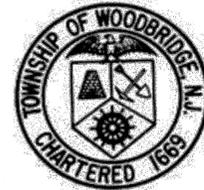


# TOWNSHIP OF WOODBRIDGE

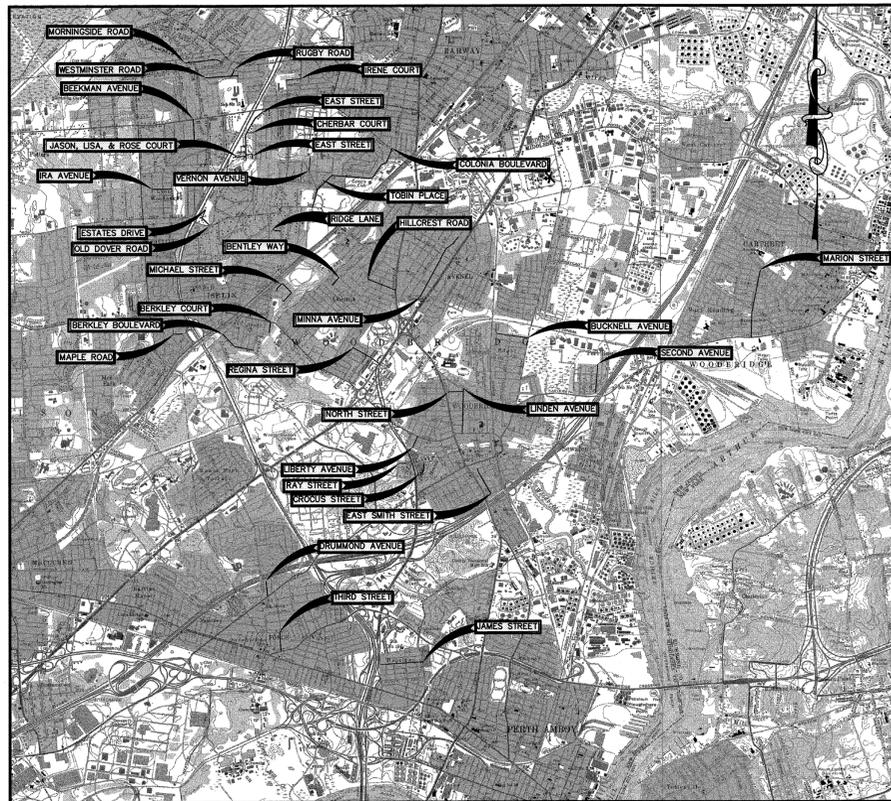
## MIDDLESEX COUNTY, NEW JERSEY

### 2020 MILLING AND RESURFACING PROGRAM



**CONTRACT NO. 2020-001**

**APRIL 2020**



**LOCATION MAP**

SCALE: N.T.S.

NEW JERSEY DEPARTMENT OF TRANSPORTATION, STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION OF 2019 AND ALL AMENDMENTS IN CME ASSOCIATES FORMAT THERETO SHALL GOVERN.

THE HEADING OF THE ARTICLES CONTAINED HEREIN CONFORM TO THE NEW JERSEY DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATION FOR ROAD AND BRIDGE CONSTRUCTION, DATED 2019 AND ALL ADDENDA THERETO, WHICH IS TO BE USED IN THE EXECUTION OF THIS CONTRACT.

THE NEW JERSEY DEPARTMENT OF TRANSPORTATION "STANDARD ROADWAY CONSTRUCTION/TRAFFIC CONTROL/BRIDGE CONSTRUCTION DETAILS" BOOKLET DATED 2016 AND "ELECTRICAL BUREAU STANDARD DETAILS" (2007) TO GOVERN, EXCEPT FOR THOSE DETAILS CONTAINED HEREIN.

**TOTAL LENGTH OF PROJECT = 7.175 MILES**

**UTILITIES**

**ELECTRIC**

PUBLIC SERVICE ELECTRIC AND GAS CO.  
472 WESTON CANAL ROAD  
SOMERSET, NJ 08873  
ATTN: BURK LAMBERTSON  
(732) 764-3160

**CABLE**

COMCAST CABLE  
800 RAHWAY AVENUE  
UNION, NJ 07083  
ATTN: ROBERT KNOEPFEL  
(732) 602-7444 EXT. 6202293

**WATER**

MIDDLESEX WATER COMPANY  
ENGINEERING DEPARTMENT  
1500 RONSON ROAD, P.O. BOX 1500  
ISELIN, NJ 08830-0452  
ATTN: LADISLAW MONTERROSA  
(732) 634-1500

**TELEPHONE/COMMUNICATIONS**

VERIZON-NEW JERSEY, INC.  
175 WEST MAIN STREET  
SOUTH PLAINFIELD, NJ 07080  
ATTN: THOMAS GRABOWSKI  
(908) 412-6169

**SANITARY SEWER**

TOWNSHIP OF WOODBRIDGE  
DIVISION OF ENGINEERING  
1 MAIN STREET  
WOODBRIDGE, NJ 07095  
ATTN: MICHAEL GELIN  
(732) 602-6047

**GAS**

BUCKEYE PARTNERS, LP  
9999 HAMILTON BOULEVARD  
BREIINGSVILLE, PA 18031  
ATTN: TIMOTHY JAFFE  
(610) 904-4401

ELIZABETHTOWN GAS CO.  
520 GREEN LANE  
UNION, NJ 07083  
ATTN: JOHN EGGOLT  
(908) 662-8319

MIDDLESEX COUNTY UTILITIES AUTHORITY  
2571 MAIN STREET P.O. BOX 1500  
SAYREVILLE, NJ 08872  
ATTN: KEVIN T. AIELLO  
(732) 721-3800

WILLIAM GAS PIPELINE- TRANSCO  
99 FARBER ROAD  
PRINCETON, NJ 08540  
(609) 936-2423

TEXAS EASTERN GAS PIPELINE  
501 COOLIDGE STREET  
SOUTH PLAINFIELD, NJ 07080  
ATTN: PETER SEYDEWITZ  
(908) 821-1817

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**JOHN E. McCORMAC - MAYOR**

**TOWNSHIP COUNCIL**

**LIZBETH DEJESUS**

**BRIAN SMALL**

**NANCY DRUMM**

**HOWIE BAUER**

**CORY SPILLAR**

**VIRBHADRA N. PATEL**

**DEBBIE MEEHAN**

**KYLE ANDERSON**

**GREGG M. FICARRA**

**COUNCIL PRESIDENT**

**COUNCIL VICE PRESIDENT**

**COUNCILWOMAN**

**COUNCILMAN**

**COUNCILMAN**

**COUNCILMAN**

**COUNCILWOMAN**

**COUNCILMAN**

**COUNCILMAN**

**VITO CIMILLUCA**

**JOHN M. MITCH**

**JAMES P. NOLAN, JR., ESQ.**

**GEORGE T. BREW**

**MICHAEL GELIN, P.E.**

**BUSINESS ADMINISTRATOR**

**MUNICIPAL CLERK**

**DIRECTOR OF LAW**

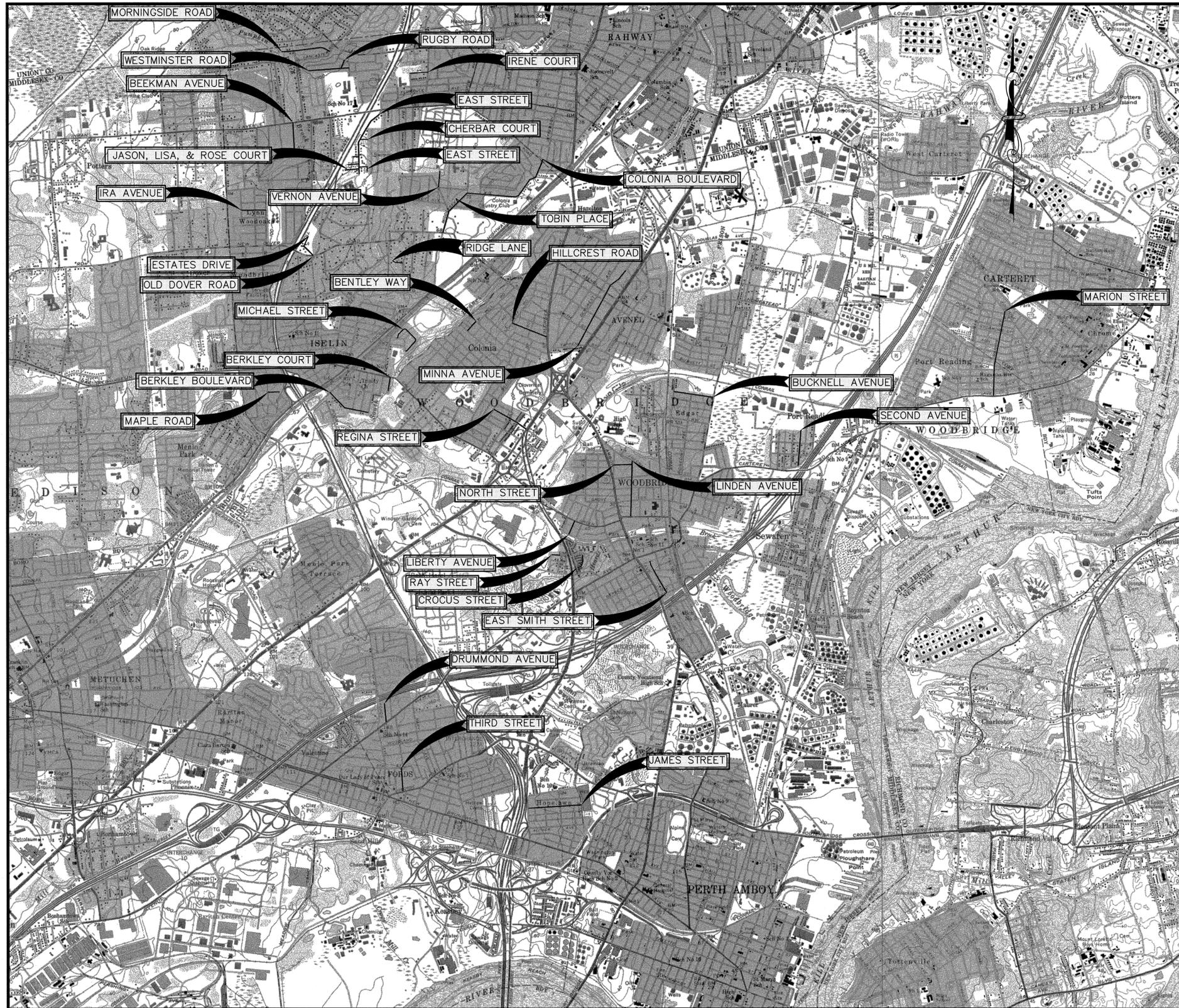
**DIRECTOR OF PUBLIC WORKS**

**MUNICIPAL ENGINEER**

PREPARED BY:  
*Michael J. McClelland*  
**MICHAEL J. McCLELLAND, P.E.**  
NEW JERSEY PROFESSIONAL ENGINEER LICENSE No. 32468

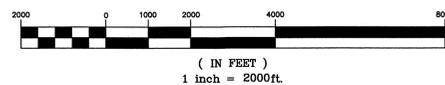


PWB0A610.01



# LOCATION PLAN

GRAPHIC SCALE



## GENERAL CONSTRUCTION NOTES:

- CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS NECESSARY FOR CONSTRUCTION IN ACCORDANCE WITH EXISTING LOCAL, COUNTY, OR STATE REGULATIONS, OR ANY OTHER AGENCY HAVING JURISDICTION IN THESE MATTERS.
- THE CONTRACTOR IS RESPONSIBLE FOR AND SHALL VERIFY ALL DIMENSIONS AND DETAILS BEFORE PROCEEDING WITH WORK. ANY DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE ENGINEER.
- ALL REGRADED AREAS AT THE SITE WHICH ARE NOT DESIGNATED AS PAVED OR GRAVEL AREAS SHALL BE TOPSOILED AND SEEDING AND SHALL BE STABILIZED IN ACCORDANCE WITH STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL IN NEW JERSEY AND THE CONTRACT SPECIFICATIONS.
- ALL GRADING OPERATIONS SHALL PROVIDE FOR POSITIVE DRAINAGE AWAY FROM ALL BUILDINGS AND STRUCTURES AND SHALL ELIMINATE PONDING AREAS.
- THE CONTRACTOR SHALL MAKE ALL NECESSARY INVESTIGATIONS TO SATISFY HIMSELF AS TO THE EXISTING CONDITIONS PRIOR TO BIDDING WORK, WORK INCLUDING THE LOCATION OF EXISTING RESIDENTIAL SPRINKLER SYSTEMS.
- THE CONTRACTOR IS RESPONSIBLE TO COORDINATE THE LOCATION OF THE UTILITIES WITH THE UTILITY COMPANIES PRIOR TO CONSTRUCTION.
- THE COORDINATION OF THE LOCATION OR RELOCATION WHERE REQUIRED OF TELEPHONE, CABLE, ELECTRIC, GAS, AND WATER FACILITIES IS THE RESPONSIBILITY OF THE CONTRACTOR AND SAME SHALL BE COORDINATED TO INSURE COMPLETION WITHIN THE TIME PERMITTED.
- THE CONTRACTOR IS RESPONSIBLE TO MAINTAIN MEANS OF INGRESS AND EGRESS TO RESIDENTS THROUGHOUT THE COURSE OF THE WORK AND TO PROVIDE ADEQUATE MAINTENANCE AND PROTECTION OF TRAFFIC.
- THE CONTRACTOR'S LICENSED SURVEYOR SHALL PROVIDE THE CONSTRUCTION STAKEOUT FOR THE PROJECT.
- THE CONTRACTOR WILL NOT BE PERMITTED TO STOCKPILE EXCAVATED MATERIALS OVER EXISTING UTILITY LINES. THE STOCKPILED MATERIALS SHOULD BE PLACED SUFFICIENTLY AWAY FROM THE EDGE OF ANY EXCAVATION TO PREVENT CAVING OF THE TRENCH WALL AND TO PERMIT ACCESS ALONG THE TRENCH. WITH SHEETED TRENCHES, A MINIMUM OF FIVE (5) FEET FROM THE EDGE OF SHEETING TO TOE OF SPOIL BANK MUST BE MAINTAINED.
- THE CONTRACTOR SHALL TAKE EVERY PRECAUTION NECESSARY TO PRECLUDE DAMAGE TO EXISTING STRUCTURES, FACILITIES, AND UTILITIES DUE TO LOSS OF LATERAL SUPPORT AND/OR CONSTRUCTION LOADINGS. SPECIFIC DETAILS NECESSARY TO ACCOMPLISH SAME SHALL BE SUBMITTED BY THE CONTRACTOR FOR REVIEW AND APPROVAL PRIOR TO COMMENCING CONSTRUCTION.
- ALL WORK BY THE CONTRACTOR SHALL BE DONE IN ACCORDANCE WITH THE PROVISIONS OF THE NEW JERSEY STATUTE KNOWN AS CHAPTER 249 OF THE LAWS OF 1948, BEING SECTIONS 34-6.47.1 TO 47.9, INCLUSIVE OF THE REVISED STATUTES OF NEW JERSEY, 1937, AND IN ACCORDANCE WITH THE RULES AND REGULATIONS CONCERNING PRECAUTIONS TO BE TAKEN IN THE PROXIMITY OF HIGH-VOLTAGE LINES FOR THE PREVENTION OF ACCIDENTS PROMULGATED BY THE COMMISSIONER OF THE DEPARTMENT OF LABOR AND INDUSTRY OF THE STATE OF NEW JERSEY, EFFECTIVE DECEMBER 28, 1948, ALL AS AMENDED AND SUPPLEMENTED, AND IN ACCORDANCE WITH THE PROVISIONS OF THE FEDERAL OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970 AND OF SUBPART N, PARAGRAPH 1926.550 OF THE RULES AND REGULATIONS ISSUED UNDER SAID ACT.
- THE CONTRACTOR IS HEREBY ADVISED THAT ALL WORK TO BE PERFORMED SHALL BE GOVERNED BY THE LOCAL MUNICIPAL ORDINANCES. THIS SHALL INCLUDE THE PROVISIONS IN THEIR CODES WHICH SET FORTH PERMITTED HOURS OF CONSTRUCTION WITHIN THE MUNICIPALITY.
- THE CONTRACTOR IS ADVISED THAT THEY ARE RESPONSIBLE TO PAY FOR, ACQUIRE AND COMPLY WITH ANY ROAD OPENING PERMITS IF REQUIRED IN CONJUNCTION WITH THE PROPOSED IMPROVEMENTS.
- THE CONTRACTOR SHALL COMPLY WITH THE LATEST MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES BY THE U.S.D.O.T.
- THE CONTRACTOR IS ADVISED THAT HE MUST MAINTAIN A MINIMUM OF ONE LANE OF TRAFFIC IN EACH DIRECTION AT ALL TIMES AND MUST COMPLETELY BACKFILL ALL TRENCHES PRIOR TO NON-DAYLIGHT HOURS.
- IN ORDER TO MAINTAIN ONE LANE OF TRAFFIC IN EACH DIRECTION, THE CONTRACTOR MAY FIND IT NECESSARY TO UTILIZE STEEL PLATES OVER TRENCHES AT NO ADDITIONAL COST TO THE OWNER.
- WHEN DISTURBING, REMOVING AND/OR DISPOSING OF ASBESTOS CEMENT PIPE, THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE FEDERAL, STATE, AND LOCAL REQUIREMENTS INCLUDING BUT NOT LIMITED TO: CURRENT USEPA REGULATIONS (40 CFR 61 SUBPART M); OSHA REGULATIONS (29 CFR 1926.58); THE CURRENT NEW JERSEY ASBESTOS HAZARD ABATEMENT SUBCODE (N.J.A.C. 8:23-9); THE CURRENT NJDEP REGULATIONS (N.J.A.C. 7:26-1 ET. SEQ.); AND NOTIFICATION REGULATIONS (N.J.A.C. 8:23-8.6, 40 CFR 61 SUBPART M, AND N.J.A.C. 7:26-2.12).
- THE FREEHOLD SOIL CONSERVATION DISTRICT GOVERNS SOIL EROSION AND SEDIMENT CONTROL MEASURES WITHIN THE PROJECT AREA. ACCORDINGLY ALL SOIL EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE INSTALLED AS PER THE REQUIREMENTS OF THE FREEHOLD SOIL CONSERVATION DISTRICT AND AS DIRECTED BY THE ENGINEER.
- AT CERTAIN TIMES THE SITE MAY BE OCCUPIED BY SEVERAL CONTRACTORS AND IT IS THEREFORE REQUIRED FOR ANY AND ALL CONTRACTORS OCCUPYING THE SITE TO COOPERATE WITH ONE ANOTHER. NO DELAYS RESULTING FROM MULTIPLE CONTRACTORS WORKING ON THE SITE WILL BE CONSIDERED.
- THE CONTRACTOR SHALL CONTINUOUSLY DEWATER ALL EXCAVATIONS UNTIL BACKFILLING OPERATIONS HAVE BEEN COMPLETED. PRIOR TO DISCHARGE TO STREAMS, SILT SHALL BE SETTLED OUT IN AN APPROVED SETTLING BASIN.
- THE CONTRACTOR SHALL MAINTAIN THE FLOW OF ALL STREAMS, DRAINAGE DITCHES, STORM SEWERS, AND SANITARY SEWERS AT ALL TIMES BY A MEANS ACCEPTABLE TO THE ENGINEER AND ALL THE RESPONSIBLE AGENCIES.
- THE CONTRACTOR SHALL MAINTAIN ALL UTILITY SERVICE FLOWS AND PRESSURES UNLESS WRITTEN APPROVAL BY THE RESPONSIBLE UTILITY COMPANY PERMITS HIM TO DO OTHERWISE.
- THE CONTRACTOR SHALL COMPLY WITH ALL REQUIREMENTS OF THE STATE OF NEW JERSEY WORKER HEALTH AND SAFETY ACT (N.J.A.C. 12:110 ET SEQ.) AS AMENDED AND THE UNITED STATES OCCUPATIONAL SAFETY & HEALTH ACT (OSHA) (29 CFR 1910), AS AMENDED WITH REGARD TO WORKER AND JOBSITE SAFETY.
- ALL MAILBOXES REQUIRING RELOCATION SHALL BE DONE SO IN ACCORDANCE WITH LOCAL POSTAL AUTHORITY REGULATIONS.
- TREES SHALL BE PLANTED IF AND WHERE DIRECTED BY THE ENGINEER.
- PRIOR TO WORKING IN THE AREA OF THE ROADWAY ON WHICH THE PROPOSED EASEMENT OR RIGHT OF ENTRY IS REQUIRED, THE CONTRACTOR SHALL VERIFY WITH THE ENGINEER THAT THE SAME HAS BEEN OBTAINED.
- RESETTING OF EXISTING SIGNS SHALL BE WITH BREAKAWAY STEEL U-POST IN ACCORDANCE WITH NJDOT STANDARD DETAILS.

No.	DESCRIPTION OF REVISION	DATE	DRAWN	CHECKED	RELEASED
<b>TOWNSHIP OF WOODBRIDGE</b> MIDDLESEX COUNTY, NEW JERSEY <b>2020 MILLING AND RESURFACING PROGRAM</b> CONTRACT NO. 2020-001					
<b>LOCATION PLAN AND CONSTRUCTION NOTES</b>					
 CONSULTING AND MUNICIPAL ENGINEERS (732) 462 7400 3141 BORDENTOWN AVENUE, PAULIN, NEW JERSEY 08859-1162 — 1460 ROUTE 9 SOUTH, HOWELL, NEW JERSEY 07731-1194					
JOHN H. ALLGAIR P.E. & P.P. (1983 - 2021) NJ PE LIC NO. 23628	DAVID J. SAMUEL P.E. & P.P. NJ PE LIC NO. 24855	JOHN J. STEFANI P.E. L.S. & P.P. NJ PE LIC NO. 24273			
JAY B. CORNELL P.E. & P.P. NJ PE LIC NO. 3874	MICHAEL J. MCCLELLAND P.E. & P.P. NJ PE LIC NO. 32468	GREGORY R. VALESII P.E. & P.P. NJ PE LIC NO. 34498			
<b>MICHAEL J. MCCLELLAND P.E.</b> NEW JERSEY PROFESSIONAL ENGINEER LIC. 32468			SCALE: As Shown DATE: March 2020 DRAWN BY: PB DESIGNED BY: PB CHECKED BY: [Signature] SHEET: 2 of 65		

DRAWING NO. PWB0610.01

**ACID SOILS MITIGATION METHODS AND MATERIALS**

- LIMIT THE EXCAVATION AREA AND EXPOSURE TIME WHEN HIGH ACID-PRODUCING SOILS ARE ENCOUNTERED.
- TOPSOIL STRIPPED FROM THE SITE SHALL BE STORED SEPARATELY FROM TEMPORARILY STOCKPILED HIGH ACID-PRODUCING SOILS.
- STOCKPILES OF HIGH ACID-PRODUCING SOIL SHOULD BE LOCATED ON LEVEL LAND TO MINIMIZE ITS MOVEMENT, ESPECIALLY WHEN THIS MATERIAL HAS A HIGH CLAY CONTENT.
- TEMPORARILY STOCKPILED HIGH ACID-PRODUCING SOIL MATERIAL TO BE STORED MORE THAN 48 HOURS SHOULD BE COVERED WITH PROPERLY ANCHORED, HEAVY GRADE SHEETS OF POLYETHYLENE WHERE POSSIBLE. IF NOT POSSIBLE, STOCKPILES SHALL BE COVERED WITH A MINIMUM OF 3 TO 6 INCHES OF WOOD CHIPS TO MINIMIZE EROSION OF THE STOCKPILE. SILT FENCE SHALL BE INSTALLED AT THE TOE OF THE SLOPE TO CONTAIN MOVEMENT OF THE STOCKPILED MATERIAL. TOPSOIL SHALL NOT BE APPLIED TO THE STOCKPILES TO PREVENT TOPSOIL CONTAMINATION WITH HIGH ACID-PRODUCING SOIL.
- HIGH ACID-PRODUCING SOILS WITH A PH OF 4.0 OR LESS OR CONTAINING IRON SULFIDE (INCLUDING BORROW FROM CUTS OR DREDGED SEDIMENT) SHALL BE ULTIMATELY PLACED OR BURIED WITH LIMESTONE APPLIED AT THE RATE OF 10 TONS PER ACRE (OR 450 POUNDS PER 1,000 SQUARE FEET OF SURFACE AREA) AND COVERED WITH A MINIMUM OF 12 INCHES OF SETTLED SOIL WITH A PH OF 5.0 OR MORE EXCEPT AS FOLLOWS:
  - AREAS WHERE TREES OR SHRUBS ARE TO BE PLANTED SHALL BE COVERED WITH A MINIMUM OF 24 INCHES OF SOIL WITH A PH OF 5 OR MORE.
  - DISPOSAL AREAS SHALL NOT BE LOCATED WITHIN 24 INCHES OF ANY SURFACE OF A SLOPE OR BANK, SUCH AS BERMS, STREAM BANKS, DITCHES, AND OTHERS, TO PREVENT POTENTIAL LATERAL LEACHING DAMAGES.
- EQUIPMENT USED FOR MOVEMENT OF HIGH ACID-PRODUCING SOILS SHOULD BE CLEANED AT THE END OF EACH DAY TO PREVENT SPREADING OF HIGH ACID-PRODUCING SOIL MATERIALS TO OTHER PARTS OF THE SITE INTO STREAMS OR STORMWATER CONVEYANCES, AND TO PROTECT MACHINERY FROM ACCELERATED RUSTING.
- NON-VEGETATIVE EROSION CONTROL PRACTICES (STONE TRACKING PADS, STRATEGICALLY PLACED LIMESTONE CHECK DAM, SEDIMENT BARRIER, WOOD CHIPS) SHOULD BE INSTALLED TO LIMIT THE MOVEMENT OF HIGH ACID-PRODUCING SOILS FROM, AROUND, OR OFF THE SITE.
- FOLLOWING BURIAL OR REMOVAL OF HIGH ACID-PRODUCING SOIL, TOPSOILING AND SEEDING OF THE SITE (SEE TEMPORARY VEGETATIVE COVER FOR SOIL STABILIZATION, PERMANENT VEGETATIVE COVER FOR SOIL STABILIZATION, AND TOPSOILING), MONITORING MUST CONTINUE FOR A MINIMUM OF 6 MONTHS TO ENSURE THERE IS ADEQUATE STABILIZATION AND THAT NO HIGH ACID-PRODUCING SOIL PROBLEMS EMERGE. IF PROBLEMS STILL EXIST, THE AFFECTED AREA MUST BE TREATED AS INDICATED ABOVE TO CORRECT THE PROBLEM.

**TEMPORARY SEEDBED PREPARATIONS**

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

**SITE PREPARATION**

- GRADE AS NEEDED AND FEASIBLE TO PERMIT THE USE OF CONVENTIONAL EQUIPMENT FOR SEEDBED PREPARATION, SEEDING, MULCH APPLICATION, AND MULCH ANCHORING. ALL GRADING SHOULD BE DONE IN ACCORDANCE WITH STANDARD FOR LAND GRADING.
- IMMEDIATELY PRIOR TO SEEDING AND TOPSOIL APPLICATION, THE SUBSOIL SHALL BE EVALUATED FOR COMPACTION IN ACCORDANCE WITH STANDARD FOR LAND GRADING.
- TOPSOIL SHOULD BE HANDLED ONLY WHEN IT IS DRY ENOUGH TO WORK WITHOUT DAMAGING THE SOIL STRUCTURE. A UNIFORM APPLICATION TO A DEPTH OF 5 INCHES (UNSETTLED) IS REQUIRED ON ALL SITES. TOPSOIL SHALL BE AMENDED WITH ORGANIC MATTER, AS NEEDED, IN ACCORDANCE WITH THE STANDARD FOR TOPSOILING.
- INSTALL NEEDED EROSION CONTROL PRACTICES OR FACILITIES SUCH AS DIVERSIONS, GRADE-STABILIZATION STRUCTURES, CHANNEL STABILIZATION MEASURES, SEDIMENT BASINS, AND WATERWAYS.

**SOIL EROSION AND SEDIMENT CONTROL NOTES:**

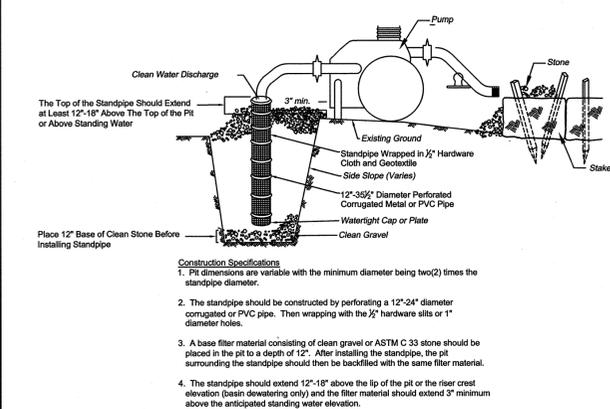
- THE FREEHOLD SOIL CONSERVATION DISTRICT SHALL BE NOTIFIED FORTY-EIGHT (48) HOURS IN ADVANCE OF ANY SOIL DISTURBING ACTIVITY.
- ALL SOIL EROSION AND SEDIMENT CONTROL PRACTICES ARE TO BE INSTALLED PERMANENT PROTECTION IS ESTABLISHED.
- ANY CHANGES TO THE CERTIFIED SOIL EROSION AND SEDIMENT CONTROL PLANS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

**TEMPORARY SEEDING SPECIFICATIONS**

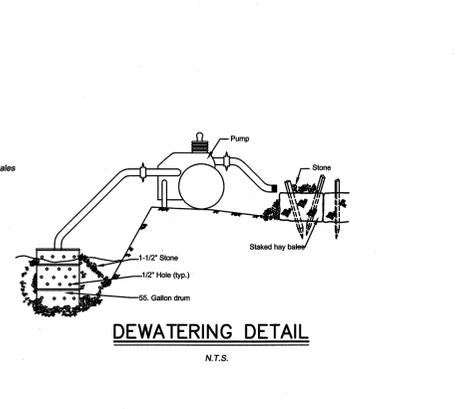
- APPLY 10-20-10 FERTILIZER AT A RATE OF 500 LBS. PER ACRE OR 11 LBS. PER 1,000 SQ. FEET.
- APPLY LIMESTONE AT A RATE OF 2 TONS PER ACRE OR 90 LBS. PER 1,000 SQ. FT. FOR SANDY LOAM, COOL SEASON GRASSES.
- APPLY PERENNIAL RYE GRASS AT A RATE OF 100 LBS. PER ACRE OR 1 LB. PER 1,000 SQ. FT.
- APPLY SPRING CATS AT A RATE OF 80 LBS. PER ACRE OR 2 LBS. PER 1,000 SQ. FT.
- APPLY ANNUAL RYEGRASS AT A RATE OF 100 LBS. PER ACRE OR 1 LBS. PER 1,000 SQ. FT.
- APPLY WINTER CEREALE RYE AT A RATE OF 96 LBS. PER ACRE OR 2.2 LBS. PER 1,000 SQ. FT.
- APPLY WINTER CEREALE RYE AT A RATE OF 112 LBS. PER ACRE OR 2.8 LBS. PER 1,000 SQ. FT. WARM SEASON GRASSES.
- APPLY PEARL MILLET AT A RATE OF 20 LBS. PER ACRE OR 0.5 LBS. PER 1,000 SQ. FT.
- APPLY MILLET (GERMAN OR HUNGARIAN) AT A RATE OF 30 LBS. PER ACRE OR 0.7 LBS. PER SQ. FT.

**NOTE:**

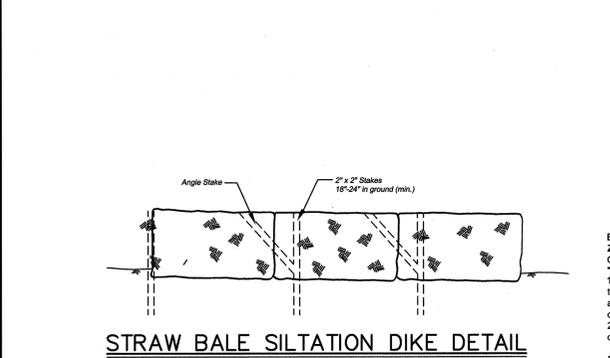
There are to be no stockpile areas under this project. All surplus excavated material and or fill shall be removed or brought to the site on a daily basis.



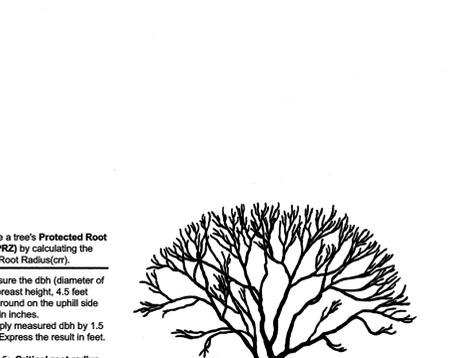
**DEWATERING DETAIL**  
N.T.S.



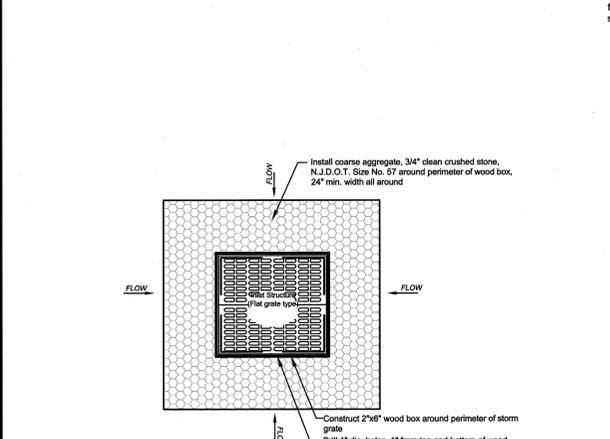
**DEWATERING DETAIL**  
N.T.S.



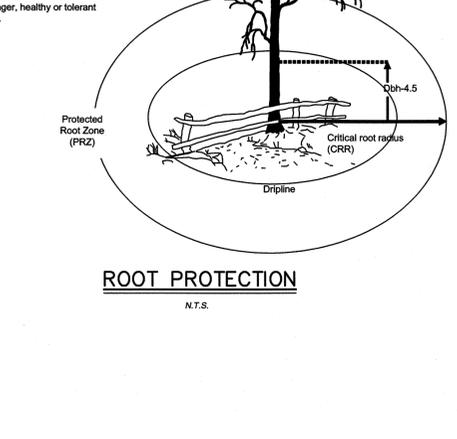
**STRAW BALE SILTATION DIKE DETAIL**  
N.T.S.



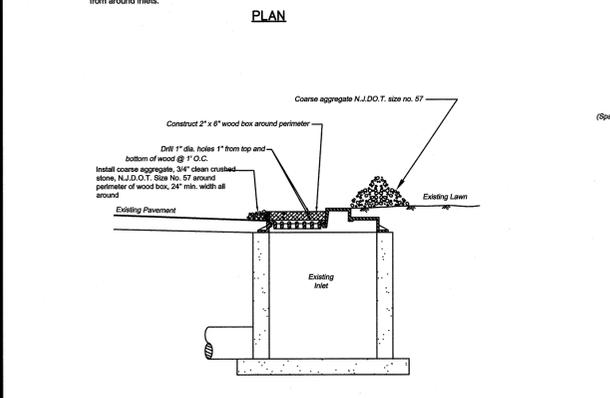
**ROOT PROTECTION**  
N.T.S.



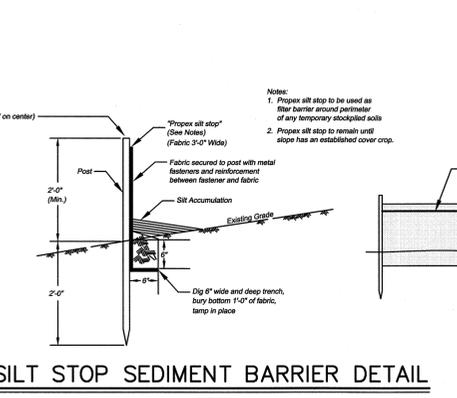
**INLET SILTATION PROTECTION DETAIL**  
N.T.S.



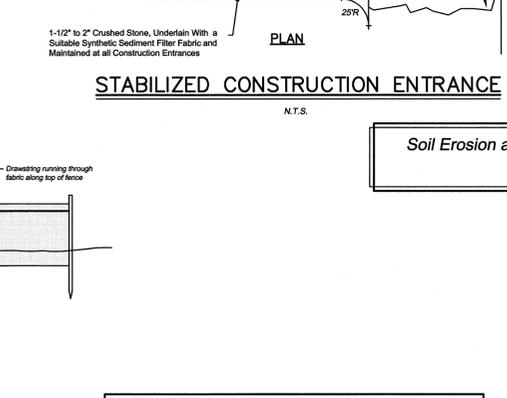
**STABILIZED CONSTRUCTION ENTRANCE**  
N.T.S.



**SILT STOP SEDIMENT BARRIER DETAIL**  
N.T.S.



**INLET FILTER**  
N.T.S.



**NON GROWING SEASON SOIL STABILIZATION:**

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

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

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

**SEDIMENT BARRIER:**  
SHOULD FIELD CONDITIONS WARRANT THE INSTALLATION OF A SEDIMENT BARRIER, IT WILL BE INSTALLED.

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

**PERMANENT SEEDBED PREPARATIONS**

- UNIFORMLY APPLY GROUND LIMESTONE AND FERTILIZER TO TOPSOIL WHICH HAS BEEN SPREAD AND FIRMED, ACCORDING TO SOIL TEST RECOMMENDATIONS SUCH AS OFFERED BY RUTGERS CO-OPERATIVE EXTENSION. SOIL SAMPLE MALEERS ARE AVAILABLE FROM THE LOCAL RUTGERS CO-OPERATIVE EXTENSION OFFICES (HTTP://NAJES.RUTGERS.EDU/COUNTY/). FERTILIZER SHALL BE APPLIED AT THE RATE OF 500 POUNDS PER ACRE OR 11 POUNDS PER 1,000 SQUARE FEET OF 10-10-10 OR EQUIVALENT WITH 50% WATER INSOLUBLE NITROGEN UNLESS A SOIL TEST INDICATES OTHERWISE AND INCORPORATED INTO THE SURFACE 4 INCHES DEEP. FERTILIZER IS NOT INCORPORATED, APPLY ONE-HALF THE RATE DESCRIBED ABOVE DURING SEEDBED PREPARATION AND REPEAT ANOTHER ONE-HALF RATE APPLICATION OF THE SAME FERTILIZER WITHIN 3 TO 5 WEEKS AFTER SEEDING.
- WORK LIME AND FERTILIZER INTO THE TOPSOIL AS NEARLY AS PRACTICAL TO A DEPTH OF 4 INCHES WITH A DISC, SPRING-TOOTH HARROW, OR OTHER SUITABLE EQUIPMENT. THE FINAL HARROWING OR DISKING OPERATION SHOULD BE ON THE GENERAL CONTOUR. CONTINUE TILLAGE UNTIL A REASONABLE UNIFORM SEEDBED IS PREPARED.
- HIGH ACID PRODUCING SOILS HAVING A PH OF 4 OR LESS OR CONTAINING IRON SULFIDE SHALL BE COVERED WITH A MINIMUM OF 12 INCHES OF SETTLED SOIL WITH A PH OF 5 OR MORE BEFORE INITIATING SEEDBED PREPARATION. SEE STANDARD FOR MANAGEMENT OF HIGH ACID-PRODUCING SOILS FOR SPECIFIC REQUIREMENTS.

**PERMANENT SEEDING SPECIFICATIONS:**

- APPLY FERTILIZER AND LIME IN THE SAME RATES AS DENOTED IN THE TEMPORARY SEEDING SPECIFICATIONS ABOVE.
- APPLY THE FOLLOWING SEED MIXTURE ONLY DURING SPECIFIED PLANTING DATES AT THE SPECIFIED RATES.
  - FINE FESCUE (BLEND) - 45 LBS. PER ACRE
  - HARD FESCUE - 20 LBS. PER ACRE
  - CREWING FESCUE - 5 LBS. PER ACRE
  - OR STRONG CREEPING REE FESCUE
  - OR KENTUCKY BLUEGRASS
  - OR PERENNIAL RYEGRASS
- APPLY MULCH AND MULCH ANCHORING AS SPECIFIED BELOW.
  - MULCHING IS REQUIRED ON ALL SEEDING. MULCH WILL INSURE AGAINST EROSION BEFORE GRASS IS ESTABLISHED AND WILL PROMOTE FASTER AND FIRMER ESTABLISHMENT. THE EXISTING OF VEGETATION SUBJECT TO CONTROL. SOIL EROSION SHALL BE DEEMED COMPLIANCE WITH THIS MULCHING REQUIREMENT.
  - STRAW OR HAY, UNROTTED SMALL GRAM STRAW, HAY FREE OF SEEDS, APPLIED AT THE RATE OF 1-1/2 TO 2 TONS PER ACRE (70 TO 90 POUNDS PER 1,000 SQUARE FEET), EXCEPT THAT WHERE A CRUMPER IS USED INSTEAD OF A LIQUID MULCH-BINDER (TACKIFYING OR ADHESIVE AGENT), THE RATE OF APPLICATION IS 3 TONS PER ACRE. MULCH CHOPPER-BLOWERS MUST NOT GRIND THE MULCH. HAY MULCH IS NOT RECOMMENDED FOR ESTABLISHING FINE TURF OR LAWNS DUE TO THE PRESENCE OF WEED SEED.
  - APPLICATION: SPREAD MULCH UNIFORMLY BY HAND OR MECHANICALLY SO THAT APPROXIMATELY 95% OF THE SOIL SURFACE WILL BE COVERED. FOR UNIFORM DISTRIBUTION OF HAND-SPREAD MULCH, DIVIDE AREA INTO APPROXIMATELY 1,000 SQUARE FEET SECTIONS AND DISTRIBUTE 70 TO 90 POUNDS WITHIN EACH SECTION.
  - ANCHORING SHALL BE ACCOMPLISHED IMMEDIATELY AFTER PLACEMENT TO MINIMIZE LOSS BY WIND OR WATER. THIS MAY BE DONE BY ONE OF THE FOLLOWING METHODS, DEPENDING UPON THE SIZE OF THE AREA, STEEPNESS OF SLOPES, AND COSTS.
    - PEGS AND TWINE: DRIVE 8 TO 10 INCH WOODEN PEGS TO WITHIN 2 TO 3 INCHES OF THE SOIL SURFACE EVERY 4 FEET IN ALL DIRECTIONS. STAKES MAY BE DRIVEN BEFORE OR AFTER APPLYING MULCH. STAKES SHOULD BE DRIVEN AT AN ANGLE TO THE SOIL SURFACE BETWEEN PEGS IN A CRIS-CROSS AND A SQUARE PATTERN. SECURE TWINE AROUND EACH PEG WITH TWO OR MORE ROUND TURNS.
    - MULCH NETTINGS: STAPLE PAPER, JUTE, COTTON, OR PLASTIC NETTINGS TO THE SOIL SURFACE. USE A DEGRADABLE NETTING.
    - CRUMPER (MULCH ANCHORING TOOL): A TRACTOR-DRAWN IMPLEMENT, SOMEWHAT LIKE A DISC HARROW, ESPECIALLY DESIGNED TO PUSH OR CUT THE BROADCAST LONG FIBER MULCH 3 TO 4 INCHES INTO THE SOIL SO AS TO ANCHOR IT AND LEAVE PART STANDING. THIS TECHNIQUE IS LIMITED TO AREAS TRAVERSABLE BY A TRACTOR, WHICH MUST OPERATE ON THE CONTOUR OF OPES. STRAW MULCH RATE MUST BE 3 TONS PER ACRE. NO TACKIFYING OR ADHESIVE AGENT IS REQUIRED.
    - LIQUID MULCH-BINDERS - MAY BE USED TO ANCHOR HAY OR STRAW MULCH.
      - MULCHING SHOULD BE HEAVIER AT EDGES WHERE WIND MAY CATCH THE MULCH, IN VALLEYS, AND AT CRESTS OF BANKS. THE REMAINDER OF THE AREA SHOULD BE UNIFORM IN APPEARANCE.
      - USE ONE OF THE FOLLOWING:
        - ORGANIC AND VEGETABLE BASED BINDERS - NATURALLY OCCURRING, POWDER BASED, HYDROPHILIC MATERIALS WHEN MIXED WITH WATER FORMULATES A GEL AND WHEN APPLIED TO MULCH UNDER SATISFACTORY CURING CONDITIONS WILL FORM MEMBRANED NETWORKS OF INSOLUBLE POLYMERS. THE VEGETABLE GEL SHALL BE PHYSIOLOGICALLY HARMLESS AND NOT RESULT IN A PHYTOXIC EFFECT OR IMPEDE GROWTH OF TURFGRASS. USE AT RATES AND WEATHER CONDITIONS AS RECOMMENDED BY THE MANUFACTURER. MANY NEW PRODUCTS ARE AVAILABLE, SOME OF WHICH MAY NEED FURTHER EVALUATION FOR USE IN THIS STATE.
        - SYNTHETIC BINDERS - HIGH POLYMER SYNTHETIC EMULSION, MISIBLE WITH WATER WHEN DILUTED AND FOLLOWING APPLICATION TO MULCH, DRYING AND CURING SHALL NO LONGER BE SOLUBLE OR DISPERSIBLE IN WATER. IT SHALL BE APPLIED AT RATES RECOMMENDED BY THE MANUFACTURER AND REMAIN TACKY UNTIL GERMINATION OF GRASS.
  - WOOD-FIBER OR PAPER-FIBER MULCH SHALL BE MADE FROM WOOD, PLANT FIBERS OR PAPER CONTAINING NO GROWTH OR GERMINATION INHIBITING MATERIALS, USED AT THE RATE OF 1,500 POUNDS PER ACRE (OR AS RECOMMENDED BY THE PROJECT MANUFACTURER) AND MAY BE APPLIED BY A HYDROSEEDER. THIS MULCH SHALL NOT BE MIXED IN THE TANK WITH SEED. USE IS LIMITED TO FLATTER SLOPES AND DURING OPTIMUM SEEDING PERIODS IN SPRING AND FALL.
  - PELLETIZED MULCH, COMPRESSED AND EXTRUDED PAPER AND/OR WOOD FIBER PRODUCT, WHICH MAY CONTAIN CO-POLYMERS, TACKIFIERS, FERTILIZERS AND COLORING AGENTS, THE DRY PELLETS, WHEN APPLIED TO A SEEDED AREA AND WATERED, FORM A MULCH MAT. PELLETIZED MULCH SHALL BE APPLIED IN ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATIONS. MULCH MAY BE ACTIVATED WITH 0.2 TO 0.4 INCHES OF WATER. THIS MATERIAL HAS BEEN FOUND TO BE BENEFICIAL FOR USE ON SMALL LAWN OR RENOVATION AREAS. SEEDED AREAS WHERE WEED-SEED FREE MULCH IS DESIRED OR ON SITES WHERE STRAW MULCH AND TACKIFIER AGENT ARE NOT PRACTICAL OR DESIRABLE.

APPLYING THE FULL 0.2 TO 0.4 INCHES OF WATER AFTER SPREADING PELLETIZED MULCH ON THE SEED BED IS EXTREMELY IMPORTANT FOR SUFFICIENT ACTIVATION AND EXPANSION OF THE MULCH TO PROVIDE SOIL COVERAGE.

**SEQUENCE OF CONSTRUCTION:**

- THIS PROJECT SHALL CONSIST ESSENTIALLY OF THE RESURFACING OF EXISTING ROADWAYS INCLUDING THE INSTALLATION OF HOT MIX ASPHALT PAVEMENT, CONCRETE CURB, CONCRETE SIDEWALK AND DRIVEWAY AND LANDSCAPING RESTORATION. THE CONSTRUCTION SHOULD PROCEED IN THE FOLLOWING MANNER:
- INSTALLATION OF ALL SEDIMENT AND EROSION CONTROL DEVICES THAT CAN BE PLACED PRIOR TO ANY MAJOR SOIL DISTURBANCES.
- CLEAR AND REMOVE ALL EXISTING VEGETATION IN THOSE AREAS WHERE NECESSARY, ALL REMAINING VEGETATION TO BE PROPERLY PROTECTED AND TO REMAIN IN ITS NATURAL STATE.
- IMMEDIATE INSTALLATION OF ALL REMAINING SEDIMENT AND EROSION CONTROL DEVICES.
- RECONSTRUCTION OF EXISTING CURBS, SIDEWALKS, AND DRIVEWAY APRONS.
- FINE-GRADE PAVEMENT RESTORATION AREAS.
- BASE COURSE PAVEMENTS TO BE APPLIED IMMEDIATELY FOLLOWING INSTALLATION OF IMPROVEMENTS IN ORDER TO STABILIZE PAVEMENT AREAS.
- FINE-GRADE REMAINDER OF SITE AND STABILIZE WITH PERMANENT VEGETATIVE COVER AND LANDSCAPING.
- CONSTRUCTION OF HOT MIX ASPHALT SURFACE COURSE PAVEMENT.
- REMOVAL OF APPROPRIATE TEMPORARY SEDIMENT AND EROSION CONTROL DEVICES.

NO. DESCRIPTION OF REVISION DATE DRAWN CHECKED RELEASED

**TOWNSHIP OF WOODBRIDGE**  
MIDDLESEX COUNTY, NEW JERSEY

**2020 MILLING AND RESURFACING PROGRAM**

CONTRACT NO. 2020-001

SOIL EROSION AND SEDIMENT CONTROL PLAN

CONSULTING AND MUNICIPAL ENGINEERS

(732) 727-8000 (732) 462-7400

3141 BORDENTOWN AVENUE, PARLIN, NEW JERSEY 08859-1162 3460 ROUTE 9 SOUTH, NEW JERSEY 07731-1194

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NJ REG. LIC. NO. 24271 NJ REG. LIC. NO. 24255 NJ REG. LIC. NO. 24271 NJ REG. LIC. NO. 2089

JAY B. CORNELL P.E. & P.P. MICHAEL J. MCCLELLAND P.E. & P.P. GREGORY R. VALESI P.E. & P.P.  
NJ REG. LIC. NO. 32962 NJ REG. LIC. NO. 34468 NJ REG. LIC. NO. 3770 NJ REG. LIC. NO. 4361

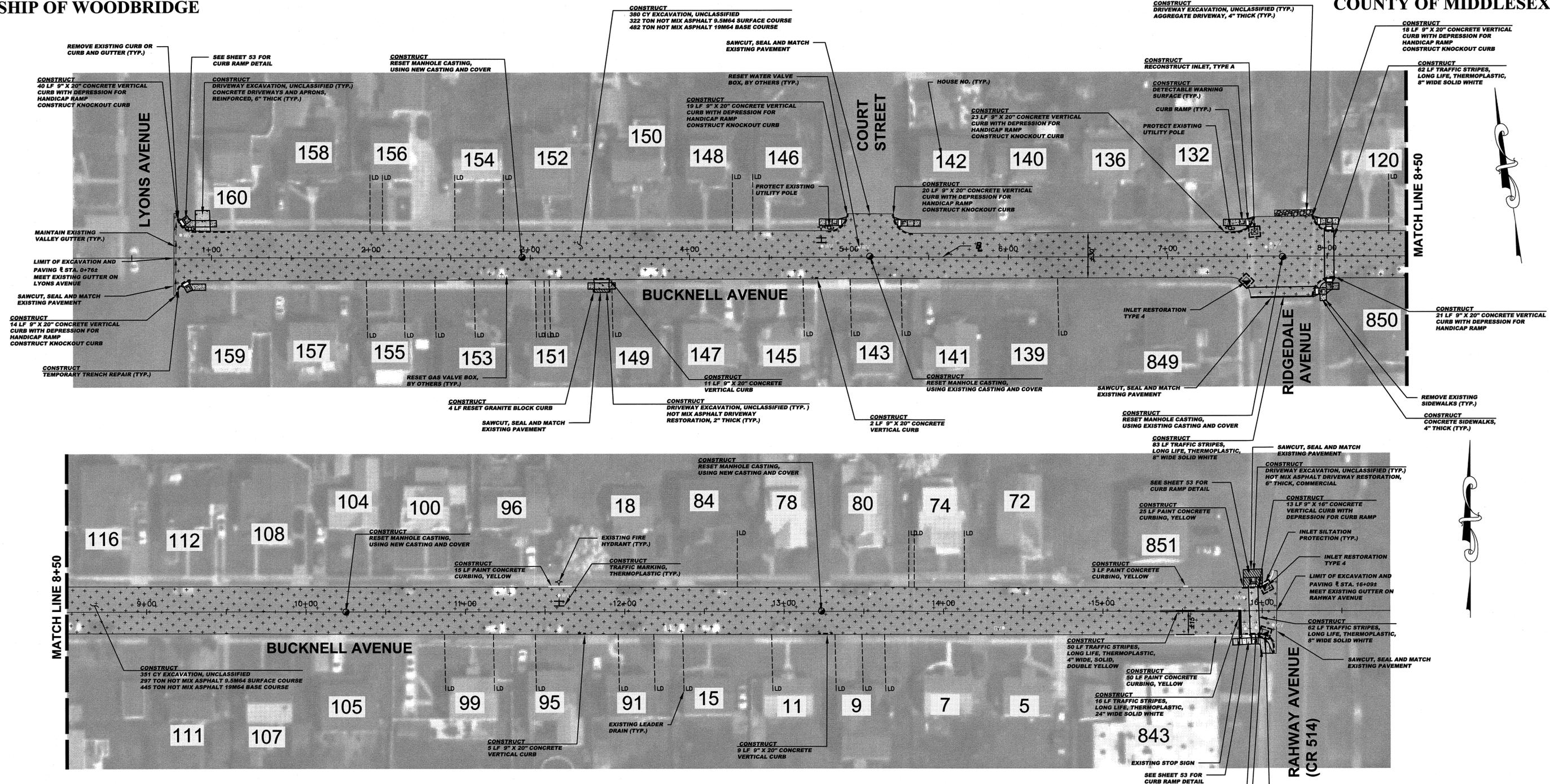
**MICHAEL J. MCCLELLAND P.E.**  
NEW JERSEY PROFESSIONAL ENGINEER LIC. 32468

SCALE: As Shown DATE: March 2020

DRAWN BY: PB DESIGNED BY: PB

CHECKED BY: SHEET: 3 of 65

FILE NO. PWBOA10.01



**BASELINES**  
 BASELINES ARE APPROXIMATE AND ARE FOR REFERENCE PURPOSES ONLY. BASELINES ARE NOT TO BE UTILIZED FOR LAYOUT.

**CONSTRUCT (BUCKNELL AVENUE)**

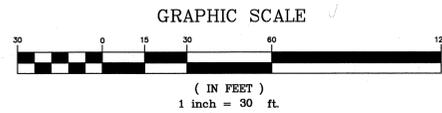
14	CY	Driveway excavation, unclassified
731	CY	Excavation, unclassified
10608	LF	Polymerized joint adhesive
182	LF	Prepare and seal existing joints and cracks in asphalt pavement
619	TON	Hot mix asphalt 9.5M64 surface and leveler course
927	TON	Hot mix asphalt 19M64 base course
2	UN	Reset manhole casting, using existing and cover
3	UN	Reset manhole casting, using new casting and cover
3	UN	Reset existing casting
1	UN	Reconstruct inlet, type A
63	SY	Concrete sidewalks, 4" thick
18	SY	Concrete sidewalks, reinforced, 4" thick
20	SY	Concrete driveways and aprons, reinforced, 6" thick
3	SY	Hot mix asphalt driveway restoration, 2" thick
12	SY	Hot mix asphalt driveway restoration, 6" thick, commercial
11	SY	Aggregate driveway, 4" thick
14	SY	Detectable warning surface
40	LF	9" x 16" Concrete vertical curb
182	LF	9" x 20" Concrete vertical curb
4	LF	Reset granite block curb
93	LF	Paint concrete curbing, yellow
106	LF	Traffic stripes, long life, "thermoelastic", 4" wide
207	LF	Traffic stripes, long life, "thermoelastic", 8" wide
16	LF	Traffic stripes, long life, "thermoelastic", 24" wide
12	SF	Traffic markings, thermoelastic
50	SY	Temporary trench repair
7	UN	Reset water valve box
6	UN	Reset gas valve box
102	SY	Topsotting, 4" thick
102	SY	Fertilizing
102	SY	Sodding

**INLET RESTORATION:**

TYPE 1	- RESET EXISTING CASTING CURB PIECE, TYPE N-ECO OR P-ECO
TYPE 2	- RESET EXISTING CASTING BICYCLE SAFE GRATE
TYPE 3	- RESET EXISTING CASTING CURB PIECE, TYPE N-ECO OR P-ECO, BICYCLE SAFE GRATE
TYPE 4	- RESET EXISTING CASTING

**PROPOSED LEGEND:**

	- DENOTES PROPOSED MANHOLE		- DENOTES PROPOSED REINFORCED CONCRETE SIDEWALK
	- DENOTES RESET MANHOLE CASTING		- DENOTES REMOVE AND REPLACE CURB (INCLUDING 2" WIDE EXCAVATION AND PAVING WITH 19M64 BASE COURSE)
	- DENOTES RECONSTRUCT MANHOLE		- DENOTES REMOVE AND REPLACE CURB (INCLUDING 2" WIDE TEMPORARY TRENCH REPAIR)
	- DENOTES PROPOSED INLET		- DENOTES PROPOSED CONCRETE SIDEWALK AND DRIVEWAY APRON
	- DENOTES RESET INLET CASTING		- DENOTES AREA TO BE EXCAVATED AND RECEIVE 2" HOT MIX ASPHALT 9.5M64 SURFACE COURSE AND 3" HOT MIX ASPHALT 19M64 BASE COURSE
	- DENOTES RECONSTRUCT INLET		- DENOTES AREA TO BE MILLED AND RECEIVE MIN. 2" HMA 9.5M64 SURFACE AND LEVELER COURSE
	- DENOTES PROPOSED DETECTABLE WARNING SURFACE		- DENOTES AREA TO BE MILLED, EXISTING CRACK TO BE CLEANED AND SEALED, AND GEO COMPOSITE MATERIAL TO BE INSTALLED
	- DENOTES EXISTING VALLEY GUTTER		- DENOTES REMOVAL OF PAVEMENT UP TO 9" AND RECEIVE HMA 19M64 BASE COURSE
	- DENOTES DIRECTION OF FLOW		
	- DENOTES TRAFFIC MARKINGS, LONG LIFE, THERMOELASTIC WITH GLASS BEADS, FOR FIRE HYDRANT		
	- DENOTES TRAFFIC MARKINGS, LONG LIFE, THERMOELASTIC, 8" WIDE		
	- DENOTES TRAFFIC MARKINGS, LONG LIFE, THERMOELASTIC, 24" WIDE		
	- DENOTES PAINT CONCRETE CURBING, YELLOW		
	- DENOTES BENCH MARK LOCATION		
	- DENOTES EXISTING TREES OR STUMPS TO BE REMOVED		
	- DENOTES RESET BRICK/WALK/PAVERS		
	- DENOTES CONCRETE DRIVEWAY RESTORATION		
	- DENOTES HOT MIX ASPHALT DRIVEWAY RESTORATION		



**SPECIAL PROVISIONS**  
 THE CONTRACTOR IS SPECIFICALLY DIRECTED TO THE REQUIREMENTS CONTAINED IN THE SPECIAL PROVISIONS SECTION OF THE CONTRACT SPECIFICATIONS.

**PROPOSED CURB AND/OR ROADWAY REPLACEMENT**  
 THE CONTRACTOR IS ADVISED THAT THEIR LICENSED LAND SURVEYOR SHALL PROVIDE THE CONSTRUCTION STAKEOUT FOR THE PROJECT AND THAT IS THE INTENT OF THE CONTRACT DOCUMENTS TO INSTALL THE NEW CURB, EDGE OF PAVEMENT, AND ROADWAY AT ITS PRESENT HORIZONTAL LOCATION AND VERTICAL LOCATION EXCEPT WHERE PROPOSED GRADES HAVE BEEN INDICATED ON THE PLAN. ACCORDINGLY, THE FULL RESPONSIBILITY FOR KEEPING AND MAINTAINING THE EXISTING ALIGNMENT AND GRADE PRIOR TO REMOVAL OF THE EXISTING CURB AND MILLING AND/OR EXCAVATION OF THE PAVEMENT SHALL REST UPON THE CONTRACTOR IN ACCORDANCE WITH DIVISION 1 GENERAL REQUIREMENTS SECTION 1-4.4 OF THE PROJECT SPECIFICATIONS.

TOWNSHIP OF WOODBRIDGE  
 MIDDLESEX COUNTY, NEW JERSEY  
**2020 MILLING AND RESURFACING PROGRAM**  
 CONTRACT NO. 2020-001  
 WARD 1  
 BUCKNELL AVENUE

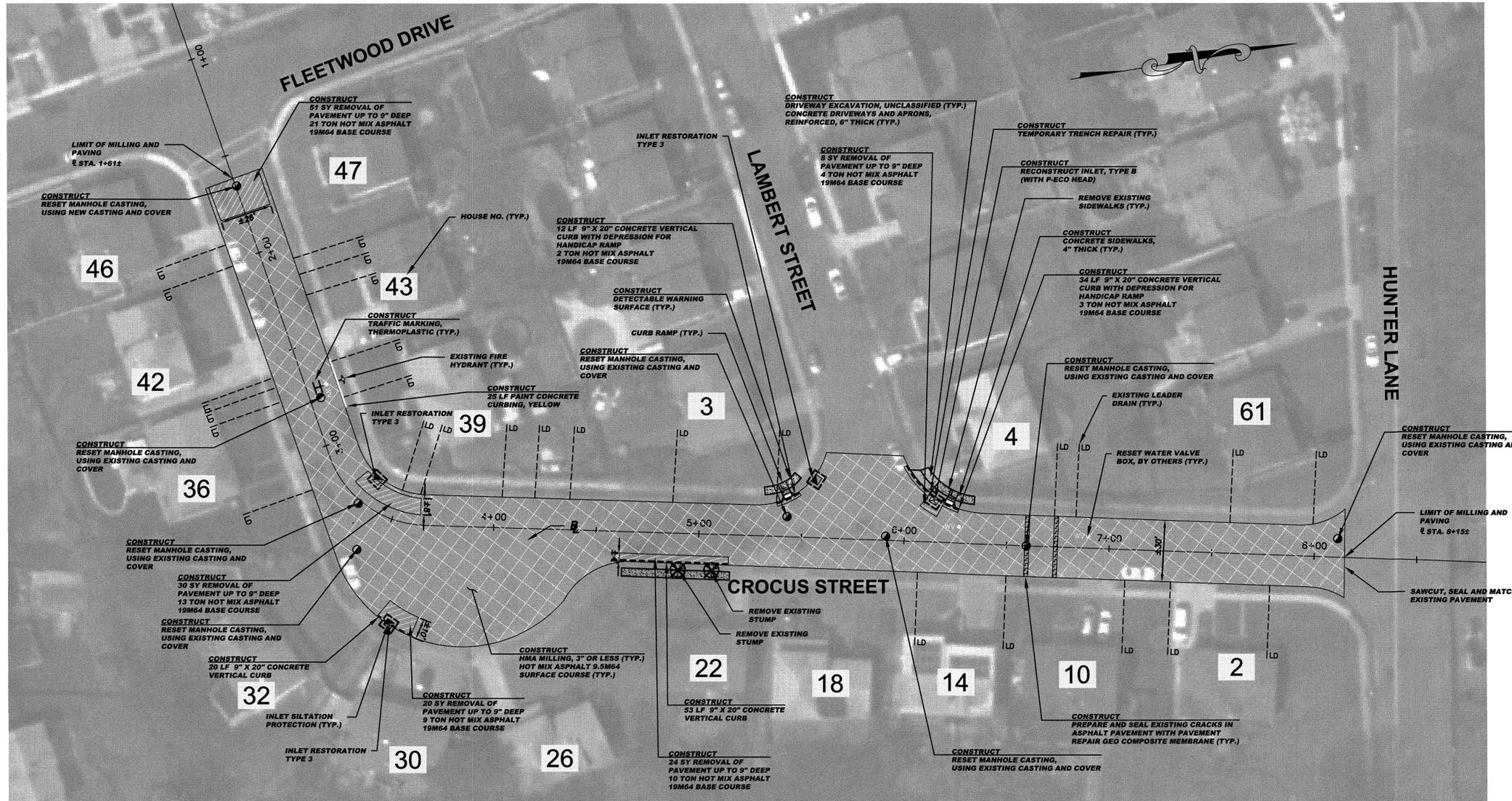
**CONSULTING AND MUNICIPAL ENGINEERS**  
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 (732) 462 7400

JOHN H. ALLGAIER P.E. & P.P. (1983 - 2001)	DAVID J. SAMUEL P.E. & P.P. NO PE & LS LIC NO. 24858 NO PP LIC NO. 24858	JOHN J. STEFANI P.E. L.S. & P.P. NO PE & LS LIC NO. 24271 NO PP LIC NO. 20899
JAY B. CORNELL P.E. & P.P. NO PE LIC NO. 32962 NO PP LIC NO. 32962	MICHAEL J. McCLELLAND P.E. & P.P. NO PE LIC NO. 32468 NO PP LIC NO. 34458	GREGORY R. VALESI P.E. & P.P. NO PE LIC NO. 34458 NO PP LIC NO. 43651

**MICHAEL J. McCLELLAND P.E.**  
 NEW JERSEY PROFESSIONAL ENGINEER  
 LIC. 32468  
 April 2020  
 LC  
 4 of 65

CONSTRUCT (CROCUS STREET)

133	SY	Removal of pavement, up to 9" deep
3	CY	Driveway excavation, unclassified
2682	SY	HMA milling, 3" or less
2688	LF	Polymerized joint adhesive
112	LF	Prepare and seal existing joints and cracks in asphalt pavement
60	LF	Prepare and seal existing transverse cracks in asphalt pavement with pavement repair geo composite membrane
411	TON	Hot mix asphalt 9.5M64 surface and leveler course
62	TON	Hot mix asphalt 19M64 base course
7	UN	Reset manhole casting, using existing and cover
1	UN	Reset manhole casting, using new casting and cover
3	UN	Reset existing casting
3	UN	Curb piece, type "N-ECO"
3	UN	Bicycle safe grate
1	UN	Reconstruct inlet, type B
45	SY	Concrete sidewalks, 4" thick
10	SY	Concrete driveways and aprons, reinforced, 6" thick
2	SY	Detectable warning surface
119	LF	9" x 20" Concrete vertical curb
25	LF	Paint concrete curbing, yellow
6	SF	Traffic markings, thermoplastic
19	SY	Temporary trench repair
3	UN	Reset water valve box
67	SY	Topsoiling, 4" thick
67	SY	Fertilizing
67	SY	Sodding



**NOTE:**  
EXCEPT WHERE NOTED, EXISTING CONCRETE GUTTER TO BE MILLED AND RECEIVE 2" OF HOT MIX ASPHALT 9.5M64 SURFACE COURSE

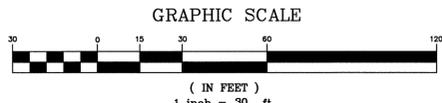
**BASELINES**  
BASELINES ARE APPROXIMATE AND ARE FOR REFERENCE PURPOSES ONLY. BASELINES ARE NOT TO BE UTILIZED FOR LAYOUT.

**INLET RESTORATION:**

- TYPE 1 - RESET EXISTING CASTING CURB PIECE, TYPE N-ECO OR P-ECO
- TYPE 2 - RESET EXISTING CASTING BICYCLE SAFE GRATE
- TYPE 3 - RESET EXISTING CASTING CURB PIECE, TYPE N-ECO OR P-ECO, BICYCLE SAFE GRATE
- TYPE 4 - RESET EXISTING CASTING

**PROPOSED LEGEND:**

- - DENOTES PROPOSED MANHOLE
- - DENOTES RESET MANHOLE CASTING
- ⊗ - DENOTES RECONSTRUCT MANHOLE
- - DENOTES PROPOSED INLET
- - DENOTES RESET INLET CASTING
- ⊠ - DENOTES RECONSTRUCT INLET
- ⊞ - DENOTES PROPOSED DETECTABLE WARNING SURFACE
- ⊟ - DENOTES EXISTING VALLEY GUTTER
- ⊠ - DENOTES DIRECTION OF FLOW
- ⊡ - DENOTES TRAFFIC MARKINGS, LONG LIFE, THERMOPLASTIC WITH GLASS BEADS, FOR FIRE HYDRANT
- ⊢ - DENOTES PAINT CONCRETE CURBING, YELLOW
- ⊣ - DENOTES BENCH MARK LOCATION
- ⊤ - DENOTES EXISTING TREES OR STUMPS TO BE REMOVED
- ⊥ - DENOTES RESET BRICKWALK/PAVERS
- ⊦ - DENOTES CONCRETE DRIVEWAY RESTORATION
- ⊧ - DENOTES HOT MIX ASPHALT DRIVEWAY RESTORATION
- ⊨ - DENOTES PROPOSED REINFORCED CONCRETE SIDEWALK
- ⊩ - DENOTES REMOVE AND REPLACE CURB (INCLUDING 2' WIDE EXCAVATION) AND PAVING WITH 19M64 BASE COURSE
- ⊪ - DENOTES REMOVE AND REPLACE CURB (INCLUDING 2' WIDE TEMPORARY TRENCH REPAIR)
- ⊫ - DENOTES PROPOSED CONCRETE SIDEWALK AND DRIVEWAY APRON
- ⊬ - DENOTES AREA TO BE EXCAVATED AND RECEIVE 2" HOT MIX ASPHALT 9.5M64 SURFACE COURSE AND 3" HOT MIX ASPHALT 19M64 BASE COURSE
- ⊭ - DENOTES AREA TO BE MILLED AND RECEIVE MIN. 2" HMA 9.5M64 SURFACE AND LEVELER COURSE
- ⊮ - DENOTES AREA TO BE MILLED, EXISTING CRACK TO BE CLEANED AND SEALED, AND GEO COMPOSITE MATERIAL TO BE INSTALLED
- ⊯ - DENOTES REMOVAL OF PAVEMENT UP TO 9" AND RECEIVE HMA 19M64 BASE COURSE



**SPECIAL PROVISIONS**  
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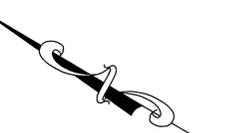
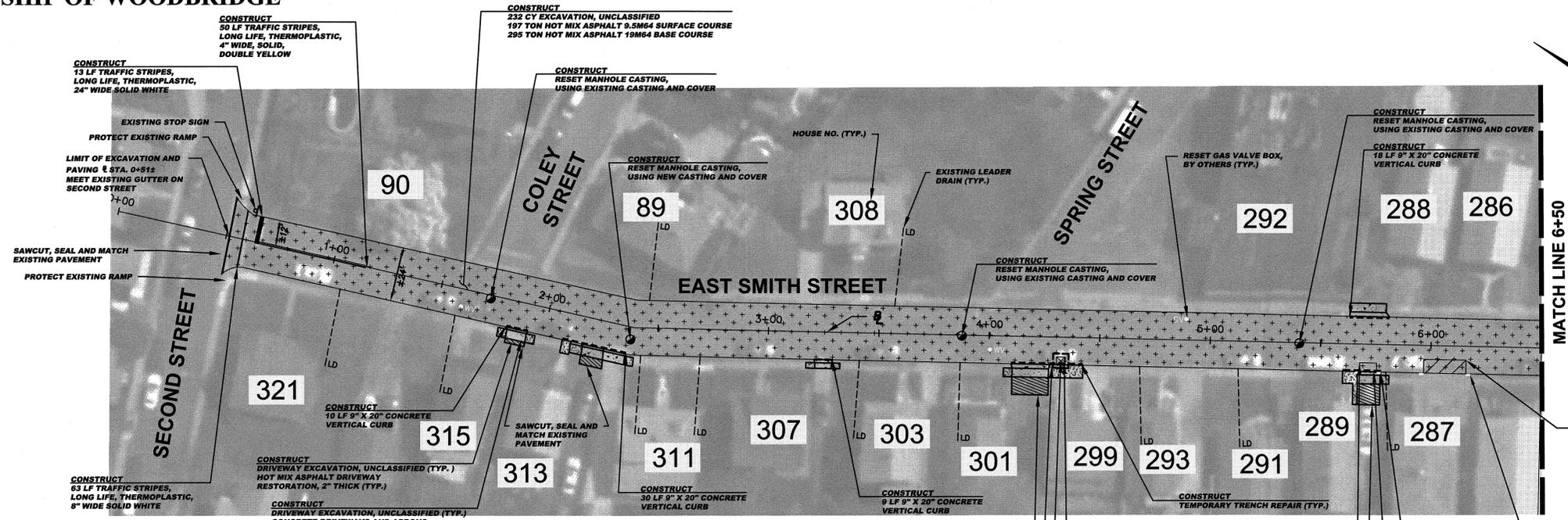
TOWNSHIP OF WOODBRIDGE  
MIDDLESEX COUNTY, NEW JERSEY  
**2020 MILLING AND RESURFACING PROGRAM**  
CONTRACT NO. 2020-001  
CROCUS STREET WARD 1

CONSULTING AND MUNICIPAL ENGINEERS  
3141 BORDENTOWN AVENUE, PARLIN, NEW JERSEY 08859-1162 — 1460 ROUTE 9 SOUTH, HOWELL, NEW JERSEY 07731-1194  
(732) 727-8000 (732) 462-7400

JOHN H. ALLGAIER P.E. & P.P. (1983 - 2001) NO PE LIC NO. 32962  
DAVID J. SAMUEL P.E. & P.P. NO PE LIC NO. 25836  
JOHN J. STEFANI P.E., L.S., & P.P. NO PE LIC NO. 24271 NO RP LIC NO. 2099  
MICHAEL J. McCLELLAND P.E. & P.P. NO PE LIC NO. 32468  
GREGORY R. VALESII P.E. & P.P. NO PE LIC NO. 34458 NO RP LIC NO. 4361

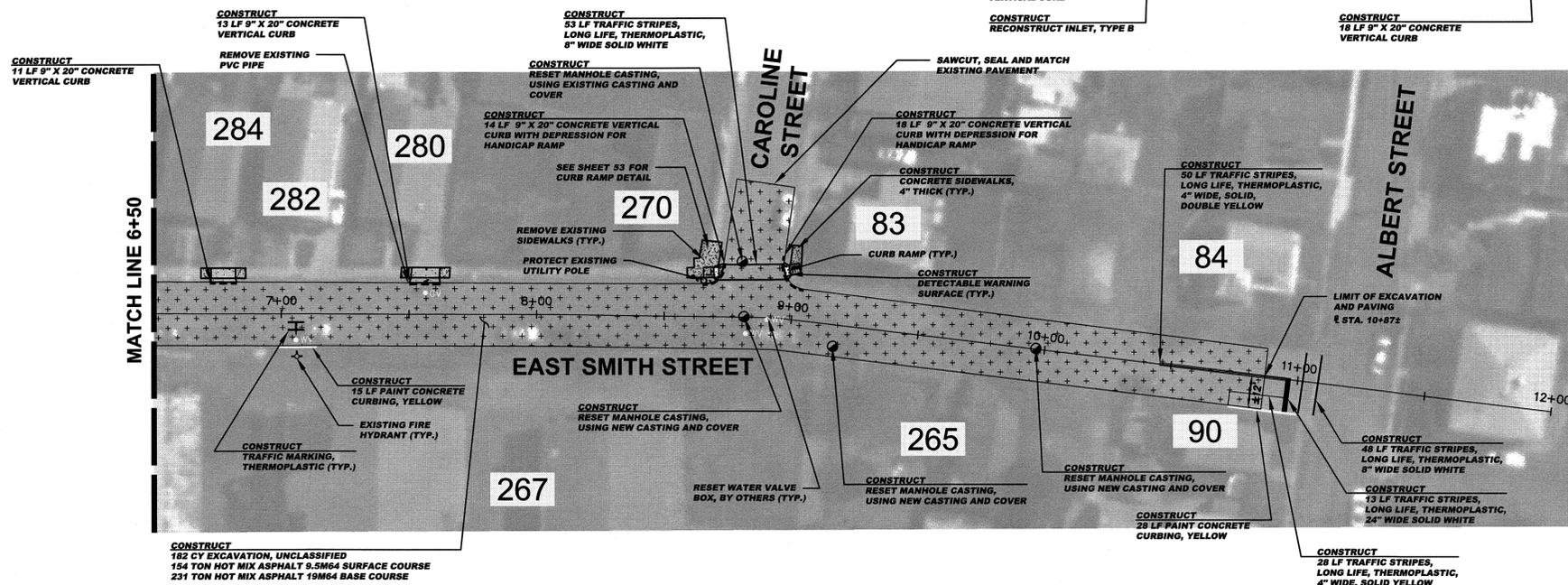
**MICHAEL J. McCLELLAND P.E.**  
NEW JERSEY PROFESSIONAL ENGINEER LIC. 32468  
As Shown April 2020  
DRAWN BY LC DESIGNED BY LC  
CHECKED BY SHEET 5 of 65

FILE NO. PWB0610.01



CONSTRUCT (EAST SMITH STREET)

27	CY	Driveway excavation, unclassified
413	CY	Excavation, unclassified
7120	LF	Polymerized joint adhesive
154	LF	Prepare and seal existing joints and cracks in asphalt pavement
350	TON	Hot mix asphalt 9.5M64 surface and leveler course
524	TON	Hot mix asphalt 19M64 base course
4	UN	Reset manhole casting, using existing and cover
1	UN	Reconstruct inlet, type B
63	SY	Concrete sidewalks, 4" thick
83	SY	Concrete driveways and aprons, reinforced, 6" thick
33	SY	Hot mix asphalt driveway restoration, 2" thick
2	SY	Detectable warning surface
174	LF	9" x 20" Concrete vertical curb
51	LF	Paint concrete curbing, yellow
304	LF	Traffic stripes, long life, "thermoelastic", 4" wide
164	LF	Traffic stripes, long life, "thermoelastic", 8" wide
26	LF	Traffic stripes, long life, "thermoelastic", 24" wide
6	SF	Traffic markings, thermoelastic
39	SY	Temporary trench repair
5	UN	Reset water valve box
2	UN	Reset gas valve box
42	SY	Topsoiling, 4" thick
42	SY	Fertilizing
42	SY	Sodding



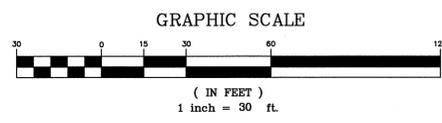
**NOTE:**  
EXCEPT WHERE NOTED, EXISTING CONCRETE GUTTER TO BE MILLED AND RECEIVE 2" OF HOT MIX ASPHALT 9.5M64 SURFACE COURSE

**BASELINES**  
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**INLET RESTORATION:**  
TYPE 1 - RESET EXISTING CASTING CURB PIECE, TYPE N-ECO OR P-ECO  
TYPE 2 - RESET EXISTING CASTING BICYCLE SAFE GRATE  
TYPE 3 - RESET EXISTING CASTING CURB PIECE, TYPE N-ECO OR P-ECO, BICYCLE SAFE GRATE  
TYPE 4 - RESET EXISTING CASTING

**PROPOSED LEGEND:**

- - DENOTES PROPOSED MANHOLE
- - DENOTES RESET MANHOLE CASTING
- ⊗ - DENOTES RECONSTRUCT MANHOLE
- - DENOTES PROPOSED INLET
- - DENOTES RESET INLET CASTING
- ⊠ - DENOTES RECONSTRUCT INLET
- ⊞ - DENOTES PROPOSED DETECTABLE WARNING SURFACE
- ⊟ - DENOTES EXISTING VALLEY GUTTER
- - DENOTES DIRECTION OF FLOW
- ⊕ - DENOTES TRAFFIC MARKINGS, LONG LIFE, THERMOPLASTIC WITH GLASS BEADS, FOR FIRE HYDRANT
- ⊖ - DENOTES PAINT CONCRETE CURBING, YELLOW
- ⊗ - DENOTES BENCH MARK LOCATION
- ⊘ - DENOTES EXISTING TREES OR STUMPS TO BE REMOVED
- ⊙ - DENOTES RESET BRICKWALK/PAVERS
- ⊚ - DENOTES CONCRETE DRIVEWAY RESTORATION
- ⊛ - DENOTES HOT MIX ASPHALT DRIVEWAY RESTORATION
- ▨ - DENOTES PROPOSED REINFORCED CONCRETE SIDEWALK
- ▩ - DENOTES REMOVE AND REPLACE CURB (INCLUDING 2" WIDE EXCAVATION) AND PAVING WITH 19M64 BASE COURSE
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- ⊞ - DENOTES AREA TO BE EXCAVATED AND RECEIVE 2" HOT MIX ASPHALT 9.5M64 SURFACE COURSE AND 3" HOT MIX ASPHALT 19M64 BASE COURSE
- ⊟ - DENOTES AREA TO BE MILLED AND RECEIVE MIN. 2" HMA 9.5M64 SURFACE AND LEVELER COURSE
- ⊠ - DENOTES AREA TO BE MILLED, EXISTING CRACK TO BE CLEANED AND SEALED, AND GEO COMPOSITE MATERIAL TO BE INSTALLED
- ⊡ - DENOTES REMOVAL OF PAVEMENT UP TO 9" AND RECEIVE HMA 19M64 BASE COURSE



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TOWNSHIP OF WOODBRIDGE  
MIDDLESEX COUNTY, NEW JERSEY  
**2020 MILLING AND RESURFACING PROGRAM**  
CONTRACT NO. 2020-001  
EAST SMITH STREET WARD 1

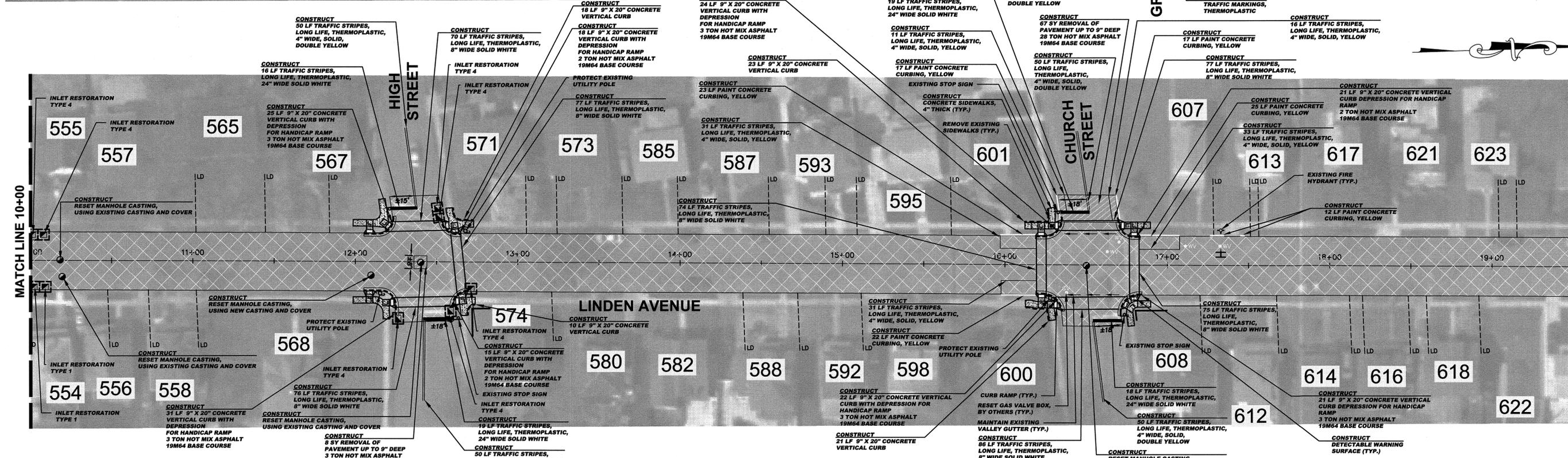
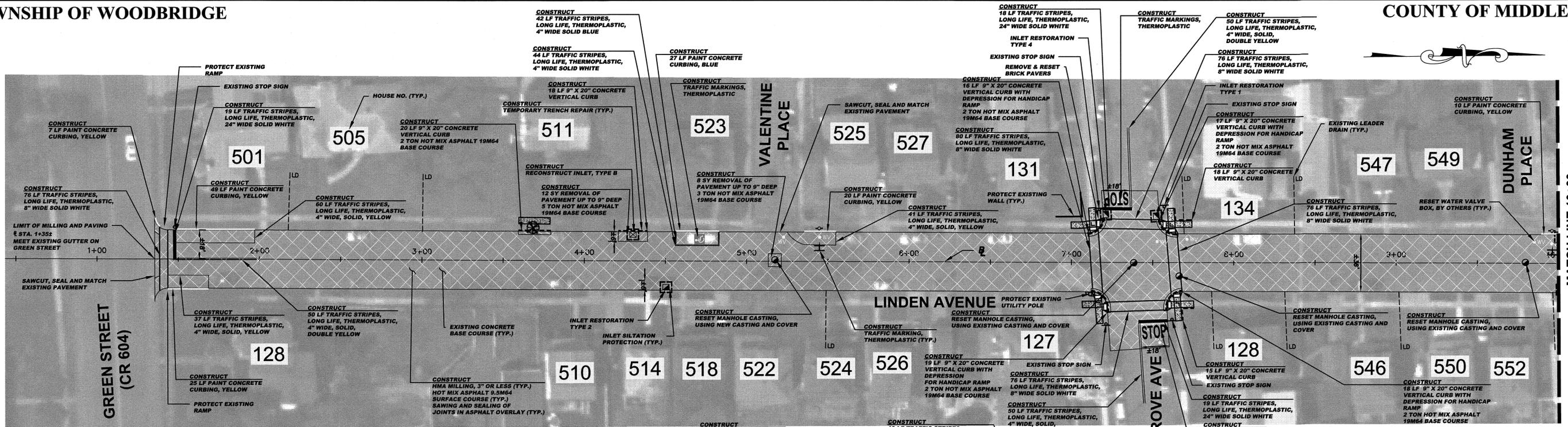
(732) 727-8000 CONSULTING AND MUNICIPAL ENGINEERS (732) 462-7400

3141 BORDENTOWN AVENUE, PARLIN, NEW JERSEY 08859-1162 1460 ROUTE 9 SOUTH, HOWELL, NEW JERSEY 07731-1194

JOHN H. ALLGAIR P.E. & P.P. (1993 - 2011) NJ PE LIC NO. 32562	DAVID J. SAMUEL P.E. & P.P. NJ PE LIC NO. 29838	JOHN J. STEFANI P.E. L.S. & P.P. NJ PE & LS LIC NO. 24271	NO DATE DRAWN CHECKED RELEASED
JAY B. CORNELL P.E. & P.P. NJ PE LIC NO. 38974	MICHAEL J. MCCLELLAND P.E. & P.P. NJ PE LIC NO. 32468	JOHNNY R. VALESINI P.E. & P.P. NJ PE LIC NO. 34458	SCALE: As Shown DATE: April 2020
<b>MICHAEL J. MCCLELLAND P.E.</b> NEW JERSEY PROFESSIONAL ENGINEER LIC. 32468		DESIGNED BY: LC CHECKED BY: LC	SHEET: 6 of 65

FILE NO. PW06A10.01





**CONSTRUCT (LINDEN AVENUE (1 OF 2))**

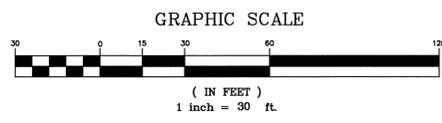
95	SY	Removal of pavement, up to 9" deep
7788	SY	HMA milling, 3" or less
6650	LF	Polymerized joint adhesive
329	LF	Prepare and seal existing joints and cracks in asphalt pavement
1108	TON	Hot mix asphalt 9.5M64 base course and leveler course
67	TON	Hot mix asphalt 19M64 base course
8712	LF	Sawing and sealing joints in hot mix asphalt overlay
7	UN	Reset manhole casting, using existing and cover
2	UN	Reset manhole casting, using new casting and cover
12	UN	Reset existing casting
279	SI	Curb piece, type "E"ECO"
1	UN	Bicycle safe grate
1	UN	Reconstruct inlet, type B
189	SY	Concrete sidewalks, 4" thick
24	SY	Detectable warning surface
390	LF	9" x 20" Concrete vertical curb
254	LF	Paint concrete curbing
1046	LF	Traffic stripes, long life, "thermoelastic", 4" wide
919	LF	Traffic stripes, long life, "thermoelastic", 8" wide
175	LF	Traffic stripes, long life, "thermoelastic", 24" wide
4	SY	Traffic markings, thermoelastic
4	SY	Temporary trench repair
11	UN	Reset water valve box
2	UN	Reset gas valve box
159	SY	Topselling, 4" thick
159	SY	Fertilizing
159	SY	Sodding
1	UN	Replacement trees

**BASELINES**  
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**NOTE:**  
EXCEPT WHERE NOTED, EXISTING CONCRETE GUTTER TO BE MILLED AND RECEIVE 2" OF HOT MIX ASPHALT 9.5M64 SURFACE COURSE

- INLET RESTORATION:**
- TYPE 1 - RESET EXISTING CASTING CURB PIECE, TYPE N-ECO OR P-ECO
  - TYPE 2 - RESET EXISTING CASTING BICYCLE SAFE GRATE
  - TYPE 3 - RESET EXISTING CASTING CURB PIECE, TYPE N-ECO OR P-ECO, BICYCLE SAFE GRATE
  - TYPE 4 - RESET EXISTING CASTING

- PROPOSED LEGEND:**
- - DENOTES PROPOSED MANHOLE
  - - DENOTES RESET MANHOLE CASTING
  - - DENOTES RECONSTRUCT MANHOLE
  - - DENOTES PROPOSED INLET
  - - DENOTES RESET INLET CASTING
  - - DENOTES RECONSTRUCT INLET
  - - DENOTES PROPOSED DETECTABLE WARNING SURFACE
  - - DENOTES EXISTING VALLEY GUTTER
  - - DENOTES DIRECTION OF FLOW
  - - DENOTES TRAFFIC MARKINGS, LONG LIFE, THERMOPLASTIC WITH GLASS BEADS, FOR FIRE HYDRANT
  - - DENOTES PAINT CONCRETE CURBING, YELLOW
  - - DENOTES BENCH MARK LOCATION
  - - DENOTES EXISTING TREES OR STUMPS TO BE REMOVED
  - - DENOTES RESET BRICK/WALK PAVEMENT
  - - DENOTES CONCRETE DRIVEWAY RESTORATION
  - - DENOTES HOT MIX ASPHALT DRIVEWAY RESTORATION
  - - DENOTES PROPOSED REINFORCED CONCRETE SIDEWALK
  - - DENOTES REMOVE AND REPLACE CURB (INCLUDING 2" WIDE EXCAVATION) AND PAVING WITH 19M64 BASE COURSE
  - - DENOTES REMOVE AND REPLACE CURB (INCLUDING 2" WIDE TEMPORARY TRENCH REPAIR)
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  - - DENOTES AREA TO BE MILLED, SEALED, AND GEO COMPOSITE MATERIAL TO BE INSTALLED
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TOWNSHIP OF WOODBRIDGE  
MIDDLESEX COUNTY, NEW JERSEY  
**2020 MILLING AND RESURFACING PROGRAM**  
CONTRACT NO. 2020-001  
LINDEN AVENUE (1 OF 2) WARD 1

CONSULTING AND MUNICIPAL ENGINEERS  
(732) 727-8000 (732) 462-7400  
3141 BROADVIEW AVENUE, PARLIN, NEW JERSEY 08859-1162 1460 ROUTE 9 SOUTH, HOWELL, NEW JERSEY 07731-1194

JOHN H. ALLGAIER P.E. & P.P. (1993 - 2001) DAVID J. SAMUEL P.E. & P.P. (1993 - 2001) JOHN J. STEFANI P.E. L.S. & P.P. (1993 - 2001) MICHAEL J. MCCLELLAND P.E. & P.P. (1993 - 2001) GREGORY R. VALESIO P.E. & P.P. (1993 - 2001)

JAY B. CORNELL P.E. & P.P. (1993 - 2001) MICHAEL J. MCCLELLAND P.E. & P.P. (1993 - 2001) GREGORY R. VALESIO P.E. & P.P. (1993 - 2001)

**MICHAEL J. MCCLELLAND P.E.**  
NEW JERSEY PROFESSIONAL ENGINEER L.C. 32468  
42120

DATE: April 2020  
DRAWN BY: LC DESIGNED BY: LC  
CHECKED BY: SHEET: 8 of 65

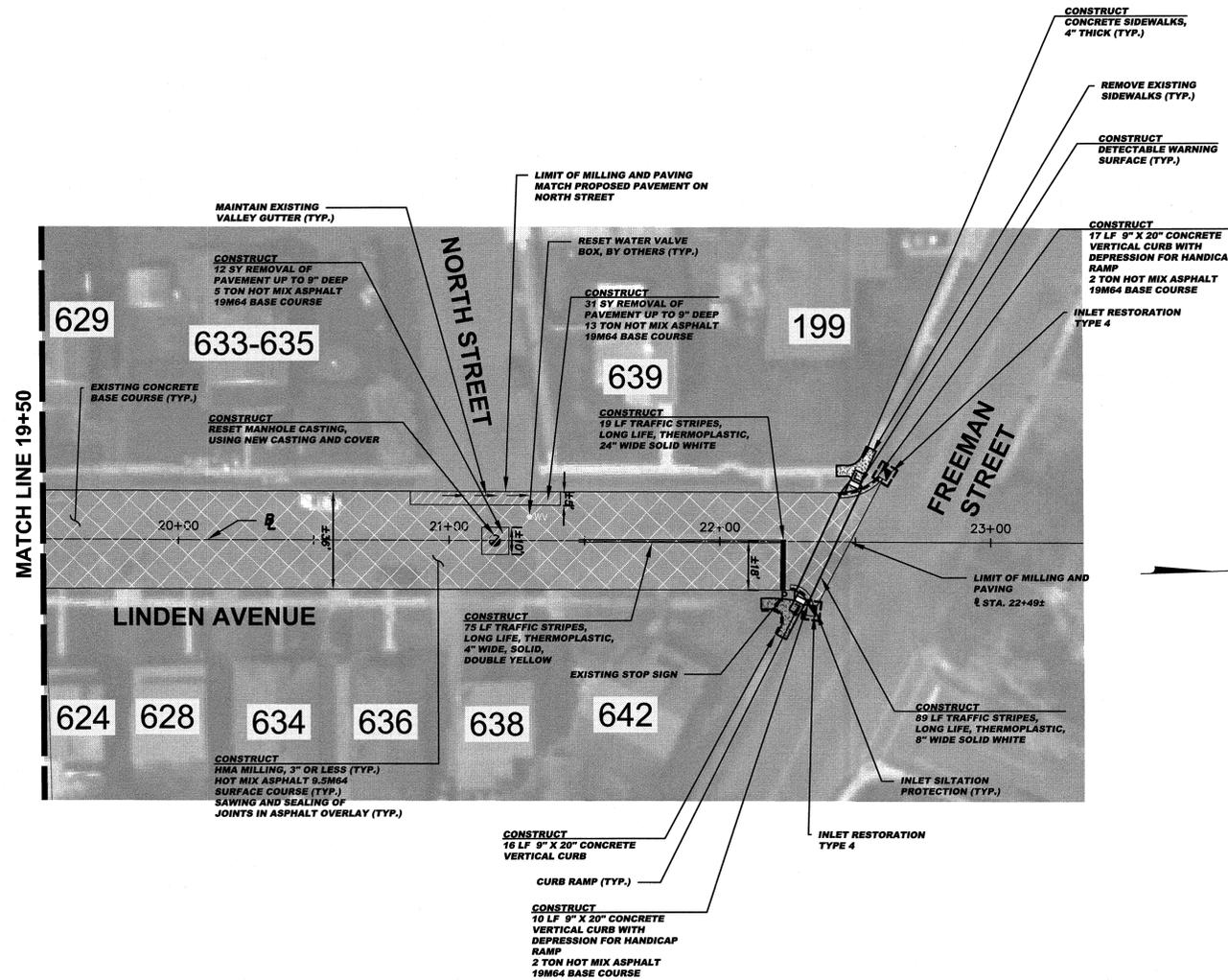
MATCH LINE 10+00

MATCH LINE 19+50

PWB0610.01

CONSTRUCT (LINDEN AVENUE (2 OF 2))

43	SY	Removal of pavement, up to 9" deep
1167	SY	HMA milling, 3" or less
1258	LF	Polymerized joint adhesive
109	LF	Prepare and seal existing joints and cracks in asphalt pavement
102	TON	Hot mix asphalt 9.5M64 surface and leveler course
22	TON	Hot mix asphalt 19M64 base course
1436	LF	Sawing and sealing joints in hot mix asphalt overlay
1	UN	Reset manhole casting, using new casting and cover
2	UN	Reset existing casting
26	SY	Concrete sidewalks, 4" thick
2	SY	Detectable warning surface
43	LF	9" x 20" Concrete vertical curb
150	LF	Traffic stripes, long life, "thermoplastic", 4" wide
89	LF	Traffic stripes, long life, "thermoplastic", 8" wide
19	LF	Traffic stripes, long life, "thermoplastic", 24" wide
1	UN	Reset water valve box
15	SY	Topsolling, 4" thick
16	SY	Fertilizing
15	SY	Sodding



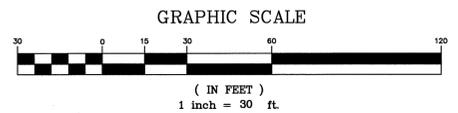
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**NOTE:**  
 EXCEPT WHERE NOTED, EXISTING CONCRETE GUTTER TO BE MILLED AND RECEIVE 2" OF HOT MIX ASPHALT 9.5M64 SURFACE COURSE

**INLET RESTORATION:**  
 TYPE 1 - RESET EXISTING CASTING CURB PIECE, TYPE N-ECO OR P-ECO  
 TYPE 2 - RESET EXISTING CASTING BICYCLE SAFE GRATE  
 TYPE 3 - RESET EXISTING CASTING CURB PIECE, TYPE N-ECO OR P-ECO, BICYCLE SAFE GRATE  
 TYPE 4 - RESET EXISTING CASTING



**PROPOSED LEGEND:**

●	DENOTES PROPOSED MANHOLE	▨	DENOTES PROPOSED REINFORCED CONCRETE SIDEWALK
○	DENOTES RESET MANHOLE CASTING (INCLUDING 2" WIDE EXCAVATION) AND PAVING WITH 19M64 BASE COURSE	▧	DENOTES REMOVE AND REPLACE CURB (INCLUDING 2" WIDE TEMPORARY TRENCH REPAIR)
⊗	DENOTES RECONSTRUCT MANHOLE	▩	DENOTES PROPOSED CONCRETE SIDEWALK AND DRIVEWAY APRON
■	DENOTES PROPOSED INLET	▬	DENOTES AREA TO BE EXCAVATED AND RECEIVE 2" HOT MIX ASPHALT 9.5M64 SURFACE COURSE AND 3" HOT MIX ASPHALT 19M64 BASE COURSE
□	DENOTES RESET INLET CASTING	▭	DENOTES AREA TO BE MILLED AND RECEIVE MIN. 2" HMA 9.5M64 SURFACE AND LEVELER COURSE
⊠	DENOTES RECONSTRUCT INLET	▮	DENOTES AREA TO BE MILLED, EXISTING CRACK TO BE CLEANED AND SEALED, AND GEO COMPOSITE MATERIAL TO BE INSTALLED
⊡	DENOTES PROPOSED DETECTABLE WARNING SURFACE	▯	DENOTES REMOVAL OF PAVEMENT UP TO 9" AND RECEIVE HMA 19M64 BASE COURSE
⊢	DENOTES EXISTING VALLEY GUTTER		
⊣	DENOTES DIRECTION OF FLOW		
⊤	DENOTES TRAFFIC MARKINGS, LONG LIFE, THERMOPLASTIC WITH GLASS BEADS, FOR FIRE HYDRANT		
⊥	DENOTES PAINT CONCRETE CURBSING, YELLOW		
⊦	DENOTES BENCH MARK LOCATION		
⊧	DENOTES EXISTING TREES OR STUMPS TO BE REMOVED		
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⊩	DENOTES CONCRETE DRIVEWAY RESTORATION		
⊪	DENOTES HOT MIX ASPHALT DRIVEWAY RESTORATION		

**TOWNSHIP OF WOODBRIDGE**  
 MIDDLESEX COUNTY, NEW JERSEY  
**2020 MILLING AND RESURFACING PROGRAM**  
 CONTRACT NO. 2020-001  
 LINDEN AVENUE (2 OF 2) WARD 1

CONSULTING AND MUNICIPAL ENGINEERS  
 (732) 727-8000 (732) 462-7400  
 3141 BORDENTOWN AVENUE, PARLIN, NEW JERSEY 08859-1102 — 1460 ROUTE 9 SOUTH, HOWELL, NEW JERSEY 07731-1194

JOHN H. ALLGAIR P.E. & P.P. NO PE LIC NO. 25938 (1993 - 2001)	DAVID J. SAMUEL P.E. & P.P. NO PE LIC NO. 24855 NO PE & LS LIC NO. 24271	JOHN J. STEFANI P.E. L.S. & P.P. NO PE LIC NO. 34458 NO PE & LS LIC NO. 24271
JAY B. CORNELL P.E. & P.P. NO PE LIC NO. 32963 NO PE LIC NO. 30774	MICHAEL J. MCCLELLAND P.E. & P.P. NO PE LIC NO. 34468 NO PE LIC NO. 3770	GREGORY R. VALES P.E. & P.P. NO PE LIC NO. 34458 NO PE & LS LIC NO. 43601

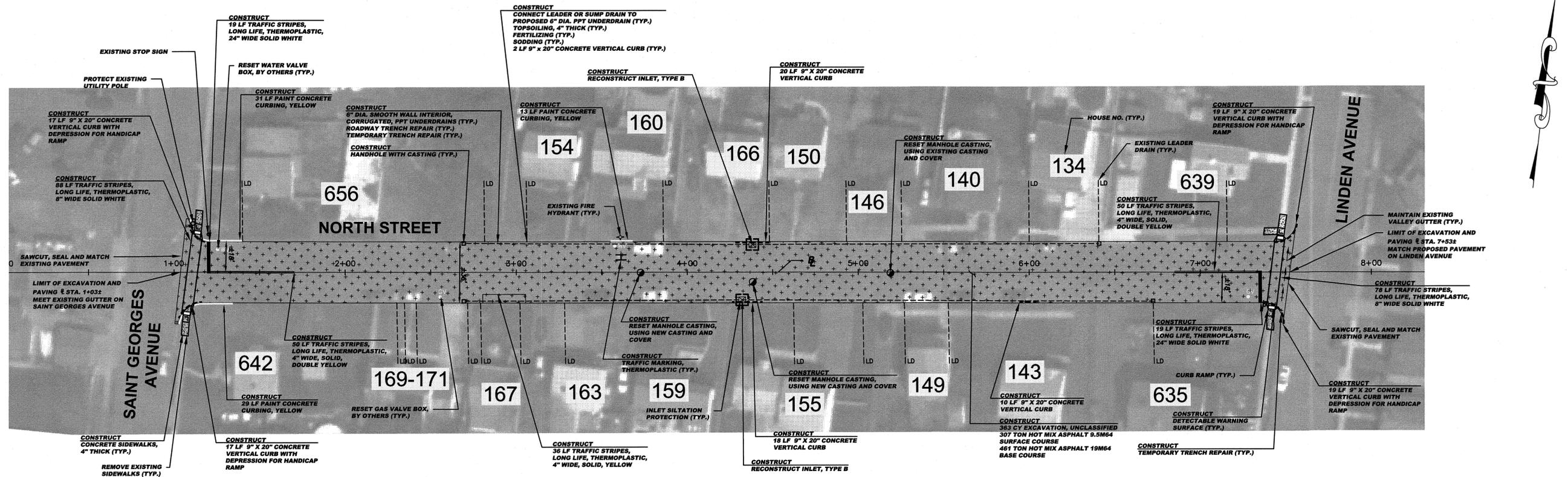
**MICHAEL J. MCCLELLAND P.E.**  
 NEW JERSEY PROFESSIONAL ENGINEER  
 LIC. 32468  
 SCALE: As Shown  
 DATE: April 2020  
 DRAWN BY: LC  
 DESIGNED BY: LC  
 CHECKED BY: [Signature]  
 SHEET: 9 of 65  
 FILE NO.: PWB04610.01

CONSTRUCT (ALTERNATE ITEM A - UNDERDRAIN IMPROVEMENTS)  
(IF AND WHERE ORDERED)

770	LF	6" dia. smooth wall interior corrugated PPT underdrains
17	UN	Connect leader or sump drain to proposed 6" dia. PPT underdrain
4	UN	Handhole with casting
34	LF	9" x 20" Concrete vertical curb
172	SY	Roadway trench repair
172	SY	Temporary trench repair
8	SY	Topsoiling, 4" thick
8	SY	Fertilizing
8	SY	Sodding

CONSTRUCT (NORTH STREET)

363	CY	Excavation, unclassified
4696	LF	Polymerized joint adhesive
126	LF	Prepare and seal existing joints and cracks in asphalt pavement
307	TON	Hot mix asphalt 9.5M64 surface and leveler course
461	TON	Hot mix asphalt 19M64 base course
1	UN	Reset manhole casting, using existing and cover
2	UN	Reset manhole casting, using new and cover
2	UN	Reconstruct inlet, type B
34	SY	Concrete sidewalks, 4" thick
4	SY	Detachable warning surface
120	LF	9" x 20" Concrete vertical curb
73	LF	Paint concrete curbing, yellow
236	LF	Traffic stripes, long life, "thermoelastic", 4" wide
166	LF	Traffic stripes, long life, "thermoelastic", 8" wide
38	LF	Traffic stripes, long life, "thermoelastic", 24" wide
6	SF	Traffic markings, thermoelastic
25	SY	Temporary trench repair
2	UN	Reset water valve box
2	UN	Reset gas valve box
62	SY	Topsoiling, 4" thick
62	SY	Fertilizing
62	SY	Sodding



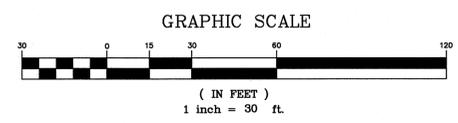
**NOTE:**  
EXCEPT WHERE NOTED, EXISTING CONCRETE GUTTER TO BE MILLED AND RECEIVE 2" OF HOT MIX ASPHALT 9.5M64 SURFACE COURSE

**BASELINES**  
BASELINES ARE APPROXIMATE AND ARE FOR REFERENCE PURPOSES ONLY. BASELINES ARE NOT TO BE UTILIZED FOR LAYOUT.

**INLET RESTORATION:**  
 TYPE 1 - RESET EXISTING CASTING CURB PIECE, TYPE N-ECO OR P-ECO  
 TYPE 2 - RESET EXISTING CASTING BICYCLE SAFE GRATE  
 TYPE 3 - RESET EXISTING CASTING CURB PIECE, TYPE N-ECO OR P-ECO, BICYCLE SAFE GRATE  
 TYPE 4 - RESET EXISTING CASTING

**PROPOSED LEGEND:**

- DENOTES PROPOSED MANHOLE
- DENOTES RESET MANHOLE CASTING
- DENOTES RECONSTRUCT MANHOLE
- DENOTES PROPOSED INLET
- DENOTES RESET INLET CASTING
- DENOTES RECONSTRUCT INLET
- DENOTES PROPOSED DETECTABLE WARNING SURFACE
- DENOTES EXISTING VALLEY GUTTER
- DENOTES DIRECTION OF FLOW
- DENOTES TRAFFIC MARKINGS, LONG LIFE, THERMOPLASTIC WITH GLASS BEADS, FOR FIRE HYDRANT
- DENOTES PAINT CONCRETE CURBING, YELLOW
- DENOTES BENCH MARK LOCATION
- DENOTES EXISTING TREES OR STUMPS TO BE REMOVED
- DENOTES RESET BRICKWALK/PAVERS
- DENOTES CONCRETE DRIVEWAY RESTORATION
- DENOTES HOT MIX ASPHALT DRIVEWAY RESTORATION
- DENOTES PROPOSED REINFORCED CONCRETE SIDEWALK
- DENOTES REMOVE AND REPLACE CURB (INCLUDING 2" WIDE EXCAVATION) AND PAVING WITH 19M64 BASE COURSE
- DENOTES REMOVE AND REPLACE CURB (INCLUDING 2" WIDE TEMPORARY TRENCH REPAIR)
- DENOTES PROPOSED CONCRETE SIDEWALK AND DRIVEWAY APPROX.
- DENOTES AREA TO BE EXCAVATED AND RECEIVE 2" HOT MIX ASPHALT 9.5M64 SURFACE COURSE AND 3" HOT MIX ASPHALT 19M64 BASE COURSE
- DENOTES AREA TO BE MILLED AND RECEIVE MIN. 2" HMA 9.5M64 SURFACE AND LEVELER COURSE
- DENOTES AREA TO BE MILLED, EXISTING CRACK TO BE CLEANED AND SEALED, AND GEO COMPOSITE MATERIAL TO BE INSTALLED
- DENOTES REMOVAL OF PAVEMENT UP TO 9" AND RECEIVE HMA 19M64 BASE COURSE



**SPECIAL PROVISIONS**  
THE CONTRACTOR IS SPECIFICALLY DIRECTED TO THE REQUIREMENTS CONTAINED IN THE SPECIAL PROVISIONS SECTION OF THE CONTRACT SPECIFICATIONS.

**PROPOSED CURB AND/OR ROADWAY REPLACEMENT**  
THE CONTRACTOR IS ADVISED THAT THEIR LICENSED LAND SURVEYOR SHALL PROVIDE THE CONSTRUCTION STAKEOUT FOR THE PROJECT AND THAT IS THE INTENT OF THE CONTRACT DOCUMENTS TO INSTALL THE NEW CURB, EDGE OF PAVEMENT, AND ROADWAY AT ITS PRESENT HORIZONTAL LOCATION AND VERTICAL LOCATION EXCEPT WHERE PROPOSED GRADES HAVE BEEN INDICATED ON THE PLAN. ACCORDINGLY, THE FULL RESPONSIBILITY FOR KEEPING AND MAINTAINING THE EXISTING ALIGNMENT AND GRADE PRIOR TO REMOVAL OF THE EXISTING CURB AND MILLING AND/OR EXCAVATION OF THE PAVEMENT SHALL REST UPON THE CONTRACTOR IN ACCORDANCE WITH DIVISION 1 GENERAL REQUIREMENTS SECTION 1-4.4 OF THE PROJECT SPECIFICATIONS.

TOWNSHIP OF WOODBRIDGE  
MIDDLESEX COUNTY, NEW JERSEY  
**2020 MILLING AND RESURFACING PROGRAM**  
CONTRACT NO. 2020-001

NORTH STREET WARD 1

CONSULTING AND MUNICIPAL ENGINEERS

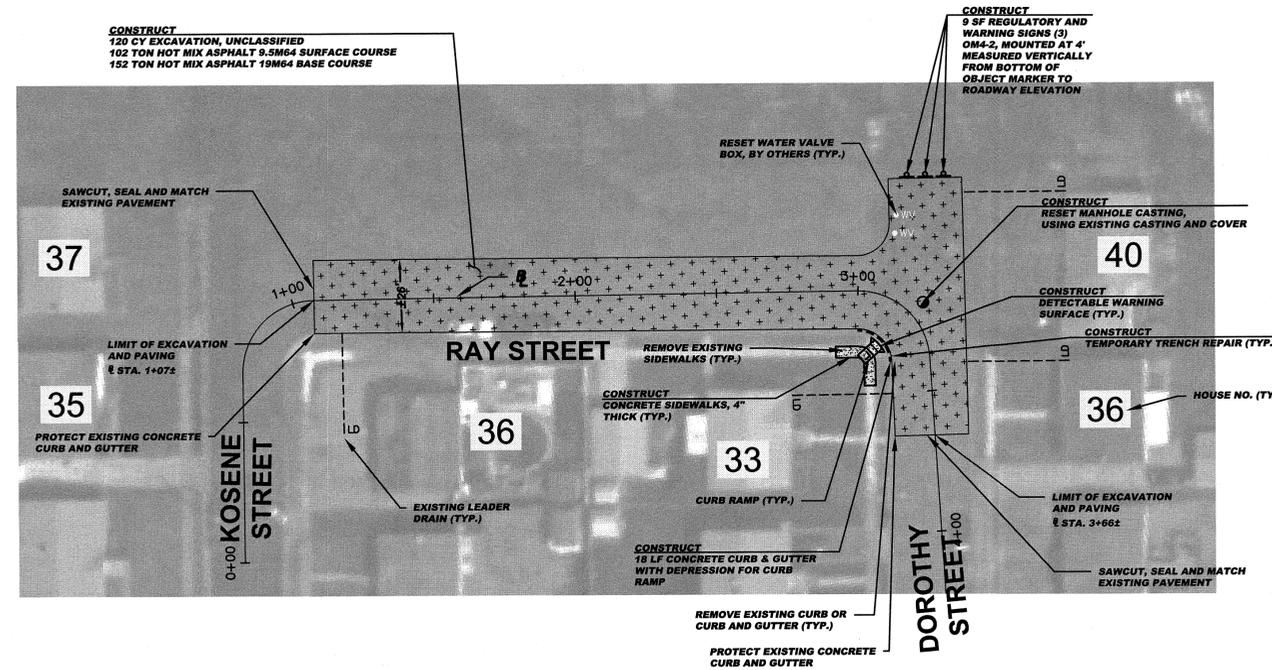
JOHN H. ALLGAIR P.E. & P.P. (1981-1991)  
DAVID J. SAMUEL P.E. & P.P. (1981-1991)  
JOHN J. STEFANI P.E. L.S. & P.P. (1981-1991)  
JAY B. CORNELL P.E. & P.P. (1981-1991)  
MICHAEL J. MCCLELLAND P.E. & P.P. (1981-1991)

SCALE: As Shown DATE: April 2020  
DRAWN BY: LC DESIGNED BY: LC  
CHECKED BY: LC SHEET: 10 of 65

FILE NO. PW0610.01

CONSTRUCT (RAY STREET)

120	CY	Excavation, unclassified
1356	LF	Polymerized joint adhesive
52	LF	Prepare and seal existing joints and cracks in asphalt pavement
102	TON	Hot mix asphalt 9.5M64 surface and leveler course
152	TON	Hot mix asphalt 19M64 base course
1	UN	Reset manhole casting, using existing and cover
13	SY	Concrete sidewalks, 4" thick
1	SY	Detectable warning surface
18	LF	Concrete curb and gutter, 6" face
9	SF	Regulatory and warning signs
4	SY	Temporary trench repair
2	UN	Reset water valve box
69	SY	Topsolling, 4" thick
69	SY	Fertilizing
69	SY	Sodding



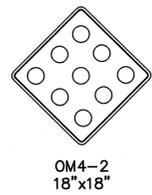
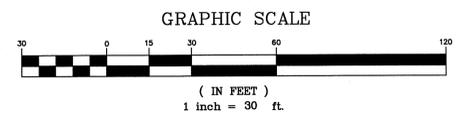
**NOTE:**  
CONTRACTOR IS TO PROTECT EXISTING CONCRETE GUTTER THAT HAS NOT BEEN PREVIOUSLY OVERLAID WITH ASPHALT DURING MILLING AND PAVING OPERATIONS.

**BASELINES**  
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**INLET RESTORATION:**  
TYPE 1 - RESET EXISTING CASTING CURB PIECE, TYPE N-ECO OR P-ECO  
TYPE 2 - RESET EXISTING CASTING BICYCLE SAFE GRATE  
TYPE 3 - RESET EXISTING CASTING CURB PIECE, TYPE N-ECO OR P-ECO, BICYCLE SAFE GRATE  
TYPE 4 - RESET EXISTING CASTING

**PROPOSED LEGEND:**

- - DENOTES PROPOSED MANHOLE
- - DENOTES RESET MANHOLE CASTING
- ⊗ - DENOTES RECONSTRUCT MANHOLE
- - DENOTES PROPOSED INLET
- ⊠ - DENOTES RESET INLET CASTING
- ⊡ - DENOTES RECONSTRUCT INLET
- ⊢ - DENOTES PROPOSED DETECTABLE WARNING SURFACE
- ⊣ - DENOTES EXISTING VALLEY GUTTER
- ⊤ - DENOTES DIRECTION OF FLOW
- ⊥ - DENOTES TRAFFIC MARKINGS, LONG LIFE, THERMOPLASTIC WITH GLASS BEADS, FOR FIRE HYDRANT
- ⊦ - DENOTES PAINT CONCRETE CURBING, YELLOW
- ⊧ - DENOTES BENCH MARK LOCATION
- ⊨ - DENOTES EXISTING TREES OR STUMPS TO BE REMOVED
- ⊩ - DENOTES RESET BRICKWALK/PAVERS
- ⊪ - DENOTES CONCRETE DRIVEWAY RESTORATION
- ⊫ - DENOTES HOT MIX ASPHALT DRIVEWAY RESTORATION
- ⊬ - DENOTES PROPOSED REINFORCED CONCRETE SIDEWALK
- ⊭ - DENOTES REMOVE AND REPLACE CURB (INCLUDING 2' WIDE EXCAVATION) AND PAVING WITH 19M64 BASE COURSE
- ⊮ - DENOTES REMOVE AND REPLACE CURB (INCLUDING 2' WIDE TEMPORARY TRENCH REPAIR)
- ⊯ - DENOTES PROPOSED CONCRETE SIDEWALK AND DRIVEWAY APRON
- ⊰ - DENOTES AREA TO BE EXCAVATED AND RECEIVE 2" HOT MIX ASPHALT 9.5M64 SURFACE COURSE AND 3" HOT MIX ASPHALT 19M64 BASE COURSE
- ⊱ - DENOTES AREA TO BE MILLED AND RECEIVE MIN. 2" HMA 9.5M64 SURFACE AND LEVELER COURSE
- ⊲ - DENOTES AREA TO BE MILLED, EXISTING CRACK TO BE CLEANED AND SEALED, AND GEO COMPOSITE MATERIAL TO BE INSTALLED
- ⊳ - DENOTES REMOVAL OF PAVEMENT UP TO 9" AND RECEIVE HMA 19M64 BASE COURSE



OM4-2  
18" x 18"  
SIGN LEGEND

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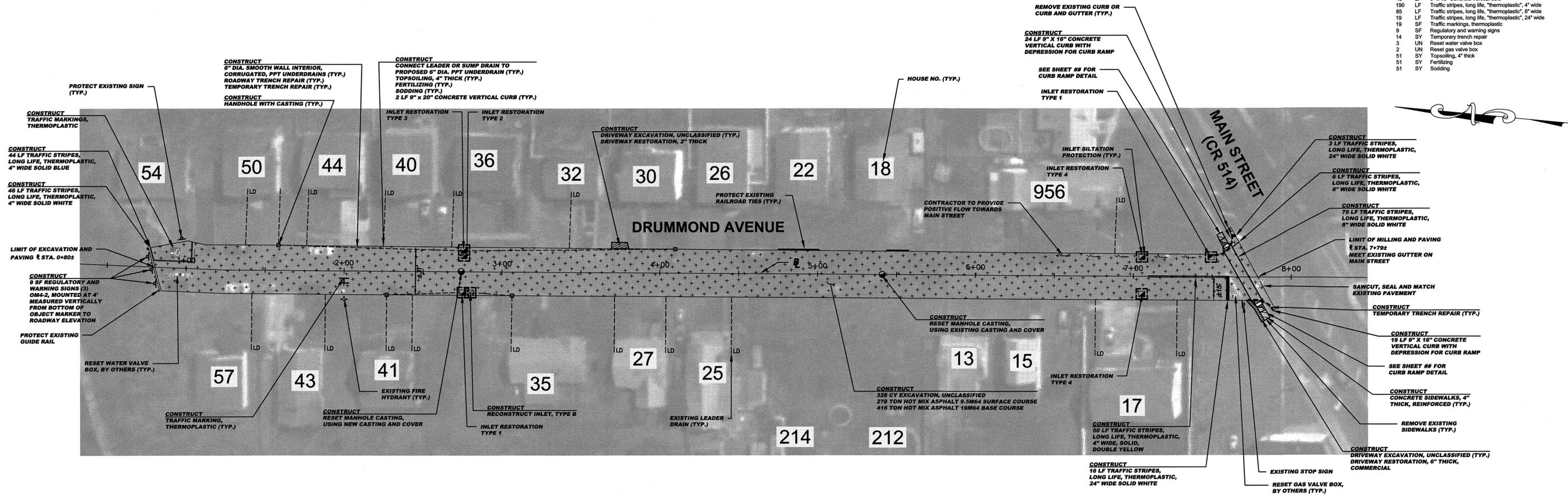
TOWNSHIP OF WOODBRIDGE MIDDLESEX COUNTY, NEW JERSEY		DATE		DRAWN	CHECKED	RELEASED
<b>2020 MILLING AND RESURFACING PROGRAM</b>						
CONTRACT NO. 2020-001						
RAY STREET		WARD 1				
3141 BORDENTOWN AVENUE, PARLIN, NEW JERSEY 08859-1162		1460 ROUTE 9 SOUTH, HOWELL, NEW JERSEY 07731-1194				
JOHN H. ALLGAIER P.E. & P.P. (1983 - 2021) JAY B. CORNELL P.E. & P.P. (1983 - 2021)	DAVID J. SAMUEL P.E. & P.P. (1983 - 2021)	MICHAEL J. MCCLELLAND P.E. & P.P. (1983 - 2021)	GREGORY R. VALESI P.E. & P.P. (1983 - 2021)	(732) 727 8000 (732) 462 7400		
<b>MICHAEL J. MCCLELLAND P.E.</b> NEW JERSEY PROFESSIONAL ENGINEER L.C. 32468		SCALE: As Shown DATE: April 2020 DRAWN BY: LC DESIGNED BY: LC CHECKED BY:		SHEET: 11 of 65 FILE NO.: PWB0610.01		

CONSTRUCT (ALTERNATE ITEM A - UNDERDRAIN IMPROVEMENTS)  
(IF AND WHERE ORDERED)

316	LF	6" dia. smooth wall interior corrugated PPT underdrains
9	UN	Connect leader or sump drain to proposed 6" dia. PPT underdrain
4	UN	Handhole with casing
2	UN	Reconstruct inlet, type B
18	LF	9" x 20" Concrete vertical curb
72	SY	Roadway trench repair
72	SY	Temporary trench repair
6	SY	Topsolling, 4" thick
6	SY	Fertilizing
6	SY	Sodding

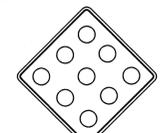
CONSTRUCT (DRUMMOND AVENUE)

3	CY	Driveway excavation, unclassified
328	CY	Excavation, unclassified
4528	LF	Polymerized joint adhesive
64	LF	Prepare and seal existing joints and cracks in asphalt pavement
278	TON	Hot mix asphalt 9.5M64 surface and leveler course
416	TON	Hot mix asphalt 19M64 base course
1	UN	Reset manhole casting, using existing and cover
1	UN	Reset existing casting
7	UN	Reset manhole casting, using new casting and cover
4	UN	Curb piece, type "N-ECO"
1	UN	Reconstruct inlet, type B
12	SY	Concrete sidewalks, reinforced, 4" thick
5	SY	Hot mix asphalt driveway restoration, 2" thick
4	SY	Hot mix asphalt driveway restoration, 6" thick, commercial
2	SY	Detectable warning surface
43	LF	9" x 18" Concrete vertical curb
190	LF	Traffic stripes, long life, "thermoelastic", 4" wide
85	LF	Traffic stripes, long life, "thermoelastic", 8" wide
19	LF	Traffic stripes, long life, "thermoelastic", 24" wide
19	SF	Traffic markings, thermoelastic
9	SF	Regulatory and warning signs
14	SY	Temporary trench repair
3	UN	Reset water valve box
2	UN	Reset gas valve box
51	SY	Topsolling, 4" thick
51	SY	Fertilizing
51	SY	Sodding

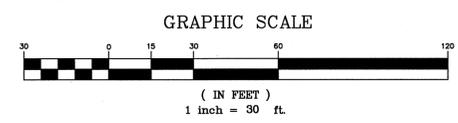


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OM4-2  
18" x 18"  
**SIGN LEGEND**



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**INLET RESTORATION:**  
TYPE 1 - RESET EXISTING CASTING CURB PIECE, TYPE N-ECO OR P-ECO  
TYPE 2 - RESET EXISTING CASTING BICYCLE SAFE GRATE  
TYPE 3 - RESET EXISTING CASTING CURB PIECE, TYPE N-ECO OR P-ECO, BICYCLE SAFE GRATE  
TYPE 4 - RESET EXISTING CASTING

- PROPOSED LEGEND:**
- - DENOTES PROPOSED MANHOLE
  - - DENOTES RESET MANHOLE CASTING
  - ⊗ - DENOTES RECONSTRUCT MANHOLE
  - - DENOTES PROPOSED INLET
  - ⊠ - DENOTES RESET INLET CASTING
  - ⊡ - DENOTES RECONSTRUCT INLET
  - ⊞ - DENOTES PROPOSED DETECTABLE WARNING SURFACE
  - - DENOTES EXISTING VALLEY GUTTER
  - - DENOTES DIRECTION OF FLOW
  - ⊕ - DENOTES TRAFFIC MARKINGS, LONG LIFE, THERMOPLASTIC WITH GLASS BEADS, FOR FIRE HYDRANT
  - ⊖ - DENOTES PAINT CONCRETE CURBING, YELLOW
  - ⊗ - DENOTES BENCH MARK LOCATION
  - ⊗ - DENOTES EXISTING TREES OR STUMPS TO BE REMOVED
  - ⊗ - DENOTES RESET BRICKWALK/PAVERS
  - ⊗ - DENOTES CONCRETE DRIVEWAY RESTORATION
  - ⊗ - DENOTES HOT MIX ASPHALT DRIVEWAY RESTORATION
  - ⊗ - DENOTES PROPOSED REINFORCED CONCRETE SIDEWALK
  - ⊗ - DENOTES REMOVE AND REPLACE CURB (INCLUDING 2" WIDE EXCAVATION) AND PAVING WITH 19M64 BASE COURSE
  - ⊗ - DENOTES REMOVE AND REPLACE CURB (INCLUDING 2" WIDE TEMPORARY TRENCH REPAIR)
  - ⊗ - DENOTES PROPOSED CONCRETE SIDEWALK AND DRIVEWAY APRON
  - ⊗ - DENOTES AREA TO BE EXCAVATED AND RECEIVE 2" HOT MIX ASPHALT 9.5M64 SURFACE COURSE AND 3" HOT MIX ASPHALT 19M64 BASE COURSE
  - ⊗ - DENOTES AREA TO BE MILLED AND RECEIVE MIN. 2" HMA 9.5M64 SURFACE AND LEVELER COURSE
  - ⊗ - DENOTES AREA TO BE MILLED, EXISTING CRACK TO BE CLEANED AND SEALED, AND GEO COMPOSITE MATERIAL TO BE INSTALLED
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TOWNSHIP OF WOODBRIDGE  
MIDDLESEX COUNTY, NEW JERSEY  
**2020 MILLING AND RESURFACING PROGRAM**  
CONTRACT NO. 2020-001  
DRUMMOND AVENUE WARD 2

(732) 727 8000 CONSULTING AND MUNICIPAL ENGINEERS (732) 462 7400

3141 BORDENTOWN AVENUE, PARLIN, NEW JERSEY 08859-1162 1460 ROUTE 9 SOUTH, HOWELL, NEW JERSEY 07731-1194

JOHN H. ALLGAIR P.E. & P.P. (1987-2011) NO PE LIC NO. 32962	DAVID J. SAMUEL P.E. & P.P. NO PE LIC NO. 20589	JOHN J. STEFANI P.E. L.S. & P.P. NO PE LIC NO. 24575 NO PL LIC NO. 20899
JAY B. CORNELL P.E. & P.P. NO PE LIC NO. 3874	MICHAEL J. MCCLELLAND P.E. & P.P. NO PE LIC NO. 32468	GREGORY R. VALES P.E. & P.P. NO PE LIC NO. 34458

**MICHAEL J. MCCLELLAND P.E.**  
NEW JERSEY PROFESSIONAL ENGINEER  
LIC. 32468

SCALE: As Shown DATE: April 2020  
DRAWN BY: PB DESIGNED BY: PB  
CHECKED BY: DATE: 4/21/20 SHEET: 12 of 65

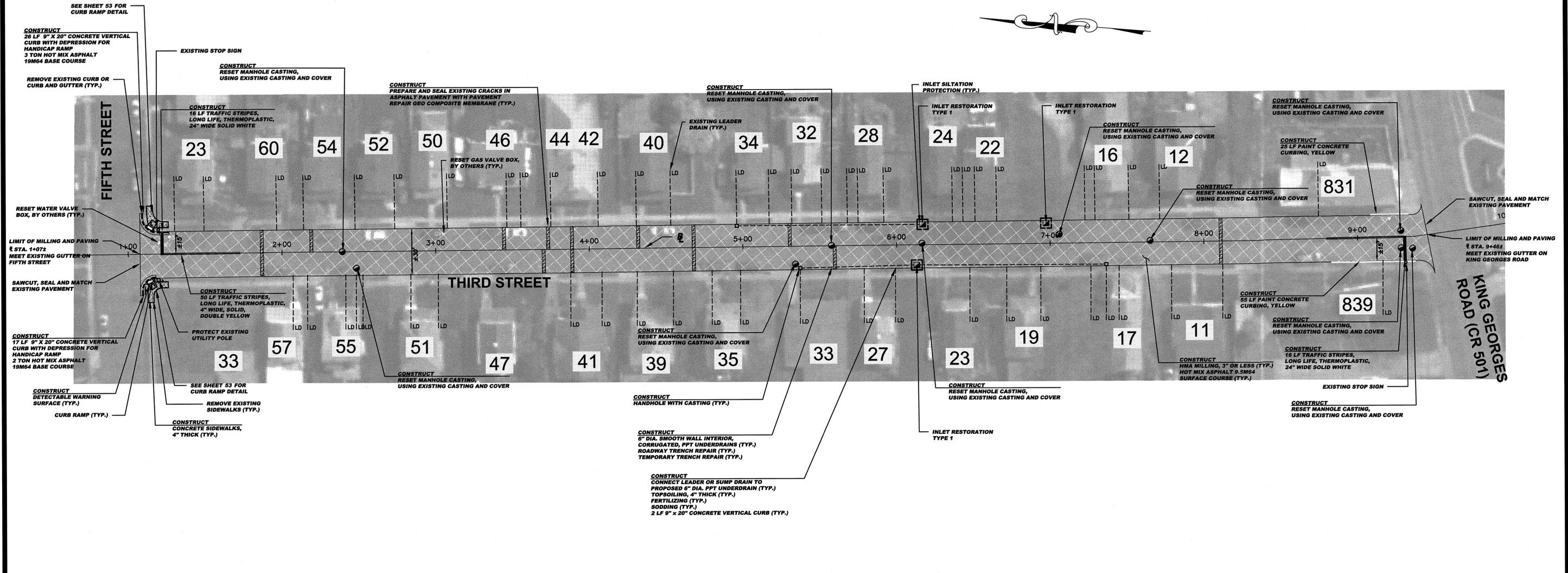
DRAWING NO. PWB04610.01

CONSTRUCT (ALTERNATE ITEM A - UNDERDRAIN IMPROVEMENTS)  
(IF AND WHERE ORDERED)

312	LF	6" dia. smooth wall interior corrugated PPT underdrains
15	UN	Connect leader or sump drain to proposed 6" dia. PPT underdrain
3	UN	Handhole with casting
2	UN	Reconstruct inlet, type B
30	LF	9" x 20" Concrete vertical curb
70	SY	Roadway trench repair
70	SY	Temporary trench repair
10	SY	Topsoiling, 4" thick
10	SY	Fertilizing
10	SY	Sodding

CONSTRUCT (THIRD STREET)

2814	SY	HMA milling, 3" or less
2910	LF	Polymerized joint adhesive
104	LF	Prepare and seal existing joints and cracks in asphalt pavement
225	LF	Prepare and seal existing transverse cracks in asphalt pavement with pavement repair geo composite membrane
331	TON	Hot mix asphalt 9.5M64 surface and leveler course
5	TON	Hot mix asphalt 19M64 base course
8	UN	Reset manhole casting, using existing and cover
2	UN	Reset manhole casting, using new casting and cover
3	UN	Reset existing casting
4	UN	Curb piece, type "N-ECO"
24	SY	Concrete sidewalks, 4" thick
2	SY	Detectable warning surface
43	LF	9" x 20" Concrete vertical curb
80	LF	Paint concrete curbing, yellow
200	LF	Traffic stripes, long life, "thermoplastic", 4" wide
32	LF	Traffic stripes, long life, "thermoplastic", 24" wide
2	UN	Reset water valve box
3	UN	Reset gas valve box
24	SY	Topsoiling, 4" thick
24	SY	Sodding

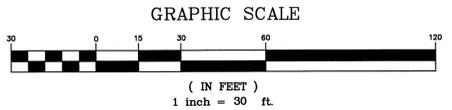


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TYPE 1 - RESET EXISTING CASTING CURB PIECE, TYPE N-ECO OR P-ECO  
TYPE 2 - RESET EXISTING CASTING BICYCLE SAFE GRATE  
TYPE 3 - RESET EXISTING CASTING CURB PIECE, TYPE N-ECO OR P-ECO, BICYCLE SAFE GRATE  
TYPE 4 - RESET EXISTING CASTING

**PROPOSED LEGEND:**

- DENOTES PROPOSED MANHOLE
- DENOTES RESET MANHOLE CASTING
- DENOTES RECONSTRUCT MANHOLE
- DENOTES PROPOSED INLET
- DENOTES RESET INLET CASTING
- DENOTES RECONSTRUCT INLET
- DENOTES PROPOSED DETECTABLE WARNING SURFACE
- DENOTES EXISTING VALLEY GUTTER
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- DENOTES TRAFFIC MARKINGS, LONG LIFE, THERMOPLASTIC WITH GLASS BEADS, FOR FIRE HYDRANT
- DENOTES PAINT CONCRETE CURBING, YELLOW
- DENOTES BENCH MARK LOCATION
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- DENOTES AREA TO BE MILLED, EXISTING CRACK TO BE CLEANED AND SEALED, AND GEO-COMPOSITE MATERIAL TO BE INSTALLED
- DENOTES REMOVAL OF PAVEMENT UP TO 9" AND RECEIVE HMA 19M64 BASE COURSE

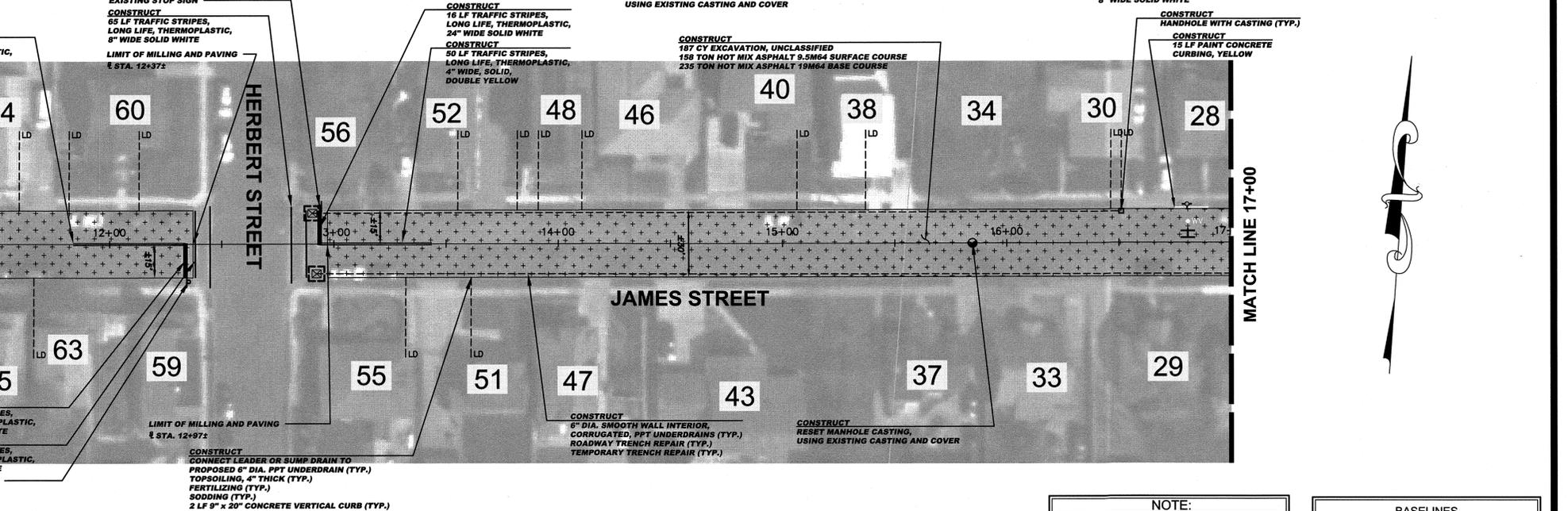
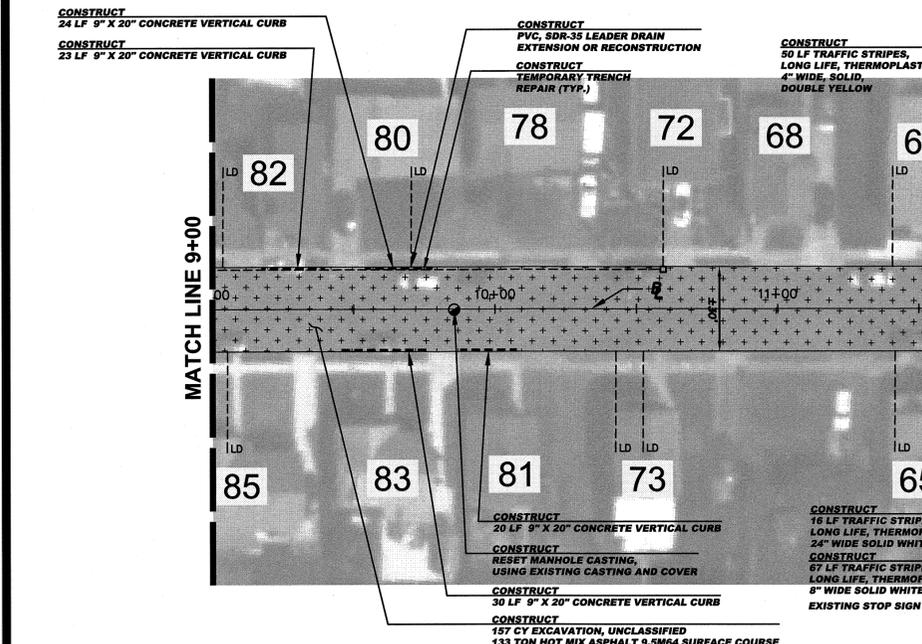
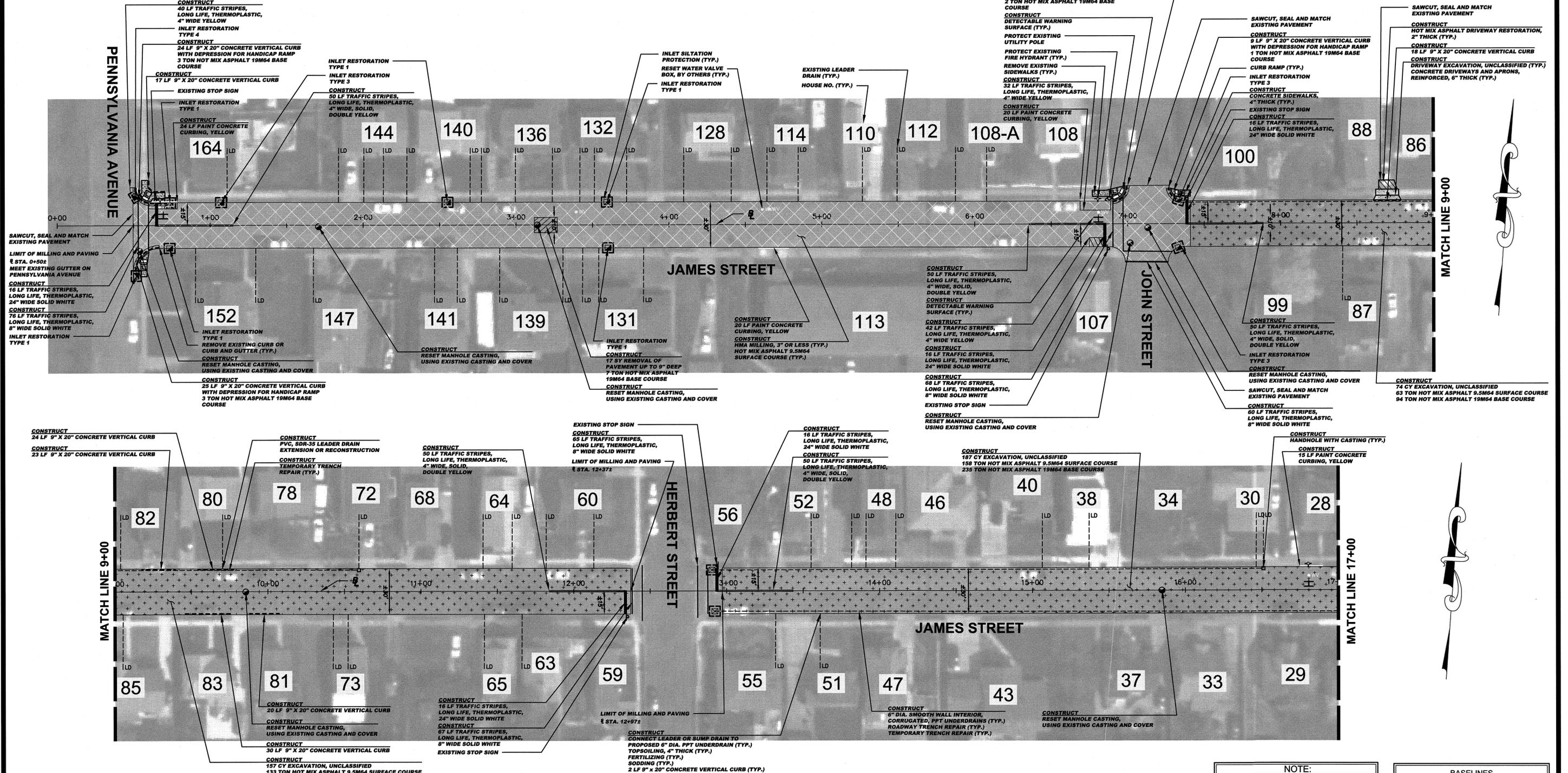


**SPECIAL PROVISIONS**  
THE CONTRACTOR IS SPECIFICALLY DIRECTED TO THE REQUIREMENTS CONTAINED IN THE SPECIAL PROVISIONS SECTION OF THE CONTRACT SPECIFICATIONS.

**PROPOSED CURB AND/OR ROADWAY REPLACEMENT**  
THE CONTRACTOR IS ADVISED THAT THEIR LICENSED LAND SURVEYOR SHALL PROVIDE THE CONSTRUCTION STAKEOUT FOR THE PROJECT AND THAT IS THE INTENT OF THE CONTRACT DOCUMENTS TO INSTALL THE NEW CURB, EDGE OF PAVEMENT, AND ROADWAY AT ITS PRESENT HORIZONTAL LOCATION AND VERTICAL LOCATION EXCEPT WHERE PROPOSED GRADES HAVE BEEN INDICATED ON THE PLAN. ACCORDINGLY, THE FULL RESPONSIBILITY FOR KEEPING AND MAINTAINING THE EXISTING ALIGNMENT AND GRADE PRIOR TO REMOVAL OF THE EXISTING CURB AND MILLING AND/OR EXCAVATION OF THE PAVEMENT SHALL REST UPON THE CONTRACTOR IN ACCORDANCE WITH DIVISION 1 GENERAL REQUIREMENTS SECTION 1-4.4 OF THE PROJECT SPECIFICATIONS.

TOWNSHIP OF WOODBRIDGE  
MIDDLESEX COUNTY, NEW JERSEY  
**2020 MILLING AND RESURFACING PROGRAM**  
CONTRACT NO. 2020-001  
THIRD STREET WARD 2  
CME CONSULTING AND MUNICIPAL ENGINEERS  
JOHN H. ALLGAIR P.E. & P.P. DAVID J. SAMUEL P.E. & P.P. JOHN J. STEFANI P.E. L.S. & P.P.  
MICHAEL J. MCCLELLAND P.E. & P.P. GREGORY R. VALESII P.E. & P.P.  
**MICHAEL J. MCCLELLAND P.E.**  
NEW JERSEY PROFESSIONAL ENGINEER L.C. 32468  
4.21.20

PWB0610.01



**CONSTRUCT (JAMES STREET (1 OF 2))**

17	SY	Removal of pavement, 9\" deep
6	CY	Driveway excavation, unclassified
418	CY	Excavation, unclassified
2376	SY	HMA milling, 3\" or less
8632	LF	Polymerized joint adhesive
181	LF	Prepare and seal existing joints and cracks in asphalt pavement
676	TON	Hot mix asphalt 9.5M64 surface and leveler course
544	TON	Hot mix asphalt 19M64 base course
1	UN	PVC, SDR-35 leader drain extension
7	UN	Reset manhole casting, using existing and cover
10	UN	Reset existing casting
9	UN	Curb piece, type \"E-ECO\"
3	UN	Bicycle safe grate
37	SY	Concrete sidewalks, 4\" thick
13	SY	Concrete driveways and aprons, reinforced, 6\" thick
8	SY	Hot mix asphalt driveway restoration, 2\" thick
5	SY	Detectable warning surface
206	LF	9\" x 20\" Concrete vertical curb
79	LF	Paint concrete curbing, yellow
614	LF	Traffic stripes, long life, \"thermoelastic\", 4\" wide
336	LF	Traffic stripes, long life, \"thermoelastic\", 8\" wide
30	LF	Traffic stripes, long life, \"thermoelastic\", 24\" wide
18	SF	Traffic markings, Thermoelastic
27	SY	Temporary trench repair
6	UN	Reset water valve box
92	SY	Topsotting, 4\" thick
92	SY	Fertilizing
92	SY	Sodding

**CONSTRUCT (ALTERNATE ITEM A - UNDERDRAIN IMPROVEMENTS) (IF AND WHERE ORDERED)**

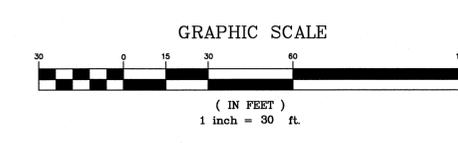
1129	LF	6\" dia. smooth wall interior corrugated PPT underdrains
15	UN	Connect leader or sump drain to proposed 6\" dia. PPT underdrain
3	UN	Handhole with casting
3	UN	Reconstruct inlet, type B
30	LF	9\" x 20\" Concrete vertical curb
253	SY	Roadway trench repair
253	SY	Temporary trench repair
10	SY	Topsotting, 4\" thick
10	SY	Fertilizing
10	SY	Sodding

**INLET RESTORATION:**

TYPE 1	-	RESET EXISTING CASTING CURB PIECE, TYPE N-ECO OR P-ECO
TYPE 2	-	RESET EXISTING CASTING BICYCLE SAFE GRATE
TYPE 3	-	RESET EXISTING CASTING CURB PIECE, TYPE N-ECO OR P-ECO, BICYCLE SAFE GRATE
TYPE 4	-	RESET EXISTING CASTING

**PROPOSED LEGEND:**

	-	DENOTES PROPOSED MANHOLE		DENOTES PROPOSED REINFORCED CONCRETE SIDEWALK
	-	DENOTES RESET MANHOLE CASTING		DENOTES REMOVE AND REPLACE CURB (INCLUDING 2\"/>



**NOTE:**  
EXCEPT WHERE NOTED, EXISTING CONCRETE GUTTER TO BE MILLED AND RECEIVE 2\"/>

**BASELINES**  
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**TOWNSHIP OF WOODBRIDGE**  
MIDDLESEX COUNTY, NEW JERSEY  
**2020 MILLING AND RESURFACING PROGRAM**  
CONTRACT NO. 2020-001  
JAMES STREET (1 OF 2) WARD 2

CONSULTING AND MUNICIPAL ENGINEERS  
3141 BORDENTOWN AVENUE, PARLIN, NEW JERSEY 08859-1162 1460 ROUTE 9 SOUTH, HOWELL, NEW JERSEY 07731-1194

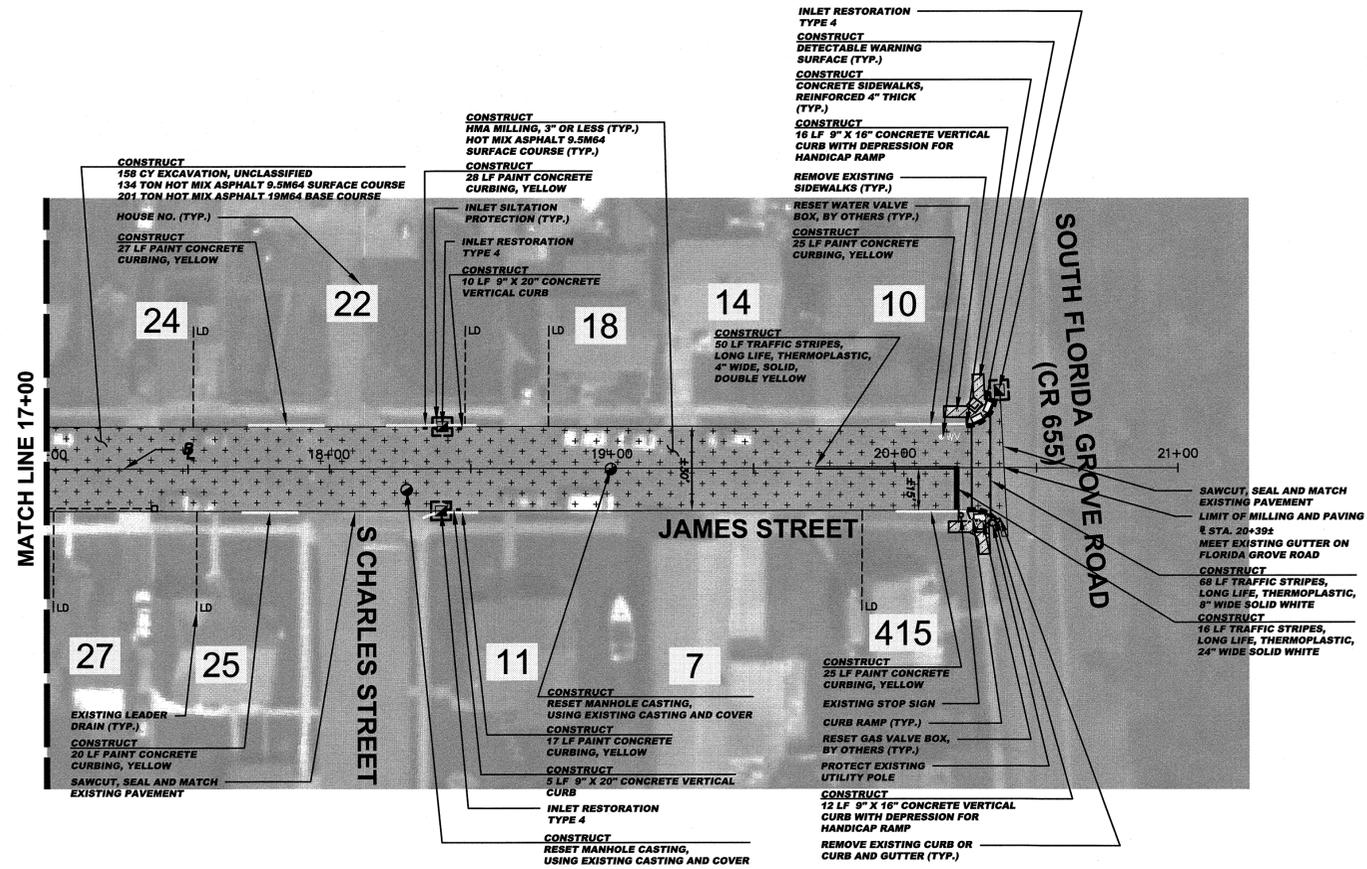
JOHN H. ALLGAR P.E. & P.P. (1983-2001)	DAVID J. SAMUEL P.E. & P.P. (1983-2001)	JOHN J. STEFANI P.E. L.S. & P.P. (1983-2001)
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**MICHAEL J. MCCLELLAND P.E.**  
NEW JERSEY PROFESSIONAL ENGINEER  
L.C. 32468

SCALE: As Shown DATE: April 2020  
DRAWN BY: AR DESIGNED BY: AR  
CHECKED BY: AR SHEET: 14 of 65

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**CONSTRUCT (JAMES STREET (2 OF 2))**

158	CY	Excavation, unclassified
2456	LF	Polymerized joint adhesive
104	LF	Prepare and seal existing joints and cracks in asphalt pavement
154	TON	Hot mix asphalt 9.5M64 surface and leveler course
201	TON	Hot mix asphalt 19M64 base course
2	UN	Reset manhole casting, using existing and cover
3	UN	Reset existing casting
28	SY	Concrete sidewalks, reinforced, 4" thick
3	SY	Detectable warning surface
28	LF	9" x 16" Concrete vertical curb
15	LF	9" x 20" Concrete vertical curb
142	LF	Paint concrete curbing, yellow
100	LF	Traffic stripes, long life, "thermoelastic", 4" wide
68	LF	Traffic stripes, long life, "thermoelastic", 8" wide
18	LF	Traffic stripes, long life, "thermoelastic", 24" wide
11	SY	Temporary trench repair
1	UN	Reset water valve box
1	UN	Reset gas valve box
20	SY	Topsoiling, 4" thick
20	SY	Fertilizing
20	SY	Sodding

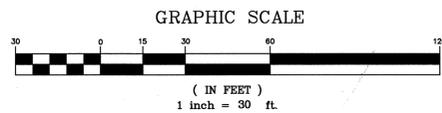
**NOTE:**  
EXCEPT WHERE NOTED, EXISTING CONCRETE GUTTER TO BE MILLED AND RECEIVE 2" OF HOT MIX ASPHALT 9.5M64 SURFACE COURSE

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**INLET RESTORATION:**  
 TYPE 1 - RESET EXISTING CASTING CURB PIECE, TYPE N-ECO OR P-ECO  
 TYPE 2 - RESET EXISTING CASTING BICYCLE SAFE GRATE  
 TYPE 3 - RESET EXISTING CASTING CURB PIECE, TYPE N-ECO OR P-ECO, BICYCLE SAFE GRATE  
 TYPE 4 - RESET EXISTING CASTING

**PROPOSED LEGEND:**

●	DENOTES PROPOSED MANHOLE	▨	DENOTES PROPOSED REINFORCED CONCRETE SIDEWALK
○	DENOTES RESET MANHOLE CASTING	▧	DENOTES REMOVE AND REPLACE CURB (INCLUDING 2" WIDE EXCAVATION) AND PAVING WITH 19M64 BASE COURSE
⊗	DENOTES RECONSTRUCT MANHOLE	▩	DENOTES REMOVE AND REPLACE CURB AND 3" HOT MIX ASPHALT 19M64 BASE COURSE
■	DENOTES PROPOSED INLET	▬	DENOTES PROPOSED CONCRETE SIDEWALK AND DRIVEWAY APRON
□	DENOTES RESET INLET CASTING	▬	DENOTES AREA TO BE EXCAVATED AND RECEIVE 2" HOT MIX ASPHALT 9.5M64 SURFACE COURSE AND 3" HOT MIX ASPHALT 19M64 BASE COURSE
⊠	DENOTES RECONSTRUCT INLET	▬	DENOTES AREA TO BE MILLED AND RECEIVE MIN. 2" HMA 9.5M64 SURFACE AND LEVELER COURSE
⊡	DENOTES PROPOSED DETECTABLE WARNING SURFACE	▬	DENOTES AREA TO BE MILLED, EXISTING CRACK TO BE CLEANED AND SEALED, AND GEO COMPOSITE MATERIAL TO BE INSTALLED
▬	DENOTES EXISTING VALLEY GUTTER	▬	DENOTES REMOVAL OF PAVEMENT UP TO 9" AND RECEIVE HMA 19M64 BASE COURSE
▬	DENOTES DIRECTION OF FLOW		
▬	DENOTES TRAFFIC MARKINGS, LONG LIFE, THERMOPLASTIC WITH GLASS BEADS, FOR FIRE HYDRANT		
▬	DENOTES PAINT CONCRETE CURBING, YELLOW		
▬	DENOTES BENCH MARK LOCATION		
▬	DENOTES EXISTING TREES OR STUMPS TO BE REMOVED		
▬	DENOTES RESET BRICKWALK/PAVERS		
▬	DENOTES CONCRETE DRIVEWAY RESTORATION		
▬	DENOTES HOT MIX ASPHALT DRIVEWAY RESTORATION		

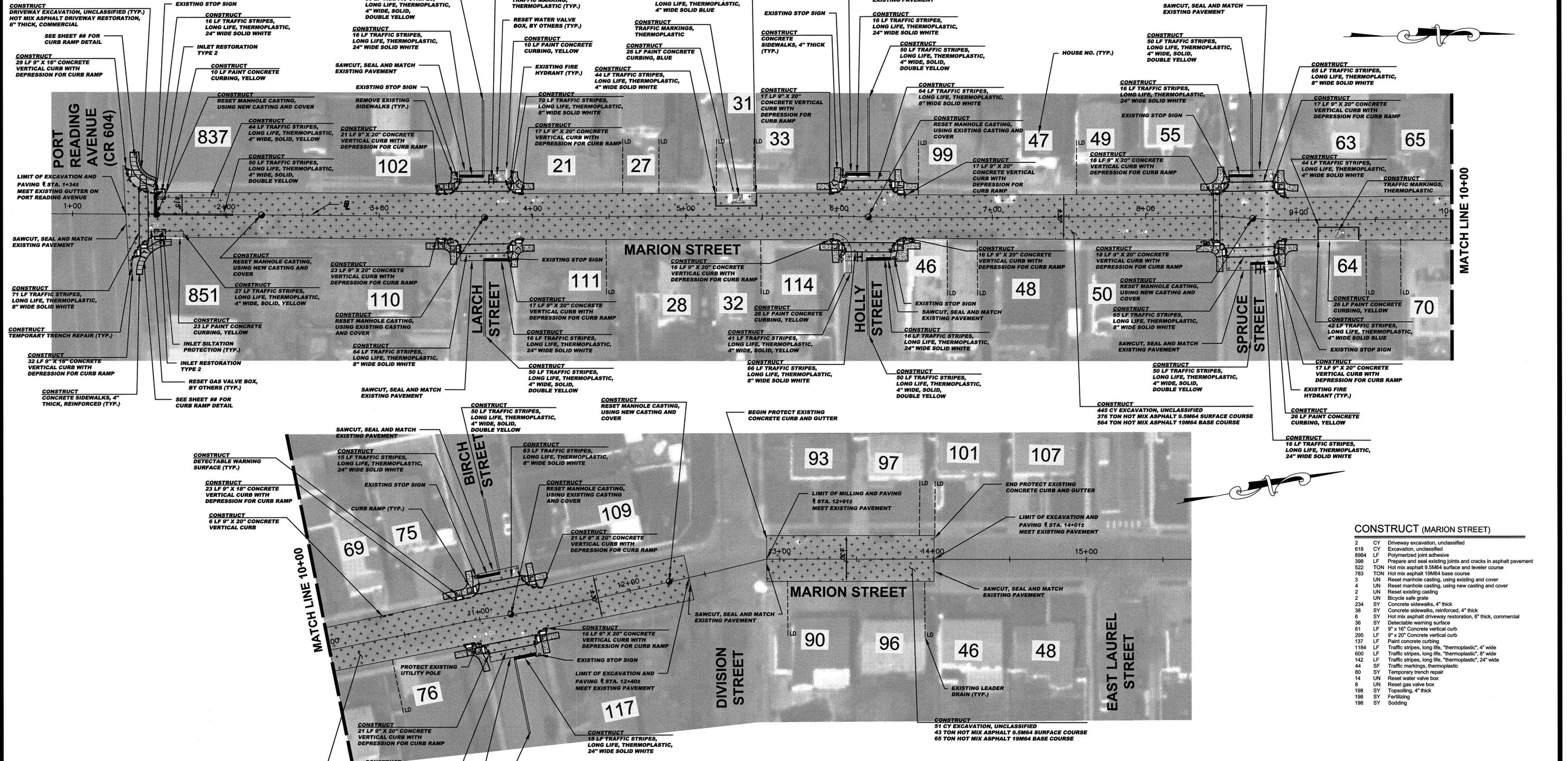


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TOWNSHIP OF WOODBRIDGE MIDDLESEX COUNTY, NEW JERSEY		2020 MILLING AND RESURFACING PROGRAM	
CONTRACT NO. 2020-001		WARD 2	
JAMES STREET (2 OF 2)		CONSULTING AND MUNICIPAL ENGINEERS	
3141 BORDENTOWN AVENUE, PARLIN, NEW JERSEY 08859-1162		1460 ROUTE 9 SOUTH, HOWELL, NEW JERSEY 07731-1194	
JOHN H. ALLGAIR P.E. & P.P. (1983 - 2001)	DAVID J. SAMUEL P.E. & P.P. NO PE LIC NO. 25878	JOHN J. STEFANI P.E., L.S. & P.P. NO PE LIC NO. 24271	GREGORY R. VALES P.E. & P.P. NO PE LIC NO. 34458
JAY B. CORNELL P.E. & P.P. NO PE LIC NO. 32962	MICHAEL J. MCCLELLAND P.E. & P.P. NO PE LIC NO. 32468	MICHAEL J. MCCLELLAND P.E. NEW JERSEY PROFESSIONAL ENGINEER LIC. 32468	
SCALE: As Shown		DATE: April 2020	
DRAWN BY: AR		DESIGNED BY: AR	
CHECKED BY:		SHEET: 15 of 65	

FILE NO. PW0A6101



**CONSTRUCT**  
122 CY EXCAVATION, UNCLASSIFIED  
103 TON HOT MIX ASPHALT 9.5M64 SURFACE COURSE  
154 TON HOT MIX ASPHALT 19M64 BASE COURSE

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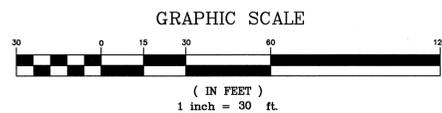
**NOTE:**  
EXISTING CONCRETE GUTTER TO BE MILLED AND RECEIVE 2" OF HOT MIX ASPHALT 9.5M64 SURFACE COURSE

**BASELINES**  
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**INLET RESTORATION:**  
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TYPE 2 - RESET EXISTING CASTING BICYCLE SAFE GRATE  
TYPE 3 - RESET EXISTING CASTING CURB PIECE, TYPE N-ECO OR P-ECO, BICYCLE SAFE GRATE  
TYPE 4 - RESET EXISTING CASTING

**PROPOSED LEGEND:**

- DENOTES PROPOSED MANHOLE
- DENOTES RESET MANHOLE CASTING (INCLUDING 2" WIDE EXCAVATION) AND PAVING WITH 19M64 BASE COURSE
- DENOTES PROPOSED INLET
- DENOTES RESET INLET CASTING
- DENOTES RECONSTRUCT INLET
- DENOTES PROPOSED DETECTABLE WARNING SURFACE
- DENOTES EXISTING VALLEY GUTTER
- DENOTES EXISTING VALLEY GUTTER
- DENOTES TRAFFIC MARKINGS, LONG LIFE, THERMOPLASTIC WITH GLASS BEADS, FOR FIRE HYDRANT
- DENOTES EXISTING PAINT CONCRETE CURBING, YELLOW
- DENOTES BENCH MARK LOCATION
- DENOTES EXISTING TREES OR STUMPS TO BE REMOVED
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- DENOTES HOT MIX ASPHALT DRIVEWAY RESTORATION
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- DENOTES REMOVE AND REPLACE CURB
- DENOTES DIRECTION OF FLOW
- DENOTES REMOVE AND REPLACE CURB (INCLUDING 2" WIDE TEMPORARY TRENCH REPAIR)
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- DENOTES AREA TO BE MILLED AND RECEIVE MIN. 2" HMA 9.5M64 SURFACE AND LEVELER COURSE
- DENOTES AREA TO BE MILLED, EXISTING CRACK TO BE CLEANED AND SEALED, AND GEO COMPOSITE MATERIAL TO BE INSTALLED
- DENOTES REMOVAL OF PAVEMENT UP TO 9" AND RECEIVE HMA 19M64 BASE COURSE



**CONSTRUCT (MARION STREET)**

2	CY	Driveway excavation, unclassified
618	CY	Excavation, unclassified
8984	LF	Polymerized joint adhesive
398	LF	Prepare and seal existing joints and cracks in asphalt pavement
522	TON	Hot mix asphalt 9.5M64 surface and leveler course
783	TON	Hot mix asphalt 19M64 base course
3	UN	Reset manhole casting, using existing and cover
4	UN	Reset manhole casting, using new casting and cover
2	UN	Reset existing casting
2	UN	Bicycle safe grate
234	SY	Concrete sidewalks, 4" thick
38	SY	Concrete sidewalks, reinforced, 4" thick
6	SY	Hot mix asphalt driveway restoration, 6" thick, commercial
36	SY	Detectable warning surface
61	LF	9" x 16" Concrete vertical curb
235	LF	9" x 20" Concrete vertical curb
137	LF	Paint concrete curbing
1184	LF	Traffic stripes, long life, "thermoelastic", 4" wide
600	LF	Traffic stripes, long life, "thermoelastic", 5" wide
142	LF	Traffic stripes, long life, "thermoelastic", 24" wide
44	SF	Traffic markings, thermoelastic
80	SY	Temporary trench repair
14	UN	Reset water valve box
8	UN	Reset gas valve box
198	SY	Topsoiling, 4" thick
198	SY	Fertilizing
198	SY	Sodding

**TOWNSHIP OF WOODBRIDGE**  
MIDDLESEX COUNTY, NEW JERSEY  
**2020 MILLING AND RESURFACING PROGRAM**  
CONTRACT NO. 2020-001  
WARD 3

CONSULTING AND MUNICIPAL ENGINEERS  
3141 BROADSTOWN AVENUE, PARLIN, NEW JERSEY 08859-1103 • 1460 ROUTE 9 SOUTH, HOWELL, NEW JERSEY 07731-1104  
(732) 727 8000 (732) 462 7400

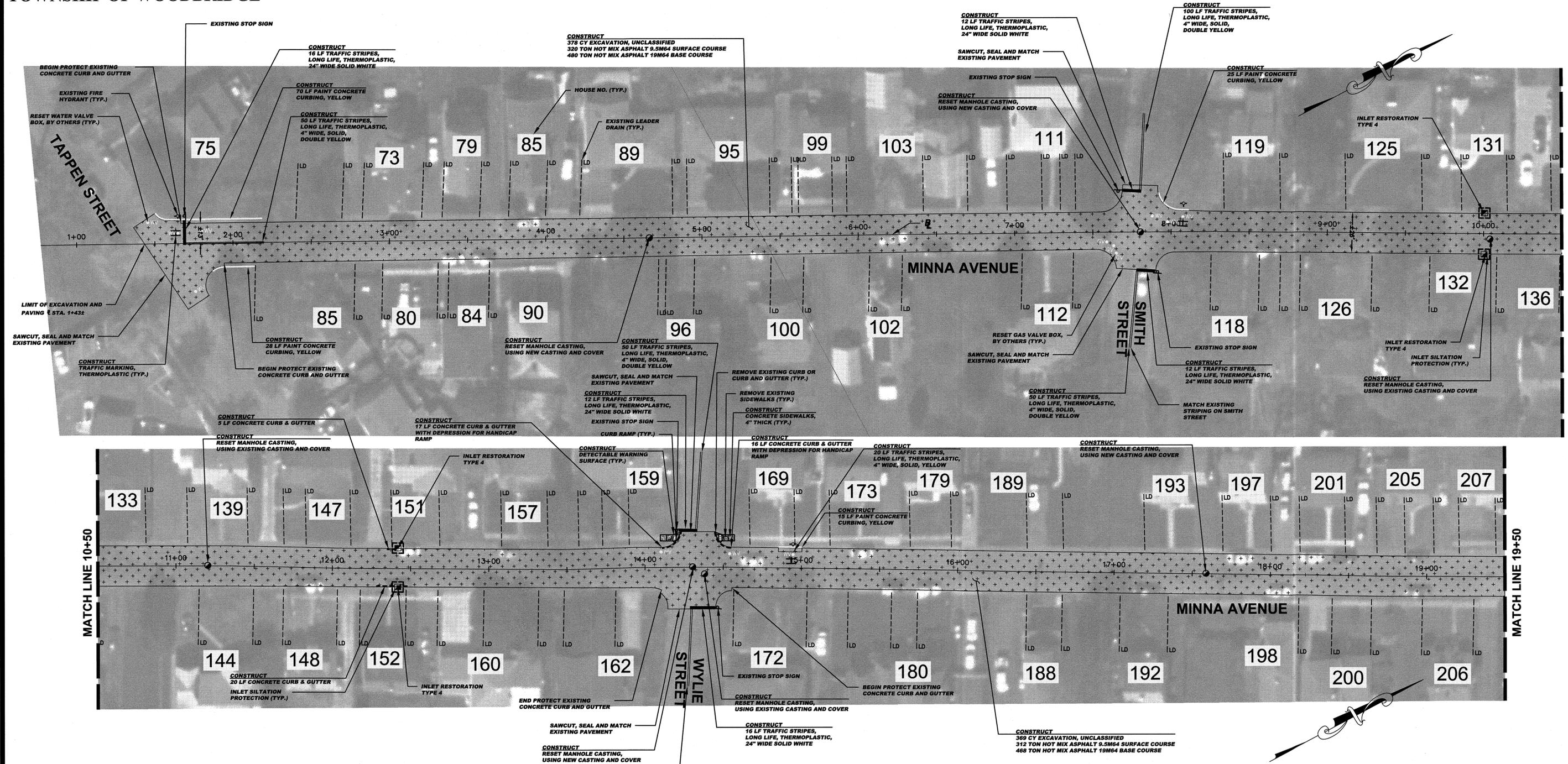
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MICHAEL J. MCCLELLAND P.E. & P.P.

**MICHAEL J. MCCLELLAND P.E.**  
NEW JERSEY PROFESSIONAL ENGINEER  
LIC. 32468

As Shown  
APRIL 2020

16 of 65

PWB0610.01



**CONSTRUCT (MINNA AVENUE (1 OF 2))**

747	CY	Excavation, unclassified
12254	LF	Polymerized joint adhesive
230	LF	Prepare and seal existing joints and cracks in asphalt pavement
632	TON	Hot mix asphalt 9.5M64 surface and leveler course
948	TON	Hot mix asphalt 19M64 base course
3	UN	Reset manhole casting, using existing and cover
4	UN	Reset manhole casting, using new and cover
4	UN	Reset existing casting
11	SY	Concrete sidewalks, 4" thick
2	SY	Detectable warning surface
58	LF	Concrete curb and gutter, 6" face
138	LF	Paint concrete curbing
600	LF	Traffic stripes, long life, "thermoelastic", 4" wide
64	LF	Traffic stripes, long life, "thermoelastic", 24" wide
18	SF	Traffic markings, thermoelastic
13	SY	Temporary trench repair
10	UN	Reset water valve box
3	UN	Reset water valve box
33	SY	Topsolling, 4" thick
33	SY	Fertilizing
33	SY	Sodding

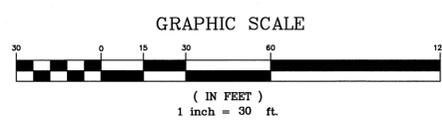
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**NOTE:**  
EXCEPT WHERE NOTED, CONTRACTOR IS TO PROTECT EXISTING CONCRETE GUTTER THAT HAS NOT BEEN PREVIOUSLY OVERLAID WITH ASPHALT DURING MILLING AND PAVING OPERATIONS. CONCRETE GUTTER THAT HAS PREVIOUSLY BEEN OVERLAID WITH ASPHALT, IS TO BE MILLED AND OVERLAID.

**INLET RESTORATION:**  
TYPE 1 - RESET EXISTING CASTING CURB PIECE, TYPE N-ECO OR P-ECO  
TYPE 2 - RESET EXISTING CASTING BICYCLE SAFE GRATE  
TYPE 3 - RESET EXISTING CASTING CURB PIECE, TYPE N-ECO OR P-ECO, BICYCLE SAFE GRATE  
TYPE 4 - RESET EXISTING CASTING

**PROPOSED LEGEND:**

- DENOTES PROPOSED MANHOLE
- DENOTES RESET MANHOLE CASTING
- ⊗ DENOTES RECONSTRUCT MANHOLE
- DENOTES PROPOSED INLET
- DENOTES RESET INLET CASTING
- ⊗ DENOTES RECONSTRUCT INLET
- ⊠ DENOTES PROPOSED DETECTABLE WARNING SURFACE
- ⊡ DENOTES EXISTING VALLEY GUTTER
- DENOTES DIRECTION OF FLOW
- ⊥ DENOTES TRAFFIC MARKINGS, LONG LIFE, THERMOPLASTIC WITH GLASS BEADS, FOR FIRE HYDRANT
- ⊥ DENOTES PAINT CONCRETE CURBING, YELLOW
- ⊥ DENOTES BENCH MARK LOCATION
- ⊥ DENOTES EXISTING TREES OR STUMPS TO BE REMOVED
- ⊥ DENOTES RESET BRICKWALK/PAVERS
- ⊥ DENOTES CONCRETE DRIVEWAY RESTORATION
- ⊥ DENOTES HOT MIX ASPHALT DRIVEWAY RESTORATION
- ⊥ DENOTES PROPOSED REINFORCED CONCRETE SIDEWALK
- ⊥ DENOTES REMOVE AND REPLACE CURB (INCLUDING 2" WIDE EXCAVATION) AND PAVING WITH 19M64 BASE COURSE
- ⊥ DENOTES REMOVE AND REPLACE CURB (INCLUDING 2" WIDE TEMPORARY TRENCH REPAIR)
- ⊥ DENOTES PROPOSED CONCRETE SIDEWALK AND DRIVEWAY APRON
- ⊥ DENOTES AREA TO BE EXCAVATED AND RECEIVE 2" HOT MIX ASPHALT 9.5M64 SURFACE COURSE AND 3" HOT MIX ASPHALT 19M64 BASE COURSE
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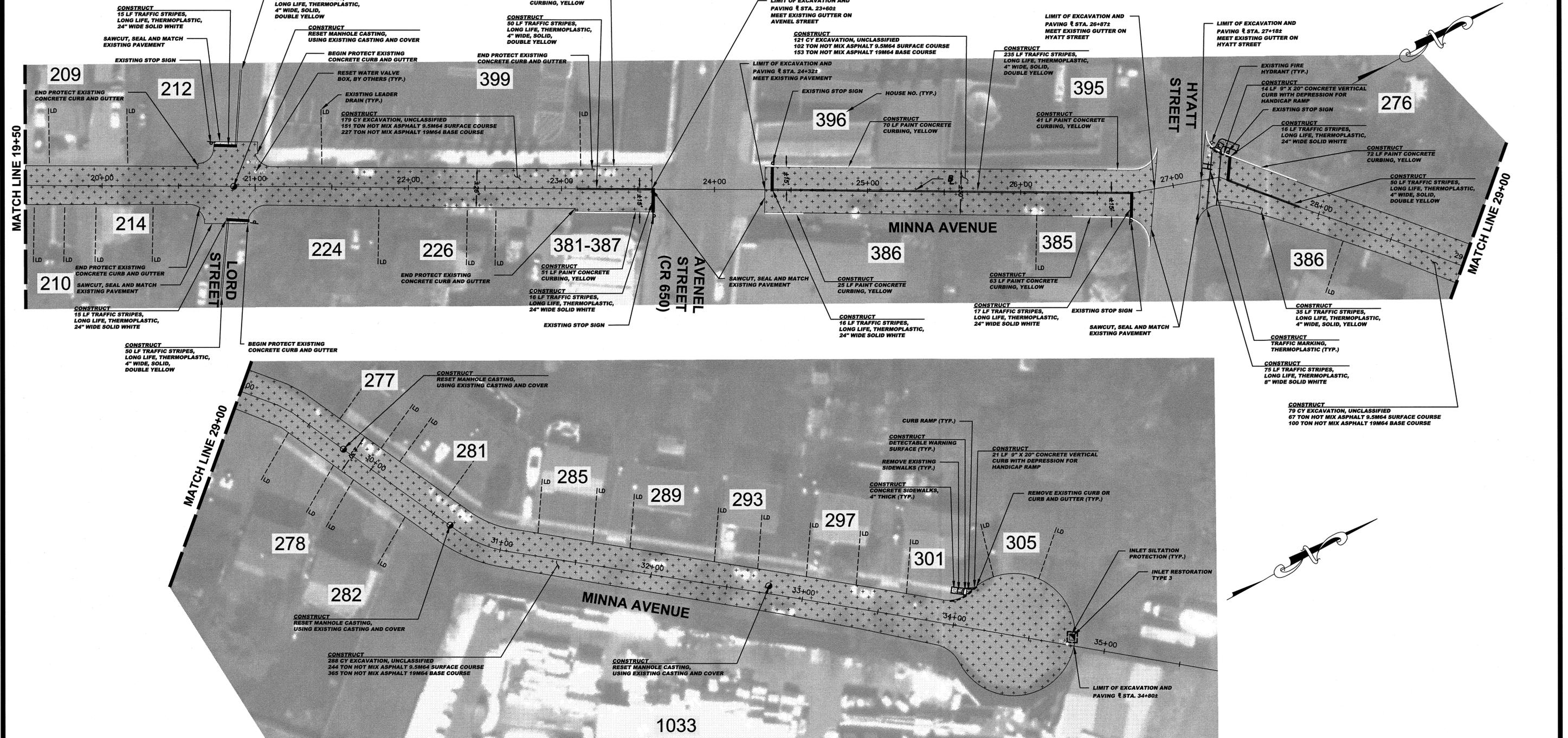
TOWNSHIP OF WOODBRIDGE  
MIDDLESEX COUNTY, NEW JERSEY  
**2020 MILLING AND RESURFACING PROGRAM**  
CONTRACT NO. 2020-001  
WARD 3  
MINNA AVENUE (1 OF 2)

**CVE ASSOCIATES**  
CONSULTING AND MUNICIPAL ENGINEERS  
(732) 727 8000 (732) 462 7400  
3141 BORDENTOWN AVENUE, PARLIN, NEW JERSEY 08859-1162 — 1460 ROUTE 9 SOUTH, HOWELL, NEW JERSEY 07731-1194

JOHN H. ALLGAIR P.E. & P.P. (1913 - 2001)  
DAVID J. SAMUEL P.E. & P.P. (1958 - 2015)  
JOHN J. STEFANI P.E., L.S., & P.P. (1913 - 2001)  
JAY B. CORNELL P.E. & P.P. (1958 - 2015)  
MICHAEL J. McCLELLAN P.E. & P.P. (1958 - 2015)  
GREGORY R. VALESI P.E. & P.P. (1958 - 2015)

**MICHAEL J. McCLELLAN P.E.**  
NEW JERSEY PROFESSIONAL ENGINEER L.I.C. 32468  
As Shown April 2020  
DRAWN BY PB DESIGNED BY PB  
CHECKED BY SHEET 17 OF 65

FILE NO. PW50A0610.01



**CONSTRUCT (MINNA AVENUE (2 OF 2))**

867	CY	Excavation, unclassified
10212	LF	Polymerized joint adhesive
246	LF	Prepare and seal existing joints and cracks in asphalt pavement
564	TON	Hot mix asphalt 9.5M64 surface and leveler course
845	TON	Hot mix asphalt 19M64 base course
4	UN	Reset manhole casting, using existing and cover
1	UN	Reset existing casting
1	UN	Curb piece, type "N-ECCO"
1	UN	Bicycle safe grate
14	SY	Concrete sidewalks, 4" thick
2	SY	Detectable warning surface
35	LF	2" x 20" Concrete vertical curb
357	LF	Paint concrete curbing, yellow
870	LF	Traffic stripes, long life, "thermoelastic", 4" wide
75	LF	Traffic stripes, long life, "thermoelastic", 8" wide
95	LF	Traffic stripes, long life, "thermoelastic", 24" wide
6	SF	Traffic markings, thermoelastic
5	SY	Temporary trench repair
4	UN	Reset water valve box
20	SY	Topsoiling, 4" thick
20	SY	Fertilizing
20	SY	Sodding

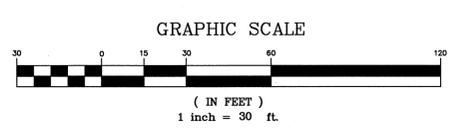
**SPECIAL PROVISIONS**  
THE CONTRACTOR IS SPECIFICALLY DIRECTED TO THE REQUIREMENTS CONTAINED IN THE SPECIAL PROVISIONS SECTION OF THE CONTRACT SPECIFICATIONS.

**PROPOSED CURB AND/OR ROADWAY REPLACEMENT**  
THE CONTRACTOR IS ADVISED THAT THEIR LICENSED LAND SURVEYOR SHALL PROVIDE THE CONSTRUCTION STAKEOUT FOR THE PROJECT AND THAT IS THE INTENT OF THE CONTRACT DOCUMENTS TO INSTALL THE NEW CURB, EDGE OF PAVEMENT, AND ROADWAY AT ITS PRESENT HORIZONTAL LOCATION AND VERTICAL LOCATION EXCEPT WHERE PROPOSED GRADES HAVE BEEN INDICATED ON THE PLAN. ACCORDINGLY, THE FULL RESPONSIBILITY FOR KEEPING AND MAINTAINING THE EXISTING ALIGNMENT AND GRADE PRIOR TO REMOVAL OF THE EXISTING CURB AND MILLING AND/OR EXCAVATION OF THE PAVEMENT SHALL REST UPON THE CONTRACTOR IN ACCORDANCE WITH DIVISION 1 GENERAL REQUIREMENTS SECTION 1-4.4 OF THE PROJECT SPECIFICATIONS.

**BASELINES**  
BASELINES ARE APPROXIMATE AND ARE FOR REFERENCE PURPOSES ONLY. BASELINES ARE NOT TO BE UTILIZED FOR LAYOUT.

**NOTE:**  
EXCEPT WHERE NOTED, CONTRACTOR IS TO PROTECT EXISTING CONCRETE GUTTER THAT HAS NOT BEEN PREVIOUSLY OVERLAID WITH ASPHALT DURING MILLING AND PAVING OPERATIONS. CONCRETE GUTTER THAT HAS PREVIOUSLY BEEN OVERLAID WITH ASPHALT, IS TO BE MILLED AND OVERLAID.

**INLET RESTORATION:**  
TYPE 1 - RESET EXISTING CASTING CURB PIECE, TYPE N-ECCO OR P-ECCO  
TYPE 2 - RESET EXISTING CASTING BICYCLE SAFE GRATE  
TYPE 3 - RESET EXISTING CASTING CURB PIECE, TYPE N-ECCO OR P-ECCO, BICYCLE SAFE GRATE  
TYPE 4 - RESET EXISTING CASTING



**PROPOSED LEGEND:**

●	DENOTES PROPOSED MANHOLE	▨	DENOTES PROPOSED REINFORCED CONCRETE SIDEWALK
○	DENOTES RESET MANHOLE CASTING	▧	DENOTES REMOVE AND REPLACE CURB (INCLUDING 2" WIDE EXCAVATION) AND PAVING WITH 19M64 BASE COURSE
⊙	DENOTES RECONSTRUCT MANHOLE	▩	DENOTES REMOVE AND REPLACE CURB (INCLUDING 2" WIDE EXCAVATION) AND DRIVEWAY APRON
□	DENOTES PROPOSED INLET	▩	DENOTES PROPOSED CONCRETE SIDEWALK AND DRIVEWAY APRON
■	DENOTES RESET INLET CASTING	▩	DENOTES AREA TO BE EXCAVATED AND RECEIVE 2" HOT MIX ASPHALT 9.5M64 SURFACE COURSE AND 3" HOT MIX ASPHALT 19M64 BASE COURSE
□	DENOTES RECONSTRUCT INLET	▩	DENOTES AREA TO BE MILLED AND RECEIVE MIN. 2" HMA 9.5M64 SURFACE AND LEVELER COURSE
□	DENOTES PROPOSED DETECTABLE WARNING SURFACE	▩	DENOTES AREA TO BE MILLED, EXISTING CRACK TO BE CLEANED AND SEALED, AND GEO COMPOSITE MATERIAL TO BE INSTALLED
▬	DENOTES EXISTING VALLEY GUTTER	▩	DENOTES REMOVAL OF PAVEMENT UP TO 9" AND RECEIVE HMA 19M64 BASE COURSE
▬	DENOTES DIRECTION OF FLOW		
▬	DENOTES TRAFFIC MARKINGS, LONG LIFE, THERMOPLASTIC WITH GLASS BEADS, FOR FIRE HYDRANT		
▬	DENOTES PAINT CONCRETE CURBING, YELLOW		
▬	DENOTES BENCH MARK LOCATION		
▬	DENOTES EXISTING TREES OR STUMPS TO BE REMOVED		
▬	DENOTES RESET BRICKWALK/PAVERS		
▬	DENOTES CONCRETE DRIVEWAY RESTORATION		
▬	DENOTES HOT MIX ASPHALT DRIVEWAY RESTORATION		

TOWNSHIP OF WOODBRIDGE  
MIDDLESEX COUNTY, NEW JERSEY  
**2020 MILLING AND RESURFACING PROGRAM**  
CONTRACT NO. 2020-001  
MINNA AVENUE (2 OF 2) WARD 3

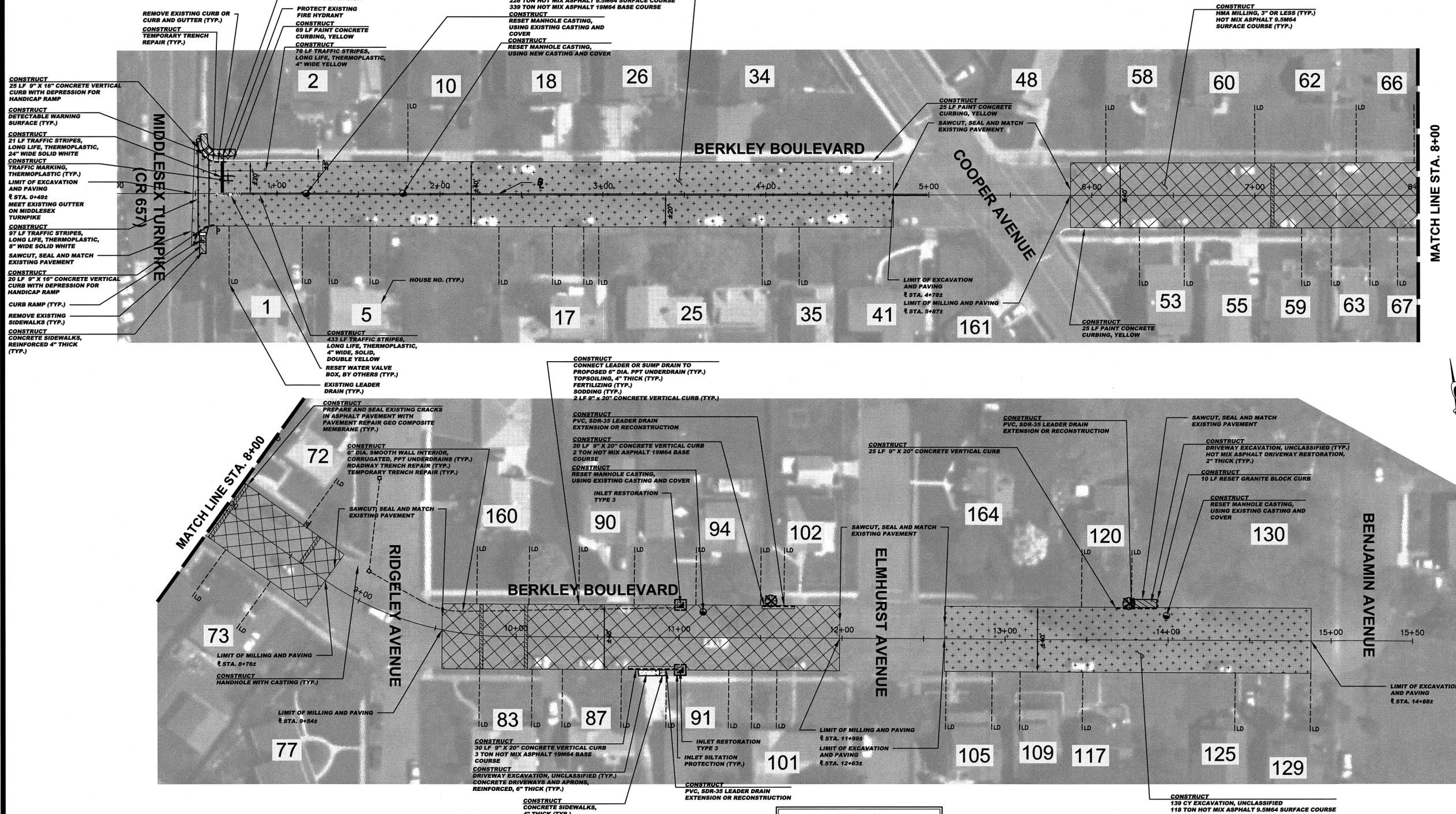
CONSULTING AND MUNICIPAL ENGINEERS  
3141 ROBERTSON AVENUE, PARLIN, NEW JERSEY 08859-1162 — 1460 ROUTE 9 SOUTH, HOWELL, NEW JERSEY 07731-1194  
(732) 727-8000 (732) 462-7400

JOHN H. ALLGAIER P.E. & P.P. DAVID J. SAMUEL P.E. & P.P. JOHN J. STEFANI P.E., L.S. & P.P.  
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MICHAEL J. MCCLELLAND P.E.  
NEW JERSEY PROFESSIONAL ENGINEER L.I.C. 32468

SCALE: As Shown DATE: April 2020  
DRAWN BY: LC DESIGNED BY: LC  
CHECKED BY: SHEET: 18 of 65

PWB0610.01





**CONSTRUCT (ALTERNATE ITEM A - UNDERDRAIN IMPROVEMENTS)**  
(IF AND WHERE ORDERED)

257	LF	6" dia. smooth wall interior corrugated PPT underdrains
5	UN	Connect leader or sump drain to proposed 6" dia. PPT underdrain
2	UN	Handhole with casting
1	UN	Reconstruct inlet, type B
10	LF	9" x 20" Concrete vertical curb
58	SY	Roadway trench repair
4	SY	Temporary trench repair
4	SY	Topping, 4" thick
4	SY	Fertilizing, 4" thick
4	SY	Sodding

**CONSTRUCT (BERKLEY BOULEVARD)**

4	CY	Driveway excavation, unclassified
405	CY	Excavation, unclassified, 5' deep
2370	SY	HMA milling, 3" or less
6265	LF	Polymerized joint adhesive
344	LF	Prepare and seal existing joints and cracks in asphalt pavement
180	LF	Prepare and seal existing transverse cracks in asphalt pavement with pavement repair geo composite membrane
704	TON	Hot mix asphalt 9.5M64 surface and leveler course
520	TON	Hot mix asphalt 19M64 base course
3	UN	PVC, SDR-35 leader drain extension or reconstruction
3	UN	Reset manhole casting, using existing casting and cover
1	UN	Reset manhole casting, using new casting and cover
2	UN	Reset existing casting
2	UN	Curb piece, type "N-ECCO"
2	UN	Bicycle Safe Grate
2	SY	Concrete sidewalks, 4" thick
21	SY	Concrete sidewalks, reinforced, 4" thick
6	SY	Concrete driveways and aprons, reinforced, 6" thick
8	SY	Hot mix asphalt driveway restoration, 2" thick
2	SY	Detectable warning surface
45	LF	9"x16" Concrete vertical curb
75	LF	9"x20" Concrete vertical curb
10	LF	Reset granite block curb
119	LF	Paint concrete curbing, yellow
942	LF	Traffic stripes, long life, "thermoelastic", 4" wide
97	LF	Traffic stripes, long life, "thermoelastic", 8" wide
21	LF	Traffic stripes, long life, "thermoelastic", 24" wide
6	SE	Traffic markings, thermoelastic
16	SY	Temporary trench repair
2	UN	Reset water valve box
67	SY	Topping, 4" thick
67	SY	Fertilizing
67	SY	Sodding
2	UN	Tree replacement

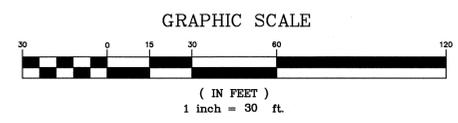
**BASELINES**  
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**INLET RESTORATION:**

TYPE 1	-	RESET EXISTING CASTING CURB PIECE, TYPE N-ECCO OR P-ECCO
TYPE 2	-	RESET EXISTING CASTING BICYCLE SAFE GRATE
TYPE 3	-	RESET EXISTING CASTING CURB PIECE, TYPE N-ECCO OR P-ECCO, BICYCLE SAFE GRATE
TYPE 4	-	RESET EXISTING CASTING

**PROPOSED LEGEND:**

	- DENOTES PROPOSED MANHOLE		- DENOTES PROPOSED REINFORCED CONCRETE SIDEWALK
	- DENOTES RESET MANHOLE CASTING		- DENOTES REMOVE AND REPLACE CURB (INCLUDING 2" WIDE EXCAVATION) AND PAVING WITH 19M64 BASE COURSE
	- DENOTES PROPOSED MANHOLE		- DENOTES REMOVE AND REPLACE CURB (INCLUDING 2" WIDE TEMPORARY TRENCH REPAIR)
	- DENOTES PROPOSED INLET		- DENOTES PROPOSED CONCRETE SIDEWALK AND DRIVEWAY APRON
	- DENOTES RESET INLET CASTING		- DENOTES AREA TO BE EXCAVATED AND RECEIVE 2" HOT MIX ASPHALT 9.5M64 SURFACE COURSE AND 3" HOT MIX ASPHALT 19M64 BASE COURSE
	- DENOTES RECONSTRUCT INLET		- DENOTES AREA TO BE MILLED AND RECEIVE MIN. 2" HMA 9.5M64 SURFACE AND LEVELER COURSE
	- DENOTES PROPOSED DETECTABLE WARNING SURFACE		- DENOTES AREA TO BE MILLED, EXISTING CRACK TO BE CLEANED AND SEALED, AND GEO COMPOSITE MATERIAL TO BE INSTALLED
	- DENOTES EXISTING VALLEY GUTTER		- DENOTES REMOVAL OF PAVEMENT UP TO 9" AND RECEIVE HMA 19M64 BASE COURSE
	- DENOTES DIRECTION OF FLOW		
	- DENOTES TRAFFIC MARKINGS, LONG LIFE, THERMOPLASTIC WITH GLASS BEADS, FOR FIRE HYDRANT		
	- DENOTES PAINT CONCRETE CURBING, YELLOW		
	- DENOTES BENCH MARK LOCATION		
	- DENOTES EXISTING TREES OR STUMPS TO BE REMOVED		
	- DENOTES RESET BRICKWALK/PAVERS		
	- DENOTES CONCRETE DRIVEWAY RESTORATION		
	- DENOTES HOT MIX ASPHALT DRIVEWAY RESTORATION		

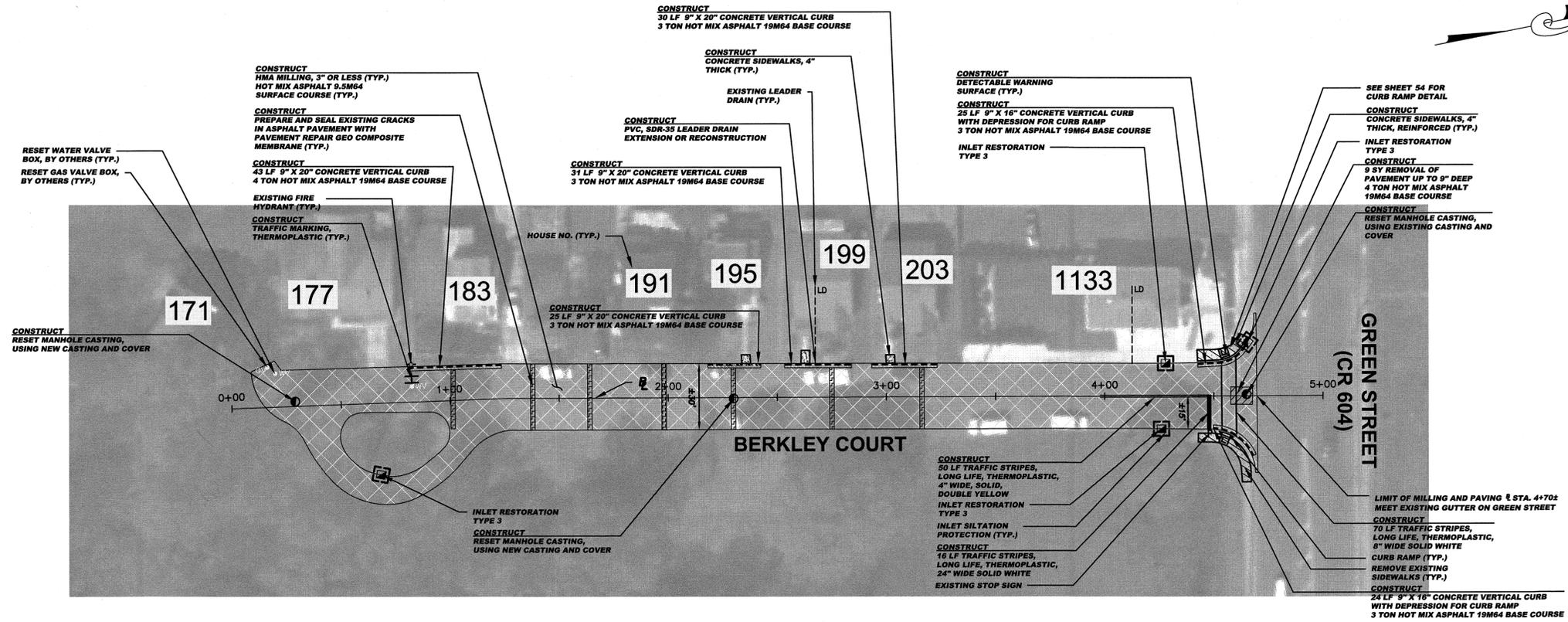


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TOWNSHIP OF WOODBRIDGE MIDDLESEX COUNTY, NEW JERSEY		WARD 4	
<b>2020 MILLING AND RESURFACING PROGRAM</b>			
CONTRACT NO. 2020-001			
(732) 737-8000 CONSULTING AND MUNICIPAL ENGINEERS (732) 462-7400			
3141 BORDENTOWN AVENUE, PARLIN, NEW JERSEY 08859-1162 1460 ROUTE 9 SOUTH, HOWELL, NEW JERSEY 07731-1194			
JOHN H. ALLGAIR P.E. & P.P. [1993-1995]	DAVID J. SAMUEL P.E. & P.P. NO PE LIC NO. 20858	JOHN J. STEFANI P.E. L.S. & P.P. NO PE LIC NO. 24523	NO PE LIC NO. 2089
JAY B. CORNELL P.E. & P.P. NO PE LIC NO. 32962	MICHAEL J. MCCLELLAND P.E. & P.P. NO PE LIC NO. 32468	GREGORY R. VALESI P.E. & P.P. NO PE LIC NO. 34158	NO PE LIC NO. 43361
<b>MICHAEL J. MCCLELLAND P.E.</b> NEW JERSEY PROFESSIONAL ENGINEER		LIC. 32468	
As Shown		DATE: April 2020	
DRAWN BY: AR		DESIGNED BY: AR	
CHECKED BY:		SHEET: 20 of 65	

FILE NO. PW06A610.01



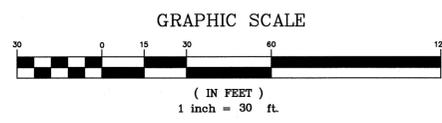
**CONSTRUCT (BERKLEY COURT)**

9	SY	Removal of pavement, up to 9" deep
1625	SY	HMA milling, 3" or less
1838	LF	Polymerized joint adhesive
78	LF	Prepare and seal existing joints and cracks in asphalt pavement
210	LF	Prepare and seal existing transverse cracks in asphalt pavement with pavement repair geo composite membrane
252	TON	Hot mix asphalt 9.5M64 surface and leveler course
23	TON	Hot mix asphalt 19M64 base course
1	UN	PVC, SDR-35 leader drain extension or reconstruction
1	UN	Reset manhole casting, using existing casting and cover
2	UN	Reset manhole casting, using new casting and cover
4	UN	Reset existing casting
4	UN	Curb piece, type "N-ECO"
4	UN	Bicycle Safe Grate
7	SY	Concrete sidewalks, 4" thick
30	SY	Concrete sidewalks, reinforced, 4" thick
2	SY	Detectable warning surface
49	LF	9"x16" Concrete vertical curb
129	LF	9"x20" Concrete vertical curb
100	LF	Traffic stripes, long life, "thermoelastic", 4" wide
70	LF	Traffic stripes, long life, "thermoelastic", 8" wide
16	LF	Traffic stripes, long life, "thermoelastic", 24" wide
6	SF	Traffic markings, thermoelastic
2	UN	Reset water valve box
1	UN	Reset gas valve box
45	SY	Topping, 4" thick
45	SY	Fertilizing
45	SY	Sodding

**BASELINES**  
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**INLET RESTORATION:**

- TYPE 1 - RESET EXISTING CASTING CURB PIECE, TYPE N-ECO OR P-ECO
- TYPE 2 - RESET EXISTING CASTING BICYCLE SAFE GRATE
- TYPE 3 - RESET EXISTING CASTING CURB PIECE, TYPE N-ECO OR P-ECO, BICYCLE SAFE GRATE
- TYPE 4 - RESET EXISTING CASTING



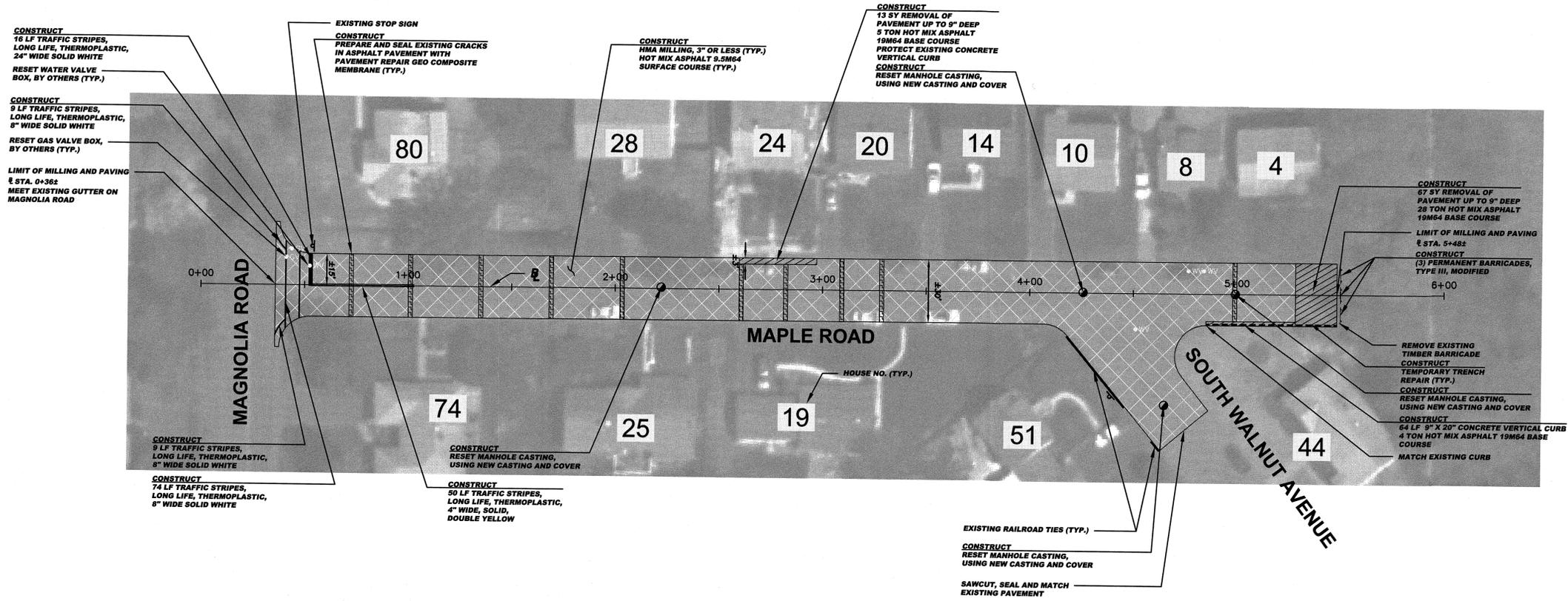
**PROPOSED LEGEND:**

- - DENOTES PROPOSED MANHOLE
- ⊗ - DENOTES RECONSTRUCT MANHOLE
- ⊙ - DENOTES RECONSTRUCT MANHOLE
- ⊠ - DENOTES PROPOSED INLET
- ⊡ - DENOTES RESET INLET CASTING
- ⊢ - DENOTES RECONSTRUCT INLET
- ⊣ - DENOTES PROPOSED DETECTABLE WARNING SURFACE
- ⊤ - DENOTES EXISTING VALLEY GUTTER
- ⊥ - DENOTES DIRECTION OF FLOW
- ⊦ - DENOTES TRAFFIC MARKINGS, LONG LIFE, THERMOPLASTIC WITH GLASS BEADS, FOR FIRE HYDRANT
- ⊧ - DENOTES PAINT CONCRETE CURBING, YELLOW
- ⊨ - DENOTES BENCH MARK LOCATION
- ⊩ - DENOTES EXISTING TREES OR STUMPS TO BE REMOVED
- ⊪ - DENOTES RESET BRICKWALK/PAVERS
- ⊫ - DENOTES CONCRETE DRIVEWAY RESTORATION
- ⊬ - DENOTES HOT MIX ASPHALT DRIVEWAY RESTORATION
- ⊭ - DENOTES PROPOSED REINFORCED CONCRETE SIDEWALK
- ⊮ - DENOTES REMOVE AND REPLACE CURB (INCLUDING 2" WIDE EXCAVATION) AND PAVING WITH 19M64 BASE COURSE
- ⊯ - DENOTES REMOVE AND REPLACE CURB (INCLUDING 2" WIDE TEMPORARY TRENCH REPAIR) DENOTES PROPOSED CONCRETE SIDEWALK AND DRIVEWAY APRON
- ⊰ - DENOTES AREA TO BE EXCAVATED AND RECEIVE 2" HOT MIX ASPHALT 9.5M64 SURFACE COURSE AND 3" HOT MIX ASPHALT 19M64 BASE COURSE
- ⊱ - DENOTES AREA TO BE MILLED AND RECEIVE MIN. 2" HMA 9.5M64 SURFACE AND LEVELER COURSE
- ⊲ - DENOTES AREA TO BE MILLED, EXISTING CURBING, YELLOW
- ⊳ - DENOTES AREA TO BE CLEANED AND SEALED, AND GEO COMPOSITE MATERIAL TO BE INSTALLED
- ⊴ - DENOTES REMOVAL OF PAVEMENT UP TO 9" AND RECEIVE HMA 19M64 BASE COURSE

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TOWNSHIP OF WOODBRIDGE  
MIDDLESEX COUNTY, NEW JERSEY  
**2020 MILLING AND RESURFACING PROGRAM**  
CONTRACT NO. 2020-001  
BERKLEY COURT WARD 4  
CONSULTING AND MUNICIPAL ENGINEERS  
MICHAEL J. McCLELLAND P.E.  
NEW JERSEY PROFESSIONAL ENGINEER  
L.C. 32468  
DATE: April 2020  
SHEET: 21 of 65  
FILE NO. PWBOA610.01



**CONSTRUCT (MAPLE ROAD)**

80	SY	Removal of pavement, up to 9" deep
1892	SY	HMA milling, 3" or less
2095	LF	Polymerized joint adhesive
90	LF	Prepare and seal existing joints and cracks in asphalt pavement
294	LF	Prepare and seal existing transverse cracks in asphalt pavement with pavement repair geo composite membrane
292	TON	Hot mix asphalt 9.5M64 surface and leveler course
37	TON	Hot mix asphalt 19M64 base course
64	LF	Reset manhole casting, using new casting and cover
100	LF	9"x20" Concrete vertical curb
92	LF	Traffic stripes, long life, "thermoelastic", 4" wide
16	LF	Traffic stripes, long life, "thermoelastic", 8" wide
5	SY	Temporary trench repair
3	UN	Permanent barricade, type III, modified
4	UN	Reset water valve box
2	UN	Reset gas valve box
22	SY	Topsolling, 4" thick
22	SY	Fertilizing
22	SY	Sodding

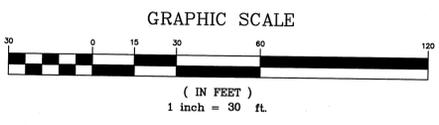
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**INLET RESTORATION:**

TYPE 1	-	RESET EXISTING CASTING CURB PIECE, TYPE N-ECO OR P-ECO
TYPE 2	-	RESET EXISTING CASTING BICYCLE SAFE GRATE
TYPE 3	-	RESET EXISTING CASTING CURB PIECE, TYPE N-ECO OR P-ECO, BICYCLE SAFE GRATE
TYPE 4	-	RESET EXISTING CASTING

**PROPOSED LEGEND:**

	- DENOTES PROPOSED MANHOLE		- DENOTES PROPOSED REINFORCED CONCRETE SIDEWALK
	- DENOTES RESET MANHOLE CASTING		- DENOTES REMOVE AND REPLACE CURB (INCLUDING 2" WIDE EXCAVATION) AND PAVING WITH 19M64 BASE COURSE
	- DENOTES RECONSTRUCT MANHOLE		- DENOTES REMOVE AND REPLACE CURB (INCLUDING 2" WIDE TEMPORARY TRENCH REPAIR)
	- DENOTES PROPOSED INLET		- DENOTES PROPOSED CONCRETE SIDEWALK AND DRIVEWAY APRON
	- DENOTES RESET INLET CASTING		- DENOTES AREA TO BE EXCAVATED AND RECEIVE 2" HOT MIX ASPHALT 9.5M64 SURFACE COURSE AND 3" HOT MIX ASPHALT 19M64 BASE COURSE
	- DENOTES RECONSTRUCT INLET		- DENOTES AREA TO BE MILLED AND RECEIVE MIN 2" HMA 9.5M64 SURFACE AND LEVELER COURSE
	- DENOTES PROPOSED DETECTABLE WARNING SURFACE		- DENOTES AREA TO BE MILLED, EXISTING CRACK TO BE CLEANED AND SEALED, AND GEO COMPOSITE MATERIAL TO BE INSTALLED
	- DENOTES EXISTING VALLEY GUTTER		- DENOTES REMOVAL OF PAVEMENT UP TO 9" AND RECEIVE HMA 19M64 BASE COURSE
	- DENOTES DIRECTION OF FLOW		
	- DENOTES TRAFFIC MARKINGS, LONG LIFE, THERMOPLASTIC WITH GLASS BEADS, FOR FIRE HYDRANT		
	- DENOTES PAINT CONCRETE CURBING, YELLOW		
	- DENOTES BENCH MARK LOCATION		
	- DENOTES EXISTING TREES OR STUMPS TO BE REMOVED		
	- DENOTES RESET BRICKWALK/PAVERS		
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NO. DESCRIPTION OF REVISION DATE DRAWN CHECKED RELEASED

**TOWNSHIP OF WOODBRIDGE**  
MIDDLESEX COUNTY, NEW JERSEY  
**2020 MILLING AND RESURFACING PROGRAM**

CONTRACT NO. 2020-001

MAPLE ROAD WARD 4

3141 BORDENTOWN AVENUE, PARLIN, NEW JERSEY 08859-1162 — 1460 ROUTE 9 SOUTH, HOWELL, NEW JERSEY 07731-1194

(732) 727 8000 CONSULTING AND MUNICIPAL ENGINEERS (732) 462 7400

JOHN H. ALLGAIR P.E. & P.P. (1993 - 2001) DAVID J. SAMUEL P.E. & P.P. NO PE LIC NO. 25938 NO PP LIC NO. 2455 JOHN J. STEFANI P.E. L.S. & P.P. NO PE & LS LIC NO. 24271 NO PP LIC NO. 2098

JAY B. CORNELL P.E. & P.P. NO PE LIC NO. 32062 MICHAEL J. MCCLELLAND P.E. & P.P. NO PP LIC NO. 3874 NO PE LIC NO. 32468 GREGORY R. VALESI P.E. & P.P. NO PE LIC NO. 34458 NO PP LIC NO. 4361

**MICHAEL J. MCCLELLAND P.E.**  
NEW JERSEY PROFESSIONAL ENGINEER L.C. 32468

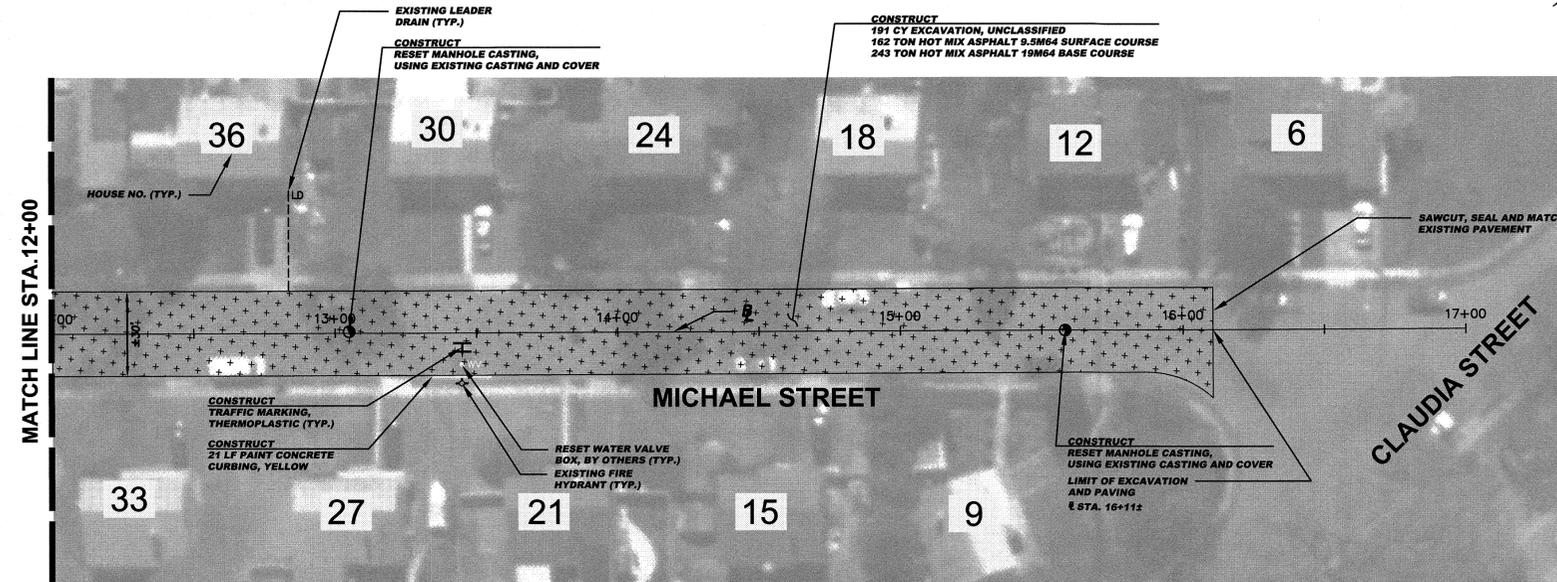
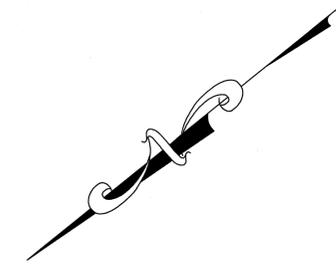
SCALE: As Shown DATE: April 2020

DRAWN BY: AR DESIGNED BY: AR

CHECKED BY: AR SHEET: 22 of 65

FILE NO. PWB04610.01





**CONSTRUCT (MICHAEL STREET (2 OF 2))**

191	CY	Excavation, unclassified, 5' deep
2908	LF	Polymerized joint adhesive
40	LF	Prepare and seal existing joints and cracks in asphalt pavement
162	TON	Hot mix asphalt 9.5M64 surface and leveler course
243	TON	Hot mix asphalt 19M64 base course
2	UN	Reset manhole casting, using existing casting and cover
21	LF	Paint concrete curbing, yellow
6	SF	Traffic markings, thermoplastic
1	UN	Reset water valve box

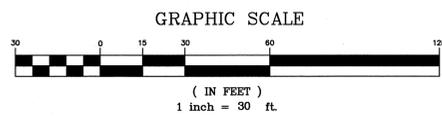
**NOTE:**  
EXCEPT WHERE NOTED, EXISTING CONCRETE GUTTER TO BE MILLED AND RECEIVE 2" OF HOT MIX ASPHALT 9.5M64 SURFACE COURSE

**BASELINES**  
BASELINES ARE APPROXIMATE AND ARE FOR REFERENCE PURPOSES ONLY. BASELINES ARE NOT TO BE UTILIZED FOR LAYOUT.

**INLET RESTORATION:**  
TYPE 1 - RESET EXISTING CASTING CURB PIECE, TYPE N-ECO OR P-ECO  
TYPE 2 - RESET EXISTING CASTING BICYCLE SAFE GRATE  
TYPE 3 - RESET EXISTING CASTING CURB PIECE, TYPE N-ECO OR P-ECO, BICYCLE SAFE GRATE  
TYPE 4 - RESET EXISTING CASTING

**PROPOSED LEGEND:**

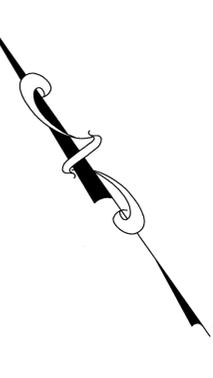
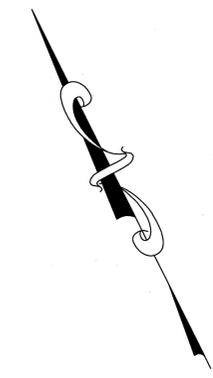
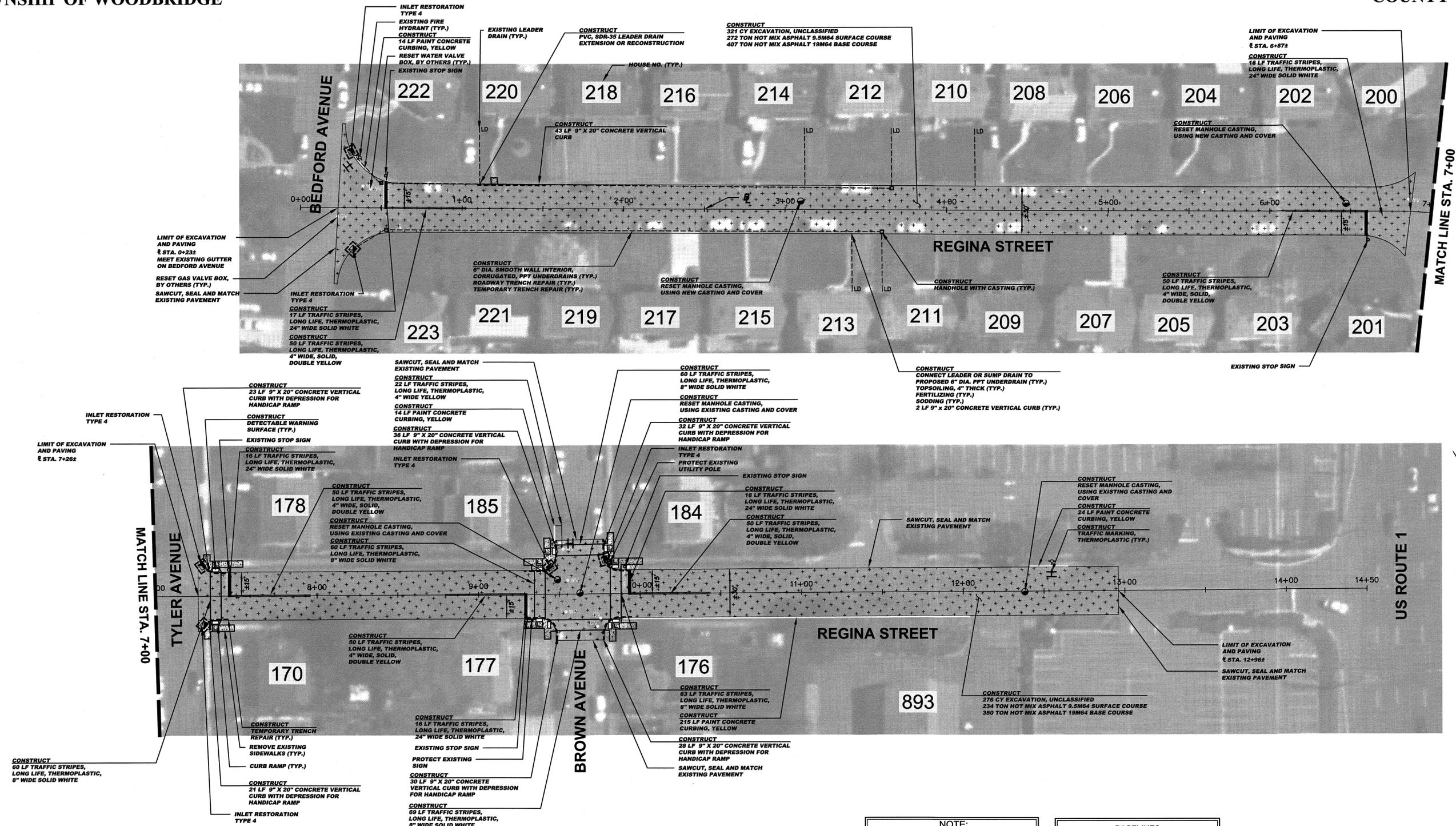
- - DENOTES PROPOSED MANHOLE
- - DENOTES RESET MANHOLE CASTING
- ⊗ - DENOTES RECONSTRUCT MANHOLE
- - DENOTES PROPOSED INLET
- - DENOTES RESET INLET CASTING
- - DENOTES RECONSTRUCT INLET
- - DENOTES PROPOSED DETECTABLE WARNING SURFACE
- - DENOTES EXISTING VALLEY GUTTER
- - DENOTES DIRECTION OF FLOW
- - DENOTES TRAFFIC MARKINGS, LONG LIFE, THERMOPLASTIC WITH GLASS BEADS, FOR FIRE HYDRANT
- - DENOTES PAINT CONCRETE CURBING, YELLOW
- - DENOTES BENCH MARK LOCATION
- - DENOTES EXISTING TREES OR STUMPS TO BE REMOVED
- - DENOTES RESET BRICKWALK/PAVERS
- - DENOTES CONCRETE DRIVEWAY RESTORATION
- - DENOTES HOT MIX ASPHALT DRIVEWAY RESTORATION
- - DENOTES PROPOSED REINFORCED CONCRETE SIDEWALK
- - DENOTES REMOVE AND REPLACE CURB (INCLUDING 2" WIDE EXCAVATION) AND PAVING WITH 19M64 BASE COURSE
- - DENOTES REMOVE AND REPLACE CURB (INCLUDING 2" WIDE TEMPORARY TRENCH REPAIR)
- - DENOTES PROPOSED CONCRETE SIDEWALK AND DRIVEWAY APRON
- - DENOTES AREA TO BE EXCAVATED AND RECEIVE 2" HOT MIX ASPHALT 9.5M64 SURFACE COURSE AND 3" HOT MIX ASPHALT 19M64 BASE COURSE
- - DENOTES AREA TO BE MILLED AND RECEIVE MIN. 2" HMA 9.5M64 SURFACE AND LEVELER COURSE
- - DENOTES AREA TO BE MILLED, EXISTING CRACK TO BE CLEANED AND SEALED, AND GEO COMPOSITE MATERIAL TO BE INSTALLED
- - DENOTES REMOVAL OF PAVEMENT UP TO 9" AND RECEIVE HMA 19M64 BASE COURSE



**SPECIAL PROVISIONS**  
THE CONTRACTOR IS SPECIFICALLY DIRECTED TO THE REQUIREMENTS CONTAINED IN THE SPECIAL PROVISIONS SECTION OF THE CONTRACT SPECIFICATIONS.

**PROPOSED CURB AND/OR ROADWAY REPLACEMENT**  
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NO.	DESCRIPTION OF REVISION	DATE	DRAWN	CHECKED	RELEASED
<p><b>TOWNSHIP OF WOODBRIDGE</b> MIDDLESEX COUNTY, NEW JERSEY <b>2020 MILLING AND RESURFACING PROGRAM</b> CONTRACT NO. 2020-001 MICHAEL STREET (2 OF 2) WARD 4</p>					
<p>CONSULTING AND MUNICIPAL ENGINEERS 3141 BORDENTOWN AVENUE, PARLIN, NEW JERSEY 08859-1162 — 1460 ROUTE 9 SOUTH, HOWELL, NEW JERSEY 07731-1194 (732) 727-8000 (732) 462-7400</p>					
JOHN H. ALLGAIR P.E. & P.P. NJ PE LIC NO. 32962	DAVID J. SAMUEL P.E. & P.P. NJ PE LIC NO. 29828	JOHN J. STEFANI P.E. L.S. & P.P. NJ PE LIC NO. 24273	<p>REGISTERED DRAWING NO. PWB0610.01</p>		
JAY B. CORNELL P.E. & P.P. NJ PE LIC NO. 32468	MICHAEL J. MCCLELLAND P.E. & P.P. NJ PE LIC NO. 32468	GREGORY R. VALESI P.E. & P.P. NJ PE LIC NO. 34458	SCALE: As Shown	DATE: April 2020	
<p><b>MICHAEL J. MCCLELLAND P.E.</b> NEW JERSEY PROFESSIONAL ENGINEER LIC. 32468</p>			CHECKED BY: AR	DESIGNED BY: AR	SHEET: 24 of 65



**CONSTRUCT (ALTERNATE ITEM A - UNDERDRAIN IMPROVEMENTS)**  
(IF AND WHERE ORDERED)

673	LF	6"	dia. smooth wall interior corrugated PPT underdrains
5	UN		Connect leader or sump drain to proposed 6" dia. PPT underdrain
4	UN		Handhole with casting
2	UN		Reconstruct inlet, type B
10	LF	9"	x 20" concrete vertical curb
150	SY		Roadway trench repair
150	SY		Temporary trench repair
4	SY		Topsoiling, 4" thick
4	SY		Fertilizing
4	SY		Sodding

**CONSTRUCT (REGINA STREET)**

601	CY		Excavation, unclassified, 5' deep
8838	LF		Polymerized joint adhesive
295	LF		Prepare and seal existing joints and cracks in asphalt pavement
632	TON		Hot mix asphalt 9.5M64 surface and leveler course
762	TON		Hot mix asphalt 19M64 base course
1	UN		PVC, SDR-35 Leader drain extension or reconstruction
3	UN		Reset manhole casting, using existing casting and cover
2	UN		Reset manhole casting, using new casting and cover
6	UN		Reset existing casting
96	SY		Concrete sidewalks, 4" thick
10	SY		Detectable warning surface
213	LF		9"x20" Concrete vertical curb
267	LF		Paint concrete curbing, yellow
522	LF		Traffic stripes, long life, "thermoelastic", 4" wide
312	LF		Traffic stripes, long life, "thermoelastic", 8" wide
81	LF		Traffic stripes, long life, "thermoelastic", 24" wide
18	SF		Traffic markings, thermoelastic
48	SY		Temporary trench repair
8	UN		Reset water valve box
6	UN		Reset gas valve box
119	SY		Topsoiling, 4" thick
119	SY		Fertilizing
119	SY		Sodding

**INLET RESTORATION:**

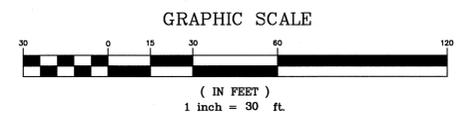
TYPE 1	-	RESET EXISTING CASTING CURB PIECE, TYPE N-ECCO OR P-ECO
TYPE 2	-	RESET EXISTING CASTING BICYCLE SAFE GRATE
TYPE 3	-	RESET EXISTING CASTING CURB PIECE, TYPE N-ECCO OR P-ECO, BICYCLE SAFE GRATE
TYPE 4	-	RESET EXISTING CASTING

**PROPOSED LEGEND:**

	-	DENOTES PROPOSED MANHOLE
	-	DENOTES RESET MANHOLE CASTING
	-	DENOTES PROPOSED INLET
	-	DENOTES RESET INLET CASTING
	-	DENOTES RECONSTRUCT INLET
	-	DENOTES PROPOSED DETECTABLE WARNING SURFACE
	-	DENOTES EXISTING VALLEY GUTTER
	-	DENOTES DIRECTION OF FLOW
	-	DENOTES TRAFFIC MARKINGS, LONG LIFE, THERMOPLASTIC WITH GLASS BEADS, FOR FIRE HYDRANT
	-	DENOTES PAINT CONCRETE CURBING, YELLOW
	-	DENOTES BENCH MARK LOCATION
	-	DENOTES EXISTING TREES OR STUMPS TO BE REMOVED
	-	DENOTES RESET BRICKWALK/PAVERS
	-	DENOTES CONCRETE DRIVEWAY RESTORATION
	-	DENOTES HOT MIX ASPHALT DRIVEWAY RESTORATION

**NOTE:**  
EXCEPT WHERE NOTED, EXISTING CONCRETE GUTTER TO BE MILLED AND RECEIVE 2" OF HOT MIX ASPHALT 9.5M64 SURFACE COURSE

**BASELINES**  
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NO.	DESCRIPTION OF REVISION	DATE	DRAWN	CHECKED	RELEASED

**TOWNSHIP OF WOODBRIDGE**  
MIDDLESEX COUNTY, NEW JERSEY  
**2020 MILLING AND RESURFACING PROGRAM**

CONTRACT NO. 2020-001

REGINA STREET WARD 4

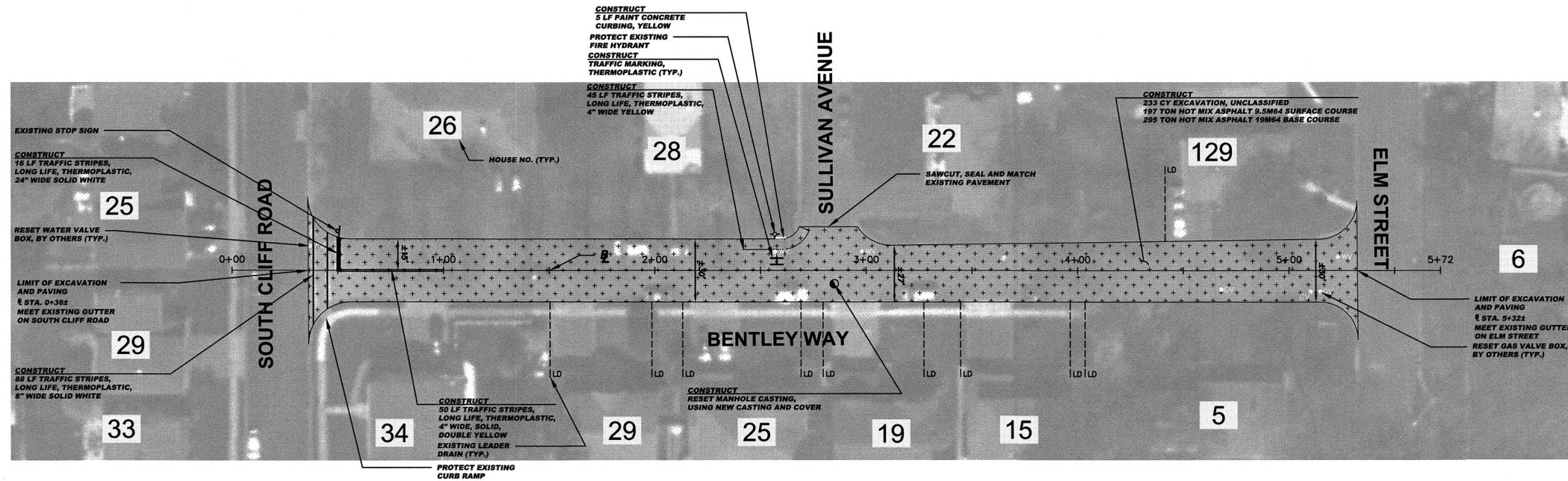
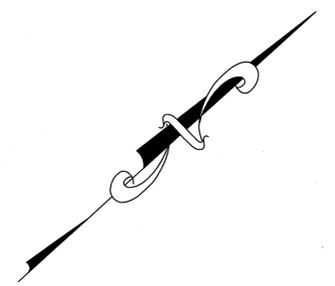
**CVE**  
CONSULTING AND MUNICIPAL ENGINEERS  
(732) 727 8000 (732) 462 7400  
3141 BOKENTOWN AVENUE, PARLIN, NEW JERSEY 08859-1162 - 1460 ROUTE 9 SOUTH, HOWELL, NEW JERSEY 07731-1194

JOHN H. ALLGAIR P.E. & P.P. [1987 - 2021] NJ PE LIC NO. 32969	DAVID J. SAMUEL P.E. & P.P. NJ PE LIC NO. 2485	JOHN J. STEFANI P.E. L.S. & P.P. NJ PE LIC NO. 24923
JAY B. CORNELL P.E. & P.P. NJ PE LIC NO. 32962	MICHAEL J. MCCLELLAND P.E. & P.P. NJ PE LIC NO. 32468	GREGORY R. VALES P.E. & P.P. NJ PE LIC NO. 34458

**MICHAEL J. MCCLELLAND P.E.**  
NEW JERSEY PROFESSIONAL ENGINEER  
LIC. 32468  
4.21.20

SCALE: As Shown DATE: April 2020  
DRAWN BY: AR DESIGNED BY: AR  
CHECKED BY: SHEET: 25 of 65  
FILE NO: PWB04610.01





**CONSTRUCT (BENTLEY WAY)**

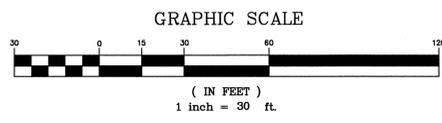
233	CY	Excavation, unclassified, 5' deep
3650	LF	Polymerized joint adhesive
164	LF	Prepare and seal existing joints and cracks in asphalt pavement
197	TON	Hot mix asphalt 9.5M64 surface and leveler course
295	TON	Hot mix asphalt 19M64 base course
1	UN	Reset manhole casting, using new casting and cover
5	LF	Paint concrete curbing
145	LF	Traffic stripes, long life, "thermoplastic", 4" wide
88	LF	Traffic stripes, long life, "thermoplastic", 8" wide
16	LF	Traffic stripes, long life, "thermoplastic", 24" wide
6	SF	Traffic markings, thermoplastic
4	UN	Reset water valve box
3	UN	Reset gas valve box
55	SY	Topsoiling, 4" thick
55	SY	Fertilizing
55	SY	Sodding

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**INLET RESTORATION:**  
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TYPE 2 - RESET EXISTING CASTING BICYCLE SAFE GRATE  
TYPE 3 - RESET EXISTING CASTING CURB PIECE, TYPE N-ECO OR P-ECO, BICYCLE SAFE GRATE  
TYPE 4 - RESET EXISTING CASTING

**PROPOSED LEGEND:**

- DENOTES PROPOSED MANHOLE
- DENOTES RESET MANHOLE CASTING
- ⊗ DENOTES RECONSTRUCT MANHOLE
- DENOTES PROPOSED INLET
- DENOTES PROPOSED INLET CASTING
- ⊠ DENOTES RECONSTRUCT INLET
- ⊡ DENOTES PROPOSED DETECTABLE WARNING SURFACE
- ⊢ DENOTES EXISTING VALLEY GUTTER
- DENOTES DIRECTION OF FLOW
- ⊥ DENOTES TRAFFIC MARKINGS, LONG LIFE, THERMOPLASTIC WITH GLASS BEADS, FOR FIRE HYDRANT
- ⊥ DENOTES PAINT CONCRETE CURBING, YELLOW
- ⊥ DENOTES BENCH MARK LOCATION
- ⊥ DENOTES EXISTING TREES OR STUMPS TO BE REMOVED
- ⊥ DENOTES RESET BRICKWALK/PAVERS
- ⊥ DENOTES CONCRETE DRIVEWAY RESTORATION
- ⊥ DENOTES HOT MIX ASPHALT DRIVEWAY RESTORATION
- ▨ DENOTES PROPOSED REINFORCED CONCRETE SIDEWALK
- ▨ DENOTES REMOVE AND REPLACE CURB (INCLUDING 2" WIDE EXCAVATION) AND PAVING WITH 19M64 BASE COURSE
- ▨ DENOTES REMOVE AND REPLACE CURB (INCLUDING 2" WIDE TEMPORARY TRENCH REPAIR) DENOTES PROPOSED CONCRETE SIDEWALK AND DRIVEWAY APRON
- ▨ DENOTES AREA TO BE EXCAVATED AND RECEIVE 2" HOT MIX ASPHALT 9.5M64 SURFACE COURSE AND 3" HOT MIX ASPHALT 19M64 BASE COURSE
- ▨ DENOTES AREA TO BE MILLED AND RECEIVE MIN. 2" HMA 9.5M64 SURFACE AND LEVELER COURSE
- ▨ DENOTES AREA TO BE MILLED, EXISTING CRACK TO BE CLEANED AND SEALED, AND GEO COMPOSITE MATERIAL TO BE INSTALLED
- ▨ DENOTES REMOVAL OF PAVEMENT UP TO 9" AND RECEIVE HMA 19M64 BASE COURSE

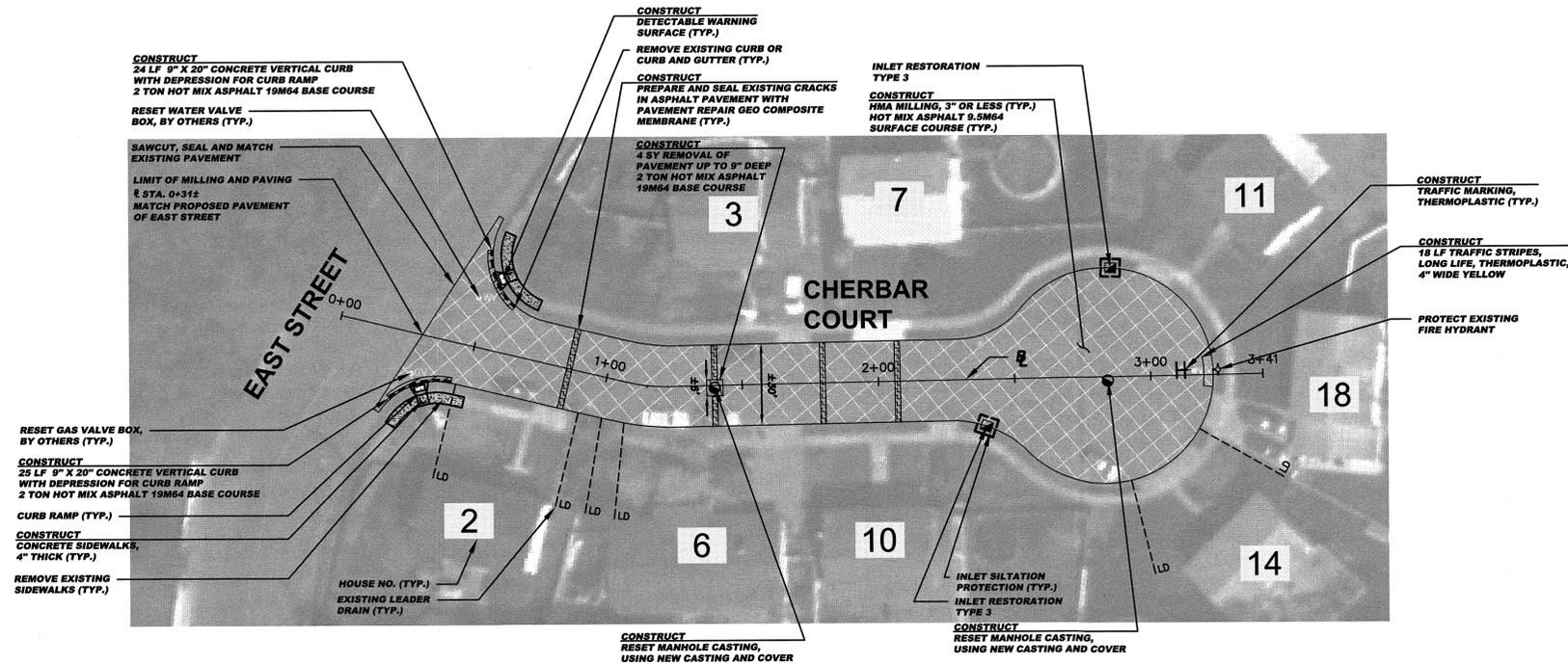


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TOWNSHIP OF WOODBRIDGE MIDDLESEX COUNTY, NEW JERSEY		2020 MILLING AND RESURFACING PROGRAM	
CONTRACT NO. 2020-001		WARD 5	
BENTLEY WAY		WARD 5	
3141 ROCKERTOWN AVENUE, PARLIN, NEW JERSEY 08859-1162 — 1460 ROUTE 9 SOUTH, HOWELL, NEW JERSEY 07731-1194 (732) 727-8000      (732) 462-7400			
JOHN H. ALLGAIR P.E. & P.P. NJ PE LIC NO. 25838	DAVID J. SAMUEL P.E. & P.P. NJ PE LIC NO. 2455	JOHN J. STEFANI P.E., L.S. & P.P. NJ PE & LS LIC NO. 24275	NO PP LIC NO. 2099
JAY B. CORNELL P.E. & P.P. NJ PE LIC NO. 32962	MICHAEL J. MCCLELLAND P.E. & P.P. NJ PE LIC NO. 32468	GREGORY R. VALESI P.E. & P.P. NJ PE LIC NO. 34458	NO PP LIC NO. 4361
<b>MICHAEL J. MCCLELLAND P.E.</b> NEW JERSEY PROFESSIONAL ENGINEER		L.C. 32468	
As Shown		DATE	April 2020
DRAWN BY		DESIGNED BY	AR
CHECKED BY		SHEET	27 of 65

DRAWING NO. PWB0A610.01



**CONSTRUCT (CHERBAR COURT)**

4	SY	Removal of pavement, up to 9" deep
1322	SY	HMA milling, 3" or less
1181	LF	Polymerized joint adhesive
69	LF	Prepare and seal existing joints and cracks in asphalt pavement
114	LF	Prepare and seal existing transverse cracks in asphalt pavement with pavement repair geo composite membrane
195	TON	Hot mix asphalt 9.5M64 surface and leveler course
6	TON	Hot mix asphalt 19M64 base course
2	UN	Reset manhole casting, using new casting and cover
2	UN	Reset existing casting
2	UN	Curb piece, type "N-ECO"
2	UN	Bicycle Safe Grate
33	SY	Concrete sidewalks, 4" thick
2	SY	Detectable warning surface
49	LF	9"x20" Concrete vertical curb
18	LF	Traffic stripes, long life, "thermoelastic", 4" wide
6	SF	Traffic markings, thermoelastic
2	UN	Reset water valve box
1	UN	Reset gas valve box
28	SY	Topsodding, 4" thick
28	SY	Fertilizing
28	SY	Sodding

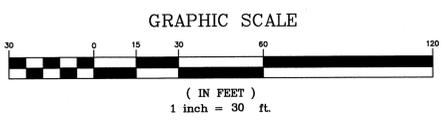
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TYPE 3	-	RESET EXISTING CASTING CURB PIECE, TYPE N-ECO OR P-ECO, BICYCLE SAFE GRATE
TYPE 4	-	RESET EXISTING CASTING

**PROPOSED LEGEND:**

●	- DENOTES PROPOSED MANHOLE	▨	- DENOTES PROPOSED REINFORCED CONCRETE SIDEWALK
⊗	- DENOTES RESET MANHOLE CASTING	▧	- DENOTES REMOVE AND REPLACE CURB (INCLUDING 2" WIDE EXCAVATION) AND PAVING WITH 19M64 BASE COURSE
⊙	- DENOTES RECONSTRUCT MANHOLE	▩	- DENOTES REMOVE AND REPLACE CURB (INCLUDING 2" WIDE TEMPORARY TRENCH REPAIR) WITH 19M64 BASE COURSE
⊚	- DENOTES PROPOSED INLET	▪	- DENOTES PROPOSED CONCRETE SIDEWALK AND DRIVEWAY APRON
⊛	- DENOTES RESET INLET CASTING	▫	- DENOTES AREA TO BE EXCAVATED AND RECEIVE 2" HOT MIX ASPHALT 9.5M64 SURFACE COURSE AND 3" HOT MIX ASPHALT 19M64 BASE COURSE
⊜	- DENOTES RECONSTRUCT INLET	▬	- DENOTES AREA TO BE MILLED AND RECEIVE MIN. 2" HMA 9.5M64 SURFACE AND LEVELER COURSE
⊝	- DENOTES PROPOSED DETECTABLE WARNING SURFACE	▭	- DENOTES AREA TO BE MILLED, EXISTING CRACK TO BE CLEANED AND SEALED, AND GEO COMPOSITE MATERIAL TO BE INSTALLED
⊞	- DENOTES EXISTING VALLEY GUTTER	▮	- DENOTES REMOVAL OF PAVEMENT UP TO 9" AND RECEIVE HMA 19M64 BASE COURSE
⊟	- DENOTES DIRECTION OF FLOW		
⊠	- DENOTES TRAFFIC MARKINGS, LONG LIFE, THERMOPLASTIC WITH GLASS BEADS, FOR FIRE HYDRANT		
⊡	- DENOTES PAINT CONCRETE CURBING, YELLOW		
⊢	- DENOTES BENCH MARK LOCATION		
⊣	- DENOTES EXISTING TREES OR STUMPS TO BE REMOVED		
⊤	- DENOTES RESET BRICKWALK/PAVERS		
⊥	- DENOTES CONCRETE DRIVEWAY RESTORATION		
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**TOWNSHIP OF WOODBRIDGE**  
 MIDDLESEX COUNTY, NEW JERSEY  
**2020 MILLING AND RESURFACING PROGRAM**  
 CONTRACT NO. 2020-001  
**CHERBAR COURT** WARD 5

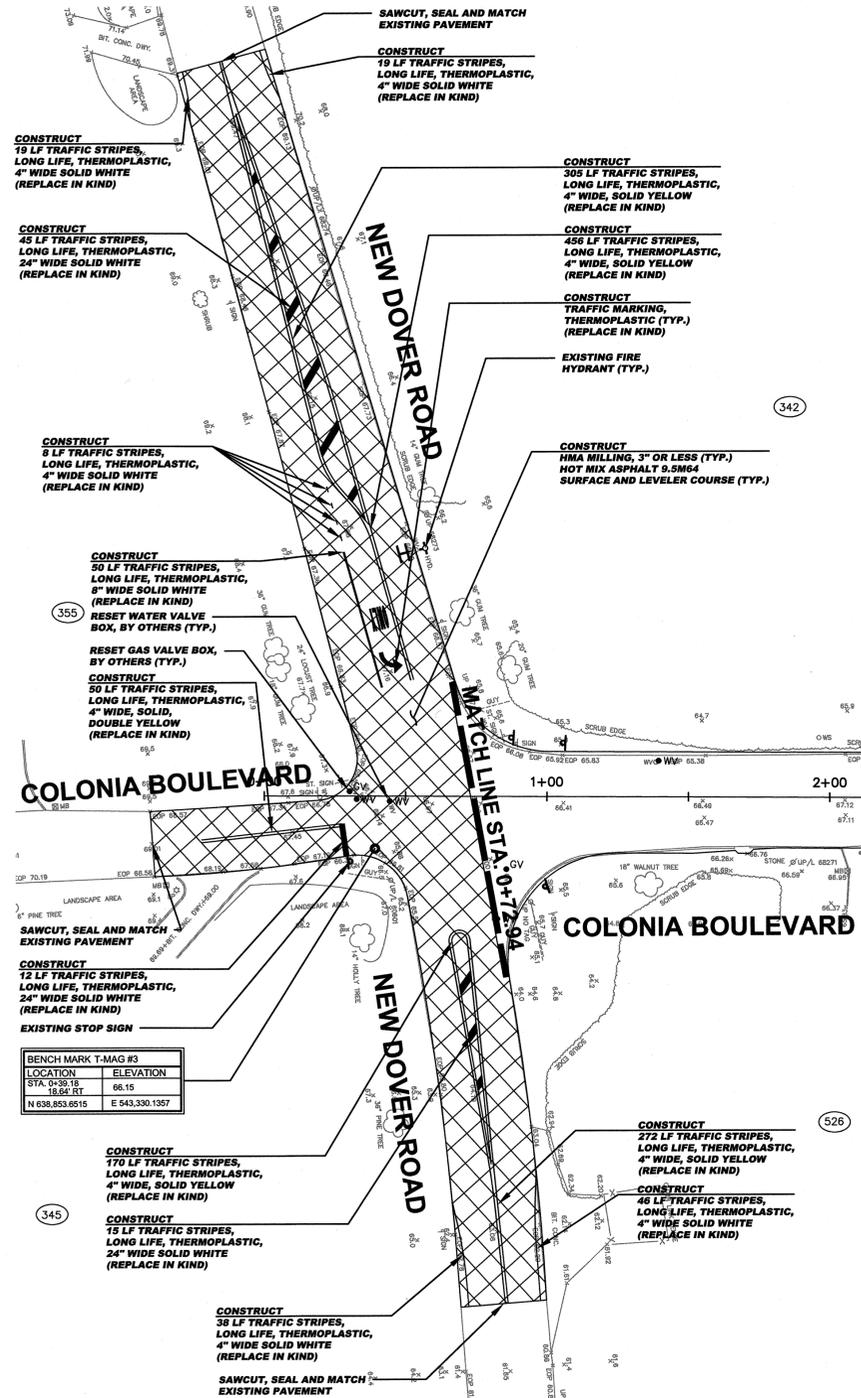
**CVE ASSOCIATES**  
 CONSULTING AND MUNICIPAL ENGINEERS  
 3141 BORDENTOWN AVENUE, PARLIN, NEW JERSEY 08859-1162 — 1460 ROUTE 9 SOUTH, HOWELL, NEW JERSEY 07731-1194  
 (732) 727-8000 (732) 462-7400

JOHN H. ALLGAIR P.E. & P.P. NO PE LIC. NO. 25838 (1983 - 2021)	DAVID J. SAMUEL P.E. & P.P. NO PE LIC. NO. 2455 NO PE & LS LIC. NO. 24271	JOHN J. STEFANI P.E. L.S. & P.P. NO PE LIC. NO. 2089 NO PE & LS LIC. NO. 24271
JAY B. CORNELL P.E. & P.P. NO PE LIC. NO. 32562	MICHAEL J. McCLELLAND P.E. & P.P. NO PE LIC. NO. 3874 NO PE LIC. NO. 32468	GREGORY R. VALESI P.E. & P.P. NO PE LIC. NO. 34458 NO PE LIC. NO. 4361

**MICHAEL J. McCLELLAND P.E.**  
 NEW JERSEY PROFESSIONAL ENGINEER LIC. 32468  
 SCALE: As Shown DATE: April 2020  
 DRAWN BY: AR DESIGNED BY: AR  
 CHECKED BY: SHEET: 28 of 65

FILE NO. PWB0610.01





BENCH MARK T-MAG #3	LOCATION	ELEVATION
354	STA. 0+38.16	66.15
355	18.84' RT	
	N 636,853.6515	E 543,330.1357

**3" HMA SURFACE COURSE**  
THE CONTRACTOR IS ADVISED THAT COLONIA BOULEVARD SHALL RECEIVE 3" OF HMA SURFACE AND LEVELER COURSE.

**SPECIAL PROVISIONS**  
THE CONTRACTOR IS SPECIFICALLY DIRECTED TO THE REQUIREMENTS CONTAINED IN THE SPECIAL PROVISIONS SECTION OF THE CONTRACT SPECIFICATIONS.

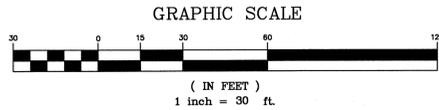
**PROPOSED CURB AND/OR ROADWAY REPLACEMENT**  
THE CONTRACTOR IS ADVISED THAT THEIR LICENSED LAND SURVEYOR SHALL PROVIDE THE CONSTRUCTION STAKEOUT FOR THE PROJECT AND THAT IS THE INTENT OF THE CONTRACT DOCUMENTS TO INSTALL THE NEW CURB, EDGE OF PAVEMENT, AND ROADWAY AT ITS PRESENT HORIZONTAL LOCATION AND VERTICAL LOCATION EXCEPT WHERE PROPOSED GRADES HAVE BEEN INDICATED ON THE PLAN. ACCORDINGLY, THE FULL RESPONSIBILITY FOR KEEPING AND MAINTAINING THE EXISTING ALIGNMENT AND GRADE PRIOR TO REMOVAL OF THE EXISTING CURB AND MILLING AND/OR EXCAVATION OF THE PAVEMENT SHALL REST UPON THE CONTRACTOR IN ACCORDANCE WITH DIVISION 1 GENERAL REQUIREMENTS SECTION 1-4.4 OF THE PROJECT SPECIFICATIONS.

**CONSTRUCT (COLONIA BOULEVARD (1 OF 6))**

- 1905 SY HMA milling, 3" or less
- 1728 LF Polymerized joint adhesive
- 98 LF Prepare and seal existing joints and cracks in asphalt pavement
- 336 TON Hot mix asphalt 9.5M64 surface and leveler course
- 1433 LF Traffic stripes, long life, "thermoelastic", 4" wide
- 50 LF Traffic stripes, long life, "thermoelastic", 8" wide
- 72 LF Traffic stripes, long life, "thermoelastic", 24" wide
- 68 SF Traffic markings, thermoelastic
- 2 UN Reset water valve box
- 1 UN Reset gas valve box

**PROPOSED STRIPING REPLACEMENT**  
THE CONTRACTOR IS ADVISED THAT THEIR LICENSED LAND SURVEYOR SHALL PROVIDE THE CONSTRUCTION STAKEOUT FOR THE PROJECT AND THAT IS THE INTENT OF THIS PLAN TO INSTALL THE NEW TRAFFIC STRIPING AND TRAFFIC MARKINGS AT THEIR PRESENT LOCATIONS. ACCORDINGLY, THE FULL RESPONSIBILITY FOR KEEPING AND MAINTAINING THE EXISTING ALIGNMENT, DIMENSION, AND LOCATION PRIOR TO MILLING OF THE PAVEMENT SHALL REST UPON THE CONTRACTOR.

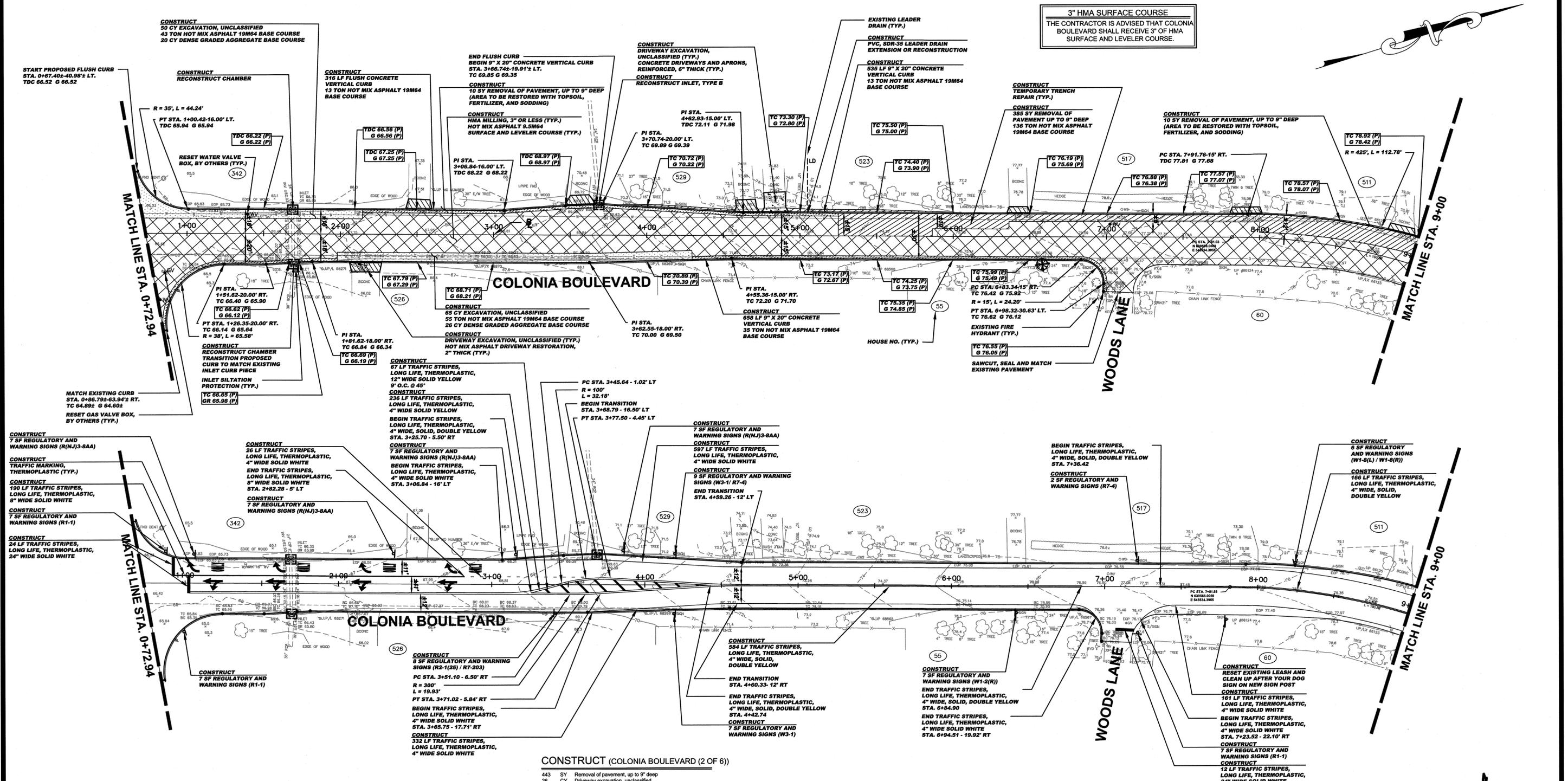
- INLET RESTORATION:**
- TYPE 1 - RESET EXISTING CASTING CURB PIECE, TYPE N-ECO OR P-ECO
  - TYPE 2 - RESET EXISTING CASTING BICYCLE SAFE GRATE
  - TYPE 3 - RESET EXISTING CASTING CURB PIECE, TYPE N-ECO OR P-ECO, BICYCLE SAFE GRATE
  - TYPE 4 - RESET EXISTING CASTING



**PROPOSED LEGEND:**

- DENOTES PROPOSED MANHOLE
- DENOTES RESET MANHOLE CASTING
- ⊗ DENOTES RECONSTRUCT MANHOLE
- DENOTES PROPOSED INLET
- DENOTES EXISTING INLET CASTING
- DENOTES PROPOSED INLET
- DENOTES RECONSTRUCT INLET
- DENOTES PROPOSED DETECTABLE WARNING SURFACE
- DENOTES EXISTING VALLEY GUTTER
- DENOTES DIRECTION OF FLOW
- DENOTES TRAFFIC MARKINGS, LONG LIFE, THERMOPLASTIC WITH GLASS BEADS, FOR FIRE HYDRANT
- DENOTES PAINT CONCRETE CURBING, YELLOW
- DENOTES BENCH MARK LOCATION
- DENOTES EXISTING TREES OR STUMPS TO BE REMOVED
- DENOTES RESET BRICKWALK/PAVERS
- DENOTES CONCRETE DRIVEWAY RESTORATION
- DENOTES HOT MIX ASPHALT DRIVEWAY RESTORATION
- DENOTES PROPOSED REINFORCED CONCRETE SIDEWALK
- DENOTES REMOVE AND REPLACE CURB (INCLUDING 2" WIDE EXCAVATION) AND PAVING WITH 19M64 BASE COURSE
- DENOTES REMOVE AND REPLACE CURB (INCLUDING 2" WIDE TEMPORARY TRENCH REPAIR)
- DENOTES PROPOSED CONCRETE SIDEWALK AND DRIVEWAY APRON
- DENOTES AREA TO BE EXCAVATED AND RECEIVE 2" HOT MIX ASPHALT 9.5M64 SURFACE COURSE AND 3" HOT MIX ASPHALT 19M64 BASE COURSE
- DENOTES AREA TO BE MILLED AND RECEIVE MIN. 2" HMA 9.5M64 SURFACE AND LEVELER COURSE
- DENOTES AREA TO BE MILLED, EXISTING CRACK TO BE CLEANED AND SEALED, AND GEO COMPOSITE MATERIAL TO BE INSTALLED
- DENOTES RESTORATION OF PAVEMENT UP TO 9" AND RECEIVE 19M64 BASE COURSE
- DENOTES AREA TO BE EXCAVATED AND RECEIVE 3" HMA SURFACE COURSE 9.5M64, 6" HMA BASE COURSE 19M64 AND 6" DGA BASE COURSE
- DENOTES AREA OF CONCRETE TO BE MILLED AND RECEIVE MIN. 2" HMA 9.5M64 SURFACE AND LEVELER COURSE

1. REVISED PER NJDOT COMMENTS AND FOR BID		4/21/2020	PB
NO. DESCRIPTION OF REVISION		DATE	DRAWN
<b>TOWNSHIP OF WOODBRIDGE</b> MIDDLESEX COUNTY, NEW JERSEY <b>2020 MILLING AND RESURFACING PROGRAM</b> CONTRACT NO. 2020-001 COLONIA BOULEVARD (1 OF 6) WARD 5  CONSULTING AND MUNICIPAL ENGINEERS 3141 BORDENTOWN AVENUE, PARLIN, NEW JERSEY 08859-1162 — 1460 ROUTE 9 SOUTH, HOWELL, NEW JERSEY 07731-1194 (732) 727 8000 (732) 462 7400			
JOHN H. ALLGAIER P.E. & P.P. (1981 - 2001)	DAVID J. SAMUEL P.E. & P.P. NJ PE LIC NO. 25838	JOHN J. STEFANI P.E. L.S. & P.P. NJ PE & L.S. LIC NO. 24273	
JAY B. CORNELL P.E. & P.P. NJ PE LIC NO. 32962	MICHAEL J. MCCLELLAND P.E. & P.P. NJ PE LIC NO. 32468	GREGORY R. VALESI P.E. & P.P. NJ PE LIC NO. 34458	
<b>MICHAEL J. MCCLELLAND P.E.</b> NEW JERSEY PROFESSIONAL ENGINEER LIC. 32468		SCALE: As Shown DATE: April 2020 DRAWN BY: AR DESIGNED BY: AR CHECKED BY: AR SHEET: 30 of 65	DRAWING NO. PWB04610.01



**3" HMA SURFACE COURSE**  
 THE CONTRACTOR IS ADVISED THAT COLONIA BOULEVARD SHALL RECEIVE 3" OF HMA SURFACE AND LEVELER COURSE.

- CONSTRUCT 7 SF REGULATORY AND WARNING SIGNS (R(N)3-8AA)
- CONSTRUCT TRAFFIC MARKING, THERMOPLASTIC (TYP.)
- CONSTRUCT 190 LF TRAFFIC STRIPES, LONG LIFE, THERMOPLASTIC, 8" WIDE SOLID WHITE
- CONSTRUCT 7 SF REGULATORY AND WARNING SIGNS (R1-1)
- CONSTRUCT 24 LF TRAFFIC STRIPES, LONG LIFE, THERMOPLASTIC, 24" WIDE SOLID WHITE

- CONSTRUCT 26 LF TRAFFIC STRIPES, LONG LIFE, THERMOPLASTIC, 4" WIDE SOLID WHITE
- CONSTRUCT 190 LF TRAFFIC STRIPES, LONG LIFE, THERMOPLASTIC, 8" WIDE SOLID WHITE
- CONSTRUCT 7 SF REGULATORY AND WARNING SIGNS (R1-1)
- CONSTRUCT 24 LF TRAFFIC STRIPES, LONG LIFE, THERMOPLASTIC, 24" WIDE SOLID WHITE

- CONSTRUCT 67 LF TRAFFIC STRIPES, LONG LIFE, THERMOPLASTIC, 12" WIDE SOLID YELLOW
- CONSTRUCT 236 LF TRAFFIC STRIPES, LONG LIFE, THERMOPLASTIC, 4" WIDE SOLID YELLOW
- CONSTRUCT 7 SF REGULATORY AND WARNING SIGNS (R(N)3-8AA)
- CONSTRUCT 597 LF TRAFFIC STRIPES, LONG LIFE, THERMOPLASTIC, 4" WIDE SOLID WHITE
- CONSTRUCT 9 SF REGULATORY AND WARNING SIGNS (R(3-1) / R7-4)
- CONSTRUCT 166 LF TRAFFIC STRIPES, LONG LIFE, THERMOPLASTIC, 4" WIDE SOLID WHITE

- CONSTRUCT 7 SF REGULATORY AND WARNING SIGNS (R1-1)
- CONSTRUCT 12 LF TRAFFIC STRIPES, LONG LIFE, THERMOPLASTIC, 24" WIDE SOLID WHITE

- CONSTRUCT 6 SF REGULATORY AND WARNING SIGNS (W1-8(L) / W1-8(R))
- CONSTRUCT 166 LF TRAFFIC STRIPES, LONG LIFE, THERMOPLASTIC, 4" WIDE SOLID YELLOW

- CONSTRUCT 6 SF REGULATORY AND WARNING SIGNS (W1-8(L) / W1-8(R))

**CONSTRUCT (COLONIA BOULEVARD (2 OF 6))**

- 443 SY Removal of pavement, up to 9" deep
- 26 CY Driveway excavation, unclassified
- 115 CY Excavation, unclassified
- 46 CY Dense graded aggregate base course
- 2509 SY HMA milling, 3" or less
- 4557 LF Polymerized joint adhesive
- 127 LF Prepare and seal existing joints and cracks in asphalt pavement
- 659 TON Hot mix asphalt 9.5M64 surface and leveler course
- 295 TON Hot mix asphalt 19M64 base course
- 1 UN PVC, SDR-35 leader drain extension or reconstruction
- 2 UN Reconstruct chamber
- 21 SY Concrete driveways and aprons, reinforced, 6" thick
- 71 SY Hot mix asphalt driveway restoration, 2" thick
- 1508 LF 9" x 20" concrete vertical curb
- 2867 LF Traffic stripes, long life, "thermoelastic", 4" wide
- 190 LF Traffic stripes, long life, "thermoelastic", 8" wide
- 67 LF Traffic stripes, long life, "thermoelastic", 12" wide
- 36 LF Traffic stripes, long life, "thermoelastic", 24" wide
- 368 SF Traffic markings, thermoelastic
- 68 SF Regulatory and warning signs
- 173 SY Temporary trench repair
- 3 UN Reset water valve box
- 3 UN Reset gas valve box
- 503 SY Topsoiling, 4" thick
- 503 SY Fertilizing
- 503 SY Sodding

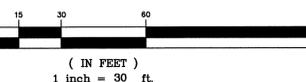
**INLET RESTORATION:**

- TYPE 1 - RESET EXISTING CASTING CURB PIECE, TYPE N-ECCO OR P-ECCO
- TYPE 2 - RESET EXISTING CASTING BICYCLE SAFE GRATE
- TYPE 3 - RESET EXISTING CASTING CURB PIECE, TYPE N-ECCO OR P-ECCO, BICYCLE SAFE GRATE
- TYPE 4 - RESET EXISTING CASTING

**PROPOSED LEGEND:**

- DENOTES PROPOSED MANHOLE
- DENOTES RESET MANHOLE CASTING
- ⊗ DENOTES RECONSTRUCT MANHOLE
- DENOTES PROPOSED INLET
- ▣ DENOTES RESET INLET CASTING
- ▤ DENOTES RECONSTRUCT INLET
- ▥ DENOTES PROPOSED DETECTABLE WARNING SURFACE
- ▧ DENOTES EXISTING VALLEY GUTTER
- ▨ DENOTES DIRECTION OF FLOW
- ▩ DENOTES TRAFFIC MARKINGS, LONG LIFE, THERMOPLASTIC WITH GLASS BEADS, FOR FIRE HYDRANT
- DENOTES PAINT CONCRETE CURBS, YELLOW
- DENOTES BENCH MARK LOCATION
- ▬ DENOTES EXISTING TREES OR STUMPS TO BE REMOVED
- ▭ DENOTES RESET BRICKWALK/Pavers
- ▮ DENOTES CONCRETE DRIVEWAY RESTORATION
- ▯ DENOTES HOT MIX ASPHALT DRIVEWAY RESTORATION
- ▰ DENOTES PROPOSED REINFORCED CONCRETE SIDEWALK
- ▱ DENOTES REMOVE AND REPLACE CURB (INCLUDING 2" WIDE EXCAVATION) AND PAVING WITH 19M64 BASE COURSE
- ▲ DENOTES REMOVE AND REPLACE CURB (INCLUDING 2" WIDE TEMPORARY TRENCH REPAIR)
- △ DENOTES PROPOSED CONCRETE SIDEWALK AND DRIVEWAY APRON
- ▴ DENOTES AREA TO BE EXCAVATED AND RECEIVE 2" HOT MIX ASPHALT 9.5M64 SURFACE COURSE AND 3" HOT MIX ASPHALT 19M64 BASE COURSE
- ▵ DENOTES AREA TO BE MILLED AND RECEIVE MIN. 2" HMA 9.5M64 SURFACE AND LEVELER COURSE
- ▶ DENOTES AREA TO BE MILLED, EXISTING CURBS TO BE CLEANED AND SEALED, AND GEO COMPOSITE MATERIAL TO BE INSTALLED
- ▷ DENOTES REMOVAL OF PAVEMENT UP TO 9" AND RECEIVE 19M64 BASE COURSE
- DENOTES AREA TO BE EXCAVATED AND RECEIVE 3" HMA SURFACE COURSE 9.5M64, 6" HMA BASE COURSE 19M64 AND 6" DGA BASE COURSE
- DENOTES AREA OF CONCRETE TO BE MILLED AND RECEIVE MIN. 2" HMA 9.5M64 SURFACE AND LEVELER COURSE

**GRAPHIC SCALE**



- R(N)3-8AA 36"x30"
- W1-2(R) 30"x30"
- R1-1 30"x30"
- W1-8(R) 18"x24"
- W1-8(L) 18"x24"
- W3-1 30"x30"
- R2-1(25) 24"x30"
- R7-4 12"x18"
- R7-203 18"x24"

- SPEED LIMIT 25
- NO STANDING ANY TIME
- EMERGENCY SNOW ROUTE NO PARKING OVER 2 HOURS

**SIGN LEGEND**

**SPECIAL PROVISIONS**  
 THE CONTRACTOR IS SPECIFICALLY DIRECTED TO THE REQUIREMENTS CONTAINED IN THE SPECIAL PROVISIONS SECTION OF THE CONTRACT SPECIFICATIONS.

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1. REVISED PER NJDOT COMMENTS AND FOR BID 4/21/2020 PB

**TOWNSHIP OF WOODBRIDGE**  
 MIDDLESEX COUNTY, NEW JERSEY  
**2020 MILLING AND RESURFACING PROGRAM**  
 CONTRACT NO. 2020-001  
 COLONIA BOULEVARD (2 OF 6) WARD 5

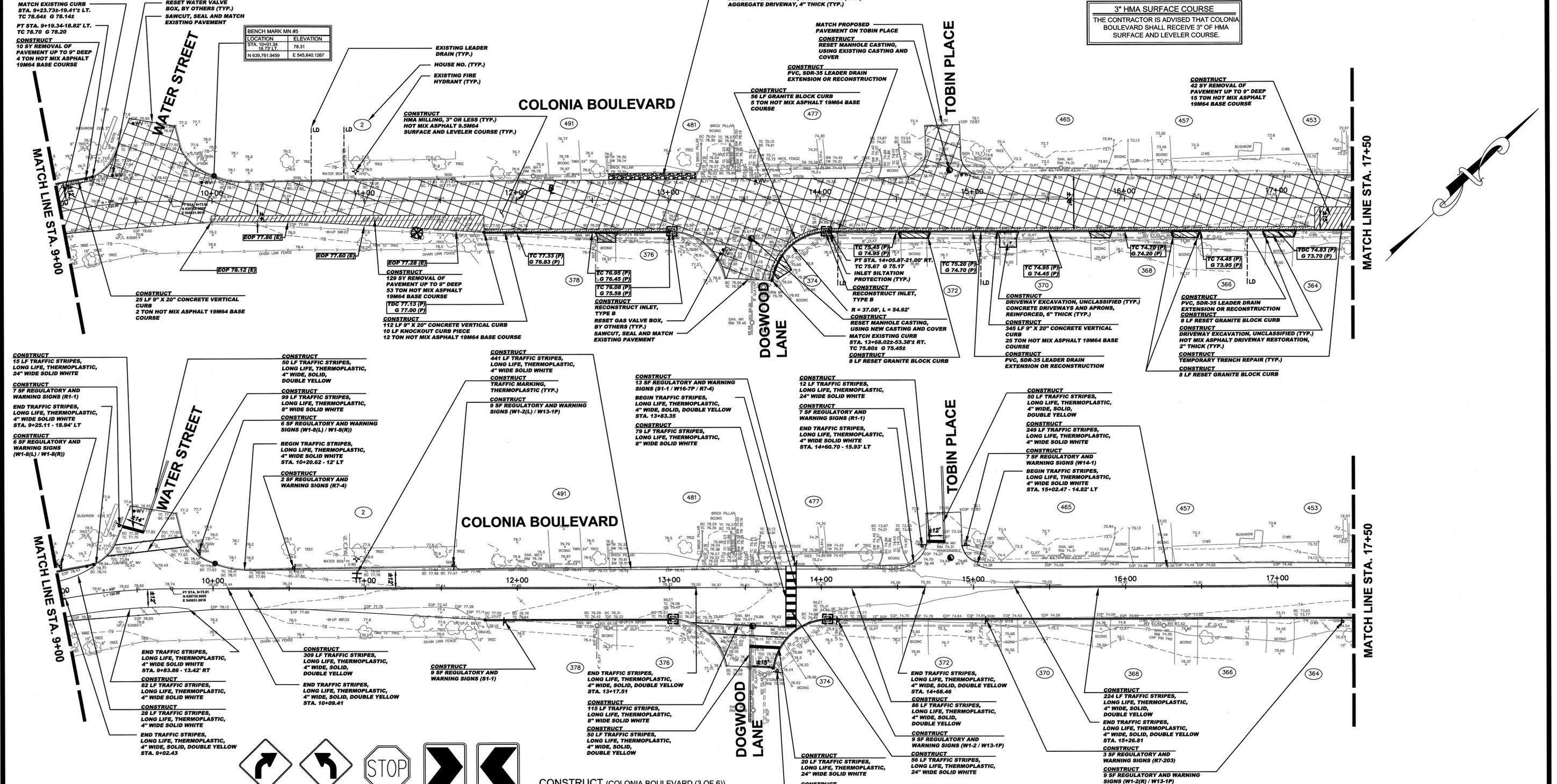
**CME ASSOCIATES**  
 CONSULTING AND MUNICIPAL ENGINEERS  
 3141 BORDENTOWN AVENUE, PARLIN, NEW JERSEY 08859-1162 — 1460 ROUTE 9 SOUTH, HOWELL, NEW JERSEY 07731-1194  
 (732) 727-8000 (732) 462-7400

JOHN H. ALLGAIER P.E. & P.P. DAVID J. SAMUEL P.E. & P.P. JOHN J. STEFANI P.E. L.S. & P.P.  
 NO PE LIC. NO. 25038 NO PE LIC. NO. 2455 NO PE LIC. NO. 24271  
 JAY B. CORNELL P.E. & P.P. MICHAEL J. MCCLELLAND P.E. & P.P. GREGORY R. VALESI P.E. & P.P.  
 NO PE LIC. NO. 32662 NO PE LIC. NO. 38274 NO PE LIC. NO. 32468 NO PE LIC. NO. 33770

**MICHAEL J. MCCLELLAND P.E.**  
 NEW JERSEY PROFESSIONAL ENGINEER LIC. 32468

SCALE: As Shown DATE: April 2020  
 DRAWN BY: AR DESIGNED BY: AR  
 CHECKED BY: AR SHEET: 31 of 65

PWB0610.01



**SPECIAL PROVISIONS**

THE CONTRACTOR IS SPECIFICALLY DIRECTED TO THE REQUIREMENTS CONTAINED IN THE SPECIAL PROVISIONS SECTION OF THE CONTRACT SPECIFICATIONS.

**PROPOSED CURB AND/OR ROADWAY REPLACEMENT**

THE CONTRACTOR IS ADVISED THAT THEIR LICENSED LAND SURVEYOR SHALL PROVIDE THE CONSTRUCTION STAKEOUT FOR THE PROJECT AND THAT IS THE INTENT OF THE CONTRACT DOCUMENTS TO INSTALL THE NEW CURB, EDGE OF PAVEMENT, AND ROADWAY AT ITS PRESENT HORIZONTAL LOCATION AND VERTICAL LOCATION EXCEPT WHERE PROPOSED GRADES HAVE BEEN INDICATED ON THE PLAN. ACCORDINGLY, THE FULL RESPONSIBILITY FOR KEEPING AND MAINTAINING THE EXISTING ALIGNMENT AND GRADE PRIOR TO REMOVAL OF THE EXISTING CURB AND MILLING AND/OR EXCAVATION OF THE PAVEMENT SHALL REST UPON THE CONTRACTOR IN ACCORDANCE WITH DIVISION 1 GENERAL REQUIREMENTS SECTION 1-4.4 OF THE PROJECT SPECIFICATIONS.

**SIGN LEGEND**

W1-2(R) 30"x30"	W1-2(L) 30"x30"	R1-1 30"x30"	W1-8(R) 18"x24"	W1-8(L) 18"x24"
S1-1 36"x36"	W16-7P 24"x12"	W14-1 30"x30"	W13-1P 18"x18"	R7-4 12"x18"
R7-203 18"x24"	20 MPH	NO STANDING ANY TIME	EMERGENCY SLOW ROUTE	NO PARKING IF OVER 2 INCHES

**CONSTRUCT (COLONIA BOULEVARD (3 OF 6))**

181	SY	Removal of pavement, up to 9" deep
25	CY	Driveway excavation, unclassified
3492	SY	HMA milling, 3" or less
3572	LF	Polymerized joint adhesive
85	LF	Prepare and seal existing joints and cracks in asphalt pavement
748	TON	Hot mix asphalt 9.5M64 surface and leveler course
114	TON	Hot mix asphalt 19M64 base course
1	UN	PVC, SDR-35 leader drain extension or reconstruction
1	UN	Reset manhole casting, using existing casting and cover
2	UN	Reset manhole casting, using new casting and cover
13	SY	Concrete driveways and aprons, reinforced, 6" thick
49	SY	Hot mix asphalt driveway restoration, 2" thick
26	SY	Aggregate driveway, 4" thick
492	LF	9" x 20" concrete vertical curb
56	LF	Granite block curb
24	LF	Reset granite block curb
2338	LF	Traffic stripes, long life, "thermoelastic", 4" wide
293	LF	Traffic stripes, long life, "thermoelastic", 24" wide
103	LF	Traffic stripes, long life, "thermoelastic", 24" wide
6	SF	Traffic markings, thermoelastic
94	SY	Regulatory and Warning signs
8	SY	Temporary trench repair
5	UN	Reset water valve box
2	UN	Reset gas valve box
183	SY	Topping, 4" thick
183	SY	Fertilizing
183	SY	Sodding

**INLET RESTORATION:**

TYPE 1	RESET EXISTING CASTING CURB PIECE, TYPE N-ECC OR P-ECC
TYPE 2	RESET EXISTING CASTING BICYCLE SAFE GRATE
TYPE 3	RESET EXISTING CASTING CURB PIECE, TYPE N-ECC OR P-ECC, BICYCLE SAFE GRATE
TYPE 4	RESET EXISTING CASTING

**PROPOSED LEGEND:**

	DENOTES PROPOSED MANHOLE		DENOTES PROPOSED REINFORCED CONCRETE SIDEWALK
	DENOTES RESET MANHOLE CASTING		DENOTES REMOVE AND REPLACE CURB (INCLUDING 2" WIDE EXCAVATION) AND PAVING WITH 19M64 BASE COURSE
	DENOTES RECONSTRUCT MANHOLE		DENOTES REMOVE AND REPLACE CURB (INCLUDING 2" WIDE EXCAVATION) AND PAVING WITH 19M64 BASE COURSE (INCLUDING TEMPORARY TRENCH REPAIR)
	DENOTES PROPOSED INLET		DENOTES PROPOSED CONCRETE SIDEWALK AND DRIVEWAY APRON
	DENOTES RESET INLET CASTING		DENOTES AREA TO BE EXCAVATED AND RECEIVE 2" HOT MIX ASPHALT 9.5M64 SURFACE COURSE AND 3" HOT MIX ASPHALT 19M64 BASE COURSE
	DENOTES RECONSTRUCT INLET		DENOTES AREA TO BE MILLED AND RECEIVE MIN. 2" HMA 9.5M64 SURFACE AND LEVELER COURSE
	DENOTES PROPOSED DETECTABLE WARNING SURFACE		DENOTES AREA TO BE MILLED, EXISTING CRACK TO BE CLEANED AND SEALED, AND GEO COMPOSITE MATERIAL TO BE INSTALLED
	DENOTES EXISTING VALLEY GUTTER		DENOTES AREA TO BE CLEANED AND SEALED, AND GEO COMPOSITE MATERIAL TO BE INSTALLED
	DENOTES DIRECTION OF FLOW		DENOTES AREA TO BE MILLED AND RECEIVE MIN. 3" HMA SURFACE COURSE 9.5M64, 6" HMA BASE COURSE 19M64 AND 6" DGA BASE COURSE
	DENOTES TRAFFIC MARKINGS, LONG LIFE, THERMOELASTIC WITH GLASS BEADS, FOR FIRE HYDRANT		DENOTES AREA TO BE MILLED AND RECEIVE MIN. 2" HMA 9.5M64 SURFACE COURSE AND 6" DGA BASE COURSE
	DENOTES PAINT CONCRETE CURBING YELLOW		DENOTES AREA OF CONCRETE TO BE MILLED AND RECEIVE MIN. 2" HMA 9.5M64 SURFACE AND LEVELER COURSE
	DENOTES BENCH MARK LOCATION		DENOTES AREA OF CONCRETE TO BE MILLED AND RECEIVE MIN. 2" HMA 9.5M64 SURFACE AND LEVELER COURSE (INCLUDING EXISTING CRACK)
	DENOTES EXISTING TREES OR STUMPS TO BE REMOVED		DENOTES AREA OF CONCRETE TO BE MILLED AND RECEIVE MIN. 2" HMA 9.5M64 SURFACE AND LEVELER COURSE (INCLUDING EXISTING CRACK AND GEO COMPOSITE MATERIAL)
	DENOTES RESET BRICKWALK/PAVERS		DENOTES AREA OF CONCRETE TO BE MILLED AND RECEIVE MIN. 2" HMA 9.5M64 SURFACE AND LEVELER COURSE (INCLUDING EXISTING CRACK AND GEO COMPOSITE MATERIAL AND EXISTING CRACK)
	DENOTES CONCRETE DRIVEWAY RESTORATION		DENOTES AREA OF CONCRETE TO BE MILLED AND RECEIVE MIN. 2" HMA 9.5M64 SURFACE AND LEVELER COURSE (INCLUDING EXISTING CRACK AND GEO COMPOSITE MATERIAL AND EXISTING CRACK AND EXISTING CRACK)
	DENOTES HOT MIX ASPHALT DRIVEWAY RESTORATION		DENOTES AREA OF CONCRETE TO BE MILLED AND RECEIVE MIN. 2" HMA 9.5M64 SURFACE AND LEVELER COURSE (INCLUDING EXISTING CRACK AND GEO COMPOSITE MATERIAL AND EXISTING CRACK AND EXISTING CRACK AND EXISTING CRACK)

**GRAPHIC SCALE**

( IN FEET )  
1 inch = 30 ft.

1. REVISED PER NJDOT COMMENTS AND FOR BID

DATE: 4/21/2020

DRAWN BY: PB

CHECKED BY: [Signature]

RELEASED BY: [Signature]

**TOWNSHIP OF WOODBRIDGE**  
MIDDLESEX COUNTY, NEW JERSEY

**2020 MILLING AND RESURFACING PROGRAM**

CONTRACT NO. 2020-001

COLONIA BOULEVARD (3 OF 6) WARD 5

**CVE ASSOCIATES**  
CONSULTING AND MUNICIPAL ENGINEERS

3141 BORDENTOWN AVENUE, PARLIN, NEW JERSEY 08859-1162 — 1460 ROUTE 9 SOUTH, HOWELL, NEW JERSEY 07731-1194

(732) 727 8000 (732) 462 7400

JOHN H. ALLGAIER P.E. & P.P.	DAVID J. SAMUEL P.E. & P.P.	JOHN J. STEFANI P.E. L.S. & P.P.
NO PE LIC. NO. 24555	NO PE LIC. NO. 25838	NO PE LIC. NO. 20899
JAY B. CORNELL P.E. & P.P.	MICHAEL J. MCCLELLAND P.E. & P.P.	GREGORY R. VALESI P.E. & P.P.
NO PE LIC. NO. 32962	NO PE LIC. NO. 32458	NO PE LIC. NO. 34488

**MICHAEL J. MCCLELLAND P.E.**  
NEW JERSEY PROFESSIONAL ENGINEER  
LIC. 32468

DATE: April 2020

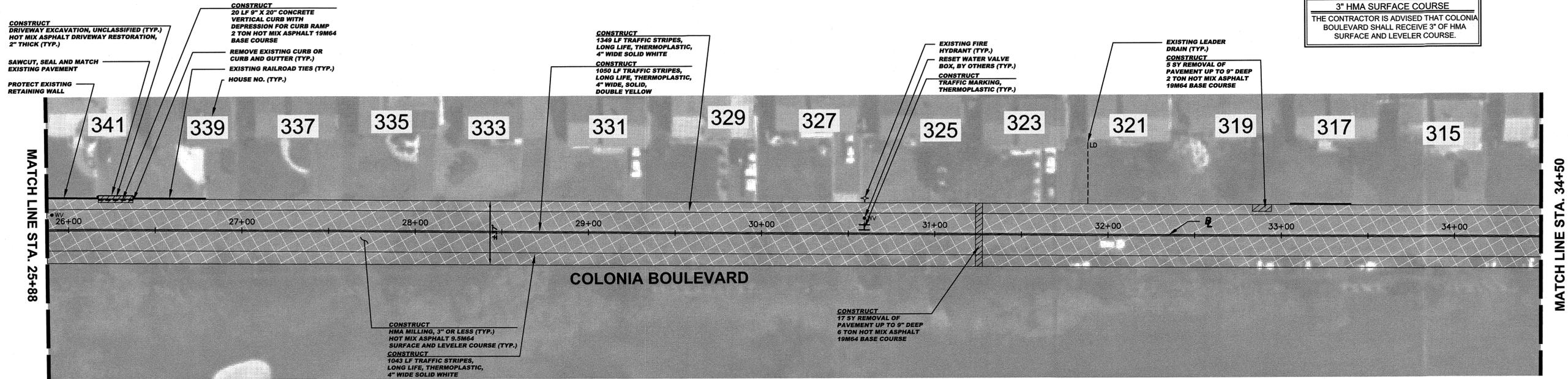
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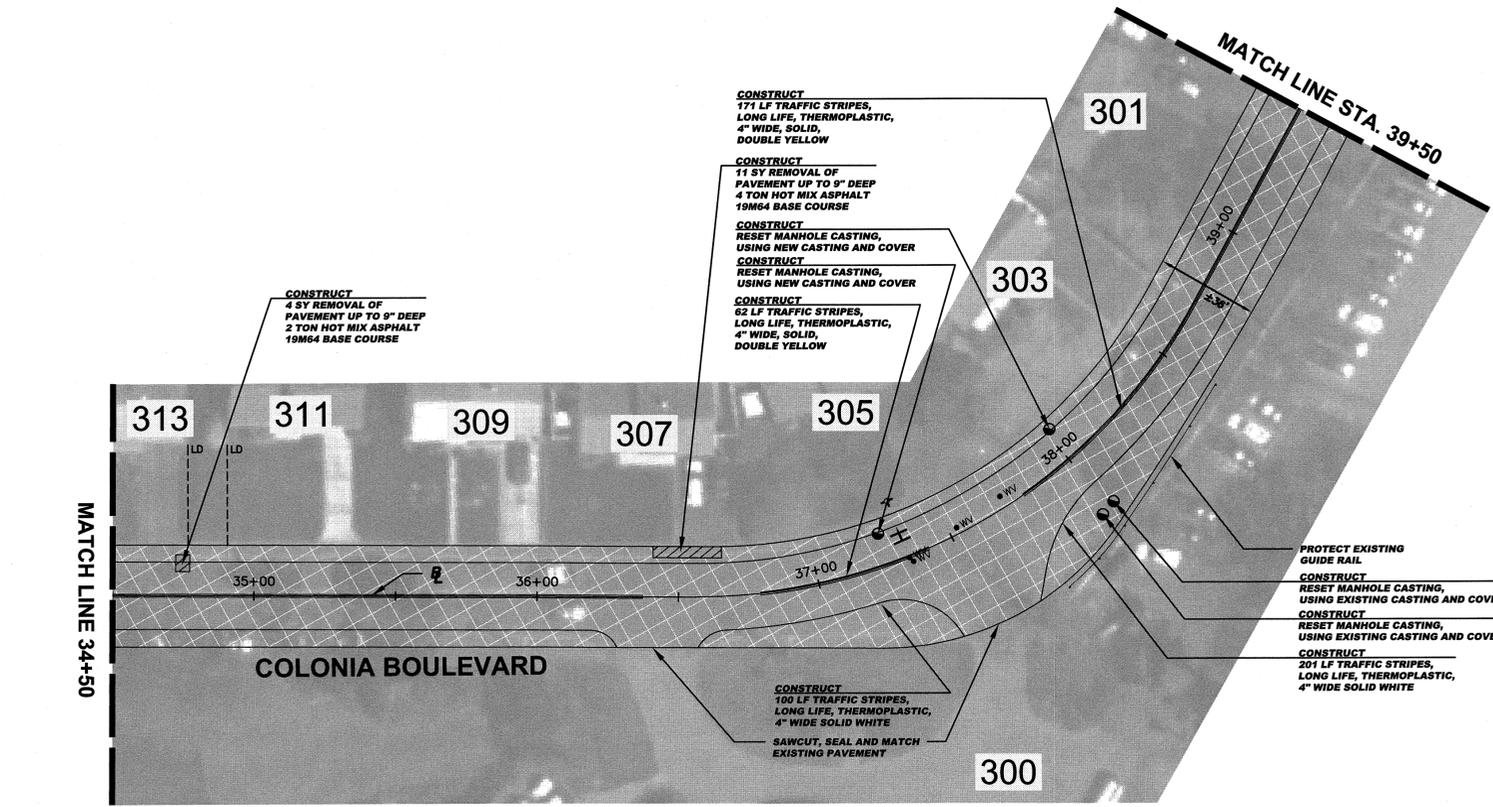
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SHEET: 32 OF 65





3" HMA SURFACE COURSE  
THE CONTRACTOR IS ADVISED THAT COLONIA BOULEVARD SHALL RECEIVE 3" OF HMA SURFACE AND LEVELER COURSE.



BASELINES  
BASELINES ARE APPROXIMATE AND ARE FOR REFERENCE PURPOSES ONLY. BASELINES ARE NOT TO BE UTILIZED FOR LAYOUT.

PROPOSED STRIPING REPLACEMENT  
THE CONTRACTOR IS ADVISED THAT THEIR LICENSED LAND SURVEYOR SHALL PROVIDE THE CONSTRUCTION STAKEOUT FOR THE PROJECT AND THAT IS THE INTENT OF THIS PLAN TO INSTALL THE NEW TRAFFIC STRIPING AND TRAFFIC MARKINGS AT THEIR PRESENT LOCATIONS. ACCORDINGLY, THE FULL RESPONSIBILITY FOR KEEPING AND MAINTAINING THE EXISTING ALIGNMENT, DIMENSION, AND LOCATION PRIOR TO MILLING OF THE PAVEMENT SHALL REST UPON THE CONTRACTOR.

CONSTRUCT (COLONIA BOULEVARD (5 OF 6))

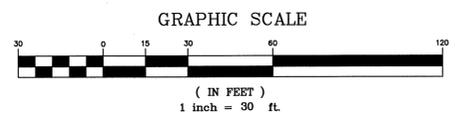
37	SY	Removal of pavement, up to 9" deep
2	CY	Driveway Excavation, unclassified
5264	SY	HMA milling, 3" or less
4989	LF	Polymerized joint adhesive
112	LF	Prepare and seal existing joints and cracks in asphalt pavement
1150	TON	Hot mix asphalt 9.5M64 surface and leveler course
16	TON	Hot mix asphalt 19M64 base course
2	UN	Reset manhole casting, using existing casting and cover
2	UN	Reset manhole casting, using new casting and cover
5	SY	Hot mix asphalt driveway restoration, 2" thick
20	LF	9"x20" Concrete vertical curb
5288	LF	Traffic stripes, long life, "thermoelastic", 4" wide
12	SF	Traffic markings, thermoelastic
6	UN	Reset water valve box
12	SY	Topsoiling, 4" thick
12	SY	Fertilizing
12	SY	Sodding

INLET RESTORATION:

TYPE 1	-	RESET EXISTING CASTING CURB PIECE, TYPE N-ECO OR P-ECO
TYPE 2	-	RESET EXISTING CASTING BICYCLE SAFE GRATE
TYPE 3	-	RESET EXISTING CASTING CURB PIECE, TYPE N-ECO OR P-ECO, BICYCLE SAFE GRATE
TYPE 4	-	RESET EXISTING CASTING

PROPOSED LEGEND:

●	- DENOTES PROPOSED MANHOLE	▨	- DENOTES PROPOSED REINFORCED CONCRETE SIDEWALK
○	- DENOTES RESET MANHOLE CASTING	▩	- DENOTES REMOVE AND REPLACE CURB (INCLUDING 2" WIDE EXCAVATION) AND PAVING WITH 19M64 BASE COURSE
⊗	- DENOTES RECONSTRUCT MANHOLE	▩	- DENOTES REMOVE AND REPLACE CURB (INCLUDING 2" WIDE TEMPORARY TRENCH REPAIR)
■	- DENOTES PROPOSED INLET	▩	- DENOTES PROPOSED CONCRETE SIDEWALK AND DRIVEWAY APRON
■	- DENOTES RESET INLET CASTING	▩	- DENOTES AREA TO BE EXCAVATED AND RECEIVE 2" HOT MIX ASPHALT 9.5M64 SURFACE COURSE AND 3" HOT MIX ASPHALT 19M64 BASE COURSE
□	- DENOTES RECONSTRUCT INLET	▩	- DENOTES AREA TO BE MILLED AND RECEIVE MIN. 2" HMA 9.5M64 SURFACE AND LEVELER COURSE
□	- DENOTES PROPOSED DETECTABLE WARNING SURFACE	▩	- DENOTES AREA TO BE MILLED, EXISTING CRACK TO BE CLEANED AND SEALED, AND GEO COMPOSITE MATERIAL TO BE INSTALLED
▬	- DENOTES EXISTING VALLEY GUTTER	▩	- DENOTES REMOVAL OF PAVEMENT UP TO 9" AND RECEIVE HMA 19M64 BASE COURSE
▬	- DENOTES DIRECTION OF FLOW	▩	- DENOTES AREA TO BE EXCAVATED AND RECEIVE 3" HMA SURFACE COURSE 9.5M64, 6" HMA BASE COURSE 19M64 AND 6" DGA BASE COURSE
▬	- DENOTES TRAFFIC MARKINGS, LONG LIFE, THERMOPLASTIC WITH GLASS BEADS, FOR FIRE HYDRANT	▩	- DENOTES AREA OF CONCRETE TO BE MILLED AND RECEIVE MIN. 2" HMA 9.5M64 SURFACE AND LEVELER COURSE
▬	- DENOTES PAINT CONCRETE CURBING, YELLOW		
▬	- DENOTES BENCH MARK LOCATION		
▬	- DENOTES EXISTING TREES OR STUMPS TO BE REMOVED		
▬	- DENOTES RESET BRICKWALK/PAVERS		
▬	- DENOTES CONCRETE DRIVEWAY RESTORATION		
▬	- DENOTES HOT MIX ASPHALT DRIVEWAY RESTORATION		



SPECIAL PROVISIONS  
THE CONTRACTOR IS SPECIFICALLY DIRECTED TO THE REQUIREMENTS CONTAINED IN THE SPECIAL PROVISIONS SECTION OF THE CONTRACT SPECIFICATIONS.

PROPOSED CURB AND/OR ROADWAY REPLACEMENT  
THE CONTRACTOR IS ADVISED THAT THEIR LICENSED LAND SURVEYOR SHALL PROVIDE THE CONSTRUCTION STAKEOUT FOR THE PROJECT AND THAT IS THE INTENT OF THE CONTRACT DOCUMENTS TO INSTALL THE NEW CURB, EDGE OF PAVEMENT, AND ROADWAY AT ITS PRESENT HORIZONTAL LOCATION AND VERTICAL LOCATION EXCEPT WHERE PROPOSED GRADES HAVE BEEN INDICATED ON THE PLAN. ACCORDINGLY, THE FULL RESPONSIBILITY FOR KEEPING AND MAINTAINING THE EXISTING ALIGNMENT AND GRADE PRIOR TO REMOVAL OF THE EXISTING CURB AND MILLING AND/OR EXCAVATION OF THE PAVEMENT SHALL REST UPON THE CONTRACTOR IN ACCORDANCE WITH DIVISION 1 GENERAL REQUIREMENTS SECTION 1-4.4 OF THE PROJECT SPECIFICATIONS.

TOWNSHIP OF WOODBRIDGE  
MIDDLESEX COUNTY, NEW JERSEY  
**2020 MILLING AND RESURFACING PROGRAM**  
CONTRACT NO. 2020-001  
COLONIA BOULEVARD (5 OF 6) WARD 5

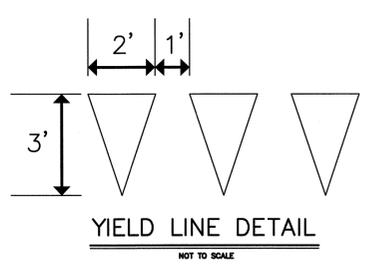
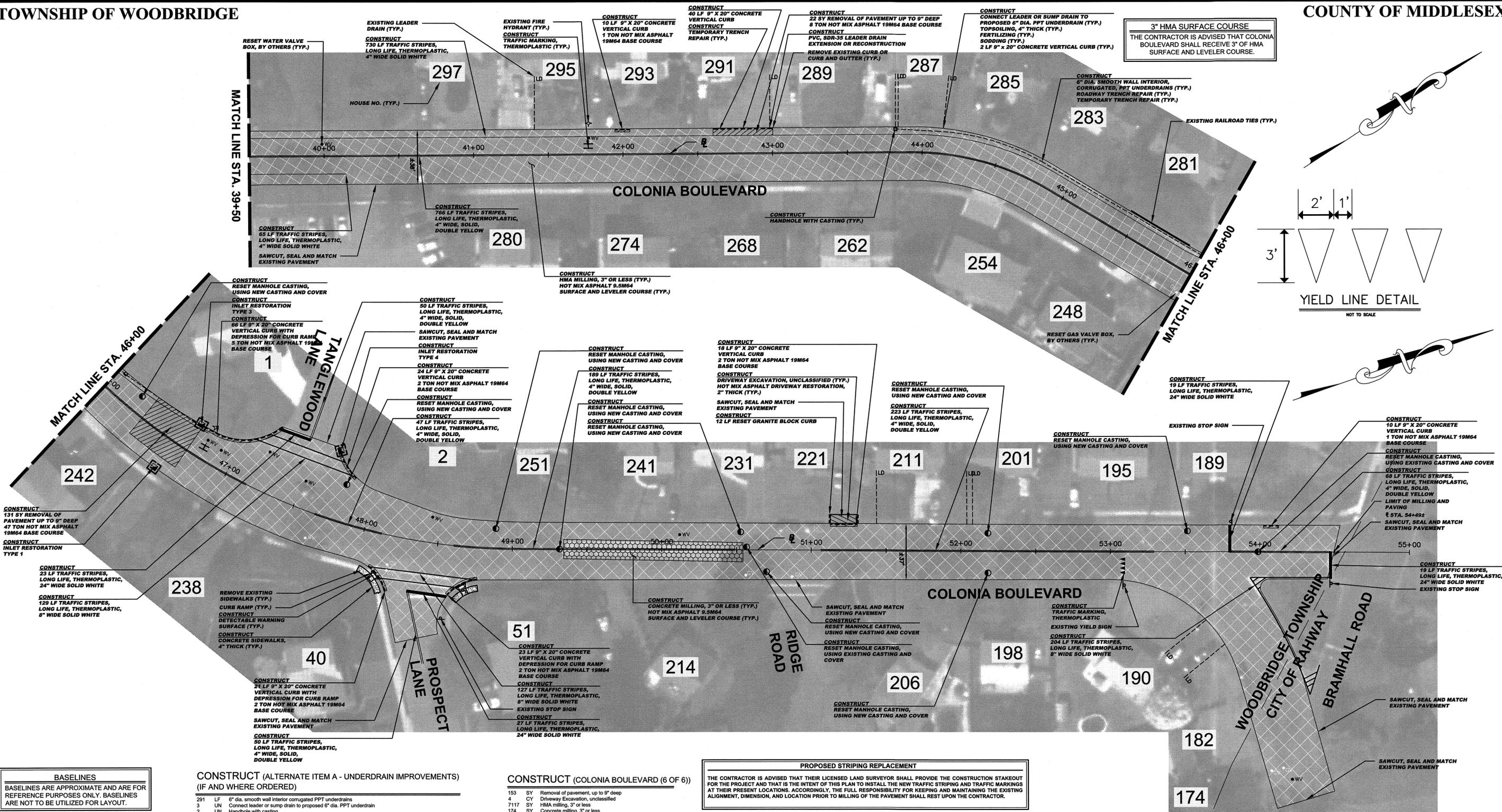
CONSULTING AND MUNICIPAL ENGINEERS  
3141 BORDENTOWN AVENUE, PARLIN, NEW JERSEY 08859-1162 1460 ROUTE 9 SOUTH, HOWELL, NEW JERSEY 07731-1194  
(732) 727-8000 (732) 462-7400

JOHN H. ALLGAIR P.E. & P.P. NO PE LIC. NO. 32962 (1983 - 2021)	DAVID J. SAMUEL P.E. & P.P. NO PE LIC. NO. 25838 NO PP LIC. NO. 30774	JOHN J. STEFANI P.E. L.S. & P.P. NO PE & LS LIC. NO. 24271 NO PP LIC. NO. 4361
JAY B. CORNELL P.E. & P.P. NO PE LIC. NO. 32962	MICHAEL J. MCCLELLAND P.E. & P.P. NO PE LIC. NO. 32468	GREGORY R. VALESI P.E. & P.P. NO PE LIC. NO. 34459 NO PP LIC. NO. 4361

SCALE: As Shown DATE: April 2020  
DRAWN BY: AR DESIGNED BY: AR  
CHECKED BY: SHEET: 34 of 65

MICHAEL J. MCCLELLAND P.E.  
NEW JERSEY PROFESSIONAL ENGINEER L.C. 32468

FILE NO. PWB0610.01



**BASELINES**

BASELINES ARE APPROXIMATE AND ARE FOR REFERENCE PURPOSES ONLY. BASELINES ARE NOT TO BE UTILIZED FOR LAYOUT.

**CONSTRUCT (ALTERNATE ITEM A - UNDERDRAIN IMPROVEMENTS) (IF AND WHERE ORDERED)**

291	LF	6" dia. smooth wall interior corrugated PPT underdrains
3	UN	Connect leader or sump drain to proposed 6" dia. PPT underdrain
2	UN	Handhole with casting
1	UN	Reconstruct inlet, type B
6	LF	9" x 20" concrete vertical curb
65	SY	Roadway trench repair
65	SY	Temporary trench repair
2	SY	Topsoiling, 4" thick
2	SY	Fertilizing
2	SY	Sodding

**CONSTRUCT (COLONIA BOULEVARD (6 OF 6))**

153	SY	Removal of pavement, up to 9" deep
4	CY	Driveway Excavation, unclassified
7117	LF	HMA milling, 3" or less
174	SY	Concrete milling, 3" or less
5979	LF	Polymerized joint adhesive
309	LF	Prepare and seal existing joints and cracks in asphalt pavement
1472	TON	Hot mix asphalt 19M64 base course
70	UN	Reset manhole casting, using new casting and cover
1	UN	Reset existing casting
2	UN	Curb piece, type "N-ECO"
1	UN	Bicycle Safe Grate
21	SY	Concrete sidewalks, 4" thick
12	SY	Hot mix asphalt driveway restoration, 2" thick
2	SY	Detachable warning surface
212	LF	9" x 20" concrete vertical curb
12	LF	Reset granite block curb
3581	LF	Traffic stripes, long life, "thermoplastic", 4" wide
480	LF	Traffic stripes, long life, "thermoplastic", 8" wide
88	LF	Traffic stripes, long life, "thermoplastic", 24" wide
24	SF	Traffic markings, thermoplastic
11	SY	Temporary trench repair
9	UN	Reset water valve box
8	UN	Reset gas valve box
71	SY	Topsoiling, 4" thick
71	SY	Fertilizing
71	SY	Sodding

**PROPOSED STRIPING REPLACEMENT**

THE CONTRACTOR IS ADVISED THAT THEIR LICENSED LAND SURVEYOR SHALL PROVIDE THE CONSTRUCTION STAKEOUT FOR THE PROJECT AND THAT IS THE INTENT OF THIS PLAN TO INSTALL THE NEW TRAFFIC STRIPING AND TRAFFIC MARKINGS AT THEIR PRESENT LOCATIONS. ACCORDINGLY, THE FULL RESPONSIBILITY FOR KEEPING AND MAINTAINING THE EXISTING ALIGNMENT, DIMENSION, AND LOCATION PRIOR TO MILLING OF THE PAVEMENT SHALL REST UPON THE CONTRACTOR.

**INLET RESTORATION:**

TYPE 1	RESET EXISTING CASTING CURB PIECE, TYPE "N-ECO" OR P-ECO
TYPE 2	RESET EXISTING CASTING BICYCLE SAFE GRATE
TYPE 3	RESET EXISTING CASTING CURB PIECE, TYPE "N-ECO" OR P-ECO, BICYCLE SAFE GRATE
TYPE 4	RESET EXISTING CASTING

**PROPOSED LEGEND:**

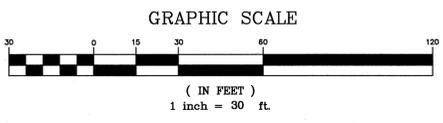
	DENOTES PROPOSED MANHOLE		DENOTES PROPOSED REINFORCED CONCRETE SIDEWALK
	DENOTES RESET MANHOLE CASTING		DENOTES REMOVE AND REPLACE CURB (INCLUDING 2" WIDE EXCAVATION) AND PAVING WITH 19M64 BASE COURSE
	DENOTES PROPOSED INLET		DENOTES REMOVE AND REPLACE CURB (INCLUDING 2" WIDE TEMPORARY TRENCH REPAIR)
	DENOTES RESET INLET CASTING		DENOTES PROPOSED CONCRETE SIDEWALK AND DRIVEWAY APRON
	DENOTES RECONSTRUCT INLET		DENOTES AREA TO BE EXCAVATED AND RECEIVE 2" HOT MIX ASPHALT 9.5M64 SURFACE COURSE AND 3" HOT MIX ASPHALT 19M64 BASE COURSE
	DENOTES PROPOSED DETECTABLE WARNING SURFACE		DENOTES AREA TO BE MILLED AND RECEIVE MIN. 2" HMA 9.5M64 SURFACE AND LEVELER COURSE
	DENOTES EXISTING VALLEY GUTTER		DENOTES AREA TO BE MILLED, EXISTING CRACK TO BE CLEANED AND SEALED, AND GEO COMPOSITE MATERIAL TO BE INSTALLED
	DENOTES DIRECTION OF FLOW		DENOTES REMOVAL OF PAVEMENT UP TO 9" AND RECEIVE HMA 19M64 BASE COURSE
	DENOTES TRAFFIC MARKINGS, LONG LIFE, THERMOPLASTIC WITH GLASS BEADS, FOR FIRE HYDRANT		DENOTES AREA TO BE EXCAVATED AND RECEIVE 3" HMA SURFACE COURSE 9.5M64, 6" HMA BASE COURSE 19M64 AND 6" DGA BASE COURSE
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	DENOTES BENCH MARK LOCATION		
	DENOTES EXISTING TREES OR STUMPS TO BE REMOVED		
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**SPECIAL PROVISIONS**

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**TOWNSHIP OF WOODBRIDGE**  
MIDDLESEX COUNTY, NEW JERSEY

**2020 MILLING AND RESURFACING PROGRAM**

CONTRACT NO. 2020-001

COLONIA BOULEVARD (6 OF 6) WARD 5

3141 BORDENTOWN AVENUE, PARLIN, NEW JERSEY 08859-1162 — 1460 ROUTE 9 SOUTH, HOWELL, NEW JERSEY 07731-1194

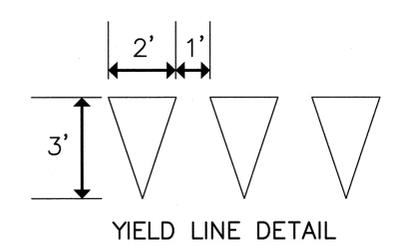
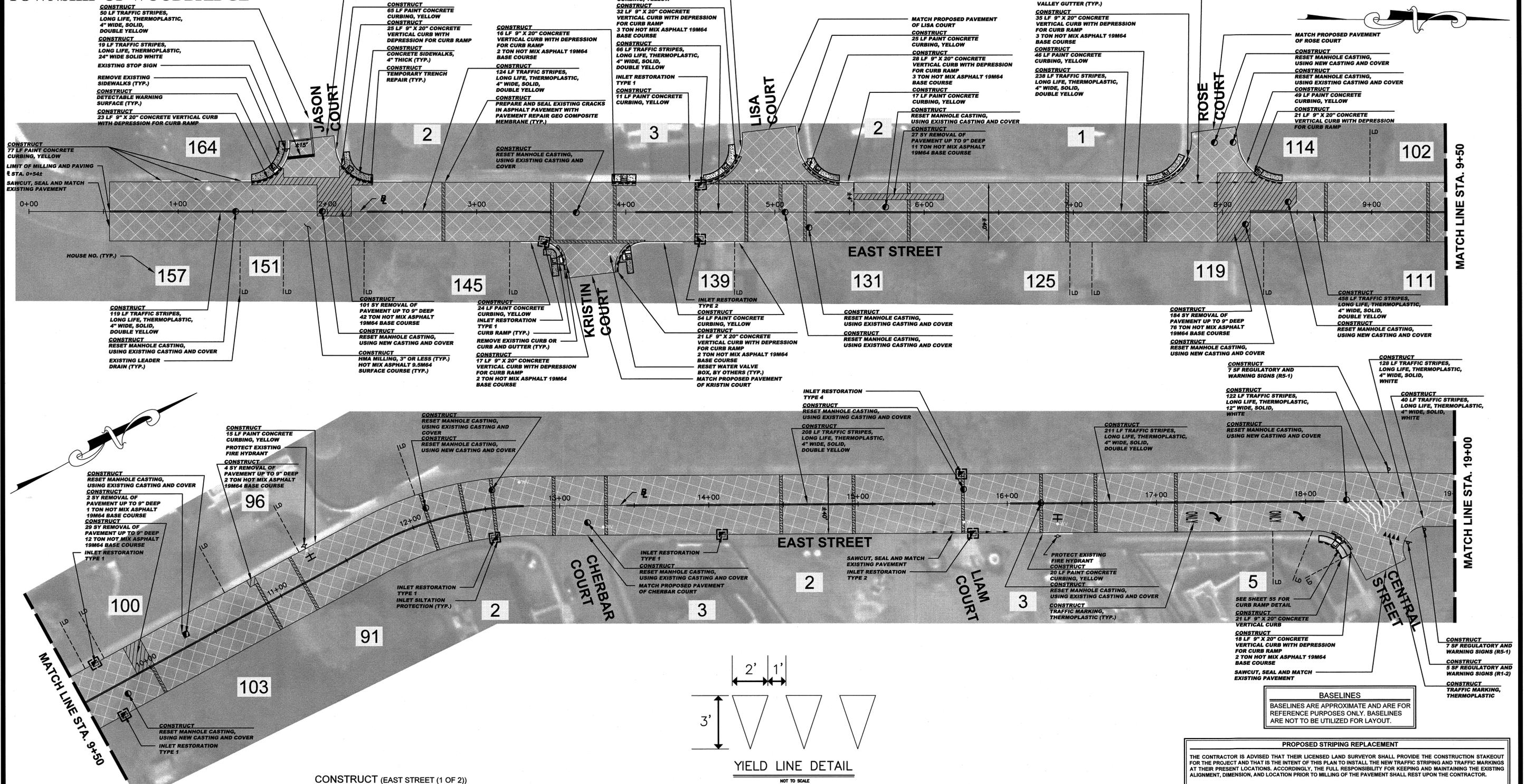
**ASSOCIATES**  
CONSULTING AND MUNICIPAL ENGINEERS (732) 462-7400

**JOHN H. ALLGAIER P.E. & P.P.** (1983 - 2021) NO PE LIC NO. 2485  
**JAY B. CORNELL P.E. & P.P.** NO PE LIC NO. 32962  
**MICHAEL J. MCCLELLAND P.E. & P.P.** NO PE LIC NO. 32468  
**JOHN J. STEFANI P.E. L.S. & P.P.** NO PP LIC NO. 2089  
**GREGORY R. VALESINI P.E. & P.P.** NO PE LIC NO. 34458

**MICHAEL J. MCCLELLAND P.E.** L.C. 32468  
NEW JERSEY PROFESSIONAL ENGINEER

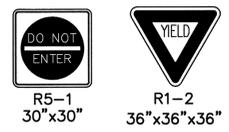
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DATE: April 2020  
DRAWN BY: AR  
DESIGNED BY: AR  
CHECKED BY: [Signature]  
DATE: 4.21.20

FILE NO. PWB0610.01



**CONSTRUCT (EAST STREET (1 OF 2))**

- 347 SY Removal of pavement, up to 9" deep
- 8541 SY HMA milling, 3" or less
- 7222 LF Polymerized joint adhesive
- 372 LF Prepare and seal existing joints and cracks in asphalt pavement
- 1130 LF Prepare and seal existing transverse cracks in asphalt pavement with pavement repair geo composite membrane
- 1245 TON Hot mix asphalt 9.5M64 surface and leveler course
- 161 TON Hot mix asphalt 19M64 base course
- 11 UN Reset manhole casting, using existing casting and cover
- 7 UN Reset manhole casting, using new casting and cover
- 9 UN Reset existing casting
- 6 UN Curb piece, type "N-ECO"
- 2 UN Bicycle Safe Grate
- 129 SY Concrete sidewalks, 4" thick
- 11 SY Detectable warning surface
- 257 LF 9"x20" Concrete vertical curb
- 415 LF Paint concrete curbing, yellow
- 3116 LF Traffic stripes, long life, "thermoelastic", 4" wide
- 122 LF Traffic stripes, long life, "thermoelastic", 12" wide
- 19 LF Traffic stripes, long life, "thermoelastic", 24" wide
- 148 SF Traffic markings, thermoelastic
- 19 SF Regulatory and warning signs
- 16 SY Temporary trench repair
- UN Reset water valve box
- 74 SY Topsoiling, 4" thick
- 74 SY Fertilizing
- 74 SY Sodding



**PROPOSED LEGEND:**

- DENOTES PROPOSED MANHOLE
- DENOTES RESET MANHOLE CASTING
- DENOTES RECONSTRUCT MANHOLE
- DENOTES PROPOSED INLET
- DENOTES RESET INLET CASTING
- DENOTES RECONSTRUCT INLET
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- DENOTES EXISTING VALLEY GUTTER
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- DENOTES HOT MIX ASPHALT DRIVEWAY RESTORATION
- DENOTES PROPOSED REINFORCED CONCRETE SIDEWALK
- DENOTES REMOVE AND REPLACE CURB (INCLUDING 2" WIDE EXCAVATION) AND PAVING WITH 19M64 BASE COURSE
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- DENOTES AREA TO BE MILLED, EXISTING CRACK TO BE CLEANED AND SEALED, AND GEO COMPOSITE MATERIAL TO BE INSTALLED
- DENOTES REMOVAL OF PAVEMENT UP TO 9" AND RECEIVE HMA 19M64 BASE COURSE

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TOWNSHIP OF WOODBRIDGE  
MIDDLESEX COUNTY, NEW JERSEY  
**2020 MILLING AND RESURFACING PROGRAM**  
CONTRACT NO. 2020-001  
EAST STREET (1 OF 2) WARD 5

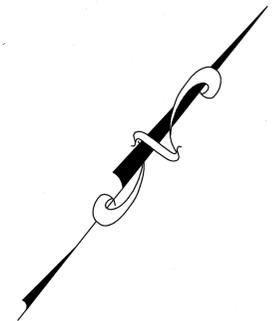
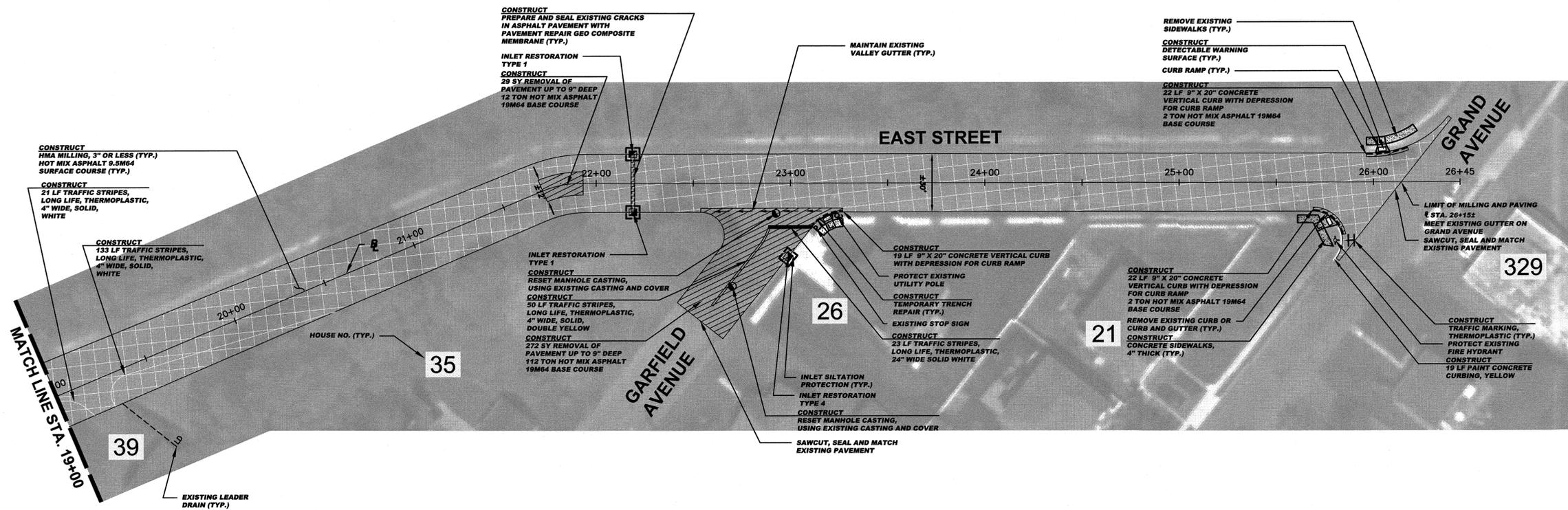
CONSULTING AND MUNICIPAL ENGINEERS  
3141 BORDENTOWN AVENUE, PAULIN, NEW JERSEY 08859-1162 — 14607 ROUTE 9 SOUTH, HOWELL, NEW JERSEY 07731-1194  
(732) 727-8000 (732) 462-7400

JOHN H. ALLGAR P.E. & P.P. (1981 - 2001) NO. PE LIC. NO. 20528  
DAVID J. SAMUEL P.E. & P.P. NO. PE LIC. NO. 2455  
JOHN J. STEFANI P.E., L.S. & P.P. NO. PE LIC. NO. 24571  
MICHAEL J. MCCLELLAND P.E. & P.P. NO. PE LIC. NO. 32468  
GREGORY R. VALESKI P.E. & P.P. NO. PE LIC. NO. 34458

**MICHAEL J. MCCLELLAND P.E.**  
NEW JERSEY PROFESSIONAL ENGINEER  
LIC. 32468  
April 2020

SCALE: As Shown  
DRAWN BY: AR  
CHECKED BY: [Signature]  
DESIGNED BY: AR  
DATE: April 2020  
SHEET: 36 of 65

FILE NO. PWBOA610.01



**CONSTRUCT (EAST STREET (2 OF 2))**

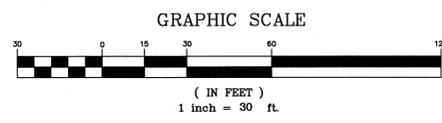
301	SY	Removal of pavement, up to 9\"/>
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**INLET RESTORATION:**

TYPE 1	-	RESET EXISTING CASTING CURB PIECE, TYPE N-ECO OR P-ECO
TYPE 2	-	RESET EXISTING CASTING BICYCLE SAFE GRATE
TYPE 3	-	RESET EXISTING CASTING CURB PIECE, TYPE N-ECO OR P-ECO, BICYCLE SAFE GRATE
TYPE 4	-	RESET EXISTING CASTING



**PROPOSED LEGEND:**

	- DENOTES PROPOSED MANHOLE		- DENOTES PROPOSED REINFORCED CONCRETE SIDEWALK
	- DENOTES RESET MANHOLE CASTING		- DENOTES REMOVE AND REPLACE CURB (INCLUDING 2\"/>

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TOWNSHIP OF WOODBRIDGE  
MIDDLESEX COUNTY, NEW JERSEY  
**2020 MILLING AND RESURFACING PROGRAM**  
CONTRACT NO. 2020-001  
EAST STREET (2 OF 2) WARD 5

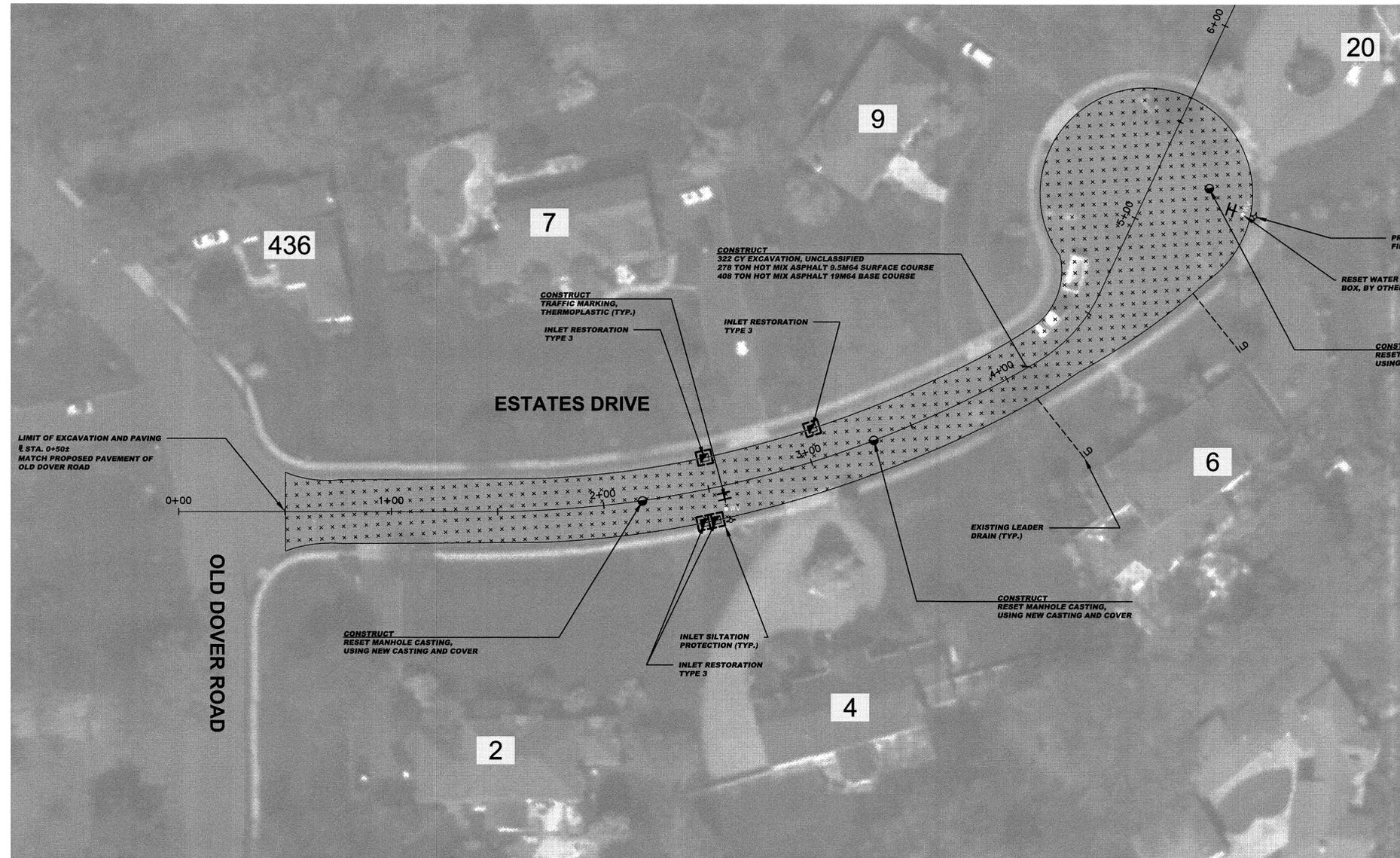
CONSULTING AND MUNICIPAL ENGINEERS  
3141 BOKERDENTOWN AVENUE, PANLUN, NEW JERSEY 08859-1162 — 1460 ROUTE 9 SOUTH, HONELL, NEW JERSEY 07731-1194

JOHN H. ALLGAIR P.E. & P.P. (1993 - 2001)	DAVID J. SAMUEL P.E. & P.P. (1993 - 2001)	JOHN J. STEFANI P.E., L.S. & P.P. (1993 - 2001)
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**MICHAEL J. McCLELLAND P.E.**  
NEW JERSEY PROFESSIONAL ENGINEER L.I.C. 32468

As Shown April 2020  
DRAWN BY AR DESIGNED BY AR  
CHECKED BY SHEET 37 of 65

DRAWING NO. PWB0A610.01



**CONSTRUCT (ESTATES DRIVE)**

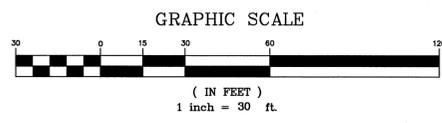
322	CY	Excavation, unclassified, 5' deep
1833	LF	Polymerized joint adhesive
272	TON	Hot mix asphalt 9.5M64 surface and leveler course
408	TON	Hot mix asphalt 19M64 base course
3	UN	Reset manhole casting, using new casting and cover
4	UN	Reset existing casting
4	UN	Curb piece, type "N-ECC"
4	UN	Bicycle Safe Grate
18	SF	Traffic markings, thermoplastic
2	UN	Reset water valve box

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- INLET RESTORATION:**
- TYPE 1 - RESET EXISTING CASTING CURB PIECE, TYPE N-ECC OR P-ECC
  - TYPE 2 - RESET EXISTING CASTING BICYCLE SAFE GRATE
  - TYPE 3 - RESET EXISTING CASTING CURB PIECE, TYPE N-ECC OR P-ECC, BICYCLE SAFE GRATE
  - TYPE 4 - RESET EXISTING CASTING

**PROPOSED LEGEND:**

- - DENOTES PROPOSED MANHOLE
- - DENOTES RESET MANHOLE CASTING
- ⊗ - DENOTES RECONSTRUCT MANHOLE
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- ⊠ - DENOTES RECONSTRUCT INLET
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- - DENOTES DIRECTION OF FLOW
- - DENOTES TRAFFIC MARKINGS, LONG LIFE, THERMOPLASTIC WITH GLASS BEADS, FOR FIRE HYDRANT
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- ▨ - DENOTES PROPOSED REINFORCED CONCRETE SIDEWALK
- ▨ - DENOTES REMOVE AND REPLACE CURB (INCLUDING 2' WIDE EXCAVATION) AND PAVING WITH 19M64 BASE COURSE
- ▨ - DENOTES REMOVE AND REPLACE CURB (INCLUDING 2' WIDE TEMPORARY TRENCH REPAIR) DENOTES PROPOSED CONCRETE SIDEWALK AND DRIVEWAY APRON
- ▨ - DENOTES AREA TO BE EXCAVATED AND RECEIVE 2" HOT MIX ASPHALT 9.5M64 SURFACE COURSE AND 3" HOT MIX ASPHALT 19M64 BASE COURSE
- ▨ - DENOTES AREA TO BE MILLED AND RECEIVE MIN. 2" HMA 9.5M64 SURFACE AND LEVELER COURSE
- ▨ - DENOTES AREA TO BE MILLED, EXISTING CRACK TO BE CLEANED AND SEALED, AND GEO COMPOSITE MATERIAL TO BE INSTALLED
- ▨ - DENOTES REMOVAL OF PAVEMENT UP TO 9" AND RECEIVE HMA 19M64 BASE COURSE

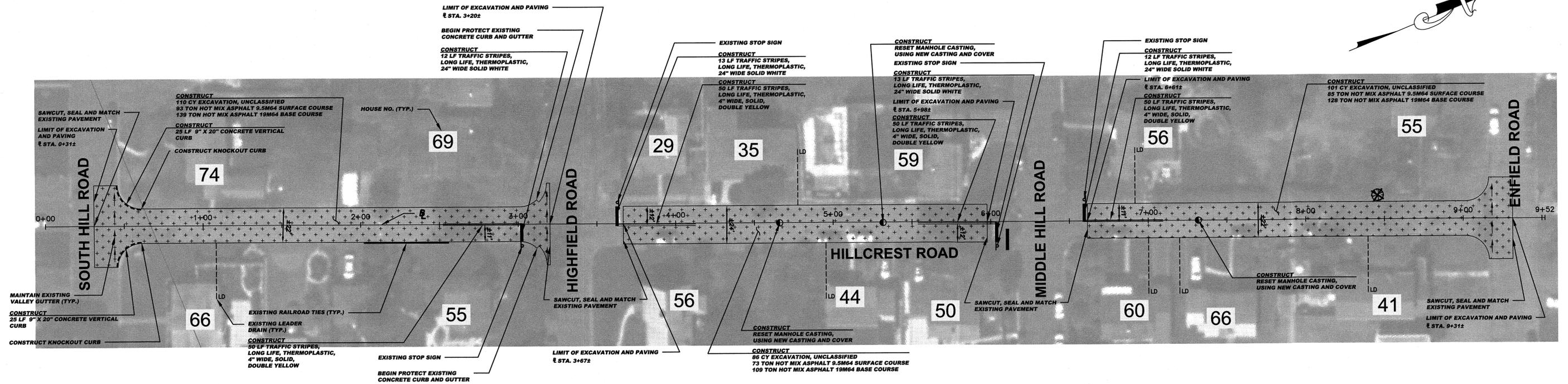
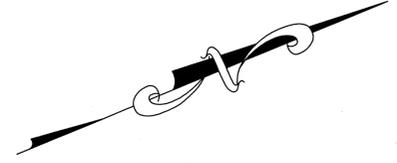


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NO.		DESCRIPTION OF REVISION	DATE	DRAWN	CHECKED	RELEASED
<p><b>TOWNSHIP OF WOODBRIDGE</b> MIDDLESEX COUNTY, NEW JERSEY <b>2020 MILLING AND RESURFACING PROGRAM</b></p> <p>CONTRACT NO. 2020-001</p> <p>ESTATES DRIVE WARD 5</p> <p>(732) 727-8000 CONSULTING AND MUNICIPAL ENGINEERS (732) 462-7400</p> <p>3141 BORDENTOWN AVENUE, PARLIN, NEW JERSEY 08859-1162 — 1460 ROUTE 9 SOUTH, HOWELL, NEW JERSEY 07731-1104</p>						
JOHN H. ALLGAIR P.E. & P.P. (1981 - 2011) NJ PE LIC NO. 32962	DAVID J. SAMUEL P.E. & P.P. NJ PE LIC NO. 22638	JOHN J. STEFANI P.E. L.S. & P.P. NJ PE & L.S. LIC NO. 24271 NJ PP LIC NO. 2089				
JAY B. CORNELL P.E. & P.P. NJ PE LIC NO. 32962	MICHAEL J. McCLELLAND P.E. & P.P. NJ PE LIC NO. 32468	GREGORY R. VALESI P.E. & P.P. NJ PE LIC NO. 34458				
<p><b>MICHAEL J. McCLELLAND P.E.</b> NEW JERSEY PROFESSIONAL ENGINEER LIC. 32468</p> <p><i>Michael J. McClelland</i> 4.21.20</p>		<p>SCALE: As Shown</p> <p>DATE: April 2020</p> <p>DRAWN BY: AR</p> <p>DESIGNED BY: AR</p> <p>CHECKED BY:</p> <p>SHEET: 38 of 65</p>				

DRAWING NO. PWB0610.01



**CONSTRUCT (HILLCREST ROAD)**

297	CY	Excavation, unclassified, 5' deep
5510	LF	Polymerized joint adhesive
290	LF	Prepare and seal existing joints and cracks in asphalt pavement
251	TON	Hot mix asphalt 9.5M64 surface and leveler course
376	TON	Hot mix asphalt 19M64 base course
3	UN	Reset manhole casting, using new casting and cover
400	LF	Traffic stripes, long life, "thermoplastic", 4" wide
50	LF	Traffic stripes, long life, "thermoplastic", 24" wide
40	SY	Topsoiling, 4" thick
40	SY	Fertilizing
40	SY	Sodding
1	UN	Tree Replacement

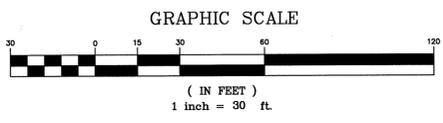
**BASELINES**  
BASELINES ARE APPROXIMATE AND ARE FOR REFERENCE PURPOSES ONLY. BASELINES ARE NOT TO BE UTILIZED FOR LAYOUT.

**INLET RESTORATION:**

TYPE 1	-	RESET EXISTING CASTING CURB PIECE, TYPE N-ECO OR P-ECO
TYPE 2	-	RESET EXISTING CASTING BICYCLE SAFE GRATE
TYPE 3	-	RESET EXISTING CASTING CURB PIECE, TYPE N-ECO OR P-ECO, BICYCLE SAFE GRATE
TYPE 4	-	RESET EXISTING CASTING

**PROPOSED LEGEND:**

●	- DENOTES PROPOSED MANHOLE		DENOTES PROPOSED REINFORCED CONCRETE SIDEWALK
○	- DENOTES RESET MANHOLE CASTING		DENOTES REMOVE AND REPLACE CURB (INCLUDING 2' WIDE EXCAVATION) AND PAVING WITH 19M64 BASE COURSE
⊗	- DENOTES RECONSTRUCT MANHOLE		DENOTES REMOVE AND REPLACE CURB (INCLUDING 2' WIDE TEMPORARY TRENCH REPAIR)
□	- DENOTES PROPOSED INLET		DENOTES PROPOSED CONCRETE SIDEWALK AND DRIVEWAY APRON
⊠	- DENOTES RESET INLET CASTING		DENOTES AREA TO BE EXCAVATED AND RECEIVE 2" HOT MIX ASPHALT 9.5M64 SURFACE COURSE AND 3" HOT MIX ASPHALT 19M64 BASE COURSE
⊡	- DENOTES RECONSTRUCT INLET		DENOTES AREA TO BE MILLED AND RECEIVE MIN. 2" HMA 9.5M64 SURFACE AND LEVELER COURSE
⊞	- DENOTES PROPOSED DETECTABLE WARNING SURFACE		DENOTES AREA TO BE MILLED, EXISTING CRACK TO BE CLEANED AND SEALED, AND GEO COMPOSITE MATERIAL TO BE INSTALLED
⊟	- DENOTES EXISTING VALLEY GUTTER		DENOTES REMOVAL OF PAVEMENT UP TO 9" AND RECEIVE HMA 19M64 BASE COURSE
⊠	- DENOTES DIRECTION OF FLOW		
⊡	- DENOTES TRAFFIC MARKINGS, LONG LIFE, THERMOPLASTIC WITH GLASS BEADS, FOR FIRE HYDRANT		
⊠	- DENOTES PAINT CONCRETE CURBING, YELLOW		
⊠	- DENOTES BENCH MARK LOCATION		
⊠	- DENOTES EXISTING TREES OR STUMPS TO BE REMOVED		
⊠	- DENOTES RESET BROCKWALK/PAVERS		
⊠	- DENOTES CONCRETE DRIVEWAY RESTORATION		
⊠	- DENOTES HOT MIX ASPHALT DRIVEWAY RESTORATION		



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TOWNSHIP OF WOODBRIDGE  
MIDDLESEX COUNTY, NEW JERSEY  
**2020 MILLING AND RESURFACING PROGRAM**  
CONTRACT NO. 2020-001  
WARD 5

HILLCREST ROAD

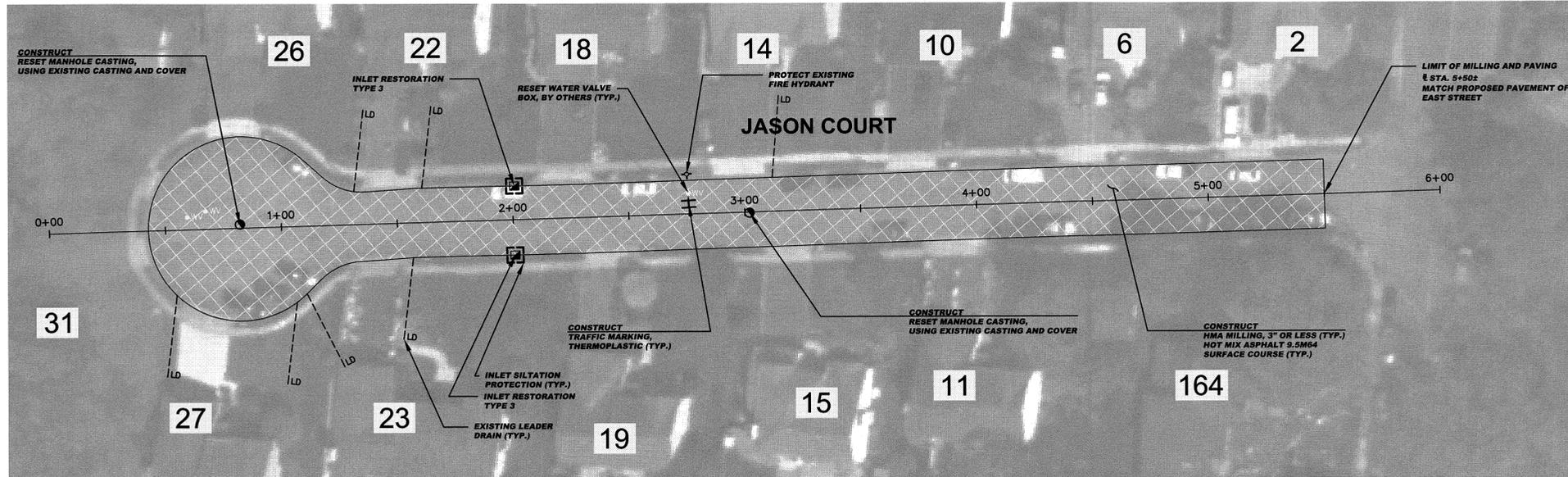
**OVE ASSOCIATES**  
CONSULTING AND MUNICIPAL ENGINEERS  
3141 BORDENTOWN AVENUE, PARLIN, NEW JERSEY 08859-1162 — 1460 ROUTE 9 SOUTH, HOWELL, NEW JERSEY 07731-1194  
(732) 727 8000 (732) 462 7400

JOHN H. ALLGAIER P.E. & P.P. (1981 - 2021) NO PE LIC NO. 25828 NO PP LIC NO. 3874	DAVID J. SAMUEL P.E. & P.P. NO PE LIC NO. 24555 NO PP LIC NO. 3779	JOHN J. STEFANI P.E. L.S. & P.P. NO PE & LS LIC NO. 24271 NO PP LIC NO. 4361
JAY B. CORNELL P.E. & P.P. NO PE LIC NO. 32062	MICHAEL J. MCCLELLAND P.E. & P.P. NO PE LIC NO. 30466	GREGORY R. VALESI P.E. & P.P. NO PE LIC NO. 3779

**MICHAEL J. MCCLELLAND P.E.**  
NEW JERSEY PROFESSIONAL ENGINEER  
LIC. 32468

SCALE: As Shown  
DATE: April 2020  
DRAWN BY: AR  
DESIGNED BY: AR  
CHECKED BY: AR  
SHEET: 39 of 65

FILE NO. PWB06A10.01



**CONSTRUCT (JASON COURT)**

1996	SY	HMA milling, 3" or less
1794	LF	Polymerized joint adhesive
295	TON	Hot mix asphalt 9.5M64 surface and leveler course
2	UN	Reset manhole casting, using existing casting and cover
2	UN	Reset existing casting
2	UN	Curb piece, type "N-ECO"
2	UN	Bicycle Safe Grate
1	UN	Reset water valve box

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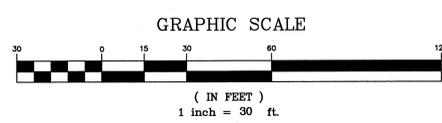
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**INLET RESTORATION:**

TYPE 1	- RESET EXISTING CASTING CURB PIECE, TYPE N-ECO OR P-ECO
TYPE 2	- RESET EXISTING CASTING BICYCLE SAFE GRATE
TYPE 3	- RESET EXISTING CASTING CURB PIECE, TYPE N-ECO OR P-ECO, BICYCLE SAFE GRATE
TYPE 4	- RESET EXISTING CASTING

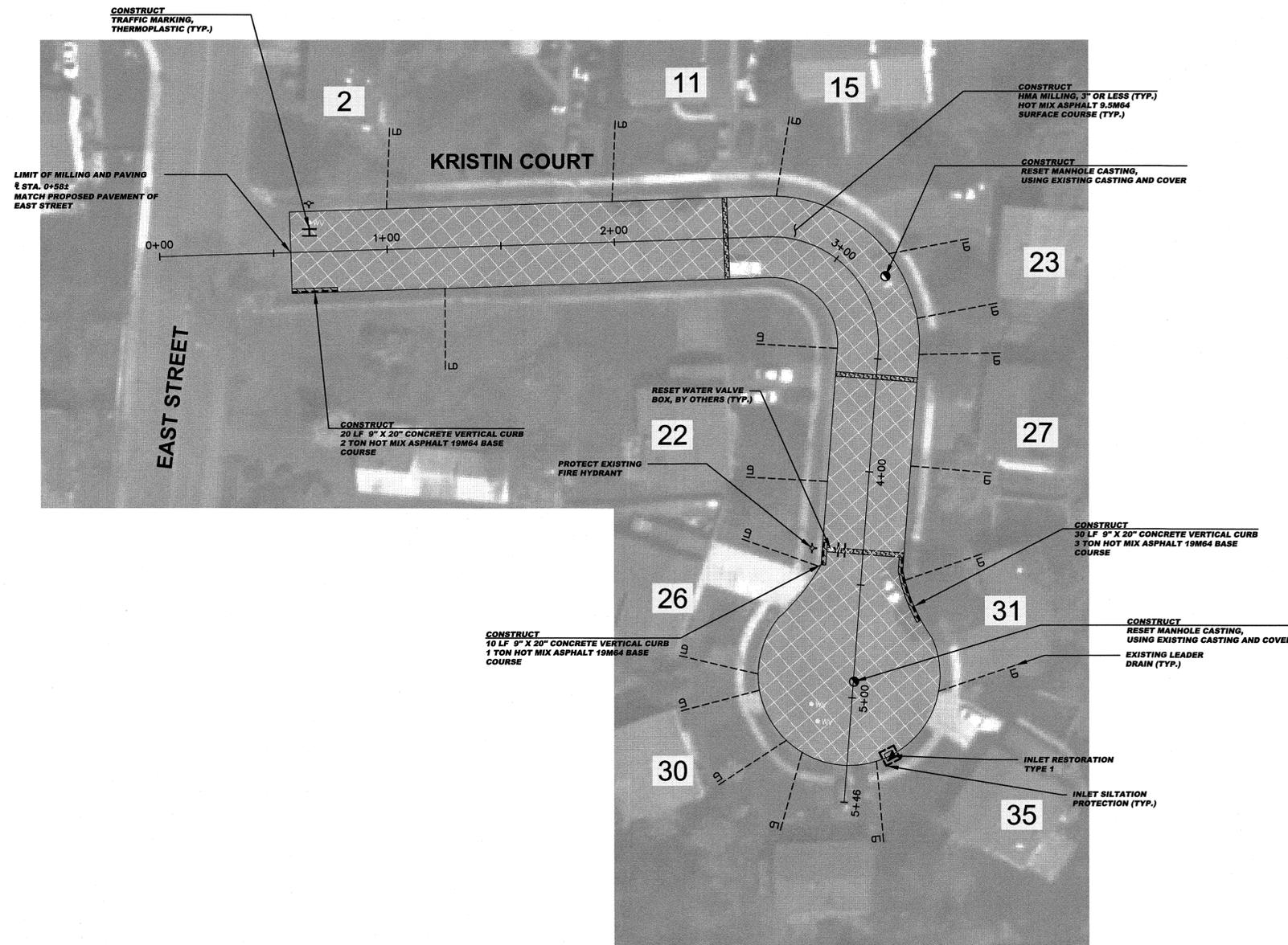
**PROPOSED LEGEND:**

●	- DENOTES PROPOSED MANHOLE	▨	- DENOTES PROPOSED REINFORCED CONCRETE SIDEWALK
○	- DENOTES RESET MANHOLE CASTING	▩	- DENOTES REMOVE AND REPLACE CURB (INCLUDING 2' WIDE EXCAVATION) AND PAVING WITH 19M64 BASE COURSE
⊗	- DENOTES RECONSTRUCT MANHOLE	▧	- DENOTES REMOVE AND REPLACE CURB (INCLUDING 2' WIDE TEMPORARY TRENCH REPAIR)
—	- DENOTES PROPOSED INLET	▦	- DENOTES PROPOSED CONCRETE SIDEWALK AND DRIVEWAY APRON
⊕	- DENOTES RESET INLET CASTING	⊛	- DENOTES AREA TO BE EXCAVATED AND RECEIVE 2" HOT MIX ASPHALT 9.5M64 SURFACE COURSE AND 3" HOT MIX ASPHALT 19M64 BASE COURSE
⊖	- DENOTES RECONSTRUCT INLET	⊜	- DENOTES AREA TO BE MILLED AND RECEIVE MIN. 2" HMA 9.5M64 SURFACE AND LEVELER COURSE
⊗	- DENOTES PROPOSED DETECTABLE WARNING SURFACE	⊝	- DENOTES AREA TO BE MILLED, EXISTING CRACK TO BE CLEANED AND SEALED, AND GEO COMPOSITE MATERIAL TO BE INSTALLED
—	- DENOTES EXISTING VALLEY GUTTER	▨	- DENOTES REMOVAL OF PAVEMENT UP TO 9" AND RECEIVE HMA 19M64 BASE COURSE
—	- DENOTES DIRECTION OF FLOW		
—	- DENOTES TRAFFIC MARKINGS, LONG LIFE, THERMOPLASTIC WITH GLASS BEADS, FOR FIRE HYDRANT		
—	- DENOTES PAINT CONCRETE CURBING, YELLOW		
—	- DENOTES BENCH MARK LOCATION		
—	- DENOTES EXISTING TREES OR STUMPS TO BE REMOVED		
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TOWNSHIP OF WOODBRIDGE MIDDLESEX COUNTY, NEW JERSEY		DATE	DRAWN	CHECKED	RELEASED
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JASON COURT		WARD 5			
 CONSULTING AND MUNICIPAL ENGINEERS					
3141 BORDENTOWN AVENUE, PARLIN, NEW JERSEY 08859-1102 — 1460 ROUTE 9 SOUTH, HOWELL, NEW JERSEY 07731-1194					
JOHN H. ALLGAIR P.E. & P.P. NJ PE LIC NO. 32962	DAVID J. SAMUEL P.E. & P.P. NJ PE LIC NO. 20281	JOHN J. STEFANI P.E. L.S. & P.P. NJ PE & L.S. LIC NO. 24271			
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<b>MICHAEL J. McCLELLAND P.E.</b> NEW JERSEY PROFESSIONAL ENGINEER		SCALE: As Shown DATE: April 2020 DRAWN BY: AR DESIGNED BY: AR CHECKED BY: SHEET: 40 of 65			
 MICHAEL J. McClelland 4.22.20					

FILE NO. PW80A610.01



CONSTRUCT (KRISTIN COURT)

2144	SY	HMA milling, 3" or less
1728	LF	Polymerized joint adhesive
106	LF	Prepare and seal existing transverse cracks in asphalt pavement with pavement repair geo composite membrane
372	TON	Hot mix asphalt 9.5M64 surface and leveler course
6	TON	Hot mix asphalt 19M64 base course
2	UN	Reset manhole casting, using existing casting and cover
1	UN	Reset existing casting
1	UN	Curb piece, type "N-ECO"
60	LF	9"x20" Concrete vertical curb
40	LF	Paint concrete curbing, yellow
4	UN	Reset water valve box
40	SY	Topping, 4" thick
40	SY	Fertilizing
40	SY	Sodding

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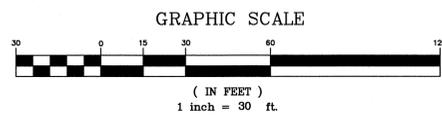
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TYPE 2	- RESET EXISTING CASTING BICYCLE SAFE GRATE
TYPE 3	- RESET EXISTING CASTING CURB PIECE, TYPE N-ECO OR P-ECO, BICYCLE SAFE GRATE
TYPE 4	- RESET EXISTING CASTING

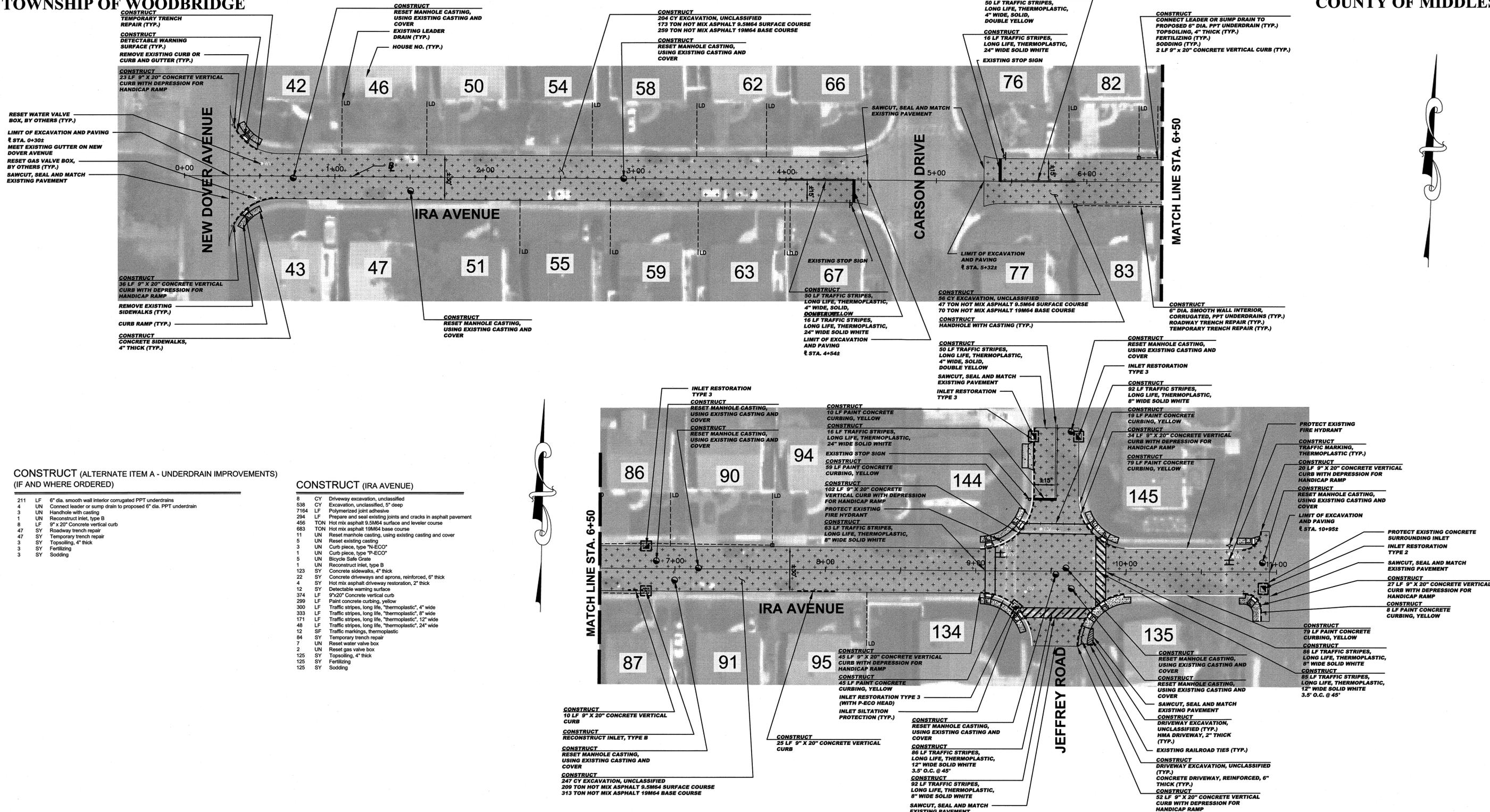
**PROPOSED LEGEND:**

●	- DENOTES PROPOSED MANHOLE	▨	- DENOTES PROPOSED REINFORCED CONCRETE SIDEWALK
⊙	- DENOTES RESET MANHOLE CASTING	▧	- DENOTES REMOVE AND REPLACE CURB (INCLUDING 2' WIDE EXCAVATION) AND PAVING WITH 19M64 BASE COURSE
⊗	- DENOTES RECONSTRUCT MANHOLE	▩	- DENOTES REMOVE AND REPLACE CURB (INCLUDING 2' WIDE TEMPORARY TRENCH REPAIR) DENOTES PROPOSED CONCRETE SIDEWALK AND DRIVEWAY APRON
□	- DENOTES PROPOSED INLET	▩	- DENOTES AREA TO BE EXCAVATED AND RECEIVE 2" HOT MIX ASPHALT 9.5M64 SURFACE COURSE AND 3" HOT MIX ASPHALT 19M64 BASE COURSE
■	- DENOTES RESET INLET CASTING	▩	- DENOTES AREA TO BE MILLED AND RECEIVE MIN. 2" HMA 9.5M64 SURFACE AND LEVELER COURSE
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—	- DENOTES DIRECTION OF FLOW		
—	- DENOTES EXISTING TRAFFIC MARKINGS, LONG LIFE, THERMOPLASTIC WITH GLASS BEADS, FOR FIRE HYDRANT		
—	- DENOTES PAINT CONCRETE CURBING, YELLOW		
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NEW JERSEY PROFESSIONAL ENGINEER		NEW JERSEY PROFESSIONAL ENGINEER	
L.I.C. 32468		L.I.C. 32468	
SCALE: As Shown	DATE: April 2020	CHECKED BY: AR	SHEET: 41 of 65

DRAWING NO. PWB0A610.01



CONSTRUCT (ALTERNATE ITEM A - UNDERDRAIN IMPROVEMENTS) (IF AND WHERE ORDERED)

- 211 LF 6" dia. smooth wall interior corrugated PPT underdrains
- 4 UN Connect leader or sump drain to proposed 6" dia. PPT underdrain
- 3 UN Handhole with casting
- 1 UN Reconstruct inlet, type B
- 8 LF 9" x 20" Concrete vertical curb
- 47 SY Roadway trench repair
- 47 SY Temporary trench repair
- 3 SY Topsoiling, 4" thick
- 3 SY Fertilizing
- 3 SY Sodding

CONSTRUCT (IRA AVENUE)

- 8 CY Driveway excavation, unclassified
- 538 CY Excavation, unclassified, 5' deep
- 7164 LF Polymerized joint adhesive
- 294 LF Prepare and seal existing joints and cracks in asphalt pavement
- 456 TON Hot mix asphalt 9.5M64 surface and leveling course
- 683 TON Hot mix asphalt 19M64 base course
- 11 UN Reset manhole casting, using existing casting and cover
- 5 UN Reset existing casting
- 3 UN Curb piece, type "N-ECO"
- 1 UN Curb piece, type "P-ECO"
- 5 UN Bicycle Safe Grate
- 1 UN Reconstruct inlet, type B
- 123 SY Concrete sidewalks, 4" thick
- 22 SY Concrete driveways and aprons, reinforced, 6" thick
- 4 SY Hot mix asphalt driveway restoration, 2" thick
- 12 SY Detectable warning surface
- 374 LF 9"x20" Concrete vertical curb
- 299 LF Paint concrete curbing, yellow
- 300 LF Traffic stripes, long life, "thermoelastic", 4" wide
- 333 LF Traffic stripes, long life, "thermoelastic", 8" wide
- 171 LF Traffic stripes, long life, "thermoelastic", 12" wide
- 48 LF Traffic stripes, long life, "thermoelastic", 24" wide
- 12 SF Traffic markings, thermoelastic
- 84 SY Temporary trench repair
- 7 UN Reset water valve box
- 2 UN Reset gas valve box
- 125 SY Topsoiling, 4" thick
- 125 SY Fertilizing
- 125 SY Sodding

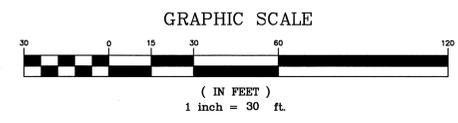
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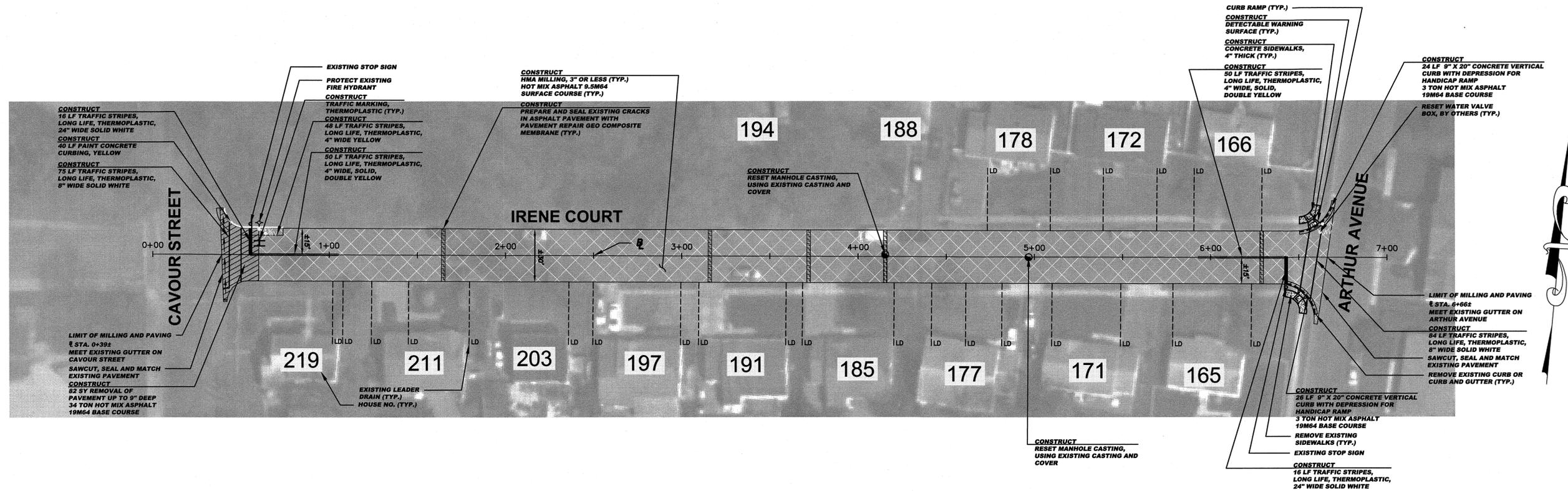
**NOTE:**  
 EXCEPT WHERE NOTED, EXISTING CONCRETE GUTTER TO BE MILLED AND RECEIVE 2" OF HOT MIX ASPHALT 9.5M64 SURFACE COURSE

- INLET RESTORATION:**
- TYPE 1 - RESET EXISTING CASTING CURB PIECE, TYPE N-ECO OR P-ECO
  - TYPE 2 - RESET EXISTING CASTING BICYCLE SAFE GRATE
  - TYPE 3 - RESET EXISTING CASTING CURB PIECE, TYPE N-ECO OR P-ECO, BICYCLE SAFE GRATE
  - TYPE 4 - RESET EXISTING CASTING



- PROPOSED LEGEND:**
- DENOTES PROPOSED MANHOLE
  - DENOTES RESET MANHOLE CASTING
  - ⊗ DENOTES RECONSTRUCT MANHOLE
  - DENOTES PROPOSED INLET
  - DENOTES RESET INLET CASTING
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  - DENOTES AREA TO BE EXCAVATED AND RECEIVE 2" HOT MIX ASPHALT 9.5M64 SURFACE COURSE AND 3" HOT MIX ASPHALT 19M64 BASE COURSE
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  - DENOTES AREA TO BE MILLED, EXISTING CRACK TO BE CLEANED AND SEALED, AND GEO COMPOSITE MATERIAL TO BE INSTALLED
  - DENOTES REMOVAL OF PAVEMENT UP TO 9" AND RECEIVE HMA 19M64 BASE COURSE

TOWNSHIP OF WOODBRIDGE  
 MIDDLESEX COUNTY, NEW JERSEY  
**2020 MILLING AND RESURFACING PROGRAM**  
 CONTRACT NO. 2020-001  
 IRA AVENUE WARD 5  
 CONSULTING AND MUNICIPAL ENGINEERS  
 (732) 727 8000 (732) 462 7400  
 3141 BORSEY TOWN AVENUE, PARLIN, NEW JERSEY 08859-1162 — 1460 ROUTE 9 SOUTH, HOWELL, NEW JERSEY 07731-1194  
 JOHN H. ALLGAIR P.E. & P.P. (1981 - 2011) DAVID J. SAMUEL P.E. & P.P. (1981 - 2011) JOHN J. STEFANI P.E. L.S. & P.P. (1981 - 2011)  
 JAY B. CORNELL P.E. & P.P. (1981 - 2011) MICHAEL J. MCCLELLAND P.E. & P.P. (1981 - 2011) GREGORY R. VALES P.E. & P.P. (1981 - 2011)  
**MICHAEL J. MCCLELLAND P.E.**  
 NEW JERSEY PROFESSIONAL ENGINEER L.C. 32468  
 SCALE: As Shown DATE: April 2020  
 DRAWN BY: AR DESIGNED BY: AR  
 CHECKED BY: AR SHEET: 42 OF 65  
 PWB04610.01



**CONSTRUCT (IRENE COURT)**

82	SY	Removal of pavement, up to 9" deep
2049	SY	HMA milling, 3" or less
2390	LF	Polymerized joint adhesive
133	LF	Prepare and seal existing joints and cracks in asphalt pavement
150	LF	Prepare and seal existing transverse cracks in asphalt pavement with pavement repair geo composite membrane
331	TON	Hot mix asphalt 9.5M64 surface and leveler course
40	TON	Hot mix asphalt 19M64 base course
2	UN	Reset manhole casting, using existing casting and cover
18	SY	Concrete sidewalks, 4" thick
2	SY	Detectable warning surface
50	LF	9"x20" Concrete vertical curb
40	LF	Paint concrete curbing, yellow
248	LF	Traffic stripes, long life, "thermoelastic", 4" wide
159	LF	Traffic stripes, long life, "thermoelastic", 8" wide
32	LF	Traffic stripes, long life, "thermoelastic", 24" wide
6	SF	Traffic markings, thermoelastic
4	UN	Reset water valve box
28	SY	Topsoiling, 4" thick
28	SY	Fertilizing
28	SY	Sodding

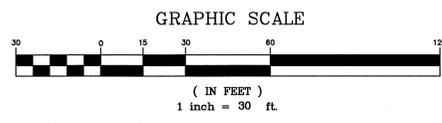
**BASELINES**  
BASELINES ARE APPROXIMATE AND ARE FOR REFERENCE PURPOSES ONLY. BASELINES ARE NOT TO BE UTILIZED FOR LAYOUT.

**INLET RESTORATION:**

TYPE 1	-	RESET EXISTING CASTING CURB PIECE, TYPE N-ECO OR P-ECO
TYPE 2	-	RESET EXISTING CASTING BICYCLE SAFE GRATE
TYPE 3	-	RESET EXISTING CASTING CURB PIECE, TYPE N-ECO OR P-ECO, BICYCLE SAFE GRATE
TYPE 4	-	RESET EXISTING CASTING

**PROPOSED LEGEND:**

●	-	DENOTES PROPOSED MANHOLE	▨	-	DENOTES PROPOSED REINFORCED CONCRETE SIDEWALK
○	-	DENOTES RESET MANHOLE CASTING	▧	-	DENOTES REMOVE AND REPLACE CURB (INCLUDING 2" WIDE EXCAVATION) AND PAVING WITH 19M64 BASE COURSE
⊗	-	DENOTES RECONSTRUCT MANHOLE	▩	-	DENOTES REMOVE AND REPLACE CURB (INCLUDING 2" WIDE TEMPORARY TRENCH REPAIR) DENOTES PROPOSED CONCRETE SIDEWALK AND DRIVEWAY APRON
■	-	DENOTES PROPOSED INLET	▫	-	DENOTES AREA TO BE EXCAVATED AND RECEIVE 2" HOT MIX ASPHALT 9.5M64 SURFACE COURSE AND 3" HOT MIX ASPHALT 19M64 BASE COURSE
□	-	DENOTES RESET INLET CASTING	▬	-	DENOTES AREA TO BE MILLED AND RECEIVE MIN. 2" HMA 9.5M64 SURFACE AND LEVELER COURSE
⊠	-	DENOTES RECONSTRUCT INLET	▭	-	DENOTES AREA TO BE MILLED, EXISTING CRACK TO BE CLEANED AND SEALED, AND GEO COMPOSITE MATERIAL TO BE INSTALLED
⊞	-	DENOTES PROPOSED DETECTABLE WARNING SURFACE	▮	-	DENOTES REMOVAL OF PAVEMENT UP TO 9" AND RECEIVE HMA 19M64 BASE COURSE
⊟	-	DENOTES EXISTING VALLEY GUTTER			
⊠	-	DENOTES DIRECTION OF FLOW			
⊡	-	DENOTES TRAFFIC MARKINGS, LONG LIFE, THERMOPLASTIC WITH GLASS BEADS, FOR FIRE HYDRANT			
⊢	-	DENOTES PAINT CONCRETE CURBING, YELLOW			
⊣	-	DENOTES EXISTING TREES OR STUMPS TO BE REMOVED			
⊤	-	DENOTES RESET BRICKWALK/PAVERS			
⊥	-	DENOTES CONCRETE DRIVEWAY RESTORATION			
⊦	-	DENOTES HOT MIX ASPHALT DRIVEWAY RESTORATION			



**SPECIAL PROVISIONS**  
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**PROPOSED CURB AND/OR ROADWAY REPLACEMENT**  
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TOWNSHIP OF WOODBRIDGE  
MIDDLESEX COUNTY, NEW JERSEY  
**2020 MILLING AND RESURFACING PROGRAM**  
CONTRACT NO. 2020-001  
IRENE COURT WARD 5

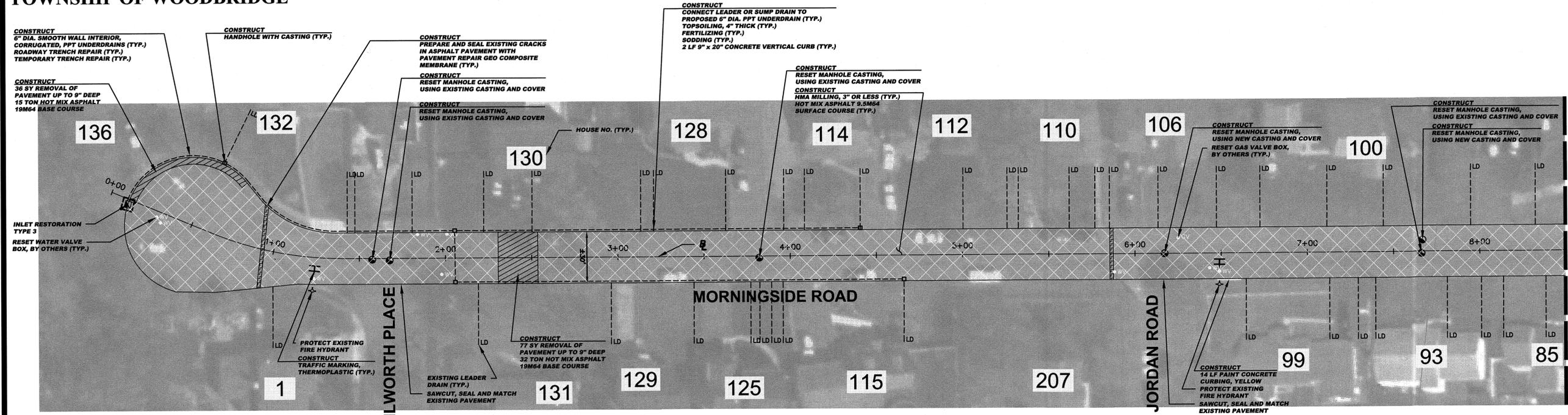
CONSULTING AND MUNICIPAL ENGINEERS  
3141 ROBERTSON AVENUE, PARLIN, NEW JERSEY 08859-1162 — 1460 ROUTE 9 SOUTH, HOWELL, NEW JERSEY 07731-1194

JOHN H. ALLGAIR P.E. & P.P. (1993 - 2011) DAVID J. SAMUEL P.E. & P.P. (NJ PE LIC NO. 26938) JOHN J. STEFANI P.E., L.S. & P.P. (NJ PE LIC NO. 24273) MICHAEL J. MCCLELLAND P.E. & P.P. (NJ PE LIC NO. 32468) GREGORY R. VALESI P.E. & P.P. (NJ PE LIC NO. 34458)

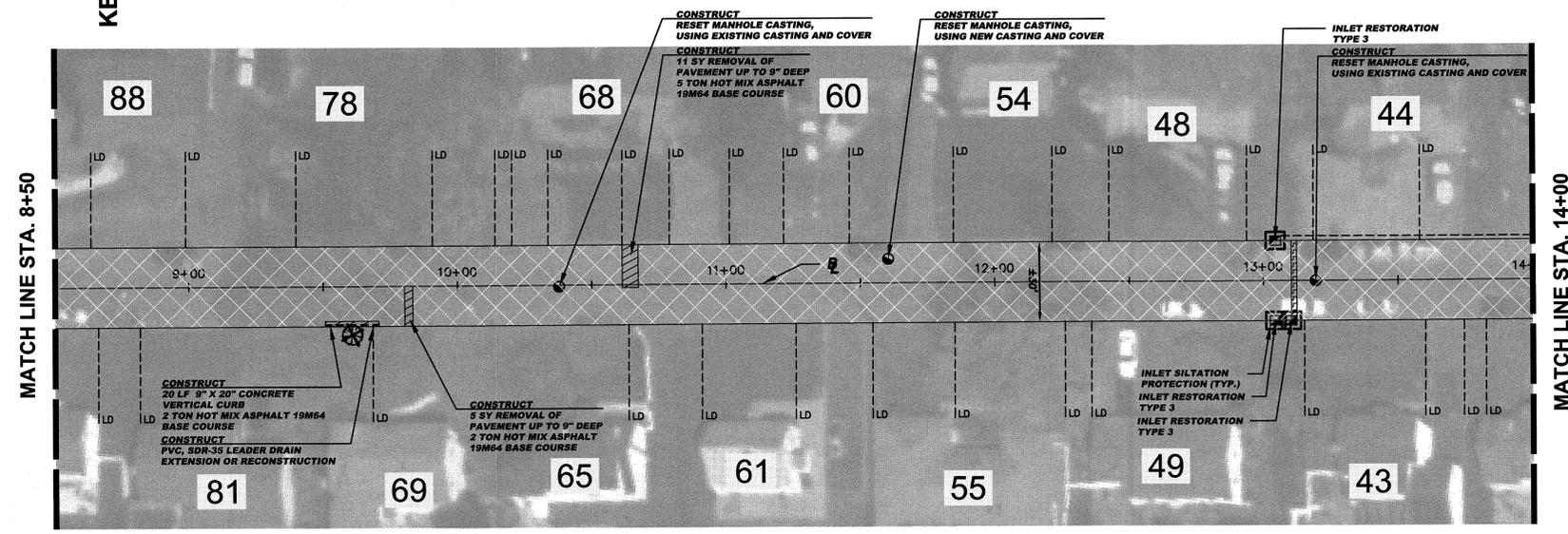
**MICHAEL J. MCCLELLAND P.E.**  
NEW JERSEY PROFESSIONAL ENGINEER LIC. 32468

SCALE: As Shown DATE: April 2020  
DRAWN BY: AR DESIGNED BY: AR  
CHECKED BY: SHEET: 43 of 65

DRAWING NO. PWB0A610.01



MATCH LINE STA. 8+50



MATCH LINE STA. 14+00

**CONSTRUCT (ALTERNATE ITEM A - UNDERDRAIN IMPROVEMENTS)**  
(IF AND WHERE ORDERED)

830	LF	6" dia. smooth wall interior corrugated PPT underdrains
23	UN	Connect leader or sump drain to proposed 6" dia. PPT underdrain
5	UN	Handhole with casting
2	UN	Reconstruct inlet, type B
46	LF	9" x 20" Concrete vertical curb
184	SY	Roadway trench repair
194	SY	Temporary trench repair
15	SY	Topsiiling, 4" thick
15	SY	Fertilizing
15	SY	Sodding

**CONSTRUCT (MORNINGSIDE ROAD (1 OF 2))**

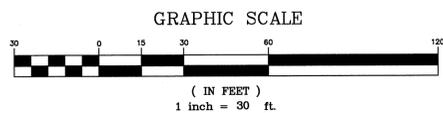
129	SY	Removal of pavement, up to 9" deep
4844	SY	HMA milling, 3" or less
5026	LF	Polymerized joint adhesive
130	LF	Prepare and seal existing joints and cracks in asphalt pavement
108	LF	Pavement repair geo composite membrane
		Hot mix asphalt 9.5M64 surface and leveler course
725	TON	Hot mix asphalt 19M64 base course
1	UN	PVC, SDR-35 leader drain extension or reconstruction
6	UN	Reset manhole casting, using existing casting and cover
3	UN	Reset manhole casting, using new casting and cover
4	UN	Reset existing casting
4	UN	Curb piece, type "N-ECO"
4	UN	Bicycle Safe Grate
20	LF	9" x 20" Concrete vertical curb
14	LF	Paint concrete curbing, yellow
12	SF	Traffic markings, thermoplastic
9	UN	Reset water valve box
1	UN	Reset gas valve box
4	SY	Topsiiling, 4" thick
7	SY	Fertilizing
7	SY	Sodding
1	UN	Tree replacement

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TYPE 1 - RESET EXISTING CASTING CURB PIECE, TYPE N-ECO OR P-ECO  
TYPE 2 - RESET EXISTING CASTING BICYCLE SAFE GRATE  
TYPE 3 - RESET EXISTING CASTING CURB PIECE, TYPE N-ECO OR P-ECO, BICYCLE SAFE GRATE  
TYPE 4 - RESET EXISTING CASTING

**PROPOSED LEGEND:**

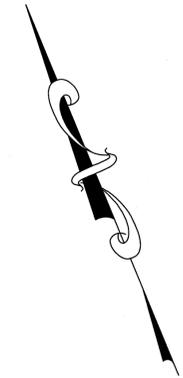
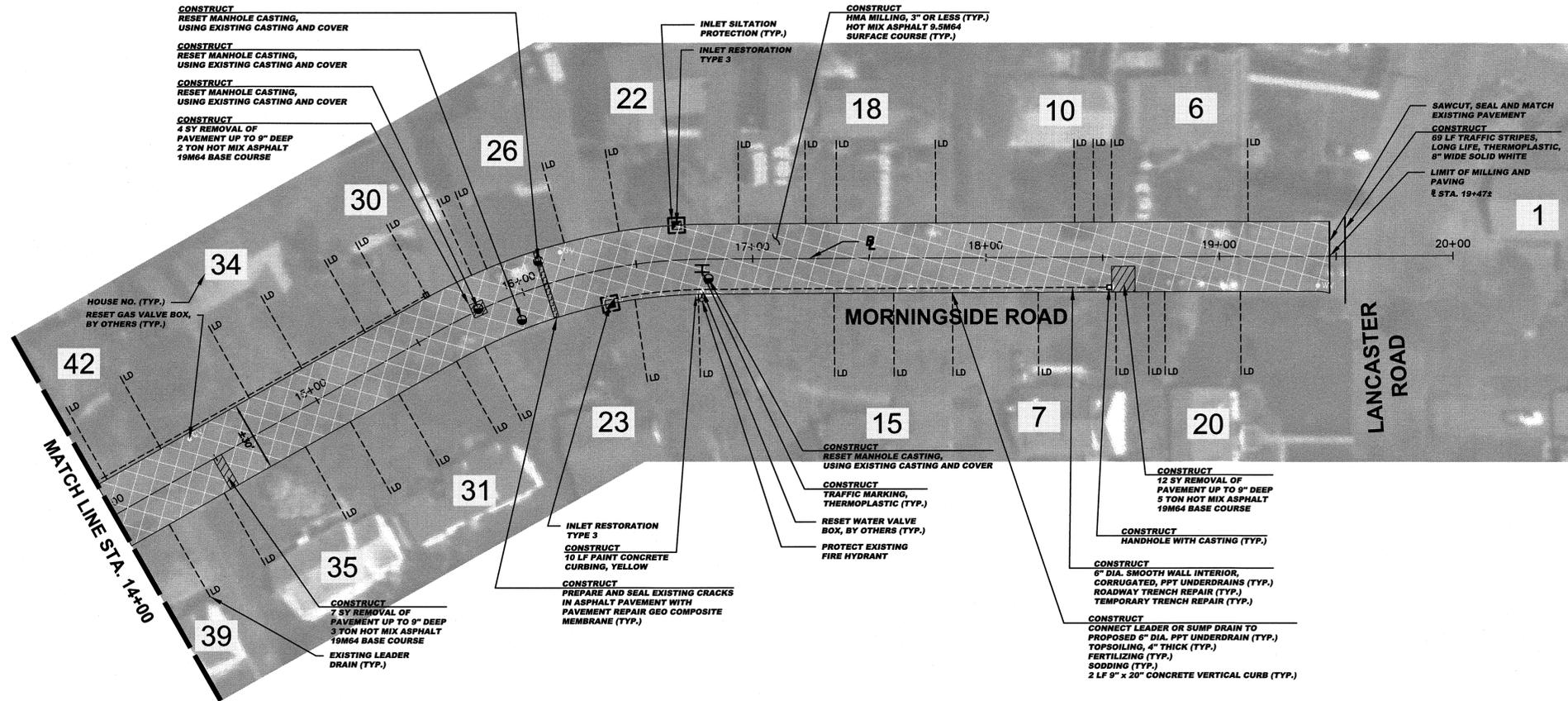
- DENOTES PROPOSED MANHOLE
- DENOTES RESET MANHOLE CASTING
- DENOTES RECONSTRUCT MANHOLE
- DENOTES PROPOSED INLET
- DENOTES RESET INLET CASTING
- DENOTES RECONSTRUCT INLET
- DENOTES PROPOSED DETECTABLE WARNING SURFACE
- DENOTES EXISTING VALLEY GUTTER
- DENOTES DIRECTION OF FLOW
- DENOTES TRAFFIC MARKINGS, LONG LIFE, THERMOPLASTIC WITH GLASS BEADS, FOR FIRE HYDRANT
- DENOTES PAINT CONCRETE CURBING, YELLOW
- DENOTES BENCH MARK LOCATION
- DENOTES EXISTING TREES OR STUMPS TO BE REMOVED
- DENOTES RESET BRICKWALK/PAVERS
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- DENOTES HOT MIX ASPHALT DRIVEWAY RESTORATION
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- DENOTES REMOVE AND REPLACE CURB (INCLUDING 2' WIDE EXCAVATION) AND PAVING WITH 19M64 BASE COURSE
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TOWNSHIP OF WOODBRIDGE  
MIDDLESEX COUNTY, NEW JERSEY  
**2020 MILLING AND RESURFACING PROGRAM**  
CONTRACT NO. 2020-001  
MORNINGSIDE ROAD (1 OF 2) WARD 5  
CONSULTING AND MUNICIPAL ENGINEERS  
MICHAEL J. McCLELLAND P.E.  
NEW JERSEY PROFESSIONAL ENGINEER LIC. 32468  
DATE: April 2020  
DRAWN BY: AR  
CHECKED BY: AR  
SHEET: 44 of 65  
PWB0610.01



**CONSTRUCT (ALTERNATE ITEM A - UNDERDRAIN IMPROVEMENTS)**  
(IF AND WHERE ORDERED)

373	LF	6" dia. smooth wall interior corrugated PPT underdrains
13	UN	Connect leader or sump drain to proposed 6" dia. PPT underdrain
2	UN	Handhole with casting
1	UN	Reconstruct inlet, type B
26	LF	9' x 20" Concrete vertical curb
83	SY	Roadway trench repair
83	SY	Temporary trench repair
9	SY	Topsoiling, 4" thick
9	SY	Fertilizing
9	SY	Sodding

**CONSTRUCT (MORNINGSIDE ROAD (2 OF 2))**

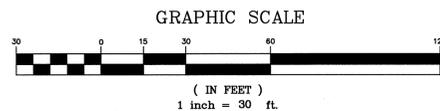
23	SY	Removal of pavement, up to 9" deep
1801	SY	HMA milling, 3" or less
1988	LF	Polymerized joint adhesive
31	LF	Prepare and seal existing joints and cracks in asphalt pavement
30	LF	Prepare and seal existing transverse cracks in asphalt pavement with pavement repair geo composite membrane
275	TON	Hot mix asphalt 9.5M64 surface and leveler course
10	TON	Hot mix asphalt 19M64 base course
4	UN	Reset manhole casting, using existing casting and cover
2	UN	Reset existing casting
2	UN	Curb piece, type "N-ECO"
2	UN	Bicycle Safe Grate
10	LF	Paint concrete curbing, yellow
69	LF	Traffic stripes, long life, "thermoplastic", 8" wide
6	SF	Traffic markings, thermoplastic
2	UN	Reset water valve box
2	UN	Reset gas valve box

**BASELINES**  
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**INLET RESTORATION:**  
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TYPE 2 - RESET EXISTING CASTING BICYCLE SAFE GRATE  
TYPE 3 - RESET EXISTING CASTING CURB PIECE, TYPE N-ECO OR P-ECO, BICYCLE SAFE GRATE  
TYPE 4 - RESET EXISTING CASTING

**PROPOSED LEGEND:**

- DENOTES PROPOSED MANHOLE
- DENOTES RESET MANHOLE CASTING
- DENOTES RECONSTRUCT MANHOLE
- DENOTES PROPOSED INLET
- DENOTES RESET INLET CASTING
- DENOTES RECONSTRUCT INLET
- DENOTES PROPOSED DETECTABLE WARNING SURFACE
- DENOTES EXISTING VALLEY GUTTER
- DENOTES DIRECTION OF FLOW
- DENOTES TRAFFIC MARKINGS, LONG LIFE, THERMOPLASTIC WITH GLASS BEADS, FOR FIRE HYDRANT
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- DENOTES PROPOSED REINFORCED CONCRETE SIDEWALK
- DENOTES REMOVE AND REPLACE CURB (INCLUDING 2' WIDE EXCAVATION) AND PAVING WITH 19M64 BASE COURSE
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TOWNSHIP OF WOODBRIDGE  
MIDDLESEX COUNTY, NEW JERSEY  
**2020 MILLING AND RESURFACING PROGRAM**  
CONTRACT NO. 2020-001  
WARD 5  
MORNINGSIDE ROAD (2 OF 2)

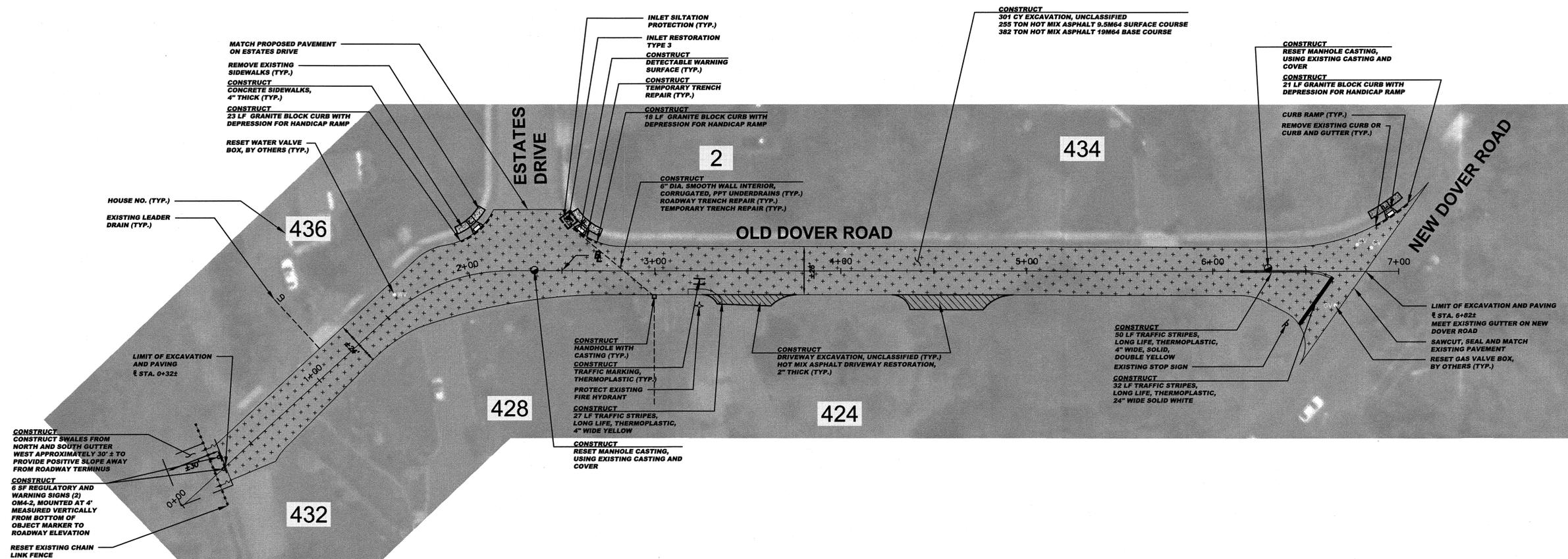
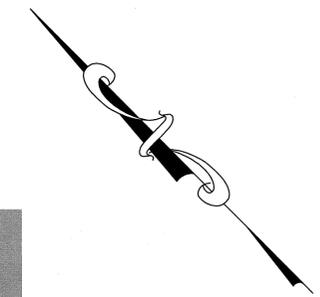
**CVE**  
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(732) 727 8000 (732) 462 7400

JOHN H. ALLGAIER P.E. & P.P. NJ PE LIC NO. 25838 (1983 - 2021)	DAVID J. SAMUEL P.E. & P.P. NJ PE LIC NO. 2455	JOHN J. STEFANI P.E. L.S. & P.P. NJ PE LIC NO. 24271 NJ PS LIC NO. 20089
JAY B. CORNELL P.E. & P.P. NJ PE LIC NO. 32962	MICHAEL J. MCCLELLAND P.E. & P.P. NJ PE LIC NO. 32468 NJ PP LIC NO. 3874	GREGORY R. VALES P.E. & P.P. NJ PE LIC NO. 34458 NJ PP LIC NO. 4361

**MICHAEL J. MCCLELLAND P.E.**  
NEW JERSEY PROFESSIONAL ENGINEER  
LIC. 32468  
4/21/20

SCALE: As Shown DATE: April 2020  
DRAWN BY: AR DESIGNED BY: AR  
CHECKED BY: SHEET: 45 of 65

FILE NO. PWB04610.01



CONSTRUCT  
CONSTRUCT SWALES FROM NORTH AND SOUTH GUTTER WEST APPROXIMATELY 30' ± TO PROVIDE POSITIVE SLOPE AWAY FROM ROADWAY TERMINUS

CONSTRUCT  
6 SF REGULATORY AND WARNING SIGNS (2) OM4-2, MOUNTED AT 4' MEASURED VERTICALLY FROM BOTTOM OF OBJECT MARKER TO ROADWAY ELEVATION

RESET EXISTING CHAIN LINK FENCE

**CONSTRUCT (OLD DOVER ROAD)**

18	CY	Driveway excavation, unclassified
301	CY	Excavation, unclassified, 5' deep
4656	LF	Polymerized joint adhesive
275	LF	Prepare and seal existing joints and cracks in asphalt pavement
255	TON	Hot mix asphalt 9.5M64 surface and leveler course
382	TON	Hot mix asphalt 19M64 base course
2	UN	Reset manhole casting, using existing casting and cover
1	UN	Reset existing casting
1	UN	Curb piece, type "N-ECO"
1	UN	Bicycle Safe Grate
33	SY	Concrete sidewalks, 4" thick
64	SY	Hot mix asphalt driveway restoration, 2" thick
3	SY	Detectable warning surface
62	LF	Granite block curb
127	LF	Traffic stripes, long life, "thermoelastic", 4" wide
32	LF	Traffic stripes, long life, "thermoelastic", 24" wide
6	SF	Traffic markings, thermoelastic
6	SF	Regulatory and Warning signs
14	SY	Temporary trench repair
1	UN	Reset water valve box
3	UN	Reset gas valve box
35	SY	Topping, 4" thick
35	SY	Fertilizing
35	SY	Sodding
LS	LS	Construct swale to provide positive slope including grading, restoration, and all associated work

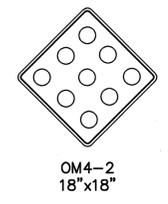
**CONSTRUCT (ALTERNATE ITEM A - UNDERDRAIN IMPROVEMENTS) (IF AND WHERE ORDERED)**

59	LF	6" dia. smooth wall interior corrugated PPT underdrains
1	UN	Handhole with casting
1	UN	Reconstruct inlet, type B
14	SY	Roadway trench repair
14	SY	Temporary trench repair

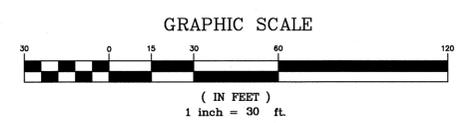
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**INLET RESTORATION:**

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TYPE 3	-	RESET EXISTING CASTING CURB PIECE, TYPE N-ECO OR P-ECO, BICYCLE SAFE GRATE
TYPE 4	-	RESET EXISTING CASTING



**SIGN LEGEND**



**PROPOSED LEGEND:**

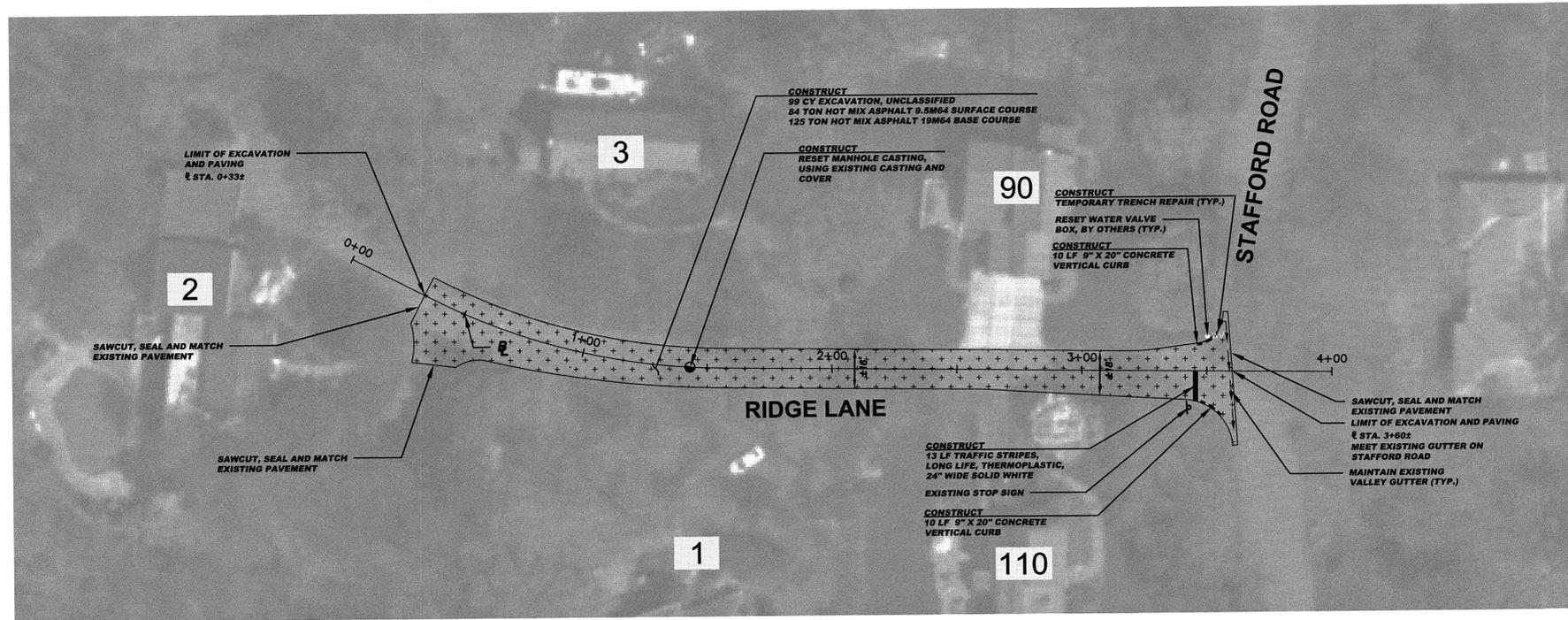
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- DENOTES RESET MANHOLE CASTING
- ⊗ DENOTES RECONSTRUCT MANHOLE
- DENOTES PROPOSED INLET
- DENOTES RESET INLET CASTING
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- ⊢ DENOTES EXISTING VALLEY GUTTER
- ⊣ DENOTES DIRECTION OF FLOW
- ⊤ DENOTES TRAFFIC MARKINGS, LONG LIFE, THERMOPLASTIC WITH GLASS BEADS, FOR FIRE HYDRANT
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- ⊲ DENOTES REMOVAL OF PAVEMENT UP TO 9" AND RECEIVE HMA 19M64 BASE COURSE

**SPECIAL PROVISIONS**  
THE CONTRACTOR IS SPECIFICALLY DIRECTED TO THE REQUIREMENTS CONTAINED IN THE SPECIAL PROVISIONS SECTION OF THE CONTRACT SPECIFICATIONS.

**PROPOSED CURB AND/OR ROADWAY REPLACEMENT**  
THE CONTRACTOR IS ADVISED THAT THEIR LICENSED LAND SURVEYOR SHALL PROVIDE THE CONSTRUCTION STAKEOUT FOR THE PROJECT AND THAT IS THE INTENT OF THE CONTRACT DOCUMENTS TO INSTALL THE NEW CURB, EDGE OF PAVEMENT, AND ROADWAY AT ITS PRESENT HORIZONTAL LOCATION AND VERTICAL LOCATION EXCEPT WHERE PROPOSED GRADES HAVE BEEN INDICATED ON THE PLAN. ACCORDINGLY, THE FULL RESPONSIBILITY FOR KEEPING AND MAINTAINING THE EXISTING ALIGNMENT AND GRADE PRIOR TO REMOVAL OF THE EXISTING CURB AND MILLING AND/OR EXCAVATION OF THE PAVEMENT SHALL REST UPON THE CONTRACTOR IN ACCORDANCE WITH DIVISION 1 GENERAL REQUIREMENTS SECTION 1-4.4 OF THE PROJECT SPECIFICATIONS.

TOWNSHIP OF WOODBRIDGE MIDDLESEX COUNTY, NEW JERSEY		2020 MILLING AND RESURFACING PROGRAM									
CONTRACT NO. 2020-001		WARD 5									
OLD DOVER ROAD		(732) 727 8000									
CONSULTING AND MUNICIPAL ENGINEERS		(732) 462 7400									
<table border="1"> <tr><td>JOHN H. ALLGAIR P.E. &amp; P.P. [1983 - 2001] NJ PE LIC. NO. 29888</td><td>DAVID J. SAMUEL P.E. &amp; P.P. [1983 - 2001] NJ PE LIC. NO. 2485</td><td>JOHN J. STEFANI P.E., L.S. &amp; P.P. [1983 - 2001] NJ PE LIC. NO. 29271</td><td>NO PE LIC. NO. 2089</td></tr> <tr><td>JAY B. CORNELL P.E. &amp; P.P. NJ PE LIC. NO. 32562</td><td>MICHAEL J. McCLELLAND P.E. &amp; P.P. NJ PE LIC. NO. 32468</td><td>GREGORY R. VALES P.E. &amp; P.P. NJ PE LIC. NO. 34458</td><td>NO PE LIC. NO. 4361</td></tr> </table>				JOHN H. ALLGAIR P.E. & P.P. [1983 - 2001] NJ PE LIC. NO. 29888	DAVID J. SAMUEL P.E. & P.P. [1983 - 2001] NJ PE LIC. NO. 2485	JOHN J. STEFANI P.E., L.S. & P.P. [1983 - 2001] NJ PE LIC. NO. 29271	NO PE LIC. NO. 2089	JAY B. CORNELL P.E. & P.P. NJ PE LIC. NO. 32562	MICHAEL J. McCLELLAND P.E. & P.P. NJ PE LIC. NO. 32468	GREGORY R. VALES P.E. & P.P. NJ PE LIC. NO. 34458	NO PE LIC. NO. 4361
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<b>MICHAEL J. McCLELLAND P.E.</b> NEW JERSEY PROFESSIONAL ENGINEER LIC. 32468		SCALE: As Shown	DATE: April 2020								
DRAWN BY: AR		CHECKED BY: AR	SHEET: 46 of 65								

PWB0610.01



**CONSTRUCT (RIDGE LANE)**

98	CY	Excavation, unclassified, 5' deep
2256	LF	Polymerized joint adhesive
155	LF	Prepare and seal existing joints and cracks in asphalt pavement
83	TON	Hot mix asphalt 9.5M64 surface and leveler course
124	TON	Hot mix asphalt 19M64 base course
1	UN	Reset manhole casting, using existing casting and cover
20	LF	Granite block curb
13	LF	Traffic stripes, long life, "thermoelastic", 24" wide
5	SY	Temporary trench repair
1	UN	Reset water valve box
10	SY	Topping, 4" thick
10	SY	Fertilizing
10	SY	Sodding

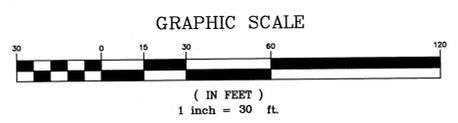
**BASELINES**  
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**INLET RESTORATION:**

TYPE 1	-	RESET EXISTING CASTING CURB PIECE, TYPE N-ECO OR P-ECO
TYPE 2	-	RESET EXISTING CASTING BICYCLE SAFE GRATE
TYPE 3	-	RESET EXISTING CASTING CURB PIECE, TYPE N-ECO OR P-ECO, BICYCLE SAFE GRATE
TYPE 4	-	RESET EXISTING CASTING

**PROPOSED LEGEND:**

●	-	DENOTES PROPOSED MANHOLE	▨	-	DENOTES PROPOSED REINFORCED CONCRETE SIDEWALK
⊗	-	DENOTES RESET MANHOLE CASTING	▧	-	DENOTES REMOVE AND REPLACE CURB (INCLUDING 2' WIDE EXCAVATION) AND PAVING WITH 19M64 BASE COURSE
⊙	-	DENOTES RECONSTRUCT MANHOLE	▩	-	DENOTES REMOVE AND REPLACE CURB (INCLUDING 2' WIDE TEMPORARY TRENCH REPAIR) AND DRIVEWAY APRON
■	-	DENOTES PROPOSED INLET	▫	-	DENOTES AREA TO BE EXCAVATED AND RECEIVE 2" HOT MIX ASPHALT 9.5M64 SURFACE COURSE AND 3" HOT MIX ASPHALT 19M64 BASE COURSE
□	-	DENOTES RECONSTRUCT INLET	▬	-	DENOTES AREA TO BE MILLED AND RECEIVE MIN. 2" HMA 9.5M64 SURFACE AND LEVELER COURSE
⊠	-	DENOTES PROPOSED DETECTABLE WARNING SURFACE	▭	-	DENOTES AREA TO BE MILLED, EXISTING CRACK TO BE CLEANED AND SEALED, AND GEO COMPOSITE MATERIAL TO BE INSTALLED
⊞	-	DENOTES EXISTING VALLEY GUTTER	▮	-	DENOTES REMOVAL OF PAVEMENT UP TO 9" AND RECEIVE HMA 19M64 BASE COURSE
⊟	-	DENOTES TRAFFIC MARKINGS, LONG LIFE, THERMOPLASTIC WITH GLASS BEADS, FOR FIRE HYDRANT			
⊠	-	DENOTES PAINT CONCRETE CURBING, YELLOW			
⊡	-	DENOTES BENCH MARK LOCATION			
⊢	-	DENOTES EXISTING TREES OR STUMPS TO BE REMOVED			
⊣	-	DENOTES RESET BRICKWALK/PAVERS			
⊤	-	DENOTES CONCRETE DRIVEWAY RESTORATION			
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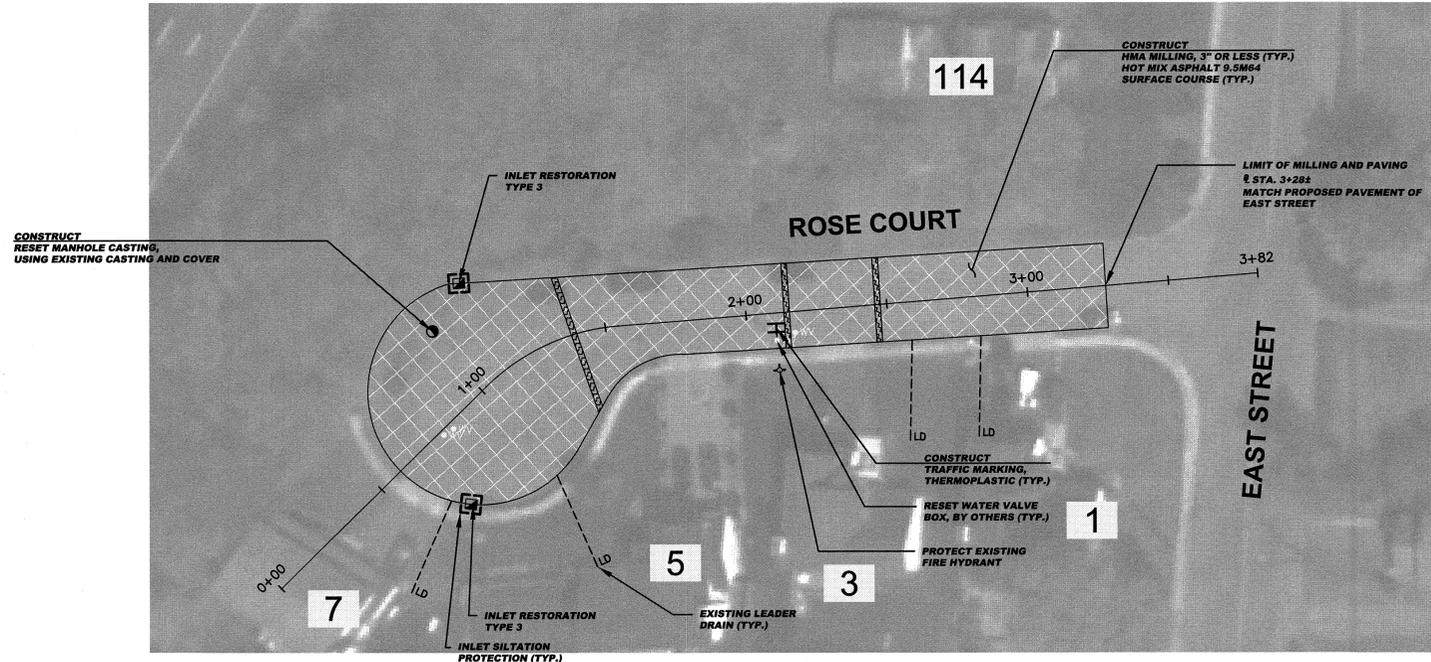


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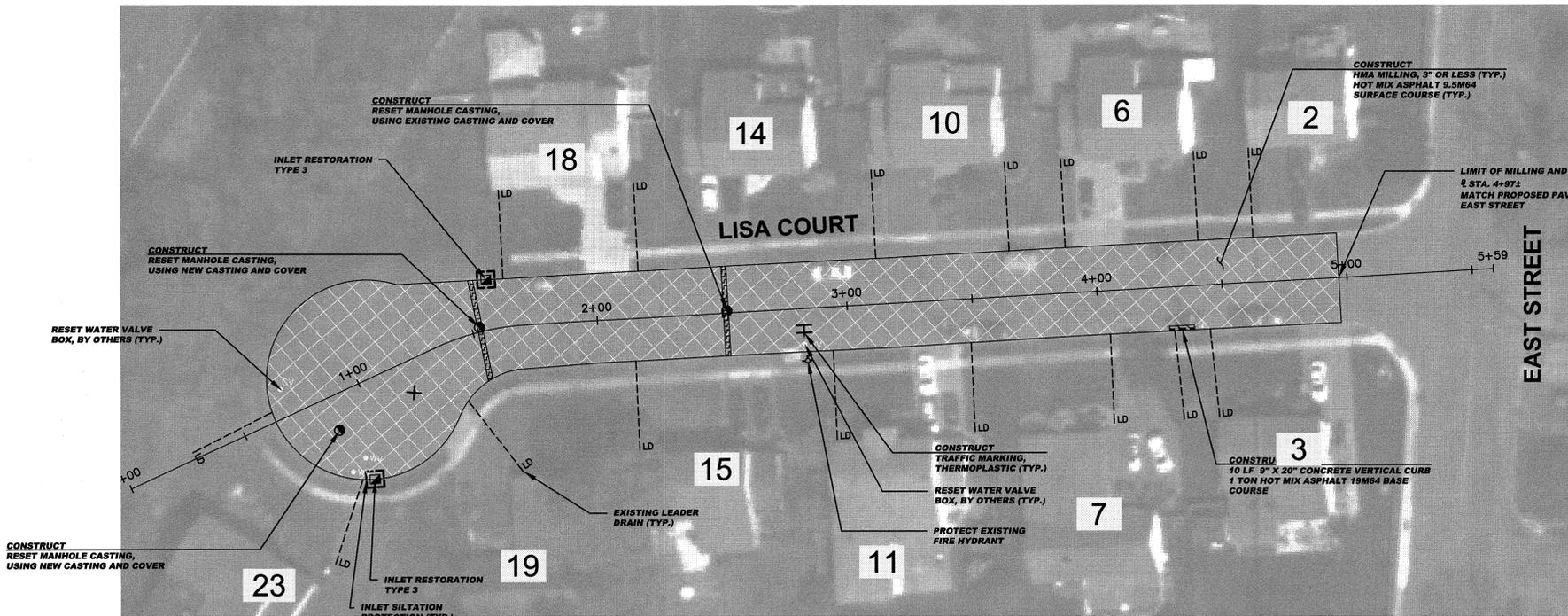
NO.		DESCRIPTION OF REVISION		DATE	DRAWN	CHECKED	RELEASED
<b>TOWNSHIP OF WOODBRIDGE</b> MIDDLESEX COUNTY, NEW JERSEY <b>2020 MILLING AND RESURFACING PROGRAM</b>							
CONTRACT NO. 2020-001				WARD 5			
CONSULTING AND MUNICIPAL ENGINEERS							
(732) 727 8000							
3141 BORDENTOWN AVENUE, PARLIN, NEW JERSEY 08859-1162 — 1460 ROUTE 9 SOUTH, HOWELL, NEW JERSEY 07731-1194							
JOHN H. ALLGAIR P.E. & P.P. (1983 - 2081)	DAVID J. SAMUEL P.E. & P.P. NO PE LIC NO. 25836	JOHN J. STEFANI P.E. L.S. & P.P. NO PE & LS LIC NO. 24273	MICHAEL J. McCLELLAND P.E. & P.P. NO PE LIC NO. 32468				
SCALE: As Shown		DATE: April 2020		DRAWN BY: AR		DESIGNED BY: AR	
CHECKED BY:		SHEET: 47 of 65		MICHAEL J. McCLELLAND P.E. NEW JERSEY PROFESSIONAL ENGINEER LIC. 32468			

DRAWING NO. PWB0A610.01



**CONSTRUCT (ROSE COURT)**

- 1223 SY HMA milling, 3" or less
- 984 LF Polymerized joint adhesive
- 110 LF Prepare and seal existing transverse cracks in asphalt pavement with pavement repair geo composite membrane
- 144 TON Hot mix asphalt 9.5M64 surface and leveler course
- 1 UN Reset manhole casting, using existing casting and cover
- 2 UN Reset existing casting
- 2 UN Curb piece, type "N-ECO"
- 2 UN Bicycle Safe Grate
- 6 SF Traffic markings, thermoplastic
- 3 UN Reset water valve box



**CONSTRUCT (LISA COURT)**

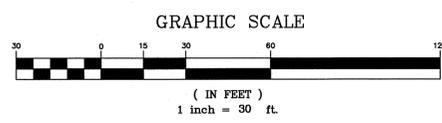
- 1597 SY HMA milling, 3" or less
- 1573 LF Polymerized joint adhesive
- 78 LF Prepare and seal existing transverse cracks in asphalt pavement with pavement repair geo composite membrane
- 235 TON Hot mix asphalt 9.5M64 surface and leveler course
- 1 TON Hot mix asphalt 19M64 base course
- 1 UN Reset manhole casting, using existing casting and cover
- 2 UN Reset manhole casting, using new casting and cover
- 2 UN Reset existing casting
- 2 UN Curb piece, type "N-ECO"
- 2 UN Bicycle Safe Grate
- 10 LF 9"x20" Concrete vertical curb
- 12 SF Traffic markings, thermoplastic
- 3 UN Reset water valve box
- 1 UN Reset gas valve box
- 5 SY Topsoiling, 4" thick
- 5 SY Fertilizing
- 5 SY Sodding

**SPECIAL PROVISIONS**  
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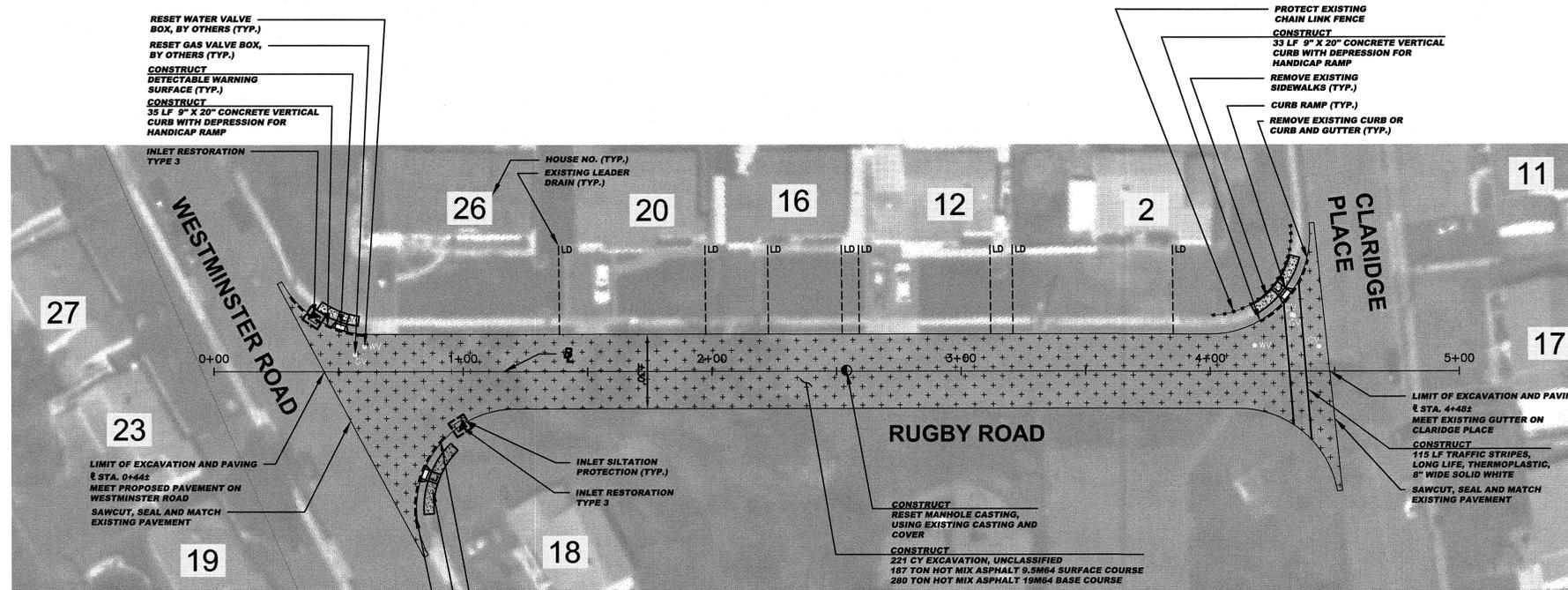
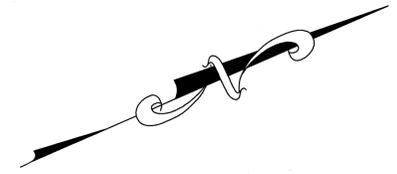
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- INLET RESTORATION:**
- TYPE 1 - RESET EXISTING CASTING CURB PIECE, TYPE N-ECO OR P-ECO
  - TYPE 2 - RESET EXISTING CASTING BICYCLE SAFE GRATE
  - TYPE 3 - RESET EXISTING CASTING CURB PIECE, TYPE N-ECO OR P-ECO, BICYCLE SAFE GRATE
  - TYPE 4 - RESET EXISTING CASTING

- PROPOSED LEGEND:**
- - DENOTES PROPOSED MANHOLE
  - - DENOTES RESET MANHOLE CASTING
  - ⊗ - DENOTES RECONSTRUCT MANHOLE
  - - DENOTES PROPOSED INLET
  - ⊕ - DENOTES RESET INLET CASTING
  - ⊖ - DENOTES RECONSTRUCT INLET
  - ⊗ - DENOTES PROPOSED DETECTABLE WARNING SURFACE
  - ⊕ - DENOTES EXISTING VALLEY GUTTER
  - - DENOTES DIRECTION OF FLOW
  - ⊕ - DENOTES TRAFFIC MARKINGS, LONG LIFE, THERMOPLASTIC WITH GLASS BEADS, FOR FIRE HYDRANT
  - ⊕ - DENOTES PAINT CONCRETE CURBING, YELLOW
  - ⊕ - DENOTES BENCH MARK LOCATION
  - ⊕ - DENOTES EXISTING TREES OR STUMPS TO BE REMOVED
  - ⊕ - DENOTES RESET BRICKWALK/PAVERS
  - ⊕ - DENOTES CONCRETE DRIVEWAY RESTORATION
  - ⊕ - DENOTES HOT MIX ASPHALT DRIVEWAY RESTORATION
  - ⊕ - DENOTES PROPOSED REINFORCED CONCRETE SIDEWALK
  - ⊕ - DENOTES REMOVE AND REPLACE CURB (INCLUDING 2' WIDE EXCAVATION) AND PAVING WITH 19M64 BASE COURSE
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TOWNSHIP OF WOODBRIDGE MIDDLESEX COUNTY, NEW JERSEY		WARD 5	
<b>2020 MILLING AND RESURFACING PROGRAM</b>			
CONTRACT NO. 2020-001			
ROSE COURT AND LISA COURT			
(732) 727-8000		(732) 462-7400	
3141 BORDENTOWN AVENUE, PARLIN, NEW JERSEY 08859-1162 — 1460 ROUTE 9 SOUTH, HOWELL, NEW JERSEY 07731-1194			
JOHN H. ALLGAIR P.E. & P.P. 1.1813 - 2021 NJ PE LIC NO. 32962	DAVID J. SAMUEL P.E. & P.P. NJ PE LIC NO. 29538	JOHN J. STEFANI P.E. L.S. & P.P. NJ PE & LS LIC NO. 24671 NJ PP LIC NO. 2089	GREGORY R. VALESI P.E. & P.P. NJ PE LIC NO. 34458 NJ PP LIC NO. 4361
<b>MICHAEL J. McCLELLAND P.E.</b> NEW JERSEY PROFESSIONAL ENGINEER		L.C. 32468	
SCALE: As Shown	DATE: April 2020	DESIGNED BY: AR	CHECKED BY: AR
SHEET 48 OF 65		FILE NO. PWB0610.01	



**CONSTRUCT**  
 35 LF 9" X 20" CONCRETE VERTICAL CURB WITH DEPRESSION FOR HANDICAP RAMP  
**CONSTRUCT**  
 CONCRETE SIDEWALKS, 4" THICK (TYP.)  
**CONSTRUCT**  
 TEMPORARY TRENCH REPAIR (TYP.)

**PROTECT EXISTING CHAIN LINK FENCE**  
**CONSTRUCT**  
 35 LF 9" X 20" CONCRETE VERTICAL CURB WITH DEPRESSION FOR HANDICAP RAMP  
**REMOVE EXISTING SIDEWALKS (TYP.)**  
**CURB RAMP (TYP.)**  
**REMOVE EXISTING CURB OR CURB AND GUTTER (TYP.)**

**CONSTRUCT (RUGBY ROAD)**

221	CY	Excavation, unclassified, 5" deep
3346	LF	Polymerized joint adhesive
242	LF	Prepare and seal existing joints and cracks in asphalt pavement
187	TON	Hot mix asphalt 9.5M64 surface and leveler course
280	TON	Hot mix asphalt 19M64 base course
1	UN	Reset manhole casting, using existing casting and cover
2	UN	Reset existing casting
2	UN	Curb piece, type "N-ECCO"
2	UN	Bicycle Safe Grate
39	SY	Concrete sidewalks, 4" thick
3	SY	Detectable warning surface
103	LF	9"x20" Concrete vertical curb
115	LF	Traffic stripes, long life, "thermoplastic", 8" wide
23	SY	Temporary trench repair
2	UN	Reset water valve box
4	UN	Reset gas valve box
58	SY	Topselling, 4" thick
58	SY	Fertilizing
58	SY	Sodding

**NOTE:**  
 EXCEPT WHERE NOTED, EXISTING CONCRETE GUTTER TO BE MILLED AND RECEIVE 2" OF HOT MIX ASPHALT 9.5M64 SURFACE COURSE

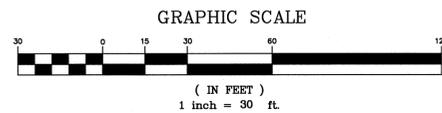
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**INLET RESTORATION:**

TYPE 1 - RESET EXISTING CASTING CURB PIECE, TYPE N-ECCO OR P-ECCO  
 TYPE 2 - RESET EXISTING CASTING BICYCLE SAFE GRATE  
 TYPE 3 - RESET EXISTING CASTING CURB PIECE, TYPE N-ECCO OR P-ECCO, BICYCLE SAFE GRATE  
 TYPE 4 - RESET EXISTING CASTING

**PROPOSED LEGEND:**

●	DENOTES PROPOSED MANHOLE	▨	DENOTES PROPOSED REINFORCED CONCRETE SIDEWALK
○	DENOTES RESET MANHOLE CASTING	▧	DENOTES REMOVE AND REPLACE CURB (INCLUDING 2" WIDE EXCAVATION) AND PAVING WITH 19M64 BASE COURSE
⊗	DENOTES RECONSTRUCT MANHOLE	▩	DENOTES REMOVE AND REPLACE CURB (INCLUDING 2" WIDE TEMPORARY TRENCH REPAIR)
■	DENOTES PROPOSED INLET	▬	DENOTES PROPOSED CONCRETE SIDEWALK AND DRIVEWAY APRON
□	DENOTES RESET INLET CASTING	▬	DENOTES AREA TO BE EXCAVATED AND RECEIVE 2" HOT MIX ASPHALT 9.5M64 SURFACE COURSE AND 3" HOT MIX ASPHALT 19M64 BASE COURSE
⊠	DENOTES RECONSTRUCT INLET	▬	DENOTES AREA TO BE MILLED AND RECEIVE MIN. 2" HMA 9.5M64 SURFACE AND LEVELER COURSE
⊞	DENOTES PROPOSED DETECTABLE WARNING SURFACE	▬	DENOTES AREA TO BE CLEANED AND SEALED, AND GEO COMPOSITE MATERIAL TO BE INSTALLED
⊟	DENOTES EXISTING VALLEY GUTTER	▬	DENOTES REMOVAL OF PAVEMENT UP TO 9" AND RECEIVE HMA 19M64 BASE COURSE
⊠	DENOTES DIRECTION OF FLOW		
⊡	DENOTES TRAFFIC MARKINGS, LONG LIFE, THERMOPLASTIC WITH GLASS BEADS, FOR FIRE HYDRANT		
⊢	DENOTES PAINT CONCRETE CURBING, YELLOW		
⊣	DENOTES BENCH MARK LOCATION		
⊤	DENOTES EXISTING TREES OR STUMPS TO BE REMOVED		
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⊦	DENOTES CONCRETE DRIVEWAY RESTORATION		
⊧	DENOTES HOT MIX ASPHALT DRIVEWAY RESTORATION		

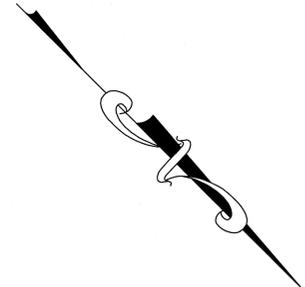
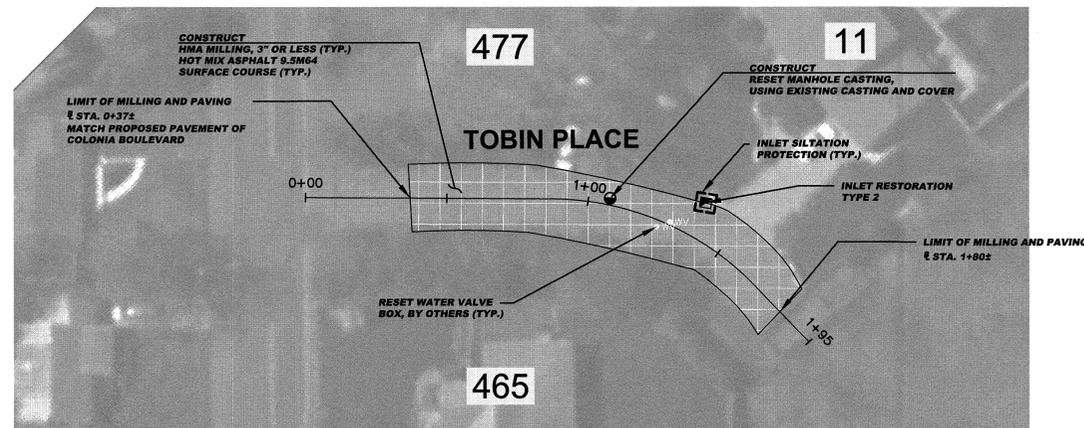


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<b>MICHAEL J. McCLELLAND P.E.</b>		<b>MICHAEL J. McCLELLAND P.E.</b>	
NEW JERSEY PROFESSIONAL ENGINEER		L.I.C. 32468	
SCALE: As Shown	DATE: April 2020	DRAWN BY: AR	DESIGNED BY: AR
CHECKED BY:		SHEET: 49 of 65	

DRAWING NO. PW0A610.01



**CONSTRUCT (TOBIN PLACE)**

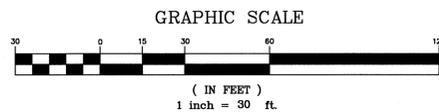
381	SY	HMA milling, 3" or less
527	LF	Polymerized joint adhesive
45	TON	Hot mix asphalt 9.5M64 surface and leveler course
1	UN	Reset manhole casting, using existing casting and cover
1	UN	Reset existing casting
1	UN	Bicycle safe grate
2	UN	Reset water valve box

**INLET RESTORATION:**

TYPE 1	- RESET EXISTING CASTING CURB PIECE, TYPE N-ECO OR P-ECO
TYPE 2	- RESET EXISTING CASTING BICYCLE SAFE GRATE
TYPE 3	- RESET EXISTING CASTING CURB PIECE, TYPE N-ECO OR P-ECO, BICYCLE SAFE GRATE
TYPE 4	- RESET EXISTING CASTING

**PROPOSED LEGEND:**

	- DENOTES PROPOSED MANHOLE		- DENOTES PROPOSED REINFORCED CONCRETE SIDEWALK
	- DENOTES RESET MANHOLE CASTING		- DENOTES REMOVE AND REPLACE CURB (INCLUDING 2' WIDE EXCAVATION) AND PAVING WITH 19M64 BASE COURSE
	- DENOTES RECONSTRUCT MANHOLE		- DENOTES REMOVE AND REPLACE CURB (INCLUDING 2' WIDE TEMPORARY TRENCH REPAIR)
	- DENOTES PROPOSED INLET		- DENOTES PROPOSED CONCRETE SIDEWALK AND DRIVEWAY APRON
	- DENOTES RESET INLET CASTING		- DENOTES AREA TO BE EXCAVATED AND RECEIVE 2" HOT MIX ASPHALT 9.5M64 SURFACE COURSE AND 3" HOT MIX ASPHALT 19M64 BASE COURSE
	- DENOTES RECONSTRUCT INLET		- DENOTES AREA TO BE MILLED AND RECEIVE MIN. 2" HMA 9.5M64 SURFACE AND LEVELER COURSE
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	- DENOTES HOT MIX ASPHALT DRIVEWAY RESTORATION		

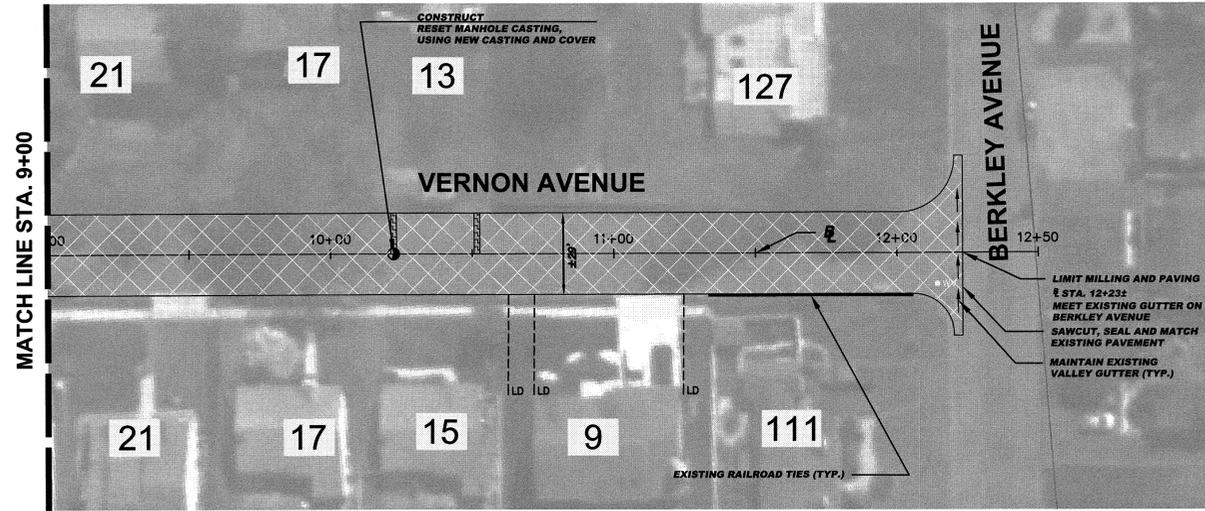
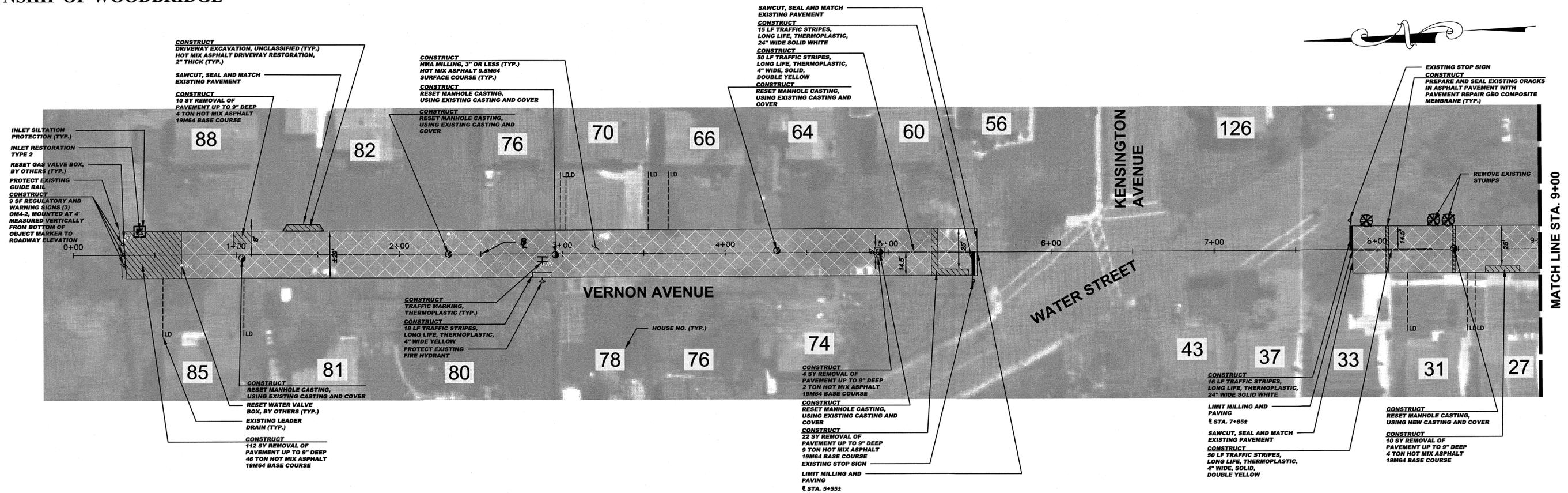


**SPECIAL PROVISIONS**  
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**PROPOSED CURB AND/OR ROADWAY REPLACEMENT**  
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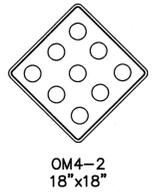
No. DESCRIPTION OF REVISION		DATE	DRAWN	CHECKED	RELEASED
<p><b>TOWNSHIP OF WOODBRIDGE</b> MIDDLESEX COUNTY, NEW JERSEY</p> <p><b>2020 MILLING AND RESURFACING PROGRAM</b></p> <p>CONTRACT NO. 2020-001</p> <p>TOBIN PLACE <span style="float: right;">WARD 5</span></p> <p style="text-align: center;"></p> <p style="text-align: center;">3141 BORDENTOWN AVENUE, PARLIN, NEW JERSEY 08859-1163   1460 ROUTE 9 SOUTH, HOWELL, NEW JERSEY 07731-1194</p> <p style="text-align: center;">(732) 727-8000   (732) 462-7400</p>					
JOHN H. ALLGAIR P.E. & P.P. NJ PE LIC NO. 25809 (1983 - 2001)	DAVID J. SAMUEL P.E. & P.P. NJ PE LIC NO. 2455	JOHN J. STEFANI P.E. L.S. & P.P. NJ PE & LS LIC NO. 24271 NJ PP LIC NO. 2089			
JAY B. CORNELL P.E. & P.P. NJ PE LIC NO. 32962	MICHAEL J. McCLELLAND P.E. & P.P. NJ PE LIC NO. 32468	GREGORY R. VALESI P.E. & P.P. NJ PE LIC NO. 34458 NJ PP LIC NO. 4361			
<p><b>MICHAEL J. McCLELLAND P.E.</b> NEW JERSEY PROFESSIONAL ENGINEER</p> <p style="text-align: right;"><i>Michael J. McClelland</i></p>		<p>SCALE: As Shown DATE: April 2020</p> <p>DRAWN BY: AR DESIGNED BY: AR</p> <p>CHECKED BY: SHHEET 50 of 65</p>			

DRAWING NO. PW0A010.01



**CONSTRUCT (VERNON AVENUE)**

158	SY	Removal of pavement, up to 9" deep
3	CY	Driveway excavation, unclassified
2967	SY	HMA milling, 3" or less
1719	LF	Polymerized joint adhesive
128	LF	Prepare and seal existing joints and cracks in asphalt pavement
87	LF	Prepare and seal existing transverse cracks in asphalt pavement with pavement repair geo composite membrane
467	TON	Hot mix asphalt 9.5M64 surface and leveler course
65	TON	Hot mix asphalt 19M64 base course
5	UN	Reset manhole casting, using existing casting and cover
2	UN	Reset manhole casting, using new casting and cover
1	UN	Reset existing casting
1	UN	Bicycle Safe Grate
10	SY	Hot mix asphalt driveway restoration, 2" thick
218	LF	Traffic stripes, long life, "thermoelastic", 4" wide
31	LF	Traffic stripes, long life, "thermoelastic", 24" wide
6	SF	Traffic markings, thermoelastic
9	SF	Regulatory and Warning signs
3	UN	Reset water valve box
2	UN	Reset gas valve box
28	SY	Topsoiling, 4" thick
28	SY	Fertilizing
28	SY	Sodding
1	UN	Tree replacement



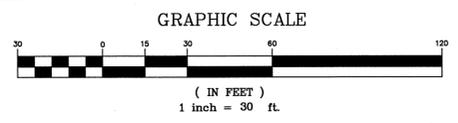
**SIGN LEGEND**

**INLET RESTORATION:**

TYPE 1	-	RESET EXISTING CASTING CURB PIECE, TYPE N-ECO OR P-ECO
TYPE 2	-	RESET EXISTING CASTING BICYCLE SAFE GRATE
TYPE 3	-	RESET EXISTING CASTING CURB PIECE, TYPE N-ECO OR P-ECO, BICYCLE SAFE GRATE
TYPE 4	-	RESET EXISTING CASTING

**PROPOSED LEGEND:**

●	-	DENOTES PROPOSED MANHOLE	▨	-	DENOTES PROPOSED REINFORCED CONCRETE SIDEWALK
⊗	-	DENOTES RESET MANHOLE CASTING	▧	-	DENOTES REMOVE AND REPLACE CURB (INCLUDING 2" WIDE EXCAVATION) AND PAVING WITH 19M64 BASE COURSE
⊙	-	DENOTES RECONSTRUCT MANHOLE	▩	-	DENOTES REMOVE AND REPLACE CURB (INCLUDING 2" WIDE TEMPORARY TRENCH REPAIR) DENOTES PROPOSED CONCRETE SIDEWALK AND DRIVEWAY APRON
■	-	DENOTES PROPOSED INLET	▤	-	DENOTES AREA TO BE EXCAVATED AND RECEIVE 2" HOT MIX ASPHALT 9.5M64 SURFACE COURSE AND 3" HOT MIX ASPHALT 19M64 BASE COURSE
□	-	DENOTES RESET INLET CASTING	▥	-	DENOTES AREA TO BE MILLED AND RECEIVE MIN. 2" HMA 9.5M64 SURFACE AND LEVELER COURSE
⊠	-	DENOTES RECONSTRUCT INLET	▦	-	DENOTES AREA TO BE MILLED, EXISTING CRACK TO BE CLEANED AND SEALED, AND GEO COMPOSITE MATERIAL TO BE INSTALLED
⊡	-	DENOTES PROPOSED DETECTABLE WARNING SURFACE	▧	-	DENOTES REMOVAL OF PAVEMENT UP TO 9" AND RECEIVE HMA 19M64 BASE COURSE
⊢	-	DENOTES EXISTING VALLEY GUTTER			
⊣	-	DENOTES DIRECTION OF FLOW			
⊤	-	DENOTES TRAFFIC MARKINGS, LONG LIFE, THERMOELASTIC WITH GLASS BEADS, FOR FIRE HYDRANT			
⊥	-	DENOTES TRAFFIC MARKINGS, CONCRETE CURBING, YELLOW			
⊦	-	DENOTES BENCH MARK LOCATION			
⊧	-	DENOTES EXISTING TREES OR STUMPS TO BE REMOVED			
⊨	-	DENOTES RESET BRICKWALK/PAVERS			
⊩	-	DENOTES CONCRETE DRIVEWAY RESTORATION			
⊪	-	DENOTES HOT MIX ASPHALT DRIVEWAY RESTORATION			



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TOWNSHIP OF WOODBRIDGE  
MIDDLESEX COUNTY, NEW JERSEY  
**2020 MILLING AND RESURFACING PROGRAM**  
CONTRACT NO. 2020-001  
WARD 5

VERNON AVENUE

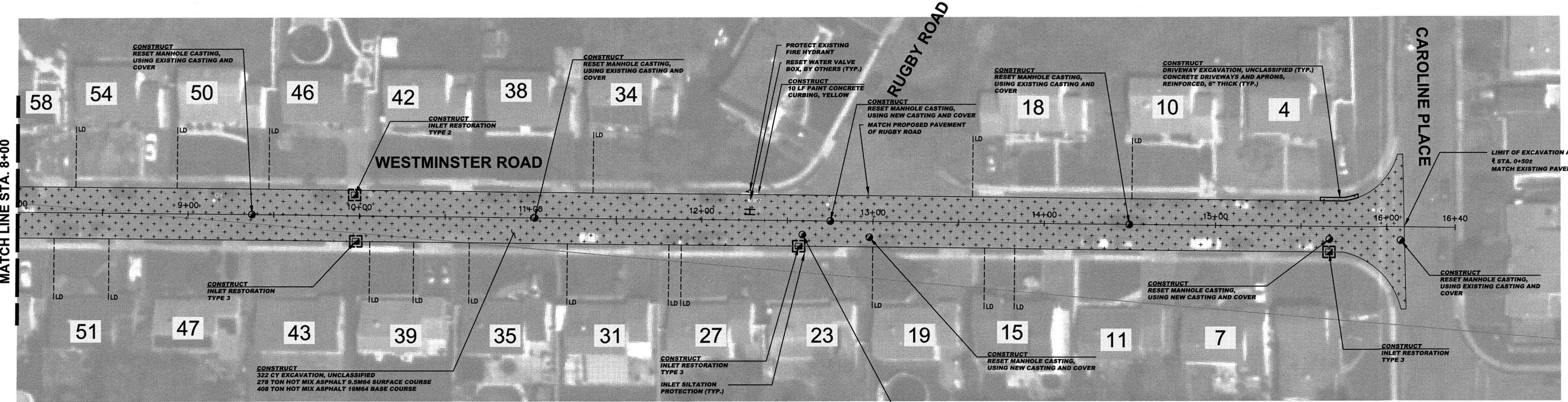
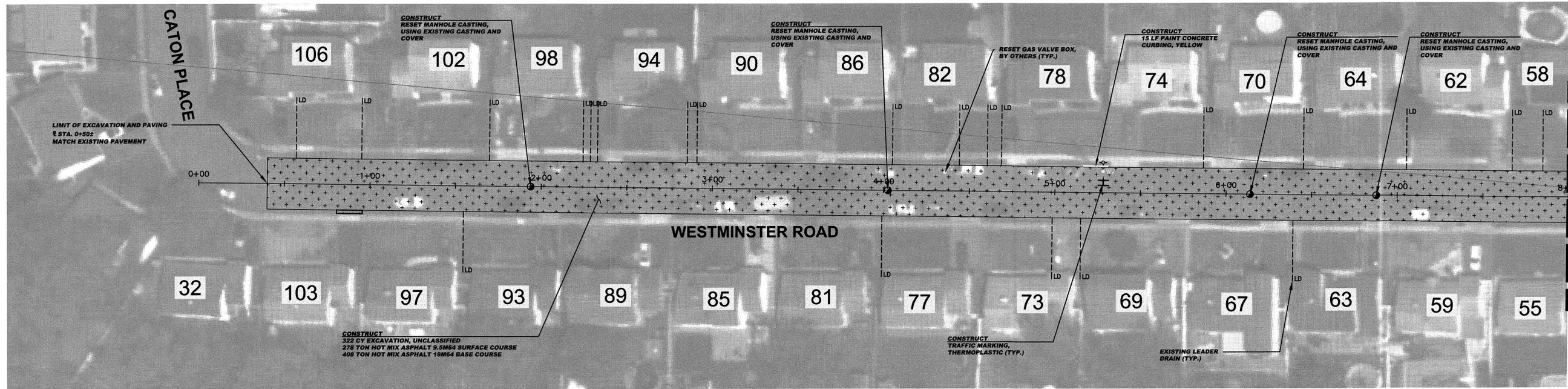
CONSULTING AND MUNICIPAL ENGINEERS  
3141 BORDENTOWN AVENUE, PARLIN, NEW JERSEY 08859-1163 1460 ROUTE 9 SOUTH, HOWELL, NEW JERSEY 07731-1194  
(732) 727 8000 (732) 462 7400

JOHN H. ALLGAIER P.E. & P.P. NO PE LIC NO. 25839 (1983 - 2001)	DAVID J. SAMUEL P.E. & P.P. NO PE LIC NO. 2455 NO PE & LS LIC NO. 24271	JOHN J. STEFANI P.E. L.S. & P.P. NO PP LIC NO. 20899 NO PE & LS LIC NO. 24271
JAY B. CORNELL P.E. & P.P. NO PE LIC NO. 32962	MICHAEL J. MCCLELLAND P.E. & P.P. NO PE LIC NO. 32468	GREGORY R. VALESI P.E. & P.P. NO PE LIC NO. 34458 NO PP LIC NO. 4365

**MICHAEL J. MCCLELLAND P.E.**  
NEW JERSEY PROFESSIONAL ENGINEER  
LIC. 32468

SCALE: As Shown  
DATE: April 2020  
DRAWN BY: AR  
DESIGNED BY: AR  
CHECKED BY: AR  
SHEET: 51 of 65

FILE NO. PWB0A610.01



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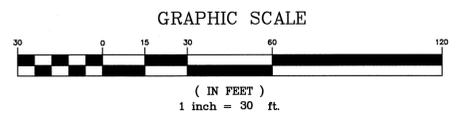
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**CONSTRUCT (WESTMINSTER ROAD)**

3	CY	Driveway excavation, unclassified
740	CY	Excavation, unclassified
5342	LF	Polymerized joint adhesive
626	TON	Hot mix asphalt 9.5M64 surface and leveler course
938	TON	Hot mix asphalt 19M64 base course
8	UN	Reset manhole casting, using existing casting and cover
4	UN	Reset manhole casting, using new casting and cover
4	UN	Reset existing casting
3	UN	Curb piece, type "N-ECCO"
4	UN	Bicycle Safe Grate
9	SY	Concrete driveways and aprons, reinforced, 6" thick
25	LF	Paint concrete curbing, yellow
3	UN	Reset water valve box
3	UN	Reset gas valve box

**INLET RESTORATION:**

TYPE 1	-	RESET EXISTING CASTING CURB PIECE, TYPE N-ECCO OR P-ECCO
TYPE 2	-	RESET EXISTING CASTING BICYCLE SAFE GRATE
TYPE 3	-	RESET EXISTING CASTING CURB PIECE, TYPE N-ECCO OR P-ECCO, BICYCLE SAFE GRATE
TYPE 4	-	RESET EXISTING CASTING



**PROPOSED LEGEND:**

●	-	DENOTES PROPOSED MANHOLE	▨	-	DENOTES PROPOSED REINFORCED CONCRETE SIDEWALK
○	-	DENOTES RESET MANHOLE CASTING (INCLUDING 2' WIDE EXCAVATION) AND PAVING WITH 19M64 BASE COURSE	▧	-	DENOTES REMOVE AND REPLACE CURB (INCLUDING 2' WIDE TEMPORARY TRENCH REPAIR)
⊗	-	DENOTES RECONSTRUCT MANHOLE	▩	-	DENOTES PROPOSED CONCRETE SIDEWALK AND DRIVEWAY APRON
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□	-	DENOTES RESET INLET CASTING	▥	-	DENOTES AREA TO BE MILLED AND RECEIVE MIN. 2" HMA 9.5M64 SURFACE AND LEVELER COURSE
⊠	-	DENOTES RECONSTRUCT INLET	▦	-	DENOTES AREA TO BE MILLED, EXISTING CRACK TO BE CLEANED AND SEALED, AND GEO COMPOSITE MATERIAL TO BE INSTALLED
⊡	-	DENOTES PROPOSED DETECTABLE WARNING SURFACE	▧	-	DENOTES REMOVAL OF PAVEMENT UP TO 6" AND RECEIVE HMA 19M64 BASE COURSE
⊢	-	DENOTES EXISTING VALLEY GUTTER			
⊣	-	DENOTES EXISTING TREES OR STUMPS TO BE REMOVED			
⊤	-	DENOTES RESET BRICKWALK/PAVERS			
⊥	-	DENOTES CONCRETE DRIVEWAY RESTORATION			
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**TOWNSHIP OF WOODBRIDGE**  
 MIDDLESEX COUNTY, NEW JERSEY  
**2020 MILLING AND RESURFACING PROGRAM**  
 CONTRACT NO. 2020-001  
 WESTMINSTER ROAD WARD 5

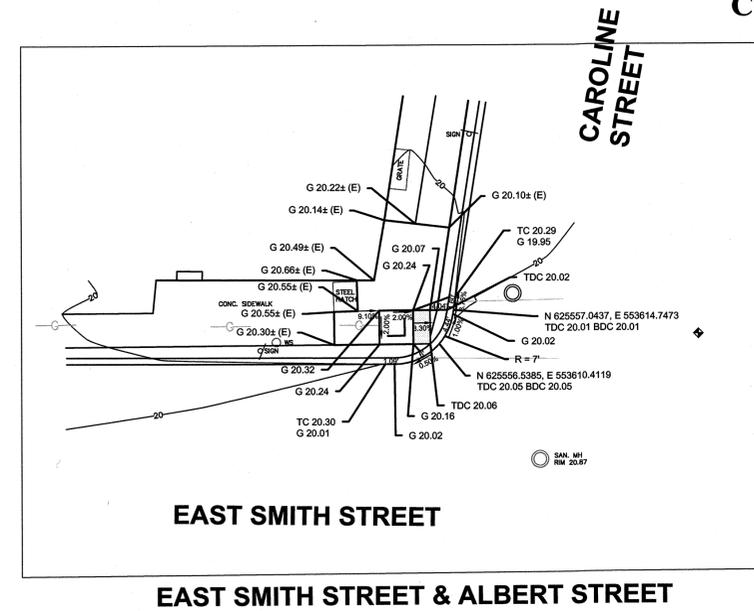
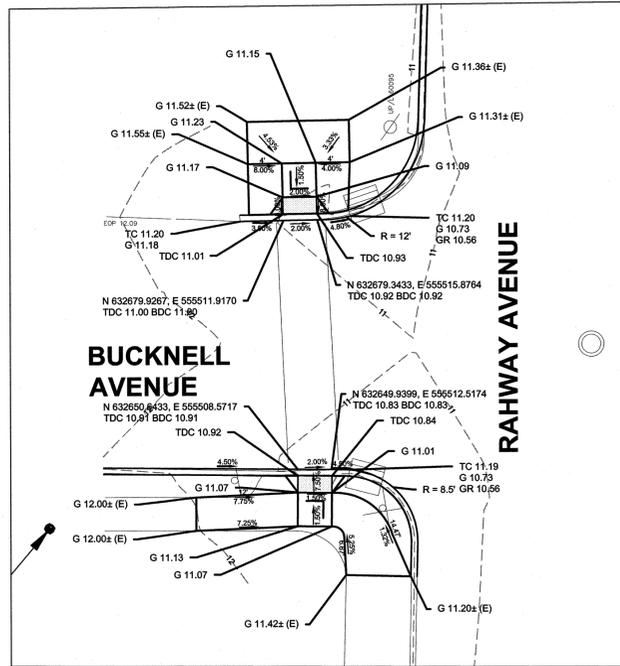
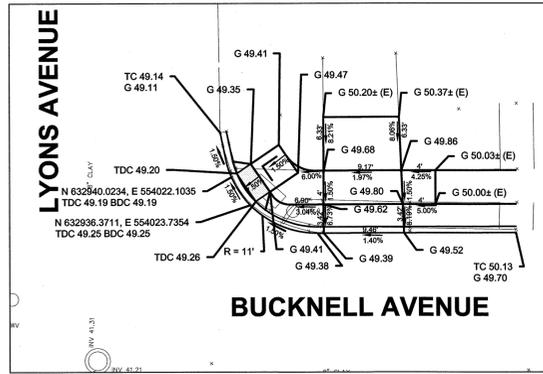
**CONSULTING AND MUNICIPAL ENGINEERS**  
 3341 BORDENTOWN AVENUE, PARLIN, NEW JERSEY 08859-1162 732.727.8000  
 1460 ROUTE 9 SOUTH, HOWELL, NEW JERSEY 07731-1194 (732) 462.7400

JOHN H. ALLGAIER P.E. & P.P. (1983 - 2001) DAVID J. SAMUEL P.E. & P.P. (1983 - 2001) JOHN J. STEFANI P.E. L.S. & P.P. (1983 - 2001)  
 JAY B. CORNELL P.E. & P.P. (1983 - 2001) MICHAEL J. MCLELLAND P.E. & P.P. (1983 - 2001) GREGORY R. VALESII P.E. & P.P. (1983 - 2001)

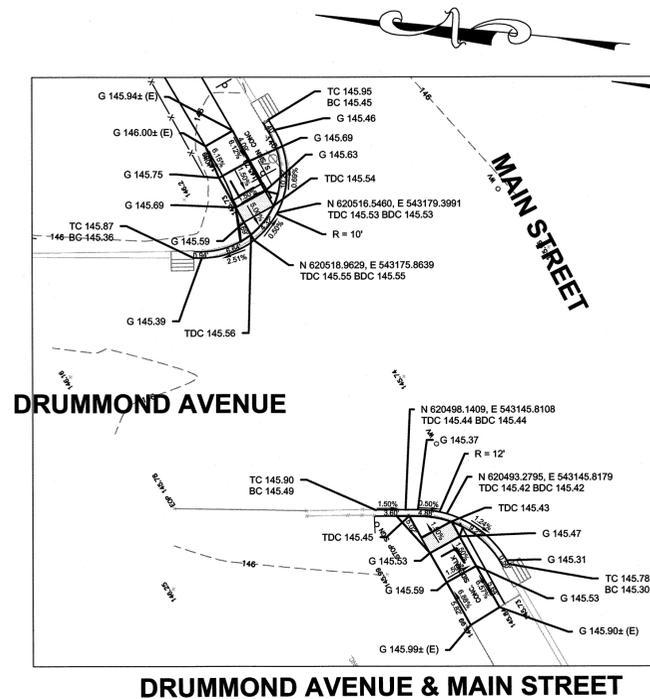
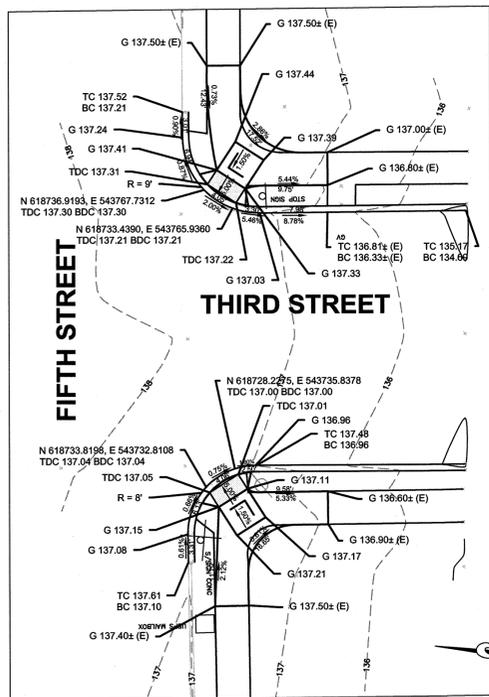
**MICHAEL J. MCLELLAND P.E.**  
 NEW JERSEY PROFESSIONAL ENGINEER L.C. 32468  
 As Shown April 2020  
 DRAWN BY AR DESIGNED BY AR  
 CHECKED BY SHEET 52 of 65

FILE NO. PW0A610.01

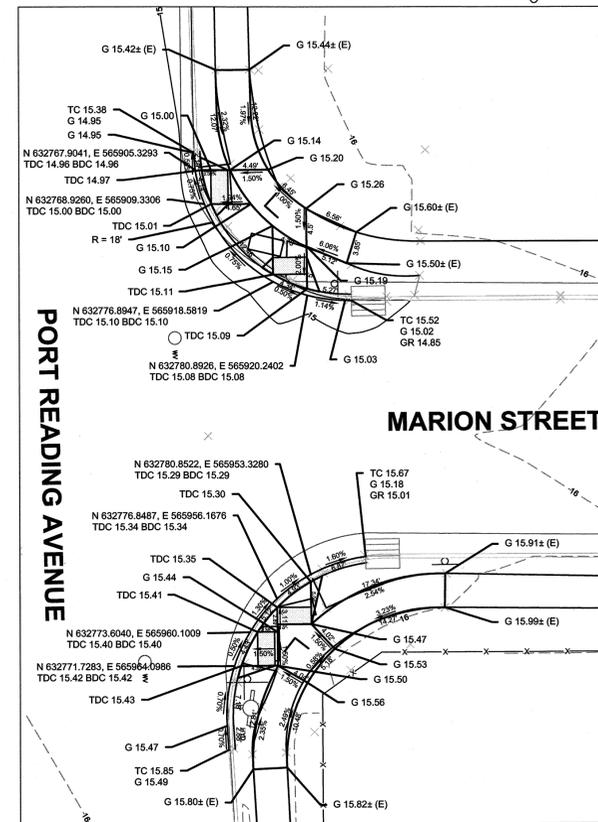
WARD 1



WARD 2



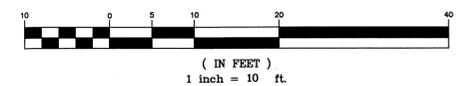
WARD 3



PROPOSED LEGEND:

- DENOTES PROPOSED CURB
- DENOTES 4'X4' LANDING AREA @ 2.0% MAX SLOPE
- DENOTES DETECTABLE WARNING SURFACE
- DENOTES PROPOSED CURB RAMP
- DENOTES PROPOSED SLOPE ALONG SIDEWALK
- DENOTES PROPOSED GRADE ALONG SIDEWALK

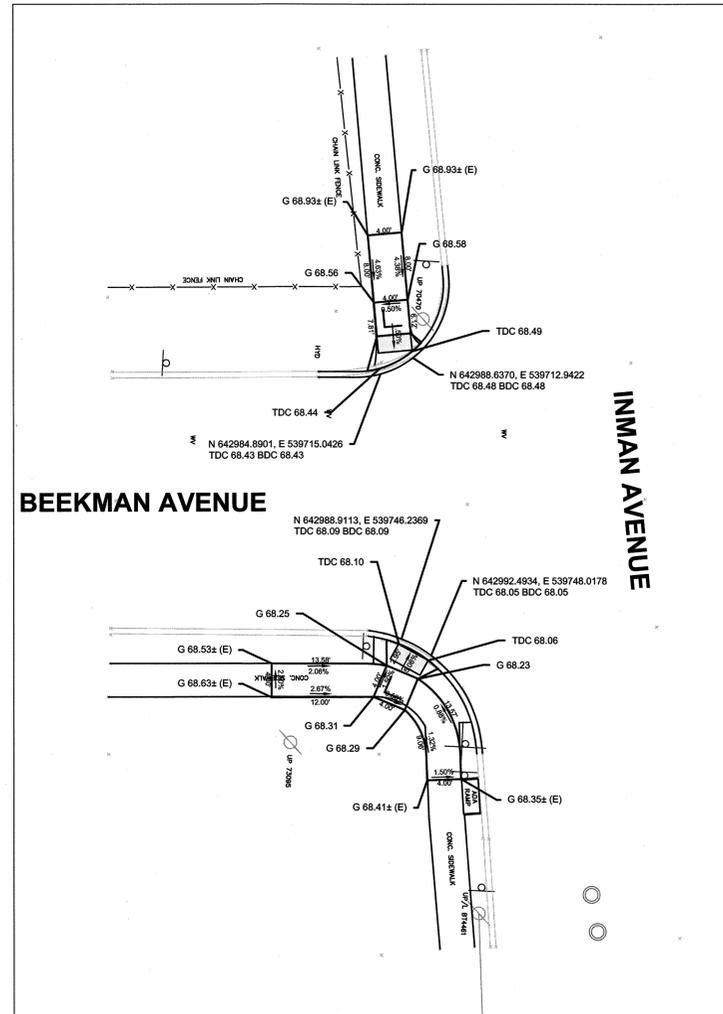
GRAPHIC SCALE



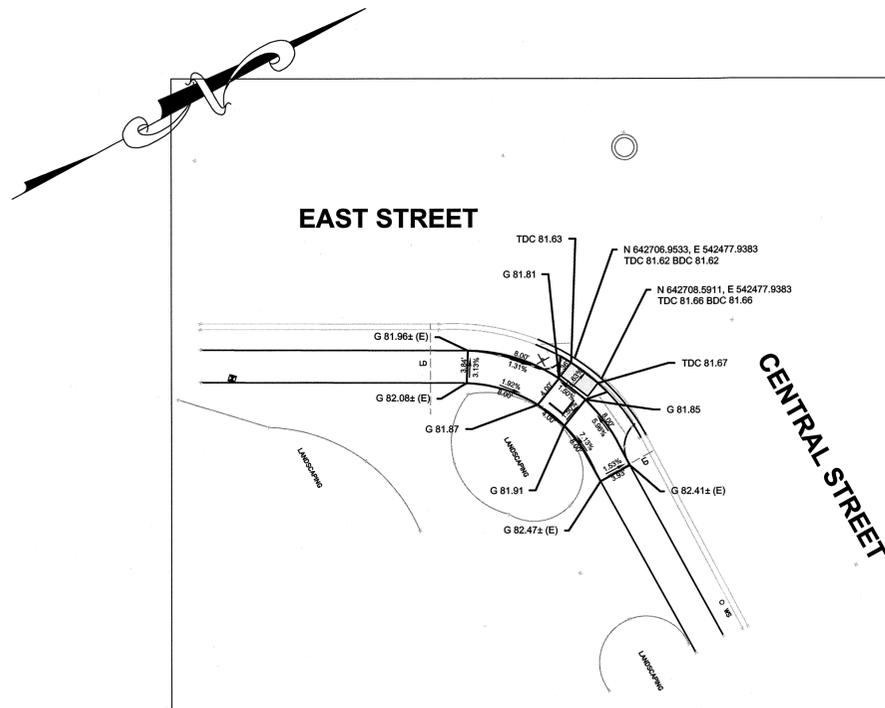
No.	DESCRIPTION OF REVISION	DATE	DRAWN	CHECKED	RELEASED
<b>TOWNSHIP OF WOODBRIDGE</b> MIDDLESEX COUNTY, NEW JERSEY <b>2020 MILLING AND RESURFACING PROGRAM</b> CONTRACT NO. 2020-001 CURB RAMPS WARD 1, WARD 2 & WARD 3					
 <b>ASSOCIATES</b> CONSULTING AND MUNICIPAL ENGINEERS (732) 727-8000      (732) 462-7400					
JOHN H. ALLGAIR P.E. & P.P. (1993 - 2021)	DAVID J. SAMUEL P.E. & P.P. NJ PE LIC NO. 24858	JOHN J. STEFANI P.E. L.S. & P.P. NJ PE & L.S. LIC NO. 24271			
JAY B. CORNELL P.E. & P.P. NJ PE LIC NO. 32962	MICHAEL J. McCLELLAND P.E. & P.P. NJ PE LIC NO. 32468	GREGORY R. VALESI P.E. & P.P. NJ PE LIC NO. 34458			
<b>MICHAEL J. McCLELLAND P.E.</b> NEW JERSEY PROFESSIONAL ENGINEER LIC. 32468			SCALE: As Shown DATE: April 2020 DRAWN BY: LC DESIGNED BY: LC CHECKED BY:		
			4.21.20 SHEET 53 of 65		

DRAWING NO. PWB0A610.01

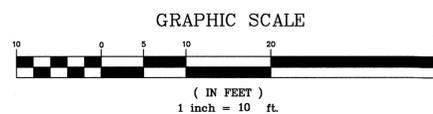




**BEEKMAN AVENUE & INMAN AVENUE**



**EAST STREET & CENTRAL STREET**

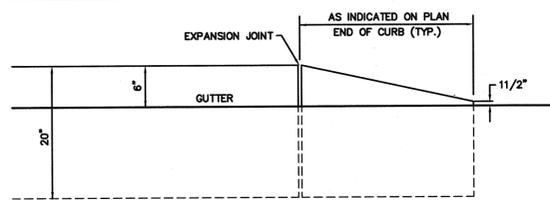


**PROPOSED LEGEND:**

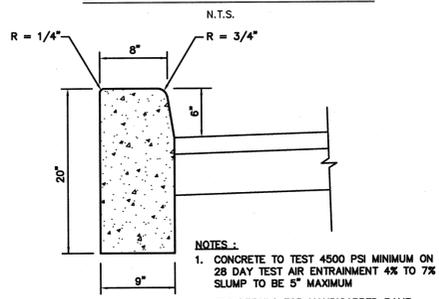
- DENOTES PROPOSED CURB
- DENOTES 4'x4' LANDING AREA @ 2.0% MAX SLOPE
- DENOTES DETECTABLE WARNING SURFACE
- DENOTES PROPOSED CURB RAMP
- DENOTES PROPOSED SLOPE ALONG SIDEWALK
- DENOTES PROPOSED GRADE ALONG SIDEWALK

NO.	DESCRIPTION OF REVISION	DATE	DRAWN	CHECKED	RELEASED
<b>TOWNSHIP OF WOODBRIDGE</b> MIDDLESEX COUNTY, NEW JERSEY <b>2020 MILLING AND RESURFACING PROGRAM</b> CONTRACT NO. 2020-001 CURB RAMPS <span style="float: right;">WARD 5</span>					
 <b>CWE ASSOCIATES</b> CONSULTING AND MUNICIPAL ENGINEERS 3141 BORDENTOWN AVENUE, PARLIN, NEW JERSEY 08859-1162 — 1400 ROUTE 9 SOUTH, HOWELL, NEW JERSEY 07731-1194 (732) 727-8000 <span style="float: right;">(732) 462-7400</span>					
JOHN H. ALLGAIR P.E. & P.P. LIC. 1891 - 2051	DAVID J. SAMUEL P.E. & P.P. NJ PE LIC. NO. 25839 NJ PP LIC. NO. 2455	JOHN J. STEFANI P.E. L.S. & P.P. NJ PE & LS LIC. NO. 24571 NJ PP LIC. NO. 2089			
JAY B. CORNELL P.E. & P.P. NJ PE LIC. NO. 32962	MICHAEL J. McCLELLAND P.E. & P.P. NJ PE LIC. NO. 3874 NJ PP LIC. NO. 32468	GREGORY R. VALESI P.E. & P.P. NJ PE LIC. NO. 34458 NJ PP LIC. NO. 4361			
<b>MICHAEL J. McCLELLAND P.E.</b> NEW JERSEY PROFESSIONAL ENGINEER LIC. 32468 		SCALE: As Shown DATE: April 2020 DRAWN BY: AR DESIGNED BY: AR CHECKED BY: AR SHEET: 55 of 65			

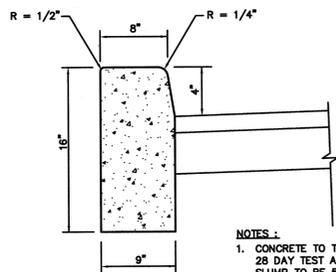
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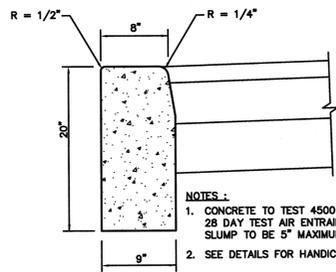
**9" x 20" KNOCKOUT CURB**



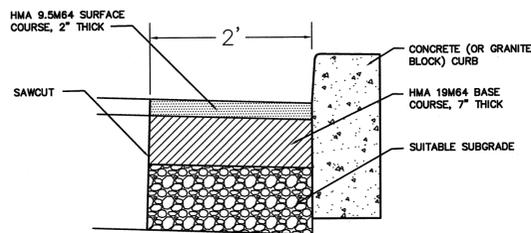
**TYPICAL 9" x 20" CURB DETAIL**



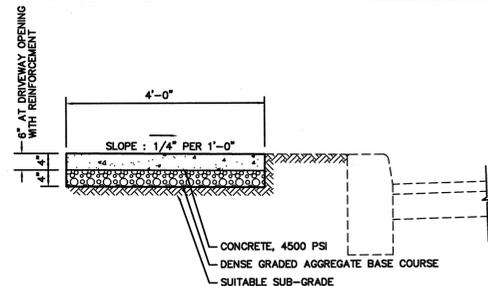
**TYPICAL 9" x 16" CURB DETAIL**



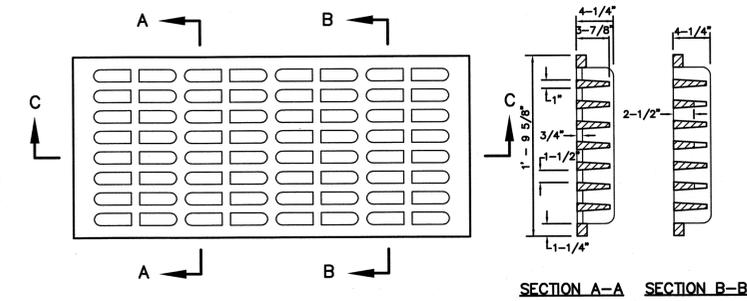
**FLUSH 9" x 20" CURB DETAIL**



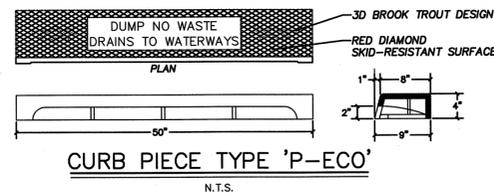
**TEMPORARY TRENCH REPAIR DETAIL FOR CURB REPLACEMENT**



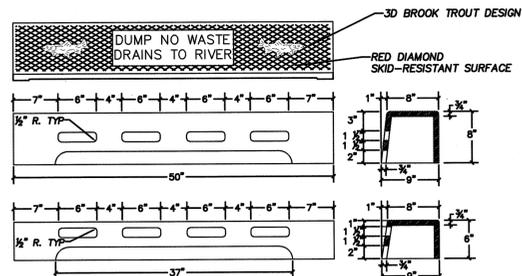
**TYPICAL SIDEWALK DETAIL**



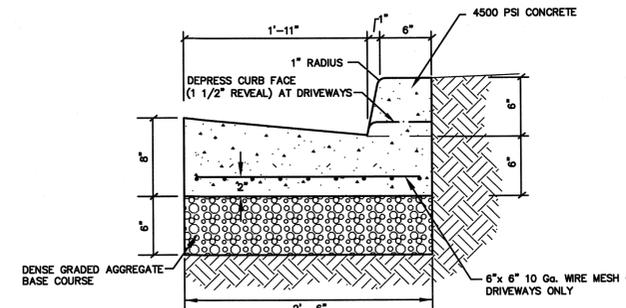
**BICYCLE SAFE GRATE**



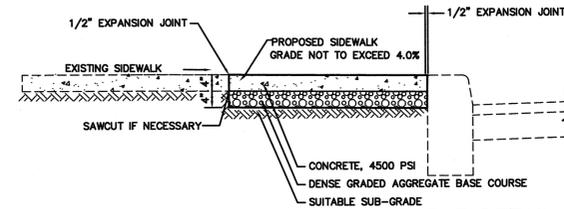
**CURB PIECE TYPE 'P-ECO'**



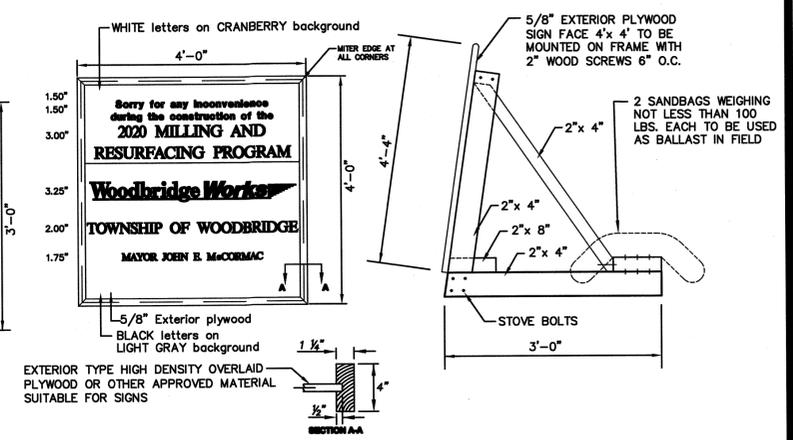
**CURB PIECE TYPE 'N-ECO'**



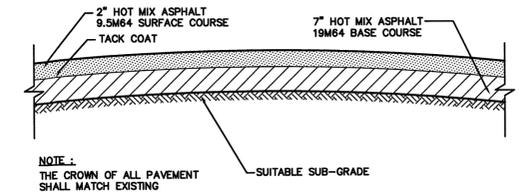
**CONCRETE CURB & GUTTER**



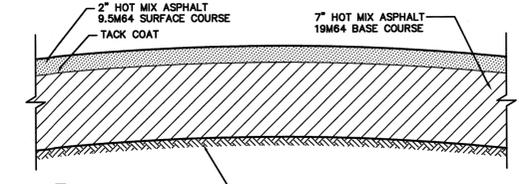
**TYPICAL SERVICE WALK REPLACEMENT DETAIL**



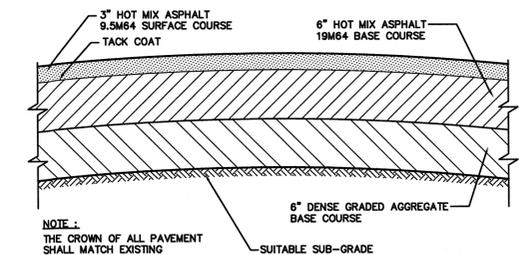
**PROJECT SIGN DETAIL**



**TYPICAL PAVEMENT DETAIL**



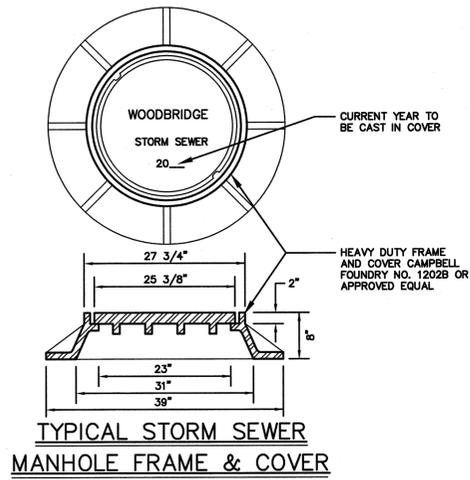
**TYPICAL REMOVAL OF PAVEMENT SECTION**



**TYPICAL PAVEMENT DETAIL (COLONIA BOULEVARD)**

NO.	DESCRIPTION OF REVISION	DATE	DRAWN	CHECKED	RELEASED
<b>TOWNSHIP OF WOODBRIDGE</b> MIDDLESEX COUNTY, NEW JERSEY <b>2020 MILLING AND RESURFACING PROGRAM</b> CONTRACT NO. 2020-001					
<b>CONSTRUCTION DETAILS</b> (1 OF 4)					
(732) 727 8000 CONSULTING AND MUNICIPAL ENGINEERS (732) 462 7400					
JOHN H. ALLGAIER P.E. & P.P. (1993 - 2021) 3141 BORDENTOWN AVENUE, PARLIN, NEW JERSEY 08859-1162 — 1460 ROUTE 9 SOUTH, HOWELL, NEW JERSEY 07731-1194	DAVID J. SAMUEL P.E. & P.P. NO. PP LIC. NO. 2455 NO. PE & US LIC. NO. 24272	JOHN J. STEFANI P.E. L.S. & P.P. NO. PE & US LIC. NO. 24272 NO. PP LIC. NO. 2089	JAY B. CORNELL P.E. & P.P. NO. PE LIC. NO. 32562 NO. PP LIC. NO. 3874	MICHAEL J. MCCLELLAND P.E. & P.P. NO. PE LIC. NO. 32468 NO. PP LIC. NO. 3770	GREGORY R. VALESI P.E. & P.P. NO. PE LIC. NO. 34458 NO. PP LIC. NO. 4361
<b>MICHAEL J. MCCLELLAND P.E.</b> NEW JERSEY PROFESSIONAL ENGINEER LIC. 32468					
SCALE: As Shown DATE: April 2020 DRAWN BY: PB DESIGNED BY: PB CHECKED BY: SHEET: 56 OF 65					

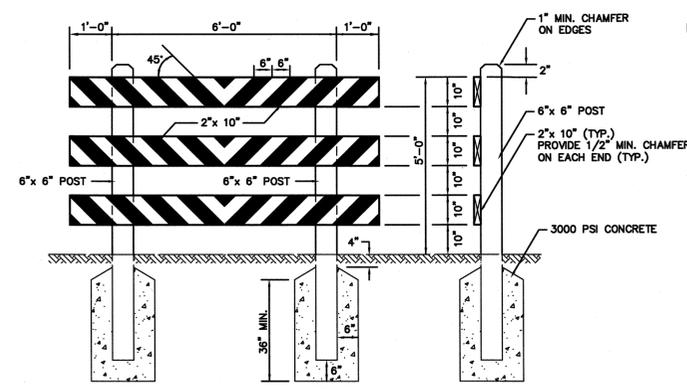
DRAWING NO. PWB04610.01



**TYPICAL STORM SEWER MANHOLE FRAME & COVER**  
N.T.S.

IF WATERTIGHT MANHOLE FRAMES & COVERS ARE REQUIRED THEY SHALL BE AS MFG. BY CAMPBELL FOUNDRY CO. PATTERN NO. 1553 OR APPROVED EQUAL.

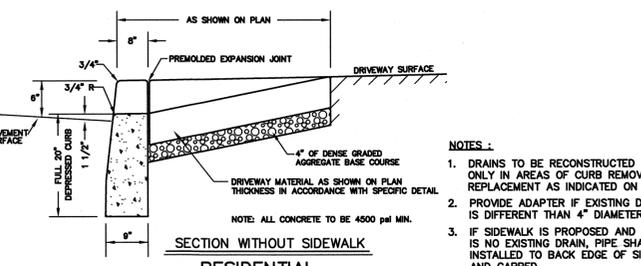
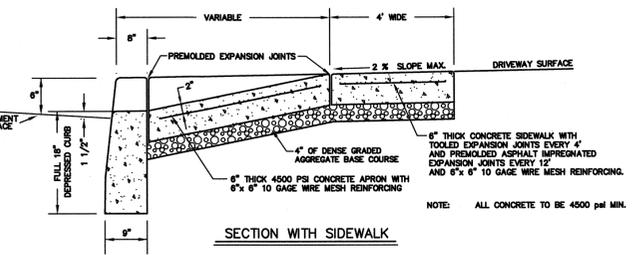
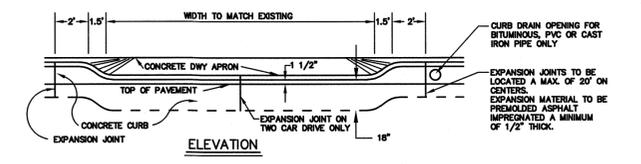
**NOTE:**  
THE MANHOLE COVER AND FRAME SHALL BE OF THE HEAVY HIGHWAY TYPE, WITH THE CIRCULAR FLARED TYPE FRAME AND ROUND FLANGE.  
CAMPBELL FOUNDRY CO. PATTERN NO. 1202B OR ITS EQUIVALENT.



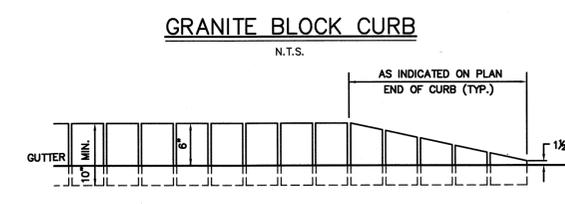
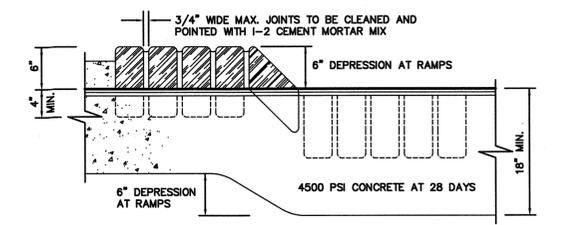
**PERMANENT BARRICADE TYPE III MODIFIED FOR DEAD END ROADS**  
N.T.S.

**NOTES:**

- ALL MEMBERS TO BE SOUTHERN YELLOW PINE PRESSURE TREATED WITH "ACQ" OR "COPPER AZOLE" OR APPROVED EQUAL ARSENIC FREE MATERIALS AND PROCEDURES APPROVED BY THE ENVIRONMENTAL PROTECTION AGENCY (EPA). ALL RAILS TO BE MOUNTED AS DIRECTED BY THE ENGINEER. CONNECTIONS TO BE MADE WITH 3/4" LAG BOLTS IN COUNTERSUNK HOLES.
- FACE OF RAILS SHALL BE COVERED WITH REFLECTORIZED SHEETING, TYPE II, MEETING REQUIREMENTS OF THE NJDOT AND MUTCD. OTHER PARTS SHALL BE PAINTED WHITE, 3 COATS. MARKINGS FOR RAILS SHALL BE ALTERNATE WHITE AND RED STRIPES SLOPING DOWNWARD AT AN ANGLE OF 45° IN THE DIRECTION WHICH TRAFFIC MUST TURN.
- THE RED AND WHITE STRIPES SHALL BE REFLECTORIZED SO AS TO BE VISIBLE UNDER NORMAL ATMOSPHERIC CONDITIONS FROM A MINIMUM DISTANCE OF 1000 FT. WHEN ILLUMINATED BY THE LOW BEAMS OF STANDARD AUTOMOBILE HEADLIGHTS.

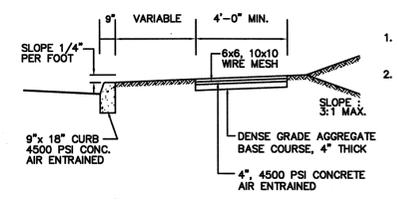


**RESIDENTIAL DRIVEWAY ENTRANCE DEPRESSED CURB, DRIVEWAY APRON & SIDEWALK**  
N.T.S.



**GRANITE BLOCK CURB**  
N.T.S.

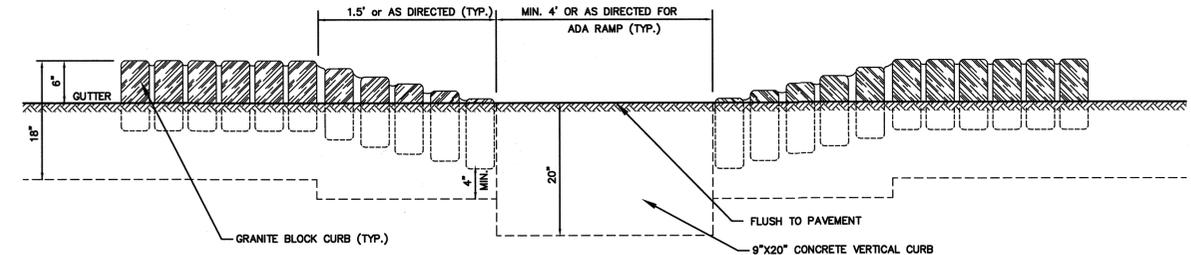
**GRANITE BLOCK KNOCKOUT CURB**  
N.T.S.



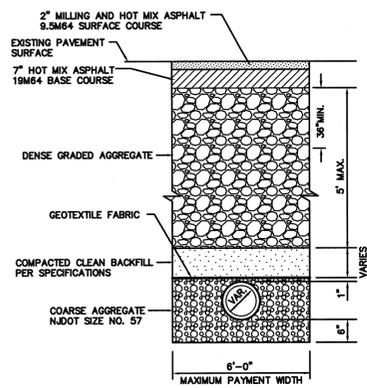
**SIDEWALK DETAIL REINFORCED COUNTY CONCRETE**  
N.T.S.

**NOTE:**

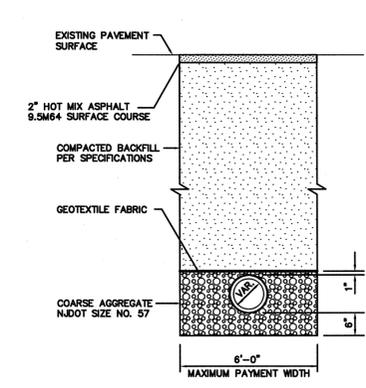
- HANDICAP RAMPS SHALL BE REINFORCED WITH WIRE MESH. REFER TO DETAILS FOR HANDICAP RAMP CONSTRUCTION.
- TRANSVERSE EXPANSION JOINTS 1/2" WIDE SHALL BE PROVIDED AT INTERVALS OF NOT MORE THAN 20' AND FILLED WITH PREFORMED BITUMINOUS CELLULAR TYPE JOINT FILLER. LONGITUDINAL JOINTS, 1/2" WIDE, SHALL BE PROVIDED BETWEEN CURBS AND ABUTTING SIDEWALKS, AND SHALL BE FILLED WITH PREFORMED BITUMINOUS TYPE JOINT FILLER. THE TOP OF ALL JOINT FILLER SHALL BE 1/2" BELOW THE TOP OF THE SIDEWALK AND FILLED WITH JOINT SEALER (SIKAFLEX 1A, OR APPROVED EQUAL). NO SEPARATE PAYMENT WILL BE MADE FOR JOINT CAP, REMOVABLE JOINT STRIP, JOINT SEALER AND WELDED STEEL WIRE FABRIC PROVIDED IN CONCRETE SIDEWALKS. NO SEPARATE PAYMENT WILL BE MADE FOR DENSE GRADED AGGREGATE BASE COURSE.



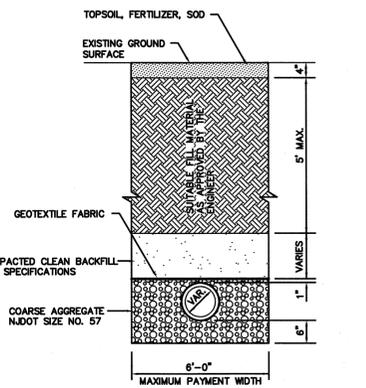
**GRANITE BLOCK AND CONCRETE CURB AT RAMP**  
N.T.S.



**ROADWAY TRENCH REPAIR**  
N.T.S.

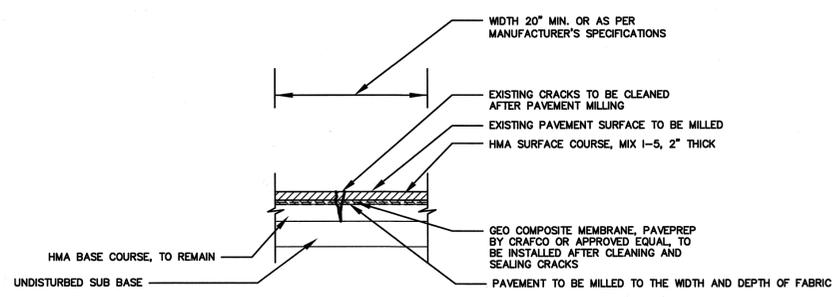


**TEMPORARY TRENCH REPAIR**  
N.T.S.



**UNPAVED TRENCH REPAIR**  
N.T.S.

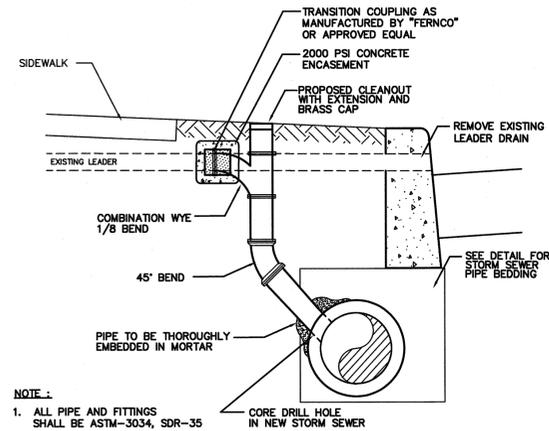
**TYPICAL BEDDING AND TRENCH DETAILS FOR SANITARY SEWER MAINS AND LATERALS**  
N.T.S.



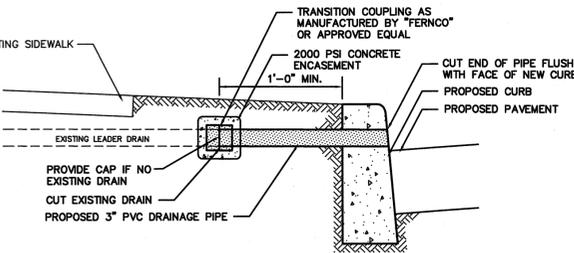
**ROADWAY CRACK REPAIR**  
N.T.S.

No.	DESCRIPTION OF REVISION	DATE	DRAWN	CHECKED	RELEASED
<b>TOWNSHIP OF WOODBRIDGE</b> MIDDLESEX COUNTY, NEW JERSEY <b>2020 MILLING AND RESURFACING PROGRAM</b> CONTRACT NO. 2020-001					
<b>CONSTRUCTION DETAILS</b> (2 OF 4)					
(732) 727 8000 CONSULTING AND MUNICIPAL ENGINEERS (732) 462 7400 3141 BORDENTOWN AVENUE, PARLIN, NEW JERSEY 08859-1162 1460 ROUTE 9 SOUTH, HOWELL, NEW JERSEY 07731-1194					
JOHN H. ALLGAIR P.E. & P.P. NJ PE LIC NO. 28980 (1993 - 2003)	DAVID J. SAMUEL P.E. & P.P. NJ PE LIC NO. 2485	JOHN J. STEFANI P.E., L.S. & P.P. NJ PE & LS LIC NO. 24271			
JAY B. CORNELL P.E. & P.P. NJ PE LIC NO. 32962	MICHAEL J. MCCLELLAND P.E. & P.P. NJ PE LIC NO. 32468	GREGORY R. VALESINI P.E. & P.P. NJ PE LIC NO. 34458			
<b>MICHAEL J. MCCLELLAND P.E.</b> NEW JERSEY PROFESSIONAL ENGINEER LIC. 32468					
SCALE: As Shown DATE: April 2020 DRAWN BY: PB DESIGNED BY: PB CHECKED BY: SHEET: 57 of 65					

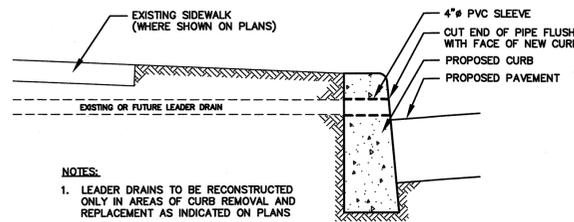
PWB0610.01



**CONNECTION OF LEADER OR SUMP DRAINS TO R.C.P. STORM SEWER PIPE**  
N.T.S.



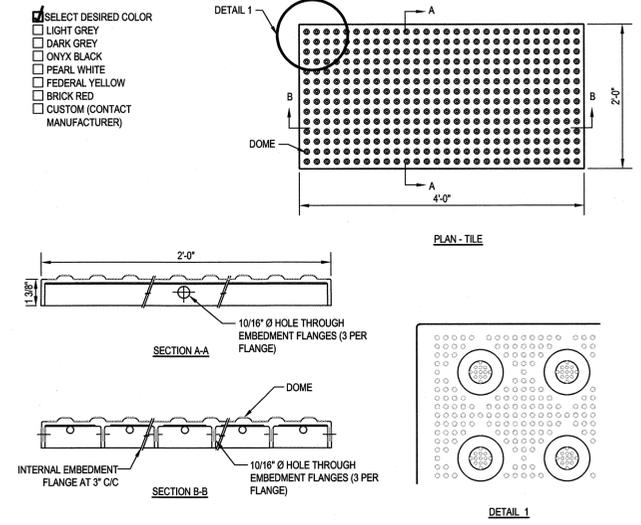
**LEADER OR SUMP DRAIN RECONSTRUCTION DETAIL**  
N.T.S.



**LEADER DRAIN SLEEVE DETAIL FOR AREAS WITH NO EXISTING OR PROPOSED STORM SEWER SYSTEM**  
N.T.S.

**Armor-Tile™ Tactile Systems**

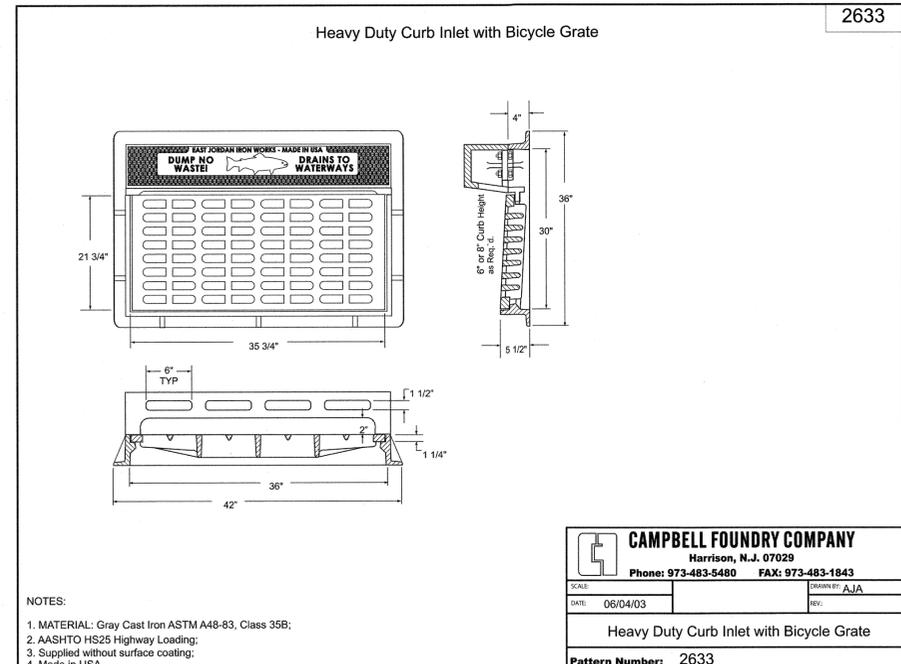
ENGINEERED PLASTICS, INC.  
300 INTERNATIONAL DR., SUITE 100  
WILLIAMSVILLE, NY, 14221  
TOLL FREE: 1-800-682-2525  
PHONE: (716) 626-3626  
FAX: (800) 769-4463  
www.armor-tile.com



- NOTES:  
1. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.  
2. DO NOT SCALE DRAWINGS.  
3. FOR CUSTOM SIZING CONTACT MANUFACTURER.  
4. CONTRACTORS NOTE: FOR PRODUCT AND COMPANY INFORMATION VISIT [www.CADdetails.com/info](http://www.CADdetails.com/info) REFERENCE NUMBER 681-001D.

**CAST IN PLACE SYSTEMS**  
24" x 48" (ADA-C-2448)

**DETECTABLE WARNING SURFACE**  
N.T.S.

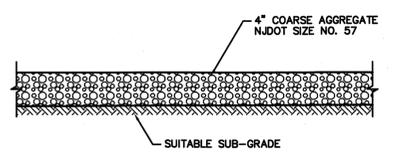


- NOTES:  
1. MATERIAL: Gray Cast Iron ASTM A48-83, Class 35B;  
2. AASHTO HS25 Highway Loading;  
3. Supplied without surface coating;  
4. Made in USA.

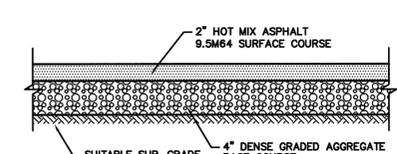
**3' BICYCLE SAFE GRATE AND CURB PIECE**  
N.T.S.

CAMPBELL PATTERN NUMBER 2633 OR APPROVED EQUAL

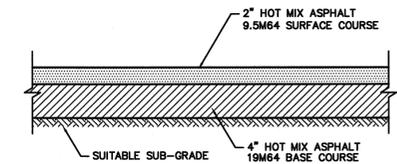
**CAMPBELL FOUNDRY COMPANY**  
Harrison, N.J. 07029  
Phone: 973-483-5480 FAX: 973-483-1843  
DATE: 06/04/03  
Heavy Duty Curb Inlet with Bicycle Grate  
Pattern Number: 2633



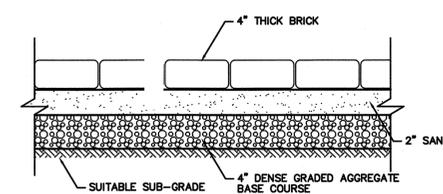
**AGGREGATE DRIVEWAY = DRIVEWAY REPLACEMENT DETAIL**  
N.T.S.



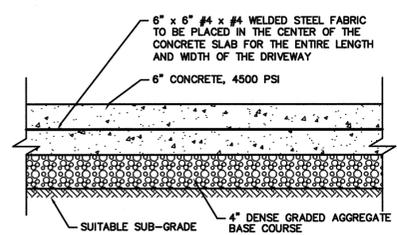
**HMA DRIVEWAY = (SINGLE & 2-FAMILY DRIVEWAYS) DRIVEWAY REPLACEMENT DETAIL**  
N.T.S.



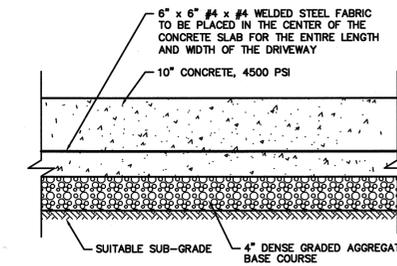
**HMA DRIVEWAY = (COMMERCIAL DRIVEWAY & PARKING LOT) DRIVEWAY REPLACEMENT DETAIL**  
N.T.S.



**BRICK PAVER DRIVEWAY = DRIVEWAY REPLACEMENT DETAIL**  
N.T.S.



**CONCRETE DRIVEWAY = DRIVEWAY REPLACEMENT DETAIL**  
N.T.S.



**CONCRETE DRIVEWAY = (COMMERCIAL DRIVEWAY & PARKING LOT) DRIVEWAY REPLACEMENT DETAIL**  
N.T.S.

TOWNSHIP OF WOODBRIDGE  
MIDDLESEX COUNTY, NEW JERSEY  
**2020 MILLING AND RESURFACING PROGRAM**  
CONTRACT NO. 2020-001

CONSTRUCTION DETAILS  
(3 OF 4)

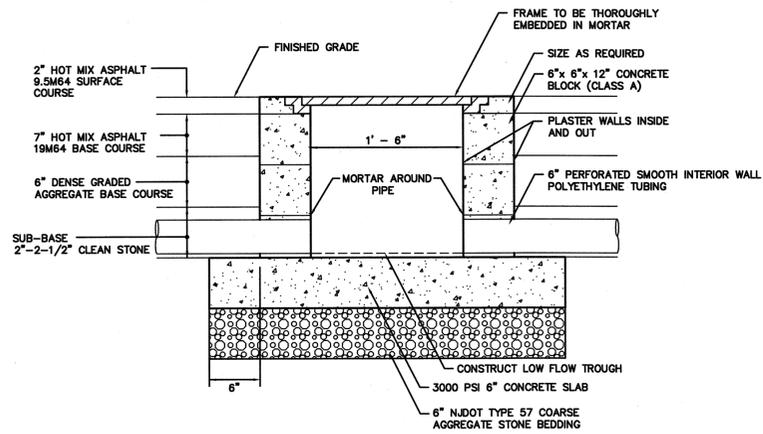
CONSULTING AND MUNICIPAL ENGINEERS  
(732) 727-8000 (732) 462-7400  
3141 BORDENTOWN AVENUE, PARLIN, NEW JERSEY 08859-1162 — 1460 ROUTE 9 SOUTH, HOWELL, NEW JERSEY 07731-1194

JOHN H. ALLGAIR P.E. & P.P. NJ PE LIC NO. 25038	DAVID J. SAMUEL P.E. & P.P. NJ PE LIC NO. 2455	JOHN J. STEFANI P.E., L.S. & P.P. NJ PE & L.S. LIC NO. 24575
JAY B. CORNELL P.E. & P.P. NJ PE LIC NO. 32962	MICHAEL J. McCLELLAND P.E. & P.P. NJ PE LIC NO. 32468	GREGORY R. VALES I P.E. & P.P. NJ PE LIC NO. 34458

**MICHAEL J. McCLELLAND P.E.**  
NEW JERSEY PROFESSIONAL ENGINEER  
LIC. 32468

SCALE: As Shown DATE: April 2020  
DRAWN BY: PB DESIGNED BY: PB  
CHECKED BY: SHEET: 58 of 65

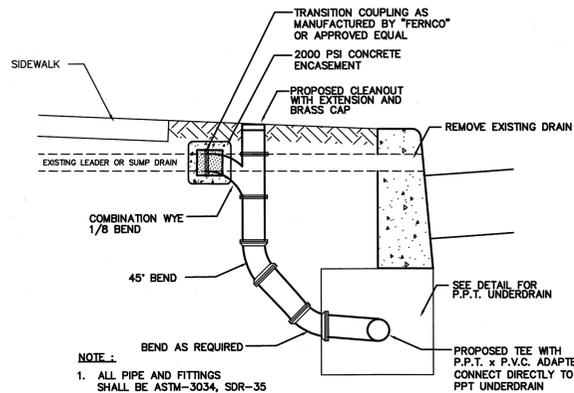
FILE NO. PW06A10.01



**UNDERDRAIN HANDHOLE DETAIL**

NOTE: 1. FRAME AND COVER TO BE CAMPBELL FOUNDRY CO. PATTERN NUMBER 2801 OR EQUAL.  
 2. A PRECAST UNIT MAY BE INSTALLED AT THE OPTION OF THE CONTRACTOR, WALLS SHALL BE 6" THICK, PRICE PER UNIT SHALL REMAIN THE SAME.

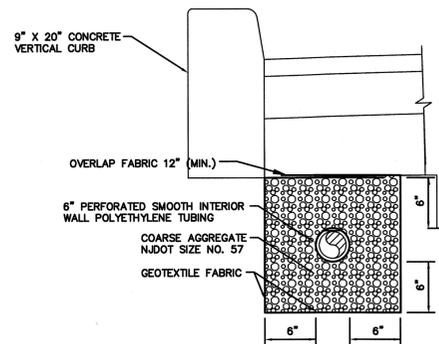
N.T.S.



**CONNECTION OF SUMP OR LEADER DRAINS TO PROPOSED P.P.T. UNDERDRAIN**

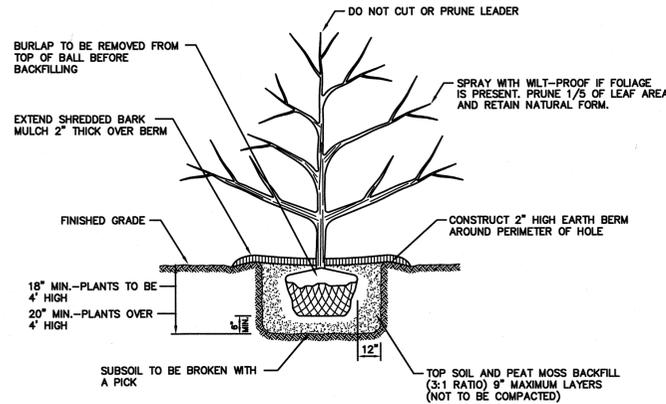
NOTE: 1. ALL PIPE AND FITTINGS SHALL BE ASTM-3034, SDR-35

N.T.S.



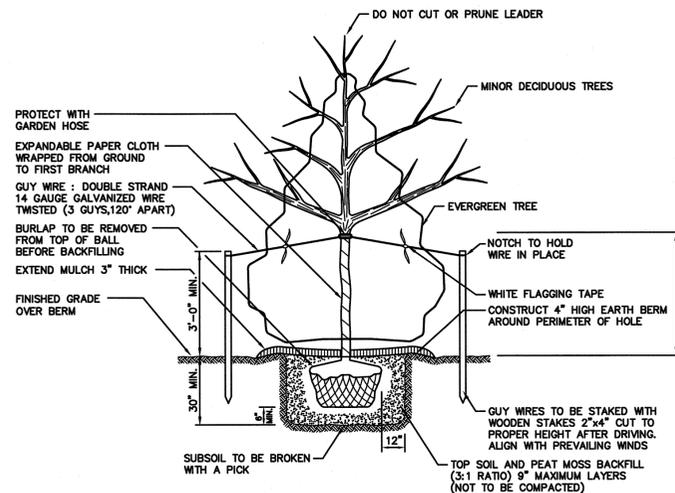
**PERFORATED POLYETHYLENE TUBING UNDERDRAIN**

N.T.S.



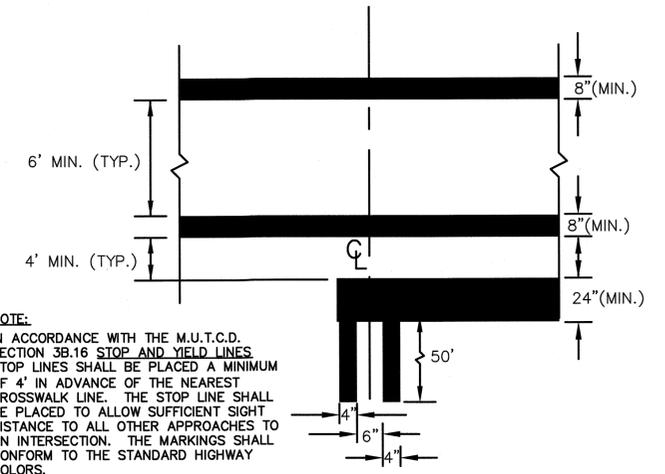
**TYPICAL SHRUB PLANTING DETAIL**

N.T.S.



**TYPICAL TREE PLANTING DETAIL**

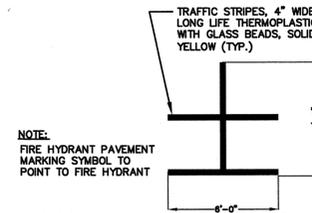
N.T.S.



**CROSSWALK STRIPING & STOP BAR DETAIL**

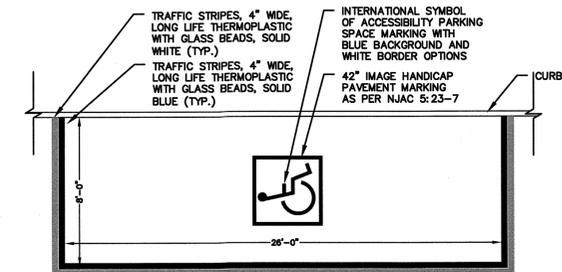
N.T.S.

NOTE: IN ACCORDANCE WITH THE M.U.T.C.D. SECTION 3B.16 STOP AND YIELD LINES STOP LINES SHALL BE PLACED A MINIMUM OF 4' IN ADVANCE OF THE NEAREST CROSSWALK LINE. THE STOP LINE SHALL BE PLACED TO ALLOW SUFFICIENT SIGHT DISTANCE TO ALL OTHER APPROACHES TO AN INTERSECTION. THE MARKINGS SHALL CONFORM TO THE STANDARD HIGHWAY COLORS.



**FIRE HYDRANT PAVEMENT MARKING DETAIL**

N.T.S.

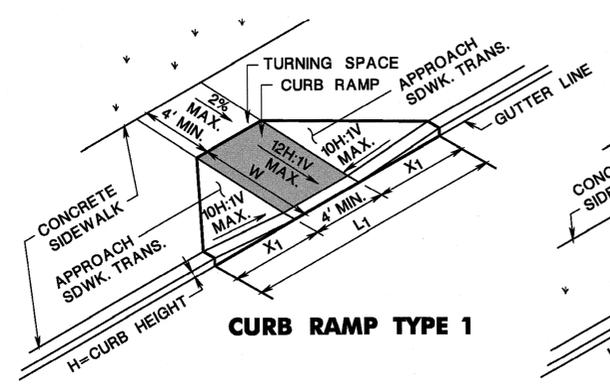


**HANDICAPPED PARKING STALL DETAILS**

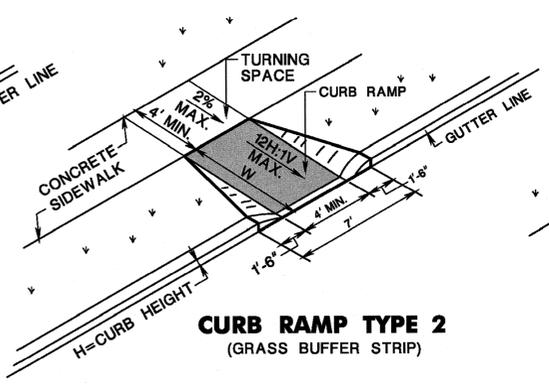
N.T.S.

NO.	DESCRIPTION OF REVISION	DATE	DRAWN	CHECKED	RELEASED
<b>TOWNSHIP OF WOODBRIDGE</b> MIDDLESEX COUNTY, NEW JERSEY <b>2020 MILLING AND RESURFACING PROGRAM</b> CONTRACT NO. 2020-001					
<b>CONSTRUCTION DETAILS</b> (4 OF 4)					
(732) 727 8000 CONSULTING AND MUNICIPAL ENGINEERS (732) 462 7400 3141 BORDENTOWN AVENUE, PARLIN, NEW JERSEY 08859-1162 1460 ROUTE 9 SOUTH, HOWELL, NEW JERSEY 07731-1194					
JOHN H. ALLCAIR P.E. & P.P. NJ PE LIC NO. 28089	DAVID J. SAMUEL P.E. & P.P. NJ PE LIC NO. 2455	JOHN J. STEFANI P.E. L.S. & P.P. NJ PE & L.S. LIC NO. 24273			
JAY B. CORNELL P.E. & P.P. NJ PE LIC NO. 32962	MICHAEL J. MCCLELLAND P.E. & P.P. NJ PE LIC NO. 32468	GREGORY R. VALESI P.E. & P.P. NJ PE LIC NO. 34458			
<b>MICHAEL J. MCCLELLAND P.E.</b> NEW JERSEY PROFESSIONAL ENGINEER LIC. 32468					
SCALE: As Shown DATE: April 2020 DRAWN BY: PB DESIGNED BY: PB CHECKED BY: SHEET: 59 OF 65					

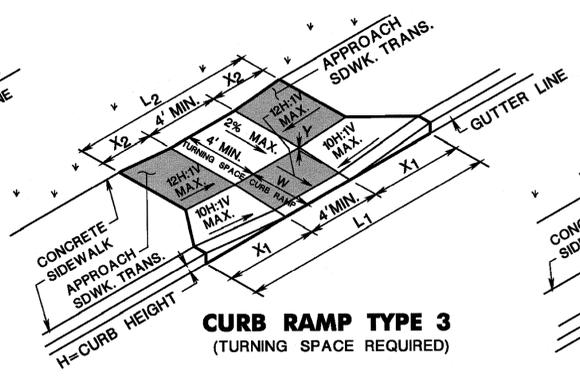
DRAWING NO. PWB0A610.01



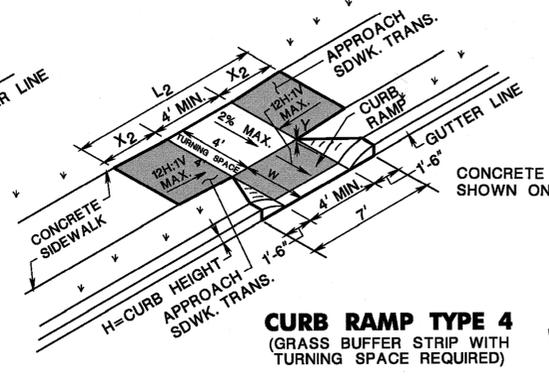
**CURB RAMP TYPE 1**



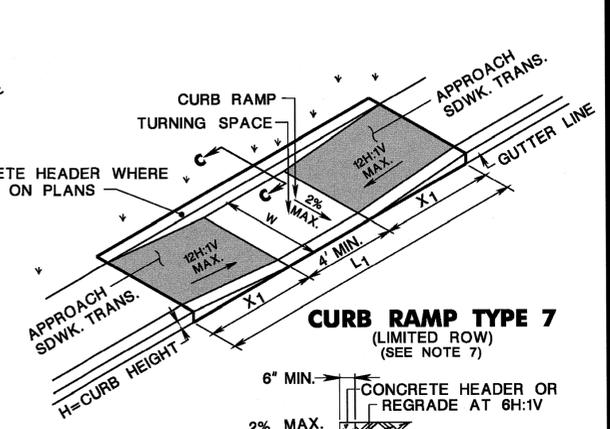
**CURB RAMP TYPE 2  
(GRASS BUFFER STRIP)**



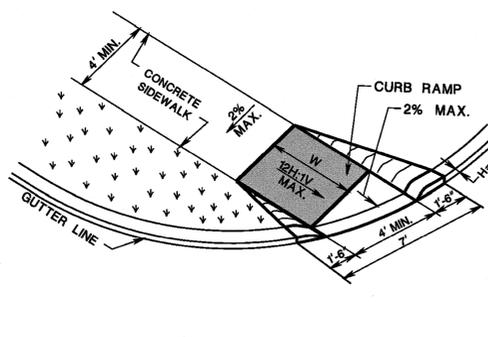
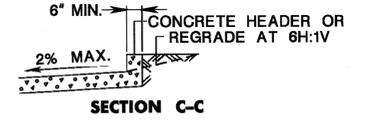
**CURB RAMP TYPE 3  
(TURNING SPACE REQUIRED)**



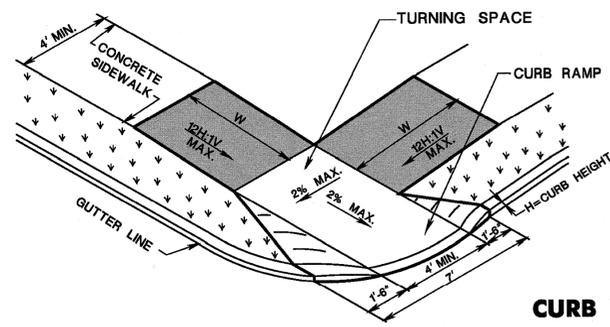
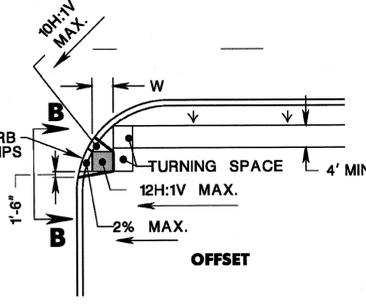
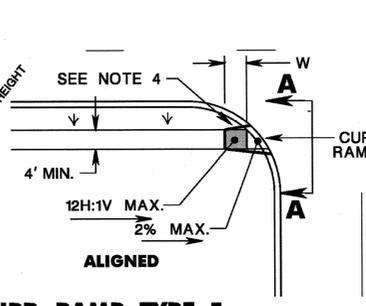
**CURB RAMP TYPE 4  
(GRASS BUFFER STRIP WITH  
TURNING SPACE REQUIRED)**



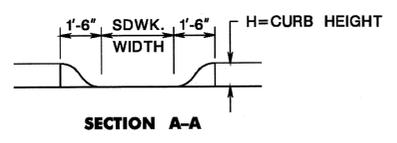
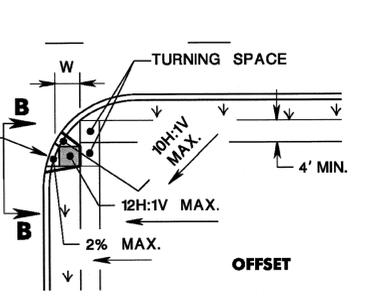
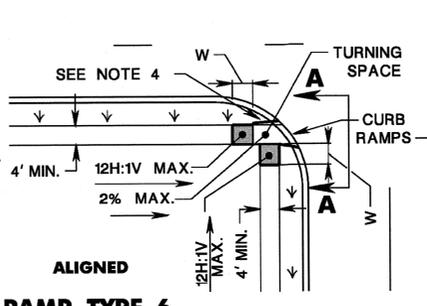
**CURB RAMP TYPE 7  
(LIMITED ROW)  
(SEE NOTE 7)**



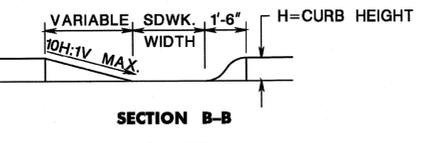
**CURB RAMP TYPE 5**



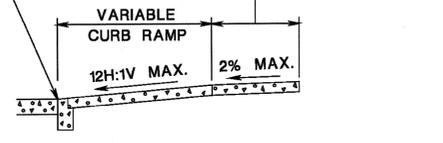
**CURB RAMP TYPE 6**



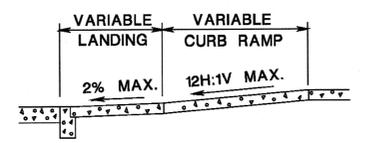
**NOTE:**  
CURB RAMP OPENING TO BE FLUSH WITH ROADWAY PAVEMENT (CURB RAMP TYPES 5 & 6).



CURB TO BE FLUSH WITH ROADWAY PAVEMENT  
4' MINIMUM SIDEWALK TURNING SPACE WIDTH

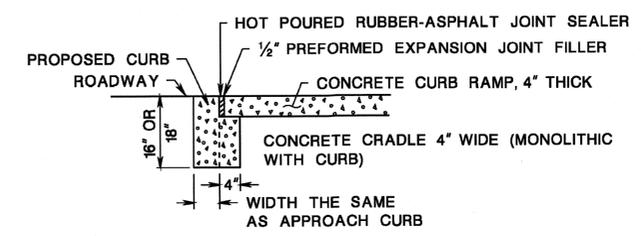


**SECTION THROUGH CURB RAMPS 1 THROUGH 4**



**SECTION THROUGH CURB RAMPS 5 AND 6**

- NOTES:**
- KEEP TURNING SPACE, APPROACH SIDEWALK TRANSITIONS, AND CURB RAMP CLEAR OF OBSTRUCTIONS THAT PROTRUDE ABOVE THE SIDEWALK.
  - FOR DIMENSIONS SEE CD-606-1B AND CD-606-1C.
  - CURB (DROPPED CURB) GUTTERLINE TO BE FLUSH WITH ROADWAY PAVEMENT A MINIMUM OF 4 FEET AT ALL CURB RAMPS.
  - FOR CURB RAMP TYPES 5 AND 6, IF A GRASS BUFFER DOES NOT EXIST, SLOPE CURB TO EQUAL SLOPE OF ADJACENT CURB RAMP.
  - SIDEWALK AND CURB RAMP WITHIN AREA ENCLOSED BY HEAVY LINES INDICATES THE PAY LIMIT FOR CONCRETE SIDEWALK OF THE APPROPRIATE ADJACENT THICKNESS.
  - CURB AND HEADER WITHIN AREA ENCLOSED BY HEAVY LINES INDICATES THE PAY LIMIT FOR VERTICAL CURB OR SLOPING CURB OF THE APPROPRIATE ADJACENT SIZE AND KIND.
  - WHERE THE DISTANCE FROM THE GUTTER LINE TO THE OUTSIDE EDGE OF SIDEWALK IS 6 FEET OR LESS, USE CURB RAMP TYPE 7, INSTEAD OF CURB RAMP TYPE 1 THROUGH 4.
  - CROSSWALKS AND STOP LINES MAY BE MARKED OR UNMARKED. SEE PLANS.
  - DIMENSIONS SHOWN IN TABLES ARE FOR 3 INCH TO 9 INCH CURB HEIGHTS. WHERE THE CURB HEIGHTS ARE OTHER THAN WHAT IS PROVIDED IN THE TABLES, THE DIMENSIONS OF THE RAMPS WILL HAVE TO BE CALCULATED BASED ON CROSS SLOPES SHOWN.
  - THE 12H:1V MAX SLOPE IS THE RUNNING SLOPE FOR CURB RAMPS, BUT ONLY THE 12H:1V SLOPE MEASURED AS X<sub>2</sub> IS THE RUNNING SLOPE FOR TYPE 3 AND TYPE 4 CURB RAMPS. ENSURE THE RUNNING SLOPE OF CURB RAMPS DOES NOT REQUIRE ITS LENGTH TO EXCEED 15 FEET. THE RUNNING SLOPE MAY EXCEED THE 12H:1V MAX SLOPE SO AS NOT TO EXCEED THE 15 FEET MAXIMUM LENGTH.



**CONCRETE SIDEWALK  
(PUBLIC SIDEWALK CURB RAMP)  
N.T.S.**

NEW JERSEY DEPARTMENT OF TRANSPORTATION  
**CONSTRUCTION DETAILS**

**CURB RAMPS**  
CD-606-1.1

CD-606-1

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BDC2015-ORIGINAL SHEET



**CURB RAMP TYPE 1**

0.0 % GUTTER LINE PROFILE				
H INCHES	W FEET	X <sub>1U</sub> FEET	X <sub>1L</sub> FEET	L <sub>1</sub> FEET
3	3	2.50	2.50	9.00
4	4	3.33	3.33	10.67
5	5	4.17	4.17	12.33
6	6	5.00	5.00	14.00
7	7	5.83	5.83	15.67
8	8	6.67	6.67	17.33
9	9	7.50	7.50	19.00

1.0 % GUTTER LINE PROFILE				
H INCHES	W FEET	X <sub>1U</sub> FEET	X <sub>1L</sub> FEET	L <sub>1</sub> FEET
3	3	2.78	2.27	9.05
4	4	3.70	3.03	10.73
5	5	4.63	3.79	12.42
6	6	5.56	4.55	14.10
7	7	6.48	5.30	15.78
8	8	7.41	6.06	17.47
9	9	8.33	6.82	19.15

2.0 % GUTTER LINE PROFILE				
H INCHES	W FEET	X <sub>1U</sub> FEET	X <sub>1L</sub> FEET	L <sub>1</sub> FEET
3	3	3.13	2.08	9.21
4	4	4.17	2.78	10.94
5	5	5.21	3.47	12.68
6	6	6.25	4.17	14.42
7	7	7.29	4.86	16.15
8	8	8.33	5.56	17.89
9	9	9.38	6.25	19.63

**CURB RAMP TYPE 3**

0.0 % GUTTER LINE PROFILE									
H INCHES	W FEET	X <sub>1U</sub> FEET	X <sub>1L</sub> FEET	L <sub>1</sub> FEET	Y INCHES	X <sub>2U</sub> FEET	X <sub>2L</sub> FEET	L <sub>2</sub> FEET	
3	2.5	2.50	2.50	9.00	2.5	1.10	1.10	6.20	
4	2.5	3.33	3.33	10.67	2.5	2.10	2.10	8.20	
5	2.5	4.17	4.17	12.33	2.5	3.10	3.10	10.20	
6	2.5	5.00	5.00	14.00	2.5	4.10	4.10	12.21	
7	2.5	5.83	5.83	15.67	2.5	5.10	5.10	14.21	
8	2.5	6.67	6.67	17.33	2.5	6.10	6.10	16.21	
9	2.5	7.50	7.50	19.00	2.5	7.10	7.10	18.21	

1.0 % GUTTER LINE PROFILE									
H INCHES	W FEET	X <sub>1U</sub> FEET	X <sub>1L</sub> FEET	L <sub>1</sub> FEET	Y INCHES	X <sub>2U</sub> FEET	X <sub>2L</sub> FEET	L <sub>2</sub> FEET	
3	2.5	2.78	2.27	9.05	2.5	1.25	0.98	6.24	
4	2.5	3.70	3.03	10.73	2.5	2.39	1.88	8.27	
5	2.5	4.63	3.79	12.42	2.5	3.53	2.77	10.30	
6	2.5	5.56	4.55	14.10	2.5	4.66	3.66	12.33	
7	2.5	6.48	5.30	15.78	2.5	5.80	4.56	14.36	
8	2.5	7.41	6.06	17.47	2.5	6.94	5.45	16.39	
9	2.5	8.33	6.82	19.15	2.5	8.07	6.34	18.42	

2.0 % GUTTER LINE PROFILE									
H INCHES	W FEET	X <sub>1U</sub> FEET	X <sub>1L</sub> FEET	L <sub>1</sub> FEET	Y INCHES	X <sub>2U</sub> FEET	X <sub>2L</sub> FEET	L <sub>2</sub> FEET	
3	2.5	3.13	2.08	9.21	2.5	1.45	0.89	6.34	
4	2.5	4.17	2.78	10.94	2.5	2.77	1.69	8.46	
5	2.5	5.21	3.47	12.68	2.5	4.08	2.50	10.58	
6	2.5	6.25	4.17	14.42	2.5	5.40	3.31	12.71	
7	2.5	7.29	4.86	16.15	2.5	6.72	4.12	14.83	
8	2.5	8.33	5.56	17.89	2.5	8.03	4.92	16.95	
9	2.5	9.38	6.25	19.63	2.5	9.35	5.73	19.08	

3.0 % GUTTER LINE PROFILE									
H INCHES	W FEET	X <sub>1U</sub> FEET	X <sub>1L</sub> FEET	L <sub>1</sub> FEET	Y INCHES	X <sub>2U</sub> FEET	X <sub>2L</sub> FEET	L <sub>2</sub> FEET	
3	2.5	3.57	1.92	9.49	2.5	1.72	0.81	6.53	
4	2.5	4.76	2.56	11.33	2.5	3.28	1.55	8.83	
5	2.5	5.95	3.21	13.16	2.5	4.85	2.28	11.13	
6	2.5	7.14	3.85	14.99	2.5	6.41	3.02	13.43	
7	2.5	8.33	4.49	16.82	2.5	7.98	3.75	15.73	
8	2.5	9.52	5.13	18.65	2.5	9.54	4.49	18.03	
9	2.5	10.71	5.77	20.48	2.5	11.10	5.22	20.33	

3.0 % GUTTER LINE PROFILE				
H INCHES	W FEET	X <sub>1U</sub> FEET	X <sub>1L</sub> FEET	L <sub>1</sub> FEET
3	3	3.57	1.92	9.49
4	4	4.76	2.56	11.33
5	5	5.95	3.21	13.16
6	6	7.14	3.85	14.99
7	7	8.33	4.49	16.82
8	8	9.52	5.13	18.65
9	9	10.71	5.77	20.48

4.0 % GUTTER LINE PROFILE				
H INCHES	W FEET	X <sub>1U</sub> FEET	X <sub>1L</sub> FEET	L <sub>1</sub> FEET
3	3	4.17	1.79	9.95
4	4	5.56	2.38	11.94
5	5	6.94	2.98	13.92
6	6	8.33	3.57	15.90
7	7	9.72	4.17	17.89
8	8	11.11	4.76	19.87
9	9	12.50	5.36	21.86

4.0 % GUTTER LINE PROFILE									
H INCHES	W FEET	X <sub>1U</sub> FEET	X <sub>1L</sub> FEET	L <sub>1</sub> FEET	Y INCHES	X <sub>2U</sub> FEET	X <sub>2L</sub> FEET	L <sub>2</sub> FEET	
3	2.5	4.17	1.79	9.95	2.5	2.12	0.74	6.86	
4	2.5	5.56	2.38	11.94	2.5	4.04	1.42	9.46	
5	2.5	6.94	2.98	13.92	2.5	5.97	2.10	12.06	
6	2.5	8.33	3.57	15.90	2.5	7.89	2.77	14.66	
7	2.5	9.72	4.17	17.89	2.5	9.82	3.45	17.26	
8	2.5	11.11	4.76	19.87	2.5	11.74	4.12	19.87	
9	2.5	12.50	5.36	21.86	2.5	13.67	4.80	22.47	

5.0 % GUTTER LINE PROFILE									
H INCHES	W FEET	X <sub>1U</sub> FEET	X <sub>1L</sub> FEET	L <sub>1</sub> FEET	Y INCHES	X <sub>2U</sub> FEET	X <sub>2L</sub> FEET	L <sub>2</sub> FEET	
3	2.5	5.00	1.67	10.67	2.5	2.76	0.69	7.44	
4	2.5	6.67	2.22	12.89	2.5	5.26	1.31	10.57	
5	2.5	8.33	2.78	15.11	2.5	7.76	1.94	13.70	
6	2.5	10.00	3.33	17.33	2.5	10.26	2.56	16.83	
7	2.5	11.67	3.89	19.56	2.5	12.77	3.19	19.95	
8	2.5	13.33	4.44	21.78	2.5	15.00	3.81	22.81	
9	2.5	15.00	5.00	24.00	2.5	17.00	4.44	25.44	

6.0 % GUTTER LINE PROFILE									
H INCHES	W FEET	X <sub>1U</sub> FEET	X <sub>1L</sub> FEET	L <sub>1</sub> FEET	Y INCHES	X <sub>2U</sub> FEET	X <sub>2L</sub> FEET	L <sub>2</sub> FEET	
3	2.5	6.25	1.56	11.81	2.5	3.94	0.64	8.58	
4	2.5	8.33	2.08	14.42	2.5	7.51	1.22	12.74	
5	2.5	10.42	2.60	17.02	2.5	11.09	1.80	16.89	
6	2.5	12.50	3.13	19.63	2.5	14.67	2.38	21.05	
7	2.5	14.58	3.65	22.23	2.5	18.00	2.97	25.17	
8	2.5	16.50	4.17	24.84	2.5	21.00	3.55	29.25	
9	2.5	18.50	4.69	27.45	2.5	24.00	4.13	33.33	

7.0 % GUTTER LINE PROFILE									
H INCHES	W FEET	X <sub>1U</sub> FEET	X <sub>1L</sub> FEET	L <sub>1</sub> FEET	Y INCHES	X <sub>2U</sub> FEET	X <sub>2L</sub> FEET	L <sub>2</sub> FEET	
3	2.5	8.33	1.47	13.80	2.5	6.90	0.60	11.50	
4	2.5	11.11	1.96	17.07	2.5	13.16	1.14	18.31	
5	2.5	13.89	2.45	20.34	2.5	15.00	1.69	20.69	
6	2.5	16.50	2.94	23.61	2.5	17.00	2.23	23.23	
7	2.5	19.00	3.43	26.88	2.5	19.00	2.77	25.77	
8	2.5	21.50	3.92	30.15	2.5	21.00	3.32	28.32	
9	2.5	24.00	4.41	33.42	2.5	23.00	3.86	30.86	

6.0 % GUTTER LINE PROFILE				
H INCHES	W FEET	X <sub>1U</sub> FEET	X <sub>1L</sub> FEET	L <sub>1</sub> FEET
3	3	6.25	1.56	11.81
4	4	8.33	2.08	14.42
5	5	10.42	2.60	17.02
6	6	12.50	3.13	19.63
7	7	14.58	3.65	22.23
8	8	16.50	4.17	24.84
9	9	18.50	4.69	27.45

7.0 % GUTTER LINE PROFILE				
H INCHES	W FEET	X <sub>1U</sub> FEET	X <sub>1L</sub> FEET	L <sub>1</sub> FEET
3	3	8.33	1.47	13.80
4	4	11.11	1.96	17.07
5	5	13.89	2.45	20.34
6	6	16.50	2.94	23.61
7	7	19.00	3.43	26.88
8	8	21.50	3.92	30.15
9	9	24.00	4.41	33.42

**CURB RAMP TYPE 2**

0-8 % GUTTER LINE PROFILE				
H INCHES	W FEET	X <sub>1U</sub> FEET	X <sub>1L</sub> FEET	L <sub>1</sub> FEET
3	3	1.50	1.50	7.00
4	4	1.50	1.50	7.00
5	5	1.50	1.50	7.00
6	6	1.50	1.50	7.00
7	7	1.50	1.50	7.00
8	8	1.50	1.50	7.00
9	9	1.50	1.50	7.00

**NOTES:**

- FOR CURB RAMP TYPES, SEE CD-606-1.
- THE ABOVE TABLES ARE BASED ON THE SPECIFIC GUTTER PROFILE REFERENCED. THEY DO NOT TAKE INTO ACCOUNT VARIATIONS IN THE GUTTER PROFILE. THE ABOVE TABLES TO BE USED BY THE DESIGNERS AND CONTRACTORS TO GET APPROXIMATE DIMENSIONS OF THE CURB RAMP AT EACH LOCATION. FINAL DIMENSIONS WILL BE DETERMINED BY ACTUAL MEASUREMENTS IN THE FIELD DURING CONSTRUCTION.
- THE 12H:1V MAX SLOPE IS THE RUNNING SLOPE FOR CURB RAMPS, BUT ONLY THE 12H:1V SLOPE MEASURED AS X IS THE RUNNING SLOPE FOR TYPE 3 AND TYPE 4 CURB RAMPS. ENSURE THE RUNNING SLOPE OF CURB RAMPS DOES NOT REQUIRE ITS LENGTH TO EXCEED 15 FEET. THE RUNNING SLOPE MAY EXCEED THE 12H:1V MAX SLOPE SO AS NOT TO EXCEED THE 15 FEET MAXIMUM LENGTH. THE TABLES ALREADY APPLY THE 15 FEET RULE FOR THOSE CALCULATED LENGTHS WHICH EXCEED 15 FEET.

**LEGEND**

- U = UPPER SIDE OF GUTTER LINE PROFILE
- L = LOWER SIDE OF GUTTER LINE PROFILE
- FOR THE OTHER ABBREVIATIONS - REFER TO CD-606-1
- \* TYPE 3 RAMP IS NOT APPLICABLE, USE TYPE 1
- \*\* TYPE 4 RAMP IS NOT APPLICABLE, USE TYPE 2

**CONCRETE SIDEWALK**  
(PUBLIC SIDEWALK CURB RAMP TABLES)

N.T.S.

CD-606-1B

NEW JERSEY DEPARTMENT OF TRANSPORTATION

**CONSTRUCTION DETAILS**

**CURB RAMP TYPE 4**

0.0 % GUTTER LINE PROFILE					
H INCHES	W FEET	Y INCHES	X <sub>2U</sub> FEET	X <sub>2L</sub> FEET	L <sub>2</sub> FEET
3			1.10	1.10	6.20
4			2.10	2.10	8.20
5			3.10	3.10	10.20
6	2.5	2.5	4.10	4.10	12.20
7			5.10	5.10	14.21
8			6.10	6.10	16.21
9			7.10	7.10	18.21
3			**	**	**
4			1.72	1.72	7.44
5			2.72	2.72	9.44
6	3.0	3.0	3.72	3.72	11.45
7			4.72	4.72	13.45
8			5.72	5.72	15.45
9			6.72	6.72	17.45
3			**	**	**
4			1.34	1.34	6.68
5			2.34	2.34	8.68
6	3.5	3.5	3.34	3.34	10.69
7			4.34	4.34	12.69
8			5.34	5.34	14.69
9			6.34	6.34	16.69
3			**	**	**
4			**	**	**
5			1.96	1.96	7.92
6	4.0	4.0	2.96	2.96	9.93
7			3.96	3.96	11.93
8			4.96	4.96	13.93
9			5.96	5.96	15.93

1.0 % GUTTER LINE PROFILE					
H INCHES	W FEET	Y INCHES	X <sub>2U</sub> FEET	X <sub>2L</sub> FEET	L <sub>2</sub> FEET
3			1.25	0.98	6.24
4			2.39	1.88	8.27
5			3.53	2.77	10.30
6	2.5	2.5	4.66	3.66	12.33
7			5.80	4.56	14.36
8			6.94	5.45	16.39
9			8.07	6.34	18.42
3			0.82	0.64	5.46
4			1.96	1.54	7.49
5			3.09	2.43	9.52
6	3.0	3.0	4.23	3.32	11.55
7			5.37	4.22	13.58
8			6.50	5.11	15.61
9			7.64	6.00	17.64
3			0.39	0.30	4.69
4			1.53	1.20	6.72
5			2.66	2.09	8.75
6	3.5	3.5	3.80	2.98	10.78
7			4.94	3.88	12.81
8			6.07	4.77	14.84
9			7.21	5.66	16.87
3			**	**	**
4			1.09	0.86	5.95
5			2.23	1.75	7.98
6	4.0	4.0	3.37	2.65	10.01
7			4.50	3.54	12.04
8			5.64	4.43	14.07
9			6.78	5.32	16.10

2.0 % GUTTER LINE PROFILE					
H INCHES	W FEET	Y INCHES	X <sub>2U</sub> FEET	X <sub>2L</sub> FEET	L <sub>2</sub> FEET
3			1.45	0.89	6.34
4			2.77	1.69	8.46
5			4.08	2.50	10.58
6	2.5	2.5	5.40	3.31	12.71
7			6.72	4.12	14.83
8			8.03	4.92	16.95
9			9.35	5.73	19.08
3			0.95	0.58	5.53
4			2.27	1.39	7.65
5			3.58	2.20	9.78
6	3.0	3.0	4.90	3.00	11.90
7			6.22	3.81	14.02
8			7.53	4.62	16.15
9			8.85	5.42	18.27
3			0.45	0.28	4.72
4			1.77	1.08	6.85
5			3.08	1.89	8.97
6	3.5	3.5	4.40	2.70	11.09
7			5.72	3.50	13.22
8			7.03	4.31	15.34
9			8.35	5.12	17.46
3			**	**	**
4			1.27	0.78	6.04
5			2.58	1.58	8.16
6	4.0	4.0	3.90	2.39	10.29
7			5.22	3.20	12.41
8			6.53	4.00	14.53
9			7.85	4.81	16.66

3.0 % GUTTER LINE PROFILE					
H INCHES	W FEET	Y INCHES	X <sub>2U</sub> FEET	X <sub>2L</sub> FEET	L <sub>2</sub> FEET
3			1.72	0.81	6.53
4			3.28	1.55	8.83
5			4.85	2.28	11.13
6	2.5	2.5	6.41	3.02	13.43
7			7.98	3.75	15.73
8			9.54	4.49	18.03
9			11.10	5.22	20.33
3			1.13	0.53	5.66
4			2.69	1.27	7.96
5			4.25	2.00	10.26
6	3.0	3.0	5.82	2.74	12.55
7			7.38	3.47	14.85
8			8.94	4.21	17.15
9			10.51	4.94	19.45
3			0.53	0.25	4.78
4			2.10	0.99	7.08
5			3.66	1.72	9.38
6	3.5	3.5	5.22	2.46	11.68
7			6.79	3.19	13.98
8			8.35	3.93	16.28
9			9.91	4.66	18.58
3			**	**	**
4			1.50	0.71	6.21
5			3.07	1.44	8.51
6	4.0	4.0	4.63	2.18	10.81
7			6.19	2.91	13.11
8			7.76	3.65	15.41
9			9.32	4.38	17.71

**CURB RAMP TYPE 7**

0.0 % GUTTER LINE PROFILE				
H INCHES	W FEET	X <sub>1U</sub> FEET	X <sub>1L</sub> FEET	L <sub>1</sub> FEET
3	3	3.00	3.00	10.00
4	4	4.00	4.00	12.00
5	5	5.00	5.00	14.00
6	6	6.00	6.00	16.00
7	7	7.00	7.00	18.01
8	8	8.00	8.00	20.01
9	9	9.00	9.00	22.01

4.0 % GUTTER LINE PROFILE				
H INCHES	W FEET	X <sub>1U</sub> FEET	X <sub>1L</sub> FEET	L <sub>1</sub> FEET
3	3	5.77	2.03	11.80
4	4	7.70	2.70	14.40
5	5	9.62	3.38	17.00
6	6	11.55	4.06	19.60
7	7	13.47	4.73	22.20
8	8	15.40	5.41	24.80
9	9	17.32	6.08	27.40

1.0 % GUTTER LINE PROFILE				
H INCHES	W FEET	X <sub>1U</sub> FEET	X <sub>1L</sub> FEET	L <sub>1</sub> FEET
3	3	3.41	2.68	10.09
4	4	4.55	3.57	12.12
5	5	5.68	4.47	14.15
6	6	6.82	5.36	16.18
7	7	7.96	6.25	18.21
8	8	9.10	7.15	20.24
9	9	10.23	8.04	22.27

5.0 % GUTTER LINE PROFILE				
H INCHES	W FEET	X <sub>1U</sub> FEET	X <sub>1L</sub> FEET	L <sub>1</sub> FEET
3	3	7.51	1.88	13.38
4	4	10.01	2.50	16.51
5	5	12.51	3.13	19.64
6	6	15.00	3.75	22.75
7	7	15.00	4.38	23.38
8	8	15.00	5.00	24.00
9	9	15.00	5.63	24.63

2.0 % GUTTER LINE PROFILE				
H INCHES	W FEET	X <sub>1U</sub> FEET	X <sub>1L</sub> FEET	L <sub>1</sub> FEET
3	3	3.95	2.42	10.37
4	4	5.27	3.23	12.49
5	5	6.58	4.03	14.62
6	6	7.90	4.84	16.74
7	7	9.22	5.65	18.86
8	8	10.53	6.45	20.99
9	9	11.85	7.26	23.11

6.0 % GUTTER LINE PROFILE				
H INCHES	W FEET	X <sub>1U</sub> FEET	X <sub>1L</sub> FEET	L <sub>1</sub> FEET
3	3	10.73	1.74	16.47
4	4	14.31	2.33	20.63
5	5	15.00	2.91	21.91
6	6	15.00	3.49	22.49
7	7	15.00	4.07	23.07
8	8	15.00	4.65	23.65
9	9	15.00	5.23	24.23

3.0 % GUTTER LINE PROFILE				
H INCHES	W FEET	X <sub>1U</sub> FEET	X <sub>1L</sub> FEET	L <sub>1</sub> FEET
3	3	4.69	2.21	10.90
4	4	6.25	2.94	13.20
5	5	7.82	3.68	15.49
6	6	9.38	4.41	17.79
7	7	10.94	5.15	20.09
8	8	12.51	5.88	22.39
9	9	14.07	6.62	24.69

7.0 % GUTTER LINE PROFILE				
H INCHES	W FEET	X <sub>1U</sub> FEET	X <sub>1L</sub> FEET	L <sub>1</sub> FEET
3	3	15.00	1.63	20.63
4	4	15.00	2.17	21.17
5	5	15.00	2.72	21.72
6	6	15.00	3.26	22.26
7	7	15.00	3.81	22.81
8	8	15.00	4.35	23.35
9	9	15.00	4.89	23.89

4.0 % GUTTER LINE PROFILE					
H INCHES	W FEET	Y INCHES	X <sub>2U</sub> FEET	X <sub>2L</sub> FEET	L <sub>2</sub> FEET
3			2.12	0.74	6.86
4			4.04	1.42	9.46
5			5.97	2.10	12.06
6	2.5	2.5	7.89	2.77	14.66
7			9.82	3.45	17.26
8			11.74	4.12	19.87
9			13.67	4.80	22.47
3			1.39	0.49	5.88
4			3.31	1.16	8.48
5			5.24	1.84	11.08
6	3.0	3.0	7.16	2.52	13.68
7			9.09	3.19	16.28
8			11.01	3.87	18.88
9			12.94	4.54	21.48
3			0.66	0.23	4.89
4			2.58	0.91	7.49
5			4.51	1.58	10.09
6	3.5	3.5	6.43	2.26	12.69
7			8.36	2.93	15.29
8			10.28	3.61	17.89
9			12.20	4.29	20.49
3			**	**	**
4			1.85	0.65	6.50
5			3.78	1.33	9.10
6	4.0	4.0	5.70	2.00	11.70
7			7.62	2.68	14.30
8			9.55	3.35	16.90
9			11.47	4.03	19.50

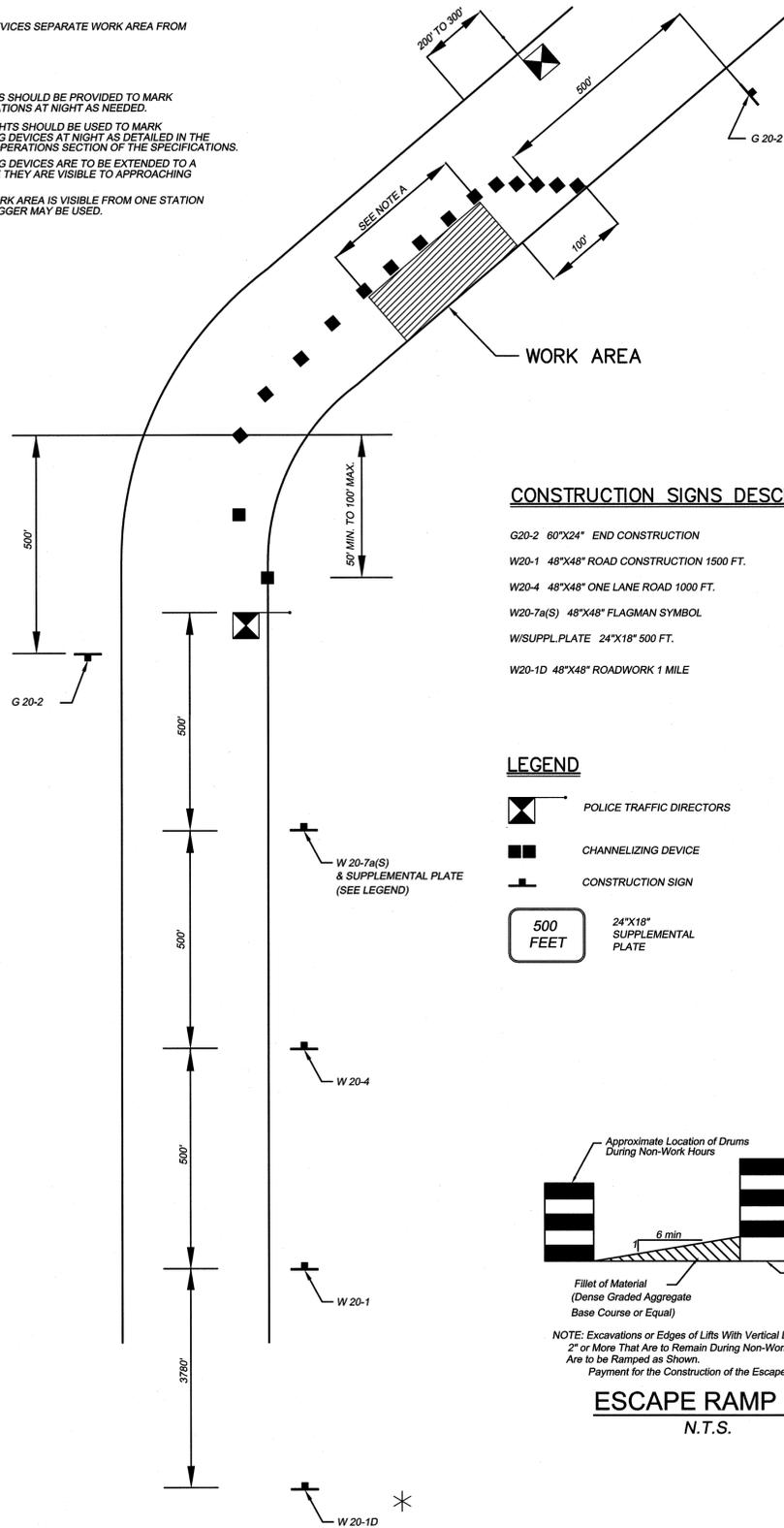
5.0 % GUTTER LINE PROFILE					
H INCHES	W FEET	Y INCHES	X <sub>2U</sub> FEET	X <sub>2L</sub> FEET	L <sub>2</sub> FEET
3			2.76	0.69	7.44
4			5.26	1.31	10.57
5			7.76	1.94	13.70
6	2.5	2.5	10.26	2.56	16.83
7			12.77	3.19	19.95
8			15.00	3.81	22.81
9			15.00	4.44	23.44
3			1.80	0.45	6.26
4			4.31	1.08	9.38
5			6.81	1.70	12.51
6	3.0	3.0	9.31	2.33	15.64
7			11.81	2.95	18.77
8			14.32	3.58	21.89
9			15.00	4.20	23.20
3			0.85	0.21	5.07
4			3.36	0.84	8.20
5			5.86	1.46	11.32
6	3.5	3.5	8.36	2.09	14.45
7			10.86	2.71	17.58
8			13.37	3.34	



**NOTE A:**  
CHANNELIZING DEVICES SEPARATE WORK AREA FROM TRAVELED WAY

- NOTE:**
- FLOOD LIGHTS SHOULD BE PROVIDED TO MARK FLAGGER STATIONS AT NIGHT AS NEEDED.
  - WARNING LIGHTS SHOULD BE USED TO MARK CHANNELIZING DEVICES AT NIGHT AS DETAILED IN THE NIGHT TIME OPERATIONS SECTION OF THE SPECIFICATIONS.
  - CHANNELIZING DEVICES ARE TO BE EXTENDED TO A POINT WHERE THEY ARE VISIBLE TO APPROACHING TRAFFIC.
  - IF ENTIRE WORK AREA IS VISIBLE FROM ONE STATION A SINGLE FLAGGER MAY BE USED.

**WARNING SIGN SEQUENCE IN OPPOSITE DIRECTION SAME AS BELOW**



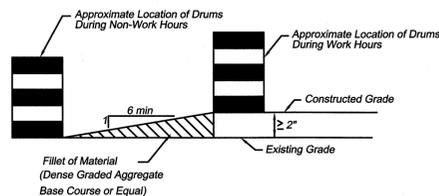
**CONSTRUCTION SIGNS DESCRIPTION:**

- G20-2 60"x24" END CONSTRUCTION
- W20-1 48"x48" ROAD CONSTRUCTION 1500 FT.
- W20-4 48"x48" ONE LANE ROAD 1000 FT.
- W20-7a(S) 48"x48" FLAGMAN SYMBOL
- W/SUPPL. PLATE 24"x18" 500 FT.
- W20-1D 48"x48" ROADWORK 1 MILE

**LEGEND**

- POLICE TRAFFIC DIRECTORS
- CHANNELIZING DEVICE
- CONSTRUCTION SIGN

**500 FEET** 24"x18" SUPPLEMENTAL PLATE



**ESCAPE RAMP DETAIL**  
N.T.S.



W20 - 1D

\* THIS SIGN SHOULD BE INSTALLED FOR ROADS WITH A SPEED LIMIT OF 45 M.P.H. OR GREATER.

**TRAFFIC CONTROL COORDINATION:**

- PRIOR TO THE START OF CONSTRUCTION, THE ENGINEER SHALL BE NOTIFIED OF THE SINGLE SUPERVISORY LEVEL INDIVIDUAL, TRAINED IN THE PRINCIPLES OF SAFE TRAFFIC CONTROL, WHO, ALONG WITH THE DIRECTION OF THE POLICE DEPARTMENT'S TRAFFIC SAFETY DIVISION, WILL BE ASSIGNED THE RESPONSIBILITY AND AUTHORITY FOR THE IMPLEMENTATION AND MAINTENANCE OF THE TRAFFIC CONTROL.
- THE PERSON ASSIGNED SHALL MAKE A CHECK OF ALL TRAFFIC CONTROL DEVICES IN USE ON THE ENTIRE PROJECT AT LEAST TWICE A DAY ON WORKING DAYS AND ONCE A DAY ON NON-WORKING DAYS. CONTRACTOR SHALL FILE THE NAME AND TELEPHONE NUMBER OF THE PERSON ASSIGNED TO PROVIDE SERVICES.

**TRAFFIC CONTROL DEVICES:**

- TRAFFIC CONTROL DEVICES SHALL BE KEPT CLEAN AND MAINTAINED IN GOOD CONDITION INCLUDING REPLACEMENT IF LOST, STOLEN, OR DAMAGED UNTIL NO LONGER REQUIRED FOR THE PROJECT. ALL TRAFFIC CONTROL DEVICES SHALL COMPLY WITH THE DETAILS SHOWN ON THE PLANS, SUPPLEMENTARY SPECIFICATIONS, THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) AND STANDARD DETAILS FOR TRAFFIC CONTROL DEVICES AS DEVELOPED BY THE NEW JERSEY DEPARTMENT OF TRANSPORTATION.
- TRAFFIC CONTROL DEVICES SHALL ALSO BE PLACED AS DIRECTED BY THE ENGINEER TO PROVIDE TRAFFIC CONTROL FOR PERSONNEL DOING INSPECTIONS, SAMPLING, TESTING, OR TAKING MEASUREMENTS REQUIRED FOR THE PROJECT.

**CONSTRUCTION SIGNS:**

- CONSTRUCTION SIGNS SHALL BE INSTALLED BY THE CONTRACTOR AS REQUIRED BY THE M.U.T.C.D. AND THE POLICE DEPARTMENT AS THE FIRST ORDER OF WORK FOR CONSTRUCTION SIGNS FOR PROJECTS AND SHALL BE MAINTAINED SO AS TO PROVIDE MAXIMUM VISIBILITY AND LEGIBILITY AT ALL TIME.
- WHEN CONSTRUCTION SIGNS CONFLICT WITH EXISTING SIGNS, THE EXISTING SIGN SHALL BE COVERED. WHEN CONSTRUCTION SIGNS ARE NO LONGER REQUIRED, THEY SHALL BE REMOVED. IF THEY ARE TEMPORARILY NOT REQUIRED, SUCH AS OVERNIGHT, THEY SHALL EITHER BE TEMPORARILY REMOVED OR COVERED.

EACH ADVANCE WARNING SIGN (W20-1) SHALL BE LIGHTED 24 HOURS A DAY WITH DUAL ALTERNATE FLASH HIGH INTENSITY WARNING LIGHTS OF EITHER THE STROBE OR INCANDESCENT TYPE AS SELECTED BY THE CONTRACTOR.

**CONSTRUCTION STAGING PLAN:**

- THE CONSTRUCTION STAGING PLAN IS BASED ON THE MINIMUM REQUIREMENTS PROVIDED IN THE CURRENT MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD). THE CONTRACTOR SHALL WORK IN ACCORDANCE WITH THE PROVISIONS OF THE PLAN AND THE MUTCD AND SHALL ONLY DEVIATE FROM THE PLAN AFTER APPROVAL.
- APPROVAL OF THE ENGINEER AND CONSENT OF THE LOCAL AUTHORITIES HAVING JURISDICTION SHALL FIRST BE OBTAINED FOR ROUTING TRAFFIC OVER DETOURS THAT ARE NOT SHOWN ON THE PLANS. ALL NECESSARY ARRANGEMENTS SHALL BE MADE WITH SUCH AUTHORITIES REGARDING THE ESTABLISHMENT, MAINTENANCE AND REPAIR OF SUCH DETOURS, THE REGULATION AND DIRECTION OF TRAFFIC THEREON, AND SIGNING. ADEQUATE DIRECTIONAL AND DETOUR SIGNS, ACCEPTABLE TO THE LOCAL AUTHORITIES, SHALL BE FURNISHED AND ERECTED AT THE LOCATIONS WHERE SUCH AUTHORITIES MAY DIRECT.
- CONSTRUCTION STAGING PLANS SHALL BE USED IN CONJUNCTION WITH THE SPECIFICATIONS - SECTION 159. IF A CONFLICT ARISES BETWEEN THE PLANS AND SPECIFICATIONS, THE SPECIFICATIONS SHALL GOVERN UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
- ITEMS AND QUANTITIES SHOWN ARE INTENDED ONLY AS A GUIDE TO THE CONTRACTOR AND ARE SUGGESTED MINIMUMS FOR THE CLOSURE OF ONE LANE AND TWO LANES OF TRAFFIC.

**SUGGESTED GENERAL SEQUENCE OF CONSTRUCTION**

- PROVIDE MINIMUM 24 HOUR ADVANCE NOTIFICATION TO THE LOCAL POLICE DEPARTMENT AND THE ENGINEER PRIOR TO MODIFICATION OF EXISTING TRAFFIC PATTERNS.
- INSTALL "ADVANCE WARNING" SIGNS.
- ESTABLISH DETOUR ROUTES, IF AND WHERE APPROVED BY THE ENGINEER AND/OR THE TRAFFIC SAFETY DIRECTOR, WHERE APPLICABLE.
- INSTALL TEMPORARY TRAFFIC CONTROL DEVICES AS APPLICABLE.
- COMPLETE INSTALLATION OF IMPROVEMENTS.
- REMOVE TEMPORARY TRAFFIC CONTROL DEVICES, DETOUR SIGNS AND "ADVANCE WARNING SIGNS".

**GENERAL NOTES:**

- VEHICULAR AND PEDESTRIAN TRAFFIC IS TO BE MAINTAINED OVER THE EXISTING ROADWAYS AND INTO EXISTING DRIVEWAYS WITHIN THE SCOPE OF THE PROJECT AT ALL TIMES. TRAFFIC CONTROL IS TO BE COORDINATED WITH LOCAL AUTHORITIES.
  - FINAL RESPONSIBILITY FOR THE INSTALLATION OF ADEQUATE PRECAUTIONS AND FOR THE PROTECTION OF THE TRAVELING PUBLIC AND HIS OWN PERSONNEL, SHALL REST WITH THE CONTRACTOR.
  - ALTERNATE ONE-WAY TRAFFIC CONTROL MAY BE REQUIRED DURING CONSTRUCTION OPERATIONS. PERMISSION FOR COMPLETE STOPPAGE OF ONE DIRECTION OF TRAFFIC MUST BE OBTAINED FROM THE LOCAL POLICE AND THE ENGINEER AT LEAST THREE (3) DAYS PRIOR TO STOPPAGE. ALTERNATE ONE WAY TRAFFIC CONTROL WILL BE AFFECTED BY TWO UNIFORM TRAFFIC DIRECTORS, ONE AT EACH END OF THE WORK AREA. ALL TEMPORARY TRAFFIC LANES SHALL HAVE A MINIMUM UNOBSTRUCTED WIDTH OF 11 FEET.
  - SITE FOR THE STORAGE OF EQUIPMENT AND MATERIALS DURING THE PROGRESS OF THE WORK SHALL BE SUBJECT TO APPROVAL OF THE ENGINEER.
  - COMPLIANCE WITH ALL PRESCRIBED SAFETY PRECAUTIONS CONTAINED HEREIN SHALL NOT RELIEVE THE CONTRACTOR OF HIS PRIMARY RESPONSIBILITY TO TAKE ALL NECESSARY MEASURES TO PROTECT AND SAFEGUARD THE PUBLIC NOR RELIEVE HIM OF ANY RESPONSIBILITIES DESCRIBED IN THE CONTRACT AGREEMENTS.
  - IF THE LOCAL POLICE DEPARTMENT NOTIFIES THE CONTRACTOR OR HIS SUPERINTENDENT OF THE ENGINEER OF ANY HAZARDOUS CONDITION OR VIOLATION OF TRAFFIC CONTROL IN THE WORK AREA REGULATIONS, ALL OPERATIONS SHALL BE IMMEDIATELY DISCONTINUED AND IMMEDIATE REMEDIAL ACTION SHALL BE TAKEN TO THE SATISFACTION OF THE LOCAL POLICE BEFORE WORK IS RESUMED. ALL COSTS INCURRED AS A RESULT OF SUCH ACTION SHALL BE BORNE BY THE CONTRACTOR WITHOUT RECOURSE AGAINST THE OWNER.
  - REDUCTION OF THE NUMBER OF LANES AVAILABLE FOR TRAFFIC OR REDUCTION OF EXISTING WIDTHS OF TRAVELED WAY WILL NOT BE PERMITTED UNTIL AFTER 9:00 A.M. AND SHALL BE REMOVED PRIOR TO 4:00 P.M. UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
  - WORK WHICH WILL INTERFERE WITH TRAFFIC OR RESTRICT THE WIDTH OF TRAVELED WAY AVAILABLE FOR TRAFFIC SHALL NOT BE PERFORMED ON SATURDAYS, SUNDAYS, OR LEGAL HOLIDAYS UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
  - PRIOR TO BEGINNING A SEASONAL SHUTDOWN OR ANY OTHER PROLONGED WORK STOPPAGE OR WHEN WORK IS SUSPENDED BY THE ENGINEER, ALL EXCAVATED AREAS WITHIN THE TRAVELED WAY OR ADJACENT THERE TO SHALL BE BROUGHT TO A GRADE COMPATIBLE WITH THE EXISTING TRAVELED WAY OR TO FINISHED GRADE, AS APPROVED.
  - THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTENANCE WITHIN THE PROJECT LIMITS UNTIL ACCEPTANCE. THIS MAINTENANCE SHALL CONSIST OF CONTINUOUS AND EFFECTIVE WORK PROTECTED DAY BY DAY, WITH ADEQUATE EQUIPMENT AND FORCES TO THE END THAT THE ROADWAY IS KEPT IN SATISFACTORY CONDITION AT ALL TIMES.
  - IN THE CASE OF A CONTRACT REQUIRING THE PLACING OF A COURSE UPON A COURSE OF SUBGRADE PREVIOUSLY CONSTRUCTED, THE CONTRACTOR SHALL MAINTAIN THE PREVIOUS COURSE OF SUBGRADE DURING ALL CONSTRUCTION OPERATIONS.
  - THE CONTRACTOR SHALL BACKFILL ALL EXCAVATED AREAS WITHIN THE ROADWAY TO A GRADE COMPATIBLE WITH THE EXISTING TRAVELED WAY AT SUCH TIMES HE IS NOT ACTIVELY WORKING. THIS SHALL INCLUDE NIGHTS, WEEKENDS AND PERIODS OF SHUTDOWNS.
  - COMPETENT, TRAINED AND UNIFORMED TRAFFIC DIRECTORS SHALL BE EMPLOYED AT EVERY POINT WHERE CONTRACTOR'S EQUIPMENT IS WORKING IMMEDIATELY ADJACENT TO, OR IS ENTERING, LEAVING OR CROSSING ACTIVE TRAFFIC LANES. TRAFFIC DIRECTORS SHALL BE EMPLOYED CONTINUOUSLY FOR THE FULL TIME SUCH CONDITIONS EXIST AS DETERMINED BY THE ENGINEER.
  - THE USE OF UNIFORMED POLICE OFFICERS AS TRAFFIC DIRECTORS IS NOT A SPECIFIC REQUIREMENT OF THIS PROJECT. HOWEVER, SHOULD THEY BE DEEMED NECESSARY DUE TO IMPROPER ACTIONS OF THE CONTRACTOR'S TRAFFIC DIRECTORS OR SHOULD THE CONTRACTOR DESIRE THE ASSISTANCE OF UNIFORMED POLICE OFFICERS AS TRAFFIC DIRECTORS, THE POLICE TRAFFIC DIRECTORS SHALL BE OFF-DUTY POLICE OFFICERS FROM WITHIN THE MUNICIPALITY WHERE THE WORK IS BEING PERFORMED. POLICE TRAFFIC DIRECTORS SHALL BE LOCATED WHERE SHOWN ON THE PLANS OR AT SPECIFIC LOCATIONS DESIGNATED BY THE POLICE DEPARTMENT OR ENGINEER DURING CONSTRUCTION HOURS. THE MUNICIPALITY SHALL BE CONTACTED IN ORDER TO OBTAIN THE SERVICES OF POLICE TRAFFIC DIRECTORS AND THE NAME, ADDRESS AND TELEPHONE NUMBER OF THEIR LOCAL REPRESENTATIVE.
- THE OWNERS OF ADJOINING PROPERTIES SHALL BE GIVEN A WRITTEN NOTICE AT LEAST 3 DAYS PRIOR TO THE BEGINNING OF ANY WORK WHICH INTERFERES WITH THE OWNERS NORMAL PASSAGE.

**MINIMUM REQUIREMENTS FOR TEMPORARY LANE CLOSURE**

NO.	DESCRIPTION OF REVISION	DATE	DRAWN	CHECKED	RELEASED
<b>TOWNSHIP OF WOODBRIDGE</b> MIDDLESEX COUNTY, NEW JERSEY <b>2020 MILLING AND RESURFACING PROGRAM</b> CONTRACT NO. 2020-001					
<b>CONSTRUCTION STAGING PLAN</b>  CONSULTING AND MUNICIPAL ENGINEERS (732) 727-8000 (732) 462-7400					
JOHN H. ALLGAIR P.E. & P.P. (1943 - 1991)      DAVID J. SAMUEL P.E. & P.P. (1945 - 1991)      JOHN J. STEFANI P.E. L.S. & P.P. (1945 - 1991)					
JAY B. CORNELL P.E. & P.P.      MICHAEL J. McCLELLAND P.E. & P.P.      GREGORY R. VALES P.E. & P.P.					
<b>MICHAEL J. McCLELLAND P.E.</b> NEW JERSEY PROFESSIONAL ENGINEER      LIC. 32468      DATE: March 2020 DRAWN BY: PB      DESIGNED BY: PB CHECKED BY:      SHEET: 65 of 65					

DRAWING NO. PWB04610.01