

GENERAL NOTES

- TOPOGRAPHIC SURVEY WAS PROVIDED BY RBA DATED 4/10/02. THE BASE SURVEY IS GIVEN ON SHEET C-1 OF THIS DRAWING SET. ALL EXISTING SITE CONDITIONS SHALL BE DETERMINED BY EXAMINATION OF THE SURVEY SHEET.
- ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE SPECIFICATIONS GIVEN ON THESE DRAWINGS AS WELL AS STANDARD STATE AND LOCAL SPECIFICATIONS WHICH EVER IS MORE RESTRICTIVE.
- DEVIATION FROM THESE PLANS AND SPECIFICATIONS WITHOUT PRIOR WRITTEN CONSENT FROM THE ENGINEER MAY CAUSE THE WORK TO BE UNACCEPTABLE.
- THE RBA GROUP SHALL NOT BE RESPONSIBLE FOR CONSTRUCTION, MEANS, METHODS, TECHNIQUES, OR PROCEDURES, UTILIZED BY THE CONTRACTOR, NOR FOR THE SAFETY OF PUBLIC OR CONTRACTOR'S EMPLOYEES, OR FOR THE FAILURE OF THE CONTRACTOR TO CARRY OUT THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS AND STANDARD CONSTRUCTION PRACTICES.
- THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT EXISTING UTILITIES WHICH ARE TO REMAIN FREE FROM DAMAGE AND MAINTAIN UNINTERRUPTED SERVICE TO ALL USERS. ANY DAMAGE INCURRED DUE TO THE CONTRACTOR'S OR SUBCONTRACTOR'S ACTIONS SHALL BE REPAIRED IMMEDIATELY AT THE CONTRACTOR'S EXPENSE.
- FAILURE TO MENTION SPECIFICALLY ANY WORK WHICH WOULD NORMALLY BE REQUIRED TO COMPLETE THIS PROJECT SHALL NOT RELIEVE THE CONTRACTOR FROM PERFORMING SUCH WORK.
- THE CONTRACTOR SHALL NOTIFY THE FOLLOWING AT LEAST 48 HOURS PRIOR TO BEGINNING ANY WORK ON THE PROJECT:

LOCAL UTILITY LOCATION COMPANY

WATER SERVICE AND SANITARY SEWER PROVIDER:
HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING DEVELOPMENT ENGINEERING DIVISION
3450 COURTHOUSE DRIVE
ELLCOTT CITY, MARYLAND 21043
(410) 313-3362
CONTACT: JEAN REED

STORM DRAIN AND STORM WATER MANAGEMENT PROVIDER:
HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
BUREAU OF ENVIRONMENTAL SERVICES
STORM WATER MANAGEMENT DIVISION (410) 313-6444

ELECTRIC PROVIDER:
BALTIMORE GAS AND ELECTRIC
7317 PARKWAY DRIVE SOUTH
HANOVER, MD 21076
(410) 291-3776
CONTACT: SALLY HOOVER

TELEPHONE PROVIDER:

VERIZON MARYLAND, INC.
2510 RIVA RD. 6TH FLOOR
ANNAPOLIS, MD 21401
(410) 224-1670
(301) 261-8088 (FAX)
CONTACT: BRYAN SHANK

ROAD REGULATORY AUTHORITIES:

STATE: MARYLAND STATE HIGHWAY ADMINISTRATION
2323 WEST JOPPA ROAD
BROOKLANDVILLE, MARYLAND 21022
DESIGN: (410) 841-1008
FLOODPLAIN: (410) 545-8405
TRAFFIC DIVISION (REPORTS): (410) 841-1003

COUNTY: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
BUREAU OF HIGHWAYS
TRAFFIC ENGINEERING DIVISION
3450 COURTHOUSE DRIVE
ELLCOTT CITY, MD 21043
(410) 313-2430
CONTACT: GEORGE FRANGOS

- CONTRACTOR SHALL VERIFY ALL EXISTING SITE CONDITIONS PRIOR TO BEGINNING WORK. HE SHALL VERIFY SIZE AND LOCATIONS OF ALL UNDERGROUND UTILITIES AND TEST PIT AT PROPOSED TIE IN LOCATIONS. DISCREPANCIES SHALL BE REPORTED TO THE ENGINEER WELL IN ADVANCE OF CONSTRUCTION START. START OF CONSTRUCTION BY THE CONTRACTOR SHALL CONSTITUTE FULL ACCEPTANCE OF ALL SITE CONDITIONS BY THE CONTRACTOR.
- CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL PERMITS REQUIRED FOR CONSTRUCTION PRIOR TO BEGINNING WORK.
- ALL UTILITIES ARE TO REMAIN UNLESS DESIGNATED TO BE REMOVED AND ALL APPURTENANCES SHALL BE ADJUSTED TO FINISH GRADE.
- PRIOR TO START OF CONSTRUCTION CONTRACTOR SHALL STAKE OUT AND VERIFY LOCATIONS OF ALL IMPROVEMENTS AND UTILITY TIE IN LOCATIONS.
- SCALING OF THESE PLANS IS DISCOURAGED UNLESS DIRECTED BY THE ENGINEER. IN THE EVENT OF A DISCREPANCY BETWEEN THE SCALED AND THE FIGURED DIMENSIONS, THE FIGURED DIMENSIONS SHALL BE HELD.
- CONTRACTOR SHALL INCLUDE DEMOLITION AND REMOVAL OF CURBING, SIDEWALK, AND PARKING AREAS WITHIN THE WORK AREA AS WELL AS REMOVAL AND CAPPING OF ANY UNDERGROUND UTILITIES SHOWN TO BE REMOVED.
- THE CONTRACTOR SHALL ENSURE THAT CURRENT AS-BUILT RECORDS ARE MAINTAINED DURING CONSTRUCTION. UPON COMPLETION OF CONSTRUCTION, CERTIFIED (i.e. P.E. STAMPED) AS-BUILT DRAWINGS SHALL BE SUBMITTED TO THE OWNER.
- CONTRACTOR SHALL MAINTAIN ALL SEDIMENT CONTROL DEVICES WITHIN THE LIMITS OF THE SITE DURING CONSTRUCTION OF THE SITE IMPROVEMENTS. CONTRACTOR SHALL PROVIDE ADDITIONAL EROSION AND SEDIMENTATION CONTROL MEASURES AS MAY BE NECESSARY DURING CONSTRUCTION AND/OR BY GOVERNING AGENCIES.
- THE SUBJECT PROPERTY IS ZONED NT PER HOWARD COUNTY ZONING MAP #36 ADOPTED OCTOBER 18, 1993.
- THIS PROJECT IS EXEMPT FROM THE REQUIREMENTS OF SECTION 16.1200 OF THE HOWARD COUNTY CODE FOR FOREST CONSERVATION BECAUSE DOBBIN COMMERCIAL CENTER DEVELOPMENT PREDATES THE FOREST CONSERVATION REGULATIONS AND HAD PRELIMINARY PLAN APPROVAL PRIOR TO 12/31/92, PER SECTION 16-1202(b)(1)(iii) OF THE SUBDIVISION REGULATIONS.
- ALL ADJACENT PROPERTIES ARE NON-RESIDENTIAL USES.
- ALL TRAFFIC SIGN AND HANDICAP SIGN POSTS TO BE PAINTED BLACK.
- ALL LIGHT POLE BASES TO BE RECTANGULAR.
- THERE ARE NO STREAMS, WETLANDS, OR FLOOD PLAINS LOCATED ON THIS SITE. STEEP SLOPES EXIST ON BOTH THE NORTHEAST AND SOUTHEAST CORNERS OF THE SITE.
- FINANCIAL SURETY FOR THE REQUIRED LANDSCAPING HAS BEEN POSTED AS PART OF THE DPW DEVELOPER'S AGREEMENT IN THE AMOUNT OF \$600 FOR 1 SHADE TREE, 2 EVERGREEN TREES AND 0 SHRUBS.
- OUTDOOR LIGHTING COMPLIES WITH SECTION 134 OF THE HOWARD COUNTY ZONING REGULATIONS.
- SCREENING AND LANDSCAPING WILL BE PROVIDED IN ACCORDANCE WITH THE HOWARD COUNTY LANDSCAPE MANUAL.
- ALL SIGNS WILL COMPLY WITH THE HOWARD COUNTY ZONING REGULATIONS.
- THIS SITE DOES NOT LIE WITHIN A FLOODPLAIN.
- FOR SITE LIGHTING INFORMATION, SEE SHEET C-7.
- ANY DAMAGE TO THE COUNTY'S RIGHT-OF-WAY SHALL BE CORRECTED AT THE DEVELOPER'S EXPENSE.
- SIC ELEVATIONS SHOWN ARE LOCATED AT THE PROPERTY LINE.
- FINAL DEVELOPMENT CRITERIA AND SETBACK INFORMATION IS FOUND IN F.D.P. 132-A-III.



DOBBIN ROAD, COMMERCIAL CENTER
HOWARD COUNTY, MARYLAND



1 ELEVATION
NOT TO SCALE

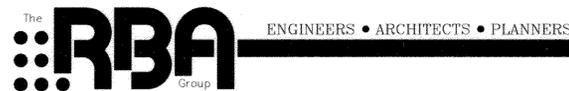
SITE DEVELOPMENT PLANS

PREPARED FOR :

CHICK-FIL-A RESTAURANT, INC.

5200 BUFFINGTON ROAD
ATLANTA, GEORGIA 30349-2998
(404) 765-8000

PREPARED BY :

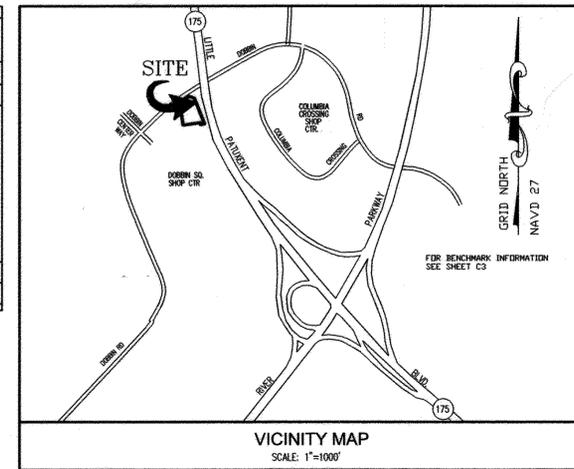


7164 COLUMBIA GATEWAY DRIVE
SUITE 205
COLUMBIA, MARYLAND 21046
(410) 312-0966

OWNER:
CHICK-FIL-A, INC.
5200 BUFFINGTON RD.
ATLANTA, GEORGIA 30349

ABBREVIATIONS
RCP = REINFORCED CONCRETE PIPE
PVC = POLYVINYL CHLORIDE PIPE
S.F. = SQUARE FEET
G.S.F. = GROSS SQUARE FEET
C.O. = GENERAL CLEAN OUT

48 Hours
Before You Dig
Call
"MISS UTILITY"
Service Protection Center
MEMBER
ONE CALL SYSTEMS INTERNATIONAL
CALL TOLL FREE
1-800-257-7777



I CERTIFY ALL REVISIONS DATED 9/25/03, CONTAINED WITHIN THIS APPROVED SITE DEVELOPMENT PLAN AS APPROVED BY HOWARD COUNTY ON 10/10/03, WERE IMPLEMENTED UNDER MY SUPERVISION.
8/31/04

ROBERT W. NELSON

LEGEND

- ADJACENT LOT LINE
- EXISTING CURB & GUTTER
- EASEMENT LINE
- PROPERTY LINE
- EXISTING LIGHT/UTILITY POLE
- EXISTING FIRE HYDRANT
- EXISTING WATER VALVE
- EXISTING WATER LINE
- EXISTING STORM DRAIN LINE
- EXISTING SANITARY LINE
- EXISTING GAS LINE
- PROPOSED BOLLARD
- PROPOSED 4" PVC IRRIGATION SLEEVE
- EXISTING CONTOUR
- EXISTING TREE
- LIMIT OF DISTURBANCE
- SUPER SILT FENCE
- CURB INLET PROTECTION
- STANDARD INLET PROTECTION
- CLIP/ S.I.P.
- CONCRETE RAMP FLUSH TO PAVEMENT/ CONCRETE
- PROPOSED GREASE TRAP
- PROPOSED ELECTRIC METER
- PROPOSED GAS METER
- PROPOSED STORM DRAIN
- PROPOSED SANITARY SEWER
- PROPOSED WATER & GUTTER
- PROPOSED CONCRETE PAD
- PROPOSED PERIMETER SITE LIGHTING
- PROPOSED TRANSFORMER
- PROPOSED EXC SERIES 50 FOOT POLE PACKAGE, BY APPROVED VENDORS; THE FLAG COMPANY OR ATLAS FLAGS
- PROPOSED BUILDING
- TRAV 102 TRAVERSE/ BENCHMARK
- BENCHMARK
- PROPOSED PARKING STRIPING, & NUMBERING
- HANDICAPPED PARKING SYMBOL
- BUILDING SIGN LOCATION (APPROX.)
- STABILIZED CONSTRUCTION ENTRANCE WITH MOUNTABLE BERM
- DETAIL NUMBER
- SHEET NUMBER
- DETAIL CALL-OUT
- A-6 SITE LIGHTING, SEE SHEET C2

SITE ANALYSIS

- AREA OF PARCEL: 65,601 SQ. FT. (1.5 AC.)
- ZONING: NEW TOWN EMPLOYMENT CENTER COMMERCIAL
- EXISTING USE: RESTAURANT
- PROPOSED USE: RESTAURANT
- BUILDING DATA (7.0% COVERAGE)
 - A. GROSS SQUARE FOOTAGE (1-STORY): 5,032 SQ. FT.
 - B. DINING TABLE SEATS - TOTAL: 138
- PARKING DATA
 - A. 9' x 18' SPACES: 51
 - B. ACCESSIBLE SPACES: 3
 - C. SPACES REQUIRED: 26
 - D. TOTAL PARKING SPACES PROVIDED: 54 (INCLUDES 3 HANDICAPPED ACCESSIBLE SPACES)
- IMPERVIOUS AREA:
 - A. BUILDING: 5,032 SQ. FT.
 - B. CONCRETE & DRIVE THRU: 3,356.42
 - C. PAVEMENT: 21,352.84
 - D. DUMPSTER AREA: 968.82
 - E. SIDEWALKS: 1,996.03
 - F. TOTAL COVERAGE: 32,706.11
 - G. % COVERAGE: 49.9%
- DEED REFERENCE: LIBER/FOLIO 307
PLAT REFERENCE: PLAT # 5307
- RELATED FILES FOR THIS SITE
SOP-83-2246, FDP-132-A-III, F-81-366, F-82-35, F-83-30, F-04-154
- ELECTION DISTRICT NO. 2, HOWARD COUNTY MARYLAND
- TAX MAP: 36, GRID: 18, PARCEL: 396
- AREA OF DISTURBANCE: 8,789 S.F. OR 0.20 AC (REVISION 5)

*THIS NUMBER OF PARKING SPACES WAS FOUND ACCEPTABLE BY HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING IN A LETTER DATED JANUARY 10, 2003.

ADDRESS CHART	
LOT/PARCEL	STREET ADDRESS
P. S-1	6375 DOBBIN ROAD

PERMIT INFORMATION CHART				
SUBDIVISION NAME		LOTS/PARCELS	CENSUS TRACT	
DOBBIN RD COMMERCIAL CENTER		S-1	6067.03	
PLAT NO.	GRID NO.	ZONE	TAX MAP	ELECTION DISTRICT
18	18	NT	36	2ND
WATER CODE		SEWER CODE		
607		533300		

APPROVED: DEPARTMENT OF PLANNING AND ZONING	
<i>[Signature]</i> CHIEF, DEVELOPMENT ENGINEERING DIVISION	8/5/03 DATE
<i>[Signature]</i> CHIEF, DIVISION OF LAND DEVELOPMENT	8/12/03 DATE
<i>[Signature]</i> DIRECTOR	8/12/03 DATE

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS	
<i>[Signature]</i> COUNTY HEALTH OFFICER HOWARD COUNTY HEALTH DEPARTMENT	8/8/03 DATE

FOR REVISION 5 ONLY

[Signature]
9/29/16
I, MICHAEL J. GIBELL, HEREBY CERTIFY THAT THESE DRAWINGS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NO. 44097, EXPIRATION DATE: 6/19/17

FOR REVISION 5 ONLY
BOHLER ENGINEERING
901 DULANEY VALLEY RD, SUITE 801
TOWSON, MARYLAND 21284
PHONE: 410-821-7900
FAX: 410-821-7987
MD@BOHLERENG.COM

INDEX		
NO.	TITLE	REFERENCE
1	COVER SHEET W/ GENERAL NOTES	C-0
2	BOUNDARY and TOPOGRAPHIC SURVEY	C-1
3	DEMOLITION PLAN	C-1A
4	SITE PLAN	C-2
5	GRADING, DRAINAGE AND EROSION CONTROL PLAN	C-3
6	STANDARD CHICK-FIL-A DETAILS	C-4
7	CONSTRUCTION DETAILS	C-5
8	LIGHTING AND PHOTOMETRIC PLAN	C-6
9	LANDSCAPE PLAN	C-7
10	LANDSCAPE DETAILS	L-1
11	PLUMBING SITE PLAN	L-2
12	BIORETENTION FACILITY	PS-1
13	UTILITY PROFILES	PS-2
14	STORMWATER MANAGEMENT DETAILS	PS-3
15		PS-4

OPTION 2: EXEMPT / DOI	FOREST CONSERVATION DATA SUMMARY
SDP 03-96 DOBBIN ROAD COMMERCIAL CENTER, PARCEL S-1, CHICK-FIL-A RESTAURANT	
REGULATION SECTION: 16-1202(b)(1)(iii) (PROVIDE REGULATION REFERENCE AND A BRIEF DESCRIPTION OF THE APPLICABLE EXEMPTION OR DOI)	
DOBBIN CENTER DEVELOPMENT PREDATES FOREST CONSERVATION REGULATIONS AND HAD PRELIMINARY PLAN APPROVAL PRIOR TO 12/31/92.	



Series 97-138
5200 Buffington Road
Atlanta, Georgia 30349-2998
Telephone 404-765-8000

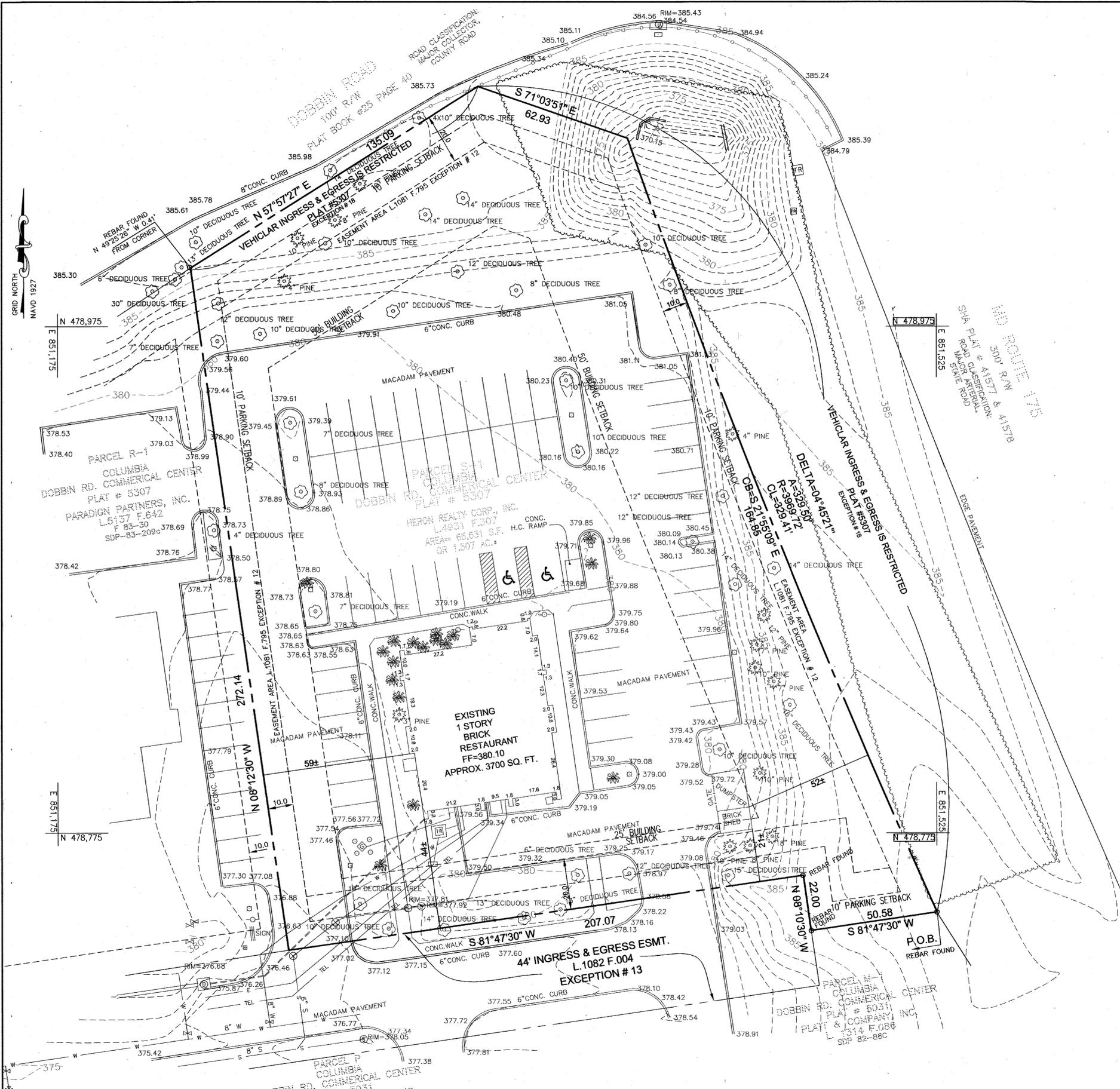


DOBBIN COMMERCIAL CENTER
COLUMBIA, MD

Edition Date:	01/21/02	
Project Date:	12/03/02	
#	Date	Revision
1	3/14/03	Notes & change rev. per county comments
2	7/30/03	Bld Set and Howard County Approval
3	9/25/03	OWNER
4	3/31/04	NO REVISIONS THIS SHEET

5. 03/10/16 ADD ADDITIONAL DRIVE-THRU LANE 1.331 S.F. BUILDING ADDITION
COVER SHEET WITH GENERAL NOTES

SHEET NO.	
C-0	
1 of 15	



- LEGEND:**
- SHRUB
 - INDIVIDUAL TREES
 - GAS METER
 - SANITARY MANHOLE
 - STORM SEWER MANHOLE
 - POWER POLE
 - ELECTRIC BOX
 - STREET SIGN
 - UNDERGROUND SEWER LINE
 - APPROX. LOCATION UNDERGROUND WATER LINE
 - STREET LIGHT
 - WATER VALVE
 - FIRE HYDRANT

FINAL DEVELOPMENT CRITERIA AND SETBACK INFORMATION IS FOUND IN F.D.P. 132-A-III.

FOR REVISION 5 ONLY

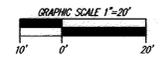
Michael J. Gesell 9/29/16
 PROFESSIONAL CERTIFICATION

I, MICHAEL J. GESSELL, HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 44097, EXPIRATION DATE: 6/19/17

APPROVED
 PLANNING BOARD
 OF HOWARD COUNTY
 DATE May 1, 2003

FOR REVISION 5 ONLY
BOHLER ENGINEERING
 901 DULANEY VALLEY RD, STE 80
 TOWSON, MD 21204
 PHONE: 410-821-1900
 FAX: 410-821-1987
 MDC@BOHLERENG.COM

APPROVED: DEPARTMENT OF PLANNING AND ZONING	
<i>Michael J. Gesell</i> CHIEF, DEVELOPMENT ENGINEERING DIVISION	8/5/03 DATE
<i>Cindy Hamilton</i> CHIEF, DIVISION OF LAND DEVELOPMENT	8/12/03 DATE
<i>Mark J. Weger</i> DIRECTOR	8/12/03 DATE



The RBA ENGINEERS • ARCHITECTS • PLANNERS
 7164 Columbia Gateway Drive Suite 205
 Columbia, Maryland 21046 (410) 312-0968

RBA PROJ. NO.: M3080.00
DRAWN BY: KL
DESIGNED BY: EM
CHECKED BY: JR

Series 97-138

5200 Buffington Road
 Atlanta, Georgia 30349-2998
 Telephone 404-765-8000



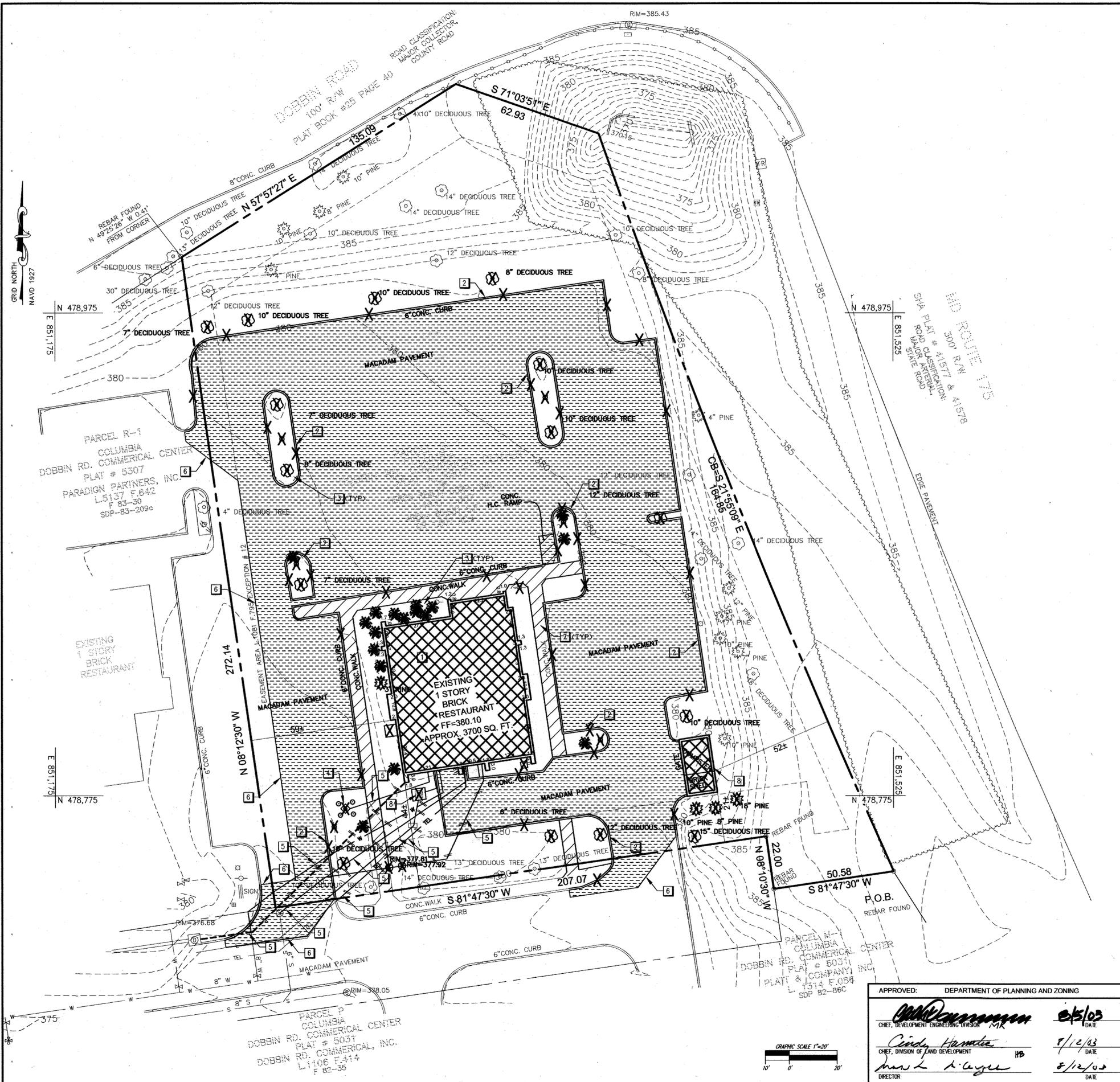
DOBBIN
 COMMERCIAL CENTER
 COLUMBIA, MD

Edition Date:	07/22/03
Project Date:	12/03/02
#	Revision
1	3/14/03 Notes revised per county comments
2	7/30/03 Bid Set and Howard County Approval
3	9/25/03 NO REVISIONS THIS SHEET
4	3/31/04 NO REVISIONS THIS SHEET

Sheet Title: **BOUNDARY & TOPOGRAPHIC SURVEY**

SHEET NO.
C-1
 2 OF 15

SDP-03-96



DEMOLITION LEGEND

- REMOVE TREE
- REMOVE CURB
- REMOVE LIGHT
- REMOVE BUILDING/STRUCTURE
- REMOVE LANDSCAPING
- REMOVE STORM DRAIN
- REMOVE WATER
- REMOVE ELECTRIC
- REMOVE SANITARY
- REMOVE TELEPHONE
- REMOVE GAS
- REMOVE SIDEWALK/SITE CONCRETE
- REMOVE POLE
- REMOVE CLEANOUT
- REMOVE SANITARY STRUCTURE
- REMOVE PAVING TO SUB BASE

DEMOLITION NOTES

- 1 REMOVE BUILDING
- 2 REMOVE CURB AND/OR CURB & GUTTER.
- 3 REMOVE LANDSCAPING
- 4 REMOVE PROPANE TANK AND ALL APPURTENANCES
- 5 ABANDON/ REMOVE UNDERGROUND UTILITIES
- 6 SAW CUT PAVING
- 7 REMOVE SIDEWALK. REMOVE TO NEAREST POINT IF PORTIONS OF SIDEWALK ARE TO REMAIN
- 8 REMOVE SHED, DUMPSTER, FENCING AND GATE.

APPROVED
 PLANNING BOARD
 of HOWARD COUNTY
 DATE May 1, 2003

FOR REVISION 5 ONLY

Michael Wesol
 9/29/16

PROFESSIONAL CERTIFICATION
 I, MICHAEL WESOL, HEREBY CERTIFY THAT THESE
 DOCUMENTS ARE PREPARED OR APPROVED BY ME, AND
 THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER
 UNDER THE LAWS OF THE STATE OF MARYLAND,
 LICENSE NO. 44097, EXPIRATION DATE: 6/11/17

FOR REVISION 5 ONLY
 BOHLER ENGINEERING
 901 DULANEY VALLEY RD, STE 801
 TOWSON, MD 21284
 Phone: 410-821-7900
 Fax: 410-821-7981
 MPE@BOHLERENG.COM

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Michael Wesol 6/5/03
 CHIEF, DEVELOPMENT ENGINEERING DIVISION

Cindy Hammett 5/12/03
 CHIEF, DIVISION OF LAND DEVELOPMENT

Mark K. Ayler 8/12/03
 DIRECTOR

RBA ENGINEERS • ARCHITECTS • PLANNERS
 7164 Columbia Gateway Drive Suite 205
 Columbia, Maryland 21046 (410) 312-0866

RBA PROJ. NO.: M3080.00
 DRAWN BY: KL
 DESIGNED BY: EM
 CHECKED BY: JR



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 Atlanta, Georgia 30349-2998
 Telephone 404-765-8000



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 COMMERCIAL CENTER
 COLUMBIA, MD

Edition Date:	01/21/03	
Project Date:	12/03/02	
#	Date	Revisions
1	3/14/03	No revisions, this sheet
2	7/30/03	Bid Set and Howard County Approval
3	5/25/03	NO REVISIONS THIS SHEET
4	5/23/04	NO REVISIONS THIS SHEET

5. ADD ADDITIONAL DRIVE-THRU LANE 1 1/2 J.F. BUILDING APPROX. 100' W. SIDE OF DRIVE

Sheet Title: DEMOLITION PLAN 02/04/16

SHEET NO.
C-1A
 3 of 15



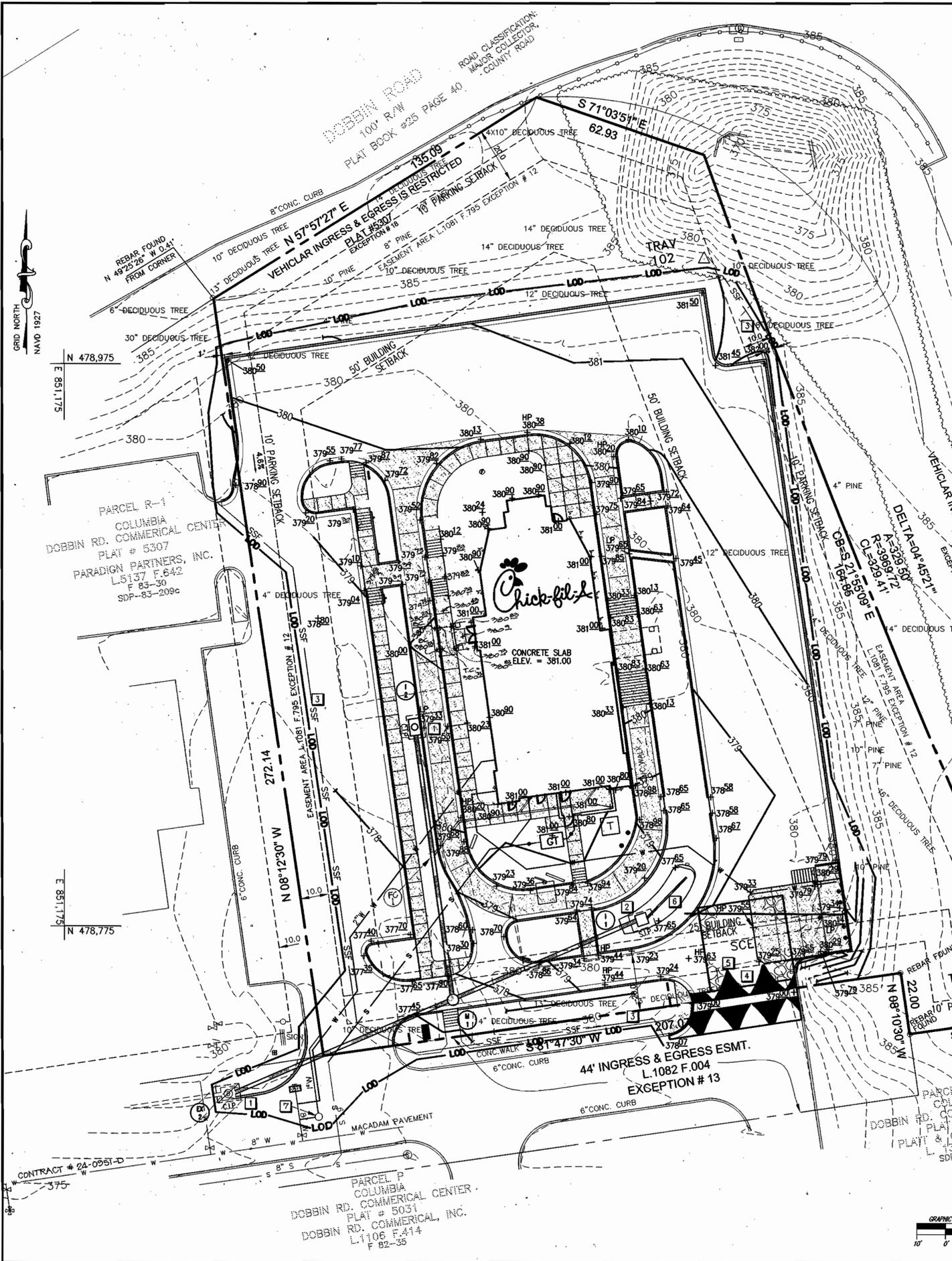
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5200 Buffington Road
Atlanta, Georgia 30349-2998
Telephone 404-765-8000



DOBBIN
COMMERCIAL CENTER
COLUMBIA, MD

GRADING, DRAINAGE & EROSION CONTROL PLAN

Sheet Title: GRADING, DRAINAGE & EROSION CONTROL PLAN
SHEET NO. C-3
5 of 14



PERMANENT SEEDING NOTES
Apply to graded or cleared areas not subject to immediate further disturbance where a permanent long-lived vegetative cover is needed.

Seeded Preparation: Loosen upper three inches of soil by raking, disking 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/acre dolomitic limestone (92 lbs/1000 sq. ft.) and 600 lbs/acre 10-10-10 fertilizer (14 lbs/1000 sq. ft.) before seeding. Harrow or disk into upper three inches of soil. At time of seeding apply 400 lbs/acre 30-0-0 urea form fertilizer (9 lbs/1000 sq. ft.)
2. Acceptable—Apply 2 tons/acre dolomitic limestone (92 lbs/1000 sq. ft.) and 1000 lbs/acre 10-10-10 fertilizer (23 lbs/1000 sq. ft.) before seeding. Harrow or disk into upper three inches of soil.

Seeding — For the periods March 1 — April 30, and August 1 — October 15, seed with 60 lbs/acre (1.4 lbs/1000 sq. ft.) of Kentucky 31 Tall Fescue. For the period May 1 — July 31, seed with 60 lbs Kentucky 31 Tall Fescue per acre and 2 lbs/acre (.05 lbs/1000 sq. ft.) of weeping lovegrass. During the period of October 16 — February 28, protect site by:
Option 1 — Two tons per acre of well anchored straw mulch and seed as soon as possible in the spring.
Option 2 — Use sod. Option 3 — Seed: with 60 lbs/acre Kentucky 30 Tall Fescue and mulch with 2 tons/acre well anchored straw.

Mulching — Apply 1-1/2 to 2 tons per acre (70 to 90 lbs/1000 sq. ft.) of rotted small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 218 gallons per acre (5 gal/1000 sq. ft.) of emulsified asphalt on flat areas. On slope 8 feet or higher, use 348 gallons per acre (8 gal/1000 sq. ft.) for anchoring.

Maintenance — Inspect all seeding areas and make needed repairs, replacements and reseeds.

TEMPORARY SEEDING NOTES
Apply to graded or cleared areas likely to be re-disturbed where a short-term vegetative cover is needed.

Seeded preparation: — Loosen upper three inches of soil by raking, disking or other acceptable means before seeding, if not previously loosened.

Soil Amendments: — Apply 600 lbs/acre 10-10-10 fertilizer (14 lbs/1000 sq. ft.).

Seeding: — For periods March 1 — April 30 and from August 15 — October 15, seed with 2-1/2 bushel per acre of annual rye (3.2 lbs/1000 sq. ft.). For the period May 1 — August 14, seed with 3 lbs/acre of weeping lovegrass (.07 lbs/1000 sq. ft.). For the period November 16 — February 28 protect the site by applying 2 tons/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/acre (70 to 90 lbs/1000 sq. ft.) of rotted weed-free, small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 218 gal. per acre (5 gal/1000 sq. ft.) of emulsified asphalt on flat areas. On slope 8 ft. or higher, use 348 gal. per acre (8 gal/1000 sq. ft.) for anchoring.

Refer to the 1994 MARYLAND STANDARDS AND SPECIFICATION FOR SOIL EROSION AND SEDIMENT CONTROL for additional rates and methods not covered.

- STANDARD SEDIMENT CONTROL NOTES**
- 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).
 - All vegetative and structural practices are to be installed according to the provisions of these plan and are to be in conformance with the most current MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL and revisions thereto.
 - Following initial soil disturbance or re-disturbance, permanent or temporary stabilization shall be completed within: a) 7 calendar days for all perimeter sediment control structures, dikes, perimeter slopes and all slopes greater than 3:1, b) 14 days as to all other disturbed or graded areas on the project site.
 - All sediment traps/basins shown must be fenced and warning signs posted around their perimeter in accordance with Vol. 1, Chapter 12 of the HOWARD COUNTY DESIGN MANUAL, Storm Drainage.
 - All disturbed areas must be stabilized within the time period specified above in accordance with the 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL for permanent seeding (Sec. 51), sod (Sec. 54), temporary seeding (Sec. 50) and mulching (Sec. 52). Temporary stabilization with mulch alone can only be done when recommended seeding dates do not allow for proper germination and establishment of grasses.
 - All sediment control structures are to remain in place and are to be in operative condition until permission for their removal has been obtained from the Howard County Sediment Control Inspector.
 - Site Analysis:

Total Area of Site	1.5 Acres
Area Disturbed	1.22 Acres
Area to be roofed or paved	0.88 Acres
Area to be vegetatively stabilized	0.34 Acres
Total Cut	450 Cu. Yds.
Total Fill	450 Cu. Yds.
Offsite waste/borrow area location:	N/A
 - Any sediment control practice which is disturbed by grading activity for placement of utilities must be repaired on the same day of disturbance.
 - Additional sediment control must be provided, if deemed necessary by the Howard County Sediment Control Inspector.
 - 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.
 - Trenches for the construction of utilities is limited to three pipe lengths or that which shall be back-filled and stabilized by the end of each work day, whichever is shorter.

BENCHMARK
Horizontal Datum: Howard County Grid System (NAVD 1927)
Vertical Datum: NAVD 1929
As projected by the RBA Group from Howard County Geodetic Survey Control, 36FB to traverse points TRAV 102, N479012.335, E851402.117, Elev. 382.76 TRAV 103, N478752.838, E851503.627, Elev. 378.83

- SEQUENCE OF CONSTRUCTION**
- Obtain Grading Permit.
 - Obtain Demolition Permit.
 - Clear & grub and install all sediment control devices.
 - Begin all demolition work.
 - Once demolition is complete, begin rough grading and building construction.
 - Once sub-grade elevations are reached, install utilities, curb & gutter, bioretention facility, and stone sub-base for parking lot sections.
 - Fine grade and vegetatively stabilize all disturbed areas not to be paved.
 - Pave parking lot sections.
 - Upon stabilization of site with established vegetation and with permission of the Sediment Control Inspector, remove sediment control measures and stabilize those areas disturbed by these process.

- EROSION CONTROL DETAIL KEYS**
- | | |
|--|---------|
| 1 CURB INLET PROTECTION | 23C C-6 |
| 2 STANDARD INLET PROTECTION | 23A C-6 |
| 3 SUPER SILT FENCE | 33 C-6 |
| 4 STABILIZED CONSTRUCTION ENTRANCE | 24 C-6 |
| 5 MOUNTABLE BERM | 99 C-6 |
| 6 PRIVATE BIORETENTION FACILITY, SEE SHT. PS-2 | |
| 7 1" WATER METER & PIT FOR IRRIGATION, SEE SHT. PS-1 | |

SEDIMENT CONTROL
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 inspection by the Howard Soil Conservation District.

Thomas A. Nolan
Signature of Developer
7/22/03
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.

Peagu M. White
Signature of Engineer
7/22/03
Date

Reviewed for HOWARD SCD and meets Technical Requirements.
Jim M. ...
Date 8/4/03

This development plan is approved for soil erosion and sediment control by the HOWARD SOIL CONSERVATION DISTRICT.
John R. Robertson
Date 8/4/03

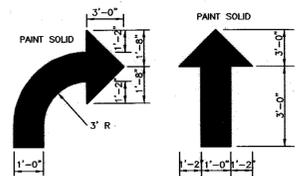
APPROVED
PLANNING BOARD
OF HOWARD COUNTY
DATE May 1, 2003

APPROVED: DEPARTMENT OF PLANNING AND ZONING
Chris ... 8/5/03
Chris ... 8/12/03
David ... 8/12/03

The RBA ENGINEERS • ARCHITECTS • PLANNERS
7184 Columbia Gateway Drive Suite 205
Columbia, Maryland 21046 (410) 312-0966

RBA PROJ. NO.: M3080.00
DRAWN BY: KL
DESIGNED BY: EM
CHECKED BY: JR

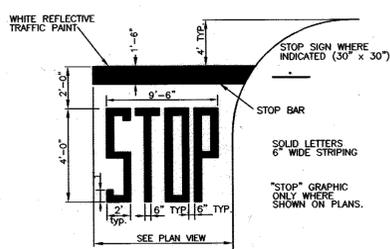




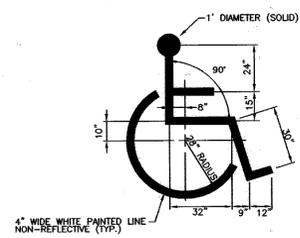
1 DIRECTIONAL ARROW DETAILS
NOT TO SCALE



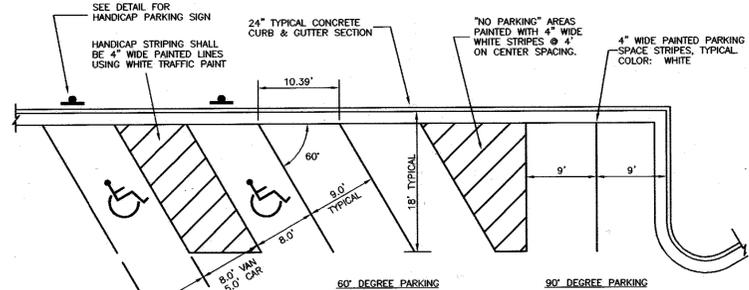
2 DRIVE-THRU GRAPHICS DETAIL
NOT TO SCALE



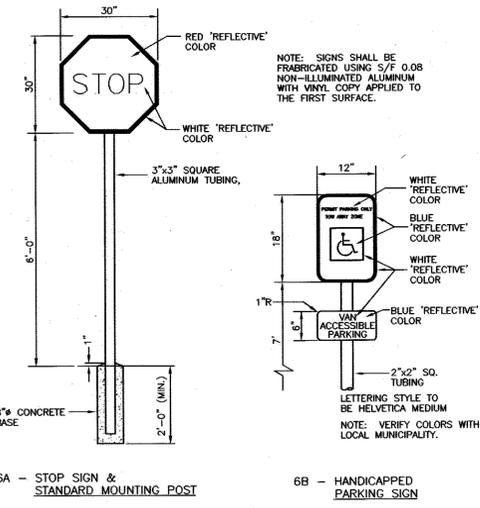
3 STOP LINE GRAPHIC DETAIL
NOT TO SCALE



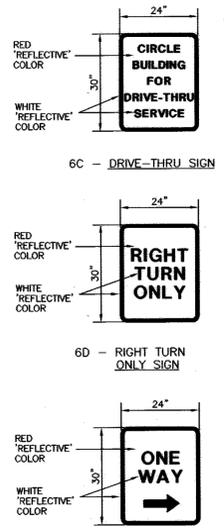
4 HANDICAP SYMBOL DETAIL
NOT TO SCALE



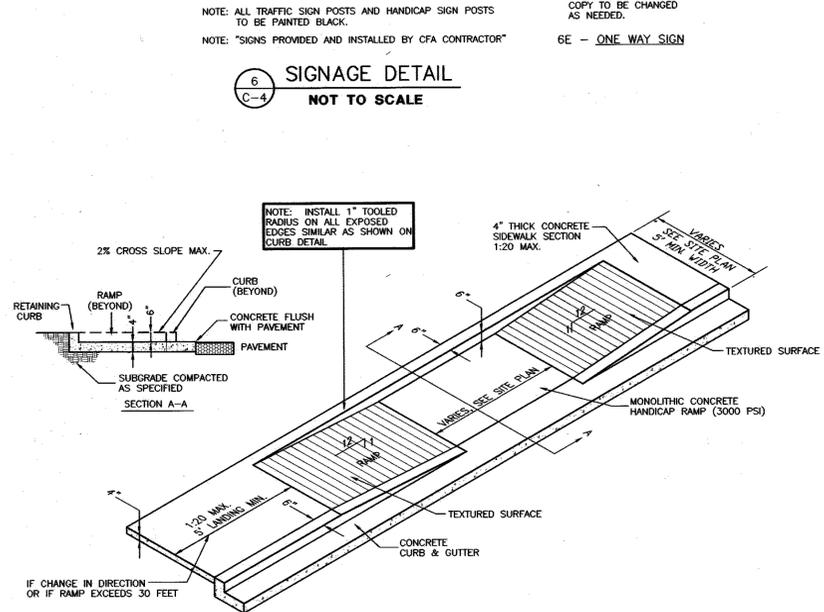
5 STANDARD PARKING STALL DETAILS
NOT TO SCALE



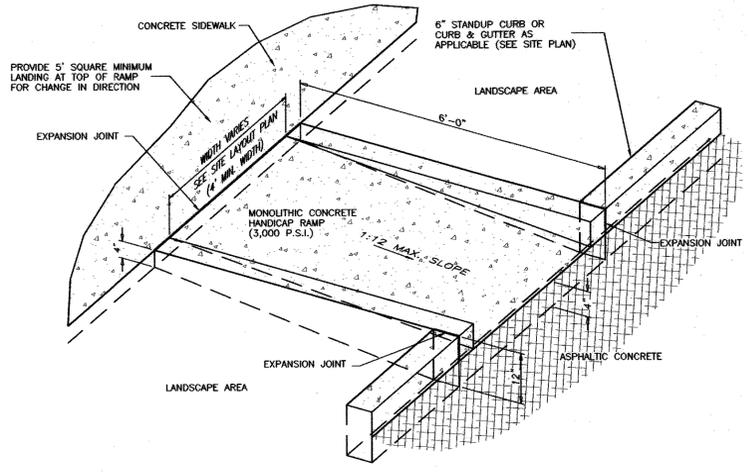
6 SIGNAGE DETAIL
NOT TO SCALE



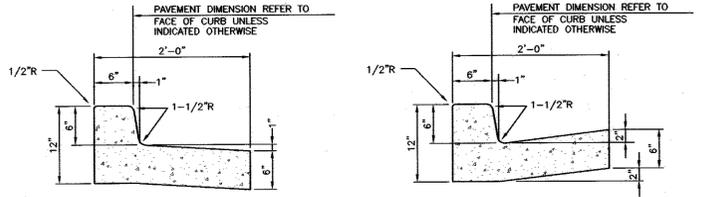
6C - DRIVE-THRU SIGN
6D - RIGHT TURN ONLY SIGN
6E - ONE WAY SIGN



7 SIDEWALK HANDICAP RAMP DETAIL
NOT TO SCALE



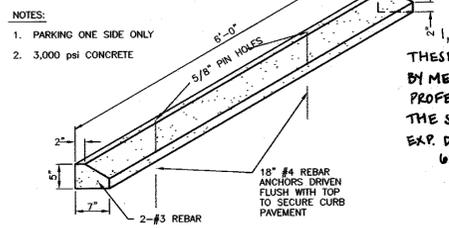
8 CURBED HANDICAP RAMP DETAIL
NOT TO SCALE



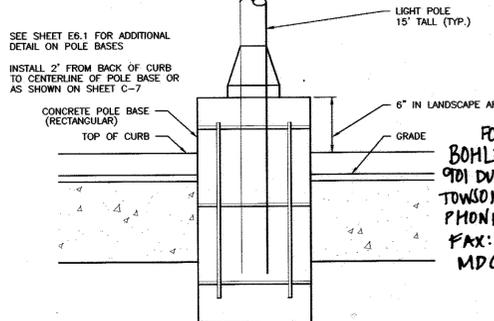
A SPILLING CURB AND GUTTER
B CATCHING CURB AND GUTTER

CONCRETE FOR CURBING SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3000 P.S.I. AT 28 DAYS.
CONSTRUCTION STAKING FOR CURBING INSTALLATION SHALL BE REFERENCED (CUT OR FILL) TO THE FACE OF CURB.
AT CONTRACTOR'S OPTION THE GUTTER THICKNESS MAY BE INCREASED AT THE EDGE OF PAVEMENT TO MAKE BOTTOM OF GUTTER PARALLEL WITH PAVING OF BASE COURSE.

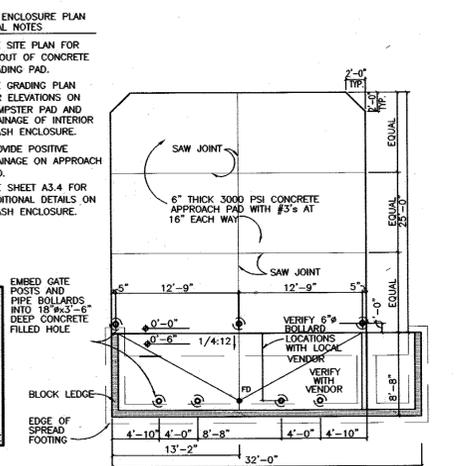
9 CONCRETE CURB & GUTTER DETAILS
NOT TO SCALE



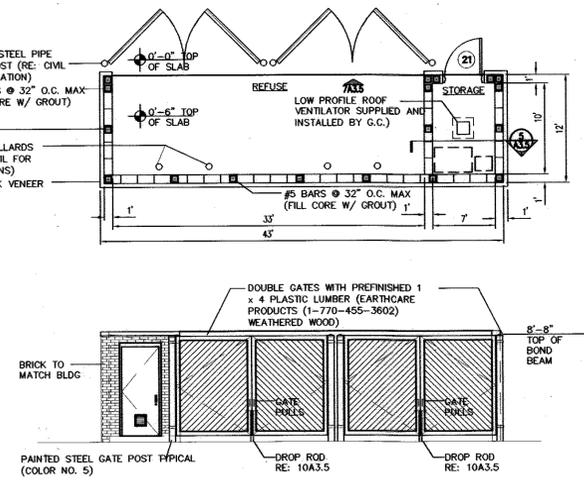
10 CONCRETE WHEEL STOP DETAIL
NOT TO SCALE



11 TYPICAL POLE BASE DETAIL
NOT TO SCALE



12 TRASH ENCLOSURE FOUNDATION PLAN
NOT TO SCALE



13 ELEVATION
NOT TO SCALE

FOR REVISION 5 ONLY
MICHAEL J. BESELL, 9129/16
PROFESSIONAL CERTIFICATION
THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 44091
EXP. DATE: 6/9/17
APPROVED
PLANNING BOARD
OF HOWARD COUNTY
DATE: May 1, 2003

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

8/5/02 DATE
8/2/03 DATE
8/12/03 DATE

The RBA ENGINEERS • ARCHITECTS • PLANNERS
7164 Columbia Gateway Drive Suite 205
Columbia, Maryland 21046 (410) 312-0966

RBA PROJ. NO.: M3080.00
DRAWN BY: KL
DESIGNED BY: EM
CHECKED BY: JR



Series 97-138
5200 Buffington Road
Atlanta, Georgia 30634-2998
Telephone 404-765-8000



DOBBIN COMMERCIAL CENTER
COLUMBIA, MD
6. 03/04/10 ADD ADDITIONAL DRIVE THRU LANE AND 757 G.S. BUILDING ADDITION
STANDARD DETAILS

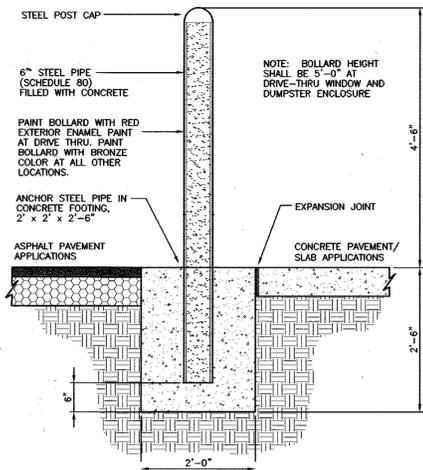
Edition Date:	01/21/03
Project Date:	12/03/02
Revision #	3/14/03
Revision #	7/20/03
Revision #	9/25/05
Revision #	3/31/04
Revision #	NO REVISIONS THIS SHEET
Revision #	NO REVISIONS THIS SHEET

SHEET NO.
C-4
6 of 15

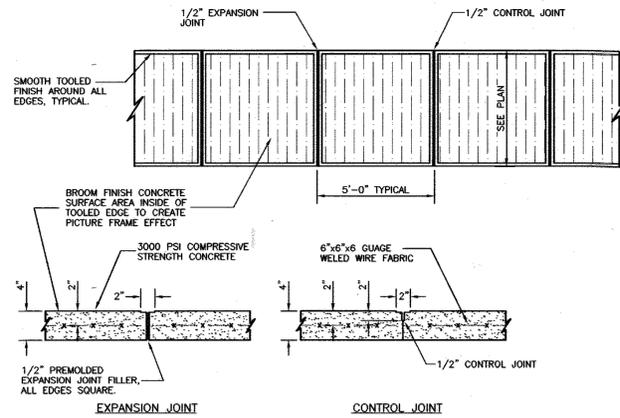
FOR REVISION 5 ONLY
 BOHLER ENGINEERING
 901 DULANEY VALLEY RD STE 801
 TOWSON, MD 21204
 PHONE: 410-821-7100
 FAX: 410-821-7987
 MDC BOHLERENG.COM

FOR REVISION 5 ONLY

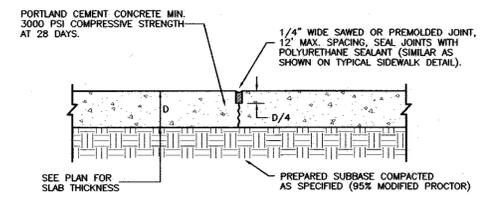
Michael Bezell
 9/20/16
 PROFESSIONAL CERTIFICATION
 I, MICHAEL J. BEZELL, HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 44097 EXP. DATE 01/11/17



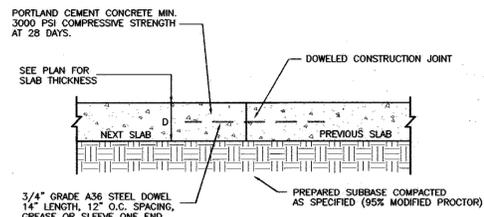
14 PIPE BUMPER POST DETAIL
 NOT TO SCALE



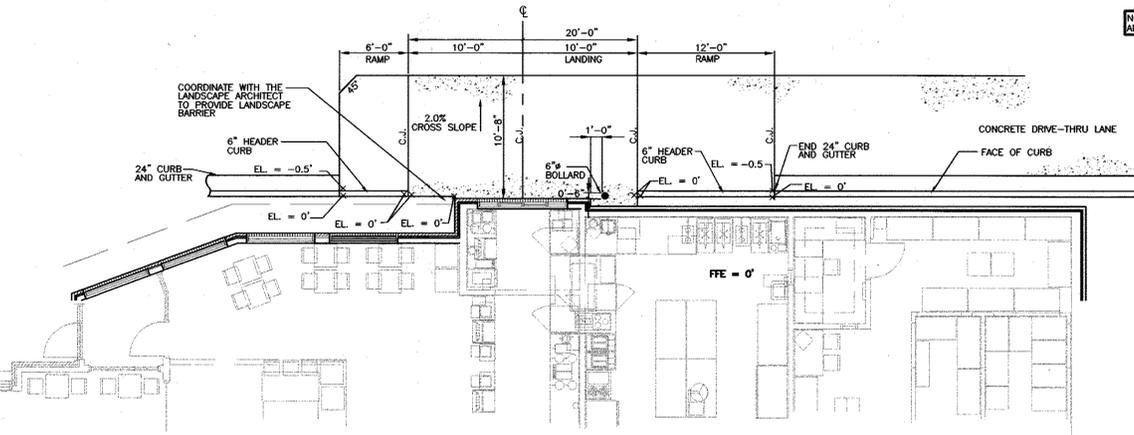
17 TYPICAL CONCRETE SIDEWALK DETAIL
 NOT TO SCALE



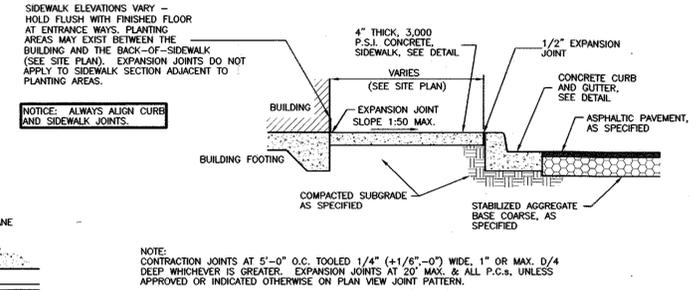
22 TRANSVERSE AND LONGITUDINAL CONTRACTION JOINT
 NOT TO SCALE



23 TRANSVERSE AND LONGITUDINAL DOWELED CONSTRUCTION JOINT
 NOT TO SCALE



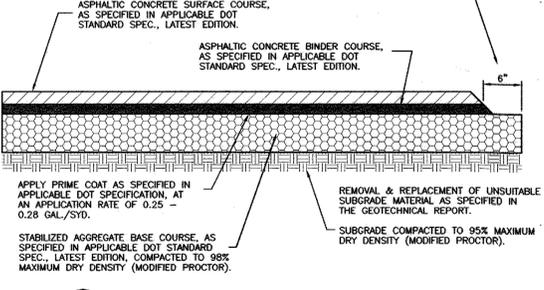
15 DRIVE-THRU PLAN VIEW
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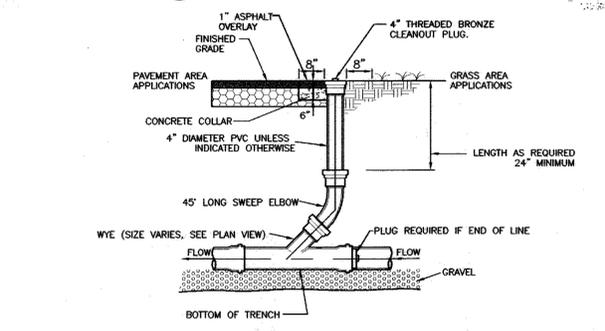
18 SIDEWALK WITH CURB & GUTTER SECTION
 NOT TO SCALE

PAVEMENT THICKNESS

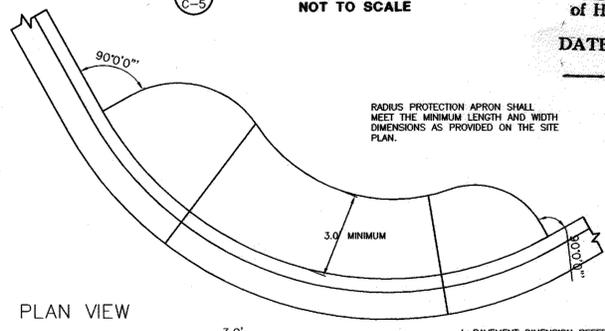
	ASPHALT SURFACE COURSE	ASPHALT BASE COURSE	S.A.B.C.
REGULAR DUTY	3"	2"	6"



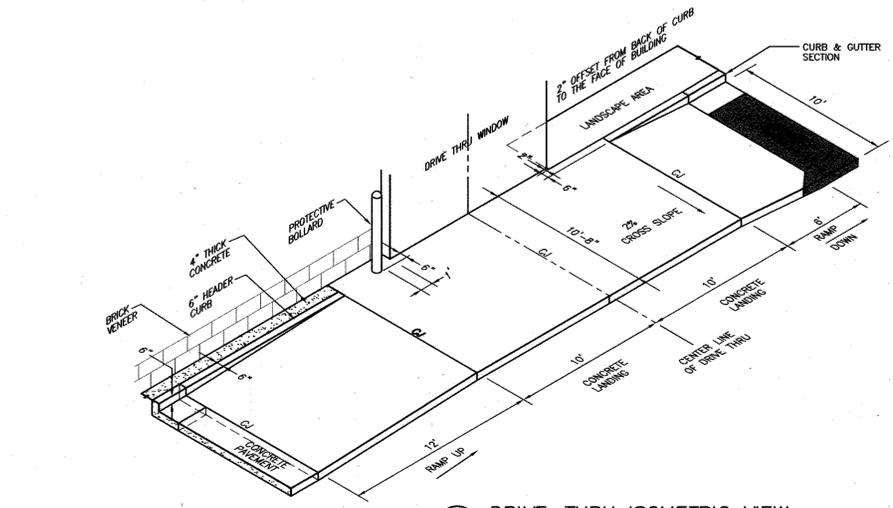
19 TYPICAL PAVEMENT SECTION
 NOT TO SCALE



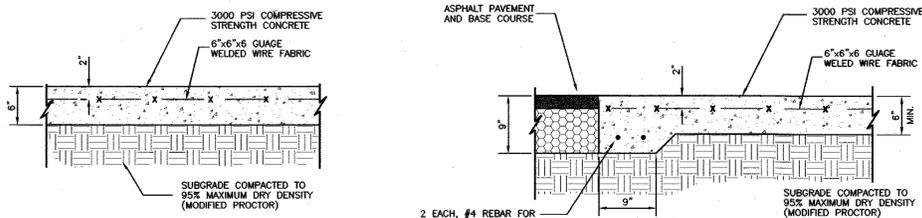
24 SERVICE LINE CLEANOUT
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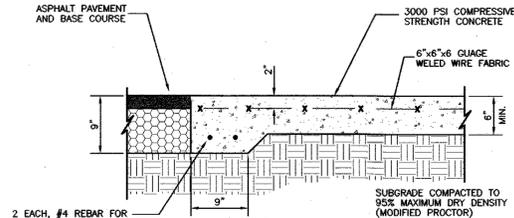
25 LANDSCAPE & IRRIGATION PROTECTOR
 NOT TO SCALE



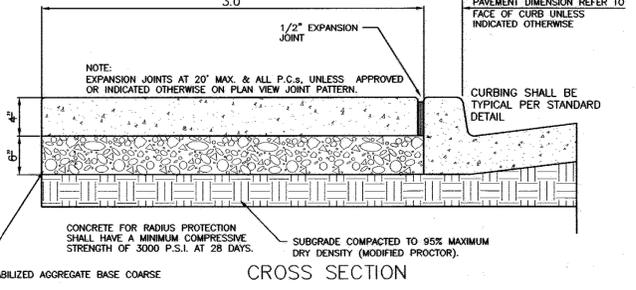
16 DRIVE-THRU ISOMETRIC VIEW
 NOT TO SCALE



20 CONCRETE PAVING DETAIL DRIVE THRU LANE
 NOT TO SCALE



21 CONCRETE APRON @ DUMPSTER
 NOT TO SCALE



26 CROSS SECTION
 NOT TO SCALE

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Michael Bezell 8/5/03
 CHIEF, DEVELOPMENT ENGINEERING DIVISION
 DATE

Cindy Harnden 8/2/03
 CHIEF, DIVISION OF LAND DEVELOPMENT
 DATE

Mark Zeyen 8/2/03
 DIRECTOR
 DATE

APPROVED
 PLANNING BOARD
 OF HOWARD COUNTY
 DATE: May 1, 2003



Series 97-138
 5200 Buffington Road
 Atlanta, Georgia 30349-2998
 Telephone 404-765-8000



DOBBIN
 COMMERCIAL CENTER
 COLUMBIA, MD

5.03/04/16 ADD ADDITIONAL DRIVE-THRU LANE AND 757-L.F. BUILDING ADDITION
 STANDARD DETAILS

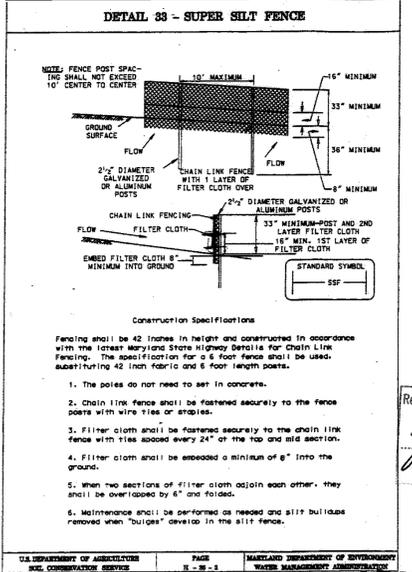
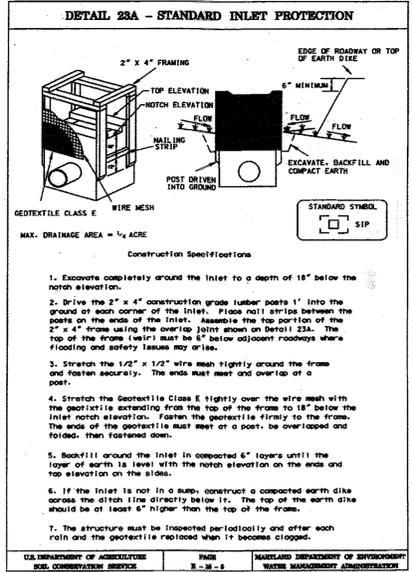
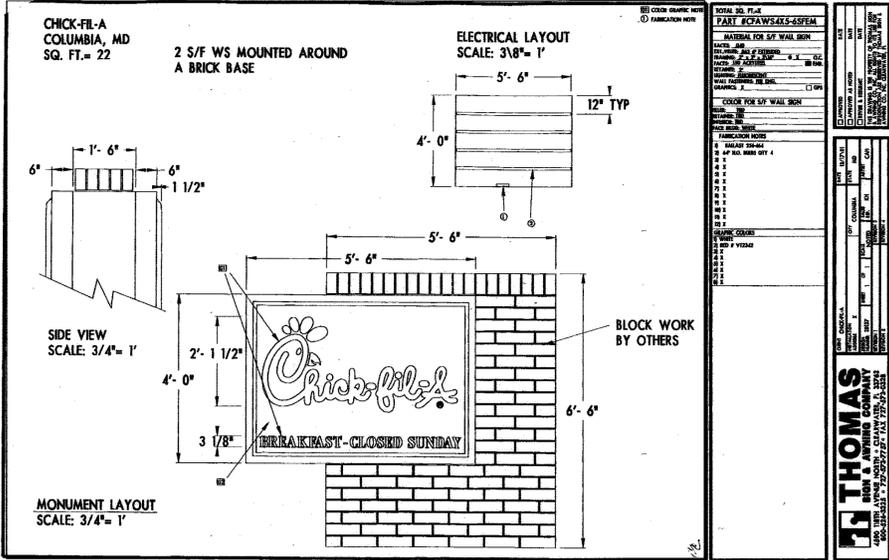
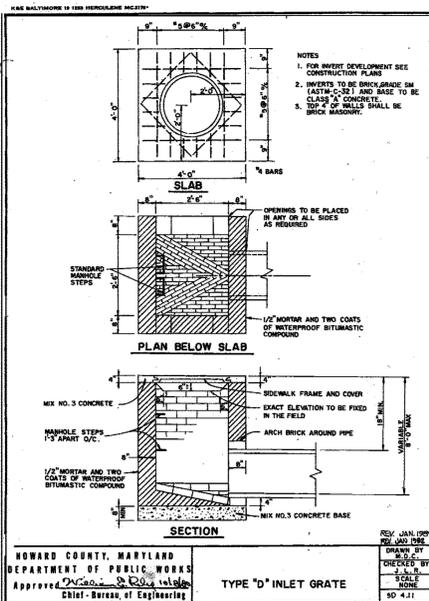
Revision #	Date	By	Checked
1	9/14/03		
2	7/30/03		
3	9/25/03		
4	3/21/04		

NO REVISIONS THIS SHEET
 NO REVISIONS THIS SHEET

SHEET NO.
 C-5
 7 of 15

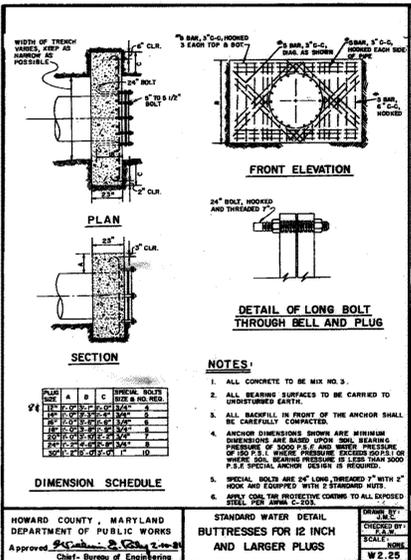
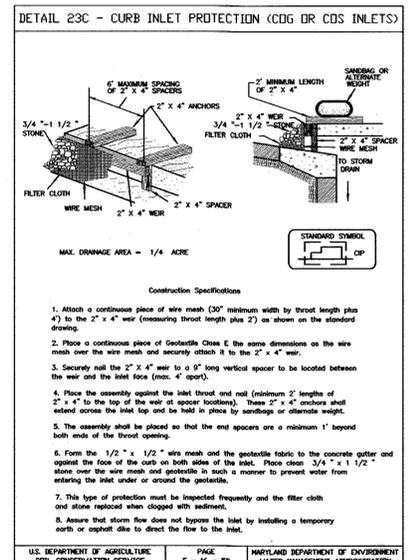
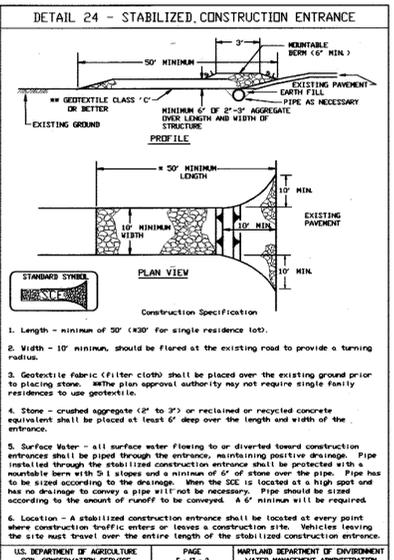
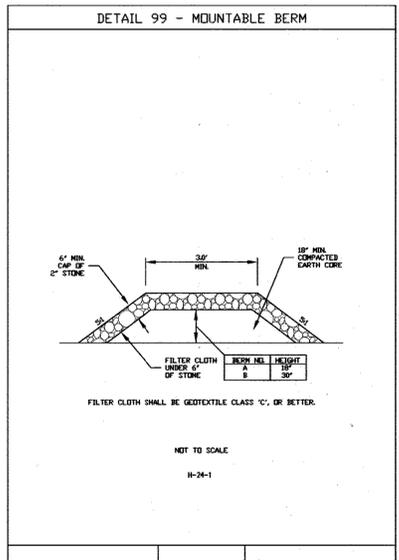
The RBA ENGINEERS • ARCHITECTS • PLANNERS
 7164 Columbia Gateway Drive Suite 205
 Columbia, Maryland 21046 (410) 312-0966

RBA PROJ. NO.: M3080.00
 DRAWN BY: KL
 DESIGNED BY: EM
 CHECKED BY: JR



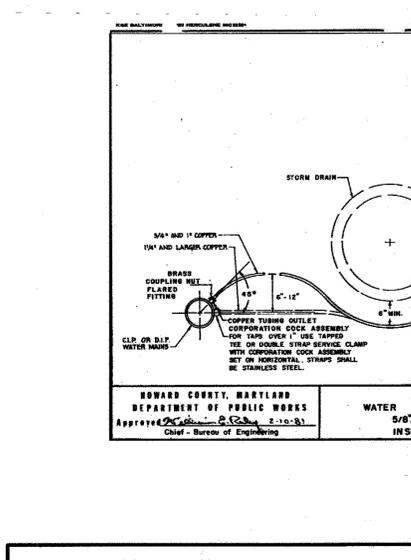
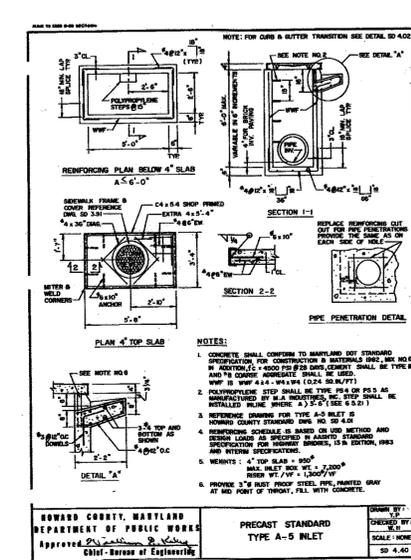
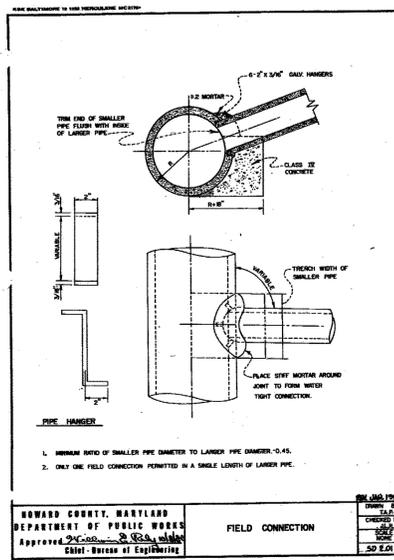
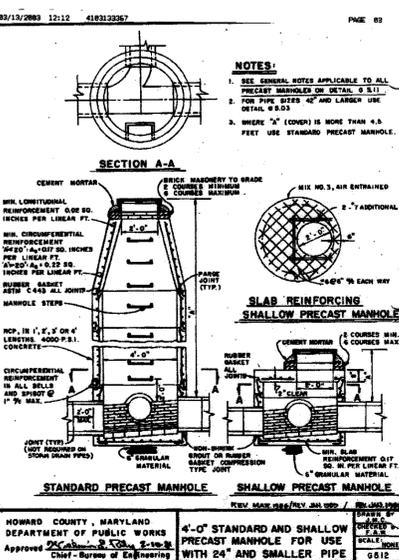
Reviewed for: **HOWARD** S.C.D. Name
 and meets Technical Requirements
 Date **2/14/03**
 Signature: *[Signature]*
 USDA, NATURAL RESOURCES CONSV. SERVICE

APPROVED PLAN REVISION
 SCD
 NRCs
 Technical Review Date



THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.
 Approved: *[Signature]* 8/14/03 Date
 Howard S.C.D.

APPROVED PLANNING BOARD OF HOWARD COUNTY
 DATE: May 1, 2003



STANDARD WATER DETAIL BUTTRESSES FOR 12 INCH AND LARGER PLUGS

FOR REVISION 5 ONLY
 BOHLER ENGINEERING
 901 DULANEY VALLEY RD. STE 801
 TOWSON, MD 21284
 Phone: 410-821-7900
 Fax: 410-821-7987
 MDE BOHLERENG.COM

FOR REVISION 5 ONLY
 9/29/16
 PROFESSIONAL CERTIFICATION
 I, MICHAEL J. GEISEL, HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED BY, APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 44097, EXPIRATION DATE 01/31/17

APPROVED: DEPARTMENT OF PLANNING AND ZONING
[Signature] 2/15/03 DATE
 CHEF, DEVELOPMENT ENGINEERING DIVISION
[Signature] 8/1/03 DATE
 CHIEF, DIVISION OF LAND DEVELOPMENT
[Signature] 9/12/03 DATE
 DIRECTOR



Series 97-138
 5200 Buffington Road
 Atlanta, Georgia 30349-2998
 Telephone 404-765-8000



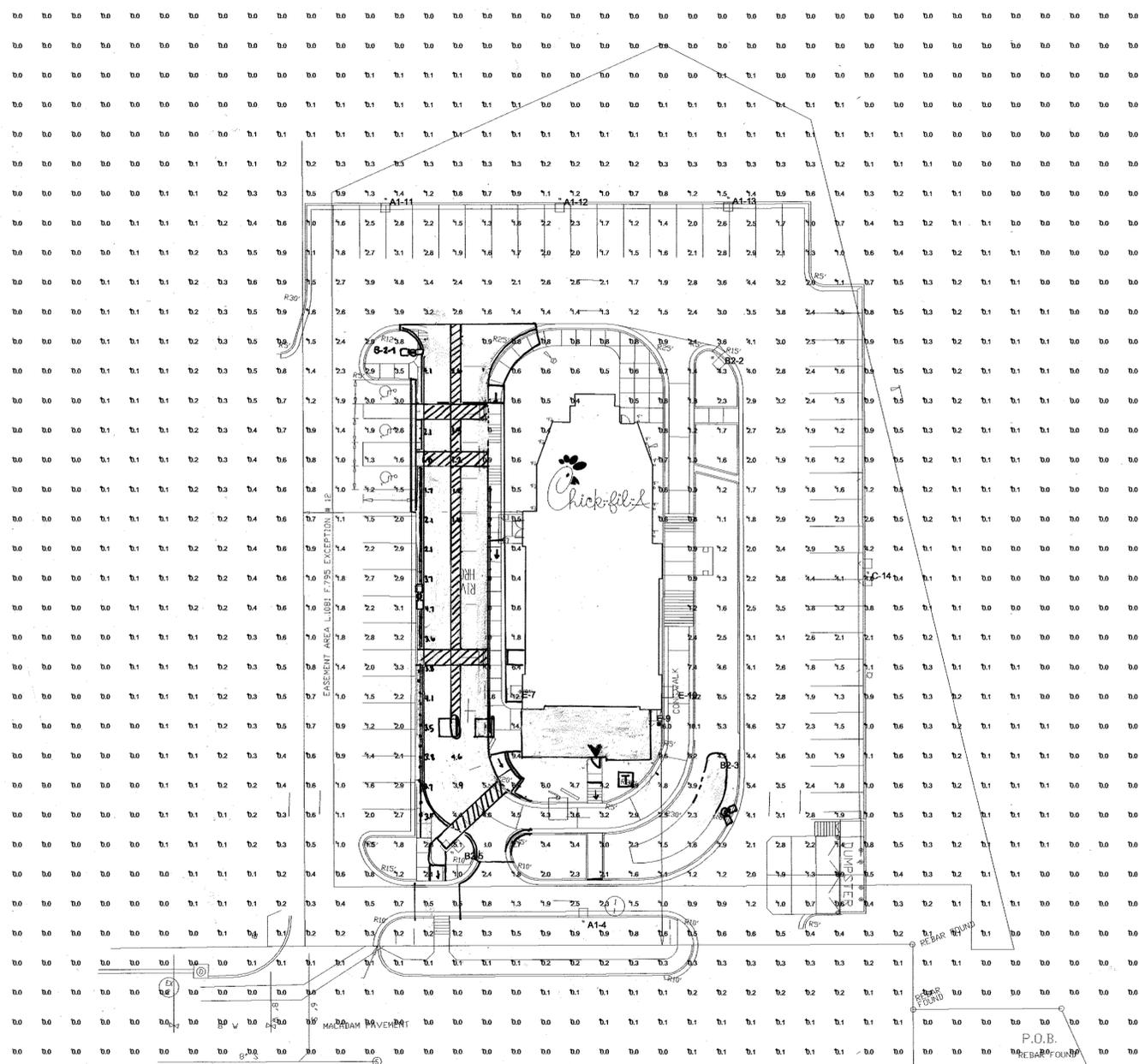
DOBBLIN COMMERCIAL CENTER
 COLUMBIA, MD
 CONSTRUCTION DETAILS

Edition Date: 01/21/03
 Project Date: 12/03/02
 # Date Revision
 1 9/14/03 Added details 05-02, 05-03, 05-04 and 05-05
 2 7/20/03 Bid Set and Revised County Approval
 3 9/22/05 NO REVISIONS THIS SHEET
 4 3/31/04 NO REVISIONS THIS SHEET
 SHEET TITLE: CONSTRUCTION DETAILS

SHEET NO. C-6
 8 of 15

The RBA ENGINEERS • ARCHITECTS • PLANNERS
 7164 Columbia Gateway Drive Suite 205
 Columbia, Maryland 21046 (410) 312-0868
 RBA PROJ. NO.: M3080.00
 DRAWN BY: KL
 DESIGNED BY: EM
 CHECKED BY: JR

SDP-03-96



APPROVED: DEPARTMENT OF PLANNING AND ZONING

Mark D. Wigg 8/12/02
 DIRECTOR

Cinda Kamatta 8/12/03
 CHIEF, DIVISION OF LAND DEVELOPMENT

Chris Plummer 8/15/03
 CHIEF, DEVELOPMENT ENGINEERING DIVISION

STATISTICS

Description	Avg	Max	Min	Max/Min	Avg/Min
Spill Light Summary	0.9 fc	16.0 fc	0.0 fc	N/A	N/A
Main Lot Parking	2.6 fc	16.0 fc	0.4 fc	40.0:1	6.8:1

LUMINAIRE SCHEDULE

Symbol	Label	Qty	Catalog Number	Description	Lamp	File	Lumens	LLF
□	A1	4	KAC 250M R4	AREA LIGHT W/TYPE 4, CUTOFF REFLECTOR, FLAT GLASS LENS	ONE 250-WATT CLEAR BT-28 METAL HALIDE, HORIZONTAL POSITION	93042103.IES	20000	0.72
◇	B2	5	KAC 250M R4	AREA LIGHT W/TYPE 4, CUTOFF REFLECTOR, FLAT GLASS LENS	ONE 250-WATT CLEAR BT-28 METAL HALIDE, HORIZONTAL POSITION	93042103.IES	20000	0.72
□	E	4	CFA100MH	130 WATTS/120V MOUNTED 12" ABOVE F.F. TO CENTERLINE OF FIXTURE	MXR100-U-MED	91102805.IES	19500	0.72
□	C	1	KAC 250M R4	AREA LIGHT W/TYPE 4, CUTOFF REFLECTOR, FLAT GLASS LENS	ONE 250-WATT CLEAR BT-28 METAL HALIDE, HORIZONTAL POSITION	93042103.IES	20000	0.72

LUMINAIRE LOCATIONS

No.	Label	X	Y	Z	MH	Orientation	Tilt	X	Y	Z
1	B2	65.8	208.0	25.0	25.0	268.5	0.0			
2	B2	159.2	205.3	25.0	25.0	90.8	0.0			
3	B2	164.2	59.7	25.0	25.0	89.0	0.0			
4	A1	115.3	14.6	25.0	25.0	0.0	0.0	115.3	17.6	0.0
5	B2	70.6	37.9	25.0	25.0	0.0	0.0			
6	B2	68.8	123.1	25.0	25.0	269.0	0.0			
7	E	92.5	92.4	14.0	14.0	-90.0	0.0	92.5	92.4	0.0
8	E	98.0	84.6	14.0	14.0	180.0	0.0	98.0	84.6	0.0
9	E	138.4	84.4	14.0	14.0	180.0	0.0	138.4	84.4	0.0
10	E	143.9	92.3	14.0	14.0	90.0	0.0	143.9	92.3	0.0
11	A1	47.8	258.9	25.0	25.0	180.7	0.0	47.7	258.9	0.0
12	A1	107.1	258.9	25.0	25.0	180.0	0.0	107.1	258.9	0.0
13	A1	164.5	258.3	25.0	25.0	180.0	0.0	164.5	258.3	0.0
14	C	211.9	132.7	25.0	25.0	180.0	0.0			

Area Lighting
KAD/KAC
 Contour™

Intended Use: For parking areas, street lighting, walkways and car lots.

Features:
 Housing - Rugged, die-cast, soft-corner aluminum housing with 0.12" nominal wall thickness. Extruded 4" soft corner arm for pole or wall mounting is standard.
 Door Frame - KAD die-cast door frame has impact-resistant, tempered glass lens which is fully gasketed with one-piece bonded tubular silicone. KAC die-cast aluminum door frame has prismatic, impact-resistant, tempered glass, drop dish acrylic lens or drop dish polycarbonate lens. Door frame is fully gasketed with one-piece tubular silicone.
 Optics - KAD reflectors are anodized hydroformed/segmented aluminum, field-interchangeable. Four cutoff distributions available: R2 (Downway), R3 (Asymmetric), R4 (Forward Throw) and R5 (Symmetric). Reflectors are field-interchangeable. KAC reflector is optical-quality aluminum that works in tandem with a light-diffusing prismatic lens.
 Electrical - Ballast is high-reactance, high power factor (70-150W HPS, 100W & 850W) or high power factor constant-voltage autotransformer (175-400W MH & HPS). Ballast is copper wound and 100% factory tested.
 Finish - Dark bronze polyester powder finish (DD8) is standard with other architectural colors available.
 Socket - Porcelain, horizontally (position) oriented mogul-base socket (100W & 150W are medium-base) with copper alloy, nickel-plated screw shell and center contact. UL listed 1500W-800V, 4KV pulse rated.
 Listings - UL Listed (standard), CSA Certified or NOM Certified (see options), UL listed for wet locations.

Ordering Information: Example: KAD 400M R3 120 SPD09

Designation	Distribution	Voltage	Included	Mounting	Optional/Accessories
High Pressure Sodium	R2 Type II roadway	120	SP09 4" square pole arm (incl. 20')	PF	PF Lamp included
KAD 180S	R3 Type III asymmetric	200'	SP08 4" square pole arm	BF	BF Single fuse, 120, 277, 347V (via TB)
KAD 180S	R4 Type IV forward throw, sharp cutoff	347	SP08 4" square pole arm	DF	DF Double fuse, 250, 240, 480V (via TB)
KAD 230S	R5 Type V square	347	SP08 4" square pole arm	PER	PER NEMA twist-lock receptacle only (no photocell)
KAD 400S	R2 Type II roadway	120	SP09 4" square pole arm (incl. 20')	PF	PF Lamp included
KAD 100M	R3 Type III asymmetric	200'	SP08 4" square pole arm	BF	BF Single fuse, 120, 277, 347V (via TB)
KAD 130M	R4 Type IV forward throw, sharp cutoff	347	SP08 4" square pole arm	DF	DF Double fuse, 250, 240, 480V (via TB)
KAD 200M	R5 Type V square	347	SP08 4" square pole arm	PER	PER NEMA twist-lock receptacle only (no photocell)
KAD 230M	R2 Type II roadway	120	SP09 4" square pole arm (incl. 20')	PF	PF Lamp included
KAD 230M	R3 Type III asymmetric	200'	SP08 4" square pole arm	BF	BF Single fuse, 120, 277, 347V (via TB)
KAD 230M	R4 Type IV forward throw, sharp cutoff	347	SP08 4" square pole arm	DF	DF Double fuse, 250, 240, 480V (via TB)
KAD 230M	R5 Type V square	347	SP08 4" square pole arm	PER	PER NEMA twist-lock receptacle only (no photocell)
KAC 150S	R2 Type II roadway	120	SP09 4" square pole arm (incl. 20')	PF	PF Lamp included
KAC 250S	R3 Type III asymmetric	200'	SP08 4" square pole arm	BF	BF Single fuse, 120, 277, 347V (via TB)
KAC 400S	R4 Type IV forward throw, sharp cutoff	347	SP08 4" square pole arm	DF	DF Double fuse, 250, 240, 480V (via TB)

NOTES:
 1. Must be ordered with SCWA.
 2. Consult factory for availability in Canada.
 3. Options available for 120, 208, 240, 277, 347, 480V.
 4. SPD09, SPD08 or SPD08 must be used when ballasts are ordered on SPD09, SPD08 or SPD08 wiring system.
 5. May be ordered as an accessory.
 6. Must use E20 reduced pole length.
 7. QRTD available in selected countries. Consult factory for details.
 8. Only available with SPD, SPD, SPD, SPD options.
 9. Pole height to be 15 feet.

CHICK-FIL-A HID

Standard Features:
 • Construction - Heavy gully design
 • Frame - Low gloss WHITE epoxy powder coat
 • Reflector - High gloss WHITE epoxy powder coat
 • Diffuser - CLEAR tempered glass
 • Lamp - Clear medium base 100 watt Metal Halide
 • Ballast - 100V, 0.2Hz, IFF
 • Mounting Hardware - Included with fixture
 • Q-Lens - Wet Location

Options:
 Not all options available on all wattages. Please call for more information.

Lightway Industries
 2842 Industry Drive • Valencia, CA 91355
 800-325-2466 • 661-257-0201
 Fax: 661-257-0201
 Web Site: www.lightwayind.com
 E-mail: info@lightwayind.com

NOTES

- All readings are based on a LLF of .72 at grade.
- Refer to "luminaire locations" for mounting heights.
- Readings are shown as footcandles.
- All fixtures and poles to be dark bronze.
- For pole base detail 11/C-4, sheet C-4. Pole height to be 15 feet.

These lighting calculations are not a substitute for independent engineering analysis of lighting system suitability and safety.

APPROVED PLANNING BOARD OF HOWARD COUNTY

DATE May 1, 2003

FOR REVISION 5 ONLY
 BOHLER ENGINEERING
 901 DUNLAP VALLEY RD STE. 301
 TOWSON, MD 21204
 PHONE: 410-921-7900
 FAX: 410-821-7987
 MDE.BOHLEEN6.COM

FOR REVISION 5 ONLY

 PROFESSIONAL CERTIFICATION
 I, MICHAEL L. GEISELL, HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 44097, EXP. DATE: 6/17/17

Series 97-138
 5200 Buffington Road
 Atlanta, Georgia 30349-2998
 Telephone 404-765-8000

Chick-fil-A

DOBBIN COMMERCIAL CENTER
 COLUMBIA, MD

5/31/04 NO REVISIONS THIS SHEET
 LIGHTING & PHOTOMETRIC PLAN
 ADD ADDITIONAL DRIVE - THRU LANE AND 757 A.C. BUILDING ADDITION

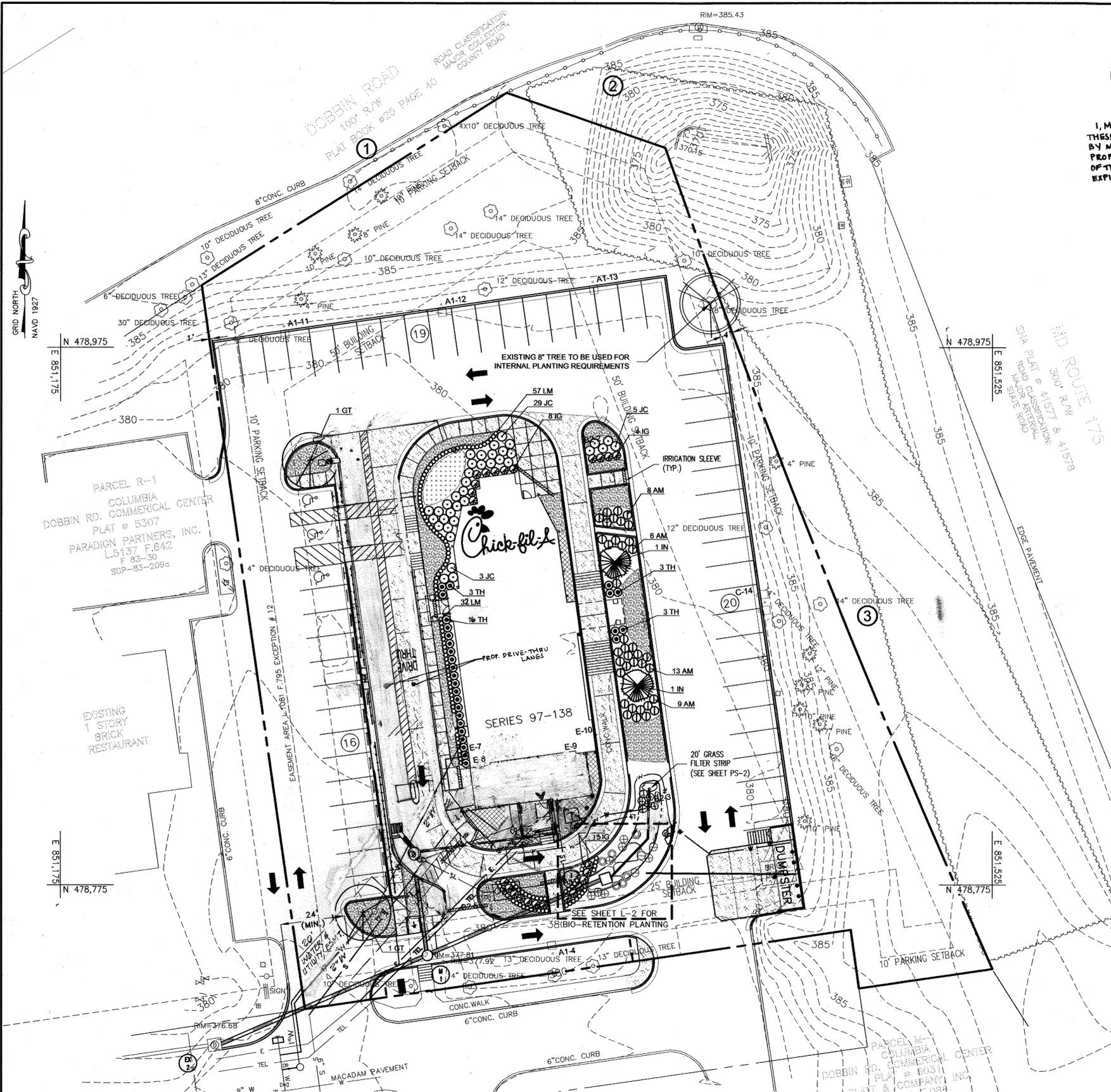
Edition Date: 01/21/03
 Project Date: 12/03/02
 # 12/03/02
 # 3/14/03
 # 3/17/03
 # 7/30/03
 # 9/25/03

ALL SITE LIGHTING REVISED
 ALL SITE LIGHTING PER ROUSE COMMENTS
 (See Site and Howard County Approval)

NO REVISIONS THIS SHEET

Sheet Title: LIGHTING & PHOTOMETRIC PLAN

SHEET NO. C-7
 9 of 15



FOR REVISION 5 ONLY

MR W 9/29/16

PROFESSIONAL CERTIFICATION
 I, MICHAEL J. WEGEL, HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A FULLY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 44097, EXPIRATION DATE: 01/31/17

FOR REVISION 5 ONLY
 BOHLER ENGINEERING
 901 DULANEY VALLEY RD STE 801
 TOWSON, MD 21284
 PHONE: 410-821-7900
 FAX: 410-821-7987
 MDC BOHLEREN6.COM

SITE PLANT SCHEDULE

Key	Quan	Name	Size	Remarks
AM	36	Azalea 'Mothers Day'	18"-24" SPD.	SPACE AS SHOWN
		Mothers Day Azalea		
GT	2	Gleditsia tri. var. inermis 'Shademaster'	2" CAL.	12'-14" HT., FULL
		Shademaster Honeylocust		
	205	Hypericum 'Hidcote'	12"-16" HT.	1 GAL., 24" O.C.
		Hidcote Hypericum		
IG	2.5	Ilex 'Glabra 'Compacta'	18"-24" SPD.	SPACE AS SHOWN
		Dwarf Inkberry		
IN	2	Ilex X 'Nellie R. Stevens'	7'-8" HT.	INTERNAL PARKING REQ'S SCHEDULE B
		Nellie R. Stevens Holly		
JC	37	Junipers Conferta 'Blue Pacific'	18"-24" SPD.	SPACE AS SHOWN
		Blue Pacific Juniper		
LM	136	Liriope Muscar 'Big Blue'	1 GAL.	12" O.C.
		Big Blue Liriope		
TH	25	Taxus X Media 'Hicksii'	3'-4" HT.	SPACE AS SHOWN
		Hick's Yew		
	1,500	Seasonal annuals		

BIO-RETENTION PLANT SCHEDULE (DETAIL ON L-2)

Key	Quan	Name	Size	Remarks
	58 SQ.FT.	Eupatorium perpurea	1 QT.	24" O.C.
		Joe Pye Weed		
	77 SQ.FT.	Iris versicolor	1 QT.	24" O.C.
		Blue Flag		
IV	14	Ilex verticillata	2'-3" HT.	
		Winterberry		
LB	2	Lindera bozain	2'-3" HT.	
		Sprucebush		
	45 SQ.FT.	Lobelia cardinalis	1 QT.	24" O.C.
		Cardinal Flower		
MC	6	Myrica pennsylvanica	2'-3" HT.	
		Northern Bayberry		
	66 SQ.FT.	Rudbeckia lanciniata	1 QT.	24" O.C.
		Tall Coneflower		

SCHEDULE A - PERIMETER LANDSCAPE EDGE

Category	Adjacent to Roadways	Adjacent to Perimeter Properties
Landscape Type	E	NONE
Linear Feet of Roadway Frontage/Perimeter	362'	0
Credit for Existing Vegetation (Yes, No, Linear Feet) (Describe Below if Needed)	YES	N/A
Credit for Wall, Fence, or Berm (Yes, No, Linear Feet) (Describe Below if Needed)	YES	N/A
Number of Plants Required		
Shade Trees	9	N/A
Evergreen Trees	0	
Shrubs	91	
Number of Plants Provided		
Shade Trees	0	
Evergreen Trees	0	
Other Trees (2:1 substitution)	0	N/A
Shrubs (10:1 substitution)	0	
(Describe plant substitution credits below if needed)		

Comments: Existing mature trees are sufficient for credit towards shade tree req's. Parking lot is 3' below adjacent MD 175 and Dobbin Road which counts towards req. shrub planting.

Note: Complex projects may require expansion of the schedule to accommodate multiple land uses on-site or on adjacent properties.

SCHEDULE B - PARKING LOT INTERNAL LANDSCAPING

Number of Parking Spaces	54
Number of Trees Required (1 per 20 Spaces)	3
Number of Trees Provided	3
Shade Trees	1
Evergreen Trees (2:1 substitution)	2
Existing	1
Number of Islands Required (1 per 20 Spaces)	3
Number of Islands Provided (200 SQ. FT. EACH)	8
Proposed	7
Existing	1

REQUIRED BUFFER PLANTING TABLE

Property Line	Buffer Type	LF.	Planting Required	Planting Provided
①	E	Shade Tree 1:40 Shrubs 1:4	135 3 Shade Trees 34 Shrubs	3 (Existing) 0 (3' Grade Change)
②	E	Shade Tree 1:40 Shrubs 1:4	63 2 Shade Trees 16 Shrubs	2 (Existing) 0 (3' Grade Change)
③	E	Shade Tree 1:40 Shrubs 1:4	164 4 Shade Trees 41 Shrubs	4 (Existing) 0 (3' Grade Change)

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 CERTIFICATION OF LANDSCAPE INSTALLATION, ACCOMPANIED BY AN EXECUTED ONE YEAR GUARANTEE OF PLANT MATERIALS, WILL BE SUBMITTED TO THE DEPARTMENT OF PLANNING AND ZONING.

TR O. M 7/24/03
 (NAMES) DATE

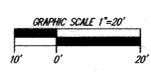
APPROVED PLANNING BOARD OF HOWARD COUNTY
 DATE May 1, 2003

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Michael Wegel 8/5/03
 CHIEF, DEVELOPMENT ENGINEERING DIVISION MK DATE

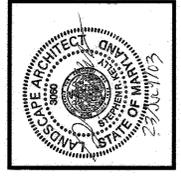
Cinda Hanant 8/12/03
 CHIEF, DIVISION OF LAND DEVELOPMENT HB DATE

Harsh K. Leugel 8/12/03
 DIRECTOR DATE

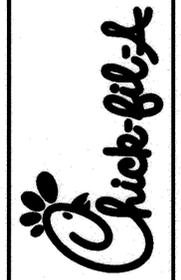


The **RBA** ENGINEERS • ARCHITECTS • PLANNERS
 Group, Inc. 7164 Columbia Gateway Drive Suite 205
 Columbia, Maryland 21046 (410) 312-0966

RBA PROJ. NO.: M3080.00
 DRAWN BY: JB/PS
 DESIGNED BY: JB
 CHECKED BY: SK



Series 97-138
 5200 Buffington Road
 Atlanta, Georgia 30349-2998
 Telephone 404-765-8000



DOBBIN COMMERCIAL CENTER
 COLUMBIA, MD

Revision 5
 1 3/14/03
 2 7/20/03
 3 9/22/03
 4 3/31/04

LANDSCAPE PLAN & 03/04/04 ADDITIONAL DRIVE TRIVEY LANE AND 15' SEE BUILDING FOOTPRINT

SHEET NO.
L-1
 10 of 15



Series 97-138
 5200 Buffington Road
 Atlanta, Georgia 30349-2998
 Telephone 404-766-8000



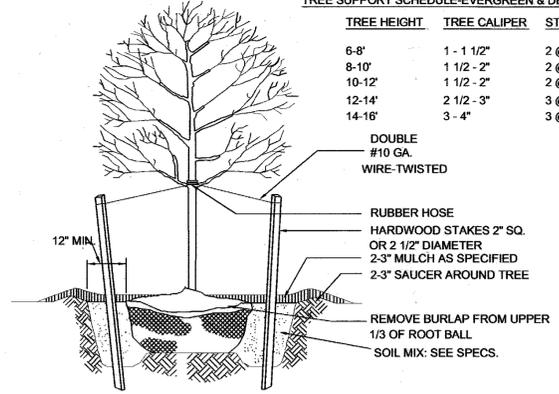
DOBBIN
 COMMERCIAL CENTER
 COLUMBIA, MD

5. ADD ADDITIONAL DRIVE-THRU LANE AND 73.75' LANDSCAPE DETAILS BUILDING ADDITION

Sheet Title: LANDSCAPE DETAILS BUILDING ADDITION
 SHEET NO. L-2
 11 of 15

TREE SUPPORT SCHEDULE-EVERGREEN & DECIDUOUS

TREE HEIGHT	TREE CALIPER	STAKE
6-8'	1 - 1 1/2"	2 @ 5'
8-10'	1 1/2 - 2"	2 @ 5'
10-12'	1 1/2 - 2"	2 @ 7-8'
12-14'	2 1/2 - 3"	3 @ 8'
14-16'	3 - 4"	3 @ 8'

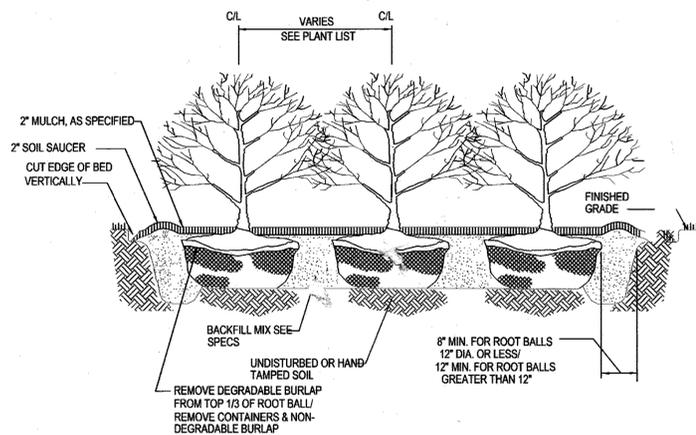


1. REMOVE DEAD OR BROKEN BRANCHES, RETAINING NATURAL SHAPE.
2. NEVER CUT CENTRAL LEADER.
3. SET TREE WITH 1/6 ROOT BALL ABOVE GRADE.
4. STAKES, WIRES & HOSES SHALL BE REMOVED AFTER ONE YEAR.
5. SCARIFY SUBSOIL TO A MIN. 4" DEPTH.
6. PLACE STAKES PARALLEL TO WALKS.

1 TREE PLANTING
 SCALE: N.T.S.

NOTES:

1. 1/6 OF ROOT BALL TO BE SET ABOVE GRADE
2. SCARIFY SIDES OF PIT TO 4"
3. FOR CONTAINER MATERIAL, SLASH ROOT BALL FROM TOP TO BOTTOM, 1" DEEP MIN.
4. REMOVE DEAD OR BROKEN BRANCHES, RETAIN NATURAL FORM.



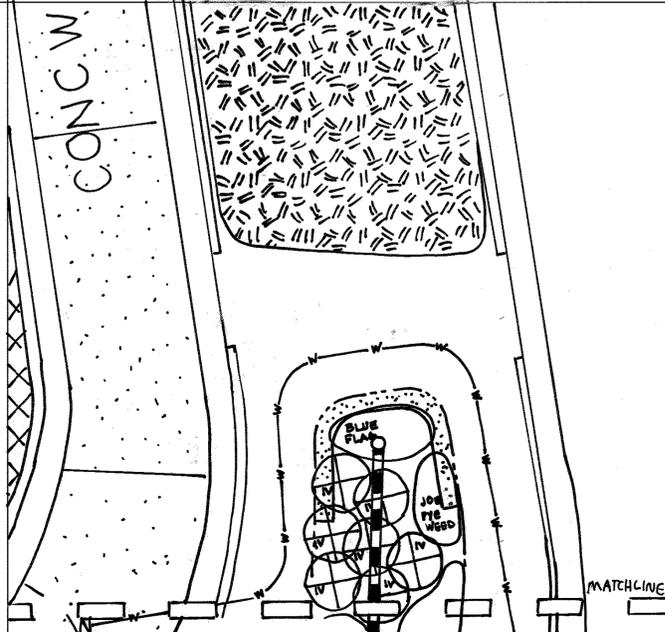
2 MASS SHRUB PLANTING
 SCALE: N.T.S.



BIO-RETENTION NOTES

- THIS ENLARGEMENT IS FOR PLANTING OF BIO-RETENTION AREA ONLY
- SEE SHEET PS-2 FOR BIO-RETENTION LAYOUT AND CONSTRUCTION SPECIFICATIONS
- SEE SHEET L-1 FOR PLANTING SELECTIONS AND SIZES
- GUIDELINES SET FORTH REGARDING LANDSCAPE ON THIS SHEET APPLY TO BIO-RETENTION LANDSCAPE ALSO
- AREAS SHOWN ON THIS PLAN FOR HERBACEOUS PLANTINGS ARE SCHEMATIC AND ARE PROVIDED AS A GUIDELINE FOR PLANTING
- THE NUMBER OF HERBACEOUS PLANTINGS TAKES PRECEDENT OVER ACTUAL PLACEMENT
- THE SPECIFIED HERBACEOUS PLANTING CAN OVERLAP AND SHOULD BLEND INTO EACH OTHER AS TO NOT HAVE APPARENT DIVISIONS BETWEEN THE GROUPS

4 BIO-RETENTION LANDSCAPE
 SCALE: 1"=10'

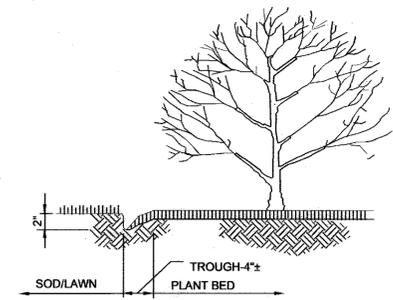


FOR REVISION 5 ONLY

MJW 7/24/03

PROFESSIONAL CERTIFICATION
 I, MICHAEL J. GIBELL, HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 441097, EXPIRATION DATE: 6/19/17

FOR REVISION 5 ONLY
 BOHLER ENGINEERING
 901 DULANEY VALLEY RD.
 SUITE 201
 TOWSON, MD 21204
 phone: 410-821-7900
 fax: 410-821-7987
 MDC BOHLERENG.COM



1. CUT PLANT BEDS IN SMOOTH CURVES
2. CUT EDGE OF SOD VERTICALLY TO CREATE CLEAN EDGE.

3 PLANT BED EDGING
 SCALE: N.T.S.

LANDSCAPE PLANTING NOTES AND SPECIFICATIONS

- ALL PLANTS TO BE NURSERY GROWN AND FURNISHED IN ACCORDANCE WITH ASN, "AMERICAN STANDARDS FOR NURSERY STOCK" ANSI 260.1 LATEST EDITION.
- ALL TREES TO BRANCH SYMMETRICALLY AROUND CENTRAL LEADER NO FORKED LEADER STOCK WILL BE ACCEPTED.
- CONTRACTOR IS VERIFY ALL QUANTITIES SHOWN IN PLANT SCHEDULES
- ANY SUBSTITUTIONS ARE TO BE OF EQUIVALENT TYPE AND SIZE AND MUST BE APPROVED IN WRITING BY THE LANDSCAPE ARCHITECT/ENGINEER PRIOR TO INSTALLATION.
- CONTAINER STOCK MAY BE SUBSTITUTED FOR BALLED AND BURLAPPED STOCK UPON APPROVAL BY THE LANDSCAPE ARCHITECT/ENGINEER.
- THE CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES FIVE (5) DAYS PRIOR TO INSTALLATION AND/OR CONSTRUCTION.
- ANY DAMAGE TO EXISTING UTILITIES, BUILDINGS, PAVING, CURB, WALKS, AND EXISTING VEGETATION SHALL BE REPAIRED TO PREVIOUS CONDITION OR REPLACED BY THE CONTRACTOR AT HIS EXPENSE.
- ALL AREAS TO BE PLANTED SHOULD BE FINISHED WITH 2 - 3" FINE TEXTURED, SHREDDED HARDWOOD MULCH UNLESS OTHERWISE NOTED ON ALL AREAS DISTURBED DURING INSTALLATION SHALL BE SEEDED UNLESS OTHERWISE NOTED.
- POTABLE WATER SHALL BE MADE AVAILABLE TO ALL PLANT MATERIALS AS REQUIRED FOR GROWTH.
- IF PLANT MATERIAL CANNOT BE INSTALLED IN ACCORDANCE WITH THIS PLAN, THE CONTRACTOR SHALL CONTACT THE LANDSCAPE ARCHITECT/ENGINEER FOR RESOLUTION PRIOR TO INSTALLATION.

APPROVED
 PLANNING BOARD
 OF HOWARD COUNTY

DATE: May 1, 2003

GENERAL NOTE:

1. THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL.
2. FINANCIAL SURETY FOR THE REQUIRED LANDSCAPING HAS BEEN POSTED AS PART OF THE DPW DEVELOPER'S AGREEMENT IN THE ESTIMATED AMOUNT OF \$600.00.
3. THE PLANT SIZE SHALL TAKE PRECEDENCE OVER THE CONTAINER SIZE, WHERE BOTH ARE GIVEN.

1 SHADE TREE @ \$300.00 =	\$300.00
2 EVERGREEN TREES @ \$150.00 =	\$300.00
0 SHRUBS @ \$30.00 =	\$0.00
TOTAL COST ESTIMATE	\$600.00

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 CERTIFICATION OF LANDSCAPE INSTALLATION, ACCOMPANIED BY AN EXECUTED ONE YEAR GUARANTEE OF PLANT MATERIALS, WILL BE SUBMITTED TO THE DEPARTMENT OF PLANNING AND ZONING.

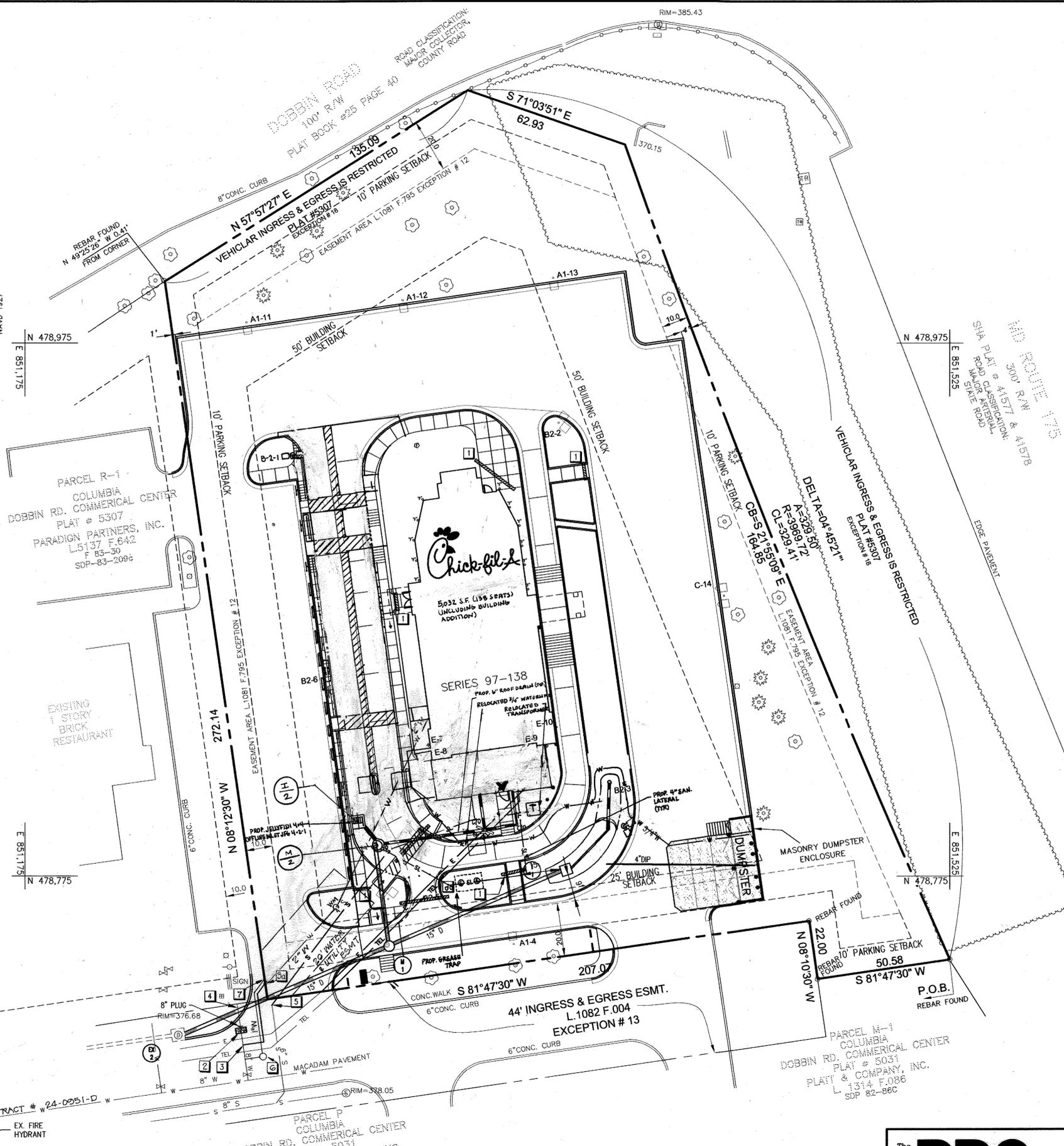
K.C.H.
 (NAMES)

7/24/03
 DATE

APPROVED: DEPARTMENT OF PLANNING AND ZONING
[Signature] 6/5/03
 CHIEF, DEVELOPMENT ENGINEERING DIVISION
[Signature] 8/1/03
 CHIEF, DIVISION OF LAND DEVELOPMENT
[Signature] 8/12/03
 DIRECTOR

The **RBA** ENGINEERS • ARCHITECTS • PLANNERS
 Group, Inc.
 7164 Columbia Gateway Drive Suite 205
 Columbia, Maryland 21046 (410) 312-0966

RBA PROJ. NO.: M3080.00
 DRAWN BY: JIB/PS
 DESIGNED BY: JB
 CHECKED BY: SK



GENERAL UTILITY NOTES

- REFER TO THE MEP PLANS FOR THE CONTINUATION OF ALL UTILITIES INTO THE BUILDING.
 - STANDARD CONCRETE THRUST BLOCKS SHALL BE INSTALLED AT EACH BEND OR TEE IN THE WATER, PER APPROPRIATE HOWARD COUNTY STANDARD DETAIL.
 - ELECTRIC WILL BE INSTALLED BY BGE WHICH INCLUDES THE PRIMARY CABLING AND SUPPLYING AND SETTING OF THE TRANSFORMER AND PAD. THE CONTRACTOR MUST INSTALL ALL THE CONDUITS WITH PULL WIRES FOR PRIMARY AND SECONDARY CABLING ALONG WITH SECONDARY CABLING. BGE WILL SUPPLY ALL CONDUITS REQUIRED. CONDUITS ARE REQUIRED UNDER ALL PAVED AREAS. BGE WILL SUPPLY AND SET THE METER. CONTRACTOR SHALL COORDINATE WORK WITH ONSITE CONSTRUCTION INCLUDING SCHEDULING OF THE INSTALLATION. CONTACT BGE WELL IN ADVANCE OF ANTICIPATED CONSTRUCTION. COORDINATE ELECTRIC CONDUIT LOCATIONS WITH BGE PRIOR TO CONSTRUCTION.
 - TELEPHONE SERVICE TO BE PROVIDED BY VERIZON. CONTRACTOR SHALL INSTALL ALL NECESSARY CONDUITS FOR SERVICE. (TWO 4" PVC, SCH. 40) CONTACT VERIZON WELL IN ADVANCE OF ANTICIPATED CONSTRUCTION. COORDINATE ALL CONDUIT LOCATIONS WITH VERIZON PRIOR TO CONSTRUCTION.
 - ALL STORM DRAIN PIPES SHALL BE RCP.
 - ALL SANITARY SEWER PIPES SHALL BE PVC SDR-35 UNLESS NOTED OTHERWISE ON THE PLAN.
 - ALL 3/4" WATER PIPING SHALL BE COPPER WATER TUBING. ALL 2" WATER PIPING SHALL BE COPPER TYPE 'K'.
 - ALL ROOF LEADER DRAIN PIPES AND TRUNK LINES (UNDERGROUND) SHALL BE PVC-SCH.40.
 - SANITARY LATERALS TO HAVE A MINIMUM FALL OF 2.00% UNLESS NOTED OTHERWISE ON PLAN.
 - CONTRACTOR TO FIELD VERIFY LOCATION OF ALL EXISTING UTILITIES AND THEIR ELEVATIONS PRIOR TO STARTING CONSTRUCTION. CONTACT THE ENGINEER IMMEDIATELY SHOULD A PROBLEM ARISE. ALLOW A MINIMUM OF 3 DAYS FOR ANY NECESSARY REDESIGN REQUIRED.
 - PROVIDE 1 FOOT MINIMUM CLEARANCE BETWEEN OUTSIDE OF PIPES AT ANY SANITARY CROSSING AND 6 INCH MINIMUM CLEARANCE BETWEEN ALL UTILITY CROSSINGS.
 - CONTRACTOR SHALL VERIFY ALL UTILITY LINE ROUTINGS WITH THE APPROPRIATE UTILITY COMPANY PRIOR TO CONSTRUCTION. CONTACT THE ENGINEER IMMEDIATELY SHOULD A PROBLEM ARISE.
 - STORMWATER MANAGEMENT HAS BEEN PROVIDED FOR THIS DEVELOPMENT UNDER DOBBIN ROAD COMMERCIAL CENTER (F-81-366).
 - CONTRACTOR TO DESIGN AND INSTALL IRRIGATION SYSTEM. SEE ARCHITECTURAL PLANS FOR 1" STUB FOR CONNECTION.
 - ALL WATER TO HAVE A MINIMUM OF 31/2 FEET OF COVER.
 - WATER METER TO BE LOCATED INSIDE THE PROPOSED BUILDING.
- ELECTRIC AND TELEPHONE SERVICE TO BE ACCESSED FROM DRIVE AISLE SOUTHWEST OF SITE. EXACT LOCATION TO BE DETERMINE BY APPROPRIATE UTILITY COMPANY.

VERIZON
BRYAN SHANK
2510 RIVA RD. 6TH FLOOR
ANNAPOLIS, MD 21401
PH: (410) 224-1670

BALTIMORE GAS AND ELECTRIC
GAS AND ELECTRIC NEW BUSINESS DEPARTMENT
7317 PARKWAY DRIVE, SOUTH
HANOVER, MARYLAND 21076
PH: (410) 850-4620

- 4" PVC SCHEDULE 40, SLEEVE FOR IRRIGATION.
- BUTTRESS
- WATER SERVICE CONNECTION
- WITH SERVICE BOX SET ON PROPERTY LINE
- EX. 8" STUB CONFLICTS WITH PROPOSED STORM DRAIN. REMOVE PIPE SECTIONS (PER SHEET C1-A) AND INSTALL 8" PLUG & BUTTRESS
- LOCATE EX. SANITARY HOUSE CONNECTION. CUT & INSTALL 45° BEND TO MAKE NEW CONNECTION
- 1" WATER METER AND PIT, WITH 1" MAIN, FOR IRRIGATION, UP TO PROPERTY LINE.
- 1" PLUG FOR CONNECTION OF ON-SITE IRRIGATION BY CHICK-FIL-A CONTRACTOR.

APPROVED
PLANNING BOARD
OF HOWARD COUNTY

DATE May 1, 2003

FOR REVISIONS ONLY



5/9/2016

PROFESSIONAL CERTIFICATION
I, MICHAEL J. BESSELL, HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 44097, EXP. DATE: 6/19/17

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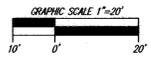
APPROVED: DEPARTMENT OF PLANNING AND ZONING

Chad Dammann 01/5/03
CHIEF, DEVELOPMENT ENGINEERING DIVISION MK DATE

Cindy Hamilton 8/10/03
CHIEF, DIVISION OF LAND DEVELOPMENT HP DATE

Marsha R. Leight 8/12/03
DIRECTOR DATE

PARCEL P
COLUMBIA
COMMERCIAL CENTER
DOBBIN RD. COMMERCIAL, INC.
L.1106 F.414
F.82-35



The **RBA** ENGINEERS • ARCHITECTS • PLANNERS
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Columbia, Maryland 21046 (410) 312-0966

RBA PROJ. NO.: M3080.00
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DESIGNED BY: EM
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Atlanta, Georgia 30349-2998
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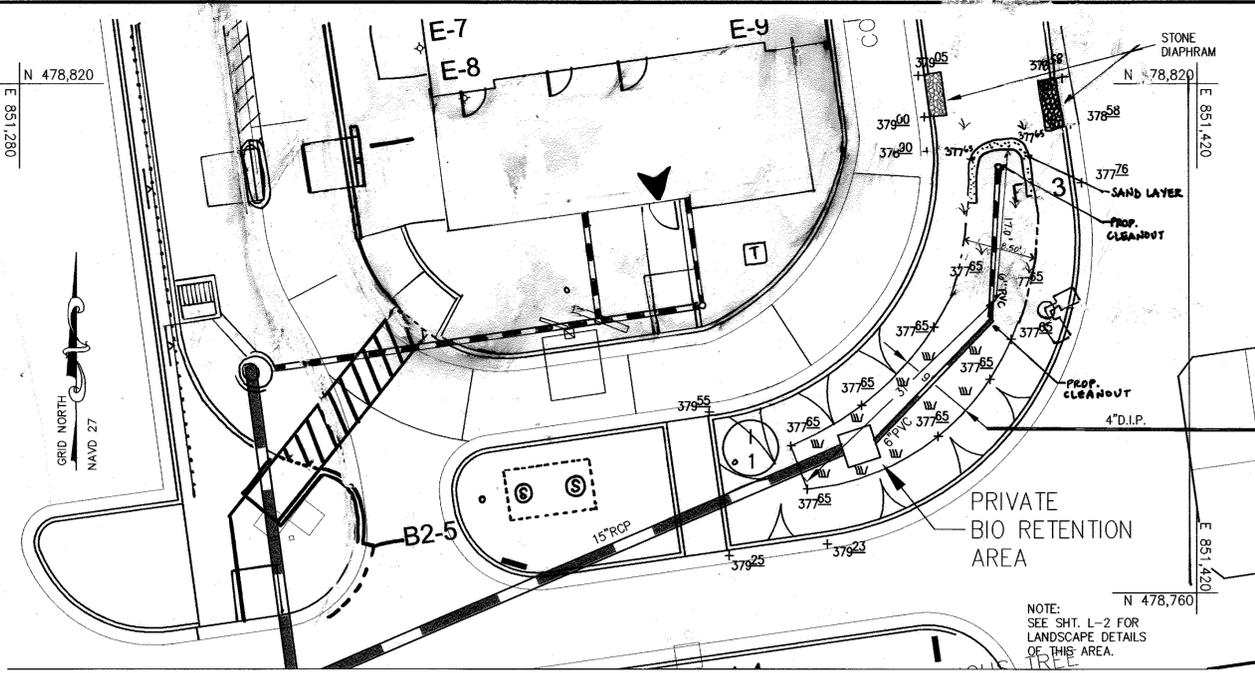
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COLUMBIA, MD

Edition Date:	01/21/03
Project Date:	12/03/02
#	Date
1	3/14/03
2	7/20/03
3	9/25/03
4	3/31/04

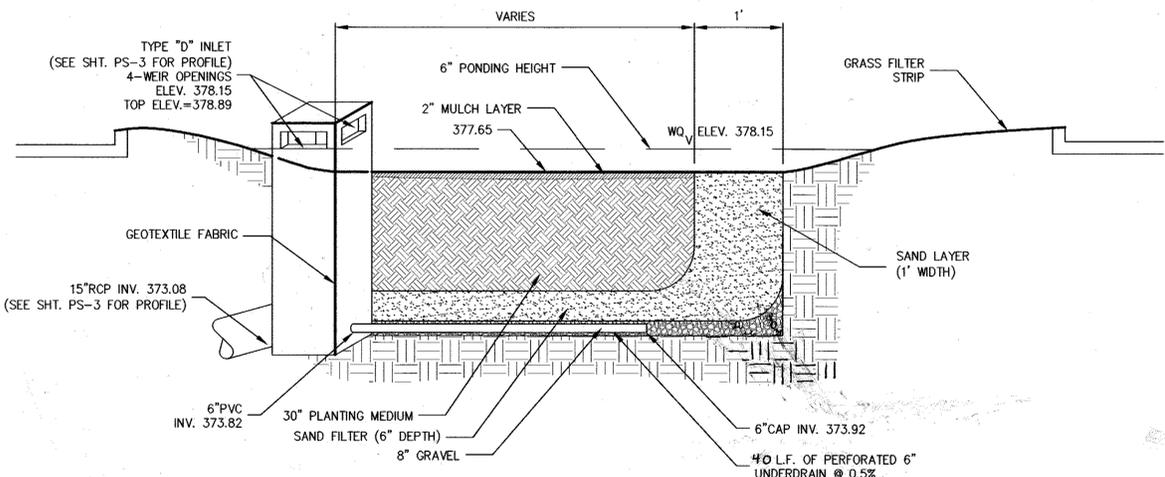
Sheet Title: PLUMBING SITE PLANS 03/04/04 ADD ADDITIONAL DETAILS - WATER METER AND 2" WATER LOCATION

SHEET NO.
PS-1
12 of 15

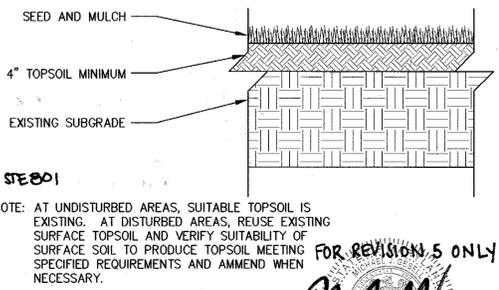
SDP-03-96



BIORETENTION PLAN VIEW
SCALE: 1"=10'



BIORETENTION FACILITY SECTION
SCALE: N.T.S.



GRASS FILTER STRIP SECTION
SCALE: N.T.S.

TABLE B.3.2

Materials	Specification	Size	Notes
Plantings	see Landscape Plan	n/a	plantings as shown on landscape plan
planting soil (2.5' to 4' deep)	Planting soil small 35 - 60% silt 30- 35% clay 10-25%	n/a	
mulch	shredded hardwood		aged 6 months, minimum
geotextile	Class "C" - apparent opening size (ASTM-D-4751), grab tensile strength (ASTM-D- 4632), puncture resistance (ASTM-D-4833)	n/a	for use as necessary beneath underdrains only
underdrain gravel	AASHTO M-43	0.25" to 0.75"	
sand (1' deep)	AASHTO M-6 or ASTM-C-33	0.02" to 0.04"	Sand substitutions such as Diabase and Graystone #10 are not acceptable. No calcium carbonated or dolomitic sand substitutions are acceptable. No "rock dust" can be used for sand
Stone Diaphragm (1' wide, 2' Deep)	Pea Gravel & ASTM-D-448 Ornamental Stone: Washed Cobbles	Pea Gravel: No.6 Stone: 2" to 5"	Use Clean Bank-Run Gravel
Underdrain Piping	F 758, Type PS 28 or AASHTO M-278	4" to 6" Rigid Schedule 40 PVC or SD1235	3/8" Perf. @ 6" on Center, 4 holes per Row; Minimum of 3" of Gravel Over Pipes; Not Necessary Underneath Pipes.

BIORETENTION CONSTRUCTION SPECIFICATIONS

1 MATERIALS

A. THE ALLOWABLE MATERIALS TO BE USED IN THE BIORETENTION AREA ARE DETAILED IN TABLE B.3.2.

2. PLANTING SOIL

A. THE SOIL SHALL BE A UNIFORM MIX, FREE OF STONES, STUMPS, ROOTS OR OTHER SIMILAR OBJECTS LARGER THAN TWO INCHES. NO OTHER MATERIALS OR SUBSTANCES SHALL BE MIXED OR DUMPED WITHIN THE BIORETENTION AREA THAT MAY BE HARMFUL TO PLANT GROWTH, OR PROVE A HINDRANCE TO THE PLANTING OR MAINTENANCE OPERATIONS. THE PLANTING SOIL SHALL BE FREE OF BERMUDA GRASS, QUACKGRASS, JOHNSON GRASS, OR OTHER NOXIOUS WEEDS AS SPECIFIED UNDER COMAR 15.08.01.05.

B. THE PLANTING SOIL SHALL BE TESTED AND SHALL MEET THE FOLLOWING CRITERIA:

PH RANGE	5.2 - 7.0
ORGANIC MATTER	1.5 - 4% (BY WEIGHT)
MAGNESIUM	35 LB./AC
PHOSPHORUS (PHOSPHATE - P ₂ O ₅)	75 LB./AC
POTASSIUM (POTASH - K ₂ O)	85 LB./AC
SOLUBLE SALTS	NOT TO EXCEED 500 PPM

C. 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 TESTS OF ORGANIC MATTER, AND SOLUBLE SALTS. A TEXTURAL ANALYSIS IS REQUIRED FROM THE SITE STOCKPILED TOPSOIL. IF TOPSOIL IS IMPORTED, THEN A TEXTURE ANALYSIS SHALL BE PERFORMED FOR EACH LOCATION WHERE THE TOP SOIL WAS EXCAVATED.

D. SINCE DIFFERENT LABS CALIBRATE THEIR TESTING EQUIPMENT DIFFERENTLY, ALL TESTING RESULTS SHALL COME FROM THE SAME TESTING FACILITY.

E. SHOULD THE PH FALL OUT OF THE ACCEPTABLE RANGE, IT MAY BE MODIFIED (HIGHER) WITH LIME OR (LOWER) WITH IRON SULFATE PLUS SULFUR AS RECOMMENDED BY THE GEOTECHNICAL ENGINEER.

3. COMPACTION

A. IT IS VERY IMPORTANT TO MINIMIZE COMPACTION OF BOTH THE BASE OF THE BIORETENTION AREA AND THE REQUIRED BACKFILL. WHEN POSSIBLE, USE EXCAVATION HOES TO REMOVE ORIGINAL SOIL. IF BIORETENTION AREAS ARE EXCAVATED USING A LOADER, THE CONTRACTOR SHOULD USE WIDE TRACK OR MARSH TRACK EQUIPMENT, OR LIGHT EQUIPMENT WITH TURF TYPE TIRES. USE OF EQUIPMENT WITH NARROW TRACKS OR NARROW TIRES, RUBBER TIRES WITH LARGE LUGS, OR HIGH PRESSURE TIRES WILL CAUSE EXCESSIVE COMPACTION RESULTING IN REDUCED INFILTRATION RATES AND IS NOT ACCEPTABLE. COMPACTION WILL SIGNIFICANTLY CONTRIBUTE TO DESIGN FAILURE.

B. COMPACTION CAN BE ALLEVATED AT THE BASE OF THE BIORETENTION FACILITY BY USING A PRIMARY TILLING OPERATION SUCH AS A CHISEL PLOW, RIPPER, OR SUBSOILER. THESE TILLING OPERATIONS ARE TO REFRACURE THE SOIL PROFILE THROUGH THE 12 INCH COMPACTION ZONE. SUBSTITUTE METHODS MUST BE APPROVED BY THE ENGINEER. ROTOTILLERS TYPICALLY DO NOT TILL DEEP ENOUGH TO REDUCE THE EFFECTS OF COMPACTION FROM HEAVY EQUIPMENT.

C. ROTOTILL 2 TO 3 INCHES OF SAND INTO THE BASE OF THE BIORETENTION FACILITY BEFORE BACKFILLING THE SAND LAYER. PUMP ANY PONDED WATER BEFORE PREPARING (ROTOTILLING) BASE. WHEN BACKFILLING THE TOPSOIL OVER THE SAND LAYER, FIRST PLACE 3 TO 4 INCHES OF TOPSOIL OVER THE SAND, THEN ROTOTILL THE SAND/TOPSOIL TO CREATE A GRADATION ZONE. BACKFILL THE REMAINDER OF THE TOPSOIL TO FINAL GRADE.

D. WHEN BACKFILLING THE BIORETENTION FACILITY, PLACE SOIL IN LIFTS 12" TO 18". DO NOT USE HEAVY EQUIPMENT WITHIN THE BIORETENTION BASIN. HEAVY EQUIPMENT CAN BE USED AROUND THE PERIMETER OF THE BASIN TO SUPPLY SOILS AND SAND. GRADE BIORETENTION MATERIALS WITH LIGHT EQUIPMENT SUCH AS A COMPACT LOADER OR A DOZER/LOADER WITH MARSH TRACKS.

4. PLANT MATERIAL AND INSTALLATION

5. PLANT INSTALLATION

A. SEE LANDSCAPE PLAN AND SPECIFICATION FOR PLANT MATERIAL.

B. MULCH SHOULD BE PLACED TO A UNIFORM THICKNESS OF 2" TO 3". SHREDDED HARDWOOD MULCH IS THE ONLY ACCEPTED MULCH. PINE MULCH AND WOOD CHIPS WILL FLOAT AND MOVE TO THE PERIMETER OF THE BIORETENTION AREA DURING A STORM EVENT AND ARE NOT ACCEPTABLE. SHREDDED MULCH MUST BE WELL AGED (6 TO 12 MONTHS) FOR ACCEPTANCE.

C. ROOT STOCK OF THE PLANT MATERIAL SHALL BE KEPT MOIST DURING THE TRANSPORT AND ON-SITE STORAGE. THE PLANT ROOT BALL SHOULD BE PLANTED SO 1/8TH OF THE BALL IS ABOVE FINAL GRADE SURFACE. THE DIAMETER OF THE PLANTING PIT SHALL BE AT LEAST SIX INCHES LARGER THAN THE DIAMETER OF THE PLANTING BALL. SET AND MAINTAIN THE PLANT STRAIGHT DURING THE ENTIRE PLANTING PROCESS. THOROUGHLY WATER GROUND BED COVER AFTER INSTALLATION.

D. TREES SHALL BE BRACED USING 2" BY 2" STAKES ONLY AS NECESSARY AND FOR THE FIRST GROWING SEASON ONLY. STAKES ARE TO BE EQUALLY SPACED ON THE OUTSIDE OF THE TREE BALL.

E. GRASSES AND LEGUME SEED SHOULD BE DRILLED INTO THE SOIL TO A DEPTH OF AT LEAST ONE INCH. GRASS AND LEGUME PLUGS SHALL BE PLANTED FOLLOWING THE NON-GRASS GROUND COVER PLANTING SPECIFICATIONS.

F. THE TOPSOIL SPECIFICATIONS PROVIDE ENOUGH ORGANIC MATERIAL TO ADEQUATELY SUPPLY NUTRIENTS FROM NATURAL CYCLING. THE PRIMARY FUNCTION OF THE BIORETENTION STRUCTURE IS TO IMPROVE WATER QUALITY. ADDING FERTILIZERS DEFATS, OR AT A MINIMUM, IMPEDES THIS GOAL. ONLY ADD FERTILIZER IF WOOD CHIPS OR MULCH ARE USED TO AMEND THE SOIL. ROTOTILL UREA FERTILIZER AT A RATE OF 2 POUNDS PER 1000 SQUARE FEET.

6. UNDERDRAINS

UNDERDRAINS ARE TO BE PLACED ON A 3'-0" WIDE SECTION OF FILTER CLOTH. PIPE IS PLACED NEXT, FOLLOWED BY THE GRAVEL BEDDING. THE ENDS OF UNDERDRAIN PIPES NOT TERMINATING IN AN OBSERVATION WELL SHALL BE CAPPED.

THE MAIN COLLECTOR PIPE FOR UNDERDRAIN SYSTEMS SHALL BE CONSTRUCTED AT A MINIMUM SLOPE OF 0.5%. OBSERVATION WELLS AND/OR CLEAN-OUT PIPES MUST BE PROVIDED (ONE MINIMUM PER EVERY 1000 SQUARE FEET OF SURFACE AREA).

7. MISCELLANEOUS

THE BIORETENTION FACILITY MAY NOT BE CONSTRUCTED UNTIL ALL CONTRIBUTING DRAINAGE AREA HAS BEEN STABILIZED.

GRASS FILTER STRIP CONSTRUCTION SPECIFICATIONS

A. SITE PREPARATION

1. IF GRADING IS REQUIRED AND TOPSOIL IS SUITABLE FOR USE REMOVE AND STOCKPILE THE TOPSOIL.

NOTE: TOPSOIL SALVAGED FROM THE EXISTING SITE MAY OBTAIN BE USED BUT IT SHOULD MEET THE SAME STANDARDS AS SET FORTH IN THESE SPECIFICATIONS. THE DEPTH OF TOPSOIL TO BE SALVAGED SHALL BE 6 INCHES UNLESS THE DEPTH IS DESCRIBED AS A REPRESENTATIVE PROFILE FOR THAT PARTICULAR SOIL TYPE AS DESCRIBED IN THE SOIL SURVEY IS LESS THAN 6 INCHES, IN WHICH CASE THE LESSER DEPTH SHALL BE REMOVED.

2. GRADE AS NEEDED AND FEASIBLE TO PERMIT THE USE OF CONVENTIONAL EQUIPMENT FOR SEEDBED PREPARATION, SEEDING, MULCH APPLICATION, ANCHORING AND MAINTENANCE.

3. **LIMING:** WHERE THE SUBSOIL IS EITHER HIGHLY ACID OR COMPOSED OF HEAVY CLAYS, GROUND DOLOMITE LIMESTONE SHALL BE SPREAD AT THE RATE OF 2 TONS PER ACRE (100 POUNDS PER 1,000 SQUARE FEET). LIME SHALL BE DISTRIBUTED UNIFORMLY OVER DESIGNATED AREAS AND WORKED INTO THE SOIL IN CONJUNCTION WITH TILLAGE OPERATIONS AS DESCRIBED IN THE FOLLOWING PROCEDURES.

4. **TILLING:** AFTER THE AREA TO BE TOPSOILED HAS BEEN BROUGHT TO GRADE, AND IMMEDIATELY PRIOR TO DUMPING AND SPREADING THE TOP-SOIL, THE SUBGRADE SHALL BE LOOSENED BY DISCING OR BY SCARIFYING TO A DEPTH OF AT LEAST 3 INCHES TO PERMIT BONDING OF THE TOPSOIL TO THE SUBSOIL. PACK BY PASSING A BULLDOZER VERTICALLY TRACKING OVER THE ENTIRE SURFACE AREA OF THE SLOPE TO CREATE HORIZONTAL EROSION CHECK SLOTS TO PREVENT TOPSOIL FROM SLIDING DOWN THE SLOPE AND RILLING.

B. SOIL PREPARATION AND AMENDMENTS

1. **MATERIALS:** TOPSOIL SHALL BE A LOAMY SAND, SANDY LOAM, LOAM, OR SILT LOAM ONLY AND IN THAT RESPECTIVE ORDER OF PREFERENCE. IT SHALL NOT HAVE A MIXTURE OF CONTRASTING TEXTURED SUBSOIL AND CONTAIN NO MORE THAN 5 PERCENT BY VOLUME OF CINDERS, STONES, SLAG, COARSE FRAGMENT, GRAVEL, STICKS, ROOTS, TRASH OR OTHER EXTRANEUS MATERIALS LARGER THAN 1-1/2 INCHES IN DIAMETER. TOPSOIL MUST BE FREE OF PLANTS OR PLANT PARTS OF BERMUDAGRASS, QUACKGRASS, JOHNSONGRASS, NUTSEDGE, POISON IVY, CANADA THISTLE, OR OTHERS AS SPECIFIED.

ALL TOPSOIL SHALL BE TESTED BY A RECOGNIZED LABORATORY FOR ORGANIC MATTER CONTENT, PH AND SOLUBLE SALTS. A PH OF 6.0 TO 7.5 AND AN ORGANIC CONTENT OF NOT LESS THAN 1.5 PERCENT BY WEIGHT IS REQUIRED. IF PH VALUE IS LESS THAN 6.0, LIME SHALL BE APPLIED AND INCORPORATED WITH THE TOPSOIL TO ADJUST THE PH TO 6.5 OR HIGHER. TOPSOIL CONTAINING SOLUBLE SALTS GREATER THAN 500 PARTS PER MILLION SHALL NOT BE USED.

NO SOOD 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 TO PERMIT DISSIPATION OF TOXIC MATERIALS.

NOTE: TOPSOIL SUBSTITUTES OR AMENDMENTS AS APPROVED BY A QUALIFIED AGRONOMIST OR SOIL SCIENTIST MAY BE USED IN LIEU OF NATURAL TOPSOIL.

2. **GRADING:** THE TOPSOIL SHALL BE UNIFORMLY DISTRIBUTED AND TRACKED AND SHALL BE A MINIMUM COMPACTED DEPTH OF 4 INCHES. SPREADING SHALL BE PERFORMED IN SUCH A MANNER THAT SODDING OR SEEDING CAN PROCEED WITH A MINIMUM OF ADDITIONAL SOIL PREPARATION AND TILLAGE. ANY IRREGULARITIES IN THE SURFACE RESULTING FROM TOPSOILING OR OTHER OPERATIONS SHALL BE CORRECTED IN ORDER TO PREVENT THE FORMATION OF DEPRESSIONS AND WATER POCKETS. TOPSOIL SHALL NOT BE PLACED WHILE IN A FROZEN OR MUDDY CONDITION THAT MAY OTHERWISE BE DETRIMENTAL TO PROPER GRADING AND SEEDBED PREPARATION.

3. **LIME AND FERTILIZER ACCORDING TO SOIL TESTS:** LIME AND FERTILIZER NEEDS CAN BE DETERMINED BY A SOIL TESTING LABORATORY.

4. **IN LIEU OF SOIL TESTS** APPLY 1,000 POUNDS 10-10-10 OR EQUIVALENT PER ACRE IF UREA FERTILIZER IS NOT USED, AND 600 POUNDS OF 10-10-10 OR EQUIVALENT PER ACRE IF UREA FERTILIZER IS USED. APPLY THE LIME AND FERTILIZER BEFORE SEEDING AND HARROW OR DISC UNIFORMLY INTO THE SOIL TO A MINIMUM DEPTH OF 3 INCHES ON SLOPES FLATTER THAN 3:1. ON SLOPES STEEPER THAN 3:1 GRADE, THE LIME AND FERTILIZER SHALL BE WORKED IN AS BEST AS POSSIBLE. ON SLOPING LAND, THE FINAL HARROWING OR DISCING OPERATION SHOULD BE ON THE CONTOUR WHEREVER FEASIBLE. NO ATTEMPT SHOULD BE MADE TO DRAG AND DISC AREA TO MAKE THE SOIL SURFACE VERY SMOOTH AFTER DISCING. WHEN THE 600 POUNDS PER ACRE RATE OF 10-10-10 FERTILIZER RATE IS USED, AT THE TIME OF SEEDING, APPLY 400 POUNDS OF A UREAFORM FERTILIZER OF A GRADE OF AT LEAST 30-0-0 PER ACRE.

NOTE: THE SLOW RELEASE OF UNIFORM FERTILIZER WILL SUPPLY NITROGEN OVER A LONGER PERIOD OF TIME AND WILL RESULT IN A HEALTHIER GRASS STAND.

C. SEEDING

1. USE A SEED MIX FROM PERMANENT SEEDING NOTES ON SHEET C3.

2. APPLY SEED UNIFORMLY WITH A CYCLONE SEEDER, DRILL, CULTIPACKER SEEDER OR HYDROSEEDER (SLURRY INCLUDES SEED AND FERTILIZER) ON A FIRM, MOIST SEEDBED. MAXIMUM SEEDING DEPTH SHOULD BE 1/4 INCH ON CLAYEY SOILS AND 1/2 INCH ON SANDY SOILS, WHEN USING OTHER THAN HYDROSEEDER METHOD OF APPLICATION.

NOTE: IF HYDROSEEDING IS USED AND THE SEED AND FERTILIZER IS MIXED, THEY WILL BE MIXED ON SITE AND THE SEEDING SHALL BE IMMEDIATE WITHOUT INTERRUPTION.

D. MULCHING

MULCH MATERIALS ARE LISTED IN ORDER OF THEIR EFFECTIVENESS. MULCH MATTINGS ARE NORMALLY ONLY USED ON CRITICAL AREAS SUCH AS WATERWAYS OR STEEP SLOPES.

1. MATERIALS AND AMOUNTS

A. **MULCH MATTINGS:** JUTE BLANKET SHALL BE STAPLED TO THE SURFACE IN WATERWAYS AND ON STEEP SLOPES. LIGHTER MATERIALS OF PAPER, PLASTIC AND COTTON MULCH MATTINGS MAY BE USED WHERE EROSION HAZARD IS NOT SEVERE. IF THE AREA IS TO BE MOWED, DO NOT USE METAL STAPLES.

B. **STRAW:** STRAW SHALL BE UNROTTED SMALL GRAIN APPLIED AT THE RATE OF 1-1/2 TO 2 TONS PER ACRE, OR 70 TO 90 (TWO BALES) POUNDS PER 1,000 SQUARE FOOT. MULCH MATERIALS SHALL BE RELATIVELY FREE OF ALL KINDS OF WEEDS AND SHALL BE FREE OF PROHIBITED NOXIOUS WEEDS SUCH AS: THISTLES, JOHNSONGRASS AND QUACKGRASS. SPREAD UNIFORMLY BY HAND OR MECHANICALLY. FOR UNIFORM DISTRIBUTION OF HAND SPREAD MULCH, DIVIDE AREA INTO APPROXIMATELY 1,000 SQUARE FEET SECTION AND PLACE 70-90 POUNDS OF MULCH IN EACH SECTION.

C. **WOOD CHIPS:** AT THE RATE OF APPROXIMATELY 6 TONS PER ACRE OR 275 POUNDS PER 1,000 SQUARE FEET MAY BE USED WHEN AVAILABLE AND WHEN FEASIBLE. THESE ARE PARTICULARLY WELL-SUITED FOR UTILITY AND ROADS RIGHTS-OF-WAY. IF WOOD CHIPS ARE USED, INCREASE THE APPLICATION RATE OF NITROGEN FERTILIZER BY 20 POUNDS (200 POUNDS 10-10-10 OR 66 POUNDS 30-0-0).

D. **WOOD CELLULOSE FIBER:** MULCH AT THE RATE OF 1,500 POUNDS PER ACRE OR 35 POUNDS PER 1,000 SQUARE FOOT MAY BE APPLIED BY HYDROSEEDING.

OPERATION AND MAINTENANCE SCHEDULE FOR BIORETENTION AREAS

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 PLANT INSPECTION WILL BE TWICE A YEAR IN SPRING AND FALL. THIS INSPECTION WILL INCLUDE REMOVAL OF DEAD AND DISEASED VEGETATION CONSIDERED BEYOND 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 PER MONTH AND AFTER HEAVY STORM EVENTS.

APPROVED
PLANNING BOARD
OF HOWARD COUNTY
DATE: May 1, 2003

FOR REVISION 5 ONLY
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NOTE: AT UNDISTURBED AREAS, SUITABLE TOPSOIL IS EXISTING. AT DISTURBED AREAS, REUSE EXISTING SURFACE TOPSOIL AND VERIFY SUITABILITY OF SURFACE SOIL TO PRODUCE TOPSOIL MEETING SPECIFIED REQUIREMENTS AND AMMEND WHEN NECESSARY.

PROFESSIONAL CERTIFICATION
I, MICHAEL J. GIBELL, HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A FULLY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO 441097, EXP. DATE 01/11/17

Michael J. Gibell
9/29/16

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Chris Damman 8/5/03
CHIEF, DEVELOPMENT ENGINEERING DIVISION

Andy Hamilton 8/10/03
CHIEF, DIVISION OF LAND DEVELOPMENT

Janet A. Leysen 8/12/03
DIRECTOR

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5-23/04/16 APP ADDITIONAL DRIVE - THEEY LAW AND
NO REVISIONS THIS SHEET 757 J.K.
BIORETENTION DETAILS & SPECIFICATIONS BUILDING 200

Edition Date: 01/21/03
Project Date: 12/03/02
Revision
Date
1 9/14/03
2 7/30/03
3 9/25/03
4 3/31/04
RELOCATE ROOF DRAIN

Sheet Title: BIORETENTION DETAILS & SPECIFICATIONS BUILDING 200

SHEET NO.
PS-2
13 of 15

PIPE SCHEDULE		
SIZE	TYPE	LINEAR FOOTAGE
STORM		
4"	D.I.P.	56
5"	ADS PIPE	38
6"	PVC-SCHEDULE 40	74
6"	PERFORATED PVC	22
15"	RCP	248
SANITARY SEWER		
4"	PVC-SDR-35	154
WATER		
2"	COPPER TYPE 'K'	155
3/4"	COPPER TYPE 'K'	162
4"	PVC SCHEDULE 40 IRRIGATION SLEEVES	156

NOTE: CONTRACTOR SHALL VERIFY ALL QUANTITIES PRIOR TO BID. ALL STRUCTURES ARE HOWARD COUNTY OR MARYLAND DEPT. OF TRANSPORTATION STANDARDS UNLESS NOTED OTHERWISE. REFER TO SHEET C-7 FOR DETAILS. ELEVATIONS ARE GIVEN TO TOP OF CURB FOR CURB INLETS, TOP OF GRATE FOR GRATE INLETS AND TOP OF RIM FOR MANHOLES.

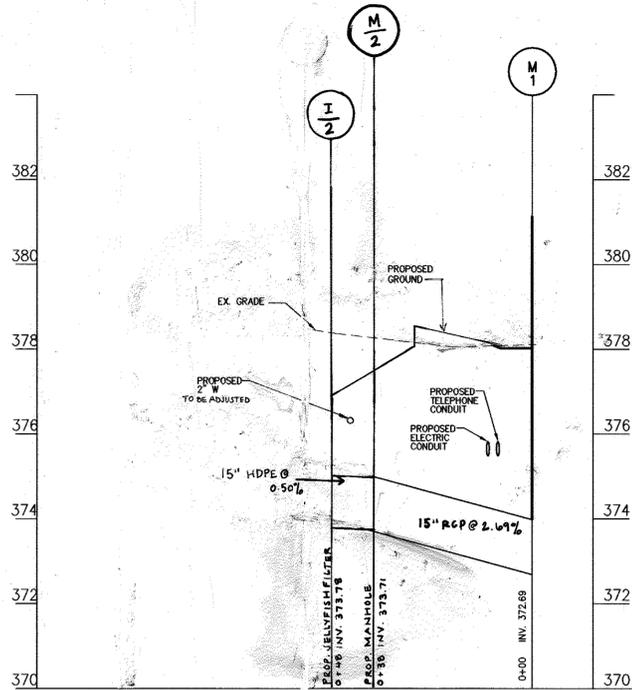
ROOF DRAIN STUBS	
DESCRIPTION	INVERT
RD1	378.50
RD2	377.30

SANITARY SEWER SCHEDULE			
DESCRIPTION	STATION	INVERT	TOP*
CLEANOUT #1	1+10	374.04	380.1
CLEANOUT #2	1+26	374.86	380.6

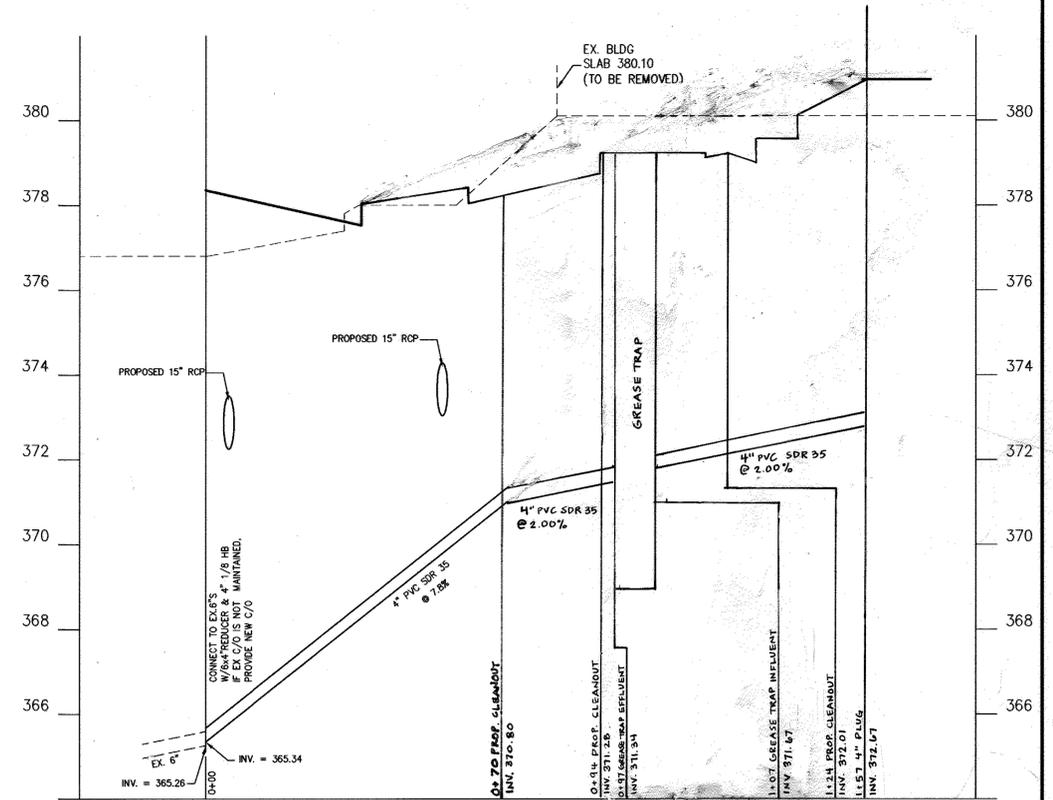
STORM DRAIN STRUCTURE SCHEDULE					
NUMBER	TYPE	INVERT		REMARK	
		TOP*	IN		
I-1	D' INLET	377.55	373.83	373.08	HCS D 4.11
I-2		377.46	373.71	373.71	HCS D G 5.12
M-1		377.78	372.69	372.59	HCS D 4.11
M-2		376.95	373.78	373.78	JELLYFISH INLET

* FOR 'A' & 'D' INLETS, TOP=WEIR, BOTTOM OF THROAT OPENING ELEVATION

NOTE: CONTRACTOR SHALL VERIFY ALL QUANTITIES PRIOR TO BID.

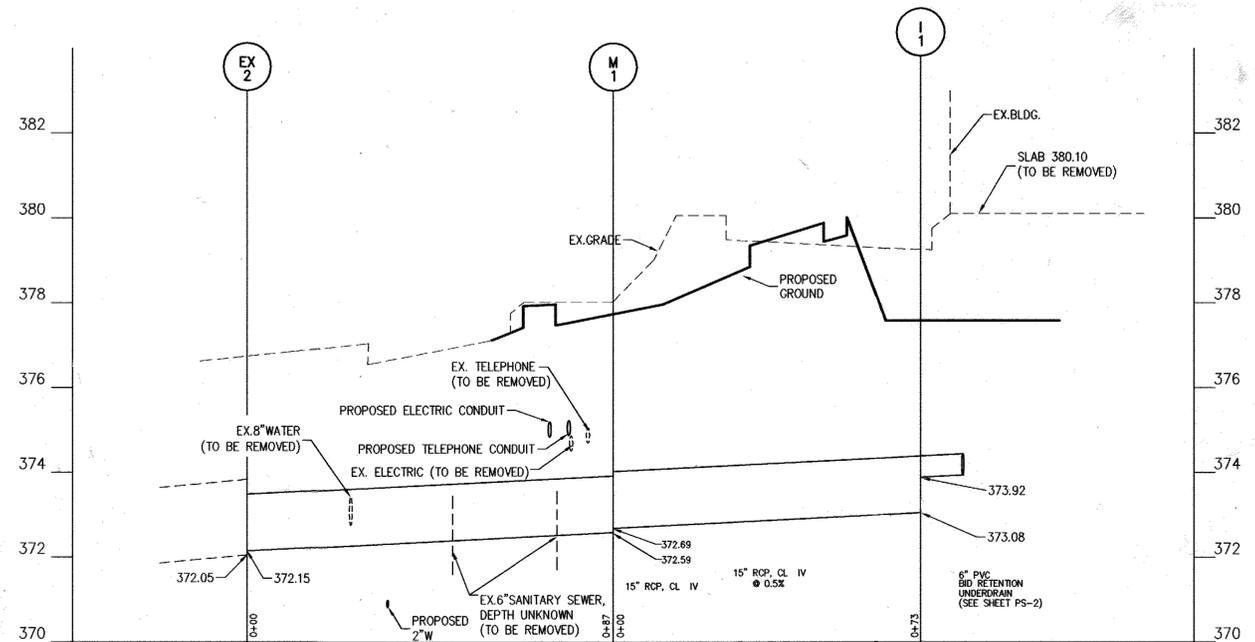


SCALE:
HOR: 1" = 20'
VER: 1" = 2'



SANITARY SEWER

SCALE:
HOR: 1" = 20'
VER: 1" = 2'



STORM DRAIN

SCALE:
HOR: 1" = 20'
VER: 1" = 2'

APPROVED: DEPARTMENT OF PLANNING AND ZONING
Michael J. Wesell 8/5/03
 CHIEF, DEVELOPMENT ENGINEERING DIVISION
Cindy Hamilton 8/12/03
 CHIEF, DIVISION OF LAND DEVELOPMENT
Mark D. Wright 8/12/03
 DIRECTOR

FOR REVISION 5 ONLY
Michael J. Wesell 9/29/16
 PROFESSIONAL CERTIFICATION

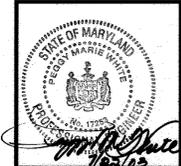
I, MICHAEL J. WESSELL, HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A FULLY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 44097, EXP. DATE: 6/9/17

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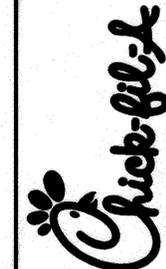
APPROVED
 PLANNING BOARD
 OF HOWARD COUNTY
 DATE: May 1, 2003

The **RBA** ENGINEERS • ARCHITECTS • PLANNERS
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DOBBIN
 COMMERCIAL CENTER
 COLUMBIA, MD
 43/PH/1W APP ADDITIONAL DRIVE THRU LANE AND 73.7 C.F. BUILDING ADDITION

Edition Date: 01/21/03 BID SET
 Project Date: 12/03/02
 # Date Revision
 1 3/14/03
 2 7/30/03
 3 9/25/03
 4 3/21/04
 REVISIONS FOR R.C.I., R.D.I. & R.D.Z.
 REVISE 2" W. CAGES/SIG
 SHEET TITLE: UTILITY PROFILES

SHEET NO.
PS-3
 14 of 15



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 Atlanta, Georgia 30349-2998
 Telephone 404-765-8000



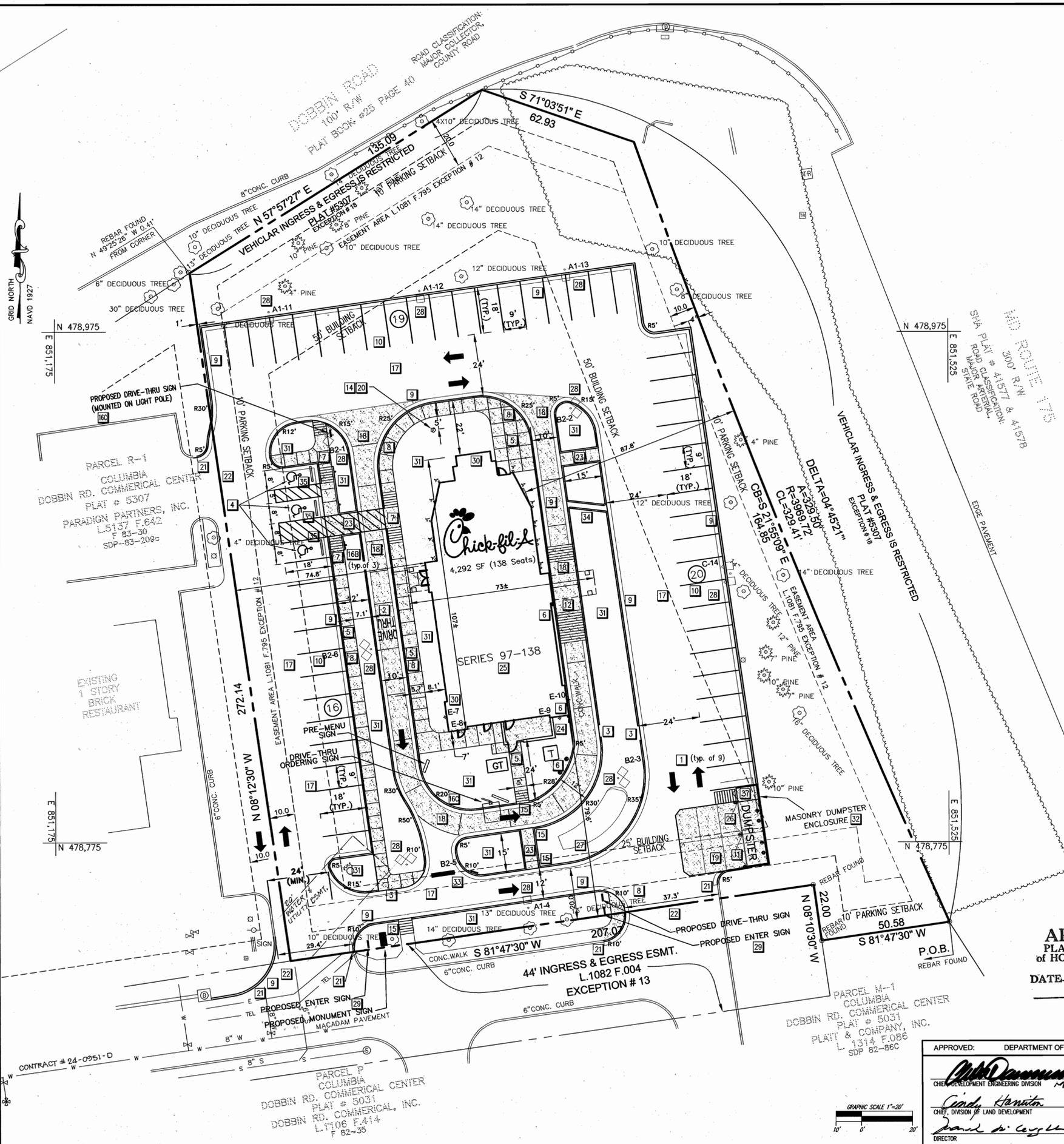
DOBBIN
 COMMERCIAL CENTER
 COLUMBIA, MD

Edition Date: 01/21/03
 Project Date: 12/03/02
 # Date Revision
 1 3/14/03
 2 7/30/03
 3 5/25/03
 4 3/31/04

SHEET NO.
C-2
 4 of 14

Mark	Manufacturer	Catalog Number	No. Lamps/Type	Watts	Volts	Mounting	Remarks
F	Lithonia	HSNG: #AFVW-18TRT-5-120-EOL and TRIM #AFV-5AR-120-EOL-TRT-TRW	11/1/F18TBXSPX35 -4-A	30	120	Recessed	Down Light, ALZAK Reflector, mount in SOFFIT
A,R,C-1	Lithonia	Fixture KAC 250M R4 120 RPD09 SF HS Bracket 190-T20 DOB or T20-280 DOB Pole SSS 20 56 T20 DOB BC CFA L/AB	10/MVR250U per luminaire	250 ea.	120	15 foot pole, Dark Bronze in color	6.1 - See E for Typical Pole Base detail Fixtures on TOWER, ALL parts to be DARK BRONZE
F	Lightway Industries	Fixture CFA100MH, Lamp Type 100MH	4	100 ea.	120	Wall Mounted 13'-6" above finished floor to centerline of fixture	See sheet C7 for more information. ALL parts to be DARK BRONZE

- 1 DIRECTIONAL ARROWS
 - 2 DRIVE THRU GRAPHIC
 - 3 CURB OPENING WITH NOSE DOWN CURB (W/NOSEDOWN CURB LENGTH OF 1 FOOT).
 - 4 PAINTED HANDICAPPED PARKING SYMBOL
 - 5 TYP. CONCRETE SIDEWALK DETAIL
 - 6 PIPE BOLLARD/ BUMPER POST DETAIL
 - 7 SIDEWALK HANDICAPPED RAMP DETAIL
 - 8 SIDEWALK WITH CURB & GUTTER
 - 9 CONCRETE CURB & GUTTER DETAIL
 - 10 STD. PARKING STALL DETAILS
 - 11 TRASH ENCLOSURE (DUMPSTER AREA), HEIGHT 8'-8"
 - 12 DRIVE THRU DETAIL
 - 13 SERVICE LINE CLEANOUT
 - 14 TYP. POLE BASE DETAIL
 - 15 CURBED HANDICAP RAMP
 - 16 DIRECTIONAL SIGNAGE
- ALL SIGNS SHALL CONFORM TO THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" BY THE U.S. DEPARTMENT OF TRANSPORTATION AND "THE STANDARD SIGN BOOK" BY THE MARYLAND DEPARTMENT OF TRANSPORTATION, LATEST VERSIONS
- 16B HANDICAPPED PARKING SIGN
 - 16C DRIVE THRU SIGN
 - 17 TYP. PAVEMENT SECTION
 - 18 CONCRETE PAVING DETAIL DRIVE THRU LANE
 - 19 CONCRETE APRON @ DUMPSTER
 - 20 FLAG POLE
 - 21 ECX SERIES 50 FOOT POLE PACKAGE BY APPROVED VENDORS, THE FLAG COMPANY OR ATLAS FLAGS
 - 22 SAWCUT EXISTING CURB AND GUTTER ON EACH SIDE OF NEW DRIVEWAY ENTRANCE AND REMOVE EXISTING CURB WHERE NEW DRIVEWAY WILL BE CONSTRUCTED. PROVIDE EXPANSION JOINT BETWEEN NEW AND EXISTING CONCRETE.
 - 23 THE CONTRACTOR SHALL INSTALL NECESSARY TRAFFIC CONTROL, SAFETY BARRICADES, LIGHTING AND OTHER REQUIRED CONTROL MEASURES TO SECURE THE WORK AREA FROM EXISTING TRAFFIC AND TO ASSURE PUBLIC SAFETY.
 - 24 DEPRESSED SIDEWALK WITH CURBED SIDES AND ENDS FLUSH WITH PAVEMENT
 - 25 MASONRY SCREEN ENCLOSURE (SEE ARCHITECTURAL PLANS).
 - 26 SITE CONTRACTOR SHALL REFER TO ARCHITECT PLANS FOR THE EXACT DIMENSIONS OF THE BUILDING AND LOCATION OF DRIVEWAYS, UTILITIES, ETC.
 - 27 GATES TO BE INSTALLED BY BUILDING CONTRACTOR WITH DUMPSTER STRUCTURE. COORDINATE WITH PAVEMENT INSTALLATION.
 - 28 PRIVATE BIORENTION FACILITY, SEE SHEET PS-2.
 - 29 SITE LIGHTING, SEE LUMINAIRE SCHEDULE THIS SHEET & ARCHITECT PLANS
 - 30 ENTER SIGN, SEE DRAWINGS BY THOMAS SIGN & AWNING COMPANY.
 - 31 WALL MOUNTED SIGN, SEE DRAWINGS BY THOMAS SIGN & AWNING COMPANY.
 - 32 LANDSCAPE AREA
 - 33 DUMPSTER ENCLOSURE (SEE ARCHITECTURAL PLANS FOR TREATMENT OF DUMPSTER WALL).
 - 34 WHITE REFLECTIVE TRAFFIC PAINT, 16"x9".
 - 35 2 FOOT CURB OPENING (CURB RADIUS, R1').
 - 36 WHEEL STOP
 - 37 MONUMENT SIGN, SEE DETAIL SHEET C-6 AND DRAWINGS BY THOMAS SIGN & AWNING COMPANY.
 - 38 STORAGE SHED



APPROVED
 PLANNING BOARD
 of HOWARD COUNTY
 DATE May 1, 2003

APPROVED: DEPARTMENT OF PLANNING AND ZONING

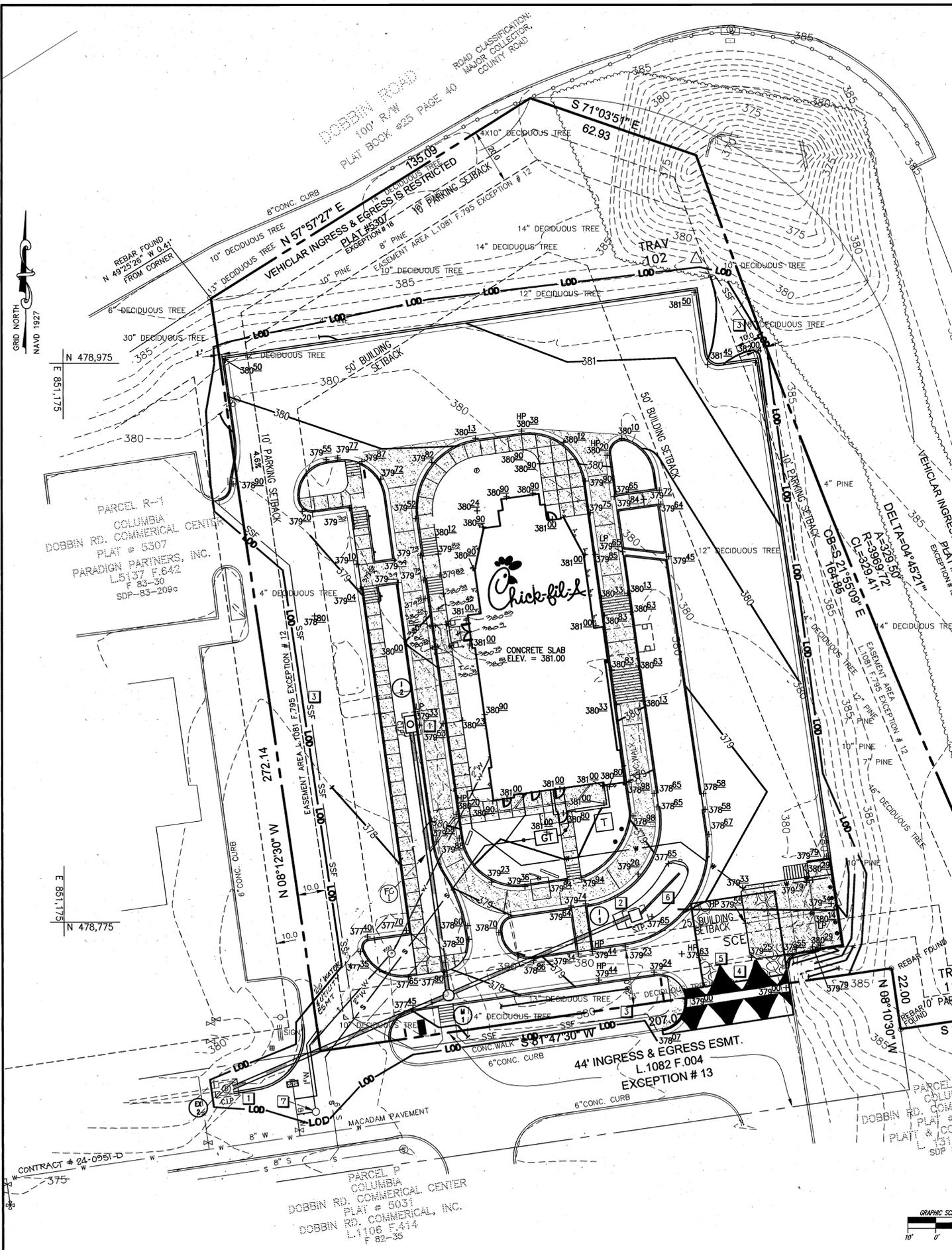
Mike Dammann MK 8/5/03 DATE
 CHIEF, DEVELOPMENT ENGINEERING DIVISION

Cindy Hanlon HP 8/12/03 DATE
 CHIEF, DIVISION OF LAND DEVELOPMENT

David W. Coyle 8/12/03 DATE
 DIRECTOR

The **RBA** ENGINEERS • ARCHITECTS • PLANNERS
 Group, Inc.
 7164 Columbia Gateway Drive Suite 205
 Columbia, Maryland 21046 (410) 312-0968

RBA PROJ. NO.: M3080.00
 DRAWN BY: KL
 DESIGNED BY: EM
 CHECKED BY: JR



PERMANENT SEEDING NOTES
 Apply to graded or cleared areas not subject to immediate further disturbance where a permanent long-lived vegetative cover is needed.

Seeded Preparation: Loosen upper three inches of soil by raking, disking 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/acre dolomitic limestone (92 lbs/1000 sq. ft.) and 600 lbs/acre 10-10-10 fertilizer (14 lbs/1000 sq. ft.) before seeding. Harrow or disk into upper three inches of soil.
 At time of seeding apply 400 lbs/acre 30-0-0 urea form fertilizer (9 lbs/1000 sq. ft.)
 2. Acceptable—Apply 2 tons/acre dolomitic limestone (92 lbs/1000 sq. ft.) and 1000 lbs/acre 10-10-10 fertilizer (23 lbs/1000 sq. ft.) before seeding. Harrow or disk into upper three inches of soil.

Seeding — For the periods March 1 — April 30, and August 1 — October 15, seed with 60 lbs/acre (1.4 lbs/1000 sq. ft.) of Kentucky 31 Tall Fescue. For the period May 1 — July 31, seed with 60 lbs Kentucky 31 Tall Fescue per acre and 2 lbs/acre (.05 lbs/1000 sq. ft.) of weeping lovegrass. During the period of October 16 — February 28, protect site by:
 Option 1 — Two tons per acre of well anchored straw mulch and seed as soon as possible in the spring.
 Option 2 — Use sod. Option 3 — Seed: with 60 lbs/acre Kentucky 30 Tall Fescue and mulch with 2 tons/acre well anchored straw.

Mulching — Apply 1-1/2 to 2 tons per acre (70 to 90 lbs/1000 sq. ft.) of unrotted small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 218 gallons per acre (5 gal/1000 sq. ft.) of emulsified asphalt on flat areas. On slope 8 feet or higher, use 348 gallons per acre (8 gal/1000 sq. ft.) for anchoring.

Maintenance — Inspect all seeding areas and make needed repairs, replacements and reseeding.

TEMPORARY SEEDING NOTES
 Apply to graded or cleared areas likely to be re-disturbed where a short-term vegetative cover is needed.

Seeded preparation: --- Loosen upper three inches of soil by raking, disking or other acceptable means before seeding, if not previously loosened.

Soil Amendments: --- Apply 600 lbs/acre 10-10-10 fertilizer (14 lbs/1000 sq. ft.).

Seeding: --- For periods March 1 — April 30 and from August 15 — October 15, seed with 2-1/2 bushel per acre of annual rye (3.2 lbs/1000 sq. ft.). For the period May 1 — August 14, seed with 3 lbs/acre of weeping lovegrass (.07 lbs/1000 sq. ft.). For the period November 16 — February 28 protect the site by applying 2 tons/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/acre (70 to 90 lbs/1000 sq. ft.) of unrotted weed-free, small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 218 gal. per acre (5 gal/1000 sq. ft.) of emulsified asphalt on flat areas. On slope 8 ft. or higher, use 348 gal. per acre (8 gal/1000 sq. ft.) for anchoring.

Refer to the 1994 MARYLAND STANDARDS AND SPECIFICATION FOR SOIL EROSION AND SEDIMENT CONTROL for additional rates and methods not covered.

- STANDARD SEDIMENT CONTROL NOTES**
- 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).
 - All vegetative and structural practices are to be installed according to the provisions of these plan and are to be in conformance with the most current MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL and revisions thereto.
 - Following initial soil disturbance or re-disturbance, permanent or temporary stabilization shall be completed within: a) 7 calendar days for all perimeter sediment control structures, dikes, perimeter slopes and all slopes greater than 3:1, b) 14 days as to all other disturbed or graded areas on the project site.
 - All sediment traps/basins shown must be fenced and warning signs posted around their perimeter in accordance with Vol. 1, Chapter 12 of the HOWARD COUNTY DESIGN MANUAL, Storm Drainage.
 - All disturbed areas must be stabilized within the time period specified above in accordance with the 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL for permanent seeding (Sec. 51), sod (Sec. 54), temporary seeding (Sec. 50) and mulching (Sec. 52). Temporary stabilization with mulch alone can only be done when recommended seeding dates do not allow for proper germination and establishment of grasses.
 - All sediment control structures are to remain in place and are to be in operative condition until permission for their removal has been obtained from the Howard County Sediment Control Inspector.
 - Site Analysis:

Total Area of Site	1.5 Acres
Area Disturbed	1.22 Acres
Area to be roofed or paved	0.88 Acres
Area to be vegetatively stabilized	0.34 Acres
Total Cut	450 Cu. Yds.
Total Fill	450 Cu. Yds.
Offsite waste/borrow area location:	N/A
 - Any sediment control practice which is disturbed by grading activity for placement of utilities must be repaired on the same day of disturbance.
 - Additional sediment control must be provided, if deemed necessary by the Howard County Sediment Control Inspector.
 - 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.
 - Trenches for the construction of utilities is limited to three pipe lengths or that which shall be back-filled and stabilized by the end of each work day, whichever is shorter.

BENCHMARK
 Horizontal Datum: Howard County Grid System
 (NAVD 1927)
 Vertical Datum: NAVD 1929
 As projected by the RBA Group from Howard County Geodetic Survey Control, 36FB to traverse points TRAV 102, N479012.335, E851402.117, Elev. 382.76 TRAV 103, N478752.838, E851503.627, Elev. 378.83

- SEQUENCE OF CONSTRUCTION**
- Obtain Grading Permit.
 - Obtain Demolition Permit.
 - Clear & grub and install all sediment control devices.
 - Begin all demolition work.
 - Once demolition is complete, begin rough grading and building construction.
 - Once sub-grade elevations are reached, install utilities, curb & gutter, bioretention facility, and stone sub-base for parking lot sections.
 - Fine grade and vegetatively stabilize all disturbed areas not to be paved.
 - Pave parking lot sections.
 - Upon stabilization of site with established vegetation and with permission of the Sediment Control Inspector, remove sediment control measures and stabilize those areas disturbed by these process.

- EROSION CONTROL DETAIL KEYS**
- | | | |
|--|-----|-----|
| 1 CURB INLET PROTECTION | 23C | C-6 |
| 2 STANDARD INLET PROTECTION | 23A | C-6 |
| 3 SUPER SILT FENCE | 33 | C-6 |
| 4 STABILIZED CONSTRUCTION ENTRANCE | 24 | C-6 |
| 5 MOUNTABLE BERM | 99 | C-6 |
| 6 PRIVATE BIORETENTION FACILITY, SEE SHT. PS-2 | | |
| 7 1" WATER METER & PIT FOR IRRIGATION, SEE SHT. PS-1 | | |

SEDIMENT CONTROL
 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 inspection by the Howard Soil Conservation District."

Thomas A. Nolan
 Signature of Developer
 Date: 7/24/03

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."

Peary M. White
 Signature of Engineer
 Date: 7/22/03

John R. Robertson
 Signature of Howard SCD
 Date: 8/14/03

Reviewed for HOWARD SCD and meets Technical Requirements.
Jim M. ...
 Date: 8/14/03

This development plan is approved for soil erosion and sediment control by the HOWARD SOIL CONSERVATION DISTRICT.
John R. Robertson
 Date: 8/14/03

APPROVED PLANNING BOARD OF HOWARD COUNTY
 DATE: May 1, 2003

APPROVED: DEPARTMENT OF PLANNING AND ZONING
Chris ... 8/5/03
Chris ... 8/12/03
Chris ... 8/12/03

RBA ENGINEERS • ARCHITECTS • PLANNERS
 7184 Columbia Gateway Drive Suite 205
 Columbia, Maryland 21046 (410) 312-0986

RBA PROJ. NO.: M3080.00
 DRAWN BY: KL
 DESIGNED BY: EM
 CHECKED BY: JR



Series 97-138
 5200 Buffington Road
 Atlanta, Georgia 30349-2998
 Telephone 404-765-8000

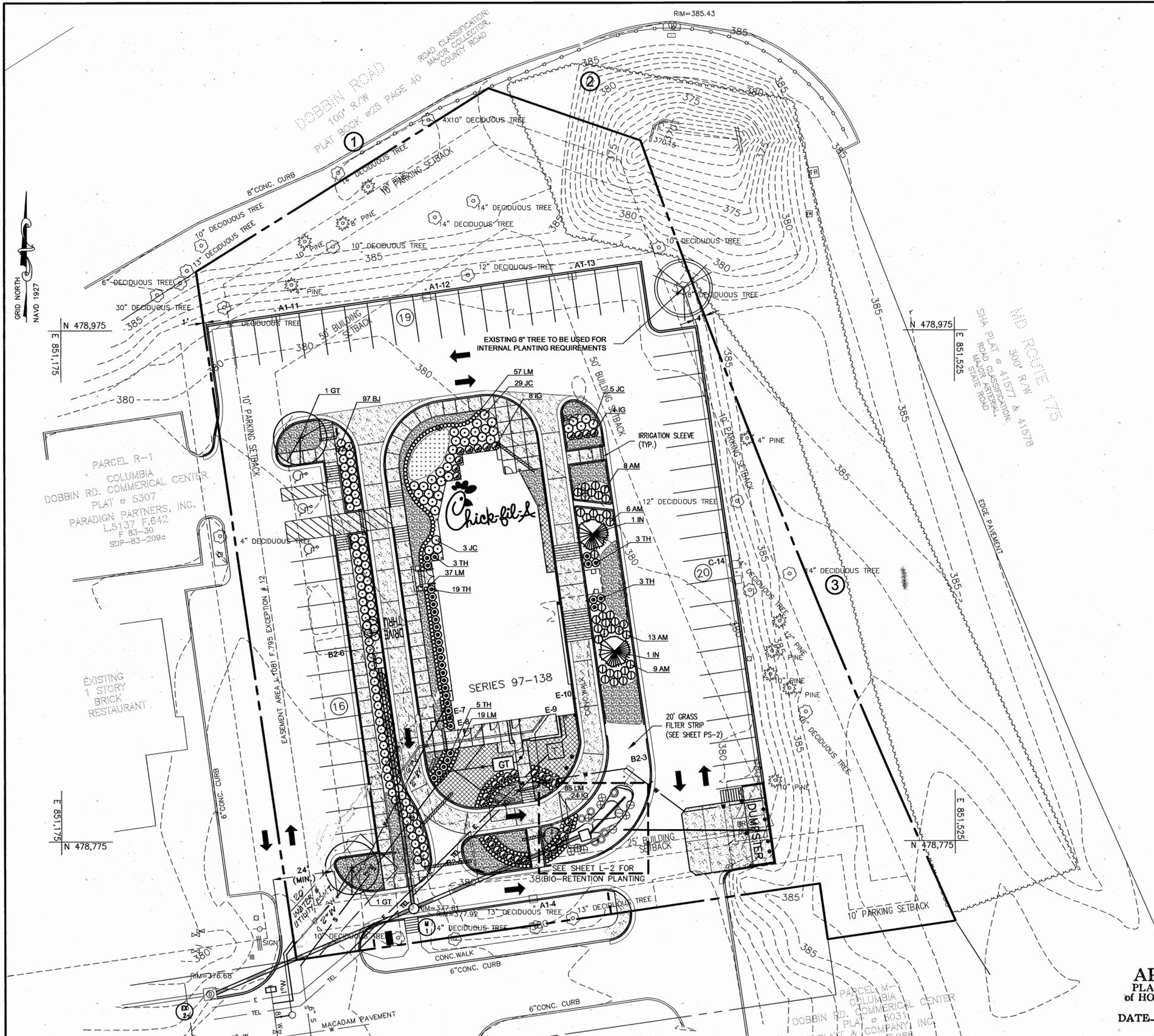


DOBBIN COMMERCIAL CENTER
 COLUMBIA, MD

Sheet Title: GRADING, DRAINAGE & EROSION CONTROL PLAN

Edition Date:	01/21/03
Project Date:	12/03/02
#	Revision
1	3/14/03
2	7/20/03
3	9/22/03
4	3/31/04

SHEET NO.
C-3
 5 of 14



SITE PLANT SCHEDULE

Key	Quan	Name	Size	Remarks
AM	36	Azalea 'Mothers Day'	18" 24" SPD.	SPACE AS SHOWN
BJ	97	Berberis Juliana	24" 30" HT.	SPACE AS SHOWN
GT	2	Gleditsia tri. var. inermis 'Shademaster'	2" CAL.	12'-14" HT., FULL
		Shademaster Honeylocust		
+++	205	Hypericum 'Hidcote'	12"-18" HT.	1 GAL., 24" O.C.
		Hidcote Hypericum		
IG	36	Ilex Glabra 'Compacta'	18"-24" SPD.	SPACE AS SHOWN
IN	2	Ilex X 'Nellie R. Stevens'	7'-8" HT.	INTERNAL PARKING REQ'S SCHEDULE B
		Nellie R. Stevens Holly		
JC	37	Junipers Conferia 'Blue Pacific'	18"-24" SPD.	SPACE AS SHOWN
		Blue Pacific Juniper		
LM	198	Liriodendron Muscain 'Big Blue'	1 GAL.	12" O.C.
		Big Blue Liriodendron		
TH	33	Taxus X Media 'Hicksii'	3'-4" HT.	SPACE AS SHOWN
		Hick's Yew		
	1,990	Seasonal annuals		
	715	Vinca Minor	PLUGS	15" O.C.
		Periwinkle		

BIO-RETENTION PLANT SCHEDULE (DETAIL ON L-2)

Key	Quan	Name	Size	Remarks
	48 SQ.FT.	Eupatorium perpurea	1 QT.	24" O.C.
		Joe Pye Weed		
	43 SQ.FT.	Iris versicolor	1 QT.	24" O.C.
		Blue Flag		
IV	7	Ilex verticillata	2'-3" HT.	
		Winterberry		
LB	2	Lindera bezoin	2'-3" HT.	
		Spicebush		
	45 SQ.FT.	Lobelia cardinalis	1 QT.	24" O.C.
		Cardinal Flower		
MC	6	Myrica pennsylvanica	2'-3" HT.	
		Northern Bayberry		
	37 SQ.FT.	Rudbeckia lanciniata	1 QT.	24" O.C.
		Tall Coneflower		

SCHEDULE A - PERIMETER LANDSCAPE EDGE

Category	Adjacent to Roadways	Adjacent to Perimeter Properties
Landscape Type	E	NONE
Linear Feet of Roadway Frontage/Perimeter	362'	0
Credit for Existing Vegetation (Yes, No, Linear Feet) (Describe Below if Needed)	YES	N/A
Credit for Wall, Fence, or Berm (Yes, No, Linear Feet) (Describe Below if Needed)	YES	N/A
Number of Plants Required		
Shade Trees	9	N/A
Evergreen Trees	0	
Shrubs	91	
Number of Plants Provided		
Shade Trees	0	
Evergreen Trees	0	
Other Trees (2:1 substitution)	0	N/A
Shrubs (10:1 substitution)	0	

Comments: Existing mature trees are sufficient for credit towards shade tree req's. Parking lot is 3' below adjacent MD 175 and Dobbin Road which counts towards req. shrub planting.

Note: Complex projects may require expansion of the schedule to accommodate multiple land uses on-site or on adjacent properties.

SCHEDULE B - PARKING LOT INTERNAL LANDSCAPING

Number of Parking Spaces	55
Number of Trees Required (1 per 20 Spaces)	3
Number of Trees Provided	3
Shade Trees	1
Evergreen Trees (2:1 substitution)	2
Existing	1
Number of Islands Required (1 per 20 Spaces)	3
Number of Islands Provided (200 SQ. FT. EACH)	8
Proposed	7
Existing	1

REQUIRED BUFFER PLANTING TABLE

Property Line	Buffer Type	L.F.	Planting Required	Planting Provided
①	E	135	3 Shade Trees	3 (Existing)
			34 Shrubs	0 (3' Grade Change)
②	E	63	2 Shade Trees	2 (Existing)
			16 Shrubs	0 (3' Grade Change)
③	E	164	4 Shade Trees	4 (Existing)
			41 Shrubs	0 (3' Grade Change)

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 CERTIFICATION OF LANDSCAPE INSTALLATION, ACCOMPANIED BY AN EXECUTED ONE YEAR GUARANTEE OF PLANT MATERIALS, WILL BE SUBMITTED TO THE DEPARTMENT OF PLANNING AND ZONING.

K.O.M.
(NAMES)

7/24/03
DATE

APPROVED
PLANNING BOARD
OF HOWARD COUNTY

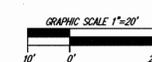
DATE May 1, 2003

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Chad D. ... 8/5/03
CHIEF, DEVELOPMENT ENGINEERING DIVISION MK DATE

Cindy Hanau 8/12/03
CHIEF, DIVISION OF LAND DEVELOPMENT YHB DATE

Marsha K. ... 8/12/03
DIRECTOR DATE



The **RBA** ENGINEERS • ARCHITECTS • PLANNERS
Group, Inc.
7164 Columbia Gateway Drive Suite 205
Columbia, Maryland 21046 (410) 312-0966

RBA PROJ. NO.: M3080.00
DRAWN BY: JB/PS
DESIGNED BY: JB
CHECKED BY: SK



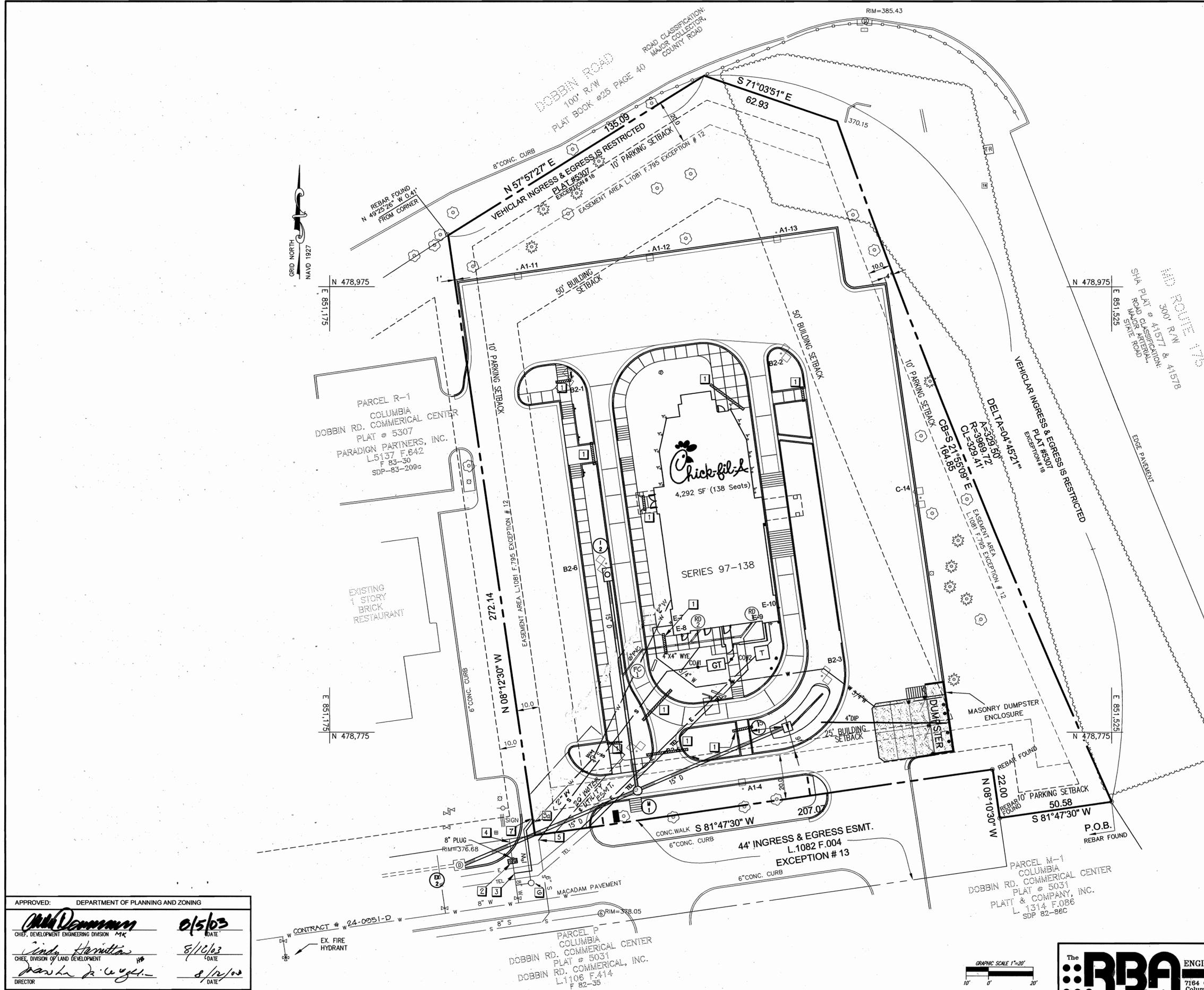
Series 97-138
5200 Buffington Road
Atlanta, Georgia 30349-2998
Telephone 404-765-8000



DOBBIN
COMMERCIAL CENTER
COLUMBIA, MD

Edition Date: 01/21/03
Project Date: 12/03/02
Revision
Date
1 3/14/03
2 7/30/03
3 9/22/03
4 3/31/04
LANDSCAPE PLAN

SHEET NO.
L-1
10 of 14



GENERAL UTILITY NOTES

- REFER TO THE MEP PLANS FOR THE CONTINUATION OF ALL UTILITIES INTO THE BUILDING.
- STANDARD CONCRETE THRUST BLOCKS SHALL BE INSTALLED AT EACH BEND OR TEE IN THE WATER, PER APPROPRIATE HOWARD COUNTY STANDARD DETAIL.
- ELECTRIC WILL BE INSTALLED BY BGE WHICH INCLUDES THE PRIMARY CABLING AND SUPPLYING AND SETTING OF THE TRANSFORMER AND PAD. THE CONTRACTOR MUST INSTALL ALL THE CONDUITS WITH PULL WIRES FOR PRIMARY AND SECONDARY CABLING ALONG WITH SECONDARY CABLING. BGE WILL SUPPLY ALL CONDUITS REQUIRED. CONDUITS ARE REQUIRED UNDER ALL PAVED AREAS. BGE WILL SUPPLY AND SET THE METER. CONTRACTOR SHALL COORDINATE WORK WITH ONSITE CONSTRUCTION INCLUDING SCHEDULING OF THE INSTALLATION. CONTACT BGE WELL IN ADVANCE OF ANTICIPATED CONSTRUCTION. COORDINATE ELECTRIC CONDUIT LOCATIONS WITH BGE PRIOR TO CONSTRUCTION.
- TELEPHONE SERVICE TO BE PROVIDED BY VERIZON. CONTRACTOR SHALL INSTALL ALL NECESSARY CONDUITS FOR SERVICE. (TWO # PVC, SCH. 40) CONTACT VERIZON WELL IN ADVANCE OF ANTICIPATED CONSTRUCTION. COORDINATE ALL CONDUIT LOCATIONS WITH VERIZON PRIOR TO CONSTRUCTION.
- ALL STORM DRAIN PIPES SHALL BE RCP.
- ALL SANITARY SEWER PIPES SHALL BE PVC SDR-35 UNLESS NOTED OTHERWISE ON THE PLAN.
- ALL 3/4" WATER PIPING SHALL BE COPPER WATER TUBING. ALL 2" WATER PIPING SHALL BE COPPER TYPE 'K'.
- ALL ROOF LEADER DRAIN PIPES AND TRUNK LINES (UNDERGROUND) SHALL BE PVC SCH. 40.
- SANITARY LATERALS TO HAVE A MINIMUM FALL OF 2.00% UNLESS NOTED OTHERWISE ON PLAN.
- CONTRACTOR TO FIELD VERIFY LOCATION OF ALL EXISTING UTILITIES AND THEIR ELEVATIONS PRIOR TO STARTING CONSTRUCTION. CONTACT THE ENGINEER IMMEDIATELY SHOULD A PROBLEM ARISE. ALLOW A MINIMUM OF 3 DAYS FOR ANY NECESSARY REDESIGN REQUIRED.
- PROVIDE 1 FOOT MINIMUM CLEARANCE BETWEEN OUTSIDE OF PIPES AT ANY SANITARY CROSSING AND 6 INCH MINIMUM CLEARANCE BETWEEN ALL UTILITY CROSSINGS.
- CONTRACTOR SHALL VERIFY ALL UTILITY LINE ROUTINGS WITH THE APPROPRIATE UTILITY COMPANY PRIOR TO CONSTRUCTION. CONTACT THE ENGINEER IMMEDIATELY SHOULD A PROBLEM ARISE.
- STORMWATER MANAGEMENT HAS BEEN PROVIDED FOR THIS DEVELOPMENT UNDER DOBBIN ROAD COMMERCIAL CENTER (F-81-36).
- CONTRACTOR TO DESIGN AND INSTALL IRRIGATION SYSTEM. SEE ARCHITECTURAL PLANS FOR 1" STUB FOR CONNECTION.
- ALL WATER TO HAVE A MINIMUM OF 3/12 FEET OF COVER.
- WATER METER TO BE LOCATED INSIDE THE PROPOSED BUILDING.

ELECTRIC AND TELEPHONE SERVICE TO BE ACCESSED FROM DRIVE AISLE SOUTHWEST OF SITE. EXACT LOCATION TO BE DETERMINE BY APPROPRIATE UTILITY COMPANY.

VERIZON
BRYAN SHANK
2510 RIVA RD. 6TH FLOOR
ANNAPOLIS, MD 21401
PH: (410) 224-1670

BALTIMORE GAS AND ELECTRIC
GAS AND ELECTRIC NEW BUSINESS DEPARTMENT
7317 PARKWAY DRIVE, SOUTH
HANOVER, MARYLAND 21076
PH: (410) 850-4620

- 1 4" PVC SCHEDULE 40, SLEEVE FOR IRRIGATION.
- 2 BUTTRESS
- 3 WATER SERVICE CONNECTION
- 3a WITH SERVICE BOX SET ON PROPERTY LINE
- 4 EX. 8" STUB CONFLICTS WITH PROPOSED STORM DRAIN. REMOVE PIPE SECTIONS (PER SHEET C1-A) AND INSTALL 8" PLUG & BUTTRESS
- 5 LOCATE EX. SANITARY HOUSE CONNECTION. CUT & INSTALL 45° BEND TO MAKE NEW CONNECTION
- 6 1" WATER METER AND PIT. WITH 1" MAIN, FOR IRRIGATION, UP TO PROPERTY LINE.
- 7 1" PLUG FOR CONNECTION OF ON-SITE IRRIGATION BY CHICK-FIL-A CONTRACTOR

APPROVED
PLANNING BOARD
of HOWARD COUNTY

DATE May 1, 2003

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Mike Damann 0/5/03
CHIEF, DEVELOPMENT ENGINEERING DIVISION MK DATE

Linda Hamilton 8/16/03
CHIEF, DIVISION OF LAND DEVELOPMENT HP DATE

Mark A. C. ... 8/12/03
DIRECTOR DATE

CONTRACT # 24-0251-D

EX. FIRE HYDRANT

PARCEL P
DOBBIN RD. COMMERCIAL CENTER
PLAT # 5031
DOBBIN RD. COMMERCIAL, INC.
L.1106 F.414
F 82-35

PARCEL M-1
DOBBIN RD. COMMERCIAL CENTER
PLAT # 5031
PLATT & COMPANY, INC.
L.1314 F.086
SDP 82-86C

GRAPHIC SCALE 1"=20'

RBA ENGINEERS • ARCHITECTS • PLANNERS
7164 Columbia Gateway Drive Suite 205
Columbia, Maryland 21046 (410) 312-0966

RBA PROJ. NO.: M3080.00
DRAWN BY: KL
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Series 97-138
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Telephone 404-765-8000



DOBBIN COMMERCIAL CENTER
COLUMBIA, MD

PLUMBING SITE PLAN

Edition Date: 01/21/03
Project Date: 12/03/02

#	Date	Revision
1	3/14/03	Change top corner, bottom area, and RIR-11 remove, and add RIR-11
2	7/30/03	Change RIR-11 to RIR-12 and add RIR-12
3	9/25/03	Change RIR-12 to RIR-13 and add RIR-13
4	3/13/04	Change RIR-13 to RIR-14 and add RIR-14

Sheet Title: PLUMBING SITE PLAN

SHEET NO.
PS-1
12 of 14

PIPE SCHEDULE		
SIZE	TYPE	LINEAR FOOTAGE
STORM		
4"	D.I.P.	56
5"	ADS PIPE	38
6"	PVC-SCHEDULE 40	74
6"	PERFORATED PVC	22
15"	RCP	248
SANITARY SEWER		
4"	PVC-SDR-35	154
WATER		
2"	COPPER TYPE 'K'	155
3/4"	COPPER TYPE 'K'	162
4"	PVC SCHEDULE 40 IRRIGATION SLEEVES	156

NOTE: CONTRACTOR SHALL VERIFY ALL QUANTITIES PRIOR TO BID. ALL STRUCTURES ARE HOWARD COUNTY OR MARYLAND DEPT. OF TRANSPORTATION STANDARDS UNLESS NOTED OTHERWISE. REFER TO SHEET C-7 FOR DETAILS. ELEVATIONS ARE GIVEN TO TOP OF CURB FOR CURB INLETS, TOP OF GRATE FOR GRATE INLETS AND TOP OF RIM FOR MANHOLES.

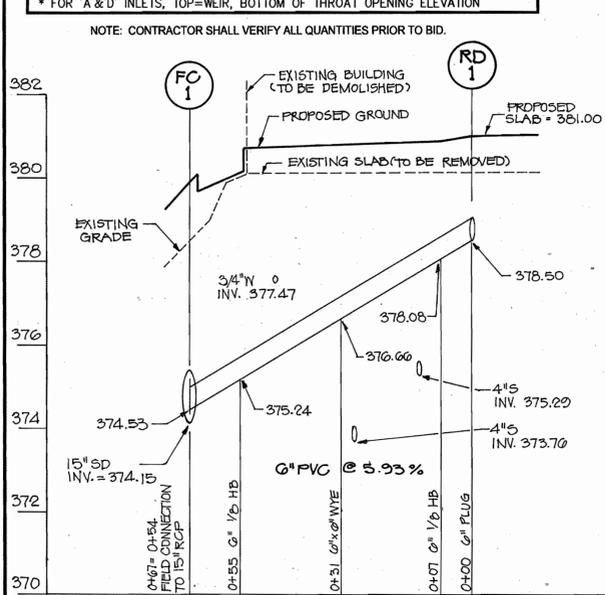
ROOF DRAIN STUBS	
DESCRIPTION	INVERT
RD1	378.50
RD2	377.36

SANITARY SEWER SCHEDULE			
DESCRIPTION	STATION	INVERT	TOP*
CLEANOUT #1	1+10	374.04	380.1
CLEANOUT #2	1+26	374.86	380.6

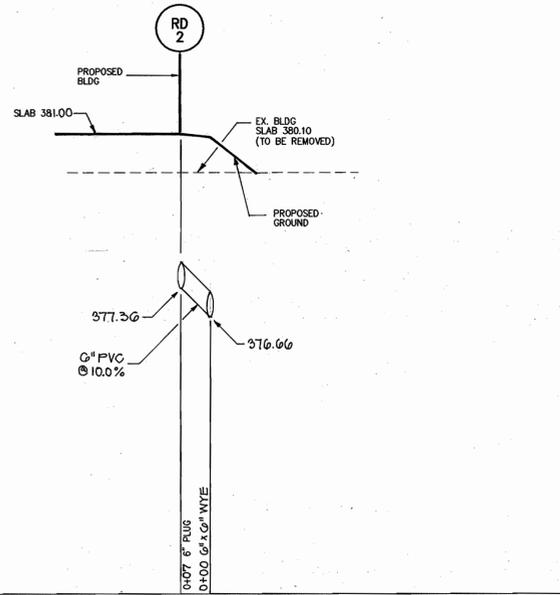
STORM DRAIN STRUCTURE SCHEDULE					
NUMBER	TYPE	INVERT		REMARK	
		TOP*	IN		
I-1	'D' INLET	377.55	373.83	373.08	HCSO 4.11
I-2	'A-5' INLET	379.33	-	375.33	HCSO 4.40 PRECAST
M-1	FIELD	377.78	372.69	372.59	HCSO 4.11
FC-1	FIELD CONNECTION	-	374.53	-	HCSO 2.01

* FOR 'A' & 'D' INLETS, TOP=WEIR, BOTTOM OF THROAT OPENING ELEVATION

NOTE: CONTRACTOR SHALL VERIFY ALL QUANTITIES PRIOR TO BID.

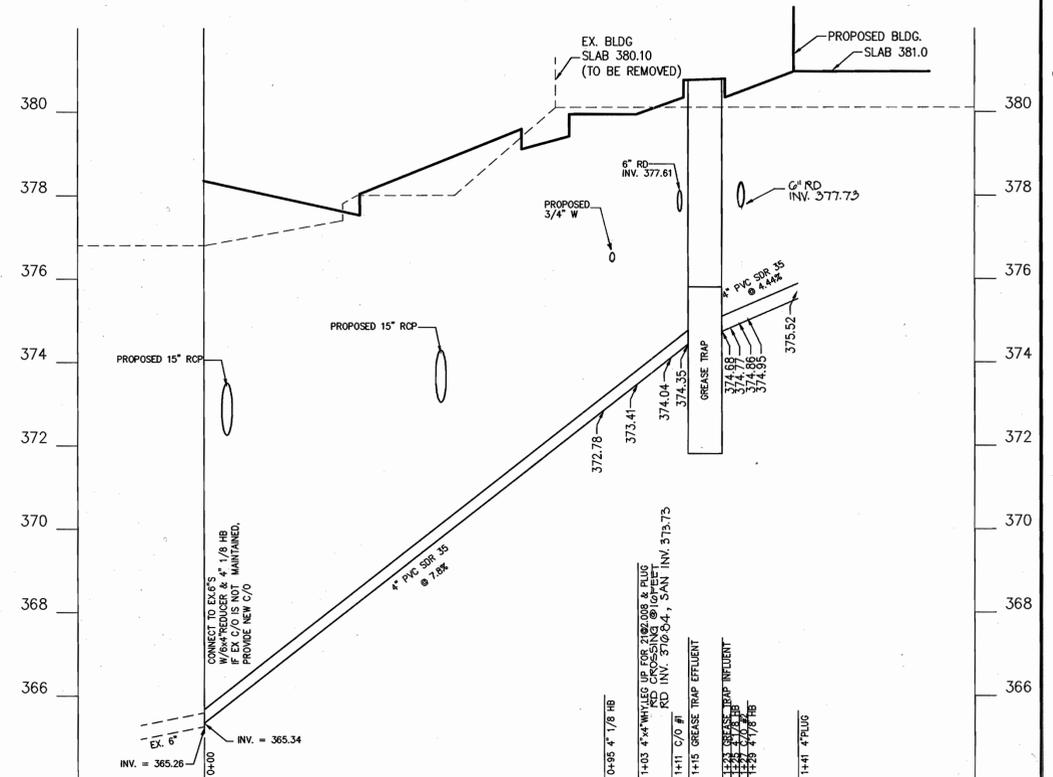


SCALE:
HOR: 1" = 20'
VER: 1" = 2'



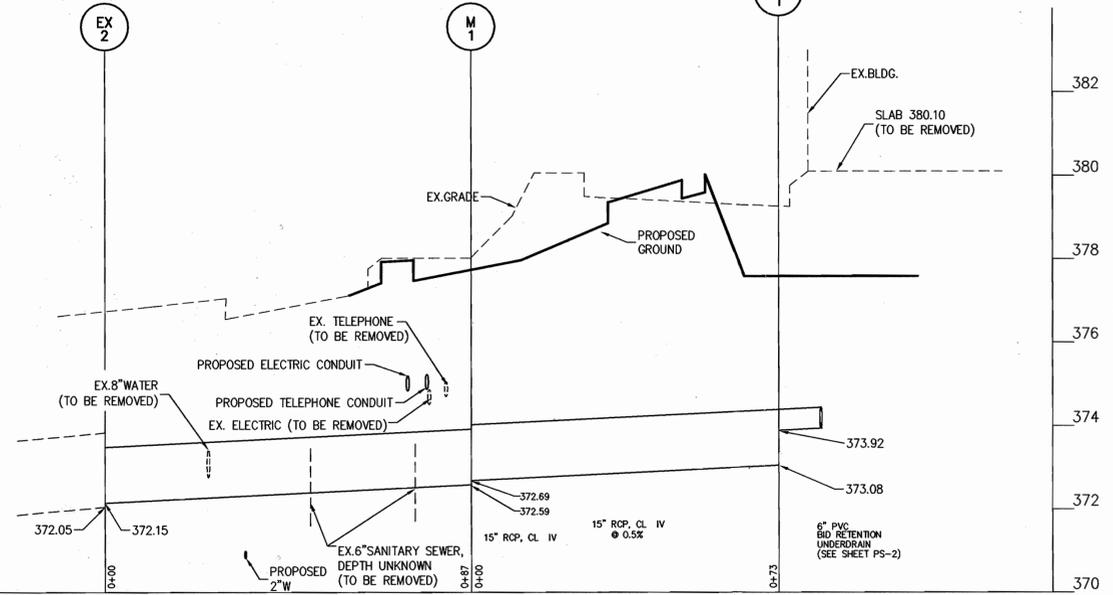
STORM DRAIN

SCALE:
HOR: 1" = 20'
VER: 1" = 2'



SANITARY SEWER

SCALE:
HOR: 1" = 20'
VER: 1" = 2'



STORM DRAIN

SCALE:
HOR: 1" = 20'
VER: 1" = 2'

APPROVED: DEPARTMENT OF PLANNING AND ZONING
Chad Damman 8/5/03
 CHIEF, DEVELOPMENT ENGINEERING DIVISION
Cinda Haman 8/12/03
 CHIEF, DIVISION OF LAND DEVELOPMENT
Walter D. Lough 8/12/03
 DIRECTOR

APPROVED
 PLANNING BOARD
 OF HOWARD COUNTY
 DATE May 1, 2003

The **RBA** ENGINEERS • ARCHITECTS • PLANNERS
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DOBBIN
 COMMERCIAL CENTER
 COLUMBIA, MD

Edition Date: 01/21/03 BIDSET
 Project Date: 12/03/02
 # Date Revision
 1 3/11/03
 2 7/20/03
 3 9/25/03
 4 3/13/04

SHEET NO.
PS-3
 14 of 14