

GENERAL NOTES

- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY PLUS MSHA STANDARDS AND SPECIFICATIONS IF APPLICABLE.
- THE CONTRACTOR SHALL NOTIFY THE BUREAU OF ENGINEERING/CONSTRUCTION INSPECTION DIVISION AT (410) 515-1800 AT LEAST FIVE (5) WORKING DAYS PRIOR TO THE START OF WORK.
- THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-251-7771 AT LEAST 48-HOURS PRIOR TO ANY EXCAVATION WORK.
- PROJECT BACKGROUND:**
LOCATION: SEE VICINITY MAP IN THE TOP RIGHT CORNER OF THIS SHEET.
TAX MAP: ST ELECTION DISTRICT: 1
ZONING: R-A-15 PER COMPREHENSIVE ZONING PLAN, 02-02-04.
AREA OF BUILDABLE LOTS Nos. C-59 THRU C-62 AND C-73 THRU C-146 FOR THIS SITE DEVELOPMENT PLAN. 2.454 ACRES.
FOR OTHER SUBMISSIONS RELATED TO THIS SITE, SEE HOWARD COUNTY DEPT. OF PLANNING & ZONING FILE Nos. S-04-01, NP-04-05(M), P-06-I (PHASE II), F-06-4 (PHASE II), NP-06-45 (M), F-06-19 & F-07-01, F-07-54, F-10-034 AND, F-08-000 and F-10-02.
- TRAFFIC CONTROL DEVICES, MARKINGS, AND SIGNING SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD). ALL STREET AND REGULATORY SIGNS SHALL BE IN PLACE PRIOR TO THE PLACEMENT OF ANY ASPHALT.
- ALL PLAN DIMENSIONS ARE TO THE FACE OF CURB OR FACE OF BUILDING UNLESS OTHERWISE NOTED. DIMENSIONS ARE MEASURED PERPENDICULAR OR RADIALY BETWEEN ITEMS UNLESS OTHERWISE NOTED.
- EXISTING TOPOGRAPHY AND FEATURES COMPILED FROM F-06-19, F-07-43 AND F-07-54 AND F-10-034 PLAT Nos. 28022, 19661-19664, 19733 & 21030/2/41.
- COORDINATES ARE BASED ON NAD83 MARYLAND COORDINATE SYSTEM AS PROJECTED BY HOWARD COUNTY GEODETIC CONTROL STATION NUMBERS 316A & 317A.
- STORMWATER MANAGEMENT IS PROVIDED BY FACILITY B (ON PARCEL C-12, LOCATED ADJACENT TO MD RTE. 100 AND SHANDEN RIVER PARKWAY) CONSTRUCTED UNDER F-06-19. IT IS A FURTHER EXTENDED DETENTION FOND (TYPE P-4). THE FOND WILL BE PUBLICLY OWNED AND JOINTLY MAINTAINED BY HOWARD COUNTY AND THE HOMEOWNERS ASSOCIATION.
- PUBLIC WATER AND SEWER SHALL BE UTILIZED (AS PROVIDED BY W45 CONTRACT NOS. 24-4835-D AND 24-4834-D). WATER METERS ARE LOCATED INSIDE THE SFA BUILDINGS.
- THE EXISTING UTILITIES SHOWN HEREIN WERE DERIVED FROM AVAILABLE PUBLIC RECORDS. THE CONTRACTOR MUST TEST FITS (BY HAND) AT ALL UTILITY CROSSINGS AND CONNECTION POINTS TO VERIFY EXACT LOCATION. IMMEDIATELY NOTIFY THE ENGINEER OF ANY CONFLICTS.
- ALL ROADS LABELED AS "PUBLIC" ARE PUBLICLY MAINTAINED ONCE THEY ARE DEDICATED. ALL ROADS LABELED AS "PRIVATE" ARE PRIVATELY MAINTAINED BY A HOMEOWNER ASSOCIATION.
- ANY DAMAGE TO THE ADJACENT COUNTY OWNED RIGHT-OF-WAY AND PROPERTY SHALL BE CORRECTED AT THE CONTRACTOR'S EXPENSE.
- THE FOREST CONSERVATION EASEMENT HAS BEEN ESTABLISHED UNDER F-06-19 TO FULFILL THE REQUIREMENTS OF SECTION 16.1200 OF THE HOWARD COUNTY CODE AND FOREST CONSERVATION WITHIN THE FOREST CONSERVATION EASEMENT; HOWEVER, FOREST MANAGEMENT PRACTICES AS DEFINED IN THE DEED OF FOREST CONSERVATION EASEMENT ARE ALLOWED.
- THERE ARE NO GRAVE SITES, CEMETERIES, WETLANDS, 100-YR FLOODPLAIN OR STREAM ON THE BUILDABLE LOTS (Nos. C-59 THRU C-62 AND C-73 THRU C-146) SHOWN ON THIS SITE DEVELOPMENT PLAN.
- NO GRADING, REMOVAL OF VEGETATIVE COVER OR TREES, PAVING AND NEW STRUCTURES SHALL BE PERMITTED WITHIN THE REQUIRED WETLANDS, STREAMS OR THEIR BUFFERS, FOREST CONSERVATION EASEMENT AREAS AND 100 YEAR FLOODPLAIN. ALSO SEE NP-06-45.
- (*) ON MARCH 23, 2006, NP-06-45, APPROVED THE WAIVERS FOR THE FOLLOWING, SECTION 16.116(A)(1) REQUEST TO BE PERMITTED TO GRADE WITHIN 25 FEET OF A WETLAND, SECTION 16.116(A)(2)(II), REQUEST TO BE PERMITTED TO GRADE WITHIN 75 FEET OF A PERENNIAL STREAM, SECTION 16.116(A)(2)(III), REQUEST TO BE PERMITTED TO OBTAIN VEHICULAR ACCESS FROM MINOR ARTERIAL ROAD INSTEAD OF A LESSEER CLASSIFICATION ROAD FOR A PROPOSED SUBDIVISION THAT FRONTS ON MINOR AND PRINCIPLE ARTERIAL ROADS AND LOCAL ROAD, SECTION 16.120(C)(1), REQUEST TO BE PERMITTED TO CREATE COMMERCIAL AND APARTMENT/MULTIFAMILY PARCELS WITHOUT A MINIMUM OF 60 FEET OF FRONTAGE ON AN APPROVED PUBLIC ROAD, AND SECTION 16.114(I) REQUEST TO BE PERMITTED TO NOT SUBMIT AND OBTAIN APPROVAL OF THE REQUIRED PRELIMINARY PLAN FOR A MAJOR SUBDIVISION BEFORE SUBMITTING THE REQUIRED FINAL PLAN/PLAT, SUBJECT TO THE FOLLOWING 4 CONDITIONS IN THE APPROVAL LETTER:
1. COMPLIANCE WITH THE DEED COMMENTS OF 2/14/06.
2. THE STREAM AND WETLAND BUFFERS SHALL BE AFFORESTED IN ACCORDANCE WITH THE FOREST CONSERVATION PLAN FOR FINAL PLAN/PLAT, F-06-19.
3. THE APPLICANT MUST OBTAIN ALL REQUIRED STATE/COE PERMITS.
4. THE STREAM AND WETLAND BUFFER DISTURBANCES SHALL NOT EXCEED THE ONE SHOWN ON THE NP-06-45 EXHIBIT OF 2/2/06.
- (*) ON JULY 14, 2004, NP 04-105, A WAIVER OF SECTION 16.120(C)(4) HAS GRANTED WHICH REQUIRES SINGLE FAMILY ATTACHED LOTS TO HAVE AT LEAST 15' OF FRONTAGE ONTO A PUBLIC ROAD RIGHT-OF-WAY, SECTION 16.116(B)(2) WAIVER OF RIGHT-OF-WAY BOUNDARIES WHERE PUBLIC ROADS INTERSECT (AT CORNER LOTS), AND SECTION 16.116(A)(2)(II) WHICH PROHIBITS DISTURBANCE TO STREAMS AND STREAM BUFFERS, TO ALLOW CONSTRUCTION OF TWO PEDESTRIAN BRIDGES TO CROSS THE STREAMS. SUBJECT TO THE FOLLOWING 2 CONDITIONS IN THE APPROVAL LETTER:
1. THE DISTURBANCE TO THE STREAM AND STREAM BUFFER RELATED TO THE PEDESTRIAN BRIDGES SHALL BE MINIMIZED. THE PRELIMINARY PLAN SHALL SHOW THE LIMIT OF DISTURBANCE AND PROPOSED GRADING ASSOCIATED WITH THE BRIDGES, AND SHALL BE SUBJECT TO REVIEW AND APPROVAL BY THE SUBDIVISION REVIEW COMMITTEE.
2. IF IT IS DETERMINED BY THE DEED THAT SIGHT DISTANCE IS INADEQUATE AT THE INTERSECTIONS FOR WHICH TRUNCATION AS HAYED, THEN THE APPROPRIATE EASEMENTS MUST BE ADDED TO THE PLAN/PLAT.
- DRIVEWAYS SHALL BE PROVIDED PRIOR TO ISSUANCE OF A USE AND OCCUPANCY PERMIT FOR ANY NEW DWELLINGS TO INSURE SAFE ACCESS FOR FIRE AND EMERGENCY VEHICLES UNDER THE FOLLOWING MINIMUM REQUIREMENTS:
A. WIDTH - 12'0" SERVING MORE THAN ONE RESIDENCE
B. SURFACE - 6" OF COMPACTED CRUSHER RUN BASE WITH TAR AND CHIP COATING (1-1/2" MIN)
C. GEOMETRY - MAX. 15% GRADE, MAX. 10% GRADE CHANGE AND MIN. 45° TURNING RADII.
D. STRUCTURES (GARAGES/BRIDGES) - CAPABLE OF SUPPORTING 25,000 LBS (25,000 LBS LOADINGS)
E. DRAINAGE ELEMENTS - CAPABLE OF SAFELY PASSING 100-YR FLOOD WITH NO MORE THAN 1 FOOT DEPTH OVER DRIVEWAY SURFACE.
F. MAINTENANCE - SUFFICIENT TO INSURE ALL WEATHER USE.
- THIS PROJECT COMPLIES WITH THE REQUIREMENTS OF SECTION 16.1200 OF THE HOWARD COUNTY CODE FOR FOREST CONSERVATION BY APPROVAL AND IMPLEMENTATION OF F-06-19. ALL FOREST CONSERVATION OBLIGATIONS FOR PHASE I AND II WERE ADDRESSED UNDER F-06-19.
- PUBLIC REFUSE PICKUP WILL BE PROVIDED ALONG COUNTY ROADWAYS ONLY. REFUSE COLLECTION IN THE ALLEYS SHALL BE PRIVATE I.E. RESPONSIBILITY OF THE HOA.
- BAY WINDOWS, WINDOW WELLS, CHIMNEYS, HEATING OR AIR CONDITIONING UNITS AND EXTERIOR STAIRWAYS IF NOT MORE THAN 16 FEET IN WIDTH MAY PROJECT NO MORE THAN 4 FEET INTO ANY REQUIRED SETBACK AREA IN ACCORDANCE WITH SECTION 12B(A) OF THE ZONING REGULATIONS.
- THE TWO CAR GARAGES WITH DRIVEWAYS LESS THAN 18 FEET IN LENGTH AND ALL ONE CAR GARAGES SHALL BE USED FOR RESIDENTIAL PURPOSES ONLY AND ARE NOT PERMITTED TO BE CONVERTED TO OTHER USES IN ACCORDANCE WITH SECTION 12B(A) OF THE ZONING REGULATIONS. UNLESS OTHERWISE PROHIBITED BY POSTED SIGNAGE OR CURB MARKING, ON-STREET PARALLEL PARKING ALONG THE CURB WITHIN THE PUBLIC RIGHTS-OF-WAY IS ALLOWED FOR VISITOR AND OVERLAP PARKING. THE ON-STREET PARKING AREA SHALL NOT BE STRIPPED, WITH THE EXCEPTION OF THE PARKING SPACES THAT ARE TO BE DESIGNATED BY SIGNS AND POSSIBLY STRIPPED ON THIS SITE FOR THE EXCLUSIVE USE BY UNITS C-61, C-62, C-81, C-86, C-82, AND C-84 THAT ONLY HAVE ONE CAR GARAGES WITH DRIVEWAYS.
- THERE SHALL BE NO LIMITS ON THE MAXIMUM LOT COVERAGE FOR ATTACHED UNITS, PER ZONING REGS. 12B(3)g.
- ALL BUILDING FOUNDATIONS MUST BE BRICKPOINTED UNLESS NOTED OTHERWISE.
- PERMETER LANDSCAPING AND REQUIRED STREET TREES SHALL BE PROVIDED AND IN ACCORDANCE WITH THE APPROVED CONSTRUCTION DRAWINGS, F-07-43 AND F-07-54. LANDSCAPE SURETY IN THE AMOUNT OF \$12,000 FOR THE LANDSCAPE PLAN ON SHEET 7 OF THIS PLAN SHALL BE POSTED AS A PART OF THE GRADING PLAN. THE SURETY AMOUNT FOR LOTS C-59 THRU C-62, C-73 THRU C-81, C-106 THRU C-110 AND C-238 THRU C-255 IS \$25,100 THE SURETY AMOUNT FOR LOTS C-141 THRU C-146 IS \$3,000.
- THE MIN. AGREEMENT AND RESTRICTIONS RECORDATION NUMBERS ARE L10889 F. 348-354, L1011 F.44 THRU F.60 & L1011 F.46 THRU F.48.
- THE ADDITIONAL STREET PARKING SPACES DESIGNATED FOR LOTS C-61, C-62, C-81, C-86, C-82, AND C-84 SHALL BE IDENTIFIED/ SIGNED ON THE SITE WITH THE LOT AUTHORIZED FOR EACH SPACE INDICATED ON EACH SIGN FOR EACH SPACE.
- THE APPROVED SKETCH AND PRELIMINARY PLANS FOR THIS SUBDIVISION INDICATED THE 50' AND 75' STREAM BUFFERS REFERENCED FROM THE CENTERLINES OF THE STREAMS, WHICH DID NOT CAUSE THE STREAM BUFFERS TO BE LOCATED ON ANY RESIDENTIAL LOTS. A 50' AND 75' STREAM POLICY DECISION WAS MADE AT THE FINAL PLAN AND SITE DEVELOPMENT PLAN STAGES OF THIS SUBDIVISION PROJECT TO INDICATE THE 50' AND 75' STREAM BUFFERS REFERENCED FROM THE STREAMBANKS, TO ALLOW THE STREAM BUFFERS ON RESIDENTIAL LOTS LESS THAN 10 ACRES IN SIZE, AND NOT TO REQUIRE THE 35' STRUCTURE SETBACK REFERENCED FROM A STREAM BUFFER LOCATED ON A RESIDENTIAL LOT AS NORMALLY REQUIRED BY SUBDIVISION SECTION 16.120(A)(4)(II). THIS "STREAM BUFFERING" POLICY DECISION WAS BASED ON EARLIER APPROVALS OF THE RELATED SKETCH AND PRELIMINARY PLANS FOR THIS SUBDIVISION PROJECT.
- THE ARTICLES OF INCORPORATION FOR THE SHIPLEY'S GRANT COMMUNITY ASSOCIATION WAS FILED WITH MD. STATE DEPT. OF ASSESSMENTS & TAXATION ON MAY 22, 2007, RECEIPT # D1925123, L. 10774 F. 611.
- 20 MIH'S HAVE BEEN TRANSFERRED FROM SHIPLEY'S GRANT TO ELLICOTT GARDENS, SDP-07-038, LETTER DATED JULY 2, 2008.

PROFESSIONAL CERTIFICATION

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. 12915. EXPIRATION DATE: 05-26-10



APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
Director: *Donna S. Butler* 3/29/10
Chief, Division of Land Development: *Ken S. Lewis* 3/26/10
Chief, Development Division: *William G. ...* 3/26/10

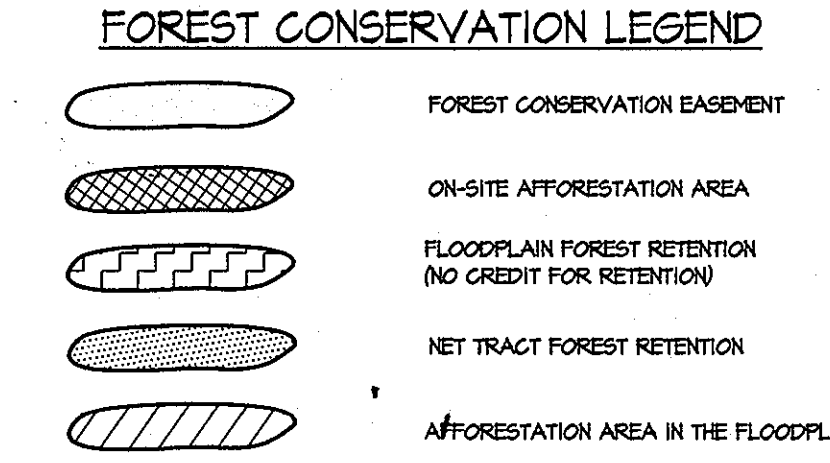
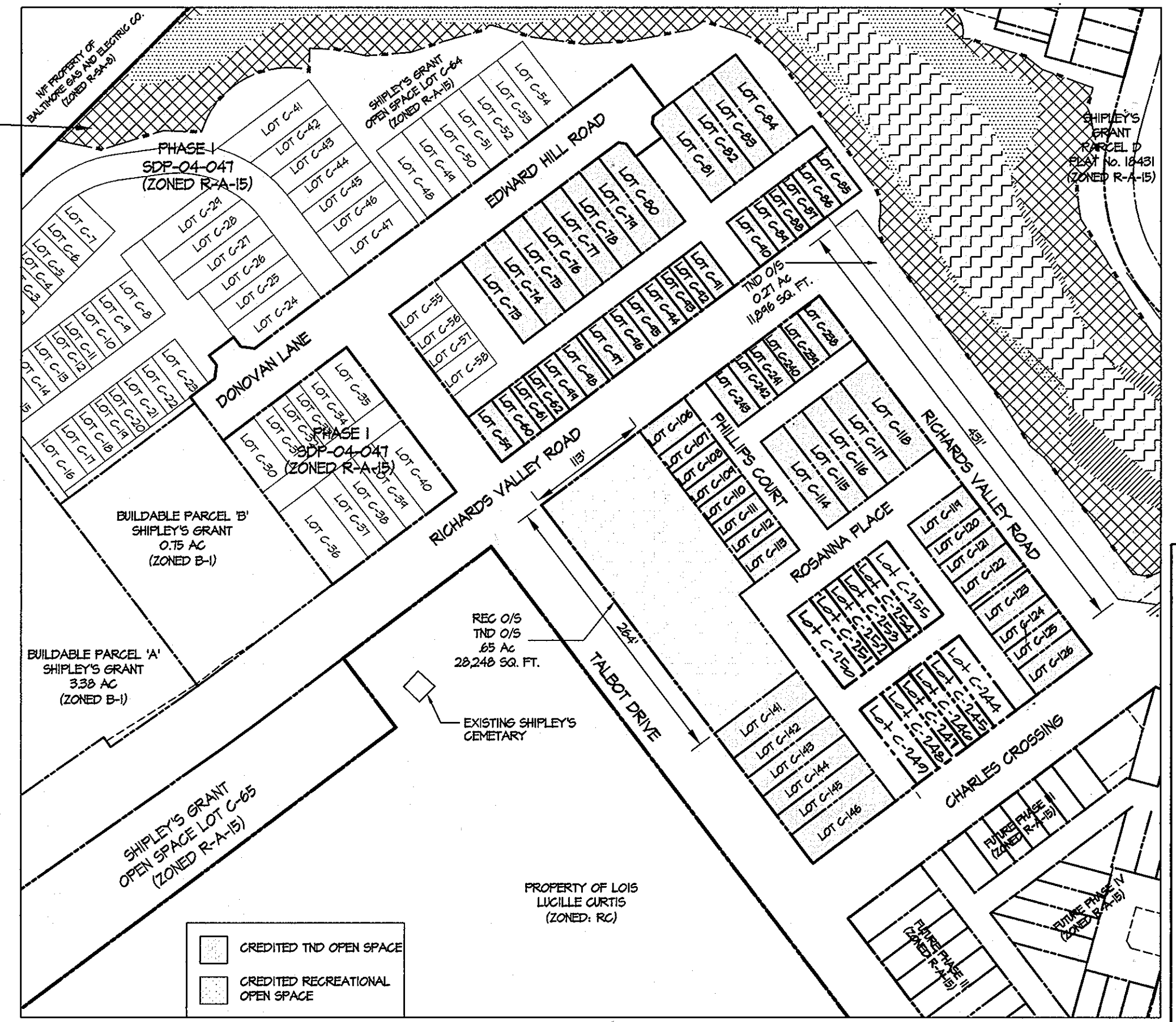
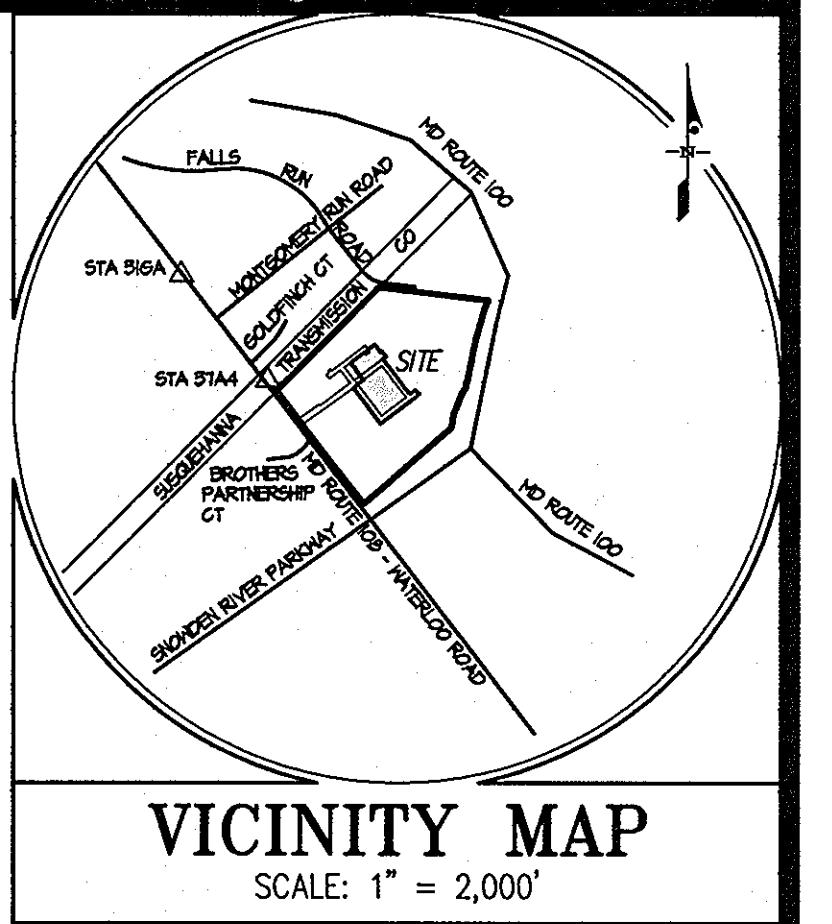
SITE DEVELOPMENT PLAN

SHIPLEY'S GRANT

PHASE II: LOTS C-59 THRU C-62, C-73 THRU C-99, C-106 THRU C-126
AND C-238 THRU C-255
PHASE III: LOTS C-141 THRU C-146

HOWARD COUNTY CONTROL STATIONS
316A ELEV. = 511.65
STANDARD DISC ON CONCRETE MONUMENT
N 564,925.75 E 1,367,067.65

317A ELEV. = 457.28
STANDARD DISC ON CONCRETE MONUMENT
N 563,835.91 E 1,367,171.65



SHEET INDEX

SHEET NO.	TITLE
1	COVER SHEET
2-4	SITE DEVELOPMENT PLAN
5	SEDIMENT AND EROSION PLAN
6	SEDIMENT AND EROSION NOTES AND DETAILS
7	LANDSCAPE PLAN
8	LANDSCAPE NOTES AND DETAILS

SITE ANALYSIS

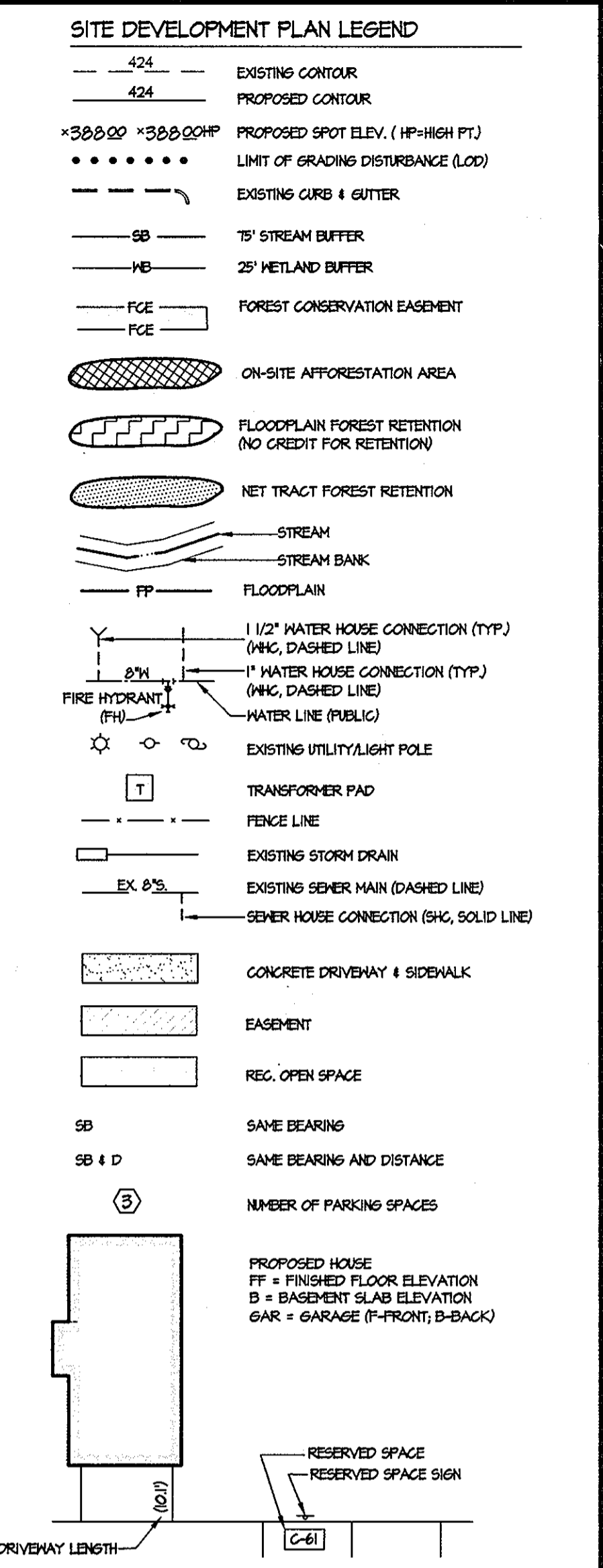
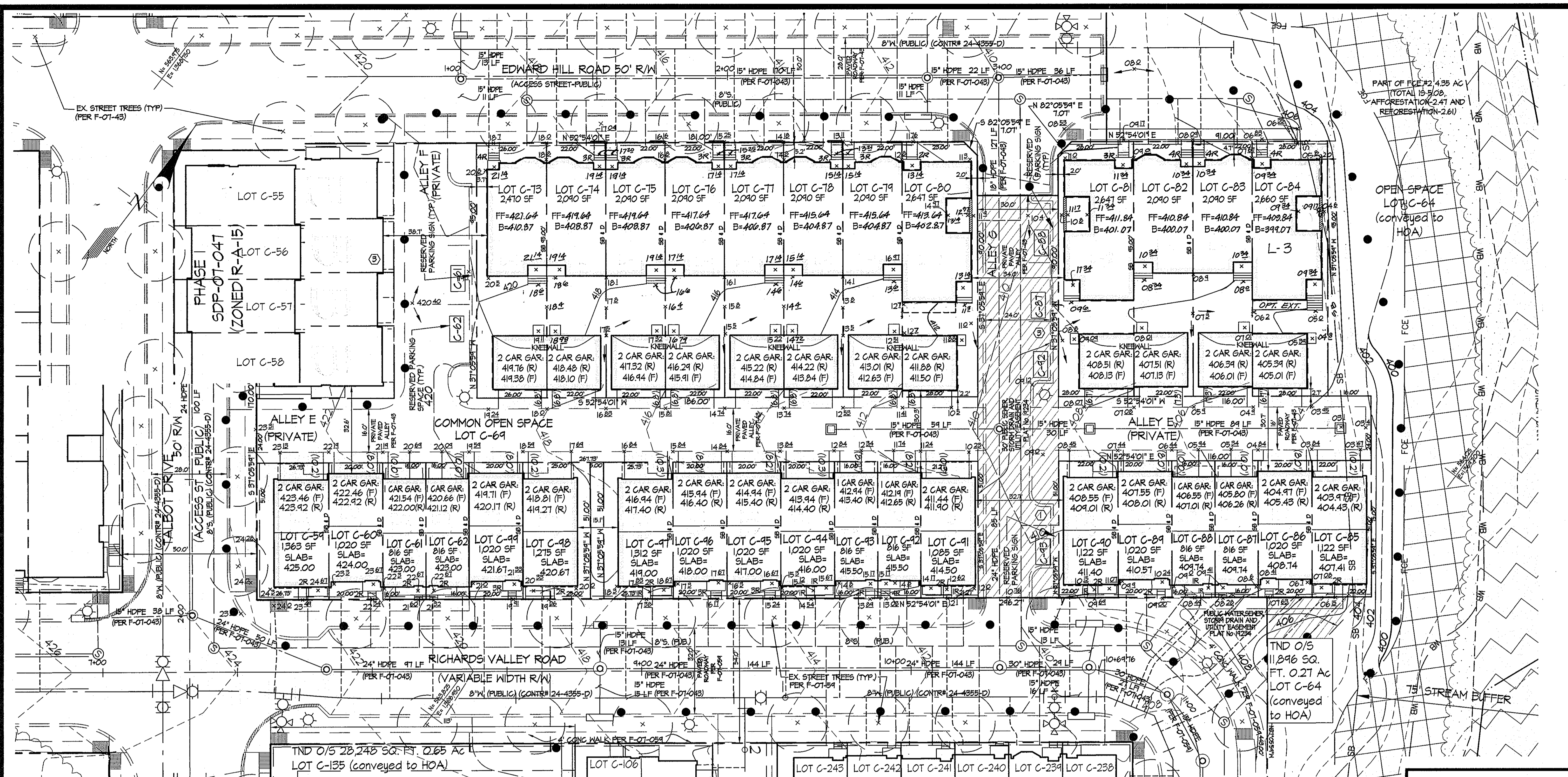
- GENERAL SITE DATA
 - A. PRESENT ZONING: R-A-15
 - B. PROPOSED USED FOR SITE AND STRUCTURE: SINGLE FAMILY ATTACHED
 - C. TOTAL NUMBER OF UNITS ALLOWED: 76
 - TOTAL NUMBER OF UNITS PROVIDED: 76
- AREA TABULATION
 - A. SITE AREA: 2,761 AC. FOR 76 BUILDABLE LOTS
 - B. AREA OF PLAN SUBMISSION: 4,231 AC.
 - C. LIMIT OF DISTURBANCE: 4,231 AC.
 - D. RECREATION OPEN SPACE PROVIDED UNDER F-07-43 & F-07-54
- PARKING TABULATION
 - A. PARKING REQUIRED: 76 UNITS X 2 SPACES PER UNIT = 152 SPACES
 - B. PARKING PROVIDED: 2 CAR GARAGE SPACES X 61 = 124 SPACES
1 CAR GARAGE SPACES X 10 = 10 SPACES
2 CAR DRIVEWAY TANDEM SPACES = 14 SPACES
1 CAR DRIVEWAY TANDEM SPACES = 8 SPACES
*PARALLEL TANDEM SPACES = 10 SPACES
 - TOTAL SPACES PROVIDED = 176 SPACES
 - *6% OF THE 10 PARALLEL TANDEM SPACES ARE DESIGNATED TO LOTS C-61, C-62, C-81, C-86, C-82, C-84 AS INDICATED ON THESE PLANS.

BUILDING RESTRICTION ANALYSIS
(HOWARD COUNTY ZONING REGULATIONS SECTIONS 112D, AND 128E)

- REQUIRED FRONT OR SIDE SETBACK FROM AN INTERNAL STREET RIGHT-OF-WAY SHALL BE 0' FOR RESIDENTIAL USES.
- REQUIRED FRONT OR SIDE SETBACK FROM AN ALLEY RIGHT-OF-WAY SHALL BE 0' FOR ACCESSORY STRUCTURES.
- REQUIRED SIDE OR REAR SETBACKS FROM AN ALLEY RIGHT-OF-WAY FOR A PRINCIPAL STRUCTURE WITH AN INTEGRAL GARAGE SHALL BE 0'.
- MINIMUM BUILDING SEPARATION FOR REAR TO REAR CONDITION SHALL BE 60'. THE MINIMUM REAR TO REAR DISTANCE FOR STRUCTURES ON OPPOSITE SIDES OF AN ALLEY MAY BE REDUCED TO 30'.
- MINIMUM BUILDING SEPARATION FOR FACE TO FACE CONDITION SHALL BE 30'.
- MINIMUM BUILDING SEPARATION FOR FACE TO SIDE OR REAR TO SIDE CONDITION SHALL BE 30'.
- MINIMUM BUILDING SEPARATION FOR SIDE TO SIDE CONDITION SHALL BE 15'.
- MINIMUM BUILDING SEPARATION FOR REAR TO FACE CONDITION SHALL BE 100'.

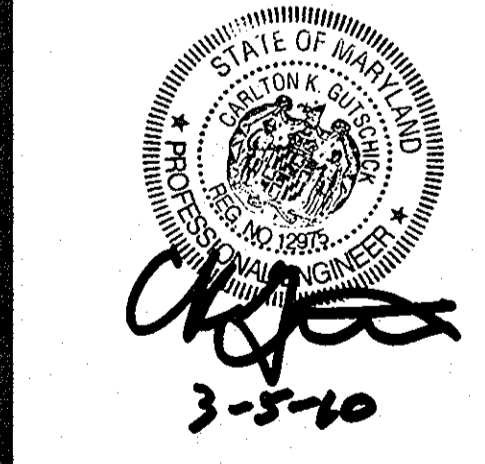
ADDRESS CHART

LOT NO.	STREET ADDRESS	LOT NO.	STREET ADDRESS
C-13	616 EDWARD HILL ROAD	C-106	5802 PHILLIPS COURT
C-14	618	C-107	5804
C-15	620	C-108	5806
C-16	622	C-109	5808
C-17	624	C-110	5810
C-18	626	C-111	5812
C-19	628	C-112	5814
C-20	630	C-113	5816
C-81	614 EDWARD HILL ROAD	C-114	5710 ROSANNA PLACE
C-82	616	C-115	5708
C-83	618	C-116	5706
C-84	640	C-117	5704
C-85	5818 RICHARDS VALLEY ROAD	C-118	5702
C-86	5811	C-119	5856 RICHARDS VALLEY ROAD
C-87	5804	C-120	5858
C-88	5807	C-121	5840
C-89	5805	C-122	5842
C-90	5803	C-123	5846 RICHARDS VALLEY ROAD
C-91	5799 RICHARDS VALLEY ROAD	C-124	5848
C-92	5797	C-125	5850
C-93	5795	C-126	5852
C-94	5793		
C-95	5791	C-144	5712 CHARLES CROSSING
C-96	5789	C-145	5710
C-97	5787	C-146	5708
C-98	5785 RICHARDS VALLEY ROAD	C-147	5706
C-99	5783	C-148	5704
C-100	5781	C-149	5702
C-101	5779	C-150	5700
C-102	5777	C-151	5698
C-103	5775	C-152	5696
C-104	5773	C-153	5694
C-105	5771	C-154	5692
C-106	5769	C-155	5690
C-107	5767	C-156	5688
C-108	5765	C-157	5686
C-109	5763	C-158	5684
C-110	5761	C-159	5682
C-111	5759	C-160	5680
C-112	5757	C-161	5678
C-113	5755	C-162	5676
C-114	5753	C-163	5674
C-115	5751	C-164	5672
C-116	5749	C-165	5670
C-117	5747	C-166	5668
C-118	5745	C-167	5666
C-119	5743	C-168	5664
C-120	5741	C-169	5662
C-121	5739	C-170	5660
C-122	5737	C-171	5658
C-123	5735	C-172	5656
C-124	5733	C-173	5654
C-125	5731	C-174	5652
C-126	5729	C-175	5650
C-127	5727	C-176	5648
C-128	5725	C-177	5646
C-129	5723	C-178	5644
C-130	5721	C-179	5642
C-131	5719	C-180	5640
C-132	5717	C-181	5638
C-133	5715	C-182	5636
C-134	5713	C-183	5634
C-135	5711	C-184	5632
C-136	5709	C-185	5630
C-137	5707	C-186	5628
C-138	5705	C-187	5626
C-139	5703	C-188	5624
C-140	5701	C-189	5622
C-141	5699	C-190	5620
C-142	5697	C-191	5618
C-143	5695	C-192	5616
C-144	5693	C-193	5614
C-145	5691	C-194	5612
C-146	5689	C-195	5610
C-147	5687	C-196	5608
C-148	5685	C-197	5606
C-149	5683	C-198	5604
C-150	5681	C-199	5602
C-151	5679	C-200	5600
C-152	5677	C-201	5598
C-153	5675	C-202	5596
C-154	5673	C-203	5594
C-155	5671	C-204	5592
C-156	5669	C-205	5590
C-157	5667	C-206	5588
C-158	5665	C-207	5586
C-159	5663	C-208	5584
C-160	5661	C-209	5582
C-161	5659	C-210	5580
C-162	5657	C-211	5578
C-163	5655	C-212	5576
C-164	5653	C-213	5574
C-165	5651	C-214	5572
C-166	5649	C-215	5570
C-167	5647	C-216	5568
C-168	5645	C-217	5566
C-169	5643	C-218	5564
C-170	5641	C-219	5562
C-171	5639	C-220	5560
C-172	5637	C-221	5558
C-173	5635	C-222	5556
C-174	5633	C-223	5554
C-175	5631	C-224	5552
C-176	5629	C-225	5550
C-177	5627	C-226	5548
C-178	5625	C-227	5546
C-179	5623	C-228	5544
C-180	5621	C-229	5542
C-181	5619	C-230	5540
C-182	5617	C-231	5538
C-183	5615	C-232	5536
C-184	5613	C-233	5534
C-185	5611	C-234	5532
C-186	5609	C-235	5530
C-187	5607	C-236	5528
C-188	5605	C-237	5526
C-189	5603	C-238	5524
C-190	5601	C-239	5522
C-191	5599	C-240	5520
C-192	5597	C-241	5518
C-193	5595	C-242	5516
C-194	5593	C-243	5514
C-195	5591	C-244	5512
C-196	5589	C-245	5510
C-197	5587	C-246	5508
C-198	5585	C-247	5506
C-199	5583	C-248	5504
C-200	5581	C-249	5502
C-201	5579	C-250	5500
C-202	5577	C-251	5498
C-203	5575	C-252	5496
C-204	5573	C-253	5494
C-205	5571	C-254	5492
C-206	5569	C-255	5490
C-207	5567	C-256	5488
C-208	5565	C-257	5486
C-209	5563	C-258	5484
C-210	5561	C-259	5482
C-211	5559	C-260	5480
C-212	5557	C-261	5478
C-213	5555	C-262	5476
C-214	5553	C-263	5474
C-215	5551	C-264	5472



NOTES:
 1. FOR EACH UNIT, OPTIONAL BUILDING FEATURES (SUCH AS DECK, EXTENSIONS, ETC.) ARE ONLY AVAILABLE IF THEY ARE SHOWN ON THESE SITE DEVELOPMENT PLANS.
 2. BRICK POINT ALL BLDGS. CONSTRUCTION UNLESS NOTED OTHERWISE.
 3. ALL UTILITY CONSTRUCTION AND ALLEY PAVEMENT UNDER F-07-43.

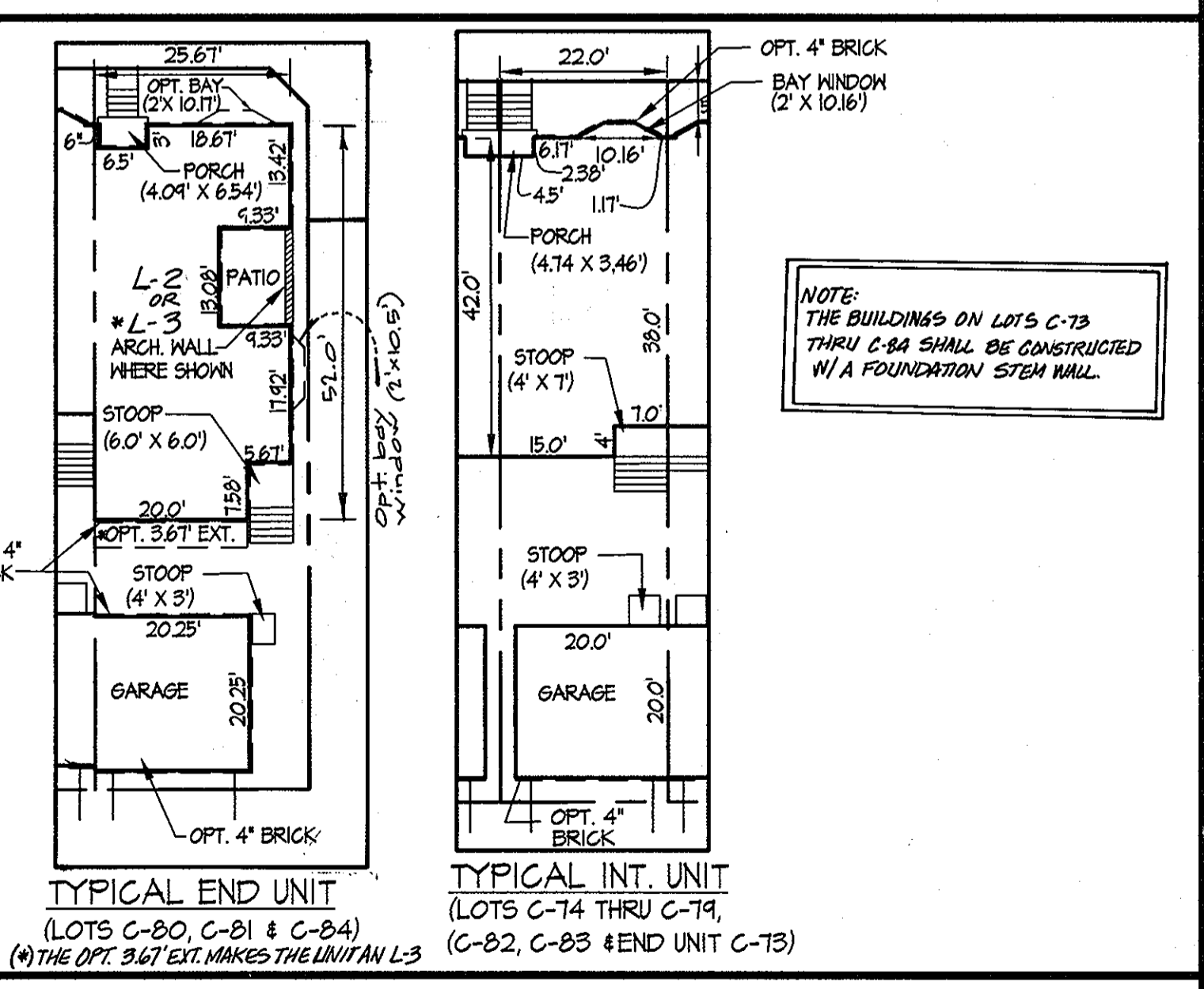
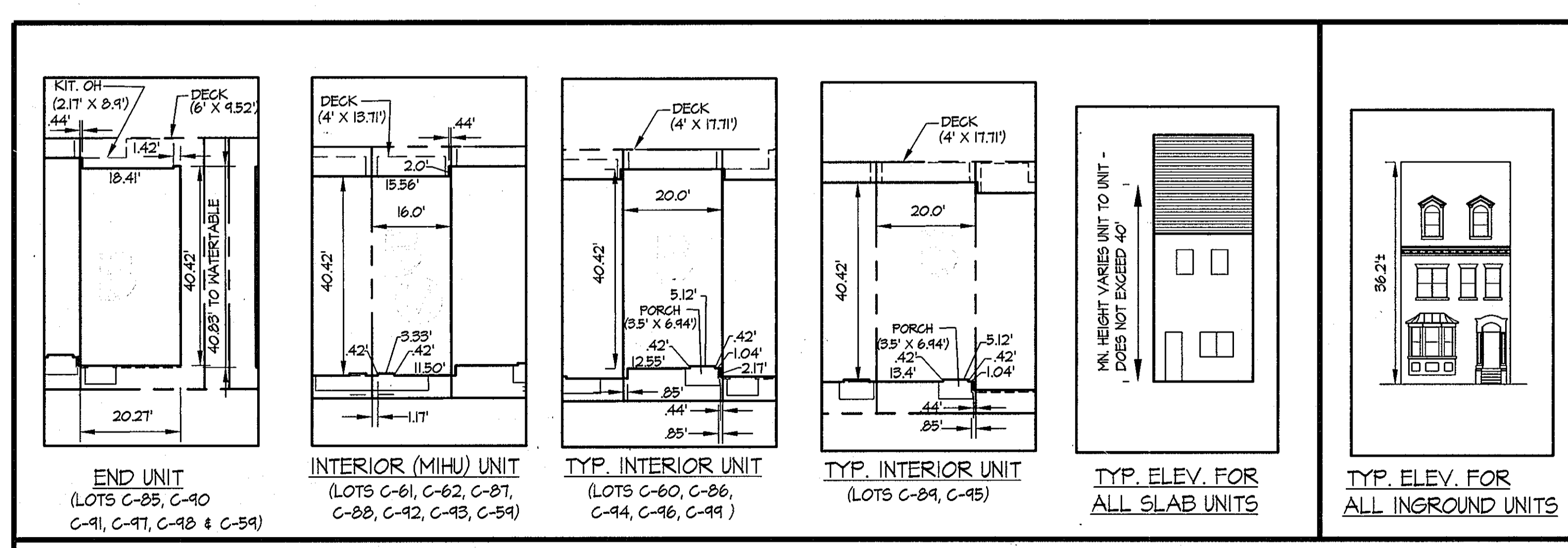
PROFESSIONAL CERTIFICATION
 I HEREBY CERTIFY THAT THESE PLANS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 12975
 EXPIRATION DATE: 05-26-10



SEWER HOUSE CONNECTIONS
 MINIMUM CELLAR ELEVATIONS
 AND INVERT ELEVATION @ P.L.

LOT NO.	SLAB/BCHT. (PER SDR)	MCE	INV. @ R/W ELEV.
C-54	425.00	420.40	417.86
C-55	424.00	418.30	416.16
C-56	423.00	416.20	414.06
C-57	423.00	417.80	415.36
C-58	410.87	408.10	405.88
C-59	408.87	406.16	403.75
C-60	406.87	405.10	402.68
C-61	406.87	404.62	401.62
C-62	404.87	402.54	400.52
C-63	404.87	402.58	399.56
C-64	402.87	402.50	399.82
C-65	401.07	397.97	394.45
C-66	400.07	395.15	395.11
C-67	399.07	393.28	395.21
C-68	399.07	395.50	395.50
C-69	401.41	405.30	400.78
C-70	408.14	404.58	402.06
C-71	404.14	405.63	403.08
C-72	404.14	402.46	402.94
C-73	410.51	405.36	402.44
C-74	411.40	406.82	404.28
C-75	414.50	407.44	404.95
C-76	415.00	410.20	407.66
C-77	415.00	411.00	408.46
C-78	416.00	411.50	408.96
C-79	417.00	415.20	411.16
C-80	418.00	415.20	411.86
C-81	420.67	415.20	413.26
C-82	421.67	416.40	414.36

SEE SHEET 3



APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
 Director: [Signature] Date: 3/28/10
 Chief, Division of Land Development: [Signature] Date: 3/28/10
 Chief, Development Engineering Division: [Signature] Date: 3/28/10

GLWGUTSCHICK LITTLE & WEBER, P.A.
 CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
 3809 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK
 BURTONSVILLE, MARYLAND 20866
 TEL: 301-421-4024 FAX: 301-389-2524

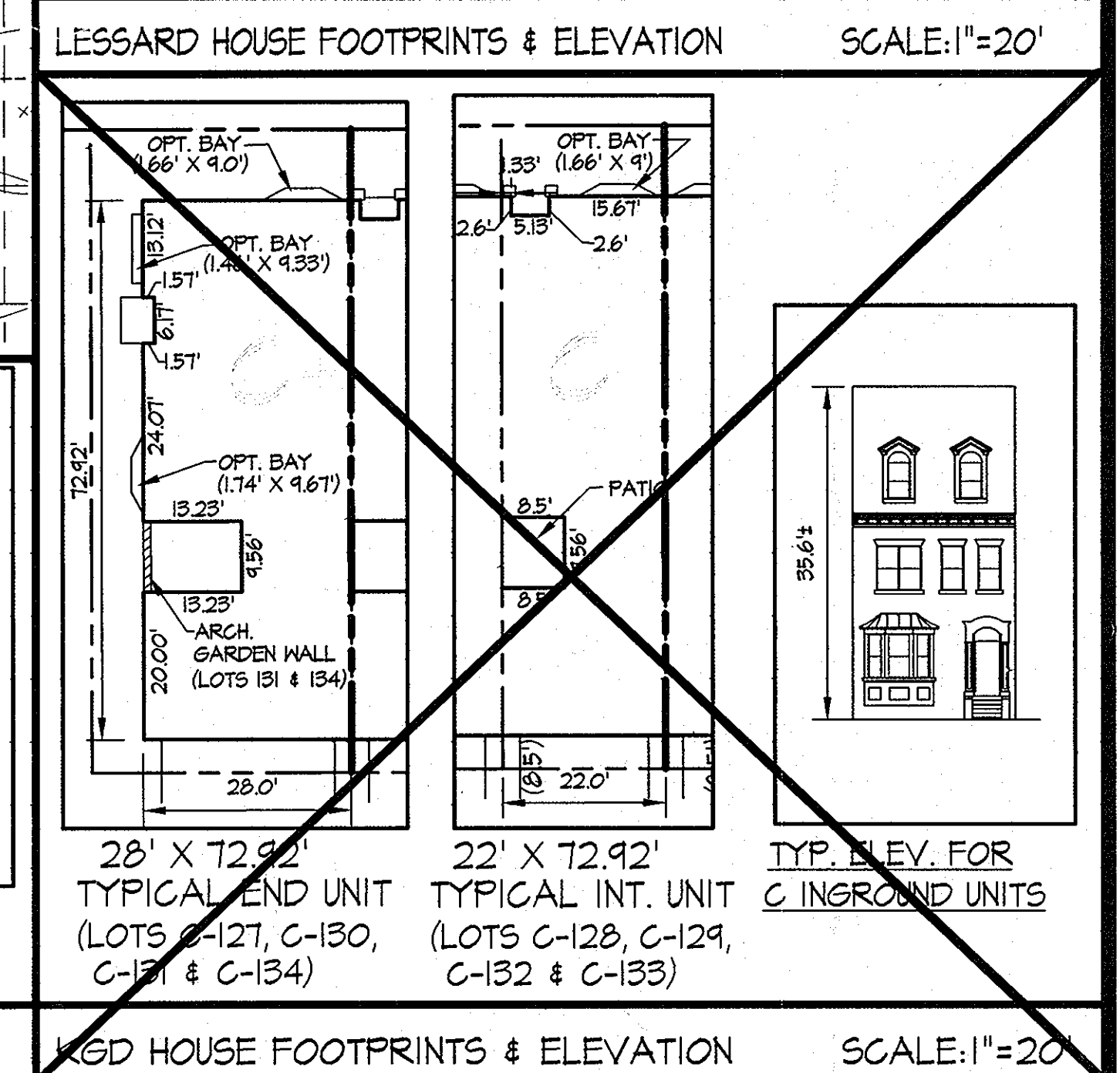
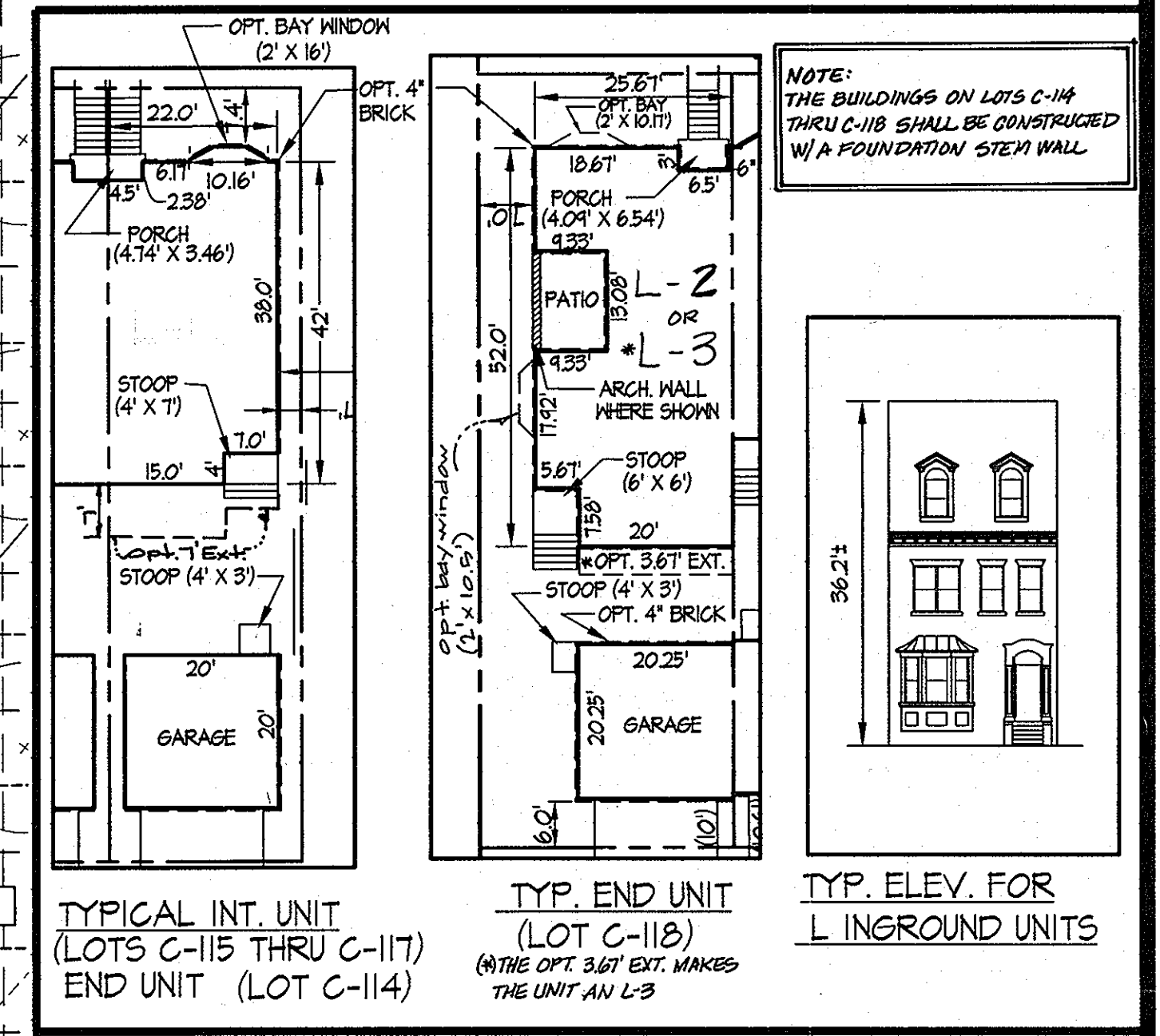
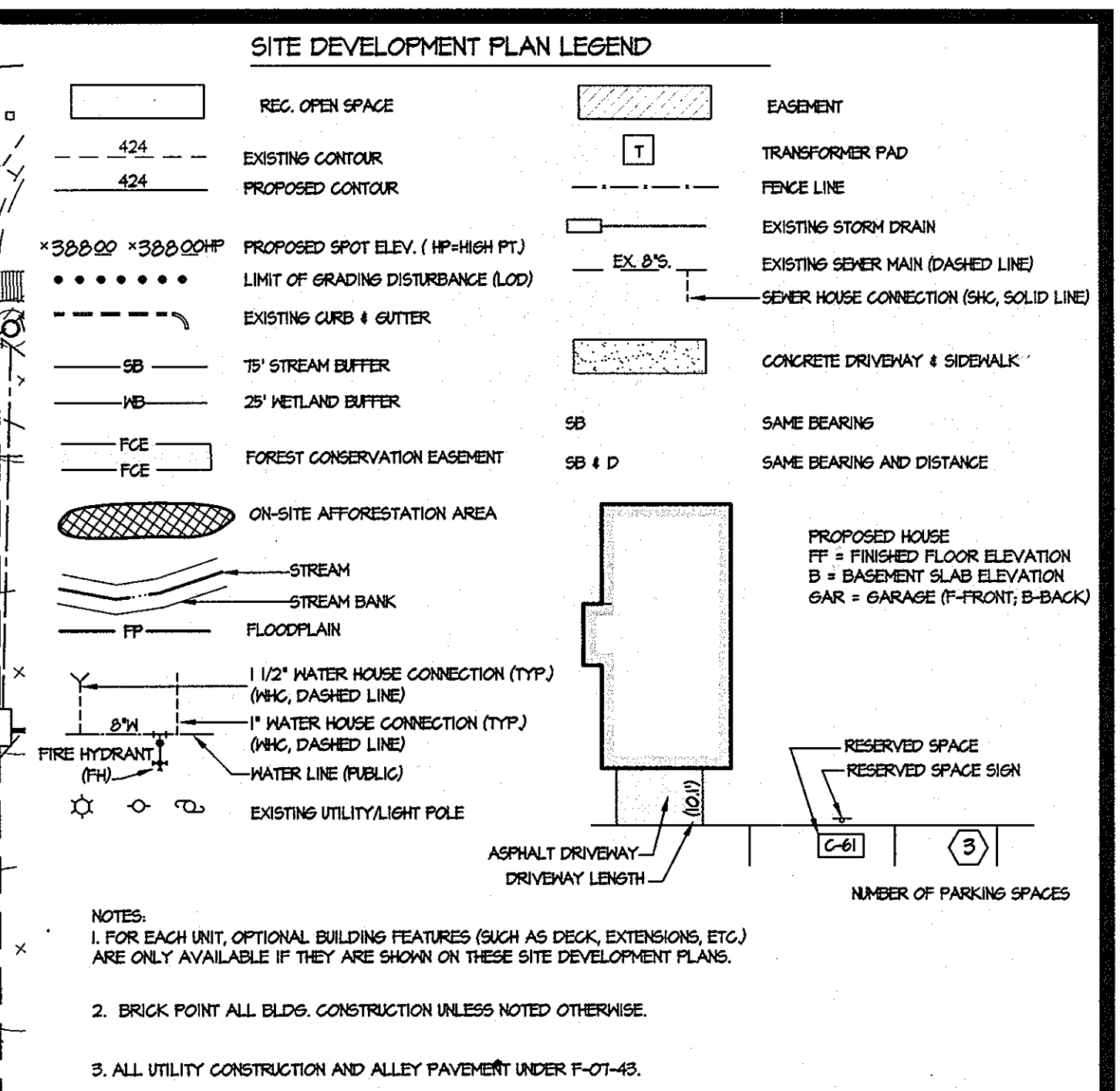
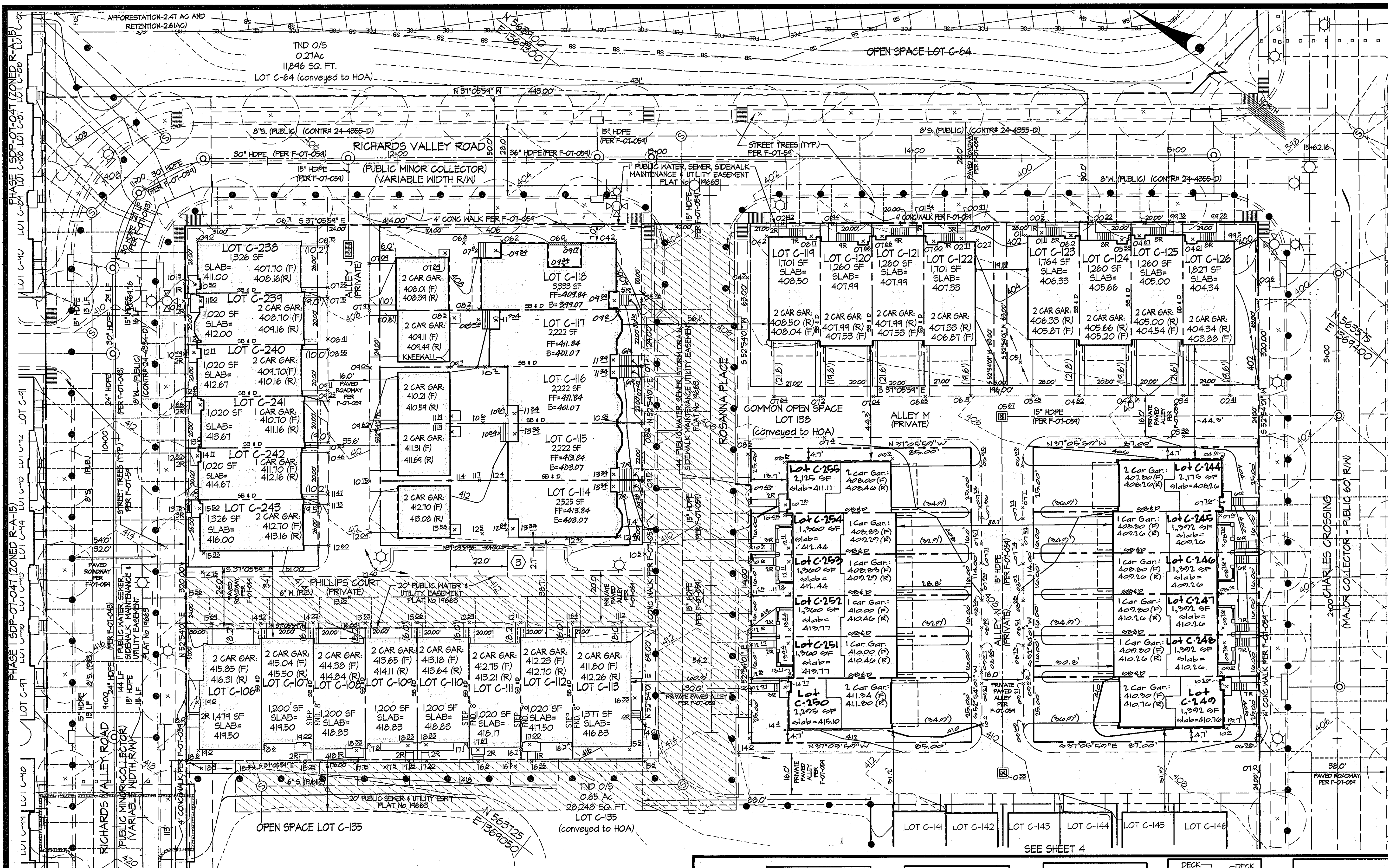
DATE	REVISION	BY	APPR.
02-17-2011	Rev. grade on Lot C-84 for Final Grade Certification	HKJ	MBT
10-19-2010	ADD OPT. 3.67 EXT. TO ALL C-8 UNITS. THE ADDITION OF THIS OPTION MAKES THE UNIT AN L-3	HKJ	MBT
02-20-2010	REVISE GRADES FOR LOTS C-73 THRU C-79	HKJ	MBT
02-20-2010	ADD 4' BAY WINDOW TO REFLECT NEW RECONSTRUCTED LOTS & ADD BAY WINDOW TO TYP. END UNIT	HKJ	MBT
03-03-2010	RESTIE LOTS C-73 THRU C-84 WITH L UNITS, REVISE GRADES AND ADD TYPICAL UNIT	HKJ	MBT
02-27-09	REV. HSE. TYPE ON LOT C-59 TO MATCH C-90	HKJ	MBT

PREPARED FOR:
 BA WATERLOO TOWNHOMES, LLC
 C/O BOZZUTO HOMES, INC.
 7850 WALKER DRIVE SUITE 400
 GREENBELT, MARYLAND 20770
 ATTN: DUNCAN SLIDELL
 301-623-1525

SITE DEVELOPMENT PLAN (REVISED)
SHIPLEY'S GRANT
 PHASE II : LOTS C-59 THRU C-62, C-73 THRU C-99, C-106 THRU C-126 AND C-238 THRU C-255
 PHASE III : C-141 THRU C-146
 ELECTION DISTRICT No. 1
 HOWARD COUNTY, MARYLAND

SCALE	ZONING	G. L. W. FILE NO.
1"=20'	RA-15	05071
DATE	TAX MAP - GRID	SHEET
DEC., 2007	37 - 1 & 2	2 OF 8

SDP-OT-048



MINIMUM CELLAR ELEVATIONS			MINIMUM CELLAR ELEVATIONS			MINIMUM CELLAR ELEVATIONS			MINIMUM CELLAR ELEVATIONS		
LOT NO.	SLAB/B.S.M.T. (PER SPP)	MCE	LOT NO.	SLAB/B.S.M.T. (PER SPP)	MCE	LOT NO.	SLAB/B.S.M.T. (PER SPP)	MCE	LOT NO.	SLAB/B.S.M.T. (PER SPP)	MCE
C-238	411.00	405.76	C-111	418.45	411.72	C-122	407.54	395.07	C-151	413.77	401.00
C-239	412.00	406.46	C-112	417.95	411.12	C-123	406.42	394.75	C-152	412.44	400.00
C-240	412.67	407.15	C-113	416.45	410.31	C-124	406.64	394.52	C-153	412.44	399.60
C-241	416.31	408.05	C-114	415.07	408.19	C-125	404.90	394.52	C-154	411.11	399.60
C-242	416.67	408.26	C-115	414.31	407.15	C-126	402.87	394.52	C-155	411.11	399.60
C-243	416.00	407.11	C-116	413.64	406.11	E-144	408.50	394.97			
C-244	416.00	407.11	C-117	412.07	405.11	C-145	408.50	394.97			
C-245	416.00	407.11	C-118	410.21	403.11	C-146	408.50	394.97			
C-246	416.00	407.11	C-119	408.25	401.11	C-147	408.50	394.97			
C-247	416.00	407.11	C-120	406.25	399.11	C-148	408.50	394.97			
C-248	416.00	407.11	C-121	404.25	397.11	C-149	408.50	394.97			
C-249	416.00	407.11	C-122	402.25	395.11	C-150	408.50	394.97			
C-250	416.00	407.11	C-123	400.25	393.11	C-151	408.50	394.97			
C-251	416.00	407.11	C-124	398.25	391.11	C-152	408.50	394.97			

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
 Director: *[Signature]* 3/29/10
 Chief, Division of Land Development: *[Signature]* 3/24/10
 Chief, Development Engineering Division: *[Signature]* 3/22/10

PROFESSIONAL CERTIFICATION
 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.
 EXPIRATION DATE: 05-26-10
 04-11-2011 Add opt. 7 Ext to Lot C-114 and add to typ footprint and to typ elevation.

GLW GUTSCHICK LITTLE & WEBER, P.A.
 CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
 3909 NATIONAL DRIVE - SUITE 250 - BURTONTOWNE, MARYLAND 20886
 TEL: 301-421-4024 FAX: 410-880-1850 DC/WV: 301-989-5254 FAX: 301-421-4186

DATE	REVISION	BY	APPR.
10-28-09	REVISE LOTS C100-C105 TO C238-C243 W/20' UNITS, REV. ELEV., SPOTS AND PROPERTY LINES	WSJ	MBT
7-7-09	REV. ELEV. LOTS C-106 THRU C-113 & EXTEND SIDEWALK TO MATCH SIDEWALK PER F-07-59	HKJ	MBT
		BY	APPR.

PREPARED FOR:
 BA WATERLOO TOWNHOMES, LLC
 C/O BOZZUTO HOMES, INC.
 7850 WALKER DRIVE SUITE 400
 GREENBELT, MARYLAND 20770
 ATTN: DUNCAN SLOEHL
 301-623-1525

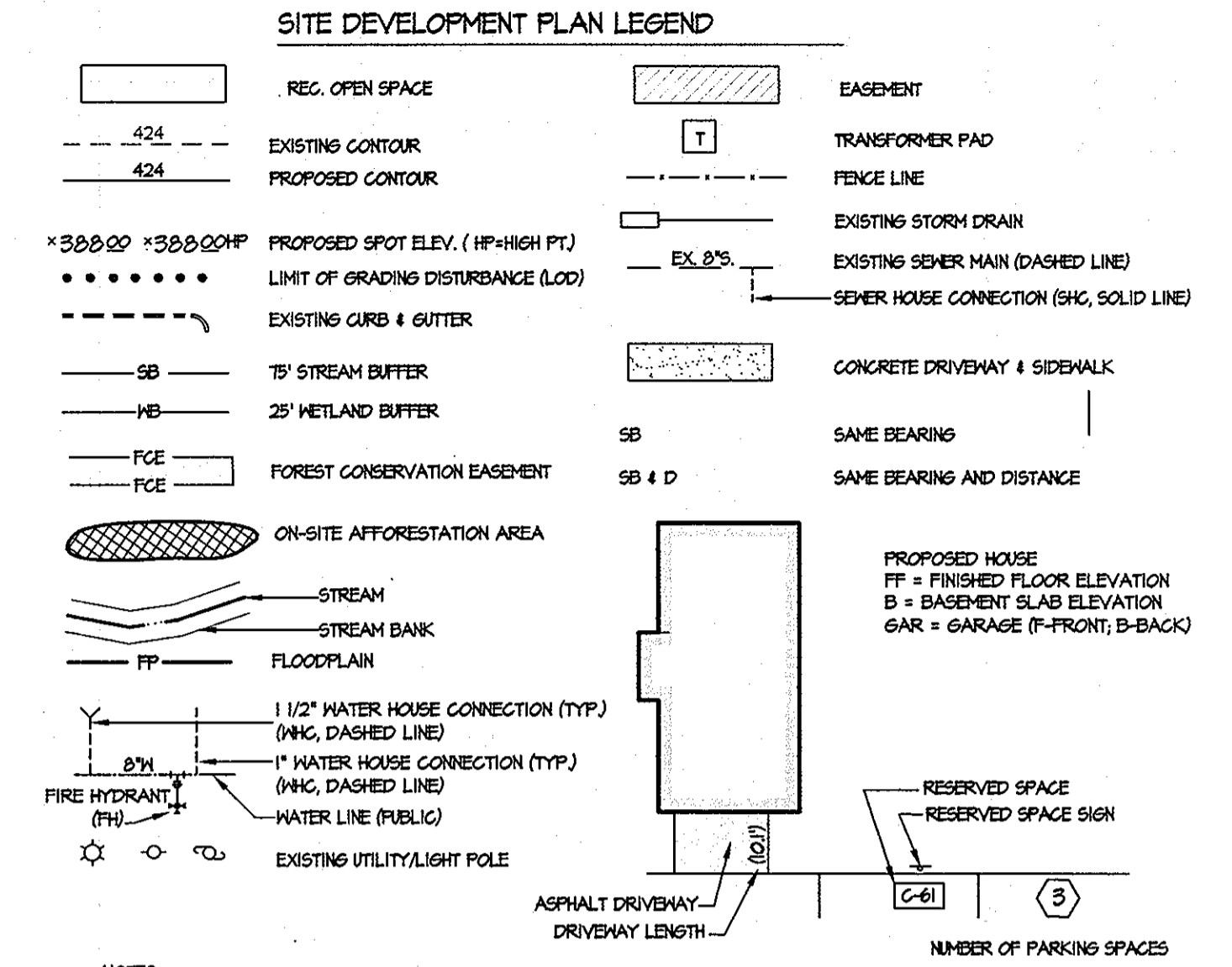
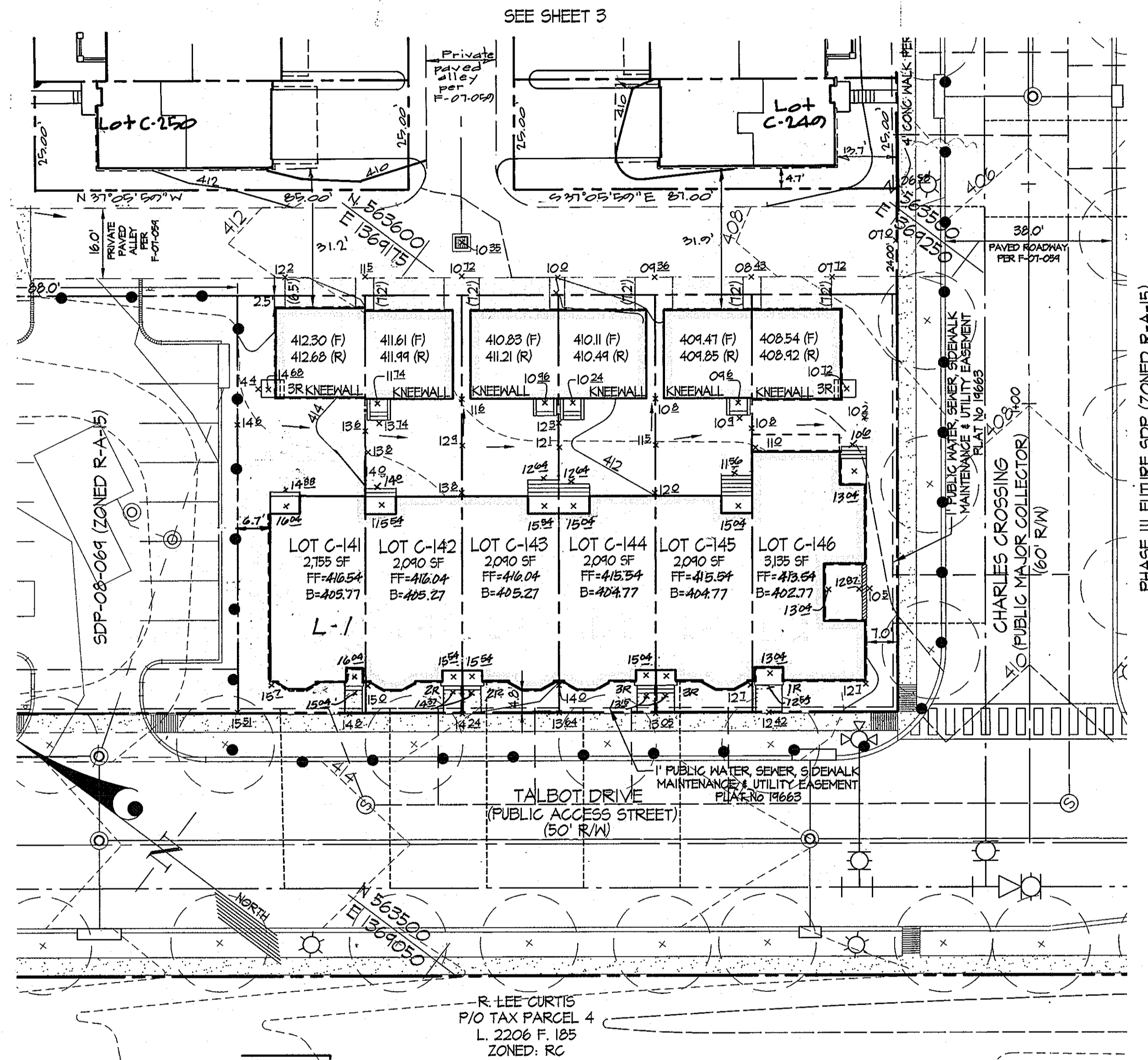
SITE DEVELOPMENT PLAN (REVISED)
SHIPLEY'S GRANT
 PHASE II: LOTS C-59 THRU C-62, C-73 THRU C-99, C-106 THRU C-116 AND C-238 THRU C-255
 PHASE III: C-141 THRU C-146
 ELECTION DISTRICT NO. 1
 HOWARD COUNTY, MARYLAND

SCALE	ZONING	G. L. W. FILE NO.
1"=20'	RA-15	05071
DATE	TAX MAP - GRID	SHEET
DEC, 2007	37 - 1 & 2	3 OF 8

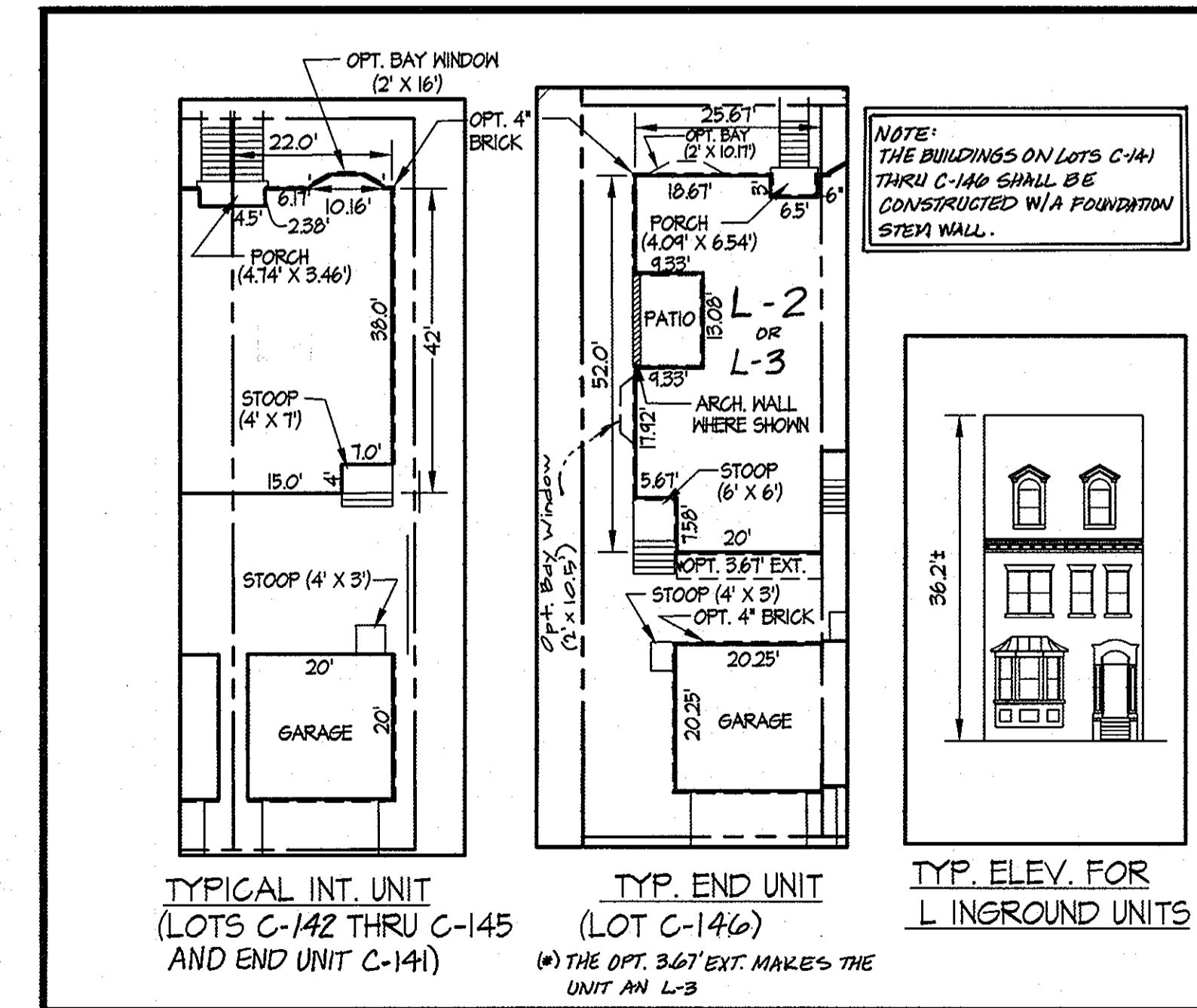
MINIMUM CELLAR ELEVATIONS			INV. @ R/W ELEV.
LOT NO.	SLAB/BASMT. (PER SDP)	MCE	
C-141	405.77	405.01	401.82
C-142	405.27	404.71	401.71
C-143	405.27	404.60	401.54
C-144	404.77	405.34	401.33
C-145	404.77	404.21	401.21
C-146	402.77	401.80	399.00

SEWER HOUSE CONNECTIONS
MINIMUM CELLAR ELEVATIONS
AND INVERT ELEVATION @ P.L.

- * LOT C-144 CAN BE SEWERED W/ GRAVITY FROM THE INV. @ R/W
- * 48" FROM INV. @ R/W TO BACK OF HOUSE @ 2% = 0.46
- * 4" TURN UP THRU SLAB @ 2"
- * INV. @ R/W OF 401.33-404.34



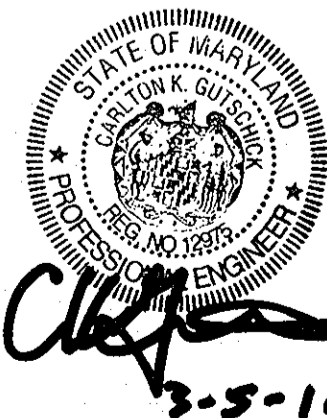
- NOTES:
- FOR EACH UNIT, OPTIONAL BUILDING FEATURES (SUCH AS DECK, EXTENSIONS, ETC.) ARE ONLY AVAILABLE IF THEY ARE SHOWN ON THESE SITE DEVELOPMENT PLANS.
 - BRICK POINT ALL BLDGS. CONSTRUCTION UNLESS NOTED OTHERWISE.
 - ALL UTILITY CONSTRUCTION AND ALLEY PAVEMENT UNDER F-07-15.



LESSARD HOUSE FOOTPRINTS & ELEVATION SCALE: 1"=20'

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
Thomas J. Butcher 3/29/10
 Director Date
Veronica L. ... 3/29/10
 Chief, Division of Land Development Date
... 3/22/10
 Chief, Development Engineering Division Date

PROFESSIONAL CERTIFICATION
 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. 12415
 EXPIRATION DATE: 05-26-10



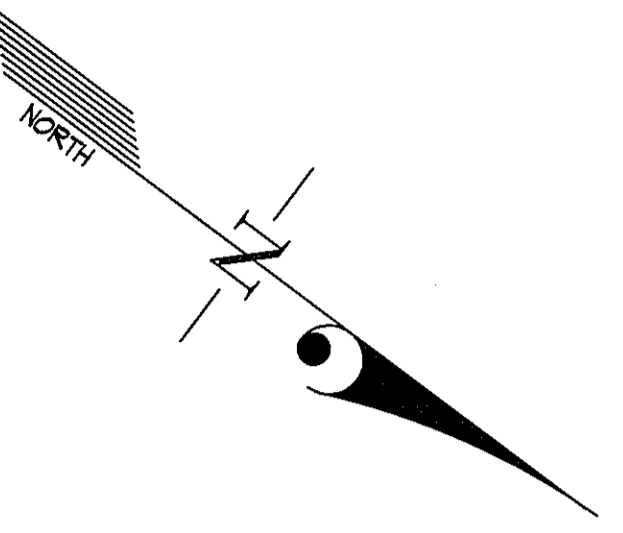
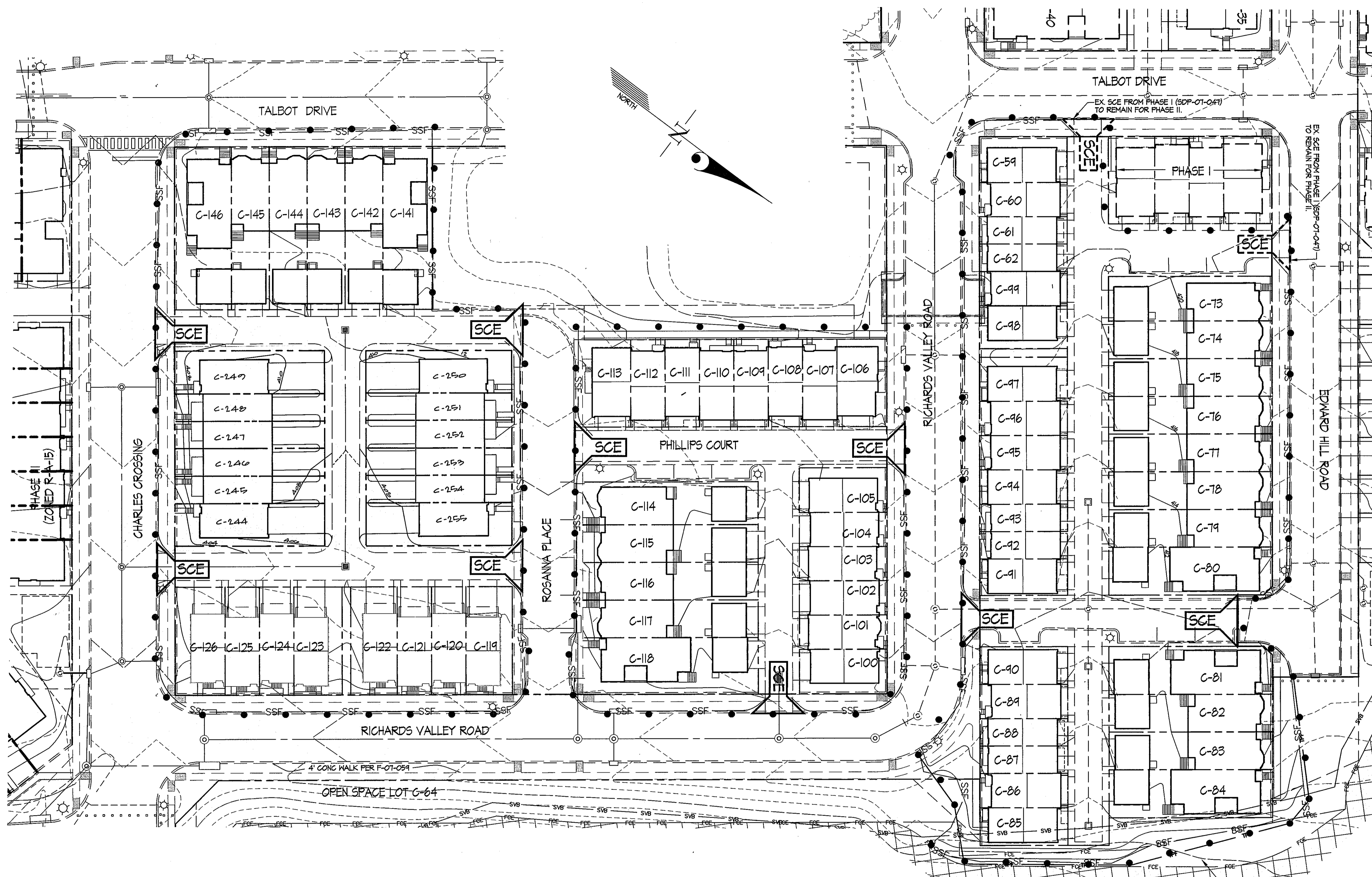
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 3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK
 BURTONSVILLE, MARYLAND 20866
 TEL: 301-421-4024 BAL: 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-4186

DATE	REVISION	BY	APPR.
10-13-2002	REVISED LOT C-141 UNIT. ADDED OPT. BAY WINDOW TO ALL L-2 UNITS. ADDITION OF THIS OPTION MAKES IT L-2-3	HKJ	MBT
04-30-2003	REVISED GRADES ON LOTS C-141 THRU C-146	HKJ	MBT
6-12-2010	REV. subdivided lots per title block & added opt. bay window to typ. 'L' end unit	klp	MBT
03-03-2010	NEW SHEET, LOTS C-141 THRU C-146 ADDED TO THIS SDP	HKJ	MBT

PREPARED FOR:
 BA WATERLOO TOWNHOMES, LLC
 C/O BOZZUTO HOMES, INC.
 7850 WALKER DRIVE SUITE 400
 GREENBELT, MARYLAND 20770
 ATTN: DUNCAN SLIDELL
 301-623-1525

SITE DEVELOPMENT PLAN (REVISED)
SHIPLEY'S GRANT
 PHASE II: LOTS C-59 THRU C-62, C-73 THRU C-99, C-106 THRU C-116 AND C-238 THRU C-255
 PHASE III: C-141 THRU C-146
 ELECTION DISTRICT No. 1
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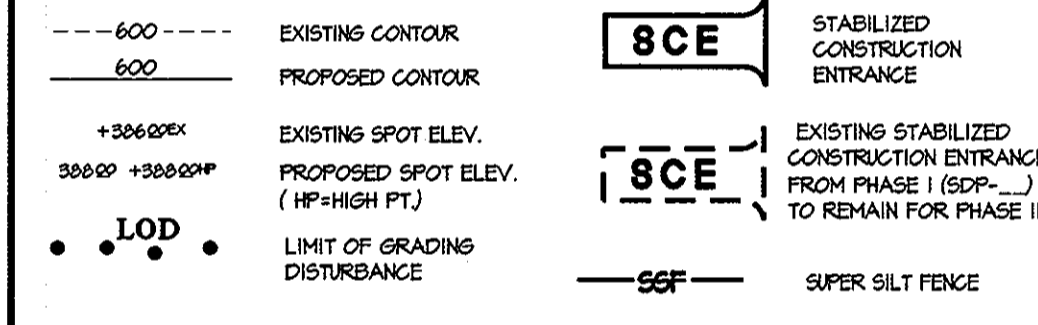
SCALE	ZONING	G. L. W. FILE No.
1"=20'	RA-15	05071
DATE	TAX MAP - GRID	SHEET
DEC, 2007	37 - 1 & 2	4 OF 8



FOREST CONSERVATION LEGEND



SEDIMENT CONTROL LEGEND



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

John R. Blunt 3/4/10
 HOWARD S.C.D. DATE

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS.

[Signature]
 NATURAL RESOURCES CONSERVATION SERVICE DATE

BUILDER'S CERTIFICATE

"I/WE CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A MARYLAND 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 HSCD."

Dennis 3-3-10
 BOZZUTO HOMES DATE

ENGINEER'S CERTIFICATE

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

CRJ 3-5-10
 DATE

PROFESSIONAL CERTIFICATION
 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. 12975
 EXPIRATION DATE: 05-26-10



CRJ 3-5-10

THIS PLAN IS FOR SEDIMENT AND EROSION CONTROL PURPOSES ONLY!

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
Thomas F. Stutler 3/29/10
 Director Date
Kevin J. Linn 3/29/10
 Chief, Division of Land Development Date
William 3/29/10
 Chief, Development Engineering Division Date

GLWGUTSCHICK LITTLE & WEBER, P.A.
 CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
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DATE	REVISION	BY	APPR.
4-23-2010	Site B units on resub. Lots C-244 thru C-255; rev. title block	klp	
03-03-2010	REVISED PLAN TO INCLUDE LOTS C-141 THRU C-146	HKJ	MBT

PREPARED FOR:
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 C/O BOZZUTO HOMES, INC.
 7850 WALKER DRIVE SUITE 400
 GREENBELT, MARYLAND 20770
 ATTN: DUNCAN SLIDELL
 301-623-1525

SEDIMENT CONTROL PLAN (REVISED)
SHIPLEY'S GRANT
 PHASE II : LOTS C-59 THRU C-62, C-73 THRU C-99, C-106 THRU C-108 AND C-238 THRU C-255
 PHASE III: C-141 THRU C-146
 ELECTION DISTRICT No. 1
 HOWARD COUNTY, MARYLAND

SCALE	ZONING	G. L. W. FILE NO.
1"=30'	RA-15	05071
DATE	TAX MAP - GRID	SHEET
DEC., 2007	37 - 1 & 2	5 OF 8

SEDIMENT CONTROL NOTES

- 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) 315-1855
 - ALL VEGETATIVE AND STRUCTURAL PRACTICES ARE TO BE INSTALLED ACCORDING TO THE PROVISIONS OF THIS PLAN AND ARE TO BE IN CONFORMANCE WITH THE 1934 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL AND REVISIONS THERETO.
 - FOLLOWING INITIAL SOIL DISTURBANCE OR REDISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN: A) 7 CALENDAR DAYS FOR ALL PERIMETER SEDIMENT CONTROL STRUCTURES, DIKES AND PERIMETER SLOPES AND ALL SLOPES GREATER THAN 5:1, B) 14 DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE.
 - ALL SEDIMENT TRAPS/BASINS SHOWN MUST BE FENCED AND MARKING SIGNS POSTED AROUND THEIR PERIMETER IN ACCORDANCE WITH VOL. 1, CHAPTER 12, OF THE HOWARD COUNTY DESIGN MANUAL, STORM DRAINAGE.
 - ALL DISTURBED AREAS MUST BE STABILIZED WITHIN THE TIME PERIOD SPECIFIED ABOVE IN ACCORDANCE WITH THE 1934 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR PERMANENT SEEDINGS, SOIL TEMPORARY SEEDINGS AND MULCHING (SEC. 6). TEMPORARY STABILIZATION WITH MULCH ALONE CAN ONLY BE DONE WHEN RECOMMENDED SEEDING DATES DO NOT ALLOW FOR PROPER GERMINATION AND ESTABLISHMENT OF GRASSES.
 - 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 DEPARTMENT OF INSPECTION.
- 1. SITE ANALYSIS:**
- BOZZUTO LOTS:
 C-29 THRU C-62 C-73 THRU C-84 C-106 THRU C-116
 C-238 THRU C-255 AND LOTS C-141 THRU C-146
- TOTAL AREA OF SITE: 2.164 AC.
 AREA DISTURBED: 4.234 AC.
 AREA TO BE ROOFED OR PAVED: 2.41 ACRES
 AREA TO BE VEGETATIVELY STABILIZED: 0.264 ACRES
 TOTAL CUT: 6,270 CU. YDS.
 TOTAL FILL: 6,270 CU. YDS.
 OFF-SITE WASTE/BORROW AREA LOCATION: NONE
9. ANY SEDIMENT CONTROL PRACTICE WHICH IS DISTURBED BY GRADING ACTIVITY FOR PLACEMENT OF UTILITIES MUST BE REPAIRED ON THE SAME DAY OF DISTURBANCE.
11. ADDITIONAL SEDIMENT CONTROL MUST BE PROVIDED, IF DEEMED NECESSARY BY THE HOWARD COUNTY DEPT. OF INSPECTION.
12. 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. CONSTRUCTION BUILDING OR GRADING INSPECTION APPROVALS MAY NOT BE AUTHORIZED UNTIL THIS INITIAL APPROVAL BY THE INSPECTION AGENCY IS MADE.
13. TRENCHES FOR THE CONSTRUCTION OF UTILITIES IS LIMITED TO 3' PIPE LENGTHS OR THAT WHICH SHALL BE BACKFILLED AND STABILIZED WITHIN 1 WORKING DAY, WHICHEVER IS SHORTER.

TEMPORARY SEEDING NOTES

- APPLY TO GRADED OR CLEARED AREAS LIKELY TO BE REDISTURBED WHERE A SHORT-TERM VEGETATIVE COVER IS NEEDED.
- SEEDBED PREPARATION: LOOSEN UPPER THREE INCHES OF SOIL BY RAKING, DISKING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING (UNLESS PREVIOUSLY LOOSENED).
- SOIL AMENDMENTS: APPLY 600 LBS PER ACRE 10-10-10 FERTILIZER (14 LBS/1000 SQ FT).
- SEEDING: FOR PERIODS MARCH 1 THRU APRIL 30 AND FROM AUGUST 15 THRU OCTOBER 15, SEED WITH 2-1/2 BUSHEL PER ACRE OF ANNUAL RYE (32 LBS/1000 SQ FT). FOR THE PERIOD MAY 1 THRU AUGUST 14, SEED WITH 5 LBS PER ACRE OF KEEPINGS LOVEGRASS (17 LBS/1000 SQ FT). FOR THE PERIOD NOVEMBER 16 THRU FEBRUARY 28, PROTECT SITE BY APPLYING 2 TONS PER ACRE OF WELL ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE SPRING, OR USE SO2.
- MULCHING: APPLY 1/2 TO 2 TONS PER ACRE (10 TO 40 LBS/1000 SQ FT) OF UNROTTED, NEED-PRES, SMALL GRAIN STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING MULCH ANCHORING TOOL OR 210 GAL PER ACRE (5 GAL/1000 SQ FT) OF EMULSIFIED ASPHALT ON FLAT AREAS. ON SLOPES 8 FT OR HIGHER, USE 348 GAL PER ACRE (6 GAL/1000 SQ FT) FOR ANCHORING.
- REFER TO THE 1934 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR RATE AND METHODS NOT COVERED.

PERMANENT SEEDING NOTES

- APPLY TO GRADED OR CLEARED AREA NOT SUBJECT TO IMMEDIATE FURTHER DISTURBANCE WHERE A PERMANENT LONG-LIVED VEGETATIVE COVER IS NEEDED.
- SEEDBED PREPARATION: LOOSEN UPPER THREE INCHES OF SOIL BY RAKING, DISKING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING (UNLESS PREVIOUSLY LOOSENED).
- SOIL AMENDMENTS: IN LIEU OF SOIL TEST RECOMMENDATIONS, USE ONE OF THE FOLLOWING SCHEDULES:
- PREFERRED - APPLY 2 TONS PER ACRE DOLOMITIC LIMESTONE (42 LBS/1000 SQUARE FEET) AND 600 LBS PER ACRE 10-10-10 FERTILIZER (14 LBS/1000 SQ FT) BEFORE SEEDING. HARROW OR DISC INTO UPPER THREE INCHES OF SOIL. AT TIME OF SEEDING, APPLY 400 LBS PER ACRE 30-0-0 UREA-FORM FERTILIZER (1 LBS/1000 SQ FT).
 - ACCEPTABLE - APPLY 2 TONS PER ACRE DOLOMITIC LIMESTONE (42 LBS/1000 SQ FT) AND 1000 LBS PER ACRE OF 10-10-10 FERTILIZER (23 LBS/1000 SQ FT) BEFORE SEEDING. HARROW OR DISC INTO UPPER THREE INCHES OF SOIL.
- SEEDING: FOR THE PERIODS MARCH 1 THRU APRIL 30, AND AUGUST 1 THRU OCTOBER 15, SEED WITH 60 LBS PER ACRE (14 LBS/1000 SQ FT) OF KENTUCKY 31 TALL FESCUE. FOR THE PERIOD MAY 1 THRU JULY 31, SEED WITH 60 LBS KENTUCKY 31 TALL FESCUE PER ACRE AND 2 LBS PER ACRE (10 LBS/1000 SQ FT) OF KEEPINGS LOVEGRASS. DURING THE PERIOD OF OCTOBER 16 THRU FEBRUARY 28, PROTECT SITE BY: OPTION (1) 2 TONS PER ACRE OF WELL ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE SPRING. OPTION (2) USE SO2. OPTION (3) SEED WITH 60 LBS/ACRE KENTUCKY 31 TALL FESCUE AND MULCH WITH 2 TONS/ACRE WELL ANCHORED STRAW.
- MULCHING: APPLY 1/2 TO 2 TONS PER ACRE (10 TO 40 LBS/1000 SQ FT) OF UNROTTED SMALL GRAIN STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING MULCH ANCHORING TOOL OR 210 GALLONS PER ACRE (5 GALLON/1000 SQ FT) OF EMULSIFIED ASPHALT ON FLAT AREAS. ON SLOPES 8 FEET OR HIGHER, USE 348 GALLONS PER ACRE (6 GALLON/1000 SQ FT) FOR ANCHORING.
- MAINTENANCE: INSPECT ALL SEEDED AREAS AND MAKE NEEDED REPAIRS, REPLACEMENTS AND RESEEDINGS.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

Thomas G. Swindle 3/23/10
 Director Date

West Swindle 3/24/10
 Chief, Division of Land Development Date

William Swindle 3/22/10
 Chief, Development Engineering Division Date

STANDARD AND SPECIFICATIONS FOR TOPSOIL

- DEFINITION**
- PLACEMENT OF TOPSOIL OVER A PREPARED SUBSOIL PRIOR TO ESTABLISHMENT OF PERMANENT VEGETATION.
- PURPOSE**
- 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.
- CONDITIONS WHERE PRACTICE APPLIES**
- THIS PRACTICE IS LIMITED TO AREAS HAVING 2:1 OR FLATTER SLOPE WHERE:
 - THE TEXTURE OF THE EXPOSED SUBSOIL/PARENT MATERIAL IS NOT ADEQUATE TO PRODUCE VEGETATIVE GROWTH.
 - THE SOIL MATERIAL IS SO SHALLOW THAT THE ROOTING ZONE IS NOT DEEP ENOUGH TO SUPPORT PLANTS OR FURNISH CONTINUING SUPPLY OF MOISTURE AND PLANT NUTRIENTS.
 - THE ORIGINAL SOIL TO BE VEGETATED CONTAINS MATERIAL TOXIC TO PLANT GROWTH.
 - THE SOIL IS SO ACIDIC THAT TREATMENT WITH LIMESTONE IS NOT FEASIBLE.
 - FOR THE PURPOSE OF THESE STANDARDS AND SPECIFICATIONS, AREAS HAVING SLOPES STEEPER THAN 2:1 REQUIRE SPECIAL CONSIDERATION AND DESIGN FOR ADEQUATE STABILIZATION AREAS HAVING SLOPES STEEPER THAN 2:1 SHALL HAVE THE APPROPRIATE STABILIZATION SHOWN ON THE PLANS.
- CONSTRUCTION AND MATERIAL SPECIFICATIONS**
- TOPSOIL SALVAGED FROM THE EXISTING SITE MAY BE USED PROVIDED THAT 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 RESPECTIVE SOIL PROFILE SECTION IN THE SOIL SURVEY PUBLISHED BY USDA-SCS IN COOPERATION WITH MARYLAND AGRICULTURAL EXPERIMENTAL STATION.
 - TOPSOIL SPECIFICATIONS - SOIL TO BE USED AS TOPSOIL MUST MEET THE FOLLOWING:
 - TOPSOIL SHALL BE A LOAM, SANDY LOAM, CLAY LOAM, SILT LOAM, SANDY CLAY LOAM, LOAMY SAND. OTHER SOILS MAY BE USED IF RECOMMENDED BY AN AGRONOMIST OR SOIL SCIENTIST AND APPROVED BY THE APPROPRIATE APPROVAL AUTHORITY. REGARDLESS, TOPSOIL SHALL NOT BE A MIXTURE OF CONTRASTING TEXTURED SUBSOILS AND SHALL CONTAIN LESS THAN 5% BY VOLUME OF CHICKENS, STONES, SLAG, COARSE FRAGMENTS, GRAVEL, STICKS, ROOTS, TRASH, OR OTHER MATERIALS LARGER THAN 1 1/2" IN DIAMETER.
 - TOPSOIL MUST BE FREE OF PLANT PARTS SUCH AS BERMUDA GRASS, QUACKGRASS, JOHNSGRASS, NUTCRACK, POISON IVY, THISTLE, OR OTHERS AS SPECIFIED.
 - WHERE THE SUBSOIL IS EITHER HIGHLY ACIDIC OR COMPOSED OF HEAVY CLAYS, GROUND LIMESTONE SHALL BE SPREAD AT THE RATE OF 1-2 TONS PER ACRE (200-400 POUNDS PER 1000 SQUARE FEET) PRIOR TO THE PLACEMENT OF TOPSOIL. LIME SHALL BE DISTRIBUTED UNIFORMLY OVER DESIGNATED AREAS AND WORKED INTO THE SOIL IN CONJUNCTION WITH TILLAGE OPERATIONS AS DESCRIBED IN THE FOLLOWING PROCEDURES.
 - FOR SITES HAVING DISTURBED AREAS UNDER 5 ACRES:
 - PLACE TOPSOIL (IF REQUIRED) AND APPLY SOIL AMENDMENTS AS SPECIFIED IN 2.00 VEGETATIVE STABILIZATION - SECTION I - VEGETATIVE STABILIZATION METHODS AND MATERIALS (OR SEE SEEDING NOTES).
 - FOR SITES HAVING DISTURBED AREAS OVER 5 ACRES:
 - ON SOIL MEETING TOPSOIL SPECIFICATIONS, OBTAIN TEST RESULTS DICTATING FERTILIZER AND LIME AMENDMENTS REQUIRED TO BRING THE SOIL INTO COMPLIANCE WITH THE FOLLOWING:
 - PH FOR TOPSOIL SHALL BE BETWEEN 6.0 AND 7.5. IF THE TESTED SOIL DEMONSTRATES A PH OF LESS THAN 6.0, SUFFICIENT LIME SHALL BE PRESCRIBED TO RAISE THE PH TO 6.5 OR HIGHER.
 - ORGANIC CONTENT OF TOPSOIL SHALL BE NOT LESS THAN 15 PERCENT BY WEIGHT.
 - TOPSOIL HAVING SOLUBLE SALT GREATER THAN 500 PARTS PER MILL SHALL NOT BE USED.
 - NO SO2 OR SEED SHALL BE PLACED ON SOIL WHICH HAS BEEN WITH SOIL STERILANTS OR OTHER CHEMICALS USED FOR WEED CONTROL UNTIL SUFFICIENT TIME HAS ELAPSED (14 DAYS MIN) TO PERMIT DISSIPATION OF PHOTO-TOXIC MATERIALS.
- NOTE: 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.
- B. PLACE TOPSOIL (IF REQUIRED) AND APPLY SOIL AMENDMENTS AS SPECIFIED IN 2.0 VEGETATIVE STABILIZATION - SECTION I - VEGETATIVE STABILIZATION METHODS AND MATERIALS (OR SEE SEEDING NOTES).
- V. TOPSOIL APPLICATION
- WHEN TOPSOILING, MAINTAIN NEEDED EROSION AND SEDIMENT CONTROL PRACTICES SUCH AS DIVERSION, GRADE STABILIZATION STRUCTURES, EARTH DIKES, SLOPE SILT FENCE AND SEDIMENT TRAPS AND BASINS.
 - GRADES ON THE AREAS TO BE TOPSOILED, WHICH HAVE BEEN PREVIOUSLY ESTABLISHED, SHALL BE MAINTAINED, ALBEIT 4"-8" HIGHER IN ELEVATION.
 - TOPSOIL SHALL BE UNIFORMLY DISTRIBUTED IN A 4"-8" LAYER AND LIGHTLY COMPACTED TO A MINIMUM THICKNESS OF 4". SPREADING SHALL 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 SHALL BE CORRECTED IN ORDER TO PREVENT THE FORMATION OF DEPRESSIONS OR WATER.
 - TOPSOIL SHALL NOT BE PLACED WHILE THE TOPSOIL OR SUBSOIL IS FROZEN OR UNDER MUDDY CONDITIONS, WHEN THE SUBSOIL IS EXCESSIVELY WET OR IN A CONDITION THAT MAY OTHERWISE BE DETRIMENTAL TO PROPER GRADING AND SEEDBED PREPARATION.
 - ALTERNATIVE FOR PERMANENT SEEDINGS - INSTEAD OF APPLYING THE FULL AMOUNTS OF LIME AND COMMERCIAL FERTILIZER, COMPOSTED SLUDGE AND AMENDMENTS MAY BE APPLIED AS SPECIFIED BELOW.
 - COMPOSTED SLUDGE MATERIAL FOR USE AS A SOIL CONDITIONER FOR SITES HAVING DISTURBED AREAS OVER 5 ACRES SHALL BE TESTED TO PRESCRIBE AMENDMENTS AND FOR SITES HAVING DISTURBED AREAS UNDER 5 ACRES SHALL CONFORM TO THE FOLLOWING REQUIREMENTS:
 - COMPOSTED SLUDGE SHALL BE SUPPLIED BY, OR ORIGINATE FROM, A PERSON OR PERSONS THAT ARE PERMITTED (AT THE TIME OF ACQUISITION OF THE COMPOST) BY THE MARYLAND DEPARTMENT OF THE ENVIRONMENT UNDER COMAR 26.04.06.
 - COMPOSTED SLUDGE SHALL CONTAIN AT LEAST 1 PERCENT NITROGEN, 15 PERCENT PHOSPHORUS, AND 0.2 PERCENT POTASSIUM AND HAVE A PH OF 7.0 TO 9.0. IF COMPOST DOES NOT MEET THESE REQUIREMENTS, THE APPROPRIATE CONSTITUENTS MUST BE ADDED TO MEET THE REQUIREMENTS PRIOR TO USE.
 - COMPOSTED SLUDGE SHALL BE APPLIED AT A RATE OF 1 TON/1000 SQUARE FEET.
 - COMPOSTED SLUDGE SHALL BE AMENDED WITH A POTASSIUM FERTILIZER APPLIED AT A RATE OF 4LBS/1000 SQUARE FEET, AND 1/3 THE NORMAL LIME APPLICATION RATE.
- REFERENCES: GUIDELINE SPECIFICATIONS, SOIL PREPARATION AND SODDING, MD-VA PUB. #1, COOPERATIVE EXTENSION SERVICE, UNIVERSITY OF MARYLAND AND VIRGINIA POLYTECHNIC INSTITUTES, REVISED 1978.

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS.

[Signature]
 NATURAL RESOURCES CONSERVATION SERVICE DATE

SEQUENCE OF CONSTRUCTION

- APPLY FOR GRADING PERMIT AND SCHEDULE A PRE-CONSTRUCTION MEETING WITH THE INSPECTOR. OBTAIN GRADING PERMIT FROM THE INSPECTOR AT THE MEETING.
- INSTALL STABILIZED CONSTRUCTION ENTRANCES (SCE), SILT FENCES (SF), SUPER SILT FENCES (SSF) AND INLET PROTECTION (ASIP).
- GRADE SITE FOR HOUSE CONSTRUCTION. PROVIDE DUST CONTROL AS NECESSARY.
- CONSTRUCT HOUSES, DRIVEWAYS AND SIDEWALKS. INSTALL LANDSCAPING.
- AS EACH BUILDING IS COMPLETED, STABILIZE ANY REMAINING BARE DIRT AREA WITH PERMANENT SEEDING OR WITH SO2.
- ONCE AREAS DRAINING TO SEDIMENT CONTROL MEASURES HAVE BEEN STABILIZED, OBTAIN PERMISSION FROM THE INSPECTOR TO REMOVE THE SEDIMENT CONTROL ITEMS.
- OBTAIN INSPECTION FOR RELEASE OF SURETY (FOR GRADING AND LANDSCAPING).
- OBTAIN USE AND OCCUPANCY PERMIT THEN FINALIZE SETTLEMENT.

ENGINEER'S CERTIFICATE

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

[Signature] 3-5-10
 DATE

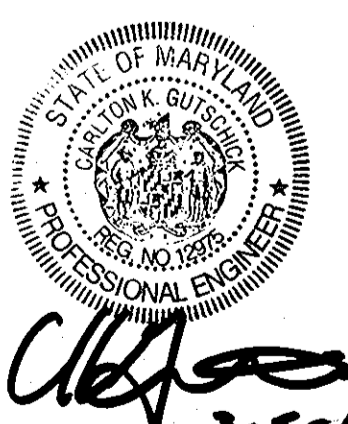
BUILDER'S CERTIFICATE

"I ME CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A MARYLAND 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 HSCD."

[Signature] 3-3-10
 DATE

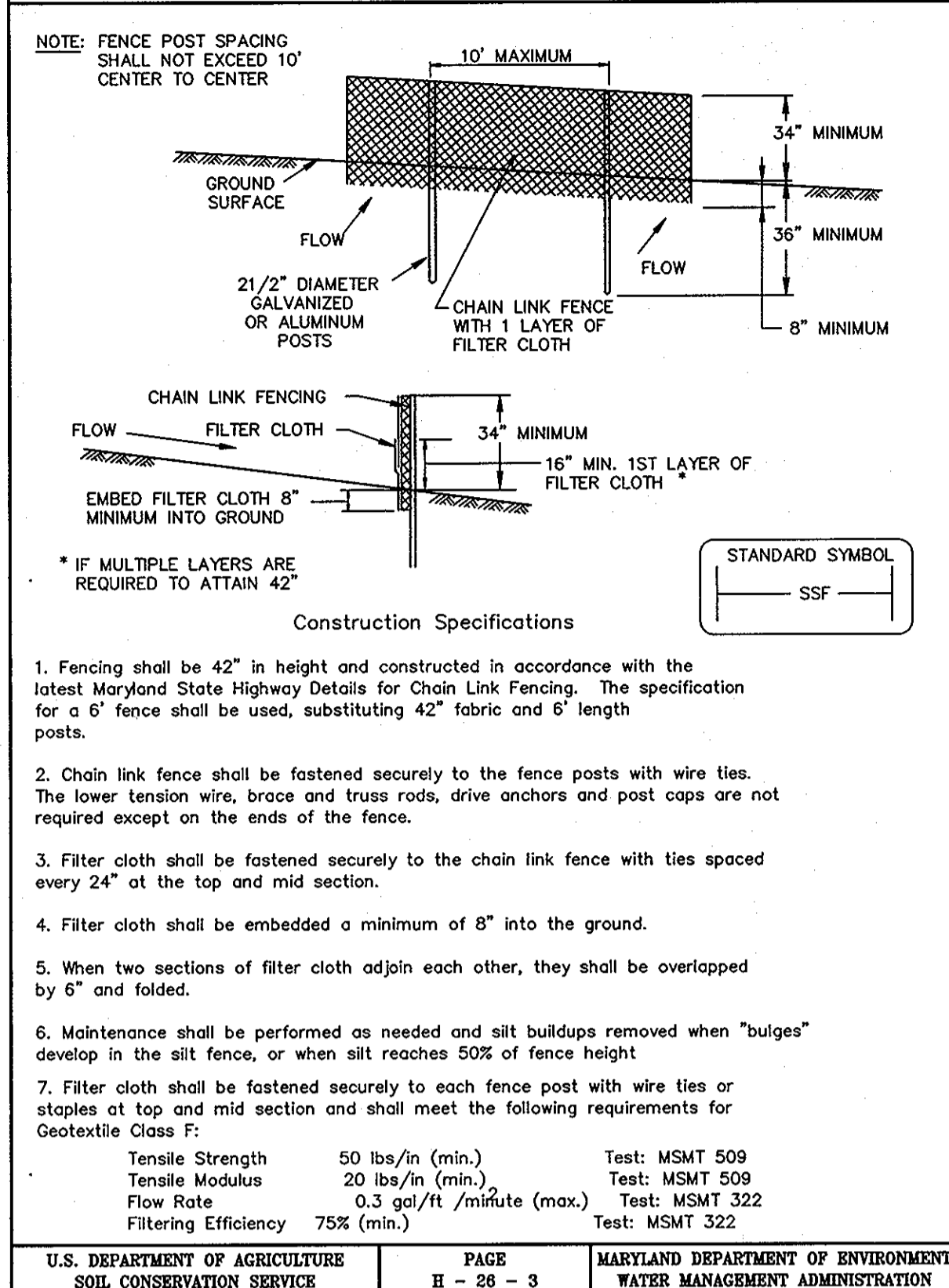
PROFESSIONAL CERTIFICATION

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. 12495, EXPIRATION DATE: 05-26-10



THIS PLAN IS FOR SEDIMENT AND EROSION CONTROL PURPOSES ONLY!

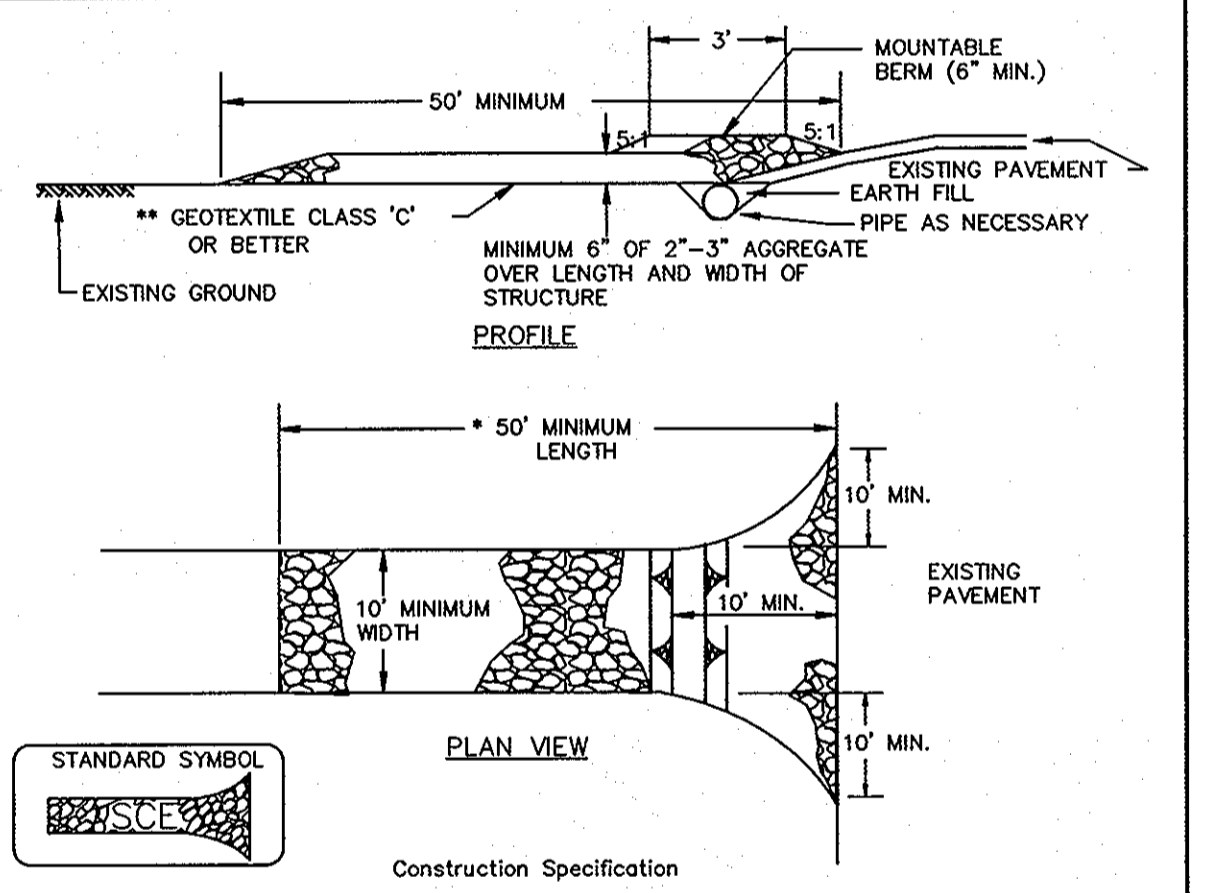
DETAIL 33 - SUPER SILT FENCE



DUST CONTROL

- DEFINITION**
- Controlling dust blowing and movement on construction sites and roads.
- PURPOSE**
- To prevent blowing and movement of dust from exposed soil surfaces, reduce on and off-site damage, health hazards, and improve traffic safety.
- CONDITIONS WHERE PRACTICE APPLIES**
- This practice is applicable to areas subject to dust blowing and movement where on and off-site damage is likely without treatment.
- SPECIFICATIONS**
- Temporary Methods**
- Mulches - See standards for vegetative stabilization with mulches only. Mulch should be crimped or tacked to prevent blowing.
 - Vegetative Cover - See standards for temporary vegetative cover.
 - Tillage - To roughen surface and bring clods to the surface. This is an emergency measure which should be used before soil blowing starts. Deep plowing on windward side of site. Chisel-type plows spaced about 12' apart, spring-toothed harrows, and similar plows are examples of equipment which may produce the desired effect.
 - Irrigation - This is generally done as an emergency treatment. Site is sprinkled with water until the surface is moist. Repeat as needed. At no time should the site be irrigated to the point that runoff begins to flow.
 - Barriers - Solid board fences, silt fences, snow fences, straw bales, and similar material can be used to control air currents and soil blowing. Barriers placed at right angle to prevailing currents at intervals of about ten times their height are effective in controlling soil blowing. Calcium Chloride - Apply at rates that will keep surface moist. May need treatment.
- Permanent Methods**
- Permanent Vegetation - See standards for permanent vegetative cover, and permanent stabilization with sod. Existing trees or large shrubs may afford valuable protection if left in place.
 - Topsoiling - Covering with less erosive soil material. See standards for top soil.
 - Stone - Cover surface with crushed stone or gravel.
- References**
- Agriculture Handbook 346. Wind Erosion Forces in the United States and Their Use in Predicting Soil Loss.
 - Agriculture Information Bulletin 354. How to Control Wind Erosion, USDA,ARS.

DETAIL 24 - STABILIZED CONSTRUCTION ENTRANCE



U.S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

PAGE
F - 17 - 3

MARYLAND DEPARTMENT OF ENVIRONMENT
WATER MANAGEMENT ADMINISTRATION

GLWGUTSCHICK LITTLE & WEBER, P.A.
 CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
 3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK
 BURTONSVILLE, MARYLAND 20886
 TEL: 301-421-4024 BALT: 410-880-1820 DC/VA: 301-988-2524 FAX: 301-421-4186

L:\CAD\DRAWINGS\2008\PHASE I\SP\REDLINE-ADD & RESIZE\65073006.dwg DES. HKJ DRN. HKJ CHK. MBT

4-29-2010	Rev. site analysis due to lot results; rev. title block	HKJ	MBT
03-03-2010	REVISED SITE ANALYSIS	BY	APPR.
DATE	REVISION		

PREPARED FOR:
 BA WATERLOO TOWNHOMES, LLC
 C/O BOZZUTO HOMES, INC.
 7850 WALKER DRIVE SUITE 400
 GREENBELT, MARYLAND 20770
 ATTN: DUNCAN SIDELL
 301-623-1525

SEDIMENT CONTROL PLAN (REVISED)

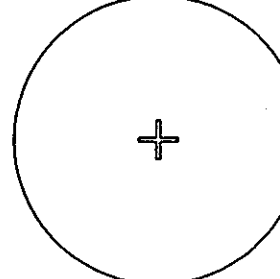



SHIPLEY'S GRANT
 PHASE II : LOTS C-59 THRU C-62, C-73 THRU C-99, C-106 THRU C-126 AND C-238 THRU C-255
 PHASE III: C- 141 THRU C-146

ELECTION DISTRICT No. 1

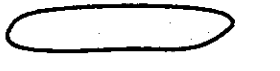



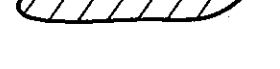
HOWARD COUNTY, MARYLAND

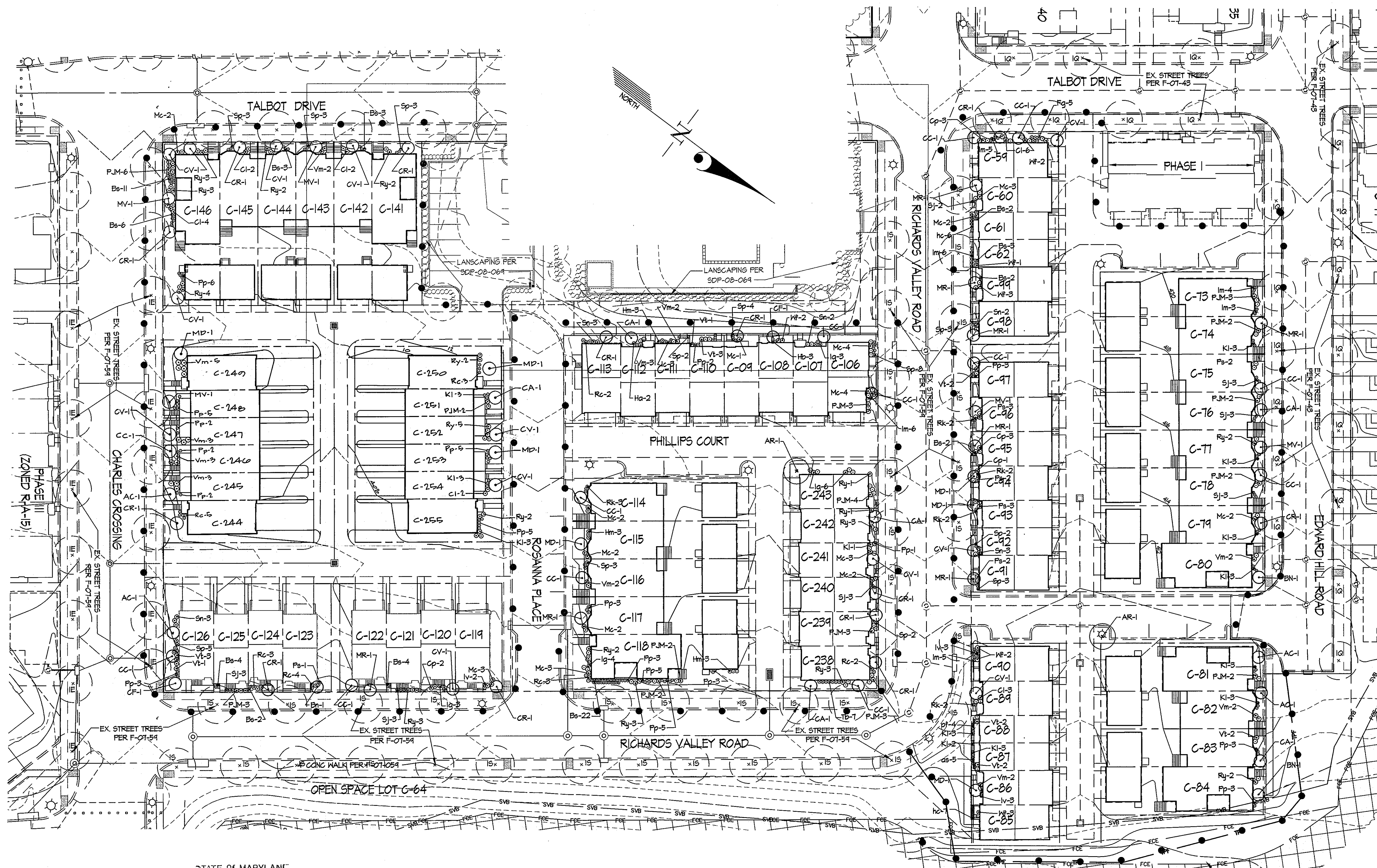
SCALE	ZONING	G. L. W. FILE No.
NTS	RA-15	05071
DATE	TAX MAP - GRID	SHEET
DEC., 2007	37 - 1 & 2	6 OF 8

PLANTING LEGEND

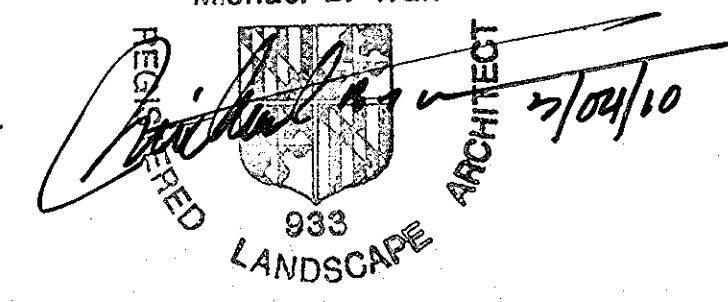
-  SHADE TREE
-  ORNAMENTAL TREE
-  EVERGREEN TREE
-  SHRUBS

FOREST CONSERVATION LEGEND

-  FOREST CONSERVATION EASEMENT
-  ON-SITE AFFORESTATION AREA
-  FLOODPLAIN FOREST RETENTION (NO CREDIT FOR RETENTION)
-  NET TRACT FOREST RETENTION
-  AFFORESTATION AREA IN THE FLOODPLAIN



STATE OF MARYLAND
Michael B. Tran



APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
 Director: *[Signature]* 3/22/10
 Chief, Division of Land Development: *[Signature]* 3/24/10
 Chief, Development Engineering Division: *[Signature]* 3/24/10

THIS PLAN IS FOR LANDSCAPING PURPOSES ONLY!

GLWGUTSCHICK LITTLE & WEBER, P.A.
 CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
 3809 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK
 BURTONSVILLE, MARYLAND 20886
 TEL: 301-421-4024 BALT: 410-888-1820 DC/VA: 301-988-2524 FAX: 301-421-4186

DATE	REVISION	BY	APPR.
4-12-2010	Site B units on resub. lots C-244 thru C-255; rev. landscaping accordingly; rev. title	klp	MBT
03-03-2010	REVISED PLAN TO INCLUDE LOTS C-141 THRU C-146	HJK	MBT

PREPARED FOR:
 BA WATERLOO TOWNHOMES, LLC
 C/O BOZZUTO HOMES, INC.
 7850 WALKER DRIVE SUITE 400
 GREENBELT, MARYLAND 20770
 ATTN: DUNCAN SLIDELL
 301-623-1525

LANDSCAPE PLAN (REVISED)
SHIPLEY'S GRANT
 PHASE II: LOTS C-59 THRU C-62, C-73 THRU C-99, C-106 THRU C-126 AND C-238 THRU C-255
 PHASE III: C-141 THRU C-146
 ELECTION DISTRICT No. 1

SCALE	ZONING	G. L. W. FILE No.
1"=30'	RA-15	05071
DATE	TAX MAP - GRID	SHEET
DEC., 2007	37 - 1 & 2	7 OF 8

PLANT MATERIALS AND PLANTING METHODS

A. Plant Materials

The landscape contractor shall furnish and install and/or dig, ball, burlap and transport all of the plant materials called for on drawings and/or listed in the Plant Schedule.

1. Plant Names

Plant names used in the Plant Schedule shall conform with "Standardized Plant Names," latest edition.

2. Plant Standards

All plant material shall be equal to or better than the requirements of the "USA Standard for Nursery Stock" latest edition, as published by the American Association of Nurserymen (hereafter referred to as AAN Standards). All plants shall be typical of their species and variety, shall have a normal habit of growth and shall be first quality, sound, vigorous, well-branched and with healthy, well-furnished root systems. They shall be free of disease, insect pests and mechanical injuries.

All plants shall be nursery grown and shall have been grown under the same climate conditions as the location of this project for at least two years before planting. Neither heated-in plants nor plants from cold storage will be accepted.

3. Plant Measurements

All plants shall conform to the measurements specified in the Plant Schedule as approved by the ARC.

a. Caliper measurements shall be taken

trees shall be 6" above grade for trees under four-inch (4") caliper and twelve (12") above grade for trees four inches (4") in caliper and over.

b. Minimum branching height for all trees shall be six feet (6'), maximum eight feet (8').

c. Minimum size for planting shade trees shall be 3-3" caliper, 14' - 16' in height.

d. Minimum size for planting minor or intermediate focus trees (pines, crabapples, etc.) shall be 3"-3 1/2" caliper, 10'-12' in height.

e. Minimum size for planting shrubs shall be 18" - 24" spread unless noted otherwise.

f. Caliper, height, spread and size of ball shall be generally as follows:

CALIPER	HEIGHT	SPREAD	SIZE OF BALL
3" - 3.5"	14' - 16'	6' - 8'	32" diameter
3.5" - 4"	14' - 18'	8' - 10'	36" diameter
4" - 4.5"	16' - 18'	8' - 10'	40" diameter
4.5" - 5"	16' - 17'	10' - 12'	44" diameter
5" - 5.5"	16' - 20'	10' - 12'	48" diameter
5.5" - 6"	18' - 20'	12' - 14'	52" diameter

All plant material shall generally average the median for the size ranges indicated above as indicated in the "AAN Standards".

4. Plant Identification

Legible labels shall be attached to all shade trees, minor trees, specimen shrubs and bundles or boxes of other plant material giving the botanical and common names, size and quantity of each. Each shipment of plants shall bear certificates of inspection as required by Federal, State and County authorities.

5. Plant Inspection

The ARC may, upon request by the builder or developer, at least ten (10) days prior to the installation of any proposed plant material, inspect all proposed plant material at the source of origin.

B. Planting Methods

All proposed plant materials that meet the specifications in Section A are to be planted in accordance with the following methods during the proper planting seasons as described in the following:

1. Planting Seasons

The planting of deciduous trees, shrubs and vines shall be from March 1st to June 15th and from September 15th to December 15th. Planting of deciduous material may be continued during the winter months providing there is no frost in the ground and frost-free topsoil planting mixtures are used.

The planting of evergreen material shall be from March 15th to June 15th and from August 15th to December 1st. No planting shall be done when ground is frozen or excessively moist. No frozen or wet topsoil shall be used at any time.

2. Digging

All plant material shall be dug, balled and burlapped (B&B) in accordance with the "AAN Standards".

3. Excavation of Plant Pits

The landscape contractor shall excavate all plant pits, vine pits, hedge trenches and shrub beds in accordance with the following schedule:

- Locations of all proposed plant material shall be staked and approved in the field by the landscape architect before any of the proposed plant material is installed by the landscape contractor.
- All pits shall be generally circular in outline, vertical sides; depth shall not be less than 6" deeper than the root ball; diameter shall not be less than two times the diameter of the root ball as set forth in the following schedule.

c. If areas are designated as shrub beds or hedge trenches, they shall be excavated to at least 18" depth minimum. Areas designated for ground covers and vines shall be excavated to at least 12" in depth minimum.

d. Diameter and depth of tree pits shall generally be as follows:

PLANT SIZE	ROOT BALL	PIT DIAMETER	PIT DEPTH
3" - 3.5" cal.	32"	64"	28"
3.5" - 4" cal.	36"	72"	32"
4" - 4.5" cal.	40"	80"	36"
4.5" - 5" cal.	44"	88"	40"
5" - 5.5" cal.	48"	96"	44"
5.5" - 6" cal.	52"	104"	48"

A 20% compaction figure of the soil to be removed is assumed and will be allowed in calculation of extra topsoil. The tabulated pit sizes are for purposes of uniform calculation and shall not override the specified depths below the bottoms of the root balls.

4. Staking, Guying and Wrapping

All plant material shall be staked or guyed, and wrapped in accordance with the following specifications:

a. Stakes: Shall be sound wood 2" x 2" rough sawn oak or similar durable woods, or lengths, minimum 7'-0" for major trees and 5'-0" minimum for minor trees.

b. Wire and Cable: Wire shall be #10 ga. galvanized or bethonized annealed steel wire. For trees over 3" caliper, provide 5/16" turn buckles, eye and eye with 4" take-up. For trees over 5" caliper, provide 3/16" 7 strand cable codium plated steel, with galvanized "eye" thimbles of wire and hose on trees up to 3" in caliper.

c. Hose: Shall be new, 2 ply reinforced rubber hose, minimum 1/2" I.D. "Plastic Lock Ties" or "Paul's Trees Braces" may be used in place of wire and hose on trees up to 3" in caliper.

d. All trees under 3" in caliper are to be planted and staked in accordance with the attached "Typical Tree Staking Detail". All trees over 3" in caliper are to be planted and guyed in accordance with the attached "Typical Tree Guying Detail".

5. Plant Pruning, Edging and Mulching

a. Each tree, shrub or vine shall be pruned in an appropriate manner to its particular requirements, in accordance with accepted standard practice. Broken or bruised branches shall be removed with clean cuts flush with the adjacent trunk or branches. All cuts over 1" in diameter shall be painted with an approved antiseptic tree wound dressing.

b. All trenches and shrub beds shall be edged and cultivated to the lines shown on the drawing. The areas around isolated plants shall be edged and cultivated to the full diameter of the pit. Sod which has been removed and stacked shall be used to trim the edges of all excavated areas to the next lines of the plant pit saucers, the edges of shrub areas, hedge trenches and vine pockets.

c. After cultivation, all plant materials shall be mulched with a 2" layer of fine, shredded pine bark, peat moss, or another approved material over the entire area of the bed or saucer.

6. Plant Inspection and Acceptance

The ARC shall be responsible for inspecting all planting projects on a periodic basis to assure that all work is proceeding in accordance with the approved plans and specifications.

7. Plant Guarantee

All plant material shall be guaranteed for the duration of one full growing season, after final inspection and acceptance of the work in the planting project. Plants shall be alive and in satisfactory growing condition at the end of the guarantee period.

a. For this purpose, the "growing season" shall be that period between the end of the "Spring" planting season, and the commencement of the "Fall" planting season.

b. Guarantee for planting performed after the specified end of the "Spring" planting season, shall be extended through the end of the next following "Spring" planting season.

Sodding

All sodding shall be in accordance to the "Landscape Specification Guidelines for Baltimore-Washington Metropolitan Area" latest edition, approved by the Landscape Contractors Association of Metropolitan Washington and the American Society of Landscape Architects.

All sod shall be strongly rooted sod, not less than two years old and free of weeds and undesirable native grasses. Provide only sod capable of growth development when planted and in strips not more than 18" wide x 4" long. Provide sod composed principally of improved strain Kentucky bluegrass, such as, Columbia, Victa, or Escort.

PLANT LIST

QTY	SYM.	NAMES (BOTANICAL / SCIENTIFIC)	SIZE/COMMENTS
SHADE TREES			
2	AR	ACER RUBRUM RED SUNSET / RED SUNSET MAPLE	2 1/2" CAL. MIN.
ORNAMENTAL TREES			
4	AC	AMALANCIER CANADENSIS / SERVICEBERRY	2 1/2" CAL. MIN.
3	BN	BETULA NIGRA HERITAGE / HERITAGE RIVER BIRCH	2 1/2" CAL. MIN.
6	CA	CERCIS CANADENSIS 'ALBA' / WHITE EASTERN REDBUD	2 1/2" CAL. MIN.
13	CC	CERCIS CANADENSIS / REDBUD	2 1/2" CAL. MIN.
2	CF	CORNUS FLORIDA / AMERICAN DOGWOOD	6-8' HT.
12	CV	CHIONANTHUS VIRGINICUS / WHITE FRINGETREE	2 1/2" CAL. MIN.
13	CR	CRATAEGUS VIRIDIS 'WINTER KING' / WINTER KING HAWTHORN	2 1/2" CAL. MIN.
8	MR	MAGNOLIA STELLATA / STAR MAGNOLIA	2 1/2" CAL. MIN.
7	MD	MALUS 'SNOWDRIFT' / SNOWDRIFT CRABAPPLE	2 1/2" CAL. MIN.
5	MY	MAGNOLIA VIRGINIANA / SHEETBAY MAGNOLIA	2 1/2" CAL. MIN.
SHRUBS-DECIDUOUS			
8	Cp	GALLICARPA AMERICANA / AMERICAN BEAUTY BERRY	18" - 24" MIN. SPREAD
19	Cl	CLETHRA ALNIFOLIA 'HUMMINGBIRD' / HUMMINGBIRD SUMMERSWEET	24" - 30" MIN. SPREAD
5	Fg	FOTHERGILLA GARDENII MT. AIRY / DWARF FOTHERGILLA	18" - 24" MIN. SPREAD
2	Ha	HYDRANGEA 'ANNABELLE' / ANNABELLE HYDRANGEA	18" - 24" MIN. SPREAD
9	Hm	HYDRANGEA MACROPHYLLA / FOREVER PINK HYDRANGEA	18" - 24" MIN. SPREAD
8	Iv	ITEA VIRGINICA 'HENRY'S GARNET' / HENRY'S GARNET ITEA	18" - 24" MIN. SPREAD
13	Ps	POTENTILLA FRUITICOSA 'SUNSET' / SUNSET POTENTILLA	24" - 30" MIN. SPREAD
11	Rk	ROSA KNOCKOUT / KNOCKOUT ROSE	18" - 24" MIN. SPREAD
4-3	Ry	RHODODENDRON X 'YAKU PRINCESS' / YAKU PRINCESS RHODODENDRON	24" - 30" MIN. SPREAD
22	Rc	RHODODENDRON X 'SCARLET WONDER DWARF' / SCARLET WONDER DWARF RHODODENDRON	18" - 24" MIN. SPREAD
20	Sj	SKIMMIA JAPONICA / JAPANESE SKIMMIA	18" - 24" MIN. SPREAD
13	Sn	SPIRAEA NIPPONICA 'SNOWMOUND' / SNOWMOUND SPIRAEA	26" - 30" MIN. SPREAD
42	Sp	SPIRAEA 'LITTLE PRINCESS' / JAPANESE SPIRAEA	18" - 24" MIN. SPREAD
16	Vt	VIBURNUM FLICATUM TOMENTOSUM 'SHASTA' / SHASTA DOUBLEFILE VIBURNUM	30" - 36" MIN. SPREAD
13	Wf	WEIGELA FLORIDA 'VAREGATA NANA' / VAREGATED DWARF WEIGELA	24" - 30" MIN. SPREAD
29	Vm	VIBURNUM LANTANA 'MOHICAN' / MOHICAN VIBURNUM	24" - 30" MIN. SPREAD
SHRUBS-EVERGREEN			
64	Bs	BUXUS SEMPERVIRENS 'SUFFRUTICOSA' / ENGLISH BOXWOOD	18" - 24" MIN. SPREAD
3	Hb	HIBISCUS MOSCHEUTOS 'BALHIBLU' / LUNA™ BLUSH HIBISCUS	18" - 24" MIN. SPREAD
16	Ig	ILEX GLABRA / INKBERRY (SPECIES)	18" - 24" MIN. SPREAD
36	Kl	KALMIA LATIFOLIA / MOUNTAIN LAUREL	18" - 24" MIN. SPREAD
40	PJM	PJM RHODODENDRON / RHODODENDRON	24" - 30" MIN. SPREAD
5-9	Pp	PIERIS JAPONICA 'PRELUDE' / PRELUDE PIERIS	18" - 24" MIN. SPREAD
7	Tb	TAXUS X MEDIA 'DENSIFORMIS' / DENSE YEW	18" - 24" MIN. SPREAD
35	Mc	MAHONIA AQUIFOLIUM 'COMPACTA' / COMPACT OREGON RAPE HOLLY	24" - 30" MIN. SPREAD
29	Im	ILEX X MONDO / LITTLE GRACE HOLLY	18" - 24" MIN. SPREAD
PERENNIALS / GRASSES			
5	as	ASTILBE ARENDsii 'BRIDAL VEIL' / FALSE SPIREA	1 GAL. CONTAINER
13	hc	HYPERICUM CALYGINUM / AARONSBEARD ST. JOHN'S WORT	1 GAL. CONTAINER
4	pf	PEROVSKIA ATRIPLICIFOLIA 'FILIGRAN' / CUT LEAF RUSSIAN SAGE	1 GAL. CONTAINER

SCHEDULE-B: PARKING LOT INTERNAL LANDSCAPING

NUMBER OF PARKING SPACES	14 COMMON SURFACE SPACES
NUMBER OF SHADE TREES REQUIRED (1 PER 10 RES. SPACES)	2 SHADE TREE
NUMBER OF TREES PROVIDED SHADE TREES OTHER TREES (2:1 SUBSTITUTION)	2 NONE

SCHEDULE-C: RESIDENTIAL INTERNAL LANDSCAPING

NUMBER OF DWELLING UNITS	76
NUMBER OF TREES REQUIRED (1 PER SFA DU, 1 PER 3 APTS DU)	76
NUMBER OF TREES PROVIDED SHADE TREES OTHER TREES (2:1 SUBSTITUTION)	69 ORNAMENTALS FOR 74.5 SHADE TREES
SHRUBS (10:1 SUBSTITUTION)	415 SHRUBS FOR 41.5 SHADE TREES

REQUIRED LANDSCAPE SURETY

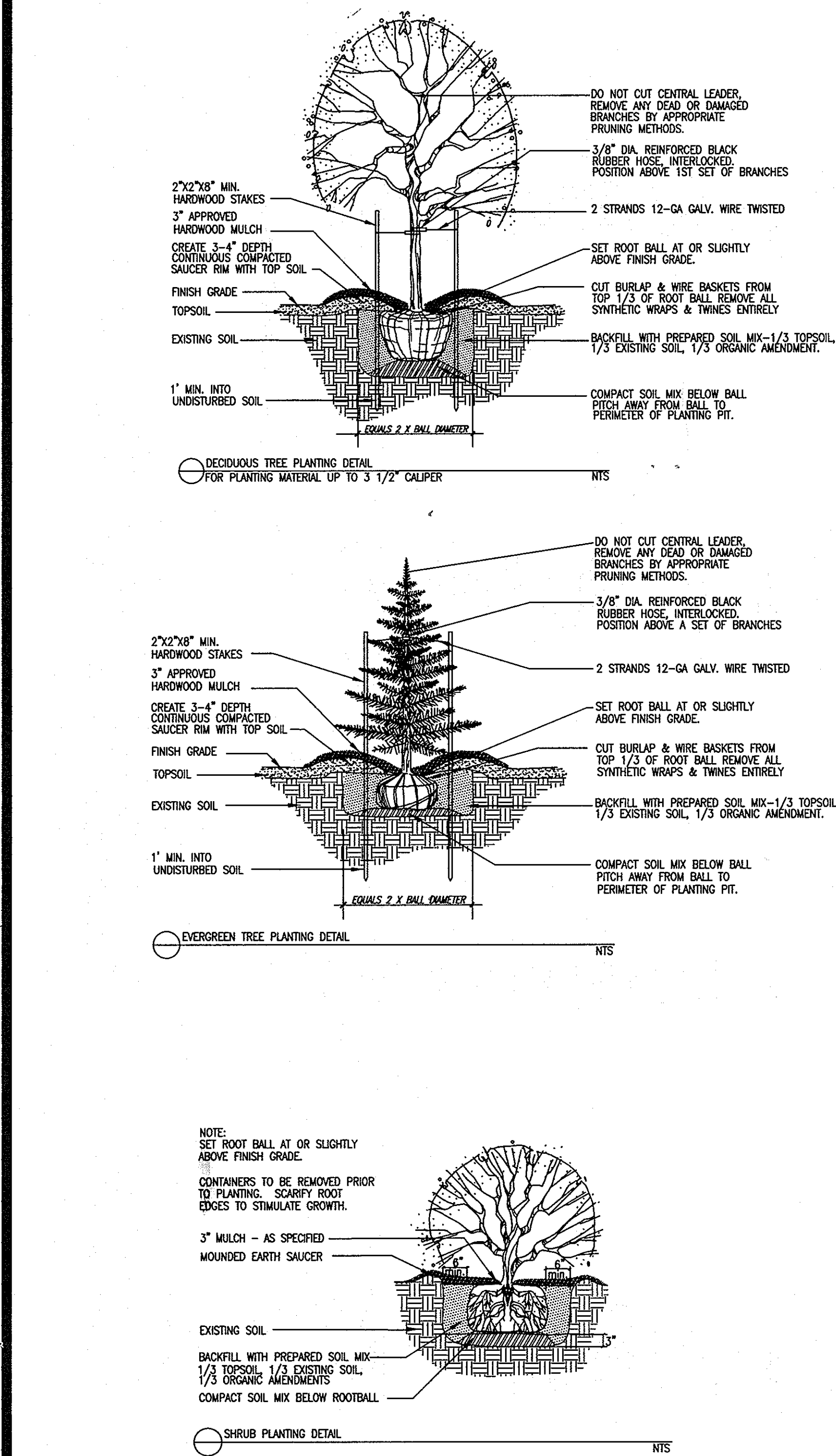
PLANT TYPE	SCHEDULES			TOTAL OF EACH PLANT TYPE	SURETY/PLANT REQUIRED	TOTAL SURETY FOR EACH PLANT TYPE
	A	B	C			
SHADE TREES	8	2	76	86	\$300.00	\$25,800.00
EVERGREEN TREES	16	0	0	16	\$150.00	\$2,400.00
ORNAMENTAL TREES	0	0	0	0	\$300.00	\$0.00
SHRUBS	0	0	0	0	\$300.00	\$0.00
TOTAL SURETY REQUIRED					\$300.00	\$28,200.00

LANDSCAPING NOTES

- This plan has been prepared in accordance with Section 16.124 of the Howard County Code of the Howard County Landscape Manual.
- Contractor shall notify all utilities at least (5) five days before starting work. All General Notes, especially those regarding utilities, on Sheet 1 shall apply.
- Field verify underground utility locations and existing conditions before starting planting work. Contact engineer / landscape architect if any relocations are required.
- Plant quantities shown on Plant List are provided for the convenience of the contractor only. If discrepancies exist between quantities shown on the plan and those shown on the plant list, the quantities on the plan shall take precedence.
- All plant material shall be full, heavy, well formed, and symmetrical, and conform to the A.A.N. Specifications, and be installed in accordance with project specifications.
- No substitution shall be made without written consent of the owner or his representative.
- All areas disturbed by construction activities but not otherwise planted, paved, or mulched shall be seeded or sodded in accordance with the project specifications.
- The contractor shall notify the owner in writing if he/she encounters soil drainage conditions which may be detrimental to the growth of the plants.
- All exposed earth within limits of planting beds shall be mulched with shredded hardwood mulch per Planting Details.
- Do not plant within the public water, sewer, or utility easements.
- Financial surety for the required landscaping shall be posted in the amount of \$28,200.00
- Planting provided:
 - Shade Trees (proposed): 2
 - Ornamental Trees (proposed): 75
 - Evergreen Trees (proposed): 0
 - Shrubs (proposed): 505

SCHEDULE A	LOT C-54	LOT C-23B	LOT C-106	LOT C-118	LOT C-126	LOT C-146
PERIMETER LANDSCAPE CATEGORY	BUFFER SIDE BUILDING FROM PUBLIC ROADWAY	BUFFER SIDE BUILDING FROM PUBLIC ROADWAY	BUFFER SIDE BUILDING FROM PUBLIC ROADWAY	BUFFER SIDE BUILDING FROM PUBLIC ROADWAY	BUFFER SIDE BUILDING FROM PUBLIC ROADWAY	BUFFER SIDE BUILDING FROM PUBLIC ROADWAY
BUFFER TYPE	C	C	C	C	C	C
SIDE/REAR BUILDING LENGTH	41	41	41	72	41	72
CREDIT FOR EXISTING VEGETATION (YES/NO, LINEAR FEET) (DESCRIBE BELOW IF NEEDED)	NONE	NONE	NONE	NONE	NONE	NONE
CREDIT FOR WALL, FENCE OR BERRY (YES/NO, LINEAR FEET) (DESCRIBE BELOW IF NEEDED)	NONE	NONE	NONE	NONE	NONE	NONE
PLANTINGS REQUIRED	1 SHADE TREES 2 EVERGREEN TREES 0 SHRUBS	1 SHADE TREES 2 EVERGREEN TREES 0 SHRUBS	1 SHADE TREES 2 EVERGREEN TREES 0 SHRUBS	2 SHADE TREES 4 EVERGREEN TREES 0 SHRUBS	1 SHADE TREES 2 EVERGREEN TREES 0 SHRUBS	2 SHADE TREES 4 EVERGREEN TREES 0 SHRUBS
PLANTINGS PROVIDED	0 SHADE TREES 0 EVERGREEN TREES 0 OTHER TREES 0 SHRUBS 0 SUBSTITUTIONS	0 SHADE TREES 0 EVERGREEN TREES 0 OTHER TREES 0 SHRUBS 0 SUBSTITUTIONS	0 SHADE TREES 0 EVERGREEN TREES 0 OTHER TREES 0 SHRUBS 0 SUBSTITUTIONS	0 SHADE TREES 0 EVERGREEN TREES 0 OTHER TREES 0 SHRUBS 0 SUBSTITUTIONS	0 SHADE TREES 0 EVERGREEN TREES 0 OTHER TREES 0 SHRUBS 0 SUBSTITUTIONS	0 SHADE TREES 0 EVERGREEN TREES 0 OTHER TREES 0 SHRUBS 0 SUBSTITUTIONS
OTHER (2:1 SUB)	2 ORN. FOR 1 SHADE 2 ORN. FOR 1 EVER.	2 ORN. FOR 1 SHADE 1 ORN. FOR 0.5 EVER.	1 ORN. FOR 0.5 SHADE	2 ORN. FOR 1 SHADE 40 SHRUBS FOR 2 EVER.	2 ORN. FOR 1 SHADE 1 ORN. FOR 0.5 EVER.	4 ORN. FOR 2 SHADE
SHRUBS (10:1 SUB)	10 SHRUBS FOR 1 EVER.	15 SHRUBS FOR 1.5 EVER.	5 SHRUBS FOR 0.5 SHADE	20 SHRUBS FOR 2 SHADE 40 SHRUBS FOR 4 EVER.	15 SHRUBS FOR 1.5 EVER.	40 SHRUBS FOR 4 EVER.

THIS PLAN IS FOR LANDSCAPING PURPOSES ONLY!



STATE OF MARYLAND
Michael B. Tran
REGISTERED ARCHITECT
933 LANDSCAPE ARCHITECT
3/20/10

DEVELOPERS/BUILDERS CERTIFICATE
I HEREBY CERTIFY THAT THE LANDSCAPING SHOWN ON THIS PLAN WILL BE DONE ACCORDING TO THE PLAN, SECTION 16.124 OF THE HOWARD COUNTY CODE, THE HOWARD COUNTY LANDSCAPE MANUAL, I HEREBY CERTIFY THAT UPON COMPLETION A LETTER OF LANDSCAPE INSTALLATION, ACCOMPANIED BY AN EXECUTED ONE YEAR GUARANTEE OF PLANT MATERIALS, WILL BE SUBMITTED TO THE DEPARTMENT OF PLANNING AND ZONING.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
Director: [Signature] 3/26/10
Chief, Division of Land Development: [Signature] 3/26/10
Chief, Development Engineering Division: [Signature] 3/26/10

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 FAX: 301-421-4186

PREPARED FOR:
BA WATERLOO TOWNHOMES, LLC
C/O BOZZUTO HOMES, INC.
7850 WALKER DRIVE SUITE 400
GREENBELT, MARYLAND 20770
ATTN: DUNCAN SLIDELL
301-623-1525

LANDSCAPE PLAN (REVISED)
SHIPLEY'S GRANT
PHASE II : LOTS C-59 THRU C-62, C-73 THRU C-99, C-106 THRU C-116 AND C-238 THRU C-255
PHASE III: C-141 THRU C-146

SCALE: 1"=30'
ZONING: RA-15
G. L. W. FILE NO.: 05071

DATE: DEC., 2007
TAX MAP - GRID: 37 - 1 & 2
SHEET: 8 OF 8

DATE: 4-29-2010
REVISED PLANT LIST, SCHEDULES AND NOTES TO ADD LOTS C-141 THRU C-146
DATE: 03-03-2010
DES. EDISA DRN. HKJ CHK. MBT