

FY 2016 CAPITAL ROADWAY IMPROVEMENTS

VARIOUS LOCATIONS

TOWNSHIP OF MAPLEWOOD

ESSEX COUNTY, NEW JERSEY

| NO. | DATE | REVISION | DRAWN | CHK'D | REL'D |
|-----|------|----------|-------|-------|-------|
| | | | | | |

TOWNSHIP of MAPLEWOOD
 COUNTY OF ESSEX, NEW JERSEY
 574 VALLEY STREET, MAPLEWOOD NJ 07040
 Ph. 973.762.8120 F. 973.762.2894
 ENGINEER@TWP.MAPLEWOOD.NJ.US



TOWNSHIP OFFICIALS

Mayor
 VICTOR DELUCA

Deputy Mayor
 NANCY ADAMS

Township Committee
 INDIA LARRIER
 GREG LEMBRICH
 IAN GRODMAN

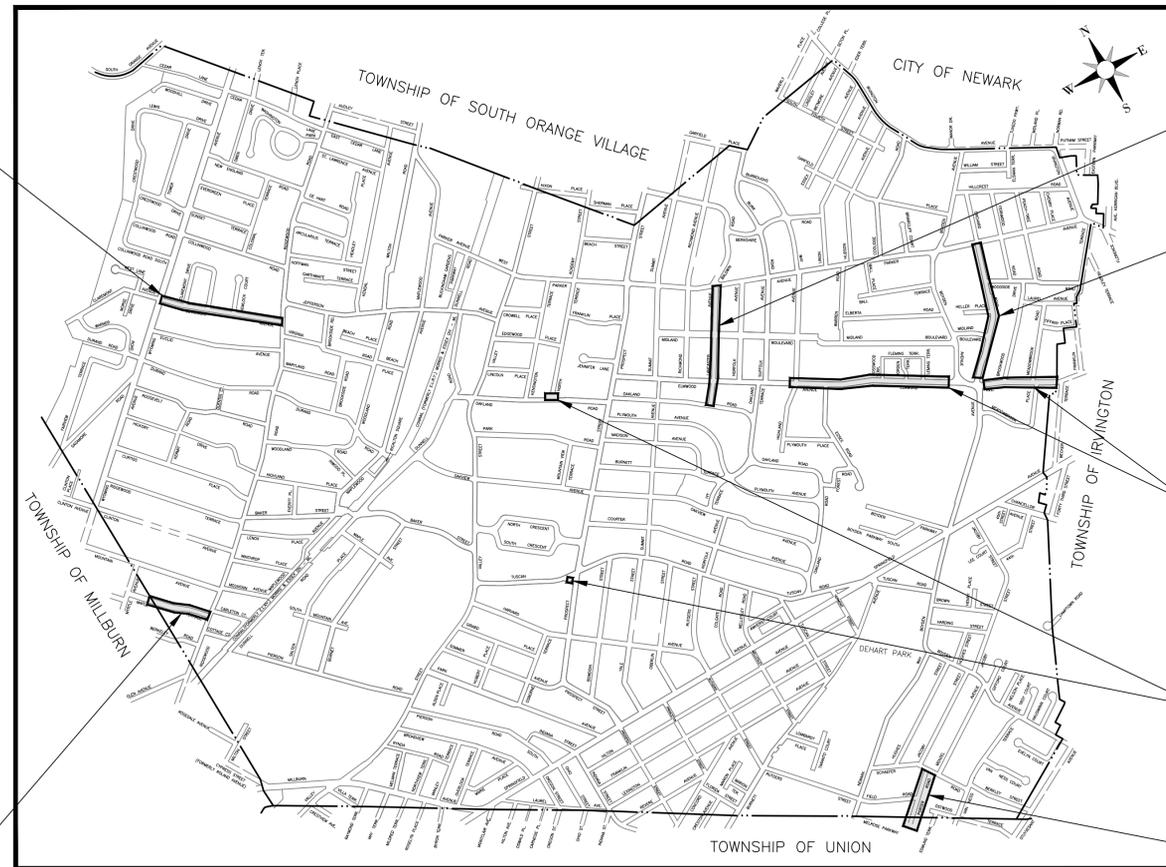
Township Administrator
 JOSEPH F. MANNING

Township Clerk
 ELIZABETH J. FRITZEN

Township Engineer
 PAUL J. KITTNER, P.E., P.P., C.M.E.

CLAREMONT AVENUE
 (ALTERNATE C)

MAPLE TERRACE
 (ALTERNATE B)



LANCASTER AVENUE
 (ALTERNATE A)

ORCHARD ROAD
 (BASE BID)

ELMWOOD AVENUE
 (BASE BID)

VARIOUS SIDEWALK
 (BASE BID)

PORTER ROAD
 (BASE BID)

SITE LOCATION MAP

Scale: 1" = 1,000'

PUBLIC UTILITIES

P.S.E.&G., Electric Division 201-365-2830
 P.S.E.&G., Gas Division 973-414-1540
 Verizon Communications 973-422-5146
 Comcast Cable 732-602-7444
 NJ American Water Company 1-800-652-6987

SHEET INDEX

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- SHEET 2 - LEGEND
- SHEET 3 - QUANTITIES AND GENERAL NOTES
- SHEET 4 - ELMWOOD AVENUE - CONSTRUCTION PLAN
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PAUL J. KITTNER, JR.
 NEW JERSEY PROFESSIONAL ENGINEER
 LIC. NO. 24GE04250500

ENGINEERING DEPARTMENT
 TOWNSHIP OF MAPLEWOOD
 ESSEX COUNTY
 NEW JERSEY
Drawing Path: K:\Projects\Projects\Road
 Program\2016 Capital
 Improvements & Legend
 Sheet - 2016 Capital Roadway.dwg

FY 2016 CAPITAL ROADWAY
 IMPROVEMENTS
 VARIOUS LOCATIONS
 COVER SHEET

| | |
|--------------------|---------------------|
| Job No. | 2016-003 |
| Scale: | AS SHOWN |
| Drawn ADG | Designed ADG/PJK |
| Checked ADG/PJK | Released PJK |
| Date 9/22/16 | Drawer # TBD |
| SHEET No. | 1 |
| OF 15 | |



Know what's below.
 Call before you dig.

LINEAR FEATURES

| EXISTING | PROPOSED | |
|----------|----------|---------------------------------------|
| | | WATER MAIN (SIZE) |
| | | GAS MAIN (SIZE) |
| | | TELEPHONE CONDUIT |
| | | ELECTRIC CONDUIT (HIGHWAY OR UTILITY) |
| | | CABLE TV |
| | | FIBER OPTIC |
| | | SANITARY SEWERS |
| | | STORM DRAINS |
| | | PAVEMENTS (CONCRETE OR BITUMINOUS) |
| | | SHOULDERS |
| | | CURBS |
| | | SLOPES (CUT & FILL) |
| | | BASE LINE |
| | | TWP., CITY, COUNTY LINES |
| | | RIGHT OF WAY LINES (ACCESS PERMITTED) |
| | | EASEMENTS |
| | | GRADING LIMITS |
| | | PROPERTY LINE |
| | | FENCE (SIZE & TYPE) |
| | | RESET FENCE |
| | | BEAM GUIDE RAIL |
| | | WETLAND LIMIT LINE |
| | | SILT FENCE |
| | | DITCHES |
| | | RAILROAD TRACKS |
| | | TREE LINE |

TOPOGRAPHICAL FEATURES

| EXISTING | PROPOSED | |
|----------|----------|-----------------------------------|
| | | INLETS (LABEL TYPE) |
| | | INLETS (TYPE ES) |
| | | MANHOLES (LABEL TYPE OR UTILITY) |
| | | RECONSTRUCT (INLETS OR MANHOLES) |
| | | SET OR RESET (INLETS OR MANHOLES) |
| | | R.C. END SECTION OR C.M. HEADWALL |
| | | HEADWALLS |
| | | HEADWALLS & APRONS |
| | | WATER GATE VALVES/METER |
| | | RESET WATER GATE VALVES |
| | | GAS VALVES |
| | | RESET GAS GATE VALVES |
| | | GAS BOX |
| | | HYDRANTS |
| | | RESET HYDRANTS |
| | | UTILITY POLE (TYPE & NUMBER) |
| | | TEMPORARY UTILITY POLE |
| | | TRAFFIC SIGNAL |
| | | JUNCTION BOX |
| | | FIBER OPTIC JUNCTION BOX |
| | | JUNCTION BOX FOUNDATION |
| | | SIGNS |
| | | VERTICAL PANELS |
| | | GUIDE RAIL END TERMINALS |
| | | BEAM GUIDE RAIL ANCHORAGES |
| | | TRAFFIC SIGNAL |

TOPOGRAPHICAL FEATURES

| EXISTING | PROPOSED | |
|----------|----------|-----------------------------------|
| | | MONUMENTS |
| | | ROW MONUMENT (ROW CONTROL POINTS) |
| | | TEST PIT |
| | | BORINGS (BORING NUMBER) |
| | | DECIDUOUS TREE (SIZE, KIND) |
| | | EVERGREENS |
| | | BUSH |
| | | HEDGES |
| | | SWAMP |
| | | TRAFFIC BOX |
| | | TRAFFIC SIGNAL |
| | | GUY WIRE |
| | | LIGHT POLE |
| | | VALVE |
| | | SPOT ELEVATION |



NORTH ARROW TO BE USED ON STANDARD CONSTRUCTION SHEETS WHERE BEARINGS REFER TO N. J. PLANE COORDINATE SYSTEM



MISCELLANEOUS SYMBOLS

| | |
|--|--|
| | ITEMS WITH NO ALTERNATE |
| | ALTERNATE ITEMS OR FOR ALTERNATE PIPE ITEMS (C) = CONCRETE (M) = METAL |
| | PROPOSED 2" MILL AND OVERLAY CONSTRUCTION |
| | PROPOSED SIDEWALK, 4" THICK |
| | BASE REPAIR (IF AND WHERE DIRECTED) |
| | DRIVEWAY RESTORATION (IF AND WHERE DIRECTED) |
| | TREE & SHRUB REMOVAL |
| | HIGH POINT |
| | LOW POINT |
| | BENCH MARK |
| | INLET PROTECTION |
| | 23.01 BLOCK |
| | 56 LOT |
| | 17 HOUSE ADDRESS |

ABBREVIATIONS USED IN THIS CONTRACT:

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

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 ESSEX COUNTY
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FY 2016 CAPITAL ROADWAY
 IMPROVEMENTS
 VARIOUS LOCATIONS
 LEGEND SHEET

| | |
|-----------|----------|
| Job No. | 2016-003 |
| Scale: | AS SHOWN |
| Drawn | ADG |
| Designed | ADG/PJK |
| Checked | ADG/PJK |
| Released | PJK |
| Date | 9/22/16 |
| Drawer # | TBD |
| SHEET No. | 2 |
| OF 15 | |



Know what's below.
 Call before you dig.

| BASE BID | | | |
|----------|--|----------|------|
| Item # | Description | Quantity | Unit |
| 1 | MOBILIZATION | 1 | LS |
| 2 | CLEARING SITE | 1 | LS |
| 3 | SOIL EROSION AND SEDIMENT CONTROL | 1 | LS |
| 4 | TRAFFIC CONTROL | 1 | LS |
| 5 | POLICE TRAFFIC DIRECTORS | 160 | HR |
| 6 | FUEL PRICE ADJUSTMENT | 1 | LS |
| 7 | ASPHALT PRICE ADJUSTMENT | 1 | LS |
| 8 | PAVEMENT MILLING, 0'-2" VARIABLE DEPTH | 16930 | SY |
| 9 | ROADWAY EXCAVATION, UNCLASSIFIED (IF AND WHERE DIRECTED) | 200 | CY |
| 10 | EARTH EXCAVATION FOR TEST PITS (IF AND WHERE DIRECTED) | 10 | CY |
| 11 | HOT MIX ASPHALT 9.5M64 SURFACE COURSE, 2" THICK | 2100 | TON |
| 12 | HOT MIX ASPHALT 19M64 BASE COURSE, 4" THICK (IF AND WHERE DIRECTED) | 300 | TON |
| 13 | DENSE-GRADED AGGREGATE BASE COURSE, 6" THICK (IF AND WHERE DIRECTED) | 300 | SY |
| 14 | GRANITE BLOCK CURB | 200 | LF |
| 15 | CONCRETE CURB | 150 | LF |
| 16 | CONCRETE SIDEWALK, 4" THICK | 350 | SY |
| 17 | DETECTABLE WARNING SURFACE | 22 | SY |
| 18 | RESET EXISTING INLET CASTING | 26 | UNIT |
| 19 | RECONSTRUCTED INLET, TYPE "B", USING NEW CASTING | 1 | UNIT |
| 20 | RECONSTRUCTED INLET, TYPE "D", USING EXISTING CASTING | 1 | UNIT |
| 21 | INLET, TYPE "B", USING NEW CASTING | 1 | UNIT |
| 22 | CURB PIECE, TYPE "N-ECO" PHASE II | 25 | UNIT |
| 23 | SET NEW INLET CASTING, TYPE "B" | 7 | UNIT |
| 24 | SET NEW INLET CASTING, TYPE "D" | 9 | UNIT |
| 25 | RECONSTRUCTED MANHOLE, USING EXISTING CASTING | 1 | UNIT |
| 26 | RECONSTRUCTED MANHOLE, USING NEW CASTING | 1 | UNIT |
| 27 | RESET EXISTING MANHOLE CASTING | 16 | UNIT |
| 28 | SET NEW MANHOLE CASTING | 44 | UNIT |
| 29 | 15" REINFORCED CONCRETE PIPE | 25 | LF |
| 30 | 8" SDR 35 SANITARY SEWER PIPE | 230 | LF |
| 31 | SIGN, R1-1 STOP AND INSTALLATION | 7 | UNIT |
| 32 | SIGN, D3-1 STREET NAME AND INSTALLATION | 3 | UNIT |
| 33 | SIGN, R6-1 ONE WAY AND INSTALLATION | 4 | UNIT |
| 34 | SIGN, R3-1 NO RIGHT TURN SYMBOL AND R3 SERIES NO RIGHT TURN WORDS AND INSTALLATION | 1 | UNIT |
| 35 | SIGN, W11-2 PEDESTRIAN AND W16-9P AHEAD AND INSTALLATION | 4 | UNIT |
| 36 | SIGN, W11-2 PEDESTRIAN AND W16-7P ARROW AND INSTALLATION | 8 | UNIT |
| 37 | TRAFFIC MARKINGS, WHITE THERMOPLASTIC (SLOW SCHOOL X-ING) | 1 | EA |
| 38 | TRAFFIC STRIPING, 4" YELLOW THERMOPLASTIC (CENTER STRIPING) | 2750 | LF |
| 39 | TRAFFIC STRIPING, 4" WHITE THERMOPLASTIC (SHOULDER STRIPING) | 1450 | LF |
| 40 | TRAFFIC STRIPING, 16" WHITE THERMOPLASTIC (CROSSWALK STRIPING) | 800 | LF |
| 41 | TRAFFIC STRIPING, 16" WHITE THERMOPLASTIC (STOP BAR STRIPING) | 155 | LF |

| BID ALTERNATE A - LANCASTER AVENUE | | | |
|------------------------------------|--|----------|------|
| Item # | Description | Quantity | Unit |
| 1 | PAVEMENT MILLING, 0'-2" VARIABLE DEPTH | 3960 | SY |
| 2 | ROADWAY EXCAVATION, UNCLASSIFIED (IF AND WHERE DIRECTED) | 50 | CY |
| 3 | HOT MIX ASPHALT 9.5M64 SURFACE COURSE, 2" THICK | 500 | TON |
| 4 | HOT MIX ASPHALT 19M64 BASE COURSE, 4" THICK (IF AND WHERE DIRECTED) | 100 | TON |
| 5 | DENSE-GRADED AGGREGATE BASE COURSE, 6" THICK (IF AND WHERE DIRECTED) | 100 | SY |
| 6 | GRANITE BLOCK CURB | 80 | LF |
| 7 | CONCRETE CURB | 40 | LF |
| 8 | CONCRETE SIDEWALK, 4" THICK | 110 | SY |
| 9 | DETECTABLE WARNING SURFACE | 8 | SY |
| 10 | RESET EXISTING INLET CASTING | 2 | UNIT |
| 11 | CURB PIECE, TYPE "N-ECO" PHASE II | 2 | UNIT |
| 12 | SET NEW INLET CASTING, TYPE "D" | 2 | UNIT |
| 13 | SET NEW MANHOLE CASTING | 5 | UNIT |
| 14 | SIGN, R1-1 STOP AND INSTALLATION | 2 | UNIT |
| 15 | TRAFFIC STRIPING, 16" WHITE THERMOPLASTIC (CROSSWALK STRIPING) | 315 | LF |
| 16 | TRAFFIC STRIPING, 16" WHITE THERMOPLASTIC (STOP BAR STRIPING) | 80 | LF |

| BID ALTERNATE B - MAPLE TERRACE | | | |
|---------------------------------|--|----------|------|
| Item # | Description | Quantity | Unit |
| 1 | PAVEMENT MILLING, 0'-2" VARIABLE DEPTH | 2720 | SY |
| 2 | ROADWAY EXCAVATION, UNCLASSIFIED (IF AND WHERE DIRECTED) | 50 | CY |
| 3 | HOT MIX ASPHALT 9.5M64 SURFACE COURSE, 2" THICK | 400 | TON |
| 4 | HOT MIX ASPHALT 19M64 BASE COURSE, 4" THICK (IF AND WHERE DIRECTED) | 100 | TON |
| 5 | DENSE-GRADED AGGREGATE BASE COURSE, 6" THICK (IF AND WHERE DIRECTED) | 100 | SY |
| 6 | RESET EXISTING INLET CASTING | 4 | UNIT |
| 7 | RESET EXISTING MANHOLE CASTING | 3 | UNIT |
| 8 | SET NEW MANHOLE CASTING | 2 | UNIT |
| 9 | 8" SDR 35 SANITARY SEWER PIPE | 100 | LF |
| 10 | SIGN, D3-1 STREET NAME AND INSTALLATION | 1 | UNIT |

| BID ALTERNATE C - CLAREMONT AVENUE | | | |
|------------------------------------|--|----------|------|
| Item # | Description | Quantity | Unit |
| 1 | PAVEMENT MILLING, 0'-2" VARIABLE DEPTH | 4610 | SY |
| 2 | ROADWAY EXCAVATION, UNCLASSIFIED (IF AND WHERE DIRECTED) | 50 | CY |
| 3 | HOT MIX ASPHALT 9.5M64 SURFACE COURSE, 2" THICK | 600 | TON |
| 4 | HOT MIX ASPHALT 19M64 BASE COURSE, 4" THICK (IF AND WHERE DIRECTED) | 100 | TON |
| 5 | DENSE-GRADED AGGREGATE BASE COURSE, 6" THICK (IF AND WHERE DIRECTED) | 100 | SY |
| 6 | GRANITE BLOCK CURB | 20 | LF |
| 7 | CONCRETE CURB | 20 | LF |
| 8 | CONCRETE SIDEWALK, 4" THICK | 20 | SY |
| 9 | DETECTABLE WARNING SURFACE | 2 | SY |
| 10 | RESET EXISTING INLET CASTING | 3 | UNIT |
| 11 | CURB PIECE, TYPE "N-ECO" PHASE II | 3 | UNIT |
| 12 | SET NEW INLET CASTING, TYPE "B" | 19 | UNIT |
| 13 | SET NEW INLET CASTING, TYPE "D" | 1 | UNIT |
| 14 | RESET EXISTING MANHOLE CASTING | 1 | UNIT |
| 15 | SET NEW MANHOLE CASTING | 12 | UNIT |
| 16 | SIGN, R1-1 STOP AND INSTALLATION | 5 | UNIT |
| 17 | SIGN, D3-1 STREET NAME AND INSTALLATION | 2 | UNIT |
| 18 | TRAFFIC STRIPING, 16" WHITE THERMOPLASTIC (CROSSWALK STRIPING) | 50 | LF |
| 19 | TRAFFIC STRIPING, 16" WHITE THERMOPLASTIC (STOP BAR STRIPING) | 70 | LF |

CONSTRUCTION NOTES

- THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION WITH THE LOCAL POLICE DEPARTMENT FOR TRAFFIC OPERATIONS AND PARKING PROHIBITIONS DURING CONSTRUCTION. IN ACCORDANCE WITH THE APPROVED TRAFFIC CONTROL PLAN, CONTRACTOR SHALL ATTEND A PRE-CONSTRUCTION MEETING ORGANIZED BY THE OWNER (MAPLEWOOD TOWNSHIP) PRIOR TO CONSTRUCTION.
- ANY DAMAGE TO UTILITIES SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR, AND ALL COSTS FOR REPAIRS SHALL BE BORNE BY THE CONTRACTOR. NO SEPARATE PAYMENT WILL BE MADE FOR THE RESTORATION OF UTILITY SERVICES THAT MAY BE AFFECTED BY THE WORK OF THIS PROJECT. THE CONTRACTOR SHALL RESTORE ALL CONNECTIONS AT HIS OWN COST.
- ALL DISTURBED SHRUBS, FENCING, SIGNS, MAIL BOXES, DRIVES, ETC., SHALL BE RESTORED TO THEIR ORIGINAL CONDITION UNLESS SPECIFIED ELSEWHERE.
- ALL PROPERTY CORNERS, MONUMENTS, OR PINS REMOVED DURING CONSTRUCTION SHALL BE REPLACED BY A NEW JERSEY LICENSED LAND SURVEYOR, AT NO ADDITIONAL COST TO THE OWNER.
- ALL EXISTING UTILITY CASTINGS, COVERS AND GRATES TO BE REPLACED ARE THE PROPERTY OF THE MUNICIPALITY AND WILL BE DELIVERED TO THE DEPARTMENT OF PUBLIC WORKS. PAYMENT WILL NOT BE MADE FOR THE NEW UTILITY CASTINGS, COVERS OR GRATES UNLESS THE OLD ONES ARE RETURNED.
- INLET AND MANHOLE RIMS SHALL NOT BE RAISED MORE THAN 2 DAYS PRIOR TO APPLICATION OF FINAL SURFACE COURSE.
- THE 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 SHALL ALSO PROVIDE AND MAINTAIN RAMPS AROUND ALL EXPOSED CASTINGS, BOTH PUBLIC AND PRIVATE, WHICH HAVE BEEN UNCOVERED OR RESET DURING CONSTRUCTION.
- THE CONTRACTOR SHALL TAKE ALL NECESSARY MEASURES TO MAINTAIN DUST CONTROL AS REQUIRED OR DIRECTED BY THE ENGINEER AND THE COUNTY SOIL CONSERVATION DISTRICT. ALL VEHICLES SHALL BE CLEAN AND ALL ROADWAYS SHALL BE MAINTAINED AS DIRECTED BY THE ENGINEER.
- ALL PAVEMENT MARKINGS AND SIGNS SHALL CONFIRM TO THE STANDARDS OF THE CURRENT "MANUAL ON UNIFORM CONTROL DEVICES".
- THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, 2007 EDITION, AS PUBLISHED BY THE NEW JERSEY STATE HIGHWAY DEPARTMENT, THE PLANS, TECHNICAL SPECIFICATIONS, ADVERTISEMENT, CONTRACTOR'S PROPOSAL AND INCLUDING BUT NOT LIMITED TO THE AMENDMENT CONTAINED HEREINAFTER SHALL COMPRISE THE CONTRACT.
- THE CONTRACTOR IS TO REFER TO THE SUPPLEMENTAL SPECIFICATION, WHICH INDICATES WHEN THE STANDARD SPECIFICATIONS, AND/OR THE AMENDMENTS THAT FOLLOW SHOULD APPLY.
- THE CONTRACTOR SHALL COMPLY WITH ALL LAWS, ORDINANCES, RULES, ORDERS AND REGULATIONS RELATING TO THE PERFORMANCE OF THE WORK, THE PROTECTION OF ADJACENT PROPERTY AND THE MAINTENANCE OF PASSAGEWAYS.
- NO CONSTRUCTION, MAINTENANCE OR UTILITY WORK ON, UNDER OR ABOVE THE PROJECT ROAD THAT WILL OBSTRUCT, INTERFERE WITH AND/OR DETOUR TRAFFIC ON THE ROAD. THE ROAD SHALL BE OPEN TO TRAFFIC AT ALL TIMES. WORK SHALL NOT BE PERFORMED BEFORE THE HOURS OF 7:00 AM OR AFTER 5:00 PM. THE CONTRACTOR'S WORK HOURS SHALL CONFIRM TO LOCAL ORDINANCE. THE CONTRACTOR SHALL NOT DEVIATE FROM THE ABOVE WORK HOURS WITHOUT OBTAINING WRITTEN PERMISSION FROM THE CHIEF OF POLICE PRIOR TO THE START OF CONSTRUCTION.
- EACH AND EVERY PROVISION OF LAW AND CLAUSE REQUIRED BY LAW TO BE INSERTED IN THIS CONTRACT SHALL BE DEEMED TO BE INSERTED HEREIN AND THE CONTRACT SHALL BE READ AND ENFORCED AS THOUGH IT WERE INCLUDED HEREIN, AND IF THROUGH MISTAKE OR OTHERWISE AND SUCH PROVISION IS NOT INSERTED, OR IS NOT CURRENTLY INSERTED, THEN UPON THE APPLICATION OF EITHER PARTY THE CONTRACT SHALL FORTHWITH BE PHYSICALLY AMENDED TO MAKE SUCH INSERTION OR CORRECTION.
- THE CONTRACTOR WILL BE FURNISHED WITH UP TO THREE (3) SETS OF PLANS AND SPECIFICATIONS. ONE (1) COPY OF THE PLANS AND SPECIFICATIONS FURNISHED TO THE CONTRACTOR MUST BE KEPT CONSTANTLY ON THE PROJECT ON THE PROJECT SITE. ANYTHING SHOWN ON THE PLANS AND NOT MENTIONED IN THE SPECIFICATIONS, OR MENTIONED IN THE SPECIFICATIONS AND NOT SHOWN ON THE PLANS, AND ALL WORK AND MATERIALS NECESSARY FOR THE COMPLETION OF THE WORK ACCORDING TO THE INTENT AND MEANING OF THE CONTRACT DOCUMENTS, SHALL BE FURNISHED, PERFORMED AND DONE, AS IF THE SAME WERE BOTH MENTIONED IN THE SPECIFICATIONS AND SHOWN ON THE DRAWINGS. ANY CONFLICT OR INCONSISTENCY BETWEEN THE PLANS AND SPECIFICATIONS, OR ANY DISCREPANCY BETWEEN THE FIGURES AND SCALE OF DRAWINGS SHALL BE SUBMITTED BY THE CONTRACTOR TO THE ENGINEER WHOSE DECISION THEREON SHALL BE CONCLUSIVE. THE DECISION OF THE ENGINEER AS TO WHICH SPECIFICATION WILL GOVERN WILL BE CONCLUSIVE AND FINAL.
- IN THE EVENT THE MEANING OF ANY PORTION OF THE SPECIFICATIONS OR DRAWINGS OR ANY SUPPLEMENTARY DRAWINGS OR INSTRUCTIONS OF THE ENGINEER IS DOUBTFUL, THE SAME SHALL BE UNDERSTOOD TO CALL FOR THE BEST TYPE OF CONSTRUCTION, BOTH AS TO MATERIALS AND WORKMANSHIP, WHICH REASONABLY CAN BE INTERPRETED.
- IN THE EVENT A SITUATION ARISES IN WHICH MATERIALS NOT SPECIFIED ON THE PLANS OR INDICATED IN THE SUPPLEMENTAL SPECIFICATIONS ARE TO BE USED FOR EXTRA WORK, THEN THE STANDARD SPECIFICATIONS OR THE SUPPLEMENTS WHICHEVER GOVERNS, WILL BE USED.
- THE CONTRACTOR'S ATTENTION IS SPECIFICALLY DIRECTED TO SPECIFICATIONS, WHICH REQUIRE THAT HE POST A PERFORMANCE BOND BASED UPON THE FINAL CONTRACT AMOUNT, UPON COMPLETION AND ACCEPTANCE OF THE IMPROVEMENTS, THE CONTRACTOR SHALL ALSO POST A 2-YEAR 15% MAINTENANCE BOND BASED UPON THE FINAL PROJECT AMOUNT.
- THE GENERAL CONDITIONS OF THE CONTRACT INDICATE THAT THE CONTRACTOR MUST NOTIFY THE ENGINEER OF ANY INTENDED OVERTIME WORK PRIOR TO PERFORMING THE WORK. OVERTIME WORK SHALL BE BORNE BY THE CONTRACTOR UNLESS DIRECTED OTHERWISE IN WRITING BY THE TOWNSHIP ENGINEER.
- THE ENGINEERING DEPARTMENT MUST BE GIVEN ONE (1) WEEK NOTICE BEFORE THE START OF THE WORK.
- ALL TRENCHES UNLESS OTHERWISE INDICATED IN THE SPECIFICATIONS AND/OR AMENDED, SHALL HAVE BACKFILL MATERIAL INSTALLED AS SPECIFIED IN THE SUPPLEMENTAL SPECIFICATIONS. THE ENGINEER AT HIS DISCRETION MAY PERMIT THE USE OF EXCAVATED OR OTHER SUITABLE MATERIAL.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DISPOSABLE OF ALL EXCESS MATERIALS EXCAVATED OR WHATEVER NATURE AT HIS OWN EXPENSE AND IN ACCORDANCE WITH ALL APPLICABLE LAWS. THE TOWNSHIP IS NOT OBLIGATED TO SUPPLY A DISPOSAL SITE. THE CONTRACTOR MUST NOT DEPOSIT THE EXCESS MATERIALS IN THE TOWNSHIP LIMITS WITHOUT EXPRESS PERMISSION OF THE TOWNSHIP ENGINEER.
- THE CONTRACTOR IS NOTIFIED THAT HE MUST MAINTAIN TRAFFIC AND ACCESS TO THE RESIDENCES. HE IS ALSO NOTIFIED TO ASSURE ACCESS FOR GARBAGE COLLECTION.
- PAYMENT FOR PIPES (IF REQUIRED) SHALL BE ON THE BASIS OF HORIZONTAL LINEAR FEET. THE UNIT PRICE PER LINEAR FEET SHALL INCLUDE THE COST FOR CONSTRUCTION LAYOUT, EXCAVATION AND BACKFILLING WITH SPECIFIED MATERIAL.
- ANY EXISTING FENCES THAT INTERFERE WITH CONSTRUCTION SHALL BE REMOVED AND SHALL BE RESET AT THE LOCATION ACCEPTABLE TO THE OWNER AND THE ENGINEER.
- THE CONTRACTOR IS RESPONSIBLE TO OBEY ALL THE SAFETY AND HEALTH REGULATIONS. THE OWNER ASSUMES NO RESPONSIBILITY FOR THE SAFETY OF THE WORK PERFORMED.
- THIS CONTRACT REQUIRES THE PAYMENT OF PREVAILING STATE WAGE RATES.

- PRIOR TO THE START OF CONSTRUCTION, THE CONTRACTOR SHALL HAVE ALL UNDERGROUND UTILITIES LOCATED AND PHYSICALLY MARKED OUT WITHIN THE LIMITS OF THE PROJECT. (CALL 1-800-272-1000). THE CONTRACTOR SHALL CONDUCT TEST HOLES IN AREAS OF POSSIBLE CONFLICT TO VERIFY THE DEPTH AND LOCATION OF THE UTILITY. PAYMENT SHALL BE MADE FOR THIS ITEM. NO SEPARATE PAYMENT SHALL BE MADE FOR DELAYS THAT MAY BE NECESSARY TO RELOCATE UTILITIES OF THE PROPOSED LOCATION OF DRAINAGE STRUCTURES.
- ALL LOCATIONS ON THESE PLANS ARE APPROXIMATE. THE CONTRACTOR SHALL VERIFY ALL INFORMATION AND REPORT ALL DISCREPANCIES AT THE TIME OF BID.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING WARNING SIGNS, BARRICADES, AND ANY AND ALL SAFETY MEASURES AS MAY BE REQUIRED BY MUNICIPAL AND COUNTY CODE, OSHA, STANDARD PRACTICE, AND/OR COMMON SENSE. FLASHING LIGHTS OR OTHER ILLUMINATION DEVICES SHALL BE EMPLOYED TO WARN MOTORISTS AND PEDESTRIANS AFTER DARK. ALL TRAFFIC CONTROL MEASURES SHALL MEET THE REQUIREMENTS OF THE N.J.D.O.T. REGULATIONS AND THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" LATEST EDITION.
- WHENEVER THE DRAWINGS INDICATE TO MEET EXISTING CONDITIONS, THE CONTRACTOR SHALL PROVIDE FOR A SMOOTH AND CONTINUOUS TRANSITION FROM PROPOSED TO EXISTING GRADES.
- THE CONTRACTOR SHALL EXPOSE OR RELOCATE ANY OR ALL GAS SERVICES, WATER SERVICES, SANITARY SEWER LATERALS, ELECTRICAL COMMUNICATIONS DUCTS OR ANY OTHER TYPE OF UTILITY AND ARRANGE FOR THEIR RELOCATION IF REQUIRED. NO DOWNTIME, ADDITIONAL COMPENSATION OR CONTRACT EXTENSION WILL BE MADE TO THE INTERFERENCE OF ANY UTILITY MAIN OR SERVICE THAT INTERFERES WITH THE PROPOSED WORK.
- THE TOWNSHIP OF MAPLEWOOD RESERVES THE RIGHT TO INCREASE OR DECREASE QUANTITIES AND ADD OR DELETE ITEMS AS REQUIRED.
- NO MATERIAL OR EQUIPMENT IS TO BE STORED ON ANY STREET OR RIGHT-OF-WAY OVERNIGHT. ALL EXCAVATIONS SHALL BE BACKFILLED AT THE END OF EACH WORK DAY TO MAINTAIN SAFETY OF PEDESTRIANS AND VEHICLES.
- TRAFFIC SIGNAGE AND STRIPING SHOWN ON THESE PLANS SHALL CONFORM TO NEW JERSEY DEPARTMENT OF TRANSPORTATION (NJDOT) STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION 2007, AS AMENDED, UNLESS INDICATED OTHERWISE AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) LATEST EDITION. A PRINT-GRADE COPIES OF TOWNSHIP SPECIFIC LOGOS AND GRAPHICS PERTAINING TO THE SIGNS IN THIS PROJECT WILL BE MADE AVAILABLE TO THE CONTRACTOR UPON REQUEST. ALL CUSTOM SIGNAGE WILL CONFORM TO COLOR AND LETTERING SCHEMES SPECIFIED BY MOST CURRENT MUTCD.
- ALL ROADWAYS ARE TO BE PASSABLE FOR EMERGENCY VEHICLE USE DURING CONSTRUCTION. ACCESS SHALL BE MAINTAINED FOR LOCAL RESIDENTS.
- SUBSTITUTIONS OF PROPERTY MATERIAL AND/OR PRODUCT SPECIFICATIONS THAT NOTE "OR EQUAL" MUST BE APPROVED BY THE DESIGN ENGINEER. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DEMONSTRATE TO THE SATISFACTION OF THE DESIGN ENGINEER THAT THE SUBSTITUTION IS EQUAL.
- SHOP DRAWING SUBMITTALS SHALL BE SUBMITTED TO THE ENGINEER A MINIMUM OF 12 DAYS IN ADVANCE OF CONTRACTOR NEED.
- THE CONTRACTOR SHALL PREPARE THE MILLED SURFACE WITH TACK COAT IN ACCORDANCE WITH THE SPECIFICATIONS PRIOR TO FINAL PAVING.
- MILLING OF ROADS SHALL BE TO THE EDGE OF THE ASPHALT PAVING, TO THE CURB LINE IF THE ROAD IS CURBED, TO THE EDGE OF PAVEMENT IF THE ROAD IS NOT CURBED, AND TO THE EDGE OF THE STONE GUTTER IF ONE EXISTS.
- MATERIALS INSTALLED WITHIN THE RIGHT OF WAY THAT BELONG TO PROPERTY OWNERS, THAT ARE TO BE REMOVED SHALL BE OFFERED TO THE HOMEOWNER PRIOR TO DISPOSAL.
- STRIPING ON ALL STREETS SHALL BE DONE WITHIN 10 CALENDAR DAYS AFTER PAVING. SEE SPECIFICATIONS FOR PENALTIES.
- LOCATIONS FOR MANHOLE AND INLET REPAIRS ARE TO BE AS SHOWN ON THE PLANS UNLESS OTHERWISE INDICATED BY THE TOWNSHIP ENGINEER IN THE FIELD.
- CONTRACTOR TO ENSURE STRIPING SUBCONTRACTOR INSTALLS "CONTINENTAL" STYLE CROSSWALK BARS PARALLEL TO DIRECTION OF TRAVEL.
- IN ACCORDANCE WITH TITLE 39 OF NJSA, HANDICAP CURB RAMPS ARE REQUIRED AT ALL CROSSWALKS WHEREVER A SIDEWALK EXISTS OR IS PROPOSED. ALL CURB RAMPS MUST CONFORM TO THE ADA REQUIREMENTS AND THE DETAILS PROVIDED HEREIN. CURB RAMPS SHALL BE CONSTRUCTED AT ALL LOCATIONS AS SHOWN IN THE CONSTRUCTION PLANS AND/OR AS DIRECTED IN THE FIELD BY THE ENGINEER FOR CONFORMANCE WITH APPLICABLE REGULATIONS. IN THE EVENT OF A CONFLICT BETWEEN THE PLANS AND ADA REGULATIONS, THE REGULATIONS SHALL APPLY.
- THIS SET OF DRAWINGS AND ALL INFORMATION CONTAINED HEREIN IS AUTHORIZED FOR USE ONLY BY THE PARTY FOR WHOM THE WORK WAS CONTRACTED OR TO WHOM IT IS CERTIFIED.
- THIS DRAWING MAY NOT BE COPIED, REUSED, DISCLOSED, DISTRIBUTED OR RELIED UPON FOR ANY OTHER PURPOSE WITHOUT THE WRITTEN CONSENT OF THE TOWNSHIP OF MAPLEWOOD.
- THE CONTRACTOR SHALL PROVIDE TRAFFIC CONTROL MEASURES IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES AND THESE PLANS AS CONTAINED HEREIN.
- WHERE NEW WORK MEETS EXISTING PAVEMENT, EXISTING PAVEMENT SHALL BE SAW CUT. COST SHALL BE INCLUDED IN CLEARING SITE. THERE SHALL BE NO SEPARATE PAYMENT FOR SAW CUTTING.
- THE CONTRACTOR SHALL FIELD VERIFY THE LOCATION OF ALL UTILITIES. IN THE EVENT OF A DISCREPANCY BETWEEN THE PLANS AND FIELD CONDITIONS, THE CONTRACTOR SHALL NOTIFY THE ENGINEER PRIOR TO PROCEEDING.
- ALL REGRADED AREAS AT THE SITE WHICH ARE NOT DESIGNATED AS PAVED OR GRAVEL AREAS SHALL BE TOPSOILED AND SEEDED AND SHALL BE STABILIZED IN ACCORDANCE WITH STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL IN NEW JERSEY AND THE CONTRACT SPECIFICATIONS.
- THE CONTRACTOR'S LICENSED LAND SURVEYOR SHALL PROVIDE THE CONSTRUCTION STAKEOUT FOR THE PROJECT.
- 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 (NESHAP, 40 CFR 61 SUBPART M); OSHA REGULATIONS (29 CFR 1926.58); THE CURRENT NEW JERSEY ASBESTOS HAZARD ABATEMENT SUBCODE (N.J.A.C. 5:23-8); THE CURRENT NIDDEP REGULATIONS (N.J.A.C. 7:26-1 ET. SEQ.); AND NOTIFICATION REGULATIONS (N.J.A.C. 5:23-8.6, 40 CFR 61 SUBPART M, AND N.J.A.C. 7:26-2.12).
- THE CONTRACTOR SHALL COMPLY WITH ALL REQUIREMENTS OF THE STATE OF NEW JERSEY WORKER HEALTH AND SAFETY ACT (N.J.A.C. 12:10 ET. SEQ.) AS AMENDED AND THE UNITED STATES OCCUPATIONAL SAFETY AND HEALTH ACT (OSHA) (29 CFR 1910), AS AMENDED WITH REGARDS TO WORKER AND JOBSITE SAFETY.
- NO EXTRA COMPENSATION SHALL BE MADE FOR DE-WATERING.
- THE CONTRACTOR SHALL PROVIDE CONSTRUCTION NOTICE SIGNS STATING THE APPROXIMATE START DATE OF THE PROJECT. THE SIGNS SHALL BE PLACED AT EACH END OF EACH STREET 2 WEEKS BEFORE THE APPROXIMATE START DATE OF THE PROJECT. ALL COSTS FOR THESE SIGNS SHALL BE INCLUDED IN THE VARIOUS BID ITEMS OF THE PROJECT.
- THE CONTRACTOR SHALL COMPLY WITH ALL MINIMUM PIPE COVER REQUIREMENTS AS SPECIFIED BY THE MANUFACTURER.
- THE CONTRACTOR SHALL CALL "NEW JERSEY ONE CALL" (1-800-272-1000) FOR ALL LOCATIONS, IDENTIFY ANY POTENTIAL CONFLICTS, PERFORM HAND TEST PIT EXCAVATIONS, LOCATE AND MEASURE UTILITIES AND ADVISE THE MAPLEWOOD ENGINEERING DEPARTMENT. THE MAPLEWOOD ENGINEERING DEPARTMENT RESERVES THE RIGHT TO REVISE THE DESIGN AS NECESSARY TO AVOID CONFLICTS AND MAY ADD OR REDUCE THE QUANTITIES AS REQUIRED.
- ALL VALVE BOXES SHALL BE RE-SET WITHIN PROJECT LIMITS AND ARE NOT SHOWN ON THE PLANS. PAYMENT FOR RE-SETTING VALVE BOXES SHALL BE MADE UNDER PAVEMENT.
- CONTRACTOR SHALL SAWCUT ALL LIMITS OF PAVEMENT AND "KEY" PROPOSED PAVEMENT TO EXISTING. PAYMENT FOR SAWCUTTING AND KEYING SHALL BE MADE UNDER PAVEMENT.

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ENGINEERING DEPARTMENT
TOWNSHIP OF MAPLEWOOD
ESSEX COUNTY
NEW JERSEY

Drawing Path: G:\Projects\Projects\Road\Program\2016 Capital Improvements\Sheet_2016 Capital Road.dwg

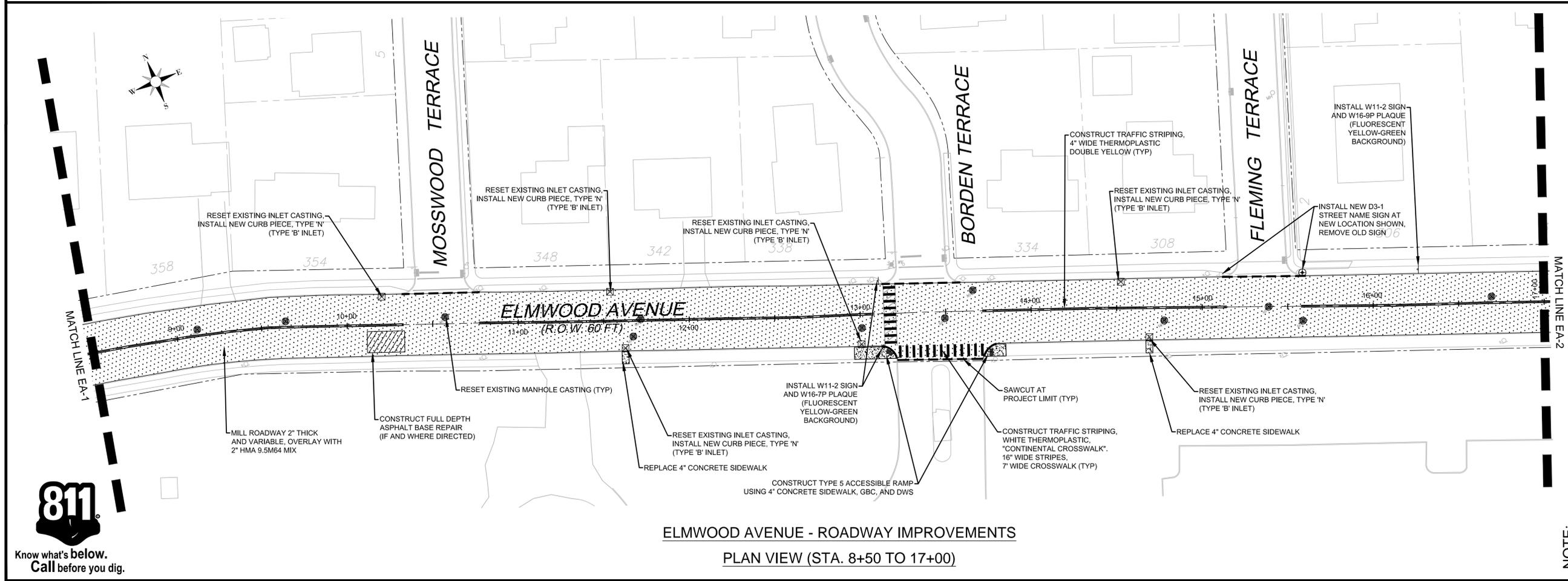
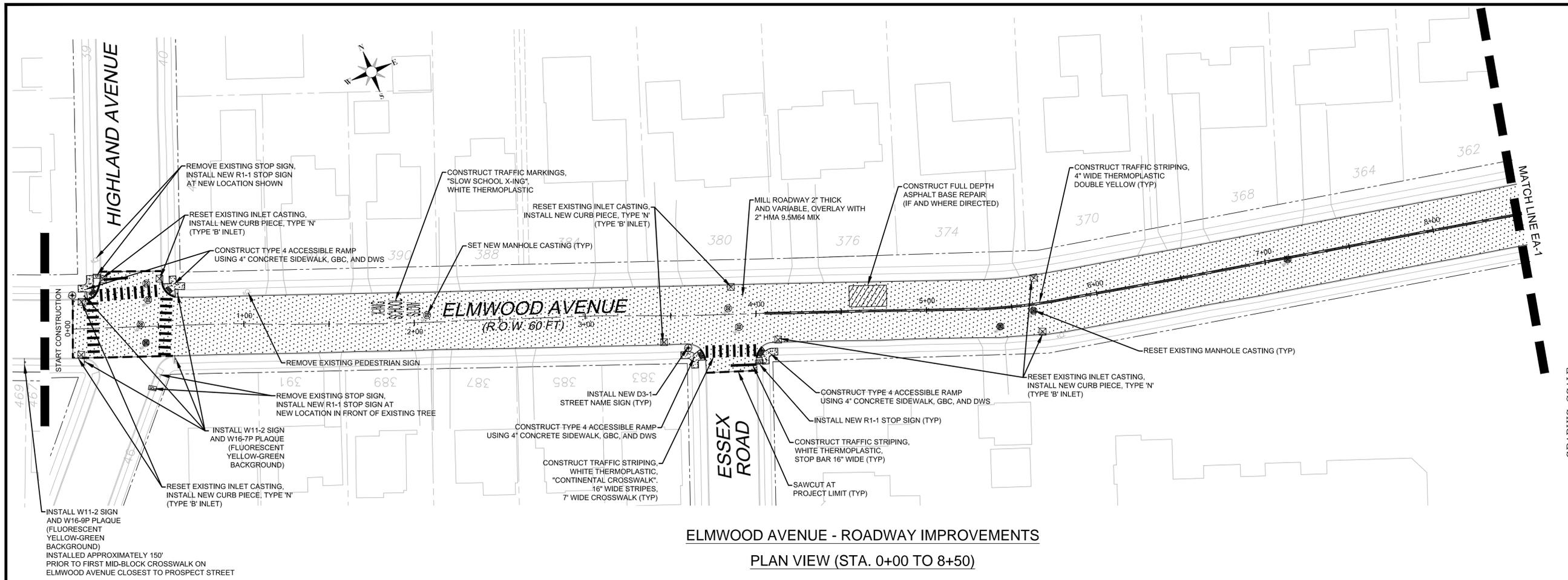
FY 2016 CAPITAL ROADWAY IMPROVEMENTS
VARIOUS LOCATIONS
QUANTITIES AND GENERAL NOTES

Job No. 2016-003
Scale: AS SHOWN

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| Drawn ADG | Designed ADG/PJK |
| Checked ADG/PJK | Released PJK |
| Date 9/22/16 | Drawer # TBD |

SHEET No. **3**
OF 15





| NO. | DATE | REVISION | DRAWN | CHK'D | REL'D |
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 ESSEX COUNTY
 NEW JERSEY

Drawing Path: K:\Projects\Projects\Road Programs\2016 Capital Capital Roadway\2016

FY 2016 CAPITAL ROADWAY
 IMPROVEMENTS
 ELMWOOD AVENUE
 CONSTRUCTION PLAN SHEET

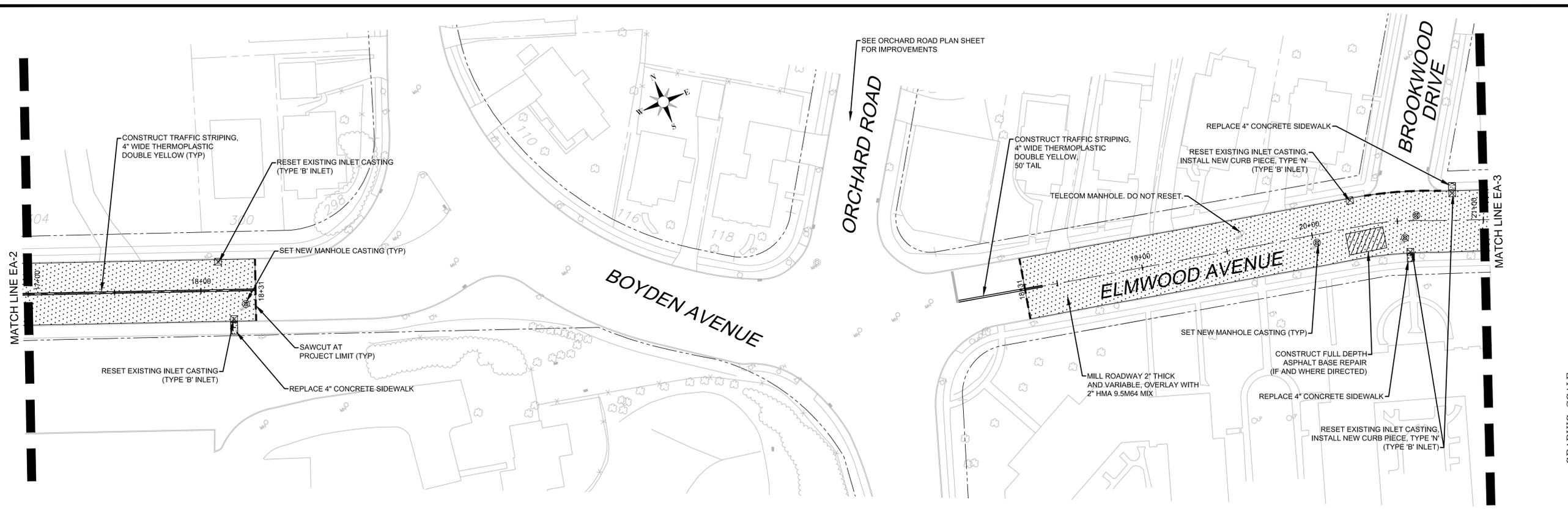
Job No. 2016-003
 Scale: 1" = 30'

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| Drawn ADG | Designed ADG/PJK |
| Checked ADG/PJK | Released PJK |
| Date 9/22/16 | Drawer # TBD |

SHEET No. 4
 OF 15

NOTE:
 REFERENCE:
 1. TOPOGRAPHIC AND PHYSICAL FEATURE INFORMATION TAKEN FROM TOPOGRAPHIC MAPPING
 2. PROPERTY LINES AND RIGHT-OF-WAY LINES TAKEN FROM TOWNSHIP TAX MAPS
 3. PHYSICAL FEATURE INFORMATION SUPPLEMENTED BY FIELD INVESTIGATIONS.





ELMWOOD AVENUE - ROADWAY IMPROVEMENTS
 PLAN VIEW (STA. 17+00 TO 21+00)

GRAPHIC SCALE
 (IN FEET)
 1 inch = 30 ft

| NO. | DATE | REVISION | DRAWN | CHK'D | REL'D |
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ENGINEERING DEPARTMENT
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 ESSEX COUNTY
 NEW JERSEY

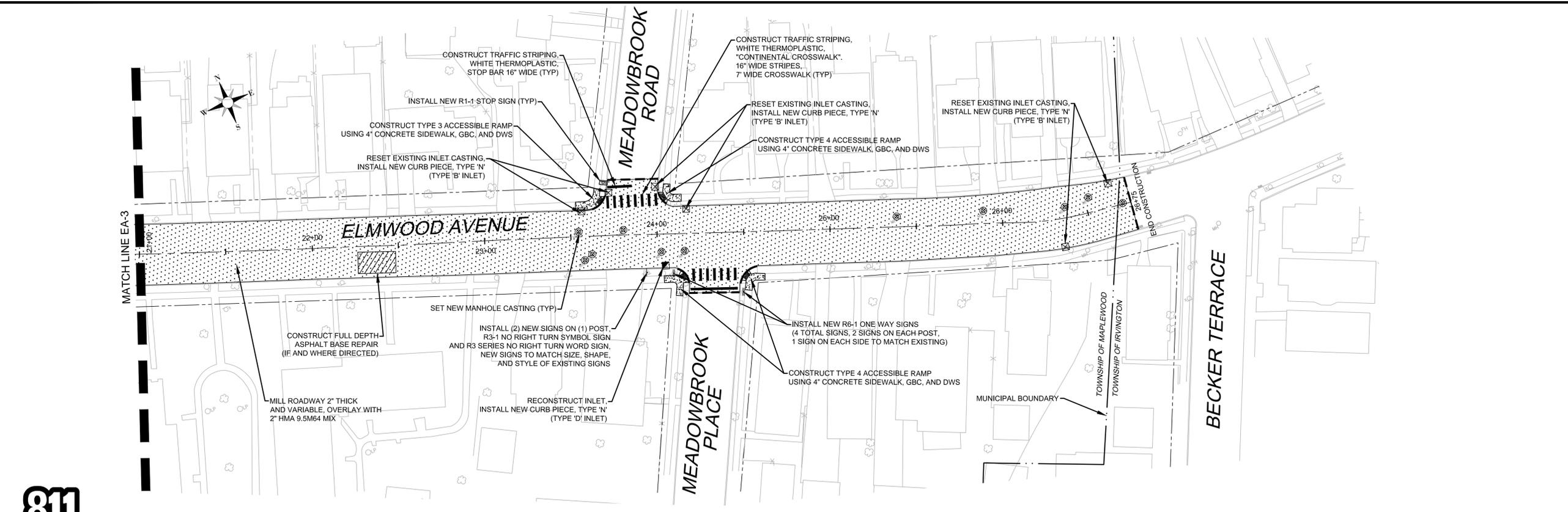
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 2016

FY 2016 CAPITAL ROADWAY
 IMPROVEMENTS
 ELMWOOD AVENUE
 CONSTRUCTION PLAN SHEET

Job No. 2016-003
 Scale: 1" = 30'

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| Checked ADG/PJK | Released PJK |
| Date 9/22/16 | Drawer # TBD |

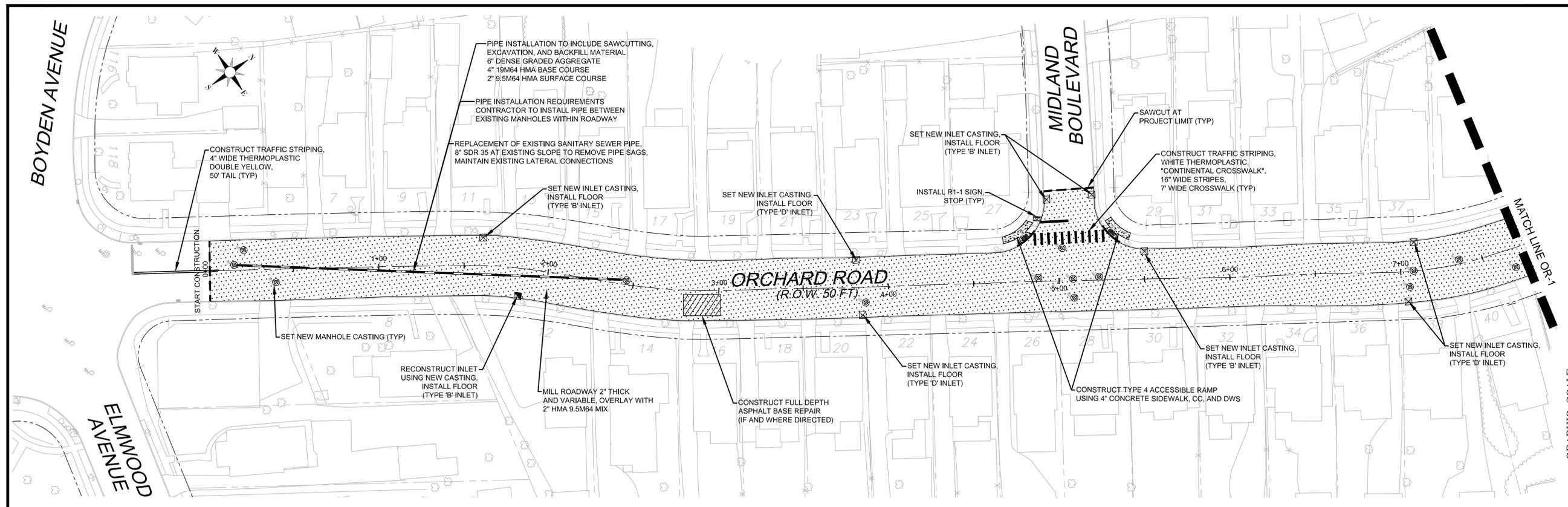
SHEET No. 5
 OF 15



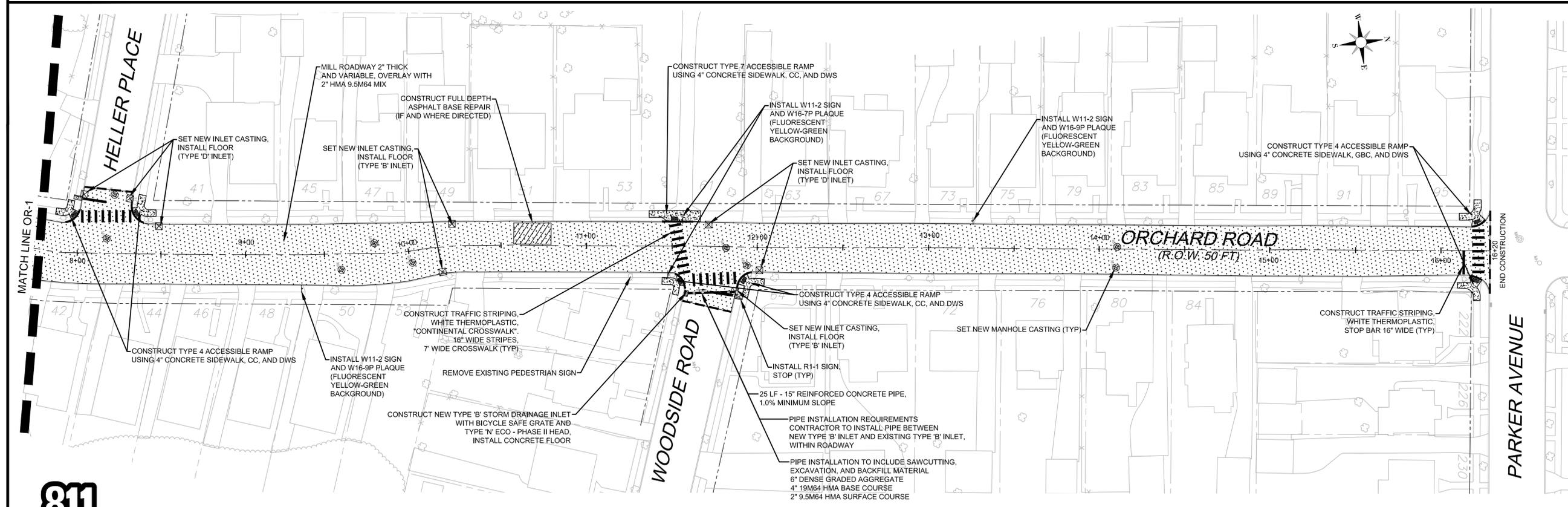
ELMWOOD AVENUE - ROADWAY IMPROVEMENTS
 PLAN VIEW (STA. 21+00 TO 26+75)

NOTE:
 REFERENCE:
 1. TOPOGRAPHIC AND PHYSICAL FEATURE INFORMATION TAKEN FROM TOPOGRAPHIC MAPPING
 2. PROPERTY LINES AND RIGHT-OF-WAY LINES TAKEN FROM TOWNSHIP TAX MAPS
 3. PHYSICAL FEATURE INFORMATION SUPPLEMENTED BY FIELD INVESTIGATIONS.





ORCHARD ROAD - ROADWAY IMPROVEMENTS
 PLAN VIEW (STA. 0+00 TO 7+75)



ORCHARD ROAD - ROADWAY IMPROVEMENTS
 PLAN VIEW (STA. 7+75 TO 16+20)

| NO. | DATE | REVISION | DRAWN | CHK'D | REL'D |
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GRAPHIC SCALE
 (IN FEET)
 1 inch = 30 ft

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 ESSEX COUNTY
 NEW JERSEY

Drawing Path: K:\Projects\Projects\Roadway\Programs\2016\Capital Roadway\Capital Roadway.dwg
 2016

FY 2016 CAPITAL ROADWAY
 IMPROVEMENTS
 ORCHARD ROAD
 CONSTRUCTION PLAN SHEET

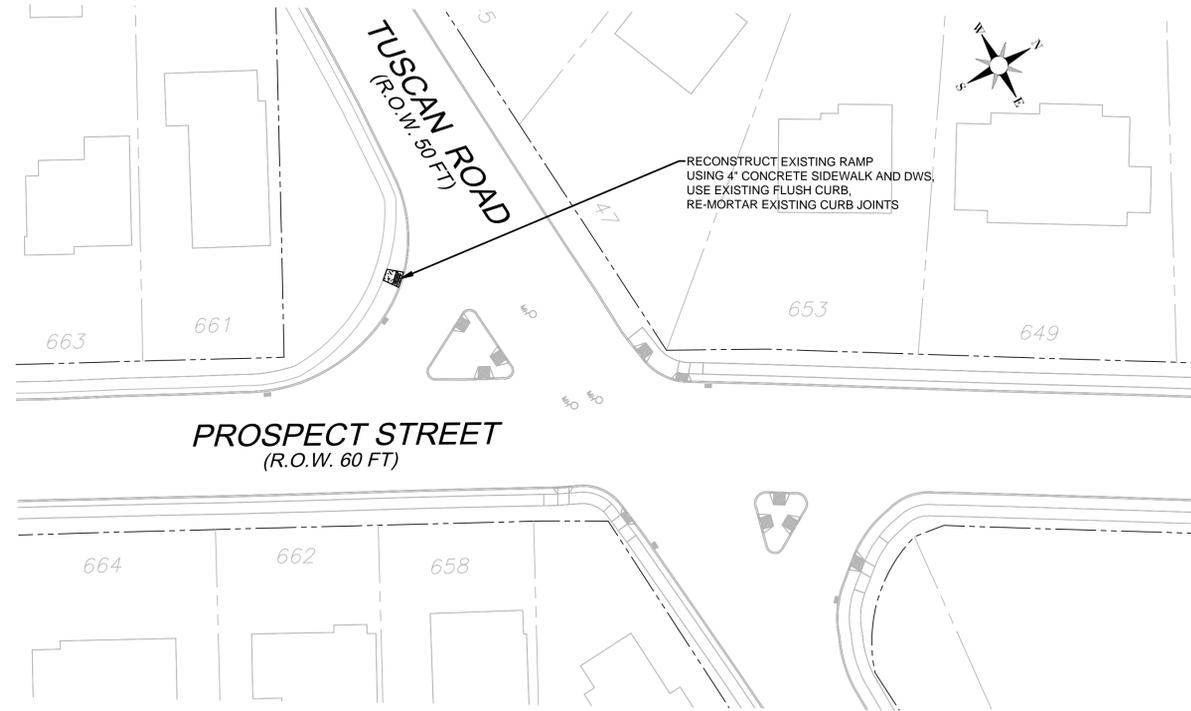
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 Scale: 1" = 30'

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| Drawn ADG | Designed ADG/PJK |
| Checked ADG/PJK | Released PJK |
| Date 9/22/16 | Drawer # TBD |

SHEET No. 6
 OF 15

NOTE:
 REFERENCE:
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 2. PROPERTY LINES AND RIGHT-OF-WAY LINES TAKEN FROM TOWNSHIP TAX MAPS
 3. PHYSICAL FEATURE INFORMATION SUPPLEMENTED BY FIELD INVESTIGATIONS.



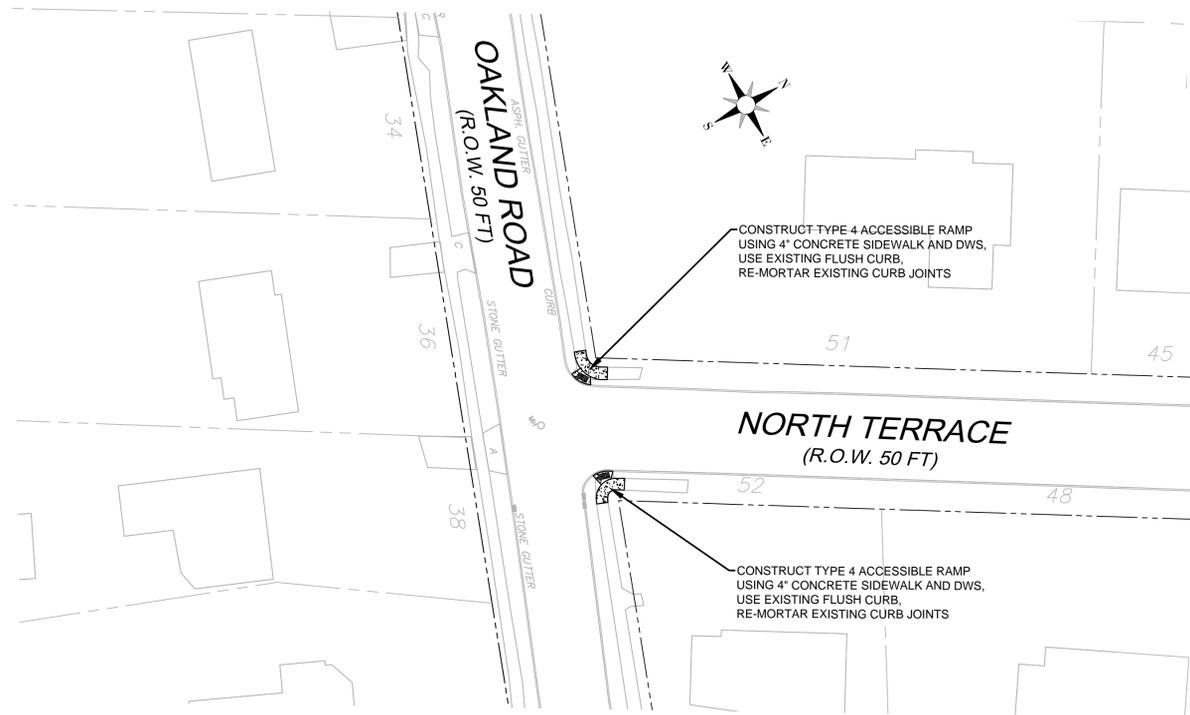


TUSCAN ROAD
(R.O.W. 50 FT)

PROSPECT STREET
(R.O.W. 60 FT)

TUSCAN ROAD & PROSPECT STREET - SIDEWALK IMPROVEMENTS

PLAN VIEW

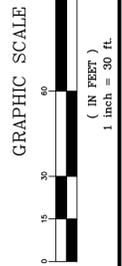


OAKLAND ROAD
(R.O.W. 50 FT)

NORTH TERRACE
(R.O.W. 50 FT)

OAKLAND ROAD & NORTH TERRACE - SIDEWALK IMPROVEMENTS

PLAN VIEW



| NO. | DATE | REVISION | DRAWN | CHK'D | REL'D |
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NEW JERSEY

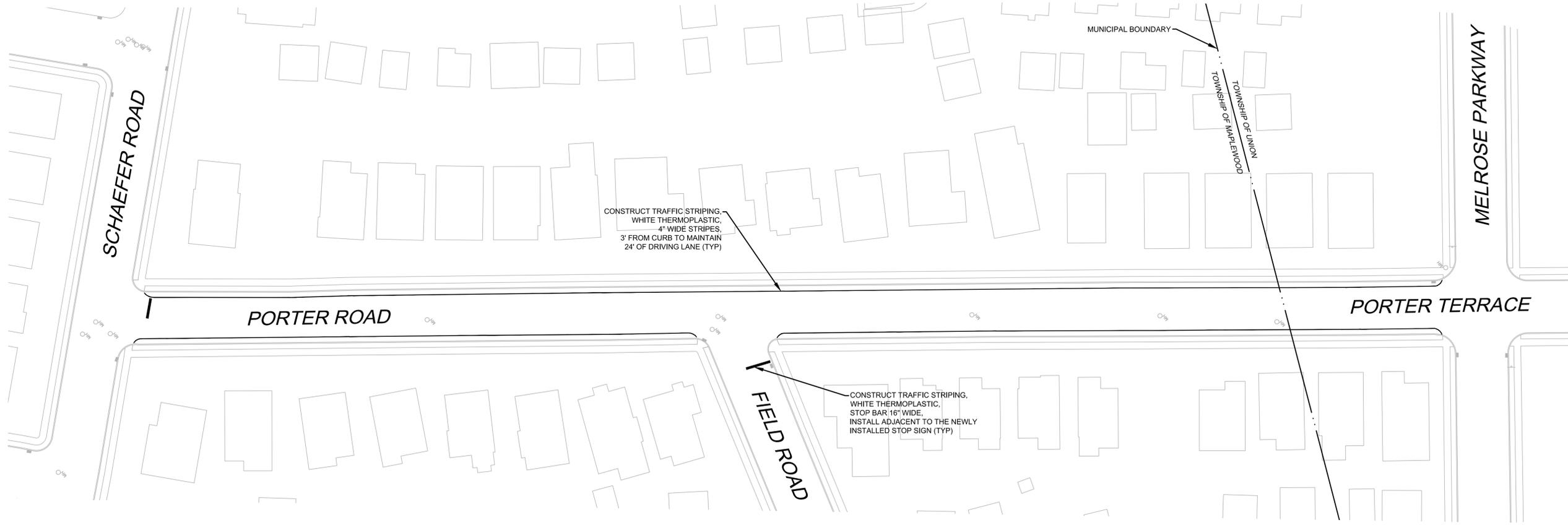
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2016

FY 2016 CAPITAL ROADWAY IMPROVEMENTS
SIDEWALK AT VARIOUS LOCATIONS
CONSTRUCTION PLAN SHEET

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| Job No. | 2016-003 |
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| Designed | ADG/PJK |
| Checked | ADG/PJK |
| Released | PJK |
| Date | 9/22/16 |
| Drawer # | TBD |
| SHEET No. | 7 |
| OF 15 | |

NOTE:
REFERENCE:
1. TOPOGRAPHIC AND PHYSICAL FEATURE INFORMATION TAKEN FROM TOPOGRAPHIC MAPPING
2. PROPERTY LINES AND RIGHT-OF-WAY LINES TAKEN FROM TOWNSHIP TAX MAPS.
3. PHYSICAL FEATURE INFORMATION SUPPLEMENTED BY FIELD INVESTIGATIONS.





**PORTER ROAD - STRIPING IMPROVEMENTS
PLAN VIEW**

| NO. | DATE | REVISION | DRAWN | CHK'D | REL'D |
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ENGINEERING DEPARTMENT
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 ESSEX COUNTY
 NEW JERSEY
Drawing Path: \\Projects\Projects\Road
 Program\2016 Capital
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 Capital Roadway.dwg

**FY 2016 CAPITAL ROADWAY
 IMPROVEMENTS
 PORTER ROAD
 CONSTRUCTION PLAN SHEET**

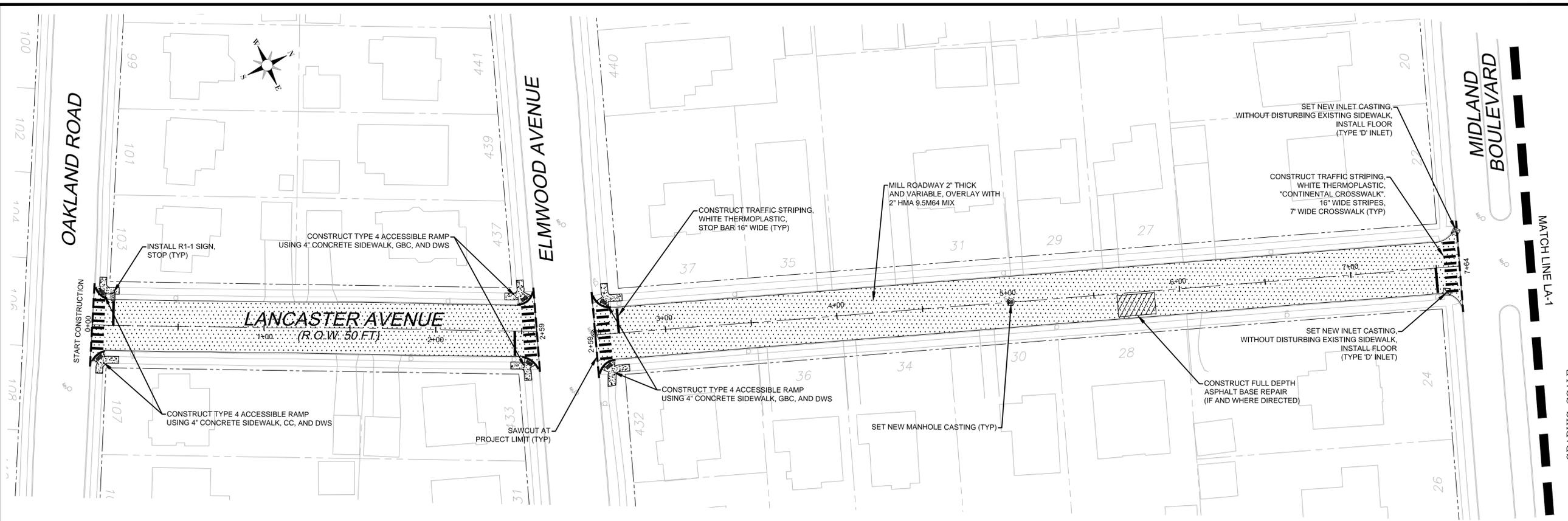


NOTE:

REFERENCE:
 1. TOPOGRAPHIC AND PHYSICAL FEATURE INFORMATION TAKEN FROM TOPOGRAPHIC MAPPING
 2. PROPERTY LINES AND RIGHT-OF-WAY LINES TAKEN FROM TOWNSHIP TAX MAPS
 3. PHYSICAL FEATURE INFORMATION SUPPLEMENTED BY FIELD INVESTIGATIONS.

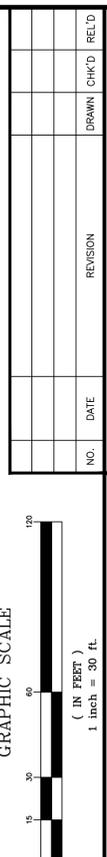
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| Job No. | 2016-003 |
| Scale: | 1" = 30' |
| Drawn ADG | Designed ADG/PJK |
| Checked ADG/PJK | Released PJK |
| Date 9/22/16 | Drawer # TBD |
| SHEET No. | 8 |
| OF 15 | |





LANCASTER AVENUE - ROADWAY IMPROVEMENTS

PLAN VIEW (STA. 0+00 TO 7+64)



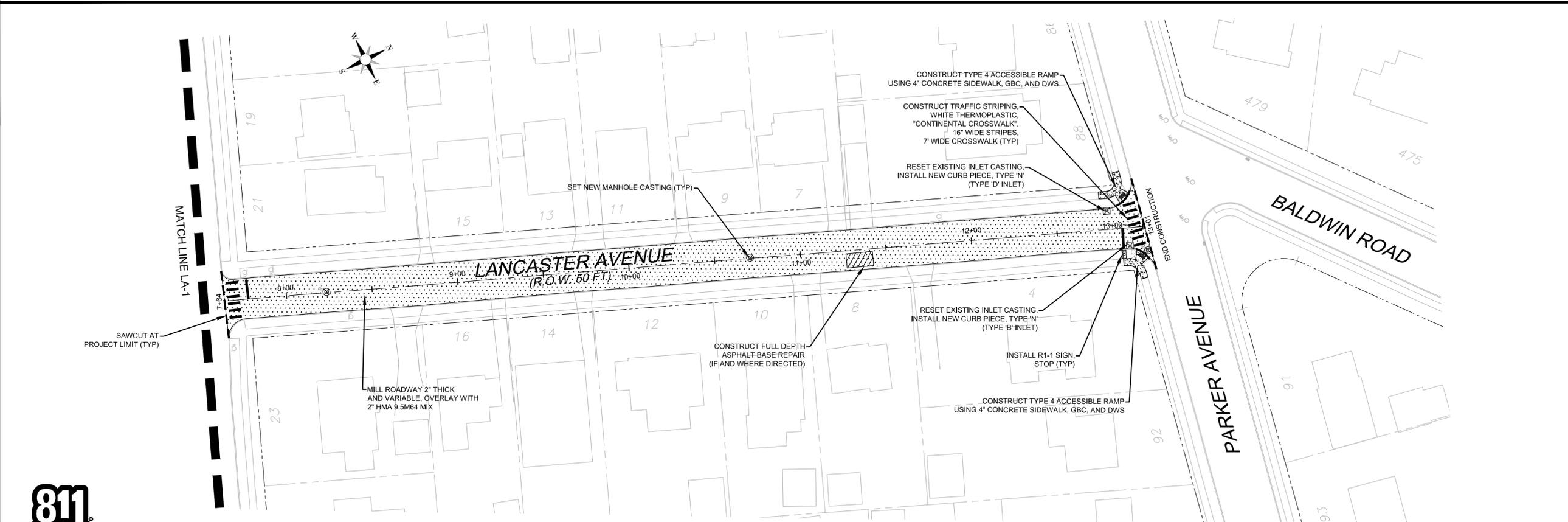
TOWNSHIP of MAPLEWOOD
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ENGINEERING DEPARTMENT
 TOWNSHIP OF MAPLEWOOD
 ESSEX COUNTY
 NEW JERSEY

Drawing Path: K:\Projects\Projects\Roadway\Programs\2016\Capital Roadway\Drawings\2016\Capital Roadway.dwg

FY 2016 CAPITAL ROADWAY
 IMPROVEMENTS
 ALTERNATE A - LANCASTER AVENUE
 CONSTRUCTION PLAN SHEET



LANCASTER AVENUE - ROADWAY IMPROVEMENTS

PLAN VIEW (STA. 7+64 TO 13+01)

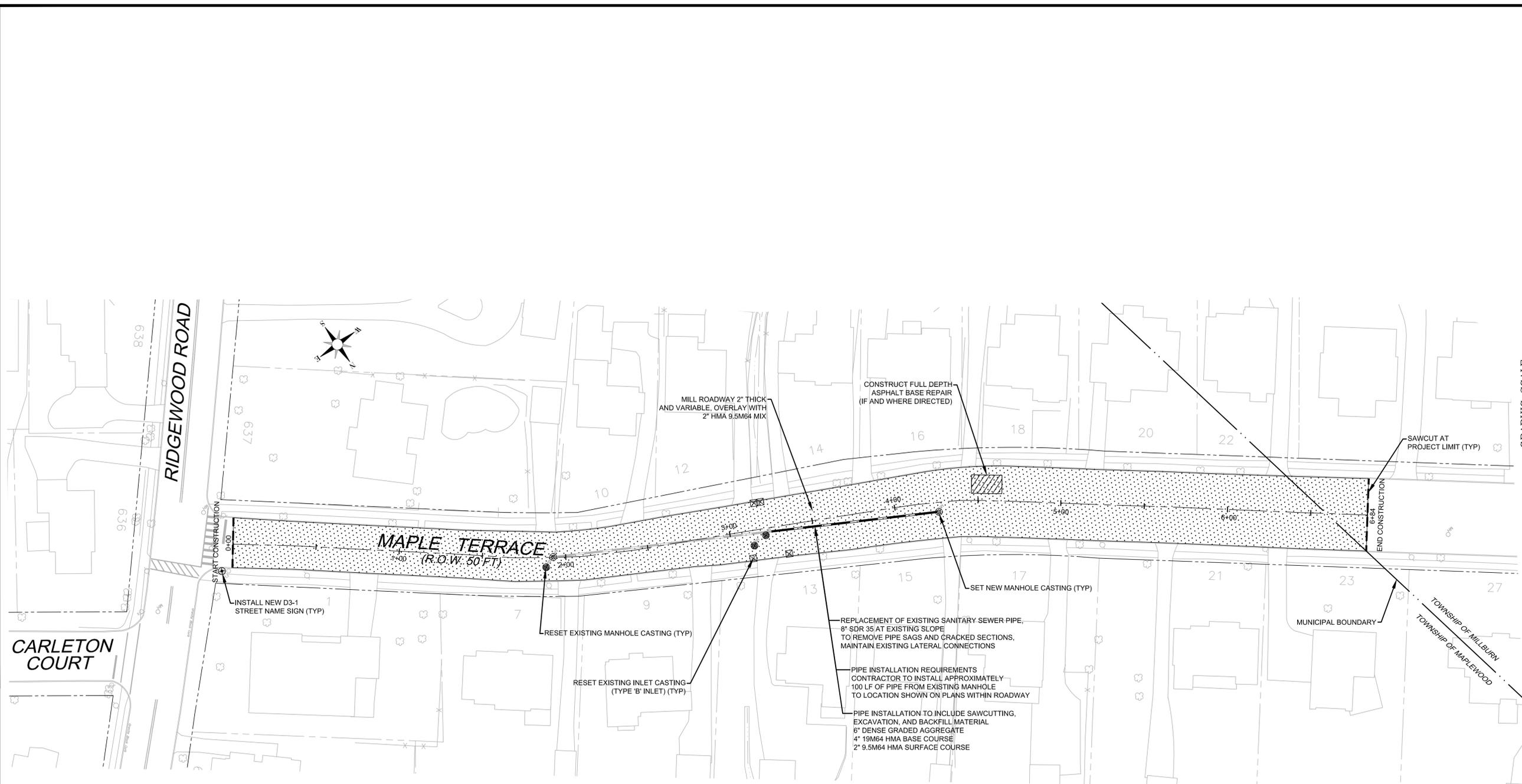
NOTE:
 REFERENCE:
 1. TOPOGRAPHIC AND PHYSICAL FEATURE INFORMATION TAKEN FROM TOPOGRAPHIC MAPPING
 2. PROPERTY LINES AND RIGHT-OF-WAY LINES TAKEN FROM TOWNSHIP TAX MAPS
 3. PHYSICAL FEATURE INFORMATION SUPPLEMENTED BY FIELD INVESTIGATIONS.

Job No. 2016-003
 Scale: 1" = 30'

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| Drawn ADG | Designed ADG/PJK |
| Checked ADG/PJK | Released PJK |
| Date 9/22/16 | Drawer # TBD |

SHEET No. 9
 OF 15





MAPLE TERRACE - ROADWAY IMPROVEMENTS
 PLAN VIEW (STA. 0+00 TO 6+84)

| NO. | DATE | REVISION | DRAWN | CHK'D | REL'D |
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ENGINEERING DEPARTMENT
 TOWNSHIP OF MAPLEWOOD
 ESSEX COUNTY
 NEW JERSEY

Drawing Path: \\Projects\Projects\Roadway\Programs\2016\Capital Roadway\Capital Roadway.dwg
 Program: 2016 Capital Roadway.dwg - 2016

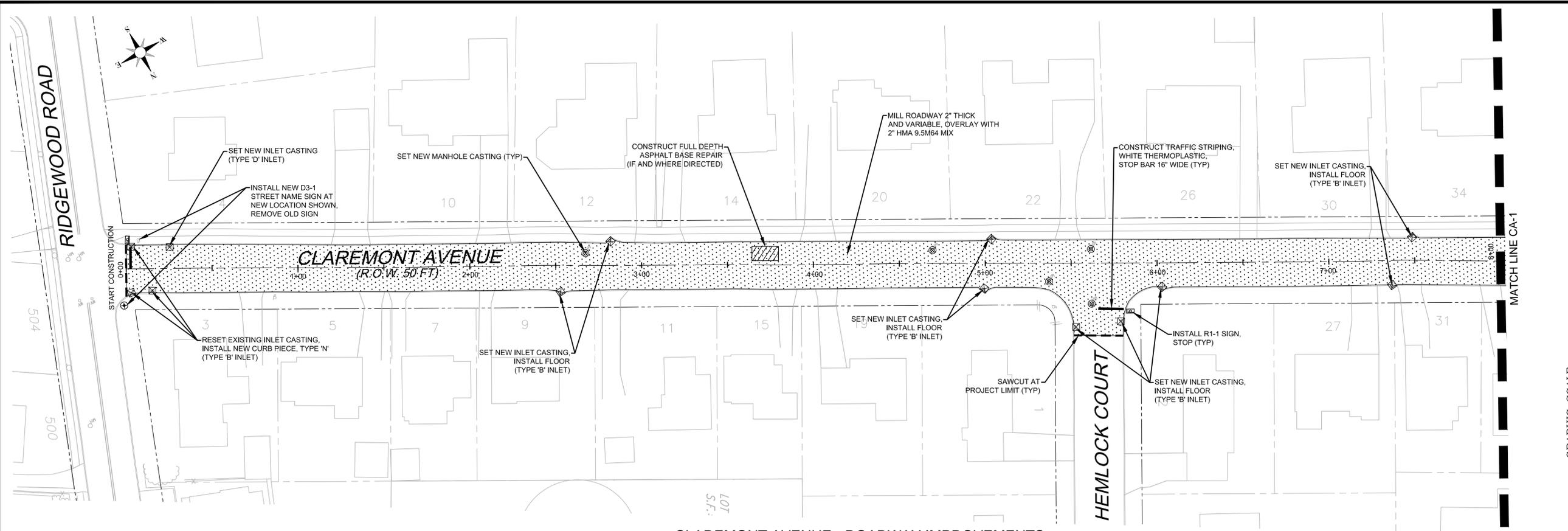
FY 2016 CAPITAL ROADWAY
 IMPROVEMENTS
 ALTERNATE B - MAPLE TERRACE
 CONSTRUCTION PLAN SHEET

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| Scale: | 1" = 30' |
| Drawn | ADG |
| Designed | ADG/PJK |
| Checked | ADG/PJK |
| Released | PJK |
| Date | 9/22/16 |
| Drawer # | TBD |
| SHEET No. | 10 |
| OF 15 | |

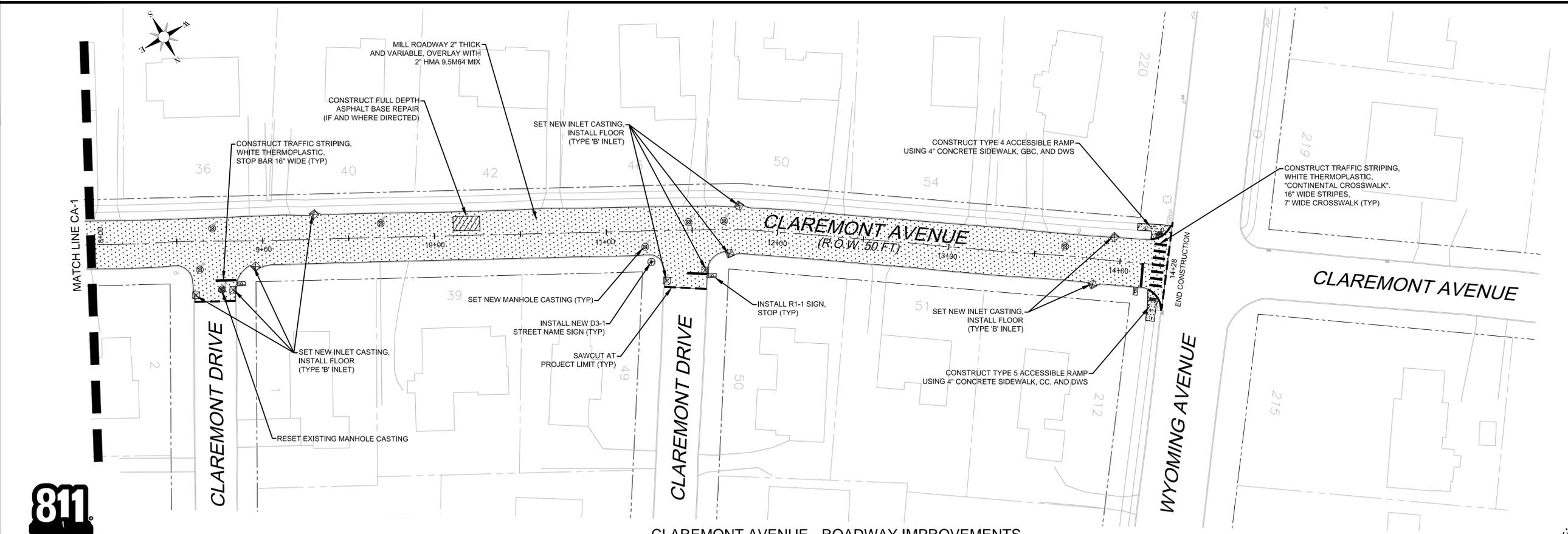


NOTE:
 REFERENCE:
 1. TOPOGRAPHIC AND PHYSICAL FEATURE INFORMATION TAKEN FROM TOPOGRAPHIC MAPPING
 2. PROPERTY LINES AND RIGHT-OF-WAY LINES TAKEN FROM TOWNSHIP TAX MAPS
 3. PHYSICAL FEATURE INFORMATION SUPPLEMENTED BY FIELD INVESTIGATIONS.





CLAREMONT AVENUE - ROADWAY IMPROVEMENTS
 PLAN VIEW (STA. 0+00 TO 8+00)



CLAREMONT AVENUE - ROADWAY IMPROVEMENTS
 PLAN VIEW (STA. 8+00 TO 14+28)



| NO. | DATE | REVISION | DRAWN | CHK'D | REL'D |
|-----|------|----------|-------|-------|-------|
| | | | | | |

TOWNSHIP of MAPLEWOOD
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 ENGINEER@TWP.MAPLEWOOD.NJ.US

PAUL J. KITTNER, JR.
 NEW JERSEY PROFESSIONAL ENGINEER
 LIC. NO. 24GE04250500

ENGINEERING DEPARTMENT
 TOWNSHIP OF MAPLEWOOD
 ESSEX COUNTY
 NEW JERSEY

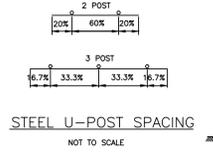
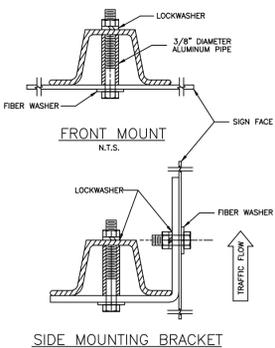
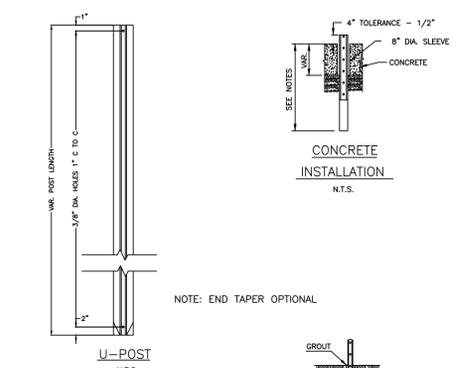
Drawing Path: K:\Projects\Projects\Roadway\Program\2016\Capital Roadway\Capital Roadway.dwg
 2016-003

FY 2016 CAPITAL ROADWAY
 IMPROVEMENTS
 ALTERNATE C - CLAREMONT AVENUE
 CONSTRUCTION PLAN SHEET

| | |
|-----------|----------|
| Job No. | 2016-003 |
| Scale: | 1" = 30' |
| Drawn | ADG |
| Designed | ADG/PJK |
| Checked | ADG/PJK |
| Released | PJK |
| Date | 9/22/16 |
| Drawer # | TBD |
| SHEET No. | 11 |
| OF 15 | |

NOTE:
 REFERENCE:
 1. TOPOGRAPHIC AND PHYSICAL FEATURE INFORMATION TAKEN FROM TOPOGRAPHIC MAPPING
 2. PROPERTY LINES AND RIGHT-OF-WAY LINES TAKEN FROM TOWNSHIP TAX MAPS
 3. PHYSICAL FEATURE INFORMATION SUPPLEMENTED BY FIELD INVESTIGATIONS.

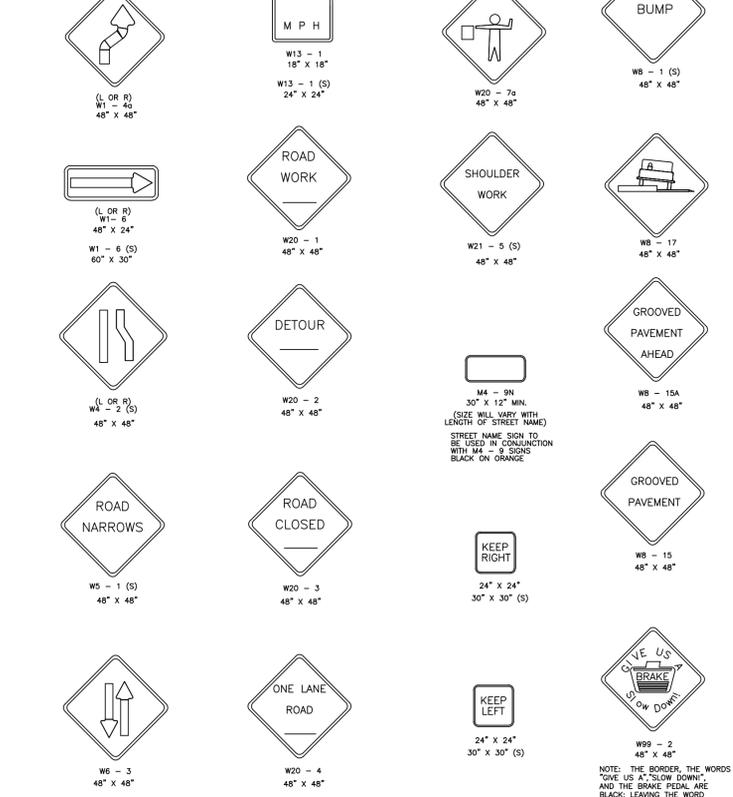
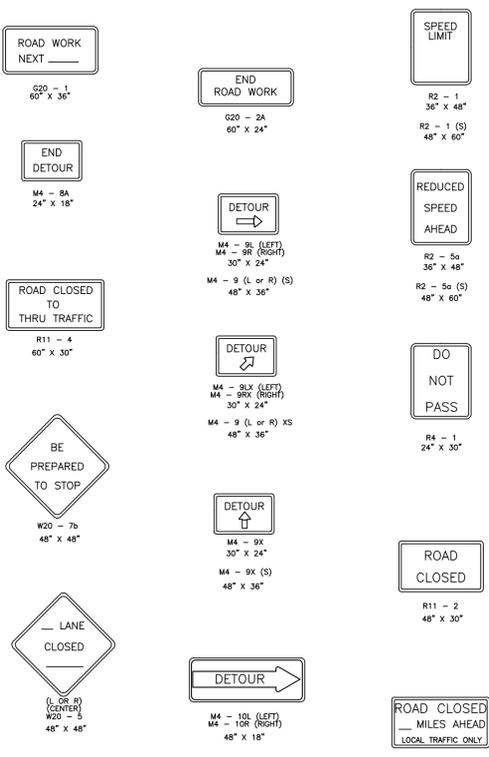
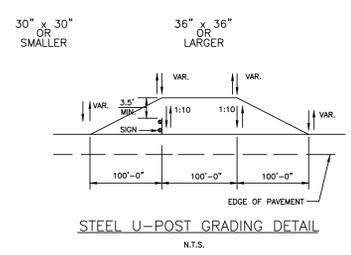




| SIGN PANEL SIZE | LEGEND CODE | SIGN PANEL SIZE | LEGEND CODE |
|-----------------|-------------|-----------------|-------------|
| 18 X 18 | A | 36 X 36 | C |
| 18 X 24 | A | 36 X 48 | C |
| 24 X 24 | A | 48 X 24 | C |
| 24 X 30 | A | 48 X 36 | C |
| 24 X 36 | A | 48 X 48 | C |
| 30 X 24 | A | 48 X 36 | D |
| 30 X 30 | A | 48 X 48 | D |
| 36 X 12 | C | 60 X 36 | D |
| 36 X 36 X 36 | C | 48 X 60 | D |
| 30 X 36 | B | 60 X 30 | D |

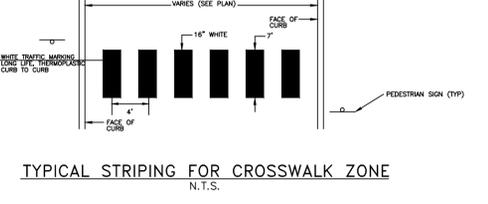
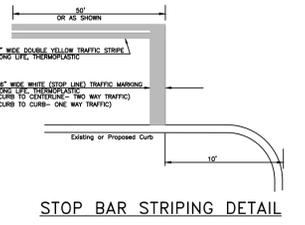
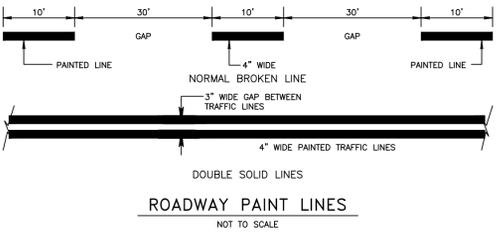
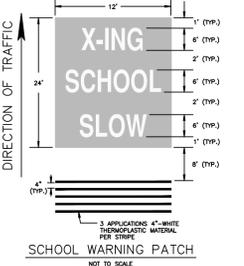
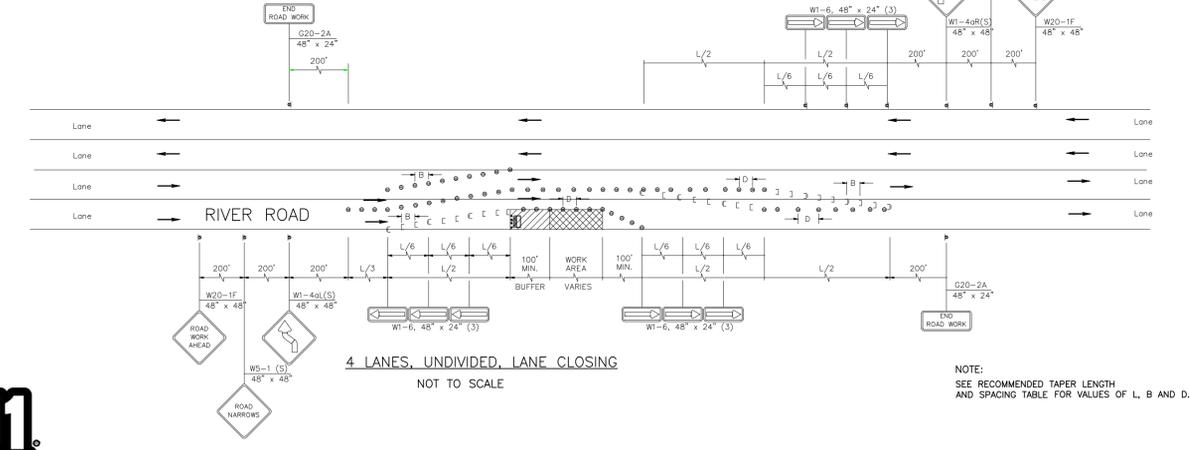
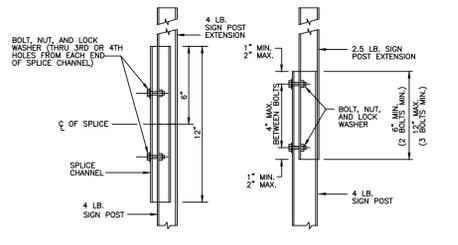
| LEGEND CODE | NO. POSTS | WEIGHT LBS/FT. | MATERIAL |
|-------------|-----------|----------------|--------------------------|
| A | 1 | 2.5 | 1 PIECE OR 2 PIECE STEEL |
| B | 1 | 4.0 | 2 PIECE STEEL |
| C | 2 | 2.5 | 2 PIECE STEEL |
| D | 2 | 4.0 | 2 PIECE STEEL |

POST SELECTION TABLE
BREAKAWAY SIGN SUPPORT



GENERAL NOTES:

- ALL POSTS SHALL BE OF ADEQUATE LENGTH TO MEET THE REQUIREMENTS FOR ERECTION AS STATED IN THE CURRENT MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS.
- TWO PIECE STEEL U-POSTS SHALL BE EMBEDDED 3"-8" MINIMUM ON PIECE STEEL U-POSTS SHALL BE EMBEDDED ONE METER MAXIMUM.
- ALL STEEL POSTS AND BRACKETS SHALL BE CUT, BENT AND HOLES PUNCHED AND DRILLED BEFORE GALVANIZING. GALVANIZING SHALL BE IN CONFORMANCE WITH CURRENT ASTM A123.
- POSTS MAY BE STEEL OR 2 PIECE STEEL U-POST IN CONFORMANCE WITH THE NOTES BELOW.
- SIGN PANEL SIZES SHALL DETERMINE POST TYPE AND NUMBER AS SHOWN ON THIS DETAIL.
- BOLTS SHALL NOT PROTRUDE MORE THAN 3/4" BEYOND THE NUT WHEN TIGHT BUT SHALL ENGAGE ALL THREADS IN THE NUT.
- THE MINIMUM VERTICAL CLEARANCE REQUIREMENTS FOR SIGNS ARE: EDGE OF PAVEMENT TO BOTTOM OF SIGN SHALL BE IN ACCORDANCE WITH THE CURRENT MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS. GROUNDLINE TO BOTTOM OF SIGN SHALL BE 7 FEET MINIMUM. FOR SINGLE POST INSTALLATIONS, THE MINIMUM DISTANCE FROM GROUNDLINE TO THE TOP OF SIGN MUST BE 9 FEET.
- PERMANENT SIGN SUPPORTS SHALL NOT BE INSTALLED ON SLOPES GREATER THAN 10:1, UNLESS BEHIND A TRAFFIC BARRIER, AND THE SLOPE SHALL EXTEND A MINIMUM OF 3'-0" BEYOND THE OUTSIDE EDGE OF SIGN (SEE GRADING DETAIL FOR SLOPE TREATMENT).
- EXTRUDED ALUMINUM SIGN PANELS ARE NOT PERMITTED FOR USE WITH U-POST SIGN SUPPORTS.
- U-POST SIGN SUPPORTS SHALL NOT BE PLACED IN FRONT OF GUIDE RAIL AND THE POSTS MUST NOT STRADDLE GUIDE RAIL.
- TO EXTEND THE HEIGHT OF A SIGN POST, A MAXIMUM OF ONE SPLICE MAY BE MADE AND MUST BE A MINIMUM OF 9 FEET FROM THE GROUNDLINE TO CENTERLINE OF SPLICE.



| NO. | DATE | REVISION | DRAWN | CHK'D | RELD |
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ENGINEERING DEPARTMENT
TOWNSHIP OF MAPLEWOOD
ESSEX COUNTY
NEW JERSEY

Drawing Path: K:\Projects\Professionals\Roads\Plan\CA\Drawings - 2016 Capital Roads.dwg

FY 2016 CAPITAL ROADWAY IMPROVEMENTS
VARIOUS LOCATIONS
TRAFFIC CONTROL DETAILS

Job No. 2016-003

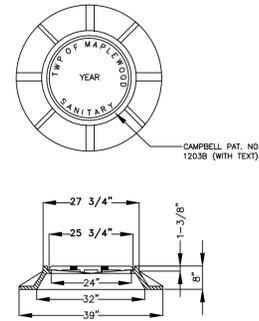
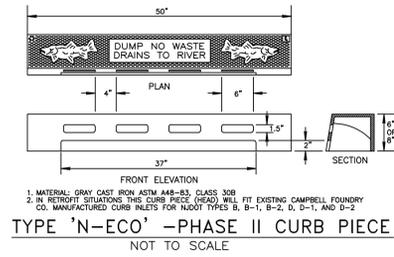
Scale: AS SHOWN

| | |
|--------------------|---------------------|
| Drawn ADG | Designed ADG/PJK |
| Checked ADG/PJK | Released PJK |
| Date 9/22/16 | Drawer # TBD |

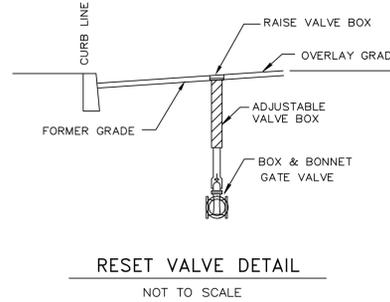
SHEET No. 12

OF 15

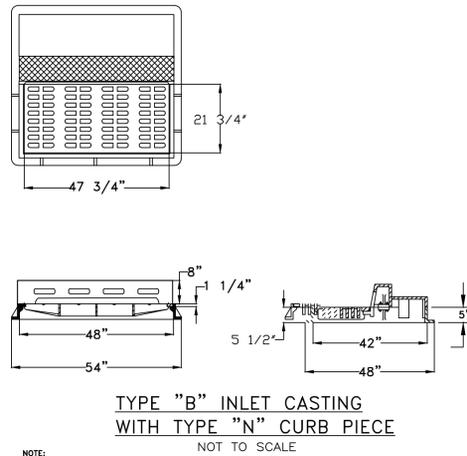
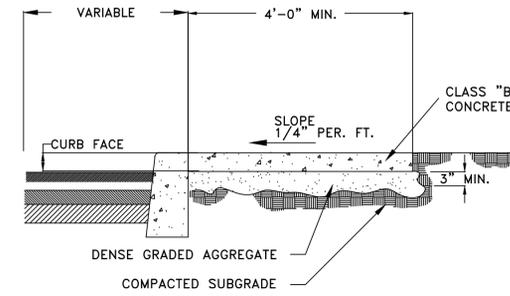




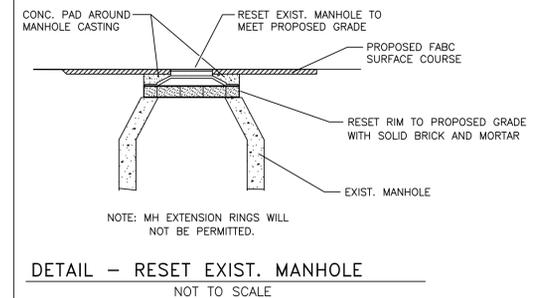
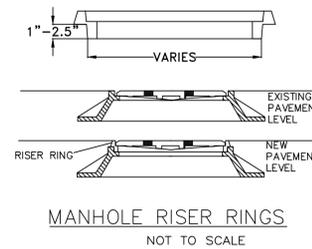
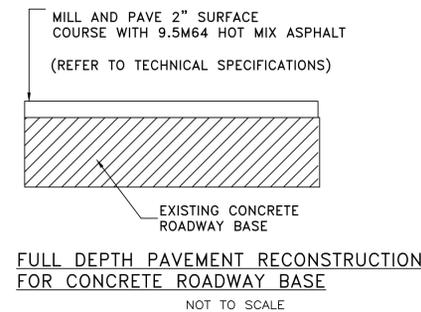
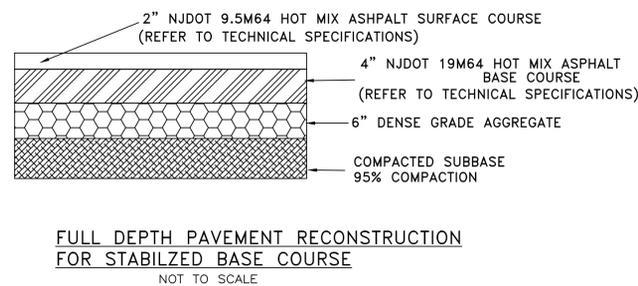
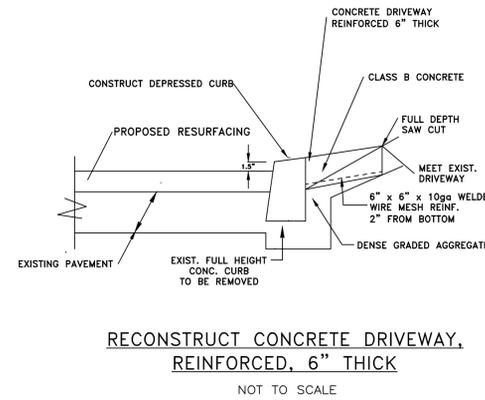
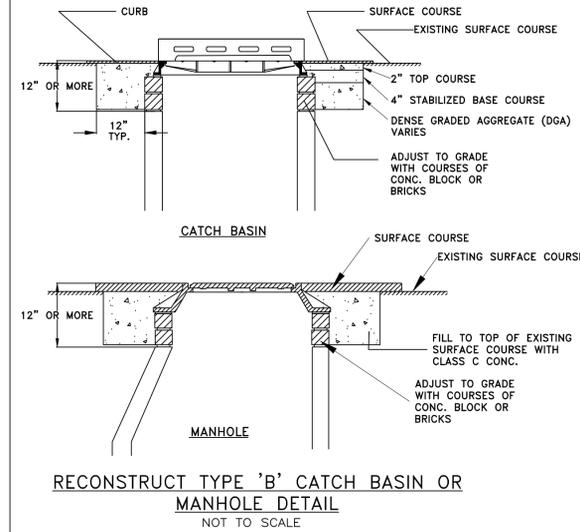
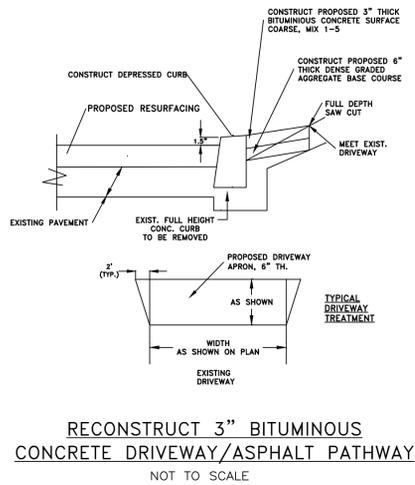
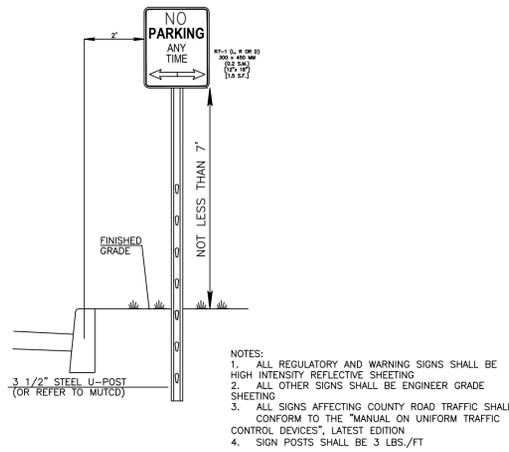
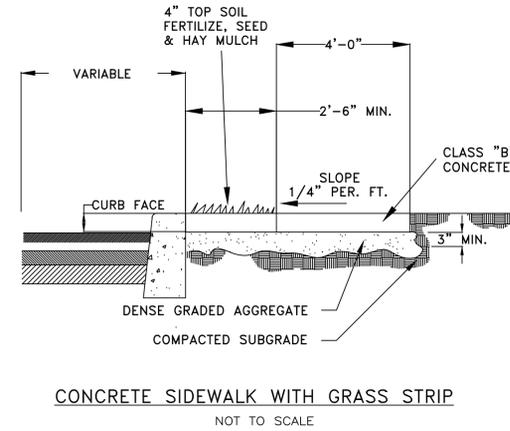
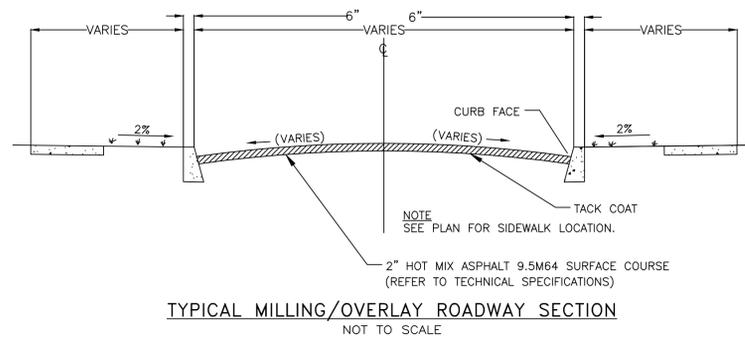
- NOTES:
1. MANHOLE FRAME AND COVER SHALL CONFORM TO CAMPBELL FOUNDRY PATTERN 12038 OR APPROVED EQUAL.
 2. ALL SANITARY SEWER MANHOLES SHALL HAVE NON-PENETRATING PICKHOLE TYPE COVERS.
 3. ALL SANITARY SEWER MANHOLES SHALL HAVE "FLO-SEAL" TYPE COVERS.
 4. "TWP OF MAPLEWOOD SANITARY" TO BE LABELED ON COVER WITH YEAR CONSTRUCTED



NOTE:
CONTRACTOR TO OBTAIN VALVE BOXES FROM NEW JERSEY AMERICAN WATER COMPANY (NJAWC)



NOTE:
1. CAMPBELL FOUNDRY NO. 2618 OR APPROVED EQUAL.
2. BICYCLE TYPE GRATE.



| NO. | DATE | REVISION | DRAWN | CHK'D | REL'D |
|-----|------|----------|-------|-------|-------|
| | | | | | |

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ENGINEER@TWP-MAPLEWOOD.NJ.US

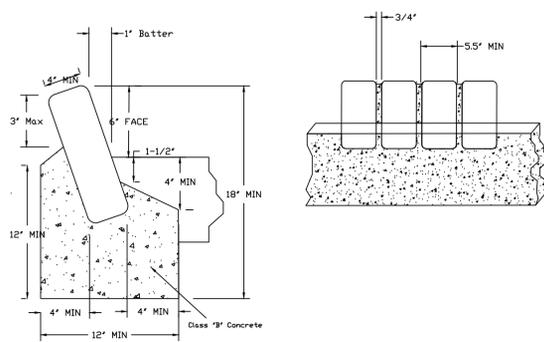
PAUL J. KITTNER, JR.
NEW JERSEY PROFESSIONAL ENGINEER
LIC. NO. 24GE04250500

ENGINEERING DEPARTMENT
TOWNSHIP OF MAPLEWOOD
ESSEX COUNTY
NEW JERSEY

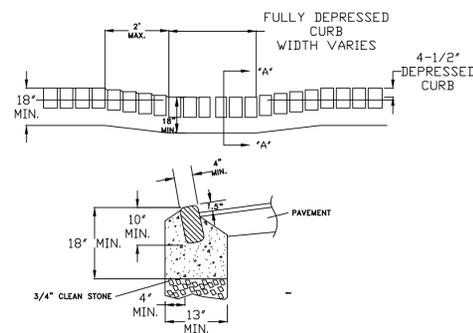
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FY 2016 CAPITAL ROADWAY IMPROVEMENTS
VARIOUS LOCATIONS
CONSTRUCTION DETAILS

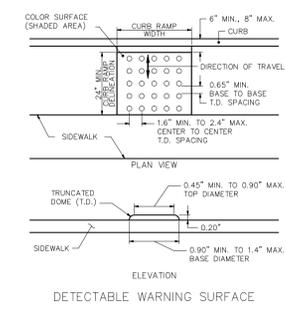
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| Job No. | 2016-003 |
| Scale: | AS SHOWN |
| Drawn | ADG |
| Designed | ADG/PJK |
| Checked | ADG/PJK |
| Released | PJK |
| Date | 9/22/16 |
| Drawer # | TBD |
| SHEET No. | 13 |
| OF 15 | |



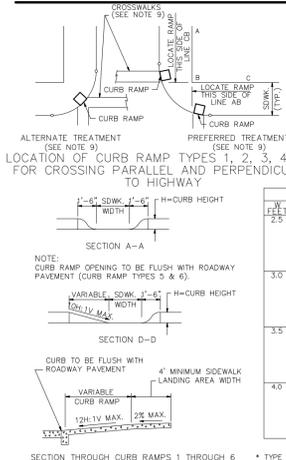
BELGIUM BLOCK CURB DETAIL



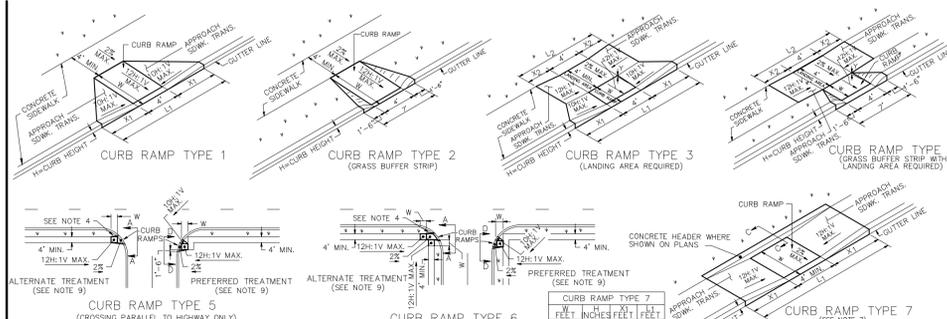
GRANITE BLOCK DEPRESSED CURB AT DRIVEWAYS



DETECTABLE WARNING SURFACE



LOCATION OF CURB RAMP TYPES 1, 2, 3, 4 & 7 FOR CROSSING PARALLEL AND PERPENDICULAR TO HIGHWAY



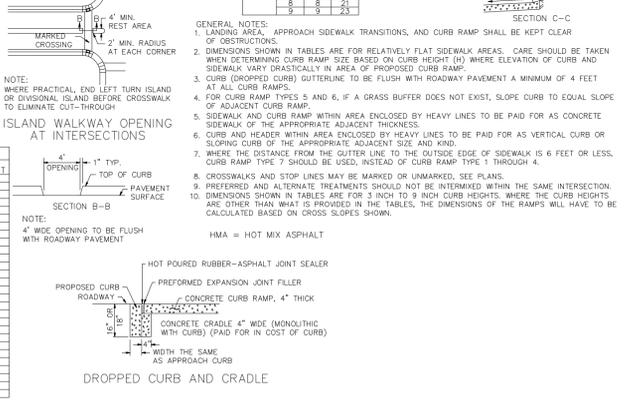
PUBLIC SIDEWALK CURB RAMP NOT TO SCALE

| CURB RAMP TYPE 1 | | CURB RAMP TYPE 2 | | CURB RAMP TYPE 3 | | CURB RAMP TYPE 4 | |
|------------------|-----|------------------|-----|------------------|-----|------------------|-----|
| W | H | W | H | W | H | W | H |
| 4 | 3.5 | 4 | 3.5 | 4 | 3.5 | 4 | 3.5 |
| 5 | 4.2 | 5 | 4.2 | 5 | 4.2 | 5 | 4.2 |
| 6 | 5.0 | 6 | 5.0 | 6 | 5.0 | 6 | 5.0 |
| 7 | 5.8 | 7 | 5.8 | 7 | 5.8 | 7 | 5.8 |
| 8 | 6.7 | 8 | 6.7 | 8 | 6.7 | 8 | 6.7 |
| 9 | 7.5 | 9 | 7.5 | 9 | 7.5 | 9 | 7.5 |

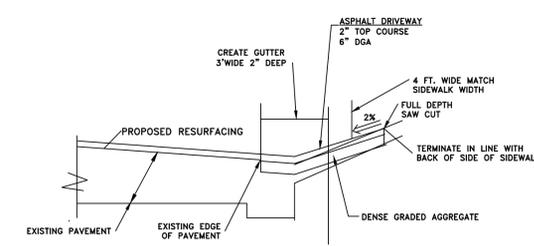
TYPE 3 RAMP IS NOT APPLICABLE, USE TYPE 1. TYPE 4 RAMP IS NOT APPLICABLE, USE TYPE 2.

| CURB RAMP TYPE 5 | | CURB RAMP TYPE 6 | | CURB RAMP TYPE 7 | |
|------------------|-----|------------------|-----|------------------|-----|
| W | H | W | H | W | H |
| 4 | 3.5 | 4 | 3.5 | 4 | 3.5 |
| 5 | 4.2 | 5 | 4.2 | 5 | 4.2 |
| 6 | 5.0 | 6 | 5.0 | 6 | 5.0 |
| 7 | 5.8 | 7 | 5.8 | 7 | 5.8 |
| 8 | 6.7 | 8 | 6.7 | 8 | 6.7 |
| 9 | 7.5 | 9 | 7.5 | 9 | 7.5 |

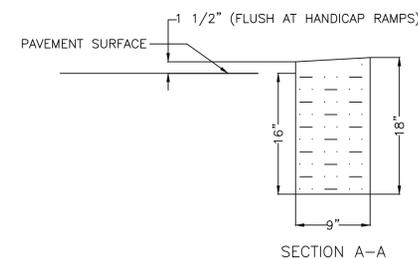
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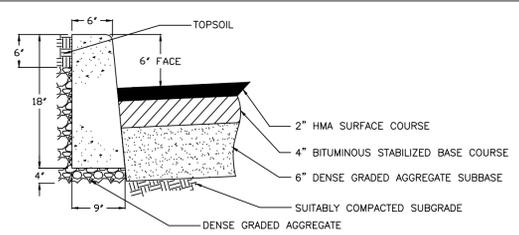
ISLAND WALKWAY OPENING AT INTERSECTIONS



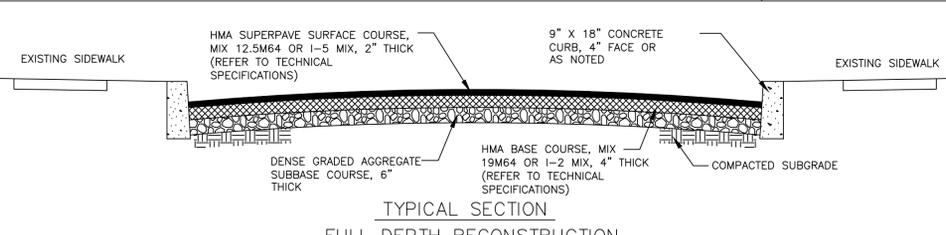
RECONSTRUCT ASPHALT W/O CURB, WITH GUTTER



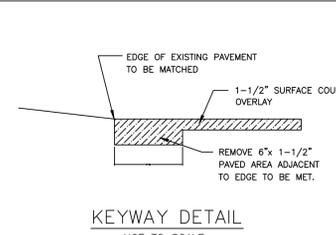
SECTION A-A



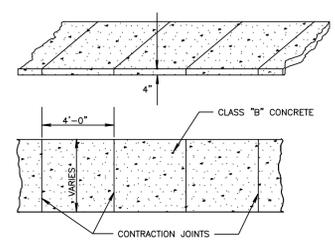
DETAIL: CONCRETE CURB & PAVEMENT SECTION (LOCAL STREETS) NOT TO SCALE



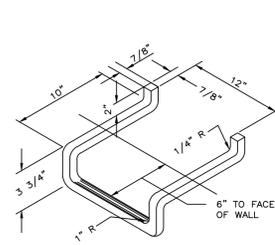
TYPICAL SECTION FULL DEPTH RECONSTRUCTION NOT TO SCALE



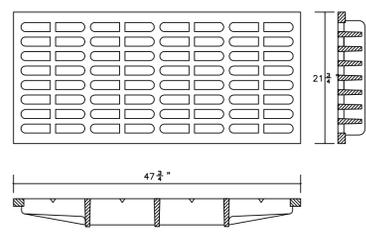
KEYWAY DETAIL NOT TO SCALE



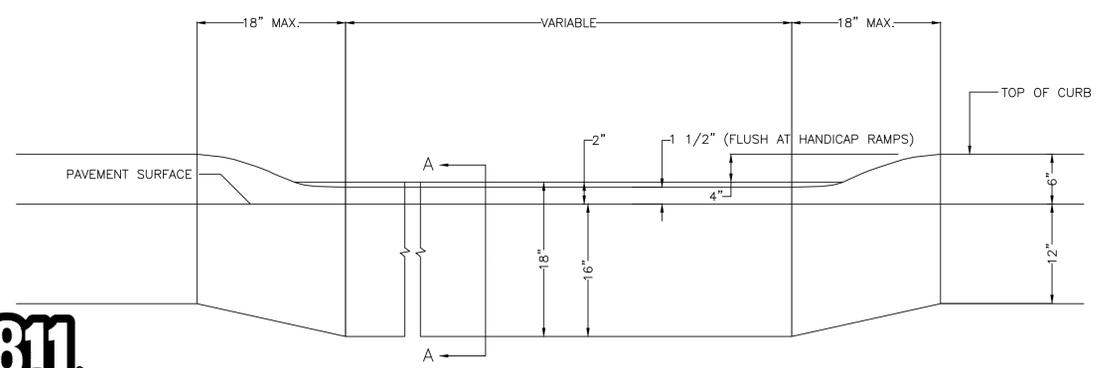
TYPICAL DETAIL CONCRETE SIDEWALK NOT TO SCALE



PLASTIC COATED STEEL MANHOLE STEPS NOT TO SCALE



DETAIL BICYCLE GRATE NOT TO SCALE



METHOD OF DEPRESSING CURB AT DRIVEWAYS NOT TO SCALE

811 Know what's below. Call before you dig.

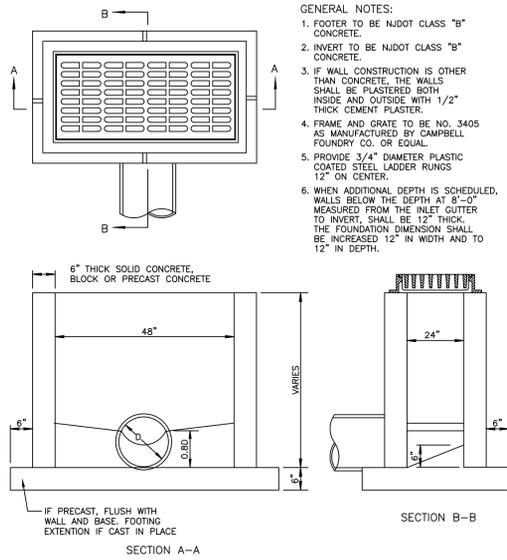
TOWNSHIP OF MAPLEWOOD
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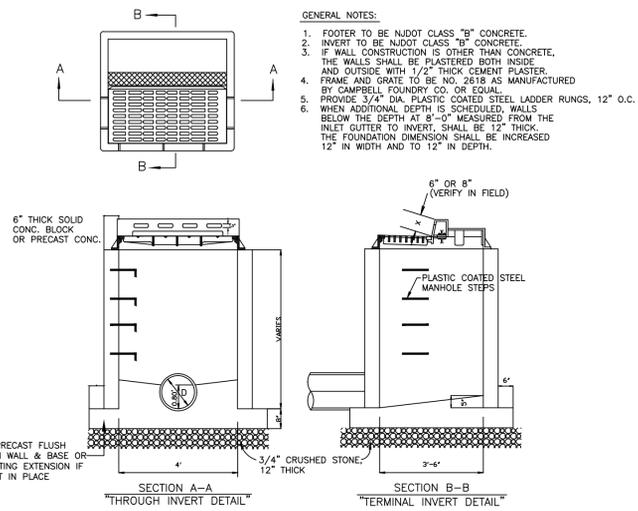
FY 2016 CAPITAL ROADWAY IMPROVEMENTS VARIOUS LOCATIONS CONSTRUCTION DETAILS

Job No. 2016-003
 Scale: AS SHOWN
 Drawn: ADG
 Checked: ADG/PJK
 Date: 9/22/16
 SHEET No. 14 OF 15



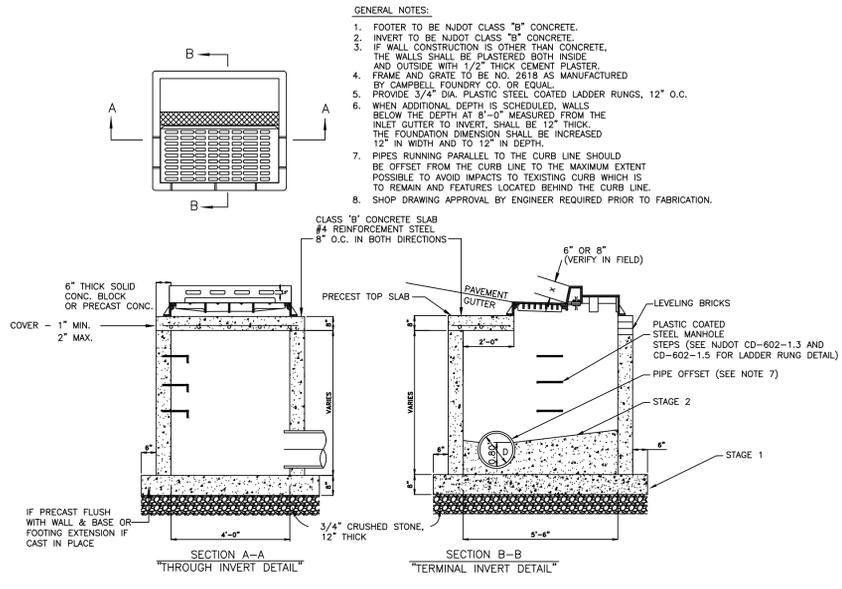
- GENERAL NOTES:**
- FOOTER TO BE NJDOT CLASS "B" CONCRETE.
 - INVERT TO BE NJDOT CLASS "B" CONCRETE.
 - IF WALL CONSTRUCTION IS OTHER THAN CONCRETE, THE WALLS SHALL BE PLASTERED BOTH INSIDE AND OUTSIDE WITH 1/2" THICK CEMENT PLASTER.
 - FRAME AND GRATE TO BE NO. 3405 AS MANUFACTURED BY CAMPBELL FOUNDRY CO. OR EQUAL.
 - PROVIDE 3/4" DIA. PLASTIC COATED STEEL LADDER RUNGS 12" ON CENTER.
 - WHEN ADDITIONAL DEPTH IS SCHEDULED, WALLS BELOW THE DEPTH AT 8'-0" MEASURED FROM THE INLET GUTTER TO INVERT, SHALL BE 12" THICK. THE FOUNDATION DIMENSION SHALL BE INCREASED 12" IN WIDTH AND TO 12" IN DEPTH.

TYPE "A" INLET
NOT TO SCALE



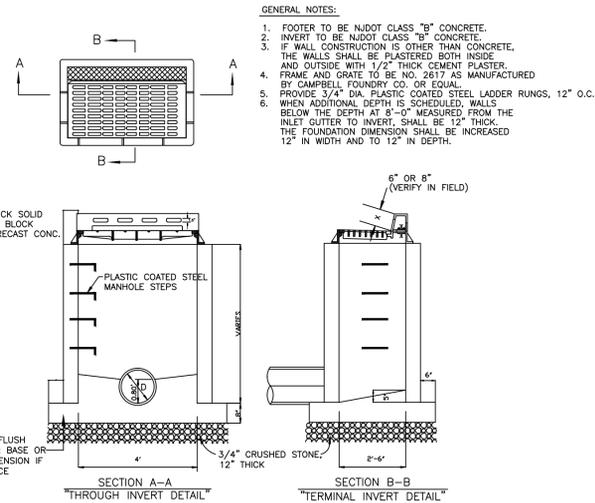
- GENERAL NOTES:**
- FOOTER TO BE NJDOT CLASS "B" CONCRETE.
 - INVERT TO BE NJDOT CLASS "B" CONCRETE.
 - IF WALL CONSTRUCTION IS OTHER THAN CONCRETE, THE WALLS SHALL BE PLASTERED BOTH INSIDE AND OUTSIDE WITH 1/2" THICK CEMENT PLASTER.
 - FRAME AND GRATE TO BE NO. 2618 AS MANUFACTURED BY CAMPBELL FOUNDRY CO. OR EQUAL. PROVIDE 3/4" DIA. PLASTIC COATED STEEL LADDER RUNGS, 12" O.C.
 - WHEN ADDITIONAL DEPTH IS SCHEDULED, WALLS BELOW THE DEPTH AT 8'-0" MEASURED FROM THE INLET GUTTER TO INVERT, SHALL BE 12" THICK. THE FOUNDATION DIMENSION SHALL BE INCREASED 12" IN WIDTH AND TO 12" IN DEPTH.

STANDARD DETAIL - TYPE "B" INLET
NOT TO SCALE



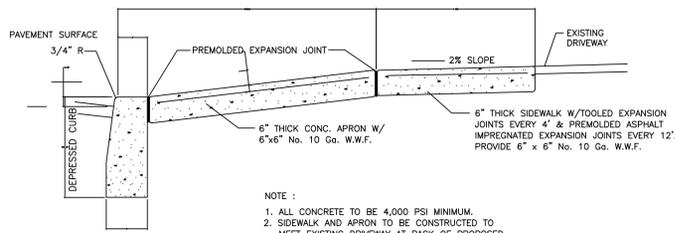
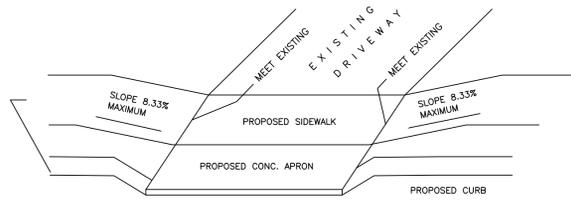
- GENERAL NOTES:**
- FOOTER TO BE NJDOT CLASS "B" CONCRETE.
 - INVERT TO BE NJDOT CLASS "B" CONCRETE.
 - IF WALL CONSTRUCTION IS OTHER THAN CONCRETE, THE WALLS SHALL BE PLASTERED BOTH INSIDE AND OUTSIDE WITH 1/2" THICK CEMENT PLASTER.
 - FRAME AND GRATE TO BE NO. 2618 AS MANUFACTURED BY CAMPBELL FOUNDRY CO. OR EQUAL.
 - PROVIDE 3/4" DIA. PLASTIC COATED STEEL LADDER RUNGS, 12" O.C.
 - WHEN ADDITIONAL DEPTH IS SCHEDULED, WALLS BELOW THE DEPTH AT 8'-0" MEASURED FROM THE INLET GUTTER TO INVERT, SHALL BE 12" THICK. THE FOUNDATION DIMENSION SHALL BE INCREASED 12" IN WIDTH AND TO 12" IN DEPTH.
 - PIPES RUNNING PARALLEL TO THE CURB LINE SHOULD BE OFFSET FROM THE CURB LINE TO THE MAXIMUM EXTENT POSSIBLE TO AVOID IMPACTS TO EXISTING CURB WHICH IS TO REMAIN AND FEATURES LOCATED BEHIND THE CURB LINE.
 - SHOP DRAWING APPROVAL BY ENGINEER REQUIRED PRIOR TO FABRICATION.

MODIFIED DETAIL - TYPE "B" INLET
NOT TO SCALE

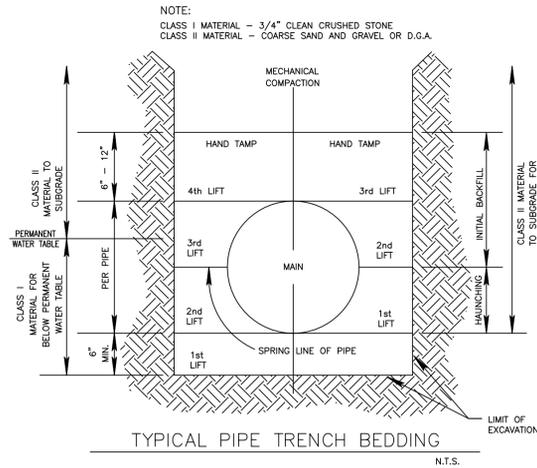


- GENERAL NOTES:**
- FOOTER TO BE NJDOT CLASS "B" CONCRETE.
 - INVERT TO BE NJDOT CLASS "B" CONCRETE.
 - IF WALL CONSTRUCTION IS OTHER THAN CONCRETE, THE WALLS SHALL BE PLASTERED BOTH INSIDE AND OUTSIDE WITH 1/2" THICK CEMENT PLASTER.
 - FRAME AND GRATE TO BE NO. 2617 AS MANUFACTURED BY CAMPBELL FOUNDRY CO. OR EQUAL.
 - PROVIDE 3/4" DIA. PLASTIC COATED STEEL LADDER RUNGS, 12" O.C.
 - WHEN ADDITIONAL DEPTH IS SCHEDULED, WALLS BELOW THE DEPTH AT 8'-0" MEASURED FROM THE INLET GUTTER TO INVERT, SHALL BE 12" THICK. THE FOUNDATION DIMENSION SHALL BE INCREASED 12" IN WIDTH AND TO 12" IN DEPTH.

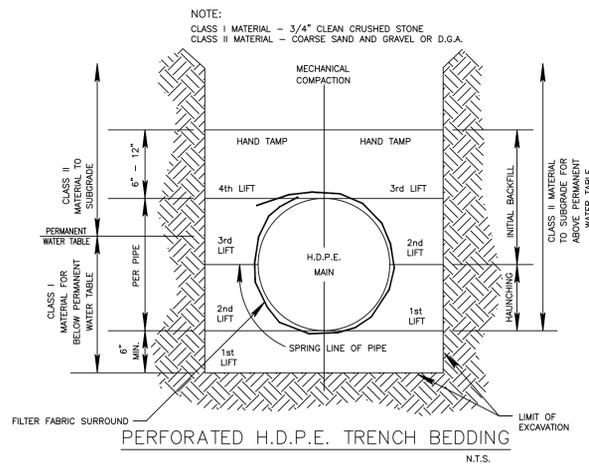
TYPE "D" INLET
NOT TO SCALE



DETAIL DRIVEWAY APRON AND CURB SECTION
NOT TO SCALE



TYPICAL PIPE TRENCH BEDDING
N.T.S.



PERFORATED H.D.P.E. TRENCH BEDDING
N.T.S.

| NO. | DATE | REVISION | DRAWN | CHK'D | REL'D |
|-----|------|----------|-------|-------|-------|
| | | | | | |

TOWNSHIP OF MAPLEWOOD
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LIC. NO. 24GE04250500

ENGINEERING DEPARTMENT
TOWNSHIP OF MAPLEWOOD
ESSEX COUNTY
NEW JERSEY

Drawing Path: K:\Projects\2016\Maplewood\Roads\Plans\CAD\Details - 2016\Civil
Roads\Plans\CAD\Details - 2016\Civil

FY 2016 CAPITAL ROADWAY IMPROVEMENTS
VARIOUS LOCATIONS
CONSTRUCTION DETAILS

Job No. 2016-003

Scale: AS SHOWN

Drawn ADG Designed ADG/PJK

Checked ADG/PJK Released PJK

Date 9/22/16 Drawer # TBD

SHEET No.

15

OF 15



Know what's below.
Call before you dig.