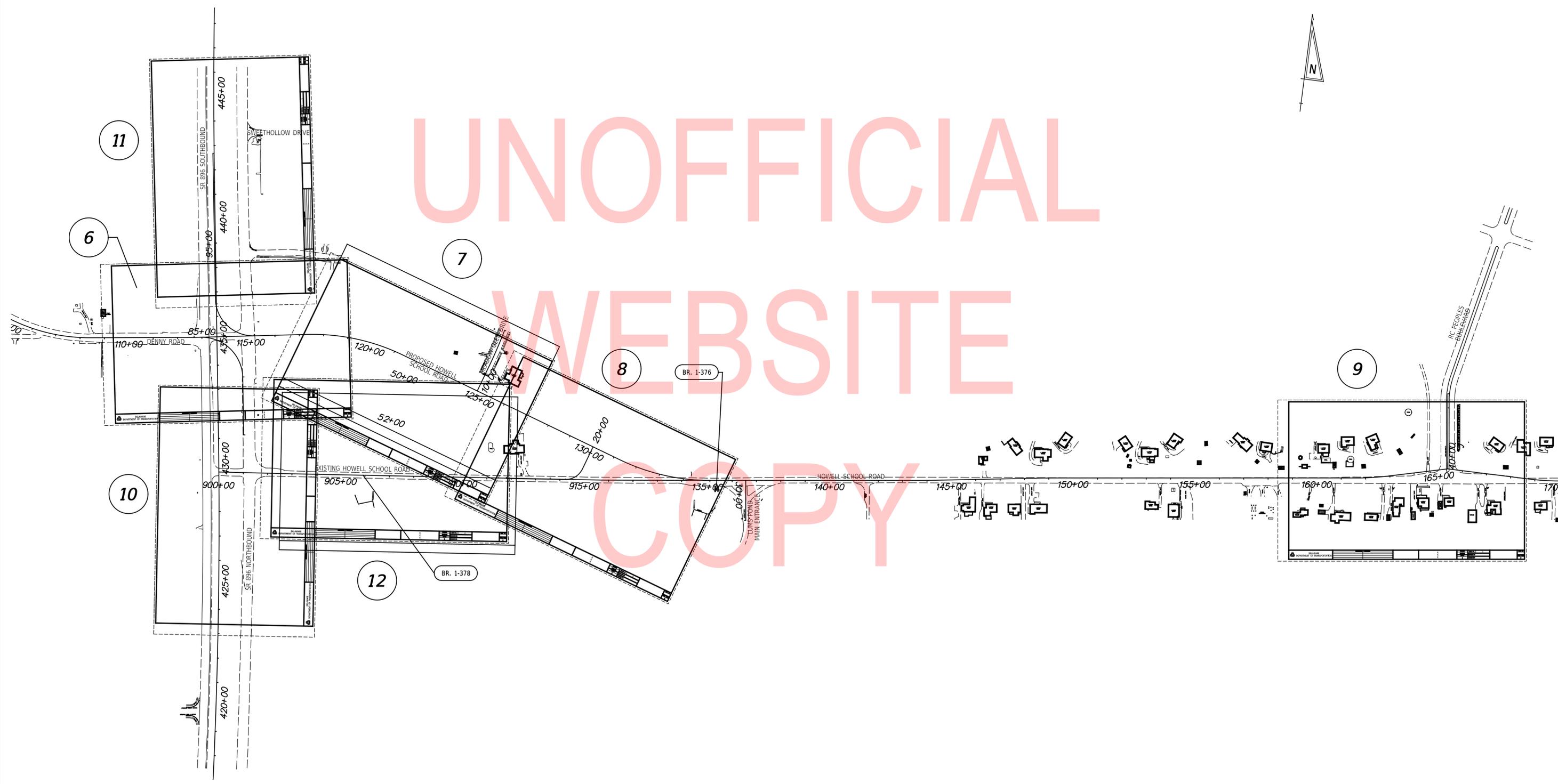


INDEX OF SHEETS		
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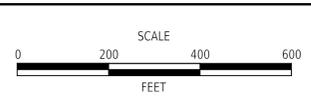
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PENNONI ASSOCIATES, INC.
 1000 N. WASHINGTON BLVD.
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 WASHINGTON, DC 20004
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 WWW.PENNONI.COM
 DATE PLOTTED: 8/29/2019 9:50:25 PM
 USER: NAMEI_SINGH
 OFFICE: LOCATIONS: Newark, Delaware
 MICROSTATION: WORKSPACE: DELDOT-VBI-OPENROADS
 DELDOT-VBI-OPENROADS



ADDENDA / REVISIONS



**HOWELL SCHOOL ROAD
LANDSCAPING**

CONTRACT	BRIDGE NO.	N/A
T201804105	DESIGNED BY:	DAH
COUNTY	CHECKED BY:	PAH
NEW CASTLE		

**PLAN SHEET
INDEX**

SECTION
PAI
SHEET NO.
2

EXISTING SYMBOLS

DRAINAGE	
	DITCH OR STREAM CENTERLINE
	DIRECTIONAL STREAM FLOW ARROW
	DRAINAGE INLET
	DRAINAGE JUNCTION BOX
	DRAINAGE MANHOLE
	DRAINAGE PIPE AND FLOW ARROW
	DRAINAGE PIPE HEADWALL
	RIPRAP - AREA FEATURE
	RIPRAP - LINEAR FEATURE

SURVEY CONTROL & MONUMENTATION	
	SURVEY BENCHMARK LOCATION
	SURVEY TIE POINT LOCATION
	SURVEY TRAVERSE POINT
	POINT OF CURVATURE OR TANGENCY
	POINT OF INTERSECTING TANGENTS

UTILITY	
	SOIL BORING LOCATION
	UTILITY TEST HOLE LOCATION
	CABLE TV DISTRIBUTION BOX
	ELECTRIC MANHOLE
	ELECTRIC METER
	ELECTRIC TRANSFORMER
	POLE MOUNTED LUMINAIRE
	GAS MANHOLE
	GAS METER
	GAS VALVE
	GAS PUMP - SERVICE STATION
	RAILROAD TRACKS
	SANITARY SEWER MANHOLE
	SANITARY SEWER VALVE
	SANITARY SEWER CLEANOUT OR VENT
	SEPTIC DRAIN FIELD
	TELEPHONE BOOTH
	TELEPHONE MANHOLE
	TELEPHONE TEST POINT
	TRAFFIC - CONDUIT JUNCTION WELL
	TRAFFIC - LIGHT POLE AND BASE
	TRAFFIC - PEDESTRIAN POLE & BASE
	TRAFFIC - SIGNAL CABINET & BASE
	TRAFFIC - SIGNAL POLE AND BASE
	UTILITY BOX
	UTILITY POLE GUY WIRE ANCHOR
	UTILITY POLE
	WATER - FIRE HYDRANT
	WATER METER
	WATER VALVE
	WELL HEAD
	MANHOLE - UNDETERMINED OWNER

UTILITY COMPANY FACILITIES	
	VERIZON DELAWARE TELEPHONE (UNDERGROUND)
	DELMARVA POWER DELIVERY (ELECTRIC-UNDERGROUND)
	DELMARVA POWER ELECTRIC
	DELMARVA POWER GAS DISTRIBUTION
	NEW CASTLE COUNTY SANITARY SEWER
	ARTESIAN WATER COMPANY
	COMCAST CABLE TELEVISION
	ITMS CONDUIT (UNDERGROUND)
	AT&T (UNDERGROUND)
	EASTERN SHORE NATURAL GAS

MANMADE ROADSIDE FEATURES	
	BOLLARD - STEEL POLE
	BOLLARD - WOOD POST
	CURB
	CURB AND GUTTER
	FENCE - CHAINLINK OR STRANDED
	FENCE - STOCKADE OR SPLIT RAIL
	FLAG POLE
	GUARDRAIL - STEEL BEAM
	GUARDRAIL - WIRE ROPE
	LAMP AND POST - RESIDENTIAL
	MAILBOX
	PARKING METER AND POST
	PAVEMENT - FLEXIBLE
	PAVEMENT - RIGID
	PILLAR OR MISCELLANEOUS POST
	TRAFFIC SIGN AND POST
	WALL - BRICK OR BLOCK
	WALL - STONE

NATURAL ROADSIDE FEATURES	
	GRASS LAWN
	HEDGEROW OR THICKET
	MARSH BOUNDARY LINE
	TREE - CONIFEROUS
	TREE - DECIDUOUS
	TREE STUMP
	SHRUBBERY
	DELINEATED WETLAND BOUNDARY LINE
	WOODS LINE BOUNDARY

RIGHT-OF-WAY SYMBOLS	
	PROPERTY MARKER - CONCRETE MON.
	PROPERTY MARKER - IRON PIPE
	HISTORIC RIGHT-OF-WAY BASELINE
	EXISTING RIGHT-OF-WAY
	EXISTING PROPERTY LINE
	EXISTING EASEMENT
	EXISTING DENIAL OF ACCESS
	EXISTING R/W & DENIAL OF ACCESS

PROPOSED SYMBOLS

CONSTRUCTION	
	CONCRETE SAFETY BARRIER - PERMANENT
	BIOFILTRATION SWALE
	BRICK PATTERNED SURFACE
	BUTT JOINT
	CLEAR ZONE
	CONSTRUCTION BASELINE
	CONSTRUCTION SAFETY FENCE
	CURB, TYPE 1 & TYPE 3
	CURB, TYPE 2
	CURB & GUTTER, TYPE 1
	CURB & GUTTER, TYPE 2
	CURB & GUTTER, TYPE 3
	CURB & GUTTER, TYPE 4
	CURB OPENING - SUMP / ON GRADE
	CURB OPENING WITH SIDEWALK
	DRAINAGE INLET
	DITCH
	FENCE - METAL / FENCE - WOOD
	FLARED END / SAFETY END SECTION
	GUARDRAIL, TYPE 1
	GUARDRAIL, TYPE 2
	GUARDRAIL, TYPE 3
	GUARDRAIL END ANCHORAGE
	GUARDRAIL END TREATMENT, TYPE 1
	GUARDRAIL END TREATMENT, TYPE 2
	GUARDRAIL END TREATMENT, TYPE 3
	IMPACT ATTENUATOR
	JUNCTION BOX - DRAINAGE
	LATERAL OFFSET
	LIMIT OF CONSTRUCTION
	MAILBOX
	MANHOLE
	PAVEMENT PATCH
	PAVEMENT REMOVAL - TOPSOIL, SEED AND MULCH
	PIPE & DIRECTIONAL FLOW ARROW
	RIPRAP
	P.C.C. SIDEWALK - 4"
	P.C.C. SIDEWALK - 6" (USE 8" DEPTH FOR CHANNELIZATION ISLANDS.)
	UNDERDRAIN
	UNDERDRAIN OUTLET

RIGHT-OF-WAY SYMBOLS	
	PROPOSED RIGHT-OF-WAY MONUMENT
	PROPOSED DENIAL OF ACCESS
	PROPOSED PERMANENT EASEMENT
	PROPOSED RIGHT-OF-WAY
	PROPOSED R/W & DENIAL OF ACCESS
	RIGHT-TO-ENTER
	TEMPORARY CONSTRUCTION EASEMENT
	PROPOSED RIGHT-OF-WAY BASELINE

IDENTIFIERS	
	ADJUST BY CONTRACTOR
	ADJUST BY OTHERS
	CONCRETE SAFETY BARRIER
	CURB OR CURB & GUTTER
	CONVERT TO JUNCTION BOX
	CONVERT TO DRAINAGE MANHOLE
	CURB OPENING - SUMP / ON GRADE
	CURB OPENING WITH SIDEWALK
	PEDESTRIAN CONNECTION / TYPE
	PEDESTRIAN CONNECTION / TYPE WITHOUT SIDEWALK SURFACE DETECTABLE WARNING SYSTEM
	CONSTRUCTION SAFETY FENCE
	DRAINAGE INLET
	ENERGY DISSIPATOR
	FENCE
	FLARED END SECTION
	FILL WITH FLOWABLE FILL
	FILTRATION STRUCTURE
	GUARDRAIL
	JUNCTION BOX
	MANHOLE
	MONUMENT - RIGHT-OF-WAY
	PIPE
	RELOCATE BY CONTRACTOR
	RELOCATE BY OTHERS
	RELOCATE BY PROPERTY OWNER
	REMOVE BY CONTRACTOR
	REMOVE BY TRAFFIC CONTRACTOR
	REMOVE BY OTHERS
	SAFETY END SECTION
	UNDERDRAIN / LENGTH
	UNDERDRAIN OUTLET PIPE

LANDSCAPING	
	LANDSCAPE PLANTINGS
	PLATANUS OCCIDENTALIS (SYCAMORE)
	ACER RUBRUM (RED MAPLE)
	QUERCUS PHELLOS (WILLOW OAK)
	JUNIPERUS VIRGINIANA (EASTERN RED CEDAR)
	QUERCUS RUBRA (RED OAK)
	JUNIPERUS VIRGINIANA (EASTERN RED CEDAR)

REFORESTATION	
	AREA FOR REFORESTATION

UTILITY COMPANY FACILITIES	
	DELMARVA POWER - ELECTRIC (OVERHEAD)
	DELMARVA POWER - ELECTRIC (UNDERGROUND)
	DELDOT SIGNAL CONDUIT
	ARTESIAN WATER
	NEW CASTLE COUNTY SANITARY SEWER

TRAFFIC	
	ITMS CONDUIT
	SIGNAL CONDUIT
	CONDUIT JUNCTION WELL
	LUMINAIRE
	PAVEMENT MARKINGS
	PAVEMENT STRIPING
	TRAFFIC SIGN

ADDENDA / REVISIONS

NOT TO SCALE

HOWELL SCHOOL ROAD
LANDSCAPING

CONTRACT	BRIDGE NO.	N/A
T201804105	DESIGNED BY:	DAH
COUNTY	CHECKED BY:	PAH
NEW CASTLE		

LEGEND

SECTION	PAI
SHEET NO.	3

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PENNONI ASSOCIATES, INC.
 PENNONI ASSOCIATES, INC.
 MICROSTATION VERSION: MICROSTATION V8I
 MICROSTATION WORKSPACE: DELDOT-V8I-OPENROADS
 PENN TABLE: PENNONI-DELDOT.TBL
 PLOT: PENNONI-DELDOT-FULL-PDF-PLT.CFG
 DATE PLOTTED: 8/29/2019 9:55:28 PM
 USER NAME: SNICKEL OFFICE LOCATION: Newark, Delaware



ADDENDA / REVISIONS			HOWELL SCHOOL ROAD LANDSCAPING	CONTRACT T201804105	BRIDGE NO. N/A	ADDENDA AND REVISIONS	SECTION PAI
				COUNTY NEW CASTLE	DESIGNED BY: DAH		SHEET NO. 4
					CHECKED BY: PAH		

GENERAL NOTES

1. THIS PROJECT IS TO BE CONSTRUCTED IN ACCORDANCE WITH THE DELAWARE DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS", DATED AUGUST 2016 AND THE DELAWARE DEPARTMENT OF TRANSPORTATION "STANDARD CONSTRUCTION DETAILS", DATED 2014, INCLUDING ALL REVISIONS UP TO THE DATE OF ADVERTISEMENT.
2. THE CONTRACTOR SHALL GIVE TWO (2) WEEKS NOTICE TO THE PROPERTY OWNER WHEN ANY FIXTURE, SHRUB OR OTHER OBJECT MUST BE REMOVED FROM THE RIGHT OF WAY OF EASEMENT AREA. IF THE OWNER HAS NOT ATTEMPTED TO SALVAGE THIS PROPERTY, THE CONTRACTOR SHALL REMOVE IT WITHOUT OBLIGATION, COMPENSATION SHALL BE INCIDENTAL TO THE CONTRACT.
3. STAGING AREAS - PROPER EROSION AND SEDIMENT CONTROL MEASURES AS DETERMINED BY THE ENGINEER SHALL BE INSTALLED IN ALL STAGING AREAS. ALL AREAS USED BY THE CONTRACTOR FOR STAGING OPERATIONS SHALL BE FULLY RESTORED BY THE CONTRACTOR UPON COMPLETION OF THE CONTRACT. IF THE STAGING AREA IS PAVED, IT SHALL BE RESTORED TO ITS ORIGINAL CONDITION. IF THE AREA IS UNPAVED, IT SHALL BE RE-GRADED, TOPSOILED, SEEDED AND MULCHED IN ACCORDANCE WITH DELAWARE STANDARD SPECIFICATION 908, FOR TOPSOIL, SEED AND MULCH RESPECTIVELY, TO THE SATISFACTION OF THE ENGINEER. THE SEED SHALL ADHERE TO THE SPECIFICATIONS OF SECTION 908 FOR PERMANENT GRASS SEEDING - DRY GROUND. ALL COSTS ASSOCIATED WITH RESTORATION OF THE STAGING AREA SHALL BE AT THE CONTRACTOR'S EXPENSE. IF THE ENGINEER DETERMINES THAT A SATISFACTORY STAND OF GRASS DOES NOT EXIST AT THE TIME OF FINAL INSPECTION, ALL COSTS ASSOCIATED WITH REESTABLISHING A SATISFACTORY STAND OF GRASS SHALL BE AT THE CONTRACTOR'S EXPENSE.
4. SITE REVIEWER - AN EROSION CONTROL, SITE REVIEWER SHALL BE A PERSON FROM THE CONTRACTOR'S STAFF ASSIGNED TO EROSION AND SEDIMENT CONTROL IMPLEMENTATION AND MAINTENANCE AND SHALL BE REQUIRED ON SPECIFIC PROJECTS. THE NAME AND DNREC CERTIFICATION NUMBER OF EACH SITE REVIEWER SO REQUIRED SHALL BE SUBMITTED TO THE DEPARTMENT PRIOR TO THE EXECUTION OF THE CONTRACT. THE NAME OF THE DELAWARE REGISTERED PROFESSIONAL ENGINEER PROVIDING DIRECTION AND SUPERVISION OF THE SITE REVIEWER, AS REQUIRED IN SECTION 12.3 OF THE DELAWARE SEDIMENT AND STORMWATER REGULATIONS, SHALL ALSO BE SUBMITTED TO THE DEPARTMENT PRIOR TO THE EXECUTION OF THE CONTRACT. THE SITE REVIEWER REQUIREMENTS IN EFFECT ON THIS PROJECT SHALL BE MARKED WITH AN "X" BELOW:

EROSION POTENTIAL FOR THIS PROJECT	SITE REVIEWER REQUIREMENT
(X) INSIGNIFICANT	NONE
() MINOR	CONTRACTOR CERTIFICATION COURSE TRAINING ONLY, AS DEFINED IN SECTION 13 OF THE DELAWARE SEDIMENT AND STORMWATER REGULATIONS.
() MEDIUM	THE SUPERINTENDENT OR A SEPARATE INDIVIDUAL FROM THE CONTRACTOR'S STAFF SHALL BE A CERTIFIED CONSTRUCTION REVIEWER (CCR), AS DEFINED IN SECTION 12 OF THE DELAWARE SEDIMENT AND STORMWATER REGULATIONS.
() MAJOR	SUPERINTENDENT AND AN INDIVIDUAL FROM CONTRACTOR'S STAFF SHALL BE CCR. ONE INDIVIDUAL FROM THE CONTRACTOR'S STAFF MUST BE A CCR PRIOR TO THE EXECUTION OF THE CONTRACT. THE SUPERINTENDENT MUST BECOME A CCR WITHIN ONE YEAR AFTER THE AWARD OF CONTRACT.

5. ELECTRONIC PROJECT FILES THAT WILL BE MADE AVAILABLE TO THE AWARDED CONTRACTOR, INCLUDE:

(X)	NONE
()	ASCII DATA FILES WITH COORDINATES AND ELEVATIONS FOR PROPOSED POINTS AS SELECTED BY THE ENGINEER.
()	EXISTING DIGITAL TERRAIN MODEL, IN .DTM FILE FORMAT, COMPATIBLE WITH SOFTWARE CURRENTLY USED BY DELDOT.
()	PROPOSED DIGITAL TERRAIN MODEL, IN .DTM FILE FORMAT, COMPATIBLE WITH SOFTWARE CURRENTLY USED BY DELDOT.
()	DESIGN FILE, IN .DGN FILE FORMAT, THAT CONTAINS 3D FEATURE LINES FOR THE PROPOSED DESIGN. 3D FEATURE LINES ARE FOR THE PROPOSED TOP SURFACE ELEVATION ONLY.

NOTE: THE DOCUMENT ENTITLED "RELEASE FOR DELIVERY OF DOCUMENTS IN ELECTRONIC FORM TO A CONTRACTOR" MUST BE SIGNED BY ALL PARTIES PRIOR TO THE DELIVERY OF ANY ELECTRONIC PROJECT FILES.

NOTE: THERE MAY BE SOME AREAS OF THE PROJECT NOT INCLUDED IN THE ELECTRONIC DESIGN DATA FILE(S). IT IS THE CONTRACTOR'S RESPONSIBILITY TO REVIEW THE DESIGN DATA FILE AND DETERMINE THE LIMITS OF THE PROJECT INCLUDED.

6. AMERICAN TRAFFIC SAFETY SERVICES ASSOCIATION (ATSSA) CERTIFIED TRAFFIC CONTROL SUPERVISOR REQUIREMENT FOR THIS PROJECT.

(X)	THE CONTRACTOR SHALL NOT BE REQUIRED TO HAVE AN ATSSA SUPERVISOR ASSIGNED TO THIS PROJECT.
()	THE CONTRACTOR SHALL HAVE AN ATSSA SUPERVISOR ASSIGNED TO THIS PROJECT. THE CONTRACTOR'S GENERAL SUPERINTENDENT FOR THIS PROJECT OR ANOTHER ATSSA CERTIFIED MEMBER OF THE CONTRACTOR'S PROJECT STAFF MAY BE THE ATSSA SUPERVISOR. PAYMENT FOR ATSSA SUPERVISOR IS INCIDENTAL TO ITEM 743000.
()	THE CONTRACTOR SHALL HAVE AN ATSSA SUPERVISOR ASSIGNED TO THIS PROJECT. THE ATSSA SUPERVISOR'S SOLE JOB SHALL BE SUPERVISION OF THE INSTALLATION, OPERATION AND MAINTENANCE OF TRAFFIC CONTROL DEVICES FOR THIS PROJECT. THE CONTRACTOR'S GENERAL SUPERINTENDENT FOR THIS PROJECT SHALL NOT BE THE ATSSA SUPERVISOR. PAYMENT FOR ATSSA SUPERVISOR SHALL BE PAID FOR UNDER ITEM 743031.

7. THE DISTURBED AREA FOR THE "T200504110: HSIP NCC, N54, HOWELL SCHOOL ROAD, SR 896 TO SR71" PROJECT IS 5.89 ACRES.
8. THERE ARE NO ENVIRONMENTAL PERMITS ASSOCIATED WITH THIS PROJECT. AS SUCH, AN ENVIRONMENTAL COMPLIANCE SHEET WAS NOT PREPARED.
9. ALL CONSTRUCTION DEBRIS, EXCAVATED MATERIAL, BRUSH, ROCKS, AND REFUSE INCIDENTAL TO SUCH WORK SHALL BE PLACED EITHER ON SHORE ABOVE THE INFLUENCE OF FLOOD WATER OR ON SOME SUITABLE DUMPING GROUND.
10. THAT EFFORT SHALL BE MADE TO KEEP CONSTRUCTION DEBRIS FROM ENTERING ADJACENT WATERWAYS OR WETLANDS. ANY DEBRIS THAT ENTERS THOSE AREAS SHALL BE REMOVED IMMEDIATELY.
11. THE DISPOSAL OF TREES, BRUSH, AND OTHER DEBRIS IN ANY STREAM CORRIDOR, WETLAND, SURFACE WATER, OR DRAINAGE AREA IS PROHIBITED.
12. RIGHT-OF-WAY ACQUISITIONS WERE COMPLETED UNDER CONTRACT T200504110: HSIP NCC, N54, HOWELL SCHOOL ROAD, SR 896 TO SR 71.

PROJECT NOTES

SECTION 100

1. ANY DAMAGE TO ITEMS NOTED TO BE RELOCATED OR RESET BY THE CONTRACTOR, AT THE DISCRETION OF THE ENGINEER, SHALL BE REPAIRED AND/OR REPLACED IN KIND AT THE CONTRACTOR'S EXPENSE.
2. UNLESS OTHERWISE NOTED ON THE PLANS, THE CONTRACTOR SHALL, AS PART OF HIS PROJECT SCHEDULE, SUBMIT TO THE ENGINEER AN ESTIMATE OF MONTHLY PAYMENTS EXPECTED TO BE RECEIVED ON THE CONTRACT. THIS BE REFERENCED AS THE "MONTHLY PAYMENT CHART".

A CHART IN MICROSOFT EXCEL, MICROSOFT WORD, OR HAND WRITTEN FORMAT WILL BE ACCEPTABLE FOR THIS PURPOSE. THE CHART SHOULD INCLUDE, AS A MINIMUM, COLUMNS FOR MONTH, YEAR AND ESTIMATED MONTHLY PAYMENTS. THE TOTAL OF ALL ESTIMATED MONTHLY PAYMENTS SHOULD EQUAL THE AWARDED CONTRACT TOTAL BID PRICE.

THE ENGINEER MAY REQUEST AN UPDATED "MONTHLY PAYMENT CHART" AT HIS DISCRETION, DEPENDING ON THE ACCURACY OF THE INITIAL ESTIMATES AND ACCORDING TO THE OVERALL NEEDS OF THE DEPARTMENT.

THE "MONTHLY PAYMENT CHART" WILL NOT BE CONSIDERED A BINDING DOCUMENT BY EITHER THE CONTRACTOR OR THE DEPARTMENT AND IS CONSIDERED SOLELY INFORMATIONAL.

ON PROJECTS REQUIRING CPM SCHEDULES, THE CONTRACTOR MAY, BUT IS NOT REQUIRED TO, "COST LOAD" THE CPM SCHEDULE IN ORDER TO GENERATE THE MONTHLY SPEND PAYMENT CHART.

COSTS TO PREPARE AND/OR UPDATE THE "MONTHLY PAYMENT CHART" ARE ADDRESSED AS FOLLOWS:

- A. ON CONTRACTS REQUIRING CPM SCHEDULES AND UPDATES, PREPARATION OF THE INITIAL CHART SHALL BE INCIDENTAL TO ITEM 763508. UPDATES SHALL BE INCIDENTAL TO ITEM 763509.
- B. ON CONTRACTS NOT REQUIRING CPM SCHEDULES, THE COST TO PREPARE AND UPDATE THE "MONTHLY PAYMENT CHART" SHALL BE INCLUDED IN ITEM 763000 - INITIAL EXPENSE.

SECTION 900

3. ALL LANDSCAPE PLANTING SHALL BE DONE IN ACCORDANCE WITH DELDOT STANDARD SPECIFICATIONS AND THE SPECIAL PROVISIONS FOR SECTION 911 - PLANTING.
4. THE CONTRACTOR SHALL VERIFY PLANT MATERIAL QUANTITIES SHOWN ON THE PLANS WITH THE TOTALS IN THE PLANT SCHEDULE. WHERE DISCREPANCIES OCCUR BETWEEN THE PLANS AND THE PLANT SCHEDULE THE PLANS SHALL GOVERN.
5. THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING "MISS UTILITY" TO LOCATE ALL UNDERGROUND UTILITY LINES PRIOR TO THE INSTALLATION OF PLANT MATERIAL.
6. ALL PLANTING OPERATIONS SHALL BE UNDER THE SUPERVISION OF AN EXPERIENCED PLANTSMAN / SUPERVISOR.
7. ALL B&B TREES UP TO 2 1/2 INCH CALIPER SHALL HAVE A 6 FOOT DIAMETER MULCH RING. ALL TREES 2 1/2 INCHES OR GREATER SHALL HAVE AN 8 FOOT DIAMETER MULCH RING. ALL CONTAINER TREES SHALL HAVE A 4 FOOT DIAMETER MULCH RING.
8. THE QUANTITY OF SHREDDED HARDWOOD MULCH IS NOT MEASURED AND IS INCIDENTAL TO DELDOT ITEM #911000 - PLANTING.
9. NO PLANT MATERIAL SHALL BE PLANTED DIRECTLY IN FRONT OF ROADWAY SIGN SIGHT LINES.
10. ALL TREES MUST BE PLANTED BEHIND THE CLEAR ZONE (CZ) LABEL ON PLANS.
11. ALL TREES SHALL HAVE STRAIGHT TRUNK AND A SINGLE LEADER UNLESS SPECIFIED AS MULTI-STEM.
12. ALL TREES NOTED AS "FALL DIGGING HAZARD" SPECIES SHALL BE INSTALLED BETWEEN MARCH 1ST AND MAY 1ST.
13. FOR THE PLANT ESTABLISHMENT PERIOD AND FOR LANDSCAPE MAINTENANCE RESPONSIBILITY FOLLOWING FINAL ACCEPTANCE, SEE SPECIAL PROVISION 911.03.6 PLANT ESTABLISHMENT.
14. ALL EXISTING TREES TO REMAIN THAT ARE DISTURBED OR DAMAGED DURING CONSTRUCTION SHALL HAVE THE DAMAGED ASSESSED AND CORRECTED BY AN I.S.A. CERTIFIED ARBORIST AT THE CONTRACTOR'S EXPENSE.
15. TREE PLANTINGS SHALL MAINTAIN A MINIMUM 10 FOOT HORIZONTAL OFFSET FROM CENTERLINES OF DRAINAGE SWALES, GUARDRAILS AND FENCES UNLESS OTHERWISE DIMENSIONED ON THE PLANS AND A MINIMUM 15 FOOT HORIZONTAL OFFSET FROM OVERHEAD UTILITY LINES FOR ALL REFORESTATION AREAS. TREES SHOWN ON THE PLANS BENEATH OVERHEAD UTILITY LINES ARE SMALLER TREES AND ARE GENERALLY APPROVED BY UTILITY COMPANIES FOR INSTALLATION UNDER OVERHEAD LINES.
16. DELDOT SHALL SUPPLY THE MOW/NO MOW SIGNS AND ASSOCIATED HARDWARE. INSTALLATION SHALL BE INCIDENTAL TO ITEM 911000 PLANTING AS DIRECTED BY THE ENGINEER.
17. THE CONTRACTOR SHALL BE REQUIRED TO WATER ALL MAJOR AND MINOR TREES AND ALL SHRUBS BI-WEEKLY DURING THE PERIOD FROM JUNE 1 THROUGH NOVEMBER 1. WATERING, ONCE INITIATED, SHALL CONTINUE WITHOUT INTERRUPTION UNTIL ALL PLANTS ON THE PROJECT HAVE BEEN WATERED. PAYMENT SHALL BE PER 1,000 GALLONS OF WATER APPLIED AND SHALL BE BASED ON THE FOLLOWING SCHEDULE:
 MAJOR TREES - 15 GALLONS PER TREE
 MINOR TREES - 10 GALLONS PER TREE
 SHRUBS - 5 GALLONS PER SHRUB
 WATER USED FOR THIS ITEM SHALL MEET THE REQUIREMENTS OF SECTION 1020 OF THE STANDARD SPECIFICATIONS AND IS INCLUDED IN ITEM 911000 - PLANTINGS.
18. CONTRACTOR SHALL CONTACT THE ENGINEER PRIOR TO STARTING WATERING OPERATIONS.
19. ELIMINATE UNDESIRABLE SPECIES PRIOR TO TREE AND SHRUB INSTALLATION. WEED CONTROL METHODS ARE TO BE DETERMINED BASED ON SITE CONDITIONS AT TIME OF PLANTING AND CONSIDERATION TO AVOID CHEMICAL WEED CONTROL FROM ENTERING WATER SYSTEM. FOLLOW STATE REGULATIONS FOR HERBICIDE USE.
20. HERBICIDE WEED CONTROL: ALL PLANT BEDS SHALL BE KEPT FREE OF ALL WEEDS UNTIL FINAL ACCEPTANCE OF WORK. IF DIRECTED BY THE OWNER, WEED KILLER SHALL BE APPLIED FOR WEED CONTROL BY QUALIFIED PERSONNEL TO ALL PLANTING AREAS IN SPOT APPLICATIONS PER MANUFACTURER'S PRECAUTIONS AND SPECIFICATIONS. PRIOR TO FINAL INSPECTION, TREAT ALL PLANTING BEDS WITH AN APPROVED PRE-EMERGENT HERBICIDE AT AN APPLICATION RATE RECOMMENDED BY THE MANUFACTURER.
21. ENVIRONMENTAL RESOURCES (WETLANDS) EXIST WITHIN THE PROJECT LIMITS, AS SHOWN ON THE PLAN SHEETS. IMPACTS TO THESE RESOURCES MUST BE AVOIDED. THE CONTRACTOR SHALL USE COMPOST FILTER LOGS (CFL) AT AREAS ADJACENT TO WOODED UPLANDS/ALL WETLANDS. CFL'S (AND CONTENTS) MUST BE REMOVED IN THEIR ENTIRETY WHEN NO LONGER NEEDED. CFL'S SHALL BE MEASURED IN ACCORDANCE TO ITEM 907017 - COMPOST FILTER LOGS OF THE DELDOT STANDARD SPECIFICATIONS MANUAL, 2016. THE ENVIRONMENTAL STUDIES SECTION (CAROL SULLIVAN, (302- 760-2129) CAN PROVIDE FURTHER GUIDANCE REGARDING THIS METHOD OF INSTALLATION.

MAINTENANCE OF TRAFFIC NOTES

1. ALL WORK AREAS SHALL BE ACCESSED FROM THE LOCAL ROADS INCLUDING DENNY ROAD SR 896 AND SR 71. THE CONTRACTOR SHALL PLACE AN ADVANCED WARNING SIGN AND SHALL USE TRAFFIC CONES TO DELINIATE ANY VEHICLE/EQUIPMENT/MATERIAL STAGING AREA ON OR NEAR THE ROADWAY. ALL TRAFFIC CONTROL DEVICES SHALL MEET THE REQUIREMENTS OF THE DELAWARE MUTCD, MOST RECENT VERSION AT THE TIME OF THE BID.
2. ALL TRAFFIC CONTROL DEVICES SHALL BE REMOVED AT THE END OF EACH DAY.
3. THE COST OF MAINTAINING AND/OR RELOCATING ALL TEMPORARY TRAFFIC CONTROL MATERIALS SHALL BE INCLUDED IN ITEM 801000, MAINTENANCE OF TRAFFIC.
4. ALL AREAS USED BY THE CONTRACTOR FOR STAGING AND TO PERFORM LANDSCAPING WORK SHALL BE RESTORED TO ITS ORIGINAL CONDITION. IF THE AREA IS UNPAVED, IT SHALL BE RE-GRADED, TOPSOILED, SEEDED AND MULCHED IN ACCORDANCE WITH DELDOT STANDARDS TO THE SATISFACTION OF THE ENGINEER. ALL COSTS ASSOCIATED WITH RESTORATION OF THE STAGING AND LANDSCAPING WORK AREAS SHALL BE AT THE CONTRACTOR'S EXPENSE.
5. PRIOR TO COMMENCING WORK, CONTRACTOR AND ENGINEER SHALL INSPECT CURB, SIDEWALK AND CURB RAMPS WITHIN LIMIT OF CONSTRUCTION. ALL COSTS TO REPAIR ITEMS CRACKED OR DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED IN KIND AT THE CONTRACTOR'S EXPENSE.

PENNONI ASSOCIATES, INC. PENN01-DELDOT.TBL
 MICROSTATION WORKSPACE: DELDOT-VBI-OPENROADS
 USER: NAME: SINGARU
 DATE PLOTTED: 8/29/2019 @ 9:50:32 AM
 OFFICE: LOCATIONS: Newark, Delaware



ADDENDA / REVISIONS

HOWELL SCHOOL ROAD
LANDSCAPING

CONTRACT	BRIDGE NO.	N/A
T201804105	DESIGNED BY:	DAH
COUNTY	CHECKED BY:	PAH
NEW CASTLE		

NOTES

SECTION
PAI
SHEET NO.
5

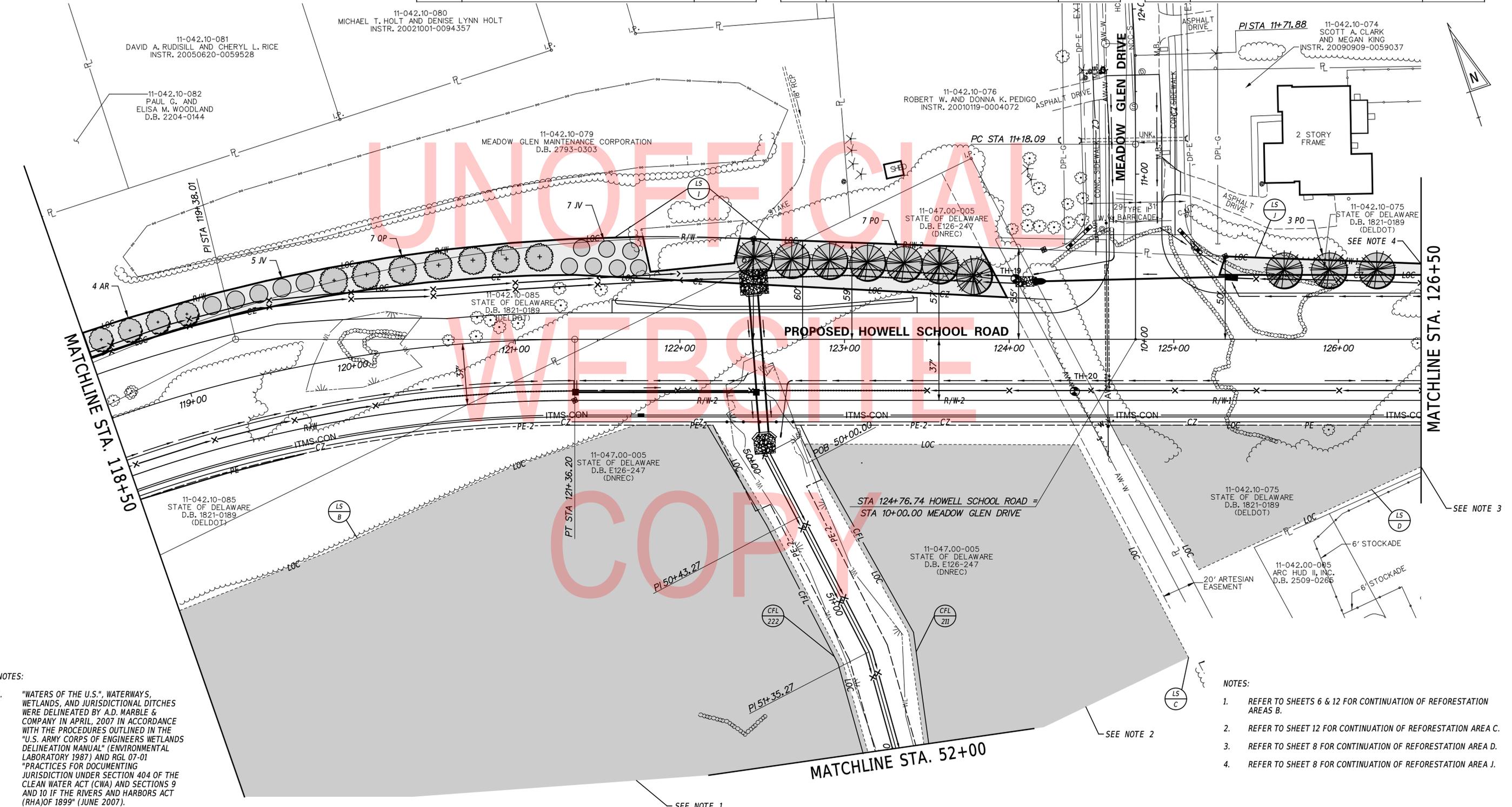
B&B PLANT MATERIAL SCHEDULE			
AREA	ABBR.	PLANTING DESCRIPTION	QUANTITY
I	PO	PLATANUS OCCIDENTALIS (SYCAMORE)	7
	AR	ACER RUBRUM (RED MAPLE)	4
	QP	QUERCUS PHELLOS (WILLOW OAK)	7
J	JV	JUNIPERUS VIRGINIANA (EASTERN RED CEDAR)	12
J	PO	PLATANUS OCCIDENTALIS (SYCAMORE)	3

LANDSCAPE CONTAINER PLANTING SCHEDULE		
AREA	PLANTING DESCRIPTION	QUANTITY
B	QUERCUS RUBRA (RED OAK)	99
	LIRIODENDRON TULIPIFERA (YELLOW POPLAR)	99
	QUERCUS PHELLOS (WILLOW OAK)	100
	ACER RUBRUM (RED MAPLE)	100
	NYSSA SYLVATICA (SOURGUM)	100
	PRUNUS SEROTINA (BLACK CHERRY)	100
	LIQUIDAMBAR STYRACIFLUA (SWEETGUM)	100
	AMELANCHIER LAEVIS (SERVICEBERRY)	100
	SASSAFRAS ALBIDUM (SASSAFRASS)	100
	PLATANUS OCCIDENTALIS (SYCAMORE)	100

LANDSCAPE CONTAINER PLANTING SCHEDULE		
AREA	PLANTING DESCRIPTION	QUANTITY
C	QUERCUS RUBRA (RED OAK)	44
	LIRIODENDRON TULIPIFERA (YELLOW POPLAR)	44
	QUERCUS PHELLOS (WILLOW OAK)	44
	ACER RUBRUM (RED MAPLE)	44
	NYSSA SYLVATICA (SOURGUM)	44
	PRUNUS SEROTINA (BLACK CHERRY)	43
	LIQUIDAMBAR STYRACIFLUA (SWEETGUM)	43
	AMELANCHIER LAEVIS (SERVICEBERRY)	43
	SASSAFRAS ALBIDUM (SASSAFRASS)	43
	PLATANUS OCCIDENTALIS (SYCAMORE)	43

LANDSCAPE CONTAINER PLANTING SCHEDULE		
AREA	PLANTING DESCRIPTION	QUANTITY
D	QUERCUS RUBRA (RED OAK)	9
	LIRIODENDRON TULIPIFERA (YELLOW POPLAR)	9
	QUERCUS PHELLOS (WILLOW OAK)	8
	ACER RUBRUM (RED MAPLE)	8
	NYSSA SYLVATICA (SOURGUM)	8
	PRUNUS SEROTINA (BLACK CHERRY)	9
	LIQUIDAMBAR STYRACIFLUA (SWEETGUM)	9
	AMELANCHIER LAEVIS (SERVICEBERRY)	9
	SASSAFRAS ALBIDUM (SASSAFRASS)	9
	PLATANUS OCCIDENTALIS (SYCAMORE)	9

PENNONI ASSOCIATES, INC. PENNONI-DELDOT.TBL
 PENNONI ASSOCIATES, INC. PENNONI-DELDOT.TBL
 DATE PLOTTED: 8/29/2019 9:50:36 PM
 USER: NAME: SINGAR
 OFFICE: LOCATIONS: Newark, Delaware
 MICROSTATION: WORKSPACE: DELDOT-VBI-OPENROADS
 MICROSTATION: VERSION: MICROSTATION V8I
 MICROSTATION: WORKSPACE: DELDOT-VBI-OPENROADS



NOTES:

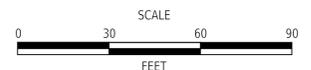
- "WATERS OF THE U.S.", WATERWAYS, WETLANDS, AND JURISDICTIONAL DITCHES WERE DELINEATED BY A.D. MARBLE & COMPANY IN APRIL, 2007 IN ACCORDANCE WITH THE PROCEDURES OUTLINED IN THE "U.S. ARMY CORPS OF ENGINEERS WETLANDS DELINEATION MANUAL" (ENVIRONMENTAL LABORATORY 1987) AND RGL 07-01 "PRACTICES FOR DOCUMENTING JURISDICTION UNDER SECTION 404 OF THE CLEAN WATER ACT (CWA) AND SECTIONS 9 AND 10 IF THE RIVERS AND HARBORS ACT (RHA) OF 1899" (JUNE 2007).

NOTES:

- REFER TO SHEETS 6 & 12 FOR CONTINUATION OF REFORESTATION AREAS B.
- REFER TO SHEET 12 FOR CONTINUATION OF REFORESTATION AREA C.
- REFER TO SHEET 8 FOR CONTINUATION OF REFORESTATION AREA D.
- REFER TO SHEET 8 FOR CONTINUATION OF REFORESTATION AREA J.



ADDENDA / REVISIONS



HOWELL SCHOOL ROAD LANDSCAPING

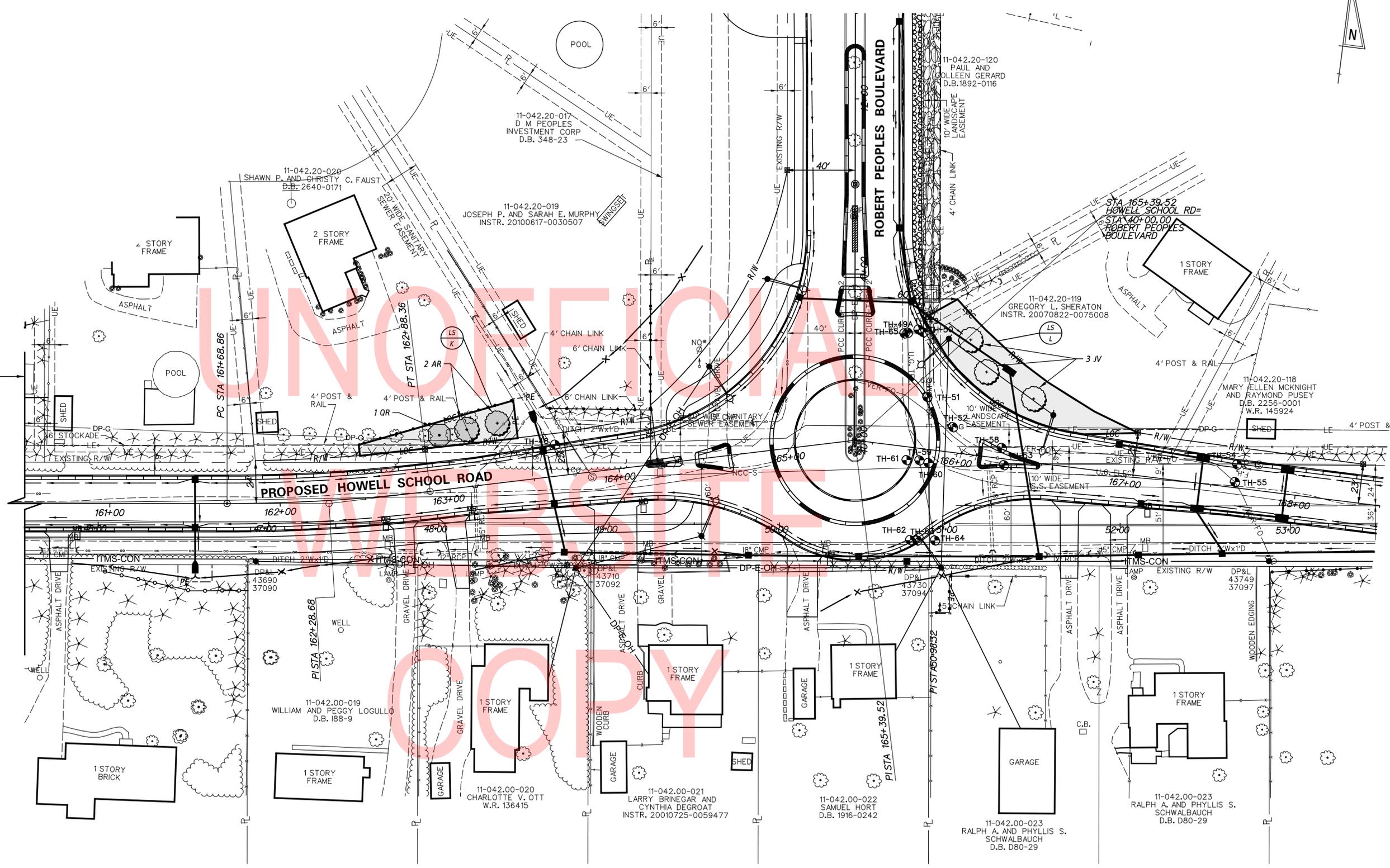
CONTRACT	BRIDGE NO.	N/A	SECTION
T201804105	DESIGNED BY:	DAH	PAI
COUNTY	CHECKED BY:	PAH	SHEET NO.
NEW CASTLE			7

LANDSCAPING PLAN

PENNONI ASSOCIATES, INC.
 1100 W. MARKET STREET, SUITE 200
 NEW CASTLE, PA 16135
 DATE PLOTTED: 8/23/2019 9:54:50 AM
 USER: NAME: SNIKKEI OFFICE: LOCATIONS: NEWCASTLE, DELAWARE
 MICROSTATION: WORKSPACE: DELDOT-VBI-OPENROADS
 PENNONTABLE: PENNONTABLE.DWG
 PLOT: PENNONTABLE.PLOT
 DATE PLOTTED: 8/23/2019 9:54:50 AM
 USER: NAME: SNIKKEI OFFICE: LOCATIONS: NEWCASTLE, DELAWARE
 MICROSTATION: WORKSPACE: DELDOT-VBI-OPENROADS

MATCHLINE STA. 134+50

2600'



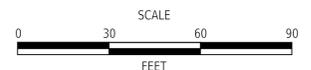
B&B PLANT MATERIAL SCHEDULE

AREA	ABBR.	PLANTING DESCRIPTION	QUANTITY
K	QR	QUERCUS RUBRA (RED OAK)	1
	AR	ACER RUBRUM (RED MAPLE)	2
L	JV	JUNIPERUS VIRGINIANA (EASTERN RED CEDAR)	3

NOTES:
 1. "WATERS OF THE U.S.", WATERWAYS, WETLANDS, AND JURISDICTIONAL DITCHES WERE DELINEATED BY A.D. MARBLE & COMPANY IN APRIL, 2007 IN ACCORDANCE WITH THE PROCEDURES OUTLINED IN THE "U.S. ARMY CORPS OF ENGINEERS WETLANDS DELINEATION MANUAL" (ENVIRONMENTAL LABORATORY 1987) AND RGL 07-01 "PRACTICES FOR DOCUMENTING JURISDICTION UNDER SECTION 404 OF THE CLEAN WATER ACT (CWA) AND SECTIONS 9 AND 10 IF THE RIVERS AND HARBORS ACT (RHA) OF 1899" (JUNE 2007).

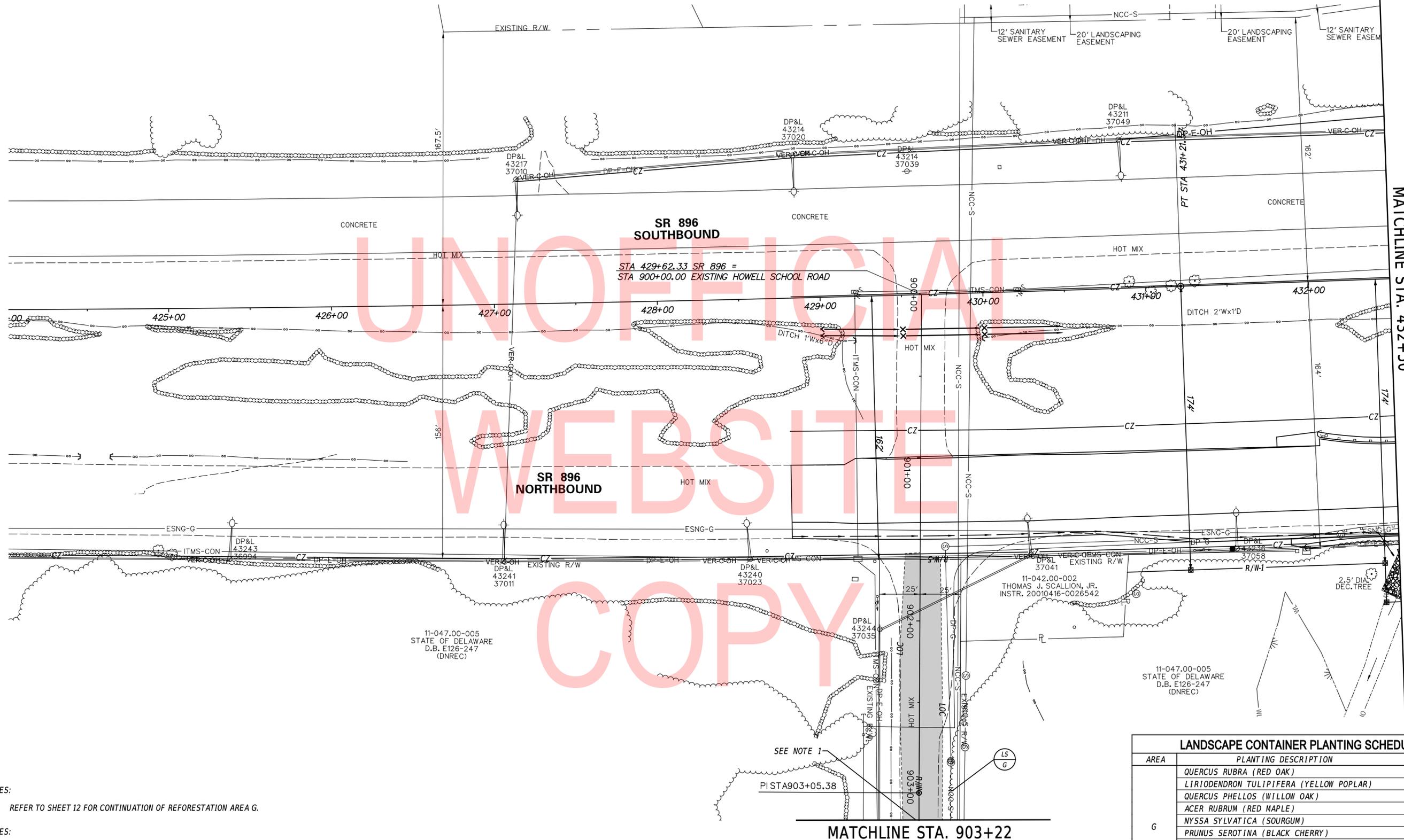


ADDENDA / REVISIONS



**HOWELL SCHOOL ROAD
LANDSCAPING**

CONTRACT	BRIDGE NO.	N/A	SECTION PAI SHEET NO. 9
T201804105	DESIGNED BY:	DAH	
COUNTY	CHECKED BY:	PAH	
NEW CASTLE			LANDSCAPING PLAN



MATCHLINE STA. 432+50

MATCHLINE STA. 903+22

PENNONI ASSOCIATES, INC. PENNONI-DELOT-1.FBI
 PENNONI ASSOCIATES, INC. PENNONI-DELOT-1.FBI
 DATE PLOTTED: 8/29/2019 9:55:04 PM
 USER: NAME: SINGAR, OFFICE: LOCATIONS: Newark, Delaware
 MICROSTATION VERSION: MICROSTATION V8I
 MICROSTATION WORKSPACE: DELOT-V8I-OPENROADS

NOTES:
 1. REFER TO SHEET 12 FOR CONTINUATION OF REFORESTATION AREA G.

NOTES:
 1. "WATERS OF THE U.S.", WATERWAYS, WETLANDS, AND JURISDICTIONAL DITCHES WERE DELINEATED BY A.D. MARBLE & COMPANY IN APRIL, 2007 IN ACCORDANCE WITH THE PROCEDURES OUTLINED IN THE "U.S. ARMY CORPS OF ENGINEERS WETLANDS DELINEATION MANUAL" (ENVIRONMENTAL LABORATORY 1987) AND RGL 07-01 "PRACTICES FOR DOCUMENTING JURISDICTION UNDER SECTION 404 OF THE CLEAN WATER ACT (CWA) AND SECTIONS 9 AND 10 IF THE RIVERS AND HARBORS ACT (RHA) OF 1899" (JUNE 2007).

11-047.00-005
 STATE OF DELAWARE
 D.B. E126-247
 (DNREC)

11-047.00-005
 STATE OF DELAWARE
 D.B. E126-247
 (DNREC)

LANDSCAPE CONTAINER PLANTING SCHEDULE		
AREA	PLANTING DESCRIPTION	QUANTITY
G	QUERCUS RUBRA (RED OAK)	15
	LIRIODENDRON TULIPIFERA (YELLOW POPLAR)	16
	QUERCUS PHELLOS (WILLOW OAK)	16
	ACER RUBRUM (RED MAPLE)	16
	NYSSA SYLVATICA (SOURGUM)	16
	PRUNUS SEROTINA (BLACK CHERRY)	16
	LIQUIDAMBAR STYRACIFLUA (SWEETGUM)	16
	AMELANCHIER LAEVIS (SERVICEBERRY)	15
	SASSAFRAS ALBIDUM (SASSAFRASS)	15
	PLATANUS OCCIDENTALIS (SYCAMORE)	15



ADDENDA / REVISIONS



**HOWELL SCHOOL ROAD
 LANDSCAPING**

CONTRACT
 T201804105
 COUNTY
 NEW CASTLE

BRIDGE NO. N/A
 DESIGNED BY: DAH
 CHECKED BY: PAH

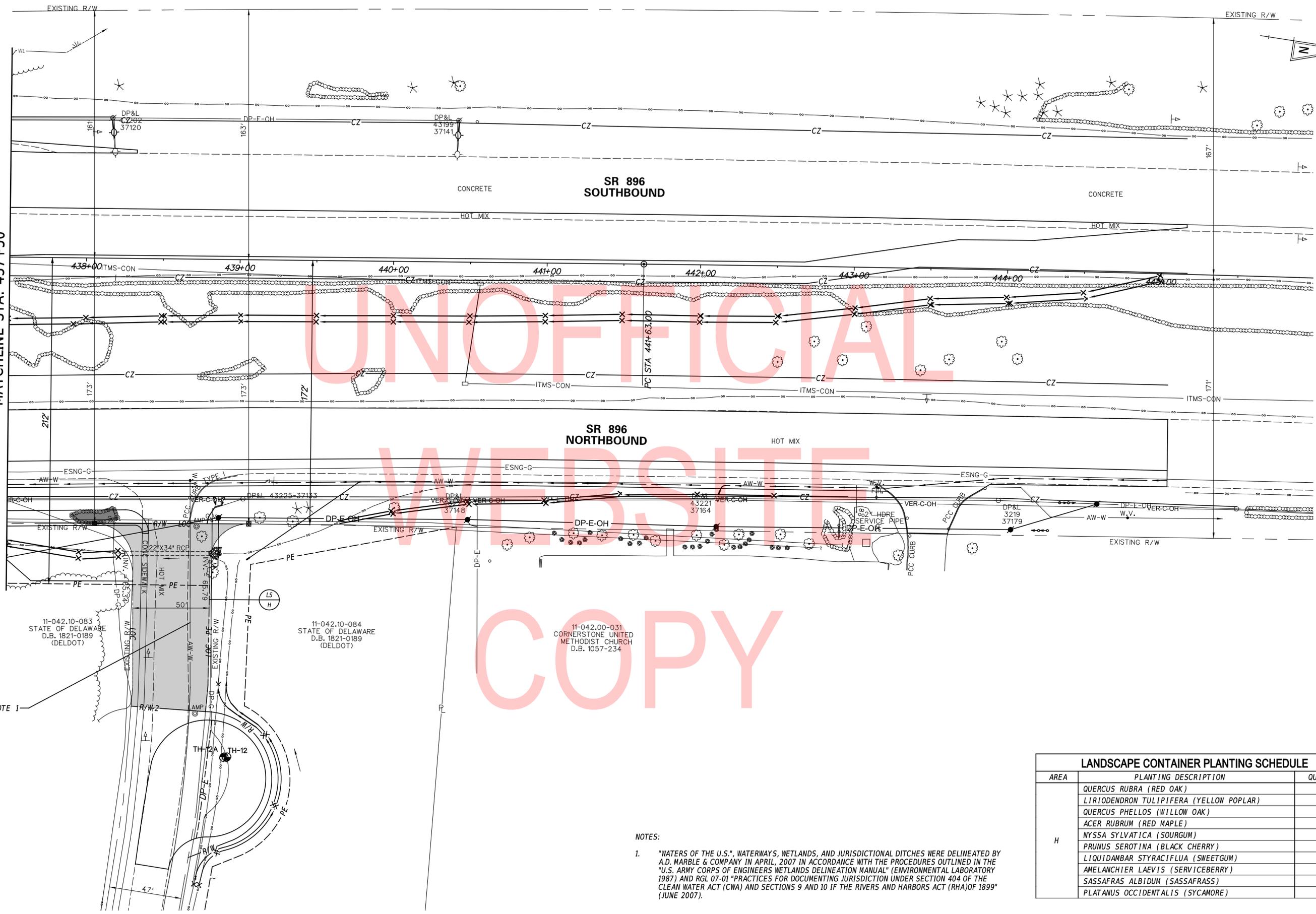
LANDSCAPING PLAN

SECTION
 PAI
 SHEET NO.
 10

PENNONI ASSOCIATES, INC.
 PENNONI ASSOCIATES, INC.
 DATE PLOTTED: 8/23/2019 9:50:42 PM
 MICROSTATION VERSION: MICROSTATION V8I
 MICROSTATION WORKSPACE: DELDOT-V8I-OPENROADS
 USER NAME: SINGAR61 OFFICE LOCATION: Newark, Delaware



MATCHLINE STA. 437+50



11-042.10-083
STATE OF DELAWARE
D.B. 1821-0189
(DELDOT)

11-042.10-084
STATE OF DELAWARE
D.B. 1821-0189
(DELDOT)

11-042.00-031
CORNERSTONE UNITED
METHODIST CHURCH
D.B. 1057-234

- NOTES:
- "WATERS OF THE U.S.", WATERWAYS, WETLANDS, AND JURISDICTIONAL DITCHES WERE DELINEATED BY A.D. MARBLE & COMPANY IN APRIL, 2007 IN ACCORDANCE WITH THE PROCEDURES OUTLINED IN THE "U.S. ARMY CORPS OF ENGINEERS WETLANDS DELINEATION MANUAL" (ENVIRONMENTAL LABORATORY 1987) AND RGL 07-01 "PRACTICES FOR DOCUMENTING JURISDICTION UNDER SECTION 404 OF THE CLEAN WATER ACT (CWA) AND SECTIONS 9 AND 10 IF THE RIVERS AND HARBORS ACT (RHA) OF 1899" (JUNE 2007).

LANDSCAPE CONTAINER PLANTING SCHEDULE		
AREA	PLANTING DESCRIPTION	QUANTITY
H	QUERCUS RUBRA (RED OAK)	5
	LIRIODENDRON TULIPIFERA (YELLOW POPLAR)	5
	QUERCUS PHELLOS (WILLOW OAK)	5
	ACER RUBRUM (RED MAPLE)	5
	NYSSA SYLVATICA (SOURGUM)	5
	PRUNUS SEROTINA (BLACK CHERRY)	5
	LIQUIDAMBAR STYRACIFLUA (SWEETGUM)	5
	AMELANCHIER LAEVIS (SERVICEBERRY)	6
	SASSAFRAS ALBIDUM (SASSAFRASS)	5
	PLATANUS OCCIDENTALIS (SYCAMORE)	5

ADDENDA / REVISIONS



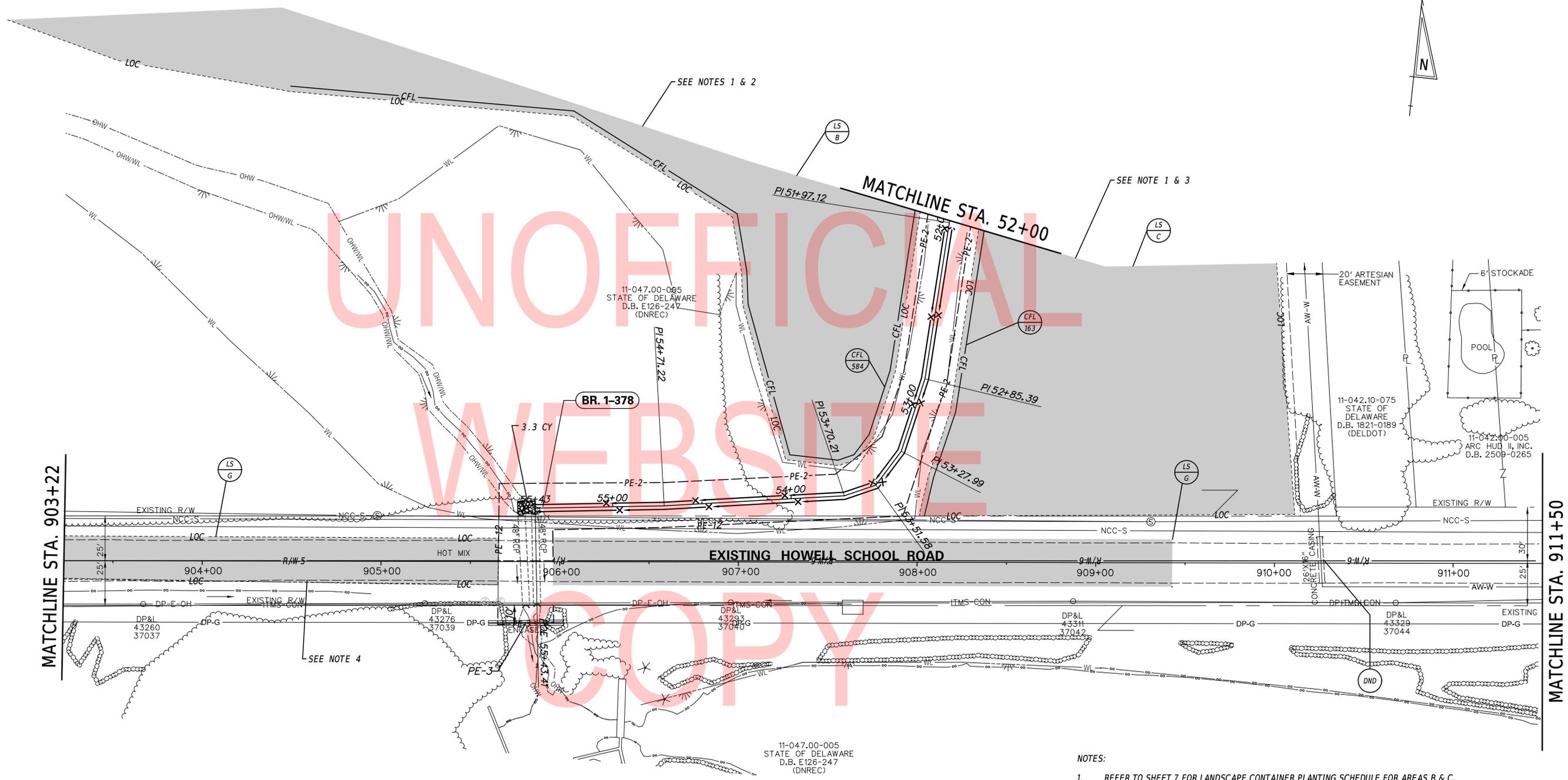
**HOWELL SCHOOL ROAD
LANDSCAPING**

CONTRACT	BRIDGE NO.	N/A
T201804105	DESIGNED BY:	DAH
COUNTY	CHECKED BY:	PAH
NEW CASTLE		

LANDSCAPING PLAN

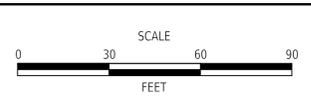
SECTION
PAI
SHEET NO.
11

PENNONI ASSOCIATES, INC.
 1100 N. MARKET STREET, SUITE 200
 WILMINGTON, DE 19801
 TEL: 302.436.1000
 FAX: 302.436.1001
 WWW.PENNONI.COM
 DATE PLOTTED: 8/29/2019 @ 9:50:43 AM
 USER: NAME: SINGAR
 OFFICE: LOCATIONS: Newark, Delaware



- NOTES:**
- REFER TO SHEET 7 FOR LANDSCAPE CONTAINER PLANTING SCHEDULE FOR AREAS B & C.
 - REFER TO SHEETS 6 & 7 FOR CONTINUATION OF REFORESTATION AREA B.
 - REFER TO SHEET 7 FOR CONTINUATION OF REFORESTATION AREA C.
 - REFER TO SHEET 10 FOR LANDSCAPE CONTAINER PLANTING SCHEDULE FOR AREA G.
- NOTES:**
- "WATERS OF THE U.S.", WATERWAYS, WETLANDS, AND JURISDICTION DITCHES WERE DELINEATED BY A.D. MARBLE & COMPANY IN APRIL, 2007 IN ACCORDANCE WITH THE PROCEDURES OUTLINED IN THE "U.S. ARMY CORPS OF ENGINEERS WETLANDS DELINEATION MANUAL" (ENVIRONMENTAL LABORATORY 1987) AND RGL 07-01 "PRACTICES FOR DOCUMENTING JURISDICTION UNDER SECTION 404 OF THE CLEAN WATER ACT (CWA) AND SECTIONS 9 AND 10 IF THE RIVERS AND HARBORS ACT (RHA) OF 1899" (JUNE 2007).

ADDENDA / REVISIONS	



**HOWELL SCHOOL ROAD
LANDSCAPING**

CONTRACT	BRIDGE NO.	N/A
T201804105	DESIGNED BY:	DAH
COUNTY	CHECKED BY:	PAH
NEW CASTLE		

LANDSCAPING PLAN	
SECTION	PAI
SHEET NO.	12

PENNONI ASSOCIATES, INC. 1000 W. MARKET STREET, SUITE 200, NEW CASTLE, DE 19720
 TEL: 302.441.1111 FAX: 302.441.1112
 PENN01-DEL001-TBL
 DATE PLOTTED: 8/29/2019 9:50:45 PM
 USER: NAME: SINGARAI OFFICE: LOCATIONS: NEWCASTLE, DELAWARE

REFORESTATION REQUIREMENTS

DELAWARE STATE SENATE BILL NO. 324 (DELAWARE TREE BILL) DEFINES TREES AS "WOODY PLANTS WITH A TRUNK MEASURING FOUR INCHES IN DIAMETER AT FOUR FEET ABOVE THE GROUND."

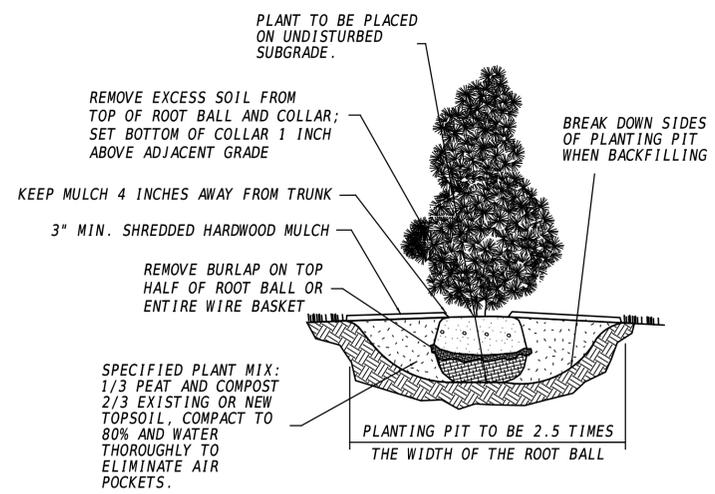
BASED UPON THIS CRITERIA, THE HOWELL SCHOOL ROAD PROJECT REMOVED A TOTAL OF 4.52 ACRES OF TREES. SINCE THE PROJECT REMOVED AN EXCESS OF FIFTY TREES, REFORESTATION PLANTING REQUIREMENTS WERE CALCULATED BASED UPON THE CRITERIA OF 225 SQUARE FEET OF REFORESTATION PLANTING PER TREE. THIS RESULTS IN A TOTAL ACREAGE OF 4.52 ACRES OF REFORESTATION PLANTING FOR THE PROJECT.

THESE LANDSCAPING PLANS IDENTIFY THE AREAS FOR REFORESTATION ALONG WITH ADDITIONAL PLANTINGS OF LARGER PLANT STOCK INTENDED TO PROVIDE BUFFERS BETWEEN THE ROADWAY AND ADJACENT PROPERTY OWNERS. THE IDENTIFIED REFORESTATION AREAS ARE AN ATTEMPT TO ENHANCE EXISTING FORESTED AREAS AND TO REESTABLISH THOSE THAT WERE AFFECTED BY THE CONSTRUCTION.

AS PER THE STOCKING REQUIREMENTS OF THE TREE BILL, REFORESTATION PLANT QUANTITIES WERE CALCULATED BASED UPON CONTAINER GROWN PLANTS (#3 SIZED CONTAINERS) SPACED APPROXIMATELY 12' ON CENTER. FIGURE A-1 OF THE TREE BILL DICTATES A PLANTING DENSITY OF 350 PLANTS PER ACRE FOR TREES OF THIS SIZE.

CONTACT ROADSIDE ENVIRONMENTAL ADMINISTRATOR AT (302) 760-2186 AT LEAST 5 WORKING DAYS PRIOR TO ORDERING THE CONTAINER LANDSCAPE MATERIAL AND B&B PLANT MATERIAL TO SCHEDULE THE SOURCE OF SUPPLY SITE INSPECTION AND AT LEAST 5 WORKING DAYS PRIOR TO BEGINNING THE PLANT LAYOUT.

REFORESTATION PLANTING CALCULATIONS					
REFORESTATION PLANTING AREA	ACREAGE	SQUARE FEET	PLANTING DENSITY	# REQUIRED	# PROVIDED
REFORESTATION PLANTING AREA 'A'	0.202 AC	8,806 SF	# OF ACRES x 350 (#3 CONTAINER PLANTS)	71	71
REFORESTATION PLANTING AREA 'B'	2.849 AC	124,099 SF	# OF ACRES x 350 (#3 CONTAINER PLANTS)	998	998
REFORESTATION PLANTING AREA 'C'	1.243 AC	54,130 SF	# OF ACRES x 350 (#3 CONTAINER PLANTS)	435	435
REFORESTATION PLANTING AREA 'D'	0.247 AC	10,765 SF	# OF ACRES x 350 (#3 CONTAINER PLANTS)	87	87
REFORESTATION PLANTING AREA 'E'	0.247 AC	10,705 SF	# OF ACRES x 350 (#3 CONTAINER PLANTS)	87	87
REFORESTATION PLANTING AREA 'F'	0.147 AC	6,421 SF	# OF ACRES x 350 (#3 CONTAINER PLANTS)	52	52
REFORESTATION PLANTING AREA 'G'	0.445 AC	19,376 SF	# OF ACRES x 350 (#3 CONTAINER PLANTS)	156	156
REFORESTATION PLANTING AREA 'H'	0.143 AC	6,244 SF	# OF ACRES x 350 (#3 CONTAINER PLANTS)	51	51
REFORESTATION PLANTING AREA 'I'	0.271 AC	11,815 SF	# OF ACRES x 100 1.5-2" CAL B&B TREES	28	30
REFORESTATION PLANTING AREA 'J'	0.035 AC	1,525 SF	# OF ACRES x 100 1.5-2" CAL B&B TREES	4	4
REFORESTATION PLANTING AREA 'K'	0.031 AC	1,359 SF	# OF ACRES x 100 1.5-2" CAL B&B TREES	3	3
REFORESTATION PLANTING AREA 'L'	0.029 AC	1,265 SF	# OF ACRES x 100 1.5-2" CAL B&B TREES	3	3
REFORESTATION PLANTING AREA TOTAL	5.889 AC	256,510 SF	N/A	1975	1977

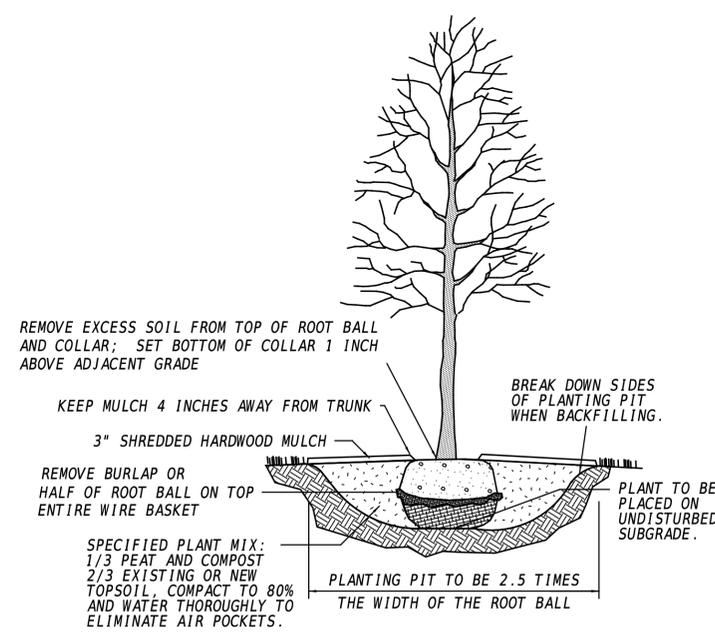


EVERGREEN B&B TREE PLANTING

- NOTES:
- USE DIGGING FORK NOT SPADE TO PREVENT GLAZING OF PIT EDGES.
 - PRUNE DEAD AND DAMAGED BRANCHES IN ACCORDANCE WITH RECOGNIZED HORTICULTURAL PRACTICES.
 - DO NOT PRUNE LEADER.
 - SET PLANTS PLUMB AND FACE TO GIVE THE BEST APPEARANCE OR RELATIONSHIP TO ADJACENT AREAS.
 - COMPLETELY REMOVE ALL TREE WRAP AFTER INSTALLATION.
 - ONLY STAKE TREES OVER 8 FT. IN HEIGHT OR ON SLOPES GREATER THAN 4:1

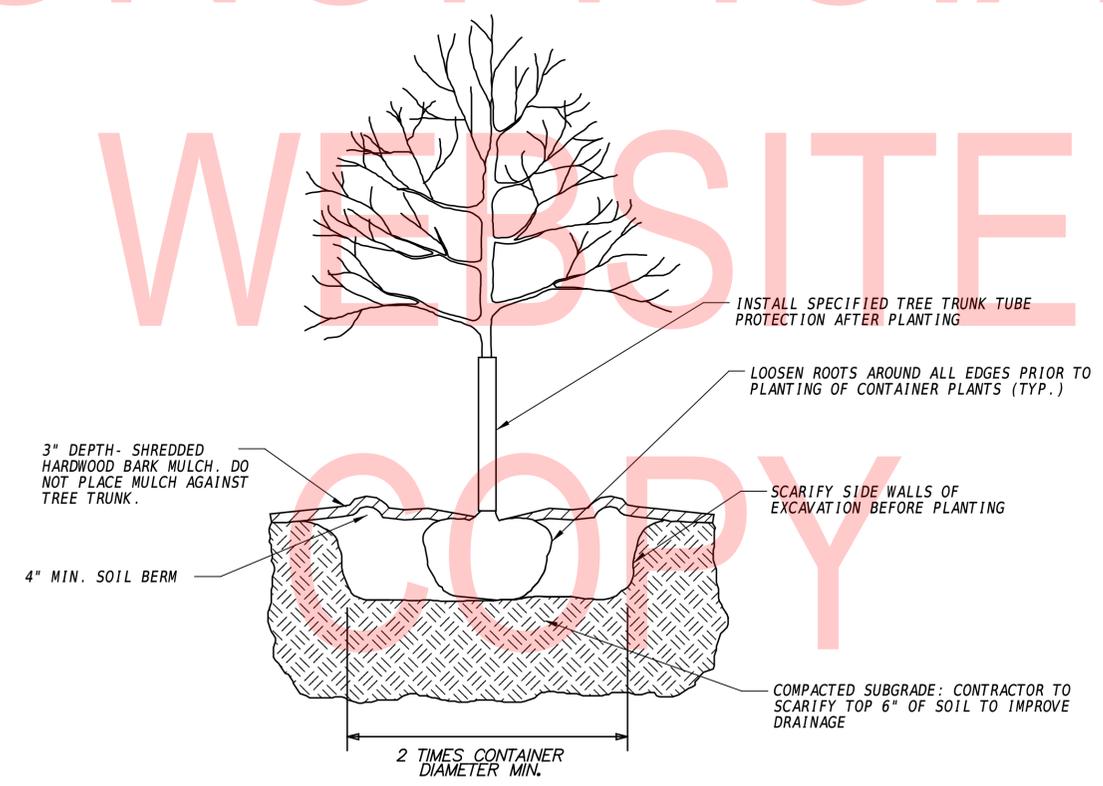
TOTAL CONTAINER LANDSCAPE MATERIAL					
QUANTITY	BOTANICAL NAMES	COMMON NAME	SIZE	ROOT	REMARKS
194	QUERCUS RUBRA	RED OAK	5' WHIP	#3 CONT.	APPROX. 12' O.C.
193	LIRIODENDRON TULIPIFERA	YELLOW POPLAR	5' WHIP	#3 CONT.	APPROX. 12' O.C.
194	QUERCUS PHELLOS	WILLOW OAK	5' WHIP	#3 CONT.	APPROX. 12' O.C.
194	ACER RUBRUM	RED MAPLE	5' WHIP	#3 CONT.	APPROX. 12' O.C.
194	NYSSA SYLVATICA	SOURGUM	5' WHIP	#3 CONT.	APPROX. 12' O.C.
194	PRUNUS SEROTINA	BLACK CHERRY	5' WHIP	#3 CONT.	APPROX. 12' O.C.
194	LIQUIDAMBAR STYRACILUA	SWEETGUM	5' WHIP	#3 CONT.	APPROX. 12' O.C.
194	AMELANCHIER LAEVIS	SERVICEBERRY	5' WHIP	#3 CONT.	APPROX. 12' O.C.
193	SASSAFRAS ALBIDUM	SASSAFRASS	5' WHIP	#3 CONT.	APPROX. 12' O.C.
193	PLATANUS OCCIDENTALIS	SYCAMORE	5' WHIP	#3 CONT.	APPROX. 12' O.C.

B&B PLANT MATERIAL SCHEDULE					
QUANTITY	ABBR.	BOTANICAL NAME	COMMON NAME	SIZE	ROOT
11	PO	PLATANUS OCCIDENTALIS	SYCAMORE	1.5-2" CAL.; 10-12' HGT.	B&B
6	AR	ACER RUBRUM	RED MAPLE	1.5-2" CAL.; 10-12' HGT.	B&B
7	QP	QUERCUS PHELLOS	WILLOW OAK	1.5-2" CAL.; 10-12' HGT.	B&B
15	JV	JUNIPERUS VIRGINIANA	EASTERN RED CEDAR	1.5-2" CAL.; 10-12' HGT.	B&B
1	QR	QUERCUS RUBRA	RED OAK	1.5-2" CAL.; 10-12' HGT.	B&B



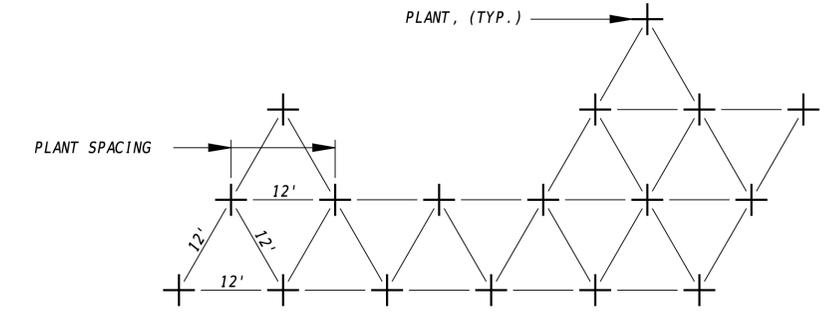
DECIDUOUS B&B TREE PLANTING

- NOTES:
- USE DIGGING FORK NOT SPADE TO PREVENT GLAZING OF PIT EDGES.
 - PRUNE DEAD AND DAMAGED BRANCHES IN ACCORDANCE WITH RECOGNIZED HORTICULTURAL PRACTICES.
 - DO NOT PRUNE LEADER.
 - SET PLANTS PLUMB AND FACE TO GIVE THE BEST APPEARANCE OR RELATIONSHIP TO ADJACENT AREAS.
 - COMPLETELY REMOVE ALL TREE WRAP AFTER INSTALLATION.
 - ONLY STAKE TREES OVER 3" CALIPER OR ON SLOPES GREATER THAN 4:1



CONTAINER TREE PLANTING DETAIL

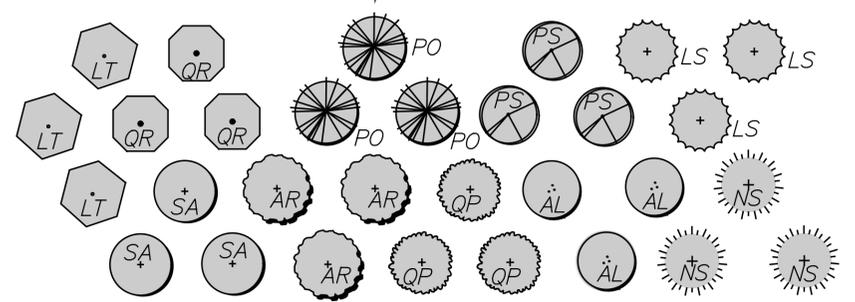
- NOTES:
- ALL SOIL SHALL BE EXCAVATED FROM THE PIT, MIXED WITH APPROVED AMENDMENTS, AND USED AS BACKFILL DURING INSTALLATION OF THE TREE. ROOT BALL SHALL BE PLACED ON TAMPED OR UN EXCAVATED SOIL.
 - COMPLETELY REMOVE CONTAINER AND SCARIFY ROOTBALL



CONTAINER MATERIAL PLANT SPACING DIAGRAM

APPLY POST EMERGENT HERBICIDE PER SPECIFICATIONS TO EXISTING VEGETATION IN PROPOSED PLANTING AREAS. INSTALL TREES AFTER ERADICATING VEGETATION. AFTER TREES ARE INSTALLED APPLY SPECIFIED PERMANENT GRASS SEEDING, DRY GROUND FERTILIZER AND MULCH TO ALL AREAS SURROUNDING TREES OR DISTURBED AREAS. SEE SEEDING NOTES.

MAINTAIN MINIMUM 10' FROM CENTERLINES OF DRAINAGE SWALES, GUARDRAILS, AND FENCES. MAINTAIN MINIMUM 15' OFFSET FROM OVERHEAD UTILITY LINES.



ADDENDA / REVISIONS		NOT TO SCALE	HOWELL SCHOOL ROAD LANDSCAPING	CONTRACT	BRIDGE NO.	N/A	LANDSCAPING DETAILS	SECTION
				T201804105	DESIGNED BY:	DAH		PAI
				COUNTY	CHECKED BY:	PAH		SHEET NO.
				NEW CASTLE				13