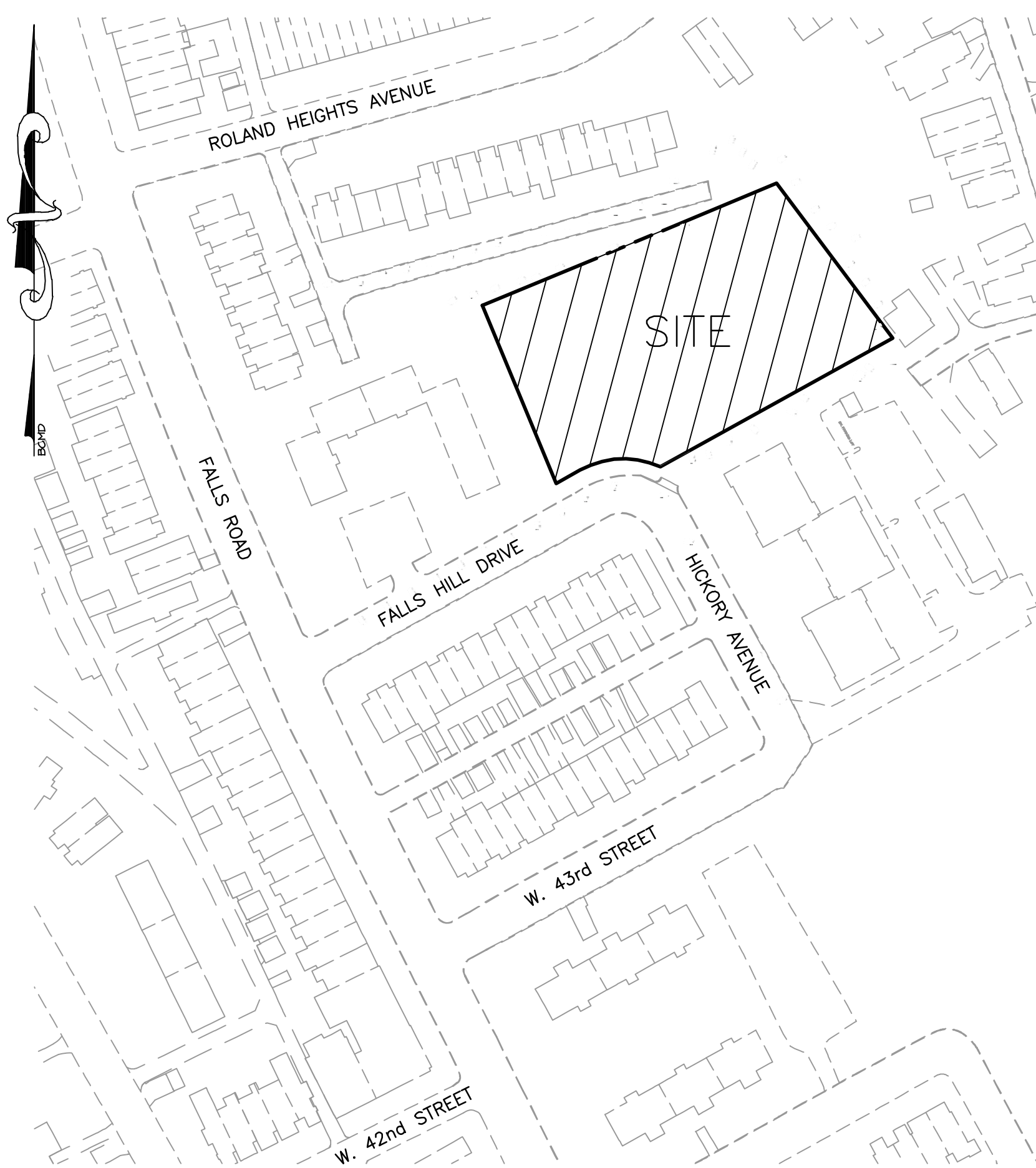


CITY OF BALTIMORE
DEPARTMENT OF GENERAL SERVICES
DEVELOPER'S AGREEMENT #1618



ROAD, STORM DRAIN, WATER, SANITARY & CONDUIT
UTILITY CONSTRUCTIONS PLANS
FOR
1100 FALLS HILL DRIVE
BALTIMORE MD, 21211



LOCATION MAP
SCALE: 1"=100'

AS BUILT REVISION	REVISIONS			
	NO.	DESCRIPTION	DATE	BY
BY: _____				
DATE: _____				

Sheet List Table	
Sheet Number	Sheet Title
1	COVER SHEET
2	NOTES AND DETAILS
3	PAVING PLAN
4	WATER PLAN
5	STORM DRAIN PLAN
6	STORM DRAIN PROFILE
7	STORM DRAIN EX DA MAP
8	STORM DRAIN PR DA MAP
9	SEWER PLAN
10	CONDUIT PLAN

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. 50460
EXPIRATION DATE: 01-12-2021

	D. S. THALER & ASSOC., LLC.		
	ENGINEER: KENNETH SNODGRASS		
	DATE: 1/4/19 LIC. NO. 50460		
	DESIGNED: KNK	WARD: 13	
DRAWN BY: KNK	SECTION: 2	SECT.	APP.
CHECKED BY: BLC	BLOCK: 3590		
	LOT: 76		

DSThaler
& ASSOC., LLC.
CIVIL AND ENVIRONMENTAL ENGINEERS, SURVEYORS
LANDSCAPE ARCHITECTS & LAND PLANNERS
1115 AMBASSADOR ROAD
P.O. BOX 41428
BALTIMORE, MARYLAND 21244-1428
410-944-3641
www.dsthaller.com

BALTIMORE CITY REVIEW	R/W RELEASE	HIGHWAY DESIGN	BRIDGES	DRAINAGE	LIGHTING	CONDUIT	ENVIRONMENTAL ENGINEERING	TRAFFIC ENGINEERING	WASTEWATER ENGINEERING	WATER ENGINEERING	SIGNAL ENGINEERING
BY											
DATE											

CHIEF, OFFICE OF ENGINEERING AND CONSTRUCTION	DATE
DIRECTOR, DEPARTMENT OF PUBLIC WORKS	DATE

C.W.O. NO.
OWNER/DEVELOPER: FALLS HILL HOLDINGS, LLC
4 W. WEST STREET
BALTIMORE, MD 21230
C/O EMERALD PROPERTIES
PHONE: 443-301-9238

CITY OF BALTIMORE
DEPARTMENT OF PUBLIC WORKS
DEVELOPERS AGREEMENT NO. 1618

COVER SHEET
FOR
1100 FALLS HILL DRIVE

SCALE: AS NOTED
DATE: January, 2019
WATER & WASTEWATER ENGINEERING DIVISION SHEET 1 OF 10

STANDARD UTILITY NOTES:

- 1. CONTRACTOR MUST NOTIFY "MISS UTILITY" AT 1-800-257-7777 AT LEAST FIVE (5) DAYS PRIOR TO BEGINNING WORK.
- 2. NOTIFY WATER AND WASTEWATER MAINTENANCE DIVISION AT (410)-296-7870 AT LEAST TWO (2) WEEKS PRIOR TO START UP OF CONSTRUCTION ON THE WATER SERVICE. FOR SANITARY, CONDUIT, STORM WATER SERVICES, CONTACT THE PERMIT INSPECTION SECTION AT (410)-396-4840. THE CONTRACTOR MUST RECEIVE WRITTEN NOTICE TO PROCEED FROM WATER AND WASTEWATER MAINTENANCE DIVISION OR THE PERMIT INSPECTION SECTION PRIOR TO PERFORMING ANY WORK.
- 3. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE CITY OF BALTIMORE'S DEPARTMENT OF PUBLIC WORKS, "CONSTRUCTIONS SPECIFICATIONS", "BOOK OF STANDARDS", THE BUILDING CODE OF BALTIMORE CITY AND THE DEVELOPER'S AGREEMENT.

STANDARD PAVING NOTES:

- 1. ANY CURB, SIDEWALK, STORM DRAINS AND/OR PAVING DISTURBED DURING INSTALLATION OF UTILITY SERVICES WILL BE REPLACED AS PART OF THIS DEVELOPER'S AGREEMENT.
- 2. ANY CURB DISTURBED DURING INSTALLATION SHALL BE REPLACED "IN-KIND" TO THE NEAREST EXISTING JOINT.
- 3. PERMANENT TRENCH REPAIR AND PAVING RESTORATION SHALL BE IN ACCORDANCE TO STANDARD DETAIL BC-576.19-1 & BC- 576.19-2 FOR FLEXIBLE PAVEMENT AND BC-576.18-1 & BC-576.18-2 FOR RIGID PAVEMENT.
- 4. CONCRETE SIDEWALKS DISTURBED DURING INSTALLATION SHALL BE REPAIRED JOINT-TO-JOINT WITH 5 INCHES OF MIX NO. 2 CONCRETE ON 3 INCHES OF CR--6.

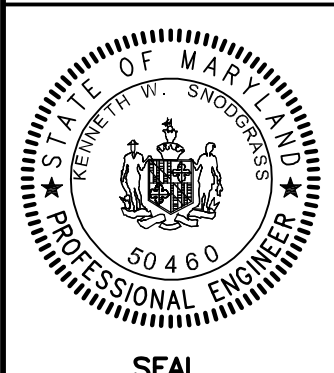
STANDARD STREET LIGHTING NOTES:


- 1. BALTIMORE CITY'S DEPARTMENT OF TRANSPORTATION MAINTENANCE DIVISION MAINTAINS STREET LIGHTING POLES AND THE BALTIMORE GAS AND ELECTRIC COMPANY (BGE) MAINTAINS STREET LIGHT CABLES IN THE AREA. THE CONTRACTOR IS REQUIRED TO PROTECT AND MAINTAIN ALL EXISTING LIGHTING DURING INFRASTRUCTURE, CIRCUIT CONTINUITY AND CONDUIT FACILITIES DURING CONSTRUCTION. THE CONTRACTOR IS REQUIRED TO NOTIFY BGE AND BALTIMORE CITY STREET LIGHTING MAINTENANCE ENGINEERING SECTION AT (410)-396-4446 TWO (2) WEEKS PRIOR TO STARTING WORK
- 2. THE CONTRACTOR MUST PROTECT AND MAINTAIN EXISTING STREET LIGHTING IN SERVICE. ANY INTERRUPTION OR DAMAGE TO STREET LIGHTING SERVICE, STREET LIGHT POLE OR CONDUIT/CABLE SHALL BE REPAIRED AS DIRECTED BY DOT STREET LIGHTING MAINTENANCE AND BGE AT CONTRACTOR'S OWN EXPENSE.
- 3. IF THE CONTRACTOR UNCOVERS OR DAMAGES A STREET LIGHT CONDUIT OR CABLE DURING CONSTRUCTION, THE CONTRACTOR IS REQUIRED TO NOTIFY THE STREET LIGHTING MAINTENANCE AT (410)-396-4446 AND BGE IMMEDIATELY. STREET LIGHTING MAINTENANCE WOULD EFFECT REPAIRS OR DIRECT BGE TO MAKE SAFE CONDITIONS AND/OR REPLACE CONDUITS AND CABLE PRIOR TO RESUMING CONSTRUCTION. ALL SUCH REPAIRS SHALL BE MADE AT THE CONTRACTOR'S EXPENSE.
- 4. THE CONTRACTOR WOULD BE RESPONSIBLE TO PROVIDE TEMPORARY LIGHTING AS PER BALTIMORE CITY STANDARDS IF THE EXISTING LIGHTS CANNOT BE MAINTAINED IN SERVICE DURING CONSTRUCTION UNTIL THE PERMANENT LIGHTING IS INSTALLED AND IN SATISFACTORY OPERATION. THE TOTAL COST OF MATERIALS AND LABOR FOR STREET LIGHTING WORK INCLUDING BGE CABLE CONNECTION WORK SHALL BE BORE BY THE CONTRACTOR.
- 5. THE CONTRACTOR IS REQUIRED TO CONTACT STREET LIGHTING MAINTENANCE FOR THE POLES AND LIGHT FIXTURES TO BE REMOVED AND SALVAGED AND TO COORDINATE DE-ENERGIZING AND RE-ENERGIZING THE LIGHT POLES BY BGE.
- 6. BEFORE CONTRACTOR CAN REMOVE EXISTING POLES, THE CONTRACTOR IS REQUIRED TO CONTACT STREET LIGHTING MAINTENANCE TO AUTHORIZE STREET LIGHTING WORKING WITH BGE AND OBTAIN COST ESTIMATE FOR BGE TO DE-ENERGIZE STREET LIGHT POLES AND LIGHT FIXTURES TO BE REMOVED AND SALVAGED. THE CONTRACTOR WILL RECEIVE SECOND ESTIMATE FOR BGE TO ENERGIZE THE STREET LIGHT POLES AFTER INSTALLATION.
- 7. THE CONTRACTOR IS REQUIRED TO CONTACT BGE AND DOT CONDUIT DIVISION AT (410)-396-1515 FOR CONDUIT INSPECTION PRIOR TO FINAL PAVEMENT AND SIDEWALK WORK AND BGE CAN ENERGIZE THE LIGHT POLES.
- 8. UNLESS OTHERWISE NOTED, ALL STREET LIGHTING RELATED WORK SHALL BE IN ACCORDANCE WITH THE CITY OF BALTIMORE'S DEPARTMENT OF PUBLIC WORKS, "CONSTRUCTION SPECIFICATIONS", "BOOK OF STANDARDS", THE BUILDING CODE OF BALTIMORE CITY, AND THE UTILITY DEVELOPER'S AGREEMENT.
- 9. FOR WORK WITHIN THE PUBLIC RIGHT-OF-WAY THE CONTRACTOR MUST OBTAIN PERMITS FROM THE DEPARTMENT OF GENERAL SERVICES PERMITS DIVISION, ABEL WOLMAN MUNICIPAL BUILDING, 1ST FLOOR, 200 NORTH HOLLIDAY STREET, BALTIMORE, MARYLAND, 21202, PHONE (410)-396-6865 OR (410)-396-4508.
- 10. BALTIMORE CITY'S DEPARTMENT OF TRANSPORTATION MAINTENANCE DIVISION MAINTAINS STREET LIGHTING POLES AND THE BALTIMORE GAS AND ELECTRIC COMPANY (BGE) MAINTAINS STREET LIGHT CABLES IN THE AREA. THE CONTRACTOR IS REQUIRED TO PROTECT AND MAINTAIN ALL EXISTING LIGHTING DURING INFRASTRUCTURE, CIRCUIT CONTINUITY AND CONDUIT FACILITIES DURING CONSTRUCTION. THE CONTRACTOR IS REQUIRED TO NOTIFY BGE AND BALTIMORE CITY STREET LIGHTING MAINTENANCE ENGINEERING SECTION AT (410)-396-4446 TWO (2) WEEKS PRIOR TO STARTING WORK
- 11. IN AREAS WHERE THE CONTRACTOR IS TO REMOVE THE FOOTWAY WHERE BURIED CABLE IS PRESENT, THE CONTRACTOR SHALL NOTIFY AND COORDINATE WITH BGE AT (410)-470-6744. BGE MAY ELECT TO INSTALL THE NEW CABLE PRIOR TO THE INSTALLATION OF THE NEW FOOTWAY.
- 12. COORDINATION FOR BGE STREET LIGHTING CONSTRUCTION SERVICES REQUIRES THE LATEST RED-LINED OR UPDATED DRAWINGS (AS IT PERTAINS TO STREET LIGHTING INFRASTRUCTURE) ARE PROVIDED ELECTRONICALLY TO BALTIMORE CITY'S TRANSPORTATION MAINTENANCE DIVISION. IF APPLICABLE, THE MARKED UP DRAWINGS SUBMITTED WILL SERVE AS THE BASIS FOR DETERMINING THE PROBABLE COST ESTIMATE FOR BGE SERVICES. CONTRACTOR SHALL CONTACT STREET LIGHTING MAINTENANCE AT (410)-396-4446 AT LEAST TEN (10) DAYS PRIOR TO STARTING ANY WORK,
- 13. CONTRACTOR SHALL CONTACT CONDUIT MAINTENANCE INSPECTIONS AT (410)-396-1515 TWO (2) WEEKS BEFORE THE START OF CONSTRUCTION. CABLE INSTALLATION BY BGE WILL NOT BE CARRIED OUT WITHOUT COMPLETION OF AN INSPECTION BY CONDUIT MAINTENANCE.

STANDARD TRAFFIC NOTES:

- 1. THE CONTRACTOR SHALL CONTACT THE DEPARTMENT OF TRANSPORTATION AT (443)-984-2153 TWO (2) WEEKS BEFORE CONSTRUCTION BEGINS AND ONE (1) WEEK PRIOR TO ANY CHANGES TO THE MAINTENANCE OF TRAFFIC (MOT) PLAN.
- 2. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO SUPPLY, INSTALL, AND MAINTAIN ALL TEMPORARY TRAFFIC CONTROL EQUIPMENT & STREET LIGHTING FACILITIES FOR THE DURATIONS OF THIS CONTRACT.
- 3. ALL TRAFFIC CONTROL SHALL BE IN ACCORDANCE WITH THE CURRENT EDITION AND REVISIONS OF THE MARYLAND MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), THE MARYLAND STATE HIGHWAY ADMINISTRATION (SHA) WORK ZONE TRAFFIC CONTROL STANDARDS, AND THE CITY OF BALTIMORE BOOK OF STANDARDS.
- 4. IN ORDER TO WORK IN THE PUBLIC RIGHT-OF-WAY, THE CONTRACTOR SHALL OBTAIN PERMITS FROM THE DEPARTMENT OF TRANSPORTATION (DOT) PERMITS DIVISION. APPLICATIONS FOR PERMITS ARE ACCEPTED AT THE DOT PERMITS DIVISION IN THE ABEL WOLMAN MUNICIPAL BUILDING LOBBY, 200 N. HOLLIDAY STREET, TELEPHONE (410)-396-4508 OR (410)-396-4508. DURING THE PERMIT REVIEW PROCESS, THE CONTRACTOR MAY BE BILLED ADDITIONAL TRAFFIC INSPECTION FEES NOT RELATED TO ANY PREVIOUS COSTS.
- 5. THE CONTRACTOR SHALL MAINTAIN A MINIMUM OF FOUR (4) FOOT WIDE PEDESTRIAN FOOTWAY WITH FIVE (5) FOOT PASSING ZONE EVERY 200 FEET OR IMPLEMENT AN APPROPRIATE PEDESTRIAN DETOUR, APPROVED BY DOT-TRAFFIC, WHILE ACTIVELY WORKING IN THE SIDEWALK IN ACCORDANCE WITH THE ADA GUIDELINES AND APPROPRIATE SHA AND CITY STANDARDS.
- 6. THE CONTRACTOR IS REQUIRED TO PROTECT AND MAINTAIN EXISTING SIGNAL, STREET LIGHTING, HAND BOX, CABLE, AND CONDUIT FACILITIES DURING CONSTRUCTION.
- 7. ALL EXCAVATIONS AND TRENCHES SHALL BE STEEL PLATED AT THE END OF EACH WORKDAY AND "STEEL PLATES" WARNING SIGNS DISPLAYED IN ADVANCE. STEEL PLATES SHALL BE INSTALLED PER STANDARD DETAIL BC-576.17 AND SHALL BE CLEARLY MARKED SO THAT OWNERSHIP IS EASILY DISCERNIBLE.
- 8. THE CONTRACTOR IS RESPONSIBLE FOR ANY SIGNING AND PAVEMENT MARKINGS DAMAGED OR DESTROYED DURING CONSTRUCTION, INCLUDING THOSE OUTSIDE THE PROJECT LIMITS
- 9. THE CONTRACTOR MUST MAINTAIN A MINIMUM OF ONE (1) TEN (10) FOOT LANE OF TRAFFIC IN EACH DIRECTION OF TRAVEL ON FALLSHILL DRIVE AND HICKORY AVE AT ALL TIMES OF PROVIDE A TWO-PERSON FLAGGING OPERATION EQUIPPED WITH "STOP/SLOW" PADDLES. ANY PROPOSED ROADWAY CLOSURES AND DETOURS SHALL BE COORDINATED WITH ADJACENT PROPERTY OWNERS AND APPROVED IN ADVANCE BY THE THE TRAFFIC DIVISION OF THE DEPARTMENT OF TRANSPORTATION. THE FULL WIDTH OF ROADWAY MUST BE OPENED TO TRAFFIC AT THE END OF EACH WORK DAY.
- 10. NO LANE CLOSURES OR DISRUPTIONS OF TRAFFIC ARE PERMITTED BETWEEN THE HOURS OF 6:00 AM AND 9:00 AM AND 3:00 PM AND 6:00 PM, WEEKDAYS.
- 11. THE CONTRACTOR IS RESPONSIBLE FOR THE INSTALLATION OF ANY TEMPORARY "NO STOPPING" PROHIBITION SIGNING THAT WILL BE NECESSARY TO COMPLETE THIS PROJECT. A MINIMUM OF SEVENTY-TWO (72) HOURS NOTICE IS REQUIRED FOR ANY TEMPORARY PARKING RESTRICTIONS.

PROFESSIONAL CERTIFICATION:
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE
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LICENSE NO. 50460
EXPIRATION DATE: 01-12-2021

	D. S. THALER & ASSOC., LLC.		
	ENGINEER: KENNETH SNODGRASS		
	DATE: 1/4/19 LIC. NO. 50460		
	DESIGNED: KNK	WARD: 13	
DRAWN BY: KNK	SECTION: 2	SECT.	APP.
CHECKED BY: BLC	BLOCK: 3590		
	LOT: 76		



CIVIL AND ENVIRONMENTAL ENGINEERS, SURVEYORS
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BALTIMORE, MARYLAND 21244-7428
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BALTIMORE CITY REVIEW	R/W RELEASE	HIGHWAY DESIGN	BRIDGES	DRAINAGE	LIGHTING	CONDUIT	ENVIRONMENTAL ENGINEERING	TRAFFIC ENGINEERING	WASTEWATER ENGINEERING	WATER ENGINEERING	SIGNAL ENGINEERING
BY											
DATE											

AS BUILT REVISION	REVISIONS			
	NO.	DESCRIPTION	DATE	BY
BY: _____				
DATE: _____				

CHIEF, OFFICE OF ENGINEERING AND CONSTRUCTION

DATE

DIRECTOR, DEPARTMENT OF PUBLIC WORKS

DATE

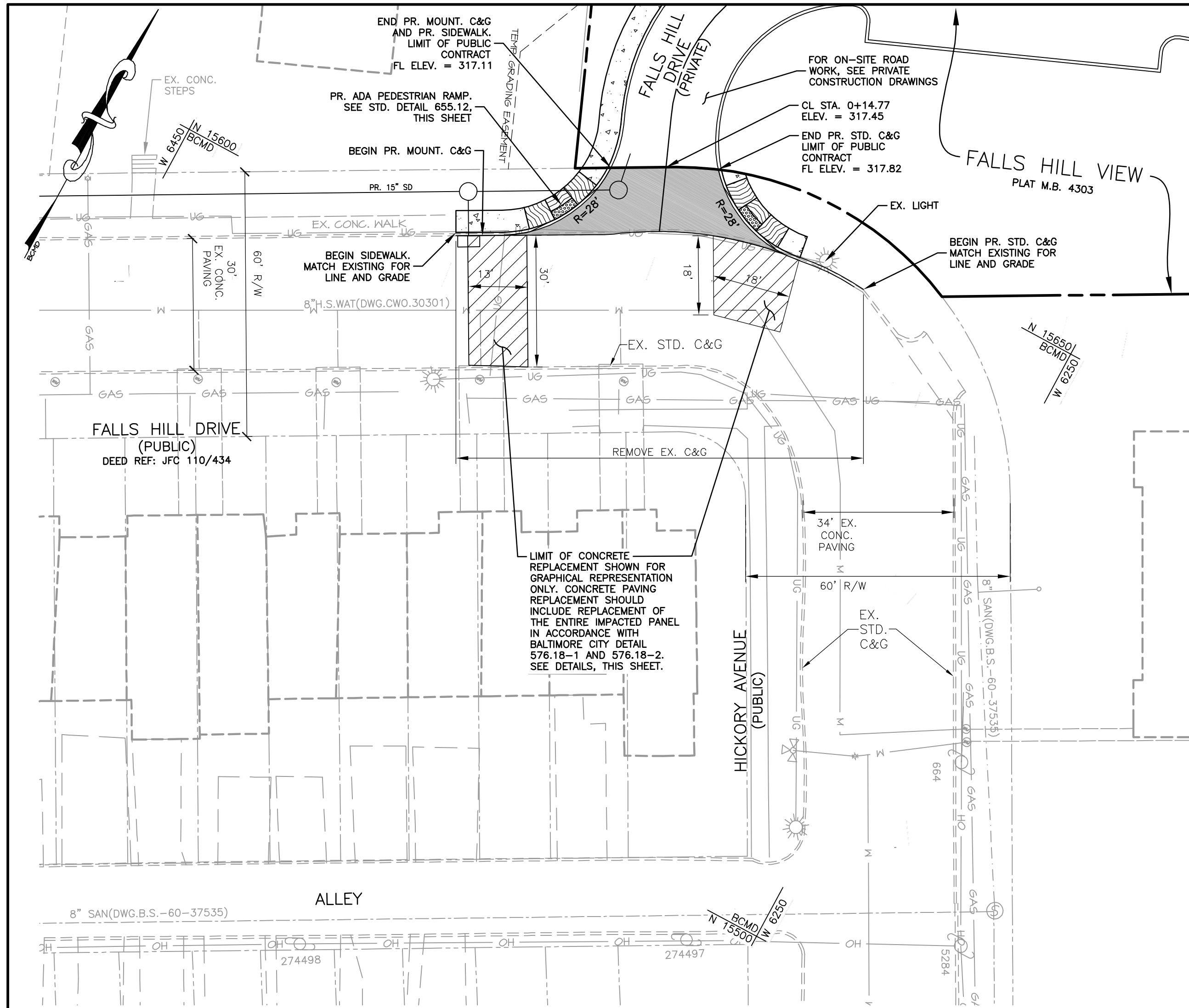
C.W.O. NO.

OWNER/DEVELOPER: FALLS HILL HOLDINGS, LLC
4 W. WEST STREET
BALTIMORE, MD 21230
C/O EMERALD PROPERTIES
PHONE: 443-301-9238

CITY OF BALTIMORE
DEPARTMENT OF PUBLIC WORKS
DEVELOPERS AGREEMENT NO. 1618

STANDARD NOTES
FOR
1100 FALLS HILL DRIVE

SCALE: AS NOTED DATE: January, 2019
WATER & WASTEWATER ENGINEERING DIVISION SHEET 2 OF 10



LEGEND	
	SITE PROPERTY LINE
	ADJACENT PROPERTY LINE
	EX. CURB & GUTTER
	EX. BUILDING
	EX. TREELINE
	EX. SANITARY SEWER
	EX. WATER
	EX. FIRE HYDRANT
	EX. STORM DRAIN
	EX. GAS
	EX. UNDERGROUND ELECTRIC
	EX. OVERHEAD ELECTRIC
	PR. CONCRETE SIDEWALK
	PR. CURB & GUTTER
	PR. STORM DRAIN

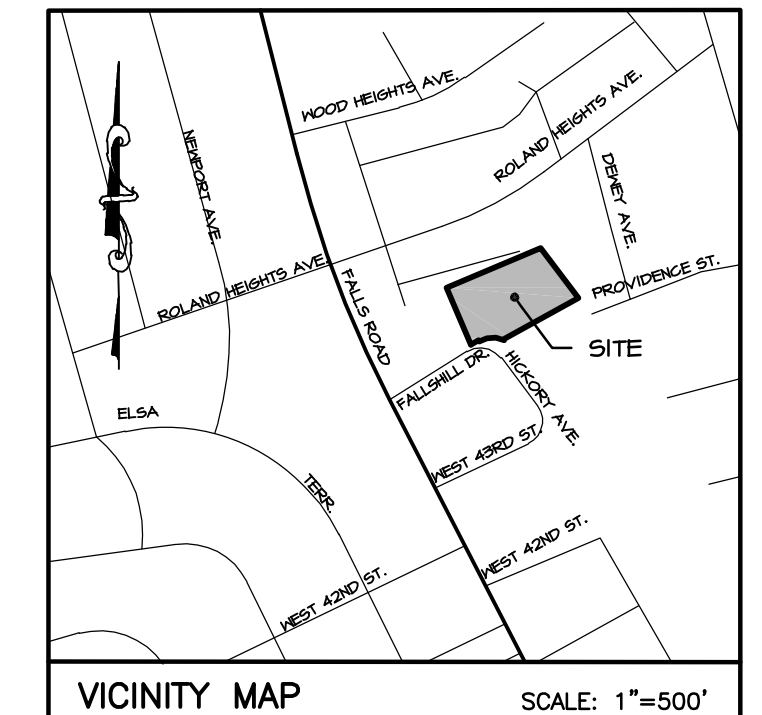
EX. PR. STD. MOUNT. CONC. C&G STA. INV. ELEV. R/W WAT. W SAN. S DWG.	EXISTING PROPOSED STANDARD MOUNTABLE CONCRETE CURB AND GUTTER STATION INVERT ELEVATION RIGHT-OF-WAY WATER SANITARY SEWER DRAWING
	VALVE
	ELECTRIC POLE
	LIGHT POLE
	WATER METER
	CLEANOUT
	REPLACE EXISTING CONCRETE PAVING
	FULL DEPTH BITUMINOUS PAVING

STANDARD PAVING NOTES:

1. REFER TO SHEET 2 OF 10 FOR STANDARD UTILITY, STREET LIGHT, AND TRAFFIC NOTES.
2. ANY CURB, SIDEWALK, STORM DRAINS AND/OR PAVING DISTURBED DURING INSTALLATION OF UTILITY SERVICES WILL BE REPLACED AS PART OF THIS DEVELOPER'S AGREEMENT.
3. ANY CURB DISTURBED DURING INSTALLATION SHALL BE REPLACED "IN-KIND" TO THE NEAREST EXISTING JOINT.
4. PERMANENT TRENCH REPAIR AND PAVING RESTORATION SHALL BE IN ACCORDANCE TO STANDARD DETAIL BC-576.18-1 & BC-576.18-2 FOR FLEXIBLE PAVEMENT AND BC-576.18-1 & BC-576.18-2 FOR RIGID PAVEMENT.
5. CONCRETE SIDEWALKS DISTURBED DURING INSTALLATION SHALL BE REPAIRED JOINT-TO-JOINT WITH 5 INCHES OF MIX NO. 2 CONCRETE ON 3 INCHES OF CR-6.
6. THE CONTRACTOR IS TO NOTIFY STANLEY JACOBS AT (410)-396-2889 PRIOR TO ALL EXISTING STREET AND PAVEMENT DISTURBANCES.

EXISTING UTILITY NOTES:

1. THE CONTRACTOR IS RESPONSIBLE TO LOCATE AND PROTECT ALL UTILITIES INCLUDING INLETS AND FIRE HYDRANTS WITHIN AND ADJACENT TO AREA OF WORK. ANY DAMAGES CAUSED DURING CONSTRUCTION SHALL BE REPAIRED AT THE EXPENSE OF THE CONTRACTOR.
2. THE CONTRACTOR SHALL MAINTAIN ALL EXISTING UTILITIES. ALL EXISTING UTILITIES ARE TO REMAIN IN PLACE AND IN SERVICE THROUGHOUT CONSTRUCTION UNLESS OTHERWISE NOTED. OWNER AUTHORIZATION IS REQUIRED PRIOR TO INTERRUPTING UTILITY SERVICES.
3. THE CONTRACTOR SHALL ADJUST EXISTING MANHOLE FRAMES AND COVERS AND CLEANOUTS TO MEET PROPOSED GRADES, UNLESS INDICATED OTHERWISE ON PLANS.
4. THE CONTRACTOR SHALL MAINTAIN UNOBSTRUCTED ACCESS TO EXISTING WATER METERS DURING CONSTRUCTION.

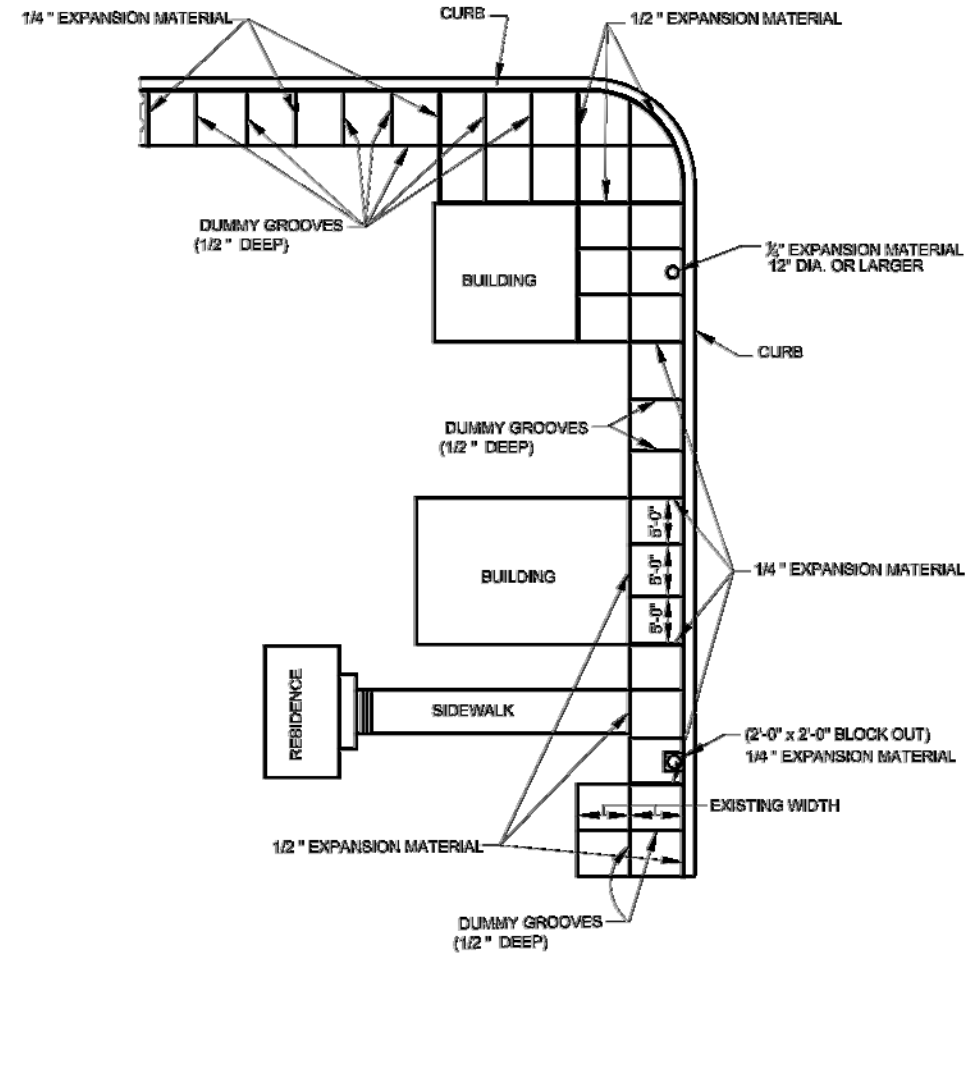
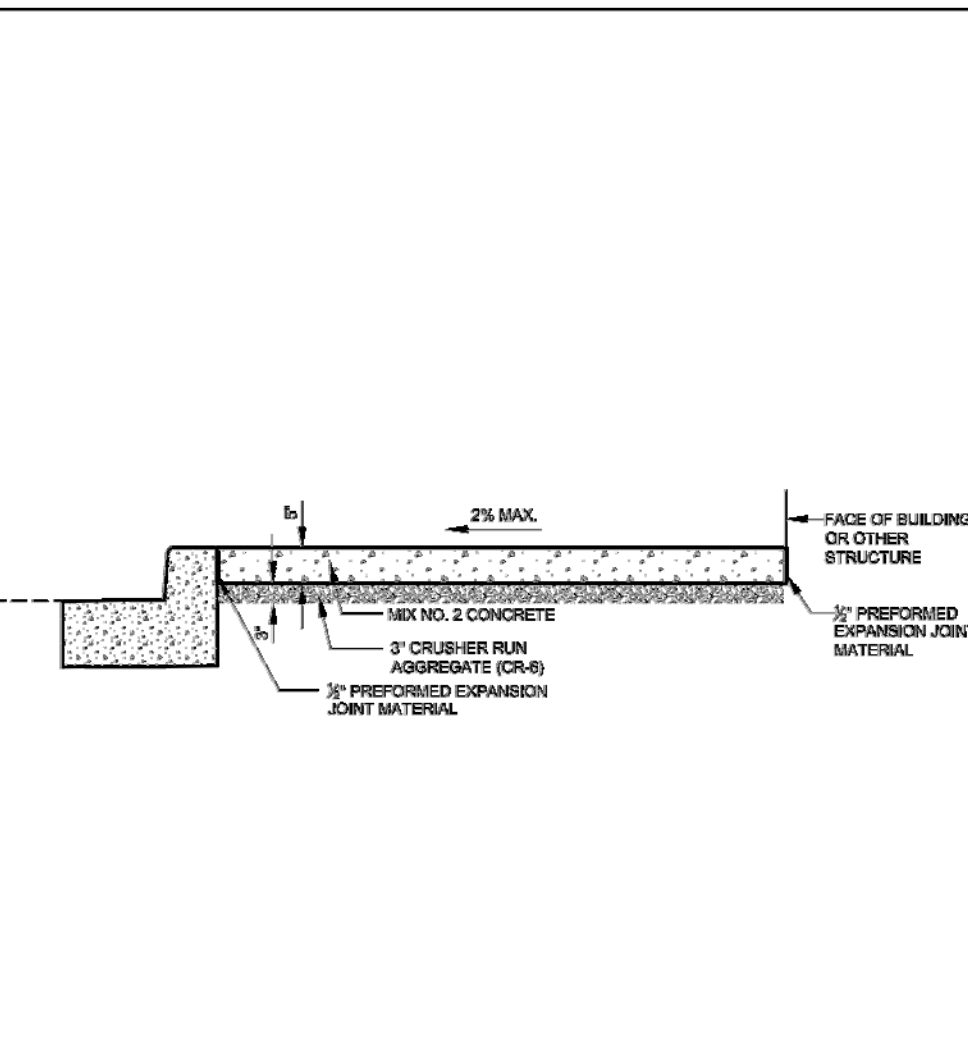
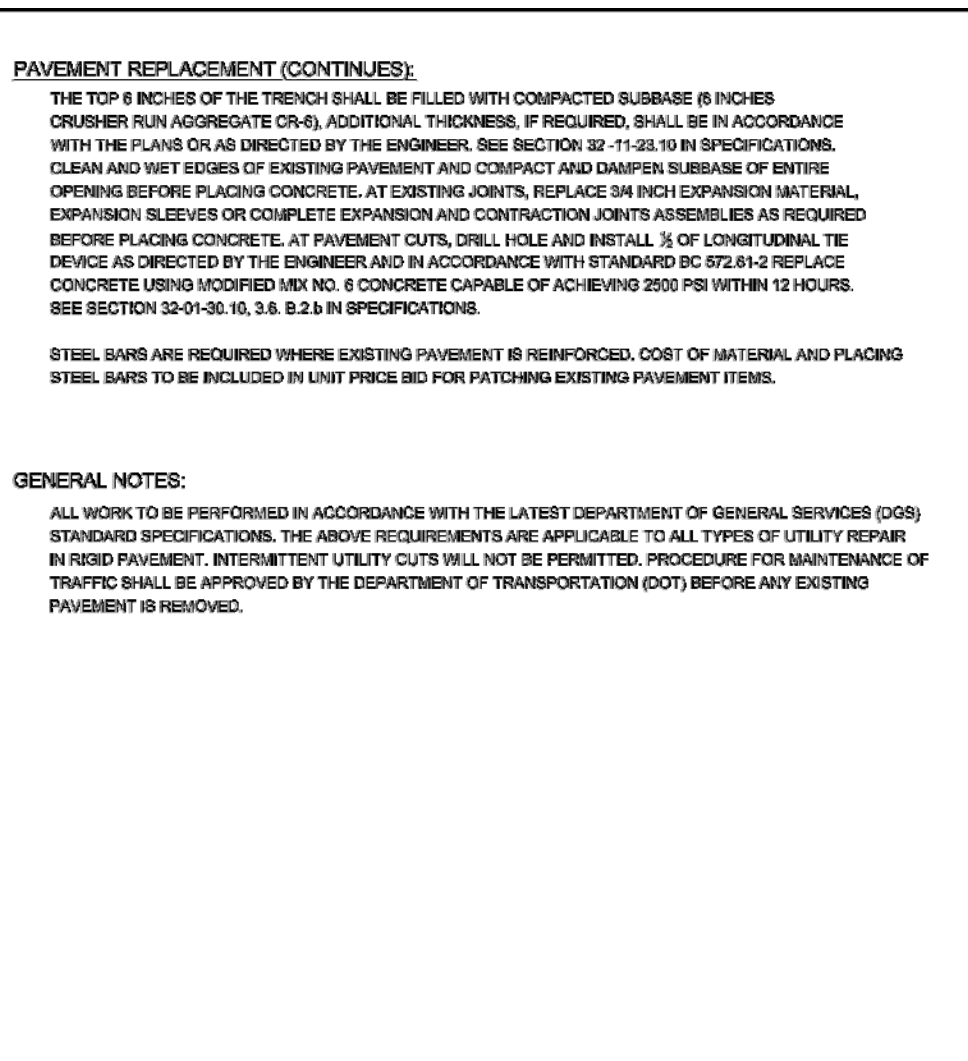
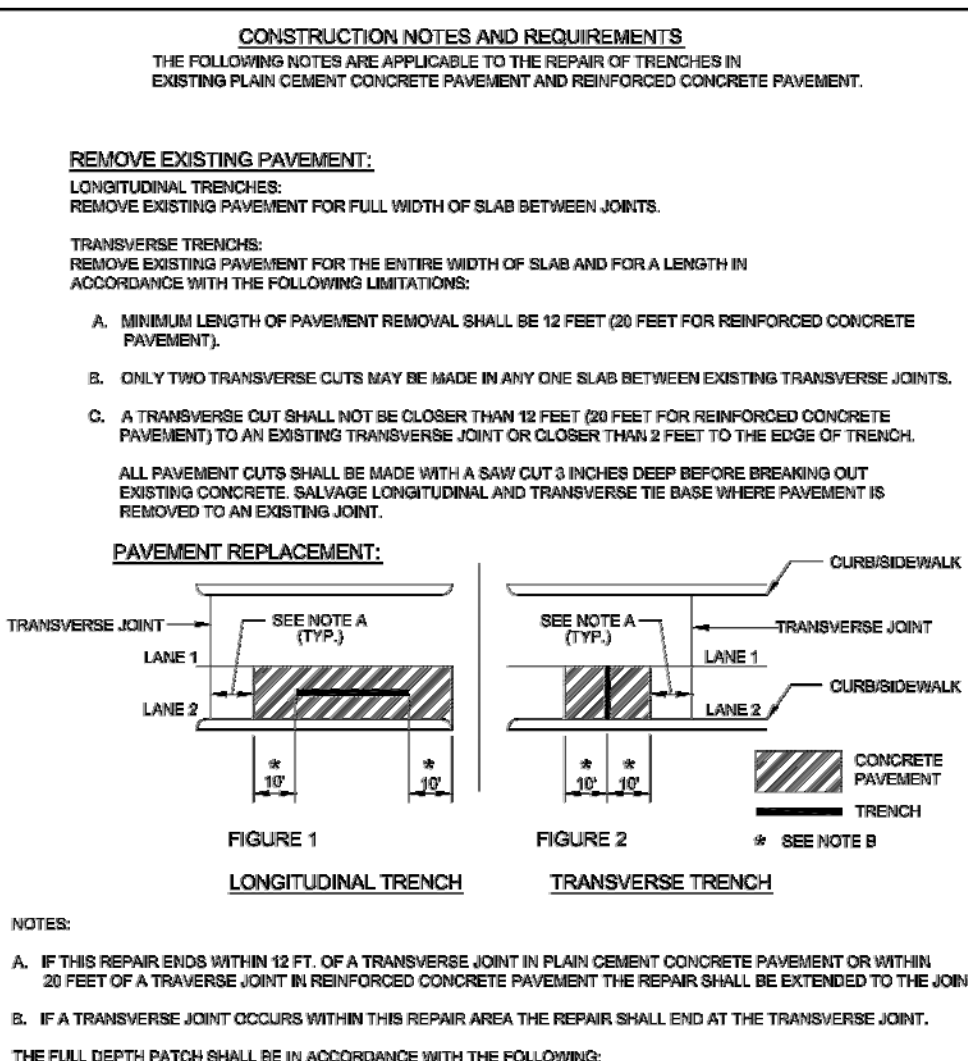
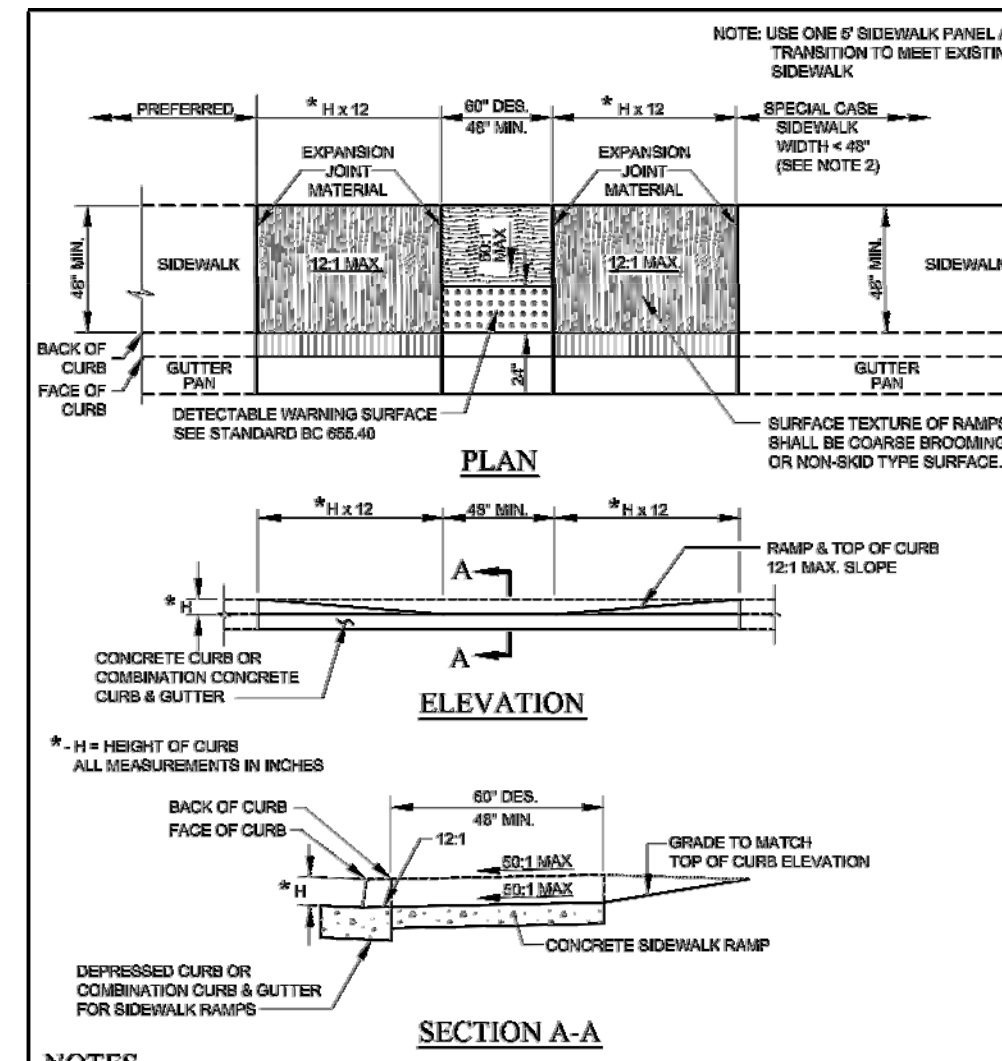
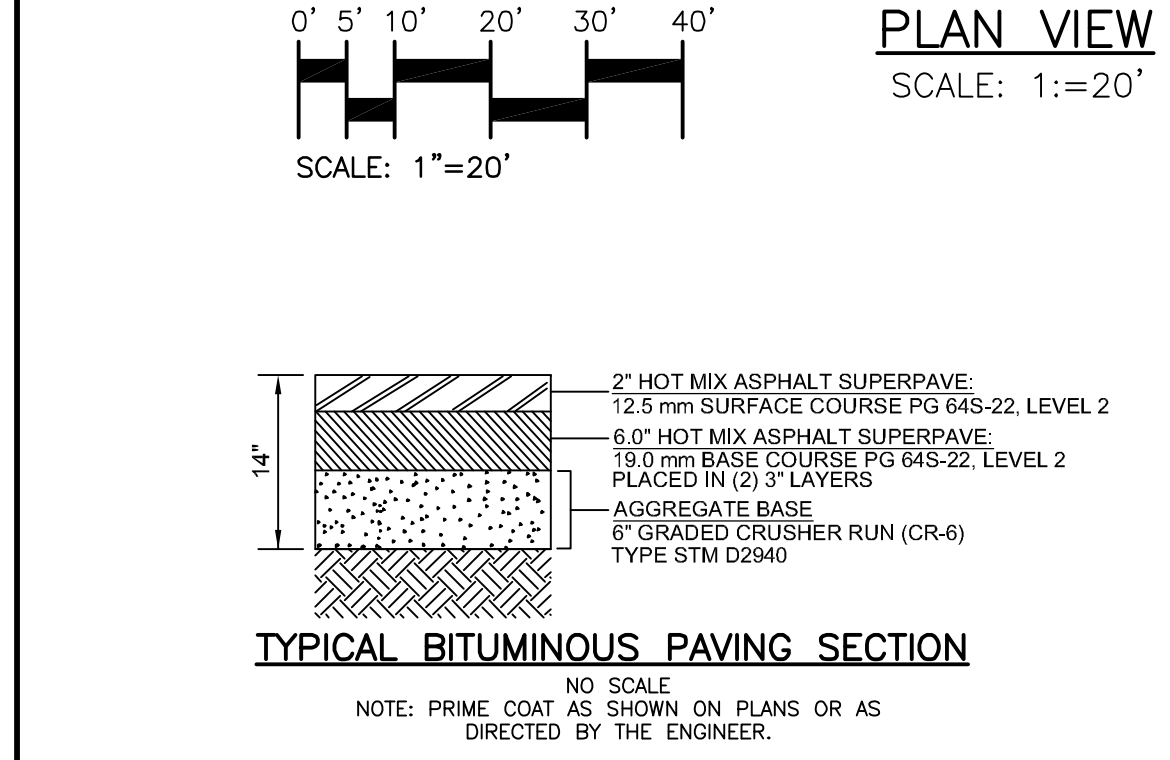


BEARINGS AND COORDINATES AS SHOWN HEREON ARE BASED ON THE BALTIMORE CITY SURVEY CONTROL SYSTEM ESTABLISHED AS REFERENCED FROM TRAVERSE/CONTROL STATIONS:

20354: NORTH 16161.564 WEST 6853.637
23969: NORTH 15647.056 WEST 6687.915

ELEVATIONS SHOWN HEREON ARE BASED ON BALTIMORE CITY BENCHMARKS:

NO. 7066: BRASS SCREW IN CONCRETE SEWER INLET AT NW CORNER FALLS HILL DRIVE AND 2ND STREET ELEVATION - 285.817 FEET.



PROFESSIONAL CERTIFICATION:
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EXPIRATION DATE: 01-12-2021

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	ENGINEER: KENNETH SNODGRASS	
	DATE: 1/4/19 LIC. NO. _50460	
	DESIGNED: KKK DRAWN BY: KKK CHECKED BY: BLC	
WARD: 13		SECTION: 2
BLOCK: 3590		SECT. APP.
LOT: 76		
BALTIMORE CITY REVIEW	R/W RELEASE	HIGHWAY DESIGN
BY		BRIDGES
DATE		DRAINAGE
		LIGHTING
		CONDUIT
		ENVIRONMENTAL ENGINEERING
		TRAFFIC ENGINEERING
		WASTEWATER ENGINEERING
		WATER ENGINEERING
		SIGNAL ENGINEERING

DSThaler & ASSOC., LLC
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7115 AMBASSADOR ROAD
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BALTIMORE, MARYLAND 21244-1428
410-444-3641
www.dsthaler.com

WARD: 13
SECTION: 2
BLOCK: 3590
SECT. APP.
LOT: 76

NOTE:
CONTRACTOR IS RESPONSIBLE FOR THE COST OF GRADE ESTABLISHMENT ADVERTISEMENT IN THE LOCAL NEWSPAPERS.

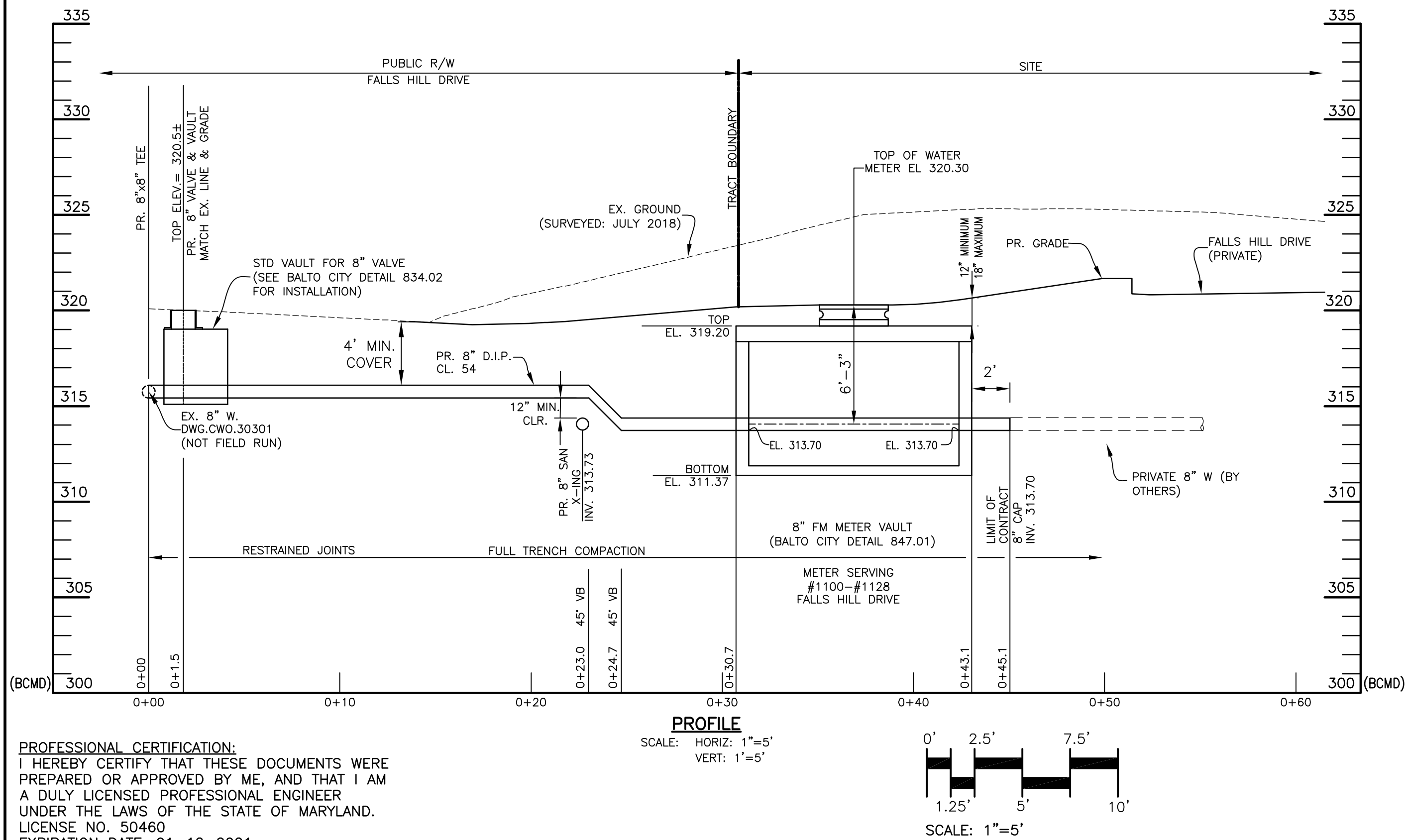
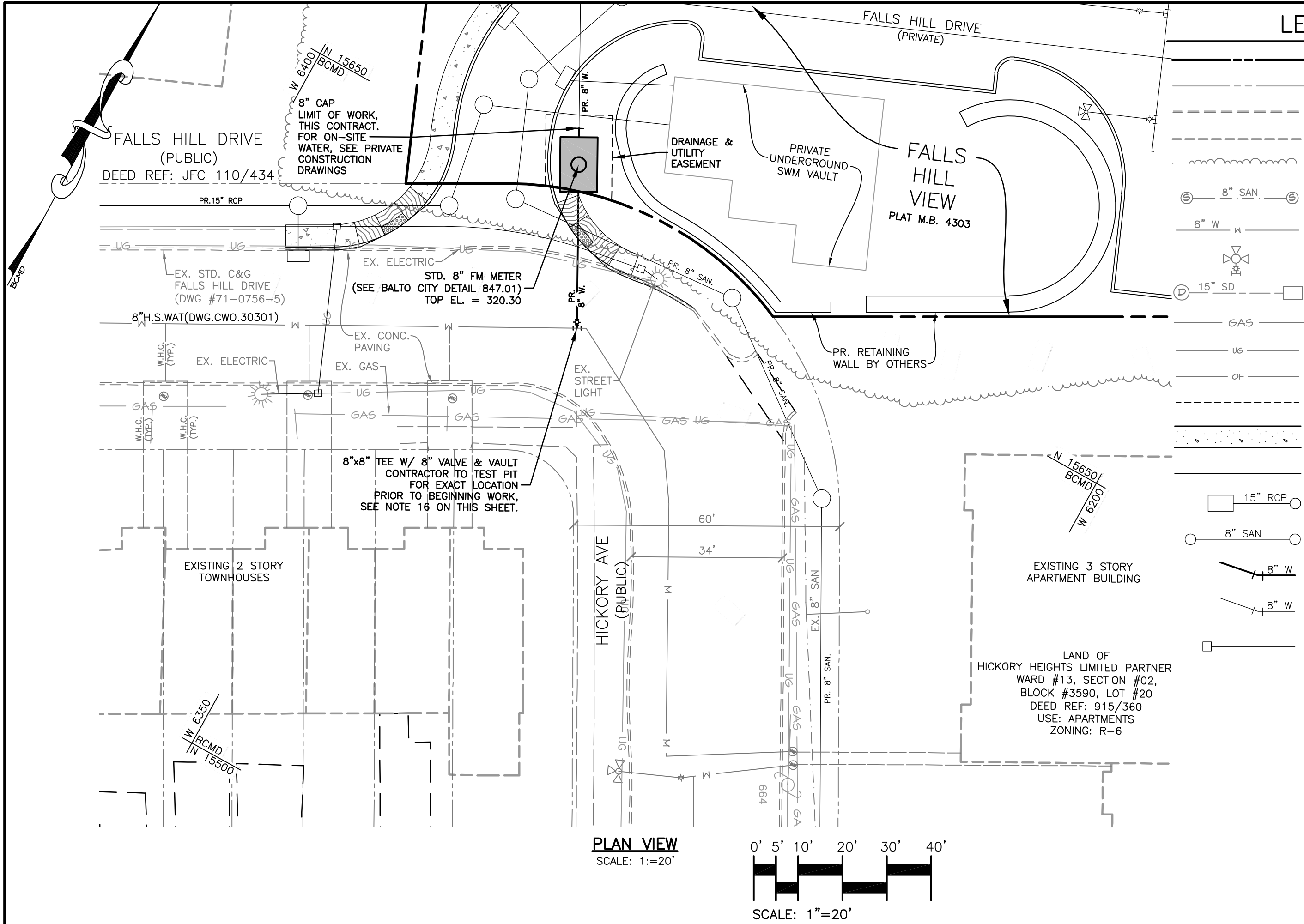
CHIEF, OFFICE OF ENGINEERING AND CONSTRUCTION
DATE
DIRECTOR, DEPARTMENT OF PUBLIC WORKS
DATE

C.W.O. NO.
OWNER/DEVELOPER: FALLS HILL HOLDINGS, LLC
4 W. WEST STREET
BALTIMORE, MD 21230
C/O EMERALD PROPERTIES
PHONE: 443-301-9238

CITY OF BALTIMORE
DEPARTMENT OF PUBLIC WORKS
DEVELOPERS AGREEMENT NO. 1618

PAVING PLAN
FOR
1100 FALLS HILL DRIVE

SCALE: AS NOTED
DATE: January, 2019
TRANSPORTATION ENGINEERING & CONSTRUCTION DIVISION
SHEET 3 OF 10



PROFESSIONAL CERTIFICATION:
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	DATE: 1/4/19 LIC. NO. _50460				
	DESIGNED: KNK DRAWN BY: KNK CHECKED BY: BLC				
WATER PLAT X-22		SERVICE ZONE 3E		WARD: 13	
WORKING PRESSURE 90 PSI		TEST PRESSURE 150 PSI		SECTION: 2	
				BLOCK: 3590	
				LOT: 76	
				ENVIRONMENTAL ENGINEERING	
				TRAFFIC ENGINEERING	
				WASTEWATER ENGINEERING	
				WATER ENGINEERING	
				SIGNAL ENGINEERING	

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410-444-3641
www.dshtaler.com

EX. PR. STD. MOUNT. CONC. C&G STA. INV. EL. R/W WAT, W SAN, S DWG. W/ BALTO H.B. V.B. X-ING D.I.P.

EXISTING PROPOSED STANDARD MOUNTABLE CONCRETE CURB AND GUTTER STATION INVERT ELEVATION RIGHT-OF-WAY WATER SANITARY SEWER DRAWING WITH BALTIMORE HORIZONTAL BEND VERTICAL BEND CROSSING DUCTILE IRON PIPE

VALVE ELECTRIC POLE LIGHT POLE WATER METER CLEANOUT

STANDARD WATER NOTES:

- REFER TO SHEET 2 OF 10 FOR STANDARD UTILITY, STREET LIGHTING, PAVING, AND TRAFFIC NOTES.
- FOR METER INSTALLATION, CONTRACTOR MUST NOTIFY BALTIMORE CITY, BUREAU OF WATER AND WASTEWATER AT (410)-396-1663 72 HOURS BEFORE STARTING WORK. COMPLETE METER INSTALLATION TO BE INSPECTED BY THE WATER AND WASTEWATER MAINTENANCE DIVISION REPRESENTATIVE PRIOR TO PLACEMENT OF TOP SLAB.
- THE CONTRACTOR SHALL ARRANGE TO PICK UP METER AT THE DEPARTMENT OF PUBLIC WORKS METER SHOP ON FRANKLINTOWN ROAD.
- ALL EXISTING WATER VALVES SHALL BE OPERATED BY WATER AND WASTEWATER MAINTENANCE DIVISION FORCES ONLY. NOTIFY MR. JON GRAHAM (410)-296-0932 AT LEAST SEVEN (7) WORKING DAYS IN ADVANCE OF ANY NECESSARY VALVE OPERATIONS.
- THE CONTRACTOR SHALL OBSERVE EXTREME CAUTION WHEN WORKING NEAR OR OVER EXISTING WATER FACILITIES.
- ALL SERVICES MUST BE FLUSHED PRIOR TO SETTING METERS.
- SERVICE MUST BE CAPPED AND THE COMPLETED SERVICE WILL BE VISUALLY INSPECTED FOR LEAKS.
- WHENEVER MORE THAN ONE SERVICE IS TO BE INSTALLED TO ANY PROPERTY OR BUILDING, CHECK VALVES MUST BE INSTALLED ON ALL SERVICES, BOTH EXISTING AND PROPOSED, TO THE PROPERTY. THEY MUST BE SHOWN ON THE DRAWING, AND WILL BE VISUALLY VERIFIED BY THE WATER AND WASTEWATER MAINTENANCE DIVISION, PRIOR TO TURNING ON THE NEW SERVICES. INSTALLATION WITHOUT PROPER CHECK VALVES WILL NOT BE TURNED ON.
- ALL SERVICES TO BE ABANDONED MUST BE ABANDONED AT THE MAINS AND ALL METERS MUST BE RETURNED TO BALTIMORE CITY.
- THE DEVELOPER MUST VERIFY THROUGH THE UTILITY BILLING SECTION AT (410)-396-5533 THE SERVICE ACCOUNT AND METER NUMBERS FOR ALL EXISTING WATER SERVICES TO REMAIN OR TO BE ABANDONED AND SHOWN ON THE PROPOSED PLANS.
- METERS ARE NOT PERMITTED TO BE INSTALLED IN THE ROADWAY OR DRIVEWAYS.
- THE CONTRACTOR SHALL GIVE WRITTEN NOTICES, AS APPROVED BY THE RESIDENT ENGINEER, TO ALL CONSUMERS AFFECTED BY A SHUTDOWN OF THEIR WATER SERVICE, A MINIMUM OF THREE (3) DAYS NOTICE PRIOR TO THE ACTUAL WORK REQUIRED. WATER SERVICES FOUR (4) INCHES AND LARGER MAY NEED TO BE SCHEDULED AT NIGHT OR DURING WEEKENDS UNLESS THE AFFECTED CONSUMERS AGREE TO THE SCHEDULE AS PROPOSED BY THE CONTRACTOR.
- PRESSURE REDUCING VALVES ARE RECOMMENDED ON-SITE FOR ALL PRESSURES IN EXCESS OF 80 PSI.
- THE CONTRACTOR SHALL NOTIFY THE BUREAU OF WATER AND WASTEWATER, METER REPAIR SHOP (410)-296-0170) AT LEAST ONE (1) WEEK PRIOR TO PICKUP OF METERS.
- METERS DESIGNATED FOR A SPECIFIC LOCATION OR ADDRESS SHALL NOT BE RELOCATED WITHOUT THE WRITTEN PERMISSION OF THE BUREAU OF WATER AND WASTEWATER.
- TEST PIT FOR LOCATION AND DEPTH OF EXISTING WATER MAIN PRIOR TO THE LAYING OF ANY PIPE. ANY DEVIATION IN DESIGN CAUSED BY THE TEST PIT DATA WILL REQUIRE RED LINE REVISION PLANS TO BE APPROVED BY THE UTILITY ENGINEERING SECTION PRIOR TO ANY NEW CONSTRUCTION.
- THE CONTRACTOR SHALL INSTALL NON-DETECTABLE TAPE ON ALL RESTRAINED JOINT PIPE WHICH SHALL EXTEND 12" ON EACH SIDE OF THE RESTRAINED JOINT PIPE. CONTACT MR. JOHN WATFORD AT (410) 396-1483 FOR DETAILED SPECIFICATIONS OF THE NON-DETECTABLE TAPE FOR RESTRAINED JOINT PIPE.
- DUCTILE IRON FITTINGS SHALL MEET LATEST AWWA C110/A21.10-18 AND C153/A21.53-11 (PRESSURE RATING SHALL BE 305 PSI).
- THE PROPOSED WATER SERVICE CONNECTION WILL BE INSTALLED A MINIMUM OF TEN (10) FEET FROM SANITARY SEWER HOUSE CONNECTIONS.

BILL OF MATERIALS			
QTY.	DESCRIPTION	SIZE	STD. DETAIL
45	LF DIP CL. 54 (RESTRAINED JOINTS)	8"	-
1	TEE W/ VALVE & VAULT	8"x8"	-
1	CAP	8"	-
1	VAULT*	-	BC-847.01
1	FM METER*	8"	-

*ITEMS WITHIN THE METER VAULT TO BE BID LUMP SUM FOR 8" FM METER & VAULT, INCLUDING ALL PIPING & APPURTENANCES COMPLETE IN PLACE.

CHIEF, OFFICE OF ENGINEERING AND CONSTRUCTION

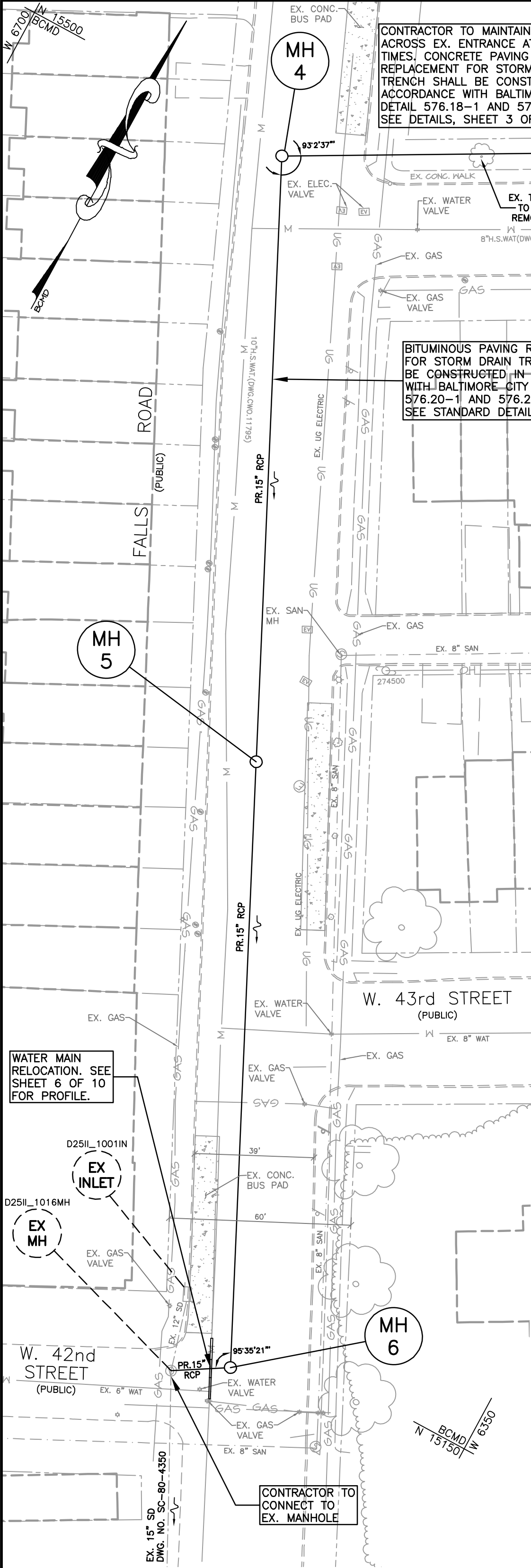
DIRECTOR, DEPARTMENT OF PUBLIC WORKS

C.W.O. NO.

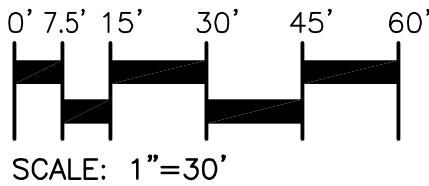
OWNER/DEVELOPER: FALLS HILL HOLDINGS, LLC
4 W. WEST STREET
BALTIMORE, MD 21230
C/O EMERALD PROPERTIES
PHONE: 443-301-9238

CITY OF BALTIMORE
DEPARTMENT OF PUBLIC WORKS
DEVELOPERS AGREEMENT NO. 1618
**8" WATER METER AND
8" CONNECTION
FOR
1100 FALLS HILL DRIVE**

SCALE: AS NOTED DATE: January, 2019
WATER & WASTEWATER ENGINEERING DIVISION



PLAN VIEW
SCALE: 1"=30'



LEGEND

- SITE PROPERTY LINE
- ADJACENT PROPERTY LINE
- EX. CURB & GUTTER
- EX. BUILDING
- EX. TREELINE
- EX. SANITARY SEWER
- EX. WATER
- EX. FIRE HYDRANT
- EX. STORM DRAIN
- EX. GAS
- EX. UNDERGROUND ELECTRIC
- EX. OVERHEAD ELECTRIC
- PR. CONCRETE SIDEWALK
- PR. CURB & GUTTER
- PR. STORM DRAIN
- PR. SANITARY SEWER
- PR. PUBLIC WATER
- PR. CONDUIT

- EX. PR. STD. CONC. C&G STA. INV. EL. R/W
- WAT. W. SAN. S. DWG. W/ BALTO H.B. V.B. X-ING D.I.P. MH
- I
- EXISTING PROPOSED STANDARD CONCRETE CURB AND GUTTER STATION INVERT ELEVATION RIGHT-OF-WAY WATER SANITARY SEWER DRAWING WITH BALTIMORE HORIZONTAL BEND VERTICAL BEND CROSSING DUCTILE IRON PIPE MANHOLE INLET
- VALVE (GAS or WATER)
- ELECTRIC POLE
- LIGHT POLE
- WATER METER
- CLEANOUT
- ELECTRICAL VALVE

INLET SCHEDULE						
NO.	TYPE	Q ₁₀ (cfs)	INV. IN	INV. OUT	THROAT ELEV.	DETAIL
I-1	TYPE-H COMB	1.6	-	309.11	314.03	BC-376.54

MANHOLE SCHEDULE								
NO.	SIZE	TYPE	TYPE DETAIL	INV. IN	INV. OUT	TOP ELEV.	CHANNEL NO.	CHANNEL DETAIL
MH-1	48"	A			PRIVATE - NOT IN PUBLIC CONTRACT	318.35		
MH-2	48"	A	BC-383.04	309.70	309.50	318.35	7	BC-383.33
MH-3	48"	A	BC-383.04	309.00	308.80	314.65	3	BC-383.32
MH-4	48"	A	BC-383.04	290.00	289.60	297.02	5	BC-383.32
MH-5	48"	A	BC-383.04	284.40	281.89	291.26	11	BC-383.35
MH-6	48"	A	BC-383.04	279.39	279.19	285.23	5	BC-383.32
EX-MH	-	-	-	278.84	278.64	285.04	-	-

MANHOLE AND INLET LOCATIONS				
		BALTIMORE CITY		MD STATE PLANE NAD83
DESCRIPTION		NORTHING	WESTING	NORTHING EASTING
I-1		15607.62	6382.23	609759.99 1414653.48
MH-1 (PRIVATE)		15657.80	6362.12	609809.07 1414673.97
MH-2		15634.09	6357.89	609785.38 1414678.31
MH-3		15617.28	6387.51	609768.77 1414648.58
MH-4		15497.04	6605.57	609647.26 1414431.22
MH-5		15317.01	6518.10	609467.61 1414519.46
MH-6		15136.96	6430.66	609287.94 1414607.68

BILL OF MATERIALS		
QTY.	DESCRIPTION	SIZE
703 LF	RCP	15"
1	TYPE "H" INLET, COMBO	DOUBLE
5	MANHOLE	48"

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. 50460 EXPIRATION DATE: 01-12-2021

D. S. THALER & ASSOC., LLC.
ENGINEER: KENNETH SNODGRASS
DATE: 1/4/19 LIC. NO. 50460
DESIGNED: KNK
DRAWN BY: KNK
CHECKED BY: BLC
WARD: 13
SECTION: 2
BLOCK: 3590
LOT: 76

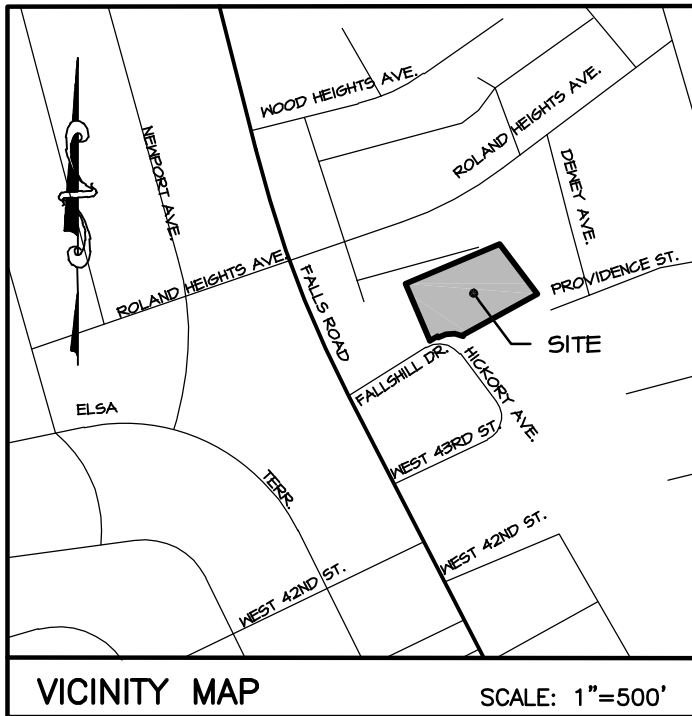


BALTIMORE CITY REVIEW	R/W RELEASE	HIGHWAY DESIGN	BRIDGES	DRAINAGE	LIGHTING	CONDUIT	ENVIRONMENTAL ENGINEERING	TRAFFIC ENGINEERING	WASTEWATER ENGINEERING	WATER ENGINEERING	SIGNAL ENGINEERING
BY											
DATE											

AS BUILT REVISION		REVISIONS			
		NO.	DESCRIPTION	DATE	BY
BY: _____					
DATE: _____					

STANDARD STORM NOTES:

- REFER TO SHEET 2 OF 10 FOR STANDARD UTILITY, STREET LIGHTING, PAVING, AND TRAFFIC NOTES.
- ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE LATEST EDITIONS OF THE CITY OF BALTIMORE, DEPARTMENT OF PUBLIC WORKS, "SPECIFICATIONS FOR MATERIALS, HIGHWAYS, BRIDGES, UTILITIES AND INCIDENTAL STRUCTURES" (STANDARD SPECIFICATIONS) AND THE CITY OF BALTIMORE DEPARTMENT OF PUBLIC WORKS STANDARD DETAILS.
- EXISTING UTILITIES AND OBSTRUCTIONS SHOWN ARE FOR THE CONVENIENCE OF THE CONTRACTOR AND ARE NOT WARRANTED OR GUARANTEED BY THE CITY ENGINEER TO BE COMPLETE OR CORRECT. THE CONTRACTOR SHALL VERIFY ALL INFORMATION TO HIS OWN SATISFACTION. TEST PIT AS NECESSARY.
- BEFORE DOING ANY DIGGING, NOTIFY THE FOLLOWING:
 - "MISS UTILITY" AT 800-257-7777 (NOTIFY 3 DAYS PRIOR TO WORK)
 - DEPARTMENT OF TRANSPORTATION, STREET LIGHTING SECTION AT (410)-396-4446 (NOTIFY 2 WEEKS PRIOR TO WORK)
 - DEPARTMENT OF TRANSPORTATION, CONDUIT SECTION AT (410)-396-1515 (NOTIFY 15 DAYS PRIOR TO WORK)
 - VERIZON AT 800-837-4966 (NOTIFY 3 DAYS PRIOR TO WORK)
- TYPE OF JOINT FOR PIPE
 - TYPE OF PIPE
 - REINFORCED CONCRETE PIPE DRAIN
 - REINFORCED CONCRETE PIPE: INLET CONNECTION
 - TYPE OF JOINT
 - 'O' RING RUBBER GASKET
 - CEMENT MORTAR OR 'O' RING RUBBER GASKET
- ALL CHANNELS IN MANHOLES MUST BE CONSTRUCTED TO CONFORM AS CLOSE AS POSSIBLE TO THE STANDARD CHANNEL CALLED FOR IN THE PROFILES.
- GRAVEL CRADLE IS REQUIRED UNDER ALL PIPES EXCEPT INLET CONNECTIONS. TRENCHING AND BACKFILL SHALL BE DONE IN ACCORDANCE WITH CITY SPECIFICATION SECTION 31 23 33
- ALL BACKFILL SHALL BE MECHANICALLY TAMPED.
- ROADWAY PAVING REPLACEMENT SHALL BE DONE IN ACCORDANCE WITH CITY STANDARD SPECIFICATION SECTION 32 01 30.10.
- THE CONTRACTOR SHALL VIDEO INSPECT THE NEW STORM DRAINS AND SUBMIT A DVD/CD OF THE VIDEO INSPECTION TO THE STORM DRAIN ENGINEERING OFFICE.
- PROVIDE AS-BUILT DRAWINGS IN ACCORDANCE TO THE PROCEDURES PROVIDED BY THE STORM DRAIN ENGINEERING OFFICE.

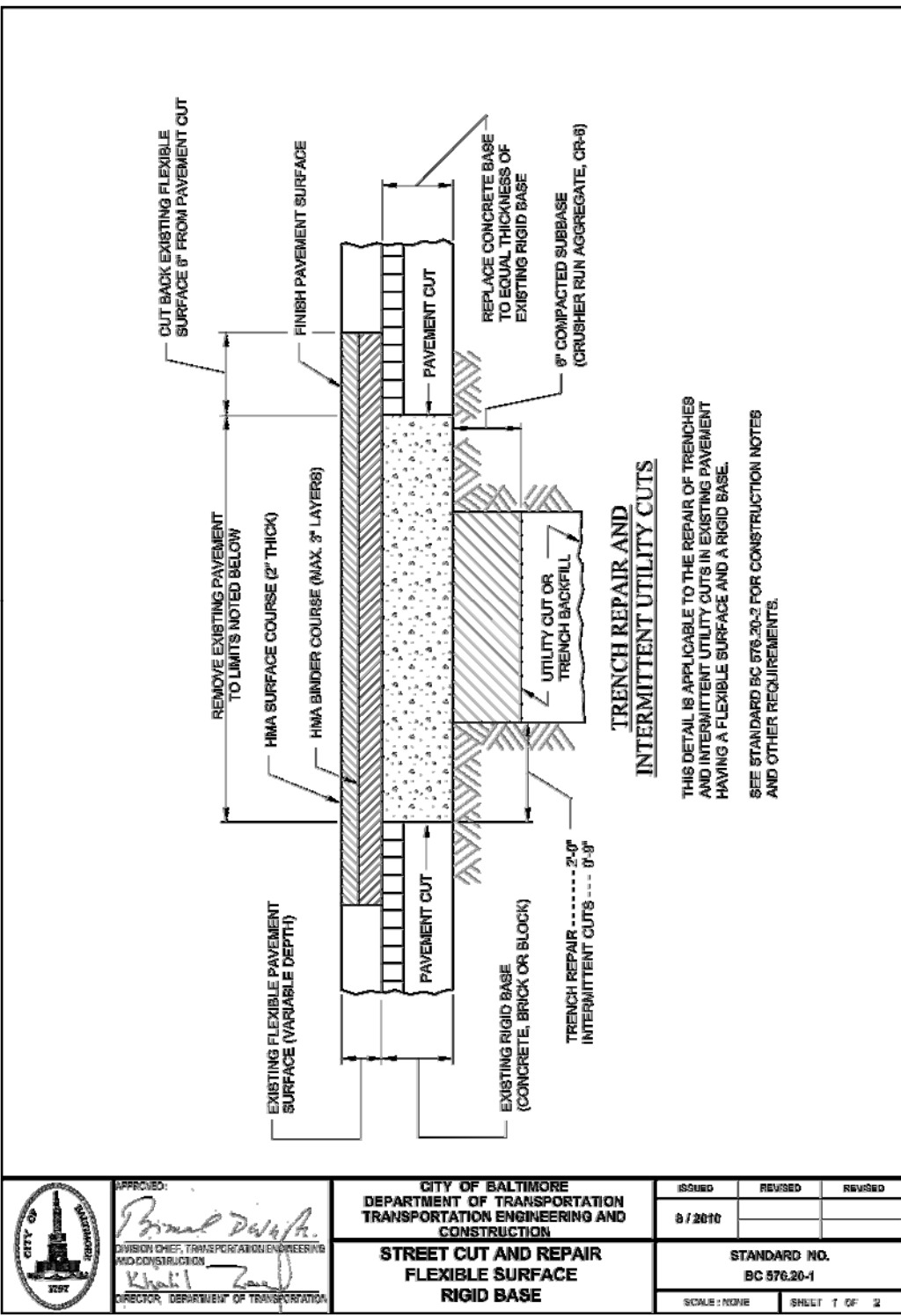


BEARINGS AND COORDINATES AS SHOWN HEREON ARE BASED ON THE BALTIMORE CITY SURVEY CONTROL SYSTEM ESTABLISHED AS REFERENCED FROM TRAVERSE/CONTROL STATIONS:

20354: NORTH 16161.564 WEST 6853.637
23969: NORTH 15647.056 WEST 6687.915

ELEVATIONS SHOWN HEREON ARE BASED ON BALTIMORE CITY BENCHMARKS:

NO. 7066: BRASS SCREW IN CONCRETE SEWER INLET AT NW CORNER FALLS ROAD AND 2ND STREET ELEVATION - 285.817 FEET.



NOTE: THIS STREET CUT REPAIR DETAIL SHALL BE USED UPON DETERMINATION OF THE PAVING BASE OF FALLS ROAD IN THE FIELD BY CONTRACTOR AND/OR BALTIMORE CITY INSPECTOR. IF FIELD CONDITIONS ALLOW STREET CUT REPAIR FOR FULL DEPTH FLEXIBLE PAVEMENT, DETAIL 576.19-1 AND 576.19-2 MAY BE SUBSTITUTED.

CONSTRUCTION NOTES AND REQUIREMENTS

THE FOLLOWING NOTES ARE APPLICABLE TO THE REPAIR OF TRENCHES AND INTERMITTENT UTILITY CUTS IN EXISTING PAVEMENT HAVING A FLEXIBLE SURFACE AND A RIGID BASE. SEE STANDARD BC 87L20-1 FOR CONSTRUCTION DETAILS.

REMOVE EXISTING PAVEMENT:
EXISTING PAVEMENT SHALL BE REMOVED TO THE DIMENSIONS SHOWN ON THE CONSTRUCTION DETAIL FOR BOTH LONGITUDINAL AND TRANSVERSE PAVEMENT CUTS. WHERE IT CAN BE DETERMINED THAT A PAVEMENT CUT IS LOCATED WITHIN 2 FEET OF AN EXISTING JOINT, THE ADDITIONAL WIDTH OF EXISTING BRICK AND CONCRETE BASE FROM THE PAVEMENT CUT TO THE EXISTING JOINT SHALL ALSO BE REMOVED. SALVAGE LONGITUDINAL AND TRANSVERSE TIE BARS WHERE PAVEMENT IS REMOVED TO AN EXISTING JOINT. CUT EACH EXISTING FLEXIBLE SURFACING AS SHOWN.

PAVEMENT REPLACEMENT:
THE TOP 8 INCHES OF THE TRENCH OR INTERMITTENT UTILITY CUT SHALL BE FILLED WITH COMPACTED RUBBBER. TYPE OF SUBBASE MATERIAL AND ADDITIONAL THICKNESS, IF REQUIRED, SHALL BE IN ACCORDANCE WITH THE PLANS OR AS DIRECTED BY THE ENGINEER. SEE SECTION 32 11 23.10 IN SPECIFICATIONS.
CLEAN AND WET EDGES OF EXISTING PAVEMENT AND COMPACT AND DAMPEN SUBBASE OF ENTIRE OPENING BEFORE PLACING CONCRETE. AT EXISTING JOINTS, REPLACE 18 INCH EXPANSION MATERIAL, EXPANSION BUSHES OR COMPLETE EXPANSION AND CONTRACTION JOINT ASSEMBLIES AS REQUIRED BEFORE PLACING CONCRETE. AT PAVEMENT CUTS, DRILL HOLE AND INSTALL 1/2 OF LONGITUDINAL TIE DEVICE AS DIRECTED BY THE ENGINEER AND IN ACCORDANCE WITH STANDARD BC 87L21-2 PLACE CONCRETE BASE USING MIX T OR MIX 6 CONCRETE. SEE SECTION 32 01 30.10 IN SPECIFICATIONS.
THE FLEXIBLE PAVING SHALL BE REPLACED FLUSH WITH THE FINISHED PAVEMENT SURFACE USING A BINDER COURSE WITH MAXIMUM 3 INCH COMPACTED LAYERS AND A 2 INCH COMPACTED SURFACE COURSE. SEE SECTION 32 01 17.09 IN SPECIFICATIONS.
ALL EXPOSED EDGES OF EXISTING FLEXIBLE PAVEMENT, THE SURFACE OF CONCRETE BASE AND EACH LAYER OF HOT MIX ASPHALT THIN BINDER COURSE SHALL BE FINISHED WITH A MATERIAL SATISFACTORY TO THE ENGINEER BEFORE THE NEXT LAYER OF BMA MIXTURE IS PLACED.

GENERAL NOTES:
ALL WORK TO BE PERFORMED IN ACCORDANCE WITH THE LATEST DEPARTMENT OF GENERAL SERVICES (DGS) SPECIFICATIONS. PROCEDURE FOR MAINTENANCE OF TRAFFIC SHALL BE APPROVED BY THE DEPARTMENT OF TRANSPORTATION (DOT) BEFORE ANY EXISTING PAVEMENT IS REMOVED.

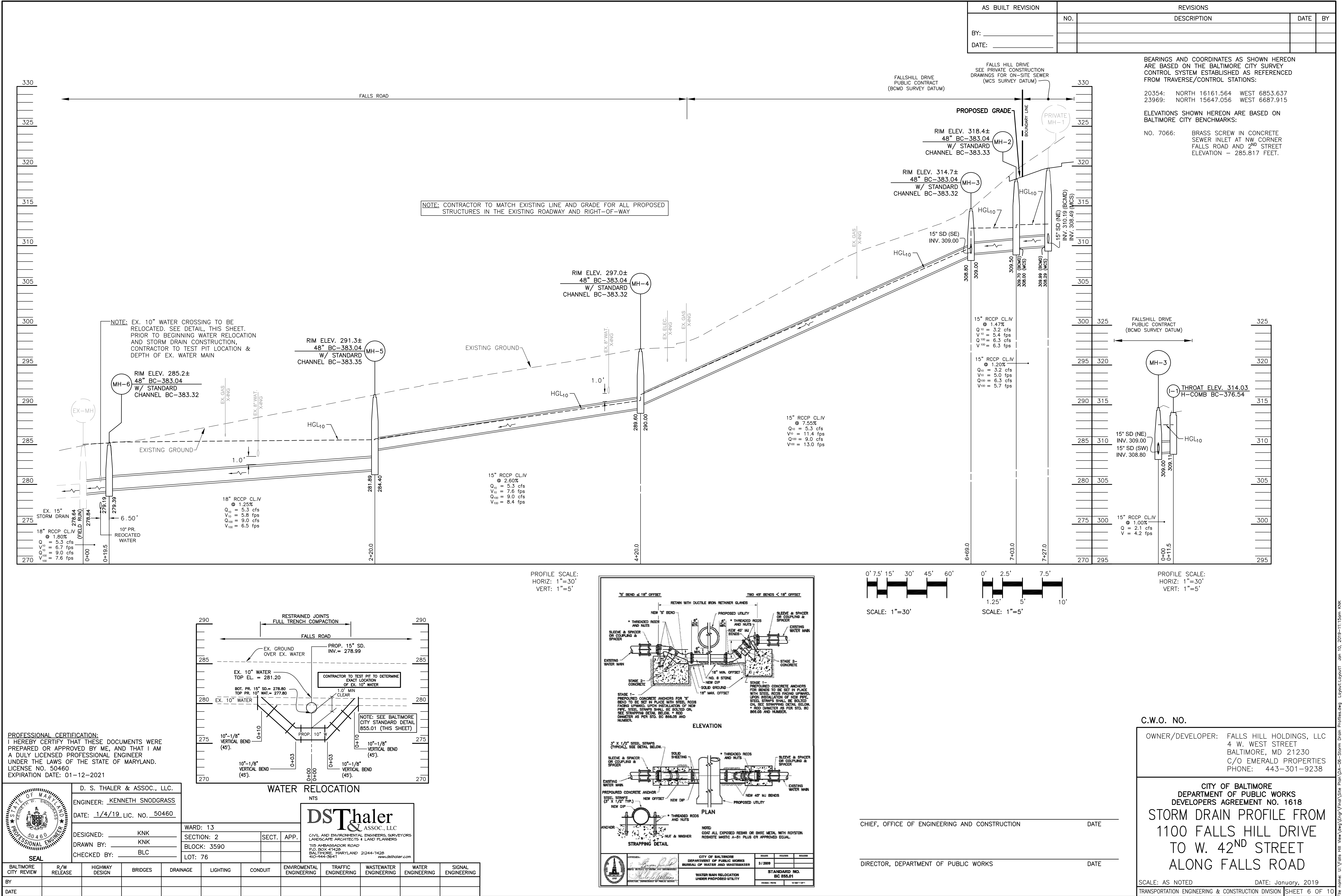
CITY OF BALTIMORE
DEPARTMENT OF TRANSPORTATION
TRANSPORTATION ENGINEERING AND CONSTRUCTION
STREET CUT AND REPAIR FLEXIBLE SURFACE ROAD BASE
STANDARD NO. BC 87L20-1
SHEET 3 OF 3

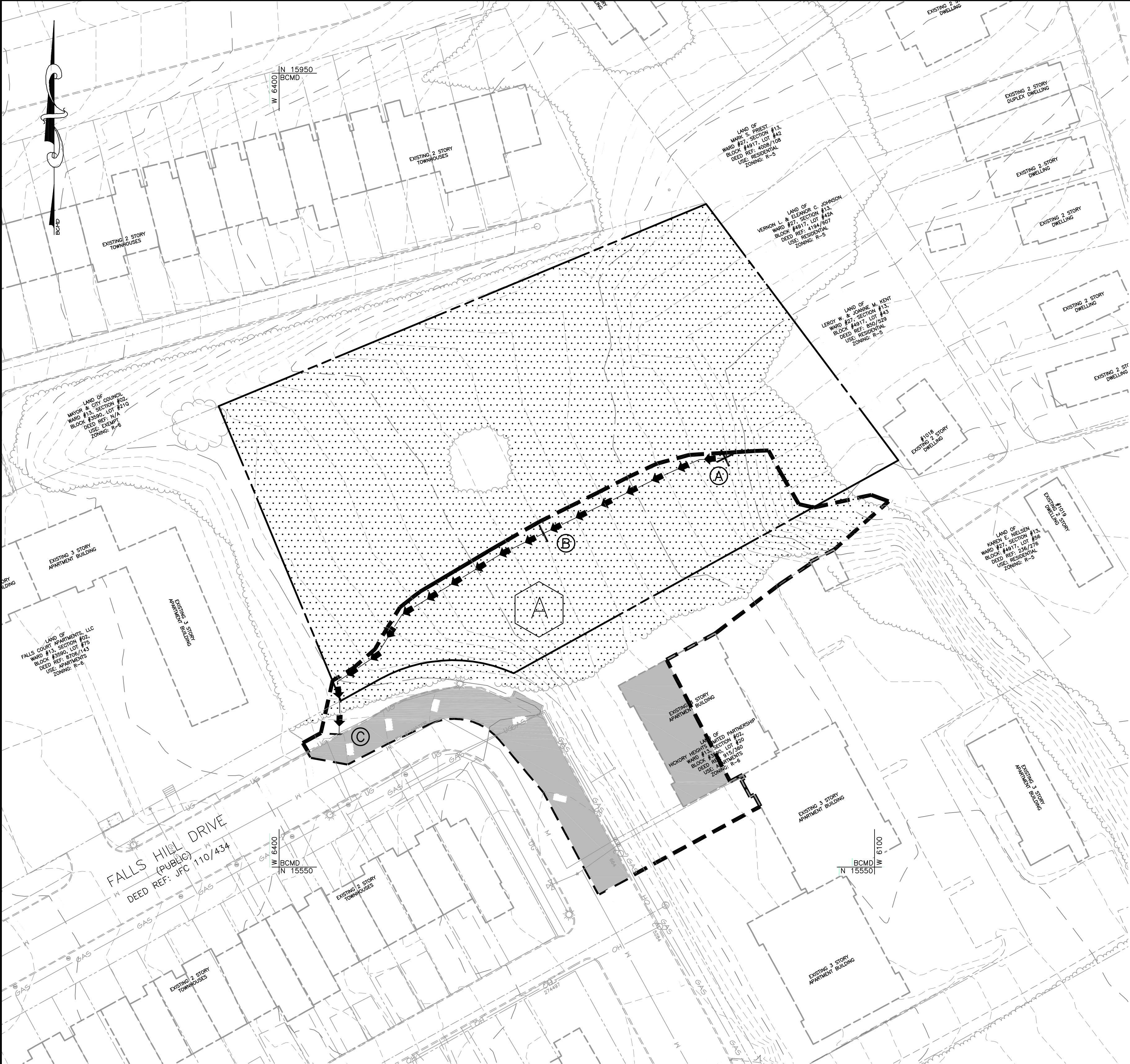
DRAINAGE DISTRICT: 39-B
RECORD PLAT: 25-II1
C.W.O. NO.

OWNER/DEVELOPER: FALLS HILL HOLDINGS, LLC
4 W. WEST STREET
BALTIMORE, MD 21230
C/O EMERALD PROPERTIES
PHONE: 443-301-9238

CITY OF BALTIMORE
DEPARTMENT OF PUBLIC WORKS
DEVELOPERS AGREEMENT NO. 1618
STORM DRAIN PLAN FROM
1100 FALLS HILL DRIVE
TO W. 42ND STREET
ALONG FALLS ROAD

SCALE: AS NOTED DATE: January, 2019
TRANSPORTATION ENGINEERING & CONSTRUCTION DIVISION SHEET 5 OF 10



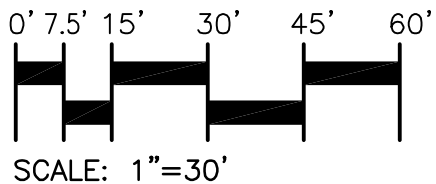


PROFESSIONAL CERTIFICATION:
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE
PREPARED OR APPROVED BY ME, AND THAT I AM
A DULY LICENSED PROFESSIONAL ENGINEER
UNDER THE LAWS OF THE STATE OF MARYLAND.
LICENSE NO. 50460
EXPIRATION DATE: 01-12-2021

	D. S. THALER & ASSOC., LLC.	
	ENGINEER: KENNETH SNODGRASS	
	DATE: 1/4/19 LIC. NO. 50460	
	DESIGNED: KNK	
	DRAWN BY: KNK	
	CHECKED BY: BLC	
	WARD: 13	
	SECTION: 2	
BLOCK: 3590		
LOT: 76		
SECT. APP.		
ENVIRONMENTAL ENGINEERING		
TRAFFIC ENGINEERING		
WASTEWATER ENGINEERING		
WATER ENGINEERING		
SIGNAL ENGINEERING		

PLAN VIEW

SCALE: 1"=30'



LEGEND

- SITE PROPERTY LINE
- ADJACENT PROPERTY LINE
- EX. CURB & GUTTER
- EX. BUILDING
- EX. TREELINE
- 8" SAN EX. SANITARY SEWER
- 8" W EX. WATER
- 15" SD EX. FIRE HYDRANT
- 15" SD EX. STORM DRAIN
- GAS EX. GAS
- UG EX. UNDERGROUND ELECTRIC
- OH EX. OVERHEAD ELECTRIC
- EX. MAJOR CONTOUR
- EX. MINOR CONTOUR
- EX. DRAINAGE AREA LIMIT
- EX. TIME OF CONCENTRATION PATH
- EX. TIME OF CONCENTRATION PATH DESIGNATION
- DRAINAGE AREA DESIGNATION
- EX. IMPERVIOUS
- EX. OPEN SPACE
- EX. WOODS

- EX. PR. STD. CONC. C&G STA. INV. EL. R/W WAT. W SAN. S DWG. WITH BALTO H.B. V.B. X-ING D.I.P. MH I
- EXISTING PROPOSED STANDARD CONCRETE CURB AND GUTTER STATION INVERT ELEVATION RIGHT-OF-WAY WATER SANITARY SEWER DRAWING WITH BALTIMORE HORIZONTAL BEND VERTICAL BEND CROSSING DUCTILE IRON PIPE MANHOLE INLET
- VALVE (GAS or WATER)
- ELECTRIC POLE
- LIGHT POLE
- WATER METER
- CLEANOUT
- ELECTRICAL VALVE

EXISTING CONDITIONS

STUDY AREA A	AREA (SF)	AREA (AC.)
IMPERVIOUS	6,418	0.15
OPEN	6,108	0.14
WOODS	15,749	0.36
TOTAL	28,275	0.65

SOILS TABLE

SOIL SERIES	SOIL NAME	SOIL GROUP	SLOPES (%)	K FACTOR	HYDRIC SOIL
13UC	JAPPA-URBAN LAND COMPLEX	D	8-15	-	NO

DRAINAGE DISTRICT: 39-B
RECORD PLAT: 25-II1
C.W.O. NO.

OWNER/DEVELOPER: FALLS HILL HOLDINGS, LLC
4 W. WEST STREET
BALTIMORE, MD 21230
C/O EMERALD PROPERTIES
PHONE: 443-301-9238

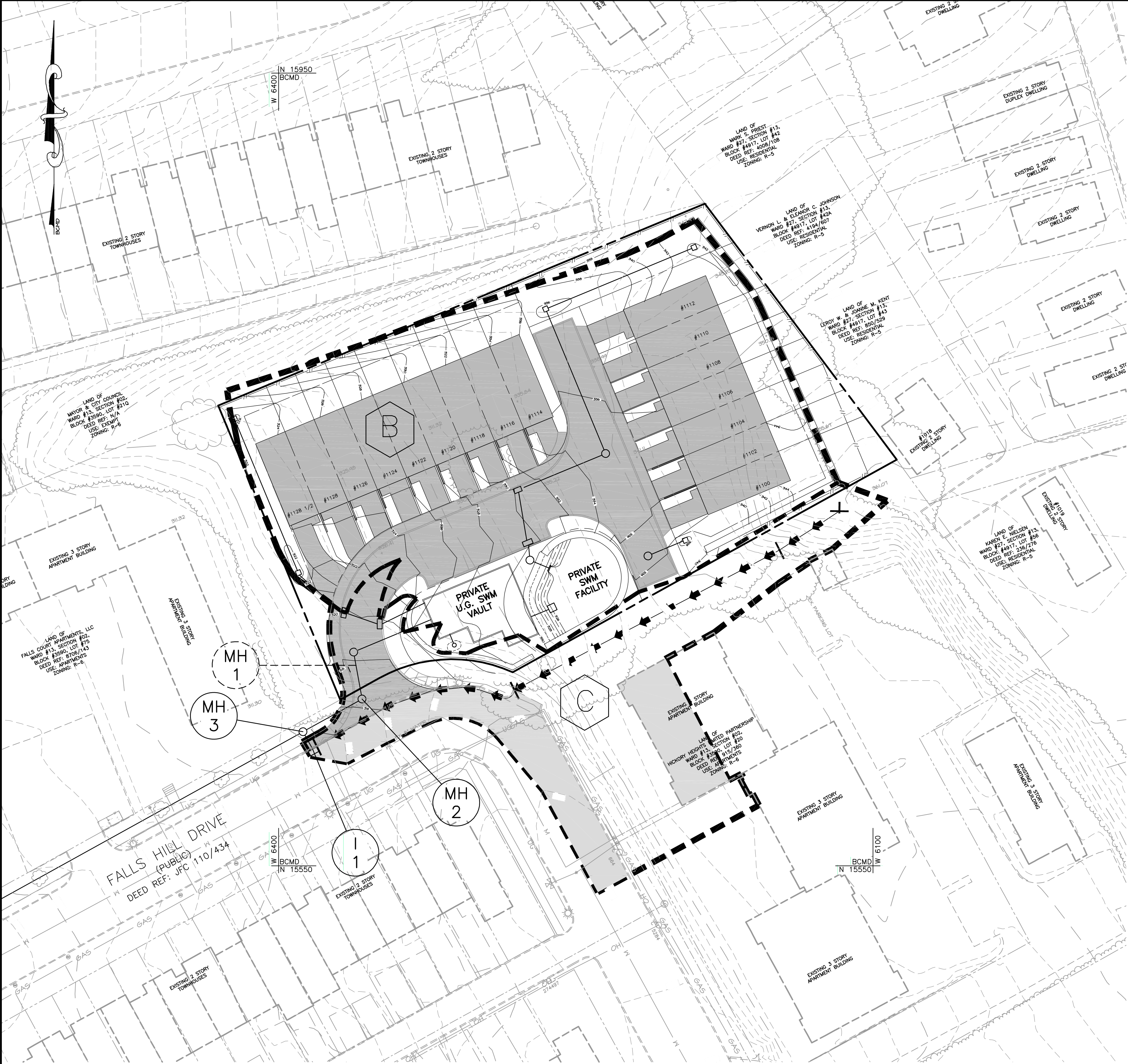
CITY OF BALTIMORE
DEPARTMENT OF PUBLIC WORKS
DEVELOPERS AGREEMENT NO. 1618

STORM DRAIN
DRAINAGE AREA MAP
EXISTING CONDITIONS FOR
1100 FALLS HILL DRIVE

SCALE: AS NOTED DATE: January, 2019
TRANSPORTATION ENGINEERING & CONSTRUCTION DIVISION SHEET 7 OF 10

CHIEF, OFFICE OF ENGINEERING AND CONSTRUCTION DATE

DIRECTOR, DEPARTMENT OF PUBLIC WORKS DATE



PLAN VIEW
SCALE: 1"=30'

PROFESSIONAL CERTIFICATION:
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE
PREPARED OR APPROVED BY ME, AND THAT I AM
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UNDER THE LAWS OF THE STATE OF MARYLAND.
LICENSE NO. 50460
EXPIRATION DATE: 01-12-2021

	D. S. THALER & ASSOC., LLC.		
	ENGINEER: KENNETH SNODGRASS		
	DATE: 1/4/19 LIC. NO. 50460		
	DESIGNED: KNK	WARD: 13	
DRAWN BY: KNK	SECTION: 2	SECT.	APP.
CHECKED BY: BLC	BLOCK: 3590		
	LOT: 76		

BALTIMORE CITY REVIEW	R/W RELEASE	HIGHWAY DESIGN	BRIDGES	DRAINAGE	LIGHTING	CONDUIT	ENVIRONMENTAL ENGINEERING	TRAFFIC ENGINEERING	WASTEWATER ENGINEERING	WATER ENGINEERING	SIGNAL ENGINEERING
BY											
DATE											

CIVIL AND ENVIRONMENTAL ENGINEERS, SURVEYORS
LANDSCAPE ARCHITECTS & LAND PLANNERS
1115 AMBASSADOR ROAD
P.O. BOX 41428
BALTIMORE, MARYLAND 21244-1428
410-944-3641
www.dsthaler.com

LEGEND

- SITE PROPERTY LINE
- ADJACENT PROPERTY LINE
- EX. CURB & GUTTER
- EX. BUILDING
- EX. TREELINE
- EX. SANITARY SEWER
- EX. WATER
- EX. FIRE HYDRANT
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- TIME OF CONCENTRATION PATH
- TIME OF CONCENTRATION PATH DESIGNATION
- DRAINAGE AREA DESIGNATION

- PR. CONTOUR
- PR. CONCRETE SIDEWALK
- PR. CURB & GUTTER
- PR. STORM DRAIN
- PR. SANITARY SEWER
- PR. PUBLIC WATER
- OPEN SPACE
- EX. IMPERVIOUS
- PR. IMPERVIOUS
- EX. PR. STD. CONC. C&G STA. INV. EL. R/W WAT. W SAN. S DWG. WITH BALTO H.B. V.B. X-ING D.I.P. MH I
- EXISTING PROPOSED STANDARD CONCRETE CURB AND GUTTER STATION INVERT ELEVATION RIGHT-OF-WAY WATER SANITARY SEWER DRAWING WITH BALTIMORE HORIZONTAL BEND VERTICAL BEND CROSSING DUCTILE IRON PIPE MANHOLE INLET
- VALVE (GAS or WATER)
- ELECTRIC POLE
- LIGHT POLE
- WATER METER
- CLEANOUT
- ELECTRICAL VALVE

NOTE: A MINIMUM TIME OF CONCENTRATION OF 5 MINUTES WAS USED FOR ANALYSIS OF ON-SITE PROPOSED CONDITIONS

PROPOSED CONDITIONS		
STUDY AREA B	AREA (SF)	AREA (AC.)
IMPERVIOUS	22,651	0.52
OPEN	18,840	0.43
TOTAL	41,491	0.95
STUDY AREA C	AREA (SF)	AREA (AC.)
IMPERVIOUS	7,363	0.17
OPEN	12,079	0.28
TOTAL	19,442	0.45

SOILS TABLE					
SOIL SERIES	SOIL NAME	SOIL GROUP	SLOPES (%)	K FACTOR	HYDRIC SOIL
13UC	JAPPA-URBAN LAND COMPLEX	D	8-15	-	NO

DRAINAGE DISTRICT: 39-B
RECORD PLAT: 25-II1
C.W.O. NO.

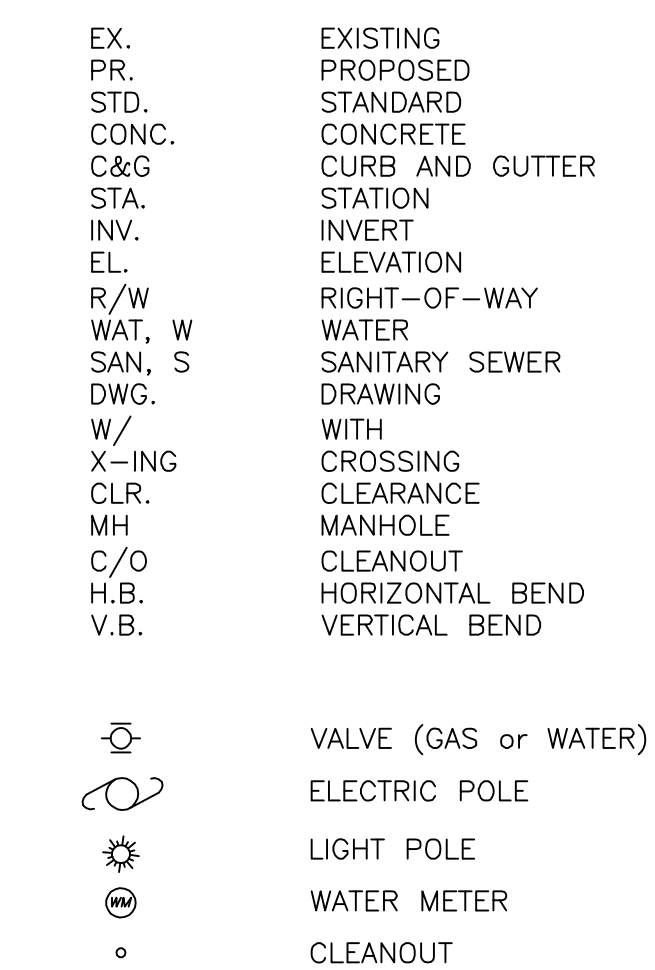
OWNER/DEVELOPER: FALLS HILL HOLDINGS, LLC
4 W. WEST STREET
BALTIMORE, MD 21230
C/O EMERALD PROPERTIES
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CITY OF BALTIMORE
DEPARTMENT OF PUBLIC WORKS
DEVELOPERS AGREEMENT NO. 1618

STORM DRAIN
DRAINAGE AREA MAP
PROPOSED CONDITIONS FOR
1100 FALLS HILL DRIVE

SCALE: AS NOTED DATE: January, 2019
TRANSPORTATION ENGINEERING & CONSTRUCTION DIVISION SHEET 8 OF 10

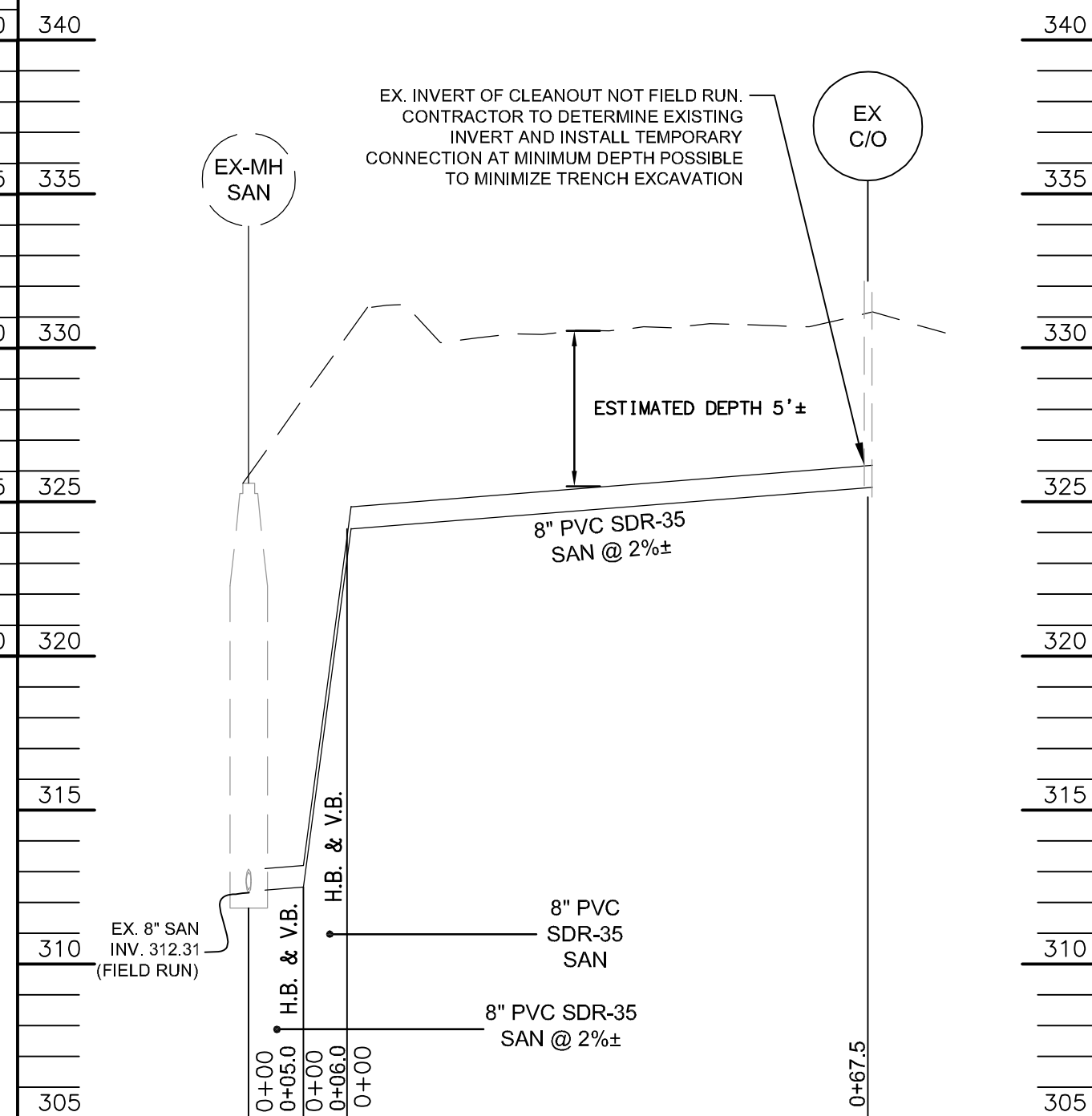
CHIEF, OFFICE OF ENGINEERING AND CONSTRUCTION DATE
DIRECTOR, DEPARTMENT OF PUBLIC WORKS DATE



NO. 7066: BRASS SCREW IN CONCRETE
SEWER INLET AT NW CORNER
FALLS ROAD AND 2ND STREET
ELEVATION - 285.817 FEET.

1. REFER TO SHEET 2 OF 10 FOR STANDARD UTILITY, STREET LIGHTING, PAVING, AND TRAFFIC NOTES.
2. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE LATEST EDITIONS OF THE CITY OF BALTIMORE DEPARTMENT OF PUBLIC WORKS, "SPECIFICATIONS FOR MATERIALS, HIGHWAYS, BRIDGES, UTILITIES AND INCIDENTAL STRUCTURES" (STANDARD SPECIFICATION) AND CITY OF BALTIMORE DEPARTMENT OF PUBLIC WORKS STANDARD DETAILS.
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4. BEFORE DOING ANY DIGGING, NOTIFY THE FOLLOWING:
 - "MISS UTILITY" AT 800-257-7777 (NOTIFY 3 DAYS PRIOR TO WORK)
 - DEPARTMENT OF TRANSPORTATION, STREET LIGHTING SECTION AT (410)-396-4446 (NOTIFY 2 WEEKS PRIOR TO WORK)
 - DEPARTMENT OF TRANSPORTATION, CONDUIT SECTION AT (410)-396-1515 (NOTIFY 15 DAYS PRIOR TO WORK)
 - VERIZON AT 800-837-4966 (NOTIFY 3 DAYS PRIOR TO WORK)
4. ALL CHANNELS IN MANHOLES MUST BE CONSTRUCTED TO CONFORM AS CLOSE AS POSSIBLE TO THE STANDARD CHANNEL CALLED FOR IN PROFILES.
5. GRAVEL CRADLE IS REQUIRED UNDER ALL PIPES. TRENCHING AND BACKFILL SHALL BE DONE IN ACCORDANCE WITH CITY SPECIFICATION SECTION 31 23 33.
6. ALL BACKFILL SHALL BE MECHANICALLY TAMPED.
7. ROADWAY PAVING REPLACEMENT SHALL BE DONE IN ACCORDANCE WITH CITY STANDARD SPECIFICATION SECTION 32 01 30 10.
8. ALL DIP SHALL BE CLASS 52 AND CONFORM TO ANSI/AWWA C151/A121.51. JOINTS FOR DIP PIPE SHALL BE THE PUSH-ON RUBBER GASKET TYPE IN ACCORDANCE WITH ANSI A21/11 (AWWA C111-72).
9. ALL PVC PIPE SHALL CONFORM TO ASTM D3034 SDR 35 FOR PVC COMPOUNDS. JOINTS FOR SDR 35 PVC PIPE SHALL BE THE PUSH-ON RUBBER GASKET TYPE IN ACCORDANCE WITH ASTM D-3212.
10. ONLY SANITARY SEWER WORK TO BE DONE IN THE PUBLIC RIGHT-OF-WAY WILL BE COVERED UNDER THIS AGREEMENT ALL SANITARY SEWER CONSTRUCTION IN THE PUBLIC RIGHT-OF-WAY SHALL ALSO REQUIRE A PERMIT ISSUED BY ALL BALTIMORE CITY DEPARTMENT OF TRANSPORTATION, WATER AND WASTEWATER ENGINEERING DIVISION, 1ST FLOOR ABEL WOLMAN MUNICIPAL BUILDING.
11. EXISTING SANITARY SEWER FLOWS AND ALL OTHER UTILITY SERVICES MUST BE MAINTAINED AT ALL TIMES.
12. THE DEPARTMENT OF TRANSPORTATION, TRANSPORTATION MAINTENANCE DIVISION, MAINTAINS STREET LIGHT POLES AND BGE MAINTAINS STREET LIGHT CABLES IN FALLSHILL DRIVE AND HICKORY AVE. THIS LIGHTING SYSTEM MUST BE MAINTAINED AT ALL TIMES. CALL (410)-296-5965 IF THESE ITEMS WILL BE DISTURBED.
13. ALL SANITARY FLOWS GO TO "BACK RIVER" WASTEWATER TREATMENT PLANT.
14. SANITARY HOUSE CONNECTIONS SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION 33 31 00 OF THE STANDARD SPECIFICATIONS AND THE FOLLOWING:
 - 14.a. ALL NEW SANITARY HOUSE CONNECTIONS SHALL BE CONNECTED TO NEW SANITARY SEWER USING WYE AND 1/8 BEND AS SHOWN ON THE STANDARD DETAIL BC 830.14.
 - 14.b. ALL NEW SANITARY HOUSE CONNECTIONS SHALL BE CONNECTED TO EXISTING SEWER AS SHOWN ON THE STANDARD DETAIL BC 830.17 AND 830.18
 - 14.c. CLEANOUTS FOR SANITARY HOUSE CONNECTIONS SHALL BE CONSTRUCTED ON PRIVATE PROPERTY. CLEANOUTS IN THE PUBLIC RIGHT-OF-WAY ARE NOT ALLOWED UNLESS APPROVED BY THE WASTEWATER ENGINEERING OFFICE.
 - 14.d. EACH PROPERTY MUST HAVE AN INDIVIDUAL HOUSE CONNECTION. TWIN CONNECTIONS ARE NOT ALLOWED.
 - 14.e. CONTRACTOR IS TO INSTALL HOUSE CONNECTIONS TO PROPERTY LINE.
 - 14.f. MINIMUM GRADE FOR HOUSE CONNECTIONS IS 2%.
15. THE FOLLOWING TEST AND SUBMITTALS MUST BE MADE PRIOR TO FINAL ACCEPTANCE OF THE NEW SANITARY SEWER:
 - 15.a. ALL NEW SANITARY SEWERS AND HOUSE CONNECTIONS SHALL BE TESTED IN ACCORDANCE WITH SECTION 33 31 00 "FIELD TEST" OF THE STANDARD SPECIFICATION.
 - 15.b. THE CONTRACTOR SHALL VIDEO INSPECT THE NEW SANITARY SEWER IN ACCORDANCE WITH SECTION 33 31 13 01 PART TWO "PRODUCTS" 2.4 OF THE STANDARD SPECIFICATIONS AND SUBMIT A DVD/CD OF THE VIDEO INSPECTION TO THE WASTEWATER ENGINEERING OFFICE.
 - 15.c. PROVIDE AS-BUILT DRAWINGS IN ACCORDANCE TO THE PROCEDURES PROVIDED BY THE WASTEWATER ENGINEERING OFFICE.
 - 15.d. PROVIDE AS-BUILT LOCATION OF NEW HOUSE CONNECTIONS IN ACCORDANCE TO STANDARDIZED DETAIL BC 830.19.
 - 15.e. VERIFY PIPE DEFLECTION LIMIT FOR PVC PIPE OF 7.5% USING A GO/NO-GO GAGE WITH MANDEL DIMENSION AS SPECIFIED IN ASTM D3034.

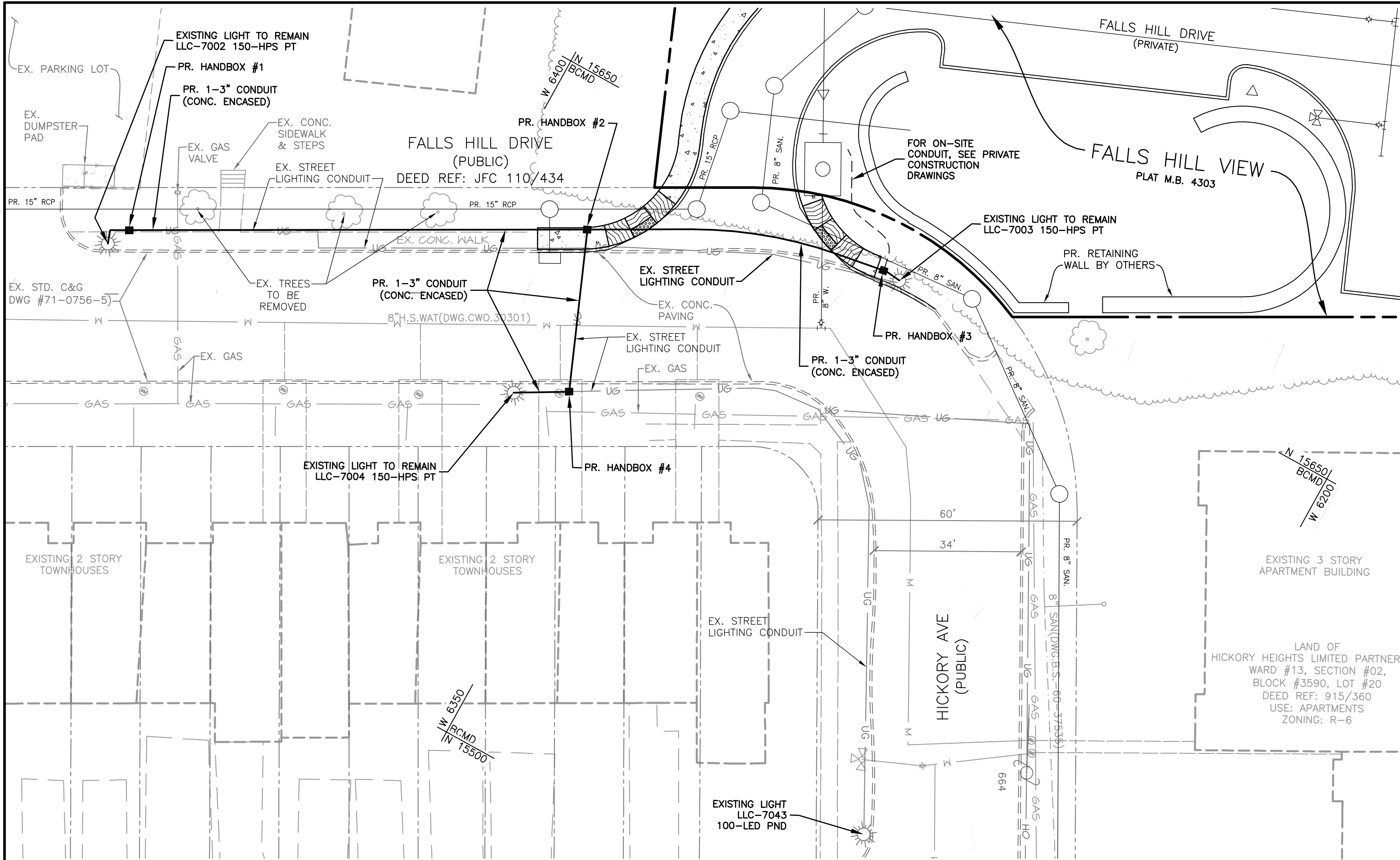
BILL OF MATERIALS		
QTY.	DESCRIPTION	SIZE
308	PVC SDR-35	8"
3	MANHOLE BC B31.04	48"



SCALE: HORIZ: 1"=20'
VERT: 1'=5'

CITY OF BALTIMORE
DEPARTMENT OF PUBLIC WORKS
DEVELOPERS AGREEMENT NO. 1618
SEWER PLAN
FROM 1100 FALLS HILL DRIVE
TO EXISTING MANHOLE
ON HICKORY AVENUE

WATER & WASTEWATER ENGINEERING DIV.	SHEET 9 OF
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PLAN VIEW
SCALE: 1"=20'

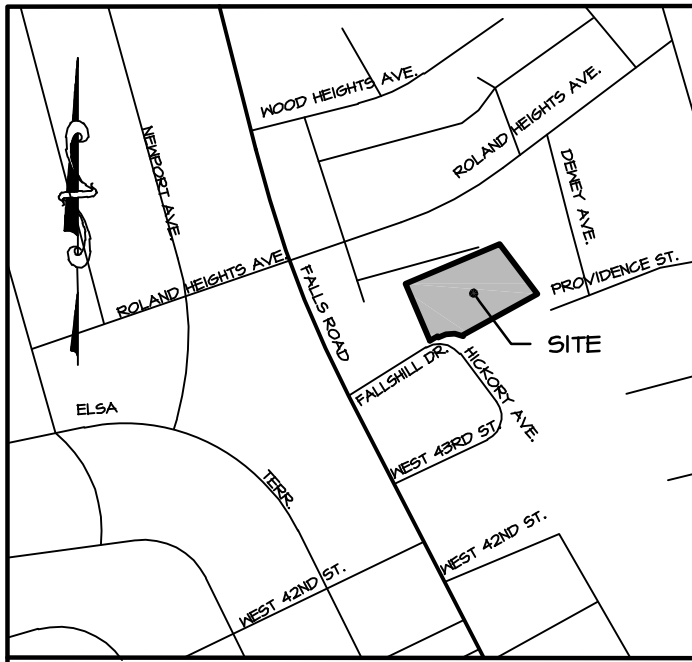
LEGEND

	SITE PROPERTY LINE	EX. PR. STD. CONC. C&G STA. INV. EL. R/W WAT. W SAN. S DWG. W/ BALTO H.B. V.B. X-ING D.I.P. MH I CLR.	EXISTING PROPOSED STANDARD CONCRETE CURB AND GUTTER STATION INVERT ELEVATION RIGHT-OF-WAY WATER SANITARY SEWER DRAWING WITH BALTIMORE HORIZONTAL BEND VERTICAL BEND CROSSING DUCTILE IRON PIPE MANHOLE INLET CLEARANCE
	ADJACENT PROPERTY LINE		ELECTRIC POLE
	EX. CURB & GUTTER		LIGHT POLE
	EX. BUILDING		WATER METER
	EX. TREELINE		CLEANOUT
	EX. SANITARY SEWER		ELECTRICAL VALVE
	EX. WATER		
	EX. FIRE HYDRANT		
	EX. STORM DRAIN		
	EX. GAS		
	EX. UNDERGROUND ELECTRIC		
	EX. OVERHEAD ELECTRIC		
	PR. CONCRETE SIDEWALK		
	PR. CURB & GUTTER		
	PR. STORM DRAIN		
	PR. SANITARY SEWER		
	PR. PUBLIC WATER		
	PR. 3" CONDUIT		

STANDARD CONDUIT NOTES:

- REFER TO SHEET 2 OF 10 FOR STANDARD UTILITY, STREET LIGHTING, PAVING, AND TRAFFIC NOTES.
- THE CONTRACTOR IS REQUIRED TO NOTIFY BGE AND BALTIMORE CITY STREET LIGHTING MAINTENANCE AT (410)-396-4446 FOUR (4) WEEKS PRIOR TO STARTING WORK.
- THE CONTRACTOR MUST PROTECT AND MAINTAIN EXISTING STREET LIGHTING IN SERVICE. ANY INTERRUPTION OR DAMAGE TO STREET LIGHTING SERVICE, STREET LIGHT POLE OR CONDUIT/CABLE SHALL BE REPAIRED AS DIRECTED BY DOT STREET LIGHT MAINTENANCE AND BGE AT CONTRACTOR'S OWN EXPENSE.
- IF THE CONTRACTOR UNCOVERS OR DAMAGES A STREET LIGHT CONDUIT OR CABLE DURING CONSTRUCTION, THE CONTRACTOR IS REQUIRED TO NOTIFY STREET LIGHTING MAINTENANCE AT 410-396-4446 AND BGE IMMEDIATELY. STREET LIGHTING MAINTENANCE WOULD EFFECT REPAIRS OR DIRECT BGE TO MAKE SAFE CONDITIONS AND/OR REPLACE CONDUITS AND CABLE PRIOR TO RESUMING CONSTRUCTION. ALL SUCH REPAIRS SHALL BE MADE AT THE CONTRACTOR'S OWN EXPENSE.
- THE CONTRACTOR WOULD BE RESPONSIBLE TO PROVIDE TEMPORARY LIGHTING AS PER BALTIMORE CITY STANDARDS IF THE EXISTING LIGHTS CANNOT BE MAINTAINED IN SERVICE DURING CONSTRUCTION UNTIL PERMANENT LIGHTING ARE OPERATIONAL.
- THE CONTRACTOR IS REQUIRED TO CONTACT STREET LIGHTING MAINTENANCE FOR THE POLES AND LIGHT FIXTURES TO BE REMOVED AND SALVAGED AND TO COORDINATE DE-ENERGIZING AND RE-ENERGIZING THE LIGHT POLES BY BGE.
- THE DEVELOPERS AND CONTRACTOR WOULD BE RESPONSIBLE FOR THE TOTAL COST OF STREET LIGHTING WORK INCLUDING REMOVAL, INSTALLATION, REQUIRED CONDUIT CONSTRUCTION AND SERVICES TO DE-ENERGIZE AND ENERGIZE LIGHT POLES.
- BEFORE CONTRACTOR CAN REMOVE EXISTING POLES, THE CONTRACTOR IS REQUIRED TO CONTACT STREET LIGHTING MAINTENANCE TO AUTHORIZE STREET LIGHTING WORK WITH BGE AND OBTAIN COST ESTIMATE FOR BGE TO DE-ENERGIZE STREET LIGHT POLES AND LIGHT FIXTURES TO BE REMOVED AND SALVAGED. THE CONTRACTOR WILL RECEIVE SECOND ESTIMATE FOR BGE TO ENERGIZE THE STREET LIGHT POLES AFTER INSTALLATION.
- THE CONTRACTOR IS REQUIRED TO CONTACT BGE AND DOT CONDUIT DIVISION 410-396-1515 FOR CONDUIT INSPECTION PRIOR TO FINAL PAVEMENT AND SIDE WALK WORK AND BGE CAN ENERGIZE THE LIGHT POLES.

AS BUILT REVISION	NO.	REVISIONS	DATE	BY
BY: _____		DESCRIPTION		
DATE: _____				



BEARINGS AND COORDINATES AS SHOWN HEREON ARE BASED ON THE BALTIMORE CITY SURVEY CONTROL SYSTEM ESTABLISHED AS REFERENCED FROM TRAVERSE/CONTROL STATIONS:

20354: NORTH 16161.564 WEST 6853.637
23969: NORTH 15647.056 WEST 6687.915

ELEVATIONS SHOWN HEREON ARE BASED ON BALTIMORE CITY BENCHMARKS:

NO. 7066: BRASS SCREW IN CONCRETE SEWER INLET AT NW CORNER FALLS ROAD AND 2ND STREET ELEVATION - 285.817 FEET.

HANDBOX LOCATIONS				
HANDBOX NO.	BALTIMORE CITY		MD STATE PLANE NAD83	
	NORTHING	WESTING	NORTHING	EASTING
1	15566.18	6470.54	609716.9	1414565.96
2	15617.66	6377.79	609768.87	1414658.50
3	15582.76	6363.35	609794.05	1414722.98
4	15642.64	6312.96	609734.04	1414673.09

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. 50460 EXPIRATION DATE: 01-12-2021

	D. S. THALER & ASSOC., LLC.										
	ENGINEER: KENNETH SNODGRASS										
	DATE: 1/4/19 LIC. NO. 50460										
	DESIGNED: KNK DRAWN BY: KNK CHECKED BY: BLC										
WARD: 13		SECTION: 2		SECT.	APP.						
BLOCK: 3590		LOT: 76									
CIVIL AND ENVIRONMENTAL ENGINEERS, SURVEYORS LANDSCAPE ARCHITECTS & LAND PLANNERS 1115 AMBASSADOR ROAD P.O. BOX 41428 BALTIMORE, MARYLAND 21244-7428 410-944-3641 www.dsthaller.com											
BALTIMORE CITY REVIEW	R/W RELEASE	HIGHWAY DESIGN	BRIDGES	DRAINAGE	LIGHTING	CONDUIT	ENVIRONMENTAL ENGINEERING	TRAFFIC ENGINEERING	WASTEWATER ENGINEERING	WATER ENGINEERING	SIGNAL ENGINEERING
BY											
DATE											

CHIEF, OFFICE OF ENGINEERING AND CONSTRUCTION DATE

DIRECTOR, DEPARTMENT OF PUBLIC WORKS DATE

C.W.O. NO.

OWNER/DEVELOPER: FALLS HILL HOLDINGS, LLC
4 W. WEST STREET
BALTIMORE, MD 21230
C/O EMERALD PROPERTIES
PHONE: 443-301-9238

CITY OF BALTIMORE
DEPARTMENT OF PUBLIC WORKS
DEVELOPERS AGREEMENT NO. 1618

CONDUIT PLAN
FOR
1100 FALLS HILL DRIVE

SCALE: AS NOTED DATE: January, 2019
TRANSPORTATION ENGINEERING & CONSTRUCTION DIVISION SHEET 10 OF 10