

LEGEND

- PROPERTY LINE
- - - - - EXISTING 10' CONTOURS
- - - - - EXISTING 2' CONTOURS
- PROPOSED 10' CONTOURS
- PROPOSED 2' CONTOURS
- EXISTING CURB AND GUTTER
- EX. 48" RCP
- EXISTING STORM DRAIN
- 15"D
- PROPOSED STORM DRAIN
- SETBACK LINES
- ▨ PROPOSED P-3 PAVING (HO. CO. DETAIL R-2.01)
- ▨ PROPOSED CONCRETE SIDEWALK (HO. CO. DETAIL R-3.05)
- ☆ EXISTING LIGHTING
- ⊙ EXISTING TREE
- 13.2 PROP. SPOT ELEVATION

- NOTES:
1. A DUMPSTER IS NOT REQUIRED FOR THIS PLAN. THE TRASH WILL BE REMOVED DAILY BY A PRIVATE COMPANY.
 2. SEE SHEET 3 FOR ALL PAVING REMOVAL AND DEMOLITION WORK.

APPROVED
PLANNING BOARD
of HOWARD COUNTY
 DATE **August 31, 2006**

APPROVED : HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.	
<i>Travis A. ...</i>	4/18/07
DIRECTOR	DATE
<i>William ...</i>	5/10/07
CHIEF, DEVELOPMENT ENGINEERING DIVISION	DATE
<i>David ...</i>	5/25/07
CHIEF, DIVISION OF LAND DEVELOPMENT	DATE
DATE NO.	REVISION
OWNER	HOLDINGS RETAIL BUSINESS TRUST C/O ROSENTHAL PROPERTIES LLC 8391 OLD COURTHOUSE RD SUITE 320 VIENNA, VA 22182
DEVELOPER	CHEVY CHASE BANK ATTN: JOSEPH PEARSON 7501 WISCONSIN AVENUE 9TH FLOOR CORPORATE FACILITIES BETHESDA, MD 20814
PROJECT	DOBBIN CENTER PARCEL J CHEVY CHASE BANK
AREA TAX MAP	36 GRID #18 PARCEL 396 PAR J ZONING NT 6TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
TITLE	SITE DEVELOPMENT PLAN
Patton Harris Rust & Associates, pc Engineers, Surveyors, Planners, Landscape Architects. 8818 Centre Park Drive Columbia, MD 21045 T 410.997.8900 F 410.997.9282	
	DESIGNED BY : PJS/ALC
	DRAWN BY: ALC
	PROJECT NO : 12104-2-0 CA00SIT01.DWG
	DATE : APRIL 17, 2007
	SCALE : 1" = 30' DRAWING NO. 2 OF 21

STANDARD SEDIMENT CONTROL NOTES

1. A MINIMUM OF 48 HOURS NOTICE MUST BE GIVEN TO THE HOWARD COUNTY DEPARTMENT OF INSPECTIONS, LICENSES AND PERMITS, SEDIMENT CONTROL DIVISION PRIOR TO THE START OF ANY CONSTRUCTION (313-1855).
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 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL AND REVISIONS THERETO.
3. FOLLOWING INITIAL SOIL DISTURBANCE OR RE-DISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN 14 CALENDAR DAYS FOR ALL PERIMETER SEDIMENT CONTROL STRUCTURES, DIKES, PERIMETER SLOPES, AND ALL SLOPES STEEPER THAN 3:1. B) 14 DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE.
4. ALL SEDIMENT TRAPS/BASINS SHOWN MUST BE FENCED AND WARNING SIGNS POSTED AROUND THE PERIMETER IN ACCORDANCE WITH VOL. 1, CHAPTER 7, 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 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR PERMANENT SEEDING, SOD, TEMPORARY SEEDING, AND MULCHING (SEC. G.). TEMPORARY STABILIZATION WITH MULCH ALONE SHALL 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 PERMITS FOR THEIR REMOVAL HAS BEEN OBTAINED FROM THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.
7. SITE ANALYSIS:

TOTAL AREA OF SITE	6.45 ACRES
AREA DISTURBED	1.38 ACRES
AREA TO BE PAVED	0.73 ACRES
AREA TO BE VEGETATIVELY STABILIZED	0.30 ACRES
TOTAL CUT	160 CU. YARDS
TOTAL FILL	0 CU. YARDS

 OFFSITE WASTE AREA LOCATION TO HAVE ACTIVE GRADING PERMIT

8. ANY SEDIMENT CONTROL PRACTICE WHICH IS DISTURBED BY GRADING ACTIVITY FOR PLACEMENT OF UTILITIES MUST BE REPAIRED ON THE SAME DAY OF DISTURBANCE.
9. ADDITIONAL SEDIMENT CONTROLS MUST BE PROVIDED, IF DEEMED NECESSARY BY THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.
10. 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.
11. TRENCHES FOR THE CONSTRUCTION OF UTILITIES IS LIMITED TO THREE PIPE LENGTHS OR THAT WHICH SHALL BE BACK-FILLED AND STABILIZED WITHIN ONE WORKING DAY, WHICHEVER IS SHORTER.
12. SITE GRADING WILL BEGIN ONLY AFTER ALL PERIMETER SEDIMENT CONTROL MEASURES HAVE BEEN INSTALLED AND ARE IN A FUNCTIONING CONDITION.
13. SEDIMENT WILL BE REMOVED FROM TRAPS WHEN ITS DEPTH REACHES CLEAN OUT ELEVATION SHOWN ON THE PLANS.
14. CUT AND FILL QUANTITIES PROVIDED UNDER SITE ANALYSIS DO NOT REPRESENT BID QUANTITIES. THESE QUANTITIES DO NOT DISTINGUISH BETWEEN TOPSOIL, STRUCTURAL FILL OR EMBANKMENT MATERIAL, NOR DO THEY REFLECT CONSIDERATION OF REMOVAL OF UNSUBSOLUBLE MATERIAL. THE CONTRACTOR SHALL FAMILIARIZE HIMSELF WITH SITE CONDITIONS WHICH MAY AFFECT THE WORK.

TEMPORARY SEEDING NOTES

APPLY TO GRADED OR CLEARED AREAS LIKELY TO BE REDISTURBED WHERE A SHORT-TERM VEGETATIVE COVER IS NEEDED.

SEEDING PREPARATION - LOOSEN UPPER THREE INCHES OF SOIL BY RAKING, DISCING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING, IF NOT PREVIOUSLY LOOSENED.

SOIL AMENDMENTS - APPLY 600 LBS. PER ACRE 10-10-10 FERTILIZER (14 LBS. PER 1000 SQ.FT.).

SEEDING - FOR PERIODS MARCH 1 THRU APRIL 30 AND FROM AUGUST 15 THRU NOVEMBER 15, SEED WITH 2-1/2 BUSHELS PER ACRE OF ANNUAL RYE (3.2 LBS. PER 1000 SQ.FT.). FOR THE PERIOD MAY 1 THRU AUGUST 14, SEED WITH 3 LBS. PER ACRE OF WEEPING LOVEGRASS (0.07 LBS. PER 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 SOD.

MULCHING - APPLY 1-1/2 TO 2 TONS PER ACRE (70 TO 90 LBS. PER 1000 SQ.FT.) OF UNROTTED SMALL GRAIN STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING MULCH ANCHORING TOOL OR 216 GAL. PER ACRE (5 GAL. PER 1000 SQ.FT.) OF EMULSIFIED ASPHALT ON FLAT AREAS. ON SLOPES, 8 FT. OR HIGHER, USE 347 GAL. PER ACRE (8 GAL. PER 1000 SQ.FT.) FOR ANCHORING.

REFER TO THE 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR RATE AND METHODS NOT COVERED.

PERMANENT SEEDING NOTES

APPLY TO GRADED OR CLEARED AREAS NOT SUBJECT TO IMMEDIATE FURTHER DISTURBANCE WHERE A PERMANENT LONG-LIVED VEGETATIVE COVER IS NEEDED.

SEEDING PREPARATION - LOOSEN UPPER THREE INCHES OF SOIL BY RAKING, DISCING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING, IF NOT PREVIOUSLY LOOSENED.

SOIL AMENDMENTS - IN LIEU OF SOIL TEST RECOMMENDATIONS, USE ONE OF THE FOLLOWING SCHEDULES:

- 1) PREFERRED - APPLY 2 TONS PER ACRE DOLOMITIC LIMESTONE (92 LBS. PER 1000 SQ.FT.) AND 600 LBS. PER ACRE 10-10-10 FERTILIZER (14 LBS. PER 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 UREAFORM FERTILIZER (9 LBS. PER 1000 SQ.FT.).
- 2) ACCEPTABLE - APPLY 2 TONS PER ACRE DOLOMITIC LIMESTONE (92 LBS. PER 1000 SQ.FT.) AND 1000 LBS. PER ACRE 10-10-10 FERTILIZER (23 LBS. PER 1000 SQ.FT.) BEFORE SEEDING. HARROW OR DISC INTO UPPER THREE INCHES OF SOIL.

SEEDING - FOR THE PERIOD MARCH 1 THRU APRIL 30 AND FROM AUGUST 15 THRU OCTOBER 15, SEED WITH 60 LBS. PER ACRE (1.4 LBS. PER 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 (0.05 LBS. PER 1000 SQ.FT.) OF WEEPING LOVEGRASS. DURING THE PERIOD OCTOBER 16 THRU FEBRUARY 28, PROTECT SITE BY ONE OF THE FOLLOWING OPTIONS:

- 1) 2 TONS PER ACRE OF WELL-ANCHORED MULCH STRAW AND SEED AS SOON AS POSSIBLE IN THE SPRING.
- 2) USE SOD.
- 3) SEED WITH 60 LBS. PER ACRE KENTUCKY 31 TALL FESCUE AND MULCH WITH 2 TONS PER ACRE WELL ANCHORED STRAW.

MULCHING - APPLY 1-1/2 TO 2 TONS PER ACRE (70 TO 90 LBS. PER 1000 SQ.FT.) OF UNROTTED SMALL GRAIN STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING MULCH ANCHORING TOOL OR 216 GAL. PER ACRE (5 GAL. PER 1000 SQ.FT.) OF EMULSIFIED ASPHALT ON FLAT AREAS. ON SLOPES, 8 FT. OR HIGHER, USE 347 GAL. PER ACRE (8 GAL. PER 1000 SQ.FT.) FOR ANCHORING.

MAINTENANCE - INSPECT ALL SEEDING AREAS AND MAKE NEEDED REPAIRS, REPLACEMENTS AND RESEEDINGS.

NOTE: BANK CONSTRUCTION AND ROAD IMPROVEMENTS MAY OCCUR AT ANY TIME AND ARE NOT DEPENDENT ON EACH OTHER.

21.0 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
I. THIS PRACTICE IS LIMITED TO AREAS HAVING 2:1 OR FLATTER SLOPES WHERE:
--a. THE TEXTURE OF THE EXPOSED SUBSOIL/PARENT MATERIAL IS NOT ADEQUATE TO PRODUCE VEGETATIVE GROWTH.
--b. THE SOIL MATERIAL IS SO SHALLOW THAT THE ROOTING ZONE IS NOT DEEP ENOUGH TO SUPPORT PLANTS OR FURNISH CONTINUING SUPPLIES OF MOISTURE AND PLANT NUTRIENTS.
--c. THE ORIGINAL SOIL TO BE VEGETATED CONTAINS MATERIAL TOXIC TO PLANT GROWTH.
--d. THE SOIL IS SO ACIDIC THAT TREATMENT WITH LIMESTONE IS NOT FEASIBLE.

II. 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
I. 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 REPRESENTATIVE SOIL PROFILE SECTION IN THE SOIL SURVEY PUBLISHED BY USDA-SYCS IN COOPERATION WITH MARYLAND AGRICULTURAL EXPERIMENTATION STATION.

II. TOPSOIL SPECIFICATIONS - SOIL TO BE USED AS TOPSOIL MUST MEET THE FOLLOWING:
--a. TOPSOIL SHALL BE A LOAM, SANDY LOAM, CLAY LOAM, SILTY 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 CONCRETE, STONES, SLAG, COARSE FRAGMENTS, GRAVEL, STICKS, ROOTS, TRASH OR OTHER MATERIALS LARGER THAN 1-1/2" IN DIAMETER.
--b. TOPSOIL MUST BE FREE OF PLANTS OR PLANT PARTS SUCH AS BERMUDA GRASS, QUACKGRASS, JOHNSONGRASS, NUTSEDGE, POISON IVY, THISTLE, OR OTHERS AS SPECIFIED.
--c. WHERE SUBSOIL IS EITHER HIGHLY ACIDIC OR COMPOSED OF HEAVY CLAYS, GROUND LIMESTONE SHALL BE SPREAD AT THE RATE OF 4-8 TONS/ACRE (200-400 POUNDS PER 1,000 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.
--d. TOPSOIL SHALL NOT BE PLACED WHILE THE TOPSOIL OR SUBSOIL IS IN A FROZEN OR MUDDY CONDITION, WHEN THE SUBSOIL IS EXCESSIVELY WET OR IN A CONDITION THAT MAY OTHERWISE BE DETRIMENTAL TO PROPER GRADING AND SEEDING PREPARATION.

III. FOR SITES HAVING DISTURBED AREAS UNDER 5 ACRES:
--a. PLACE TOPSOIL (IF REQUIRED) AND APPLY SOIL AMENDMENTS AS SPECIFIED IN 20.0 VEGETATIVE STABILIZATION - SECTION I - VEGETATIVE STABILIZATION METHODS AND MATERIALS.

III. FOR SITES HAVING DISTURBED AREAS OVER 5 ACRES:
--a. ON SOIL MEETING TOPSOIL SPECIFICATIONS, OBTAIN TEST RESULTS DICTATING FERTILIZER AND LIME AMENDMENTS REQUIRED TO BRING INTO COMPLIANCE WITH THE FOLLOWING:
--b. 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.
--c. ORGANIC CONTENT OF TOPSOIL SHALL BE NOT LESS THAN 1.5 PERCENT BY WEIGHT.
--d. TOPSOIL HAVING SOLUBLE SALT CONTENT GREATER THAN 500 PARTS PER MILLION SHALL NOT BE USED.
--e. NO SOD OR SEED SHALL BE PLACED ON SOIL WHICH HAS BEEN TREATED WITH SOIL STERILANTS OR CHEMICALS USED FOR WEED CONTROL UNTIL SUFFICIENT TIME HAS ELAPSED (14 DAYS MIN.) TO PERMIT DISSIPATION OF PHYTO-TOXIC MATERIALS.

NOTE: TOPSOIL SUBSTITUTES TO 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 20.0 VEGETATIVE STABILIZATION - SECTION I - VEGETATIVE STABILIZATION METHODS AND MATERIALS.

V. TOPSOIL APPLICATION
--i. WHEN TOPSOILING, MAINTAIN NEEDED EROSION AND SEDIMENT CONTROL PRACTICES SUCH AS DIVERSIONS, GRADE STABILIZATION STRUCTURES, EARTH DIKES, SLOPE SILT FENCE AND SEDIMENT TRAPS AND BASINS.
--ii. GRADES ON THE AREAS TO BE TOPSOILED, WHICH HAVE BEEN PREVIOUSLY ESTABLISHED, SHALL BE MAINTAINED, ALBEIT 4" - 8" HIGHER IN ELEVATION.
--iii. 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 SOODING 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 POCKETS.
--iv. TOPSOIL SHALL NOT BE PLACED WHILE THE TOPSOIL OR SUBSOIL IS IN A FROZEN OR MUDDY CONDITION, WHEN THE SUBSOIL IS EXCESSIVELY WET OR IN A CONDITION THAT MAY OTHERWISE BE DETRIMENTAL TO PROPER GRADING AND SEEDING PREPARATION.

VI. ALTERNATIVE FOR PERMANENT SEEDING - INSTEAD OF APPLYING THE FULL AMOUNTS OF LIME AND COMMERCIAL FERTILIZER, COMPOSTED SLUDGE AND AMENDMENTS MAY BE APPLIED AS SPECIFIED BELOW:
--a. COMPOSTED SLUDGE MATERIAL FOR USE AS A SOIL CONDITIONER FOR SITES HAVING DISTURBED AREAS UNDER 5 ACRES SHALL BE TESTED TO DETERMINE ADDITIONAL SOIL PREPARATION AND TILLAGE ANY IRREGULARITIES IN THE SURFACE SHALL CONFORM TO THE FOLLOWING REQUIREMENTS:
--b. 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.
--c. COMPOSTED SLUDGE SHALL CONTAIN AT LEAST 1 PERCENT NITROGEN, 1.5 PERCENT PHOSPHORUS, AND 0.2 PERCENT POTASSIUM AND HAVE A PH OF 7.0 TO 8.0. IF COMPOST DOES NOT MEET THESE REQUIREMENTS, THE APPROPRIATE CONSTITUENTS MUST BE ADDED TO MEET THE REQUIREMENTS PRIOR TO USE.
--d. COMPOSTED SLUDGE SHALL BE APPLIED AT A RATE OF 1 TON/1,000 SQUARE FEET.
--e. COMPOSTED SLUDGE SHALL BE AMENDED WITH A POTASSIUM FERTILIZER APPLIED AT THE RATE OF 4 LB/1,000 SQUARE FEET, AND 1/3 THE NORMAL LIME APPLICATION RATE. REFERENCES: GUIDELINE SPECIFICATIONS, SOIL PREPARATION AND SOODING. MD-VI, PUB. #1, COOPERATIVE EXTENSION SERVICE, UNIVERSITY OF MARYLAND AND VIRGINIA POLYTECHNIC INSTITUTES, REVISED 1973.

CONSTRUCTION AND MATERIAL SPECIFICATIONS
I. 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 REPRESENTATIVE SOIL PROFILE SECTION IN THE SOIL SURVEY PUBLISHED BY USDA-SYCS IN COOPERATION WITH MARYLAND AGRICULTURAL EXPERIMENTATION STATION.

II. TOPSOIL SPECIFICATIONS - SOIL TO BE USED AS TOPSOIL MUST MEET THE FOLLOWING:
--a. TOPSOIL SHALL BE A LOAM, SANDY LOAM, CLAY LOAM, SILTY 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 CONCRETE, STONES, SLAG, COARSE FRAGMENTS, GRAVEL, STICKS, ROOTS, TRASH OR OTHER MATERIALS LARGER THAN 1-1/2" IN DIAMETER.
--b. TOPSOIL MUST BE FREE OF PLANTS OR PLANT PARTS SUCH AS BERMUDA GRASS, QUACKGRASS, JOHNSONGRASS, NUTSEDGE, POISON IVY, THISTLE, OR OTHERS AS SPECIFIED.
--c. WHERE SUBSOIL IS EITHER HIGHLY ACIDIC OR COMPOSED OF HEAVY CLAYS, GROUND LIMESTONE SHALL BE SPREAD AT THE RATE OF 4-8 TONS/ACRE (200-400 POUNDS PER 1,000 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.
--d. TOPSOIL SHALL NOT BE PLACED WHILE THE TOPSOIL OR SUBSOIL IS IN A FROZEN OR MUDDY CONDITION, WHEN THE SUBSOIL IS EXCESSIVELY WET OR IN A CONDITION THAT MAY OTHERWISE BE DETRIMENTAL TO PROPER GRADING AND SEEDING PREPARATION.

III. FOR SITES HAVING DISTURBED AREAS UNDER 5 ACRES:
--a. PLACE TOPSOIL (IF REQUIRED) AND APPLY SOIL AMENDMENTS AS SPECIFIED IN 20.0 VEGETATIVE STABILIZATION - SECTION I - VEGETATIVE STABILIZATION METHODS AND MATERIALS.

III. FOR SITES HAVING DISTURBED AREAS OVER 5 ACRES:
--a. ON SOIL MEETING TOPSOIL SPECIFICATIONS, OBTAIN TEST RESULTS DICTATING FERTILIZER AND LIME AMENDMENTS REQUIRED TO BRING INTO COMPLIANCE WITH THE FOLLOWING:
--b. 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.
--c. ORGANIC CONTENT OF TOPSOIL SHALL BE NOT LESS THAN 1.5 PERCENT BY WEIGHT.
--d. TOPSOIL HAVING SOLUBLE SALT CONTENT GREATER THAN 500 PARTS PER MILLION SHALL NOT BE USED.
--e. NO SOD OR SEED SHALL BE PLACED ON SOIL WHICH HAS BEEN TREATED WITH SOIL STERILANTS OR CHEMICALS USED FOR WEED CONTROL UNTIL SUFFICIENT TIME HAS ELAPSED (14 DAYS MIN.) TO PERMIT DISSIPATION OF PHYTO-TOXIC MATERIALS.

NOTE: TOPSOIL SUBSTITUTES TO 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.

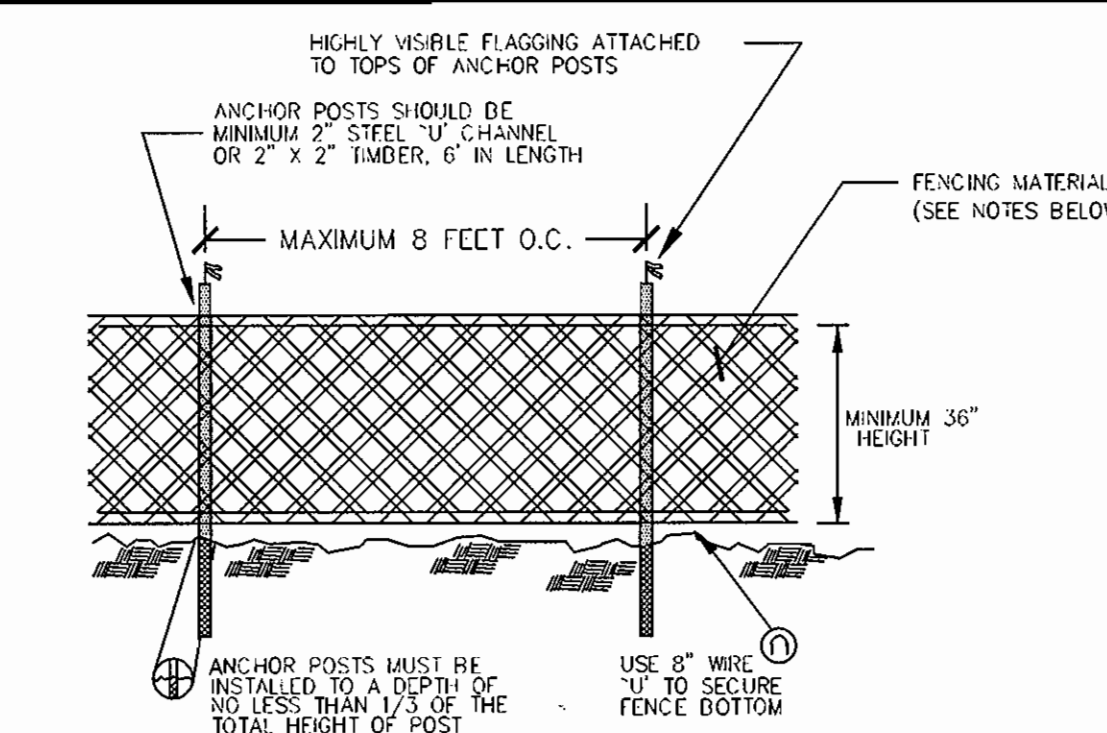
--b. PLACE TOPSOIL (IF REQUIRED) AND APPLY SOIL AMENDMENTS AS SPECIFIED IN 20.0 VEGETATIVE STABILIZATION - SECTION I - VEGETATIVE STABILIZATION METHODS AND MATERIALS.

V. TOPSOIL APPLICATION
--i. WHEN TOPSOILING, MAINTAIN NEEDED EROSION AND SEDIMENT CONTROL PRACTICES SUCH AS DIVERSIONS, GRADE STABILIZATION STRUCTURES, EARTH DIKES, SLOPE SILT FENCE AND SEDIMENT TRAPS AND BASINS.
--ii. GRADES ON THE AREAS TO BE TOPSOILED, WHICH HAVE BEEN PREVIOUSLY ESTABLISHED, SHALL BE MAINTAINED, ALBEIT 4" - 8" HIGHER IN ELEVATION.
--iii. 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 SOODING 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 POCKETS.
--iv. TOPSOIL SHALL NOT BE PLACED WHILE THE TOPSOIL OR SUBSOIL IS IN A FROZEN OR MUDDY CONDITION, WHEN THE SUBSOIL IS EXCESSIVELY WET OR IN A CONDITION THAT MAY OTHERWISE BE DETRIMENTAL TO PROPER GRADING AND SEEDING PREPARATION.

VI. ALTERNATIVE FOR PERMANENT SEEDING - INSTEAD OF APPLYING THE FULL AMOUNTS OF LIME AND COMMERCIAL FERTILIZER, COMPOSTED SLUDGE AND AMENDMENTS MAY BE APPLIED AS SPECIFIED BELOW:
--a. COMPOSTED SLUDGE MATERIAL FOR USE AS A SOIL CONDITIONER FOR SITES HAVING DISTURBED AREAS UNDER 5 ACRES SHALL BE TESTED TO DETERMINE ADDITIONAL SOIL PREPARATION AND TILLAGE ANY IRREGULARITIES IN THE SURFACE SHALL CONFORM TO THE FOLLOWING REQUIREMENTS:
--b. 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.
--c. COMPOSTED SLUDGE SHALL CONTAIN AT LEAST 1 PERCENT NITROGEN, 1.5 PERCENT PHOSPHORUS, AND 0.2 PERCENT POTASSIUM AND HAVE A PH OF 7.0 TO 8.0. IF COMPOST DOES NOT MEET THESE REQUIREMENTS, THE APPROPRIATE CONSTITUENTS MUST BE ADDED TO MEET THE REQUIREMENTS PRIOR TO USE.
--d. COMPOSTED SLUDGE SHALL BE APPLIED AT A RATE OF 1 TON/1,000 SQUARE FEET.
--e. COMPOSTED SLUDGE SHALL BE AMENDED WITH A POTASSIUM FERTILIZER APPLIED AT THE RATE OF 4 LB/1,000 SQUARE FEET, AND 1/3 THE NORMAL LIME APPLICATION RATE. REFERENCES: GUIDELINE SPECIFICATIONS, SOIL PREPARATION AND SOODING. MD-VI, PUB. #1, COOPERATIVE EXTENSION SERVICE, UNIVERSITY OF MARYLAND AND VIRGINIA POLYTECHNIC INSTITUTES, REVISED 1973.

SEQUENCE OF CONSTRUCTION

- CHEVY CHASE BANK**
1. OBTAIN GRADING PERMIT.
 2. INSTALL STABILIZED CONSTRUCTION ENTRANCE, SILT FENCE, AND INLET PROTECTION AT EXISTING STRUCTURES 1-19, 1-20 AND 1-22. (3 DAYS)
 3. BEGIN PAVEMENT AND CURB AND GUTTER REMOVAL, SITE GRADING AND BUILDING CONSTRUCTION. REMOVE EXISTING INLET 1-21 AND REPLACE WITH MANHOLE STRUCTURE B1. COURTFIELD AREA IS TO BE COVERED WITH PLASTIC. (2 WEEKS)
 4. BEGIN WATER AND SEWER CONSTRUCTION. TRENCH IS NOT TO REMAIN OPEN LONGER THAN ONE DAY. PAVEMENT IS TO BE PATCHED AND CURB AND GUTTER REPLACED AT THE END OF EACH DAY. (1 WEEK)
 5. INSTALL STORM DRAIN SYSTEM A1-A3. DO NOT CONSTRUCT BIORETENTION FACILITY UNTIL SITE IS COMPLETELY STABILIZED. DELAY CONSTRUCTION OF STORM DRAIN SYSTEM A3-A4 UNTIL CONSTRUCTION OF BIORETENTION FACILITY BEGINS. (1 WEEK)
 6. INSTALL STORM DRAIN SYSTEM B1-B3. INSTALL CURB AND GUTTER AND ASPHALT PAVING. (3 WEEKS)
 7. APPLY TOPSOIL AND STABILIZE DISTURBED AREAS IN ACCORDANCE WITH PERMANENT SEEDING NOTES. (2 DAYS)
 8. PERFORM FINE GRADING, LANDSCAPING, SIDEWALK, AND COMPLETE BUILDING CONSTRUCTION. (3 MONTHS)
 9. AFTER SITE IS COMPLETELY STABILIZED, CONSTRUCT BIORETENTION FACILITY, STORM DRAIN SYSTEM A3-A4 AND 6" UNDERDRAIN. (2 WEEKS)
 9. UPON PERMISSION OF COUNTY SEDIMENT CONTROL INSPECTOR, REMOVE ALL REMAINING SEDIMENT CONTROL DEVICES AND STABILIZE DISTURBED AREAS IN ACCORDANCE WITH PERMANENT SEEDING NOTES. (2 DAYS)
- ROAD IMPROVEMENTS - DOBBIN ROAD AND DOBBIN CENTER WAY & MCGAW ROAD AND DOBBIN ROAD**
1. OBTAIN GRADING PERMIT.
 2. BEGIN GRADING (1 WEEK)
 3. INSTALL STORM DRAIN SYSTEM C1-C2, MANHOLE D1, STORM DRAIN SYSTEM D2-D3, AND STORM DRAIN SYSTEM E1-E2. (2 WEEKS)
 4. RELOCATE FIRE HYDRANT. (1 WEEK)
 5. BEGIN INSTALLATION OF CURB AND GUTTER AND ASPHALT PAVING. (1 WEEK)
 6. REMOVE EXISTING CURB AND GUTTER AND COMPLETE ASPHALT PAVING. (1 WEEK)
 7. APPLY TOPSOIL AND STABILIZE DISTURBED AREAS IN ACCORDANCE WITH PERMANENT SEEDING NOTES. (1 DAY)
 8. WITH PERMISSION OF COUNTY SEDIMENT CONTROL INSPECTOR, REMOVE ALL REMAINING SEDIMENT CONTROL DEVICES. (1 DAY)
- NOTE: BANK CONSTRUCTION AND ROAD IMPROVEMENTS MAY OCCUR AT ANY TIME AND ARE NOT DEPENDENT ON EACH OTHER.

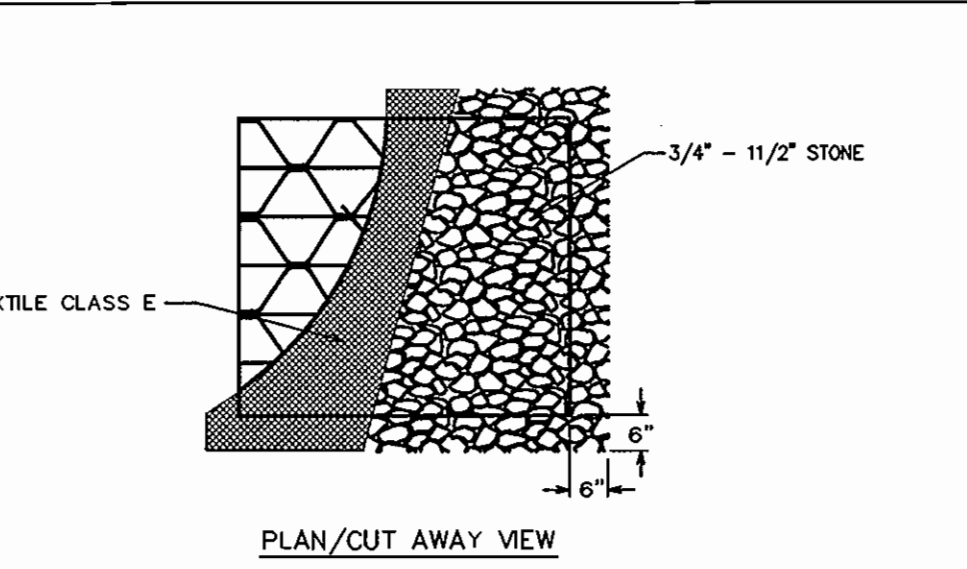


NOTES:

1. BLAZE ORANGE MESH OR SUPER SILT FENCE FOR TREE PROTECTION DEVICE ONLY.
2. BOUNDARIES OF PROTECTION AREA WILL BE ESTABLISHED PRIOR TO GRADING AND SEDIMENT CONTROL.
3. AVOID DAMAGE TO CRITICAL ROOT ZONE. DO NOT DAMAGE OR SEVER LARGE ROOTS WHEN INSTALLING POSTS.
4. FENCING SHALL BE MAINTAINED THROUGHOUT CONSTRUCTION.

TREE PROTECTION DEVICE
NOT TO SCALE

DETAIL 23B - AT GRADE INLET PROTECTION

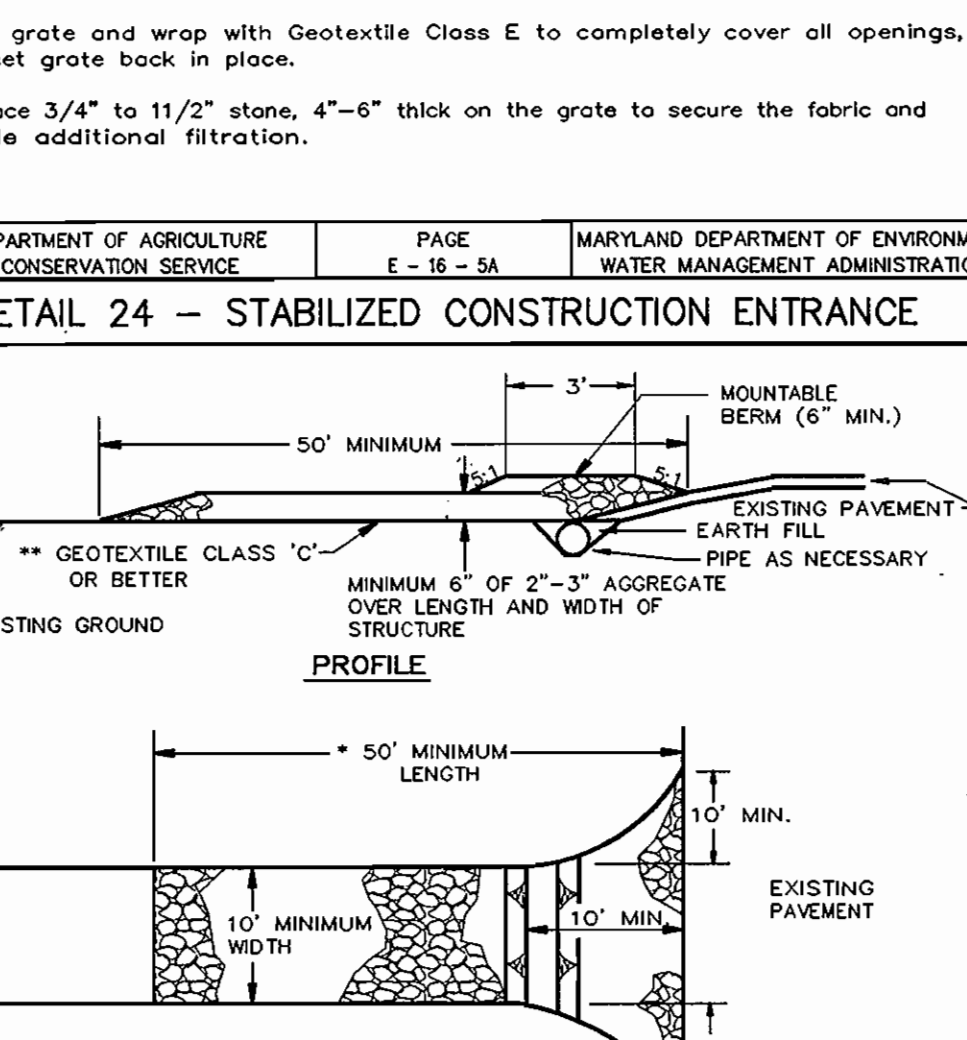


CONSTRUCTION SPECIFICATIONS

1. Lift grate and wrap with Geotextile Class E to completely cover all openings, then set grate back in place.
2. Place 3/4" to 1 1/2" stone, 4"-6" thick on the grate to secure the fabric and provide additional filtration.

STANDARD SYMBOL
AGIP

DETAIL 24 - STABILIZED CONSTRUCTION ENTRANCE

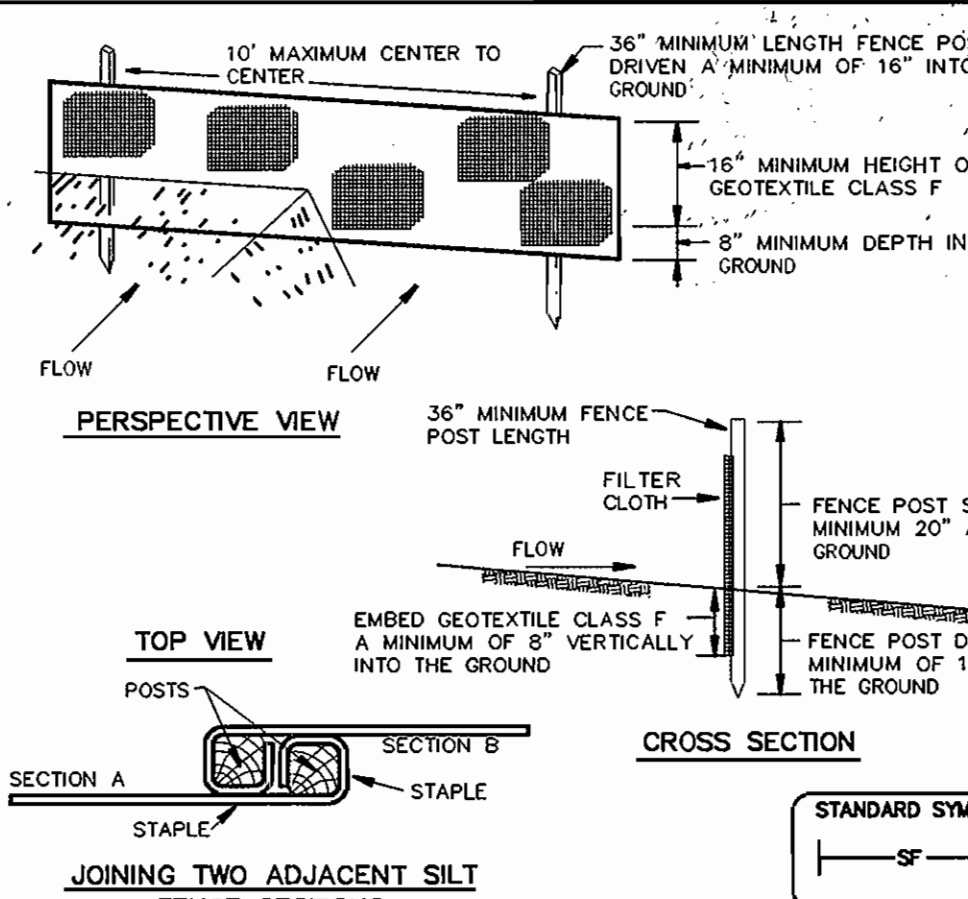


CONSTRUCTION SPECIFICATION

1. Length - minimum of 50' (*30' for single residence lot).
2. Width - 10' minimum, should be flared at the existing road to provide a turning radius.
3. Geotextile fabric (filter cloth) shall be placed over the existing ground prior to placing stone. **The plan approval authority may not require single family residences to use geotextile.
4. Stone - crushed aggregate (2" to 3") or reclaimed or recycled concrete equivalent shall be placed at least 6" deep over the length and width of the entrance.
5. Surface Water - all surface water flowing to or diverted toward construction entrances shall be piped through the entrance, maintaining positive drainage. Pipe installed through the stabilized construction entrance shall be protected with a mountable berm with 5:1 slopes and a minimum of 6" of stone over the pipe. Pipe has to be sized according to the drainage. When the SCE is located at a high spot and has no drainage to convey a pipe will not be necessary. Pipe should be sized according to the amount of runoff to be conveyed. A 6" minimum will be required.
6. Location - A stabilized construction entrance shall be located at every point where construction traffic enters or leaves a construction site. Vehicles leaving the site must travel over the entire length of the stabilized construction entrance.

STANDARD SYMBOL
SCE

DETAIL 22 - SILT FENCE



CONSTRUCTION SPECIFICATIONS

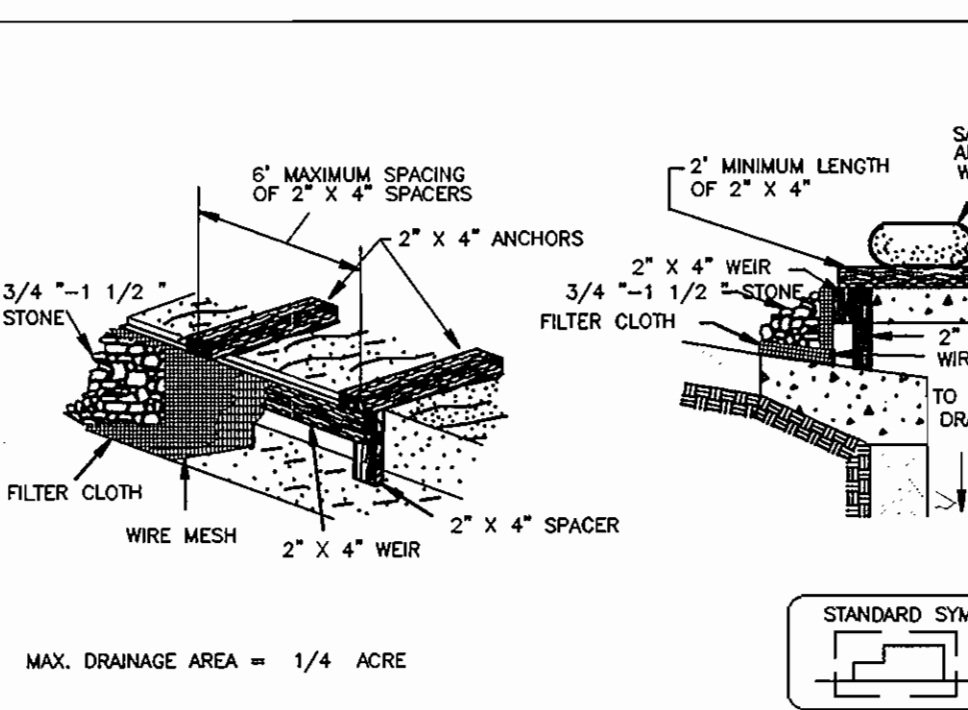
1. Fence posts shall be a minimum of 36" long driven 16" minimum into the ground. Wood posts shall be 1 1/2" x 1 1/2" square (minimum) cut, or 1 3/4" diameter (minimum) round and shall be of sound quality hardwood. Steel posts will be standard T or U section weighing not less than 1.00 pound per linear foot.
2. Geotextile shall be fastened securely to each fence post with wire ties or staples at top and mid-section and shall meet the following requirements for Geotextile Class F:

Tensile Strength	50 lbs/in (min.)	Test: MSMT 509
Tensile Modulus	20 lbs/in (min.)	Test: MSMT 509
Flow Rate	0.3 gal ft ² / minute (max.)	Test: MSMT 322
Filtering Efficiency	75% (min.)	Test: MSMT 322

3. Where ends of geotextile fabric come together, they shall be overlapped, folded and stapled to prevent sediment bypass.
4. Silt Fence shall be inspected after each rainfall event and maintained when bulges occur or when sediment accumulation reached 50% of the fabric height.

STANDARD SYMBOL
SF

DETAIL 23C - CURB INLET PROTECTION



CONSTRUCTION SPECIFICATIONS

1. Attach a continuous piece of wire mesh (30" minimum width by throat length plus 4") to the 2" x 4" weir (measuring throat length plus 2") as shown on the standard drawing.
2. Place a continuous piece of Geotextile Class E the same dimensions as the wire mesh over the wire mesh and securely attach it to the 2" x 4" weir.
3. Securely nail the 2" x 4" weir to a 9" long vertical spacer to be located between the weir and the inlet face (max. 4" apart).
4. Place the assembly against the inlet throat and nail (minimum 2" lengths of 2" x 4" to the top of the weir at spacer locations). These 2" x 4" anchors shall extend across the inlet top and be held in place by sandbags or alternate weight.
5. The assembly shall be placed so that the end spacers are a minimum 1' beyond both ends of the throat opening.
6. Form the 1/2" x 1/2" wire mesh and the geotextile fabric to the concrete gutter and against the face of the curb on both sides of the inlet. Place class 3/4" x 1 1/2" stone over the wire mesh and geotextile in such a manner to prevent water from entering the inlet under or around the geotextile.
7. This type of protection must be inspected frequently and the filter cloth and stone replaced when clogged with sediment.
8. Assure that storm flow does not bypass the inlet by installing a temporary earth or asphalt dike to direct the flow to the inlet.

STANDARD SYMBOL
CIP

APPROVED
PLANNING BOARD
OF HOWARD COUNTY
DATE: AUGUST 31, 2006

BY THE DEVELOPER :

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

DEVELOPER: *[Signature]* 4/11/07 DATE

BY THE ENGINEER :

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

ENGINEER: *[Signature]* 4/6/07 DATE

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

[Signature] 4/23/07 DATE
NATURAL RESOURCES CONSERVATION SERVICE

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

[Signature] 4/23/07 DATE
HOWARD SOIL CONSERVATION DISTRICT

APPROVED : HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

[Signature] 4/10/07 DATE
DIRECTOR

[Signature] 5/6/07 DATE
CHIEF, DEVELOPMENT ENGINEERING DIVISION

[Signature] 5/25/07 DATE
CHIEF, DIVISION OF LAND DEVELOPMENT

DATE	NO.	REVISION

OWNER: HOLDINGS RETAIL BUSINESS TRUST
C/O ROSENTHAL PROPERTIES LLC
8391 OLD COURTHOUSE RD SUITE 320
VIENNA, VA 22182

DEVELOPER: CHEVY CHASE BANK
ATTN: JOSEPH PEARSON
7501 WISCONSIN AVENUE
9TH FLOOR CORPORATE FACILITIES
BETHESDA, MD 20814

PROJECT: DOBBIN CENTER PARCEL J
CHEVY CHASE BANK

AREA TAX MAP 36 GRID #18 PARCEL 396 PAR J ZONING NT
6TH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

TITLE: SEDIMENT CONTROL DETAILS AND NOTES

Patton Harris Rust & Associates, pc
Engineers, Surveyors, Planners, Landscape Architects.
8818 Centre Park Drive
Columbia, MD 21045
T 410.997.8900
F 410.997.9282

DESIGNED BY : SCM

DRAWN BY: ALC

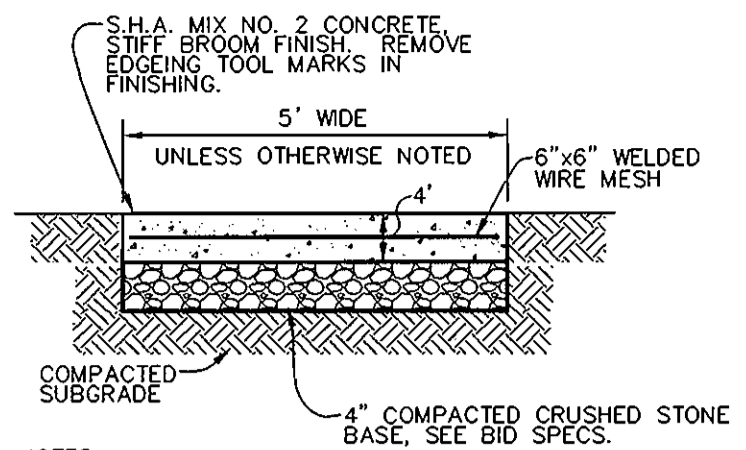
PROJECT NO : 12104-2-0
C200DET01.DWG

DATE : APRIL 17, 2007

SCALE : AS SHOWN

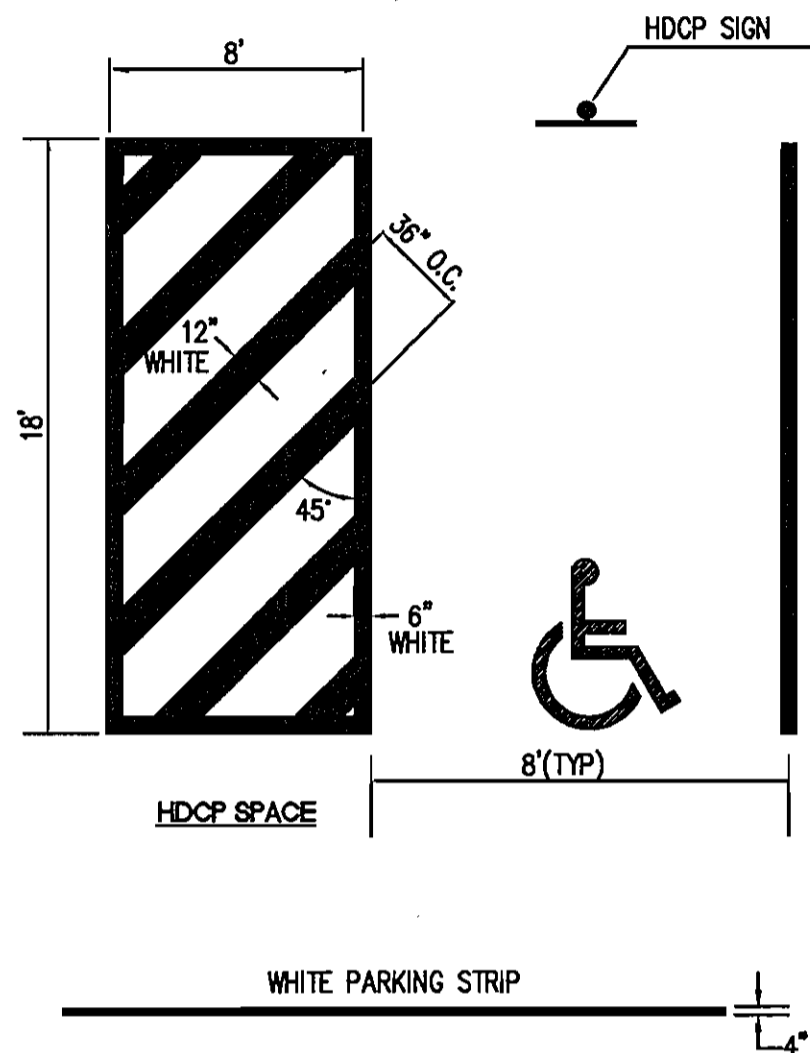
DRAWING NO. 4 OF 21

SDP-06-015



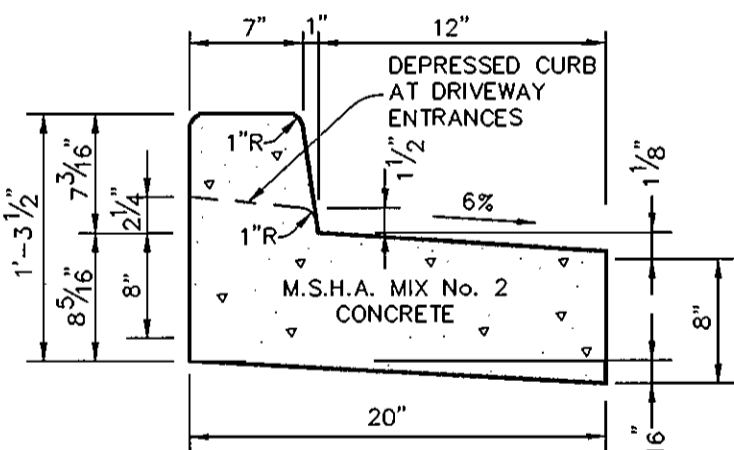
NOTES:
 PROVIDE LATITUDINAL EXPANSION JOINTS AT 15' O.C. (MAX.)
 PROVIDE CONTRACTION (DUMMY) JOINT AT 5' O.C. INTERVALS
 BETWEEN EXPANSION JOINTS. SIDEWALK TO BE SCRIBED IN
 5' MAX. SQUARES.

SIDEWALK w/ REINFORCING
 NO SCALE



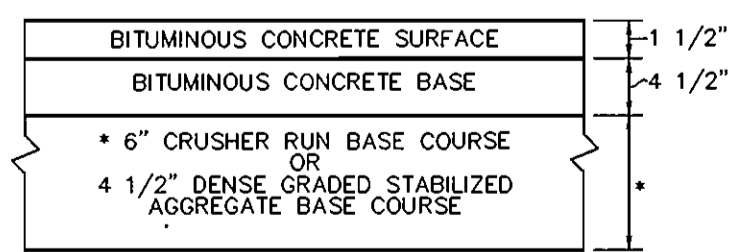
LINE SPECIFICATIONS

STRIPING STANDARDS
 NOT TO SCALE

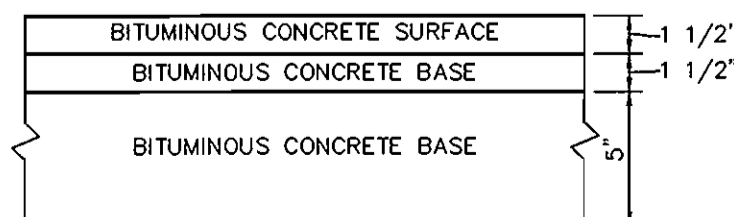


**REVERSE 7\"/>
 NO SCALE**

NOTE:
 THE PAVING SECTION SHOWN HAS NOT BEEN DESIGNED FOR
 ACTUAL SOIL CONDITIONS, IN PLACE COMPACTION RESULTS,
 OR TRAFFIC VOLUMES SPECIFIC TO THIS PROJECT. IT IS
 RECOMMENDED THAT THE USER CONSULT WITH A LICENSED
 PROFESSIONAL GEOTECHNICAL ENGINEER FOR A SPECIFIC
 PAVING DESIGN BASED ON THE APPROPRIATE PARAMETERS
 PRIOR TO INSTALLATION OF THIS PAVING SECTION.

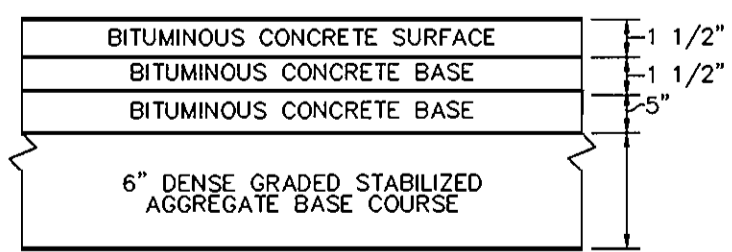


(ALTERNATE)

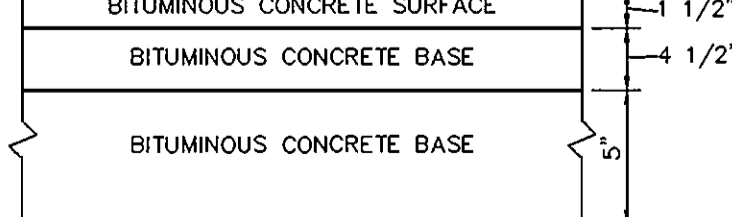


HOWARD COUNTY DESIGN MANUAL VOLUME IV -
 STANDARD SPECIFICATIONS AND DETAILS FOR
 CONSTRUCTION (DRAWING R-2.01)

P-3 PAVING
 NO SCALE

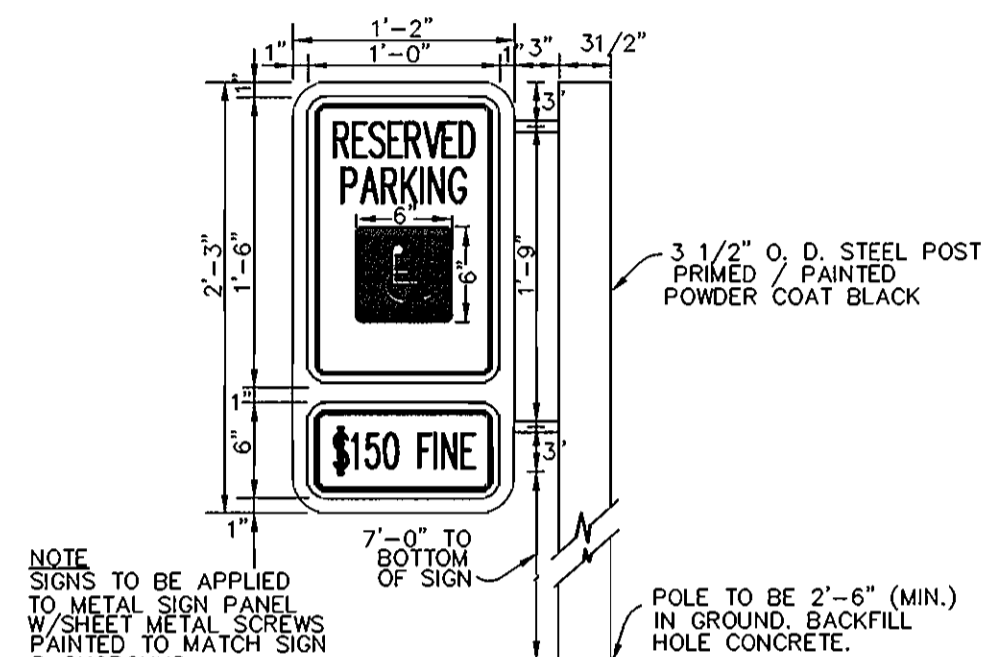


(ALTERNATE)



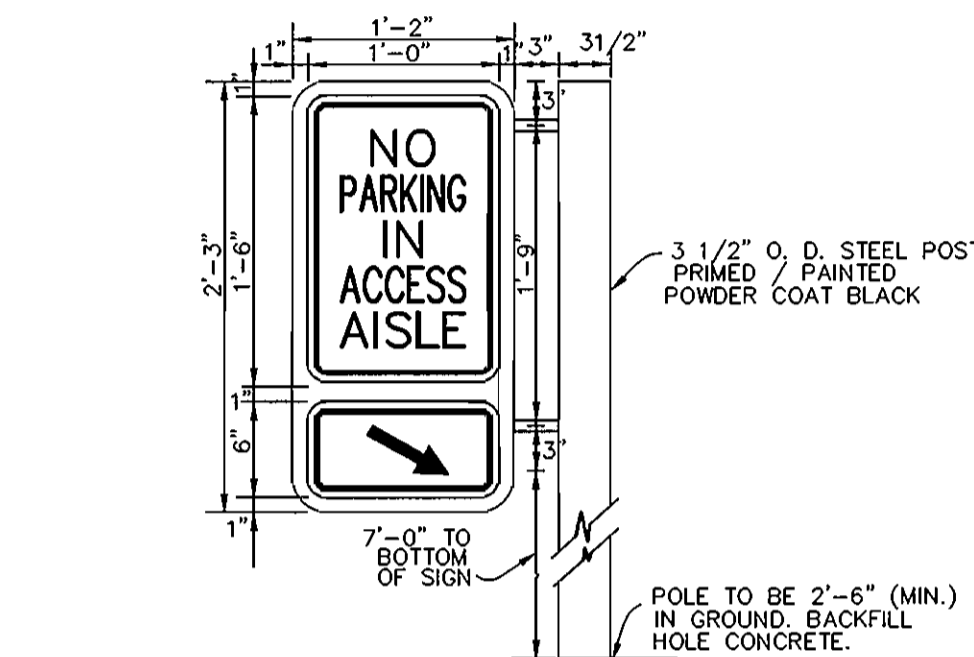
HOWARD COUNTY DESIGN MANUAL VOLUME IV -
 STANDARD SPECIFICATIONS AND DETAILS FOR
 CONSTRUCTION (DRAWING R-2.01)

P-5 PAVING
 NO SCALE



NOTE:
 SIGNS TO BE APPLIED
 TO METAL SIGN PANEL
 W/ SHEET METAL SCREWS
 PAINTED TO MATCH SIGN
 BACKGROUND.
 APPLIED HANDICAP SIGNS
 SIGN PANEL
 3/16\"/>

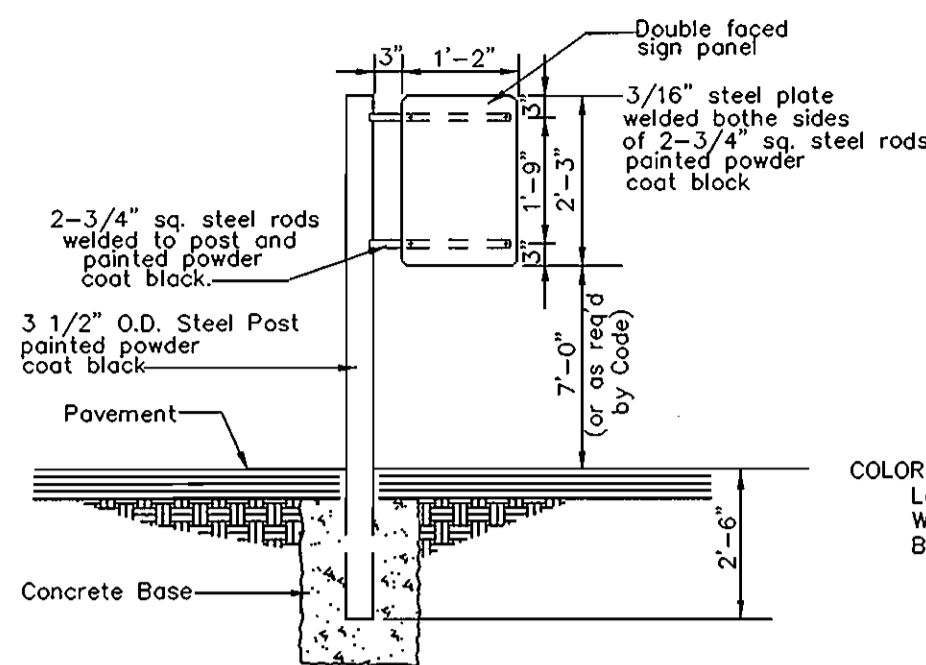
HANDICAP SIGN DETAIL
 NO SCALE



NOTE:
 SIGNS TO BE APPLIED
 TO METAL SIGN PANEL
 W/ SHEET METAL SCREWS
 PAINTED TO MATCH SIGN
 BACKGROUND.
 APPLIED HANDICAP SIGNS
 SIGN PANEL
 3/16\"/>

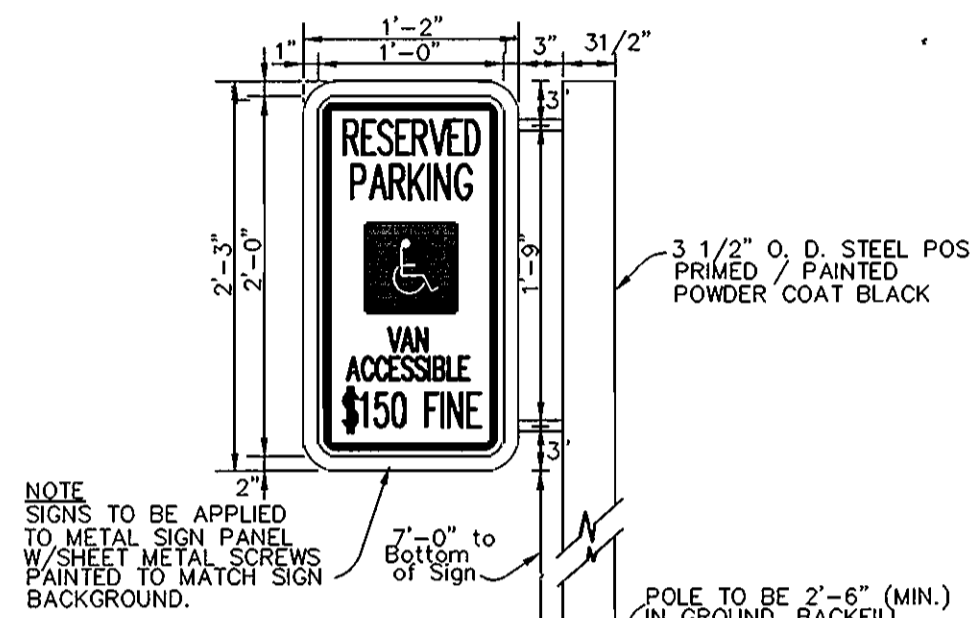
ACCESS AISLE SIGN DETAIL
 NO SCALE

* FOR VAN ACCESSIBLE
 SPACES ONLY. SEE
 PLAN FOR LOCATION.



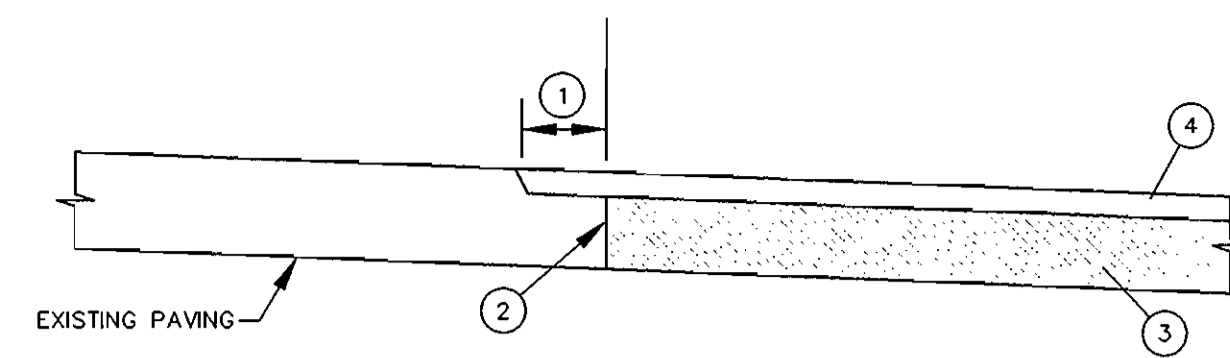
COLORS:
 Legend and Border - Green
 White Symbol on Blue Background
 Background - White

**POST & SIGN PANEL DETAIL FOR
 HANDICAP SIGNS**
 NO SCALE



NOTE:
 SIGNS TO BE APPLIED
 TO METAL SIGN PANEL
 W/ SHEET METAL SCREWS
 PAINTED TO MATCH SIGN
 BACKGROUND.
 APPLIED HANDICAP SIGNS
 SIGN PANEL
 3/16\"/>

**VAN ACCESSIBLE
 HANDICAP SIGN DETAIL**
 NO SCALE



- 1 MILL A 1' WIDE X 1 1/2" DEEP STRIP
- 2 SAW-CUT THROUGH FULL DEPTH PAVING
- 3 INSTALL SUB BASE GRAVEL AND BASIC PAVEMENT PER THE TYPICAL PAVEMENT SECTION.
- 4 PROVIDE 1 1/2" TOP SURFACE COARSE PER TYPICAL PAVEMENT SECTION.

NOTE: LONGITUDINAL JOINTS FOR THE TOP SURFACE COARSE MUST NOT
 COINCIDE WITH THE FULL-DEPTH SAW-CUT JOINT

PAVEMENT CONNECTION DETAIL
 NOT TO SCALE

APPROVED
PLANNING BOARD
of HOWARD COUNTY
 DATE AUGUST 31, 2007

APPROVED : HOWARD COUNTY DEPARTMENT OF PLANNING AND
 ZONING.
David L. Gage 6/26/07
 DIRECTOR DATE
John Pearson 5/6/07
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE
David Harris 5/25/07
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

DATE NO. REVISION

OWNER HOLDINGS RETAIL BUSINESS TRUST
 C/O ROSENTHAL PROPERTIES LLC
 8391 OLD COURTHOUSE RD SUITE 320
 VIENNA, VA 22182

DEVELOPER CHEVY CHASE BANK
 ATTN: JOSEPH PEARSON
 7501 WISCONSIN AVENUE
 9TH FLOOR CORPORATE FACILITIES
 BETHESDA, MD 20814

PROJECT **DOBBIN CENTER PARCEL J**
 CHEVY CHASE BANK

AREA TAX MAP 36 GRID #18 PARCEL 396 PAR J ZONING NT
 6TH ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

TITLE **DETAILS SHEET**

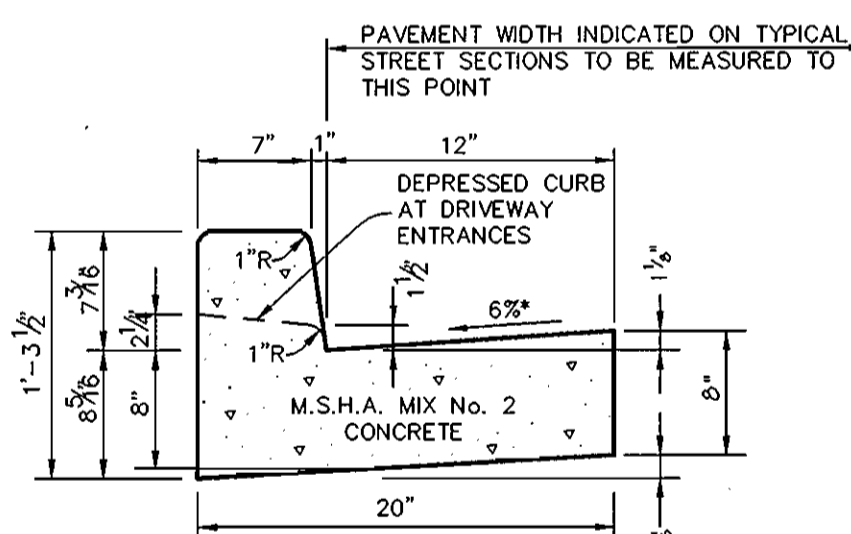
Patton Harris Rust & Associates,pc
 Engineers, Surveyors, Planners, Landscape Architects.
 8818 Centre Park Drive
 Columbia, MD 21045
 T 410.997.8900
 F 410.997.9282

DESIGNED BY : PHRA
 DRAWN BY: ALC
 PROJECT NO : 12104-2-0
 C900DET01.DWG
 DATE : APRIL 17, 2007
 SCALE : AS SHOWN
 DRAWING NO. 5 OF 22



JOHN W. CLAPSADDE #16956

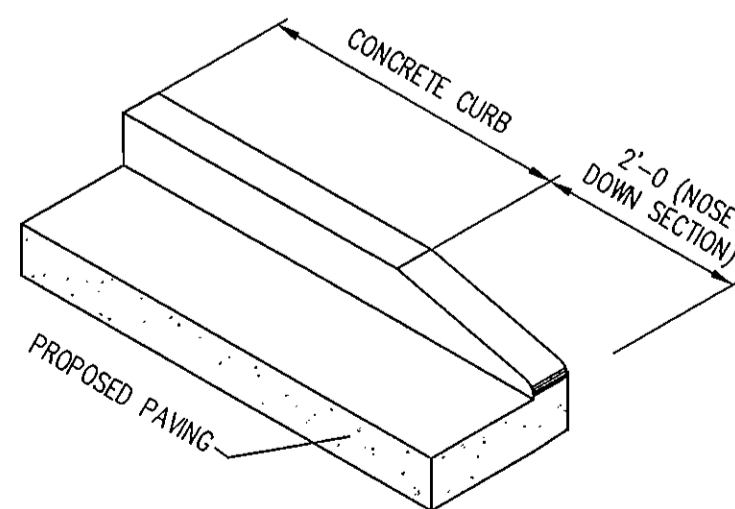
SDP-06-015



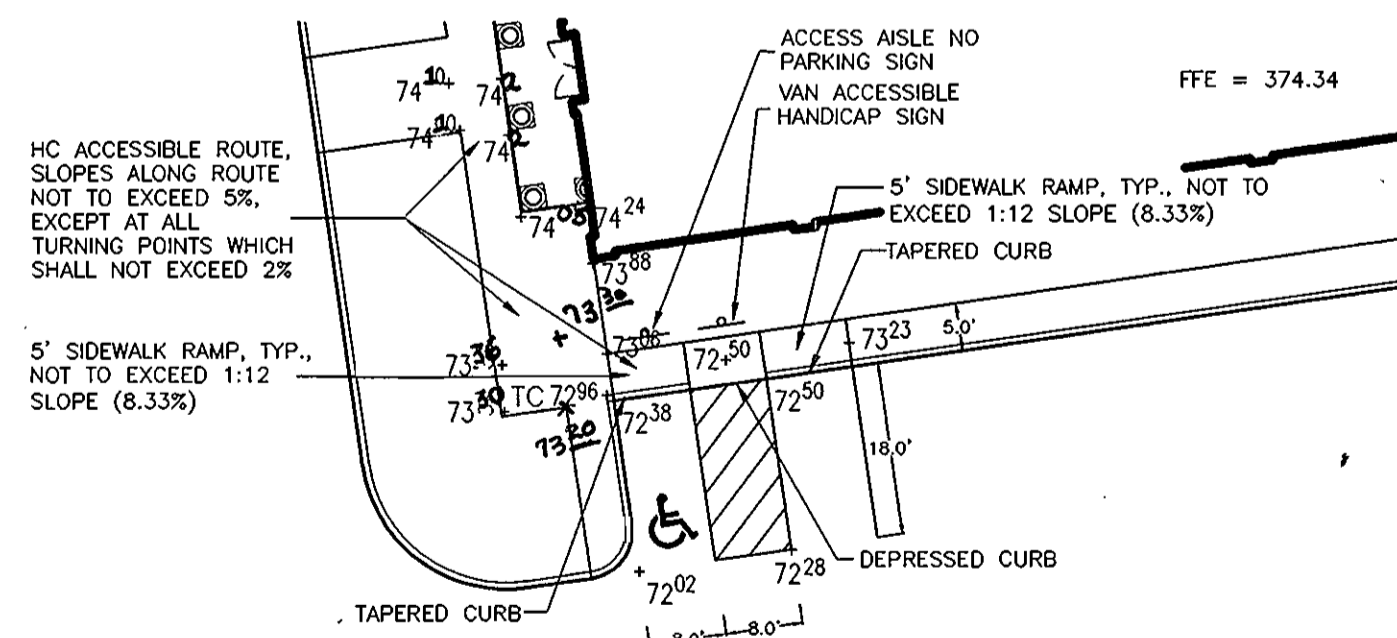
HOWARD COUNTY DESIGN MANUAL, VOLUME IV,
 STANDARD SPECIFICATIONS AND DETAILS FOR
 CONSTRUCTION (DRAWING R-3.01).

* GUTTER PAN AT THE MEDIAN EDGE OF INTERMEDIATE
 ARTERIALS OR THE HIGH SIDE OF SUPERELEVATED
 SECTIONS SHALL BE SLOPED AT THE SAME RATE
 AS THE PAVEMENT.

**STANDARD 7\"/>
 NO SCALE**

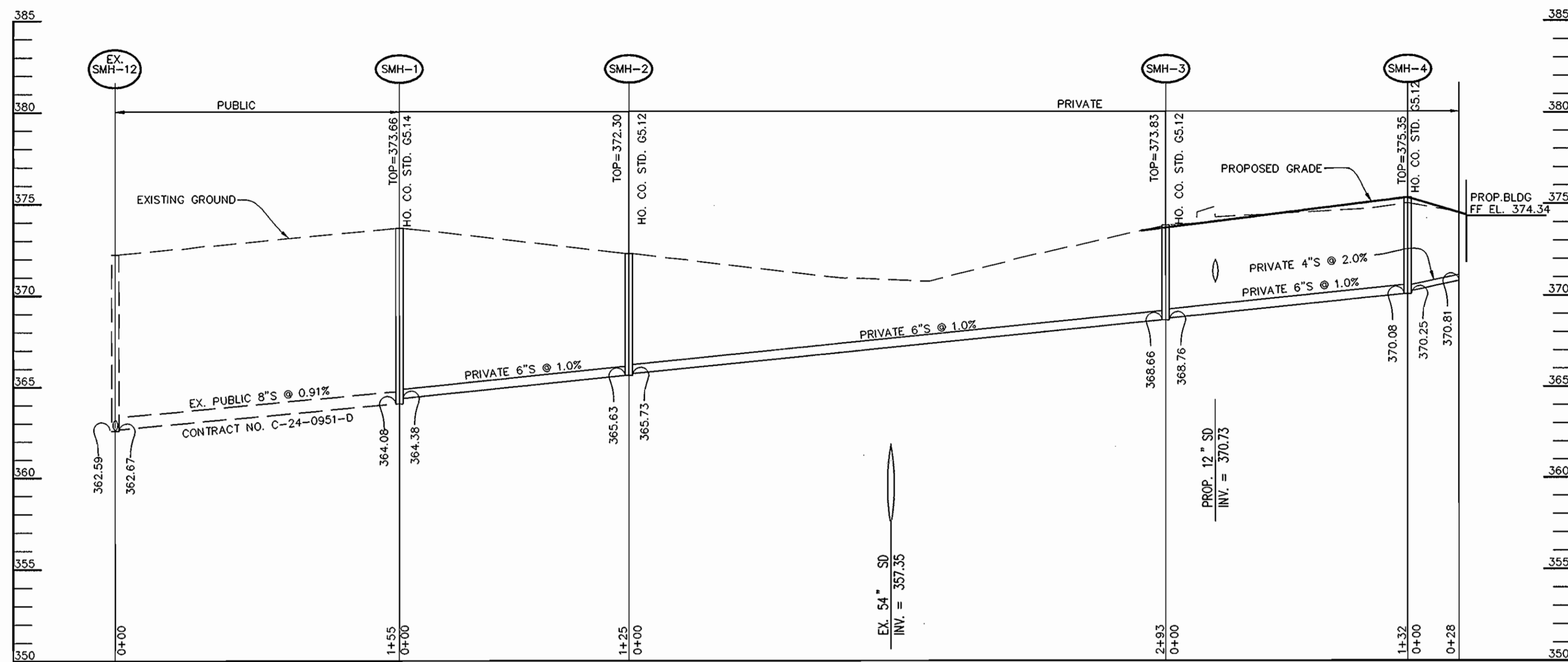


NOSE DOWN CURB
 NOT TO SCALE



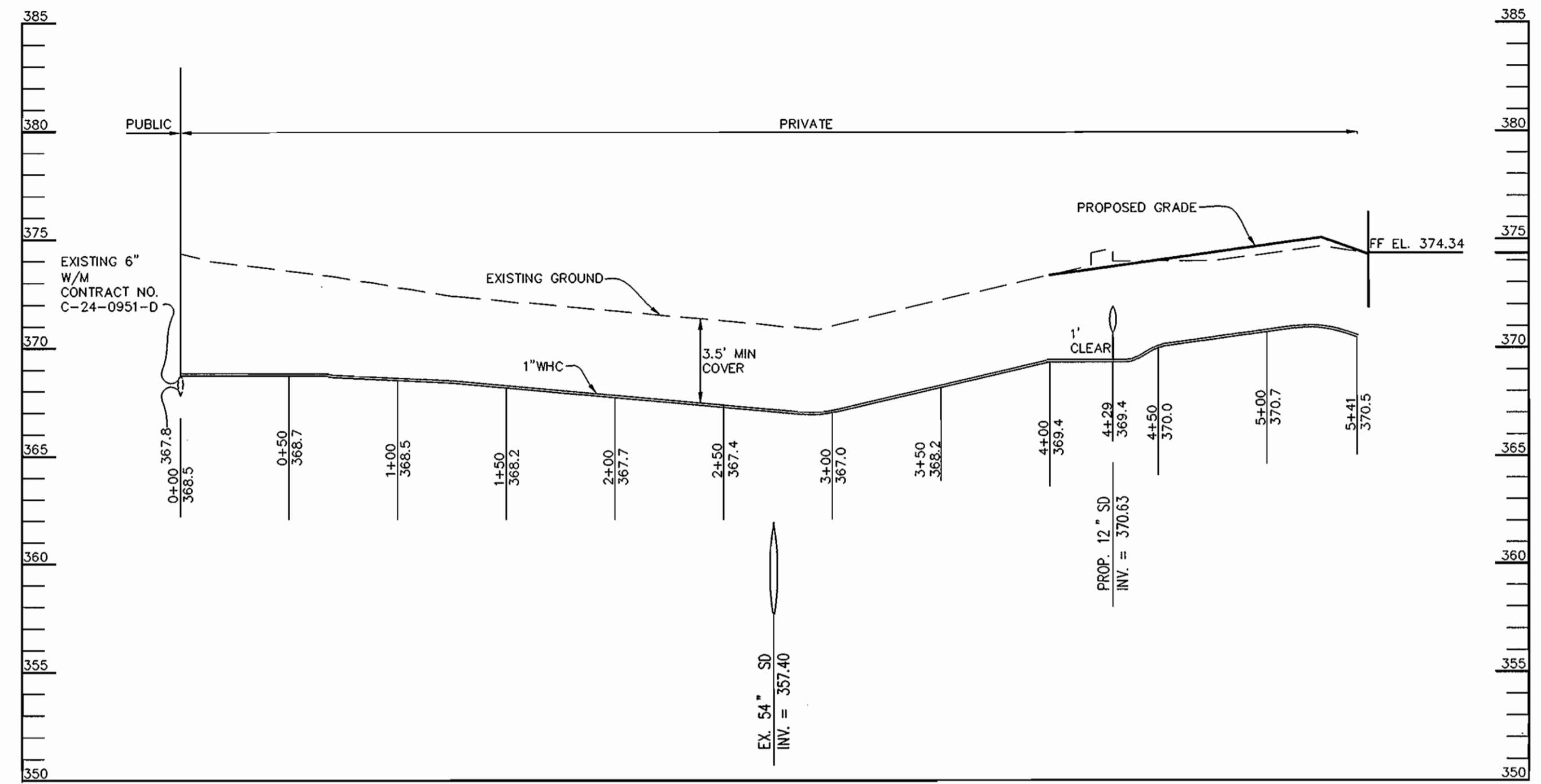
NOTE:
 BLEND EXISTING GRADES TO MEET PROPOSED SIDEWALK

HANDICAP DETAIL
 SCALE: 1"=20'



SEWER PROFILE

SCALE: HOR.-1"=50'
VERT.-1"=5'



WATER PROFILE

SCALE: HOR.-1"=50'
VERT.-1"=5'

WATER AND SEWER NOTES

- All water house connections shall be copper meeting the requirements of and constructed in accordance with the Howard County Design Manual Volume IV-Standard Specifications and Details for Construction.
- The contractor shall not operate any water main valves on the existing water system.
- All sewer mains shall be P.V.C. SDR 35 unless otherwise noted.
- All manholes shall be 4'-0" inside diameter unless otherwise noted.

PIPE SCHEDULE

PIPE LENGTH	SIZE	TYPE
22	6"	PVC
72	12"	HDPE
200	15"	HDPE
19	15"	RCP CL IV
24	12"	RCP CL IV

ALL QUANTITIES TO BE VERIFIED BY CONTRACTOR

STRUCTURE SCHEDULE

STRUCTURE	TYPE	LOCATION	INV. IN	INV. OUT	TOP	REMARKS
A1	4' DIA MANHOLE	N 556,880 E 1,363,995	365.10 (15") 362.45 (18")	361.90 (18")	372.11	HOCO STD. DETAIL G-5.11
A2	A-5 INLET	N 556,884 E 1,364,004	365.47 (15")	365.22 (15")	371.67	HOCO STD. DETAIL SD-4.40
A3	4' DIA MANHOLE	N 556,937 E 1,364,122	367.27 (15")	366.77 (15")	373.71	HOCO STD. DETAIL G-5.11
A4	TYPE 'S' INLET	N 556,960 E 1,364,119	368.00 (6")	367.50 (15")	373.00	HOCO STD. DETAIL SD-4.22
B1	4' DIA MANHOLE	N 556,917 E 1,363,990	368.79 (15")	367.24 (18")	372.80	HOCO STD. DETAIL G-5.11
B2	A-10 INLET	N 556,979 E 1,363,981	370.39 (12")	369.40 (15")	373.96	HOCO STD. DETAIL SD-4.41
B3	A-10 INLET	N 557,029 E 1,363,974	-	370.88 (12")	375.11	HOCO STD. DETAIL SD-4.41
C1	4' DIA MANHOLE	N 557,660 E 1,363,385	375.25 (15")	375.08 (15")	379.30	HOCO STD. DETAIL G-5.12 RIM AND STEPS TO BE LOCATED TOWARDS DOBBIN ROAD (EAST)
C2	A-10 INLET	N 557,673 E 1,363,376	-	376.33 (15")	379.60	HOCO STD. DETAIL SD-4.41
D1	4' DIA MANHOLE	N 557,499 E 1,363,222	365.03 (15")	364.75 (18")	369.25	HOCO STD. DETAIL G-5.12 RIM AND STEPS TO BE LOCATED TOWARDS DOBBIN ROAD (EAST)
D2	A-10 INLET	N 557,482 E 1,363,185	-	364.79 (12")	367.80	HOCO STD. DETAIL SD-4.41
D3	4' DIA MANHOLE	N 557,468 E 1,363,203	364.55 (12")	362.32 (15")	367.70	HOCO STD. DETAIL G-5.12
E1	4' DIA MANHOLE	N 554,416 E 1,362,784	373.87 (18") 373.31 (24")	373.15 (27")	378.10	HOCO STD. DETAIL G-5.12
E2	WR INLET	N 554,408 E 1,362,790	373.95 (18")	373.92 (18")	377.84	HOCO STD. DETAIL SD-4.35

STRUCTURE SCHEDULE NOTES:

- LOCATION OF 'A' INLETS IS AT CENTER OF THROAT OPENING. TOP ELEV. IS AT TOP OF CURB.
- LOCATION OF 'S' AND 'WR' INLETS IS AT CENTER OF GRATE. TOP ELEV. IS AT TOP OF GRATE.
- LOCATION OF MANHOLES IS AT CENTER OF COVER. TOP ELEV. IS AT TOP OF COVER.
- LOCATION OF END SECTION IS AT CENTER END OF STRUCTURE.

HDPE SPECIFICATIONS

CORRUGATED HIGH-DENSITY POLYETHYLENE STORM DRAIN (HDPE) PIPE FOR ON-SITE DRAINAGE AND UNDERGROUND DETENTION SYSTEM SHALL MEET THE REQUIREMENTS OF AASHTO M294. AASHTO WALL TYPE MAY BE TYPE "S" OR TYPE "D". PIPE AND FITTINGS SHALL BE MANUFACTURED FROM VIRGIN PE COMPOUNDS AND SHALL CONFORM TO THE APPLICABLE CURRENT EDITION OF THE AASHTO MATERIAL SPECIFICATIONS FOR CELL CLASSIFICATIONS AS DEFINED AND DESCRIBED IN ASTM D3350.

PIPES SHALL BE CONNECTED THROUGH A BELL AND SPIGOT CONNECTION. A RUBBER GASKET MEETING THE REQUIREMENTS OF ASTM F477 SHALL BE SUPPLIED ON THE SPIGOT END. THE PIPE SHALL BE WATERTIGHT TO 10.8 PSI PER A LABORATORY TEST IN ACCORDANCE WITH ASTM D3212. THE PIPE MANUFACTURER SHALL PROVIDE CERTIFICATIONS ON JOINT INTEGRITY.

PIPE TO MANHOLE CONNECTIONS SHALL BE MADE WITH A RUBBER BOOT-TYPE CONNECTION PRECAST INTO THE MANHOLE AND SHALL BE WATERTIGHT.

PIPE SHALL BE INSTALLED IN ACCORDANCE WITH ASTM D2321 AND MANUFACTURER'S RECOMMENDATIONS.

ALL PIPES SHALL BE BEDDED ON 4" TO 6" OF (CLASS 'I' FILL (UNDER THE PIPE) AND UP TO 1/2 THE PIPE DIAMETER COMPACTED AT OPTIMUM MOISTURE CONTENT (PLUS OR MINUS 2 PERCENTAGE POINTS), AND TO A MINIMUM OF 95% OF THE MAXIMUM DENSITY AS DETERMINED IN THE LABORATORY BY ASTM TEST METHOD D-1557-78. ALL ADDITIONAL BACKFILL SHALL MEET HOWARD COUNTY SPECIFICATIONS.

CORRUGATED HDPE STORM DRAIN SHALL BE N-12 PRO-LINK WT, AS MANUFACTURED BY ADS, INC., COLUMBUS, OH, OR APPROVED EQUAL.

APPROVED
PLANNING BOARD
of HOWARD COUNTY
DATE **AUGUST 31, 2006**

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.
DIRECTOR: *[Signature]* DATE: 6/26/07
CHIEF, DEVELOPMENT ENGINEERING DIVISION: *[Signature]* DATE: 5/16/07
CHIEF, DIVISION OF LAND DEVELOPMENT: *[Signature]* DATE: 6/28/07

DATE NO. REVISION

OWNER: HOLDINGS RETAIL BUSINESS TRUST
C/O ROSENTHAL PROPERTIES LLC
8391 OLD COURTHOUSE RD SUITE 320
VIENNA, VA 22182

DEVELOPER: CHEVY CHASE BANK
ATTN: JOSEPH PEARSON
7501 WISCONSIN AVENUE
9TH FLOOR CORPORATE FACILITIES
BETHESDA, MD 20814

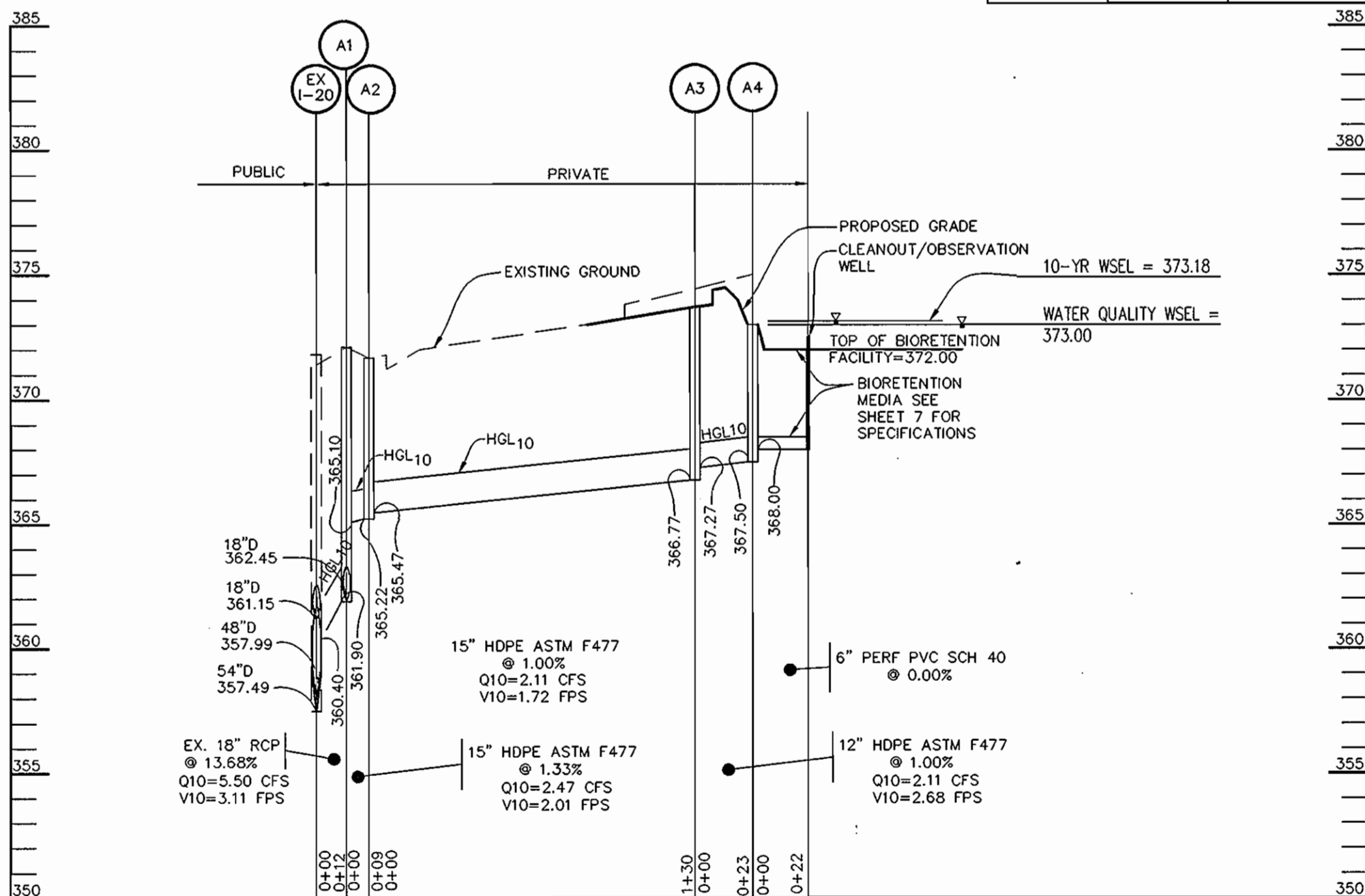
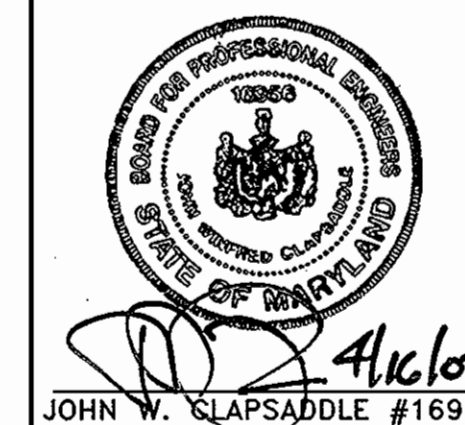
PROJECT: DOBBIN CENTER PARCEL J
CHEVY CHASE BANK

AREA TAX MAP 36 GRID #18 PARCEL 396 PAR J ZONING NT
6TH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

TITLE: PROFILES

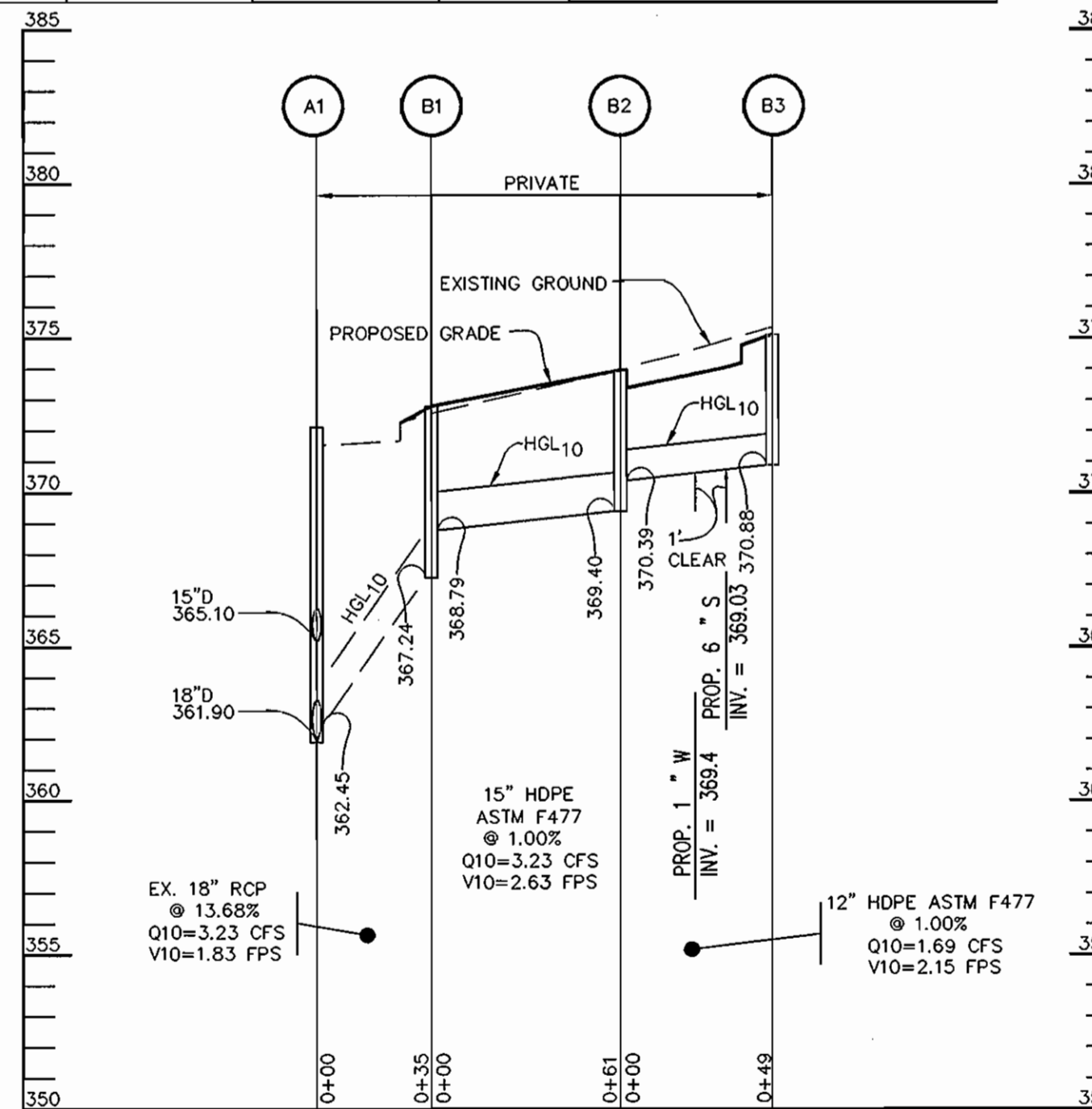
Patton Harris Rust & Associates, pc
Engineers, Surveyors, Planners, Landscape Architects.
8818 Centre Park Drive
Columbia, MD 21045
T 410.997.8900
F 410.997.9282

DESIGNED BY: SCM
DRAWN BY: SCM
PROJECT NO: 12104-2-0
C700PROF.DWG
DATE: APRIL 17, 2007
SCALE: AS SHOWN
DRAWING NO. 6 OF 28



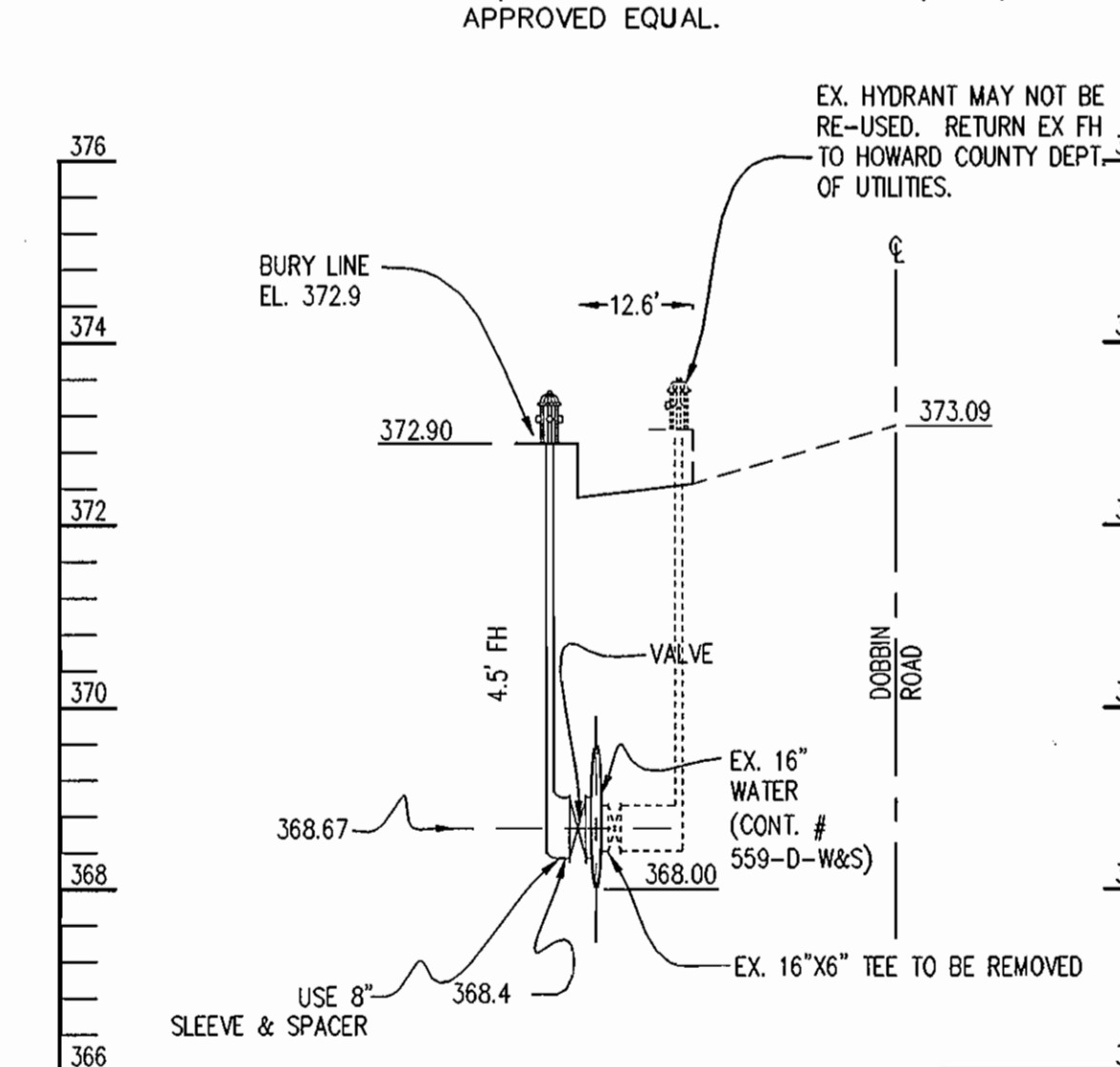
STORM DRAIN PROFILE

SCALE: HOR.-1"=50'
VERT.-1"=5'



STORM DRAIN PROFILE

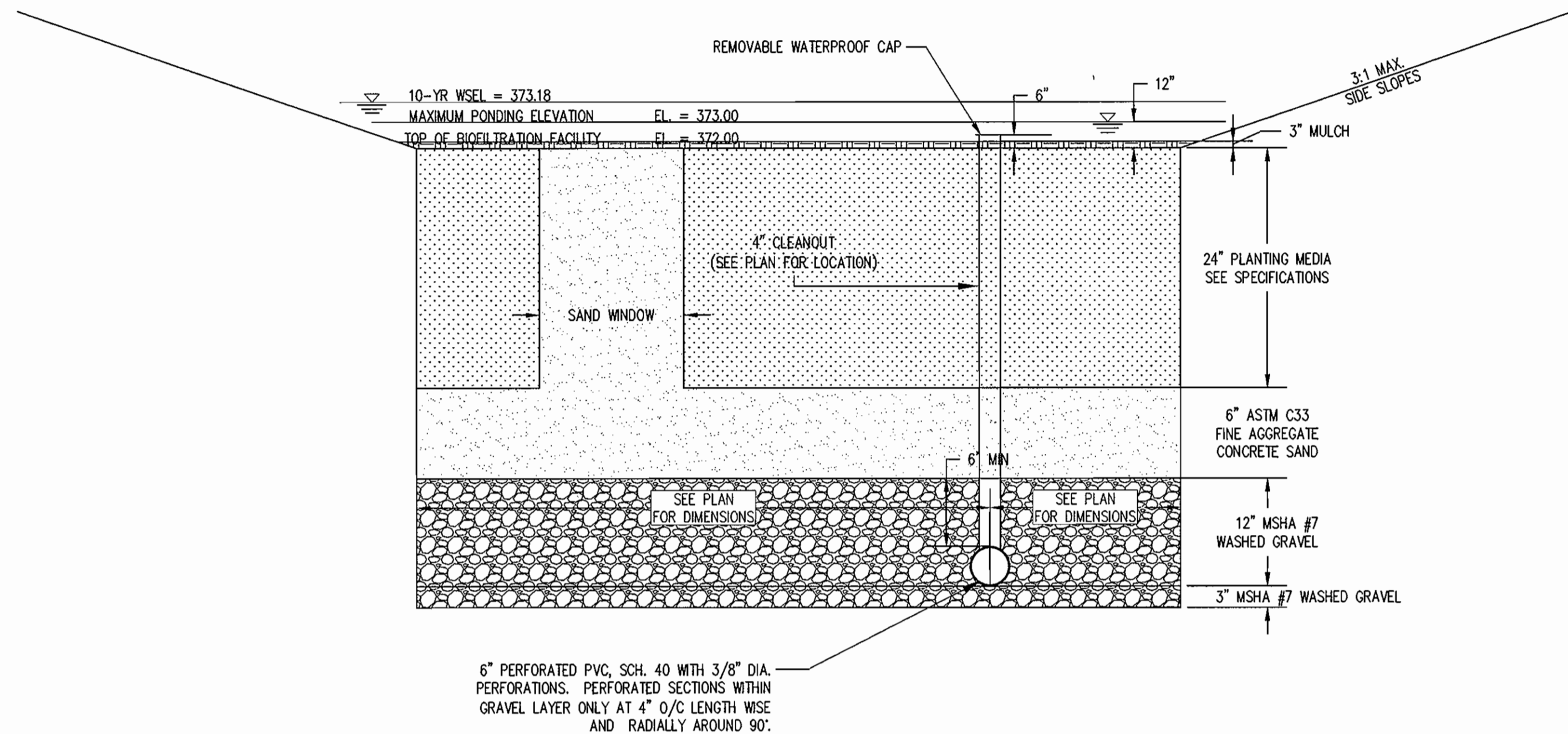
SCALE: HOR.-1"=50'
VERT.-1"=5'



FIRE HYDRANT RELOCATION
DOBBIN ROAD STA 70+00

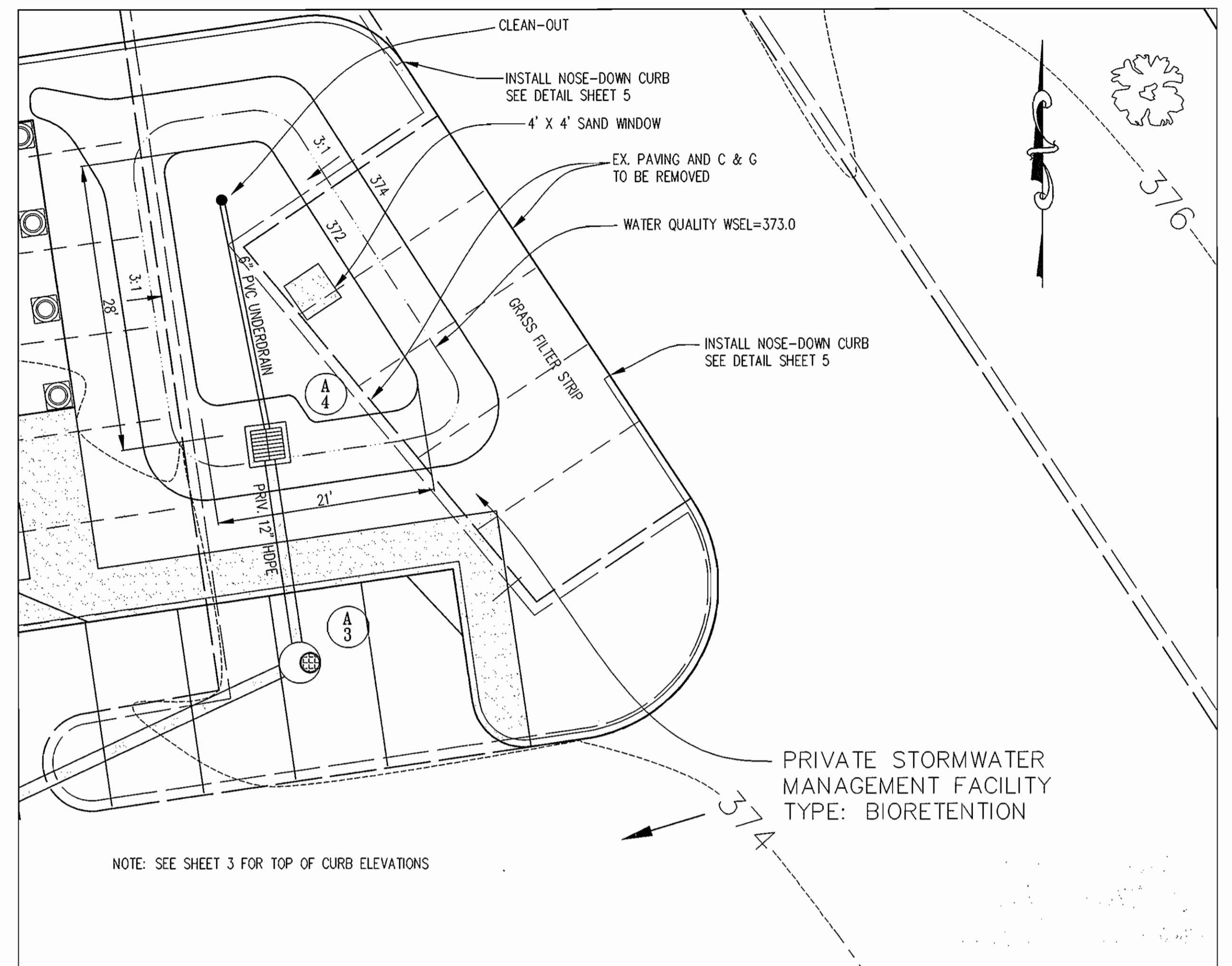
SCALE: HOR.-1"=20'
VERT.-1"=2'

NOTE: REFER TO SHEET 11 AND 19 FOR ADDITIONAL PROFILES



6" PERFORATED PVC, SCH. 40 WITH 3/8" DIA. PERFORATIONS. PERFORATED SECTIONS WITHIN GRAVEL LAYER ONLY AT 4" O/C LENGTH WISE AND RADIALLY AROUND 90°.

BIOFILTRATION TYPICAL SECTION
NOT TO SCALE



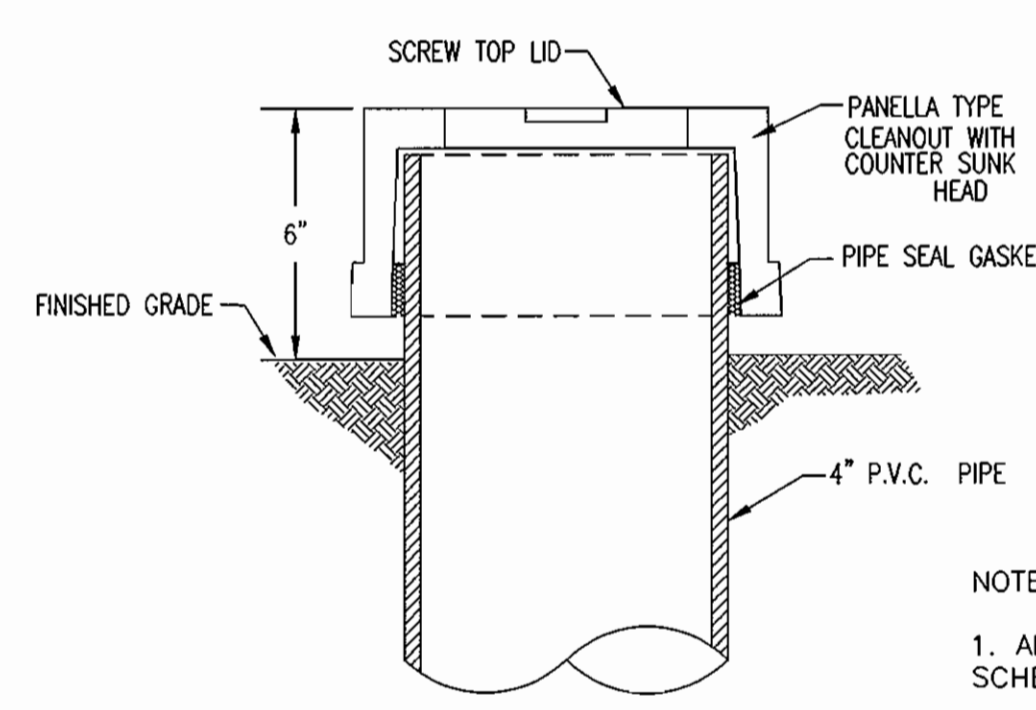
PRIVATE STORMWATER MANAGEMENT FACILITY - BIORETENTION
SCALE: 1" = 10'

BIOFILTRATION SPECIFICATIONS

1. THE UNDERDRAIN PIPE MUST BE 6-INCH DIAMETER SCHEDULE 40 OR STRONGER PERFORATED PVC PIPE AT 0.00% SLOPE. THREE INCHES OF GRAVEL MUST BE PLACED UNDER THE PIPE, WITH A MINIMUM OF 6 INCHES OF GRAVEL OVER THE PIPE. PERFORATIONS MUST BE 3/8 INCH IN DIAMETER AND MUST BE LOCATED 4 INCHES ON CENTER, EVERY 90 DEGREES AROUND THE PIPE. PERFORATED PIPE MUST BEGIN AT LEAST 5 FT. INSIDE THE FILTER MEDIA. FILTER FABRIC MUST NOT BE WRAPPED AROUND THE UNDERDRAIN PIPE.
2. 4" INCH CLEAN-OUTS SHOULD BE USED. CLEANOUTS FOR EACH PIPE SHOULD EXTEND 6 INCHES ABOVE THE TOP OF THE PLANTING MEDIA AND HAVE A REMOVABLE CAP.
3. THE GRAVEL LAYER SURROUNDING THE UNDERDRAIN PIPES MUST MEET MSHA SIZE #7 (TABLE 901A), AND MUST PROVIDE A MINIMUM OF 6 INCHES COVER OVER THE PIPE, AND MINIMUM 3 INCHES UNDER THE PIPE. NO GEOTEXTILE OR FILTER FABRIC IS ALLOWED ANYWHERE WITHIN THE FILTER MEDIA (STONE OR SAND).
4. A MINIMUM 6-INCH FINE AGGREGATE SAND LAYER SHALL BE PROVIDED BELOW THE SOIL FILTER/PLANTING MEDIA. A SAND WINDOW SHALL EXTEND FROM THE SAND FILTER TO THE SURFACE OF THE PLANTING MEDIA. THE SAND WINDOW MUST BE ASTM C33 FINE AGGREGATE CONCRETE SAND. MANUFACTURED SAND OR STONE DUST IS NOT ACCEPTABLE.
5. THE PLANTING MEDIA SHALL CONSIST OF 1/3 PERLITE, 1/3 COMPOST AND 1/3 TOPSOIL. THE PERLITE SHALL BE COARSE GRADE HORTICULTURAL PERLITE. THE COMPOST SHALL BE HIGH GRADE COMPOST FREE OF STONES AND PARTIALLY COMPOSTED WOODY MATERIAL. THE SOIL SHALL MEET THE FOLLOWING MINIMUM CRITERIA: CONTAIN NO MORE THAN 10% CLAY, 30-55% SILT AND 35-60% SAND. THE SOIL SHALL BE FREE OF STONES, STUMPS, ROOTS OR OTHER SIMILAR OBJECTS LARGER THAN 2 INCHES. THE FIRST LAYER OF THE PLANTING MEDIA SHALL BE LIGHTLY FILLED TO MIX IT INTO THE SAND LAYER. DO NOT TO CREATE A DEFINITIVE BOUNDARY. THE PLANTING MATERIAL SHALL BE FLOODED AFTER PLACEMENT. ANY SETTLEMENT THAT OCCURS SHALL BE FILLED BACK TO THE DESIGN ELEVATION.
6. THE SURFACE MULCH LAYER WILL CONSIST OF STANDARD FINE SHREDDED AGED HARDWOOD MULCH. THE MULCH SHOULD BE UNIFORMLY TO A DEPTH OF 2 TO 3 INCHES. YEARLY REPLENISHING MAY BE NECESSARY. PINE BARK IS NOT ACCEPTABLE.
7. ALL BIORETENTION AREAS SHALL HAVE A MINIMUM OF ONE TEST. EACH TEST SHALL CONSIST OF BOTH THE STANDARD SOIL TEST FOR PH, PHOSPHORUS, AND POTASSIUM AND ADDITIONAL TEST 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.

BIORETENTION AREA OPERATION AND MAINTENANCE SCHEDULE

1. ANNUAL MAINTENANCE OF PLANT MATERIAL, MULCH LAYER AND SOIL LAYER IS REQUIRED. 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.
2. SCHEDULE OF PLANTING INSPECTION WILL BE TWICE A YEAR IN SPRING AND FALL. THIS INSPECTION WILL INCLUDE REMOVAL OF DEAD AND DISEASE VEGETATION CONSIDERED BEYOND TREATMENT, TREATMENT OF ALL DISEASED TREES AND SHRUBS AND REPLACEMENT OF ALL DEFICIENT STAKES AND WIRES.
3. MULCH SHALL BE INSPECTED EACH SPRING. REMOVE PREVIOUS MULCH LAYER BEFORE APPLYING NEW LAYER ONCE EVERY 2 TO 3 YEARS.
4. SOIL EROSION TO BE ADDRESSED ON AN AS NEEDED BASIS, WITH A MINIMUM OF ONCE A MONTH AND AFTER HEAVY STORMS.



CLEAN-OUT CAP
(NOT TO SCALE)

- NOTE:
1. ALL PVC TO BE SCHEDULE 40.
 2. INSTALL REMOVABLE WATER TIGHT PVC CAP ON TOP OF 4" PVC.

APPROVED
PLANNING BOARD
OF HOWARD COUNTY
DATE **August 31, 2006**

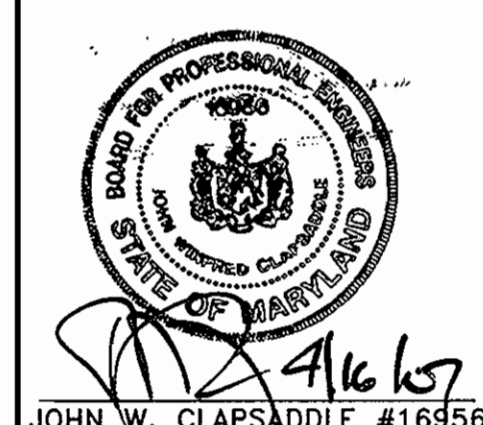
APPROVED : HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.	
DIRECTOR	6/14/07 DATE
CHIEF, DEVELOPMENT ENGINEERING DIVISION	5/16/07 DATE
CHIEF, DIVISION OF LAND DEVELOPMENT	5/25/07 DATE

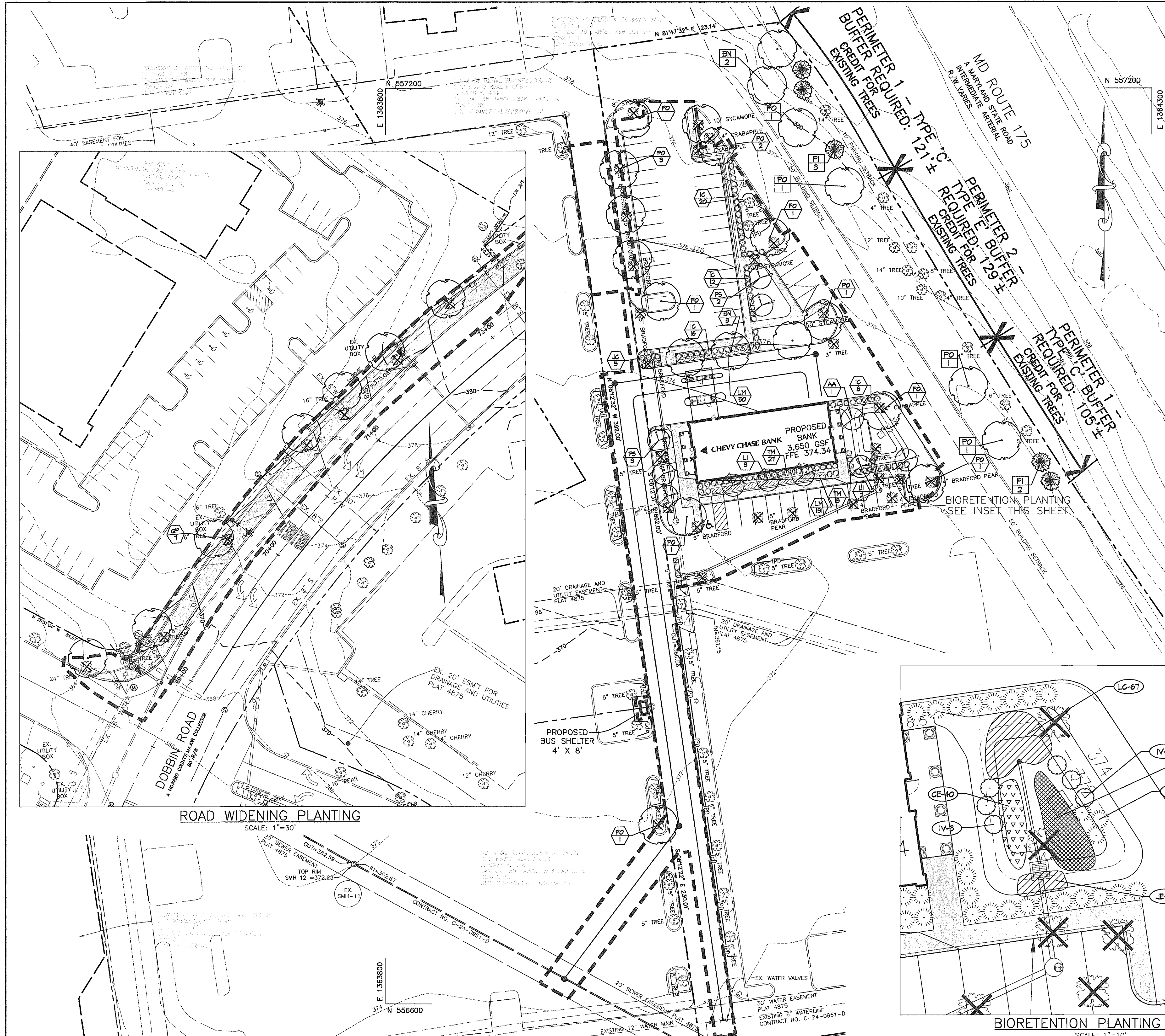
DATE	NO.	REVISION
OWNER		HOLDINGS RETAIL BUSINESS TRUST C/O ROSENTHAL PROPERTIES LLC 8391 OLD COURTHOUSE RD SUITE 320 VIENNA, VA 22182
DEVELOPER		CHEVY CHASE BANK ATTN: JOSEPH PEARSON 7501 WISCONSIN AVENUE 9TH FLOOR CORPORATE FACILITIES BETHESDA, MD 20814
PROJECT		DOBBIN CENTER PARCEL J CHEVY CHASE BANK
AREA TAX MAP		36 GRID #18 PARCEL 396 PAR J ZONING NT 6TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

TITLE
SWM DETAILS

Patton Harris Rust & Associates, pc
Engineers, Surveyors, Planners, Landscape Architects.
8818 Centre Park Drive
Columbia, MD 21045
T 410.997.8900
F 410.997.9282

DESIGNED BY : SCM
DRAWN BY: PDK
PROJECT NO 12104-2-0 C700SWM01.DWG
DATE : APRIL 17, 2007
SCALE : AS SHOWN
DRAWING NO. 7 OF 24



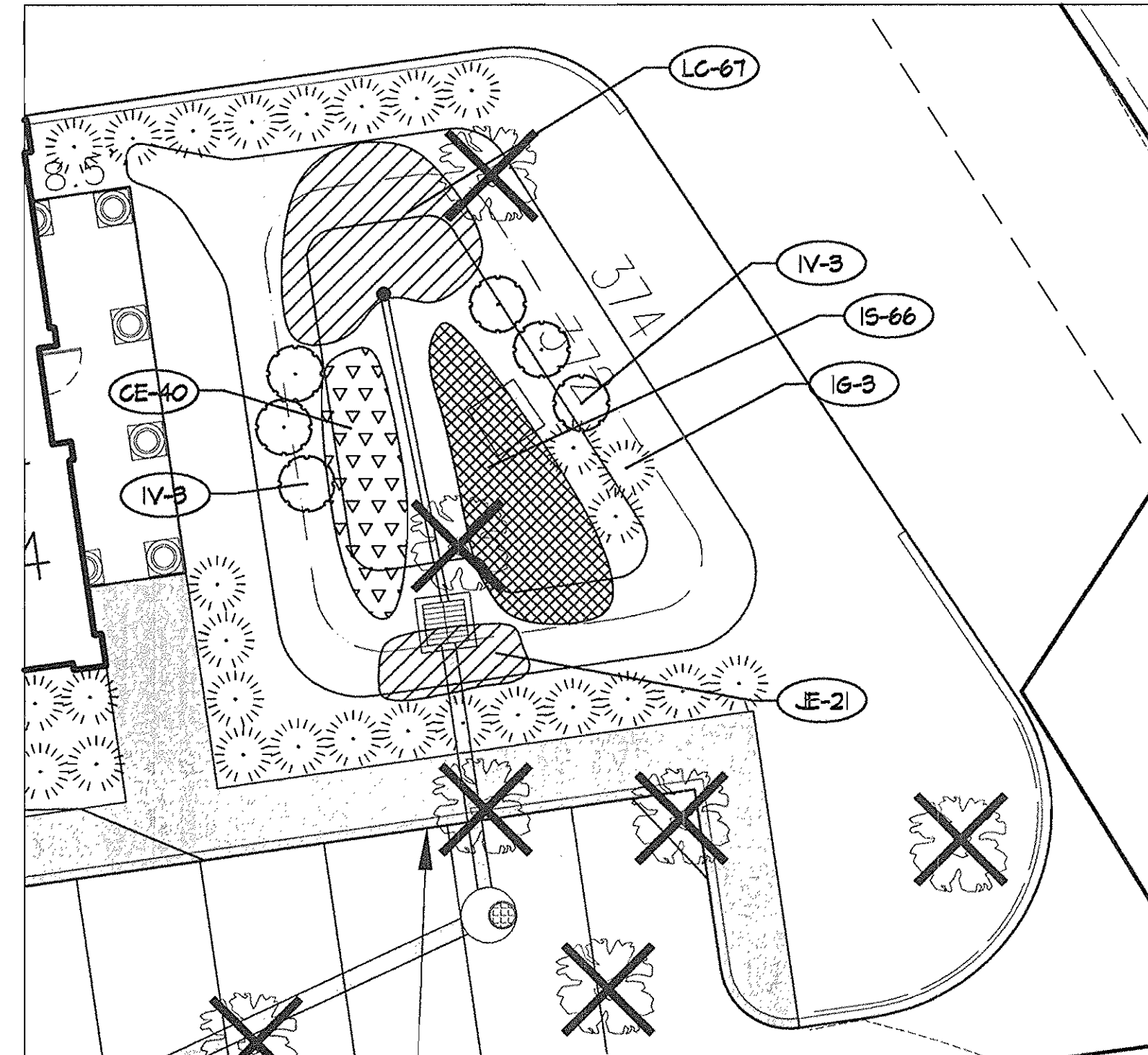
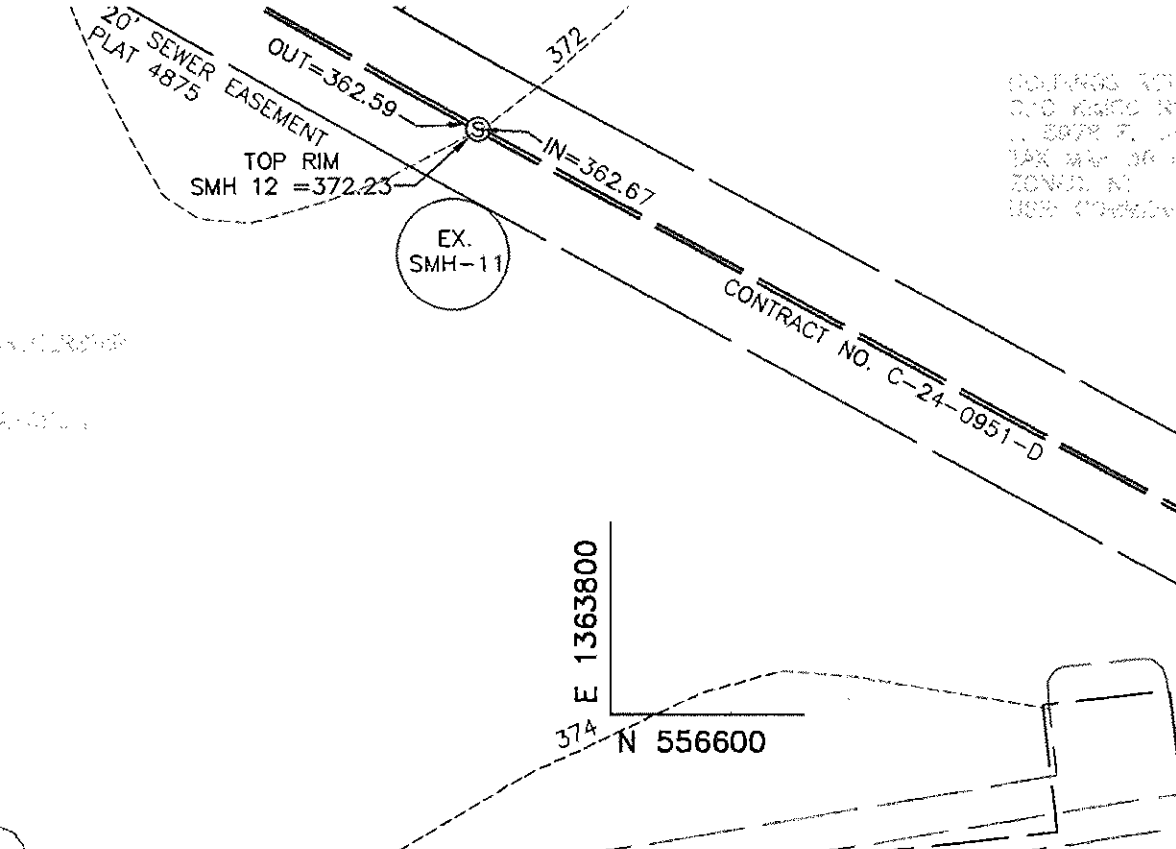


LEGEND	
EX. TREES	
EX. TREES TO BE REMOVED	
PROP. SHADE TREE	
PROP. EVERGREEN TREE	
PROP. ORNAMENTAL TREE	
PROP. SHRUBS	
LANDSCAPE PLANTING	
PERIMETER LANDSCAPE PLANTING	
BIORETENTION PLANTING	
TREE PROTECTION DEVICE	
PROPOSED GROUNDCOVER	
PROPOSED PERENNIALS	
LIMIT OF DISTURBANCE	

APPROVED
PLANNING BOARD
OF HOWARD COUNTY
DATE **AUGUST 31, 2006**

ROAD WIDENING PLANTING

SCALE: 1"=30'



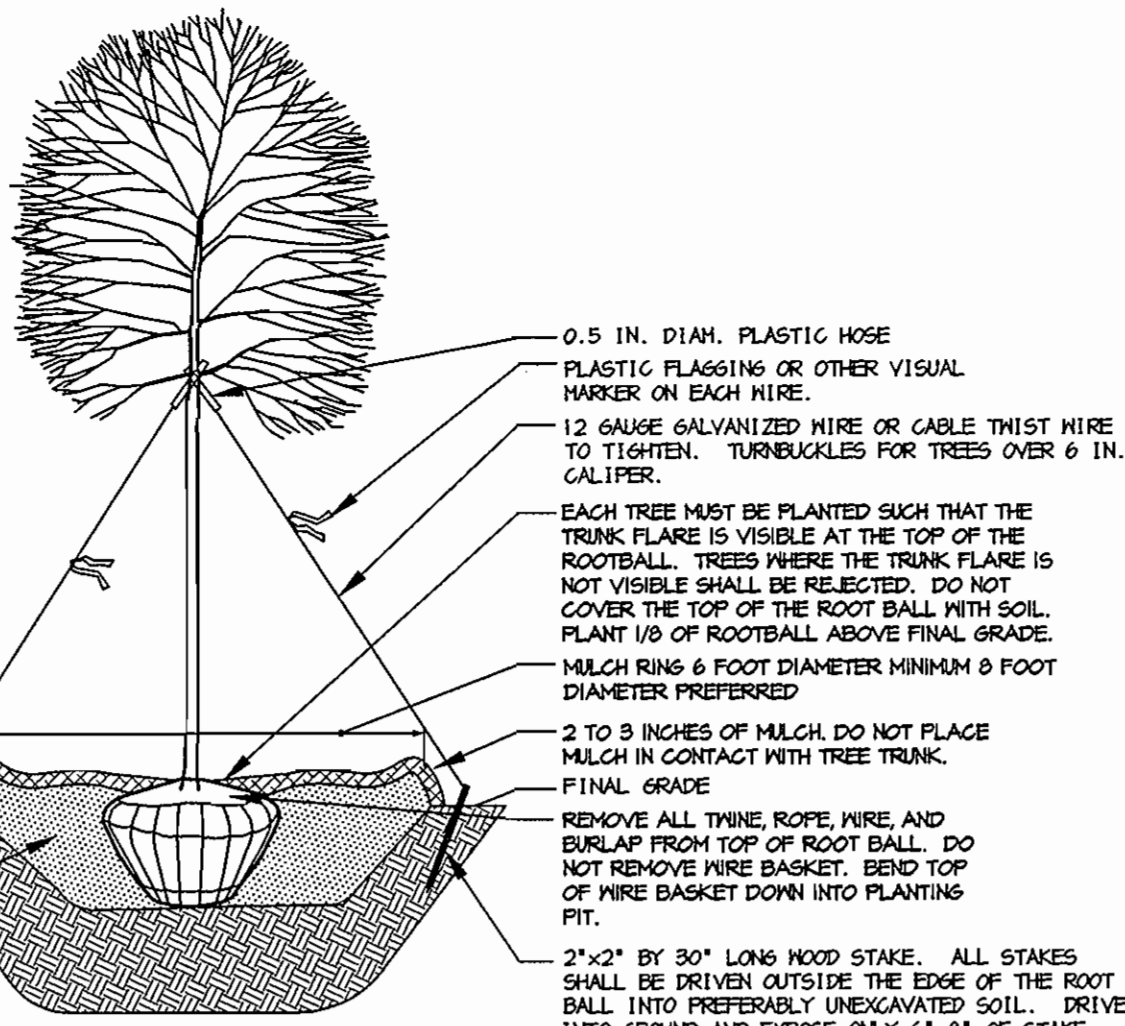
BIORETENTION PLANTING INSET

SCALE: 1"=10'

APPROVED : HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.	
<i>Joseph Pearson</i>	4/16/07
DIRECTOR	DATE
<i>John D. Dunham</i>	5/6/07
CHIEF, DEVELOPMENT ENGINEERING DIVISION	DATE
<i>Wanda Hamilton</i>	5/25/07
CHIEF, DIVISION OF LAND DEVELOPMENT	DATE
DATE NO.	REVISION
OWNER	HOLDINGS RETAIL BUSINESS TRUST C/O ROSENTHAL PROPERTIES LLC 8391 OLD COURTHOUSE RD SUITE 320 VIENNA, VA 22182
DEVELOPER	CHEVY CHASE BANK ATTN: JOSEPH PEARSON 7501 WISCONSIN AVENUE 9TH FLOOR CORPORATE FACILITIES BETHESDA, MD 20814
PROJECT	DOBBIN CENTER PARCEL J CHEVY CHASE BANK
AREA TAX MAP	36 GRID #18 PARCEL 396 PAR J ZONING NT 6TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
TITLE	LANDSCAPE PLAN
Patton Harris Rust & Associates, pc Engineers. Surveyors. Planners. Landscape Architects. 8818 Centre Park Drive Columbia, MD 21045 T 410.997.8900 F 410.997.9282	
DESIGNED BY :	ALC
DRAWN BY :	ALC
PROJECT NO :	12104-2-0 L200LND01.DWG
DATE :	APRIL 17, 2007
SCALE :	1" = 30'
DRAWING NO. :	8 OF 26

NOTES:

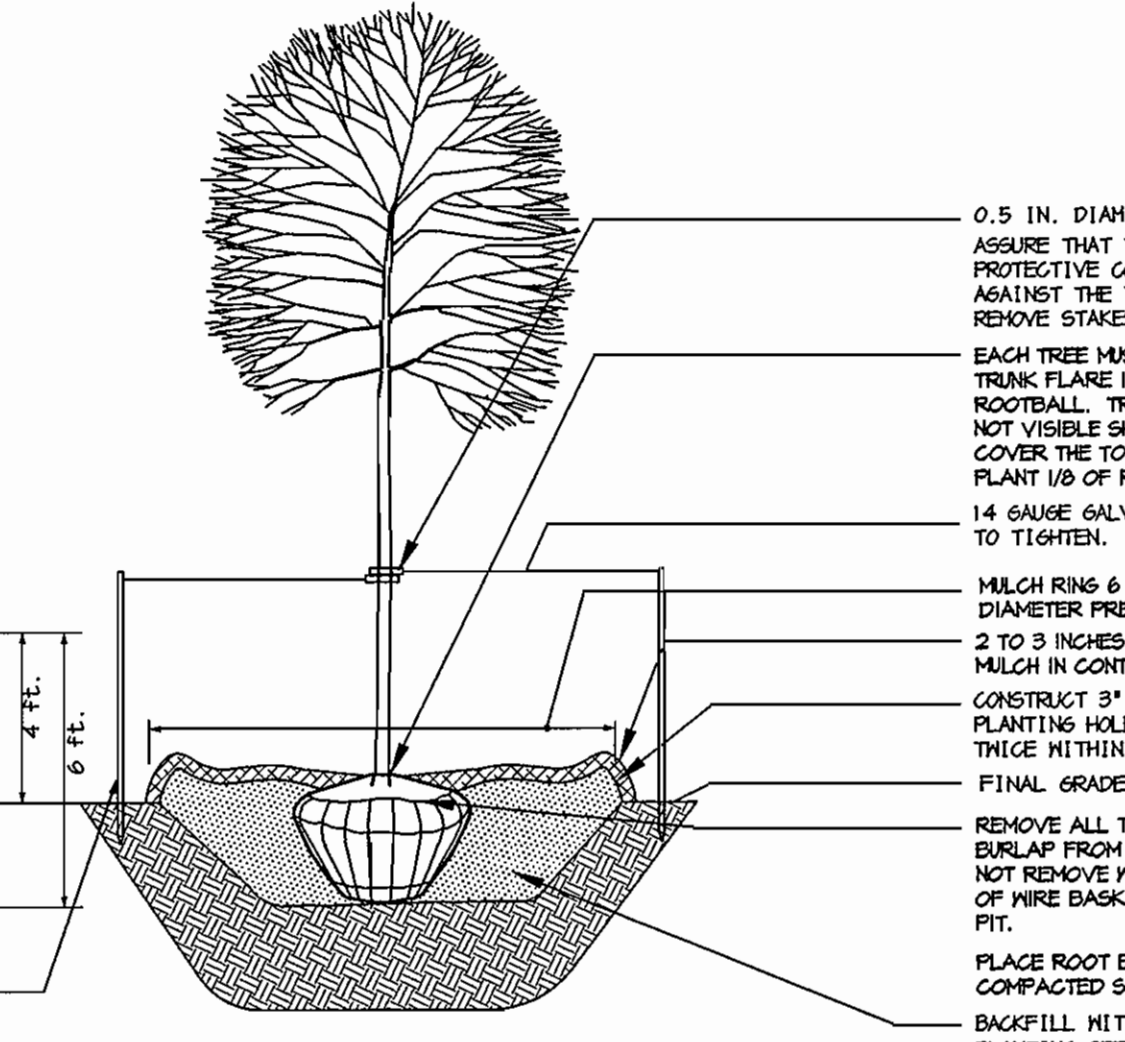
- DO NOT HEAVILY PRUNE THE TREE AT PLANTING. PRUNE ONLY CROSSOVER LINES, CO-DOMINANT LEADERS, AND BROKEN OR DEAD BRANCHES. SOME INTERIOR THIGS AND LATERAL BRANCHES MAY BE PRUNED; HOWEVER, DO NOT REMOVE THE TERMINAL BUDS OF BRANCHES THAT EXTEND TO THE EDGE OF THE CROWN.
- STAKE TREES AS SHOWN.
- D16 PLANTING PIT THICE AS WIDE AS THE DIAMETER OF THE TOP OF THE ROOT BALL WITH A MINIMUM PLANTING PIT DIAMETER OF 5'.
- PLACE ROOT BALL ON UNEXCAVATED OR COMPACTED SOIL.
- TIGHTEN WIRE OR CABLE ONLY ENOUGH TO KEEP FROM SLIPPING. ALLOW FOR SOME TRUNK MOVEMENT. PLASTIC HOSE SHALL BE LONG ENOUGH TO ACCOMMODATE 1.5 IN. OF GROWTH AND BUFFER ALL BRANCHES FROM THE WIRE.
- TUCK ANY LOOSE ENDS OF THE WIRE OR CABLE INTO THE WIRE WRAP SO THAT NO SHARP WIRE ENDS ARE EXPOSED.
- INSTALL THREE GUY WIRES PER TREE, SPACED EVENLY AROUND THE TRUNK.
- ASSURE THAT THE BEARING SURFACE OF THE PROTECTIVE COVERING OF THE WIRE OR CABLE AGAINST THE TREE TRUNK IS A MINIMUM OF 0.5 IN. REMOVE STAKES AFTER ONE YEAR.
- CONSTRUCT 3" SAUKER ALL AROUND PLANTING HOLE. FLOOD WITH WATER THICE WITHIN 24 HOURS.
- BACKFILL WITH PLANTING MIX (SEE PLANTING SPECIFICATIONS). TAMP SOIL AROUND ROOT BALL BASE FIRMLY WITH FOOT PRESSURE SO THAT ROOT BALL DOES NOT SHIFT.



DECIDUOUS B&B TREE PLANTING DETAIL (TREES 3" CAL. OR LARGER)
NOT TO SCALE

NOTES:

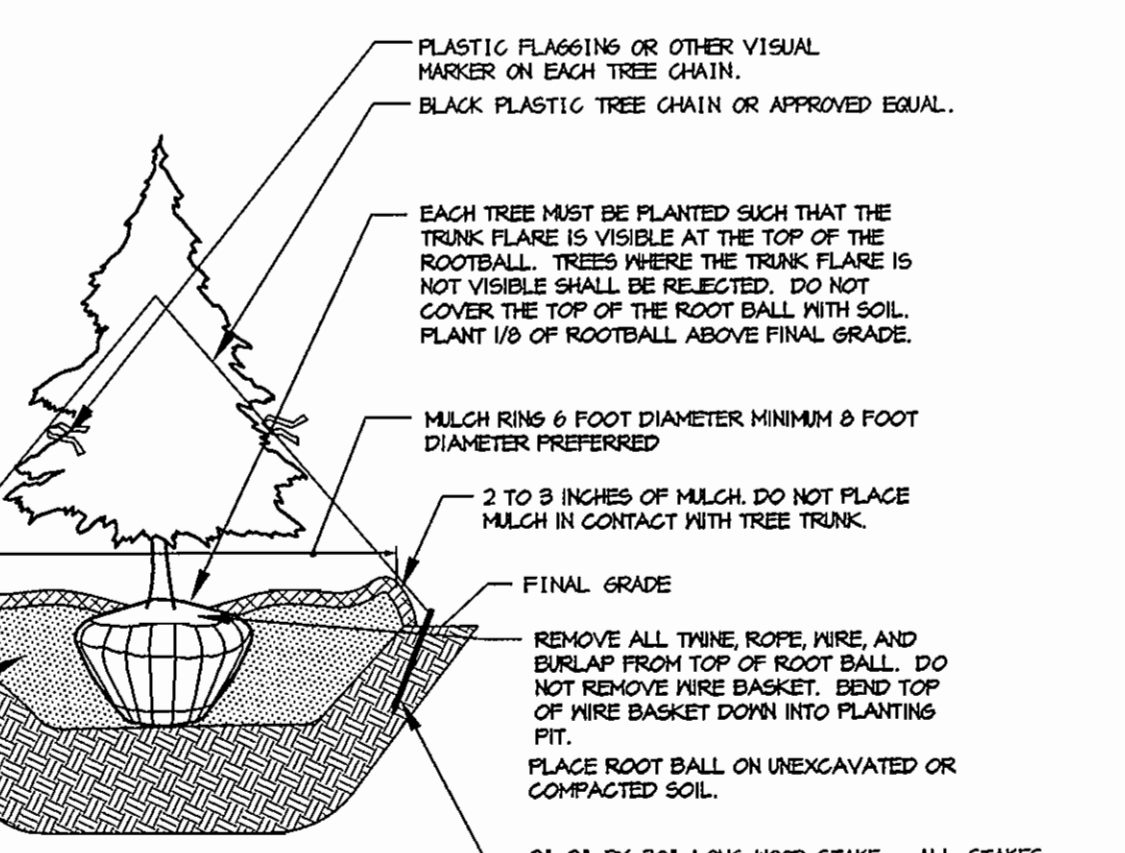
- DO NOT HEAVILY PRUNE THE TREE AT PLANTING. PRUNE ONLY CROSSOVER LINES, CO-DOMINANT LEADERS, AND BROKEN OR DEAD BRANCHES. SOME INTERIOR THIGS AND LATERAL BRANCHES MAY BE PRUNED; HOWEVER, DO NOT REMOVE THE TERMINAL BUDS OF BRANCHES THAT EXTEND TO THE EDGE OF THE CROWN.
- STAKE TREES AS SHOWN.
- D16 PLANTING PIT THICE AS WIDE AS THE DIAMETER OF THE TOP OF THE ROOT BALL WITH A MINIMUM PLANTING PIT DIAMETER OF 5'.
- TIGHTEN WIRE OR CABLE ONLY ENOUGH TO KEEP FROM SLIPPING. ALLOW FOR SOME TRUNK MOVEMENT. PLASTIC HOSE SHALL BE LONG ENOUGH TO ACCOMMODATE 1.5 IN. OF GROWTH AND BUFFER ALL BRANCHES FROM THE WIRE.
- TUCK ANY LOOSE ENDS OF THE WIRE OR CABLE INTO THE WIRE WRAP SO THAT NO SHARP WIRE ENDS ARE EXPOSED.
- INSTALL TWO STAKES ON OPPOSITE SIDES OF TREE, PARALLEL TO THE DIRECTION OF THE PREVAILING WINDS. UNLESS OTHERWISE DIRECTED BY LANDSCAPE ARCHITECT. ALL STAKES SHALL BE DRIVEN OUTSIDE THE EDGE OF THE ROOT BALL INTO PREFERABLY UNEXCAVATED SOIL.



DECIDUOUS B&B TREE PLANTING DETAIL (TREES 3" CAL. OR SMALLER)
NOT TO SCALE

NOTES:

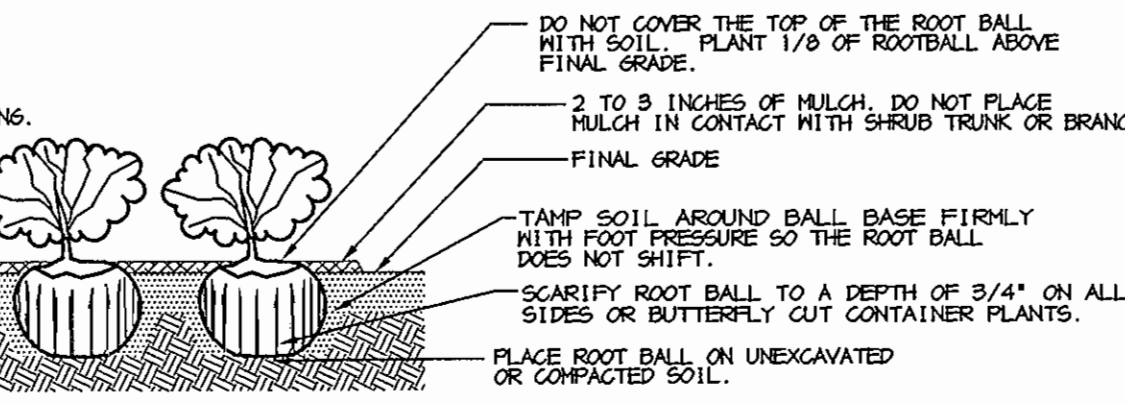
- SELECT ONLY NURSERY STOCK WITH A SINGLE LEADER UNLESS OTHERWISE SPECIFIED ON PLAN. PLANTS WITH CO-DOMINANT, MISSED, OR DAMAGED LEADERS SHALL BE REJECTED.
- STAKE TREES AS SHOWN.
- D16 PLANTING PIT THICE AS WIDE AS THE DIAMETER OF THE TOP OF THE ROOT BALL WITH A MINIMUM PLANTING PIT DIAMETER OF 5'.
- CONSTRUCT 3" SAUKER ALL AROUND PLANTING HOLE. FLOOD WITH WATER THICE WITHIN 24 HOURS.
- BACKFILL WITH PLANTING MIX (SEE PLANTING SPECIFICATIONS). TAMP SOIL AROUND ROOT BALL BASE FIRMLY WITH FOOT PRESSURE SO THAT ROOT BALL DOES NOT SHIFT.



EVERGREEN B&B TREE PLANTING DETAIL
NOT TO SCALE

NOTES:

- SEE PLANTING SPECIFICATIONS FOR PREPARATION OF PLANTING BED.
- DO NOT HEAVILY PRUNE THE SHRUB AT PLANTING. PRUNE ONLY BROKEN, DAMAGED, OR DISEASED BRANCHES.
- D16 PLANTING PIT 12" WIDER THAN THE DIAMETER OF THE TOP OF THE ROOT BALL WITH A MINIMUM PLANTING PIT DIAMETER OF 18".
- FOR B&B SHRUBS REMOVE ALL TWINE, ROPE, AND BURLAP FROM TOP OF ROOT BALL.
- ALL CONTAINERS SHALL BE REMOVED BEFORE INSTALLATION.



SHRUB BED PLANTING DETAIL - B&B AND CONTAINER SHRUBS
NOT TO SCALE

PLANTING SPECIFICATIONS

- Plants, related material, and operations shall meet the detailed description, as given on the plans and as described herein. Where discrepancies exist between Standards & Guidelines referenced within these specifications and the Landscape Manual of the applicable jurisdiction, the latter takes precedence.
- All plant material, unless otherwise specified, that is not nursery grown, uniformly branched, does not have a vigorous root system, and does not conform to the most recent edition of the American Association of Nurserymen (AAN) Standards will be rejected. Plant material that is not healthy, vigorous, free from defects, decay, disfiguring roots, unscald injuries, abrasions of the bark, plant disease, insect pest eggs, borers and all forms of insect infestations or objectionable disfigurements will be rejected. Plant material that is weak or which has been cut back from larger grades to meet specified requirements will be rejected. Trees with forked leaders will be rejected. All B & B plants shall be freshly dug; no healed-in plants or plants from cold storage will be accepted.
- Unless otherwise specified, all general conditions, planting operations, details and planting specifications shall conform to the most recent edition of the "Landscape Specification Guidelines by the Landscape Contractors Association of MD, DC, & VA", (hereinafter "Landscape Guidelines") approved by the Landscape Contractors Association of Metropolitan Washington and the Potomac Chapter of the American Society of Landscape Architects.
- Contractor shall guarantee all plant material for a period of one year after date of acceptance in accordance with the appropriate section on the Landscape Guidelines. Contractor's attention is directed to the maintenance requirements found within the one year specifications including watering and replacement of specified plant material.
- Contractor shall be responsible for notifying all relevant and appropriate utility companies, utility contractors, and "Miss Utility" a minimum of 48 hours prior to the beginning of any work. Contractor may make minor adjustments in spacing and location of plant material to avoid conflicts with utilities. Major changes will require the approval of the landscape architect. Damage to existing structure and utilities shall be repaired at the expense of the Contractor.
- Protection of existing vegetation to remain shall be accomplished via the temporary installation of 4 foot high snow fence at the drip line, see detail.
- Contractor is responsible for installing all material in the proper planting season for each plant type. All planting is to be completed within growing season of completion of site construction. Do not plant Pinus strobus or Xcupressacyparis leylandii between November 15 and March 15. Landscape plants are not to be installed before site is graded to final grade.
- Contractor to regrade, fine grade, sod, hydroseed and straw mulch all areas disturbed by their work.
- Bid shall be based on actual site conditions. No extra payment shall be made for work arising from actual site conditions differing from those indicated on drawings and specifications.
- Plant quantities are provided for the convenience of the contractor only. If discrepancies exist between quantities shown on plan and those shown on the plant list, the quantities on the plan take precedence. Where discrepancies on the plan exist between the symbols and the callout leader, the number of symbols take precedence.
- All shrubs and groundcover areas shall be planted in continuous planting beds, prepared as specified, unless otherwise indicated on plans. (See Specification 13). Beds to be mulched with minimum 2" and maximum 3" of composted, double-shredded hardwood mulch throughout.
- Bed preparation shall be as follows: Till into a minimum depth of 6" 1 yard of Compro or Leafgro per 200 SF of planting bed, and 1 yard of topsoil per 100 SF of bed. Add 3 lbs of standard 5-10-5 fertilizer per cubic yard of planting mix and till. Ericaceous plants (Azaleas, Rhododendrons, etc.); top dress after planting with iron sulfate or comparable product according to package directions. Taxus bacata 'Repandens' (English weeping yews): Top dress after planting with 1/4 to 1/2 cup lime each.
- Planting mix: For trees not in a prepared bed, mix 50% Compro or Leafgro with 50% soil from tree hole to use as backfill, see tree planting detail.
- Weed & insect control: Incorporate a pre-emergent herbicide into the planting bed following recommended rates on the label. For tree planting, apply a pre-emergent on top of soil and root ball before mulching. Caution: For areas to be planted with a ground cover, be sure to carefully check the chemical used to assure its adaptability to the specific groundcover to be treated. Maintain the mulch weed-free for the extent of the warranty period. Under no circumstances is a pesticide containing chlorpyrifos to be used as a means of pest control.
- Water: All plant material planted shall be watered thoroughly the day of planting. All plant material not yet planted shall be properly protected from drying out until planted. At a minimum, water unplanted plant material daily and as necessary to avoid desiccation.
- Pruning: Do not heavily prune trees and shrubs at planting. Prune only broken, dead, or diseased branches.
- All areas within contract limits disturbed during or prior to construction not designated to receive plants and mulch shall be fine graded, grass seed planted, and covered with straw mulch.

SCHEDULE A - PERIMETER LANDSCAPE EDGE

PERIMETER	ADJACENT TO ROADWAYS	
	1	2
LANDSCAPE TYPE	C	E
LINEAR FEET OF ROADWAY FRONTAGE/ PERIMETER	226' ±	129' ±
CREDIT FOR EXISTING VEGETATION (YES, NO, LINEAR FEET) (DESCRIBE BELOW IF NEEDED)	3 SHADE TREES	0 SHADE TREES
CREDIT FOR GRADE CHANGE OR DRIVE AISLE (YES/NO/LINEAR FEET)	NO	YES (GRADE CHANGE) 129'
LINEAR FEET REMAINING	226' ±	129' ±
NUMBER OF PLANTS REQUIRED		
SHADE TREES	6	3
EVERGREEN TREES	11	0 (0)
SHRUBS	0	0
NUMBER OF PLANTS PROVIDED		
SHADE TREES	6 ⁽⁴⁾	0 ⁽⁵⁾
EVERGREEN TREES	5 ⁽⁴⁾	0
SHRUBS	0	0

SCHEDULE 'A' NOTES:

- REGULATIONS DO NOT REQUIRE LANDSCAPE EDGES, BUFFERING, OR SCREENING BETWEEN INTERNAL LOTS OR PARCELS WITHIN THE SAME DEVELOPMENT. (PAGE 17 OF THE HO. CO. LANDSCAPE MANUAL)
- EXPANSION TO EXISTING DEVELOPMENT OF LESS THAN 50% SHALL BE REQUIRED TO PROVIDE LANDSCAPING FOR THE ADDITIONAL DEVELOPMENT ONLY. (PAGE 3 OF THE HO. CO. LANDSCAPE MANUAL)
- EXISTING GRADE CHANGE HAS BEEN SUBSTITUTED FOR SHRUB PLANTING IN A TYPE E LANDSCAPE BUFFER
- SUBSTITUTION NOTES PERIMETER 1:
3 EXISTING TREES WILL COUNT AS CREDIT FOR 3 REQUIRED SHADE TREES
3 PROPOSED SHADE TREES WILL COUNT AS 6 REQUIRED EVERGREEN TREES
- SUBSTITUTION NOTES PERIMETER 2:
3 EXISTING TREES WILL COUNT AS CREDIT FOR 3 REQUIRED SHADE TREES

SCHEDULE B - PARKING LOT INTERNAL LANDSCAPING

PARKING LOT	1
NUMBER OF PARKING SPACES	44
NUMBER OF SHADE TREES REQUIRED (1/20 SPACES)	2
CREDIT FOR EXISTING TREES	0
NUMBER OF TREES PROVIDED	
SHADE TREES	2
OTHER TREES (2:1 SUBSTITUTION)	0
NUMBER OF ISLANDS PROVIDED	2

GENERAL GROWTH PROPERTY LANDSCAPING REQUIREMENTS

AREA:	38,696 SF (0.89 ACRES)
TREES REQUIRED:	30 SHADE TREES PER ACRE = 0.89 ACRES X 30 = 26.7 = 27 SHADE TREES REQUIRED
TREES PROPOSED:	15 SHADE TREES = 15 SHADE TREES 11 FLOWERING TREES = 5.5 SHADE TREES 2 EXISTING FLOWERING TREES TO REMAIN = 1 SHADE TREE 5 SHADE TREES ALONG ROUTE 175 = 5 SHADE TREES
	27 SHADE TREES TOTAL

APPROVED
PLANNING BOARD
OF HOWARD COUNTY
DATE: AUGUST 31, 2006

GENERAL NOTES:

- THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL.
- FINANCIAL SURETY FOR THE REQUIRED LANDSCAPING MUST BE POSTED AS PART OF THE DEVELOPER'S AGREEMENT IN THE AMOUNT OF \$4,950.00.
11 SHADE TREES @ \$300 = 3,300
0 ORNAMENTAL TREES @ \$150 = 0
11 EVERGREEN TREES @ \$150 = 1,650
0 SHRUBS @ \$30 = 0
- THIS PLAN IS FOR LANDSCAPING PURPOSES ONLY.
- CONTRACTOR IS SOLELY RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, PROCEDURES, AND SAFETY PRECAUTIONS AND PROGRAMS.
- ALL MATERIAL SELECTED 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.
- ALL MATERIAL SHALL BE PLANTED IN ACCORDANCE WITH THE MINIMUM STANDARDS CITED IN THE LATEST EDITION OF "LANDSCAPE SPECIFICATION GUIDELINES" PUBLISHED BY THE LANDSCAPE CONTRACTORS ASSOCIATION.
- AT THE TIME OF INSTALLATION, ALL SHRUBS AND OTHER PLANTINGS SHALL BE OF THE PROPER HEIGHT AND/OR SPREAD REQUIREMENTS IN ACCORDANCE WITH THIS PLAN AND THE HOWARD COUNTY LANDSCAPE MANUAL.
- NO SUBSTITUTIONS OR RELOCATION OF PLANTS MAY BE MADE WITHOUT PRIOR APPROVAL FROM THE DEPARTMENT OF PLANNING AND ZONING OF HOWARD COUNTY. ANY DEVIATION FROM THIS LANDSCAPE PLAN MAY RESULT IN A REQUIREMENT FOR SUBMITTAL OF AN OFFICIAL "REDLINE REVISION" TO THE SITE DEVELOPMENT PLAN(S) AND/OR DENIAL IN THE RELEASE OF LANDSCAPE SURVEY.
- THIS PLAN PROPOSES THE REMOVAL OF 34 TREES AND THE PLANTING OF 24 SHADE TREES, 5 EVERGREEN TREES, AND 16 FLOWERING TREES.

DEVELOPER'S/BUILDER'S CERTIFICATE:

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 HOWARD COUNTY LANDSCAPE MANUAL. 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 DEPARTMENT OF PLANNING AND ZONING.

[Signature] 4/16/07
SIGNATURE DATE

APPROVED : HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

[Signature] 4/16/07
DIRECTOR DATE
[Signature] 5/16/07
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE
[Signature] 5/25/07
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

DATE NO. REVISION

OWNER HOLDINGS RETAIL BUSINESS TRUST
C/O ROSENTHAL PROPERTIES LLC
8391 OLD COURTHOUSE RD SUITE 320
VIENNA, VA 22182

DEVELOPER CHEVY CHASE BANK
ATTN: JOSEPH PEARSON
7501 WISCONSIN AVENUE
9TH FLOOR CORPORATE FACILITIES
BETHESDA, MD 20814

PROJECT DOBBIN CENTER PARCEL J
CHEVY CHASE BANK

AREA TAX MAP 36 GRID #18 PARCEL 396 PAR J ZONING NT
6TH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

TITLE LANDSCAPE NOTES AND DETAILS

Patton Harris Rust & Associates, pc
Engineers, Surveyors, Planners, Landscape Architects.
8818 Centre Park Drive
Columbia, MD 21045
T 410.997.8900
F 410.997.9282

4-16-07
DESIGNED BY: ALC
DRAWN BY: ALC
PROJECT NO. 12104-2-0
L2001ND02.DWG
DATE: APRIL 17, 2007
SCALE: AS SHOWN
DRAWING NO. 9 OF 21

PETER J. STONE #3068
SDP-06-015

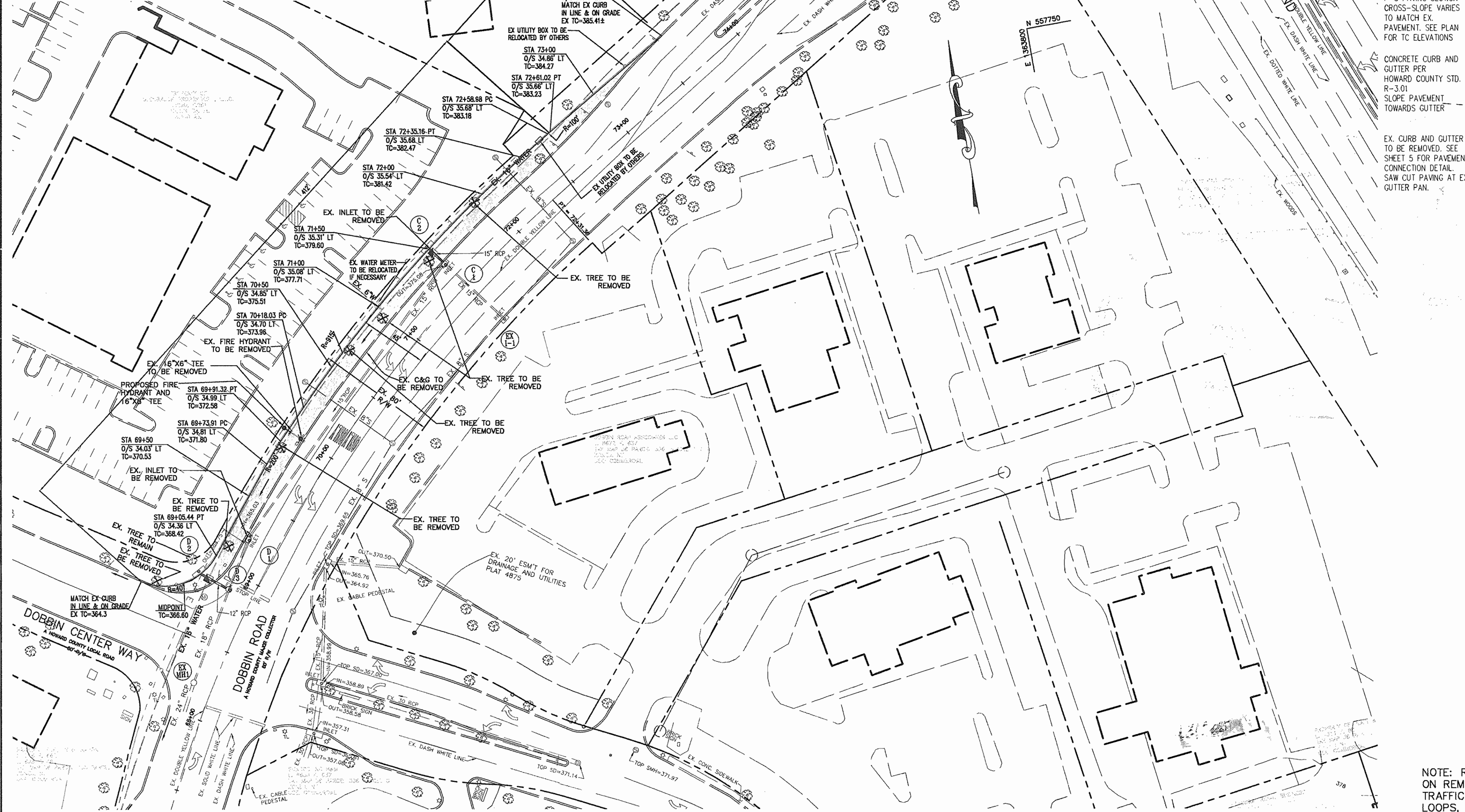
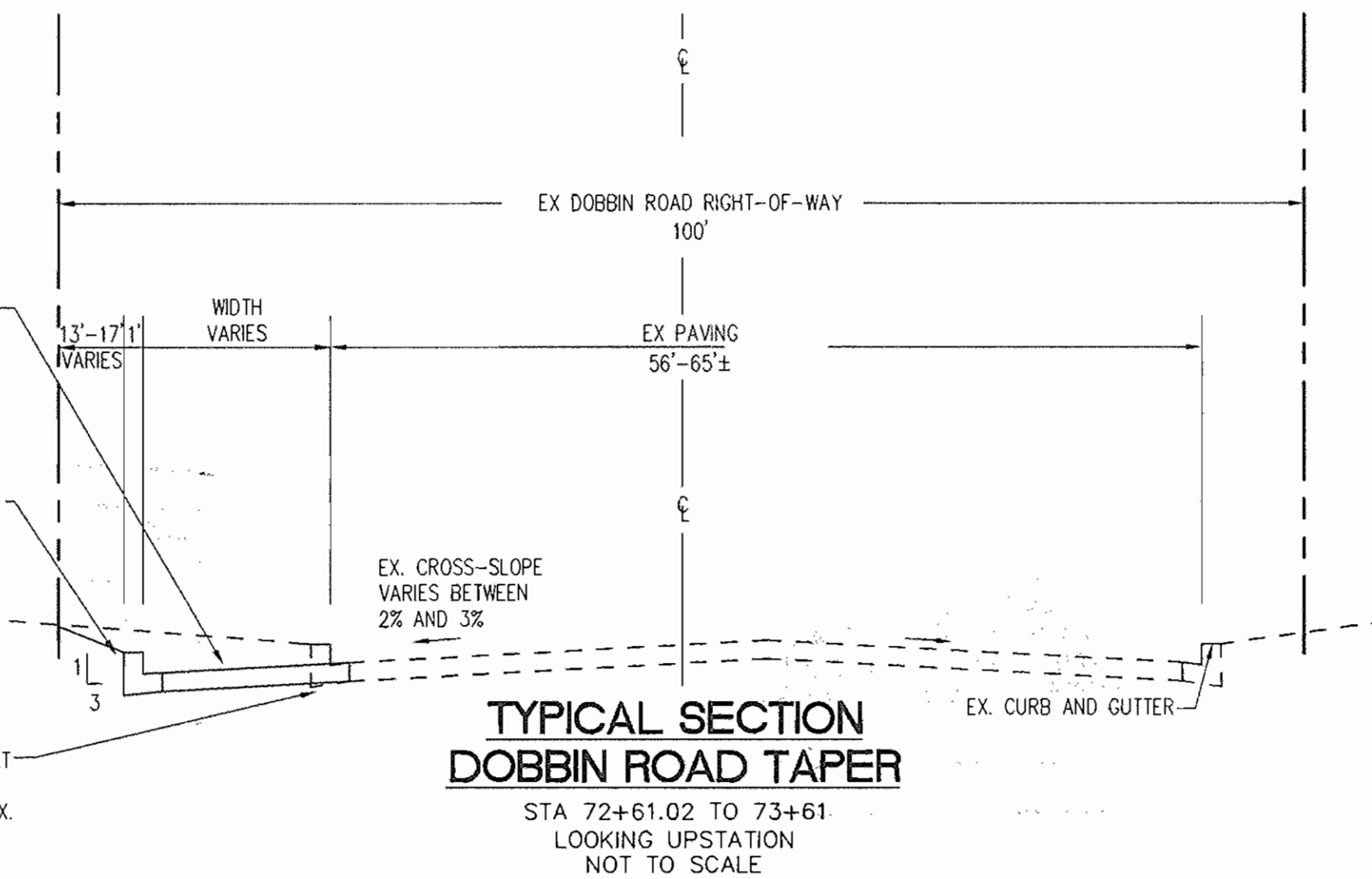
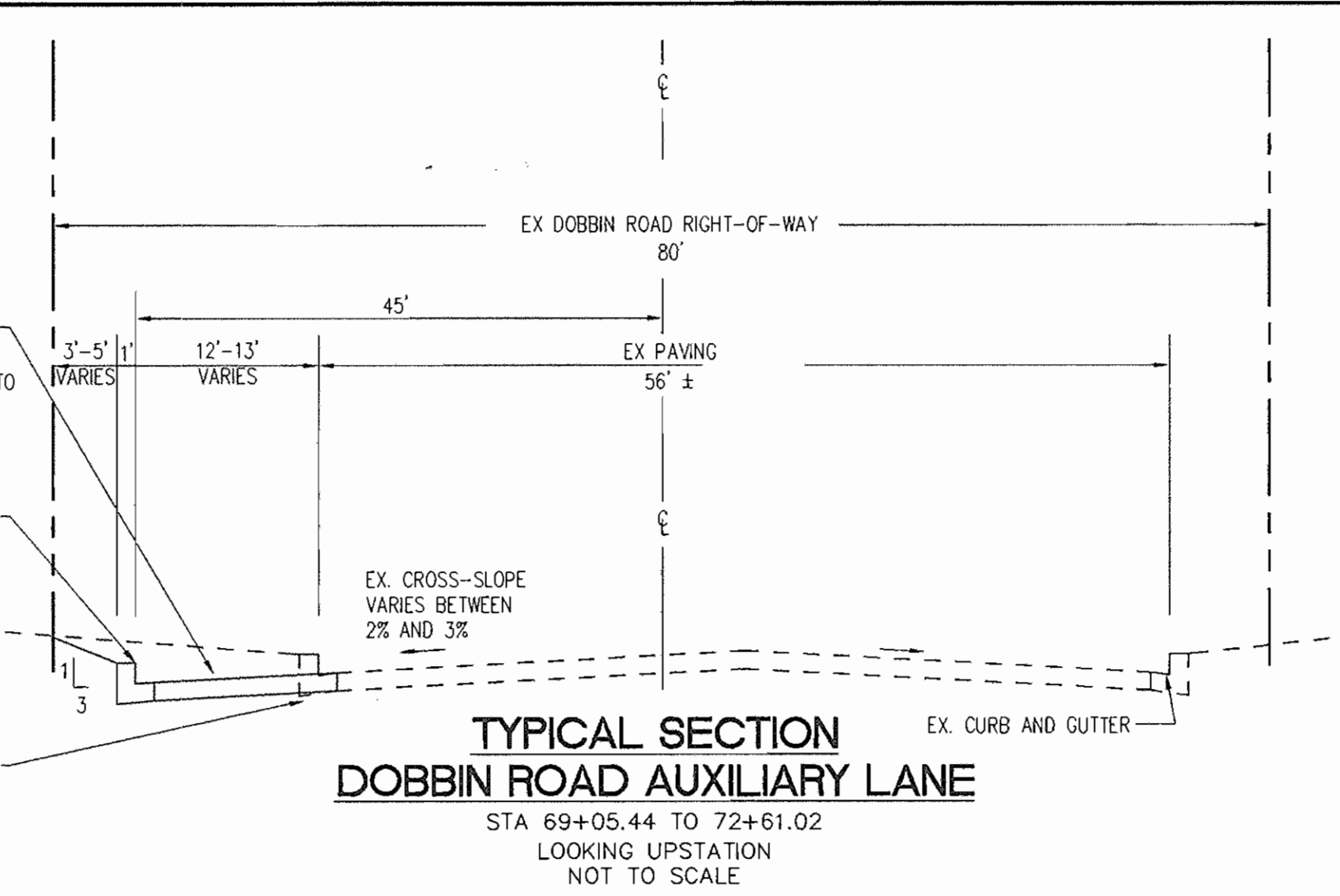
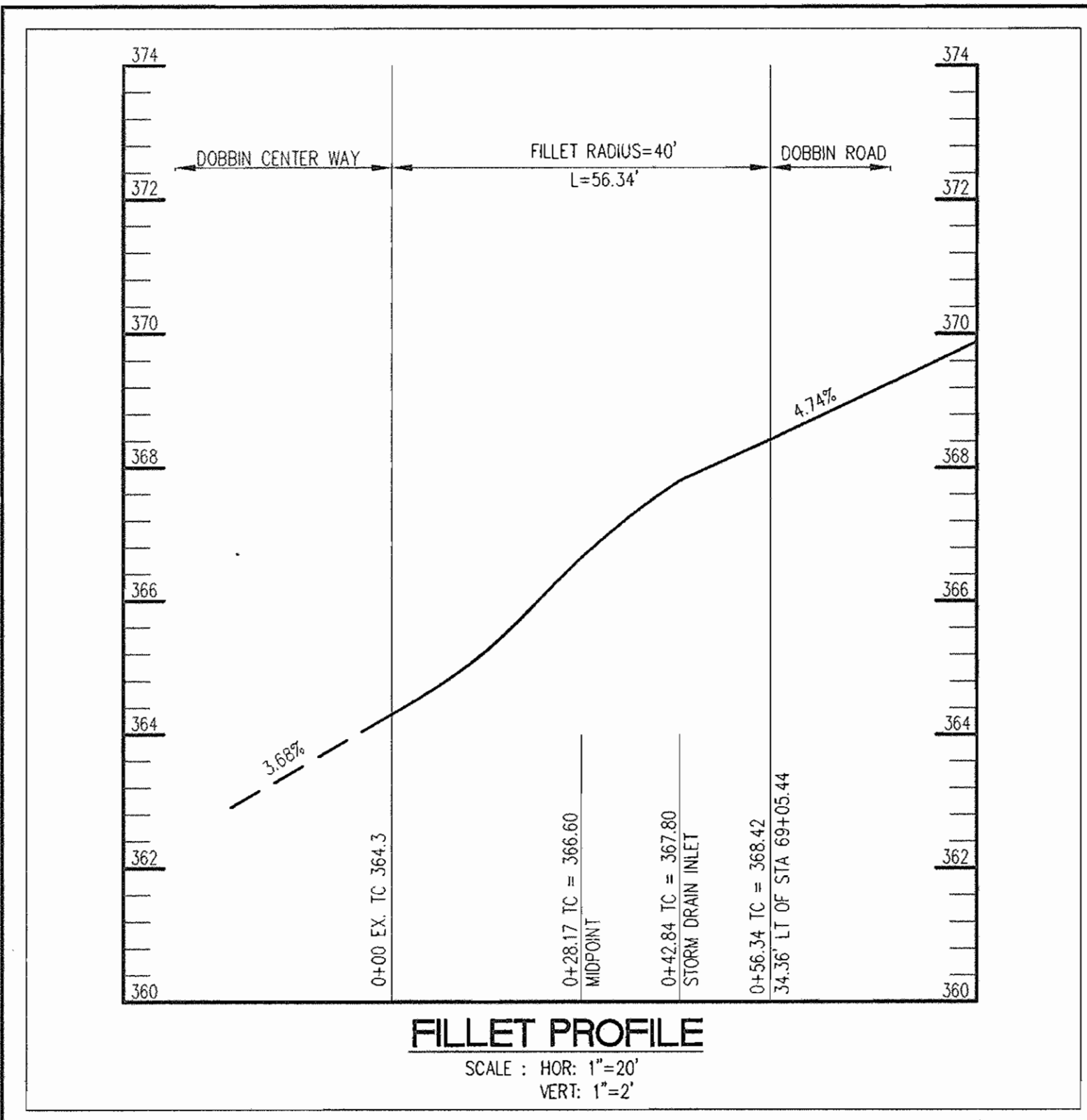
SYMBOL	QTY.	SCIENTIFIC/COMMON NAME	SIZE	ROOT	REMARKS
BN	5	BETULA NIGRA 'HERITAGE'	10-12' HT.	B&B	MULTI-STEM
PO	17	PLATANUS X ACERIFOLIA 'BLOODGOOD'	2.5-3" CAL.	B&B	PLANT AS SHOWN
QP	7	BLOODGOOD LONDON PLANETREE QUERCUS PHELLOEA WILLOW OAK	3.5-4" CAL.	B&B	PLANT AS SHOWN
AA	1	AMELANCHIER X AUTUMN BRILLIANCE AUTUMN BRILLIANCE SEVENSBERG	8'-10" HT.	B&B	SINGLE STEM
U	5	LAGERSTROEMIA X 'SQUIX' SQUIX CHERRYBLOSSOM	8'-10" HT.	CONT.	MULTI-STEM
PI	5	PIEA OMBRICA SERBIAN SPRUCE	6"-8" HT.	B&B	PLANT AS SHOWN
PS	5	TAXUS L. MEDIA 'WARDII' WARDII ANGLOJAP YEW	2-2.5" CAL.	B&B	PLANT AS SHOWN
IC	56	ILEX CORNUTA 'BURFORD NANA' BURFORD HOLLY	24"-30" HT.	CONT.	PLANT AS SHOWN
JC	5	JUNIPERUS CHINENSIS SARGENTII SARGENTII JUNIPER	2 GAL.	CONT.	PLANT AS SHOWN
TM	40	TAXUS L. MEDIA 'WARDII' WARDII ANGLOJAP YEW	2 GAL.	CONT.	PLANT AS SHOWN
LM	181	LIRIOPE MUCSARI 'VARIEGATA' VARIEGATED LIRIOPE	1 QT.	CONT.	18" ON CENTER

BIORETENTION PLANT LIST

SYMBOL	QTY.	SCIENTIFIC/COMMON NAME	SIZE	ROOT	REMARKS	ZONE*
IG	3	ILEX GLABRA 'SHAMROCK' SHAMROCK INKBERRY	18"-24" HT.	CONT.	PLANT AS SHOWN	(2,3), 4
IV	6	ILEX VERTICILLATA 'RED SPRITE' AND 'JIM DANDY' RED SPRITE AND JIM DANDY WINTERBERRY	18"-24" HT.	CONT.	SEE NOTE 1	1,(2,3)
CE	40	CAREX ELATA 'AUREA' BOWLES GOLDEN SEDGE	2" PEAT POT	CONT.	24" ON CENTER	(1,2,3)
JE	21	JUNCUS EFFUSUS SOFT RUSH	1 QUART	CONT.	24" ON CENTER	(2,3), 4
IS	66	IRIS VERSICOLOR 'BLUE FLAG' BLUE FLAG IRIS	1 QUART	CONT.	24" ON CENTER	(1,2),3
LC	67	LOBELIA CARDINALIS CARDINAL FLOWER	1 QUART	CONT.	24" ON CENTER	1,(2,3),4

BIORETENTION PLANT LIST NOTES:

- * HYDROLOGIC ZONES ACCORDING TO APPENDIX A OF THE MARYLAND MODEL STORMWATER MANAGEMENT ORDINANCE JULY 2000.
- ** ALSO KNOWN AS CAREX STRICTA 'AUREA'
- NOTES:
1. PLANT ONE JIM DANDY WINTERBERRY PER EVERY 5 RED SPRITE WINTERBERRIES



APPROVED
PLANNING BOARD
OF HOWARD COUNTY
DATE **AUGUST 31, 2006**

- LEGEND**
- EX. TREE
 - EX. WATER VALVE
 - ⊗ EX. FIRE HYDRANT
 - 74x SPOT ELEVATION
 - ⊙ EX. SANITARY SEWER MANHOLE
 - ⊙ EX. LIGHT POLE
 - ⊙ EX. SIGN
 - EX. PROPERTY CORNER
 - PKF P.K. NAIL FOUND
 - ⊙ EX. STORM DRAIN MANHOLE
 - ⊙ EX. TRAFFIC LIGHT
 - ⊙ EX. GUARD RAIL
 - ⊙ EX. ELECTRIC METER
 - ⊙ EX. WATER METER
 - ⊙ EX. ELECTRIC MANHOLE
 - ⊙ EX. GAS VALVE
 - ⊙ EX. WATER MANHOLE
 - ⊙ EX. TELEPHONE MANHOLE
 - ⊙ EX. UTILITY BOX
 - ⊙ EX. STORM DRAIN
 - ⊙ EX. WATER LINE
 - PROPOSED PAVING
 - PROPOSED CURB & GUTTER
 - EX. CURB & GUTTER
 - EX. UNDERGROUND ELECTRIC LINE
 - ⊙ TEST PIT

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.	
<i>Joseph Pearson</i> DIRECTOR	6/18/07 DATE
<i>John Pearson</i> CHIEF, DEVELOPMENT ENGINEERING DIVISION	6/19/07 DATE
<i>Chris Hunter</i> CHIEF, DIVISION OF LAND DEVELOPMENT	5/25/07 DATE

DATE	NO.	REVISION

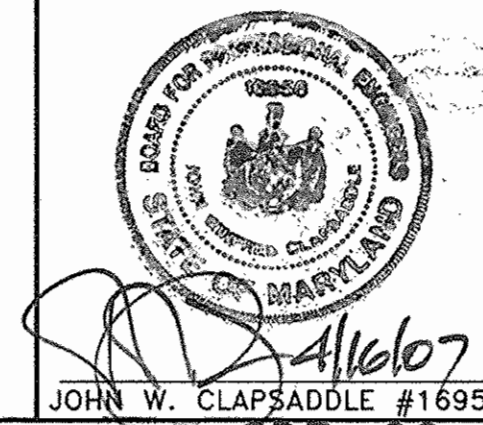
OWNER	HOLDINGS RETAIL BUSINESS TRUST C/O ROSENTHAL PROPERTIES LLC 8391 OLD COURTHOUSE RD SUITE 320 VIENNA, VA 22182
DEVELOPER	CHEVY CHASE BANK ATTN: JOSEPH PEARSON 7501 WISCONSIN AVENUE 9TH FLOOR CORPORATE FACILITIES BETHESDA, MD 20814

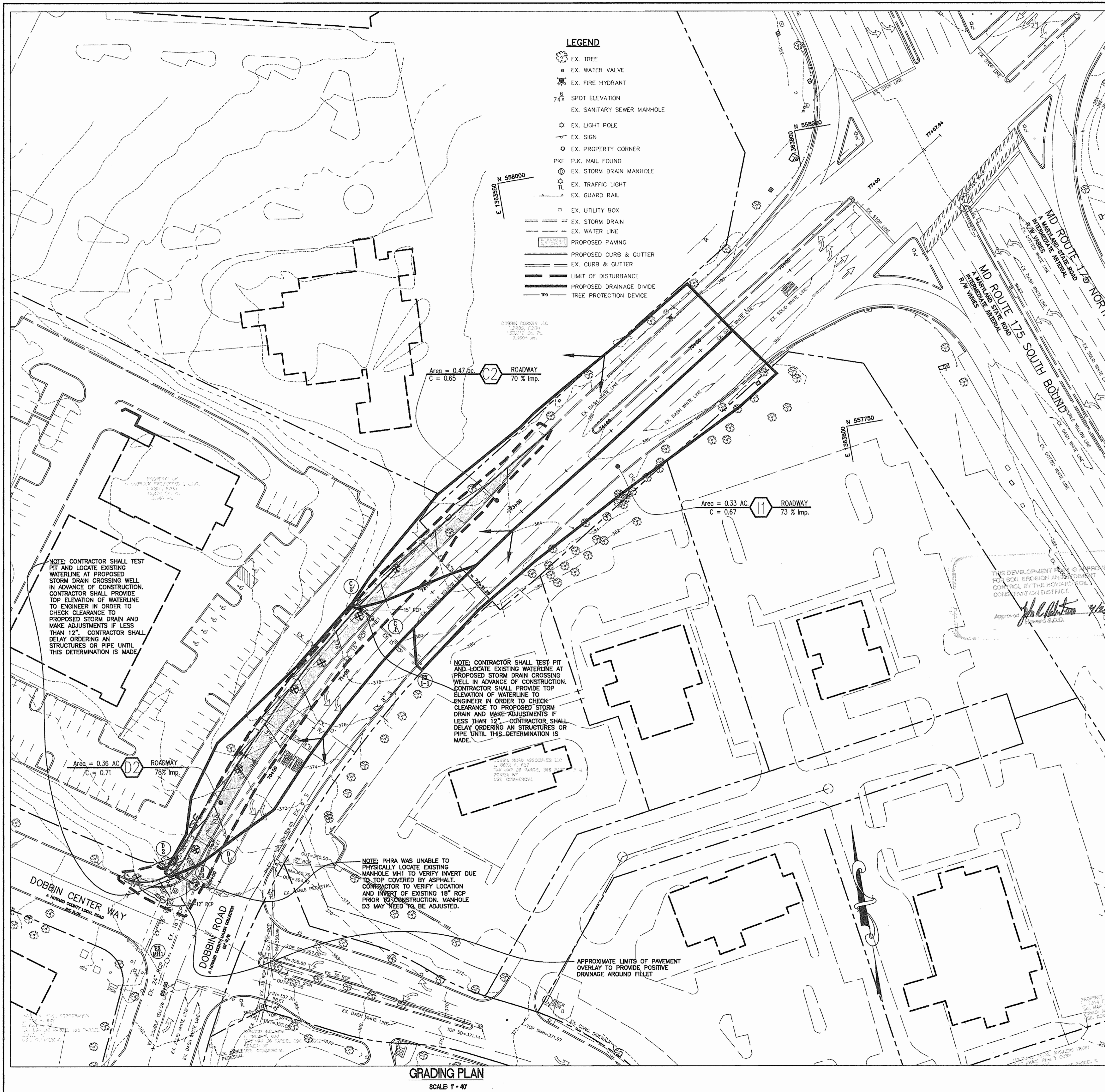
PROJECT	DOBBIN CENTER PARCEL J CHEVY CHASE BANK
AREA TAX MAP	36 GRID #18 PARCEL 396 PAR J ZONING NT 6TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

TITLE	ROAD IMPROVEMENT PLAN
Patton Harris Rust & Associates, pc Engineers, Surveyors, Planners, Landscape Architects. 8818 Centre Park Drive Columbia, MD 21045 T 410.997.8900 F 410.997.9282	PHRA

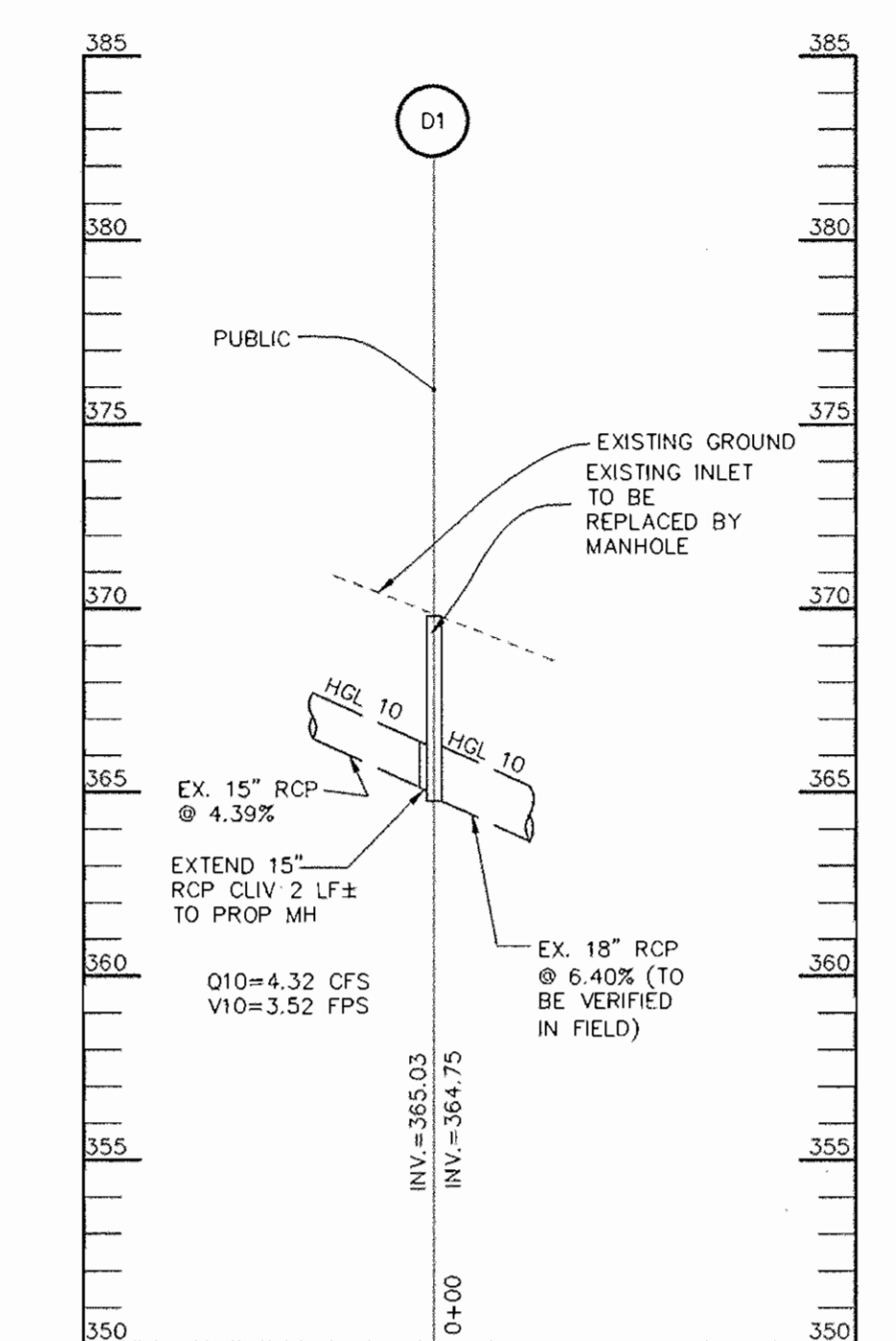
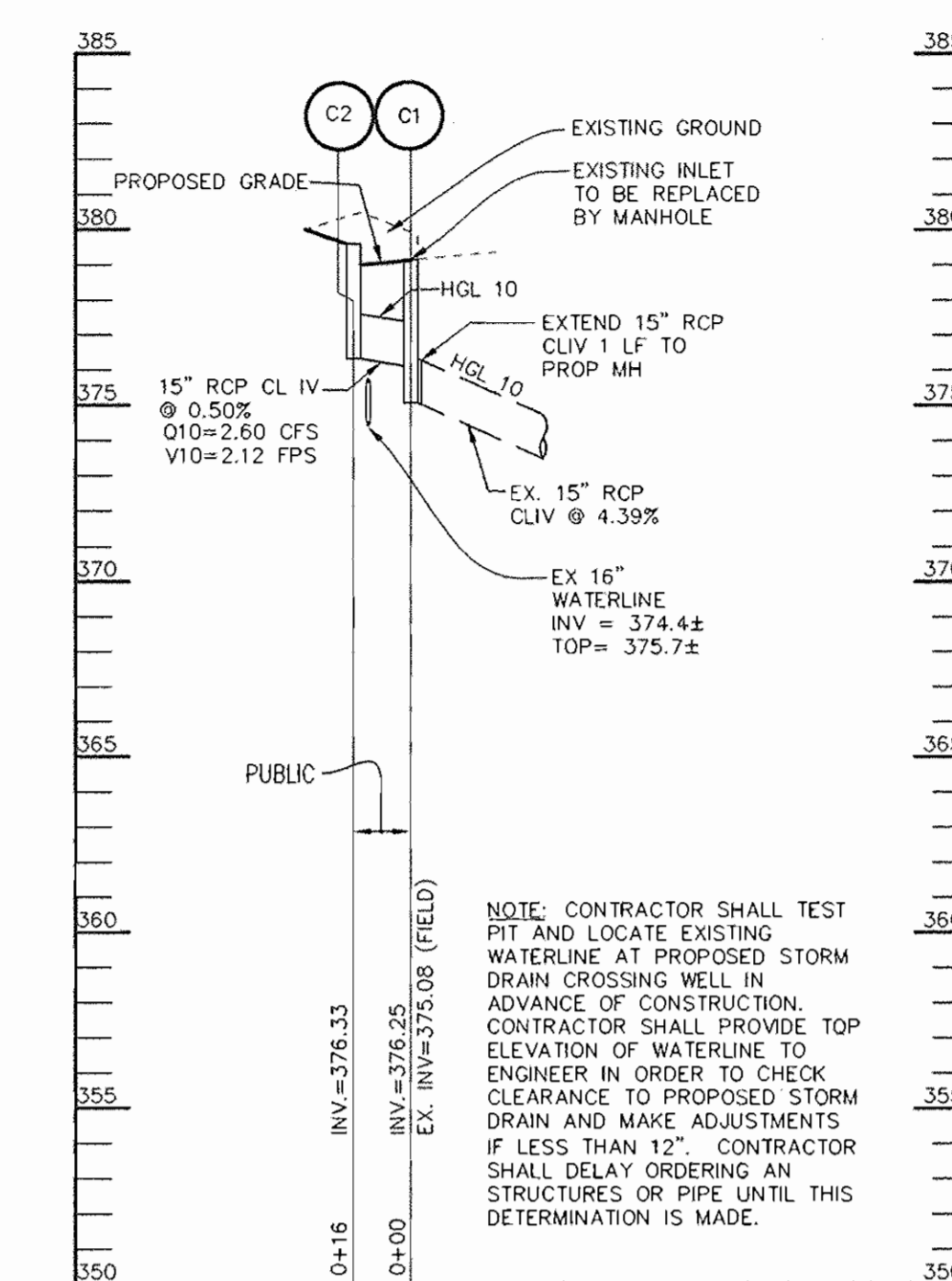
DESIGNED BY:	PJS
DRAWN BY:	ALC
PROJECT NO.:	12104-2-0 C500RIP01.DWG
DATE:	APRIL 17, 2007
SCALE:	1" = 40'
DRAWING NO.:	10 OF 21

NOTE: REFER TO SHEET 15 FOR INFORMATION ON REMOVAL, RELOCATION, OR REUSE OF TRAFFIC SIGNALS, HANDBOXES, DETECTOR LOOPS, OTHER SIGNAL COMPONENTS, AND ALL SIGNAGE, OVERHEAD AND GROUND MOUNTED.





- LEGEND**
- EX. TREE
 - EX. WATER VALVE
 - EX. FIRE HYDRANT
 - 7.4' SPOT ELEVATION
 - EX. SANITARY SEWER MANHOLE
 - EX. LIGHT POLE
 - EX. SIGN
 - EX. PROPERTY CORNER
 - PKT. P.K. NAIL FOUND
 - EX. STORM DRAIN MANHOLE
 - EX. TRAFFIC LIGHT
 - EX. GUARD RAIL
 - EX. UTILITY BOX
 - EX. STORM DRAIN
 - EX. WATER LINE
 - PROPOSED PAWING
 - PROPOSED CURB & GUTTER
 - EX. CURB & GUTTER
 - LIMIT OF DISTURBANCE
 - PROPOSED DRAINAGE DIVIDE
 - TPO
 - EX. TREE PROTECTION DEVICE

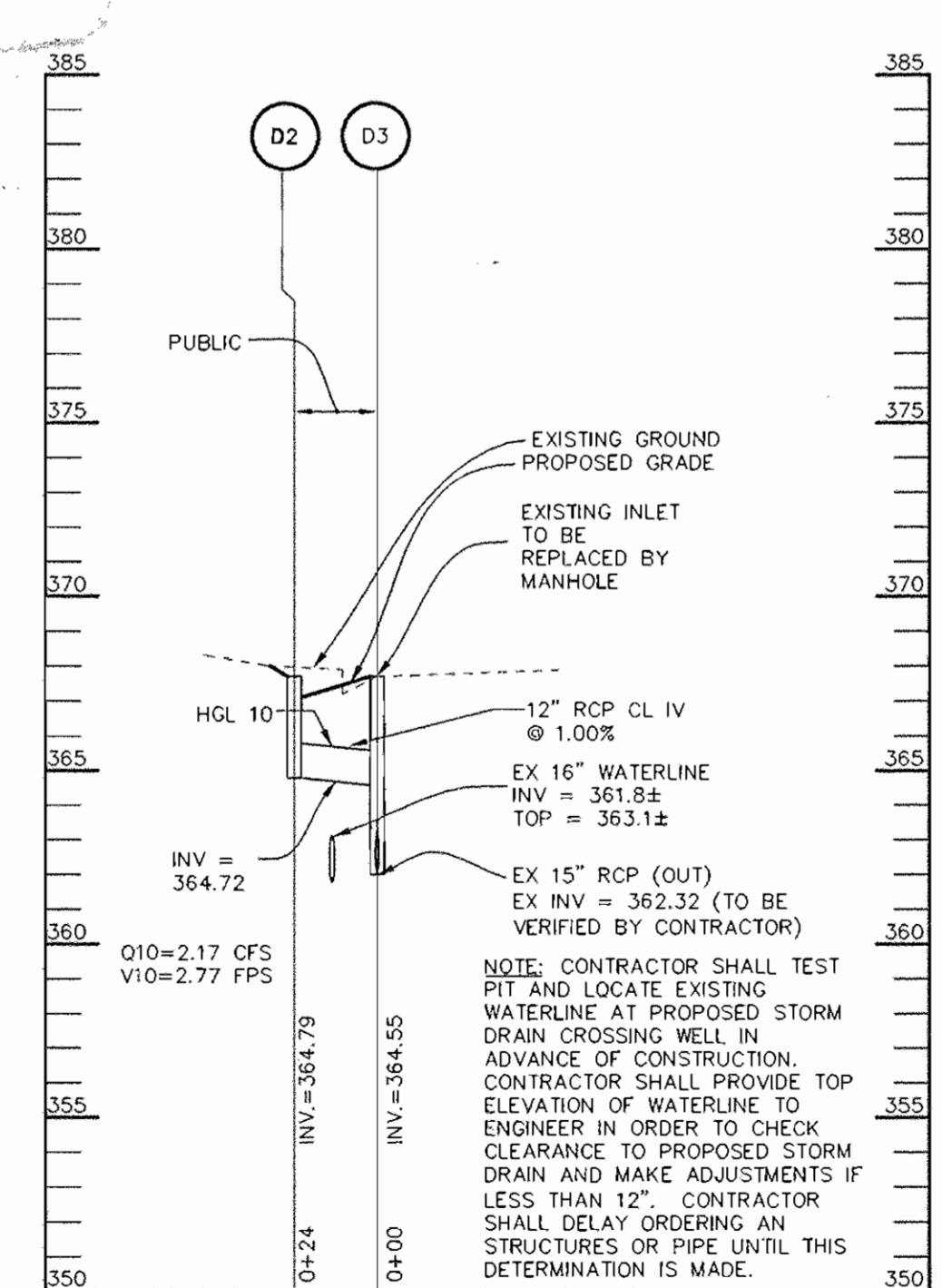


STORM DRAIN PROFILE
SCALE: HOR. - 1" = 50', VERT. - 1" = 5'

Reviewed for: *John Harris Rust & Associates, P.C.*
Name: *John Harris Rust*
Date: *4/23/07*
MSDA, NATURAL RESOURCES CONSV. SERVICE

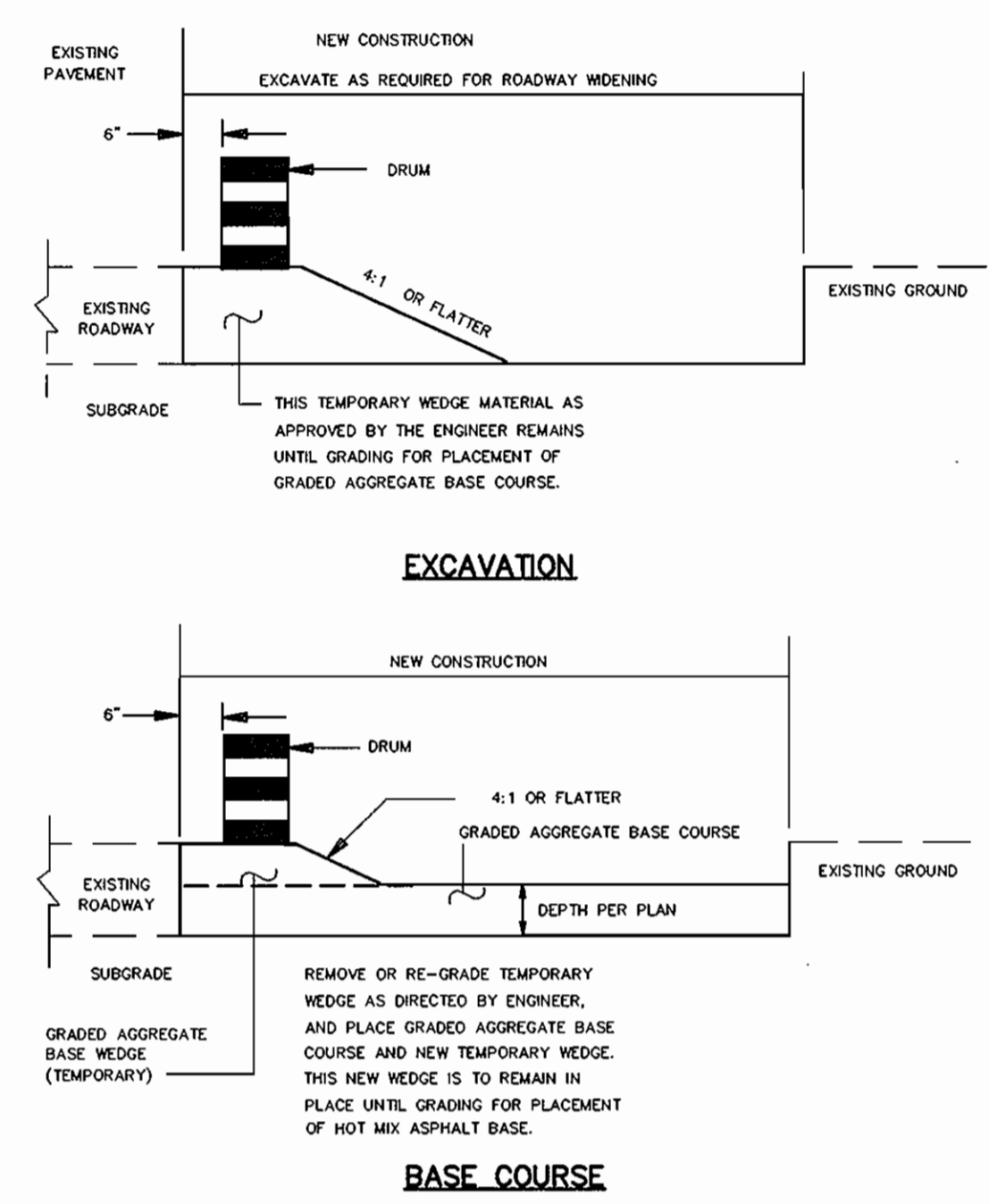
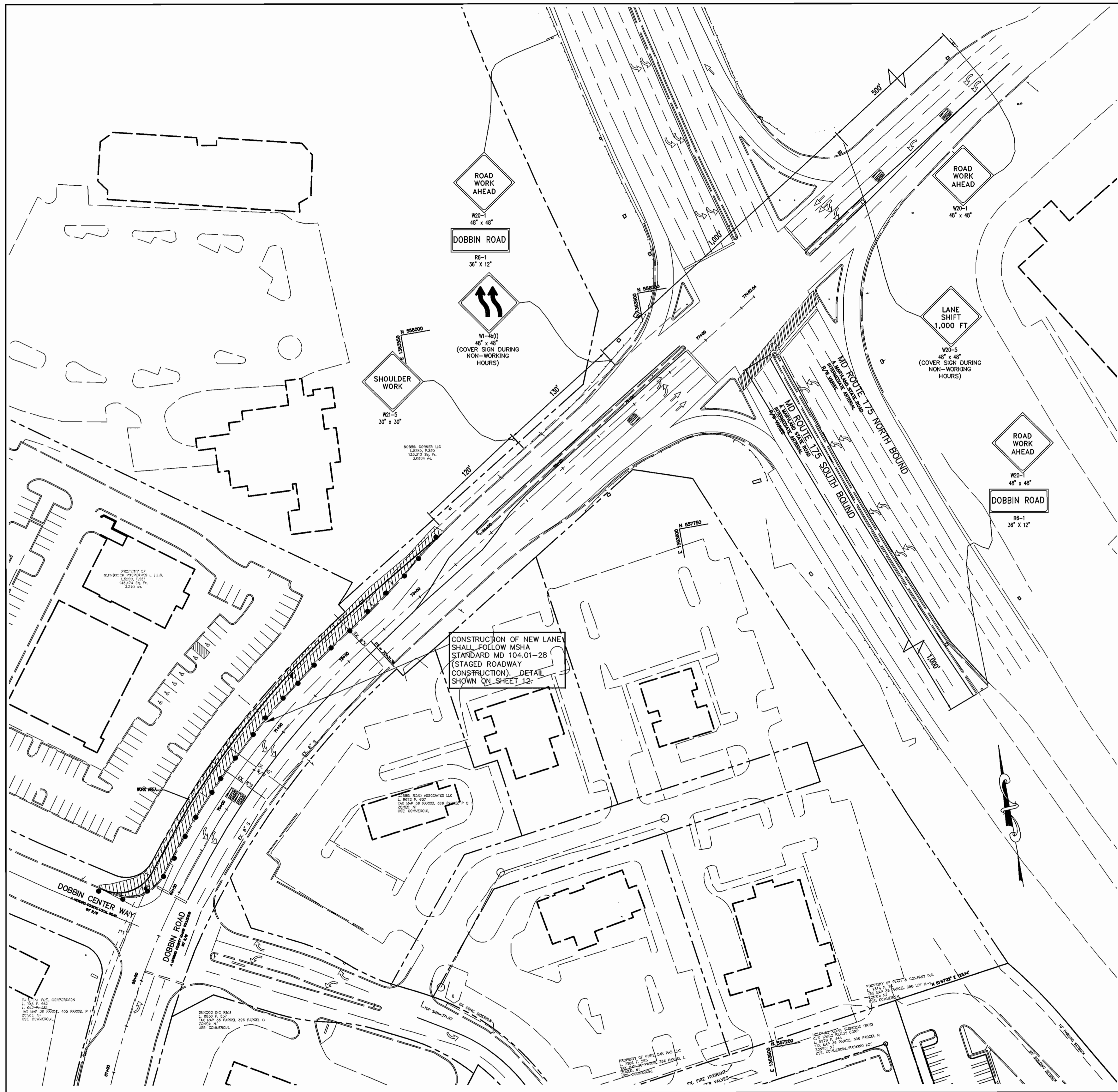
STORM DRAIN PROFILE
SCALE: HOR. - 1" = 50', VERT. - 1" = 5'

APPROVED
PLANNING BOARD
of HOWARD COUNTY
DATE: **AUGUST 31, 2006**



APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.	
<i>Mark A. Wright</i> DIRECTOR	4/10/07 DATE
<i>John Harris Rust</i> CHIEF, DEVELOPMENT ENGINEERING DIVISION	5/8/07 DATE
<i>John Harris Rust</i> CHIEF, DIVISION OF LAND DEVELOPMENT	5/25/07 DATE
DATE NO. REVISION	
OWNER	HOLDINGS RETAIL BUSINESS TRUST C/O ROSENTHAL PROPERTIES LLC 8391 OLD COURTHOUSE RD SUITE 320 VIENNA, VA 22182
DEVELOPER	CHEVY CHASE BANK ATTN: JOSEPH PEARSON 7501 WISCONSIN AVENUE 9TH FLOOR CORPORATE FACILITIES BETHESDA, MD 20814
PROJECT	DOBBIN CENTER PARCEL J CHEVY CHASE BANK
AREA TAX MAP	36 GRID #18 PARCEL 396 PAR J ZONING NT 6TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
TITLE	ROAD IMPROVEMENT PLAN GRADING AND PROFILES - DOBBIN AND DOBBIN CENTER WAY
Patton Harris Rust & Associates, P.C. Engineers, Surveyors, Planners, Landscape Architects. 8818 Centre Park Drive Columbia, MD 21045 T 410.997.8900 F 410.997.9282	

DESIGNED BY: PJS
DRAWN BY: ALC
PROJECT NO: 12104-2-0
DATE: APRIL 17, 2007
SCALE: 1" = 40'
DRAWING NO. 11 OF 21



**TEMPORARY TRAFFIC CONTROL TYPICAL APPLICATION
STAGED ROADWAY CONSTRUCTION
MD 104.01-28**

**APPROVED
PLANNING BOARD
OF HOWARD COUNTY
DATE AUGUST 31, 2006**

LEGEND	
TRAFFIC CONTROL DEVICES (BARRELS)	● ● ●
DIRECTION OF TRAFFIC	→
CONSTRUCTION SIGN	+
PROPOSED CURB AND GUTTER	—
EXISTING CURB AND GUTTER	- - -
WORK AREA	▨

- NOTES:**
- SHA STANDARD NO. 104.31-02 (FLAGGER OPERATION) WILL BE USED AS NECESSARY DURING PERIODS OF CONSTRUCTION.
 - CONTRACTOR TO MAINTAIN LESS THAN 2 INCHES OF DROP-OFF DURING PERIODS OF NON-CONSTRUCTION OR CONTRACTOR SHALL USE SHA STANDARD NO. MD 104.01.28 (STAGED ROADWAY CONSTRUCTION WITH 4:1 SLOPE) TO PROVIDE 2 LEFT TURNING LANES INTO DOBBIN SHOPPING CENTER FOR AS LONG AS POSSIBLE.
 - TEMPORARY TRAFFIC CONTROL DEVICES AND PERMANENT TRAFFIC CONTROL SIGNS SHALL CONFORM TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD). ALL REQUIRED TRAFFIC CONTROL DEVICES ARE TO BE PROVIDED BY THE CONTRACTOR AND SHALL BE INCLUDED IN THE BASE BID.
 - ALL TEMPORARY SIGNAGE IN WORK ZONE TO BE ORANGE WITH BLACK SYMBOLS/LETTERING.
 - ALL LANE SHIFT SIGNAGE TO BE COVERED DURING NON-WORKING HOURS WHEN NORMAL TRAFFIC PATTERNS ARE RESTORED. ALL CONES TO BE REMOVED DURING NON-WORKING HOURS AND BARRELS TO BE RELOCATED BEHIND EX. CURB SO THAT NORMAL TRAFFIC PATTERNS CAN FUNCTION.

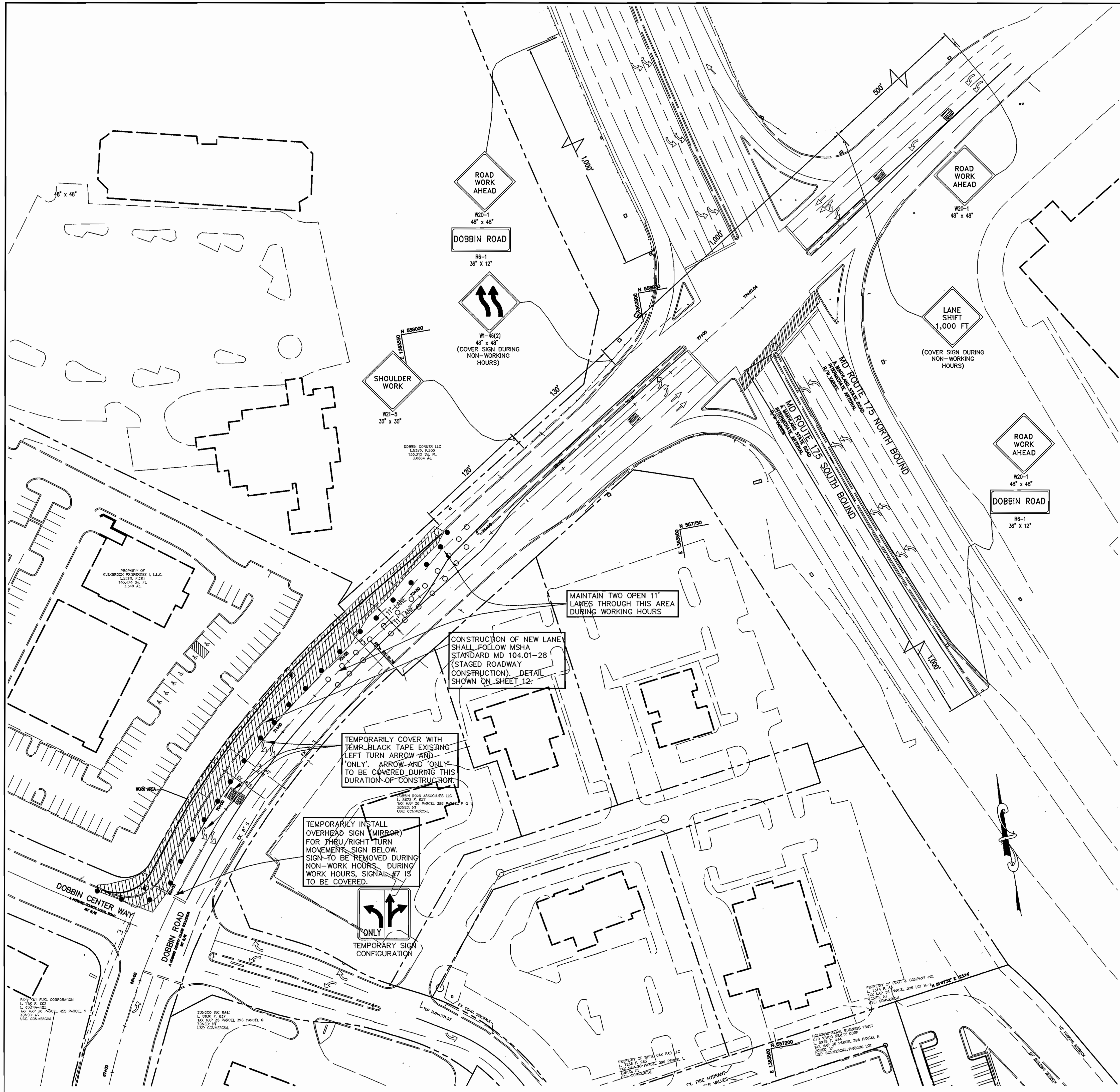
APPROVED : HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.
Marcus K. Wright 4/16/07
 DIRECTOR DATE
John W. Clapsaddle 5/16/07
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE
John W. Clapsaddle 5/16/07
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

DATE NO.	REVISION
OWNER	HOLDINGS RETAIL BUSINESS TRUST C/O ROSENTHAL PROPERTIES LLC 8391 OLD COURTHOUSE RD SUITE 320 VIENNA, VA 22182
DEVELOPER	CHEVY CHASE BANK ATTN: JOSEPH PEARSON 7501 WISCONSIN AVENUE 9TH FLOOR CORPORATE FACILITIES BETHESDA, MD 20814
PROJECT	DOBBIN CENTER PARCEL J CHEVY CHASE BANK
AREA TAX MAP	36 GRID #18 PARCEL 396 PAR J ZONING NT 6TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

TITLE **TRAFFIC CONTROL PLAN
DOBBIN AND DOBBIN CENTER WAY - NON WORKING HOURS**
Patton Harris Rust & Associates, pc
 Engineers, Surveyors, Planners, Landscape Architects.
 8818 Centre Park Drive
 Columbia, MD 21045
 T 410.997.8900
 F 410.997.9282

DESIGNED BY : PJS
DRAWN BY: ALC
PROJECT NO : 12104-2-0 C500RIP03.DWG
DATE : APRIL 17, 2007
SCALE : 1" = 50'
DRAWING NO. 12 OF 21

**THIS PLAN TO BE USED FOR
NON-WORKING HOURS ONLY!!**



LEGEND	
TRAFFIC CONTROL DEVICES (BARRELS)	● ● ● ●
TRAFFIC CONTROL DEVICES (CONES)	○ ○ ○ ○
DIRECTION OF TRAFFIC	→
CONSTRUCTION SIGN	↑
PROPOSED CURB AND GUTTER	—
EXISTING CURB AND GUTTER	- - -
WORK AREA	▨

- NOTES:
- SHA STANDARD NO. 104.31-02 (FLAGGER OPERATION) WILL BE USED AS NECESSARY DURING PERIODS OF CONSTRUCTION.
 - CONTRACTOR TO MAINTAIN LESS THAN 2 INCHES OF DROP-OFF DURING PERIODS OF NON-CONSTRUCTION OR CONTRACTOR SHALL USE SHA STANDARD NO. MD 104.01.28 (STAGED ROADWAY CONSTRUCTION WITH 4:1 SLOPE) - SEE DETAIL SHEET 12.
 - TEMPORARY TRAFFIC CONTROL DEVICES AND PERMANENT TRAFFIC CONTROL SIGNS SHALL CONFORM TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD). ALL REQUIRED TRAFFIC CONTROL DEVICES ARE TO BE PROVIDED BY THE CONTRACTOR AND SHALL BE INCLUDED IN THE BASE BID.
 - ALL TEMPORARY SIGNAGE IN WORK ZONE TO BE ORANGE WITH BLACK SYMBOLS/LETTERING.
 - ALL LANE SHIFT SIGNAGE TO BE COVERED DURING NON-WORKING HOURS WHEN NORMAL TRAFFIC PATTERNS ARE RESTORED. ALL CONES TO BE REMOVED DURING NON-WORKING HOURS AND BARRELS TO BE RELOCATED BEHIND EX. CURB SO THAT NORMAL TRAFFIC PATTERNS CAN FUNCTION.

- SEQUENCE OF CONSTRUCTION (TRAFFIC CONTROL):
- INSTALL TEMPORARY TRAFFIC CONTROL SIGNS AND TRAFFIC CONTROL DEVICES (DRUMS), TEMPORARY SIGNAGE, AND TEMPORARY STRIPING. MAINTAIN TRAFFIC AS SHOWN.
 - CONTRACTOR SHALL MAINTAIN ACCESS TO DOBBIN CENTER WAY AT ALL TIMES.
 - BEGIN GRADING FOR RIGHT TURN LANE.
 - BEGIN INSTALLATION OF STORM STRUCTURES AND DRAINS AND FIRE HYDRANT.
 - BEGIN INSTALLATION OF PROPOSED CURB AND GUTTER.
 - BEGIN PAVING OF AUXILIARY LANE.
 - CONTRACTOR SHALL NOT REMOVE EXISTING CURB AND GUTTER UNTIL PROPOSED CURB AND GUTTER AND BASE PAVING ARE COMPLETED FOR AUXILIARY LANE.
 - REMOVE EXISTING CURB AND GUTTER AND COMPLETE CONSTRUCTION OF STORM DRAIN STRUCTURES AND LINE AND FIRE HYDRANT.
 - COMPLETE CURB AND GUTTER.
 - COMPLETE PAVING OF AUXILIARY LANE.
 - COMPLETE GRADING AND LANDSCAPING.

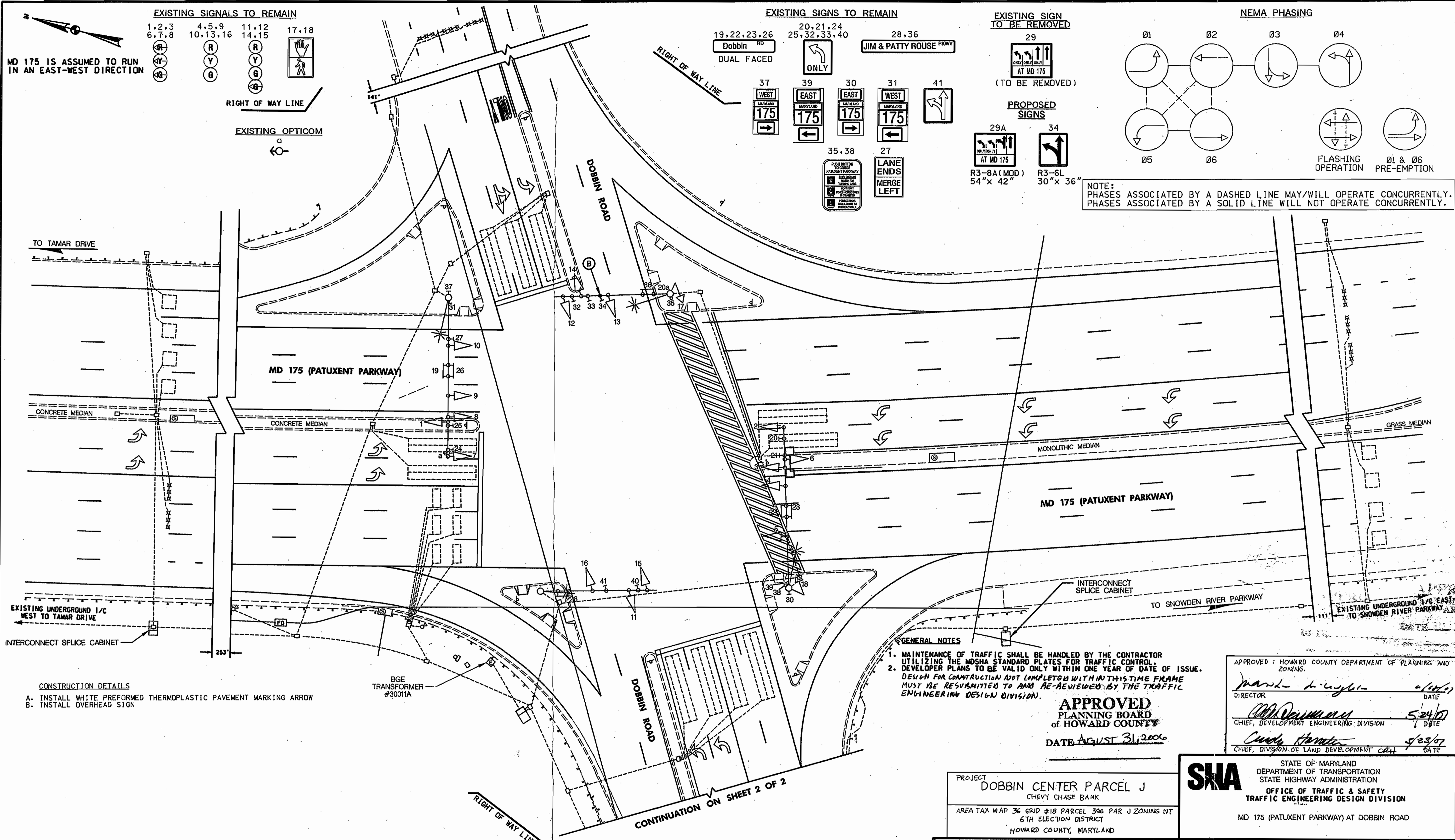
APPROVED
PLANNING BOARD
OF HOWARD COUNTY
 DATE AUGUST 31, 2006

APPROVED : HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.	
<i>David L. Coyle</i> DIRECTOR	4/18/07 DATE
<i>Michael J. ...</i> CHIEF, DEVELOPMENT ENGINEERING DIVISION	5/16/07 DATE
<i>Chris ...</i> CHIEF, DIVISION OF LAND DEVELOPMENT	5/25/07 DATE

DATE	NO.	REVISION
OWNER	HOLDINGS RETAIL BUSINESS TRUST C/O ROSENTHAL PROPERTIES LLC 8391 OLD COURTHOUSE RD SUITE 320 VIENNA, VA 22182	
DEVELOPER	CHEVY CHASE BANK ATTN: JOSEPH PEARSON 7501 WISCONSIN AVENUE 9TH FLOOR CORPORATE FACILITIES BETHESDA, MD 20814	
PROJECT	DOBBIN CENTER PARCEL J CHEVY CHASE BANK	
AREA TAX MAP	36 GRID #18 PARCEL 396 PAR J ZONING NT 6TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND	
TITLE	TRAFFIC CONTROL PLAN DOBBIN & DOBBIN CENTER WAY - WORKING HOURS	
Patton Harris Rust & Associates, pc Engineers, Surveyors, Planners, Landscape Architects. 8818 Centre Park Drive Columbia, MD 21045 T 410.997.8900 F 410.997.9282		

	DESIGNED BY : PJS
	DRAWN BY: ALC
	PROJECT NO : 12104-2-0 C500RIP03A.DWG
	DATE : APRIL 17, 2007
	SCALE : 1" = 50'
	DRAWING NO. 13 OF 24

THIS PLAN TO BE USED FOR WORKING HOURS ONLY!!



EXISTING SIGNALS TO REMAIN
 1,2,3 4,5,9 11,12 17,18
 6,7,8 10,13,16 14,15

EXISTING SIGNALS TO REMAIN
 19,22,23,26 20,21,24 28,36
 Dobbin RD DUAL FACED ONLY JIM & PATTY ROUSE PRVY

EXISTING SIGN TO BE REMOVED
 29
 (TO BE REMOVED)
 AT MD 175

NEMA PHASING
 01 02 03 04
 05 06
 FLASHING OPERATION 01 & 06 PRE-EMPTION

PROPOSED SIGNS
 29A R3-8A(MOD) 54" x 42"
 34 R3-6L 30" x 36"

NOTE:
 PHASES ASSOCIATED BY A DASHED LINE MAY/WILL OPERATE CONCURRENTLY.
 PHASES ASSOCIATED BY A SOLID LINE WILL NOT OPERATE CONCURRENTLY.

CONSTRUCTION DETAILS
 A. INSTALL WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKING ARROW
 B. INSTALL OVERHEAD SIGN

GENERAL NOTES
 1. MAINTENANCE OF TRAFFIC SHALL BE HANDLED BY THE CONTRACTOR UTILIZING THE MSHA STANDARD PLATES FOR TRAFFIC CONTROL.
 2. DEVELOPER PLANS TO BE VALID ONLY WITHIN ONE YEAR OF DATE OF ISSUE.
 DESIGN FOR CONSTRUCTION NOT COMPLETED WITHIN THIS TIME FRAME MUST BE RESUBMITTED TO AND RE-REVIEWED BY THE TRAFFIC ENGINEERING DESIGN DIVISION.

APPROVED
 PLANNING BOARD
 OF HOWARD COUNTY
 DATE AUGUST 31, 2006

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.
 DIRECTOR: [Signature] DATE: 8/24/06
 CHIEF, DEVELOPMENT ENGINEERING DIVISION: [Signature] DATE: 5/24/07
 CHIEF, DIVISION OF LAND DEVELOPMENT: [Signature] DATE: 8/25/07

PROJECT: DOBBIN CENTER PARCEL J
 CHEVY CHASE BANK
 AREA TAX MAP 36 GRID #18 PARCEL 396 PAR J ZONING DT
 6TH ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

SNA STATE OF MARYLAND
 DEPARTMENT OF TRANSPORTATION
 STATE HIGHWAY ADMINISTRATION
 OFFICE OF TRAFFIC & SAFETY
 TRAFFIC ENGINEERING DESIGN DIVISION
 MD 175 (PATUXENT PARKWAY) AT DOBBIN ROAD

GEOMETRIC LEGEND
 — PROPOSED
 - - - EXISTING

UTILITY LEGEND
 E — E — ELECTRIC CABLES SD — SD — STORM DRAIN
 A — A — AERIAL CABLES G — G — GAS MAIN
 T — T — TELEPHONE CABLES W — W — WATER MAIN
 F — F — FIBER-OPTIC S — S — SEWER MAIN

WELLS & ASSOCIATES, LLC.
 TRANSPORTATION, TRAFFIC, AND PARKING CONSULTANTS
 6 West Street & N. State St., Leesburg, Virginia 22075
 Phone: 703.946.1447 Fax: 703.946.1287
 1420 Spring Hill Road, Suite 600, McLean, Virginia 22102
 Phone: 703.997.6820 Fax: 703.997.6720



APPROVALS
 TEAM LEADER: [Signature]
 ASST. DIV. CHIEF: [Signature]
 DIVISION CHIEF: [Signature]
 OFFICE DIRECTOR: [Signature]

REVISIONS
 1. MODIFY LANE USE TO INCORPORATE THRU/LEFT ON EASTBOUND DOBBIN RD. SNA No. 5/2007
 2. ASBUILT FOR RED LIGHT CAMERA INSTALLATION. SNA No. 12/16/02
 3. ASBUILT. SNA No. 1-3-01
 4. ASBUILT. SNA No. 8/25/07

TRAFFIC SIGNALIZATION PLAN
 SCALE: 1" = 20' DATE: 2/16/1976 CONTRACT NO.: HO-400-801-785
 DESIGNED BY: J.G./D.ZAFIRIS COUNTY: HOWARD
 DRAWN BY: [Signature] LOGMILE: 13017504.18
 CHECKED BY: [Signature] T.I.M.S. NO.: 1267
 F.A.P. NO.: [Signature] TOD NO.: [Signature]
 DRAWING NO.: TS-1396H OF SHEET NO. 14 OF 21

PLOTTED: DATETIME: FILE: #FILE#
 SDP-06-015

PROJECT DESCRIPTION

GENERAL
THIS PORTION OF THE PROJECT INVOLVES THE ADDITION OF A LEFT THROUGH PAVEMENT MARKING ARROW AND SIGN FOR THE NORTHBOUND DIRECTION OF DOBBIN ROAD. ALL EXISTING TRAFFIC SIGNAL EQUIPMENT WILL REMAIN. MD 175 IS ASSUMED TO RUN IN AN EAST-WEST DIRECTION.

INTERSECTION OPERATION
THE INTERSECTION WILL CONTINUE TO OPERATE IN A NEMA SIX-PHASE, FULL-TRAFFIC-ACTUATED MODE WITH EMERGENCY VEHICLE PRE-EMPTION IN THE EASTBOUND DIRECTION AND EXCLUSIVE LEFT TURN PHASES FOR THE EAST AND WESTBOUND APPROACHES. THE SIDE STREET SPLIT PHASE WILL REMAIN.

CONTROLLER REQUIREMENTS
THE EXISTING BASE MOUNTED CONTROLLER SHALL REMAIN.

THE CONTACT PERSONS FOR DISTRICT #7 ARE AS FOLLOWS:

Mr. John Concannon
Assistant District Engineer - Traffic
Phone: 301-624-8140

Ms. Andrea Abend
Assistant District Engineer - Utility
Phone: 301-624-8115

Mr. Roy Johnson
Assistant District Engineer - Maintenance
Phone: 301-624-8108

Mr. Richard L. Daff Sr.
Chief, Traffic Operations Division
Phone: 410-787-7630

Mr. Edward Rodenhizer
Chief, SHA Traffic Signal Shop
Phone: 410-787-7650

The Power Company Representative is:
Baltimore Gas & Electric Company
7317 Parkway Drive South
Hanover, MD 21076
Phone: 410-859-9062

EQUIPMENT LIST 'A'

EQUIPMENT TO BE FURNISHED BY THE SHA.

QUANTITY	UNITS	SPECIFICATION SECTION	DESCRIPTION
			NONE

EQUIPMENT LIST 'B'

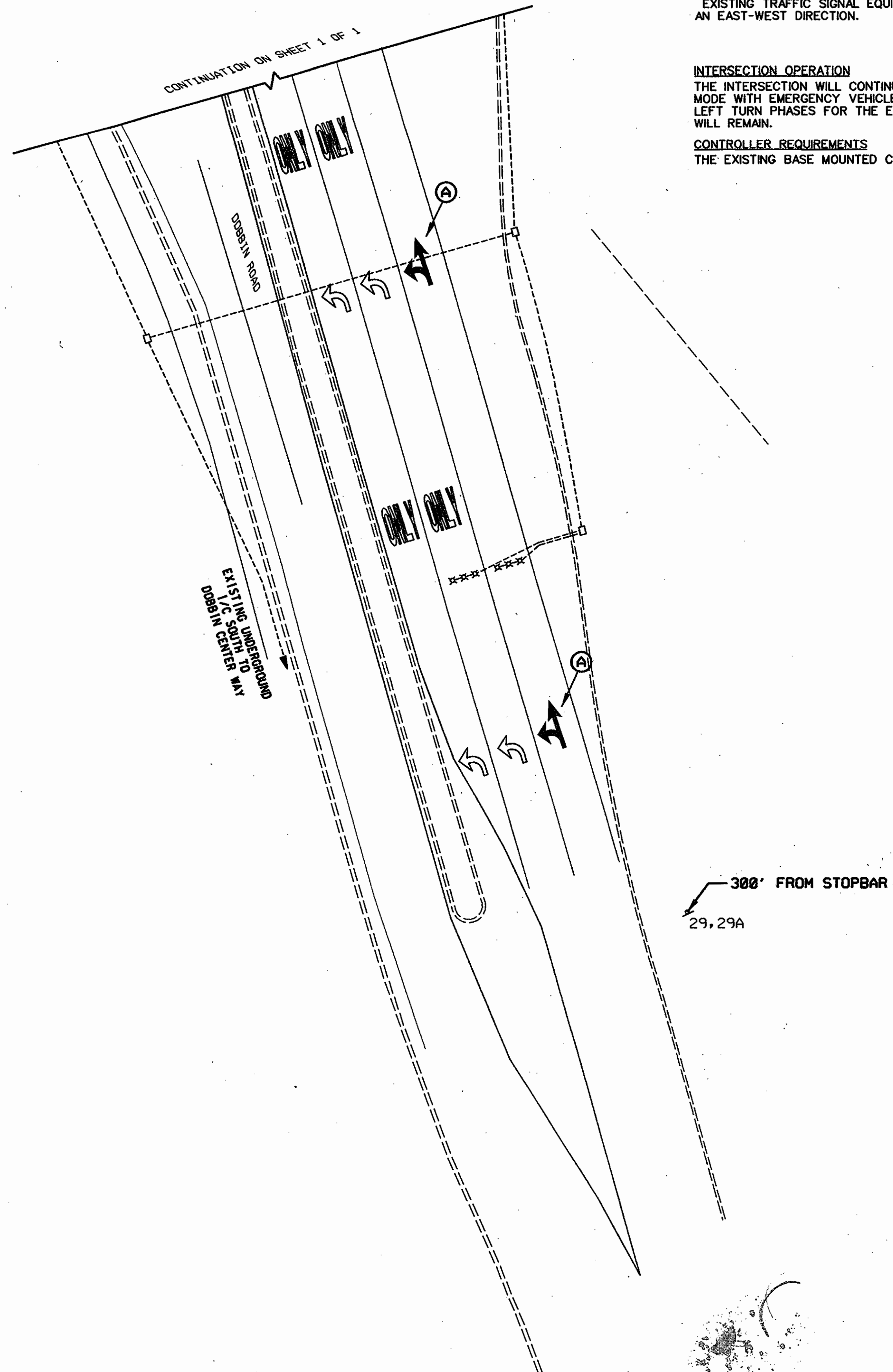
EQUIPMENT TO BE FURNISHED AND INSTALLED BY THE CONTRACTOR.

QUANTITY	UNITS	SPECIFICATION SECTION	DESCRIPTION
1	LS	104	MAINTENANCE OF TRAFFIC
51	SF	549	FURNISH AND INSTALL HEAT APPLIED WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKING ARROW.
17.5	SF	813	SHEET ALUMINUM SIGNS CONSISTING OF: 1 ea. R3-6L 30"x 36" -MAST ARM MOUNT 1 ea. R3-8(MOD) 54"x 42" -GROUND MOUNT

EQUIPMENT LIST 'C'

EQUIPMENT TO BE REMOVED AND RETURNED TO SHA.

ITEM NO	QUANTITY	DESCRIPTION
		NONE



PHASE CHART

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
PHASE 1 + 5	⊖	⊖	⊖	R	R	⊖	⊖	⊖	R	R	R	R	R	R	R	R
PHASE 1 + 5 CHANGE	THE CONTROLLER MAY SKIP TO PHASE 1 + 6, 2 + 5, OR 2 + 6															
PHASE 1 + 6	⊖	⊖	⊖	G	G	⊖	⊖	⊖	R	R	R	R	R	R	R	R
PHASE 1 CHANGE	⊖	⊖	⊖	G	G	⊖	⊖	⊖	R	R	R	R	R	R	R	R
PHASE 2 + 5	⊖	⊖	⊖	R	R	⊖	⊖	⊖	G	G	R	R	R	R	R	R
PHASE 5 CHANGE	⊖	⊖	⊖	R	R	⊖	⊖	⊖	G	G	R	R	R	R	R	R
PHASE 2 + 6	⊖	⊖	⊖	G	G	⊖	⊖	⊖	G	G	R	R	R	R	R	R
PHASE 2 + 6 CHANGE	⊖	⊖	⊖	Y	Y	⊖	⊖	⊖	Y	Y	R	R	R	R	R	R
PHASE 3	⊖	⊖	⊖	R	R	⊖	⊖	⊖	R	R	R	R	R	G	G	G
PHASE 3 CHANGE	⊖	⊖	⊖	R	R	⊖	⊖	⊖	R	R	R	R	R	Y	Y	Y
PHASE 4	⊖	⊖	⊖	R	R	⊖	⊖	⊖	R	R	R	R	G	G	R	R
PHASE 4 CHANGE	⊖	⊖	⊖	R	R	⊖	⊖	⊖	R	R	Y	Y	Y	R	R	R
PRE-EMPT PHASE 1 + 6	⊖	⊖	⊖	G	G	⊖	⊖	⊖	R	R	R	R	R	R	R	R
PRE-EMPT PHASE 1 + 6 CHANGE	⊖	⊖	⊖	Y	Y	⊖	⊖	⊖	R	R	R	R	R	R	R	R
FLASHING OPERATION	FL/RA/FL/RA	FL/Y	FL/Y	FL/RA/FL/RA	FL/Y	FL/Y	FL/RA/FL/RA	FL/Y	FL/Y	FL/R	FL/R	FL/R	FL/R	FL/R	FL/R	FL/R

APPROVED
PLANNING BOARD
of HOWARD COUNTY
DATE: AUGUST 31, 2006

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.
 Director: *Mark A. Upton* 4/24/07
 Chief, Development Engineering Division: *John J. ...* 5/24/07
 Chief, Division of Land Development: *Condy ...* 5/25/07
 PROJECT: DOBBIN CENTER PARCEL J
 CHEVY CHASE BANK
 AREA TAX MAP 36 GRID #18 PARCEL 396 PAR J ZONING NT
 6TH ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

SHA STATE OF MARYLAND
 DEPARTMENT OF TRANSPORTATION
 STATE HIGHWAY ADMINISTRATION
 OFFICE OF TRAFFIC & SAFETY
 TRAFFIC ENGINEERING DESIGN DIVISION
 MD 175 (PATUXENT PARKWAY) AT DOBBIN ROAD

GENERAL INFORMATION
 SCALE: NONE DATE: 5/7/2007 CONTRACT NO. DEVELOPER
 DESIGNED BY: LS COUNTY: HOWARD
 DRAWN BY: LOGMILE: 13017504.18
 CHECKED BY: T.I.M.S. NO.: 1267
 F.A.P. NO.: TOD NO.

DRAWING NO. 15-1305A-G1 OF SHEET NO. 15 OF 21



PLOTTED: #DATE# TIME#
FILE: #FILE#

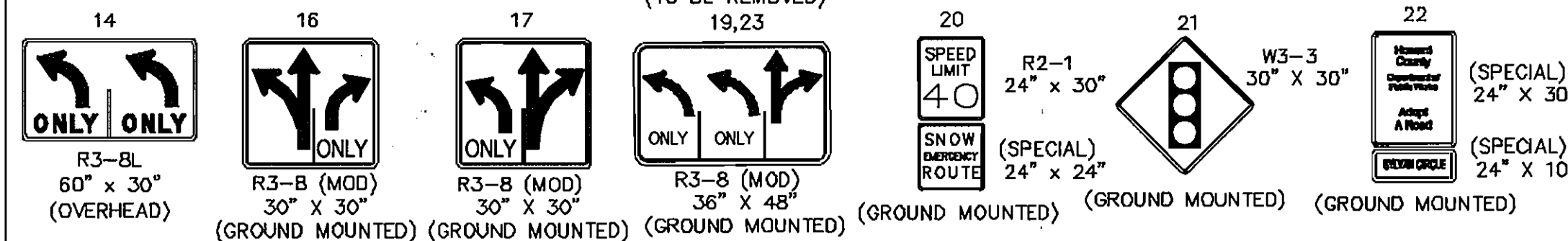
BY: \$USER\$

WELLS & ASSOCIATES, LLC.
 TRANSPORTATION, TRAFFIC, AND PARKING CONSULTANTS
 5 West Street S.W., Suite 300, Leesburg, Virginia 20175
 Phone: 703/443-1442 Facsimile: 703/443-1220
 1420 Spring Hill Road, Suite 600, McLean, Virginia 22102
 Phone: 703/917-8620 Facsimile: 703/917-9739

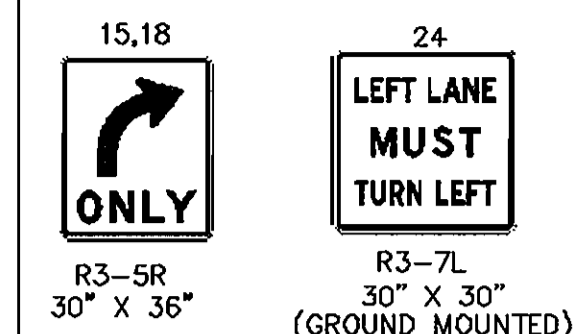
GENERAL NOTES

1. PROPOSED SIGNAL HEAD AND SIGN LOCATIONS TO BE VERIFIED BY THE HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS PERSONNEL BEFORE INSTALLATION BY THE CONTRACTOR.
2. ALL EXISTING RIGHT-OF-WAY LINES SHOWN ON THE PLAN ARE APPROXIMATE.
3. DEVELOPER SHALL PURCHASE TRAFFIC SIGNAL MAST ARM, MAST, ANCHOR BOLTS, VIDEO CAMERA, VIDEO CAMERA CABLE, SIGNAL HEADS, SIGNAL BRACKETS, LEADS, AND SIGN BRACKETS FROM HOWARD COUNTY, BUREAU OF HIGHWAYS. CONTACT DIANE SCHWARZMAN AT 410-313-5753.

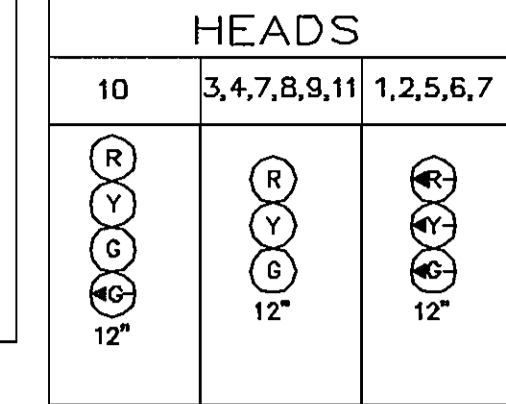
EXISTING SIGNS



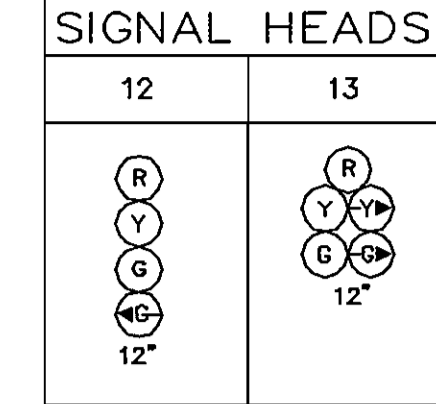
PROPOSED SIGNS



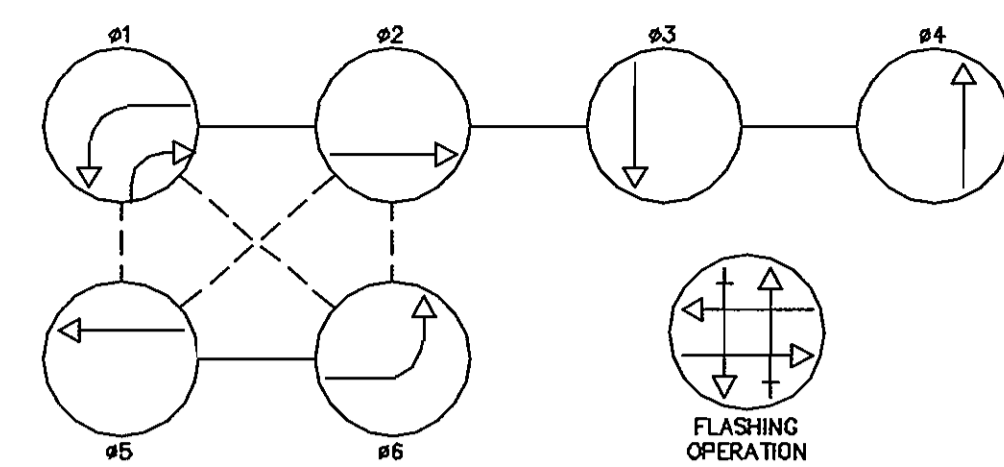
EXISTING SIGNAL HEADS



PROPOSED SIGNAL HEADS



EXISTING NEMA PHASING



PHASING NOTES:
 1. PHASES ASSOCIATED BY A SOLID LINE WILL NOT OPERATE CONCURRENTLY
 2. PHASES ASSOCIATED BY A DASHED LINE WILL OPERATE CONCURRENTLY

CONSTRUCTION DETAILS

- INSTALL 6"x6" LOOP DETECTOR ENCASED IN FLEXIBLE TUBING.
- INSTALL 2 IN. GALVANIZED STEEL ELECTRICAL CONDUIT - TRENCHED.
- INSTALL 1 IN. LIQUID-TIGHT, FLEXIBLE, NON-METALLIC CONDUIT (DETECTOR SLEEVE).
- RELOCATE EXISTING SIGNAL HEAD AS SHOWN.
- USE EXISTING CONDUIT.
- USE EXISTING HANDBOX.
- USE EXISTING CONTROLLER.
- INSTALL NEW PROPOSED OVERHEAD SIGN AS SHOWN.
- INSTALL CAMERA FOR VEHICLE DETECTION AS SHOWN.
- REMOVE EXISTING FOUNDATION, POLE, SIGNAL HEADS, ASSOCIATED WIRING AND EQUIPMENT.
- INSTALL NEW HANDBOX.
- INSTALL 3 IN. PVC SCHEDULE 80 ELECTRICAL CONDUIT - TRENCHED.
- INSTALL 3 IN. PVC SCHEDULE 80 CONDUIT - PUSHED.
- INSTALL VIDEO DETECTION ZONES AS SHOWN.
- INSTALL WHITE PAVEMENT MARKING ARROW(S) AS SHOWN.
- ABANDON EXISTING LOOP DETECTOR(S).
- ABANDON EXISTING CONDUIT AND REMOVE EXISTING WIRING TO CONTROLLER.
- REMOVE EXISTING HANDBOX.
- INSTALL 27" STEEL SIGNAL POLE WITH 50' MAST ARM, TRAFFIC SIGNAL HEADS AND SIGN. CUT TO 40' OR AS DIRECTED BY ENGINEER. (NOTE: 1-3" GALVANIZED 90° ELBOW, POLE TO BE PAINTED BROWN).
- PULL EXISTING INTERCONNECT CABLE BACK FROM CONTROLLER THROUGH NEW HANDBOX.
- INSTALL WHITE WORD PAVEMENT MARKING.
- INSTALL 5 IN. WHITE REFLECTORIZED PAVEMENT MARKING (2' LINE, 6' SPACE).
- INSTALL 24 IN. WHITE REFLECTORIZED PAVEMENT MARKING, LENGTH AS SHOWN ON PLAN.
- INSTALL 5 IN. WHITE REFLECTORIZED PAVEMENT MARKING AS SHOWN.
- INSTALL 5 IN. WHITE REFLECTORIZED PAVEMENT MARKING (10' LINE, 30' SPACE).
- ERADICATE EXISTING PAVEMENT MARKINGS.

APPROVED
 PLANNING BOARD
 of HOWARD COUNTY
 DATE AUGUST 31, 2006

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.
 DIRECTOR: *Mark S. Leight* 4/18/07
 CHIEF, DEVELOPMENT ENGINEERING DIVISION: *John Pearson* 5/18/07
 CHIEF, DIVISION OF LAND DEVELOPMENT: *Chris Harbo* 5/25/07

OWNER: HOLDINGS RETAIL BUSINESS TRUST
 C/O ROSENTHAL PROPERTIES LLC
 8391 OLD COURTHOUSE RD SUITE 320
 VIENNA, VA 22182

DEVELOPER: CHEVY CHASE BANK
 ATTN: JOSEPH PEARSON
 7501 WISCONSIN AVENUE
 9TH FLOOR CORPORATE FACILITIES
 BETHESDA, MD 20814

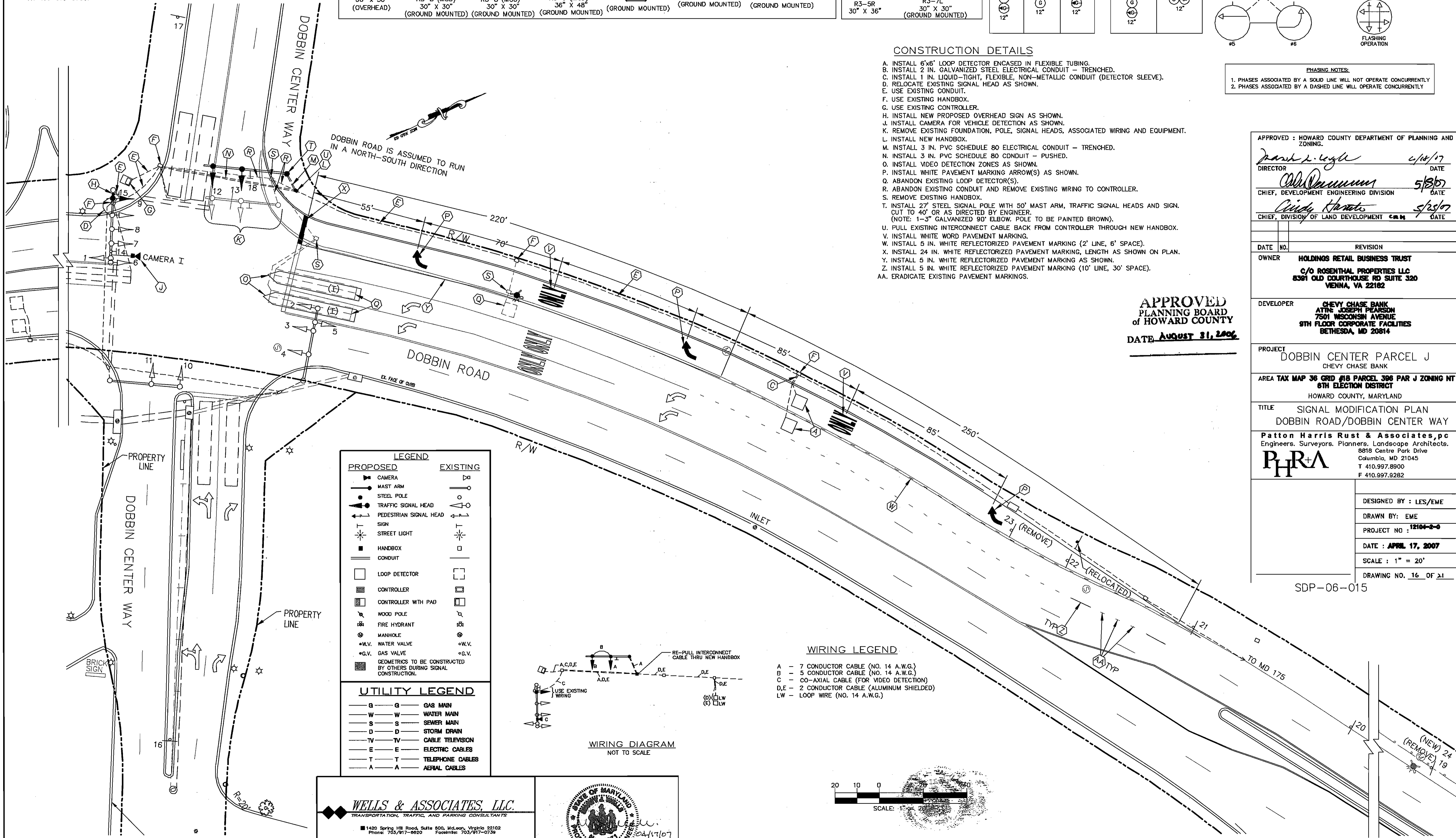
PROJECT: DOBBIN CENTER PARCEL J
 CHEVY CHASE BANK

AREA TAX MAP 36 GRID #18 PARCEL 306 PAR J ZONING NT
 6TH ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

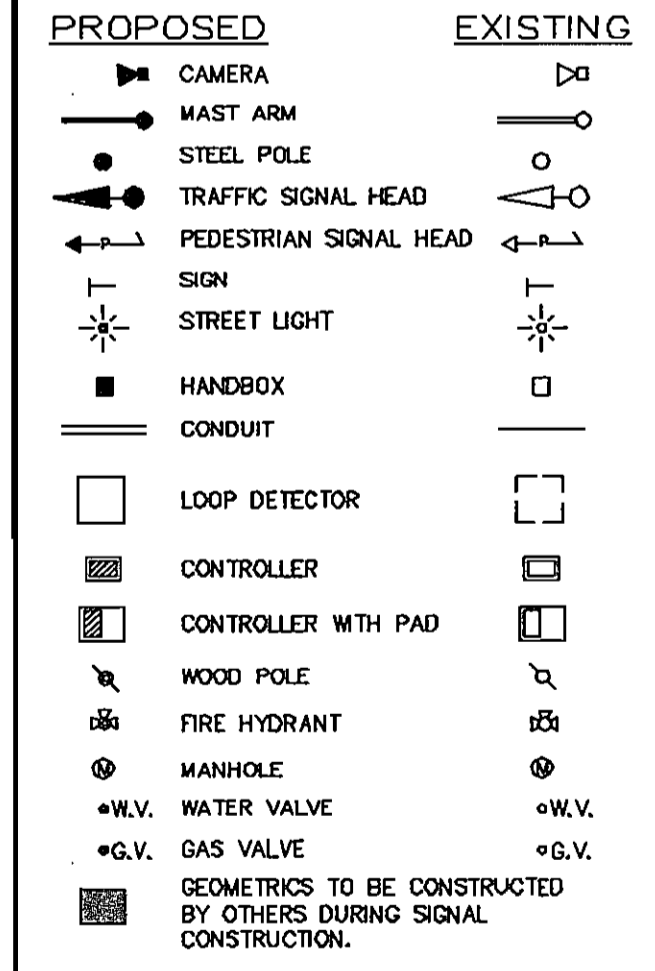
TITLE: SIGNAL MODIFICATION PLAN
 DOBBIN ROAD/DOBBIN CENTER WAY
 Patton Harris Rust & Associates, pc
 Engineers, Surveyors, Planners, Landscape Architects.
 8818 Centre Park Drive
 Columbia, MD 21045
 T 410.997.8900
 F 410.997.9282

DESIGNED BY: LES/EME
 DRAWN BY: EME
 PROJECT NO: 12104-0-0
 DATE: APRIL 17, 2007
 SCALE: 1" = 20'
 DRAWING NO. 16 OF 21

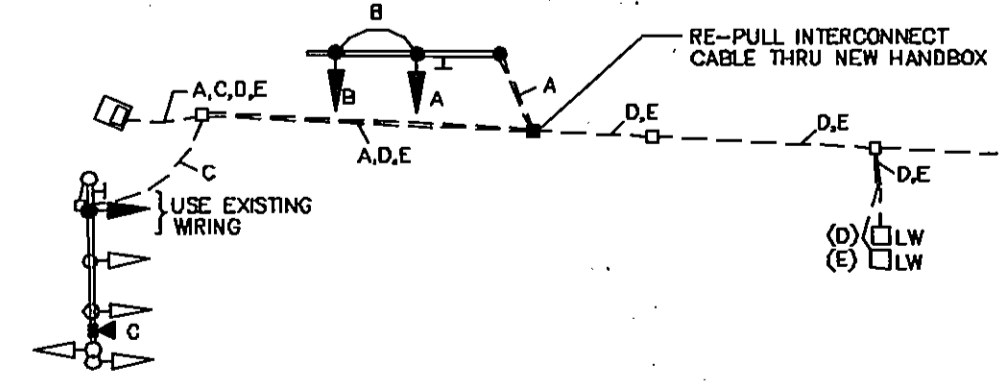
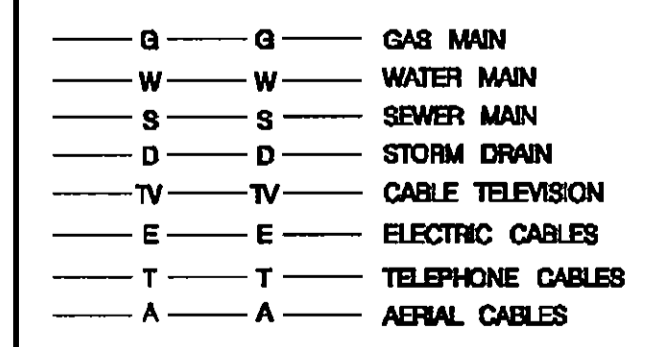
SDP-06-015



LEGEND

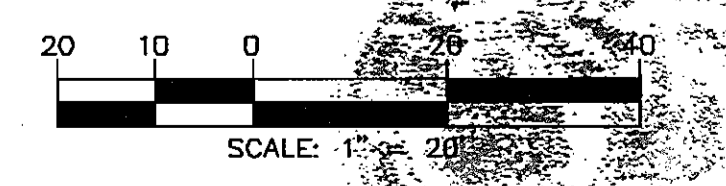


UTILITY LEGEND



WIRING LEGEND

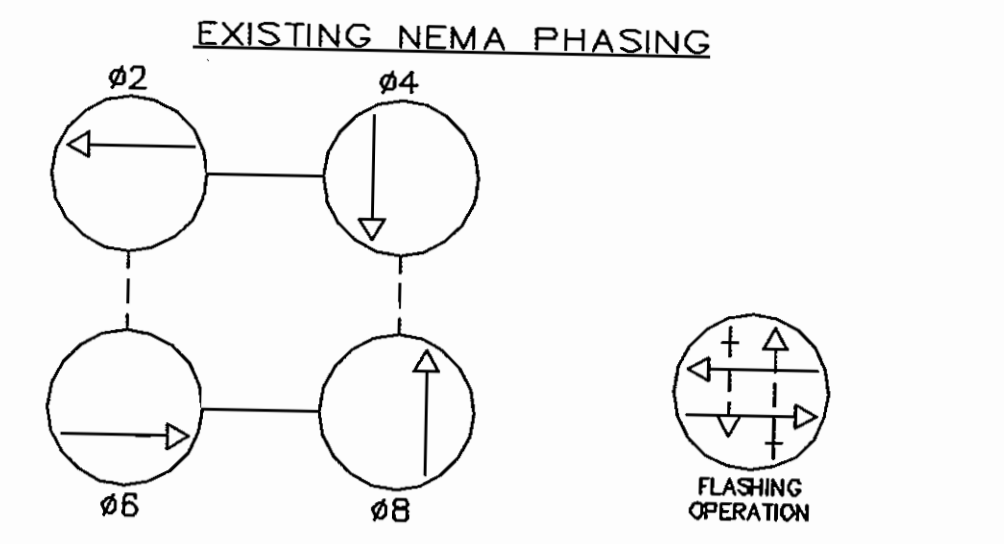
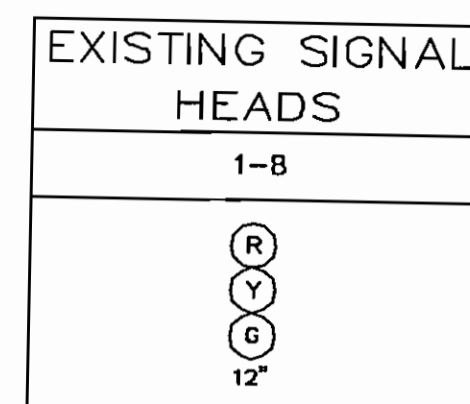
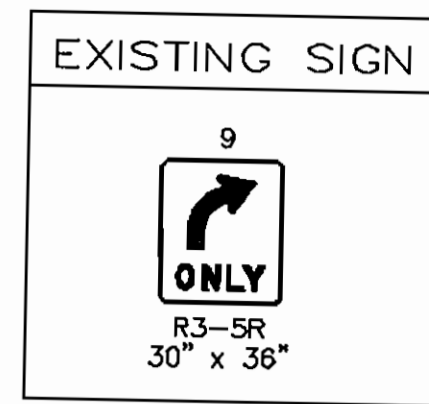
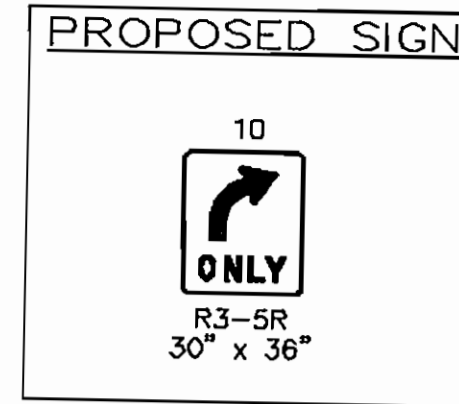
- A - 7 CONDUCTOR CABLE (NO. 14 A.W.G.)
- B - 5 CONDUCTOR CABLE (NO. 14 A.W.G.)
- C - CO-AXIAL CABLE (FOR VIDEO DETECTION)
- D,E - 2 CONDUCTOR CABLE (ALUMINUM SHIELDED)
- LW - LOOP WIRE (NO. 14 A.W.G.)



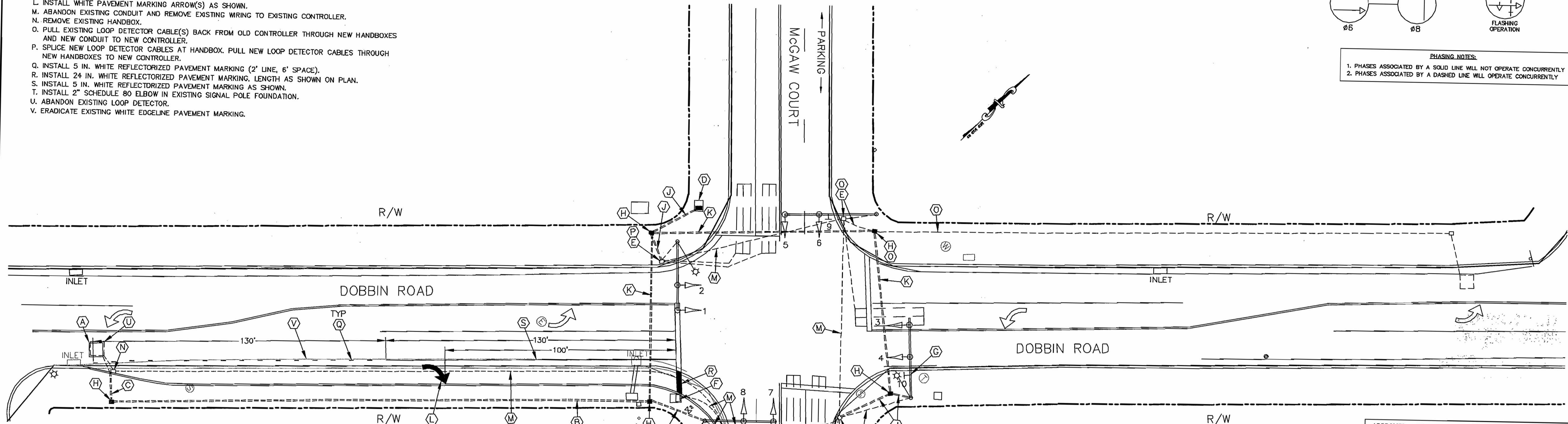
WELLS & ASSOCIATES, LLC.
 TRANSPORTATION, TRAFFIC, AND PARKING CONSULTANTS
 1420 Spring Hill Road, Suite 500, McLean, Virginia 22102
 Phone: 703/917-8920 Fax: 703/917-0739

CONSTRUCTION DETAILS

- A. INSTALL 6"x 6", THREE TURNS, LOOP DETECTOR.
- B. INSTALL 2 IN. SCHEDULE 80 ELECTRICAL CONDUIT - TRENCHED.
- C. INSTALL 1 IN. LIQUID-TIGHT, FLEXIBLE, NON-METALLIC CONDUIT (DETECTOR SLEEVE).
- D. INSTALL NEW CONTROLLER.
- E. USE EXISTING HANDBOX.
- F. REMOVE EXISTING CONTROLLER.
- G. INSTALL NEW PROPOSED OVERHEAD SIGN AS SHOWN.
- H. INSTALL NEW HANDBOX.
- J. INSTALL 3 IN. PVC SCHEDULE 80 ELECTRICAL CONDUIT - TRENCHED.
- K. INSTALL 3 IN. PVC SCHEDULE 80 CONDUIT - PUSHED.
- L. INSTALL WHITE PAVEMENT MARKING ARROW(S) AS SHOWN.
- M. ABANDON EXISTING CONDUIT AND REMOVE EXISTING WIRING TO EXISTING CONTROLLER.
- N. REMOVE EXISTING HANDBOX.
- O. PULL EXISTING LOOP DETECTOR CABLE(S) BACK FROM OLD CONTROLLER THROUGH NEW HANDBOXES AND NEW CONDUIT TO NEW CONTROLLER.
- P. SPLICE NEW LOOP DETECTOR CABLES AT HANDBOX. PULL NEW LOOP DETECTOR CABLES THROUGH NEW HANDBOXES TO NEW CONTROLLER.
- Q. INSTALL 5 IN. WHITE REFLECTORIZED PAVEMENT MARKING (2' LINE, 6" SPACE).
- R. INSTALL 24 IN. WHITE REFLECTORIZED PAVEMENT MARKING, LENGTH AS SHOWN ON PLAN.
- S. INSTALL 5 IN. WHITE REFLECTORIZED PAVEMENT MARKING AS SHOWN.
- T. INSTALL 2" SCHEDULE 80 ELBOW IN EXISTING SIGNAL POLE FOUNDATION.
- U. ABANDON EXISTING LOOP DETECTOR.
- V. ERADICATE EXISTING WHITE EDGELINE PAVEMENT MARKING.

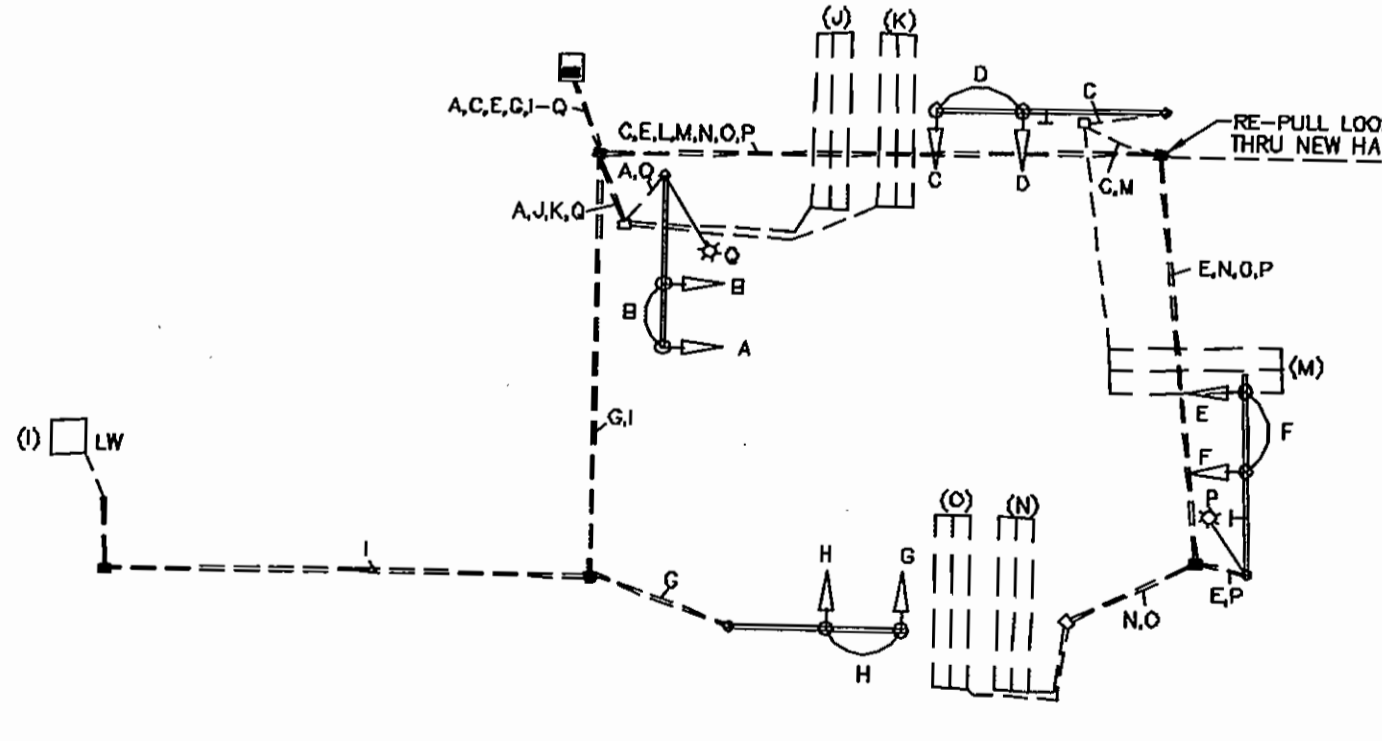
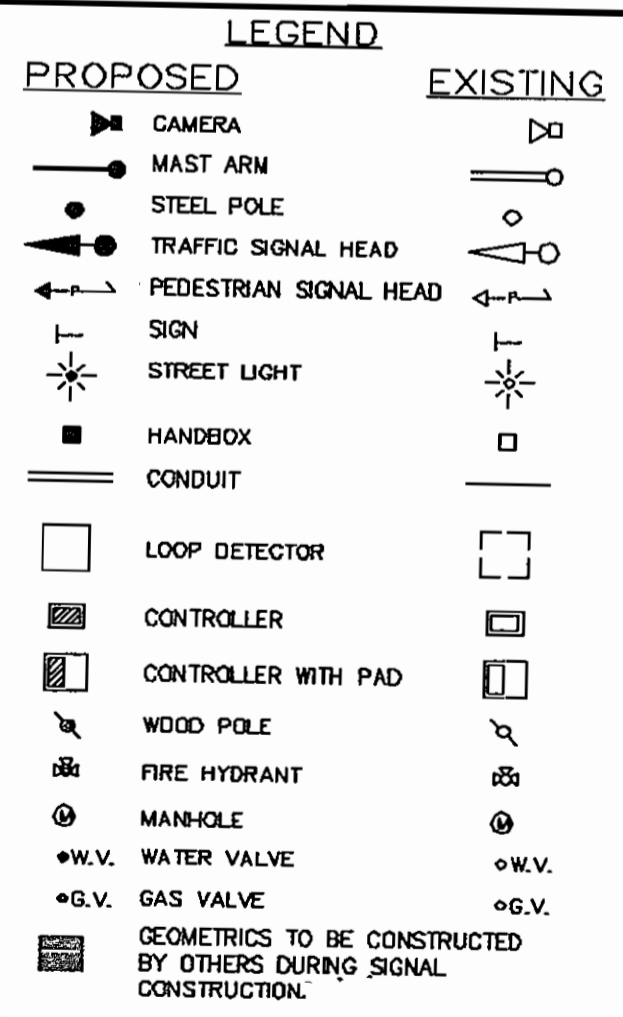


PHASING NOTES:
 1. PHASES ASSOCIATED BY A SOLID LINE WILL NOT OPERATE CONCURRENTLY
 2. PHASES ASSOCIATED BY A DASHED LINE WILL OPERATE CONCURRENTLY



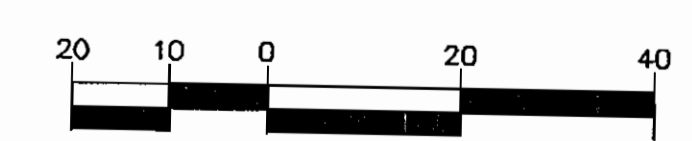
APPROVED
 PLANNING BOARD
 of HOWARD COUNTY
 DATE **August 31, 2006**

APPROVED : HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.
 Director: *David K. Leight* 4/14/07
 Chief, Development Engineering Division: *Chris R. Smith* 5/25/07
 Chief, Division of Land Development: *Chris R. Smith* 5/25/07



- WIRING LEGEND**
- A - 7 CONDUCTOR CABLE (NO. 14 A.W.G.)
 - B - 5 CONDUCTOR CABLE (NO. 14 A.W.G.)
 - C - 7 CONDUCTOR CABLE (NO. 14 A.W.G.)
 - D - 5 CONDUCTOR CABLE (NO. 14 A.W.G.)
 - E - 7 CONDUCTOR CABLE (NO. 14 A.W.G.)
 - F - 5 CONDUCTOR CABLE (NO. 14 A.W.G.)
 - G - 7 CONDUCTOR CABLE (NO. 14 A.W.G.)
 - H - 5 CONDUCTOR CABLE (NO. 14 A.W.G.)
 - J - 2 CONDUCTOR CABLE (ALUMINUM SHIELDED)
 - K - 2 CONDUCTOR CABLE (ALUMINUM SHIELDED)
 - L - 2 CONDUCTOR CABLE (ALUMINUM SHIELDED)
 - M - 2 CONDUCTOR CABLE (ALUMINUM SHIELDED)
 - N - 2 CONDUCTOR CABLE (ALUMINUM SHIELDED)
 - O - 2 CONDUCTOR CABLE (ALUMINUM SHIELDED)
 - P - STREET LIGHT CABLE
 - Q - STREET LIGHT CABLE

- UTILITY LEGEND**
- G - GAS MAIN
 - W - WATER MAIN
 - S - SEWER MAIN
 - D - STORM DRAIN
 - TV - CABLE TELEVISION
 - E - ELECTRIC CABLES
 - T - TELEPHONE CABLES
 - A - AERIAL CABLES



DATE	NO.	REVISION
		OWNER: HOLDINGS RETAIL BUSINESS TRUST C/O ROSENTHAL PROPERTIES LLC 8391 OLD COURTHOUSE RD SUITE 320 VIENNA, VA 22182
		DEVELOPER: CHEVY CHASE BANK ATTN: JOSEPH PEARSON 7501 WISCONSIN AVENUE 9TH FLOOR CORPORATE FACILITIES BETHESDA, MD 20814
		PROJECT: DOBBIN CENTER PARCEL J CHEVY CHASE BANK
		AREA TAX MAP 36 GRID #18 PARCEL 396 PAR J ZONING NT 6TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
		TITLE: SIGNAL MODIFICATION PLAN DOBBIN ROAD/MCGRAW ROAD/MCGAW COURT
		Patton Harris Rust & Associates, pc Engineers, Surveyors, Planners, Landscape Architects. 8818 Centre Park Drive Columbia, MD 21045 T 410.997.8900 F 410.997.9282

DESIGNED BY: LES/EME
 DRAWN BY: EME
 PROJECT NO: 12104-2-0
 DATE: APRIL 17, 2007
 SCALE: 1" = 20'
 DRAWING NO. 17 OF 21



WELLS & ASSOCIATES, LLC.
 TRANSPORTATION, TRAFFIC, AND PARKING CONSULTANTS
 1420 Spring Hill Road, Suite 800, McLean, Virginia 22102
 Phone: 703/917-9820 Fax: 703/917-0739

GENERAL NOTES FOR TEMPORARY TRAFFIC CONTROL TYPICAL APPLICATIONS
(TTC 1A)

10 INTRODUCTION

- 11 THE GENERAL NOTES (GN) SUPPLEMENT THE STANDARD DETAILS AND THE TTCTAS, AND HAVE BEEN ASSEMBLED TO PROVIDE ADDITIONAL DIRECTION ON THE INSTALLATION AND APPLICATION OF TRAFFIC CONTROL DEVICES SHOWN IN THESE STANDARDS. THE GNS ALSO PROVIDE ADDITIONAL GUIDELINES AND OTHER USEFUL INFORMATION THAT WILL FACILITATE THE INSTALLATION OF APPROPRIATE TEMPORARY TRAFFIC CONTROL DEVICES. USERS OF THESE STANDARDS SHALL ALSO COMPLY WITH PROVISIONS OF FHWA'S MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) AND SHA'S SUPPLEMENT TO THE MUTCD, STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS, AND GENERAL PROVISIONS FOR CONSTRUCTION CONTRACTS.
- 12 THE TTCTA SHOW THE MINIMUM REQUIREMENTS NECESSARY TO PLAN FOR THE SAFETY OF WORKERS, MOTORISTS, PEDESTRIANS, AND OTHER SYSTEM USERS THROUGHOUT THE TEMPORARY TRAFFIC CONTROL ZONE FOR VARIOUS TYPES OF WORK ACTIVITIES. TYPICALLY, MORE TRAFFIC CONTROL DEVICES ARE REQUIRED FOR LONG-TERM STATIONARY WORK ACTIVITIES THAN FOR SHORT-TERM STATIONARY WORK ACTIVITIES. ADDITIONAL TEMPORARY TRAFFIC CONTROL DEVICES MAY BE NECESSARY BECAUSE OF OTHER TRAFFIC FACTORS SUCH AS THE ROADWAY'S ACCIDENT HISTORY, EXPECTED TRAFFIC BACKUPS, HIGH TRUCK TRAFFIC, ROADWAY GEOMETRICS OR CHARACTERISTICS, AND OTHER CONDITIONS THAT MAY ADVERSELY AFFECT THE FLOW OF TRAFFIC. USERS OF THESE TTCTA SHOULD REVIEW THE TEMPORARY TRAFFIC CONTROL SETUP ONCE IN PLACE TO ENSURE THAT TRAFFIC IS TRAVELING SMOOTHLY THROUGHOUT THE TRAFFIC CONTROL ZONE, DRIVER EXPECTANCY IS BEING MET, AND NO OTHER ADJUSTMENTS TO THE TEMPORARY TRAFFIC CONTROL DEVICES ARE NECESSARY. THIS REVIEW IS TO BE REPEATED ON A REGULAR BASIS AS NOTED ELSEWHERE.
- 13 THE TTCTA ADDRESS A WIDE VARIETY OF DIFFERENT CONDITIONS HOWEVER, EVERY SITUATION COULD NOT BE SHOWN. THEREFORE, CHARTS HAVE BEEN PROVIDED SHOWING STANDARD DEVICES TO BE USED FOR THE PROPOSED WORK ZONE ACTIVITY AND THE PLACEMENT OF THESE DEVICES FOR CERTAIN ROADWAY CONDITIONS AND WORK DURATIONS. THE USER IS EXPECTED TO COMBINE THE INFORMATION FROM THESE CHARTS INTO A WORKABLE TRAFFIC CONTROL PLAN.
- 14 IN APPLYING THESE STANDARDS AND GUIDELINES, QUESTIONS ABOUT APPLICATIONS AND INTERPRETATIONS SHOULD BE REFERRED TO THE STATE HIGHWAY ADMINISTRATIONS ASSISTANT DISTRICT ENGINEER - TRAFFIC, COUNTY TRAFFIC ENGINEER, CITY TRAFFIC ENGINEER, PUBLIC WORKS ENGINEER, OR OTHER RESPONSIBLE PARTY, WHO HAS EXPERTISE IN TRAFFIC ENGINEERING AND HAS JURISDICTION ON THE APPROPRIATE ROADWAYS. SUCH CONSULTATION MAY BE REQUIRED, FOR EXAMPLE, TO DETERMINE THE APPROPRIATE TTCTA FOR THE WORK ZONE CONDITION.
- 15 THE GENERAL NOTES ADDRESS THE FOLLOWING TOPICS:
 - DEFINITIONS
 - ABBREVIATIONS
 - SIGNS
 - ARROW PANELS
 - CHANNELIZING DEVICES
 - PAVEMENT MARKINGS
 - FLAGGING
 - VEHICLES
 - WORK RESTRICTIONS
 - TRAFFIC CONTROL PLANS
 - SIGN AND BUFFER SPACING CHARTS/STANDARD TEMPORARY TRAFFIC CONTROL (TTC) OPERATIONS
 - PROJECT LIMITS SIGNS
 - IDENTIFICATION OF HAT AND SHOVEL SIGNS
 - PLACEMENT OF REGULATORY SPEED SIGNS
 - TTC DEVICE SELECTION CHARTS (FOR VARIOUS ROADWAY TYPES)
 - WARNING, REGULATORY AND SPECIAL SIGNS/SIGN DESIGNATIONS
 - SIGN/SIGN SUPPORT PLACEMENT
 - VEHICLE CONSPICUITY
 - PROTECTION VEHICLE/PANT TRAIN VEHICLE SIGNING

20 DEFINITIONS

- ADMINISTRATION - MARYLAND DEPARTMENT OF TRANSPORTATION, STATE HIGHWAY ADMINISTRATION.
- AVERAGE DAILY TRAFFIC - THE NUMBER OF VEHICLES FLOWING IN BOTH DIRECTIONS ALONG A PARTICULAR SEGMENT OF ROADWAY DURING AN AVERAGE 24-HOUR PERIOD.
- DIVIDED HIGHWAY - A HIGHWAY CONSISTING OF TWO ROADWAYS, WITH TRAFFIC IN ONE DIRECTION OF TRAVEL SEPARATED FROM TRAFFIC IN THE OPPOSITE DIRECTION BY A MEDIAN OR BARRIER.
- DIVIDED UNCONTROLLED HIGHWAY - A DIVIDED HIGHWAY HAVING AT-GRADE ACCESS TO/FROM ADJOINING ROADS OR DRIVEWAYS.
- DRIVER EXPECTANCY - TEMPORARY TRAFFIC CONTROL SHOULD BE DESIGNED AND APPLIED IN A MANNER EQUAL TO OR BETTER THAN PERMANENT/EXISTING CONDITIONS, SO AS TO COMPENSATE FOR THE UNEXPECTEDNESS OF THE WORK ZONE SITUATION, THUS PROVIDING POSITIVE GUIDANCE FOR THE ROAD USERS TRAVELING THE AREA.
- ENGINEER - A PERSON DESIGNATED BY THE ADMINISTRATION ACTING DIRECTLY OR THROUGH HIS DULY AUTHORIZED REPRESENTATIVE, SUCH REPRESENTATIVE ACTING WITHIN THE SCOPE OF THE PARTICULAR AUTHORITY AND DUTIES ASSIGNED TO THAT PERSON.
- EMERGENCY REPAIR OPERATION - AN UNPLANNED WORK OPERATION RESULTING FROM A FAILURE OR IMMINENT FAILURE OF A STRUCTURE OR SYSTEM THAT, IF NOT CONTROLLED OR CORRECTED IMMEDIATELY, MAY PRESENT A HAZARD TO THE PUBLIC.
- EXPRESSWAY - A HIGH-SPEED DIVIDED HIGHWAY WITH FULL OR PARTIAL CONTROL OF ACCESS AND GRADE SEPARATIONS AT MAJOR INTERSECTIONS.
- FREEMAN - AN EXPRESSWAY WITH FULL CONTROL OF ACCESS.
- HIGH BUS/TRUCK VOLUMES - BUS/TRUCK VOLUMES REPRESENTING MORE THAN 10 PERCENT OF THE TOTAL VOLUME OF TRAFFIC.
 - HIGH SPEED - GREATER THAN 40 MPH.
- LINE OF SIGHT - DECISION SIGHT DISTANCE FOR THE FOLLOWING RATE OF SPEED:

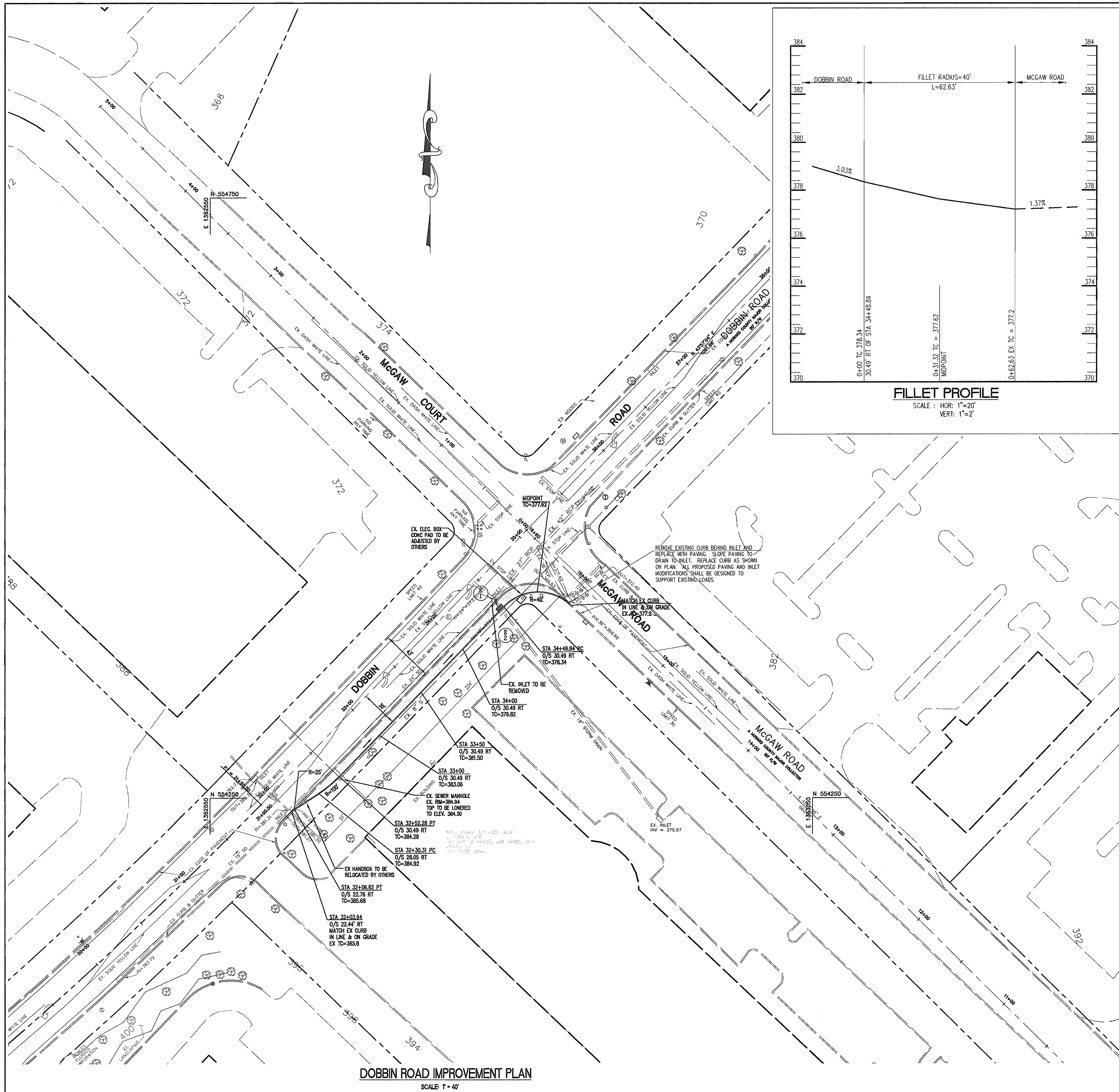
MPH	FEET
30	450-625
40	600-825
50	750-1025
60	1000-1275
70	1300-1650
- LONG-TERM STATIONARY WORK ACTIVITY - WORK THAT OCCUPIES A LOCATION MORE THAN 12 HOURS OR IS CONDUCTED DURING DARKNESS.
 - LOW SPEED - EQUAL TO OR LESS THAN 40 MPH.
- MOBILE OPERATION - WORK ACTIVITY THAT MOVES ALONG THE ROAD EITHER INTERMITTENTLY OR CONTINUOUSLY; MAY INVOLVE STOPS AS LONG AS 15 MINUTES.
- MOVING NORMAL - MOBILE WORK OPERATION TRAVELING AT, OR WITHIN 15 MPH OF THE POSTED SPEED LIMIT.
- MULTI-LANE UNDIVIDED HIGHWAY - A TWO-WAY HIGHWAY HAVING THREE OR MORE LANES THAT TYPICALLY PROVIDES AT LEAST TWO LANES IN EACH DIRECTION, WITH TRAFFIC SEPARATED BY A CENTER LINE AS DEFINED BY THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
- PHYSICAL BARRIER - A DEVICE WHICH PROVIDES A PHYSICAL LIMITATION THROUGH WHICH A VEHICLE WOULD NOT NORMALLY PASS. IT IS INTENDED TO CONTAIN OR REDIRECT AN ERRANT VEHICLE.
 - POSTED OR PREVAILING SPEED, WHICHEVER IS HIGHER ALSO, SEE DEFINITION FOR 'SPEED'.

- PREVAILING (TRAVEL) SPEED - THE SPEED AT WHICH THE MAJORITY OF THE TRAFFIC IS TRAVELING AT OR BELOW (NORMALLY THE 85TH PERCENTILE). IF THE PREVAILING SPEED IS NOT KNOWN, IT SHALL BE DETERMINED BY THE ENGINEER USING THE FLOATING CAR METHOD (IN WHICH THE DRIVER APPROXIMATES THE MEDIAN SPEED BY PASSING AS MANY VEHICLES AS PASS THE DRIVER) OR ANOTHER SUITABLE METHOD, AT THE DISCRETION OF THE ENGINEER.
- PROTECTION VEHICLE - A VEHICLE EQUIPPED WITH ONE OR MORE OF THE FOLLOWING DEVICES - AN ARROW PANEL/TRUCK MOUNTED CHANGEABLE MESSAGE SIGN, ADVANCE WARNING SIGN, APPROVED SAFETY LIGHTS, OR REAR TRUCK MOUNTED ATTENUATOR - THAT IS USED TO PROVIDE PROTECTION FOR WORKERS, MOTORISTS, EQUIPMENT, AND WORK OPERATIONS.
- QUEUE - A LINE OF VEHICLES, OR TRAFFIC BACKUP, THAT FORMS ON A SECTION OF ROADWAY WHERE TRAFFIC VOLUME EXCEEDS CAPACITY.
- SERVICE VEHICLE - THE WORK VEHICLE TYPICALLY USED TO MAINTAIN TRAFFIC CONTROL DEVICES, SUCH AS PCMS AND TRAFFIC SIGNALS.
- SHORT-TERM STATIONARY WORK ACTIVITY - DAYLIGHT WORK THAT OCCUPIES A LOCATION FROM 15 MINUTES TO 12 HOURS.
- SPECIFICATIONS - THE ADMINISTRATION'S STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS, LATEST EDITION.
- SPEED - THE TERM 'SPEED' MAY MEAN THE 85TH PERCENTILE SPEED, PREVAILING SPEED, POSTED SPEED, DESIGN SPEED, OR ADVISORY SPEED. VEHICLE SPEED SHOULD BE CAREFULLY CONSIDERED IN DETERMINING THE DESIGN, USE, PLACEMENT, AND LOCATION OF VARIOUS TRAFFIC CONTROL DEVICES.
- TWO-LANE, TWO-WAY ROADWAY - A ROADWAY THAT PROVIDES A SINGLE TRAVEL LANE IN EACH DIRECTION TRAFFIC IS SEPARATED BY A CENTER LINE AS DEFINED IN THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
- 30 ABBREVIATIONS
 - ADE-T - ASSISTANT DISTRICT ENGINEER-TRAFFIC
 - ADT - AVERAGE DAILY TRAFFIC
 - ASST - ASSISTANT
 - BL - BUFFER LENGTH
 - CD OR CHAN - CHANNELIZING DEVICES
 - DARK - DARKNESS (NIGHTTIME)
 - DAY - DAYTIME
 - EOL - EQUIL
 - EXP - EXPRESSWAY
 - FT - FEET
 - FOHPWA - FLUORESCENT ORANGE HIGH-PERFORMANCE WIDE ANGLE
 - GN - GENERAL NOTES
 - HRS - HOURS
 - INTERSECT - INTERSECTION
 - L - TAPER LENGTH
 - LOTS - LIGHTS
 - LOC - LOCATION
 - MUTCD - MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES
 - MDOT - MARYLAND DEPARTMENT OF TRANSPORTATION
 - MAX - MAXIMUM
 - MPH - MILES PER HOUR
 - MIN - MINIMUM
 - 15 MIN - 15 MINUTES (TITLE BLOCK)
 - OOTS/OOTHS - OFFICE OF TRAFFIC + SAFETY
 - PED - PEDESTRIAN
 - PCMS - PORTABLE CHANGEABLE MESSAGE SIGN
 - RT - RIGHT
 - SHA - STATE HIGHWAY ADMINISTRATION
 - STA - STANDARD
 - TEMP - TEMPORARY
 - TTC - TEMPORARY TRAFFIC CONTROL
 - TTCTA - TEMPORARY TRAFFIC CONTROL TYPICAL APPLICATIONS
 - TMA - TRUCK MOUNTED ATTENUATOR
 - TYP - TYPICAL
 - UNCON - UNCONTROLLED
 - UNDIV - UNDIVIDED
 - VEH - VEHICLE
 - VP-1 - VERTICAL PANEL-1 (OBJECT MARKER DESIGNATION)
- 40 SIGNS
 - 41 SIGNS SHOULD BE SPACED AT THE DISTANCES SHOWN ON THE TTCTA DIAGRAMS.
 - 42 SEE THE 'SIGN AND BUFFER SPACING CHARTS/STANDARD TEMPORARY TRAFFIC CONTROL OPERATIONS' FOR THE APPROPRIATE SPACING OF THE ADVANCE WARNING SIGNS FOR LOWER SPEED HIGHWAY FACILITIES.
 - 43 AT LOCATIONS WHERE QUEUES EXTEND BEYOND THE FIRST ADVANCE WARNING SIGN, ADDITIONAL ADVANCE WARNING SIGNS (STATIC AND/OR PCMS) SHALL BE PLACED IN ADVANCE OF THE LONGEST OBSERVED QUEUE.
 - 44 WHEN BUS AND/OR TRUCK VOLUMES ARE HIGH, AN INITIAL ADVANCE WARNING SIGN MAY BE PLACED ON THE LEFT SIDE OF A MULTILANE UNDIVIDED ROADWAY.
 - 45 AS OF DECEMBER 31, 2003, FLUORESCENT ORANGE HIGH PERFORMANCE WIDE ANGLE (FOHPWA) RETROREFLECTIVE SIGN SHEETING MATERIAL SHALL BE USED ON ALL TEMPORARY POST-MOUNTED WARNING SIGNS ERECTED IN WORK ZONES.
 - 46 FOHPWA RETROREFLECTIVE SIGN SHEETING MATERIAL MAY BE USED FOR MAINTENANCE WORK ALONG FREEWAYS AND MAJOR EXPRESSWAYS AT THE DISCRETION OF THE ENGINEER.
 - 47 APPROVED TEMPORARY ROLL-UP SIGNS MAY BE USED FOR MAINTENANCE WORK ALONG ALL ROADWAYS.
 - 48 SIGN DESIGNATIONS AND MESSAGES FOR THE SIGNS MOST COMMONLY USED IN WORK ZONES ARE SHOWN WITHIN THESE GENERAL NOTES. SEE SPECIFICATION 104.08-03 FOR INFORMATION ON OTHER TEMPORARY TRAFFIC SIGNS.
 - 49 095-4 (HAT AND SHOVEL) SIGNS SHALL BE USED FOR PROJECTS LASTING GREATER THAN TWO MONTHS IN DURATION, UNLESS OTHERWISE SPECIFIED BY THE ENGINEER.
 - 410 ALONG STREETS IN URBAN AREAS WHERE THE PREVAILING SPEED IS 35MPH OR LESS, AND ALONG SECONDARY ROADS WHERE THE AVERAGE DAILY TRAFFIC (ADT) IS LESS THAN 1000 VEHICLES, THE MINIMUM SIGN SIZE OF 36" X 36" MAY BE USED.
 - 411 FOR UTILITY OPERATIONS, THE WORD 'AHEAD' MAY BE USED ON WARNING SIGNS IN LIEU OF DISTANCE MESSAGES FOR WARNINGS PLACED UP TO AND INCLUDING 500 FEET IN ADVANCE OF THE WORK AREA. AT GREATER DISTANCES, THE CORRECT DISTANCE MESSAGES SHALL BE USED ON SUCH WARNING SIGNS. ALSO, THE MESSAGE UTILITY WORK MAY BE USED IN LIEU OF ROAD WORK OR SHOULDER WORK. ROAD WORK AHEAD SIGNS MAY ALSO BE USED IN LIEU OF DISTANCE MESSAGES ON SIDE STREETS AND ENTRANCE RAMPS THAT INTERSECT ROADS WHERE WORK IS BEING PERFORMED (AS SHOWN IN THE TYPICAL APPLICATIONS) AND ON THE MAIN ROAD DURING MOBILE AND MOVING OPERATIONS.
 - 412 ROAD WORK AHEAD SIGNS SHALL BE INSTALLED ON ALL SIDE STREETS AND ENTRANCE RAMPS THAT INTERSECT ROADS WITHIN WORK ZONES. THE SIGNING SHALL BE PLACED ALONG THE INTERSECTION APPROACH TO THE RIGHT OF THE TRAVEL LANE. REFER TO STANDARD DETAIL 104-1-02 FOR GUIDANCE ON SIGN PLACEMENT. FOR SIDE STREETS INTERSECTING ROADS OUTSIDE WORK ZONE BOUNDARIES, NO ADVANCED SIGNING SHOULD BE INSTALLED.
 - 413 WARNING SIGNS MOUNTED ON WOOD POSTS, AND THOSE MOUNTED ON APPROVED PORTABLE SUPPORTS, SHALL BE MOUNTED IN CONFORMANCE WITH STANDARD NO. MD 10401-7. SIGNS MOUNTED ON CONCRETE BARRIERS SHALL BE INSTALLED USING CLAMPS THAT ARE ON THE OFFICE OF TRAFFIC + SAFETY'S APPROVED PRODUCT LIST.
 - 414 A BUMP SIGN SHOULD BE PLACED WHEN THERE IS A TEMPORARY PAVEMENT WEDGE ALONG A TRANSVERSE JOINT, A TRANSVERSE CONSTRUCTION TRENCH WITH TEMPORARY BACKFILL, OR A SIMILAR TRANSVERSE DISTURBANCE. SIGNS SHOULD BE PLACED ACCORDING TO SHOULDER WORK TYPICAL APPLICATIONS FOR THE APPROPRIATE PREVAILING SPEED AND WORK DURATION, WITH BUMP SIGNS REPLACING THE SHOULDER WORK SIGNS.
 - 415 TRUCK CROSSING (W1-107) SIGNS SHALL ONLY BE USED DURING THE FOLLOWING TWO SITUATIONS:
 - 1. A WORK AREA ENTRANCE IS ALLOWED ALONG A CONTROLLED ACCESS HIGHWAY.
 - 2. A WORK AREA ENTRANCE IS PROVIDED ALONG HIGHWAYS OTHER THAN CONTROLLED ACCESS, THE ENTRANCE DOES NOT HAVE ADEQUATE DECISION SIGHT DISTANCE FOR APPROACHING TRAFFIC, AND THE ENTRANCE ADEQUATE DECISION SIGHT DISTANCE FOR APPROACHING TRAFFIC, AND THE ENTRANCE CANNOT BE RELOCATED TO PROVIDE ADEQUATE DECISION SIGHT DISTANCE. REFER TO STANDARD NO. MD 10400-03 OF THE GENERAL NOTES FOR DECISION SIGHT DISTANCE CRITERIA.
- TRUCK CROSSING SIGNS SHALL BE PLACED ACCORDING TO THE SHOULDER WORK TYPICAL APPLICATIONS, WITH TRUCK CROSSING SIGNS REPLACING ALL SHOULDER WORK SIGNS.
- ANY DISTANCES TO BE DISPLAYED ON THE TRUCK CROSSING SIGN SHALL BE INSTALLED USING SUPPLEMENTAL DISTANCE PLAQUES.
- 50 ARROW PANELS
 - 51 ARROW PANELS THAT ARE INSTALLED ALONG ROADWAYS WITH PREVAILING SPEEDS GREATER THAN 40 MPH SHALL BE PROVIDED WITH A MINIMUM SHOULDER CLOSURE TAPER OF 1/3 THE TAPER LENGTH, (SEE 60 CHANNELIZING DEVICES). FOR ALL OTHER ROADWAYS, A 100-FOOT MINIMUM SHOULDER CLOSURE TAPER SHALL BE USED.
- 60 CHANNELIZING DEVICES
 - 61 TAPER FORMULAS
 - L = WS FOR SPEEDS GREATER THAN (1) 40 MPH
 - L = W52/60 FOR SPEEDS EQUAL TO OR LESS THAN (1) 40 MPH
 - WHERE:
 - L = MINIMUM LENGTH OF TAPER (FT)
 - S = NUMERICAL VALUE OF PREVAILING TRAVEL SPEED OR SPEED LIMIT (MPH), WHICHEVER IS HIGHER, PRIOR TO WORK STARTING.
 - W = WIDTH OF OFFSET (FT)
 - 62 MAXIMUM SPACING BETWEEN CHANNELIZING DEVICES
 - TAPER CHANNELIZATION EQUAL IN FEET TO THE POSTED SPEED LIMIT.
 - TANGENT CHANNELIZATION EQUAL IN FEET TO TWICE THE POSTED SPEED LIMIT.
 - 63 AT HORIZONTAL OR VERTICAL CURVES, CHANNELIZING DEVICES SHOULD BE EXTENDED TO A POINT WHERE THEY ARE VISIBLE TO APPROACHING TRAFFIC. ON TWO-LANE, TWO-WAY ROADWAYS, A FULL TAPER LENGTH SHALL ALWAYS BE PROVIDED IN ADVANCE OF CURVES.
 - 64 DRUMS, NOT CONES, SHOULD ALWAYS BE USED TO FORM THE TAPER ON ROADWAYS HAVING A PREVAILING TRAVEL SPEED GREATER THAN 40 MPH.
 - 65 STORING CHANNELIZING DEVICES WITHIN 30 FEET OF THE EDGE OF OPEN SECTION ROADWAY OR 15 FEET OF A CLOSED SECTION ROADWAY ALONG ANY ROADWAY IS PROHIBITED WITHOUT APPROVAL OF THE ENGINEER.
 - 66 TYPE 3 OBJECT MARKERS (M-0) ARE REQUIRED FOR BARRIER FLARE/TANGENT POINTS.
 - 67 THE APPROPRIATE CHANNELIZING DEVICES (INCLUDING APPROVED BARRIERS) TO SEPARATE OPPOSING TRAFFIC SHALL BE AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER.
 - 68 ON STRAIGHT SECTIONS OF ROADWAY WITH FULL DIMENSION CENTER AND/OR LANE LINES, BUT WITHOUT EDGE LINES, CHANNELIZING DEVICES SHALL BE USED TO DELINEATE THE EDGE OF THE ROADWAY, EXCEPT AT LOCATIONS DESIGNATED BY THE ENGINEER. EXAMPLES WOULD INCLUDE ROADWAYS WITH CURBS, PARKING, BICYCLE LANES, OR OTHER MARKINGS. THE CHANNELIZING DEVICES MAY BE SPACED UP TO 500 APART WHERE NO UNDUPLICATE HAZARDS EXISTING UNLESS OTHERWISE DIRECTED BY THE ENGINEER. ON CURVES, THESE SPACINGS SHALL BE REDUCED TO A VALUE EQUAL TO THE POSTED SPEED LIMIT, UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
 - 70 PAVEMENT MARKINGS
 - 71 TEMPORARY PAVEMENT MARKINGS SHOULD BE INSTALLED ACCORDING TO SECTION 104.02-03.0, SPECIFIC REQUIREMENTS FOR TEMPORARY PAVEMENT MARKINGS, FROM THE STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS AND FROM SHA'S 'PAVEMENT MARKING POLICY AND GUIDELINES' ISSUED BY OOTS.
 - 72 PAVEMENT MARKINGS THAT ARE NO LONGER APPLICABLE SHALL BE COMPLETELY REMOVED OR OBLITERATED. TEMPORARY MARKINGS SHALL BE USED AS NECESSARY, OPERATIONS LESS THAN 12 HOURS OR UNDERTAKEN DURING THE DAYTIME MAY REQUIRE THAT THE PERMANENT MARKINGS BE TEMPORARILY COVERED WITH BLACK TAPE AS SPECIFIED IN SECTION 73.
 - 73 PAVEMENT MARKING LINES ADJACENT TO ANY LONG DURATION LANE TRANSITION OR LANE CLOSURE TAPER SHALL BE REMOVED (OR COVERED WITH SHA APPROVED BLACK PAVEMENT MARKING TAPE), UNLESS OTHERWISE DIRECTED BY THE ENGINEER. PAVEMENT MARKING LINES SHALL BE REINSTALLED (OR UNCOVERED) PRIOR TO REOPENING THE CLOSED LANES.
 - 74 GUIDANCE ON UNMARKED PAVEMENT SIGNING
 - 1. DAYTIME: IF THE PAVEMENT IS NOT MARKED TO SHA'S STANDARDS/SPECIFICATIONS DURING THE DAYTIME, NO SIGN IS NEEDED, PROVIDED ITEM IS BELOW IS ADHERED TO.
 - IF DUE TO UNFORESEEN CIRCUMSTANCES AS DETERMINED BY THE ENGINEER, THE PAVEMENT IS LEFT IN A CONDITION OVERNIGHT THAT DOES NOT MEET SHA PAVEMENT MARKING STANDARDS/SPECIFICATIONS, THEN UNMARKED PAVEMENT SIGNING SHALL BE USED.
 - 2. NIGHTTIME: IN ALL INSTANCES WHERE LESS THAN STANDARD MARKINGS ARE IN PLACE (PERMANENT OR SHORT-TERM), APPROPRIATE CHANNELIZING DEVICES AND OTHER TRAFFIC CONTROL DEVICES SHALL BE USED TO GUIDE TRAFFIC THROUGH THE WORK ZONE IN AN EFFECTIVE, SAFE, AND POSITIVE MANNER.
 - 80 FLAGGING
 - 81 WHERE TWO OR MORE FLAGGERS ARE USED AND ARE UNABLE TO SEE EACH OTHER, TWO-WAY RADIO COMMUNICATIONS SHALL BE USED.
 - 82 IF THE ENTIRE WORK AREA IS VISIBLE FROM ONE STATION, A SINGLE FLAGGER MAY BE USED SUBJECT TO OTHER SAFETY CONSIDERATIONS.
 - 83 GUIDANCE ON FLAGGING AT SIGNALIZED INTERSECTIONS
 - 1. ISSUES REGARDING FLAGGING AT SIGNALIZED INTERSECTIONS SHOULD BE DISCUSSED IN THE PLANNING/DESIGN STAGES OF THE PROJECT, AND THE RECOMMENDED INTERSECTION CONTROL STRATEGY SHOULD BE SPECIFIED IN THE CONTRACT DOCUMENTS.
 - 2. AT THE PRE-CONSTRUCTION CONFERENCE, HOWARD COUNTY STAFF AND THE CONTRACTOR SHOULD DISCUSS THE NEED FOR FLAGGING OPERATIONS, MSP (OR LOCAL POLICE) PRESENCE, AND THE STANDARD OPERATING PROCEDURES TO REQUEST SIGNAL. OPERATING MODE MODIFICATIONS (IF NEEDED).
 - 3. IN GENERAL, ALL PERSONS (CONTRACTORS, MAINTENANCE, AND UTILITY) SHOULD CONTACT HOWARD COUNTY TO DETERMINE THE BEST METHOD FOR TEMPORARY TRAFFIC CONTROL AT A SIGNALIZED INTERSECTION FROM THE FOLLOWING TWO (2) CASES:
 - CASE 1: THE SIGNAL IS TURNED TO FLASHING MODE DURING FLAGGING OPERATION.
 - CASE 2: THE SIGNAL IS TURNED OFF (DARK MODE) DURING FLAGGING OPERATION.
 - NOTE: EXCEPT FOR POLICE, FLAGGING SHALL NOT OCCUR AT A SIGNALIZED INTERSECTION OPERATING IN A FULL-COLOR STOP-AND-GO MODE (NORMAL OPERATION).

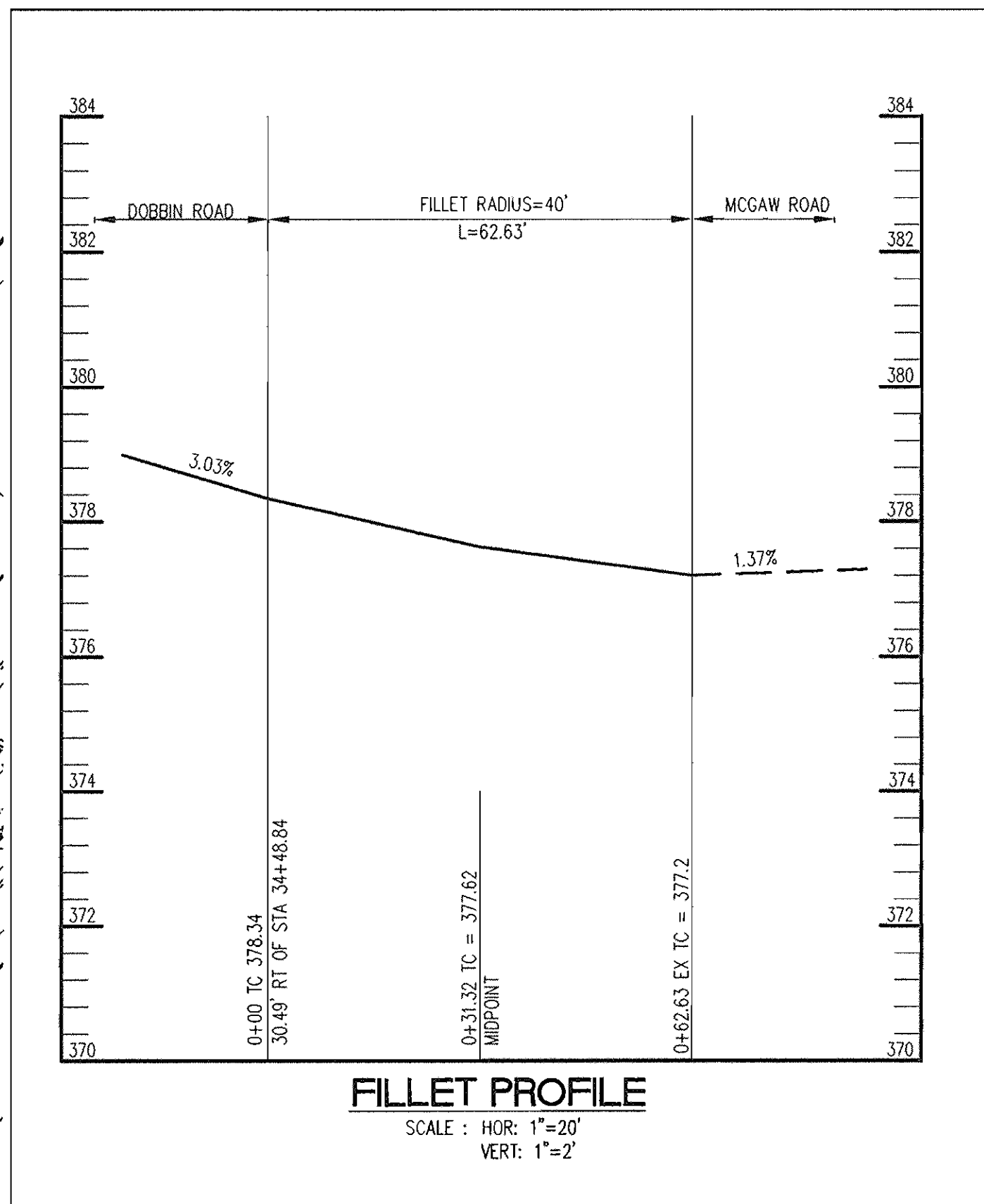
- 90 VEHICLES
 - 91 IF WORK VEHICLES NEED TO BE STOPPED IN A LANE BEYOND A HORIZONTAL CURVE OR A VERTICAL CURVE (HILL), NON-ESSENTIAL VEHICLES ARE TO BE PULLED AS FAR OFF THE ROAD AS POSSIBLE OR BE OTHERWISE PARKED IN A MANNER AS TO NOT OBSTRUCT THE MOVEMENT OF TRAFFIC AS LITTLE AS POSSIBLE. IF NO PROTECTION IS AVAILABLE, CHANNELIZING DEVICES SHALL BE PLACED AS SPECIFIED IN 60 CHANNELIZING DEVICES.
 - 92 WORK VEHICLES SHOULD NOT OCCUPY ANY PART OF THE BUFFER AREA.
 - 93 VEHICLE SAFETY LIGHTS (AMBER IN COLOR) SHALL BE FROM THE OFFICE OF TRAFFIC + SAFETY'S APPROVED PRODUCTS LIST.
 - 94 A PROTECTION VEHICLE WITH A REAR TRUCK-MOUNTED-ATTENUATOR (TMA) IS REQUIRED FOR ALL FREEWAY WORK OPERATIONS THAT HAVE NO FORMAL LANE CLOSURE. A FORMAL LANE CLOSURE IS ONE THAT INCLUDES A FULL COMPLIMENT OF ADVANCE WARNING DEVICES AND A LANE CLOSURE TAPER AND A WORK AREA DELINEATED BY CHANNELIZING DEVICES PLACED IN ACCORDANCE WITH THESE FLOCTAS.
 - A PROTECTION VEHICLE IS ALSO REQUIRED FOR HIGHWAY MARKING OPERATIONS AND MAY BE REQUIRED UNDER OTHER TRAFFIC AND WORK CONDITIONS IN CONFORMANCE WITH SHA POLICY OR AS DIRECTED BY THE ENGINEER. THE PROTECTION VEHICLE MAY BE CONSIDERED AS A SUBSTITUTE FOR THE INITIAL ADVANCE WARNING SIGN FOR SOME MOBILE WORK OPERATIONS. A PROTECTION VEHICLE SHOULD ALSO BE USED IN ADVANCE OF A WORK OPERATION THAT IS LOCATED BEYOND A HORIZONTAL AND/OR VERTICAL CURVE. CONSIDERATION SHOULD ALSO BE GIVEN TO PLACING AN ADDITIONAL TEMPORARY ADVANCE WARNING SIGN(S) OR TRUCK MOUNTED VARIABLE MESSAGE SIGN NO LESS THAN 500' AND NO MORE THAN 1500' (1/2 MILE FOR EXPRESSWAY CONDITIONS) IN ADVANCE OF THE PROTECTION VEHICLE, WHEN ONE OR MORE OF THE TRAFFIC FACTORS LISTED UNDER GENERAL NOTES 12 EXIST.
 - 95 WHEN A POLICE VEHICLE IS REQUIRED, THE VEHICLE SHALL NOT BE LOCATED IN THE BUFFER AND/OR TAPER, BUT SHOULD BE LOCATED AS DIRECTED BY THE ENGINEER, DEPENDING ON THE TYPE OF WORK, IT IS SOMETIMES PREFERABLE TO DEPLOY THE POLICE VEHICLE IN ADVANCE OF THE WORK ZONE OR QUEUE (IF QUEUE EXISTS) TO ENCOURAGE SPEED REDUCTION PRIOR TO THE WORK ZONE.
- 100 WORK HOUR RESTRICTIONS
 - 101 UNLESS OTHERWISE SPECIFIED IN THE CONTRACT DOCUMENT OR PERMITTED BY THE ENGINEER, WORK WITHIN A LANE WITHIN 15 FEET OF THE NEAREST EDGE LINE (OPEN SECTION ROADWAY), OR WITHIN 2 FEET OF THE FACE OF CURB (CLOSED SECTION ROADWAY), IS PROHIBITED DURING PEAK HOURS 6 AM - 9 AM AND 3 PM - 4 PM MONDAY - FRIDAY. ALSO, SUCH WORK IS NOT PERMITTED ON SATURDAYS, SUNDAYS, NATIONAL OR STATE HOLIDAYS, OR DAYS PRECEDING AND FOLLOWING SAD HOLIDAYS.
 - 102 TEMPORARY LIGHTING
 - 111 ROADWAY LIGHTING SHALL BE CONSIDERED DURING THE PLANNING OF TEMPORARY TRAFFIC CONTROL PLANS. LIGHTING MAY BE REQUIRED DUE TO NIGHTTIME WORK ZONE TRAFFIC OPERATIONS OR FOR NEW TRAFFIC PATTERNS (E.G. NEW EXIT OR LANE SHIFT). ONCE THE NEED FOR TEMPORARY LIGHTING IS IDENTIFIED, IT SHOULD BE PROVIDED IN ONE OF TWO WAYS:
 - 1. IF PRACTICAL, PERMANENT LIGHTING THAT IS BEING INSTALLED AS PART OF THE PROJECT SHOULD BE INSTALLED IN THE EARLY STAGES SO THAT IT CAN BE USED FOR ILLUMINATING TRAVEL LANES THROUGHOUT THE WORK ZONE THROUGHOUT THE PROJECT.
 - 2. IF INSTALLATION OF PERMANENT LIGHTING IS NOT A PART OF PROJECT, THEN TEMPORARY LIGHTING (TEMPORARY LIGHT POLES OR FLOOD LIGHTS) SHOULD BE PROVIDED TO ILLUMINATE TRAVEL PATH.
 - CONTRACTOR SHALL MAINTAIN EXISTING LIGHTING.
 - 112 THE CONTRACTOR SHALL SUBMIT A SITUATION PLAN TO THE ENGINEER SHOWING THE LOCATIONS AND AMING OF FLOODLIGHTS. THE FLOODLIGHTING SYSTEM SHALL BE CAPABLE OF MAINTAINING A 20-FT-C WITHOUT PRODUCING A DISABLING GLARE CONDITION FOR APPROACHING ROAD USERS. THE ADEQUACY OF THE FLOODLIGHT PLACEMENT AND ABSENCE OF GLARE SHOULD BE FIELD-VERIFIED BY THE ENGINEER AND CONTRACTOR. THIS INVOLVES DRIVING THROUGH AND OBSERVING THE FLOODLIGHTED AREA FROM EACH DIRECTION ON ALL APPROACHING ROADWAYS IMMEDIATELY AFTER THE INITIAL FLOODLIGHT SETUP, AT NIGHT, AND PERIODICALLY.
 - 120 PAVEMENT DROP-OFF
 - 121 WHEN PAVEMENT DROP-OFFS ARE PRESENT, THE PLACEMENT OF TEMPORARY TRAFFIC CONTROL DEVICES, INCLUDING SIGNS, CHANNELIZING DEVICES, AND BARRIERS, AS WELL AS SLOPE FILLET WEDGES, SHALL FOLLOW SHA STANDARD NOS. MD 10408-11, MD 10406-12, MD 104-02-13, MD 104-06-14, MD 104-06-15, AND MD 104-01-28. THE ENGINEER MAY RECOMMEND ALTERNATIVE METHODS TO PROTECT THE PAVEMENT EDGE DROP-OFF, CONSIDERING FACTORS SUCH AS PEDESTRIANS, BICYCLE AND TRAFFIC VOLUMES, VEHICLE SPEEDS, SIZE OF WORK ZONE DURATION OF WORK, ETC.
 - 130 CLEAR ZONE
 - 131 MSHOTO'S ROADSIDE DESIGN GUIDE DEFINES THE CLEAR ZONE AS 'AN UNNUMBERED ROADSIDE RECOVERY AREA.' THE 'CLEAR ZONE' CONCEPT APPLIES TO BOTH NATURAL AND MANMADE OBJECTS (TREES, BRIDGE PIER SIGNS, SUPPORTS, CURBS, DITCHES, AND OTHER DESIGN FEATURES OF THE ROADWAY). FOR TEMPORARY TRAFFIC CONTROL ZONES, SHA INTENDS THAT CLEAR ZONE CONCEPTS BE APPLIED SO THAT THE AREAS OUTSIDE THE TRAVEL LANES ARE NOT NEEDLESSLY POPULATED BY OBJECTS THAT CONSTITUTE HAZARDS TO MOTORISTS IN ADDITION TO THOSE OBJECTS LISTED ABOVE. POTENTIAL HAZARDS WOULD INCLUDE UNPROTECTED BARRIER ENDS, STEEP SLOPES, AND TEMPORARY BARRICADES. CLEAR ZONE DISTANCES TABLE LISTS THE DISTANCES THAT MUST REMAIN UNOCCUPIED BY SUCH OBJECTS FOR VARIOUS CONDITIONS (DESIGN SPEED, ADT, AND SIDE SLOPES). WHERE BARRIER CURB IS PRESENT PARALLEL TO THE EDGE OF TRAVEL LANES AND PREVAILING SPEEDS ARE LESS THAN 40 MPH, OFFSETS TO SUCH OBJECTS MAY BE REDUCED TO 2 FEET, WITH APPROVAL OF THE ENGINEER.
 - 140 SIGHT DISTANCE
 - 141 TEMPORARY TRAFFIC CONTROL DEVICES, INCLUDING DRUMS, BARRIERS, AND VERTICAL PANELS, AND CONSTRUCTION EQUIPMENT, SHALL BE PLACED TO ENSURE THAT ADEQUATE SIGHT DISTANCE IS NOT RESTRICTED AT RAMP, JUNCTIONS AND INTERSECTIONS. IF SIGHT DISTANCE RESTRICTIONS ARE UNAVOIDABLE, ADDITIONAL APPLICABLE WARNING SIGNS MUST BE INSTALLED. THE PLACEMENT OF VERTICAL PANELS ON CONCRETE BARRIERS AND THE CLOSE SPACING OF APPROVED DRUMS MAY, IN SOME INSTANCES, CONTRIBUTE TO RESTRICTED SIGHT DISTANCE AT ROADWAY JUNCTIONS. FOR ADDITIONAL GUIDANCE ON CHANNELIZING DEVICE PLACEMENT AT INTERSECTIONS, DRIVEWAYS, AND/OR RAMP JUNCTIONS, SEE STANDARD DETAIL MD 10401-29.
 - THE FOLLOWING ADDITIONAL CRITERIA SHOULD BE CONSIDERED WHEN PLACING TRAFFIC CONTROL DEVICES AT INTERSECTIONS OR RAMP JUNCTIONS:
 - TODS INSTALLED AT OR NEAR INTERSECTIONS, INCLUDING MEDIAN OPENINGS OR DRIVEWAYS, SHOULD BE DESIGNED/INSTALLED WITH ADEQUATE CORNER SIGHT DISTANCE (AS SUGGESTED FOR INTERSECTIONS IN CHAPTER 9 OF AASHTO'S A POLICY ON GEOMETRIC DESIGN OF HIGHWAYS AND STREETS, 2001 ED.). THE AREA AROUND THE INTERSECTION SHOULD BE KEPT FREE OF OBSTACLES.
 - SIGHT DISTANCE ALONG A RAMP SHOULD BE, AT A MINIMUM, EQUAL TO THE SAFE STOPPING SIGHT DISTANCE BASED ON PREVAILING SPEED.
 - THERE SHOULD BE A CLEAR VIEW OF THE ENTIRE EXIT TERMINAL, INCLUDING THE EXIT NOSE AND A SECTION OF THE RAMP ROADWAY BEHIND THE GORE.
 - 150 TRAFFIC CONTROL PLANS
 - 151 ALTERNATE TRAFFIC CONTROL PLANS MAY BE PRESENTED TO HOWARD COUNTY FOR APPROVAL.
 - 152 FOR EMERGENCY REPAIR OPERATIONS, A LESSER NUMBER OF TRAFFIC CONTROL DEVICES (TCDs) THAT THE FULL COMPLIMENT MAY BE USED. THIS GENERALLY WILL CONSIST OF ONE SIGN PER DIRECTION, FLASHING LIGHTS ON THE VEHICLE, AND MINIMUM NUMBER OF CHANNELIZING DEVICES, FLAGS, OR HIGH LEVEL WARNING DEVICES. ADDITIONAL TCDs, SUCH AS ARROW PANELS, ADDITIONAL SIGNING, ETC., SHALL BE PLACED AS SOON AS POSSIBLE IN ACCORDANCE WITH THE STANDARD TTCTA.
 - 153 WHERE CLOSELY SPACED WORK ZONES CREATE CONFLICTING TRAFFIC PATTERNS (E.G. LEFT-LANE CLOSURE FOLLOWED BY RIGHT-LANE CLOSURE), THEY SHOULD BE NO CLOSER THAN 15 MILES APART (LAST SIGN TO FIRST SIGN). WHERE WORK ZONES ARE CLOSELY SPACED, BUT WHERE TRAFFIC PATTERNS ARE NOT SIGNIFICANTLY ALTERED AND NO CONFLICTS EXIST, NO MINIMUM SPACING IS REQUIRED; HOWEVER, CARE SHOULD BE EXERCISED TO PRESENT APPROPRIATE AND NON-CONFLICTING GUIDANCE TO THE PUBLIC.
 - 154 ALL SIGNS, CHANNELIZING DEVICES, AND OTHER TRAFFIC CONTROL DEVICES SHALL BE IN CONFORMANCE WITH THE LATEST EDITION OF THE MUTCD.

APPROVED
PLANNING BOARD
OF HOWARD COUNTY
DATE: August 31, 2006

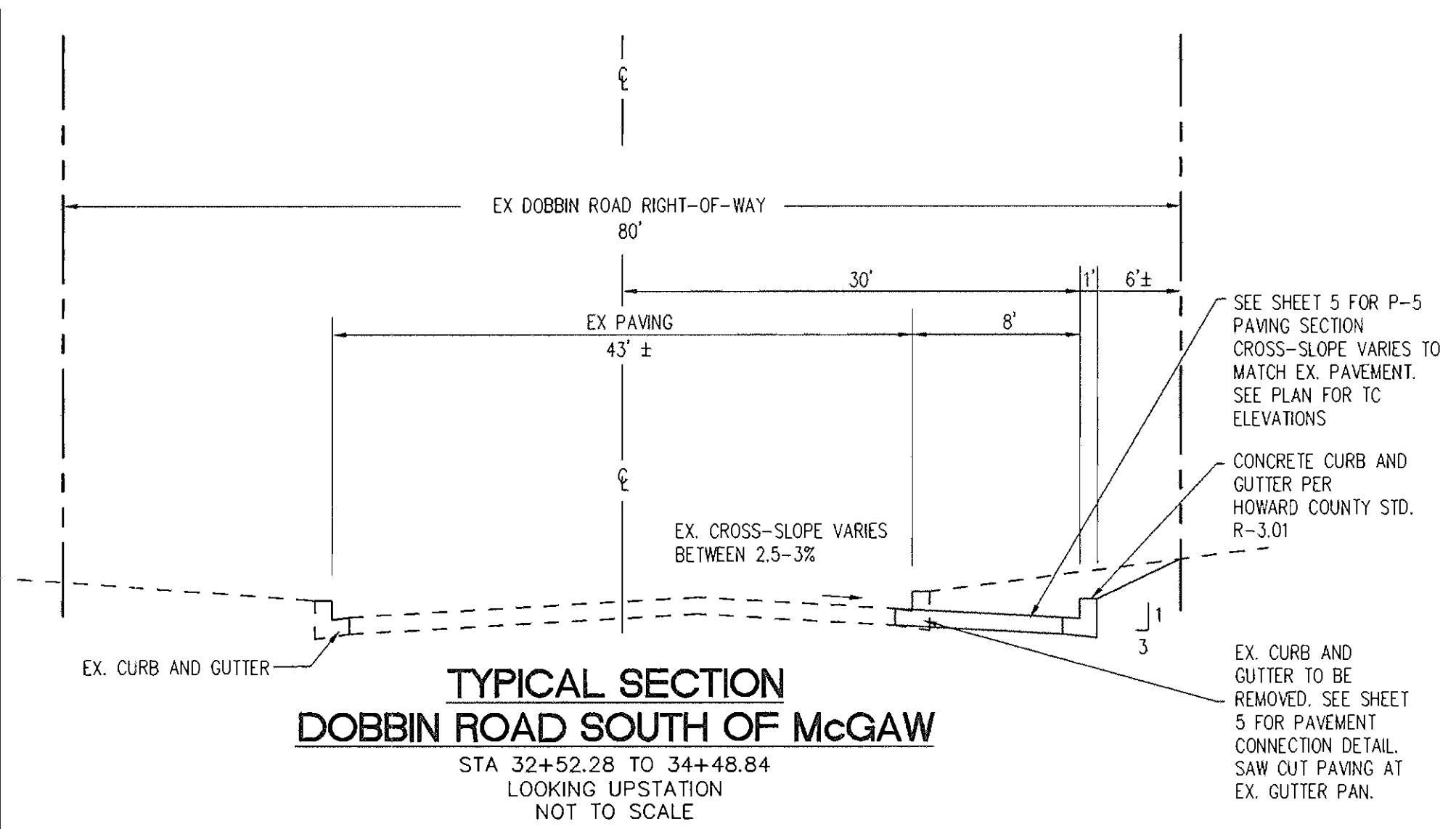
APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.	
DIRECTOR	DATE: 8/31/06
CHIEF, DEVELOPMENT ENGINEERING DIVISION	DATE: 5/10/07
CHIEF, DIVISION OF LAND DEVELOPMENT	DATE: 9/25/09
DATE	REVISION
OWNER	HOLDINGS RETAIL BUSINESS TRUST C/O ROSENTHAL PROPERTIES LLC 8391 OLD COURTHOUSE RD SUITE 320 VIENNA, VA 22182
DEVELOPER	CHEVY CHASE BANK ATTN: JOSEPH PEARSON 7501 WISCONSIN AVENUE 9TH FLOOR CORPORATE FACILITIES BETHESDA, MD 20814
PROJECT	DOBBIN CENTER PARCEL J CHEVY CHASE BANK
AREA TAX MAP	36 GRID #18 PARCEL 396 PAR J ZONING NT 6TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
TITLE	TRAFFIC CONTROL NOTES
Patton Harris Rust & Associates, pc Engineers, Surveyors, Planners, Landscape Architects. 8818 Centre Park Drive Columbia, MD 21045 T 410.997.8900 F 410.997.9282	
DESIGNED BY	: PJS
DRAWN BY	: ALC
PROJECT NO.	: 12104-2-0 CS00R04.DWG
DATE	: APRIL 11, 2007
SCALE	: 1" = 30'
DRAWING NO.	: 12 OF 21



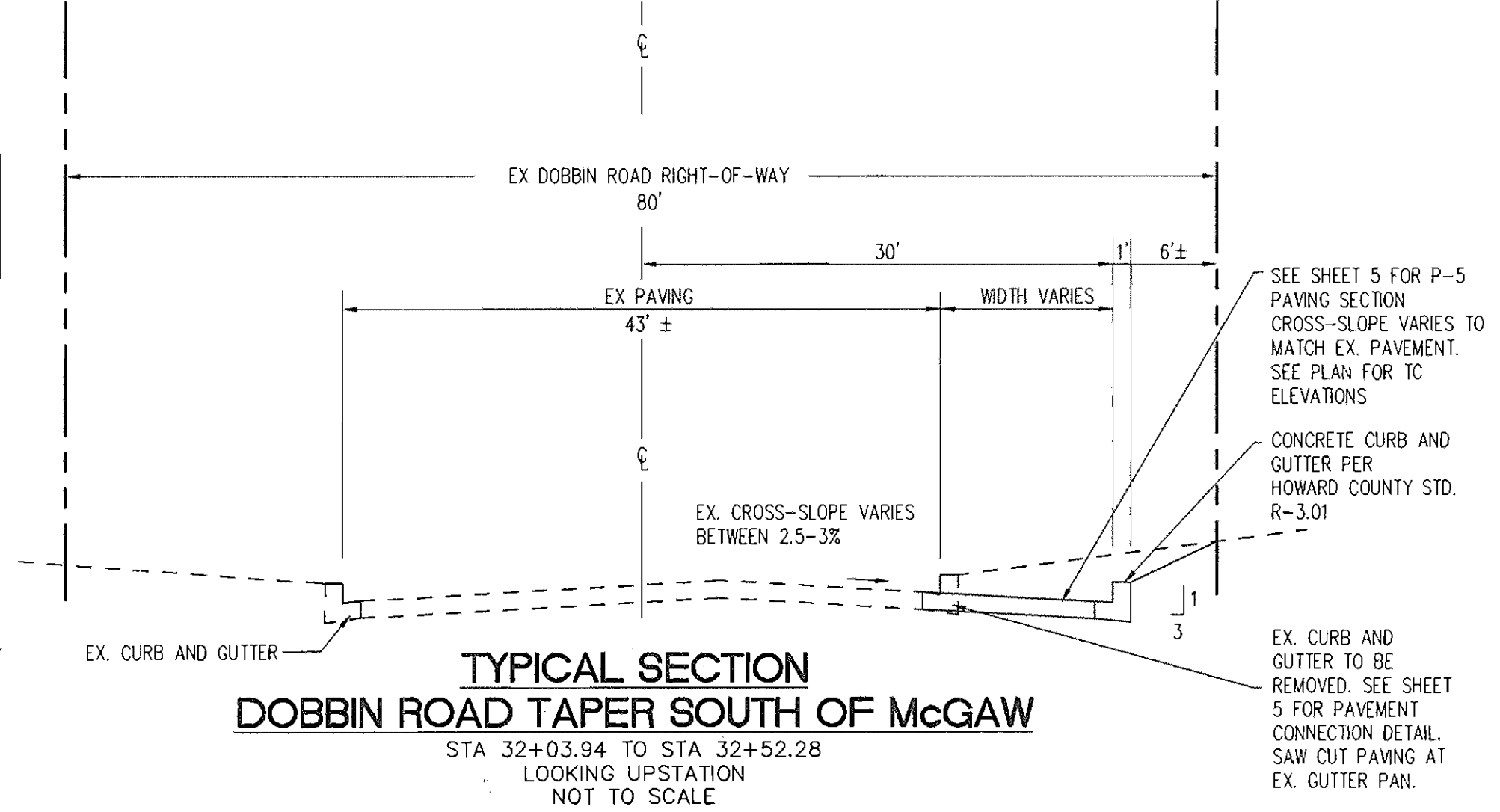
DOBBIN ROAD IMPROVEMENT PLAN
SCALE 1" = 40'



FILLET PROFILE
SCALE: HOR: 1"=20'
VERT: 1"=2'



TYPICAL SECTION
DOBBIN ROAD SOUTH OF MCGAW
STA 32+52.28 TO STA 34+48.84
LOOKING UPSTATION
NOT TO SCALE



TYPICAL SECTION
DOBBIN ROAD TAPER SOUTH OF MCGAW
STA 32+03.94 TO STA 32+52.28
LOOKING UPSTATION
NOT TO SCALE

APPROVED
PLANNING BOARD
of HOWARD COUNTY
DATE **August 31, 2006**

- LEGEND**
- EX. TREE
 - EX. WATER VALVE
 - EX. FIRE HYDRANT
 - 74x SPOT ELEVATION
 - EX. SANITARY SEWER MANHOLE
 - EX. LIGHT POLE
 - EX. SIGN
 - EX. PROPERTY CORNER
 - PKF P.K. NAIL FOUND
 - EX. STORM DRAIN MANHOLE
 - EX. TRAFFIC LIGHT
 - EX. GUARD RAIL
 - EX. ELECTRIC METER
 - EX. WATER METER
 - EX. ELECTRIC MANHOLE
 - EX. GAS VALVE
 - EX. WATER MANHOLE
 - EX. TELEPHONE MANHOLE
 - EX. UTILITY BOX
 - EX. STORM DRAIN
 - EX. WATER LINE
 - PROPOSED PAVING
 - PROPOSED CURB & GUTTER
 - EX. CURB & GUTTER

APPROVED : HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

David H. Taylor 8/31/06
DIRECTOR DATE

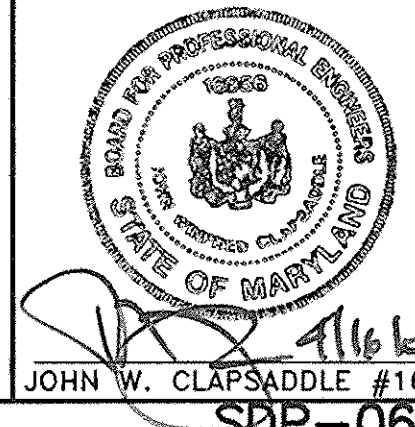
William Demme 8/31/06
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

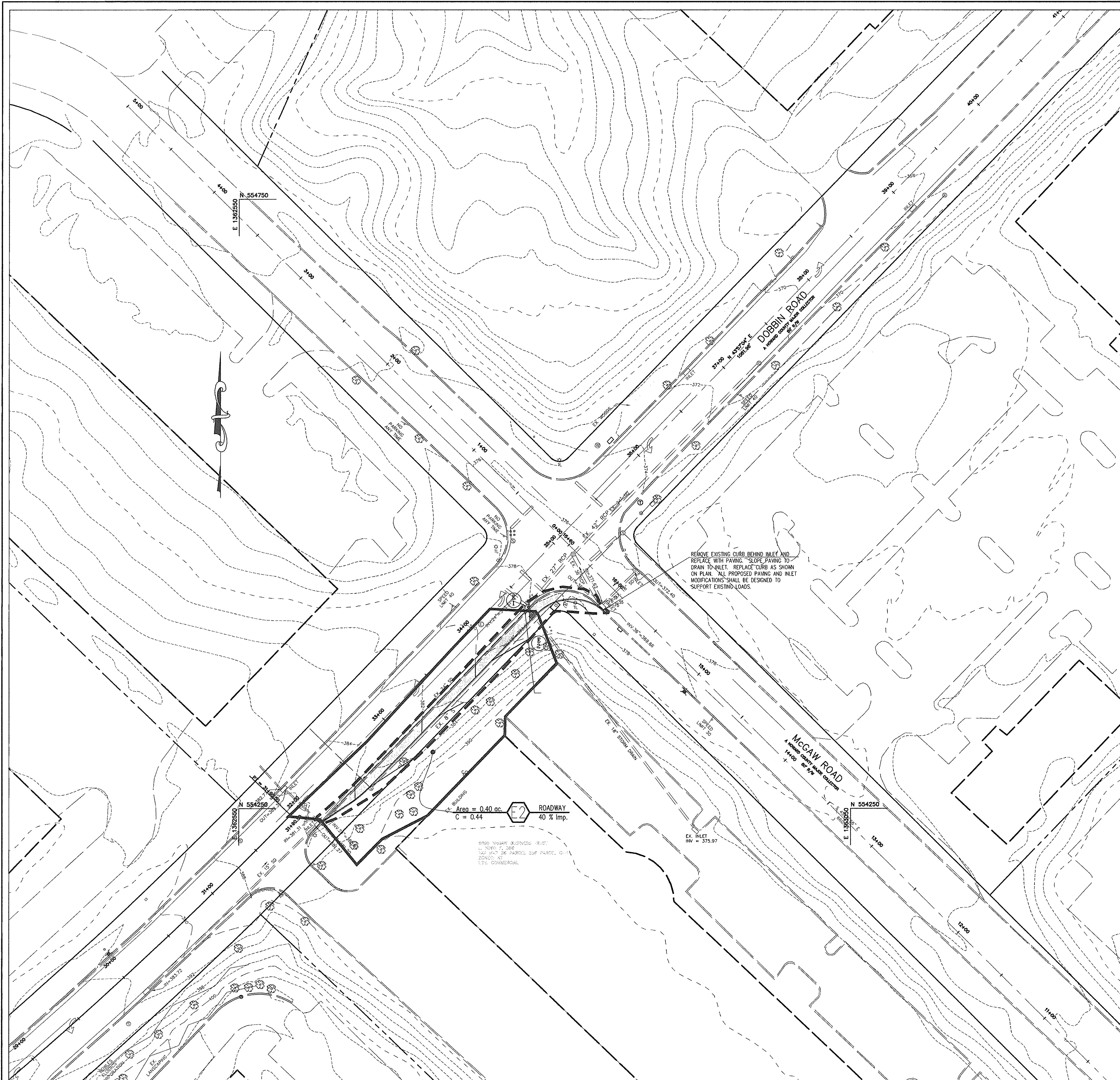
Andy Harvath 8/31/06
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

DATE	NO.	REVISION
OWNER: HOLDINGS RETAIL BUSINESS TRUST C/O ROSENTHAL PROPERTIES LLC 8391 OLD COURTHOUSE RD SUITE 320 VIENNA, VA 22182		
DEVELOPER: CHEVY CHASE BANK ATTN: JOSEPH PEARSON 7501 WISCONSIN AVENUE 9TH FLOOR CORPORATE FACILITIES BETHESDA, MD 20814		
PROJECT: DOBBIN CENTER PARCEL J CHEVY CHASE BANK		
AREA TAX MAP 36 GRID #18 PARCEL 396 PAR J ZONING NT 6TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND		
TITLE: ROAD IMPROVEMENT PLAN DOBBIN ROAD AND MCGAW ROAD		
Patton Harris Rust & Associates, PC Engineers, Surveyors, Planners, Landscape Architects. 8818 Centre Park Drive Columbia, MD 21045 T 410.997.8900 F 410.997.9282		

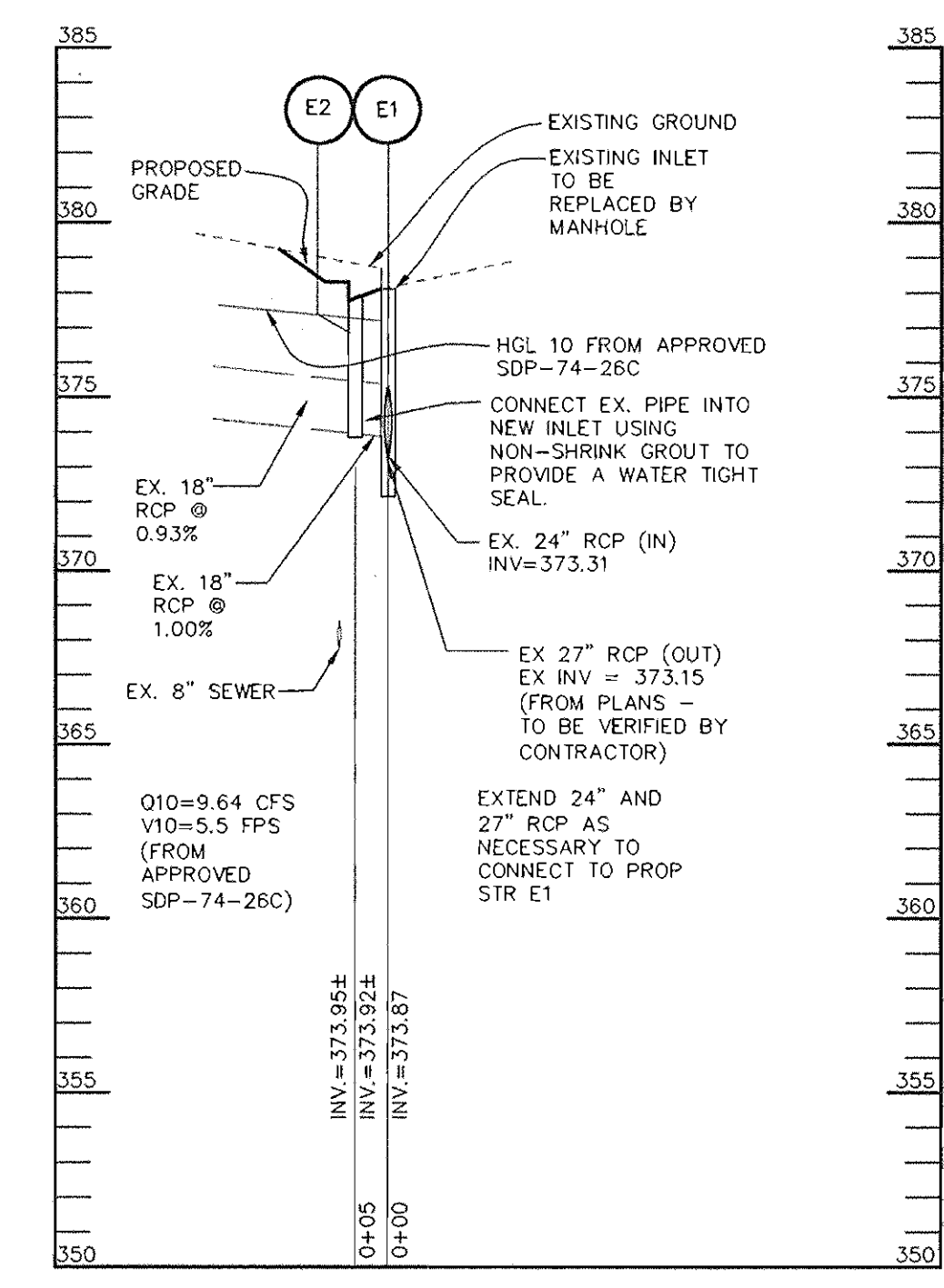
DESIGNED BY :	PJS
DRAWN BY :	ALC
PROJECT NO :	12104-2-0 c500RIP05.DWG
DATE :	APRIL 17, 2007
SCALE :	1" = 40'
DRAWING NO. :	19 OF 21

NOTE: REFER TO SHEET 16 FOR INFORMATION ON REMOVAL, RELOCATION, OR REUSE OF TRAFFIC SIGNALS, HANDBOXES, DETECTOR LOOPS, OTHER SIGNAL COMPONENTS, AND ALL SIGNAGE, OVERHEAD AND GROUND MOUNTED.





GRADING PLAN
SCALE 1" = 40'



STORM DRAIN PROFILE
SCALE:
HOR. - 1" = 50'
VERT. - 1" = 5'

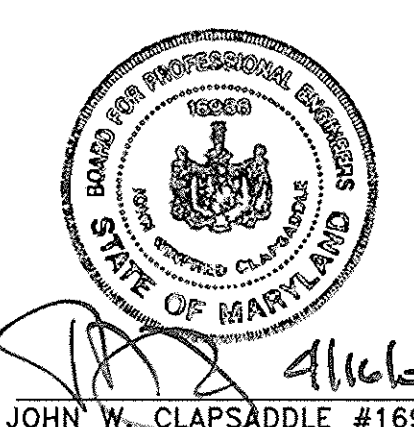
APPROVED
PLANNING BOARD
of HOWARD COUNTY
DATE **AUGUST 31, 2006**

LEGEND

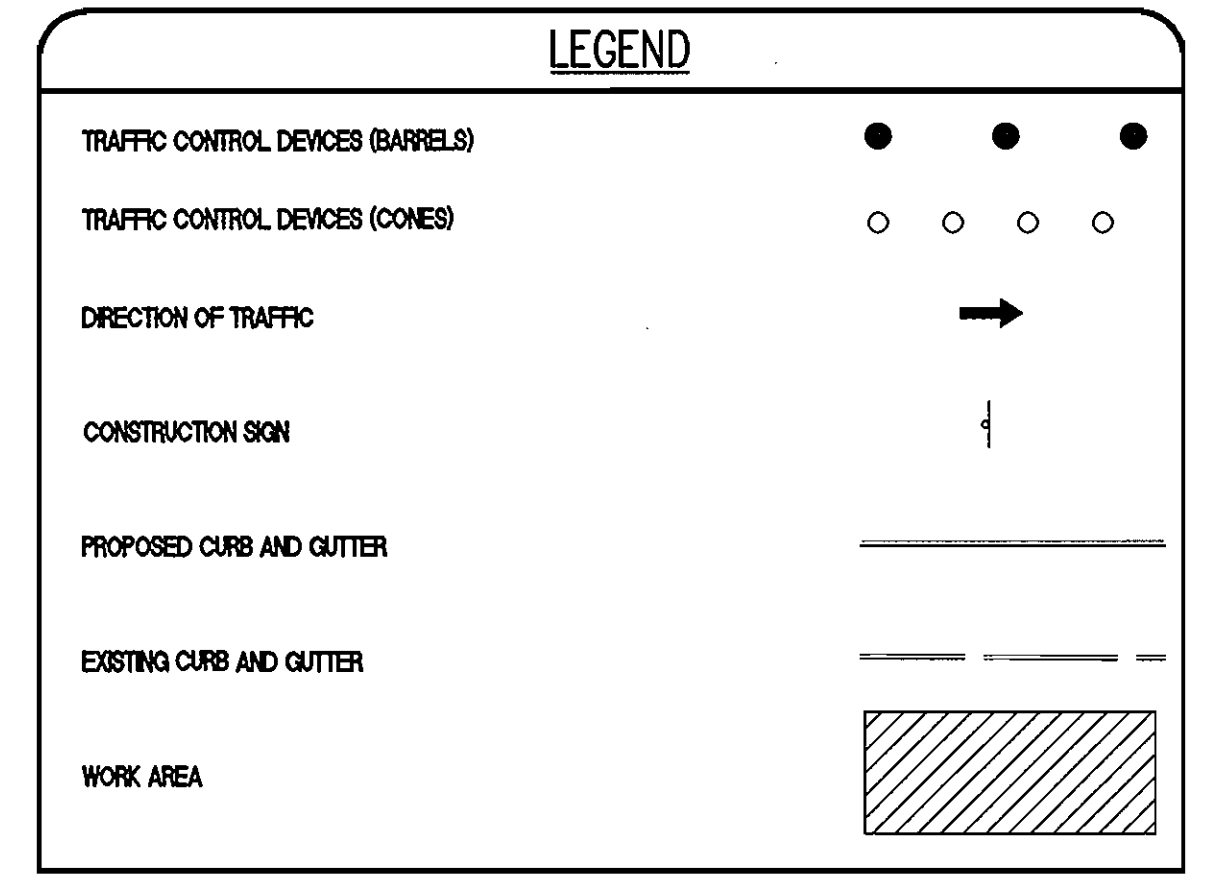
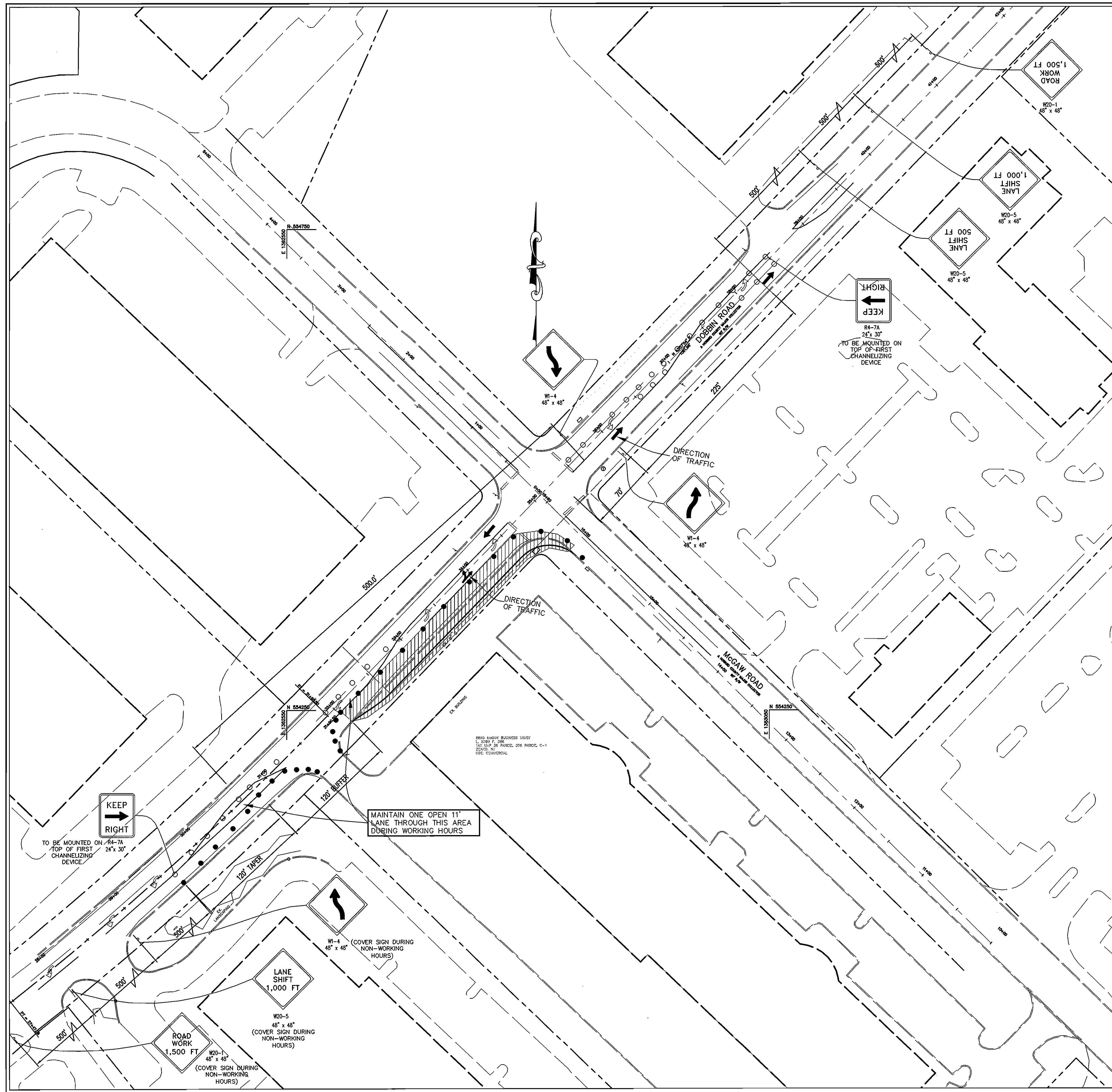
- EX. TREE
- EX. WATER VALVE
- EX. FIRE HYDRANT
- 74X SPOT ELEVATION
- EX. SANITARY SEWER MANHOLE
- EX. LIGHT POLE
- EX. SIGN
- EX. PROPERTY CORNER
- PKF P.K. NAIL FOUND
- EX. STORM DRAIN MANHOLE
- EX. TRAFFIC LIGHT
- EX. GUARD RAIL
- EX. ELECTRIC METER
- EX. WATER METER
- EX. ELECTRIC MANHOLE
- EX. GAS VALVE
- EX. WATER MANHOLE
- EX. TELEPHONE MANHOLE
- EX. UTILITY BOX
- EX. STORM DRAIN
- EX. WATER LINE
- PROPOSED PAVING
- PROPOSED CURB & GUTTER
- EX. CURB & GUTTER
- LIMIT OF DISTURBANCE
- PROPOSED DRAINAGE DIVIDE

APPROVED : HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.
Joseph Pearson 6/28/07
 DIRECTOR DATE
John W. Clapsaddle 5/26/07
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE
John W. Clapsaddle 5/25/07
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

DATE	NO.	REVISION
OWNER		
HOLDINGS RETAIL BUSINESS TRUST C/O ROSENTHAL PROPERTIES LLC 8391 OLD COURTHOUSE RD SUITE 320 VIENNA, VA 22182		
DEVELOPER		
CHEVY CHASE BANK ATTN: JOSEPH PEARSON 7501 WISCONSIN AVENUE 9TH FLOOR CORPORATE FACILITIES BETHESDA, MD 20814		
PROJECT		
DOBBIN CENTER PARCEL J CHEVY CHASE BANK		
AREA TAX MAP		
36 GRID #18 PARCEL 396 PAR J ZONING NT 6TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND		
TITLE		
ROAD IMPROVEMENT PLAN GRADING AND PROFILES - DOBBIN ROAD AND MCGAW ROAD		
Patton Harris Rust & Associates, pc Engineers, Surveyors, Planners, Landscape Architects. 8818 Centre Park Drive Columbia, MD 21045 T 410.997.8900 F 410.997.9282		



DESIGNED BY : PJS
 DRAWN BY: ALC
 PROJECT NO 12104-2-0
 C500RIP06.DWG
 DATE : APRIL 17, 2007
 SCALE : 1" = 40'
 DRAWING NO. 2a OF 2L



- NOTES:**
- SHA STANDARD NO. 104.31-02 (FLAGGER OPERATION) WILL BE USED AS NECESSARY DURING PERIODS OF CONSTRUCTION.
 - CONTRACTOR TO MAINTAIN LESS THAN 2 INCHES OF DROP-OFF DURING PERIODS OF NON-CONSTRUCTION OR CONTRACTOR SHALL USE SHA STANDARD NO. MD 104.01.28 (STAGED ROADWAY CONSTRUCTION WITH 4:1 SLOPE). SEE DETAIL SHEET 12.
 - TEMPORARY TRAFFIC CONTROL DEVICES AND PERMANENT TRAFFIC CONTROL SIGNS SHALL CONFORM TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD). ALL REQUIRED TRAFFIC CONTROL DEVICES ARE TO BE PROVIDED BY THE CONTRACTOR AND SHALL BE INCLUDED IN THE BASE BID.
 - ALL TEMPORARY SIGNAGE IN WORK ZONE TO BE ORANGE WITH BLACK SYMBOLS/LETTERING.
 - ALL LANE SHIFT SIGNAGE TO BE COVERED DURING NON-WORKING HOURS WHEN NORMAL TRAFFIC PATTERNS ARE RESTORED. ALL CONES TO BE REMOVED DURING NON-WORKING HOURS AND BARRELS TO BE RELOCATED BEHIND EX. CURB SO THAT NORMAL TRAFFIC PATTERNS CAN FUNCTION.

- SEQUENCE OF CONSTRUCTION (TRAFFIC CONTROL):**
- INSTALL TEMPORARY TRAFFIC CONTROL SIGNS AND TRAFFIC CONTROL DEVICES (DRUMS). MAINTAIN TRAFFIC AS SHOWN.
 - CONTRACTOR SHALL MAINTAIN ACCESS TO DOBBIN ROAD AT ALL TIMES FROM MCGAW ROAD AND FROM ADJACENT PROPERTIES.
 - BEGIN GRADING BEHIND EXISTING CURB AND GUTTER.
 - START CONSTRUCTION OF STORM DRAIN STRUCTURES AND LINE AND SANITARY SEWER MANHOLE.
 - BEGIN INSTALLATION OF PROPOSED CURB AND GUTTER. 7. CONTRACTOR SHALL NOT REMOVE EXISTING CURB AND GUTTER UNTIL PROPOSED CURB AND GUTTER AND BASE PAVING ARE COMPLETED FOR AUXILIARY LANE.
 - BEGIN PAVING. INSTALL BASE PAVING BEHIND EXISTING CURB AND GUTTER.
 - COMPLETE UTILITY CONSTRUCTION.
 - COMPLETE INSTALLATION OF CURB AND GUTTER.
 - COMPLETE PAVING OF DOBBIN ROAD.
 - COMPLETE GRADING AND LANDSCAPING.

APPROVED
PLANNING BOARD
OF HOWARD COUNTY
 DATE **August 31, 2006**

APPROVED : HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.	
<i>Monika D. Leight</i> DIRECTOR	6/6/07 DATE
<i>John W. Clapsaddle</i> CHIEF, DEVELOPMENT ENGINEERING DIVISION	8/3/07 DATE
<i>Cathy L. ...</i> CHIEF, DIVISION OF LAND DEVELOPMENT	8/25/07 DATE
DATE NO.	REVISION
OWNER	HOLDINGS RETAIL BUSINESS TRUST C/O ROSENTHAL PROPERTIES LLC 8391 OLD COURTHOUSE RD SUITE 320 VIENNA, VA 22182
DEVELOPER	CHEVY CHASE BANK ATTN: JOSEPH PEARSON 7501 WISCONSIN AVENUE 9TH FLOOR CORPORATE FACILITIES BETHESDA, MD 20814
PROJECT	DOBBIN CENTER PARCEL J CHEVY CHASE BANK
AREA TAX MAP	36 GRID #18 PARCEL 396 PAR J ZONING NT 6TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
TITLE	TRAFFIC CONTROL PLAN DOBBIN ROAD AND MCGAW ROAD
Patton Harris Rust & Associates, pc Engineers, Surveyors, Planners, Landscape Architects. 8818 Centre Park Drive Columbia, MD 21045 T 410.997.8900 F 410.997.9282	
DESIGNED BY :	PJS
DRAWN BY :	ALC
PROJECT NO :	12104-2-0 C500RIP07.DWG
DATE :	APRIL 17, 2007
SCALE :	1" = 50'
DRAWING NO.	21 OF 21

