# TRAFFIC SIGNAL PLANS FOR

# UNDERHILL AVENUE IMPROVEMENTS (SEQR # 22-092)

# NYS ROUTE 118 (S.H. 148) AT UNDERHILL AVENUE TOWN OF YORKTOWN WESTCHESTER COUNTY NEW YORK STATE

DESIGN TRAFFIC NYS ROUTE	
functional classification	URBAN MINOR ARTERIAL
A.A.D.T.	3,862
POSTED SPEED LIMIT	40 MPH
DESIGN SPEED	45 MPH

DESIGN TRAFFIC UNDERHILL AVENUE (WEST O	
functional classification	URBAN MINOR ARTERIAL
A.A.D.T.	9,132
POSTED SPEED LIMIT	40 MPH
DESIGN SPEED	45 MPH

DESIGN TRAFFIC UNDERHILL AVENUE (EAST C	
functional classification	URBAN MINOR ARTERIAL
A.A.D.T.	5,540
POSTED SPEED LIMIT	30 MPH
DESIGN SPEED	35 MPH

ONLY MAPS WITH THE LAND SURVEYOR OR PROFESSIONAL ENGINEER'S SEAL ARE GENUINE TRUE AND CORRECT COPIES OF THE LAND SURVEYOR OR PROFESSIONAL ENGINEER'S ORIGINAL WORK AND OPINION

## KEY MAP

SCALE: I" = 1000'

SOURCE: NEW YORK STATE GEOGRAPHIC INFORMATION SYSTEM (GIS)

THE NEW YORK STATE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS, LATEST REVISION, TO GOVERN.

STANDARD SPECIFICATION §106-11 BUY AMERICA SHALL APPLY.

NEW YORK STATE DEPARTMENT OF TRANSPORTATION STANDARD SHEETS DATED, LATEST REVISION, ARE APPLICABLE TO THIS PROJECT.

UNAUTHORIZED ALTERATION OR ADDITION TO A SURVEY OR ENGINEERING MAP BEARING A LICENSED LAND SURVEYOR OR PROFESSIONAL ENGINEER IS A VIOLATION OF SECTION 7209, SUB-DIVISION 2, OF THE NEW YORK STATE EDUCATION LAW.

	IN	NDEX OF SHEETS
NUMBER OF SHEETS	SHEET NUMBERS	DESCRIPTION
1	CS-01	COVER SHEET
2	GN-01 TO GN-02	GENERAL NOTES
4	TSP-01 TO TSP-04	TRAFFIC SIGNAL PLAN
I	WZTC-01	WORK ZONE TRAFFIC CONTROL PLAN
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DESCRIPTION	REVISED PER NYSDOT COMMENTS RECEIVED 3/19/24	REVISED PER NYSDOT 4/25/24 COMMENTS.	REVISED PER NYSDOT 5/2/24 COMMENTS.	REVISED TRAFFIC SIGNAL PLAN SHEETS PER NYSDOT SIGNAL GROUP 5/23/24 EMAIL COMMENTS.	REVISED PER NYSDOT 7/1/24 COMMENTS.	REVISED PER NYSDOT 7/31/24 COMMENTS.	revised per QA/QC review	REVISED PER NYSDOT 8/30/24 COMMENTS.	REVISED PER NYSDOT 9/20/24 COMMENTS. FINAL SET FOR PERMITTING.	REVISED FOR REBID.
DRAWN BY	M.J.A.	J.F.M.	M.J.A.	M.J.A.	M.J.A.	M.J.A.	RGD	M.J.A.	M.J.A.	M.J.A.
DATE	4/3/24	4/26/24	5/14/24	5/24/24	7/1/24	8/7/24	8/15/24	9/12/24	9/23/24	1/31/25
REV	1	2	3	4	5	9	7	8	6	10



Philip John Grealy
NEW YORK LICENSED PROFESSIONAL ENGINEER
LICENSE NUMBER: 059858-1
COLLIERS ENGINEERING & DESIGN CT, P.C.
N.Y. C.O.A #: 0017609

TRAFFIC SIGNAL PLANS

FOR
UNDERHILL AVENUE

IMPROVEMENTS (SEQR # 22-092)

NYS ROUTE 118 (S.H. 148) AT UNDERHILL AVENUE

TOWN OF YORKTOWN
WESTCHESTER COUNTY
NEW YORK

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DRAWN BY: CHECKED

AS SHOWN 1/8/23 M.J.A. R.G.E
PROJECT NUMBER: DRAWING NAME:
20006297A R-PL01-COVR-SGNL

EET TITLE:

COVER SHEET

ET NUMBER:

#### GENERAL NOTES

- I. TOPOGRAPHIC SURVEY INFORMATION HAS BEEN OBTAINED FROM A SURVEY PREPARED BY COLLIERS ENGINEERING & DESIGN, CT P.C, DATED 11/20/23. NYSDOT RECORD PLANS RC 58-097 MAY ALSO BE MADE AVAILABLE TO THE CONTRACTOR UPON REQUEST.
- 2. MATERIAL AND CONSTRUCTION SPECIFICATIONS: NEW YORK STATE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS (US CUSTOMARY) CURRENT REVISION OFFICIALLY ADOPTED AS OF THE EFFECTIVE LETTING DATE, EXCEPT AS MODIFIED IN THE CONTRACT DOCUMENTS.
- 3. CONTRACTOR SHALL FIELD VERIFY EXISTING GRADES, EXISTING STRUCTURE LOCATIONS AND OTHER EXISTING CONDITIONS PRIOR TO CONSTRUCTION AND SHALL REPORT ANY DISCREPANCIES TO THE OWNER'S REPRESENTATIVE FOR FURTHER RESOLUTION.
- 4. THE CONTRACTOR SHALL COMPLETE SURVEY TASKS (I.E., STATION ROADWAY, MARK OUT EXISTING/PROPOSED RIGHT-OF-WAY LINES, MARK OUT UTILITIES, SURVEY MANHOLES, VALVES, AND CATCH BASINS REQUIRING ADJUSTMENT TO PROVIDE A SMOOTH RIDING SURFACE AND PROMOTE PROPER DRAINAGE, ETC.) AS DIRECTED BY THE ENGINEER PRIOR TO BEGINNING ANY CONSTRUCTION WORK. PAYMENT FOR THIS WORK WILL BE MADE UNDER ITEM 625.01. ALL SURVEY NOTES FOR EACH LOCATION SHALL BE SUBMITTED TO THE ENGINEER.
- 5. THE CONTRACTOR SHALL BE AWARE THAT OTHER CONTRACTORS MAY BE WORKING IN THE AREA ON OTHER CONSTRUCTION AT THE SAME TIME THAT WORK IS PERFORMED UNDER THIS CONTRACT. THE CONTRACTOR SHALL BE REQUIRED TO COORDINATE PROJECT WORK WITH OTHER CONTRACTORS AND SHALL SCHEDULE ITS OPERATIONS SO AS TO CAUSE A MINIMUM DISRUPTION TO TRAFFIC.
- 6. THIS PROJECT INVOLVES CONSTRUCTION WITHIN AN ACTIVE ROADWAY. WORK SHALL BE PERFORMED SO AS TO ENSURE THAT PROPER TRAFFIC FLOW IS MAINTAINED DURING CONSTRUCTION. THE CONTRACTOR SHALL PROVIDE WORK ZONE TRAFFIC CONTROL IN ACCORDANCE WITH THE FEDERAL MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) INCLUDING NEW YORK STATE SUPPLEMENT, THE CONTRACT DOCUMENTS AND AS DIRECTED BY THE ENGINEER.
- 7. THE CONTRACTOR SHALL VERIFY ALL FIELD CONDITIONS AND DIMENSIONS AND SHALL BE RESPONSIBLE FOR FIELD FIT FINISH AND QUALITY OF WORK AND MATERIAL USED IN THE CONSTRUCTION. NO ALLOWANCE SHALL BE MADE ON BEHALF OF THE CONTRACTOR FOR ANY ERROR OR NEGLECT ON HIS PART.
- 8. THE CONTRACTOR IS RESPONSIBLE FOR THE REPLACEMENT AND RESTORATION OF ALL NATURAL AND MANMADE FEATURES WHETHER SHOWN ON THE PLANS OR ENCOUNTERED IN THE FIELD. IT IS THE INTENTION OF THE PLANS TO SHOW ONLY MAJOR FEATURES TO BE PROTECTED, RESTORED, OR REPLACED.
- 9. PROTECTION AND RESTORATION OF PROPERTY SHALL BE IN ACCORDANCE WITH THE NYSDOT STANDARD SPECIFICATIONS.
- 10. TOPSOIL (ITEM 610.1402 TOPSOIL ROADSIDE) SHALL BE PLACED, AND AREAS SHALL BE SEEDED (ITEM 610.1601 - TURF ESTABLISHMENT ROADSIDE) AS SOON AS FINAL GRADES ARE ESTABLISHED ON PERMANENT SLOPES. SLOPES SHALL BE MULCHED (ITEM 209.100101 - MULCH TEMPORARY).
- II. THE CONTRACTOR SHALL CONTACT ALL THE APPROPRIATE PARTIES WITH JURISDICTION OVER THE UTILITIES ENTERING ON OR NEAR THE PROJECT AREA PRIOR TO INITIATION OF CONSTRUCTION ACTIVITIES AND PROVIDE THOSE AGENCIES 72-HOURS NOTIFICATION.
- 12. THE CONTRACTOR SHALL VERIFY THE LOCATION OF AND SHALL BE RESPONSIBLE FOR THE PRESERVATION OF ALL PUBLIC AND PRIVATE UNDERGROUND AND SURFACE UTILITIES AND STRUCTURES AT OR ADJACENT TO THE SITE OF CONSTRUCTION, IN SO FAR AS THEY MAY BE ENDANGERED BY HIS OPERATIONS. THIS SHALL HOLD TRUE WHETHER OR NOT THEY ARE SHOWN ON THE CONTRACT DRAWINGS. IF THEY ARE SHOWN ON THE DRAWINGS, THEIR LOCATIONS ARE NOT GUARANTEED EVEN THOUGH THE INFORMATION WAS OBTAINED FROM THE BEST AVAILABLE SOURCES, AND IN ANY EVENT, OTHER UTILITIES NOT SHOWN ON THESE PLANS MAY BE ENCOUNTERED IN THE FIELD. THE CONTRACTOR SHALL, AT HIS OWN EXPENSE, REPAIR OR REPLACE ANY STRUCTURES OR UTILITIES THAT HE DAMAGES AND SHALL CONSTANTLY PROCEED WITH CAUTION TO PREVENT UNDUE INTERRUPTION OF UTILITY SERVICES.
- 13. IF TEMPORARY UTILITY SERVICES ARE REQUIRED, AS DETERMINED BY THE ENGINEER, THE CONTRACTOR SHALL FURNISH AND MAINTAIN SUCH SERVICES UNTIL THE ENGINEER DEEMS THEY ARE NO LONGER REQUIRED. THE CONTRACTOR SHALL PROVIDE THE TEMPORARY UTILITY SERVICES AT NO ADDITIONAL COST TO THE STATE/TOWN. ALL PAVEMENT MARKINGS AND SIGNS SHALL BE IN CONFORMANCE WITH THE MUTCD AND THE REQUIREMENTS OF THE CONTRACT DOCUMENTS.
- 14. ALL DISTURBED AREAS WITHIN THE ROW SHALL BE RESTORED AS DIRECTED BY THE ENGINEER. PAYMENT WILL BE MADE UNDER ITEM 610.1402 - TOPSOIL ROADSIDE, ITEM 610.1601 - TURF ESTABLISHMENT ROADSIDE AND ITEM 209.100101 - MULCH TEMPORARY.
- 15. THE CONTRACTOR SHALL INSTALL AND MAINTAIN SOIL EROSION AND SEDIMENT CONTROL MEASURES IN ACCORDANCE WITH §209 OF THE NYSDOT STANDARD SPECIFICATION AND STANDARD SHEETS 209-01 THROUGH 209-07.
- 16. ALL MATERIALS, SHOP, ERECTION, DEMOLITION, TEMPORARY STRUCTURE, PROCEDURAL AND OTHER DRAWINGS WHICH NEED NYSDOT APPROVAL SHALL BE SUBMITTED TO THE ENGINEER FOR DISTRIBUTION TO THE APPROPRIATE APPROVAL OFFICE. THIS INCLUDES DRAWINGS FROM FABRICATORS AND PRE-CASTERS. THE CONTRACTOR IS CAUTIONED NOT TO ORDER EQUIPMENT AND/OR MATERIALS UNTIL THE REQUIRED DRAWINGS ARE APPROVED IN WRITING.

#### EXCAVATION SPECIAL NOTES

- I. TRANSVERSE UTILITY CROSSINGS UNDER NYSDOT PAVEMENT SHALL BE A MINIMUM OF FIVE (5) FEET BETWEEN THE TOP OF THE PAVEMENT AND THE TOP OF UTILITY.
- 2. LONGITUDINAL UTILITY RUNS, OUTSIDE THE PAVEMENT LIMITS MUST BE A MINIMUM OF THREE (3) FEET FROM TOP OF GRADE TO TOP OF UTILITY. THE PAVEMENT LIMITS ARE 50 FEET FROM THE HIGHWAY CENTER LINE.
- 3. LONGITUDINAL UTILITY RUNS SHOULD BE KEPT AS CLOSE TO THE RIGHT OF WAY LINE OR AS FAR FROM THE PAVEMENT AS POSSIBLE.
- 4. ANY EXCAVATION WHICH EXCEEDS FIVE FEET IN DEPTH AND HAS LIVE TRAFFIC OR UTILITIES WITHIN IV: IH PROJECTION FROM THE BOTTOM EXCAVATION SHALL UTILIZE A SHEETING/SHORING SYSTEM WHICH PROVIDES DIRECT CONTACT AND SUPPORT OF THE EXCAVATION SIDES (A TRENCH BOX DOES NOT MEET THESE REQUIREMENTS). THE CONTRACTOR SHALL PROVIDE VERIFICATION (I.E., MANUFACTURER'S DATA SHEETS AND/OR P.E. DESIGN COMPUTATIONS) TO THE ENGINEER DEMONSTRATING THAT THE SYSTEM CHOSEN CAN ACCOMMODATE THE ANTICIPATED SOIL, WATER, TRAFFIC AND SURCHARGE LOADINGS. PAYMENT SHALL BE MADE UNDER ITEM 552.17 -SHIELDS AND SHORING AS SPECIFIED IN THE CONTRACT DOCUMENTS
- 5. DESIGN DOCUMENTS FOR PREFABRICATED "SHEETING BOX," WHERE USED, SHALL BE SIGNED AND SEALED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF NEW YORK.

#### **EXISTING UTILITIES**

I. THE UTILITY LOCATION QUALITY LEVEL LABELING CONVENTION SHOWN ON THE PLANS DOES NOT RELIEVE THE CONTRACTOR OF HIS OBLIGATIONS UNDER SECTIONS 660 THROUGH 680 OF THE STANDARD SPECIFICATIONS.

#### THE OUALITY LEVEL DEFINITIONS ARE:

QUALITY LEVEL A - THE HIGHEST DEGREE OF ACCURACY; THE UTILITY INFORMATION ON THE CONTRACT PLANS HAS BEEN FIELD LOCATED AND VERIFIED BY EXCAVATION, WHEN APPROPRIATE. (SHOWN AS QLA)

OUALITY LEVEL B - SUBSURFACE GEOPHYSICAL LOCATING TECHNIQUES (THAT IS, UNDERGROUND CAMERAS, RADAR, SONAR, TONE OUTS, ETC.) AND EXISTING RECORD PLANS HAVE BEEN USED TO LOCATE UTILITIES. NO EXCAVATIONS WERE PERFORMED. (SHOWN AS QLB)

QUALITY LEVEL C - RECORD INFORMATION PROVIDED BY UTILITY OWNERS WAS PLOTTED ON THE CONTRACT PLANS. DEPTHS WERE NOT FIELD VERIFIED, PHYSICAL SURFACE FEATURES LIKE MANHOLES, VALVE BOXES AND HYDRANTS HAVE BEEN FIELD LOCATED. (SHOWN AS QLC)

QUALITY LEVEL D - EXISTING NYSDOT AND UTILITY COMPANY RECORDS WERE USED TO LOCATE SUBSURFACE UTILITIES. (SHOWN AS QLD)

THE UTILITY QUALITY LEVELS FOR ALL PLAN SHEETS IN THIS CONTRACT ARE AS FOLLOWS:

UTILITIES	QUALITY LE
ELECTRIC	QLD
GAS	QLD
TELEPHONE	QLD
CABLE TV	QLD
SEWER	QLB
DRAINAGE	QLB
NYSDOT LIGHTING	QLD
WATER	QLB

- 2. IT IS THE RESPONSIBILITY OF THE CONTRACTOR, UNDER PART 753 OF THE NEW YORK STATE INDUSTRIAL CODE. TO DETERMINE THE EXACT LOCATION OF THE UNDERGROUND FACILITIES PRIOR TO WORKING IN THE AREA. ANY DAMAGE CAUSED BY THE CONTRACTOR'S OPERATIONS SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.
- 3. THE CONTRACTOR IS ALERTED TO THE FACT THAT THE PROVISIONS OF NEW YORK STATE INDUSTRIAL CODE, PROTECTION OF UNDERGROUND FACILITIES, APPLY TO THIS PROJECT. NO DIRECT PAYMENT FOR ANY WORK REQUIRED BY THE CODE WILL BE MADE. WHERE EXISTING UTILITIES ARE LOCATED WITHIN THE CONTRACT LIMITS, THE CONTRACTOR SHALL PROVIDE AT LEAST 72 HOURS' NOTICE BEFORE PERFORMING ANY WORK AT OR NEAR UNDERGROUND FACILITIES. THE CONTRACTOR WILL BE RESPONSIBLE FOR ASSERTING THE ACTUAL LOCATION OF ALL UTILITIES NOT MARKED OUT THROUGH THE ONE CALL CENTER.
- 4. ALL EXISTING UTILITIES WITHIN THE LIMITS OF THE WORK ZONE WILL BE SERVICED AND MAINTAINED BY THE UTILITY COMPANY OR ORGANIZATION HAVING CONTROL AND JURISDICTION THEREOF. THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES TO ACCOMMODATE THESE MAINTENANCE REQUIREMENTS. NO SEPARATE PAYMENT IS MADE FOR THIS WORK. THE COST OF THIS EFFORT IS TO BE INCLUDED UNDER THE VARIOUS ITEMS OF THE CONTRACT.
- 5. THE ENGINEER SHALL BE NOTIFIED A MINIMUM OF 5 WORKING DAYS IN ADVANCE OF ALL COMMUNICATION AND COORDINATION MEETINGS RELATED TO THIS PROJECT BETWEEN THE CONTRACTOR AND ANY UTILITY COMPANY.
- 6. THE CONTRACTOR IS ADVISED THAT DURING THE COURSE OF THIS WORK IT MAY BECOME NECESSARY TO DETERMINE THE PRESENCE OF EXISTING UNDERGROUND UTILITY TYPE, SIZE, PROXIMITY AND/OR CONDITION BY MEANS OF EXCAVATION WHICH IS NON-DESTRUCTIVE AND IS LOCALIZED AND DOES NOT CAUSE ANY DIRECT OR INDIRECT DAMAGE TO THE EXISTING UTILITY IN ANY WAY. AT ALL SUCH LOCATIONS OR AS DIRECTED BY THE ENGINEER, THE CONTRACTOR SHALL EXCAVATE AND BACKFILL TEST PITS OR EXAMINATION PITS BY HAND AND/OR VACUUM EXCAVATION IN A MANNER THAT IS APPROVED BY THE ENGINEER AND PREVENTS DAMAGE TO THE WRAPPING, COATING OR OTHER PROTECTIVE COVERING OF THE UTILITY LINE. THE SIZE OF THE EXCAVATION SHALL BE SUFFICIENT TO DETERMINE THE PRESENCE OF EXISTING UNDERGROUND UTILITY TYPE, SIZE, PROXIMITY AND/OR CONDITION. THE PAYMENT SHALL BE INCLUDED AT A SET QUANTITY OF 2.5 CY PER TEST HOLE REGARDLESS OF THE SIZE OF THE TEST PIT HOLE.

	Table of Maintenance Jurisdiction								
Highway	Limits	Limits Features to Be Maintained		Agency	Jurisdiction				
NYS ROUTE 118 (S.H. 148)	STA 124+07.18 to STA 128+71.97	Sidewalks, landscaped areas & sidewalk snow removal	0.09	Town of Yorktown	Section 140 of Highway Law				
NYS ROUTE 118 (S.H. 148)	STA 123+61.63	Traffic Signal No. W-213	-	New York State	Sections 340 of Highway Law				
NYS ROUTE 118 (S.H. 148)	STA 124+07.18 to STA 128+71.97	All other features including pavement snow removal, curbing, pavement markings, and signs	0.09	New York State	Sections 340 of Highway Law				
NYS ROUTE 118 (S.H. 148)	STA 127+52.30 to STA 128+89.83	Drainage Structures DMH-10 its inlet and outlet pipes, and the end section terminus ES-2	0.03	370 Underhill Avenue Property Owner	-				
Underhill Avenue	STA P119+12.55 to STA P124+12.87 and STA P125+86.49 to STA P+127+83.45	Sidewalks, landscaped areas & sidewalk snow removal, pavement snow removal, curbing, pavement markings, signs and drainage.	0.13	Town of Yorktown	Section 10 of Highway Law				

- 1) Intersecting roads or driveways not on the State Highway system shall be maintained by the owning agency, municipality, or private individual(s) from the extension of the outside edge of shoulder, or curb line, or back of ditch of the state highway to the limit of work as shown on the contract plans.
- 2) All existing sanitary sewers and other sewers not deemed to be part of the project by the commissioner, water mains, hydrants and other municipally or privately owned facilities within the limits of the highway Right-of-Way which remain in service unchanged and all such facilities relocated or protected as part of the work performed under this project, whether crossing, located within or adjacent to the R.O.W., shall be maintained, as the case may be, by the municipality or by the agency or unit owning or having control and jurisdiction thereof at no cost or expense to the State.

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	REV	DATE	DRAWN BY	DESCRIPTION
	1	4/3/24	M.J.A.	REVISED PER NYSDOT COMMENTS RECEIVED 3/19/24
	2	4/26/24	J.F.M.	REVISED PER NYSDOT 4/25/24 COMMENTS.
	3	5/14/24	M.J.A.	REVISED PER NYSDOT 5/2/24 COMMENTS.
Ш	4	5/24/24	M.J.A.	REVISED TRAFFIC SIGNAL PLAN SHEETS PER NYSDOT SIGNAL GROUP 5/23/24 EMAIL COMMENTS.
	5	7/1/24	M.J.A.	REVISED PER NYSDOT 7/1/24 COMMENTS.
	9	8/7/24	M.J.A.	REVISED PER NYSDOT 7/31/24 COMMENTS.
	7	8/15/24	RGD	revised per QA/QC review
	8	9/12/24	M.J.A.	REVISED PER NYSDOT 8/30/24 COMMENTS.
Ш	6	9/23/24	M.J.A.	REVISED PER NYSDOT 9/20/24 COMMENTS. FINAL SET FOR PERMITTING.
	10	1/31/25	M.J.A.	REVISED FOR REBID.



Philip John Greaty NEW YORK LICENSED PROFESSIONAL ENGINEER LICENSE NUMBER: 059858-1 COLLIERS ENGINEERING & DESIGN CT, P.C. N.Y. C.O.A #: 0017609

TRAFFIC SIGNAL PLANS

UNDERHILL AVENUE **IMPROVEMENTS** (SEQR # 22-092)

NYS ROUTE 118 (S.H. 148) AT UNDERHILL AVENUE

TOWN OF YORKTOWN WESTCHESTER COUNTY **NEW YORK** 

Colliers Engineering & Design

WESTCHESTER 400 Columbus Avenue, Suite 180E Valhalla, NY 10595 Phone: 914.347.7500 ARCHITECTURE, LANDSCAPE ARCHITECT SURVEYING CT, P.C.

1/8/23 AS SHOWN M.J.A. R-PL02-NOTE-SGNL 20006297A

**GENERAL NOTES** 

GN-01

#### I. GENERAL

THE CONTRACTOR SHALL MAINTAIN TRAFFIC THROUGHOUT THE LENGTH OF THE CONTRACT IN ACCORDANCE WITH THE REQUIREMENTS OF \SECTION 619 OF THE NYSDOT STANDARD SPECIFICATIONS, MUTCD AND THE CONTRACT DOCUMENTS, WHERE PROVIDED, OR AS ORDERED BY ENGINEER (A.O.B.E.)

#### 2. CONSTRUCTION EQUIPMENT & MATERIALS

CONTRACTOR EQUIPMENT, WHEN NOT IN USE, AND MATERIALS AWAITING INSTALLATION SHALL BE PROPERLY STORED, STOCKPILED, AND SITED IN A PROTECTED LOCATION (I.E., BEHIND A PHYSICAL BARRIER OR IN SUCH A MANNER THAT HORIZONTAL CLEARANCE OF AT LEAST 30 FEET IS PROVIDED FROM THE OUTSIDE EDGE OF THE TRAVELED WAY) AND SHALL NOT CONSTITUTE A TRAFFIC HAZARD NOR INTERFERE WITH DRAINAGE COURSES. MATERIALS OR EQUIPMENT SHALL NOT BE LEFT IN FRONT OF OR WITHIN THE DEFLECTION DISTANCE BEHIND GUIDE RAIL AND SAFETY APPURTENANCES SO AS TO COMPROMISE THEIR PERFORMANCE.

#### 3. PARKING VEHICLES

PRIVATE VEHICLES OWNED BY THE CONTRACTOR AND ITS EMPLOYEES SHALL NOT BE PARKED ON THE PAVEMENT OR SHOULDERS, OR ANY OTHER AREAS DEEMED BY THE ENGINEER TO BE HAZARDOUS LOCATIONS.

#### 4. WORK ZONES

WORK ZONES SHALL BE LIMITED TO ONE SIDE OF THE TRAVELED WAY AT A TIME, UNLESS APPROVED BY THE ENGINEER. WORK ZONES ON OPPOSITE SIDES OF THE ROAD SHALL NOT OVERLAP. A WORK ZONE IS DEFINED AS THE AREA IN WHICH TRAFFIC IS RESTRICTED BECAUSE OF CONSTRUCTION ACTIVITIES OR THAT AREA WHICH INVOLVES A DROP-OFF NEXT TO THE PAVEMENT. IN SPECIAL CASES THE LONGITUDINAL DISTANCE BETWEEN WORK ZONES OR THE LENGTH OF THE WORK ZONE MAY BE LIMITED BY THE ENGINEER.

#### 5. OVERLAPPING WORK AREAS

THE CONTRACTOR SHALL COORDINATE HIS WORK SO THERE IS NO CONFLICT IN CONSTRUCTION SIGNING IN OVERLAPPING WORK AREAS AND SO THAT LANE CONTINUITY IS MAINTAINED BETWEEN WORK AREAS. THE CONTRACTOR SHALL COORDINATE HIS WORK WITH ANY OTHER CONTRACTORS, PUBLIC MAINTENANCE, OR UTILITIES COMPANY'S OPERATIONS IN THE AREA TO ENSURE PROPER WORK ZONE TRAFFIC CONTROL.

#### 6. CONES, DRUMS, BARRICADES AND MARKERS

CHANNELIZING DEVICES AND THEIR PLACEMENT SHALL CONFORM WITH THE REQUIREMENTS OF NYSDOT STANDARD SPECIFICATION §619-3.02J AND THE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL MAKE CERTAIN PLACEMENT OF THE CONES, DRUMS, AND MARKERS OR BARRICADES SHALL NOT INTERFERE WITH SIGHT DISTANCE.

#### 7. VEHICLE RESTRICTIONS

WHENEVER CONSTRUCTION CONDITIONS RESTRICT PASSAGE BY OVERSIZED VEHICLES, THE CONTRACTOR SHALL GIVE WRITTEN NOTICE TO THE REGIONAL PERMIT ENGINEER. THE NOTICE SHALL INCLUDE THE EXACT LOCATION, NATURE AND MAXIMUM ALLOWABLE WIDTH, WEIGHT, AND OTHER FACTORS. THIS WRITTEN NOTICE SHALL BE GIVEN ONE WEEK PRIOR TO THE BEGINNING OF THE RESTRICTION. VERBAL NOTICE SHALL BE GIVEN UPON TERMINATION OF THE RESTRICTION.

#### 8. TAPER LENGTHS

TAPER LENGTHS FOR CLOSURES AND LATERAL SHIFTS OF TRAVEL LANES SHALL CONFORM TO STANDARD SHEET 619-011 TABLE 011-02 BASED ON THE PRECONSTRUCTION POSTED SPEED LIMIT AS IDENTIFIED ON SHEET NO. CS-01 OR AS DIRECTED BY THE ENGINEER.

#### 9. TEMPORARY PAVEMENT MARKINGS

THE CONTRACTOR SHALL INSTALL AND MAINTAIN TEMPORARY PAVEMENT MARKINGS IN ACCORDANCE WITH THE CONTRACT DOCUMENTS, USING PATTERNS AND COLORS SHOWN IN THE MUTCD TO ESTABLISH TEMPORARY TRAFFIC PATTERN(S) DURING CONSTRUCTION ON ANY PAVEMENT, INCLUDING MILLED OR GROOVED SURFACE, RESURFACED, NEW PAVEMENT, OR OTHER PAVED SURFACE WITHOUT PAVEMENT MARKINGS, FOR A MAXIMUM OF 14 CALENDAR DAYS. THIS SHALL INCLUDE AT ALL APPROPRIATE LOCATIONS, EDGE LINES, LANE LINES, (SOLID OR BROKEN), CHANNELIZING LINES, DOTTED LINES, PLUS ANY MARKINGS ORDERED BY THE ENGINEER. ALL MARKINGS SHALL BE APPLIED IN ACCORDANCE WITH THE NYSDOT STANDARD SPECIFICATION §619-3.06 AND THE MUTCD AND SHALL INDICATE ACTUAL CONDITIONS AT ALL TIMES.

TRAFFIC PAINT NEED NOT BE REMOVED BEFORE PLACING A SUBSEQUENT PAVEMENT COURSE. REMOVABLE PAVEMENT TAPE, REMOVABLE WET-NIGHT REFLECTIVE TAPE, TEMPORARY OVERLAY MARKERS AND REMOVABLE RAISED PAVEMENT MARKERS SHALL BE REMOVED BEFORE PLACING A SUBSEQUENT PAVEMENT COURSE AT NO ADDITIONAL COST TO THE STATE.

TEMPORARY PAVEMENT MARKING STRIPES SHALL BE A MINIMUM OF 4 INCHES IN WIDTH. TEMPORARY PAVEMENT MARKINGS SHALL BE APPLIED TO A CLEAN, DRY PAVEMENT IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. HATCH LINES AND SYMBOLS WILL NOT BE REQUIRED AS TEMPORARY PAVEMENT MARKINGS UNLESS REQUIRED BY THE CONTRACT DOCUMENTS.

#### 10. SIGNS

THE CONTRACTOR SHALL INSTALL AND MAINTAIN CONSTRUCTION SIGNS IN GOOD CONDITION TO ADEQUATELY AND SAFELY INFORM AND DIRECT MOTORISTS, BICYCLISTS, AND PEDESTRIANS. EXISTING AND CONSTRUCTION SIGNS SHALL INDICATE ACTUAL ROADWAY CONDITIONS, AND SHALL BE COVERED, UNCOVERED, CHANGED, RELOCATED, OR REMOVED IMMEDIATELY TO REFLECT CURRENT CONDITIONS AT ALL TIMES AND AT THE DIRECTION OF THE ENGINEER. CONSTRUCTION SIGNS SHALL BE COVERED OR REMOVED WHEN THEY NO LONGER INDICATE ACTUAL CONDITIONS. THE CONTRACTOR SHALL PROVIDE MEASURES TO PROTECT WORKERS DURING PLACEMENT AND REMOVAL OF CONSTRUCTION SIGNS ADEQUATE FOR THE PREVAILING SPEED, VOLUME OF TRAFFIC AND ROADWAY GEOMETRY WHERE THE WORK IS TO OCCUR. SUCH PROTECTION MAY INCLUDE. BUT IS NOT LIMITED TO, THE USE OF FLAGGERS, SPOTTERS, AND SHADOW VEHICLES EQUIPPED WITH TRUCK-MOUNTED OR TRAILER MOUNTED ATTENUATORS. WHERE PEDESTRIAN ACCESS IS PROHIBITED, WORKERS SHALL NOT CROSS OR ENTER TRAVEL LANES OPEN TO TRAFFIC.

ALL SIGNS SHALL BE KEPT CLEAN, MOUNTED AT THE REQUIRED HEIGHT ON ACCEPTABLE SUPPORTS AND INSTALLED IN THE PROPER POSITION, ALIGNMENT, AND ORIENTATION SO AS TO GIVE MAXIMUM VISIBILITY. CONSTRUCTION SIGNS WILL BE EVALUATED FOR ACCEPTABILITY IN ACCORDANCE WITH THE AMERICAN TRAFFIC SAFETY SERVICES ASSOCIATION (ATSSA) QUALITY GUIDELINES FOR WORK ZONE TRAFFIC CONTROL DEVICES. WHEN AUXILIARY PANELS ARE MOUNTED ABOVE OR BELOW A WARNING OR REGULATORY SIGN, THEY SHALL NOT COVER ANY PART OF THE WARNING OR REGULATORY SIGN. SIGNS SHALL BE PLACED SO THAT EACH SIGN IS VISIBLE AT NIGHT, AT THE DESIRED DISTANCE, WITHOUT BEING OBSCURED BY ANOTHER SIGN, EXISTING FEATURES ON THE HIGHWAY, OR FOLIAGE. THE FACES OF STORED SIGNS SHALL NOT BE VISIBLE TO TRAFFIC IN ANY DIRECTION, REGARDLESS OF THE ORIENTATION OF THE SIGN. SIGN PANELS, MOUNTINGS, AND SIGN COVERINGS SHALL BE IN ACCORDANCE WITH NYSDOT STANDARD SPECIFICATIONS §619-3.02H.

#### 11. GUIDE RAIL WORK

ANY FREE ENDS OF GUIDE RAIL SHALL BE PROTECTED FROM IMPACT AT THE DIRECTION OF THE ENGINEER. THE COST OF TEMPORARILY TERMINATING GUIDE RAIL SHALL BE INCLUDED IN THE BASIC WORK ZONE TRAFFIC CONTROL ITEM. WHEN CONSTRUCTION OPERATIONS REQUIRE THE TEMPORARY REMOVAL OF GUIDE RAIL OR MEDIAN BARRIER, OR WHEN EXISTING RAIL WILL BE REMOVED AND REPLACED WITH NEW RAIL, THE CONTRACTOR SHALL SCHEDULE OPERATIONS TO MINIMIZE THE TIME PERIOD THAT RAIL IS NOT INSTALLED. GUIDE RAIL OR MEDIAN BARRIER SHALL BE REPLACED, OR THE LOCATION OTHERWISE PROTECTED WITHIN 14 CALENDAR DAYS.

DURING NON-WORK HOURS WHEN TRAFFIC IS BEING MAINTAINED ON THE FACILITY, ALL TEMPORARY ENDS (FREE ENDS) OF GUIDE RAIL AND MEDIAN BARRIER SHALL BE TEMPORARILY TERMINATED AND MARKED WITH A CHANNELIZING DRUM OR OBJECT MARKER EQUIPPED WITH A TYPE A FLASHING WARNING LIGHT. CORRUGATED BEAM GUIDE RAIL AND MEDIAN BARRIER, AND HEAVY-POST, BLOCKED-OUT, CORRUGATED BEAM GUIDE RAIL AND MEDIAN BARRIER SHALL BE TEMPORARILY TERMINATED BY HAVING THE EXPOSED ENDS (FREE ENDS) DROPPED TO THE GROUND AND PINNED. THE APPROACH ENDS OF BOX BEAM GUIDE RAIL AND MEDIAN BARRIER SHALL BE TEMPORARILY TERMINATED WITH BOX BEAM GUIDE RAIL END ASSEMBLIES UTILIZING TWO SPLICE PLATES AND THE PROPER NUMBER OF BOLTS PER CONNECTION. NO POSTS FOR ANCHORAGES WILL BE REQUIRED. SPECIAL TEMPORARY SPLICE PLATES ARE REQUIRED TO ADAPT BOX BEAM GUIDE RAIL END ASSEMBLIES TO BOX BEAM MEDIAN BARRIERS.

DURING ANY OVERNIGHT PERIOD WHEN EXISTING GUIDE RAIL OR MEDIAN BARRIER IS TEMPORARILY REMOVED, THE CONTRACTOR SHALL INSTALL CHANNELIZING DEVICES IN THE LOCATION WHERE THE GUIDE RAIL OR MEDIAN BARRIER WAS REMOVED IN ACCORDANCE WITH NYSDOT STANDARD SPECIFICATIONS §619-3.02J.6.

FOR EACH CALENDAR DAY WHICH THERE ARE SUBSTANTIAL DEFICIENCIES IN COMPLIANCE WITH THE REQUIREMENTS OF THIS SECTION, NO PAYMENT WILL BE MADE UNDER THE BASIC WORK ZONE TRAFFIC CONTROL ITEM.

#### 12. PRELIMINARY WORK

PRIOR TO THE START OF ANY CONSTRUCTION PHASE, ALL PROPOSED WORK ZONE TRAFFIC CONTROL RELATED WORK FOR THAT PHASE, AS DETERMINED BY THE ENGINEER, SHALL BE COMPLETE. THIS INCLUDES WHERE APPLICABLE, ALL SIGNS, SIGNALS, PAVEMENT MARKINGS, BARRIERS, DELINEATION (CONES, DRUMS, ETC.) PAVEMENT MODIFICATION AND ANY OTHER RELATED WORK

IN THE EVENT THE CONTRACTOR SHUTS DOWN HIS OPERATION FOR THE WINTER MONTHS, THE ENTIRE HIGHWAY SYSTEM SHALL BE OPENED TO TRAFFIC. ALL EXISTING SIGNS SHALL BE RESTORED TO THEIR ORIGINAL CONDITION AND/OR LOCATION AT THE DIRECTION OF THE ENGINEER. ALL CONSTRUCTION SIGNS SHALL BE REMOVED OR COVERED.

ROADWAY AREAS TEMPORARILY CLOSED FOR TRENCH, CULVERT OR CONDUIT EXCAVATION SHALL BE REOPENED AT THE END OF THE WORK SHIFT. WHEN WORK IS NOT IN PROGRESS ALL OPENINGS IN THE ROADWAY SHALL BE COVERED WITH ANCHORED STEEL PLATES OR SHALL BE BACKFILLED IN ACCORDANCE WITH § 680-3.09 TO A DEPTH OF 3 INCHES BELOW THE ADJACENT UNEXCAVATED AREA OR TO A DEPTH AS DIRECTED BY THE ENGINEER. THE TEMPORARY RESTORATION SHALL BE COMPLETED WITH A LAYER OF PLANT BITUMINOUS MATERIAL UP TO THE LEVEL OF THE ADJACENT UNEXCAVATED AREA TO THE SATISFACTION OF THE ENGINEER. THE TEMPORARY RESTORATION SHALL BE MAINTAINED UNTIL ITS REMOVAL AT NO ADDITIONAL COST TO THE STATE/TOWN. ANY RE-EXCAVATION OF TEMPORARY RESTORATION AREAS SHALL BE INCLUDED IN THE PRICE BID FOR RESPECTIVE EXCAVATION ITEM WITH NO EXTRA PAYMENT.

IF STEEL PLATES ARE USE, THE CONTRACTOR SHALL SUBMIT THE PROPOSED METHOD OF ANCHORING THE STEEL PLATES TO THE ENGINEER FOR HIS APPROVAL PRIOR TO THE STARTING OF ANY ROADWAY EXCAVATION. THE STEEL PLATES SHALL BE RAMPED WITH A BITUMINOUS MATERIAL PRIOR TO OPENING

THE CONTRACTOR MUST NOTIFY PROPERTY OWNERS AT LEAST ONE DAY IN ADVANCE OF CLOSING DRIVEWAYS AND HAS THE RESPONSIBILITY TO MAINTAIN SAFE AND PROPER ACCESS TO BUILDINGS IN THE VICINITY OF CONSTRUCTION. THE CONTRACTOR SHALL MAINTAIN ACCESS TO AND FROM FIRE HOUSES AT ALL TIMES.

THE CONTRACTOR SHALL PROVIDE FLAGGERS WHERE SIGHT DISTANCES ARE IMPAIRED BY HIS OPERATION OR AS DIRECTED BY THE ENGINEER.

THE CONTRACTOR SHALL NOT WORK ON BOTH SIDES OF THE ROADWAY AT THE SAME TIMES.

THE CONTRACTOR SHALL SCHEDULE HIS OPERATIONS TO MINIMIZE THE INTERRUPTION OF PEDESTRIAN TRAFFIC. ANY CLOSURE OF PEDESTRIAN ROUTES SHALL BE ACCOMPANIED BY A PEDESTRIAN DETOUR IN ACCORDANCE WITH THE CONTRACT DOCUMENTS OR AS DIRECTED BY THE ENGINEER.

IN ACCORDANCE WITH NYSDOT STANDARD SPECIFICATION §107-05.F THE CONTRACTOR SHALL IDENTIFY, GUARD AND PROTECT RESTRICTED AREAS SUCH AS OPEN AND UNATTENDED EXCAVATIONS, AREAS SUBJECT TO FALLING DEBRIS AND OTHER POTENTIALLY HAZARDOUS LOCATIONS IN AND ADJACENT TO AREAS LAWFULLY FREQUENTED BY ANY PERSON IN ACCORDANCE WITH THE REQUIREMENTS OF 29 CFR 1926 SUBPART G. PAYMENT FOR INSTALLATION AND REMOVAL OF THIS ITEM SHALL BE INCLUDED THE BASIC WORK ZONE TRAFFIC CONTROL ITEM.

#### 14. FLAGGER

FLAGGING, INCLUDING FLAGGER TRAINING, FLAGGER EOUIPMENT, AND OPERATIONAL CONTROL. SHALL BE PROVIDED IN ACCORDANCE WITH STANDARD SPECIFICATION §619-3.02L. ALL COSTS ASSOCIATED WITH FLAGGING SHALL BE INCLUDED IN THE BASIC WORK ZONE TRAFFIC CONTROL

#### 15. LANE CLOSURES

THE CONTRACTOR SHALL MAINTAIN AT LEAST ONE LANE OF TRAFFIC IN EACH DIRECTION AND SHALL PROVIDE FLAGGERS AS NECESSARY AS DIRECTED BY THE ENGINEER. THE MINIMUM WIDTH OF A TRAVELED LANE SHALL BE 10 FEET UNLESS OTHERWISE SHOWN IN THE CONTRACT DOCUMENTS.

AT THE SITE OF PAVING OR OTHER WORK OPERATION REQUIRING TEMPORARY CLOSURE OF PORTIONS OF THE TRAVELED WAY, THE CONTRACTOR SHALL MAINTAIN AT LEAST ONE LANE OF TRAFFIC AND SHALL PROVIDE FLAGGERS TO CONTROL TRAFFIC MOVEMENT.

THE CONTRACTOR SHALL SCHEDULE HIS WORK SO THAT ALL TRAVEL LANES IN EACH DIRECTION ARE OPEN WHEN THE CONTRACTOR'S OPERATIONS ARE CLOSED DOWN OR SUBSTANTIALLY CLOSED DOWN, AND DURING WEEKDAY HOURS OF 6:30 AM TO 9:00 AM AND 3:30 PM TO 6:00 PM. THE CONTRACTOR SHALL CONTACT THE TRANSPORTATION MANAGEMENT CENTER AT 914-742-6100 ONE WEEK PRIOR TO ANY POSSIBLE LANE CLOSURE.

THE CONTRACTOR SHALL ALSO BE AWARE OF THE STATE'S LANE CLOSURE RESTRICTIONS FOR MAJOR HOLIDAYS. CONSTRUCTION ACTIVITIES THAT WILL RESULT IN TEMPORARY LANE CLOSURES SHALL BE SUSPENDED TO MINIMIZE TRAVEL DELAYS ASSOCIATED WITH ROAD WORK FOR MAJOR HOLIDAYS AS

HOLIDAY	FALLS ON	TEMPORARY LANE CLOSURES ARE NOT ALLOWED FROM
NEW YEAR'S DAY	SUNDAY OR MONDAY	6:00 AM FRIDAY BEFORE TO 10:00 AM TUESDAY AFTER
MEMORIAL DAY	TUESDAY	6:00 AM SATURDAY BEFORE TO 10:00 AM WEDNESDAY AFTER
LABOR DAY	WEDNESDAY	6:00 AM TUESDAY BEFORE TO 10:00 AM THURSDAY AFTER
	THURSDAY	6:00 AM WEDNESDAY TO 10:00 AM MONDAY AFTER
	FRIDAY OR SATURDAY	6:00 AM THURSDAY BEFORE TO 10:00 AM MONDAY AFTER
CHRISTMAS DAY	SUNDAY OR MONDAY	6:00 AM FRIDAY BEFORE TO 10:00 AM TUESDAY AFTER
	TUESDAY	6:00 AM FRIDAY BEFORE TO 10:00 AM WEDNESDAY AFTER
	WEDNESDAY	6:00 AM SATURDAY BEFORE TO 10:00 AM THURSDAY AFTER
	THURSDAY	6:00 AM WEDNESDAY TO 10:00 AM MONDAY AFTER
	FRIDAY OR SATURDAY	6:00 AM THURSDAY BEFORE TO 10:00 AM MONDAY AFTER
THANKSGIVING DAY	THURSDAY	6:00 AM WEDNESDAY BEFORE TO 10:00 AM MONDAY AFTER

#### 16. PUBLIC INGRESS AND EGRESS

AS SPECIFIED IN THE CONTRACT DOCUMENTS, THE CONTRACTOR SHALL PROVIDE PROPERTY OWNERS WITH PROPER ACCESS TO AND MINIMUM WIDTHS FOR THEIR DRIVEWAYS AND SHALL MAINTAIN THEM THROUGH ALL PHASES OF WORK. DRIVEWAYS SHALL BE DELINEATED IN ACCORDANCE WITH NYSDOT STANDARD SPECIFICATIONS §619-3.02] OR AS DIRECTED BY THE ENGINEER.

WHERE DIRECT ACCESS TO DRIVEWAYS IS NOT POSSIBLE DUE TO NECESSARY CONSTRUCTION OPERATIONS, THE CONTRACTOR SHALL PLAN ALTERNATE MEANS OF ACCESS AND SUBMIT SUCH / PLAN TO THE ENGINEER FOR APPROVAL BEFORE OPERATIONS COMMENCE. COST FOR THIS WORK SHALL BE INCLUDED IN THE BASIC WORK ZONE TRAFFIC CONTROL ITEM. ACCESS SHALL BE PROVIDED TO ALL DRIVEWAYS BEHIND TEMPORARY CONCRETE BARRIER WHEN USED AS DIRECTED BY THE ENGINEER. SIGNS DENOTING COMMERCIAL ESTABLISHMENTS SHALL BE PROVIDED AND PLACED NEXT TO THESE DRIVEWAYS. SIGNS SHALL BE AS APPROVED BY THE ENGINEER.

THE COST FOR ALL DELINEATION AND CHANNELIZING DEVICES (CONES, DRUMS, ETC.) SHALL BE IN THE BASIC WORK ZONE TRAFFIC CONTROL ITEM.

#### 17. CONSTRUCTION INGRESS AND EGRESS

THE CONTRACTOR SHALL KEEP TO A MINIMUM MOVEMENT IN AND OUT OF DESIGNATED TRAVEL LANES WITH CONSTRUCTION VEHICLES AND EQUIPMENT. SEE ALSO NYSDOT STANDARD SPECIFICATION §619-3.02F.

#### 18. DELINEATORS

SINGLE UNIT LARGE DELINEATORS AT 40-FOOT SPACING SHALL BE INSTALLED WITHIN THE LIMITS OF THE WORK ZONE WHERE EXISTING TRAVEL LANE WIDTHS ARE REDUCED AND TRAFFIC IS ADJACENT TO TEMPORARY POSITIVE BARRIER, GUIDE RAILING, OR BOTH. WHITE DELINEATORS SHALL BE DISPLAYED ON THE RIGHT SIDE OF THE TRAVELED WAY AND YELLOW SHALL BE DISPLAYED ON THE LEFT. TEMPORARY POSITIVE BARRIER SECTIONS SEPARATING TWO-WAY TRAFFIC SHALL HAVE YELLOW DELINEATORS INSTALLED BACK-TO-BACK. DELINEATORS, POSTS, AND BRACKETS SHALL BE FURNISHED AND INSTALLED IN ACCORDANCE WITH THE NYSDOT STANDARD SPECIFICATIONS AND CURRENT 646 STANDARD SHEETS. PAYMENT WILL BE MADE UNDER ITEM 646.23, ITEM 646.31, AND ITEM 646.50. UPON COMPLETION OF WORK. THE CONTRACTOR SHALL REMOVE AND DISPOSE OF ALL POSTS INSTALLED FOR THE WORK ZONE AT NO ADDITIONAL COST TO THE STATE/TOWN. REMOVED POSTS SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE REMOVED FROM THE WORK SITE IN A NEAT MANNER.

#### 19. CHANGES TO WORK ZONE TRAFFIC CONTROL PLAN

THE CONTRACTOR MUST SUBMIT TO THE ENGINEER. IN WRITING, PROPOSED REVISIONS TO THE WORK ZONE TRAFFIC CONTROL PLAN FOR REVIEW AND APPROVAL A MINIMUM OF SEVEN (7) CALENDAR DAYS PRIOR TO THE PLANNED IMPLEMENTATION OF SUCH PROPOSED REVISIONS, EXCEPT FOR CHANGES THAT ALTER THE BASIC CONCEPT OR SCOPE OF THE WORK ZONE TRAFFIC CONTROL PLAN. SUCH CHANGES TO THE BASIC CONCEPT OR SCOPE MUST BE SUBMITTED TO THE ENGINEER FOR APPROVAL A MINIMUM OF THIRTY (30) CALENDAR DAYS PRIOR TO IMPLEMENTATION OF SUCH REVISIONS.

#### 20. REQUIREMENTS FOR PORTABLE VARIABLE MESSAGE SIGNS

WHERE TRAFFIC WILL BE RIDING ON MILLED OR GROOVED PAVEMENT AND THE POSTED SPEED LIMIT I 40 MPH OR GREATER, THE CONTRACTOR SHALL PLACE A PORTABLE VARIABLE MESSAGE SIGN IN ADVANCE OF THE MILLED OR GROOVED PAVEMENT WARNING MOTORCYCLE RIDERS TO USE CAUTION. PAYMENT SHALL BE MADE UNDER ITEM 619.110512.

#### 21. ENFORCEABLE REDUCED REGULATORY SPEED LIMIT AND ADVISORY SPEED SIGNS ALL REDUCTIONS IN REGULATORY SPEED LIMITS AND ADVISORY SPEEDS ASSOCIATED WITH WORK ZONES MUST BE APPROVED, IN WRITING AND IN ADVANCE, BY THE REGIONAL TRAFFIC ENGINEER OR HIS/HER DESIGNEE.

THE CONTRACTOR MAY REQUEST APPROVAL OF REDUCED REGULATORY SPEED LIMITS AND ADVISORY SPEEDS FOR SHORT-TERM STATIONARY WORK ZONE WHERE SUCH PROVISIONS ARE NOT OTHERWISE SPECIFIED IN THE CONTRACT DOCUMENTS. REQUEST MUST BE SUBMITTED THROUGH THE ENGINEER TO THE REGIONAL TRAFFIC ENGINEER A MINIMUM OF FOURTEEN (14) CALENDAR DAYS IN ADVANCE OF THE SCHEDULED IMPLEMENTATION OF ANY WORK ZONE CONTAINING THE REQUESTED REDUCED REGULATORY SPEED LIMITS AND/OR ADVISORY SPEEDS.

GENERALLY, TO QUALIFY FOR A REDUCTION IN REGULATORY SPEED LIMIT AT A SHORT-TERM STATIONARY WORK ZONE, THE WORK ZONE MUST CONTAIN AN ACTIVITY AREA THAT IS GREATER THAN 1/2 MILE ON A HIGHWAY WITH A PRECONSTRUCTION POST SPEED LIMIT OF 55 MPH OR GREATER AND BE OF A DURATION EXCEEDING FOUR (4) HOURS WHERE WORKERS ARE ON FOOT IN THE ACTIVITY AREA AND ARE NOT PREDOMINANTLY SEPARATED FROM TRAFFIC BY A POSITIVE BARRIER. IF APPROVED, THE REDUCED REGULATORY SPEED SHALL BE NO MORE THAN 10 MPH BELOW THE PRECONSTRUCTION POSTED SPEED LIMIT. IN LONG WORK ZONES WITH SEVERAL INTERMITTENT ACTIVITY AREAS, THE PRECONSTRUCTION POSTED SPEED LIMIT SHALL BE RESTORED BETWEEN ACTIVITY AREAS THAT ARE SEPARATED BY TWO (2) OR MORE MILES.

TO QUALIFY FOR AN ADVISORY SPEED AT A SHORT-TERM STATIONARY WORK ZONE, HAZARDOUS WORK ZONE CONDITIONS MUST EXIST THAT WARRANT A LOCALIZED REDUCTION IN SPEED. SUCH CONDITIONS INCLUDE, BUT ARE NOT LIMITED TO, NARROW LANES, BUMPS, GROOVED PAVEMENT, LOW OR NO SHOULDERS, ROADWAY DROP-OFFS, POOR ROADWAY SURFACE, POOR SIGHT DISTANCE, GEOMETRIC CONSTRAINTS AND EXPOSED WORKERS ADJACENT TO ACTIVE TRAFFIC.

IF A REDUCTION IN REGULATORY SPEED LIMIT AND/OR ADVISORY SPEED IS APPROVED, THE CONTRACTOR SHALL FURNISH. INSTALL AND MAINTAIN REGULATORY SPEED LIMIT AND/OR ADVISORY SPEED SIGNS IN ACCORDANCE WITH NYSDOT STANDARD SPECIFICATION §619-3.02.H.4 & 5 AND THE MUTCD, AND AS DIRECTED BY THE ENGINEER. THESE SIGNS SHALL BE USED IN CONJUNCTION WITH THE LANE CLOSURE OR OTHER WORK ZONE TRAFFIC CONTROL SIGNS AND SHALL BE COVERED OR REMOVED WHEN WORK ZONE TRAFFIC CONTROL PATTERN IS REMOVED EACH DAY. ANY EXISTING REGULATORY SPEED LIMIT SIGNS WITHIN THE WORK ZONE SHALL BE COVERED DURING THE TIME THE WORK ZONE TRAFFIC CONTROL IS IN PLACE AND UNCOVERED WHEN THE WORK ZONE TRAFFIC CONTROL PATTERN IS REMOVED.

REDUCTIONS IN REGULATORY SPEED LIMITS AND ADVISORY SPEEDS SHALL NOT BE PERMITTED FOR MOBILE OR SHORT DURATION WORK ZONES.

THE COST OF UTILIZING APPROVED REGULATORY OR ADVISORY SPEED ZONE SIGNS, AND COVERING EXISTING SIGNS, SHALL BE INCLUDED IN THE PRICE BID FOR BASIC WORK ZONE TRAFFIC CONTROL.

#### SPECIAL NOTES

I. WORK ZONE TRAFFIC CONTROL IS THE RESPONSIBILITY OF THE CONTRACTOR. ALL SUBCONTRACTORS WORKING FOR THE CONTRACTOR MUST HAVE A COPY OF THE HIGHWAY WORK PERMIT ON THE SITE AND MUST BE FAMILIAR WITH THE TRAFFIC CONTROL REQUIREMENTS. IT IS STRONGLY ADVISED THAT A "TAILGATE" SAFETY MEETING WITH EACH WORK CREW BE INITIATED BEFORE THE START OF ALL WORK

- 2. WORK ZONE TRAFFIC CONTROL SCHEMES MUST BE IN PLACE AND MAINTAINED THROUGHOUT THE DURATION OF WORK.
- ALL WORKERS WITHIN THE HIGHWAY ROW SHALL WEAR HIGH-VISIBILITY APPAREL MEETING THE ANSI 107 CLASS II STANDARDS AND AN OSHA APPROVED HARD HAT AS SPECIFIED IN NYSDOT STANDARD SPECIFICATIONS §107-05.A.
- 4. AT THE START OF WORK ON THE PROJECT ALL WORK ZONE TRAFFIC CONTROL DEVICES WILL BE EVALUATED BY THE ENGINEER FOR ACCEPTABILITY IN ACCORDANCE WITH THE AMERICAN TRAFFIC SAFETY SERVICES ASSOCIATION (ATSSA) QUALITY GUIDELINES FOR WORK ZONE TRAFFIC CONTROL DEVICES. THESE DEVICES SHALL NOT BE ALLOWED TO FALL BELOW THE "MARGINAL" CONDITION AT ANY TIME DURING THE LIFE OF THE PROJECT. FADED AND DETERIORATED PANELS AND NON-STANDARD LEGENDS ARE NOT ACCEPTABLE
- . FLAGGER SIGNS ARE TO BE USED ONLY WHEN A FLAGGER IS ACTUALLY PRESENT AND VISIBLE TO THE MOTORIST. THEY SHALL BE COVERED OR REMOVED AT ALL OTHER TIMES. STOP/SLOW PADDLES ARE REQUIRED. THE COST OF FLAGGER SIGNS AND STOP/SLOW PADDLES SHALL BE INCLUDED IN THE WORK ZONE TRAFFIC CONTROL ITEM.
- FLEXIBLE PANEL AND LIGHTWEIGHT RIGID PANEL SIGNS SHALL BE MOUNTED AT THE SAME HEIGHT AS RIGID PANEL SIGNS, EXCEPT THEY MAY BE MOUNTED, WHEN APPROVED BY THE ENGINEER, AS LOW AS I FOOT WHEN ALL CONDITIONS OF NYSDOT STANDARD SPECIFICATION §619-302H.I ARE
- . NO WORK WITHIN THE STATE R.O.W. SHALL COMMENCE WITHOUT A PRE-CONSTRUCTION MEETING, WITH NYSDOT REPRESENTATIVES PRESENT
- 8. AS-BUILT PLANS SHALL BE SENT TO THE NYSDOT IN HARD COPY AND ELECTRONIC FORMAT COMPATIBLE WITH THE SYSTEM CURRENTLY USED BY NYSDOT.
- . The permittee is responsible for hiring an inspector to be onsite during all CONSTRUCTION OPERATIONS ON THE STATE R.O.W. TO ENSURE ALL WORK IS PERFORMED IN ACCORDANCE WITH NYSDOT SPECIFICATIONS. THE INSPECTOR MUST BE EXPERIENCED IN NYSDOT WORK AND SHALL BE APPROVED BY THE STATE PRIOR TO HIRING. THE PERMITTEE IS RESPONSIBLE FOR REIMBURSING THE COST OF SITE VISITS BY A NYSDOT REPRESENTATIVE (RESIDING PERMIT ENGINEER) AS NEEDED.

#### PAVEMENT EDGE DROP-OFF PROTECTION

A DROP-OFF IS AN ABRUPT DIFFERENCE IN SURFACE ELEVATION OF MORE THAN 2 INCHES AT APPROXIMATELY IV:3H OR STEEPER. IN THE ABSENCE OF ADEQUATE TRAFFIC CONTROL PLANS IN THE CONTRACT DOCUMENTS, THE CONTRACTOR SHALL SUBMIT ALTERNATE TRAFFIC CONTROL PLANS TO THE ENGINEER FOR APPROVAL AT LEAST 30 CALENDAR DAYS PRIOR TO PROPOSED WORK WHICH WILL CREATE A DROP-OFF OF OVER 24 INCHES WITHIN 10 FEET FROM THE EDGE OF THE TRAVELED WAY FOR DURATIONS LONGER THAN ONE SHIFT.

THE CONTRACTOR SHALL PROVIDE PAVEMENT EDGE DROP-OFF PROTECTION IN ACCORDANCE WITH TABLE 619-3 PAVEMENT EDGE DROP-OFF PROTECTION. CHANNELIZING DEVICES USED TO MARK DROP-OFFS SHALL BE PLACED, AS PRACTICABLE, TO NOT REDUCE THE AVAILABLE TRAVEL LANE WIDTH AT THE ELEVATION OF THE OPEN TRAVEL LANE IN ORDER TO PROVIDE MAXIMUM TARGET VALUE AND VISIBILITY FOR MOTORISTS.

A DROP-OFF OF GREATER THAN 24 INCHES WITHIN 10 FEET FROM THE EDGE OF THE TRAVELED WAY TO REMAIN AT THE END OF THE WORK SHIFT SHALL BE SEPARATED FROM TRAFFIC WITH TEMPORARY OR PERMANENT BARRIER. FOR POSTED SPEED LIMIT OF 45 MPH AND LESS, A DROP-OFF OF GREATER THAN 24 INCHES WITHIN 10 FEET FROM THE EDGE OF THE TRAVELED WAY THAT IS 100 FEET OR LESS IN LENGTH WILL BE ALLOWED WITH CHANNELIZING DEVICES CONSISTING OF DRUMS, EXTRA TALL CONES, OR OVERSIZED VERTICAL PANELS ONLY AT A MAXIMUM SPACING OF 20 FEET FOR SHORT DURATIONS NOT TO EXCEED ONE WORK SHIFT.

UNLESS OTHERWISE NOTED IN THE CONTRACT DOCUMENTS, THE CONTRACTOR SHALL BEGIN WORK TO ELIMINATE UNPROTECTED DROP-OFFS CREATED BY CONTRACT WORK WITHIN 7 CALENDAR DAYS OF THE COMPLETION OF THE WORK CREATING THE DROP-OFF. WORK SHALL CONTINUE IN A TIMELY MANNER UNTIL SUCH TIME AS THE UNPROTECTED DROP-OFF CONDITION IS ELIMINATED. WHERE PAVEMENT EDGE LINES ARE NOT PROVIDED, CHANNELIZING DEVICES SHALL BE PRECEDED BY A NO SHOULDER (W8-23) SIGN, REPEATED AT ALL RAMPS AND ROADWAY INTERSECTIONS. SIGNS SHALL BE REPEATED EVERY 1/2 MILE AND SUPPLEMENTED WITH A NEXT [X] MILES (W7-3AP) PLAQUE WHERE APPLICABLE.

WHERE PAVEMENT EDGE LINES ARE PROVIDED, CHANNELIZING DEVICES SHALL BE PRECEDED BY SHOULDER DROP-OFF (W8-17) SIGNS. REPEATED AT ALL RAMPS AND ROADWAY INTERSECTIONS. SIGNING SHALL BE REPEATED EVERY 1/2 MILE AND SUPPLEMENTED WITH NEXT [X] MILES (W7-3AP) PLAQUE WHERE APPLICABLE.

EDGE LINE VERTICAL TUBULAR

TABLE 619-3 PAVEMENT EDGE DROP-OFF PROTECTION

DROP-OFF HEIGHT	HEIGHT PAVEMENT (FT.) MARKINGS		PANEL SPACING (FT.)	MARKER SPACING (FT.)	TALL CONE SPACING (FT.)	SIGNS
	OR WITHIN SH					
WITHIN 4 FT. FF	OM TRAVEL LAN	IE .				
2 - 6 IN.	YES	100	100	N/A	N/A	SHOULDER DROP-OFF
2 0 114.	NO	40	PANEL SPACING (FT.) PANEL SPACING (FT.) SPAC	N/A	no shoulder	
6 - 24 IN.	YES	40	40	N/A	N/A	SHOULDER DROP-OFF
0 - 21 IIV.	NO	20	20	N/A	N/A	NO SHOULDER
MORE THAN 4 F	T. FROM TRAVEL	LANE				
2 - 6 IN.	YES	200	200	100	100	SHOULDER DROP-OFF
2 - O II V.	NO	100	100	40	40	NO SHOULDER
6 - 24 IN.	YES	40	40	N/A	N/A	SHOULDER DROP-OFF
0 - 21 114.	NO	40	40	N/A	N/A	NO SHOULDER
DROP-OFF OU	TSIDE OF SHOU	JLDER AREA				
SHOULDER WID	TH < 4 FT.					
2 - 6 IN.	YES	100	100	N/A	N/A	SHOULDER DROP-OFF
2 - 6 IIN.	NO	100	100	N/A	N/A	NO SHOULDER
6 - 24 IN.	YES	40	40	N/A	N/A	SHOULDER DROP-OFF
0 - 24 IIN.	NO	40	40	N/A	N/A	NO SHOULDER
SHOULDER WID	TH ≥ 4 FT.			,		,
2 - 6 IN.	YES	200	200	100	100	SHOULDER DROP-OFF
Z - 0 IIN.	NO	100	100	40	40	NO SHOULDER
7 24 INI	YES	100	100	40	40	SHOULDER DROP-OFF
6 - 24 IN.	NO	40	40	N/A	N/A	NO SHOULDER

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DESCRIPTION	REVISED PER NYSDOT COMMENTS RECEIVED 3/19/24	REVISED PER NYSDOT 4/25/24 COMMENTS.	REVISED PER NYSDOT 5/2/24 COMMENTS.	REVISED TRAFFIC SIGNAL PLAN SHEETS PER NYSDOT SIGNAL GROUP 5/23/24 EMAIL COMMENTS.	REVISED PER NYSDOT 7/1/24 COMMENTS.	REVISED PER NYSDOT 7/31/24 COMMENTS.	revised per QA/QC review	REVISED PER NYSDOT 8/30/24 COMMENTS.	REVISED PER NYSDOT 9/20/24 COMMENTS. FINAL SET FOR PERMITTING.	REVISED FOR REBID.
DRAWN BY	M.J.A.	J.F.M.	M.J.A.	M.J.A.	M.J.A.	M.J.A.	RGD	M.J.A.	M.J.A.	M.J.A.
DATE	4/3/24	4/26/24	5/14/24	5/24/24	7/1/24	8/7/24	8/15/24	9/12/24	9/23/24	1/31/25



Philip John Grealy NEW YORK LICENSED PROFESSIONAL ENGINEER LICENSE NUMBER: 059858-1 COLLIERS ENGINEERING & DESIGN CT, P.C. N.Y. C.O.A #: 0017609

TRAFFIC SIGNAL PLANS

FOR

UNDERHILL AVENUE **IMPROVEMENTS** (SEQR # 22-092)

NYS ROUTE 118 (S.H. 148) AT UNDERHILL AVENUE

TOWN OF YORKTOWN WESTCHESTER COUNTY **NEW YORK** 

Colliers Engineering & Design

400 Columbus Avenue, Suite 180E Valhalla, NY 10595 Phone: 914.347.7500 ARCHITECTURE, LANDSCAPE ARCHITECT SURVEYING CT, P.C.

WESTCHESTER

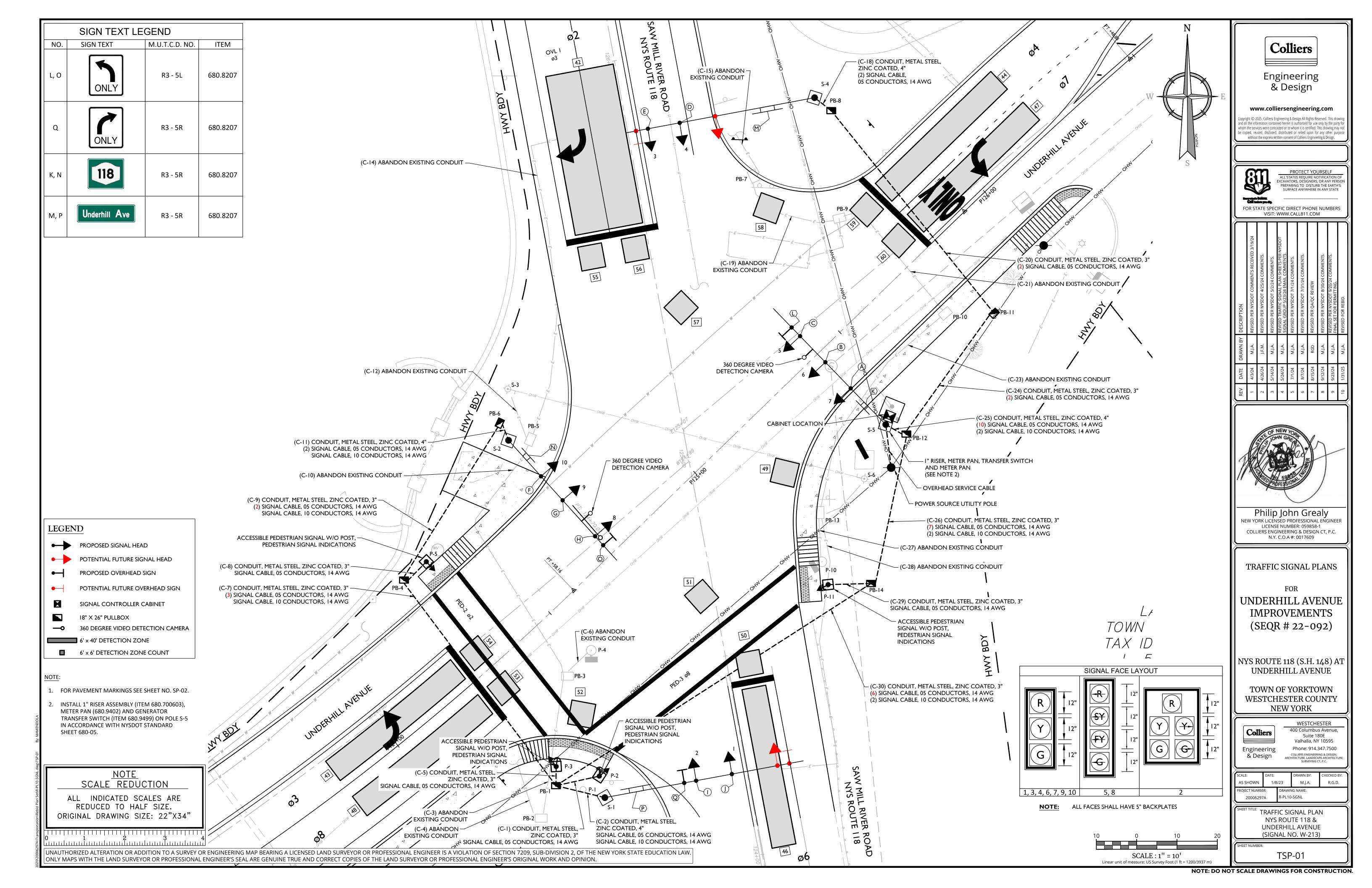
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**GENERAL NOTES** 

GN-02

NOTE: DO NOT SCALE DRAWINGS FOR CONSTRUCTION.

INAUTHORIZED ALTERATION OR ADDITION TO A SURVEY OR ENGINEERING MAP BEARING A LICENSED LAND SURVEYOR OR PROFESSIONAL ENGINEER IS A VIOLATION OF SECTION 7209, SUB-DIVISION 2, OF THE NEW YORK STATE EDUCATION LAW. INLY MAPS WITH THE LAND SURVEYOR OR PROFESSIONAL ENGINEER'S SEAL ARE GENUINE TRUE AND CORRECT COPIES OF THE LAND SURVEYOR OR PROFESSIONAL ENGINEER'S ORIGINAL WORK AND OPINION



#### TRAFFIC SIGNAL NOTES:

- ALL WORK IS TO BE COMPLETED ACCORDING TO THE LATEST "NYSDOT STANDARD SPECIFICATIONS," REGION 8 SIGNAL DETAILS SHEETS AND STANDARD STRUCTURE SHEETS. THE REGION 8 SIGNAL DETAILS SHEETS ARE TO BE A PART OF THE SIGNAL PLAN.
- SIGNAL HEAD ROADWAY CLEARANCE SHOULD BE 16'-6".
- ALL MATERIALS INCORPORATED IN THE SIGNAL INSTALLATION SHALL CONFORM TO THE CURRENT NYSDOT REQUIREMENTS AS PER NOTE I ABOVE CONFORMANCE SHALL BE MET BY THE STATE APPROVAL OF THE FOLLOWING SUBMISSIONS BY THE CONTRACTOR.
- A. TRAFFIC SIGNAL POLES AND PEDESTRIAN POLES:
- MANUFACTURER'S SHOP DRAWINGS AND CALCULATIONS MUST BE SUBMITTED TO NYSDOT FOR EACH SIGNAL POLE. THE SHOP DRAWINGS AND CALCULATIONS MUST BE STAMPED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF NEW YORK
- B. TRAFFIC SIGNAL HEADS (SECTIONS) & BRACKET ASSEMBLIES, PEDESTRIAN HEADS AND BRACKET ASSEMBLIES, CONCRETE PULLBOXES, CAST ALUMINUM JUNCTION BOXES, AND OVERHEAD SIGN ASSEMBLIES:
- MANUFACTURER'S CATALOG CUTS MUST BE SUBMITTED TO THE STATE AS WELL AS MANUFACTURER'S CERTIFICATION OF COMPLIANCE WITH "NYSDOT STANDARD SPECIFICATIONS"
- C. TRAFFIC SIGNAL CONDUIT, CABLE, WIRE:
- MANUFACTURER'S CATALOG CUTS MUST BE SUBMITTED TO NYSDOT.
- D. TRAFFIC SIGNAL LOOP EMBEDDING SEALER:
- ONLY THOSE PRODUCTS ON THE LATEST NYSDOT MATERIALS BUREAU "APPROVED LIST" SHALL BE USED.
- THE SIGNAL INSTALLATION CONTRACTOR SHALL CONTACT THE STATE PRIOR TO PERFORMING ANY WORK, A MEETING SHALL TAKE PLACE AS DETERMINED NECESSARY BY NYSDOT OR AT THE REQUEST OF THE CONTRACTOR.
- NYSDOT SHALL BE NOTIFIED PRIOR TO THE INSTALLATION OF ANY VEHICLE DETECTOR LOOPS. FAILURE TO DO SO MAY RESULT IN THE REJECTION OF LOOPS SO INSTALLED.
- THE PERMITTEE/CONTRACTOR IS RESPONSIBLE FOR ANY AND ALL LOCAL PERMITS REQUIRED.
- PAVEMENT MARKINGS, IF REQUIRED, SHALL BE IN ACCORDANCE WITH CURRENT NYSDOT PRACTICE FOR THE SIGNAL LOCATION.
- THE CONTRACTOR IS RESPONSIBLE FOR ARRANGING ELECTRIC SERVICE TO THE SIGNAL.
- IT IS THE PERMITTEE'S RESPONSIBILITY TO RESTORE ANY DISTURBED AREAS TO THEIR ORIGINAL CONDITION AS PER THE APPROPRIATE SECTIONS OF THE STANDARD SPECIFICATIONS.
- 10. NYSDOT SHALL PROVIDE A TABLE OF SWITCH PACKS AND TABLE OF INPUT WIRING TO THE PERMITTEE (CONTRACTOR). IT IS THE PERMITTEE'S (CONTRACTOR'S) RESPONSIBILITY TO NOTIFY NYSDOT IN ADVANCE OF WHEN THESE ARE NEEDED.
- LOOP DETECTORS ARE TO BE WIRED IN PARALLEL IN THE CABINET.
- 12. ELECTRICAL CABLE SPLICES:
  - ALL CABLE SPLICES MADE IN CABLE RUNS TO BE LOCATED BELOW GROUND WILL BE ACCOMPLISHED USING METHOD # 2 (TWO COMPONENT ELECTRICAL INSULATING RESIN REJACKETING MATERIAL) AS DESCRIBED IN SECTION 680.3.16 OF THE STANDARDS SPECIFICATIONS.
- MAINTENANCE AND PROTECTION OF TRAFFIC SHALL BE IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES NYS SUPPLEMENT AND THE NYSDOT STANDARD SPECIFICATIONS.
- 14. PULLBOXES:
- a. UNLESS OTHERWISE SHOWN ON THE PLANS ALL PULLBOXES SHALL BE INSTALLED OUTSIDE OF THE PAVEMENT OR SHOULDER AREA.
- b. THE FINISHED GROUND SURFACE ON THE BACK SLOPE IN THE VICINITY OF THE PULLBOX SHALL BE ADJUSTED SO THAT NO FILL SHALL BE SPILLED ON THE TOP OF THE BOX AND THE MAXIMUM DISTANCE FROM THE TOP OF THE FINISHED GROUND AT THE BOX SHALL NOT EXCEED 4 INCHES. ALL MATERIALS AND LABOR NECESSARY TO COMPLETE THIS WORK SHALL BE INCLUDED IN THE PRICE BID FOR THE PULLBOX.
- 15. THE CONTRACTOR SHALL REFERENCE NYSDOT STANDARD SHEETS 680-1, 680-2, 680-4, 680-5, 680-6, 680-8, 680-10, 680-11, 680-13 AND 680-14, 685-01 FOR THIS INSTALLATION.
- PER NYSDOT STANDARD SPECIFICATION SECTION 619-3.17 - MAINTAIN OR MODIFY TRAFFIC SIGNAL **EQUIPMENT - TRAFFIC SIGNALS SHALL BE MAINTAINED IN** PROPER OPERATION, INCLUDING THE MAINTENANCE OF ALL FEATURES OF THE TRAFFIC SIGNAL OPERATION IN EFFECT AND OPERATING AT THE TIME ANY WORK BEGINS ON THE CONTRACT. TRAFFIC ACTUATED PHASES SHALL REMAIN ACTUATED, AND SIGNALS OPERATING WITHIN SIGNAL SYSTEMS SHALL REMAIN COORDINATED WITH THE REMAINDER OF THE SYSTEM UNLESS OTHERWISE APPROVED BY THE ENGINEER. EXCEPT FOR EMERGENCIES, NO CHANGES IN THE SIGNAL OPERATION OR TIMING SHALL BE MADE WITHOUT PRIOR APPROVAL BY THE ENGINEER. IF EMERGENCY CONDITIONS DICTATE A CHANGE IN THE OPERATION, THE ENGINEER SHALL BE NOTIFIED BY THE START OF THE NEXT WORK DAY. UNLESS OTHERWISE APPROVED BY THE ENGINEER, AN ALTERED SIGNAL OPERATION MUST BE RETURNED TO THE ORIGINAL SIGNAL OPERATION WITHIN 24 HOURS.

THE CONTRACTOR SHALL MAINTAIN IN OPERATION ALL EQUIPMENT INCLUDING SIGNAL HEADS, SUPPORTS, CABLE, WIRING, SPAN-WIRE-MOUNTED SIGNING, CONTROLLERS, MASTER CONTROLLERS, DETECTOR SYSTEMS, CONFLICT AND CURRENT MONITORS, RELAYS, SWITCH PACKS, AND ALL OTHER ACCESSORY AND NECESSARY EQUIPMENT. MAINTENANCE SHALL ALSO INCLUDE THE REPAIR AND REPLACEMENT OF EXISTING DETECTOR LOOPS, PAID FOR SEPARATELY.

THE CONTRACTOR SHALL HAVE CAPABLE TRAFFIC SIGNAL REPAIR PERSONNEL ON CALL 24 HOURS A DAY, SEVEN DAYS A WEEK, AND SHALL PROVIDE TO THE ENGINEER A SINGLE TELEPHONE NUMBER FOR CONTACTING THEM. IF FOR ANY REASON A SIGNAL IS NOT FUNCTIONING PROPERLY. THE CONTRACTOR SHALL COMMENCE WORK ON THE SIGNAL WITHIN TWO (2) HOURS OF NOTIFICATION. IF DIRECTED BY THE ENGINEER, THE CONTRACTOR SHALL NOTIFY THE APPROPRIATE POLICE AGENCY FOR TRAFFIC CONTROL OPERATIONS. IF THE POLICE AGENCY CANNOT OR WILL NOT PROVIDE TRAFFIC CONTROL, THE CONTRACTOR SHALL PROVIDE FLAGGERS AT LOCATIONS SPECIFIED BY THE ENGINEER WITHIN THE 2-HOUR TIME PERIOD. THE CONTRACTOR SHALL CONTINUE THE FLAGGER SERVICES UNTIL THE SIGNAL IS IN PROPER OPERATION. A FLAGGER WARNING (W20-7 OR W20-7a) SIGN SHALL BE USED ON ALL APPROACHES TO AN INTERSECTION CONTROLLED BY FLAGGERS.

- 17. THE CLEARANCES BETWEEN ANY SIGNAL EQUIPMENT AND UTILITY LINES SHALL BE 10' FOR PRIMARY, 5.5' SECONDARY AND 2' FOR ALL OTHERS. CONTRACTOR SHALL COORDINATE HIS WORK WITH THE APPROPRIATE UTILITY COMPANY TO ENSURE PROPER CLEARANCES ARE ACHIEVED..
- 18. IF SOFT CLAY OR ORGANIC DEPOSITS ARE DURING THE FOOTING ENCOUNTERED AUGERING/DIGGING OPERATION, OR AUGERING/DIGGING IS UNDERTAKEN IN AREAS HAVING A HIGH WATER TABLE, THE CONTRACTOR SHALL CONSULT THE ENGINEER-IN-CHARGE.
- 19. CONTRACTOR SHALL CONTACT ALL THE APPROPRIATE PARTIES WITH JURISDICTION OVER THE UTILITIES (OVERHEAD AND UNDERGROUND) ENTERING ON OR NEAR THE PROJECT AREA PRIOR TO INITIATION OF CONSTRUCTION ACTIVITIES AND PROVIDE THOSE AGENCIES 72 HOURS NOTIFICATION. CONTRACTOR SHALL BE AWARE THAT OTHER UTILITIES (OVERHEAD AND/OR UNDERGROUND) NOT SHOWN ON THE PLANS MAY BE ENCOUNTERED IN THE FIELD. THE CONTRACTOR SHALL AT HIS/HER OWN EXPENSE, REPAIR OR REPLACE ANY STRUCTURES OR UTILITIES THAT HE/SHE DAMAGES, AND SHALL CONSTANTLY PROCEED WITH CAUTION TO PREVENT UNDUE INTERRUPTION TO UTILITY SERVICES.
- 20. PRIOR TO COMMENCEMENT OF WORK THE CONTRACTOR SHALL COORDINATE WITH UTILITY COMPANIES IN AREA TO RESOLVE ANY CONFLICTS BETWEEN SIGNAL EQUIPMENT AND UTILITY.
- 21. AT THE CONCLUSION OF INSTALLATION WORK AND UPON ACCEPTANCE BY THE STATE THE CONTRACTOR SHALL FURNISH AN AS-BUILT DRAWING TO NYSDOT ALONG WITH A LIST OF ALL INSTALLED EQUIPMENT.
- 22. PHASE 2 & 6 SHALL BE SET ON RECALL GREEN.
- 23. FOR PAVEMENT MARKINGS SEE SHEET NO. SP-01 24. PEDESTRIAN PUSHBUTTONS:
- PEDESTRIAN PUSHBUTTONS SHOULD BE LOCATED TO MEET ALL OF THE FOLLOWING CRITERIA:
- A. UNOBSTRUCTED AND ADJACENT TO A LEVEL ALL-WEATHER SURFACE TO PROVIDE ACCESS FROM A WHEELCHAIR; B. BETWEEN THE EDGE OF THE CROSSWALK LINE
- (EXTENDED) FARTHEST FROM THE CENTER OF THE INTERSECTION AND THE SIDE OF A CURB RAMP (IF PRESENT), BUT NOT GREATER THAN 5 FEET FROM SAID CROSSWALK LINE:
- C. A DISTANCE OF 10" MAXIMUM FROM THE PEDESTRIAN ACCESS ROUTE (PUSHBUTTON EXTENSION ARMS MAY BE USED UP TO 18" IN LENGTH);
- D. BETWEEN 1.5 AND 6 FEET FROM THE EDGE OF THE CURB, SHOULDER, OR PAVEMENT;
- E. WITH THE FACE OF THE PUSHBUTTON PARALLEL TO THE CROSSWALK TO BE USED; AND

F. AT A MOUNTING HEIGHT OF APPROXIMATELY 3.5

- FEET, BUT NO MORE THAN 4 FEET, ABOVE THE SIDEWALK. WHERE THERE ARE PHYSICAL CONSTRAINTS THAT MAKE
- IT IMPRACTICAL TO PLACE THE PEDESTRIAN PUSHBUTTON BETWEEN 1.5 AND 6 FEET FROM THE EDGE OF THE CURB, SHOULDER, OR PAVEMENT, IT SHOULD NOT BE FARTHER THAN 10 FEET FROM THE EDGE OF CURB, SHOULDER, OR PAVEMENT.

EXCEPT AS PROVIDED BELOW, WHERE TWO PEDESTRIAN PUSHBUTTONS ARE PROVIDED ON THE SAME CORNER OF A SIGNALIZED LOCATION, THE PUSHBUTTONS SHOULD BE SEPARATED BY A DISTANCE OF AT LEAST 10 FEET.

WHERE THERE ARE PHYSICAL CONSTRAINTS ON A PARTICULAR CORNER THAT MAKE IT IMPRACTICAL TO PROVIDE THE 10-FOOT SEPARATION BETWEEN THE TWO PEDESTRIAN PUSHBUTTONS, THE PUSHBUTTONS MAY BE PLACED CLOSER TOGETHER OR ON THE SAME POLE.

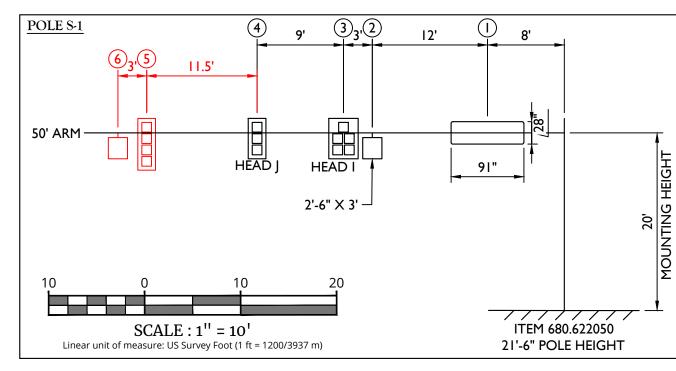
- IF TWO ACCESSIBLE PEDESTRIAN PUSHBUTTONS ARE PLACED LESS THAN 10 FEET APART OR ON THE SAME POLE, EACH ACCESSIBLE PEDESTRIAN PUSHBUTTON SHALL BE PROVIDED WITH THE FOLLOWING FEATURES:
- A. A PUSHBUTTON LOCATOR TONE,
- B. A TACTILE ARROW,
- C. A SPEECH WALK MESSAGE FOR THE WALKING PERSON (SYMBOLIZING WALK) INDICATION, AND

#### D. A SPEECH PUSHBUTTON INFORMATION MESSAGE

THE ACCESSIBLE PEDESTRIAN PUSHBUTTON SHALL BE LOCATED WITHIN 10" OF THE PEDESTRIAN ACCESS ROUTE. A MAXIMUM PUSHBUTTON EXTENSION ARM LENGTH OF 24" MAY BE USED TO ACHIEVE THIS WHERE REQUIRED.

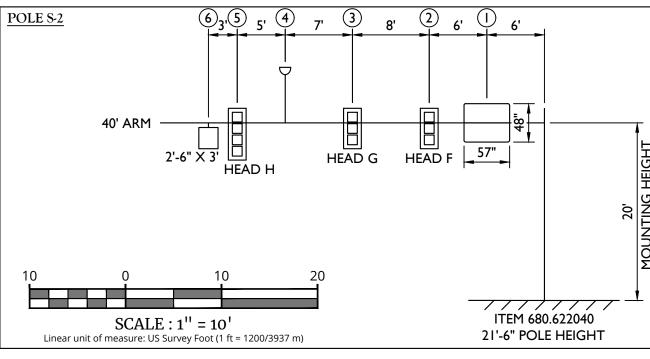
ANY DEVIATIONS FROM THE ABOVE SHALL BE PRESENTED TO THE E.I.C. FOR REVIEW AND APPROVAL PRIOR TO INSTALLATION.

- 25. SEQUENCE OF EVENTS FOR SIGNAL CONSTRUCTION CONTRACTS (CONTRACTOR SHALL CONTACT REGION
- 8 SIGNALS UNIT AT 845-437-3320): A. THE EIC OR INSPECTOR SHALL BE COPIED ON ALL COMMUNICATION TO AND FROM THE SIGNAL CONTRACTOR.
- B. PRECONSTRUCTION/UTILITY MEETING: NOTIFY TRAFFIC & SAFETY AS TO THE TIME AND PLACE. IT SHOULD BE CONFIRMED THAT THE CONTRACTOR HAS THE LATEST SET OF PLANS. THE EIC/INSPECTOR SHOULD DIRECT THE CONTRACTOR TO FORWARD POLE/MAST ARM SHOP DRAWINGS/CALCULATIONS TO THE TRAFFIC & SAFETY OFFICE FOR REVIEW. THIS IS TIME SENSITIVE SINCE THE MANUFACTURER MAY NEED TO REDESIGN THE
- C. REQUEST FOR POWER: REQUEST A SUBMITTAL THROUGH THE POWER REQUEST COORDINATOR THREE MONTHS BEFORE THE START OF ANY TRAFFIC SIGNAL RELATED WORK.
- D. FIRST DAY OF CONSTRUCTION: THE EIC/INSPECTOR SHALL NOTIFY THE REGIONAL TRAFFIC SIGNAL ENGINEER AND ALL SIGNAL CREW SUPERVISORS WITH THE CONTRACTOR'S EMERGENCY CONTACT INFORMATION. AN EMAIL REQUEST FOR A CABINET SHOULD BE MADE BY THE EIC/INSPECTOR TO THE REGIONAL TRAFFIC SIGNAL ENGINEER WHICH INCLUDES THE PIN#, D#, SIGNAL#, LOCATION, NUMBER OF CABINETS/DISCONNECTS NEEDED. AND IF THE CABINET IS NEEDED EARLY FOR PAINTING.
- E. SIGNAL POLE STAKE OUT: THE STAKE OUT OF THE POLE LOCATIONS SHALL BE APPROVED BY THE TRAFFIC SIGNAL UNIT BEFORE THE FOUNDATIONS ARE INSTALLED. THIS IS TO IDENTIFY ANY POSSIBLE UTILITY CLEARANCE PROBLEMS BEFORE THE POLE LOCATION IS FINALIZED. ADDITIONAL CLEARANCE CHECKS MAY BE REQUIRED BEFORE POLES/SPAN WIRES/MAST ARMS ARE INSTALLED. THE SIGNAL UTILITY COORDINATOR WILL SCHEDULE ADDITIONAL CHECKS WITH THE CONTRACTOR WHILE ON SITE.
- F. CABINET RELEASE: WIRING SHEETS WILL BE E-MAILED TO EIC/INSPECTOR AT THE TIME OF CABINET RELEASE.. THE CABINET WILL NOT BE RELEASED UNTIL ALL UTILITY CONFLICTS HAVE A RESOLUTION IN PLACE.
- G. SIGNALS UNDER CONSTRUCTION: THE CONTRACTOR IS EXPECTED TO MAINTAIN AND OPERATE TRAFFIC SIGNALS WHILE UNDER CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE FOR MAKING TIMING ADJUSTMENTS AND SHIFTING HEADS DURING CONSTRUCTION TO ACCOUNT FOR UNFINISHED DETECTION. LANE CLOSURES, AND OTHER ACTIVITIES THAT AFFECT THE OPERATION OF THE SIGNAL. TEMPORARY TURN ONS ARE ONLY ALLOWED WHEN IT IS NECESSARY TO REMOVE THE EXISTING SIGNAL TO FINISH CONSTRUCTION OF THE NEW SIGNAL. THE NEW SIGNAL CAN BE TURNED ON IF THERE ARE STOP BARS, IT PASSES THE GROUND TEST, ALL LEDS ARE WORKING, AND THE HEADS ALIGN IN THE LANES. NYDSOT WILL PROVIDE THE FINAL TIMING PLAN BEFORE A TEMPORARY TURN ON.
- H. TURN-ON: THE EIC/INSPECTOR SHOULD NOTIFY THE REGIONAL TRAFFIC SIGNAL ENGINEER WHEN THE SIGNAL IS READY FOR INSPECTION. A PRE INSPECTION WILL BE DONE TO VERIFY THAT ALL WORK IS COMPLETE. WITHIN 2 WEEKS FROM THE REQUEST, A FULL TURN ON DATE WILL BE SCHEDULED.
- I. THE CONTRACTOR SHALL INSTALL PORTABLE VARIABLE MESSAGE SIGNS (PVMS) ON ALL INTERSECTION APPROACHES FOR A MINIMUM OF ONE-WEEK PRIOR TO THE SCHEDULED TURN ON DATE, PVMS SHALL BE PAID FOR UNDER ITEM 619,110511 - PVMS STANDARD SIZE - FULL MATRIX (LED) NO OPTIONAL EQUIPMENT SPECIFIED, NO CELLULAR COMMUNICATIONS REQUIRED. CONTRACTOR SHALL CONTACT REGION 8 TRAFFIC SIGNALS UNIT TO CONFIRM PVMS MESSAGING PRIOR TO INSTALLATION.
- J. 10-DAY FUNCTIONAL TEST: A PUNCH LIST OF ANY ITEMS TO BE CORRECTED WILL BE GIVEN TO THE CONTRACTOR AT THE TURN ON. ONCE ALL OF THE ITEMS ARE COMPLETE THE 10-DAY FUNCTIONAL TEST WILL BEGIN. THE SIGNAL WILL BE ACCEPTED ONCE THE FUNCTIONAL TEST IS COMPLETE.



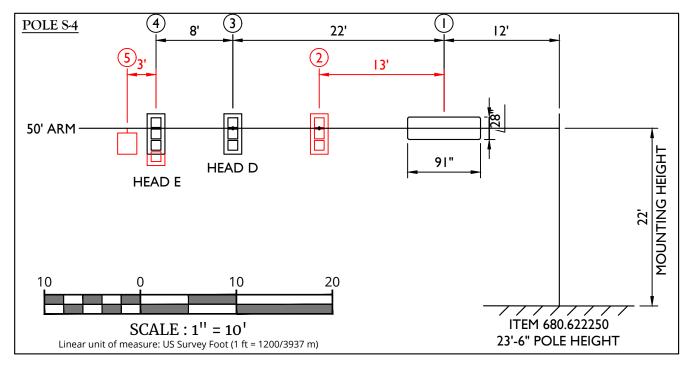
		MAST ARM LO			
LOAD NO.	TYPE	NO. OF 12" SIGNAL SECTIONS	DEAD LOAD (LB)	PROJECTED WIND AREA (SF)	PROJECTED ICE AREA (SF)
1	SIGN	-	43.50	18.0	18.0
2	SIGN	-	22.50	7.5	7.5
3	SIGNAL HEAD I	5	85.83	118.83	360.21
4	SIGNAL HEAD J	3	47.32	8.2	20.9
5	FUTURE SIGNAL HEAD	4	59.45	10.9	27.9
6	FUTURE SIGN	-	22.50	7.5	7.5
NOTES:			•	•	•

- 1. WIND SPEEDS PER STANDARD SPECIFICATION SECTION 724-03.
- DEAD LOADS INCLUDE SIGNAL SECTIONS OF SIGN, BRACKETS AND HARDWARE, EXCLUSIVE OF MAST ARM AND UPRIGHT.



			RM LOAD TABLE POLE S-2		
LOAD NO.	TYPE	NO. OF 12"  SIGNAL  SECTIONS  DEAD LOAD (LB)		PROJECTED WIND AREA (SF)	PROJECTED ICE AREA (SF)
1 SIGN		-	45.50	19.0	19.0
2	SIGNAL HEAD F	3	47.32	8.2	20.9
3	SIGNAL HEAD G	3	47.32	8.2	20.9
4	GRIDSMART CAMERA	-	10.00	1.5	1.5
5	SIGNAL HEAD H	4	59.45	10.9	27.9
6	SIGN	-	22.50	7.5	7.5
NOTES:					

- WIND SPEEDS PER STANDARD SPECIFICATION SECTION 724-03.
- 2. DEAD LOADS INCLUDE SIGNAL SECTIONS OF SIGN, BRACKETS AND HARDWARE, EXCLUSIVE OF MAST ARM AND UPRIGHT

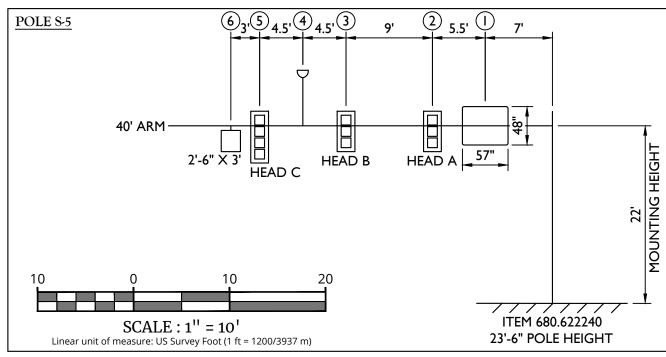


		MAST ARM L POLE			
LOAD NO.	TYPE	NO. OF 12" SIGNAL SECTIONS	DEAD LOAD (LB)	PROJECTED WIND AREA (SF)	PROJECTED ICE AREA (SF)
1	SIGN	-	43.50	18.0	18.0
2	FUTURE SIGNAL HEAD	3	47.32	8.2	20.9
3	SIGNAL HEAD D	3	47.32	8.2	20.9
4	SIGNAL HEAD E	4	59.45	10.9	27.9
5	FUTURE SIGN	-	22.50	7.5	7.5

- WIND SPEEDS PER STANDARD SPECIFICATION SECTION 724-03.
- DEAD LOADS INCLUDE SIGNAL SECTIONS OF SIGN, BRACKETS AND HARDWARE, EXCLUSIVE OF MAST ARM AND UPRIGHT.

ACCOUNT FOR A FUTURE 4-SECTION HEAD WITH BACKPLATE AT THIS LOCATION.

LOAD NO. 3, SIGNAL HEAD E SHALL BE A 3-SECTION HEAD WITH BACKPLATE AS INSTALLED UNDER THIS CONTRACT. HOWEVER LOADING DESIGN SHALL



			RM LOAD TABLE POLE S-5			
LOAD NO.	TYPE	NO. OF 12" SIGNAL SECTIONS	DEAD LOAD (LB)	PROJECTED WIND AREA (SF)	PROJECTED ICE AREA (SF)	
1	SIGN	-	45.50	19.0	19.0	
2	SIGNAL HEAD A	3	47.32	8.2	20.9	
3	SIGNAL HEAD B	3	47.32	8.2	20.9	
4	GRIDSMART CAMERA	-	10.00	1.5	1.5	
5	SIGNAL HEAD C	4	59.45	10.9	27.9	
6	SIGN	-	22.50	7.5	7.5	

- 1. WIND SPEEDS PER STANDARD SPECIFICATION SECTION 724-03. 2. DEAD LOADS INCLUDE SIGNAL SECTIONS OF SIGN, BRACKETS AND
- HARDWARE, EXCLUSIVE OF MAST ARM AND UPRIGHT.

NOTE SCALE REDUCTION

REDUCED TO HALF SIZE. ORIGINAL DRAWING SIZE: 22"X34"

NOTE: DO NOT SCALE DRAWINGS FOR CONSTRUCTION.

ALL INDICATED SCALES ARE

AS SHOWN

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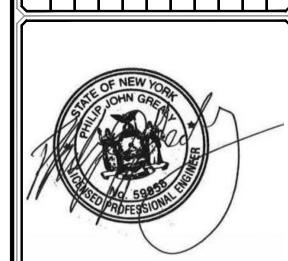
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Philip John Greaty NEW YORK LICENSED PROFESSIONAL ENGINEER LICENSE NUMBER: 059858-1 COLLIERS ENGINEERING & DESIGN CT, P.C. N.Y. C.O.A #: 0017609

TRAFFIC SIGNAL PLANS

UNDERHILL AVENUE **IMPROVEMENTS** 

(SEQR # 22-092)

NYS ROUTE 118 (S.H. 148) AT UNDERHILL AVENUE

TOWN OF YORKTOWN WESTCHESTER COUNTY **NEW YORK** 

WESTCHESTER **Colliers** 

1/8/23

400 Columbus Avenue, Suite 180E Valhalla, NY 10595 Engineering & Design

Phone: 914.347.7500 ARCHITECTURE, LANDSCAPE ARCHITECT SURVEYING CT, P.C.

M.I.A.

R-PL10-SGNL 20006297A TRAFFIC SIGNAL PLAN

NYS ROUTE 118 &

**UNDERHILL AVENUE** 

(SIGNAL NO. W-213)

TSP-02

					TABLE OF SIGNAL I	POLES				
	L	OCATION		ELEV. OF		MOUNTING	ARM	FOOTING	FOUND	DATION
POLE NO.	CENTERLINE STATION	OFFSET	SIDE	FOOTING CAP	ITEM	HEIGHT	LENGTH	MOMENT (FT-KIP)	CODE	CY
S-1	124+20.98	35.79	LT	468.2' ±	680.622050	20'	50'	80	K5	1.9
S-2	125+12.37	43.03	LT	468.0' ±	680.622040	20'	40'	60	K3	1.8
S-3	125+24.90	40.88	LT	-	680.99040010	EXIST.	-	EXIST.	EXIST.	EXIST.
S-4	125+81.92	47.08	RT	465.0' ±	680.622250	22'	50'	80	K5	1.9
S-5	124+99.08	49.58	RT	464.0' ±	680.622240	22'	40'	60	K3	1.8
S-6	124+86.84	41.89	RT	-	680.99040010	EXIST.	-	EXIST.	EXIST.	EXIST.
P-1	124+23.92	40.74	LT	-	680.82250608	EXIST.	-	EXIST.	EXIST.	EXIST.
P-2	124+26.47	36.17	LT	468.3' ±	680.6808	8'	-	-	J1	1.1
P-3	124+30.77	46.24	LT	468.5' ±	680.6808	8'	-	-	J1	1.1
P-4	124+57.48	32.42	LT	-	680.82250608	EXIST.	-	-	EXIST.	EXIST.
P-5	124+86.54	68.57	LT	468.4' ±	680.6808	8'	-	-	J1	1.1
P-10	124+68.54	27.81	RT	-	680.82250608	EXIST.	-	-	EXIST.	EXIST.
P-11	124+62.71	28.28	RT	466.8' ±	680.6808	8'	-	-	J1	1.1
									TOTAL (CY)	11.8

		TABLE OF INI	PUTS			
SDLC CHANNEL	FUNCTION	DETECTION ZONE NUMBER	SIZE	REMARKS		
42	Ø2	42	6' X 40'	PRESENCE		
43	Ø3	43	6' X 40'	PRESENCE		
44	Ø4	44	6' X 40'	PRESENCE		
46	Ø6	46	6' X 40'	PRESENCE		
47	Ø7	47	6' X 40'	PRESENCE		
48	Ø8	48	6' X 40'	PRESENCE		
49	Ø6	49	6' X 6'	NB RIGHT COUNT		
50	Ø6	50	6' X 6'	NB THROUGH COUNT		
51	Ø6	51	6' X 6'	NB LEFT COUNT		
52	Ø8	52	6' X 6'	EB RIGHT COUNT		
53	Ø8	53	6' X 6'	EB THROUGH COUNT		
54	Ø3	54	6' X 6'	EB LEFT COUNT		
55	Ø2	55	6' X 6'	SB RIGHT COUNT		
56	Ø2	56	6' X 6'	SB THROUGH COUNT		
57	Ø2	57	6' X 6'	SB LEFT COUNT		
58	Ø4	58	6' X 6'	WB RIGHT COUNT		
59	Ø4	59	6' X 6'	WB THROUGH COUNT		
60	Ø7	60	6' X 6'	WB LEFT COUNT		

	ESTIMATE OF QUANTITIES		
ITEM NO.	DESCRIPTION	UNIT	QUANTITY
206.03	CONDUIT EXCAVATION AND BACKFILL INCLUDING SURFACE RESTORATION	LF	407
619.1612	MAINTAIN TRAFFIC SIGNAL EQUIPMENT (REQUIREMENT B)	INTM	6
625.01000108	SURVEY AND STAKEOUT (TRAFFIC SIGNALS)	EA	4
662.60000108	FURNISH ELECTRICAL SERVICE	DC	1
680.05010007	360 DIGITAL CAMERA VIDEO DETECTION SYSTEM	EA	1
680.05020007	360 DEGREE CAMERA ASSEMBLY	EA	1
680.5001	POLE EXCAVATION AND CONCRETE FOUNDATION	CY	11.8
680.510501	PULLBOX - RECTANGULAR, 26" X 18", REINFORCED CONCRETE	EA	7
680.520108	CONDUIT, METAL STEEL, ZINC COATED, 3"	LF	375
680.520110	CONDUIT, METAL STEEL, ZINC COATED, 4"	LF	32
680.622040	TRAFFIC SIGNAL POLE - MAST ARM, 20 FT. MOUNTING HEIGHT, 40 FT. ARM LENGTH	EA	1
680.622050	TRAFFIC SIGNAL POLE - MAST ARM, 20 FT. MOUNTING HEIGHT, 50 FT. ARM LENGTH	EA	1
680.622240	TRAFFIC SIGNAL POLE - MAST ARM, 22 FT. MOUNTING HEIGHT, 40 FT. ARM LENGTH	EA	1
680.622250	TRAFFIC SIGNAL POLE - MAST ARM, 22 FT. MOUNTING HEIGHT, 50 FT. ARM LENGTH	EA	1
680.6808	TRAFFIC SIGNAL POLE-BRACKET MOUNT 8 FEET MOUNTING HEIGHT	EA	4
680.700603	RISER ASSEMBLY, 1" DIAMETER	EA	1
680.730514	SIGNAL CABLE, 5 CONDUCTORS, 14 AWG	LF	2120
680.731014	SIGNAL CABLE, 10 CONDUCTORS, 14 AWG	LF	648
680.79000005	REMOVE TRAFFIC SIGNAL INSTALLATION	EA	1
680.80324515	INSTALL MICROCOMPUTER CABINET	EA	1
680.810101	TRAFFIC SIGNAL MODULE - 12 INCH, RED BALL, LED	EA	8
680.810102	TRAFFIC SIGNAL MODULE - 12 INCH, RED ARROW, LED	EA	2
680.810103	TRAFFIC SIGNAL MODULE - 12 INCH, YELLOW BALL, LED	EA	8
680.810104	TRAFFIC SIGNAL MODULE - 12 INCH, YELLOW ARROW, LED	EA	5
680.810105	TRAFFIC SIGNAL MODULE - 12 INCH, GREEN BALL, LED	EA	8
680.810106	TRAFFIC SIGNAL MODULE - 12 INCH, GREEN ARROW, LED	EA	3
 680.810107	TRAFFIC SIGNAL SECTION - TYPE I, 12 INCH	EA	34
	TRAFFIC SIGNAL BRACKET ASSEMBLY - 1 WAY, MAST ARM MOUNT (CABLETYPE)	EA	9
680.81240008	TRAFFIC SIGNAL BRACKET ASSEMBLY - 2 WAY, MAST ARM MOUNT (CABLETYPE)	EA	1
 680.8151	ACCESSIBLE PEDESTRIAN SIGNAL (APS) WITHOUT POST	EA	4
	PEDESTRIAN SIGNAL SECTION - TYPE I, 12 INCH	EA	8
	PEDESTRIAN SIGNAL MODULE - 12 INCH BI-MODAL, HAND/MAN SYMBOLS LED	EA	4
	PEDESTRIAN SIGNAL BRACKET MOUNT ASSEMBLY	EA	4
680.815001	PEDESTRIAN SIGNAL MODULE - 12 INCH COUNTDOWN TIMER, LED	EA	4
 680.8199	BACKPLATES FOR TRAFFIC SIGNAL HEADS	EA	10
	OVERHEAD SIGN ASSEMBLY, TYPE G	EA	7
	BREAKAWAY TRANSFORMER BASE	EA	4
680.82250608	REMOVE AND DISPOSE PEDESTRIAN POLE AND FOUNDATION	EA	3
680.82250801	REMOVE TRAFFIC SIGNAL PULLBOXES	EA	7
680.90920008	ELECTRIC METER SOCKET, 200 AMP, SINGLE PHASE, 240/120VOLT W/ BYPASS SWITCH FOR SIGNAL INSTALLATIONS	EA	1
680.94000008	TRAFFIC SIGNAL SERVICE ENTRANCE	EA	1
680.9499	INSTALL ELECTRICAL DISCONNECT/GENERATOR TRANSFER SWITCH	EA	1
680.950206	ELECTRICAL SERVICE CABLE 2 WIRE 6 GAUGE	LF	14
680.99040010	REMOVE TRAFFIC SIGNAL POLE	EA	2

			TABLE OF P	ULLBOXES		
		LOCATION			680.510501	680.82250801
PULLBOX NO.	CENTERLINE STATION	OFFSET	SIDE	ELEV. OF TOP	RECTANGULAR 26" X 18" RC	REMOVE TRAFFIC SIGNAL PULLBOXES
PB-1	124+26.10	47.15	LT	468.9' ±	1	0
PB-2	124+18.87	52.24	LT	-	0	1
PB-3	124+52.26	39.41	LT	-	0	1
PB-4	124+83.08	74.85	LT	469.0' ±	1	0
PB-5	125+11.61	37.68	LT	-	0	1
PB-6	125+16.94	44.40	LT	468.7' ±	1	0
PB-7	125+65.59	28.61	RT	-	0	1
PB-8	125+78.01	50.55	RT	465.0' ±	1	0
PB-9	125+51.46	47.66	RT	-	0	1
PB-10	125+23.44	69.14	RT	-	0	1
PB-11	125+21.24	81.03	RT	462.0' ±	1	0
PB-12	124+95.82	54.16	RT	463.0' ±	1	0
PB-13	124+80.66	29.56	RT	-	0	1
PB-14	124+61.03	38.77	RT	462.8' ±	1	0
				TOTAL	7	7

				TA	BLE OF OF	PERATION						
PHASE FACE	1	2	3	4	5	6	7	8	9	10	PED 2	PED 3
ø2	G	O	R	R	←R	R	R	←R	R	R	DW <sup>1</sup>	DW
ø3	R	R <del>-G&gt;</del>	R	R	←G	R	R	←R	R	R	DW	DW
ø4	R	R	R	R	<del>&lt;</del> FY−	R	R	<del><r−< del=""></r−<></del>	G	G	DW	DW
ø6	R	R	G	G	←R	R	R	<del><r< del="">−</r<></del>	R	R	DW	DW
ø7	R	R	R	R	←R	R	R	≺G−	R	R	DW	DW
ø8	R	R	R	R	←R	G	G	<del><fy< del=""></fy<></del>	R	R	DW	DW <sup>1</sup>
ø2+ø6	G	G	G	G	←R	R	R	<del><r−< del=""></r−<></del>	R	R	DW <sup>1</sup>	DW
ø3+ø7	R	R <del>-G&gt;</del>	R	R	←G	R	R	←G−	R	R	DW	DW
ø3+ø8	R	R <del>-G&gt;</del>	R	R	←G	G	G	<del><fy< del=""></fy<></del>	R	R	DW	DW <sup>1</sup>
ø4+ø7	R	R	R	R	<del>&lt;</del> FY−	R	R	≺G−	G	G	DW	DW
ø4+ø8	R	R	R	R	<del>&lt;</del> FY−	G	G	<del><fy< del=""></fy<></del>	G	G	DW	DW <sup>1</sup>
FLASH OPERATION	FY	FY	FY	FY	DARK	FR	FR	DARK	FR	FR	DARK	DARK

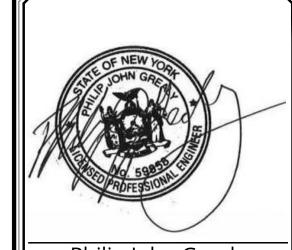
#### NOTES:

 PEDESTRIAN SIGNAL TO BE DEMAND ACTUATED ONLY UPON ACTUATION OF A PEDESTRIAN PUSH BUTTON THE INDICATIONS SHALL DISPLAY A STEADY "MAN" FOLLOWED BY A FLASHING "HAND" AND COUNTDOWN TIMER AND THEN A STEADY "HAND".

		ESTIMATE O	F CONDUITS		
CONDUIT NO.	LOCA	ΓΙΟΝ	2" STEEL	680.520108	680.520110
CONDON NO.	FROM	TO	2 31222	3" STEEL	4" STEEL
C-1	P-2	PB-1	-	11	-
C-2	S-1	PB-1	-	-	13
C-3	PB-3	PB-2	EX. TO BE ABANDONED	-	-
C-4	INDUCTION LOOP	PB-2	EX. TO BE ABANDONED	-	-
C-5	P-3	PB-1	-	5	-
C-6	P-4	PB-3	EX. TO BE ABANDONED	-	-
C-7	PB-4	PB-1	-	65	-
C-8	P-5	PB-4	-	7	-
C-9	PB-6	PB-4	-	44	-
C-10	PB-3	PB-5	EX. TO BE ABANDONED	-	-
C-11	S-2	PB-6	-	-	9
C-12	PB-5	S-3	EX. TO BE ABANDONED	-	-
C-14	INDUCTION LOOP	PB-5	EX. TO BE ABANDONED	-	-
C-15	INDUCTION LOOP PB-7		EX. TO BE ABANDONED	-	-
C-18	S-4	PB-8	-	-	5
C-19	PB-7	PB-9	EX. TO BE ABANDONED	-	-
C-20	PB-8	PB-11		64	-
C-21	PB-9	PB-10	EX. TO BE ABANDONED	-	-
C-23	PB-10	PB-13	EX. TO BE ABANDONED	-	-
C-24	PB-11	PB-12		39	-
C-25	PB-12	S-5	-	-	5
C-26	PB-14	PB-12	-	38	
C-27 P-10 C-28 INDUCTION LOOP		PB-13	EX. TO BE ABANDONED	-	-
		PB-13	EX. TO BE ABANDONED	-	-
C-29	P-11	PB-14	-	12	-
C-30	PB-1	PB-14	-	90	-
		TOTAL (FEET)	0	375	32

ESTIMATE O	F CONDUITS			
TION	011 6775	680.520108	680.520110	
ТО	2" STEEL	3" STEEL	4" STEEL	Colliers
PB-1	-	11	-	
PB-1	-	-	13	Engineering
PB-2	EX. TO BE ABANDONED	-	-	& Design
PB-2	EX. TO BE ABANDONED	-	-	www.colliersengineering.com
PB-1	-	5	-	Copyright © 2025. Colliers Engineering & Design All Rights Reserved. This drawin
PB-3	EX. TO BE ABANDONED	-	-	and all the information contained herein is authorized for use only by the party fo whom the services were contracted or to whom it is certified. This drawing may no be copied, reused, disclosed, distributed or relied upon for any other purpos
PB-1	-	65	-	without the express written consent of Colliers Engineering & Design.
PB-4	-	7	-	
PB-4	-	44	-	
PB-5	EX. TO BE ABANDONED	-	-	PROTECT YOURSELF  ALL STATES REQUIRE NOTIFICATION OF EXCAVATORS, DESIGNERS, OR ANY PERSO
PB-6	-	-	9	PREPARING TO DISTURB THE EARTH'S SURFACE ANYWHERE IN ANY STATE
S-3	EX. TO BE ABANDONED	-	-	Edition
PB-5	EX. TO BE ABANDONED	-	-	FOR STATE SPECIFIC DIRECT PHONE NUMBERS VISIT: WWW.CALL811.COM
PB-7	EX. TO BE ABANDONED	-	-	
PR-8	_	_	5	19/24 SDOT

/N BY DESCRIPTION	A. REVISED PER NYSDOT COMMENTS RECEIVED 3/19/24	M. REVISED PER NYSDOT 4/25/24 COMMENTS.	A. REVISED PER NYSDOT 5/2/24 COMMENTS.	.A. REVISED TRAFFIC SIGNAL PLAN SHEETS PER NYSDOT .A. SIGNAL GROUP 5/23/24 EMAIL COMMENTS.	A. REVISED PER NYSDOT 7/1/24 COMMENTS.	A. REVISED PER NYSDOT 7/31/24 COMMENTS.	5D REVISED PER QA/QC REVIEW	A. REVISED PER NYSDOT 8/30/24 COMMENTS.	.A. REVISED PER NYSDOT 9/20/24 COMMENTS. A. FINAL SET FOR PERMITTING.	A. REVISED FOR REBID.
DRAWN BY	M.J.A.	J.F.M.	M.J.A.	M.J.A.	M.J.A.	M.J.A.	RGD	M.J.A.	M.J.A.	M.J.A.
DATE	4/3/24	4/26/24	5/14/24	5/24/24	7/1/24	8/7/24	8/15/24	9/12/24	9/23/24	1/31/25
REV	1	2	3	4	5	9	7	8	6	10



Philip John Grealy
NEW YORK LICENSED PROFESSIONAL ENGINEER
LICENSE NUMBER: 059858-1 COLLIERS ENGINEERING & DESIGN CT, P.C. N.Y. C.O.A #: 0017609

TRAFFIC SIGNAL PLANS

FOR

UNDERHILL AVENUE **IMPROVEMENTS** (SEQR # 22-092)

NYS ROUTE 118 (S.H. 148) AT UNDERHILL AVENUE

TOWN OF YORKTOWN WESTCHESTER COUNTY **NEW YORK** 

Colliers

WESTCHESTER 400 Columbus Avenue, Suite 180E Valhalla, NY 10595 Phone: 914.347.7500

Engineering COLLIERS ENGINEERING & DESIGN, ARCHITECTURE, LANDSCAPE ARCHITECTURE, SURVEYING CT, P.C. & Design

AS SHOWN 1/8/23 M.J.A. R-PL10-SGNL 20006297A

TRAFFIC SIGNAL PLAN NYS ROUTE 118 & UNDERHILL AVENUE (SIGNAL NO. W-213)

TSP-03

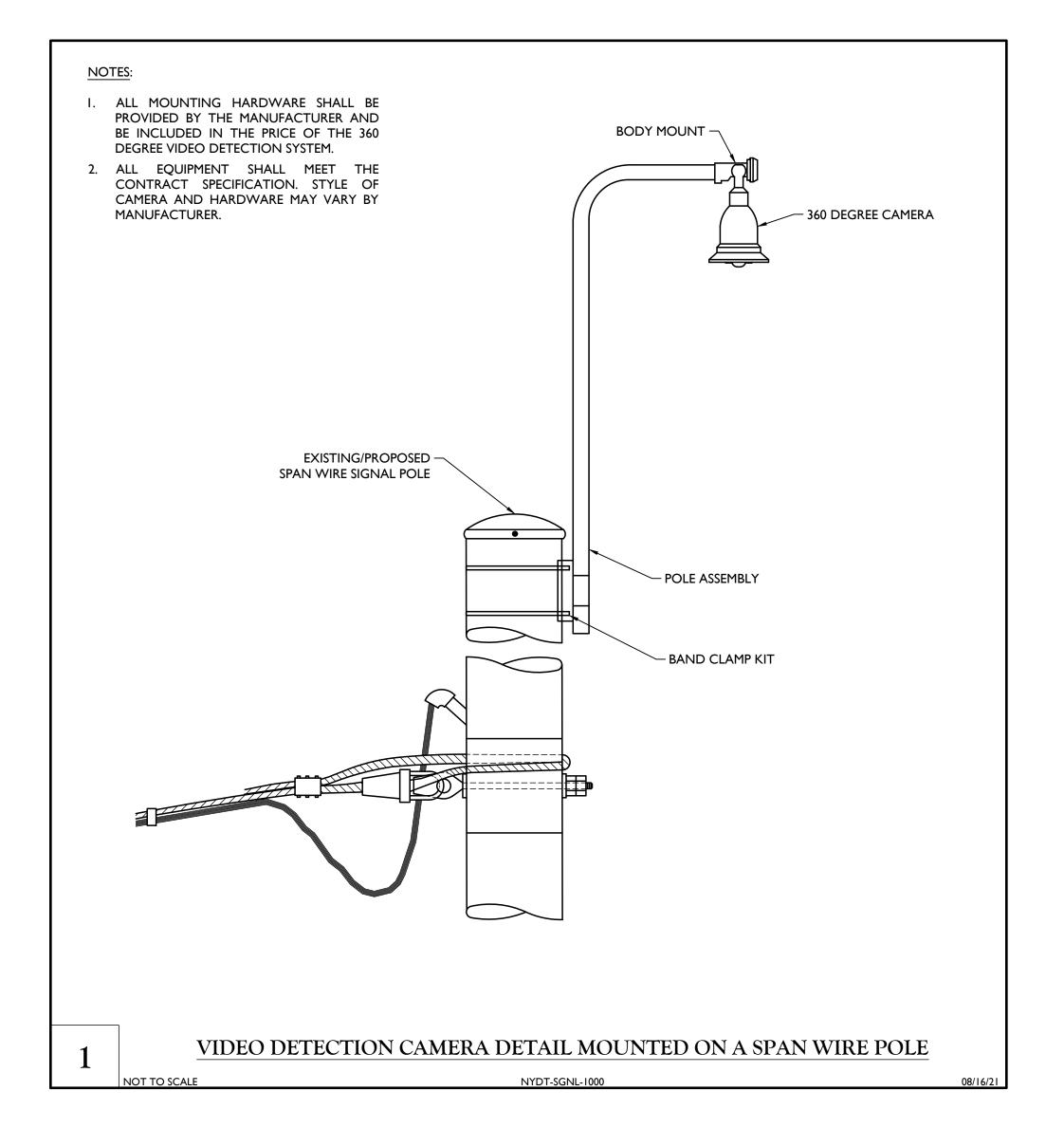


	TABLE OF	PEDESTRIAN	INDICATION	IS						
ITEM NUMBER	DESCRIPTION	UNIT	P-1	P-2	P-3	P-4	P-5	P-10	P-11	TOTAL
680.5001	POLE EXCAVATION AND CONCRETE FOUNDATION	CY	-	1.1	1.1	-	1.1	-	1.1	4.4
680.6808	TRAFFIC SIGNAL POLE-BRACKET MOUNT 8 FEET MOUNTING HEIGHT	EA	-	1	1	-	1	-	1	4
680.8151	ACCESSIBLE PEDESTRIAN SIGNAL (APS) WITHOUT POST	EA	-	1	1	-	1	-	1	4
680.813103	PEDESTRIAN SIGNAL SECTION - TYPE I, 12 INCH	EA	-	2	2	-	2	-	2	8
680.813105	PEDESTRIAN SIGNAL MODULE - 12 INCH BI-MODAL,HAND/MAN SYMBOLS LED	EA	-	1	1	-	1	-	1	4
680.8141	PEDESTRIAN SIGNAL BRACKET MOUNT ASSEMBLY	EA	-	1	1	-	1	-	1	4
680.815001	PEDESTRIAN SIGNAL MODULE - 12 INCH COUNTDOWN TIMER, LED	EA	-	1	1	-	1	-	1	4
680.8223	BREAKAWAY TRANSFORMER BASE	EA	-	1	1	-	1	-	1	4
680.82250608	REMOVE AND DISPOSE PEDESTRIAN POLE AND FOUNDATION	EA	1	-	-	1	-	1	-	3

	ESTIMATE (	OF CABLES				
	ROUTE		CABLE	# OF	680.730514	680.731014
FROM	THROUGH	ТО	DESCRIPTION	CABLES	5 C, 14 AWG	10 C, 14 AWG
CONTROLLER	S-5	SIGNAL HEAD A	14-05C-A-X/X	1	42	-
CONTROLLER	S-5	SIGNAL HEAD B	14-05C-B-X/X	1	54	-
CONTROLLER	S-5	SIGNAL HEAD C	14-10C-C-X/X	1	-	64
CONTROLLER	S-5, C-25, PB-12, C-24, PB-11, C-20, PB-8, C-18, S-4	SIGNAL HEAD D	14-05C-D-X/X	1	200	-
CONTROLLER	S-5, C-25, PB-12, C-24, PB-11, C-20, PB-8, C-18, S-4	SIGNAL HEAD E	14-05C-E-X/X	1	208	-
CONTROLLER	S-5, C-25, PB-12, C-26, PB-14, C-30, PB-1, C-7, PB-4, C-9, PB-6, C-11, S-2	SIGNAL HEAD F	14-05C-F-X/X	1	341	-
CONTROLLER	S-5, C-25, PB-12, C-26, PB-14, C-30, PB-1, C-7, PB-4, C-9, PB-6, C-11, S-2	SIGNAL HEAD G	14-05C-G-X/X	1	351	-
CONTROLLER	S-5, C-25, PB-12, C-26, PB-14, C-30, PB-1, C-7, PB-4, C-9, PB-6, C-11, S-2	SIGNAL HEAD H	14-10C-H-X/X	1	-	360
CONTROLLER	S-5, C-25, PB-12, C-26, PB-14, C-30, PB-1, C-2, S-1	SIGNAL HEAD I	14-10C-I-X/X	1	-	224
CONTROLLER	S-5, C-25, PB-12, C-26, PB-14, C-30, PB-1, C-2, S-1	SIGNAL HEAD J	14-05C-J-X/X	1	238	-
CONTROLLER	S-5, C-25, PB-12, C-26, PB-14, C-30, PB-1, C-1, P-2	PED P-2	14-05C	1	184	-
CONTROLLER	S-5, C-25, PB-12, C-26, PB-14, C-30, PB-1, C-5, P-3	PED P-3	14-05C	1	177	-
CONTROLLER	S-5, C-25, PB-12, C-26, PB-14, C-30, PB-1, C-7, PB-4, C-8, P-5	PED P-5	14-05C	1	253	-
CONTROLLER	S-5, C-25, PB-12, C-26, PB-14, C-29, P-11	PED P-11	14-05C	1	72	-
	•		•	TOTAL	2120	648

		TABLE	OF SIG	NAL H	IEADS					
				1	MOD	ULES			SECTI	ON
HEAD	BRACKET	FACE	680.810101 RED BALL - 12 IN.	680.810102 RED ARROW - 12 IN.	680.810103 YELLOW BALL - 12 IN.	680.810104 YELLOW ARROW - 12 IN.	680.810105 GREEN BALL - 12 IN.	680.810106 GREEN ARROW - 12 IN.	680.810107 TRAFFIC SIGNAL SECTION, TYPE I - 12 IN.	680.8199 TRAFFIC SIGNAL BACKPLATE
Α	680.81230008	7	1	-	1	-	1	-	3	1
В	680.81230008	6	1	-	1	1	1	-	3	1
С	680.81230008	5	ı	1	-	2	-	1	4	1
D	680.81230008	4	1	-	1	1	1	-	3	1
E	680.81230008	3	1	-	1	ı	1	-	3	1
F	680.81230008	10	1	-	1	-	1	-	3	1
G	680.81230008	9	1	-	1	-	1	-	3	1
Н	680.81230008	8	-	1	-	2	-	1	4	1
I	680.81240008	2	1	-	1	1	1	1	5	1
J	680.81230008	1	1	-	1	-	1	-	3	1
	TO	TAL (EACH)	8	2	8	5	8	3	34	10

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Philip John Grealy
NEW YORK LICENSED PROFESSIONAL ENGINEER
LICENSE NUMBER: 059858-1 COLLIERS ENGINEERING & DESIGN CT, P.C. N.Y. C.O.A #: 0017609

TRAFFIC SIGNAL PLANS

FOR

UNDERHILL AVENUE **IMPROVEMENTS** (SEQR # 22-092)

NYS ROUTE 118 (S.H. 148) AT UNDERHILL AVENUE

TOWN OF YORKTOWN WESTCHESTER COUNTY **NEW YORK** 

Colliers

WESTCHESTER 400 Columbus Avenue, Suite 180E Valhalla, NY 10595

Phone: 914.347.7500 Engineering & Design

AS SHOWN 1/8/23 M.J.A. R-PL10-SGNL 20006297A

> E: TRAFFIC SIGNAL PLAN NYS ROUTE 118 & UNDERHILL AVENUE (SIGNAL NO. W-213)

TSP-04

UNAUTHORIZED ALTERATION OR ADDITION TO A SURVEY OR ENGINEERING MAP BEARING A LICENSED LAND SURVEYOR OR PROFESSIONAL ENGINEER IS A VIOLATION OF SECTION 7209, SUB-DIVISION 2, OF THE NEW YORK STATE EDUCATION LAW. ONLY MAPS WITH THE LAND SURVEYOR OR PROFESSIONAL ENGINEER'S SEAL ARE GENUINE TRUE AND CORRECT COPIES OF THE LAND SURVEYOR OR PROFESSIONAL ENGINEER'S ORIGINAL WORK AND OPINION.

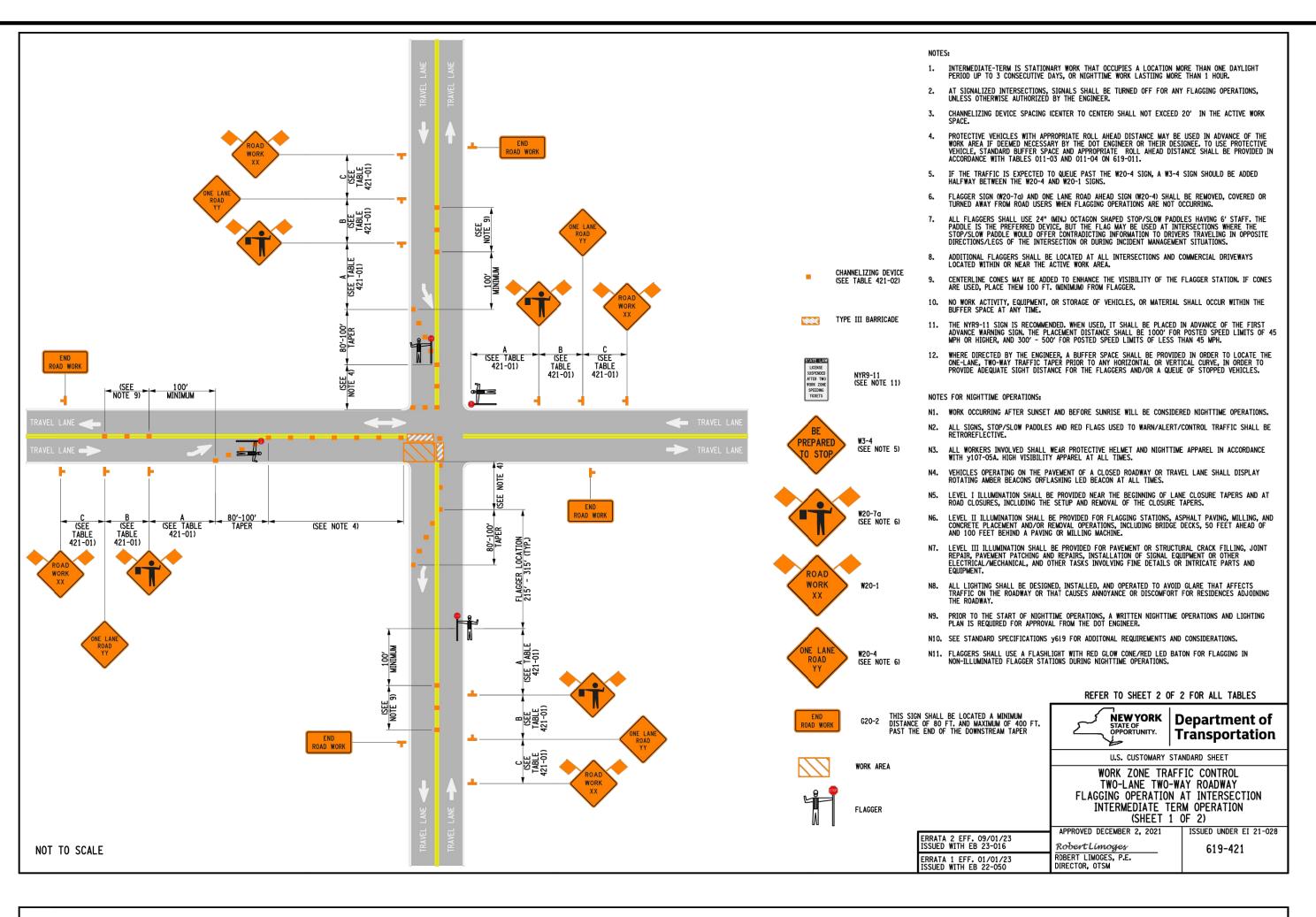


TABLE 421-01	ADTAILCE	. WAININ	10 3101	JI ACIN	
•	DISTANC	E BETWEE	N SIGNS	SIGN I	LEGEND
ROAD TYPE	A (FT.)	B (FT.)	C (FT.)	xx	YY
URBAN (≤ 30 MPH+)	100	100	100	AHEAD	AHEAD
URBAN (35-40 MPH*)	200	200	200	AHEAD	AHEAD
URBAN (≥45 MPH+)	350	350	350	1000 FT.	AHEAD
RURAL	500	500	500	1500 FT.	1000 FT.

WORK ZONE PROVISIONS	92				MUTCD C	OMPLIANT CH	ANNELIZING	DEVICE		
INTERMEDIATE-TERM STATIONARY WORK ZONES INVOLVE WORK THAT COCUPIES A LOCATION FOR MORE THAN 1 DAYLIGHT PERIOD UP TO 3 CONSECUTIVE DAYS, OR MIGHTIME WORK THAT OCCUPIES A LOCATION FOR MORE THAN 1 HOUR	MAXIMUM DEVICE SPACING (CENTER TO CENTER)	DRUMS	STANDARD CONES	TALL CONES	EXTRA TALL CONES	TEMPORARY Tubular Markers	INTERIM TUBULAR MARKERS	VERTICAL PANELS	OVERSIZED VERTICAL PANELS	
SHOULDER/MERGING/	20 FT. •	Х							Х	
SHIFTING TAPERS	40 FT.	Х							Х	
MARKING FOR TRANSVERSE BUMPS <sup>1</sup>	N/A	x <sup>2</sup>			x <sup>2</sup>				x <sup>2</sup>	
TRANSVERSE DEVICE WITHIN CLOSED TRAFFIC LANE AND/OR SHOULDER	800 FT.	х		х	х			х	х	
REMOVAL OF EXISTING GUIDE RAIL	80 FT. 40 FT.	х		х	х	х		x	Х	

T	ABLE 421-03: REQUIRED S	IGN SIZES*						
SIGN NON-FREEWAY FREEWAY								
W20-1	36x36	48×48						
W20-4	36x36	48×48						
W20-7A	36x36	48×48						
G20-2	36×18	48x24						
WARNING FLAG	18x18	18×18						
*FREEW/	AY SIZES MAY BE USED ON NON-F CONSTRAINTS DO NOT EXI							

NEW YORK STATE OF OPPORTUNITY.	Department of Transportation
U.S. CUSTOMARY ST	ANDARD SHEET
WORK ZONE TRAF TWO-LANE TWO-V FLAGGING OPERATION INTERMEDIATE TE (SHEET 2	VAY ROADWAY AT INTERSECTION RM OPERATION
APPROVED APRIL 8, 2022	ISSUED UNDER EI 22-008
Robert Limoges ROBERT LIMOGES, P.E. DIRECTOR, OTSM	619-421

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_	_	_	_	_	_	_	_	_	=
:D 3/19/24			R NYSDOT						



WORK ZONE TRAFFIC CONTROL COORDINATION NOTE:

TRAFFIC SIGNAL CONTRACTOR SHALL COORDINATE DAILY WORK ACTIVITIES WITH ROADWORK CONTRACTOR TO ENSURE

CONSISTENCY OF WORK ZONE TRAFFIC CONTROL

THROUGHOUT CONSTRUCTION.

Philip John Grealy NEW YORK LICENSED PROFESSIONAL ENGINEER LICENSE NUMBER: 059858-1 COLLIERS ENGINEERING & DESIGN CT, P.C. N.Y. C.O.A #: 0017609

TRAFFIC SIGNAL PLANS

FOR UNDERHILL AVENUE **IMPROVEMENTS** (SEQR # 22-092)

NYS ROUTE 118 (S.H. 148) AT UNDERHILL AVENUE

TOWN OF YORKTOWN WESTCHESTER COUNTY **NEW YORK** 

Colliers Engineering & Design

WESTCHESTER 400 Columbus Avenue, Suite 180E Valhalla, NY 10595 Phone: 914.347.7500 COLLIERS ENGINEERING & DESIGN, ARCHITECTURE, LANDSCAPE ARCHITECTURE SURVEYING CT, P.C.

1/8/23 R-PL11-WZTC-SGNL

TWO-LANE TW-WAY ROADWAY FLAGGING OPERATION AT INTERSECTION

WZTC-01

NOTE: DO NOT SCALE DRAWINGS FOR CONSTRUCTION.

ADD ALTERNATE S1

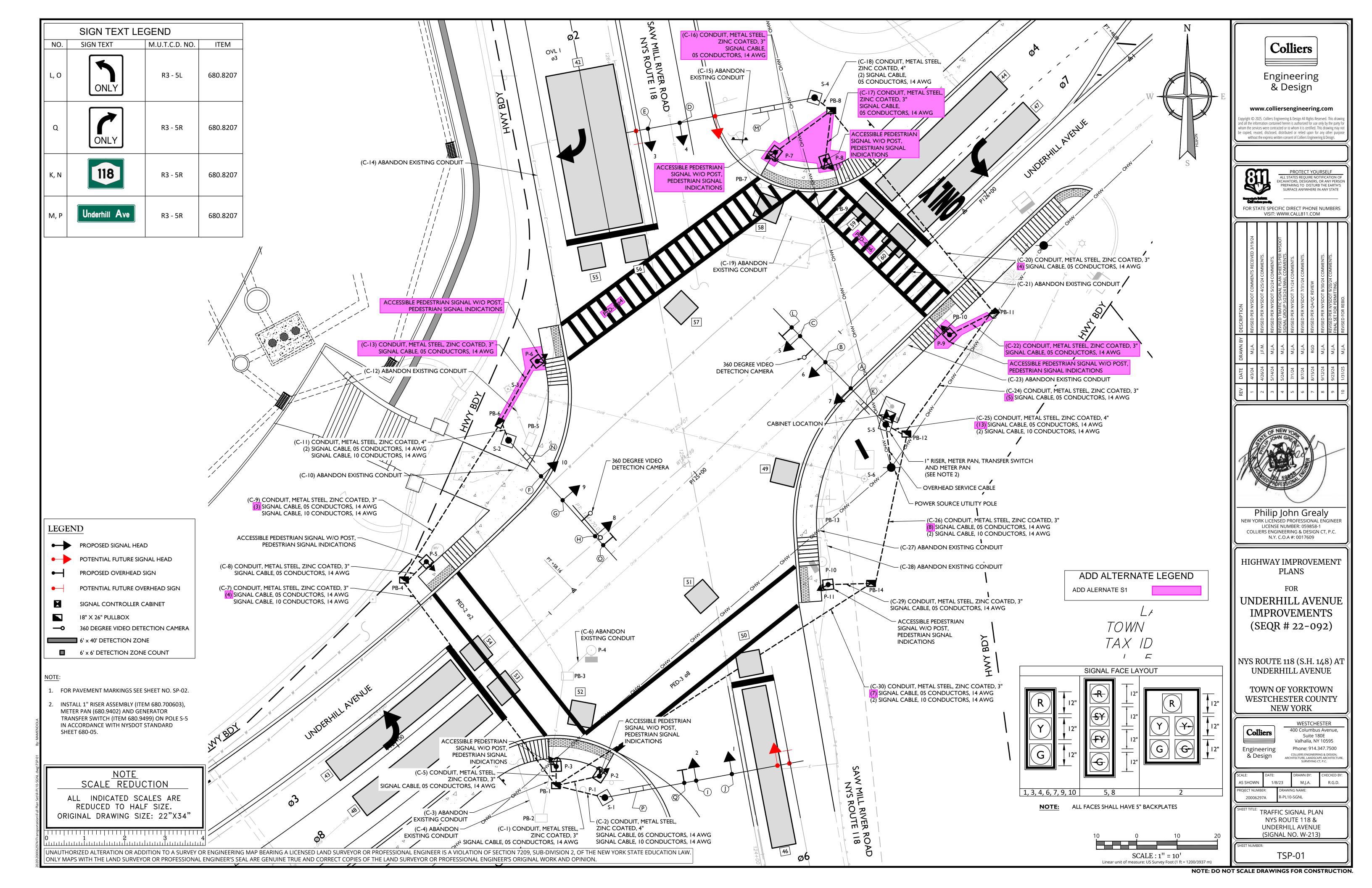


					TABLE OF SIGNAL I	POLES				
	L	OCATION		ELEV. OF		MOUNTING	ARM	FOOTING	FOUND	ATION
POLE NO.	CENTERLINE STATION	OFFSET	SIDE	FOOTING CAP	ITEM	HEIGHT	LENGTH	MOMENT (FT-KIP)	CODE	CY
S-1	124+20.98	35.79	LT	468.2' ±	680.622050	20'	50'	80	K5	1.9
S-2	125+12.37	43.03	LT	468.0' ±	680.622040	20'	40'	60	K3	1.8
S-3	125+24.90	40.88	LT	-	680.99040010	EXIST.	-	EXIST.	EXIST.	EXIST.
S-4	125+81.92	47.08	RT	465.0' ±	680.622250	22'	50'	80	K5	1.9
S-5	124+99.08	49.58	RT	464.0' ±	680.622240	22'	40'	60	K3	1.8
S-6	124+86.84	41.89	RT	-	680.99040010	EXIST.	-	EXIST.	EXIST.	EXIST.
P-1	124+23.92	40.74	LT	-	680.82250608	EXIST.	-	EXIST.	EXIST.	EXIST.
P-2	124+26.47	36.17	LT	468.3' ±	680.6808	8'	-	-	J1	1.1
P-3	124+30.77	46.24	LT	468.5' ±	680.6808	8'	-	-	J1	1.1
P-4	124+57.48	32.42	LT	-	680.82250608	EXIST.	-	-	EXIST.	EXIST.
P-5	124+86.54	68.57	LT	468.4' ±	680.6808	8'	-	-	J1	1.1
P-6	125+30.31	32.46	LT	466.9' ±	680.6808	8'	-	-	J1	1.1
P-7	125+70.39	35.05	RT	464.0' ±	680.6808	8'	-	-	J1	1.1
P-8	125+66.20	46.82	RT	463.7' ±	680.6808	8'	-	-	J1	1.1
P-9	125+18.03	69.18	RT	463.5' ±	680.6808	8'	-	-	J1	1.1
P-10	124+68.54	27.81	RT	-	680.82250608	EXIST.	-	-	EXIST.	EXIST.
P-11	124+62.71	28.28	RT	466.8' ±	680.6808	8'	-	-	J1	1.1
		•	•	'				•	TOTAL (CY)	16.2

		TABLE OF INI	PUTS	
SDLC CHANNEL	FUNCTION	DETECTION ZONE NUMBER	SIZE	REMARKS
42	Ø2	42	6' X 40'	PRESENCE
43	Ø3	43	6' X 40'	PRESENCE
44	Ø4	44	6' X 40'	PRESENCE
46	Ø6	46	6' X 40'	PRESENCE
47	Ø7	47	6' X 40'	PRESENCE
48	Ø8	48	6' X 40'	PRESENCE
49	Ø6	49	6' X 6'	NB RIGHT COUNT
50	Ø6	50	6' X 6'	NB THROUGH COUNT
51	Ø6	51	6' X 6'	NB LEFT COUNT
52	Ø8	52	6' X 6'	EB RIGHT COUNT
53	Ø8	53	6' X 6'	EB THROUGH COUNT
54	Ø3	54	6' X 6'	EB LEFT COUNT
55	Ø2	55	6' X 6'	SB RIGHT COUNT
56	Ø2	56	6' X 6'	SB THROUGH COUNT
57	Ø2	57	6' X 6'	SB LEFT COUNT
58	Ø4	58	6' X 6'	WB RIGHT COUNT
59	Ø4	59	6' X 6'	WB THROUGH COUNT
60	Ø7	60	6' X 6'	WB LEFT COUNT

	ESTIMATE OF QUANTITIES		
ITEM NO.	DESCRIPTION	UNIT	QUANTITY
206.03	CONDUIT EXCAVATION AND BACKFILL INCLUDING SURFACE RESTORATION	LF	471
 619.1612	MAINTAIN TRAFFIC SIGNAL EQUIPMENT (REQUIREMENT B)	INTM	6
625.01000108	SURVEY AND STAKEOUT (TRAFFIC SIGNALS)	EA	4
662.60000108	FURNISH ELECTRICAL SERVICE	DC	1
680.05010007	360 DIGITAL CAMERA VIDEO DETECTION SYSTEM	EA	1
680.05020007	360 DEGREE CAMERA ASSEMBLY	EA	1
580.5001	POLE EXCAVATION AND CONCRETE FOUNDATION	CY	16.2
 680.510501	PULLBOX - RECTANGULAR, 26" X 18", REINFORCED CONCRETE	EA	7
 680.520108	CONDUIT, METAL STEEL, ZINC COATED, 3"	LF	439
580.520110	CONDUIT, METAL STEEL, ZINC COATED, 4"	LF	32
580.622040	TRAFFIC SIGNAL POLE - MAST ARM, 20 FT. MOUNTING HEIGHT, 40 FT. ARM LENGTH	EA	1
680.622050	TRAFFIC SIGNAL POLE - MAST ARM, 20 FT. MOUNTING HEIGHT, 50 FT. ARM LENGTH	EA	1
	TRAFFIC SIGNAL POLE - MAST ARM, 22 FT. MOUNTING HEIGHT, 40 FT. ARM LENGTH	EA	1
	TRAFFIC SIGNAL POLE - MAST ARM, 22 FT. MOUNTING HEIGHT, 50 FT. ARM LENGTH	EA	1
680.6808	TRAFFIC SIGNAL POLE-BRACKET MOUNT 8 FEET MOUNTING HEIGHT	EA	8
680.700603	RISER ASSEMBLY, 1" DIAMETER	EA	1
	SIGNAL CABLE, 5 CONDUCTORS, 14 AWG	LF	2830
	SIGNAL CABLE, 10 CONDUCTORS, 14 AWG	LF	648
	REMOVE TRAFFIC SIGNAL INSTALLATION	EA	1
	INSTALL MICROCOMPUTER CABINET	EA	1
	TRAFFIC SIGNAL MODULE - 12 INCH, RED BALL, LED	EA	8
 680.810102	TRAFFIC SIGNAL MODULE - 12 INCH, RED ARROW, LED	EA	2
 680.810103	TRAFFIC SIGNAL MODULE - 12 INCH, YELLOW BALL, LED	EA	8
680.810104	TRAFFIC SIGNAL MODULE - 12 INCH, YELLOW ARROW, LED	EA	5
 680.810105	TRAFFIC SIGNAL MODULE - 12 INCH, GREEN BALL, LED	EA	8
680.810106	TRAFFIC SIGNAL MODULE - 12 INCH, GREEN ARROW, LED	EA	3
 680.810107	TRAFFIC SIGNAL SECTION - TYPE I, 12 INCH	EA	34
680.81230008	TRAFFIC SIGNAL BRACKET ASSEMBLY - 1 WAY, MAST ARM MOUNT (CABLETYPE)	EA	9
	TRAFFIC SIGNAL BRACKET ASSEMBLY - 2 WAY, MAST ARM MOUNT (CABLETYPE)	EA	1
 680.8151	ACCESSIBLE PEDESTRIAN SIGNAL (APS) WITHOUT POST	EA	8
 680.813103	PEDESTRIAN SIGNAL SECTION - TYPE I, 12 INCH	EA	16
 680.813105	PEDESTRIAN SIGNAL MODULE - 12 INCH BI-MODAL, HAND/MAN SYMBOLS LED	EA	8
680.8141	PEDESTRIAN SIGNAL BRACKET MOUNT ASSEMBLY	EA	8
	PEDESTRIAN SIGNAL MODULE - 12 INCH COUNTDOWN TIMER, LED	EA	8
 680.8199	BACKPLATES FOR TRAFFIC SIGNAL HEADS	EA	10
	OVERHEAD SIGN ASSEMBLY, TYPE G	EA	7
680.8223	BREAKAWAY TRANSFORMER BASE	EA	8
680.82250608	REMOVE AND DISPOSE PEDESTRIAN POLE AND FOUNDATION	EA	3
580.82250801	REMOVE TRAFFIC SIGNAL PULLBOXES	EA	7
680.90920008	ELECTRIC METER SOCKET, 200 AMP, SINGLE PHASE, 240/120VOLT W/ BYPASS SWITCH FOR SIGNAL INSTALLATIONS	EA	1
580.94000008	TRAFFIC SIGNAL SERVICE ENTRANCE	EA	1
680.9499	INSTALL ELECTRICAL DISCONNECT/GENERATOR TRANSFER SWITCH	EA	1
680.950206	ELECTRICAL SERVICE CABLE 2 WIRE 6 GAUGE	LF	14
	REMOVE TRAFFIC SIGNAL POLE	EA	2

			TABLE OF P	ULLBOXES		
		LOCATION			680.510501	680.82250801
PULLBOX NO.	CENTERLINE STATION	OFFSET	SIDE	ELEV. OF TOP	RECTANGULAR 26" X 18" RC	REMOVE TRAFFIC SIGNAL PULLBOXES
PB-1	124+26.10	47.15	LT	468.9' ±	1	0
PB-2	124+18.87	52.24	LT	-	0	1
PB-3	124+52.26	39.41	LT	-	0	1
PB-4	124+83.08	74.85	LT	469.0' ±	1	0
PB-5	125+11.61	37.68	LT	-	0	1
PB-6	125+16.94	44.40	LT	468.7' ±	1	0
PB-7	125+65.59	28.61	RT	-	0	1
PB-8	125+78.01	50.55	RT	465.0' ±	1	0
PB-9	125+51.46	47.66	RT	-	0	1
PB-10	125+23.44	69.14	RT	-	0	1
PB-11	125+21.24	81.03	RT	462.0' ±	1	0
PB-12	124+95.82	54.16	RT	463.0' ±	1	0
PB-13	124+80.66	29.56	RT	-	0	1
PB-14	124+61.03	38.77	RT	462.8' ±	1	0
				TOTAL	7	7

CONDUIT NO.	LOCATIO	ON	2" STEEL	680.520108	680.520110
CONDUIT NO.	FROM	ТО	2 31EEL	3" STEEL	4" STEEL
C-1	P-2	PB-1	1	11	-
C-2	S-1	PB-1	-	-	13
C-3	PB-3	PB-2	EX. TO BE ABANDONED	-	-
C-4	INDUCTION LOOP	PB-2	EX. TO BE ABANDONED	-	-
C-5	P-3	PB-1	-	5	-
C-6	P-4	PB-3	EX. TO BE ABANDONED	-	-
C-7	PB-4	PB-1	-	65	-
C-8	P-5	PB-4	-	7	-
C-9	PB-6	PB-4	-	44	-
C-10	PB-3	PB-5	EX. TO BE ABANDONED	-	-
C-11	S-2	PB-6	1	-	9
C-12	PB-5	S-3	EX. TO BE ABANDONED	-	-
C-13	P-6	PB-6	-	20	-
C-14	INDUCTION LOOP	PB-5	EX. TO BE ABANDONED	-	-
C-15	INDUCTION LOOP	PB-7	EX. TO BE ABANDONED	-	-
C-16	P-7	PB-8	-	18	-
C-17	P-8	PB-8	-	13	
C-18	S-4	PB-8	-	-	5
C-19	PB-7	PB-9	EX. TO BE ABANDONED	-	-
C-20	PB-8	PB-11		64	-
C-21	PB-9	PB-10	EX. TO BE ABANDONED	-	-
C-22	P-9	PB-11	-	13	-
C-23	PB-10	PB-13	EX. TO BE ABANDONED	-	-
C-24	PB-11	PB-12		39	-
C-25	PB-12	S-5	1	-	5
C-26	PB-14	PB-12	-	38	
C-27	P-10	PB-13	EX. TO BE ABANDONED	-	-
C-28	INDUCTION LOOP	PB-13	EX. TO BE ABANDONED	-	-
C-29	P-11	PB-14	-	12	-
C-30	PB-1	PB-14	-	90	-
		TOTAL (FEET)	0	439	32

**ESTIMATE OF CONDUITS** 

ADD ALTERNATE	LEGEND
ADD ALERNATE S1	

						TAI	BLE OF OF	PERATION	l						
PHASE	FACE	1	2	3	4	5	6	7	8	9	10	PED 1	PED 2	PED 3	PED 4
ø.	2	G	G	R	R	<del><r−< del=""></r−<></del>	R	R	<del><r−< del=""></r−<></del>	R	R	DW	DW <sup>1</sup>	DW	DW
Ø.	3	R	R <del>-G&gt;</del>	R	R	←G	R	R	←R	R	R	DW	DW	DW	DW
Ø	4	R	R	R	R	<del>&lt;</del> FY−	R	R	<del><r−< del=""></r−<></del>	G	G	DW <sup>1</sup>	DW	DW	DW
Ø	6	R	R	G	G	←R	R	R	←R	R	R	DW	DW	DW	DW <sup>1</sup>
ø <sup>·</sup>	7	R	R	R	R	<del><r−< del=""></r−<></del>	R	R	<del>&lt;</del> G−	R	R	DW	DW	DW	DW
Ø	8	R	R	R	R	←R	G	G	<del><fy< del=""></fy<></del>	R	R	DW	DW	DW <sup>1</sup>	DW
ø2+	-ø6	G	G	G	G	<del><r−< del=""></r−<></del>	R	R	<del><r−< del=""></r−<></del>	R	R	DW	DW <sup>1</sup>	DW	DW <sup>1</sup>
ø3+	-ø7	R	R <del>-G&gt;</del>	R	R	←G	R	R	←G−	R	R	DW	DW	DW	DW
ø3+	-ø8	R	R <del>-G&gt;</del>	R	R	←G	G	G	<del><fy< del=""></fy<></del>	R	R	DW	DW	DW <sup>1</sup>	DW
ø4+	-ø7	R	R	R	R	<del>&lt;</del> FY−	R	R	<del>&lt;</del> G−	G	G	DW <sup>1</sup>	DW	DW	DW
ø4+	-ø8	R	R	R	R	<del>&lt;</del> F <del>Y</del> −	G	G	<del><fy< del="">−</fy<></del>	G	G	DW <sup>1</sup>	DW	DW <sup>1</sup>	DW
FLASH OP	PERATION	FY	FY	FY	FY	DARK	FR	FR	DARK	FR	FR	DARK	DARK	DARK	DARK

I. PEDESTRIAN SIGNAL TO BE DEMAND ACTUATED ONLY UPON ACTUATION OF A PEDESTRIAN PUSH BUTTON THE INDICATIONS SHALL DISPLAY A STEADY "MAN" FOLLOWED BY A FLASHING "HAND"

#### NOTES:

AND COUNTDOWN TIMER AND THEN A STEADY "HAND".

ABOVE QUANTITIES ARE TOTAL QUANTITIES INCLUDE ADD ALTERNATE S1 ITEMS. FOR SPECIFICS OF ADDEDED QUANTITIES ASSOCIATED WITH ADD ALTERNATE S1 SEE BID SHEETS.

NYS ROUTE 118 (S.H. 148) AT

WESTCHESTER COUNTY **NEW YORK** WESTCHESTER

400 Columbus Avenue, Suite 180E Valhalla, NY 10595 Colliers Engineering & Design

Philip John Grealy
NEW YORK LICENSED PROFESSIONAL ENGINEER LICENSE NUMBER: 059858-1 COLLIERS ENGINEERING & DESIGN CT, P.C. N.Y. C.O.A #: 0017609

HIGHWAY IMPROVEMENT **PLANS** 

FOR

UNDERHILL AVENUE

**IMPROVEMENTS** 

(SEQR # 22-092)

UNDERHILL AVENUE

TOWN OF YORKTOWN

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AS SHOWN 1/8/23 M.J.A. R-PL10-SGNL 20006297A

TRAFFIC SIGNAL PLAN NYS ROUTE 118 & UNDERHILL AVENUE (SIGNAL NO. W-213)

TSP-03

UNAUTHORIZED ALTERATION OR ADDITION TO A SURVEY OR ENGINEERING MAP BEARING A LICENSED LAND SURVEYOR OR PROFESSIONAL ENGINEER IS A VIOLATION OF SECTION 7209, SUB-DIVISION 2, OF THE NEW YORK STATE EDUCATION LAW.

NOTE: DO NOT SCALE DRAWINGS FOR CONSTRUCTION.

			TABLE OF P	EDESTRIAN I	NDICATIONS									
ITEM NUMBER	DESCRIPTION	UNIT	P-1	P-2	P-3	P-4	P-5	P-6	P-7	P-8	P-9	P-10	P-11	TOTAL
680.5001	POLE EXCAVATION AND CONCRETE FOUNDATION	CY	-	1.1	1.1	-	1.1	1.1	1.1	1.1	1.1	-	1.1	8.8
680.6808	TRAFFIC SIGNAL POLE-BRACKET MOUNT 8 FEET MOUNTING HEIGHT	EA	-	1	1	-	1	1	1	1	1	-	1	8
680.8151	ACCESSIBLE PEDESTRIAN SIGNAL (APS) WITHOUT POST	EA	-	1	1	-	1	1	1	1	1	-	1	8
680.813103	PEDESTRIAN SIGNAL SECTION - TYPE I, 12 INCH	EA	-	2	2	-	2	2	2	2	2	-	2	16
680.813105	PEDESTRIAN SIGNAL MODULE - 12 INCH BI-MODAL,HAND/MAN SYMBOLS LED	EA	-	1	1	-	1	1	1	1	1	-	1	8
680.8141	PEDESTRIAN SIGNAL BRACKET MOUNT ASSEMBLY	EA	-	1	1	-	1	1	1	1	1	-	1	8
680.815001	PEDESTRIAN SIGNAL MODULE - 12 INCH COUNTDOWN TIMER, LED	EA	-	1	1	-	1	1	1	1	1	-	1	8
680.8223	BREAKAWAY TRANSFORMER BASE	EA	-	1	1	-	1	1	1	1	1	-	1	8
680.82250608	REMOVE AND DISPOSE PEDESTRIAN POLE AND FOUNDATION	EA	1	-	-	1	-	-	-	-	-	1	-	3

NOTES
NOTES:  1. ALL MOUNTING HARDWARE SHALL BE PROVIDED BY THE MANUFACTURER AND BE INCLUDED IN THE PRICE OF THE 360 DEGREE VIDEO DETECTION SYSTEM.  2. ALL EQUIPMENT SHALL MEET THE CONTRACT SPECIFICATION. STYLE OF CAMERA AND HARDWARE MAY VARY BY MANUFACTURER.  BODY MOUNT  BODY MOUNT  BODY MOUNT  360 DEGREE CAMERA
EXISTING/PROPOSED— SPAN WIRE SIGNAL POLE  POLE ASSEMBLY
BAND CLAMP KIT
1 VIDEO DETECTION CAMERA DETAIL MOUNTED ON A SPAN WIRE POLE  NOT TO SCALE  NYDT-SGNL-1000 08/1

	ESTIMA	TE OF CABLES				
	ROUTE		CABLE	# OF	680.730514	680.731014
FROM	THROUGH	ТО	DESCRIPTION	CABLES	5 C, 14 AWG	10 C, 14 AWG
CONTROLLER	S-5	SIGNAL HEAD A	14-05C-A-X/X	1	42	-
CONTROLLER	S-5	SIGNAL HEAD B	14-05C-B-X/X	1	54	-
CONTROLLER	S-5	SIGNAL HEAD C	14-10C-C-X/X	1	-	64
CONTROLLER	S-5, C-25, PB-12, C-24, PB-11, C-20, PB-8, C-18, S-4	SIGNAL HEAD D	14-05C-D-X/X	1	200	-
CONTROLLER	S-5, C-25, PB-12, C-24, PB-11, C-20, PB-8, C-18, S-4	SIGNAL HEAD E	14-05C-E-X/X	1	208	-
CONTROLLER	S-5, C-25, PB-12, C-26, PB-14, C-30, PB-1, C-7, PB-4, C-9, PB-6, C-11, S-2	SIGNAL HEAD F	14-05C-F-X/X	1	341	-
CONTROLLER	S-5, C-25, PB-12, C-26, PB-14, C-30, PB-1, C-7, PB-4, C-9, PB-6, C-11, S-2	SIGNAL HEAD G	14-05C-G-X/X	1	351	-
CONTROLLER	S-5, C-25, PB-12, C-26, PB-14, C-30, PB-1, C-7, PB-4, C-9, PB-6, C-11, S-2	SIGNAL HEAD H	14-10C-H-X/X	1	-	360
CONTROLLER	S-5, C-25, PB-12, C-26, PB-14, C-30, PB-1, C-2, S-1	SIGNAL HEAD I	14-10C-I-X/X	1	-	224
CONTROLLER	S-5, C-25, PB-12, C-26, PB-14, C-30, PB-1, C-2, S-1	SIGNAL HEAD J	14-05C-J-X/X	1	238	-
CONTROLLER	S-5, C-25, PB-12, C-26, PB-14, C-30, PB-1, C-1, P-2	PED P-2	14-05C	1	184	-
CONTROLLER	S-5, C-25, PB-12, C-26, PB-14, C-30, PB-1, C-5, P-3	PED P-3	14-05C	1	177	-
CONTROLLER	S-5, C-25, PB-12, C-26, PB-14, C-30, PB-1, C-7, PB-4, C-8, P-5	PED P-5	14-05C	1	253	-
CONTROLLER	S-5, C-25, PB-12, C-26, PB-14, C-30, PB-1, C-7, PB-4, C-9, PB-6, C-13, P-6	PED P-6	14-05C	1	324	-
CONTROLLER	S-5, C-25, PB-12, C-24, PB-11, C-20, PB-8, C-16, P-7	PED P-7	14-05C	1	158	-
CONTROLLER	S-5, C-25, PB-12, C-24, PB-11, C-20, PB-8, C-17, P-8	PED P-8	14-05C	1	152	-
CONTROLLER	S-5, C-25, PB-12, C-24, PB-11, C-22, P-9	PED P-9	14-05C	1	76	-
CONTROLLER	S-5, C-25, PB-12, C-26, PB-14, C-29, P-11	PED P-11	14-05C	1	72	-
	· ·		•	TOTAL	2830	648

		TABLE	OF SIG	NAL H	IEADS					
				Γ	MOD	ULES	ı	Г	SECTI	ON
HEAD	BRACKET	FACE	680.810101 RED BALL - 12 IN.	680.810102 RED ARROW - 12 IN.	680.810103 YELLOW BALL - 12 IN.	680.810104 YELLOW ARROW - 12 IN.	680.810105 GREEN BALL - 12 IN.	680.810106 GREEN ARROW - 12 IN.	680.810107 TRAFFIC SIGNAL SECTION, TYPE I - 12 IN.	680.8199 TRAFFIC SIGNAL BACKPLATE
А	680.81230008	7	1	-	1	-	1	-	3	1
В	680.81230008	6	1	-	1	-	1	-	3	1
С	680.81230008	5	-	1	-	2	-	1	4	1
D	680.81230008	4	1	-	1	-	1	-	3	1
E	680.81230008	3	1	-	1	-	1	-	3	1
F	680.81230008	10	1	-	1	-	1	-	3	1
G	680.81230008	9	1	-	1	-	1	-	3	1
Н	680.81230008	8	-	1	-	2	-	1	4	1
I	680.81240008	2	1	-	1	1	1	1	5	1
J	680.81230008	1	1	-	1	-	1	-	3	1
	TOT	TAL (EACH)	8	2	8	5	8	3	34	10

ADD ALTERNATE LEGEND

ADD ALERNATE S1



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REV	DATE	DRAWN BY	DESCRIPTION
1	4/3/24	M.J.A.	REVISED PER NYSDOT COMMENTS RECEIVED 3/19/24
2	4/26/24	J.F.M.	REVISED PER NYSDOT 4/25/24 COMMENTS.
3	5/14/24	M.J.A.	REVISED PER NYSDOT 5/2/24 COMMENTS.
4	5/24/24	M.J.A.	REVISED TRAFFIC SIGNAL PLAN SHEETS PER NYSDOT SIGNAL GROUP 5/23/24 EMAIL COMMENTS.
5	7/1/24	M.J.A.	REVISED PER NYSDOT 7/1/24 COMMENTS.
9	8/7/24	M.J.A.	REVISED PER NYSDOT 7/31/24 COMMENTS.
7	8/15/24	RGD	revised per QA/QC review
8	9/12/24	M.J.A.	REVISED PER NYSDOT 8/30/24 COMMENTS.
6	9/23/24	M.J.A.	REVISED PER NYSDOT 9/20/24 COMMENTS. FINAL SET FOR PERMITTING.
10	1/31/25	M.J.A.	REVISED FOR REBID.



Philip John Grealy
NEW YORK LICENSED PROFESSIONAL ENGINEER
LICENSE NUMBER: 059858-1
COLLIERS ENGINEERING & DESIGN CT, P.C.
N.Y. C.O.A #: 0017609

HIGHWAY IMPROVEMENT PLANS

FOR

UNDERHILL AVENUE
IMPROVEMENTS
(SEQR # 22-092)

NYS ROUTE 118 (S.H. 148) AT UNDERHILL AVENUE

TOWN OF YORKTOWN
WESTCHESTER COUNTY
NEW YORK

Colliers

WESTCHESTER

400 Columbus Avenue,
Suite 180E
Valhalla, NY 10595

Valhalla, NY 10595

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& Design

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ARCHITECTURE, LANDSCAPE ARCHITECTURE,
SURVEYING CT, P.C.

 SCALE:
 DATE:
 DRAWN BY:
 CHECKED BY

 AS SHOWN
 1/8/23
 M.J.A.
 R.G.D.

 PROJECT NUMBER:
 DRAWING NAME:

 20006297A
 R-PL10-SGNL

TRAFFIC SIGNAL PLAN
NYS ROUTE 118 &
UNDERHILL AVENUE
(SIGNAL NO. W-213)

SHEET NUMBER:

TSP-04