

THE CONSTRUCTION PLANS FOR 2014 ROAD IMPROVEMENT PROGRAM BOROUGH OF MADISON MORRIS COUNTY, NEW JERSEY

SCALE AS INDICATED

JANUARY, 2014

BOROUGH COUNCIL

ROBERT H. CONLEY, Mayor
ROBERT LANDRIGAN, Council President
CARMELA VITALE, Council Member
ROBERT G. CATALANELLO, Council Member
ASTRI J. BAILLIE, Council Member
BENJAMIN WOLKOWITZ, Council Member
PATRICK W. ROWE Council Member

UTILITY COMPANIES	
GAS – PUBLIC SERVICE ELECTRIC & GAS	(908) 522-7411
SEWER – BOROUGH OF MADISON	(973) 593-3088
ELECTRIC – BOROUGH OF MADISON	(973) 593-3091
WATER – BOROUGH OF MADISON	(973) 593-3092
TELE – VERIZON	(800) 427-9977
CABLE – CABLEVISION	(973) 884-2293
NEW JERSEY ONE-CALL	(800) 272-1000 or 811

NOTE:

LOCATION OF UTILITIES AS SHOWN ON THESE PLANS ARE PLOTTED FROM AVAILABLE DATA ON FILE WITH THE UTILITY COMPANIES AND FIELD OBSERVATIONS BY THE BOROUGH ENGINEERING DEPARTMENT AND ARE NOT GUARANTEED AS TO EXACTNESS. THE CONTRACTOR IS TO CONTACT UTILITY COMPANIES 72 HOURS PRIOR TO CONSTRUCTION TO DETERMINE EXACT LOCATION AND DEPTH OF ALL UTILITIES IN ACCORDANCE WITH THE REQUIREMENTS OF THE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL USE THE UTILITY LOCATIONS AS AN AID IN DETERMINING EXACT UTILITY LOCATIONS.

BOROUGH ADMINISTRATOR

RAYMOND M. CODEY

BOROUGH ENGINEER

ROBERT A. VOGEL, P.E., C.M.E.

BOROUGH ATTORNEY

MATTHEW J. GIACOBBE, ESQ.

INDEX OF DRAWINGS		
DWG.	DESCRIPTION	REV.
1	COVER SHEET	
2	LOCATION PLAN	
3	TRAFFIC CONTROL PLAN & DETAILS	
4	CONSTRUCTION & GENERAL NOTES	
5	ACADEMY ROAD	
6	BELMONT AVENUE	
7	BELMONT AVENUE EXTENSION (LIBRARY ACCESS DRIVE)	
8	PINE TREE TERRACE	
9	DURWOOD PLACE, FLETCHER PLACE & NILES AVENUE	
10	NORTH STREET (PART)	
11	VINTON ROAD & WILSON LANE	
12	CONSTRUCTION DETAILS	
13	CONSTRUCTION DETAILS	
14	CONSTRUCTION DETAILS	

THE UNDERSIGNED CERTIFIES THAT HE/SHE HAS REVIEWED THE PLANS AND SPECIFICATIONS FOR THE PUBLIC BID SCHEDULED FOR THIS PROJECT:

DEPARTMENT of PUBLIC WORKS

ELECTRIC DEPARTMENT

SUPERINTENDENT DAVID MAINES

DATE:

SUPERINTENDENT MIKE PIANO

DATE:

WATER DEPARTMENT

POLICE TRAFFIC SAFETY DIVISION

SUPERINTENDENT SAL DeBIASSE

DATE:

OFFICER CHAD RYBKA

DATE:

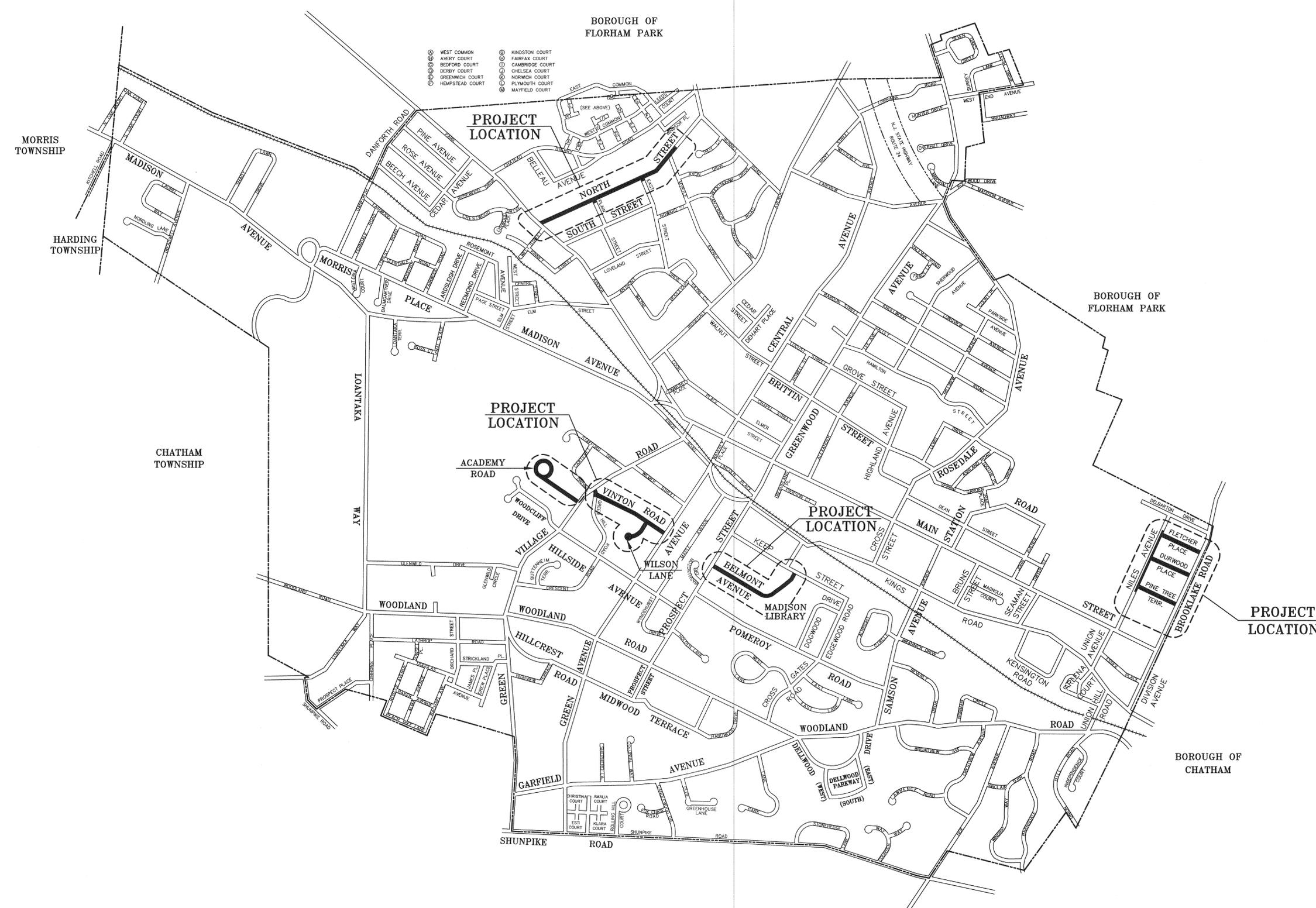


HARTLEY DODGE MEMORIAL
BOROUGH OF MADISON
MADISON, NEW JERSEY 07940

2007 STANDARD SPECIFICATIONS FOR ROAD & BRIDGE CONSTRUCTION
CURRENT NJDOT SUPPLEMENTAL SPECIFICATIONS TO GOVERN

BOROUGH OF MADISON
DEPARTMENT OF ENGINEERING
HARTLEY DODGE MEMORIAL
MADISON, MORRIS COUNTY, N.J. 07940
(973) 593-3060

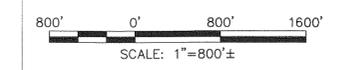
DATE
ROBERT A. VOGEL, P.E.
PROFESSIONAL ENGINEER N.J. LIC. NO. 34463



- ⊙ WEST COMMON
- ⊙ AVERY COURT
- ⊙ BEDFORD COURT
- ⊙ DERBY COURT
- ⊙ GREENWICH COURT
- ⊙ HEMPSTEAD COURT
- ⊙ KINDSTON COURT
- ⊙ FAIRFAX COURT
- ⊙ CAMBRIDGE COURT
- ⊙ CHELSEA COURT
- ⊙ NORWICH COURT
- ⊙ PLUMOUTH COURT
- ⊙ MAYFIELD COURT

**2014 ROAD IMPROVEMENT PROGRAM
LOCATION PLAN**

BOROUGH OF MADISON
DEPARTMENT OF ENGINEERING
HARTLEY DODGE MEMORIAL
MADISON, MORRIS COUNTY, N.J. 07940
(973) 593-3080

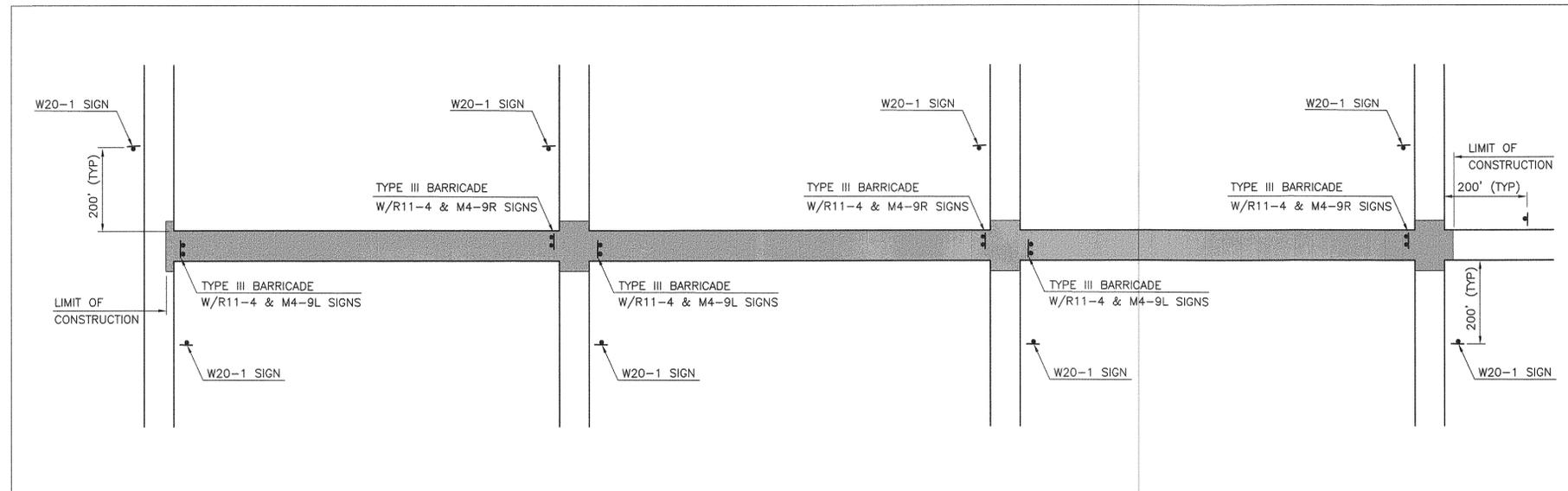


NO.	REVISIONS	DATE	BY	CHK.	APPR.

DATE _____

ROBERT A. VOGEL, P.E.
PROFESSIONAL ENGINEER N.J. LIC. NO. 34463

SCALE: 1"=800'+/-
DATE: 1-22-14
DR. BY: D. BUCK
CHK. BY: R.A.V.
DWG. NO. 2 of 14



TYPICAL TRAFFIC CONTROL SIGNAGE

N.T.S.

GENERAL NOTES:

- CONTRACTOR SHALL PROVIDE AND INSTALL ALL CONSTRUCTION SIGNAGE TO COORDINATE WITH LOCATION OF CONSTRUCTION ACTIVITIES. IN ACCORDANCE WITH THE LATEST MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) REFERENCED BY THE NEW JERSEY DEPARTMENT OF TRANSPORTATION (NJDOT).
- CONTRACTOR MAY ONLY CLOSE THE ROADWAY UPON RECEIPT OF WRITTEN PERMISSION FROM THE BOROUGH TRAFFIC SAFETY DIVISION.
- NO ROAD SHALL BE PERMITTED TO REMAINED CLOSED OVERNIGHT WITHOUT THE EXPRESS WRITTEN PERMISSION FROM THE BOROUGH ENGINEER AND TRAFFIC SAFETY DIVISION.
- THE CONTRACTOR IS RESPONSIBLE FOR THE PROPER DAILY INSTALLATION AND BREAK DOWN OF DETOUR SIGNAGE. NO ADDITIONAL PAYMENT SHALL BE MADE FOR THE RELOCATION OF THE CONSTRUCTION SIGNS.
- ROAD CLOSED SIGNS (R11-4) SHALL BE MOUNTED ON A TYPE III BARRICADE, IN ACCORDANCE WITH PART 6 OF THE MUTCD. NO LESS THAN 5 TYPE III BARRICADES, 20 DRUMS AND 50 CONES ARE REQUIRED ON EACH STREET AFFECTED BY CONSTRUCTION ACTIVITY AT ALL TIMES.
- THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR REQUESTS FOR SCHEDULING OF POLICE TRAFFIC DIRECTORS. THE POLICE DEPARTMENT MUST BE GIVEN 72 HOURS ADVANCED NOTICE TO SCHEDULE POLICE TRAFFIC DIRECTORS. UNEXCUSED CANCELLATIONS MAY RESULT IN RESCHEDULING CHARGES.
- NO MORE THAN ONE LANE IN ONE DIRECTION MAY BE CLOSED DURING WORKING HOURS WITHOUT AN APPROVED TRAFFIC CONTROL PLAN SUBMITTED BY THE CONTRACTOR.

SIGN DETAILS



M4-9R
30" x 24"



M4-9L
30" x 24"



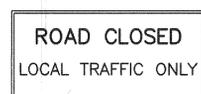
M4-8a
24" x 18"



M4-9X
30" x 24"



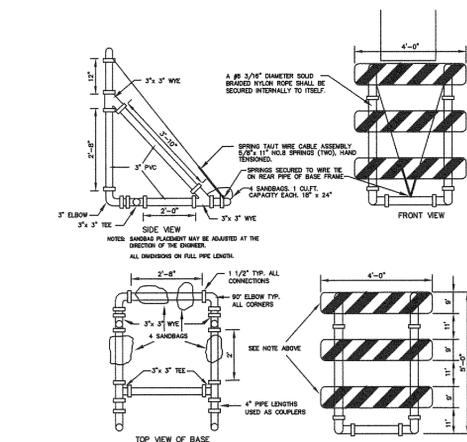
W20-1
48" x 48"



R11-4
60" x 30"



W20-2
48" x 48"



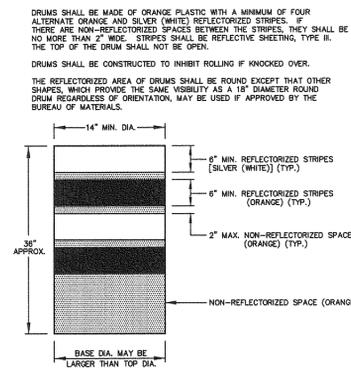
- NOTES:**
- THE 6" x 48" OR 6" MIN. x 48" BARRICADE RAILS SHALL BE FABRICATED FROM 0.024" ANODIZED ALUMINUM OR 0.125" MAX. PLASTIC SHEETING AND SHALL BE ATTACHED, 4 PER RAIL, WITH 1 INCH NO. 14 PAN HEAD METAL SCREWS OR PLASTIC RIVETS. ALL CORNERS SHALL BE ROUNDED.
 - ORANGE AND SILVER(WHITE) STRIPES SHALL BE RETROREFLECTIVE SHEETING, TYPE II OR TYPE III, AS SHOWN FOR CONSTRUCTION SIGNS. ALTERNATE ORANGE AND SILVER(WHITE) STRIPES 6" WIDE SLOPING DOWNWARD AT AN ANGLE OF 45 DEGREES IN THE DIRECTION TRAFFIC IS TO PASS.
 - THE 18" x 24" SANDBAGS SHALL BE FABRICATED FROM POLYPROPYLENE AND SHALL HAVE A CAPACITY OF 1 CU. FT. PLACEMENT OF SANDBAGS SHALL BE AS SHOWN ABOVE.
 - SANDBAG PLACEMENT MAY BE ADJUSTED AT THE DIRECTION OF THE ENGINEER. ALL DIMENSIONS ON FULL PIPE LENGTH.
 - EITHER TYPE II, PE OR TYPE III, PVC CAN BE USED AT THE OPTION OF THE CONTRACTOR.

PIPE SHALL BE WHITE PVC SCHEDULE 40 ASTM 1788 OR PVC 50#-20, ASTM 2241. FITTINGS SHALL BE WHITE PVC OR ABS OF MATCHING WALL THICKNESS AND INSIDE DIAMETER AND MEETING THE MATERIALS, REQUIREMENTS AND TESTING SECTIONS OF ASTM D-2466 FOR PVC AND ASTM D-2468 FOR ABS. ALL JOINTS SHALL BE SLIP FIT AND NOT THREADED OR GUNDED. PVC FITTINGS MEETING ASTM D-2466 WILL ALSO BE ACCEPTABLE. PVC OR ABS MATERIAL SHALL BE ULTRAVIOLET LIGHT STABILIZED.

BREAKAWAY BARRICADES

TYPE III

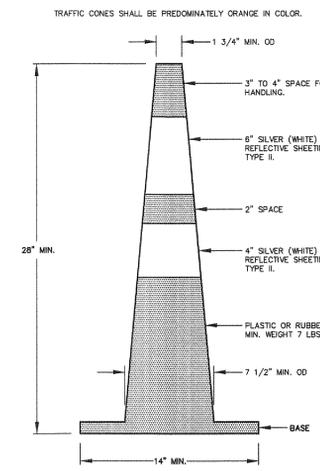
N.T.S.



DRUMS SHALL BE MADE OF ORANGE PLASTIC WITH A MINIMUM OF FOUR ALTERNATE ORANGE AND SILVER (WHITE) REFLECTORIZED STRIPES. IF THERE ARE NON-REFLECTORIZED SPACES BETWEEN THE STRIPES, THEY SHALL BE NO MORE THAN 2" WIDE. STRIPES SHALL BE REFLECTIVE SHEETING, TYPE II. THE TOP OF THE DRUM SHALL NOT BE OPEN.

DRUMS

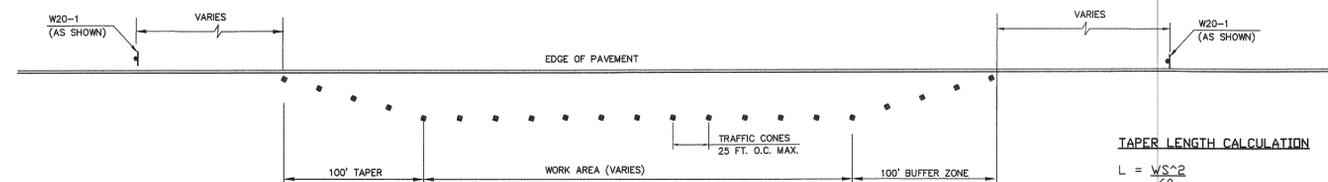
N.T.S.



TRAFFIC CONES SHALL BE PREDOMINATELY ORANGE IN COLOR.

TRAFFIC CONES

N.T.S.



TYPICAL WORK ZONE TRAFFIC CONTROL PLAN

TAPER LENGTH CALCULATION

$$L = \frac{WS^2}{60}$$

$$= \frac{10 (25)^2}{60}$$

$$= 100'$$

W = WIDTH OF OFFSET IN FEET
S = POSTED SPEED LIMIT (MPH)

NO.	REVISIONS	DATE	BY	CHK.	APPR.

**2014 ROAD IMPROVEMENT PLAN
TRAFFIC CONTROL PLAN
& DETAILS**

BOROUGH OF MADISON
DEPARTMENT OF ENGINEERING
HARTLEY DODGE MEMORIAL
MADISON, MORRIS COUNTY, N.J. 07940

DATE _____
ROBERT A. VOGEL, P.E.
PROFESSIONAL ENGINEER N.J. LIC. NO. 34463

SCALE:	N.T.S.
DATE:	1-22-14
DR. BY:	R.A.V.
CHK. BY:	D. BUCK
DWG. NO.:	3 of 14

GENERAL NOTES

- 1) THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, 2007 EDITION, AS PUBLISHED BY THE NEW JERSEY DEPARTMENT OF TRANSPORTATION, THE PLANS, TECHNICAL SPECIFICATIONS, ADVERTISEMENT, CONTRACTOR'S PROPOSAL AND AMENDMENTS SHALL DEFINE THE SCOPE OF WORK.
- 2) THE CONTRACTOR IS TO REFER TO THE SUPPLEMENTAL SPECIFICATION, WHICH INDICATES WHEN THE STANDARD SPECIFICATIONS, AND/OR THE AMENDMENTS THAT FOLLOW SHOULD APPLY.
- 3) THE CONTRACTOR SHALL COMPLY WITH ALL LAWS, ORDINANCES, RULES, ORDERS AND REGULATIONS RELATING TO THE PERFORMANCE OF THE WORK, AND THE MAINTENANCE AND PROTECTION OF ADJACENT PROPERTY.
- 4) 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, SHALL BE PERFORMED BEFORE THE HOUR OF 7:00 OR AFTER 5:00 PM. THE CONTRACTOR'S WORK HOURS SHALL CONFORM TO LOCAL ORDINANCE. THE CONTRACTOR SHALL NOT DEVIATE FROM THE ABOVE WORK HOURS WITHOUT OBTAINING WRITTEN PERMISSION FROM POLICE TRAFFIC SAFETY DIVISION PRIOR TO THE START OF CONSTRUCTION.
- 5) EACH AND EVERY PROVISION OF LAW OR REGULATION REQUIRED BY LAW TO BE INSERTED IN THIS CONTRACT SHALL BE READ AND ENFORCED AS THOUGH IT WERE INCLUDED HEREIN, REGARDLESS OF THE SPECIFICS. THE CONTRACTOR SHALL BE PHYSICALLY AMENDED TO MAKE SUCH INSERTION OR CORRECTION AS NECESSARY.
- 6) THE CONTRACTOR WILL BE FURNISHED WITH 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 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. ANY KNOWN CONFLICT OR INCONSISTENCY BETWEEN THE PLANS AND SPECIFICATIONS, OR DISCREPANCY BETWEEN THE FIGURES AND SCALE OF DRAWINGS SHALL BE SUBMITTED TO THE ENGINEER AND THE ENGINEER WHO WILL DECIDE WHICH SPECIFICATIONS WILL GOVERN.
- 7) IN THE EVENT THE MEANING OF ANY PORTION OF THE SPECIFICATIONS OR DRAWINGS OR ANY SUPPLEMENTARY DRAWINGS OR INSTRUCTIONS OF THE ENGINEER IS IN DOUBT OR CONFLICT, THE SAME SHALL BE UNDERSTOOD TO CALL FOR THE BEST TYPE OF CONSTRUCTION, BOTH AS TO MATERIALS, WORKMANSHIP, FIT OR FINISH WHICH REASONABLY CAN BE INTERPRETED.
- 8) IN THE EVENT A SITUATION ARISES IN WHICH MATERIALS NOT SPECIFIED ON THE PLANS OR INDICATED IN THE SUPPLEMENTAL SPECIFICATION ARE TO BE USED FOR EXTRA WORK, THEN THE STANDARD SPECIFICATIONS WILL BE USED FOR REFERENCE IN ADDITION TO THE TERMS OF THE SUPPLEMENTARY AGREEMENT.
- 9) THE CONTRACTOR'S ATTENTION IS SPECIFICALLY DIRECTED TO GENERAL CONDITIONS, WHICH MINIMALLY REQUIRES THAT HE POST A ONE (1) YEAR MAINTENANCE BOND FOR TEN PERCENT (10 %) OF THE FINAL CONTRACT AMOUNT.
- 10) THE GENERAL CONDITIONS OF THE CONTRACT INDICATE THAT THE CONTRACTOR MUST NOTIFY THE ENGINEER OF ANY INTENDED OVERTIME WORK. FURTHER THE BOROUGH MUST BE REIMBURSED OR DEDUCTION OF COSTS FROM MONTHLY PAYMENTS FOR THE OVERTIME WORK PERFORMED BY THE INSPECTOR AND/OR BOROUGH PERSONNEL.
- 11) ALL TRENCHES UNLESS OTHERWISE INDICATED IN THE SPECIFICATIONS AND/OR AMENDMENTS, SHALL HAVE SELECT BACKFILL MATERIAL. THE ENGINEER AT HIS DISCRETION MAY PERMIT THE USE OF EXCAVATED OR OTHER SUITABLE MATERIAL TO BE USED AS BACKFILL ON TRENCHES OUTSIDE THE CURB LINES OR PAVEMENT LIMITS.
- 12) THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DISPOSAL OF ALL EXCESS MATERIALS EXCAVATED OF WHATEVER NATURE AT HIS OWN EXPENSE. THE BOROUGH IS NOT OBLIGATED TO SUPPLY A DISPOSAL SITE. THE CONTRACTOR MUST NOT DEPOSIT THE EXCESS MATERIALS IN THE BOROUGH LIMITS WITHOUT EXPRESS PERMISSION OF THE BOROUGH ENGINEER.
- 13) THE CONTRACTUAL TIME OF COMPLETION FOR THIS PROJECT IS PROVIDED IN THE SPECIFICATIONS.
- 14) THE CONTRACTOR IS NOTIFIED THAT THE SPECIFICATIONS INDICATE THAT HE MUST MAINTAIN TRAFFIC AND ACCESS TO RESIDENCES. HE IS ALSO NOTIFIED TO ASSURE TIMELY ACCESS FOR MAIL DELIVERIES, GARBAGE COLLECTION AND EMERGENCY VEHICLES.
- 15) PAYMENT FOR PIPES SHALL BE ON THE BASIS OF HORIZONTAL LINEAR FEET. THE UNIT PRICE PER LINEAR FEET SHALL INCLUDE THE COST FOR CONSTRUCTION LAYOUT, EXCAVATION, BEDDING AND BACKFILLING WITH SPECIFIED MATERIAL. PAYMENT FOR ASPHALT TRENCH RESURFACING TO BE INCLUDED FOR ALL WORK WITHIN EXISTING PAVED ROADS.
- 16) EXISTING FENCES AND IRRIGATION HEADS SHALL BE REMOVED AND SHALL BE RESET AT THE LOCATION ACCEPTABLE TO THE OWNER AND THE ENGINEER. THE COST TO REMOVE AND RESET FENCES AND IRRIGATION SHALL BE INCLUDED IN THE AMOUNT BID.
- 17) THE CONTRACTOR IS RESPONSIBLE TO OBEY ALL THE SAFETY AND HEALTH REGULATIONS. THE OWNER ASSUMES NO RESPONSIBILITY FOR THE SAFETY OF THE WORK PERFORMED. TRENCH SAFETY SHALL CONFORM TO THE LATEST O.S.H.A. REQUIREMENTS AND STANDARDS, AT A MINIMUM. TRAFFIC SAFETY SHALL CONFORM TO AASHTO REQUIREMENTS AND THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).
- 18) THE CONTRACT INCLUDES PREVAILING WAGE RATES PUBLISHED BY FEDERAL OR STATE AUTHORITIES - AS APPLICABLE.
- 19) 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 OR 811). THE CONTRACTOR SHALL PROVIDE TEST HOLES IN AREAS OF POSSIBLE CONFLICT TO VERIFY THE DEPTH AND LOCATION OF THE UTILITY. NO SEPARATE PAYMENT SHALL BE MADE FOR DELAYS THAT MAY BE NECESSARY TO RELOCATE UTILITIES OR THE PROPOSED LOCATION OF DRAINAGE STRUCTURES.
- 20) THE CONTRACTOR SHALL APPLY THE FINISH ASPHALT PAVEMENT SURFACE WITHIN 72 HOURS OF THE MILLING OPERATION.
- 21) THE CONTRACTOR IS RESPONSIBLE THAT UPON COMPLETION OF CONSTRUCTION THAT ALL WATER MAIN SERVICE CONNECTIONS ARE FUNCTIONING PROPERLY AND CONFORM TO THE "SERVICE CONNECTION" DETAIL WHERE PROVIDED.
- 22) TREE PROTECTION MEASURES WITHIN THE PROJECT LIMITS WILL BE CLEARLY ESTABLISHED AND INSPECTED BY THE BOROUGH OF MADISON, A LICENSED ARBORIST OR THE OWNER, AND SUCH MEASURES WILL REMAIN IN PLACE FOR THE ENTIRE PROJECT DURATION.

CONSTRUCTION NOTES

- 1) THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION WITH THE LOCAL POLICE DEPARTMENT FOR TRAFFIC OPERATIONS AND PARKING PROHIBITIONS DURING CONSTRUCTION.
- 2) ANY DAMAGE TO UTILITIES SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR, AND ALL COSTS FOR REPAIRS SHALL BE BORNE BY THE CONTRACTOR.
- 3) ALL DISTURBED SHRUBS, FENCING, SIGNS, MAILBOXES, DRIVES, ETC. SHALL BE RESTORED TO THEIR ORIGINAL CONDITION, AND TO THE SATISFACTION OF THE OWNER AND ENGINEER. NO SEPARATE PAYMENT SHALL BE MADE FOR THIS RESTORATION, UNLESS SPECIFIED ELSEWHERE.
- 4) ALL PROPERTY CORNERS OR MONUMENTS REMOVED DURING CONSTRUCTION SHALL BE REPLACED BY A NEW JERSEY LICENSED LAND SURVEYOR, AT NO SEPARATE COST TO THE OWNER.
- 5) ALL EXISTING UTILITY CASTINGS, COVERS AND GRATES TO BE REMOVED ARE THE PROPERTY OF THE BOROUGH OF MADISON AND SHALL BE DELIVERED TO THE PUBLIC WORKS DEPARTMENT. PAYMENT WILL NOT BE MADE FOR NEW CASTINGS, COVERS AND GRATES UNLESS THE ORIGINALS ARE RETURNED.
- 6) ALL MILLED MATERIALS ARE TO BE DISPOSED OF IN ACCORDANCE WITH APPROVED NJDOT/NJDEP METHODS AND MEANS, OR TRANSPORTED AT THE DIRECTION OF THE ENGINEER AND COPIES OF DESTINATION DISPOSAL RECEIPTS WILL BE SUPPLIED PRIOR TO PAYMENT.
- 7) PRIVATE UTILITY COMPANIES MUST BE CONTACTED BY THE CONTRACTOR SO THAT PRIVATELY OWNED CASTINGS MAY BE RESET BY THE UTILITY COMPANY. PUBLIC UTILITIES MUST BE CONTACTED PRIOR TO MILLING OR PAVING OPERATIONS TO ASSURE SERVICE CASTINGS OR RISERS ARE OF THE TYPE AND NUMBER REQUIRED TO MAINTAIN ACCESS TO ALL UNDERGROUND FACILITIES.
- 8) UNSUITABLE SUBBASE MATERIAL WHICH HAS BEEN UNCOVERED DURING CONSTRUCTION SHALL BE REMOVED AND REPLACED AT THE DIRECTION OF THE ENGINEER. ROADWAY EXCAVATION, UNCLASSIFIED SHALL BE PERFORMED TO REMOVE UNSUITABLE SUBBASE MATERIAL. SUBBASE MATERIAL SHALL BE REPLACED WITH DENSE GRADED AGGREGATE BASE COURSE. ROADWAY EXCAVATION, UNCLASSIFIED, AND DENSE GRADED AGGREGATE BASE COURSE WHICH HAVE BEEN INSTALLED ON AN "IF AND WHERE DIRECTED" BASIS, WILL BE PAID FOR AT THE UNIT PRICE BID FOR THOSE ITEMS.
- 9) THE CONTRACTOR SHALL PROVIDE AND MAINTAIN ACCESS RAMPS AT ALL CURB OPENINGS FOR THE DURATION OF THE PROJECT. THE CONTRACTOR SHALL ALSO PROVIDE AND MAINTAIN RAMPS AROUND ALL EXPOSED CASTINGS, BOTH PUBLIC AND PRIVATE, WHICH HAVE BEEN UNCOVERED OR RESET DURING CONSTRUCTION.
- 10) THE CONTRACTOR SHALL TAKE ALL NECESSARY MEASURES TO MAINTAIN DUST CONTROL AS REQUIRED OR DIRECTED BY THE ENGINEER. ALL VEHICLES SHALL BE CLEAN AND ALL ROADWAYS SHALL BE MAINTAINED IN CONFORMANCE TO THE STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL IN NEW JERSEY AND AS DIRECTED BY THE ENGINEER.
- 11) ALL PAVEMENT MARKINGS AND SIGNS SHALL CONFORM TO THE STANDARDS OF THE CURRENT "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" AND AS FURTHER SPECIFIED HEREIN.
- 12) IF NOT OTHERWISE INDICATED, NEW PAVEMENT MARKINGS SHOULD CONFORM TO THE FOLLOWING:
 CENTER LINES 2 - 4inch WIDE YELLOW LINES, 4inch APART
 STOP LINES MIN. 12inch WIDE WHITE LINES (4 ft. MIN. FROM CROSSWALK)
 CROSSWALKS 6inch WIDE WHITE LINES, 6ft. MIN. WIDTH, DIAGONALS
 MATCH PROPOSED STRIPING WITH EXISTING LANE AND CENTER LINES, WHERE POSSIBLE, AND REQUEST INSPECTIONS OF PRELIMINARY MARKOUT BY ENGINEER PRIOR TO FINAL STRIPING.
- 13) CONTRACTOR SHALL NOTIFY ENGINEER WHEN TRAFFIC STRIPES AND TRAFFIC PAINT HAVE BEEN MARKED OUT PRIOR TO PAINTING. THE ENGINEER WILL INSPECT AND APPROVE LAYOUT PRIOR TO CONTRACTOR PAINTING TRAFFIC STRIPES AND TRAFFIC MARKINGS.
- 14) NO SEPARATE PAYMENT WILL BE MADE FOR THE REMOVAL OF EXISTING CURBS, SIDEWALKS, ETC., THE COST FOR THE REMOVAL SHALL BE INCLUDED IN THE UNIT PRICE BID FOR SIMILAR NEW ITEMS IN THE PROPOSAL. WHERE EXISTING CURB BLOCK IS BEING REMOVED, THE CONTRACTOR SHALL INVESTIGATE DISPOSAL AT THE MADISON D.P.W. FIRST, AND PROCEED TO AN ALTERNATE ACCEPTABLE DISPOSAL SITE IF NO AGREEMENT CAN BE MADE WITH MADISON D.P.W.
- 15) CONTRACTOR IS TO OPERATE ALL NEWLY INSTALLED WATER VALVES AND EXISTING WATER VALVES WITHIN THE WORK AREAS TO INSURE THAT THEY ARE FUNCTIONING PROPERLY UPON THE COMPLETION OF ALL IMPROVEMENTS ASSOCIATED WITH THIS PROJECT. THIS WILL BE ACCOMPLISHED UNDER THE DIRECT SUPERVISION OF THE WATER DEPARTMENT OF THE BOROUGH OF MADISON AND A CERTIFICATE OF ACCEPTANCE IS OBTAINED.
- 16) ALL SERVICE CONNECTIONS COMPROMISED BY THIS CONSTRUCTION ACTIVITY SHALL BE REPAIRED OR REPLACED AND SUCH WORK SHALL INCLUDE EXCAVATION, FILL, LABOR AND MATERIAL WITHIN THE SCOPE OF THIS CONTRACT OR FURTHER INCLUDED AS UNIT PRICES BID FOR THIS WORK.
- 17) ALL PROPOSED ACCESSIBLE RAMPS LANDINGS AND PLATFORMS REQUIRE STRING LINES OR FORMS TO BE CHECKED LINE, GRADE AND DIMENSION BY THE ENGINEER PRIOR TO CONCRETE POURS.
- 18) ALL PROPOSED CURB REQUIRES STRING LINES PREPARED DEFINING LINE, GRADE AND CURB FACE TO BE INSPECTED AND APPROVED BY THE ENGINEER FOR GRADE, ALIGNMENT AND DRAINAGE PRIOR TO CONCRETE POURS.

CONSTRUCTION SEQUENCE

1. MAILBOX "CONSTRUCTION NOTICE" ONE WEEK PRIOR.
2. MARKOUT STORM, SANITARY, UTILITIES AND SERVICE LOCATIONS. REQUEST TREE MARKOUT.
3. KNOCK ON DOORS PRIOR TO REMOVING RESIDENTIAL ACCESS.
4. PERFORM TREE REMOVAL AND STUMP GRINDING WITHIN PROJECT OR PHASE LIMITS.
5. COMMENCE CURB EXCAVATION ONE SIDE OF STREET ONLY
6. CONSTRUCTION VEHICLES, MATERIALS AND EQUIPMENT ONE SIDE OF STREET ONLY.
7. CALL ENGINEER FOR GRADE, ALIGNMENT AND POSITIVE DRAINAGE CHECK, WHEN STRING LINES ARE PREPARED SHOWING PROPOSED LINE AND GRADE.
8. MAINTAIN TRAFFIC CONES DELINEATING CONSTRUCTION AREAS AT A MINIMUM EVERY 50 FEET OF PROJECT, ONE SIDE AT ALL TIME.
9. REPLACE OR REQUEST REPLACEMENT OF OLD OR COMPROMISED UTILITY SERVICE RISERS.
10. ON ENGINEER APPROVAL, POUR CONCRETE CURB AND SIDEWALK ONE SIDE OF STREET ONLY.
11. POUR CONCRETE SIDEWALK/APRONS WITH W/M ONE SIDE OF STREET ONLY
12. RESTORE INDIVIDUAL DRIVEWAY ACCESS NO MORE THAN ONE WEEK AFTER DISTURBANCE.
13. MORTAR ALL GRANITE BLOCK CURB JOINTS.
14. PLACE STABILIZED ASPHALT BASE IN DISTURBED GUTTERS.
15. RESET ALL CONNECTING DRIVEWAY BLOCKS AND SIDEWALK CONNECTIONS.
16. TOPSOIL, SEED AND HAYBALE DISTURBED AREAS BEFORE ADVANCING TO NEXT SIDE OR PHASE.
17. COMMENCE CURB OR SIDEWALK WORK ON OPPOSITE SIDE OF ROAD, NOTICE AS NECESSARY.
18. MAILBOX "PAVING NOTICE" 3 DAYS PRIOR TO MILLING OPERATIONS. PAINT MILLING LIMITS.
19. REMARK, CHECK CONDITION AND PROTECT UTILITY SERVICE RISERS, MANHOLES AND INLETS.
20. MILLING OPERATIONS COMPLETED, VACUUM SWEEP SURFACE, RECHECK SERVICE RISERS.
21. MANHOLES AND INLETS TO BE RAISED OR RESET AS NEEDED MATCHING TOP OF CURB OR CROSS GRADE.
22. VACUUM SWEEP ENTIRE MILLED AREA TO ELIMINATE REMAINING ROADWAY GRIT ON PAVING DAY.
23. IMPLEMENT COMPLETE TACK AND CONTROL ASPHALT TRUCK DEPARTURE ROUTES ON PAVING DAY.
24. PAVING TO COMMENCE WITHIN 72 HOURS OF MILLING OPERATIONS.
25. STRIPING AND TRAFFIC CONTROLS TO IMMEDIATELY FOLLOW PAVEMENT COMPACTION OPERATIONS.
26. RESEED GRASSSED AREAS WITHIN PROJECT LIMITS.

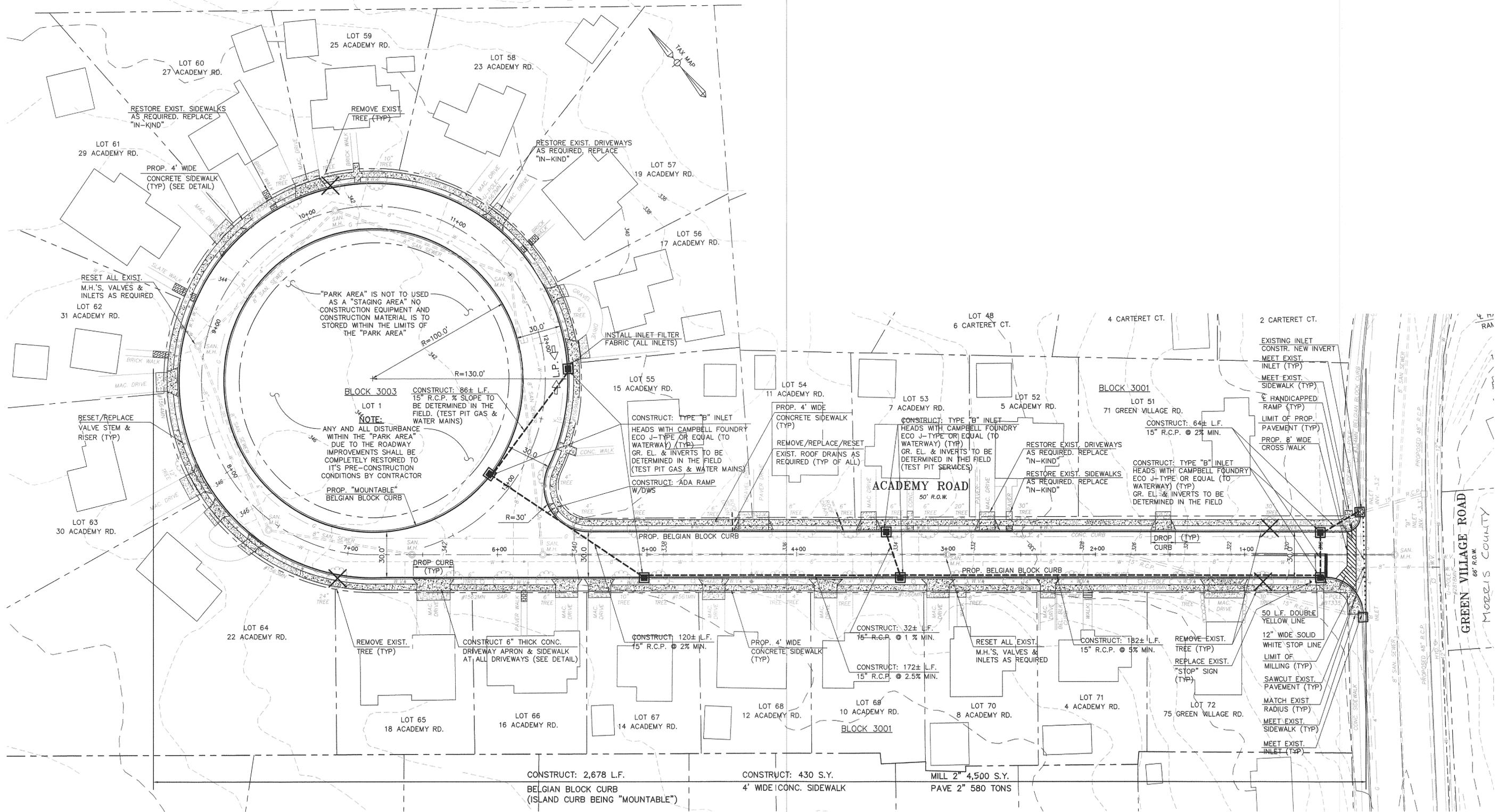
**2014 ROAD IMPROVEMENT PROGRAM
CONSTRUCTION & GENERAL NOTES**

BOROUGH OF MADISON
DEPARTMENT OF ENGINEERING
HARTLEY DODGE MEMORIAL
MADISON, MORRIS COUNTY, N.J. 07940

ROBERT A. VOGEL, P.E.
PROFESSIONAL ENGINEER N.J. LIC. NO. 34463

SCALE: N.T.S.
DATE: 1-22-14
DR. BY: R.A.V.
CHK. BY: D. BUCK
DWG. NO. 4 of 14

NO.	REVISIONS	DATE	BY	CHK.	APPR.



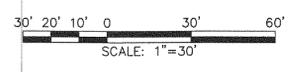
"PARK AREA" IS NOT TO BE USED AS A "STAGING AREA" NO CONSTRUCTION EQUIPMENT AND CONSTRUCTION MATERIAL IS TO BE STORED WITHIN THE LIMITS OF THE "PARK AREA"

NOTE:
ANY AND ALL DISTURBANCE WITHIN THE "PARK AREA" DUE TO THE ROADWAY IMPROVEMENTS SHALL BE COMPLETELY RESTORED TO ITS PRE-CONSTRUCTION CONDITIONS BY CONTRACTOR

PROP. "MOUNTABLE" BELGIAN BLOCK CURB

GENERAL NOTES

1. R.O.W. LINES, PROPERTY LINES AND LOT INFORMATION SHOWN ON THIS PLAN ARE BASED UPON BOROUGH OF MADISON TAX MAPS.
2. ROADWAY UTILITIES SHOWN HEREON ARE BASED UPON FIELD OBSERVATIONS PERFORMED BY THE BOROUGH OF MADISON ENGINEERING DEPARTMENT AND ARE APPROXIMATE IN LOCATION.
3. THE CONTRACTOR SHALL VERIFY THE EXACT LOCATION OF ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION.
4. ALL PAVEMENT REMOVAL SHALL BE SAW CUT.
5. CONTRACTOR TO VERIFY CONDITION OF ALL EXISTING WATER SERVICE RISERS, REPLACE AS DIRECTED BY BOROUGH WATER DEPARTMENT.



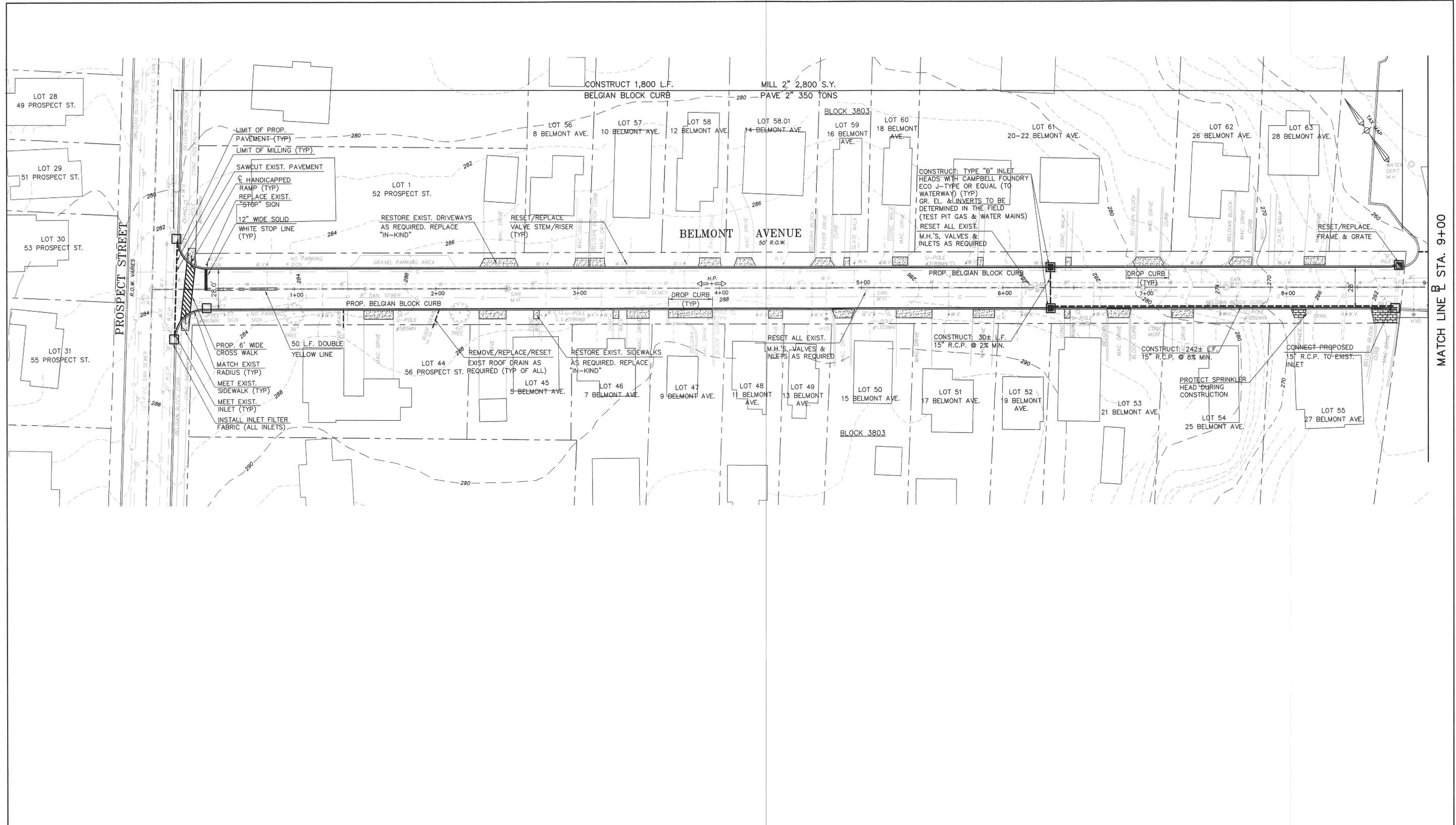
NO.	REVISIONS	DATE	BY	CHK.	APPR.

**2014 ROAD IMPROVEMENT PROGRAM
ACADEMY ROAD**

BOROUGH OF MADISON
DEPARTMENT OF ENGINEERING
HARTLEY DODGE MEMORIAL
MADISON, MORRIS COUNTY, N.J. 07940
(973) 593-3000

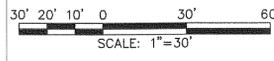
DATE: _____
ROBERT A. VOGEL, P.E.
PROFESSIONAL ENGINEER N.J. LIC. NO. 34463

SCALE: 1"=30'
DATE: 1-22-14
DR. BY: D.BUCK
CHK. BY: R.A.V.
DWG. NO. 5 of 14



GENERAL NOTES

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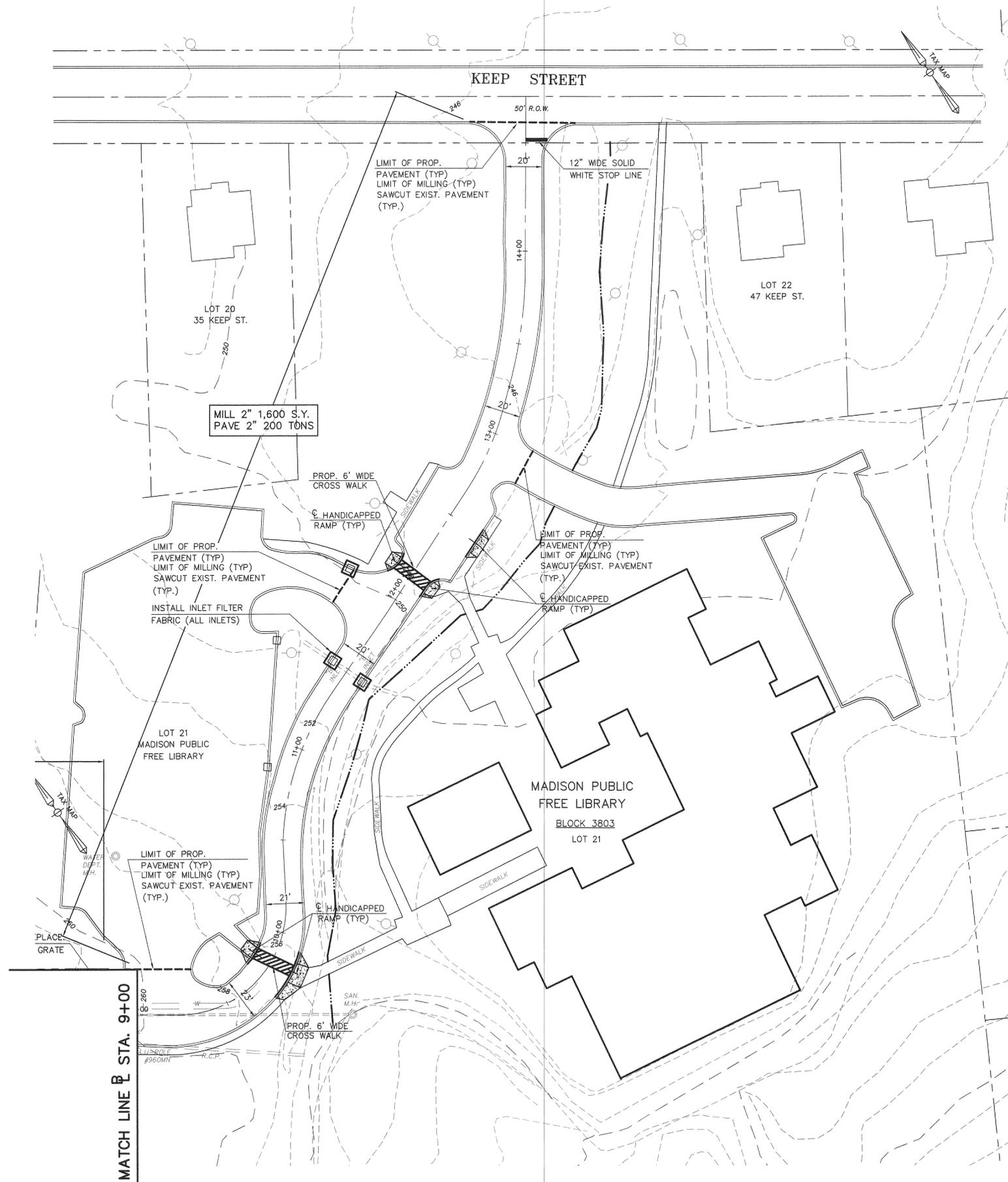
NO.	REVISIONS	DATE	BY	CHK.	APPR.

2014 ROAD IMPROVEMENT PROGRAM
BELMONT AVENUE

BOROUGH OF MADISON
 DEPARTMENT OF ENGINEERING
 HARTLEY DODGE MEMORIAL
 MADISON, MORRIS COUNTY, N.J. 07940
 (978) 593-3060

DATE: _____
ROBERT A. VOGEL, P.E.
 PROFESSIONAL ENGINEER N.J. LIC. NO. 34463

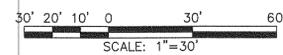
SCALE: 1"=30'
 DATE: 1-22-14
 DR. BY: D.BUCK
 CHK. BY: R.A.V.
 DWG. NO. 6 of 14



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MATCH LINE @ STA. 9+00



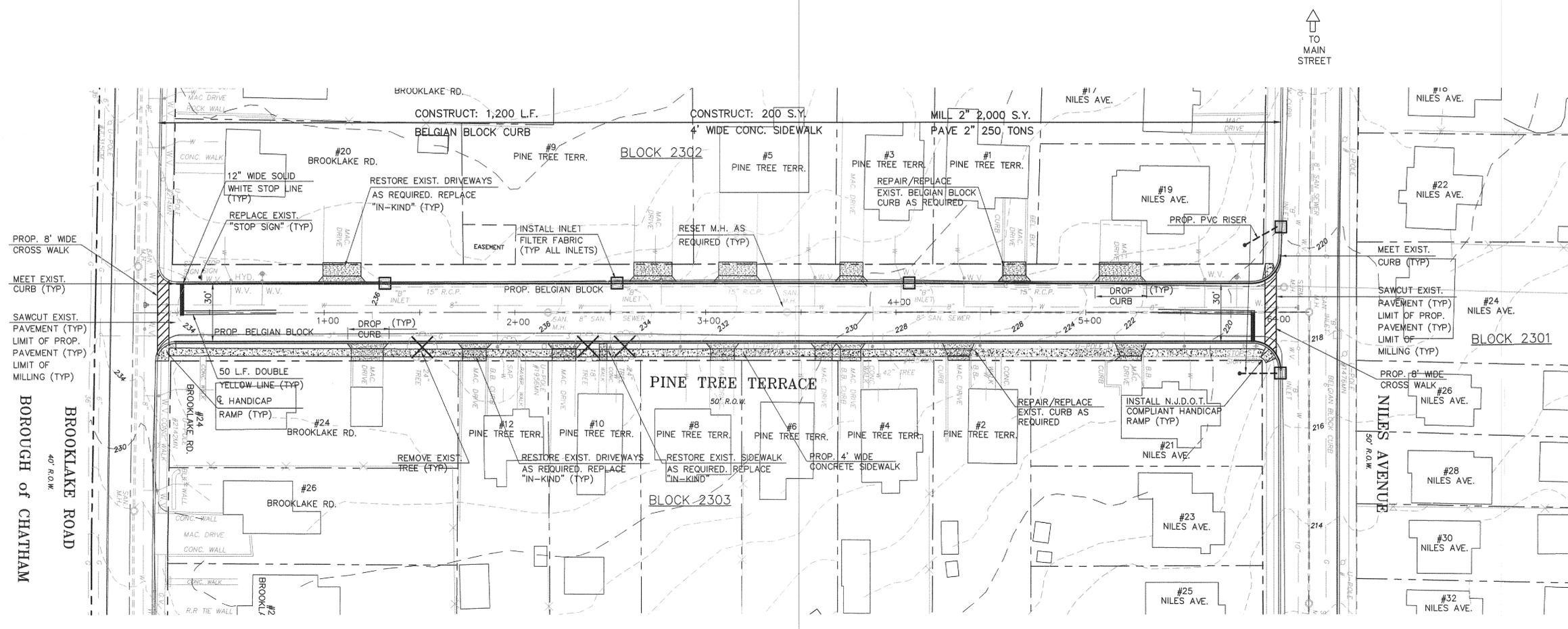
NO.	REVISIONS	DATE	BY	CHK.	APPR.

**2014 ROAD IMPROVEMENT PROGRAM
BELMONT AVENUE EXTENSION
(LIBRARY ACCESS DRIVE)**

BOROUGH OF MADISON
DEPARTMENT OF ENGINEERING
HARTLEY DODGE MEMORIAL
MADISON, MORRIS COUNTY, N.J. 07940
(973) 593-3080

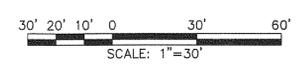
DATE _____
ROBERT A. VOGEL, P.E.
PROFESSIONAL ENGINEER N.J. LIC. NO. 34463

SCALE: 1"=30'
DATE: 1-22-14
DR. BY: D.BUCK
CHK. BY: R.A.V.
DWG. NO. 7 of 14



GENERAL NOTES

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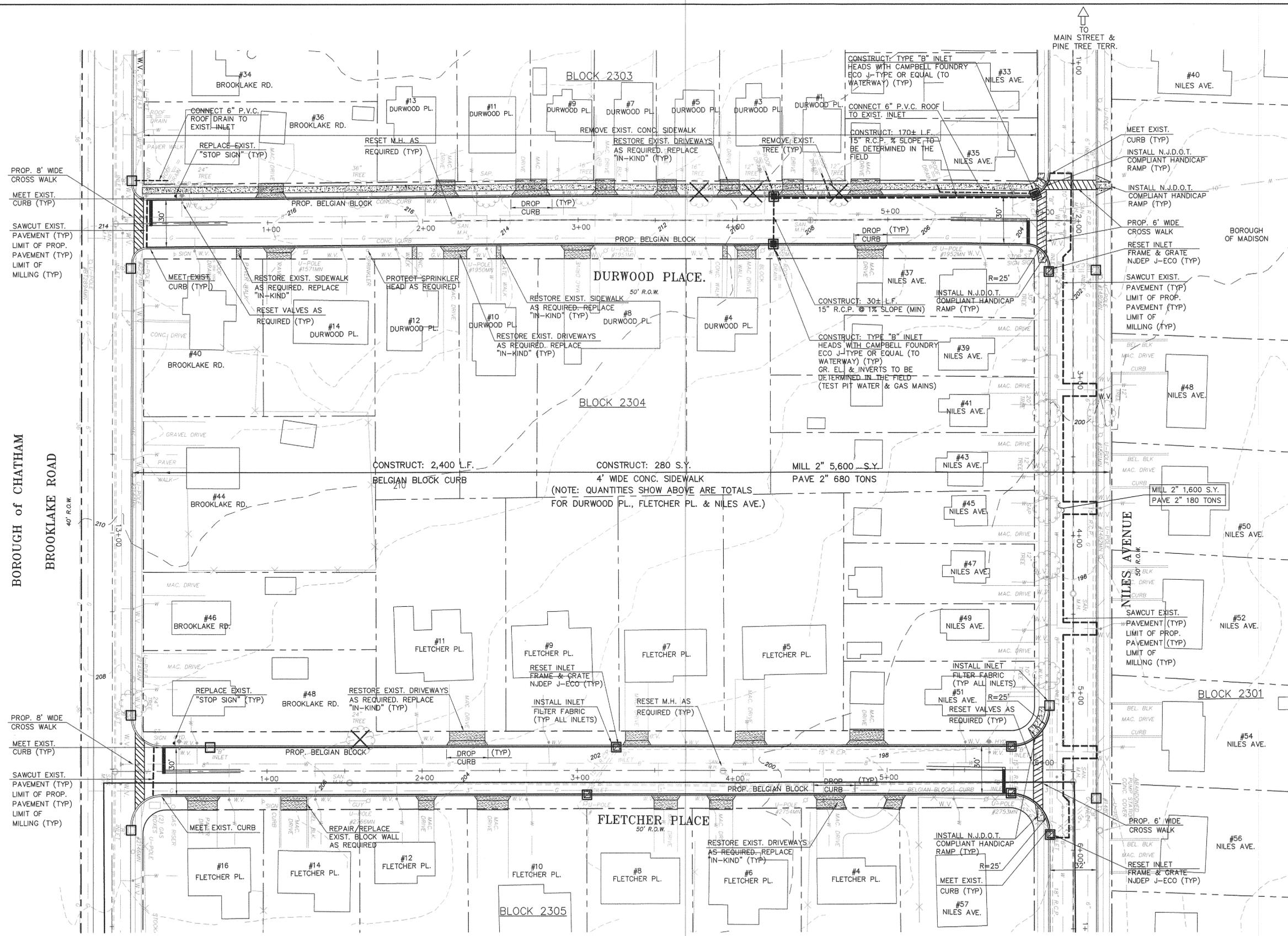
2014 ROADWAY IMPROVEMENT PROGRAM
PINE TREE TERRACE

BOROUGH OF MADISON
DEPARTMENT OF ENGINEERING
HARTLEY DODGE MEMORIAL
MADISON, MORRIS COUNTY, N.J. 07940
(973) 593-3060

DATE _____

ROBERT A. VOGEL, P.E.
PROFESSIONAL ENGINEER N.J. LIC. NO. 34463

SCALE: 1" = 30'
DATE: 1-22-14
DR. BY: D. BUCK
CHK. BY: R.A.V.
DWG. NO. 8 of 14



BOROUGH of CHATHAM
BROOKLAKE ROAD
40' R.O.W.

TO
MAIN STREET &
PINE TREE TERR.

TO
DELBARTON
DRIVE

GENERAL NOTES

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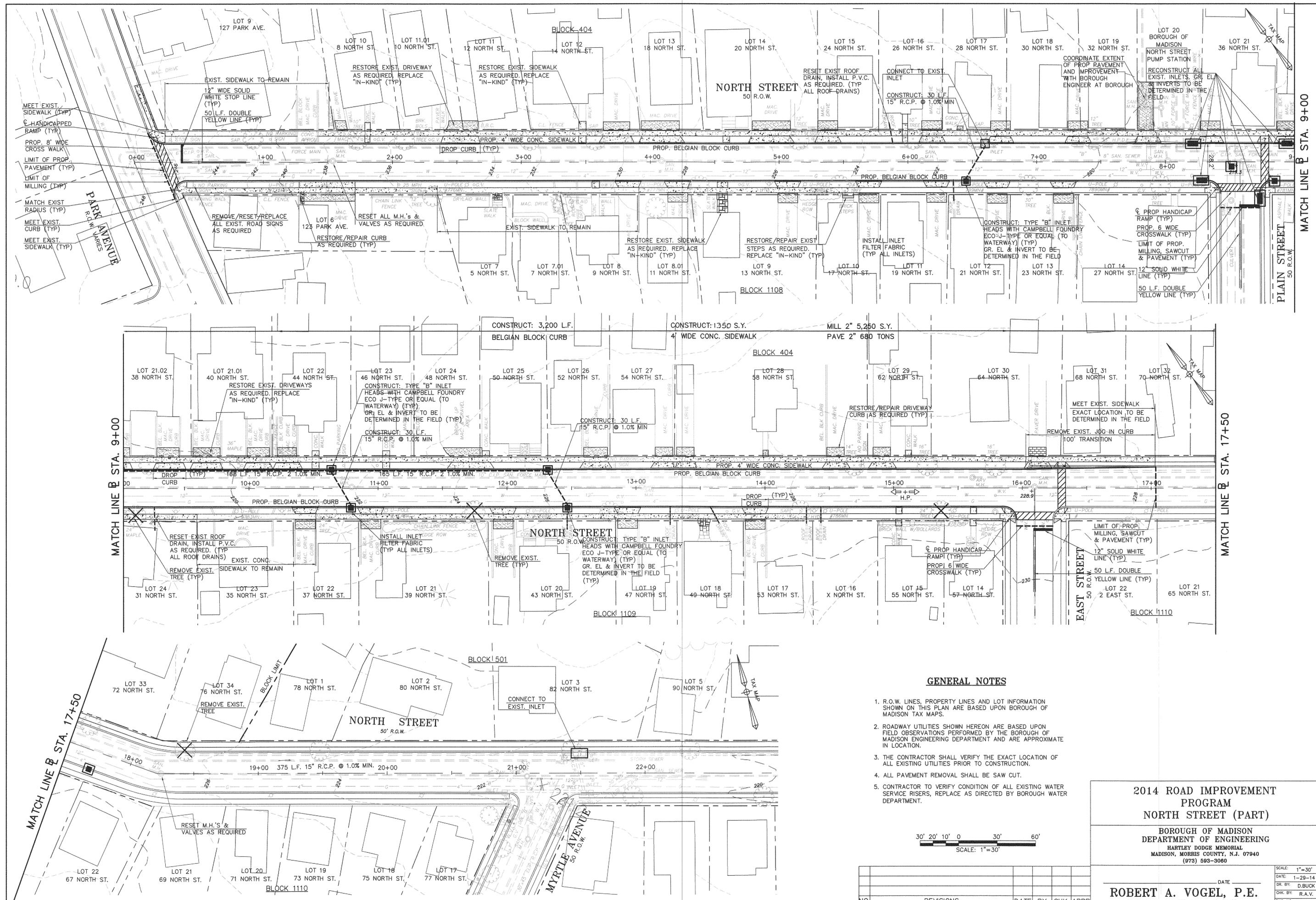
**2014 ROADWAY IMPROVEMENT PROGRAM
DURWOOD PLACE, FLETCHER PLACE
& NILES AVENUE**

BOROUGH OF MADISON
DEPARTMENT OF ENGINEERING
HARTLEY DODGE MEMORIAL
MADISON, MORRIS COUNTY, N.J. 07940
(973) 593-3060

DATE _____
ROBERT A. VOGEL, P.E.
PROFESSIONAL ENGINEER N.J. LIC. NO. 34463

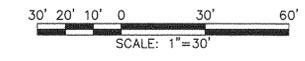
REVISIONS	DATE	BY	CHK.	APPR

SCALE: 1" = 30'
DATE: 1-22-14
DR. BY: D. BUCK
CHK. BY: R.A.V.
DWG. NO. 9 of 14



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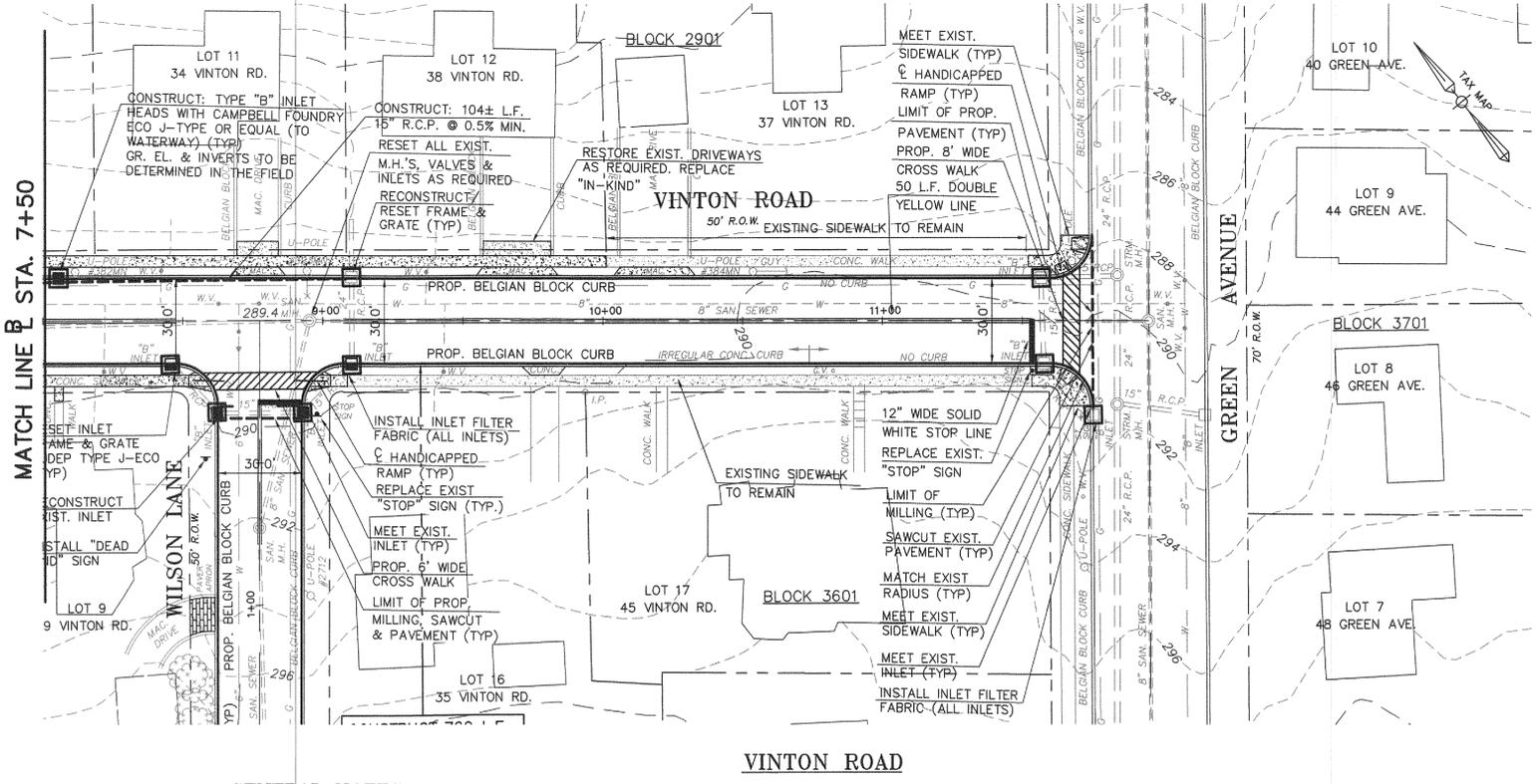
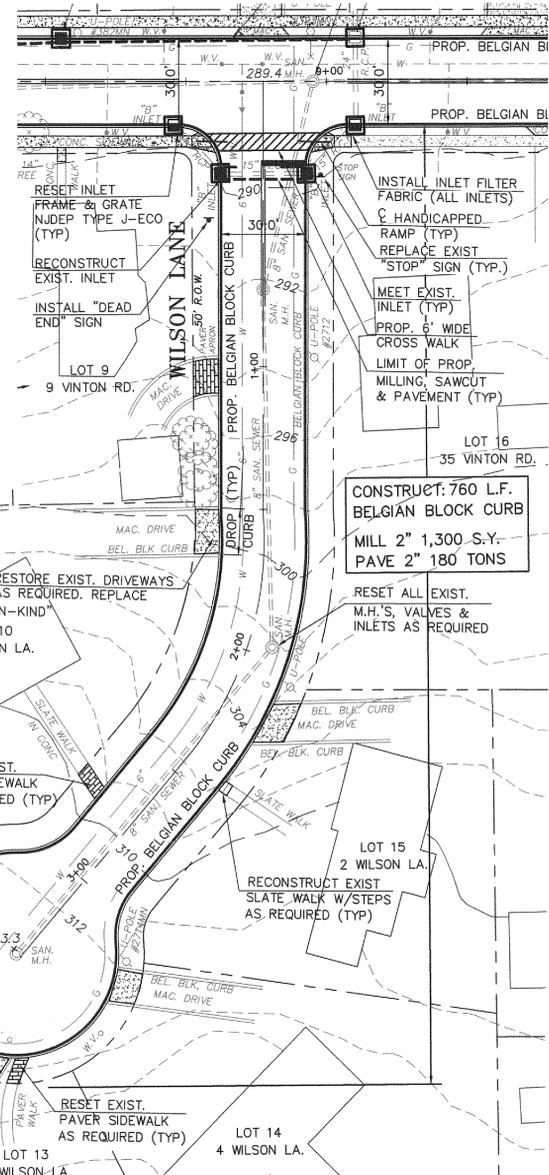
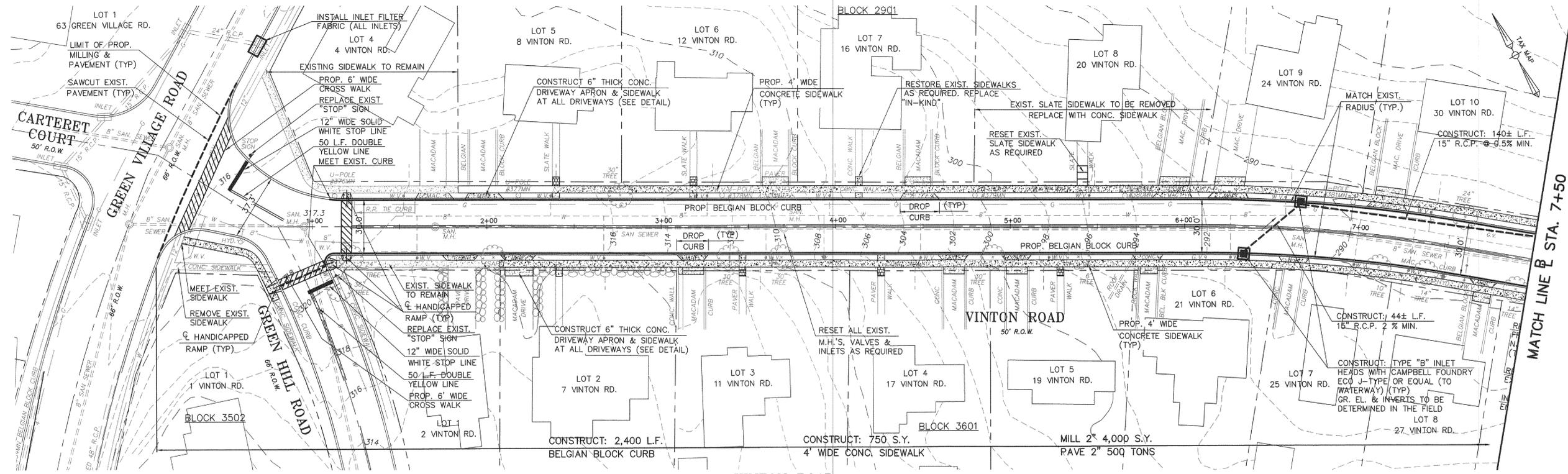
**2014 ROAD IMPROVEMENT PROGRAM
NORTH STREET (PART)**

BOROUGH OF MADISON
DEPARTMENT OF ENGINEERING
HARTLEY DODGE MEMORIAL
MADISON, MORRIS COUNTY, N.J. 07940
(973) 593-3060

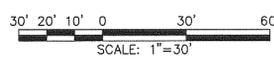
ROBERT A. VOGEL, P.E.
PROFESSIONAL ENGINEER N.J. LIC. NO. 34463

NO.	REVISIONS	DATE	BY	CHK.	APPR.

DATE: _____
 SCALE: 1"=30'
 DATE: 1-29-14
 DR. BY: D.BUCK
 CHK. BY: R.A.V.
 DWG. NO. 10 of 14



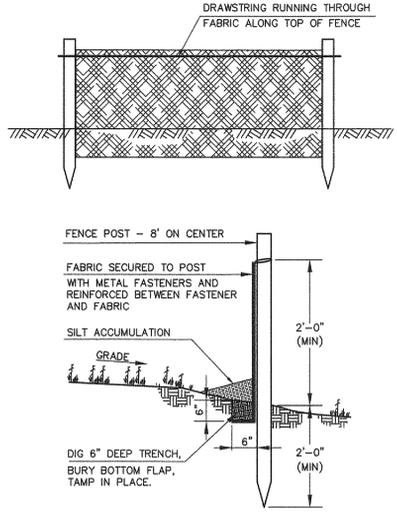
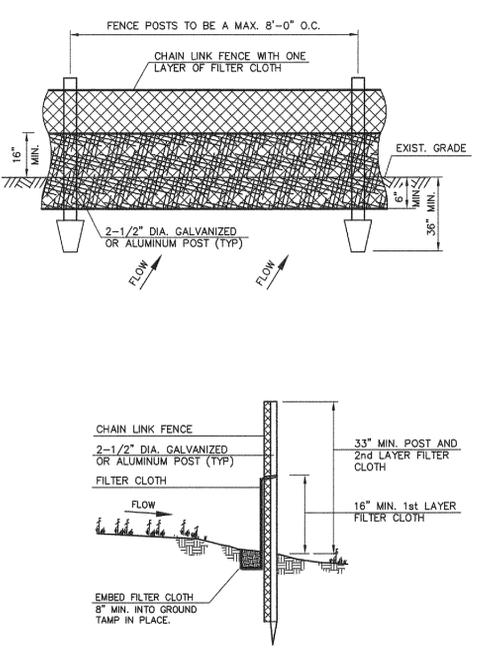
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NO.	REVISIONS	DATE	BY	CHK.	APPR.

2014 ROAD IMPROVEMENT PROGRAM
VINTON ROAD & WILSON LANE
 BOROUGH OF MADISON
 DEPARTMENT OF ENGINEERING
 HARTLEY DODGE MEMORIAL
 MADISON, MORRIS COUNTY, N.J. 07940
 (973) 593-3080

DATE: _____
ROBERT A. VOGEL, P.E.
 PROFESSIONAL ENGINEER N.J. LIC. NO. 34463
 SCALE: 1"=30'
 DATE: 1-22-14
 DR. BY: D.BUCK
 CHK. BY: R.A.V.
 DWG. NO. 11 of 14

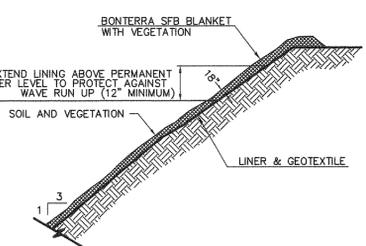


REQUIREMENTS FOR SILT FENCE

- FENCE POSTS SHALL BE SPACED 8 FEET CENTER-TO-CENTER OR CLOSER. THEY SHALL EXTEND AT LEAST 2 FEET INTO THE GROUND AND EXTEND AT LEAST 2 FEET ABOVE GROUND. POSTS SHALL BE CONSTRUCTED OF HARDWOOD WITH A MINIMUM DIAMETER THICKNESS OF 1-1/2 INCHES.
- A METAL FENCE WITH 6 INCH OR SMALLER OPENINGS AND AT LEAST 2 FEET HIGH MAY BE UTILIZED, FASTENED TO THE FENCE POSTS, TO PROVIDE REINFORCEMENT AND SUPPORT TO THE GEOTEXTILE FABRIC WHERE SPACE FOR OTHER PRACTICES IS LIMITED AND HEAVY SEDIMENT LOADING IS EXPECTED.
- A GEOTEXTILE FABRIC, RECOMMENDED FOR SUCH USE BY THE MANUFACTURER, SHALL BE BURIED AT LEAST 6 INCHES DEEP IN THE GROUND. THE FABRIC SHALL EXTEND AT LEAST 2 FEET ABOVE THE GROUND. THE FABRIC MUST BE SECURELY FASTENED TO THE POST USING A SYSTEM CONSISTING OF METAL FASTENERS (NAILS OR STAPLES) AND A HIGH STRENGTH REINFORCEMENT MATERIAL (NYLON WEBBING, GROMMETS, WASHERS ETC.) PLACED BETWEEN THE FASTENER AND THE GEOTEXTILE FABRIC. THE FASTENING SYSTEM SHALL RESIST TEARING AWAY FROM THE POST. THE FABRIC SHALL INCORPORATE A DRAWSTRING IN THE TOP PORTION OF THE FENCE FOR ADDED STRENGTH.

NOTE: ANY FILL SLOPE IN EXCESS OF 20% GRADE OR 4 FOOT IN HEIGHT MAY REQUIRE THE ADDITION OF SUPER SILT FENCE TO CONTROL EROSION OF SEDIMENTS FROM THE EMBANKMENT.

SUPER SILT FENCE
N.T.S.



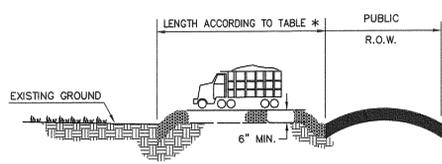
VEGETATIVE ARMOR DETAIL
3:1 SLOPE DETAIL

SILT FENCE
N.T.S.

PERCENT SLOPE OF ROADWAY	LENGTH OF STONE REQUIRED	
	COURSE GRAINED SOILS	FINE GRAINED SOILS
0 TO 2%	50 FT	100 FT
2% TO 5%	100 FT	200 FT
>5%	ENTIRE SURFACE STABILIZED WITH FABC BASE COURSE	

1. AS PRESCRIBED BY LOCAL ORDINANCE OR OTHER GOVERNING AUTHORITY.

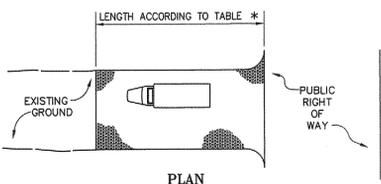
LENGTHS OF CONSTRUCTION EXITS ON SLOPING ROADBEDS



PROFILE

USE ASTM C-33, SIZE No. 2 2-1/2" TO 1-1/2" OR No. 3 2" TO 1". USE CLEAN CRUSHED ANGULAR STONE, CRUSHED CONCRETE OR SIMILAR SIZE MAY BE SUBSTITUTED BUT WILL REQUIRE MORE FREQUENT UPGRADING AND MAINTENANCE.

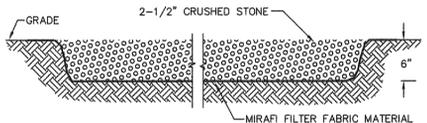
PROVIDE APPROPRIATE TRANSITION BETWEEN STABILIZED CONSTRUCTION ENTRANCE AND PUBLIC R.O.W.



PLAN

* NOTE INDIVIDUAL LOT ACCESS POINTS MAY REQUIRE STABILIZATION THICKNESS SHOWN IS FOR CONSTRUCTION ENTRANCE ONLY. (TYP)

STABILIZED CONSTRUCTION ENTRANCE DETAIL



TRACKING PAD
N.T.S.

DUST CONTROL MATERIALS

MATERIAL	WATER DILUTION	TYPE OF NOZZLE	APPLY GALLON/ACRE
ANIONIC ASPHALT EMULSION	7:1	COARSE SPRAY	1200
LATEX EMULSION	12.5:1	FINE SPRAY	235
RESIN IN WATER	4:1	FINE SPRAY	300
POLYACRYLAMIDE (PAM) (SPRAY-ON)	APPLY ACCORDING TO MANUFACTURER'S INSTRUCTIONS. MAY ALSO BE USED AS AN ADDITIVE TO SEDIMENT BASINS TO FLOCCULATE AND PRECIPITATE SUSPENDED COLLOIDS. SEE SEDIMENT BASIN STANDARDS, pg. 26-1		
POLYACRYLAMIDE (PAM) (DRY SPREAD)			
ACIDULATED SOY BEAN SOUP STICK	NONE	COARSE SPRAY	1200

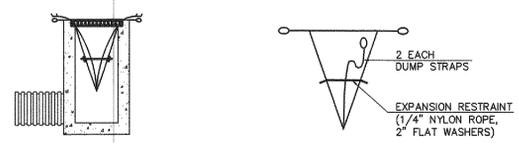
TILLAGE:
TO ROUGHEN SURFACE AND BRING CLODS TO THE SURFACE. THIS IS A TEMPORARY EMERGENCY MEASURE WHICH SHOULD BE USED BEFORE SOIL BLOWING STARTS. BEGIN PLOWING ON WINDWARD SIDE OF SITE. CHISEL-TYPE PLOWS PLACED ABOUT 12 INCHES APART, AND SPRING TOOTHED HARROWS ARE EXAMPLES OF EQUIPMENT WHICH MAY PRODUCE THE DESIRED EFFECT.

SPRINKLING:
SITE IS SPRINKLED UNTIL THE SURFACE IS WET.

BARRIERS:
SOLID BOARD FENCES, SNOW FENCES, BURLAP FENCES, CRATE WALLS, BALES OF HAY, AND SIMILAR MATERIALS CAN BE USED TO CONTROL AIR CURRENTS AND SOIL BLOWING.

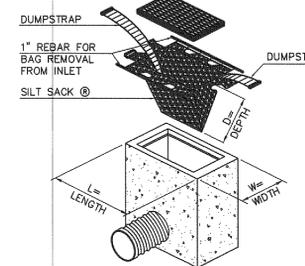
CALCIUM CHLORIDE:
SHALL BE IN THE FORM OF LOOSE, DRY GRANULES OR FLAKES FINE ENOUGH TO FEED THROUGH COMMONLY USED SPREADERS AT A RATE THAT WILL KEEP SURFACE MOIST BUT NOT CAUSE POLLUTION OR PLANT DAMAGE. IF USED ON STEEPER SLOPES, THEN USE OTHER PRACTICES TO PREVENT WASHING INTO STREAMS OR ACCUMULATION AROUND PLANTS.

STONE:
COVER SURFACE WITH CRUSHED STONE OR COARSE GRAVEL.

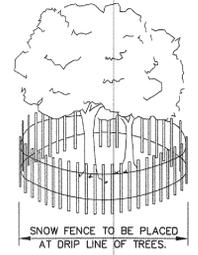


INSTALLATION DETAIL

BAD DETAIL



INLET FILTER DETAIL
N.T.S.



TREE PROTECTION DETAIL
N.T.S.

LANDSCAPE NOTES

- ALL PLANT MATERIAL SHALL CONFORM TO THE AMERICAN ASSOCIATION OF NURSERYMEN STANDARDS.
- TOPSOIL AND SEED ALL AREAS DISTURBED BY CONSTRUCTION AND ALL LOCATIONS SHOWN AS SEEDING OR PLANT.
- TOPSOIL FOR PLANTING PITS SHALL BE ANALYZED FOR DEFICIENCIES AND IMPROVED AS NECESSARY THEN SHALL BE MIXED AS FOLLOWS:
MIX 2:2 IMPROVED TOPSOIL WITH 1/3 PEAT HUMUS AND A FEW SHOVELS OF DRIED MANURE IN EACH PIT.
- ALL SHRUB BEDS AND TREE SAUCERS SHALL BE MULCHED WITH SHREDDED HARDWOOD BARK MULCH AT 3" DEPTH.
- ALL PROPOSED PLANT MATERIAL SHALL BE BALLED AND BURLAPPED UNLESS NOTED OTHERWISE ON PLANTING SCHEDULE.
- AFTER THE PLANTING CONTRACTOR HAS COMPLETED THE TERMS OF HIS CONTRACT, THE OWNER SHALL BE RESPONSIBLE FOR THE MAINTENANCE OF ALL PROPOSED PLANTINGS BY PROVIDING THE CORRECT METHODS OF IRRIGATION, SPRINKLING, WATERING, PRUNING, AND FERTILIZING ACCORDING TO GOOD HORTICULTURAL PRACTICE.
- ALL LANDSCAPING SHALL BE PLANTED IN A HEALTHY AND VIGOROUS MANNER.
- ALL PLANTS, SHRUBS, AND TREES THAT DIE WITHIN THE FIRST GROWING SEASON SHALL BE REPLACED WITH PLANTS OF EQUAL OR BETTER QUALITY IN CONFORMANCE WITH THE APPROVED LANDSCAPE PLAN.

PROPOSED CONSTRUCTION SEQUENCE

- INSTALL S.E.S.C. MEASURES 2 DAYS
- TEMPORARY MEASURES FOR DISTURBED SOILS CONTINUOUS
- NO CONTINUOUS TRENCHING OR EXCAVATION SHALL BE LEFT OPEN OR EXPOSED FOR DRAINAGE, CURBING OR GRADING ACTIVITIES. ALL TRENCHING WITHIN PAVED CORRIDOR SHALL BE RESTORED WITH STABILIZED BASE WITHIN 72 HOURS MAXIMUM 4 WEEKS
- THE OVERALL PROJECT DURATION OF 90 DAYS SHALL BE STAGED TO MINIMIZE EXPOSURE OF BARE SOILS TO WIND AND RAIN. CONTINUOUS
- FINAL TOPSOIL AND SEED OPERATIONS ARE COMPLETED. 1 WEEK
- REMOVAL OF SOIL EROSION AND SEDIMENT CONTROL MEASURES UPON PERMANENT GROWTH. 2 DAYS

TOTAL PROJECT DURATION = 90 DAYS

**MORRIS COUNTY SOIL CONSERVATION DISTRICT
SOIL EROSION AND SEDIMENT CONTROL NOTES**

- ALL SOIL EROSION AND SEDIMENT CONTROL PRACTICES WILL BE INSTALLED IN ACCORDANCE WITH THE STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL IN NEW JERSEY, AND WILL BE IN PLACE PRIOR TO ANY MAJOR SOIL DISTURBANCE, OR IN THEIR PROPER SEQUENCE AND MAINTAINED UNTIL PERMANENT PROTECTION IS ESTABLISHED.
- ANY DISTURBED AREA THAT WILL BE LEFT EXPOSED FOR MORE THAN THIRTY (30) DAYS AND NOT SUBJECT TO CONSTRUCTION TRAFFIC SHALL IMMEDIATELY RECEIVE A TEMPORARY SEEDING. IF THE SEASON PROHIBITS TEMPORARY SEEDING, THE DISTURBED AREAS WILL BE MULCHED WITH STRAW OR HAY AND TACKED IN ACCORDANCE WITH THE NEW JERSEY STANDARDS. SEE NOTE 21 BELOW.
- PERMANENT VEGETATION IS TO BE ESTABLISHED ON EXPOSED AREAS WITHIN TEN (10) DAYS AFTER FINAL GRADING. MULCH IS TO BE USED FOR PROTECTION UNTIL VEGETATION IS ESTABLISHED. SEE NOTE 22 BELOW.
- IMMEDIATELY FOLLOWING INITIAL DISTURBANCE OR ROUGH GRADING, ALL CRITICAL AREAS (STEEP SLOPES, SANDY SOILS, WET CONDITIONS) SUBJECT TO EROSION WILL RECEIVE A TEMPORARY SEEDING IN ACCORDANCE WITH NOTE 21 BELOW.
- TEMPORARY DIVERSION BERMS ARE TO BE INSTALLED ON ALL CLEARED ROADWAYS AND EASEMENT AREAS. SEE THE DIVERSION DETAIL.
- PERMANENT SEEDING AND STABILIZATION TO BE IN ACCORDANCE WITH THE STANDARDS FOR PERMANENT VEGETATIVE COVER FOR SOIL STABILIZATION COVER. SPECIFIED RATES AND LOCATIONS SHALL BE ON THE APPROVED SOIL EROSION AND SEDIMENT CONTROL PLAN.
- THE SITE SHALL AT ALL TIMES BE GRADED AND MAINTAINED SO THAT ALL STORMWATER RUNOFF IS DIVERTED TO SOIL EROSION AND SEDIMENT CONTROL FACILITIES.
- ALL SEDIMENTATION STRUCTURES (SILT FENCE, INLET FILTERS, AND SEDIMENT BASINS) WILL BE INSPECTED AND MAINTAINED DAILY.
- STOCKPILES SHALL NOT BE LOCATED WITHIN 50 FEET OF A FLOODPLAIN, SLOPE, DRAINAGE FACILITY, OR ROADWAY. ALL STOCKPILES BASES SHALL HAVE A SILT FENCE PROPERLY EXTENDED AT THE TOE OF SLOPE.
- A STABILIZED CONSTRUCTION ACCESS WILL BE INSTALLED, WHENEVER AN EARTHEN ROAD INTERSECTS WITH A PAVED ROAD. SEE THE STABILIZED CONSTRUCTION ACCESS DETAIL AND CHART FOR DIMENSIONS.
- ALL NEW ROADWAYS WILL BE TREATED WITH SUITABLE SUBBASE UPON ESTABLISHMENT OF FINAL GRADE ELEVATIONS.
- PAVED ROADWAYS MUST BE KEPT CLEAN AT ALL TIMES.
- BEFORE DISCHARGE POINTS BECOME OPERATIONAL, ALL STORM DRAINAGE OUTLETS WILL BE STABILIZED AS REQUIRED.
- ALL DENATURING OPERATIONS MUST BE DISCHARGED DIRECTLY INTO A SEDIMENT FILTER AREA. THE FILTER SHOULD BE COMPOSED OF A FABRIC OR APPROVED MATERIAL. SEE THE DETAILED DETAIL.
- ALL SEDIMENT BASINS WILL BE CLEANED WHEN THE CAPACITY HAS BEEN REDUCED BY 50%. A CLEAN OUT ELEVATION WILL BE IDENTIFIED ON THE PLAN AND A MARKER INSTALLED ON THE SITE.
- DURING AND AFTER CONSTRUCTION, THE APPLICANT WILL BE RESPONSIBLE FOR THE MAINTENANCE AND UPKEEP OF THE DRAINAGE STRUCTURES, VEGETATION COVER, AND ANY OTHER MEASURES DEEMED APPROPRIATE BY THE DISTRICT. SAID RESPONSIBILITY WILL END WHEN COMPLETED WORK IS APPROVED BY THE MORRIS COUNTY SOIL CONSERVATION DISTRICT.
- ALL TREES OUTSIDE THE DISTURBANCE LIMIT INDICATED ON THE SUBJECT PLAN OR THOSE TREES WITHIN THE DISTURBANCE AREA WHICH ARE DESIGNATED TO REMAIN AFTER CONSTRUCTION ARE TO BE PROTECTED WITH TREE PROTECTION DEVICES. SEE THE TREE PROTECTION DETAIL.
- THE MORRIS COUNTY SOIL CONSERVATION DISTRICT MAY REQUEST ADDITIONAL MEASURES TO MINIMIZE ON SITE OR OFF SITE EROSION PROBLEMS DURING CONSTRUCTION.
- THE MORRIS COUNTY SOIL CONSERVATION DISTRICT MUST BE NOTIFIED, IN WRITING, AT LEAST 72 HOURS PRIOR TO ANY LAND DISTURBANCE, AND A PRE-CONSTRUCTION MEETING HELD.
- CONTRACTOR TO SET UP A MEETING WITH THE INSPECTOR FOR PERIODIC INSPECTIONS OF THE TEMPORARY SEDIMENT BASIN PRIOR TO AND DURING ITS CONSTRUCTION.
- TOPSOIL STOCKPILE PROTECTION
 - APPLY GROUND LIMESTONE AT A RATE OF 90 LBS PER 1000 SQ. FT.
 - APPLY FERTILIZER (10-20-10) AT A RATE OF 11 LBS. PER 1000 SQ. FT.
 - APPLY PERENNIAL RYEGRASS SEED AT 1 LB. PER 1000 SQ. FT. AND ANNUAL RYEGRASS AT 1 LB. PER 1000 SQ. FT.
 - MULCH STOCKPILE WITH STRAW OR HAY AT A RATE OF 90 LBS. PER 1000 SQ. FT.
 - APPLY A LIQUID MULCH BINDER OR TACK TO STRAW OR HAY MULCH.
 - PROPERTY ENTRENCH A SILT FENCE AT THE BOTTOM OF THE STOCKPILE.
- TEMPORARY STABILIZATION SPECIFICATIONS
 - APPLY GROUND LIMESTONE AT A RATE OF 90 LBS PER 1000 SQ. FT.
 - APPLY FERTILIZER (10-20-10) AT A RATE OF 11 LBS. PER 1000 SQ. FT.
 - APPLY PERENNIAL RYEGRASS SEED AT 1 LB. PER 1000 SQ. FT. AND ANNUAL RYEGRASS AT 1 LB. PER 1000 SQ. FT.
 - MULCH STOCKPILE WITH STRAW OR HAY AT A RATE OF 90 LBS. PER 1000 SQ. FT.
 - APPLY A LIQUID MULCH BINDER OR TACK TO STRAW OR HAY MULCH.
- PERMANENT STABILIZATION SPECIFICATIONS
 - APPLY TOPSOIL TO A DEPTH OF 5 INCHES (UNSETTLED).
 - APPLY GROUND LIMESTONE AT A RATE OF 90 LBS PER 1000 SQ. FT. AND WORK FOUR INCHES INTO SOIL.
 - APPLY FERTILIZER (10-20-10) AT A RATE OF 11 LBS. PER 1000 SQ. FT.
 - APPLY HARD FESCUE SEED AT 2.7 LBS. PER 1000 SQ. FT. AND CREeping RED FESCUE SEED AT 0.7 LBS PER 1000 SQ. FT. AND PERENNIAL RYEGRASS SEED AT 0.25 LBS PER 1000 SQ. FT.
 - MULCH STOCKPILE WITH STRAW OR HAY AT A RATE OF 90 LBS. PER 1000 SQ. FT.
 - APPLY A LIQUID MULCH BINDER OR TACK TO STRAW OR HAY MULCH.

*NOTE: 72 HOURS PRIOR TO ANY SOIL DISTURBANCE, NOTICE IN WRITING, SHALL BE GIVEN TO THE MORRIS COUNTY SOIL CONSERVATION DISTRICT AND A PRE-CONSTRUCTION MEETING HELD.

STANDARDS FOR DUST CONTROL

DEFINITIONS
THE CONTROL OF DUST ON CONSTRUCTION SITES AND ROADS.

PURPOSE
TO PREVENT BLOWING AND MOVEMENT OF DUST FROM EXPOSED SOIL SURFACES, REDUCE ON-SITE AND OFF-SITE DAMAGE AND HEALTH HAZARDS, AND IMPROVE TRAFFIC SAFETY.

CONDITIONS WHERE PRACTICE APPLIES
CONDITIONS WHERE PRACTICE APPLIES: THIS PRACTICE IS APPLICABLE TO AREAS SUBJECT TO DUST BLOWING AND MOVEMENT WHERE ON-SITE AND OFF-SITE DAMAGE IS LIKELY WITHOUT TREATMENT. CONSULT WITH ANY MUNICIPAL ORDINANCES ON ANY RESTRICTIONS.

WATER QUALITY ENHANCEMENT
WATER QUALITY ENHANCEMENT SEDIMENTS DEPOSITED AS "DUST" ARE OFTEN FINE COLLOIDAL MATERIAL WHICH IS EXTREMELY DIFFICULT TO REMOVE FROM WATER ONCE IT BECOMES SUSPENDED. USE OF THIS STANDARD WILL HELP TO CONTROL THE GENERATION OF DUST FROM CONSTRUCTION SITES AND SUBSEQUENT BLOWING AND DISPERSION INTO LOCAL SURFACE WATER RESOURCES.

PLANNING CRITERIA:
THE FOLLOWING METHODS SHOULD BE CONSIDERED FOR CONTROLLING DUST:
MULCHES: SEE STANDARD OF STABILIZATION WITH MULCHES ONLY, pg. 5-1.
VEGETATIVE COVER: SEE STANDARD FOR: TEMPORARY VEGETATIVE COVER, pg. 7-1.
PERMANENT VEGETATIVE COVER FOR SOIL STABILIZATION, AND PERMANENT STABILIZATION WITH SOG.
SPRAY-ON ADHESIVES: ON MINERAL SOILS (NO EFFECTIVE ON MUCK SOILS)
KEEP TRAFFIC OFF THESE AREAS.

SEEDING OF STEEP SLOPES

- NOTE: IMMEDIATELY UPON COMPLETION OF FINE GRADING ON THE STEEP SLOPE AREAS (3:1 SLOPES AND GREATER), THE SLOPES SHALL BE HYDROSEED AS FOLLOWS:
- INSPECT AREA. SURFACE SHALL BE REASONABLY UNIFORM, FREE OF ALL STONES 2 INCHES OR LARGER, ALL DEBRIS, ROOTS, CLODS, OR OTHER UNSUITABLE MATERIAL. SOIL SHALL BE ROLLED FIRM BUT NOT COMPACTED.
 - APPLY LIMESTONE AND FERTILIZER AT THE FOLLOWING RATES:
- 3 TONS PER ACRE GROUND LIMESTONE
- 500 LBS. PER ACRE OF A 5-10-10 FERTILIZER.
 - APPLY SEED UNIFORMLY USING SEEDING MIXTURE SPECIFIED ABOVE, AT A RATE OF 220 LBS./ACRE. USE WOOD FIBER OR PAPER FIBER MULCH AT A RATE OF 1,500 LBS PER ACRE TO SEEDING MIXTURE.
- SEEDING DATES: 4/1 - 5/31 OR 8/16 - 10/15. LEAVE NO BARE SPOTS.

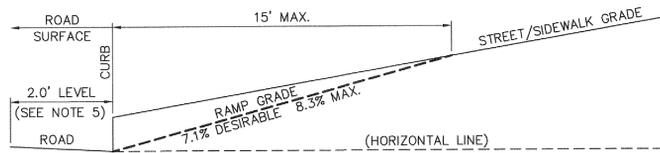
**2014 ROAD IMPROVEMENT PROGRAM
CONSTRUCTION DETAILS**

BOROUGH OF MADISON
DEPARTMENT OF ENGINEERING
HARTLEY DODGE MEMORIAL
MADISON, MORRIS COUNTY, N.J. 07940
(973) 593-3060

DATE _____
ROBERT A. VOGEL, P.E.
PROFESSIONAL ENGINEER N.J. LIC. NO. 34463

SCALE: N.T.S.
DATE: 1-22-14
DR. BY: R.A.V.
CHK. BY: D. BUCK
DWG. NO. 12 of 14

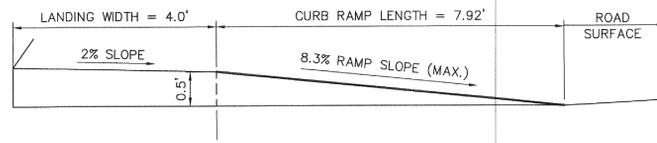
NO.	REVISIONS	DATE	BY	CHK.	APPR.



RAMP GRADE DETAIL
N.T.S.

GENERAL NOTES:

1. RECOMMENDED MAXIMUM GRADE TO ALLOW FOR CONSTRUCTION TOLERANCE 7.1%.
2. MAXIMUM GRADE 8.3%.
3. LEAST SLOPE POSSIBLE IS PREFERRED.
4. WHEN "CHASING GRADE," RAMP LENGTH NEED NOT EXCEED 15', BUT SLOPE MUST BE UNIFORM (PROWAG).
5. WHERE CHANGE IN GRADE IS GREATER THAN 11.0 PERCENT A 2.0 FOOT LEVEL TRANSITION IS REQUIRED FOR LANDING.

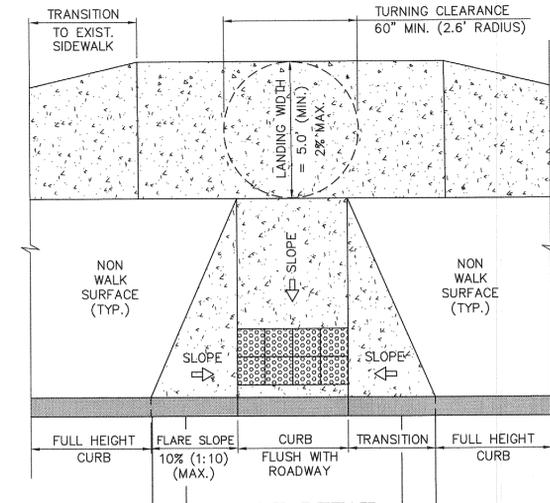


RAMP LENGTH DETAIL
N.T.S.

SAMPLE RAMP LENGTH CALCULATION

$$\text{RAMP LENGTH} = \frac{6" \text{ (CURB HEIGHT)}}{8.3\% \text{ (RAMP SLOPE)} - 2.0\% \text{ (MAX. SIDEWALK CROSS SLOPE)}} \cdot 0.5' \div (8.3\% - 2.0\%) = 7.92'$$

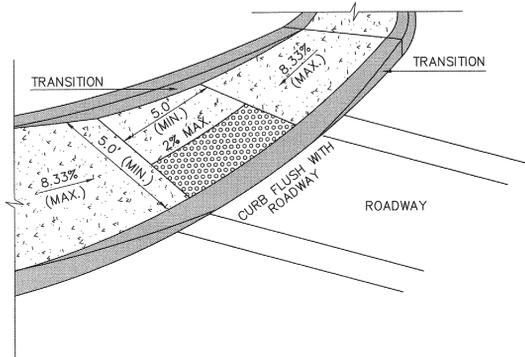
NOTE: HIGHER CURB OR FLATTER RAMP GRADE = LONGER RAMP



FLARE DETAIL
N.T.S.

GENERAL NOTES:

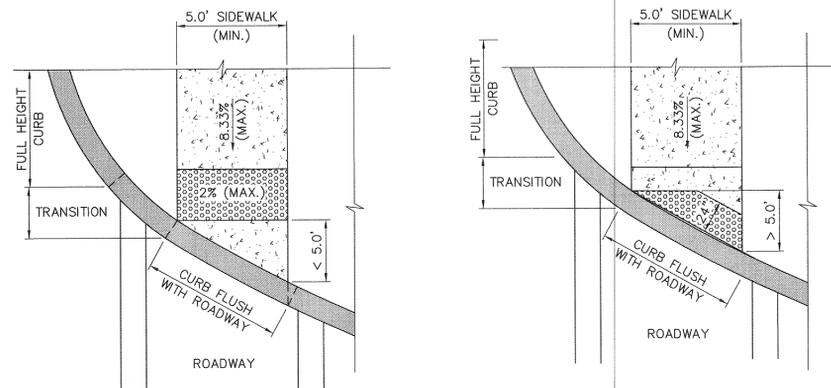
1. NOT PART OF ACCESSIBLE ROUTE
2. FLARES SHOULD BE USED ON ALL CURBSIDE SIDEWALKS
3. FLARE SLOPE: 10% (1:10) MAX.



PERPENDICULAR CURB RAMP DETAIL #1
N.T.S.

GENERAL NOTES:

1. PERPENDICULAR CURB RAMPS SHALL HAVE A RUNNING SLOPE THAT CUTS THROUGH OR IS BUILT UP TO THE CURB AT RIGHT ANGLES OR MEETS THE GUTTER GRADE BREAK AT RIGHT ANGLES.



PARALLEL CURB RAMP DETAIL
N.T.S.

GENERAL NOTES:

1. PARALLEL CURB RAMPS SHALL HAVE A RUNNING SLOPE THAT IS IN-LINE WITH THE DIRECTION OF SIDEWALK TRAVEL. 5 FOOT CLEAR LANDING WILL TRANSITION TO EXISTING SIDEWALK WIDTH.
2. ALL DIRECTION CHANGES REQUIRE 5 FOOT DIAMETER CLEAR TURNING CIRCLE.

GENERAL NOTES:

SURFACES:

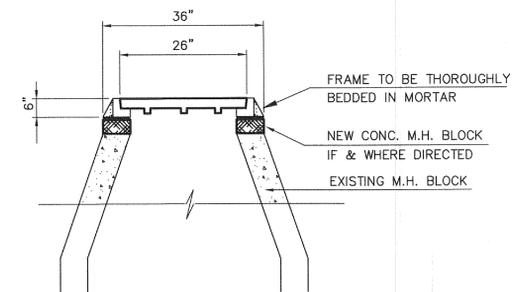
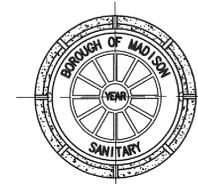
1. GRATINGS, ACCESS COVERS, AND OTHER APPURTENANCES SHALL NOT BE LOCATED ON CURB RAMPS, LANDINGS, BLENDED TRANSITIONS AND GUTTERS WITHIN THE PEDESTRIAN ACCESS ROUTE (PROWAG R303.3.3)
2. DETECTABLE TACTILE SURFACE SHALL BE N.J.D.O.T. TRUNCATED DOME FEDERAL YELLOW (COLOR #33538) USING POLYMER COMPOSITE MATERIAL EMBEDDED IN CONCRETE, OR APPROVED EQUAL.

LANDINGS:

1. MIN. 4.0' X 4.0' LANDING SHALL BE PROVIDED AT THE TOP A LINEAR CURB RAMP AND WITH MIN. 5 FOOT CLEAR TURNING CIRCLE ON ANY LANDING AREA REQUIRING A CHANGE IN DIRECTION OF TRAVEL.
2. RUNNING AND CROSS SLOPE AT MID-BLOCK CROSSINGS SHALL BE PERMITTED TO MEET PREVAILING STREET OR HIGHWAY GRADE.

LEGEND

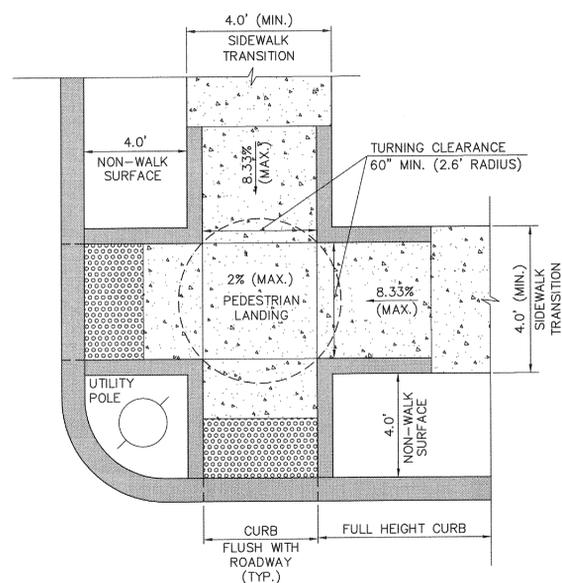
- N.J.D.O.T. TRUNCATED DOME TACTILE SURFACE
- EXIST./PROP. SIDEWALK
- EXIST./PROP. CURB



RESET MANHOLE W/NEW CASTING
N.T.S.

GENERAL NOTES:

1. NEW CASTING TO BE CAMPBELL FOUNDRY, PATTERN No. 1203B, HARRISON N.J. OR APPROVED EQUAL.
2. EXISTING CASTING TO BE DISPOSED OF AT MADISON D.P.W. WHERE CONDITION PERMITS REUSE.



PERPENDICULAR CURB RAMP DETAIL #2
N.T.S.

GENERAL NOTES:

1. PERPENDICULAR CURB RAMPS SHALL HAVE A RUNNING SLOPE THAT CUTS THROUGH OR IS BUILT UP TO THE CURB AT RIGHT ANGLES OR MEETS THE GUTTER GRADE BREAK AT RIGHT ANGLES.

NO.	REVISIONS	DATE	BY	CHK.	APPR.

2014 ROAD IMPROVEMENT PROGRAM CONSTRUCTION DETAILS

BOROUGH OF MADISON
DEPARTMENT OF ENGINEERING
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