4" BEYOND THE NUT WHEN TIGHT, BUT SHALL ENGAGE ALL THREADS IN THE NUT. 7. WHEN SIGNS ARE INSTALLED ON SLOPES 1:10 OR FLATTER THE MINIMUM VERTICAL CLEARANCE **REQUIREMENTS FOR SIGNS ARE:** FOR SINGLE POST INSTALLATIONS THE MINIMUM DISTANCE BETWEEN THE EDGE OF THE PAVEMENT AND THE BOTTOM OF ANY PANEL MUST BE 7 FEET AND THE MINIMUM DISTANCE FROM EDGE OF PAVEMENT TO THE TOP OF ANY SIGN PANEL MUST BE 9 FEET. FOR MULTI-POST INSTALLATIONS THE MINIMUM DISTANCE BETWEEN THE EDGE OF

PAVEMENT AND THE BOTTOM OF A MAJOR SIGN PANEL MUST BE 7 FEET.

SIGN PANEL A MINIMUM OF 5 FEET ABOVE THE EDGE OF PAVEMENT.

MINIMUM OF 9 FEET FROM THE GROUND LINE TO CENTER LINE OF SPLICE.

THE MINIMUM DISTANCE BETWEEN THE EDGE OF PAVEMENT AND THE BOTTOM OF A

THE BOTTOM OF THE MAJOR SIGN SHALL BE A MINIMUM OF 8 FEET AND THE SECONDARY

WHERE GRADING OF I:0 OR FLATTER CANNOT BE OBTAINED OR WHERE CURB OR BERM IS GREATER THAN 330 FEET. THE MINIMUM VERTICAL CLEARANCE WILL BE MEASURED FROM THE

B. PERMANENT SIGN SUPPORTS SHOULD NOT BE INSTALLED ON SLOPES GREATER THAN 1:10, EXCEPT WHERE GRADING OF 1:10 CANNOT BE OBTAINED O THE SIGN SUPPORTS WILL BE BEHIND A

TRAFFIC BARRIER. THE SLOPE SHALL EXTEND A MINIMUM OF 3 FEET BEYOND THE OUTSIDE EDGE OF

P. EXTRUDED ALUMINUM SIGN PANELS ARE NOT PERMITTED FOR USE WITH STEEL U-POST SIGN

10. STEEL U-POST SIGN SUPPORTS SHALL NOT BE PLACED IN FRONT OF GUIDE RAIL AND THE POSTS

II. TO EXTEND THE HEIGHT OF A SIGN POST, A MAXIMUM OF ONE SPLICE MAY BE MADE AND MUST A

-BREAKAWAY

36" x 36"

LARGER

SIGN POST

EXTENSION

2" MAX.

I" MIN.

2" MAX.

SIGN POST EXTENSION SPLICE DETAILS

STEEL U-POST

SECONDARY SIGN PANELS LAND SERVICE HIGHWAYS:

MUST NOT STRADDLE GUIDE RAIL.

SUPPORTS.

30" x 30"

SMALLER

BOLT, NUT AND LOCK WASHER -

(THRU 3RD OR 4TH HOLES FROM

Ç OF SPLICE ─

SPLICE CHANNEL —

SIGN POST

EACH END OF SPLICE CHANNEL)

SECONDARY SIGN PANEL IS 6 FEET.

FOR INTERSTATE AND FREEWAYS:

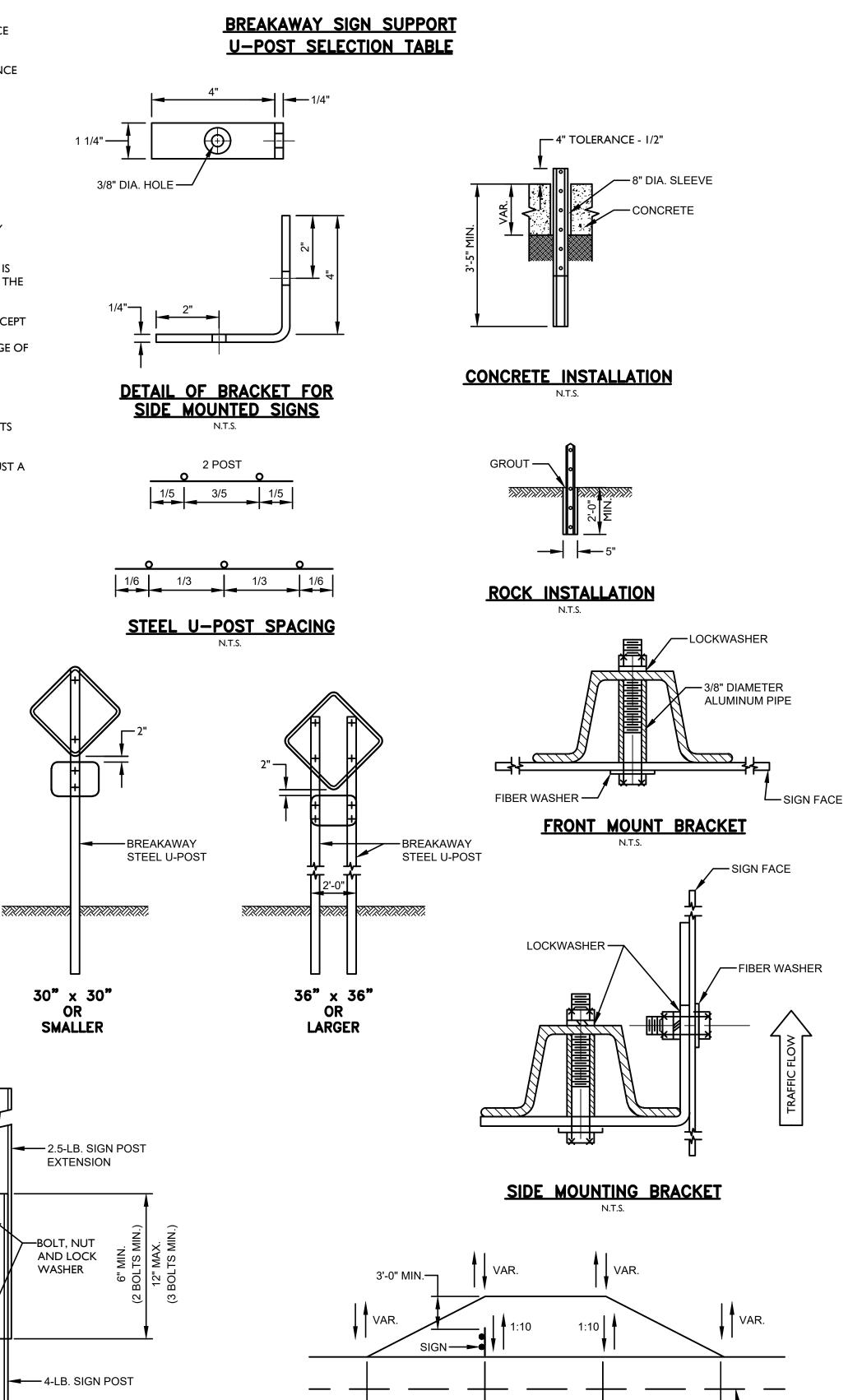
GROUND LINE TO THE BOTTOM OF THE SIGN.

SIGN (SEE GRADING DETAIL FOR SLOPE TREATMENT).

BREAKAWAY

STEEL U-POST

		=			
PANEL SIZE (W x H)	# OF POSTS	POST SIZE (KG/M)	PANEL SIZE (W x H)	# OF POSTS	POST SIZE (KG/M)
18" x 18"	I	2.5	36" × 36"	2	2.5
18" x 24"	I	2.5	36" x 48"	2	2.5
24" x 24"	I	2.5	45" × 36"	2	2.5
24" x 30"	I	2.5	48" × 24"	2	2.5
24" x 36"	I	2.5	48" × 36"	2	2.5
30" x 24"	I	2.5	48" × 48"	2	4.0
30" x 30"	I	2.5	48" x 64" x 64"	2	2.5
36" x 12"	2	2.5	60" × 36"	2	4.0
36" x 36" x 36"	2	2.5	48" × 60"	2	4.0
30" x 36"	I	4.0	60" × 30"	2	4.0
	-			-	

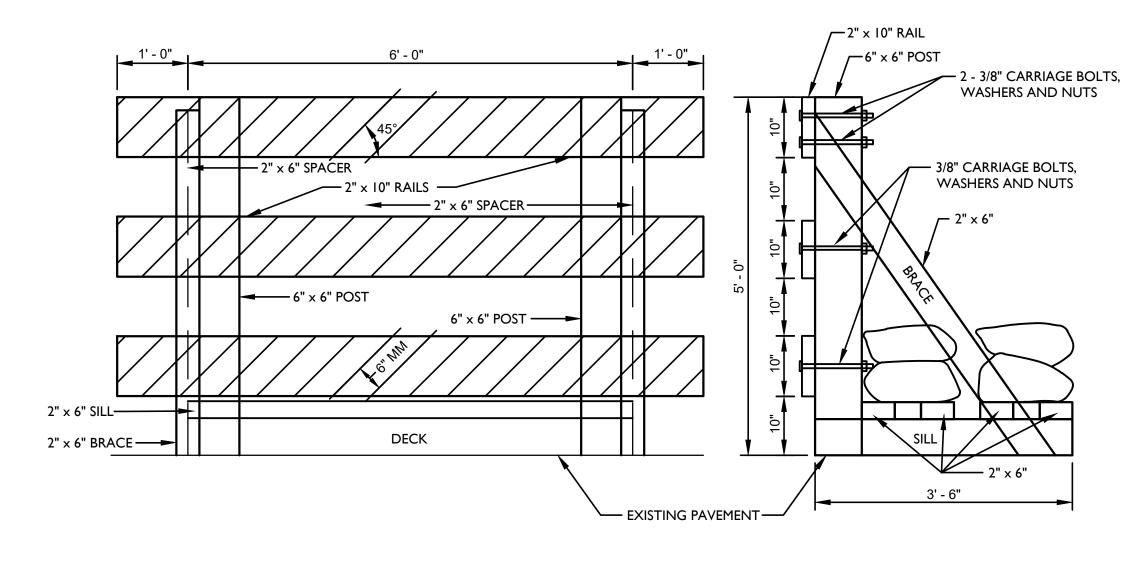


100' - 0"

STEEL U-POST GRADING DETAIL

100' - 0"

EDGE OF PAVEMENT —



BARRICADE TYPE IIIA

CD-617-1.1

I. LUMBER USED SHALL BE YELLOW PINE OR FIR NO. I COMMON S4S, EXCEPT 12"x12" TIMBERS.

- 2. RAILS ARE TO BE PAINTED ALTERNATE ORANGE AND SILVER (WHITE) STRIPES 6" WIDE OR RETROREFLECTIVE SHEETING, TYPE II, OR IIIA MAY BE UTILIZED MEETING REQUIREMENTS SPECIFIED FOR CONSTRUCTION SIGNS. OTHER PARTS TO BE PAINTED WHITE, 3 COATS.
- 3. THE ORANGE AND WHITE STRIPES SHALL BE REFLECTORIZED SO AS TO BE VISIBLE UNDER NORMAL ATMOSPHERIC CONDITIONS FROM A MINIMUM DISTANCE OF 1,000 FEET WHEN ILLUMINATED BY THE LOW BEAMS OF STANDARD AUTOMOBILE HEADLIGHTS.
- 4. THE 18"x24" SANDBAGS SHALL BE FABRICATED FROM POLYPROPYLENE AND SHALL HAVE A CAPACITY OF I CU. FT. SANDBAG PLACEMENT MAY BE ADJUSTED AT THE DIRECTION OF THE ENGINEER.
- 5. BARRICADE, TYPE IIIA SHALL BE FABRICATED OF WOOD OR METAL. RAILS MAY BE CONSTRUCTED OF WOOD, METAL OR PLASTIC. IF WOOD IS USED, SPACERS, BRACES, SILL AND DECK TO BE FASTENED WITH 40 SPIKES. HOLES TO BE BORED IN PLANKS FOR ALL SPIKES.

IMPORTANT

NOTE:

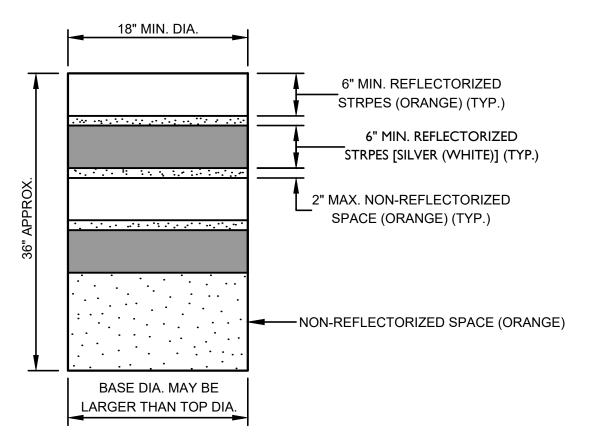
BARRICADE, TYPE IIIA SHALL BE NOT BE USED IN ANY AREA WHERE CONTACT WITH PUBLIC VEHICULAR TRAFFIC

OTHER SIMILAR SITUATIONS MAY REQUIRE BARRICADES TYPE IIIA IS POSSIBLE. OPEN EXCAVATION AREAS AND OTHER SIMILAR SITUATIONS MAY REQUIRE BARRICADES TYPE IIIA AND THEIR USE SHALL BE ONLY UPON DIRECTION.

DRUMS SHALL BE MADE OF ORANGE PLASTIC WITH A MINIMUM OF FOUR ALTERNATE ORANGE AND SILVER (WHITE)) REFLECTORIZED STRIPES. IF THERE ARE NON-REFLECTORIZED SPACES BETWEEN THE STRIPES, THEY SHALL BE NO MORE THAN 2" WIDE. STRIPES SHALL BE RETRO- REFLECTIVE SHEETING, TYPE III-B. THE TOP OF THE DRUM SHALL NOT BE OPEN.

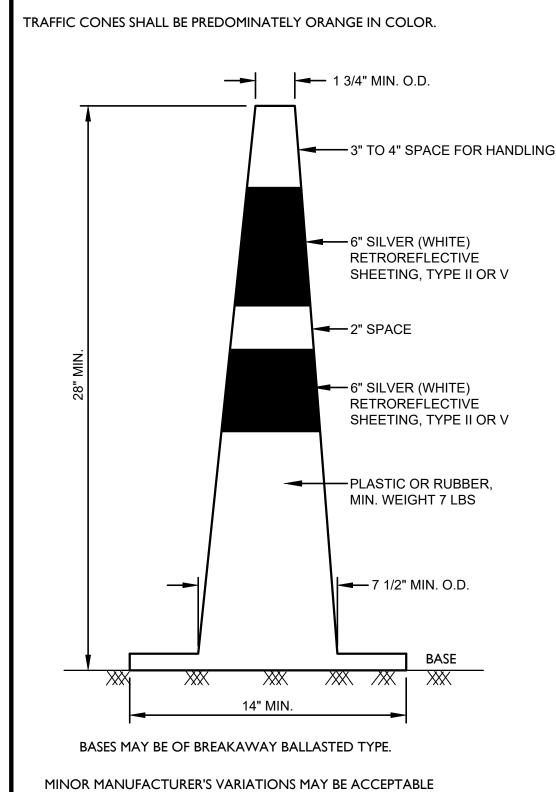
DRUMS SHALL BE CONSTRUCTED TO INHIBIT ROLLING IF KNOCKED OVER

THE REFLECTORIZED AREA OF DRUMS SHALL BE ROUND EXCEPT THAT OTHER SHAPES, WHICH PROVIDE THE SAME VISIBILITY AS A 18" DIAMETER ROUND DRUM REGARDLESS OF ORIENTATION, MAY BE USED IF APPROVED BY THE BUREAU OF MATERIALS.



WHEN BALLAST IS REQUIRED BY THE ENGINEER, SAND SHALL BE USED. THE MAXIMUM WEIGHT OF THE BALLAST SHALL BE 50 LBS AND BE LOCATED APPROXIMATELY AT GROUND LEVEL.

DRUM DETAIL



TRAFFIC CONE DETAIL

N.T.S. CD-617-1.4

UPON APPROVAL OF THE ENGINEER.

JOSEPH R. VENEZIA NEW JERSEY PROFESSIONAL ENGINEER - LICENSE NUMBER: GE45473 CONSTRUCTION PLANS FOR 2020 ROAD RESURFACING **PROJECT UNION COUNTY** PROJECT # 2018-020 UNION COUNTY **NEW JERSEY**

> I Newman Springs Road Suite 203

Red Bank, NJ 07701

Phone: 732.383.1950

Fax: 732.383.1984

CONSTRUCTION DETAILS

22.00

AS SHOWN

19005024G

www.maserconsulting.com

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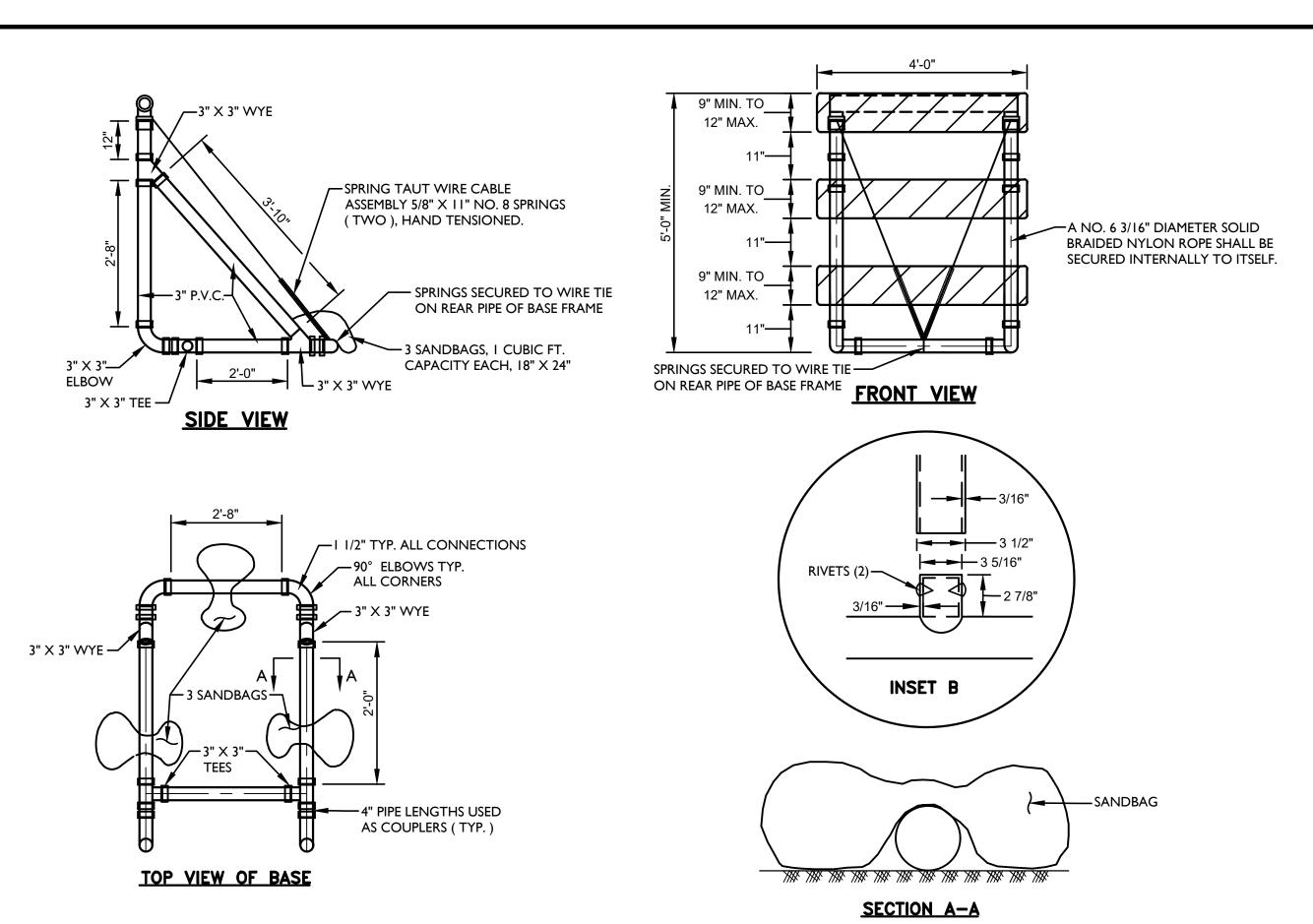
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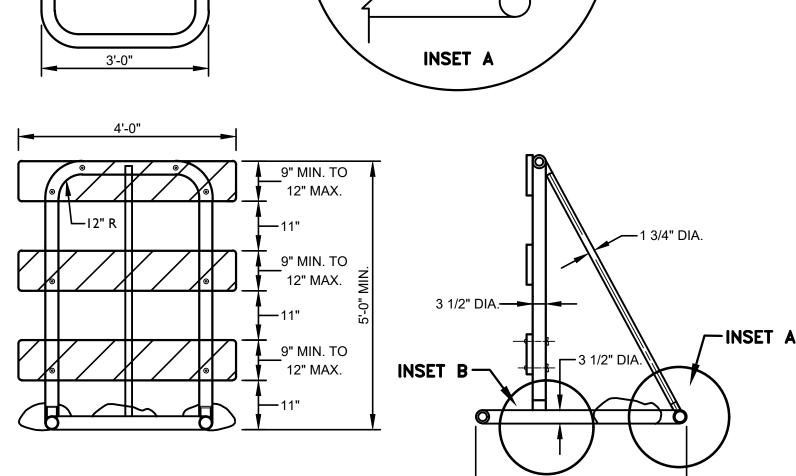


PIPE SHALL BE WHITE PVC SCHEDULE 40 ASTM D 1785 OR PVC, SDR-26 ASTM D 2241. FITTINGS SHALL BE WHITE PVC OR ABS OF MATCHING WALL THICKNESS AND INSIDE DIAMETER AND MEETING THE MATERIALS, REQUIREMENTS AND TESTING SECTIONS OF ASTM D 2466 FOR PVC AND ASTM D 2468 FOR ABS. ALL JOINTS SHALL BE SLIP FIT AND NOT THREADED OR CEMENTED. PVC FITTINGS MEETING ASTM D 2665 WILL ALSO BE ACCEPTABLE. PVC OR ABS MATERIAL SHALL BE ULTRAVIOLET LIGHT STABILIZED.

TYPE III. PE

BREAKAWAY BARRICADE DETAILS

CD-617-1.3



THE BASE AND UPRIGHT SHALL BE 3 1/2" DIA. ROTATIONALLY MOLDED POLYETHYLENE PLASTIC CONFORMING TO ASTM D 1248-II A3-E4. THE BRACE SHALL BE 1 3/4" DIA. EXTRUDED POLYETHYLENE PLASTIC CONFORMING TO ASTM D 1248-III A4. POLYETHYLENE PLASTIC SHALL BE WHITE AND SHALL BE ULTRA-VIOLET LIGHT STABILIZED.

TYPE III. PE

I. THE 9" MIN. x 48", OR 12" MAX. x 48" BARRICADE RAILS SHALL BE FABRICATED FROM 0.024" ANODIZED ALUMINUM OR 0.125" MAX. PLASTIC SHEETING AND SHALL BE ATTACHED, 4 PER RAIL, WITH I INCH NO.14 PAN HEAD METAL SCREWS OR PLASTIC RIVETS. ALL CORNERS SHALL BE ROUNDED.

- 2. ORANGE AND SILVER (WHITE) STRIPES SHALL BE RETROREFLECTIVE SHEETING, TYPE II OR III-A, AS SHOWN FOR CONSTRUCTION SIGNS. ALTERNATE ORANGE AND SILVER (WHITE) STRIPES 6" WIDE SLOPING DOWNWARD AT AN ANGLE OF 45 DEGREES IN THE DIRECTION TRAFFIC IS TO PASS.
- 3. THE 18" X 24" SANDBAGS SHALL BE FABRICATED FROM POLYPROPYLENE AND SHALL HAVE A CAPACITY OF I CUBIC FOOT. PLACEMENT OF SANDBAGS SHALL BE AS SHOWN ABOVE.
- 4. SANDBAG PLACEMENT MAY BE ADJUSTED AT THE DIRECTION OF THE ENGINEER. ALL DIMENSIONS ON FULL PIPE LENGHT. 5. EITHER TYPE III, PE OR TYPE III, PVC CAN BE USED AT THE OPTION OF THE CONTRACTOR.
- 5. IF NECESSARY, THE SANDBAGS SHALL BE FABRICATED AND PLACED ACCORDING TO THE MANUFACTURER'S RECOMMENDATION.
- 6. THE FRAMING FOR BARRICADE PANELS SHALL BE NCHRP-350 CRASHED TESTED AND FHWA APPROVED.

I. DIMENSIONS, COLORS AND DETAILS OF VARIOUS SIZE SIGNS AND ACCESSORY PANELS TO FOLLOW STANDARDS IN THE CURRENT "STANDARD HIGHWAY SIGN PUBLICATION" AND THE CURRENT "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS".

- 2. (S) REPRESENTS A SPECIAL SIZE SIGN.
- 3. LETTERS AND NUMERALS SHALL CONFORM TO THE CURRENT MANUAL " STANDARD ALPHABETS FOR HIGHWAY SIGNS" U.S. DEPARTMENT OF TRANSPORTATION, FEDERAL HIGHWAY ADMINISTRATION.
- 4. THE CONTRACTOR SHALL OBTAIN THE APPROVAL OF THE ENGINEER FOR THE DISTANCE TO BE USED ON THE ADVANCE WARNING SIGNS, AND FOR THE SPEED LIMIT TO BE USED ON THE R2-1 SIGN.

DISTANCE LEGEND SIGN NUMBER FOLLOWED BY DISTANCE 1000' 500' MILES AHEAD AHEAD

BACKING MATERIAL

I. ALUMINUM SHALL BE FLAT SHEET OF ALLOY 5052-H38 OR 6061-T6 ALLOY, 0.100" GAUGE.

TEMPORARY SIGN SUPPORTS

- I. SIGN SUPPORTS SHALL BE OF WELL SEASONED LUMBER, S4S, FREE OF SPLITS, KNOTS AND WARPS OR, OF STEEL COMPONENTS.
- 2. WOOD POSTS SHALL HAVE A UNIFORM CROSS-SECTION AND SHALL NOT EXCEED THE FOLLOWING **DIMENSIONS FOR:**

SINGLE POSTS = $4" \times 6"$; TWO POSTS = $3" \times 6"$ OR $4" \times 5"$; THREE POSTS = $3" \times 5"$ OR $4" \times 4"$

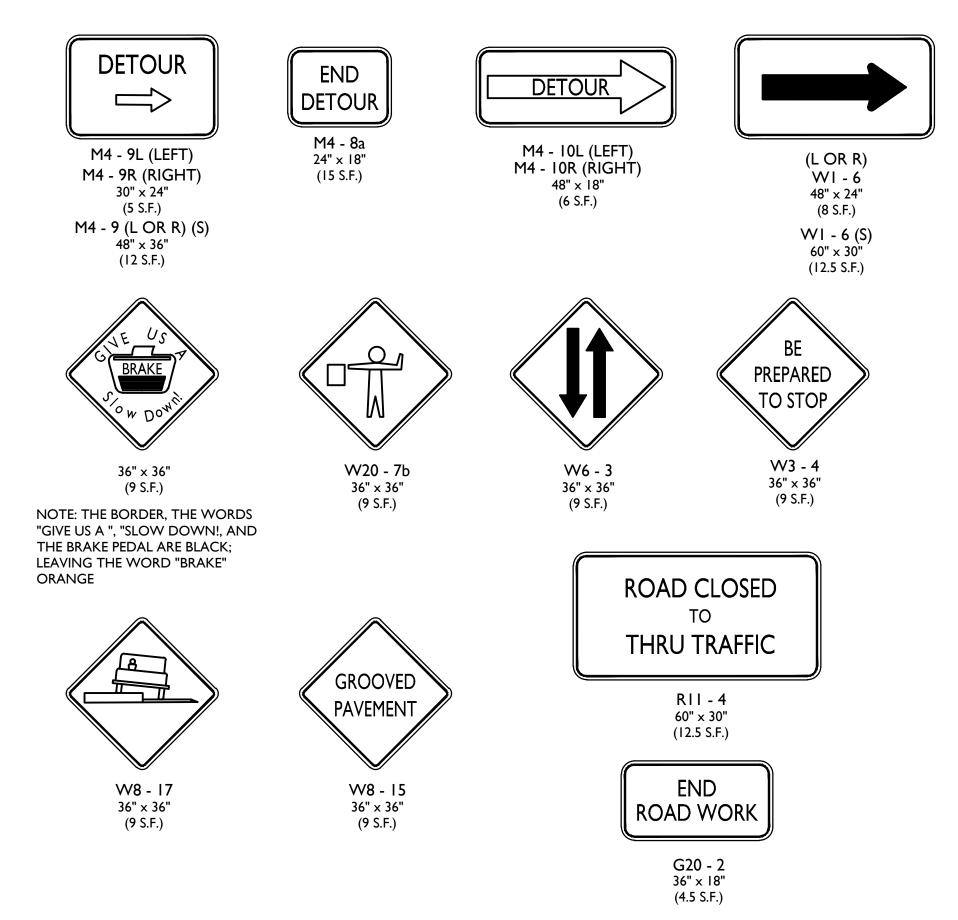
- $4" \times 6"$ WOOD POSTS SHALL BE MODIFIED BY DRILLING 1 1/2" DIAMETER HOLES 4" AND 18" ABOVE THE GROUND LINE AND PERPENDICULAR TO THE ROADWAY CENTERLINE.
- 3. NO BRACING IS PERMITTED. VERTICAL CLEARANCES FOR SIGNS MOUNTED ON WOOD SUPPORTS SHALL BE 7' MINIMUM. ENBEDMENT DEPTH FOR THE WOOD POST SHALL NOT EXCEED 3.5'.
- 4. STEEL POSTS SHALL BE IN ACCORDANCE WITH THE STANDARD DETAIL FOR U-POST SIGN SUPPORT.
- 5. TEMPORARY SIGN SUPPORTS NOT MEETING THIS CRITERIA SHALL BE SHIELDED BY A LONGITUDINAL BARRIER OR CRASH CUSHIONS.

SIGN FACES

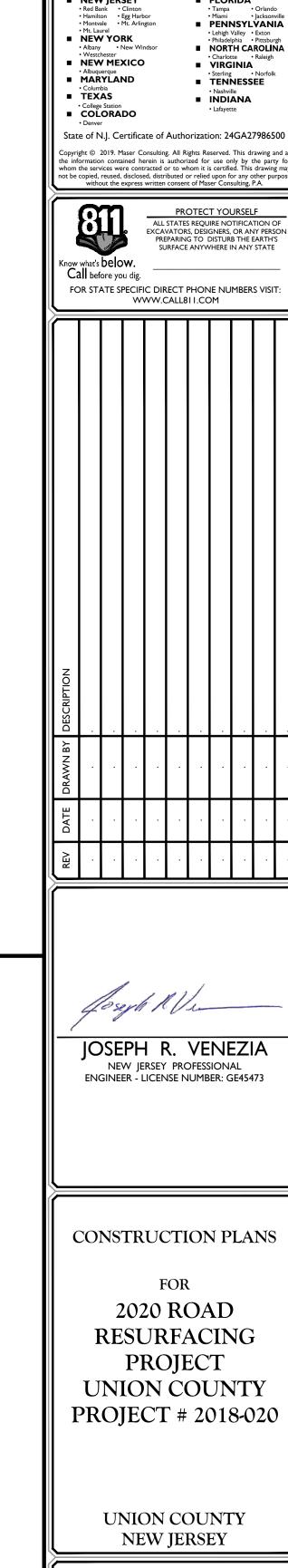
I. SIGN FACES SHALL BE RETROREFLECTIVE SHEETING, TYPE II OR IIIA, EXCEPT FOR THE W20 SERIES AND W4 - 2 SIGN FACES WHICH SHALL BE TYPE IV-B SHEETING.

FASTENING

I. ALL SIGNS SHALL BE SECURELY FASTENED TO THEIR SUPPORTS WITH BOLTS, NUTS AND WASHERS IN ACCORDANCE WITH THE SPECIFICATIONS.



CONSTRUCTION SIGNS



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31 Newman Springs Road

Suite 203

Red Bank, NJ 07701

Phone: 732.383.1950

Fax: 732.383.1984

RAWING NAME:

-DTLS

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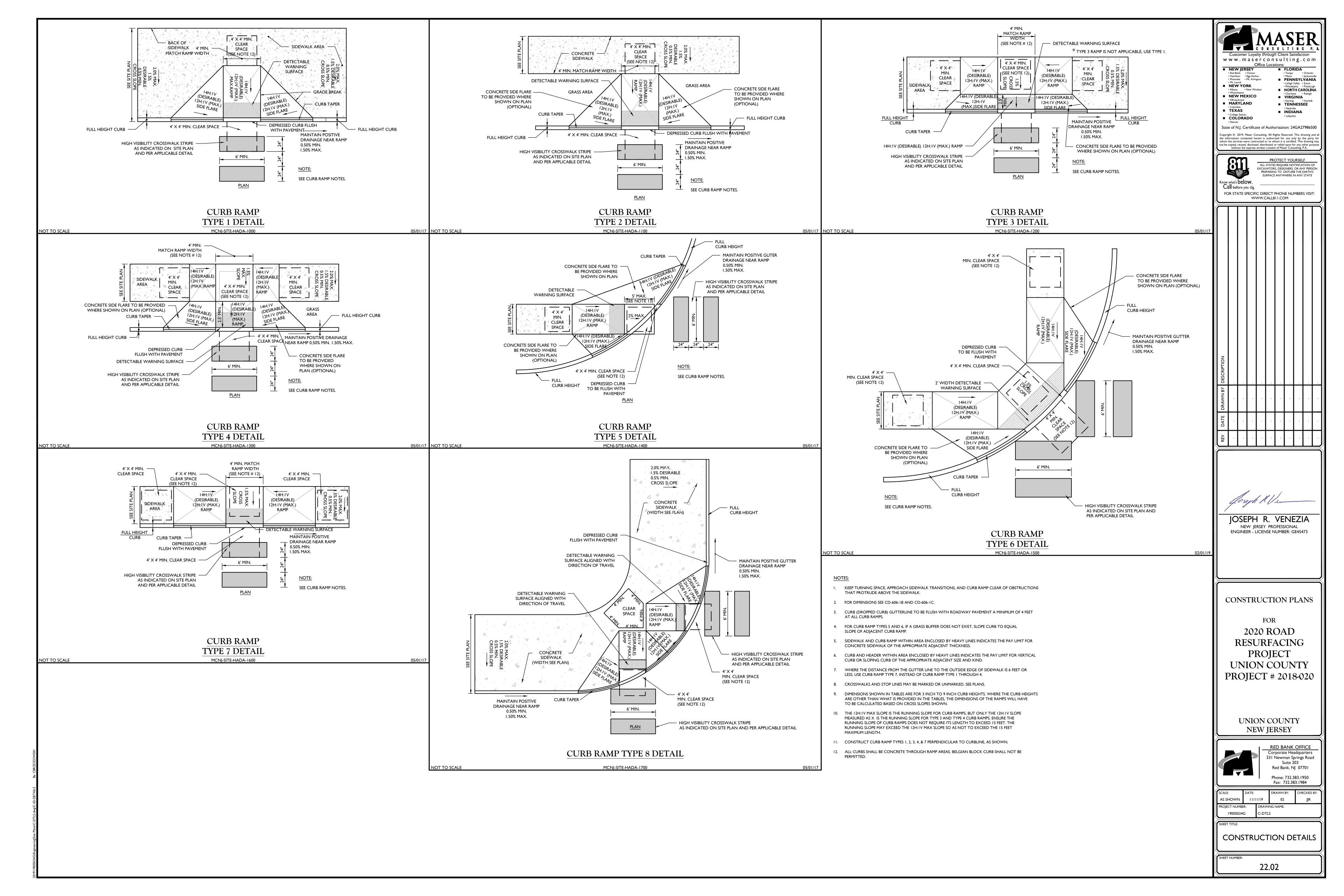
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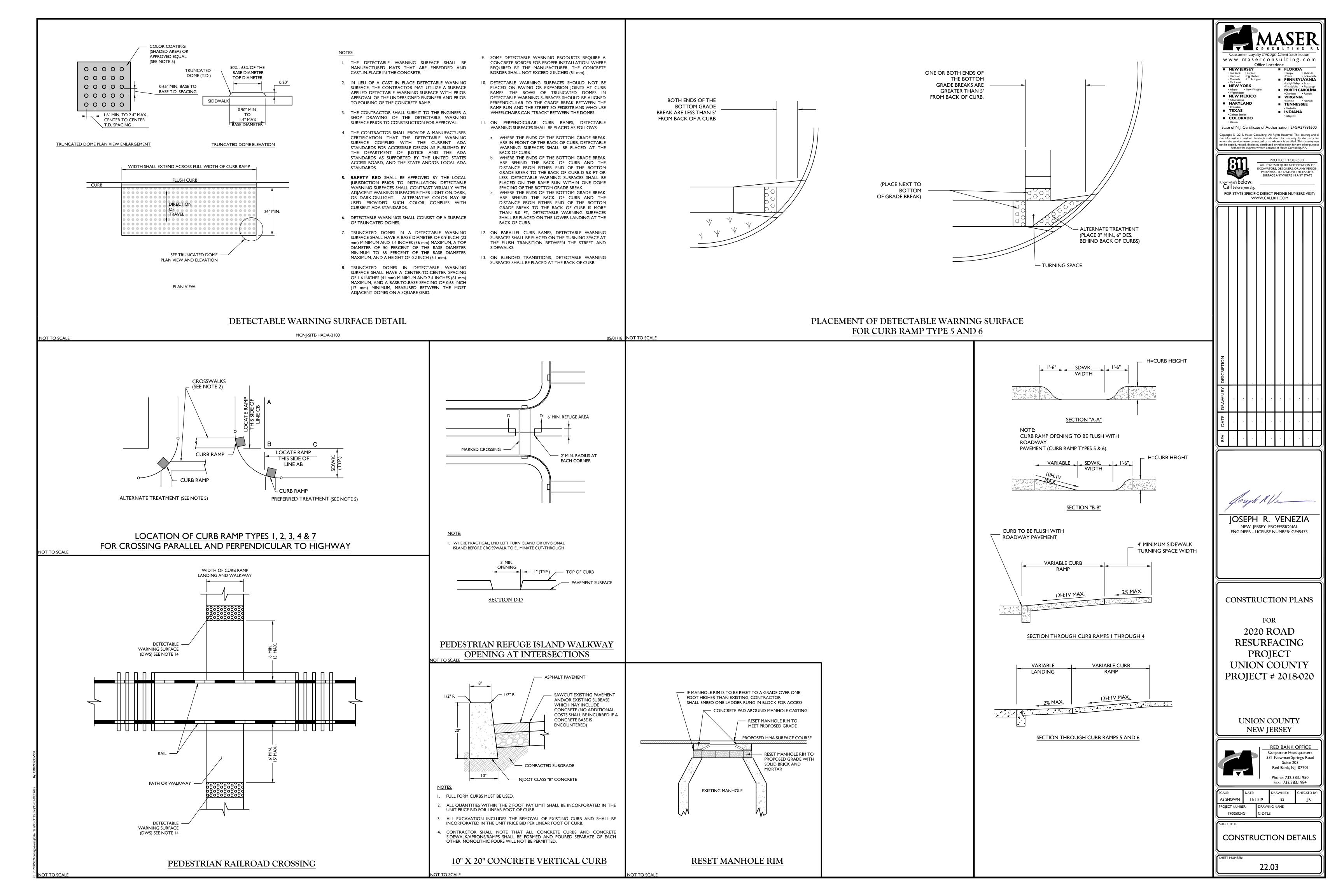
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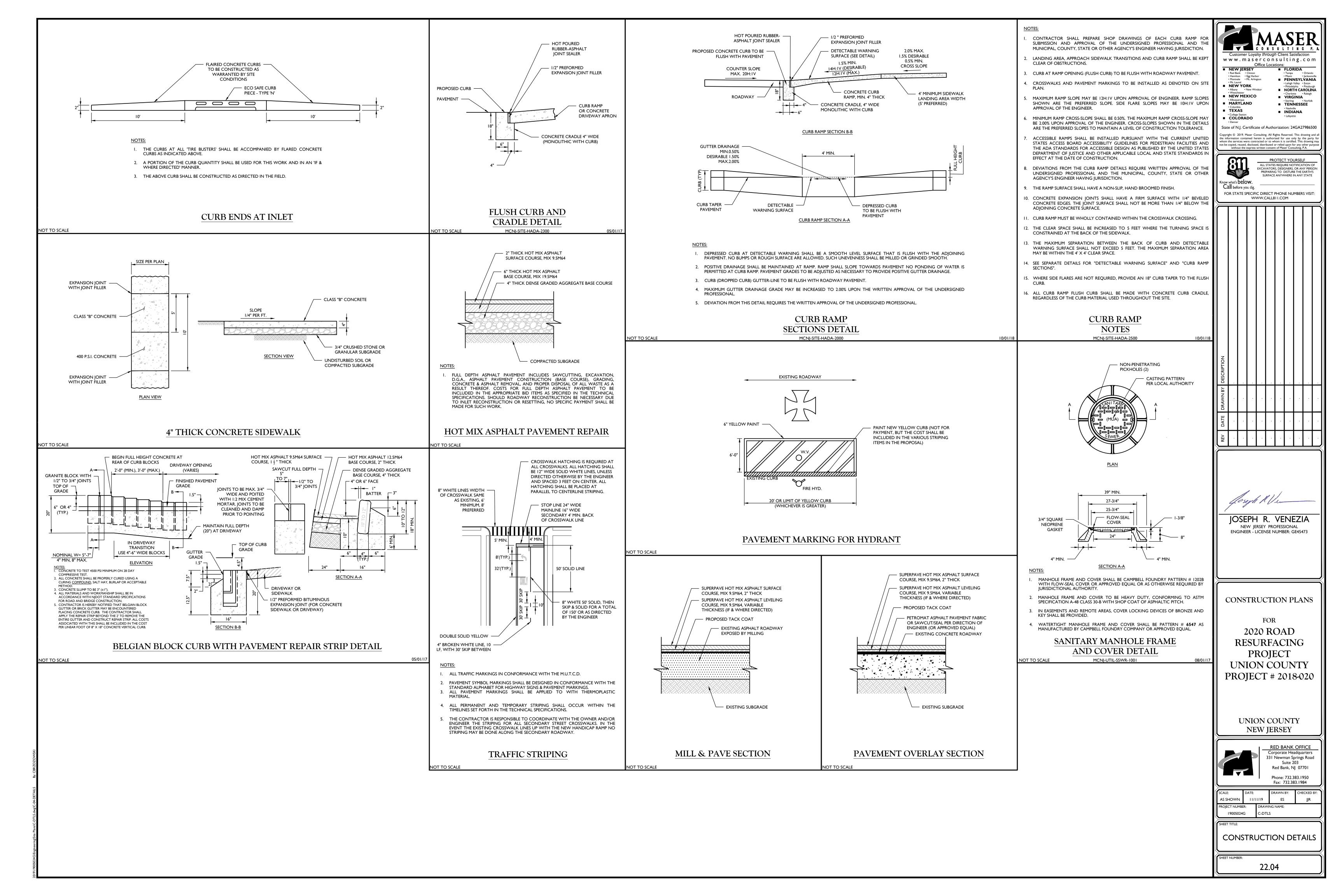
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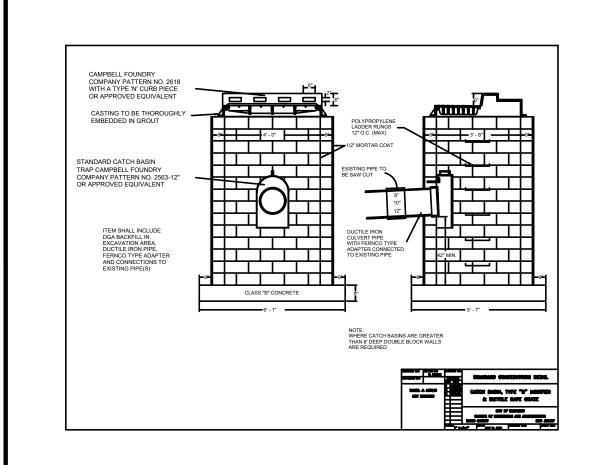
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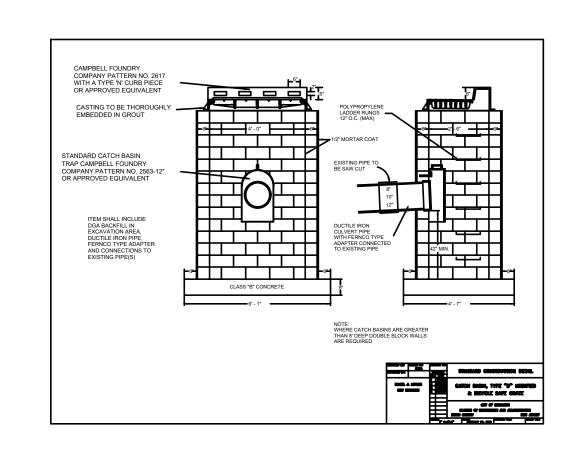
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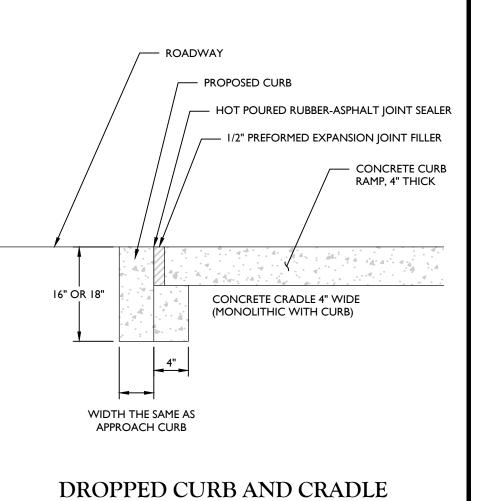






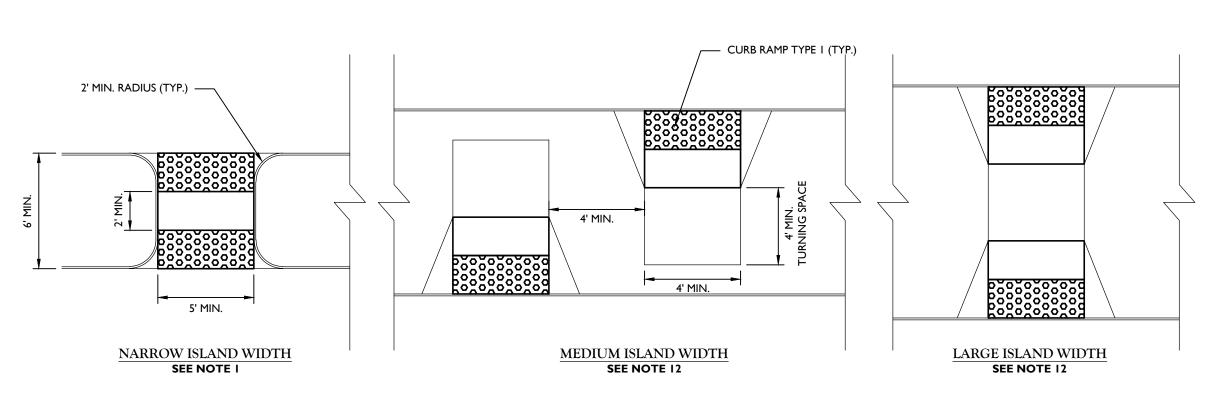




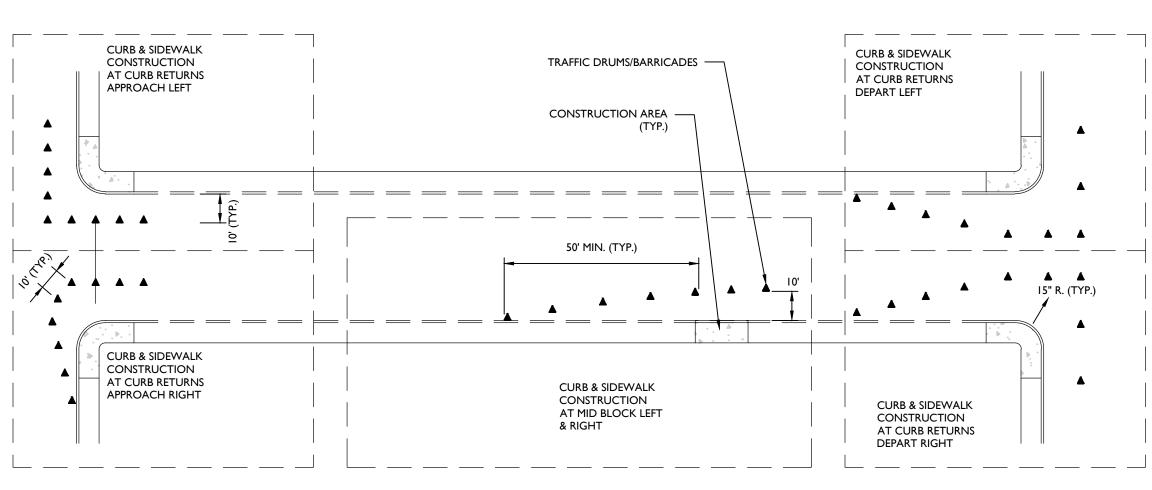


NOT TO SCALE

2' WIDE UNLESS OTHERWISE INDICATED BY PLAN OR DIRECTED BY ENGINEER HMA DRIVEWAY, 6" TH.

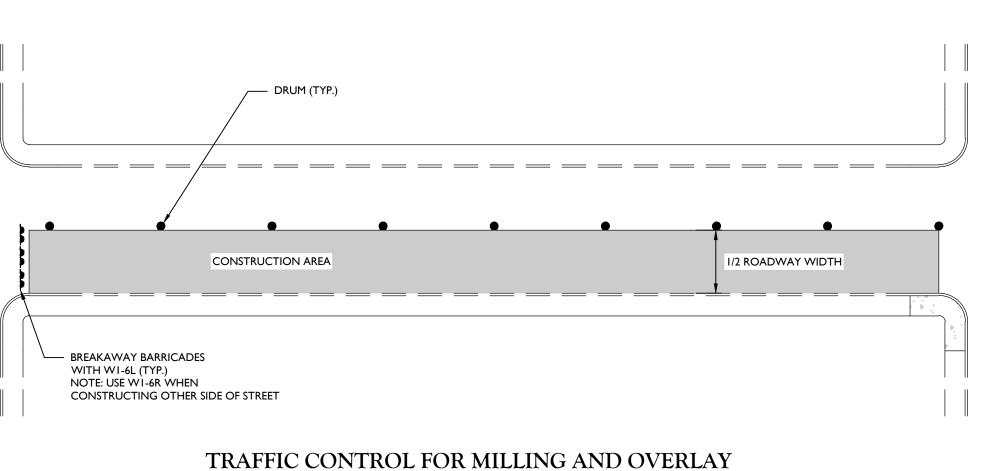


PEDESTRIAN REFUGE ISLAND

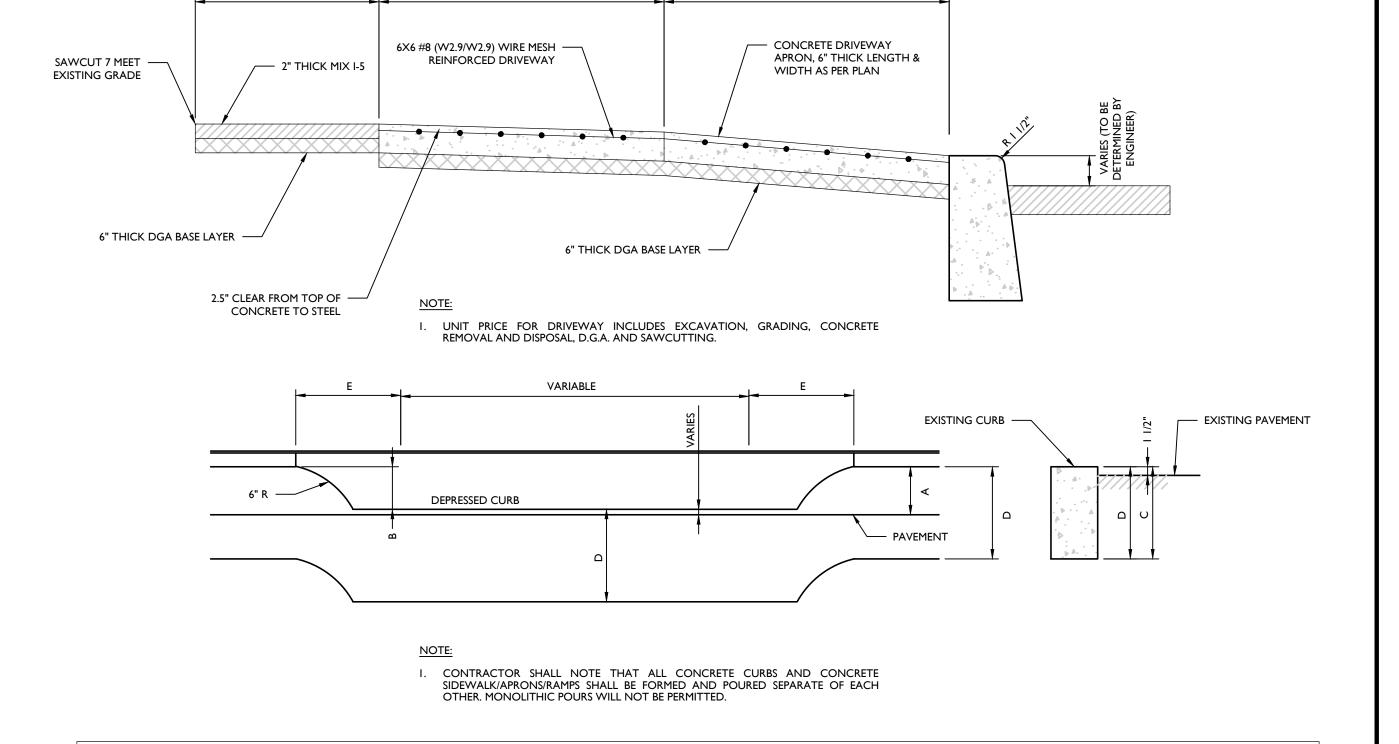




I. WORK SHALL NOT BE DONE ON BOTH SIDES OF THE ROADWAY SIMULTANEOUSLY.



NOT TO SCALE



VARIES

12.5% SLOPE

2% SLOPE

	DEPRESS	ED CURB @ DR	IVEWAY (TAB	LE)	
DESCRIPTION	Α	В	С	D	E
9" X 18" CONCRETE CURB (W/3' TREE GRATE OR GRASS BELT)	6"	4 1/2"	16"	18"	18"
9" X 18" CONCRETE CURB (S/W AGAINST CURB)	6"	4 1/2"	16"	18"	I:8 SLOPE
10" X 20" CONCRETE CURB (WITH 3' TREE OR GRASS BELT)	8"	6 1/2"	18"	20"	18"
10" X 20" CONCRETE CURB (S/W AGAINST CURB)	8"	6 1/2"	18"	20"	I:8 SLOPE
		* DETAIL TO BE U	TILIZED		,

CONCRETE SIDEWALK, 6" REINFORCED NOT TO SCALE

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CONSTRUCTION PLANS **FOR**

2020 ROAD RESURFACING PROJECT **UNION COUNTY** PROJECT # 2018-020

UNION COUNTY NEW JERSEY

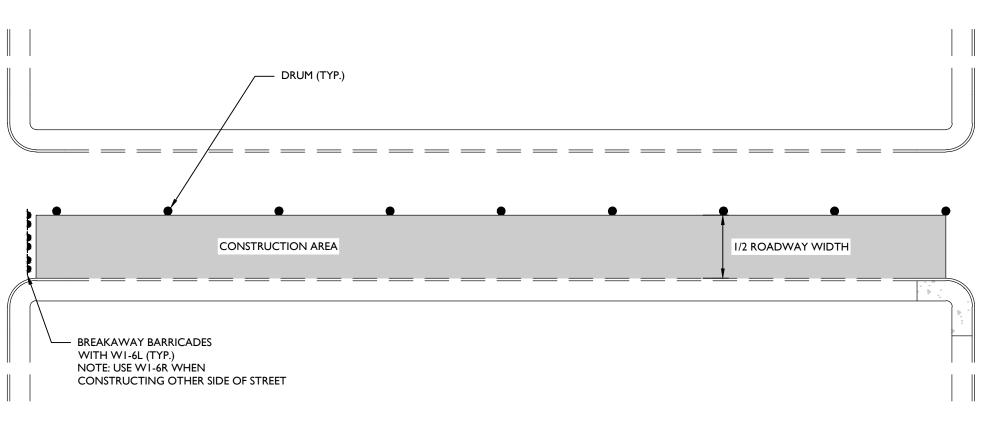


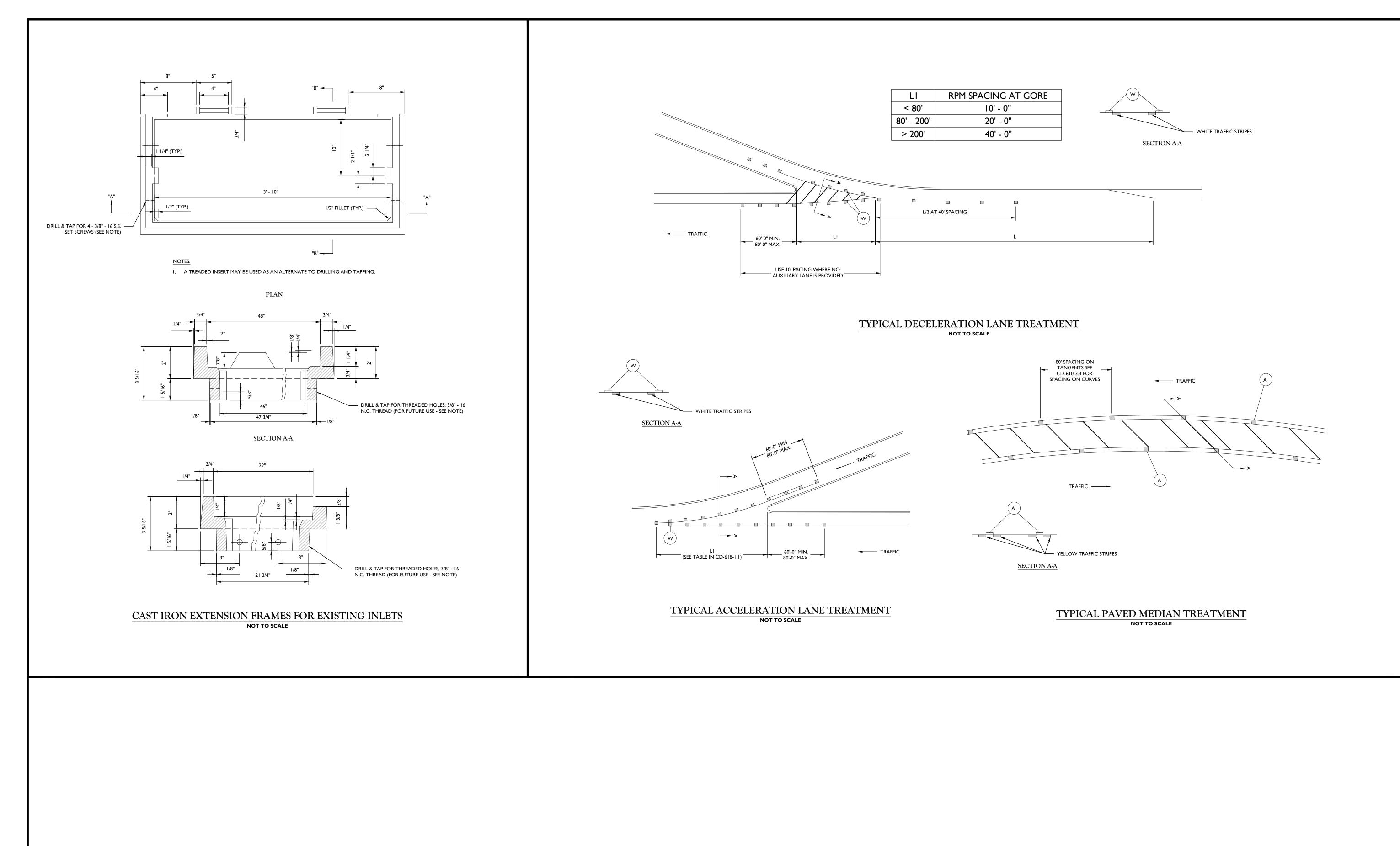
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CONSTRUCTION PLANS

FOR
2020 ROAD
RESURFACING
PROJECT
UNION COUNTY
PROJECT # 2018-020

UNION COUNTY NEW JERSEY



RED BANK OFFICE

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331 Newman Springs Road
Suite 203
Red Bank, NJ 07701

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