

MODIFICATIONS TO TRAFFIC SIGNALS AT TWO (2) INTERSECTIONS

LAKE AVENUE AND LANCASTER ROAD/SKYLINE AVENUE AVENEL STREET AND WEST PARK AVENUE

TOWNSHIP OF WOODBRIDGE, MIDDLESEX COUNTY, NEW JERSEY

DECEMBER, 2018

CONTRACT # 2018-025

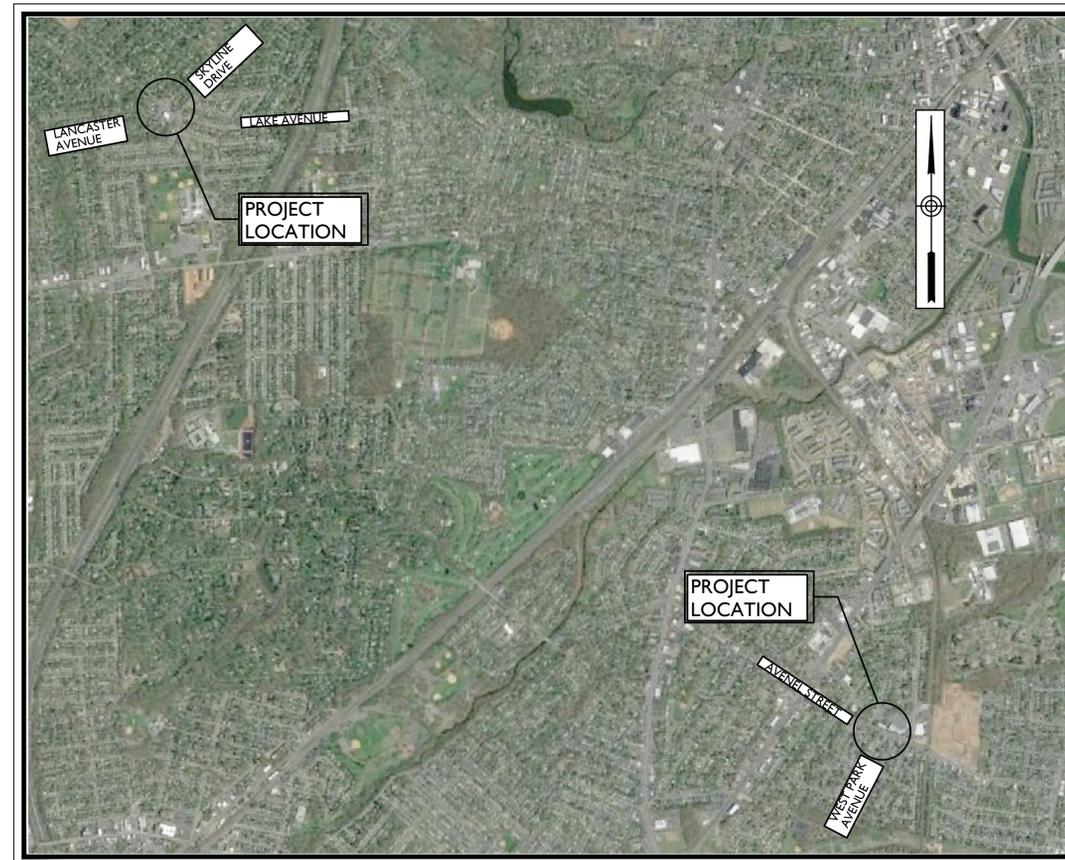
PUBLIC UTILITIES			
UTILITIES	SERVICE	CONTACT	TELEPHONE
ELECTRIC	PSE&G	BILL HERRIOT	(732) 764-3169
TELEPHONE	VERIZON	GINA GONNELLA-BARTA	(908) 412-3984
CABLE	COMCAST	RICHARD GUTUALSKI	(732) 602-7444
GAS	ELIZABETHTOWN GAS COMPANY	BRUCE GARRETT	(908) 662-8311
WATER	MIDDLESEX WATER COMPANY	BRIAN CARR	(732) 634-1500
SEWER	TOWNSHIP OF WOODBRIDGE	MIKE GELIN	(732) 602-6047

JOHN E. McCORMAC - MAYOR

TOWNSHIP COUNCIL

DEBBIE MEEHAN	COUNCIL PRESIDENT
CORY SPILLAR	COUNCIL VICE-PRESIDENT
NANCY DRUMM	COUNCILWOMAN
HOWIE BAUER	COUNCILMAN
VIRBHADRA N. PATEL	COUNCILMAN
KYLE ANDERSON	COUNCILMAN
LIZBETH DEJESUS	COUNCILWOMEN
GREGG M. FICARRA	COUNCILMAN
BRIAN SMALL	COUNCILMAN

JOHN BENNETT	BUSINESS ADMINISTRATOR
JOHN M. MITCH	MUNICIPAL CLERK
JAMES P. NOLAN, JR., ESQ.	DIRECTOR OF LAW
DENNIS HENRY	DIRECTOR OF PUBLIC WORKS
MICHAEL GELIN, PE	MUNICIPAL ENGINEER



KEY MAP

SCALE: 1" = 1,400'

INDEX OF SHEETS		
NUMBER OF SHEETS	SHEET NUMBERS	DESCRIPTION
1	1	KEY SHEET
1	2	ESTIMATE AND DISTRIBUTION OF QUANTITIES
1	3	GENERAL NOTES AND LEGEND
2	4-5	CONSTRUCTION PLANS
1	6	SOIL EROSION AND SEDIMENT CONTROL PLANS
2	7-8	SIGNING AND STRIPING PLANS
2	9-10	ELECTRICAL PLANS
2	11-12	CURB RAMP DETAILS
2	13-14	CONSTRUCTION DETAILS
14		

UNDERGROUND LOCATION SERVICE CALL: 1-800-272-1000

NOTE: LOCATION OF UTILITIES AS SHOWN ON THESE PLANS ARE PLOTTED FROM AVAILABLE DATA ON FILE WITH THE UTILITY COMPANIES AND IS NOT GUARANTEED FOR EXACTNESS. THE CONTRACTOR IS TO CONTACT UTILITY COMPANIES 72 HOURS PRIOR TO CONSTRUCTION TO DETERMINE THE EXACT LOCATION AND DEPTH OF ALL UTILITIES. THE CONTRACTOR SHALL USE THE UTILITY LOCATIONS SHOWN AS AN AID IN DETERMINING EXACT LOCATIONS. CONTRACTOR SHALL NOT START CONSTRUCTION UNTIL SUPPLYING THE TOWNSHIP ENGINEER WITH THE ONE-CALL CONFIRMATION NUMBER.

THE NEW JERSEY DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION OF 2007 TO GOVERN, AS MODIFIED BY THE SUPPLEMENTAL SPECIFICATIONS.

NEW JERSEY DEPARTMENT OF TRANSPORTATION STANDARD ROADWAY CONSTRUCTION/TRAFFIC CONTROL/BRIDGE CONSTRUCTION DETAILS (2007) AND ELECTRICAL DETAILS (2007) ARE APPLICABLE TO THIS PROJECT EXCEPT FOR THOSE DETAILS CONTAINED HEREIN.

ADAM W. ALLEN
PROFESSIONAL ENGINEER, N.J. LIC. No. G648112

MASER
CONSULTING, MUNICIPAL & ENVIRONMENTAL ENGINEERS
PLANNERS SURVEYORS LANDSCAPE ARCHITECTS
State of N.J. Certificate of Authorization: 24GA27986500

HAMILTON OFFICE
1000 Waterview Drive
Suite 201
Hamilton, NJ 08691
Phone (609) 587-8200
Fax (609) 587-8260
email: solutions@maserconsulting.com

Regional Offices
Red Bank, NJ
Clinton, NJ
Logan, NJ
Marmora, NJ
Mt. Arlington, NJ
Chester Ridge, NY
Newburgh, NY
Bethlehem, PA

NEW JERSEY DEPARTMENT OF TRANSPORTATION STANDARD LEGEND

Linear Features

Existing	PROPOSED	Description
		Water Main (Size)
		Gas Main (Size)
		Telephone Conduit
		Electric Conduit (Highway or Utility)
		Cable TV
		Fiber Optic
		Sanitary Sewers or Storm Drains
		Pavements (Concrete or Bituminous)
		Shoulders
		Curbs
		Slopes (Cut & Fill)
		Base Line
		Twp., City, County Lines
		Right of Way Lines (Access Permitted)
		Right of Way Lines (No Access)
		Easements
		Property Line
		Fence (Size & Type)
		Reset Fence
		Beam Guide Rail
		Reset Beam Guide Rail
		Noise Walls
		Wetland Limit Line
		Silt Fence
		Ditches
		Railroad Tracks
		Tree Line

Topographical Features

Existing	PROPOSED	Description
		Inlets (Label Type)
		Inlets (Type ES)
		Manholes (Label Type or Utility)
		Reset (Inlets or Manholes)
		Reset Inlet, New Casting
		Reconstructed (Inlets or Manholes)
		Cast Iron Extension (Frame or Ring) (Inlet or Manhole)
		New Manhole Casting, Square Frame, Circular Cover
		R.C. End Section or C.M. Headwall
		Headwalls
		Headwalls & Aprons
		Water Gate Valves
		Reset Water Gate Valves
		Gas Gate Valves
		Reset Gas Gate Valves
		Hydrants
		Reset Hydrants
		Utility Pole (Type & Number)
		Temporary Utility Pole
		Traffic Signal
		Junction Box
		Fiber Optic Junction Box
		Junction Box Foundation
		Signs
		Vertical Panels

Topographical Features

Existing	PROPOSED	Description
		Guide Rail End Terminals
		Beam Guide Rail Anchorages
		Monuments
		ROW Monument (ROW Control Points)
		Test Pit
		Borings (Boring Number)
		Deciduous Tree (Size, Kind)
		Evergreens
		Bush
		Hedges
		Swamp

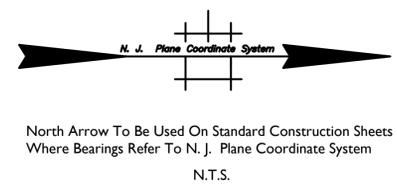
Miscellaneous Symbols

	Install New Concrete Sidewalk
	Landing Area (2% In All Directions)
	Topsoiling, 4" Thick Fertilizing and Seeding, Type A-4
	Full Depth Pavement Removal/Repair
	Hot Mix Asphalt Driveway, 4" Thick
	Stone Mulching
	Detectable Warning Surface

Double Reference Codes

EDEQ	ESTIMATE AND DISTRIBUTION OF QUANTITIES - ROADWAY
TS	TYPICAL SECTIONS
PSI	PLAN SHEET INDEX
C	CONSTRUCTION PLANS
EP	ENVIRONMENTAL PLANS
SE	SOIL EROSION & SEDIMENT CONTROL PLANS
D	DRAINAGE PLANS
DTL	CONSTRUCTION DETAILS
P	PROFILE
T	TIES
G	GRADES
TC	TRAFFIC CONTROL AND STAGING PLANS
TSP	TRAFFIC SIGNAL PLANS
E	ELECTRICAL PLANS
HL	HIGHWAY LIGHTING PLANS
ITS	INTELLIGENT TRANSPORTATION SYSTEM PLANS
SL	SIGN LOCATION PLANS
TSS	TRAFFIC SIGNING AND STRIPING
STD	SIGN TEXT DETAILS
L	LANDSCAPE PLANS
MS	METHOD OF CROSS SECTIONS
X	CROSS SECTIONS
EQB	ESTIMATE OF QUANTITIES - BRIDGE
B	BRIDGE PLANS

	High Point
	Low Point
	Bench Mark



ABBREVIATIONS USED IN THIS CONTRACT

AH, BK	AHEAD, BACK	J.B.	JUNCTION BOX	RCP, R.C.P.	REINFORCED CONCRETE PIPE
B.L.	BASELINE	LT, RT.	LEFT, RIGHT	RMC, R.M.C.	RIGID METALLIC CONDUIT
B.M.	BENCH MARK	L.O.D.	LIMIT OF DISTURBANCE	RNMC, R.N.M.C.	RIGID NON-METALLIC CONDUIT
B.T.	BELL TELEPHONE	L.O.P.	LIMIT OF PAVEMENT (PAVING)	ROW, R.O.W.	RIGHT OF WAY
BIT, BITUM.	BITUMINOUS	L.O.M.	LIMIT OF MILLING	R.R.	RAILROAD
BLDG.	BUILDING	M.B.	MAILBOX	RTE, RT.	ROUTE
C.L.	CENTERLINE	M.P.	MILE POST	SAN.	SANITARY
C.I.P.	CAST IRON PIPE	MAX.	MAXIMUM	SDWK.	SIDEWALK
CLF	CHAIN-LINK FENCE	MIN.	MINIMUM	S.H.D.	STATE HIGHWAY DEPARTMENT
C.M.P.	CORRUGATED METAL PIPE	NO.	NUMBER	SHLD.	SHOULDER
CONC.	CONCRETE	N.T.S.	NOT TO SCALE	S.S.L.	SURVEY LINE
CULV.	CULVERT	PAVT.	PAVEMENT	S.O.D.	SUBBASE OUTLET DRAIN
D, DIA.	DIAMETER	PERF.	PERFORATED	STY.	STORY
D.C.	DROP CURB	P.G.L.	PROFILE GRADE LINE	T	TANGENT
DE	DITCH EXCAVATION	ε, P.L.	PROPERTY LINE, PROFILE LINE	TBA	TO BE ABANDONED
DEP, DP	DEPRESSED CURB	PK	PARKER KAYLON MASONRY NAIL	TBR	TO BE REMOVED
DH	DRILL HOLE	POC, P.O.C.	POINT ON CURVE	TEL	TELEPHONE
DWY	DRIVEWAY	POL, P.O.L.	POINT ON LINE	TEMP.	TEMPORARY
EB, W.B., N.B., S.B.	EASTBOUND, WESTBOUND NORTHBOUND, SOUTHBOUND	POT, P.O.T.	POINT ON TANGENT	THK., TH.	THICK
EL, ELEV.	ELEVATION	PRC, P.R.C.	POINT OF REVERSE CURVE	TYP.	TYPICAL
EXIST.	EXISTING	PROP.	PROPOSED	U.D.	UNDERDRAIN
GR.	GRATE	PT, P.T.	POINT OF TANGENCY	UP, U.P.	UTILITY POLE
HT.	HEIGHT	PVC, P.V.C.	POLYVINYL CHLORIDE PIPE	VAR.	VARIABLE, VARIES
H.W.	HEADWALL	PVI, P.V.I.	POINT OF VERTICAL INTERSECTION	VCT	VERTICAL CURB TRANSITION
HYD.	HYDRANT	PVT, P.V.T.	POINT OF VERTICAL TANGENCY, PAVEMENT	W.C.V.C.	WHITE CONCRETE VERTICAL CURB
INV.	INVERT	R	RADIUS	WM	WATER METER
IP	IRON PIN	RCCP, R.C.C.P.	REINFORCED CONCRETE CULVERT PIPE	X-SECT	CROSS SECTION

GENERAL NOTES:

- THE INFORMATION SHOWN ON THESE PLANS CONCERNING TYPE AND LOCATIONS OF UTILITIES IS BASED ON INFORMATION AVAILABLE AT THE TIME OF DESIGN AND IS NOT GUARANTEED TO BE ACCURATE OR ALL INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE FOR MAKING THEIR OWN DETERMINATION AS TO TYPE AND LOCATION OF UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE THERE TO.
- EXCAVATE AND REPLACE ANY UNSTABLE SUBGRADE MATERIALS WITH DENSE-GRADED AGGREGATE.
- THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING ALL TRAFFIC CONTROL DEVICES, UTILITY LOCATIONS, SIGNS, STREET FURNITURE, AND DRAINAGE TO ENSURE A CONTINUOUS PEDESTRIAN ACCESS ROUTE AT ALL CURB RAMP LOCATIONS.
- MAINTENANCE AND PROTECTION OF TRAFFIC SHALL BE IN ACCORDANCE WITH THE CURRENT MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) AND THE MOST CURRENT EDITION OF THE NJDOT STANDARD TRAFFIC CONTROL DETAILS. THE DETAILS FOR THIS PROJECT WILL INCLUDE, BUT NOT BE LIMITED TO THE FOLLOWING:
 - TCD-3 "2 LANES, UNDIVIDED, LANE AND SHOULDER CLOSURE"
 - TCD-5 "2 LANES, UNDIVIDED, INTERSECTION"
 - TCD-6 "2 LANES, UNDIVIDED, INTERSECTION"
 - TCD-7 "2 LANES, UNDIVIDED, INTERSECTION"
- FOR TRAFFIC CONTROL, CONTRACTOR SHALL USE LOCAL POLICE AS MANDATED BY LOCAL GOVERNMENT.
- ALL ROADWAYS SHALL REMAIN OPEN TO THROUGH TRAFFIC DURING CONSTRUCTION UNLESS OTHERWISE APPROVED BY THE AUTHORITY HAVING JURISDICTION.
- CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND EXISTING CONDITIONS IN THE FIELD PRIOR TO THE START OF CONSTRUCTION. ANY ERRORS OR DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER IMMEDIATELY.
- ALL FILL SHALL BE PLACED IN 12 INCH LAYERS AND THOROUGHLY COMPACTED TO THE SATISFACTION OF THE ENGINEER. IF BORROWED FILL IS REQUIRED, IT SHALL BE CLEAN GRANULAR SOIL AND IT SHALL BE SUBJECT TO THE APPROVAL OF THE ENGINEER.
- ALL GRASSED AREAS DISTURBED DURING CONSTRUCTION SHALL BE RESTORED AND BE SEED IN ACCORDANCE WITH THE SPECIFICATIONS UNLESS OTHERWISE SHOWN OR SPECIFIED.
- CONTRACTOR SHALL PRESERVE AND PROTECT ALL EXISTING TREES AND SHRUBS IN THE WORK AREA AND SHALL BE RESPONSIBLE FOR ALL UNAUTHORIZED CUTTING OR DAMAGING OF TREES AND SHRUBS.
- THE CONTRACTOR SHALL ADHERE TO THE "STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL IN NEW JERSEY."
- CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVAL OF ALL EXCESS MATERIAL FROM THE JOB SITE.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONSTRUCTION LAYOUT OF THE PROJECT.
- EXISTING ROOF DRAINS WHICH PROJECT THROUGH CURBS ARE TO REMAIN AND NEW CONCRETE CURBS AND SIDEWALKS SHALL BE POURED AROUND EXISTING ROOF DRAINS.
- ALL DIMENSIONS AND GRADES SHOWN ON THE PLAN SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. CONTRACTOR SHALL NOTIFY OWNER OR THE ENGINEER 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 NEEDING 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.
- INFORMATION SHOWN ON THESE PLANS TAKEN FROM TAX MAPS AND DRAWN ON PLANS PREPARED BY MASER CONSULTING, LLC.
- CONTRACTOR RESPONSIBLE FOR COORDINATING WITH TOWNSHIP ON PERMITTED WORK HOURS.
- ACCESS TO ALL ADJACENT PROPERTIES AND RESIDENCES SHALL BE MAINTAINED AT ALL TIMES.
- ALL WORK WITHIN THE COUNTY'S RIGHT OF (ROW) WILL BE CONSTRUCTED USING MATERIALS AND PRACTICES APPROVED BY THE 2007 SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND THE 2007 STANDARD DETAILS ISSUED BY THE NEW JERSEY DEPARTMENT OF TRANSPORTATION (NJDOT) AND MIDDLESEX COUNTY DETAILS AND SPECIFICATIONS. THE COUNTY HAS A RIGHT TO SUSPEND ALL WORK WITHIN THE COUNTY'S ROW THAT DOES NOT FOLLOW THE AFORESAID.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING UTILITY COMPANIES TO DETERMINE EACH COMPANY'S SCHEDULE FOR THE RELOCATION AND/OR RESETTling OF THEIR FACILITIES IF REQUIRED. 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.
- CONTRACTOR SHALL LOCATE AND PRESERVE ALL UNDERGROUND AND SURFACE UTILITIES AND STRUCTURES AT OR ADJACENT TO THE SITE OF CONSTRUCTION, AND SHALL REPAIR OR REPLACE ANYTHING THAT HE DAMAGES AT HIS EXPENSE.
- THE CONTRACTOR SHALL MAINTAIN DRIVEWAY AND PEDESTRIAN ACCESS AT ALL LOCATIONS THROUGHOUT THE DURATION OF THE PROJECT.
- THE ENGINEER AND THE APPROPRIATE UTILITY COMPANIES MUST BE NOTIFIED IMMEDIATELY OF ANY UTILITY CONFLICTS FOUND DURING CONSTRUCTION.
- CONTRACTOR MUST OBSERVE SAFE CLEARANCES FROM ALL OVERHEAD ELECTRIC LINES DURING THE CONSTRUCTION. SPECIFIC INFORMATION ON REQUIRED CLEARANCE MAY BE OBTAINED FROM THE FOLLOWING SOURCES:
 - NATIONAL ELECTRIC SAFETY CODE
 - US DEPARTMENT OF LABOR - OCCUPATIONAL SAFETY AND HEALTH
 - NJ DEPARTMENT OF LABOR AND INDUSTRY - BUREAU OF ENGINEERING AND SAFETY
- ALL EXISTING UNDERGROUND AND OVERHEAD UTILITIES MUST BE PROTECTED FROM DAMAGE AT ALL TIMES DURING CONSTRUCTION. IN AREAS OF FULL DEPTH RECONSTRUCTION, CARE SHALL BE TAKEN SO THAT ALL EXISTING UTILITIES ARE PROTECTED AND KEPT OPERATIONAL. CONTRACTOR SHALL BE RESPONSIBLE TO SUPPORT UTILITY POLES ADJACENT TO EXCAVATION AREAS UNTIL THE AREA IS BACKFILLED AND STABILIZED.
- PRIOR TO ANY ROAD CONSTRUCTIONS, TRAFFIC CONTROL SIGNS AND DEVICES SHALL BE IN PLACE.
- ALL EXCAVATED AREAS WITHIN OR ADJACENT TO THE ROADWAY SHALL BE BACKFILLED AND PLACED ON AT LEAST 6H:1V SLOPE BEFORE THE END OF EACH WORK DAY. OTHER EXCAVATED AREA WITHIN THE CLEAR ZONE SHALL BE BACKFILLED.
- PRIOR TO THE START OF ANY ROAD WORK WITHIN THE COUNTY RIGHT OF WAY THE CONTRACTOR MUST OBTAIN A ROAD OPENING PERMIT FROM THE COUNTY ROAD SUPERVISOR (P.O. BOX 1856), APPLE ORCHARD ROAD, NORTH BRUNSWICK TOWNSHIP, NEW JERSEY 08902. PRIOR TO THE FIRST PAYMENT FOR THE CONTRACTOR, THE CONTRACTOR MUST PROVIDE A COPY OF THE ROAD OPENING PERMIT.
- CONTRACTOR SHALL RESEARCH, OBTAIN, PAY FOR, ABIDE BY, AND SCHEDULE BUILDING PERMITS, ROAD OPENING PERMITS, AND ANY OTHER PERMITS REQUIRED TO BE OBTAINED BY HIM ON THE FEDERAL, STATE, COUNTY, AND MUNICIPAL LEVELS THAT MAY BE REQUIRED AS A RESULT OF WORK ON THIS PROJECT.
- ALL PAVED AREAS DISTURBED DURING CONSTRUCTION SHALL BE RESTORED TO A CONDITION AT LEAST EQUAL TO THAT AT WHICH EXISTED PRIOR TO START OF CONSTRUCTION UNLESS OTHERWISE SHOWN OR SPECIFIED.
- CONTRACTOR SHALL PERFORM PAVING TO PROVIDE POSITIVE DRAINAGE AND TO ASSURE THAT NO PONDING OCCURS.
- CONTRACTOR SHALL NOTIFY ALL RESIDENTS AND/OR PROPERTY OWNERS AT LEAST FORTY-EIGHT (48) HOURS IN ADVANCE OF PERFORMING WORK IN THE VICINITY OF THEIR PROPERTY.

811
PROTECT YOURSELF
ALL STATES REQUIRE NOTIFICATION OF EXCAVATIONS, OWNERS OR ANY PERSON PREPARING TO DISTURB THE EARTH'S SURFACE ANYWHERE IN ANY STATE

Know what's below.
Call before you dig.
FOR STATE SPECIFIC DIRECT PHONE NUMBERS VISIT:
WWW.CALL811.COM

MASER
CONSULTING P.A.

Customer Loyalty through Client Satisfaction
www.maserconsulting.com

Engineers ■ Planners ■ Surveyors
Landscape Architects ■ Environmental Scientists

Office Locations

■ Red Bank, NJ	■ Mt. Laurel, NJ	■ Newburgh, NY
■ Clinton, NJ	■ Sterling, VA	■ Westchester, NY
■ Hamilton, NJ	■ Albuquerque, NM	■ Bethlehem, PA
■ Marlboro, NJ	■ Albany, NY	■ Easton, PA
■ Mt. Arlington, NJ	■ Christens Ridge, NY	■ Tampa, FL

State of NJ, Certificate of Authorization: 24GA2796500
HAMILTON OFFICE

1000 Waterview Drive, Suite 201
Hamilton, NJ 08691
Phone: 609.587.8200 ■ Fax: 609.587.8260
email: solutions@maserconsulting.com

Copyright © 2018, Maser Consulting P.A. All Rights Reserved. This drawing and all the information contained herein is prepared for use only by the party to 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 purposes without the express written consent of Maser Consulting P.A.

WOODBRIDGE TOWNSHIP

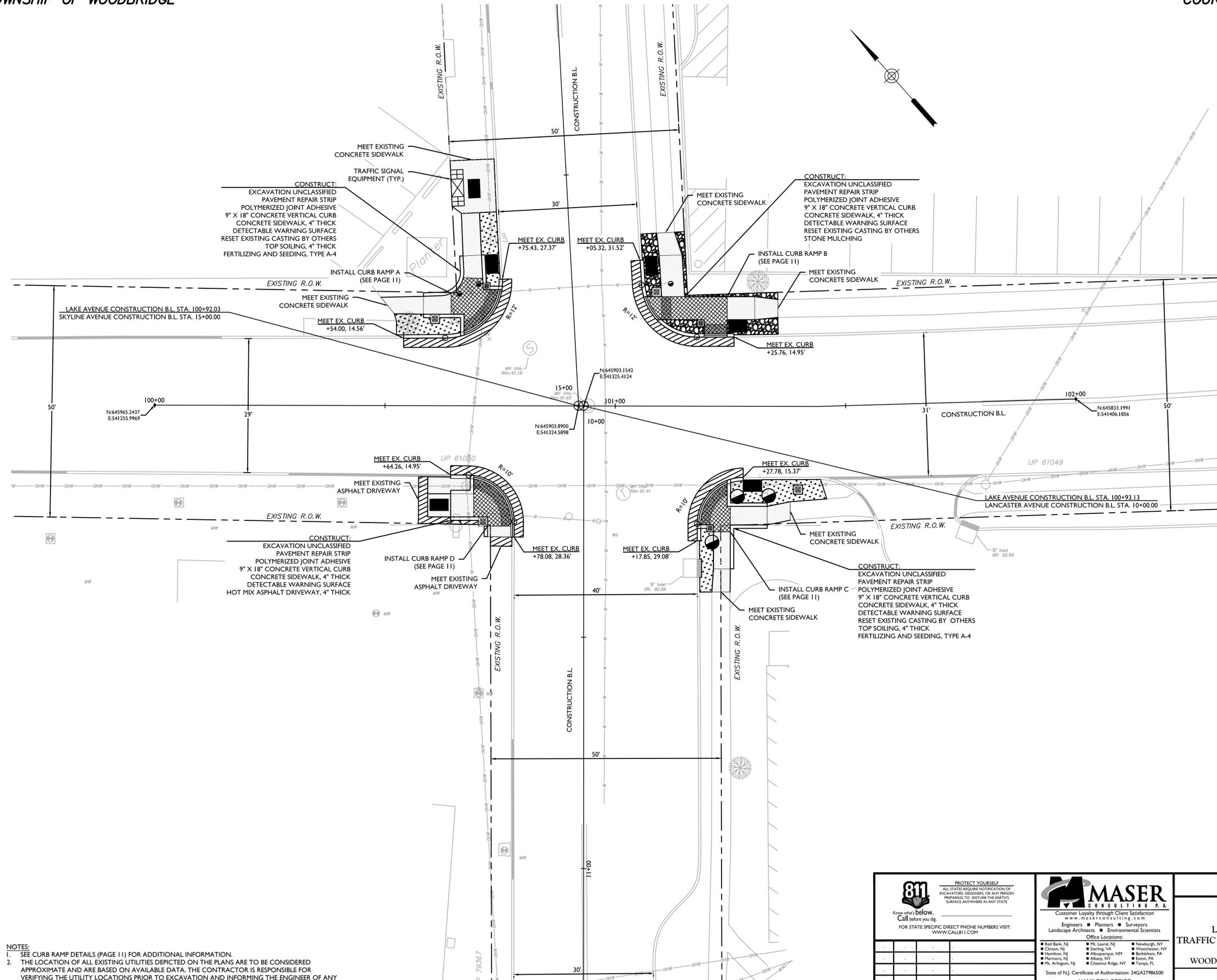
GENERAL NOTES AND LEGEND

TRAFFIC SIGNAL MODIFICATIONS AT TWO INTERSECTIONS

WOODBRIDGE TOWNSHIP, MIDDLESEX COUNTY, NEW JERSEY

SCALE	DATE	DRAWN BY	CHECKED BY
N/A	11/21/18	CS	AWA
PROJECT NUMBER	DRAWING NAME		
18001829G	R-PL03-GNLG		
SHEET NUMBER			
	ADAM W. ALLEN NEW JERSEY PROFESSIONAL ENGINEER - LICENSE NUMBER: GE48112		
03	OF 14		

2018/11/21/18 18001829G/PL03-GNLG/CS/AWA/03 OF 14



- NOTES:**
- SEE CURB RAMP DETAILS (PAGE 11) FOR ADDITIONAL INFORMATION.
 - THE LOCATION OF ALL EXISTING UTILITIES DEPICTED ON THE PLANS ARE TO BE CONSIDERED APPROXIMATE AND ARE BASED ON AVAILABLE DATA. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING THE UTILITY LOCATIONS PRIOR TO EXCAVATION AND INFORMING THE ENGINEER OF ANY IN-FIELD ADJUSTMENTS.
 - UTILITY POLE NUMBERS: 60148, 61049, 61050, 61841, 62168, 64746, 79367, AND 2111CL.

811
Know what's below.
Call before you dig.
FOR STATE SPECIFIC DIRECT PHONE NUMBERS VISIT: WWW.CALL811.COM

PROTECT YOURSELF
ALL STATES REQUIRE NOTIFICATION OF EXCAVATION DESIGNER OR ANY PERSON PREPARING TO DISTURB THE EARTH'S SURFACE ANYWHERE IN ANY STATE

REV	DATE	DRAWN BY	DESCRIPTION

MASER CONSULTING P.A.
Customer Loyalty through Client Satisfaction
www.maserconsulting.com

Engineers ■ Planners ■ Surveyors
Landscape Architects ■ Environmental Scientists

Office Locations:
 ■ Red Bank, NJ ■ Mt. Laurel, NJ ■ Newburgh, NY
 ■ Clinton, NJ ■ Sterling, VA ■ Westchester, NY
 ■ Harrison, NJ ■ Albuquerque, NM ■ Bethlehem, PA
 ■ Haddon, NJ ■ Albany, NY ■ Exton, PA
 ■ Ft. Arlington, NJ ■ Chestnut Ridge, NY ■ Tampa, FL

State of N.J. Certificate of Authorization: 24GA27966500
HAMILTON OFFICE
 1000 Waterview Drive, Suite 201
 Hamilton, NJ 08691
 Phone: 609.587.8200 ■ Fax: 609.587.8200
 email: solutions@maserconsulting.com

Copyright © 2018, Maser Consulting P.A. All Rights Reserved. This drawing and all the information contained herein is submitted for use only by the party for whom the services were contracted for. It is to be used for the project and site for which it was prepared. It is not to be copied, reprinted, distributed, or used for any other purpose without the express written consent of Maser Consulting P.A.

WOODBRIDGE TOWNSHIP

CONSTRUCTION PLANS

LAKE AVE. & LANCASTER RD./SKYLINE AVE.
TRAFFIC SIGNAL MODIFICATIONS AT TWO INTERSECTIONS

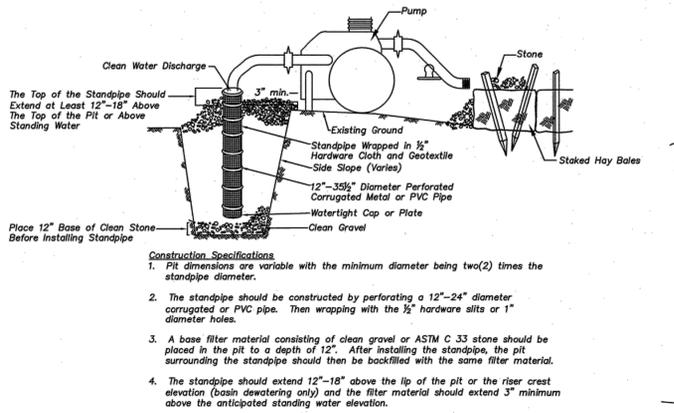
WOODBRIDGE TOWNSHIP, MIDDLESEX COUNTY, NEW JERSEY

SCALE: 1" = 10'	DATE: 11/21/18	DRAWN BY: CS	CHECKED BY: AWA
PROJECT NUMBER: 18001829G	DRAWING NAME: R-PL06-CN5T	SHEET NUMBER:	

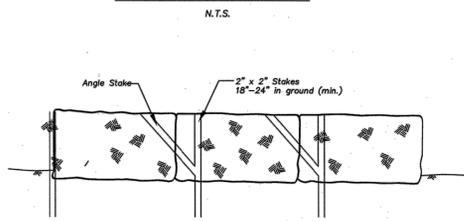
ADAM W. ALLEN
 NEW JERSEY PROFESSIONAL ENGINEER - LICENSE NUMBER: GE48112

04 OF 14

2018100102017.mxd:cs:aw:11/21/18 10:46:01 B:\CS\WAZAK



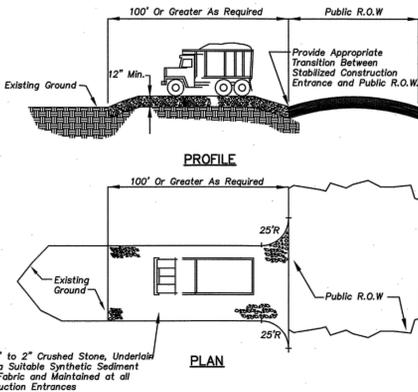
DEWATERING DETAIL



Straw Bale Siltation Dike Detail

DEWATERING DETAIL

N.T.S.



STABILIZED CONSTRUCTION ENTRANCE

N.T.S.

ACID SOILS MITIGATION

- LIMIT THE EXCAVATION AREA AND EXPOSURE TIME WHEN HIGH ACID-PRODUCING SOILS ARE ENCOUNTERED.
- TOPSOIL STRIPPED FROM THE SITE SHALL BE STORED SEPARATELY FROM TEMPORARILY STOCKPILED HIGH ACID-PRODUCING SOILS.
- STOCKPILES OF HIGH ACID-PRODUCING SOIL SHOULD BE LOCATED ON LEVEL LAND TO MINIMIZE ITS MOVEMENT, ESPECIALLY WHEN THIS MATERIAL HAS A HIGH CLAY CONTENT.
- TEMPORARILY STOCKPILED HIGH ACID-PRODUCING SOIL MATERIAL TO BE STORED MORE THAN 48 HOURS SHOULD BE COVERED WITH PROPERLY ANCHORED, HEAVY GRADE SHEETS OF POLYETHYLENE WHERE POSSIBLE. IF NOT POSSIBLE, STOCKPILES SHALL BE COVERED WITH A MINIMUM OF 3 TO 6 INCHES OF WOOD CHIPS TO MINIMIZE EROSION OF THE STOCKPILE. SILT FENCE SHALL BE INSTALLED AT THE TOE OF THE SLOPE TO CONTAIN MOVEMENT OF THE STOCKPILED MATERIAL. TOPSOIL SHALL NOT BE APPLIED TO THE STOCKPILES TO PREVENT TOPSOIL CONTAMINATION WITH HIGH ACID-PRODUCING SOIL.
- HIGH ACID-PRODUCING SOILS WITH A PH OF 4.0 OR LESS OR CONTAINING IRON SULFIDE (INCLUDING BORROW FROM CUTS OR DREDGED SEDIMENT) SHALL BE ULTIMATELY PLACED OR BURIED WITH LIMESTONE APPLIED AT THE RATE OF 10 TONS PER ACRE (OR 450 POUNDS PER 1,000 SQUARE FEET OF SURFACE AREA) AND COVERED WITH A MINIMUM OF 12 INCHES OF SETTLED SOIL WITH A PH OF 5.0 OR MORE EXCEPT AS FOLLOWS:
 - AREAS WHERE TREES OR SHRUBS ARE TO BE PLANTED SHALL BE COVERED WITH A MINIMUM OF 24 INCHES OF SOIL WITH A PH OF 5.0 OR MORE.
 - DISPOSAL AREAS SHALL NOT BE LOCATED WITHIN 24 INCHES OF ANY SURFACE OF A SLOPE OR BANK, SUCH AS BERMS, STREAM BANKS, DITCHES, AND OTHERS, TO PREVENT POTENTIAL LATERAL LEACHING DAMAGES.
- EQUIPMENT USED FOR MOVEMENT OF HIGH ACID-PRODUCING SOILS SHOULD BE CLEANED AT THE END OF EACH DAY TO PREVENT SPREADING OF HIGH ACID-PRODUCING SOIL MATERIALS TO OTHER PARTS OF THE SITE. INTO STREAMS OR STORMWATER CONVEYANCES, AND TO PROTECT MACHINERY FROM ACCELERATED RUSTING.
- NON-VEGETATIVE EROSION CONTROL PRACTICES (STONE TRACKING PADS, STRATEGICALLY PLACED LIMESTONE CHECK DAM, SEDIMENT BARRIER, WOOD CHIPS) SHOULD BE INSTALLED TO LIMIT THE MOVEMENT OF HIGH ACID-PRODUCING SOILS FROM AROUND, OR OFF THE SITE.
- FOLLOWING BURIAL OR REMOVAL OF HIGH ACID-PRODUCING SOIL, TOPSOILING AND SEEDING OF THE SITE (SEE TEMPORARY VEGETATIVE COVER FOR SOIL STABILIZATION, PERMANENT VEGETATIVE COVER FOR SOIL STABILIZATION, AND TOPSOILING), MONITORING MUST CONTINUE FOR A MINIMUM OF 6 MONTHS TO ENSURE THERE IS ADEQUATE STABILIZATION AND THAT NO HIGH ACID-PRODUCING SOIL PROBLEMS EMERGE. IF PROBLEMS STILL EXIST, THE AFFECTED AREA MUST BE TREATED AS INDICATED ABOVE TO CORRECT THE PROBLEM.

TEMPORARY SEEDBED PREPARATIONS

- APPLY GROUND LIMESTONE AND FERTILIZER ACCORDING TO SOIL TEST RECOMMENDATIONS SUCH AS OFFERED BY RUTGERS CO-OPERATIVE EXTENSION. SOIL SAMPLE MAILERS ARE AVAILABLE FROM THE LOCAL RUTGERS CO-OPERATIVE EXTENSION OFFICES. FERTILIZER SHALL BE APPLIED AT THE RATE OF 500 POUNDS PER ACRE OR 11 POUNDS PER 1,000 SQUARE FEET OR 10-20-10 OR EQUIVALENT WITH 50% WATER INSOLUBLE NITROGEN UNLESS A SOIL TEST INDICATES OTHERWISE. APPLY LIMESTONE AT THE RATE OF 2 TONS/ACRE UNLESS SOIL TESTING INDICATES OTHERWISE. CALCIUM CARBONATE IS THE EQUIVALENT STANDARD FOR MEASURING THE ABILITY OF LIMING MATERIALS TO NEUTRALIZE SOIL ACIDITY AND APPLY CALCIUM AND MAGNESIUM TO GRASSES AND LEGUMES.
- WORK LIME AND FERTILIZER INTO THE SOIL AS NEARLY AS PRACTICAL TO A DEPTH OF 4 INCHES WITH A DISC, SPRINGTOOTH HARROW, OR OTHER SUITABLE EQUIPMENT. THE FINAL HARROWING OR DISKING OPERATION SHOULD BE ON THE GENERAL CONTOUR. CONTINUE TILLAGE UNTIL A REASONABLE UNIFORM SEEDBED IS PREPARED.
- INSPECT SEEDBED JUST BEFORE SEEDING. IF TRAFFIC HAS LEFT THE SOIL COMPACTED, THE AREA MUST BE RETILLED IN ACCORDANCE WITH THE ABOVE.
- SOILS HIGH IN SULFIDES OR HAVING A PH OF 4 OR LESS REFER TO STANDARD FOR MANAGEMENT OF HIGH ACID PRODUCING SOILS, PG. 1-1.

SEQUENCE OF CONSTRUCTION:

THIS PROJECT SHALL CONSIST ESSENTIALLY OF THE RECONSTRUCTION AND/OR RESURFACING AND PARTIAL RECONSTRUCTION OF THE EXISTING ROADWAYS INCLUDING STORM SEWER IMPROVEMENTS, SANITARY SEWER IMPROVEMENTS, EXCAVATION AND EMBARMENT, THE INSTALLATION OF BASE GRADED APPROACHES, HOT MIX ASPHALT PAVEMENT, CONCRETE CURB, CONCRETE SIDEWALK, DRIVEWAY APRONS, AND LANDSCAPE RESTORATION. THE CONSTRUCTION SHOULD PROCEED IN THE FOLLOWING MANNER:

- INSTALLATION OF ALL SEDIMENT AND EROSION CONTROL DEVICES THAT CAN BE PLACED PRIOR TO ANY MAJOR SOIL DISTURBANCES. THIS WORK WOULD INCLUDE THE FURNISHING AND INSTALLATION OF STABILIZED CONSTRUCTION ENTRANCES, TREE PROTECTION, PERIMETER DRAIN FILTER PROTECTION AND SILT STOP SEDIMENT BARRIER AS DETAILED ON ALL APPLICABLE PLAN SHEETS. (5 DAYS)
- CLEAR AND REMOVE ALL EXISTING VEGETATION IN THOSE AREAS DELINEATED AND WHERE NECESSARY. ALL REMAINING VEGETATION TO BE PROPERLY PROTECTED AND TO REMAIN IN ITS NATURAL STATE. (15 DAYS)
- IMMEDIATE INSTALLATION OF ALL REMAINING SOIL EROSION AND SEDIMENT CONTROL DEVICES. (5 DAYS)
- BEGIN EARTHWORK INCLUDING EXCAVATION (15 DAYS)
- CONSTRUCT SUBSURFACE IMPROVEMENTS INCLUDING UTILITY RELOCATIONS AS NECESSARY. (85 DAYS)
- RECONSTRUCTION OF EXISTING CURBS, SIDEWALKS AND DRIVEWAY APRONS. (30 DAYS)
- FINE GRADE PAVEMENT RESTORATION AREAS. (10 DAYS)
- BASE COURSE PAVEMENTS TO BE APPLIED IMMEDIATELY FOLLOWING FINE GRADING AND INSTALLATION OF IMPROVEMENTS IN ORDER TO STABILIZE PAVEMENT AREAS. (15 DAYS)
- FINE GRADE REMAINDER OF SITE AND STABILIZE WITH PERMANENT VEGETATIVE COVER AND LANDSCAPING. (10 DAYS)
- CONSTRUCT SURFACE COURSE PAVEMENT, PAVEMENT STRIPING AND MARKINGS AND SIGNAGE IMPROVEMENTS. (15 DAYS)
- REMOVE ALL TEMPORARY SOIL EROSION AND SEDIMENT CONTROL MEASURES. (5 DAYS)

NOTES:

The Contractor is advised that the proposed soil erosion and sediment control measures are subject to Freehold Soil Conservation District review and approval and shall be verified prior to the installation of same.

Soil Erosion and Sediment Control measures as deemed necessary by the engineer and the Freehold Soil Conservation District shall be installed where required.

There are to be no stockpiling areas under this project. All surplus excavated material and or fill shall be removed or brought to the site on a daily basis.

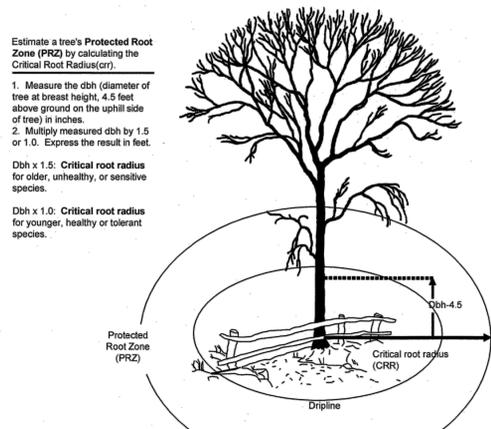
SOIL EROSION AND SEDIMENT CONTROL NOTES:

- THE FREEHOLD SOIL CONSERVATION DISTRICT SHALL BE NOTIFIED FORTY-EIGHT (48) HOURS IN ADVANCE OF ANY SOIL DISTURBING ACTIVITY.
- ALL SOIL EROSION AND SEDIMENT CONTROL PRACTICES ARE TO BE INSTALLED PRIOR TO SOIL DISTURBANCE, OR IN THEIR PROPER SEQUENCE, AND MAINTAINED UNTIL PERMANENT PROTECTION IS ESTABLISHED.
- ANY CHANGES TO THE CERTIFIED SOIL EROSION AND SEDIMENT CONTROL PLANS WILL REQUIRE THE SUBMISSION OF REVISED SOIL EROSION AND SEDIMENT CONTROL PLANS TO THE DISTRICT FOR RE-CERTIFICATION. THE REVISED PLANS MUST MEET ALL CURRENT STATE SOIL EROSION AND SEDIMENT CONTROL STANDARDS.
- N.J.S.A. 4:24-39 ET SEQ. REQUIRES THAT NO CERTIFICATES OF OCCUPANCY BE ISSUED BEFORE THE DISTRICT DETERMINES THAT A PROJECT OR PORTION THEREOF IS IN FULL COMPLIANCE WITH THE CERTIFIED PLAN AND STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL IN NEW JERSEY AND A REPORT OF COMPLIANCE HAS BEEN ISSUED. UPON WRITTEN REQUEST FROM THE APPLICANT, THE DISTRICT MAY ISSUE A REPORT OF COMPLIANCE WITH CONDITIONS ON A LOT-BY-LOT OR SECTION-BY-SECTION BASIS, PROVIDED THAT THE PROJECT OR PORTION THEREOF IS IN SATISFACTORY COMPLIANCE WITH THE SEQUENCE OF DEVELOPMENT AND TEMPORARY MEASURES FOR SOIL EROSION AND SEDIMENT CONTROL HAVE BEEN IMPLEMENTED, INCLUDING PROVISIONS FOR STABILIZATION AND SITE WORK.
- ANY DISTURBED AREAS THAT WILL BE LEFT EXPOSED MORE THAN SIXTY (60) DAYS, AND NOT SUBJECT TO CONTINUOUS TRAFFIC, WILL IMMEDIATELY RECEIVE A TEMPORARY SEEDING. IF THE SEASON PREVENTS THE ESTABLISHMENT OF A TEMPORARY COVER, THE DISTURBED AREAS WILL BE MULCHED WITH STRAW OR EQUIVALENT MATERIAL, AT A RATE OF 2 TO 2 1/2 TONS PER ACRE, ACCORDING TO STATE STANDARDS FOR STABILIZATION WITH MULCH ONLY.
- IMMEDIATELY FOLLOWING INITIAL DISTURBANCE OR ROUGH GRADING, ALL CRITICAL AREAS SUBJECT TO EROSION (I.E. STEEP SLOPES AND ROADWAY EMBANKMENTS) WILL RECEIVE TEMPORARY SEEDING IN COMBINATION WITH STRAW MULCH OR A SUITABLE EQUIVALENT, AND A MULCH ANCHOR, IN ACCORDANCE WITH STATE STANDARDS.
- A SUB-BASE COURSE WILL BE APPLIED IMMEDIATELY FOLLOWING ROUGH GRADING AND INSTALLATION OF IMPROVEMENTS TO STABILIZE STREETS, ROADS, DRIVEWAYS AND PARKING AREAS. IN AREAS WHERE NO UTILITIES ARE PRESENT, THE SUB-BASE SHALL BE INSTALLED WITHIN FIFTEEN (15) DAYS OF THE PRELIMINARY GRADING.
- THE STANDARD FOR STABILIZED CONSTRUCTION ACCESS REQUIRES THE INSTALLATION OF A PAD OF CLEAN CRUSHED STONE AT POINTS WHERE TRAFFIC WILL BE ACCESSING THE CONSTRUCTION SITE. AFTER INTERIOR ROADWAYS ARE PAVED, INDIVIDUAL LOTS REQUIRE A STABILIZED CONSTRUCTION ENTRANCE CONSISTING OF ONE INCH TO TWO INCH (1"-2") STONE FOR A MINIMUM LENGTH OF TEN FEET (10') EQUAL TO THE LOT ENTRANCE WIDTH. ALL OTHER ACCESS POINTS SHALL BE BLOCKED OFF.
- ALL SOIL WASHED, DROPPED, SPILLED OR TRACKED OUTSIDE THE LIMIT OF DISTURBANCE OR ONTO PUBLIC RIGHT-OF-WAYS WILL BE REMOVED IMMEDIATELY.
- PERMANENT VEGETATION IS TO BE SEED OR SOODED ON ALL EXPOSED AREAS WITHIN TEN (10) DAYS AFTER FINAL GRADING.
- AT THE TIME THAT THE SITE PREPARATION FOR PERMANENT VEGETATIVE STABILIZATION IS GOING TO BE COMPLETED, ANY SOIL THAT DOES NOT PROVIDE A SUITABLE ENVIRONMENT TO SUPPORT ADEQUATE VEGETATIVE GROUND COVER SHALL BE REMOVED OR TREATED IN SUCH A WAY THAT IT WILL PERMANENTLY ADJUST THE SOIL CONDITIONS AND RENDER IT SUITABLE FOR VEGETATIVE GROUND COVER. IF THE REMOVAL OR TREATMENT OF THE SOIL WILL NOT PROVIDE SUITABLE CONDITIONS, NON-VEGETATIVE MEANS OF PERMANENT GROUND STABILIZATION WILL HAVE TO BE EMPLOYED.
- IN ACCORDANCE WITH THE STANDARD FOR MANAGEMENT OF HIGH ACID PRODUCING SOILS, ANY SOIL HAVING A PH OF 4.0 OR LESS OR CONTAINING IRON SULFIDES SHALL BE ULTIMATELY PLACED OR BURIED WITH LIMESTONE APPLIED AT THE RATE OF 10 TONS/ACRE, (OR 450 LBS/1,000 SQ FT OF SURFACE AREA) AND COVERED WITH A MINIMUM OF 12" OF SETTLED SOIL WITH A PH OF 5.0 OR MORE, OR 24" WHERE TREES OR SHRUBS ARE TO BE PLANTED.
- CONDUIT OUTLET PROTECTION MUST BE INSTALLED AT ALL REQUIRED OUTFALLS PRIOR TO THE DRAINAGE SYSTEM BECOMING OPERATIONAL.
- UNFILTERED DEWATERING IS NOT PERMITTED. NECESSARY PRECAUTIONS MUST BE TAKEN DURING ALL DEWATERING OPERATIONS TO MINIMIZE SEDIMENT TRANSFER. ANY DEWATERING METHODS USED MUST BE IN ACCORDANCE WITH STANDARDS FOR DEWATERING.
- SHOULD THE CONTROL OF DUST AT THE SITE BE NECESSARY, THE SITE WILL BE SPRINKLED UNTIL THE SURFACE IS WET. TEMPORARY VEGETATIVE COVER SHALL BE ESTABLISHED OR MULCH SHALL BE APPLIED AS REQUIRED TO MEET THE STANDARDS FOR DUST CONTROL.
- STOCKPILE AND STAGING LOCATIONS ESTABLISHED IN THE FIELD SHALL BE PLACED WITHIN THE LIMIT OF DISTURBANCE ACCORDING TO THE CERTIFIED PLAN. STAGING AND STOCKPILES NOT LOCATED WITHIN THE LIMIT OF DISTURBANCE WILL REQUIRE CERTIFICATION OF A REVISED SOIL EROSION AND SEDIMENT CONTROL PLAN. CERTIFICATION OF A NEW SOIL EROSION AND SEDIMENT CONTROL PLAN MAY BE REQUIRED FOR THESE ACTIVITIES IF AN AREA GREATER THAN 5,000 SQUARE FEET IS DISTURBED.
- ALL SOIL STOCKPILES ARE TO BE TEMPORARILY STABILIZED IN ACCORDANCE WITH SOIL EROSION AND SEDIMENT CONTROL NOTES #6.
- THE PROPERTY OWNER SHALL BE RESPONSIBLE FOR ANY EROSION OR SEDIMENTATION THAT MAY OCCUR BELOW STORM WATER OUTFALLS OR OFFSITE AS A RESULT OF CONSTRUCTION OF THE PROJECT.
- MAXIMUM SLOPE SLOPES OF ALL EXPOSED SURFACES TO BE 3:1.
- HAY BALES OR SEDIMENT CONTROL FABRIC TO BE PLACED IF EROSION BECOMES EVIDENT DURING CONSTRUCTION.
- TO PREVENT LARGE BILLOWS DOWNHILL DURING CONSTRUCTION, TEMPORARY MOUNTABLE STONE BERMS MAY BE INSTALLED, SHOULD FIELD CONDITIONS WARRANT WHICH WILL NOT IMPEDE ACCESS FOR THE RESIDENTS AND EMERGENCY VEHICLES.
- THE CONTRACTOR WILL BE RESPONSIBLE FOR IMPLEMENTING ANY AND ALL SOIL EROSION AND SEDIMENT CONTROL PROCEDURES DEEMED NECESSARY BY THE FREEHOLD SOIL CONSERVATION DISTRICT OFFICE AGENTS DURING THE COURSE OF CONSTRUCTION.

NON GROWING SEASON SOIL STABILIZATION:

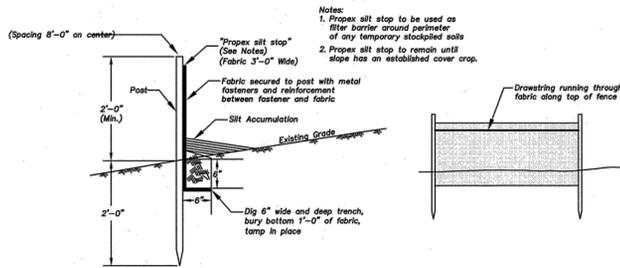
DURING NON GROWING SEASONS EXPOSED SOILS SHOULD BE STABILIZED USING NON-VEGETATIVE MATERIALS SUCH AS UNROTTED SMALL-GRAIN STRAW, OR SALT HAY AT A RATE OF 2.0 TO 2.5 TONS PER ACRE SPREAD UNIFORMLY AT 90 TO 115 POUNDS PER 1,000 SQUARE FEET AND ANCHORED WITH A MULCH ANCHORING TOOL. ORGANIC MULCH BINDERS, NETTING THE DOWNS OR OTHER SUITABLE MATERIALS AS APPROVED BY THE FREEHOLD SOIL CONSERVATION DISTRICT.

This plan to be used for Soil Erosion and Sediment Control purposes only.



ROOT PROTECTION

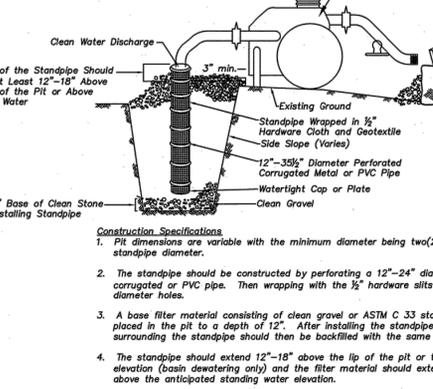
N.T.S.



SILT STOP SEDIMENT BARRIER DETAIL

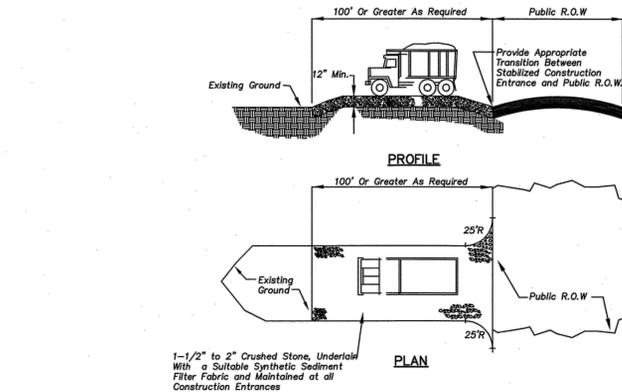
N.T.S.

INLET SILTATION PROTECTION DETAIL



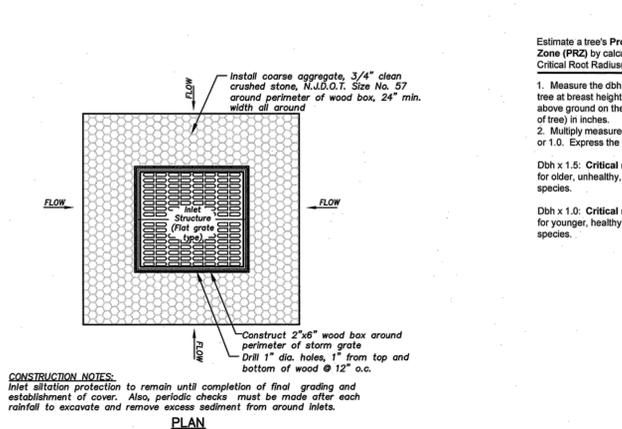
INLET FILTER

N.T.S.



INLET FILTER

N.T.S.



INLET SILTATION PROTECTION DETAIL

N.T.S.

FREEHOLD SOIL CONSERVATION DISTRICT
4000 KOZLOSKI RD
FREEHOLD NJ 07728
(732) 683-8500 PHONE
(732) 683-9140 FAX

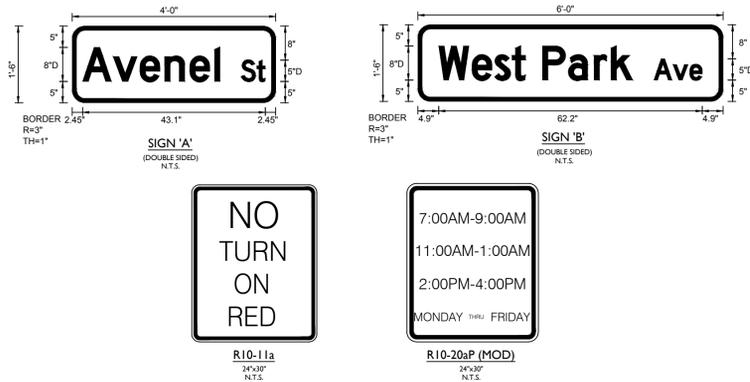
811 PROTECT YOURSELF
ALL STATES REQUIRE NOTIFICATION OF EXISTING UTILITIES BEFORE ANY EXCAVATION PREPARING TO DISTURB THE EARTH'S SURFACE ANYWHERE IN ANY STATE
Know what's below.
Call before you dig.
FOR STATE SPECIFIC DIRECT PHONE NUMBERS VISIT: WWW.CALL811.COM

MASER CONSULTING P.A.
Customer Loyalty Through Client Satisfaction
We're m a s e r c o n s u l t i n g . c o
Engineers ■ Planners ■ Surveyors
Landscape Architects ■ Environmental Scientists

WOODBRIDGE TOWNSHIP
SOIL EROSION AND SEDIMENT CONTROL PLAN

WOODBRIDGE TOWNSHIP, MIDDLESEX COUNTY, NEW JERSEY
TRAFFIC SIGNAL MODIFICATIONS AT TWO INTERSECTIONS
ADAM W. ALLEN
NEW JERSEY PROFESSIONAL ENGINEER - LICENSE NUMBER: 6E48112
SCALE: N/A DATE: 11/21/18 DRAWN BY: CS CHECKED BY: AWA
PROJECT NUMBER: 18001829G DRAWING NAME: R-PL07-ER05 SHEET NUMBER: 06 OF 14

MAST ARM SIGN LEGEND



PAVEMENT MARKING LEGEND

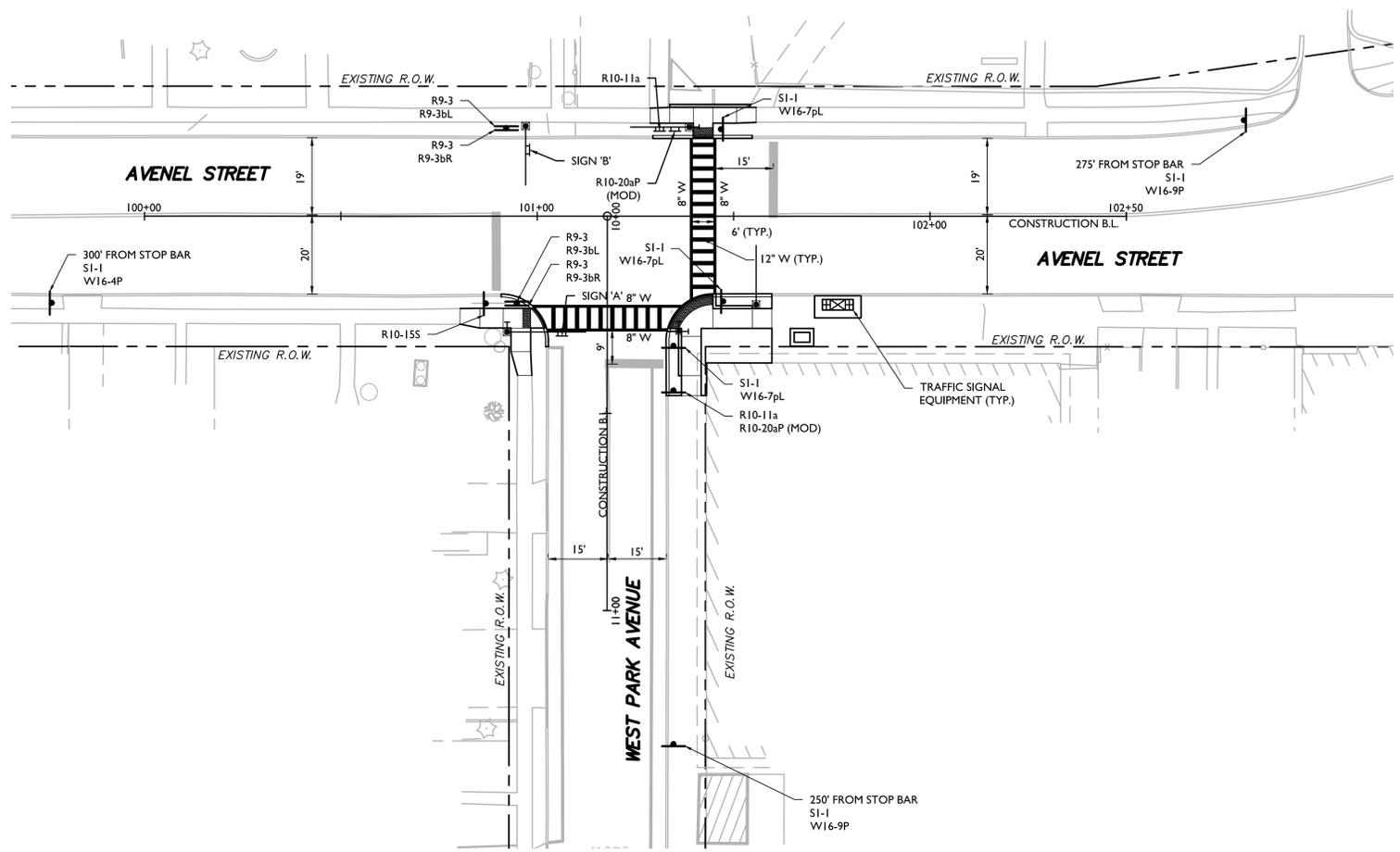
UNLESS OTHERWISE SHOWN, PAVEMENT MARKINGS SHALL CONFORM TO THE FOLLOWING:

STOP LINE	-24" WIDE WHITE LINE
CENTER LINE	-24" WIDE YELLOW LINES
DASHED LANE LINE	-4" WIDE WHITE LINE, 10' LONG AT 30' INTERVALS
LANE EXTENSION GUIDE LINES	-4" WIDE WHITE LINE, 2' LONG AT 4' INTERVALS
SOLID LANE LINE EXCLUSIVE MOVEMENT	-8" WIDE WHITE LINE
SOLID LANE LINE-ALL OTHERS	-4" WIDE WHITE LINE
CROSSWALK LINES	-8" WIDE WHITE LINES AT 90° SPACED 3' C.-C.
LONGITUDINAL CROSSWALK LINES	-12" WIDE WHITE LINES AT 90° SPACED 3' C.-C.
MEDIAN CROSS HATCH LINES	-24" WIDE YELLOW LINES AT 45° SPACED 12' O.C.
GORE CROSS HATCH LINES	-24" WIDE WHITE LINES AT 45° SPACED 12' O.C.
ISLAND CHANNELIZATION LINE	-8" WIDE WHITE LINE
RIGHT SHOULDER LINE	-4" WIDE WHITE LINE
LEFT SHOULDER LINE	-4" WIDE YELLOW LINE

- NOTES:
- 1) ALL TRAFFIC CONTROL DEVICES SHALL CONFORM TO THE CURRENT MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES
 - 2) NEAREST CROSSWALK LINE IS TO BE LOCATED A MINIMUM OF 4' FROM STOP LINE
 - 3) EXISTING STRIPING THAT DOES NOT CONFORM TO THIS PLAN SHALL BE REMOVED BY THE GRINDING METHOD.
 - 4) ALL CONFLICTING SIGNS, TREES AND OTHER OBSTRUCTIONS SHALL BE REMOVED AS PART OF THIS CONSTRUCTION.
 - 5) W = WHITE STRIPE
Y = YELLOW STRIPE

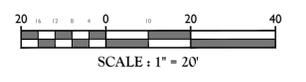
PROPOSED SIGN LEGEND

R9-3	NO PEDESTRIAN CROSSING (SYMBOL)	18" X 18"
R9-3bL	USE CROSSWALK (LEFT)	18" X 12"
R9-3bR	USE CROSSWALK (RIGHT)	18" X 12"
R10-11a	NO TURN ON RED	24" X 30"
R10-155	TURNING VEHICLES STOP FOR PEDESTRIANS	30" X 30"
SI-1	SCHOOL	36" X 36"
W16-4P	NEXT 300 FEET	30" X 24"
W16-7pL	DOWNWARD DIAGONAL ARROW (LEFT)	24" X 12"
W16-9P	AHEAD	24" X 12"



SIGNAL EQUIPMENT LEGEND

	SIGNAL FOUNDATION
	TRAFFIC SIGNAL MAST ARM
	PEDESTRIAN PUSH BUTTON (PB)
	MAST ARM MOUNTED SIGN (MAS)
	CONTROLLER



30 JUN 2018 10:20:07 m:\projects\woodbridge\pl171255p_4\08_1125.dwg

811 PROTECT YOURSELF
 ALL STATES REQUIRE NOTIFICATION OF EXISTING UTILITIES BEFORE ANY PERSON PREPARING TO DISTURB THE EARTH'S SURFACE ANYWHERE IN ANY STATE.
 Call before you dig.
 FOR STATE SPECIFIC DIRECT PHONE NUMBERS VISIT: WWW.CALL811.COM

MASER CONSULTING P.A.
 Customer Loyalty through Client Satisfaction
 www.maserconsulting.com
 Engineers ■ Planners ■ Surveyors
 Landscape Architects ■ Environmental Scientists

Office Locations:
 ■ Red Bank, NJ ■ Mt. Laurel, NJ ■ Newburgh, NY
 ■ Clinton, NJ ■ Sterling, VA ■ Westchester, NY
 ■ Harrison, NJ ■ Albuquerque, NM ■ Bethlehem, PA
 ■ Haddonfield, NJ ■ Albany, NY ■ Exton, PA
 ■ Ft. Arlington, NJ ■ Chestnut Ridge, NY ■ Tampa, FL

State of NJ, Certificate of Authorization: 24GA2986500
 HAMILTON OFFICE
 1000 Waterview Drive, Suite 201
 Hamilton, NJ 08691
 Phone: 609.587.8200 ■ Fax: 609.587.8200
 email: solutions@maserconsulting.com

WOODBRIDGE TOWNSHIP
 SIGNING AND STRIPING PLANS
 AVENEL ST. & WEST PARK AVE.
 TRAFFIC SIGNAL MODIFICATIONS AT TWO INTERSECTIONS
 WOODBRIDGE TOWNSHIP, MIDDLESEX COUNTY, NEW JERSEY

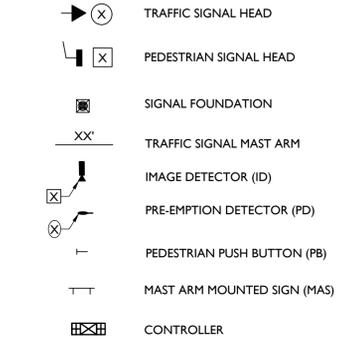
SCALE: 1" = 20'	DATE: 11/21/18	DRAWN BY: CS	CHECKED BY: AJWA
PROJECT NUMBER: 18001829G	DRAWING NAME: R-PL17-TSSP		
SHEET NUMBER: 08 OF 14			

ADAM W. ALLEN
 NEW JERSEY PROFESSIONAL ENGINEER - LICENSE NUMBER: GE48112

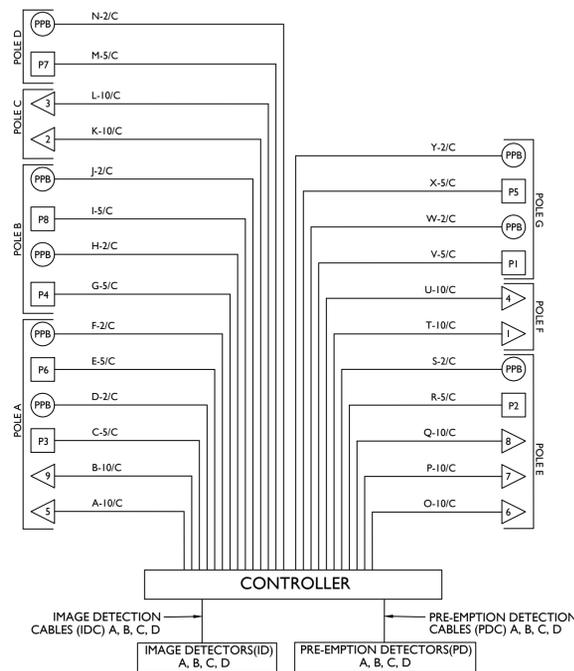
MAST ARM SIGN LEGEND



SIGNAL EQUIPMENT LEGEND



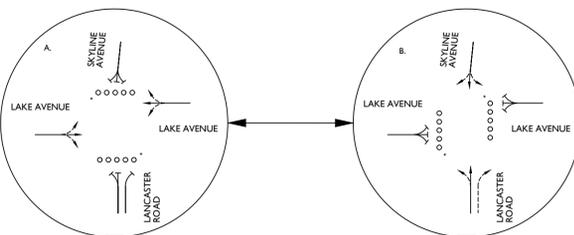
BLOCK WIRING DIAGRAM



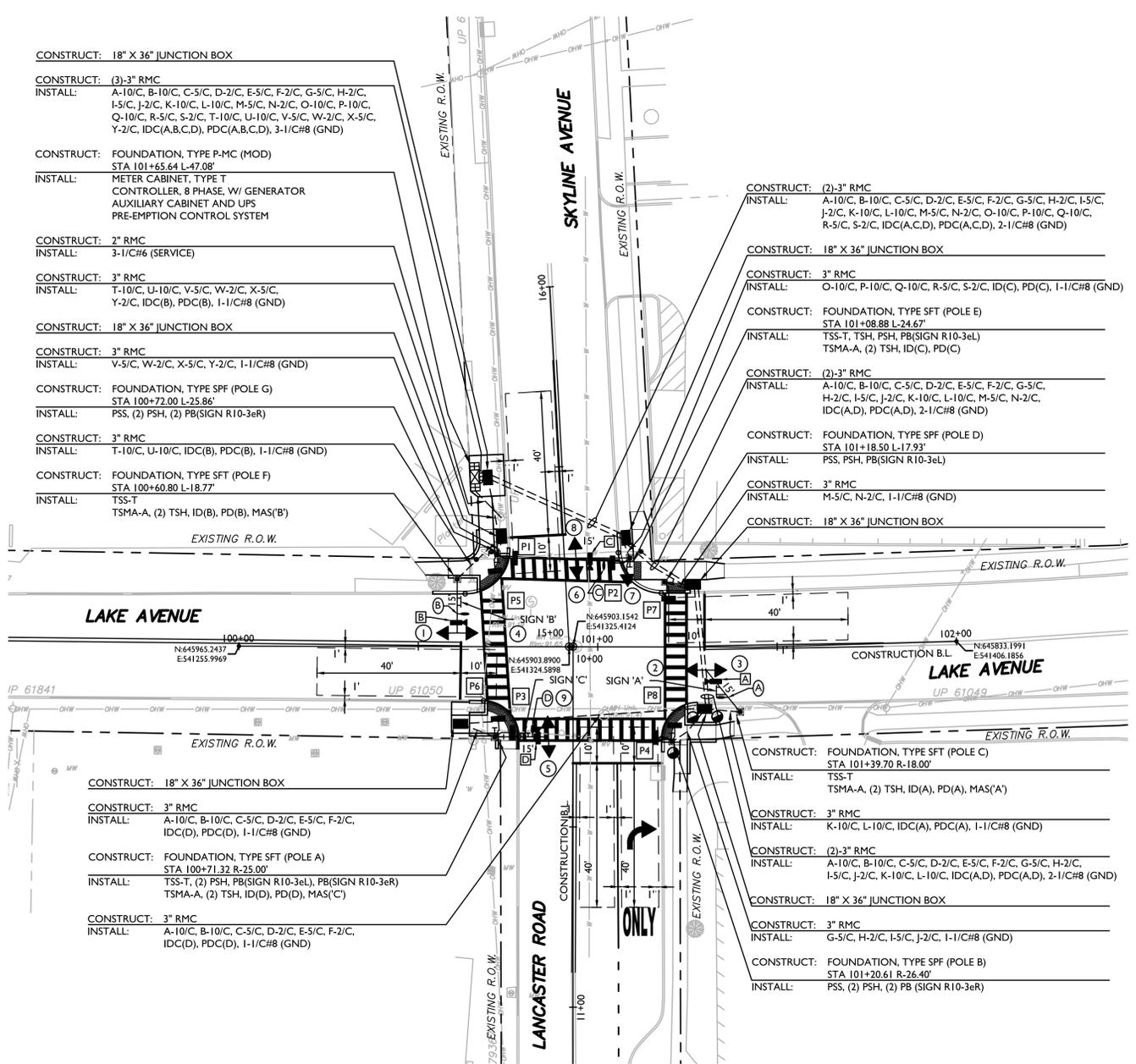
LEGEND



PHASING DIAGRAM



* ONLY OCCURS UNDER PEDESTRIAN ACTUATION

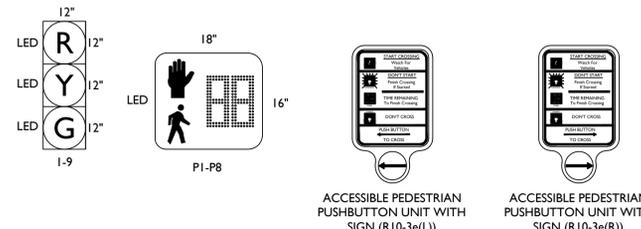


NOTES:

- SIGNAL HEAD # 7 SHALL BE MOUNTED AT A HEIGHT OF 12 FEET.
- TRAFFIC SIGNAL HEADS #1-6, 8-9 SHALL BE EQUIPPED WITH REFLECTORIZED BACKPLATES.
- VEGETATION SHALL BE TRIMMED ON THE NORTH BOUND APPROACH OF LIBERTY STREET SO THAT TRAFFIC SIGNAL HEADS ARE VISIBLE.
- ALL PEDESTRIAN PUSH BUTTONS SHALL BE MOUNTED AT A MINIMUM OF 36" AND A MAXIMUM OF 48" ABOVE THE SIDEWALK (SHOULD BE 42"). BE ADA COMPLIANT AND INCLUDE THE FOLLOWING FEATURES:
 - PUSH BUTTON LOCATOR TONE
 - A TACTILE ARROW
 - A SPEECH WALK MESSAGE FOR THE WALKING PERSON INDICATION
 - A SPEECH PUSH BUTTON INFORMATION MESSAGE
 - TYPE R10-3e PUSH BUTTON SIGN, AS INDICATED ON THE PLAN, WITH FRAME AND BRAILLE FEATURES
 - EXTENSION BRACKET
- PEDESTRIAN PUSH BUTTON CONTROLS ARE TO BE LOCATED PER THE CURRENT ADA COMPLIANCE MANUAL AND BE WITHIN 10 INCHES LATERALLY FROM THE LANDING. IF NECESSARY, CONSTRUCT FOUNDATION WITH AND AS PART OF THE SIDEWALK. RESULTING SIDEWALK CLEAR WIDTH SHALL CONFORM TO THE MINIMUM ADA REQUIREMENTS. THE EXISTING SIGNAL SHALL REMAIN IN OPERATION WHILE THE NEW SIGNAL IS BEING CONSTRUCTED. THE EXISTING SIGNAL SHALL NOT BE OPERATED IN A FIXED MODE, BUT REMAIN ACTUATED.
- IN THE CASE OF POWER FAILURE, THE TRAFFIC SIGNAL SHALL HAVE AN UNINTERRUPTIBLE POWER SUPPLY, OPERATE IN FULL OPERATION MODE FOR FOUR (4) HOURS AND AN ADDITIONAL 24 HOURS OF FLASH MODE THEREAFTER.
- IN CONJUNCTION WITH THE TRAFFIC SIGNAL WORK AT THIS LOCATION, MINIMUM CLEARANCE BETWEEN OVERHEAD POWER LINES AND TRAFFIC SIGNAL EQUIPMENT AND/OR HIGHWAY LIGHTING EQUIPMENT SHALL BE MAINTAINED BASED ON THE FOLLOWING:

POWER LINE VOLTAGES	COMMUNICATION	MINIMUM CLEARANCES
		LATERAL
PRIMARY, 750V-50kV		3 FT.
SECONDARY		2 FT.
ABOVE 50kV		6 FT.
		10 FT.
		REFER TO NJDOT UTILITY ACCOMMODATION
- THE LOCATION OF ALL EXISTING UTILITIES DEPICTED ON THE PLANS ARE TO BE CONSIDERED APPROXIMATE AND ARE BASED ON AVAILABLE DATA AS PROVIDED BY MASER CONSULTING P.A.. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING THE UTILITY LOCATIONS PRIOR TO EXCAVATION AND INFORMING THE ENGINEER OF ANY IN-FIELD ADJUSTMENTS.

PROPOSED SIGNAL LEGEND

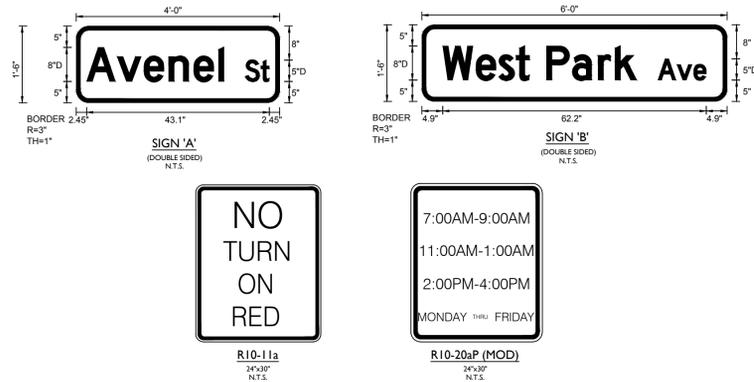


811 PROTECT YOURSELF
ALL STATES REQUIRE NOTIFICATION OF EXCAVATION. DESIGNER OR ANY PERSON PREPARING TO DISTURB THE EARTH'S SURFACE ANYWHERE IN ANY STATE.
Know what's below.
Call before you dig.
FOR STATE SPECIFIC DIRECT PHONE NUMBERS VISIT: WWW.CALL811.COM

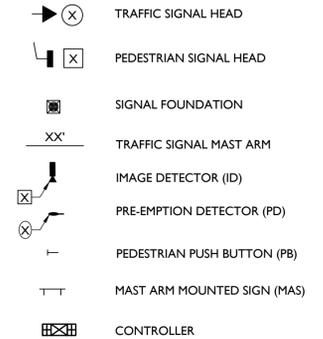
MASER CONSULTING P.A.
Customer Loyalty Through Client Satisfaction
www.maserconsulting.com
Engineers ■ Planners ■ Surveyors
Landscape Architects ■ Environmental Scientists
Office Locations:
■ Red Bank, NJ ■ Mt. Laurel, NJ ■ Newburgh, NY
■ Clinton, NJ ■ Sterling, VA ■ Westchester, NY
■ Harrison, NJ ■ Albuquerque, NM ■ Bethlehem, PA
■ Marmora, NJ ■ Albany, NY ■ Exton, PA
■ Ft. Arlington, NJ ■ Chestnut Ridge, NY ■ Tampa, FL
State of NJ, Certificate of Authorization: 24GA27966500
HAMILTON OFFICE
1000 Waterview Drive, Suite 201
Hamilton, NJ 08691
Phone: 609.587.8200 ■ Fax: 609.587.8200
email: solutions@maserconsulting.com

WOODBRIDGE TOWNSHIP
ELECTRICAL PLAN
LAKE AVE. & LANCASTER RD./SKYLINE AVE.
TRAFFIC SIGNAL MODIFICATIONS AT TWO INTERSECTIONS
WOODBRIDGE TOWNSHIP, MIDDLESEX COUNTY, NEW JERSEY
SCALE: 1" = 20'
DATE: 11/21/18
DRAWN BY: CS
CHECKED BY: AWA
PROJECT NUMBER: 18001829G
DRAWING NAME: R-PL16-ELEC
SHEET NUMBER:
ADAM W. ALLEN
NEW JERSEY PROFESSIONAL ENGINEER - LICENSE NUMBER: GE48112
09 OF 14

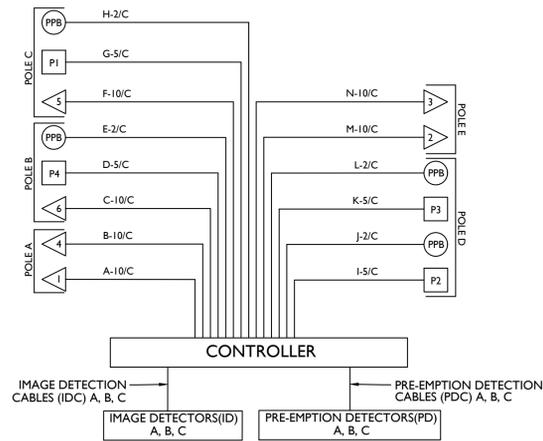
MAST ARM SIGN LEGEND



SIGNAL EQUIPMENT LEGEND



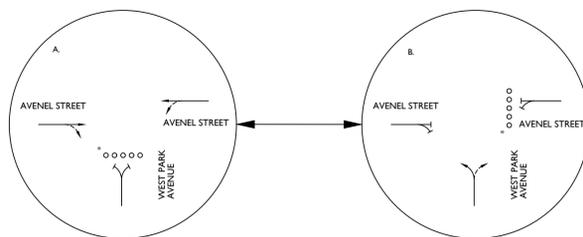
BLOCK WIRING DIAGRAM



LEGEND

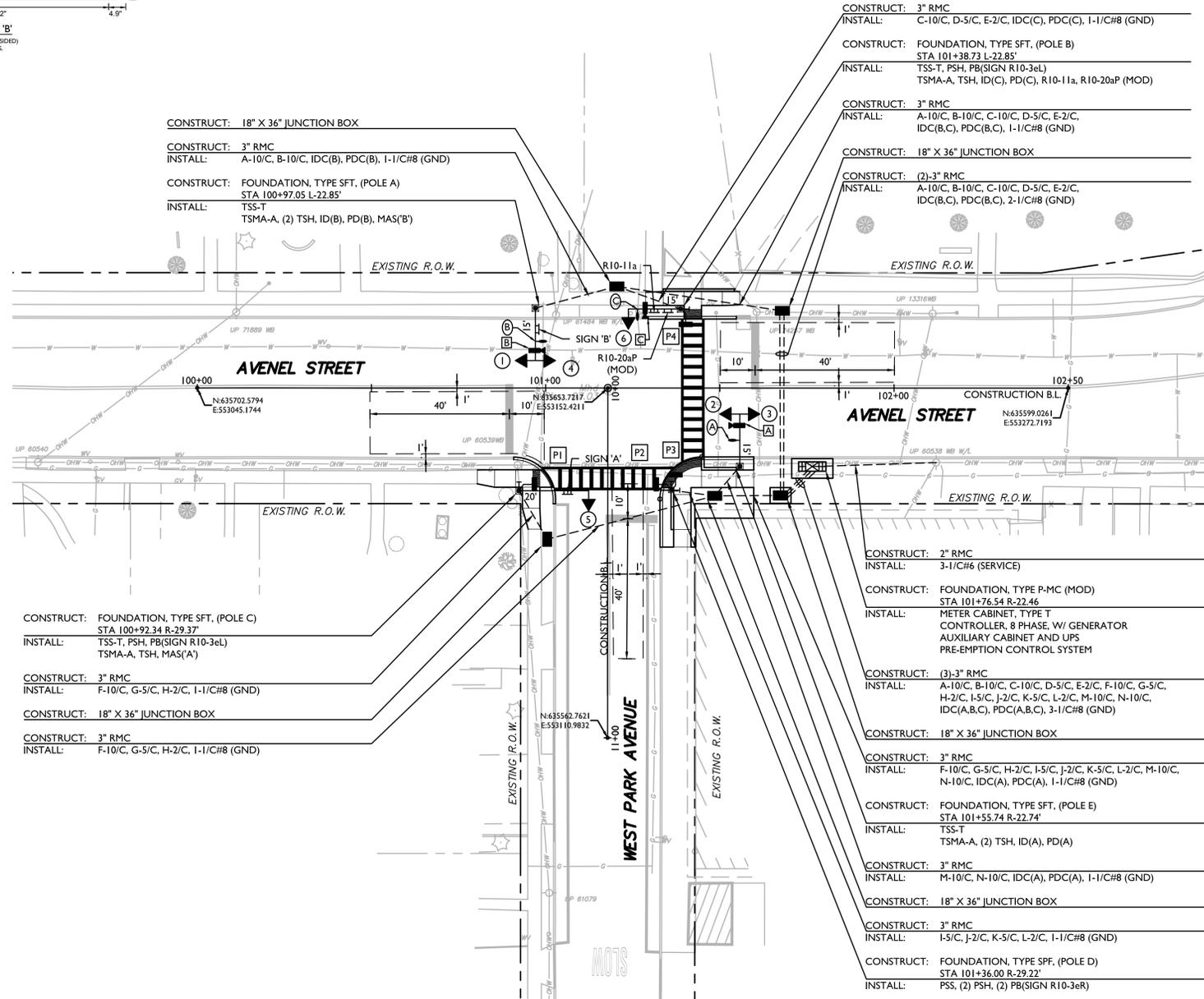
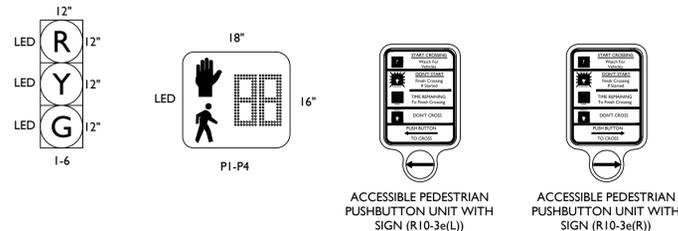


PHASING DIAGRAM



* ONLY OCCURS UNDER PEDESTRIAN ACTUATION

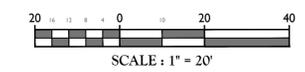
PROPOSED SIGNAL LEGEND



- NOTES:**
- ALL TRAFFIC SIGNAL HEADS SHALL BE EQUIPPED WITH REFLECTORIZED BACKPLATES.
 - ALL PEDESTRIAN PUSH BUTTONS SHALL BE MOUNTED AT A MINIMUM OF 36" AND A MAXIMUM OF 48" ABOVE THE SIDEWALK (SHOULD BE 42"), BE ADA COMPLIANT AND INCLUDE THE FOLLOWING FEATURES:
 - PUSH BUTTON LOCATOR TONE
 - A TACTILE ARROW
 - A SPEECH WALK MESSAGE FOR THE WALKING PERSON INDICATION
 - A SPEECH PUSH BUTTON INFORMATION MESSAGE
 - TYPE R10-3e PUSH BUTTON SIGN, AS INDICATED ON THE PLAN, WITH FRAME AND BRAILLE FEATURES
 - EXTENSION BRACKET
 - PEDESTRIAN PUSH BUTTON CONTROLS ARE TO BE LOCATED PER THE CURRENT ADA COMPLIANCE MANUAL AND BE WITHIN 10 INCHES LATERALLY FROM THE LANDING. IF NECESSARY, CONSTRUCT FOUNDATION WITH AND AS PART OF THE SIDEWALK. RESULTING SIDEWALK CLEAR WIDTH SHALL CONFORM TO THE MINIMUM ADA REQUIREMENTS.
 - THE EXISTING SIGNAL SHALL REMAIN IN OPERATION WHILE THE NEW SIGNAL IS BEING CONSTRUCTED. THE EXISTING SIGNAL SHALL NOT BE OPERATED IN A FIXED MODE, BUT REMAIN ACTUATED.
 - IN THE CASE OF POWER FAILURE, THE TRAFFIC SIGNAL SHALL HAVE AN UNINTERRUPTIBLE POWER SUPPLY, OPERATE IN FULL OPERATION MODE FOR FOUR (4) HOURS AND AN ADDITIONAL 24 HOURS OF FLASH MODE THEREAFTER.
 - IN CONJUNCTION WITH THE TRAFFIC SIGNAL WORK AT THIS LOCATION, MINIMUM CLEARANCE BETWEEN OVERHEAD POWER LINES AND TRAFFIC SIGNAL EQUIPMENT AND/OR HIGHWAY LIGHTING EQUIPMENT SHALL BE MAINTAINED BASED ON THE FOLLOWING:

POWER LINE VOLTAGES	MINIMUM CLEARANCES	
COMMUNICATION	LATERAL	VERTICAL
SECONDARY	6 FT.	6 FT.
PRIMARY, 750V-50kV ABOVE 50kV	10 FT.	10 FT.

 REFER TO NJDOT UTILITY ACCOMMODATION
 - THE LOCATION OF ALL EXISTING UTILITIES DEPICTED ON THE PLANS ARE TO BE CONSIDERED APPROXIMATE AND ARE BASED ON AVAILABLE DATA. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING THE UTILITY LOCATIONS PRIOR TO EXCAVATION AND INFORMING THE ENGINEER OF ANY IN-FIELD ADJUSTMENTS.



811 PROTECT YOURSELF
 ALL STATES REQUIRE NOTIFICATION OF EXCAVATION, DESIGNER OR ANY PERSON PREPARING TO DISTURB THE EARTH'S SURFACE ANYWHERE IN ANY STATE.
 Know what's below.
 Call before you dig.
 FOR STATE SPECIFIC DIRECT PHONE NUMBERS VISIT: WWW.CALL811.COM

MASER CONSULTING P.A.
 Customer Loyalty Through Client Satisfaction
 www.maserconsulting.com
 Engineers ■ Planners ■ Surveyors
 Landscape Architects ■ Environmental Scientists
 Office Locations:
 ■ Red Bank, NJ ■ Mt. Laurel, NJ ■ Newburgh, NY
 ■ Clinton, NJ ■ Sterling, VA ■ Westchester, NY
 ■ Harrison, NJ ■ Albuquerque, NM ■ Bethlehem, PA
 ■ Marmora, NJ ■ Albany, NY ■ Exton, PA
 ■ Ft. Arlington, NJ ■ Chestnut Ridge, NY ■ Tampa, FL
 State of NJ, Certificate of Authorization: 24GA2796500
HAMILTON OFFICE
 1000 Waterview Drive, Suite 201
 Hamilton, NJ 08691
 Phone: 609.587.8200 Fax: 609.587.8200
 email: solutions@maserconsulting.com

WOODBRIDGE TOWNSHIP
ELECTRICAL PLAN
 AVENEL ST. & WEST PARK AVE.
 TRAFFIC SIGNAL MODIFICATIONS AT TWO INTERSECTIONS
 WOODBRIDGE TOWNSHIP, MIDDLESEX COUNTY, NEW JERSEY

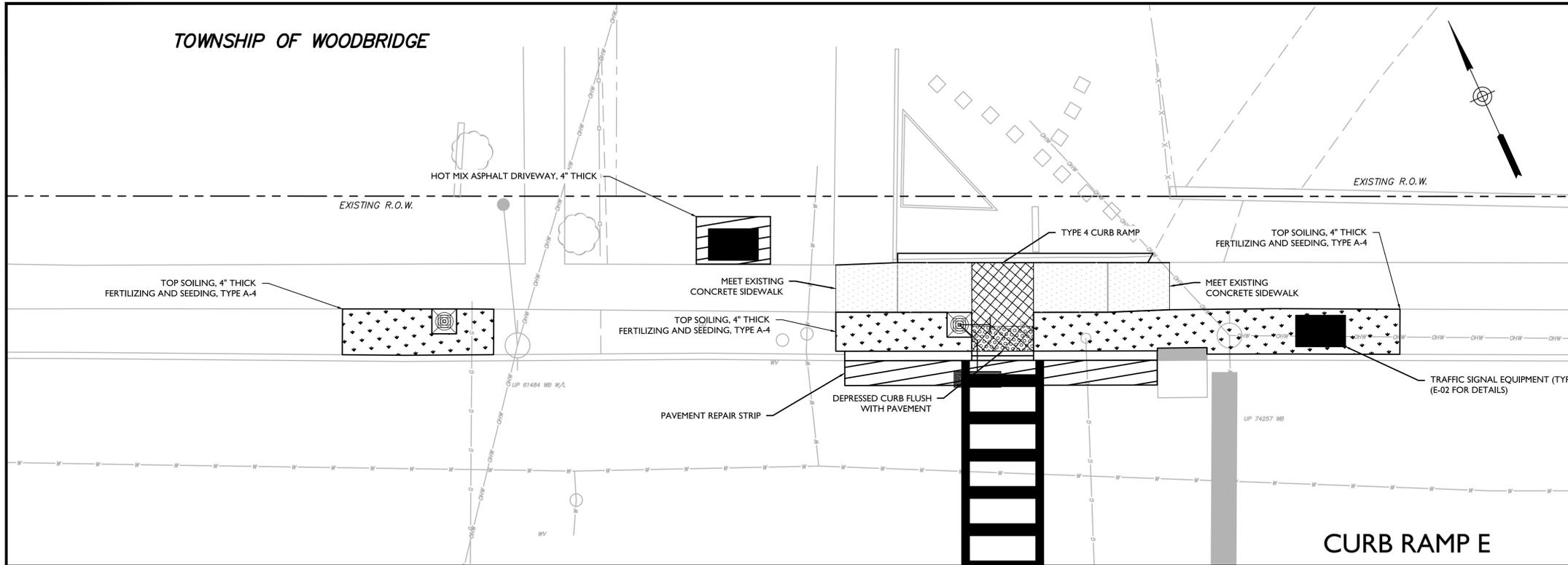
SCALE: 1" = 20'	DATE: 11/21/18	DRAWN BY: CS	CHECKED BY: AWA
PROJECT NUMBER: 18001829G	DRAWING NAME: R-PL16-ELEC		SHEET NUMBER:

ADAM W. ALLEN
 NEW JERSEY PROFESSIONAL ENGINEER - LICENSE NUMBER: GE48112

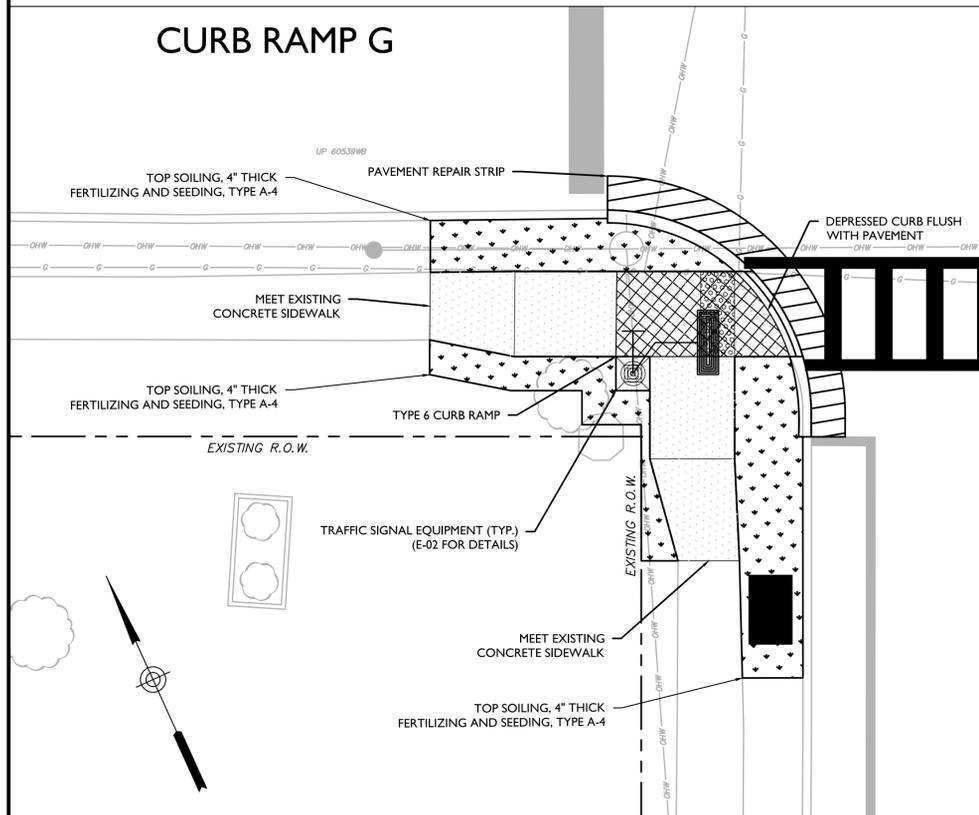
10 OF 14

CURB RAMP (CR) GENERAL NOTES:

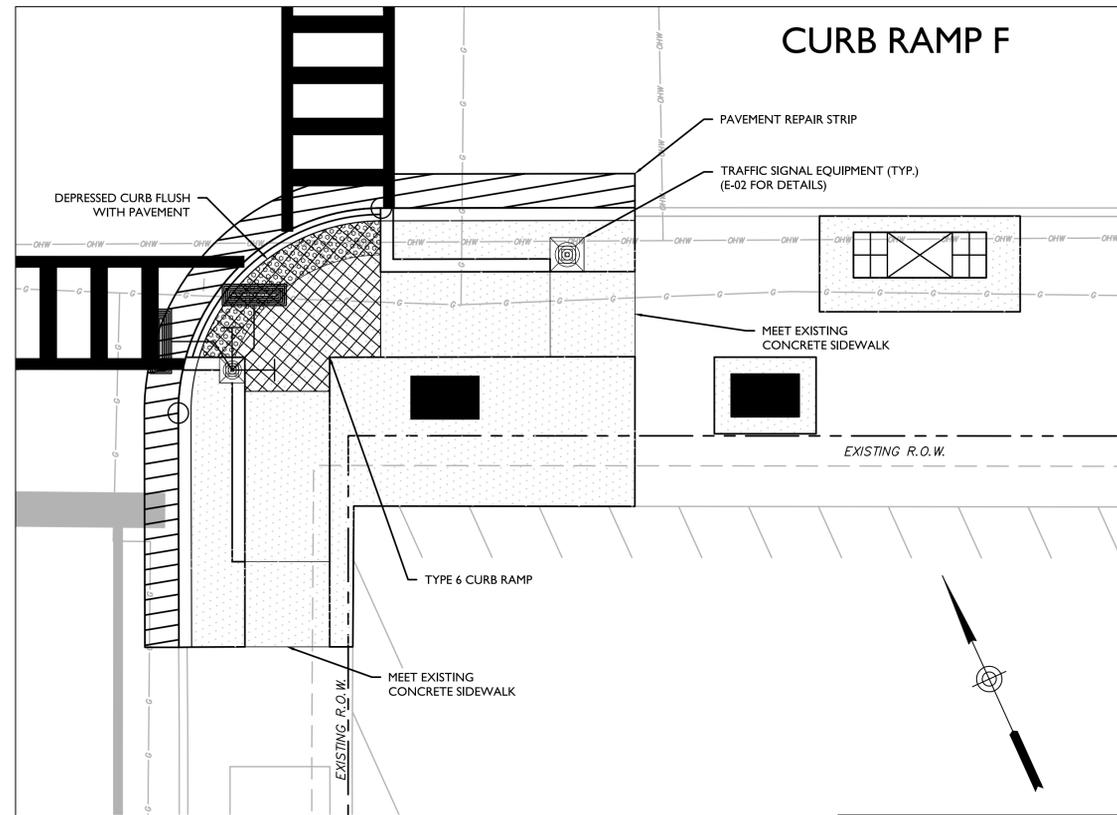
1. ALL CURB RAMP TYPES SHALL COMPLY WITH NJDOT STANDARD CONSTRUCTION DETAILS CD-606-1 THROUGH CD-606-4.
2. THE LOCATION AND ORIENTATION TO CURB RAMP SHALL BE AS SHOWN ON THE CONSTRUCTION PLAN.
3. CONCRETE SIDEWALK ALONG PROJECT FRONTAGE LIMITS AND AT CURB RAMP SHALL HAVE A MAXIMUM CROSS-SLOPE OF 2.00%. ACCESSIBLE RAMPS MUST BE IN STRICT CONFORMANCE TO THE 2010 ADA STANDARDS FOR ACCESSIBLE DESIGN AND "PROPOSED ACCESSIBILITY GUIDELINES FOR PEDESTRIAN FACILITIES IN THE PUBLIC RIGHT-OF-WAY." ALL MAXIMUM SLOPES CANNOT BE EXCEEDED. THE CONTRACTOR IS RESPONSIBLE FOR POST-CONSTRUCTION SETTLEMENT AND SHOULD PROVIDE LESS THAN MAXIMUM SLOPES AS NEEDED. WHERE ELEVATION OF THE CURB AND SIDEWALK VARY DRASTICALLY IN AREAS OF THE PROPOSED RAMPS, THE CONTRACTOR IS RESPONSIBLE FOR ADJUSTING THE RAMP SIZE SO THAT SLOPE REQUIREMENTS ARE NOT EXCEEDED.
4. THE RUNNING SLOPE OF A CURB RAMP SHALL BE 20H:1V (5%) MINIMUM AND 12H:1V (8.33%) MAXIMUM.
5. THE CROSS SLOPE OF THE CURB RAMPS SHOULD BE AS FLAT AS POSSIBLE, NOT TO EXCEED 50H:1V (2%).
6. THE RUNNING AND CROSS SLOPES ON LANDINGS IS 50H:1V (2%) MAXIMUM.
7. SIDE FLARE RATES SHALL NOT EXCEED 10H:1V (10%)
8. THE VERTICAL ALIGNMENT OF A CURB RAMP SHALL BE PLANAR. GRADE BREAKS SHALL BE FLUSH AND PERPENDICULAR TO THE DIRECTION OF THE RAMP RUN.
9. RAMP TRANSITIONS BETWEEN SIDEWALKS, LANDINGS, GUTTERS, OR STREETS SHALL BE FLUSH AND FREE OF ABRUPT VERTICAL CHANGES (1/4" MAX.)
10. A PEDESTRIAN ACCESS ROUTE (PAR) SHALL BE MAINTAINED ON ALL CORNERS OF THE INTERSECTION, SUCH THAT A CONTINUOUS AND UNOBSTRUCTED WALKWAY WITHIN THE PUBLIC RIGHT-OF-WAY PEDESTRIAN CIRCULATION PATH PROVIDES ACCESSIBILITY.
11. LANDINGS SHALL HAVE A MINIMUM CLEAR DIMENSION OF 4'-0" BY 4'-0" AND MAY BE SHARED BY ADJACENT RAMPS.
12. THE COUNTER SLOPE OF THE GUTTER OR STREET AT THE FOOT OF A CURB RAMP, LANDING, OR BLENDED TRANSITION SHALL BE 5% MAXIMUM.
13. CURB RAMPS SHALL NOT BE POURED MONOLITHICALLY BUT RATHER HAVE CLEARLY DEFINED GRADE BREAKS AS SHOWN IN THE DETAILS, DELINEATED AS NECESSARY WITH EXPANSION JOINT FILLER THAT COMPLIES WITH APPLICABLE SURFACE REQUIREMENTS.
14. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING ALL PEDESTRIAN CONTROL DEVICES, UTILITY LOCATIONS, SIGNS, STREET FURNITURE, AND DRAINAGE TO ENSURE A CONTINUOUS PEDESTRIAN ACCESS ROUTE AT ALL CURB RAMP LOCATIONS.
15. RAMPS MUST FALL WITHIN CROSSWALK LIMITS.
16. ALL PEDESTRIAN PUSH BUTTONS SHALL BE LOCATED AT A MINIMUM OF 36" AND A MAXIMUM OF 48" ABOVE THE SIDEWALK (SHOULD BE 42") AND MUST BE WITHIN 10" REACH FROM LANDING AREA. THE CONTRACTOR SHALL PROVIDE AN EXTENSION BRACKET TO MEET REQUIREMENTS IF NECESSARY



CURB RAMP E



CURB RAMP G



CURB RAMP F

LEGEND

- JUNCTION BOX
- SIGNAL FOUNDATION
- ACCESSIBLE PUSH BUTTON STATION
- PEDESTRIAN SIGNAL HEAD
- SIGNAL CONTROLLER & METER CABINET
- DEPRESSED CURB AND CRADLE
- GRADE BREAK LINE
- 4' x 4' MIN. LANDING AREA (2% IN ALL DIRECTIONS)

- NOTES:**
1. REFER TO C-01 FOR CONSTRUCTION PLAN AND E-01 FOR ELECTRICAL PLAN.



REV	DATE	DRAWN BY	DESCRIPTION

811 PROTECT YOURSELF
ALL STATES REQUIRE NOTIFICATION OF EXCAVATION DESIGNER OR ANY PERSON PREPARING TO DISTURB THE EARTH'S SURFACE ANYWHERE IN ANY STATE.
Know what's below.
Call before you dig.
FOR STATE SPECIFIC DIRECT PHONE NUMBERS VISIT: WWW.CALL811.COM

MASER CONSULTING P.A.
Customer Loyalty Through Client Satisfaction
www.maserconsulting.com
Engineers ■ Planners ■ Surveyors
Landscape Architects ■ Environmental Scientists

Office Locations:
 ■ Red Bank, NJ ■ Mt. Laurel, NJ ■ Newburgh, NY
 ■ Clifton, NJ ■ Sterling, VA ■ Westchester, NY
 ■ Hamilton, NJ ■ Albuquerque, NM ■ Bethlehem, PA
 ■ Haddonfield, NJ ■ Albany, NY ■ Exton, PA
 ■ Mt. Arlington, NJ ■ Chestnut Ridge, NY ■ Tampa, FL

State of NJ, Certificate of Authorization: 24GA2796500
HAMILTON OFFICE
 1000 Waterview Drive, Suite 201
 Hamilton, NJ 08691
 Phone: 609.587.8200 ■ Fax: 609.587.8260
 email: solutions@maserconsulting.com

WOODBRIDGE TOWNSHIP

CURB RAMP DETAILS

AVENEL ST. & WEST PARK AVE.

TRAFFIC SIGNAL MODIFICATIONS AT TWO INTERSECTIONS

WOODBRIDGE TOWNSHIP, MIDDLESEX COUNTY, NEW JERSEY

SCALE: 1" = 5'	DATE: 11/21/18	DRAWN BY: CS	CHECKED BY: AWA
PROJECT NUMBER: 18001829G	DRAWING NAME: R-PL12-RAMP		
ADAM W. ALLEN NEW JERSEY PROFESSIONAL ENGINEER - LICENSE NUMBER: GE48112			
12 OF 14			

2018/10/01 09:00:00 C:\projects\woodbridge\pl12_ramp\pl12_ramp.dwg

