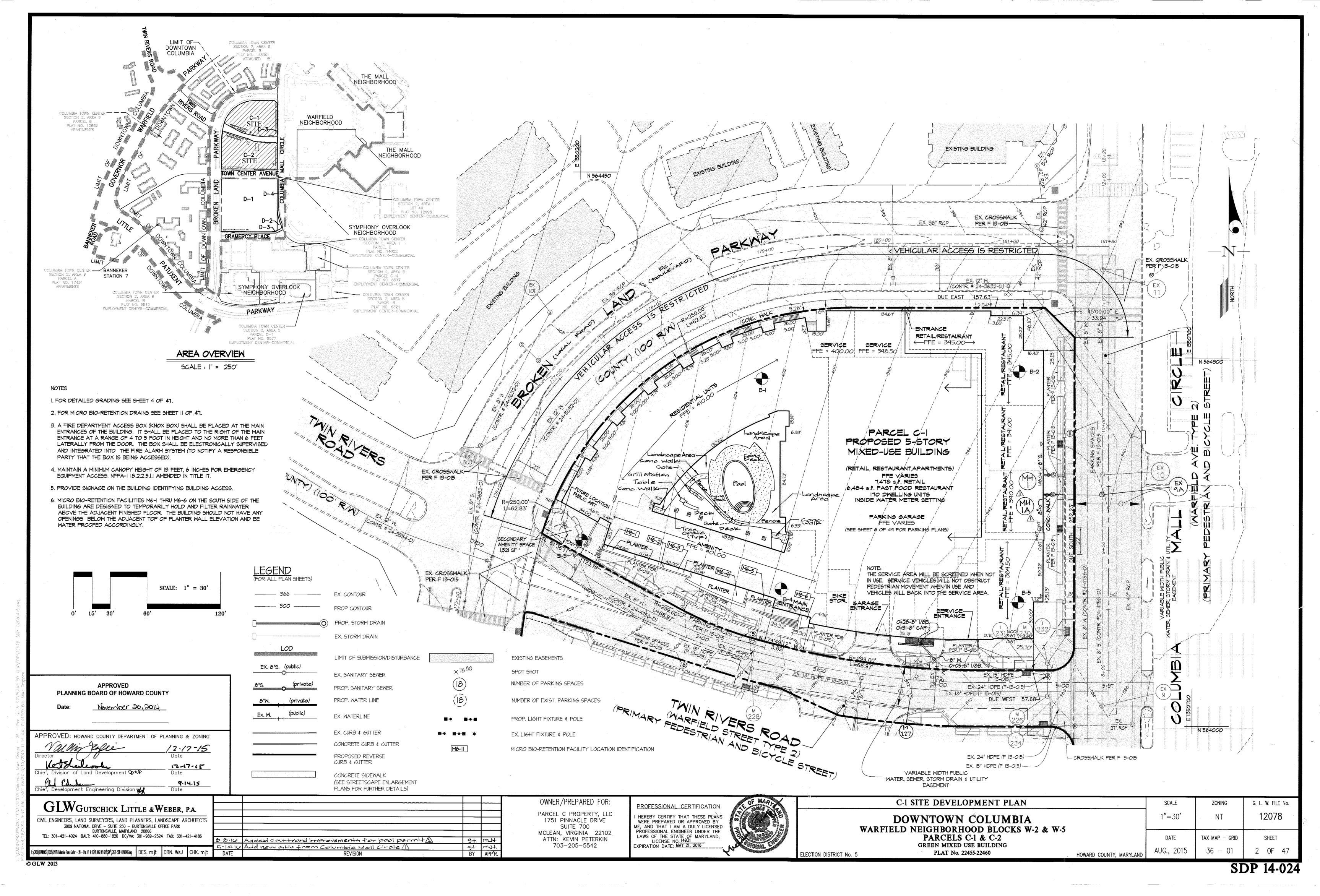
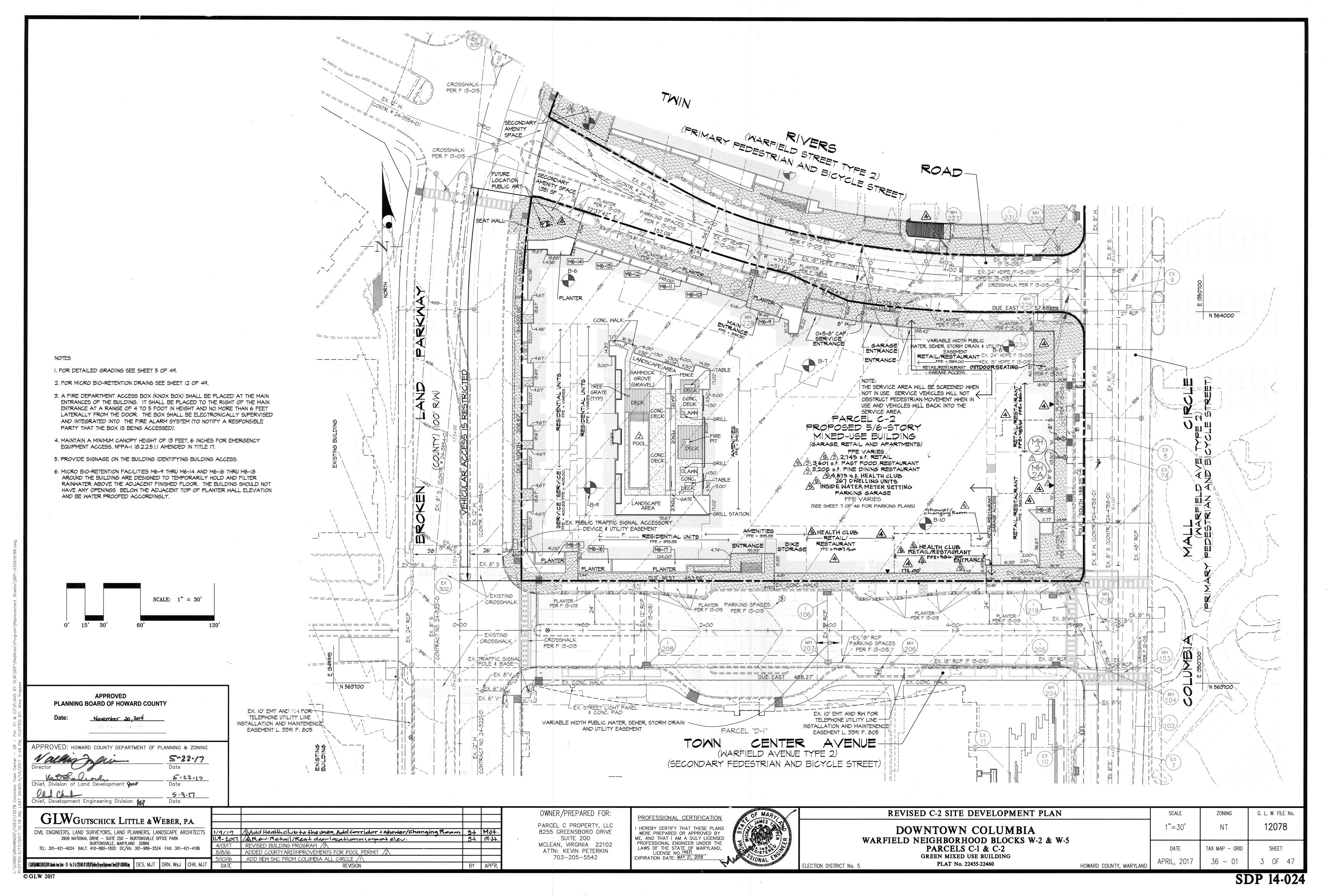
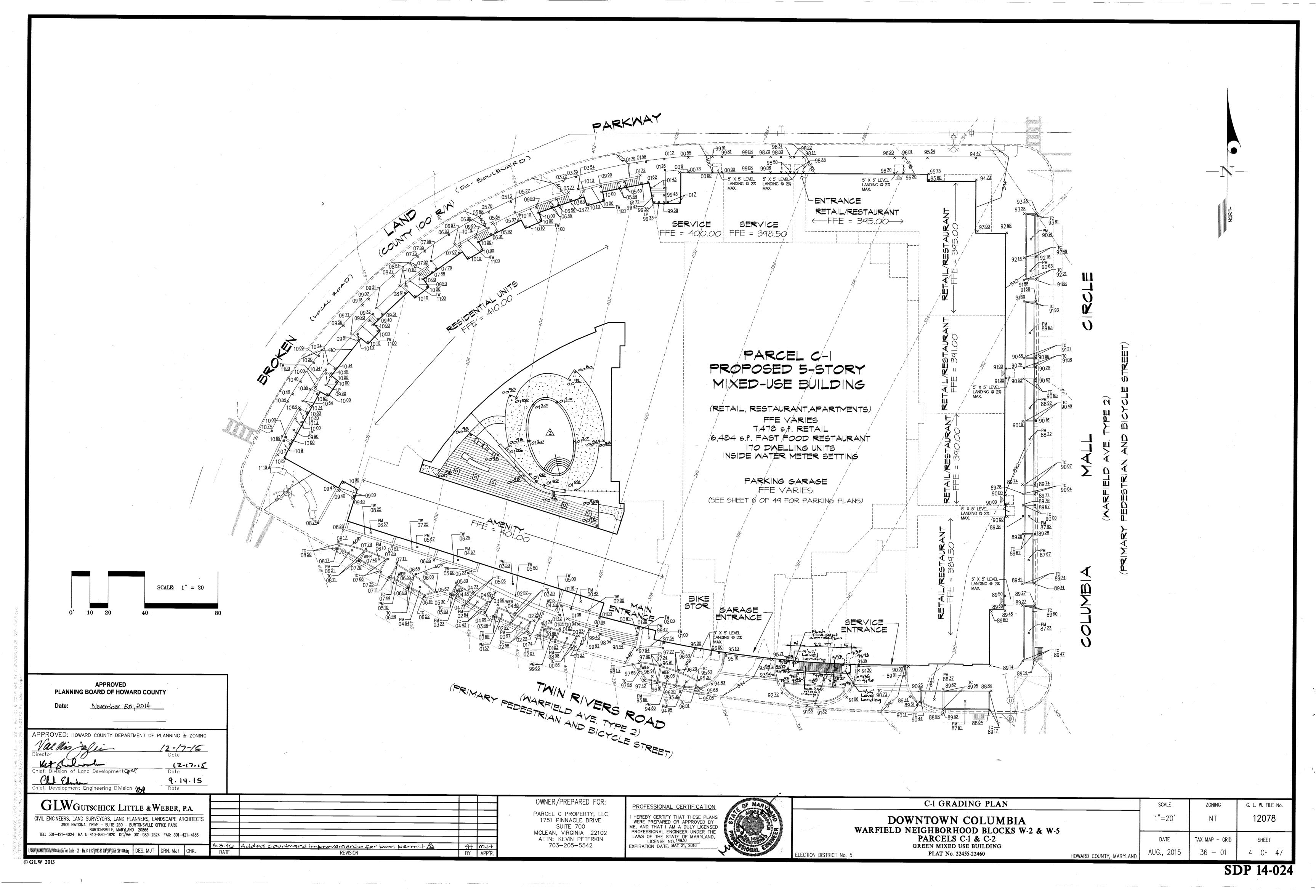
© GLW 2017

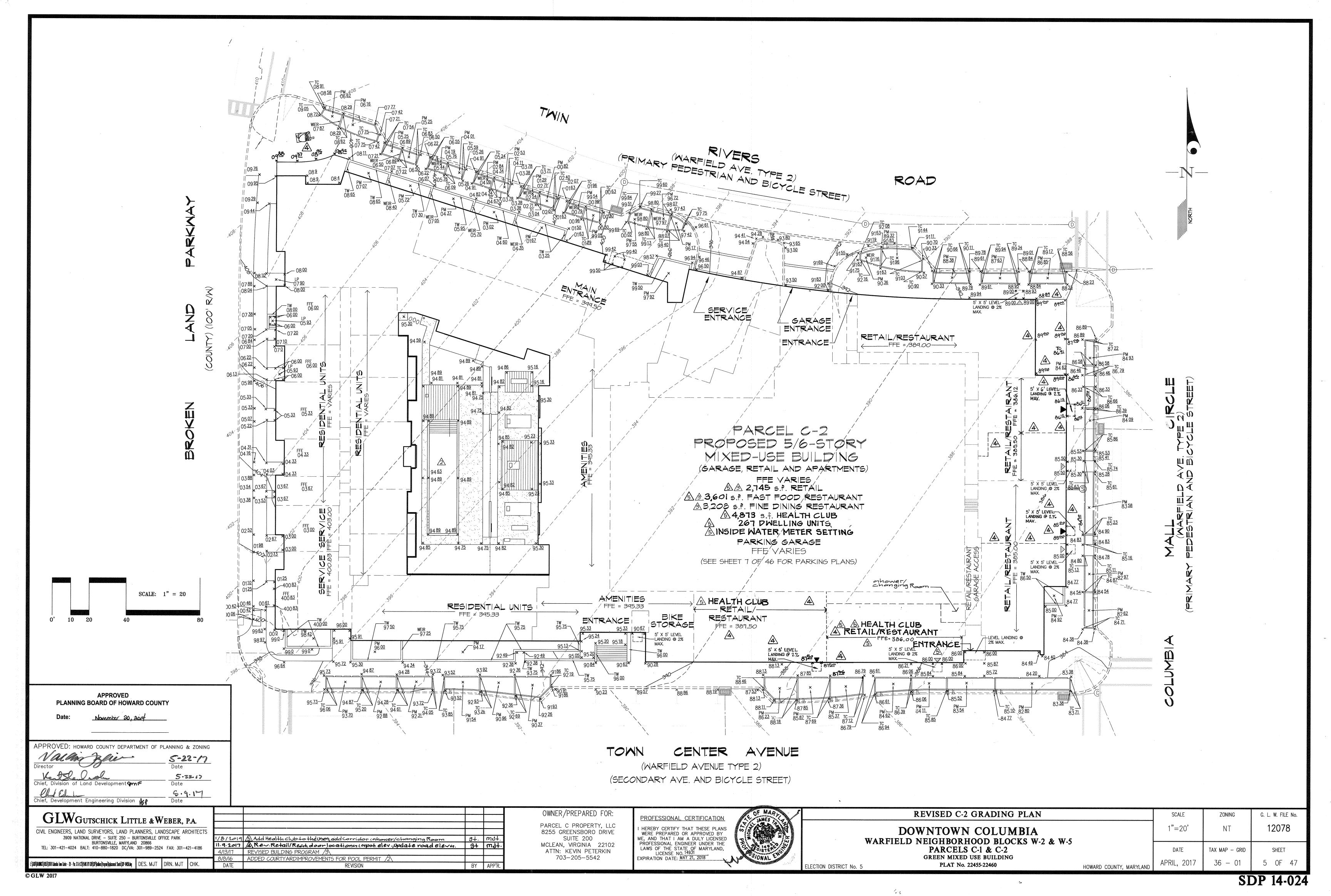
GENERAL NOTES

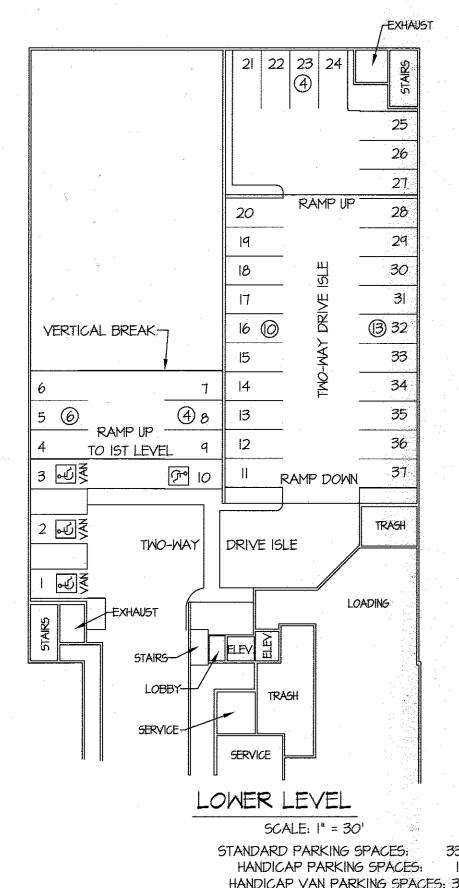
SBUILTS SDP 14-024



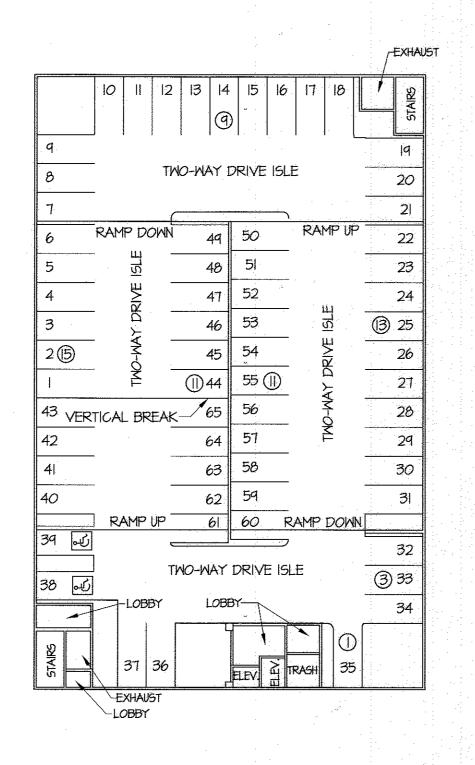




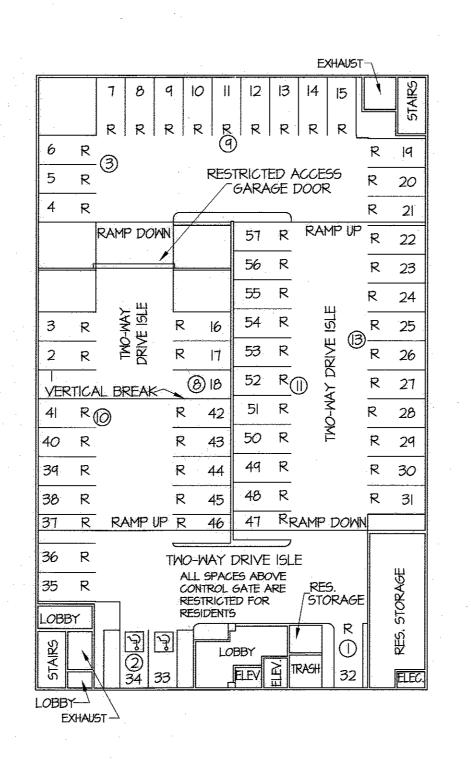




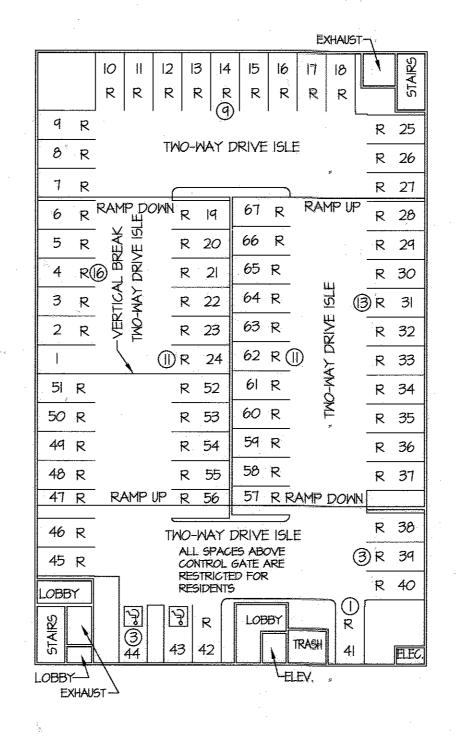
HANDICAP VAN PARKING SPACES: 3 PARALLEL SITE SPACES ADJACENT TO ROADWAYS: 16 TOTAL: 53



A FIRST FLOOR LEVEL SCALE: I" = 30' STANDARD PARKING SPACES: HANDICAP PARKING SPACES: TOTAL: 65

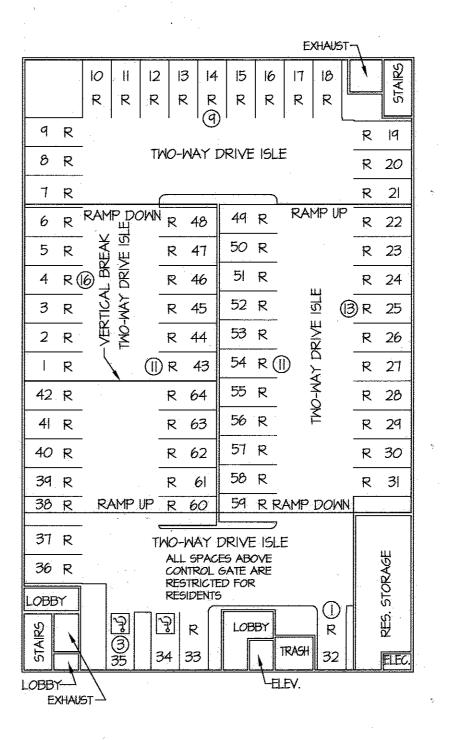


A SECOND FLOOR LEVEL SCALE: I" = 30' RESERVED STANDARD PARKING SPACES: STANDARD PARKING SPACES: HANDICAP PARKING SPACES: TOTAL: 57

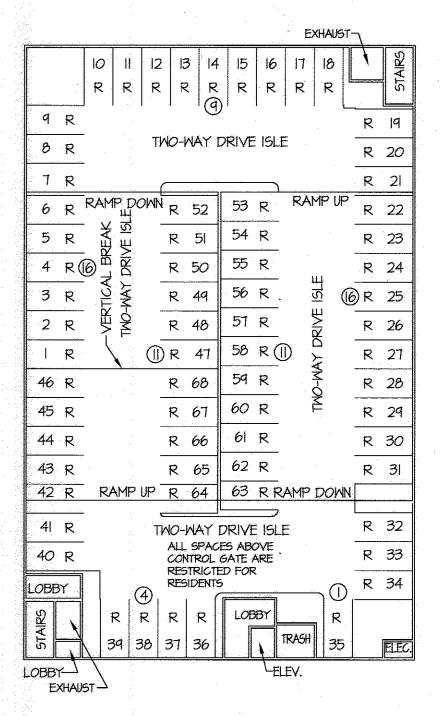


THIRD FLOOR LEVEL SCALE: |" = 30' RESERVED STANDARD PARKING SPACES (R): 65 HANDICAP PARKING SPACES:

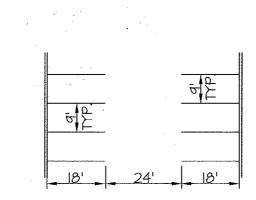
TOTAL: 67



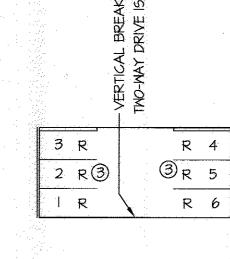
FOURTH FLOOR LEVEL SCALE: |" = 30' RESERVED STANDARD PARKING SPACES (R): HANDICAP PARKING SPACES:



FIFTH FLOOR LEVEL RESERVED STANDARD PARKING SPACES (R): 68 TOTAL: 68



TYPICAL PARKING ARRANGEMENT SCALE: 1" = 30'



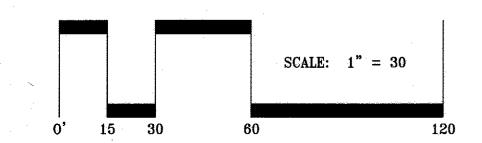
PART FIFTH FLOOR LEVEL SCALE: |" = 30" RESERVED STANDARD PARKING SPACES (R):

AS SHOWN

DATE

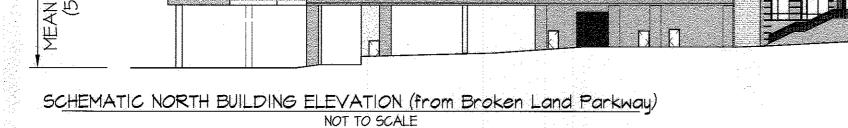
TAX MAP - GRID

36 - 01



PLANNING BOARD OF HOWARD COUNTY APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING 5-22-17 5-22-17

5.9.17



This curved ARCHITECTUAL facade at the NW of C-I along Broken Land Parkway has been designed with sensitivity to the residential scale of the neighboring townhomes, while creating a varied and activated streetscape, and introducing an alternative yet welcoming appearance. This is accomplished through establishing a consistent rhythm of vertical bays, faceted along the curved facade, which individually denote residential units and relate in scale and style to the existing townhomes across Broken Land Parkway. The streetscape is activated through providing walk-up access to the Level I units along this facade, through a series of brick-faced steps creating a further sense of community and enhancing the building's connection to the neighborhood.

Additionally, the landscape varies along this portion of Broken Land Parkway, introducing a variation in hardscape in softscape, providing planters adjacent to the residential entries and maintaining a series of existing trees. In regards to materiality, the predominant red brick is meant to respond to the existing context, while set-back surfaces of darker masonry and fiber cement panel provide a lighter-weight and secondary material to oppose the grounding nature of the brick.

The design team feels that this portion of the project will greatly enhance the connection to the existing community, activate the referenced portion of Braken Land Parkway, and respect the context through materiality



NOTE: The schematic building elevations are to indicate building height and architectural intent only. Final architecture design will be reviewed with construction plans for compliance with the Neighborhood Specific Design Guidelines (Liber 14166 Folio I).

The garage entries will be permanent openings in the building facade, while the service entries will be approximately 24'-04 wide overhead coiling doors, accommodating (2) loading bays.



TOTAL: 64

SCHEMATIC EAST BUILDING ELEVATION (from Columbia Mall Circle)

THE BUILDING HEIGHT CANNOT EXCEET 100' AS MEASURED AT ANY POINT ALONG THE PERIMETER OF THE BUILDING UNLESS AN AMENDMENT TO THE NEIGHBORHOOD DESIGN GUIDELINES IS APPROVED BY THE PLANNING BOARD.

| (| GLW | Gu | TSCHICI | k L | TTLE | &W | EBER | , P.A. |
|-------|------------|------|------------|------|----------|--------|--------|----------|
| CIVIL | ENGINEERS, | LAND | SURVEYORS, | LAND | PLANNERS | S, LAN | DSCAPE | ARCHITE(|

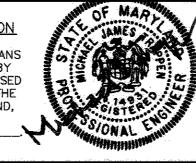
Chief, Development Engineering Division 🔣

| ~ | | | A STATE OF THE STA | | · | | | |
|--|---------------------|---------|--|----------|---|--|----------------------------|--------|
| GLWGUTSCHICK LITTLE &W | EDED DA | | | | | | | |
| O LOW GUISCINCK LITTLE & W | EDEK, I.A. | | | | | dinan di kacamatan | | |
| CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LAN | NDSCAPE ARCHITECTS | | | | | and the second s | <u></u> | |
| 3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OF | FICE PARK | | | | | | | |
| BURTONSVILLE, MARYLAND 20866 TEL: 301-421-4024 BALT: 410-880-1820 DC/VA: 301-989-2524 | 1 FAY: 301-421-4186 | | | | | | | |
| 166. 301 421 4024 BACE, 410 000 1020 BOYER, 301 903 2324 TAX. 301 421 4100 | | | | | | | | , i |
| | | 4/13/17 | REVISED BUILDING PROGRAM /3 | | | | ر ومالدو مارا دادا دادا | |
| LYDDINANIAN Colorida Internation Internation Internation Internation International Internation | | | Karanganan ataun dari salah sa | REVISION | | | BY | APP'R. |
| respectively. | | | | | | | | |

OWNER/PREPARED FOR:

PARCEL C PROPERTY, LLC 8255 GREENSBORO DRIVE SUITE 200 MCLEAN, VIRGINIA 22102 ATTN: KEVIN PETERKIN 703-205-5542

PROFESSIONAL CERTIFICATION HEREBY CERTIFY THAT THESE PLANS WERE PREPARED OR APPROVED BY MERE PREPARED OR APPROVED BY
ME, AND THAT I AM A DULY LICENSED
PROFESSIONAL ENGINEER UNDER THE
LAWS OF THE STATE OF MARYLAND,
LICENSE NO. 14931
EXPIRATION DATE: MAY, 21 2018



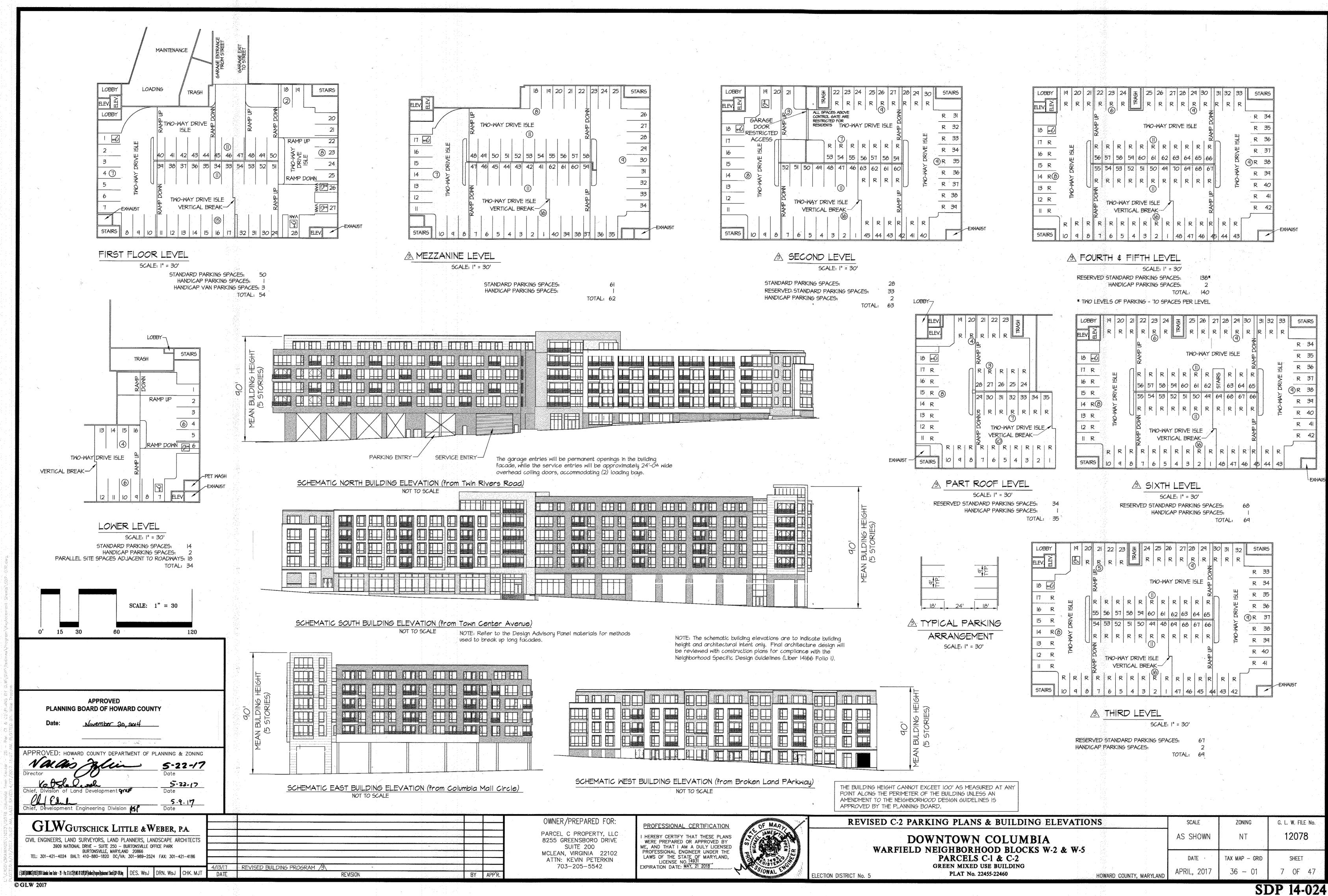
| R | EVISED C-1 PARKING PLANS & BUILDING | ELI | ₹VΑ | HUNS | | | |
|-------------------------|--|-----|-----|--------|---------|----------|---|
| | DOWNTOWN COLUMBIA WARFIELD NEIGHBORHOOD BLOCKS W-2 PARCELS C-1 & C-2 | & \ | W-5 | | | | |
| | GREEN MIXED USE BUILDING | | : . | | | | I |
| ELECTION DISTRICT No. 5 | PLAT No. 22455-22460 | | | HOWARD | COUNTY, | MARYLAND | |

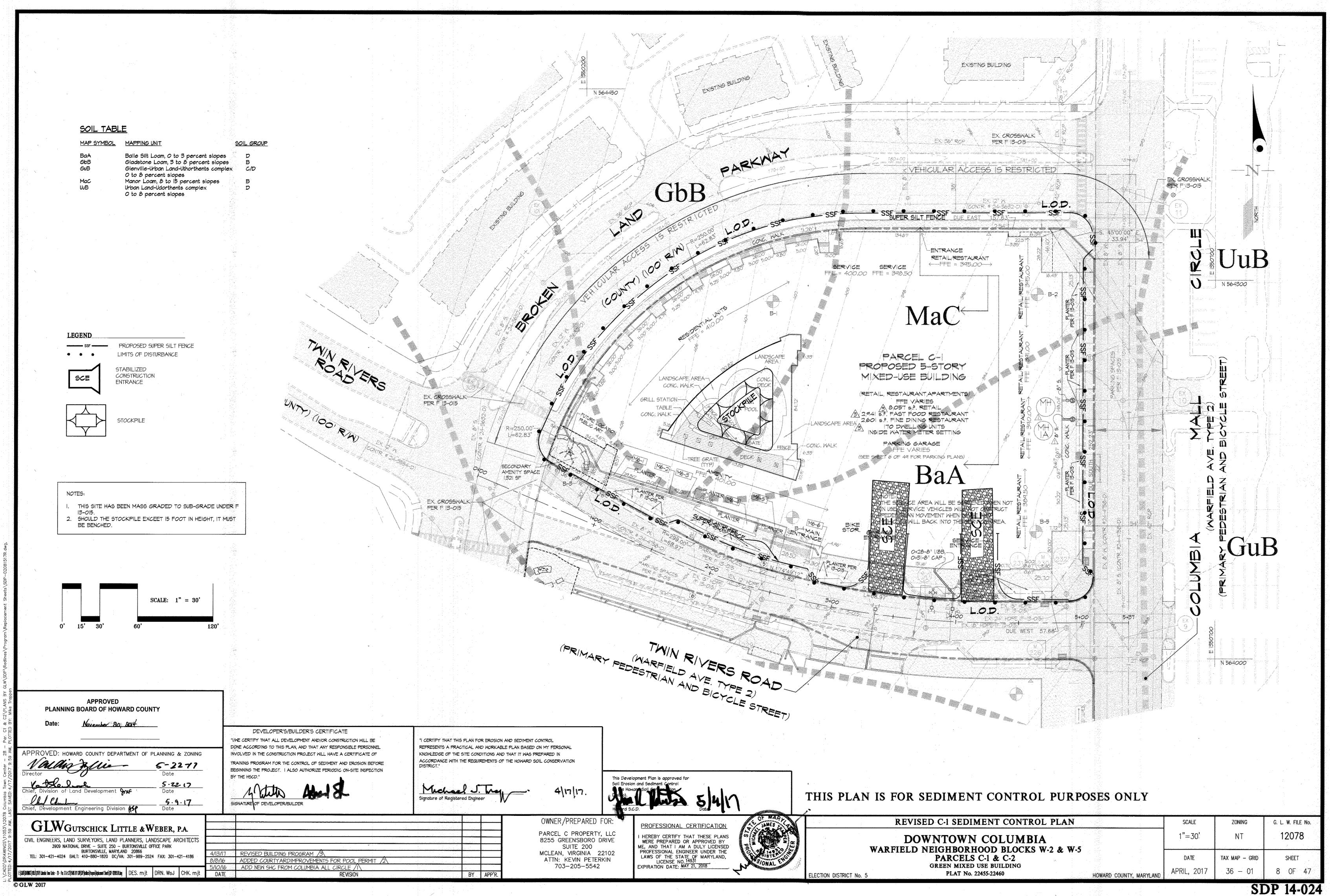
G. L. W. FILE No.

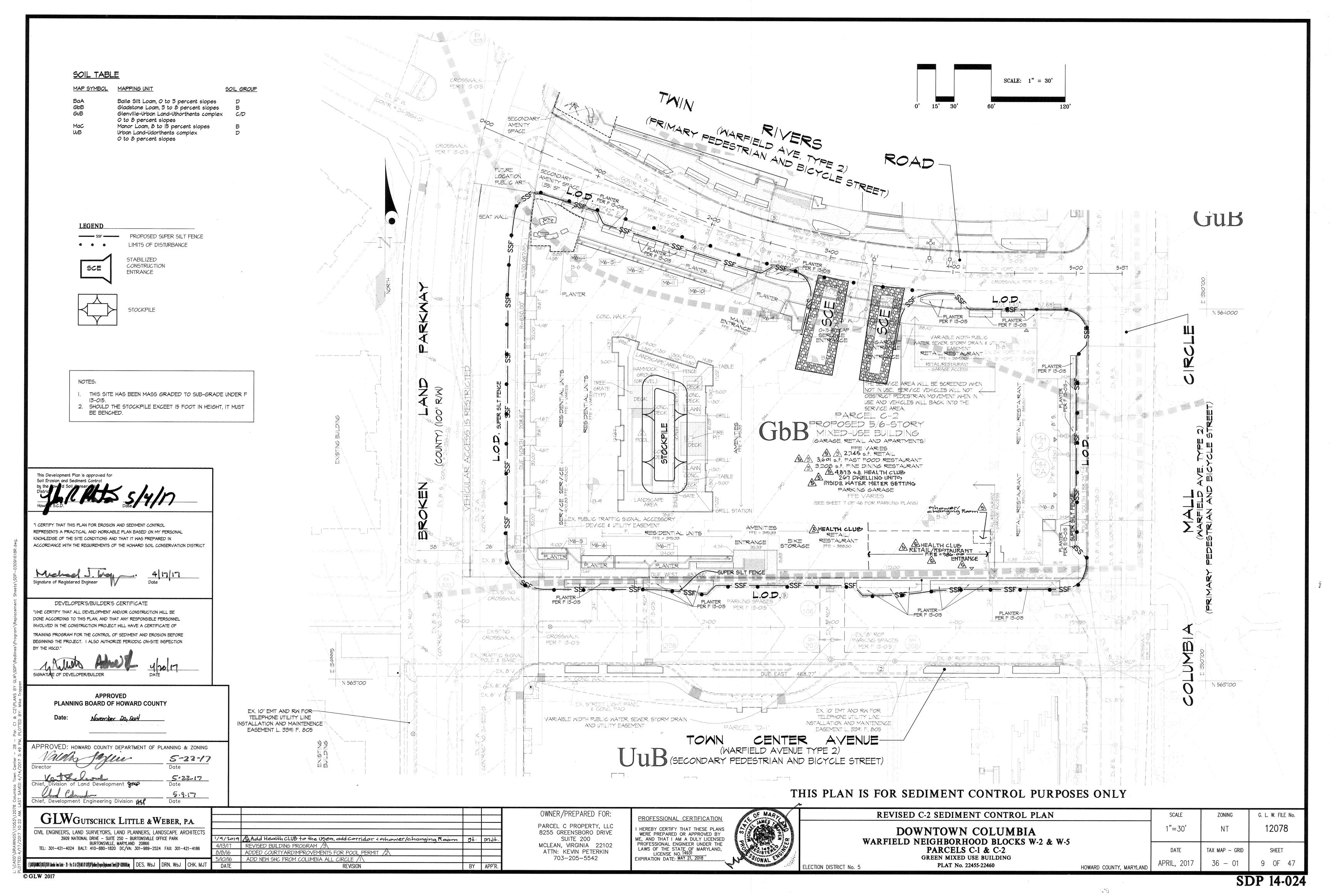
12078

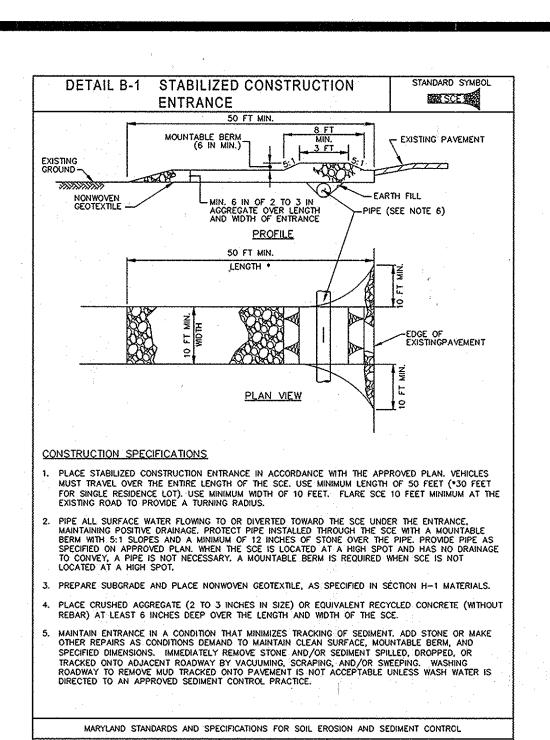
SHEET

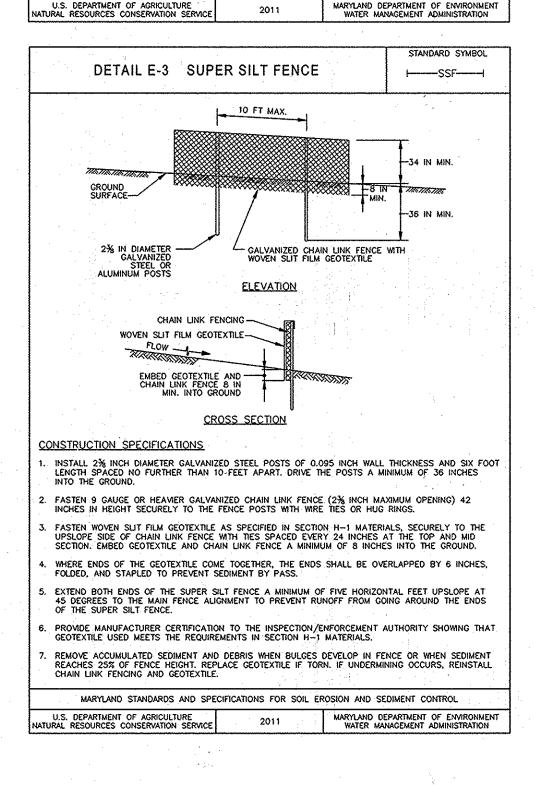
6 OF 47

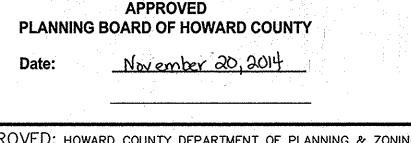












APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING 12-17-15 Ket She Q 12-17-15 ivision of Land Development 9.14.15 Chief, Development Engineering Division 📈 🛭

"I/WE CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE BONEHAGEOBOING TO THIS PLAN, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT, I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION

DEVELOPER'S/BUILDER'S CERTIFICATE

Parcel C Property LLC

SIGNATURE OF DEVELOPER/BUILDER Authorized Official

"I CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL

KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN

BY APP'R.

REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL

ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT

Soil Erosion and Sediment*Control

This Development Plan is approved for

B-4-4 STANDARDS AND SPECIFICATIONS

I. A MINIMUM OF 24 HOURS NOTICE MUST BE GIVEN TO THE HOWARD COUNTY OFFICE OF INSPECTION AND PERMITS PRIOR TO THE START OF ANY CONSTRUCTION. (410) 313-1855

SEDIMENT CONTROL NOTES

2. ALL VEGETATIVE AND STRUCTURAL PRACTICES ARE TO BE INSTALLED ACCORDING TO THE PROVISIONS OF THIS PLAN AND ARE TO BE IN CONFORMANCE WITH THE "2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL." AND REVISIONS THERETO.

3. FOLLOWING INITIAL SOIL DISTURBANCE OR REDISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN: A. 3 CALENDAR DAYS AS TO THE SURFACE OF ALL PERIMETER DIKES, SMALES, DITCHES, PERIMETER SLOPES, AND ALL SLOPES STEEPER THAN 3

HORIZONTAL TO I VERTICAL (3:1): AND B. 7 CALENDAR DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE NOT UNDER ACTIVE GRADING.

4. ALL SEDIMENT TRAPS/BASINS SHOWN MUST BE FENCED AND WARNING SIGNS POSTED AROUND THEIR PERIMETER IN ACCORDANCE WITH VOL. I, CHAPTER 1, OF THE HOWARD COUNTY DESIGN MANUAL, STORM DRAINAGE.

5. ALL DISTURBED AREAS MUST BE STABILIZED WITHIN THE TIME PERIOD SPECIFIED ABOVE IN ACCORDANCE WITH THE "2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL" FOR PERMANENT SEEDINGS, SOD, TEMPORARY SEEDINGS AND MULCHING (SEC. B). TEMPORARY STABILIZATION, WITH MULCH ALONE, CAN ONLY BE DONE WHEN RECOMMENDED SEEDING DATES DO NOT ALLOW FOR PROPER GERMINATION AND ESTABLISHMENT OF GRASSES.

6. ALL SEDIMENT CONTROL STRUCTURES ARE TO REMAIN IN PLACE AND ARE TO BE MAINTAINED IN OPERATIVE CONDITION UNTIL PERMISSION FOR THEIR REMOVAL HAS BEEN OBTAINED FROM THE HOWARD COUNTY SEDIMENT CONTROL

7. NY SEDIMENT CONTROL PRACTICE WHICH IS DISTURBED BY GRADING ACTIVITY

8. ADDITIONAL SEDIMENT CONTROL MUST BE PROVIDED, IF DEEMED NECESSARY

FOR PLACEMENT OF UTILITIES MUST BE REPAIRED ON THE SAME DAY OF

BY THE HOWARD COUNTY DPW SEDIMENT CONTROL INSPECTOR. 9. ON ALL SITES WITH DISTURBED AREAS IN EXCESS OF 2 ACRES, APPROVAL, OF THE INSPECTION AGENCY SHALL BE REQUESTED UPON COMPLETION OF INSTALLATION OF PERIMETER EROSION AND SEDIMENT CONTROLS, BUT BEFORE PROCEEDING WITH ANY OTHER EARTH DISTURBANCE OR GRADING. OTHER BUILDING OR GRADING INSPECTION APPROVALS MAY NOT BE AUTHORIZED UNTIL THIS INITIAL APPROVAL BY THE INSPECTION AGENCY IS MADE.

10. TRENCHES FOR THE CONSTRUCTION OF UTILITIES IS LIMITED TO 3 PIPE LENGTHS OR THAT WHICH SHALL BE BACKFILLED AND STABILIZED WITHIN I WORKING DAY, WHICHEVER IS SHORTER

SITE ANALYSIS "C-I TOTAL AREA OF SITE : 2.4± ac. AREA DISTURBED 2.5± ac. AREA TO BE ROOFED OR PAVED : 2.1± ac. AREA TO BE VEGETATIVELY STABILIZED 0.4± ac TOTAL CUT 4,114 c.u. TOTAL FILL 8,241 c.4. OFF-SITE WASTE/BORROW AREA LOCATION: C-2

SITE ANALYSIS "C-2" : 2.6± ac. TOTAL AREA OF SITE AREA DISTURBED : 2.8± ac AREA TO BE ROOFED OR PAVED : 2.3± ac AREA TO BE VEGETATIVELY STABILIZED 0.2± ac. TOTAL CUT 6,708 c.y. TOTAL FILL 3,768 с.ч. OFF-SITE WASTE/BORROW AREA LOCATION: C-I

SEQUENCE OF CONSTRUCTION PARCEL C-

I. Arrange pre-construction meeting with the Sediment Control Inspector and obtain the Grading Permit. I DAY

2. Install stabilize construction entrance and super silt fence. I DAY

3. Fine grade site. 2 WEEKS

4. Begin building construction. I WEEK

5. Stabilize the building area with the finished floor slab. 2 MONTHS

6. Install utilities, sidewalks and planters. Stabilize remaining areas with grass seed and mulch. 2 MONTHS.

7. When all areas drain to the sediment controls have been stabilized and permission has been granted by the Sediment Control Inspector, remove thoes sediment controls Stabilize the remaining areas landscaping, seed and mulch. I WEEK

8. Finish building construction. Remove any remaining sediment controls and stabilize. I WEEK

FOR TEMPORARY STABILIZATION

DEFINITION TO STABILIZE DISTURBED SOILS WITH VEGETATION FOR UP TO 6 MONTHS

TO USE FAST GROWING VEGETATION THAT PROVIDES COVER ON DISTURBED SOILS CONDITIONS WHERE PRACTICE APPLIES EXPOSED SOILS WHERE GROUND COVER IS NEEDED FOR A PERIOD OF 6 MONTHS OR LESS. FOR LONGER DURATION OF TIME, PERMANENT STABILIZATION PRACTICES ARE REQUIRED.

SELECT ONE OR MORE OF THE SPECIES OR SEED MIXTURES LISTED IN TABLE B.I FOR THE APPROPRIATE PLANT HARDINESS ZONE (FROM FIGURE B.3), AND ENTER THEM IN THE TEMPORARY SEEDING SUMMARY BELOW ALCNG WITH APPLICATION RATES, SEEDING DATES AND SEEDING DEPTHS. IF THIS SUMMARY IS NOT PUT ON THE PLAN AND COMPLETED, THEN TABLE B.I PLUS FERTILIZER AND LIME RATES MUST BE PUT ON THE PLAN.

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.I.B

TEMPORARY SEEDING SUMMARY

AND MAINTAIN UNTIL THE NEXT SEEDING SEASON.

| | HARDINESS Z SEED MIXTUR | 20NE: 6b <i>APPLICATIOI</i> | v · | • | FERTILIZER RATE | LIME RAT |
|-----|----------------------------|--------------------------------|---------------------------|---------------------|----------------------------|----------------------|
| No. | SPECIES | RATE (lb/ac.) | SEEDING DATES | SEEDING (DEPTHS | 10-10-10 |) |
| 1 | ANNUAL RYEGRASS | 40 lb/ac | Mar. 1 to May 15, Aug. | 0.5 INCHES | 436 lb./ac. (10 lb./ | 2 tons/a (90 lb./ |
| 2 | PEARL MILLET | 20 lb/cc | May 16 to | 0.5 INCHES | 1,000 sf) | 1,000 sf, |

B-4-8 STANDARDS AND SPECIFICATIONS FOR STOCKPILE AREA

<u>DEFINITION</u>

A MOUND OR PILE OF SOIL PROTECTED BY APPROPRIATELY DESIGNED EROSION AND SEDIMENT CONTROL MEASURES.

TO PROVIDE A DESIGNATED LOCATION FOR THE TEMPORARY STORAGE OF SOIL THAT CONTROLS THE POTENTIAL FOR EROSION, SEDIMENTATION, AND CHANGES TO

CONDITIONS WHERE PRACTICE APPLIES

STOCKPILE AREAS ARE UTILIZED WHEN IT IS NECESSARY TO SALVAGE SOIL FOR

THE STOCKPILE LOCATION AND ALL RELATED SEDIMENT CONTROL PRACTICES MUST BE CLEARLY INDICATED ON THE EROSION AND SEDIMENT CONTROL PLAN. 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.

RUNOFF FROM THE STOCKPILE AREA MUST DRAIN TO A SUITABLE SEDIMENT CONTROL PRACTICE.

ACCESS THE STOCKPILE AREA FROM THE UPGRADE SIDE. 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 CONCENTRATED FLOW IN A NON-EROSIVE MANNER.

. WHERE RUNOFF CONCENTRATES ALONG THE TOE OF THE STOCKPILE FILL, AN APPROPRIATE EROSION/SEDIMENT CONTROL PRACTICE MUST BE USED TO INTERCEPT DISCHARGE.

STOCKPILES MUST BE STABILIZED IN ACCORDANCE WITH THE \$ 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 CLEANUR.* STOCKPILES

MAINTENANCE

THE STOCKPILE AREA MUST CONTINUOUSLY MEET THE REQUIREMENTS FOR ADEQUATE VEGETATIVE ESTABLISHMENT IN ACCORDANCE WITH SECTION B-4 VEGETATIVE STABILIZATION. SIDE SLOPES MUST BE MAINTAINED AT NO STEEPER THAN 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 MIJST BE PROVIDED IN ACCORDANCE WITH SECTION B-3 LAND GRADING.

SEQUENCE OF CONSTRUCTION PARCEL C-2

I. Arrange pre-construction meeting with the Sediment Control Inspector and obtain the Grading Permit. I DAY

2. Install stabilize construction entrance and super silt fence. I DAY

3. Fine grade site. 2 WEEKS

4. Begin building construction. I WEEK

6. Install utilties, sidewalks and planters. Stabilize remaining areas with grass seed and mulch. 2 MONTHS.

7. When all areas drain to the sediment controls have been stabilized and permission has been granted by the Sediment Control Inspector, remove thoes sediment controls

Stabilize the remaining areas landscaping, seed and mulch. I WEEK 8. Finish building construction. Remove any remaining sediment controls and stabilize. I WEEK

5. Stabilize the building area with the finished floor slab. 2 MONTHS

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 BE USED FOR CHEMICAL ANALYSES. FERTILIZERS MIST 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 THE APPLICABLE LAWS AND MUST BEAR THE NAME, TRADE NAME OR TRADEMARK AND WARRANTY OF THE PRODUCER.

C. SOIL AMENDMENTS (FERTILIZER AND LIME SPECIFICATIONS)

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 48 TO 100 PERCENT WILL PASS THROUGH A #20 MESH SIEVE.
LIME AND FERTILIZER ARE TO BE EVENLY DISTRIBUTED AND INCORPORATED INTO
THE TOP 3 TO 5 INCHES OF SOIL BY DISKING OR OTHER SUITABLE MEANS. WHERE THE
SUBSOIL IS EITHER HIGHLY ACIDIC OR COMPOSED OF HEAVY CLAYS, SPREAD GROUND LIMESTONE AT THE 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 DEFINITION

THE APPLICATION OF SEED AND MULCH TO ESTABLISH VEGETATIVE COVER

TO PROTECT DISTURBED SOILS FROM EROSION DURING AND AT THE END OF

CONSTRUCTION.

CONDITIONS WHERE PRACTICE APPLIES

TO THE SURFACE OF ALL PERIMETER CONTROLS, SLOPES, AND ANY DISTURBED AREA NOT UNDER ACTIVE GRADING.

A. SEEDING

B-4-2 STANDARD AND SPECIFICATIONS FOR SOIL

PREPARATION, TOPSOILING, AND SOIL AMENDMENTS

DEFINITION

THE PROCESS OF PREPARING THE SOILS TO SUSTAIN ADEQUATE VEGETATIVE

TO PROVIDE A SUITABLE SOIL MEDIUM FOR VEGETATIVE GROWTH.

CONDITIONS WHERE PRACTICE APPLIES

WHERE VEGETATIVE STABILIZATION IS TO BE ESTABLISHED.

CRITERIA

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 SUITARIES MEANS.

a. A SOIL TEST IS REQUIRED FOR ANY EARTH DISTURBANCE OF 5 ACRES OR MORE. THE

III. SOIL CONTAINS LESS THAN 40 PERCENT CLAY BUT ENOUGH FINE GRAINED

IV. SOIL CONTAINS I.5 PERCENT MINIMUM ORGANIC MATTER BY WEIGHT.

V. SOIL CONTAINS SUFFICIENT PORE SPACE TO PERMIT ADEQUATE ROOT

b. APPLICATION OF AMENDMENTS OR TOPSOIL IS REQUIRED IF ON-SITE SOILS DO NOT

GRADED AREAS MUST BE MAINTAINED IN A TRUE AND EVEN GRADE AS SPECIFIED OF THE APPROVED PLAN, THEN SCARIFIED OR OTHERWISE LOOSENED TO A DEPTH OF 3

d. APPLY SOIL AMENDMENTS AS SPECIFIED ON THE APPROVED PLAN OR AS INDICATED BY THE RESULTS OF A SOIL TEST.

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

EQUIPMENT LEAVING THE SOIL IN AN IRREGULAR CONDITION WITH RIDGES RUNNING PARALLEL TO THE CONTOUR OF THE SLOPE, LEAVE THE TOP I TO 3 INCHES OF SOIL LOOSE AND FRIABLE, SEEDBED LOOSENING MAY BE UNNECESSARY ON NEWLY

TOPSOIL IS PLACED OVER PREPARED SUBSOIL PRIOR TO ESTABLISHMENT OF PERMANENT VEGETATION. THE PURPOSE IS TO PROVIDE A SUITABLE SOIL MEDIUM FOR

NUTRIENT LEVELS, LOW PH, MATERIALS TOXIC TO PLANTS, AND/OR UNACCEPTABLE

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

a. THE TEXTURE OF THE EXPOSED SUBSOIL/PARENT MATERIAL IS NOT ADEQUATE TO PRODUCE VEGETATIVE GROWTH.

THE ORIGINAL SOIL TO BE VEGETATED CONTAINS MATERIAL TOXIC TO PLANT

4. AREAS HAVING SLOPES STEEPER THAN 2:1 REQUIRE SPECIAL CONSIDERATION AND

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

COARSE FRAGMENTS, GRAVEL, STICKS, ROOTS, TRASH, OR OTHER MATERIALS LARGER THAN 1.5 INCHES IN DIAMETER.

b. TOPSOIL MUST BE FREE OF NOXIOUS PLANTS OR PLANT PARTS SUCH AS BERMUDA GRASS, QUACK GRASS, JOHNSON GRASS, NUT SEDGE, POISON IVY, THISTLE, OR OTHERS

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.

a. EROSION AND SEDIMENT CONTROL PRACTICES MUST BE MAINTAINED WHEN APPLYING

b. UNIFORMLY DISTRIBUTE TOPSOIL IN A 5 TO 8 INCH LAYER AND LIGHTLY COMPACT TO

FROM TOPSOILING OR OTHER OPERATIONS MUST BE CORRECTED IN ORDER TO PREVENT THE FORMATION OF DEPRESSIONS OR WATER POCKETS.

TOPSOIL MUST NOT BE PLACED IF THE TOPSOIL OR SUBSOIL IS IN A FROZEN OR

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

MUDDY CONDITION, WHEN THE SUBSOIL IS EXCESSIVELY WET OR IN A CONDITION THAT MAY OTHERWISE BE DETRIMENTAL TO PROPER GRADING AND SEEDBED

SOIL TESTS MUST BE PERFORMED TO DETERMINE THE EXACT RATIOS AND APPLICATION RATES FOR BOTH LIME AND FERTILIZER ON SITES HAVING DISTURBED

TOPSOIL SPECIFICATIONS: SOIL TO BE USED AS TOPSOIL MUST MEET THE FOLLOWING

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,

d. THE SOIL IS SO ACIDIC THAT TREATMENT WITH LIMESTONE IS NOT FEASIBLE

THE SOIL MATERIAL IS SO SHALLOW THAT THE ROOTING ZONE IS NOT DEEP ENOUGH

O SUPPORT PLANTS OR FURNISH CONTINUING SUPPLIES OF MOISTURE AND PLANT

3. TOPSOILING IS LIMITED TO AREAS HAVING 2:1 OR FLATTER SLOPES WHERE:

VEGETATIVE GROWTH. SOILS OF CONCERN HAVE LOW MOISTURE CONTENT, LOW

SEEDBED PREPARATION. TRACK SLOPES 3:1 OR FLATTER WITH TRACKED

MATERIAL (GREATER THAN 30 PERCENT SILT PLUS CLAY) TO PROVIDE THE CAPACITY TO HOLD A MODERATE AMOUNT OF MOISTURE. AN EXCEPTION: I

II. SOLUBLE SALTS LESS THAN 500 PARTS PER MILLION (PPM).

MINIMUM SOIL CONDITIONS REQUIRED FOR PERMANENT VEGETATIVE ESTABLISHMENT

LOVEGRASS WILL BE PLANTED, THEN A SANDY SOIL (LESS THAN 30 PERCENT SILT

A. SOIL PREPARATION

I. TEMPORARY STABILIZATION

2. PERMANENT STABILIZATION

DISKING OR OTHER SUITABLE MEANS.

I. SOIL PH BETWEEN 6.0 AND 7.0.

MEET THE ABOVE CONDITIONS.

B. TOPSOILING

6. TOPSOIL APPLICATION

PLUS CLAY) WOULD BE ACCEPTABLE.

L 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 SOMING 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 VERIFY

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 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 NOCULANTS AS DIRECTED ON THE PACKAGE. USE FOUR TIMES THE RECOMMENDED RATE WHEN HYDROSEEDING. NOTE: IT IS VERY IMPORTANT I KEEP INOCULANT AS COOL AS POSSIBLE UNTIL USED. TEMPERATURES ABOVE

15 TO 80 DEGREES 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

2. APPLICATION

a. DRY SEEDING: THIS INCLUDES USE OF CONVENTIONAL DROP OR BROADCAST INCORPORATE SEED INTO THE SUBSOIL AT THE RATES PRESCRIBED ON

TEMPORARY SEEDING TABLE B.I, PERMANENT SEEDING TABLE B.3, OR SITE-SPECIFIC SEEDING SUMMARIES 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 I/4 INCH OF SOIL GOVERING. APPLY SEED IN TWO DIRECTIONS, PERPENDICULAR TO EACH OTHER. APPLY HALF THE SEEDING RATE IN EACH DIRECTION.

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, IOC POUNDS PER ACRE TOTAL OF SOLUBLE NITROGEN; P205 (PHOSPHOROUS), 200 POUNDS PER ACRE; K20 (POTASSIUM), 200 POUNDS PER ACRE. I. LIME: USE ONLY GROUND AGRICULTURAL LIMESTONE (UP TO 3 TONS PER ACRE MAY BE APPLIED BY HYDROSEEDING). NORMALLY, NOT MORE THAN I TONS ARE APPLIED BY HYDROSEEDING AT ANY ONE TIME. DO NOT USE

BURNT OR HYDRATED LIME WHEN HYDROSEEDING. III. MIX SEED AND FERTILIZER ON SITE AND SEED IMMEDIATELY AND WITHOUT IV. WHEN HYDROSEEDING DO NOT INCORPORATE SEED INTO THE SOIL.

B. MULCHING

I. MULCH MATERIALS (IN ORDER OF PREFERENCE)

I. 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 MISTY MOLDY, CAKED, DECAYED, OR EXCESSIVELY DUSTY. NOTE: USE ONLY STERILE STRAW MULCH IN AREAS WHERE ONE SPECIES OF GRASS IS DESIRED > WOOD CELLULOSE FIBER MILCH (WCEM) CONSISTING OF SPECIALLY PREPARED WOOD CELLULOSE PROCESSED INTO A UNIFORM FIBROUS

WOFM 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 SLURI

WCFM, INCLUDING DYE, MUST CONTAIN NO GERMINATION OR GROWTH INHIBITING FACTORS. III. WOFM 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 AGITATION 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

WCFM MATERIAL MUST NOT CONTAIN ELEMENTS OR COMPOUNDS AT CONCENTRATION LEVELS THAT WILL BE PHYTO-TOXIC WCFM MUST CONFORM TO THE FOLLOWING PHYSICAL REQUIREMENTS: FIBER LENGTH OF APPROXIMATELY IO MILLIMETERS, DIAMETER APPROXIMATELY I MILLIMETER, PH RANGE OF 4.0 TO 8.5, ASH CONTENT OF 1.6 PERCENT MAXIMUM AND WATER HOLDING CAPACITY OF 90 PERCENT MINIMUM.

CONTACT WITH THE SOIL WITHOUT INHIBITING THE GROWTH OF THE GRASS

2. APPLICATION

APPLY MULCH TO ALL SEEDED AREAS IMMEDIATELY AFTER SEEDING 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, NCREASE THE APPLICATION RATE TO 2.5 TONS PER ACRE. 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.

SEDIMENT CONTROL NOTES & DETAILS

PLAT No. 22455-22460

3. ANCHORING

I 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: A MULCH ANCHORING TOOL IS A TRACTOR DRAWN IMPLEMENT DESIGNED TO PUNCH AND ANCHOR MULCH INTO THE SOIL SURFACE A MINIMUM OF 2 INCHES. THIS PRACTICE IS MOST EFFECTIVE ON LARGE AREAS, BUT IS LIMITED TO FLATTER SLOPES WHERE EQUIPMENT CAN OPERATE SAFELY. II

USED ON SLOPING LAND, THIS PRACTICE SHOULD FOLLOW THE CONTOUR, 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. . SYNTHETIC BINDERS SUCH AS ACRYLIC DLR (AGRO-TACK), DCA-70,

PETROSET, TERRA TAX II, TERRA 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 PROHIBITED. 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-4-5 STANDARDS AND SPECIFICATIONS FOR PERMANENT STABILIZATION DEFINITION

TO STABILIZE DISTURBED SOILS WITH PERMANENT VEGETATION.

TO USE LONG-LIVED PERENNIAL GRASSES AND LEGUMES TO ESTABLISH PERMANENT GROUND

COVER ON DISTURBED SOILS.

CONDITIONS WHERE PRACTICE APPLIES

EXPOSED SOILS WHERE GROUND COVER IS NEEDED FOR 6 MONTHS OR MORE. CRITERIA

A. SEED MIXTURES

a. SELECT ONE OR MORE OF THE SPECIES OR MIXTURES LISTED IN TABLE 13.3 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. ADDITIONAL PLANTING SPECIFICATIONS FOR EXCEPTIONAL SITES SUCH AS

HORELINES, 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. FOR SITES HAVING DISTURBED AREA OVER 5 ACRES, USE AND SHOW THE RATES

RECOMMENDED BY THE SOIL TESTING AGENCY. FOR AREAS RECEIVING LOW MAINTENANCE, APPLY UREA FORM FERTILIZER (46-0-0) AT 3 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

. TURFGRASS MIXTURES

AREAS WHERE TURFGRASS MAY BE DESIRED INCLUDE LAWNS, PARKS, PLAYGROUNDS, AND COMMERCIAL SITES WHICH WILL RECEIVE A MEDIUM TO HIGH LEVEL OF

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

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.

KENTICKY BLUEGRASS/PERENNIAL RYE: FULL SUN MIXTURE: FOR US: 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 POINDS MIXTURE PER 1000 SQUARE FEET. CHOOSE A MINIMUM OF THREE KENTUCKY BLUEGRASS CULTIVARS WITH EACH RANGING FROM 10 TO 35 PERCENT OF THE 10TAL MIXTURE

TALL FESCUE/KENTUCKY BLUEGRASS: FULL SUN MIXTURE: FOR USE III DROUGHT PRONE AREAS AND/OR FOR AREAS RECEIVING LOW TO MEDIUM MANAGEMENT IN FILL SIN TO MEDIUM SHADE RECOMMENDED MIXTURE INCLUDES; CERTIFIED TALL FESCUE CULTIVARS 95 TO 100 PERCENT, CERTIFIED KENTUCKY BLUEGRASS CULTIVARS O TO 5 PERCENT. SEEDING RATE: 5 TO 8 POUNDS PER 1000 SQUARE FEET. ONE OR MORE CULTIVARS MAY

KENTUCKY BLUEGRASS/FÎNE FESCUE: SHADE MIXTURE: FOR USE IN AREAS WITH SHADE IN BLUEGRASS 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 &O TO JO PERCENT. SEEDING RATE: 11/2 TO 3 POUNDS PER 1000 SQUARE FEE

SELECT TURFGRASS VARIETIES FROM THOSE LISTED IN THE MOST CORRENT UNIVERSITY OF MARYLAND PUBLICATION, AGRONOMY MEMO #17, "TURFGRASS CULTIVAR RECOMMENDATIONS FOR MARYLAND"

CHOOSE CERTIFIED MATERIAL. CERTIFIED MATERIAL IS THE BEST GARANTEE OF CULTIVAR PURITY. THE CERTIFICATION PROGRAM OF THE MARYLAND DEPARTMENT F AGRICULTURE, TURF AND SEED SECTION, PROVIDES A RELIABLE MEANS OF CONSUMER PROTECTION AND ASSURES A PURE GENETIC LINE

IDEAL TIMES OF SEEDING FOR TURF GRASS MIXTURES WESTERN MD: MARCH 15 TO JUNE 1, AUGUST 1 TO OCTOBER 1 (HARDINESS ZONES: 5B, CENTRAL MD: MARCH I TO MAY 15, AUGUST 15 TO OCTOBER 15 (HARDINESS ZONE: <u>SOUTHERN MD, EASTERN SHORE:</u> MARCH I TO MAY 15, AUGUST 15 TO CCTOBER 15

(HARDINESS ZONES: TA, TB) 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 1/2 INCHES IN DIAMETER. THE WILL POSE NO DIFFICULTY.

IF SOIL MOISTURE IS DEFICIENT, SUPPLY NEW SEEDINGS WITH ADEQUATE WATER FOR PLANT GROWTH (1/2 TO I 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

PERMANENT SEEDING SUMMARY

HARDINESS ZONE: 6b SEED MIXTURE: #8 (Tall Fescue) FERTIL: ZER RATE APPLICATION SEEDING 10-20-20) RATE SPECIES DATES *Certified Tall Fescue 1000 s.f. 90 lb/ Equal amounts of Ib/acre) s.f. Falcon IV, Penn 1901 & Rebel Exeda

* Other cultivars listed as "proven" in the most current UMD TT-77 may also be used 3. SOD: TO PROVIDE QUICK COVER ON DISTURBED AREAS (2:1 GRADE OR FLATTER).

GENERAL SPECIFICATIONS CLASS OF TURFGRASS SOD MUST BE MARYLAND STATE CERTIFIED, SOD LABELS MUST E MADE AVAILABLE TO THE JOB FOREMAN AND INSPECTOR. SOD MUST BE MACHINE OUT AT A UNIFORM SOIL THICKNESS OF 3/4 INCH. PLUS OR MINUS 1/4 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

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 IO PERCENT OF THE SECTION.

SOD MUST NOT BE HARVESTED OR TRANSPLANTED WHEN MOISTURE CONTENT

(EXCESSIVELY DRY OR WET) MAY ADVERSELY AFFECT ITS SURVIVAL. 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.

2. SOD INSTALLATION

DURING PERIODS OF EXCESSIVELY HIGH TEMPERATURE OR IN AREAS HAVING DRY SUBSOIL, LIGHTLY IRRIGATE THE SUBSOIL IMMEDIATELY PRIOR TO LAYING THE SOD. LAY THE FIRST ROW OF SOD IN A STRAIGHT LINE WITH SUBSEQUENT ROWS PLACED PARALLEL TO IT AND TIGHTLY NEDGED 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 LIGHT IN ORDER TO PREVENT VOIDS WHICH WOULD CAUSE AIR DRYING OF THE ROOTS. WHEREVER POSSIBLE, LAY SOD WITH THE LONG EDGES PARALLEL TO THE CONTOUR AND WITH STAGGERING JOINTS. ROLL AND TAMP, PEG OR OTHERNISE SECURE THE SOD TO PREVENT SLIPPAGE ON SLOPES. ENSURE SOLID CONTACT EXISTS BETWEEN SOD

ROOTS AND THE UNDERLYING SOIL SURFACE. 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.

B. SOD MAINTENANCE

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 TO PREVENT WILTING. AFTER THE FIRST WEEK, SOD WATERING IS REQUIRED AS NECESSARY TO MAINTAIN ADFOLIATE MOISTIRE CONTENT

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

G. L. W. FILE No. SCALE AS SHOWN NT

DOWNTOWN COLUMBIA WARFIELD NEIGHBORHOOD BLOCKS W-2 & W-5 PARCELS C-1 & C-2 GREEN MIXED USE BUILDING

DATE TAX MAP - GRID SHEET AUG., 2015 36 - 01HOWARD COUNTY, MARYLAND

GLWGUTSCHICK LITTLE & WEBER, P.A. CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS

3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK BURTONSVILLE MARYLAND 20866 TEL: 301-421-4024 BALT: 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-4186 NADDRAMAS JAKOTNOM Celonia Tomo Celor - 28 - Por. CI & CAPANS OF CURSON FOR PARAM DES. WSJ DRN. WSJ CHK. m jt

OWNER/PREPARED FOR: PARCEL C PROPERTY, LLC 1751 PINNACLE DRIVE

HEREBY CERTIFY THAT THESE PLANS WERE PREPARED OR APPROVED BY SUITE 700 ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE MCLEAN, VIRGINIA 22102 LAWS OF THE STATE OF MARYLAND, LICENSE NO. 14931 EXPIRATION DATE: MAY 21, 2016 ATTN: KEVIN PETERKIN 703-205-5542

PROFESSIONAL CERTIFICATION

LECTION DISTRICT No. 5

©GLW 2013

| | FITTINGS CHART PRIVATELY OWNED AND MAINTAINED | | | | | | | | | |
|-----------------|---|----------|--|--|--|--|--|--|--|--|
| SIZE (in.) | TYPE | QUANTITY | | | | | | | | |
| 6" | 為" BEND | 4 | | | | | | | | |
| 8" | 尨" BEND | 3 | | | | | | | | |
| IO ⁿ | 尨" BEND | 3 | | | | | | | | |
| 6° | MAE | 0 | | | | | | | | |
| 8° | WYE | | | | | | | | | |
| 10" | WE | 3 | | | | | | | | |
| 8"x 6" | REDUCER | | | | | | | | | |
| 10"x 8" | REDUGER | l | | | | | | | | |
| 10"x 6" | REDUCER | 4 | | | | | | | | |
| 12"x 10" | REDUCER | | | | | | | | | |
| 18"x 6" | REDUGER | l | | | | | | | | |
| 24"x 10" | REDUCER | l | | | | | | | | |
| 6" | SLOTTED GRATE | 3 | | | | | | | | |
| i O ii | DOMED GRATE | 4 | | | | | | | | |
| 18" | DOMED GRATE | i e | | | | | | | | |
| 24" | DOMED GRATE | 1 | | | | | | | | |

- 2. ALL RISERS FOR CLEANOUT LOCATIONS SHALL BE PVC WITH REMOVABLE PLUGS.

| unicani habina di programa | | AND A SAME A SAME STATE STATE STATE STATE | UMMARY TABL WINED AND MAINTAINED | |
|--|---------------|---|-------------------------------------|---------|
| Androwanianian | SIZE (in.) | TYPE | QUANTITY (L.F.) | REMARKS |
| handalaladiakisan | 6" | HDPE - | 100 | |
| Lowerstown | 8" | HDPE | 72 | |
| Sections | 10" | HDPE | 160 | |

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

Chief, Division of Land Developmentant 12-17-65 Date

GLWGUTSCHICK LITTLE & WEBER, P.A. CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK
BURTONSVILLE, MARYLAND 20866
TEL: 301-421-4024 BALT: 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-4186

©GLW 2013

Elypoolpassinoolpanis colonis in a conta - 78 - Par ci el colpuis di cultur 1904/2008-202-11-12649, DES. MJT DRN. MJT CHK. REVISION

OWNER/PREPARED FOR: SUITE 700 MCLEAN, VIRGINIA 22102 ATTN: KEVIN PETERKIN

PROFESSIONAL CERTIFICATION

DOWNTOWN COLUMBIA WARFIELD NEIGHBORHOOD BLOCKS W-2 & W-5 PARCELS C-1 & C-2

CI UNDERDRAIN & MANIFOLD PLAN GREEN MIXED USE BUILDING PLAT No. 22455-22460

ASBULL T SHIFFT 2 OF SCALE ZONING G. L. W. FILE No. 1"=20" 12078 TAX MAP - GRID SHEET HOWARD COUNTY, MARYLAND

PROFESSIONAL CERTIFICATION

12975, Expiration Date: May 26 2020.

engineer under the laws of the State of Maryland, License

SCALE: 1" = 20 10 20

I. IN CASE OF DISCREPANCIES BETWEEN THE CHART AND THE PLAN, THE PLAN

3. VERTICAL FITTINGS NOT INCLUDED.

4. ALL DRAIN RISERS SHALL BE HDPE AND HAVE ADS ROUND DROP IN GRATES OR EQUIVALENT AT THE SPECIFIED ELEVATION UNLESS NOTED OTHERWISE.

APPROVED PLANNING BOARD OF HOWARD COUNTY

Chief, Development Engineering Division <u>9.14.15</u> Date

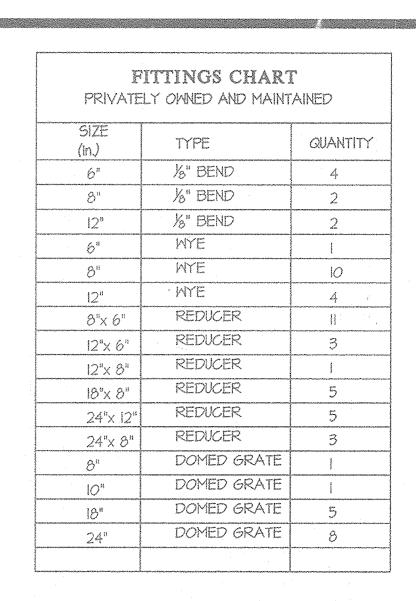
PARCEL C PROPERTY, LLC 1751 PINNACLE DRIVE

703-205-5542

I HEREBY CERTIFY THAT THESE PLANS
WERE PREPARED OR APPROVED BY
ME, AND THAT I AM A DULY LICENSED
PROFESSIONAL ENGINEER UNDER THE
LAWS OF THE STATE OF MARYLAND,
LICENSE NO. 14930
EXPIRATION DATE: MAY 21, 2016

(PRIMARY PEDESTRIAN AND BICYCLE STREET)

ELECTION DISTRICT No. 5



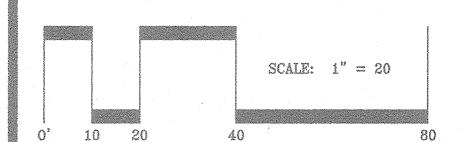
I. IN CASE OF DISCREPANCIES BETWEEN THE CHART AND THE PLAN, THE PLAN SHALL GOVERN.

2. ALL RISERS FOR CLEANOUT LOCATIONS SHALL BE PVC WITH REMOVABLE PLUGS.

3. VERTICAL FITTINGS NOT INCLUDED.

4. ALL DRAIN RISERS SHALL BE HDPE AND HAVE ADS ROUND DROP IN GRATES OR EQUIVALENT AT THE SPECIFIED ELEVATION UNLESS NOTED OTHERWISE.

| | | UMMARY TAB WNED AND MAINTAINE | - |
|---------------|------|----------------------------------|---------|
| SIZE (In.) | TYPE | QUANTITY (L.F.) | REMARKS |
| 6" | W/E | 145 | |
| 8" | HDPE | 221 | |
| 12" | HDPE | 103 | |



APPROVED PLANNING BOARD OF HOWARD COUNTY November 14, 2014 APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING 12-17-16 Chief, Division of Land Development 9mp Q:14:iS Date

Chief, Development Engineering Division GLWGUTSCHICK LITTLE & WEBER, P.A. CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS 3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK BURTONSVILLE, MARYLAND 20866
TEL: 301-421-4024 BALT: 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-4186

©GLW 2013

OWNER/PREPARED FOR: PARCEL C PROPERTY, LLC 1751 PINNACLE DRIVE SUITE 700 MCLEAN, VIRGINIA 22102 ATTN: KEVIN PETERKIN 703-205-5542 REVISION

24XI2 RED.

INV.=394.27

24" DOMED GRATE 12" % H.B.~

TOP= 399.67399.731NV,=39216.

/12" RISER

24XI2 RED.

INV.=391,82

TOP= 397,25

PROFESSIONAL CERTIFICATION HEREBY CERTIFY THAT THESE PLANS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED

18" RISER

/ 24X8 RED.

PO.P88=.VNI -

V 8" WYE

W8"x 6" RED.

24" DOMED GRATE TOP=395.42395.62 70468

INV.=384.07

C2 UNDERDRAIN & MANIFOLD PLAN DOWNTOWN COLUMBIA WARFIELD NEIGHBORHOOD BLOCKS W-2 & W-5 PARCELS C-1 & C-2 GREEN MIXED USE BUILDING

PLAT No. 22455-22460

SCALE ZONING G. L. W. FILE No. 12078 1"=20' DATE TAX MAP - GRID SHEET 12 OF 47 HOWARD COUNTY, MARYLAND

(PRIMARY PEDESTRIAN AND BICYCLE STREET) √8" RISER 18X8 RED. 18" DOMED GRATE TOP=408.32408 // 8" RISER INV.=403.05 18X8 RED. 18" DOMED GRATE \ 0+03 TOP=405.62 405.338" RISER TOP=405.62 40 INV.=403.22 / 8" RISER / 18X8 RED. / INV.=400.67 18" DOMED GRATE 18" DOMED BRATE TOP=406.91 406.71 TOP=404.27404. INV.=399.46 INV.=401.86 8" RISER ---6" (0.0) 18X8_RED. 18% PCD. V 6" (C.O.) — 18" DOMED GRATE INV.=397.84 INV.=397.64 TOP=402,9240 INV.=398.26 /12" RISER 0+02 /8" RISER 24XI2 RED. /12" % H.B. 24" DOMED GRATE /12" RISER V INV.=388.43 -24X8 RED. --TOP=399.67-39 24XI2 RED. 24" DOMED GRATE 10+47=0+00 INV.=392,90 TOP=395.42 395,4 -24" DOMED GRATE /12" MYE ______ INV.=390.77 0+02 INV.=388.79 TOP=397.25 396.94 10+77=0+00 INV.=390.84 12" WYE ---/8" RISER \$ 8" WYE INV.=392.85 √ 24X8 RED. W8"x 6" RED. -- 24" DOMED GRATE/ 1.6" (0.0.) INV.=388.77 TOP=395.42 3 12" HDPE INV.=388.48 JNV.=388.49

10+05=0+00 18" WYE 0+12=0+00 /12" WYE----W12"x 6" RED

/ I2" RISER V 24XI2 RED.

TP.P8E=,VAI

O+08=0+00 / W12"x 8" RED. INV.=388.42 24" DOMED GRATE 24" DOMED GRATE TOP= 395.42

TOWN CENTER AVENUE (PRIMARY PEDESTRIAN AND BIGYCLE STREET) (WARFIELD AVENUE TYPE 2)

TWIN RIVERS PARKWAY

(WARFIELD AVENUE TYPE 2)

√ 6" (C,O.) 1NV.=397.38

/ 6" RISER -

8X6 RED.

INV.=397.38

8" DOMED GRATE

(PER F 13-015)

EX. UNDERDRAIN (PER F 13-015)-

0+26 6" RISER

EX. UNDERDRAIN (PER F 13-015) -

I hereby certify that these documents were prepared or

engineer under the laws of the State of Maryland, License

No. 12975; Expiration Date: May 26 2020.

approved by me, and that I am a duly licensed professional

IOX6 RED.

TOP=386.17

11.975=.VAI

IO DOMED GRATE

0+00 6" CAP—

EX. 15" HDPE

(PER F 13-015)

INV.=379.64

PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 14931

EXPIRATION DATE: MAY 21, 2016

LECTION DISTRICT No. 5

B.4.C Specifications for Micro-Bioretention. Rain Gardens, Landscape Infiltration & Infiltration Berms Material Specifications The allowable materials to be used in these practices are detailed in Table B.4.1. 2. 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 a mixture of loamy sand (60%-65%) and compost (35% to 40%) or sandy loam (30%), coarse sand (30%), and compost (40%). Clav 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 increase or decrease 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. 3. 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 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 (rototilling) 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. 4. Plant Material Recommended plant material for micro-bioretention practices can be found in Appendix A, Section A.2.3. 5. 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 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 urea fertilizer at a rate of 2 pounds per 1000 square feet. Underdrains should meet the following criteria: Pipe- Should be 4" to 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 (1/4" to 3/4" 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 exceeds 24". 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 1,000 square feet of surface area). Miscellaneous These practices may not be constructed until all contributing drainage area has been stabilized

APPROVED PLANNING BOARD OF HOWARD COUNTY APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING 12-17-15 12-17-65 9.14.15 Chief, Development Engineering Division GLWGUTSCHICK LITTLE &WEBER, P.A.

CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS

BURTONSVILLE, MARYLAND 20866

TEL: 301-421-4024 BALT: 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-4186

L'ECONDIANNAS (MADA) 1888 Columbia Roma Contra - 28 - Par. CA & CAPANAS DA CATISAT/12078-539-113600 | DES. WSJ | DRN. WSJ | CHK. MJT

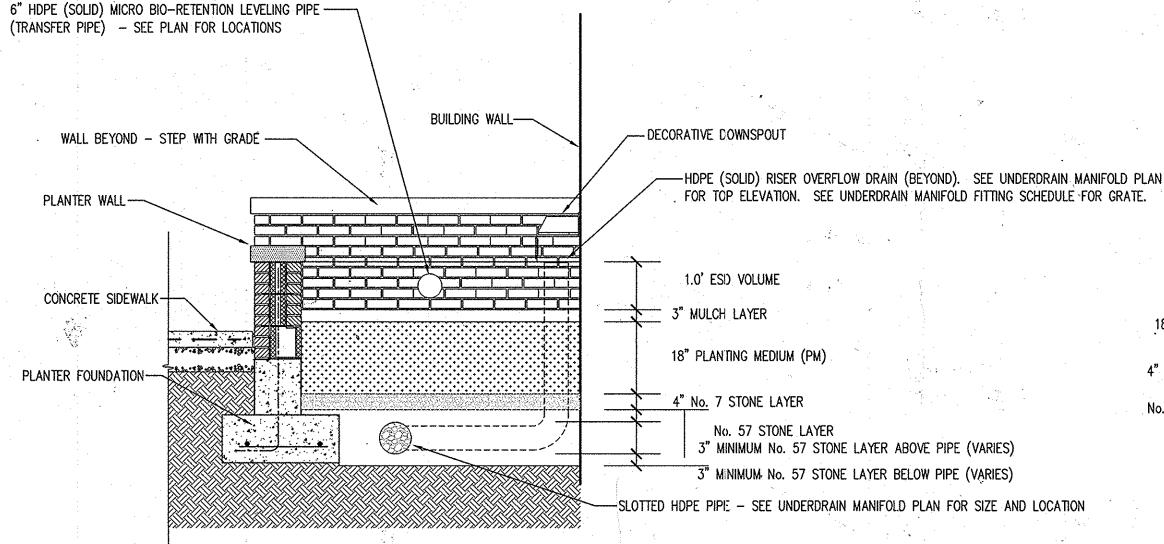
3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK

| 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 şand 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") | ć `` |
| 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; fc= 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 |

Operations and Maintenance Schedule for Micro Bio-retention Facilities (M-6)

REVISION

- A.The owner shall maintain the plant material, mulch layer and soil layer annually. Maintenance of mulch and soil is limited to correcting areas of erosion or wash out. Any mulch replacement shall be done in the spring. Plant material shall be checked for disease and insect infestation and maintenance will address dead material and pruning. Acceptable replacement plant material is limited to the following: 2000 Maryland Stormwater Design Manual Volume II, Table A.4.1 and 2.
- B. The owner shall perform a plant in the spring and in the fall of each year. During the inspection, the owner shall remove any dead and diseased vegetation considered beyond treatment, replace dead plant material with acceptable plant material, treat diseased trees and shrubs, and replace all deficient stakes and wires.
- C. The owner shall inspect the mulch each spring. The mulch shall be replaces every two to three years. The previous mulch layer shall be removed before the new layer is applied.
- D. The owner shall correct soil erosion on an as needed basis, with a minimum of once per month and after each heavy



FOR ADDITIONAL INFORMATION - SEE LANDSCAPE SHEET L305

TYPICAL SECTION THROUGH MICRO BIO-RETENTION PLANTERS 'C' (PLANTERS 'B' SIMILAR)

BY APP'R.

OWNER/PREPARED FOR: PROFESSIONAL CERTIFICATION PARCEL C PROPERTY, LLC HEREBY CERTIFY THAT THESE PLANS WERE PREPARED OR APPROVED BY 1751 PINNACLE DRIVE SUITE 700 ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE MCLEAN, VIRGINIA 22102 LAWS OF THE STATE OF MARYLAND,
LICENSE NO. 14931
EXPIRATION DATE: MAY 21, 2016 ATTN: KEVIN PETERKIN 703-205-5542

LECTION DISTRICT No. 5

Pavna Section~

*Concrete

--- CONC. WALK - CONC. CURB & GUTTER CONTROL JOIN PLANTER CURB - CONC. CURB & GUTTER CONTROL JOINT MICRO BIO-RETENTION PLANTER CURB CUT DETAIL Noto. For details of grate over curb cut, see Landacape Plana. - CURB CUT BEYOND (SEE DETAIL THIS SHEET) -ROAD CURB AND GUTTER - TYP. -PLANTER CURB PLANTER WALL — ROAD PAVING -rus-wraig.veras-wraig. PONDING WATER SURFACE ----1.0' ESD VOLUME 3" MULCH LAYER _____ 18" PLANTING MEDIUM (PM) 4" No. 7 STONE LAYER No. 57 STONE LAYER SLOTTED HDPE PIPE — SEE UNDERDRAIN MANIFOLD PLAN FOR SIZE AND LOCATION 3" MINIMUM No. 57 STONE LAYER ABOVE PIPE (VARIES) FOR ADDITIONAL INFORMATION - SEE LANDSCAPE

TYPICAL MICRO BIO-RETENTION PLANTERS ADJACENT TO ROADWAY ARRANGEMENT

MICRO BIO-RETENTION DETAILS NOTES AND MAINTENANCE SCHEDULES

DOWNTOWN COLUMBIA

WARFIELD NEIGHBORHOOD BLOCKS W-2 & W-5

PARCELS C-1 & C-2

GREEN MIXED USE BUILDING

PLAT No. 22455-22460

Continuous score joint from curb transition to

curb transition or from

filltet P.C. to fillet P.T.

Mix No.2

Concrete

Depressed (Flush) Curb

STREETSCAPE

ROADWAY

13 OF 47

G. L. W. FILE No.

12078

SCALE

AS SHOWN

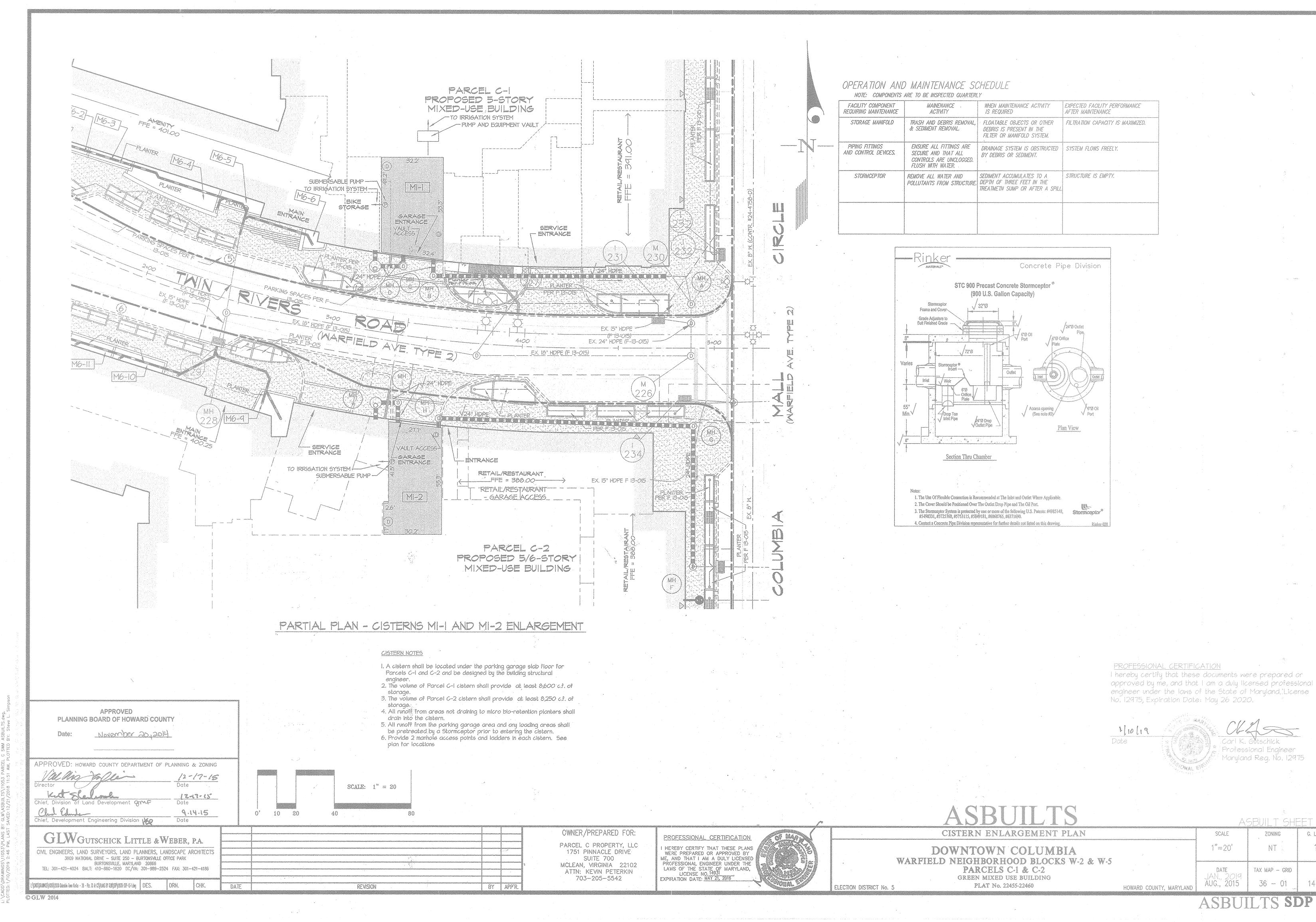
DATE

AUG., 2015

HOWARD COUNTY, MARYLAND

ZONING A

TAX MAP - GRID



ZONING

NT

TAX MAP - GRID

1"=20'

DATE

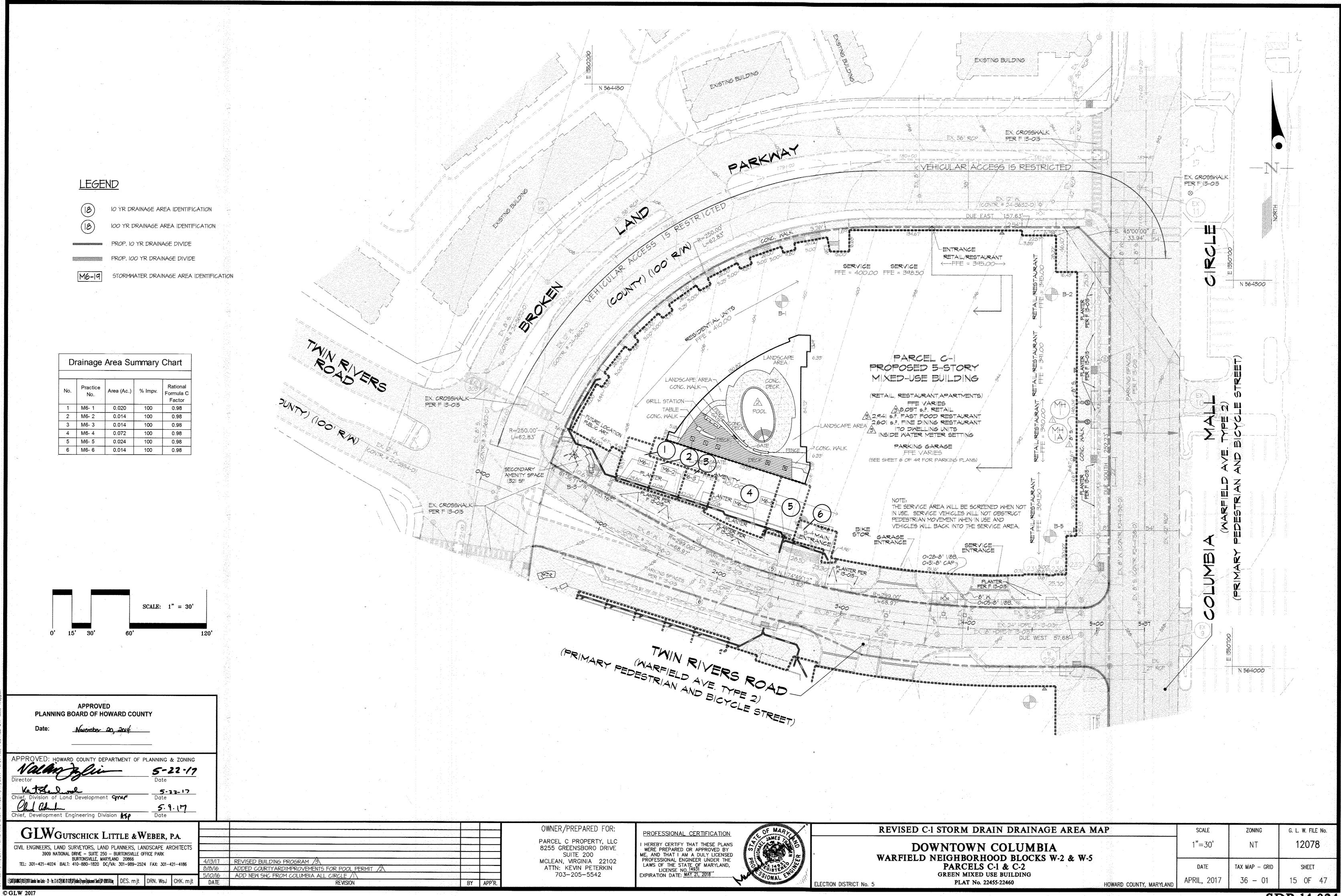
ASBILL T SHEET 4 OF

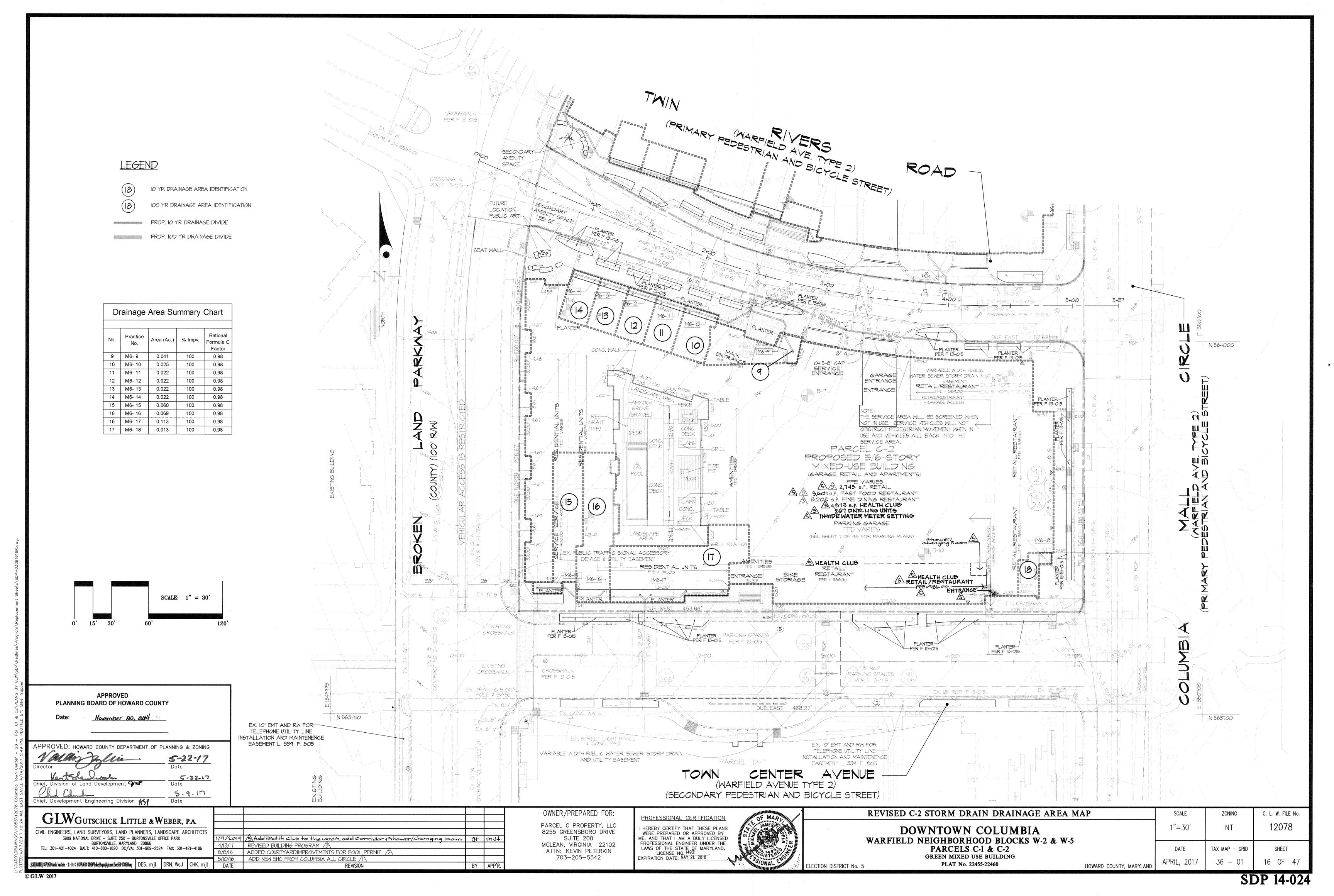
G. L. W. FILE No:

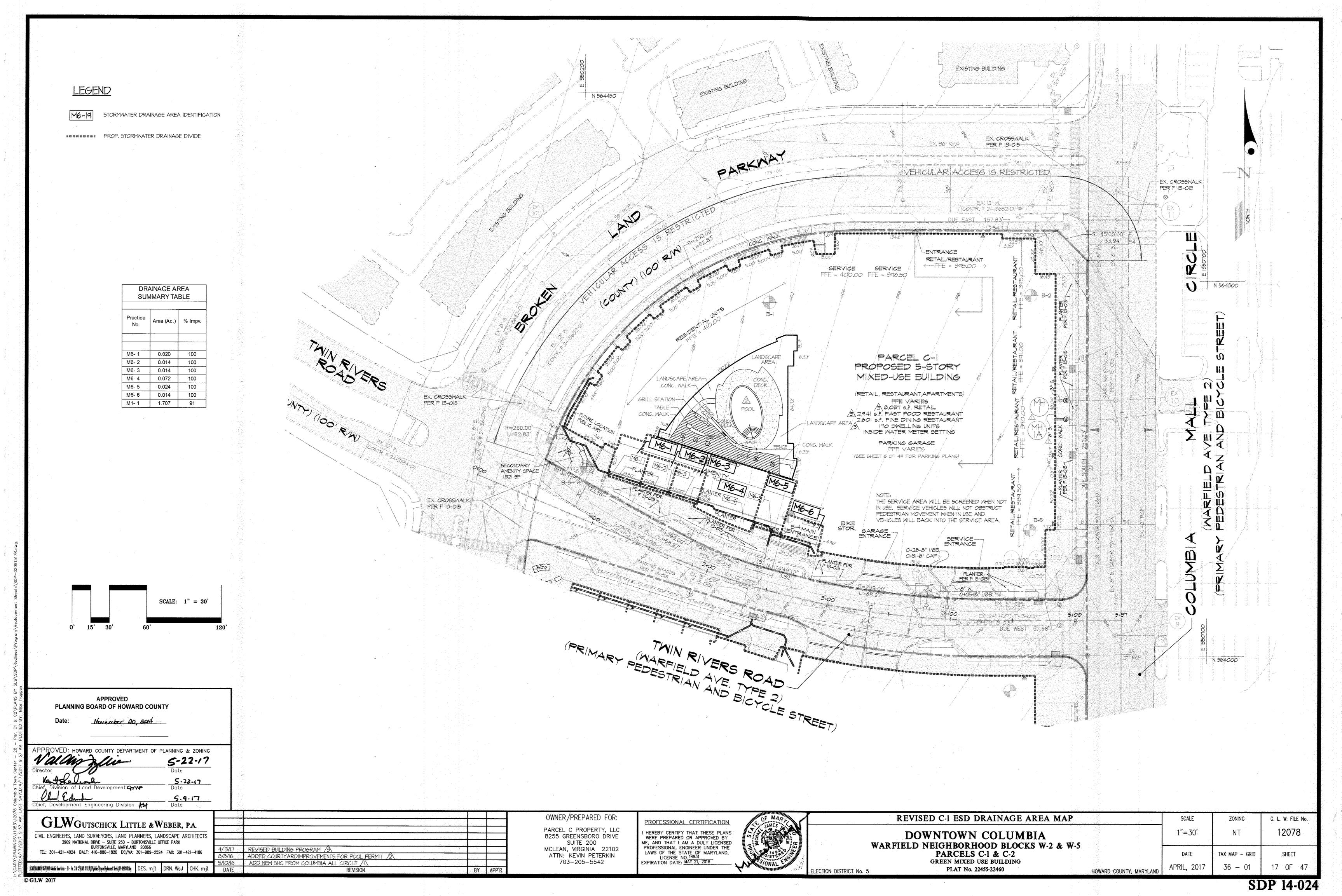
12078

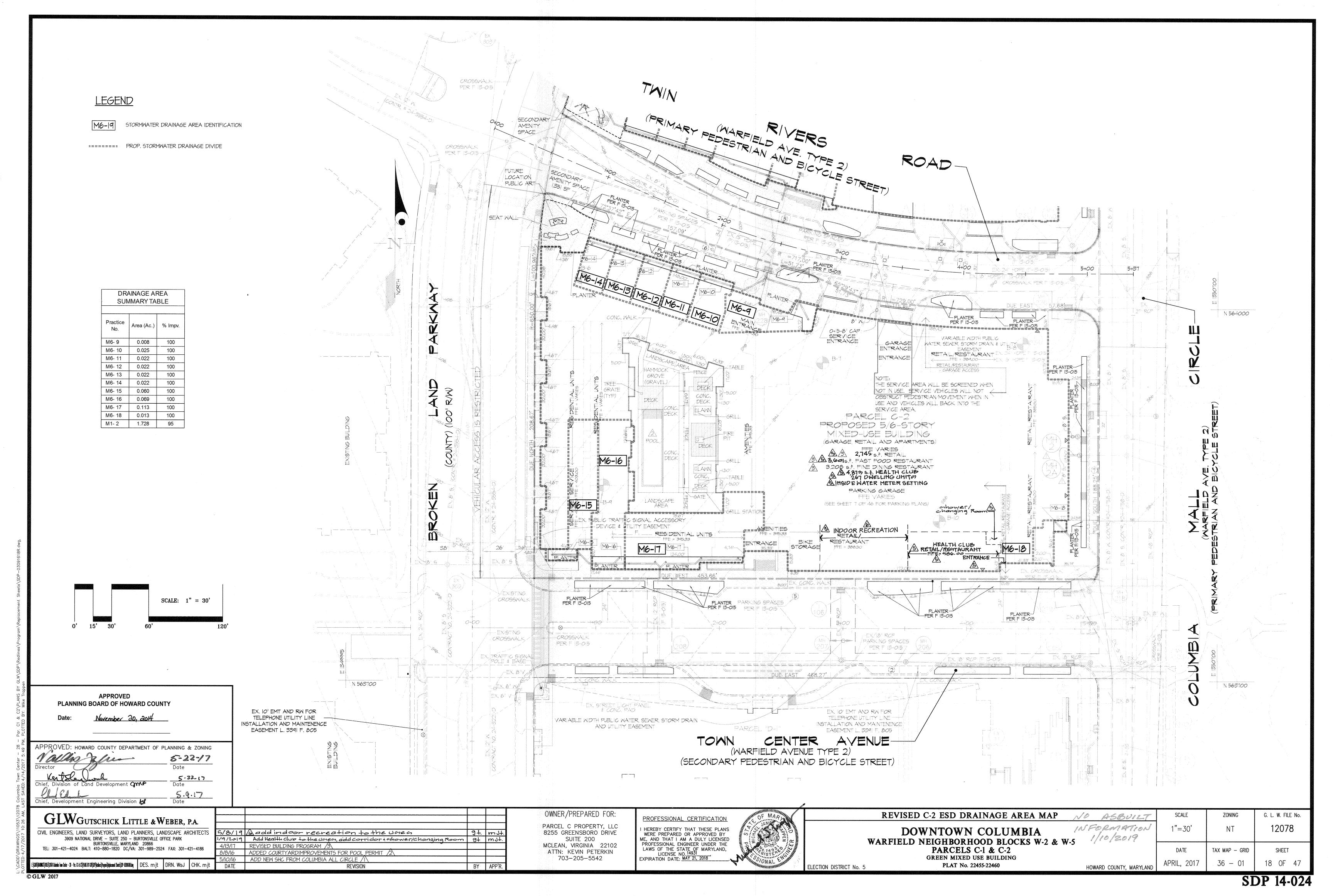
SHEET

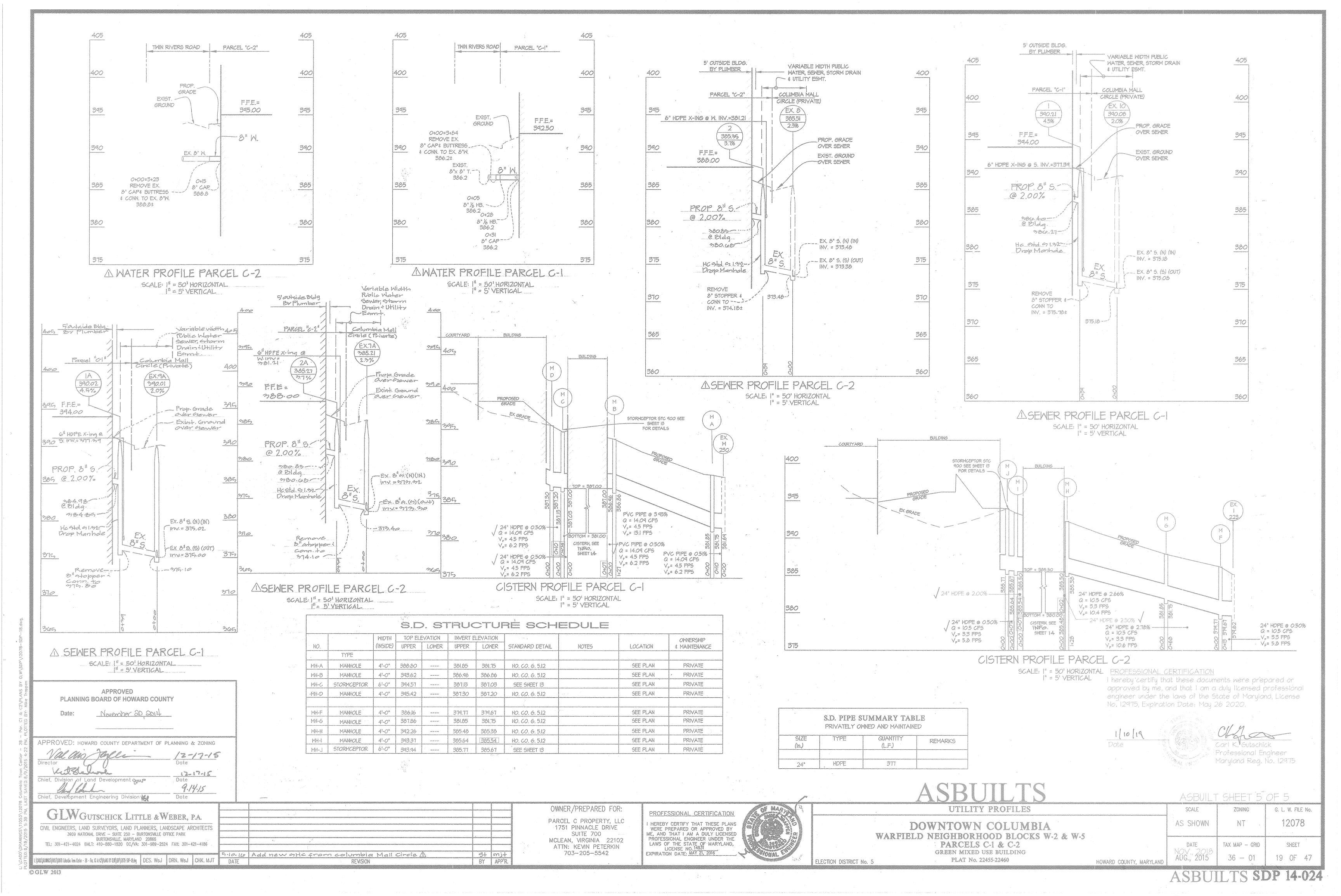
Professional Engineer Maryland Req. No. 12975

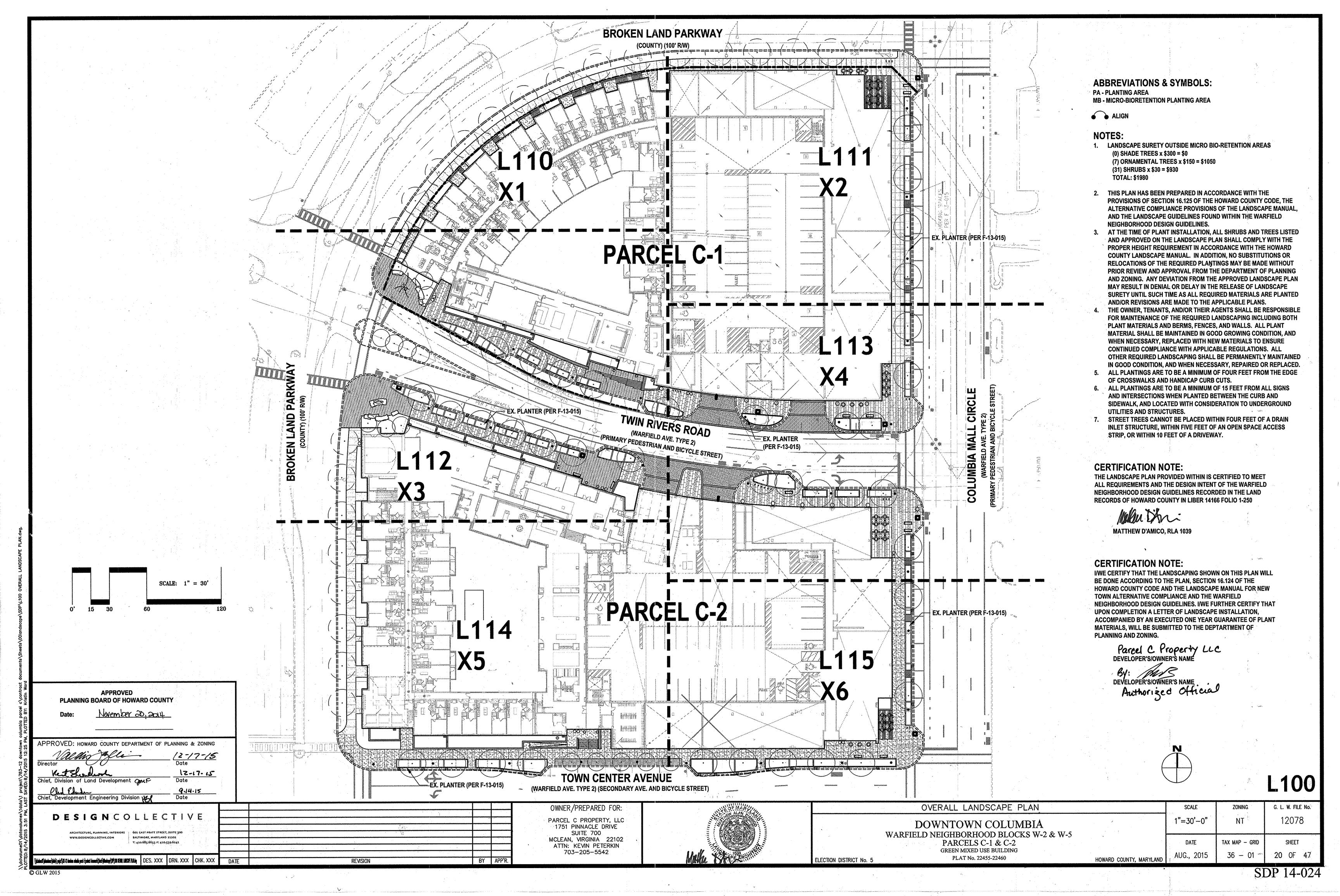


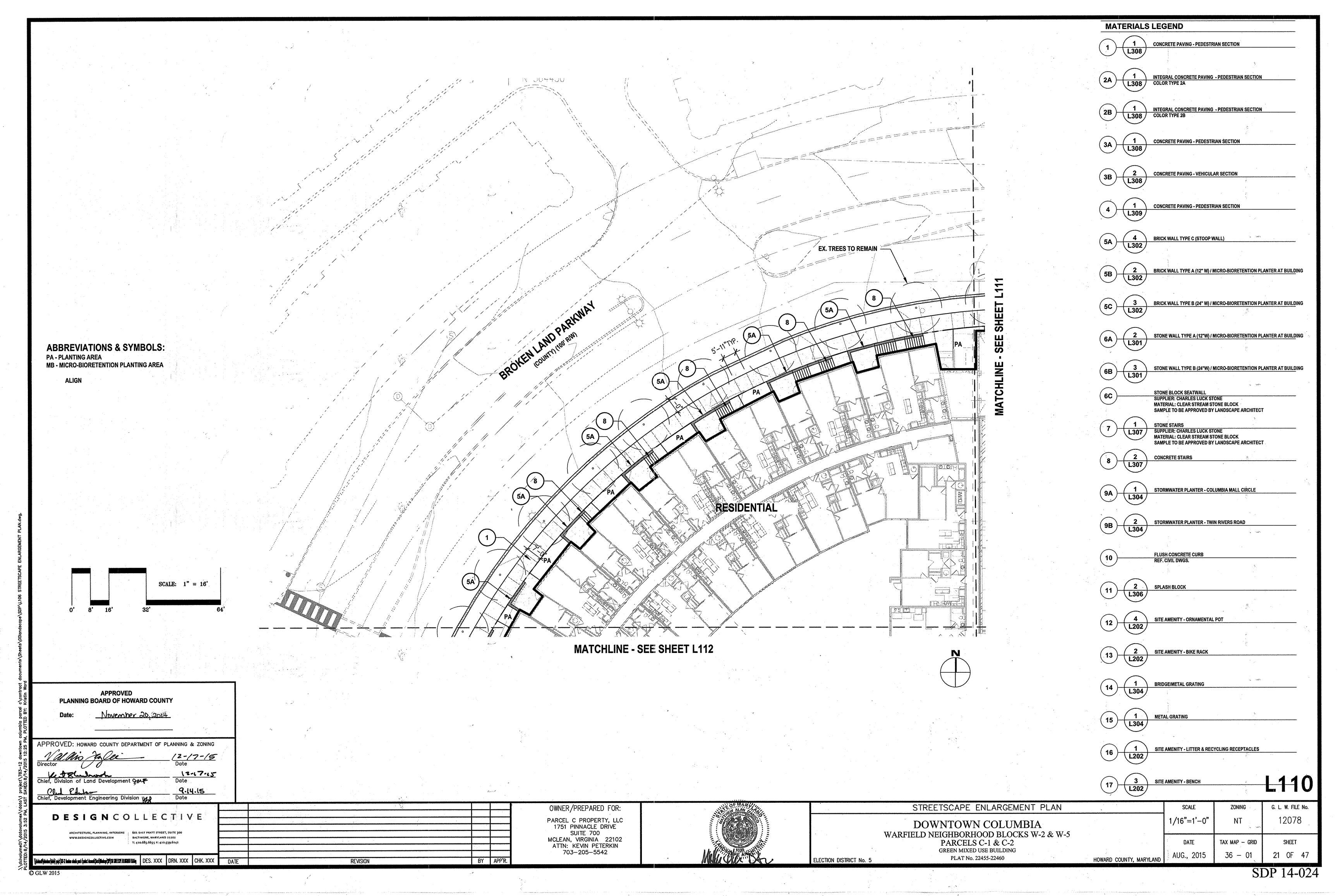


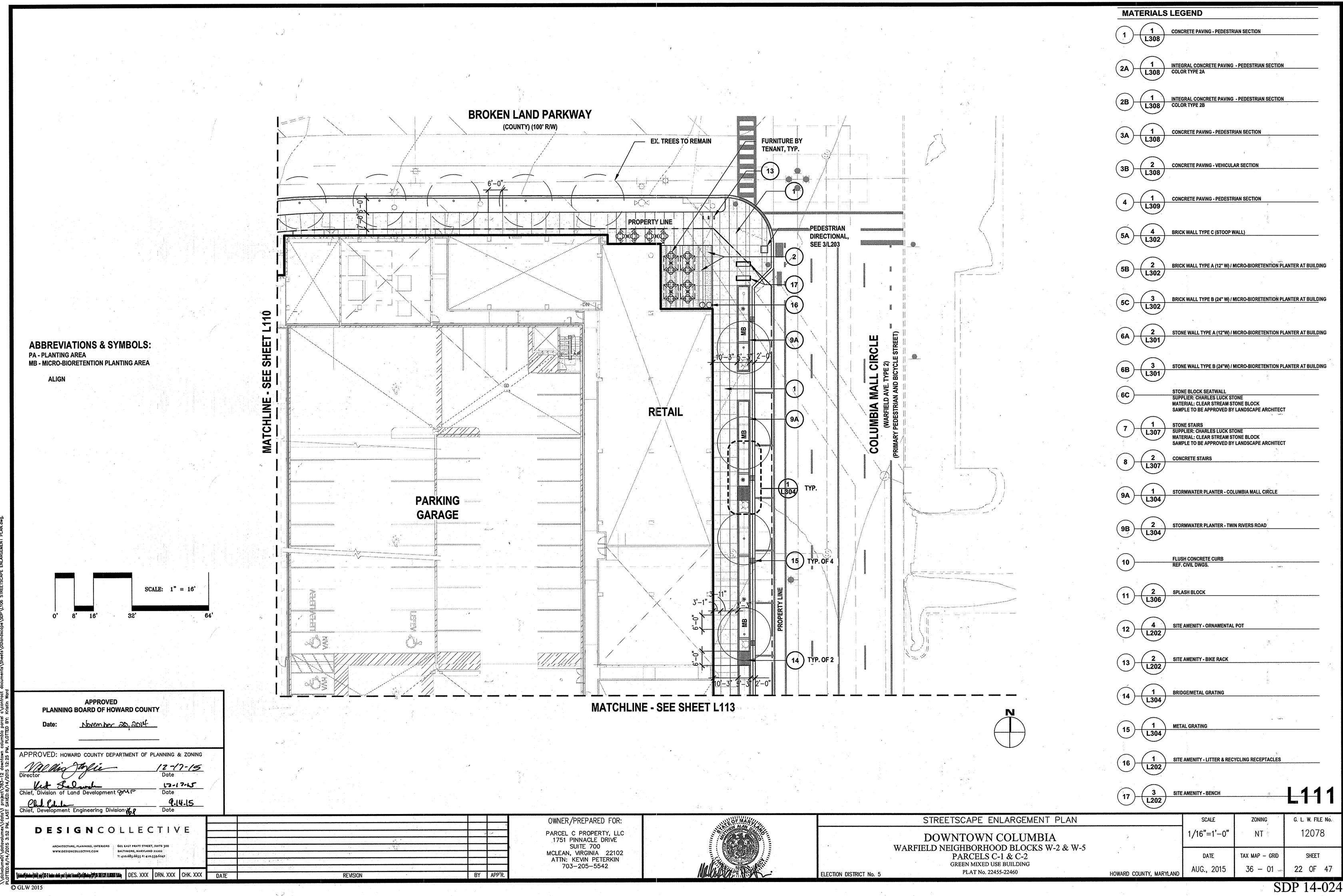


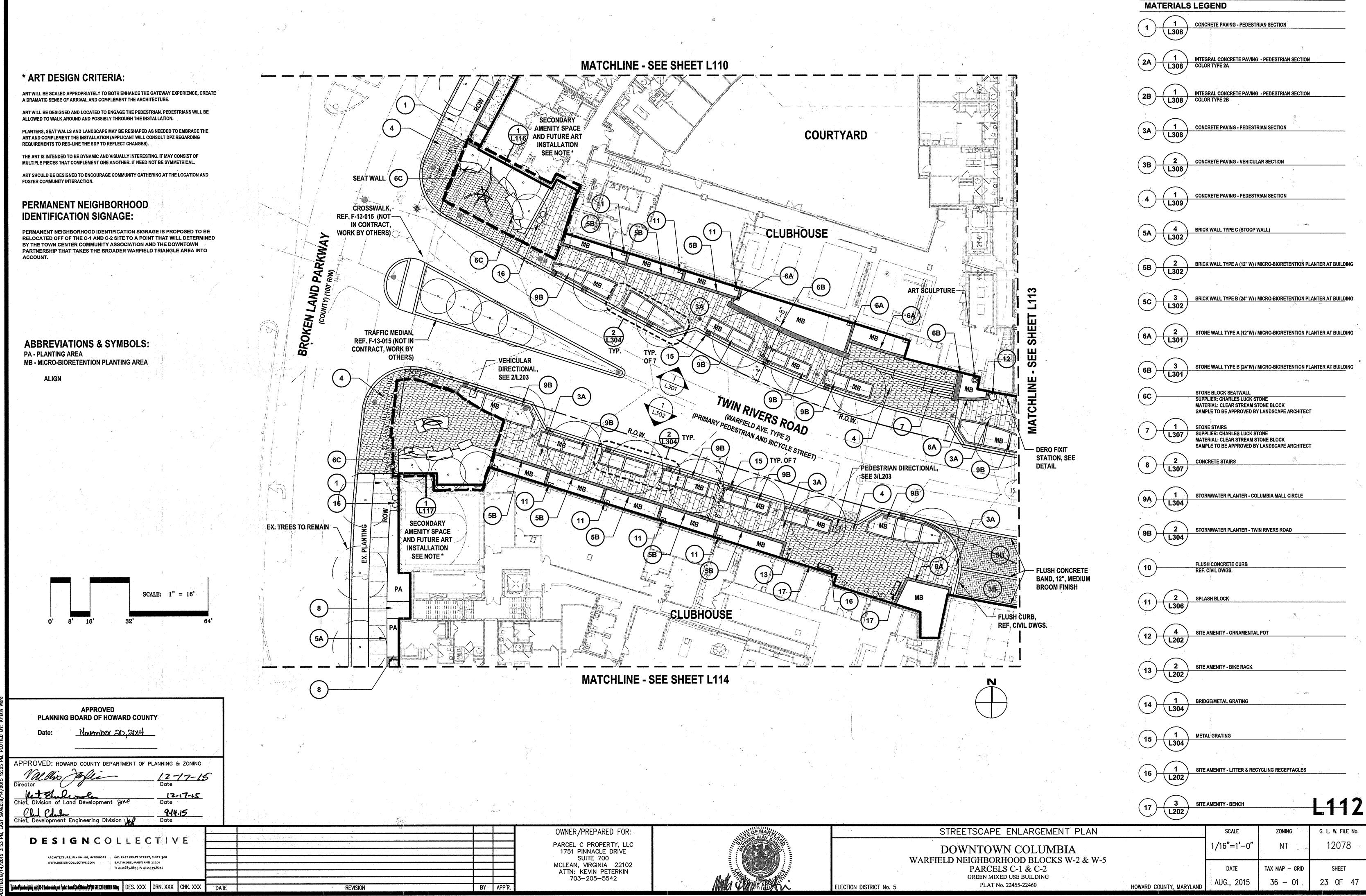


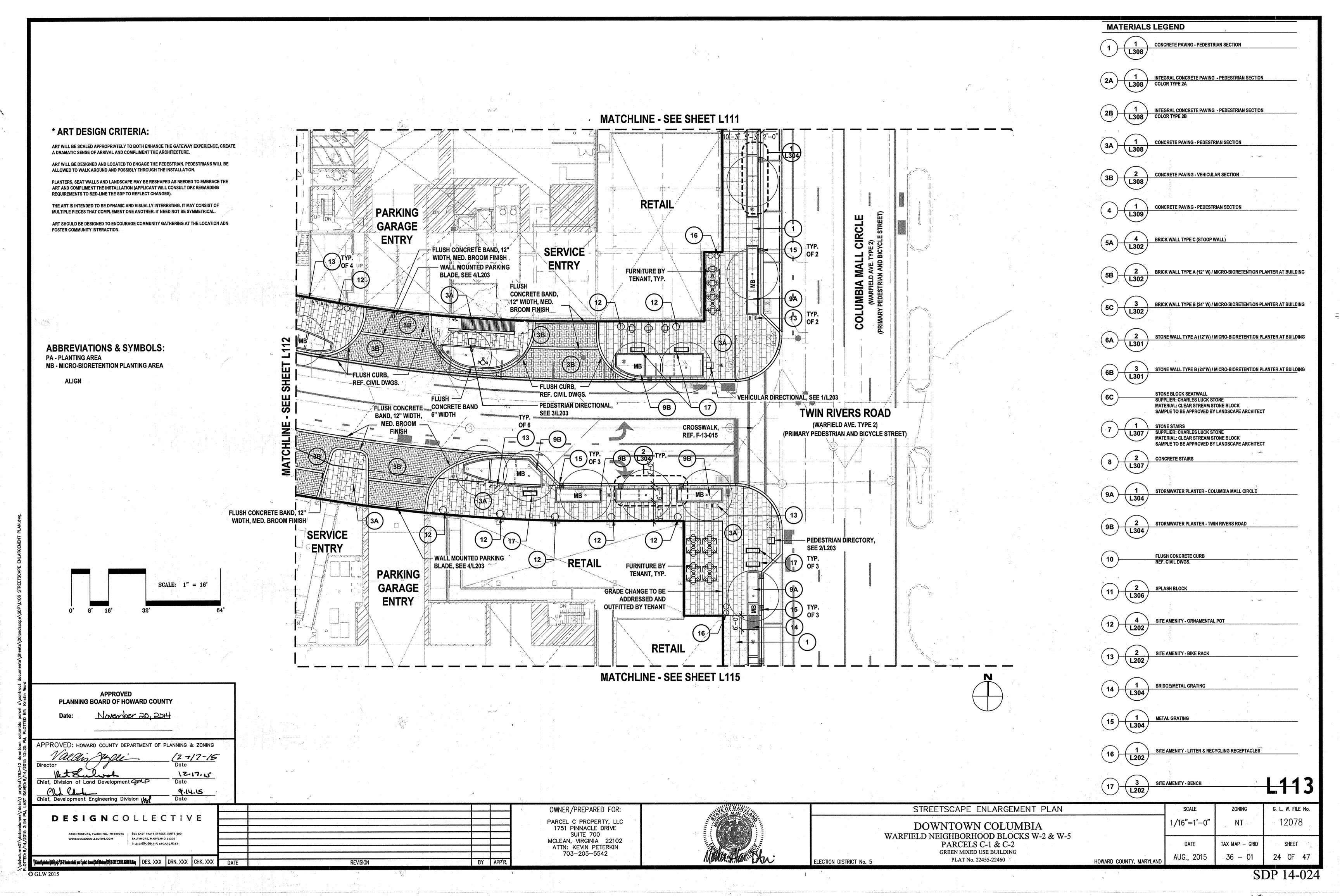


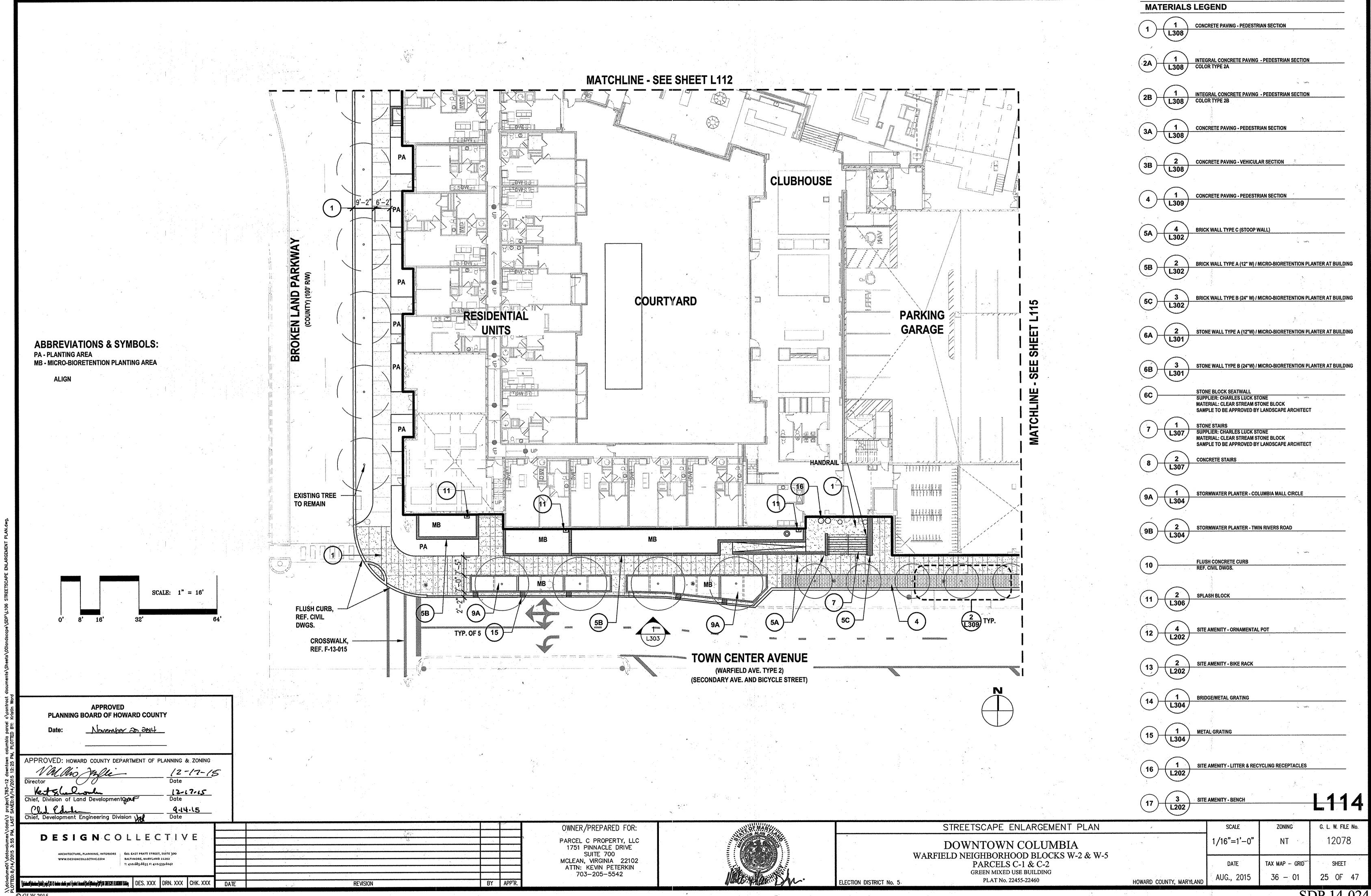


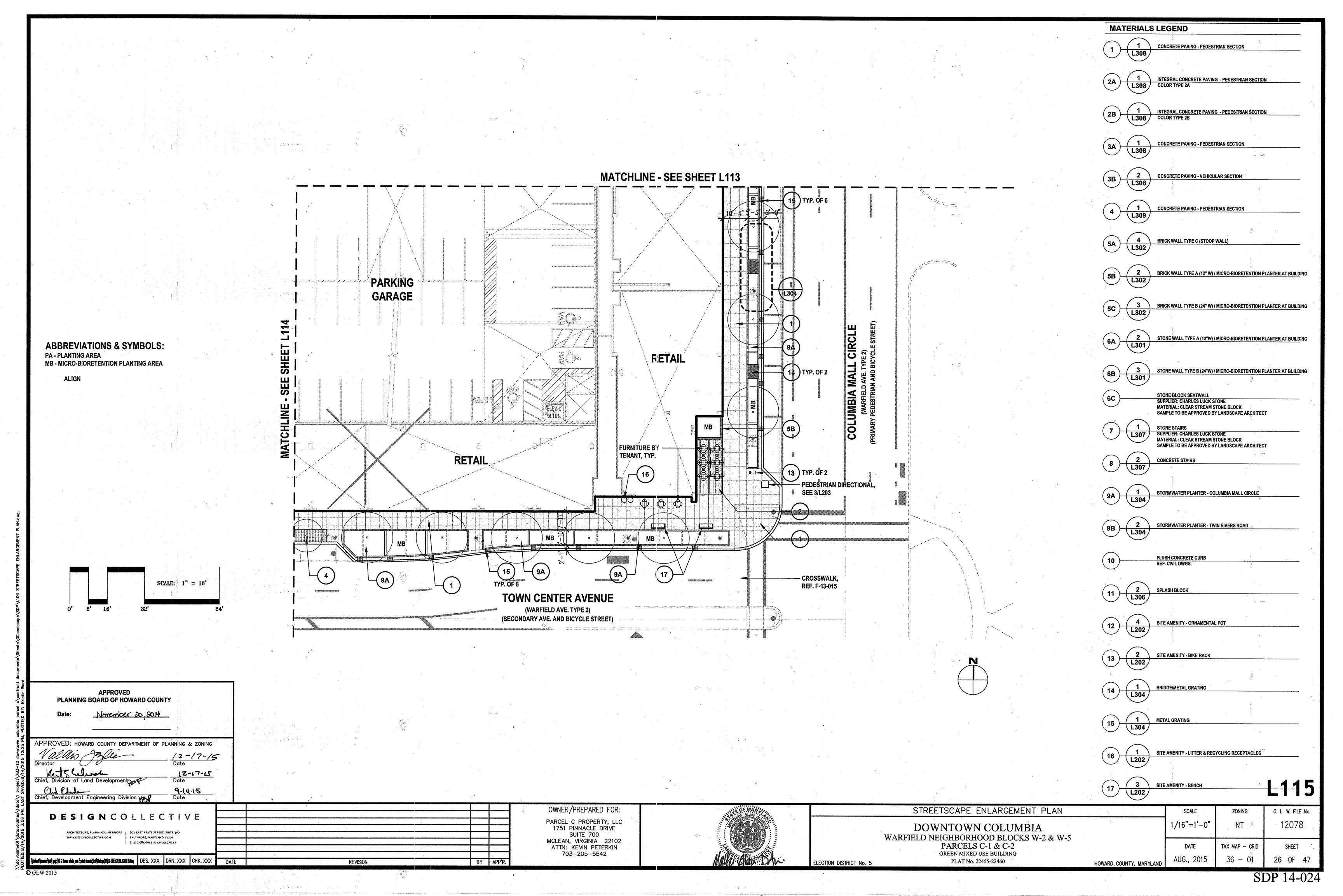


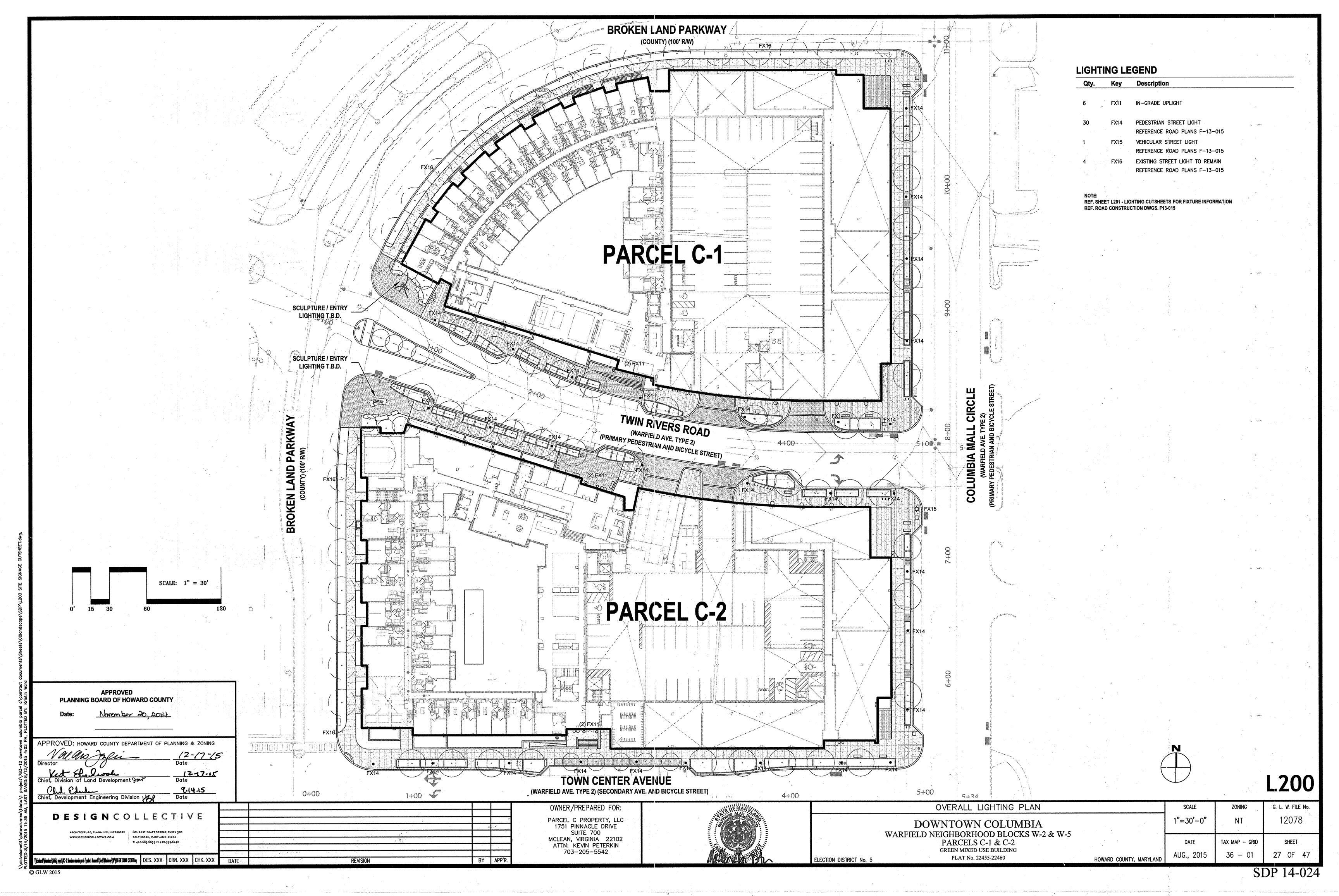






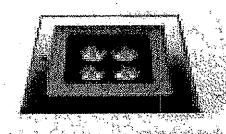


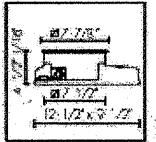






TYPE FX11





SIS-S.5195W LED RECESSED UPLIGHT FINISH: SEMIACID ETCHED GLASS DIMENSIONS: SHOWN ABOVE LAMP: LED

8325 Patuxent Range Road ~ Suite E ~ Jessup ~ MD ~ 20794
Telephone (800) 426-3398 ~ Fax (800) 379-0816 ~ www.lightingbydesign.biz

IN-GRADE UPLIGHT

REVISION

Redefining value with outstanding performance

PHILIPS GARDOO, LED SITE & AREA LUMINAIRE, ECOFORM

The Philips Gardco EcoForm combines economy with performance in an LED area luminaire. Capable of delivering up to 20,000 lumens or more in a compact, low profile LED luminaire, EcoForm offers a new level of customer value. EcoForm features an innovative retrofit arm kit, simplifying site conversions to LED by eliminating the need to drill additional holes in most existing poles. Integral control systems available for further energy savings.

| DESIGNIIGHTS | |
|---------------|---|
| Project: | |
| Location: | |
| Catalog No: | |
| Fixture Types | ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, |
| Mig: | Qty: |
| Notes: | |

ECOFORM OUTDOOR SITE & AREA

| Prefix | | Mount | ng | Opt | tics | LED Array & LED Wattage | LED Selec | tion | Voltage | Finis | b | Option | S . |
|---------------------------------------|---|------------------------------------|---|-----------------|-----------------------------|--|--------------|--|--|---|---|--|---|
| ECF-APD¹ ECF-MR50³ ECF-APD-MRO³ | EcoForm Standard Luminaire EcoForm with 0-10V Dimming EcoForm with Auto Profile Dimming EcoForm with Motion Response at 50% low Pote mounted sensor EcoForm with Auto Profile Dimming and Motion Response Override Pote mounted sensor EcoForm with Motion Response EcoForm with Motion Response EcoForm with Motion Response at 50% low Luminaire mounted sensor | 2 2@90 3 3@120 4 WS | Single 2@180 2@90 3@90 3@120 4@90 Wall mount including Surface conduit Rear entry permitted Mast Arm Fitter (requires 2-3/8* O.D. Mast Arm) | 3 7 4 7 5 | Type 2 Type 3 Type 4 Type 5 | 530 mA 55LA-3253 ¹ 75LA-4853 100LA-6453 700mA 70LA-3270 105LA-4870 135LA-6470 1050mA 105LA-321A ¹ 160LA-481A 215LA-641A | | 5,700K 70 CRI 4,000K 70 CRI 3,000K 70 CRI | UNY 120.277V HYU 347-480V 120 208 240 277 347 480 | BRP BLP WP OC | Bronze Paint Black Paint White Paint Natural Paint Optional Color Specify optional color or RAL ex OC-LGP or OC-RAL7024. Special Color Specify Must supply color chip, Requires factory quote | TL TB ⁴ IS ⁵ LFC ^{6,10} PCR PCR PCB ^{6,2,1} RAM PTF2 ⁵ | Tool-Less entry & driver removal hardware Terminal Block Internal Shield Line Fusing Line Fusing Line Fusing for Canada Photocell Receptacle Only Receptacle with Photocell Button Retrofit Arm Mount Kit Pole Top Fitter for 2-3/8*-3* Tenon Pole Top Fitter |
| ECF-APD-MRI ²⁴ | EcoForm with Auto Profile Dimming with Motion Response | | | | • | natural property and the second secon | | | | es de constant de la | ٠, | PTF4 | for 3*-3.5" Tenon Pole Top Fitter for 3.5"-4" Tenon |
| | Override Luminaire mounted sensor | | | | | Heterotrom | | | | | 1 | RPA' | Round Pole Adaptor 3* to 3.9* OD |
| | Sarinot | . • | | | | | | _ | | - Company Links | 3 | BD 、 | Bird Deterrant (field installed only) |

© 2013 Koninklijke Philips N.V. (Royal Philips). All rights reserved. Specifications are subject to change without notice.

3. Contact factory for lead times on warm white.



8. Not available in 3.0. 120.

G GARDCO

10. Not available with UNV (120-277V).

LED STREET LIGHT

5. Not available with Type 5 optics.

FX14/FX15 POLE HEIGHTS -**REF. ROAD CONSTRUCTION DWGS. F13-015**

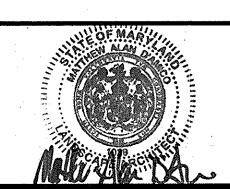
APPROVED PLANNING BOARD OF HOWARD COUNTY APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING 12-17-15 Date Chief, Development Engineering Division Work **9.14.15**Date

DESIGNCOLLECTIVE

BALTIMORE, MARYLAND 21202 T: 410.685.6655 F: 410.539.6242

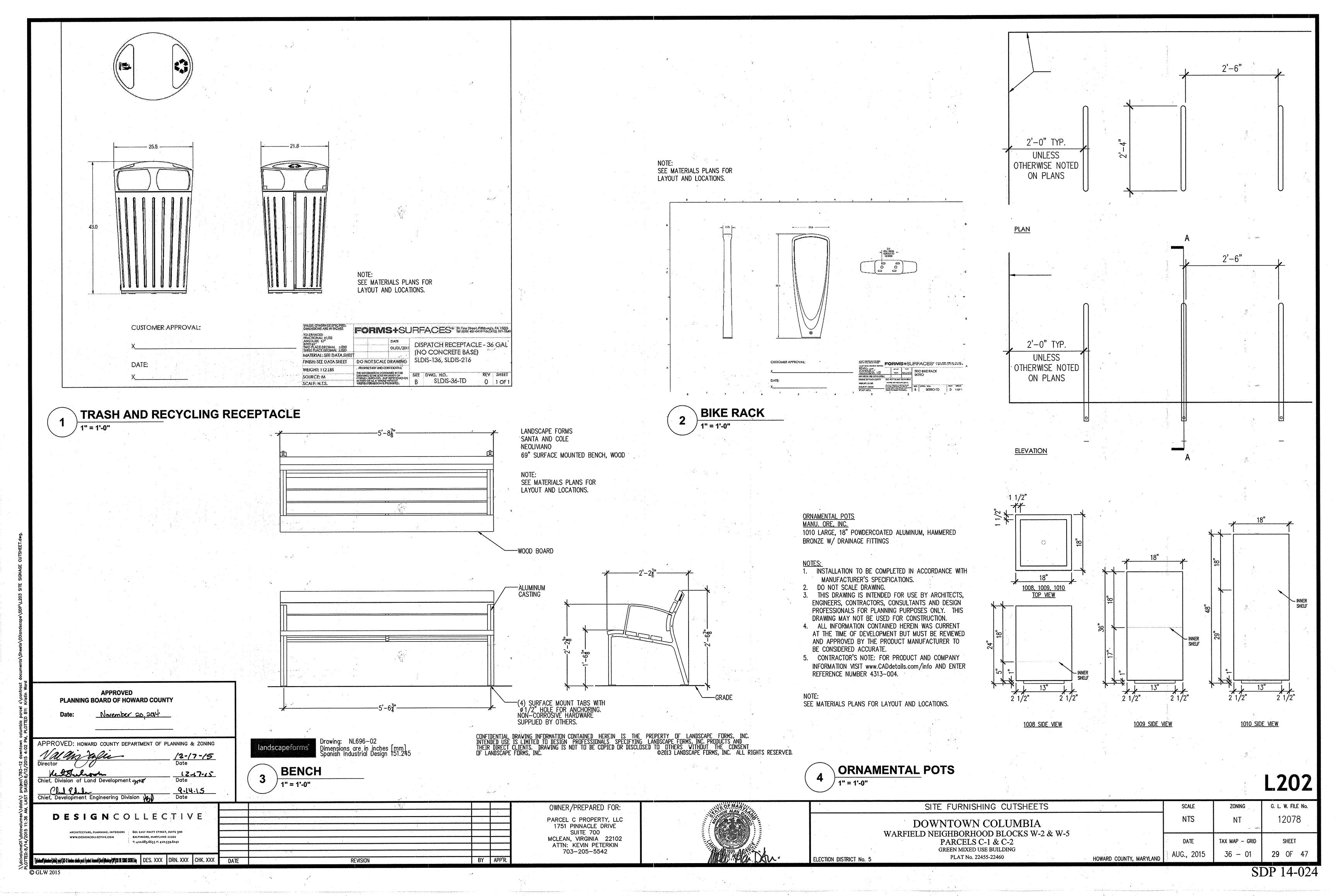
OWNER/PREPARED FOR: PARCEL C PROPERTY, LLC 1751 PINNACLE DRIVE MCLEAN, VIRGINIA 22102 ATTN: KEVIN PETERKIN 703-205-5542 BY APP'R.

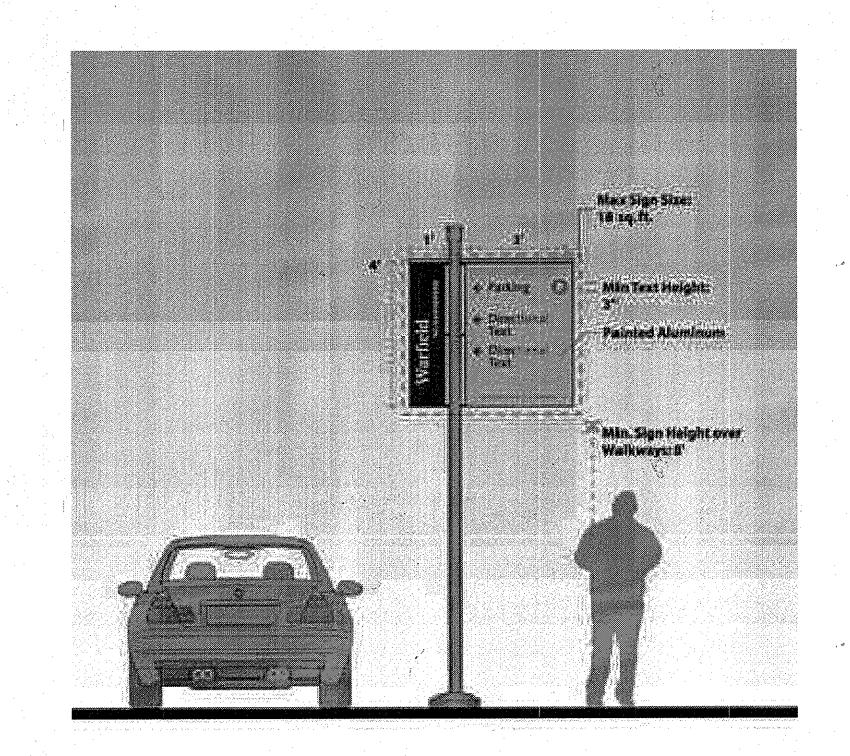
SUITE 700

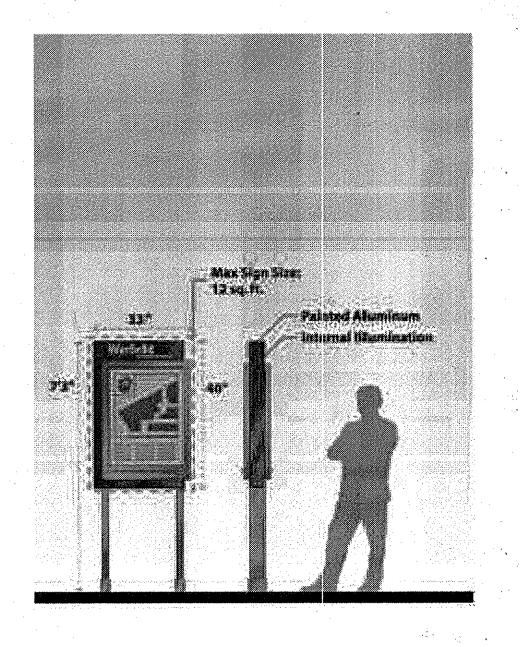


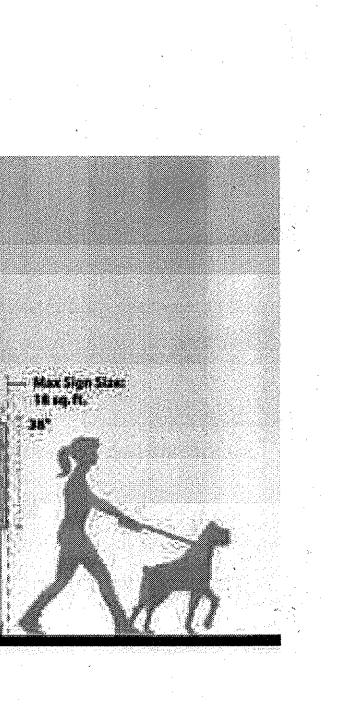
DOWNTOWN COLUMBIA WARFIELD NEIGHBORHOOD BLOCKS W-2 & W-5 PARCELS C-1 & C-2 GREEN MIXED USE BUILDING ELECTION DISTRICT No. 5

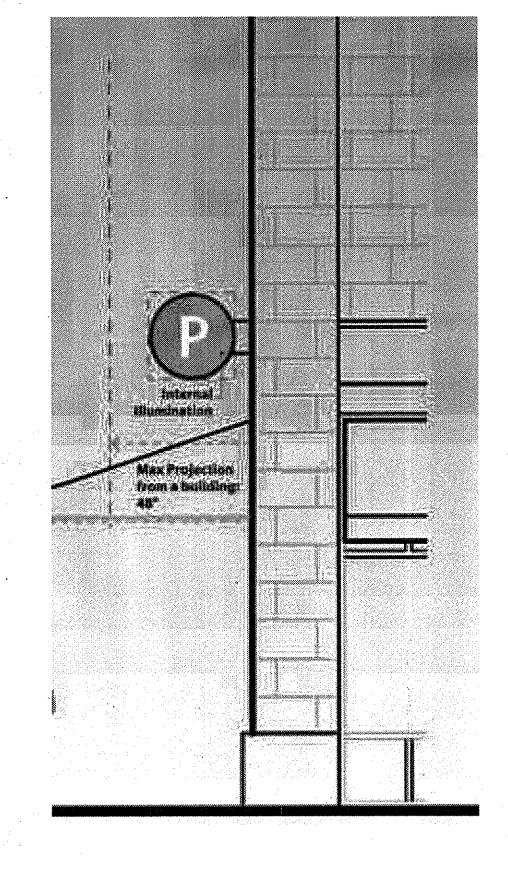
L201 LIGHTING CUTSHEETS SCALE G. L. W. FILE No. NTS DATE TAX MAP - GRID PLAT No. 22455-22460 HOWARD COUNTY, MARYLAND











VEHICULAR DIRECTIONAL

PEDESTRIAN DIRECTORY

PEDESTRIAN DIRECTIONAL

WALL MOUNTED PARKING BLADE

REFERENCE SHEETS L110 THRU L115 FOR SIGNAGE LOCATIONS ON SITE

2. REFER TO PAGES 160-161 OF THE WARFIELD NEIGHBORHOOD DESIGN GUIDELINES

FOR INFORMATION ON SIGNAGE, FONT, COLOR PALETTE, ETC.

REVISION

3. FINAL APPROVAL FOR ALL SIGNAGE WILL BE PROVIDED BY THE DEPARTMENT OF INSPECTIONS LICENSES AND PERMITS AND IN ACCORDANCE WITH THE WARFIELD NEIGHBORHOOD DESIGN GUIDELINES RECORDED IN THE HOWARD COUNTY LAND RECORDS AND LIBER 14166 FOLIO 1-250

4. ALL SIGNS WILL BY PROVIDED BY OWNER

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING /2-/7-/5 Date 12-17-15 Date

November 20, 2014

APPROVED

PLANNING BOARD OF HOWARD COUNTY

Chief, Development Engineering Division 9.14.15 Date

DESIGNCOLLECTIVE BALTIMORE, MARYLAND 21202

OWNER/PREPARED FOR: PARCEL C PROPERTY, LLC 1751 PINNACLE DRIVE SUITE 700 MCLEAN, VIRGINIA 22102 ATTN: KEVIN PETERKIN BY APP'R.

703-205-5542

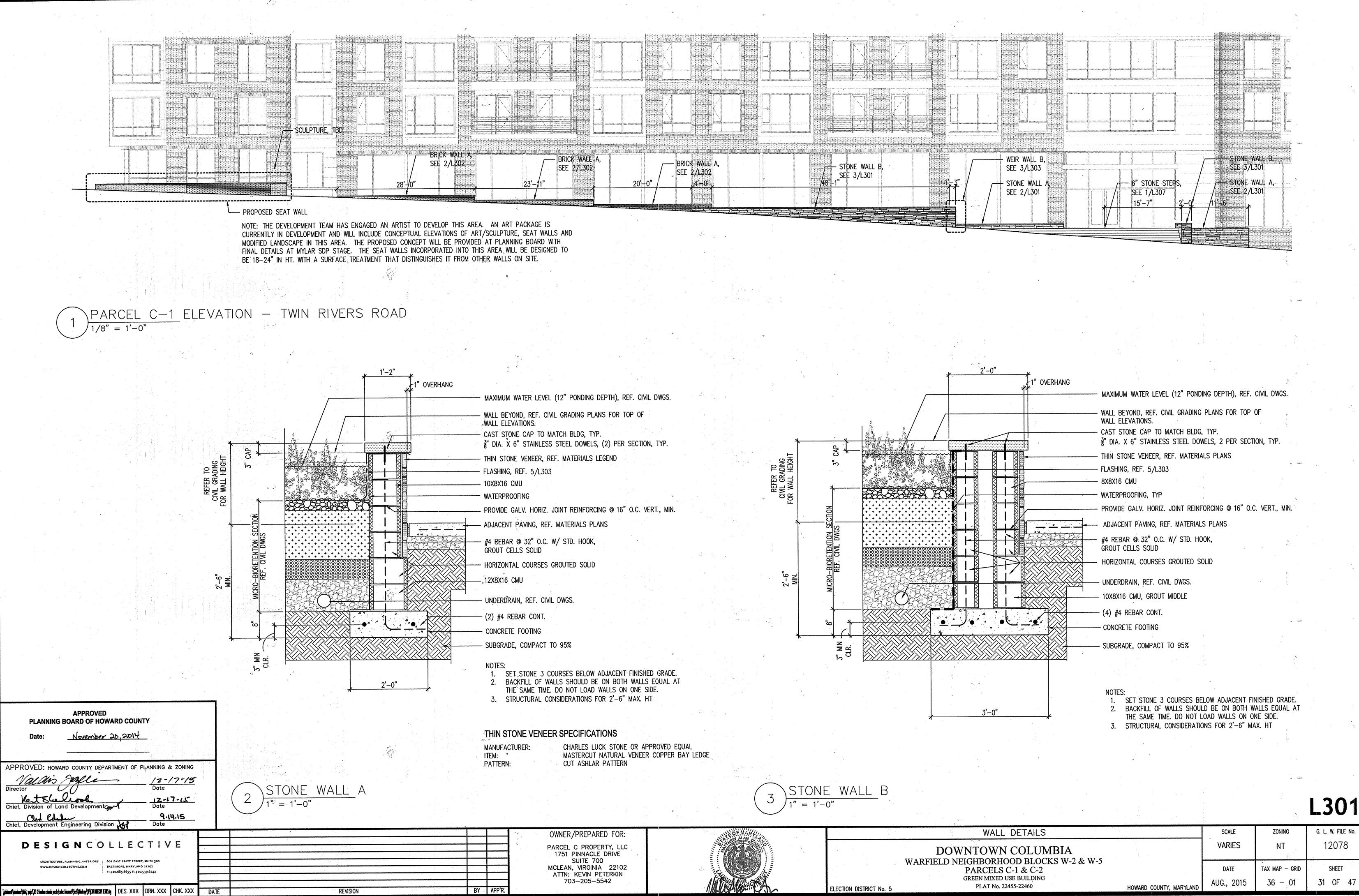


| | SITE SIGNAGE CUTSHEET | |
|-------------------------|--|-------------------------|
| | DOWNTOWN COLUMBIA | |
| | WARFIELD NEIGHBORHOOD BLOCKS W-2 & W-5 | |
| | PARCELS C-1 & C-2 GREEN MIXED USE BUILDING | |
| ELECTION DISTRICT No. 5 | PLAT No. 22455-22460 | HOWARD COUNTY, MARYLAND |

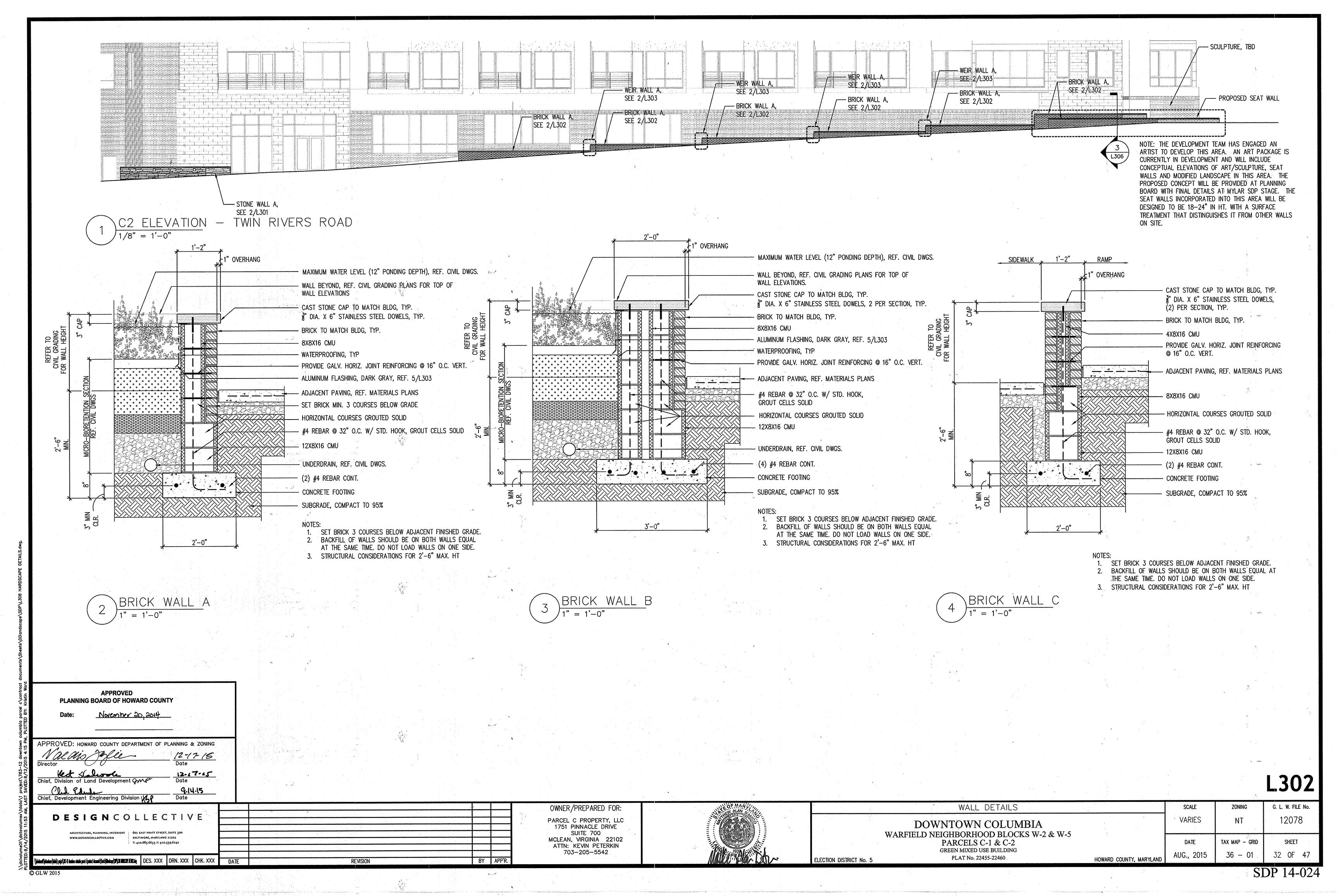
L203 G. L. W. FILE No. ZONING 12078 TAX MAP - GRID 36 - 01 **30** OF 47

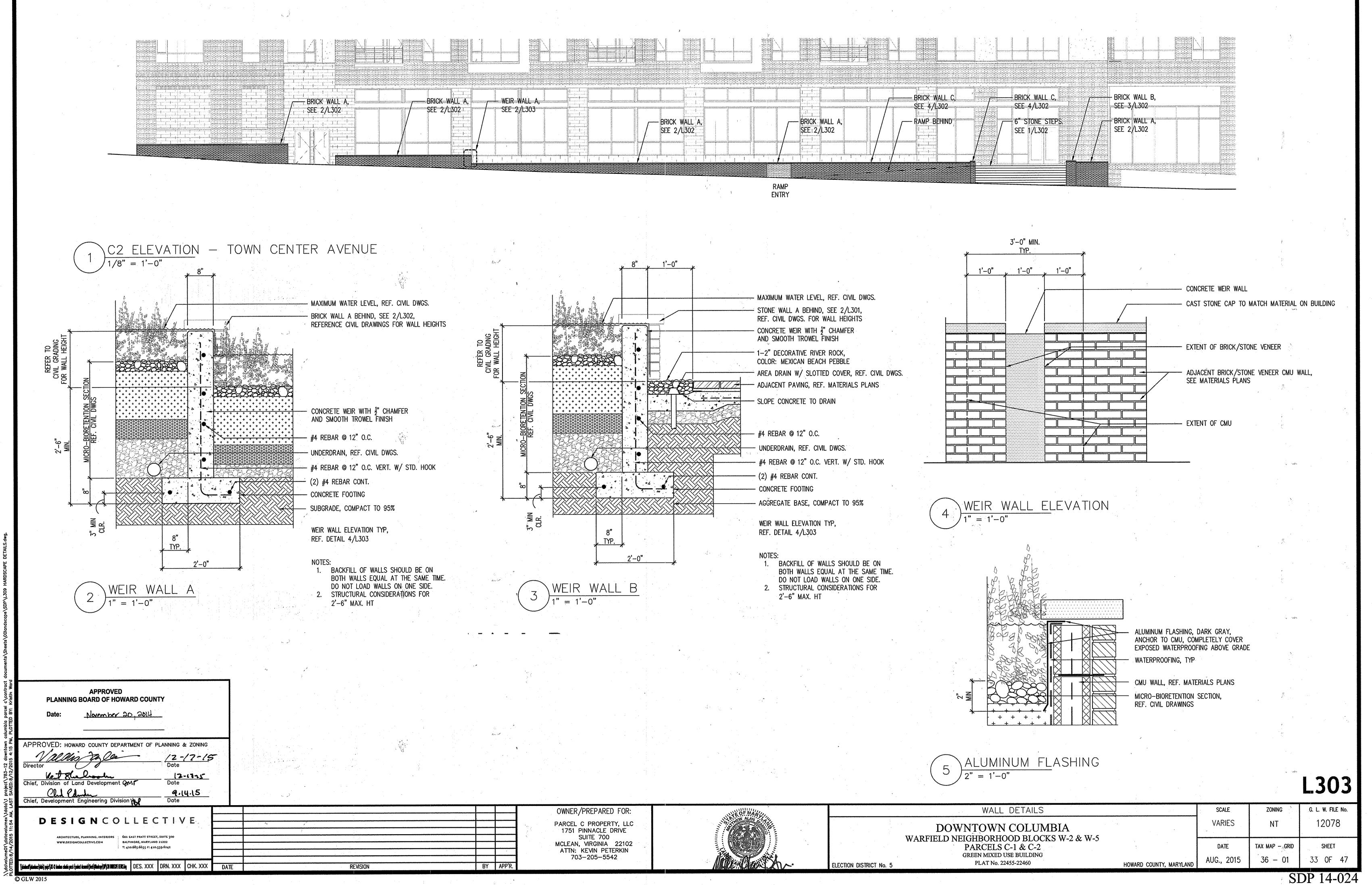
SCALE

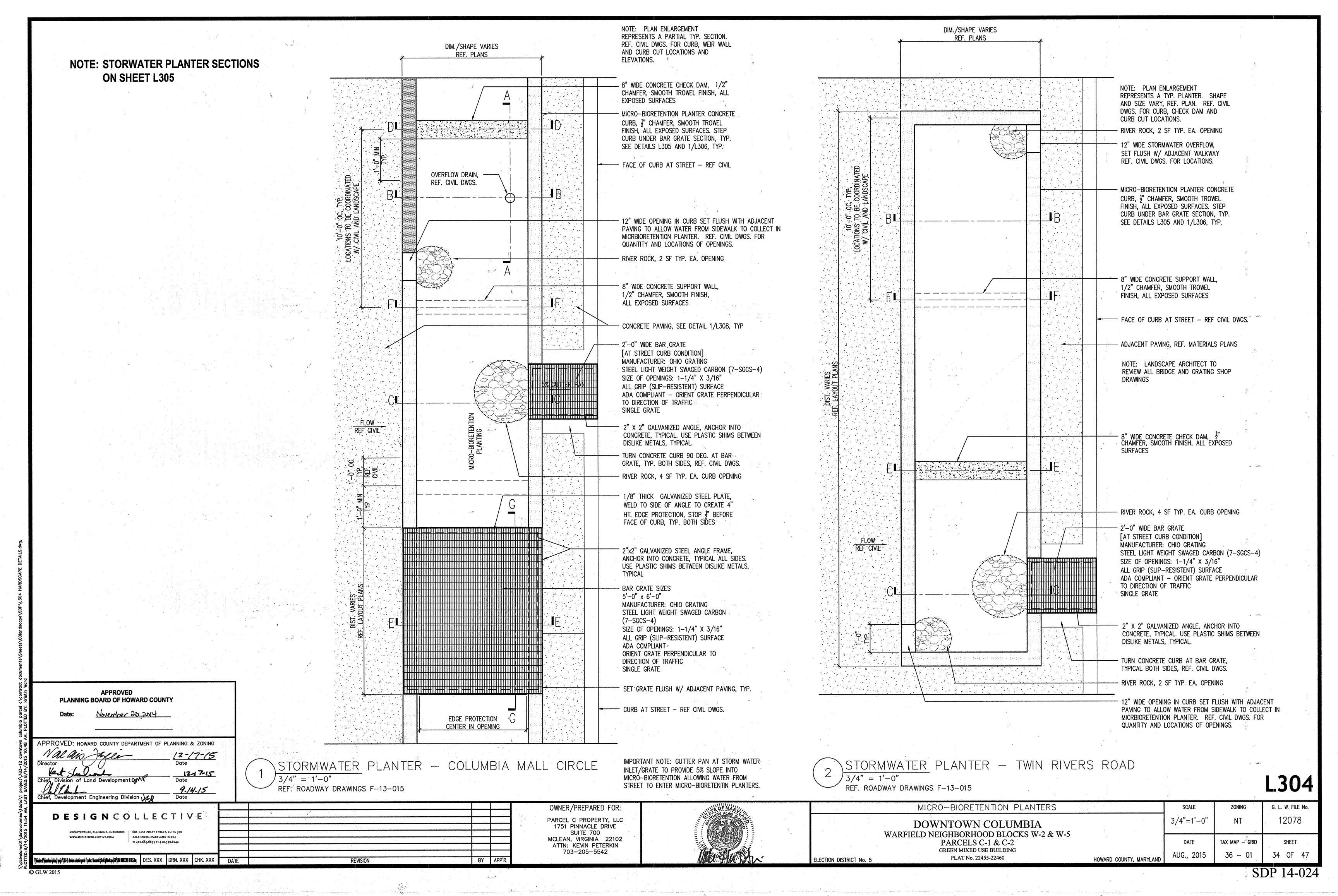
NTS

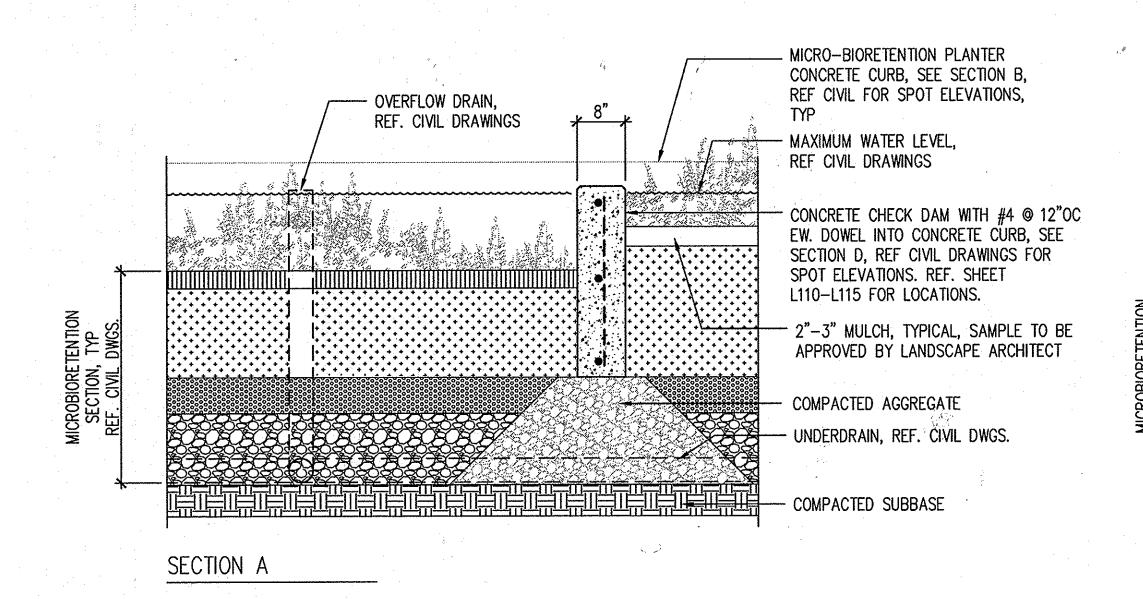


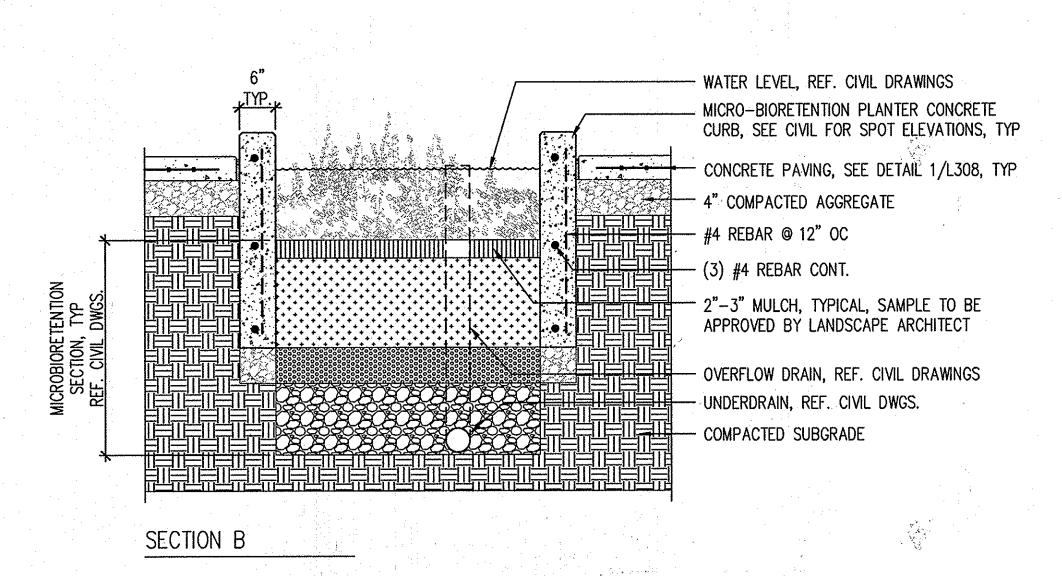
© GLW 2015



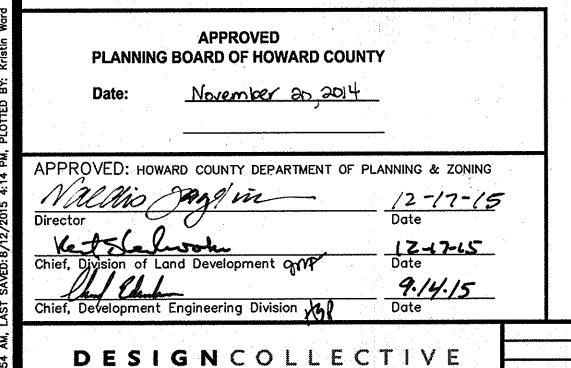








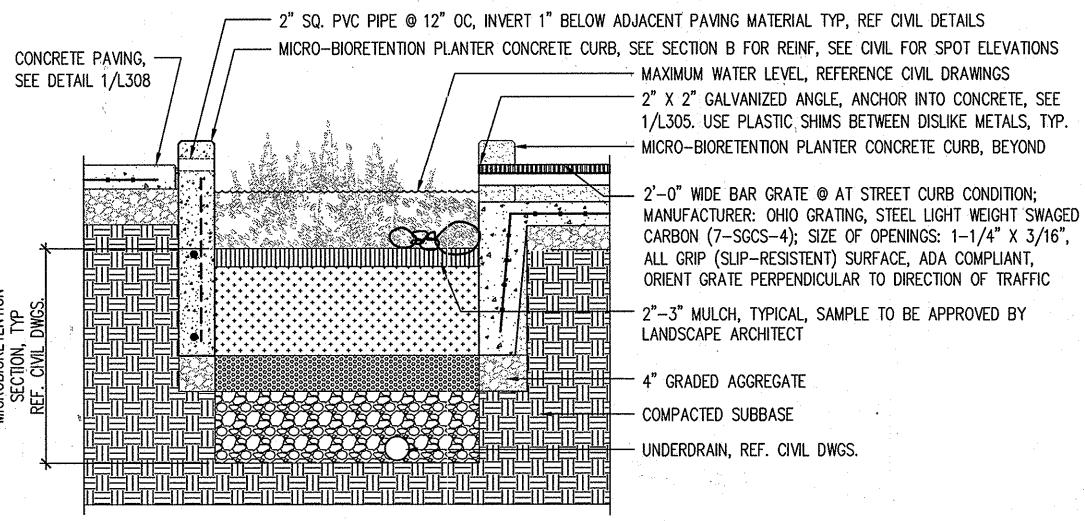




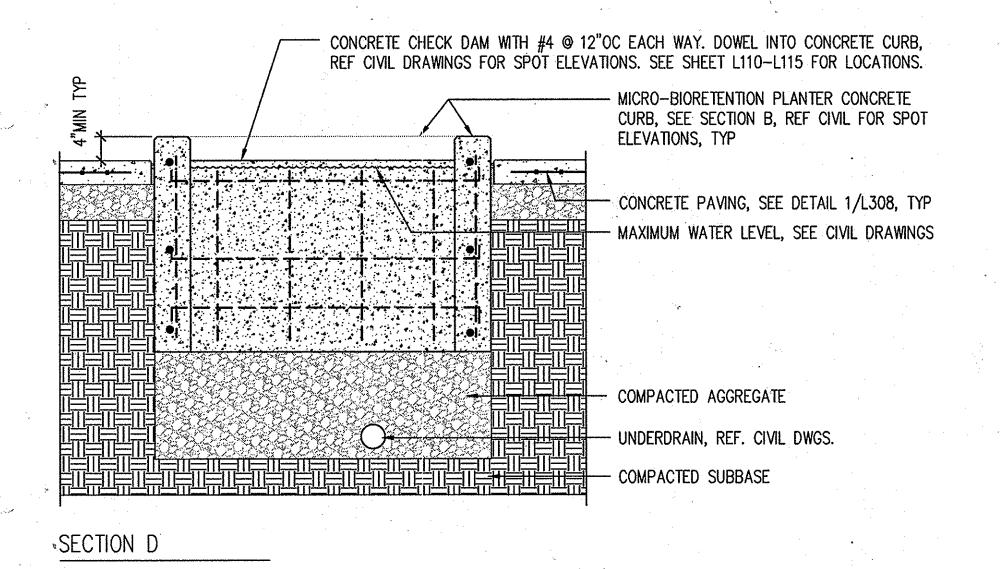
The state of the s

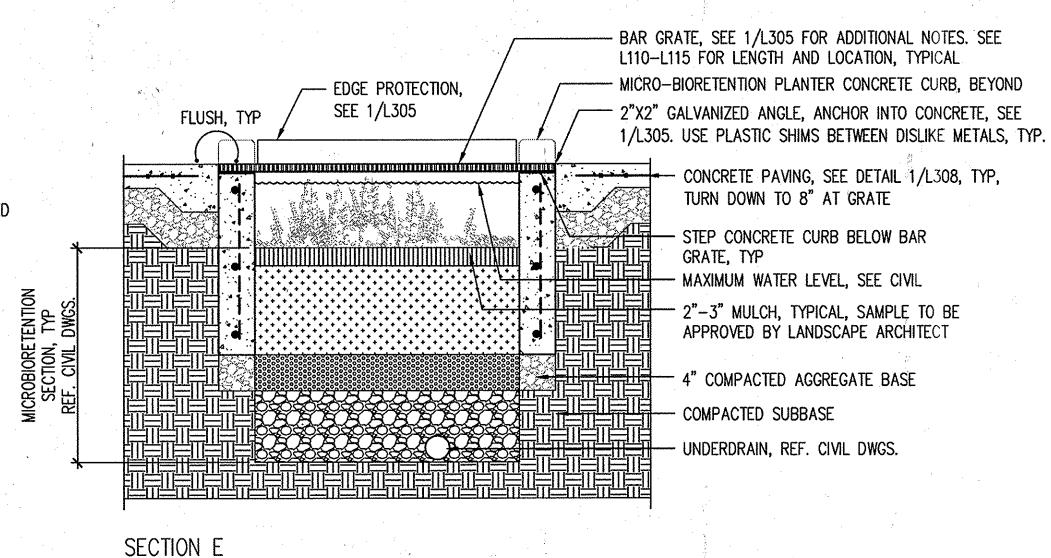
BALTIMORE, MARYLAND 21202

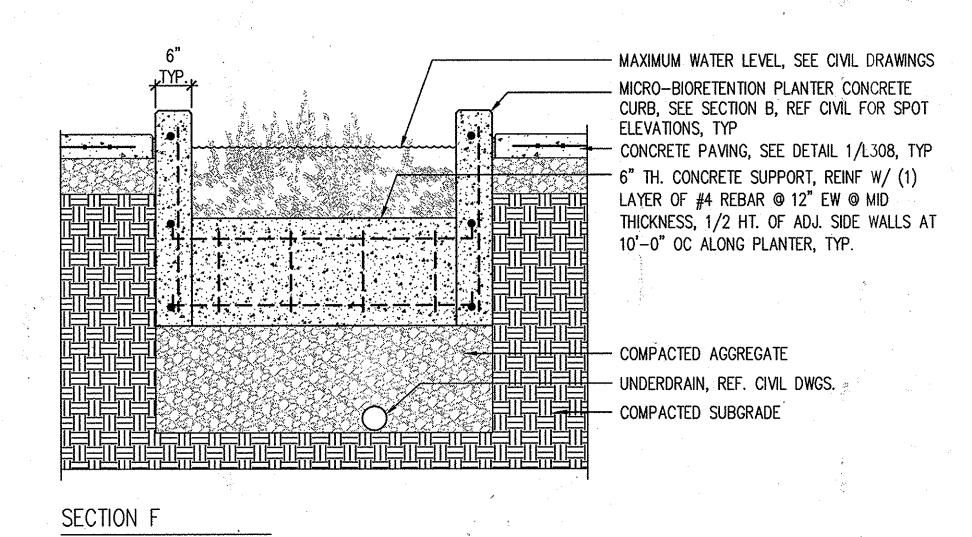
T: 410.685.6655 F: 410.539.6242

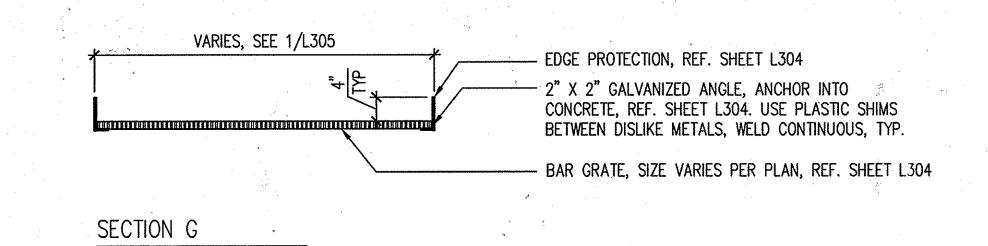


SECTION C









| | | | | | • | L305 |
|-----------|-------------------------|---|-------------------------|-----------------|---------------------------|-------------------|
| The state | | MICRO-BIORETENTION PLANTERS | | SCALE | ZONING | G. L. W. FILE No. |
| 6: | | DOWNTOWN COLUMBIA WARFIELD NEIGHBORHOOD BLOCKS W-2 & W-5 | | 3/4"=1'-0" | NT | 12078 |
| | ELECTION DICTRICT N. E | PARCELS C-1 & C-2 GREEN MIXED USE BUILDING PLAT No. 22455-22460 | LIOWADD COUNTY MADY AND | DATE AUG., 2015 | TAX MAP - GRID 36 - 01 | SHEET 35 OF 47 |
| | ELECTION DISTRICT No. 5 | 1 D/11 110. 22433-22400 | HOWARD COUNTY, MARYLAND | | | |

OWNER/PREPARED FOR:

PARCEL C PROPERTY, LLC

1751 PINNACLE DRIVE
SUITE 700

MCLEAN, VIRGINIA 22102
ATTN: KEVIN PETERKIN
703-205-5542

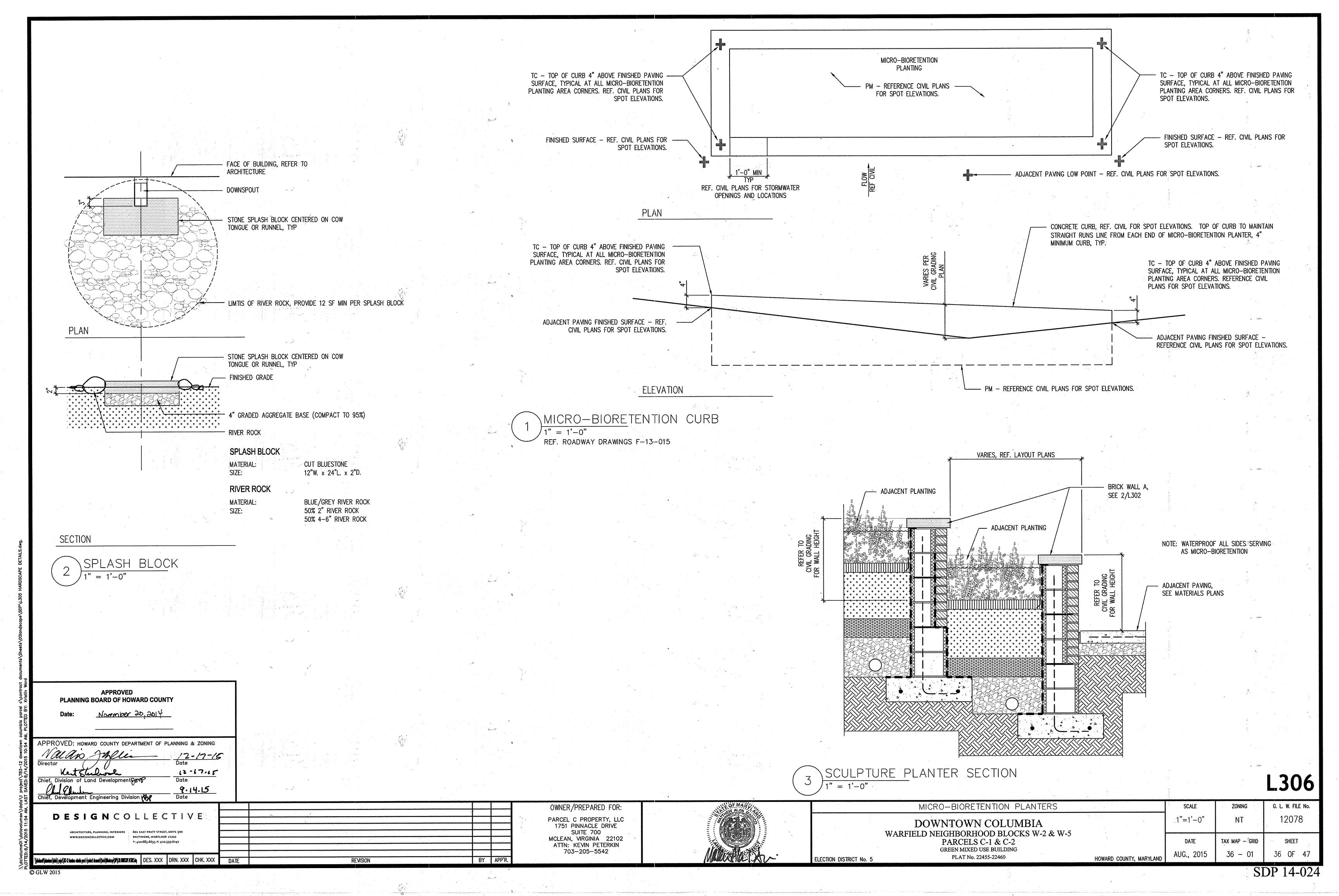
BY APP'R.

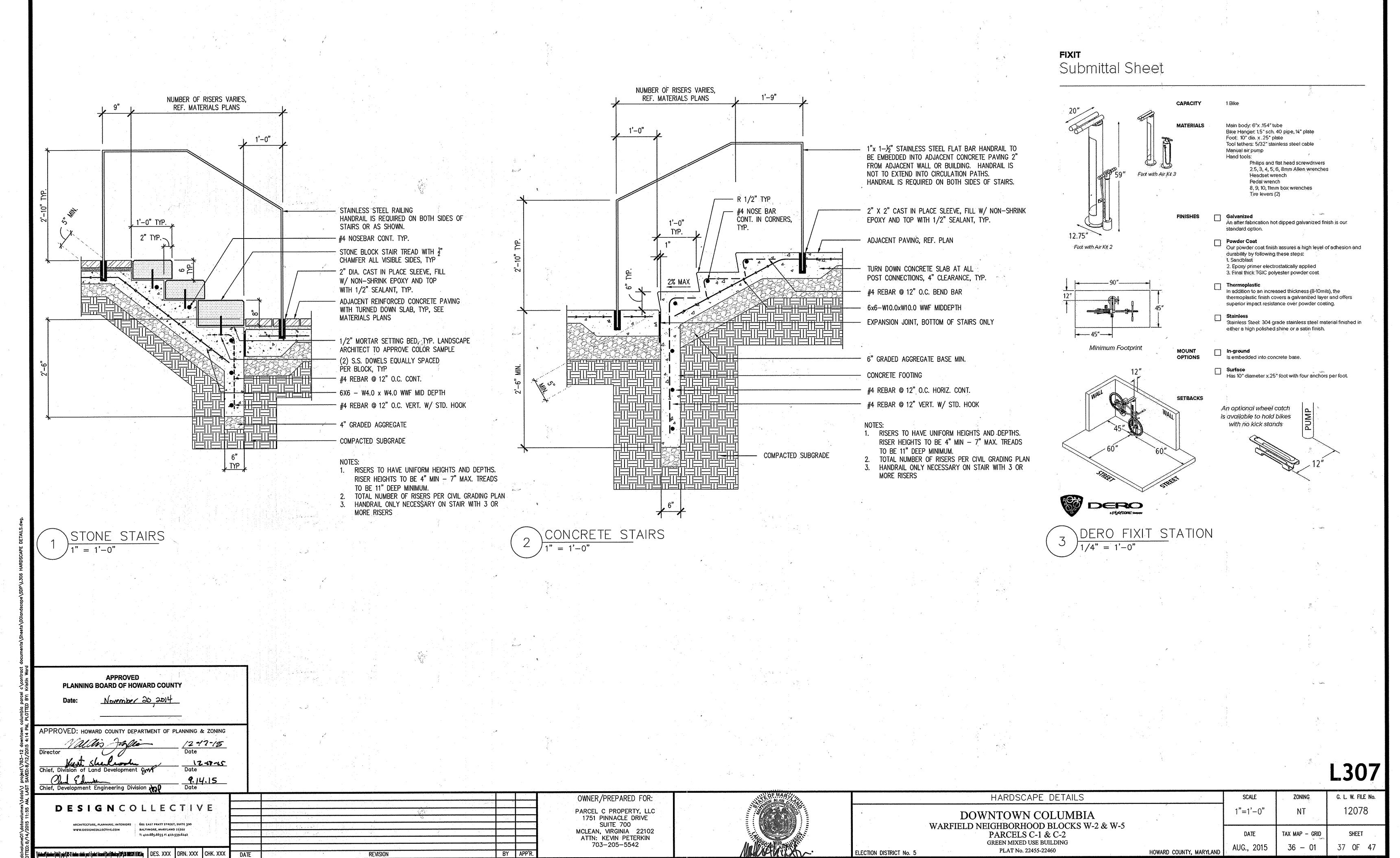
REVISION

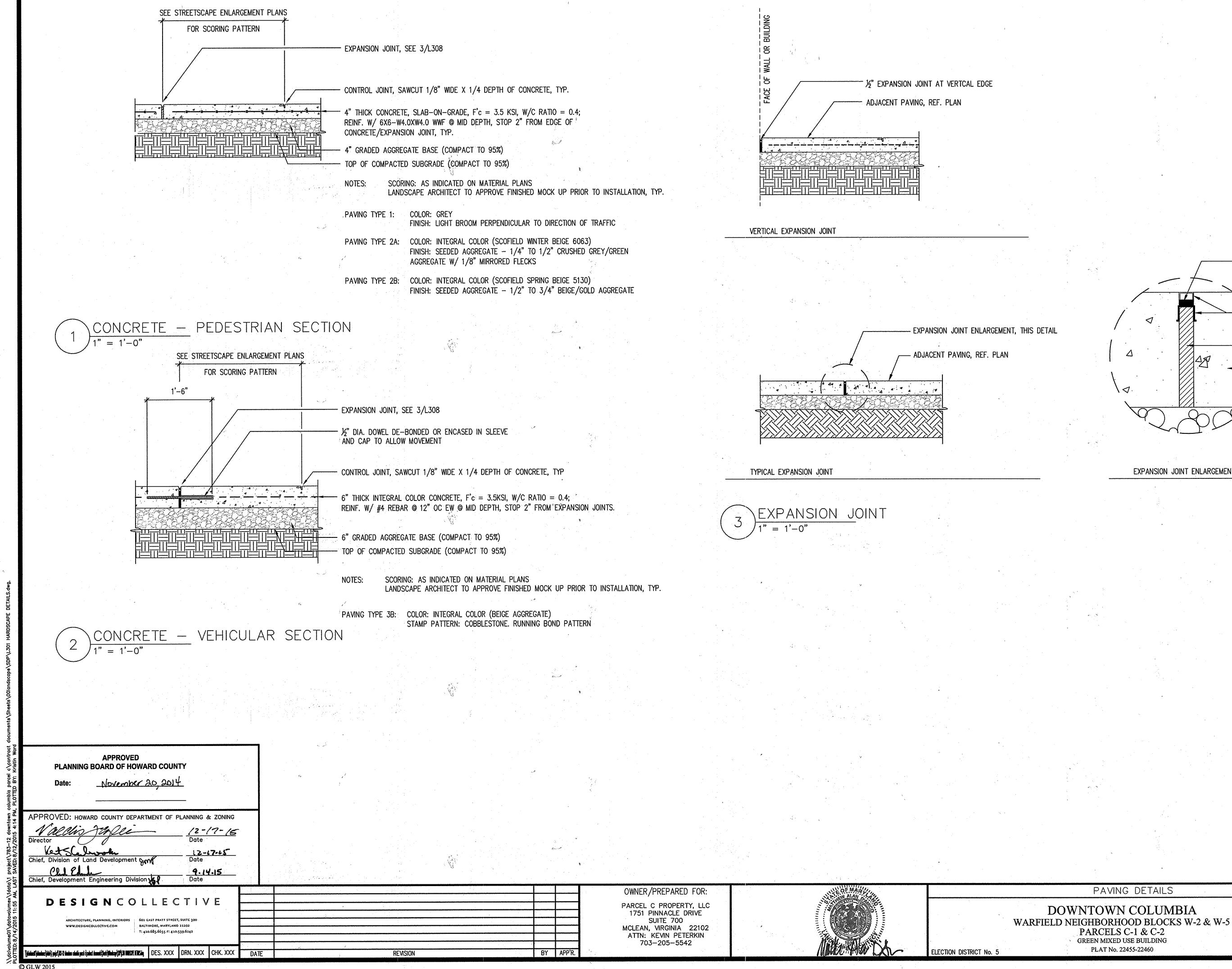


SDP 14-024

© GLW 2015





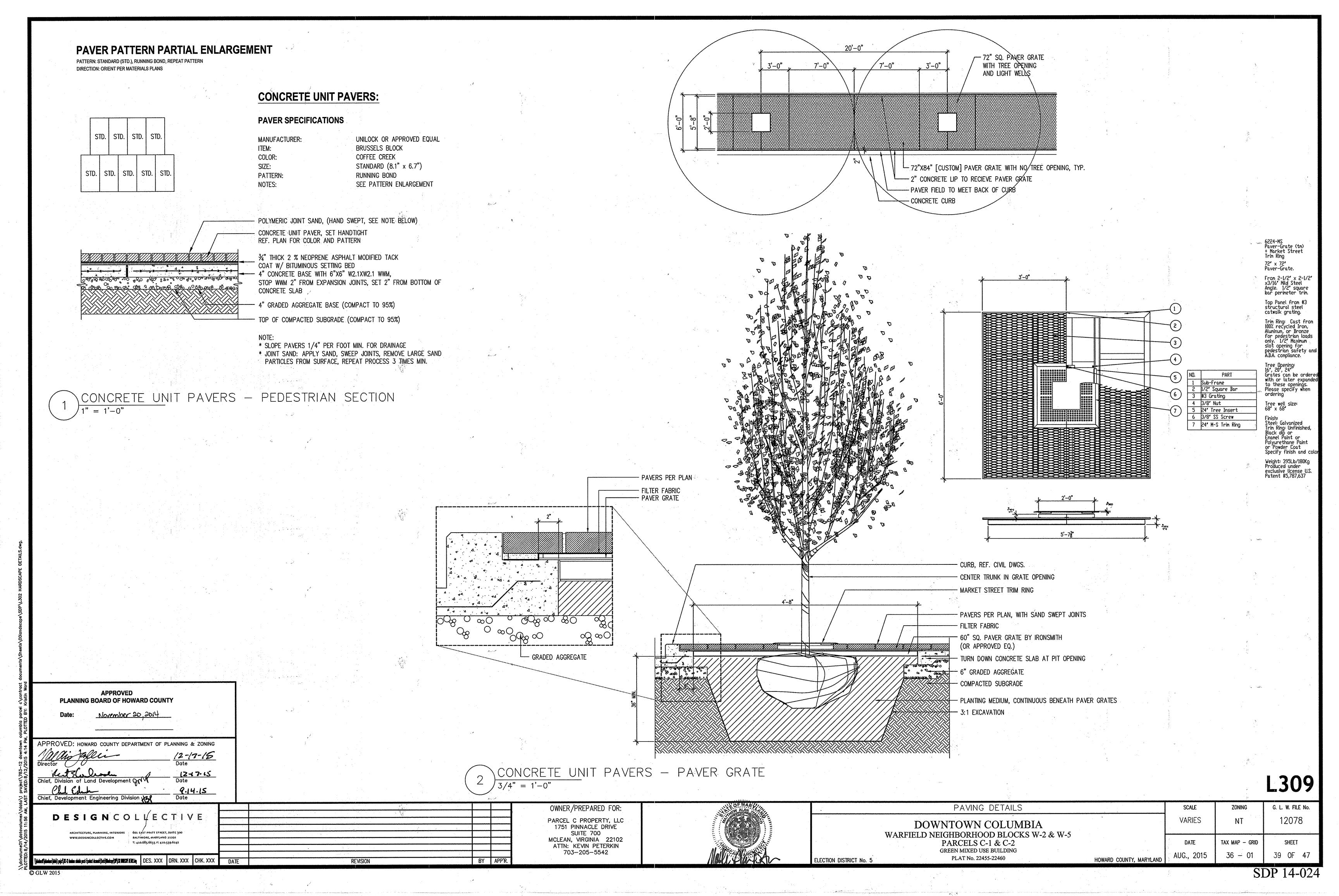


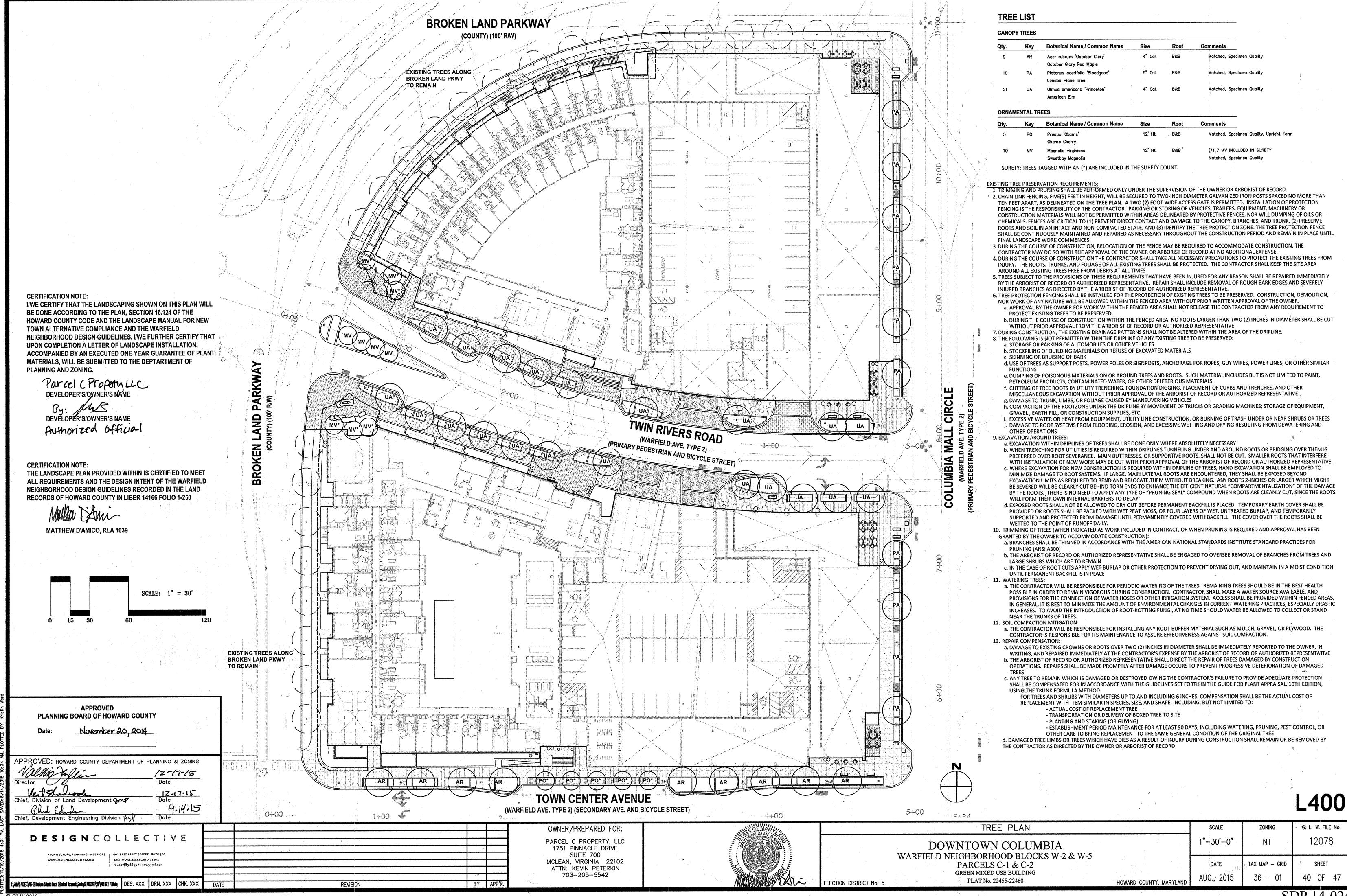
SELF LEVELING POLYURETHANE SEALANT 1/2" RECESS TOOLED, SEALANT COLOR TO MATCH CONCRETE PLASTIC FIBER EXPANSION JOINT CAP WITH REMOVABLE TOP $-\,1\!\!\!/_{\!2}$ " wide fiber expansion joint material - ADJACENT PAVING, REF. PLAN

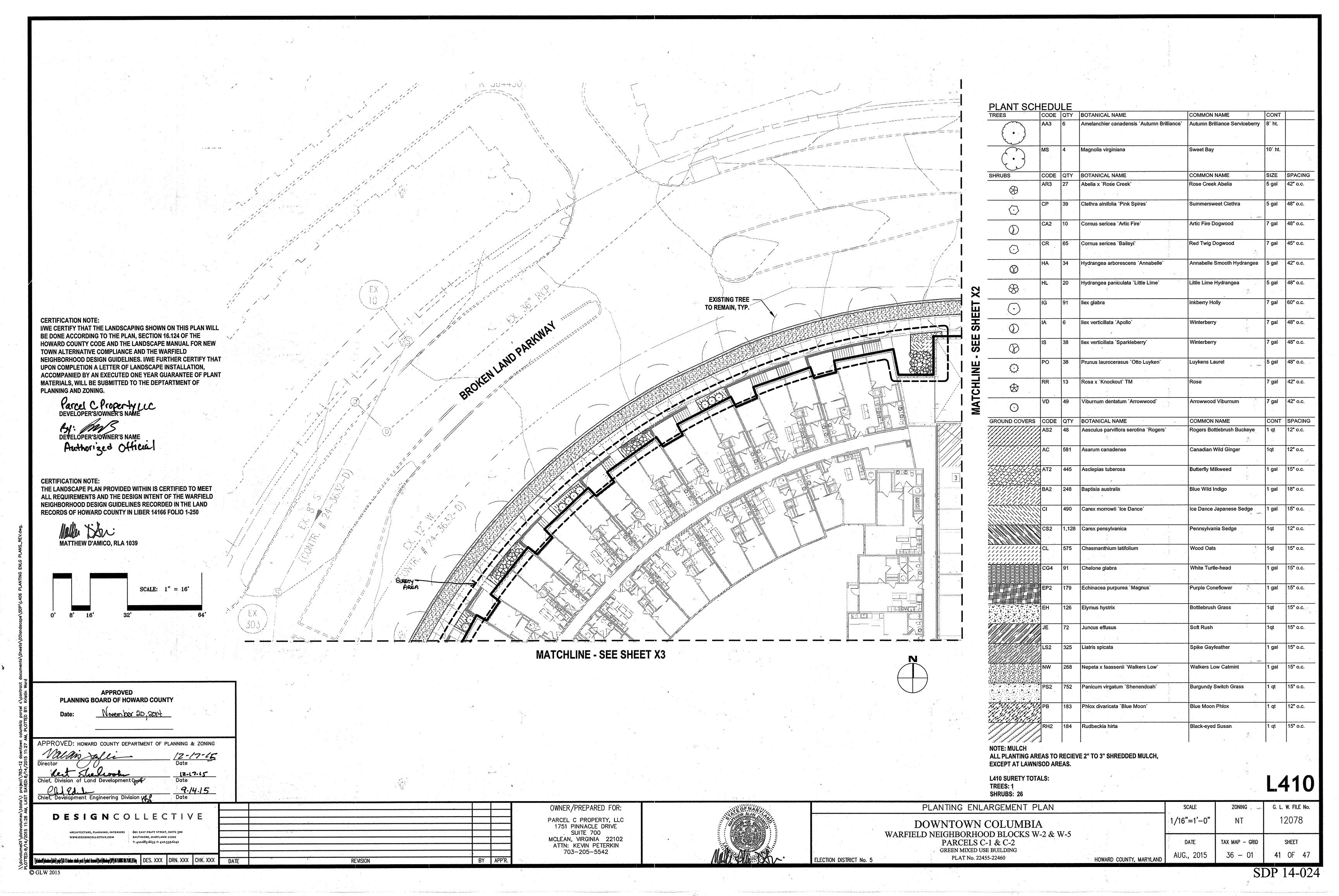
EXPANSION JOINT ENLARGEMENT

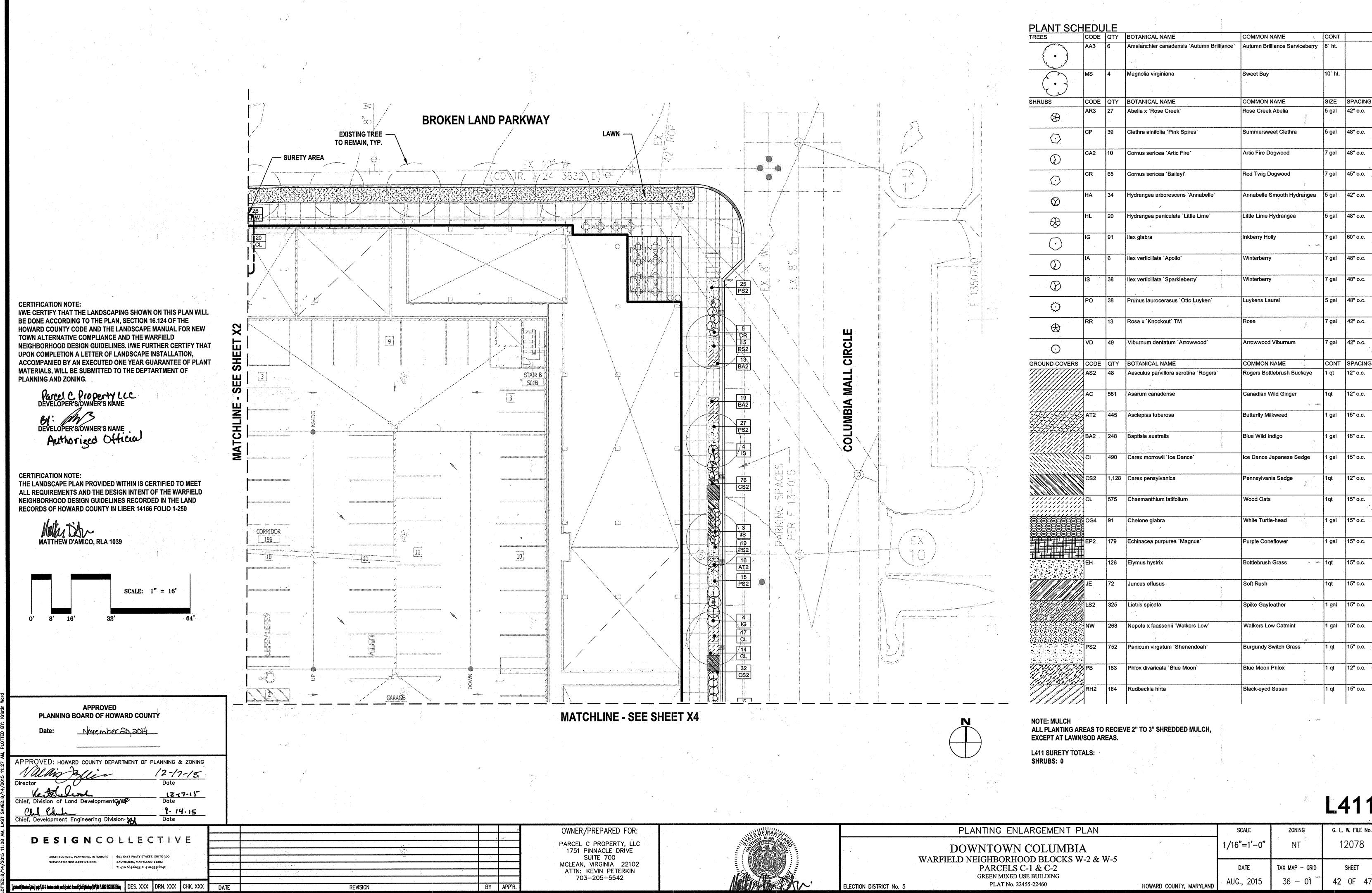
L308

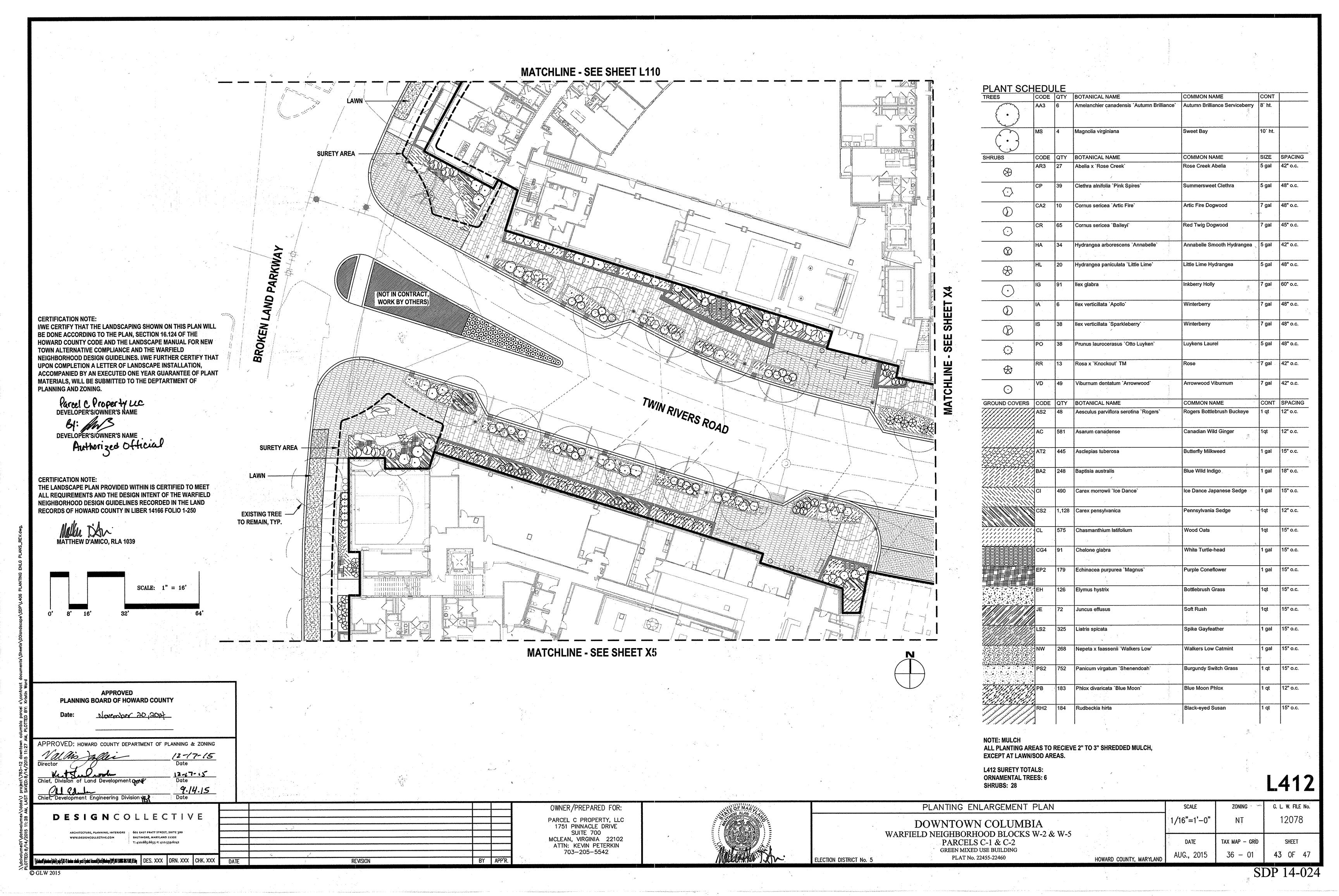
SCALE G. L. W. FILE No. ZONING = 12078 1"=1'-0" NT DATE TAX MAP - GRID SHEET 38 OF 47 HOWARD COUNTY, MARYLAND

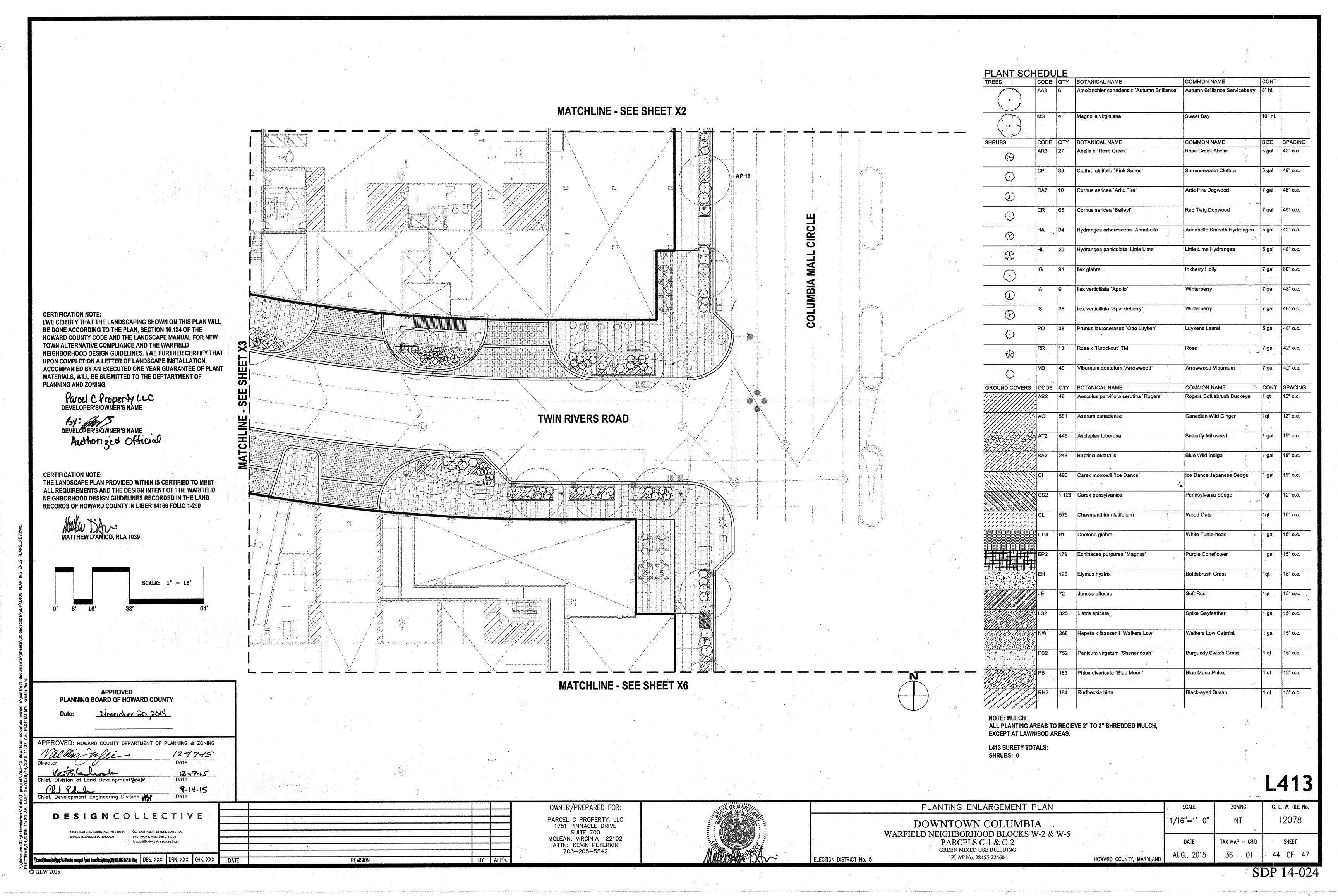


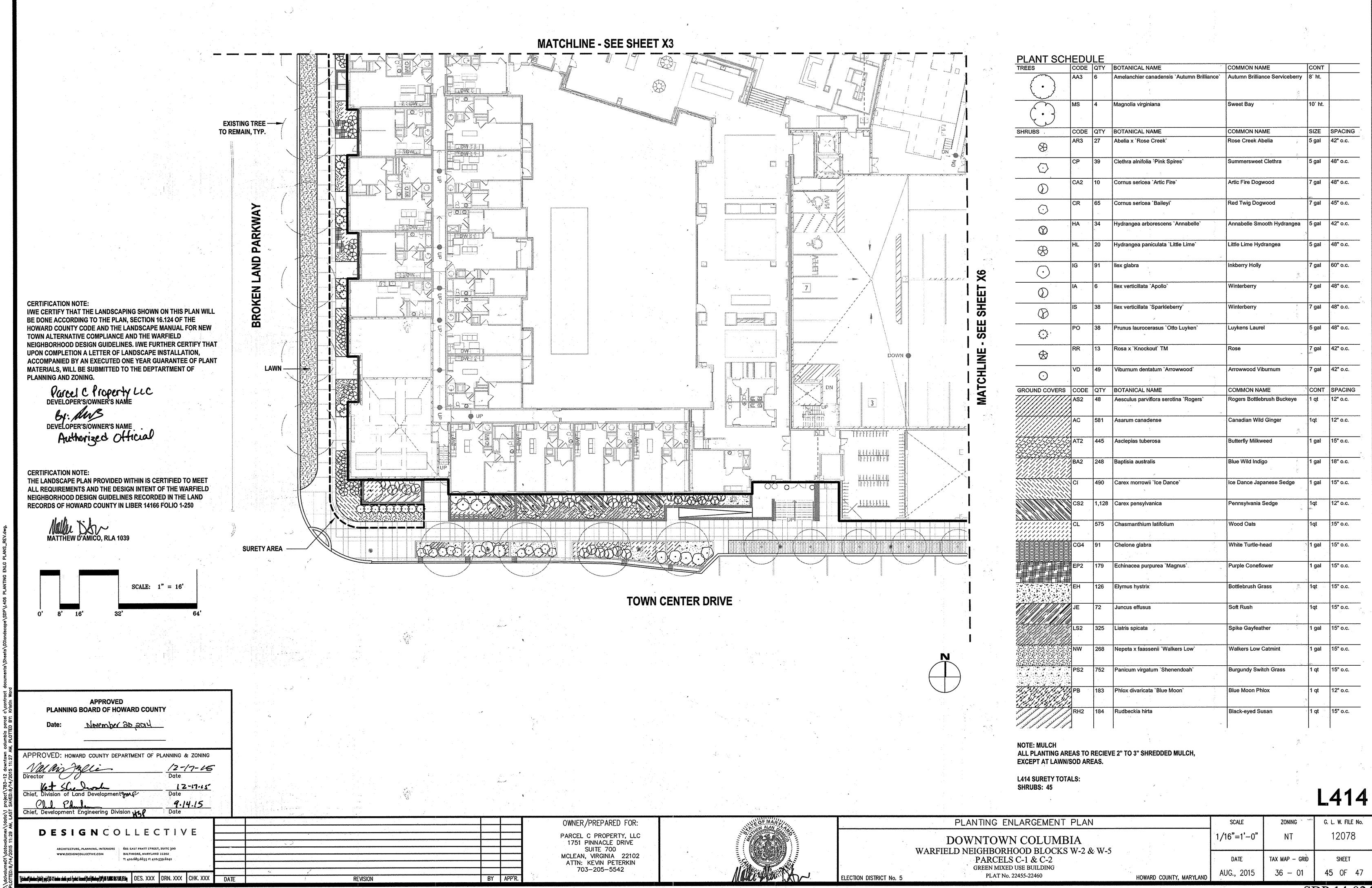




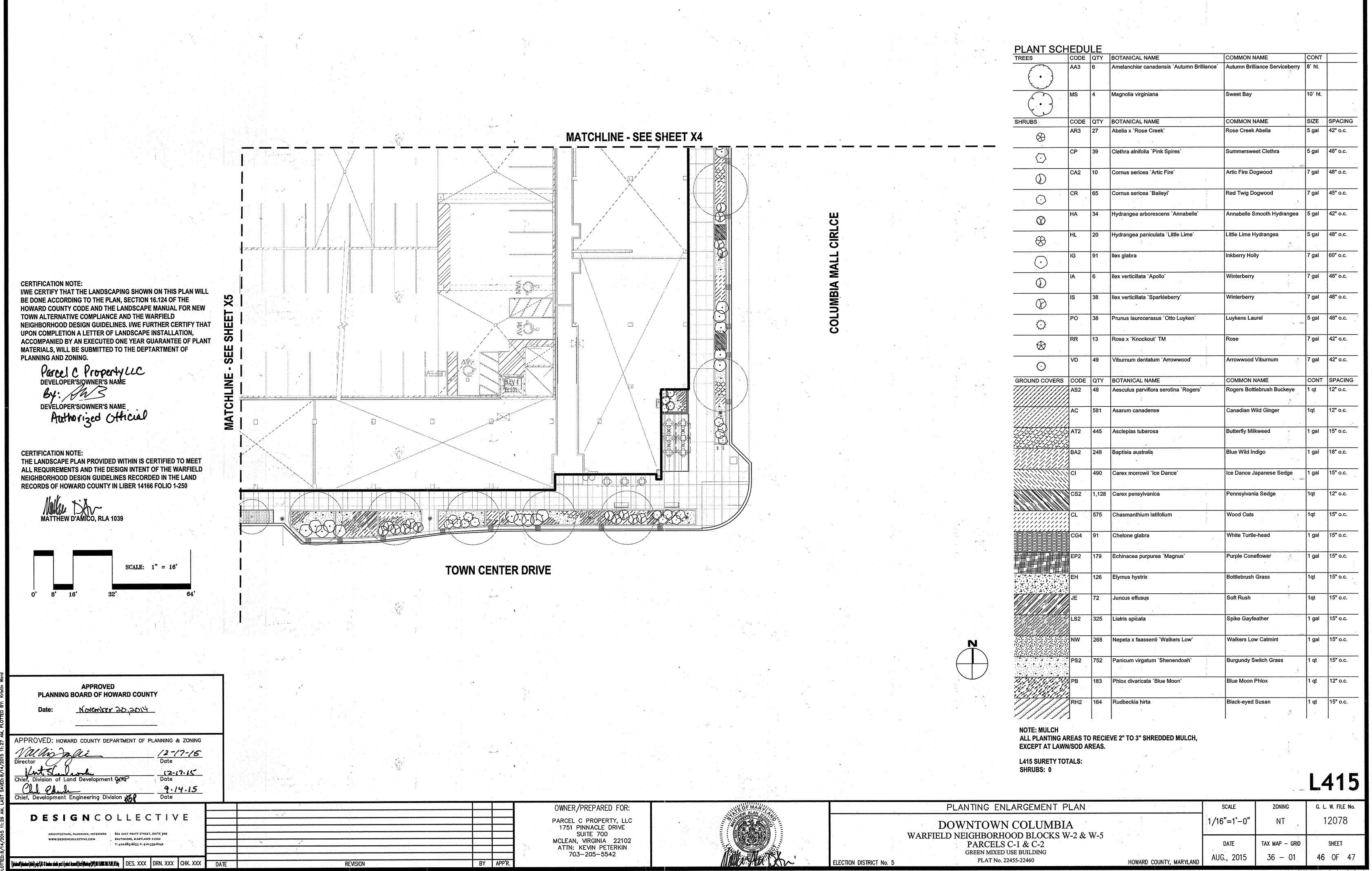


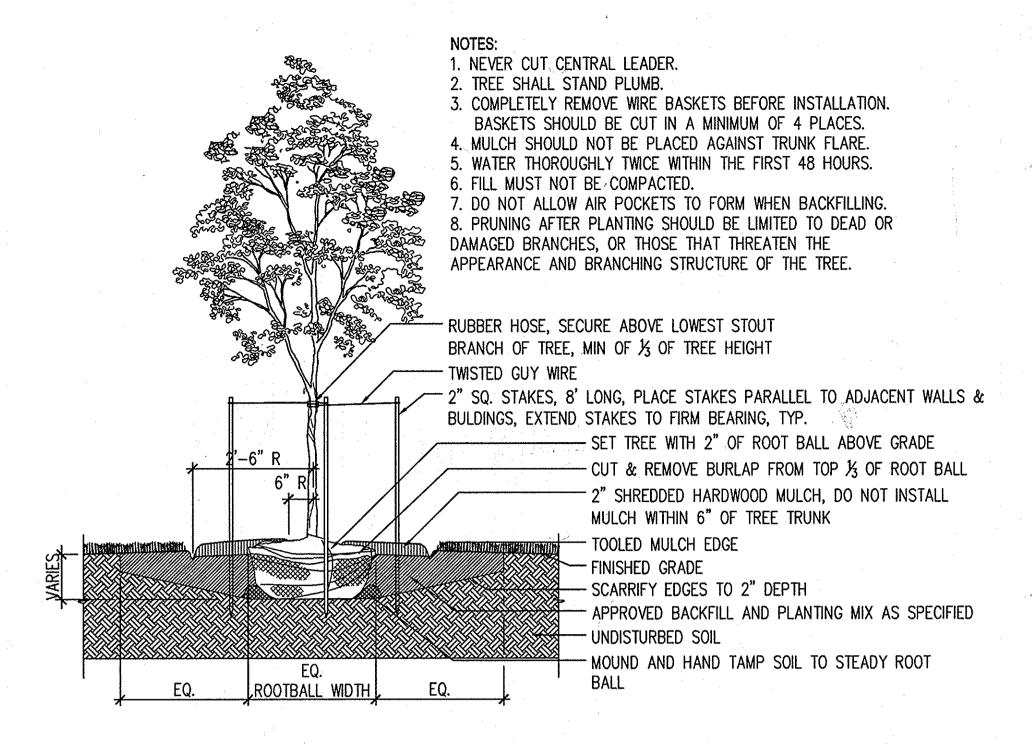




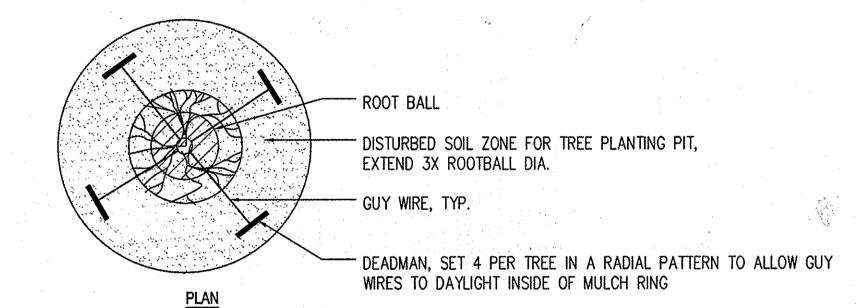


_a SDP 14-024

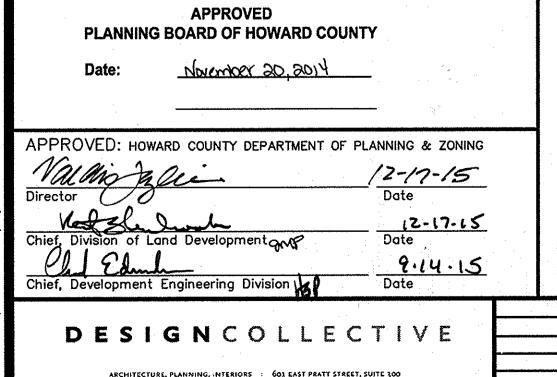




DECIDUOUS TREE PLANTING



STAKED PLAN ENLARGEMENT

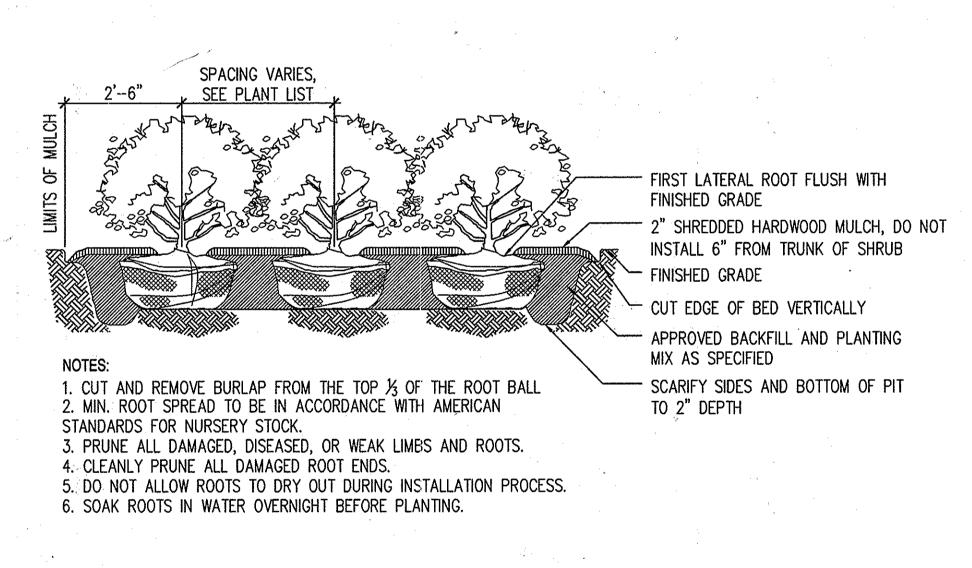


Wide (Man Man part Brit) and the part from the part from

BALTIMORE, MARYLAND 21202

1. NEVER CUT CENTRAL LEADER. 2. TREE SHALL STAND PLUMB. 3. COMPLETELY REMOVE WIRE BASKETS BEFORE INSTALLATION. BASKETS SHOULD BE CUT IN A MINIMUM OF 4 PLACES. 4. MULCH SHOULD NOT BE PLACED AGAINST TRUNK FLARE. 5. WATER THOROUGHLY TWICE WITHIN THE FIRST 48 HOURS. FILL MUST NOT BE COMPACTED. 7. DO NOT ALLOW AIR POCKETS TO FORM WHEN BACKFILLING. 3. PRUNING AFTER PLANTING SHOULD BE LIMITED TO DEAD OR DAMAGED BRANCHES, OR THOSE THAT THREATEN THE APPEARANCE AND BRANCHING STRUCTURE OF THE TREE. RUBBER HOSE, SECURE ON EACH MAJOR STEM, ALL MAJOR STEMS SHOULD BE WIRED TOGETHER. TWISTED GUY WIRE, TYP. OF 3 -SURVEYOR'S FLAG, SECURE ONE TO EACH GUY WIRE - SET TREE WITH 2" OF ROOT BALL ABOVE GRADE -CUT & REMOVE BURLAP FROM TOP 1/3 OF ROOT BALL ⁻ 2" SHREDDED HARDWOOD MULCH, DO NOT INSTALL MULCH WITHIN 6" OF TREE TRUNK FINISHED GRADE - APPROVED BACKFILL AND PLANTING MIX AS SPECIFIED TOOLED MULCH EDGE - TREATED 2"X4" DEADMAN (6-8" LONG) - SCARRIFY EDGES TO 2" DEPTH MOUND AND HAND TAMP SOIL TO STEADY ROOT BALL

MULTI-STEM TREE PLANTING



SHRUB PLANTING

OWNER/PREPARED FOR:

PARCEL C PROPERTY, LLC

1751 PINNACLE DRIVE SUITE 700

MCLEAN, VIRGINIA 22102

ATTN: KEVIN PETERKIN

703-205-5542

BY APP'R

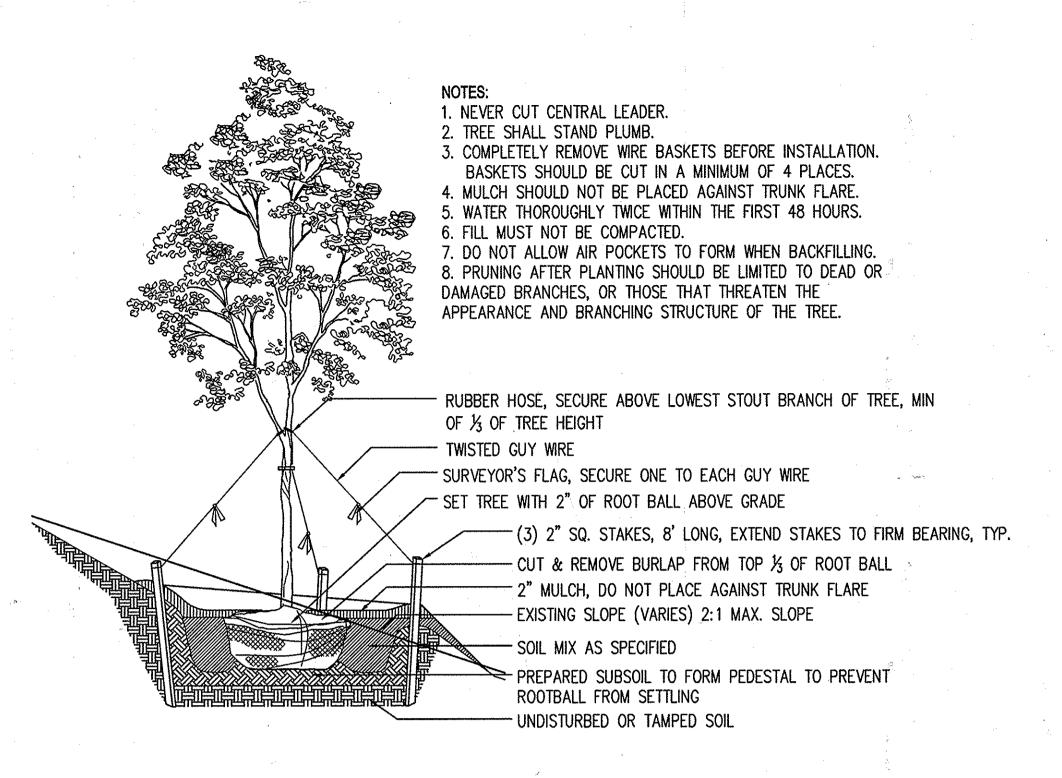
REVISION

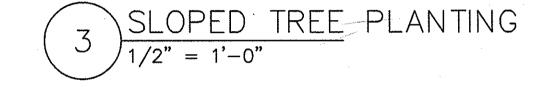
CERTIFICATION NOTE:

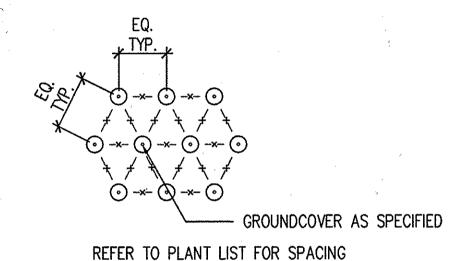
I/WE CERTIFY THAT THE LANDSCAPING SHOWN ON THIS PLAN WILL BE DONE ACCORDING TO THE PLAN, SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL FOR NEW TOWN ALTERNATIVE COMPLIANCE AND THE WARFIELD NEIGHBORHOOD DESIGN GUIDELINES. I/WE FURTHER CERTIFY THAT UPON COMPLETION A LETTER OF LANDSCAPE INSTALLATION. ACCOMPANIED BY AN EXECUTED ONE YEAR GUARANTEE OF PLANT MATERIALS, WILL BE SUBMITTED TO THE DEPTARTMENT OF PLANNING AND ZONING.

DEVELOPER'S/OWNER'S NAME

DEVELOPER'S/OWNER'S NAME







PLANT SPACING DIAGRAM

TREE PLANTING NOTES:

- 1. NEVER CUT CENTRAL LEADER.
- 2. TREE SHALL STAND PLUMB.
- 3. REMOVE TOP 1/3 OF WIRE BASKETS BEFORE INSTALLATION. BASKETS SHOULD BE CUT IN A MINIMUM OF 4 PLACES.
- 4. MULCH SHOULD NOT BE PLACED AGAINST TRUNK FLARE.
- 5. WATER THOROUGHLY TWICE WITHIN THE FIRST 48 HOURS.
- 6. FILL MUST NOT BE COMPACTED. 7. DO NOT ALLOW AIR POCKETS TO FORM WHEN BACKFILLING.
- 8. PRUNING AFTER PLANTING SHOULD BE LIMITED TO DEAD OR DAMAGED BRANCHES, OR THOSE THAT THREATEN THE APPEARANCE AND BRANCHING STRUCTURE OF THE TREE.

L420 PLANTING DETAILS SCALE ZONING G. L. W. FILE No. 1/2"=1'-0" 12078 PARCELS C-1 & C-2 TAX MAP - GRID GREEN MIXED USE BUILDING 36 - 01 AUG., 2015 47 OF 47 PLAT No. 22455-22460

ELECTION DISTRICT No. 5

DOWNTOWN COLUMBIA WARFIELD NEIGHBORHOOD BLOCKS W-2 & W-5 HOWARD COUNTY, MARYLAND