

GENERAL NOTES

- APPROXIMATE LOCATION OF EXISTING UTILITIES ARE SHOWN. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT EXISTING UTILITIES AND SERVICES AND MAINTAIN UNINTERRUPTED SERVICE. ANY DAMAGE INCURRED SHALL BE REPAIRED IMMEDIATELY TO THE SATISFACTION OF THE ENGINEER AT THE CONTRACTOR EXPENSE.
- TOPOGRAPHIC FIELD SURVEYS WERE PERFORMED ON MARCH 2012 BY KCI TECHNOLOGIES, INC.
- HORIZONTAL AND VERTICAL SURVEY CONTROLS:
THE COORDINATES SHOWN ON THE DRAWINGS ARE BASED ON MARYLAND STATE REFERENCE SYSTEM NAD 83/2007 AS PROJECTED BY HOWARD COUNTY GEODETIC CONTROL STATIONS NO. 0084, 25GA & 24FA. ALL VERTICAL CONTROLS ARE BASED ON NAVD 88. VERTICAL CONTROLS PROVIDED ON THE DRAWINGS ARE X-CUT.
- ALL PIPE ELEVATIONS SHOWN ARE INVERT ELEVATIONS UNLESS OTHERWISE NOTED ON THE PLANS.
- CLEAR ALL UTILITIES BY A MINIMUM OF 12". CLEAR ALL POLES BY 5'-0" MINIMUM OR TUNNEL AS REQUIRED. IN THE EVENT THE CONTRACTOR'S WORK REQUIRED THE BRACING OF ADDITIONAL POLES AS SHOWN ON THE DRAWINGS, ANY COST INCURRED BY THE OWNER FOR THE BRACING OF ADDITIONAL POLES OR DAMAGES ANY COST INCURRED BY THE OWNER FOR THE BRACING OF ADDITIONAL POLES OR DAMAGES SHALL BE DEDUCTED FROM MONEY OWED THE CONTRACTOR. THE CONTRACTOR SHALL COORDINATE WITH THE UTILITY COMPANIES TO SCHEDULE THE BRACING OF THE POLES.
- FOR DETAILS NOT SHOWN ON THE DRAWINGS, AND FOR MATERIALS AND CONSTRUCTION METHODS, USE HOWARD COUNTY DESIGN MANUAL, VOLUME IV, STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION (LATEST EDITION). THE CONTRACTOR SHALL HAVE A COPY OF VOLUME IV ON THE JOB.
- WHERE TEST PITS HAVE BEEN MADE ON EXISTING UTILITIES, THEY ARE NOTED BY THE SYMBOL AT THE LOCATION OF THE TEST PIT. A NOTE OR NOTES CONTAINING THE RESULTS OF THE TEST PIT OR PITS IS INCLUDED ON THE DRAWINGS. EXISTING UTILITIES IN THE VICINITY OF THE PROPOSED WORK FOR WHICH TEST PITS HAVE NOT BEEN DUG SHALL BE LOCATED BY THE CONTRACTOR TWO WEEKS IN ADVANCE OF CONSTRUCTION OPERATIONS AT HIS OWN EXPENSE.
- CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITY COMPANIES OR AGENCIES AT LEAST FIVE WORKING DAYS BEFORE STARTING WORK SHOWN ON THESE PLANS:
AT&T.....1-800-252-1133
BG&E (CONSTRUCTION SERVICES).....410-637-8713
BG&E (EMERGENCY).....410-685-0123
BUREAU OF UTILITIES (DPW).....410-313-4900
COLONIAL.....410-795-1390
MISSISSIPPI UTILITY.....1-800-257-7777
STATE HIGHWAY ADMINISTRATION.....410-531-5533
VERIZON.....1-800-743-0033
- TREES AND SHRUBS ARE TO BE PROTECTED FROM DAMAGE TO THE MAXIMUM EXTENT. TREES AND SHRUBS LOCATED WITHIN THE CONSTRUCTION STRIP ARE NOT TO BE REMOVED OR DAMAGED BY THE CONTRACTOR.
- CONTRACTOR SHALL REMOVE TREES, STUMPS AND ROOTS ALONG LINE OF EXCAVATION. PAYMENT FOR SUCH REMOVAL SHALL BE INCLUDED IN THE UNIT PRICE BID FOR CONSTRUCTION OF THE MAIN.
- THE CONTRACTOR SHALL NOTIFY THE BUREAU OF HIGHWAYS, HOWARD COUNTY, AT (410)313-7450 AT LEAST FIVE WORKING DAYS BEFORE ANY OPEN CUT OR BORING/JACKING OPERATION OF ANY COUNTY ROAD FOR LAYING WATER/SEWER MAINS OR HOUSE CONNECTIONS. THE APPROVAL OF THESE DRAWINGS WILL CONSTITUTE COMPLIANCE WITH DPW REQUIREMENTS PER SECTION 18.114(g) OF THE HOWARD COUNTY CODE.
- THE CONTRACTOR SHALL PROVIDE SURVEY CONSTRUCTION STAKEOUT FOR ALL NECESSARY LINES, GRADES AND ELEVATION OF THE PROPOSED FACILITIES.
- THE CONTRACTOR SHALL PROVIDE STAGING/STORAGE AREA. THE WORK SHALL BE CONDUCTED UNDER STRICT ADHERENCE TO SECTION 308 - EROSION AND SEDIMENT CONTROL OF THE HOWARD COUNTY DESIGN MANUAL, VOLUME IV.

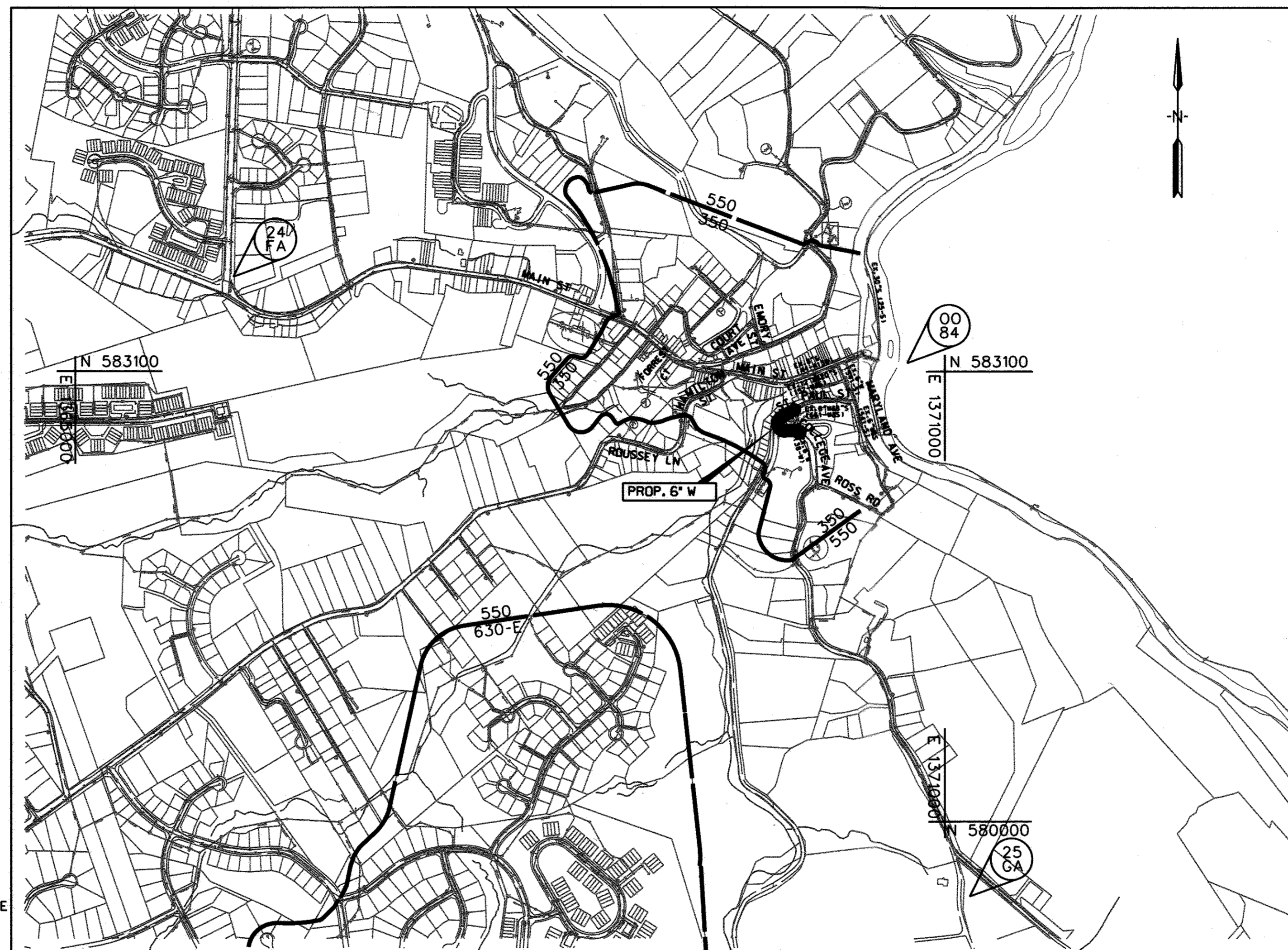
WATER MAIN NOTES

- ALL WATER MAINS SHALL BE POLYVINYLCHLORIDE (PVC) PIPE MEETING THE REQUIREMENTS OF AWWA C900 DR-14 AND THE HOWARD COUNTY DESIGN MANUAL VOLUME IV-STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION AND ALL SUBSEQUENT AMENDMENTS THERETO.
- TOPS OF WATER MAIN SHALL HAVE A MINIMUM OF 3'-6" OF COVER UNLESS OTHERWISE NOTED.
- VALVES ADJACENT TO TEES SHALL BE STRAPPED TO TEES.
- ALL PVC FITTINGS SHALL BE RESTRAINED FITTINGS.
PIPE RESTRAINT SHALL BE PROVIDED IN THE FOLLOWING MANNER USING SYSTEMS MANUFACTURED BY EBAA IRON INC. OR APPROVED EQUAL:
1) ALL DUCTILE IRON MECHANICAL JOINT FITTINGS (INCLUDING MECHANICAL JOINT HYDRANT CONNECTIONS) SHALL BE RESTRAINED USING THE SERIES 2000 PVC MECHANICAL JOINT FITTING RESTRAINT SYSTEM.
2) ALL FIVE (5) DEGREE SWEEPS WITHIN THE RESTRAINED JOINT LIMITS NOTED ON THE PROFILES SHALL BE RESTRAINED USING THE SERIES 1500 PVC FITTING HARNESS SYSTEM.
3) HIGH DEFLECTION COUPLINGS AND PUSH-ON BELL OR SPIGOT PIPE JOINTS LOCATED WITHIN THE RESTRAINED JOINT LIMITS NOTED ON THE PROFILES SHALL BE RESTRAINED USING THE SERIES 1500 PVC HARNESSING SYSTEM. BEND HARNESSING RODS TO MATCH THE ANGLE AT HIGH DEFLECTION COUPLINGS. HIGH DEFLECTION COUPLINGS ARE LIMITED TO A MAXIMUM DEFLECTION OF 3 DEGREES.
- THE FOLLOWING NOTE IS ADDED TO HOWARD COUNTY STANDARD DETAIL W 2.22. BUTTRESS AND ANCHORAGE FOR VERTICAL BENDS. WHEN ANCHORING PVC PIPE, THE STRAPPING IN CONTACT WITH PIPE SURFACE SHALL BE 1-INCH WIDE BY 1/4-INCH THICK STEEL. THE REMAINING PORTION OF THE STRAP SHALL BE REINFORCING BAR SIZED IN ACCORDANCE WITH THE PERTINENT CHART SHOWN ON THE DETAIL.
- FIRE HYDRANTS SHALL BE SET TO THE BURY LINE ELEVATIONS SHOWN ON THE DRAWINGS. ALL FIRE HYDRANTS SHALL BE INSTALLED IN ACCORDANCE WITH STANDARD DETAILS. THE SOIL AROUND THE FIRE HYDRANT SHALL BE COMPACTED IN ACCORDANCE WITH SECTION 1000 AND SECTION 1005 OF THE STANDARD DETAIL. ALL FIRE HYDRANT LEADS SHALL BE POLYVINYL CHLORIDE (PVC) PIPE MEETING THE REQUIREMENTS OF AWWA C900 DR14 AND CONSTRUCTION IN ACCORDANCE WITH HOWARD COUNTY DESIGN MANUAL VOLUME IV-STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION.
- THE CONTRACTOR SHALL NOT OPERATE ANY WATER MAIN VALVES ON THE EXISTING WATER SYSTEM.
- TRACER WIRES AND CONTINUITY TEST STATIONS SHALL BE INSTALLED ON ALL DIP AND PVC WATER MAINS IN ACCORDANCE WITH THE HOWARD COUNTY DESIGN MANUAL.
- THE CONTRACTOR SHALL NOTIFY THE BUREAU OF UTILITIES HOWARD COUNTY, 15 DAYS PRIOR TO WATER MAIN SHUT DOWNS.
- FOR PVC WATER MAINS, ALL RECORDS FOR THE QUALITY CONTROL AND QUALIFICATION TEST REQUIREMENTS NOTED IN SECTION 5.1 OF THE AWWA STANDARD C900 FOR PVC PRESSURE PIPE SHALL BE SUBMITTED WITH THE PIPE MATERIAL CERTIFICATIONS OR SHOP DRAWINGS PRIOR TO APPROVAL OF THE MATERIAL FOR USE. THE TEST RECORDS SHALL BE FOR THE PIPE TO BE INSTALLED UNDER THIS CONTRACT. ALL PVC PIPE SHALL CONTAIN MARKINGS TO ALLOW CROSS REFERENCING OF THE PIPE SUPPLIED TO THE TEST RECORDS RECEIVED.
- UNLESS OTHERWISE NOTED ON THE PLANS OR IN THE SPECIFICATIONS SACRIFICIAL ANODES SHALL BE INSTALLED ON ALL VALVES AND METALLIC FITTINGS USED WITH PVC WATER MAINS IN ACCORDANCE WITH VOLUME IV, STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION.
SEVENTEEN (17) POUND MAGNESIUM ANODES SHALL BE INSTALLED ON ALL VALVES AND DUCTILE IRON FITTINGS INCLUDING REINFORCEMENTS AND HARNESSES.
TWELVE (12) POUND ZINC ANODES SHALL BE INSTALLED ON ALL STAINLESS STEEL FITTINGS AND SADDLES USED WITH PVC MAINS. ALL "TEES" USED WITH PVC MAINS SHALL BE DUCTILE IRON.

SAINT PAUL STREET WATER MAIN EXTENSION HOWARD COUNTY, MARYLAND

DEPARTMENT OF PUBLIC WORKS
CAPITAL PROJECT No. W-8326

CONTRACT No. 44-4767



LOCATION MAP

SCALE: 1"=600'

DRAINAGE AREA:	PATAPSCO	HOWARD COUNTY GEODETIC SURVEY CONTROL
PRESSURE ZONE:	350	THE HORIZONTAL AND VERTICAL DATUM BASED ON
WATER TEST GRADIENT:	450	NAD83/91 (HORIZONTAL)
TYPE OF BUILDING:	RESIDENTIAL	NAVD 88 (VERTICAL)
NUMBER OF PARCELS:	9	0084 N 583158.79 24FA N 583751.44
NUMBER OF WATER HOUSE CONNECTIONS:	5	E 1370739.95 ELEV.124.88 E 1366091.83
		25GA N 579483.71 E 1371171.77 ELEV.262.81

PROFESSIONAL CERTIFICATION. I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 31363. EXPIRATION DATE: 1/16/2016.

ENGINEER'S CERTIFICATION

"I/WE CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT."

Guhua Wang 8/14/2015
GUIHUA WANG
KCI TECHNOLOGIES, INC.
936 RIDGEBROOK ROAD
SPARKS, MD 21152

WATER MAIN NOTES (CONTINUED)

- PROPER ASSEMBLY OF GASKETED PVC PIPE JOINTS: THE MANUFACTURER'S INSERTION LINE OF GASKETED PVC PIPE JOINTS INDICATES THE MAXIMUM DEPTH OF INSERTION OF THE SPIGOT INTO THE BELL. AFTER ASSEMBLY OF THE JOINT, THE INSERTION LINE SHALL REMAIN VISIBLE. DUAL INSERTION LINES ON GASKETED PVC PIPE INDICATE THE MAXIMUM AND MINIMUM DEPTHS OF INSERTION OF THE SPIGOT INTO THE BELL. THE CONTRACTOR SHALL NOT OVER INSERT OR OVER HOME THE SPIGOT INTO THE BELL OF PVC PIPE.
- ALL CHANGES IN HORIZONTAL OR VERTICAL DIRECTION OF PVC WATER PIPE SHALL BE MADE WITH STANDARD BENDS, 5-DEGREE SWEEPS OR HIGH DEFLECTION (HD) COUPLINGS. NO BENDING OF THE PIPE OR DEFLECTING OF PVC PIPE JOINTS IS PERMITTED. WHERE HIGH DEFLECTION COUPLINGS OR 5-DEGREE SWEEPS ARE PERMITTED, THE CONTRACTOR SHALL PROVIDE ONE FULL PIPE LENGTH (20 FEET LONG) ON EITHER SIDE OF THE HIGH DEFLECTION COUPLING OR 5-DEGREE SWEEP. THE CONTRACTOR SHALL USE A VIBRATORY PLATE COMPACTOR OR OTHER APPROVED MEANS TO THOROUGHLY COMPACT THE #57 STONE ON BOTH SIDES OF THE HIGH DEFLECTION COUPLING OR 5-DEGREE SWEEP, TAKING CARE NOT TO USE COMPACTION EQUIPMENT DIRECTLY OVER THE FITTING.
- PVC HIGH DEFLECTION COUPLINGS SHALL BE LIMITED TO A TOTAL DEFLECTION OF 3-DEGREES (1-1/2-DEGREE ON EITHER END OF THE COUPLING). SHALL BE RATED FOR A MINIMUM 200 PSI MEETING THE REQUIREMENTS OF AWWA C900. SHALL HAVE A MINIMUM LAY LENGTH OF 9-INCHES AND SHALL HAVE CENTER STOPS. PVC HIGH DEFLECTION COUPLINGS SHALL BE CERTAINTED PVC HIGH DEFLECTION (HD) STOP COUPLINGS OR EQUAL.
- FIVE DEGREE SWEEPS SHALL BE BELL BY SPIGOT. RATED FOR A MINIMUM 225 PSI, OR 18 MEETING THE REQUIREMENTS OF AWWA C900 AND SHALL BE MULTI FITTINGS (IPEX) BLUE BRUTE DR 18 OR EQUAL.
- WHEN PVC HIGH DEFLECTION COUPLINGS OR PVC 5-DEGREE SWEEPS ARE USED TO FACILITATE CHANGES IN HORIZONTAL OR VERTICAL ALIGNMENTS OF AWWA C900 PVC PIPELINES, THE CONTRACTOR SHALL INSTALL DEVICES FOR THE PREVENTION OF OVER-INSERTION OF THE PVC PIPE SPIGOTS OR PLAIN ENDS INTO THE PUSH ON BELL JOINT ON BOTH SIDES OF THE HIGH DEFLECTION COUPLINGS AND 5-DEGREE SWEEPS. BELL STOPS SHALL BE PLACED AT THE PROPER INSERTION LINE FOR THE FITTING. THE BELL STOP SHALL BE MANUFACTURED OF DUCTILE IRON AND SHALL INCORPORATE AN EXPANSION RETENTION SPRING TO ALLOW FOR PIPE EXPANSION AND CONTRACTION. THE BELL STOPS SHALL BE SERIES 5000 MEGA-STOP, AS MANUFACTURED BY EBBA IRON, INC. OR APPROVED EQUAL.
- WATER MAINS SHALL BE FILLED WITH WATER AND BROUGHT TO 150 psi HYDROSTATIC TEST PRESSURE AT THE LOW POINT FOR 2 HOURS.

INDEX OF SHEETS

SHEET No.	DESCRIPTION
1	TITLE SHEET
2	PLAN & PROFILE
3	EROSION AND SEDIMENT CONTROL PLAN, NOTES AND DETAILS
4	MAINTENANCE OF TRAFFIC DETAILS

QUANTITIES

ITEM	UNIT	ESTIMATE	AS-BUILT	MATERIAL SUPPLIER	
6" WATER	L.F.	344	344	DIAMOND PLASTICS	L.B. WATER
6" VALVE	EA	2	2	AMERICAN FLOW CONTROL	L.B. WATER
FIRE HYDRANT	EA	1	1	AMERICAN DARLING	L.B. WATER
WATER METER	EA	4	5	FORD METER BOX	L.B. WATER
6" X 6" TS&V	EA	1	1	AMERICAN FLOW CONTROL	L.B. WATER
NAME OF UTILITY CONTRACTOR:				W.F. WILSON	
AS-BUILT DATE:				6/5/2016	

RESTORATION SCHEDULE

LOCATION	DISTANCE	TYPE
ST. PAUL ST	150'	MACADAM
ST. PAUL ST @ FH	9'	SEED & MULCH
COLLEGE AVE	195'	MACADAM
COLLEGE AVE R/W	2'	SEED & MULCH

LEGEND

PROPOSED	EXISTING
TRAVERSE POINT	DECIDUOUS TREE
WATER MAIN	CONIFEROUS TREE
FIRE HYDRANT	EXISTING FIRE HYDRANT
VALVE	EXISTING WATER VALVE
CONTINUITY TEST STATION	EXISTING GAS VALVE
TEST STATION	EXISTING WATER MAIN
LIMIT OF DISTURBANCE	EXISTING GAS MAIN
SILT FENCE	EXISTING UNDERGROUND ELECTRIC
WATER EASEMENT	EXISTING OVERHEAD SERVICE
ABANDON EX. WATER	EXISTING SEWER MAIN
	MANHOLE
	SEWER HOUSE CONNECTION
	RIGHT OF WAY / PROPERTY LINE

OWNER'S/DEVELOPER'S CERTIFICATION

"I/WE CERTIFY THAT ALL CLEARING, GRADING, CONSTRUCTION OR DEVELOPMENT WILL BE DONE PURSUANT TO THE PLAN AND THAT A RESPONSIBLE PERSON INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE, BEFORE BEGINNING THE PROJECT, A CERTIFICATION OF TRAINING AT A PROGRAM APPROVED BY THE MARYLAND DEPARTMENT OF THE ENVIRONMENT FOR THE CONTROL OF SEDIMENT AND EROSION. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT."

Kim Seue 8/12/2015
BUREAU OF ENGINEERING
DEPARTMENT OF PUBLIC WORKS

AS-BUILT
DATE 8/3/2016

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BY: DIVISION
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DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

John P. Chelley 8/12/15
DIRECTOR OF PUBLIC WORKS
DATE

Thomas P. Butler 8/12/15
CHIEF, BUREAU OF ENGINEERING
DATE

John P. Chelley 8/12/15
CHIEF, BUREAU OF UTILITIES
DATE

John P. Chelley 8/12/15
CHIEF, UTILITY DESIGN DIVISION
DATE

ENGINEERS
PLANNERS
SCIENTISTS
CONSTRUCTION MANAGERS

KCI
TECHNOLOGIES

936 RIDGEBROOK ROAD
SPARKS, MARYLAND 21152
TELEPHONE (410) 316-7800
FAX (410) 316-7818
WWW.KCI.COM

STATE OF MARYLAND
GUIHUA WANG
PROFESSIONAL ENGINEER
NO. 31363
EXPIRATION DATE: 1/16/2016

DES: GW	
DRN: KJ	
CHK: TW	
DATE: AUGUST 2015	BY: K F J
	NO. AS BUILT
	REVISION
	DATE: 8/3/16

TITLE SHEET

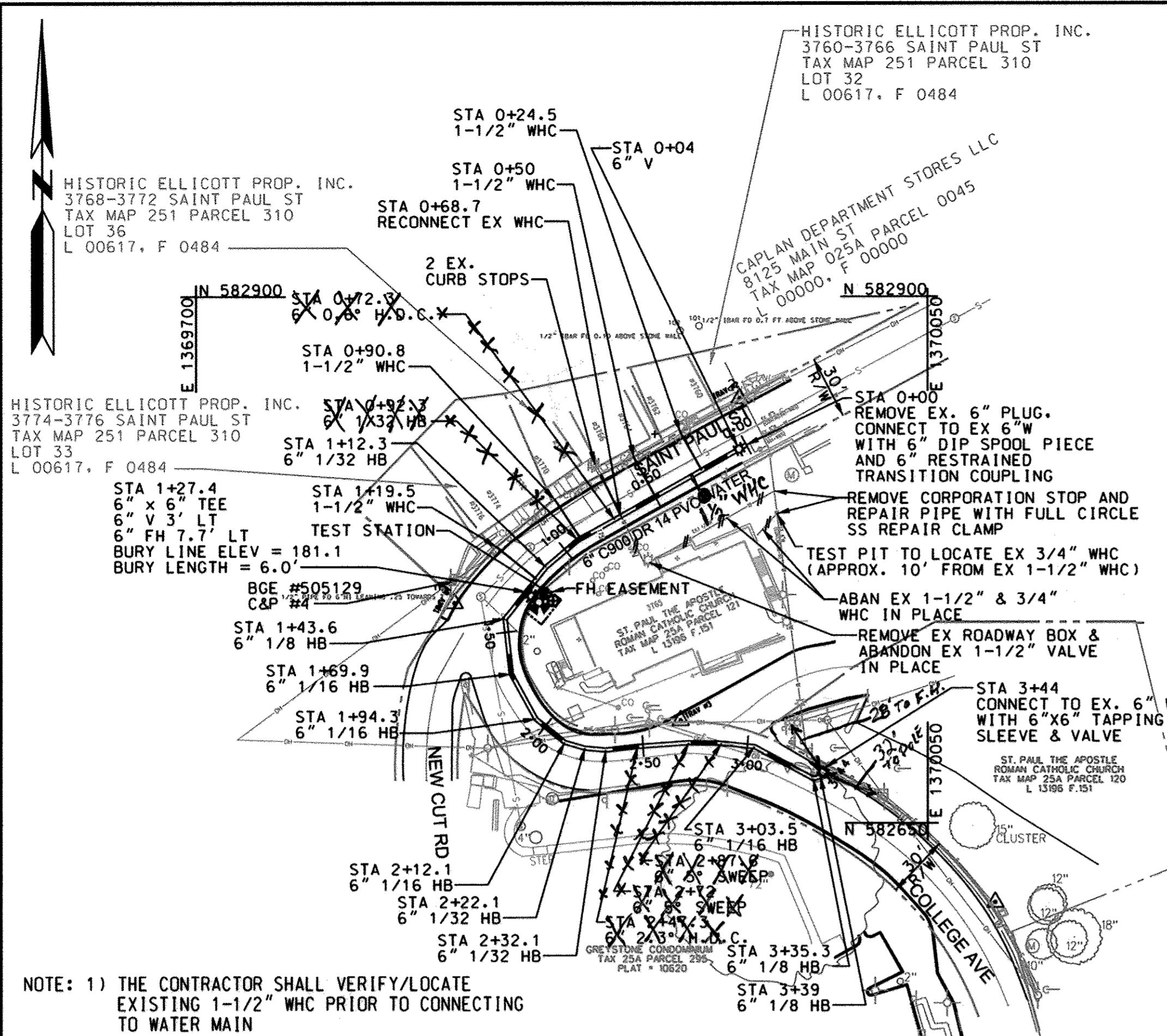
600' SCALE MAP NO. 251 BLOCK NO. 13

SAINT PAUL STREET
WATER MAIN EXTENSION

CAPITAL PROJECT No. W-8326
CONTRACT No. 44-4767

ELECTION DISTRICT NO. 2 HOWARD COUNTY, MARYLAND

SCALE AS SHOWN
SHEET 1 OF 4



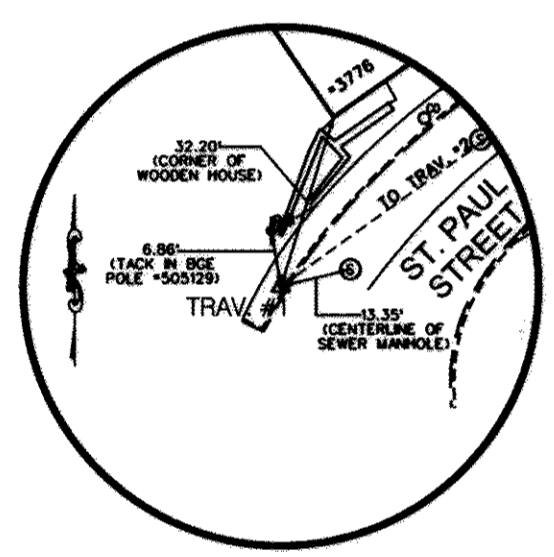
PLAN

SCALE: 1" = 50'

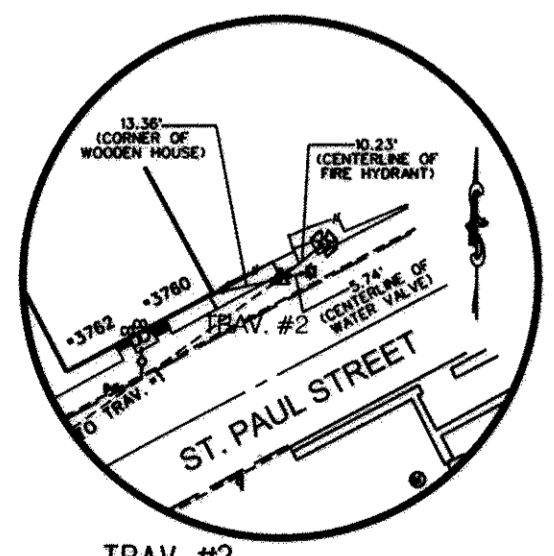
STATION 3+44
NEW 6" T.S. & V

VALVE TO EX. F.H. = 28'
VALVE TO EX. F.H.V. = 27'
VALVE TO EX. ELECT. POLE = 32'
180268

TRAV #3
NORTHING = 582698.68
EASTING = 1369931.86
ELEV. = 197.58



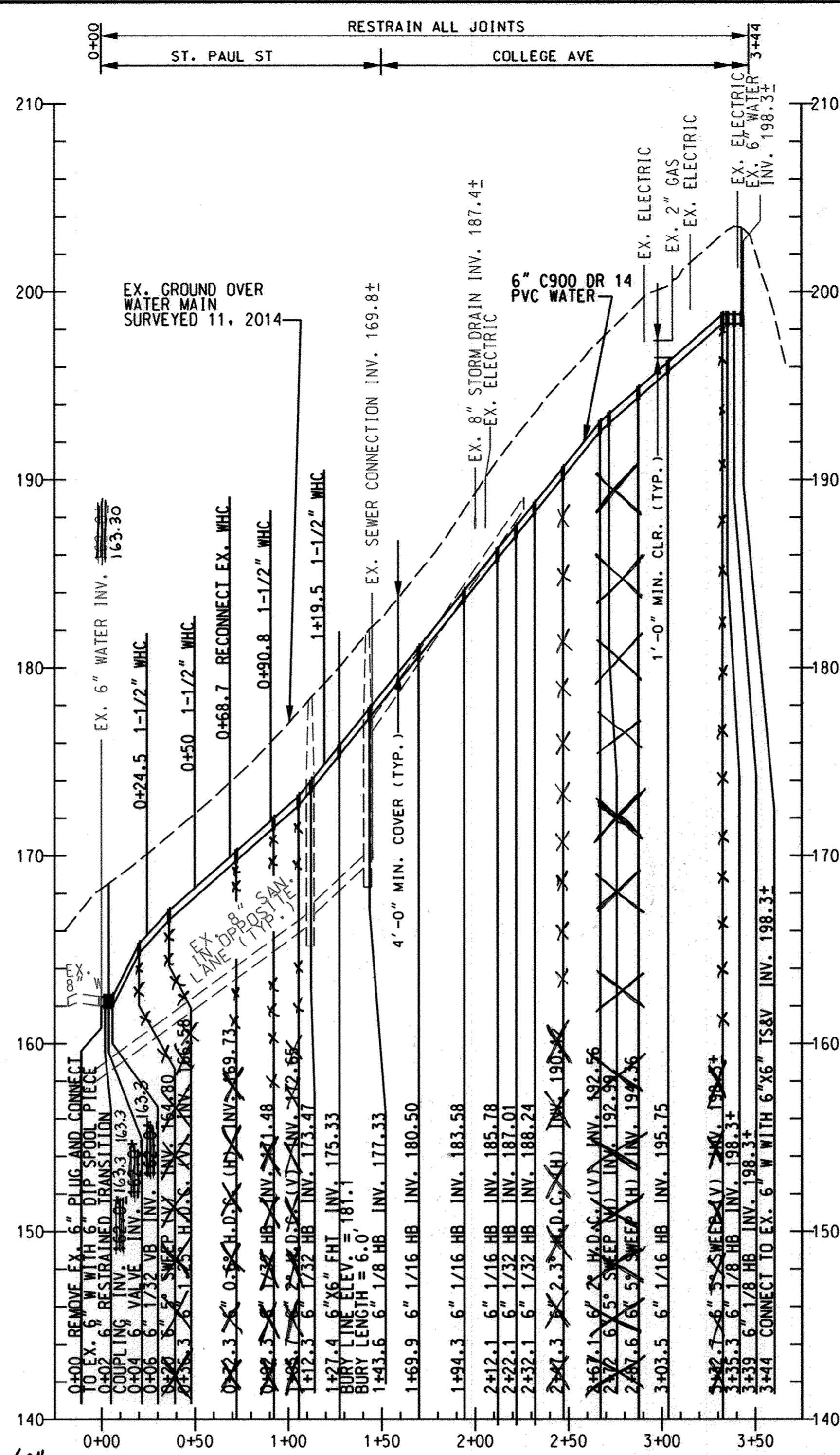
TRAV #1
X-CUT
NORTHING = 582754.33
EASTING = 1369823.67
ELEV. = 182.92



TRAV #2
X-CUT
NORTHING = 582851.57
EASTING = 1369960.07
ELEV. = 167.92

WATER STAKEOUT COORDINATES SCHEDULE

STA.	FITTING	NORTHING	EASTING
0+00	CONNECT TO EX 6" WATER	582829.4±	1369963.2±
0+04	6" V	582827.47	1369959.81
0+72.3	6" 0.6" H-D.C.	582793.93	1369900.30
0+92.3	6" 1/32 HB	582784.28	1369882.70
1+12.3	6" 1/32 HB	582771.41	1369867.47
1+27.4	6" X 6" FHT	582759.63	1369858.06
1+43.6	6" 1/8 HB	582746.97	1369847.92
1+69.9	6" 1/16 HB	582720.84	1369850.81
1+94.3	6" 1/16 HB	582699.42	1369862.60
2+12.1	6" 1/16 HB	582688.34	1369876.44
2+22.1	6" 1/32 HB	582685.56	1369886.05
2+32.1	6" 1/32 HB	582684.70	1369896.02
2+47.3	6" 2.3" H-D.C.	582686.30	1369911.23
2+72	6" 5" SWEEP	582688.10	1369935.77
2+87.6	6" 5" SWEEP	582687.83	1369951.44
3+03.5	6" 1/16 HB	582686.18	1369967.19
3+35.3	6" 1/8 HB	582670.97	1369995.22
3+39	6" 1/8 HB	582671.99	1369998.65
3+44	6" X 6" TS&V	582676±	1370001±

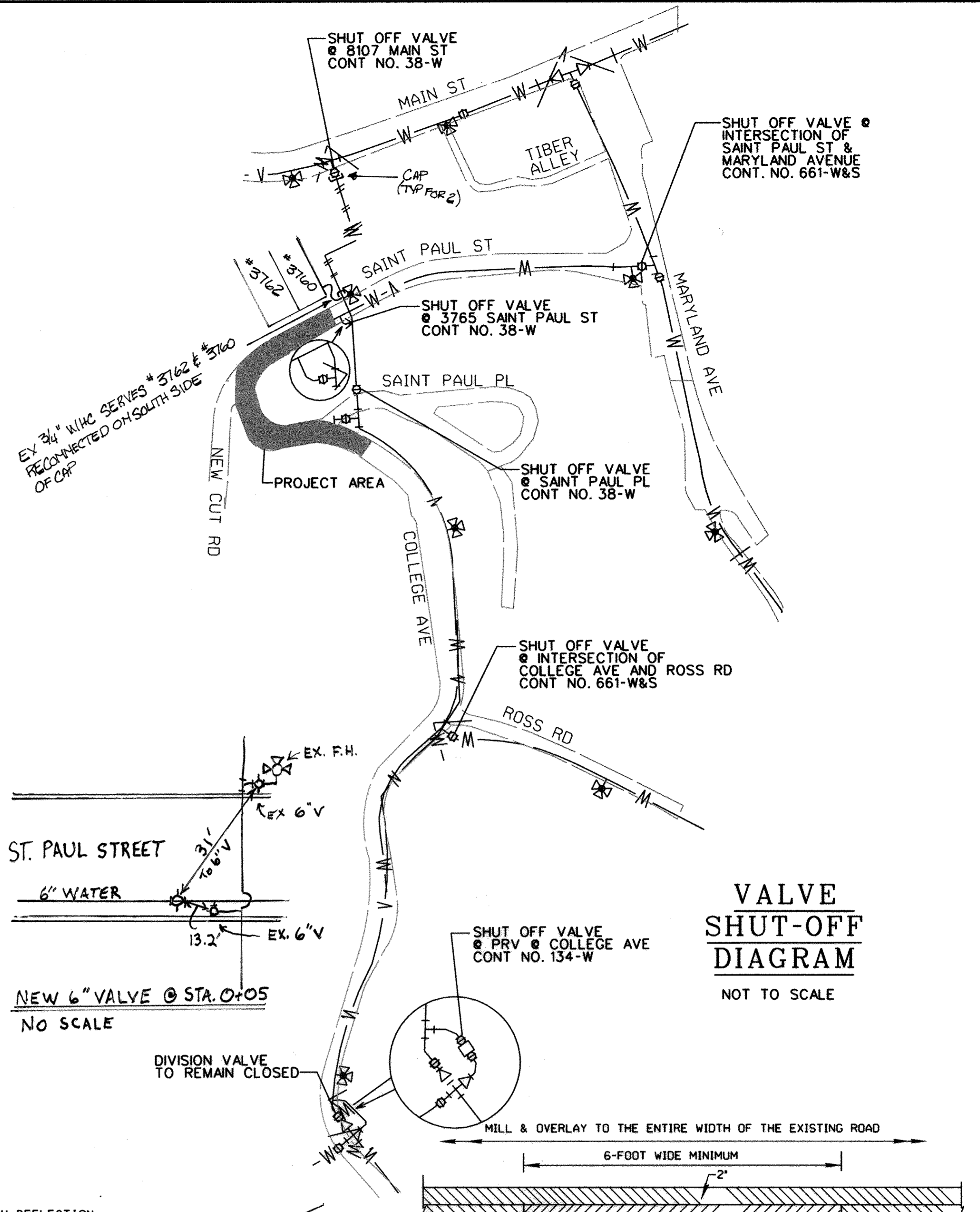
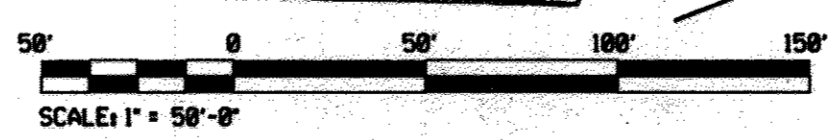


PROFILE

SCALE: HORIZ. 1" = 50'
VERT. 1" = 5'

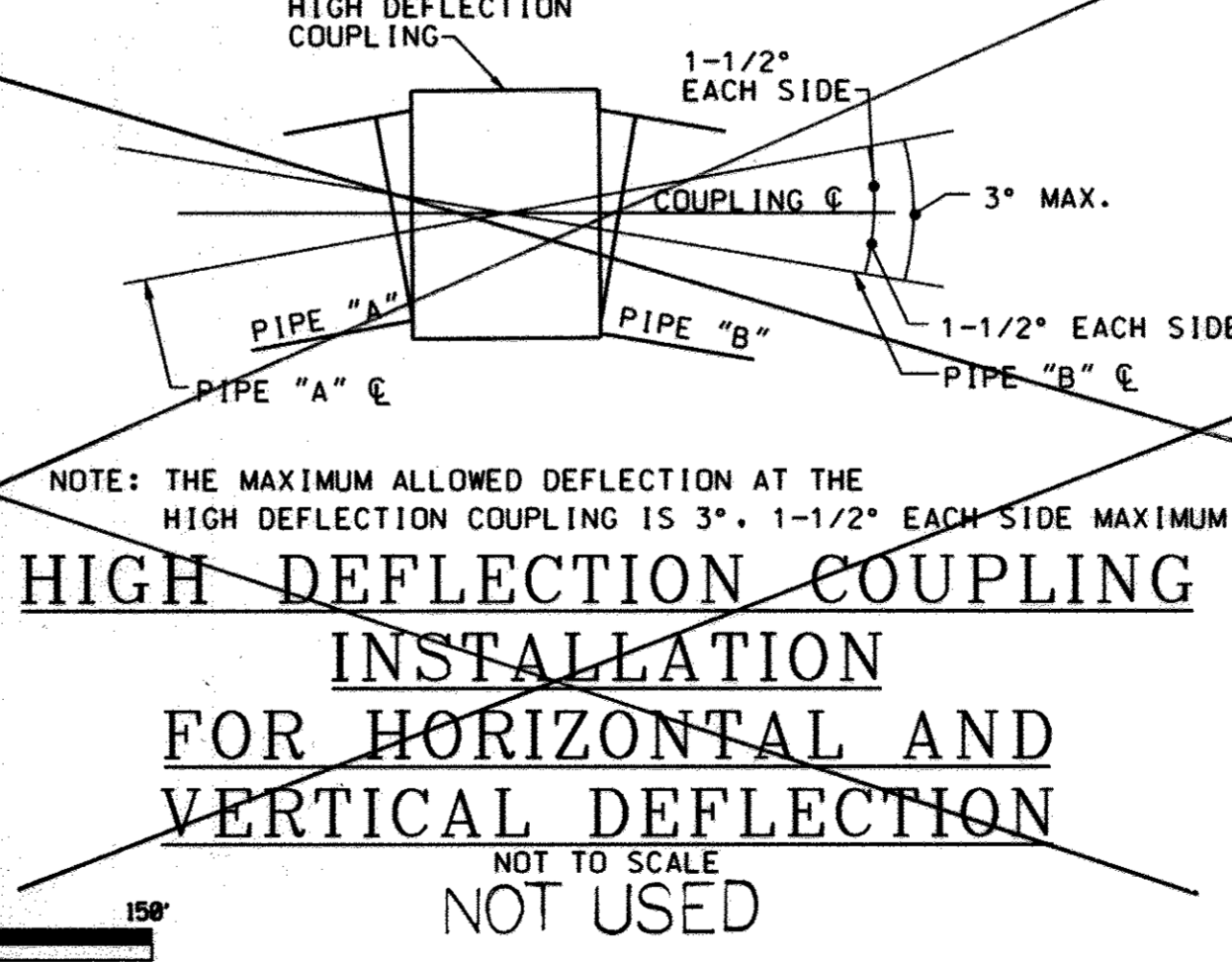
F.H. MEASUREMENTS
F.H. TO 6" F.H.V. = 6'-10"
F.H. TO SMH-1 = 27'
F.H. TO SMH-2 = 28'
6" F.H.V. TO SMH-1 = 22'
6" F.H.V. TO SMH-2 = 22'-6"

AS-BUILT
DATE 8/3/2016

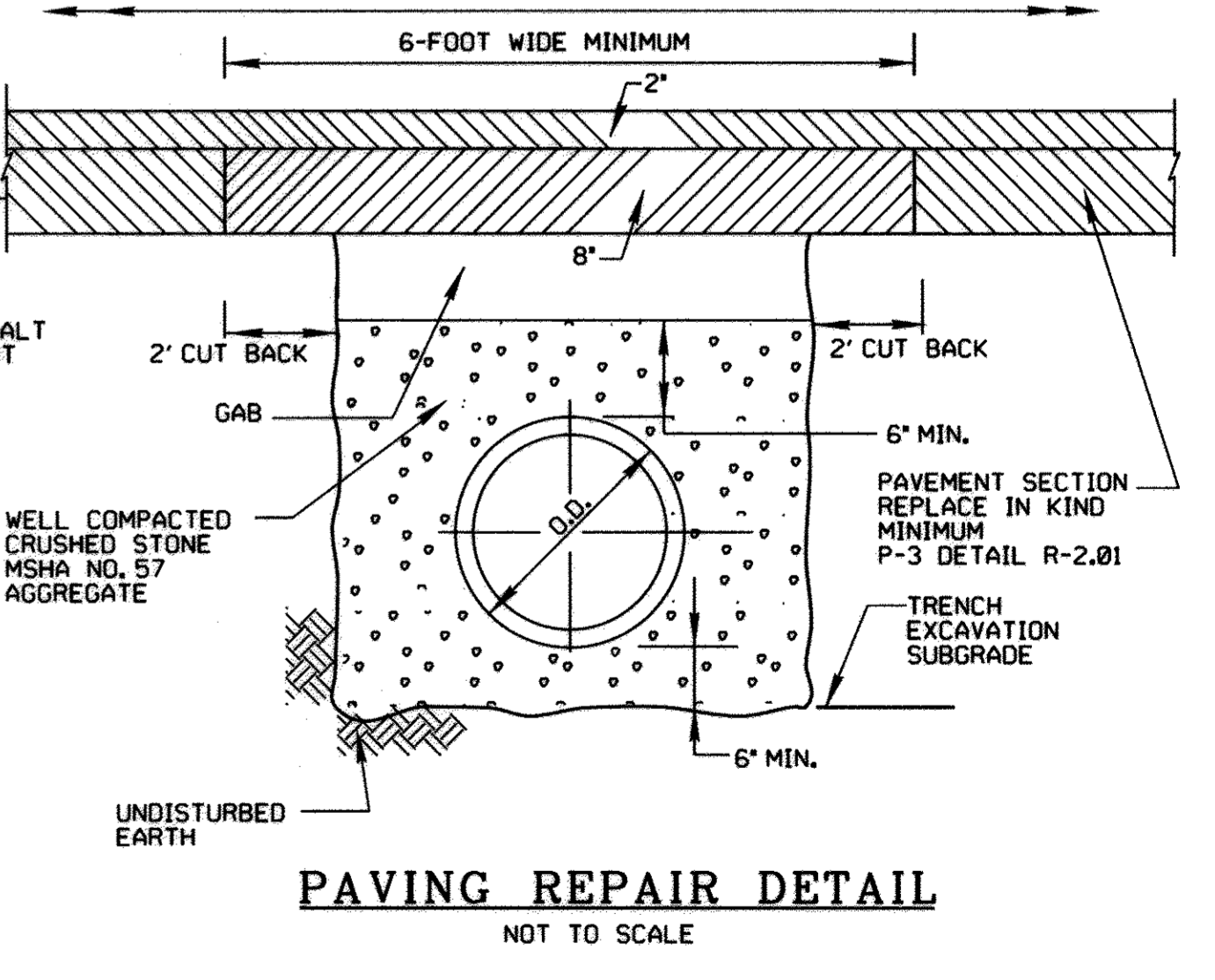


VALVE SHUT-OFF DIAGRAM

NOT TO SCALE



HIGH DEFLECTION COUPLING INSTALLATION
FOR HORIZONTAL AND VERTICAL DEFLECTION
NOT TO SCALE
NOT USED



PAVING REPAIR DETAIL

NOT TO SCALE

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BY: Division
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DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

Sheila
DIRECTOR OF PUBLIC WORKS

Thomas E. Butler
CHIEF, BUREAU OF ENGINEERING

Sheila
CHIEF, UTILITY DESIGN DIVISION

ENGINEERS
PLANNERS
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KCI TECHNOLOGIES

936 RIDGEWOOD ROAD
SHARPS, MARYLAND 21152
TELEPHONE: (410) 316-7800
FAX: (410) 316-7818
www.kci.com

STATE OF MARYLAND
PROFESSIONAL ENGINEER
NO. 31363
EXPIRATION DATE: 1/16/2016

DES: GW			
DRN: K.J			
CHK: TW	DLD	Z	ABANDONED SEGMENT OF CONTR. # 38W
DATE: AUGUST 2015	KFJ	Δ	AS BUILT
BY NO.			
REVISION			
DATE			

PLAN & PROFILE

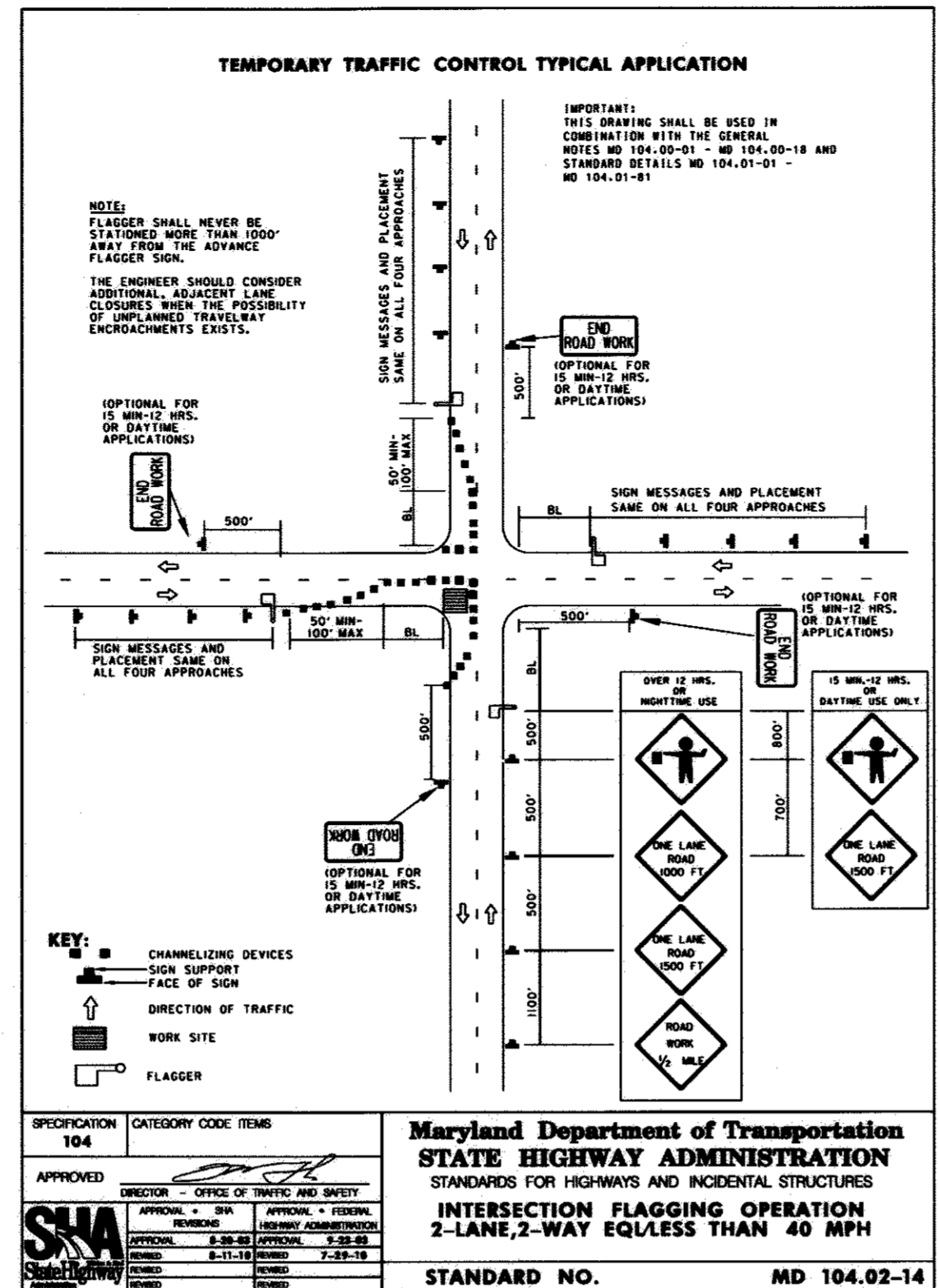
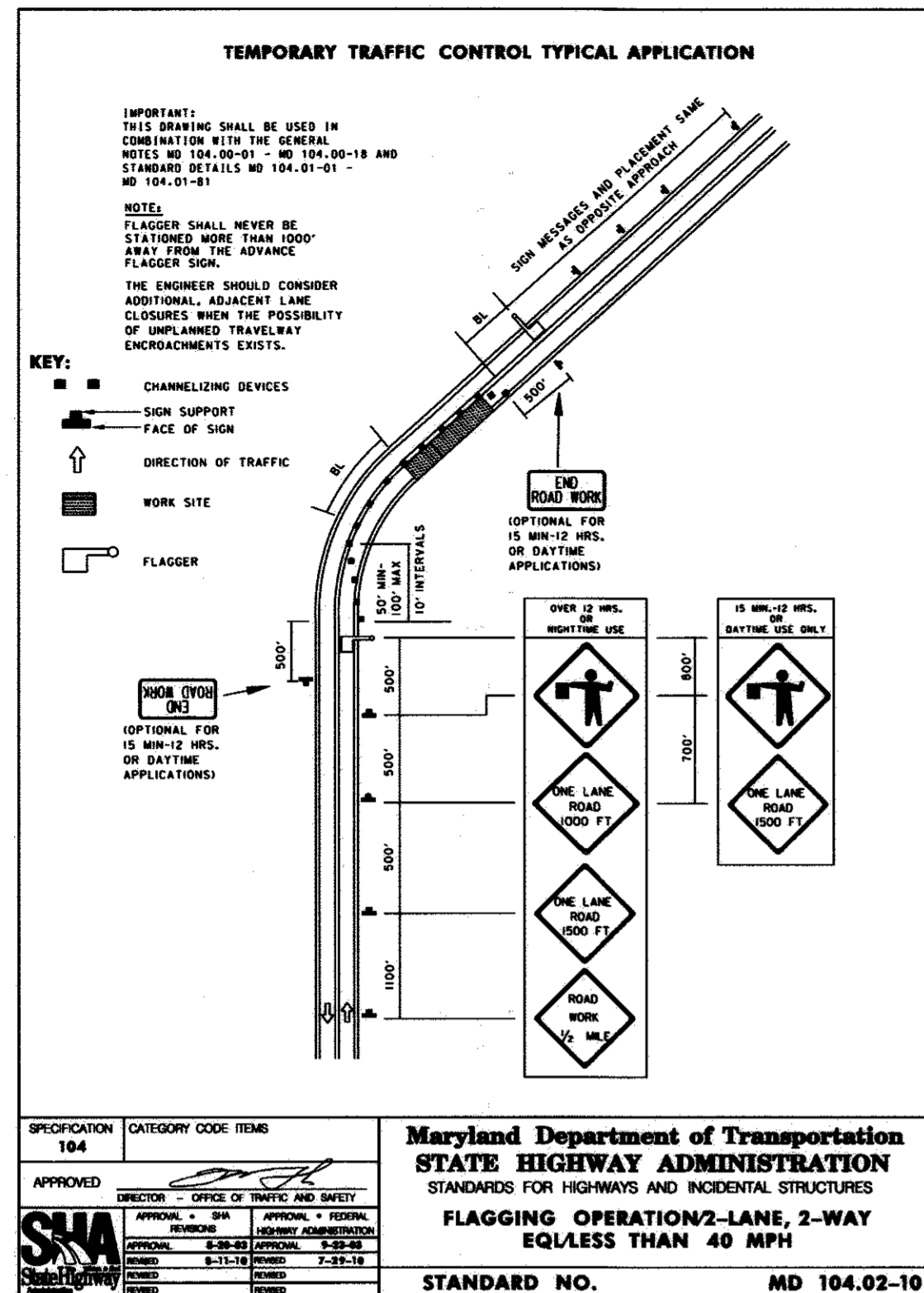
600' SCALE MAP NO. 251 BLOCK NO. 13

SAINT PAUL STREET WATER MAIN EXTENSION

CAPITAL PROJECT No. W-8326
CONTRACT No. 44-4767

ELECTION DISTRICT NO. 2 HOWARD COUNTY, MARYLAND

SCALE AS SHOWN
SHEET 2 OF 4



TRAFFIC CONTROL NOTES

- ALL STANDARD REGULATORY AND WARNING SIGNS USED FOR MAINTENANCE OF TRAFFIC SHALL BE IN ACCORDANCE WITH THE MARYLAND MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (LATEST EDITION).
- ALL TEMPORARY TRAFFIC SIGNS SHALL BE INSTALLED IN ACCORDANCE WITH THE MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS, MDSHA BOOK OF STANDARDS, AND NCHRP 350.
- ALL TRAFFIC CONTROL DEVICES MUST BE IN ACCORDANCE WITH THE MARYLAND MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (LATEST EDITION).
- ANY CORRECTIONS, MODIFICATIONS, OR ADDITIONS TO THIS PLAN MUST BE APPROVED BY THE HOWARD COUNTY DEPT. OF PUBLIC WORKS TRAFFIC DIVISION.
- MISS UTILITY MUST BE NOTIFIED PRIOR TO PLACEMENT OF SIGNING, IF MOUNTING ON POSTS.
- SIGN INSTALLATION SHALL NOT LAST ANY LONGER THAN 15 MINUTES PER LOCATION. IF LONGER THAN 15 MINUTES APPROPRIATE TRAFFIC CONTROL AND PERMITS MUST BE USED.
- THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING ALL TRAFFIC CONTROL DEVICES. AT ANYTIME THE CONTRACTOR DOES NOT MAKE NECESSARY REPAIRS WITHIN 24 HOURS OF NOTIFICATION, APPROPRIATE WORK TIME REDUCTION AND/OR FINES MAY BE APPLIED.
- ALL SIGNS SHALL CONFORM TO CURRENT MDSHA MATERIAL AND REFLECTIVITY REQUIREMENTS.
- ALL DRIVEWAY ENTRANCES MUST BE MAINTAINED AT ALL TIMES.
- THE DAILY TRENCHING OPERATION SHALL NOT EXTEND MORE THAN 30 FEET IN ADVANCE OF THE PIPE LAYING OPERATION. THE ROADWAY SHALL BE OPENED TO TWO FULL LANES AT THE END OF EACH WORK PERIOD.
- ALL SIGNS SHALL BE COVERED OR REMOVED AT THE END OF THE WORK PERIOD.
- ALL SIGN LOCATIONS SHALL BE MARKED AND/OR APPROVED BY HOWARD COUNTY TRAFFIC (410-313-2430) AND PRIOR TO THE INSTALLATION OF ANY SIGNS.
- ROADWAY WORK NOTIFICATION: THE CONTRACTOR SHALL NOTIFY THE FOLLOWING AGENCIES AT LEAST 4 WEEKS IN ADVANCE.
 HOWARD COUNTY DPW - TRAFFIC DIVISION-410-313-2430
 HOWARD COUNTY EMERGENCY COMMUNICATIONS/911 CENTER-410-313-2300

SEQUENCE OF CONSTRUCTION

- CONSTRUCT WATER MAIN FROM STA. 0+00 TO STA. 3+44 USING MDSHA STANDARD NO. 104.02-10 AND 104.02-14. SEE THIS SHEET FOR STANDARDS.

PROFESSIONAL CERTIFICATION. I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NO. 31363 EXPIRATION DATE: 1/16/2016

AS-BUILT
 DATE 8/3/2016

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DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND

John A. ... 8/12/15
 DIRECTOR OF PUBLIC WORKS DATE

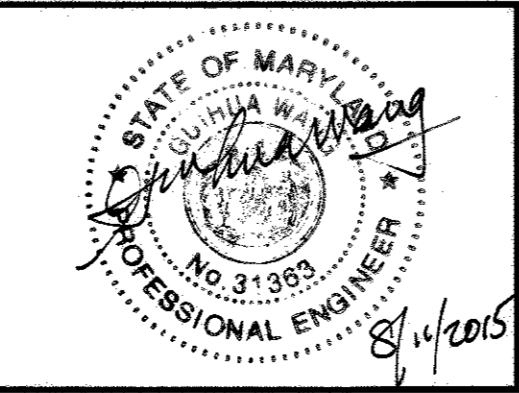
Thomas R. ... 8/12/15
 CHIEF - BUREAU OF ENGINEERING DATE

... 8/12/15
 CHIEF - BUREAU OF UTILITIES DATE

... 8/12/15
 CHIEF - UTILITY DESIGN DIVISION DATE

KCI TECHNOLOGIES
 ENGINEERS
 PLANNERS
 SCIENTISTS
 CONSTRUCTION MANAGERS

936 RIDGEBROOK ROAD
 SPARKS, MARYLAND 21152
 TELEPHONE: (410) 316-7800
 FAX: (410) 316-7818
 WWW.KCI.COM



DES: GW					
DRN: KJ					
CHK: TW					
DATE: AUGUST 2015	BY: Kfj	NO. 1	AS BUILT	8/3/16	
	REVISION				

MAINTENANCE OF TRAFFIC DETAILS	
600' SCALE MAP NO. 251	BLOCK NO. 13

**SAINT PAUL STREET
 WATER MAIN EXTENSION**

CAPITAL PROJECT No. W-8326
 CONTRACT No. 44-4767

ELECTION DISTRICT NO. 2 HOWARD COUNTY, MARYLAND

SCALE AS SHOWN
 SHEET 4 OF 4