LEGEND RIGHT-OF-WAY LINE	
PROPERTY LINE	
EX. EASEMENT	· · · · · · · · · · · · · · · · · · ·
EX. CONCRETE CURB AND GUTTER	EX.C&G
EX. CURB AND GUTTER TO BE	**************************************
REMOVED  EX. EDGE OF PAVING	
EX. CONCRETE	
TO BE REMOVED DESIGNATION	(TBR)
EX. BUILDING	
EX. SIGN	EX.SIGN - EX.ID SIGN
EX. STORM DRAIN,	FX 15"D—F===
MANHOLE & INLET	(S) _= =
EX. RIP-RAP	57 8"S
EX. SANITARY SEWER, MANHOLE & CLEANOUT	S———— <u>EX.8"S</u>
EX. WATER MAIN, VALVE & FIRE HYDRANT	⊕
EX. ELECTRIC LINE	——е——е——е——е—— GM
EX. GAS LINE	GM ⊗
EX. TELEPHONE LINE, POLE & BOX	<b>⊕</b> _т————————————————————————————————————
EX. POLE WITH LIGHT	*
EX. UTILITY POLE & GUY WIRE	-C- <mark>GW</mark> ,
& GUY WIRE EX. BOLLARD	•
EX. OVERHEAD LINE	OH
EX. INDEX CONTOURS	
EX. INTERMEDIATE	396
CONTOURS EX. TREE LINE	
EX. TREE	(
"EXISTING" DESIGNATION BUILDING RESTRICTION	EX. BRL
LINE	
LANDSCAPE RESTRICTION LINE	<u></u>
PR. EASEMENT	
PR.CONCRETE CURB & GUTTER	PR,C&G
PR. IMPERVIOUS AREA	
PR. CONCRETE	
PR. RIP-RAP	\$25852585855858585858585858888888888888
PR. STORM DRAIN,	o PR.15"D
MANHOLE & INLET	⊕ <u> </u>
PR. SANITARY SEWER & CLEANOUT	9 PR.6"S
PR. WATER MAIN, VALVE & FIRE HYDRANT	¢
PR. INDEX	400
CONTOURS	
PR. INTERMEDIATE CONTOURS	396
PR. SIGN	<del>-o-</del>
PR. BOLLARD	<b>©</b>
PR. PARKING COUNT	8
"PROPOSED" DESIGNATION	N PR.
LIMIT OF DISTURBANCE	••••••••••••••••••••••••••••••••••••••
SOIL BORINGS	€ SWM-1

## GENERAL CONSTRUCTION NOTES

- ALL CONSTRUCTION ON SITE SHALL BE DONE IN ACCORDANCE WITH ALL LOCAL CODES, INCLUDING:
  - HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS STANDARD SPECIFICATIONS
  - HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS, MAY 2007, REVISED JULY 2011.

  - MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION, STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIAL, JULY 2008.

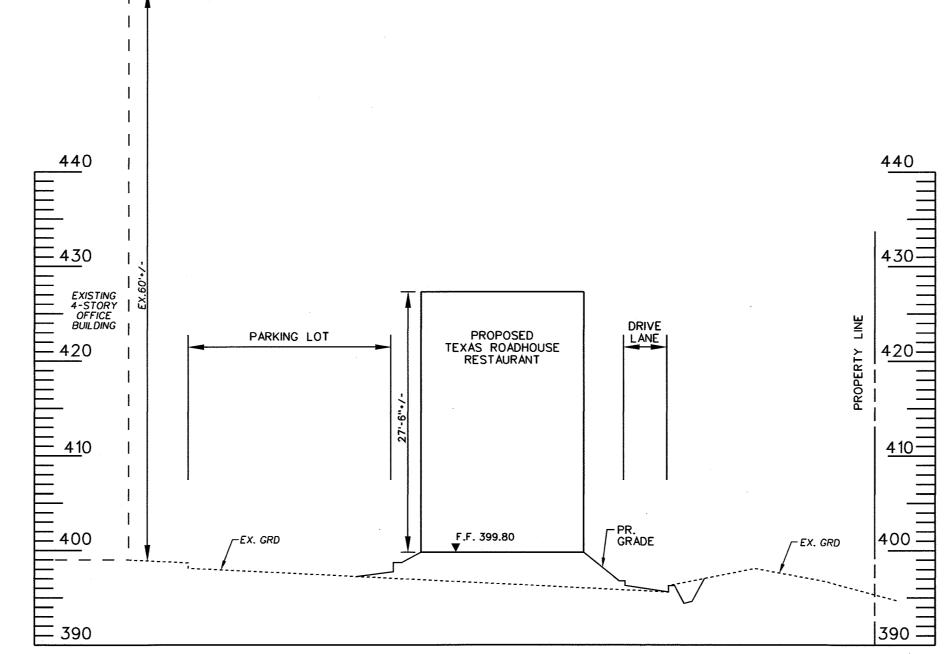
  - HOWARD COUNTY PLUMBING CODE, EXCEPT WHERE NOTED.

  - HOWARD COUNTY BUILDING CODE, EXCEPT WHERE NOTE.
- 2. CONTRACTOR SHALL NOTIFY THE FOLLOWING AT LEAST 48 HOURS PRIOR TO BEGINNING ANY WORK ON THE PROJECT:
  MISS UTILITY (800) 257-7777 VERIZON (410) 860-8104
- COMCAST CABLEVISION (800)787-3611 HOWARD COUNTY, DEPT. OF PUBLIC WORKS / BUREAU OF ENGINEERING (410) 313-2414 HOWARD COUNTY, CONSTRUCTION INSPECTION DIVISION (410) 313-3800 ENGINEER IN CHARGE (410) 229-9851
- 3. CONTRACTOR SHALL BE RESPONSIBLE TO MAKE SURE THAT ALL REQUIRED PERMITS AND APPROVALS HAVE BEEN OBTAINED PRIOR TO STARTING CONSTRUCTION. NO CONSTRUCTION OR FABRICATION SHALL BEGIN UNTIL CONTRACTOR HAS RECEIVED AND THOROUGHLY REVIEWED ALL PLANS AND OTHER DOCUMENTS APPROVED BY ALL PERMITTING AUTHORITIES
- ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THESE PLANS, SPECIFICATIONS AND REQUIREMENTS AND STANDARDS OF LOCAL GOVERNING AUTHORITY, GEOTECHNICAL REPORT AND RECOMMENDATIONS SET FORTH THEREIN ARE PART OF REQUIRED CONSTRUCTION DOCUMENTS AND TAKE PRECEDENCE UNLESS SPECIFICALLY NOTED OTHERWISE ON PLANS. CONTRACTOR SHALL NOTIFY TEXAS ROADHOUSE'S CONSTRUCTION MANAGER OF ANY DISCREPANCY BETWEEN GEOTECHNICAL REPORT, PLANS, AND OTHER DOCUMENTS.
- 5. THESE PLANS AND SPECIFICATIONS ARE SUBJECT TO MODIFICATION DURING CONSTRUCTION WHEN CONDITIONS DEVELOP THAT WERE NOT APPARENT DURING DESIGN AND PREPARATION OF THESE PLANS. ALL MODIFICATIONS MUST BE APPROVED BY LOCAL JURISDICTION PRIOR TO CONSTRUCTION AND/OR
- 6. SHOULD IT APPEAR THAT THE WORK TO BE DONE OR ANY MATTER RELATIVE THERETO IS NOT SUFFICIENTLY DETAILED OR EXPLAINED ON THESE PLANS, CONTRACTOR SHALL CONTACT ENGINEER FOR SUCH FURTHER EXPLANATIONS AS MAY BE
- . DEVIATION FROM THESE PLANS AND SPECIFICATIONS WITHOUT PRIOR WRITTEN CONSENT FROM ENGINEER AND TEXAS ROADHOUSE'S CONSTRUCTION MANAGER MAY CAUSE WORK TO BE
- 8. FAILURE TO MENTION SPECIFICALLY ANY WORK WHICH WOULD NORMALLY BE REQUIRED TO
- COMPLETE THIS PROJECT SHALL NOT RELIEVE CONTRACTOR FROM PERFORMING SUCH WORK. 9. CONTRACTOR SHALL NOTIFY ENGINEER OR TEXAS ROADHOUSE CONSTRUCTION MANAGER IN CASE OF ANY DISCREPANCY OCCURRING BETWEEN INFORMATION CONTAINED ON THESE PLANS
- 11. BALTIMORE LAND DESIGN GROUP, INC. SHALL NOT BE HELD RESPONSIBLE FOR CONSTRUCTION, MEANS, METHODS, TECHNIQUES OR PROCEDURES UTILIZED BY CONTRACTOR, NOR FOR SAFETY OF PUBLIC OR CONTRACTOR'S EMPLOYEES OR FOR FAILURE OF CONTRACTOR TO CARRY OUT WORK IN ACCORDANCE WITH CONTRACT DOCUMENTS AND STANDARD CONSTRUCTION PRACTICES.
- 12. LOCATIONS OF UNDERGROUND FACILITIES AND UTILITIES SHOWN ON THESE PLANS ARE BASED ON FIELD SURVEYS AND LOCAL UTILITY COMPANY RECORDS. THEY ARE SHOWN FOR CONVENIENCE OF CONTRACTOR AND COMPLETENESS OR ACCURACY OF SAME IS NOT GUARANTEED. IT SHALL BE CONTRACTOR'S FULL RESPONSIBILITY TO CONTACT APPROPRIATE UTILITY COMPANY. NO COMPENSATION SHALL BE PAID TO CONTRACTOR FOR DAMAGE AND REPAIR TO THESE FACILITIES CAUSED BY HIS/HER WORK FORCE. CONTRACTOR SHALL DETERMINE LOCATION AND ELEVATION OF EXISTING UTILITIES BEFORE ORDERING ANY STRUCTURE AND BEFORE STARTING TRENCH EXCAVATION.
- 13. CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT EXISTING UTILITIES WHICH ARE TO REMAIN FREE FROM DAMAGE AND MAINTAIN UNINTERRUPTED SERVICE TO ALL USERS, PROTECT WITH SAFETY FENCE OR ADEQUATE FLAGGING AS NECESSARY. ANY DAMAGE INCURRED DUE TO CONTRACTOR'S OR SUBCONTRACTOR'S ACTIONS SHALL BE REPAIRED
- 14. BEFORE COMMENCEMENT OF WORK, CONTRACTOR SHALL REVIEW ALL PLANS AND SPECIFICATIONS AND JOB SITE. ALL DIMENSIONS AND GRADES SHOWN ON THESE PLANS SHALL BE FIELD VERIFIED BY CONTRACTOR PRIOR TO CONSTRUCTION. CONTRACTOR SHALL NOTIFY EXAS ROADHOUSE'S CONSTRUCTION MANAGER IF ANY DISCREPANCIES EXIST, PRIOR TO PROCEEDING WITH CONSTRUCTION, FOR NECESSARY PLAN OR GRADE CHANGES, NO EXTRA COMPENSATION SHALL BE PAID TO CONTRACTOR FOR WORK HAVING TO BE REDONE DUE TO DIMENSIONS OR GRADES SHOWN INCORRECTLY ON THESE PLANS IF SUCH NOTIFICATION HAS
- 15. CONTRACTOR SHALL INSPECT SITE TO DETERMINE IF ANY TREES, PAVING, STRUCTURES, ETC. ARE TO BE REMOVED PRIOR TO PLACING BIDS ON SUCH ITEMS.
- 16. CONTRACTOR SHALL CLEAR PROJECT SITE OF ALL TREES, PAVING, STRUCTURES, ETC. WITHIN CONSTRUCTION AREA AS SHOWN ON EXISTING CONDITION / DEMOLITION PLAN.
- 17. WHERE REQUIRED BY ENCOUNTERED SEEPAGE CONDITIONS, DEWATERING SYSTEM CONSISTING OF SERIES OF INTERCEPTOR TRENCHES, SUMPS, AND PUMPS MAY BE USED DURING CONSTRUCTION.
- 18. CONTRACTOR SHALL MAINTAIN ALL SEDIMENT CONTROL DEVICES WITHIN LIMITS OF DISTURBANCE DURING CONSTRUCTION OF SITE IMPROVEMENTS. CONTRACTOR SHALL PROVIDE ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES AS MAY BE NECESSARY DURING
- 19. STANDARD MANUFACTURERS LENGTH OF PIPE SHALL BE USED FOR ALL WATER, SEWER, STORM DRAIN FIFES DURING CONSTRUCTION
- 20. ALL PIPE ELEVATIONS ARE TO INVERT OF PIPE
- 21. CONTRACTOR SHALL PROVIDE MINIMUM OF TWO FEET OF PROTECTIVE FILL OVER STORM DRAIN PIPES DURING CONSTRUCTION.
- 22. CONTRACTOR SHALL PLACE WITNESS POST AT TERMINUS OF ALL UTILITY STUBS.
- 23. CONTRACTOR SHALL VERIFY SIZE, LOCATION, AND ELEVATION OF ALL WATER, SEWER AND STORM DRAIN CONNECTIONS AT BUILDING WITH MECHANICAL AND PLUMBING CONTRACTORS BEFORE BEGINNING CONSTRUCTION OF SERVICE CONNECTIONS TO SERVE BUILDING.
- 25. WATER MAINS SHALL HAVE MINIMUM OF 4.0' COVER, EXCEPT WHERE DIFFERENT DEPTHS ARE
- 26. IN THE EVENT OF ANY DISCREPANCY BETWEEN ANY PLANS AND FIGURES WRITTEN THEREON,
- 27. CONTRACTOR SHALL FURNISH OWNER A LETTER STATING THAT ALL WATER MAINS HAVE BEEN STERILIZED AND PRESSURE TESTED IN ACCORDANCE WITH HOWARD COUNTY PLUMBING CODE AND PROCEDURES ESTABLISHED BY HOWARD COUNTY FIRE DEPARTMENT.
- 28. CONTRACTOR SHALL MAINTAIN MINIMUM OF TWO FEET WIDE BENCH BEHIND ALL PROPOSED CURB IN FILL AREAS, UNLESS OTHERWISE NOTED. 29. UNLESS OTHERWISE NOTED, ALL CONCRETE CURB & GUTTER SHALL BE 6" COMBINATION CONCRETE CURB AND GUTTER. FOR ADDITIONAL DETAILS, SEE HOWARD COUNTY, PLATE R-3.01.
- 30. UNLESS OTHERWISE NOTED, SIDEWALKS SHALL CONFORM TO AFOREMENTIONED HOWARD COUNTY STANDARDS, PLATE R-3.05. SLOPES, WIDTH, AND LOCATION SHALL BE AS SHOWN ON THESE PLANS. IN ADDITION, SIDEWALKS SHALL BE PLACED ON MIN. 4" CRUSHED STONE BASE (No.57) AND ARE TO BE REINFORCED WITH WIRE MESH.
- 31. CONCRETE STAIRS AND PIPE HANDRAILS, IF REQUIRED, SHALL CONFORM TO AFOREMENTIONED HOWARD COUNTY STANDARDS, PLATE G-7.01 & G-7.02.
- 32. UNLESS OTHERWISE NOTED, PAVEMENT MARKINGS SHALL BE TRAFFIC WHITE. ALL PARKING SPACES SHALL BE PAVED WITH DURABLE DUSTLESS SURFACE, PROPERLY DRAINED AND ALL PARKING SPACES SHALL BE STRIPPED PERMANENTLY.
- 33. CONTRACTOR SHALL PROVIDE ALL PAVEMENT MARKINGS AND SIGNAGE FOR HANDICAP SPACES INDICATED ON HEREON IN ACCORDANCE WITH ALL APPLICABLE CODES.
- 34. HANDICAP SPACES AND CURB RAMPS SHALL COMPLY WITH CURRENT A.D.A. GUIDELINES FOR SLOPE, LINE PAINTING, MATERIAL, AND SIGNAGE.
- 35. 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
- 36. ALL DISTURBED AREAS NOT TO RECEIVE PAVING SHALL BE STABILIZED WITH MINIMUM OF 6" TOPSOIL, SEED AND MULCH, UNLESS SPECIFIED OTHERWISE ON SEDIMENT CONTROL OR LANDSCAPE PLANS.
- 37. CONTRACTOR SHALL FINE GRADE LANDSCAPE AREAS AND PLACE 6" OF TOPSOIL, FINISHED GRADES SHALL BE BROUGHT TO ELEVATIONS SHOWN ON GRADING PLAN, LANDSCAPE AREAS MUST DRAIN.
- 38. SEE ARCHITECTURAL PLANS FOR EXACT BUILDING DIMENSIONS, DOOR AND STEP LOCATIONS, OR OTHER ITEMS ADJACENT TO THE BUILDING.
- 39. ASSURANCES OF COMPLIANCE WITH AMERICAN WITH DISABILITIES ACT (ADA) IS THE RESPONSIBILTY OF THE OWNER/DEVELOPER.
- 40. THE CONTRACTOR IS RESPONSIBLE FOR SITE SAFETY AND WAYS, MEANS AND METHODS OF
- 41. CONTRACTOR TO TEST PIT AREA PRIOR TO THE INSTALLATION OF THE PROPOSED WATER AND SEWER LINES AS WELL AS THE GREASE TRAP.



COLUMBIA CORPORATE PARK - PARCEL A-42 8820 STANFORD BOULEVARD COLUMBIA, MARYLAND 21045

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**SECTION THROUGH SITE** 

V: 1" = 10"

**OWNER** 

2066 LORD BALTIMORE DRIVE BALTIMORE, MD 21244 (410) 298-2600

FAX: (410) 298-9644

### DEVELOPER / APPLICANT

TEXAS ROADHOUSE HOLDINGS LLC

6040 DUTCHMANS LANE, SUITE 400 LOUISVILLE, KY 40205 (502) 426-9984

### GENERAL CONSTRUCTION NOTES (continued)

- 42. TESTING AND FINAL ACCEPTANCE:
   THE CONTRACTOR SHALL PROVIDE AS A MINIMUM, A FULLY LOADED SIX-WHEEL TRUCK FOR PROOF ROLLING THE PAVEMENT SUBGRADE PRIOR TO THE PLACEMENT OF THE CURB AND PROOF ROLLING THE PAVEMENT SUBGRADE PRIOR TO THE PLACEMENT OF THE CURB AND GUTTER AND THE BASE MATERIAL.

  - SPECIFIC COMPACTING TESTING MAY BE REQUIRED BY THE OWNER IN SELECTED FILL AREAS. THE CONTRACTOR SHALL BEAR THE COST OF COMPACTION TESTING AS WELL AS THE RESPONSIBILITY FOR THE NECESSARY CORRECTIONS.

  - APPROVAL OF THE PAVEMENT SUBGRADE BY THE OWNER'S GEOTECHNICAL ENGINEER SHALL BE REQUIRED PRIOR TO THE PLACEMENT OF THE PAVEMENT MATERIAL.

  - SANITARY SEWER MAINS AND SERVICES SHALL BE TESTED FOR LEAKAGE AND DEFLECTION IN ACCORDANCE WITH THE REQUIREMENT OF THE LOCAL JURISDICTIONAL AUTHORITIES PRIOR TO THEIR FINAL ACCEPTANCE. ALL SEWER MAINS, SERVICE LINES, AND MANHOLES SHALL BE CLEAN AND FREE OF DEBRIS PRIOR TO THEIR FINAL ACCEPTANCE.

  - WATER MAINS SHALL BE TESTED IN ACCORDANCE WITH THE LOCAL JURISDICTIONAL REQUIREMENTS PRIOR TO ITS FINAL ACCEPTANCE. ALL VALVE VAULTS SHALL BE CLEAN AND FREE OF DEBRIS AND WATER PRIOR TO THEIR FINAL ACCEPTANCE. THE INDIVIDUAL SERVICE BOXES SHALL BE VISIBLE AND CLEARLY LOCATED PRIOR TO THEIR FINAL ACCEPTANCE.
- 43. ALL SIGN POSTS 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 TOP OF EACH POST.
- 44. ALL PLAN DIMENSIONS ARE FACE TO FACE CURB UNLESSS OTHERWISE NOTED.

### SITE NOTES

- THE SUBJECT PROPERTY IS ZONED NT EMPLOYMENT CENTER INDUSTRIAL PER THE OCTOBER 6, 2013 COMPREHENSIVE ZONING REGULATIONS.
- THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 16.124 OF THE HOWARD COUNTY CODE AND LANDSCAPE MANUAL.

  LANDSCAPE SURETY IS BASED ON REQUIRED PLANTING ONLY AND NO SURETY IS REQUIRED FOR EXISTING LANDSCAPING THAT IS CREDITED TOWARD LANDSCAPING REQUIREMENTS. FINANCIAL SURETY FOR THE REQUIRED LANDSCAPING HAS BEEN POSTED AS PART OF THE DEVELOPER'S AGREEMENT IN THE AMOUNT OF \$6,900. (17 SHADE TREES AT \$5,100 AND 12 EVERGREEN TREES AT \$1,800 ARE BEING PROVIDED FOR A TOTAL SURETY OF \$6,900).
- 3. STORM WATER MANAGEMENT (SWM): SWM SHALL BE ADDRESSED ACCORDING TO BOTH REDEVELOPMENT AND NEW DEVELOPMENT REQUIREMENTS. A FILTERRA WILL BE USED TO FULFILL REDEVELOPMENT REQUIREMENTS WHILE A MICRO-BIORETENTION PRACTICE WILL BE USED TO NEW DEVELOPMENT REQUIREMENTS. RECHARGE REQUIREMENTS ARE BEING FULFILLED THROUGH A STONE TRENCH UNDER THE MICRO-BIORETENTION PRACTICE. ALL SWM DEVICES SHALL BE PRIVATELY OWNED AND MAINTAINED.
- AS PER SECTION 16.1202 (b)(1)(vi) A PLANNED UNIT DEVELOPMENT WHICH HAS PRELIMINARY DEVELOPMENT PLAN APPROVAL AND 50 PERCENT OR MORE OF THE LAND IS RECORDED AND SUBSTANTIALLY DEVELOPED BEFORE DECEMBER 31, 1992, THIS SITE IS EXEMPT FROM
- 5. THE SUBSURFACE EXPLORATION AND GEOTECHNICAL ENGINEERING ANALYSIS FOR THIS PROJECT WAS CONDUCTED ON JANUARY 14, 2016 BY RUELING ASSOCIATES, INC. 6. A TRAFFIC STUDY WAS PREFORMED BY TRAFFIC CONCEPTS, INC. DATED JANUARY, 2016. IT WAS APPROVED ON MAY 24, 2016. A NOISE STUDY IS NOT REQUIRED FOR THIS
- 7. ALL ONSITE DRIVEWAYS AND PARKING AREAS TO BE PRIVATELY MAINTAINED.
- 8. THERE ARE NO EXISTING OR PROPOSED WELL OR SEPTIC AREAS.
- 9. AN ENVIRONMENTAL REPORT FOR THIS PROJECT WAS PREPARED BY ECO-SCIENCE PROFESSIONALS, INC. ON JANUARY 12, 2016. FINDINGS OF THAT REPORT REVEAL THAT THERE ARE NO WETLANDS, STREAMS, OR THEIR BUFFERS OR FOREST PRESENT WITHIN OR ADJACENT TO THE PROPOSED LIMITS OF DISTURBANCE.
- 10. THERE ARE NO KNOWN WETLANDS REQUIRING REGULATION, CRITICAL AREAS, ARCHEOLOGICAL SITES, ENDANGERED SPECIES HABITATS, OR HAZARDOUS MATERIALS
- 11. THERE ARE NO HISTORIC BUILDINGS ON THIS PROPERTY.
- 12. THERE ARE NO SPECIMEN TREES ON THIS SITE. 13. FLOOD MAP INFORMATION: SITE IS SHOWN ON MAP ENTITLED "FIRM FLOOD INSURANCE RATE MAP, HOWARD COUNTY, MARYLAND, UNINCORPORATED AREAS, PANEL 155 OF 235, COMMUNITY PANEL NUMBER 24027C0155D, MAP REVISED NOVEMBER 6, 2013" AND IS LOCATED IN ZONE X (AREAS
- DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN). 14. THE EXISTING TOPOGRAPHY IS TAKEN FROM FIELD RUN SURVEY WITH MAXIMUM TWO
- OOT CONTOUR INTERVALS PREPARED BY DUVAL & ASSOCIATES ON NOV. 6, 2015.
- 15. THERE ARE NO KNOWN CEMETERIES OR BURIAL GROUNDS ON THIS SITE HOWEVER, UPON DISCOVERY OF ANY EVIDENCE OF BURIAL OR GRAVES, THE DEVELOPER WILL BE SUBJECT TO SECTION 16.118 OF THE HOWARD COUNTY SUBDIVISION AND LAND DEVELOPMENT REGULATIONS.
- 16. THERE ARE NO SLOPES 15 24.9%, SLOPES 25% OR GREATER, WETLANDS, WETLAND BUFFERS, STREAMS, STREAM BUFFERS AND 100-YR FLOODPLAIN WITHIN THE NET TRACT AREA.
- 17. THIS SDP IS SUBJECT TO THE AMENDED FIFTH EDITION OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS PER COUNCIL BILL NO. 45-2003 AND THE AMENDED ZONING REGULATIONS PER COUNCIL NO. 75-2003 AND THE "COMP LITE" ZONING AMENDMENTS EFFECTIVE AUGUST, 2007. DEVELOPMENT OR CONSTRUCTION ON THIS PROPERTY MUST COMPLY WITH SETBACK AND BUFFER REGULATIONS IN EFFECT AT THE TIME OF SUBMISSION OF THE SITE DEVELOPMENT PLAN, WAIVER PETITION
- APPLICATION OR BUILDING/GRADING PERMIT APPLICATIONS. 18. THE ENVIRONMENTAL CONCEPT PLAN (ECP-16-037) WAS APPROVED ON APRIL 1, 2016,
- 19. PROPOSED BUILDING WILL HAVE AUTOMATIC FIRE PROTECTION SPRINKLER SYSTEM. 20. THIS PROPERTY IS LOCATED WITHIN THE METROPOLITAN DISTRICT.
- 21. HEALTH DEPARTMENT APPROVAL OF THIS SITE DEVELOPMENT PLAN (SDP-16-061)
  DOES NOT ENSURE APPROVAL OF BUILDING PERMIT APPLICATIONS ASSOCIATED WITH
  THIS PLAN. THE RESTAURANT TO BE CONSTRUCTED WITHIN THE LIMITS OF
  SDP-16-061 WILL REQUIRE REVIEW AND APPROVAL BY THE HEALTH DEPARTMENT.
- 22. A COMMUNITY INPUT MEETING ISN'T REQUIRED AS THE SITE ISN'T WITHIN
- 200 FEET FROM ANY RESIDENTIAL AREAS. 23. THE COORDINATES SHOWN HEREON ARE BASED UPON THE HOWARD COUNTY GEODETIC CONTROL, WHICH IS BASED UPON THE MARYLAND STATE PLANE COORDINATES SYSTEM, HOWARD COUNTY MONUMENT NOS, 36IC AND 37DM4 WERE
- 24. WATER (24-1667-D) AND SEWER (20-1768-D) ARE PUBLIC. 25. EXISTING UTILITIES ARE BASED ON FIELD SURVEY PREPARED BY DuVAL & ASSOCIATES (SEE NOTE •14).
- 26. A WAIVER FROM DESIGN MANUAL, VOL. IV, STANDARD DETAIL D-9.04 TO ALLOW THE CONNECTION OF A 6" SDR-35 PVC PIPE TO AN EXISTING 30" RCCP STORM DRAIN IN LIEU OF THE 36" MINIMUM DIAMETER CONCRETE PIPE BY USING AN "INSERTA TEE" CONNECTION WAS APPROVED ON MAY 10, 2016.
- 27. THE PLANNING BOARD OF HOWARD COUNTY ACTED TO APPROVE THIS SITE DEVELOPMENT PLAN ON AUGUST 18, 2016.

NO AS-BUILT INFORMATION

ON THIS SHEET

**APPROVED** PLANNING BOARD OF HOWARD COUNTY AUGUST 18, 2016

REVISIONS

THE COORDINATE SYSTEM OF ALL DRAWINGS IS BASED ON THE NORTH AMERICAN DATUM OF 1983. THE ELEVATION SYSTEM OF ALL DRAWINGS IS BASED ON THE NORTH AMERICAN VERTICAL DATUM OF 1988 HORZ: NAD 83/91; VERT: NAVD 88

HOWARD COUNTY, MARYLAND

QM4 SITE

> VICINITY MAP SCALE: 1" - 1,000' ADC MAP •4935-K10

### **BENCH MARK**

ELEVATIONS ARE BASED ON NAVD 88 DATUM PER HOWARD COUNTY CONTROL POINTS:

CONTROL POINT \*36IC: N 553,292.394; E 1,364,105.493; EL.385.767 DESCRIPTION: STANDARD CONCRETE MONUMENT SET FLUSH WITH SURFACE AT CORNER OF SNOWDEN RIVER ROAD AND McGAW ROAD CONTROL POINT \*37DM4:

EL.362.706
DESCRIPTION: 1/4" REBAR SET 0.3' BELOW SURFACE AT CORNER OF SNOWDEN RIVER ROAD AND DOBBIN ROAD

### SITE DATA

- I. GENERAL SITE DATA:
- 1. TOTAL SITE AREA: 6.7838 Ac 2. PLAT REFERENCE: 23899 3. DEED REFERENCES: 11616/194
- . TAX ACCOUNT NUMBER: 16191132
- 4. TAX ACCOUNT NUMBER: 16191132
  5. PRESENT ZONING: NT
  6. APPLICABLE DPZ FILE REFERENCES:
  FDP-117-A-II, F-88-109, F-72-090, F-93-90,
  F-96-90, F-97-108, F-17-010, SDP-87-193, ECP-16-037
  7. EXISTING USE: EX. BUILDING (100,000 SF) AND PARKING LOT
  8. PROPOSED USE: EX. BUILDING (100,000 SF), PARKING LOT AND
  RESTAURANT (7,522 SF)
  9. EXISTING WATER: PURISO (CONTRACT #24-1667-D)
- 9. EXISTING WATER: PUBLIC (CONTRACT •24-1667-D)
  10. EXISTING SEWER: PUBLIC (CONTRACT •20-1768-D)
  11. MAXIMUM BUILDING HEIGHT: ALLOWED: 50', PROPOSED: 27'-6"
- II. AREA TABULATION:
- 1. TOTAL SITE AREA: 6.7838 Ac
  2. TOTAL DISTURBED AREA: 64,285 SF or 1.476 Ac
  3. TOTAL IMPERVIOUS AREA: 51,485 SF OR 1.182 Ac (WITHIN LOD)
  4. GREEN OPEN AREA: 12,800 SF or 0.294 Ac (WITHIN LOD)
  5. TOTAL ALLOWED BUILDING COVERAGE: 3,3920 Ac (50% OF PARCEL AREA)
  6. TOTAL PROVIDED BUILDING COVERAGE: 2,468 Ac (36% OF PARCEL AREA)
- 8. FLOODPLAIN (BUFFER): 0.00 Ac 9. FORESTS: 0.00 Ac 10. STEEP SLOPES (15% AND GREATER): 0.00 Ac 11. ERODIBLE SOILS: 0.00 Ac
- III. PARKING SPACE DATA:
- 1. PARKING REQUIRED: 238
  OFFICES 100,000 SF @ 2 PS/1,000 SF (PER FDP-117-A-II) 200 PS
  RESTAURANT 7,522 SF @ 5 PS/1,000 SF (PER FDP-117-A-II) 38 PS
- 376 STANDARD SPACES @ 9' x 18'
  4 VAN ACCESSIBLE HANDICAP SPACES @ 16' x 18'
  11 HANDICAP SPACES @ 13' X 18'

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE 12/14/2016

Bollon for Marion Rosswan loward County Health Department APPROVED: DEPARTMENT OF PLANNING AND ZONING

12.12.16 Date

Chief, Development Engineering Division Ketshelwood Chief, Division of Land Development 12-17-16

ADDRESS CHART OT / PARCEL NO STREET ADDRESS 356 / A-42 RESTAURANT - 8820 STANFORD BOULEVARD

PERMIT INFORMATION CHART

SUBDIVISION NAME SECTION / AREA COLUMBIA CORPORATE PARK ELEC. DIST. | CENSUS TRAC AT NO. or L/F | GRID NO. ZONING TAX MAP NO.

**COVER SHEET** 

COLUMBIA CORPORATE PARK SECTION 1, AREA 1, PARCEL A-42 - TEXAS ROADHOUSE 8820 STANFORD BOULEVARD

\_\_\_

SHEET 1 OF 17 SDP-16-06

LOT / PARCEL NO.

DRAWING NO.

356 / A-42

606707

12-15-16

**BLDG** Baltimore Land Design Group Inc. **Consulting Engineers** 

230 SCHILLING CIRCLE, SUITE 364 • HUNT VALLEY, MARYLAND 21031

PHONE: 410.229.9851 • FAX: 410.229.9865 • BLDG@BLDGINC.COM



PROFESSIONAL CERTIFICATION

IHEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, IWONA ROSTEK-ZARSKA, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE F MARYLAND, LICENSE NO. 21245, EXPIRATION DATE: JUNE 9, 2018.

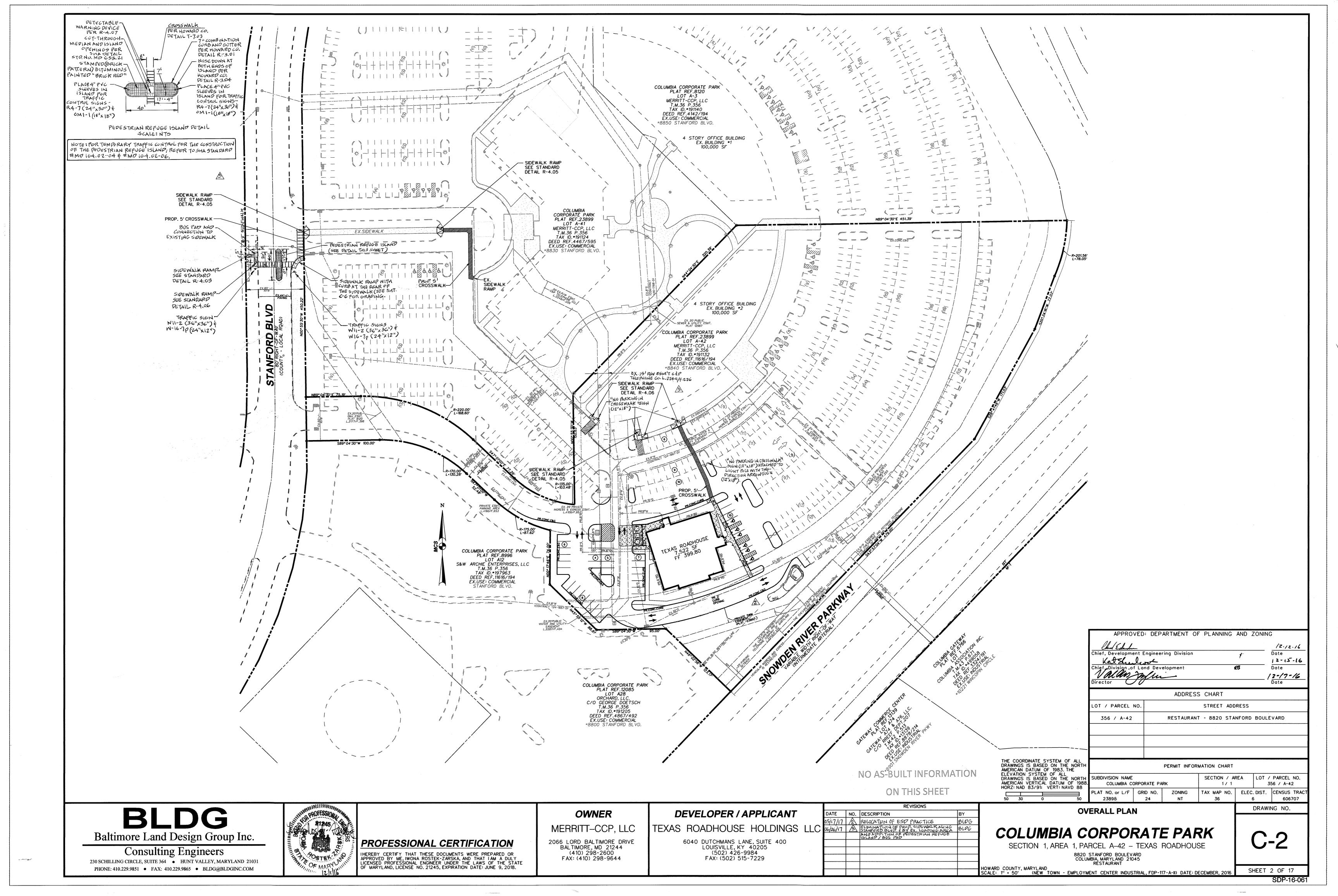
MERRITT-CCP, LLC

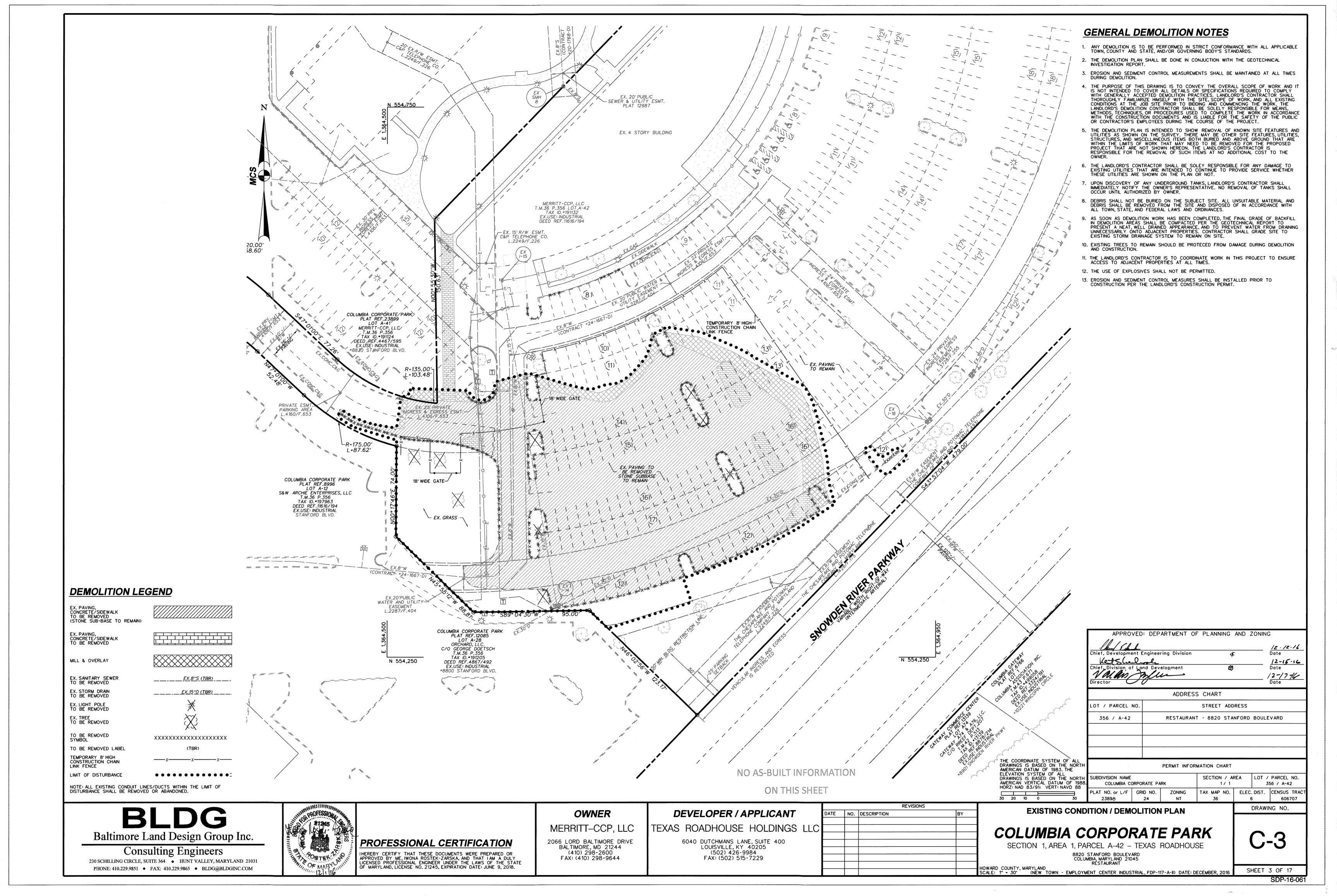
FAX: (502) 515-7229

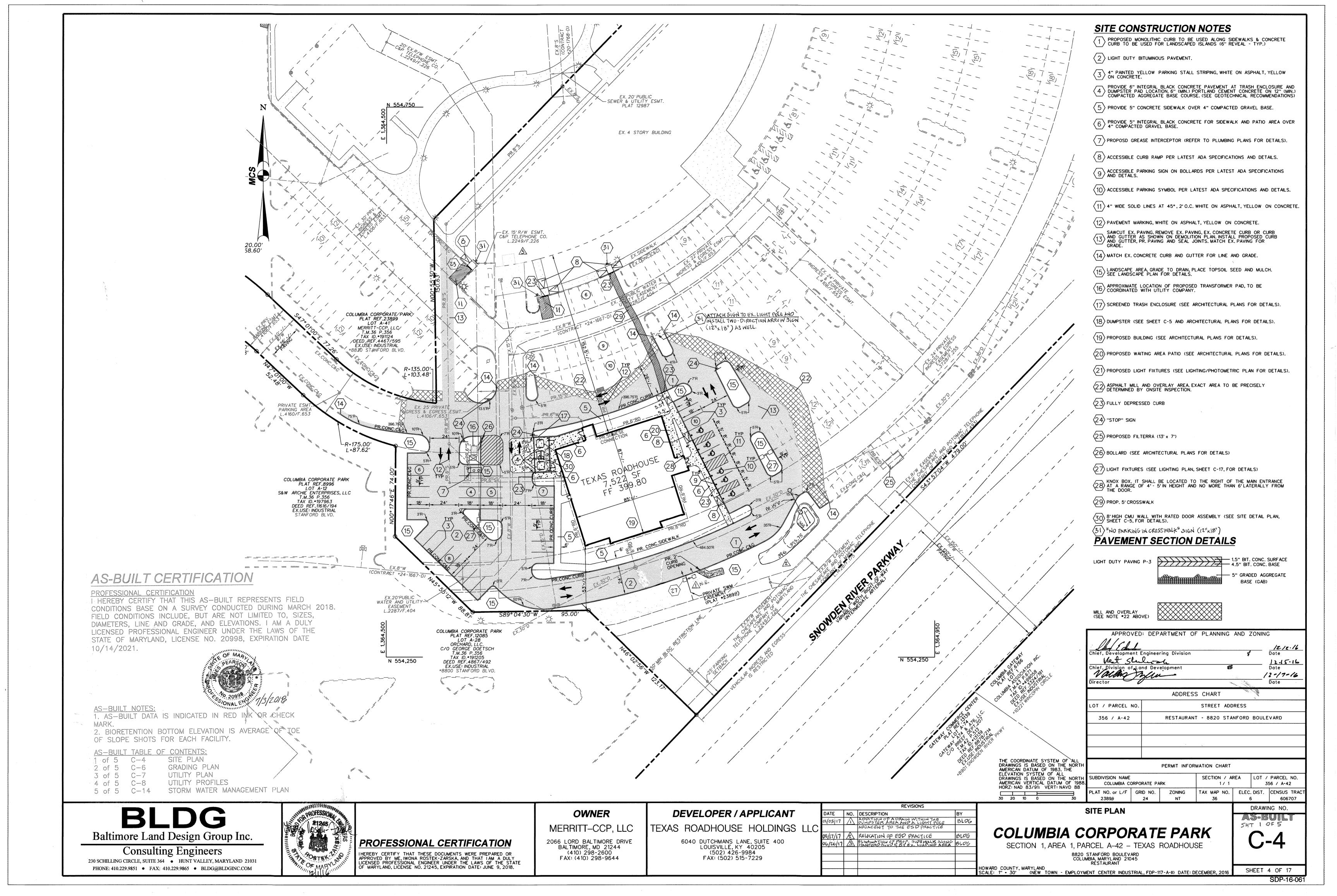
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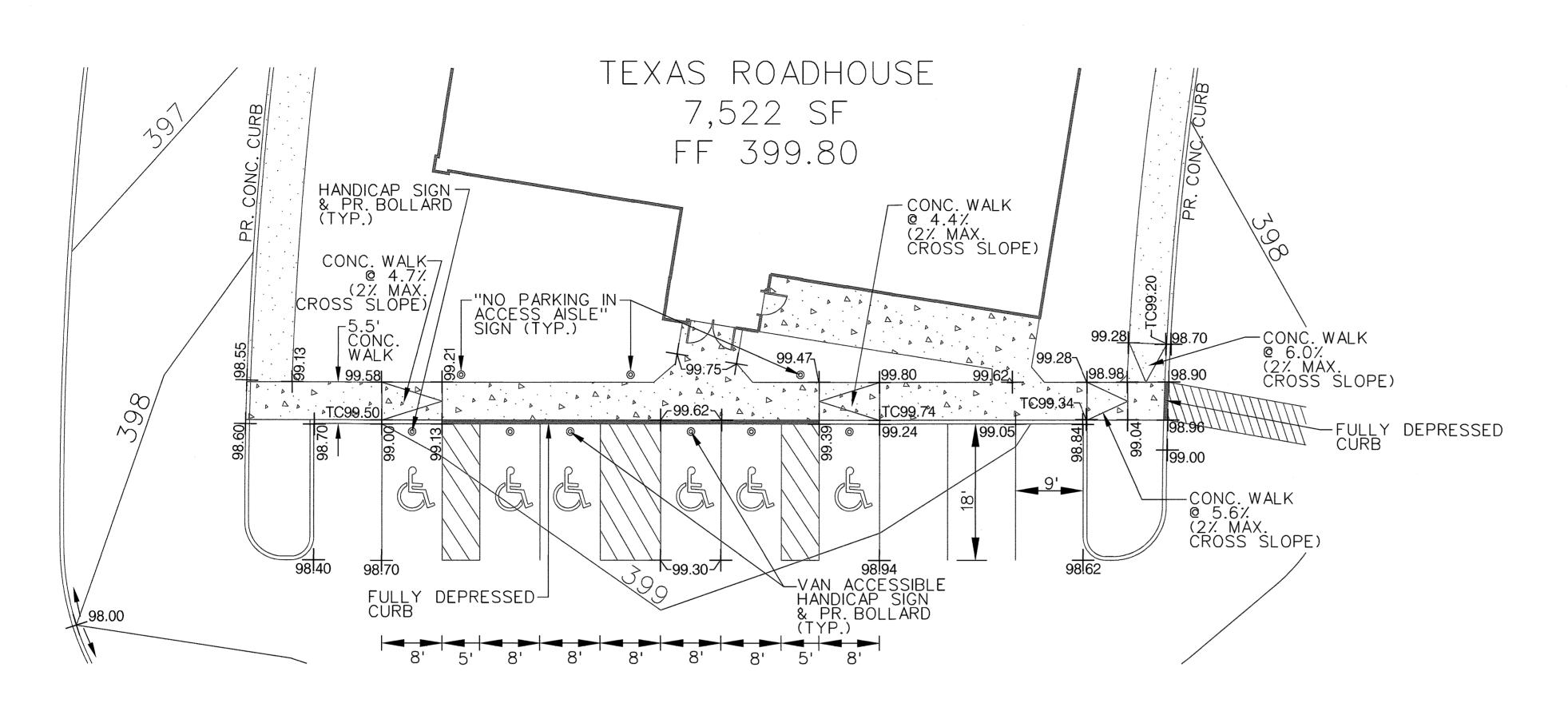
COLUMBIA, MARYLAND 21045 RESTAURANT

SCALE: AS SHOWN (NEW TOWN - EMPLOYMENT CENTER INDUSTRIAL, FDP-117-A-II) DATE: DECEMBER, 2016



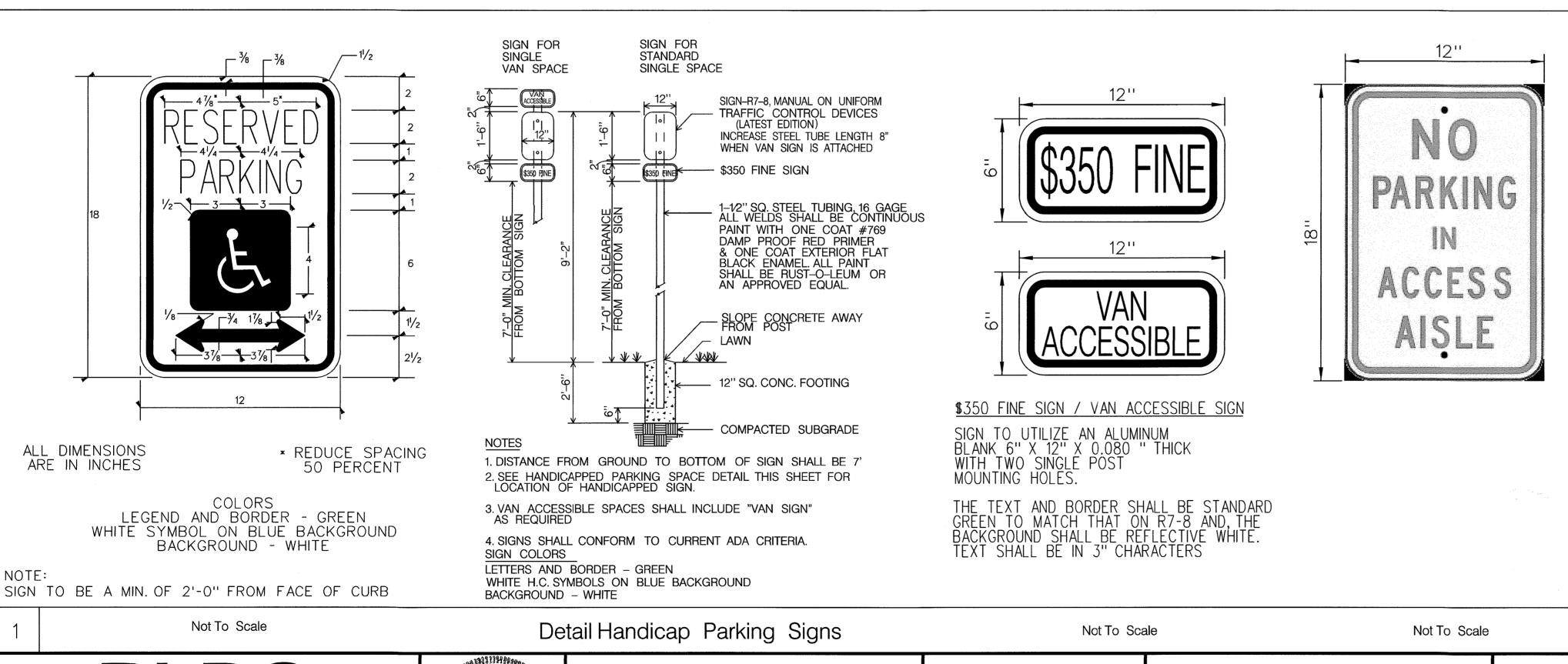






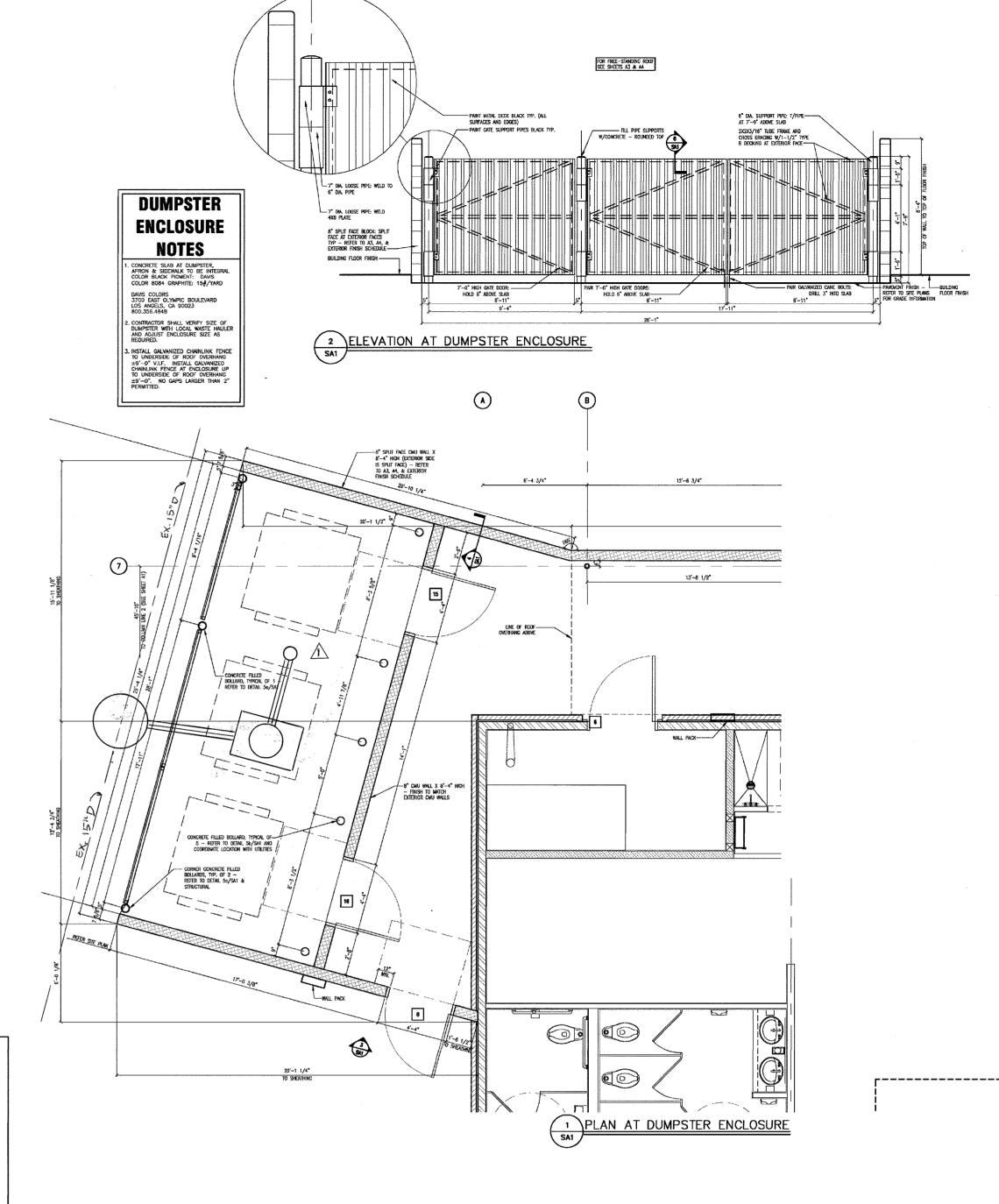
HANDICAP ACCESSIBLE ROUTE FOR PROPOSED RESTAURANT SCALE: 1" = 10'

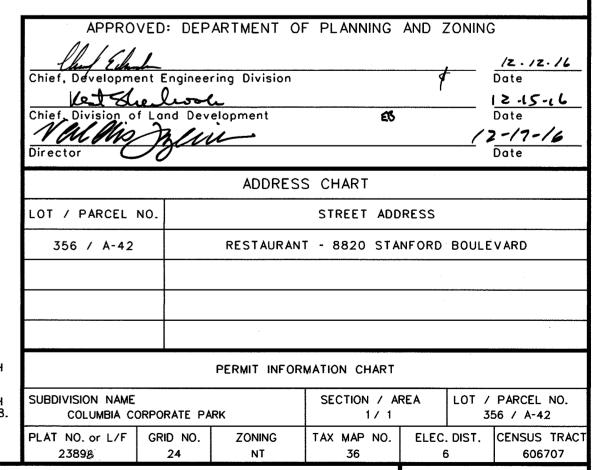
T SHOT ELEVATIONS SHOWN ON THIS PLAN FOR FINISH GRADE ELEVATIONS AND BOTTOM CURBS, UNLESS NOTED OTHERWISE.



PROFESSIONAL CERTIFICATION

IHEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, IWONA ROSTEK-ZARSKA, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 21245, EXPIRATION DATE: JUNE 9, 2018.





THE COORDINATE SYSTEM OF ALL DRAWINGS IS BASED ON THE NORTH AMERICAN DATUM OF 1983. THE LEVATION SYSTEM OF ALL DRAWINGS IS BASED ON THE NORTH AMERICAN VERTICAL DATUM OF 1988. HORZ: NAD 83/91; VERT: NAVD 88 NO AS-BUILT INFORMATI ON THIS SHEET

REVISIONS

DRAWING NO.

SITE DETAILS

HANDICAP ACCESSIBLE ROUTE AND HANDICAP SIGN DETAILS

COLUMBIA CORPORATE PARK

HOWARD COUNTY, MARYLAND SCALE: 1" - 10' (NEW TOWN - EMPLOYMENT CENTER INDUSTRIAL, FDP-117-A-II) DATE: DECEMBER, 2016

SECTION 1, AREA 1, PARCEL A-42 - TEXAS ROADHOUSE 8820 STANFORD BOULEVARD COLUMBIA, MARYLAND 21045 RESTAURANT

SHEET 5 OF 17 SDP-16-061

Baltimore Land Design Group Inc.

Consulting Engineers 230 SCHILLING CIRCLE, SUITE 364 • HUNT VALLEY, MARYLAND 21031 PHONE: 410.229.9851 • FAX: 410.229.9865 • BLDG@BLDGINC.COM



**OWNER** MERRITT-CCP, LLC 2066 LORD BALTIMORE DRIVE BALTIMORE, MD 21244

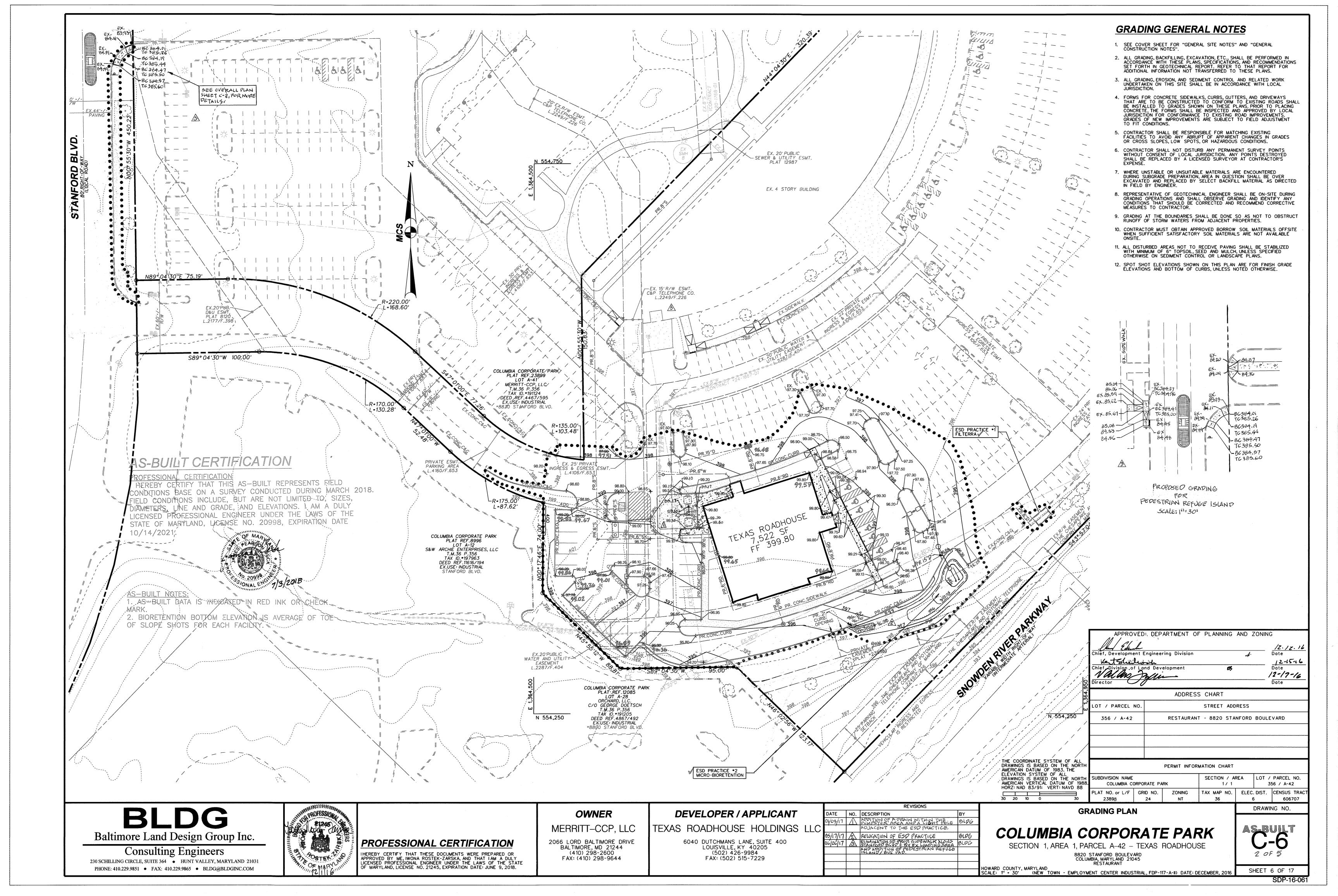
(410) 298-2600 FAX: (410) 298-9644

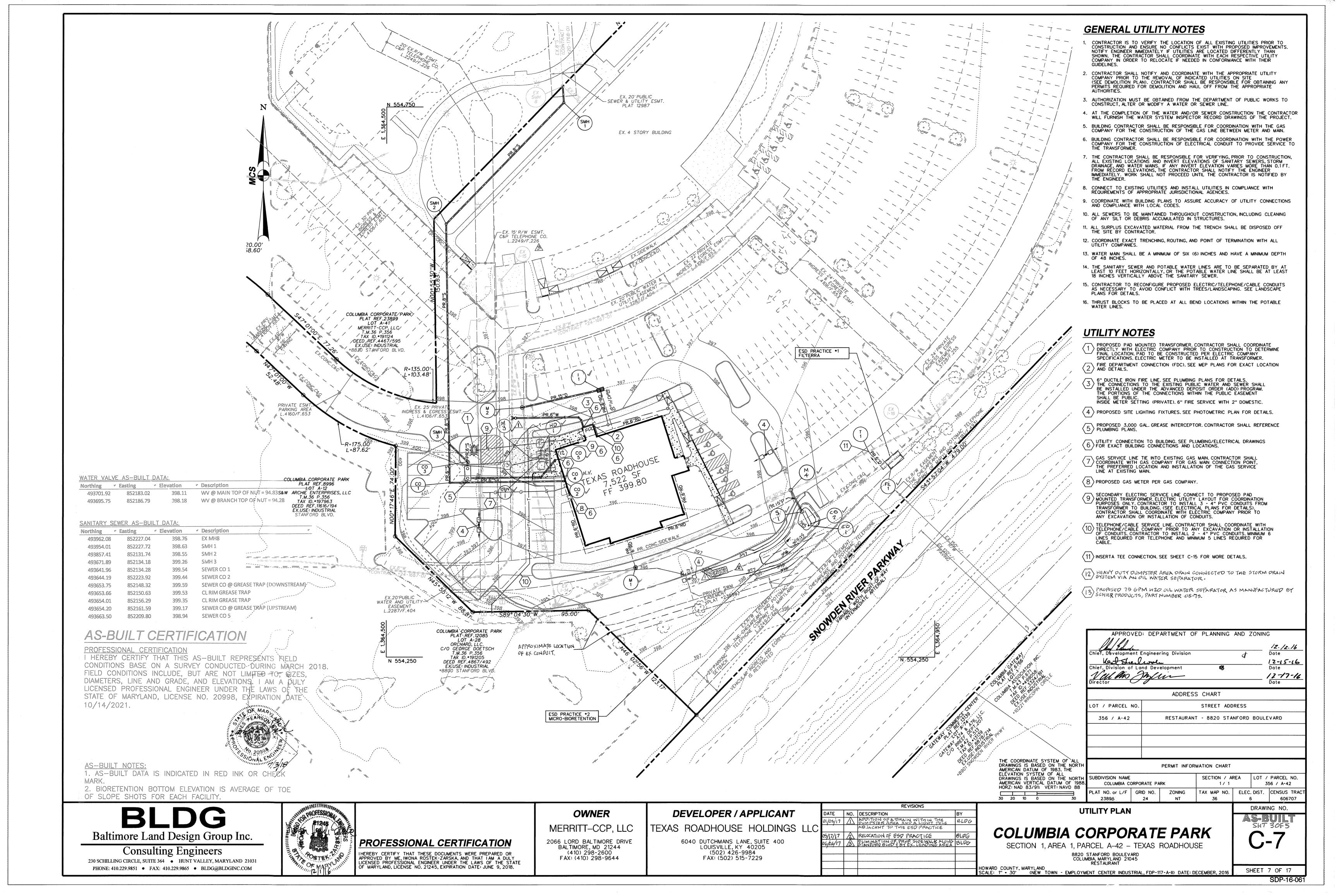
DEVELOPER / APPLICANT TEXAS ROADHOUSE HOLDINGS LLC

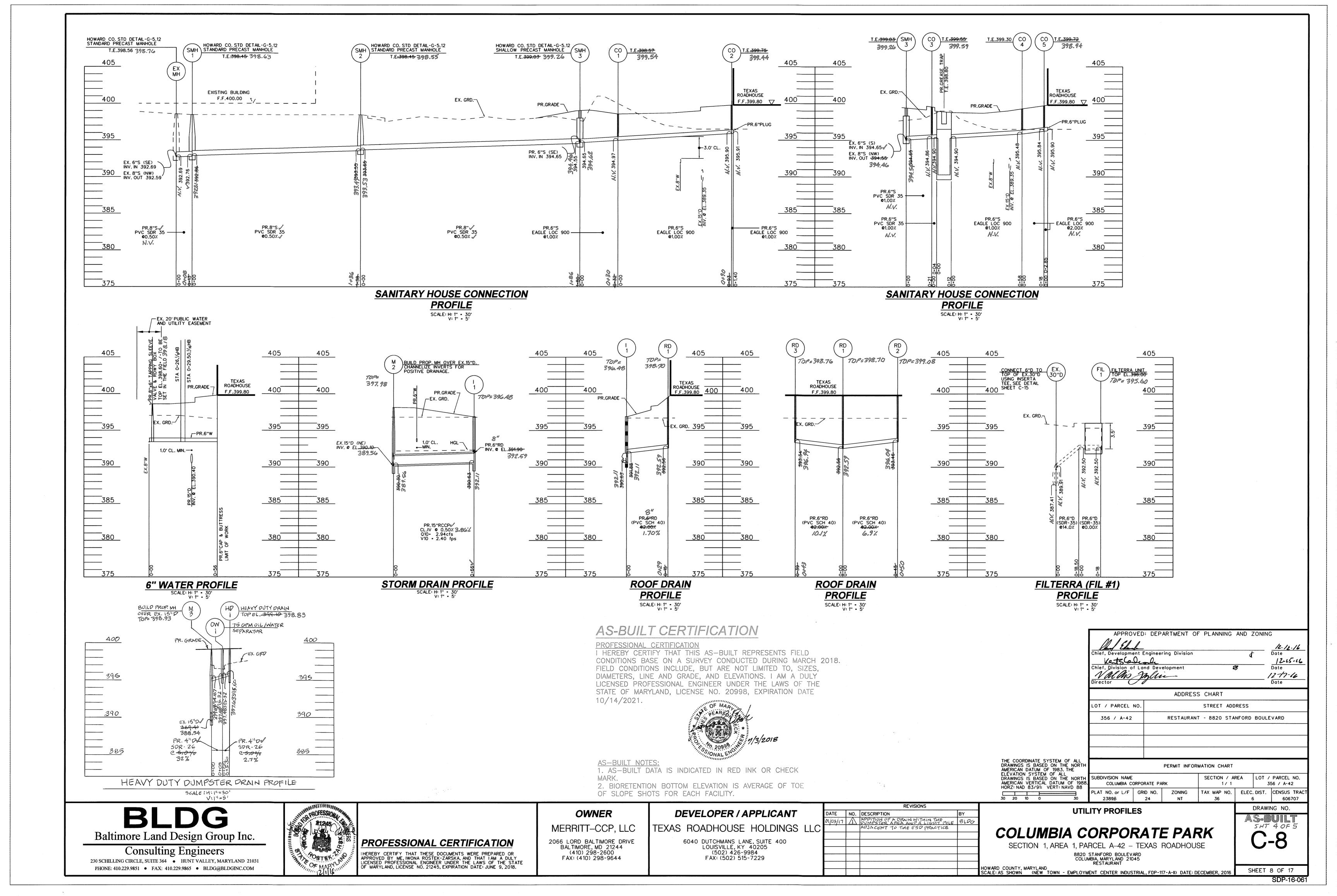
6040 DUTCHMANS LANE, SUITE 400 LOUISVILLE, KY 40205 (502) 426-9984 FAX: (502) 515-7229

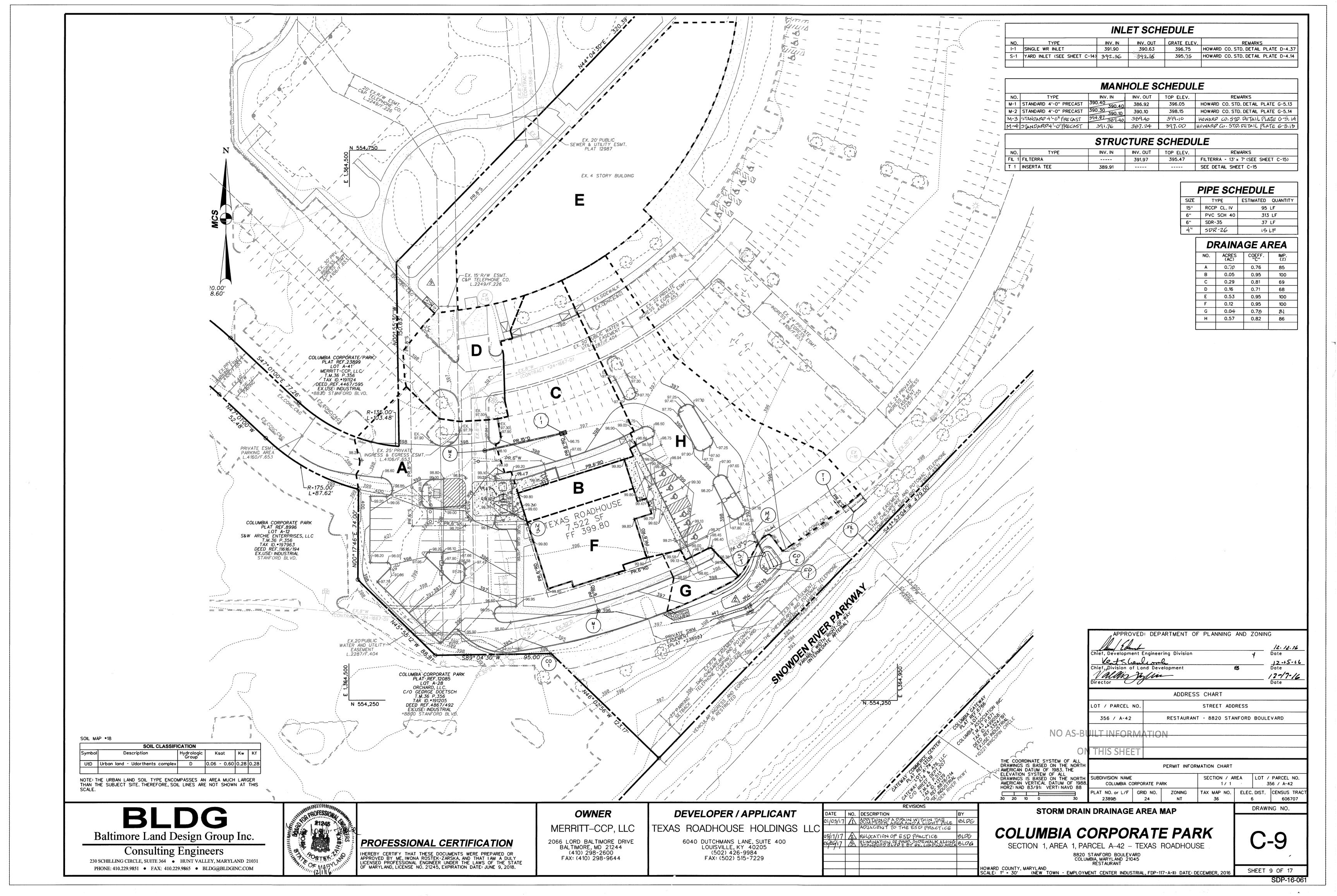
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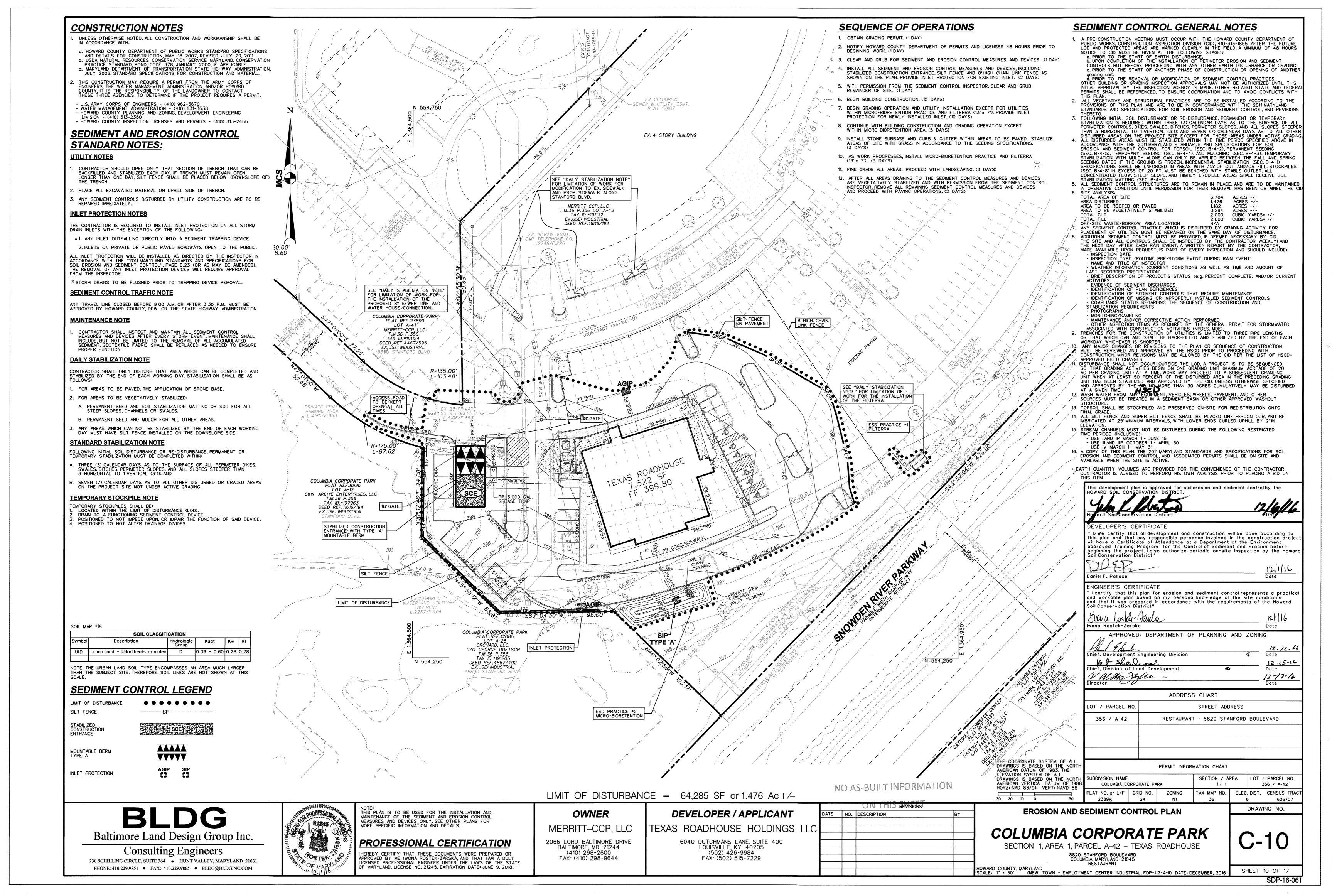
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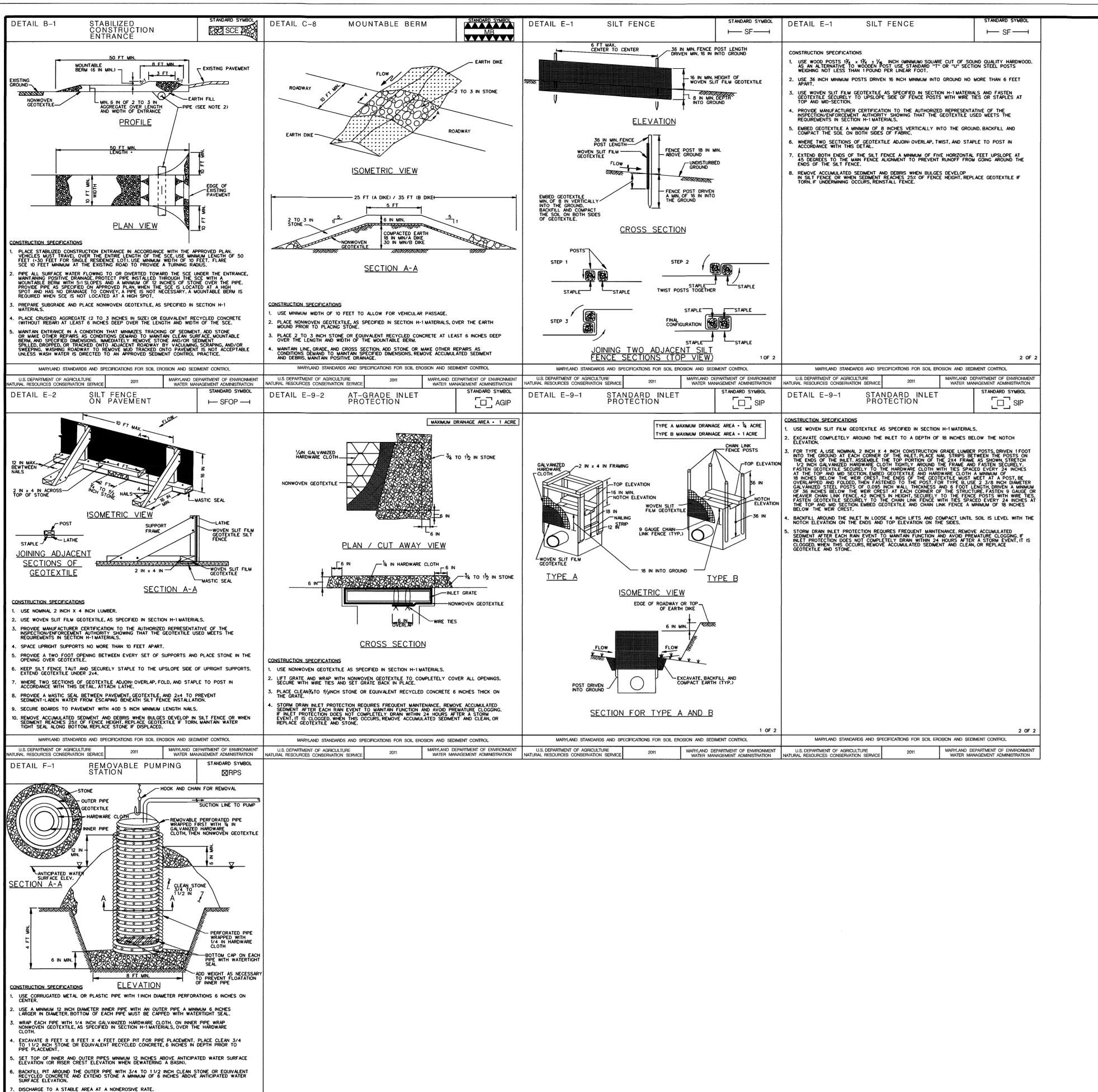


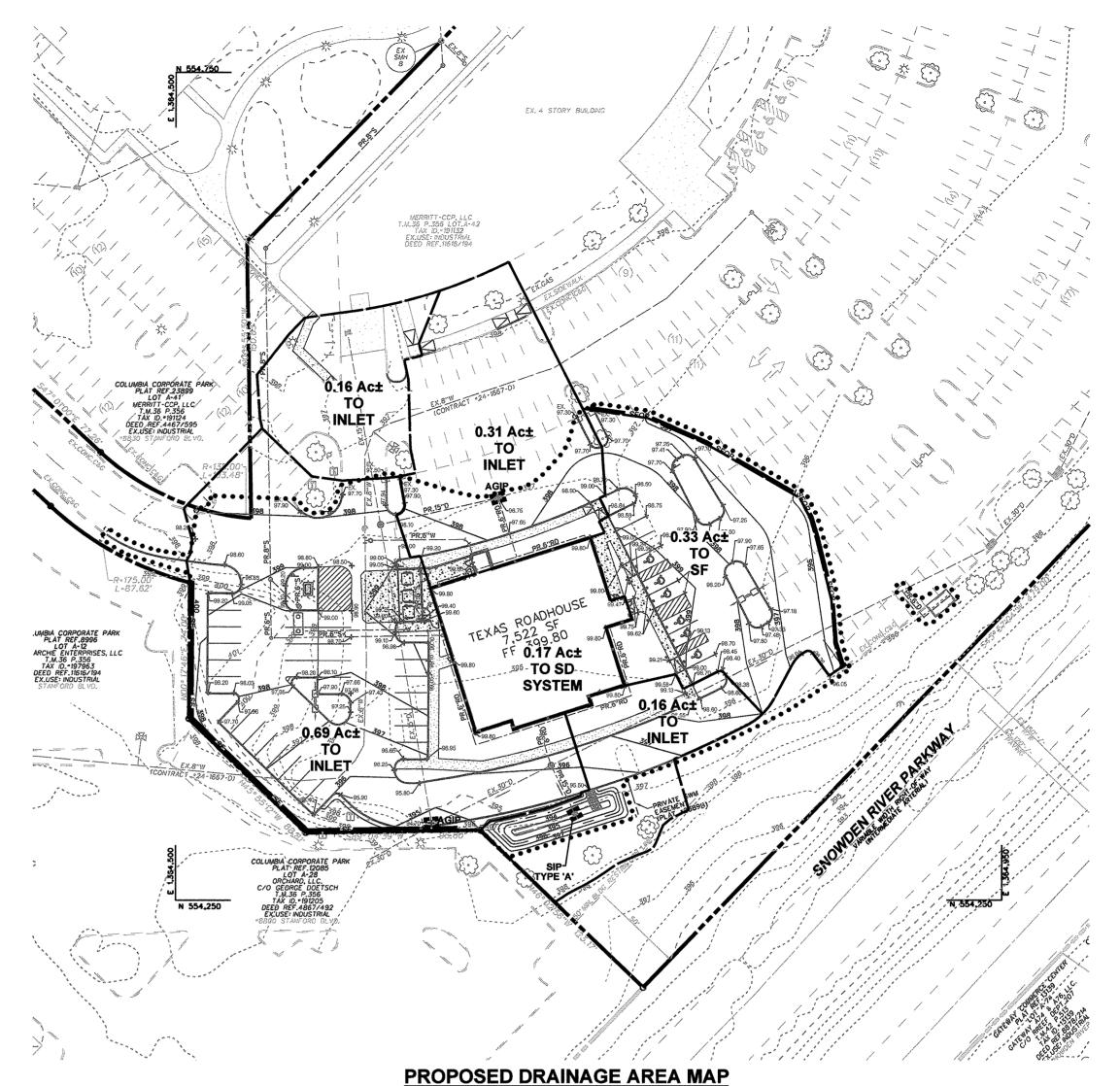


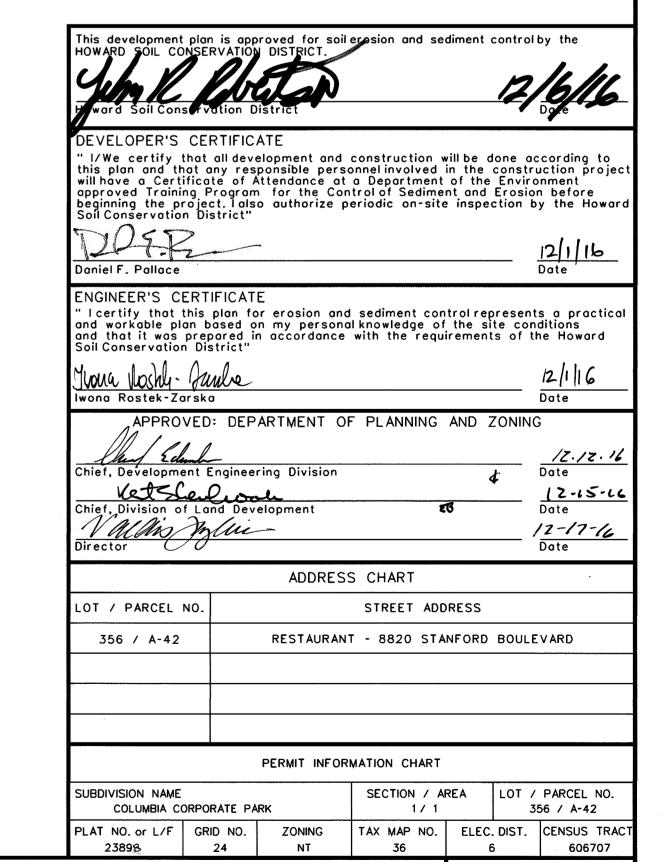












BLDG

A REMOVABLE PUMPING STATION REQUIRES FREQUENT MAINTENANCE. IF SYSTEM CLOGS, PULL OUT INNER PIPE AND REPLACE GEOTEXTILE. KEEP POINT OF DISCHARGE FREE OF EROSION.

2011

Baltimore Land Design Group Inc.

**Consulting Engineers** 

230 SCHILLING CIRCLE, SUITE 364 • HUNT VALLEY, MARYLAND 21031 PHONE: 410.229.9851 • FAX: 410.229.9865 • BLDG@BLDGINC.COM



PROFESSIONAL CERTIFICATION

THEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, IWONA ROSTEK-ZARSKA, AND THAT LAM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 21245, EXPIRATION DATE: JUNE 9, 2018.

OWNER

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(502) 426-9984
FAX: (502) 515-7229

				RE VISIONS	
	DATE	NO.	DESCRIPTION		BY
)					

NO AS-BUILT INFORMATION

ON THIS SHEET

EROSION AND SEDIMENT CONTROL PLAN STANDARD DETAILS AND PROPOSED DRAINAGE AREA MAP

# COLUMBIA CORPORATE PARK

SECTION 1, AREA 1, PARCEL A-42 - TEXAS ROADHOUSE

8820 STANFORD BOULEVARD
COLUMBIA, MARYLAND 21045
RESTAURANT

HOWARD COUNTY, MARYLAND SCALE:AS SHOWN (NEW TOWN - EMPLOYMENT CENTER INDUSTRIAL, FDP-117-A-II) DATE: DECEMBER, 2016 C-11

DRAWING NO.

SHEET 11 OF 17 SDP-16-06

Conditions Where Practice Applies: On all disturbed areas not stabilized by other methods. This specification is divided into sections on incremental stabilization; soil preparation, soil amendments and topsoiling; seeding and mulching; temporary

#### dequate Vegetative Establishment

nspect seeded greas for vegetative establishment and make necessary repairs, replacements, and reseedings within the planting season.

- Adequate vegetative stabilization requires 95 percent groundcover.
- If an area has less than 40 percent groundcover, restabilize following the original recommendations for lime, fertilizer, seedbed preparation, and seeding.
- If an area has between 40 and 94 percent groundcover, over- seed and fertilize using half of the
- Maintenance fertilizer rates for permanent seeding are shown in Table B.6.

#### B-4-1 Standards and Specifications for Incremental Stabilization

Conditions Where Practice Applies:

Any cut or fill slope greater than 15 feet in height. This practice also applies to stockpiles.

#### Criteria: . Incremental Stabilization - Cut Slopes

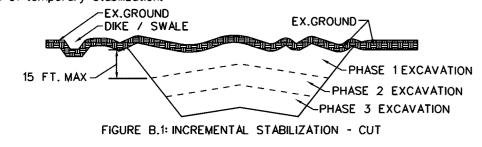
areas as necessary.

1. Excavate and stabilize cut slopes in increments not to exceed 15 feet in height, Prepare seedbed and apply seed and mulch on all cut slopes as the work progresses. Construction sequence example (Refer to Figure B.1 in "2011 Maryland Standards and Specifications for Soil Erosion and Sediment Control"):

a. Construct and stabilize all temporary swales or dikes that will be used to convey runoff around

- b. Perform Phase 1 excavation, prepare seedbed, and stabilize. c. Perform Phase 2 excavation, prepare seedbed, and stabilize. Overseed Phase 1 areas as
- d. Perform final phase excavation, prepare seedbed, and stabilize. Overseed previously seeded

Note: Once excavation has begun the operation should be continuous from grubbing through the completion of grading and placement of topsoil (if required) and permanent seed and mulch. Any interruptions in the operation or completing the operation out of the seeding season will necessitate the application of temporary stabilization.

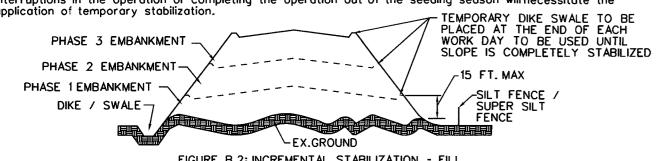


#### 3. Incremental Stabilization - Fill Slopes

- Construct and stabilize fill slopes in increments not to exceed 15 feet in height. Prepare seedbed and apply seed and mulch on all slopes as the work progresses. Stabilize slopes immediately when the vertical height of a lift reaches 15 feet, or when the grading
- operation ceases as prescribed in the plans. At the end of each day, install temporary water conveyance practice(s), as necessary, to intercept
- surface runoff and convey it down the slope in a non-erosive manner.

  Construction sequence example (Refer to Figure B.2 in "2011 Maryland Standards and Specifications for Soil Erosion and Sediment Control"): a. Construct and stabilize all temporary swales or dikes that will be used to divert runoff around
- the fill. Construct silt fence on low side of fill unless other methods shown on the plans address b. At the end of each day, install temporary water conveyance practice(s), as necessary, to
- intercept surface runoff and convey it down the slope in a non-erosive manner. c. Place Phase 1 fill, prepare seedbed, and stabilize.
- d. Place Phase 2 fill, prepare seedbed, and stabilize. e. Place final phase fill, prepare seedbed, and stabilize. Overseed previously seeded areas as

Note: Once the placement of fill has begun the operation should be continuous from grubbing through the completion of grading and placement of topsoil (if required) and permanent seed and mulch. Any nterruptions in the operation or completing the operation out of the seeding season will necessitate the



### 3-4-2 Standards and Specifications for Soil Preparation, Topsoiling and Soil Amendments

### <u>Conditions Where Practice Applies:</u> Where vegetative stabilization is to be established

#### <u>Criteria</u>: Soil Preparation

### Temporary Stabilization

- a. Seedbed preparation consists of loosening soil to a depth of 3 to 5 inches by means of suitable agricultural or construction equipment, such as disc harrows or chisel plows or rippers mounted on construction equipment. After the soil is loosened, it must not be rolled or dragged smooth but left in the roughened condition. Slopes 3:1 or flatter are to be tracked with ridges running parallel to the contour of the slope.
- b. Apply fertilizer and lime as prescribed on the plans.
- c. Incorporate lime and fertilizer into the top 3 to 5 inches of soil by disking or other suitable

### Permanent Stabilization

- a. A soil test is required for any earth disturbance of 5 acres or more. The minimum soil
- Soil pH between 6.0 and 7.0. Soluble salts less than 500 parts per million (ppm)
- Soil contains less than 40 percent clay but enough fine grained material (greater than 30 percent silt plus clay) to provide the capacity to hold a moderate amount of moisture. An exception: if lovegrass will be planted, then a sandy soil (less than 30 percent silt plus clay) would be acceptable.
- iv. Soil contains 1.5 percent minimum organic matter by weight.
   v. Soil contains sufficient pore space to permit adequate root penetration
- b. Application of amendments or topsoil is required if on-site soils do not meet the above
- c. Graded areas must be maintained in a true and even grade as specified on the approved plan, then scarified or otherwise loosened to a depth of 3 to 5 inches.
- d. Apply soil amendments as specified on the approved plan or as indicated by the results of a soil
- e. Mix soil amendments into the top 3 to 5 inches of soil by disking or other suitable means. Rake lawn areas to smooth the surface, remove large objects like stones and branches, and ready the area for seed application. Loosen surface soil by dragging with a heavy chain or other equipment to roughen the surface where site conditions will not permit normal seedbed preparation. Track slopes 3:1 or flatter with tracked equipment leaving the soil in an irregula condition with ridges running parallel to the contour of the slope. Leave the top 1 to 3 inches of soil loose and friable. Seedbed loosening may be unnecessary on newly disturbed areas.

- Topsoil is placed over prepared subsoil prior to establishment of permanent vegetation. The purpose is to provide a suitable soil medium for vegetative growth. Soils of concern have low moisture content, low nutrient levels, low pH, materials toxic to plants, and/or unacceptable soil gradation.
- Topsoil salvaged from an existing site may be used provided it meets the standards as set forth in these specifications. Typically, the depth of topsoil to be salvaged for a given soil type can be found in the representative soil profile section in the Soil Survey published by USDA-NRCS.
- Topsoiling is limited to areas having 2:1 or flatter slopes where:
- a. The texture of the exposed subsoil/parent material is not adequate to produce vegetative growth.
- b. The soil material is so shallow that the rooting zone is not deep enough to support plants or furnish continuing supplies of moisture and plant nutrients.
- c. The original soil to be vegetated contains material toxic to plant growth.
- d. The soil is so acidic that treatment with limestone is not feasible

#### 4. Areas having slopes steeper than 2:1 require special consideration and design

5. Topsoil Specifications: Soil to be used as topsoil must meet the following criteria: a. Topsoil must be a loam, sandy loam, clay loam, silt loam, sandy clay loam, or loamy sand. Other soils may be used if recommended by an agronomist or soil scientist and approved by the appropriate approval authority. Topsoil must not be a mixture of contrasting textured subsoils and must contain less than 5 percent by volume of cinders, stones, slag, coarse fragments,

arayel, sticks, roots, trash, or other materials larger than 11/2 inches in diameter

- b. Topsoil must be free of noxious plants or plant parts such as Bermuda grass, quack grass,
- c. Topsoil substitutes or amendments, as recommended by a qualified agronomist or soil scientist and approved by the appropriate approval authority, may be used in lieu of natural topsoil.

#### 6. Topsoil Application

a. Erosion and sediment control practices must be maintained when applying topsoil.

- b. Uniformly distribute topsoil in a 5 to 8 inch layer and lightly compact to a minimum thickness of 4 inches. Spreading is to be performed in such a manner that sodding or seeding can proceed with a minimum of additional soil preparation and tillage. Any irregularities in the surface resulting from topsoiling or other operations must be corrected in order to prevent the
- c. Topsoil must not be placed if the topsoil or subsoil is in a frozen or muddy condition, when the subsoil is excessively wet or in a condition that may otherwise be detrimental to proper grading

#### C. Soil Amendments (Fertilizer and Lime Specifications)

- Soil tests must be performed to determine the exact ratios and application rates for both lime and fertilizer on sites having disturbed areas of 5 acres or more. Soil analysis may be performed by a recognized private or commercial laboratory. Soil samples taken for engineering purposes may also
- Fertilizers must be uniform in composition, free flowing and suitable for accurate application by appropriate equipment. Manure may be substituted for fertilizer with prior approval from the appropriate approval authority. Fertilizers must all be delivered to the site fully labeled according to
- he applicable laws and must bear the name, trade name or trademark and warranty of the producer 3. Lime materials must be ground limestone (hydrated or burnt lime may be substituted except when hydroseeding) which contains at least 50 percent total oxides (calcium oxide plus magnesium oxide). Limestone must be ground to such fineness that at least 50 percent will pass through a •100
- mesh sieve and 98 to 100 percent will pass through a \*20 mesh sieve. 4. Lime and fertilizer are to be evenly distributed and incorporated into the top 3 to 5 inches of soil by
- . Where the subsoil is either highly acidic or composed of heavy clays, spread ground limestone at the rate of 4 to 8 tons/acre (200-400 pounds per 1,000 square feet) prior to the placement of topsoil

#### **B-4-3 Standards and Specifications for Seeding and Mulching**

Conditions Where Practice Applies: To the surface of all perimeter controls, 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. All seed must be subject to re-testing by a recognized seed laboratory. All seed used must have been tested within the 6 months immediately preceding the date of sowing such material on any project. Refer to Table B.4 regarding the quality of seed. Seed tags must be available upon request to the inspector to
- b. Mulch alone may be applied between the fall and spring seeding dates only if the ground is frozen. The appropriate seeding mixture must be applied when the ground thaws.
- c. Inoculants: The inoculant for treating legume seed in the seed mixtures must be a pure culture of nitrogen fixing bacteria prepared specifically for the species. Inoculants must not be used later than the date indicated on the container. Add fresh inoculants as directed on the package. Use four times the recommended rate when hydroseeding. Note: It is very important to keep inoculant as cool as possible until used. Temperatures above 75 to 80 dégrees Fahrenheit can weaken bacteria and make the inoculant less effective.
- d. Sod or seed must not be placed on soil which has been treated with soil sterilants or chemicals used for weed control until sufficient time has elapsed (14 days min.) to permit dissipation of phyto-toxic materials.

#### Application

- a. Dry Seeding: This includes use of conventional drop or broadcast spreaders.
- i. Incorporate seed into the subsoil at the rates prescribed on Temporary Seeding Table B.1, Permanent Seeding Table B.3, or site- specific seeding summaries.
- ii. Apply seed in two directions, perpendicular to each other. Apply half the seeding rate in each direction. Roll the seeded area with a weighted roller to provide good seed to soil
- b. Drill or Cultipacker Seeding: Mechanized seeders that apply and cover seed with soil.
- Cultipacking seeders are required to bury the seed in such a fashion as to provide at least kinch of soil covering. Seedbed must be firm after planting.
- ii. Apply seed in two directions, perpendicular to each other. Apply half the seeding rate in
- c. Hydroseeding: Apply seed uniformly with hydroseeder (slurry includes seed and fertilizer). If fertilizer is being applied at the time of seeding, the application rates should not exceed the following: nitrogen, 100 pounds per acre total of soluble nitrogen; P205 (phosphorous), 200 pounds per acre; K20 (potassium), 200 pounds per acre.
- ii. Lime: Use only ground agricultural limestone (up to 3 tons per acre may be applied by hydroseeding). Normally, not more than 2 tons are applied by hydroseeding at any one
- iii. Mix seed and fertilizer on site and seed immediately and without interruption.
- iv. When hydroseeding do not incorporate seed into the soil.

## Mulch Materials (in order of preference)

- a. Straw consisting of thoroughly threshed wheat, rye, oat, or barley and reasonably bright in color. Straw is to be free of noxious weed seeds as specified in the Maryland Seed Law and not musty, moldy, caked, decayed, or excessively dusty. Note: Use only sterile straw mulch in areas where one species of grass is desired.
- b. Wood Cellulose Fiber Mulch (WCFM) consisting of specially prepared wood cellulose
- processed into a uniform fibrous physical state. WCFM is to be dyed green or contain a green dye in the package that will provide an appropriate color to facilitate visual inspection of the uniformly spread slurry.
- ii. WCFM, including dye, must contain no germination or growth inhibiting factors
- iii. WCFM materials are to be manufactured and processed in such a manner that the wood cellulose fiber mulch will remain in uniform suspension in water under gaitation and will blend with seed, fertilizer and other additives to form a homogeneous slurry. The mulch material must form a blotter-like ground cover, on application, having moisture absorption and percolation properties and must cover and hold grass seed in contact with the soil without inhibiting the growth of the grass seedlings.
- iv. WCFM material must not contain elements or compounds at concentration levels that will
- v. WCFM must conform to the following physical requirements: fiber length of approximately 10 millimeters, diameter approximately 1 millimeter, pH range of 4.0 to 8.5, ash content of 1.6 percent maximum and water holding capacity of 90 percent minimum.

### a. Apply mulch to all seeded areas immediately after seeding.

- b. When straw mulch is used, spread it over all seeded areas at the rate of 2 tons per acre to a uniform loose depth of 1 to 2 inches. Apply mulch to achieve a uniform distribution and depth so that the soil surface is not exposed. When using a mulch anchoring tool, increase the
- c. Wood cellulose fiber used as mulch must be applied at a net dry weight of 1500 pounds per acre. Mix the wood cellulose fiber with water to attain a mixture with a maximum of 50 pounds of wood cellulose fiber per 100 gallons of water.

- a. Perform mulch anchoring immediately following application of mulch to minimize loss by wind or water. This may be done by one of the following methods (listed by preference), depending upon the size of the area and erosion hazard:
- i. A mulch anchoring tool is a tractor drawn implement designed to punch and anchor mulch into the soilsurface a minimum of 2 inches. This practice is most effective on large areas, but is limited to flatter slopes where equipment can operate safely. If used on sloping land,
- ii. Wood cellulose fiber may be used for anchoring straw. Apply the fiber binder at a net dry weight of 750 pounds per acre. Mix the wood cellulose fiber with water at a maximum of 50 pounds of wood cellulose fiber per 100 gallons of water.

iii. Synthetic binders such as Acrylic DLR (Agro-Tack), DCA-70, Petroset, Terra Tax II, Terra Tack AR or other approved equalmay be used. Follow application rates as specified by the manufacturer, Application of liquid binders needs to be heavier at the edges where wind catches mulch, such as in valleys and on crests of banks. Use of asphalt binders is strictly

2. Sod Installation

a. During periods of excessively high temperature or in areas having dry subsoil, lightly irrigate

c. Wherever possible, lay sod with the long edges parallel to the contour and with staggering

solid contact exists between sod roots and the underlying soil surface.

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

3. Runoff from the stockpile area must drain to a suitable sediment control practice.

prevent voids which would cause air drying of the roots

**B-4-8 Standards and Specifications for Stockpile Area** 

4. Access the stockpile area from the upgrade side.

concentrated flow in a non-erosive manner.

H-1 Standards and Specifications for Materials

TEST METHOD

ASTM D-4632

ASTM D-4632

ASTM D-4533

ASTM D-6241

ASTM D-4491

TABLE H.1: GEOTEXTILE FABRICS

Grab Tensile Strength

Grab Tensile Elongation

Trapezoidal Tear Strength

Puncture Strength

Ultraviolet Resistance

PROPERTY

Permittivity

control practice must be used to intercept the discharge.

Conditions Where Practice Applies

b. Lay the first row of sod in a straight line with subsequent rows placed parallel to it and tightly wedged against each other. Stagger lateral joints to promote more uniform growth and strength Ensure that sod is not stretched or overlapped and that all joints are butted tight in order to

joints. Roll and tamp, peg or otherwise secure the sod to prevent slippage on slopes. Ensure

d. Water the sod immediately following rolling and tamping until the underside of the new sod pad

and soil surface below the sod are thoroughly wet. Complete the operations of laying, tamping and irrigating for any piece of sod within eight hours.

a. In the absence of adequate rainfall, water daily during the first week or as often and sufficiently as necessary to maintain moist soil to a depth of 4 inches. Water sod during the heat of the day

c. Do not mow until the sod is firmly rooted. No more than 1/3 of the grass leaf must be removed

by the initial cutting or subsequent cuttings. Maintain a grass height of at least 3 inches unless otherwise specified.

b. After the first week, sod watering is required as necessary to maintain adequate moisture

1. The stockpile location and all related sediment control practices must be clearly indicated on the

2. The footprint of the stockpile must be sized to accommodate the anticipated volume of material

and based on a side slope ratio no steeper than 2:1. Benching must be provided in accordance with Section B-3 Land Grading.

5. Clear water runoff into the stockpile area must be minimized by use of a diversion device such as an earth dike, temporary swale or diversion fence. Provisions must be made for discharging

6. Where runoff concentrates along the toe of the stockpile fill, an appropriate erosion/sediment

The stockpile area must continuously meet the requirements for Adequate Vegetative Establishment in

7. Stockpiles must be stabilized in accordance with the 3/7 day stabilization requirement as well as Standard B-4-1 Incremental Stabilization and Standard B-4-4 Temporary Stabilization.

8. If the stockpile is located on an impervious surface, a liner should be provided below the stockpile to

facilitate cleanup. Stockpiles containing contaminated material must be covered with impermeable

accordance with Section B-4 Vegetative Stabilization. Side slopes must be maintained at no steeper than a 2:1

ratio. The stockpile area must be kept free of erosion. If the vertical height of a stockpile exceeds 20 feet for 2:1

slopes, 30 feet for 3:1 slopes, or 40 feet for 4:1 slopes, benching must be provided in accordance with Section B-3 Land Grading.

WOVEN
SLIT FILM MONOFILAMENT NONWOVEN
GEOTEXTILE GEOTEXTILE

MINIMUM AVERAGE ROLL VALUE'

MD CD MD CD MD CD

900 lb

0.05 sec<sup>-1</sup> | 0.28 sec<sup>-1</sup>

(0.21 mm) (0.21 mm)

450 lb

. Sieve 30 U.S. Sieve 70 U.S. Sieve 70 other, including selvages.

70% strength 70% strength 70% strength do not exceed a one foot drop height.

1.1 sec<sup>-1</sup>

All numeric values except apparent opening size (AOS) represent minimum average roll values (MARV). MARV is calculated as the typical minus two

95 percent by weight of polyoletins or polyesters, and formed into a stable network so the filaments or yarns retain their dimensional stability relative to each

When more than one section of geotextile is necessary, overlap the sections by at least one foot. The geotextile must be pulled taut over the applied surface.

Equipment must not run over exposed fabric. When placing riprap on geotextile,

nis development plan is approved for soil erosion and sediment control by the

I/We certify that all development and construction will be done according to

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 periodic on-site inspection by the Howar Soil Conservation District"

I certify that this plan for erosion and sediment control represents a practice 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

APPROVED: DEPARTMENT OF PLANNING AND ZONING

ADDRESS CHART

PERMIT INFORMATION CHART

STREET ADDRESS

RESTAURANT - 8820 STANFORD BOULEVARD

1/1

this plan and that any responsible personnel involved in the construction project

standard deviations. MD is machine direction; CD is cross direction.

2 Values for AOS represent the average maximum opening

EVELOPER'S CERTIFICATE

NGINEER'S CERTIFICATE

Soil Conservation District"

Ioua Nosdi-Zanle

hief, Development Engineering Division

chief, Division of Land Development

Val ais Julin-

COLUMBIA CORPORATE PARK

24

PLAT NO. or L/F | GRID NO.

LOT / PARCEL NO.

356 / A-42

SUBDIVISION NAME

23898

aniel F. Pallace

MD CD MD CD MD CD Geotextiles must be evaluated by the National Transportation Product Evaluation 200 lb 200 lb 250 lb 200 lb 200 lb Program (NTPEP) and conform to the values in Table H.1.

15% | 10% | 15% | 15% | 50% | 50% | The geotextile must be inert to commonly encountered chemicals and hydrocarbons

75 lb 75 lb 100 lb 60 lb 80 lb 80 lb and must be rot and mildew resistant. The geotextile must be manufactured from fibers consisting of long chain synthetic polymers and composed of a minimum of

iv. Lightweight plastic netting may be stapled over the mulch according to manufacturer recommendations. Netting is usually available in rolls 4 to 15 feet wide and 300 to 3,000 feet long.

#### **B-4-4 Standards and Specifications for Temporary Stabilization**

Conditions Where Practice Applies

TEMPORARY SEEDING SUMMARY

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.

- 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. If this Summary is not put on the plan and completed, then Table B.1 plus fertilizer and lime rates must be put on the plan.
- 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.
- When stabilization is required outside of a seeding season, apply seed and mulch or straw mulch alone as prescribed in Section B-4-3.A.1.b and maintain until the next seeding season.

	iness Zone (from I Mixture (from To			Fertilizer Rate (10-20-20)	Lime Rate	
No.	Species	Application Rate (lb/ac)	Seeding Dates	Seeding Depths		
	FOXTAIL MILLET	30	5/1-8/14	1/2"	436 lb/ac	2 tons/ac
	ANNUAL RYEGRASS	40	2/15-4/30 8/15-11/30	1/2"	(10 lb/1000 sf)	(90 lb/1000 sf)
	CEREAL RYE	112	2/15-4/30 8/15-12/15	1"		

#### B-4-5 Standards and Specification for Permanent Stabilization Conditions Where Practice Applies

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

#### <u>Criterio</u>

#### A. Seed Mixtures

- 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. Enter selected mixture(s), application rates, and seeding dates in the Permanent Seeding Summary. The Summary is to be placed on the plan.
- b. Additional planting specifications for exceptional sites such as shorelines, stream banks, or dunes or for special purposes such as wildlife or aesthetic treatment may be found in USDA-NRCS Technical Field Office Guide, Section 342 - Critical Area Planting.
- c. For sites having disturbed area over 5 acres, use and show the rates recommended by the soil
- d. For areas receiving low maintenance, apply urea form fertilizer (46-0-0) at  $3\frac{1}{2}$  pounds per 1000 square feet (150 pounds per acre) at the time of seeding in addition to the soil amendments shown in the Permanent Seeding Summary.
- 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. Select one or more of the species or mixtures listed below based on the site conditions or purpose. Enter selected mixture(s), application rates, and seeding dates in the Permanent Seeding Summary. The summary is to be placed on the plan.
- i. Kentucky Bluegrass: Full Sun Mixture: For use in areas that receive intensive management. Irrigation required in the areas of central Maryland and Eastern Shore.

  Recommended Certified Kentucky Bluegrass Cultivars Seeding Rate: 1.5 to 2.0 pounds per 1000 square feet. Choose a minimum of three Kentucky bluegrass cultivars with each ranging from 10 to 35 percent of the total mixture by weight.
- ii. Kentucky Bluegrass/Perennial Rye: Full Sun Mixture: For use in full sun areas where 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. Choose a minimum of three Kentucky bluegrass cultivars with each ranging from 10 to 35 percent of the total mixture by weight
- iii. Tall Fescue/Kentucky Bluegrass: Full Sun Mixture: For use in drought prone areas and/o for areas receiving low to medium management in full sun to medium shade.

  Recommended mixture includes: Certified Tall Fescue Cultivars 95 to 100 percent. Certified Kentucky Bluegrass Cultivars 0 to 5 percent. Seeding Rate: 5 to 8 pounds per 1000 square feet. One or more cultivars may be blended.
- iv. Kentucky Bluegrass/Fine Fescue: Shade Mixture: For use in areas with shade in Bluegras: lawns. For establishment in high quality, intensively managed turf area. Mixture includes Certified Kentucky Bluegrass Cultivars 30 to 40 percent and Certified Fine Fescue and 60 to 70 percent. Seeding Rate:  $1\frac{1}{2}$  to 3 pounds per 1000 square feet.

Select turfgrass varieties from those listed in the most current University of Maryland Publication, Agronomy Memo •77, "Turfgrass Cultivar Recommendations for Maryland"

Choose certified material. Certified material is the best guarantee of cultivar purity. The certification program of the Maryland Department of Agriculture, Turf and Seed Section, provides a reliable means of consumer protection and assures a pure genetic line

c. Ideal Times of Seeding for Turf Grass Mixtures

- <u>Western MD</u>: March 15 to June 1, August 1 to October 1 (Hardiness Zones: 5b, 6a)
  <u>Central MD</u>: March 1 to May 15, August 15 to October 15 (Hardiness Zone: 6b)
  <u>Southern MD</u>. <u>Eastern Shore</u>: March 1 to May 15, August 15 to October 15 (Hardiness Zones: 7a, 7b)
- d. Till areas to receive seed by disking or other approved methods to a depth of 2 to 4 inches, level and rake the areas to prepare a proper seedbed. Remove stones and debris over 1/2 inches in diameter. The resulting seedbed must be in such condition that future mowing of grasses will
- e. If soil moisture is deficient, supply new seedings with adequate water for plant growth ( $\frac{1}{2}$ to 1 inch every 3 to 4 days depending on soil texture) until they are firmly established. This is especially true when seedings are made late in the planting season, in abnormally dry or hot

#### seasons, or on adverse sites. PERMANENT SEEDING SUMMARY

Hardin Seed	Hardiness Zone (from Figure B.3): 7a Seed Mixture (from Table B.1): 7a						Fertilizer Rate (10-20-20)			
No.	Species	Application Rate (lb/ac)	Seeding Dates	Seeding Depths	N	P <sub>2</sub> O <sub>5</sub>	K <sub>2</sub> 0			
11	CREEPING RED FESCUE CHEWINGS FESCUE KENTUCKY BLUEGRASS FOXTALL OR PEARL MILLET	30 30 20	2/15-4/30 8/15-10/31	1/4"-12"	45 lb/ac (1.0 lb/	90 lb/ac (2 lb/	90 lb/ac (2 lb/	2 tons/ac		
6	TALL FESCUE WHITE CLOVER PERENNIAL RYEGRASS	40 5 25	5/1-8/14 2/15-4/30 8/15-10/31	14" <sup>-1</sup> 2"		1000 sf) 10		1000 sf)		
_	FOXTAIL, OR PEARL MILLET	<u>25</u> 3.5	5/1-8/14 2/15-4/30		-					
TURF GRASS	TALL FESCUE (95%) KENTUCKY_BLUFGRASS_(5%) FOXTAIL, OR PEARL MILLET	270 <u>15</u> 14	8/15-10/30 5/1-8/14	¼" <sup>-1</sup> 2"						

<sup>\*</sup>For dates 5/1 - 8/14 add either foxtail or pearl millet to the seed mixture as noted above.

For sites having disturbed areas over 5 acres the rates shown above for permanent seeding shall be deleted and the rates recommended by the soil testing agency shall be used. Soil testing shall be performed at the time of fine grading and the results shall be furnished to the sediment control inspector.

B. Sod: To provide quick cover on disturbed areas (2:1 grade or flatter).

- General Specifications
- a. Class of turfgrass sod must be Maryland State Certified, Sod labels must be made available to
- b. Sod must be machine cut at a uniform soil thickness of 4 inch, plus or minus 4 inch, at the time of cutting. Measurement for thickness must exclude top growth and thatch. Broken pads and torn or uneven ends will not be acceptable.
- c. Standard size sections of sod must be strong enough to support their own weight and retain their size and shape when suspended vertically with a firm grasp on the upper 10 percent of the
- d. Sod must not be harvested or transplanted when moisture content (excessively dry or wet) may adversely affect its survival. e. Sod must be harvested, delivered, and installed within a period of 36 hours. Sod not transplanted within this period must be approved by an agronomist or soil scientist prior to its installation.

# DEVELOPER / APPLICANT

6040 DUTCHMANS LANE, SUITE 400 LOUISVILLE, KY 40205 (502) 426-9984 FAX: (502) 515-7229

ON THIS SHEET **EROSION AND SEDIMENT CONTROL PLAN** 

NO AS-BUILT INFORMATION

# STANDARD VEGETATIVE STABILIZATION NOTES

SECTION 1, AREA 1, PARCEL A-42 - TEXAS ROADHOUSE

IOWARD COUNTY, MARYLAND (NEW TOWN - EMPLOYMENT CENTER INDUSTRIAL, FDP-117-A-II) DATE: DECEMBER, 2016

SDP-16-06

LOT / PARCEL NO.

DRAWING NO.

356 / A-42

CENSUS TRAC

606707

12/1/16

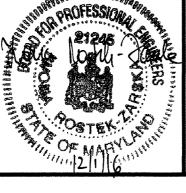
Date

12-15-16

12-17-16

Baltimore Land Design Group Inc.

**Consulting Engineers** 230 SCHILLING CIRCLE, SUITE 364 • HUNT VALLEY, MARYLAND 21031 PHONE: 410.229.9851 • FAX: 410.229.9865 • BLDG@BLDGINC.COM



PROFESSIONAL CERTIFICATION

IHEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, IWONA ROSTEK-ZARSKA, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 21245, EXPIRATION DATE: JUNE 9, 2018.

### MERRITT-CCP, LLC

2066 LORD BALTIMORE DRIVE BALTIMORE, MD 21244 (410) 298-2600

FAX: (410) 298-9644

OWNER

## TEXAS ROADHOUSE HOLDINGS LLC

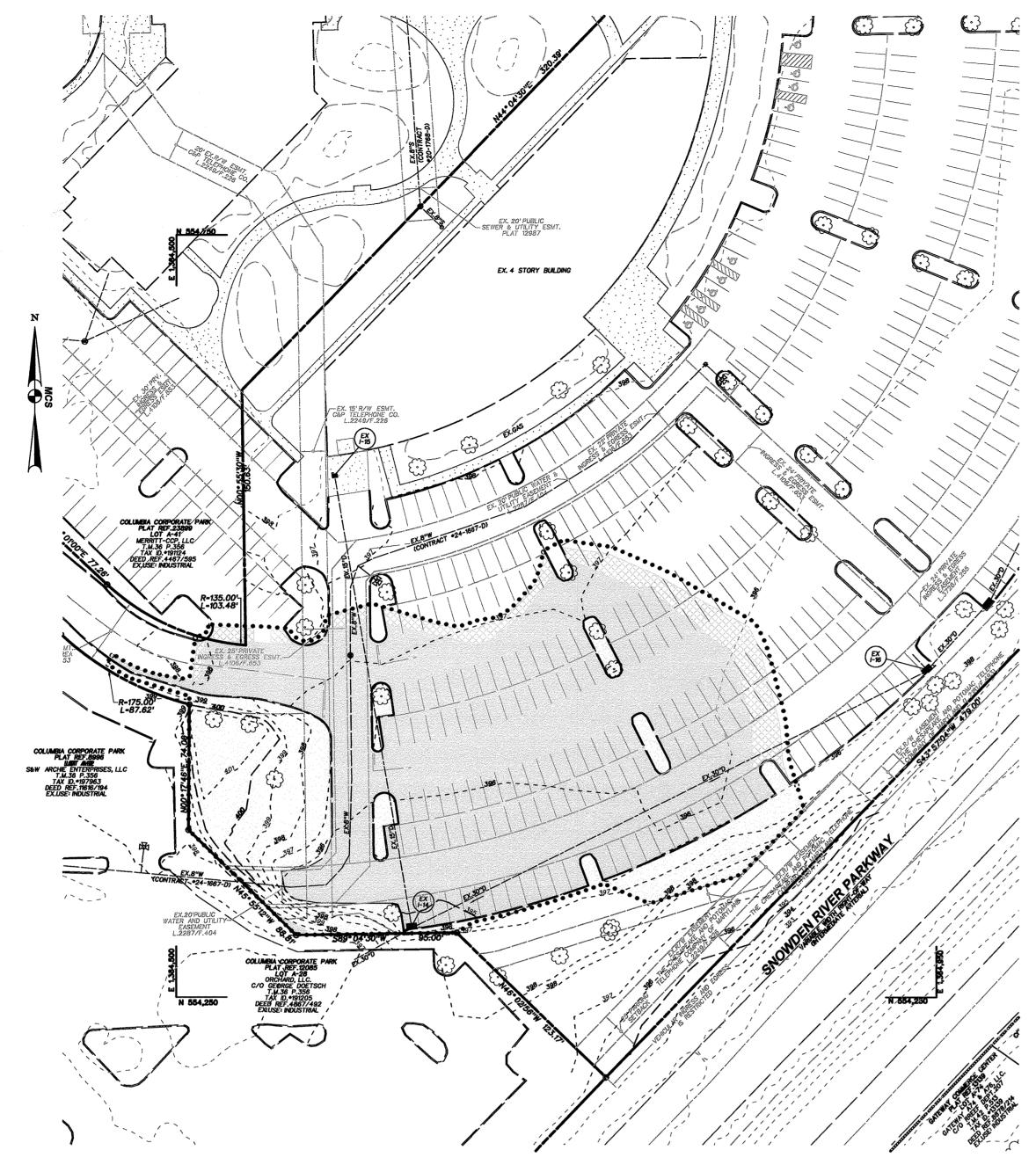
REVISIONS DATE NO. DESCRIPTION

COLUMBIA CORPORATE PARK

8820 STANFORD BOULEVARD COLUMBIA, MARYLAND 21045 RESTAURANT

ELEC. DIST.

SHEET 12 OF 17



## **EXISTING CONDITION MAP**

SWM LIMIT OF DISTURBANCE - 62,150 SF OR 1.427 AC EX. IMPERVIOUS AREA - 42,252 SF OR 0.970 AC

### SWM DESIGN NARRATIVE

The proposed development is within Parcel A-35 of the Columbia Corporate Park. It consists of a restaurant (7,420 sf) and associated parking. The area is currently being used as a parking lot. The subject site is draining towards an existing pond which is providing 2-, 10- and 100-yr quantity management as shown on previously approved drawings (SDP-87-193 & FDP-117-All). The current zoning is New Town (NT).

The majority of the proposed development is impervious (73% +/-). Therefore, it qualifies as redevelopment. With a small increase in impervious area, the proposed development is also subject to new development requirements. As a result, stormwater management shall be addressed according to both redevelopment and new development requirements. The redevelopment portion of the site will be treated by a Filterra (13' x 7') while a micro-bioretention facility will fulfill ESD volume requirements for the new development portion. Recharge requirements are being fulfilled through a stone trench under the micro-bioretention facility.

Natural resource protection and enhancement:
As mentioned above, most of this subject site is impervious. The remainder has already been graded/compacted. The surrounding existing landscaping will remain intact. As a matter of fact, proposed landscaping will be provided to enhance the subject site.

Maintenance of natural flow patterns: Natural flow patterns are being preserved. This is reflected in the proposed grading as shown on the stormwater

Reduction of impervious areas through better site design, alternative surfaces, non-structural practices: The proposed development was strategically placed as shown on the plans to minimize total site imperviousness while maintaining visibility from Snowden River Parkway. The majority of the subject site is impervious (73% +/-). While a reduction in impervious area wasn't achieved, the increase is very minimal (3.3% +/-). Alternative surfaces weren't a feasible option due to the type/property of onsite soils. The existing grades as well as the type of terrain (impervious) weren't conducive to non-structural practices.

Integration of erosion and sediment controls into SWM strategy:
This typically is in reference to the placement of primary ESC practices such as traps and basins so that they're not placed in the same location as SWM practices that will ultimately rely on ground infiltration. The subject site doesn't feature any traps or basins. Inlet protection is being provided for all new inlets and some existing ones as well.

Implementation of ESD planning techniques and practices:
As mentioned above, the proposed development was strategically placed as shown on the plans to minimize total site imperviousness. Every effort was made to maintain the existing landscaping as well as the drainage pattern. The landscaping will actually be enhanced within the proposed development. The size of the subject site and the amount of existing impervious areas precluded the use of any natural areas and landscape features to manage the runoff from the proposed impervious area. The type/property of the onsite soils further streamlined the type of ESD practices that could be used to fulfill ESD requirements. As a result, a micro-bioretention practice will be used to fulfill ESD requirements for new development and a Filterra for redevelopment. Both practices will slow down runoff to maintain discharge timing and increase infiltration and evapotranspiration.

## PROPOSED CONDITION MAP

SWM LIMIT OF DISTURBANCE - 62,150 SF OR 1.427 AC PR. IMPERVIOUS AREA - 43,649 SF OR 1.002 AC

### STORM WATER MANAGEMENT **DESIGN SUMMARY**

THIS SITE FALLS UNDER BOTH THE REDEVELOPMENT AND NEW DEVELOPMENT CRITERIA. THEREFORE, SWM SHALL BE PROVIDED BY EITHER A REDUCTION OF EXISTING IMPERVIOUS AREA WITHIN THE LIMIT OF DISTURBANCE (LOD) BY 50% AND/OR PROVIDING WATER QUALITY TREATMENT FOR AN EQUIVALENT AREA FOR THE IMPERVIOUS AREA THAT COULD NOT BE REDUCED.

IN ADDITION, STORM WATER MANAGEMENT SHALL BE PROVIDED ACCORDING TO THE NEW DEVELOPMENT REQUIREMENTS IN THE NEW DESIGN MANUAL FOR ANY NET INCREASE IN IMPERVIOUS AREA WITHIN THE LIMIT OF DISTURBANCE.

SWM LIMIT OF DISTURBANCE - 62,150 SF
EX. IMPERVIOUS AREA WITHIN LOD - 42,252 SF
PR. IMPERVIOUS AREA WITHIN LOD - 43,649 SF
PR. INCREASE IN IMPERVIOUS AREA - 1,397 SF (3.3% +/-)
WATER QUALITY TO BE PROVIDED FOR 50% OF EX. IMPERVIOUS AREA - 21,126 SF
ESDV TO BE PROVIDED FOR INCREASE IN IMPERVIOUS AREA - 1,397 SF

TOTAL AREA TO ESD \*2 - 1,838 SF OR 0.042 AC CONTRIBUTING IMPERVIOUS AREA - 1,485 SF OR 0.034 AC MIN. IMP. AREA TO BE TREATED - 1,397 SF OR 0.032 AC

### **ESD TARGETS REQUIRED:**

REDEVELOPMENT, Pe = 1.0"
MIN. REQUIRED IMPERVIOUS AREA TO RECEIVE WATER QUALITY TREATMENT = 21,126 SF

DATE NO.

NEW DEVELOPMENT, Pe = 2.0"
MIN. REQUIRED IMPERVIOUS AREA FOR ESDV COMPUTATIONS = 1,397 SF
ESDV REQUIRED (MIN.) = 221 CF
Rev REQUIRED (MIN.) = 13 CF

### **ESD TARGETS PROVIDED:**

REDEVELOPMENT - ESD PRACTICE \*1 STRUCTURE TYPE: FILTERRA (13' X 7') PRAINAGE AREA 'A'

IMPERVIOUS AREA TREATED = 21,130 SF NEW DEVELOPMENT - ESD PRACTICE \*2 STRUCTURE TYPE: MICRO-BIORETENTION (M-6) DRAINAGE AREA 'B' Pe = 2.60" IMPERVIOUS AREA TREATED = 1,485 SF ESDV PROVIDED = 309 CF Rev PROVIDED = 69 CF

FAX: (502) 515-7229

NO AS-BUILT INFORMATION ON THIS SHEET

	APPRO'	VED: DEP	ARTMENT O	F PLANNING	AND :	ZONING
	Ched Educat					6.8.17
	Chief, Developme	ent Enginee	ring Division		*	Date
	Kat Sle	el me				6.12-17
	Chief, Division of	f Land Dev	elopment	EB		Date
	Valle	gelli	-			6-/2-17
	Director					Date
	,		ADDRES	S CHART		
	LOT / PARCEL I	NO.		STREET ADI	DRESS	
	356 / A-42		RESTAURAN	T - 8820 STA	ANFORD	BOULEVARD
			· ·			
THE COORDINATE SYSTEM OF ALL DRAWINGS IS BASED ON THE NORTH AMERICAN DATUM OF 1983. THE		L	PERMIT INFOR	RMATION CHART		
ELEVATION SYSTEM OF ALL DRAWINGS IS BASED ON THE NORTH AMERICAN VERTICAL DATUM OF 1988.	SUBDIVISION NAME COLUMBIA CO	DRPORATE PA	RK	SECTION / A	REA	LOT / PARCEL NO. 356 / A-42
HORZ: NAD 83/91; VERT: NAVD 88	DI AT NO at 1 /E	CDID NO	701110	TAY MAD NO	FLEO	DICT CENCUS TRAC

Stormwater Management Information

FIL (WQv)

M-6 (ESDv)

Practice Type (Quantity) Public Private HOA Maintains

TOTAL AREA TO ESD \*1 = 24,763 SF OR 0.568 AC CONTRIBUTING IMPERVIOUS AREA = 21,130 SF OR 0.485 AC MIN. IMP. AREA TO BE TREATED = 21,126 SF OR 0.485 AC

ESD PRACTICE #2
MICRO-BIORETENTION
(M-6)

Baltimore Land Design Group Inc.

PHONE: 410.229.9851 • FAX: 410.229.9865 • BLDG@BLDGINC.COM

SOIL CLASSIFICATION

NOTE: THE URBAN LAND SOIL TYPE ENCOMPASSES AN AREA MUCH LARGER THAN THE SUBJECT SITE. THEREFORE, SOIL LINES ARE NOT SHOWN AT THIS SCALE.

LIMIT OF DISTURBANCE • • • • • • • • •

UtD | Urban land - Udorthents complex | D

**SWM LEGEND** 

EX. / PR. IMPERVIOUS AREA

EX. / PR. GRASS

SOIL MAP \*18

Consulting Engineers 230 SCHILLING CIRCLE, SUITE 364 • HUNT VALLEY, MARYLAND 21031

Ksat Kw Kf

0.06 - 0.60 0.28 0.28



### PROFESSIONAL CERTIFICATION

IHEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, IWONA ROSTEK-ZARSKA, AND THAT IAM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 21245, EXPIRATION DATE: JUNE 9, 2018.

### **OWNER DEVELOPER / APPLICANT**

FAX: (410) 298-9644

MERRITT-CCP, LLC TEXAS ROADHOUSE HOLDINGS LLC 2066 LORD BALTIMORE DRIVE BALTIMORE, MD 21244 6040 DUTCHMANS LANE, SUITE 400 LOUISVILLE, KY 40205 (410) 298-2600 (502) 426-9984

	DESCRIPTION	BY
	RELOCATION OF ESD PRACTICE	BLDG
	·	
_		
	`	1

## STORMWATER MANAGEMENT PLAN COLUMBIA CORPORATE PARK

SECTION 1, AREA 1, PARCEL A-42 - TEXAS ROADHOUSE 8820 STANFORD BOULEVARD COLUMBIA, MARYLAND 21045 RESTAURANT

REVISED

Lot/Parcel Number

^-42 Filterra - ESD #1

Facility Name & Number

Micro-bioretention - ESD #

TAX MAP NO.

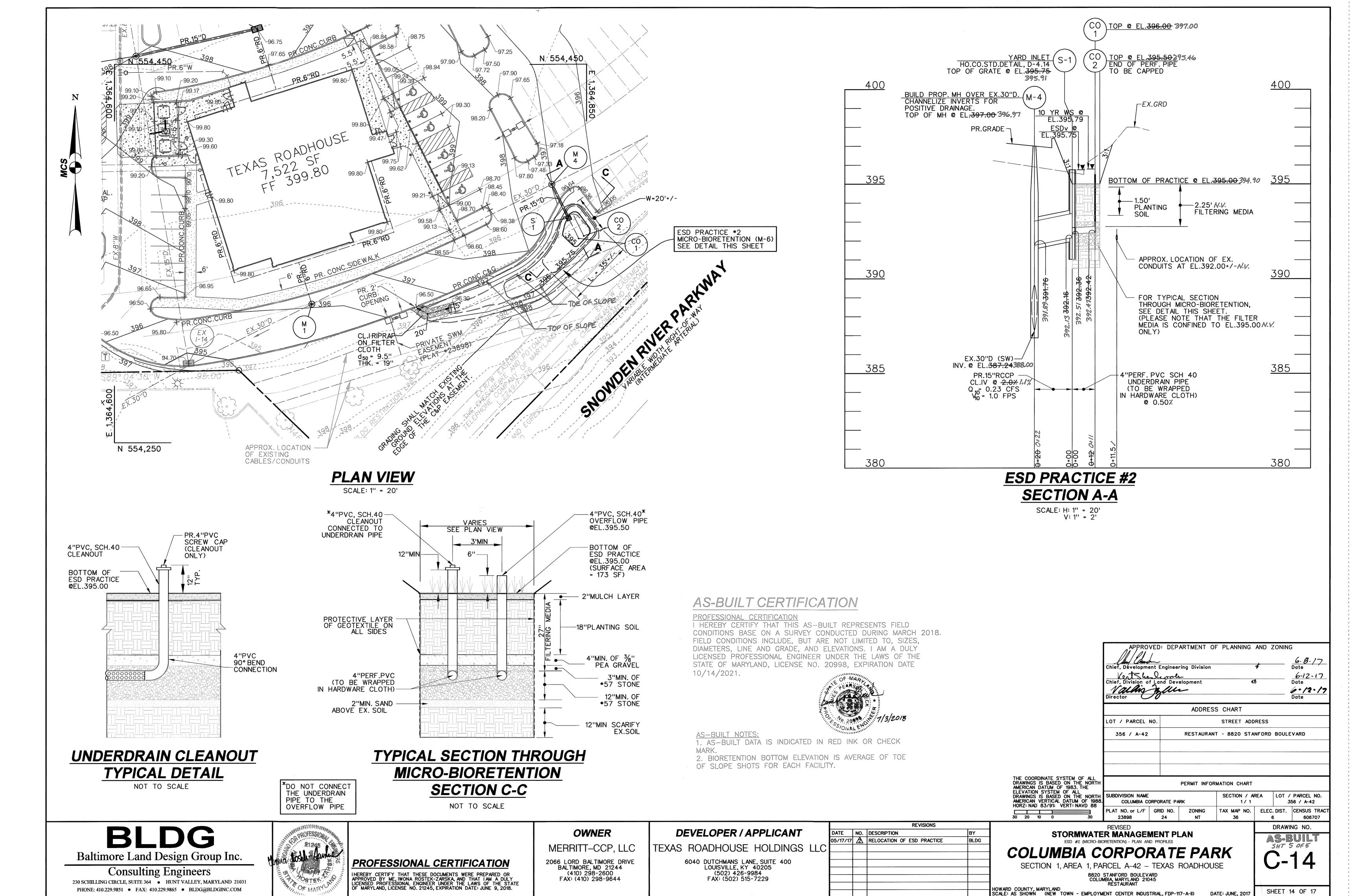
HOWARD COUNTY, MARYLAND SCALE: AS SHOWN (NEW TOWN - EMPLOYMENT CENTER INDUSTRIAL, FDP-117-A-II) SHEET 13 OF 17 DATE: JUNE, 2017

ELEC. DIST. | CENSUS TRAC

DRAWING NO.

Owner will maintain

Owner will maintain



SDP-16-061

### **CONSTRUCTION SPECIFICATIONS**

#### MICRO-BIORETENTION. RAIN GARDENS, LANDSCAPE **INFILTRATION & INFILTRATION BERMS**

#### I. MATERIAL SPECIFICATIONS

The allowable materials to be used in these practices are detailed in Table B.4.1.

II. FILTERING MEDIA OR PLANTING SOIL

The soil shall be a uniform mix, free of stones, stumps, roots, or other similar objects larger than two inches. No other materials or substances shall be mixed or dumped within the micro-bioretention practice that may be harmful to plant growth, or prove a hindrance to the planting or maintenance operations. The planting soil shall be free of Bermuda grass, Quackgrass, Johnson grass or other noxious weeds as specified under COMAR 15.08.01.05.

The planting soil shall be tested and shall meet the following criteria:

Soil Component - Loamy Sand or Sandy Loam (USDA Soil Textural Classification)
Organic Content - MINimum 10% by dry weight (ASTM D 2974). In general, this can be met with mixture of loamy sand (60%-65%) and compost (35% to 40%) or sandy loam (30%), coarse sand (30%) and compost (40%).
Clay Content - Media shall have a clay content of less than 5%.
pH Range - Should be between 5.5-7.0. Amendments (e.g., lime, iron sulfate plus sulfur) may be mixed into the soil to

There shall be at least one soil test per project. Each test shall consist of both the standard soil test for pH, and additional tests of organic matter and soluble salts. A textural analysis is required from the site stockpiled topsoil. If topsoil is imported, then a texture analysis shall be performed for each location where the topsoil was excavated. III. COMPACTION

It is very important to MINimize compaction of both the base of bioretention practices and the required backfill. When possible, use excavation hoes to remove original soil. If practices are excavated using a loader, the contractor should use wide track or marsh track equipment, or light equipment with turf type tires. Use of equipment with narrow tracks or narrow tires, rubber tires with large lugs, or high pressure tires will cause excessive compaction resulting in reduced infiltration rates and is not acceptable. Compaction will significantly contribute to design failure

Compaction can be alleviated at the base of the bioretention facility by using a primary tilling operation such as a chisel plow, ripper, or subsoiler. These tilling operations are to refracture the soil profile through the 12 inch compaction zone. Substitute methods must be approved by the engineer. Rototillers typically do not till deep enough to reduce the effects of compaction from heavy equipment

Rototill 2 to 3 inches of sand into the base of the bioretention facility before backfilling the optional sand layer Pump any ponded water before preparing (rotatilling) base.

When backfilling the topsoil over the sand layer, first place 3 to 4 inches of topsoil over the sand, then rototill the sand/topsoil to create a gradation zone. Backfill the remainder of the topsoil to final grade.

When backfilling the bioretention facility, place soil in lifts 12" to 18". Do not use heavy equipment within the bioretention basin. Heavy equipment can be used around the perimeter of the basin to supply soils and sand. Grade bioretention materials with light equipment such as a compact loader or a dozer/loader with marsh tracks.

#### IV. PLANT MATERIAL

Recommended plant material for micro-bioretention practices can be found in Appendix A, Section A.2.3. of the 2000 Maryland Stormwater Design Manual Volumes I and II and the landscape plan, prepared for this project, for the specific plantings and specifications. Plant material shall conform to the American Association of Nurseymen's Publication, the American Standard Nursery Stock.

#### V. PLANT INSTALLATION

Compost is a better organic material source, is less likely to float, and should be placed in the invert and other low areas. Mulch should be placed in surrounding to a uniform thickness of 2" to 3". Shredded or chipped hardwood mulch is the only accepted mulch. Pine mulch and wood chips will float and move to the perimeter of the bioretention area during a storm event and are not acceptable. Shredded mulch must be well aged (6 to 12 months) for acceptance

Rootstock of the plant material shall be kept moist during transport and on- site storage. The plant root ball should be planted so 1/8th of the ball is above the final grade surface. The diameter of the planting pit shall be at least six inches larger than the diameter of the planting ball. Set and maintain the plant straight during the entire planting process. Thoroughly water ground bed cover after installation

Trees shall be braced using 2" by 2" stakes only as necessary and for the first growing season only. Stakes are to be equally spaced on the outside of the tree ball. Grasses and legume seed should be drilled into the soil to a depth of at least one inch. Grass and legume plugs shall be

planted following the non- grass ground cover planting specifications.

# The topsoil specifications provide enough organic material to adequately supply nutrients from natural cycling. The primary function of the bioretention structure is to improve water quality. Adding fertilizers defeats, or at a MINimum, impedes this goal. Only add fertilizer if wood chips or mulch are used to amend the soil. Rototill area fertilizer at a rate of 2 pounds per 1000 square feet.

#### VI. UNDERDRAINS

Underdrains should meet the following criteria:

- Pipe Should be 4"- 6" diameter, slotted or perforated rigid plastic pipe (ASTMF 758, Type PS 28, or AASHTO-M-278) in a gravel layer. The preferred material is slotted, 4" rigid pipe (e.g., PVC or HDPE).
   Perforations If perforated pipe is used, perforations should be 3/8" diameter located 6" on center with a MINimum of four holes per row. Pipe shall be wrapped with a 1/4" (No.4 or 4x4) galvanized hardware cloth. Gravel - The gravel layer (No.57 stone preferred) shall be at least 3" thick above and below the underdrain The main collector pipe shall be at a MINimum 0.5% slope.

  A rigid, non-perforated observation well must be provided (one per every 1,000 square feet) to provide a clean- out
- port and monitor performance of the filter.

  A 4" layer of pea gravel (1/8" to 3/8" stone) shall be located between the filter media and underdrain to prevent migration of fines into the underdrain. This layer may be considered part of the filter bed when bed thickness

The main collector pipe for underdrain systems shall be constructed at a MINimum slope of 0.5%. Observation wells and/or clean-out pipes must be provided (one MINimum per every 1000 square feet of surface area).

### VII. MISCELLANEOUS

These practices may not be constructed until all contributing drainage area has been stabilized.

MATERIAL	SPECIFICATION	SIZE	NOTES
Plantings	See Appendix A, Table A.4	n/a	plantings are site-specific
Planting soil [2' to 4' deep]	loamy sand (60 - 65%) & compost (35 - 40%) or sandy loam (30%), coarse sand (30%) & compost (40%)	n/a	USDA soil types loamy sand or sandy loam; clay content < 5%
Organic content	Min. 10% by dry weight (ASTM D 2974)		
Mulch	shredded hardwood		aged 6 months, minimum; no pine or wood chips
Pea gravel diaphragm	pea gravel: ASTM-D-448	NO. 8 OR NO. 9 (1/8" TO 3/8")	
Curtain drain	ornamental stone: washed cobbles	stone: 2" to 5"	
Geotextile		n/a	PE Type 1 nonwoven
Gravel (underdrains and infiltration berms)	AASHTO M-43	NO.57 OR NO.6 AGGREGATE (3/8" to 3/4")	
Underdrain piping	F 758, Type PS 28 or AASHTO M-278	4" to 6" rigid schedule 40 PVC or SDR35	Slotted or perforated pipe; 3/8" perf. © 6" on center, 4 holes per row; minimum of 3" of gravel over pipes; not necessary underneath pipes. Perforated pipe shall be wrapped with 1/4-inch galvanized hardware cloth
Poured in place concrete (if required)	MSHA Mix No. 3; f'c= 3500 psi @ 28 days, 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 - design to include meeting ACI Code 350.R/89; vertical loading [H-10 or H-20]; allowable horizontal loading (based on soil pressures); and analysis of potential cracking
Sand	AASHTO-M-6 or ASTM-C-33	0.02" to 0.04"	Sand substitutions such as Diabase and Graystone (AASHTO) •10 are not acceptable. No calcium carbonated or dolomitic sand substitutions are acceptable. No "rock dust" can be used for sand

### **CONSTRUCTION CRITERIA**

The following items should be addressed during construction of projects with micro-bioretention:

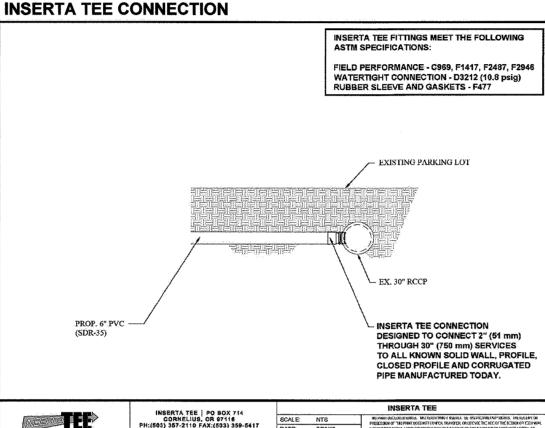
- 1. Erosion and Sediment Control: Micro-bioretention practices should not be constructed until the contributing drainage area is stabilized. If this is impractical, runoff from disturbed areas shall be diverted away and no sediment control practices shall be used near the proposed location. No
- 2. Soil Compaction: Excavation should be conducted in dry conditions (3-day dry weather forecast) with equipment located outside of the practice to MINimize bottom and sidewall compaction. Only lightweight, low ground- contact equipment should be used within micro-bioretention practices and the bottom scarified before installing underdrains and filtering media.
- 3. Underdrain Installation: Gravel for the underdrain system should be clean, washed, and free of fines. Underdrain pipes should be checked to ensure that both the material and perforations meet specifications. The upstream ends of the underdrain pipe should be capped prior to installation.
- 4. Filter Media Installation: Bioretention soils may be mixed on- site before placement. However. soils should not be placed under saturated conditions. The filter media should be placed and graded using excavators or backhoes operating adjacent to the practice and be placed in horizontal layers (12 inches per lift maximum). Proper compaction of the media will occur naturally. Spraying or sprinkling water on each lift until saturated may quicken settling times.
- 5. Landscape Installation: The optimum planting time is during the Fall. Spring planting is also acceptable but may require watering.

#### INSPECTION NOTES

Regular inspections shall be made during the following stages of construction:

- During excavation to subgrade and placement and backfill of underdrain systems During placement of filter media.
- During construction of appurtenant conveyance. - Upon completion of final grading and establishment of permanent stabilization.
- At the end of planting warranty period.
   Regular inspections after completion of facility. This must be done twice a year, in spring and fall at teh MINimum. Mulch must be inspected each spring.

**SWM #1** 



Reuling Associates, Inc.

Light brown and brown

noist, medium stiff claye

sand, some grave

Very Stiff

Very Stiff

Very Stiff

End of Boring

LEGEND

ST SHELBY

DS DRIVEN SPLIT SPOON

HSA HOLLOW STEM AUGER

PS PISTON SAMPLE

RC ROCK CORE

MD MUD DRILLING

USDA Classification: Sandy Clay Loam

PROJECT: Texas Roadhouse Location: See Boring Location Plan

DATE START: 1-6-16

HAMMER WT .: 140 lbs.

BORING METHOD: HSA

FMISH: 1-6-16

### OPERATION AND MAINTENANCE SCHEDULE

#### LANDSCAPE INFILTRATION. MICRO-BIORETENTION. RAIN GARDENS. **BIORETENTION SWALE. ENHANCED FILTERS**

- Inspect and perform maintenance of plant material, mulch layer and soil layer annually,
- Address soil erosion on as needed basis, with a minimum of once per month and after heavy storm events
- Inspect plant material twice a year, in spring and fall. Prune plants as needed. Remove dead and diseased vegetation considered beyond treatment. Treat all diseased trees and shrubs. Replace dead vegetation. If specific plants are not surviving, plant more

appropriate species. Acceptable replacement plant material is limited to that contained in the 2000 Maryland Stormwater Design Manual Volume II, Table A.4.1 and 2.

- Water vegetation during the first few months after strip is established and during
- Maintain vigorous and dense growth. Any bare spots, burned out areas, or eroded areas
- 6. Replace all deficient stakes and wires.
- 7. Inspect and maintain mulch in each spring.
- 8. Where practices are used to treat areas with higher concentrations of heavy metals (e.g., parking lots, roads), replace mulch annually. Otherwise, replace the top two o three inches with new layer as necessary or every two to three years at MINimum. Remove previous mulch layer before applying new layer.
- Remove and replace top few inches of discolored filter media with fresh material when water ponds for more than 48 hours. Dispose removed media of properly in county approved sanitary landfill.
- 10. Remove silts and sediment from surface of filter bed when accumulation
- 11. Inspect and repair any structures, inlet and outlet channels, drains, control structures, and any other elements related to proper functioning of facility.

### All structural components of structures including slabs, walls, pipes, grates, trash racks and manhole covers shall be repaired or replaced as required to keep structures safe and serviceable.

**⊢**95.33∕⁄

**PLAN VIEW** 

SCALE: 1" = 20

PLAN VIEW

ELEVATION VIEW

CROSS SECTION

FILTERRA DETAIL

EL.392.50

DATE: 07-07-06 DWG: FLP-2

FILTERRA® TYPICAL FLOWLINE

**AND OULET PIPE RELATIONSHIP** 

PR 6"

ESD PRACTICE #1 - FILTERRA (13' x 7')

TRANSITION FROM STANDARD TO DEPRESSED

GUTTER (TYP)

UNDERDRAIN SYSTEM

MODIFICATIONS OF DRAWINGS ARE ONLY PERMITTED BY WRITTEN AUTHORIZATION FROM FILTERRA

DEPRESSED GUTTER AT

FILTERRA -

STANDARD CURB AND GUTTER (TYP)

INTERLOCKING JOINT (TYP

### SEQUENCE OF OPERATIONS

- 1. This sequence of operation shall be implemented in accordance with the sequence of
- 2. Notify Miss Utility at 1-800-257-7777 at least three (3) working days prior to beginning
- 3. Notify professional engineer who will be performing the as-built certification at least three (3) working days prior to beginning of this work. (1 day)
- 4. Follow sequence of operations shown on the approved erosion and sediment control plans.
- Excavate for ESD Practice \*2. Scarify existing subsoils at least 1' below facility invert
- elevations, Rototill 2" of sand into subsoils before placement of stone. Contractor to block all runoff to ESD Practice areas until after complete installation and upstream areas are
- 6. Begin placement of geotextile, stone, underdrains, media, inlets & mulch as per approved storm water management plans. (2 days)
- 7. Install Filterra unit as per approved storm water management plans. (1 day)
- 8. Connect 6" outfall pipe from Filterra unit to existing 30" pipe using the "Inserta Tee" as shown on the detail on this sheet, (1 day)

9. After completion of micro-bioretention practice and Filterra unit, notify engineer in charge

so he/she could prepare the as-built survey and submit to the appropriate agencies for

ESD PRACTICE •1

FILTERRA (13' x 7')
SEE DETAIL THIS
SHEET. FOR PROFILE,
SEE SHEET C-8.

- Conduct final as-built drawings and computations and submit to Howard County, Construction Inspection Division (CID) for review and approval. (3 days)
- 11. Continue with sequence of operation as shown on the approved sediment and erosion

#### D. Outlet connections shall be aligned and sealed to meet the approved drawings with modifications necessary to meet site conditions and local regulations. E. Once the unit is set, the internal wooden forms and protective mesh cover must be left intact. Remove only the temporary wooden shipping blocks between the box and top slab. The top lid should be sealed onto the box section before backfilling, using a nonshrink grout, butyl rubber or similar waterproof seal. The boards on top of the lid and boards sealed in the unit's throat must NOT be removed. The Supplier (Americast or its authorized dealer) will remove these sections at the time of activation. Backfilling should be performed in a careful manner, bringing the appropriate fill material up in 6" lifts on all sides. Precast sections shall be set in a manner that will result in a watertight joint. In all instances, installation of Filterra® unit shall conform to ASTM specification C891 "Standard Practice for Installation of Underground Precast Utility

Structures", unless directed otherwise in contract documents.

Filterra Standard Plan Notes

fittings supplied (if any), must be left in place as per the delivery.

be at the direction of and approved by the Engineer.

A. Each unit shall be constructed at the locations and elevations according to the sizes

B. If the Filterra® is stored before installation, the top slab must be placed on the box

C. The unit shall be placed on a compacted sub-grade with a minimum 6-inch gravel base

matching the final grade of the curb line in the area of the unit. The unit to be placed

such that the unit and top slab match the grade of the curb in the area of the unit.

Compact undisturbed sub-grade materials to 95% of maximum density at +1- 2% of

optimum moisture. Unsuitable material below sub-grade shall be replaced to the site

using the 2x4 wood provided, to prevent any contamination from the site. All internal

shown on the approved drawings. Any modifications to the elevation or location shall

Construction & Installation

engineer's approval.

F. Curb and gutter construction (where present) shall ensure that the flow-line of the Filterra® units is at a greater elevation than the flow-line of the bypass structure or relief (drop inlet, curb cut or similar). Failure to comply with this guideline may cause failure and/or damage to the Filterra® environmental device.

G. Each Filterra® unit must receive adequate irrigation to ensure survival of the living system during periods of drier weather. This may be achieved through gutter flow or through the tree grate.



A. Activation of the Filterra® unit is performed ONLY by the Supplier. Purchaser is responsible for Filterra® inlet protection and subsequent clean out cost. This process cannot commence until the project site is fully stabilized and cleaned (full landscaping, grass cover, final paving and street sweeping completed), negating the chance of construction materials contaminating the Filterra® system. Care shall be taken during construction not to damage the protective throat and top plates.

B. Activation includes installation of plant(s) and mulch layers as necessary.

- A. Each correctly installed Filterra® unit is to be maintained by the Supplier, or a Supplier approved contractor for a minimum period of 1 year. The cost of this service is to be included in the price of each Filterra® unit. Extended maintenance contracts
- B. Annual maintenance consists of a maximum of (2) scheduled visits. The visits are scheduled seasonally; the spring visit aims to clean up after winter loads including salts and sands. The fall visit helps the system by removing excessive leaf litter.

### C. Each maintenance visit consists of the following tasks.

- Filterra® unit inspection Foreign debris, silt, mulch & trash removal
- Filter media evaluation and recharge as necessary
- Plant health evaluation and pruning or replacement as necessary Replacement of mulch
- Disposal of all maintenance refuse items Maintenance records updated and stored (reports available upon request)
- D. The beginning and ending date of Supplier's obligation to maintain the installed system shall be determined by the Supplier at the time the system is activated. Owners must promptly notify the Supplier of any damage to the plant(s), which constitute(s) an integral part of the bioretention technology.

www.filterra.com

Toll Free: (866) 349-3458

APPROVED: DEPARTMENT OF PLANNING AND ZONING 12.12.16 chief, Development Engineering Division Ret Sheulinde 12-15-16 hief, Division of Land Development Vallas Jylingrector /2~/7-6 ADDRESS CHART OT / PARCEL NO STREET ADDRESS

RESTAURANT - 8820 STANFORD BOULEVARD

THE COORDINATE SYSTEM OF ALL DRAWINGS IS BASED ON THE NORTH AMERICAN DATUM OF 1983. THE ELEVATION SYSTEM OF ALL DRAWINGS IS BASED ON THE NORTH AMERICAN VERTICAL DATUM OF 1988.

HORZ: NAD 83/91; VERT: NAVD 88

UBDIVISION NAME LAT NO. or L/F

PERMIT INFORMATION CHART SECTION / AREA LOT / PARCEL NO. COLUMBIA CORPORATE PARK 356 / A-42 ELEC. DIST. | CENSUS TRA GRID NO. ZONING TAX MAP NO. 606707 DRAWING NO. STORMWATER MANAGEMENT PLAN

NOTES, SPECIFICATIONS, SOIL BORING AND ESD PRACTICE #1 DETAILS

COLUMBIA CORPORATE PARK

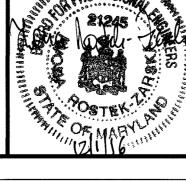
356 / A-42

HOWARD COUNTY, MARYLAND SCALE: AS SHOWN (NEW TOWN - EMPLOYMENT CENTER INDUSTRIAL, FDP-117-A-II) DATE: DECEMBER, 2016

**BLDG** Baltimore Land Design Group Inc.

PHONE: 410.229.9851 • FAX: 410.229.9865 • BLDG@BLDGINC.COM

Consulting Engineers 230 SCHILLING CIRCLE, SUITE 364 • HUNT VALLEY, MARYLAND 21031



PROFESSIONAL CERTIFICATION

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, IWONA ROSTEK-ZARSKA, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE MARYLAND, LICENSE NO. 21245, EXPIRATION DATE: JUNE 9, 2018.

MERRITT-CCP, LLC

**OWNER** 

**GROUND WATER** 

8' 2"

WATER ON RODS: DRY

WATER AT COMPLETION: DRY

WATER AT 24 HOURS: DRY to C.I.

Page 1 of 2

BORING No.: SWM1

HAMMER DROP: 30 in

Notes

INSPECTOR:

FOREMAN:

PROJECT No.

ELEV: 397+/-

SPOON O.D.: 2"

ROCK CORE DIA.

Depth Scale No Blows / 6in Type REC

1-2-5

10-12-14-14

**SOIL BORING PROFILE** 

2066 LORD BALTIMORE DRIVE BALTIMORE, MD 21244 (410) 298-2600 FAX: (410) 298-9644

**DEVELOPER / APPLICANT** TEXAS ROADHOUSE HOLDINGS LLC

> 6040 DUTCHMANS LANE, SUITE 400 LOUISVILLE, KY 40205 (502) 426-9984 FAX: (502) 515-7229

DATE NO. DESCRIPTION

**ELEV 'A' MUST** 

**BE HIGHER** 

THAN ELEV 'B'

CURB INLET THROAT

EFFLUENT IN (MUST BE LOWER)

INV.@

REVISIONS

filterra

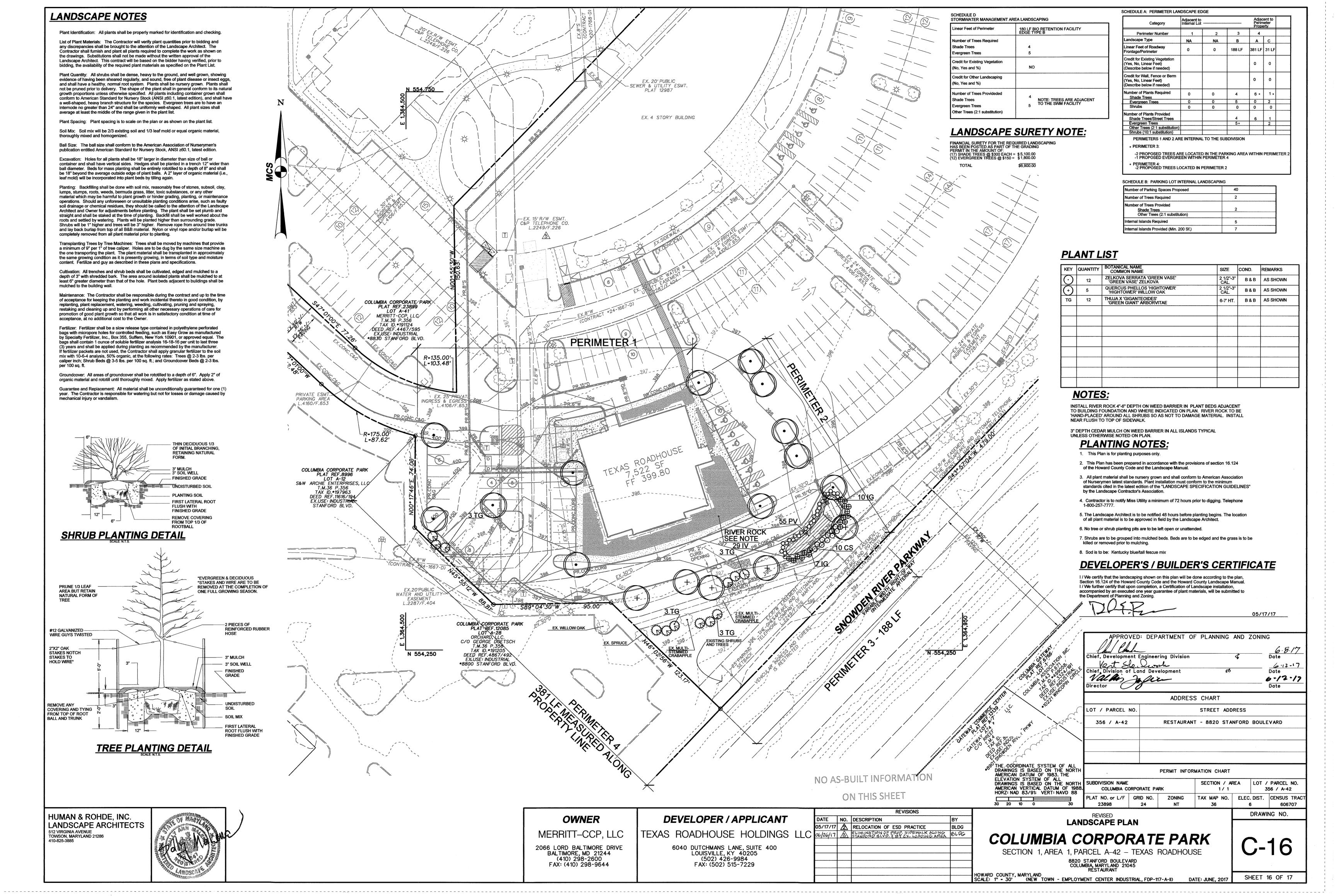
NO AS-BUILT INFORMATION

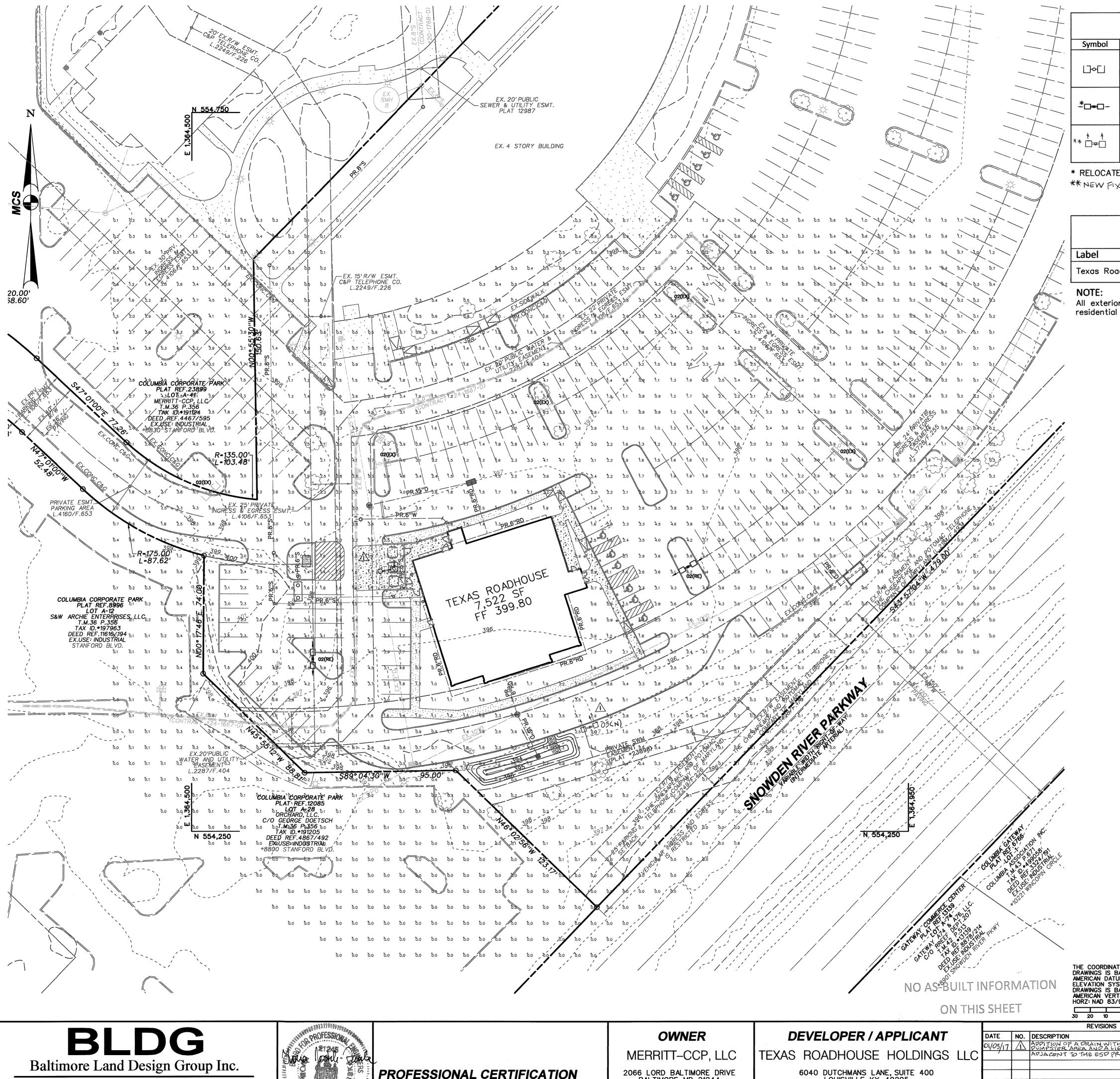
ON THIS SHEET

SECTION 1, AREA 1, PARCEL A-42 - TEXAS ROADHOUSE 8820 STANFORD BOULEVARD COLUMBIA, MARYLAND 21045 RESTAURANT

SHEET 15 OF 17

SDP-16-06





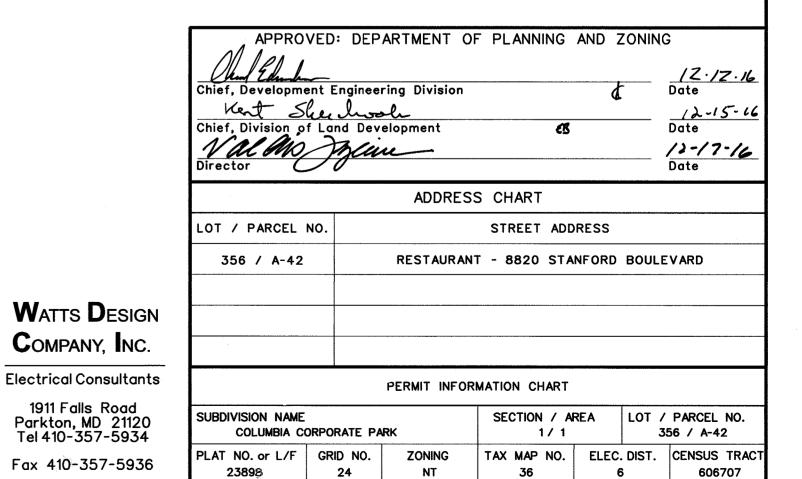
	Luminaire Schedule										
Symbol Label Qty Arrangement Mounting Heighte Total Lamp Lumens LLF Description											
	02(EX)	8	BACK TO BACK	30 -0" POLE MTD ON 24" RAISED POLE BASE	36000	0.720	ECA18-3H-400MH (BACK TO BACK)				
* <del></del>	02(RE)	2	BACK TO BACK	30'-0" POLE MTD ON 24" RAISED POLE BASE	36000	0.720	ECA18-3H-400MH (BACK TO BACK)				
* 🗎 🗢 🗀	03 (N)	1	TWIN	30'-0"POLE MTD ON 24" PALSED POLE BASE	40000	0:720	ECA18-34- 400PSMI-HS (TWIN)				

\* RELOCATED EXISTING POLE AND FIXTURE

<sup>\*\*</sup> NEW FIXTURE WITH HOUSE SIDE SHIELD

/		Cald	culation S	Summa	ry			
*	Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
\	Texas Roadhouse	Illuminance	Fc	2.41	6.2	0.0	N.A.	N.A.

All exterior light fixtures shall be oriented to direct light inwards and downwards on—site away from all adjoining residential properties and public roads in accordance with Section 134.0 of the Howard County Zoning Regulations.



Consulting Engineers 230 SCHILLING CIRCLE, SUITE 364 • HUNT VALLEY, MARYLAND 21031

PROFESSIONAL CERTIFICATION IHEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, IWONA ROSTEK-ZARSKA, AND THAT IAM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 21245, EXPIRATION DATE: JUNE 9, 2018. 2066 LORD BALTIMORE DRIVE BALTIMORE, MD 21244 (410) 298-2600 FAX: (410) 298-9644

6040 DUTCHMANS LANE, SUITE 400 LOUISVILLE, KY 40205 (502) 426-9984 FAX: (502) 515-7229

APPITION OF A DRAIN WITHIN THE BLOG DUMPSTER AREA AND A LIGHT POLE BLOG ADJACENT TO THE ESD PRACTICE

LIGHTING AND PHOTOMETRIC PLAN

# COLUMBIA CORPORATE PARK

SECTION 1, AREA 1, PARCEL A-42 - TEXAS ROADHOUSE

SHEET 17 OF 17

DRAWING NO.