

GENERAL NOTES

- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY PLUS MSHA STANDARDS AND SPECIFICATIONS IF APPLICABLE.
- THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS/BUREAU OF ENGINEERING/CONSTRUCTION INSPECTION DIVISION AT (410) 313-1880 AT LEAST FIVE (5) WORKING DAYS PRIOR TO START OF WORK.
- THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK BEING DONE.
- TRAFFIC CONTROL DEVICES, MARKINGS AND SIGNING SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD). ALL STREET AND REGULATORY SIGNS SHALL BE IN PLACE PRIOR TO THE PLACEMENT OF ANY ASPHALT.
- ALL PLAN DIMENSIONS ARE TO FACE OF CURB UNLESS OTHERWISE NOTED. ALL SPOT GRADES ARE FLOWLINE BOTTOM OF CURB GRADES UNLESS OTHERWISE INDICATED.
- NO GRADING, REMOVAL OF VEGETATIVE COVER OR TREES, PAVING AND NEW STRUCTURES SHALL BE PERMITTED OUTSIDE OF THE LIMIT OF DISTURBANCE.
- THE COORDINATES SHOWN HEREON ARE BASED UPON HOWARD COUNTY GEODETIC CONTROL WHICH IS BASED UPON THE MARYLAND STATE PLANE COORDINATE SYSTEM (HORIZ. NAD 83, VERT. NAVD 88). THE FOLLOWING HOWARD COUNTY MONUMENTS WERE USED FOR THIS PROJECT:
#184001 R.B. 27' +/- OFF N. SIDE OF BROCK BRIDGE RD., 1' BELOW SURFACE ELEV. 170.974
#184307 R.B. 14' +/- OFF CENTERLINE OF BROCK BRIDGE RD., 3' BELOW SURFACE ELEV. 174.606
- SITE IS SERVED BY PUBLIC SEWER AND WATER. PROPOSED ONSITE SEWER IS PRIVATE.
- ONLY QUALITATIVE STORMWATER MANAGEMENT (SWM) IS REQUIRED FOR THESE PROPOSED SITE IMPROVEMENTS BECAUSE THESE IMPROVEMENTS ARE CONSIDERED REDEVELOPMENT PER HOWARD COUNTY DESIGN MANUAL: VOLUME 1, AN UNDERGROUND SAND FILTER (BMP GROUP 4, TYPE F-2) IS PROPOSED TO MEET THE WQV REQUIREMENTS FOR THIS SITE. THIS WILL BE A PRIVATE SWM FACILITY, WHICH WILL BE OWNED AND MAINTAINED BY THE PROPERTY OWNER (SEE OPERATION & MAINTENANCE NOTES ON SHEET 8).
- EXISTING UTILITIES LOCATIONS ARE BASED ON SDP-95-31 AND FIELD RUN SURVEYS PERFORMED BY MORRIS & RITCHE ASSOCIATES, INC., AUGUST & SEPTEMBER 2007.
- PER APPROVED SDP-95-31 THERE ARE NO FLOODPLAINS, WETLANDS OR STREAMS ON THIS SITE.
- BOUNDARY SHOWN HEREON IS BASED ON BOUNDARY SURVEY PERFORMED BY MORRIS & RITCHE ASSOCIATES, INC., JUNE 2007.
- TOPOGRAPHY SHOWN HEREON IS BASED ON AN AERIAL SURVEY PERFORMED BY PICKETT MID-ATLANTIC LLC, JUNE 2007 AND IS SUPPLEMENTED WITH FIELD RUN SURVEYS PERFORMED BY MORRIS & RITCHE ASSOCIATES, INC., JUNE & SEPTEMBER 2007, AND INFORMATION FROM SDP-95-31 AND HOWARD COUNTY GIS.
- THE TRAFFIC STUDY FOR THIS PROJECT WAS PREPARED BY THE TRAFFIC GROUP, DATED OCTOBER, 2007.
- CONTRACTOR IS RESPONSIBLE FOR ALL SITE CONDITIONS, CONSTRUCTION REQUIREMENTS, AND SHALL CONFORM TO ALL STATE, FEDERAL, AND COUNTY CONSTRUCTION REGULATIONS. THE CONTRACTOR IS NOT RELIEVED OF RESPONSIBILITY SHOULD ANY REQUIRED ITEMS PERTAINING TO SITE CONSTRUCTION NOT BE INCLUDED ON THESE PLANS. CONTRACTOR IS RESPONSIBLE FOR ALL ITEMS NECESSARY TO COMPLETE THE SITE IMPROVEMENTS AS SHOWN ON THESE PLANS.
- LOCATIONS OF EXISTING UTILITIES WERE OBTAINED FROM THE BEST AVAILABLE RECORDS. CONTRACTOR SHALL VERIFY TO HIS/HER SATISFACTION, THE FIELD LOCATIONS OF ALL UTILITIES PRIOR TO THE COMMENCEMENT OF ANY WORK.
- ANY DAMAGE TO EXISTING UTILITIES, PAVEMENT, OR CURB AND GUTTER DUE TO CONSTRUCTION ACTIVITY OUTSIDE THE LIMITS OF DISTURBANCE IS TO BE REPLACED BY THE CONTRACTOR AT HIS OWN EXPENSE.
- WHERE NECESSARY, THE CONTRACTOR SHALL TEST PIT ALL EXISTING UTILITIES AT LEAST FIVE (5) DAYS PRIOR TO STARTING ANY WORK SHOWN ON THESE DRAWINGS.
- CONTRACTOR IS RESPONSIBLE FOR REPLACING ANY PROPERTY MONUMENTS, MARKERS, SIGNS, LIGHTS, OR ANY OTHER EXISTING SITE FEATURES DISTURBED DURING CONSTRUCTION.
- ALL WORK SHALL COMPLY WITH ALL APPLICABLE PROVISIONS OF THE "1994 STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROLS" PUBLISHED JOINTLY BY THE WATER RESOURCES ADMINISTRATION, SOIL CONSERVATION SERVICE, AND STATE SOIL CONSERVATION COMMITTEE.
- THE SUBJECT PROPERTY IS ZONED TO PER THE MARCH 2004 "ROUTE 1" MANUAL, ZONING REGULATIONS AMENDMENTS.
- A GEO-TECHNICAL STUDY WAS CONDUCTED FOR THIS PROJECT BY GEO-TECHNOLOGY ASSOCIATES OCTOBER 2007.
- TRENCH COMPACTION FOR STORM DRAINS WITHIN ROADWAYS AND PARKING AREAS SHALL BE IN ACCORDANCE WITH HOWARD COUNTY DESIGN MANUAL, VOL. IV, STANDARD NO. G-2.11.
- ALL COMPACTED FILL SHALL BE IN ACCORDANCE WITH MASHRO T-180 REQUIREMENTS.
- ALL EXTERIOR LIGHTING SHALL COMPLY WITH ZONING REGULATIONS SECTION 134. PROPOSED LIGHT LOCATIONS SHOWN ON SHEET 3 AND DETAILS ON SHEETS 5.
- ALL EXTERIOR LIGHTING SHALL BE ORIENTED TO DIRECT OR REFLECT LIGHT INWARD AND DOWNWARD AWAY FROM ALL ADJOINING PUBLIC STREETS AND RESIDENTIAL AREAS. ALL OUTDOOR LIGHTING SHALL CONFORM TO ZONING REGULATIONS SECTION 134.
- THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL. FINANCIAL SURETY FOR THE REQUIRED LANDSCAPING IN THE AMOUNT OF \$7,950 (19 SHADE TREES @ \$300 EA., 7 FLOWERING/ EVERGREEN TREES @ \$150.00 EA., 40 SHRUBS @ \$30.00 EA.) HAS BEEN POSTED AS A PART OF THE DEVELOPER'S AGREEMENT.
- THERE ARE NO NATURAL STEEP SLOPES (25% OR \geq), WITHIN THE PROJECT AREA.
- TRASH DISPOSAL WILL CONTINUE UNDER THE CURRENT PROCEDURES.
- PROPOSED BUILDING WILL NOT BE SPRINKLERED.
- THIS PARCEL WAS ORIGINALLY DEVELOPED UNDER SDP-95-31 BY GEORGE WILLIAM STEPHENS, JR AND ASSOCIATES, INC. THE PLAN IS EXEMPT FROM COMPLIANCE WITH THE FOREST CONSERVATION ACT PER SUBDIVISION SECTION 16.1202(b)(1)(ii).
- FOREST CONSERVATION IS NOT REQUIRED BECAUSE THE ENTIRE SITE WAS MASS GRADED UNDER THE DEVELOPMENT PLAN F-84-204, APPROVED BY HOWARD COUNTY IN 1984. THE SITE WAS THEN SHOWN AS "PARCEL A-1".
- THE EXISTING UNDERGROUND WATERLINE FOR IRRIGATION IS TO BE ABANDONED. CONTRACTOR IS TO COORDINATE WITH A VERIZON WIRELESS REPRESENTATIVE.
- NO RELOCATION OR DISTURBANCE OF EXISTING UTILITIES IS TO TAKE PLACE WITHOUT THE COORDINATION OF A VERIZON WIRELESS REPRESENTATIVE.
- THE ADDITIONAL SITE ENTRANCE FROM CORRIDOR ROAD IS TO BE COORDINATED WITH THE HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS.
- STOCKPIILING WILL NOT BE PERMITTED ON SITE.
- THE FIRE ALARM SYSTEM SHALL BE TIED INTO THE CURRENT SYSTEM AND A FORM OF ACTIVE FIRE PROTECTION BE INSTALLED ACCEPTABLE BY THE FIRE DEPARTMENT.
- ALL GATES SHALL HAVE AN OVERRIDE SYSTEM INSTALLED TO ALLOW FIRE DEPARTMENT ACCESS FOR EMERGENCY INCIDENTS AFTER HOURS.
- A KNOX BOX IS REQUIRED TO BE PLACED ON THE FRONT OF THE BUILDING. IT SHALL BE PLACED AT A HEIGHT OF 4'-5" IN HEIGHT AND NO MORE THAN 6' LATERALLY FROM THE FRONT DOOR. SEE PLAN FOR LOCATION. THE BOX SHALL BE ELECTRONICALLY SUPERVISED TO NOTIFY THE OWNER THAT IT IS BEING ACCESSED.
- IF THIS FACILITY EVER CLOSES AND IS CONVERTED TO ANOTHER USE, THE EQUIPMENT YARD WILL BE REMOVED AND CONVERTED BACK TO PARKING LOT.
- SDP-08-045 WAS APPROVED AND ALL SITE IMPROVEMENTS WERE CONSTRUCTED EXCEPT THE 5,393 SF BUILDING EXPANSION. THE SDP EXPIRED BUT WAS REACTIVATED ON OCTOBER 24, 2016 WITH AN ALTERNATIVE COMPLIANCE APPLICATION. BUILDING PERMIT FOR THE EXPANSION MUST BE APPLIED FOR ON OR BEFORE APRIL 24, 2017.
- COMPANION CASE AA-16-017, ADMINISTRATIVE ADJUSTMENT FROM SECTION 127.4.E.5A(1) TO REDUCE BLDG SETBACKS BY 20% AND FROM SECTION 127.4.E.5A(2) TO REDUCE THE PARKING AND FENCE SETBACK. APPROVED FEB. 28, 2017.

SITE ANALYSIS DATA CHART

1. TOTAL PROJECT AREA:	4.0356 ACRES
2. AREA OF PLAN SUBMISSION:	4.0356 ACRES
3. LIMIT OF DISTURBANCE:	0.023 ACRES REVISION #2
4. PRESENT ZONING:	TOD
5. PROPOSED USE:	TELECOMMUNICATIONS CENTER (BUILDING ADDITION & TOWER RELOCATION)
6. FLOOR SPACE:	5,393 S.F. (BUILDING ADDITION ONLY)
7. MAXIMUM NUMBER OF EMPLOYEES:	15
8. MINIMUM NUMBER OF PARKING SPACES REQUIRED BY ZONING:	89
(71 SPACES REQUIRED FOR EX. BUILDING PER SDP-95-31)	FACILITY MAXIMUM NUMBER OF EMPLOYEES PROJECTED AT SHIFT CHANGEOVER IS 15 EMPLOYEES. PARKING REQUIREMENT ADJUSTMENT HAS BEEN PROVIDED UNDER SEPARATE COVER.
(18 SPACES REQUIRED FOR BLDG. ADDITION FOR OFFICE @ 3.3 SPACES/1,000 SF)	
9. PARKING SPACES PROVIDED:	68
10. GREEN SPACE PROVIDED ON SITE:	1.18 -1.56 AC AND 39% OF GROSS AREA (R246 AFTER BLDG ADDITION AND LOT CHANGES)
11. EXISTING BUILDING COVERAGE:	0.83 AC (35,961 SF) AND 20.6% OF GROSS AREA (PER SDP-95-31)
12. PROPOSED BUILDING ADDITION COVERAGE:	0.12 AC (5,393 SF) AND 3.0% OF GROSS AREA
13. TOTAL BUILDING COVERAGE* (INCLUDING CANOPIES & OVERHANDS):	0.95 AC (41,354 SF) AND 23.6% OF GROSS AREA
DPZ FILE REFERENCES:	F-84-204 F-85-178 S-75-01 P-84-10 SDP-95-31 PUBLIC/PUBLIC
14. SANITARY SEWER/WATER SERVICE:	PUBLIC/PUBLIC

SITE DEVELOPMENT PLAN

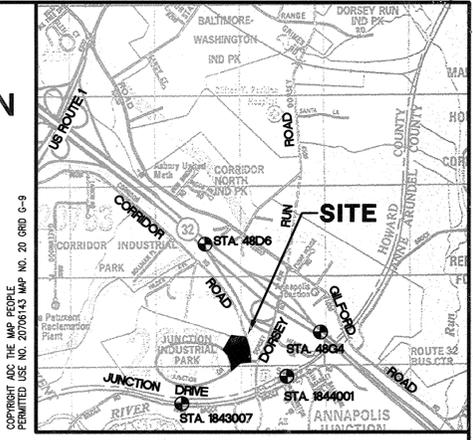
VERIZON WIRELESS

ANNAPOLIS JUNCTION OFFICE ADDITION

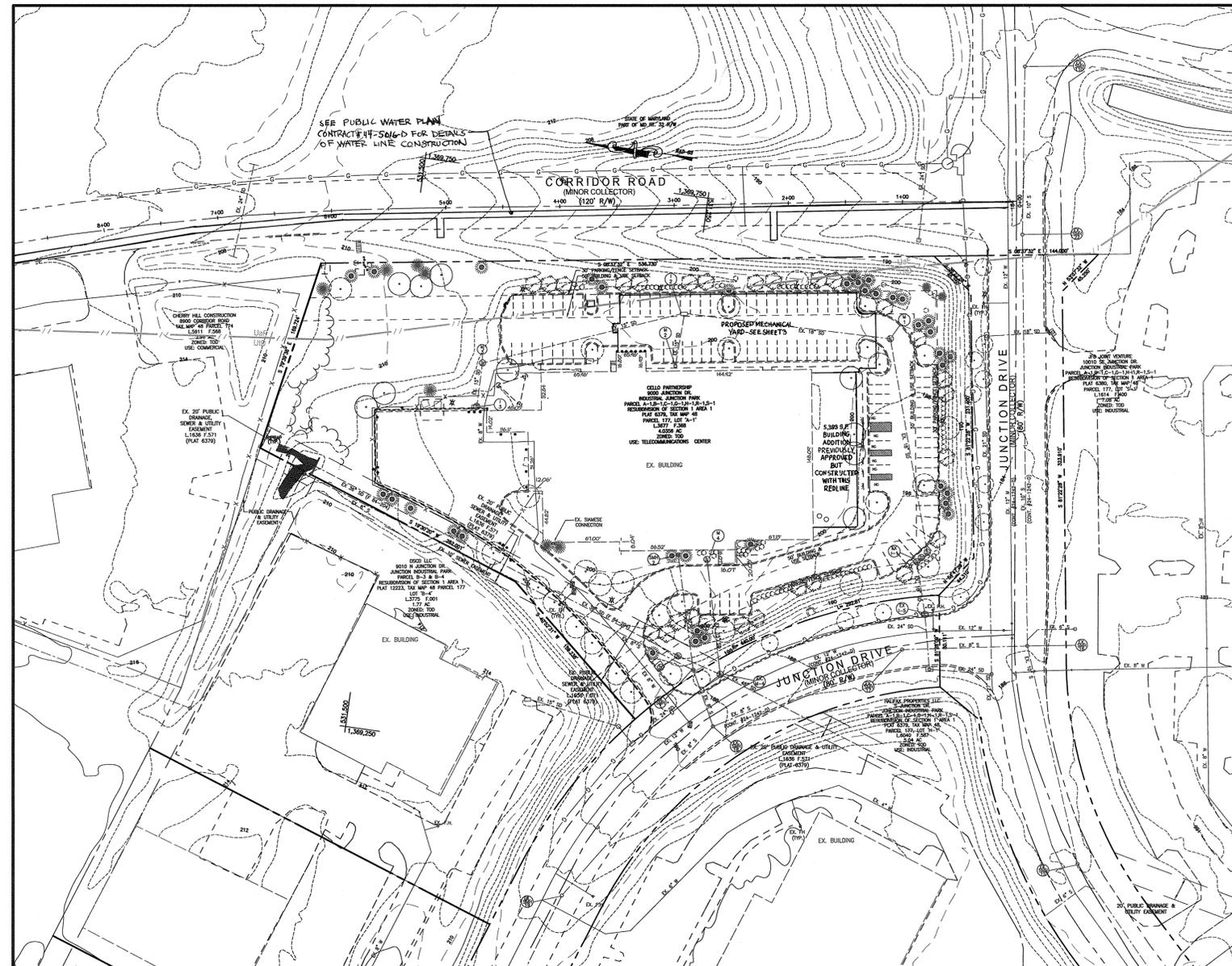
THE JUNCTION INDUSTRIAL PARK

PARCEL A-1

6th ELECTION DISTRICT
HOWARD COUNTY, MARYLAND
SDP-08-045



VICINITY MAP
SCALE: 1" = 200'



LOCATION MAP
SCALE: 1" = 60'

AS-BUILT PLAN

SHEET INDEX

1	COVER SHEET
2	EXISTING CONDITION & DEMOLITION PLAN
3	SITE LAYOUT & MAINTENANCE OF TRAFFIC PLAN
4	SITE GRADING & UTILITY PLAN
5	SITE DETAILS & UTILITY PROFILES
6	STORM DRAIN DRAINAGE AREA MAP
7	BUILDING ELEVATIONS & DETAILS
8	STORMWATER MANAGEMENT PLAN
9	STORMWATER MANAGEMENT DRAINAGE AREA MAP
10	SOIL BORINGS
11	EROSION & SEDIMENT CONTROL PLAN
12+12A	SEDIMENT CONTROL DETAILS
13	LANDSCAPE PLAN
14	LANDSCAPE DETAILS
15	MISC. DETAILS & MOT PLAN
16	DETAILS AND PROFILES
17	SITE DETAILS

LEGEND

---	EX. 2' CONTOUR
---	EX. 10' CONTOUR
---	EX. RIGHT OF WAY
---	EX. PROPERTY LINE
---	EX. ADJ. PROPERTY LINE
---	EX. SETBACK LINE
---	EX. BUILDING
---	EX. PAVEMENT
---	EX. CURB
---	EX. CONCRETE
---	EX. FENCE
---	EX. SOILS
---	EX. OVERHEAD LINE

ADDRESS CHART

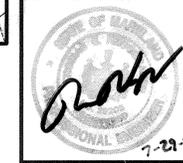
LOT/PARCEL #	STREET ADDRESS
LOT A-1/P-177	9000 JUNCTION DR.

PERMIT INFORMATION CHART

SUBDIVISION NAME JUNCTION INDUSTRIAL PARK	PARCEL NO. PARCEL A-1
PLAT # OR L/F PLAT #6379	GRID # 19
ZONING TOD	TAX MAP NO. 48
ELECT. DIST. 6	CENSUS TRACT 6069.02
WATER CODE: C04	SEWER CODE: 4020000



MORRIS & RITCHE ASSOCIATES, INC.
ENGINEERS, PLANNERS, SURVEYORS AND LANDSCAPE ARCHITECTS
14280 PARK CENTER DRIVE, SUITE A
LAUREL, MARYLAND 20707
(410) 792-9792 or (301) 778-1890
FAX (410) 792-7395



VERIZON WIRELESS - ANNAPOLIS JUNCTION OFFICE ADDITION
THE JUNCTION INDUSTRIAL PARK, PARCEL A-1
SITE DEVELOPMENT PLAN
COVER SHEET
LIBER 3677 ~ FOLIO 368 ~ PARCEL A-1, P/O TM PARCEL 177
ZONED: TOD ~ TAX MAP: 48 ~ GRID: 19
6TH ELECTION DISTRICT ~ HOWARD COUNTY, MARYLAND

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
CHIEF, DEVELOPMENT ENGINEERING DIVISION
CHIEF, DIVISION OF LAND DEVELOPMENT
DIRECTOR, DEPARTMENT OF PLANNING AND ZONING

OPTION 2: EXEMPT/DOI	FOREST CONSERVATION DATA SUMMARY
File Number: SDP-08-045	Project/Subdivision Name: THE JUNCTION INDUSTRIAL PARK, PARCEL A-1
Comment: Addressed by Howard County Subdivision & Land Development Regulations, Sec. 16.1202(b)(1)(ii) of the H.O. C.O. Forest Conservation Manual, chapter two, page two, item one. The entire site was cleared and mass graded under F-84-204. This development does not increase the limit of disturbance as approved under F-84-204. Final Plan F-84-204 was approved prior to the enactment of the 1993 Forest Conservation Act.	

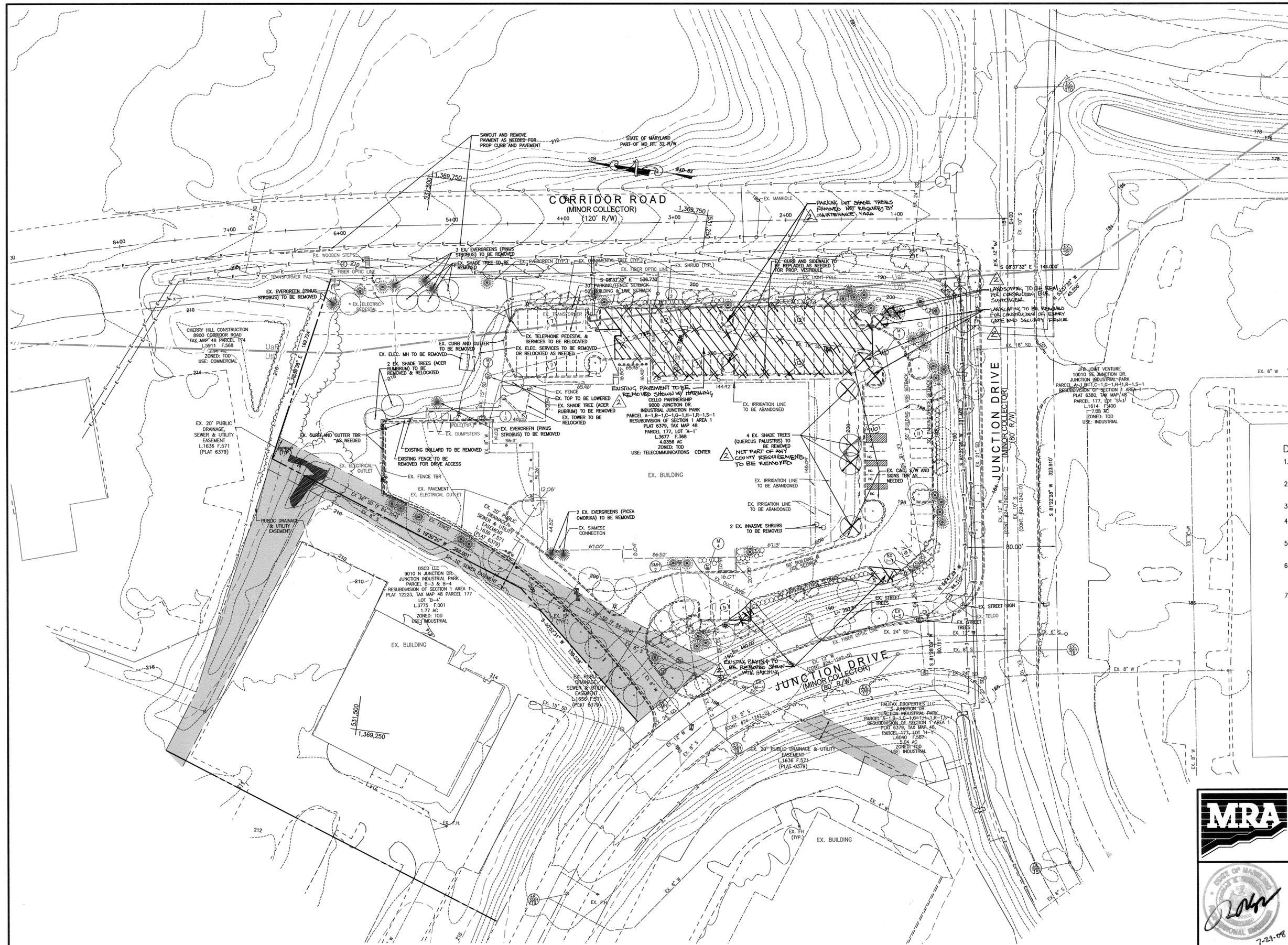
FOR REVISION #2 ONLY
PROFESSIONAL CERTIFICATION
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.
LICENSE NO. 29203
EXPIRATION DATE: 6-16-19

OWNER
CELLO PARTNERSHIP
180 WASHINGTON VALLEY ROAD
BEDMINSTER, NEW JERSEY 07921
C/O CELLO PARTNERSHIP
PHONE: 410-707-1708

DEVELOPER
VERIZON WIRELESS
7600 MONTPELIER ROAD
FLOOR 2 SOUTH
LAUREL, MD 20723
C/O Mark Josephson
PHONE: 630-495-8400

MD 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. 29203
EXPIRATION DATE: 6/16/09.

DATE	REVISIONS	JOB NO.:
02/10	AS-BUILT INFORMATION ADDED TO PLAN	10427.406
3/01/17	REVISION BY: PERFORM TO TRAFFIC MECHANICAL YARD	SCALE: AS SHOWN
7/31/18	AS-BUILT INFORMATION ADDED TO PLAN	DATE: 7/25/08
		DRAWN BY: CKE/CMG
		DESIGN BY: JCW/CKE
		REVIEW BY: TCN
		SHEET: 1 OF 17



LEGEND

---	EX. 2' CONTOUR
---	EX. 10' CONTOUR
---	EX. RIGHT OF WAY
---	EX. PROPERTY LINE
---	EX. ADJ. PROPERTY LINE
---	EX. SETBACK LINE
---	EX. BUILDING
---	EX. PAVEMENT
---	EX. CURB
---	EX. CONCRETE
---	EX. FENCE
---	EX. SOILS
---	EX. OVERHEAD LINE
---	EX. UNDERGROUND LINE
---	EX. ELECTRIC LINE
---	EX. SANITARY SEWER
---	EX. STORM DRAIN
---	EX. WATER
○	EX. LIGHT POLE
○	EX. BOLLARD
○	EX. WOOD
✕	EX. 18" SD TBR
✕	EX. STORM DRAIN TO BE REMOVED
---	EX. CURB AND GUTTER TO BE REMOVED
---	EX. PAVEMENT TO BE REMOVED
⊗	EX. TREE TO BE REMOVED

- DEMO NOTES:**
1. REMOVE AND REPAIR SIDEWALK AND CURB & GUTTER AS NEEDED FOR PROPOSED VESTIBULE.
 2. HANDICAPPED SIGNS TO BE REPLACED AND RELOCATED UPON COMPLETION OF BUILDING ADDITION.
 3. EXISTING SIDEWALK TO BE REPLACED FOR EXCAVATION OF ROOF DRAINS.
 4. CONTRACTOR TO COORDINATE THE REMOVAL AND REPLACEMENT OF EXISTING SECURITY FENCE WITH A VERIZON WIRELESS REPRESENTATIVE.
 5. EXISTING CURB & GUTTER TO BE REMOVED AS NEEDED FOR ADDITIONAL PARKING AREA.
 6. REMOVE EXISTING CURB & GUTTER AND PAVING AS NEEDED AT PROPOSED CORRIDOR ROAD ENTRANCE. ANY STRIPING REMOVED SHALL BE REPLACED PER HOWARD COUNTY STANDARD DETAILS.
 7. REMOVAL AND OR RELOCATION OF ALL ONSITE ELECTRIC AND TELEPHONE SERVICES OR CONDUITS SHALL BE COORDINATED WITH VERIZON WIRELESS REPRESENTATIVE AND THE APPROPRIATE SERVICE PROVIDER, AS APPLICABLE.

MORRIS & RITCHIE ASSOCIATES, INC.
 ENGINEERS, PLANNERS, SURVEYORS AND LANDSCAPE ARCHITECTS
 14280 PARK CENTER DRIVE, SUITE A
 LAUREL, MARYLAND 20707
 (410) 792-8792 or (301) 776-1690
 FAX (410) 792-7395



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VERIZON WIRELESS - ANNAPOLIS JUNCTION OFFICE ADDITION
 THE JUNCTION INDUSTRIAL PARK, PARCEL A-1
 SITE DEVELOPMENT PLAN
EXISTING CONDITION AND DEMOLITION PLAN
 LIBER 3677 ~ FOLIO 368 ~ PARCEL A-1, P/O TM PARCEL 177
 ZONED: TOD ~ TAX MAP: 48 ~ GRID: 19
 6TH ELECTION DISTRICT ~ HOWARD COUNTY, MARYLAND

MD 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. 29203, EXPIRATION DATE: 6/16/09.

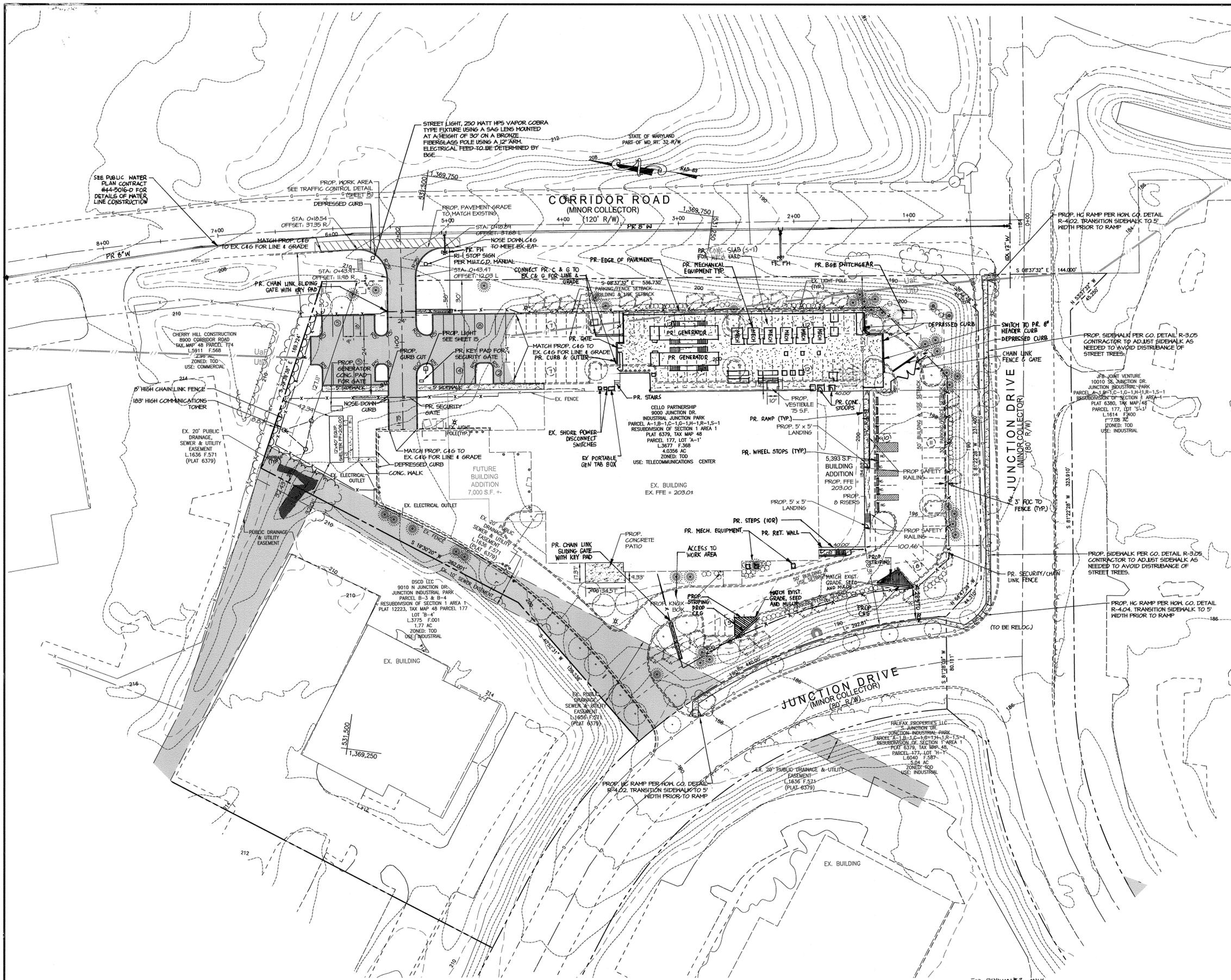
DATE	REVISIONS	JOB NO.:
3/01/17	REMOVE EX. PARKING TO INSTALL MECHANICAL YARD	10427.406
		SCALE: 1" = 40'
		DATE: 7/25/08
		DRAWN BY: CKE
		DESIGN BY: JCW/CKE
		REVIEW BY: TCN
		SHEET: 2 OF 17

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

1/19/14
 DATE
 8/2/08
 DATE
 8/2/08
 DATE

CHIEF, DEVELOPMENT ENGINEERING DIVISION
 CHIEF, DIVISION OF LAND DEVELOPMENT
 DIRECTOR, DEPARTMENT OF PLANNING AND ZONING

DEVELOPER
 VERIZON WIRELESS
 7600 MONTPELIER ROAD
 FLOOR 2 SOUTH
 LAUREL, MD 20723
 C/O Mark Josephson
 PHONE: 630-495-8400



LEGEND

- EX. 2' CONTOUR
- EX. 10' CONTOUR
- EX. RIGHT OF WAY
- EX. PROPERTY LINE
- EX. ADJ. PROPERTY LINE
- EX. SETBACK LINE
- EX. BUILDING
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- EX. SOILS
- EX. OVERHEAD LINE
- EX. SANITARY SEWER
- EX. STORM DRAIN
- EX. WATER
- ⊗ EX. LIGHT POLE
- ⊙ EX. BOLLARD
- EX. WOOD
- PROP. BUILDING
- PROP. CONCRETE
- PROP. CONCRETE HATCH
- PROP. GRAVEL PATH
- PROP. FENCE

NOTE: ALL SIGN POST USED FOR TRAFFIC CONTROL SIGNS INSTALLED IN THE COUNTY RIGHT-OF-WAY SHALL BE MOUNTED ON A 2" GALVANIZED STEEL, PERFORATED, SQUARE TUBE POST (14 GAUGE) INSERTED INTO A 2-1/2" GALVANIZED STEEL, PERFORATED, SQUARE TUBE SLEEVE (12 GAUGE - 3' LONG). A GALVANIZED STEEL POLE CAP SHALL BE MOUNTED ON THE TOP OF EACH POST.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
 DATE: 8/15/19
 CHIEF, DEVELOPMENT ENGINEERING DIVISION
 DATE: 8/23/19
 CHIEF, DIVISION OF LAND DEVELOPMENT
 DATE: 8/24/19
 DIRECTOR, DEPARTMENT OF PLANNING AND ZONING

FOR REVISION #2 ONLY

M.D. PROFESSIONAL CERTIFICATION
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 LICENSE NO: 29203
 EXPIRATION DATE: 6-16-19

7-25-19

DEVELOPER
 VERIZON WIRELESS
 7600 MONTPELIER ROAD
 FLOOR 2 SOUTH
 LAUREL, MD 20723
 C/O Mark Jusefson
 PHONE: 630-445-8400

MORRIS & RITCHIE ASSOCIATES, INC.
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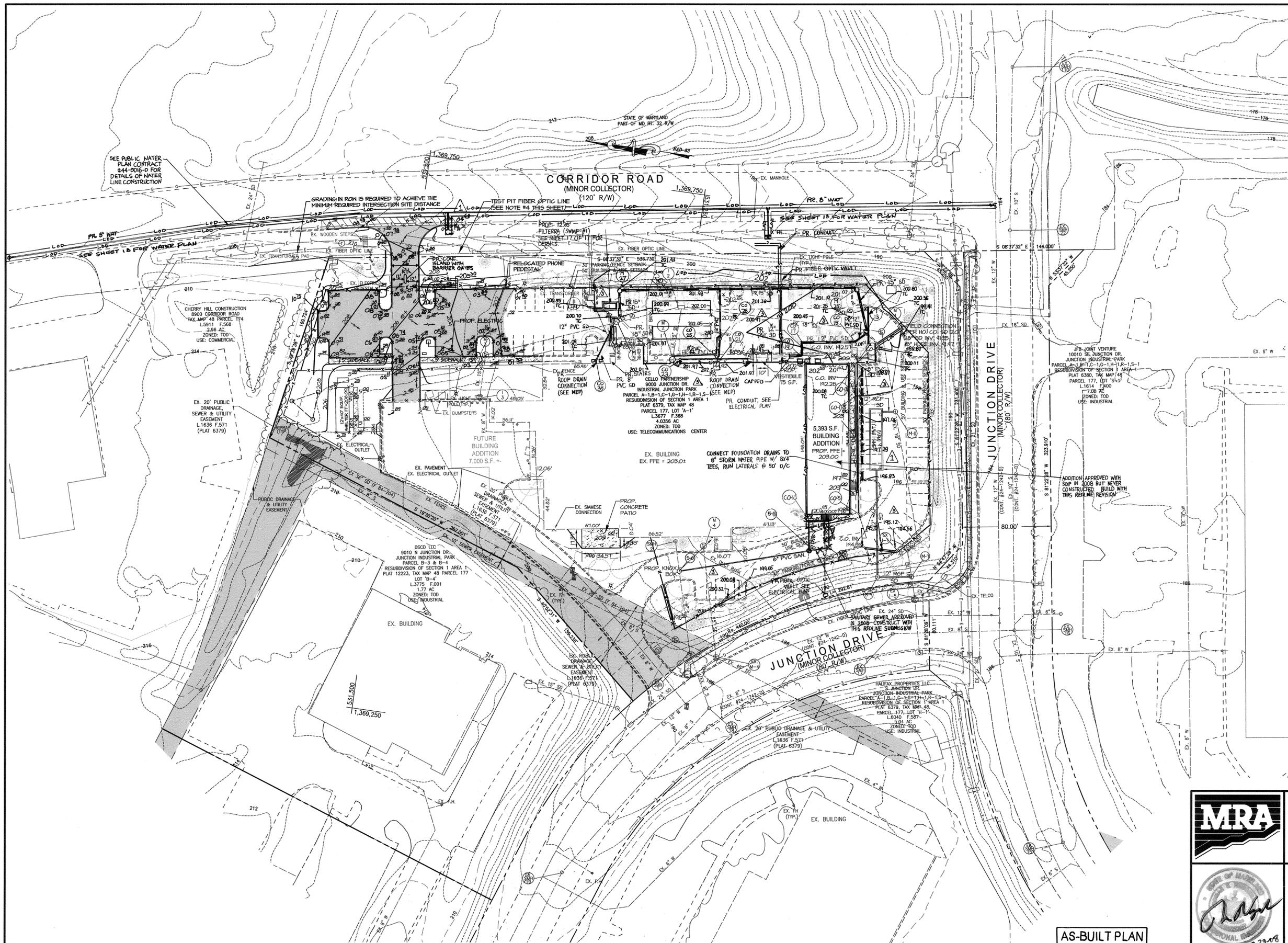
VERIZON WIRELESS - ANNAPOLIS JUNCTION OFFICE ADDITION
 THE JUNCTION INDUSTRIAL PARK, PARCEL A-1
 SITE DEVELOPMENT PLAN
SITE LAYOUT PLAN

LIBER 3677 ~ FOLIO 368 ~ PARCEL A-1, P/O TM PARCEL 177
 ZONED: TOD ~ TAX MAP: 48 ~ GRID: 19
 6TH ELECTION DISTRICT ~ HOWARD COUNTY, MARYLAND

DATE	REVISIONS	JOB NO.:
3/01/17	REMOVE EX. PARKING TO INSTALL MECHANICAL YARD	10427.406

SCALE: 1" = 40'
 DATE: 7/25/08
 DRAWN BY: CKE
 DESIGN BY: JCW/CKE
 REVIEW BY: TCN
 SHEET: 3 OF 17

SDP-08-045



LEGEND

---	EX. 2' CONTOUR
---	EX. 10' CONTOUR
---	EX. RIGHT OF WAY
---	EX. PROPERTY LINE
---	EX. ADJ. PROPERTY LINE
---	EX. SETBACK LINE
---	EX. BUILDING
---	EX. PAVEMENT
---	EX. CURB
---	EX. CONCRETE
---	EX. FENCE
---	EX. OVERHEAD LINE
---	EX. UNDERGROUND LINE
---	EX. ELECTRIC LINE
---	EX. SANITARY SEWER
---	EX. STORM DRAIN
---	EX. WATER
---	EX. LIGHT POLE
---	EX. BOLLARD
---	EX. WOOD
---	PROP. BUILDING
---	PROP. CONCRETE
---	PROP. CONCRETE HATCH
---	PROP. GRAVEL PATH
---	PROP. FENCE
---	PROP. 2' CONTOUR
---	PROP. 10' CONTOUR
---	PROP. SPOT ELEVATION
---	PROP. SANITARY SEWER
---	PROP. STORMDRAIN
---	PROP. FIRE HYDRANT
---	PROP. SD MANHOLE/INLET

- NOTES:**
1. ADD +200 TO ALL SPOT ELEVATIONS.
 2. FOR ROOF DRAINS FROM CO-5 TO CO-3, CONTRACTOR TO INSTALL 8"x4" TEES, EXTEND 4" PVC LATERALS AT 2% TO 5' OFF OF BUILDING LINE AND CAP. SEE MEP PLAN FOR ROOF LEADER LOCATIONS.
 3. FROM M-1 TO M-1 CONTRACTOR TO LOCATE AND TEST PIT ANY UTILITIES WHICH MAY EXIST IN THIS AREA.
 4. CONTRACTOR TO TEST PIT FIBER OPTIC LINE AT CORRIDOR ROAD PRIOR TO GRADING OPERATIONS FOR NEW ENTRANCE.

FOR REVISION #2

MD PROFESSIONAL CERTIFICATION
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 LICENSE NO. 29203
 EXPIRATION DATE: 6-16-19

MRA MORRIS & RITCHIE ASSOCIATES, INC.
 ENGINEERS, PLANNERS, SURVEYORS AND LANDSCAPE ARCHITECTS

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VERIZON WIRELESS - ANNAPOLIS JUNCTION OFFICE ADDITION
 THE JUNCTION INDUSTRIAL PARK, PARCEL A-1
 SITE DEVELOPMENT PLAN

SITE GRADING & UTILITY PLAN

LIBER 3677 ~ FOLIO 368 ~ PARCEL A-1, P/O TM PARCEL 177
 ZONED: TOD ~ TAX MAP: 48 ~ GRID: 19
 6TH ELECTION DISTRICT ~ HOWARD COUNTY, MARYLAND

DATE	REVISIONS	JOB NO.:
03/10	AS-BUILT INFORMATION ADDED TO PLAN.	10427.406
3/01/17	REMOVE EX. PARKING TO INSTALL MECHANICAL YARD	SCALE: 1" = 40'
8/31/18	AS-BUILT INFORMATION ADDED TO PLAN.	DATE: 7/25/08
		DRAWN BY: CKE/CMG
		DESIGN BY: JCW/CKE
		REVIEW BY: TCN
		SHEET: 4 OF 17

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

8/17/08
 CHIEF, DEVELOPMENT ENGINEERING DIVISION
 8/22/08
 CHIEF, DIVISION OF LAND DEVELOPMENT
 8/24/08
 DIRECTOR, DEPARTMENT OF PLANNING AND ZONING

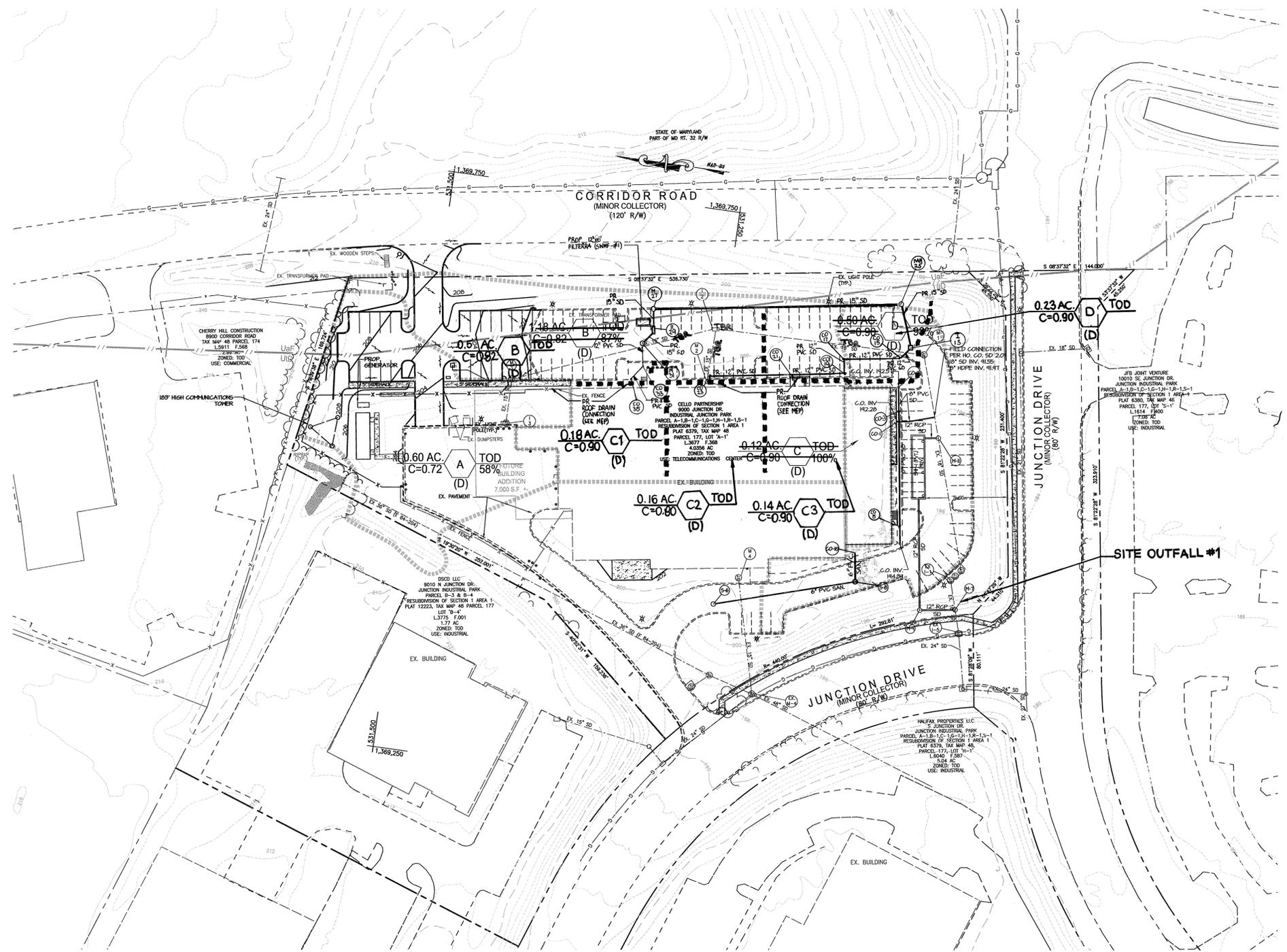
AS-BUILT PLAN

DEVELOPER
 VERIZON WIRELESS
 7600 MONTEPELIER ROAD
 FLOOR 2 SOUTH
 LAUREL, MD 20723
 C/O Mark Josefson
 PHONE: 630-495-8400

LEGEND

- EX. 2' CONTOUR
- EX. 10' CONTOUR
- EX. RIGHT OF WAY
- EX. PROPERTY LINE
- EX. ADJ. PROPERTY LINE
- EX. SETBACK LINE
- EX. BUILDING
- EX. PAVEMENT
- ===== EX. CURB
- EX. CONCRETE
- EX. FENCE
- EX. SOILS
- EX. OVERHEAD LINE
- EX. STORM DRAIN
- ✕ EX. LIGHT POLE
- EX. BOLLARD
- EX. WOOD
- PROP. BUILDING
- PROP. CONCRETE
- PROP. CONCRETE HATCH
- PROP. GRAVEL PATH
- PROP. SD DRAINAGE AREA

SOILS CHART		
SOIL SYMBOL	SOIL NAME	SOIL TYPE
UGF	UDORTMENTS, HIGHWAY, 0-6% SLOPES	D
UD	URBAN LAND UDORTMENTS, 0-15% SLOPES	D



STORM DRAIN DRAINAGE AREA MAP

SCALE: 1" = 50'

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

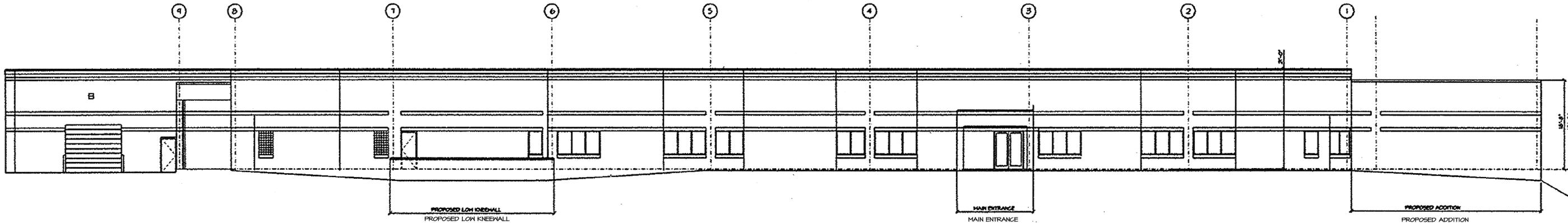
CHIEF, DEVELOPMENT ENGINEERING DIVISION *[Signature]* 8/22/08
 CHIEF, DIVISION OF LAND DEVELOPMENT *[Signature]* 8/22/08
 DIRECTOR, DEPARTMENT OF PLANNING AND ZONING *[Signature]* 8/22/08

FOR REVISION #2 ONLY

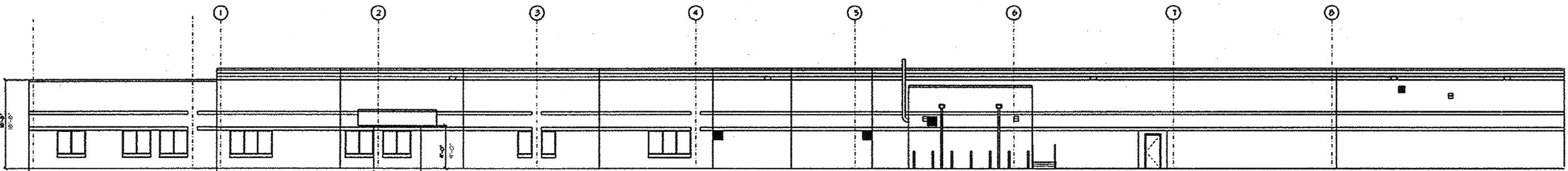
MD PROFESSIONAL CERTIFICATION
 I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.
 LICENSE NO: 29203
 EXPIRATION DATE: 6-16-19

DEVELOPER
 VERIZON WIRELESS
 7600 MONTPELIER ROAD
 FLOOR 2 SOUTH
 LAUREL, MD 20723
 C/O Mark Josefson
 PHONE: 630-495-8400

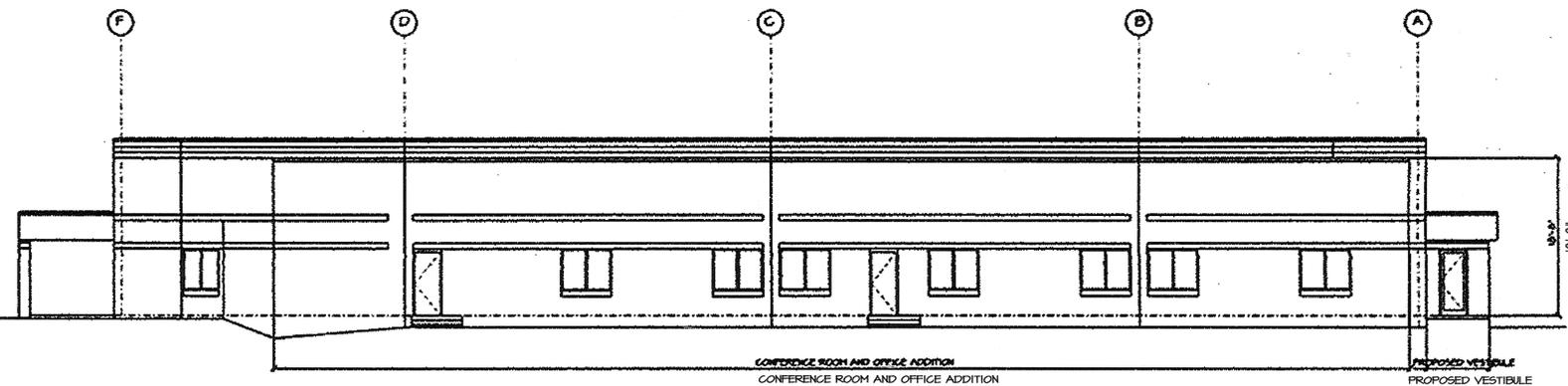
	MORRIS & RITCHIE ASSOCIATES, INC. ENGINEERS, PLANNERS, SURVEYORS AND LANDSCAPE ARCHITECTS 14280 PARK CENTER DRIVE, SUITE A LAUREL, MARYLAND 20707 (410) 792-9792 or (301) 778-1690 FAX (410) 792-7395		
	VERIZON WIRELESS - ANNAPOLIS JUNCTION OFFICE ADDITION THE JUNCTION INDUSTRIAL PARK, PARCEL A-1 SITE DEVELOPMENT PLAN STORM DRAIN DRAINAGE AREA MAP LIBER 3677 ~ FOLIO 368 ~ PARCEL A-1, P/O TM PARCEL 177 ZONED: TOD ~ TAX MAP: 48 ~ GRID: 19 6TH ELECTION DISTRICT ~ HOWARD COUNTY, MARYLAND		
MD 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. 29203 EXPIRATION DATE: 6/16/09.	DATE: 3/01/17 REVISIONS: REMOVE EX. PARKING TO INSTALL MECHANICAL YARD	JOB NO.: 10427.406 SCALE: AS SHOWN DATE: 7/25/08 DRAWN BY: JCW/CKE DESIGN BY: JCW/CKE REVIEW BY: TCN SHEET: 6 OF 17	



EAST ELEVATION

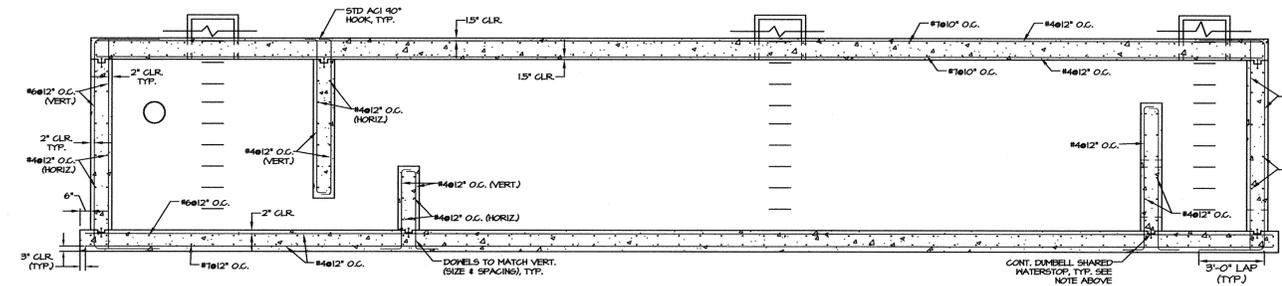
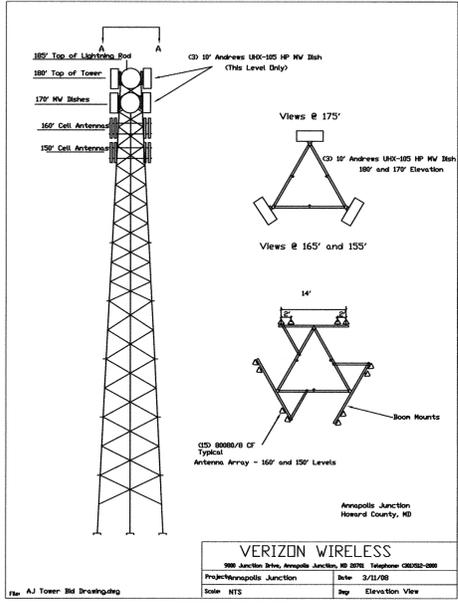


WEST ELEVATION

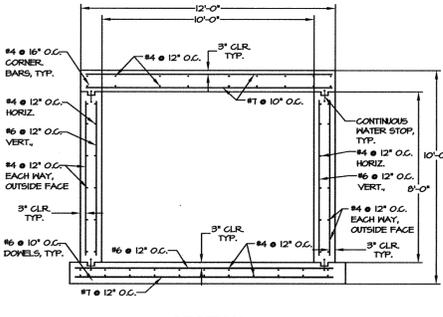


SOUTH ELEVATION

verizon wireless
ANNAPOLIS JUNCTION
 (ANNAPOLIS JUNCTION, MARYLAND)
BUILDING ELEVATIONS
 JULY 31, 2007



SECTION TYPICAL REINFORCING DETAIL (SWM #1)
 SCALE: 1"=4'



SECTION REINFORCEMENT DETAIL (SWMF #1)
 SCALE: 1"=4'

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
 CHIEF, DEVELOPMENT ENGINEERING DIVISION
 CHIEF, DIVISION OF LAND DEVELOPMENT
 DIRECTOR, DEPARTMENT OF PLANNING AND ZONING
 DATE: 8/22/08
 DATE: 8/26/08

DEVELOPER
 VERIZON WIRELESS
 7600 MONTPELIER ROAD
 FLOOR 2 SOUTH
 LAUREL, MD 20725
 C/O Mark Josephson
 PHONE: 630-495-8400



MORRIS & RITCHIE ASSOCIATES, INC.
 ENGINEERS, PLANNERS, SURVEYORS AND LANDSCAPE ARCHITECTS
 14280 PARK CENTER DRIVE, SUITE A
 LAUREL, MARYLAND 20707
 (410) 792-9792 or (301) 776-1690
 FAX (410) 792-7395



VERIZON WIRELESS - ANNAPOLIS JUNCTION OFFICE ADDITION
 THE JUNCTION INDUSTRIAL PARK, PARCEL A-1
 SITE DEVELOPMENT PLAN
BUILDING ELEVATIONS & DETAILS
 LIBER 3677 ~ FOLIO 368 ~ PARCEL A-1, P/O TM PARCEL 177
 ZONED: TOD ~ TAX MAP: 48 ~ GRID: 19
 6TH ELECTION DISTRICT ~ HOWARD COUNTY, MARYLAND

DATE	REVISIONS	JOB NO.:
		10427.406
		SCALE: AS SHOWN
		DATE: 7/25/08
		DRAWN BY: CKE/CMG
		DESIGN BY: JCW/CKE
		REVIEW BY: TCN
		SHEET: 7 OF 7

SAND FILTER SPECIFICATIONS

1. MATERIAL SPECIFICATIONS FOR SAND FILTER

THE ALLOWABLE MATERIALS FOR SAND FILTER CONSTRUCTION ARE DETAILED IN TABLE B.3.1.
2. SAND FILTER TESTING SPECIFICATIONS

UNDERGROUND SAND FILTERS, FACILITIES WITHIN SENSITIVE GROUNDWATER AQUIFERS, AND FILTERS DESIGNED TO SERVE URBAN HOT SPOTS ARE TO BE TESTED FOR WATER TIGHTNESS PRIOR TO PLACEMENT OF FILTER MEDIA. ENTRANCES AND EXITS SHOULD BE PLUGGED AND THE SYSTEM COMPLETELY FILLED WITH WATER TO DEMONSTRATE WATER TIGHTNESS. WATER TIGHTNESS MEANS NO LEAKAGE FOR A PERIOD OF 8 HOURS.

ALL OVERFLOW WEIRS, MULTIPLE ORIFICES AND FLOW DISTRIBUTION SLOTS ARE TO BE FIELD-TESTED TO VERIFY ADEQUATE DISTRIBUTION OF FLOWS.

3. SAND FILTER CONSTRUCTION SPECIFICATIONS

PROVIDE SUFFICIENT MAINTENANCE ACCESS (I.E., 12'-FOOT-WIDE ROAD WITH LEGALLY RECORDED EASEMENT), VEGETATED ACCESS SLOPES ARE TO BE MAINTAINED TO 10% GRADE. SLOPES TO 20% ABSOLUTELY NO RUNOFF IS TO BE LEVEL.

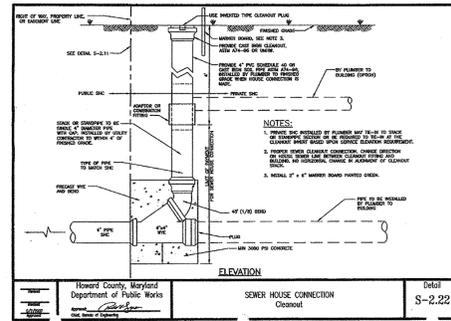
ALL UNDERGROUND SAND FILTERS SHOULD BE CLEARLY DELINEATED WITH SIGNS SO THAT THEY MAY BE LOCATED WHEN MAINTENANCE IS DUE. SURFACE SAND FILTERS SHOULD BE CLEARLY DELINEATED WITH SIGNS SO THAT THEY MAY BE LOCATED WHEN MAINTENANCE IS DUE.

4. SPECIFICATIONS PERTAINING TO UNDERGROUND SAND FILTERS (F-2)

PROVIDE MANHOLE AND/OR GRATES TO ALL UNDERGROUND AND BELOW GRADE STRUCTURES. MANHOLES SHALL BE IN COMPLIANCE WITH STANDARD SPECIFICATIONS FOR EACH COUNTY BUT DIMENSIONS SHALL BE 30" MINIMUM (TO COMPLY WITH OSHA COVERED SPACE REQUIREMENTS) ALUMINUM AND STEEL COVERED DOORS ARE ALSO ACCEPTABLE. TEN INCH WIDE (MINIMUM) MANHOLE STEPS (12" O.C.) SHALL BE CAST IN PLACE OR DRILLED AND MORTARED INTO THE WALL BELOW EACH MANHOLE. A 5' MINIMUM HEIGHT CLEARANCE FROM THE TOP OF THE SAND LAYER TO THE BOTTOM OF THE UPPER/SURFACE SLAB IS REQUIRED FOR ALL PERMANENT UNDERGROUND STRUCTURES. LIFT RINGS ARE TO BE SUPPLIED TO REMOVE/REPLACE TOP SLABS ON PRE-FABRICATED STRUCTURES. MANHOLE COVERS SHOULD ALLOW FOR PROPER VENTILATION. UNDERGROUND SAND FILTERS SHOULD BE CONSTRUCTED WITH A GATE VALVE LOCATED JUST ABOVE THE TOP OF THE FILTER BED FOR DEMATERING IN THE EVENT THAT CLOGGING OCCURS. UNDERGROUND SAND BEDS SHALL BE PROTECTED FROM TRASH ACCUMULATION BY A WIDE MESH GEOTEXTILE SCREEN TO BE PLACED ON THE SURFACE OF THE SAND BED. SCREEN IS TO BE ROLLED UP, REMOVED, CLEANED AND RE-INSTALLED DURING MAINTENANCE OPERATIONS.

TABLE B.3.1 MATERIAL SPECIFICATIONS FOR SAND FILTERS

MATERIAL	SPECIFICATION/TEST METHOD	SIZE	NOTES
PEA GRAVEL	AASHTO-M-43	0.25" - 0.50"	WASHED, RIVER RUN, ROUND DUMPER
SAND	CLEAN AASHTO-M-6 OR ASTM-C-33 CONCRETE SAND, SEE GRADATION CHART	0.02" TO 0.04"	SAND SUBSTITUTIONS SUCH AS DUMPER AND GRAVSTONE #10 ARE NOT ACCEPTABLE. NO CALCIUM CARBONATE OR DOLOMITIC SAND SUBSTITUTIONS ARE ACCEPTABLE. NO "TRUCK DUST" CAN BE USED FOR SAND.
PEAT	ASH CONTENT: <15% PH RANGE: 5.2 TO 4.9 LOOSE BULK DENSITY 0.12 TO 0.15 G/CC	N/A	THE MATERIAL MUST BE RED-SOIL HEMIC PEAT, SHREDDED, UNCOMPACTED, UNIFORM, AND CLEAN.
LEAF COMPOST		N/A	
UNDERDRAIN GRAVEL	AASHTO-M-43	0.375" TO 1.50"	DOUBLE WASHED NO. 57 STONE, SEE GRADATION CHART
GEOTEXTILE FABRIC (IF REQUIRED)	ASTM-D-4833 (PUNCTURE STRENGTH-125 LB.) ASTM-D-4632 (TENSILE STRENGTH-300 LB.)	0.08" THICK EQUIVALENT OPENING SIZE OF #80 SIEVE	MUST MAINTAIN 75 GPM PER SQ. FT. FLOW RATE. NOTE: A 4" PEA GRAVEL LAYER MAY BE SUBSTITUTED FOR GEOTEXTILES MEANT TO "SEPARATE" SAND FILTER LAYERS.
IMPERMEABLE LINER (IF REQUIRED)	ASTM-D-4833 (THICKNESS) ASTM-D-4112 (TENSILE STRENGTH 1,100 LB. ELONGATION 200%) ASTM-D-524 (TEAR RESISTANCE - 150 LB./IN.) ASTM-D-571 (WATER ADSORPTION: +8 TO -2% MASS)	30 MIL THICKNESS	LINER TO BE ULTRAVIOLET RESISTANT. A GEOTEXTILE FABRIC SHOULD BE USED TO PROTECT THE LINER FROM PUNCTURE.
UNDERDRAIN PIPING	F 758, TYPE PS 28 OR AASHTO-M-278 40 PVC OR SDR35	4"-6" RIGID SCH. 40 PVC OR SDR35	1/2" PER 6" ON CENTER, 3 HOLES PER ROW. SEE DRAIN PIPE PERFORATION DETAIL. MINIMUM OF 3" OF GRAVEL OVER PIPES; NOT NECESSARY UNDERNEATH PIPES.
CONCRETE (CAST-IN-PLACE)	MSHA STANDARDS AND SPECS. SECTION 902, MIX NO. 3, FC = 3500 PSI, NORMAL WEIGHT, AIR ENTRAINED; REINFORCING TO MEET ASTM-615-60	N/A	ON SITE TESTING OF POURED-IN-PLACE CONCRETE REQUIRED: 28 DAY STRENGTH AND SLUMP TEST; ALL CONCRETE DESIGN (CAST-IN-PLACE OR PRE-CAST) NOT USING PREVIOUSLY APPROVED STATE OR LOCAL STANDARDS REQUIRES DESIGN DRAWINGS SEALED AND APPROVED BY A PROFESSIONAL STRUCTURAL ENGINEER LICENSED IN THE STATE OF MARYLAND.
CONCRETE (PRECAST)	PER PRE-CAST MANUFACTURER	N/A	SEE ABOVE NOTE
NON-REBAR STEEL	ASTM A-36	N/A	STRUCTURAL STEEL TO BE HOT-DIPPED GALVANIZED ASTM-A-123



NOTE: THIS DETAIL IS FOR REFERENCE ONLY & SHALL BE MODIFIED ACCORDINGLY FOR 8" PVC ROOF DRAINS

MAINTENANCE & REPAIR SCHEDULE

MAINTENANCE AND REPAIR SHALL BE CONDUCTED IN ACCORDANCE WITH ALL FEDERAL, STATE, AND LOCAL REQUIREMENTS. IN GENERAL, THE PRACTICES CONTAINED IN THE "MAINTENANCE AND REPAIR" CHAPTER OF THE "MARYLAND DAM SAFETY MANUAL", DNR-MRA 1988, AND ANY ADDENDA THERETO, AND SHOULD BE FOLLOWED AND CONFORMED UNDER THE SUPERVISION OF A QUALIFIED PROFESSIONAL ENGINEER FAMILIAR WITH DAM CONSTRUCTION, OPERATION, MAINTENANCE, AND REPAIR.

IN ADDITION, THE MD-378 DAM INSPECTION CHECKLIST MAY BE USED AS A GUIDE FOR MAINTENANCE AND INSPECTION.

AT A MINIMUM, THE STORMWATER MANAGEMENT FACILITY SHALL BE INSPECTED BI-ANNUALLY FOR THE FOLLOWING ITEMS:

1. CONDITION OF FOUNDATION, INTERIOR WALLS, AND TOP SLAB.
2. CONDITION OF ALL WEIR WALLS.
3. CONDITION OF ACCESS MANHOLES.
4. CONDITION OF SPILLWAYS AND PIPE OUTLETS.
5. CONDITION OF PRETREATMENT STORAGE AREA.
6. CONDITION OF SAND FILTER BED AND FILTER BED PIPE DRAINS.
7. SEDIMENT LOAD IN PRETREATMENT STORAGE AREA AND FILTER BED.
8. SEEPAGE INTO FACILITY THROUGH FOUNDATION OR INTERIOR WALLS.
9. ANY OTHER ITEMS WHICH COULD AFFECT THE FUNCTION OF THE SWM FACILITY.
10. EVIDENCE OF CLOSING OF ALL OPENINGS AND FILTER BED PIPE DRAINS.
11. EROSION OF SAND FILTER BED.
12. CRACKING OF CONCRETE FOUNDATION, INTERIOR WALLS, AND TOP SLAB.

THE FILTER MEDIA (SAND AND PEA GRAVEL) SHALL BE INSPECTED BI-ANNUALLY, AND BE REPLACED EVERY TWO (2) YEARS WITH CLEAN WASHED MATERIAL IN KIND.

ANY NEEDED MAINTENANCE OR REPAIR OF FOUNDATION, INTERIOR WALLS, WEIR SPILLWAYS, FILTER BED, OR PIPE CONDUIITS SHALL BE DONE UNDER THE SUPERVISION OF A QUALIFIED GEOTECHNICAL ENGINEER.

IN ADDITION TO BI-ANNUAL INSPECTIONS, INSPECTIONS SHALL BE DONE DURING WET SEASON, AND AFTER MAJOR STORMS.

ALL DEBRIS, LITTER, OR SEDIMENT ACCUMULATED IN PRETREATMENT STORAGE AREA, SAND FILTER BED, AND PIPE OUTFALL SHALL BE REMOVED.

CONSTRUCTION INSPECTION SCHEDULE

UNDERGROUND SAND FILTER STRUCTURES

1. INSPECTIONS SHALL BE CONDUCTED BY THE AS-BUILT CERTIFYING ENGINEER:

1. UPON THE COMPLETION OF EXCAVATION TO SUB-FOUNDATION AND WHEN REQUIRED, AND UPON THE INSTALLATION OF STRUCTURAL SUPPORTS OR REINFORCEMENT FOR STRUCTURES, INCLUDING BUT NOT LIMITED TO:
 - A. REINFORCEMENT AND FORM WORK FOR FOUNDATION, WALLS, AND TOP SLAB OF UNDERGROUND CONCRETE VAULT.
 - B. INLET OR OUTLET STRUCTURES.
 - C. WATER-TIGHT CONNECTORS ON PIPES.
 - D. TRENCHES FOR ENCLOSED STORM DRAIN FACILITIES.
 - E. UTILITY CROSSINGS OF INFLOW OR OUTFLOW PIPES.
2. DURING THE PLACEMENT OF STRUCTURAL FILL AND CONCRETE, AND INSTALLATION OF PIPING.
3. DURING BACKFILL OF FOUNDATIONS AND TRENCHES.
4. UPON COMPLETION OF FINAL GRADING AND ESTABLISHMENT OF PERMANENT STABILIZATION.

OPERATION AND MAINTENANCE SCHEDULE FOR PRIVATELY OWNED AND MAINTAINED UNDERGROUND STORMWATER FILTRATION SYSTEMS (F-2 AND F-3)

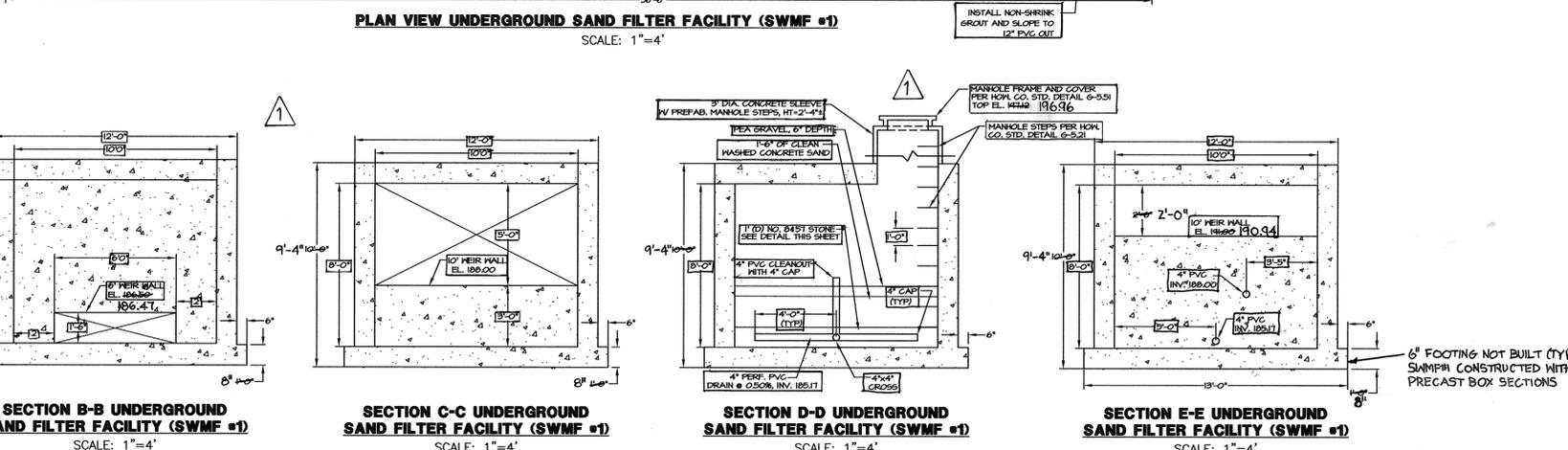
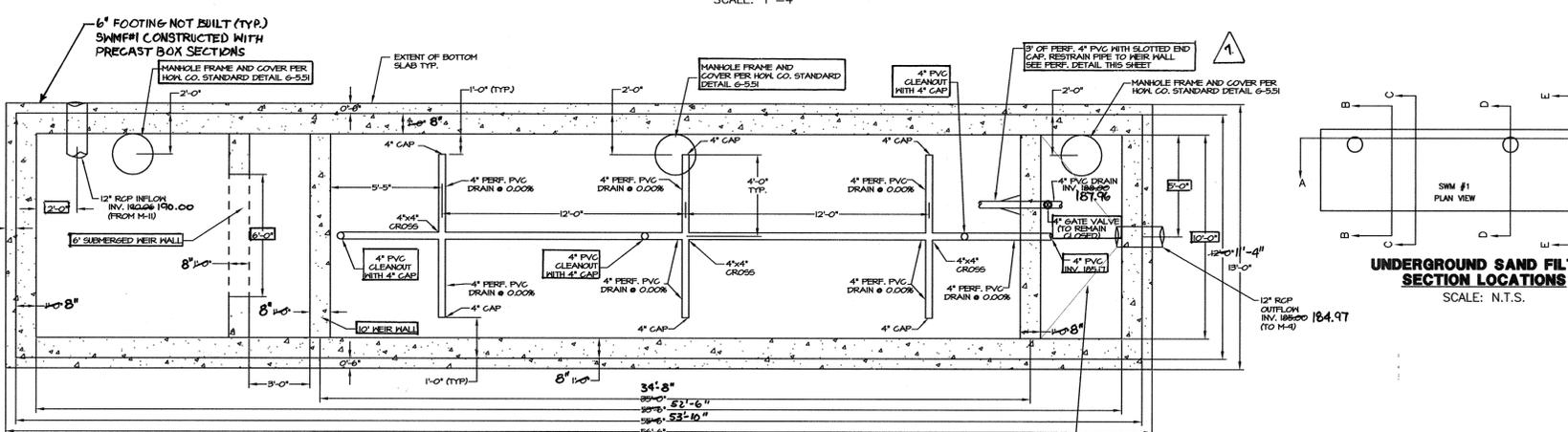
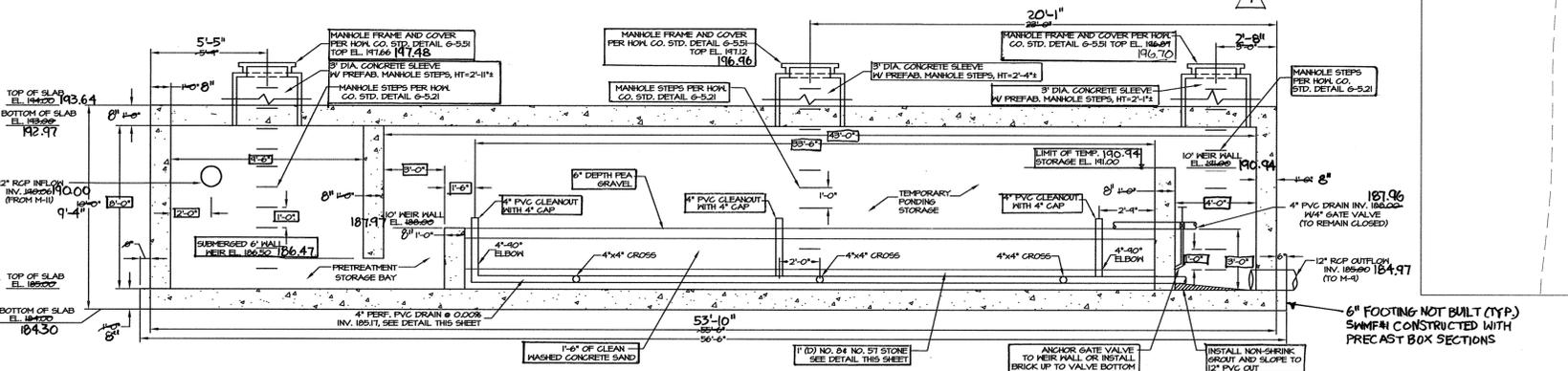
1. THE SEDIMENT CHAMBER OUTLET DEVICES SHALL BE CLEANED AND/OR REPAIRED WHEN DRAW-DOWN TIMES WITHIN THE CHAMBER EXCEED 36 HOURS.
2. DEBRIS AND LITTER SHALL BE REMOVED AS NECESSARY TO INSURE PROPER OPERATION OF THE SYSTEM.
3. SEDIMENT SHALL BE CLEANED OUT OF THE SEDIMENTATION CHAMBER WHEN IT ACCUMULATES TO A DEPTH OF 6 INCHES. VEGETATION WITHIN THE SEDIMENT CHAMBER SHALL BE LIMITED TO A HEIGHT OF 18 INCHES.
4. WHEN WATER PONDS ON THE SURFACE OF THE FILTER BED FOR MORE THAN 72 HOURS, THE TOP FEW INCHES OF DISCOLORED MATERIAL SHALL BE REPLACED WITH FRESH MATERIAL. PROPER CLEANING AND DISPOSAL OF THE REMOVED MATERIALS AND LIQUID MUST BE FOLLOWED BY THE OWNER.
5. A LOG BOOK SHALL BE MAINTAINED TO DETERMINE THE RATE AT WHICH THE FACILITY DRAINS.
6. THE MAINTENANCE LOG BOOK SHALL BE AVAILABLE TO HOWARD COUNTY FOR INSPECTION TO INSURE COMPLIANCE WITH OPERATION AND MAINTENANCE CRITERIA.
7. ONCE THE PERFORMANCE CHARACTERISTICS OF THE INFILTRATION SYSTEM HAVE BEEN VERIFIED, THE MONITORING SCHEDULE CAN BE REDUCED TO AN ANNUAL BASIS UNLESS THE PERFORMANCE DATA INDICATES THAT A MORE FREQUENT SCHEDULE IS REQUIRED.

GRADATION CHART FOR ASTM C-33 CONCRETE SAND

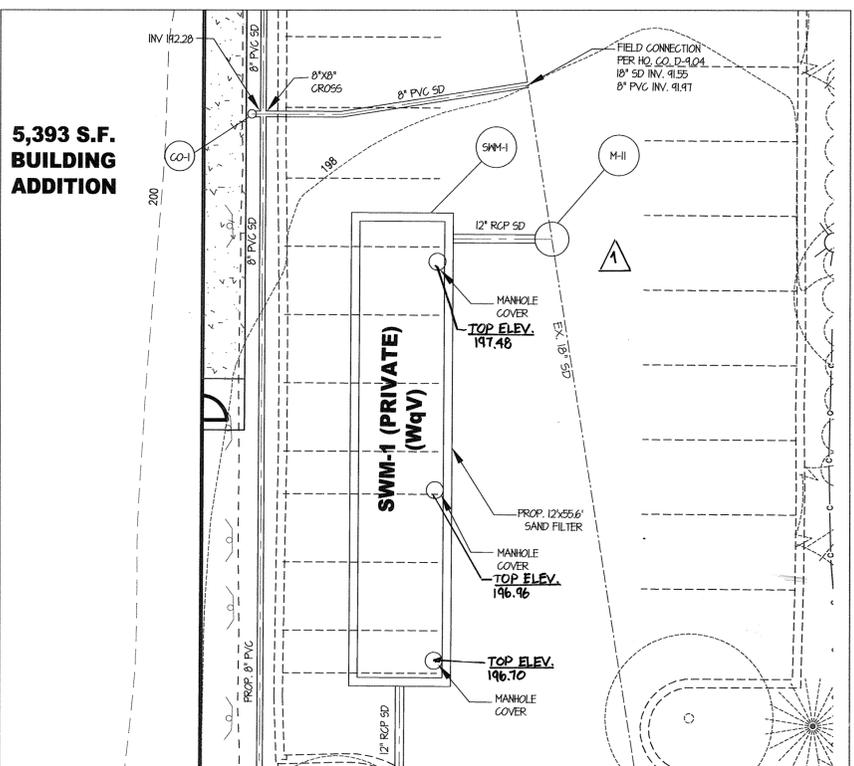
SI-EQUIVALENT	NO.	U.S. SIEVE	PERCENT PASSING
75	No. 4	4.75	90-100
150	No. 10	2.00	70-100
300	No. 20	0.850	45-85
425	No. 30	0.600	25-50
600	No. 40	0.425	8-30
750	No. 50	0.300	5-15
1050	No. 70	0.210	0-5
1500	No. 100	0.150	0-5
2100	No. 140	0.106	0-5
2500	No. 200	0.075	0-5

GRADATION CHART FOR No. 57 STONE

SI-EQUIVALENT	NO.	U.S. SIEVE	PERCENT PASSING
10	No. 10	2.00	100
20	No. 20	0.850	100
30	No. 30	0.600	100
40	No. 40	0.425	100
60	No. 60	0.250	100
75	No. 75	0.210	100
100	No. 100	0.150	100
150	No. 150	0.106	100
250	No. 250	0.060	100
425	No. 425	0.0425	100

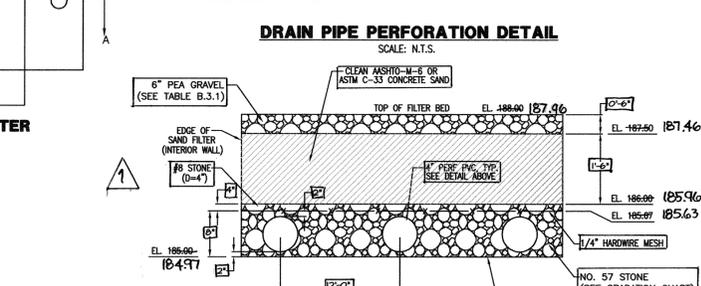
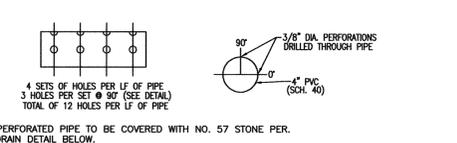


SEE SHEET 7 FOR SWMF #1 TYPICAL REINFORCEMENT DETAILS



STORMWATER MANAGEMENT PLAN (PRIVATE FACILITY) BMP GROUP 4 (STORMWATER FILTERING SYSTEMS) TYPE F-2 (UNDERGROUND SAND FILTER)

SCALE: 1" = 10'



APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

DATE: 8/16/16

CHIEF, DEVELOPMENT ENGINEERING DIVISION

DATE: 8/22/16

CHIEF, DIVISION OF LAND DEVELOPMENT

DATE: 8/22/16

DIRECTOR, DEPARTMENT OF PLANNING AND ZONING

DATE: 8/22/16

DEVELOPER
VERIZON WIRELESS
7600 MONTPELIER ROAD
FLOOR 2 SOUTH
LAUREL, MD 20723
C/O Mark Josephson
PHONE: 630-495-8400

MORRIS & RITCHIE ASSOCIATES, INC.
ENGINEERS, PLANNERS, SURVEYORS AND LANDSCAPE ARCHITECTS

14280 PARK CENTER DRIVE, SUITE A
LAUREL, MARYLAND 20707
(410) 792-9792 or (301) 776-1690
FAX (410) 792-7395

VERIZON WIRELESS - ANNAPOLIS JUNCTION OFFICE ADDITION
THE JUNCTION INDUSTRIAL PARK, PARCEL A-1
SITE DEVELOPMENT PLAN

STORMWATER MANAGEMENT PLAN

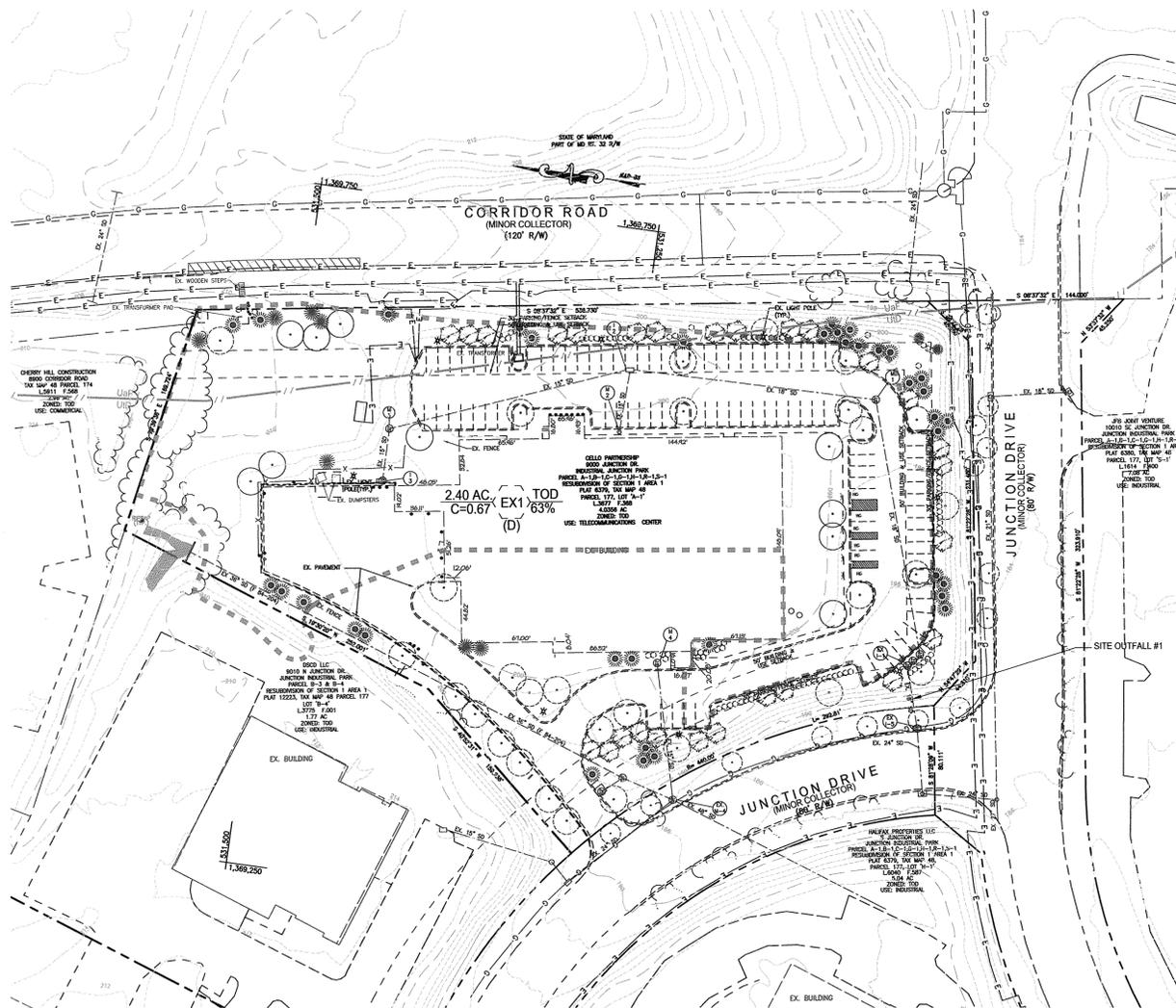
LIBER 3677 ~ FOLIO 368 ~ PARCEL A-1, P/O TM PARCEL 177
ZONED: TOD ~ TAX MAP: 48 ~ GRID: 19
6TH ELECTION DISTRICT ~ HOWARD COUNTY, MARYLAND

DATE	REVISIONS	JOB NO.:
8/16/16	AS-BUILT INFORMATION ADDED TO PLAN.	10427.406
		SCALE: AS SHOWN
		DATE: 7/25/08
		DRAWN BY: CKE
		DESIGN BY: CKE/JCW
		REVIEW BY: TCN
		SHEET: 8 OF 17

MD PROFESSIONAL CERTIFICATION: 7-23-08

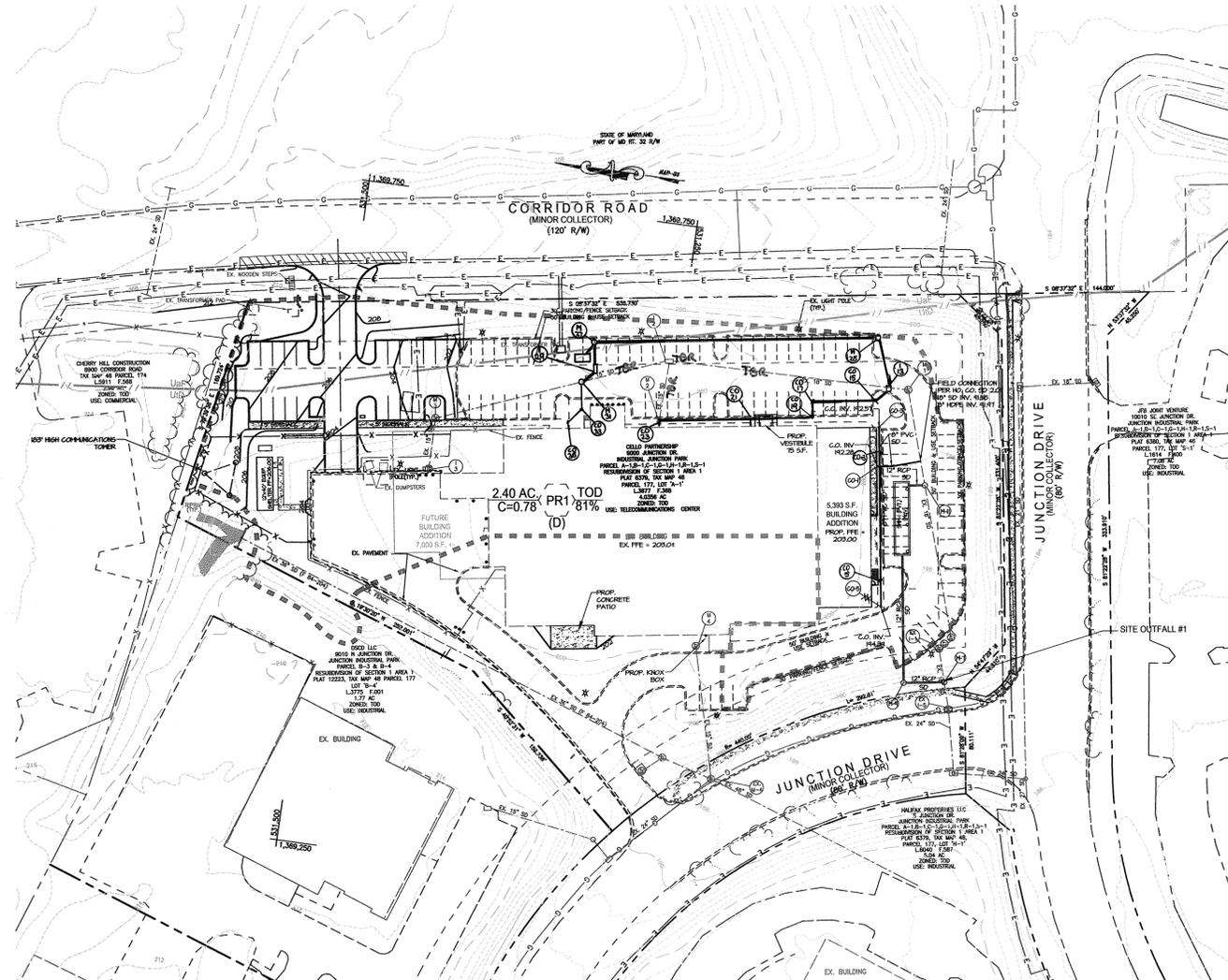
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 29293, EXPIRATION DATE: 6/16/09.

SDP-08-045



EXISTING SWM DRAINAGE AREA MAP

SCALE: 1" = 60'



PROPOSED SWM DRAINAGE AREA MAP

SCALE: 1" = 60'

LEGEND

- EX. 2' CONTOUR
- EX. 10' CONTOUR
- EX. RIGHT OF WAY
- EX. PROPERTY LINE
- EX. ADJ. PROPERTY LINE
- EX. SETBACK LINE
- EX. BUILDING
- EX. PAVEMENT
- ===== EX. CURB
- EX. CONCRETE
- x-x-x- EX. FENCE
- /// EX. SOILS
- OH OH EX. OVERHEAD LINE
- c-c-c- EX. UNDERGROUND LINE
- e-e-e- EX. ELECTRIC LINE
- EX. STORM DRAIN
- ✱ EX. LIGHT POLE
- o EX. BOLLARD
- ~ EX. WOOD
- PROP. BUILDING
- PROP. CONCRETE
- PROP. CONCRETE HATCH
- PROP. GRAVEL PATH
- PROP. STORMDRAIN
- EX & PROP SWM DRAINAGE AREA

SWM NOTES

1. THIS SITE IS CLASSIFIED AS A RE-DEVELOPMENT PER THE HOWARD COUNTY DESIGN MANUAL, VOLUME 1. IT IS ONLY REQUIRED THAT "QUALITATIVE" MANAGEMENT FOR TWENTY PERCENT OF THE EXISTING SITE IMPERVIOUS AREA AND ALL OF THE ADDITIONAL IMPERVIOUS AREA BE PROVIDED IN THE FORM OF WATER QUALITY (WqV). HOWEVER, AN EXISTING UNDERGROUND SWM FACILITY (EX I-1) IS PROVIDING WqV FOR THE EXISTING SITE. THEREFORE WqV IS ONLY NECESSARY FOR THE ADDED IMPERVIOUS AREA.
2. WATER QUALITY VOLUME (WqV) FOR THE SITE IS PROVIDED BY STRUCTURAL METHODS. WqV IS PROVIDED AS FOLLOWS: 0.035 AC.-FT. BY SWM FACILITY #1 BMP GROUP 4, TYPE F-2 UNDERGROUND SAND FILTER. THE REQUIRED WqV IS 0.034 AC.-FT.
3. RECHARGE VOLUME (Rev) IS NOT REQUIRED FOR THIS RE-DEVELOPMENT.
4. CHANNEL PROTECTION VOLUME (CpV) IS NOT REQUIRED FOR THIS RE-DEVELOPMENT.
5. FLOOD PROTECTION VOLUME (Qp10) IS NOT REQUIRED FOR THIS RE-DEVELOPMENT. Qp10 PROVIDED BY ON SITE SWM FACILITY, LOCATED IN JUNCTION INDUSTRIAL PARK, INSTALLED UNDER F-34-204.
6. EXTREME FLOOD PROTECTION VOLUME (Qp100) IS NOT REQUIRED FOR THIS RE-DEVELOPMENT. Qp100 PROVIDED BY ON SITE SWM FACILITY LOCATED IN THE JUNCTION INDUSTRIAL PARK, INSTALLED UNDER F-34-204.

GENERAL SWM STORAGE REQUIREMENTS

STEP	REQUIREMENT	VOLUME REQUIRED (ac.-ft.)	NOTES
1	WATER QUALITY VOLUME (WqV)	0.034 ac.-ft.	0.035 ac.-ft. PROVIDED BY SWM #1, PRIVATE SAND FILTER
2	RECHARGE VOLUME (Rev)	N/A	RE-DEVELOPMENT DOES NOT REQUIRE Rev
3	CHANNEL PROTECTION VOLUME (CpV)	N/A	RE-DEVELOPMENT DOES NOT REQUIRE CpV
4	OVERBANK FLOOD PROTECTION VOLUME (Qp)	N/A	RE-DEVELOPMENT DOES NOT REQUIRE Qp10
5	EXTREME FLOOD PROTECTION VOLUME (Qp100)	N/A	RE-DEVELOPMENT DOES NOT REQUIRE Qp100

SOILS CHART		
SOIL SYMBOL	SOIL NAME	SOIL TYPE
UJF	UDORTMENTS, HIGHWAY, 0-65% SLOPES	D
ULD	URBAN LAND UDORTMENTS, 0-15% SLOPES	D

SITE OUTFALL #1 DRAINAGE AREA: EX. DA. #1

DRAINAGE AREA:	2.40 AC
AREA LAWN:	0.89 AC
AREA IMPERVIOUS:	1.51 AC
WEIGHTED C-FACTOR:	0.67
TIME OF CONCENTRATION:	5 MIN
SITE RUNOFF: (10-YR.)	11.26 CFS

SITE OUTFALL #1 DRAINAGE AREA: PR. DA. #1

DRAINAGE AREA:	2.40 AC
AREA LAWN:	0.46 AC
AREA IMPERVIOUS:	1.94 AC
WEIGHTED C-FACTOR:	0.78
TIME OF CONCENTRATION:	5 MIN
SITE RUNOFF: (10-YR.)	13.10 CFS

FOR REVISION #2 ONLY



NO 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.: 29203
EXPIRATION DATE: 6-16-19

NOTE: EXISTING AND PROPOSED SITE OUTFALL #1 IS AN 18" RCP STORM DRAIN LOCATED BETWEEN EXISTING I-1 AND EX I-5. PROPOSED M-7 WILL BE INSTALLED UPSTREAM OF EX I-5 AND WILL SERVE AS THE OUTFALL FOR THE UNDERGROUND SAND FILTER.



MORRIS & RITCHIE ASSOCIATES, INC.
ENGINEERS, PLANNERS, SURVEYORS AND LANDSCAPE ARCHITECTS

14280 PARK CENTER DRIVE, SUITE A
LAUREL, MARYLAND 20707
(410) 792-9792 or (301) 776-1690
FAX (410) 792-7395



VERIZON WIRELESS - ANNAPOLIS JUNCTION OFFICE ADDITION
THE JUNCTION INDUSTRIAL PARK, PARCEL A-1
SITE DEVELOPMENT PLAN

STORMWATER MANAGEMENT DRAINAGE AREA MAP

LIBER 3677 ~ FOLIO 368 ~ PARCEL A-1, P/O TM PARCEL 177
ZONED: TOD ~ TAX MAP: 48 ~ GRID: 19
6TH ELECTION DISTRICT ~ HOWARD COUNTY, MARYLAND

MD 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.: 29203
EXPIRATION DATE: 6/16/09.

DATE	REVISIONS	JOB NO.:
3/01/17	REMOVE EX. PARKING TO INSTALL MECHANICAL YARD	10427.406
		SCALE: AS SHOWN
		DATE: 7/25/08
		DRAWN BY: JCW/CKE
		DESIGN BY: JCW/CKE
		REVIEW BY: TCN
		SHEET: 9 OF 17

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
CHIEF, DEVELOPMENT ENGINEERING DIVISION
CHIEF, DIVISION OF LAND DEVELOPMENT
DIRECTOR, DEPARTMENT OF PLANNING AND ZONING

DATE: 8/24/08
DATE: 8/24/08
DATE: 8/24/08

DEVELOPER
VERIZON WIRELESS
7600 MONTPELIER ROAD
FLOOR 2 SOUTH
LAUREL, MD 20723
C/O Mark Jackson
PHONE: 630-495-8400



SOIL BORING MAP

SCALE: 1" = 60'

SOILS CHART		
SOIL SYMBOL	SOIL NAME	SOIL TYPE
UqF	UDORTMENTS, HIGHWAY, 0-65% SLOPES	D
UqD	URBAN LAND UDORTMENTS, 0-15% SLOPES	D

LOG OF BORING NO. B-1 Sheet 1 of 1

PROJECT: VZW Annapolis Junction '07 Office Expansion
 PROJECT NO: 071078
 PROJECT LOCATION: Howard County, Maryland
 DATE STARTED: October 3, 2007
 DATE COMPLETED: October 3, 2007
 DRILLING CONTRACTOR: Geo-Technology Associates
 DRILLER: P. Stephens
 LOGGED BY: P. Stephens
 CHECKED BY: J. Viera

WATER LEVEL: Dry
 DATE: 10/3/2007
 CAVED BY: J.S.

GROUND SURFACE ELEVATION: 212.2
 DATUM: Survey
 EQUIPMENT: CME-500
 LOGGED BY: P. Stephens
 CHECKED BY: J. Viera

SAMPLE NUMBER	DEPTH (FT)	REMARKS	DESCRIPTION	REMARKS
1	0.0 - 1.0	SM	Brown, dry, medium dense, Silty SILT with Gravel	Topsoil 8 in
2	2.0 - 3.0	SM	AASHTO A-4 Light brown to light gray, moist, very dense to dense, Silty SAND with Gravel	Water Not Encountered During Drilling
3	4.0 - 5.0	SM	AASHTO A-1-b Light gray, moist, medium dense, Silty SAND	
4	6.0 - 7.0	SM	AASHTO A-2-4	
5	8.0 - 9.0	SM	Light gray, moist, medium dense to loose, Clayey SAND	
6	10.0 - 11.0	SM	AASHTO A-2-6	
7	12.0 - 13.0	SM	Light gray, moist, medium dense, Poorly-Graded SAND with SIL	
8	14.0 - 15.0	SM	AASHTO A-6 Reddish, moist, very stiff to hard, Sandy Lean CLAY	
9	16.0 - 17.0	SM	AASHTO A-6	
10	18.0 - 19.0	SM	Gray, moist, medium dense, Silty SAND	
11	20.0 - 21.0	SM	AASHTO A-2-4	
12	22.0 - 23.0	SM	Light brown, moist, medium dense, Poorly-Graded SAND with SIL	
13	24.0 - 25.0	SM	AASHTO A-3	
14	26.0 - 27.0	SM	Reddish and gray, moist, very stiff to hard, Sandy Lean CLAY	
15	28.0 - 29.0	SM	AASHTO A-6	
16	30.0 - 31.0	SM	Gray, moist, dense, Silty SAND	
17	32.0 - 33.0	SM	AASHTO A-4 Dark gray and medium to light gray, moist, very stiff to hard, Sandy Lean CLAY	
18	34.0 - 35.0	SM	AASHTO A-6	
19	36.0 - 37.0	SM	Gray, moist, dense, Silty SAND	
20	38.0 - 39.0	SM	AASHTO A-4 Dark gray and medium to light gray, moist, very stiff to hard, Sandy Lean CLAY	
21	40.0 - 41.0	SM	AASHTO A-6	
22	42.0 - 43.0	SM	Gray, moist, dense, Silty SAND	
23	44.0 - 45.0	SM	AASHTO A-4 Dark gray and medium to light gray, moist, very stiff to hard, Sandy Lean CLAY	
24	46.0 - 47.0	SM	AASHTO A-6	
25	48.0 - 49.0	SM	Gray, moist, dense, Silty SAND	
26	50.0 - 51.0	SM	AASHTO A-4 Dark gray and medium to light gray, moist, very stiff to hard, Sandy Lean CLAY	
27	52.0 - 53.0	SM	AASHTO A-6	
28	54.0 - 55.0	SM	Gray, moist, dense, Silty SAND	
29	56.0 - 57.0	SM	AASHTO A-4 Dark gray and medium to light gray, moist, very stiff to hard, Sandy Lean CLAY	
30	58.0 - 59.0	SM	AASHTO A-6	
31	60.0 - 61.0	SM	Gray, moist, dense, Silty SAND	
32	62.0 - 63.0	SM	AASHTO A-4 Dark gray and medium to light gray, moist, very stiff to hard, Sandy Lean CLAY	
33	64.0 - 65.0	SM	AASHTO A-6	
34	66.0 - 67.0	SM	Gray, moist, dense, Silty SAND	
35	68.0 - 69.0	SM	AASHTO A-4 Dark gray and medium to light gray, moist, very stiff to hard, Sandy Lean CLAY	
36	70.0 - 71.0	SM	AASHTO A-6	
37	72.0 - 73.0	SM	Gray, moist, dense, Silty SAND	
38	74.0 - 75.0	SM	AASHTO A-4 Dark gray and medium to light gray, moist, very stiff to hard, Sandy Lean CLAY	
39	76.0 - 77.0	SM	AASHTO A-6	
40	78.0 - 79.0	SM	Gray, moist, dense, Silty SAND	
41	80.0 - 81.0	SM	AASHTO A-4 Dark gray and medium to light gray, moist, very stiff to hard, Sandy Lean CLAY	
42	82.0 - 83.0	SM	AASHTO A-6	
43	84.0 - 85.0	SM	Gray, moist, dense, Silty SAND	
44	86.0 - 87.0	SM	AASHTO A-4 Dark gray and medium to light gray, moist, very stiff to hard, Sandy Lean CLAY	
45	88.0 - 89.0	SM	AASHTO A-6	
46	90.0 - 91.0	SM	Gray, moist, dense, Silty SAND	
47	92.0 - 93.0	SM	AASHTO A-4 Dark gray and medium to light gray, moist, very stiff to hard, Sandy Lean CLAY	
48	94.0 - 95.0	SM	AASHTO A-6	
49	96.0 - 97.0	SM	Gray, moist, dense, Silty SAND	
50	98.0 - 99.0	SM	AASHTO A-4 Dark gray and medium to light gray, moist, very stiff to hard, Sandy Lean CLAY	
51	100.0 - 101.0	SM	AASHTO A-6	
52	102.0 - 103.0	SM	Gray, moist, dense, Silty SAND	
53	104.0 - 105.0	SM	AASHTO A-4 Dark gray and medium to light gray, moist, very stiff to hard, Sandy Lean CLAY	
54	106.0 - 107.0	SM	AASHTO A-6	
55	108.0 - 109.0	SM	Gray, moist, dense, Silty SAND	
56	110.0 - 111.0	SM	AASHTO A-4 Dark gray and medium to light gray, moist, very stiff to hard, Sandy Lean CLAY	
57	112.0 - 113.0	SM	AASHTO A-6	
58	114.0 - 115.0	SM	Gray, moist, dense, Silty SAND	
59	116.0 - 117.0	SM	AASHTO A-4 Dark gray and medium to light gray, moist, very stiff to hard, Sandy Lean CLAY	
60	118.0 - 119.0	SM	AASHTO A-6	
61	120.0 - 121.0	SM	Gray, moist, dense, Silty SAND	
62	122.0 - 123.0	SM	AASHTO A-4 Dark gray and medium to light gray, moist, very stiff to hard, Sandy Lean CLAY	
63	124.0 - 125.0	SM	AASHTO A-6	
64	126.0 - 127.0	SM	Gray, moist, dense, Silty SAND	
65	128.0 - 129.0	SM	AASHTO A-4 Dark gray and medium to light gray, moist, very stiff to hard, Sandy Lean CLAY	
66	130.0 - 131.0	SM	AASHTO A-6	
67	132.0 - 133.0	SM	Gray, moist, dense, Silty SAND	
68	134.0 - 135.0	SM	AASHTO A-4 Dark gray and medium to light gray, moist, very stiff to hard, Sandy Lean CLAY	
69	136.0 - 137.0	SM	AASHTO A-6	
70	138.0 - 139.0	SM	Gray, moist, dense, Silty SAND	
71	140.0 - 141.0	SM	AASHTO A-4 Dark gray and medium to light gray, moist, very stiff to hard, Sandy Lean CLAY	
72	142.0 - 143.0	SM	AASHTO A-6	
73	144.0 - 145.0	SM	Gray, moist, dense, Silty SAND	
74	146.0 - 147.0	SM	AASHTO A-4 Dark gray and medium to light gray, moist, very stiff to hard, Sandy Lean CLAY	
75	148.0 - 149.0	SM	AASHTO A-6	
76	150.0 - 151.0	SM	Gray, moist, dense, Silty SAND	
77	152.0 - 153.0	SM	AASHTO A-4 Dark gray and medium to light gray, moist, very stiff to hard, Sandy Lean CLAY	
78	154.0 - 155.0	SM	AASHTO A-6	
79	156.0 - 157.0	SM	Gray, moist, dense, Silty SAND	
80	158.0 - 159.0	SM	AASHTO A-4 Dark gray and medium to light gray, moist, very stiff to hard, Sandy Lean CLAY	
81	160.0 - 161.0	SM	AASHTO A-6	
82	162.0 - 163.0	SM	Gray, moist, dense, Silty SAND	
83	164.0 - 165.0	SM	AASHTO A-4 Dark gray and medium to light gray, moist, very stiff to hard, Sandy Lean CLAY	
84	166.0 - 167.0	SM	AASHTO A-6	
85	168.0 - 169.0	SM	Gray, moist, dense, Silty SAND	
86	170.0 - 171.0	SM	AASHTO A-4 Dark gray and medium to light gray, moist, very stiff to hard, Sandy Lean CLAY	
87	172.0 - 173.0	SM	AASHTO A-6	
88	174.0 - 175.0	SM	Gray, moist, dense, Silty SAND	
89	176.0 - 177.0	SM	AASHTO A-4 Dark gray and medium to light gray, moist, very stiff to hard, Sandy Lean CLAY	
90	178.0 - 179.0	SM	AASHTO A-6	
91	180.0 - 181.0	SM	Gray, moist, dense, Silty SAND	
92	182.0 - 183.0	SM	AASHTO A-4 Dark gray and medium to light gray, moist, very stiff to hard, Sandy Lean CLAY	
93	184.0 - 185.0	SM	AASHTO A-6	
94	186.0 - 187.0	SM	Gray, moist, dense, Silty SAND	
95	188.0 - 189.0	SM	AASHTO A-4 Dark gray and medium to light gray, moist, very stiff to hard, Sandy Lean CLAY	
96	190.0 - 191.0	SM	AASHTO A-6	
97	192.0 - 193.0	SM	Gray, moist, dense, Silty SAND	
98	194.0 - 195.0	SM	AASHTO A-4 Dark gray and medium to light gray, moist, very stiff to hard, Sandy Lean CLAY	
99	196.0 - 197.0	SM	AASHTO A-6	
100	198.0 - 199.0	SM	Gray, moist, dense, Silty SAND	
101	200.0 - 201.0	SM	AASHTO A-4 Dark gray and medium to light gray, moist, very stiff to hard, Sandy Lean CLAY	
102	202.0 - 203.0	SM	AASHTO A-6	
103	204.0 - 205.0	SM	Gray, moist, dense, Silty SAND	
104	206.0 - 207.0	SM	AASHTO A-4 Dark gray and medium to light gray, moist, very stiff to hard, Sandy Lean CLAY	
105	208.0 - 209.0	SM	AASHTO A-6	
106	210.0 - 211.0	SM	Gray, moist, dense, Silty SAND	
107	212.0 - 213.0	SM	AASHTO A-4 Dark gray and medium to light gray, moist, very stiff to hard, Sandy Lean CLAY	
108	214.0 - 215.0	SM	AASHTO A-6	
109	216.0 - 217.0	SM	Gray, moist, dense, Silty SAND	
110	218.0 - 219.0	SM	AASHTO A-4 Dark gray and medium to light gray, moist, very stiff to hard, Sandy Lean CLAY	
111	220.0 - 221.0	SM	AASHTO A-6	
112	222.0 - 223.0	SM	Gray, moist, dense, Silty SAND	
113	224.0 - 225.0	SM	AASHTO A-4 Dark gray and medium to light gray, moist, very stiff to hard, Sandy Lean CLAY	
114	226.0 - 227.0	SM	AASHTO A-6	
115	228.0 - 229.0	SM	Gray, moist, dense, Silty SAND	
116	230.0 - 231.0	SM	AASHTO A-4 Dark gray and medium to light gray, moist, very stiff to hard, Sandy Lean CLAY	
117	232.0 - 233.0	SM	AASHTO A-6	
118	234.0 - 235.0	SM	Gray, moist, dense, Silty SAND	
119	236.0 - 237.0	SM	AASHTO A-4 Dark gray and medium to light gray, moist, very stiff to hard, Sandy Lean CLAY	
120	238.0 - 239.0	SM	AASHTO A-6	
121	240.0 - 241.0	SM	Gray, moist, dense, Silty SAND	
122	242.0 - 243.0	SM	AASHTO A-4 Dark gray and medium to light gray, moist, very stiff to hard, Sandy Lean CLAY	
123	244.0 - 245.0	SM	AASHTO A-6	
124	246.0 - 247.0	SM	Gray, moist, dense, Silty SAND	
125	248.0 - 249.0	SM	AASHTO A-4 Dark gray and medium to light gray, moist, very stiff to hard, Sandy Lean CLAY	
126	250.0 - 251.0	SM	AASHTO A-6	
127	252.0 - 253.0	SM	Gray, moist, dense, Silty SAND	
128	254.0 - 255.0	SM	AASHTO A-4 Dark gray and medium to light gray, moist, very stiff to hard, Sandy Lean CLAY	
129	256.0 - 257.0	SM	AASHTO A-6	
130	258.0 - 259.0	SM	Gray, moist, dense, Silty SAND	
131	260.0 - 261.0	SM	AASHTO A-4 Dark gray and medium to light gray, moist, very stiff to hard, Sandy Lean CLAY	
132	262.0 - 263.0	SM	AASHTO A-6	
133	264.0 - 265.0	SM	Gray, moist, dense, Silty SAND	
134	266.0 - 267.0	SM	AASHTO A-4 Dark gray and medium to light gray, moist, very stiff to hard, Sandy Lean CLAY	
135	268.0 - 269.0	SM	AASHTO A-6	
136	270.0 - 271.0	SM	Gray, moist, dense, Silty SAND	
137	272.0 - 273.0	SM	AASHTO A-4 Dark gray and medium to light gray, moist, very stiff to hard, Sandy Lean CLAY	
138	274.0 - 275.0	SM	AASHTO A-6	
139	276.0 - 277.0	SM	Gray, moist, dense, Silty SAND	
140	278.0 - 279.0	SM	AASHTO A-4 Dark gray and medium to light gray, moist, very stiff to hard, Sandy Lean CLAY	
141	280.0 - 281.0	SM	AASHTO A-6	
142	282.0 - 283.0	SM	Gray, moist, dense, Silty SAND	
143	284.0 - 285.0	SM	AASHTO A-4 Dark gray and medium to light gray, moist, very stiff to hard, Sandy Lean CLAY	
144	286.0 - 287.0	SM	AASHTO A-6	
145	288.0 - 289.0	SM	Gray, moist, dense, Silty SAND	
146	290.0 - 291.0	SM	AASHTO A-4 Dark gray and medium to light gray, moist, very stiff to hard, Sandy Lean CLAY	
147	292.0 - 293.0	SM	AASHTO A-6	
148	294.0 - 295.0	SM	Gray, moist, dense, Silty SAND	
149	296.0 - 297.0	SM	AASHTO A-4 Dark gray and medium to light gray, moist, very stiff to hard, Sandy Lean CLAY	
150	298.0 - 299.0	SM	AASHTO A-6	
151	300.0 - 301.0	SM	Gray, moist, dense, Silty SAND	
152	302.0 - 303.0	SM	AASHTO A-4 Dark gray and medium to light gray, moist, very stiff to hard, Sandy Lean CLAY	
153	304.0 - 305.0	SM	AASHTO A-6	
154	306.0 - 307.0	SM	Gray, moist, dense, Silty SAND	
155	308.0 - 309.0	SM	AASHTO A-4 Dark gray and medium to light gray, moist, very stiff to hard, Sandy Lean CLAY	
156	310.0 - 311.0	SM	AASHTO A-6	
157	312.0 - 313.0	SM	Gray, moist, dense, Silty SAND	
158	314.0 - 315.0	SM	AASHTO A-4 Dark gray and medium to light gray, moist, very stiff to hard, Sandy Lean CLAY	
159	316.0 - 317.0	SM	AASHTO A-6	
160	318.0 - 319.0	SM	Gray, moist, dense, Silty SAND	
161	320.0 - 321.0	SM	AASHTO A-4 Dark gray and medium to light gray, moist, very stiff to hard, Sandy Lean CLAY	
162	322.0 - 323.0	SM	AASHTO A-6	
163	324.0 - 325.0	SM	Gray, moist, dense, Silty SAND	
164	326.0 - 327.0	SM	AASHTO A-4 Dark gray and medium to light gray, moist, very stiff to hard, Sandy Lean CLAY	
165	328.0 - 329.0	SM	AASHTO A-6	
166	330.0 - 331.0	SM	Gray, moist, dense, Silty SAND	
167	332.0 - 333.0	SM	AASHTO A-4 Dark gray and medium to light gray, moist, very stiff to hard, Sandy Lean CLAY	
168	334.0 - 335.0	SM	AASHTO A-6	
169	336.0 - 337.0	SM	Gray, moist, dense, Silty SAND	
170	338.0 - 339.0	SM	AASHTO A-4 Dark gray and medium to light gray, moist, very stiff to hard, Sandy Lean CLAY	
171	340.0 - 341.0	SM	AASHTO A-6	
172	342.0 - 343.0	SM	Gray, moist, dense, Silty SAND	
173	344.0 - 345.0	SM	AASHTO A-4 Dark gray and medium to light gray, moist, very stiff to hard, Sandy Lean CLAY	
174	346.0 - 347.0	SM	AASHTO A-6	
175	348.0 - 349.0	SM	Gray, moist, dense, Silty SAND	
176	350.0 - 351.0	SM	AASHTO A-4 Dark gray and medium to light gray, moist, very stiff to hard, Sandy Lean CLAY	
177	352.0 - 353.0	SM	AASHTO A-6	
178	354.0 - 355.0	SM	Gray, moist, dense, Silty SAND	
179	356.0 - 357.0	SM	AASHTO A-4 Dark gray and medium to light gray, moist, very stiff to hard, Sandy Lean CLAY	
180	358.0 - 359.0			

SEQUENCE OF CONSTRUCTION

1. OBTAIN ALL NECESSARY PERMITS. CONTACT THE HOWARD COUNTY OFFICE OF INSPECTIONS AT LEAST 48 HOURS PRIOR TO BEGINNING ANY WORK. 1 DAY
2. CLEAR AND GRUB FOR INSTALLATION OF SEDIMENT CONTROLS ONLY. 2 DAYS
3. BEGIN DEMOLITION AND/OR RELOCATION OF EXISTING STRUCTURES, PAVING, CURBS, UTILITY SERVICES, AND SITE FEATURES. 2 WEEKS
4. BEGIN BUILDING ADDITION CONSTRUCTION. 60 DAYS
5. INSTALL STORM DRAINS AND UTILITY SERVICES. INSTALL PUBLIC WATER MAIN AND FIRE HYDRANT. 4 WEEKS
6. INSTALL SWM FILTERRA SYSTEM. SEE DETAILS ON SHEET 17. 3 DAYS
7. INSTALL CURB & GUTTER AND BASE PAVING. 7 DAYS
8. FINE GRADE SITE AND PROVIDE PERMANENT STABILIZATION. 4 DAYS
9. INSTALL SURFACE PAVING, LANDSCAPING AND PERMANENT STABILIZATION ANY REMAINING DISTURBED AREAS. 4 DAYS
10. WITH THE SEDIMENT CONTROL INSPECTOR'S APPROVAL REMOVE ALL REMAINING SEDIMENT CONTROLS AND STABILIZE ANY REMAINING DISTURBED AREAS. 2 DAYS

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.

John R. Ritchie 8/14/08
DATE
HOWARD S.C.D.

BY THE DEVELOPER

I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT.

Scott Murphy 7/30/08
SIGNATURE OF DEVELOPER
SCOTT MURPHY-CONSTRUCTION ENGINEER
VERICON WIRELESS DATE

BY THE ENGINEER

I 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 THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

Thomas C. Neugebauer 7-29-08
SIGNATURE OF ENGINEER
THOMAS C. NEUGEBAUER, P.E. MD LICENSE #29203 DATE

LEGEND

- EX. 2' CONTOUR
- EX. 10' CONTOUR
- EX. RIGHT OF WAY
- EX. PROPERTY LINE
- EX. ADJ. PROPERTY LINE
- EX. SETBACK LINE
- EX. BUILDING
- EX. PAVEMENT
- EX. CURB
- EX. CONCRETE
- EX. FENCE
- EX. SOILS
- EX. OVERHEAD LINE
- EX. UNDERGROUND LINE
- EX. ELECTRIC LINE
- EX. SANITARY SEWER
- EX. STORM DRAIN
- EX. WATER
- EX. LIGHT POLE
- EX. BOLLARD
- PROP. BUILDING
- PROP. CONCRETE
- PROP. CONCRETE HATCH
- PROP. GRAVEL PATH
- PROP. FENCE
- PROP. 2' CONTOUR
- PROP. 10' CONTOUR
- PROP. SANITARY SEWER
- PROP. STORMDRAIN
- PROP. LIMIT OF DISTURBANCE
- PROP. SILT FENCE
- PROP. SUPER SILT FENCE
- PROP. STABILIZED CONST. ENTRANCE
- PROP. STONE CHECK DAM

SEE REVISED SEQUENCE OF CONSTRUCTION, REVISION #2 ABOVE

SEQUENCE OF CONSTRUCTION

1. OBTAIN ALL NECESSARY PERMITS. CONTACT THE HOWARD COUNTY OFFICE OF INSPECTIONS AT LEAST 48 HOURS PRIOR TO BEGINNING ANY WORK. 1 DAY
2. CLEAR AND GRUB FOR INSTALLATION OF SEDIMENT CONTROLS ONLY. 2 DAYS
3. INSTALL PERIMETER SEDIMENT AND EROSION CONTROL DEVICES. 2 DAYS
4. BEGIN DEMOLITION AND/OR RELOCATION OF EXISTING STRUCTURES, PAVING, CURB, UTILITY SERVICES, AND SITE FEATURES. 15 DAYS
5. CLEAR AND GRUB AREAS FOR GRADING, BEGIN GRADING OR BUILDING, DRIVE AISLES, & PARKING AREAS. PROVIDE TEMPORARY STABILIZATION AS REQUIRED. 30 DAYS
6. BEGIN BUILDING CONSTRUCTION. 120 DAYS
7. INSTALL UNDERGROUND SAND FILTER PER SWM PLAN. 14 DAYS
8. INSTALL STORM DRAIN, AND UTILITY SERVICES. 15 DAYS
9. INSTALL CURB & GUTTER AND BASE PAVING. 15 DAYS
10. FINE GRADE SITE AND PROVIDE PERMANENT STABILIZATION. 15 DAYS
11. INSTALL SURFACE PAVING, LANDSCAPING AND PERMANENTLY STABILIZE ANY REMAINING DISTURBED AREAS. 10 DAYS
12. WITH THE SEDIMENT CONTROL INSPECTOR'S APPROVAL REMOVE ALL REMAINING SEDIMENT CONTROLS AND STABILIZE ANY REMAINING DISTURBED AREAS. 2 DAYS

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION
Condy Harris 8/22/08
CHIEF, DIVISION OF LAND DEVELOPMENT
Marie M. Lough 8/14/08
DIRECTOR, DEPARTMENT OF PLANNING AND ZONING DATE

SOILS CHART

SOIL SYMBOL	SOIL NAME	SOIL TYPE
UgF	UDORThENTS, HIGHWAY, 0-65% SLOPES	D
Ud	URBAN LAND UDORThENTS, 0-15% SLOPES	D

FOR REVISION #2 ONLY

MULTI-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. 29203
EXPIRATION DATE: 6-16-19

John R. Ritchie 7-26-07

SITE TO BE ACCESSED AS SHOWN ON PLAN.

DEVELOPER
VERICON WIRELESS
7600 MONTPELIER ROAD
FLOOR 2 SOUTH
LAUREL, MD 20773
C/O Mark J. Jettison
PHONE: 630-495-8400



MORRIS & RITCHIE ASSOCIATES, INC.
ENGINEERS, PLANNERS, SURVEYORS AND LANDSCAPE ARCHITECTS

14280 PARK CENTER DRIVE, SUITE A
LAUREL, MARYLAND 20707
(410) 792-8792 or (301) 776-1690
FAX (410) 792-7395



VERICON WIRELESS - ANNAPOLIS JUNCTION OFFICE ADDITION
THE JUNCTION INDUSTRIAL PARK, PARCEL A-1
SITE DEVELOPMENT PLAN

EROSION AND SEDIMENT CONTROL PLAN

LIBER 3677 ~ FOLIO 368 ~ PARCEL A-1, P/O TM PARCEL 177
ZONED: TOD ~ TAX MAP: 48 ~ GRID: 19
6TH ELECTION DISTRICT ~ HOWARD COUNTY, MARYLAND

DATE	REVISIONS	JOB NO.:
3/01/17	REMOVE EX. PARKING TO INSTALL MECHANICAL YARD.	10427.406
		SCALE: 1" = 40'
		DATE: 7/25/08
		DRAWN BY: CKE
		DESIGN BY: JCW/CKE
		REVIEW BY: TCN
		SHEET: 11 OF 17

B-4.2 STANDARDS AND SPECIFICATIONS

FOR

SOIL PREPARATION, TOPSOILING, AND SOIL AMENDMENTS

Definition

The process of preparing the soils to sustain adequate vegetative stabilization.

Purpose

To provide a suitable soil medium for vegetative growth.

Conditions Where Practice Applies

Where vegetative stabilization is to be established.

Criteria

- A. Soil Preparation
1. Temporary Stabilization
a. Seeded preparation consists of loosening soil to a depth of 3 to 5 inches by means of suitable agricultural or construction equipment...
2. Permanent Stabilization
a. A soil lost is required for any earth disturbance of 5 acres or more...
B.12
a. Apply soil amendments as specified on the approved plan or as indicated by the results of a soil test.

B-4.3 STANDARDS AND SPECIFICATIONS

FOR

SEEDING AND MULCHING

Definition

The application of seed and mulch to establish vegetative cover.

Purpose

To protect disturbed soils from erosion during and at the end of construction.

Conditions Where Practice Applies

To the surface of all perimeter contours, slopes, and any disturbed area not under active grading.

Criteria

- A. Seeding
1. Specifications
a. All seed must meet the requirements of the Maryland State Seed Law...
2. Application
a. Dry Seeding: This includes use of conventional drop or broadcast spreaders.
i. Incorporate seed into the subsoil at the rate prescribed on Temporary Seeding Table B.1...
B.15
a. Drill or Cultipacker Seeding: Mechanized seeders that apply and cover seed with soil.

B-4.4 STANDARDS AND SPECIFICATIONS

FOR

TEMPORARY STABILIZATION

Definition

To stabilize disturbed soils with vegetation for up to 6 months.

Purpose

To use fast growing vegetation that provides cover on disturbed soils.

Conditions Where Practice Applies

Exposed soils where ground cover is needed for a period of 6 months or less. For longer duration of time, permanent stabilization practices are required.

Criteria

- 1. Select one or more of the species or seed mixtures listed in Table B.1 for the appropriate Plant Hardiness Zone (from Figure B.3), and enter them in the Temporary Seeding Summary below along with application rates, seeding dates and seeding depths...
2. For sites having soil tests performed, use and show the recommended rates by the testing agency. Soil tests are not required for Temporary Seeding.

Temporary Seeding Summary

Table with columns: No., Species, Application Rate (lb/acre), Seeding Dates, Seeding Depth, Fertilizer Rate (lb/1000 sq ft), Lime Rate. Includes rows for T. FESC. and K. BLJE.

B.18

Table B.1: Temporary Seeding for Site Stabilization

Table with columns: Plant Species, Seeding Rate (lb/1000 sq ft), Seeding Depth (inches), Recommended Seeding Dates by Plant Hardiness Zone (5b and 6a, 6b, 7a and 7b). Includes rows for Cool Season Grasses, Annual Ryegrass, Barley, Oats, Wheat, Cereal Rye, Pearl Millet, and Warm Season Grasses.

NOTES:
1. Seeding rates for the warm-season grasses are in pounds of Pure Live Seed (PLS). Actual planting rates shall be adjusted to reflect percent seed germination and purity...
2. For sandy soils, plant seeds at twice the depth listed above.

B.20

B-4.5 STANDARDS AND SPECIFICATIONS

FOR

PERMANENT STABILIZATION

Definition

To stabilize disturbed soils with permanent vegetation.

Purpose

To use long-lived perennial grasses and legumes to establish permanent ground cover on disturbed soils.

Conditions Where Practice Applies

Exposed soils where ground cover is needed for 6 months or more.

Criteria

- A. Seed Mixtures
1. General Use
a. Select one or more of the species or mixtures listed in Table B.3 for the appropriate Plant Hardiness Zone (from Figure B.3) and based on the site condition or purpose found on Table B.2...
2. Turfgrass Mixtures
a. Areas where turfgrass may be desired include lawns, parks, playgrounds, and commercial sites which will receive a medium to high level of maintenance.

B.21

- rapid establishment is necessary and when turf will receive medium to intensive management. Certified Perennial Ryegrass Cultivars, Certified Kentucky Bluegrass Seeding Rate: 2 pounds mixture per 1000 square feet...
iii. Tall Fescue/Kentucky Bluegrass: Full Sun Mixture: For use in drought prone areas and/or for areas receiving low to medium management in full sun to medium shade...
iv. Certified Bluegrass/Fine Fescue: Shade Mixture: For use in areas with shade in Bluegrass lawns.

B-4.8 STANDARDS AND SPECIFICATIONS

FOR

STACKPILE AREA

Definition

A mound or pile of soil protected by appropriately designed erosion and sediment control measures.

Purpose

To provide a designated location for the temporary storage of soil that controls the potential for erosion, sedimentation, and changes to drainage patterns.

Conditions Where Practice Applies

Stackpile areas are utilized when it is necessary to salvage and store soil for later use.

Criteria

- 1. The stackpile location and all related sediment control practices must be clearly indicated on the erosion and sediment control plan.
2. The footprint of the stackpile must be sized to accommodate the anticipated volume of material and based on a side slope ratio no steeper than 2:1...
3. Runoff from the stackpile area must drain to a suitable sediment control practice.

Maintenance

The stackpile area must continuously meet the requirements for Adequate Vegetative Establishment in accordance with Section B-4 Vegetative Stabilization. Side slopes must be maintained at no steeper than a 2:1 ratio.

B.43

Design Certification:

"I hereby certify that this plan has been designed in accordance with current Maryland erosion and sediment control laws, regulations, and standards, that it represents a practical and workable plan based on my personal knowledge of the site, and that it was prepared in accordance with the requirements of the Howard Soil Conservation District."

Signature: [Handwritten Signature] Date: 8-10-17

Signature: THOMAS NEUGEBAUER MD Registration No. 29203 P.E./R.L.S., or R.L.A. (circle one)

Professional Certification:

"I hereby certify 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. 29203 Expiration Date: 6-16-19

(Title block, certification, seal, and signature shall appear close to each other)



Owners/Developer Certification:

"I/We hereby certify that any clearing, grading, construction, or development will be done pursuant to this approved erosion and sediment control plan, including inspecting and maintaining controls, and that the responsible personnel involved in the construction project will have a Certificate of Training at a Maryland Department of the Environment (MDE) approved training program for the control on erosion and sediment prior to beginning the project."

Signature: Mark Josephson Date: 8/11/17

Owner's/Developer's Signature: Mark Josephson, Construction Engineer Printed Name & Title

SHEET: SDP-12

MORRIS & RITCHIE ASSOCIATES, INC. ENGINEERS, PLANNERS, SURVEYORS AND LANDSCAPE ARCHITECTS 14280 PARK CENTER DRIVE LAUREL, MD 20707

VERIZON WIRELESS-ANNAPOLIS JUNCTION OFFICE THE JUNCTION INDUSTRIAL PARK, PARCEL A-1 SITE DEVELOPMENT PLAN

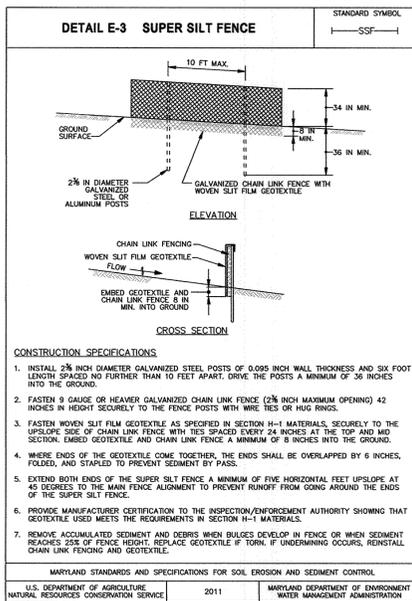
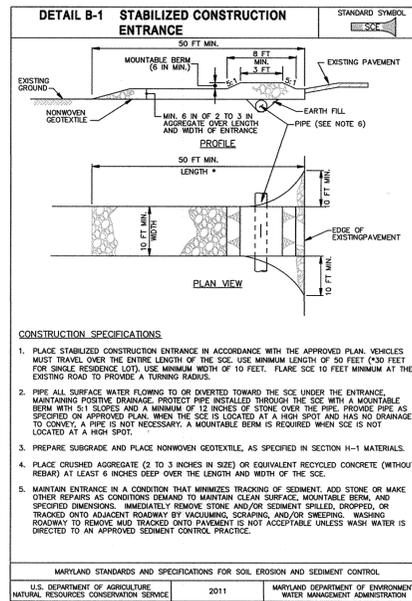
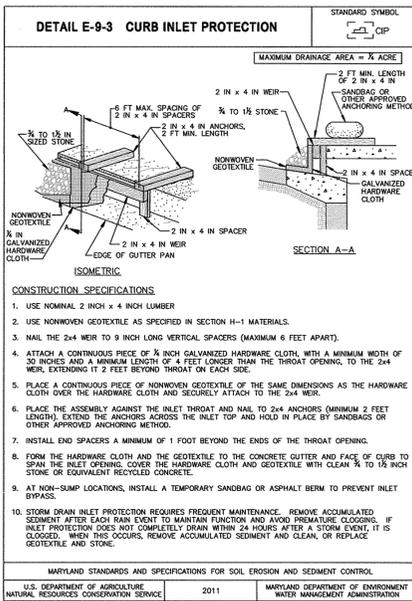
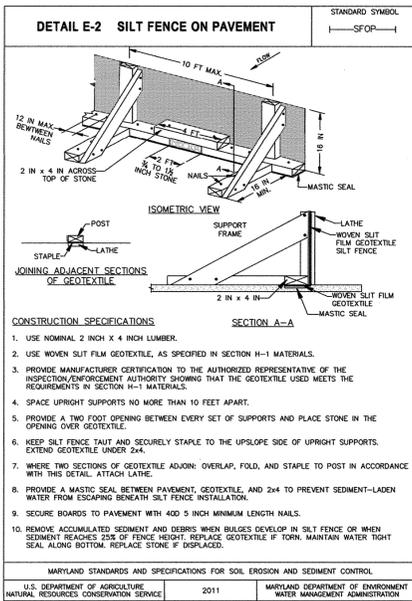
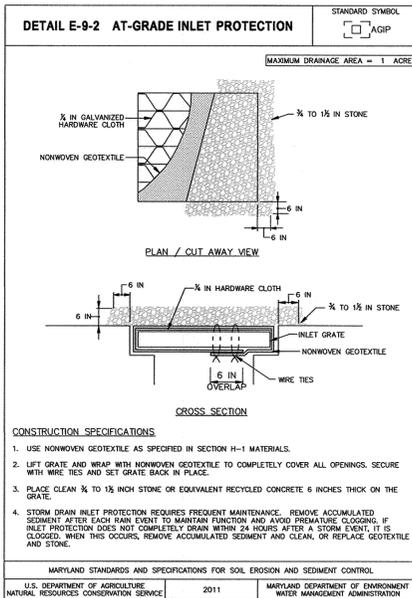
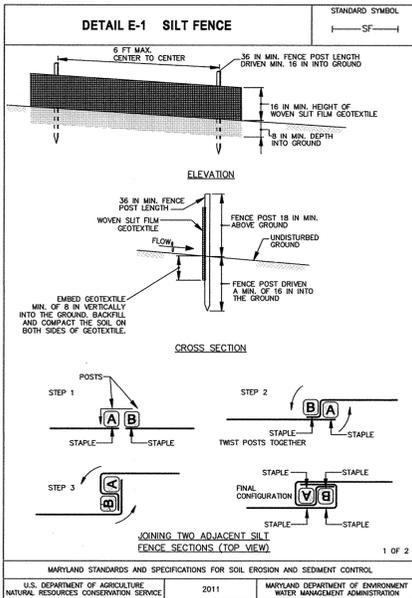
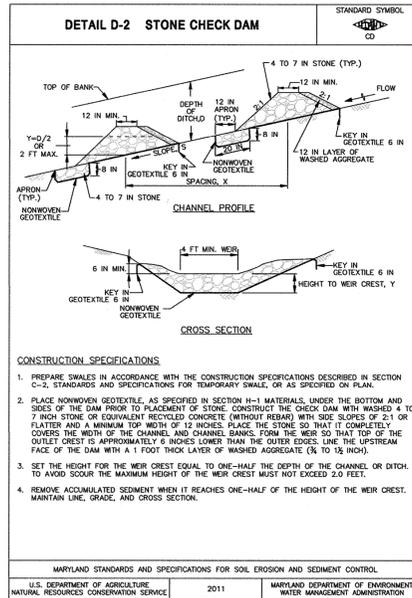
Table with columns: DATE, REVISIONS, JOB NO., SCALE, DATE, DRAWN BY, DESIGN BY, REVIEW BY, SHEET OF. Includes revision history and drawing details.



Professional Engineer Seal for Mark Josephson, License No. 29203, State of Maryland.

OWNER: CELLO PARTNERSHIP C/O CELLO PARTNERSHIP 7600 MONTPELIER ROAD BEDMINSTER, NEW JERSEY 07921 PHONE: 410-707-1708 DEVELOPER/APPLICANT: VERIZON WIRELESS 7600 MONTPELIER ROAD FLOOR 2 SOUTH LAUREL, MD 20723 C/O Mark Josephson PHONE: 630-495-8400

HOWARD SOIL CONSERVATION DISTRICT THIS PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT. Includes signatures of John Robert and approval from Howard County Department of Planning and Zoning.



HOWARD SOIL CONSERVATION DISTRICT (HSCD) STANDARD SEDIMENT CONTROL NOTES

1. A pre-construction meeting must occur with the Howard County Department of Public Works, Construction Inspection Division (CID), 410-313-1855 after the future LOD and protected areas are marked clearly in the field. A minimum of 48 hour notice to CID must be given at the following stages:
 - a. Prior to the start of earth disturbance.
 - b. Upon completion of the installation of perimeter erosion and sediment controls, but before proceeding with any other earth disturbance or grading.
 - c. Prior to the start of another phase of construction or opening of another grading unit.
 - d. Prior to the removal or modification of sediment control practices.
 2. All vegetative and structural practices are to be installed according to the provisions of this plan and are to be in conformance with the 2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL, and revisions thereto.
 3. Following initial soil disturbance or re-disturbance, permanent or temporary stabilization is required within three (3) calendar days as to the surface of all perimeter controls, dikes, swales, ditches, perimeter slopes, and all slopes steeper than 3 horizontal to 1 vertical (3:1); and seven (7) calendar days as to all other disturbed areas on the project site except for those areas under active grading.
 4. All disturbed areas must be stabilized within the time period specified above in accordance with the 2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL, for Erosion (Sec. B-4-2), permanent seeding (Sec. B-4-5), temporary seeding (Sec. B-4-4) and mulching (Sec. B-4-3). Temporary stabilization with mulch alone can only be applied between the fall and spring seeding dates if the ground is frozen. Incremental stabilization (Sec. B-4-1) specifications shall be enforced in areas with >15' of cut and/or fill. Stockpiles (Sec. B-4-8) in excess of 20 ft. must be bermed with stable outlet. All concentrated flow, steep slopes, and highly erodible areas shall receive soil stabilization matting (Sec. B-4-6).
 5. All sediment control structures are to remain in place, and are to be maintained in operative condition until permission for their removal has been obtained from the CID.
- Other building or grading inspection approvals may not be authorized until this initial approval by the inspection agency is made. Other related state and federal permits shall be referenced, to ensure coordination and to avoid conflicts with this plan.
- Site Analysis:
- | | | |
|-------------------------------------|--------------|-------|
| Total Area of Site: | 4.03 AC. | Acres |
| Area Disturbed: | 0.82 AC. | Acres |
| Area to be roofed or paved: | 0.56 AC. | Acres |
| Area to be vegetatively stabilized: | 0.05 AC. | Acres |
| Total Cut: | 250 CU. YDS. | Yds. |
| Total Fill: | 50 CU. YDS. | Yds. |
| Offsite waste/borrow area location: | 75 CU. YDS. | Yds. |
7. Any sediment control practice which is disturbed by grading activity for placement of utilities must be repaired on the same day of disturbance.
 8. Additional sediment control must be provided, if deemed necessary by the CID. The site and all controls shall be inspected by the contractor weekly, and the next day after each rain event. A written report by the contractor, made available upon request, is part of every inspection and should include:
 - Inspection date
 - Inspection type (routine, pre-storm event, during rain event)
 - Name and title of inspector
 - Weather information (current conditions as well as time and amount of last recorded precipitation)
 - Brief description of project's status (e.g., percent complete) and/or current activities
 - Evidence of sediment discharges
 - Identification of plan deficiencies
 - Identification of sediment controls that require maintenance
 - Identification of missing or improperly installed sediment controls
 - Compliance status regarding the sequence of construction and stabilization requirements
 - Photographs
 - Monitoring/sampling
 - Maintenance and/or corrective action performed
 - Other inspection items as required by the General Permit for Stormwater Associated with Construction Activities (NPDES, MDE).

HOWARD SOIL CONSERVATION DISTRICT

THIS PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT

John L. Bhatia 8/16/17
HOWARD SOIL CONSERVATION DISTRICT DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

John L. Bhatia 8-30-17
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

Kevin J. Joseph 9-6-17
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

John L. Bhatia 9-6-17
DIRECTOR, DEPARTMENT OF PLANNING AND ZONING DATE

HOWARD SOIL CONSERVATION DISTRICT

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HOWARD SOIL CONSERVATION DISTRICT DATE

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DIRECTOR, DEPARTMENT OF PLANNING AND ZONING DATE

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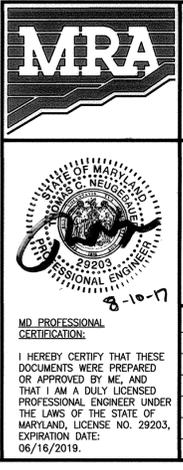
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Kevin J. Joseph 9-6-17
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

John L. Bhatia 9-6-17
DIRECTOR, DEPARTMENT OF PLANNING AND ZONING DATE

OWNER:
CELLO PARTNERSHIP
C/O CELLO PARTNERSHIP
180 WASHINGTON VALLEY ROAD
BENMINSTER, NJ 07921
PHONE: 410-767-1768

DEVELOPER/APPLICANT:
VERIZON WIRELESS
7600 MONTPELIER RD
FLOOR 2 SOUTH
LAUREL, MD 20723
C/O MARK JOSEFSON
PHONE: 430-495-8400
EMAIL: mark.josefson@vzw.com



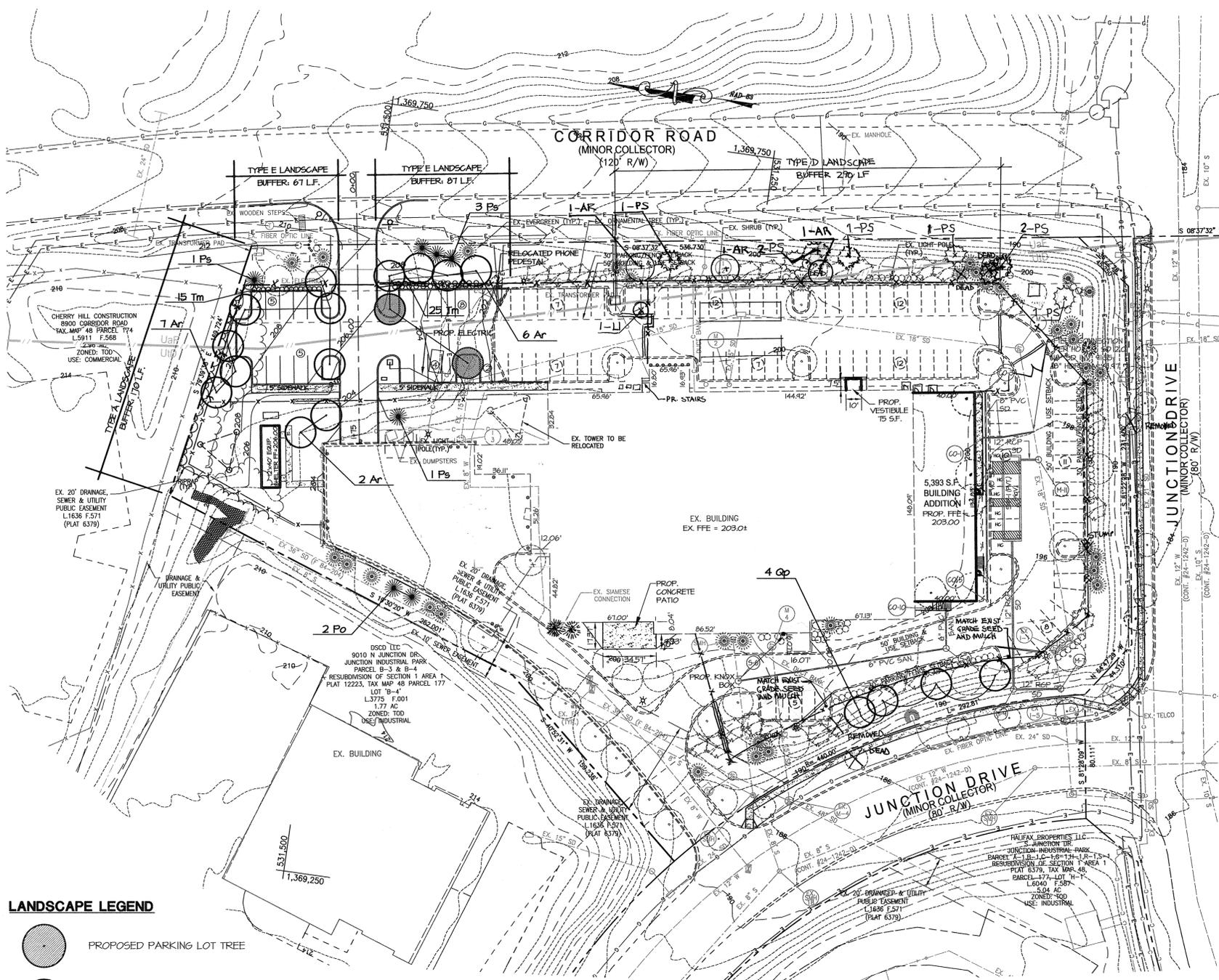
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VERIZON WIRELESS-ANNAPOLIS JUNCTION OFFICE
THE JUNCTION INDUSTRIAL PARK, PARCEL A-1
SITE DEVELOPMENT PLAN
SEDIMENT CONTROL DETAILS

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ZONED: TOD ~ TAX MAP: 48 ~ GRID: 19
6TH ELECTION DISTRICT ~ HOWARD COUNTY, MARYLAND

DATE	REVISIONS	JOB NO.:
		10427-1880
		SCALE: AS SHOWN
		DATE: 8/9/17
		DRAWN BY: MZR
		DESIGN BY: ATS
		REVIEW BY: TON
		EXPIRATION DATE: 06/16/2019
		SHEET: 12A OF 17

SHEET: SDP-12A



GENERAL NOTES:

- PROPOSED BUILDING ADDITIONS, EQUIPMENT SHELTER AND CELL TOWER RELOCATION GENERATE NO LANDSCAPE REQUIREMENTS.
- PROPOSED PARKING GENERATES LANDSCAPE REQUIREMENTS. SEE SCHEDULES A & B THIS SHEET FOR LANDSCAPE CALCULATIONS.
- THERE IS AN APPROVED LANDSCAPE PLAN (SDP-95-31) THAT ADDRESSES LANDSCAPE REQUIREMENTS FOR EXISTING SITE CONDITIONS.
- SITE IMPROVEMENTS REQUIRE THE REMOVAL OF TEN (10) SHADE TREES (4 - QUERCUS PALUSTRIS, 3 - ACER RUBRUM, AND 3 - FRAXINUS PENNSYLVANICA), SEVEN (7) EVERGREENS (5 - PINUS STROBUS AND 2 - PICEA OMORIKA) AND THE REMOVAL OF TWO (2) INVASIVE SHRUBS. THE TEN (10) SHADE TREES AND SEVEN (7) EVERGREENS ARE TO BE REPLACED WITH NEW PLANT MATERIAL AS SHOWN ON THE PLANTING PLAN AND IN THE PLANT SCHEDULE ON THIS SHEET.
- NO SUBSTITUTIONS OF PLANT MATERIAL SHALL BE PERMITTED WITHOUT WRITTEN AUTHORIZATION OF THE LANDSCAPE ARCHITECT AND/OR HOWARD COUNTY PLANNING AND ZONING. THIS SHALL APPLY TO SUBSTITUTIONS OF SPECIES, SIZE, QUANTITY, AND LOCATION.
- TREES SHALL BE LOCATED A MINIMUM OF 5' FROM SEWER/WATER CONNECTIONS. CONTRACTOR SHALL BE LIABLE FOR DAMAGE TO ANY AND ALL PUBLIC AND PRIVATE UTILITIES, WATER AND SEWER LINES.
- CONTRACTOR SHALL SLIGHTLY ADJUST PLANT LOCATIONS IN THE FIELD AS NECESSARY TO BE CLEAR OF DRAINAGE SWALES AND UTILITIES. FINISHED PLANTING BEDS SHALL BE GRADED SO AS NOT TO IMPEDE DRAINAGE AWAY FROM BUILDINGS.
- SEEDED AREAS THAT WASH OUT MUST BE FILLED AND GRADED AS NECESSARY AND THE RESEEDED. SOME TYPE OF ANCHORING METHOD SHOULD THEN BE USED TO HOLD SEED AND MULCH IN PLACE; THIS IS ESPECIALLY IMPORTANT AROUND WATER COURSED, IN SWALES AND AREAS OF CONCENTRATED FLOWS, AND ON SLOPES.
- THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL.
- FINANCIAL SURETY FOR THE REQUIRED LANDSCAPING IN THE AMOUNT OF \$7,950 (19 SHADE TREES @ \$300.00 EA., 7 EVERGREENS @ \$150.00 EA, AND 40 SHRUBS @ \$30.00) HAS BEEN POSTED AS A PART OF THE DEVELOPER'S AGREEMENT.
- THERE ARE NO SPECIMEN TREES ONSITE.

LEGEND:

- EX. 2' CONTOUR
- EX. 10' CONTOUR
- EX. RIGHT OF WAY
- EX. PROPERTY LINE
- EX. ADJ. PROPERTY LINE
- EX. SETBACK LINE
- EX. BUILDING
- EX. PAVEMENT
- EX. CURB
- EX. CONCRETE
- EX. FENCE
- EX. SOILS
- EX. OVERHEAD LINE
- EX. UNDERGROUND LINE
- EX. ELECTRIC LINE
- EX. SANITARY SEWER
- EX. STORM DRAIN
- EX. WATER
- ⊗ EX. LIGHT POLE
- ⊙ EX. BOLLARD
- ▭ PROP. BUILDING
- ▭ PROP. CONCRETE
- ▭ PROP. CONCRETE HATCH
- ▭ PROP. GRAVEL PATH
- ▭ PROP. FENCE
- PROP. 2' CONTOUR
- PROP. 10' CONTOUR
- PROP. SANITARY SEWER
- PROP. STORMDRAIN

PLANT SCHEDULE

Shade Trees

Key	Quantity	Botanical Name / Common Name	Size	Root	Remarks
Ar	18	Acer rubrum 'October Glory' / 'October Glory' Red maple	2 1/2" - 3" cal. min.	B & B	specimen
Op	4	Quercus palustris / Pin oak	2 1/2" - 3" cal. min.	B & B	specimen

Evergreens

Key	Quantity	Botanical Name / Common Name	Size	Root	Remarks
Po	2	Picea omorika / Siberian spruce	6'-8'	B & B	12'O.C.
Pw	13	Pinus strobus / Eastern white pine	6'-8'	B & B	12'O.C.

Shrubs

Key	Quantity	Botanical Name / Common Name	Size	Root	Remarks
Tm	40	Taxus x media 'Densiformis' / 'Densiformis' Yew	24"-30"	B & B	3'O.C.

ORNAMENTAL TREE (IN FILTERA BOX)

Key	Quantity	Botanical Name / Common Name	Size	Root	Remarks
Li	1	Lagerstroemia indica / Crape Myrtle	8'-10' TALL	B & B	AS SHOWN

GENERAL NOTES CONT:

12. THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 16.124 OF THE HOWARD COUNTY CODES AND LANDSCAPE MANUAL. FINANCIAL SURETY FOR REVISION #2 PROPOSED ADDITIONAL LANDSCAPING IN THE AMOUNT OF \$2,100 (3 NEW SHADE TREES @ \$300 EACH AND 8 NEW EVERGREENS @ \$150.00 EA.) HAS BEEN POSTED AS PART OF GRADING PERMIT G17000263.

SCHEDULE A PERIMETER LANDSCAPE EDGE

CATEGORY	PARKING ADJACENT TO ROADWAY	ADJACENT TO PERIMETER PROPERTIES	MAINTENANCE YARD TO RIGHT-OF-WAY
LANDSCAPE TYPE- NON-RESIDENTIAL	E	A	C
LINEAR FEET OF ROADWAY FRONTAGE/ PERIMETER	154'	110'	29'
CREDIT FOR EXISTING VEGETATION (YES, NO, LINEAR FEET) (DESCRIBE BELOW IF NEEDED)	NO	NO	NO
CREDIT FOR WALL, FENCE OR BERM (YES, NO, LINEAR FEET) (DESCRIBE BELOW IF NEEDED)	NO	NO	NO
NUMBER OF PLANTS REQUIRED SHADE TREES EVERGREEN TREES SHRUBS	4 SHADE TREE 34 SHRUBS	3 SHADE TREE	8 SHADE TREE 15 EVERGREEN
NUMBER OF PLANTS PROVIDED SHADE TREES EVERGREEN TREES OTHER TREES (21 SUBSTITUTION) SHRUBS (21 SUBSTITUTION) DESCRIBE PLANT SUBSTITUTION CREDITS BELOW IF NEEDED	4 SHADE TREE 40 SHRUBS	3 SHADE TREE	4 SHADE TREE 8 ORNAMENTAL (21 FOR SHADE) 13 EVERGREEN 20 SHRUBS (11 SHADE OR EVERGREEN)

SCHEDULE B PARKING LOT INTERNAL LANDSCAPING

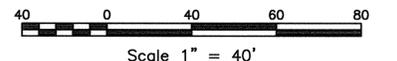
NUMBER OF PARKING SPACES	24
NUMBER OF LANDSCAPE ISLANDS REQUIRED (1 ISLAND/20 SPACES)	2
NUMBER OF LANDSCAPE ISLANDS PROVIDED	5
NUMBER OF TREES REQUIRED	2
NUMBER OF TREES PROVIDED SHADE TREES OTHER TREES (21 SUBSTITUTION)	2 0

*2 PROP. EVERGREENS REPLACE EVERGREENS REMOVED FOR INSTALLATION OF RCE SWITCHGEAR

STANDARD LANDSCAPE PLAN NOTE

"AT THE TIME OF PLANT INSTALLATION, ALL SHRUBS AND TREES LISTED AND APPROVED ON THE LANDSCAPE PLAN, SHALL COMPLY WITH THE PROPER HEIGHT REQUIREMENT IN ACCORDANCE WITH THE HOWARD COUNTY LANDSCAPE MANUAL. IN ADDITION, NO SUBSTITUTIONS OR RELOCATIONS OF THE REQUIRED PLANTINGS MAY BE MADE WITHOUT PRIOR REVIEW AND APPROVAL FROM THE DEPARTMENT OF PLANNING AND ZONING. ANY DEVIATION FROM THE APPROVED LANDSCAPE PLAN MAY RESULT IN DENIAL OR DELAY IN THE RELEASE OF LANDSCAPE SURETY UNTIL SUCH TIME AS ALL REQUIRED MATERIALS ARE PLANTED AND/OR REVISIONS ARE MADE TO THE APPLICABLE PLANS."

"THE OWNER, TENANTS AND/OR THEIR AGENTS SHALL BE RESPONSIBLE FOR MAINTENANCE OF THE REQUIRED LANDSCAPING INCLUDING BOTH PLANT MATERIALS AND BERMS, FENCES AND WALLS. ALL PLANT MATERIALS SHALL BE MAINTAINED IN GOOD GROWING CONDITION, AND WHEN NECESSARY, REPLACED WITH NEW MATERIALS TO ENSURE CONTINUED COMPLIANCE WITH APPLICABLE REGULATIONS. ALL OTHER REQUIRED LANDSCAPING SHALL BE PERMANENTLY MAINTAINED IN GOOD CONDITION, AND WHEN NECESSARY, REPAIRED OR REPLACED."



LANDSCAPE LEGEND

- PROPOSED PARKING LOT TREE
- PROPOSED SHADE TREE
- PROPOSED EVERGREEN TREE
- PROPOSED SHRUB
- EXISTING SHADE TREE
- EXISTING EVERGREEN TREE
- EXISTING ORNAMENTAL TREE
- EXISTING SHRUB

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
 CHIEF, DEVELOPMENT ENGINEERING DIVISION
 DATE: 8/22/18
 CHIEF, DIVISION OF LAND DEVELOPMENT
 DATE: 8/22/18
 DIRECTOR, DEPARTMENT OF PLANNING AND ZONING

FOR REVISION #2 ONLY

NON-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. 3111
 EXPIRATION DATE: 4-21-2017

DEVELOPER:
 VERIZON WIRELESS
 7600 MONTPELIER ROAD
 FLOOR 2 SOUTH
 LAUREL, MD 20723
 C/O Mark Jefferson
 PHONE: 630-405-8400

MORRIS & RITCHIE ASSOCIATES, INC.
 ENGINEERS, PLANNERS, SURVEYORS AND LANDSCAPE ARCHITECTS

14280 PARK CENTER DRIVE, SUITE A
 LAUREL, MARYLAND 20707
 (410) 792-9792 or (301) 776-1690
 FAX (410) 792-7395

VERIZON WIRELESS - ANNAPOLIS JUNCTION OFFICE ADDITION
 THE JUNCTION INDUSTRIAL PARK, PARCEL A-1
 SITE DEVELOPMENT PLAN

LANDSCAPE PLAN

LIBER 3677 ~ FOLIO 368 ~ PARCEL A-1, P/O TM PARCEL 177
 ZONED: TOD ~ TAX MAP: 48 ~ GRID: 19
 6TH ELECTION DISTRICT ~ HOWARD COUNTY, MARYLAND

DATE	REVISIONS	JOB NO.:
3/1/17	REMOVE EX. PARKING TO INSTALL MECHANICAL YARD	10427-406

SCALE: 1" = 40'
 DATE: 7/25/08
 DRAWN BY: CMG
 DESIGN BY: CMG/KSK
 REVIEW BY: KSK
 SHEET: 13 OF 17

PLANTING SPECIFICATIONS

PART 1 GENERAL:

1.01 DESCRIPTION:

- Work consists of all labor, materials, equipment and services necessary for and incidental to the execution and completion of THE FINAL LANDSCAPE PLAN as indicated on the Drawings and specified herein.
- Include:
 - Layout.
 - Furnishing of tree protection and planting materials.
 - Preparation, planting operations, mulching and staking.
 - Maintenance.

1.02 REFERENCES AND QUALITY ASSURANCE:

- Landscape Contractors Association MD-DC-VA (LCA), Landscape Specification Guidelines, latest edition except where superseded by specific requirements herein.
- American Association of Nurserymen (A.A.N.): American Standard for Nursery Stock, A.N.S.I. Z60.1, latest edition.
- Nomenclature: In accordance with Hortus Third, latest edition, by the staff of the L. H. Bailey Hortorium, Cornell University.
- Maryland Department of Transportation, State Highway Administration (MSHA) Standard Specifications for Construction and Materials, October 1993, as amended to date. Delete references to "Measurement and Payment".
- National Arborist Association, Standard for Pruning of Shade Trees, Guying of Shade Trees, Fertilizing Shade and Ornamental Trees and Pesticides Application Operations, latest edition.
- Maryland Department of Transportation, State Highway Administration (MSHA) Standard Specifications for Construction and Materials, October 1993, as amended to date. Delete references to "Measurement and Payment".

1.03 STANDARD OF COMPARISON:

- When requested by the Owner's Representative, the Contractor shall obtain approval of a "standard" of comparison, prior to the delivery of plant material to the site.
 - Contact the Owner's Representative to schedule an inspection for approval of the "standards" for plant material to be installed at the project site.
 - "Standards" shall be assembled at the project site for review and approval, or at the Contractor's principal business location, as determined by the Owner's Representative. Approved "standards" may be planted at the project site.

1.04 SUBMITTALS:

- Source: Notify the Owner's Representative, in writing, of the source of all material at least ten (10) working days prior to delivery at the project site.
- Samples and Certifications:
 - If requested, a mulch sample shall be provided at the site for approval by the Owner's Representative (1 C.F. minimum).
 - Submit certification of peat moss compliance with referenced specifications.

1.05 DELIVERY, STORAGE AND HANDLING:

- Store plants that cannot be planted within 8 hours in a sheltered place. Water and maintain as required until planted.
- Transport and handle plants so that foliage and roots are protected from breakage, sun and wind. Tops or roots of plants allowed to dry out or which have been damaged or disturbed root systems may be rejected.
- B & B (balled and burlapped) plants: Firm, natural balls of soil, with size and depth of ball in accordance with A.A.N. Standards.

1.06 QUANTITIES AND SUBSTITUTIONS:

- Quantities of plant material are based upon the plant lists shown on the Drawings.
- Substitutions
 - Bidders shall notify the Owner's Representative if specified plants are not available from sources within 100 miles of the project site, giving the names of all sources contacted.
 - If an acceptable source cannot be located for the specified plants, the Owner's Representative will select a substitute and notify the Bidders of the approved substitution for the Bid to be based upon, or provide a source for the originally specified plant.
 - Substituted plants shall be of the same size and condition as the original plant specified.

1.07 PROJECT CONDITIONS:

- Planting Season:
 - Primary planting season: September 15 to May 15.
 - Other periods with written approval from the Owner's Representative.
- Existing Conditions: Notify Miss Utility (1-800-257-7777), and the Owner's Representative prior to planting operations. Verify the location of underground utilities.

1.08 DEFINITIONS:

- Diameter at Breast Height (DBH): The diameter of a tree measured at a point on the trunk 4.5 feet above the ground.
- Initial Acceptance: Occurs when all plant material is in place in accordance with the specifications and approved by the Owner's Representative.
- Maintenance Period: From initial acceptance of the plantings, and continuing thereafter for a period of 12 months.
- Owner's Representative: The Landscape Architect or other Qualified Professional designated by the Owner or Developer of the Project.
- Retention: The deliberate holding and protecting of existing trees, shrubs or herbaceous plants on the site.
- Specimen Tree: A tree which exists on the project site prior to construction or planting having a 30 inch or greater DBH, or tree having 75 percent or more of the diameter of the current state or county champion tree of that same species.
- Start of Planting: Installation of plant material into excavated pits or beds.
- Final Acceptance: Occurs after Contractor has completed all outstanding items, as determined by the Owner's Representative, at the end of the maintenance period.

1.09 SURVIVAL REQUIREMENT AND REPLACEMENTS:

- The minimum survival rate shall be 100 percent of the total number of trees and shrubs planted at the end of the 12-month maintenance period.
- Replacement materials shall be the same size as the original plant material taking into account any growth that has occurred since original installation.
- Methods of installation shall be identical to the original.

1.10 PENALTY FOR VIOLATION:

- Immediately following the completion of construction and installation of the plantings, the owner or owner's representative will be notified for an inspection of the entire project site.
- If, upon Final Acceptance Inspection, trees and other vegetation designated as retention plant material are found to be damaged or dead due to mechanical intrusion or related construction activities associated with the landscape contractors installation and maintenance of the said plan, then replacement equivalent will be required.

PART 2 PRODUCTS:

2.01 PLANTS:

- Plant materials shall meet or exceed the requirements of A.A.N. standards, or as amended herein.
- Plants shall be typical of the species and variety, and have a normal habit of growth with well established root systems.
- Sound, healthy, vigorous, free from plant diseases, insect pests or their eggs and without suckers or evidence of suckering.
- Trees and shrubs shall be freshly dug and nursery grown. They shall have been grown under climatic conditions similar to those in the locality of the project or properly acclimated to conditions of the project locality.
- Plants cut back from larger sizes or pruned prior to delivery will not be accepted. of the project or properly acclimated to conditions of the project locality. All container grown plants shall be well rooted & established in the container in which they are sold.
- Measurements: The caliper of deciduous trees (except seedlings and whips) shall be measured 6-inches above ground level for trees up to and including 4 inch caliper and 12 inches above ground level for material larger than 4 inch caliper. Seedlings and whips shall be measured at the root collar.

2.02 DECIDUOUS SHADE TREES:

- Single straight leader, well branched, and symmetrical, without suckers or evidence of suckering, according to their normal habit.
- Trees planted within five (5) feet of pedestrian ways, parking lots or roads shall be free from branches up to eight (8) feet in height from finish grade.

2.03 EVERGREENS:

Sheared evergreen plant material shall not be acceptable.

2.04 SHRUBS:

- At least 75% of the individual branches or canes of a shrub shall be to the height specified.

2.05 HERBICIDES:

- Contact herbicide shall be "Round-up" or approved equal.
- Pre-emergence herbicide shall be "Snapshot" or approved equal.

2.06 TOPSOIL FOR AMENDING EXISTING SOIL:

- General Requirements (only where required by details on the Drawings):
 - Natural, friable sand loam topsoil which is free of subsoil, clay lumps, stones, stumps, roots or similar objects larger than 1-inch.
 - Free of brush, objectionable weeds and litter or other substance which is harmful to plant growth.
- In accordance with M.S.H.A. Item 920.01.02 for Furnished Topsoil if borrow topsoil is required from an off-site location.

2.07 FERTILIZER FOR POST PLANTING:

- 5-10-5 (Plant food by minimum percentages.)

(N)	Total Nitrogen	5
(P2O2)	Available Phosphoric Acid	10
(K2)	Soluble Potash	5
- Fertilizer shall be slow release over a minimum 3 year period. Fertilizer shall be delivered to the site with formulas attached.

2.08 PEAT MOSS:

Baled sphagnum peat moss, Type I-A, conforming to Federal Specification Q-P-166e.

2.09 MULCH:

- Mulch shall be the following as indicated on the Drawings.
 - Shredded hardwood.
 - Pine Straw.
- Mulch shall have been prepared within the last four (4) months.

2.10 WATER:

Potable; if not available at the site from a public water supply, the Contractor shall provide water at no additional cost to the Owner.

2.11 ANTI-TRANSPIRANT:

- Shall be the following or approved equal:
- "Wilt-Pruf"
Wilt-Pruf Products Inc.
P. O. Box 469
Essex, CT 06426
(203) 767-7033
or approved equal.

2.12 ACCESSORIES:

- Tree guying:
 - Stakes: 2 inch x 2 inch rough sawn oak stakes, notched to hold wire, length as required to secure the tree.
 - Wire: Galvanized steel wire, doubled.
 - Sleeves: Nylon reinforced green vinyl hose.
- Tree shelters, netting and stakes: Extruded twin-walled polypropylene with ultra-violet stabilizer and anti-abrasion rim as manufactured by:
 - Tubex
P.O. Box 7097
Saint Paul, MN 55107
(612) 228-0535
or approved equal.

- Stake shall be oak, pointed, 1 inch x 1 inch x 3 feet nominal.
- Protective netting: Flexible plastic mesh capable of covering the top opening of the tube to prevent entry by birds.

PART 3 EXECUTION:

3.01 INITIAL INSPECTIONS:

- Pre-construction meeting:
 - Prior to the beginning of any clearing, grading or disturbance of the site, a meeting at the project site shall be held with the Contractor and Owner's Representative.
 - The following items, and others as deemed necessary, will be reviewed as applicable to the Project:
 - Staked limits of required retention areas and protection fencing, proposed limits of clearing and grubbing, the proposed location of sediment control devices, and the sequence of operations.
 - Staking and flagging shall be completed by the Contractor prior to the pre-construction meeting.
 - Designated adjustments to the proposed limits and locations of items reviewed in the field during the pre-construction meeting shall be incorporated prior to beginning construction.
- Pre-planting meeting:
 - Prior to the beginning of planting operations, a meeting shall be held at the project site with the Contractor and Owner's Representative to review the following, as applicable to the project:
 - Staked limits, of proposed planting areas, completed prior to the meeting.
 - Areas to receive selective application of herbicides prior to planting, if applicable.
 - Proposed location of temporary and permanent fencing.
 - Proposed schedule, sequence of planting operations and other requirements.

3.02 PREPARATION:

- Tree protection fencing, signage and other pre-construction activities noted on the Drawings for retention areas shall be installed prior to any on-site clearing or grading operations.
- Additional temporary, and permanent fencing, shall be installed in conjunction with or prior to planting operations as shown on the Drawings.
- Plant Locations: As shown on the Drawings, to dimensions if shown, or as detailed if not specifically labeled. Locations subject to review by the Owner's Representative prior to planting.
- Utilities: The Contractor shall locate existing and proposed utilities prior to excavation of planting holes.
 - If a conflict is identified between the location of utilities and proposed planting locations, the Owner's Representative shall establish an alternate location for plants as required to avoid the conflict.
 - Bidders shall notify the Owner's Representative of potential conflicts identified prior to submission of a Bid.
- No plant material shall be installed until the Owner's Representative has approved the finish grade of areas to receive planting.

3.03 EXCAVATION:

- Unclassified: Excavate and remove surplus materials encountered, without additional cost to the Owner. Retain only sufficient soil to form soil wells as shown on the Drawings. Disposal of surplus material may be on-site if approved by the Owner's Representative.
- Underground obstruction, rock or other obstructions too massive to remove: Notify Owner's Representative for further direction. Alternate locations will be selected. Make such relocations without additional compensation.

3.04 PLANTING PROCEDURES:

- Do not plant when ground is frozen or excessively wet.
- Set plants straight and plumb and at such a level, that after settlement the first lateral root is flush with the adjacent ground surface.
- When B&B or container plants are set, planting soil shall be carefully tamped around the base of the balls to prevent voids. All burlap, rope, wires, etc., shall be removed from the tops of balls. Plastic/nylon cords or cloth shall not be left in place on balled materials.
- Backfill plants and tamp to two-thirds depth of pit and thoroughly water before bringing backfill up to proper grade. Thoroughly water the plant again after the soil well has been completely formed in-place.
- Wells Around Trees and Shrubs: After planting is complete, form a soil well around designated plants, extending to the outer limit of the plant pit in accordance with the planting details shown on the Drawings.
- Designated Planting Beds: All vegetative growth shall be removed to a sufficient depth to insure a weed-free bed. Till the existing soil to a depth of 8-inches throughout the designated bed areas. The edge of all planting beds shall be cut vertically and the soil recessed within 1 foot of the bed edge so that the mulch is flush with adjacent grade when the installation has been completed.

3.05 MULCHING:

- Plants and beds shall receive a 2 to 4 inch cover of mulch. Mulch shall be installed within 8 hours after planting has been completed.
- Mulch, surrounding planting mass areas, shall provide a uniform and contiguous surface, and appearance between and around all plant material, buildings and paved areas.

3.06 STAKING, WRAPPING AND GUYING:

- Stake trees, which require staking as shown on the Drawings, during the same day as planting.
 - Guying shall be in accordance with the Details.
 - Stakes shall be securely driven in ground and plants guyed to provide and maintain adequate support.

3.07 PRUNING AND ANTI-TRANSPIRANT APPLICATION:

- Pruning: Any broken or damaged branches shall be removed. Damage, removal or pruning of tree leaders shall be cause for rejection.
- Anti-transpirant: Deciduous plants, installed from May 1st to September 15th shall receive application in accordance with the manufacturer's recommendations.

3.08 POST-PLANTING FERTILIZATION:

- Notify Owner's Representative prior to fertilizing operations.
- Approximately 1 year after planting, but prior to the maintenance agreement's expiration, the Contractor shall fertilize all plant material. Plant foliage shall be completely dry at the time of application. Fertilizer adhering to plant foliage after application shall be removed. Water thoroughly after application.
- Rate of application shall be in accordance with the fertilizer manufacturer's recommendations or the following:
 - Shrubs: 4 pounds of 5-10-5 per 100 square feet.
 - Trees: 2 pounds of 5-10-5 per inch of caliper distributed uniformly in planting well.

3.09 CLEAN-UP:

- Excess and waste materials shall be removed from the site before or upon completion of planting operations, or daily if required by the Owner's Representative.
- Repair turf areas and other existing conditions damaged during planting operations, including regrading, seeding and mulching to the satisfaction of the Owner's Representative.

3.10 WARRANTY:

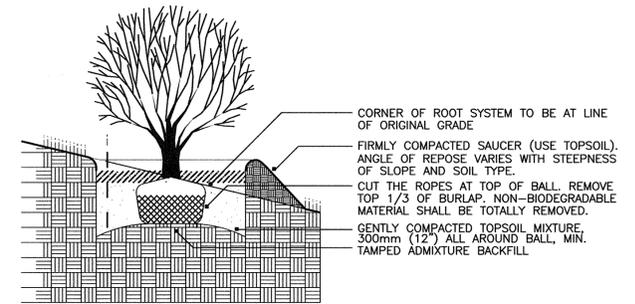
- Contractor shall warrant all plant material for a period of one (1) full year after the date of substantial completion against defects, unsatisfactory growth, disease or death.

3.11 MAINTENANCE:

- Contractor shall inspect and provide necessary services throughout the 12-month maintenance period.
 - Watering as required for local conditions.
 - Inspection for pests and disease shall be performed a minimum of two (2) times within the initial year, after spring leaf-out and at mid-summer, or more frequently if necessary to control problems.
 - Weeding and removal of invasive plants shall be performed a minimum of four (4) times per year, during the first two weeks of the months of May, June, July and August.
 - Plant material shall be re-mulched, just prior to the maintenance agreement's expiration, with a minimum 1-inch depth of new mulch.
 - Fencing, signs, stakes and guys shall be tightened, repaired or replaced as necessary throughout the maintenance period in accordance with original details and installation requirements. Ensure trees to remain plumb and upright.
- Remove and replace dead or damaged plant material to comply with the Minimal Survival requirement in accordance with Item 1.09 above.
- Notify Owner's Representative prior to initiating maintenance operations.

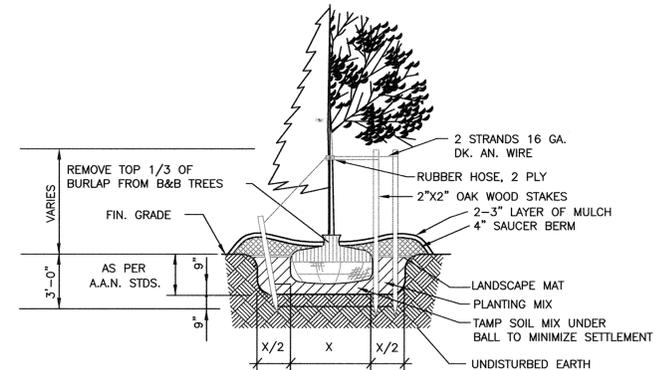
3.12 ACCEPTANCE:

Contractor must contact the Owner at least ten working days in advance to schedule acceptance inspection(s).



SHRUB PLANTING DETAIL
(BALL & BURLAP OR CONTAINER)

NOT TO SCALE



SHADE, FLOWERING OR
EVERGREEN TREE PLANTING DETAIL

NOT TO SCALE

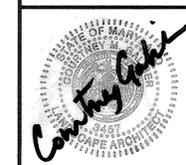
APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

8/13/08
DATE
CHIEF, DEVELOPMENT ENGINEERING DIVISION
8/22/08
DATE
CHIEF, DIVISION OF LAND DEVELOPMENT
8/22/08
DATE
DIRECTOR, DEPARTMENT OF PLANNING AND ZONING



MORRIS & RITCHIE ASSOCIATES, INC.
ENGINEERS, PLANNERS, SURVEYORS AND LANDSCAPE ARCHITECTS

14280 PARK CENTER DRIVE, SUITE A
LAUREL, MARYLAND 20707
(410) 792-9792 or (301) 778-1690
FAX (410) 792-7395



VERIZON WIRELESS - ANNAPOLIS JUNCTION OFFICE ADDITION
THE JUNCTION INDUSTRIAL PARK, PARCEL A-1
SITE DEVELOPMENT PLAN

LANDSCAPE DETAILS

LIBER 3677 ~ FOLIO 368 ~ PARCEL A-1, P/O TM PARCEL 177
ZONED: TOD ~ TAX MAP: 48 ~ GRID: 19
6TH ELECTION DISTRICT ~ HOWARD COUNTY, MARYLAND

DATE	REVISIONS	JOB NO.:
		10427.406
		SCALE: N/A
		DATE: 7/25/08
		DRAWN BY: CG
		DESIGN BY: CG
		REVIEW BY: DRB
		SHEET: 14 OF 17

DEVELOPER
VERIZON WIRELESS
7600 MONTPELIER ROAD
FLOOR 2 SOUTH
LAUREL, MD 20723
C/O Mark Josephson
PHONE: 630-498-8400

LITHONIA LIGHTING

FEATURES & SPECIFICATIONS

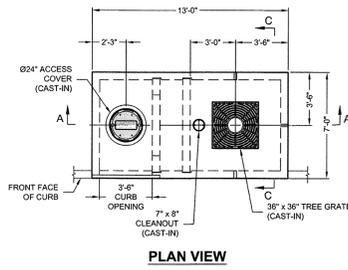
INTENDED USE — Ideal for parking areas, street lighting walkways and car lots.

CONSTRUCTION — Rugged, die-cast, soft corner aluminum housing with 3/16" nominal wall thickness. Expanded 4" soft corner arm for pole or wall mounting is standard. Die-cast clear frame has impact-resistant, untempered glass lens that is fully gasketed with non-piece tubular silicone.

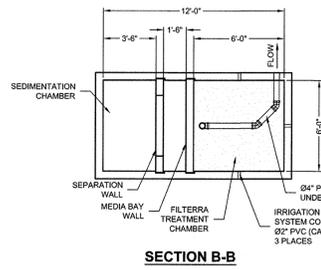
FINISH — Standard finish is dark bronze (GDM) polyester powder finish with other architectural colors available.

OPTICAL SYSTEM — Anodized aluminum hydroformed reflectors: ES full cutoff distribution (E2 approved); R2 (approved); R3 (forward beam) and R5 (square). High performance anodized, registered aluminum reflectors ES full cutoff distribution (E2 approved); R2 (approved) and SRSC (forward beam, sharp cutoff). Registered reflectors attach with tool-less fasteners and are replaceable and interchangeable.

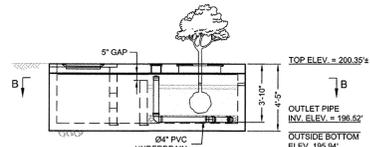
ELECTRICAL SYSTEM — High efficiency, high power factor ballast for 100W/150W/200W/250W/300W/350W/400W/450W/500W/550W/600W/650W/700W/750W/800W/850W/900W/950W/1000W/1050W/1100W/1150W/1200W/1250W/1300W/1350W/1400W/1450W/1500W/1550W/1600W/1650W/1700W/1750W/1800W/1850W/1900W/1950W/2000W/2050W/2100W/2150W/2200W/2250W/2300W/2350W/2400W/2450W/2500W/2550W/2600W/2650W/2700W/2750W/2800W/2850W/2900W/2950W/3000W/3050W/3100W/3150W/3200W/3250W/3300W/3350W/3400W/3450W/3500W/3550W/3600W/3650W/3700W/3750W/3800W/3850W/3900W/3950W/4000W/4050W/4100W/4150W/4200W/4250W/4300W/4350W/4400W/4450W/4500W/4550W/4600W/4650W/4700W/4750W/4800W/4850W/4900W/4950W/5000W/5050W/5100W/5150W/5200W/5250W/5300W/5350W/5400W/5450W/5500W/5550W/5600W/5650W/5700W/5750W/5800W/5850W/5900W/5950W/6000W/6050W/6100W/6150W/6200W/6250W/6300W/6350W/6400W/6450W/6500W/6550W/6600W/6650W/6700W/6750W/6800W/6850W/6900W/6950W/7000W/7050W/7100W/7150W/7200W/7250W/7300W/7350W/7400W/7450W/7500W/7550W/7600W/7650W/7700W/7750W/7800W/7850W/7900W/7950W/8000W/8050W/8100W/8150W/8200W/8250W/8300W/8350W/8400W/8450W/8500W/8550W/8600W/8650W/8700W/8750W/8800W/8850W/8900W/8950W/9000W/9050W/9100W/9150W/9200W/9250W/9300W/9350W/9400W/9450W/9500W/9550W/9600W/9650W/9700W/9750W/9800W/9850W/9900W/9950W/10000W/10050W/10100W/10150W/10200W/10250W/10300W/10350W/10400W/10450W/10500W/10550W/10600W/10650W/10700W/10750W/10800W/10850W/10900W/10950W/11000W/11050W/11100W/11150W/11200W/11250W/11300W/11350W/11400W/11450W/11500W/11550W/11600W/11650W/11700W/11750W/11800W/11850W/11900W/11950W/12000W/12050W/12100W/12150W/12200W/12250W/12300W/12350W/12400W/12450W/12500W/12550W/12600W/12650W/12700W/12750W/12800W/12850W/12900W/12950W/13000W/13050W/13100W/13150W/13200W/13250W/13300W/13350W/13400W/13450W/13500W/13550W/13600W/13650W/13700W/13750W/13800W/13850W/13900W/13950W/14000W/14050W/14100W/14150W/14200W/14250W/14300W/14350W/14400W/14450W/14500W/14550W/14600W/14650W/14700W/14750W/14800W/14850W/14900W/14950W/15000W/15050W/15100W/15150W/15200W/15250W/15300W/15350W/15400W/15450W/15500W/15550W/15600W/15650W/15700W/15750W/15800W/15850W/15900W/15950W/16000W/16050W/16100W/16150W/16200W/16250W/16300W/16350W/16400W/16450W/16500W/16550W/16600W/16650W/16700W/16750W/16800W/16850W/16900W/16950W/17000W/17050W/17100W/17150W/17200W/17250W/17300W/17350W/17400W/17450W/17500W/17550W/17600W/17650W/17700W/17750W/17800W/17850W/17900W/17950W/18000W/18050W/18100W/18150W/18200W/18250W/18300W/18350W/18400W/18450W/18500W/18550W/18600W/18650W/18700W/18750W/18800W/18850W/18900W/18950W/19000W/19050W/19100W/19150W/19200W/19250W/19300W/19350W/19400W/19450W/19500W/19550W/19600W/19650W/19700W/19750W/19800W/19850W/19900W/19950W/20000W/20050W/20100W/20150W/20200W/20250W/20300W/20350W/20400W/20450W/20500W/20550W/20600W/20650W/20700W/20750W/20800W/20850W/20900W/20950W/21000W/21050W/21100W/21150W/21200W/21250W/21300W/21350W/21400W/21450W/21500W/21550W/21600W/21650W/21700W/21750W/21800W/21850W/21900W/21950W/22000W/22050W/22100W/22150W/22200W/22250W/22300W/22350W/22400W/22450W/22500W/22550W/22600W/22650W/22700W/22750W/22800W/22850W/22900W/22950W/23000W/23050W/23100W/23150W/23200W/23250W/23300W/23350W/23400W/23450W/23500W/23550W/23600W/23650W/23700W/23750W/23800W/23850W/23900W/23950W/24000W/24050W/24100W/24150W/24200W/24250W/24300W/24350W/24400W/24450W/24500W/24550W/24600W/24650W/24700W/24750W/24800W/24850W/24900W/24950W/25000W/25050W/25100W/25150W/25200W/25250W/25300W/25350W/25400W/25450W/25500W/25550W/25600W/25650W/25700W/25750W/25800W/25850W/25900W/25950W/26000W/26050W/26100W/26150W/26200W/26250W/26300W/26350W/26400W/26450W/26500W/26550W/26600W/26650W/26700W/26750W/26800W/26850W/26900W/26950W/27000W/27050W/27100W/27150W/27200W/27250W/27300W/27350W/27400W/27450W/27500W/27550W/27600W/27650W/27700W/27750W/27800W/27850W/27900W/27950W/28000W/28050W/28100W/28150W/28200W/28250W/28300W/28350W/28400W/28450W/28500W/28550W/28600W/28650W/28700W/28750W/28800W/28850W/28900W/28950W/29000W/29050W/29100W/29150W/29200W/29250W/29300W/29350W/29400W/29450W/29500W/29550W/29600W/29650W/29700W/29750W/29800W/29850W/29900W/29950W/30000W/30050W/30100W/30150W/30200W/30250W/30300W/30350W/30400W/30450W/30500W/30550W/30600W/30650W/30700W/30750W/30800W/30850W/30900W/30950W/31000W/31050W/31100W/31150W/31200W/31250W/31300W/31350W/31400W/31450W/31500W/31550W/31600W/31650W/31700W/31750W/31800W/31850W/31900W/31950W/32000W/32050W/32100W/32150W/32200W/32250W/32300W/32350W/32400W/32450W/32500W/32550W/32600W/32650W/32700W/32750W/32800W/32850W/32900W/32950W/33000W/33050W/33100W/33150W/33200W/33250W/33300W/33350W/33400W/33450W/33500W/33550W/33600W/33650W/33700W/33750W/33800W/33850W/33900W/33950W/34000W/34050W/34100W/34150W/34200W/34250W/34300W/34350W/34400W/34450W/34500W/34550W/34600W/34650W/34700W/34750W/34800W/34850W/34900W/34950W/35000W/35050W/35100W/35150W/35200W/35250W/35300W/35350W/35400W/35450W/35500W/35550W/35600W/35650W/35700W/35750W/35800W/35850W/35900W/35950W/36000W/36050W/36100W/36150W/36200W/36250W/36300W/36350W/36400W/36450W/36500W/36550W/36600W/36650W/36700W/36750W/36800W/36850W/36900W/36950W/37000W/37050W/37100W/37150W/37200W/37250W/37300W/3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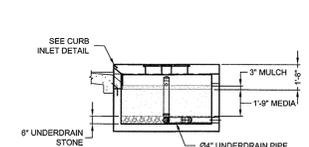
PLAN VIEW



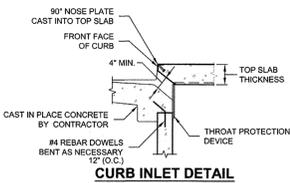
SECTION B-B



SECTION A-A



SECTION C-C



CURB INLET DETAIL

COUNT	DESCRIPTION	INSTALLED BY
1	PLANT, SEE GENERAL NOTE 6	CONTECH
0.33 CY	MULCH, SEE GENERAL NOTE 6	CONTECH
1	ENERGY DISSIPATION ROCK LAYER	CONTECH
2.33 CY	STANDARD FILTERRA MEDIA	CONTECH
0.67 CY	1/2" #4 ROUND AGGREGATE UNDERDRAIN STONE	CONTECH
1	FILTERRA FLOWKIT 806C FLOWKIT CUSTOM	CONTECH
1	36" x 36" TREE GRATE FRAME (CAST-IN, GALV.)	CONTECH
1	36" x 36" TREE GRATE WITH 12" OPENING (F)	CONTECH
1	87" x 8" CLEANOUT (F) (CAST-IN)	CONTECH
1	82" x 4" ACCESS FRAME & COVER ELEM #4100389	CONTECH
3	82" PVC IRRIGATION CONDUIT	CONTECH
1	SEALANT FOR JOINTS	CONTRACTOR
4.5 LF	2-1/2" x 2-1/2" x 14" CURB NOSING (CAST-IN)	CONTECH

- GENERAL NOTES**
- CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
 - FOR FABRICATION DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHTS, PLEASE CONTACT YOUR CONTECH ENGINEERED SOLUTIONS LLC REPRESENTATIVE. www.conteches.com
 - FILTERRA WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING.
 - STRUCTURE SHALL MEET PEDESTRIAN LIVE LOAD WITH HS-5 WHEEL LOAD MOUNTING THE CURB AND ADJACENT HS-20 LIVE LOAD SURCHARGE ON THE WALLS OF THE STRUCTURE. ASSUMING EARTH COVER OF 0' AND GROUNDWATER ELEVATION AT, OR BELOW, THE OUTLET PIPE INVERT ELEVATION. ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNDWATER ELEVATION. CASTINGS SHALL MEET AASHTO M193 AND BE CAST WITH THE CONTECH LOGO.
 - FILTERRA STRUCTURE SHALL BE PRECAST CONCRETE CONFORMING TO ASTM C-857, ASTM C-918 AND AASHTO L-900 FACTOR DESIGN METHOD.
 - PLANT, MULCH AND DISSIPATION ROCKS SUPPLIED BY CONTECH AND DELIVERED AT TIME OF SYSTEM ACTIVATION. PLANT SELECTION SHALL BE DONE BY THE ENGINEER OF RECORD IN ACCORDANCE WITH THE PROJECT PLANS AND SPECIFICATIONS.
 - VAULT TO BE FILLED WITH UNDERDRAIN STONE AND ENGINEERED MEDIA PRIOR TO SHIPMENT FROM PRECASTER. PRECASTER IS TO ENSURE LIFT POINTS/LIFT METHOD ARE LOCATED ON THE OUTSIDE OF STRUCTURE AND SUFFICIENT TO ACCOUNT FOR STONE AND MEDIA WEIGHT IN ADDITION TO STRUCTURE WEIGHT.

- INSTALLATION NOTES**
- ANY SUB-BASE, BACKFILL, DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
 - CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE FILTERRA STRUCTURE. SPREADER BAR WITH SUFFICIENT CABLE IS REQUIRED FOR SAFETY AND REDUCTION OF DAMAGE TO CONCRETE STRUCTURE.
 - CONTRACTOR TO INSTALL JOINT SEALANT BETWEEN ALL STRUCTURE SECTIONS AND ASSEMBLE STRUCTURE.
 - CONTRACTOR TO SUPPLY AND INSTALL INLET PROTECTION BAR IF REQUIRED BY LOCAL JURISDICTION.
 - CONTRACTOR TO TAKE APPROPRIATE MEASURES TO PROTECT FILTERRA MEDIA BAY FROM CONSTRUCTION RELATED ERRORS AND DAMAGE.
 - CONTECH IS RESPONSIBLE FOR ACTIVATION OF THE SYSTEM WHICH INCLUDES PLANTING OF THE SPECIFIED PLANT, MULCH INSTALLATION, AND PLACING OF DISSIPATION ROCK. ACTIVATION ONLY OCCURS WHEN THE SITE IS FULLY STABILIZED WITH FINAL PAVEMENT INSTALLED AND SWEEP CLEAN OF CONSTRUCTION SEDIMENT.
 - ALL FILTERRA UNITS MUST BE WATERED BY IRRIGATION LINES OR SPRINKLER SYSTEMS ON A REGULAR BASIS. FILTERRA UNITS MAY BE EQUIPPED WITH IRRIGATION HOLES FOR NEW OR EXISTING IRRIGATION LINES UPON REQUEST.

STRUCTURE WEIGHT
APPROXIMATE HEAVIEST PICK = 26000 LBS.
STRUCTURE IS DELIVERED IN 2 PIECES
MAX FOOTPRINT = 7 x 13'

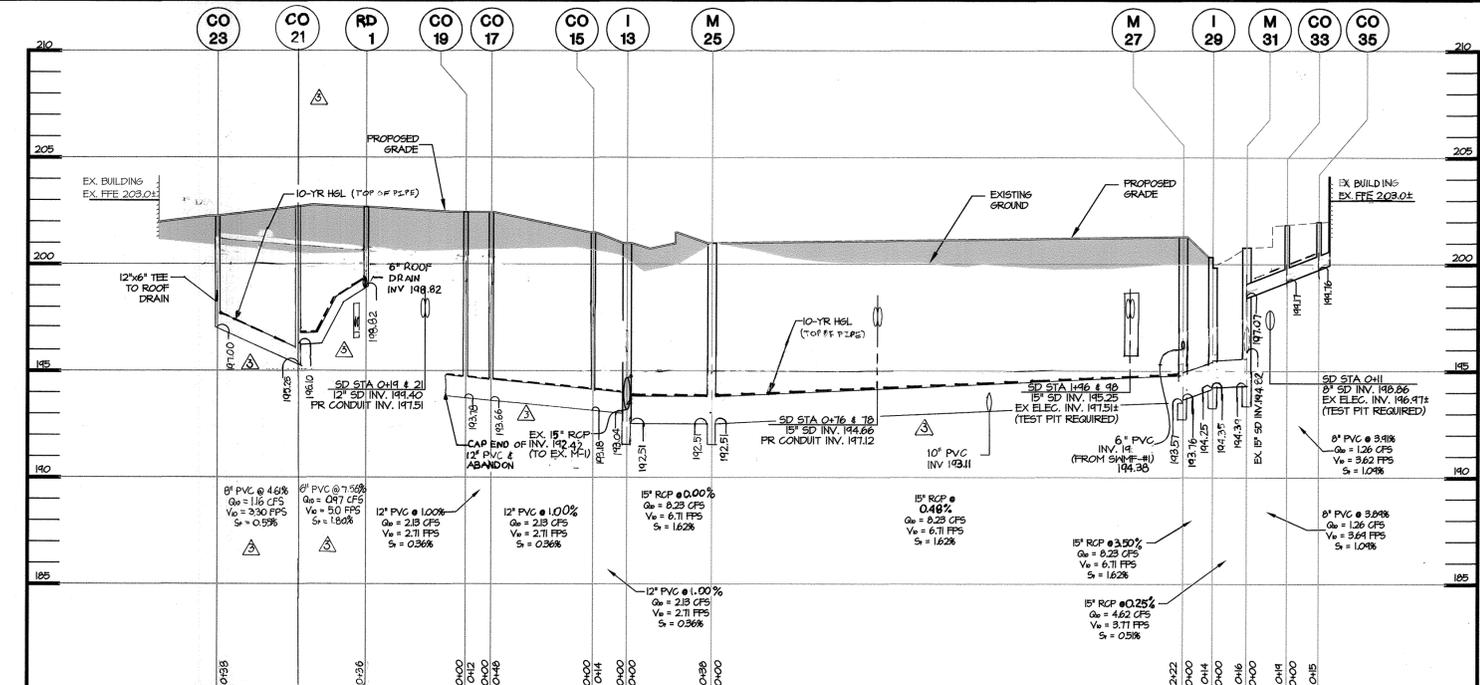
CONTECH CONTRACT DRAWING

CPIS LAYOUT 6 FTSC0606VX12

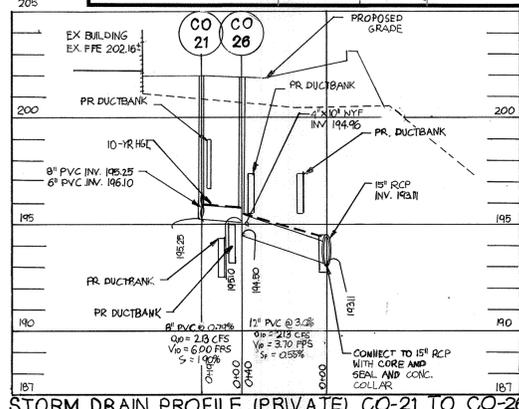
FTSC 616 549767-10
VERIZON ANNAPOLIS JUNCTION
ANNAPOLIS JUNCTION, MD
for SYSTEM: SWMF #1

CONTECH ENGINEERED SOLUTIONS LLC
ANNAPOLIS, MD
www.conteches.com

DATE: 11/7/16
DESIGNED: BAS
CHECKED: BAS
PROJECT NO: 549767
SHEET: 1 OF 1



STORM DRAIN PROFILE (PRIVATE)
I-13 TO CO-23 & I-13 TO CO-35



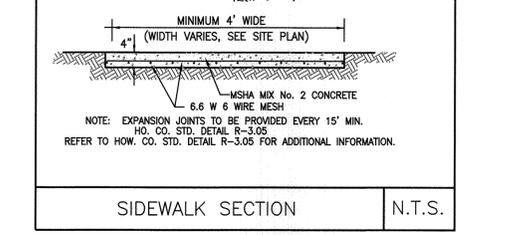
STORM DRAIN PROFILE (PRIVATE) CO-21 TO CO-26

STR NO.	TOP ELEV.	INV. IN.	INV. OUT.	TYPE	REMARKS	NORTHING	EASTING
I-13	201.00	192.50	192.42	SINGLE TYPE 'S' INLET, HOWARD COUNTY STANDARD DETAIL D-4.22		531,088.70	1,369,650.42
CO-1	198.90	---	192.26	MODIFIED PVC CLEANOUT, HOWARD COUNTY STANDARD DETAIL S-2.22			
CO-3	199.00	192.40	192.40	MODIFIED PVC CLEANOUT, HOWARD COUNTY STANDARD DETAIL S-2.22		531,089.62	1,369,599.91
CO-5	197.25	193.50	193.50	MODIFIED PVC CLEANOUT, HOWARD COUNTY STANDARD DETAIL S-2.22		531,075.64	1,369,507.81
CO-15	200.07	196.70	196.70	MODIFIED PVC CLEANOUT, HOWARD COUNTY STANDARD DETAIL S-2.22		531,097.05	1,369,639.27
CO-17	200.82	199.08	199.08	MODIFIED PVC CLEANOUT, HOWARD COUNTY STANDARD DETAIL S-2.22		531,144.22	1,369,632.04
CO-19	202.27	199.20	199.20	MODIFIED PVC CLEANOUT, HOWARD COUNTY STANDARD DETAIL S-2.22		531,142.41	1,369,620.19
CO-21	201.96	199.95	199.95	MODIFIED PVC CLEANOUT, HOWARD COUNTY STANDARD DETAIL S-2.22		531,188.86	1,369,613.08
CO-23	201.81	---	195.83	MODIFIED PVC CLEANOUT, HOWARD COUNTY STANDARD DETAIL S-2.22		531,258.05	1,369,602.49
M-25	201.31	191.25	192.51	STANDARD PRECAST MANHOLE, HOWARD COUNTY STANDARD DETAIL G-5.12		531,101.49	1,369,686.41
M-27	201.12	193.37	193.57	STANDARD PRECAST MANHOLE, HOWARD COUNTY STANDARD DETAIL G-5.12		531,313.50	1,369,654.19
I-29	200.60	194.25	194.25	TYPE A-5 PRECAST INLET, HOWARD COUNTY STANDARD DETAIL D-4.01		531,310.80	1,369,635.80
M-31	200.47	191.07	194.34	STANDARD PRECAST MANHOLE, HOWARD COUNTY STANDARD DETAIL G-5.12		531,319.62	1,369,622.83
CO-33	201.80	199.17	199.17	MODIFIED PVC CLEANOUT, HOWARD COUNTY STANDARD DETAIL S-2.22		531,316.71	1,369,603.69
CO-35	202.00	199.76	199.76	MODIFIED PVC CLEANOUT, HOWARD COUNTY STANDARD DETAIL S-2.22		531,326.01	1,369,591.06
CO-25	201.96	195.96	195.96	MODIFIED PVC CLEANOUT, HOWARD COUNTY STANDARD DETAIL S-2.22		531,214.05	1,369,608.55
CO-26	201.99	196.69	196.69	MODIFIED PVC CLEANOUT, HOWARD COUNTY STANDARD DETAIL S-2.22		531,215.66	1,369,624.74

PRIVATE STORM DRAIN STRUCTURE SCHEDULE

SIZE	TYPE	LENGTH
6"	PVC, SCHD 40	14 FT
8"	PVC, SCHD 40	34 FT
12"	PVC, SCHD 40	191 FT
15"	RCP, CL. IV	290 FT

PRIVATE STORM DRAIN PIPE SCHEDULE



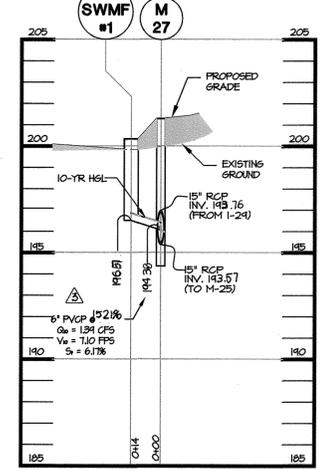
SIDEWALK SECTION N.T.S.

OPERATION AND MAINTENANCE SCHEDULE FOR FILTERRA FACILITY

- THE FILTERRA SWM FACILITY #1 IS PRIVATELY OWNED AND IT SHALL BE THE RESPONSIBILITY OF THE OWNER TO PERIODICALLY INSPECT AND CLEAN THE FACILITY TO MAINTAIN ITS OPERATION AND FUNCTION.
- THE FILTERRA SWM FACILITY SHALL BE INSPECTED YEARLY AT A MINIMUM AND AFTER ESPECIALLY SEVERE STORM EVENTS.
- WHEN SEDIMENT ACCUMULATION IS OBSERVED OR ANY DEBRIS THAT MIGHT OBSTRUCT THE INFLOW IS OBSERVED, THE FACILITY SHALL BE CLEANED.
- EACH ANNUAL VISIT CONSIST OF THE FOLLOWING TASKS:
A. INSPECTION OF FILTERRA AND SURROUNDINGS AREAS.
B. REMOVAL OF TREE GRATE AND EROSION CONTROL STONES.
C. REMOVAL OF DEBRIS, TRASH AND MULCH.
D. MULCH REPLACEMENT.
E. PLANT HEALTH EVALUATION AND PRUNING OR REPLACEMENT AS NECESSARY.
F. CLEAN AREA AROUND FILTERRA.
G. COMPLETE INSPECTION CHECKLIST.
- THE FILTERRA FACILITY OWNER(S) AND ANY HEIRS, SUCCESSORS OR ASSIGNS SHALL BE RESPONSIBLE FOR SAFETY OF THE FACILITY AND CONTINUED OPERATION, SURVEILLANCE, INSPECTION, AND MAINTENANCE THEREOF. THE OWNERS SHALL EMPLOY A QUALIFIED PERSONNEL TO MAKE YEARLY INSPECTIONS OF THE UNDERGROUND SYSTEM AND RECOMMEND REPAIRS AS DEEMED NECESSARY.

SWM (STORM FILTER) SEQUENCE OF CONSTRUCTION

- NOTIFY DESIGN ENGINEER (MRA, INC.) AT LEAST 3 DAYS BEFORE BEGINNING INSTALLATION OF FILTERRA. NOTIFY DESIGN ENGINEER (MRA, INC.) FOR AS-BUILT CERTIFICATION AT EACH STAGE OF STORMWATER MANAGEMENT FACILITY CONSTRUCTION.
- ONCE ALL AREAS HAS BEEN STABILIZED, BEGIN FACILITY INSTALLATIONS.
- INSTALL FABRICATED FILTERRA FACILITY (SWM-#1) PER THE CONSTRUCTION DRAWINGS & SPECIFICATIONS.
- INSTALL THE INLET INLET PROTECTION, OUTLET PIPE AND BACKFILL PER THE CONSTRUCTION DRAWINGS & SPECIFICATIONS.
- ACTIVATION SHOULD BE PERFORMED BY CONTECH AUTHORIZED PERSONNEL ONLY AFTER THE DRAINAGE AREA TO THE FILTERRA HAS BEEN STABILIZED.

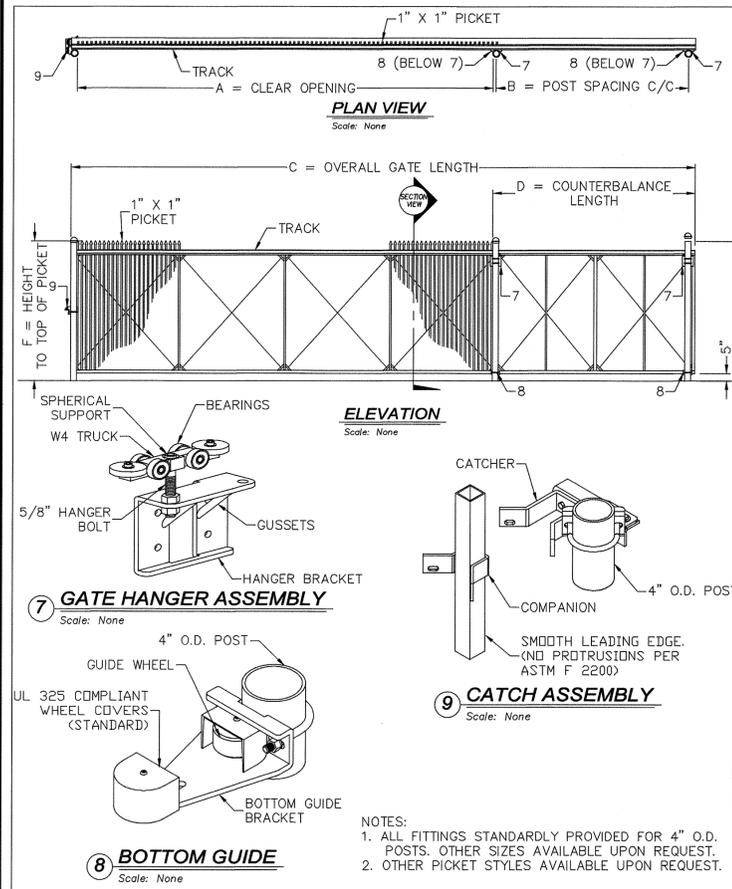


AS-BUILT PLAN

MORRIS & RITCHIE ASSOCIATES, INC.
ENGINEERS, PLANNERS, SURVEYORS AND LANDSCAPE ARCHITECTS
14280 PARK CENTER DRIVE
LAUREL, MD 20707
(410) 792-9792 / (301) 776-1690
FAX: (410) 792-7395
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MRA.GTA.COM

VERIZON WIRELESS-ANNAPOLIS JUNCTION OFFICE
THE JUNCTION INDUSTRIAL PARK, PARCEL A-1
SITE DEVELOPMENT PLAN
DETAILS AND PROFILES

DATE	REVISIONS	JOB NO.:	10427.1880
8/11/17	ADDED THIS SHEET TO PLAN SET	SCALE:	AS SHOWN
8/31/18	AS-BUILT INFORMATION ADDED TO PLAN.	DATE:	7-25-17
		DRAWN BY:	MAM/MK
		DESIGN BY:	MK
		REVIEW BY:	TM



MARK	DESCRIPTION	FORMULA	DIM.
A	CLEAR OPENING	A	-
B	COUNTERBALANCE POST SPACING C/C	(A/2)-11"	-
C	OVERALL GATE LENGTH	A x 1.5	-
D	COUNTERBALANCE LENGTH	A x 0.5	-
E	POST HEIGHT	E = F	-
F	HEIGHT TO TOP OF PICKET	F	-
G	PICKET HEIGHT	G	-

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION: [Signature] DATE: 8-30-17

CHIEF, DIVISION OF LAND DEVELOPMENT: [Signature] DATE: 9-6-17

DIRECTOR, DEPARTMENT OF PLANNING AND ZONING: [Signature] DATE: 9-6-17

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GREENWICH, N.Y. 12834
PH: (800) 328-4283 - FX: (518) 692-9404
www.tymetal.com

HEAVY DUTY CANTILEVER SLIDE GATE

