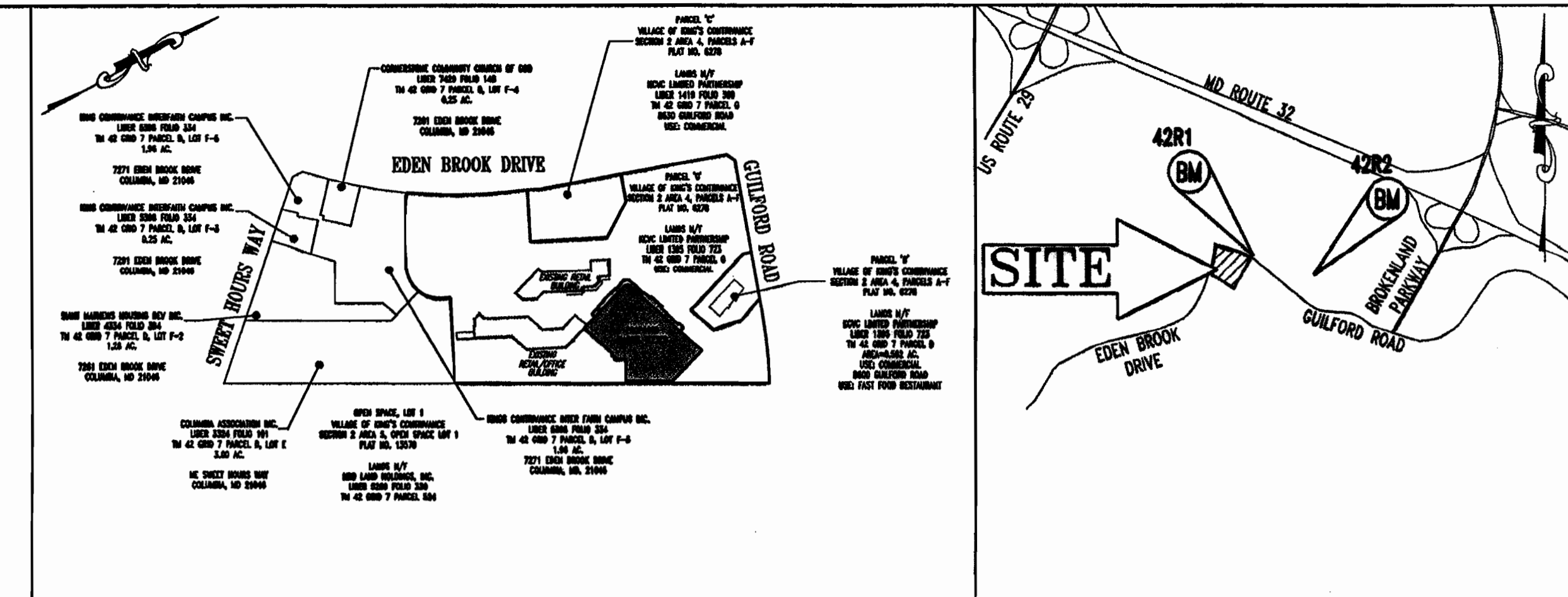


KIMCO REALTY CORPORATION

HARRIS TEETER
 ONE STORY GROCERY STORE
 8620 GUILFORD ROAD,
 COLUMBIA, MARYLAND 21046
 KING'S CONTRIVANCE VILLAGE CENTER
 TAX MAP: 42, PARCEL: G



OVERALL PLAN VIEW
 SCALE: 1"=500'

LOCATION MAP
 COPYRIGHT ADC THE MAP PEOPLE
 PERMIT USE NO. 20602153-5
 SCALE: 1"=2000'

EXISTING	PROPOSED
ON-SITE PROPERTY LINE / R.O.W. LINE	ON-SITE PROPERTY LINE / R.O.W. LINE
NEIGHBORING PROPERTY LINE / INTERIOR PARCEL LINE	NEIGHBORING PROPERTY LINE / INTERIOR PARCEL LINE
EASEMENT LINE	EASEMENT LINE
SETBACK LINE	SETBACK LINE
CONCRETE CURB & GUTTER	TYPICAL SPILL TRANSITION DEPRESSION
STORM SEWER	STORM SEWER
SANITARY SEWER MAIN	SANITARY SEWER MAIN
SANITARY SEWER LATERAL	SANITARY SEWER LATERAL
UG WATER LINE	UG WATER LINE
UG ELECTRIC LINE	UG ELECTRIC LINE
UG GAS LINE	UG GAS LINE
OVERHEAD WIRE	OVERHEAD WIRE
UG TELEPHONE LINE	UG TELEPHONE LINE
UG CABLE LINE	UG CABLE LINE
SPOT ELEVATIONS	SPOT ELEVATIONS
CONTOUR LINE	CONTOUR LINE
HYDRANT	HYDRANT
SANITARY MANHOLE	SANITARY MANHOLE
STORM MANHOLE	STORM MANHOLE
WATER METER	WATER METER
WATER VALVE	WATER VALVE
GAS VALVE	GAS VALVE
GAS METER	GAS METER
TYPICAL END SECTION	TYPICAL END SECTION
HEADWALL OR ENDWALL	HEADWALL OR ENDWALL
YARD INLET	YARD INLET
CURB INLET	CURB INLET
CLEAN OUT	CLEAN OUT
SANITARY LABEL	SANITARY LABEL
STORM LABEL	STORM LABEL
TYPICAL LIGHT	TYPICAL LIGHT
ACORN LIGHT	ACORN LIGHT
TRAFFIC LIGHT	TRAFFIC LIGHT
UTILITY POLE	UTILITY POLE
TYPICAL SIGN	TYPICAL SIGN
TYPICAL NOTE TEXT	TYPICAL NOTE TEXT
PARKING COUNTS	PARKING COUNTS
ELECTRIC MANHOLE	ELECTRIC MANHOLE
TELEPHONE MANHOLE	TELEPHONE MANHOLE
ELECTRIC BOX	ELECTRIC BOX
ELECTRIC PEDESTAL	ELECTRIC PEDESTAL
MONITORING WELL	MONITORING WELL
TEST PIT	TEST PIT
BENCHMARK	BENCHMARK
BORING	BORING
UTILITY POLE W/LIGHT	UTILITY POLE W/LIGHT
POLE LIGHT	POLE LIGHT

GENERAL NOTES:

- THE SUBJECT PROPERTY IS ZONED NT-COMM (NEWTOWN EMPLOYMENT CENTER COMMERCIAL) PER THE HOWARD COUNTY COMPREHENSIVE ZONING PLAN DATED 2/2/04.
- EXISTING USE: EXISTING SAFEWAY GROCERY STORE AND VACANT RESTAURANT PROPOSED USE: HARRIS TEETER ONE STORY GROCERY STORE
- BUILDING HEIGHT: 35.13'± PLEASE REFER TO FRONT BUILDING ELEVATION ON SHEET 13.
- REFUSE SHALL BE DISPOSED OF DAILY IN TRASH RECEPTALS. TRASH REMOVAL WILL BE PRIVATELY CONTRACTED.
- THERE SHALL BE NO TOXIC WASTE MATERIALS STORED ON SITE.
- UTILITIES:
 WATER, PUBLIC- AN 8" WATER LINE IS LOCATED ON THE NORTH SIDE OF THE PROPOSED BUILDING, CONTRACT # 34-1319-D.
 SEWER, PUBLIC- AN 8" SANITARY SEWER LINE IS LOCATED ON THE NORTH SIDE OF THE PROPOSED BUILDING, CONTRACT # 34-1319-D.
- ALL HOWARD COUNTY STORM WATER QUANTITY AND QUALITY REQUIREMENTS WILL BE MET BY A PROPOSED PRIVATELY OWNED AND MAINTAINED STORMWATER CONSTRUCTED UNDER THIS SDP.
- ELECTION DISTRICT: 6
- DEED REFERENCE: PARCEL D: LIBER 1395, FOLIO 723 AND LIBER 406, FOLIO 506.
- TAX MAP: 42, GRID 7, PARCEL G.
- THIS PROPERTY IS LOCATED IN FLOODPLAIN ZONE C AREA OF MINIMAL FLOODING PER FEMA MAP NO. 24004400398 REVISED DECEMBER 4, 1986.
- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY, MOSHA STANDARDS AND SPECIFICATIONS, AND HARRIS TEETER STANDARD SPECIFICATIONS.
- THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS/BUREAU OF ENGINEERING/CONSTRUCTION INSPECTION DIVISION AT (410) 313-1880 AT LEAST FIVE (5) WORKING DAYS PRIOR TO THE START OF WORK.
- THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK.
- TRAFFIC CONTROL DEVICES, MARKINGS, AND SIGNING SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD). ALL STREET AND REGULATORY SIGNS SHALL BE IN PLACE PRIOR TO THE PLACEMENT OF ANY ASPHALT.
- ALL PLAN DIMENSIONS ARE TO FACE OF CURB UNLESS OTHERWISE NOTED.

GENERAL NOTES (CONTINUED):

- THE COORDINATES SHOWN HEREON ARE BASED UPON THE HOWARD COUNTY GEODETIC CONTROL WHICH IS BASED UPON THE MARYLAND STATE PLAN COORDINATE SYSTEM. HOWARD COUNTY MONUMENT NOS. 42R1 AND 42R2 WERE USED FOR THIS PROJECT.
- THERE ARE NO WETLANDS OR FLOOD PLAINS LOCATED ON-SITE.
- THERE ARE NO KNOWN BURIAL GROUNDS ON SITE.
- THE LOCATION AND ELEVATIONS OF THE EXISTING UTILITIES SHOWN ARE APPROXIMATE. THE CONTRACTOR SHALL VERIFY THE EXISTENCE, LOCATION, AND DEPTH OF EXISTING UTILITIES IN THE WORK AREA AND NOTIFY BOHLER ENGINEERING, P.C. OF ANY DISCREPANCIES PRIOR TO BEGINNING WORK.
- THE CONTRACTOR WILL BE RESPONSIBLE FOR NOTIFYING BOHLER ENGINEERING, P.C. AT (410) 821-7900 IN THE EVENT OF ANY DISCREPANCIES ON THE PLAN OR IN THE RELATIONSHIP OF EXISTING GRADES WITH PROPOSED GRADES PRIOR TO BEGINNING WORK.
- THE CONTRACTOR SHALL NOTE THAT IN THE CASE OF A DISCREPANCY BETWEEN A SCALED DIMENSION AND A FIGURED DIMENSION SHOWN ON THE PLANS, THE FIGURED DIMENSIONS SHALL GOVERN.
- CONTRACTOR SHALL CONTACT THE HOWARD COUNTY CONSTRUCTION INSPECTION DIVISION 24 HOURS IN ADVANCE OF COMMENCEMENT OF WORK AT (410) 313-1880.
- THE ADEQUATE PUBLIC FACILITY ORDNANCE FOR THE KING'S CONTRIVANCE VILLAGE CENTER WAS PREPARED BY THE TRAFFIC, GROUP DATED APRIL 25, 2006, IN ACCORDANCE WITH CHARTS 4 AND 5 AT THE HARBOR COUNTY DESIGN MANUAL - VOLUME III (ROAD AND BRIDGE DESIGN) AND WAS APPROVED ON MAY 12, 2006.
- THIS PROJECT IS EXEMPT FROM FOREST CONSERVATION OBLIGATIONS IN ACCORDANCE WITH SECTION 16.1202.(b)(1)(iii) OF THE FOREST CONSERVATION MANUAL.
- LANDSCAPING IN ACCORDANCE WITH SECTION 16.124 OF THE HOWARD COUNTY CODE AND LANDSCAPE MANUAL SHALL BE PROVIDED AS SHOWN ON THE LANDSCAPE SHEET. SURETY SHALL BE POSTED WITH THE DEVELOPERS AGREEMENT.
- FINANCIAL SURETY FOR THE REQUIRED LANDSCAPING HAS BEEN POSTED AS PART OF THE DEVELOPER'S AGREEMENT IN THE AMOUNT OF \$2,850 FOR 2 SHADE TREES, 2 EVERGREEN TREES, 2 ORNAMENTAL TREES AND 2 SHRUBS.
- OUTDOOR LIGHTING SHALL CONFORM TO SECTION 134 OF THE ZONING REGULATIONS.
- THE EXISTING TOPOGRAPHY TAKEN FROM A FIELD RUN SURVEY WITH ONE FOOT CONTOUR INTERVALS PREPARED BY CONTROL POINT ASSOCIATES, INC. DATED 10/27/05, REVISED 5/16/06.
- A KNOX BOX IS REQUIRED TO BE PLACED ON THE FRONT OF THE BUILDING. IT SHALL BE PLACED TO THE RIGHT OF THE MAIN ENTRANCE AT A RANGE OF 4'-5' IN HEIGHT AND NO MORE THEN 6' LATERALLY FROM THE FRONT DOOR. THE KNOX BOX SHALL BE ELECTRONICALLY SUPERVISED TO NOTIFY THE OWNER THAT IT IS BEING ACCESSED. (INTEGRATED WITH THE FIRE ALARM SYSTEM). NFPA-1 10.1.1

SHEET INDEX

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GENERAL NOTES (CONTINUED):

31. BULK REQUIREMENTS:	REQUIRED	PROVIDED
A. FRONT STRUCTURE SETBACK: (GUILFORD ROAD)	30'	185.05'
SIDE PARKING SETBACK: (KINGS CONTRIVANCE)	10'	298.55'
REAR PARKING SETBACK: (OPEN SPACE)	10'	2.16*
FRONT STRUCTURE SETBACK (EDEN BROOK DRIVE)	30'	312.75'

*PER PREVIOUSLY APPROVED SDP-85-153 ENTITLED "VILLAGE OF KINGS CONTRIVANCE, SECTION 2, AREA 4, PARCEL 10, PREPARED BY FISHER, COLLINS AND CARTER, INC. DATED MARCH 4, 1985, APPROVED MAY 15, 1985.

B. PARKING REQUIREMENTS PER FDP-178-A-11 PART IV:
 5 SPACES PER 1,000 S.F. OF NET LEASABLE RETAIL COMMERCIAL AREA
 93,081 S.F. / 1,000 S.F. X 5 SPACES = 466 SPACES
 3 SPACES PER 1,000 S.F. OF NET LEASABLE OFFICE SPACE
 19,000 S.F. / 1,000 S.F. X 3 SPACES = 57 SPACES
 PER SDP 86-169c AN ADDITIONAL 33 SPACES ARE REQUIRED TO BE PROVIDED ON PARCEL 'G' TO MEET THE MCDONALD'S PARKING REQUIREMENTS.
 TOTAL SPACES REQUIRED: 556 SPACES
 NUMBER OF SPACES PROVIDED: 499 SPACES INCLUDING 9 HANDICAP SPACES.

MISS UTILITY



THE CONTRACTOR TO CALL MISS UTILITY TO HAVE ALL EXISTING UTILITIES MARKED 48 HOURS PRIOR TO ANY CONSTRUCTION.

UTILITY CONTACTS:

NATURAL GAS AND ELECTRIC BALTIMORE GAS AND ELECTRIC 7517 PARKWAY DRIVE SOUTH HANOVER, MD 21076 PHONE: (410) 859-9383	WATER AND SANITARY SEWER HOWARD COUNTY PUBLIC WORKS BUREAU OF UTILITIES 8250 OLD MONTGOMERY ROAD COLUMBIA, MD 21045 PHONE: (410) 313-4910
TELEPHONE VERIZON 7133 RUTHERFORD ROAD BALTIMORE, MD 21244 PHONE: (410) 224-5286	EROSION AND SEDIMENT CONTROL DEPARTMENT OF INSPECTIONS, LICENSES & PERMITS 3430 COURTHOUSE DRIVE ELLCOTT CITY, MD 21043 PHONE: (410) 313-2455
STORMWATER MANAGEMENT HOWARD COUNTY PLANNING AND ZONING DEPARTMENT 3430 COURTHOUSE DRIVE ELLCOTT CITY, MD 21043 PHONE: (410) 313-2350	PLANNING AND ZONING HOWARD COUNTY PLANNING AND ZONING DEPARTMENT 3430 COURTHOUSE DRIVE ELLCOTT CITY, MD 21043 PHONE: (410) 313-2350

SITE ANALYSIS DATA CHART

A. PARCEL AREA: PARCEL "G" = 505,101 OR 11.60 AC.
B. AREA OF PLAN SUBMISSION: 154,782 S.F. OR 3.55 AC.
C. LIMIT OF DISTURBANCE: 154,782 S.F. OR 3.55 AC.
D. PRESENT ZONING: NT-COMM (NEW TOWN EMPLOYMENT CENTER COMMERCIAL)
E. PROPOSED USE: HARRIS TEETER (ONE STORY GROCERY STORE); SHOPPING CENTER RETAIL AREA AND OFFICE SPACE
F. FLOOR AREA: - PROP. HARRIS TEETER RETAIL: 56,581 S.F. - BUILDING "A" RETAIL: 16,150 S.F. - BUILDING "G" RETAIL: 20,350 S.F. OFFICE SPACE: 19,000 S.F.
G. MAXIMUM NUMBER OF EMPLOYEES ON PARCEL 'G': 175 (TOTAL EMPLOYEES)
H. NUMBER OF PARKING SPACES REQUIRED BY FDP-178-A-11 PART IV 5 SPACES PER 1,000 S.F. OF NET LEASABLE RETAIL COMMERCIAL AREA 93,081 S.F. / 1,000 S.F. X 5 SPACES = 466 SPACES 3 SPACES PER 1,000 S.F. OF NET LEASABLE OFFICE SPACE 19,000 S.F. / 1,000 S.F. X 3 SPACES = 57 SPACES PER SDP 86-169c. AN ADDITIONAL 33 SPACES ARE REQUIRED ON PARCEL 'G' TO MEET THE MCDONALD'S PARKING REQUIREMENTS. TOTAL SPACES REQUIRED: 556 SPACES
I. NUMBER OF SPACES PROVIDED: 499 SPACES INCLUDING 9 HANDICAP SPACES
J. OPEN SPACE ON SITE: N/A
K. BUILDING COVERAGE OF SITE: EX. 1.82 AC. OR 15.66% OF PARCEL AREA PROP. 2.57 AC. OR 22.19% OF PARCEL AREA
L. FDP-178-A-11, PART IV - VILLAGE OF KINGS CONTRIVANCE, SECTION 2, AREA 4 SDP-85-153C - VILLAGE OF KINGS CONTRIVANCE, SECTION 2, AREA 4, PARCEL "D" SDP-86-171C - FRIENDLY RESTAURANT, SECTION 2, AREA 4, PARCEL "A" SDP-87-23C - VILLAGE OF KINGS CONTRIVANCE, SECTION 2, AREA 4, PARCEL "C" SDP-86-169C - MCDONALD'S SECTION 2, AREA 4, PARCEL "B" SDP-92-52 - AMHERST HOUSE, PARCEL E SDP-02-08 - KINGS CONTRIVANCE INTERFATH CAMPUS, PARCELS F-3, F-4 AND F-5 F-85-114 - KINGS CONTRIVANCE, SECTION 2, AREA 4, PARCELS A-F F-06-209 - VILLAGE OF KING'S CONTRIVANCE SECTION 2, AREA 4, PARCEL G
M. SETBACK: PER FDP-178-A-11, PART IV - VILLAGE OF KINGS CONTRIVANCE, SECTION 2, AREA 4. 30' STRUCTURE SETBACK FROM RIGHT-OF-WAY 10' PARKING SETBACK FROM ANY LOT LINE UNLESS OTHERWISE APPROVED BY HOWARD COUNTY PLANNING BOARD.
N. BUILDING HEIGHT: NO HEIGHT LIMITATION IS IMPOSED UPON STRUCTURES CONSTRUCTED WITHIN THE VILLAGE CENTER PER FDP-178-A-11, PART IV.

BENCHMARK

GEODETIC SURVEY CONTROL - #42R1
 S 547,820.238
 E 135,117.859
 ELEV. 375.85'
 LOCATED AT THE CORNER OF GUILFORD ROAD AND SASSAFRAS COURT.

GEODETIC SURVEY CONTROL - #42R2
 N 546,946.800
 E 1,352,118.566
 ELEV. 331.522'
 LOCATED AT HAMMOND HIGH SCHOOL AND GUILFORD ROAD (BLUE SEA ROAD)

APPLICANT

KIMCO REALTY CORPORATION
 170 W. RIDGLEY ROAD
 SUITE 210
 LUTHERVILLE, MD 21093
 CONTACT: GEOFF GLAZER
 PHONE: 410-684-2000

ADDRESS CHART

LOT/PARCEL #	STREET ADDRESS
PARCEL G	8620 GUILFORD ROAD

PERMIT INFORMATION CHART

PROJECT NAME: KINGS CONTRIVANCE	SECTION/AREA: SECTION 2, AREA 4	LOT/PARCEL #: G
BLAT RECORRATION: 178-A-11-PART IV	ZONING: NT-COMM	ELECT. DETAIL: 6TH
WATER CODE: E-16	SEWER CODE: 6350000	

OWNER/DEVELOPER:

KVC LIMITED PARTNERSHIP
 C/O KIMCO REALTY CORP.
 3333 NEW HYDE PARK ROAD
 SUITE 100
 NEW HYDE PARK, NY 11042-1205

PROJECT:

HARRIS TEETER - ONE STORY GROCERY STORE
 KING'S CONTRIVANCE VILLAGE CENTER
 8620 GUILFORD ROAD
 COLUMBIA, MARYLAND 21046

AREA: TAX MAP 42 GRID 7 PARCEL G
 VILLAGE OF KING'S CONTRIVANCE
 8TH ELECTION DISTRICT
 COLUMBIA, HOWARD COUNTY, MARYLAND

TITLE:

COVER SHEET

BOHLER ENGINEERING, P.C.

PROFESSIONAL ENGINEERING SUBSISTANCE
 *810 GLENEAGLES COURT, SUITE 300, TOWSON, MARYLAND
 *CONTRACTOR: Michael Gesell
 *(410) 821-7900 FAX: (410) 821-7987 E-MAIL: BOHLERENR@GMAIL.COM

DESIGNED BY: M/JG
 DRAWN BY: TAC
 PROJECT NO.: MDO49006
 DATE: 9/27/06
 SCALE: AS SHOWN
 DRAWING NO.: 1 OF 22

BOHLER ENGINEERING, P.C.
 PROFESSIONAL ENGINEER NO. 28567

PLANNING BOARD APPROVAL STAMP

APPROVED: DEPARTMENT OF PLANNING AND ZONING
 CHIEF-DEVELOPMENT ENGINEERING DIVISION
 DATE: 12/11/06
 CHIEF-DIVISION & LAND DEVELOPMENT
 DATE: 12/11/06
 DIRECTOR
 DATE: 12/18/06

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS.
 COUNTY HEALTH OFFICER
 HOWARD COUNTY HEALTH DEPARTMENT
 DATE: 12/18/06

APPROVED PLANNING BOARD OF HOWARD COUNTY
 DATE: 8-31-06

ISSUED FOR CONSTRUCTION

SIGNATURE DATE SIGNATURE DATE SIGNATURE DATE
 THIS DOCUMENT IS NOT ISSUED BY BOHLER ENGINEERING, P.C. FOR CONSTRUCTION WITHOUT (3) SIGNATURES

REPC PROJECT # MDO49006 REVISION #/DATE

GENERAL NOTE:
 IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO REVIEW ALL OF THE DRAWINGS AND SPECIFICATIONS ASSOCIATED WITH THIS PROJECT WORK SCOPE PRIOR TO THE INITIATION OF CONSTRUCTION. SHOULD THE CONTRACTOR FIND A CONFLICT WITH THE DOCUMENTS RELATIVE TO THE SPECIFICATIONS OR APPLICABLE CODES, IT IS THE CONTRACTORS RESPONSIBILITY TO NOTIFY THE PROJECT ENGINEER OF RECORD IN WRITING PRIOR TO THE START OF CONSTRUCTION. FAILURE BY THE CONTRACTOR TO NOTIFY THE PROJECT ENGINEER SHALL CONSTITUTE ACCEPTANCE OF FULL RESPONSIBILITY BY THE CONTRACTOR TO COMPLETE THE SCOPE OF THE WORK AS DEFINED BY THE DRAWINGS AND IN FULL CONFORMANCE WITH LOCAL REGULATIONS AND CODES.

PREPARED BY:
BOHLER ENGINEERING, P.C.
 810 GLENEAGLES COURT, SUITE 300
 TOWSON, MARYLAND 21286
 (410) 821-7900

DEMOLITION NOTES

1. THIS PLAN IS BASED ON A SURVEY PREPARED BY:

CONTROL POINT ASSOCIATES, INC.
22630 DAVIS DRIVE, SUITE 200
STERLING, VA 20164
TELEPHONE: (703) 709-9400
FAX: (703) 904-9797
CONTACT: KEVIN STEINHILBER, P.L.S.
FILE NO. # S056218
ENTITLED: "PARTIAL SURVEY AND TOPOGRAPHIC SURVEY, PARCEL 'A' AND PART OF PARCEL 'B' AND 'D', VILLAGE OF KING'S CONTRIVANCE, SECTION 2 AREA 4.
DATED: 10/27/05, REVISED 5/16/06

2. BOHLER ENGINEERING, P.C. IS NOT RESPONSIBLE FOR JOB SITE SAFETY OR SUPERVISION.

3. ALL DEMOLITION ACTIVITIES ARE TO BE PERFORMED IN ACCORDANCE WITH THESE PLANS AND SPECIFICATIONS AS WELL AS ALL FEDERAL, STATE AND LOCAL REGULATIONS. ANY DISCREPANCIES OR DEVIATIONS SHALL BE IDENTIFIED BY THE CONTRACTOR TO BOHLER ENGINEERING, P. C. IN WRITING FOR RESOLUTION PRIOR TO INITIATION OF SITE ACTIVITY.

4. PRIOR TO STARTING ANY DEMOLITION CONTRACTOR IS RESPONSIBLE FOR/TO:

- A. ENSURING THAT COPIES OF ALL APPLICABLE PERMITS AND APPROVALS ARE MAINTAINED ON SITE AND AVAILABLE FOR REVIEW.
- B. INSTALLING THE REQUIRED SOIL EROSION AND SEDIMENT CONTROL AND/OR TREE PROTECTION MEASURES PRIOR TO SITE DISTURBANCE.
- C. LOCATING (VERTICALLY AND HORIZONTALLY) ALL UTILITIES AND SERVICES, INCLUDING, BUT NOT LIMITED TO GAS, WATER, ELECTRIC, SANITARY AND STORM SEWER, TELEPHONE, CABLE, FIBER OPTIC CABLE, ETC. WITHIN THE LIMITS OF DISTURBANCE. THE CONTRACTOR SHALL USE AND COMPLY WITH THE REQUIREMENTS OF THE APPLICABLE UTILITY NOTIFICATION SYSTEM TO LOCATE ALL THE UNDERGROUND UTILITIES.
- D. PROTECTING AND MAINTAINING IN OPERATION, ALL ACTIVE SYSTEM THAT ARE NOT BEING REMOVED DURING ALL DEMOLITION ACTIVITIES.
- E. FAMILIARIZING THEMSELVES WITH THE APPLICABLE UTILITY SERVICE PROVIDER AND IS RESPONSIBLE FOR ALL COORDINATION REGARDING UTILITY DEMOLITION REQUIRED FOR THE PROJECT. THE CONTRACTOR SHALL PROVIDE THE OWNER WRITTEN NOTIFICATION THAT THE EXISTING UTILITIES AND SERVICES HAVE BEEN TERMINATED AND ABANDONED IN ACCORDANCE WITH JURISDICTION AND UTILITY COMPANY REQUIREMENTS.
- F. COORDINATION WITH UTILITY COMPANIES REGARDING WORKING "OFF-PEAK" HOURS OR ON WEEKENDS AS MAY BE REQUIRED TO MINIMIZE THE IMPACT ON THE AFFECTED PARTIES.
- G. A COMPLETE INSPECTION FOR CONTAMINANTS BY A LICENSED ENVIRONMENTAL TESTING AGENCY, OF ALL BUILDINGS AND/OR STRUCTURES TO BE REMOVED. SAME SHALL BE PERFORMED IN ACCORDANCE WITH ALL APPLICABLE LOCAL, STATE, AND FEDERAL ENVIRONMENTAL REGULATIONS. ANY/ALL CONTAMINANTS SHALL BE REMOVED AND DISPOSED OF BY A FEDERALLY LICENSED CONTRACTOR IN ACCORDANCE WITH FEDERAL, STATE, AND LOCAL REGULATIONS. ALL ENVIRONMENTAL WORK INCLUDING HAZARDOUS MATERIAL, SOILS, ASBESTOS, OR OTHER REFERENCED OR IMPLIED HEREIN IS THE SOLE RESPONSIBILITY OF THE OWNER'S ENVIRONMENTAL CONSULTANT.

5. BOHLER ENGINEERING P.C. IS NOT RESPONSIBLE FOR JOB SITE SAFETY OR SUPERVISION. CONTRACTOR IS TO PROCEED WITH THE DEMOLITION IN A SYSTEMATIC AND SAFE MANNER, FOLLOWING ALL THE OSHA REQUIREMENTS, TO ENSURE PUBLIC AND CONTRACTOR SAFETY.

6. THE CONTRACTOR SHALL PROVIDE ALL THE "MEANS AND METHODS" NECESSARY TO PREVENT MOVEMENT, SETTLEMENT, OR COLLAPSE OF EXISTING STRUCTURES, AND ANY OTHER IMPROVEMENTS THAT ARE REMAINING ON OR OFF SITE. THE DEMOLITION CONTRACTOR IS RESPONSIBLE FOR ALL REPAIRS OF DAMAGE TO ALL ITEMS THAT ARE TO REMAIN AS TO COMPLETE HIS ACTIVITIES. ALL REPAIRS SHALL USE NEW MATERIAL. THE REPAIRS SHALL RESTORE THE ITEM TO THE PRE-DEMOLITION CONDITION.

7. IN THE ABSENCE OF SPECIFICATIONS, THE CONTRACTOR SHALL PERFORM EARTH MOVEMENT ACTIVITIES, DEMOLITION AND REMOVAL OF ALL FOUNDATION WALLS, FOOTINGS, AND OTHER MATERIALS WITHIN THE LIMITS OF DISTURBANCE IN ACCORDANCE WITH DIRECTION BY OWNER'S STRUCTURAL OR GEOTECHNICAL ENGINEER.

8. EXPLOSIVES SHALL NOT BE USED WITHOUT PRIOR WRITTEN CONSENT OF BOTH THE OWNER AND APPLICABLE GOVERNMENTAL AUTHORITIES. ALL THE REQUIRED PERMITS AND EXPLOSIVE CONTROL MEASURES THAT ARE REQUIRED BY THE FEDERAL, STATE, AND LOCAL GOVERNMENTS SHALL BE IN PLACE PRIOR TO STARTING AN EXPLOSIVE PROGRAM. THE CONTRACTOR IS ALSO RESPONSIBLE FOR ALL INSPECTION AND SEISMIC VIBRATION TESTING THAT IS REQUIRED TO MONITOR THE EFFECTS ON ALL LOCAL STRUCTURES.

9. CONTRACTOR SHALL PROVIDE TRAFFIC CONTROL AND GENERALLY ACCEPTED SAFE PRACTICES IN CONFORMANCE WITH: THE "MANUAL ON UNIFORM TRAFFIC CONTROL," AS WELL AS FEDERAL, STATE, AND LOCAL REGULATIONS WHEN DEMOLITION RELATED ACTIVITIES IMPACT ROADWAYS OR ROADWAY RIGHTS - OF - WAY.

10. CONDUCT DEMOLITION ACTIVITIES IN SUCH A MANNER TO ENSURE MINIMUM INTERFERENCE WITH ROADS, STREETS, SIDEWALKS, WALKWAYS, AND OTHER ADJACENT FACILITIES. STREET CLOSURE PERMITS MUST BE RECEIVED FROM THE APPROPRIATE GOVERNMENTAL AUTHORITY.

11. DEMOLITION ACTIVITIES AND EQUIPMENT SHALL NOT USE AREAS OUTSIDE THE DEFINED PROPERTY LINE WITHOUT WRITTEN PERMISSION OF THE APPLICABLE PROPERTY OWNER, AND/OR APPROPRIATE GOVERNMENT AGENCY.

12. USE DUST CONTROL MEASURES TO LIMIT AIRBORNE DUST AND DIRT RISING AND SCATTERING IN THE AIR IN ACCORDANCE WITH FEDERAL, STATE, AND/OR LOCAL STANDARDS. AFTER THE DEMOLITION IS COMPLETE, ADJACENT STRUCTURES AND IMPROVEMENTS SHALL BE CLEANED OF ALL DUST AND DEBRIS CAUSED BY THE DEMOLITION OPERATIONS. THE CONTRACTOR IS RESPONSIBLE FOR RETURNING ALL ADJACENT AREAS TO THEIR "PRE-DEMOLITION" CONDITION.

13. CONTRACTOR IS RESPONSIBLE TO SAFEGUARD SITE AS NECESSARY TO PERFORM THE DEMOLITION IN SUCH A MANNER AS TO PREVENT THE ENTRY OF UNAUTHORIZED PERSONS AT ANY TIME.

14. THIS DEMOLITION PLAN IS INTENDED TO IDENTIFY THOSE EXISTING ITEMS/CONDITIONS WHICH ARE TO BE REMOVED. IT IS NOT INTENDED TO PROVIDE DIRECTION OTHER THAN THAT ALL METHODS AND MEANS ARE TO BE IN ACCORDANCE WITH STATE, FEDERAL, LOCAL, AND JURISDICTIONAL REQUIREMENTS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL OSHA AND OTHER SAFETY PRECAUTIONS NECESSARY TO PROVIDE A SAFE WORK SITE.

15. DEBRIS SHALL NOT BE BURIED ON THE SUBJECT SITE. ALL DEMOLITION WASTES AND DEBRIS (SOLID WASTE) SHALL BE DISPOSED OF IN ACCORDANCE WITH ALL TOWN, COUNTY, STATE, AND FEDERAL LAWS AND APPLICABLE CODES.

SITE PLAN GENERAL NOTES

1. THIS PLAN IS BASED ON A SURVEY PREPARED BY:

CONTROL POINT ASSOCIATES, INC.
22630 DAVIS DRIVE, SUITE 200
STERLING, VA 20164
TELEPHONE: (703) 709-9400
FAX: (703) 904-9797
CONTACT: KEVIN STEINHILBER, P.L.S.
FILE NO. # S056218
ENTITLED: "PARTIAL SURVEY AND TOPOGRAPHIC SURVEY, PARCEL 'A' AND PART OF PARCEL 'B' AND 'D', VILLAGE OF KING'S CONTRIVANCE, SECTION 2 AREA 4.
DATED: 10/27/05, REVISED 5/16/06

ALL ELEVATIONS SHOWN ARE BASED ON THE SURVEYOR'S BENCHMARK, AS REFERENCED IN THE SURVEY, AND MUST BE VERIFIED BY THE GENERAL CONTRACTOR PRIOR TO GROUNDBREAK.

2. APPLICANT:
KIMCO REALTY CORPORATION
170 W. RIDLEY ROAD, SUITE 210
LUTHERVILLE, MARYLAND 21093
CONTACT: GEOFF GLAZER
PHONE: (410) 684-2000

3. OWNER:
KVC LIMITED PARTNERSHIP
C/O KIMCO REALTY CORP.
3333 NEW HYDE PARK ROAD
SUITE 100
NEW HYDE PARK, NY 11042-1205
CONTACT: GEOFF GLAZER
PHONE: (410) 684-2000

4. PARCEL DATA:
TAX MAP: 42
GRID: 7
PARCEL: G

5. BULK REQUIREMENTS:	REQUIRED	PROVIDED
A. FRONT STRUCTURE SETBACK: (GUILFORD ROAD)	30'	185.05'
SIDE PARKING SETBACK: (KINGS CONTRIVANCE)	10'	298.55'
REAR PARKING SETBACK: (OPEN SPACE)	10'	2.16'
FRONT STRUCTURE SETBACK: (EDEN BROOK DRIVE)	30'	312.75'

*PER PREVIOUSLY APPROVED SDP-85-153 ENTITLED "VILLAGE OF KING'S CONTRIVANCE, SECTION 2, AREA 4, PARCEL 1D, PREPARED BY FISHER, COLLINS AND CARTER, INC. DATED MARCH 4, 1985, APPROVED MAY 15, 1985.

B. PARKING REQUIREMENTS PER FDP-178-A-11 PART IV:
5 SPACES PER 1,000 S.F. OF NET LEASABLE RETAIL COMMERCIAL AREA
93,081 S.F. / 1,000 S.F. X 5 SPACES = 466 SPACES

3 SPACES PER 1,000 S.F. OF NET LEASABLE OFFICE SPACE
19,000 S.F. / 1,000 S.F. X 3 SPACES = 57 SPACES

PER SDP 86-169c AN ADDITIONAL 33 SPACES ARE REQUIRED TO BE PROVIDED ON PARCEL 'G' TO MEET THE MCDONALD'S PARKING REQUIREMENTS.

TOTAL SPACES REQUIRED: 566 SPACES

NUMBER OF SPACES PROVIDED: 499 SPACES INCLUDING 9 HANDICAP SPACES

6. PRIOR TO STARTING CONSTRUCTION, THE CONTRACTOR SHALL ENSURE THAT ALL REQUIRED PERMITS AND APPROVALS HAVE BEEN OBTAINED. NO CONSTRUCTION OR FABRICATION SHALL BEGIN UNTIL THE CONTRACTOR HAS RECEIVED AND THOROUGHLY REVIEWED ALL PLANS AND OTHER DOCUMENTS BY ALL OF THE PERMITTING AUTHORITIES.

7. THE OWNER/CONTRACTOR SHALL BE FAMILIAR WITH AND RESPONSIBLE FOR ANY/ALL CERTIFICATIONS, INSPECTIONS, ETC. REQUIRED BY ALL GOVERNING JURISDICTIONAL AGENCIES DURING AND AFTER CONSTRUCTION FOR SIGN-OFF AND CERTIFICATE OF OCCUPANCY ISSUANCE, INCLUDING BUT NOT LIMITED TO PROCUREMENT OF SERVICES, SCHEDULING OF FIELD OBSERVATIONS AND COORDINATION WITH REPRESENTATIVES OF THE APPROPRIATE PARTIES.

8. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THESE PLANS AND SPECIFICATIONS AND THE REQUIREMENTS AND STANDARDS OF THE LOCAL GOVERNING AUTHORITY.

9. THE GEOTECHNICAL REPORT PREPARED BY HILLIS-CARNES ENGINEERING ASSOCIATES, INC. DATED 12/29/05, PROJECT NO. 02190A AND RECOMMENDATIONS SET FORTH THEREIN ARE A PART OF THE REQUIRED CONSTRUCTION DOCUMENTS AND IN CASE OF CONFLICT SHALL TAKE PRECEDENCE UNLESS SPECIFICALLY NOTED OTHERWISE ON THE PLANS. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IN WRITING OF ANY SUCH DISCREPANCY BETWEEN GEOTECHNICAL REPORT AND PLANS, ETC.

10. THE PROPERTY SURVEY SHALL BE CONSIDERED A PART OF THESE PLANS.

11. THESE PLANS ARE BASED ON INFORMATION PROVIDED TO BOHLER ENGINEERING, P. C. AT THE TIME OF PLAN PREPARATION. CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS AND NOTIFY BOHLER ENGINEERING, P. C. IF ACTUAL SITE CONDITIONS DIFFER FROM THOSE SHOWN ON THE PLAN, OR IF THE PROPOSED WORK WOULD BE INHIBITED BY ANY OTHER SITE FEATURES.

12. ALL DIMENSIONS SHOWN ON THE PLANS SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. CONTRACTOR SHALL NOTIFY BOHLER ENGINEERING, P.C. IN WRITING IF ANY DISCREPANCIES EXIST PRIOR TO PROCEEDING WITH CONSTRUCTION. NO EXTRA COMPENSATION SHALL BE PAID TO THE CONTRACTOR FOR WORK HAVING TO BE REDONE DUE TO DIMENSIONS OR GRADES SHOWN INCORRECTLY ON THESE PLANS IF SUCH NOTIFICATION HAS NOT BEEN GIVEN.

13. CONTRACTOR SHALL REFER TO THE ARCHITECTURAL/BUILDING PLANS FOR EXACT LOCATIONS AND DIMENSIONS OF ENTRY/EXIT POINTS, ELEVATIONS, PRECISE BUILDING DIMENSIONS, EXACT BUILDING UTILITY LOCATIONS.

14. DEBRIS SHALL NOT BE BURIED ON THE SUBJECT SITE AND ALL UNSUITABLE EXCAVATED MATERIAL AND DEBRIS (SOLID WASTE) SHALL BE DISPOSED OF IN ACCORDANCE WITH ALL TOWN, COUNTY, STATE AND FEDERAL LAWS AND APPLICABLE CODES.

15. CONTRACTOR IS RESPONSIBLE FOR ALL SHORING REQUIRED DURING EXCAVATION (TO BE PERFORMED IN ACCORDANCE WITH CURRENT OSHA STANDARDS) AND ANY ADDITIONAL PROVISIONS TO ASSURE STABILITY OF CONTIGUOUS STRUCTURES, AS FIELD CONDITIONS DICTATE.

16. CONTRACTOR IS TO EXERCISE EXTREME CARE WHEN PERFORMING ANY WORK ACTIVITIES ADJACENT TO NEAREST STRUCTURES, ETC. TO REMAIN. CONTRACTOR SHALL BE RESPONSIBLE FOR TAKING THE APPROPRIATE MEASURES AS NECESSARY TO ENSURE THE STRUCTURAL STABILITY OF PAVEMENT, STRUCTURES, ETC. TO REMAIN, AND TO PROVIDE A SAFE WORK AREA.

17. CONTRACTOR IS RESPONSIBLE FOR DOCUMENTING ALL EXISTING DAMAGE AND FOR NOTIFYING CONSTRUCTION MANAGER PRIOR TO START OF CONSTRUCTION. CONTRACTOR IS RESPONSIBLE FOR REPAIRING THE DAMAGE DUE TO ANY EXISTING ITEM DURING CONSTRUCTION SUCH AS BUT NOT LIMITED TO DRAINAGE, UTILITIES, PAVEMENT, STRIPING, CURB, ETC. THE CONTRACTOR SHALL BE RESPONSIBLE FOR AND SHALL REPLACE ALL SIGNAL INTERCONNECT CABLE, CONDUITS, AND ANY UNDERGROUND ACCESSORY EQUIPMENT DAMAGED DURING CONSTRUCTION. REPAIR SHALL BE EQUAL TO OR BETTER THAN EXISTING CONDITIONS.

18. ALL CONCRETE SHALL HAVE THE MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS AS INDICATED IN SPECIFICATIONS UNLESS OTHERWISE NOTED ON THE PLANS, DETAILS AND/OR GEOTECHNICAL REPORT.

19. BOHLER ENGINEERING, P.C. IS NOT RESPONSIBLE FOR CONSTRUCTION METHODS/MEANS FOR COMPLETION OF THE WORK DEPICTED ON THESE PLANS NOR ANY CONFLICTS/SCOPE REVISIONS WHICH RESULT FROM SAME. CONTRACTOR IS RESPONSIBLE FOR DETERMINING METHODS/MEANS FOR COMPLETION OF THE WORK PRIOR TO THE COMMENCEMENT OF CONSTRUCTION AND NOTIFICATION OF OWNER AND ENGINEER OF RECORD WHEN A CONFLICT IS IDENTIFIED.

20. BOHLER ENGINEERING, P.C. IS NOT RESPONSIBLE FOR JOB SITE SAFETY NOR HAVE THEY BEEN RETAINED FOR SUCH PURPOSES.

SITE PLAN GENERAL NOTES

21. ALL CONTRACTORS MUST CARRY STATUTORY WORKER'S COMPENSATION INSURANCE, EMPLOYER'S LIABILITY INSURANCE AND APPROPRIATE LIMITS OF COMMERCIAL GENERAL LIABILITY INSURANCE (CGL). ALL CONTRACTORS MUST HAVE THEIR CGL POLICIES ENDORSED TO NAME BOHLER ENGINEERING, P.C., AND ITS SUBCONSULTANTS AS ADDITIONAL INSURED AND TO PROVIDE CONTRACTUAL LIABILITY COVERAGE SUFFICIENT TO INSURE THE HOLD HARMLESS AND INDEMNITY OBLIGATIONS ASSUMED BY THE CONTRACTORS. ALL CONTRACTORS MUST FURNISH BOHLER ENGINEERING, P.C. WITH CERTIFICATIONS OF INSURANCE AS EVIDENCE OF THE REQUIRED INSURANCE PRIOR TO COMMENCING WORK AND UPON RENEWAL OF EACH POLICY DURING THE ENTIRE PERIOD OF CONSTRUCTION. IN ADDITION, ALL CONTRACTORS WILL, TO THE FULLEST EXTENT PERMITTED BY LAW, INDEMNIFY AND HOLD HARMLESS BOHLER ENGINEERING, P.C. AND ITS SUBCONSULTANTS FROM AND AGAINST ANY DAMAGES, LIABILITIES OR COSTS, INCLUDING REASONABLE ATTORNEYS' FEES AND DEFENSE COSTS, ARISING OUT OF OR IN ANY WAY CONNECTED WITH THE PROJECT, INCLUDING ALL CLAIMS BY EMPLOYEES OF THE CONTRACTORS.

22. NEITHER THE PROFESSIONAL ACTIVITIES OF BOHLER ENGINEERING, P.C., NOR THE PRESENCE OF BOHLER ENGINEERING, P.C. OR ITS EMPLOYEES AND SUBCONSULTANTS AT A CONSTRUCTION/PROJECT SITE, SHALL RELIEVE THE GENERAL CONTRACTOR OF ITS OBLIGATIONS, DUTIES AND RESPONSIBILITIES INCLUDING, BUT NOT LIMITED TO, CONSTRUCTION MEANS, METHODS, SEQUENCE, TECHNIQUES OR PROCEDURES NECESSARY FOR PERFORMING, SUPERINTENDING AND COORDINATING THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS AND ANY HEALTH OR SAFETY PRECAUTIONS REQUIRED BY ANY REGULATORY AGENCIES. BOHLER ENGINEERING, P.C. AND ITS PERSONNEL HAVE NO AUTHORITY TO EXERCISE ANY CONTROL OVER ANY CONSTRUCTION CONTRACTOR OR ITS EMPLOYEES IN CONNECTION WITH THEIR WORK OR ANY HEALTH OR SAFETY PROGRAMS OR PROCEDURES. THE GENERAL CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR JOB SITE SAFETY. BOHLER ENGINEERING, P.C. SHALL BE INDEMNIFIED BY THE GENERAL CONTRACTOR AND SHALL BE MADE ADDITIONAL INSURED UNDER THE GENERAL CONTRACTOR'S POLICIES OF GENERAL LIABILITY INSURANCE.

23. BOHLER ENGINEERING, P.C. SHALL REVIEW AND APPROVE OR TAKE OTHER APPROPRIATE ACTION ON THE CONTRACTOR SUBMITTALS, SUCH AS SHOP DRAWINGS, PRODUCT DATA, SAMPLES, AND OTHER DATA, WHICH THE CONTRACTOR IS REQUIRED TO SUBMIT, BUT ONLY FOR THE LIMITED PURPOSE OF CHECKING FOR CONFORMANCE WITH THE DESIGN CONCEPT AND THE INFORMATION SHOWN IN THE CONSTRUCTION MEANS OR METHODS, COORDINATION OF THE WORK WITH OTHER TRADES, OR CONSTRUCTION SAFETY PRECAUTIONS, ALL OF WHICH ARE THE SOLE RESPONSIBILITY OF THE CONTRACTOR. BOHLER ENGINEERING'S REVIEW SHALL BE CONDUCTED WITH REASONABLE PROMPTNESS WHILE ALLOWING SUFFICIENT TIME TO PERMIT ADEQUATE REVIEW. REVIEW OF A SPECIFIC ITEM SHALL NOT INDICATE THAT BOHLER ENGINEERING, P.C. HAS REVIEWED THE ENTIRE ASSEMBLY OF WHICH THE ITEM IS A COMPONENT. BOHLER ENGINEERING, P.C. SHALL NOT BE RESPONSIBLE FOR ANY DEVIATIONS FROM THE CONSTRUCTION DOCUMENTS NOT BROUGHT TO THE ATTENTION OF BOHLER ENGINEERING P.C. IN WRITING BY THE CONTRACTOR. BOHLER ENGINEERING, P.C. SHALL NOT BE REQUIRED TO REVIEW PARTIAL SUBMISSIONS OR THOSE FOR WHICH SUBMISSIONS OF CORRELATED ITEMS HAVE NOT BEEN RECEIVED.

24. IN AN EFFORT TO RESOLVE ANY CONFLICTS THAT ARISE DURING THE DESIGN AND CONSTRUCTION OF THE PROJECT OR FOLLOWING THE COMPLETION OF THE PROJECT, BOHLER ENGINEERING, P.C. AND THE CONTRACTOR MUST AGREE THAT ALL DISPUTES BETWEEN THEM ARISING OUT OF OR RELATING TO THIS AGREEMENT OR THE PROJECT SHALL BE SUBMITTED TO NONBINDING MEDIATION UNLESS THE PARTIES MUTUALLY AGREE OTHERWISE.

25. THE CONTRACTOR MUST INCLUDE A MEDIATION PROVISION IN ALL AGREEMENTS WITH INDEPENDENT SUBCONTRACTORS AND CONSULTANTS RETAINED FOR THE PROJECT AND TO REQUIRE ALL INDEPENDENT CONTRACTORS AND CONSULTANTS ALSO TO INCLUDE A SIMILAR MEDIATION PROVISION IN ALL AGREEMENTS WITH THEIR SUBCONTRACTORS, SUBCONSULTANTS, SUPPLIERS AND FABRICATORS, THEREBY PROVIDING FOR MEDIATION AS THE PRIMARY METHOD FOR DISPUTE RESOLUTION BETWEEN THE PARTIES TO ALL THOSE AGREEMENTS.

26. IF THE CONTRACTOR DEVIATES FROM THE PLANS AND SPECIFICATIONS, INCLUDING THE NOTES CONTAINED THEREON, WITHOUT FIRST OBTAINING PRIOR WRITTEN AUTHORIZATION FOR SUCH DEVIATIONS FROM THE OWNER AND ENGINEER, IT SHALL BE RESPONSIBLE FOR THE PAYMENT OF ALL COSTS TO CORRECT ANY WORK DONE, ALL FINES OR PENALTIES ASSESSED WITH RESPECT THERETO AND ALL COMPENSATORY OR PUNITIVE DAMAGES RESULTING THEREFROM. THE CONTRACTOR SHALL INDEMNIFY AND HOLD THE OWNER AND ENGINEER HARMLESS FROM ALL SUCH COSTS TO CORRECT ANY SUCH WORK AND FROM ALL SUCH FINES AND PENALTIES, COMPENSATION AND PUNITIVE DAMAGES AND COSTS OF ANY NATURE RESULTING THEREFROM.

GRADING NOTES

1. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO REVIEW ALL OF THE DRAWINGS AND SPECIFICATIONS ASSOCIATED WITH THE PROJECT WORK SCOPE PRIOR TO THE INITIATION OF CONSTRUCTION. SHOULD THE CONTRACTOR FIND A CONFLICT WITH THE DOCUMENTS RELATIVE TO THE SPECIFICATIONS OR THE RELATIVE CODES, IT IS THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY BOHLER ENGINEERING, P.C. OF RECORD IN WRITING PRIOR TO THE START OF CONSTRUCTION. FAILURE BY THE CONTRACTOR TO NOTIFY BOHLER ENGINEERING, P.C. SHALL CONSTITUTE ACCEPTANCE OF FULL RESPONSIBILITY BY THE CONTRACTOR TO COMPLETE THE SCOPE OF WORK AS DEFINED BY THE DRAWINGS AND IN FULL COMPLIANCE WITH LOCAL REGULATIONS AND CODES.

2. SITE GRADING SHALL BE PERFORMED IN ACCORDANCE WITH THESE PLANS AND THE RECOMMENDATIONS SET FORTH IN THE GEOTECHNICAL REPORT REFERENCED IN THIS PLAN SET. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING AND REPLACING WITH SUITABLE MATERIALS AS SPECIFIED IN THE GEOTECHNICAL REPORT PREPARED BY HILLIS-CARNES ENGINEERING ASSOCIATES, INC. DATED 12/29/05, PROJECT NO. 02190A. ALL EXCAVATED OR FILLED AREAS SHALL BE COMPACTED AS OUTLINED IN THE GEOTECHNICAL REPORT. MOISTURE CONTENT AT TIME OF PLACEMENT SHALL BE SUBMITTED IN COMPACTION REPORT PREPARED BY A QUALIFIED GEOTECHNICAL ENGINEER, REGISTERED IN MARYLAND, VERIFYING THAT ALL FILLED AREAS AND SUBGRADE AREAS WITHIN THE BUILDING PAD AREA AND AREAS TO BE PAVED HAVE BEEN COMPACTED IN ACCORDANCE WITH THESE PLANS AND SPECIFICATIONS AND THE RECOMMENDATIONS SET FORTH IN THE GEOTECHNICAL REPORT. SUBBASE MATERIAL FOR SIDEWALKS, CURBS, OR ASPHALT SHALL BE FREE OF ORGANICS AND OTHER UNSUITABLE MATERIALS. SHOULD SUBBASE BE DEEMED UNSUITABLE BY OWNER OR OWNER'S REPRESENTATIVE, SUBBASE IS TO BE REMOVED AND FILLED WITH APPROVED FILL MATERIAL COMPACTED AS DIRECTED BY THE GEOTECHNICAL REPORT.

3. ALL FILL, COMPACTION, AND BACKFILL MATERIALS REQUIRED FOR UTILITY INSTALLATION SHALL BE AS PER THE RECOMMENDATIONS PROVIDED IN THE GEOTECHNICAL REPORT PREPARED BY HILLIS-CARNES ENGINEERING ASSOCIATES, INC. DATED 12/29/05, PROJECT NO. 02190A SHALL BE COORDINATED WITH THE APPLICABLE UTILITY COMPANY SPECIFICATIONS.

4. THE CONTRACTOR SHALL COMPLY TO THE FULLEST EXTENT WITH THE LATEST OSHA STANDARDS AND REGULATIONS, OR ANY OTHER AGENCY HAVING JURISDICTION FOR EXCAVATION AND TRENCHING PROCEDURES. THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE "MEANS AND METHODS" REQUIRED TO MEET THE INTENT AND PERFORMANCE CRITERIA OF OSHA, AS WELL AS ANY OTHER ENTITY THAT HAS JURISDICTION FOR EXCAVATION AND/OR TRENCHING PROCEDURES.

5. PAVEMENT SHALL BE SAW CUT IN STRAIGHT LINES TO THE FULL DEPTH OF THE EXISTING PAVEMENT. ALL DEBRIS FROM REMOVAL OPERATIONS SHALL BE REMOVED FROM THE SITE AT THE TIME OF EXCAVATION. STOCKPILING OF DEBRIS WILL NOT BE PERMITTED.

6. THE TOPS OF EXISTING MANHOLES, INLET STRUCTURES, AND SANITARY CLEANOUT TOPS SHALL BE ADJUSTED, IF REQUIRED, TO MATCH PROPOSED GRADES IN ACCORDANCE WITH ALL APPLICABLE STANDARDS.

7. THE CONTRACTOR IS RESPONSIBLE FOR VERIFICATION OF EXISTING TOPOGRAPHIC INFORMATION AND UTILITY INVERT ELEVATIONS PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION. CONTRACTOR TO ENSURE 0.75% MINIMUM SLOPE AGAINST ALL ISLANDS, GUTTERS, AND CURBS; 1.0% ON ALL CONCRETE SURFACES; AND 1.5% MINIMUM ON ASPHALT, TO PREVENT PONDING. ANY DISCREPANCIES THAT MAY AFFECT THE PUBLIC SAFETY OR PROJECT COST MUST BE IDENTIFIED TO BOHLER ENGINEERING, P.C. IN WRITING IMMEDIATELY. PROCEEDING WITH CONSTRUCTION WITHOUT NOTIFICATION IS DONE SO AT THE CONTRACTOR'S OWN RISK.

8. PROPOSED TOP OF CURB ELEVATIONS ARE GENERALLY 7 3/16" ABOVE EXISTING LOCAL ASPHALT GRADE UNLESS OTHERWISE NOTED. FIELD ADJUST TO CREATE A MINIMUM OF 0.75% GUTTER GRADE ALONG CURB FACE. ENGINEER TO APPROVE FINAL CURBING CUT SHEETS PRIOR TO INSTALLATION.

9. IN CASE OF DISCREPANCIES BETWEEN PLANS OR RELATIVE TO OTHER PLANS, THE SITE PLAN WILL TAKE PRECEDENCE. IMMEDIATELY NOTIFY BOHLER ENGINEERING, P.C. IN WRITING OF ANY CONFLICTS.

10. CONTRACTOR SHALL BE REQUIRED TO SECURE ALL NECESSARY PERMITS AND APPROVALS FOR ALL OFF-SITE MATERIAL SOURCES AND DISPOSAL FACILITIES. CONTRACTOR SHALL SUPPLY A COPY OF APPROVALS TO BOHLER ENGINEERING, P.C., AND OWNER PRIOR TO INITIATING WORK.

SITE PLAN REFERENCES

- A. SURVEY:
CONTROL POINT ASSOCIATES, INC.
22630 DAVIS DRIVE, SUITE 200
STERLING, VA 20164
TELEPHONE: (703) 709-9400
FAX: (703) 904-9797
CONTACT: KEVIN STEINHILBER, P.L.S.
FILE # S056218.SR
ENTITLED: "PARTIAL SURVEY AND TOPOGRAPHIC SURVEY, PARCEL 'A' AND PART OF PARCEL 'B' AND 'D', VILLAGE OF KING'S CONTRIVANCE, SECTION 2, AREA 4, PARCEL A.
DATED: 10/27/05, REVISED 5/16/06
- B. SDP-85-153C PREPARED BY:
FISHER, COLLINS AND CARTER, INC.
8388 COURT AVE.
ELLCOTT CITY, MARYLAND 21043
TEL: (301) 461-2855
ENTITLED: VILLAGE OF KING'S CONTRIVANCE, SECTION 2, AREA 4, PARCEL D.
DATED: MARCH 4, 1985 - APPROVED 5/15/85.
- C. SDP-86-171C PREPARED BY:
FISHER, COLLINS AND CARTER, INC.
8388 COURT AVE.
ANAPOLIS JUNCTION, MD 20701
TEL: (410) 880-4758
ENTITLED: VILLAGE OF KING'S CONTRIVANCE, SECTION 2, AREA 4, PARCEL A.
DATED: FEB. 19, 1986 - APPROVED 4/2/86.
- D. FINAL DEVELOPMENT PLAN PHASE 178-A-II PART IV.
APPROVED MARCH 15, 1985, REVISED APRIL 9, 1986, FEB. 27, 1995 AND AUG. 14, 1997.
- E. PUBLIC WATER AND SEWER PLANS PREPARED BY:
FISHER, COLLINS AND CARTER, INC.
8388 COURT AVE.
ELLCOTT CITY, MARYLAND 21043
TEL: (301) 461-2855
ENTITLED: VILLAGE OF KING'S CONTRIVANCE WATER AND SEWER MAIN EXTENSION.
DATED: 2/25/85, REVISED 12/20/85.
AS BUILT: SEPT. 10, 1985.
- F. TRAFFIC REPORT PREPARED BY:
THE TRAFFIC GROUP
9900 FRANKLIN SQUARE DRIVE, SUITE H
BALTIMORE, MD 21236
TEL: (410) 931-6600
PROJECT NO.: 051019
DATED: FEBRUARY 2, 2006
- G. REPORT OF GEOTECHNICAL INVESTIGATION PREPARED BY:
HILLIS-CARNES ENGINEERING ASSOCIATES, INC.
10975 GUILFORD ROAD, SUITE A
ANNAPOLIS JUNCTION, MD 20701
TEL: (410) 880-4758
ENTITLED: "KINGS CONTRIVANCE CENTER - NEW HARRIS TEETER FOOD STORE"
PROJECT NO.: 05190A
DATED: 1/4/06
- H. PHASE 1 ENVIRONMENTAL SITE ASSESSMENT PREPARED BY:
HILLIS-CARNES ENGINEERING ASSOCIATES, INC.
10975 GUILFORD ROAD, SUITE A
ANNAPOLIS JUNCTION, MD 20701
TEL: (410) 880-4758
ENTITLED: "SAFEBAY & FORMER FRIENDLY'S"
PROJECT NO.: 05174A
DATED: 1/4/06
- I. SDP-87-23C PREPARED BY:
STV/LYON ASSOCIATES
11350 MCCORMICK ROAD
HUNT VALLEY, MD 21031
TEL: 410-785-6634
ENTITLED: VILLAGE OF KING'S CONTRIVANCE PARCEL "C" SECTION 2, AREA 4
PROJECT NO: 7730-53-017
DATED: 11/12/86
- J. SDP-92-52 PREPARED BY:
COLUMBIA DESIGN COLLECTIVE
9881 BROKENLAND PARKWAY
SUITE 200
COLUMBIA, MD 21046
TEL: 301-995-6655
ENTITLED "PATIO ADDITION TO AMHERST HOUSE"
PROJECT NO: 143-91
DATED: 12/10/91 APPROVED: 12/17/91
- K. SDP-02-08 PREPARED BY:
FREDERICK WARD ASSOCIATES, INC.
7125 RIVER WOOD DRIVE
COLUMBIA, MD 21046-2354
TEL: 410-290-9550
ENTITLED: KING'S CONTRIVANCE INTERFAITH CAMPUS, PARCEL F-3, F-4 AND F-5
PROJECT NO: 2017138
DATED FEB. 6, 2003 REVISED: 9/30/03
APPROVED: 3/18/03
- L. F-85-114 PREPARED BY:
FISHER, COLLINS AND CARTER, INC.
8388 COURT AVENUE
ELLCOTT CITY, MD 21043
ENTITLED: VILLAGE OF KING'S CONTRIVANCE, SECTION 2, AREA 4, PARCELS A-F
DATED: 2/22/85, RECORDED PLAT 6278 ON 7/13/85

UTILITY NOTES

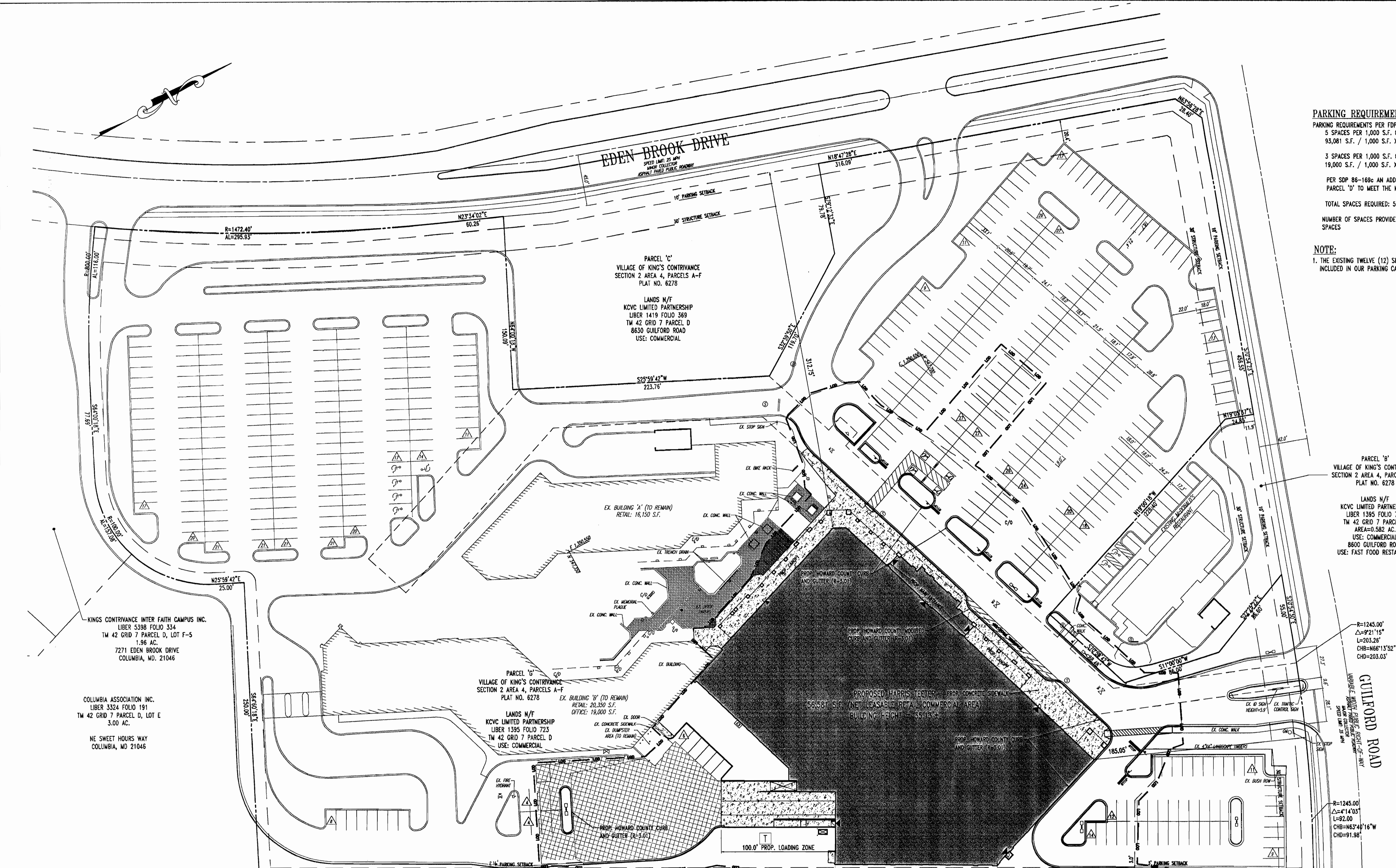
- 1. LOCATION OF ALL EXISTING AND PROPOSED SERVICES ARE APPROXIMATE AND MUST BE CONFIRMED INDEPENDENTLY WITH LOCAL UTILITY COMPANIES PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION OR EXCAVATION. SANITARY SEWER AND ALL OTHER UTILITY SERVICE CONNECTION POINTS SHALL BE CONFIRMED INDEPENDENTLY BY THE CONTRACTOR IN FIELD PRIOR TO THE COMMENCEMENT OF CONSTRUCTION. ALL DISCREPANCIES SHALL BE REPORTED IMMEDIATELY IN WRITING TO BOHLER ENGINEERING, P.C.. CONSTRUCTION SHALL COMMENCE BEGINNING AT THE LOWEST INVERT (POINT OF CONNECTION) AND PROGRESS UP GRADIENT. ALL PROPOSED INTERFACE POINTS (CROSSINGS) WITH EXISTING UNDERGROUND UTILITIES SHALL BE FIELD VERIFIED BY TEST PIT PRIOR TO COMMENCEMENT OF CONSTRUCTION.
- 2. ALL UTILITIES AND SERVICES INCLUDING BUT NOT LIMITED TO GAS, WATER, ELECTRIC, SANITARY AND STORM SEWER, TELEPHONE, CABLE, FIBER OPTIC CABLE, ETC. WITHIN THE LIMITS OF DISTURBANCE SHALL BE VERTICALLY AND HORIZONTALLY LOCATED. THE CONTRACTOR SHALL USE AND COMPLY WITH THE REQUIREMENTS OF THE APPLICABLE UTILITY NOTIFICATION SYSTEM TO LOCATE ALL THE UNDERGROUND UTILITIES. THE CONTRACTOR IS RESPONSIBLE FOR REPAIRS OF DAMAGE TO ANY EXISTING UTILITIES DURING CONSTRUCTION AT NO COST TO THE OWNER.
- 3. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO REVIEW ALL OF THE DRAWINGS AND SPECIFICATIONS ASSOCIATED WITH THE PROJECT WORK SCOPE PRIOR TO THE INITIATION OF CONSTRUCTION. SHOULD THE CONTRACTOR FIND A CONFLICT WITH THE DOCUMENTS RELATIVE TO THE SPECIFICATIONS OR THE RELATIVE CODES, IT IS THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY BOHLER ENGINEERING, P.C. OF RECORD IN WRITING PRIOR TO THE START OF CONSTRUCTION. FAILURE BY THE CONTRACTOR TO NOTIFY BOHLER ENGINEERING, P.C. SHALL CONSTITUTE ACCEPTANCE OF FULL RESPONSIBILITY BY THE CONTRACTOR TO COMPLETE THE SCOPE OF WORK AS DEFINED BY THE DRAWINGS AND IN FULL COMPLIANCE WITH LOCAL REGULATIONS AND CODES.
- 4. DEFINE AND LOCATE VERTICALLY AND HORIZONTALLY ALL ACTIVE UTILITY AND/OR SERVICE SYSTEMS THAT ARE TO BE REMOVED. THE CONTRACTOR IS RESPONSIBLE TO PROTECT AND MAINTAIN ALL ACTIVE SYSTEMS THAT ARE NOT BEING REMOVED/RELOCATED DURING SITE ACTIVITY.
- 5. THE CONTRACTOR SHALL FAMILIARIZE THEMSELVES WITH THE APPLICABLE UTILITY SERVICE PROVIDER REQUIREMENTS AND IS RESPONSIBLE FOR ALL COORDINATION REGARDING UTILITY DEMOLITION AS IDENTIFIED OR REQUIRED FOR PROJECT. THE CONTRACTOR SHALL PROVIDE THE OWNER WRITTEN NOTIFICATION THAT THE EXISTING UTILITIES AND SERVICES HAVE BEEN TERMINATED AND ABANDONED IN ACCORDANCE WITH JURISDICTION AND UTILITY COMPANY REQUIREMENTS.
- 6. CONTRACTOR IS RESPONSIBLE FOR COORDINATION OF SITE PLAN DOCUMENTS AND ARCHITECTURAL DESIGN FOR EXACT BUILDING UTILITY CONNECTION LOCATIONS, GREASE TRAP REQUIREMENTS/DETAILS, DOOR ACCESS, AND EXTERIOR GRADING. THE UTILITY SERVICE SIZES ARE TO BE DETERMINED BY THE ARCHITECT. THE CONTRACTOR SHALL COORDINATE INSTALLATION OF UTILITIES/SERVICES WITH THE INDIVIDUAL COMPANIES, TO AVOID CONFLICTS AND ENSURE PROPER DEPTHS ARE ACHIEVED. THE JURISDICTION UTILITY REQUIREMENTS SHALL ALSO BE MET, AS WELL AS COORDINATING THE UTILITY TIE-INS/CONNECTIONS PRIOR TO CONNECTING TO THE EXISTING UTILITY/SERVICE. WHERE CONFLICTS EXIST WITH THESE SITE PLANS, BOHLER ENGINEERING, P.C. IS TO BE NOTIFIED PRIOR TO CONSTRUCTION TO RESOLVE SAME.
- 7. WATER SERVICE MATERIALS, BURIAL DEPTH, AND COVER REQUIREMENTS SHALL BE SPECIFIED BY THE LOCAL UTILITY COMPANY. CONTRACTOR'S PRICE FOR WATER SERVICE SHALL INCLUDE ALL FEES AND APPURTENANCES REQUIRED BY THE UTILITY TO PROVIDE A COMPLETE WORKING SERVICE.
- 8. ALL NEW UTILITIES/SERVICES, INCLUDING ELECTRIC, TELEPHONE, CABLE TV, ETC. ARE TO BE INSTALLED UNDERGROUND. ALL NEW UTILITIES/SERVICES SHALL BE INSTALLED IN ACCORDANCE WITH THE UTILITY/SERVICE PROVIDER INSTALLATION SPECIFICATIONS AND STANDARDS.
- 9. ALL FILL, COMPACTION, AND BACKFILL MATERIALS REQUIRED FOR UTILITY INSTALLATION SHALL BE AS PER THE RECOMMENDATIONS PROVIDED IN THE GEOTECHNICAL REPORT OR HARRIS TEETER SITE PLANNING SPECIFICATIONS WHICHEVER IS MORE STRINGENT AND SHALL BE COORDINATED WITH THE APPLICABLE UTILITY COMPANY SPECIFICATIONS.
- 10. THE CONTRACTOR SHALL COMPLY TO THE FULLEST EXTENT WITH THE LATEST OSHA STANDARDS AND REGULATIONS, OR ANY OTHER AGENCY HAVING JURISDICTION FOR EXCAVATION AND TRENCHING PROCEDURES. THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE "MEANS AND METHODS" REQUIRED TO MEET THE INTENT AND PERFORMANCE CRITERIA OF OSHA, AS WELL AS ANY OTHER ENTITY THAT HAS JURISDICTION FOR EXCAVATION AND/OR TRENCHING PROCEDURES.
- 11. THE TOPS OF EXISTING MANHOLES, INLET STRUCTURES, AND SANITARY CLEANOUT TOPS SHALL BE ADJUSTED, IF REQUIRED, TO MATCH PROPOSED GRADES IN ACCORDANCE WITH ALL APPLICABLE STANDARDS.
- 12. IN CASE OF DISCREPANCIES BETWEEN PLANS OR RELATIVE TO OTHER PLANS, THE SITE PLAN WILL TAKE PRECEDENCE. IMMEDIATELY NOTIFY BOHLER ENGINEERING, P.C. IN WRITING OF ANY CONFLICTS.
- 13. CONTRACTOR SHALL BE REQUIRED TO SECURE ALL NECESSARY PERMITS AND APPROVALS FOR ALL OFF-SITE MATERIAL SOURCES AND DISPOSAL FACILITIES. CONTRACTOR SHALL SUPPLY A COPY OF APPROVALS TO BOHLER ENGINEERING P.C. AND OWNER PRIOR TO INITIATING WORK.
- 14. A KNOX BOX IS REQUIRED TO BE PLACED ON THE FRONT OF THE BUILDING. IT SHALL BE PLACED TO THE RIGHT OF THE MAIN ENTRANCE AT A RANGE OF 4'-5" IN HEIGHT AND NO MORE THEN 6' LATERALLY FROM THE FRONT DOOR. THE KNOX BOX SHALL BE ELECTRONICALLY SUPERVISED TO NOTIFY THE OWNER THAT IT IS BEING ACCESSED. (INTEGRATED WITH THE FIRE ALARM SYSTEM). NFPA-1 10.12.1

M. F-06-208 PREPARED BY:
CONTROL POINT ASSOCIATES, INC.
22630 DAVIS DRIVE, SUITE 200
STERLING, VA 20164
TELEPHONE: 703-709-9400
FAX: 703-904-9797
CONTACT: KEVIN STEINHILBER, P.L.S.
FILE #: S056218PLT
ENTITLED: "VILLAGE OF KING'S CONTRIVANCE, SECTION 2, AREA 4, PARCEL G. CONSOLIDATION OF PARCELS D AND A, PLAT NO. 6278"
DATED: MAY 2, 2006

REV.	DATE	DESCRIPTION	BY

OWNER/DEVELOPER:
KVC LIMITED PARTNERSHIP
C/O KIMCO REALTY CORP.
3333 NEW HYDE PARK ROAD
SUITE 100
NEW HYDE PARK, NY 11042-1205

PROJECT: HARRIS TEETER - ONE STORY GROCERY STORE
KING'S CONTRIVANCE VILLAGE CENTER
8620 GUILFORD ROAD
COLUM



PARKING REQUIREMENTS:
 PARKING REQUIREMENTS PER FDP-178-A-11 PART IV:
 5 SPACES PER 1,000 S.F. OF NET LEASABLE RETAIL COMMERCIAL AREA
 93,081 S.F. / 1,000 S.F. X 5 SPACES = 466 SPACES
 3 SPACES PER 1,000 S.F. OF NET LEASABLE OFFICE SPACE
 19,000 S.F. / 1,000 S.F. X 3 SPACES = 57 SPACES
 PER SDP 86-169c AN ADDITIONAL 33 SPACES ARE REQUIRED ON
 PARCEL 'D' TO MEET THE MCDONALD'S PARKING REQUIREMENTS.
 TOTAL SPACES REQUIRED: 556 SPACES
 NUMBER OF SPACES PROVIDED: 499 SPACES INCLUDING 9 HANDICAP
 SPACES

NOTE:
 1. THE EXISTING TWELVE (12) SPACES ON PARCEL 'B' HAVE NOT BEEN
 INCLUDED IN OUR PARKING CALCULATIONS.

LEGEND

- HEAVY DUTY PAVEMENT
- PROP. CONCRETE PAVING
- PROP. HEAVY DUTY CONCRETE PAVING

PARCEL 'B'
 VILLAGE OF KING'S CONTRIVANCE
 SECTION 2 AREA 4, PARCELS A-F
 PLAT NO. 6278
 LANDS N/F
 KCVC LIMITED PARTNERSHIP
 LIBER 1395 FOLIO 723
 TM 42 GRID 7 PARCEL D
 AREA=0.582 AC.
 USE: COMMERCIAL
 8600 GUILFORD ROAD
 USE: FAST FOOD RESTAURANT

R=1245.00'
 Δ=92°11'5"
 L=203.28'
 CHB=66°13'52"W
 CHD=203.03'

DATE	DESCRIPTION	BY

OWNER/DEVELOPER:
 KCVC LIMITED PARTNERSHIP
 C/O KIMCO REALTY CORP.
 3333 NEW HYDE PARK ROAD
 SUITE 100
 NEW HYDE PARK, NY 11042-1205

PROJECT:
 HARRIS TEETER - ONE STORY GROCERY STORE
 KING'S CONTRIVANCE VILLAGE CENTER
 8620 GUILFORD ROAD
 COLUMBIA, MARYLAND 21046

ABCA: TAX MAP 42 GRID 7 PARCEL D ZONED NT-COMM
 VILLAGE OF KING'S CONTRIVANCE
 6TH ELECTION DISTRICT
 COLUMBIA, HOWARD COUNTY, MARYLAND

OVERALL SITE LAYOUT PLAN

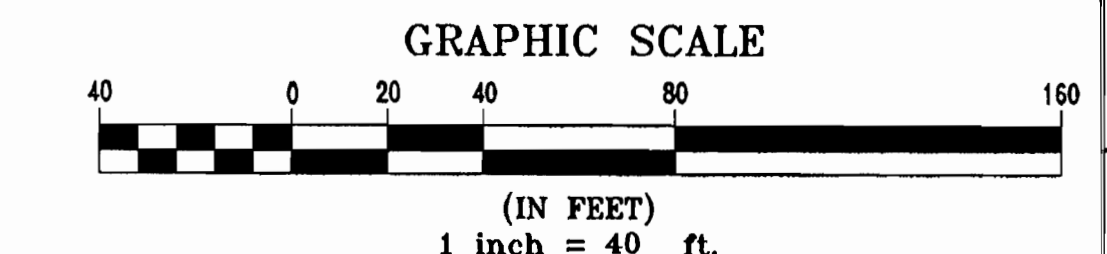
BOHLER ENGINEERING, P.C.
 * PROFESSIONAL ENGINEERING SERVICES *
 * 8110 Greenhanger Court, Suite 300, Towson, Maryland *
 * CONTACT: Michael Gessell *
 * (410) 821-7900 FAX: (410) 821-7987 *
 * WWW.BOHLERENGINEERING.COM *

DESIGNED BY: M/JG
 DRAWN BY: TAC
 PROJECT NO.: MDC049006
 DATE: 9/27/06
 SCALE: AS SHOWN
 DRAWING NO.: 3 OF 22

PROFESSIONAL ENGINEER NO. 28567



THIS DRAWING DOES NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY. ALL CONSTRUCTION MUST BE DONE IN COMPLIANCE WITH THE OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970 AND ALL RULES AND REGULATIONS THERETO APPURTENANT.
 THE CONTRACTOR TO CALL MISS UTILITY TO HAVE ALL EXISTING UTILITIES MARKED 48 HOURS PRIOR TO ANY CONSTRUCTION.



PLANNING BOARD APPROVAL STAMP

APPROVED: DEPARTMENT OF PLANNING AND ZONING
 CHIEF-DEVELOPMENT ENGINEERING DIVISION
 DATE: 12/19/06
 APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS.
 DATE: 12/19/06

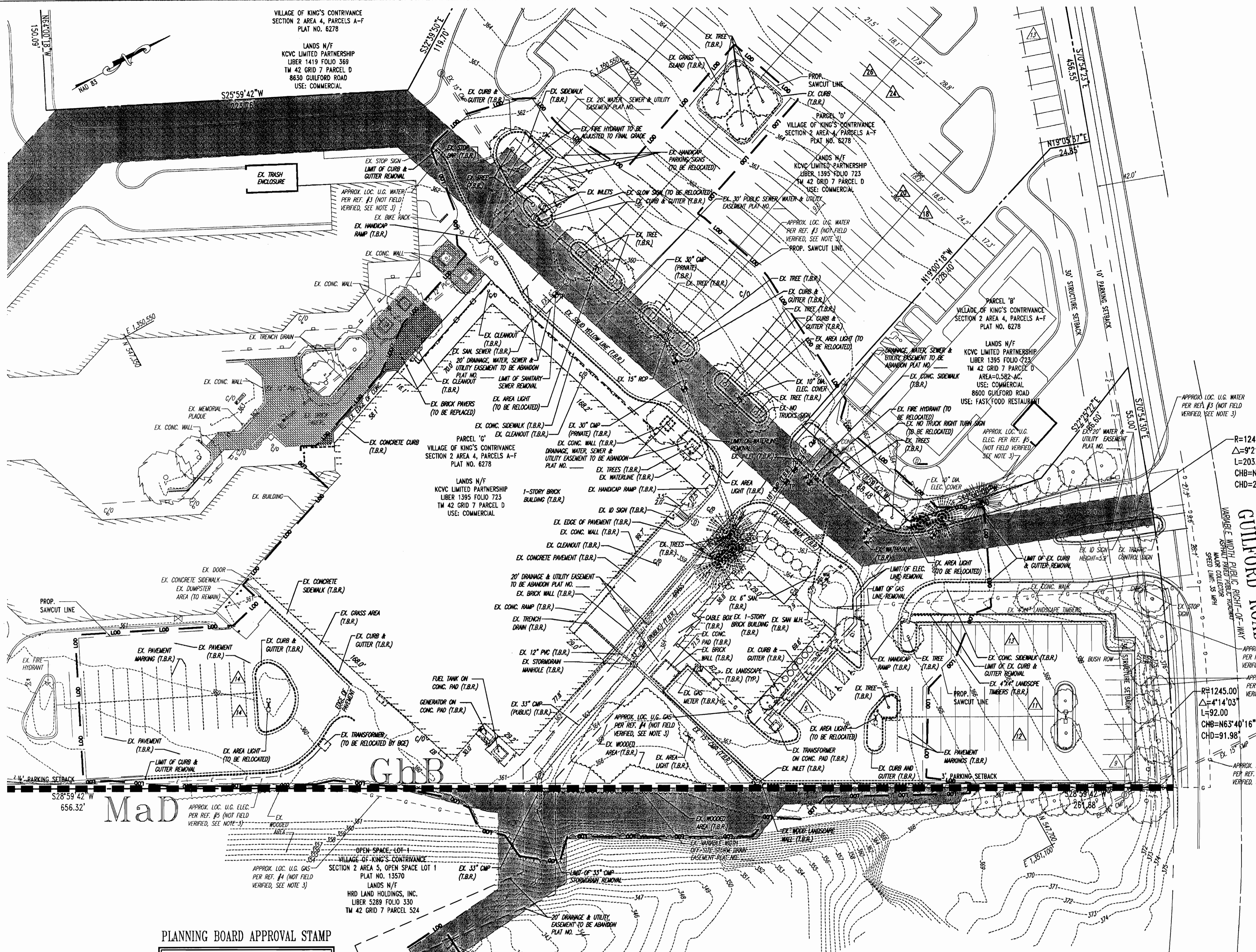
APPROVED PLANNING BOARD OF HOWARD COUNTY
 DATE: 8/31/06

APPROVED: DEPARTMENT OF PLANNING AND ZONING
 CHIEF-DEVELOPMENT ENGINEERING DIVISION
 DATE: 12/19/06
 APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS.
 DATE: 12/19/06

OPEN SPACE, LOT 1
 VILLAGE OF KING'S CONTRIVANCE
 SECTION 2 AREA 5, OPEN SPACE LOT 1
 PLAT NO. 13570

LANDS N/F
 HRD LAND HOLDINGS, INC.
 LIBER 5289 FOLIO 330
 TM 42 GRID 7 PARCEL 524

HOWARD COUNTY HEALTH OFFICER
 DATE: 12/19/06
 HOWARD COUNTY HEALTH DEPARTMENT



- ### SURVEY NOTES
- PROPERTY IS KNOWN AS PARCEL 'A' AND PART OF PARCELS 'D' AND 'B', VILLAGE OF KINGS CONTRIVANCE, SECTION 2 AREA 4, PARCELS A-F AS RECORDED IN PLAT NO. 6278 AND IS IN THE NAME OF KVCY LIMITED PARTNERSHIP AS RECORDED IN LIBER 1395 FOLIO 723 ALL AMONG THE LAND RECORDS OF HOWARD COUNTY, MARYLAND AND HAVING A TAX MAP NUMBER OF 42-7.
 - AREA = 530,493 SQUARE FEET OR 12.178 ACRES
 - LOCATION OF ALL UNDERGROUND UTILITIES ARE APPROXIMATE. ALL LOCATIONS AND SIZES ARE BASED ON UTILITY MARK-OUTS, ABOVE GROUND STRUCTURES THAT WERE VISIBLE & ACCESSIBLE IN THE FIELD, AND THE MAPS AS LISTED IN THE REFERENCES AVAILABLE AT THE TIME OF THE SURVEY. AVAILABLE AS-BUILT PLANS AND UTILITY MARKOUT DOES NOT ENSURE MAPPING OF ALL UNDERGROUND UTILITIES AND STRUCTURES. BEFORE ANY EXCAVATION IS TO BEGIN, ALL UNDERGROUND UTILITIES SHOULD BE VERIFIED AS TO THEIR LOCATION, SIZE AND TYPE BY THE PROPER UTILITY COMPANIES.
 - THIS PLAN IS BASED ON INFORMATION PROVIDED BY A SURVEY PREPARED IN THE FIELD BY CONTROL POINT ASSOCIATES, INC. AND OTHER REFERENCE MATERIAL AS LISTED HEREON. THIS SURVEY WAS PREPARED WITHOUT THE BENEFIT OF A TITLE REPORT.
 - THIS SURVEY IS PREPARED WITH REFERENCE TO A TITLE COMMITMENT REPORT PREPARED BY FIRST AMERICAN TITLE INSURANCE COMPANY, COMMITMENT NCS-196883-MD61, EFFECTIVE DATE OCTOBER 2, 2005. OUR OFFICE HAS REVIEWED THE FOLLOWING SURVEY RELATED EXCEPTIONS IN SCHEDULE B, SECTION II:
 - THIS PROPERTY MAY BE SUBJECT TO RESTRICTIONS, COVENANTS AND/OR EASEMENTS, WRITTEN OR IMPLIED.
 - THE EXISTENCE OF UNDERGROUND STORAGE TANKS, IF ANY, WAS NOT KNOWN AT THE TIME OF THE FIELD SURVEY.
 - ELEVATIONS ARE BASED UPON NAVD 88 PER HOWARD COUNTY CONTROL MONUMENTS 42R1 WITH A PUBLISHED ELEVATION OF 375.85 AND 42R2 WITH A PUBLISHED ELEVATION OF 331.52.
 - THE PROPERTY IS LOCATED IN ZONE C (AREAS OF MINIMAL FLOODING) PER PLAN REFERENCE #2.
 - UNDERGROUND WATER, GAS AND ELECTRIC UTILITIES ARE SHOWN PER FIELD LOCATION OF ABOVE GROUND STRUCTURE AND PLANS RECEIVED FROM UTILITY COMPANIES AND LOCAL GOVERNMENT OFFICES.

- ### SURVEY REFERENCES
- THE MARYLAND DEPARTMENT OF ASSESSMENTS AND TAXATION RECORDS FOR HOWARD COUNTY, MAP NUMBER 42.
 - MAP ENTITLED "FIRM, FLOOD INSURANCE RATE MAP, HOWARD COUNTY, MARYLAND, PANEL 39 OF 45 COMMUNITY-PANEL NUMBER 240044 0039 B, PREPARED BY FEDERAL EMERGENCY MANAGEMENT AGENCY, MAP REVISED DECEMBER 4, 1986.
 - MAP ENTITLED "AS-BUILT, VILLAGE OF KING'S CONTRIVANCE, SECTION 2 AREA 4, VILLAGE CENTER, CONTRACT NO.34-1319-D, SIXTH ELECTION DISTRICT, HOWARD COUNTY, MARYLAND", DATED SEPT. 10, 1985, PREPARED BY FISHER, COLLINS, AND CARTER, INC.
 - UNTITLED MAP SHOWING GAS UTILITIES, DATED 9/30/2005, AND PREPARED BY BALTIMORE GAS AND ELECTRIC.
 - MAP ENTITLED "ELECTRIC PRIMARY & SUBTRANSMISSION MAP", DATED 09/30/2005, AND PREPARED BY BALTIMORE GAS AND ELECTRIC.

LEGEND

	SOILS TYPE DIVIDES
	EXISTING EASEMENT

- ### NOTES
- REFER TO THE GENERAL NOTES SHEET FOR STANDARD DEMOLITION NOTES.
 - REFER TO COVER SHEET FOR LEGEND.

BENCHMARK

<p>GEODETIC SURVEY CONTROL - #42R1 S 547,820.238 E 135,117.859 ELEV. 375.85' LOCATED AT THE CORNER OF GUILFORD ROAD AND SASSAFRAS COURT.</p> <p>GEODETIC SURVEY CONTROL - #42R2 N 546,946.800 E 1,352,118.566 ELEV. 331.522' LOCATED AT HAMMOND HIGH SCHOOL AND GUILFORD ROAD (BLUE SEA ROAD)</p>

REV.	DATE	DESCRIPTION	BY

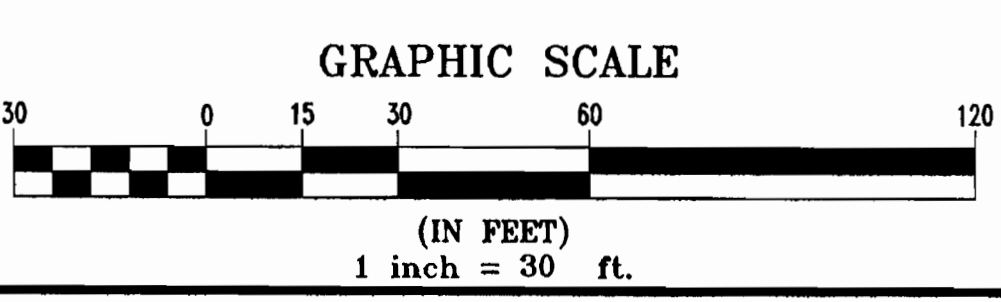
<p>OWNER/DEVELOPER: KVCY LIMITED PARTNERSHIP C/O KIMCO REALTY CORP. 3333 NEW HYDE PARK ROAD SUITE 100 NEW HYDE PARK, NY 11042-1205</p> <p>PROJECT: HARRIS TEETER - ONE STORY GROCERY STORE KING'S CONTRIVANCE VILLAGE CENTER 8620 GUILFORD ROAD COLUMBIA, MARYLAND 21046</p> <p>AREA: TAX MAP 42 GRID 7 PARCEL 6 ZONED NT-COAM VILLAGE OF KING'S CONTRIVANCE 6TH ELECTION DISTRICT COLUMBIA, HOWARD COUNTY, MARYLAND</p>
--

BOHLER ENGINEERING, P.C.
 PROFESSIONAL ENGINEERING SERVICES
 810 Glenesdale Court, Suite 300, Towson, Maryland
 CONTACT: Michael Gossel
 (410) 461-7900 FAX: (410) 861-7987 www.bohlereng.com

DESIGNED BY: MJC
 DRAWN BY: TAC
 PROJECT NO.: MD049006
 DATE: 9/27/06
 SCALE: AS SHOWN
 DRAWING NO.: 4 OF 22
 PROFESSIONAL ENGINEER NO. 28567

ON-SITE SOILS INFORMATION:
 GbB - GLENELG - URBAN LAND COMPLEX (HYDROLOGIC SOIL CLASSIFICATION 'B')
 Md - MANOR LOAM, 15% TO 25% SLOPES (HYDROLOGIC SOIL CLASSIFICATION 'B')

REFERENCE:
 SOIL SURVEY
 HOWARD COUNTY, MD
 PREPARED BY:
 UNITED STATES DEPARTMENT OF AGRICULTURE
 DATED: JULY 1968

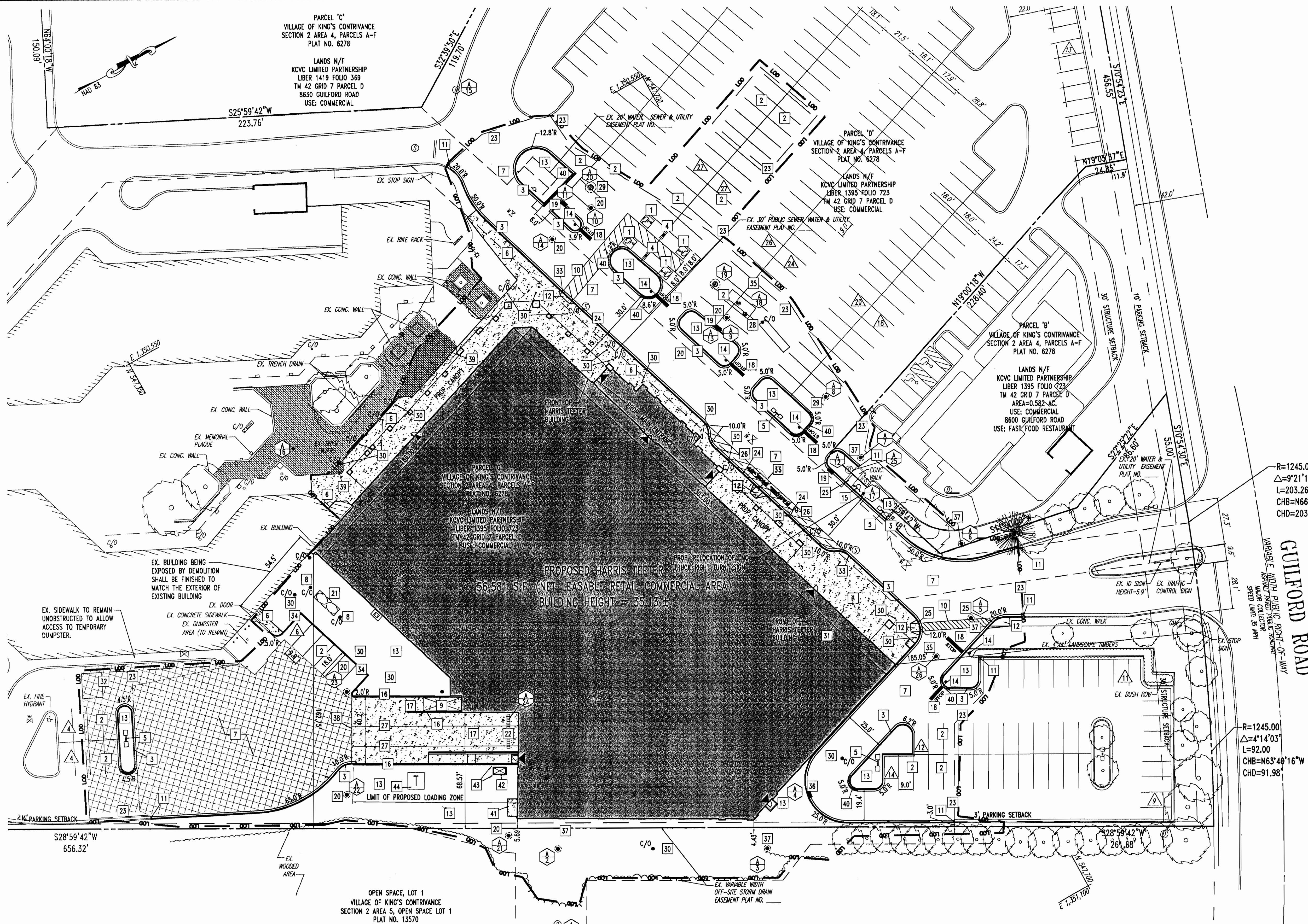


APPROVED: DEPARTMENT OF PLANNING AND ZONING
 DEVELOPMENT & ZONING DIVISION
 DATE: 12/14/06
 CHIEF DIVISION & LAND DEVELOPMENT
 DATE: 12/21/06
 DIRECTOR

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS.
 COUNTY HEALTH OFFICER
 HOWARD COUNTY HEALTH DEPARTMENT
 DATE: 12/19/06

PLANNING BOARD APPROVAL STAMP

APPROVED
 PLANNING BOARD
 OF HOWARD COUNTY
 DATE: 8-31-06



ITEM DESCRIPTION

- 1 PAINTED HANDICAP SYMBOL
- 2 STANDARD PARKING STALL STRIPING
- 3 STANDARD HOWARD COUNTY CURB & GUTTER (R-3.01)
- 4 HANDICAP SIGN
- 5 RELOCATED AREA LIGHT
- 6 CONCRETE SIDEWALK
- 7 ASPHALT PAVEMENT
- 8 SANITARY LATERAL CLEAN-OUT
- 9 COMPACTOR (REFER TO ARCHITECTURALS)
- 10 4" WIDE WHITE STRIPING
- 11 MATCH CURB FOR GRADE AND LOCATION
- 12 HOWARD COUNTY STANDARD HANDICAP RAMP (R-4.01)
- 13 LANDSCAPE AREA
- 14 STOP SIGN
- 15 RELOCATED FIRE HYDRANT
- 16 RETAINING WALL
- 17 CONCRETE PAVING
- 18 STOP BAR GRAPHIC
- 19 HOWARD COUNTY STANDARD TYPE "S" INLET (SD-4.21)
- 20 HOWARD COUNTY STANDARD PRE-CAST MANHOLE (G-5.12)
- 21 GREASE TRAP (REFER TO ARCHITECTURAL PLANS)
- 22 TRENCH DRAIN
- 23 SAW CUT LINE
- 24 HOWARD COUNTY MODIFIED CURB AND GUTTER (R-3.01)
- 25 DEPRESSED CURB
- 26 4" YELLOW STRIPING AT PARCEL PICK-UP
- 27 65'-4" YELLOW LINE-UP STRIPES
- 28 8"x16" PRE-CAST STORMFILTER
- 29 CMP RISER
- 30 STORM DRAIN CLEANOUT
- 31 FIRE DEPARTMENT CONNECTION
- 32 TEMPORARY DUMPSTER LOCATION ON 8" COMPACTED STONE PAD.
- 33 CONCRETE CURB AND GUTTER TRANSITION (R-3.02)
- 34 STANDARD BARRIER CURB (R-3.03)
- 35 BRICK MANHOLE (G-5.03)
- 36 MODIFIED DOUBLE TYPE "S" INLET
- 37 HOWARD COUNTY STANDARD PRE-CAST MANHOLE (G-5.13)
- 38 LIMIT OF LOADING ZONE
- 39 BRICK PAVERS TO MATCH EXISTING
- 40 COMBINATION SPILL CURB AND GUTTER
- 41 CONCRETE EQUIPMENT PAD (REFER TO ARCHITECTURALS FOR EXACT LOCATION)
- 42 STANDBY GENERATOR (REFER TO ARCHITECTURALS FOR EXACT LOCATION)
- 43 6" PIPE BOLLARD (REFER TO ARCHITECTURALS FOR EXACT LOCATION)
- 44 RELOCATED ELECTRICAL TRANSFORMER (BY BGE)

LEGEND

- PROP. PARKING COUNT LABEL
- SANITARY STRUCTURE LABEL
- STORMDRAIN STRUCTURE LABEL
- ITEM "CALL OUT" LABEL
- HEAVY DUTY PAVEMENT
- PROP. SPILL CURB

NOTES

1. REFER TO THE GENERAL NOTES SHEET FOR STANDARD SITE PLAN NOTES.
2. REFER TO COVER SHEET FOR LEGEND.
3. ALL DIMENSIONS ARE TO FACE OF CURB UNLESS OTHERWISE NOTED.

BENCHMARK

GEODETIC SURVEY CONTROL - #42R1
 S 547,820.238
 E 135,117.859
 ELEV. 375.85'
 LOCATED AT THE CORNER OF GUILFORD ROAD AND SASSAFRAS COURT.

GEODETIC SURVEY CONTROL - #42R2
 N 546,946.800
 E 1,352,118.566
 ELEV. 331.522'
 LOCATED AT HAMMOND HIGH SCHOOL AND GUILFORD ROAD (BLUE SEA ROAD)

REV.	DATE	DESCRIPTION	BY

OWNER/DEVELOPER:
 KCVC LIMITED PARTNERSHIP
 C/O KIMCO REALTY CORP.
 3333 NEW HYDE PARK ROAD
 SUITE 100
 NEW HYDE PARK, NY 11042-1205

PROJECT: HARRIS TEETER - ONE STORY GROCERY STORE
 KING'S CONTRIVANCE VILLAGE CENTER
 8820 GUILFORD ROAD
 COLUMBIA, MARYLAND 21046

AREA: TAX MAP 42 GRID 7 ZONED NT-COMM
 VILLAGE OF KING'S CONTRIVANCE
 6TH ELECTION DISTRICT
 COLUMBIA, HOWARD COUNTY, MARYLAND

SITE PLAN

BOHLER ENGINEERING, P.C.
 • PROFESSIONAL ENGINEERING SERVICES •
 • 610 Glenesdale Court, Suite 300, Towson, Maryland •
 • CONTACT: Michael Generali •
 • (410) 821-7500 FAX: (410) 821-7987 • WWW.BOHLERENGINEERING.COM

DESIGNED BY: MJC
 DRAWN BY: TAC
 PROJECT NO.: MD049006
 DATE: 9/27/06
 SCALE: AS SHOWN
 DRAWING NO.: 5 OF 22

PROFESSIONAL ENGINEER NO. 28567

MISS UTILITY

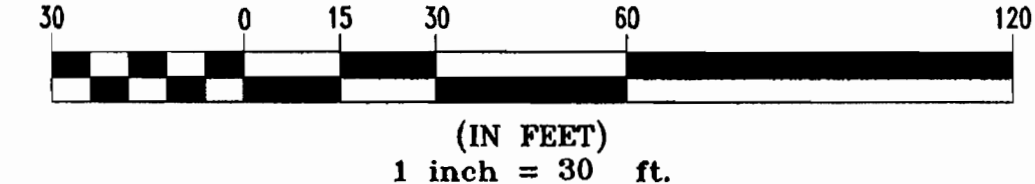


BEFORE YOU DIG CALL 1-800-357-7777
 PROTECT YOURSELF GIVE TWO WORKING DAYS NOTICE

THIS DRAWING DOES NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY. ALL CONSTRUCTION MUST BE DONE IN COMPLIANCE WITH THE OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970 AND ALL RULES AND REGULATIONS THEREOF APPLICABLE.

THE CONTRACTOR TO CALL MISS UTILITY TO HAVE ALL EXISTING UTILITIES MARKED 48 HOURS PRIOR TO ANY CONSTRUCTION.

GRAPHIC SCALE



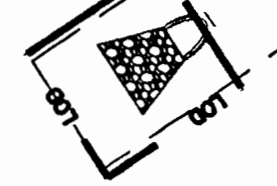
PLANNING BOARD APPROVAL STAMP

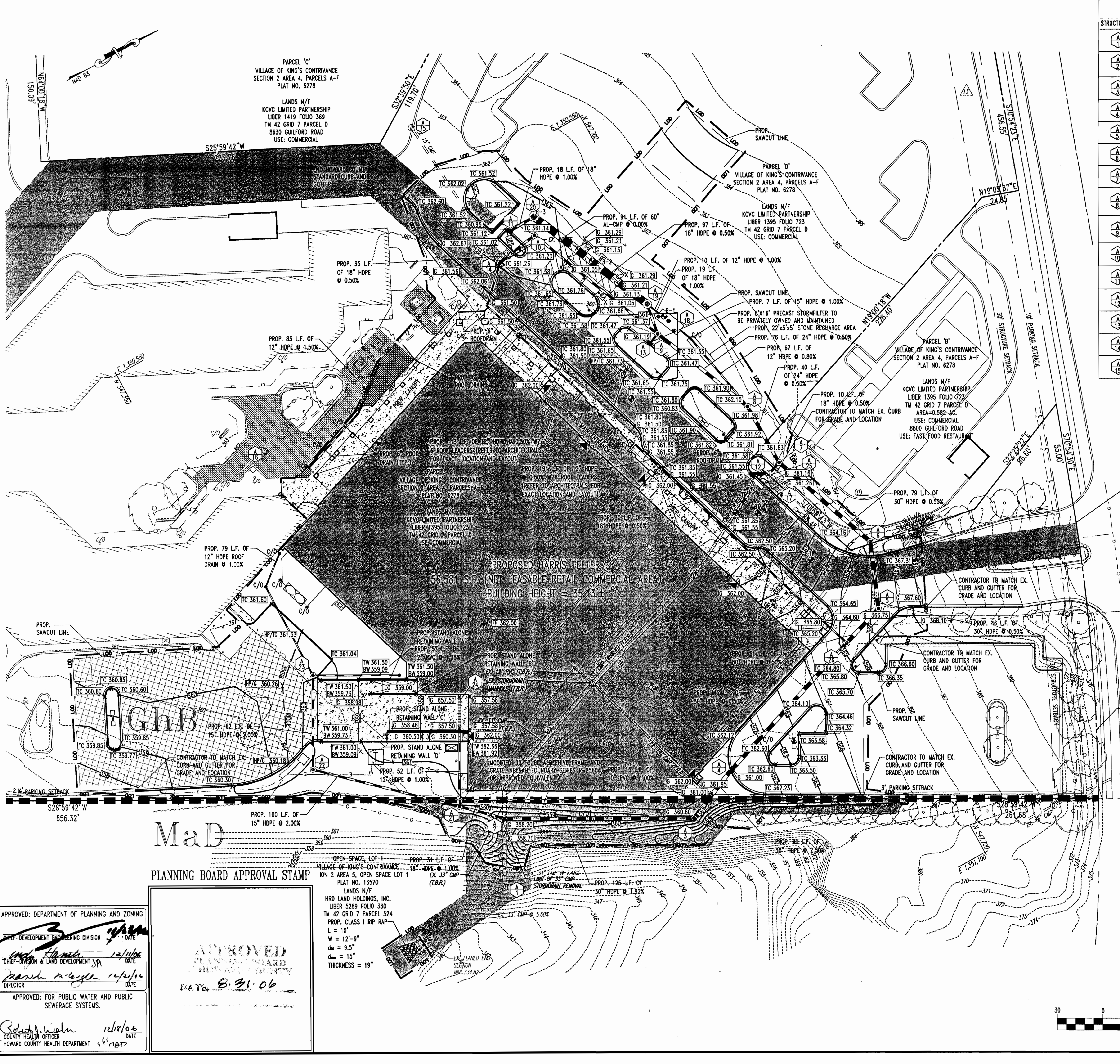
APPROVED
 PLANNING BOARD
 HOWARD COUNTY
 DATE: 8-31-06

APPROVED: DEPARTMENT OF PLANNING AND ZONING
 CHIEF-DEVELOPMENT & ENGINEERING DIVISION
 Cindy Hamble 12/1/06
 CHIEF-DIVISION & LAND DEVELOPMENT
 Jason M. Light 12/1/06
 DIRECTOR

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS.
 Robert J. Wink 12/1/06
 COUNTY HEALTH OFFICER
 HOWARD COUNTY HEALTH DEPARTMENT

OPEN SPACE, LOT 1
 VILLAGE OF KING'S CONTRIVANCE
 SECTION 2 AREA 5, OPEN SPACE LOT 1
 PLAT NO. 13570
 LANDS N/F
 HRD LAND HOLDINGS, INC.
 LIBER 5289 FOLIO 330
 TM 42 GRID 7 PARCEL 524





STORMDRAIN STRUCTURE SCHEDULE

STRUCTURE NO.	DESCRIPTION	INV. IN	INV. OUT	TOP ELEV.
A1	EXISTING MANHOLE	338.58 (33")	338.58 (33")	352.50
A2	PROP. PRECAST MANHOLE WITH MODIFIED FRAME AND GRATE* (HOWARD CO. STD. G 5.13)	343.83 (30") 351.99 (18")	343.58 (33")	358.20
A3	PROP. PRECAST MANHOLE (HOWARD CO. STD. G 5.13)	346.23 (30")	346.23 (30")	360.80
A4	PROP. MODIFIED DOUBLE TYPE "S" INLET (HOWARD CO. STD. SD 4.23)	347.23 (30")	347.23 (30")	361.00
A5	PROP. PRECAST MANHOLE (HOWARD CO. STD. G 5.13)	347.95 (30")	347.95 (30")	366.00
A6	PROP. PRECAST MANHOLE (HOWARD CO. STD. G 5.13)	348.18 (30")	348.18 (30")	365.50
A7	PROP. PRECAST MANHOLE (HOWARD CO. STD. G 5.13)	349.08 (24") 356.40 (18")	348.58 (24")	361.20
A8	PROP. PRECAST MANHOLE (HOWARD CO. STD. G 5.12)	350.28 (12") 349.28 (24")	349.28 (24")	361.20
A9	PROP. PRECAST MANHOLE (HOWARD CO. STD. G 5.12)	350.16 (18") 357.76 (15") 357.93 (18")	349.66 (24")	361.09
A10	PROP. PRECAST MANHOLE (HOWARD CO. STD. G 5.12)	355.48 (18")	350.35 (18")	360.78
A11	PROP. DOUBLE TYPE "S" INLET (HOWARD CO. STD. SD 4.23)	---	357.00 (18")	360.35
A12	PROP. DOUBLE TYPE "S" INLET (HOWARD CO. STD. SD 4.23)	---	357.00 (18")	360.85
A13	PROP. DOUBLE TYPE "S" INLET (HOWARD CO. STD. SD 4.23)	---	357.90 (15")	360.15
A14	PROP. PRECAST MANHOLE (HOWARD CO. STD. G 5.12)	356.16 (12") 357.93 (12") 357.34 (15")	355.66 (18")	360.92
A15	EX. INLET	---	356.07 (15")	361.60

STORMDRAIN STRUCTURE SCHEDULE

STRUCTURE NO.	DESCRIPTION	INV. IN	INV. OUT	TOP ELEV.
A16	EX. INLET	---	359.35 (12")	361.44
A17	EX. INLET	---	355.30 (15")	361.59
A18	PRECAST 8"x16" STORMWELL	353.22 (12")	350.92 (12")	VARIES
A19	PROP. PRECAST MANHOLE** (HOWARD CO. STD. G 5.03)	353.22 (60")	353.22 (12") 358.12 (18")	360.95
A20	PROP. PRECAST MANHOLE** (HOWARD CO. STD. G 5.12)	356.72 (18")	353.22 (60")	360.95
A21	PROP. PRECAST MANHOLE (HOWARD CO. STD. G 5.12)	354.80 (12") 352.55 (15")	352.30 (18")	360.80
A22	PROP. PRECAST MANHOLE (HOWARD CO. STD. G 5.12)	354.55 (15")	354.55 (15")	360.20
A23	PROP. PRECAST MANHOLE (HOWARD CO. STD. G 5.12)	356.21 (12")	355.79 (15")	360.50
A24	TRENCH DRAIN	---	355.32 (12")	357.50
A25	EXISTING MANHOLE	356.95 (18") 356.70 (15")	356.45 (18")	361.16
A26	PROP. PRECAST MANHOLE (HOWARD CO. STD. G 5.13)	347.80 (30") 358.23 (12")	347.80 (30")	365.10

SUMMARY TABLE

"SITE AREA"	3.55 AC.
WQv	0.78 AC. REQUIRED, 0.78 PROVIDED
Rev	0.005 AC.-FT. (REQUIRED), 0.005 AC.-FT. (PROVIDED)
CPV	N/A (REDEVELOPED)
QP10	N/A (REDEVELOPED)
QP100	N/A (REDEVELOPED)

NOTE: THE UNDERGROUND BMP, WITH A CLASS "A" HAZARD CLASSIFICATION HAS BEEN DESIGNED IN ACCORDANCE WITH THE MARYLAND DEPARTMENT OF THE ENVIRONMENT STORMWATER MANAGEMENT REGULATIONS. SEE SHEET 20 FOR DETAILS.

STORMDRAIN PIPE SCHEDULE

SIZE	DESCRIPTION	LENGTH
8"	PVC	15'
12"	PVC	215'
12"	PERFORATED HDPE	22'
12"	HDPE	509'
15"	HDPE	169'
18"	HDPE	202'
24"	HDPE	116'
30"	HDPE	432'
60"	AL-CMP	91'

SITE ANALYSIS

DISTURBED AREA	154,782 S.F. OR 3.55 AC.
TOTAL SITE AREA	505,145 S.F. OR 11.59 AC.
EARTH WORK CUT:	4,342 CU. YDS.
FILL:	3,712 CU. YDS.

EARTH QUANTITIES LISTED ABOVE ARE BASED ON A GRADING PLAN PREPARED BY BOHLER ENGINEERING, P.C. ENTITLED "HARRIS TEETER, ONE STORY GROCERY STORE" DATED 9/27/06, PROJECT NO. MD049006 THESE QUANTITIES ARE FOR SILTATION AND EROSION CONTROL PURPOSES ONLY THEY ARE NOT TO BE USED FOR ESTIMATING PURPOSES.

- ### NOTES
- REFER TO THE GENERAL NOTES SHEET FOR APPLICABLE GRADING NOTES.
 - REFER TO COVER SHEET FOR LEGEND.
 - REFER TO SHEET 21 FOR THE BORING LOGS

BENCHMARK

GEODETIC SURVEY CONTROL - #42R1
 S 547,820.238
 E 135,117.859
 ELEV. 375.85'
 LOCATED AT THE CORNER OF GUILFORD ROAD AND SASSAFRAS COURT.

GEODETIC SURVEY CONTROL - #42R2
 N 546,946.800
 E 1,352,118.566
 ELEV. 331.522'
 LOCATED AT HAMMOND HIGH SCHOOL AND GUILFORD ROAD (BLUE SEA ROAD)

LEGEND

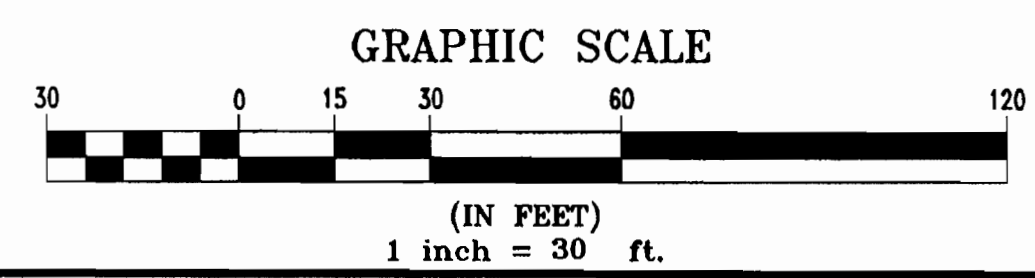
- EXISTING STORMDRAIN
- PROPOSED STORMDRAIN
- EXISTING STORMDRAIN (TO BE REMOVED)
- SPILL CURB
- TEST PIT

MISS UTILITY

BEFORE YOU DIG CALL 1-800-391-7777
 PROJECT YOURSELF, GIVE TWO WORKING DAYS NOTICE

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THE CONTRACTOR TO CALL MISS UTILITY TO HAVE ALL EXISTING UTILITIES MARKED 48 HOURS PRIOR TO ANY CONSTRUCTION.



APPROVED: DEPARTMENT OF PLANNING AND ZONING
 CHIEF-DEVELOPMENT ENGINEERING DIVISION
 DATE: 12/18/06

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS.
 COUNTY HEALTH OFFICER
 DATE: 12/18/06

APPROVED
 PLANNING BOARD
 DATE: 8-31-06

HLD LAND HOLDINGS, INC.
 LIBER 5289 FOLIO 330
 TM 42 GRID 7 PARCEL 524
 PROP. CLASS 1 RIP RAP
 L = 10'
 W = 12'-9"
 C₁₀₀ = 9.5"
 C₁₅₀ = 15"
 THICKNESS = 19"

BOHLER ENGINEERING, P.C.

PROFESSIONAL ENGINEERING SERVICES
 810 Glenagean Court, Suite 300, Towson, Maryland
 CONTACT: Michael Genet
 (410) 821-7900 FAX: (410) 821-7987

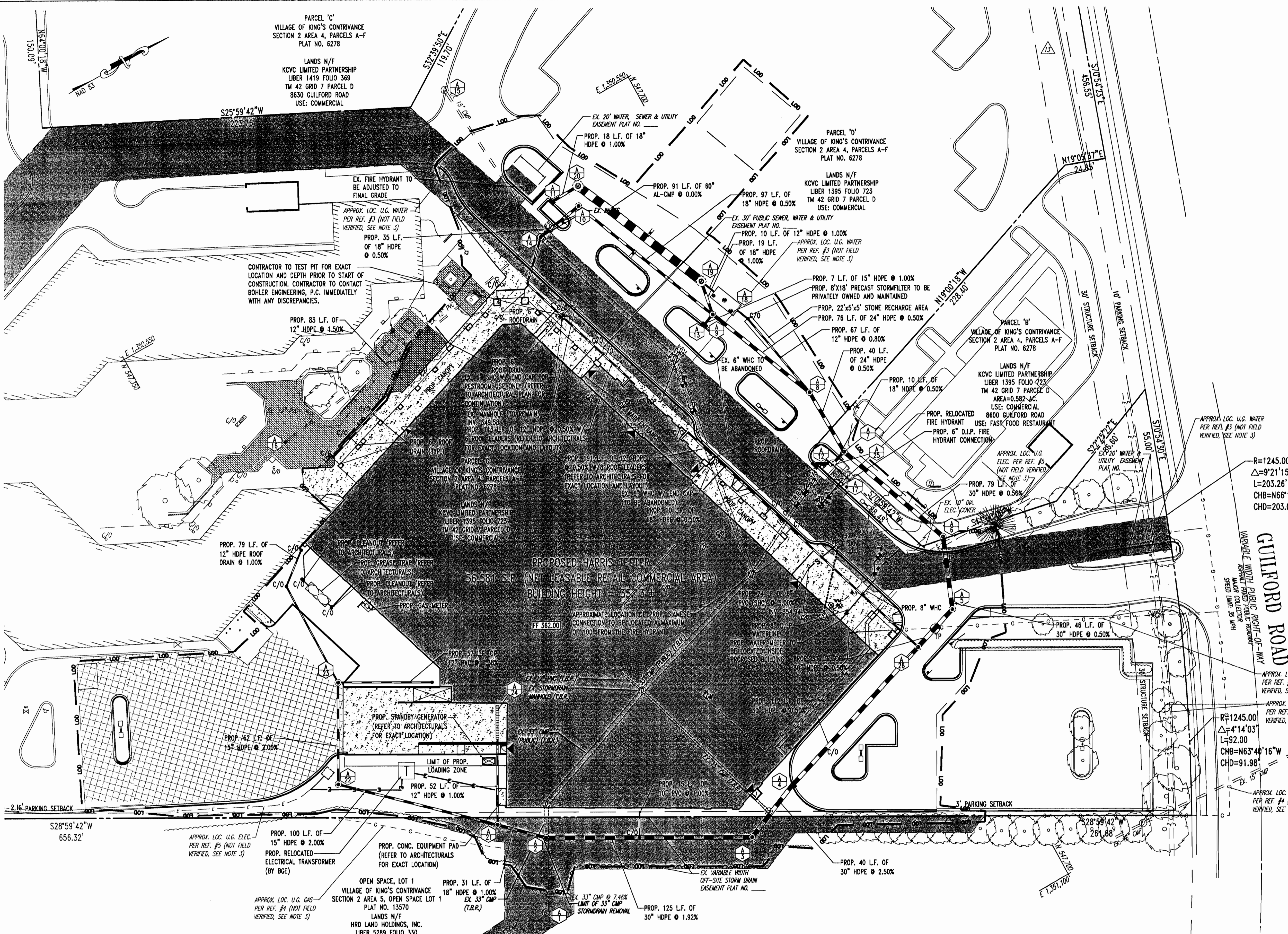
OWNER/DEVELOPER: KVCV LIMITED PARTNERSHIP
 C/O KIMCO REALTY CORP.
 3333 NEW HYDE PARK ROAD
 SUITE 100
 NEW HYDE PARK, NY 11042-1205

PROJECT: HARRIS TEETER - ONE STORY GROCERY STORE
 KING'S CONTRIVANCE VILLAGE CENTER
 8600 GUILFORD ROAD
 COLUMBIA, MARYLAND 21046

AREA: TAX MAP 42 GRID 7 ZONED HT-COMM
 PARCEL C
 VILLAGE OF KING'S CONTRIVANCE
 9TH ELECTION DISTRICT
 COLUMBIA, HOWARD COUNTY, MARYLAND

TITLE: GRADING PLAN

DESIGNED BY: M.J.G.
 DRAWN BY: TAC
 PROJECT NO.: MD049006
 DATE: 9/27/06
 SCALE: AS SHOWN
 DRAWING NO.: 6 OF 22



UTILITY CONTACTS:

NATURAL GAS AND ELECTRIC
BALTIMORE GAS AND ELECTRIC
7317 PARKWAY DRIVE
SOUTH HANOVER, MD 21076
PHONE: (410) 859-9383

WATER AND SANITARY SEWER
HOWARD COUNTY PUBLIC WORKS BUREAU
OF UTILITIES
8250 OLD MONTGOMERY ROAD
COLUMBIA, MD 21045
PHONE: (410) 313-4910

TELEPHONE
VERIZON
7133 RUTHERFORD ROAD
BALTIMORE, MD 21244
PHONE: (410) 224-5286

EROSION AND SEDIMENT CONTROL
DEPARTMENT OF INSPECTIONS,
LICENSES & PERMITS
3430 COURTHOUSE DRIVE
ELLCOTT CITY, MD 21043
PHONE: (410) 313-2455

STORMWATER MANAGEMENT
HOWARD COUNTY PLANNING
AND ZONING DEPARTMENT
3430 COURTHOUSE DRIVE
ELLCOTT CITY, MD 21043
PHONE: (410) 313-2350

PLANNING AND ZONING
HOWARD COUNTY PLANNING
AND ZONING DEPARTMENT
3430 COURTHOUSE DRIVE
ELLCOTT CITY, MD 21043
PHONE: (410) 313-2350

SANITARY STRUCTURE SCHEDULE

STRUCTURE NO.	DESCRIPTION	INV. IN	INV. OUT	TOP ELEV.
1	EXISTING MANHOLE	354.16 (6")	351.22 (8")	362.67

PIPE SCHEDULE

SIZE	DESCRIPTION	LENGTH
6"	PVC	24'
8"	DIP	45'

NOTES

- REFER TO THE GENERAL NOTES SHEET FOR APPLICABLE UTILITY NOTES.
- REFER TO COVER SHEET FOR LEGEND.
- WATER METERS AND BACK FLOW PREVENTERS SHALL BE LOCATED WITHIN THE PROPOSED HARRIS TEETER BUILDING.
- ALL WATER AND SANITARY LINES SHALL END 5' OUTSIDE THE BUILDING LIMITS AS SHOWN ON THE PLAN AND SHALL BE PROVIDED WITH A TEMPORARY PLUG IN THE END.

BENCHMARK

GEODETIC SURVEY CONTROL - #42R1
S 547,820.238
E 135,117.859
ELEV. 375.85'
LOCATED AT THE CORNER OF GUILFORD ROAD AND SASSAFRAS COURT.

GEODETIC SURVEY CONTROL - #42R2
N 546,946.800
E 1,352,118.566
ELEV. 331.522'
LOCATED AT HAMMOND HIGH SCHOOL AND GUILFORD ROAD (BLUE SEA ROAD)

LEGEND

- EXISTING STORMDRAIN
- PROPOSED STORMDRAIN
- EXISTING STORMDRAIN (TO BE REMOVED)
- SPILL CURB
- TP TEST PIT

PLANNING BOARD APPROVAL STAMP

APPROVED: DEPARTMENT OF PLANNING AND ZONING
CHIEF-DEVELOPMENT ENGINEERING DIVISION
DATE: 12/10/06
CHIEF-DIVISION & LAND DEVELOPMENT
DATE: 12/10/06
DIRECTOR

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS.
COUNTY HEALTH OFFICER
DATE: 12/10/06
HOWARD COUNTY HEALTH DEPARTMENT

APPROVED PLANNING BOARD
DATE: 8-31-06

MISS UTILITY

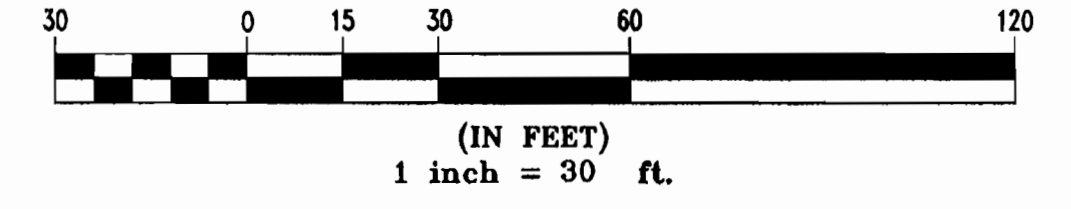


BEFORE YOU DIG CALL 1-800-987-7777
PROTECT YOURSELF. DIG TWO WORKING DAYS NOTICE

THIS DRAWING DOES NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY. ALL CONSTRUCTION MUST BE DONE IN COMPLIANCE WITH THE OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970 AND ALL RULES AND REGULATIONS THEREOF APPLICABLE.

THE CONTRACTOR TO CALL MISS UTILITY TO HAVE ALL EXISTING UTILITIES MARKED 48 HOURS PRIOR TO ANY CONSTRUCTION.

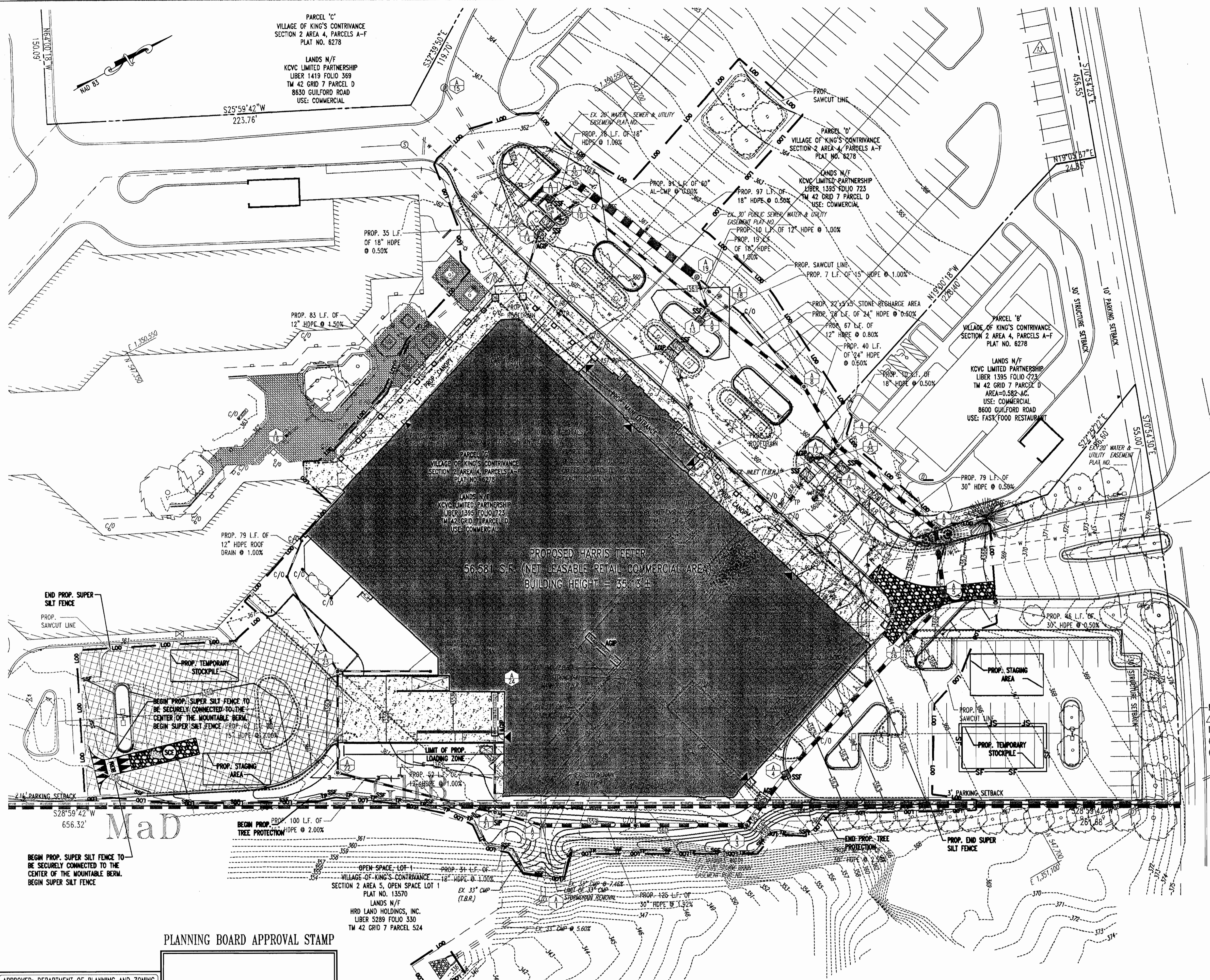
GRAPHIC SCALE



BOHLER ENGINEERING, P.C.
PROFESSIONAL ENGINEERING SERVICES
810 GLENAGLES COURT, SUITE 300, TOWSON, MARYLAND
CONTACT: MICHAEL GONZALES
(410) 821-7900 FAX: (410) 821-7907 | WWW.BOHLERENGINEERING.COM

DESIGNED BY: M/JG
DRAWN BY: TAC
PROJECT NO.: MD049006
DATE: 9/27/06
SCALE: AS SHOWN
DRAWING NO.: 8 OF 22

MATTHEW K. ALLEN
PROFESSIONAL ENGINEER NO. 28567



EROSION AND SEDIMENT CONTROL QUANTITIES

LIMIT OF DISTURBANCE = 154,782 S.F. OR 3.55 AC.
 TOTAL NET SITE AREA = 151,391 S.F. OR 3.47 AC.
 SILT FENCE = 166 L.F.
 SUPER SILT FENCE = 799 L.F.
 TREE PROTECTION = 410
 STABILIZED CONSTRUCTION ENTRANCE = 2 EA.
 AT GRADE INLET PROTECTION = 6 EA.
 STANDARD INLET PROTECTION = 1 EA.

NOTE:
 EARTH QUANTITIES LISTED ABOVE ARE BASED ON A GRADING PLAN PREPARED BY BOHLER ENGINEERING, P.C. ENTITLED "HARRIS TEETER, ONE STORY GROCERY STORE" DATED 07/05/2006, PROJECT NO. MD049006 THESE QUANTITIES ARE FOR SILTATION AND EROSION CONTROL PURPOSES ONLY THEY ARE NOT TO BE USED FOR ESTIMATING PURPOSES.

INLET PROTECTION NOTE

THE CONTRACTOR IS REQUIRED TO INSTALL INLET PROTECTION ON ALL STORM DRAIN INLETS WITH THE EXCEPTION OF THE FOLLOWING:

*1) ANY INLET OUTFALLING DIRECTLY INTO A SEDIMENT TRAPPING DEVICE.

ALL INLET PROTECTION WILL BE INSTALLED AS DIRECTED BY THE INSPECTOR IN ACCORDANCE WITH THE 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL, PAGE E-16-1. THE REMOVAL OF ANY INLET PROTECTION DEVICES WILL REQUIRE APPROVAL FROM THE INSPECTOR.

*STORM DRAIN TO BE FLUSHED PRIOR TO TRAPPING DEVICE REMOVAL.

EROSION AND SEDIMENT CONTROL UTILITY INSTALLATION NOTES

- CONTRACTOR SHALL OPEN ONLY THAT SECTION OF TRENCH THAT CAN BE BACKFILLED AND STABILIZED EACH DAY. IF TRENCH MUST REMAIN OPEN LONGER THAN ONE DAY, SILT FENCE SHALL BE PLACED BELOW (DOWNSLOPE OF) TRENCH.
- PLACE ALL EXCAVATED MATERIAL ON UPHILL SIDE OF TRENCH.
- ANY SEDIMENT CONTROLS DISTURBED BY UTILITY CONSTRUCTION ARE TO BE REPAIRED IMMEDIATELY.
- THE CONTRACTOR SHALL TAKE APPROPRIATE MEASURES TO PROTECT PEDESTRIANS AT ALL TIMES DURING UNDERGROUND UTILITY CONSTRUCTION.

ON-SITE SOILS INFORMATION:

CHB - GLENELG - URBAN LAND COMPLEX (HYDROLOGIC SOIL CLASSIFICATION 'B')
 MAD - MANOR LOAM, 15% TO 25% SLOPES (HYDROLOGIC SOIL CLASSIFICATION 'B')

REFERENCE:

SOIL SURVEY
 HOWARD COUNTY, MD
 PREPARED BY:
 UNITED STATES DEPARTMENT OF AGRICULTURE
 DATED: JULY 1968

REVIEWED FOR HOWARD SCD AND MEETS TECHNICAL REQUIREMENT
 SIGNATURE: *John M. Allen*
 DATE: 11/27/06
 TITLE: PROFESSIONAL ENGINEER
 HOWARD SCD

ENGINEER'S CERTIFICATE
 "I CERTIFY THAT THIS PLAN FOR SEDIMENT AND EROSION CONTROL A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT."
 SIGNATURE: *Matthew T. Allen P.E.*
 DATE: 11/16/06
 TITLE: PROFESSIONAL ENGINEER

DEVELOPER'S CERTIFICATE
 "I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN FOR SEDIMENT AND EROSION CONTROL, AND THAT ALL 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."
 KVCC INC.
 BY: K COLUMBIA PROPERTIES, LLC, MANAGING MEMBER
 BY: KIMCO RETAIL OPPORTUNITY PORTFOLIO, L.L.C., MEMBER
 BY: KIGME, INC. MANAGING MEMBER
 SIGNATURE: *William E. Simmons, II*
 DATE: 11/16/06
 TITLE: Vice President

NOTES

- REFER TO THE EROSION AND SEDIMENT NOTES AND DETAILS FOR ADDITIONAL EROSION AND SEDIMENT CONTROL NOTES.
- REFER TO COVER SHEET FOR LEGEND.
- REFER TO EROSION AND SEDIMENT CONTROL NOTES & DETAILS FOR SEQUENCE OF CONSTRUCTION

BENCHMARK

GEODETIC SURVEY CONTROL - #42R1
 S 547,820.238
 E 135,117.859
 ELEV. 375.85'
 LOCATED AT THE CORNER OF GUILFORD ROAD AND SASSAFRAS COURT.

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 ELEV. 331.522'
 LOCATED AT HAMMOND HIGH SCHOOL AND GUILFORD ROAD (BLUE SEA ROAD)

REV.	DATE	DESCRIPTION	BY

OWNER/DEVELOPER:
 KVCC LIMITED PARTNERSHIP
 C/O KIMCO REALTY CORP.
 3333 NEW HYDE PARK ROAD
 SUITE 100
 NEW HYDE PARK, NY 11042-1205

PROJECT: HARRIS TEETER - ONE STORY GROCERY STORE
 KING'S CONTRIVANCE VILLAGE CENTER
 8620 GUILFORD ROAD
 COLUMBIA, MARYLAND 21046

AREA: TAX MAP 42 GRID 7 PARCEL 6 ZONED RT-COAM
 VILLAGE OF KING'S CONTRIVANCE
 6TH ELECTION DISTRICT
 COLUMBIA, HOWARD COUNTY, MARYLAND

TITLE: EROSION AND SEDIMENT CONTROL PLAN

BOHLER ENGINEERING, P.C.
 PROFESSIONAL ENGINEERING SERVICES
 810 GLENEAGLES COURT, SUITE 300, TOWSON, MARYLAND
 CONTACT: MICHAEL GOSSEL
 (410) 881-7900 FAX: (410) 881-7987 WWW.BOHLERENGINEERING.COM

DESIGNED BY: MJG
 DRAWN BY: TAC
 PROJECT NO.: MD049006
 DATE: 9/27/06
 SCALE: AS SHOWN
 DRAWING NO.: 9 OF 22

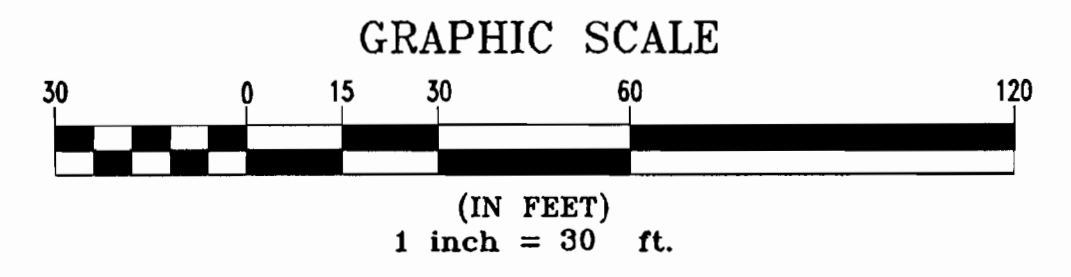
SDP-06-98

PLANNING BOARD APPROVAL STAMP

APPROVED: DEPARTMENT OF PLANNING AND ZONING
 CHIEF-DEVELOPMENT ENGINEERING DIVISION
 DATE: 12/11/06
 CHIEF-DIVISION & LAND DEVELOPMENT VP
 DATE: 12/11/06
 DIRECTOR

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS.
 COUNTY HEALTH OFFICER
 DATE: 12/18/06
 HOWARD COUNTY HEALTH DEPARTMENT

APPROVED PLANNING BOARD OF HOWARD COUNTY
 DATE: 8-31-06



SCD 1 OF 3

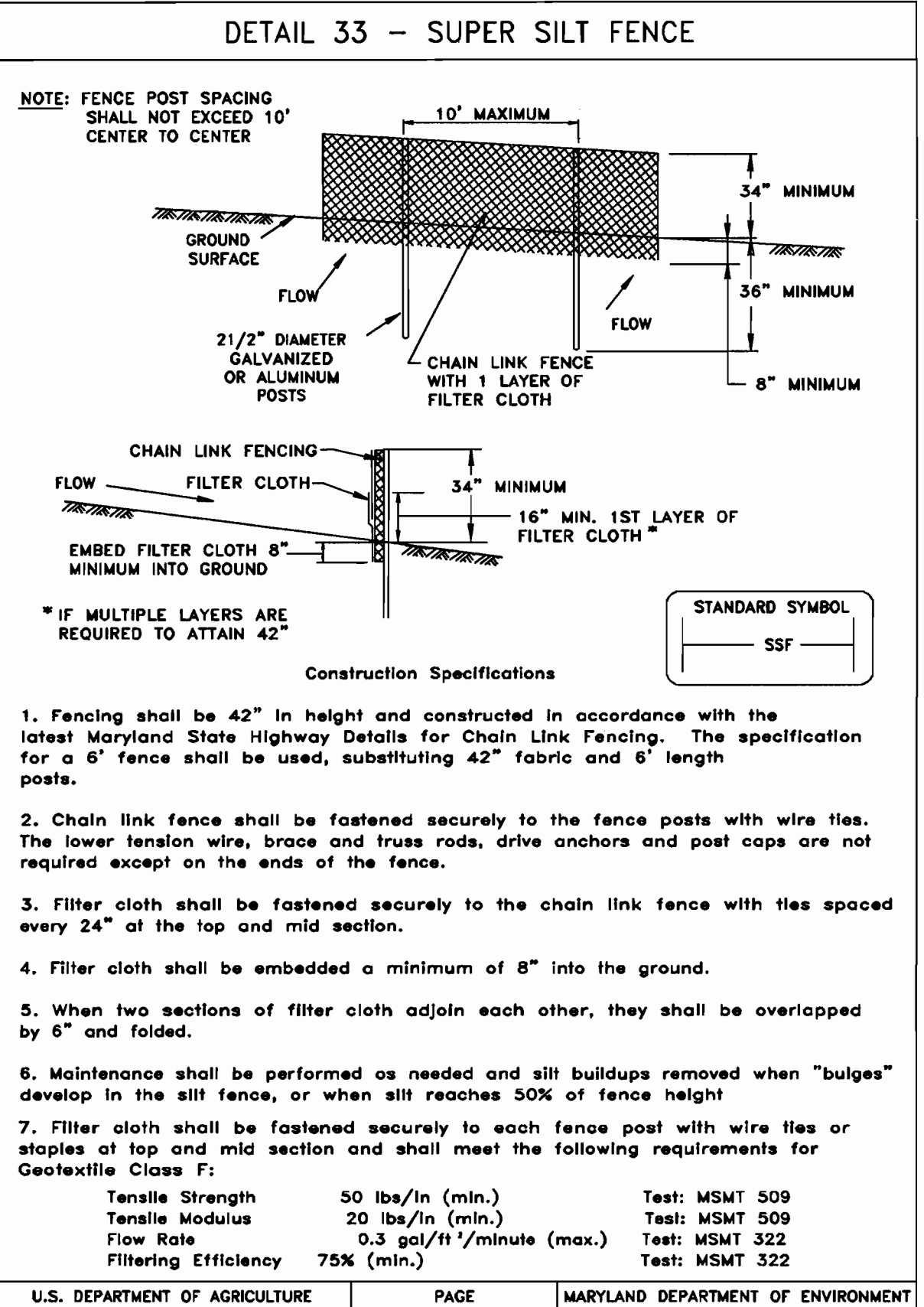
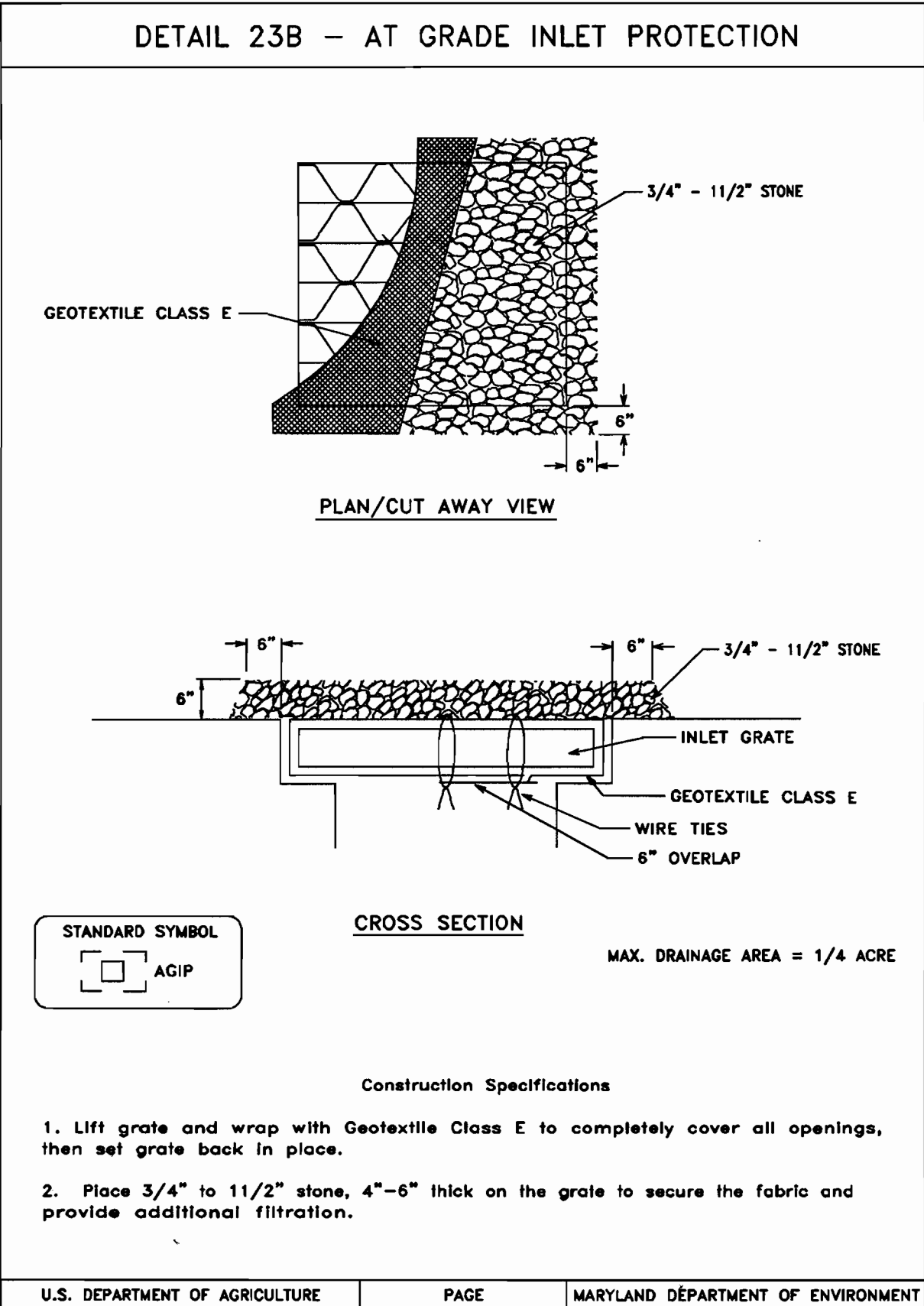
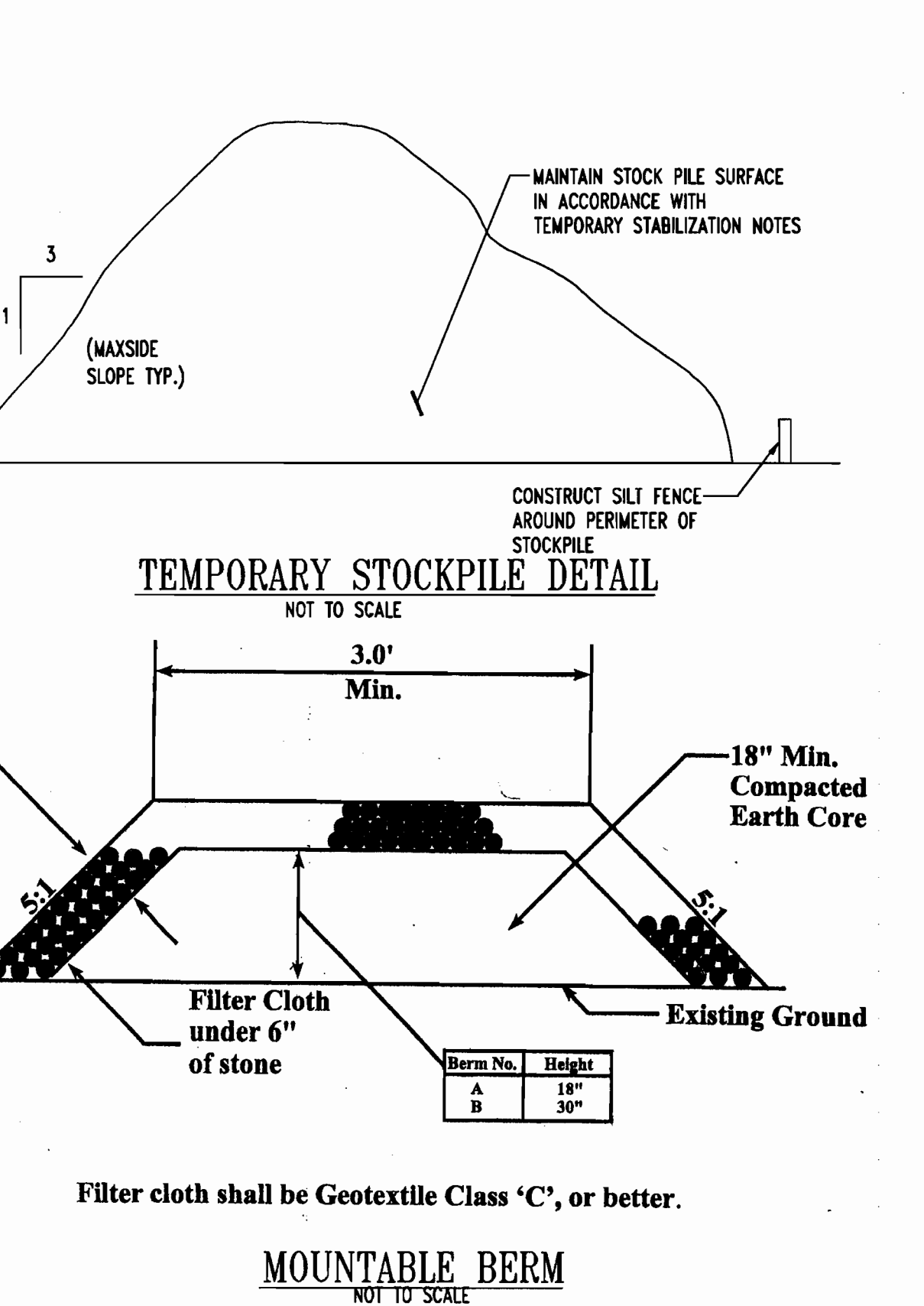
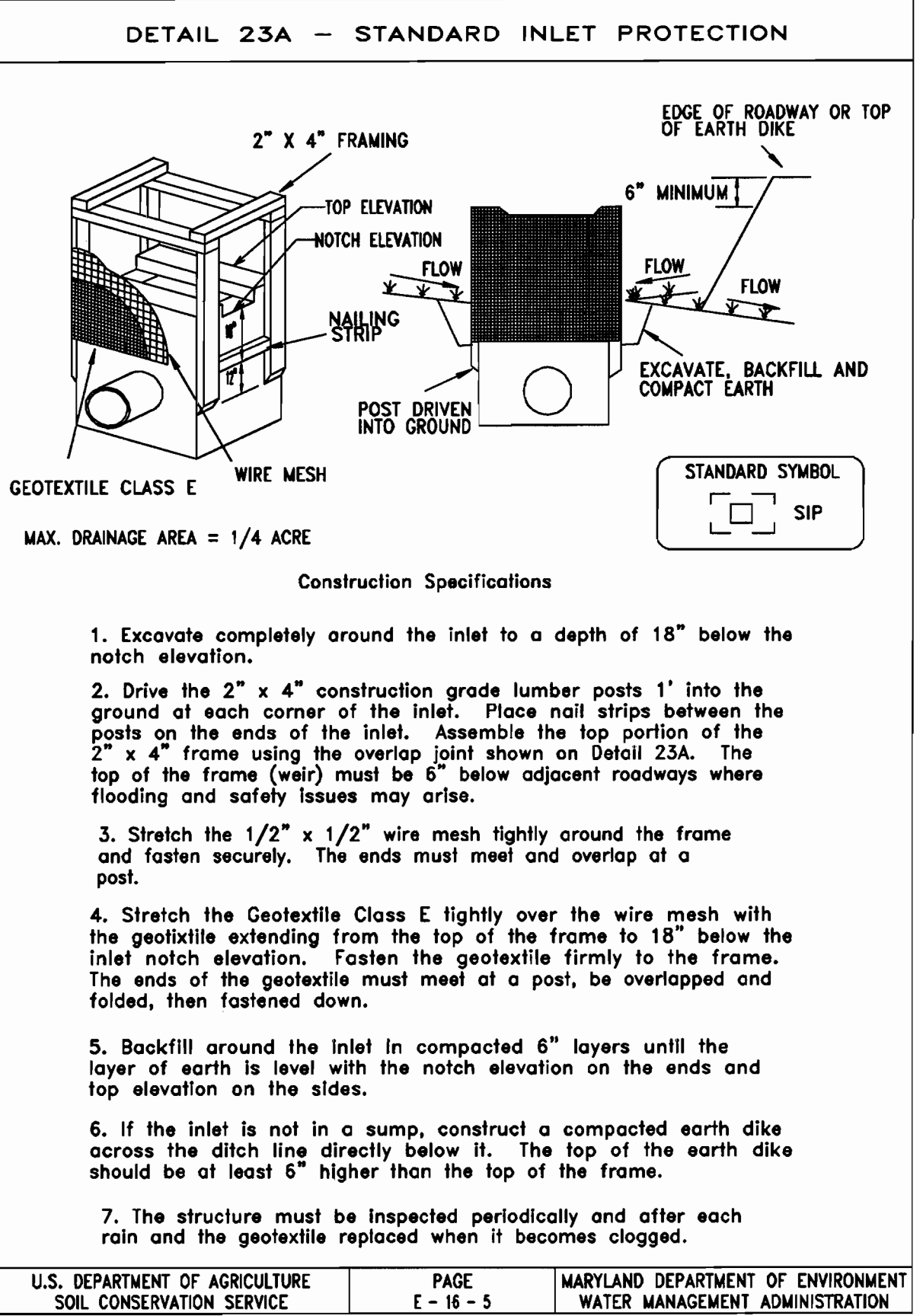
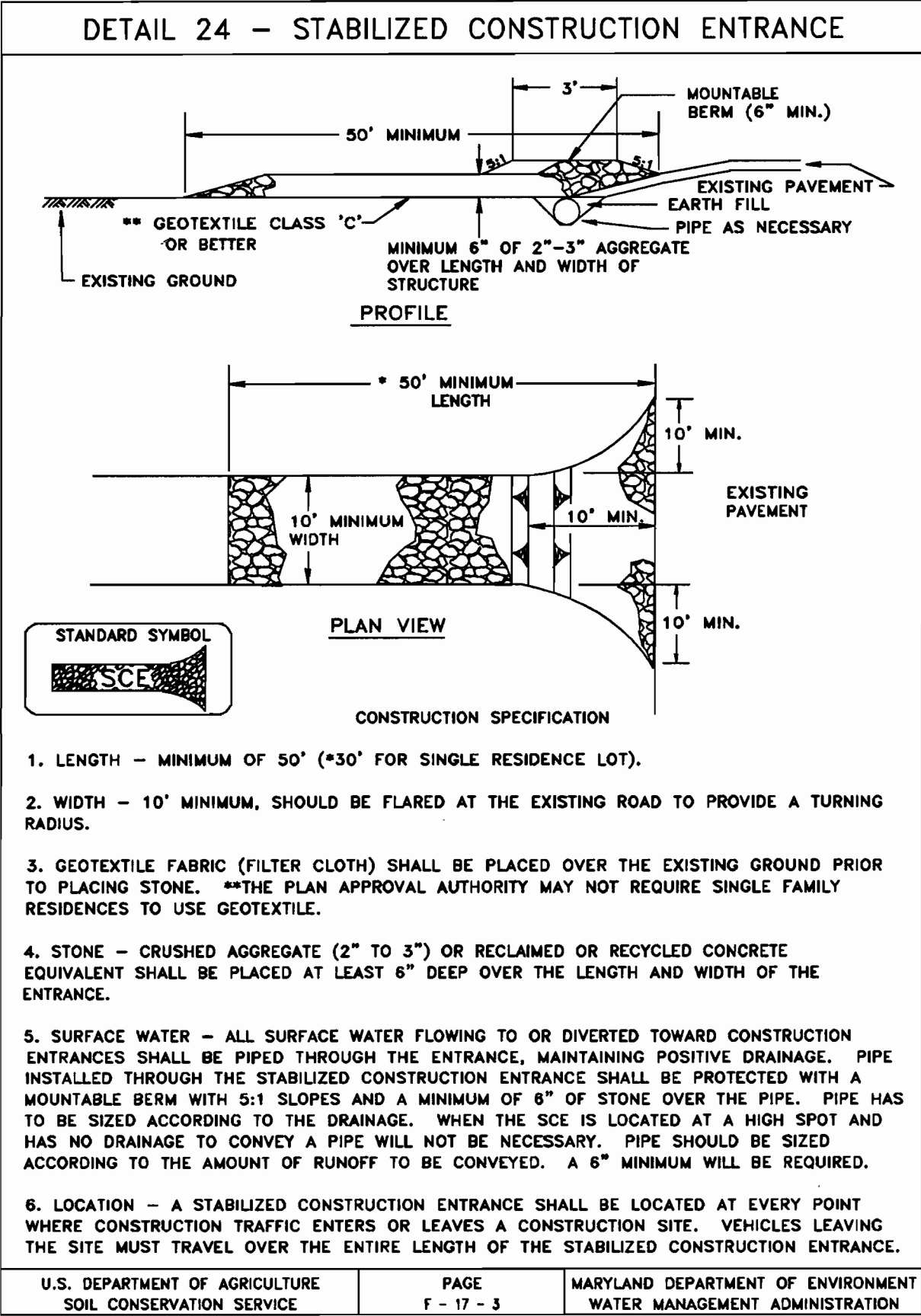
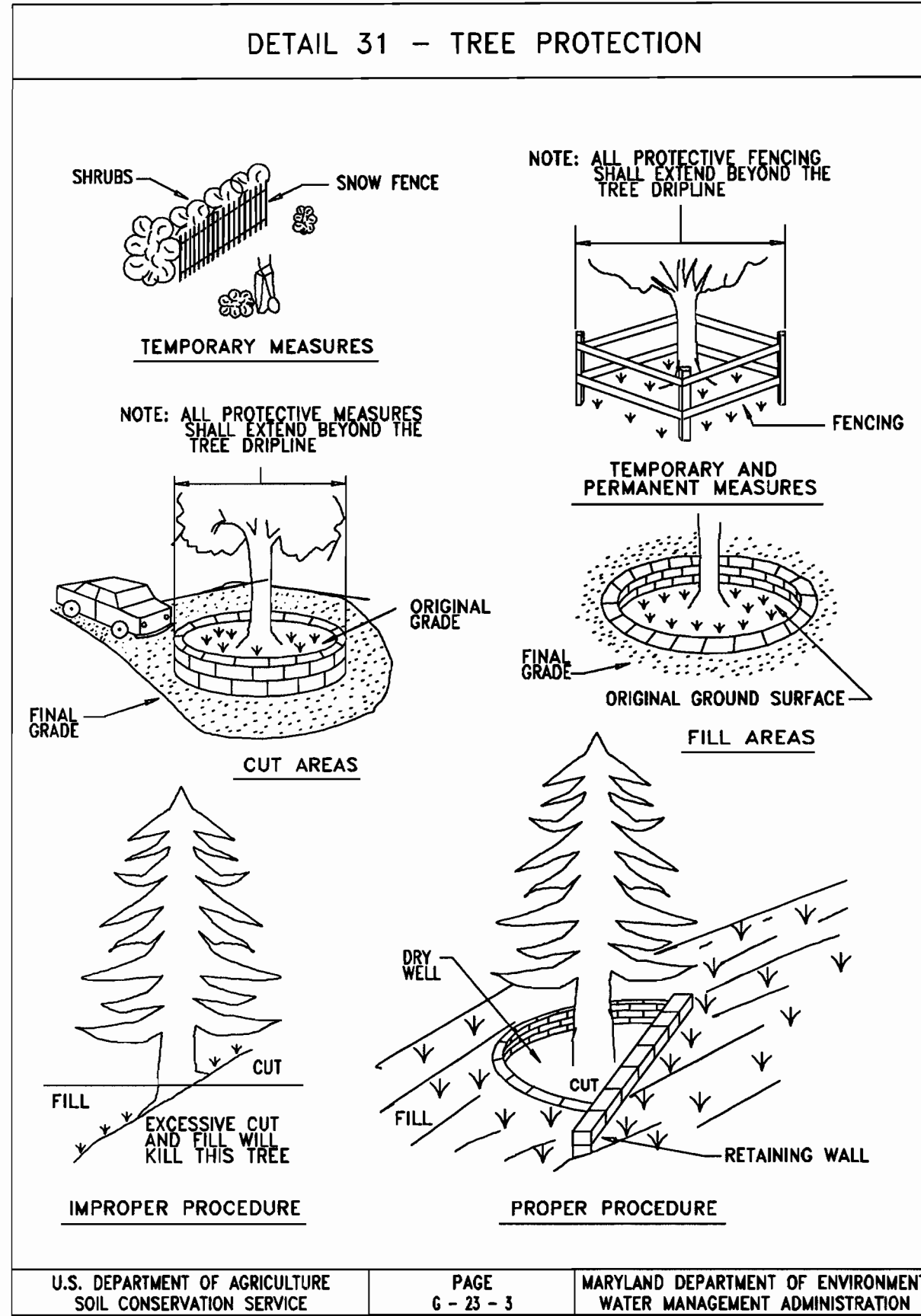
THIS PLAN IS FOR EROSION AND SEDIMENT CONTROL PURPOSES ONLY

EROSION AND SEDIMENT CONTROL LEGEND

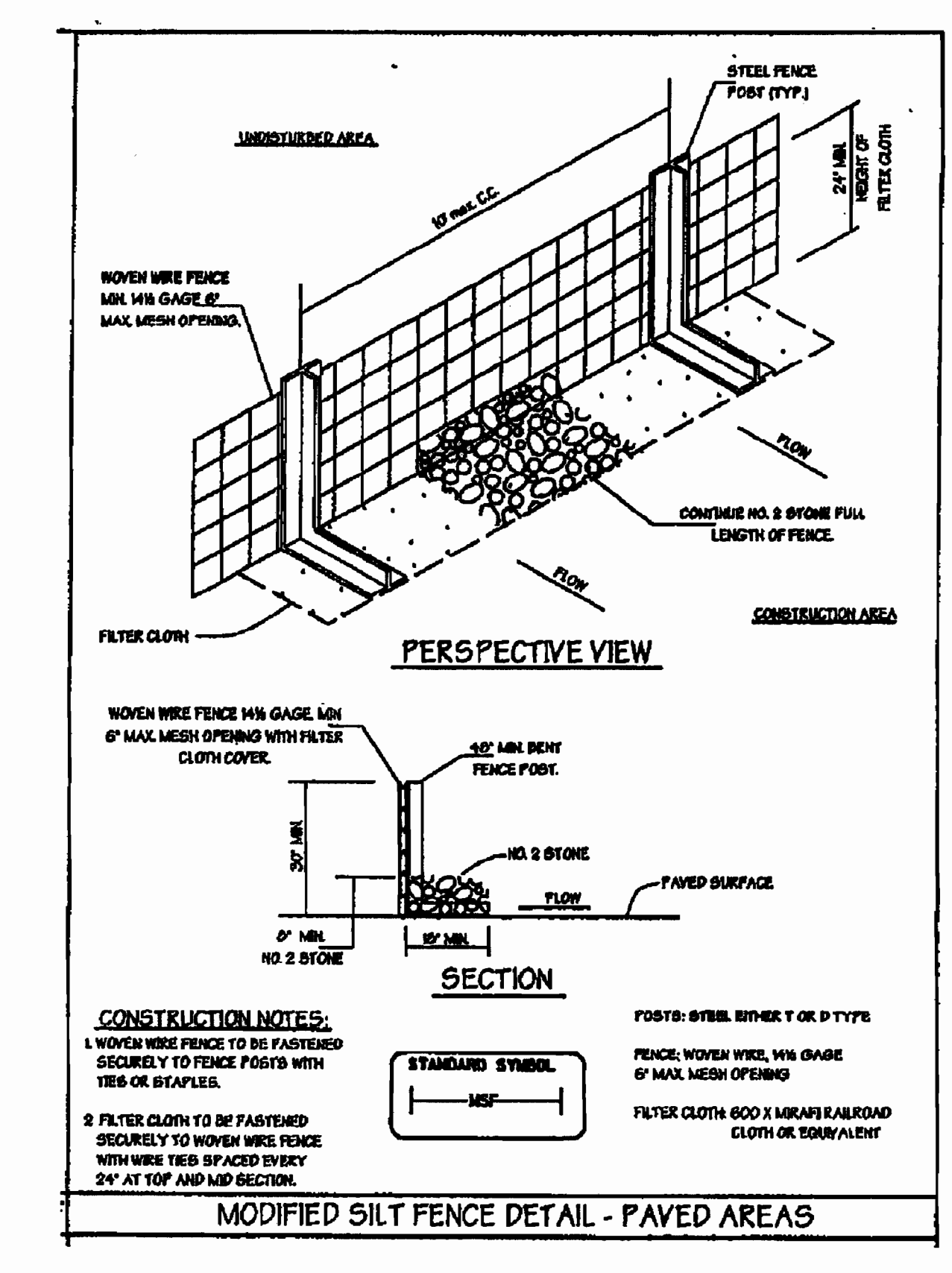
- 123 --- PROPERTY LINE
- 123 --- EXISTING CONTOUR
- 123 --- PROPOSED CONTOUR
- L00 --- LIMIT OF DISTURBANCE
- SF --- SILT FENCE
- SSF --- SUPER SILT FENCE
- TP --- TREE PROTECTION
- SC1 --- STABILIZED CONSTRUCTION ENTRANCE
- ACIP --- AT GRADE INLET PROTECTION



THIS DRAWING DOES NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY. ALL CONSTRUCTION MUST BE DONE IN COMPLIANCE WITH THE OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970 AND ALL RULES AND REGULATIONS THERETO APPLICABLE.
 THE CONTRACTOR TO CALL MISS UTILITY TO HAVE ALL EXISTING UTILITIES MARKED 48 HOURS PRIOR TO ANY CONSTRUCTION.



- ### SEQUENCE OF CONSTRUCTION
- NOTIFY HOWARD COUNTY'S SEDIMENT CONTROL INSPECTOR AT 410-313-1855 AT LEAST 48 HOURS PRIOR TO THE START OF CONSTRUCTION. (2 DAYS)
 - THE GENERAL CONTRACTOR SHALL NOT COMMENCE ANY LAND DISTURBING ACTIVITIES PRIOR TO OBTAINING A GRADING PERMIT. (1 DAY)
 - THE CONTRACTOR SHALL HOLD A PRE-CONSTRUCTION MEETING WITH THE CONSTRUCTION MANAGER AND THE HOWARD COUNTY EROSION AND SEDIMENT CONTROL INSPECTOR PRIOR TO COMMENCING ANY LAND DISTURBANCE ACTIVITIES. (1 DAY)
 - ALL AREAS WHICH ARE TO BE DISTURBED SHALL BE CLEARLY MARKED IN THE FIELD PRIOR TO CONSTRUCTION. DISTURBED AREAS WITHIN THE SITE WHERE CONSTRUCTION ACTIVITY HAS CEASED SHALL BE PERMANENTLY OR TEMPORARILY STABILIZED WITHIN: (2 DAYS)
 - SEVEN CALENDAR DAYS ON SLOPES GREATER THAN 3:1, ALL WATERWAYS AND TO THE SURFACE OF ALL PERIMETER CONTROLS.
 - FOURTEEN CALENDAR DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS OF THE PROJECT.
 - INSTALL SUPER SILT FENCE AND STABILIZED CONSTRUCTION ENTRANCE LOCATED ON THE SOUTH SIDE OF THE EXISTING BUILDING. (2 DAYS)
 - RAZE EXISTING BUILDINGS AND DISPOSE OF AT AN APPROVED LOCATION. (14 DAYS)
 - REMOVE EXISTING LANDSCAPE ISLAND, LIGHT, CURB AND GUTTER AND ASPHALT PAVEMENT ON THE SOUTH SIDE OF THE SITE. (5 DAYS)
 - BEGIN CONSTRUCTION OF THE PROPOSED HARRIS TEETER BUILDING. (90 DAYS)
 - INSTALL STORMDRAIN FROM STRUCTURE A-2 TO STRUCTURE A-23 AND FROM STRUCTURE A-21 TO STRUCTURE A-24. (5 DAYS)
 - INSTALL CURB AND GUTTER AND ASPHALT PAVEMENT ON THE SOUTH SIDE OF THE BUILDING. (5 DAYS)
 - REMOVE EXISTING CURB AND GUTTER, AREA LIGHT AND ASPHALT PAVEMENT LOCATED ON THE EAST SIDE OF THE BUILDING. (5 DAYS)
 - INSTALL STORMDRAIN FROM STRUCTURE A-2 TO STRUCTURE A-5. (5 DAYS)
 - INSTALL CURB AND GUTTER AND ASPHALT PAVEMENT. (5 DAYS)
 - CLOSE SHOPPING CENTER ENTRANCE FROM GULFORD ROAD. ALLOW 1 WEEK PRIOR TO CLOSING TO POST SIGNS OF WARNING. PROVIDE SIGNAGE FOR CUSTOMERS TO UTILIZE THE EX. ENTRANCES OFF OF EDEN BROOK DRIVE. (1 WEEK)
 - INSTALL STABILIZED CONSTRUCTION ENTRANCE AND INLET PROTECTION ON ALL EX. INLETS. (1 DAY)
 - REMOVE EX. ASPHALT PAVEMENT CURB AND GUTTER AND OTHER SITE AMENITIES LOCATED ON THE NORTH SIDE OF THE BUILDING. CONTRACTOR TO MAINTAIN THE EXISTING HANDICAP SPACES AND ACCESS TO MCDONALD'S FROM EDEN BROOK DRIVE. (3 DAYS)
 - INSTALL STORMDRAIN FROM STRUCTURE A-14 TO STRUCTURE A-7, STRUCTURE A-6 TO STRUCTURE A-5, STRUCTURE A-12 TO STRUCTURE A-7, AND STRUCTURE A-13 TO STRUCTURE A-9. CONTRACTOR TO COORDINATE WITH MCDONALD'S FOR CLOSURE OF DRIVE THRU TO COMPLETE STORMDRAIN CONSTRUCTION. (5 DAYS)
 - INSTALL FIRE HYDRANT AND PROPOSED WATERLINE. (2 DAYS)
 - REMOVE EXISTING STORMDRAIN FROM STRUCTURE A-12 TO STRUCTURE A-2. (2 DAYS)
 - INSTALL PROPOSED CURB AND GUTTER AND ASPHALT PAVEMENT ON NORTH SIDE OF BUILDING. (7 DAYS)
 - STRIP PROPOSED HANDICAP SPACES AND CROSSWALK. (1 DAY)
 - REMOVE REMAINING CURB AND GUTTER AND HANDICAP SPACES. (2 DAYS)
 - INSTALL CURB AND GUTTER AND REMAINING ASPHALT PAVEMENT. (5 DAYS)
 - FLUSH THE PROPOSED STORM DRAIN SYSTEM TO REMOVE ANY SEDIMENT. THIS MUST BE INSPECTED AND APPROVED BY HOWARD COUNTY'S SEDIMENT CONTROL INSPECTOR. (5 DAYS)
 - AS THE SITE IS BROUGHT TO FINAL GRADE, PERMANENTLY STABILIZE ALL DISTURBED AREAS WITHIN FOURTEEN (14) DAYS.



REVIEWED FOR HOWARD SCD AND MEETS TECHNICAL REQUIREMENT

John M. Allen 4/27/06
 JMA - NATURAL RESOURCES CONSERVATION SERVICE DATE

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

John M. Allen 4/27/06
 HOWARD SCD DATE

ENGINEER'S CERTIFICATE

"I CERTIFY THAT THIS PLAN FOR SEDIMENT AND EROSION CONTROL 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."

Matthew T. Allen 4/16/06
 SIGNATURE OF ENGINEER DATE
 MATTHEW T. ALLEN P.E.

DEVELOPER'S CERTIFICATE

"I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN FOR SEDIMENT AND EROSION CONTROL, AND THAT ALL RESPECTIBLE 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."

KVCV INC.
 BY: K COLUMBIA PROPERTIES, LLC, MANAGING MEMBER
 BY: KIMCO RETAIL OPPORTUNITY PORTFOLIO, L.L.C., MEMBER
 BY: KIGME, INC. MANAGING MEMBER

William E. Summers, III 4/26/06
 NAME DATE
 TITLE: Vice President

REV.	DATE	DESCRIPTION	BY

OWNER/DEVELOPER:
 KVCV LIMITED PARTNERSHIP
 C/O KIMCO REALTY CORP.
 3333 NEW HYDE PARK ROAD
 SUITE 100
 NEW HYDE PARK, NY 11042-1205

PROJECT: HARRIS TEETER - ONE STORY GROCERY STORE
 KING'S CONTRIVANCE VILLAGE CENTER
 8620 GULFORD ROAD
 COLUMBIA, MARYLAND 21046

AREA: TAX MAP 42 GRID 7 PARCEL 6 ZONED NT-COMM
 VILLAGE OF KING'S CONTRIVANCE
 6TH ELECTION DISTRICT
 COLUMBIA, HOWARD COUNTY, MARYLAND

TITLE: EROSION AND SEDIMENT CONTROL NOTES & DETAILS

SCD 2 OF 3

MISS UTILITY

BOHLER ENGINEERING, P.C.

PROFESSIONAL ENGINEERING SERVICES
 #810 Glenmeigs Court, Suite 300, Towson, Maryland
 CONTACT: Michael Gesell
 (410) 821-7900 FAX: (410) 821-7987 WWW.BOHLERENG.COM

DESIGNED BY: MJG
 DRAWN BY: TAC
 PROJECT NO.: MDD49006
 DATE: 9/27/06
 SCALE: AS SHOWN
 DRAWING NO.: 10 OF 22

THE CONTRACTOR TO CALL MISS UTILITY TO HAVE ALL EXISTING UTILITIES MARKED 48 HOURS PRIOR TO ANY CONSTRUCTION.

PROFESSIONAL ENGINEER NO. 28567

APPROVED: DEPARTMENT OF PLANNING AND ZONING

John M. Allen 4/27/06
 CHIEF-DEVELOPMENT ENGINEERING DIVISION DATE

John M. Allen 4/27/06
 CHIEF-DIVISION & LAND DEVELOPMENT DATE

Robert J. Weber 4/27/06
 DIRECTOR DATE

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS.

Robert J. Weber 4/27/06
 COUNTY HEALTH OFFICER DATE
 HOWARD COUNTY HEALTH DEPARTMENT 51111

PLANNING BOARD APPROVAL STAMP

APPROVED
 PLANNING BOARD
 of HOWARD COUNTY

DATE: 4/31/06

STANDARD AND SPECIFICATIONS FOR VEGETATIVE STABILIZATION WITH SOD

- SPECIFICATIONS:**
- CLASS OF TURFGRASS SOD SHALL BE MARYLAND OR VIRGINIA STATE CERTIFIED, OR MARYLAND OR VIRGINIA STATE APPROVED SOD.
 - SOD SHALL BE MACHINE CUT AT A UNIFORM SOIL THICKNESS OF 3/4 INCH PLUS OR MINUS 1/4 INCH, AT THE TIME OF CUTTING. MEASUREMENT FOR THICKNESS SHALL EXCLUDE TOP GROWTH AND THATCH.
 - STANDARD SIZE SECTIONS OF SOD SHALL BE STRONG ENOUGH TO SUPPORT THEIR OWN WEIGHT AND RETAIN THEIR SHAPE WHEN SUSPENDED VERTICALLY WITH A FIRM GRASP ON THE UPPER 10 PERCENT OF THE SECTION.
 - INDIVIDUAL PIECES OF SOD SHALL BE CUT TO THE SUPPLIERS WIDTH AND LENGTH. MAXIMUM ALLOWABLE DEVIATION FROM STANDARD WIDTHS AND LENGTHS SHALL BE 5 PERCENT. BROKEN PADS AND TORN OR UNEVEN ENDS WILL NOT BE ACCEPTABLE.
 - SOD SHALL NOT BE HARVESTED OR TRANSPLANTED WHEN MOISTURE CONTENT (EXCESSIVELY DRY OR WET) MAY ADVERSELY AFFECT ITS SURVIVAL.
 - SOD SHALL BE HARVESTED, DELIVERED AND INSTALLED WITHIN A PERIOD OF 36 HOURS. SOD NOT TRANSPORTED WITHIN THIS PERIOD SHALL BE INSPECTED AND APPROVED PRIOR TO INSTALLATION.
- SITE PREPARATION:**
- FERTILIZER AND LIME APPLICATION RATES SHALL BE DETERMINED BY SOIL TEST. UNDER UNUSUAL CIRCUMSTANCES WHERE THERE IS INSUFFICIENT TIME FOR A COMPLETE SOIL TEST, FERTILIZER AND LIME MATERIALS MAY BE APPLIED IN AMOUNTS SHOWN UNDER B, BELOW.
- PRIOR TO SODDING, THE SURFACE SHALL BE CLEARED OF ALL TRASH, DEBRIS AND OF ALL ROOTS, BRUSH, WIRE, GRADE STAKES AND OTHER OBJECTS THAT WOULD INTERFERE WITH PLANTING, FERTILIZING OR MAINTENANCE OPERATIONS.
 - WHERE THE SOIL IS ACID OR COMPOSED OF HEAVY CLAYS, GROUND LIMESTONE SHALL BE SPREAD AT THE RATE OF 2 TONS PER ACRE (100 LBS./1000 SQ. FT.) IN ALL SOILS 1,000 POUNDS PER ACRE OR 25 POUNDS PER 1,000 SQUARE FEET OF 10-10-10 FERTILIZER OR EQUIVALENT SHALL BE UNIFORMLY APPLIED AND MIXED INTO THE TOP 3 INCHES OF SOIL WITH THE REQUIRED LIME.
 - ALL AREAS RECEIVING SOD SHALL BE UNIFORMLY FINE GRADED. HARD PACKED EARTH SHALL BE SCARIFIED PRIOR TO PLACEMENT OF SOD. SOD INSTALLATION:
 - DURING PERIODS OF EXCESSIVELY HIGH TEMPERATURE THE SOIL SHALL BE LIGHTLY IRRIGATED IMMEDIATELY PRIOR TO LAYING SOD.
 - THE FIRST ROW OF SOD SHALL BE LAID IN A STRAIGHT LINE WITH EACH OTHER. LATERAL JOINTS SHALL BE STAGGERED TO PROMOTE MORE UNIFORM GROWTH AND STRENGTH. INSURE THAT SOD IS NOT ORDER TO PREVENT VOIDS WHICH COULD CAUSE AIR DRYING OF THE ROOTS.
 - LAY WITH THE LONG EDGES PARALLEL TO THE CONTOUR AND WITH STAGGERED JOINTS. SECURE THE SOD BY TAMPING AND PEGGING OR OTHER APPROVED METHODS.
 - AS SODDING IS COMPLETED IN ANY ONE SECTION, THE ENTIRE AREA SHALL BE ROLLED OR TAMPED TO INSURE SOLID CONTACT OF ROOTS WITH THE SOIL SURFACE. SOD SHALL BE WATERED IMMEDIATELY AFTER LAYING, TAMPING AND IRRIGATING FOR ANY PIECE OF SOD SHALL BE COMPLETED WITHIN EIGHT HOURS.
- SOD MAINTENANCE:**
- IN THE ABSENCE OF ADEQUATE RAINFALL, WATERING SHALL BE PERFORMED DAILY OR AS OFTEN AS NECESSARY DURING THE FIRST WEEK AND IN SUFFICIENT QUANTITIES TO MAINTAIN MOIST SOIL TO A THE DAY TO PREVENT WILTING.
 - AFTER THE FIRST WEEK, SOD SHALL BE WATERED AS NECESSARY TO MAINTAIN ADEQUATE MOISTURE AND INSURE ESTABLISHMENT.
 - FIRST MOWING SHOULD NOT BE ATTEMPTED UNTIL SOD IS FIRMLY ROOTED, NO MORE THAN 1/3 OF THE GRASS LEAF SHALL BE REMOVED BY THE INITIAL CUTTING OR SUBSEQUENT CUTTINGS. GRASS HEIGHT SHALL BE MAINTAINED BETWEEN 2 AND 3 INCHES UNLESS OTHERWISE SPECIFIED.
 - MAINTENANCE OF ESTABLISHED SOD SHOULD FOLLOW SPECIFICATIONS OUTLINED IN TABLE 54-1.

TOPSOIL CONSTRUCTION AND MATERIAL SPECIFICATIONS

- TOPSOIL SALVAGED FROM THE EXISTING SITE MAY BE USED PROVIDED THAT IT MEETS THE STANDARDS AS SET FORTH IN THESE SPECIFICATIONS. TYPICALLY, THE DEPTH OF TOPSOIL TO BE SALVAGED FOR A GIVEN SOIL TYPE CAN BE FOUND IN THE REPRESENTATIVE SOIL PROFILE SECTION IN THE SOIL SURVEY PUBLISHED BY USDA-SCS IN COOPERATION WITH MARYLAND AGRICULTURAL EXPERIMENTAL STATION.
- TOPSOIL SPECIFICATIONS - SOIL TO BE USED AS TOPSOIL MUST MEET THE FOLLOWING:
 - TOPSOIL SHALL BE LOAM, SANDY LOAM, CLAY LOAM, SILT LOAM, SANDY CLAY LOAM, LOAMY SAND. OTHER SOILS MAY BE USED IF RECOMMENDED BY AN AGRONOMIST OR SOIL SCIENTIST AND APPROVED BY THE APPROPRIATE APPROVAL AUTHORITY. REGARDLESS, TOPSOIL SHALL NOT BE A MIXTURE OF CONTRASTING TEXTURED SUBSOILS AND SHALL CONTAIN LESS THAN 5% BY VOLUME OF CINDERS, STONES, SLAG, COARSE FRAGMENTS, GRAVEL, STICKS, ROOTS, TRASH, OR OTHER MATERIALS LARGER THAN 1 1/2" IN DIAMETER.
 - TOPSOIL MUST BE FREE OF PLANTS OR PLANT PARTS SUCH AS BERMUDA GRASS, QUACKGRASS, JOHNSON GRASS, NUTSEDEGE, POISON IVY, THISTLE, OR OTHERS AS SPECIFIED.
 - WHERE THE SUBSOIL IS EITHER HIGHLY ACIDIC OR COMPOSED OF HEAVY CLAYS, GROUND LIMESTONE SHALL BE SPREAD AT THE RATE OF 4-8 TONS PER ACRE (200-400 LBS./1000 SQ. FT.) PRIOR TO PLACEMENT OF TOPSOIL. LIME SHALL BE DISTRIBUTED UNIFORMLY OVER DESIGNATED AREAS AND WORKED INTO THE SOIL IN CONJUNCTION WITH TILLAGE OPERATIONS AS DESCRIBED IN THE FOLLOWING PROCEDURES.
- FOR SITES HAVING DISTURBED AREAS UNDER 5 ACRES:
 - PLACE TOPSOIL (IF REQUIRED) AND APPLY SOIL AMENDMENTS AS SPECIFIED IN 2.0.0 VEGETATIVE STABILIZATION - SECTION 1 - VEGETATIVE STABILIZATION METHODS AND MATERIALS.
- TOPSOIL APPLICATION
 - WHEN TOPSOILING, MAINTAIN NEEDED EROSION AND SEDIMENT CONTROL PRACTICES SUCH AS DIVERSIONS, GRADE STABILIZATION STRUCTURES, EARTH DIKES, SLOPE SILT FENCE AND SEDIMENT TRAPS AND BASINS.
 - GRADES ON THE AREAS TO BE TOPSOILED, WHICH HAVE BEEN PREVIOUSLY ESTABLISHED, SHALL BE MAINTAINED, ALBERT 4" - 8" HIGHER IN ELEVATION.
 - TOPSOIL SHALL BE UNIFORMLY DISTRIBUTED IN A 4" - 8" LAYER AND LIGHTLY COMPACTED TO A MINIMUM THICKNESS OF 4". SPREADING SHALL BE PERFORMED IN SUCH A MANNER THAT SODDING OR SEEDING CAN PROCEED WITH A MINIMUM OF ADDITIONAL SOIL PREPARATION AND TILLAGE. ANY IRREGULARITIES IN THE SURFACE RESULTING FROM TOPSOILING OR OTHER OPERATIONS SHALL BE CORRECTED IN ORDER TO PREVENT THE FORMATION OF DEPRESSIONS OR WATER POCKETS.
- THESE TOPSOIL SPECIFICATIONS HAVE BEEN EDITED FROM THE 1994 EROSION AND SEDIMENT CONTROL STANDARDS TO FIT THIS PROJECT. IT IS STILL THE INTENTION TO FOLLOW THE REFERENCED 1994 EROSION AND SEDIMENT CONTROLS STANDARDS IN THEIR ENTIRETY.

PERMANENT SEEDING NOTES

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

SEEDBED PREPARATION: LOOSEN UPPER 3 INCHES OF SOIL BY RAKING, DISCING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING (UNLESS PREVIOUSLY LOOSENED).

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

- PREFERRED - APPLY 2 TONS PER ACRE DOLOMITE LIMESTONE (92 LBS./1000 SQ. FT.) AND 600 LBS. PER ACRE 10-10-10 FERTILIZER (14 LBS./1000 SQ. FT.) BEFORE SEEDING. HARROW OR DISC INTO UPPER THREE INCHES OF SOIL. AT TIME OF SEEDING, APPLY 400 LBS. PER ACRE 50-0-0 AREAFORM FERTILIZER (9 LBS./1000 SQ. FT.)
- ACCEPTABLE - APPLY 2 TONS PER ACRE DOLOMITE LIMESTONE (92 LBS./1000 SQ. FT.) AND 1000 LBS. PER ACRE 10-10-10 FERTILIZER (23 LBS./1000 SQ. FT.) BEFORE SEEDING. HARROW OR DISC INTO UPPER THREE INCHES OF SOIL.

SEEDING: FOR THE PERIODS MARCH 1 THROUGH APRIL 30, AND AUGUST 1 THROUGH OCTOBER 15, SEED WITH 60 LBS. PER ACRE (1.4 LBS./1000 SQ. FT.) OF KENTUCKY 31 TALL FESCUE PER ACRE AND 2 LBS. PER ACRE (.05 LBS./1000 SQ. FT.) OF WEEPING LOVEGRASS. DURING THE PERIOD OF OCTOBER 16 THROUGH FEBRUARY 28, PROTECT SITE BY: OPTION (1) 2 TONS PER ACRE OF WELL ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE SPRING. OPTION (2) USE SOD. OPTION (3) SEED WITH 60 LBS./ACRE KENTUCKY 31 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 GALS./1000 SQ. FT.) OF EMULSIFIED ASPHALT ON FLAT AREA. ON SLOPES 8 FEET OR HIGHER, USE 348 GALLONS PER ACRE (8 GALS./1000 SQ. FT.) FOR ANCHORING.

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

TEMPORARY SEEDING NOTES

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

SEEDBED PREPARATION: LOOSEN UPPER 3 INCHES OF SOIL BY RAKING, DISCING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING (UNLESS PREVIOUSLY LOOSENED).

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

SEEDING: FOR PERIODS MARCH 1 THROUGH APRIL 30 AND FROM AUGUST 15 THROUGH NOVEMBER 15, SEED WITH 2 1/3 BU. PER ACRE OF ANNUAL RYE (3.2 LBS./1000 SQ. FT.), FOR THE PERIOD MAY 1 THROUGH AUGUST 14, SEED WITH 3 LBS. PER ACRE OF WEEPING LOVEGRASS (.07 LBS./1000 SQ. FT.), FOR THE PERIOD NOVEMBER 16 THROUGH FEBRUARY 28, PROTECT SITE BY APPLYING 2 TONS PER ACRE OF WELL ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE SPRING, OR USE SOD.

MULCHING: APPLY 1 1/2 TO 2 TONS PER ACRE (70-90 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 GALS./1000 SQ. FT.) OF EMULSIFIED ASPHALT ON FLAT AREAS. ON SLOPES, 8 FT. OR HIGHER, USE 348 GALLONS PER ACRE (8 GALS./1000 SQ. FT.) FOR ANCHORING.

STANDARD AND SPECIFICATIONS FOR TOPSOIL

DEFINITION

PLACEMENT OF TOPSOIL OVER A PREPARED SUBSOIL PRIOR TO ESTABLISHMENT OF PERMANENT VEGETATION. PURPOSE: TO PROVIDE A SUITABLE SOIL MEDIUM FOR VEGETATION GROWTH. SOILS OF CONCERN HAVE LOW MOISTURE CONTENT, LOW NUTRIENT LEVELS, LOW PH, MATERIALS TOXIC TO PLANTS, AND/OR UNACCEPTABLE SOIL GRADATION.

CONDITIONS WHERE PRACTICE APPLIES

- THIS PRACTICE IS LIMITED TO AREAS HAVING 2:1 OR FLATTER SLOPES WHERE:
 - THE TEXTURE OF THE EXPOSED SUBSOIL/PARENT MATERIAL IS NOT ADEQUATE TO PRODUCE VEGETATIVE GROWTH.
 - THE SOIL MATERIAL IS SO SHALLOW THAT THE ROOTING ZONE IS NOT DEEP ENOUGH TO SUPPORT PLANTS OR FURNISH CONTINUING SUPPLIES OF MOISTURE AND PLANT NUTRIENTS.
 - THE ORIGINAL SOIL TO BE VEGETATED CONTAINS MATERIAL TOXIC TO PLANT GROWTH.
 - THE SOIL IS SO ACIDIC THAT TREATMENT WITH LIMESTONE IS NOT FEASIBLE.
- FOR THE PURPOSE OF THESE STANDARDS AND SPECIFICATIONS, AREAS HAVING SLOPES STEEPER THAN 2:1 REQUIRE SPECIAL CONSIDERATION AND DESIGN FOR ADEQUATE STABILIZATION THAN 2:1 SHALL HAVE THE APPROPRIATE STABILIZATION SHOWN ON THE PLANS.

CONSTRUCTION AND MATERIAL SPECIFICATIONS

1. TOPSOIL SALVAGED FROM THE EXISTING SITE MAY BE USED PROVIDED THAT IT MEETS THE STANDARDS AS SPECIFIED. TYPICALLY, THE DEPTH OF TOPSOIL TO BE SALVAGED FOR A GIVEN SET FORTH IN THE REPRESENTATIVE SOIL PROFILE SECTION IN THE SOIL SURVEY PUBLISHED BY USDA-SCS IN COOPERATION WITH MARYLAND AGRICULTURAL EXPERIMENTAL STATION.

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

- TOPSOIL SHALL BE A LOAM, SANDY LOAM, CLAY LOAM, SILT LOAM, SANDY CLAY LOAM, LOAMY SAND. OTHER SOILS MAY BE USED IF RECOMMENDED BY AN AGRONOMIST OR SOIL SCIENTIST AND APPROVED BY THE APPROPRIATE APPROVAL AUTHORITY. REGARDLESS, TOPSOIL SHALL NOT BE A MIXTURE OF CONTRASTING TEXTURED SUBSOILS AND SHALL CONTAIN LESS THAN 5% BY VOLUME OF CINDERS, STONES, SLAG, COARSE FRAGMENTS, GRAVEL, STICKS, ROOTS, TRASH, OR OTHER MATERIALS LARGER THAN 1 1/2" IN DIAMETER.
- TOPSOIL MUST BE FREE OF PLANTS OR PLANT PARTS SUCH AS BERMUDA GRASS, JOHNSON GRASS, NUT SEDEGE, POISON IVY, THISTLE, OR OTHERS AS SPECIFIED.
- WHERE THE SUBSOIL IS EITHER HIGHLY ACIDIC OR COMPOSED OF HEAVY CLAYS, GROUND LIMESTONE SHALL BE SPREAD AT THE RATE OF 4-8 TONS/ACRE (200-400 POUNDS PER 1,000 SQUARE FEET) PRIOR TO THE PLACEMENT OF TOPSOIL. LIME SHALL BE DISTRIBUTED UNIFORMLY OVER DESIGNATED AREAS AND WORKED INTO THE SOIL IN CONJUNCTION WITH TILLAGE OPERATIONS AS DESCRIBED IN THE FOLLOWING PROCEDURES.

3. FOR SITES HAVING DISTURBED AREAS UNDER 5 ACRES.

A. PLACE TOPSOIL (IF REQUIRED) AND APPLY SOIL AMENDMENTS AS SPECIFIED IN 2.0.0 VEGETATIVE STABILIZATION SECTION 1-VEGETATIVE STABILIZATION METHODS AND MATERIALS.

4. FOR SITES HAVING DISTURBED AREAS OVER 5 ACRES:

- ON SOIL MEETING TOPSOIL SPECIFICATIONS, OBTAIN TEST RESULTS DICTATING FERTILIZER AND LIME AMENDMENTS REQUIRED TO BRING THE SOIL INTO COMPLIANCE WITH THE FOLLOWING:
 - PH FOR TOPSOIL SHALL BE BETWEEN 6.0 AND 7.5. IF THE TESTED SOIL DEMONSTRATES A PH OF LESS THAN 6.0, SUFFICIENT LIME SHALL BE PRESCRIBED TO RAISE THE PH TO 6.5 OR HIGHER.
 - ORGANIC CONTENT OF TOPSOIL SHALL BE NOT LESS THAN 1.5 PERCENT BY WEIGHT.
 - TOPSOIL HAVING SOLUBLE SALT CONTENT GREATER THAN 500 PARTS PER MILLION SHALL NOT BE USED.
 - NO SOD OR SEED SHALL BE PLACED ON SOIL WHICH HAS BEEN TREATED WITH SOIL STERILANTS OR CHEMICALS USED FOR WEED CONTROL UNTIL SUFFICIENT TIME HAS ELAPSED (14 DAYS MIN.) TO PERMIT DISSIPATION OF PHYTO-TOXIC MATERIALS.
- NOTE: TOPSOIL SUBSTITUTES OR AMENDMENTS, AS RECOMMENDED BY A QUALIFIED AGRONOMIST OR SOIL SCIENTIST AND APPROVED BY THE APPROPRIATE APPROVAL AUTHORITY, MAY BE USED IN LIEU OF NATURAL TOPSOIL.
- PLACE TOPSOIL (IF REQUIRED) AND APPLY SOIL AMENDMENTS AS SPECIFIED IN 2.0.0 VEGETATIVE STABILIZATION - SECTION 1 - VEGETATIVE STABILIZATION METHODS AND MATERIALS.

5. TOPSOIL APPLICATION

- WHEN TOP SOILING, MAINTAIN NEEDED EROSION AND SEDIMENT CONTROL PRACTICES SUCH AS DIVERSIONS, GRADE STABILIZATION STRUCTURES, EARTH DIKES, SLOPE SILT FENCE AND SEDIMENT TRAPS AND BASINS.
- GRADES ON THE AREAS TO BE TOP SOILED, WHICH HAVE BEEN PREVIOUSLY ESTABLISHED, SHALL BE MAINTAINED, ALBERT 4" - 8" HIGHER IN ELEVATION.
- TOPSOIL SHALL BE UNIFORMLY DISTRIBUTED IN A 4"-8" LAYER AND LIGHTLY COMPACTED TO A MINIMUM THICKNESS OF 4". SPREADING SHALL BE PERFORMED IN SUCH A MANNER THAT SODDING OR SEEDING CAN PROCEED WITH A MINIMUM OF ADDITIONAL SOIL PREPARATION AND TILLAGE. ANY IRREGULARITIES IN THE RESULTING FROM SURFACE TOP SOILING OR OTHER OPERATIONS SHALL BE CORRECTED IN ORDER TO PREVENT THE FORMATION OF DEPRESSIONS OR WATER POCKETS.
- TOPSOIL SHALL NOT BE PLACED WHILE THE TOPSOIL OR SUBSOIL IS IN A FROZEN OR MUDDY CONDITION, WHEN THE SUBSOIL IS EXCESSIVELY WET OR IN A CONDITION THAT MAY OTHERWISE BE DETRIMENTAL TO PROPER GRADING AND SEEDBED PREPARATION.

6. ALTERNATIVE FOR PERMANENT SEEDING - INSTEAD OF APPLYING THE FULL AMOUNTS OF LIME AND COMMERCIAL FERTILIZER, COMPOSTED SLUDGE AND AMENDMENTS COMMERCIAL BELOW:

- COMPOSTED SLUDGE MATERIAL FOR USE AS A SOIL CONDITIONER FOR SITES HAVING DISTURBED AREAS OVER 5 ACRES SHALL BE TESTED TO PRESCRIBE AMENDMENTS AND FOR SITES HAVING DISTURBED AREAS UNDER 5 ACRES SHALL CONFORM TO THE FOLLOWING REQUIREMENTS:
 - COMPOSTED SLUDGE SHALL BE SUPPLIED BY, OR ORIGINATE FROM, A PERSON OR PERSONS THAT ARE PERMITTED (AT THE TIME OF ACQUISITION OF THE COMPOST) BY THE MARYLAND DEPARTMENT OF THE ENVIRONMENT UNDER COMAR 26.04.06.
 - COMPOSTED SLUDGE SHALL CONTAIN AT LEAST 1 PERCENT NITROGEN, 1.5 PERCENT PHOSPHORUS, AND 0.2 PERCENT POTASSIUM AND HAVE A PH OF 7.0 TO 8.0. IF COMPOST DOES NOT MEET THESE REQUIREMENTS, THE APPROPRIATE CONSTITUENTS MUST BE ADDED TO MEET THE REQUIREMENTS PRIOR TO USE.
 - COMPOSTED SLUDGE SHALL BE APPLIED AT A RATE OF 1 TON/1,000 SQUARE FEET.
- COMPOSTED SLUDGE SHALL BE AMENDED WITH A POTASSIUM FERTILIZER APPLIED AT THE RATE OF 4LB/1,000 SQUARE FEET, AND 1/3 THE NORMAL LIME APPLICATION RATE.

REFERENCES: GUIDELINE SPECIFICATIONS, SOIL PREPARATION AND SODDING. MD-YA, PUB. #1, COOPERATIVE EXTENSION SERVICE, UNIVERSITY OF MARYLAND AND VIRGINIA POLYTECHNIC INSTITUTE. REVISED 1973.

PERMANENT SEEDING SUMMARY

NO.	SPECIES	SEED MIXTURE (HARDNESS ZONE 6b) (FROM TABLE 25)			FERTILIZER RATE (10-10-10)			LIME RATE
		APPLICATION RATE (LBS./AC.)	SEEDING DATES	SEEDING DEPTHS	N	P205	K20	
1	85% TALL FESCUE 10% PER. RYEGRASS 5% KENT. BLUEGRASS	125 15 10	3/1-5/15 5/16-8/14 8/15-11/15	—	90 LBS./AC. (2.0 LBS./1,000 S.F.)	175 LBS./AC. (4.0 LBS./1,000 S.F.)	175 LBS./AC. (4.0 LBS./1,000 S.F.)	2 TONS/AC. (100 LBS./1,000 S.F.)
2	83% TALL FESCUE 2% WEEPING LOVEGRASS 15% SERICIA LESPEDEZA	110 3 20	3/1-5/15 5/16-8/14 8/15-11/15	—	—	—	—	—
3	17% WEEPING LOVEGRASS 83% SERICIA LESPEDEZA	4 20	3/1-5/15 5/16-8/14	—	—	—	—	—

HOWARD SOIL CONSERVATION DISTRICT 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 THIS PLAN AND ARE TO BE IN CONFORMANCE WITH THE "1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL", AND REVISIONS THEREOF.
- FOLLOWING INITIAL SOIL DISTURBANCE OR REDISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN:
 - SEVEN (7) CALENDAR DAYS AS TO THE SURFACE OF ALL PERIMETER CONTROLS, DIKES, SWALES, DITCHES, PERIMETER SLOPES, AND ALL SLOPES GREATER THAN THREE HORIZONTAL TO ONE VERTICAL (3:1) AND
 - 14 DAYS FOR ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE. THE IN-PLACE SEDIMENT CONTROL MEASURES WILL BE MAINTAINED ON A CONTINUING BASIS UNTIL THE SITE IS PERMANENTLY STABILIZED AND ALL PERMIT REQUIREMENTS ARE MET.
- ON ALL SITES WITH DISTURBED AREAS IN EXCESS OF TWO (2) ACRES, APPROVAL OF THE INSPECTION AGENCY IS REQUESTED UPON COMPLETION OF INSTALLATION OF PERIMETER EROSION AND SEDIMENT CONTROLS BEFORE PROCEEDING WITH ANY OTHER EARTH DISTURBANCES OR GRADING. OTHER GUIDING OR GRADING INSPECTION APPROVALS WILL NOT BE AUTHORIZED UNTIL THIS INITIAL APPROVAL BY THE INSPECTION AGENCY IS MADE.
- APPROVAL SHALL BE REQUESTED UPON FINAL STABILIZATION OF ALL SITES WITH DISTURBED AREAS IN EXCESS OF TWO (2) ACRES BEFORE REMOVAL OF EROSION AND SEDIMENT CONTROL MEASURES.

GENERAL NOTES

- THE DEVELOPER IS RESPONSIBLE FOR THE ACQUISITION OF ALL REQUIRED EASEMENTS, RIGHT AND/OR RIGHTS-OF-WAY PURSUANT TO THE DISCHARGE FROM THE SEDIMENT AND EROSION CONTROL PRACTICES, STORMWATER MANAGEMENT PRACTICES AND THE DISCHARGE OF STORMWATER ONTO OR ACROSS AND GRADING OR OTHER WORK TO BE PERFORMED ON ADJACENT OR DOWNSTREAM PROPERTIES AFFECTED BY THIS PLAN.
- FOLLOWING INITIAL SOIL DISTURBANCES OR REDISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN:
 - SEVEN (7) CALENDAR DAYS AS TO THE SURFACE OF ALL PERIMETER CONTROLS, DIKES, SWALES, DITCHES, PERIMETER SLOPES, AND ALL SLOPES GREATER THAN THREE HORIZONTAL TO ONE VERTICAL (3:1) AND
 - 14 DAYS FOR ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE. THE IN-PLACE SEDIMENT CONTROL MEASURES WILL BE MAINTAINED ON A CONTINUING BASIS UNTIL THE SITE IS PERMANENTLY STABILIZED AND ALL PERMIT REQUIREMENTS ARE MET.
- ON ALL SITES WITH DISTURBED AREAS IN EXCESS OF TWO (2) ACRES, APPROVAL OF THE INSPECTION AGENCY IS REQUESTED UPON COMPLETION OF INSTALLATION OF PERIMETER EROSION AND SEDIMENT CONTROLS BEFORE PROCEEDING WITH ANY OTHER EARTH DISTURBANCES OR GRADING. OTHER GUIDING OR GRADING INSPECTION APPROVALS WILL NOT BE AUTHORIZED UNTIL THIS INITIAL APPROVAL BY THE INSPECTION AGENCY IS MADE.
- APPROVAL SHALL BE REQUESTED UPON FINAL STABILIZATION OF ALL SITES WITH DISTURBED AREAS IN EXCESS OF TWO (2) ACRES BEFORE REMOVAL OF EROSION AND SEDIMENT CONTROL MEASURES.

REVIEWED FOR HOWARD SCD AND MEETS TECHNICAL REQUIREMENT

John M. Allen 11/27/06
DATE

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

John M. Allen 11/27/06
DATE

ENGINEER'S CERTIFICATE

"I CERTIFY THAT THIS PLAN FOR SEDIMENT AND EROSION CONTROL IS 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."

Matthew T. Allen, P.E. 11/16/06
DATE

SIGNATURE OF ENGINEER
MATTHEW T. ALLEN P.E.

DEVELOPER'S CERTIFICATE

"I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN FOR SEDIMENT AND EROSION CONTROL, AND THAT ALL 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."

KVCV INC.

BY: K COLUMBIA PROPERTIES, LLC, MANAGING MEMBER

BY: KIMCO RETAIL OPPORTUNITY PORTFOLIO, L.L.C., MEMBER

BY: KICME, INC. MANAGING MEMBER

William E. Simmons, III 11/28/06
DATE

NAME: *William E. Simmons, III*
TITLE: *Vice President*

STANDARDS SEDIMENT CONTROL PLAN NOTES FOR UTILITIES

- ONLY ENOUGH TRENCH WILL BE EXCAVATED THAT CAN BE BACKFILLED DAILY.
- EXCAVATED TRENCH MATERIALS SHALL BE PLACED ON THE HIGH SIDE OF THE TRENCH.
- IMMEDIATELY FOLLOWING PIPE INSTALLATION, THE TRENCH SHALL BE BACKFILLED, COMPACTED AND STABILIZED AT THE END OF EACH WORKING DAY.
- FULL TRENCH COMPACTION IS REQUIRED.
- MULCHING TO HOWARD SCD SPECIFICATIONS OF ALL DISTURBED AREAS AND DAILY ON BACKFILL WILL BE REQUIRED.
- SUPER SILT FENCE OR STRAW BALE DIKES SHALL BE INSTALLED TEMPORARILY IMMEDIATELY DOWNSTREAM OF ANY DISTURBED AREA INTENDED TO REMAIN DISTURBED LONGER THAN ONE (1) WORKING DAY.
- STAGING AREAS FOR EQUIPMENT AND SUPPLIES SHALL BE PROTECTED WITH SILT FENCE.
- ANY SEDIMENT CONTROL PRACTICES WHICH ARE DISTURBED DURING UTILITY CONSTRUCTION SHALL BE REPAIRED OR REPLACED AT THE END OF EACH WORKING DAY.
- ANY DITCHES OR DRAINAGE WAYS DISTURBED DURING CONSTRUCTION WILL BE RESTORED TO ORIGINAL CONDITION.

SCD 3 OF 3

MISS UTILITY



BEFORE YOU DIE CALL 1-800-291-7777 PROTECT YOURSELF, GIVE TWO WORKING DAYS NOTICE

THIS DRAWING DOES NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SHEET. ALL CONSTRUCTION MUST BE DONE IN COMPLIANCE WITH THE OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970 AND ALL RULES AND REGULATIONS THEREOF APPLICABLE.

THE CONTRACTOR TO CALL MISS UTILITY TO HAVE ALL EXISTING UTILITIES MARKED 48 HOURS PRIOR TO ANY CONSTRUCTION.

TEMPORARY SEEDING SUMMARY

NO.	SPECIES	SEED MIXTURE (HARDNESS ZONE 6b) (FROM TABLE 26)			FERTILIZER RATE (10-10-10)	LIME RATE
		APPLICATION RATE (LBS./AC.)	SEEDING DATES	SEEDING DEPTHS		
1	RYE PLUS BARLEY	150	YEAR ROUND	1"	600 LBS./AC. (15 LB./1,000 S.F.)	2 TONS/AC. (100 LB./1,000 S.F.)
2	WEEPING LOVEGRASS	4	5/1-8/14	1/4"=1/2"	—	—
3	ANNUAL RYEGRASS	50	8/15-11/15	1/4"=1/2"	—	—

BOHLER ENGINEERING, P.C.

Professional Engineering Services • 810 Glenengle Court, Suite 300, Towson, Maryland • Contact: Michael Gomez • (410) 821-7900 FAX: (410) 821-7987 • WWW.BOHLERENGINEERING.COM

DESIGNED BY: M/G
DRAWN BY: TAC
PROJECT NO.: MD049006
DATE: 9/27/06
SCALE: AS SHOWN
DRAWING NO.: 11 OF 22

Professional Engineer No. 28567

PLANNING BOARD APPROVAL STAMP

APPROVED: DEPARTMENT OF PLANNING AND ZONING

CHIEF-DEVELOPMENT ENGINEERING DIVISION DATE *12/11/06*

CHIEF-DIVISION & LAND DEVELOPMENT DATE *12/11/06*

DIRECTOR DATE *12/18/06*

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS.

Robert J. Walker 12/18/06
DATE

APPROVED PLANNING BOARD OF HOWARD COUNTY

DATE *8-31-06*

APPROVED: DEPARTMENT OF PLANNING AND ZONING

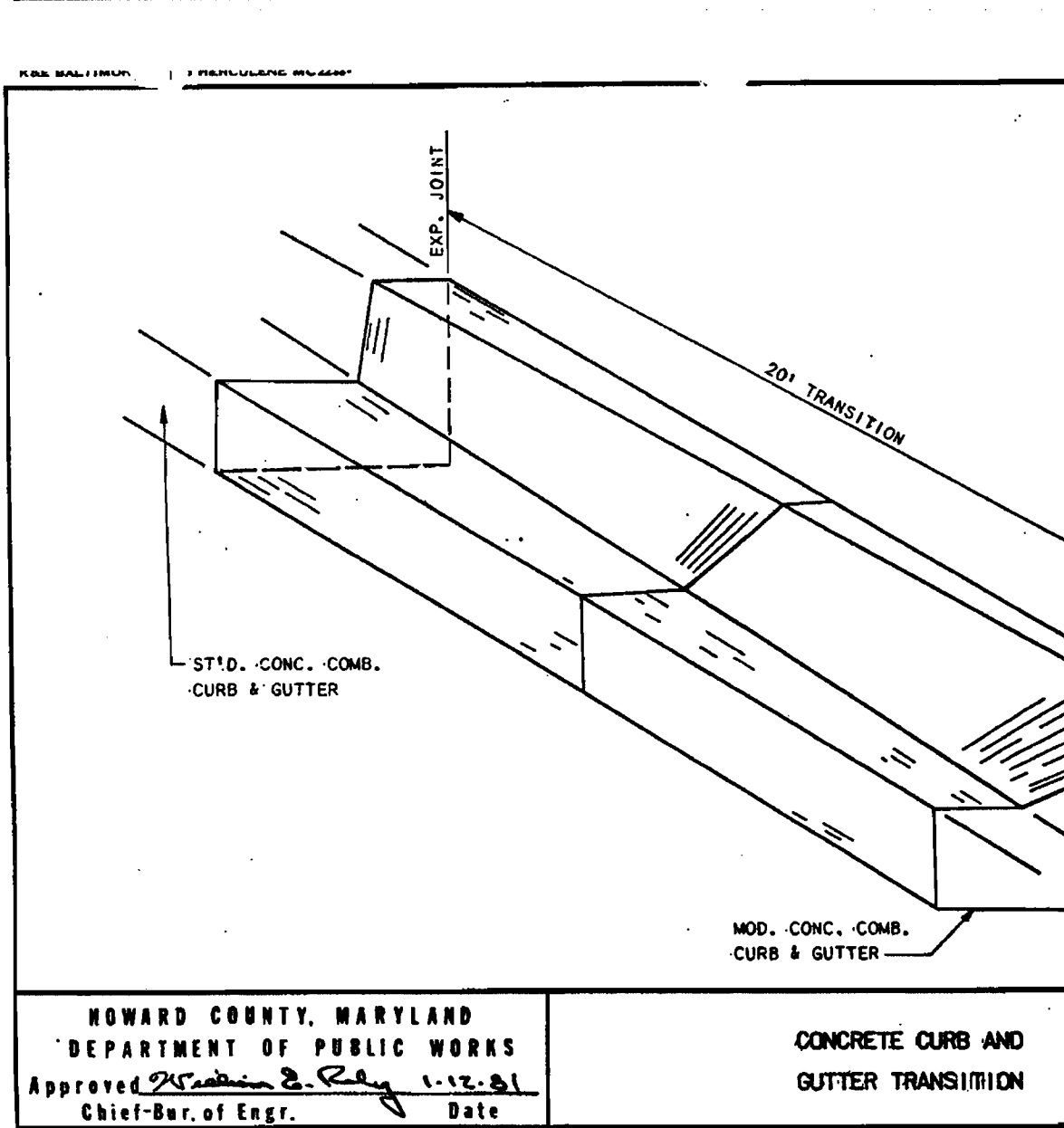
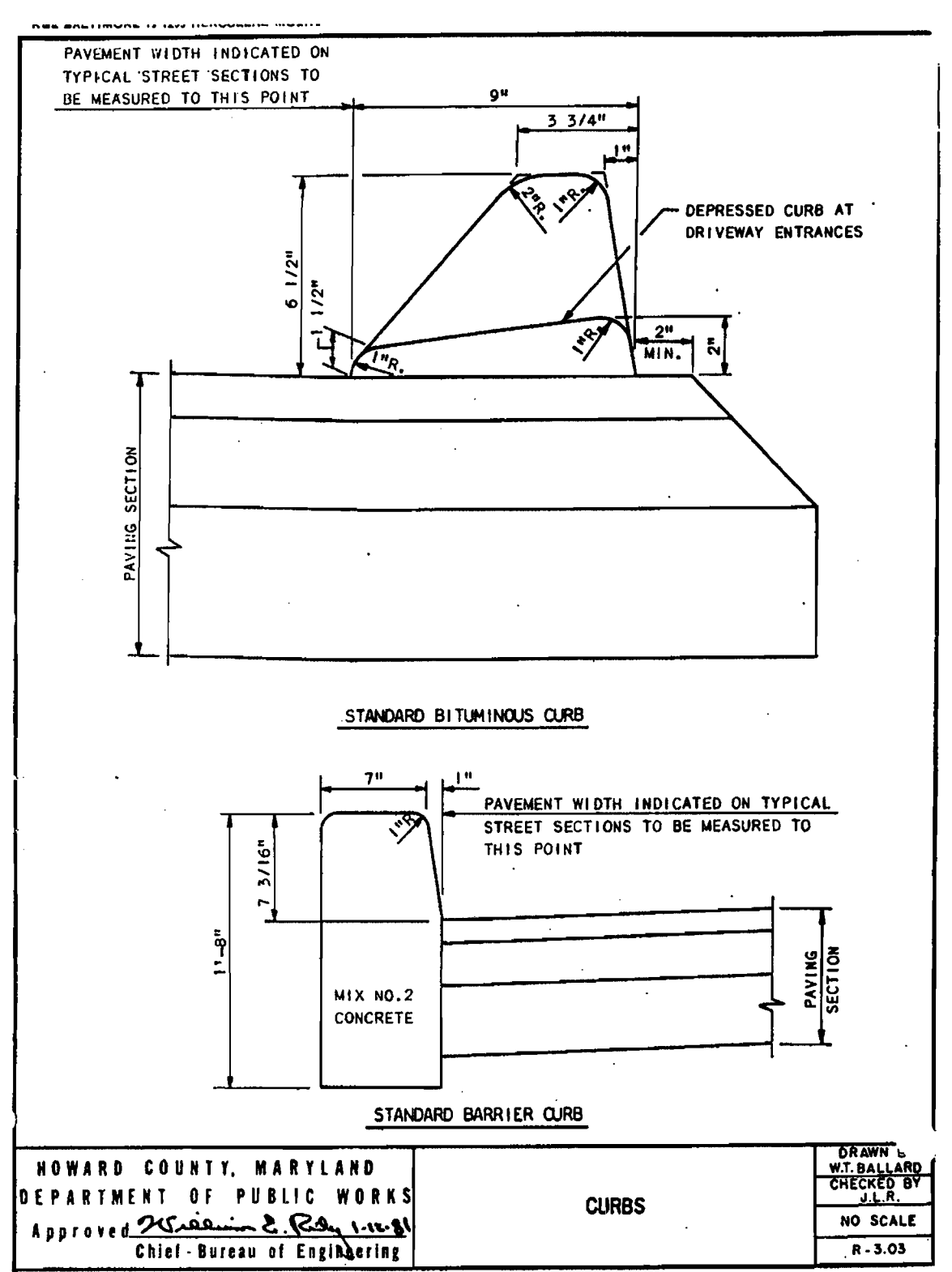
CHIEF-DEVELOPMENT ENGINEERING DIVISION DATE *12/11/06*

CHIEF-DIVISION & LAND DEVELOPMENT DATE *12/11/06*

DIRECTOR DATE *12/18/06*

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS.

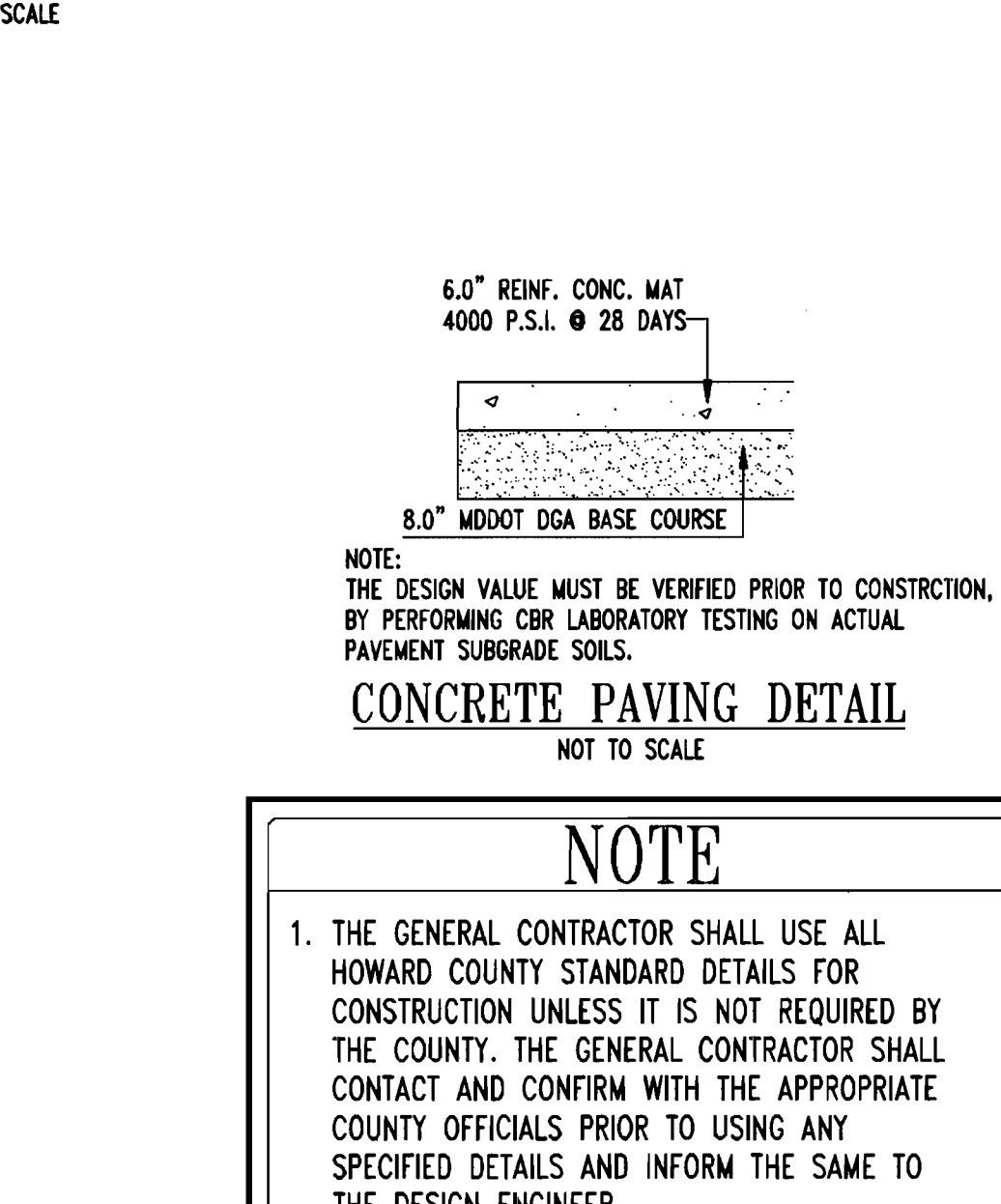
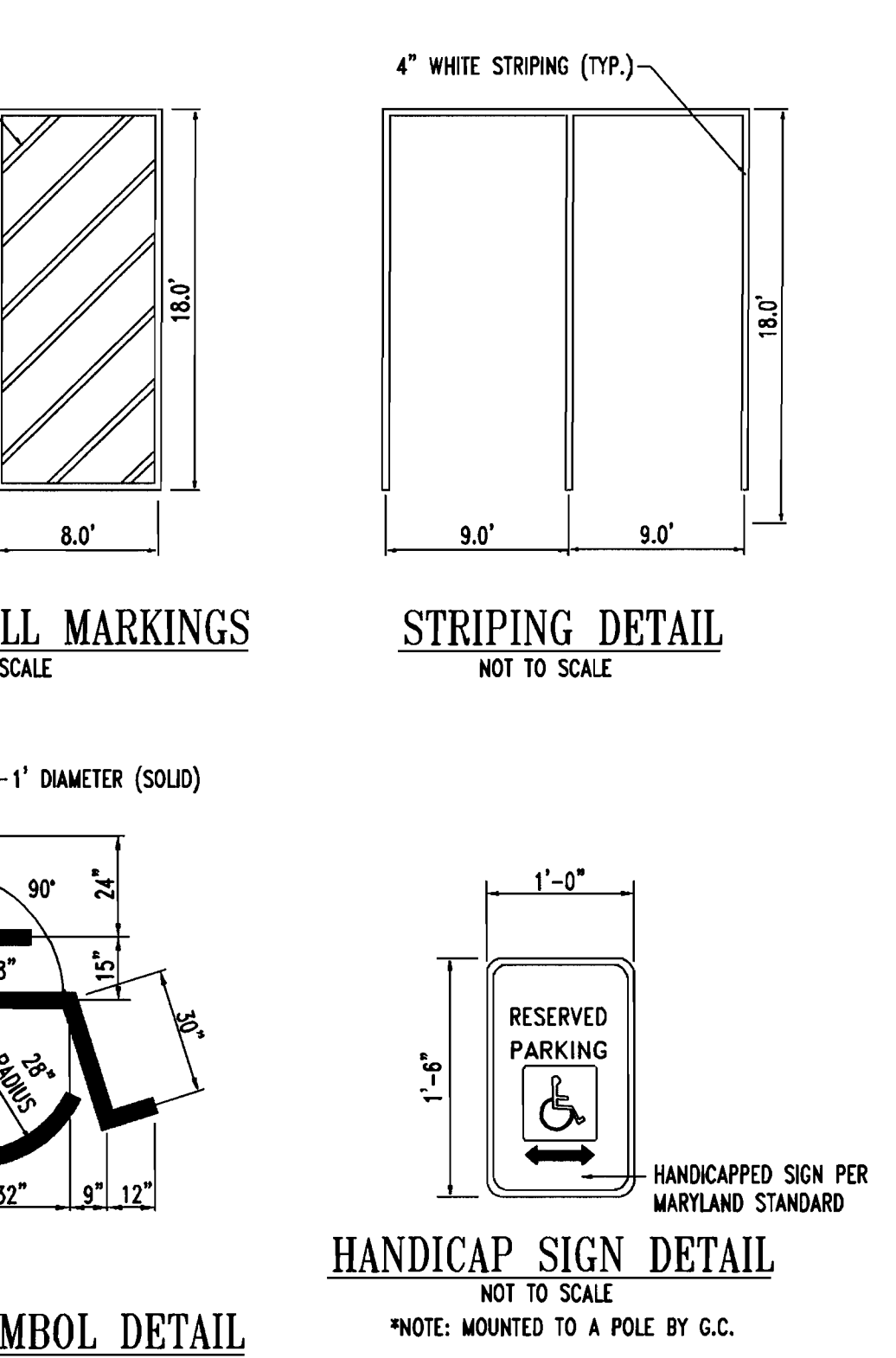
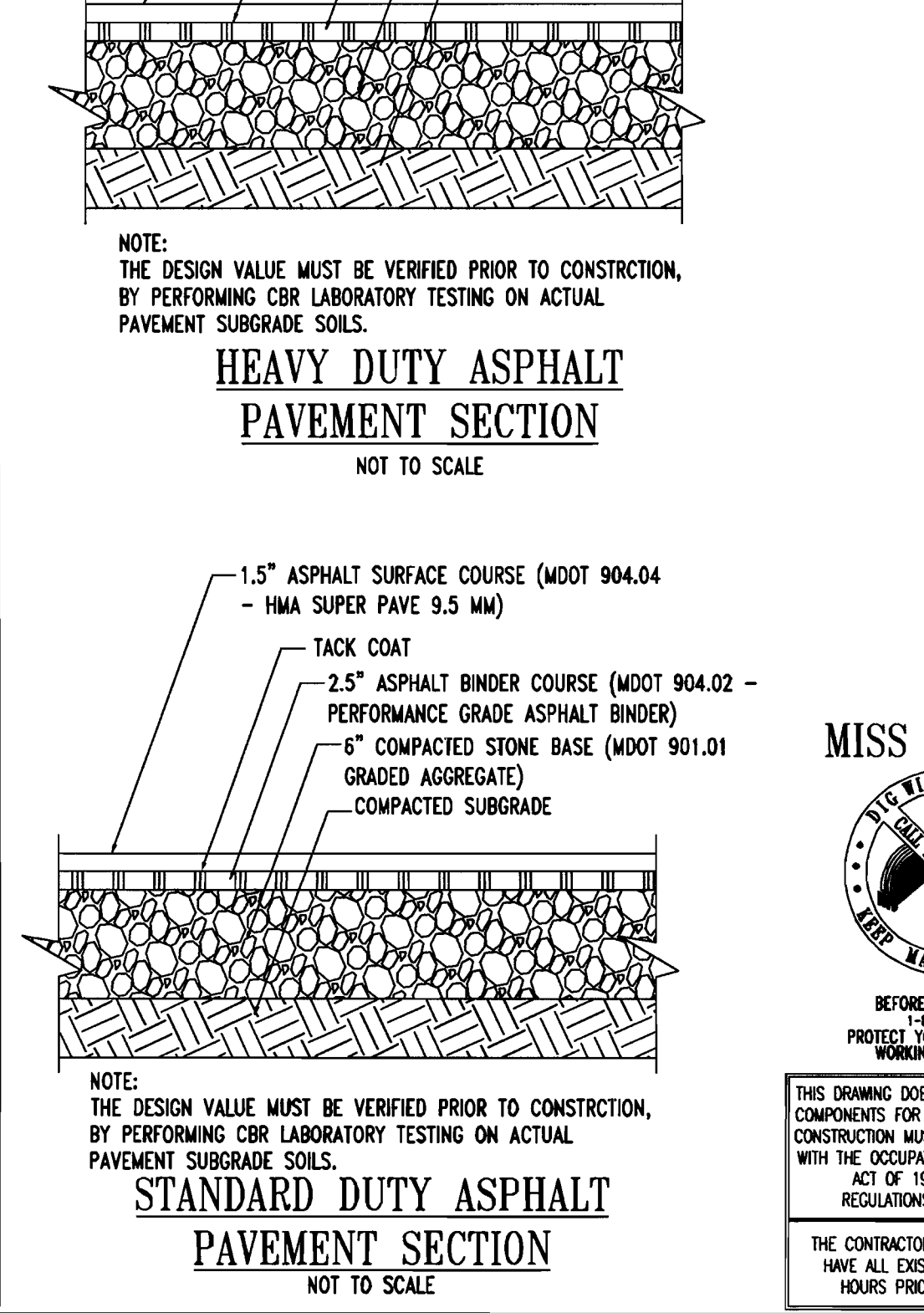
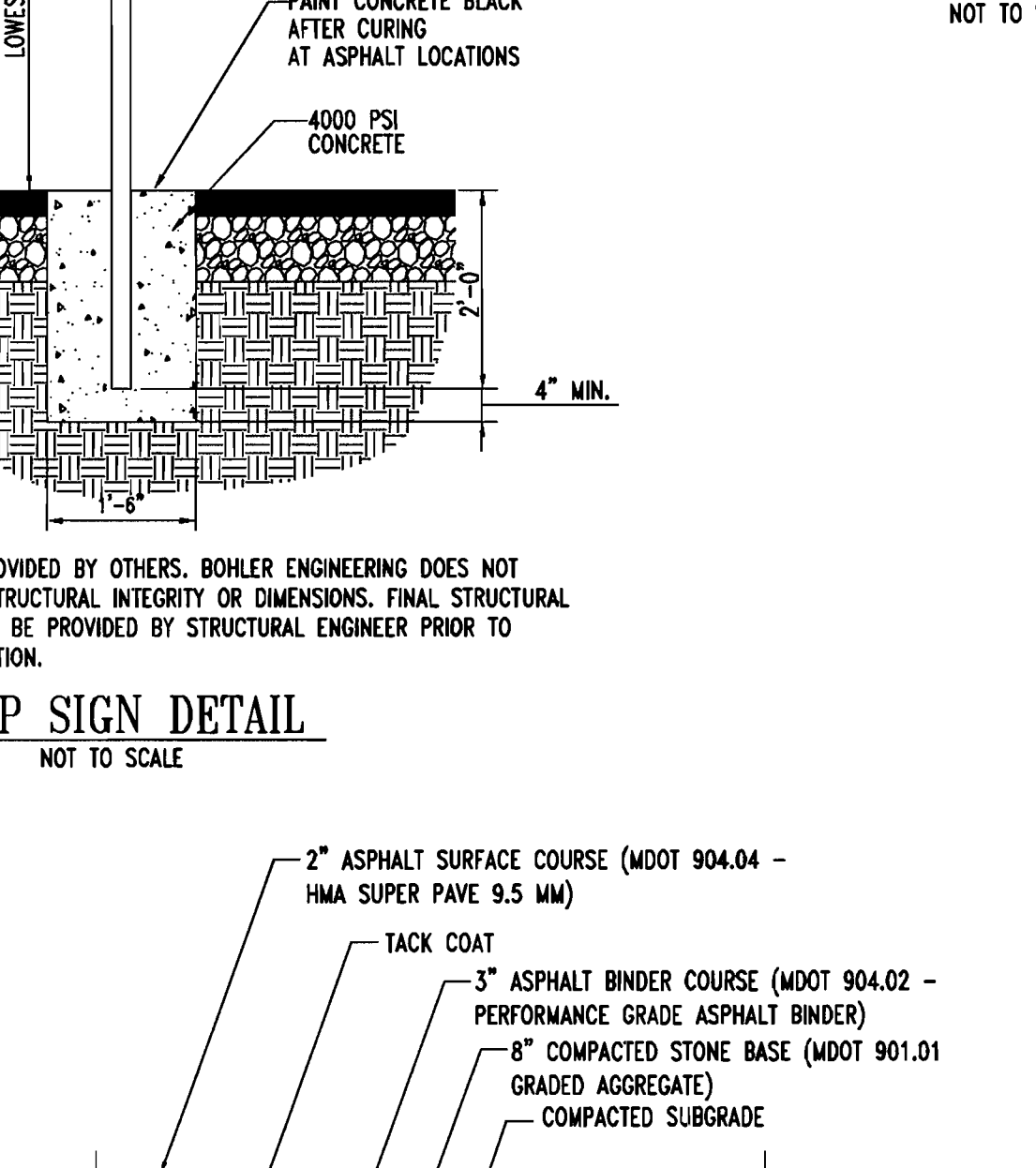
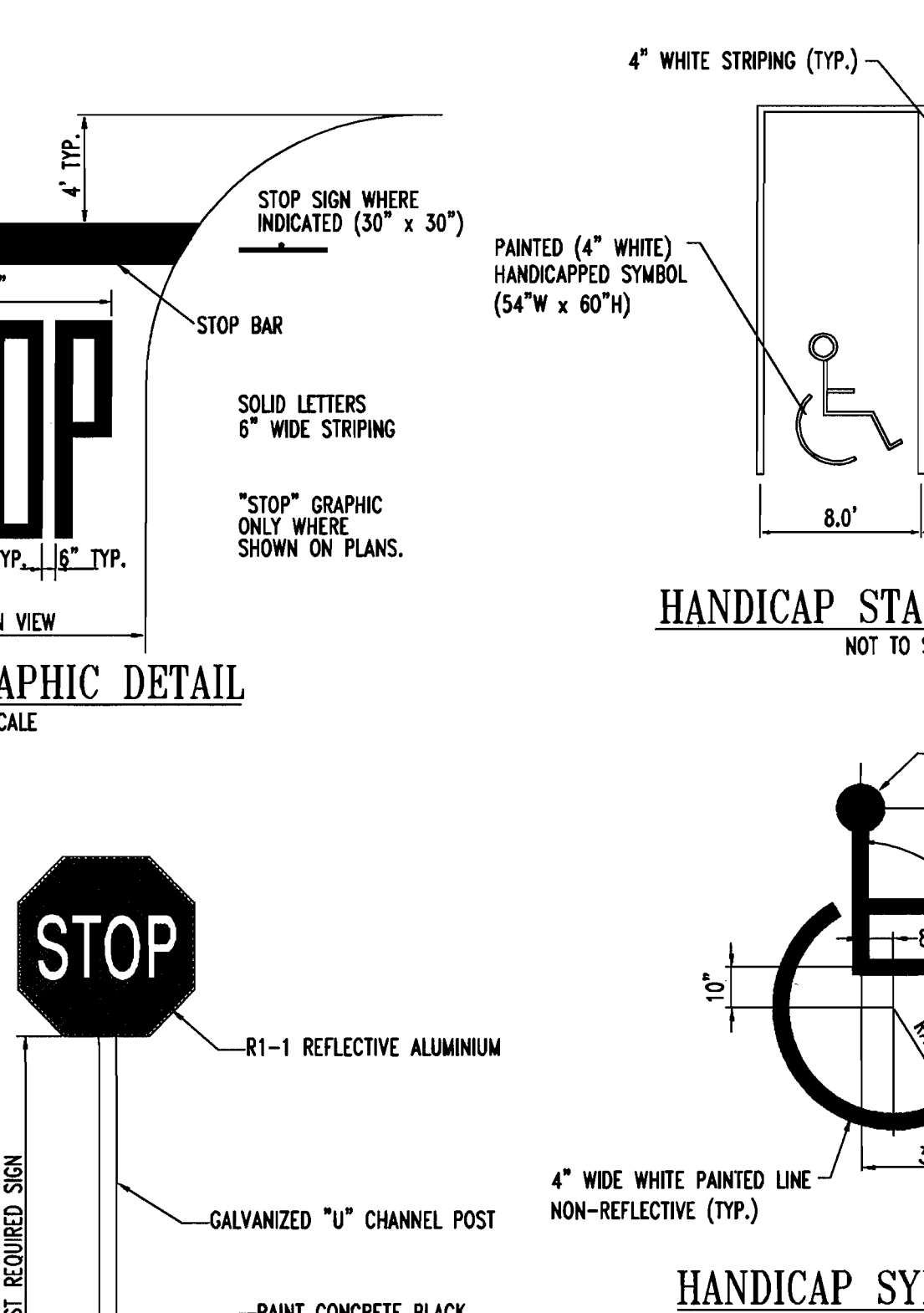
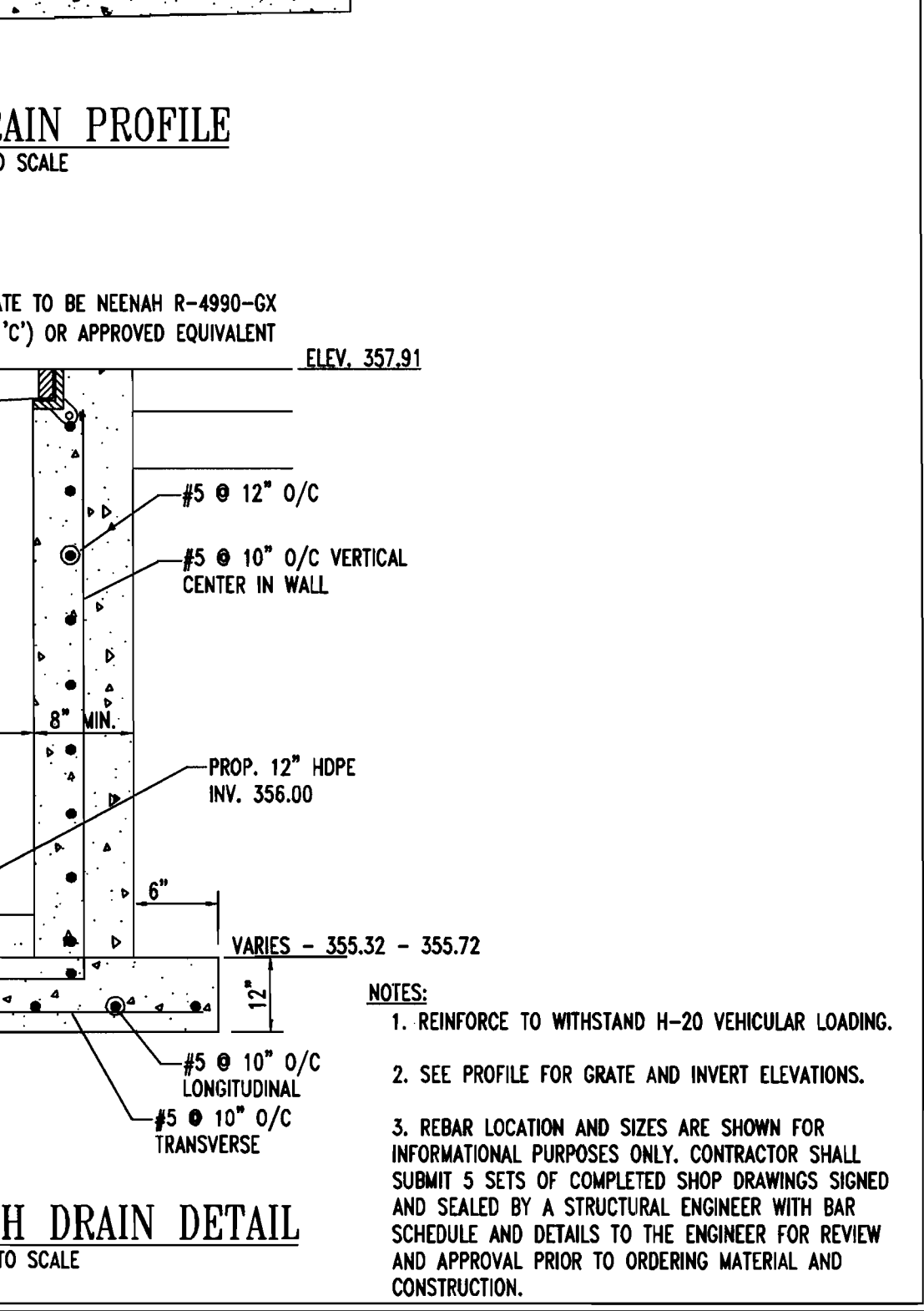
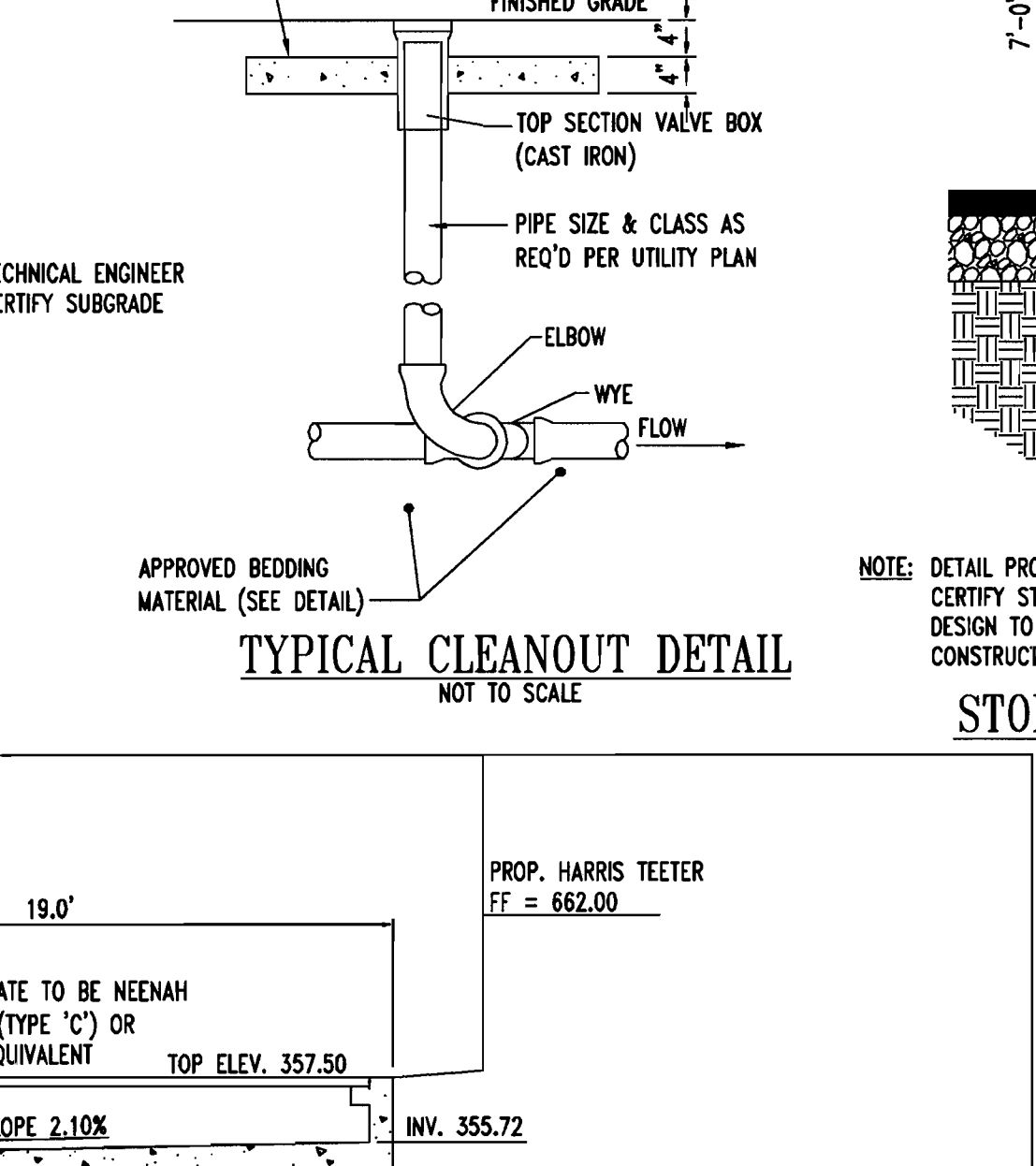
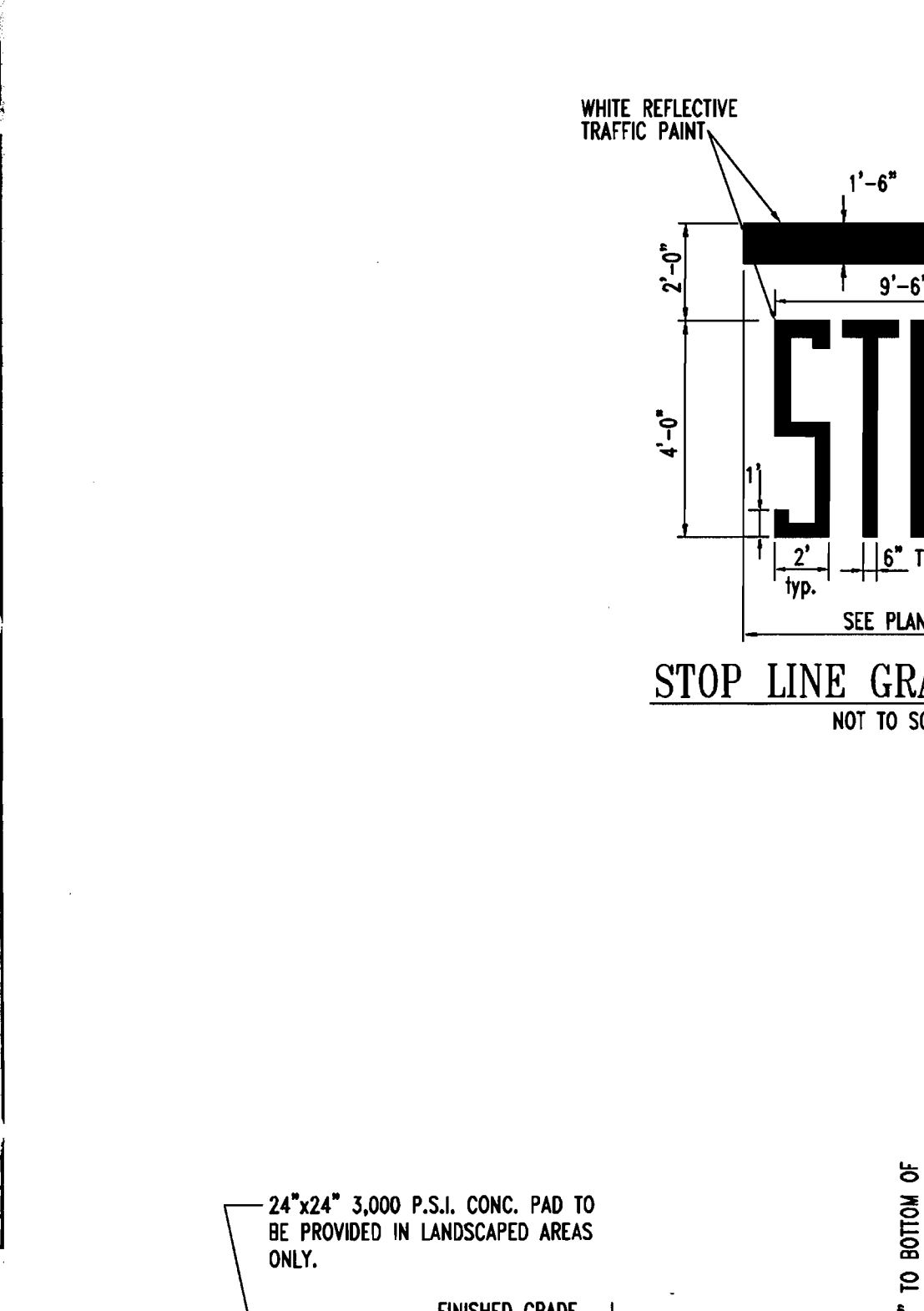
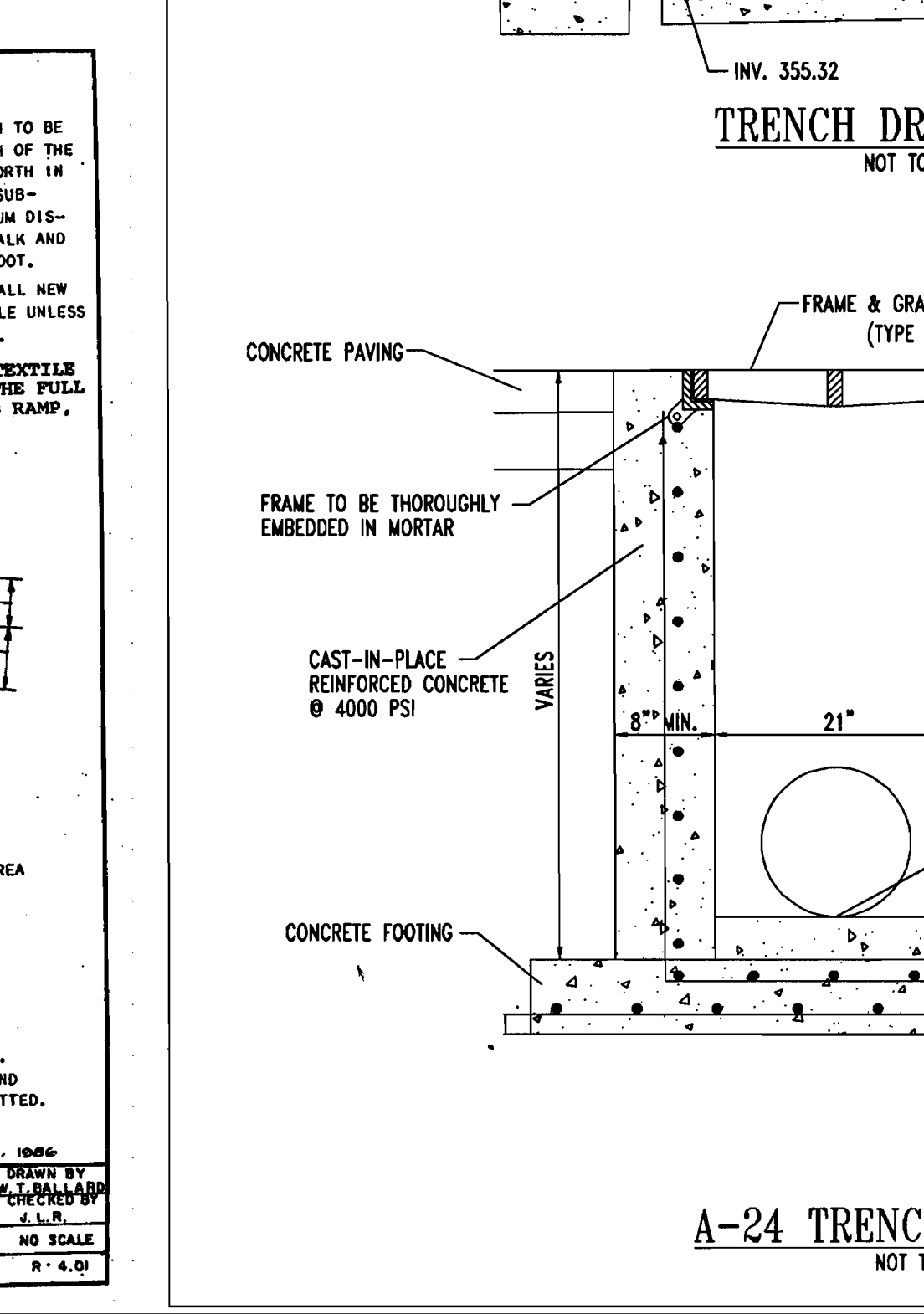
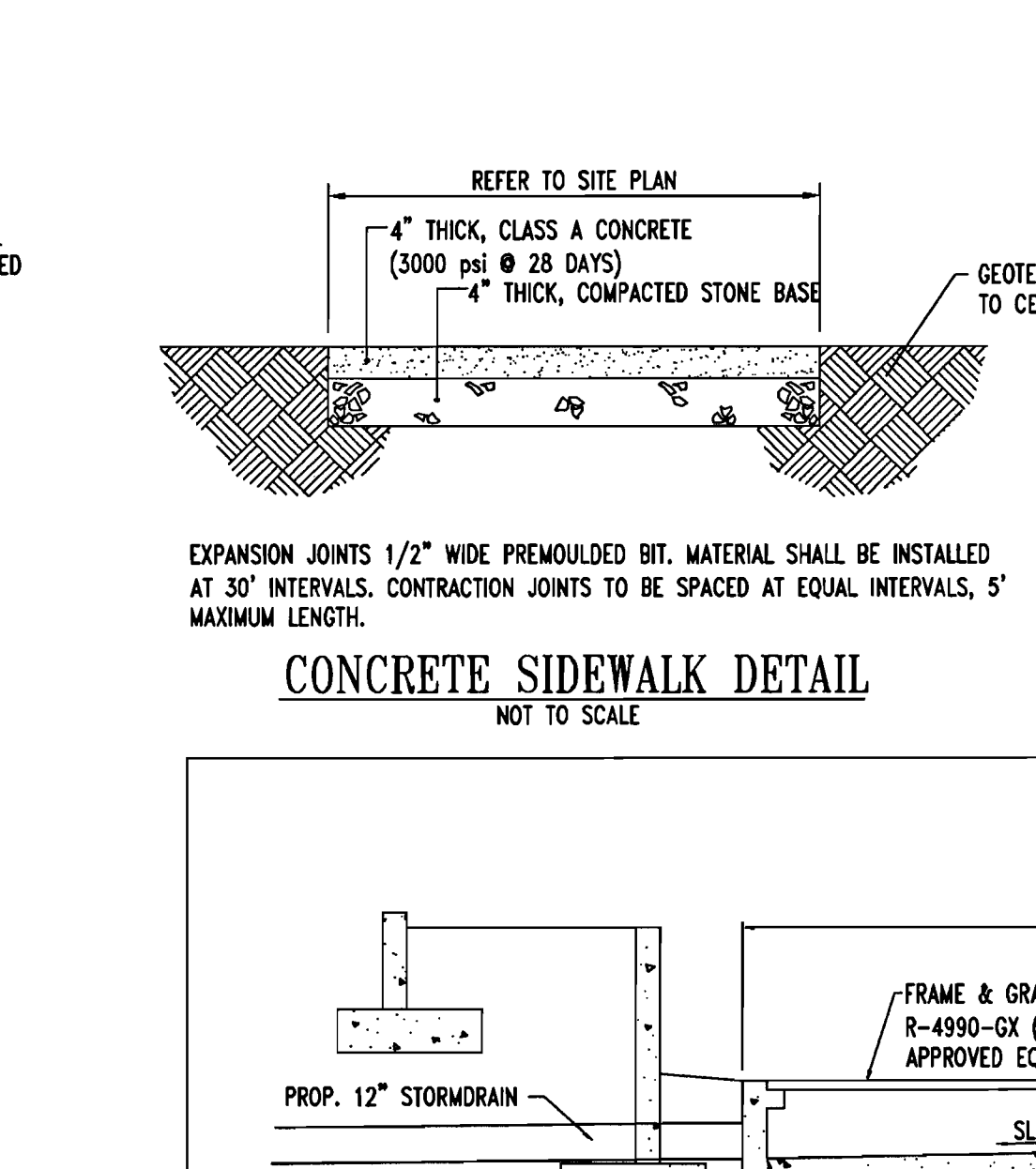
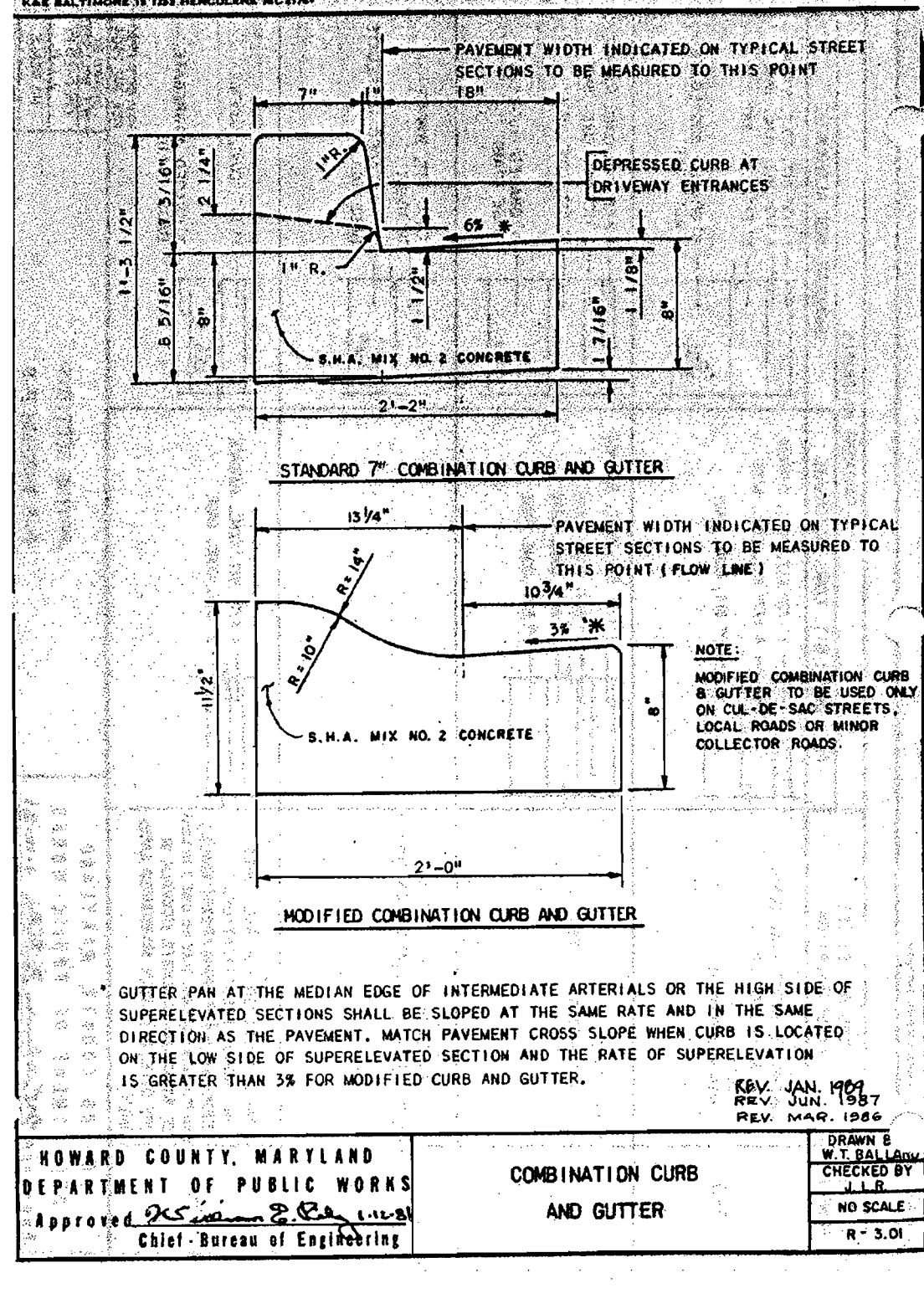
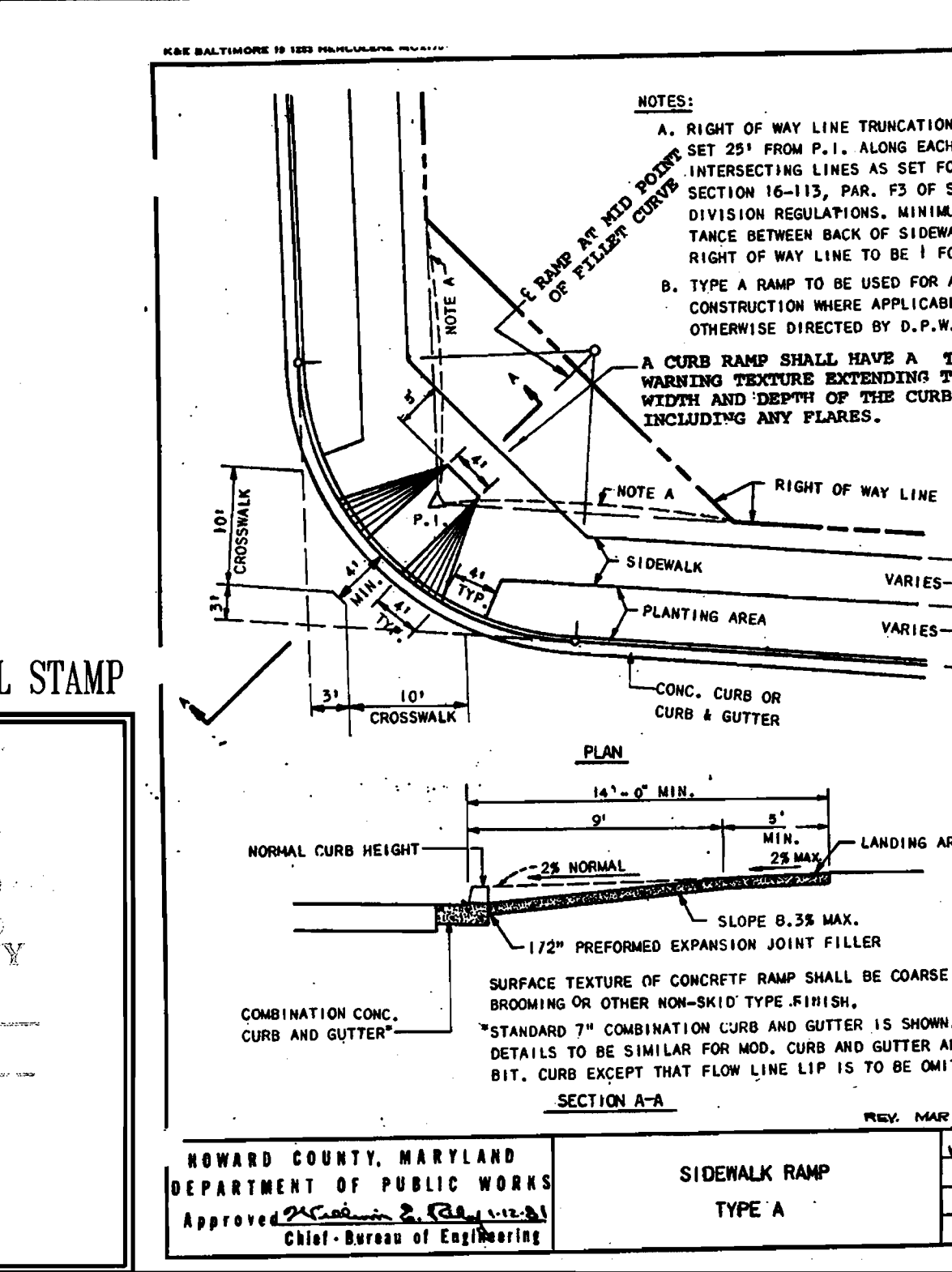
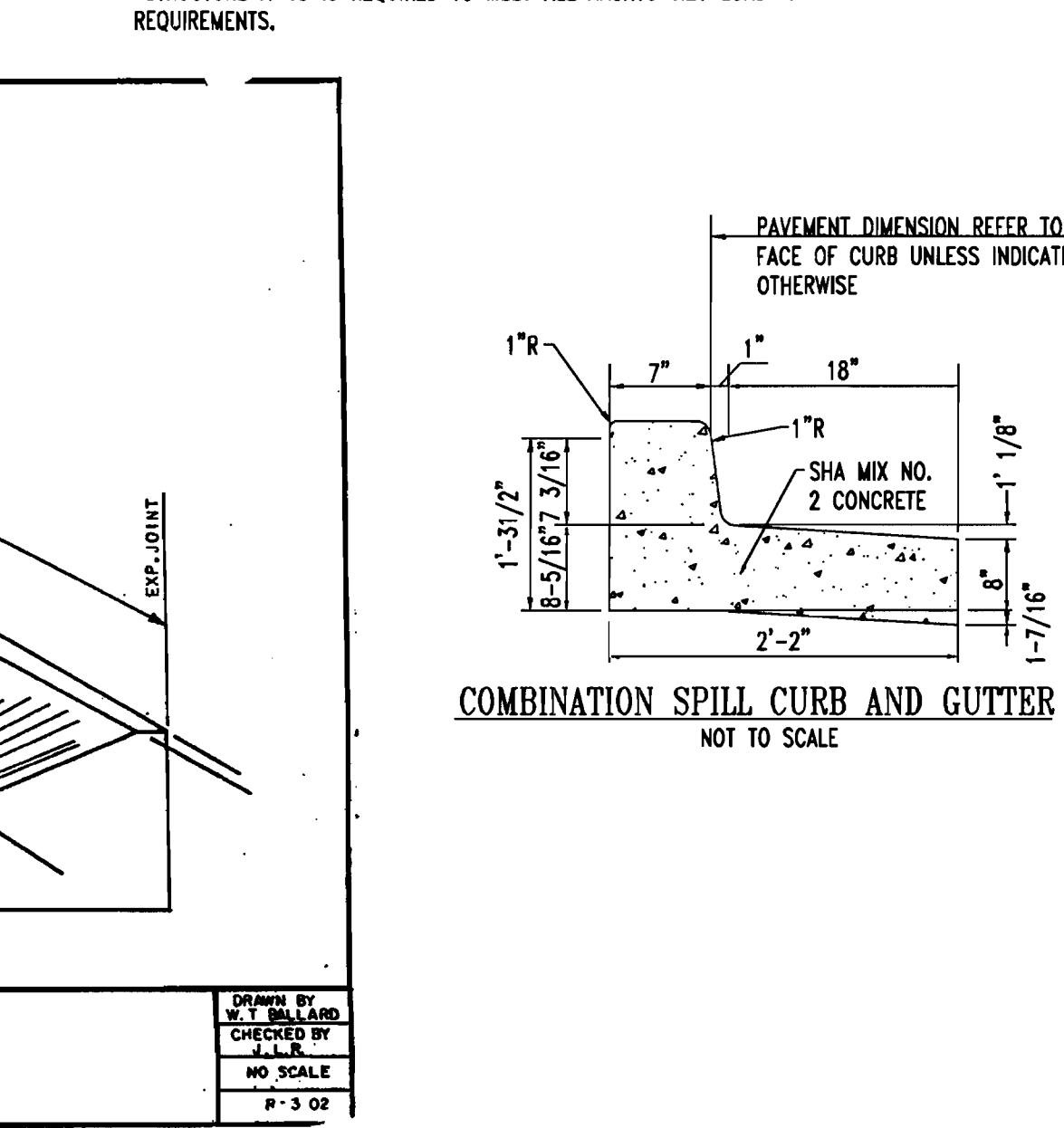
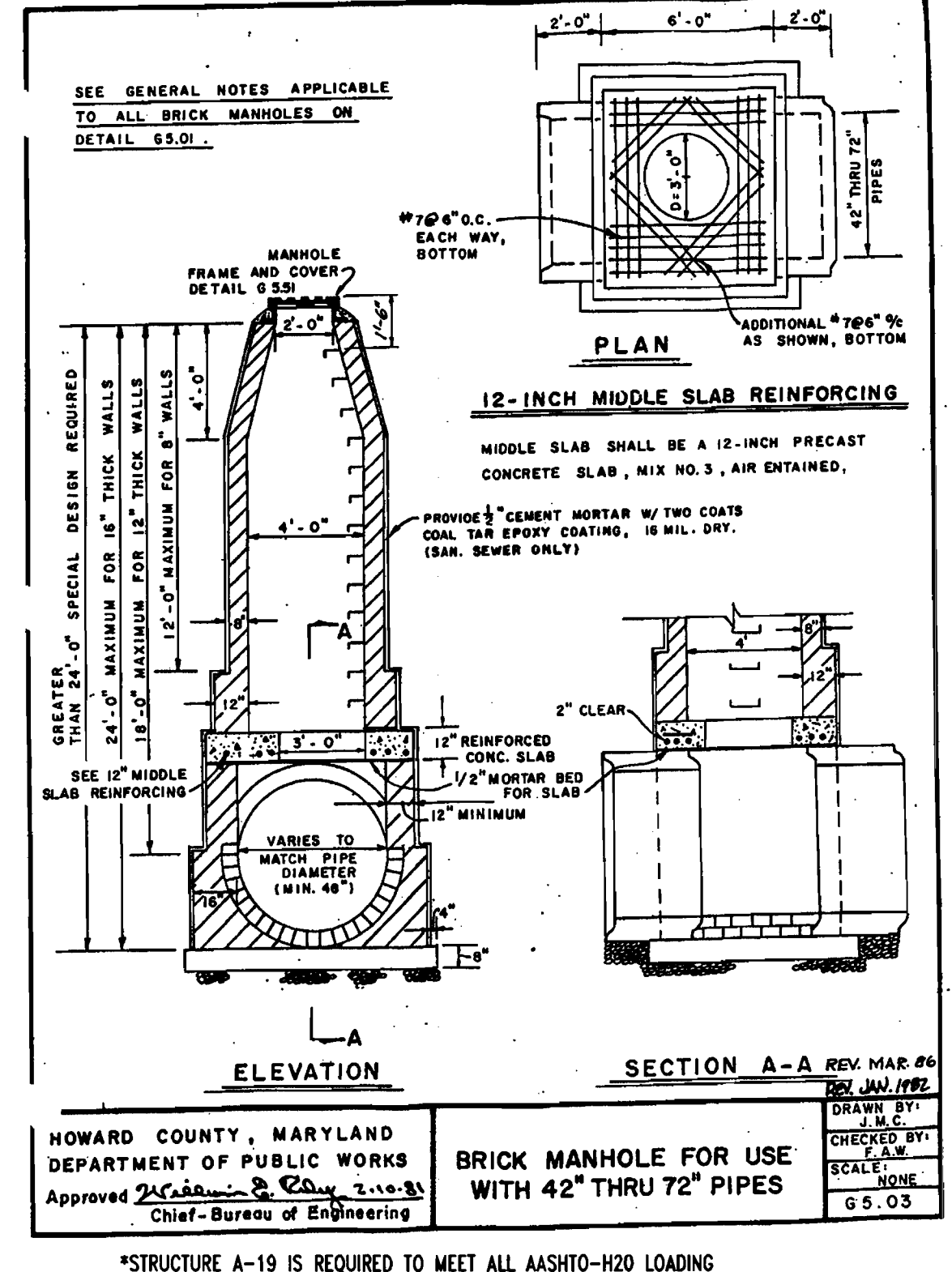
Robert J. Walker 12/18/06
DATE



PLANNING BOARD APPROVAL STAMP

APPROVED: DEPARTMENT OF PLANNING AND ZONING
 CHIEF-DEVELOPMENT ENGINEERING DIVISION
 DATE: 8/31/06
 APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS.
 DATE: 8/31/06

APPROVED PLANNING BOARD OF HOWARD COUNTY
 DATE: 8/31/06



NOTE
 1. THE GENERAL CONTRACTOR SHALL USE ALL HOWARD COUNTY STANDARD DETAILS FOR CONSTRUCTION UNLESS IT IS NOT REQUIRED BY THE COUNTY. THE GENERAL CONTRACTOR SHALL CONTACT AND CONFIRM WITH THE APPROPRIATE COUNTY OFFICIALS PRIOR TO USING ANY SPECIFIED DETAILS AND INFORM THE SAME TO THE DESIGN ENGINEER.

REV.	DATE	DESCRIPTION	BY

OWNER/DEVELOPER:
 KVC LIMITED PARTNERSHIP
 C/O KIMCO REALTY CORP.
 3333 NEW HYDE PARK ROAD
 SUITE 100
 NEW HYDE PARK, NY 11042-1205

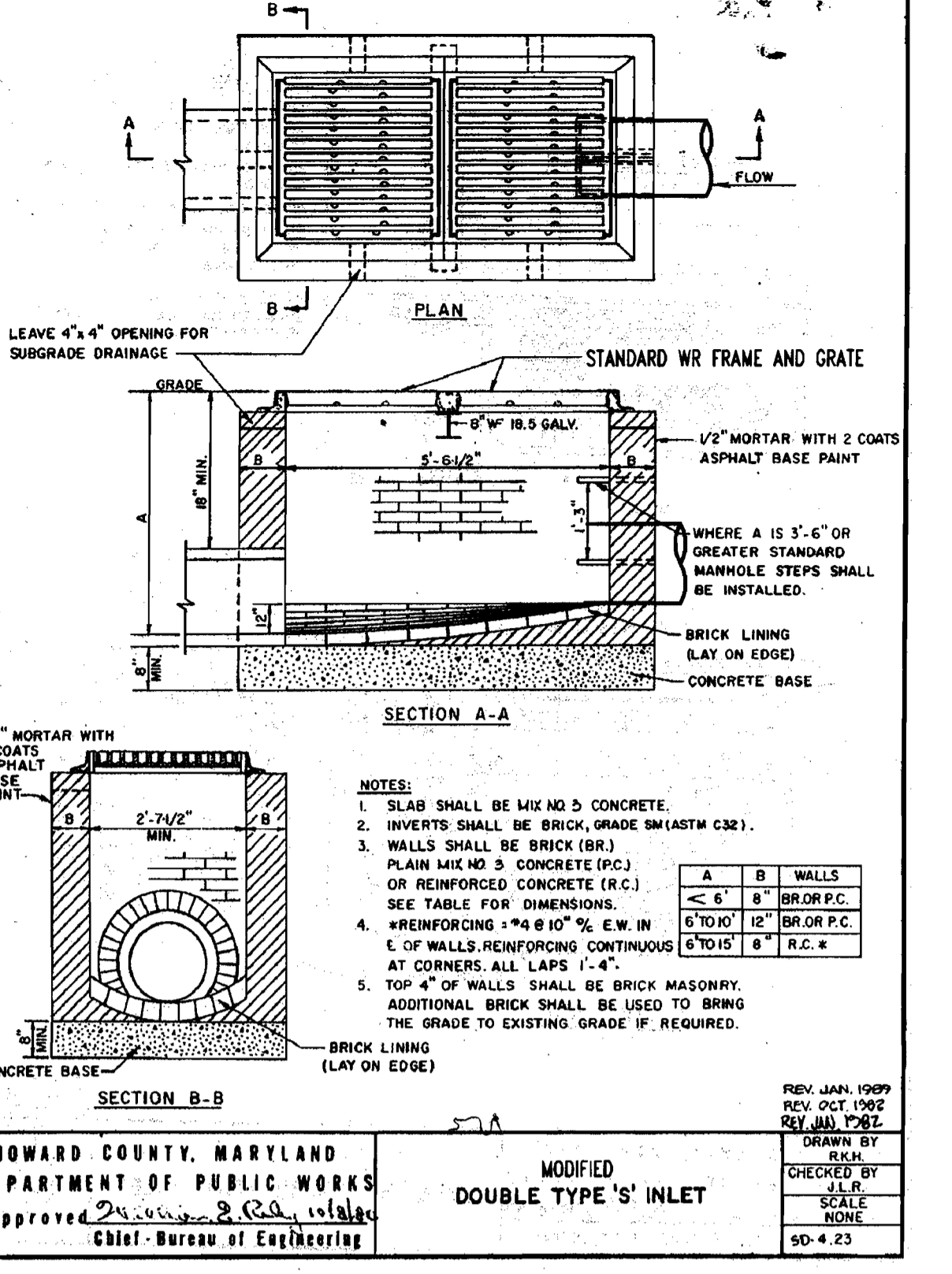
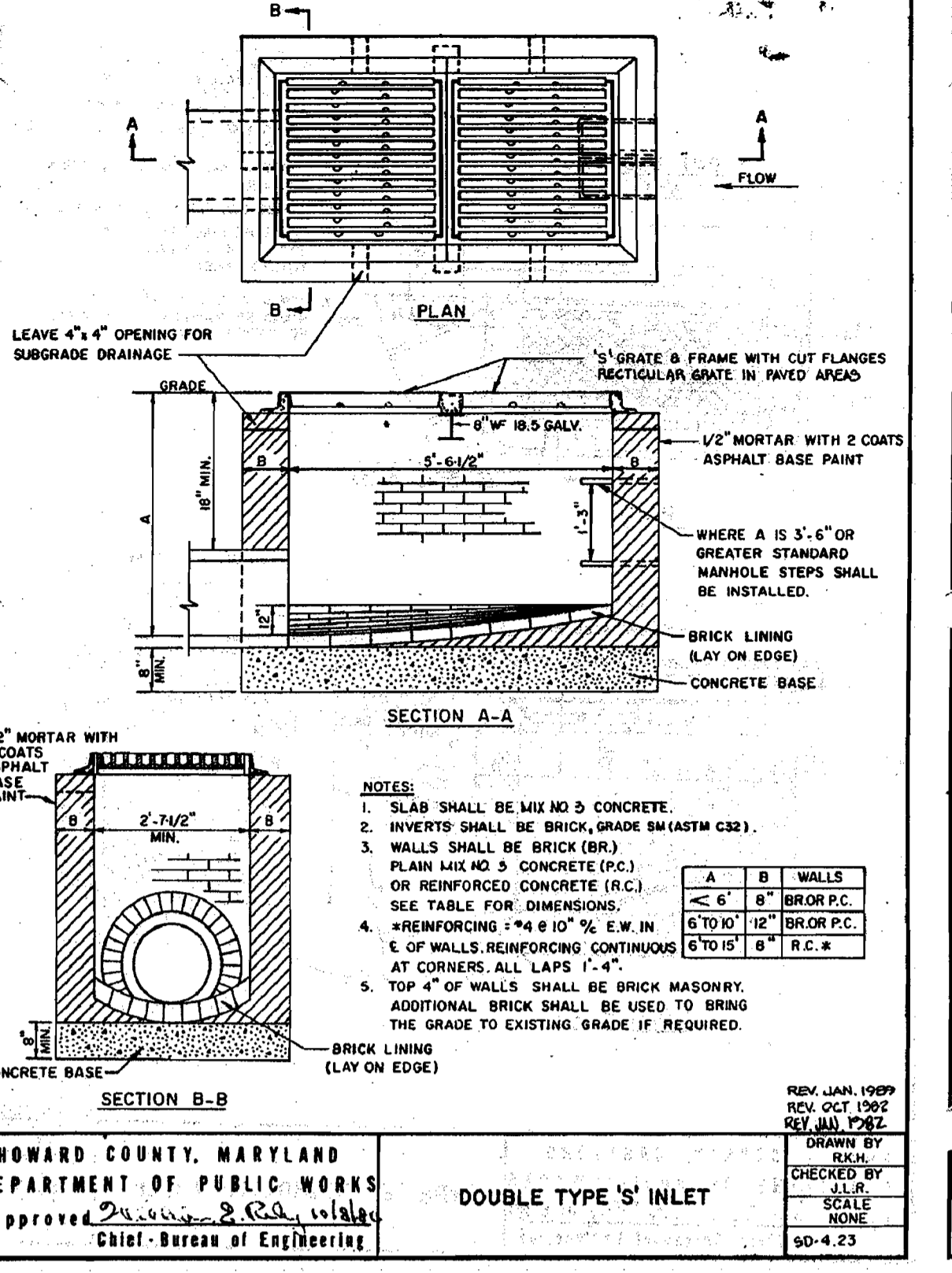
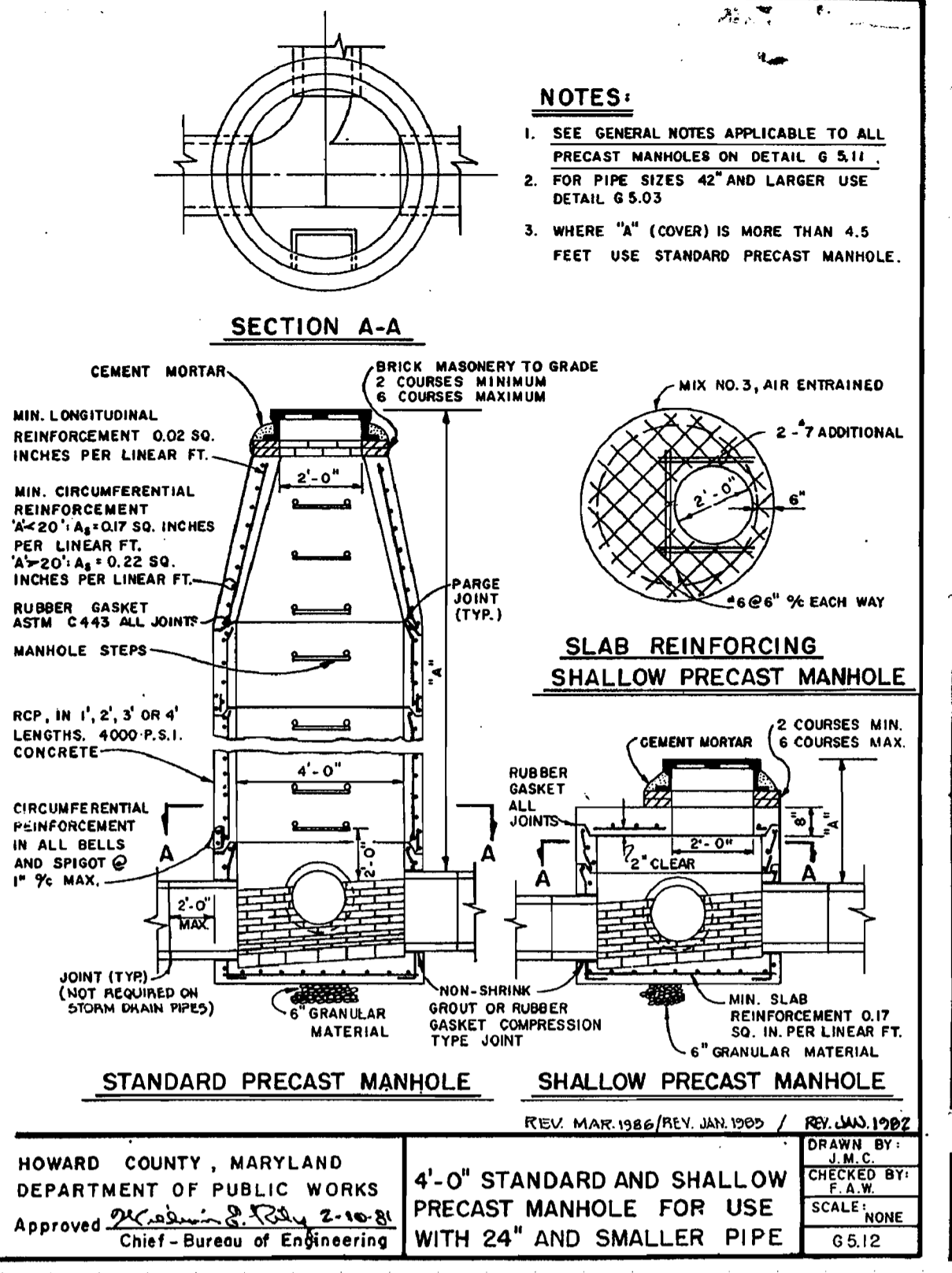
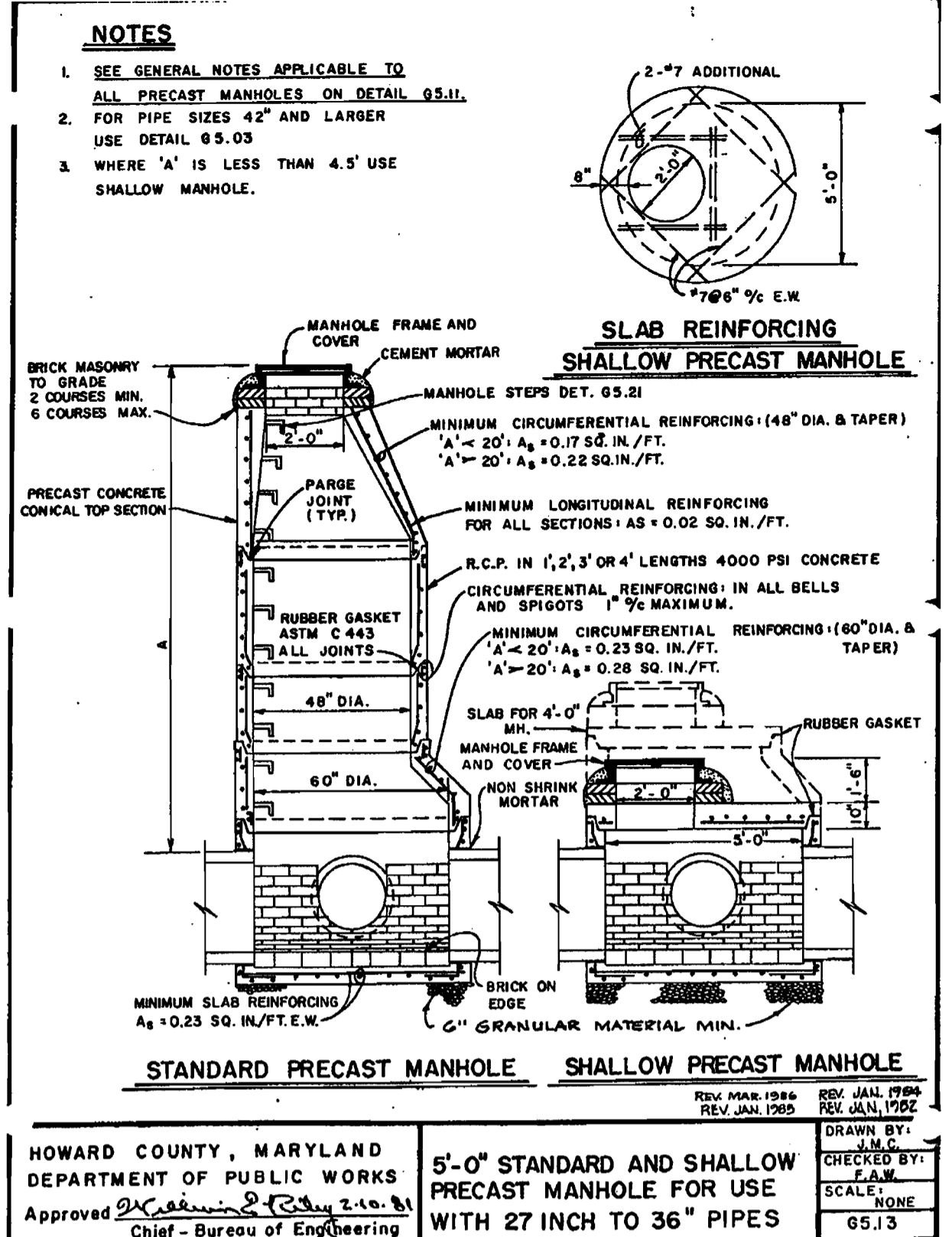
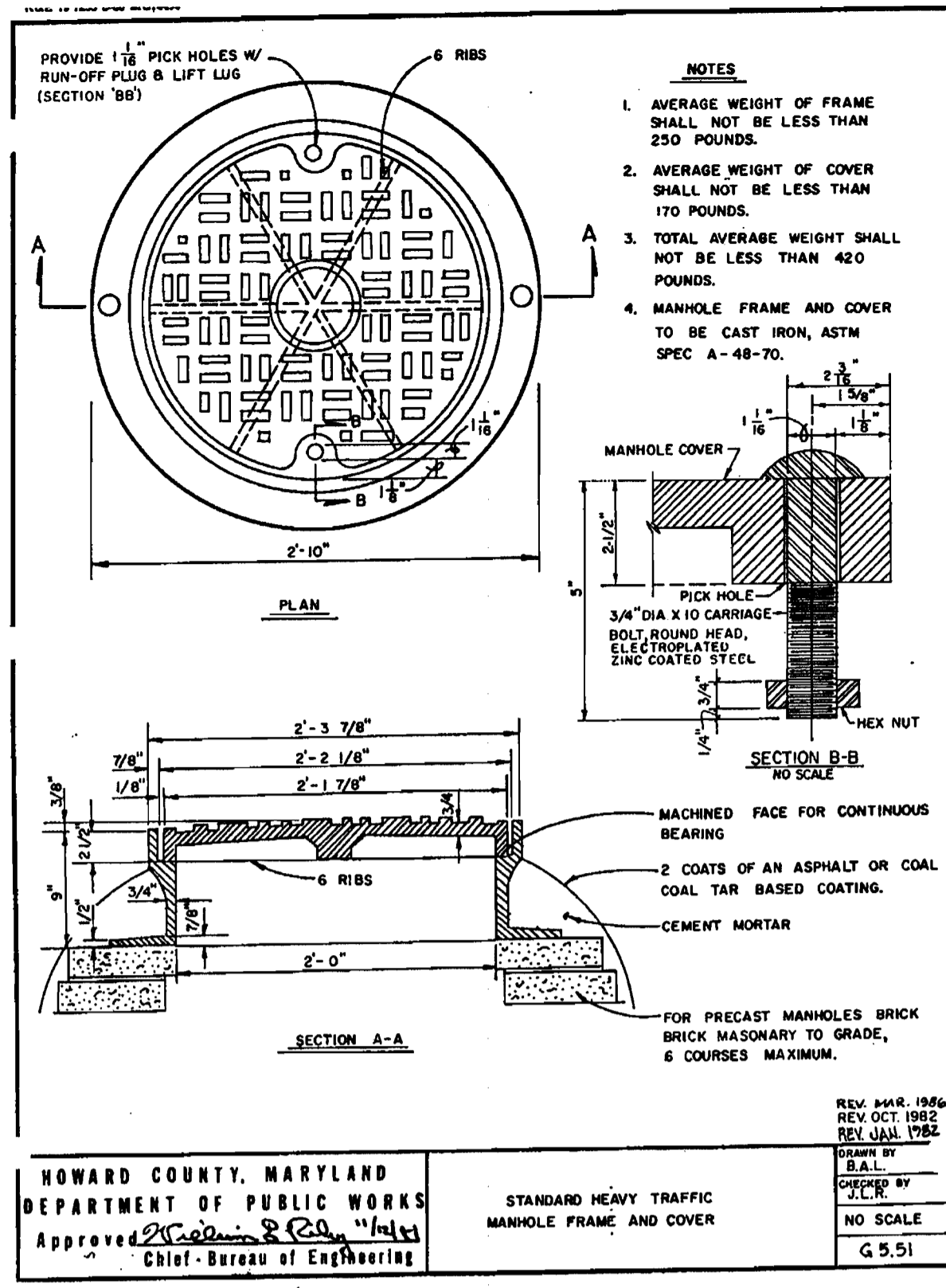
PROJECT: HARRIS TETTER - ONE STORY GROCERY STORE
 KING'S CONTRIVANCE VILLAGE CENTER
 8620 GULFROAD VILLAGE CENTER
 COLUMBIA, MARYLAND 21046

AREA: TAX MAP 42 GRID 7 ZONED NT-COMM
 PARCEL 6
 VILLAGE OF KING'S CONTRIVANCE
 6TH ELECTION DISTRICT
 COLUMBIA, HOWARD COUNTY, MARYLAND

TITLE: SITE DETAILS

BOHLER ENGINEERING, P.C.
 PROFESSIONAL ENGINEERING SERVICES
 810 Glenmores Court, Suite 300, Towson, Maryland
 CONTACT: Michael Gesell
 (410) 821-7900 FAX: (410) 821-7987 www.bohlereng.com

DESIGNED BY: MJG
DRAWN BY: TAC
PROJECT NO.: M049006
DATE: 9/27/06
SCALE: AS SHOWN
DRAWING NO.: 12 OF 22
 PROFESSIONAL ENGINEER NO. 28567

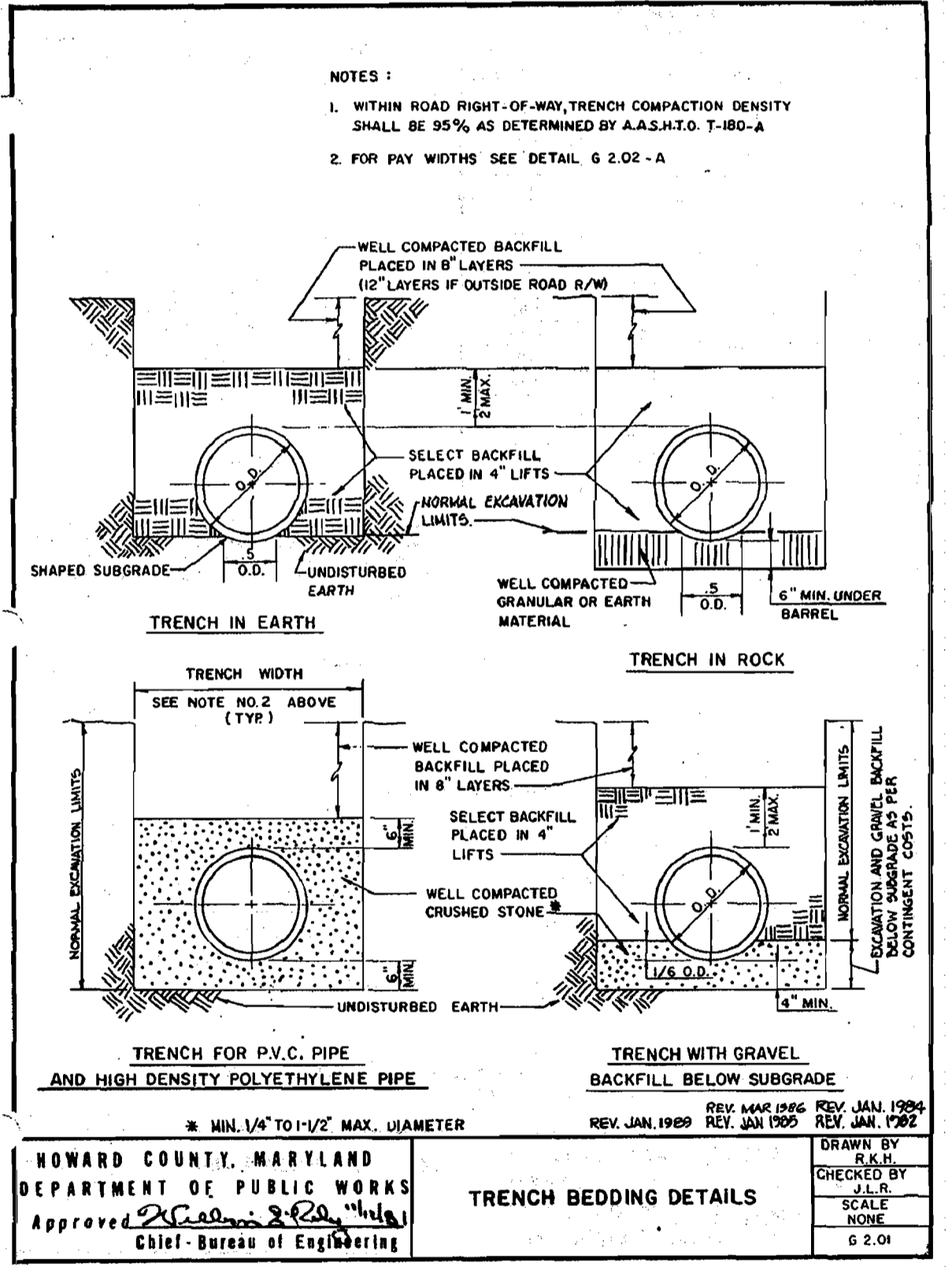
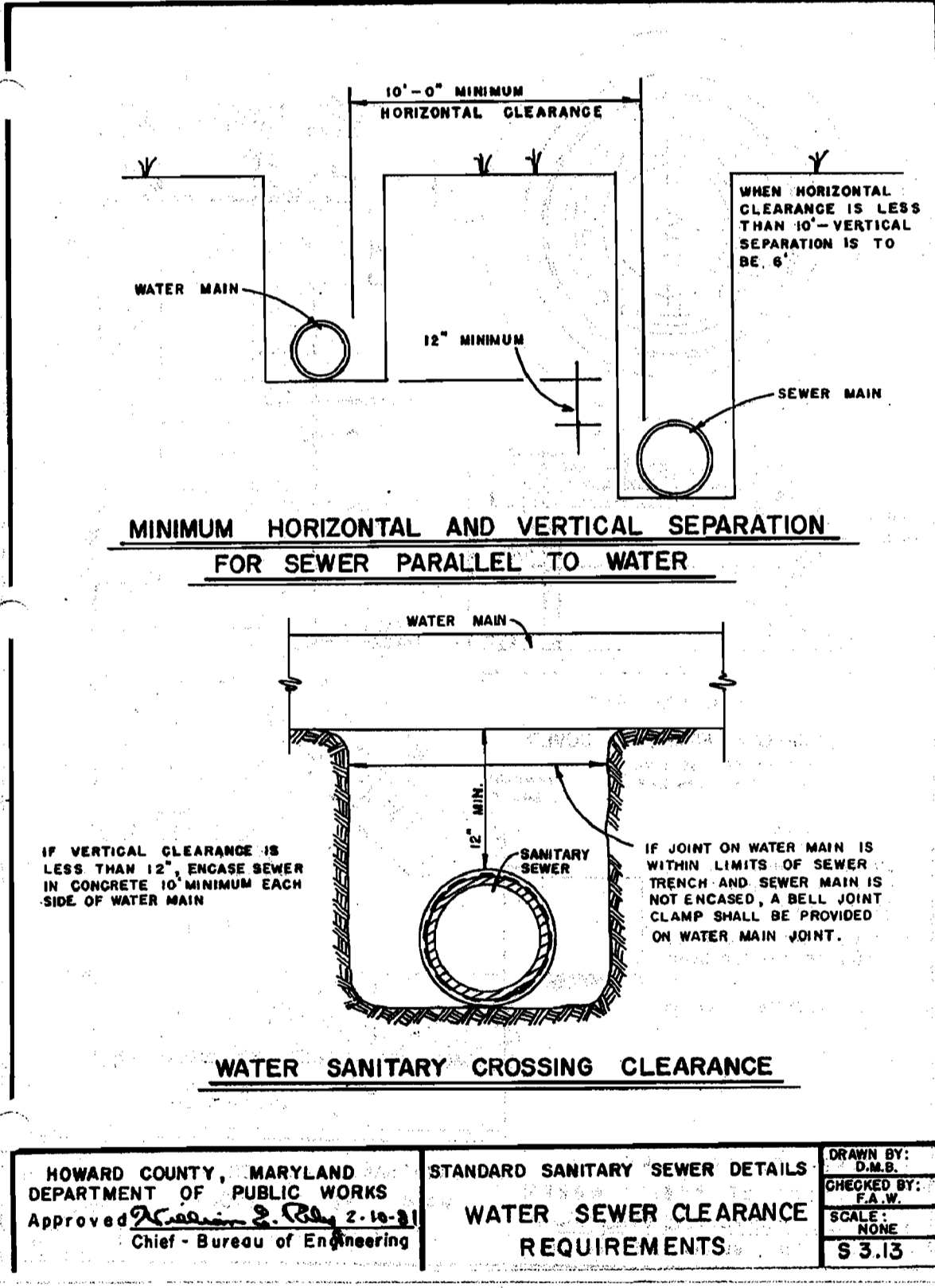
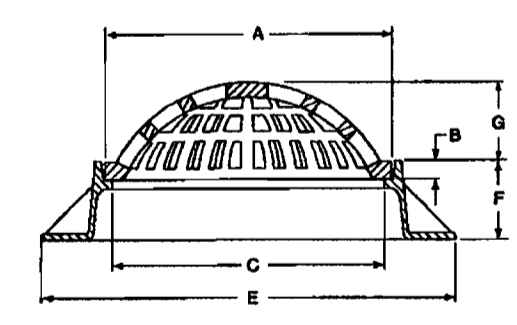


NOTE: When specifying/ordering grates, refer to "CHOOSING THE PROPER INLET GRATE" on pages 108-109. For FREE OPEN AREAS of Neesh Grates, refer to pages 326-330.

**R-2560 Series
Beehive Grates with Frames**

Suitable for drainage in circumstances where clogging of a flat grating is a problem. Excellent for roadside or earth ditch catch basins. Furnished standard with as-cast bearing surfaces.

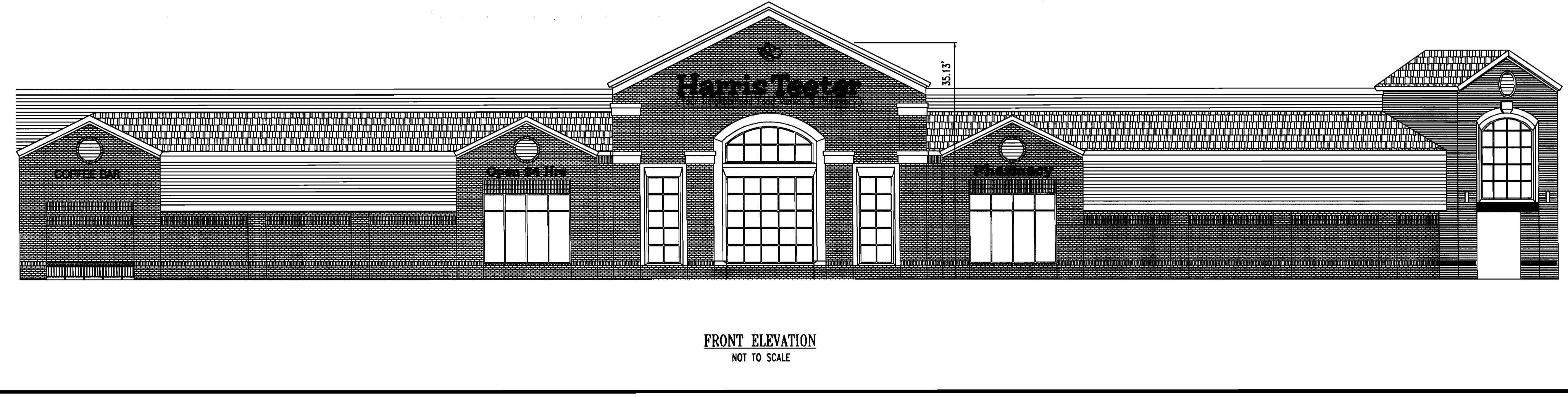
Catalog No.	Dimensions in Inches						Frame Reference
	A	B	C	E	F	G	
R-2560-A	12	1	11	19	4	4	R-1791-A
R-2560-B	18	1 1/4	16 1/2	30	8	4	R-1800-A
R-2560-C	22	1 1/2	20	28	4	4 1/2	R-1690
R-2560-D	22	1 1/2	20 1/2	28 1/4	6	4 1/2	R-1761
R-2560-E	22	1 1/2	20	28	9	4 1/2	R-1710
R-2560-F	22	1 1/2	20	28	4	7	R-1690
R-2560-G	22	1 1/2	20 1/2	28 1/4	6	7	R-1761
R-2560-H	22	1 1/2	20	28	9	7	R-1710
R-2560-I	22 1/4	1 1/2	21 1/4	34	4	4 1/2	R-1647-A
R-2560-J	22 1/4	1 1/2	21	34	9	4 1/2	R-1713
R-2560-K	22 1/4	1 1/2	21 1/4	34	4	7	R-1647-A
R-2560-L	22 1/4	1 1/2	21	34	9	7	R-1713
R-2560-M	23	1 1/2	21	36	9	7	R-1550-A
R-2560-N	25 1/4	7/8	24 1/8	35 1/2	4	6	R-1733-I
R-2560-O	25 1/4	7/8	24 1/8	35 1/2	4	9	R-1733-J
R-2560-P	25 1/4	7/8	24 1/8	35 1/2	7	6	R-1733-K
R-2560-Q	25 1/4	7/8	24 1/8	35 1/2	7	9	R-1733-L
R-2560-R	25 1/4	7/8	24 1/8	35 1/2	8	6	R-1733-M
R-2560-S	25 1/4	7/8	24 1/8	35 1/2	8	9	R-1733-N
R-2560-T	25 1/4	7/8	24 1/8	35 1/2	9	6	R-1733-O
R-2560-U	25 1/4	7/8	24 1/8	35 1/2	9	9	R-1733-P
R-2560-V	25 1/4	7/8	24 1/8	35 1/2	10	6	R-1733-Q
R-2560-W	25 1/4	7/8	24 1/8	35 1/2	10	9	R-1733-R
R-2560-X	32	1 1/2	30	46	7	4	R-1740-S



PLANNING BOARD APPROVAL STAMP

APPROVED: DEPARTMENT OF PLANNING AND ZONING
DEVELOPMENT ENGINEERING DIVISION
DATE: 12/11/06
APPROVED: DEPARTMENT OF PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS.
DATE: 12/16/06

APPROVED PLANNING BOARD OF HOWARD COUNTY
DATE: 8-21-06



MISS UTILITY

BEFORE YOU DIG CALL 800-357-3777
PROTECT YOURSELF, GIVE TWO WORKING DAYS NOTICE

THIS DRAWING DOES NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY. ALL CONSTRUCTION MUST BE DONE IN COMPLIANCE WITH THE OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970 AND ALL RULES AND REGULATIONS THEREOF APPURTENANT.

THE CONTRACTOR TO CALL MISS UTILITY TO HAVE ALL EXISTING UTILITIES MARKED 48 HOURS PRIOR TO ANY CONSTRUCTION.

REV. DATE DESCRIPTION BY

OWNER/DEVELOPER:
KVCV LIMITED PARTNERSHIP
C/O KIMCO REALTY CORP.
3333 NEW HYDE PARK ROAD
SUITE 100
NEW HYDE PARK, NY 11042-1205

PROJECT: HARRIS TEETER - ONE STORY GROCERY STORE
KING'S CONTRIVANCE VILLAGE CENTER
8620 GULFORD ROAD
COLUMBIA, MARYLAND 21046

AREA: TAX MAP 42 GRID 7 ZONED NEW TOWN
PARCEL 0
VILLAGE OF KING'S CONTRIVANCE
8TH ELECTION DISTRICT
COLUMBIA, HOWARD COUNTY, MARYLAND

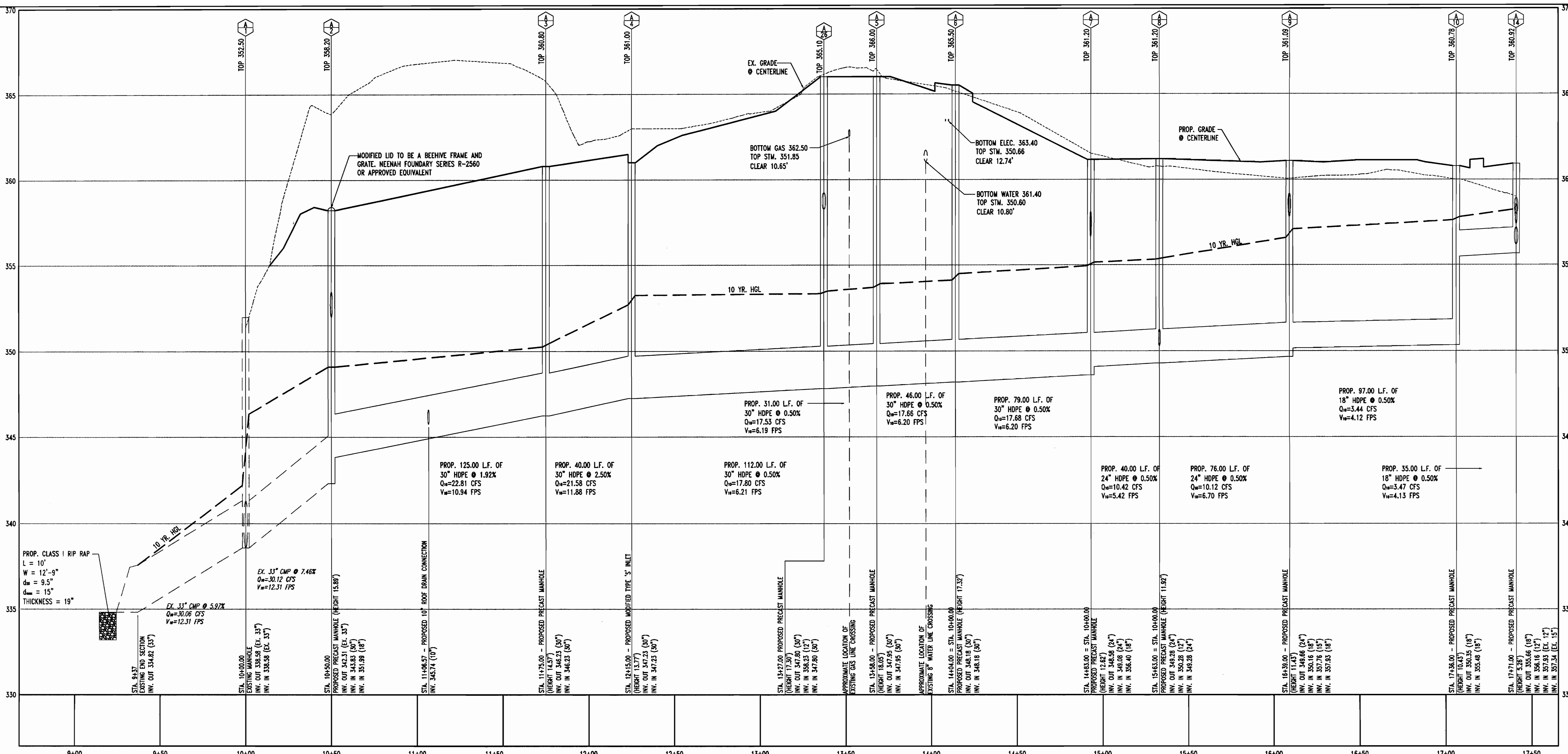
TITLE: SITE DETAILS

BOHLER ENGINEERING, P.C.
Professional Engineering Services
810 Glenegles Court, Suite 300, Towson, Maryland
Contact: Michael Gesel
(410) 851-7900 FAX: (410) 851-7987
www.bohlereng.com

DESIGNED BY: M.J.G.
DRAWN BY: TAC
PROJECT NO.: MD049006
DATE: 9/27/06
SCALE: AS SHOWN
DRAWING NO.: 13 OF 22

PROFESSIONAL ENGINEER NO. 28567

SDP-06-98



STORMDRAIN PROFILE A-1 TO A-14
 SCALE: HORIZ. 1"=30'
 VERT. 1"=5'

STRUCTURE NO.	DESCRIPTION	INV. IN	INV. OUT	TOP ELEV.
A-1	EXISTING MANHOLE	338.58 (33')	338.58 (33')	352.50
A-2	PROP. PRECAST MANHOLE WITH MODIFIED FRAME AND GRATE** (HOWARD CO. STD. G 5.13)	343.83 (30') 351.99 (18')	343.58 (33')	358.20
A-3	PROP. PRECAST MANHOLE (HOWARD CO. STD. G 5.13)	346.23 (30')	346.23 (30')	360.80
A-4	PROP. MODIFIED DOUBLE TYPE "S" INLET (HOWARD CO. STD. SD 4.23)	347.23 (30')	347.23 (30')	361.00
A-5	PROP. PRECAST MANHOLE (HOWARD CO. STD. G 5.13)	347.95 (30')	347.95 (30')	366.00
A-6	PROP. PRECAST MANHOLE (HOWARD CO. STD. G 5.13)	348.18 (30')	348.18 (30')	365.50
A-7	PROP. PRECAST MANHOLE (HOWARD CO. STD. G 5.13)	349.08 (24') 356.40 (18')	348.58 (24')	361.20
A-8	PROP. PRECAST MANHOLE (HOWARD CO. STD. G 5.12)	350.28 (12') 349.28 (24')	349.28 (24')	361.20
A-9	PROP. PRECAST MANHOLE (HOWARD CO. STD. G 5.12)	350.16 (18') 357.76 (15') 357.93 (18')	349.66 (24')	361.09
A-10	PROP. PRECAST MANHOLE (HOWARD CO. STD. G 5.12)	355.48 (18')	350.35 (18')	360.78
A-11	PROP. DOUBLE TYPE "S" INLET (HOWARD CO. STD. SD 4.23)	--	357.00 (18')	360.35
A-12	PROP. DOUBLE TYPE "S" INLET (HOWARD CO. STD. SD 4.23)	--	357.00 (18')	360.85
A-13	PROP. DOUBLE TYPE "S" INLET (HOWARD CO. STD. SD 4.23)	--	357.90 (15')	360.15
A-14	PROP. PRECAST MANHOLE (HOWARD CO. STD. G 5.12)	356.16 (12') 357.83 (12') 357.34 (15')	355.66 (18')	360.92
A-15	EX. INLET	--	356.07 (15')	361.60

STRUCTURE NO.	DESCRIPTION	INV. IN	INV. OUT	TOP ELEV.
A-16	EX. INLET	--	359.35 (12')	361.44
A-17	EX. INLET	--	355.30 (15')	361.59
A-18	PRECAST 8'X16' STORMFILTER	353.22 (12')	350.92 (12')	VARIES
A-19	PROP. PRECAST MANHOLE** (HOWARD CO. STD. G 5.03)	353.22 (60')	353.22 (12') 358.12 (18')	360.95
A-20	PROP. PRECAST MANHOLE** (HOWARD CO. STD. G 5.12)	356.72 (18')	353.22 (60')	360.95
A-21	PROP. PRECAST MANHOLE (HOWARD CO. STD. G 5.12)	354.80 (12') 352.55 (15')	352.30 (18')	360.80
A-22	PROP. PRECAST MANHOLE (HOWARD CO. STD. G 5.12)	354.55 (15')	354.55 (15')	360.20
A-23	PROP. PRECAST MANHOLE (HOWARD CO. STD. G 5.12)	356.21 (12') 356.21 (12')	355.79 (15')	360.50
A-24	TRENCH DRAIN	--	355.32 (12')	357.50
A-25	EXISTING MANHOLE	356.95 (18')	356.45 (18')	361.16
A-26	PROP. PRECAST MANHOLE (HOWARD CO. STD. G 5.13)	347.80 (30') 358.23 (12')	347.80 (30')	365.10

SIZE	DESCRIPTION	LENGTH
8"	PVC	15'
12"	PVC	215'
12"	PERFORATED HDPE	22'
12"	HDPE	509'
15"	HDPE	169'
18"	HDPE	202'
24"	HDPE	116'
30"	HDPE	432'
60"	AL-CMP	91'

PLANNING BOARD APPROVAL STAMP

APPROVED: DEPARTMENT OF PLANNING AND ZONING
 CHIEF-DEVELOPMENT ENGINEERING DIVISION
 DATE: 12/1/06
 APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS.
 COUNTY HEALTH OFFICER
 HOWARD COUNTY HEALTH DEPARTMENT
 DATE: 12/16/06

APPROVED PLANNING BOARD OF HOWARD COUNTY
 DATE: 8-31-06

STORMDRAIN STRUCTURE SCHEDULE

STRUCTURE NO.	DESCRIPTION	INV. IN	INV. OUT	TOP ELEV.
A-1	EXISTING MANHOLE	338.58 (33')	338.58 (33')	352.50
A-2	PROP. PRECAST MANHOLE WITH MODIFIED FRAME AND GRATE** (HOWARD CO. STD. G 5.13)	343.83 (30') 351.99 (18')	343.58 (33')	358.20
A-3	PROP. PRECAST MANHOLE (HOWARD CO. STD. G 5.13)	346.23 (30')	346.23 (30')	360.80
A-4	PROP. MODIFIED DOUBLE TYPE "S" INLET (HOWARD CO. STD. SD 4.23)	347.23 (30')	347.23 (30')	361.00
A-5	PROP. PRECAST MANHOLE (HOWARD CO. STD. G 5.13)	347.95 (30')	347.95 (30')	366.00
A-6	PROP. PRECAST MANHOLE (HOWARD CO. STD. G 5.13)	348.18 (30')	348.18 (30')	365.50
A-7	PROP. PRECAST MANHOLE (HOWARD CO. STD. G 5.13)	349.08 (24') 356.40 (18')	348.58 (24')	361.20
A-8	PROP. PRECAST MANHOLE (HOWARD CO. STD. G 5.12)	350.28 (12') 349.28 (24')	349.28 (24')	361.20
A-9	PROP. PRECAST MANHOLE (HOWARD CO. STD. G 5.12)	350.16 (18') 357.76 (15') 357.93 (18')	349.66 (24')	361.09
A-10	PROP. PRECAST MANHOLE (HOWARD CO. STD. G 5.12)	355.48 (18')	350.35 (18')	360.78
A-11	PROP. DOUBLE TYPE "S" INLET (HOWARD CO. STD. SD 4.23)	--	357.00 (18')	360.35
A-12	PROP. DOUBLE TYPE "S" INLET (HOWARD CO. STD. SD 4.23)	--	357.00 (18')	360.85
A-13	PROP. DOUBLE TYPE "S" INLET (HOWARD CO. STD. SD 4.23)	--	357.90 (15')	360.15
A-14	PROP. PRECAST MANHOLE (HOWARD CO. STD. G 5.12)	356.16 (12') 357.83 (12') 357.34 (15')	355.66 (18')	360.92
A-15	EX. INLET	--	356.07 (15')	361.60

STORMDRAIN STRUCTURE SCHEDULE

STRUCTURE NO.	DESCRIPTION	INV. IN	INV. OUT	TOP ELEV.
A-16	EX. INLET	--	359.35 (12')	361.44
A-17	EX. INLET	--	355.30 (15')	361.59
A-18	PRECAST 8'X16' STORMFILTER	353.22 (12')	350.92 (12')	VARIES
A-19	PROP. PRECAST MANHOLE** (HOWARD CO. STD. G 5.03)	353.22 (60')	353.22 (12') 358.12 (18')	360.95
A-20	PROP. PRECAST MANHOLE** (HOWARD CO. STD. G 5.12)	356.72 (18')	353.22 (60')	360.95
A-21	PROP. PRECAST MANHOLE (HOWARD CO. STD. G 5.12)	354.80 (12') 352.55 (15')	352.30 (18')	360.80
A-22	PROP. PRECAST MANHOLE (HOWARD CO. STD. G 5.12)	354.55 (15')	354.55 (15')	360.20
A-23	PROP. PRECAST MANHOLE (HOWARD CO. STD. G 5.12)	356.21 (12') 356.21 (12')	355.79 (15')	360.50
A-24	TRENCH DRAIN	--	355.32 (12')	357.50
A-25	EXISTING MANHOLE	356.95 (18')	356.45 (18')	361.16
A-26	PROP. PRECAST MANHOLE (HOWARD CO. STD. G 5.13)	347.80 (30') 358.23 (12')	347.80 (30')	365.10

MISS UTILITY

BEFORE YOU DIG CALL 410-267-7777
 PROTECT YOURSELF, GIVE TWO WORKING DAYS NOTICE

THIS DRAWING DOES NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY. ALL CONSTRUCTION MUST BE DONE IN COMPLIANCE WITH THE OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970 AND ALL RULES AND REGULATIONS THEREOF APPROPRIATE.

THE CONTRACTOR TO CALL MISS UTILITY TO HAVE ALL EXISTING UTILITIES MARKED 48 HOURS PRIOR TO ANY CONSTRUCTION.

REV. DATE DESCRIPTION BY

OWNER/DEVELOPER:
 KCVC LIMITED PARTNERSHIP
 C/O KIMCO REALTY CORP.
 3333 NEW HYDE PARK ROAD
 SUITE 100
 NEW HYDE PARK, NY 11042-1205

PROJECT: HARRIS TEETER - ONE STORY GROCERY STORE
 KING'S CONTRIVANCE VILLAGE CENTER
 8620 GULFORD ROAD
 COLUMBIA, MARYLAND 21046

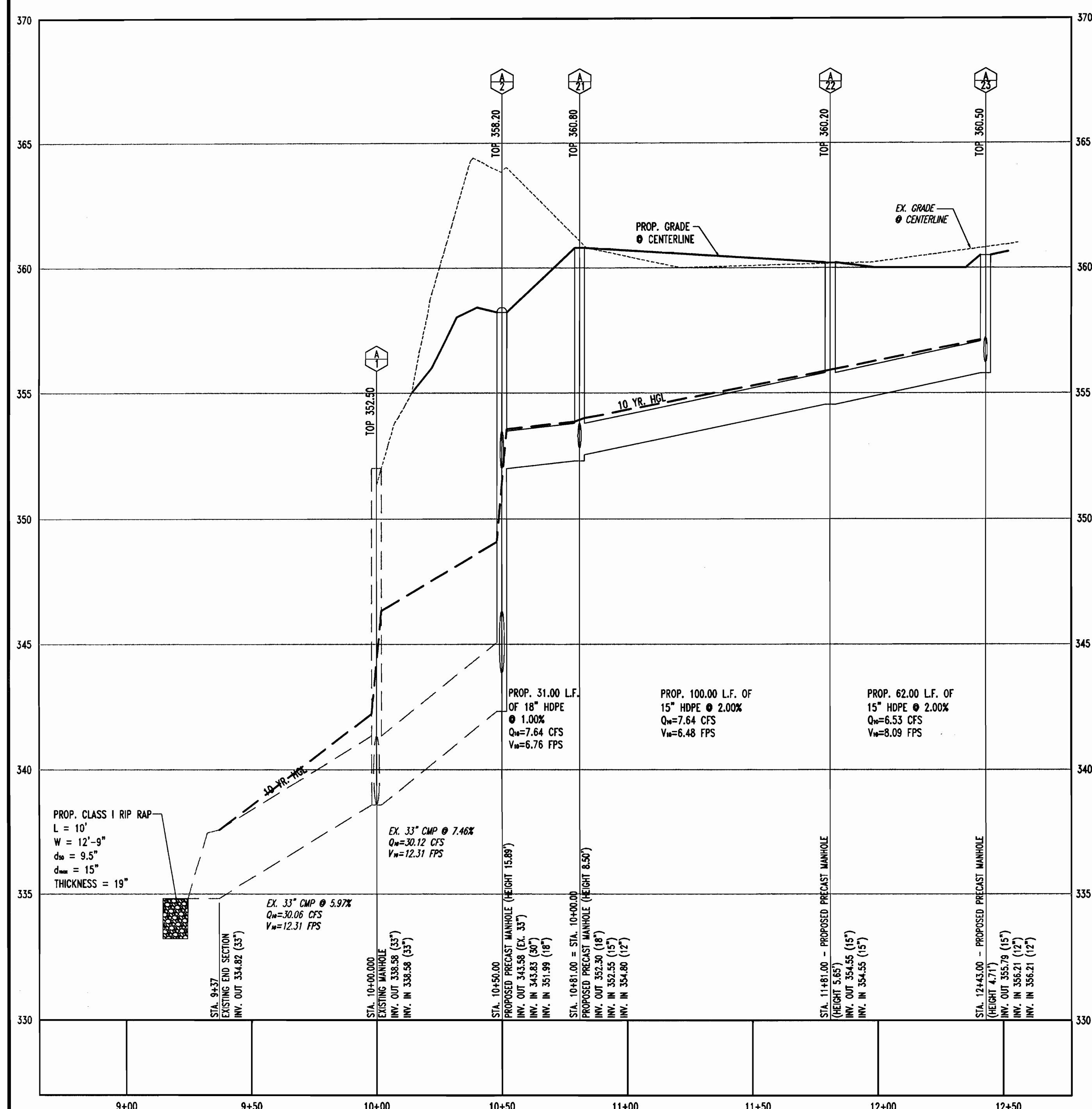
AREA: TAX MAP 42 GRID 7 ZONED NI-COMM
 PARCEL G
 VILLAGE OF KING'S CONTRIVANCE
 6TH ELECTION DISTRICT
 COLUMBIA, HOWARD COUNTY, MARYLAND

TITLE:
UTILITY PROFILES

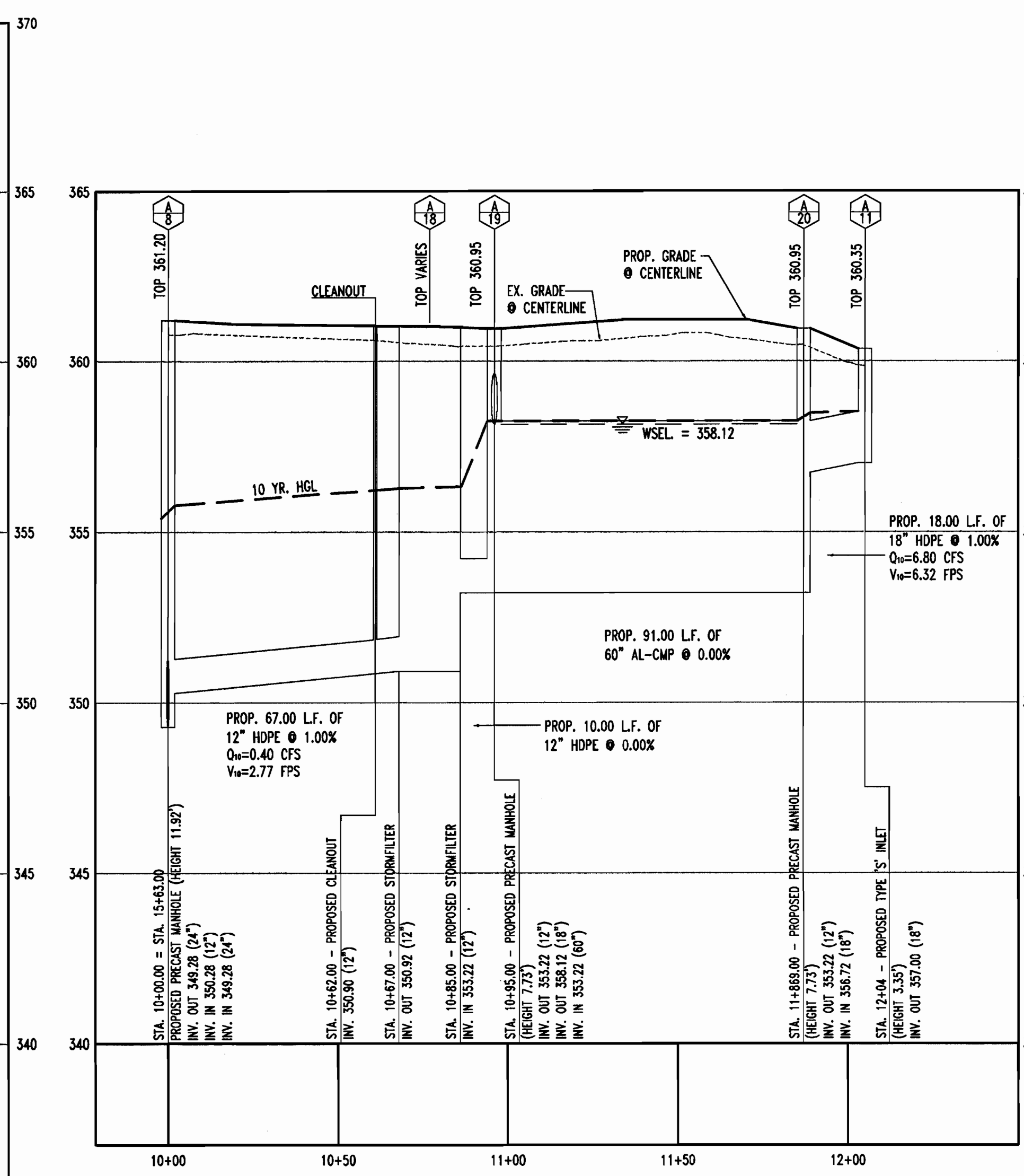
BOHLER ENGINEERING, P.C.
 PROFESSIONAL ENGINEERING SERVICES
 4810 Glenridge Court, Suite 300, Towson, Maryland
 CONTACT: Michael Gesell
 (410) 921-7800 FAX: (410) 921-7807 IN: WWW.BOHLERENGINEERING.COM

DESIGNED BY: MJG
 DRAWN BY: TAC
 PROJECT NO.: M0049006
 DATE: 9/27/06
 SCALE: AS SHOWN
 DRAWING NO.: 14 OF 22

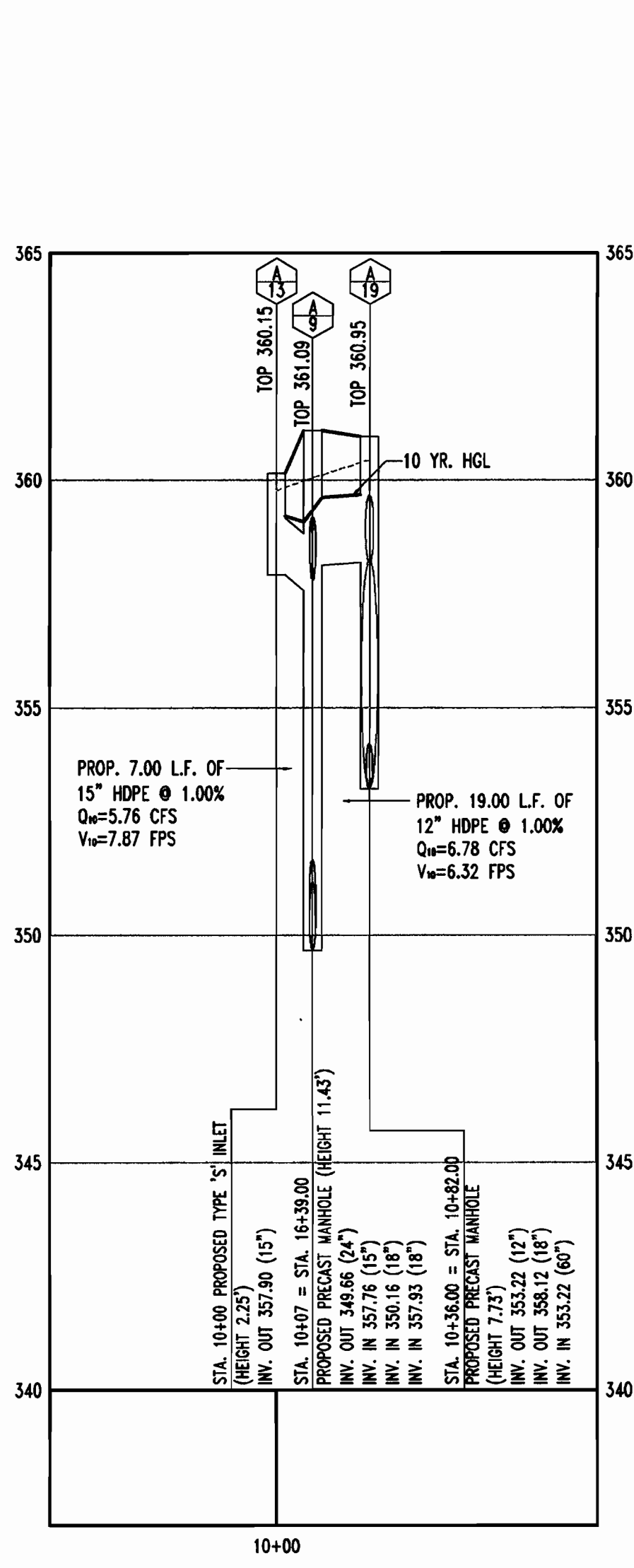
PROFESSIONAL ENGINEER NO. 28567



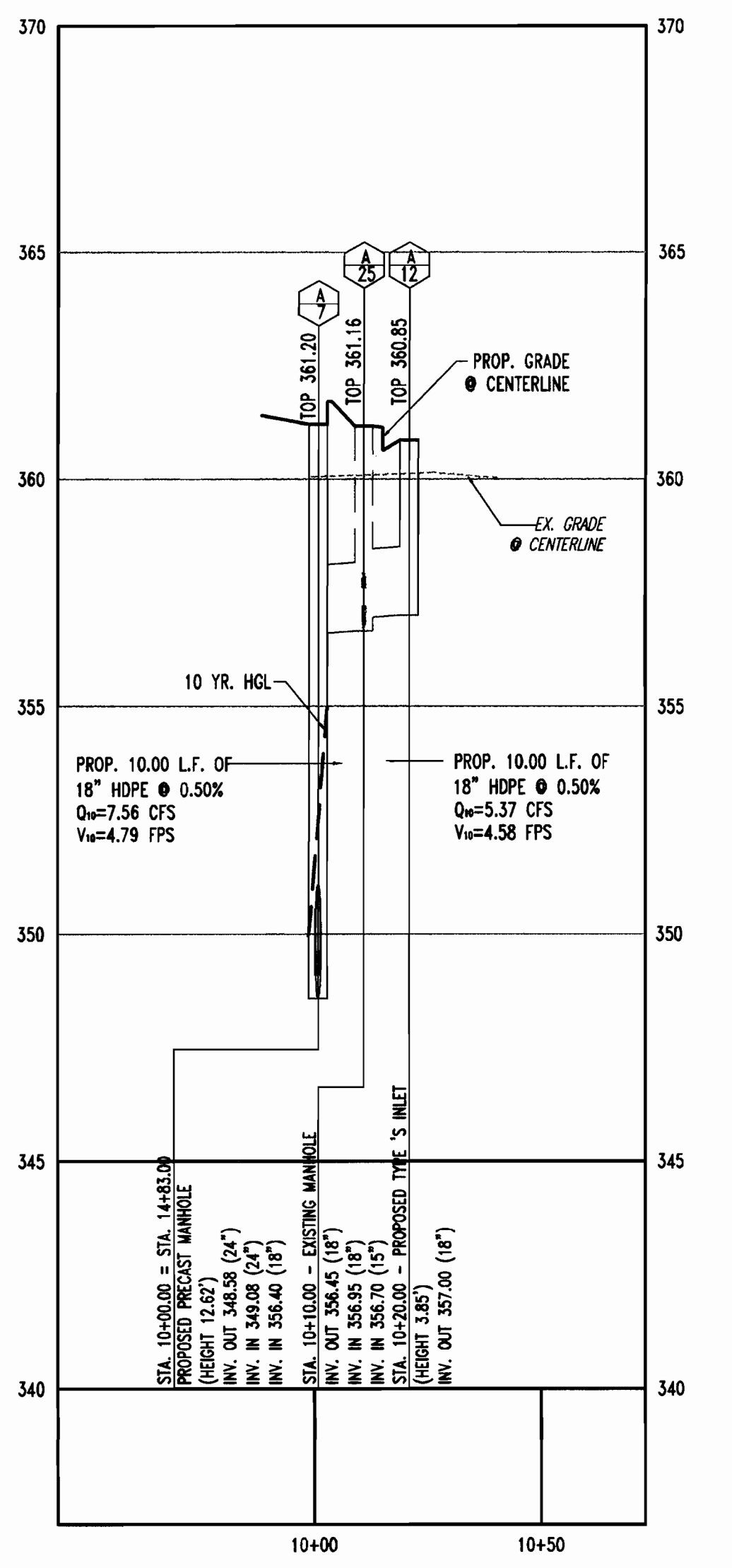
STORMDRAIN PROFILE A-1 TO A-23
SCALE: HORIZ. 1"=30'
VERT. 1"=3'



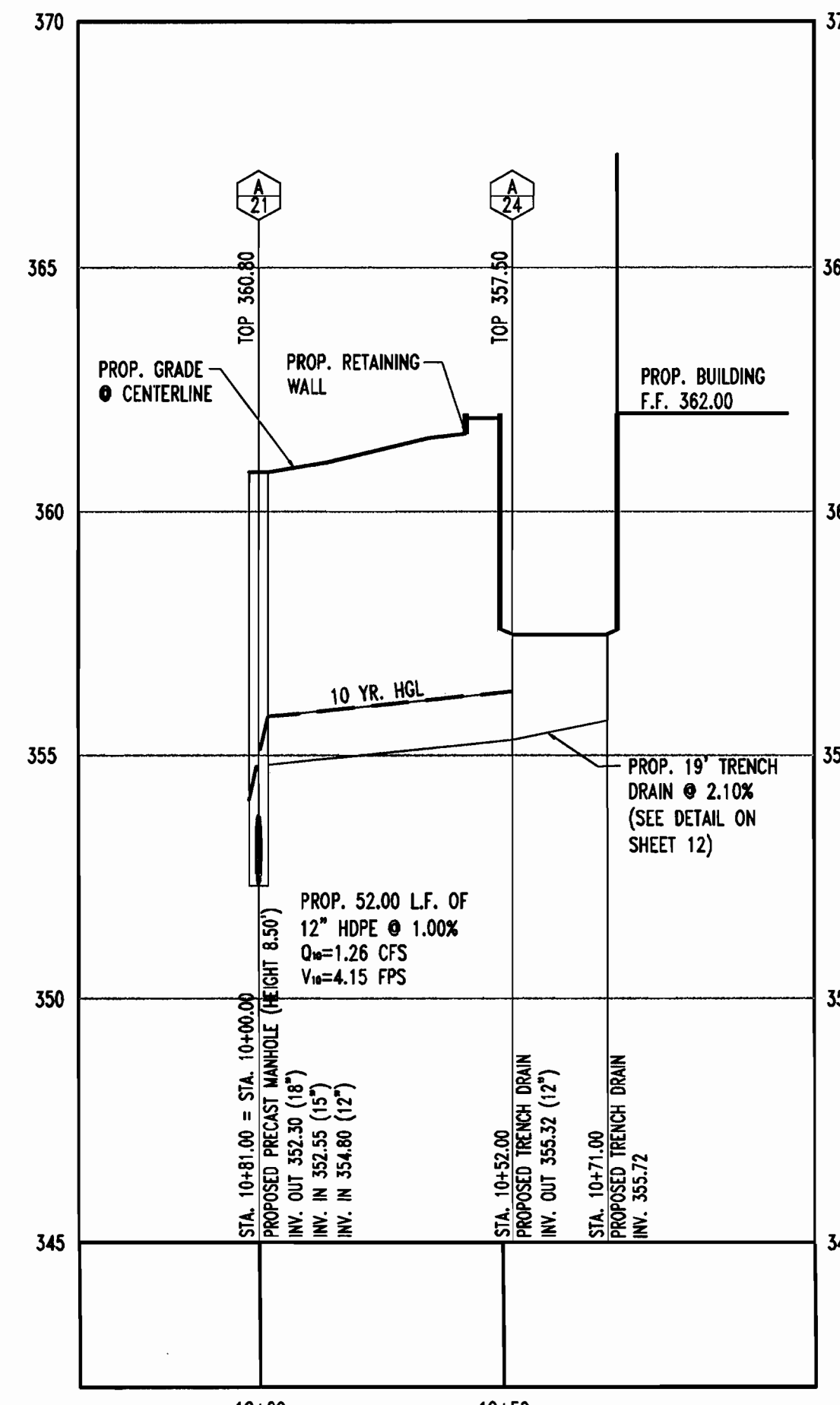
STORMDRAIN PROFILE A-8 TO A-11
SCALE: HORIZ. 1"=30'
VERT. 1"=3'



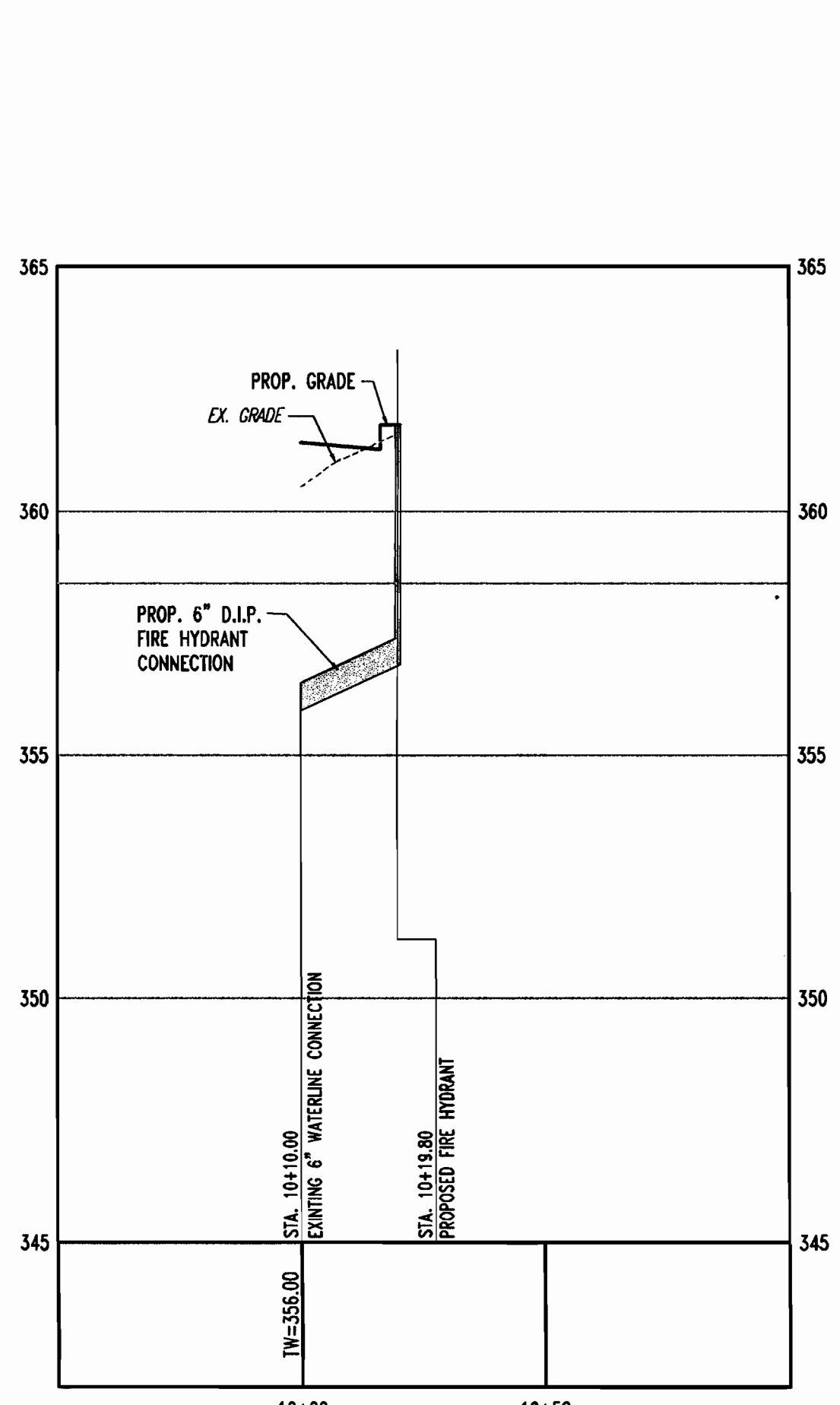
STORMDRAIN PROFILE A-13 TO A-19
SCALE: HORIZ. 1"=30'
VERT. 1"=3'



STORMDRAIN PROFILE A-7 TO A-12
SCALE: HORIZ. 1"=30'
VERT. 1"=3'



STORMDRAIN PROFILE A-21 TO A-24
SCALE: HORIZ. 1"=30'
VERT. 1"=3'



WATERLINE 'A' PROFILE
SCALE: HORIZ. 1"=30'
VERT. 1"=3'

PLANNING BOARD APPROVAL STAMP

APPROVED: DEPARTMENT OF PLANNING AND ZONING
CHIEF-DEVELOPMENT ENGINEERING DIVISION
DATE 12/11/06
APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS.
DATE 12/18/06

APPROVED PLANNING BOARD OF HOWARD COUNTY
DATE 01-21-07

MISS UTILITY

BEFORE YOU DIG CALL 1-800-89-7779
PROTECT YOURSELF. GIVE TWO WORKING DAYS NOTICE.

THIS DRAWING DOES NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY. ALL CONSTRUCTION MUST BE DONE IN COMPLIANCE WITH THE OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970 AND ALL RULES AND REGULATIONS THERE TO APPROPRIATE.

THE CONTRACTOR TO CALL MISS UTILITY TO HAVE ALL EXISTING UTILITIES MARKED 48 HOURS PRIOR TO ANY CONSTRUCTION.

REV.	DATE	DESCRIPTION	BY

OWNER/DEVELOPER:
KVCV LIMITED PARTNERSHIP
C/O KIMCO REALTY CORP.
3333 NEW HYDE PARK ROAD
SUITE 100
NEW HYDE PARK, NY 11042-1205

PROJECT: HARRIS TEETER - ONE STORY GROCERY STORE
KING'S CONTRIVANCE VILLAGE CENTER
8620 GULFORD ROAD
COLUMBIA, MARYLAND 21046

AREA: TAX MAP 42 GRID 7 ZONED NT-COMM
PARCEL 6
VILLAGE OF KING'S CONTRIVANCE
8TH ELECTION DISTRICT
COLUMBIA, HOWARD COUNTY, MARYLAND

TITLE:
UTILITY PROFILES

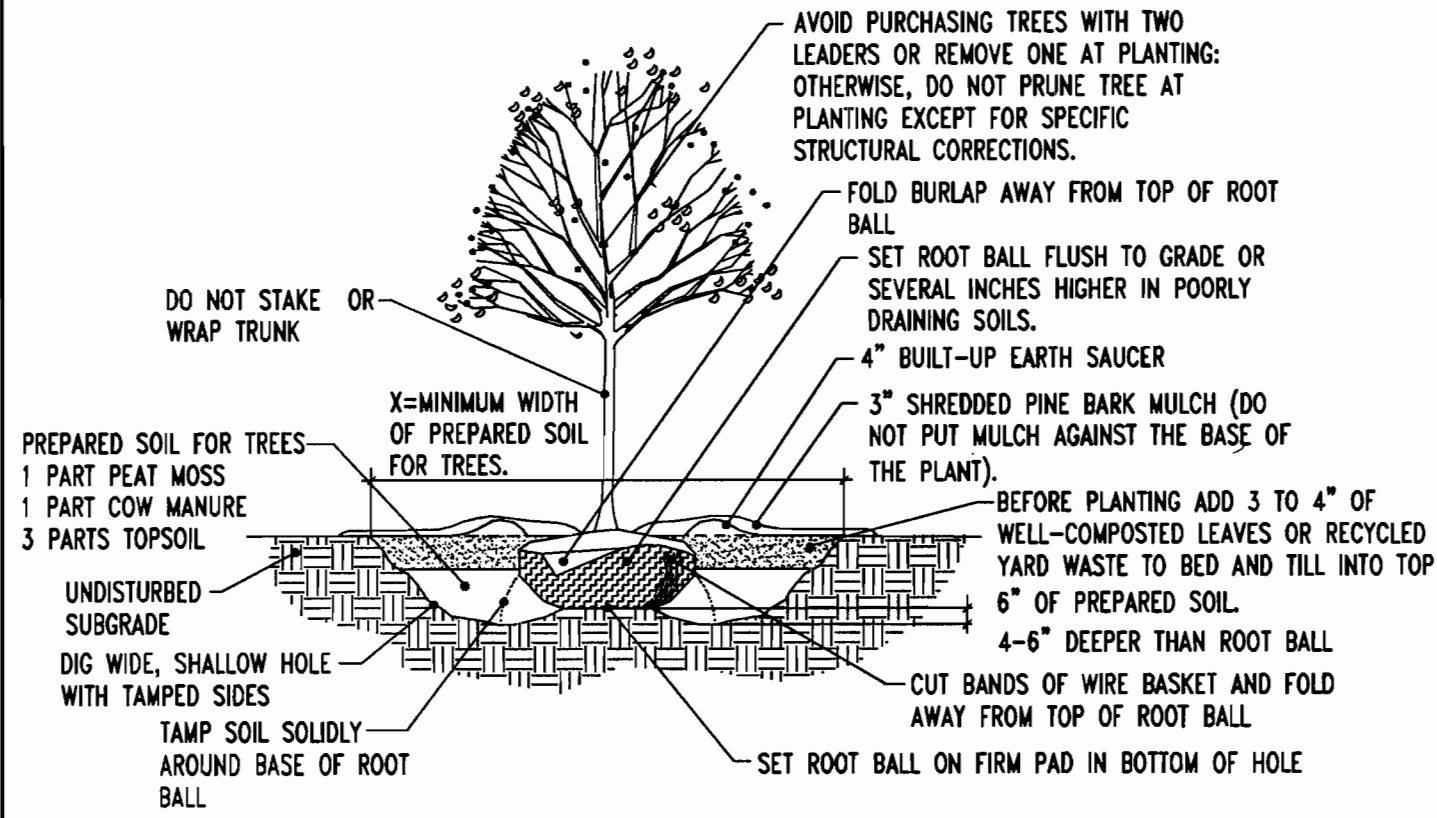
BOHLER ENGINEERING, P.C.
PROFESSIONAL ENGINEERING SERVICES
810 Glenegles Court, Suite 300, Towson, Maryland
CONTACT: Michael Gesell
(410) 881-7900 FAX: (410) 881-7987 WWW.BOHLERENG.COM

DESIGNED BY: MJG
DRAWN BY: TAC
PROJECT NO.: M0049006
DATE: 9/27/06
SCALE: AS SHOWN
DRAWING NO.: 15 OF 22
PROFESSIONAL ENGINEER NO. 28567

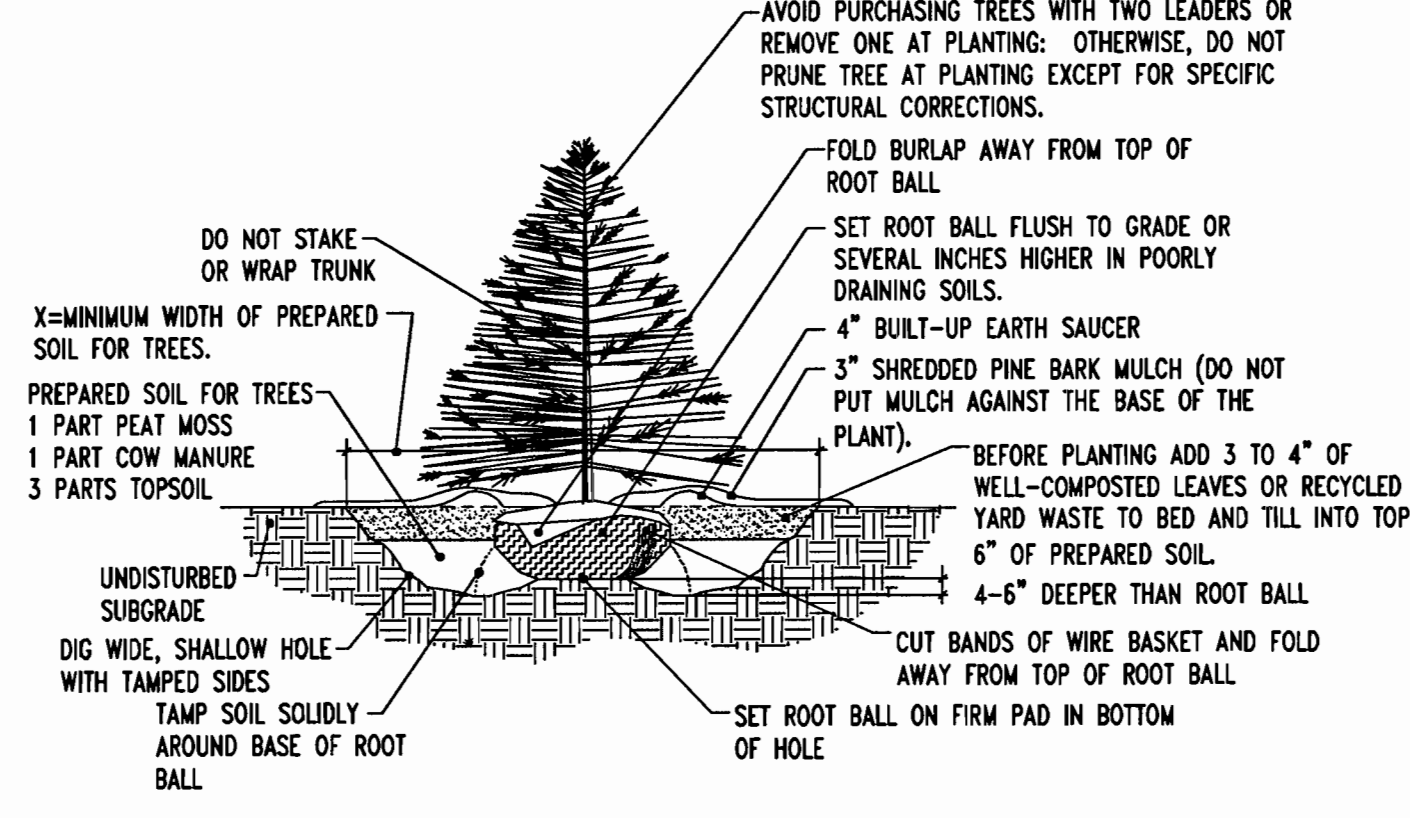
SDP-06-98

NOTES FOR DECIDUOUS AND EVERGREEN TREE PLANTINGS:

- NO SOIL OR MULCH SHALL BE PLACED AGAINST ROOT COLLAR OF PLANT.
- REMOVE ALL ROPE FROM TRUNK & TOP OF ROOT BALL. FOLD BURLAP BACK 1/3 FROM TOP OF ROOT BALL.
- PLANTING DEPTH SHALL BE THE SAME AS GROWN IN NURSERY.
- THOROUGHLY SOAK THE TREE ROOT BALL AND ADJACENT PREPARED SOIL SEVERAL TIMES DURING THE FIRST MONTH AFTER PLANTING AND REGULARLY THROUGHOUT THE FOLLOWING TWO SUMMERS.
- THE BOTTOM OF PLANTING PIT EXCAVATIONS SHOULD BE ROUGH TO AVOID MATING OF SOIL LAYERS AS NEW SOIL IS ADDED. IT IS PREFERABLE TO TILL THE FIRST LIFT (2 TO 3 IN.) OF PLANTING SOIL INTO THE SUBSOIL.



REFERENCE: ARCHITECTURAL GRAPHIC STANDARDS 1998 CUMULATIVE SUPPLEMENT.
DECIDUOUS TREE PLANTING DETAIL
NOT TO SCALE



REFERENCE: ARCHITECTURAL GRAPHIC STANDARDS 1998 CUMULATIVE SUPPLEMENT.
EVERGREEN TREE PLANTING DETAIL
NOT TO SCALE

GENERAL RANGE OF SOIL MODIFICATIONS & VOLUMES FOR VARIOUS SOIL CONDITIONS

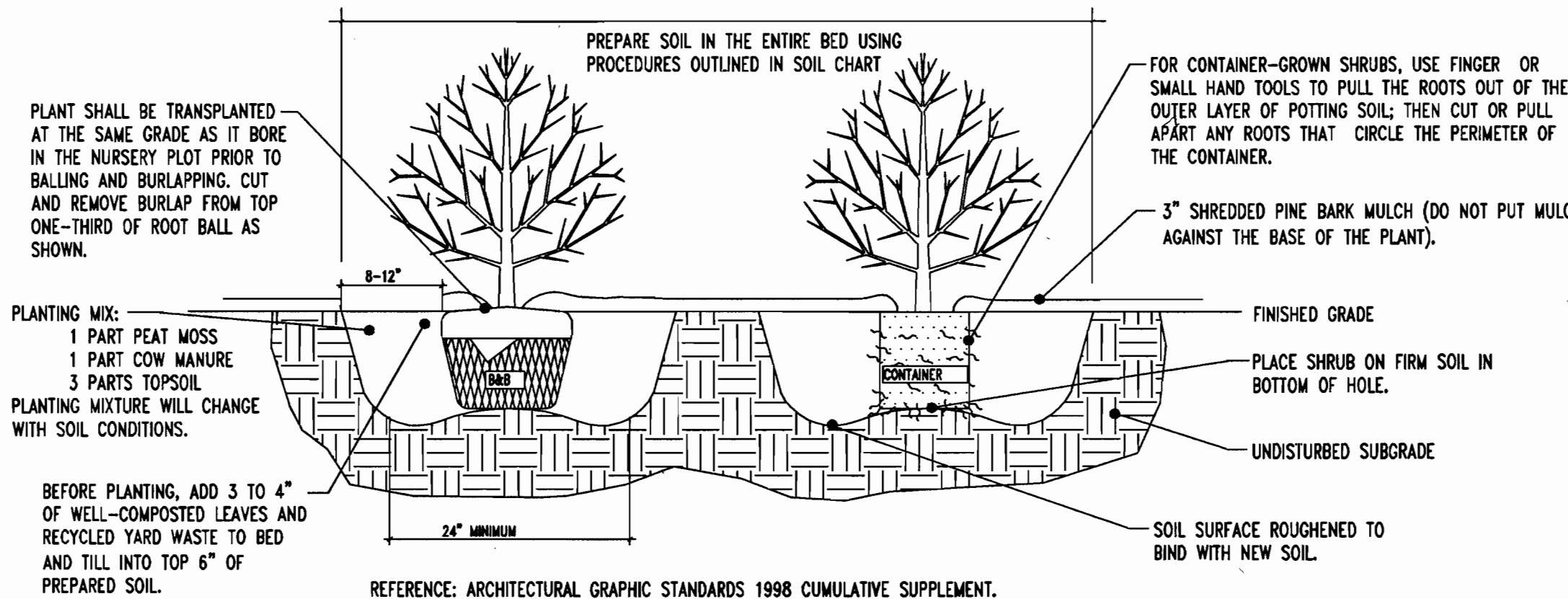
POST-CONSTRUCTION SOIL CONDITION	MIN. WIDTH PREPARED SOIL FOR TREES (X)	TYPE OF PREPARATION
GOOD SOIL (NOT PREVIOUSLY GRADED OR COMPACTED, TOPSOIL LAYER INTACT)	6 FT. OR TWICE THE WIDTH OF THE ROOT BALL, WHICHEVER IS GREATER	LOOSEN THE EXISTING SOILS TO THE WIDTHS AND DEPTHS SHOWN IN DETAILS ABOVE.
COMPACTED SOIL (NOT PREVIOUSLY GRADED, TOPSOIL LAYER DISTURBED BUT NOT ELIMINATED)	15 FT.	LOOSEN THE EXISTING SOILS TO THE WIDTHS AND DEPTHS SHOWN IN DETAILS ABOVE; ADD COMPOSTED ORGANIC CONTENT UP TO 5% DRY WEIGHT.
GRADED SUBSOILS AND CLEAN FILLS WITH CLAY CONTENT BETWEEN 5 & 35%	20 FT.	MINIMUM TREATMENT: LOOSEN EXISTING SOIL TO WIDTHS AND DEPTHS SHOWN, ADD COMPOSTED ORGANIC MATTER TO BRING ORGANIC CONTENT UP TO 5% DRY WEIGHT. OPTIMUM TREATMENT: REMOVE TOP 8-10 IN. OR THE EXISTING SOILS TO THE WIDTHS AND DEPTHS SHOWN, ADD 8-10 IN. OF LOAM TOPSOIL.
POOR QUALITY FILLS, HEAVY CLAY SOILS, SOILS CONTAMINATED WITH RUBBLE OR TOXIC MATERIAL	20 FT.	REMOVE EXISTING SOILS TO THE WIDTHS AND DEPTHS CONTAMINATED WITH RUBBLE OR TOXIC MATERIAL

REFERENCE: ARCHITECTURAL GRAPHIC STANDARDS 1998 CUMULATIVE SUPPLEMENT.

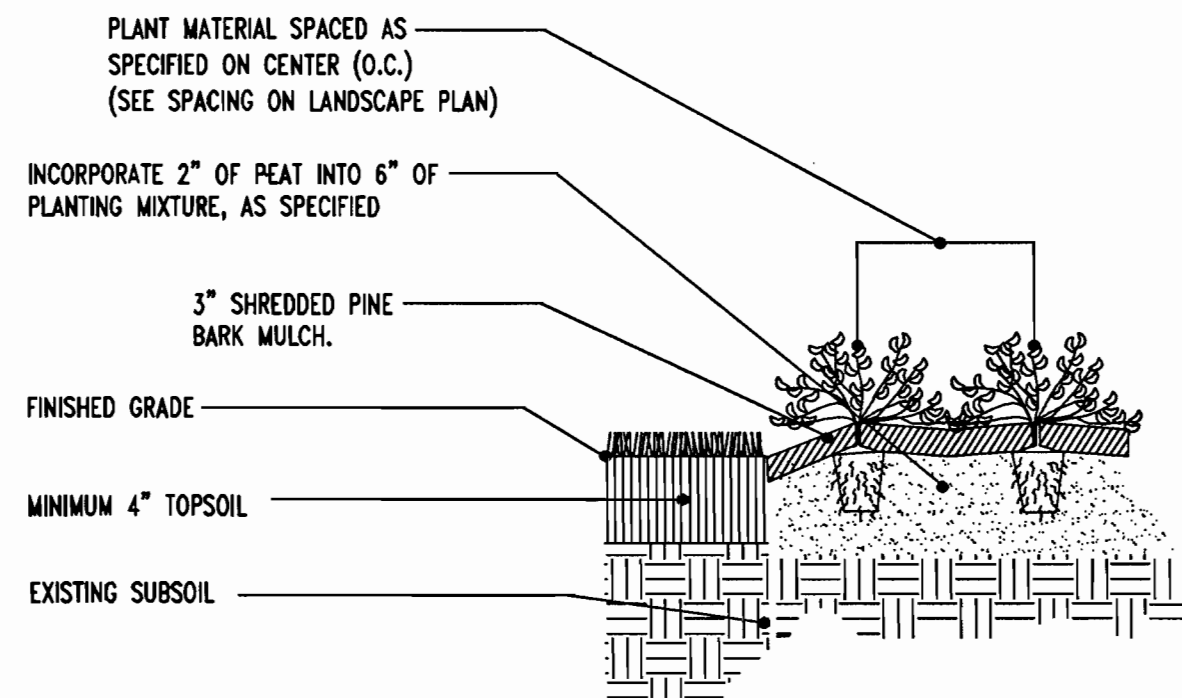
SEEDING SPECIFICATIONS

- PRIOR TO SEEDING, AREA IS TO BE TOPSOILED, FINE GRADED, AND RAKED OF ALL DEBRIS LARGER THAN 2" DIAMETER.
- PRIOR TO SEEDING, CONSULT MANUFACTURER'S RECOMMENDATIONS AND INSTRUCTIONS.
- SEEDING RATES:

PERENNIAL RYEGRASS	1/2 LB/1,000 SQ FT
KENTUCKY BLUEGRASS	1 LB/1,000 SQ FT
RED FESCUE	1 1/2 LBS/1,000 SQ FT
SPREADING FESCUE	1 1/2 LBS/1,000 SQ FT
FERTILIZER (20:10:10)	14 LBS/1,000 SQ FT
MULCH	90 LBS/1,000 SQ FT
- GERMINATION RATES WILL VARY AS TO TIME OF YEAR FOR SOWING. CONTRACTOR TO IRRIGATE SEEDED AREA UNTIL AN ACCEPTABLE STAND OF COVER IS ESTABLISHED BY OWNER.



REFERENCE: ARCHITECTURAL GRAPHIC STANDARDS 1998 CUMULATIVE SUPPLEMENT.
DECIDUOUS AND EVERGREEN SHRUB PLANTING DETAIL
NOT TO SCALE



PERENNIAL/GROUND COVER PLANTING DETAIL
NOT TO SCALE

PLANNING BOARD APPROVAL STAMP

APPROVED: DEPARTMENT OF PLANNING AND ZONING
 CHIEF-DEVELOPMENT ENGINEERING DIVISION - DATE: 12/11/06
 CHIEF-DIVISION & LAND DEVELOPMENT - DATE: 12/11/06
 DIRECTOR - DATE: 12/11/06

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS.
 COUNTY HEALTH OFFICER - DATE: 12/18/06
 HOWARD COUNTY HEALTH DEPARTMENT - DATE: 1/18/07

APPROVED
 PLANNING BOARD
 OF HOWARD COUNTY
 DATE: 8-31-06

LANDSCAPE SPECIFICATIONS

- SCOPE OF WORK:** THE LANDSCAPE CONTRACTOR SHALL BE REQUIRED TO PERFORM ALL CLEARING, FINISHED GRADING, SOIL PREPARATION, PERMANENT SEEDING OR SOILING, PLANTING AND FINISHING MATERIALS, TOOLS AND EQUIPMENT NECESSARY FOR THE COMPLETION OF THIS PROJECT, UNLESS OTHERWISE CONTRACTED BY THE GENERAL CONTRACTOR.
- MATERIALS**
 - GENERAL - ALL HARDSCAPE MATERIALS SHALL MEET OR EXCEED SPECIFICATIONS AS OUTLINED IN THE STATE DEPARTMENT OF TRANSPORTATION'S SPECIFICATIONS.
 - TOPSOIL - NATURAL, FRIABLE, LOAMY SILT SOIL HAVING AN ORGANIC CONTENT NOT LESS THAN 5%, A PH RANGE BETWEEN 4.5-7.0. IT SHALL BE FREE OF DEBRIS, ROCKS LARGER THAN ONE INCH (1"), WOOD, ROOTS, VEGETABLE MATTER AND CLAY CLODS.
 - LAWN - ALL DISTURBED AREAS ARE TO BE TREATED WITH A MINIMUM SIX INCH (6") THICK LAYER OF TOPSOIL, OR AS DIRECTED BY THE LOCAL ORDINANCE OR CLIENT, AND SEEDED OR SODDED IN ACCORDANCE WITH THE PERMANENT STABILIZATION METHODS INDICATED WITHIN THE SOIL EROSION AND SEDIMENT CONTROL NOTES.
 - LAWN SEED MIXTURE SHALL BE FRESH, CLEAN NEW CROP SEED.
 - SOD SHALL BE STRONGLY ROOTED, WEED AND DISEASE/PEST FREE WITH A UNIFORM THICKNESS. SOD INSTALLED ON SLOPES GREATER THAN 4:1 SHALL BE PEGGED TO HOLD SOD IN PLACE.
 - MULCH - ALL PLANTING BEDS SHALL BE MULCHED WITH A 3" THICK LAYER OF DOUBLE SHREDDED HARDWOOD BARK MULCH, UNLESS OTHERWISE STATED ON THE LANDSCAPE PLAN.
- FERTILIZER**
 - FERTILIZER SHALL BE DELIVERED TO THE SITE MIXED AS SPECIFIED IN THE ORIGINAL UNOPENED STANDARD BAGS SHOWING WEIGHT, ANALYSIS AND NAME OF MANUFACTURER. FERTILIZER SHALL BE STORED IN A WEATHERPROOF PLACE SO THAT IT CAN BE KEPT DRY PRIOR TO USE.
 - FOR THE PURPOSE OF BIDDING, ASSUME THAT FERTILIZER SHALL BE 10% NITROGEN, 6% PHOSPHORUS AND 4% POTASSIUM BY WEIGHT. A FERTILIZER SHOULD NOT BE SELECTED WITHOUT A SOIL TEST PERFORMED BY A CERTIFIED SOIL LABORATORY.
- PLANT MATERIAL**
 - ALL PLANTS SHALL IN ALL CASES CONFORM TO THE REQUIREMENTS OF THE "AMERICAN STANDARD FOR NURSERY STOCK" (ANSI Z60.1), LATEST EDITION, AS PUBLISHED BY THE AMERICAN NURSERY & LANDSCAPE ASSOCIATION.
 - IN ALL CASES, BOTANICAL NAMES SHALL TAKE PRECEDENCE OVER COMMON NAMES FOR ANY AND ALL PLANT MATERIAL.
 - PLANTS SHALL BE LEGIBLY TAGGED WITH THE PROPER NAME AND SIZE. TAGS ARE TO REMAIN ON AT LEAST ONE PLANT OF EACH SPECIES FOR VERIFICATION PURPOSES DURING THE FINAL INSPECTION.
 - TREES WITH ABRASION OF THE BARK, SUN SCALDS, DISFIGURATION OR FRESH CUTS OF LIMBS OVER 1/4", WHICH HAVE NOT BEEN COMPLETELY CALLEDUS, SHALL BE REJECTED. PLANTS SHALL NOT BE BOUND WITH WIRE OR ROPE AT ANY TIME SO AS TO DAMAGE THE BARK OR BREAK BRANCHES.
 - ALL PLANTS SHALL BE TYPICAL OF THEIR SPECIES OR VARIETY AND SHALL HAVE A NORMAL HABIT OF GROWTH: WELL DEVELOPED BRANCHES, DENSELY FOLIATED, VIGOROUS ROOT SYSTEMS AND BE FREE OF DISEASE, INSECTS, PESTS, GOS OR LARVAE.
 - CALIPER MEASUREMENTS OF NURSERY GROWN TREES SHALL BE TAKEN AT A POINT ON THE TRUNK SIX INCHES (6") ABOVE THE NATURAL GRADE FOR TREES UP TO AND INCLUDING FOUR INCH (4") CALIPER SIZE. IF THE CALIPER AT SIX INCHES (6") ABOVE THE GROUND EXCEEDS FOUR INCHES (4") IN CALIPER, THE CALIPER SHOULD BE MEASURED AT A POINT 12" ABOVE THE NATURAL GRADE.
 - SHRUBS SHALL BE MEASURED TO THE AVERAGE HEIGHT OR SPREAD OF THE SHRUB, AND NOT TO THE LONGEST BRANCH.
 - TREES AND SHRUBS SHALL BE HANDLED WITH CARE BY THE ROOT BALL.
- GENERAL WORK PROCEDURES**
 - CONTRACTOR TO UTILIZE WORKMANLIKE INDUSTRY STANDARDS IN PERFORMING ALL LANDSCAPE CONSTRUCTION. THE SITE IS TO BE LEFT IN A CLEAN STATE AT THE END OF EACH WORKDAY. ALL DEBRIS, MATERIALS AND TOOLS SHALL BE PROPERLY STORED, STOCKPILED OR DISPOSED OF.
 - WASTE MATERIALS AND DEBRIS SHALL BE COMPLETELY DISPOSED OF AT THE CONTRACTOR'S EXPENSE. DEBRIS SHALL NOT BE BURIED, INCLUDING ORGANIC MATERIALS, BUT SHALL BE REMOVED COMPLETELY FROM THE SITE.
- SITE PREPARATIONS**
 - BEFORE AND DURING PRELIMINARY GRADING AND FINISHED GRADING, ALL WEEDS AND GRASSES SHALL BE DUG OUT BY THE ROOTS AND DISPOSED OF IN ACCORDANCE WITH GENERAL WORK PROCEDURES OUTLINED HEREIN.
 - ALL EXISTING TREES TO REMAIN SHALL BE PRUNED TO REMOVE ANY DAMAGED BRANCHES. THE ENTIRE LIMB OF ANY DAMAGED BRANCH SHALL BE CUT OFF AT THE TRUNK. CONTRACTOR SHALL ENSURE THAT CUTS ARE SMOOTH AND STRAIGHT. ANY EXPOSED ROOTS SHALL BE CUT BACK WITH CLEAN, SHARP TOOLS AND TOPSOIL SHALL BE PLACED AROUND THE REMAINDER OF THE ROOTS. EXISTING TREES SHALL BE MONITORED ON A REGULAR BASIS FOR ADDITIONAL ROOT OR BRANCH DAMAGE AS A RESULT OF CONSTRUCTION. ROOTS SHALL NOT BE LEFT EXPOSED FOR MORE THAN ONE (1) DAY. CONTRACTOR SHALL WATER EXISTING TREES AS NEEDED TO PREVENT SHOCK OR DECLINE.
 - CONTRACTOR SHALL ARRANGE TO HAVE A UTILITY STAKE-OUT TO LOCATE ALL UNDERGROUND UTILITIES PRIOR TO INSTALLATION OF ANY LANDSCAPE MATERIAL. UTILITY COMPANIES SHALL BE CONTACTED THREE (3) DAYS PRIOR TO THE BEGINNING OF WORK.
- TREE PROTECTION**
 - CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL EXISTING TREES TO REMAIN. A TREE PROTECTION ZONE SHALL BE ESTABLISHED AT THE DRIP LINE OR 15 FEET FROM THE TRUNK OR AT THE LIMIT OF CONSTRUCTION DISTURBANCE, WHICHEVER IS GREATER. LOCAL STANDARDS THAT MAY REQUIRE A MORE STRICT TREE PROTECTION ZONE SHALL BE HONORED.
 - A FORTY-EIGHT INCH (48") HIGH WOODEN SNOW FENCE OR ORANGE COLORED HIGH-DENSITY "YEST-PROTECT" OR APPROVED EQUAL, MOUNTED ON STEEL POSTS SHALL BE PLACED ALONG THE BOUNDARY OF THE TREE PROTECTION ZONE. POSTS SHALL BE LOCATED AT A MAXIMUM OF EIGHT FEET (8") ON CENTER OR AS INDICATED WITHIN THE TREE PROTECTION DETAIL.
 - WHEN THE TREE PROTECTION FENCING HAS BEEN INSTALLED, IT SHALL BE INSPECTED BY THE APPROVING AGENCY PRIOR TO DEMOLITION, GRADING, TREE CLEARING OR ANY OTHER CONSTRUCTION. THE FENCING ALONG THE TREE PROTECTION ZONE SHALL BE REGULARLY INSPECTED BY THE LANDSCAPE CONTRACTOR AND MAINTAINED UNTIL ALL CONSTRUCTION ACTIVITY HAS BEEN COMPLETED.
 - AT NO TIME SHALL MACHINERY, DEBRIS, FALLEN TREES OR OTHER MATERIALS BE PLACED, STOCKPILED OR LEFT STANDING IN THE TREE PROTECTION ZONE.
- SOIL MODIFICATIONS**
 - CONTRACTOR SHALL ATTAIN A SOIL TEST FOR ALL AREAS OF THE SITE PRIOR TO CONDUCTING ANY PLANTING. SOIL TESTS SHALL BE PERFORMED BY A CERTIFIED SOIL LABORATORY.
 - LANDSCAPE CONTRACTOR SHALL REPORT ANY SOIL OR DRAINAGE CONDITIONS CONSIDERED DETRIMENTAL TO THE GROWTH OF PLANT MATERIAL. SOIL MODIFICATIONS, AS SPECIFIED HEREIN, MAY NEED TO BE CONDUCTED BY THE LANDSCAPE CONTRACTOR DEPENDING ON SITE CONDITIONS.
 - THE FOLLOWING AMENDMENTS AND QUANTITIES ARE APPROXIMATE AND ARE FOR BIDDING PURPOSES ONLY. COMPOSITION OF AMENDMENTS SHOULD BE REVISED DEPENDING ON THE OUTCOME OF A TOPSOIL ANALYSIS PERFORMED BY A CERTIFIED SOIL LABORATORY.
 - TO INCREASE A SANDY SOIL'S ABILITY TO RETAIN WATER AND NUTRIENTS, THOROUGHLY TILL ORGANIC MATTER INTO THE TOP 6-12". USE COMPOSTED BARK, COMPOSTED LEAF MULCH OR PEAT MOSS. ALL PRODUCTS SHOULD BE COMPOSTED TO A DARK COLOR AND BE FREE OF PIECES WITH IDENTIFIABLE LEAF OR WOOD STRUCTURE. AVOID MATERIAL WITH A PH HIGHER THAN 7.5.
 - TO INCREASE DRAINAGE, MODIFY HEAVY CLAY OR SILT (MORE THAN 40% CLAY OR SILT) BY ADDING COMPOSTED PINE BARK (UP TO 50% BY VOLUME) AND/OR AGRICULTURAL GYPSON. COARSE SAND MAY BE USED IF ENOUGH IS ADDED TO BRING THE SAND CONTENT TO MORE THAN 60% OF THE TOTAL MIX. SUBSURFACE DRAINAGE LINES MAY NEED TO BE ADDED TO INCREASE DRAINAGE.
 - MODIFY EXTREMELY SANDY SOILS (MORE THAN 85%) BY ADDING ORGANIC MATTER AND/OR DRY, SHREDDED CLAY LOAM UP TO 30% OF THE TOTAL MIX.
- FINISHED GRADING**
 - UNLESS OTHERWISE CONTRACTED, THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION OF TOPSOIL AND THE ESTABLISHMENT OF FINE-GRADING WITHIN THE DISTURBANCE AREA OF THE SITE.
 - LANDSCAPE CONTRACTOR SHALL VERIFY THAT SUBGRADE FOR INSTALLATION OF TOPSOIL HAS BEEN ESTABLISHED. THE SUBGRADE OF THE SITE MUST MEET THE FINISHED GRADE LESS THE REQUIRED TOPSOIL THICKNESS (1"±).
 - ALL LAWN AND PLANTING AREAS SHALL BE GRADED TO A SMOOTH, EVEN AND UNIFORM PLANE WITH NO ABRUPT CHANGE OF SURFACE AS SPECIFIED WITHIN THIS SET OF CONSTRUCTION PLANS, UNLESS OTHERWISE DIRECTED BY THE PROJECT ENGINEER OR LANDSCAPE ARCHITECT.
 - ALL PLANTING AREAS SHALL BE GRADED AND MAINTAINED TO ALLOW FREE FLOW OF SURFACE WATER IN AND AROUND THE PLANTING BEDS. STANDING WATER SHALL NOT BE PERMITTED IN PLANTING BEDS.
- TOPSOILING**
 - CONTRACTOR SHALL PROVIDE A SIX INCH (6") THICK MINIMUM LAYER OF TOPSOIL, OR AS DIRECTED BY THE LOCAL ORDINANCE OR CLIENT, IN ALL PLANTING AREAS. TOPSOIL SHOULD BE SPREAD OVER A PREPARED SURFACE IN A UNIFORM LAYER TO ACHIEVE THE DESIRED COMPACTED THICKNESS.
 - ON-SITE TOPSOIL MAY BE USED TO SUPPLEMENT THE TOTAL AMOUNT REQUIRED. TOPSOIL FROM THE SITE MAY BE REJECTED IF IT HAS NOT BEEN PROPERLY REMOVED, STORED AND PROTECTED PRIOR TO CONSTRUCTION.
 - CONTRACTOR SHALL FURNISH TO THE APPROVING AGENCY AN ANALYSIS OF BOTH IMPORTED AND ON-SITE TOPSOIL TO BE UTILIZED IN ALL PLANTING AREAS. THE PH AND NUTRIENT LEVELS MAY NEED TO BE ADJUSTED THROUGH SOIL MODIFICATIONS AS NEEDED TO ACHIEVE THE REQUIRED LEVELS AS SPECIFIED IN THE MATERIALS SECTION ABOVE.
- ALL PLANTING AND LAWN AREAS ARE TO BE CULTIVATED TO A DEPTH OF SIX INCHES (6"). ALL DEBRIS EXPOSED FROM EXCAVATION AND CULTIVATION SHALL BE DISPOSED OF IN ACCORDANCE WITH GENERAL WORK PROCEDURES SECTION ABOVE. THE FOLLOWING SHALL BE TILLED INTO THE TOP FOUR INCHES (4") IN TWO DIRECTIONS (QUANTITIES BASED ON A 1,000 SQUARE FOOT AREA):
 - 20 POUNDS "GROW POWER" OR APPROVED EQUAL.
 - 20 POUNDS NITRO-FORM (COURSE) 38-0-0 BLUE CHIP.
- THE SPREADING OF TOPSOIL SHALL NOT BE CONDUCTED UNDER MUDDY OR FROZEN CONDITIONS.
- PLANTING**
 - INsofar THAT IT IS FEASIBLE, PLANT MATERIAL SHALL BE PLANTED ON THE DAY OF DELIVERY. IN THE EVENT THAT THIS IS NOT POSSIBLE, LANDSCAPE CONTRACTOR SHALL PROTECT UNINSTALLED PLANT MATERIAL. PLANTS SHALL NOT REMAIN UNPLANTED FOR LONGER THAN A THREE DAY PERIOD AFTER DELIVERY. PLANTS THAT WILL NOT BE PLANTED FOR A PERIOD OF THE GREATER THAN THREE DAYS SHALL BE HEALED IN WITH TOPSOIL OR MULCH TO HELP PRESERVE ROOT MOISTURE.
 - PLANTING OPERATIONS SHALL BE PERFORMED DURING PERIODS WITHIN THE PLANTING SEASON WHEN WEATHER AND SOIL CONDITIONS ARE SUITABLE AND IN ACCORDANCE WITH ACCEPTED LOCAL PRACTICE. PLANTS SHALL NOT BE INSTALLED IN TOPSOIL THAT IS IN A MUDDY OR FROZEN CONDITION.
 - ANY INJURED ROOTS OR BRANCHES SHALL BE PRUNED TO MAKE CLEAN-CUT ENDS PRIOR TO PLANTING UTILIZING CLEAN, SHARP TOOLS. ONLY INJURED OR DISEASED BRANCHING SHALL BE REMOVED.
 - ALL PLANTING CONTAINERS, BASKETS AND NON-Biodegradable MATERIALS SHALL BE REMOVED FROM ROOT BALLS DURING PLANTING. NATURAL FIBER BURLAP MUST BE CUT FROM AROUND THE TRUNK OF THE TREE AND FOLDED DOWN AGAINST THE ROOT BALL PRIOR TO BACKFILLING.
 - POSITION TREES AND SHRUBS AT THEIR INTENDED LOCATIONS AS PER THE PLANS AND SECURE THE APPROVAL OF THE LANDSCAPE ARCHITECT PRIOR TO EXCAVATING PITS, MAKING NECESSARY ADJUSTMENTS AS DIRECTED.
 - PRIOR TO THE ISSUANCE OF ANY CERTIFICATE OF OCCUPANCY, THE PROPOSED LANDSCAPE, AS SHOWN ON THE APPROVED LANDSCAPE PLAN, MUST BE INSTALLED, INSPECTED AND APPROVED BY THE APPROVING AGENCY. THE APPROVING AGENCY SHALL TAKE INTO ACCOUNT SEASONAL CONSIDERATIONS IN THIS REGARD AS FOLLOWS:
 - PLANTS: MARCH 15 TO DECEMBER 15
 - LAWN: MARCH 15 TO JUNE 15 OR SEPT. 1 TO DECEMBER 1
- PLANTINGS REQUIRED FOR A CERTIFICATE OF OCCUPANCY SHALL BE PROVIDED DURING THE NEXT APPROPRIATE SEASON AT THE MUNICIPALITY'S DISCRETION. CONTRACTOR SHOULD CONTACT APPROVING AGENCY FOR POTENTIAL SUBSTITUTIONS.
- FURTHERMORE, THE FOLLOWING TREE VARIETIES ARE UNUSUALLY SUSCEPTIBLE TO WINTER DAMAGE. WITH TRANSPLANT SHOCK AND THE SEASONAL LACK OF NITROGEN AVAILABILITY, THE RISK OF PLANT DEATH IS GREATLY INCREASED. IT IS NOT RECOMMENDED THAT THESE SPECIES BE PLANTED DURING THE FALL PLANTING SEASON:

ACER RUBRUM	PLATANUS X ACERIFOLIA
BETULA VARIETIES	POPULUS VARIETIES
CARPINUS VARIETIES	PRUNUS VARIETIES
CRATAEGUS VARIETIES	PYRUS VARIETIES
KOELERUTERIA	QUERCUS VARIETIES
LIQUIDAMBER STRYACIFLUA	TILIA TOMENTOSA
LIRIODENDRON TULIPEIRA	ZELKOVA VARIETIES
- PLANTING PITS SHALL BE DUG WITH LEVEL BOTTOMS, WITH THE WIDTH TWICE THE DIAMETER OF ROOT BALL. THE ROOT BALL SHALL REST ON UNDISTURBED GRADE. EACH PLANT PIT SHALL BE BACKFILLED IN LAYERS WITH THE FOLLOWING PREPARED SOIL MIXED THOROUGHLY:
 - 1 PART PEAT MOSS
 - 1 PART COMPOSTED COW MANURE BY VOLUME
 - 3 PARTS TOPSOIL BY VOLUME
- 21 GRAMS "AGRIFORM" PLANTING TABLETS (OR APPROVED EQUAL) AS FOLLOWS:
 - 2 TABLETS PER 1 GALLON PLANT
 - 3 TABLETS PER 5 GALLON PLANT
 - 4 TABLETS PER 15 GALLON PLANT
 - LARGER PLANTS: 2 TABLETS PER 1/2" CALIPER OF TRUNK
- FILL PREPARED SOIL AROUND BALL OF PLANT HALF-WAY AND INSERT PLANT TABLETS. COMPLETE BACKFILL AND WATER THOROUGHLY.
- ALL PLANTS SHALL BE PLANTED SO THAT THE TOP OF THE ROOT BALL, THE POINT AT WHICH THE ROOT FLARE BEGINS, IS SET AT GROUND LEVEL AND IN THE CENTER OF THE PIT. NO SOIL IS TO BE PLACED DIRECTLY ON TOP OF THE ROOT BALL.
- ALL PROPOSED TREES DIRECTLY ADJACENT TO WALKWAYS OR DRIVEWAYS SHALL BE PRUNED AND MAINTAINED TO A MINIMUM BRANCHING HEIGHT OF 7' FROM GRADE.
- GROUND COVER AREAS SHALL RECEIVE A 1/4" LAYER OF HUMUS RAKED INTO THE TOP 1" OF PREPARED SOIL PRIOR TO PLANTING. ALL GROUND COVER AREAS SHALL BE WEEDED AND TREATED WITH A PRE-EMERGENT CHEMICAL AS PER MANUFACTURER'S RECOMMENDATION.
- NO PLANT, EXCEPT GROUND COVERS, GRASSES OR VINES, SHALL BE PLANTED LESS THAN TWO FEET (2') FROM EXISTING STRUCTURES AND SIDEWALKS.
- ALL PLANTING AREAS AND PLANTING PITS SHALL BE MULCHED AS SPECIFIED HEREIN TO FILL THE ENTIRE BED AREA OR SAUCER. NO MULCH IS TO TOUCH THE TRUNK OF THE TREE OR SHRUB.
- GROUND COVER AREAS SHALL BE WATERED IMMEDIATELY UPON INSTALLATION IN ACCORDANCE WITH THE WATERING SPECIFICATIONS AS LISTED HEREIN.
- TRANSPLANTING (WHEN REQUIRED)**
 - ALL TRANSPLANTS SHALL BE DUG WITH INTACT ROOT BALLS CAPABLE OF SUSTAINING THE PLANT.
 - IF PLANTS ARE TO BE STOCKPILED BEFORE REPLANTING, THEY SHALL BE HEALED IN WITH MULCH OR SOIL, ADEQUATELY WATERED AND PROTECTED FROM EXTREME HEAT, SUN AND WIND.
 - PLANTS SHALL NOT BE DUG FOR TRANSPLANTING BETWEEN APRIL 10 AND JUNE 30.
 - UPON REPLANTING, BACKFILL SOIL SHALL BE AMENDED WITH FERTILIZER AND ROOT GROWTH HORMONE.
 - TRANSPLANTS SHALL BE GUARANTEED FOR THE LENGTH OF THE GUARANTEE PERIOD SPECIFIED HEREIN.
 - IF TRANSPLANTS DIE, SHRUBS AND TREES LESS THAN SIX INCHES (6") DBH SHALL BE REPLACED IN KIND. TREES GREATER THAN SIX INCHES (6") DBH MAY BE REQUIRED TO BE REPLACED IN ACCORDANCE WITH THE MUNICIPALITY'S TREE REPLACEMENT GUIDELINES.
- WATERING**
 - NEW PLANTINGS OR LAWN AREAS SHALL BE ADEQUATELY IRRIGATED BEGINNING IMMEDIATELY AFTER PLANTING. WATER SHALL BE APPLIED TO EACH TREE AND SHRUB IN SUCH MANNER AS NOT TO DISTURB BACKFILL AND TO THE EXTENT THAT ALL MATERIALS IN THE PLANTING HOLE ARE THOROUGHLY SATURATED. WATERING SHALL CONTINUE AT LEAST UNTIL PLANTS ARE ESTABLISHED.
 - SITE OWNER SHALL PROVIDE WATER IF AVAILABLE ON SITE AT TIME OF PLANTING. IF WATER IS NOT AVAILABLE ON SITE, CONTRACTOR SHALL SUPPLY ALL NECESSARY WATER. THE USE OF WATERING BAGS IS RECOMMENDED FOR ALL NEWLY PLANTED TREES.
 - IF AN IRRIGATION SYSTEM HAS BEEN INSTALLED ON THE SITE, IT SHALL BE USED TO WATER PROPOSED PLANT MATERIAL, BUT ANY FAILURE OF THE SYSTEM DOES NOT ELIMINATE THE CONTRACTOR'S RESPONSIBILITY OF MAINTAINING THE DESIRED MOISTURE LEVEL FOR VIGOROUS, HEALTHY GROWTH.
- GUARANTEE**
 - THE LANDSCAPE CONTRACTOR SHALL GUARANTEE ALL PLANTS FOR A PERIOD OF ONE (1) YEAR FROM APPROVAL OF LANDSCAPE INSTALLATION BY THE APPROVING AGENCY. CONTRACTOR SHALL SUPPLY THE OWNER WITH A MAINTENANCE BOND FOR TEN PERCENT (10%) OF THE VALUE OF THE LANDSCAPE INSTALLATION WHICH WILL BE RELEASED AT THE CONCLUSION OF THE GUARANTEE PERIOD AND WHEN A FINAL INSPECTION HAS BEEN COMPLETED AND APPROVED BY THE OWNER OR AUTHORIZED REPRESENTATIVE.
 - ANY DEAD OR DYING PLANT MATERIAL SHALL BE REPLACED FOR THE LENGTH OF THE GUARANTEE PERIOD. REPLACEMENT OF PLANT MATERIAL SHALL BE CONDUCTED AT THE FIRST SUCCEEDING PLANTING SEASON. ANY DEBRIS SHALL BE DISPOSED OF OFF-SITE, WITHOUT EXCEPTION.
- TREES AND SHRUBS SHALL BE MAINTAINED BY THE CONTRACTOR DURING CONSTRUCTION AND THROUGHOUT THE 90 DAY MAINTENANCE PERIOD AS SPECIFIED HEREIN: CULTIVATION, WEEDING, WATERING AND THE PREVENTATIVE TREATMENTS SHALL BE PERFORMED AS NECESSARY TO KEEP PLANT MATERIAL IN GOOD CONDITION AND FREE OF INSECTS AND DISEASE.
- LAWNS SHALL BE MAINTAINED THROUGHOUT THE MAINTENANCE PERIOD, INCLUDING WEEDING, MOWING, TRIMMING AND OTHER OPERATIONS SUCH AS ROLLING, REGARDING AND REPLANTING AS REQUIRED TO ESTABLISH A SMOOTH, ACCEPTABLE LAWN, FREE OF ERODED OR BARE AREAS.
- CLEANUP**
 - UPON THE COMPLETION OF ALL LANDSCAPE INSTALLATION AND BEFORE THE FINAL ACCEPTANCE, THE CONTRACTOR SHALL REMOVE ALL UNUSED MATERIALS, EQUIPMENT AND DEBRIS FROM THE SITE. ALL PAVED AREAS ARE TO BE CLEANED.
 - THE SITE SHALL BE CLEANED AND LEFT IN A NEAT AND ACCEPTABLE CONDITION AS APPROVED BY THE OWNER OR AUTHORIZED REPRESENTATIVE.
- MAINTENANCE (ALTERNATIVE BID)**
 - A 90 DAY MAINTENANCE PERIOD SHALL COMMENCE AT THE END OF ALL LANDSCAPE INSTALLATION OPERATIONS. THE 90 DAY MAINTENANCE PERIOD ENSURES TO THE OWNER/OPERATOR THAT THE NEWLY INSTALLED LANDSCAPING HAS BEEN MAINTAINED AS SPECIFIED ON THE APPROVED LANDSCAPE PLAN. ONCE THE INITIAL 90 DAY MAINTENANCE PERIOD HAS EXPIRED, THE OWNER/OPERATOR MAY REQUEST THAT BIDDERS SUBMIT AN ALTERNATE MAINTENANCE BID FOR A MONTHLY MAINTENANCE CONTRACT. THE ALTERNATE MAINTENANCE CONTRACT WILL ENCOMPASS ANY WORK THAT IS CONSIDERED APPROPRIATE TO ENSURE THAT PLANT AND LAWN AREAS ARE HEALTHY AND MANICURED TO THE APPROVAL OF THE OWNER/OPERATOR.

MISS UTILITY



BEFORE YOU BIG CALL
 CALL MISS UTILITY
 PROJECT: 1-800-377-7272
 WORKING DAYS NOTICE

THIS DRAWING DOES NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY. ALL CONSTRUCTION MUST BE DONE IN COMPLIANCE WITH THE OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970 AND ALL RULES AND REGULATIONS HERETO APPURTENANT.

THE CONTRACTOR TO CALL MISS UTILITY TO HAVE ALL EXISTING UTILITIES MARKED 48 HOURS PRIOR TO ANY CONSTRUCTION.

REV.	DATE	DESCRIPTION	BY

OWNER/DEVELOPER: KVC LIMITED PARTNERSHIP
 C/O KIMCO REALTY CORP.
 3333 NEW HYDE PARK ROAD
 SUITE 100
 NEW HYDE PARK, NY 11042-1205

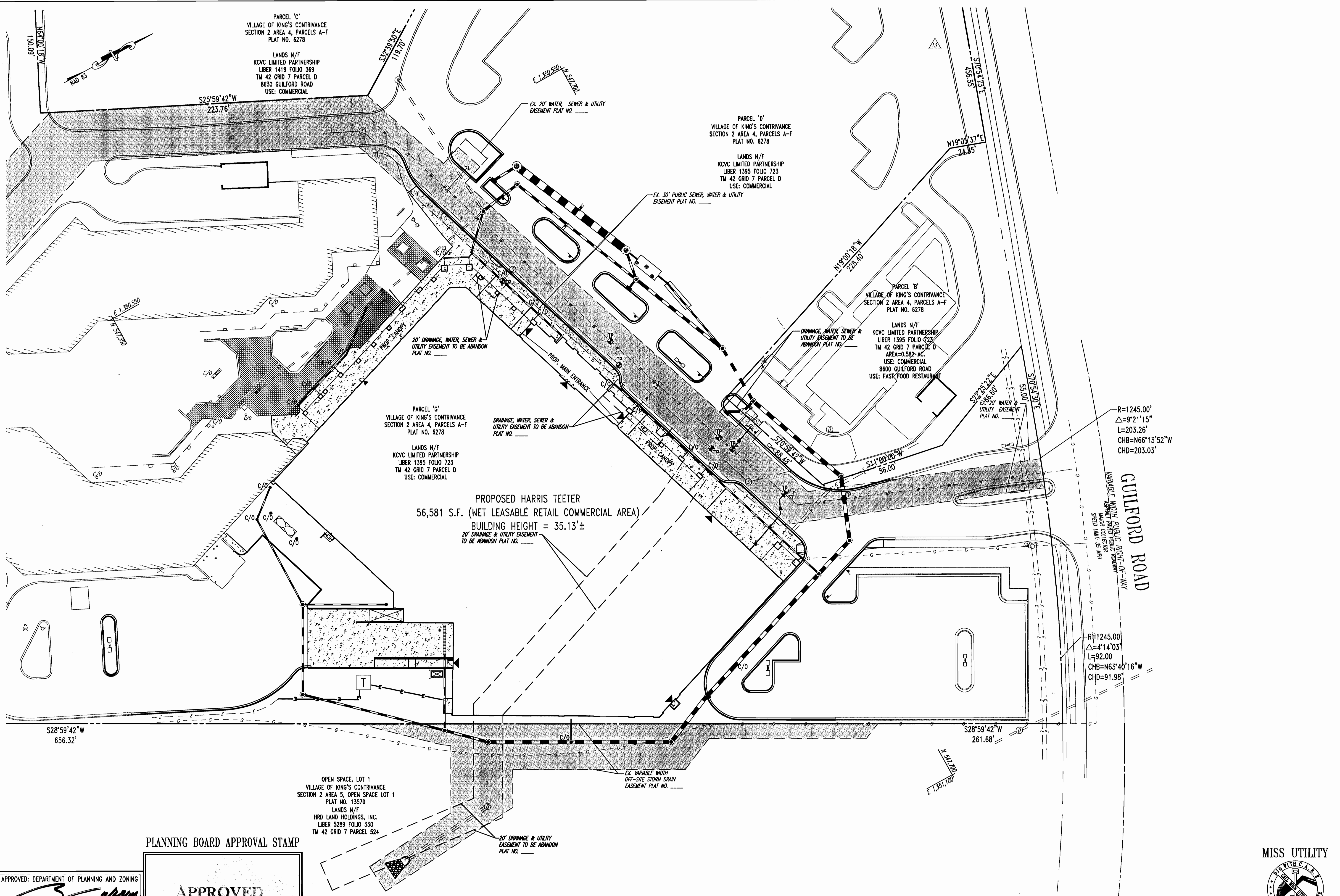
PROJECT: HARRIS TEETER - ONE STORY GROCERY STORE
 KING'S CONTRIVANCE VILLAGE CENTER
 8620 GUILFORD ROAD
 COLUMBIA, MARYLAND 21046

AREA: TAX MAP 42 GRID 7 ZONED MF-COVM
 PARCEL G
 VILLAGE OF KING'S CONTRIVANCE
 6TH ELECTION DISTRICT
 COLUMBIA, HOWARD COUNTY, MARYLAND

LANDSCAPE DETAILS

BOHLER ENGINEERING, P.C.
 PROFESSIONAL ENGINEERING SERVICES
 810 Glenelghe Court, Suite 300, Towson, Maryland
 CONTACT: Michael George
 (410) 821-7900 FAX: (410) 821-7887 | WWW.BOHLERENG.COM

DESIGNED BY: MJG
 DRAWN BY: TAC
 PROJECT NO.: W049008
 DATE: 9/27/06
 SCALE: AS SHOWN
 DRAWING NO.: 17 OF 22



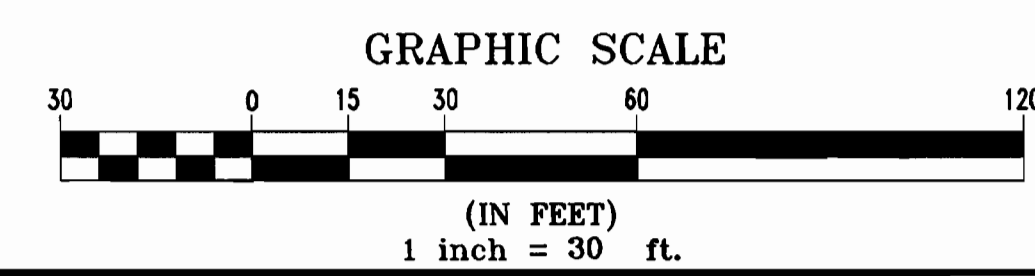
PLANNING BOARD APPROVAL STAMP

APPROVED
 PLANNING BOARD
 OF HOWARD COUNTY
 DATE 8.21.06

APPROVED: DEPARTMENT OF PLANNING AND ZONING
 CHIEF-DEVELOPMENT ENGINEERING DIVISION
 DATE 12/18/06
 CHIEF-DIVISION & LAND DEVELOPMENT
 DATE 12/18/06
 DIRECTOR

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS.
 COUNTY HEALTH OFFICER
 HOWARD COUNTY HEALTH DEPARTMENT
 DATE 12/18/06

THIS PLAN IS FOR INFORMATIONAL PURPOSES ONLY



LEGEND			
	EXISTING EASEMENT		

REV.	DATE	DESCRIPTION	BY

OWNER/DEVELOPER:
 KCVC LIMITED PARTNERSHIP
 C/O KIMCO REALTY CORP.
 3333 NEW HYDE PARK ROAD
 SUITE 100
 NEW HYDE PARK, NY 11042-1205

PROJECT: HARRIS TEETER - ONE STORY GROCERY STORE
 KING'S CONTRIVANCE VILLAGE CENTER
 8620 GUILFORD ROAD
 COLUMBIA, MARYLAND 21046

AREA: TAX MAP 42 GRID 7 ZONED NT-COMM
 VILLAGE OF KING'S CONTRIVANCE
 6TH ELECTION DISTRICT
 COLUMBIA, HOWARD COUNTY, MARYLAND

EASEMENT PLAN

BOHLER ENGINEERING, P.C.
 PROFESSIONAL ENGINEERING SERVICES
 810 Glenegles Court, Suite 300, Towson, Maryland
 CONTACT: Michael Gossel
 (410) 821-7900 FAX: (410) 821-7987 www.bohlereng.com

DESIGNED BY: MJG
 DRAWN BY: TAC
 PROJECT NO.: WDC49006
 DATE: 9/27/06
 SCALE: AS SHOWN
 DRAWING NO.: 18 OF 22

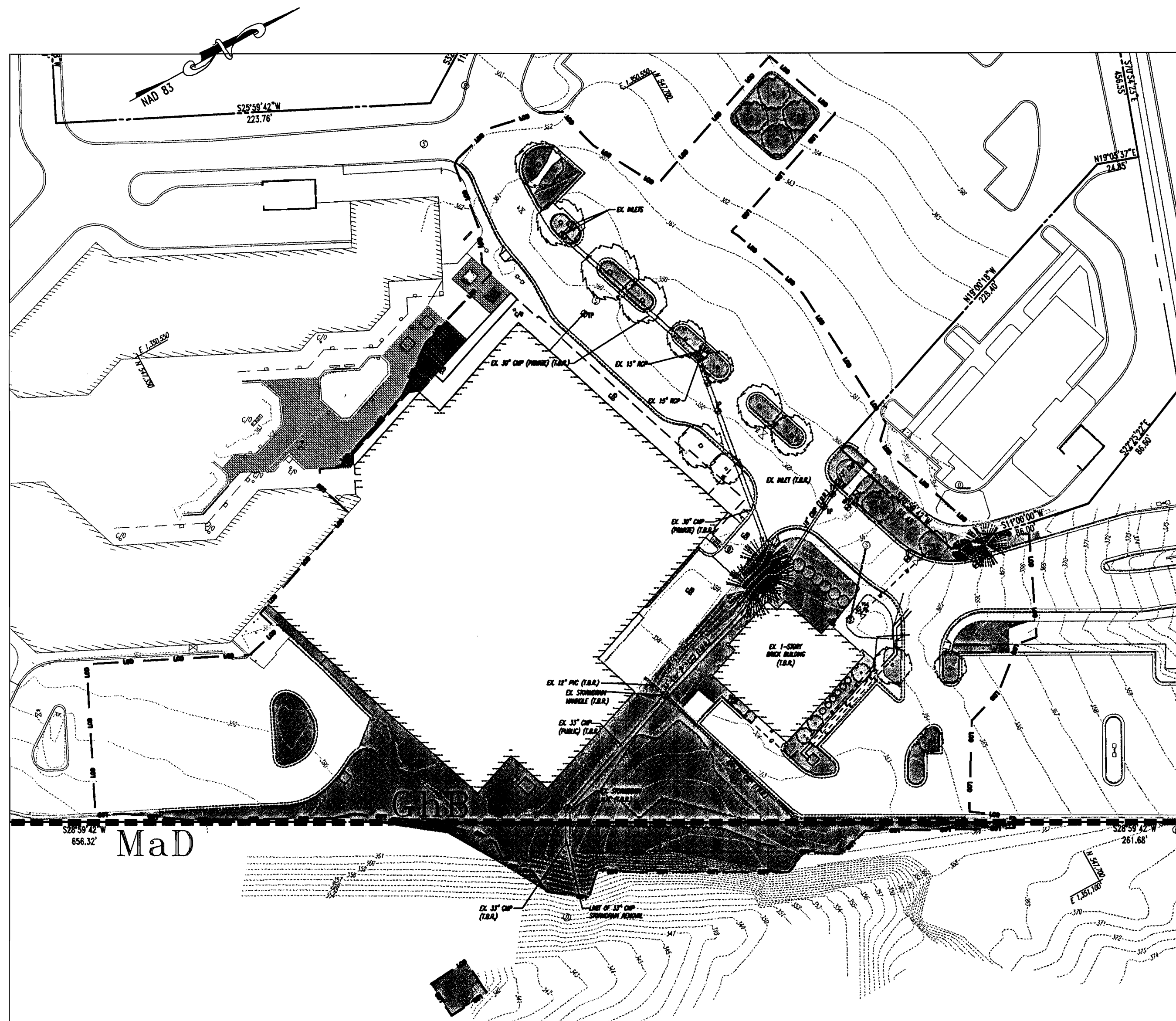
MISS UTILITY



BEFORE YOU DIG CALL 1-800-367-7777
 PROTECT YOURSELF, GIVE TWO WORKING DAYS NOTICE

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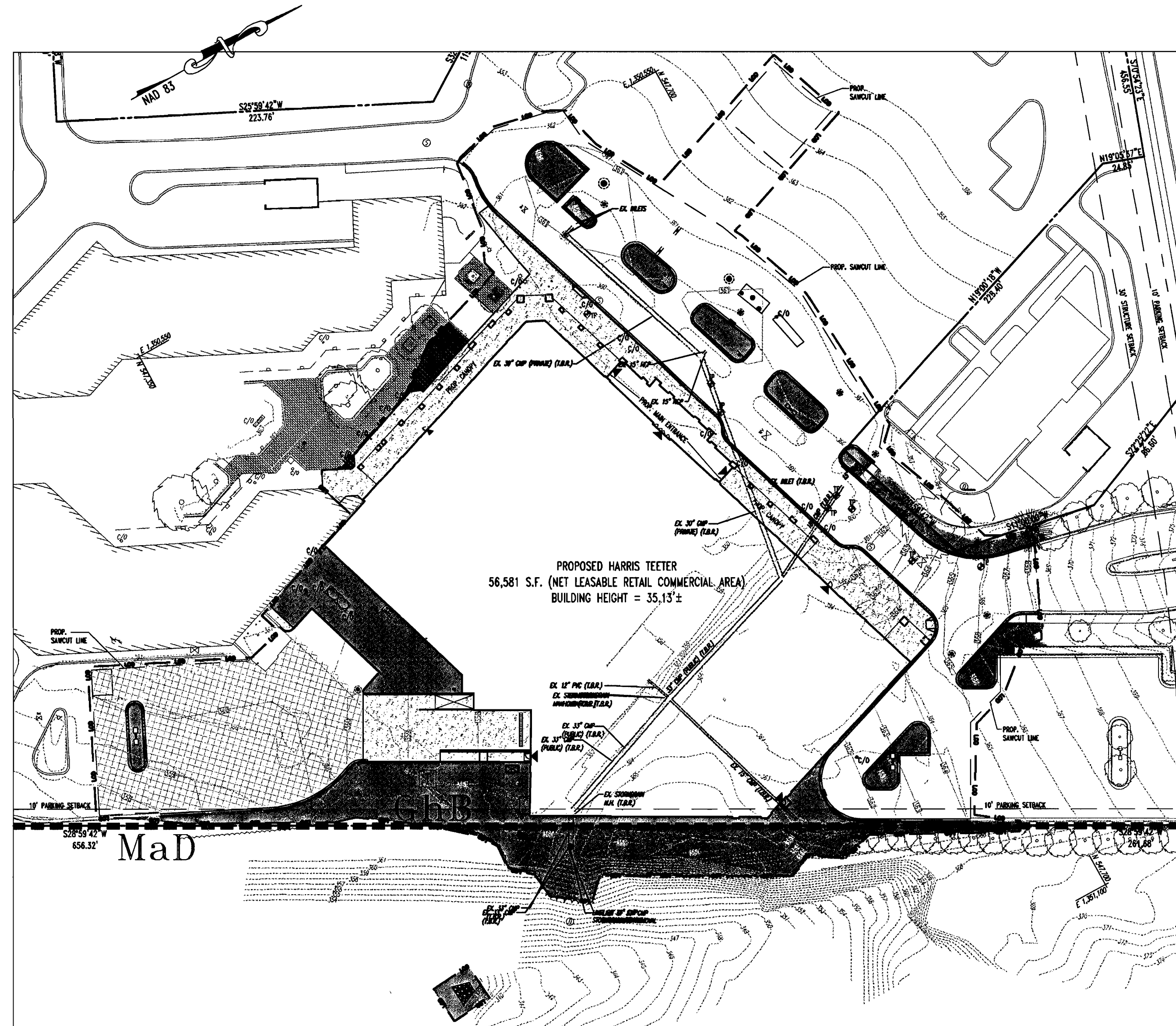


PRE-STORMWATER MANAGEMENT DRAINAGE AREA

SCALE: 1"=80'

AREAS

LIMIT OF DISTURBANCE = 154,782 S.F. OR 3.55 AC.
 EX. PERVIOUS AREA = 34,758 S.F. OR 0.80 AC.
 EX. IMPERVIOUS AREA = 120,024 S.F. OR 2.75 AC.
 RCN = 90
 TC = 0.10 HOURS
 IMPERVIOUS AREA TREATED FOR W_{0.1} = 0 AC.
 IMPERVIOUS AREA TREATED FOR Rev = 0 AC.



POST STORMWATER MANAGEMENT DRAINAGE AREA

SCALE: 1"=80'

AREAS

LIMIT OF DISTURBANCE = 154,782 S.F. OR 3.55 AC.
 PROP. PERVIOUS AREA = 24,776 S.F. OR 0.57
 PROP. IMPERVIOUS AREA = 130,006 S.F. OR 2.98
 RCN = 92
 TC = 0.10 HOURS
 IMPERVIOUS BEING TREATED FOR W_{0.1} = 0.78 AC.
 IMPERVIOUS BEING TREATED FOR Rev = 0.229 AC.

ON-SITE SOILS INFORMATION:

GHB - GLENEIG - URBAN LAND COMPLEX
 (HYDROLOGICAL SOIL CLASSIFICATION 'B')
 MAD - MANOR LOAM, 15% TO 25% SLOPES
 (HYDROLOGICAL SOIL CLASSIFICATION 'B')

REFERENCE:

SOIL SURVEY
 HOWARD COUNTY, MD
 PREPARED BY:
 UNITED STATES DEPARTMENT OF AGRICULTURE
 DATED: JULY 1968

LEGEND

- SOILS TYPE DIVIDES
- PERVIOUS AREA

BENCHMARK

GEODETIC SURVEY CONTROL - #42R1
 S 547,820.238
 E 135,117.859
 ELEV. 375.85'
 LOCATED AT THE CORNER OF GUILFORD ROAD
 AND SASSAFRAS COURT.

GEODETIC SURVEY CONTROL - #42R2
 N 546,946.800
 E 1,352,118.566
 ELEV. 331.522'
 LOCATED AT HAMMOND HIGH SCHOOL AND
 GUILFORD ROAD (BLUE SEA ROAD)

REV.	DATE	DESCRIPTION	BY

OWNER/DEVELOPER:
 KCVC LIMITED PARTNERSHIP
 C/O KIMCO REALTY CORP.
 3333 NEW HYDE PARK ROAD
 SUITE 100
 NEW HYDE PARK, NY 11042-1205

PROJECT: HARRIS TEETER - ONE STORY GROCERY STORE
 KING'S CONTRIVANCE VILLAGE CENTER
 8620 GUILFORD ROAD
 COLUMBIA, MARYLAND 21046

AREA: TAX MAP 42 GRID 7 ZONED NT-COMM
 PARCEL 0
 VILLAGE OF KING'S CONTRIVANCE
 6TH ELECTION DISTRICT
 COLUMBIA, HOWARD COUNTY, MARYLAND

TITLE:
 STORMWATER
 MANAGEMENT AREA MAP

BOHLER ENGINEERING, P.C.
 PROFESSIONAL ENGINEERING SERVICES
 810 Glenegles Court, Suite 300, Towson, Maryland
 CONTACT: Michael Gesell
 (410) 881-7900 FAX: (410) 881-7987 or WWW.BOHLERENG.COM

DESIGNED BY:	MUG
DRAWN BY:	TAC
PROJECT NO.:	MD049006
DATE:	9/27/06
SCALE:	AS SHOWN
DRAWING NO.:	19 OF 22

MISS UTILITY



BEFORE YOU DIG CALL
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 PROTECT YOURSELF, GIVE TWO
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 ACT OF 1970 AND ALL RULES AND
 REGULATIONS THEREOF APPURTENANT.

THE CONTRACTOR TO CALL MISS UTILITY TO
 HAVE ALL EXISTING UTILITIES MARKED 48
 HOURS PRIOR TO ANY CONSTRUCTION.

PLANNING BOARD APPROVAL STAMP

APPROVED: DEPARTMENT OF PLANNING AND ZONING
 COUNTY DEVELOPMENT ENGINEERING DIVISION
 DATE 12/18/06
 DIRECTOR
 APPROVED: FOR PUBLIC WATER AND PUBLIC
 SEWERAGE SYSTEMS.
 COUNTY HEALTH OFFICER
 HOWARD COUNTY HEALTH DEPARTMENT

APPROVED
 PLANNING BOARD
 OF HOWARD COUNTY
 DATE 8-7-106

The Stormwater Management StormFilter® Specifications
PRECAST FILTER UNIT

PART 1 GENERAL

1.1 Description
The Contractor shall furnish and install the Stormwater Management StormFilter® stormwater treatment system, complete and operable as shown and as specified herein, in accordance with the requirements of the plans and contract documents.

StormFilter stormwater treatment system shall consist of an underground Precast structure that houses passive siphon-actuated, radial-flow media-filled filter cartridges.

The siphon actuated radial flow filter cartridges shall be rechargeable and shall incorporate a self-actuated surface cleaning mechanism to increase the effective life of the filter media and to reduce the accumulation of material on the cartridge surface.

Each radial flow filter cartridge shall operate at a predetermined flow rate through the use of an integrated flow control orifice located within each filter cartridge outlet manifold.

1.2 Manufacturer

The StormFilter stormwater treatment system shall be of a type that has been installed and in use successfully for a minimum of five (5) or more years. StormFilter stormwater treatment system shall be supplied by Stormwater360™, 12021-B NE Airport Way, Portland, OR 97220 (503/548-4667), without exception.

1.3 Related Sections

A. Section []:

1.4 Submittals

A. Submit shop drawings for StormFilter stormwater treatment system vault with filter cartridges and accessory equipment. Drawings shall include principal dimensions, filter placement, location of piping and unit foundation.

B. Submit StormFilter stormwater treatment system Operation and Maintenance Manual upon request.

PART 2 PRODUCTS

2.1 Internal Components

All internal components including ABS and PVC manifold piping, filter cartridge(s), filter media (as specified on the plans in the StormFilter data block or by the Engineer), flow spreaders, and energy dissipators shall be provided by Stormwater Management, Inc.

A. ABS manifold pipe and fittings shall meet ASTM F628. PVC manifold pipe and fittings shall meet ASTM D1785.

B. Filter cartridge bottom pan, inner ring, and hood shall be constructed from linear low-density polyethylene (LLDPE). Filter cartridge screen shall consist of galvanized 1" x 1/2" welded wire fabric (16 gauge minimum) with a bonded PVC coating. Internal parts shall consist of ABS or PVC material. Siphon-priming float shall be constructed from linear high-density polyethylene. All miscellaneous nuts, bolts, screws, and other fasteners shall be stainless steel or aluminum.

An orifice plate shall be supplied with each cartridge to restrict flow rate to a maximum of 15 gpm at system design head.

C. Filter media shall be provided by STORMWATER360 or approved alternate source. Filter media shall consist of one or more of the following, as specified in the StormFilter data block, or by the Engineer:

1. **Perlite Media:** Perlite media shall be made of natural siliceous volcanic rock free of any debris or foreign matter. The perlite media shall have a bulk density ranging from 6.5 to 8.5 lb/ft³ and particle sizes ranging from that passing through a 0.50 inch screen and retained on a U.S. Standard #8 sieve.
2. **CSF Media:** CSF media shall be made exclusively of composted fallen deciduous leaves. Filter media shall be granular. Media shall be dry at the time of installation. The CSF leaf media shall have a bulk density ranging from 40 to 50 lb/ft³ and particle sizes ranging from that passing through a 0.50 inch screen to that retained on a U.S. Standard #8 sieve.
3. **Metal Rx Media:** Metal Rx media shall be made exclusively of composted fallen deciduous leaves. Filter media shall be granular. Media shall be dry at the time of installation. The Metal Rx media shall have a bulk density ranging from 40 to 50 lb/ft³ and particle sizes ranging from that passing through a U.S. Standard #8 sieve to that retained on a U.S. Standard #14 sieve.

PART 3 EXECUTION

3.1 Precast Concrete Vault

All contractor-provided components shall meet the requirements of this section, the plans specifications and contract documents. In the case of conflict, the more stringent specification shall apply.

A. Crushed rock base material shall be six-inch minimum layer of ¾-inch minus rock. Compact undisturbed sub-grade materials to 95% of maximum density at +/2% of optimum moisture content. Unsuitable material below sub-grade shall be replaced to engineer's approval.

B. Concrete shall have an unconfined compressive strength at 28 days of at least 3000 psi, with ¾-inch round rock, a 4-inch slump maximum, and a bulk density placed within 90 minutes of initial mixing.

C. Silicone Sealant shall be pure RTV silicone conforming to Federal Specification Number TT S001543A or TT S00230C or Engineer approved.

D. Grout shall be non-shrink grout meeting the requirements of Corps of Engineers CRD-C588. Specimens molded, cured and tested in accordance with ASTM C-109 shall have minimum compressive strength of 6,200 psi. Grout shall not exhibit visible bleeding.

E. Backfill material shall be ¾-inch minus crushed rock, or approved equal.

2.2 Precast Concrete Vault Components

A. Precast concrete vault shall be provided according to ASTM C857 and C858.

B. Vault joint sealant shall be Con Seal CS-101 or approved equal.

C. If interior concrete baffle walls are provided, baffle walls shall be sealed to the interior vault walls and floor with a polyurethane construction sealant rated for use below the waterline, Sikaflex 1a or equal. Contractor to provide sealant material and installation unless completed prior to shipment.

D. Frames and covers shall be gray cast iron and shall meet AASHTO H-20 loading requirements, and shall be provided according to ASTM A48.

E. Doors shall have hot-dipped galvanized frame and covers. Covers shall have diamond plate finish. Each door to be equipped with a recessed lift handle. Doors shall meet H-20 loading requirements for incidental traffic at a minimum.

F. Steps shall be constructed of copolymer polypropylene conforming to ASTM D-4101. Steps shall be driven into preformed or drilled holes once concrete is cured. Steps shall meet the requirements of ASTM C-478 and AASHTO M-199. The ½" Grade 60 deformed reinforcing bar shall meet ASTM A-615.

G. Ladders shall be constructed of aluminum and steel reinforced copolymer polypropylene conforming to ASTM D-4101. Ladder shall bolt in place.

Ladder shall meet all ASTM C-497 load requirements. Ladders provided upon request or where required.

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Ladders shall be

Operation and Maintenance

The Stormwater Management StormFilter®

Vault, Cast-in-Place, and Linear Units

Important: These guidelines should be used as a part of your site stormwater management plan.

Description

The Stormwater Management StormFilter® (StormFilter) is a passive, flow-through, stormwater filtration system. The system is comprised of one or more vaults that house rechargeable, media-filled, filter cartridges. The StormFilter works by passing stormwater through the media-filled cartridges, which trap particulates and adsorb materials such as dissolved metals and hydrocarbons. Once filtered through the media, the treated stormwater is directed to a collection pipe or discharged into an open channel drainage way.

The StormFilter is offered in multiple configurations, including vault, linear, catch basin, manhole, and cast-in-place. The vault, linear, manhole, and catch basin models utilize pre-manufactured units to ease the design and installation processes. The cast-in-place units are customized for larger flows and may be either covered or uncovered underground units.

Purpose

The StormFilter is a passive, flow-through, stormwater filtration system designed to improve the quality of stormwater runoff from the urban environment before it enters receiving waterways. It is intended to function as a Best Management Practice (BMP) to meet federal, state, and local requirements for treating runoff in compliance with the Clean Water Act.

Through independent third party studies, it has been demonstrated that the StormFilter is highly effective for treatment of first flush flows and for treatment of low-paced flows during the latter part of a storm. In general, the StormFilter's efficiency is highest when pollutant concentrations are highest. The primary non-point source pollutants targeted for removal by the StormFilter are: suspended solids (TSS), oil and grease, soluble metals, nutrients, organics, and trash and debris.

Sizing

The StormFilter is sized to treat the peak flow of a water quality design storm. The peak flow is determined from calculations based on the contributing watershed hydrology and from a design storm magnitude set by the local stormwater management agency. The particular size of a StormFilter unit is determined by the number of filter cartridges (see Figure 1) required to treat this peak flow.

The flow rate through each filter cartridge is adjustable, allowing control over the amount of contact time between the influent and the filter media. The maximum flow rate through each cartridge can be adjusted to between 5 and 15 gpm using a calibrated restrictor disc at the base of each filter cartridge. Adjustments to the cartridge flow rate will affect the number of cartridges required to treat the peak flow.

Basic Function

The StormFilter is designed to siphon stormwater runoff through a filter cartridge containing media. A variety of filter media is available and can be customized for each site to target and remove the desired levels of sediments, dissolved phosphorus, dissolved metals, organics, and oil and grease. In many cases, a combination of media is recommended to maximize the

effectiveness of the stormwater pollutant removal.

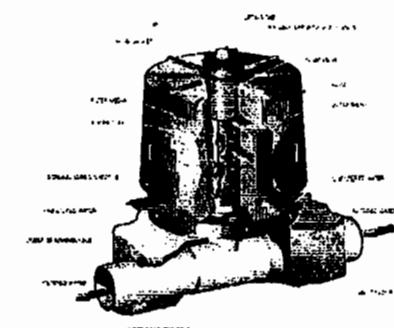


Figure 1. The StormFilter Cartridge

Priming System Function

When stormwater in the StormFilter unit enters a StormFilter cartridge, it percolates horizontally through the cartridge's filter media and collects in the center tube of the cartridge, where the float in the cartridge is in a closed (downward) position.

Water continues to pass through the filter media and into the cartridge's center tube. The air in the cartridge is displaced by the water and purged from beneath the filter hood through the one-way check valve located in the cap. Once the center tube is filled with water (approximately 18 inches deep), there is enough buoyant force on the float to open the float valve and allow the treated water in the center tube to flow into the under-drain manifold. This causes the

check valve to close, initiating a siphon that draws polluted water throughout the full surface area and volume of the filter. Thus, the entire filter cartridge is used to filter water throughout the duration of the storm, regardless of the water surface elevation in the unit. This siphon continues until the water surface elevation drops to the elevation of the hood's scrubbing regulators.

The cartridges are connected to the under-drain manifold with a plastic connector. Since some media used is potentially buoyant, a threaded connector affixed to the under-drain manifold (with glue or other adhesive) is necessary to ensure that the cartridge isn't lifted out of place. For the heavier compost media, a slip connector is used.

The StormFilter is also equipped with flow spreaders that trap floating debris and surface films, even during overflow conditions. Depending on individual site characteristics, some systems are equipped with high and/or base flow bypasses. High flow bypasses are installed when the calculated peak storm event generates a flow that overcomes the overflow capacity of the system. This is especially important for precast systems. Base flow bypasses are sometimes installed to bypass continuous flows caused by ground water seepage, which usually do not require treatment. All StormFilter units are designed with an overflow. The overflow operates when the inflow rate is greater than the treatment capacity of the filter cartridges.

Maintenance Guidelines

The primary purpose of the StormFilter is to filter out and prevent pollutants from entering our waterways. Like any effective filtration system, periodically these pollutants must be removed to restore the StormFilter to its full efficiency and effectiveness.

Maintenance requirements and frequency are dependent on the pollutant load characteristic of each site.

Maintenance activities may be required in the event of a chemical spill or due to excessive sediment loading from site erosion or extreme storms. It is also good practice to inspect the system after severe storm events.

Types of Maintenance

Presently, procedures have been developed for two levels of maintenance:

- Inspection/minor maintenance
- Major maintenance.

Inspection/minor maintenance activities are combined since minor maintenance does not require special equipment and typically little or no materials are in need of disposal.

Inspection/minor maintenance typically involves:

- Inspection of the vault itself
- Removal of vegetation and trash and debris.

Major maintenance typically includes:

- Cartridge replacement
- Sediment removal

Important: Applicable safety (OSHA) and disposal regulations should be followed during all maintenance activities.

Maintenance Activity Timing

Two scheduled inspection/maintenance activities should take place during the year. First, an inspection/minor maintenance activity should be done. During the minor maintenance activity (routine inspection, debris removal), the need for major maintenance should be determined and, if disposal during major maintenance will be required, samples of the sediments and media should be obtained.

Second, if required, a major maintenance activity (replacement of the filter cartridges and associated sediment removal) should be performed.

In addition to these two scheduled activities, it is important to check the condition of the StormFilter unit after major storms for damage caused by high flows and for high sediment accumulation that may be caused by localized erosion in the drainage area. It may be necessary to adjust the maintenance activity schedule depending on the actual operating conditions encountered by the system.

In general, minor maintenance activities will occur late in the rainy season, and major maintenance will occur in late summer to early fall when flows into the system are not likely to be present.

Ultimately, inspection and maintenance activities should be scheduled based on the historic records and characteristics of an individual StormFilter system. It is recommended that the maintenance agency develop a database to properly manage StormFilter maintenance programs.

Prior to the development of the maintenance database, the following maintenance frequencies should be followed:

Inspection/minor maintenance

- One time per year
- After Major Storms

Major maintenance

- One time per year
- In the event of a chemical spill

Frequencies should be updated as required.

A properly functioning system will remove solids from water by trapping particulates in the porous structure of the filter media. The flow through the system will naturally decrease as more and more solids are trapped. Eventually the flow through the system will be low enough to require replacement of the cartridges. It may be possible to extend the usable span of the cartridges by removing sediment from basins in order to prevent material from being re-suspended and discharged to the system.

Site conditions greatly influence maintenance requirements. StormFilter units located in areas with erosion or active construction should be inspected and maintained more often than those in fully stabilized areas.

The maintenance frequency may be adjusted as additional monitoring information becomes available during the inspection program. Areas that develop known problems should be inspected more frequently than areas that demonstrate no problems, particularly after large storms.

Importantly, inspection and maintenance activities should be scheduled based on the historic records and characteristics of an individual StormFilter system. It is recommended that the maintenance agency develop a database to properly manage StormFilter maintenance programs.

Prior to the development of the maintenance database, the following maintenance frequencies should be followed:

Inspection/minor maintenance

- One time per year
- After Major Storms

Major maintenance

- One time per year
- In the event of a chemical spill

Frequencies should be updated as required.

The recommended initial frequency for inspection/minor maintenance is two times per year for precast units. StormFilter units should be inspected after all major storms. Sediment removal and cartridge replacement on an annual basis is recommended until further knowledge is gained about a particular system.

Once an understanding of site characteristics has been established, maintenance may not be needed for one to two years, but inspection is warranted.

Maintenance Methods

Inspection/Minor Maintenance

The primary goal of a maintenance inspection is to assess the condition of the cartridges relative to the level of sediment loading. It may be desirable to conduct this inspection during a storm to observe the relative flow through the filter cartridges. If the sedimented cartridges are severely plugged, large amounts of sediments will be present and very little flow will be discharged from the drainage pipes. If this is the case, it is likely that the cartridges need to be replaced.

Warning: In the case of a spill, the worker should abort maintenance activities until the proper guidance is obtained. Notify the local hazard control agency and Stormwater360, immediately.

To conduct an inspection and/or minor maintenance:

1. If applicable, set up safety equipment to protect pedestrians from fall hazards due to open vault doors or when work is being done near walkways or roadways.
2. Visually inspect the external condition of the unit and take notes concerning defects/problems.

3. Open the doors to the vault and allow the system to air out for 5-10 minutes.
4. Without entering the vault, inspect the inside of the unit, including components.
5. Take notes about the external and internal condition of the vault.

Be sure to record the level of sediment build-up on the floor of the vault, in the forebay, and on top of the cartridges. If flow is occurring, note the level of water and estimate the flow rate per drainage pipe. Record all observations.

6. Remove large loose debris and trash using a pole with a grapple or net on the end.
7. Close and fasten the door.
8. Remove safety equipment.

9. Make notes about the local drainage area relative to ongoing construction, erosion problems, or high loadings of other materials to the system.
10. Finally, review the condition reports from the previous minor and major maintenance visits, and schedule cartridge replacement if needed.

Filter cartridge replacement should occur during dry weather. It may be necessary to plug the filter inlet pipe if base flows exist. Standing water present in the vault should be regarded as polluted and should be contained during this operation by temporarily capping the manifold connectors.

Important: If vault entry is required, OSHA rules for confined space entry must be followed.

1. If applicable, set up safety equipment to protect pedestrians from fall hazards due to open vault doors or when work is being done near walkways or roadways.
2. Visually inspect the external condition of the unit and take notes concerning defects/problems.

Replacement cartridges will be delivered to the site. Information concerning how to obtain the replacement cartridges is available from Stormwater360.

Warning: In the case of a spill, the worker should abort maintenance activities until the proper guidance is obtained. Notify the local hazard control agency and Stormwater360, immediately.

To conduct cartridge replacement and sediment removal maintenance:

1. If applicable, set up safety equipment to protect pedestrians from fall hazards due to open vault doors or when work is being done near walkways or roadways.
2. Visually inspect the external condition of the unit and take notes concerning defects/problems.
3. Open the doors to the vault and allow the system to air out for 5-10 minutes.
4. Without entering the vault, give the inside of the unit, including components, a general condition inspection.
5. Make notes about the external and internal condition of the vault.

Give particular attention to recording the level of sediment build-up on the floor of the vault, in the forebay, and on top of the internal components.

Remove large loose debris and trash using a pole with a grapple or net on the end.

7. Using a boom, crane, or other device (jolly and ramp), offload the replacement cartridges (up to 150 lbs. each) and set aside.
8. Remove used cartridges from the vault using one of the following methods:
 - a. Using an appropriate sling, attach the cable from the boom, crane, or tripod to the cartridge being removed. Contact SMI for specifications on appropriate attachment devices.
 - b. Remove the cartridge hood.
 - c. Tip the cartridge on its side.

Important: Note that cartridges containing media other than the leaf media require uncracking from their threaded connectors. Take care not to damage the manifold connectors. This connector should remain installed in the manifold and capped if necessary.

Remove the used cartridges (250 lbs. each) from the vault.

Important: Care must be used to avoid damaging the cartridges during removal and installation. The cost of repairing components damaged during maintenance will be the responsibility of the owner unless Stormwater360 performs the maintenance activities and damage is not related to discharges to the system.

Set the used cartridge aside or load onto the hauling truck.

Continue steps a through c until all cartridges have been removed.

Remove deposited sediment from the floor of the vault and, if large amounts are present, from the forebay. This can usually be accomplished by shoveling the sediment into containers, which, once full, are lifted mechanically from the vault and placed onto the hauling truck. If Method 2 in Step 8 is used to empty the cartridges, or in cases of extreme sediment loading, a vector truck may be required.

Continue steps a through c until all cartridges have been removed.

Continue steps a through c until all cartridges have been removed.

Continue steps a through c until all cartridges have been removed.

Continue steps a through c until all cartridges have been removed.

Continue steps a through c until all cartridges have been removed.

Continue steps a through c until all cartridges have been removed.

StormFilter Minor Maintenance and Inspection Data Sheet

Date: _____ Personnel: _____

Location: _____ System Size: _____

System Type: Vault Cast-in-Place Linear

System Observations

Media Months in Service: _____

Oil and Grease in Forebay: Yes No

Sediment Depth in Forebay: _____

Sediment Depth on Vault Floor: _____

Structural Damage: _____

Sediment Depth on Vault Floor: _____

Structural Damage: _____

Estimated Flow from Drainage Pipes (if available): _____

Cartridges Submerged: Yes No How Deep: _____

StormFilter Minor Maintenance Activities (check off if done and give description)

Trash and Debris Removal: _____

Minor Structural Repairs: _____

Drainage Area Report

Excessive Oil and Grease Loading: Yes No Source: _____

Sediment Accumulation on Pavement: Yes No Source: _____

Erosion of Landscaped Areas: Yes No Source: _____

Items Needing Further Work: _____

Other Comments: _____

Notes: _____

Review the condition reports from the previous minor and major maintenance visits.

www.stormwater360.com Toll-Free: 800.546.4667 8 of 9

StormFilter Major Maintenance/Cartridge Replacement Data Sheet

Date: _____ Personnel: _____

Location: _____ System Size: _____

System Type: Vault Cast-in-Place Linear

List Safety Procedures and Equipment Used:

System Observations

Media Months in Service: _____

Oil and Grease in Forebay: Yes No

Sediment Depth in Forebay: _____

Sediment Depth on Vault Floor: _____

Structural Damage: _____

Sediment Depth on Vault Floor: _____

Structural Damage: _____

Drainage Area Report

Excessive Oil and Grease Loading: Yes No Source: _____

Sediment Accumulation on Pavement: Yes No Source: _____

Erosion of Landscaped Areas: Yes No Source: _____

StormFilter Cartridge Replacement Maintenance Activities

Remove Trash and Debris: Yes No Details: _____

Replace Cartridges: Yes No Details: _____

Sediment Removed: Yes No Details: _____

Quantity of Sediment Removed (estimate?): _____

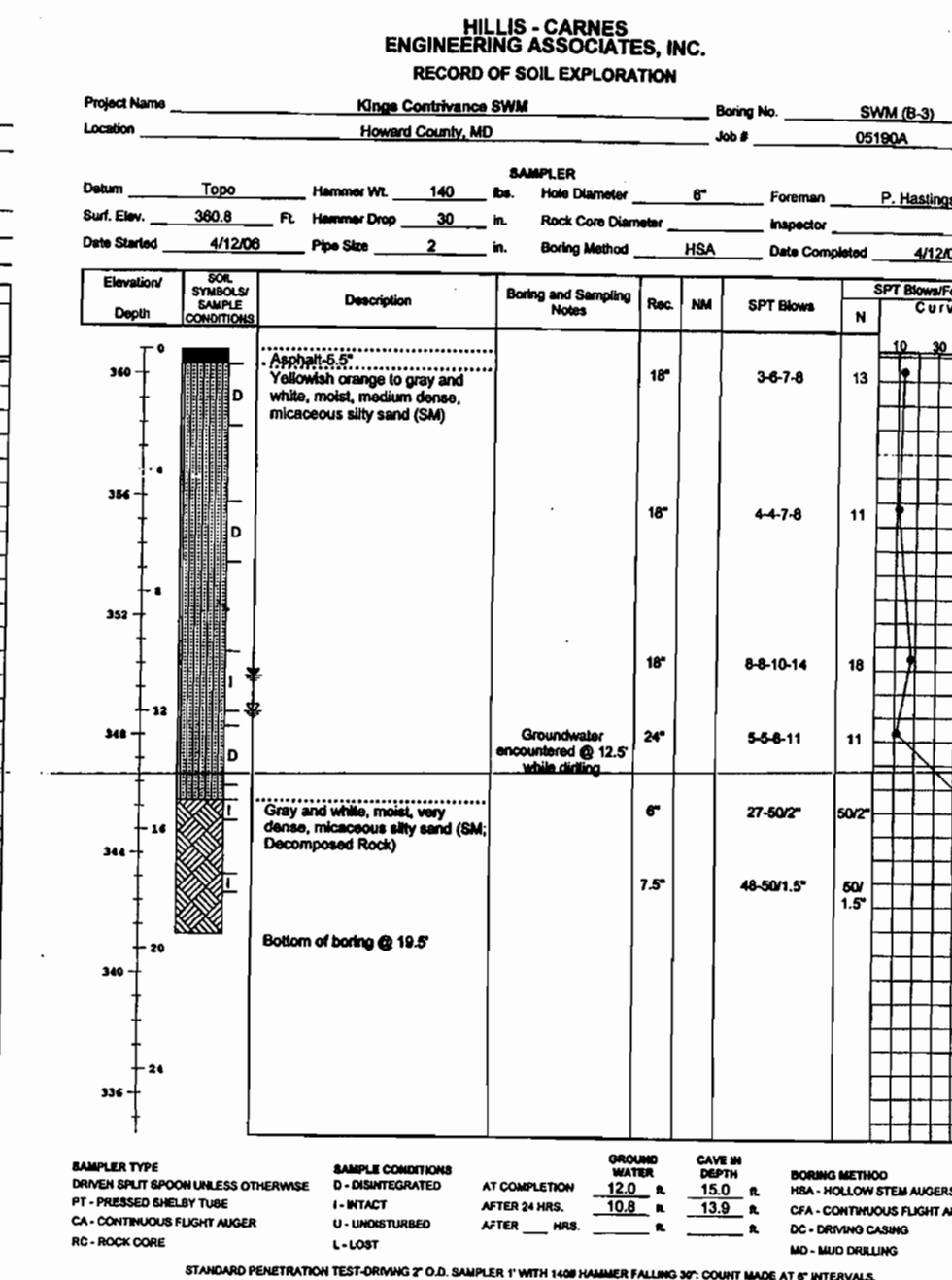
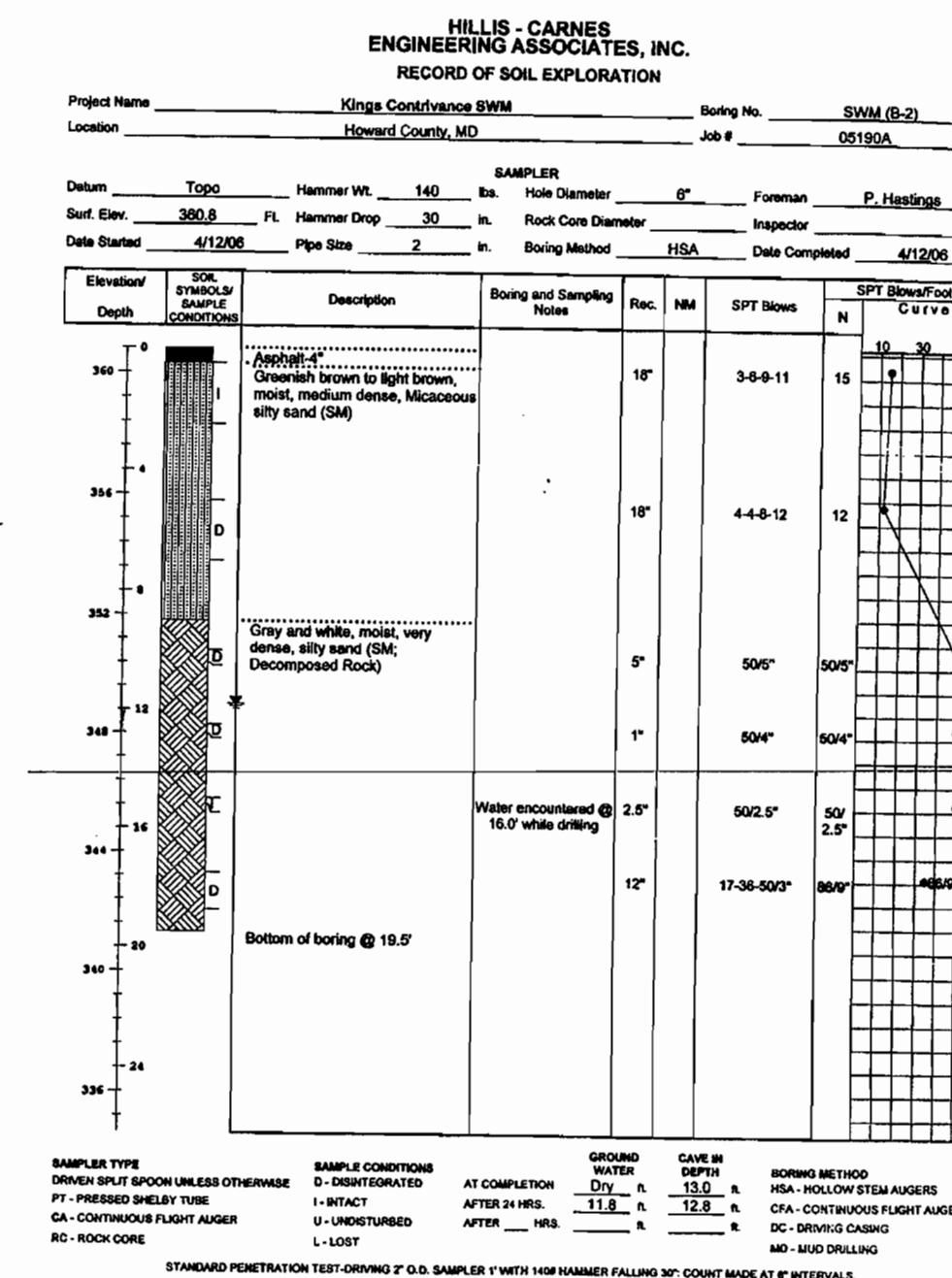
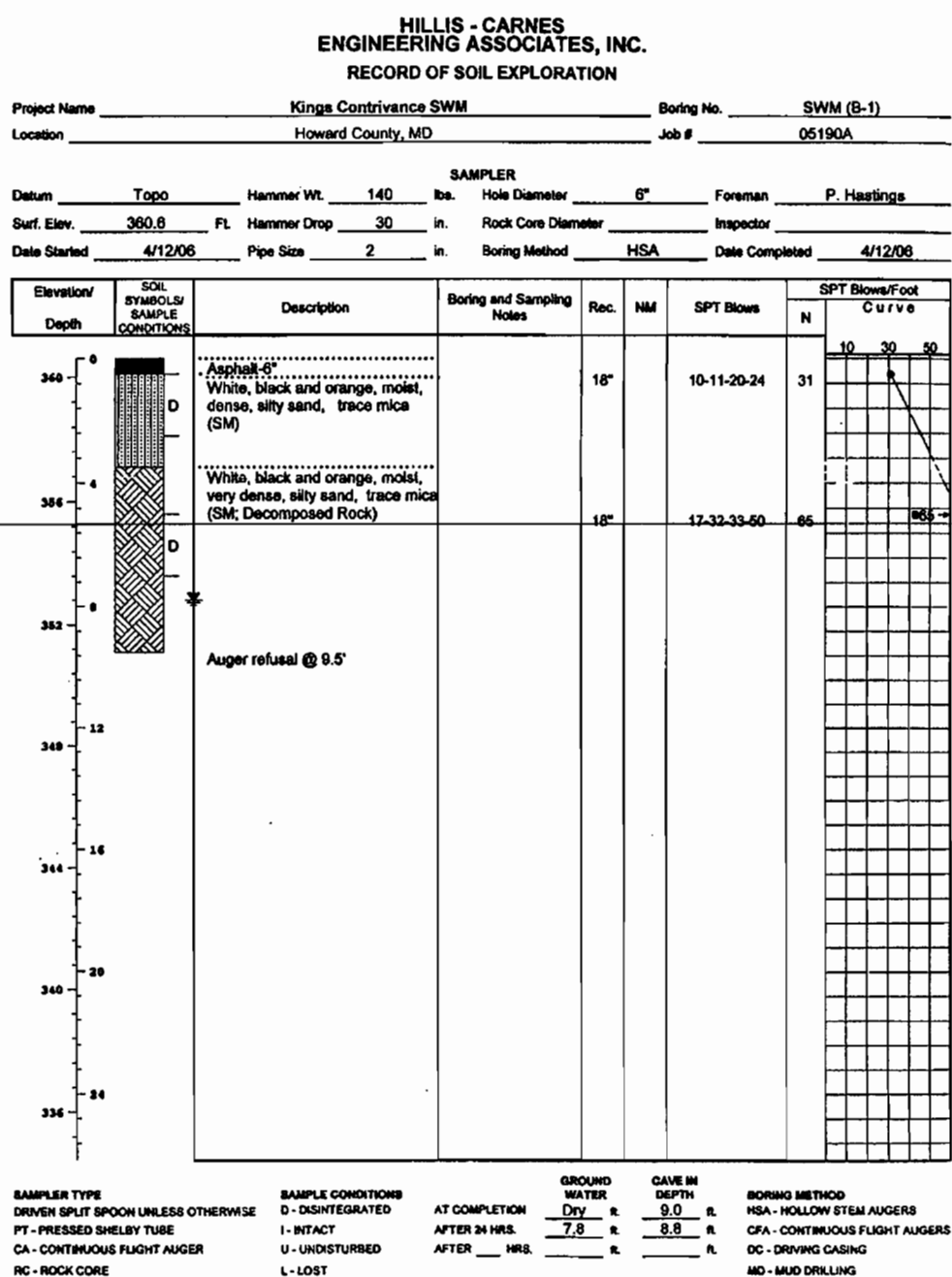
Minor Structural Repairs: Yes No Details: _____

Residuals (debris, sediment) Disposal Methods: _____

Notes: _____

Review the condition reports from the previous minor and major maintenance visits.

www.stormwater360.com Toll-Free: 800.546.4667 9 of 9



BENCHMARK

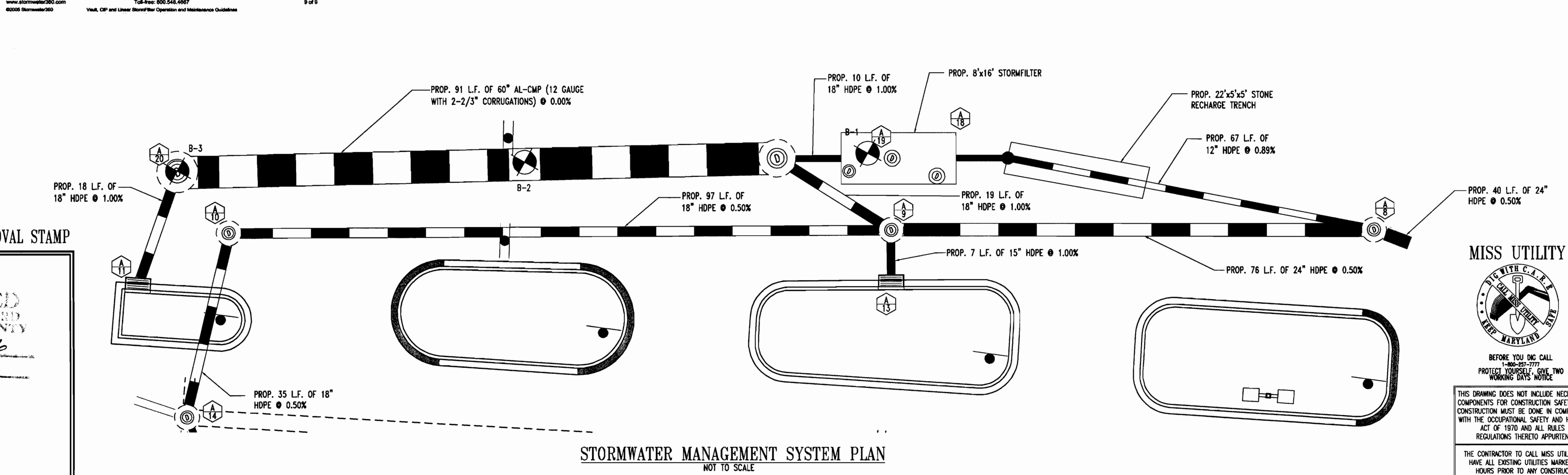
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 S 547,820.238
 E 135,117.859
 ELEV. 375.85'
 LOCATED AT THE CORNER OF GULFORD ROAD AND SASSAFRAS COURT.

GEODETIC SURVEY CONTROL - #42R2
 N 546,946.800
 E 1,352,118.566
 ELEV. 331.522'
 LOCATED AT HAMMOND HIGH SCHOOL AND GULFORD ROAD (BLUE SEA ROAD)

PLANNING BOARD APPROVAL STAMP

APPROVED: DEPARTMENT OF PLANNING AND ZONING
 DATE: 12/14/06

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS.
 DATE: 12/18/06



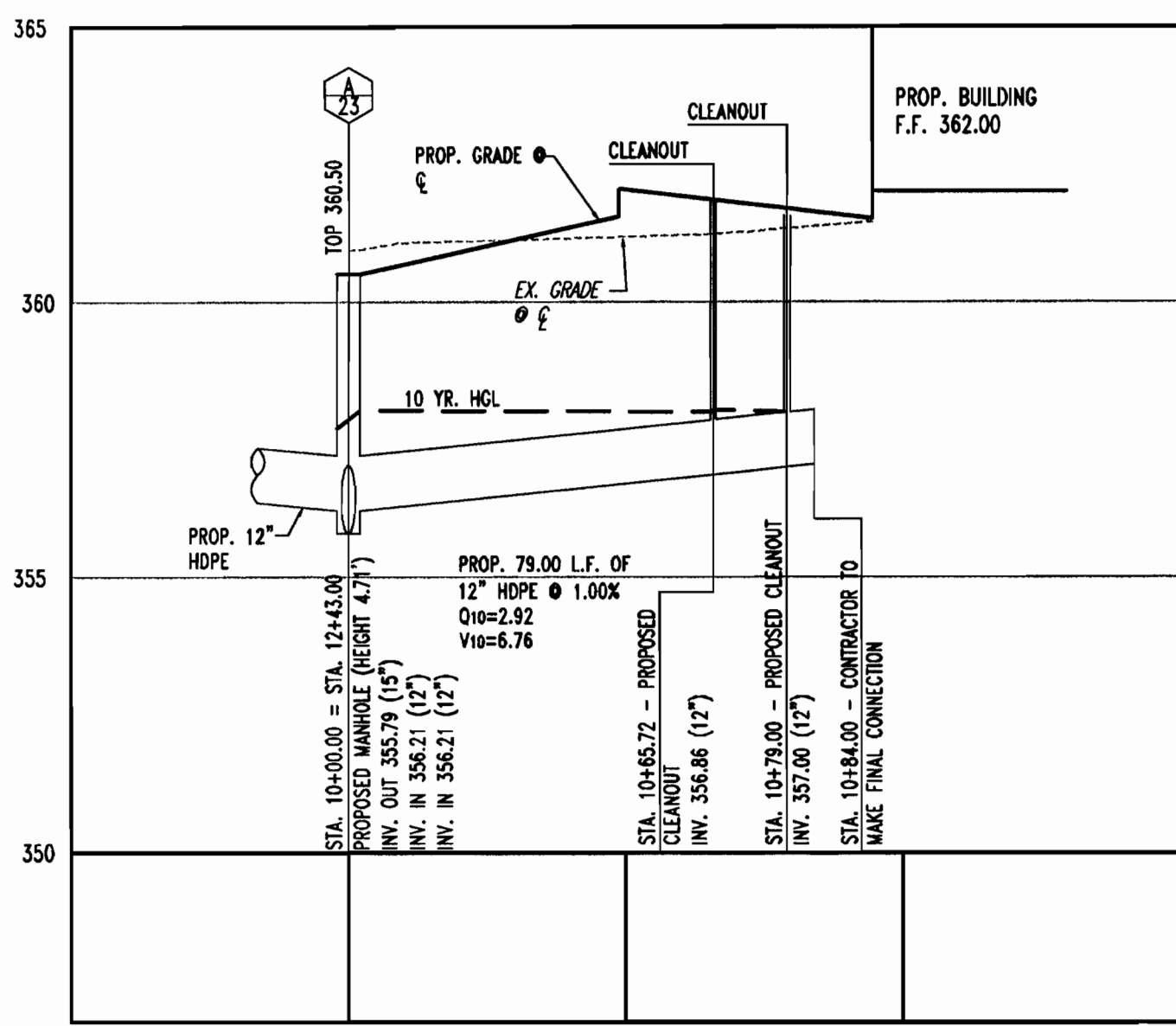
OWNER/DEVELOPER:
 KVC LIMITED PARTNERSHIP
 C/O KIMCO REALTY CORP.
 3333 NEW HYDE PARK ROAD
 SUITE 100
 NEW HYDE PARK, NY 11042-1205

PROJECT: VILLAGE OF KING'S CONTRIVANCE
 KING'S CONTRIVANCE VILLAGE CENTER
 6520 GULFORD ROAD
 COLUMBIA, MARYLAND 21046

TITLE: STORMWATER MANAGEMENT NOTES AND DETAILS

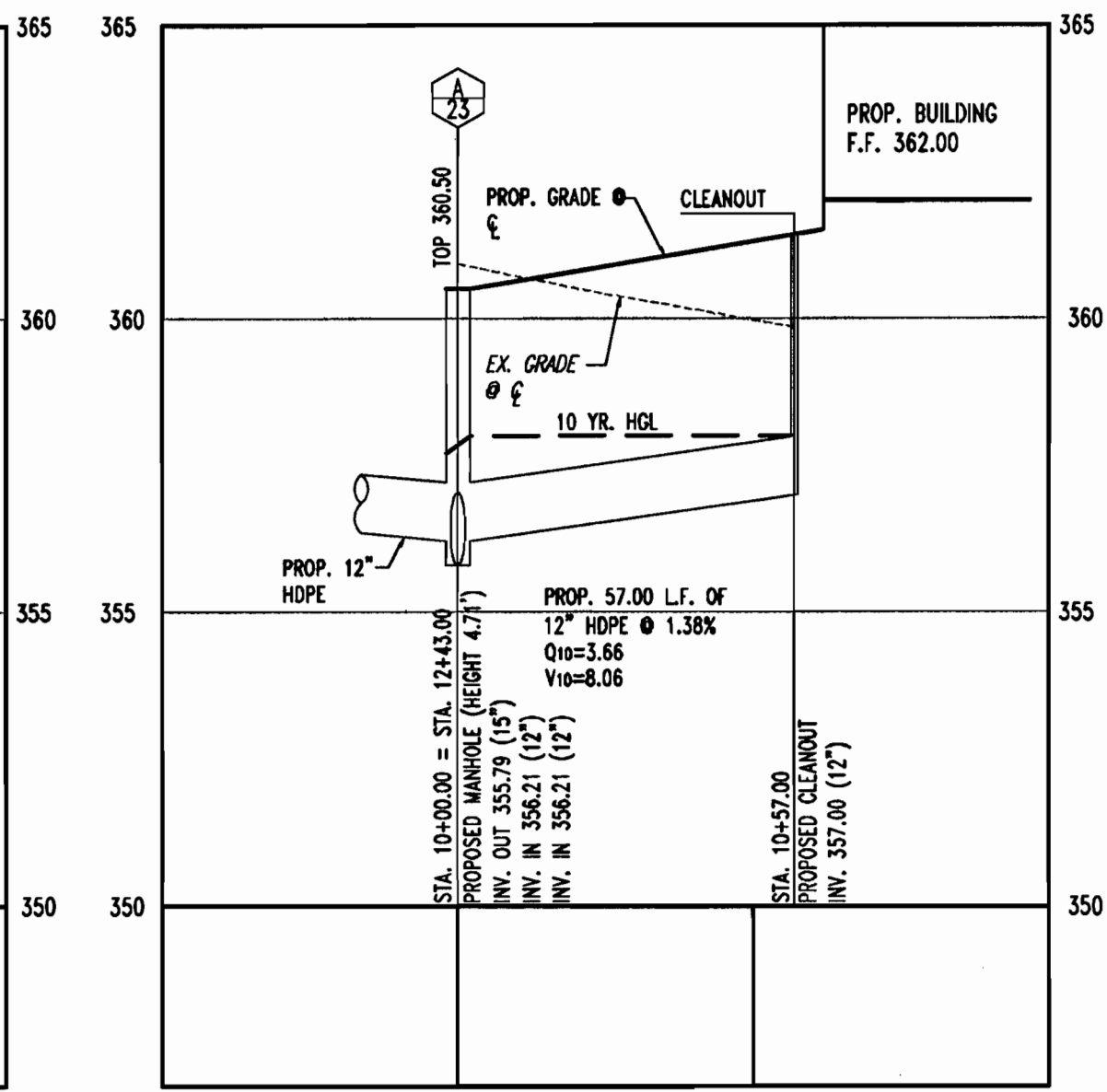
BOHLER ENGINEERING, P.C.
 PROFESSIONAL ENGINEERING SERVICES •
 810 Glenridge Court, Suite 300, Towson, Maryland •
 CONTACT: MICHAEL GREENE
 (410) 821-7900 FAX: (410) 821-7987 WWW.BOHLENG.COM

DESIGNED BY: M/JG
 DRAWN BY: TAC
 PROJECT NO.: MD049006
 DATE: 9/27/06
 SCALE: AS SHOWN
 DRAWING NO.: 21 OF 22



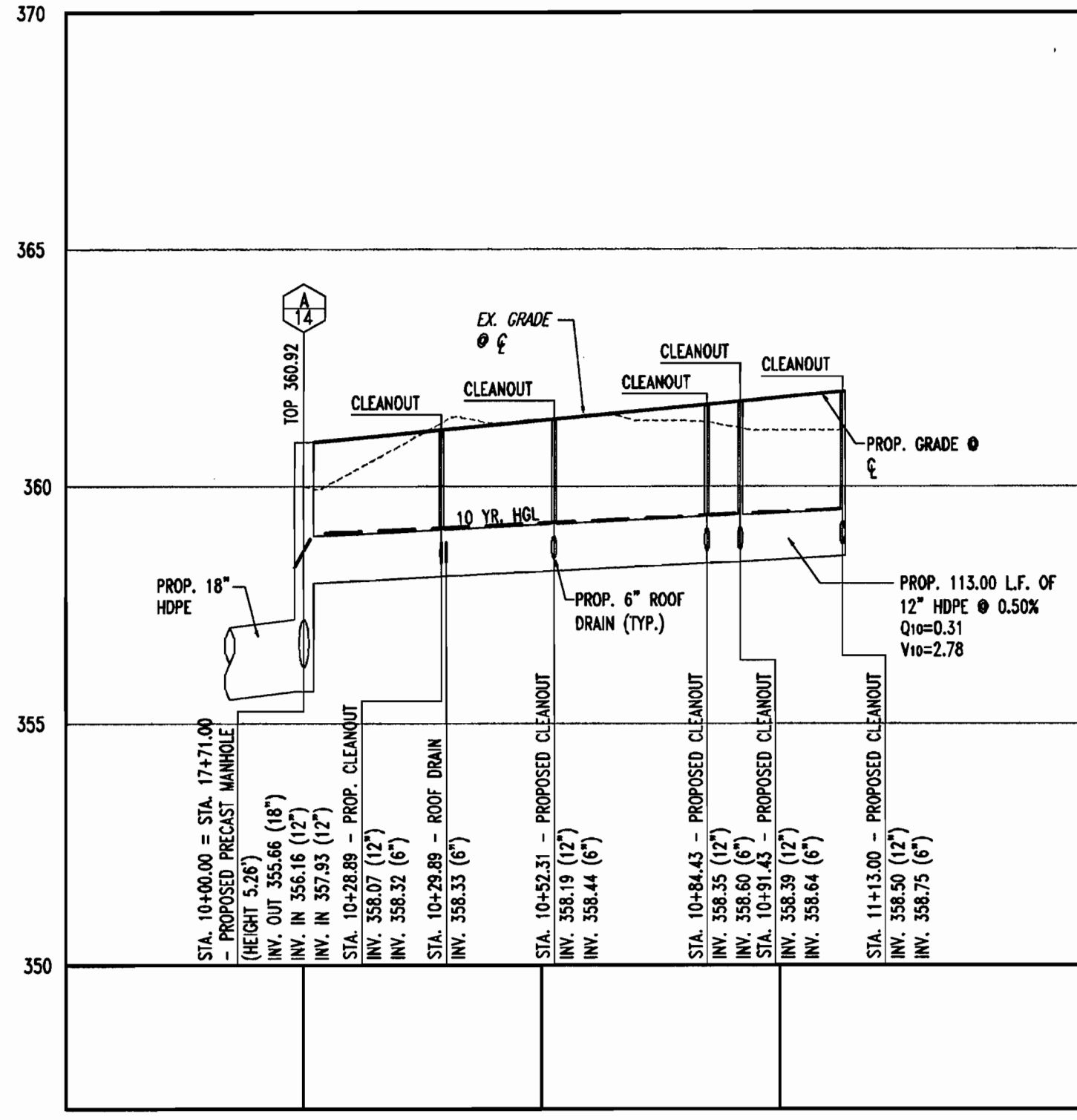
STORMDRAIN PROFILE A-23 TO BUILDING

SCALE: HORIZ. 1"=30'
VERT. 1"=3'



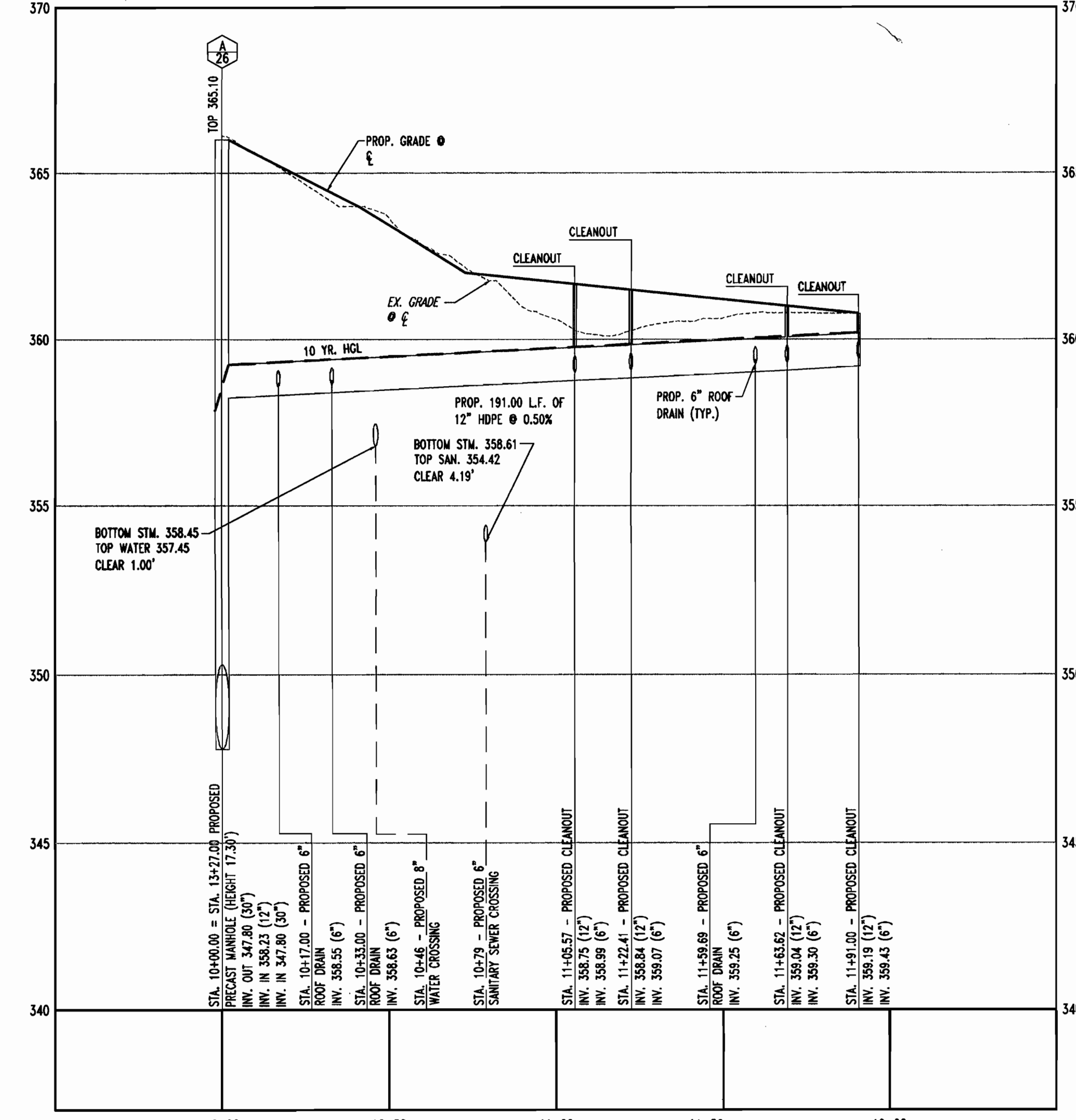
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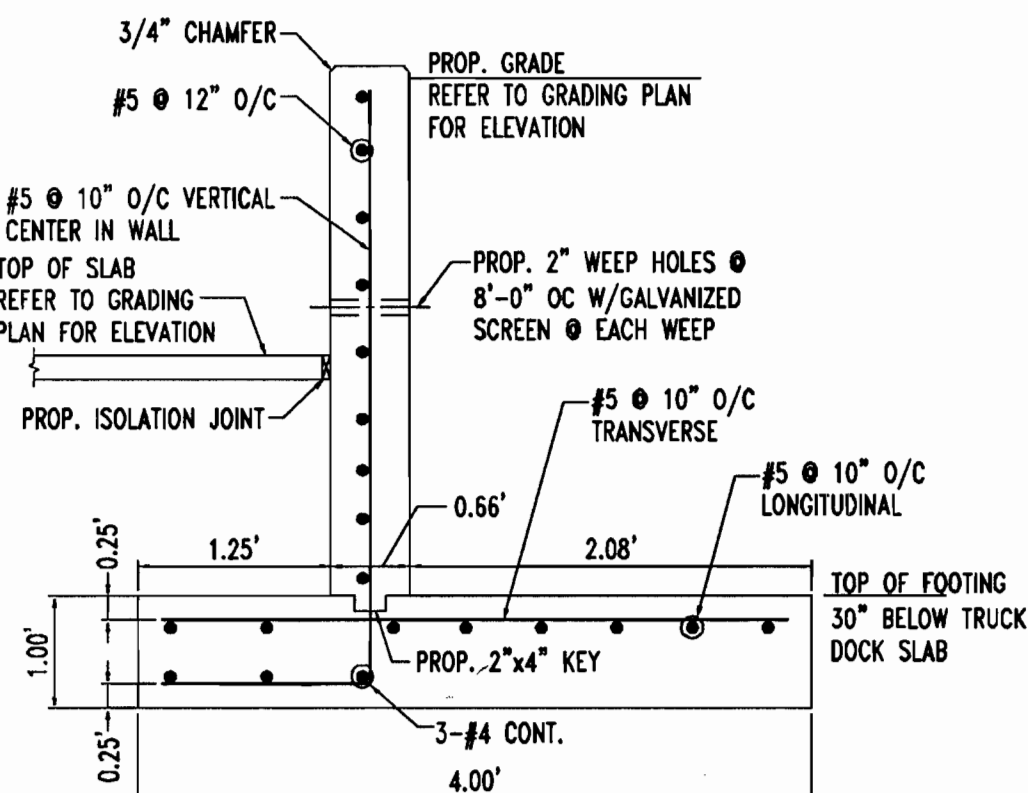
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SCALE: HORIZ. 1"=30'
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STORMDRAIN PROFILE A-26 TO C/O

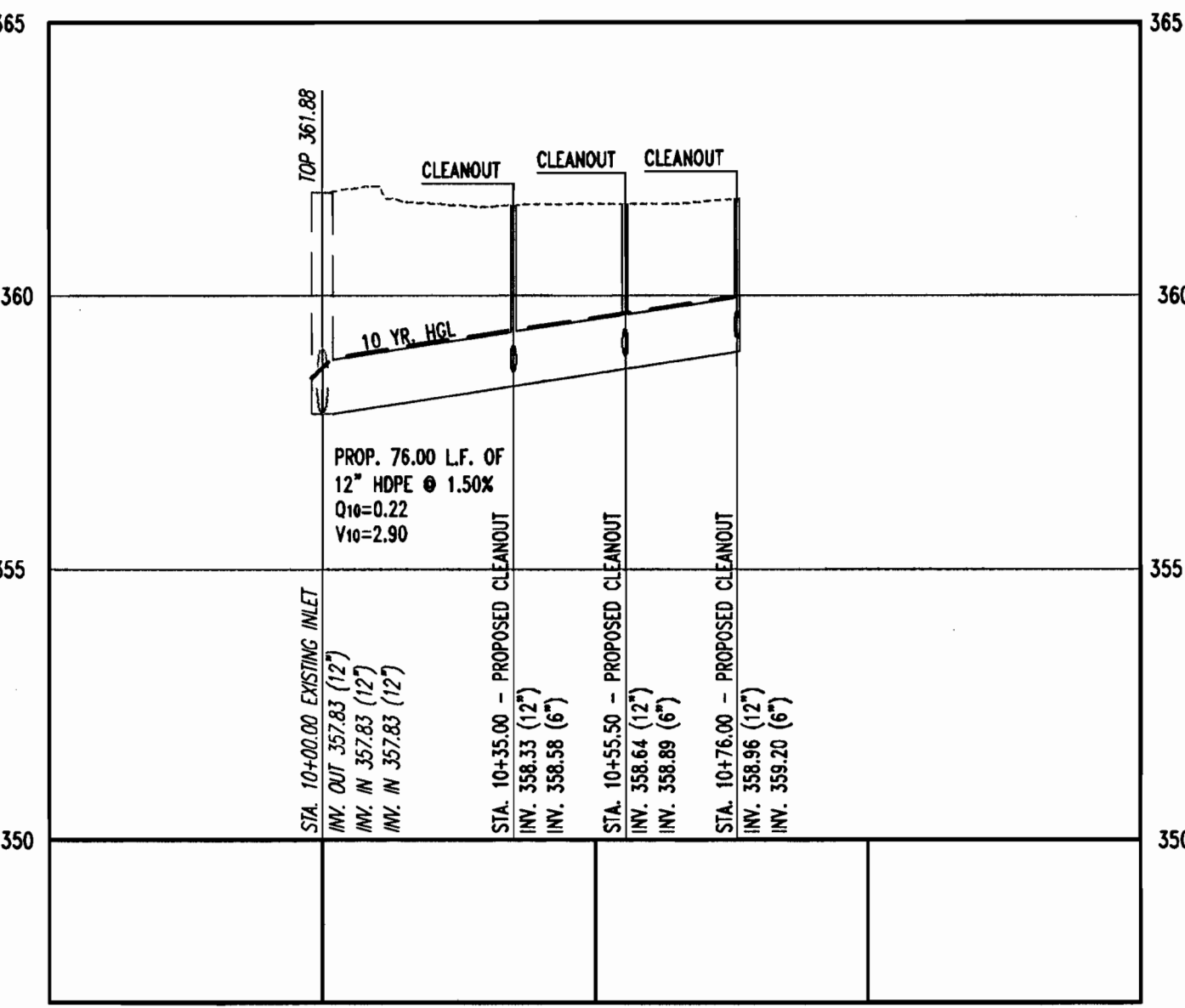
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STAND ALONE RETAINING WALL TYPICAL SECTION

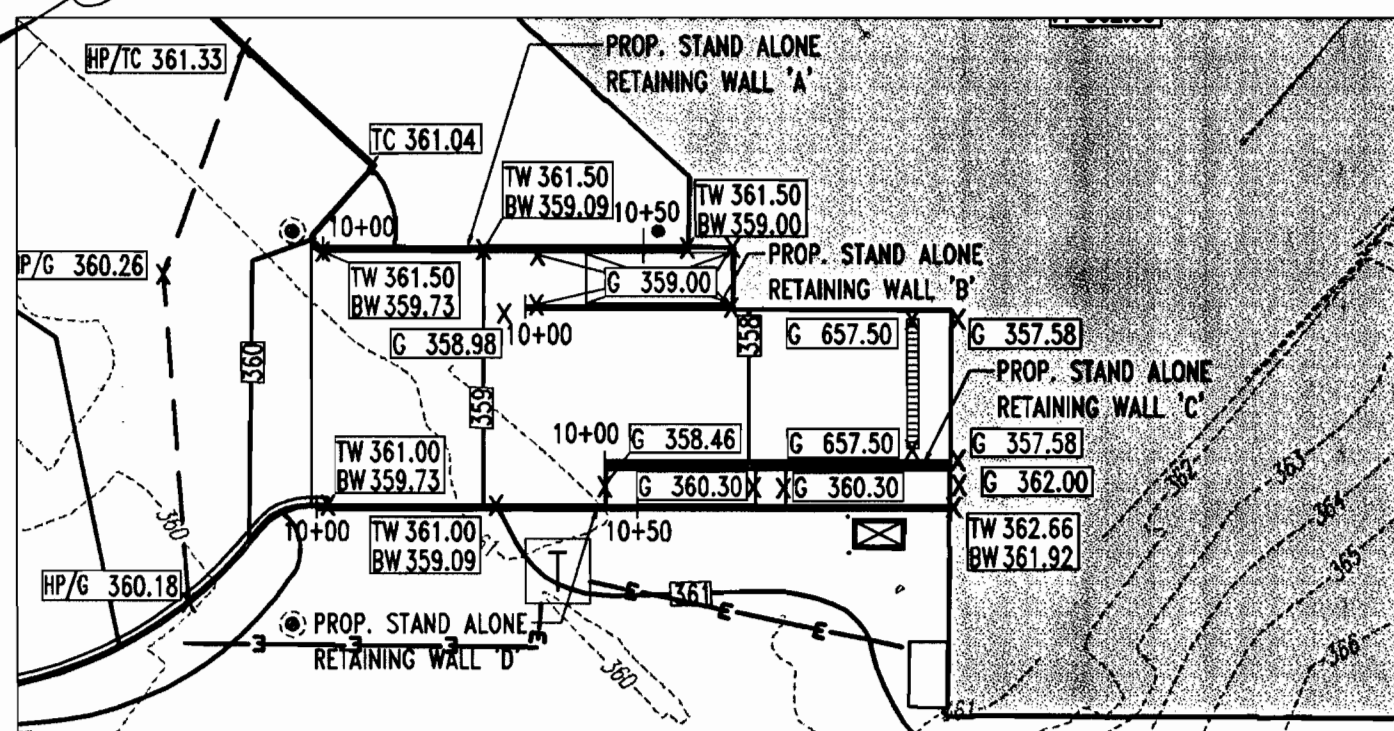
NOT TO SCALE

NOTE: REBAR LOCATION AND SIZES ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY. CONTRACTOR SHALL SUBMIT 5 SETS OF COMPLETED SHOP DRAWINGS SIGNED AND SEALED BY A STRUCTURAL ENGINEER WITH BAR SCHEDULE AND DETAILS TO THE ENGINEER FOR REVIEW AND APPROVAL PRIOR TO ORDERING MATERIAL AND CONSTRUCTION.



STORMDRAIN PROFILE A-26 TO C/O

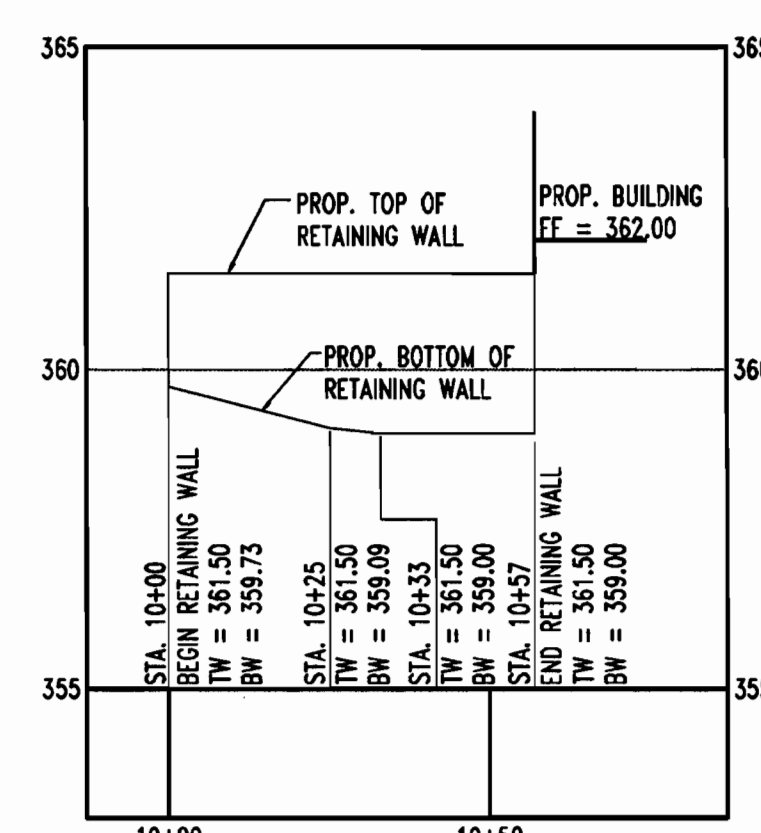
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PLANNING BOARD APPROVAL STAMP

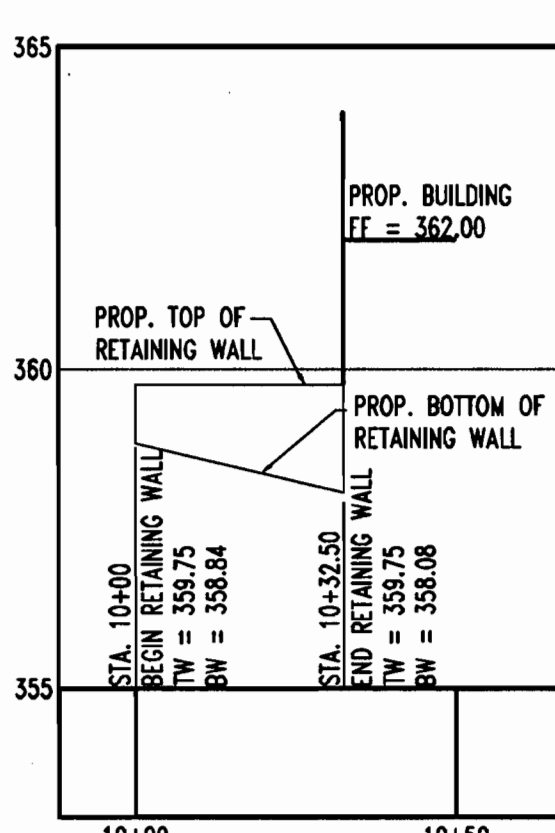
APPROVED: DEPARTMENT OF PLANNING AND ZONING
 CHIEF-DEVELOPMENT ENGINEERING DIVISION
 DATE 12/11/06
 APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS.
 COUNTY HEALTH OFFICER
 DATE 12/16/06

APPROVED
 PLANNING BOARD
 OF HOWARD COUNTY
 DATE 8.21.06



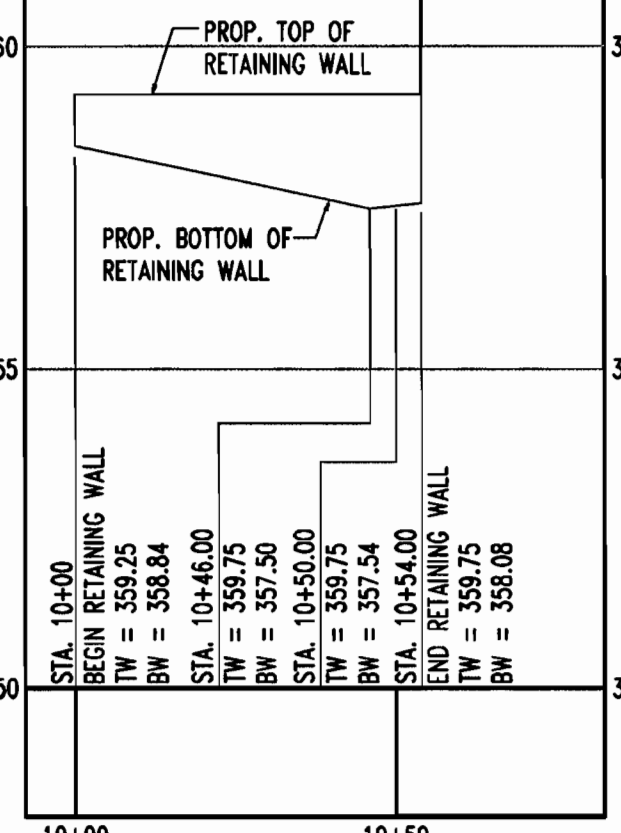
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VERT. SCALE: 1"=3'



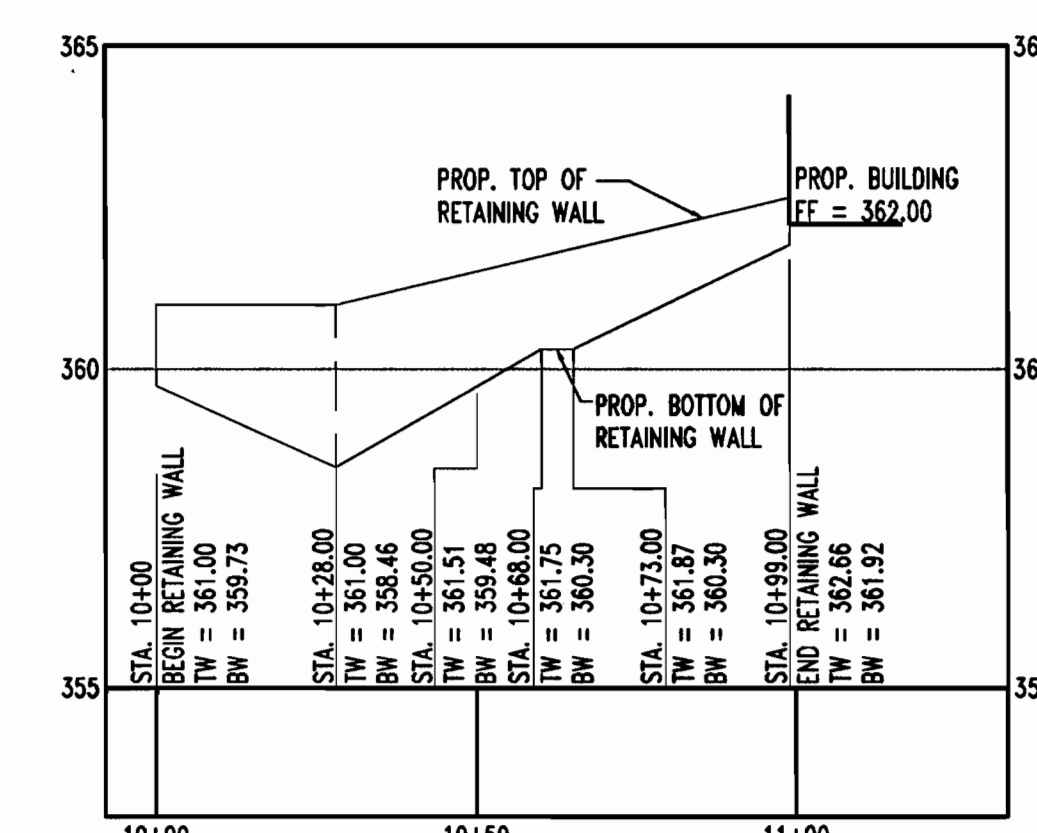
PROPOSED STAND ALONE RETAINING WALL 'B'

HORIZ. SCALE: 1"=30'
VERT. SCALE: 1"=3'



PROPOSED STAND ALONE RETAINING WALL 'C'

HORIZ. SCALE: 1"=30'
VERT. SCALE: 1"=3'



PROPOSED STAND ALONE RETAINING WALL 'D'

HORIZ. SCALE: 1"=30'
VERT. SCALE: 1"=3'

MISS UTILITY
 BEFORE YOU DIG CALL 1-800-391-7777
 PROTECT YOURSELF, SAVE TWO WORKING DAYS NOTICE
 THIS DRAWING DOES NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY. ALL CONSTRUCTION MUST BE DONE IN COMPLIANCE WITH THE OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970 AND ALL RULES AND REGULATIONS THERE TO APPROPRIATE.
 THE CONTRACTOR TO CALL MISS UTILITY TO HAVE ALL EXISTING UTILITIES MARKED 48 HOURS PRIOR TO ANY CONSTRUCTION.

REV.	DATE	DESCRIPTION	BY

OWNER/DEVELOPER:
 KCVC LIMITED PARTNERSHIP
 C/O KIMCO REALTY CORP.
 3333 NEW HYDE PARK ROAD
 SUITE 100
 NEW HYDE PARK, NY 11042-1205

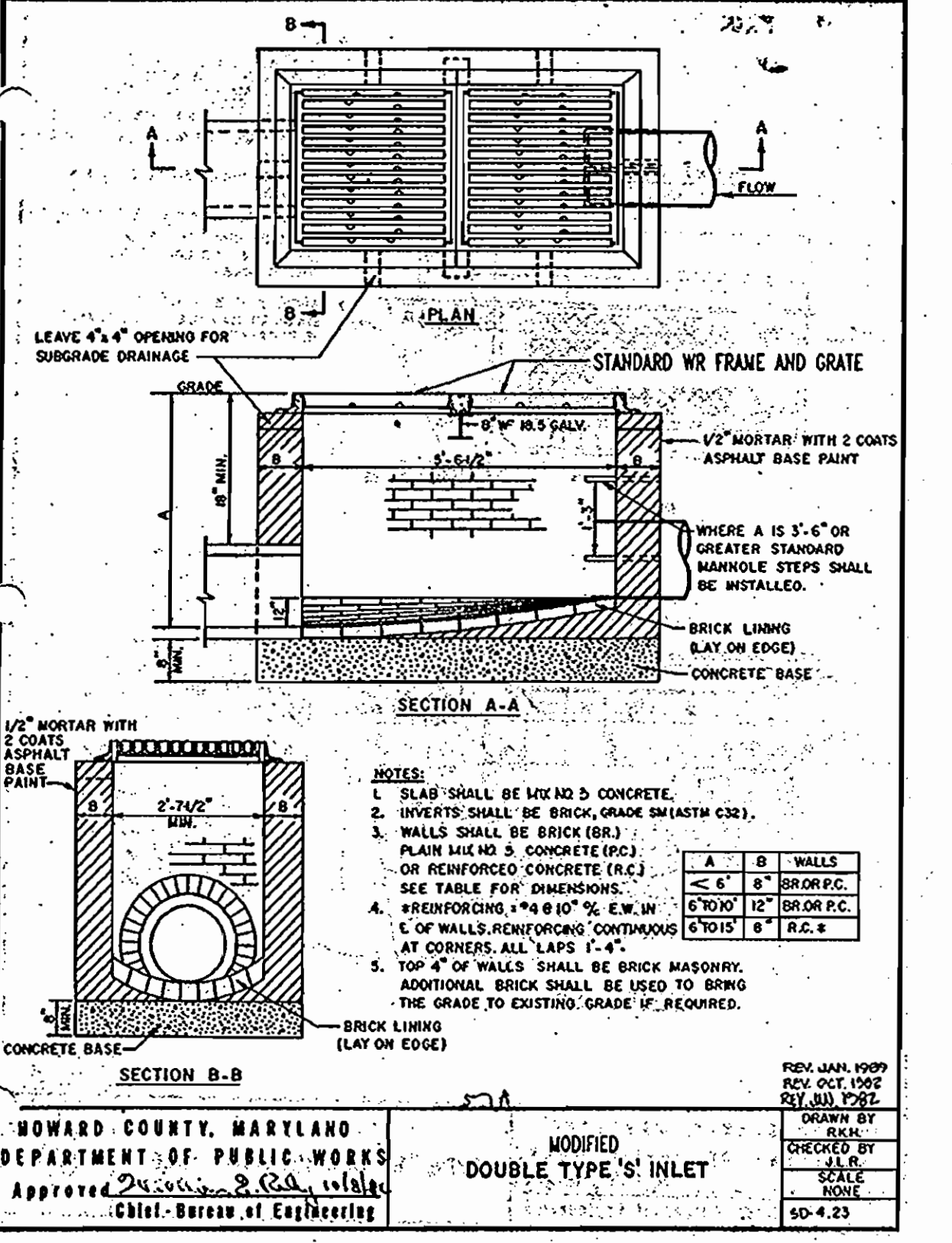
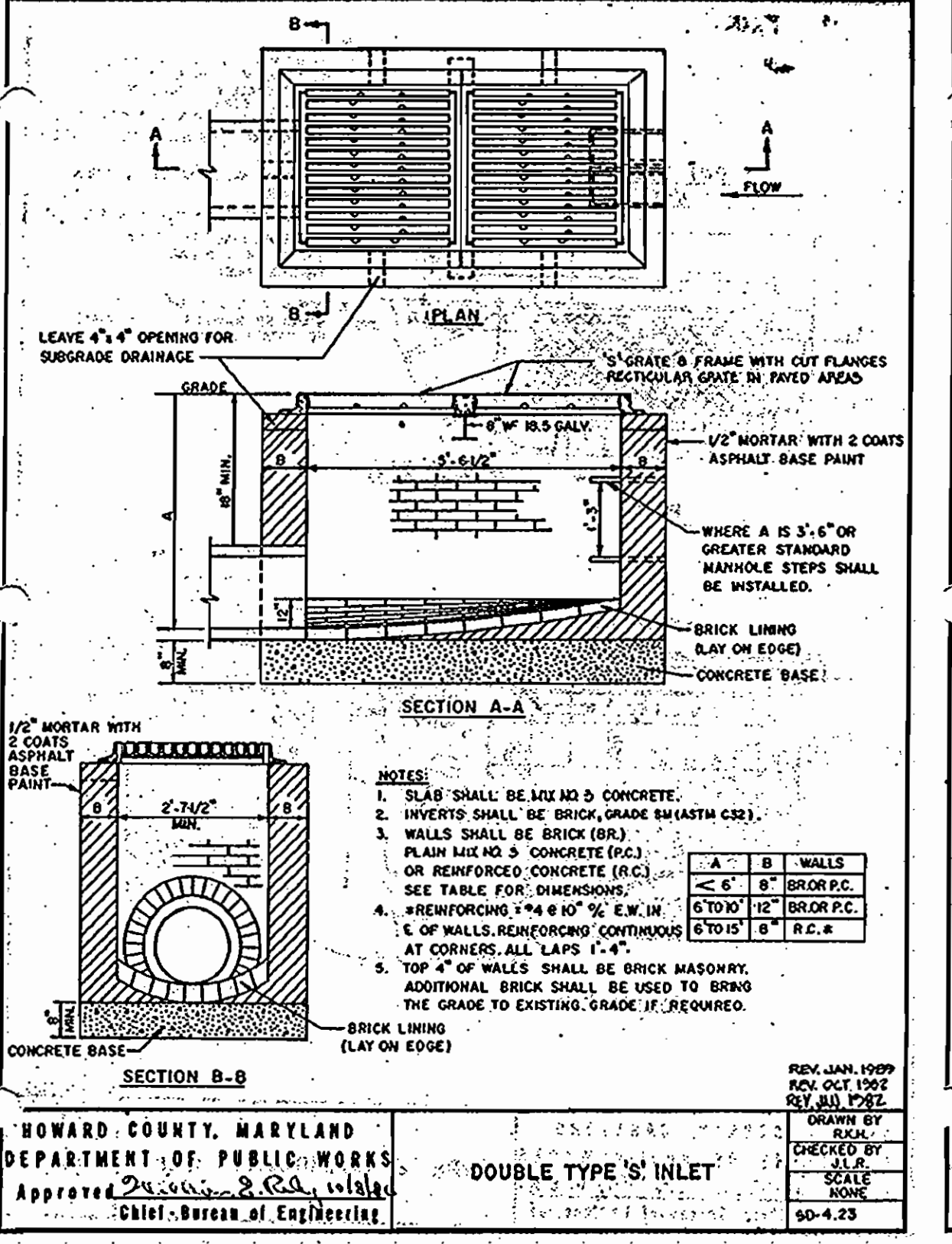
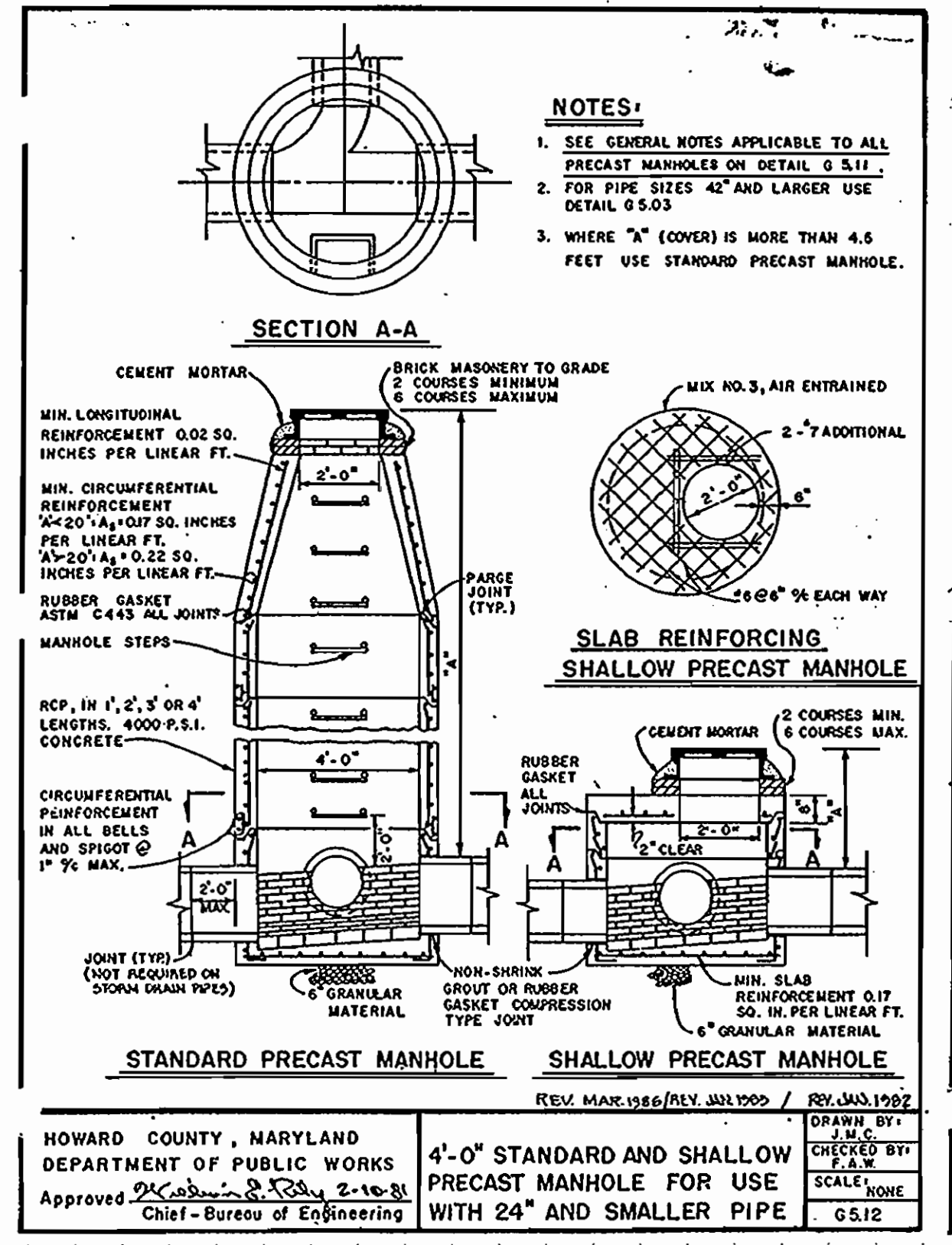
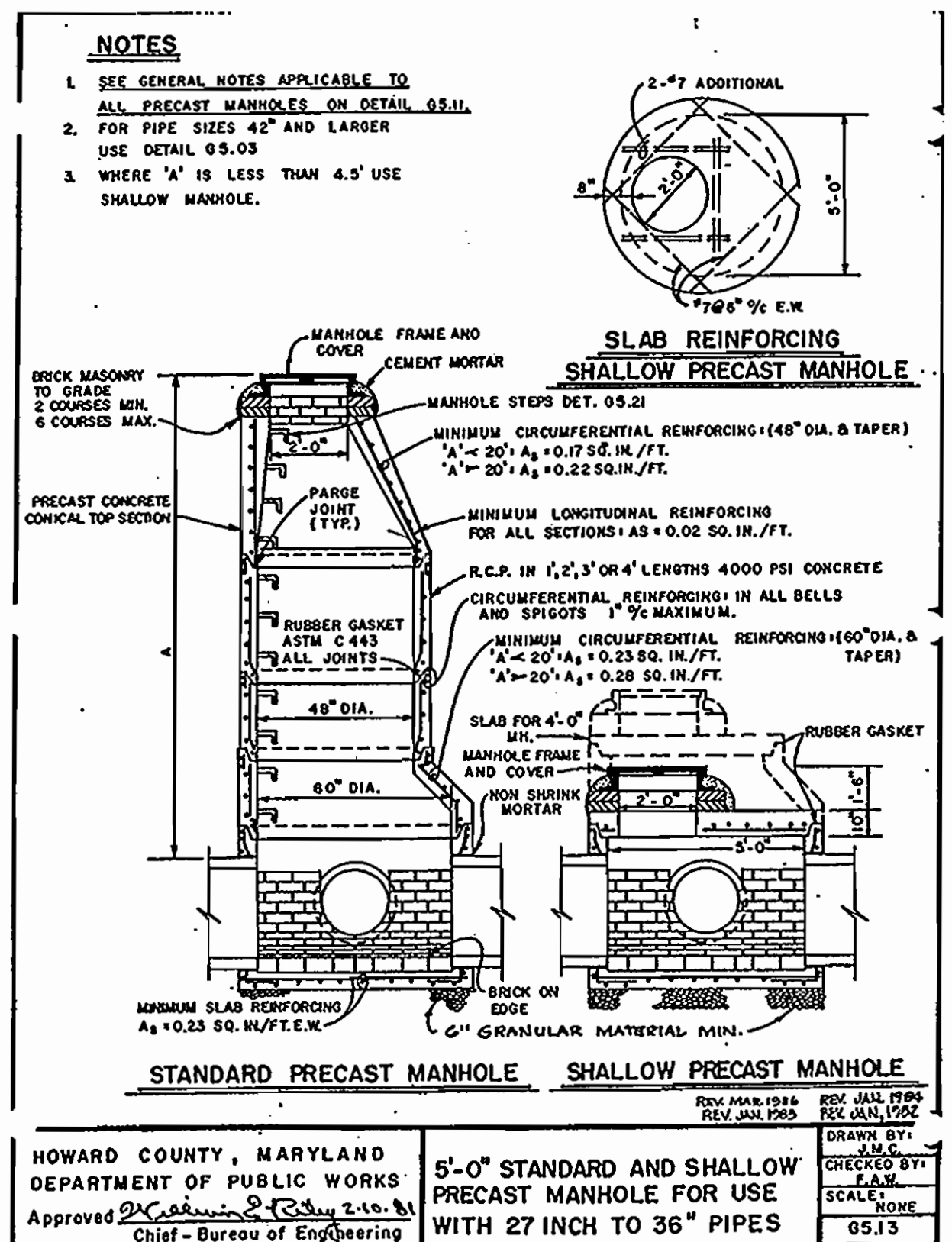
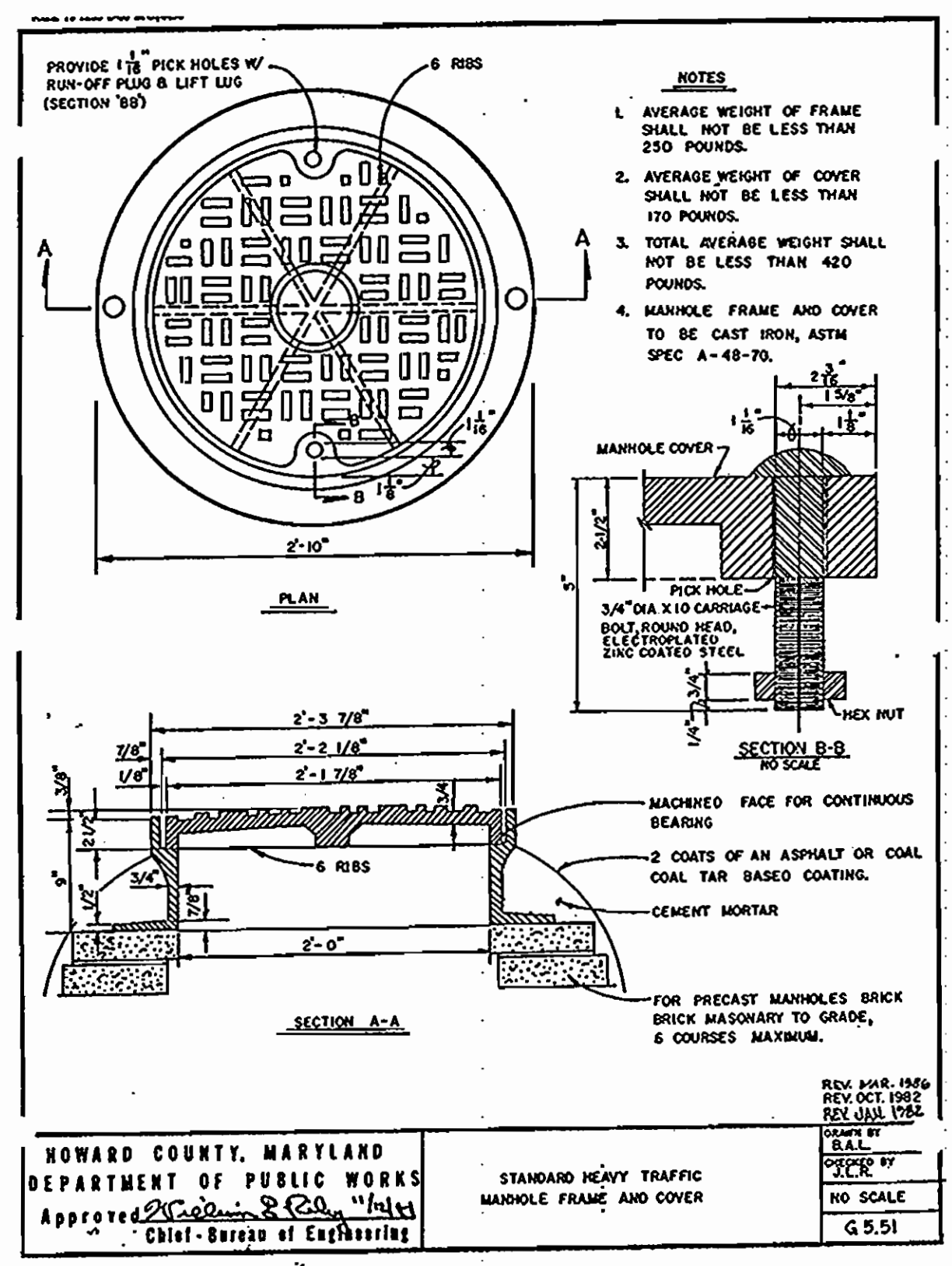
PROJECT: HARRIS TEETER - ONE STORY GROCERY STORE
 KING'S CONTRIVANCE VILLAGE CENTER
 8520 GULFORD ROAD
 COLUMBIA, MARYLAND 21046

AREA: TAX MAP 42 GRID 7 ZONED NF-COMM
 VILLAGE OF KING'S CONTRIVANCE
 8TH ELECTION DISTRICT
 COLUMBIA, HOWARD COUNTY, MARYLAND

TITLE: RETAINING WALL DETAILS & ROOF DRAIN PROFILES

BOHLER ENGINEERING, P.C.
 Professional Engineering Services •
 810 Gleneggie Court, Suite 300, Towson, Maryland •
 Contract: Michael Genelle
 (410) 621-7900 FAX: (410) 621-7987 • WWW.BOHLENGR.COM

DESIGNED BY: M/JG
 DRAWN BY: TAC
 PROJECT NO.: MD049006
 DATE: 9/27/06
 SCALE: AS SHOWN
 DRAWING NO.: 22 OF 22

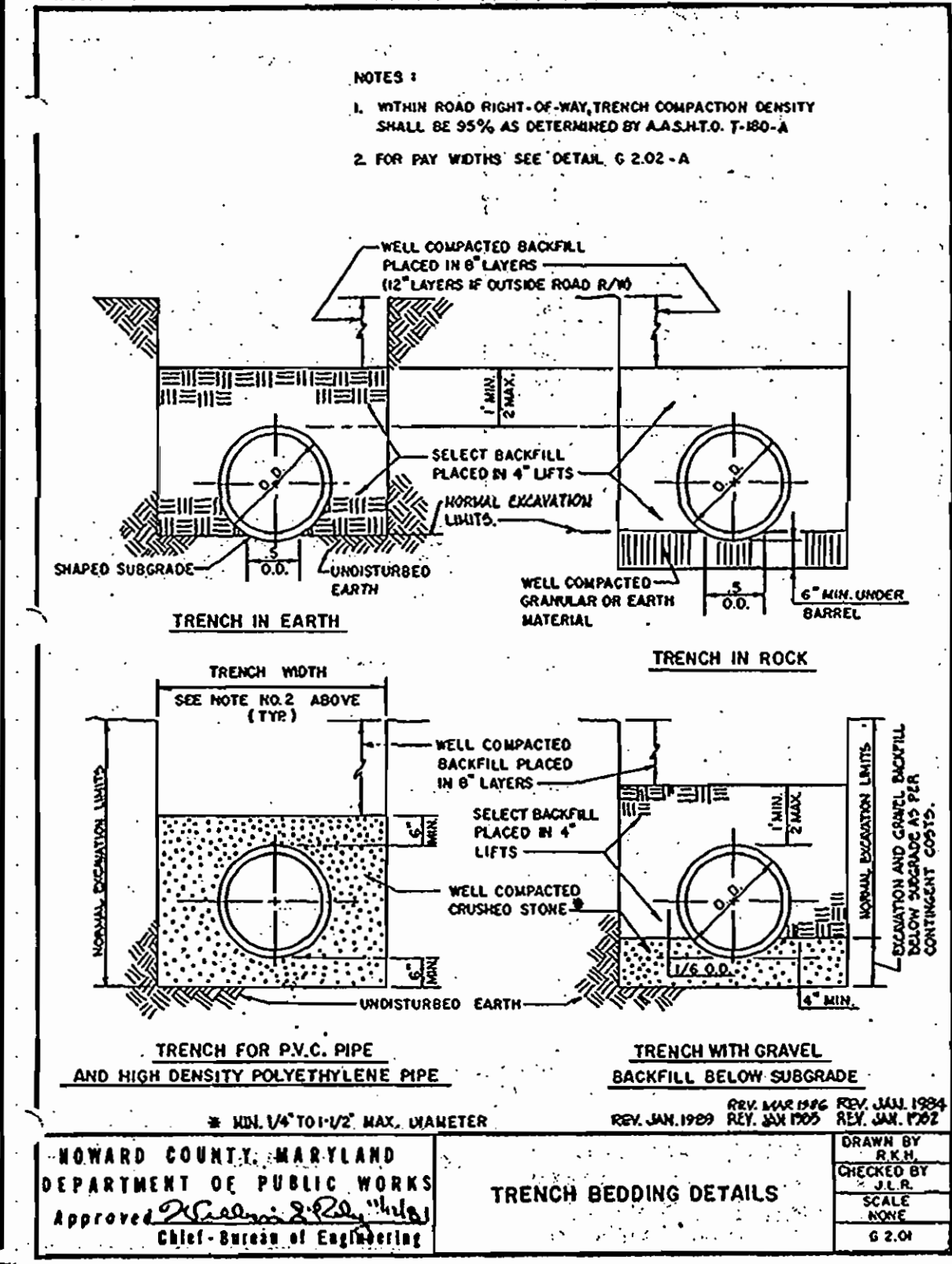
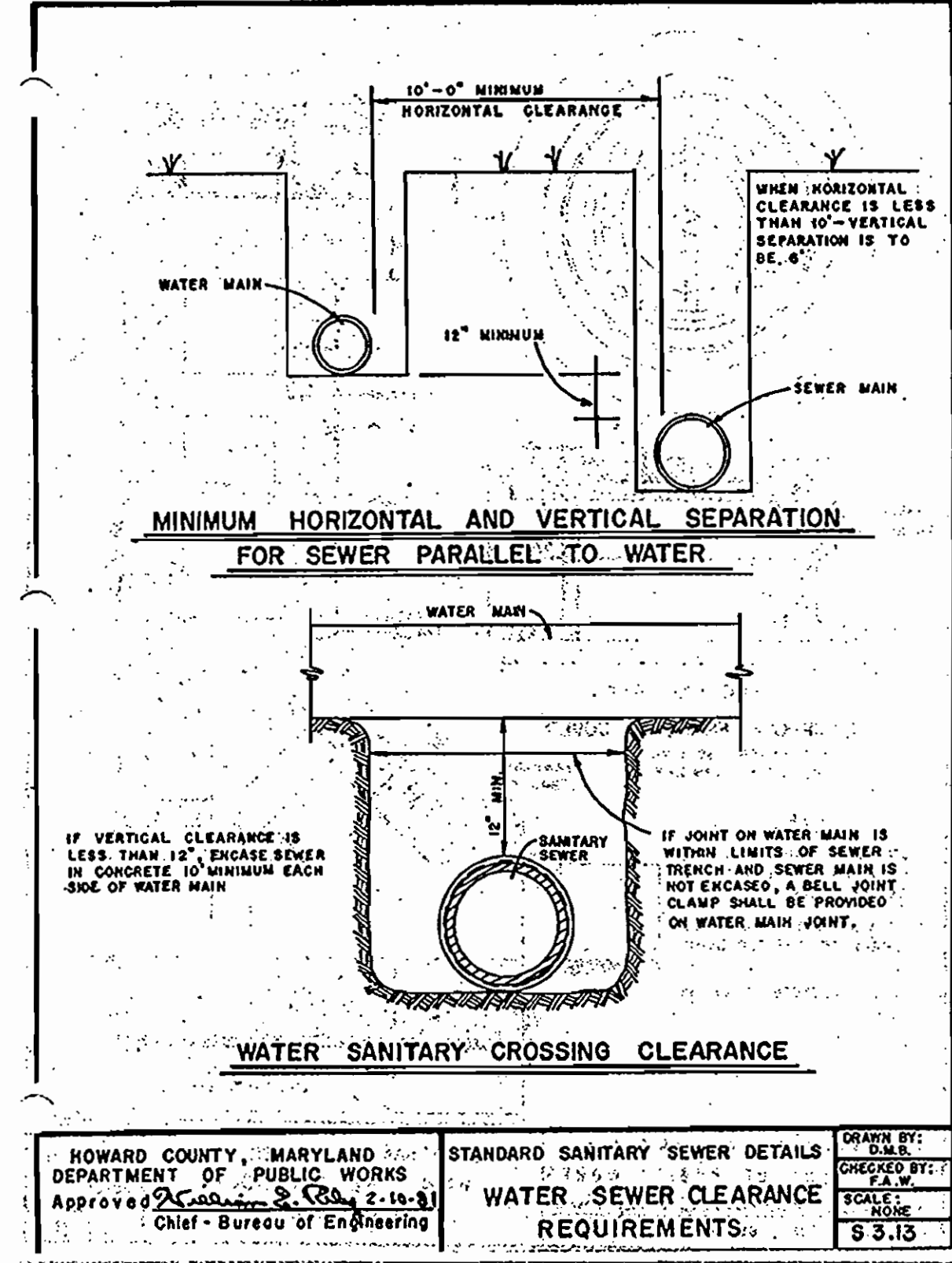
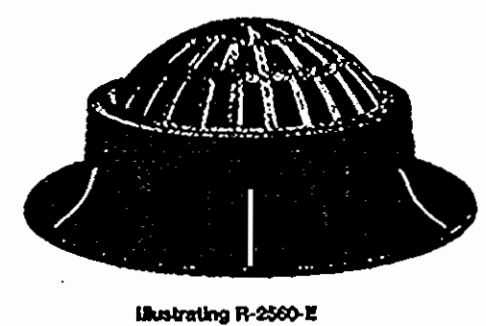
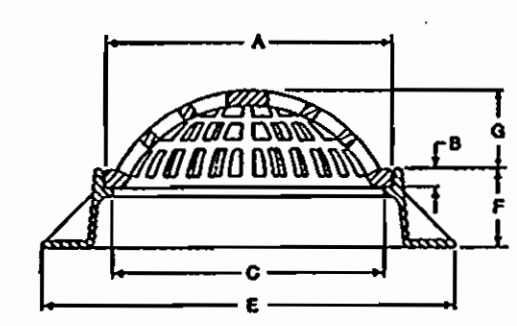


NOTES: When specifying/ordering grates, refer to "CHOOSING THE PROPER INLET GRATE" on pages 108-109. For FREE OPEN AREAS of Neenah Grates, refer to pages 328-330.

**R-2500 Series
Beehive Grates with Frames**

Suitable for drainage in circumstances where clogging of a flat grating is a problem. Excellent for roadside or earth ditch catch basins. Furnished standard with as-cast bearing surfaces.

Catalog No.	Dimensions in inches						Frame Reference
	A	B	C	E	F	G	
R-2500-A	12	1	11	19	4	4	R-1791-A
R-2500-B	18	1 1/2	16 1/2	30	8	4	R-1900-A
R-2500-C	22	1 1/2	20	28	4	4 1/2	R-1890
R-2500-D	22	1 1/2	20 1/2	28 1/2	8	4 1/2	R-1710
R-2500-E	22	1 1/2	20	28	4	7	R-1890
R-2500-F	22	1 1/2	20 1/2	28 1/2	6	7	R-1761
R-2500-G	22	1 1/2	20	28	9	7	R-1710
R-2500-H	22 1/4	1 1/2	21 1/4	34	4	4 1/2	R-1847-A
R-2500-I	22 1/4	1 1/2	21	34	9	4 1/2	R-1713
R-2500-J	22 1/4	1 1/2	21 1/4	34	4	7	R-1847-A
R-2500-K	22 1/4	1 1/2	21	34	9	7	R-1713
R-2500-L	25	1 1/2	21	38	9	7	R-1550-A
R-2500-M	25 1/4	7/8	24 1/8	35 1/2	4	8	R-1733-A
R-2500-N	25 1/4	7/8	24 1/8	35 1/2	4	8	R-1733-B
R-2500-O	25 1/4	7/8	24 1/8	35 1/2	7	8	R-1733
R-2500-P	25 1/4	7/8	24 1/8	35 1/2	7	9	R-1733
R-2500-Q	25 1/4	7/8	24 1/8	35 1/2	8	8	R-1733-A
R-2500-R	25 1/4	7/8	24 1/8	35 1/2	8	9	R-1733-A
R-2500-S	25 1/4	7/8	24 1/8	35 1/2	9	8	R-1733-B
R-2500-T	25 1/4	7/8	24 1/8	35 1/2	9	9	R-1733-B
R-2500-U	25 1/4	7/8	24 1/8	35 1/2	10	8	R-1733-C
R-2500-V	25 1/4	7/8	24 1/8	35 1/2	10	9	R-1733-C
R-2500-W	32	1 1/2	30	48	7	4	R-1740-B

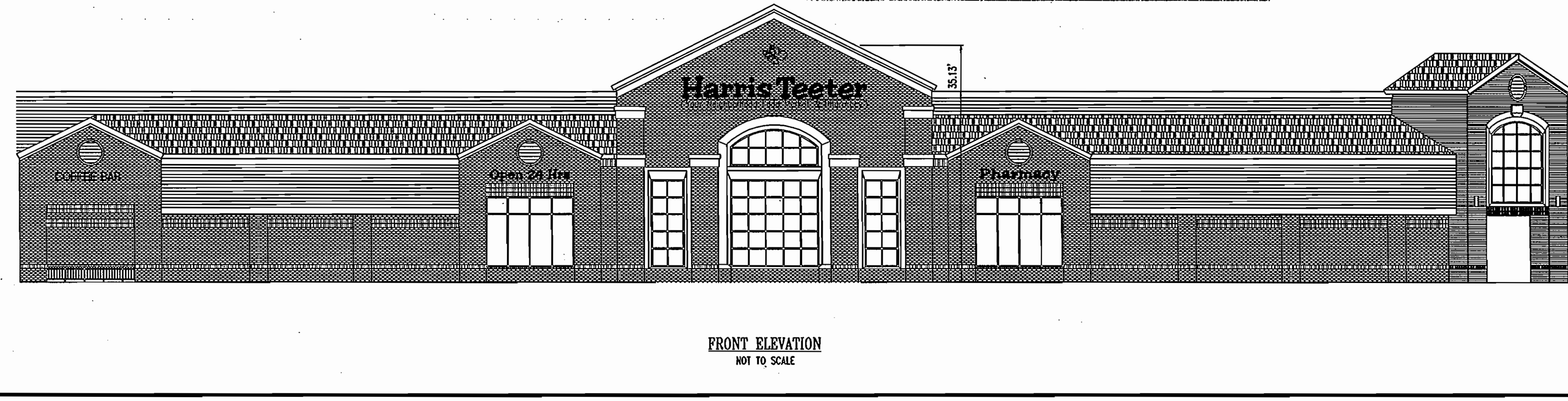


PLANNING BOARD APPROVAL STAMP

APPROVED: DEPARTMENT OF PLANNING AND ZONING
DATE: 12/1/06

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS.
DATE: 12/1/06

APPROVED PLANNING BOARD OF HOWARD COUNTY
DATE: 8/21/06



MISS UTILITY

BEFORE YOU DIG CALL 1-800-257-7777
PROTECT YOURSELF AND TWO WORKING DAYS NOTICE

THIS DRAWING DOES NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY. ALL CONSTRUCTION MUST BE DONE IN COMPLIANCE WITH THE OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970 AND ALL RULES AND REGULATIONS THEREOF.

THE CONTRACTOR TO CALL MISS UTILITY TO HAVE ALL EXISTING UTILITIES MARKED 48 HOURS PRIOR TO ANY CONSTRUCTION.

OWNER/DEVELOPER:
KOCY LIMITED PARTNERSHIP
C/O KIMCO REALTY CORP.
3333 NEW HYDE PARK ROAD
SUITE 100
NEW HYDE PARK, NY 11042-1205

PROJECT: HARRIS TEETER - ONE STORY GROCERY STORE
KING'S CONTRIVANCE VILLAGE CENTER
8820 GULLFORD ROAD
COLUMBIA, MARYLAND 21046

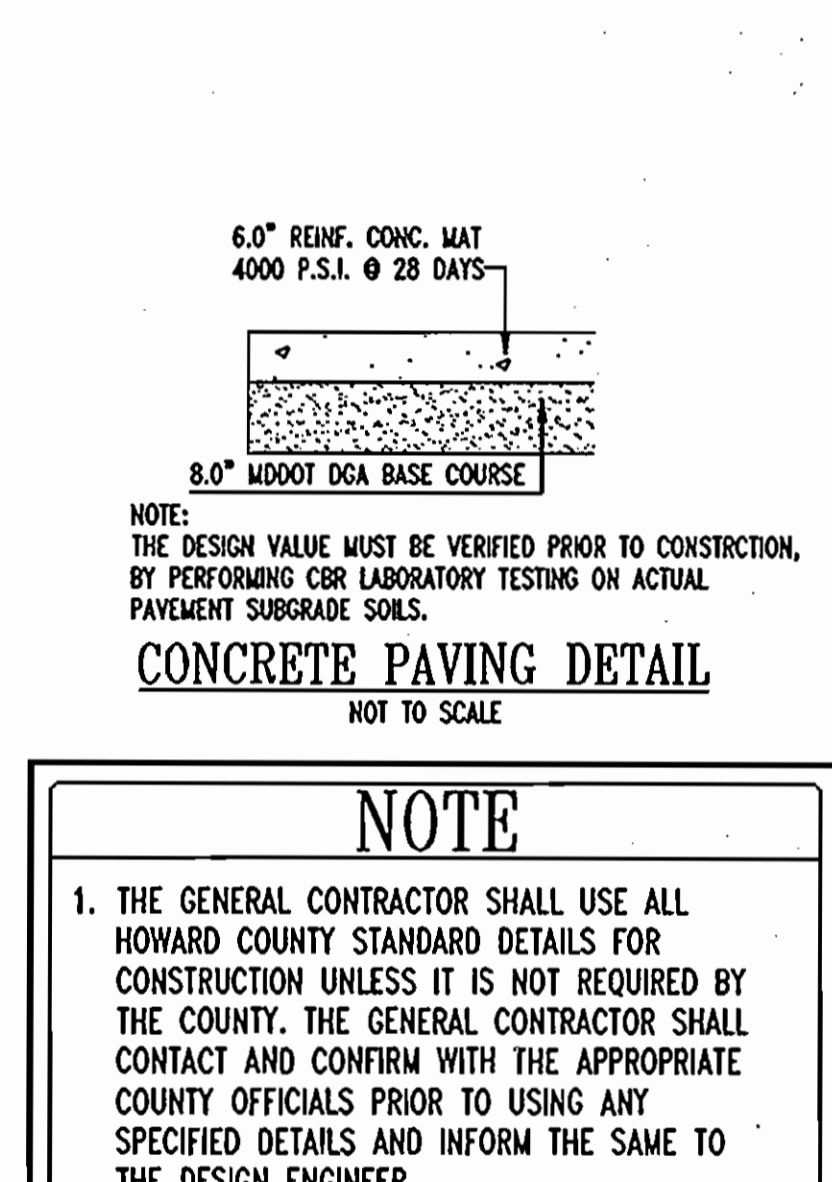
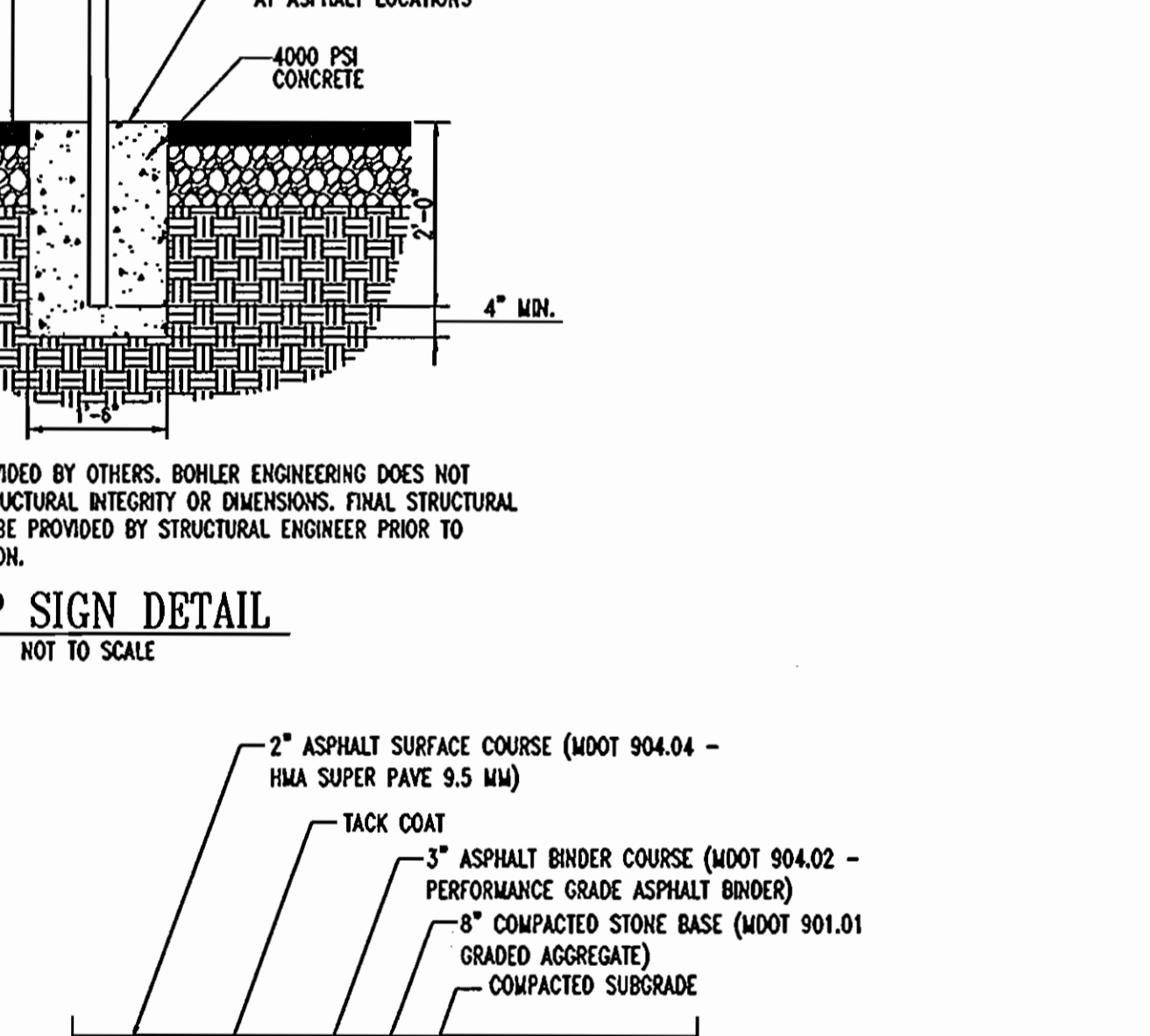
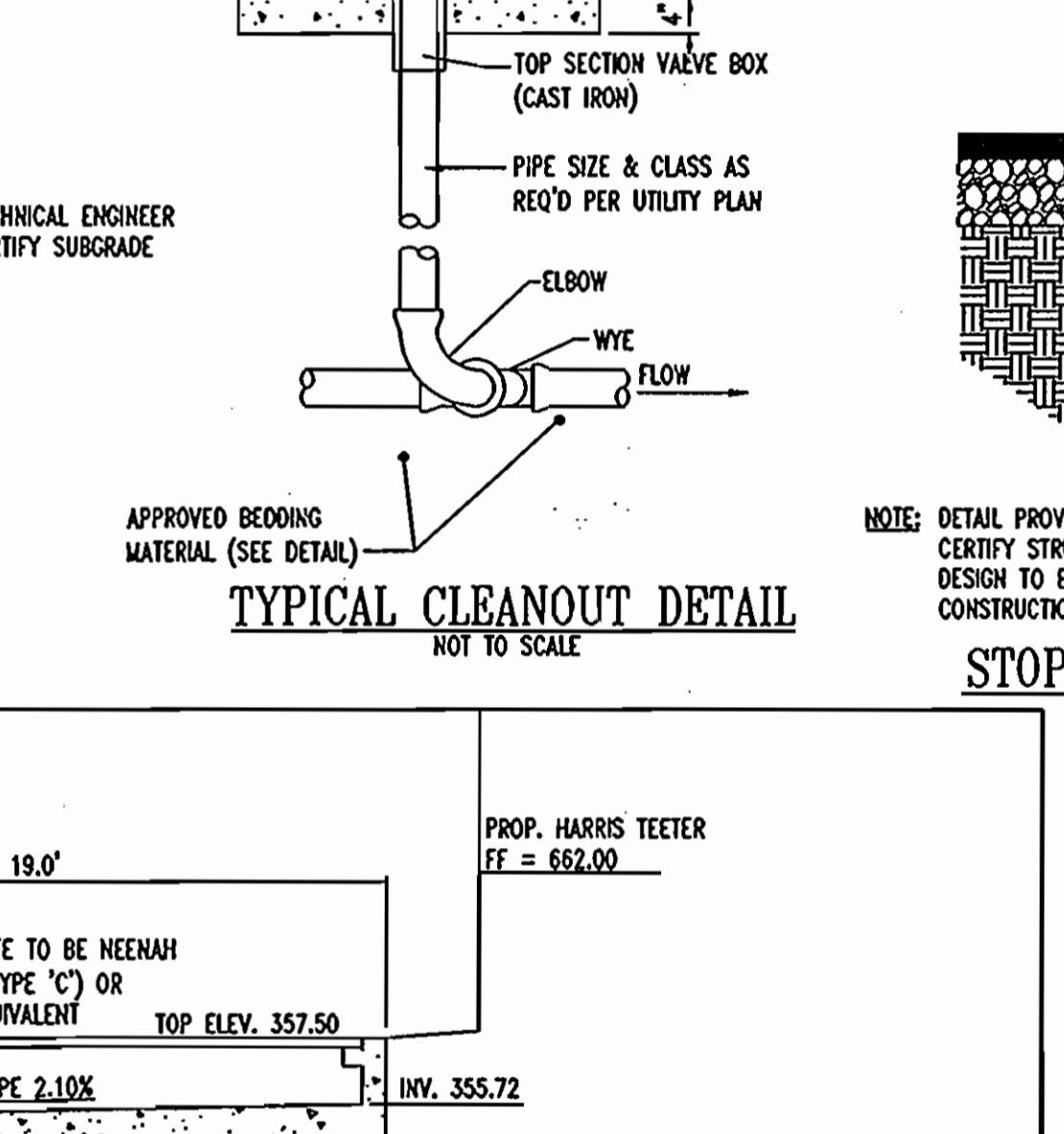
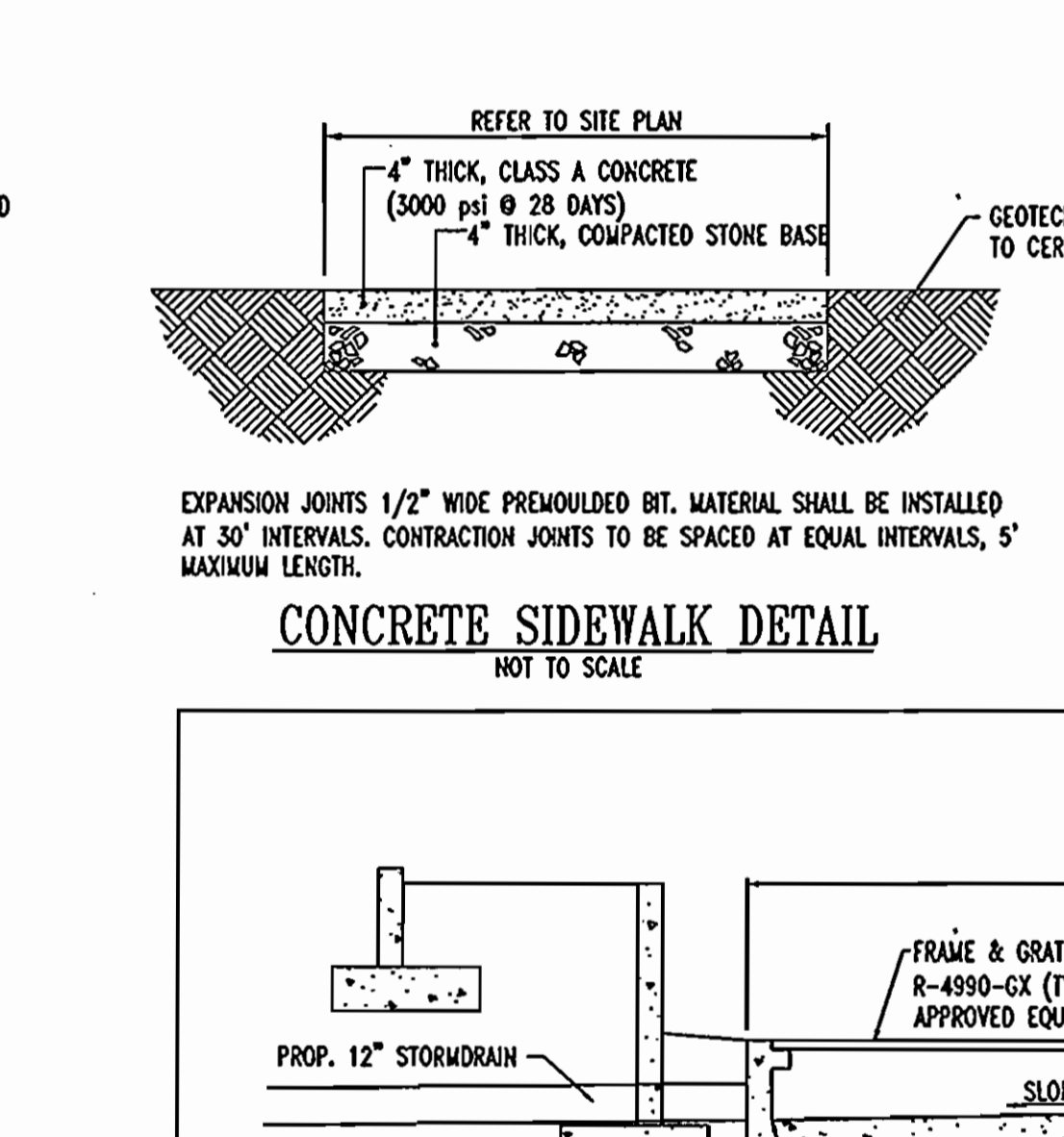
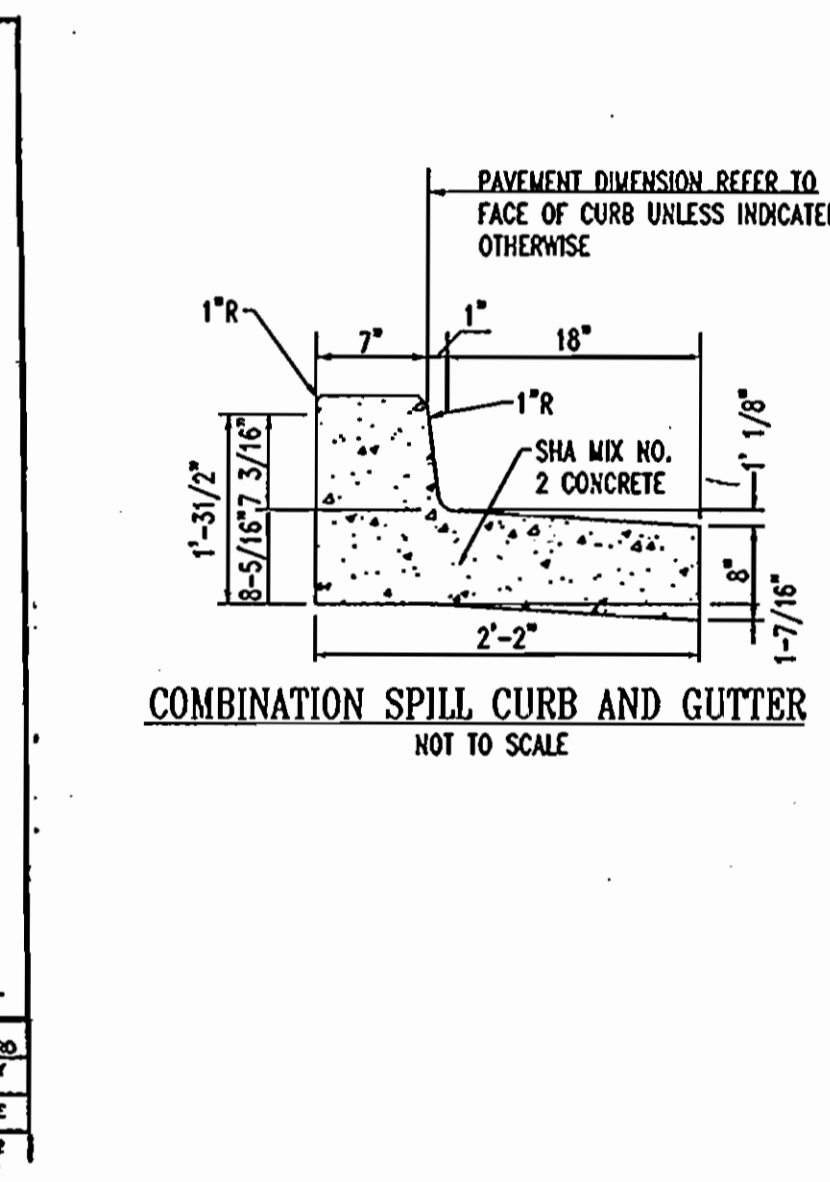
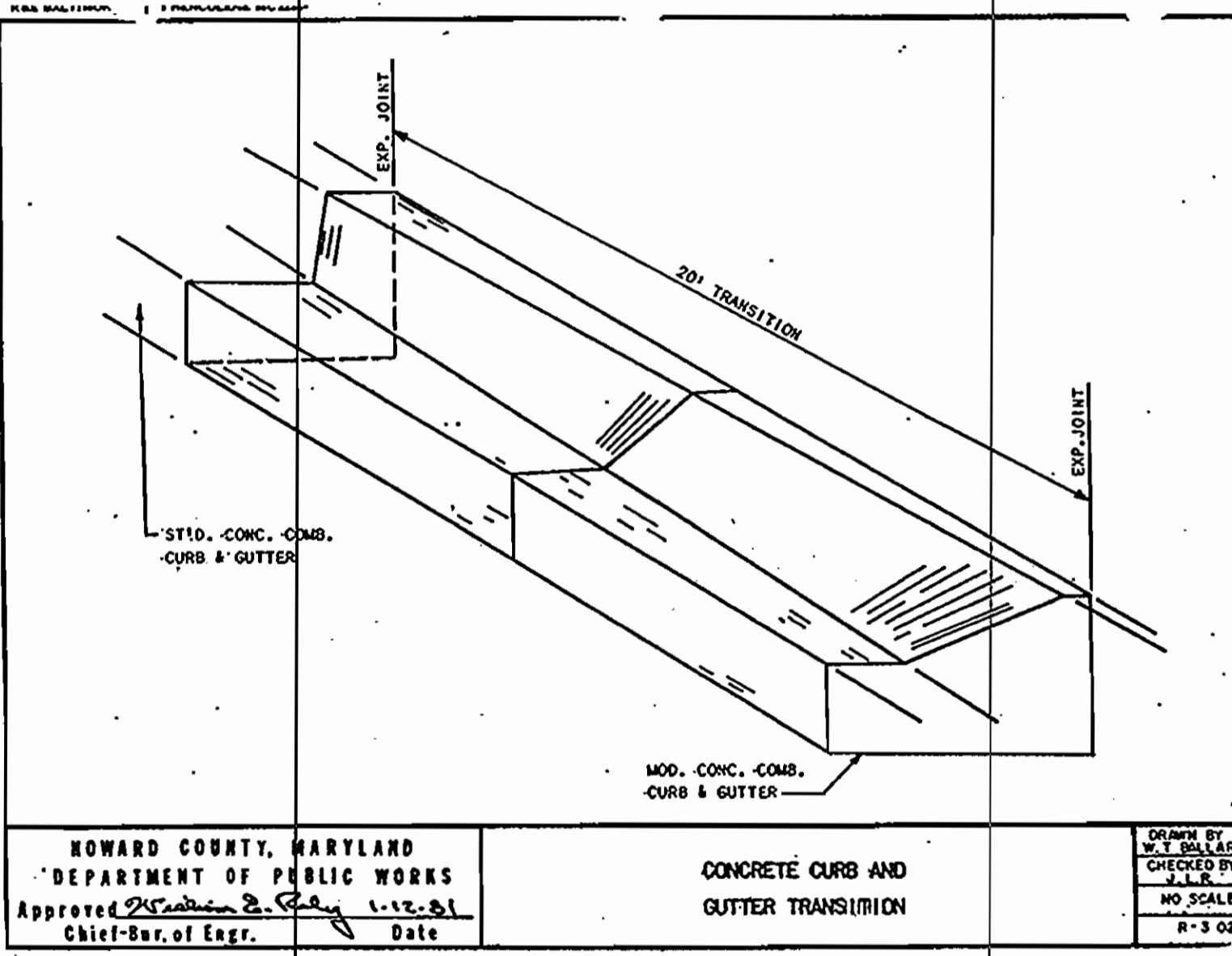
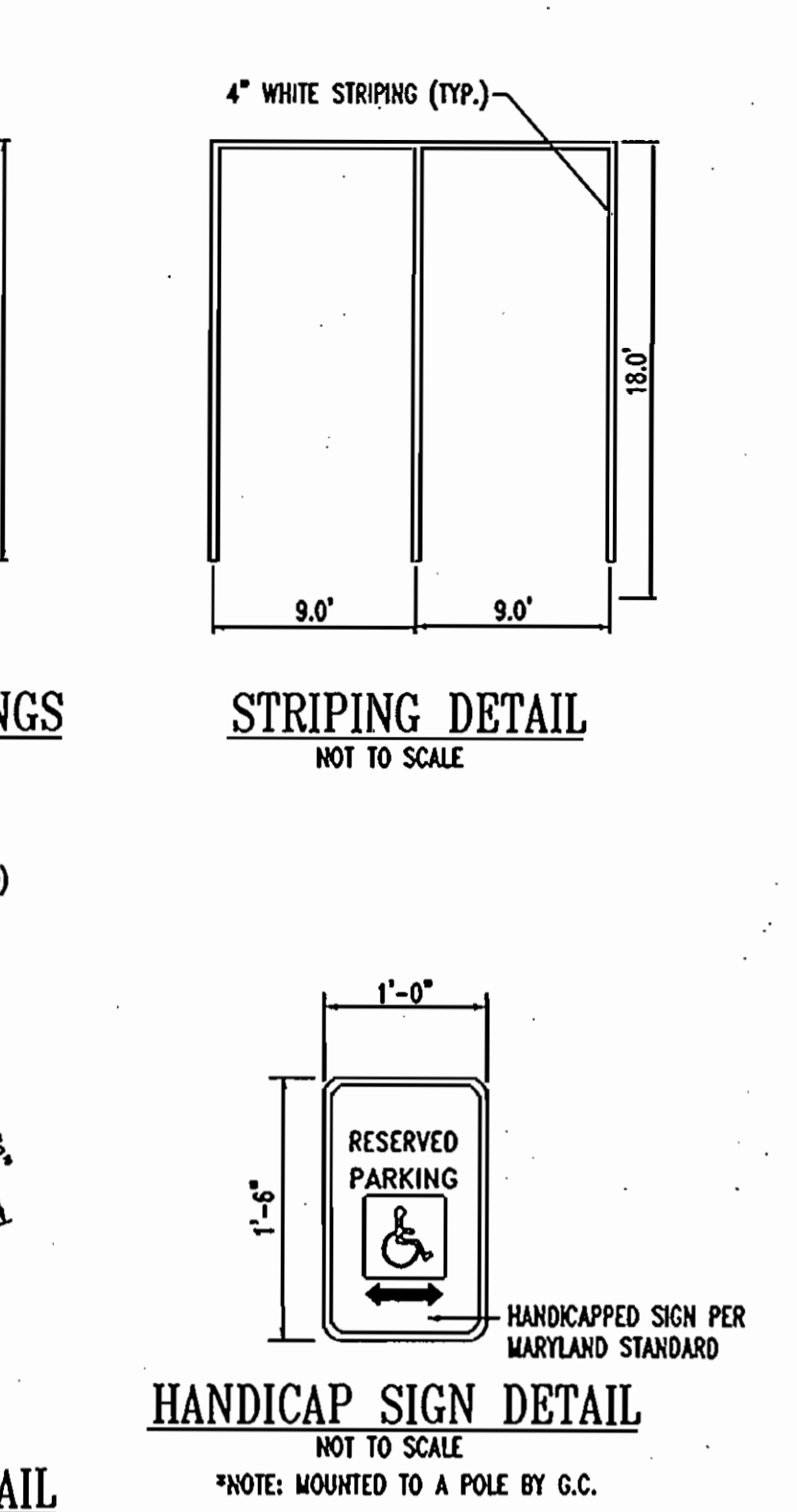
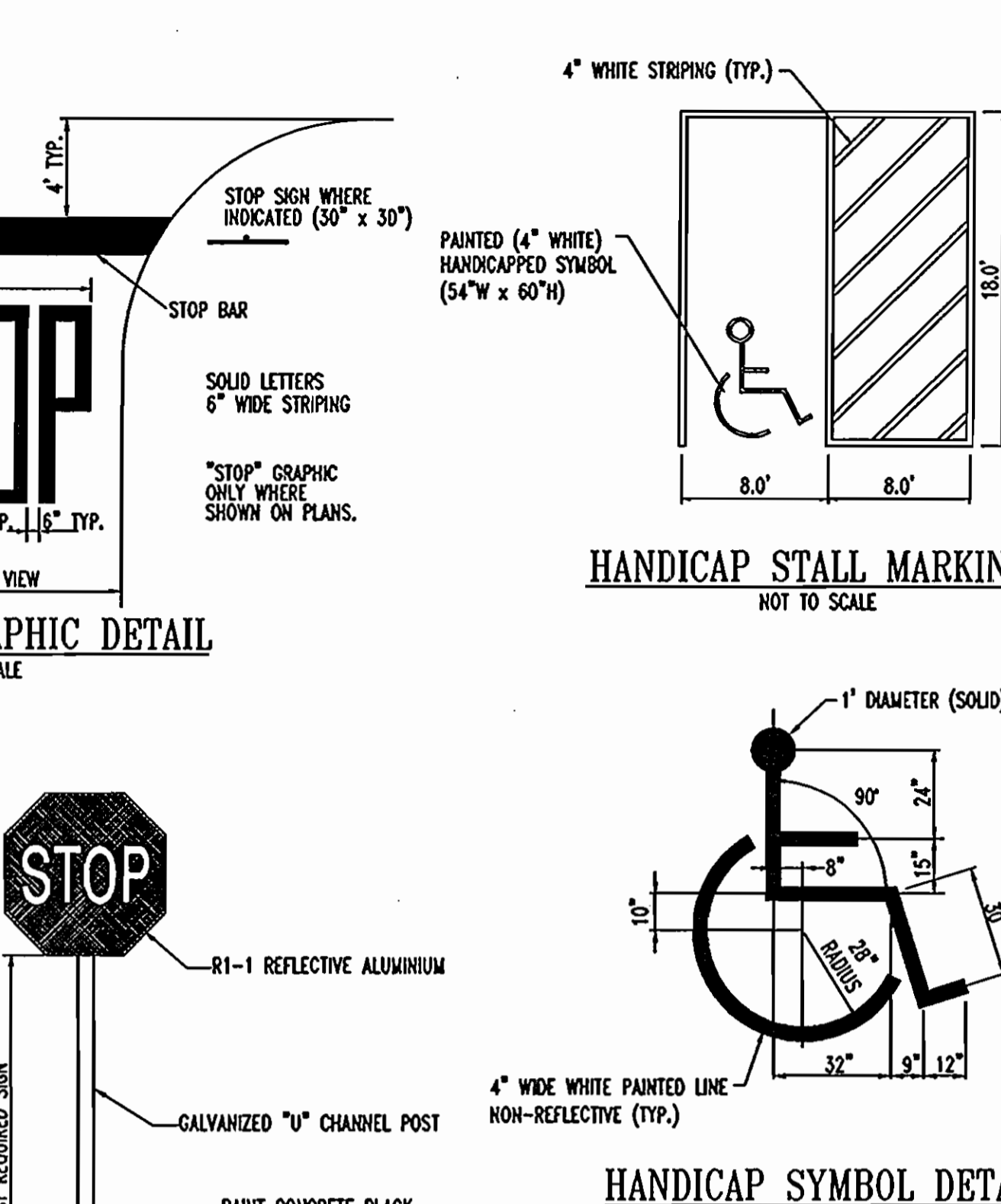
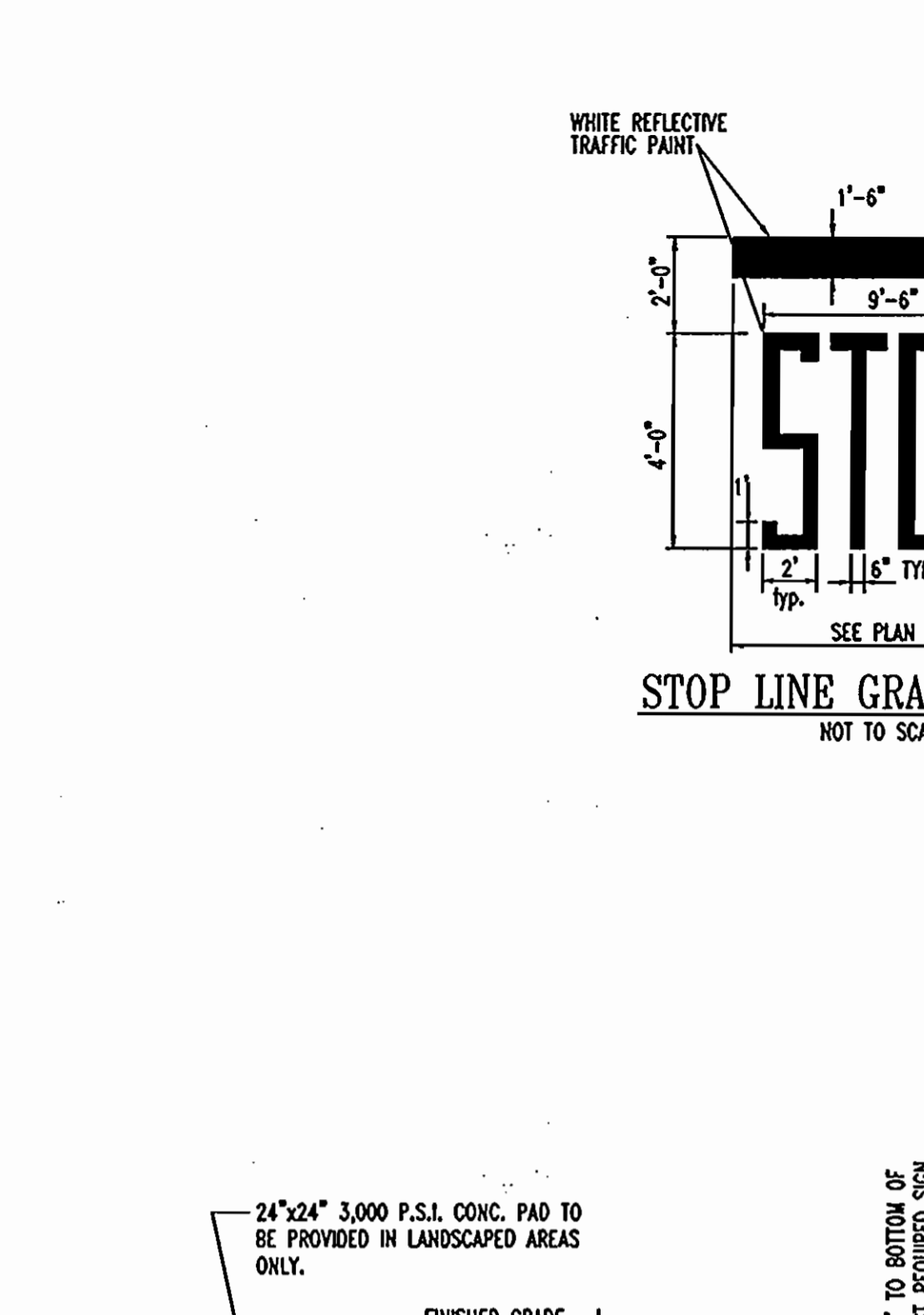
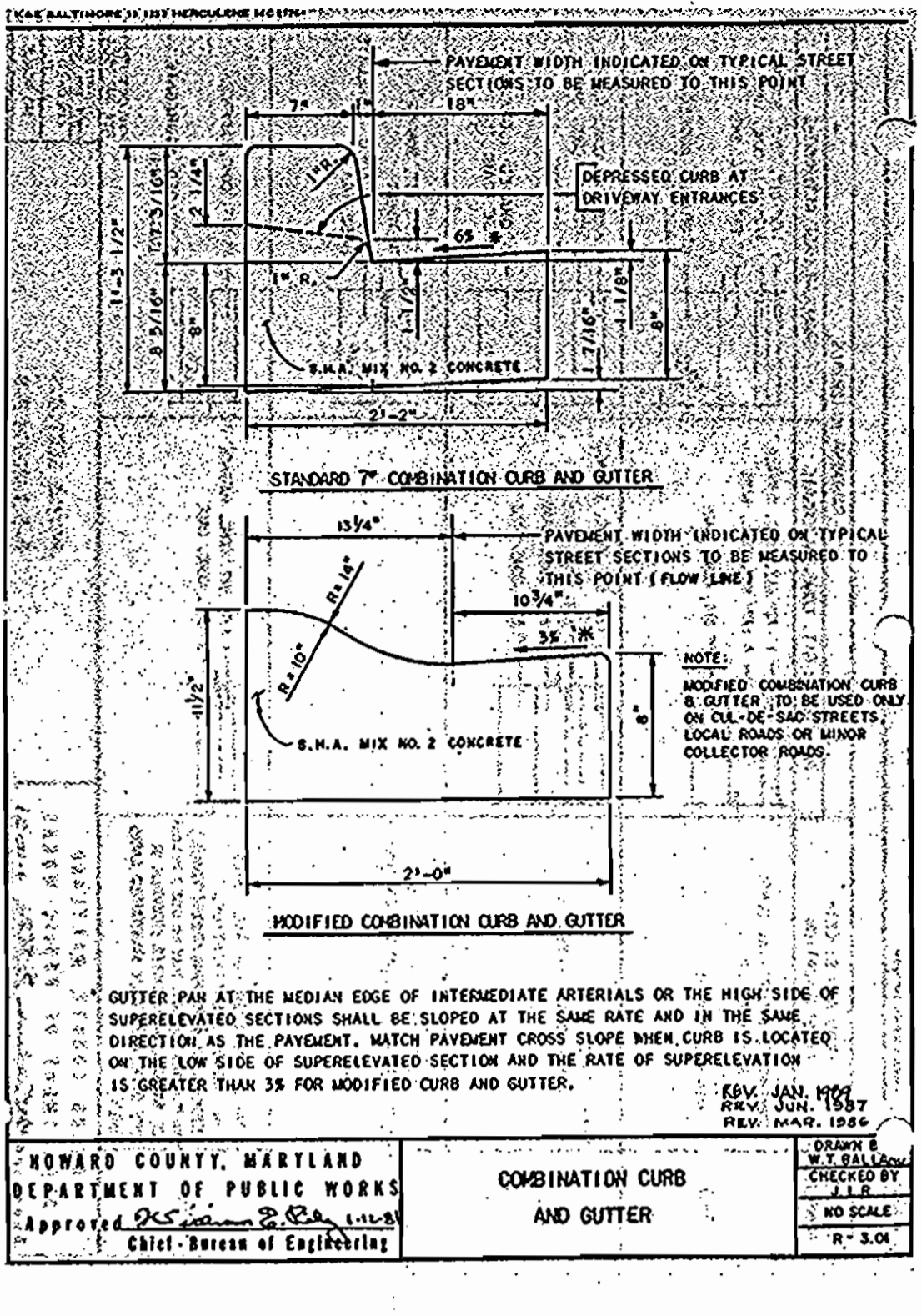
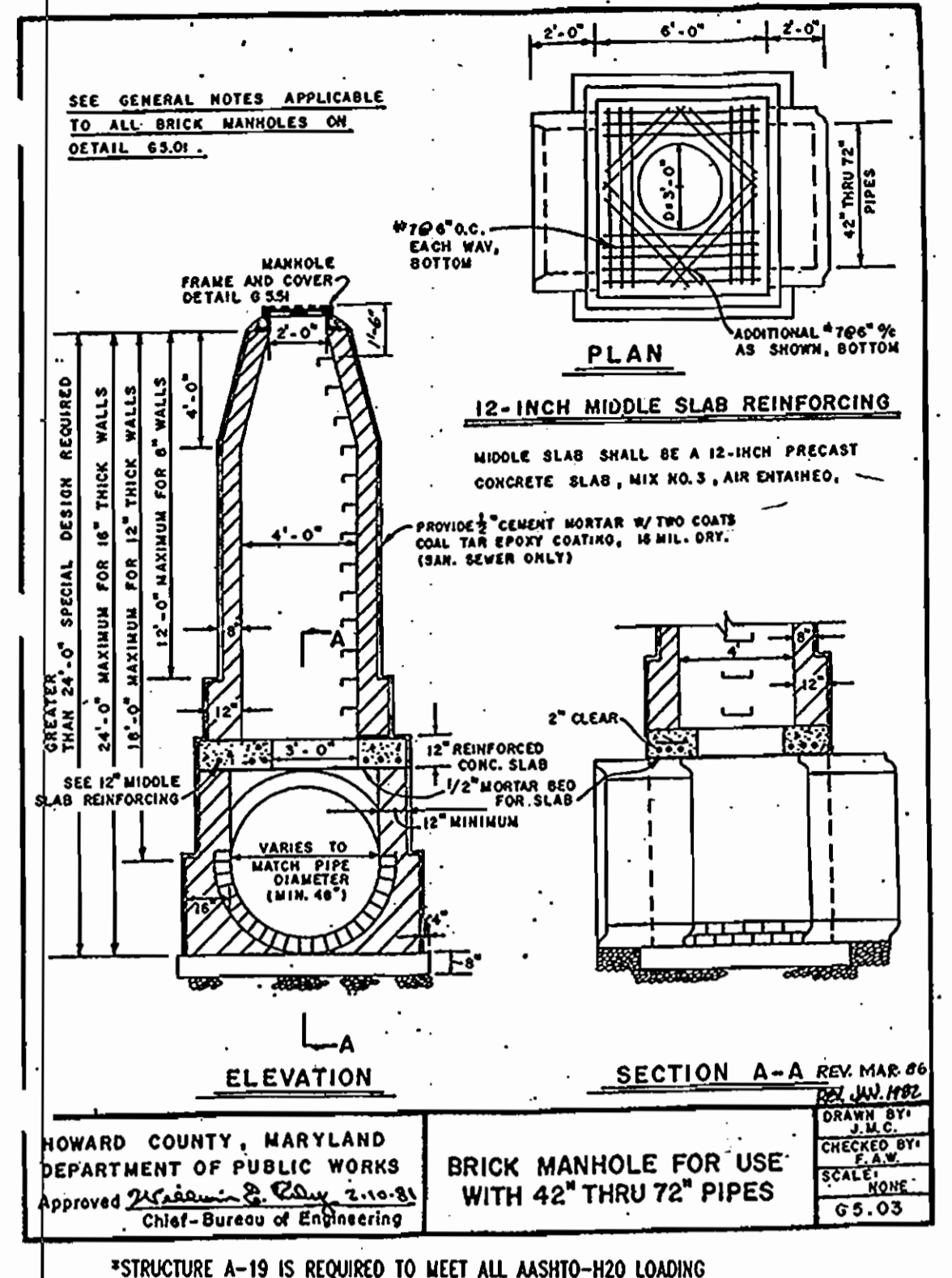
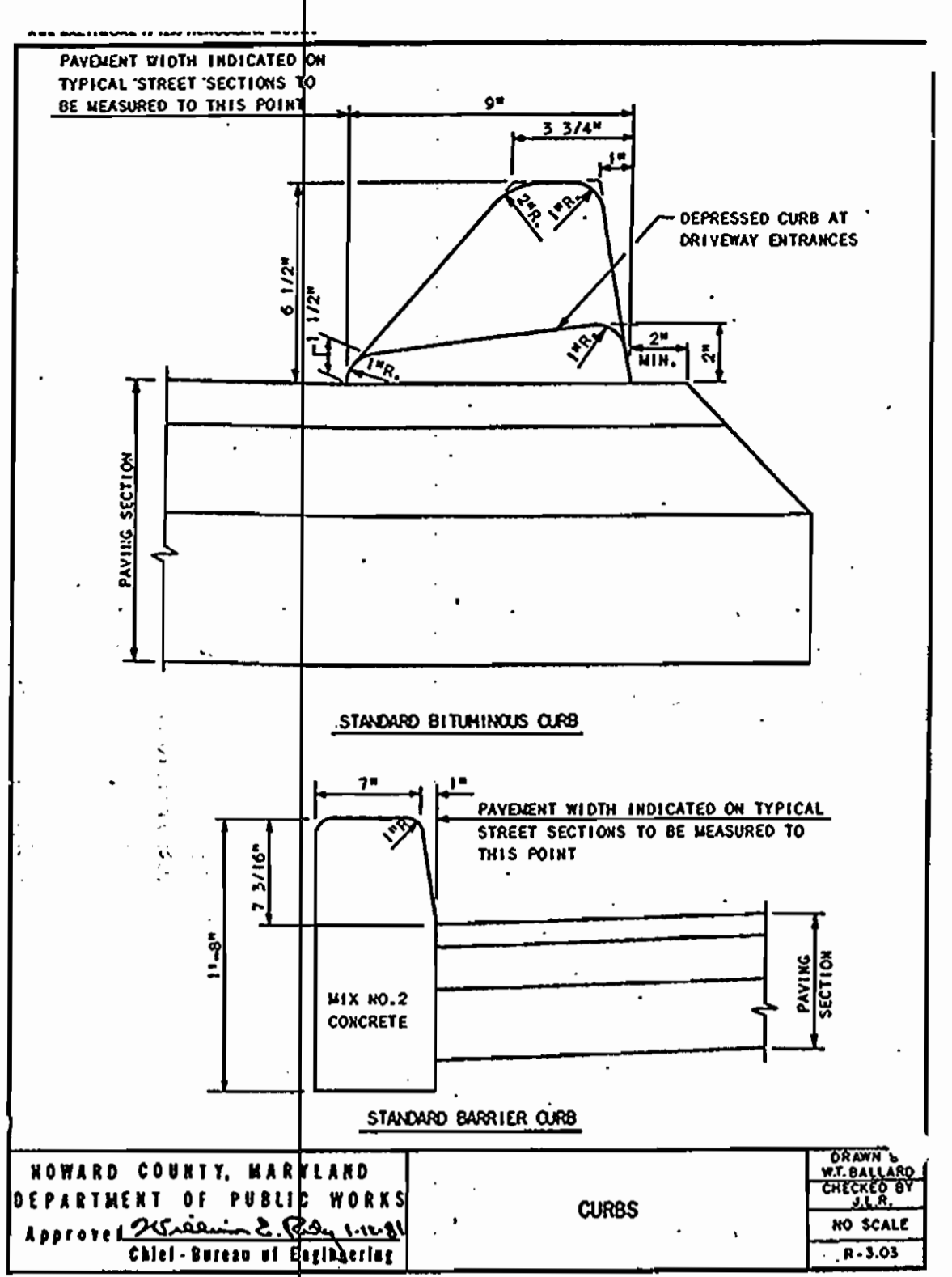
AREA: TAX MAP 42 GSD ZONED NEW TOWN
PARCEL G
VILLAGE OF KING'S CONTRIVANCE
6TH ELECTION DISTRICT
COLUMBIA, HOWARD COUNTY, MARYLAND

TITLE: SITE DETAILS

BOHLER ENGINEERING, P.C.
PROFESSIONAL ENGINEERING SERVICES
4810 Glenelg Court, Suite 300, Towson, Maryland
CONTACT: Michael Greel
(410) 821-7900 FAX: (410) 821-7887

DESIGNED BY: M/G
DRAWN BY: TAC
PROJECT NO.: M0406006
DATE: 9/27/06
SCALE: AS SHOWN
DRAWING NO.: 13 OF 22

SDP-06-98



APPROVED: DEPARTMENT OF PLANNING AND ZONING

DATE: 8/21/06

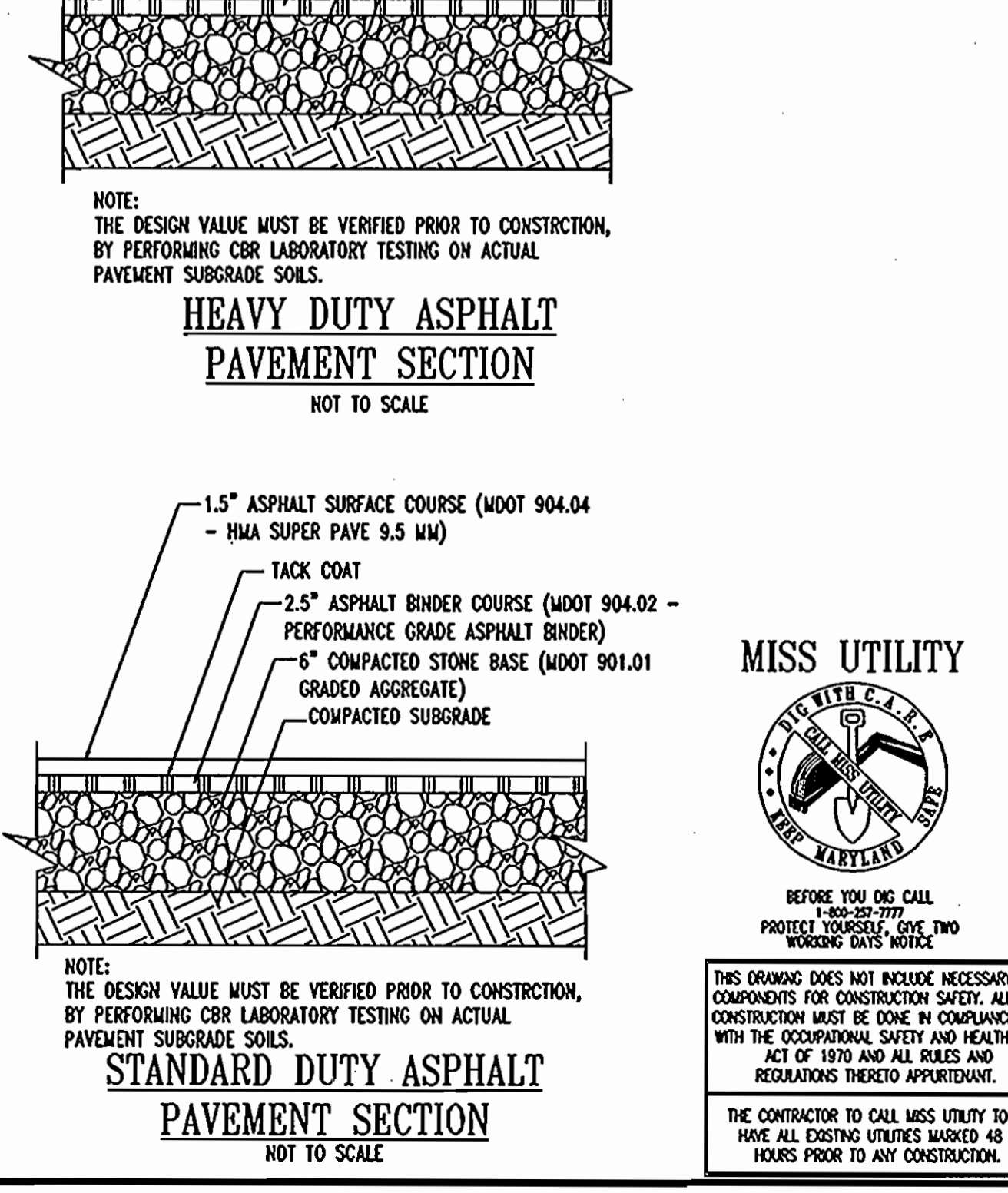
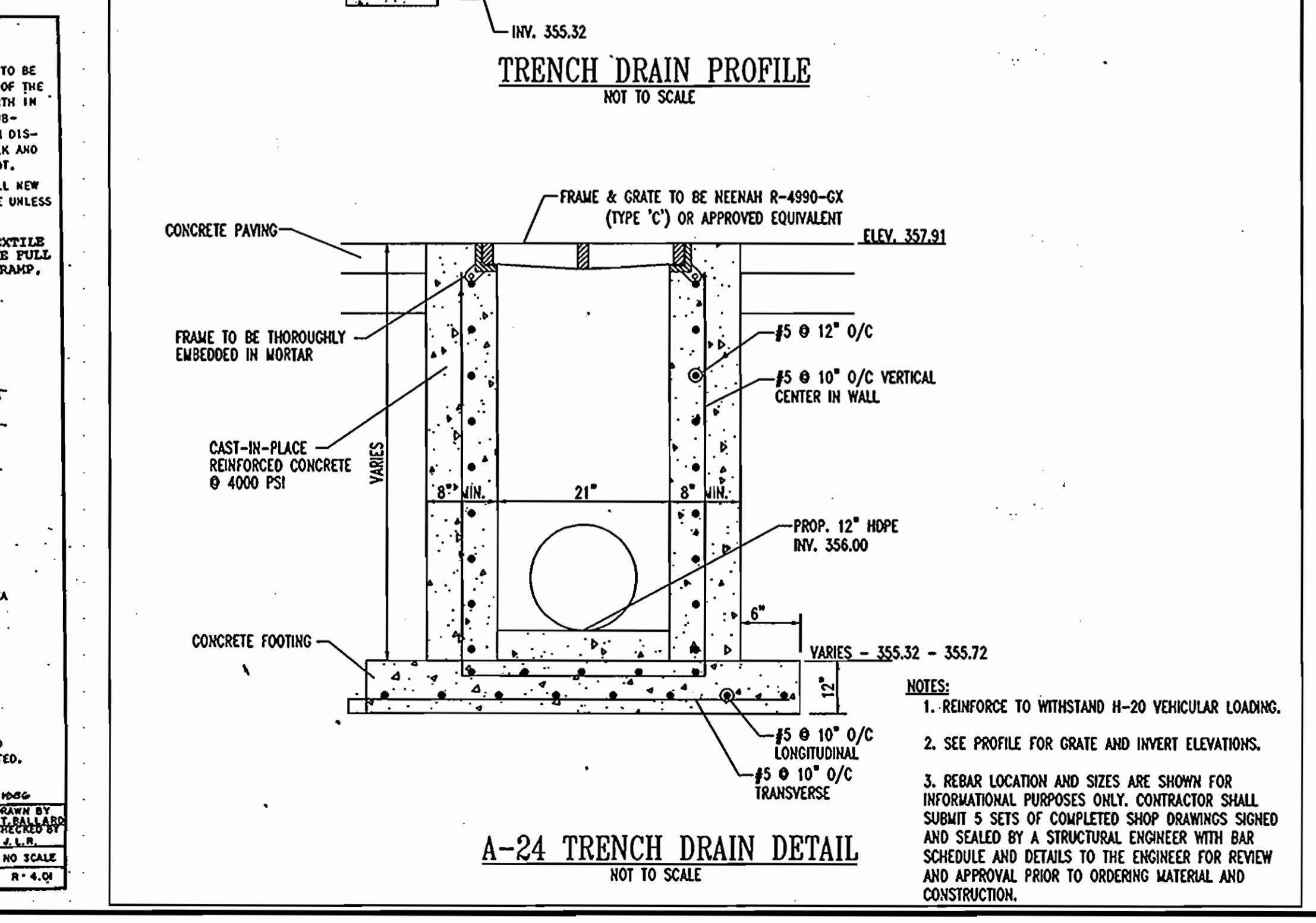
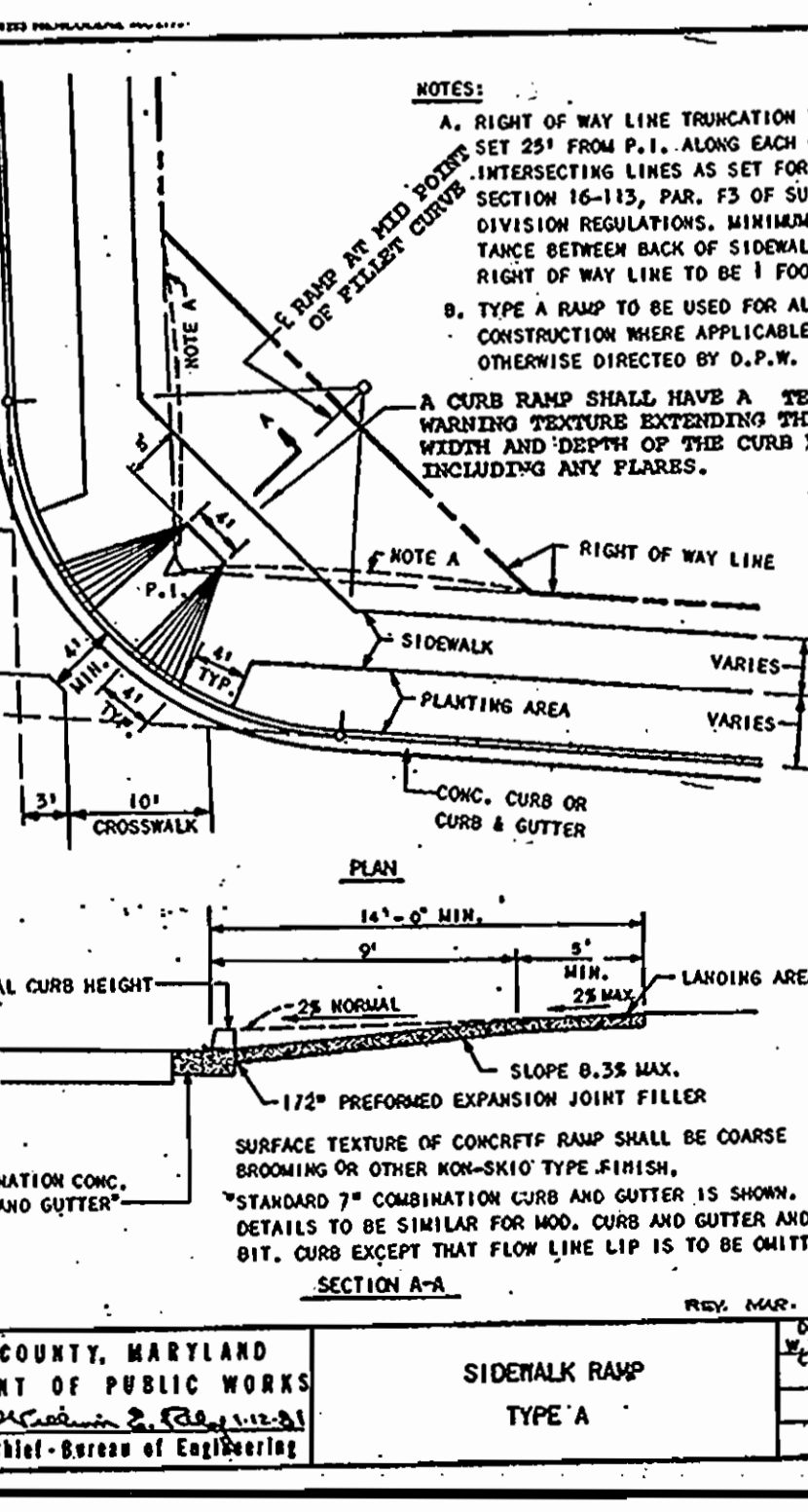
APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS.

DATE: 8/21/06

PLANNING BOARD APPROVAL STAMP

APPROVED PLANNING BOARD OF HOWARD COUNTY

DATE: 8-21-06



NOTE

1. THE GENERAL CONTRACTOR SHALL USE ALL HOWARD COUNTY STANDARD DETAILS FOR CONSTRUCTION UNLESS IT IS NOT REQUIRED BY THE COUNTY. THE GENERAL CONTRACTOR SHALL CONTACT AND CONFIRM WITH THE APPROPRIATE COUNTY OFFICIALS PRIOR TO USING ANY SPECIFIED DETAILS AND INFORM THE SAME TO THE DESIGN ENGINEER.

REV.	DATE	DESCRIPTION	BY

OWNER/DEVELOPER:

KYCC LIMITED PARTNERSHIP
C/O KIMCO REALTY CORP.
3333 NEW HYDE PARK ROAD
SUITE 100
NEW HYDE PARK, NY 11042-1205

PROJECT: HARRIS TEETER - ONE STORY GROCERY STORE
KING'S CONTRIVANCE VILLAGE CENTER
8820 GULFORD ROAD
COLUMBIA, MARYLAND 21046

AREA: TAX MAP 42 GRID 7 ZONED HT-COMM
PARCEL 6
VILLAGE OF KING'S CONTRIVANCE
6TH ELECTION DISTRICT
COLUMBIA, HOWARD COUNTY, MARYLAND

TITLE:

SITE DETAILS

BOHLER ENGINEERING, P.C.

PROFESSIONAL ENGINEERING SERVICES
810 Glenageles Court, Suite 300, Towson, Maryland
*CONTACT: Michael Gravel
(410) 821-7900 FAX: (410) 821-7987 WWW.BOHLENGE.COM

DESIGNED BY: MJG
DRAWN BY: TAC
PROJECT NO.: MD049005
DATE: 9/27/06
SCALE: AS SHOWN
DRAWING NO.: 12 OF 22

MISS UTILITY

BEFORE YOU DIG CALL 1-800-257-7777 PROTECT YOURSELF, GIVE TWO WARNING DAYS NOTICE

THIS DRAWING DOES NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY. ALL CONSTRUCTION MUST BE DONE IN COMPLIANCE WITH THE OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970 AND ALL RULES AND REGULATIONS THEREOF APPROPRIANT.

THE CONTRACTOR TO CALL MISS UTILITY TO HAVE ALL EXISTING UTILITIES MARKED 48 HOURS PRIOR TO ANY CONSTRUCTION.

SDP-06-98

STANDARD AND SPECIFICATIONS FOR VEGETATIVE STABILIZATION WITH SOD

SPECIFICATIONS:

- CLASS OF TURFGRASS SOD SHALL BE MARYLAND OR VIRGINIA STATE CERTIFIED, OR MARYLAND OR VIRGINIA STATE APPROVED SOD.
- SOD SHALL BE MACHINE CUT AT A UNIFORM SOIL THICKNESS OF 3/4 INCH PLUS OR MINUS 1/4 INCH, AT THE TIME OF CUTTING. MEASUREMENT FOR THICKNESS SHALL EXCLUDE TOP GROWTH AND THATCH.
- STANDARD SIZE SECTIONS OF SOD SHALL BE STRONG ENOUGH TO SUPPORT THEIR OWN WEIGHT AND RETAIN THEIR SHAPE WHEN SUSPENDED VERTICALLY WITH A FIRM GRASP ON THE UPPER 10 PERCENT OF THE SECTION.
- INDIVIDUAL PIECES OF SOD SHALL BE CUT TO THE SUPPLIERS WIDTH AND LENGTH, MAXIMUM ALLOWABLE DEVIATION FROM STANDARD WIDTHS AND LENGTHS SHALL BE 5 PERCENT. BROKEN PADS AND TORN OR UNEVEN ENDS WILL NOT BE ACCEPTABLE.
- SOD SHALL NOT BE HARVESTED OR TRANSPORTED WHEN MOISTURE CONTENT (EXCESSIVELY DRY OR WET) MAY ADVERSELY AFFECT ITS SURVIVAL.
- SOD SHALL BE HARVESTED, DELIVERED AND INSTALLED WITHIN A PERIOD OF 36 HOURS. SOD NOT TRANSPORTED WITHIN THIS PERIOD SHALL BE INSPECTED AND APPROVED PRIOR TO INSTALLATION.

SITE PREPARATION:

FERTILIZER AND LIME APPLICATION RATES SHALL BE DETERMINED BY SOIL TEST. UNDER UNUSUAL CIRCUMSTANCES WHERE THERE IS INSUFFICIENT TIME FOR A COMPLETE SOIL TEST, FERTILIZER AND LIME MATERIALS MAY BE APPLIED IN AMOUNTS SHOWN UNDER B. BELOW.

- PRIOR TO SODDING, THE SURFACE SHALL BE CLEARED OF ALL TRASH, DEBRIS AND OF ALL ROOTS, BRUSH, WIRE, GRADE STAKES AND OTHER OBSTACLES THAT WOULD INTERFERE WITH PLANTING, FERTILIZING OR MAINTENANCE OPERATIONS.
- WHERE THE SOIL IS ACID OR COMPOSED OF HEAVY CLAYS, GROUND LIMESTONE SHALL BE SPREAD AT THE RATE OF 2 TONS PER ACRE (100 LBS./1000 SQ. FT.) IN ALL SOILS 1,000 POUNDS PER ACRE OR 25 POUNDS PER 1,000 SQUARE FEET OF 10-10-10 FERTILIZER OR EQUIVALENT SHALL BE UNIFORMLY APPLIED AND MIXED INTO THE TOP 3 INCHES OF SOIL WITH THE REQUIRED LIME.
- ALL AREAS RECEIVING SOD SHALL BE UNIFORMLY FINE GRADED. HARD PACKED EARTH SHALL BE SCARIFIED PRIOR TO PLACEMENT OF SOD. SOD INSTALLATION:

- DURING PERIODS OF EXCESSIVELY HIGH TEMPERATURE THE SOIL SHALL BE LIGHTLY IRRIGATED IMMEDIATELY PRIOR TO LAYING SOD.
- THE FIRST ROW OF SOD SHALL BE LAID IN A STRAIGHT LINE WITH EACH OTHER. LATERAL JOINTS SHALL BE STAGGERED TO PROMOTE MORE UNIFORM GROWTH AND STRENGTH. INSURE THAT SOD IS NOT ORDER TO PREVENT VOIDS WHICH COULD CAUSE AIR DRYING OF THE ROOTS.

LAY WITH THE LONG EDGES PARALLEL TO THE CONTOUR AND WITH STAGGERED JOINTS. SECURE THE SOD BY TAMPING AND PEGGING OR OTHER APPROVED METHODS.

- AS SODDING IS COMPLETED IN ANY ONE SECTION, THE ENTIRE AREA SHALL BE ROLLED OR TAMPED TO INSURE SOLID CONTACT OF ROOTS WITH THE SOIL SURFACE. SOD SHALL BE WATERED IMMEDIATELY AFTER OF LAYING, TAMPING AND IRRIGATING FOR ANY PIECE OF SOD SHALL BE COMPLETED WITHIN EIGHT HOURS.

SOD MAINTENANCE:

- IN THE ABSENCE OF ADEQUATE RAINFALL, WATERING SHALL BE PERFORMED DAILY OR AS OFTEN AS NECESSARY DURING THE FIRST WEEK AND IN SUFFICIENT QUANTITIES TO MAINTAIN MOIST SOIL TO A THE DAY TO PREVENT WILTING.
- AFTER THE FIRST WEEK, SOD SHALL BE WATERED AS NECESSARY TO MAINTAIN ADEQUATE MOISTURE AND INSURE ESTABLISHMENT.
- FIRST MOWING SHOULD NOT BE ATTEMPTED UNTIL SOD IS FIRMLY ROOTED. NO MORE THAN 1/3 OF THE GRASS LEAF SHALL BE REMOVED BY THE INITIAL CUTTING OR SUBSEQUENT CUTTINGS. GRASS HEIGHT SHALL BE MAINTAINED BETWEEN 2 AND 3 INCHES UNLESS OTHERWISE SPECIFIED.
- MAINTENANCE OF ESTABLISHED SOD SHOULD FOLLOW SPECIFICATIONS OUTLINED IN TABLE 54-1

TOPSOIL CONSTRUCTION AND MATERIAL SPECIFICATIONS

- TOPSOIL SALVAGED FROM THE EXISTING SITE MAY BE USED PROVIDED THAT IT MEETS THE STANDARDS AS SET FORTH IN THESE SPECIFICATIONS. TYPICALLY, THE DEPTH OF TOPSOIL TO BE SALVAGED FOR A GIVEN SOIL TYPE CAN BE FOUND IN THE REPRESENTATIVE SOIL PROFILE SECTION IN THE SOIL SURVEY PUBLISHED BY USDA-SCS IN COOPERATION WITH MARYLAND AGRICULTURAL EXPERIMENTAL STATION.
- TOPSOIL SPECIFICATIONS - SOIL TO BE USED AS TOPSOIL MUST MEET THE FOLLOWING:
 - TOPSOIL SHALL BE LOAM, SANDY LOAM, CLAY LOAM, SILT LOAM, SANDY CLAY LOAM, LOAMY SAND, OTHER SOILS MAY BE USED IF RECOMMENDED BY AN AGRONOMIST OR SOIL SCIENTIST AND APPROVED BY THE APPROPRIATE APPROVAL AUTHORITY. REGARDLESS, TOPSOIL SHALL NOT BE A MIXTURE OF CONTRASTING TEXTURED SUBSOILS AND SHALL CONTAIN LESS THAN 5% BY VOLUME OF CINDERS, STONES, SLAG, COARSE FRAGMENTS, GRAVEL, STICKS, ROOTS, TRASH, OR OTHER MATERIALS LARGER THAN 1 1/2" IN DIAMETER.
 - TOPSOIL MUST BE FREE OF PLANTS OR PLANT PARTS SUCH AS BERMUDA GRASS, QUACKGRASS, JOHNSON GRASS, NUTSEDGE, POISON IVY, THISTLE, OR OTHERS AS SPECIFIED.
 - WHERE THE SUBSOIL IS EITHER HIGHLY ACIDIC OR COMPOSED OF HEAVY CLAYS, GROUND LIMESTONE SHALL BE SPREAD AT THE RATE OF 4-8 TONS PER ACRE (200-400 LBS./1000 SQ. FT.) PRIOR TO PLACEMENT OF TOPSOIL. LIME SHALL BE DISTRIBUTED UNIFORMLY OVER DESIGNATED AREAS AND WORKED INTO THE SOIL IN CONJUNCTION WITH TILLAGE OPERATIONS AS DESCRIBED IN THE FOLLOWING PROCEDURES.

- FOR SITES HAVING DISTURBED AREAS UNDER 5 ACRES:
 - PLACE TOPSOIL (IF REQUIRED) AND APPLY SOIL AMENDMENTS AS SPECIFIED IN 20.0 VEGETATIVE STABILIZATION - SECTION 1 - VEGETATIVE STABILIZATION METHODS AND MATERIALS.

TOPSOIL APPLICATION

- WHEN TOPSOILING, MAINTAIN NEEDED EROSION AND SEDIMENT CONTROL PRACTICES SUCH AS DIVERSIONS, GRADE STABILIZATION STRUCTURES, EARTH DIKES, SLOPE SILT FENCE AND SEDIMENT TRAPS AND BASINS.
- GRADES ON THE AREAS TO BE TOPSOILED, WHICH HAVE BEEN PREVIOUSLY ESTABLISHED, SHALL BE MAINTAINED, ALBERT 4" - 8" HIGHER IN ELEVATION.
- TOPSOIL SHALL BE UNIFORMLY DISTRIBUTED IN A 4" - 8" LAYER AND LIGHTLY COMPACTED TO A MINIMUM THICKNESS OF 4". SPREADING SHALL BE PERFORMED IN SUCH A MANNER THAT SODDING OR SEEDING CAN PROCEED WITH A MINIMUM OF ADDITIONAL SOIL PREPARATION AND TILLAGE. ANY IRREGULARITIES IN THE SURFACE RESULTING FROM TOPSOILING OR OTHER OPERATIONS SHALL BE CORRECTED IN ORDER TO PREVENT THE FORMATION OF DEPRESSIONS OR WATER POCKETS.

VEGETATIVE STABILIZATION METHODS AND MATERIALS

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PERMANENT SEEDING NOTES

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

SEEDBED PREPARATION: LOOSEN UPPER 3 INCHES OF SOIL BY RAKING, DISCING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING (UNLESS PREVIOUSLY LOOSENED).

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

- PREFERRED - APPLY 2 TONS PER ACRE DOLOMITIC LIMESTONE (92 LBS./1000 SQ. FT.) AND 600 LBS. PER ACRE 10-10-10 FERTILIZER (14 LBS./1000 SQ. FT.) BEFORE SEEDING. HARROW OR DISC INTO UPPER THREE INCHES OF SOIL. AT TIME OF SEEDING, APPLY 400 LBS. PER ACRE 30-0-0 AREAFORM FERTILIZER (9 LBS./1000 SQ. FT.)
- ACCEPTABLE - APPLY 2 TONS PER ACRE DOLOMITIC LIMESTONE (92 LBS./1000 SQ. FT.) AND 1000 LBS. PER ACRE 10-10-10 FERTILIZER (23 LBS./1000 SQ. FT.) BEFORE SEEDING. HARROW OR DISC INTO UPPER THREE INCHES OF SOIL.

SEEDING: FOR THE PERIODS MARCH 1 THROUGH APRIL 30, AND AUGUST 1 THROUGH OCTOBER 15, SEED WITH 60 LBS. PER ACRE (1.4 LBS./1000 SQ. FT.) OF KENTUCKY 31 TALL FESCUE PER ACRE AND 2 LBS. PER ACRE (.05 LBS./1000 SQ. FT.) OF WEEPING LOVEGRASS. DURING THE PERIOD OF OCTOBER 16 THROUGH FEBRUARY 28, PROTECT SITE BY OPTION (1) 2 TONS PER ACRE OF WELL ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE SPRING. OPTION (2) USE SOD. OPTION (3) SEED WITH 60 LBS./ACRE KENTUCKY 31 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 GALS./1000 SQ. FT.) OF EMULSIFIED ASPHALT ON FLAT AREA. ON SLOPES 8 FEET OR HIGHER, USE 348 GALLONS PER ACRE (8 GALS./1000 SQ. FT.) FOR ANCHORING.

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

TEMPORARY SEEDING NOTES

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

SEEDBED PREPARATION: LOOSEN UPPER 3 INCHES OF SOIL BY RAKING, DISCING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING (UNLESS PREVIOUSLY LOOSENED).

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

SEEDING: FOR PERIODS MARCH 1 THROUGH APRIL 30 AND FROM AUGUST 15 THROUGH NOVEMBER 15, SEED WITH 2 1/3 BU. PER ACRE OF ANNUAL RYE (3.2 LBS./1000 SQ. FT.). FOR THE PERIOD MAY 1 THROUGH AUGUST 14, SEED WITH 3 LBS. PER ACRE OF WEEPING LOVEGRASS (.07 LBS./1000 SQ. FT.). FOR THE PERIOD NOVEMBER 16 THROUGH FEBRUARY 28, PROTECT SITE BY APPLYING 2 TONS PER ACRE OF WELL ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE SPRING, OR USE SOD.

MULCHING: APPLY 1 1/2 TO 2 TONS PER ACRE (70-90 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 GALS./1000 SQ. FT.) OF EMULSIFIED ASPHALT ON FLAT AREAS. ON SLOPES, 8 FT. OR HIGHER, USE 348 GALLONS PER ACRE (8 GALS./1000 SQ. FT.) FOR ANCHORING.

STANDARD AND SPECIFICATIONS FOR TOPSOIL

DEFINITION

PLACE TOPSOIL OVER A PREPARED SUBSOIL PRIOR TO ESTABLISHMENT OF PERMANENT VEGETATION. PURPOSE: TO PROVIDE A SUITABLE SOIL MEDIUM FOR VEGETATION GROWTH. SOILS OF CONCERN HAVE LOW MOISTURE CONTENT, LOW NUTRIENT LEVELS, LOW PH, MATERIALS TOXIC TO PLANTS, AND/OR UNACCEPTABLE SOIL GRADATION.

CONDITIONS WHERE PRACTICE APPLIES

- THIS PRACTICE IS LIMITED TO AREAS HAVING 2:1 OR FLATTER SLOPES WHERE:
 - THE TEXTURE OF THE EXPOSED SUBSOIL/PARENT MATERIAL IS NOT ADEQUATE TO PRODUCE VEGETATIVE GROWTH.
 - THE SOIL MATERIAL IS SO SHALLOW THAT THE ROOTING ZONE IS NOT DEEP ENOUGH TO SUPPORT PLANTS OR FURNISH CONTINUING SUPPLIES OF MOISTURE AND PLANT NUTRIENTS.
 - THE ORIGINAL SOIL TO BE VEGETATED CONTAINS MATERIAL TOXIC TO PLANT GROWTH.
 - THE SOIL IS SO ACIDIC THAT TREATMENT WITH LIMESTONE IS NOT FEASIBLE.
- FOR THE PURPOSE OF THESE STANDARDS AND SPECIFICATIONS, AREAS HAVING SLOPES STEEPER THAN 2:1 REQUIRE SPECIAL CONSIDERATION AND DESIGN FOR ADEQUATE STABILIZATION THAN 2:1 SHALL HAVE THE APPROPRIATE STABILIZATION SHOWN ON THE PLANS.

CONSTRUCTION AND MATERIAL SPECIFICATIONS

- TOPSOIL SALVAGED FROM THE EXISTING SITE MAY BE USED PROVIDED THAT IT MEETS THE STANDARDS AS SPECIFIED. TYPICALLY, THE DEPTH OF TOPSOIL TO BE SALVAGED FOR A GIVEN SET FORTH IN THE REPRESENTATIVE SOIL PROFILE SECTION IN THE SOIL SURVEY PUBLISHED BY USDA-SCS IN COOPERATION WITH MARYLAND AGRICULTURAL EXPERIMENTAL STATION.
- TOPSOIL SPECIFICATIONS - SOIL TO BE USED AS TOPSOIL MUST MEET THE FOLLOWING:
 - TOPSOIL SHALL BE A LOAM, SANDY LOAM, CLAY LOAM, SILT LOAM, SANDY CLAY LOAM, LOAMY SAND, OTHER SOILS MAY BE USED IF RECOMMENDED BY AN AGRONOMIST OR SOIL SCIENTIST AND APPROVED BY THE APPROPRIATE APPROVAL AUTHORITY. REGARDLESS, TOPSOIL SHALL NOT BE A MIXTURE OF CONTRASTING TEXTURED SUBSOILS AND SHALL CONTAIN LESS THAN 5% BY VOLUME OF CINDERS, STONES, SLAG, COARSE FRAGMENTS, GRAVEL, STICKS, ROOTS, TRASH, OR OTHER MATERIALS LARGER THAN 1 1/2" IN DIAMETER.
 - TOPSOIL MUST BE FREE OF PLANTS OR PLANT PARTS SUCH AS BERMUDA GRASS, JOHNSON GRASS, NUT SEDGE, POISON IVY, THISTLE, OR OTHERS AS SPECIFIED.
 - WHERE THE SUBSOIL IS EITHER HIGHLY ACIDIC OR COMPOSED OF HEAVY CLAYS, GROUND LIMESTONE SHALL BE SPREAD AT THE RATE OF 4-8 TONS/ACRE (200-400 POUNDS PER 1000 SQUARE FEET) PRIOR TO THE PLACEMENT OF TOPSOIL. LIME SHALL BE DISTRIBUTED UNIFORMLY OVER DESIGNATED AREAS AND WORKED INTO THE SOIL IN CONJUNCTION WITH TILLAGE OPERATIONS AS DESCRIBED IN THE FOLLOWING PROCEDURES.

- FOR SITES HAVING DISTURBED AREAS UNDER 5 ACRES:
 - PLACE TOPSOIL (IF REQUIRED) AND APPLY SOIL AMENDMENTS AS SPECIFIED IN 20.0 VEGETATIVE STABILIZATION SECTION 1 - VEGETATIVE STABILIZATION METHODS AND MATERIALS.
- FOR SITES HAVING DISTURBED AREAS OVER 5 ACRES:
 - ON SOIL MEETING TOPSOIL SPECIFICATIONS, OBTAIN TEST RESULTS DICTATING FERTILIZER AND LIME AMENDMENTS REQUIRED TO BRING THE SOIL INTO COMPLIANCE WITH THE FOLLOWING:
 - PH FOR TOPSOIL SHALL BE BETWEEN 6.0 THAN 7.5. IF THE TESTED SOIL DEMONSTRATES A PH OF LESS THAN 6.0, SUFFICIENT LIME SHALL BE PRESCRIBED TO RAISE THE PH TO 6.5 OR HIGHER.
 - ORGANIC CONTENT OF TOPSOIL SHALL BE NOT LESS THAN 1.5 PERCENT BY WEIGHT.
 - TOPSOIL HAVING SOLUBLE SALT CONTENT GREATER THAN 500 PARTS PER MILLION SHALL NOT BE USED.
 - NO SOD OR SEED SHALL BE PLACED ON SOIL WHICH HAS BEEN TREATED WITH SOIL STERILANTS OR CHEMICALS USED FOR WEED CONTROL UNTIL SUFFICIENT TIME HAS ELAPSED (14 DAYS MIN.) TO PERMIT DISSIPATION OF PHYTO-TOXIC MATERIALS.
 - NOTE: TOPSOIL SUBSTITUTES OR AMENDMENTS, AS RECOMMENDED BY A QUALIFIED AGRONOMIST OR SOIL SCIENTIST AND APPROVED BY THE APPROPRIATE APPROVAL AUTHORITY, MAY BE USED IN LIEU OF NATURAL TOPSOIL.
 - PLACE TOPSOIL (IF REQUIRED) AND APPLY SOIL AMENDMENTS AS SPECIFIED IN 20.0 VEGETATIVE STABILIZATION - SECTION 1 - VEGETATIVE STABILIZATION METHODS AND MATERIALS.

- TOPSOIL APPLICATION
 - WHEN TOP SOILING, MAINTAIN NEEDED EROSION AND SEDIMENT CONTROL PRACTICES SUCH AS DIVERSIONS, GRADE STABILIZATION STRUCTURES, EARTH DIKES, SLOPE SILT FENCE AND SEDIMENT TRAPS AND BASINS.
 - GRADES ON THE AREAS TO BE TOP SOILED, WHICH HAVE BEEN PREVIOUSLY ESTABLISHED, SHALL BE MAINTAINED, ALBERT 4" - 8" HIGHER IN ELEVATION.
 - TOPSOIL SHALL BE UNIFORMLY DISTRIBUTED IN A 4" - 8" LAYER AND LIGHTLY COMPACTED TO A MINIMUM THICKNESS OF 4". SPREADING SHALL BE PERFORMED IN SUCH A MANNER THAT SODDING OR SEEDING CAN PROCEED WITH A MINIMUM OF ADDITIONAL SOIL PREPARATION AND TILLAGE. ANY IRREGULARITIES IN THE RESULTING FROM SURFACE TOP SOILING OR OTHER OPERATIONS SHALL BE CORRECTED IN ORDER TO PREVENT THE FORMATION OF DEPRESSIONS OR WATER POCKETS.
 - TOPSOIL SHALL NOT BE PLACED WHILE THE TOPSOIL OR SUBSOIL IS IN A FROZEN OR MUDDY CONDITION, WHEN THE SUBSOIL IS EXCESSIVELY WET OR IN A CONDITION THAT MAY OTHERWISE BE DETRIMENTAL TO PROPER GRADING AND SEEDBED PREPARATION.

- ALTERNATIVE FOR PERMANENT SEEDING - INSTEAD OF APPLYING THE FULL AMOUNTS OF LIME AND COMMERCIAL FERTILIZER, COMPOSTED SLUDGE AND AMENDMENTS COMMERCIAL BELOW:
 - COMPOSTED SLUDGE MATERIAL FOR USE AS A SOIL CONDITIONER FOR SITES HAVING DISTURBED AREAS OVER 5 ACRES SHALL BE TESTED TO PRESCRIBE AMENDMENTS AND FOR SITES HAVING DISTURBED AREAS UNDER 5 ACRES SHALL CONFORM TO THE FOLLOWING REQUIREMENTS:
 - COMPOSTED SLUDGE SHALL BE SUPPLIED BY, OR ORIGINATE FROM, A PERSON OR PERSONS THAT ARE PERMITTED (AT THE TIME OF ACQUISITION OF THE COMPOST) BY THE MARYLAND DEPARTMENT OF THE ENVIRONMENT UNDER COMAR 26.04.06.
 - COMPOSTED SLUDGE SHALL CONTAIN AT LEAST 1 PERCENT NITROGEN, 1.5 PERCENT PHOSPHORUS, AND 0.2 PERCENT POTASSIUM AND HAVE A PH OF 7.0 TO 8.0. IF COMPOST DOES NOT MEET THESE REQUIREMENTS, THE APPROPRIATE CONSTITUENTS MUST BE ADDED TO MEET THE REQUIREMENTS PRIOR TO USE.
 - COMPOSTED SLUDGE SHALL BE APPLIED AT A RATE OF 1 TON/1,000 SQUARE FEET.
 - COMPOSTED SLUDGE SHALL BE AMENDED WITH A POTASSIUM FERTILIZER APPLIED AT THE RATE OF 4LB/1,000 SQUARE FEET, AND 1/3 THE NORMAL LIME APPLICATION RATE.

REFERENCES: GUIDELINE SPECIFICATIONS, SOIL PREPARATION AND SODDING, MD-WA, PUB. #1, COOPERATIVE EXTENSION SERVICE, UNIVERSITY OF MARYLAND AND VIRGINIA POLYTECHNIC INSTITUTE, REVISED 1973.

HOWARD SOIL CONSERVATION DISTRICT 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 THIS PLAN AND ARE TO BE IN CONFORMANCE WITH THE "1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL", AND REVISIONS THERETO.
- FOLLOWING INITIAL SOIL DISTURBANCE OR REDISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN: A) 7 CALENDAR DAYS FOR ALL PERMETER CONTROL STRUCTURES, DIKES, PERMETER SLOPES, AND ALL SLOPES GREATER THAN THREE HORIZONTAL TO ONE VERTICAL (3:1) AND 14 DAYS FOR ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE. THE IN-PLACE SEDIMENT CONTROL MEASURES WILL BE MAINTAINED ON A CONTINUING BASIS UNTIL THE SITE IS PERMANENTLY STABILIZED AND ALL PERMIT REQUIREMENTS ARE MET.
- ON ALL SITES WITH DISTURBED AREAS IN EXCESS OF TWO (2) ACRES, APPROVAL OF THE INSPECTION AGENCY IS REQUESTED UPON COMPLETION OF INSTALLATION OF PERMETER EROSION AND SEDIMENT CONTROLS BEFORE PROCEEDING WITH ANY OTHER EARTH DISTURBANCES OR GRADING. OTHER GRADING OR GRADING INSPECTION APPROVALS WILL NOT BE AUTHORIZED UNTIL THIS INITIAL APPROVAL BY THE INSPECTION AGENCY IS MADE.
- APPROVAL SHALL BE REQUESTED UPON FINAL STABILIZATION OF ALL SITES WITH DISTURBED AREAS IN EXCESS OF TWO (2) ACRES BEFORE REMOVAL OF EROSION AND SEDIMENT CONTROL MEASURES.

GENERAL NOTES

- THE DEVELOPER IS RESPONSIBLE FOR THE ACQUISITION OF ALL REQUIRED EASEMENTS, RIGHT AND/OR RIGHTS-OF-WAY PURSUANT TO THE DISCHARGE FROM THE SEDIMENT AND EROSION CONTROL PRACTICES, STORMWATER MANAGEMENT PRACTICES AND THE DISCHARGE OF STORMWATER ONTO OR ACROSS AND GRADING OR OTHER WORK TO BE PERFORMED ON ADJACENT OR DOWNSTREAM PROPERTIES AFFECTED BY THIS PLAN.
- FOLLOWING INITIAL SOIL DISTURBANCES OR REDISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN:
 - SEVEN (7) CALENDAR DAYS AS TO THE SURFACE OF ALL PERMETER CONTROL STRUCTURES, DIKES, PERMETER SLOPES, AND ALL SLOPES GREATER THAN THREE HORIZONTAL TO ONE VERTICAL (3:1) AND 14 DAYS FOR ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE. THE IN-PLACE SEDIMENT CONTROL MEASURES WILL BE MAINTAINED ON A CONTINUING BASIS UNTIL THE SITE IS PERMANENTLY STABILIZED AND ALL PERMIT REQUIREMENTS ARE MET.
- ON ALL SITES WITH DISTURBED AREAS IN EXCESS OF TWO (2) ACRES, APPROVAL OF THE INSPECTION AGENCY IS REQUESTED UPON COMPLETION OF INSTALLATION OF PERMETER EROSION AND SEDIMENT CONTROLS BEFORE PROCEEDING WITH ANY OTHER EARTH DISTURBANCES OR GRADING. OTHER GRADING OR GRADING INSPECTION APPROVALS WILL NOT BE AUTHORIZED UNTIL THIS INITIAL APPROVAL BY THE INSPECTION AGENCY IS MADE.
- APPROVAL SHALL BE REQUESTED UPON FINAL STABILIZATION OF ALL SITES WITH DISTURBED AREAS IN EXCESS OF TWO (2) ACRES BEFORE REMOVAL OF EROSION AND SEDIMENT CONTROL MEASURES.

PARCEL AREA - 469,076 S.F. OR 10.76 AC.
AREA DISTURBED - 154,782 S.F. OR 3.55 AC.
TOTAL CUT - 4,342 YDS.
TOTAL FILL - 3,712 YDS.

OFFSITE WASTE/BORROW LOCATION - ALL OFFSITE BORROW SHALL COME FROM A SITE WITH AN APPROVED GRADING PERMIT.

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 EXCESS OF 2 ACRES, APPROVAL OF THE INSPECTION AGENCY SHALL BE REQUESTED UPON COMPLETION OF INSTALLATION OF PERMETER 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 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 WITHIN ONE WORKING DAY, WHICHEVER IS SHORTER.

STANDARDS SEDIMENT CONTROL PLAN NOTES FOR UTILITIES

- ONLY ENOUGH TRENCH WILL BE EXCAVATED THAT CAN BE BACKFILLED DAILY.
- EXCAVATED TRENCH MATERIALS SHALL BE PLACED ON THE HIGH SIDE OF THE TRENCH.
- IMMEDIATELY FOLLOWING PIPE INSTALLATION, THE TRENCH SHALL BE BACKFILLED, COMPACTED AND STABILIZED AT THE END OF EACH WORKING DAY.
- FULL TRENCH COMPACTION IS REQUIRED.
- MULCHING TO HOWARD SCD SPECIFICATIONS OF ALL DISTURBED AREAS AND DAILY ON BACKFILL WILL BE REQUIRED.
- SUPER SILT FENCE OR STRAW BALE DIKES SHALL BE INSTALLED TEMPORARILY IMMEDIATELY DOWNSTREAM OF ANY DISTURBED AREA INTENDED TO REMAIN DISTURBED LONGER THAN ONE (1) WORKING DAY.
- STAGING AREAS FOR EQUIPMENT AND SUPPLIES SHALL BE PROTECTED WITH SILT FENCE.
- ANY SEDIMENT CONTROL PRACTICES WHICH ARE DISTURBED DURING UTILITY CONSTRUCTION SHALL BE REPAIRED OR REPLACED AT THE END OF EACH WORKING DAY.
- ANY DITCHES OR DRAINAGEWAYS DISTURBED DURING CONSTRUCTION WILL BE RESTORED TO ORIGINAL CONDITION.

UTILITY CONTACTS:

NATURAL GAS AND ELECTRIC
BALTIMORE GAS AND ELECTRIC
7317 PARKWAY DRIVE
SOUTH HANOVER, MD 21076
PHONE: (410) 859-9383

WATER AND SANITARY SEWER
HOWARD COUNTY PUBLIC WORKS BUREAU
OF UTILITIES
8250 OLD MONTGOMERY ROAD
COLUMBIA, MD 21045
PHONE: (410) 313-4310

TELEPHONE
VERIZON
7133 RUTHERFORD ROAD
BALTIMORE, MD 21244
PHONE: (410) 224-5286

EROSION AND SEDIMENT CONTROL
DEPARTMENT OF INSPECTIONS,
LICENSES & PERMITS
3430 COURTHOUSE DRIVE
ELLCOTT CITY, MD 21043
PHONE: (410) 313-2455

STORMWATER MANAGEMENT
HOWARD COUNTY PLANNING
AND ZONING DEPARTMENT
3430 COURTHOUSE DRIVE
ELLCOTT CITY, MD 21043
PHONE: (410) 313-2350

PLANNING AND ZONING
HOWARD COUNTY PLANNING
AND ZONING DEPARTMENT
3430 COURTHOUSE DRIVE
ELLCOTT CITY, MD 21043
PHONE: (410) 313-2350

PERMANENT SEEDING SUMMARY

NO.	SPECIES	SEED MIXTURE (HARDNESS ZONE 6b) (FROM TABLE 25)		SEEDING DATES	SEEDING DEPTHS	FERTILIZER RATE (10-10-10)			LIME RATE
		APPLICATION RATE (LBS./AC.)	SEEDING DATES			N	P205	K20	
1	85% TALL FESCUE 10% PER. RYEGRASS 5% KENT. BLUEGRASS	125 15 10	3/1-5/15 5/16-8/14 8/15-11/15	—	—	90 LBS./AC. (2.0 LBS./1,000 S.F.)	175 LBS./AC. (4.0 LBS./1,000 S.F.)	175 LBS./AC. (4.0 LBS./1,000 S.F.)	2 TONS/AC. (100 LBS./1,000 S.F.)
2	83% TALL FESCUE 2% WEEPING LOVEGRASS 15% SERECIA LESPEDEZA	110 3 20	3/1-5/15 5/16-8/14 8/15-11/15	—	—	—	—	—	—
3	17% WEEPING LOVEGRASS 83% SERECIA LESPEDEZA	4 20	3/1-5/15 5/16-8/14	—	—	—	—	—	—

TEMPORARY SEEDING SUMMARY

NO.	SPECIES	SEED MIXTURE (HARDNESS ZONE 6b) (FROM TABLE 26)		SEEDING DATES	SEEDING DEPTHS	FERTILIZER RATE (10-10-10)	LIME RATE
		APPLICATION RATE (LBS./AC.)	SEEDING DATES				
1	RYE PLUS BARLEY	150	YEAR ROUND	1"	—	600 LBS./AC. (15 LB./1,000 S.F.)	2 TONS/AC. (100 LB./1,000 S.F.)
2	WEEPING LOVEGRASS	4	5/1-8/14	1/4"=1/2"	—	—	—
3	ANNUAL RYEGRASS	50	8/15-11/15	1/4"=1/2"	—	—	—

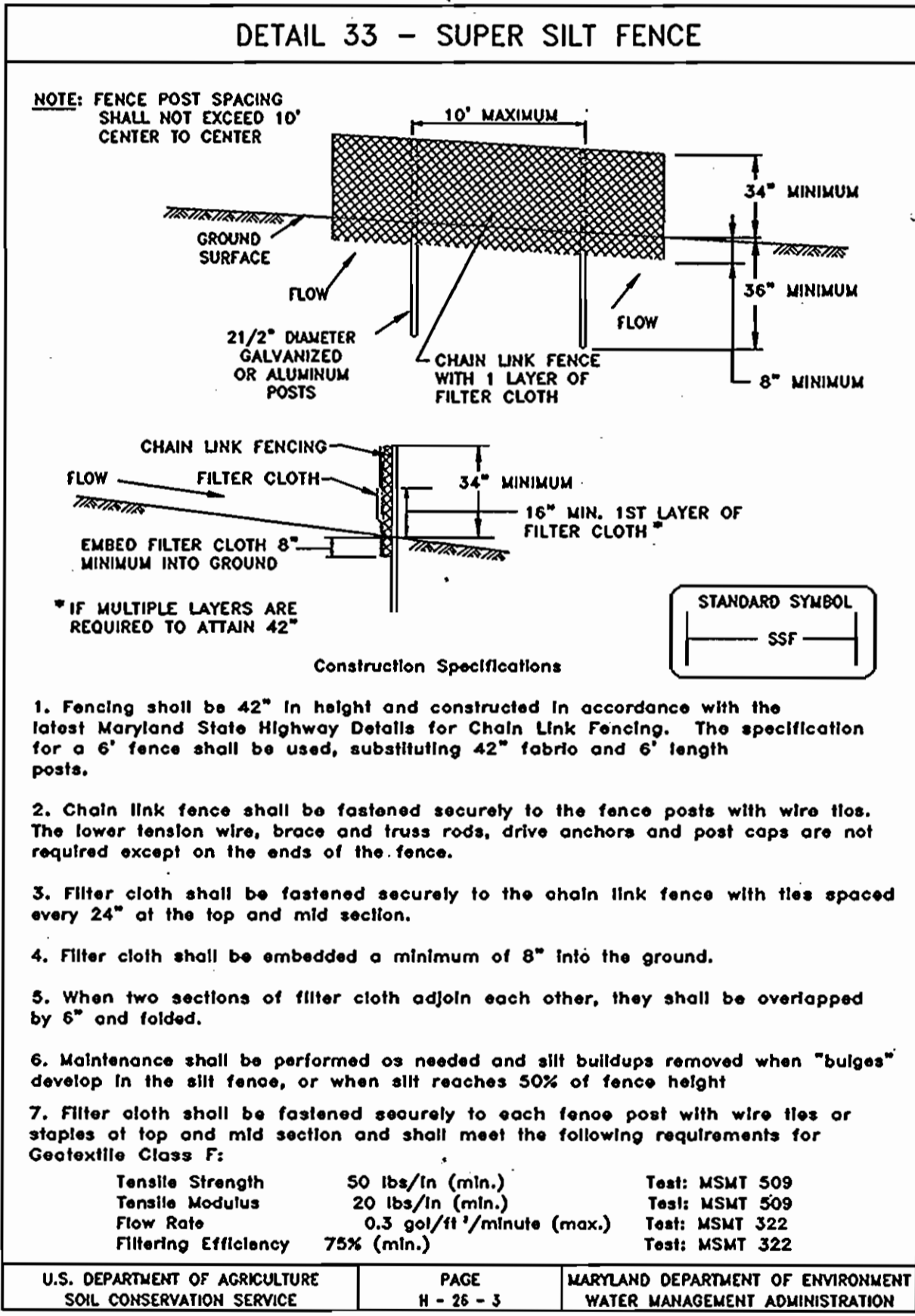
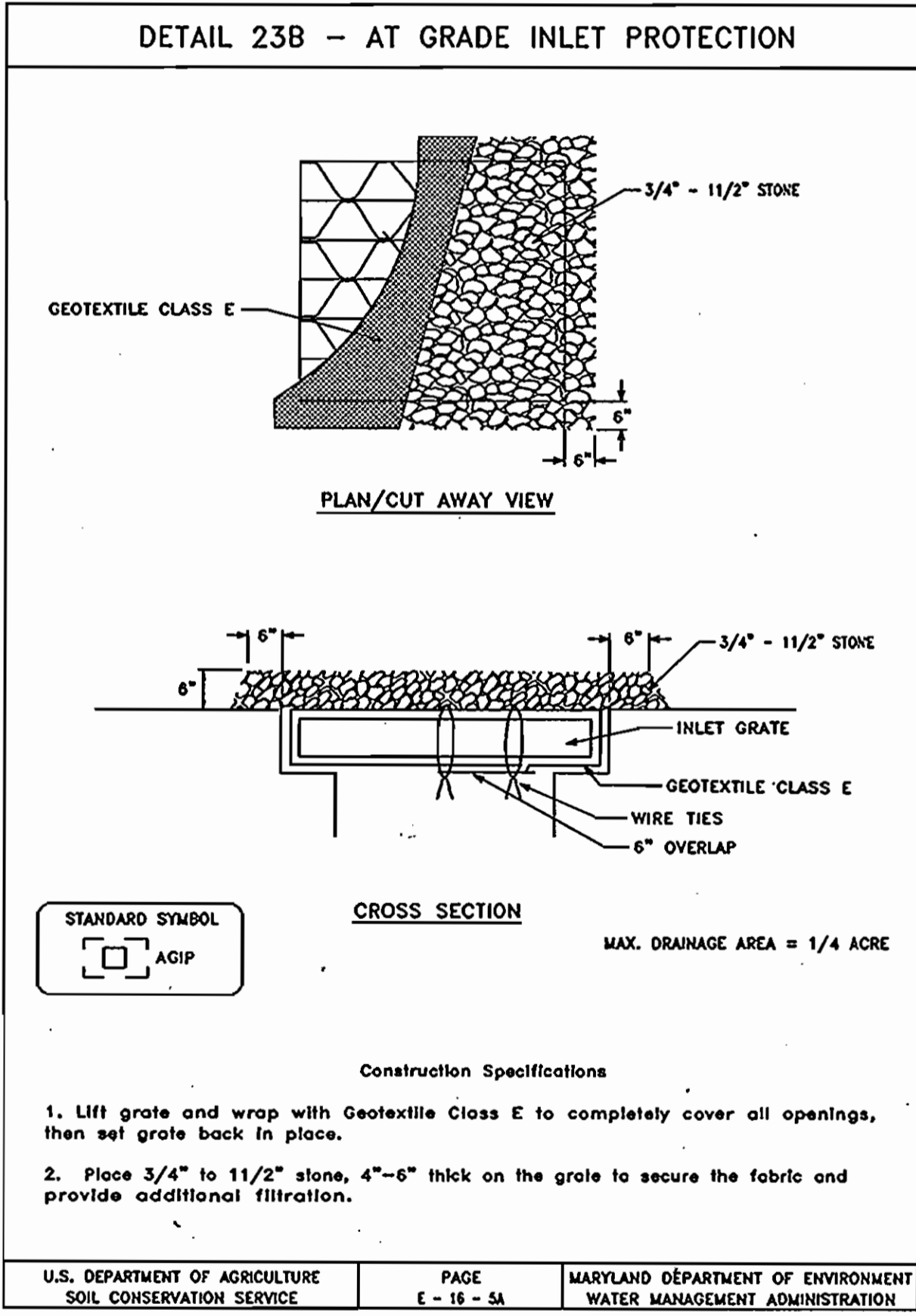
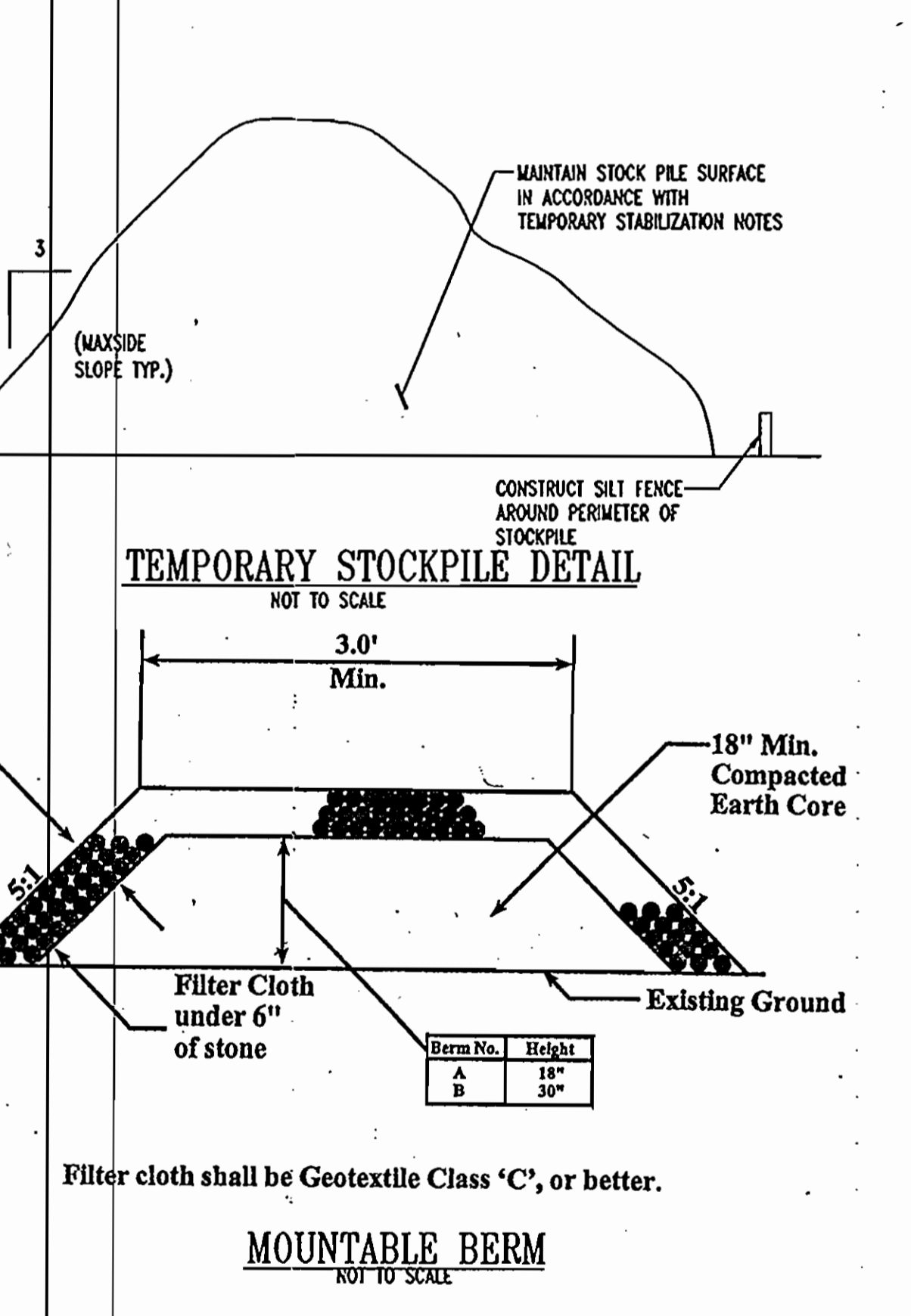
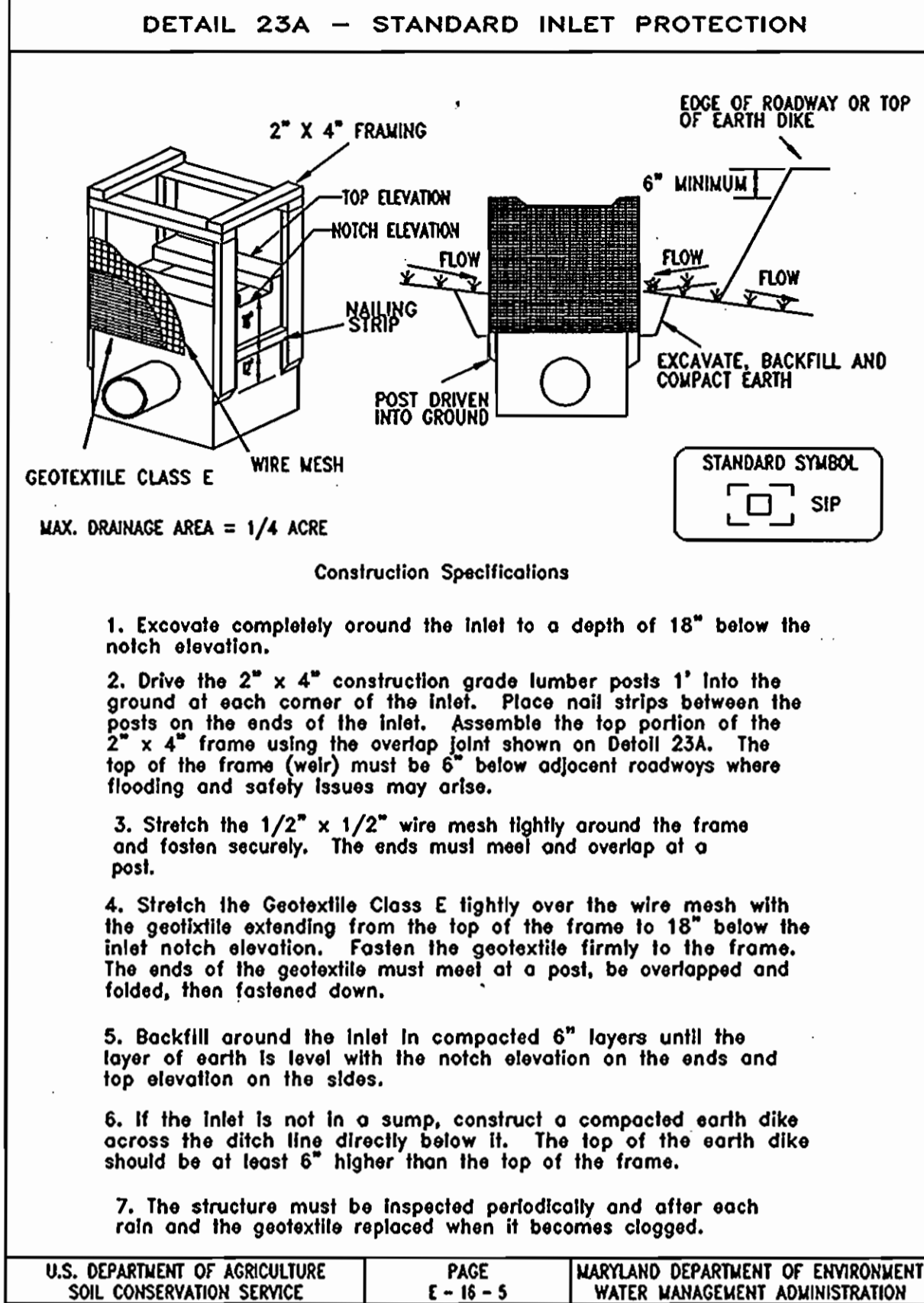
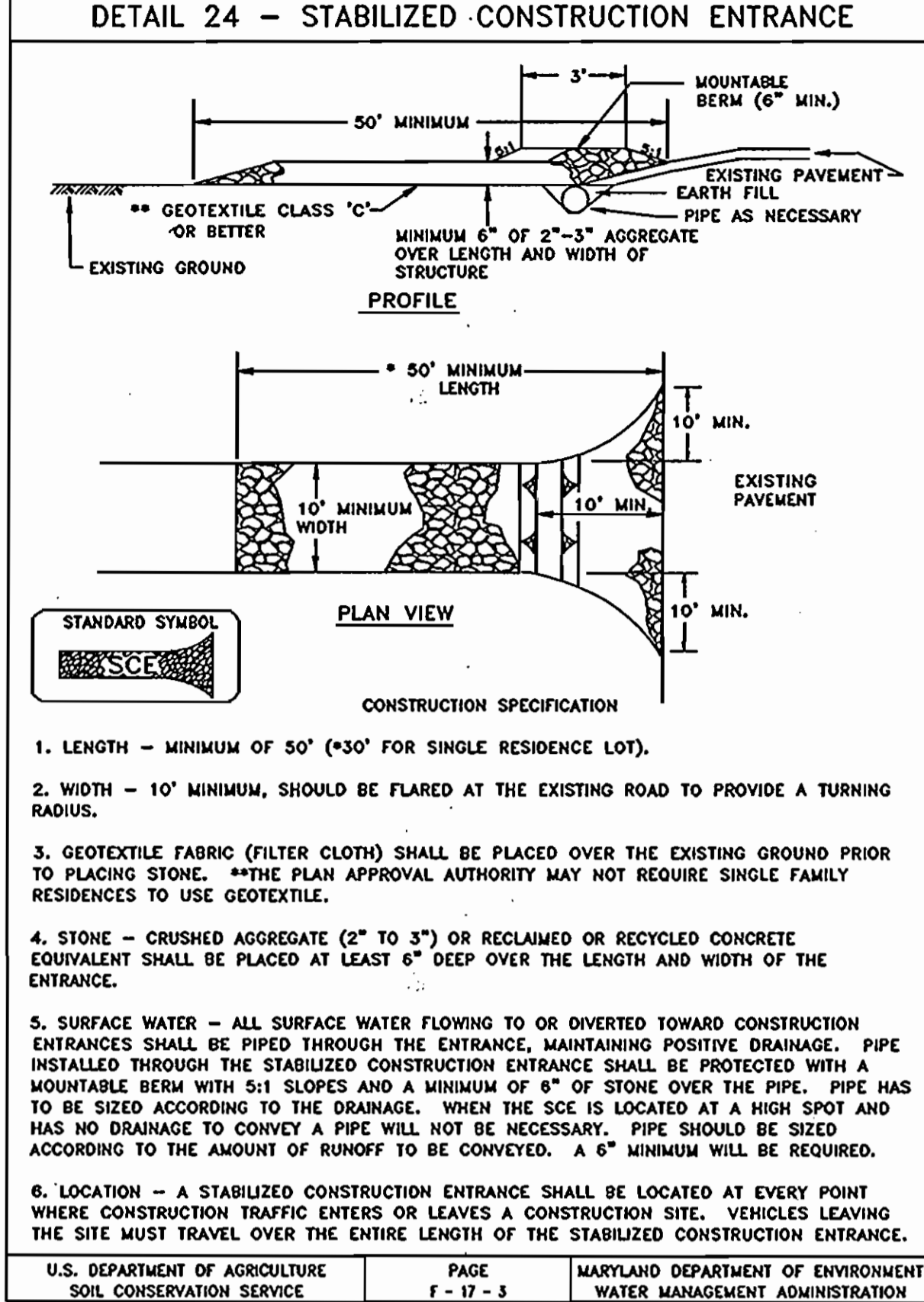
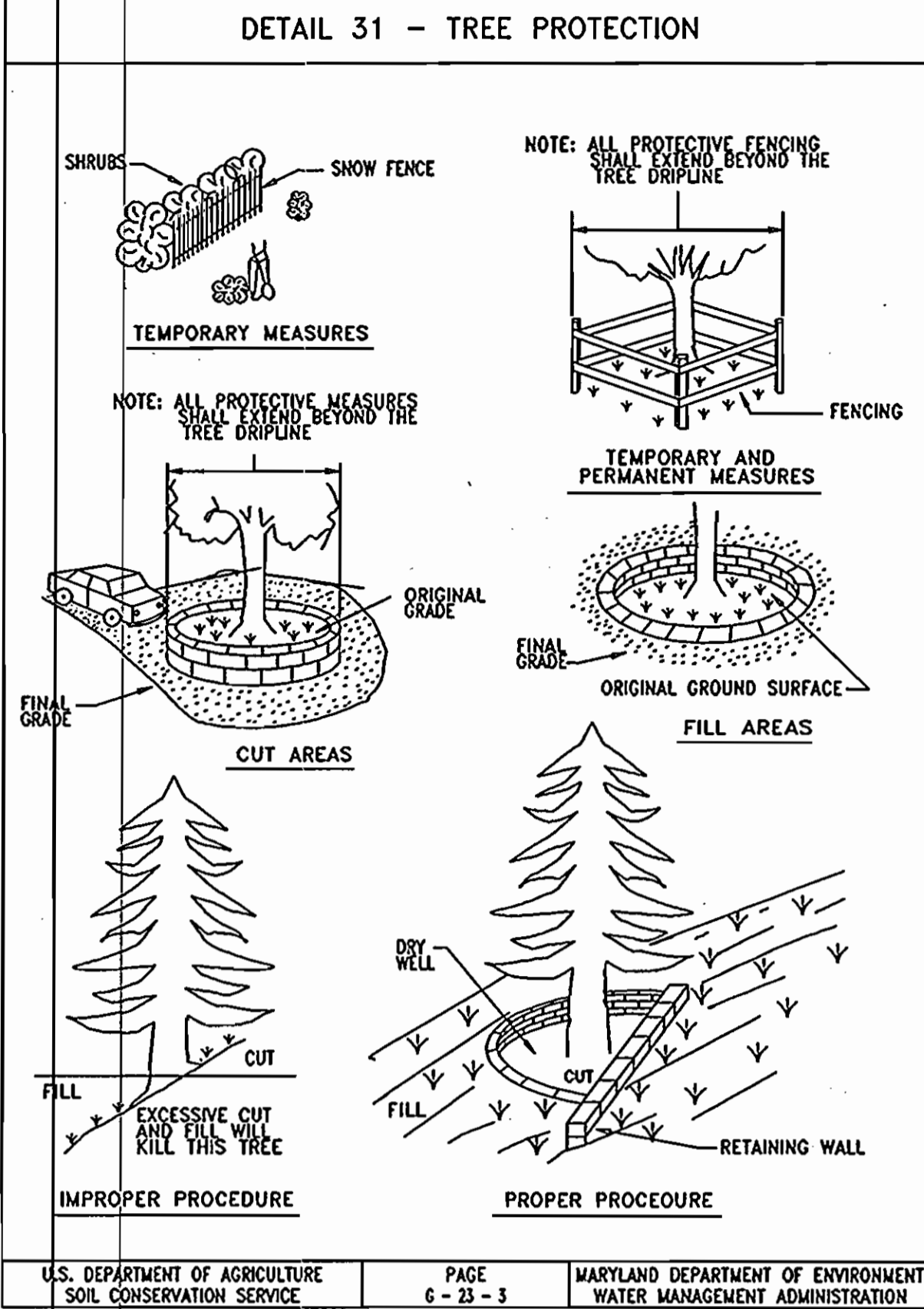
SCD 3 OF 3

MISS UTILITY



BEFORE YOU DIG CALL 800-368-5877 PROTECT YOURSELF, ONE TWO WORKING DAYS NOTICE

PLANNING BOARD APPROVAL STAMP</



PLANNING BOARD APPROVAL STAMP

APPROVED: DEPARTMENT OF PLANNING AND ZONING

CHIEF-DEVELOPMENT ENGINEERING DIVISION

DATE: 12/16/06

CHIEF-DESIGN & LAND DEVELOPMENT

DATE: 12/16/06

CHIEF-INSPECTION & PERMITS

DATE: 12/16/06

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS.

DATE: 12/16/06

APPROVED PLANNING BOARD of HOWARD COUNTY

DATE: 8-31-06

SUPER SILT FENCE

Design Criteria

Slope	Slope Steepness	Slope Length (maximum)	Silt Fence Length (maximum)
0 - 10%	0 - 10:1	Unlimited	Unlimited
10 - 20%	10:1 - 5:1	200 feet	1,500 feet
20 - 33%	5:1 - 3:1	100 feet	1,000 feet
33 - 50%	3:1 - 2:1	100 feet	500 feet
50% +	2:1 +	50 feet	250 feet

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE PAGE 11-26-3A MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

SEQUENCE OF CONSTRUCTION

- NOTIFY HOWARD COUNTY'S SEDIMENT CONTROL INSPECTOR AT 410-313-1855 AT LEAST 48 HOURS PRIOR TO THE START OF CONSTRUCTION. (2 DAYS)
- THE GENERAL CONTRACTOR SHALL NOT COMMENCE ANY LAND DISTURBING ACTIVITIES PRIOR TO OBTAINING A GRADING PERMIT. (1 DAY)
- THE CONTRACTOR SHALL HOLD A PRE-CONSTRUCTION MEETING WITH THE CONSTRUCTION MANAGER AND THE HOWARD COUNTY EROSION AND SEDIMENT CONTROL INSPECTOR PRIOR TO COMMENCING ANY LAND DISTURBANCE ACTIVITIES. (1 DAY)
- ALL AREAS WHICH ARE TO BE DISTURBED SHALL BE CLEARLY MARKED IN THE FIELD PRIOR TO CONSTRUCTION. DISTURBED AREAS WITHIN THE SITE WHERE CONSTRUCTION ACTIVITY HAS CEASED SHALL BE PERMANENTLY OR TEMPORARILY STABILIZED WITHIN: (2 DAYS)
 - SEVEN CALENDAR DAYS ON SLOPES GREATER THAN 3:1, ALL WATERWAYS AND TO THE SURFACE OF ALL PERIMETER CONTROLS.
 - FOURTEEN CALENDAR DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS OF THE PROJECT.
- INSTALL SUPER SILT FENCE AND STABILIZED CONSTRUCTION ENTRANCE LOCATED ON THE SOUTH SIDE OF THE EXISTING BUILDING. (2 DAYS)
- RAZE EXISTING BUILDINGS AND DISPOSE OF AT AN APPROVED LOCATION. (14 DAYS)
- REMOVE EXISTING LANDSCAPE ISLAND, LIGHT, CURB AND GUTTER AND ASPHALT PAVEMENT ON THE SOUTH SIDE OF THE SITE. (5 DAYS)
- BEGIN CONSTRUCTION OF THE PROPOSED HARRIS TEECER BUILDING. (90 DAYS)
- INSTALL STORMDRAIN FROM STRUCTURE A-2 TO STRUCTURE A-23 AND FROM STRUCTURE A-21 TO STRUCTURE A-24. (5 DAYS)
- INSTALL CURB AND GUTTER AND ASPHALT PAVEMENT ON THE SOUTH SIDE OF THE BUILDING. (5 DAYS)
- REMOVE EXISTING CURB AND GUTTER, AREA LIGHT AND ASPHALT PAVEMENT LOCATED ON THE EAST SIDE OF THE BUILDING. (5 DAYS)
- INSTALL STORMDRAIN FROM STRUCTURE A-2 TO STRUCTURE A-5. (5 DAYS)
- INSTALL CURB AND GUTTER AND ASPHALT PAVEMENT. (5 DAYS)
- CLOSE SHOPPING CENTER ENTRANCE FROM GUILFORD ROAD. ALLOW 1 WEEK PRIOR TO CLOSING TO POST SIGNS OF WARNING, PROVIDE SIGNAGE FOR CUSTOMERS TO UTILIZE THE EX. ENTRANCES OFF OF EDEN BROOK DRIVE. (1 WEEK)
- INSTALL STABILIZED CONSTRUCTION ENTRANCE AND INLET PROTECTION ON ALL EX. INLETS. (1 DAY)
- REMOVE EX. ASPHALT PAVEMENT CURB AND GUTTER AND OTHER SITE AMENITIES LOCATED ON THE NORTH SIDE OF THE BUILDING. CONTRACTOR TO MAINTAIN THE EXISTING HANDICAP SPACES AND ACCESS TO MCDONALD'S FROM EDEN BROOK DRIVE. (5 DAYS)
- INSTALL STORMDRAIN FROM STRUCTURE A-14 TO STRUCTURE A-7, STRUCTURE A-6 TO STRUCTURE A-5, STRUCTURE A-12 TO STRUCTURE A-7, AND STRUCTURE A-13 TO STRUCTURE A-9. CONTRACTOR TO COORDINATE WITH MCDONALD'S FOR CLOSURE OF DRIVE THRU TO COMPLETE STORMDRAIN CONSTRUCTION. (5 DAYS)
- INSTALL FIRE HYDRANT AND PROPOSED WATERLINE. (2 DAYS)
- REMOVE EXISTING STORMDRAIN FROM STRUCTURE A-12 TO STRUCTURE A-2. (2 DAYS)
- INSTALL PROPOSED CURB AND GUTTER AND ASPHALT PAVEMENT ON NORTH SIDE OF BUILDING. (7 DAYS)
- STRIP PROPOSED HANDICAP SPACES AND CROSSWALK. (1 DAY)
- REMOVE REMAINING CURB AND GUTTER AND HANDICAP SPACES. (2 DAYS)
- INSTALL CURB AND GUTTER AND REMAINING ASPHALT PAVEMENT. (5 DAYS)
- FLUSH THE PROPOSED STORM DRAIN SYSTEM TO REMOVE ANY SEDIMENT. THIS MUST BE INSPECTED AND APPROVED BY HOWARD COUNTY'S SEDIMENT CONTROL INSPECTOR. (5 DAYS)
- AS THE SITE IS BROUGHT TO FINAL GRADE, PERMANENTLY STABILIZE ALL DISTURBED AREAS WITHIN FOURTEEN (14) DAYS.

MODIFIED SILT FENCE DETAIL - PAVED AREAS

WOVEN WIRE FENCE 1/2" GAGE, 1/2" MAX. MESH OPENING

10' MAX. CC

STEEL FENCE POST (TYP.)

24" MIN. HEIGHT OF FILTER CLOTH

FLOW

FLOW

FLOW

CONTINUE NO. 2 STONE FULL LENGTH OF FENCE

PERSPECTIVE VIEW

WOVEN WIRE FENCE 1/2" GAGE, 1/2" MAX. MESH OPENING WITH FILTER CLOTH COVER

12" MIN. DEPT. FENCE POST

NO. 2 STONE

NO. 2 STONE

FIXED SURFACE

SECTION

CONSTRUCTION NOTES:

- WOVEN WIRE FENCE TO BE FASTENED SECURELY TO FENCE POSTS WITH TIES OR STAPLES.
- FILTER CLOTH TO BE FASTENED SECURELY TO WOVEN WIRE FENCE WITH WIRE TIES SPACED EVERY 24" AT TOP AND MID SECTION.

POSTS: STEEL EITHER T OR D TYPE

FENCE: WOVEN WIRE, 1/2" GAGE OF MAX. MESH OPENING

FILTER CLOTH: 600 X 1000 FT RAILROAD CLOTH OR EQUIVALENT

STANDARD SYMBOL

MF

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE PAGE 12-26-3A MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

SCD 2 OF 3

MISS UTILITY

BEFORE YOU DIG CALL 1-800-397-7777 PROTECT YOURSELF, GIVE TWO WORKING DAYS NOTICE

THIS DRAWING DOES NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY. ALL CONSTRUCTION MUST BE DONE IN COMPLIANCE WITH THE OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970 AND ALL RULES AND REGULATIONS THEREOF APPLICABLE.

THE CONTRACTOR TO CALL MISS UTILITY TO HAVE ALL EXISTING UTILITIES MARKED 48 HOURS PRIOR TO ANY CONSTRUCTION.

REVIEWED FOR HOWARD SCD AND MEETS TECHNICAL REQUIREMENT

DATE: 1/27/06

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

DATE: 1/27/06

ENGINEER'S CERTIFICATE

"I CERTIFY THAT THIS PLAN FOR SEDIMENT AND EROSION CONTROL IS 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."

DATE: 1/16/06

DEVELOPER'S CERTIFICATE

"I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN FOR SEDIMENT AND EROSION CONTROL, AND THAT ALL 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."

DATE: 1/16/06

REV.	DATE	DESCRIPTION	BY

OWNER/DEVELOPER: KCVC LIMITED PARTNERSHIP C/O KIMCO REALTY CORP. 3333 NEW HYDE PARK ROAD SUITE 100 NEW HYDE PARK, NY 11042-1205

PROJECT: HARRIS TEECER - ONE STORY GROCERY STORE KING'S CONTRIVANCE VILLAGE CENTER 8520 GUILFORD ROAD COLUMBIA, MARYLAND 21046

AREA: TAX MAP 42 GRID 7 ZONED HT-COAM

VILLAGE OF KING'S CONTRIVANCE 6TH ELECTION DISTRICT COLUMBIA, HOWARD COUNTY, MARYLAND

BOHLER ENGINEERING, P.C.

PROFESSIONAL ENGINEERING SERVICES • 810 Glennview Court, Suite 300, Towson, Maryland • CONTACT: Michael Gesele • (410) 821-7200 FAX: (410) 821-7287 • WWW.BOHLERENG.COM

DESIGNED BY: MJG

DRAWN BY: TAC

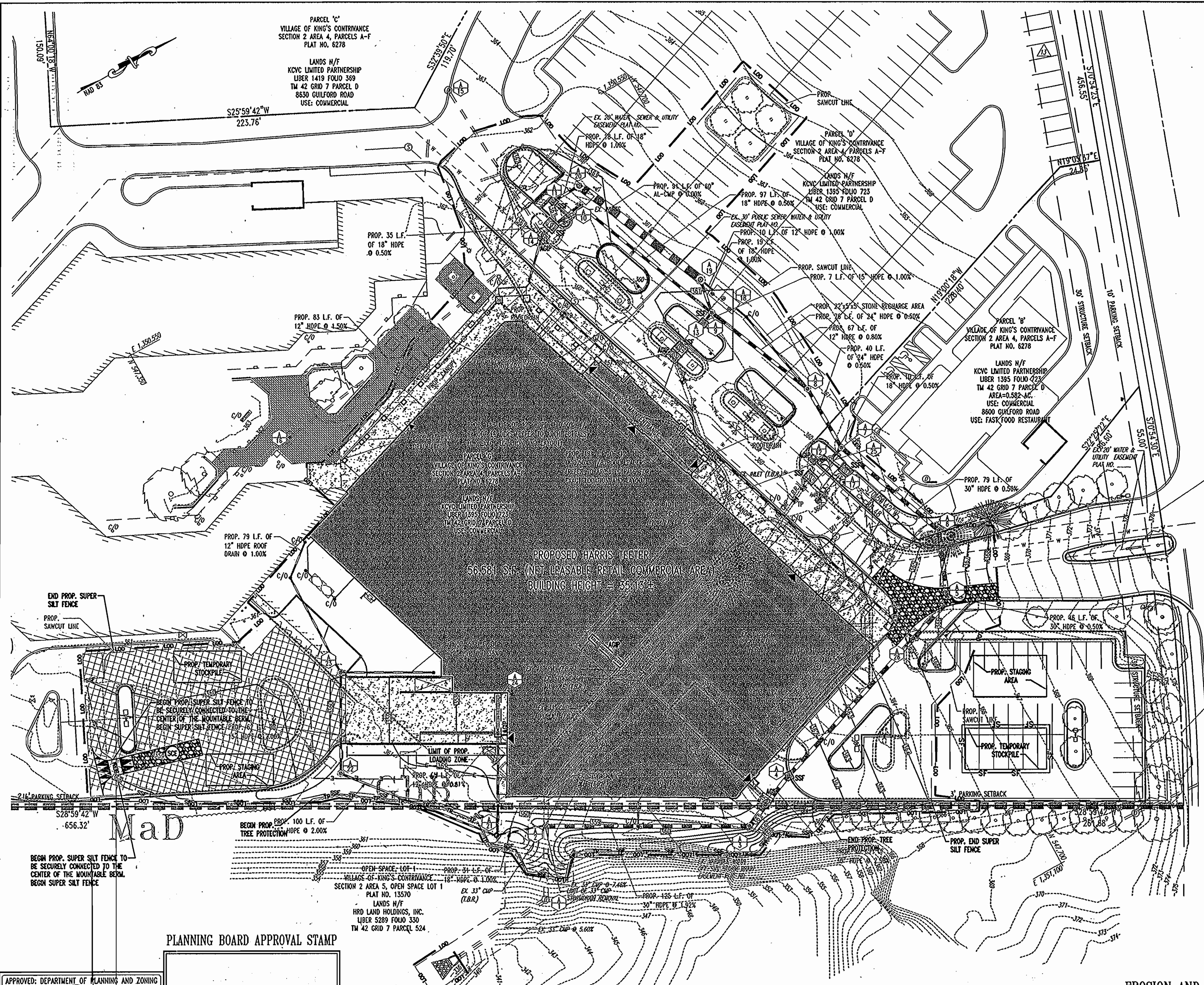
PROJECT NO.: MD049006

DATE: 9/27/06

SCALE: AS SHOWN

DRAWING NO.: 10 OF 22

SDP-06-98



EROSION AND SEDIMENT CONTROL QUANTITIES

LIMIT OF DISTURBANCE = 154,782 S.F. OR 3.55 AC.
 TOTAL NET SITE AREA = 151,391 S.F. OR 3.47 AC.
 SILT FENCE = 166 LF.
 SUPER SILT FENCE = 799 LF.
 TREE PROTECTION = 410
 STABILIZED CONSTRUCTION ENTRANCE = 2 EA.
 AT GRADE INLET PROTECTION = 6 EA.
 STANDARD INLET PROTECTION = 1 EA.

NOTE:
 EARTH QUANTITIES LISTED ABOVE ARE BASED ON A GRADING PLAN PREPARED BY BOHLER ENGINEERING, P.C. ENTITLED "HARRIS TEETER, ONE STORY GROCERY STORE" DATED 07/05/2006, PROJECT NO. MD049006 THESE QUANTITIES ARE FOR SILTATION AND EROSION CONTROL PURPOSES ONLY THEY ARE NOT TO BE USED FOR ESTIMATING PURPOSES.

R=1245.00'
 $\Delta=9^{\circ}21'15''$
 L=203.26'
 CHB=N66°13'52"W
 CHD=203.03'

R=1245.00'
 $\Delta=4^{\circ}14'03''$
 L=92.00'
 CHB=N63°40'16"W
 CHD=91.98'

INLET PROTECTION NOTE

THE CONTRACTOR IS REQUIRED TO INSTALL INLET PROTECTION ON ALL STORM DRAIN INLETS WITH THE EXCEPTION OF THE FOLLOWING:

*1) ANY INLET OUTFALLING DIRECTLY INTO A SEDIMENT TRAPPING DEVICE.

ALL INLET PROTECTION WILL BE INSTALLED AS DIRECTED BY THE INSPECTOR IN ACCORDANCE WITH THE 1984 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL, PAGE E-16-1. THE REMOVAL OF ANY INLET PROTECTION DEVICES WILL REQUIRE APPROVAL FROM THE INSPECTOR.

*STORM DRAIN TO BE FLUSHED PRIOR TO TRAPPING DEVICE REMOVAL.

EROSION AND SEDIMENT CONTROL UTILITY INSTALLATION NOTES

- CONTRACTOR SHALL OPEN ONLY THAT SECTION OF TRENCH THAT CAN BE BACKFILLED AND STABILIZED EACH DAY. IF TRENCH MUST REMAIN OPEN LONGER THAN ONE DAY, SILT FENCE SHALL BE PLACED BELOW (DOWNSLOPE OF) TRENCH.
- PLACE ALL EXCAVATED MATERIAL ON UPHILL SIDE OF TRENCH.
- ANY SEDIMENT CONTROLS DISTURBED BY UTILITY CONSTRUCTION ARE TO BE REPAIRED IMMEDIATELY.
- THE CONTRACTOR SHALL TAKE APPROPRIATE MEASURES TO PROTECT PEDESTRIANS AT ALL TIMES DURING UNDERGROUND UTILITY CONSTRUCTION.

ON-SITE SOILS INFORMATION:

CHB - GLENELG - URBAN LAND COMPLEX (HYDROLOGIC SOIL CLASSIFICATION 'B')
 MAD - MANOR LOAM, 15% TO 25% SLOPES (HYDROLOGIC SOIL CLASSIFICATION 'B')

REFERENCE:

SOIL SURVEY
 HOWARD COUNTY, MD
 PREPARED BY:
 UNITED STATES DEPARTMENT OF AGRICULTURE
 DATED: JULY 1988

EROSION AND SEDIMENT CONTROL LEGEND

- 123 --- PROPERTY LINE
- 123 --- EXISTING CONTOUR
- 123 --- PROPOSED CONTOUR
- 100 --- LIMIT OF DISTURBANCE
- SF --- SILT FENCE
- SSF --- SUPER SILT FENCE
- TP --- TREE PROTECTION
- SC --- STABILIZED CONSTRUCTION ENTRANCE
- ACIP --- AT GRADE INLET PROTECTION

REVIEWED FOR HOWARD SCD AND MEETS TECHNICAL REQUIREMENT
 JMM
 USA - NATURAL RESOURCES CONSERVATION SERVICE
 DATE: 4/27/06

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.
 JMM
 HOWARD SCD
 DATE: 11/27/06

ENGINEER'S CERTIFICATE
 I CERTIFY THAT THIS PLAN FOR SEDIMENT AND EROSION CONTROL, 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.
 MATT
 DATE: 4/16/06

REGISTERED PROFESSIONAL ENGINEER
 MATTHEW T. ALLEN P.E.

DEVELOPER'S CERTIFICATE
 I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN FOR SEDIMENT AND EROSION CONTROL, AND THAT ALL 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.
 KVC INC.
 BY: K COLUMBIA PROPERTIES, LLC, MANAGING MEMBER
 BY: KIMCO RETAIL OPPORTUNITY PORTFOLIO, L.L.C., MEMBER
 BY: KIMCO, INC. MANAGING MEMBER
 WES
 DATE: 11/26/06

WES
 NAME: WILLIAM E. SIMMONS, III
 TITLE: VICE PRESIDENT

NOTES

- REFER TO THE EROSION AND SEDIMENT NOTES AND DETAILS FOR ADDITIONAL EROSION AND SEDIMENT CONTROL NOTES.
- REFER TO COVER SHEET FOR LEGEND.
- REFER TO EROSION AND SEDIMENT CONTROL NOTES & DETAILS FOR SEQUENCE OF CONSTRUCTION

BENCHMARK

GEODETIC SURVEY CONTROL - #42R1
 S 547,820.238
 E 135,117.859
 ELEV. 375.85'
 LOCATED AT THE CORNER OF GUILFORD ROAD AND SASSAFRAS COURT.

GEODETIC SURVEY CONTROL - #42R2
 N 546,946.800
 E 1,352,118.566
 ELEV. 331.522'
 LOCATED AT HAMMOND HIGH SCHOOL AND GUILFORD ROAD (BLUE SEA ROAD)

REV.	DATE	REVISED UTILITY LOCATION	CWA
1	8/2/08		

OWNER/DEVELOPER:
 KVC LIMITED PARTNERSHIP
 C/O KIMCO REALTY CORP.
 3535 NEW HYDE PARK ROAD
 SUITE 100
 NEW HYDE PARK, MD 21042-1205

PROJECT: HARRIS TEETER - ONE STORY GROCERY STORE
 KING'S CONTRIVANCE VILLAGE CENTER
 8820 GUILFORD ROAD
 COLUMBIA, MARYLAND 21046

TITLE: EROSION AND SEDIMENT CONTROL PLAN

BOHLER ENGINEERING, P.C.
 *PROFESSIONAL ENGINEERING SERVICES *
 *810 Glenelg Court, Suite 300, Towson, Maryland *
 *CONTACT: MICHAEL GENELG
 *(410) 821-7900 FAX: (410) 821-7987 * WWW.BEENGINEERS.COM

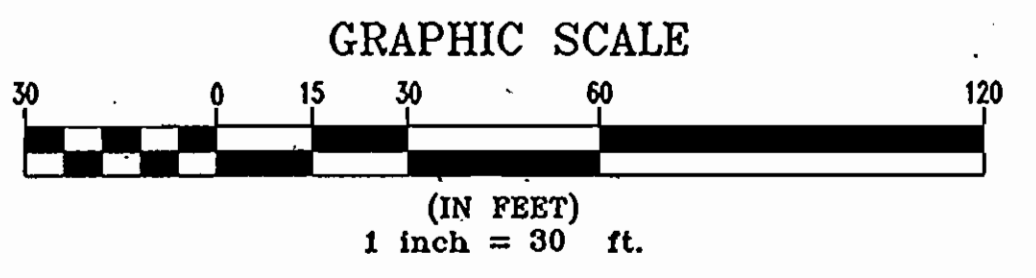
DESIGNED BY: MAG
 DRAWN BY: TAC
 PROJECT NO.: MD049006
 DATE: 9/27/06
 SCALE: AS SHOWN
 DRAWINGS NO.: 9 OF 22

APPROVED: DEPARTMENT OF PLANNING AND ZONING
 DIRECTOR: [Signature] DATE: 12/16/06

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS.
 COUNTY HEALTH OFFICER: [Signature] DATE: 12/16/06
 HOWARD COUNTY HEALTH DEPARTMENT

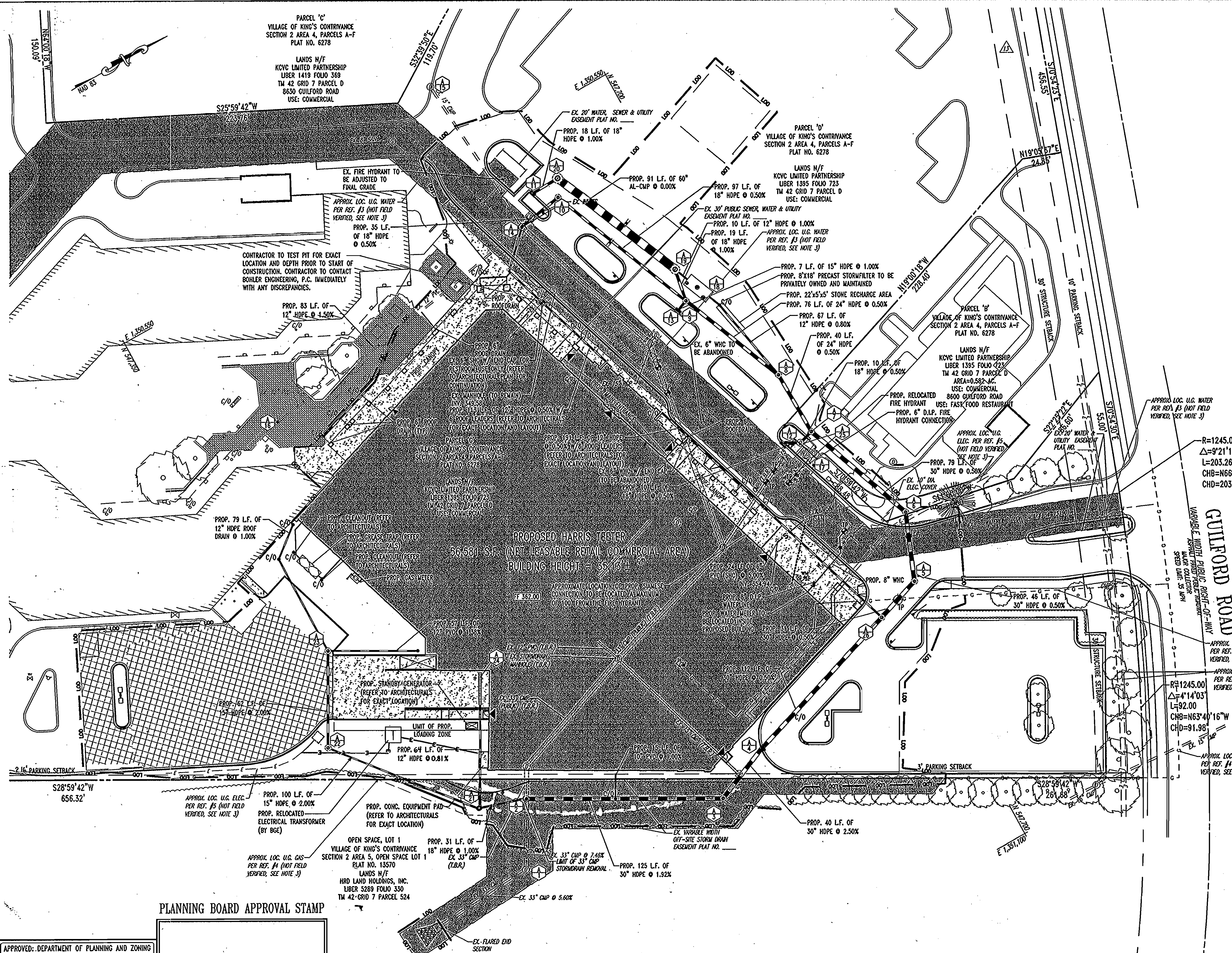
PLANNING BOARD APPROVAL STAMP

APPROVED
 PLANNING BOARD
 OF HOWARD COUNTY
 DATE: 8-31-06



SCD 1 OF 3

THIS PLAN IS FOR EROSION AND SEDIMENT CONTROL PURPOSES ONLY



UTILITY CONTACTS:

NATURAL GAS AND ELECTRIC BALTIMORE GAS AND ELECTRIC 7317 PARKWAY DRIVE SOUTH HANOVER, MD 21076 PHONE: (410) 859-9383	WATER AND SANITARY SEWER HOWARD COUNTY PUBLIC WORKS BUREAU OF UTILITIES 8250 OLD MONTGOMERY ROAD COLUMBIA, MD 21045 PHONE: (410) 313-4810
TELEPHONE VERIZON 7133 RUTHERFORD ROAD BALTIMORE, MD 21244 PHONE: (410) 224-5288	EROSION AND SEDIMENT CONTROL DEPARTMENT OF INSPECTIONS, LICENSES & PERMITS 3450 COURTHOUSE DRIVE ELLCOTT CITY, MD 21043 PHONE: (410) 313-2455
STORMWATER MANAGEMENT HOWARD COUNTY PLANNING AND ZONING DEPARTMENT 3450 COURTHOUSE DRIVE ELLCOTT CITY, MD 21043 PHONE: (410) 313-2350	PLANNING AND ZONING HOWARD COUNTY PLANNING AND ZONING DEPARTMENT 3450 COURTHOUSE DRIVE ELLCOTT CITY, MD 21043 PHONE: (410) 313-2350

SANITARY STRUCTURE SCHEDULE

STRUCTURE NO.	DESCRIPTION	INV. IN	INV. OUT	TOP ELEV.
1	EXISTING MANHOLE	354.16 (6')	351.22 (8')	362.67

PIPE SCHEDULE

SIZE	DESCRIPTION	LENGTH
6"	PVC	24'
8"	DIP	45'

R=1245.00'
Δ=9'21"15"
L=203.26'
CHB=N66°13'52"W
CHD=203.03'

LEGEND

- == EXISTING STORMDRAIN
- PROPOSED STORMDRAIN
- == EXISTING STORMDRAIN (TO BE REMOVED)
- SPILL CURB
- ⊙ TEST PIT

- ### NOTES
- REFER TO THE GENERAL NOTES SHEET FOR APPLICABLE UTILITY NOTES.
 - REFER TO COVER SHEET FOR LEGEND.
 - WATER METERS AND BACK FLOW PREVENTERS SHALL BE LOCATED WITHIN THE PROPOSED HARRIS TEETER BUILDING.
 - ALL WATER AND SANITARY LINES SHALL END 5' OUTSIDE THE BUILDING LIMITS AS SHOWN ON THE PLAN AND SHALL BE PROVIDED WITH A TEMPORARY PLUG IN THE END.

BENCHMARK

GEODETIC SURVEY CONTROL - #42R1
S 547,820.238
E 135,117.859
ELEV. 375.85'
LOCATED AT THE CORNER OF GUILFORD ROAD AND SASSAFRAS COURT.

GEODETIC SURVEY CONTROL - #42R2
N 546,946.800
E 1,352,118.566
ELEV. 331.522'
LOCATED AT HAMMOND HIGH SCHOOL AND GUILFORD ROAD (BLUE SEA ROAD)

REV.	DATE	REVISION	DESCRIPTION	BY
1	8/12/06	REVISED UTILITY LOCATION		CWA

OWNER/DEVELOPER: KCVC LIMITED PARTNERSHIP
C/O KIMCO REALTY CORP.
3333 NEW HYDE PARK ROAD
SUITE 100
NEW HYDE PARK, NY 11042-1205

PROJECT: HARRIS TEETER - ONE STORY GROCERY STORE
KING'S CONTRIVANCE VILLAGE CENTER
8520 GUILFORD ROAD
COLUMBIA, MARYLAND 21046

AREA: TAX MAP 42 GRID 7 ZONED HT-COMM
VILLAGE OF KING'S CONTRIVANCE
6TH ELECTION DISTRICT
COLUMBIA, HOWARD COUNTY, MARYLAND

UTILITY PLAN

BOHLER ENGINEERING, P.C.
Professional Engineering Services
8110 Glenridge Court, Suite 300, Towson, Maryland
Contract: Michael Gosell
(410) 821-7900 FAX: (410) 821-7987 E: info@bohlereng.com

DESIGNED BY: MWJ
DRAWN BY: TAC
PROJECT NO.: MD049006
DATE: 9/27/06
SCALE: AS SHOWN
DRAWING NO.: 8 OF 22

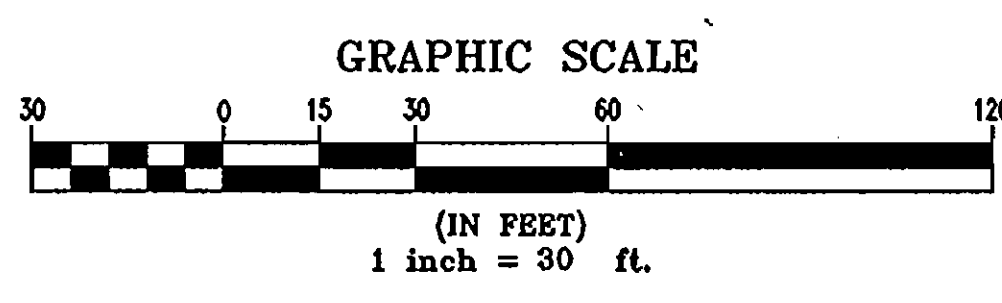
PROFESSIONAL ENGINEER NO. 28567

PLANNING BOARD APPROVAL STAMP

APPROVED: DEPARTMENT OF PLANNING AND ZONING
DEVELOPMENT ENGINEERING DIVISION
DATE: 12/14/06
CHIEF DIVISION & LAND DEVELOPMENT
DATE: 12/14/06
DIRECTOR

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS.
COUNTY HEALTH OFFICER
HOWARD COUNTY HEALTH DEPARTMENT
DATE: 12/18/06

APPROVED PLANNING BOARD OF HOWARD COUNTY
DATE: 8/31/06

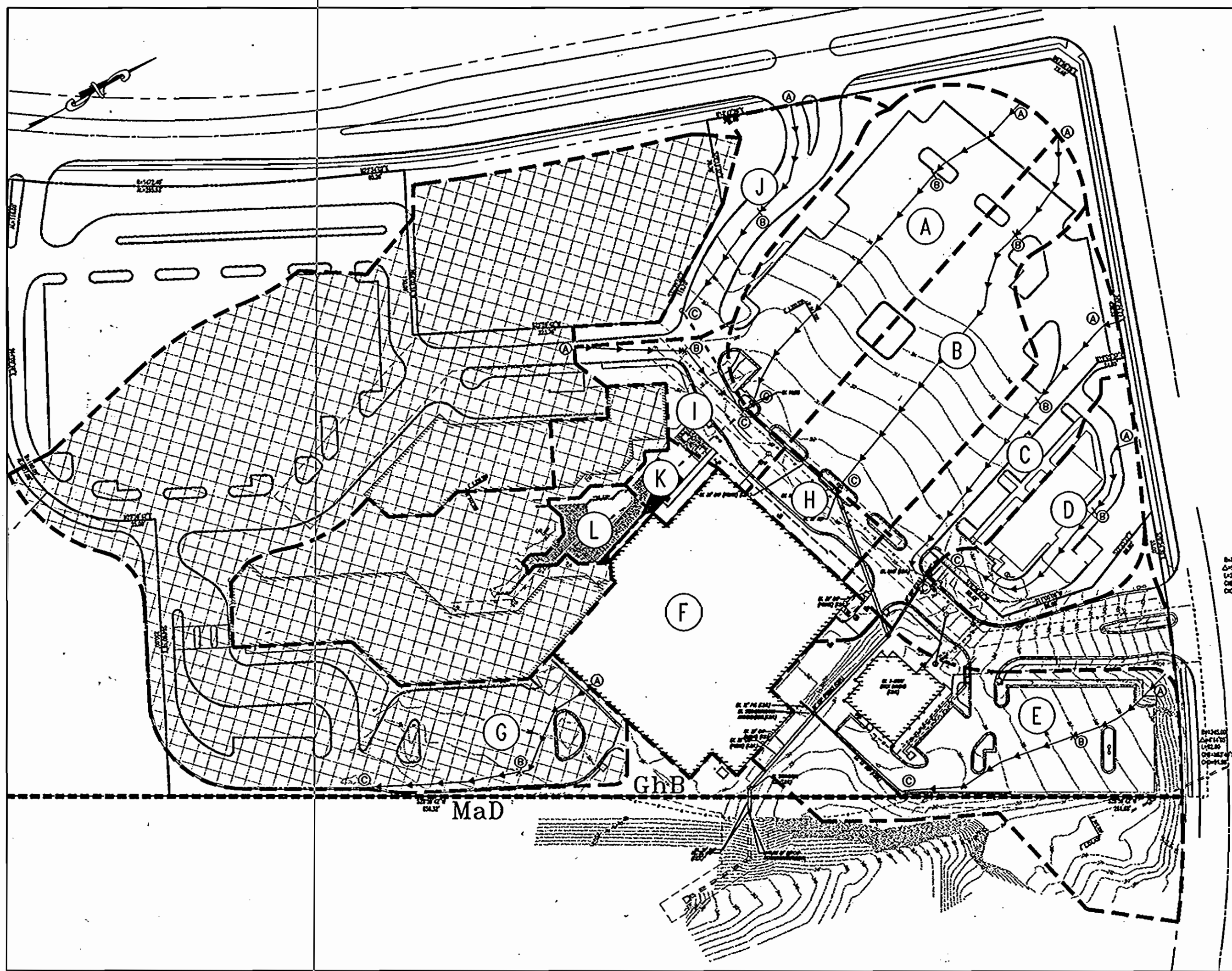


MISS UTILITY

BEFORE YOU DIG CALL
1-800-495-7779
PROTECT YOURSELF - GIVE TWO WORKING DAYS NOTICE

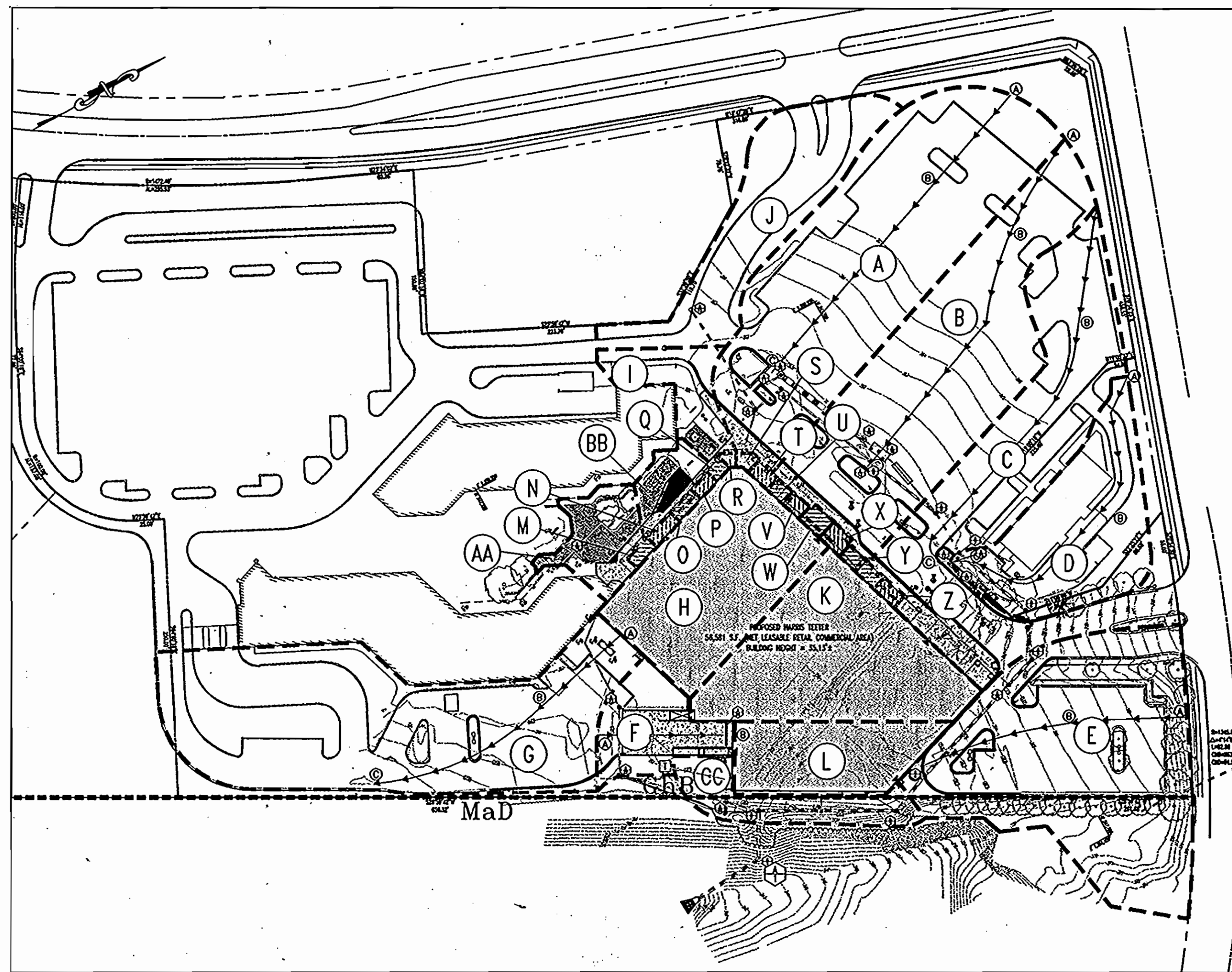
THIS DRAWING DOES NOT INCLUDE NECESSARY ALL COMPONENTS FOR CONSTRUCTION SAFETY. ALL CONSTRUCTION MUST BE DONE IN COMPLIANCE WITH THE OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970 AND ALL RULES AND REGULATIONS THEREOF APPLICABLE.

THE CONTRACTOR TO CALL MISS UTILITY TO HAVE ALL EXISTING UTILITIES MARKED 48 HOURS PRIOR TO ANY CONSTRUCTION.



PRE-DEVELOPMENT DRAINAGE AREAS

SCALE: 1"=80'



POST-DEVELOPMENT DRAINAGE AREAS

SCALE: 1"=80'

A TOTAL = 43,950 S.F. OR 1.00 AC. IMPERVIOUS = 30,328 S.F. OR 0.69 AC. OR 69% PERVIOUS = 13,622 S.F. OR 0.31 AC. OR 31% TC = 0.10 C' = 64	F TOTAL = 38,925 S.F. OR 0.90 AC. IMPERVIOUS = 38,925 S.F. OR 0.90 AC. OR 100% PERVIOUS = 0 S.F. OR 0.00 AC. OR 0% TC = 0.10 C' = 86	K TOTAL = 5,120 S.F. OR 0.12 AC. IMPERVIOUS = 3,840 S.F. OR 0.09 AC. OR 75% PERVIOUS = 1,280 S.F. OR 0.03 AC. OR 25% TC = 0.10 C' = 68
B TOTAL = 34,500 S.F. OR 0.80 AC. IMPERVIOUS = 30,850 S.F. OR 0.71 AC. OR 89% PERVIOUS = 3,650 S.F. OR 0.09 AC. OR 11% TC = 0.10 C' = 78	G TOTAL = 231,303 S.F. OR 5.31 AC.* IMPERVIOUS = 174,239 S.F. OR 4.00 AC. OR 75% PERVIOUS = 57,064 S.F. OR 1.31 AC. OR 24% TC = 0.10 C' = 77	L TOTAL = 3,840 S.F. OR 0.09 AC. IMPERVIOUS = 3,840 S.F. OR 0.09 AC. OR 89% PERVIOUS = 240 S.F. OR 0.01 AC. OR 11% TC = 0.10 C' = 77
C TOTAL = 41,375 S.F. OR 0.95 AC. IMPERVIOUS = 37,050 S.F. OR 0.85 AC. OR 89% PERVIOUS = 4,325 S.F. OR 0.10 AC. OR 11% TC = 0.10 C' = 79	H TOTAL = 6,825 S.F. OR 0.15 AC. IMPERVIOUS = 6,825 S.F. OR 0.15 AC. OR 100% PERVIOUS = 0 S.F. OR 0.00 AC. OR 0% TC = 0.10 C' = 86	
D TOTAL = 18,925 S.F. OR 0.43 AC. IMPERVIOUS = 11,625 S.F. OR 0.27 AC. OR 63% PERVIOUS = 7,300 S.F. OR 0.16 AC. OR 37% TC = 0.10 C' = 60	I TOTAL = 11,075 S.F. OR 0.25 AC. IMPERVIOUS = 10,775 S.F. OR 0.24 AC. OR 96% PERVIOUS = 300 S.F. OR 0.01 AC. OR 4% TC = 0.10 C' = 83	
E TOTAL = 57,870 S.F. OR 1.32 AC. IMPERVIOUS = 26,156 S.F. OR 0.60 AC. OR 45% PERVIOUS = 31,714 S.F. OR 0.72 AC. OR 55% TC = 0.10 C' = 48	J TOTAL = 18,275 S.F. OR 0.42 AC. IMPERVIOUS = 12,400 S.F. OR 0.29 AC. OR 69% PERVIOUS = 5,875 S.F. OR 0.13 AC. OR 31% TC = 0.10 C' = 64	

A TOTAL = 50,525 S.F. OR 1.16 AC. IMPERVIOUS = 36,952 S.F. OR 0.88 AC. OR 76% PERVIOUS = 13,573 S.F. OR 0.32 AC. OR 24% TC = 0.10 C' = 69	H TOTAL = 23,000 S.F. OR 0.53 AC. IMPERVIOUS = 23,000 S.F. OR 0.53 AC. OR 100% PERVIOUS = 0 S.F. OR 0.00 AC. OR 0% TC = 0.10 C' = 86	O TOTAL = 350 S.F. OR 0.01 AC. IMPERVIOUS = 350 S.F. OR 0.01 AC. OR 100% PERVIOUS = 0 S.F. OR 0.00 AC. OR 0% TC = 0.10 C' = 90	V TOTAL = 685 S.F. OR 0.02 AC. IMPERVIOUS = 685 S.F. OR 0.02 AC. OR 100% PERVIOUS = 0 S.F. OR 0.00 AC. OR 0% TC = 0.10 C' = 85
B TOTAL = 38,200 S.F. OR 0.88 AC. IMPERVIOUS = 33,275 S.F. OR 0.77 AC. OR 88% PERVIOUS = 4,925 S.F. OR 0.11 AC. OR 12% TC = 0.10 C' = 77	I TOTAL = 4,550 S.F. OR 0.10 AC. IMPERVIOUS = 4,550 S.F. OR 0.10 AC. OR 100% PERVIOUS = 0 S.F. OR 0.00 AC. OR 0% TC = 0.10 C' = 86	P TOTAL = 350 S.F. OR 0.01 AC. IMPERVIOUS = 350 S.F. OR 0.01 AC. OR 100% PERVIOUS = 0 S.F. OR 0.00 AC. OR 0% TC = 0.10 C' = 90	W TOTAL = 685 S.F. OR 0.02 AC. IMPERVIOUS = 685 S.F. OR 0.02 AC. OR 100% PERVIOUS = 0 S.F. OR 0.00 AC. OR 0% TC = 0.10 C' = 85
C TOTAL = 35,450 S.F. OR 0.81 AC. IMPERVIOUS = 31,500 S.F. OR 0.72 AC. OR 89% PERVIOUS = 3,950 S.F. OR 0.09 AC. OR 11% TC = 0.10 C' = 78	J TOTAL = 18,275 S.F. OR 0.42 AC. IMPERVIOUS = 12,400 S.F. OR 0.29 AC. OR 69% PERVIOUS = 5,875 S.F. OR 0.13 AC. OR 31% TC = 0.10 C' = 64	Q TOTAL = 250 S.F. OR 0.01 AC. IMPERVIOUS = 250 S.F. OR 0.01 AC. OR 100% PERVIOUS = 0 S.F. OR 0.00 AC. OR 0% TC = 0.10 C' = 90	X TOTAL = 450 S.F. OR 0.10 AC. IMPERVIOUS = 450 S.F. OR 0.10 AC. OR 100% PERVIOUS = 0 S.F. OR 0.00 AC. OR 0% TC = 0.10 C' = 90
D TOTAL = 18,925 S.F. OR 0.43 AC. IMPERVIOUS = 11,625 S.F. OR 0.27 AC. OR 63% PERVIOUS = 7,300 S.F. OR 0.16 AC. OR 37% TC = 0.10 C' = 60	K TOTAL = 28,750 S.F. OR 0.66 AC. IMPERVIOUS = 28,750 S.F. OR 0.66 AC. OR 100% PERVIOUS = 0 S.F. OR 0.00 AC. OR 0% TC = 0.10 C' = 86	R TOTAL = 250 S.F. OR 0.01 AC. IMPERVIOUS = 250 S.F. OR 0.01 AC. OR 100% PERVIOUS = 0 S.F. OR 0.00 AC. OR 0% TC = 0.10 C' = 90	Y TOTAL = 450 S.F. OR 0.10 AC. IMPERVIOUS = 450 S.F. OR 0.10 AC. OR 100% PERVIOUS = 0 S.F. OR 0.00 AC. OR 0% TC = 0.10 C' = 90
E TOTAL = 41,884 S.F. OR 0.96 AC. IMPERVIOUS = 22,075 S.F. OR 0.51 AC. OR 53% PERVIOUS = 19,809 S.F. OR 0.45 AC. OR 47% TC = 0.10 C' = 53	L TOTAL = 7,250 S.F. OR 0.17 AC. IMPERVIOUS = 7,250 S.F. OR 0.17 AC. OR 100% PERVIOUS = 0 S.F. OR 0.00 AC. OR 0% TC = 0.10 C' = 86	S TOTAL = 375 S.F. OR 0.10 AC. IMPERVIOUS = 375 S.F. OR 0.10 AC. OR 100% PERVIOUS = 0 S.F. OR 0.00 AC. OR 0% TC = 0.10 C' = 90	Z TOTAL = 160 S.F. OR 0.01 AC. IMPERVIOUS = 160 S.F. OR 0.01 AC. OR 100% PERVIOUS = 0 S.F. OR 0.00 AC. OR 0% TC = 0.10 C' = 67
F TOTAL = 8,350 S.F. OR 0.19 AC. IMPERVIOUS = 7,350 S.F. OR 0.17 AC. OR 89% PERVIOUS = 1,000 S.F. OR 0.02 AC. OR 11% TC = 0.10 C' = 78	M TOTAL = 350 S.F. OR 0.01 AC. IMPERVIOUS = 350 S.F. OR 0.01 AC. OR 100% PERVIOUS = 0 S.F. OR 0.00 AC. OR 0% TC = 0.10 C' = 90	T TOTAL = 250 S.F. OR 0.01 AC. IMPERVIOUS = 250 S.F. OR 0.01 AC. OR 100% PERVIOUS = 0 S.F. OR 0.00 AC. OR 0% TC = 0.10 C' = 90	AA TOTAL = 5,008 S.F. OR 0.11 AC. IMPERVIOUS = 3,728 S.F. OR 0.08 AC. OR 73% PERVIOUS = 1,280 S.F. OR 0.03 AC. OR 27% TC = 0.10 C' = 67
G TOTAL = 231,303 S.F. OR 5.31 AC.* IMPERVIOUS = 174,239 S.F. OR 4.00 AC. OR 76% PERVIOUS = 57,064 S.F. OR 1.31 AC. OR 24% TC = 0.10 C' = 77	N TOTAL = 350 S.F. OR 0.01 AC. IMPERVIOUS = 350 S.F. OR 0.01 AC. OR 100% PERVIOUS = 0 S.F. OR 0.00 AC. OR 0% TC = 0.10 C' = 90	U TOTAL = 7,032 S.F. OR 0.16 AC. IMPERVIOUS = 7,032 S.F. OR 0.16 AC. OR 100% PERVIOUS = 0 S.F. OR 0.00 AC. OR 0% TC = 0.10 C' = 16	BB TOTAL = 2,480 S.F. OR 0.06 AC. IMPERVIOUS = 2,240 S.F. OR 0.05 AC. OR 83% PERVIOUS = 240 S.F. OR 0.01 AC. OR 17% TC = 0.10 C' = 75
		CC TOTAL = 7,032 S.F. OR 0.16 AC. IMPERVIOUS = 7,032 S.F. OR 0.16 AC. OR 100% PERVIOUS = 0 S.F. OR 0.00 AC. OR 0% TC = 0.10 C' = 16	

NOTE:

*DRAINAGE AREA 'C' DRAINS TO STRUCTURE S-2 PER THE DRAINAGE AREA PLAN PREPARED BY FISHER, COLLINS AND CARTER, INC. TITLED "KINGS CONTRIVANCE VILLAGE CENTER" DATED MARCH 4, 1985, REVISED FEBRUARY 22, 2002 APPROVED MARCH 15, 1985, PROJECT NO. SDP-85-153c.

ON-SITE SOILS INFORMATION:
GhB - GLEBELG - URBAN LAND COMPLEX, 0% TO 8% SLOPES (HYDROLOGICAL SOIL CLASSIFICATION 'B')

MaD - MANOR LOAM, 15% TO 25% SLOPES (HYDROLOGICAL SOIL CLASSIFICATION 'B')

REFERENCE:

SOIL SURVEY
HOWARD COUNTY, MD
PREPARED BY:
UNITED STATES DEPARTMENT OF AGRICULTURE
DATED: JULY 1968

LEGEND	
	DRAINAGE DIVIDE
	TC FLOW ARROWS
	DRAINAGE AREA LABEL
	SOILS DELINEATION

BENCHMARK	
GEODETIC SURVEY CONTROL - #42R1 S 547,820.238 E 135,117.859 ELEV. 375.85' LOCATED AT THE CORNER OF GUILFORD ROAD AND SASSAFRAS COURT.	
GEODETIC SURVEY CONTROL - #42R2 N 546,946.800 E 1,352,118.566 ELEV. 331.522' LOCATED AT HAMMOND HIGH SCHOOL AND GUILFORD ROAD (BLUE SEA ROAD)	

REV.	DATE	REVISED UTILITY LOCATION	CWA
1	08/12/06		

OWNER/DEVELOPER:	KVC LIMITED PARTNERSHIP C/O KIMCO REALTY CORP. 3333 NEW HYDE PARK ROAD SUITE 100 NEW HYDE PARK, NY 11042-1205
PROJECT:	HARRIS TEETER - ONE STORY GROCERY STORE KING'S CONTRIVANCE VILLAGE CENTER 820 GUILFORD ROAD COLUMBIA, MARYLAND 21046
AREA:	TAX MAP 42 GRID 7 ZONED HT-COMM
TITLE:	STORMDRAIN DRAINAGE AREA MAP

BOHLER ENGINEERING, P.C.
 * PROFESSIONAL ENGINEERING SERVICES *
 * 810 Gleneslea Court, Suite 300, Towson, Maryland *
 * CONTACT: Michael General *
 * (410) 821-7900 FAX: (410) 821-7987 * WWW.BOHLERENG.COM

DESIGNED BY: MJG
 DRAWN BY: TAC
 PROJECT NO.: MD049006
 DATE: 9/27/06
 SCALE: AS SHOWN
 DRAWING NO.: 7 OF 22
 PROFESSIONAL ENGINEER NO. 28587

PLANNING BOARD APPROVAL STAMP

APPROVED: DEPARTMENT OF PLANNING AND ZONING
 DEVELOPMENT ENGINEERING DIVISION
 DATE: 12/11/06
 DIRECTOR: Frank A. Wright, Jr.
 DATE: 12/15/06

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS.
 COUNTY HEALTH OFFICER: Robert W. White
 HOWARD COUNTY HEALTH DEPARTMENT: 541 ngp

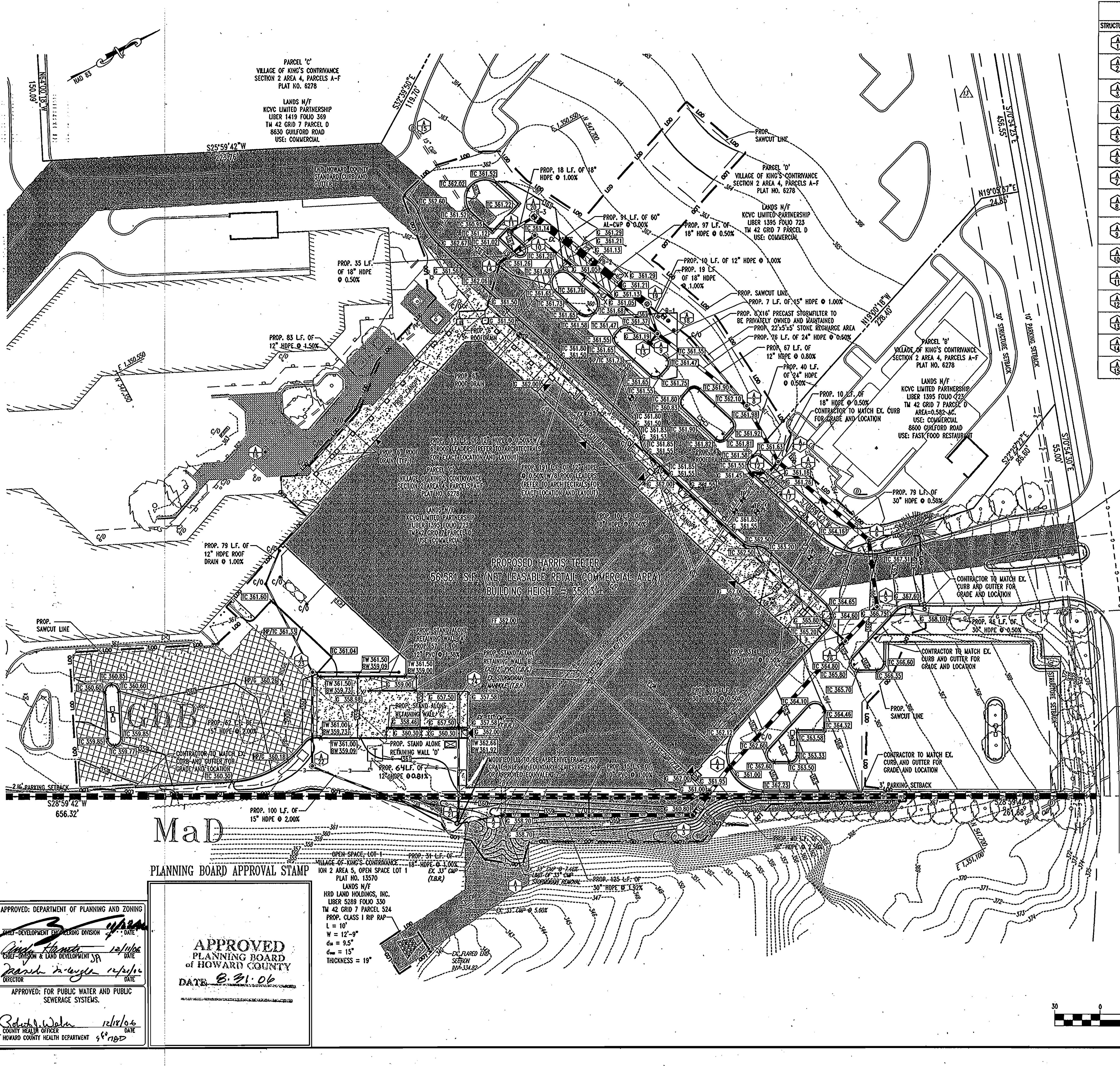
APPROVED PLANNING BOARD of HOWARD COUNTY
 DATE: 8.31.06

MISS UTILITY

BEFORE YOU DIG CALL 1-800-281-2777
 PROTECT YOURSELF AND TWO WORKING GUYS NOTICE

THIS DRAWING DOES NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY. ALL CONSTRUCTION MUST BE DONE IN COMPLIANCE WITH THE OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970 AND ALL RULES AND REGULATIONS THEREBY APPROPRIATE.

THE CONTRACTOR TO CALL MISS UTILITY TO HAVE ALL EXISTING UTILITIES MARKED 48 HOURS PRIOR TO ANY CONSTRUCTION.



STORMDRAIN STRUCTURE SCHEDULE

STRUCTURE NO.	DESCRIPTION	INV. IN	INV. OUT	TOP ELEV.
1	EXISTING MANHOLE	338.58 (33')	338.58 (33')	352.50
2	PROP. PRECAST MANHOLE WITH MODIFIED FRAME AND GRATE** (HOWARD CO. STD. G 5.13)	343.83 (30') 351.99 (18')	343.58 (33')	358.20
3	PROP. PRECAST MANHOLE (HOWARD CO. STD. G 5.13)	346.23 (30')	346.23 (30')	360.80
4	PROP. MODIFIED DOUBLE TYPE "S" INLET (HOWARD CO. STD. SD 4.23)	347.23 (30')	347.23 (30')	361.00
5	PROP. PRECAST MANHOLE (HOWARD CO. STD. G 5.13)	347.95 (30')	347.95 (30')	366.00
6	PROP. PRECAST MANHOLE (HOWARD CO. STD. G 5.13)	348.18 (30')	348.18 (30')	365.50
7	PROP. PRECAST MANHOLE (HOWARD CO. STD. G 5.13)	349.08 (24') 356.40 (18')	348.58 (24')	361.20
8	PROP. PRECAST MANHOLE (HOWARD CO. STD. G 5.12)	350.28 (12') 349.28 (24')	349.28 (24')	361.20
9	PROP. PRECAST MANHOLE (HOWARD CO. STD. G 5.12)	350.16 (18') 357.76 (15') 357.93 (18')	349.66 (24')	361.09
10	PROP. PRECAST MANHOLE (HOWARD CO. STD. G 5.12)	355.48 (18')	350.35 (18')	360.78
11	PROP. DOUBLE TYPE "S" INLET (HOWARD CO. STD. SD 4.23)	---	357.00 (18')	360.35
12	PROP. DOUBLE TYPE "S" INLET (HOWARD CO. STD. SD 4.23)	---	357.00 (18')	360.85
13	PROP. DOUBLE TYPE "S" INLET (HOWARD CO. STD. SD 4.23)	---	357.90 (15')	360.15
14	PROP. PRECAST MANHOLE (HOWARD CO. STD. G 5.12)	356.16 (12') 357.93 (12') 357.34 (15')	355.66 (18')	360.92
15	EX. INLET	---	356.07 (15')	361.60

STORMDRAIN STRUCTURE SCHEDULE

STRUCTURE NO.	DESCRIPTION	INV. IN	INV. OUT	TOP ELEV.
16	EX. INLET	---	359.35 (12')	361.44
17	EX. INLET	---	355.30 (15')	361.59
18	PRECAST 8'x16" STORMFILTER	353.22 (12')	350.92 (12')	VARIES
19	PROP. PRECAST MANHOLE** (HOWARD CO. STD. G 5.03)	353.22 (60')	353.22 (12')	360.95
20	PROP. PRECAST MANHOLE** (HOWARD CO. STD. G 5.12)	356.72 (18')	353.22 (60')	360.95
21	PROP. PRECAST MANHOLE (HOWARD CO. STD. G 5.12)	354.80 (12')	352.55 (15')	360.80
22	PROP. PRECAST MANHOLE (HOWARD CO. STD. G 5.12)	354.55 (15')	354.55 (15')	360.20
23	PROP. PRECAST MANHOLE (HOWARD CO. STD. G 5.12)	356.21 (12')	355.79 (15')	360.50
24	TRENCH DRAIN	---	355.32 (12')	357.50
25	EXISTING MANHOLE	356.95 (18') 356.70 (15')	356.45 (18')	361.16
26	PROP. PRECAST MANHOLE (HOWARD CO. STD. G 5.13)	347.80 (30') 358.23 (15')	347.80 (30')	365.10

SUMMARY TABLE

SITE AREA	3.55 AC.
Wqy	0.78 AC. REQUIRED, 0.78 PROVIDED
Rev	0.005 AC.-FT. (REQUIRED), 0.005 AC.-FT. (PROVIDED)
Cpy	N/A (REDEVELOPED)
QPID	N/A (REDEVELOPED)
QPI00	N/A (REDEVELOPED)

NOTE: THE UNDERGROUND BMP, WITH A CLASS "A" HAZARD CLASSIFICATION HAS BEEN DESIGNED IN ACCORDANCE WITH THE MARYLAND DEPARTMENT OF THE ENVIRONMENT STORMWATER MANAGEMENT REGULATIONS. SEE SHEET 20 FOR DETAILS.

STORMDRAIN PIPE SCHEDULE

SIZE	DESCRIPTION	LENGTH
8"	PVC	15'
12"	PVC	215'
12"	PERFORATED HDPE	22'
12"	HDPE	509'
15"	HDPE	169'
18"	HDPE	202'
24"	HDPE	116'
30"	HDPE	432'
60"	AL-CMP	91'

SITE ANALYSIS

DISTURBED AREA	154,782 S.F. OR 3.55 AC.
TOTAL SITE AREA	505,145 S.F. OR 11.59 AC.
EARTH WORK CUT:	4,342 CU. YDS.
FILL:	3,712 CU. YDS.

EARTH QUANTITIES LISTED ABOVE ARE BASED ON A GRADING PLAN PREPARED BY BOHLER ENGINEERING, P.C. ENTITLED "HARRIS TEETER, ONE STORY GROCERY STORE" DATED 9/27/06, PROJECT NO. MDO49006. THESE QUANTITIES ARE FOR SILLIATION AND GROSS CONTROL PURPOSES ONLY THEY ARE NOT TO BE USED FOR ESTIMATING PURPOSES.

LEGEND

- EXISTING STORMDRAIN
- PROPOSED STORMDRAIN
- EXISTING STORMDRAIN (TO BE REMOVED)
- SPILL CURB
- TEST PIT

- ### NOTES
- REFER TO THE GENERAL NOTES SHEET FOR APPLICABLE GRADING NOTES.
 - REFER TO COVER SHEET FOR LEGEND.
 - REFER TO SHEET 21 FOR THE BORING LOGS

BENCHMARK

GEODETIC SURVEY CONTROL - #42R1
S 547,820.238
E 135,117.859
ELEV. 375.85'
LOCATED AT THE CORNER OF GUILFORD ROAD AND SASSAFRAS COURT.

GEODETIC SURVEY CONTROL - #42R2
N 546,946.800
E 1,352,118.566
ELEV. 331.522'
LOCATED AT HAMMOND HIGH SCHOOL AND GUILFORD ROAD (BLUE SEA ROAD)

REVISIONS

NO.	DATE	DESCRIPTION	BY
1	8/12/06	REVISED UTILITY LOCATION	CWA

OWNER/DEVELOPER: KVCY LIMITED PARTNERSHIP
C/O KIMCO REALTY CORP.
3333 NEW HYDE PARK ROAD
SUITE 100
NEW HYDE PARK, NY 11042-1205

PROJECT: HARRIS TEETER - ONE STORY GROCERY STORE
KING'S CONTRIVANCE VILLAGE CENTER
8620 GUILFORD ROAD
COLUMBIA, MARYLAND 21046

AREA: TAX MAP 42 GRID 7 PARCEL 0 ZONED HT-COMM
VILLAGE OF KING'S CONTRIVANCE
6TH ELECTION DISTRICT
COLUMBIA, HOWARD COUNTY, MARYLAND

BOHLER ENGINEERING, P.C.

PROFESSIONAL ENGINEERING SERVICES
4810 Glenescales Court, Suite 300, Towson, Maryland
Contract: Michael Gesell
(410) 651-7000 FAX: (410) 651-7887 h: www.bohlereng.com

DESIGNED BY: MJC
DRAWN BY: TAC
PROJECT NO.: MDO49006
DATE: 9/27/06
SCALE: AS SHOWN
DRAWING NO.: 6 OF 22

MISS UTILITY
BEFORE YOU DIG CALL 800-497-7777
PROTECT YOURSELF, SAVE TWO WORKING DAYS NOTICE

THIS DRAWING DOES NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY. ALL CONSTRUCTION MUST BE DONE IN COMPLIANCE WITH THE OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970 AND ALL RULES AND REGULATIONS THEREOF APPLICABLE.

THE CONTRACTOR TO CALL MISS UTILITY TO HAVE ALL EXISTING UTILITIES MARKED 48 HOURS PRIOR TO ANY CONSTRUCTION.

PROFESSIONAL ENGINEER NO. 28557

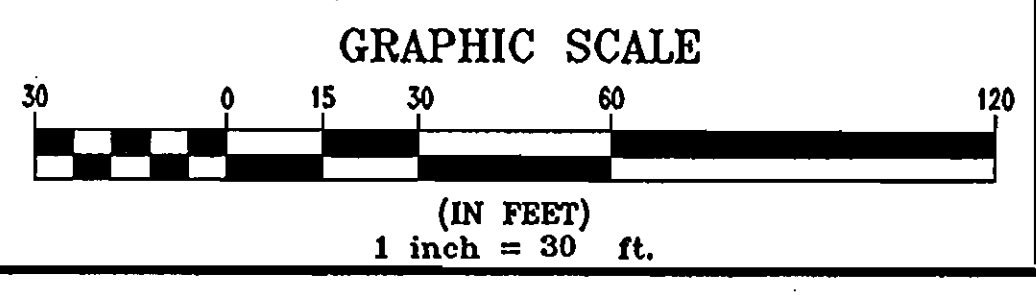
APPROVED: DEPARTMENT OF PLANNING AND ZONING
CHIEF-DEVELOPMENT ENGINEERING DIVISION
DATE: 12/16/06
CHIEF-DIVISION & LAND DEVELOPMENT SP
DATE: 12/16/06
DIRECTOR

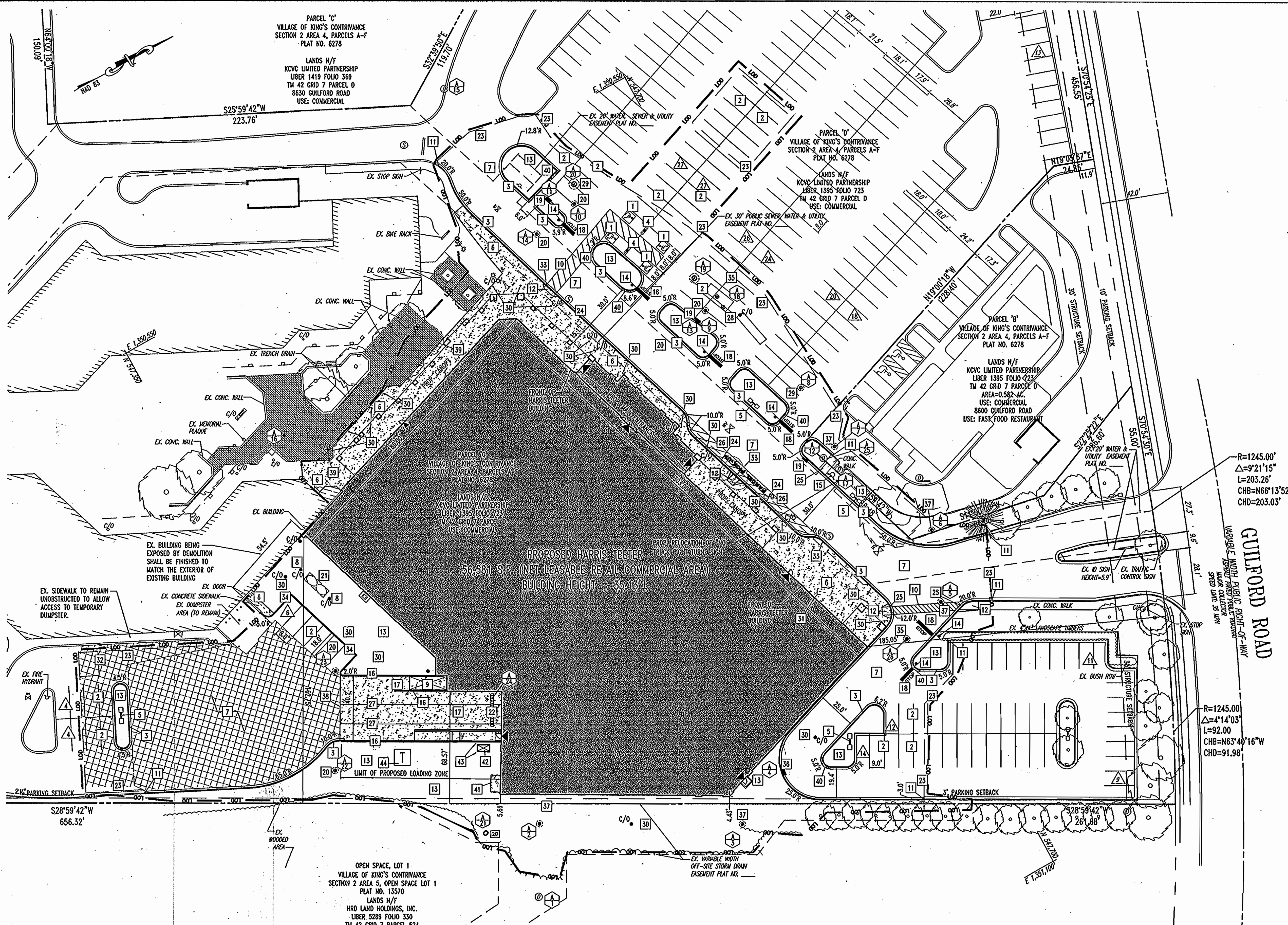
APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS.
DATE: 12/16/06
DATE: 12/16/06

PLANNING BOARD APPROVAL STAMP

APPROVED
PLANNING BOARD
of HOWARD COUNTY
DATE: 8-31-06

LANDS N/F
HID LAND HOLDINGS, INC.
LIBER 5289 FOLIO 330
TM 42 GRID 7 PARCEL 524
PROP. CLASS 1 RIP RAP
L = 10'
W = 12'-9"
d₅₀ = 9.5"
d₁₀₀ = 15"
THICKNESS = 19"





ITEM DESCRIPTION

- 1 PAINTED HANDICAP SYMBOL
- 2 STANDARD PARKING STALL STRIPING
- 3 STANDARD HOWARD COUNTY CURB & GUTTER (R-3.01)
- 4 HANDICAP SIGN
- 5 RELOCATED AREA LIGHT
- 6 CONCRETE SIDEWALK
- 7 ASPHALT PAVEMENT
- 8 SANITARY LATERAL CLEAN-OUT
- 9 COMPACTOR (REFER TO ARCHITECTURALS)
- 10 4" WIDE WHITE STRIPING
- 11 MATCH CURB FOR GRADE AND LOCATION
- 12 HOWARD COUNTY STANDARD HANDICAP RAMP (R-4.01)
- 13 LANDSCAPE AREA
- 14 STOP SIGN
- 15 RELOCATED FIRE HYDRANT
- 16 RETAINING WALL
- 17 CONCRETE PAVING
- 18 STOP BAR GRAPHIC
- 19 HOWARD COUNTY STANDARD TYPE 'S' INLET (SD-4.21)
- 20 HOWARD COUNTY STANDARD PRE-CAST MANHOLE (G-5.12)
- 21 GREASE TRAP (REFER TO ARCHITECTURAL PLANS)
- 22 TRENCH DRAIN
- 23 SAW CUT LINE
- 24 HOWARD COUNTY MODIFIED CURB AND GUTTER (R-3.01)
- 25 DEPRESSED CURB
- 26 4" YELLOW STRIPING AT PARCEL PICK-UP
- 27 65'-4" YELLOW LINE-UP STRIPES
- 28 8'x16" PRE-CAST STORMFILTER
- 29 CMP RISER
- 30 STORM DRAIN CLEANOUT
- 31 FIRE DEPARTMENT CONNECTION
- 32 TEMPORARY DUMPSTER LOCATION ON 8" COMPACTED STONE PAD.
- 33 CONCRETE CURB AND GUTTER TRANSITION (R-3.02)
- 34 STANDARD BARRIER CURB (R-3.03)
- 35 BRICK MANHOLE (G-5.03)
- 36 MODIFIED DOUBLE TYPE "S" INLET
- 37 HOWARD COUNTY STANDARD PRE-CAST MANHOLE (G-5.13)
- 38 LIMIT OF LOADING ZONE
- 39 BRICK PAVERS TO MATCH EXISTING
- 40 COMBINATION SPILL CURB AND GUTTER
- 41 CONCRETE EQUIPMENT PAD (REFER TO ARCHITECTURALS FOR EXACT LOCATION)
- 42 STANDBY GENERATOR (REFER TO ARCHITECTURALS FOR EXACT LOCATION)
- 43 6" PIPE BOLLARD (REFER TO ARCHITECTURALS FOR EXACT LOCATION)
- 44 RELOCATED ELECTRICAL TRANSFORMER (BY BGE)

LEGEND

- PROP. PARKING COUNT LABEL
- SANITARY STRUCTURE LABEL
- STORMDRAIN STRUCTURE LABEL
- ITEM "CALL OUT" LABEL
- HEAVY DUTY PAVEMENT
- PROP. SPILL CURB

NOTES

1. REFER TO THE GENERAL NOTES SHEET FOR STANDARD SITE PLAN NOTES.
2. REFER TO COVER SHEET FOR LEGEND.
3. ALL DIMENSIONS ARE TO FACE OF CURB UNLESS OTHERWISE NOTED.

BENCHMARK

GEODETIC SURVEY CONTROL - #42R1
 S 547,820.238
 E 135,117.859
 ELEV. 375.85'
 LOCATED AT THE CORNER OF GUILFORD ROAD AND SASSAFRAS COURT.

GEODETIC SURVEY CONTROL - #42R2
 N 546,946.800
 E 1,352,118.566
 ELEV. 331.522'
 LOCATED AT HAMMOND HIGH SCHOOL AND GUILFORD ROAD (BLUE SEA ROAD)

GUILFORD ROAD
 VARIABLE WIDTH PUBLIC RIGHT-OF-WAY
 35' PARKING SETBACK
 35' STRUCTURE SETBACK

R=1245.00'
 $\Delta=9^{\circ}21'15"$
 L=203.26'
 CHB=N66°13'52"W
 CHD=203.03'

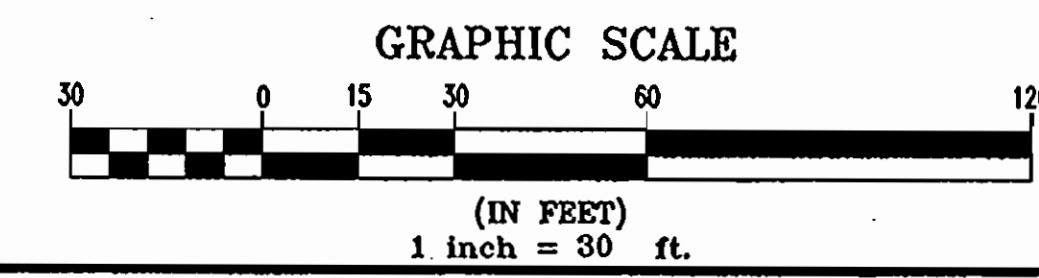
R=1245.00'
 $\Delta=4^{\circ}14'03"$
 L=92.00'
 CHB=N63°40'16"W
 CHD=91.98'

PLANNING BOARD APPROVAL STAMP

APPROVED
 PLANNING BOARD
 OF HOWARD COUNTY
 DATE: 8/31/06

APPROVED: DEPARTMENT OF PLANNING AND ZONING
 DATE: 12/10/06

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS.
 DATE: 12/10/06



MISS UTILITY

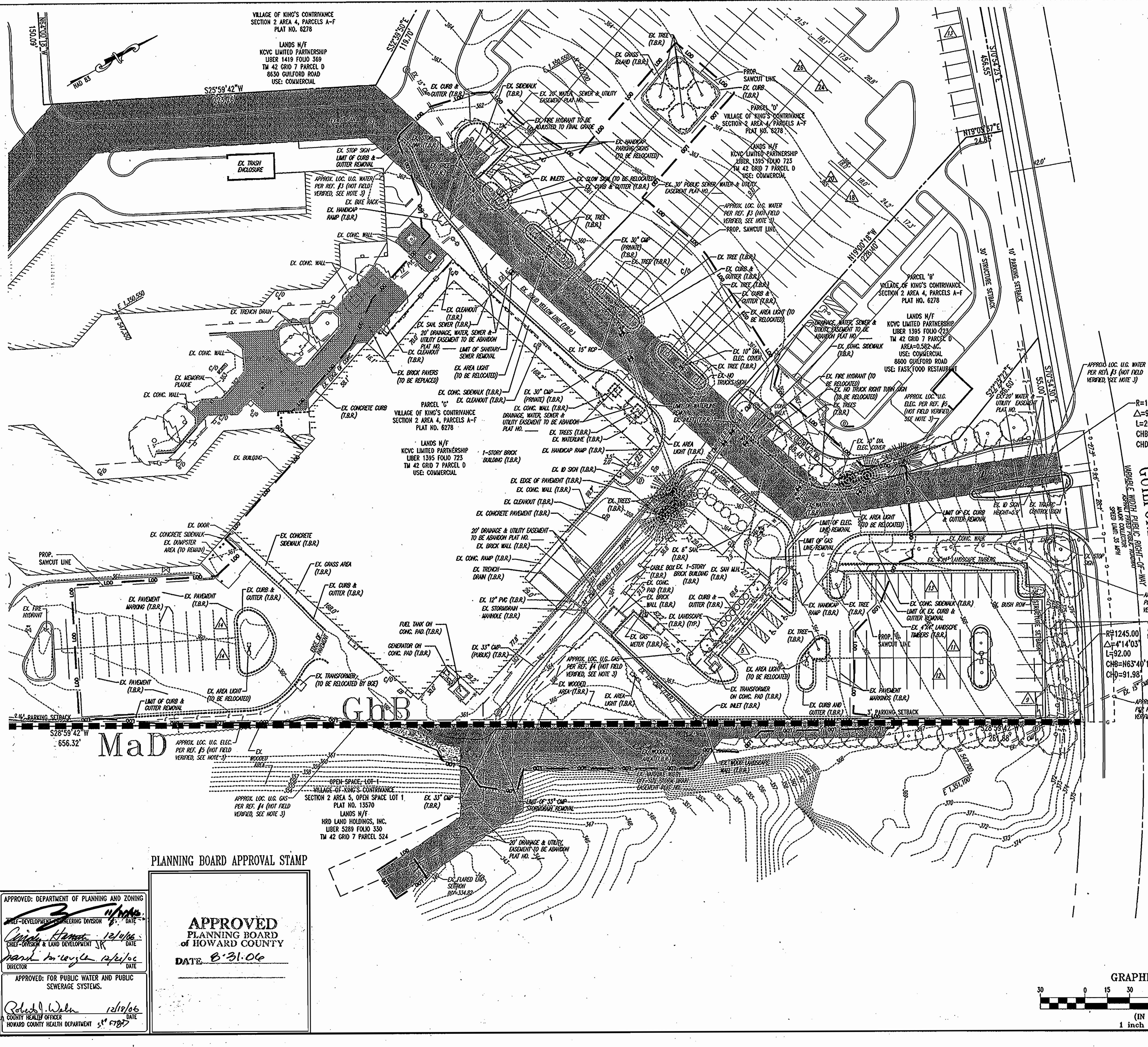
BEFORE YOU DO CALL
 1-800-95-7777
 PROVIDE ADDRESS, DATE TWO
 WORKING DAYS NOTICE

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THE CONTRACTOR TO CALL MISS UTILITY TO HAVE ALL EXISTING UTILITIES MARKED 48 HOURS PRIOR TO ANY CONSTRUCTION.

BOHLER ENGINEERING, P.C.
 PROFESSIONAL ENGINEERING SERVICES
 810 Clontarf Court, Suite 300, Towson, Maryland
 CONTACT: MICHAEL GEMILL
 (410) 821-7000 FAX: (410) 821-7897

DESIGNED BY: MUG
 DRAWN BY: TAC
 PROJECT NO.: MD049006
 DATE: 9/27/06
 SCALE: AS SHOWN
 DRAWING NO.: 5 OF 22



- ### SURVEY NOTES
- PROPERTY IS KNOWN AS PARCEL 'A' AND PART OF PARCELS 'D' AND 'B', VILLAGE OF KING'S CONTRIVANCE, SECTION 2 AREA 4, PARCELS A-F AS RECORDED IN PLAT NO. 6278 AND IS IN THE NAME OF KVCY LIMITED PARTNERSHIP AS RECORDED IN LIBER 1395 FOLIO 723 ALL AMONG THE LAND RECORDS OF HOWARD COUNTY, MARYLAND AND HAVING A TAX MAP NUMBER OF 42-7.
 - AREA = 530,493 SQUARE FEET OR 12.178 ACRES
 - LOCATION OF ALL UNDERGROUND UTILITIES ARE APPROXIMATE. ALL LOCATIONS AND SIZES ARE BASED ON UTILITY MARK-OUTS, ABOVE GROUND STRUCTURES THAT WERE VISIBLE & ACCESSIBLE IN THE FIELD, AND THE MAPS AS LISTED IN THE REFERENCES AVAILABLE AT THE TIME OF THE SURVEY. AVAILABLE ASBUILT PLANS AND UTILITY MARKOUT DO NOT ENSURE MAPPING OF ALL UNDERGROUND UTILITIES AND STRUCTURES. BEFORE ANY EXCAVATION IS TO BEGON, ALL UNDERGROUND UTILITIES SHOULD BE VERIFIED AS TO THEIR LOCATION, SIZE AND TYPE BY THE PROPER UTILITY COMPANIES.
 - THIS PLAN IS BASED ON INFORMATION PROVIDED BY A SURVEY PREPARED IN THE FIELD BY CONTROL POINT ASSOCIATES, INC. AND OTHER REFERENCE MATERIAL AS LISTED HEREON. THIS SURVEY WAS PREPARED WITHOUT THE BENEFIT OF A TITLE REPORT.
 - THIS SURVEY IS PREPARED WITH REFERENCE TO A TITLE COMMITMENT REPORT PREPARED BY FIRST AMERICAN TITLE INSURANCE COMPANY, COMMITMENT NCS-196883-0681, EFFECTIVE DATE OCTOBER 2, 2005. OUR OFFICE HAS REVIEWED THE FOLLOWING SURVEY RELATED EXCEPTIONS IN SCHEDULE B, SECTION II:
 - THIS PROPERTY MAY BE SUBJECT TO RESTRICTIONS, COVENANTS AND/OR EASEMENTS, WRITTEN OR IMPLIED.
 - THE EXISTENCE OF UNDERGROUND STORAGE TANKS, IF ANY, WAS NOT KNOWN AT THE TIME OF THE FIELD SURVEY.
 - ELEVATIONS ARE BASED UPON NAVD 88 PER HOWARD COUNTY CONTROL MONUMENTS 42R1 WITH A PUBLISHED ELEVATION OF 375.85 AND 42R2 WITH A PUBLISHED ELEVATION OF 331.52.
 - THE PROPERTY IS LOCATED IN ZONE C (AREAS OF MINIMAL FLOODING) PER PLAN REFERENCE #2.
 - UNDERGROUND WATER, GAS AND ELECTRIC UTILITIES ARE SHOWN PER FIELD LOCATION OF ABOVE GROUND STRUCTURE AND PLANS RECEIVED FROM UTILITY COMPANIES AND LOCAL GOVERNMENT OFFICES.

- ### SURVEY REFERENCES
- THE MARYLAND DEPARTMENT OF ASSESSMENTS AND TAXATION RECORDS FOR HOWARD COUNTY, MAP NUMBER 42.
 - MAP ENTITLED "FIRM, FLOOD INSURANCE RATE MAP, HOWARD COUNTY, MARYLAND, PANEL 39 OF 45 COMMUNITY-PANEL NUMBER 240044 0039 B, PREPARED BY FEDERAL EMERGENCY MANAGEMENT AGENCY, MAP REVISED DECEMBER 4, 1986.
 - MAP ENTITLED "AS-BUILT, VILLAGE OF KING'S CONTRIVANCE, SECTION 2 AREA 4, VILLAGE CENTER, CONTRACT NO.34-1319-D, SIXTH ELECTION DISTRICT, HOWARD COUNTY, MARYLAND", DATED SEPT. 10, 1985, PREPARED BY FISHER, COLLINS, AND CARTER, INC.
 - UNTITLED MAP SHOWING GAS UTILITIES, DATED 9/30/2005, AND PREPARED BY BALTIMORE GAS AND ELECTRIC.
 - MAP ENTITLED "ELECTRIC PRIMARY & SUBTRANSMISSION MAP", DATED 09/30/2005, AND PREPARED BY BALTIMORE GAS AND ELECTRIC.

LEGEND

	SOILS TYPE DIVIDES
	EXISTING EASEMENT

- ### NOTES
- REFER TO THE GENERAL NOTES SHEET FOR STANDARD DEMOLITION NOTES.
 - REFER TO COVER SHEET FOR LEGEND.

BENCHMARK

<p>GEODETIC SURVEY CONTROL - #42R1 S 547,820.238 E 135,117.859 ELEV. 375.85' LOCATED AT THE CORNER OF GUILFORD ROAD AND SASSAFRAS COURT.</p>	<p>GEODETIC SURVEY CONTROL - #42R2 N 546,946.800 E 1,352,118.566 ELEV. 331.522' LOCATED AT HAMMOND HIGH SCHOOL AND GUILFORD ROAD (BLUE SEA ROAD)</p>
--	--

REV.	DATE	DESCRIPTION	BY
1	8/2/06	REVISED UTILITY LOCATION	CWA

OWNER/DEVELOPER:
 KVCY LIMITED PARTNERSHIP
 C/O KIMCO REALTY CORP.
 3333 NEW HYDE PARK ROAD
 SUITE 100
 NEW HYDE PARK, NY 11042-1205

PROJECT: HARRIS TEETER - ONE STORY GROCERY STORE
 KING'S CONTRIVANCE VILLAGE CENTER
 8620 GUILFORD ROAD
 COLUMBIA, MARYLAND 21046

TITLE: EXISTING CONDITIONS AND DEMOLITION PLAN

BOHLER ENGINEERING, P.C.
 PROFESSIONAL ENGINEERING SERVICES
 810 Glencrest Court, Suite 300, Towson, Maryland
 CONTACT: Michael Gessell
 (410) 561-7900 FAX: (410) 561-7987 www.bohlereng.com

DESIGNED BY:	MAG
DRAWN BY:	TAC
PROJECT NO.:	MD049006
DATE:	9/27/06
SCALE:	AS SHOWN
DRAWING NO.:	4 OF 22

ON-SITE SOILS INFORMATION:
 GHB - GLENELG - URBAN LAND COMPLEX
 (HYDROLOGIC SOIL CLASSIFICATION 'B')
 MO - MANOR LOAM, 15% TO 25% SLOPES
 (HYDROLOGIC SOIL CLASSIFICATION 'B')

REFERENCE:
 SOIL SURVEY
 HOWARD COUNTY, MD
 PREPARED BY:
 UNITED STATES DEPARTMENT OF AGRICULTURE
 DATED: JULY 1968

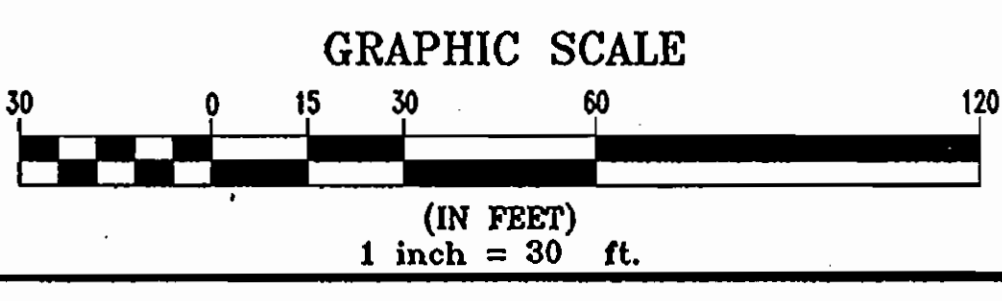
MISS UTILITY



BEFORE YOU DO CALL
 PROTECT YOURSELF, GIVE TWO
 WORKING DAYS NOTICE

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 COMPONENTS FOR CONSTRUCTION SAFETY. ALL
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 WITH THE OCCUPATIONAL SAFETY AND HEALTH
 ACT OF 1970 AND ALL RULES AND
 REGULATIONS THEREOF APPROPRIATE.

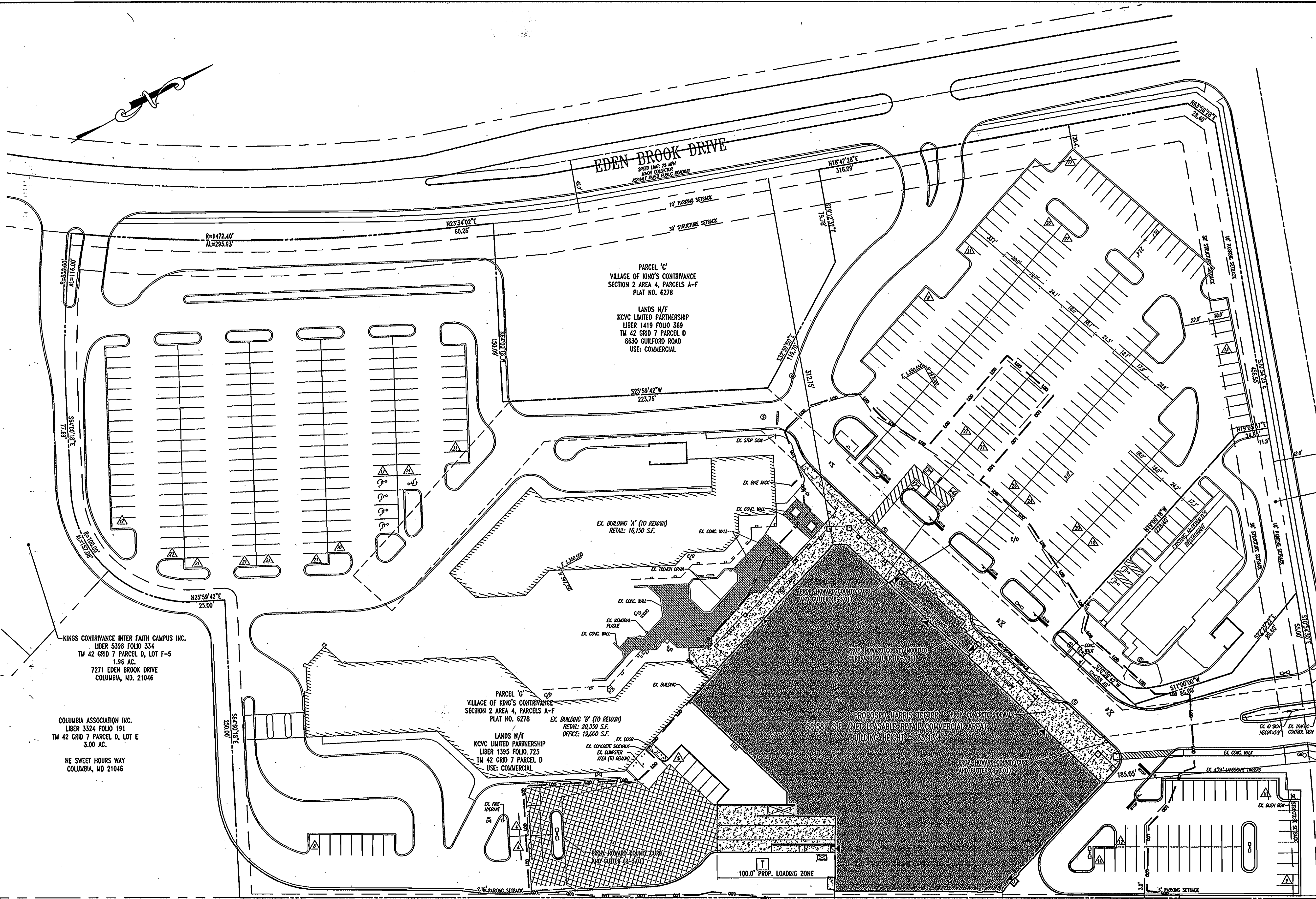
THE CONTRACTOR TO CALL MISS UTILITY TO
 HAVE ALL EXISTING UTILITIES MARKED 48
 HOURS PRIOR TO ANY CONSTRUCTION.



APPROVED: DEPARTMENT OF PLANNING AND ZONING
 DEVELOPMENT ENGINEERING DIVISION
 DATE: 8/31/06
 APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS.
 COUNTY HEALTH OFFICER
 HOWARD COUNTY HEALTH DEPARTMENT

PLANNING BOARD APPROVAL STAMP

APPROVED
 PLANNING BOARD
 OF HOWARD COUNTY
 DATE: 8/31/06



PARKING REQUIREMENTS:
 PARKING REQUIREMENTS PER FDP-178-A-11 PART IV:
 5 SPACES PER 1,000 S.F. OF NET LEASABLE RETAIL COMMERCIAL AREA
 93,081 S.F. / 1,000 S.F. X 5 SPACES = 466 SPACES
 3 SPACES PER 1,000 S.F. OF NET LEASABLE OFFICE SPACE
 19,000 S.F. / 1,000 S.F. X 3 SPACES = 57 SPACES
 PER SDP 86-169c AN ADDITIONAL 33 SPACES ARE REQUIRED ON
 PARCEL 'D' TO MEET THE MCDONALD'S PARKING REQUIREMENTS.
 TOTAL SPACES REQUIRED: 556 SPACES
 NUMBER OF SPACES PROVIDED: 499 SPACES INCLUDING 9 HANDICAP
 SPACES

NOTE:
 1. THE EXISTING TWELVE (12) SPACES ON PARCEL 'B' HAVE NOT BEEN
 INCLUDED IN OUR PARKING CALCULATIONS.

LEGEND

- HEAVY DUTY PAVEMENT
- PROP. CONCRETE PAVING
- PROP. HEAVY DUTY CONCRETE PAVING

PARCEL 'B'
 VILLAGE OF KING'S CONTRIVANCE
 SECTION 2 AREA 4, PARCELS A-F
 PLAT NO. 6278
 LANDS N/F
 KCVC LIMITED PARTNERSHIP
 LIBER 1395 FOLIO 723
 TM 42 GRID 7 PARCEL D
 AREA=0.582 AC.
 USE: COMMERCIAL
 8600 GUILFORD ROAD
 USE: FAST FOOD RESTAURANT

R=1245.00'
 Δ=9°21'15"
 L=203.28'
 CHB=N66°13'52"W
 CHD=203.03'

R=1245.00'
 Δ=7°14'03"
 L=92.00'
 CHB=N53°44'16"W
 CHD=91.98'

REV.	DATE	REVISION	DESCRIPTION	CWA	BY
1	8/12/08	REVISED UTILITY LOCATION			

OWNER/DEVELOPER:
 KCVC LIMITED PARTNERSHIP
 C/O KINGO REALTY CORP.
 3333 NEW HYDE PARK ROAD
 SUITE 100
 NEW HYDE PARK, NY 11042-1205

PROJECT:
 HARRIS TEETER - ONE STORY GROCERY STORE
 KING'S CONTRIVANCE VILLAGE CENTER
 8600 GUILFORD ROAD
 COLUMBIA, MARYLAND 21046

AREAS: TAX MAP 42 GRID 7 ZONED HT-COMM
 PARCEL C
 VILLAGE OF KING'S CONTRIVANCE
 6TH ELECTRON DISTRICT
 COLUMBIA, HOWARD COUNTY, MARYLAND

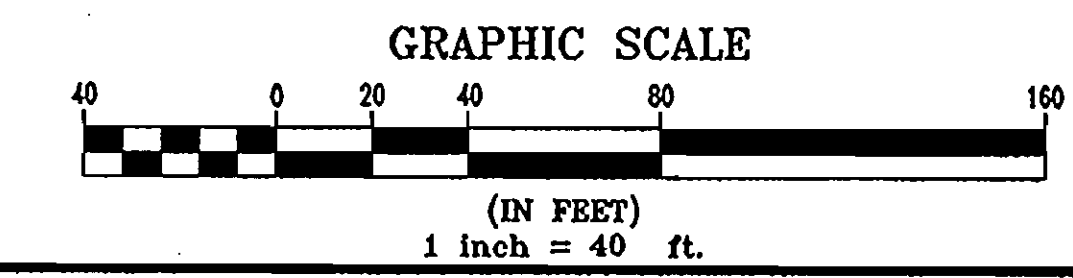
BOHLER ENGINEERING, P.C.
 PROFESSIONAL ENGINEERING SERVICES
 810 Glenelg Court, Suite 300, Towson, Maryland
 CONTACT: Michael Gerold
 (410) 821-7900 FAX: (410) 821-7987 E: WWW.BOHLENG.COM

DESIGNED BY: MWG
 DRAWN BY: TAC
 PROJECT NO.: MD049006
 DATE: 9/27/06
 SCALE: AS SHOWN
 DRAWING NO.: 3 OF 22

PLANNING BOARD APPROVAL STAMP

APPROVED
 PLANNING BOARD
 OF HOWARD COUNTY
 DATE: 8.21.06

APPROVED: DEPARTMENT OF PLANNING AND ZONING
 CHIEF-DEVELOPMENT ENGINEERING DIVISION
 DATE: 12/19/06
 APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS.
 DATE: 12/19/06



MISS UTILITY

BEFORE YOU DIG CALL
 1-800-22-7777
 PROTECT YOURSELF, ONE TWO
 WOODROW WALKER

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THE CONTRACTOR TO CALL MISS UTILITY TO HAVE ALL EXISTING UTILITIES MARKED 48 HOURS PRIOR TO ANY CONSTRUCTION.

DEMOLITION NOTES

- THIS PLAN IS BASED ON A SURVEY PREPARED BY:
CONTROL POINT ASSOCIATES, INC.
22630 DAVIS DRIVE, SUITE 200
STERLING, VA 20164
TELEPHONE: (703) 709-9400
FAX: (703) 904-9797
CONTACT: KEVIN STEINHILBER, P.L.S.
FILE NO. # S056218
ENTITLED: "PARTIAL SURVEY AND TOPOGRAPHIC SURVEY, PARCEL 'A' AND PART OF PARCEL 'B' AND 'D', VILLAGE OF KING'S CONTRIVANCE, SECTION 2 AREA 4."
DATED: 10/27/05, REVISED 5/16/06
- BOHLER ENGINEERING, P.C. IS NOT RESPONSIBLE FOR JOB SITE SAFETY OR SUPERVISION.
- ALL DEMOLITION ACTIVITIES ARE TO BE PERFORMED IN ACCORDANCE WITH THESE PLANS AND SPECIFICATIONS AS WELL AS ALL FEDERAL, STATE AND LOCAL REGULATIONS. ANY DISCREPANCIES OR DEVIATIONS SHALL BE IDENTIFIED BY THE CONTRACTOR TO BOHLER ENGINEERING, P. C. IN WRITING FOR RESOLUTION PRIOR TO INITIATION OF SITE ACTIVITY.
- PRIOR TO STARTING ANY DEMOLITION CONTRACTOR IS RESPONSIBLE FOR:
 - ENSURING THAT COPIES OF ALL APPLICABLE PERMITS AND APPROVALS ARE MAINTAINED ON SITE AND AVAILABLE FOR REVIEW.
 - INSTALLING THE REQUIRED SOIL EROSION AND SEDIMENT CONTROL AND/OR TREE PROTECTION MEASURES PRIOR TO SITE DISTURBANCE.
 - LOCATING (VERTICALLY AND HORIZONTALLY) ALL UTILITIES AND SERVICES, INCLUDING, BUT NOT LIMITED TO GAS, WATER, ELECTRIC, SANITARY AND STORM SEWER, TELEPHONE, CABLE, FIBER OPTIC CABLE, ETC. WITHIN THE LIMITS OF DISTURBANCE. THE CONTRACTOR SHALL USE AND COMPLY WITH THE REQUIREMENTS OF THE APPLICABLE UTILITY NOTIFICATION SYSTEM TO LOCATE ALL THE UNDERGROUND UTILITIES.
 - PROTECTING AND MAINTAINING IN OPERATION, ALL ACTIVE SYSTEM THAT ARE NOT BEING REMOVED DURING ALL DEMOLITION ACTIVITIES.
 - FAMILIARIZING THEMSELVES WITH THE APPLICABLE UTILITY SERVICE PROVIDER AND IS RESPONSIBLE FOR ALL COORDINATION REGARDING UTILITY DEMOLITION REQUIRED FOR THE PROJECT. THE CONTRACTOR SHALL PROVIDE THE OWNER WRITTEN NOTIFICATION THAT THE EXISTING UTILITIES AND SERVICES HAVE BEEN TERMINATED AND ABANDONED IN ACCORDANCE WITH JURISDICTION AND UTILITY COMPANY REQUIREMENTS.
 - COORDINATION WITH UTILITY COMPANIES REGARDING WORKING "OFF-PEAK" HOURS OR ON WEEKENDS AS MAY BE REQUIRED TO MINIMIZE THE IMPACT ON THE AFFECTED PARTIES.
 - A COMPLETE INSPECTION FOR CONTAMINANTS BY A LICENSED ENVIRONMENTAL TESTING AGENCY, OF ALL BUILDINGS AND/OR STRUCTURES TO BE REMOVED. SAME SHALL BE PERFORMED IN ACCORDANCE WITH ALL APPLICABLE LOCAL, STATE, AND FEDERAL ENVIRONMENTAL REGULATIONS. ANY/ALL CONTAMINANTS SHALL BE REMOVED AND DISPOSED OF BY A FEDERALLY LICENSED CONTRACTOR IN ACCORDANCE WITH FEDERAL, STATE, AND LOCAL REGULATIONS. ALL ENVIRONMENTAL WORK INCLUDING HAZARDOUS MATERIAL, SOILS, ASBESTOS, OR OTHER REFERENCED OR IMPLIED HEREIN IS THE SOLE RESPONSIBILITY OF THE OWNER'S ENVIRONMENTAL CONSULTANT.
- BOHLER ENGINEERING P.C. IS NOT RESPONSIBLE FOR JOB SITE SAFETY OR SUPERVISION. CONTRACTOR IS TO PROCEED WITH THE DEMOLITION IN A SYSTEMATIC AND SAFE MANNER, FOLLOWING ALL THE OSHA REQUIREMENTS, TO ENSURE PUBLIC AND CONTRACTOR SAFETY.
- THE CONTRACTOR SHALL PROVIDE ALL THE "MEANS AND METHODS" NECESSARY TO PREVENT MOVEMENT, SETTLEMENT, OR COLLAPSE OF EXISTING STRUCTURES, AND ANY OTHER IMPROVEMENTS THAT ARE REMAINING ON OR OFF SITE. THE DEMOLITION CONTRACTOR IS RESPONSIBLE FOR ALL REPAIRS OF DAMAGE TO ALL ITEMS THAT ARE TO REMAIN AS A RESULT OF HIS ACTIVITIES. ALL REPAIRS SHALL USE NEW MATERIAL. THE REPAIRS SHALL RESTORE THE ITEM TO THE PRE-DEMOLITION CONDITION.
- IN THE ABSENCE OF SPECIFICATIONS, THE CONTRACTOR SHALL PERFORM EARTH MOVEMENT ACTIVITIES, DEMOLITION AND REMOVAL OF ALL FOUNDATION WALLS, FOOTINGS, AND OTHER MATERIALS WITHIN THE LIMITS OF DISTURBANCE IN ACCORDANCE WITH DIRECTION BY OWNER'S STRUCTURAL OR GEOTECHNICAL ENGINEER.
- EXPLOSIVES SHALL NOT BE USED WITHOUT PRIOR WRITTEN CONSENT OF BOTH THE OWNER AND APPLICABLE GOVERNMENTAL AUTHORITIES. ALL THE REQUIRED PERMITS AND EXPLOSIVE CONTROL MEASURES THAT ARE REQUIRED BY THE FEDERAL, STATE, AND LOCAL GOVERNMENTS SHALL BE IN PLACE PRIOR TO STARTING AN EXPLOSIVE PROGRAM. THE CONTRACTOR IS ALSO RESPONSIBLE FOR ALL INSPECTION AND SEISMIC VIBRATION TESTING THAT IS REQUIRED TO MONITOR THE EFFECTS ON ALL LOCAL STRUCTURES.
- CONTRACTOR SHALL PROVIDE TRAFFIC CONTROL AND GENERALLY ACCEPTED SAFE PRACTICES IN CONFORMANCE WITH THE "MANUAL ON UNIFORM TRAFFIC CONTROL," AS WELL AS FEDERAL, STATE, AND LOCAL REGULATIONS WHEN DEMOLITION RELATED ACTIVITIES IMPACT ROADWAYS OR ROADWAY RIGHTS - OF - WAY.
- CONDUCT DEMOLITION ACTIVITIES IN SUCH A MANNER TO ENSURE MINIMUM INTERFERENCE WITH ROADS, STREETS, SIDEWALKS, WALKWAYS, AND OTHER ADJACENT FACILITIES. STREET CLOSURE PERMITS MUST BE RECEIVED FROM THE APPROPRIATE GOVERNMENTAL AUTHORITY.
- DEMOLITION ACTIVITIES AND EQUIPMENT SHALL NOT USE AREAS OUTSIDE THE DEFINED PROPERTY LINE WITHOUT WRITTEN PERMISSION OF THE APPLICABLE PROPERTY OWNER, AND/OR APPROPRIATE GOVERNMENT AGENCY.
- USE DUST CONTROL MEASURES TO LIMIT AIRBORNE DUST AND DIRT RISING AND SCATTERING IN THE AIR IN ACCORDANCE WITH FEDERAL, STATE, AND/OR LOCAL STANDARDS. AFTER THE DEMOLITION IS COMPLETE, ADJACENT STRUCTURES AND IMPROVEMENTS SHALL BE CLEANED OF ALL DUST AND DEBRIS CAUSED BY THE DEMOLITION OPERATIONS. THE CONTRACTOR IS RESPONSIBLE FOR RETURNING ALL ADJACENT AREAS TO THEIR "PRE-DEMOLITION" CONDITION.
- CONTRACTOR IS RESPONSIBLE TO SAFEGUARD SITE AS NECESSARY TO PERFORM THE DEMOLITION IN SUCH A MANNER AS TO PREVENT THE ENTRY OF UNAUTHORIZED PERSONS AT ANY TIME.
- THIS DEMOLITION PLAN IS INTENDED TO IDENTIFY THOSE EXISTING ITEMS/CONDITIONS WHICH ARE TO BE REMOVED. IT IS NOT INTENDED TO PROVIDE DIRECTION OTHER THAN THAT ALL METHODS AND MEANS ARE TO BE IN ACCORDANCE WITH STATE, FEDERAL, LOCAL, AND JURISDICTIONAL REQUIREMENTS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL OSHA AND OTHER SAFETY PRECAUTIONS NECESSARY TO PROVIDE A SAFE WORK SITE.
- DEBRIS SHALL NOT BE BURIED ON THE SUBJECT SITE. ALL DEMOLITION WASTES AND DEBRIS (SOLID WASTE) SHALL BE DISPOSED OF IN ACCORDANCE WITH ALL TOWN, COUNTY, STATE, AND FEDERAL LAWS AND APPLICABLE CODES.

SITE PLAN GENERAL NOTES

- THIS PLAN IS BASED ON A SURVEY PREPARED BY:
CONTROL POINT ASSOCIATES, INC.
22630 DAVIS DRIVE, SUITE 200
STERLING, VA 20164
TELEPHONE: (703) 709-9400
FAX: (703) 904-9797
CONTACT: KEVIN STEINHILBER, P.L.S.
FILE NO. # S056218
ENTITLED: "PARTIAL SURVEY AND TOPOGRAPHIC SURVEY, PARCEL 'A' AND PART OF PARCEL 'B' AND 'D', VILLAGE OF KING'S CONTRIVANCE, SECTION 2 AREA 4."
DATED: 10/27/05, REVISED 5/16/06
- ALL ELEVATIONS SHOWN ARE BASED ON THE SURVEYOR'S BENCHMARK, AS REFERENCED IN THE SURVEY, AND MUST BE VERIFIED BY THE GENERAL CONTRACTOR PRIOR TO GROUND BREAK.
- APPLICANT:
KIMCO REALTY CORPORATION
170 W. RIDGLEY ROAD, SUITE 210
LUTHERVILLE, MARYLAND 21093
CONTACT: GEOFF GLAZER
PHONE: (410) 684-2000
- OWNER:
KVCV LIMITED PARTNERSHIP
C/O KIMCO REALTY CORP.
3333 NEW HYDE PARK ROAD
SUITE 100
NEW HYDE PARK, NY 11042-1205
CONTACT: GEOFF GLAZER
PHONE: (410) 684-2000
- PARCEL DATA:
TAX MAP: 42
GRID: 7
PARCEL: G
- BULK REQUIREMENTS:

	REQUIRED	PROVIDED
A. FRONT STRUCTURE SETBACK (GULFORD ROAD)	30'	185.05'
SIDE PARKING SETBACK (KINGS CONTRIVANCE)	10'	298.55'
REAR PARKING SETBACK (OPEN SPACE)	10'	2.16*
FRONT STRUCTURE SETBACK (EDEN BROOK DRIVE)	30'	312.75'

*PER PREVIOUSLY APPROVED SDP-85-153 ENTITLED "VILLAGE OF KING'S CONTRIVANCE, SECTION 2, AREA 4, PARCEL 1D, PREPARED BY FISHER, COLLINS AND CARTER, INC. DATED MARCH 4, 1985, APPROVED MAY 15, 1985.

B. PARKING REQUIREMENTS PER FDP-178-A-11 PART IV:
5 SPACES PER 1,000 S.F. OF NET LEASABLE RETAIL COMMERCIAL AREA
93,081 S.F. / 1,000 S.F. X 5 SPACES = 466 SPACES
3 SPACES PER 1,000 S.F. OF NET LEASABLE OFFICE SPACE
19,000 S.F. / 1,000 S.F. X 3 SPACES = 57 SPACES
PER SDP 86-169c AN ADDITIONAL 33 SPACES ARE REQUIRED TO BE PROVIDED ON PARCEL 'G' TO MEET THE MCDONALD'S PARKING REQUIREMENTS.
TOTAL SPACES REQUIRED: 556 SPACES
NUMBER OF SPACES PROVIDED: 499 SPACES INCLUDING 9 HANDICAP SPACES
- PRIOR TO STARTING CONSTRUCTION, THE CONTRACTOR SHALL ENSURE THAT ALL REQUIRED PERMITS AND APPROVALS HAVE BEEN OBTAINED. NO CONSTRUCTION OR FABRICATION SHALL BEGIN UNTIL THE CONTRACTOR HAS RECEIVED AND THOROUGHLY REVIEWED ALL PLANS AND OTHER DOCUMENTS BY ALL OF THE PERMITTING AUTHORITIES.
- THE OWNER/CONTRACTOR SHALL BE FAMILIAR WITH AND RESPONSIBLE FOR ANY/ALL CERTIFICATIONS, INSPECTIONS, ETC. REQUIRED BY ALL GOVERNING JURISDICTIONAL AGENCIES DURING AND AFTER CONSTRUCTION FOR SIGN-OFF AND CERTIFICATE OF OCCUPANCY ISSUANCE, INCLUDING BUT NOT LIMITED TO PROCUREMENT OF SERVICES, SCHEDULING OF FIELD OBSERVATIONS AND COORDINATION WITH REPRESENTATIVES OF THE APPROPRIATE PARTIES.
- ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THESE PLANS AND SPECIFICATIONS AND THE REQUIREMENTS AND STANDARDS OF THE LOCAL GOVERNING AUTHORITY.
- THE GEOTECHNICAL REPORT PREPARED BY HILLIS-CARNES ENGINEERING ASSOCIATES, INC. DATED 12/29/05, PROJECT NO. 02190A AND RECOMMENDATIONS SET FORTH THEREIN ARE A PART OF THE REQUIRED CONSTRUCTION DOCUMENTS AND IN CASE OF CONFLICT SHALL TAKE PRECEDENCE UNLESS SPECIFICALLY NOTED OTHERWISE ON THE PLANS. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IN WRITING OF ANY SUCH DISCREPANCY BETWEEN GEOTECHNICAL REPORT AND PLANS, ETC.
- THE PROPERTY SURVEY SHALL BE CONSIDERED A PART OF THESE PLANS.
- THESE PLANS ARE BASED ON INFORMATION PROVIDED TO BOHLER ENGINEERING, P. C. AT THE TIME OF PLAN PREPARATION. CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS AND NOTIFY BOHLER ENGINEERING, P. C. IF ACTUAL SITE CONDITIONS DIFFER FROM THOSE SHOWN ON THE PLAN, OR IF THE PROPOSED WORK WOULD BE INHIBITED BY ANY OTHER SITE FEATURES.
- ALL DIMENSIONS SHOWN ON THE PLANS SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. CONTRACTOR SHALL NOTIFY BOHLER ENGINEERING, P.C. IN WRITING IF ANY DISCREPANCIES EXIST PRIOR TO PROCEEDING WITH CONSTRUCTION. NO EXTRA COMPENSATION SHALL BE PAID TO THE CONTRACTOR FOR WORK HAVING TO BE REDONE DUE TO DIMENSIONS OR GRADES SHOWN INCORRECTLY ON THESE PLANS IF SUCH NOTIFICATION HAS NOT BEEN GIVEN.
- CONTRACTOR SHALL REFER TO THE ARCHITECTURAL/BUILDING PLANS FOR EXACT LOCATIONS AND DIMENSIONS OF ENTRY/EXIT POINTS, ELEVATIONS, PRECISE BUILDING DIMENSIONS, EXACT BUILDING UTILITY LOCATIONS.
- DEBRIS SHALL NOT BE BURIED ON THE SUBJECT SITE AND ALL UNSUITABLE EXCAVATED MATERIAL AND DEBRIS (SOLID WASTE) SHALL BE DISPOSED OF IN ACCORDANCE WITH ALL TOWN, COUNTY, STATE AND FEDERAL LAWS AND APPLICABLE CODES.
- CONTRACTOR IS RESPONSIBLE FOR ALL SHORING REQUIRED DURING EXCAVATION (TO BE PERFORMED IN ACCORDANCE WITH CURRENT OSHA STANDARDS) AND ANY ADDITIONAL PROVISIONS TO ASSURE STABILITY OF CONTIGUOUS STRUCTURES, AS FIELD CONDITIONS DICTATE.
- CONTRACTOR IS TO EXERCISE EXTREME CARE WHEN PERFORMING ANY WORK ACTIVITIES ADJACENT TO PAVEMENT, STRUCTURES, ETC. TO REMAIN. CONTRACTOR SHALL BE RESPONSIBLE FOR TAKING THE APPROPRIATE MEASURES AS NECESSARY TO ENSURE THE STRUCTURAL STABILITY OF PAVEMENT, STRUCTURES, ETC. TO REMAIN, AND TO PROVIDE A SAFE WORK AREA.
- CONTRACTOR IS RESPONSIBLE FOR DOCUMENTING ALL EXISTING DAMAGE AND FOR NOTIFYING CONSTRUCTION MANAGER PRIOR TO START OF CONSTRUCTION. CONTRACTOR IS RESPONSIBLE FOR REPAIRING THE DAMAGE DONE TO ANY EXISTING ITEM DURING CONSTRUCTION SUCH AS BUT NOT LIMITED TO DRAINAGE, UTILITIES, PAVEMENT, STRIPING, CURB, ETC. THE CONTRACTOR SHALL BE RESPONSIBLE FOR AND SHALL REPLACE ALL SIGNAL INTERCONNECT CABLE, CONDUITS, AND ANY UNDERGROUND ACCESSORY EQUIPMENT DAMAGED DURING CONSTRUCTION. REPAIR SHALL BE EQUAL TO OR BETTER THAN EXISTING CONDITIONS.
- ALL CONCRETE SHALL HAVE THE MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS AS INDICATED IN SPECIFICATIONS UNLESS OTHERWISE NOTED ON THE PLANS, DETAILS AND/OR GEOTECHNICAL REPORT.
- BOHLER ENGINEERING, P.C. IS NOT RESPONSIBLE FOR CONSTRUCTION METHODS/MEANS FOR COMPLETION OF THE WORK DEPICTED ON THESE PLANS NOR ANY CONFLICTS/SCOPE REVISIONS WHICH RESULT FROM SAME. CONTRACTOR IS RESPONSIBLE FOR DETERMINING METHODS/MEANS FOR COMPLETION OF THE WORK PRIOR TO THE COMMENCEMENT OF CONSTRUCTION AND NOTIFICATION OF OWNER AND ENGINEER OF RECORD WHEN A CONFLICT IS IDENTIFIED.
- BOHLER ENGINEERING, P.C. IS NOT RESPONSIBLE FOR JOB SITE SAFETY NOR HAVE THEY BEEN RETAINED FOR SUCH PURPOSES.

SITE PLAN REFERENCES

- SURVEY:
CONTROL POINT ASSOCIATES, INC.
22630 DAVIS DRIVE, SUITE 200
STERLING, VA 20164
TELEPHONE: (703) 709-9400
FAX: (703) 904-9797
CONTACT: KEVIN STEINHILBER, P.L.S.
FILE # S056218.SR
ENTITLED: "PARTIAL SURVEY AND TOPOGRAPHIC SURVEY, PARCEL 'A' AND PART OF PARCEL 'B' AND 'D', VILLAGE OF KING'S CONTRIVANCE, SECTION 2 AREA 4, PARCEL A."
DATED: 10/27/05, REVISED 5/16/06
- SDP-85-153C PREPARED BY:
FISHER, COLLINS AND CARTER, INC.
8388 COURT AVE.
ELLCOTT CITY, MARYLAND 21043
TEL: (301) 461-2855
ENTITLED: VILLAGE OF KING'S CONTRIVANCE, SECTION 2, AREA 4, PARCEL A.
DATED: MARCH 4, 1985 - APPROVED 5/15/85.
- SDP-86-171C PREPARED BY:
FISHER, COLLINS AND CARTER, INC.
8388 COURT AVE.
ELLCOTT CITY, MARYLAND 21043
TEL: (301) 461-2855
ENTITLED: VILLAGE OF KING'S CONTRIVANCE, SECTION 2, AREA 4, PARCEL A.
DATED: FEB. 19, 1986 - APPROVED 4/2/86.
- FINAL DEVELOPMENT PLAN PHASE 178-A-H PART IV.
APPROVED MARCH 15, 1985, REVISED APRIL 9, 1986, FEB. 27, 1995 AND AUG. 14, 1997.
- PUBLIC WATER AND SEWER PLANS PREPARED BY:
FISHER, COLLINS AND CARTER, INC.
8388 COURT AVE.
ELLCOTT CITY, MARYLAND 21043
TEL: (301) 461-2855
ENTITLED: VILLAGE OF KING'S CONTRIVANCE WATER AND SEWER MAIN EXTENSION.
DATED: 2/25/85, REVISED 12/20/85.
AS BUILT: SEPT. 10, 1985.
- TRAFFIC REPORT PREPARED BY:
THE TRAFFIC GROUP
9900 FRANKLIN SQUARE DRIVE, SUITE H
BALTIMORE, MD 21236
TEL: (410) 931-6600
ENTITLED: "KINGS CONTRIVANCE VILLAGE CENTER"
PROJECT NO.: 051039
DATED: FEBRUARY 2, 2006
- SDP-87-171C PREPARED BY:
HILLIS-CARNES ENGINEERING ASSOCIATES, INC.
10975 GULFORD ROAD, SUITE A
ANNAPOLIS JUNCTION, MD 20701
TEL: (410) 890-4758
ENTITLED: "KINGS CONTRIVANCE CENTER - NEW HARRIS TEETER FOOD STORE"
PROJECT NO.: 05190A
DATED: 12/29/2005
- REPORT OF GEOTECHNICAL INVESTIGATION PREPARED BY:
HILLIS-CARNES ENGINEERING ASSOCIATES, INC.
10975 GULFORD ROAD, SUITE A
ANNAPOLIS JUNCTION, MD 20701
TEL: (410) 890-4758
ENTITLED: "SAFETY & FORMER FRIENDLY'S"
PROJECT NO.: 05174A
DATED: 1/4/06
- SDP-87-23C PREPARED BY:
STV/LYON ASSOCIATES
11350 MCCORWICK ROAD
HUNT VALLEY, MD 21031
TEL: 410-785-6634
ENTITLED: VILLAGE OF KING'S CONTRIVANCE PARCEL "C" SECTION 2, AREA 4
PROJECT NO.: 7730-53-017
DATED: 11/12/86
- ENVIRONMENTAL SITE ASSESSMENT PREPARED BY:
K. SDP-02-08 PREPARED BY:
FREDERICK WARD ASSOCIATES, INC.
7125 RIVER WOOD DRIVE
COLUMBIA, MD 21046-2354
TEL: 410-290-9550
ENTITLED: KING'S CONTRIVANCE INTERFAITH CAMPUS, PARCEL F-3, F-4 AND F-5
PROJECT NO: 2017138
DATED FEB. 6, 2003 REVISED: 9/30/03
APPROVED: 3/18/03
- F-85-114 PREPARED BY:
FISHER, COLLINS AND CARTER, INC.
8388 COURT AVENUE
ELLCOTT CITY, MD 21043
ENTITLED: VILLAGE OF KING'S CONTRIVANCE, SECTION 2, AREA 4, PARCELS A-F
DATED: 2/22/85, RECORDED PLAT 6278 ON 7/13/85

SITE PLAN GENERAL NOTES

- ALL CONTRACTORS MUST CARRY STATUTORY WORKER'S COMPENSATION INSURANCE, EMPLOYER'S LIABILITY INSURANCE AND APPROPRIATE LIMITS OF COMMERCIAL GENERAL LIABILITY INSURANCE (CGL). ALL CONTRACTORS MUST HAVE THEIR CGL POLICIES ENDORSED TO NAME BOHLER ENGINEERING, P.C., AND ITS SUBCONSULTANTS AS ADDITIONAL INSURED AND TO PROVIDE CONTRACTUAL LIABILITY COVERAGE SUFFICIENT TO INSURE THE HOLD HARMLESS AND INDEMNITY OBLIGATIONS ASSUMED BY THE CONTRACTORS. ALL CONTRACTORS MUST FURNISH BOHLER ENGINEERING, P.C. WITH CERTIFICATIONS OF INSURANCE AS EVIDENCE OF THE REQUIRED INSURANCE PRIOR TO COMMENCING WORK AND UPON RENEWAL OF EACH POLICY DURING THE ENTIRE PERIOD OF CONSTRUCTION. IN ADDITION, ALL CONTRACTORS WILL, TO THE FULLEST EXTENT PERMITTED BY LAW, INDEMNIFY AND HOLD HARMLESS BOHLER ENGINEERING, P.C. AND ITS SUBCONSULTANTS FROM AND AGAINST ANY DAMAGES, LIABILITIES OR COSTS, INCLUDING REASONABLE ATTORNEYS' FEES AND DEFENSE COSTS, ARISING OUT OF OR IN ANY WAY CONNECTED WITH THE PROJECT, INCLUDING ALL CLAIMS BY EMPLOYEES OF THE CONTRACTORS.
- NEITHER THE PROFESSIONAL ACTIVITIES OF BOHLER ENGINEERING, P.C., NOR THE PRESENCE OF BOHLER ENGINEERING, P.C. OR ITS EMPLOYEES AND SUBCONSULTANTS AT A CONSTRUCTION/PROJECT SITE, SHALL RELIEVE THE GENERAL CONTRACTOR OF ITS OBLIGATIONS, DUTIES AND RESPONSIBILITIES INCLUDING, BUT NOT LIMITED TO, CONSTRUCTION MEANS, METHODS, SEQUENCE, TECHNIQUES OR PROCEDURES NECESSARY FOR PERFORMING, SUPERINTENDING AND COORDINATING THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS AND ANY HEALTH OR SAFETY PRECAUTIONS REQUIRED BY ANY REGULATORY AGENCIES. BOHLER ENGINEERING, P.C. AND ITS PERSONNEL HAVE NO AUTHORITY TO EXERCISE ANY CONTROL OVER ANY CONSTRUCTION CONTRACTOR OR ITS EMPLOYEES IN CONNECTION WITH THEIR WORK OR ANY HEALTH OR SAFETY PROGRAMS OR PROCEDURES. THE GENERAL CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR JOBSITE SAFETY. BOHLER ENGINEERING, P.C. SHALL BE INDEMNIFIED BY THE GENERAL CONTRACTOR AND SHALL BE MADE ADDITIONAL INSURED UNDER THE GENERAL CONTRACTOR'S POLICIES OF GENERAL LIABILITY INSURANCE.
- BOHLER ENGINEERING, P.C. SHALL REVIEW AND APPROVE OR TAKE OTHER APPROPRIATE ACTION ON THE CONTRACTOR SUBMITTALS, SUCH AS SHOP DRAWINGS, PRODUCT DATA, SAMPLES, AND OTHER DATA, WHICH THE CONTRACTOR IS REQUIRED TO SUBMIT, BUT ONLY FOR THE LIMITED PURPOSE OF CHECKING FOR CONFORMANCE WITH THE DESIGN CONCEPT AND THE INFORMATION SHOWN IN THE CONSTRUCTION MEANS OR METHODS, COORDINATION OF THE WORK WITH OTHER TRADES, OR CONSTRUCTION SAFETY PRECAUTIONS, ALL OF WHICH ARE THE SOLE RESPONSIBILITY OF THE CONTRACTOR. BOHLER ENGINEERING'S REVIEW SHALL BE CONDUCTED WITH REASONABLE PROMPTNESS WHILE ALLOWING SUFFICIENT TIME TO PERMIT ADEQUATE REVIEW. REVIEW OF A SPECIFIC ITEM SHALL NOT INDICATE THAT BOHLER ENGINEERING, P.C. HAS REVIEWED THE ENTIRE ASSEMBLY OF WHICH THE ITEM IS A COMPONENT. BOHLER ENGINEERING, P.C. SHALL NOT BE RESPONSIBLE FOR ANY DEVIATIONS FROM THE CONSTRUCTION DOCUMENTS NOT BROUGHT TO THE ATTENTION OF BOHLER ENGINEERING P.C. IN WRITING BY THE CONTRACTOR. BOHLER ENGINEERING, P.C. SHALL NOT BE REQUIRED TO REVIEW PARTIAL SUBMISSIONS OR THOSE FOR WHICH SUBMISSIONS OF CORRELATED ITEMS HAVE NOT BEEN RECEIVED.
- IN AN EFFORT TO RESOLVE ANY CONFLICTS THAT ARISE DURING THE DESIGN AND CONSTRUCTION OF THE PROJECT OR FOLLOWING THE COMPLETION OF THE PROJECT, BOHLER ENGINEERING, P.C. AND THE CONTRACTOR MUST AGREE THAT ALL DISPUTES BETWEEN THEM ARISING OUT OF OR RELATING TO THIS AGREEMENT OR THE PROJECT SHALL BE SUBMITTED TO NONBINDING MEDIATION UNLESS THE PARTIES MUTUALLY AGREE OTHERWISE.
- THE CONTRACTOR MUST INCLUDE A MEDIATION PROVISION IN ALL AGREEMENTS WITH INDEPENDENT SUBCONTRACTORS AND CONSULTANTS RETAINED FOR THE PROJECT AND TO REQUIRE ALL INDEPENDENT CONTRACTORS AND CONSULTANTS ALSO TO INCLUDE A SIMILAR MEDIATION PROVISION IN ALL AGREEMENTS WITH THEIR SUBCONTRACTORS, SUBCONSULTANTS, SUPPLIERS AND FABRICATORS, THEREBY PROVIDING FOR MEDIATION AS THE PRIMARY METHOD FOR DISPUTE RESOLUTION BETWEEN THE PARTIES TO ALL THOSE AGREEMENTS.
- IF THE CONTRACTOR DEVIATES FROM THE PLANS AND SPECIFICATIONS, INCLUDING THE NOTES CONTAINED THEREIN, WITHOUT FIRST OBTAINING PRIOR WRITTEN AUTHORIZATION FOR SUCH DEVIATIONS FROM THE OWNER AND ENGINEER, IT SHALL BE RESPONSIBLE FOR THE PAYMENT OF ALL COSTS TO CORRECT ANY WORK DONE, ALL FINES OR PENALTIES ASSESSED WITH RESPECT THERETO AND ALL COMPENSATORY OR PUNITIVE DAMAGES RESULTING THEREFROM. THE CONTRACTOR SHALL INDEMNIFY AND HOLD THE OWNER AND ENGINEER HARMLESS FROM ALL SUCH COSTS TO CORRECT ANY SUCH WORK AND FROM ALL SUCH FINES AND PENALTIES, COMPENSATION AND PUNITIVE DAMAGES AND COSTS OF ANY NATURE RESULTING THEREFROM.

GRADING NOTES

- IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO REVIEW ALL OF THE DRAWINGS AND SPECIFICATIONS ASSOCIATED WITH THE PROJECT WORK SCOPE PRIOR TO THE INITIATION OF CONSTRUCTION. SHOULD THE CONTRACTOR FIND A CONFLICT WITH THE DOCUMENTS RELATIVE TO THE SPECIFICATIONS OR THE RELATIVE CODES, IT IS THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY BOHLER ENGINEERING, P.C. OF RECORD IN WRITING PRIOR TO THE START OF CONSTRUCTION. FAILURE BY THE CONTRACTOR TO NOTIFY BOHLER ENGINEERING, P.C. SHALL CONSTITUTE ACCEPTANCE OF FULL RESPONSIBILITY BY THE CONTRACTOR TO COMPLETE THE SCOPE OF WORK AS DEFINED BY THE DRAWINGS AND IN FULL COMPLIANCE WITH LOCAL REGULATIONS AND CODES.
- SITE GRADING SHALL BE PERFORMED IN ACCORDANCE WITH THESE PLANS AND THE RECOMMENDATIONS SET FORTH IN THE GEOTECHNICAL REPORT REFERENCED IN THIS PLAN SET. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING AND REPLACING WITH SUITABLE MATERIALS AS SPECIFIED IN THE GEOTECHNICAL REPORT PREPARED BY HILLIS-CARNES ENGINEERING ASSOCIATES, INC. DATED 12/29/05, PROJECT NO. 02190A. ALL EXCAVATED OR FILLED AREAS SHALL BE COMPACTED AS OUTLINED IN THE GEOTECHNICAL REPORT. MOISTURE CONTENT AT TIME OF PLACEMENT SHALL BE SUBMITTED IN COMPACTOR REPORT PREPARED BY A QUALIFIED GEOTECHNICAL ENGINEER, REGISTERED IN MARYLAND, VERIFYING THAT ALL FILLED AREAS AND SUBGRADE AREAS WITHIN THE BUILDING PAD AREA AND AREAS TO BE PAVED HAVE BEEN COMPACTED IN ACCORDANCE WITH THESE PLANS AND SPECIFICATIONS AND THE RECOMMENDATIONS SET FORTH IN THE GEOTECHNICAL REPORT. SUBBASE MATERIAL FOR SIDEWALKS, CURB, OR ASPHALT SHALL BE FREE OF ORGANICS AND OTHER UNSUITABLE MATERIALS. SHOULD SUBBASE BE DEEMED UNSUITABLE BY OWNER OR OWNER'S REPRESENTATIVE, SUBBASE IS TO BE REMOVED AND FILLED WITH APPROVED FILL MATERIAL COMPACTED AS DIRECTED BY THE GEOTECHNICAL REPORT.
- ALL FILL, COMPACTION, AND BACKFILL MATERIALS REQUIRED FOR UTILITY INSTALLATION SHALL BE AS PER THE RECOMMENDATIONS PROVIDED IN THE GEOTECHNICAL REPORT PREPARED BY HILLIS-CARNES ENGINEERING ASSOCIATES, INC. DATED 12/29/05, PROJECT NO. 02190A SHALL BE COORDINATED WITH THE APPLICABLE UTILITY COMPANY SPECIFICATIONS.
- THE CONTRACTOR SHALL COMPLY TO THE FULLEST EXTENT WITH THE LATEST OSHA STANDARDS AND REGULATIONS, OR ANY OTHER AGENCY HAVING JURISDICTION FOR EXCAVATION AND TRENCHING PROCEDURES. THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE "MEANS AND METHODS" REQUIRED TO MEET THE INTENT AND PERFORMANCE CRITERIA OF OSHA, AS WELL AS ANY OTHER ENTITY THAT HAS JURISDICTION FOR EXCAVATION AND/OR TRENCHING PROCEDURES.
- PAVEMENT SHALL BE SAW CUT IN STRAIGHT LINES TO THE FULL DEPTH OF THE EXISTING PAVEMENT. ALL DEBRIS FROM REMOVAL OPERATIONS SHALL BE REMOVED FROM THE SITE AT THE TIME OF EXCAVATION. STOCKPILING OF DEBRIS WILL NOT BE PERMITTED.
- THE TOPS OF EXISTING MANHOLES, INLET STRUCTURES, AND SANITARY CLEANOUT TOPS SHALL BE ADJUSTED, IF REQUIRED, TO MATCH PROPOSED GRADES IN ALL APPLICABLE STANDARDS.
- THE CONTRACTOR IS RESPONSIBLE FOR VERIFICATION OF EXISTING TOPOGRAPHIC INFORMATION AND UTILITY INVERT ELEVATIONS PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION. CONTRACTOR TO ENSURE 0.75% MINIMUM SLOPE AGAINST ALL ISLANDS, GUTTERS, AND CURBS; 1.0% ON ALL CONCRETE SURFACES; AND 1.5% MINIMUM ON ASPHALT, TO PREVENT PONDING. ANY DISCREPANCIES THAT MAY AFFECT THE PUBLIC SAFETY OR PROJECT COST MUST BE IDENTIFIED TO BOHLER ENGINEERING, P.C. IN WRITING IMMEDIATELY. PROCEEDING WITH CONSTRUCTION WITHOUT NOTIFICATION IS DONE SO AT THE CONTRACTOR'S OWN RISK.
- PROPOSED TOP OF CURB ELEVATIONS ARE GENERALLY 7 3/16" ABOVE EXISTING LOCAL ASPHALT GRADE UNLESS OTHERWISE NOTED. FIELD ADJUST TO CREATE A MINIMUM OF 0.75% GUTTER GRADE ALONG CURB FACE. ENGINEER TO APPROVE FINAL CURBING CUT SHEETS PRIOR TO INSTALLATION.
- IN CASE OF DISCREPANCIES BETWEEN PLANS OR RELATIVE TO OTHER PLANS, THE SITE PLAN WILL TAKE PRECEDENCE. IMMEDIATELY NOTIFY BOHLER ENGINEERING, P.C. IN WRITING OF ANY CONFLICTS.
- CONTRACTOR SHALL BE REQUIRED TO SECURE ALL NECESSARY PERMITS AND APPROVALS FOR ALL OFF-SITE MATERIAL SOURCES AND DISPOSAL FACILITIES. CONTRACTOR SHALL SUPPLY A COPY OF APPROVALS TO BOHLER ENGINEERING, P.C., AND OWNER PRIOR TO INITIATING WORK.

UTILITY NOTES

- LOCATION OF ALL EXISTING AND PROPOSED SERVICES ARE APPROXIMATE AND MUST BE CONFIRMED INDEPENDENTLY WITH LOCAL UTILITY COMPANIES PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION OR EXCAVATION. SANITARY SEWER AND ALL OTHER UTILITY SERVICE CONNECTION POINTS SHALL BE CONFIRMED INDEPENDENTLY BY THE CONTRACTOR IN FIELD PRIOR TO THE COMMENCEMENT OF CONSTRUCTION. ALL DISCREPANCIES SHALL BE REPORTED IMMEDIATELY IN WRITING TO BOHLER ENGINEERING, P.C.. CONSTRUCTION SHALL COMMENCE BEGINNING AT THE LOWEST INVERT (POINT OF CONNECTION) AND PROGRESS UP GRADIENT. ALL PROPOSED INTERFACE POINTS (CROSSINGS) WITH EXISTING UNDERGROUND UTILITIES SHALL BE FIELD VERIFIED BY TEST PIT PRIOR TO COMMENCEMENT OF CONSTRUCTION.
- ALL UTILITIES AND SERVICES INCLUDING BUT NOT LIMITED TO GAS, WATER, ELECTRIC, SANITARY AND STORM SEWER, TELEPHONE, CABLE, FIBER OPTIC CABLE, ETC. WITHIN THE LIMITS OF DISTURBANCE SHALL BE VERTICALLY AND HORIZONTALLY LOCATED. THE CONTRACTOR SHALL USE AND COMPLY WITH THE REQUIREMENTS OF THE APPLICABLE UTILITY NOTIFICATION SYSTEM TO LOCATE ALL THE UNDERGROUND UTILITIES. THE CONTRACTOR IS RESPONSIBLE FOR REPAIRS OF DAMAGE TO ANY EXISTING UTILITIES DURING CONSTRUCTION AT NO COST TO THE OWNER.
- IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO REVIEW ALL OF THE DRAWINGS AND SPECIFICATIONS ASSOCIATED WITH THE PROJECT WORK SCOPE PRIOR TO THE INITIATION OF CONSTRUCTION. SHOULD THE CONTRACTOR FIND A CONFLICT WITH THE DOCUMENTS RELATIVE TO THE SPECIFICATIONS OR THE RELATIVE CODES, IT IS THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY BOHLER ENGINEERING, P.C. OF RECORD IN WRITING PRIOR TO THE START OF CONSTRUCTION. FAILURE BY THE CONTRACTOR TO NOTIFY BOHLER ENGINEERING, P.C. SHALL CONSTITUTE ACCEPTANCE OF FULL RESPONSIBILITY BY THE CONTRACTOR TO COMPLETE THE SCOPE OF WORK AS DEFINED BY THE DRAWINGS AND IN FULL COMPLIANCE WITH LOCAL REGULATIONS AND CODES.
- DEFINE AND LOCATE VERTICALLY AND HORIZONTALLY ALL ACTIVE UTILITY AND/OR SERVICE SYSTEMS THAT ARE TO BE REMOVED. THE CONTRACTOR IS RESPONSIBLE TO PROTECT AND MAINTAIN ALL ACTIVE SYSTEMS THAT ARE NOT BEING REMOVED/RELOCATED DURING SITE ACTIVITY.
- THE CONTRACTOR SHALL FAMILIARIZE THEMSELVES WITH THE APPLICABLE UTILITY SERVICE PROVIDER REQUIREMENTS AND IS RESPONSIBLE FOR ALL COORDINATION REGARDING UTILITY DEMOLITION AS IDENTIFIED OR REQUIRED FOR PROJECT. THE CONTRACTOR SHALL PROVIDE THE OWNER WRITTEN NOTIFICATION THAT THE EXISTING UTILITIES AND SERVICES HAVE BEEN TERMINATED AND ABANDONED IN ACCORDANCE WITH JURISDICTION AND UTILITY COMPANY REQUIREMENTS.
- CONTRACTOR IS RESPONSIBLE FOR COORDINATION OF SITE PLAN DOCUMENTS AND ARCHITECTURAL DESIGN FOR EXACT BUILDING UTILITY CONNECTION LOCATIONS, GREASE TRAP REQUIREMENTS/DETAILS, DOOR ACCESS, AND EXTERIOR GRADING. THE UTILITY SERVICE SIZES ARE TO BE DETERMINED BY THE ARCHITECT. THE CONTRACTOR SHALL COORDINATE INSTALLATION OF UTILITIES/SERVICES WITH THE INDIVIDUAL COMPANIES, TO AVOID CONFLICTS AND ENSURE PROPER DEPTH ARE ACHIEVED. THE JURISDICTION UTILITY REQUIREMENTS SHALL ALSO BE MET, AS WELL AS COORDINATING THE UTILITY TIE-INS/CONNECTIONS PRIOR TO CONNECTING TO THE EXISTING UTILITY/SERVICE. WHERE CONFLICTS EXIST WITH THESE SITE PLANS, BOHLER ENGINEERING, P.C. IS TO BE NOTIFIED PRIOR TO CONSTRUCTION TO RESOLVE SAME.
- WATER SERVICE MATERIALS, BURIAL DEPTH, AND COVER REQUIREMENTS SHALL BE SPECIFIED BY THE LOCAL UTILITY COMPANY. CONTRACTOR'S PRICE FOR WATER SERVICE SHALL INCLUDE ALL FEES AND APPURTENANCES REQUIRED BY THE UTILITY TO PROVIDE A COMPLETE WORKING SERVICE.
- ALL NEW UTILITIES/SERVICES, INCLUDING ELECTRIC, TELEPHONE, CABLE TV, ETC. ARE TO BE INSTALLED UNDERGROUND. ALL NEW UTILITIES/SERVICES SHALL BE INSTALLED IN ACCORDANCE WITH THE UTILITY/SERVICE PROVIDER INSTALLATION SPECIFICATIONS AND STANDARDS.
- ALL FILL, COMPACTION, AND BACKFILL MATERIALS REQUIRED FOR UTILITY INSTALLATION SHALL BE AS PER THE RECOMMENDATIONS PROVIDED IN THE GEOTECHNICAL REPORT OR HARRIS TEETER SITE PLANNING SPECIFICATIONS WHICHEVER IS MORE STRINGENT AND SHALL BE COORDINATED WITH THE APPLICABLE UTILITY COMPANY SPECIFICATIONS.
- THE CONTRACTOR SHALL COMPLY TO THE FULLEST EXTENT WITH THE LATEST OSHA STANDARDS AND REGULATIONS, OR ANY OTHER AGENCY HAVING JURISDICTION FOR EXCAVATION AND TRENCHING PROCEDURES. THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE "MEANS AND METHODS" REQUIRED TO MEET THE INTENT AND PERFORMANCE CRITERIA OF OSHA, AS WELL AS ANY OTHER ENTITY THAT HAS JURISDICTION FOR EXCAVATION AND/OR TRENCHING PROCEDURES.
- THE TOPS OF EXISTING MANHOLES, INLET STRUCTURES, AND SANITARY CLEANOUT TOPS SHALL BE ADJUSTED, IF REQUIRED, TO MATCH PROPOSED GRADES IN ACCORDANCE WITH ALL APPLICABLE STANDARDS.
- IN CASE OF DISCREPANCIES BETWEEN PLANS OR RELATIVE TO OTHER PLANS, THE SITE PLAN WILL TAKE PRECEDENCE. IMMEDIATELY NOTIFY BOHLER ENGINEERING, P.C. IN WRITING OF ANY CONFLICTS.
- CONTRACTOR SHALL BE REQUIRED TO SECURE ALL NECESSARY PERMITS AND APPROVALS FOR ALL OFF-SITE MATERIAL SOURCES AND DISPOSAL FACILITIES. CONTRACTOR SHALL SUPPLY A COPY OF APPROVALS TO BOHLER ENGINEERING P.C. AND OWNER PRIOR TO INITIATING WORK.
- A KNOX BOX IS REQUIRED TO BE PLACED ON THE FRONT OF THE BUILDING. IT SHALL BE PLACED TO THE RIGHT OF THE MAIN ENTRANCE AT A RANGE OF 4'-5" IN HEIGHT AND NO MORE THEN 6' LATTELY FROM THE FRONT DOOR. THE KNOX BOX SHALL BE ELECTRONICALLY SUPERVISED TO NOTIFY THE OWNER THAT IT IS BEING ACCESSED. (INTERGRATED WITH THE FIRE ALARM SYSTEM). NFPA-1 10.12.1

W. F-06-209 PREPARED BY:
CONTROL POINT ASSOCIATES, INC.
22630 DAVIS DRIVE, SUITE 200
STERLING, VA 20164
TELEPHONE: 703-709-9400
FAX: 703-904-9797
CONTACT: KEVIN STEINHILBER, P.L.S.
FILE # S056218PLT
ENTITLED: "VILLAGE OF KING'S CONTRIVANCE, SECTION 2, AREA 4, PARCEL G. CONSOLIDATION OF PARCELS D AND A, PLAT NO. 6278"
DATED: MAY 2, 2006

PLANNING BOARD APPROVAL STAMP

APPROVED: DEPARTMENT OF PLANNING AND ZONING

CHIEF-DEVELOPMENT ENGINEERING DIVISION
12/16/06

CHIEF-DIVISION & LAND DEVELOPMENT
12/16/06

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS.

12/18/06

APPROVED
PLANNING BOARD
of HOWARD COUNTY
DATE: 8-31-06

REV. DATE DESCRIPTION BY

OWNER/DEVELOPER:
KVCV LIMITED PARTNERSHIP
C/O KIMCO REALTY CORP.
3333 NEW HYDE PARK ROAD
SUITE 100
NEW HYDE PARK, NY 11042-1205

PROJECT: HARRIS TEETER - ONE STORY GROCERY STORE
KING'S CONTRIVANCE VILLAGE CENTER
8520 GULFORD ROAD
COLUMBIA, MARYLAND 21046

AREA: TAX MAP 42 GRID 7 ZONED NT-COMM
PARCEL G
VILLAGE OF KING'S CONTRIVANCE
6TH ELECTION DISTRICT
COLUMBIA, HOWARD COUNTY, MARYLAND

TITLE:

GENERAL NOTES

BOHLER ENGINEERING, P.C.
PROFESSIONAL ENGINEERING SERVICES
4810 Greenstone Court, Suite 300, Towson, Maryland
CONTACT: Kevin Steinhilber, P.L.S.
(410) 881-7900 FAX (410) 881-7997 www.bohlereng.com

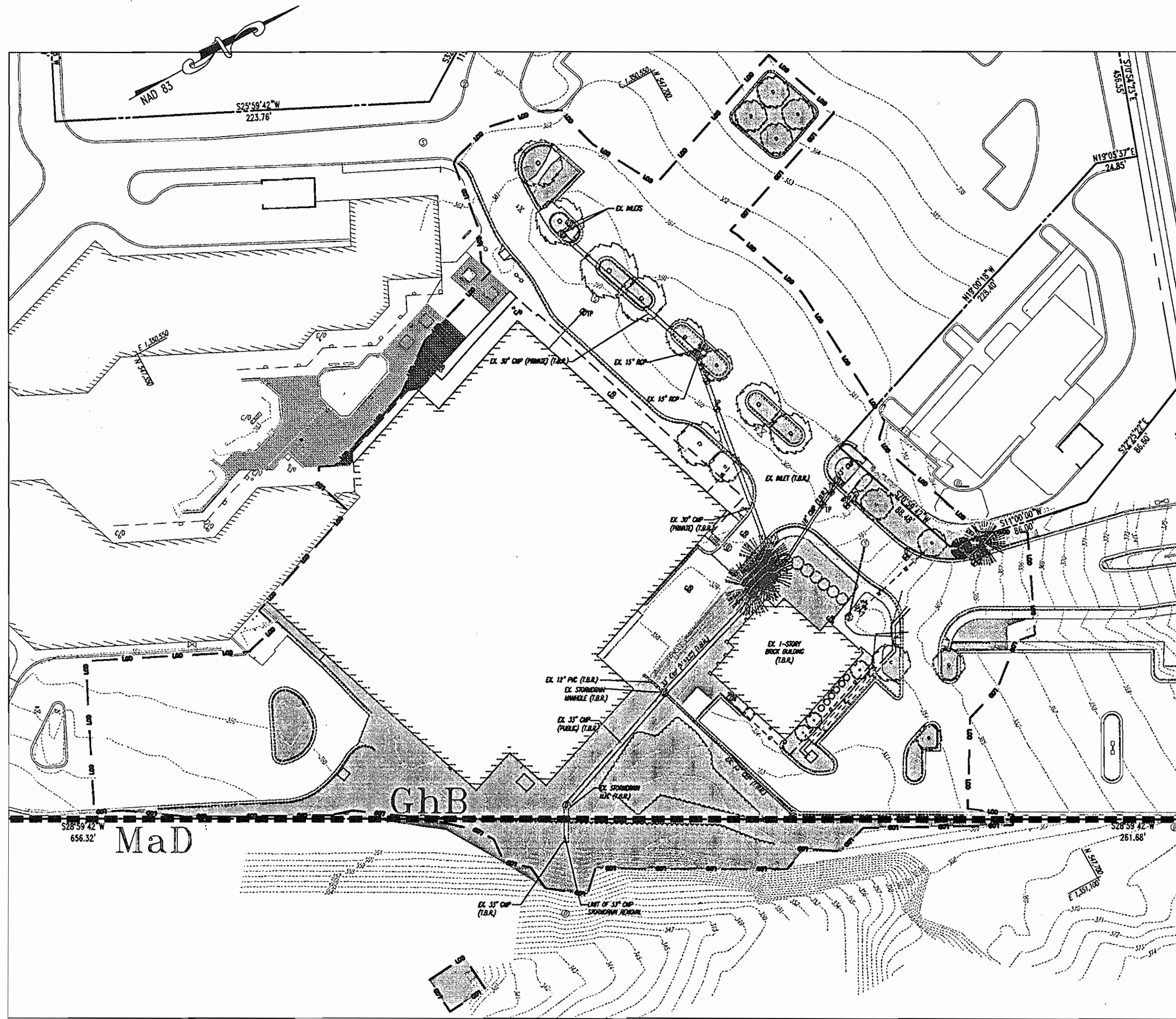
DESIGNED BY: M/G
DRAWN BY: TAC
PROJECT NO.: MDO49006
DATE: 9/27/06
SCALE: AS SHOWN
DRAWING NO.: 2 OF 22

BEFORE YOU DIG CALL 800-397-7777 PROTECT YOURSELF, GET TWO WORKING DAYS NOTICE

THIS DRAWING DOES NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY. ALL CONSTRUCTION MUST BE DONE IN COMPLIANCE WITH THE OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970 AND ALL RULES AND REGULATIONS THEREOF APPURTENANT.

THE CONTRACTOR TO CALL MISS UTILITY TO HAVE ALL EXISTING UTILITIES MARKED 48 HOURS PRIOR TO ANY CONSTRUCTION.

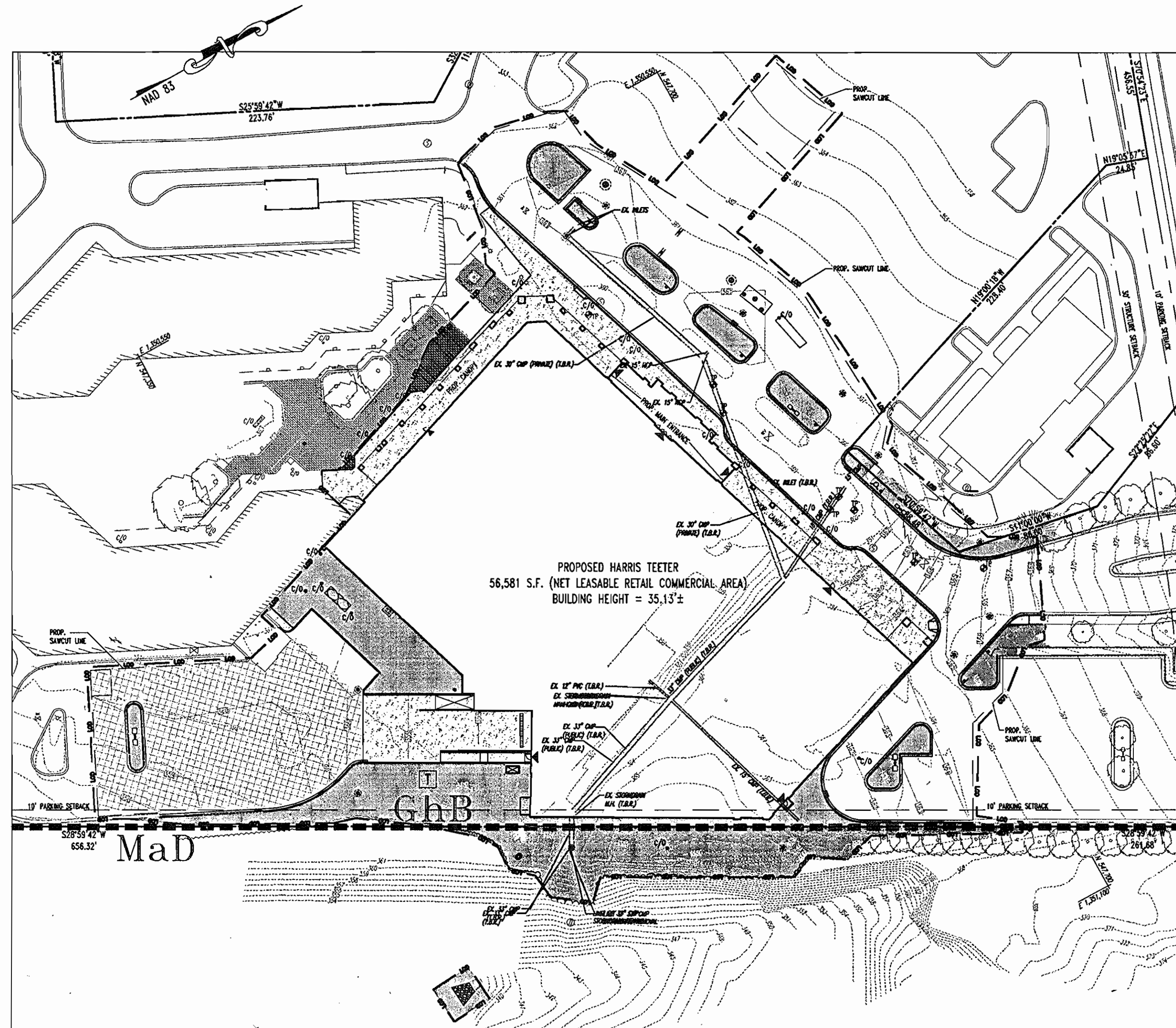
PROFESSIONAL ENGINEER NO. 28567



PRE-STORMWATER MANAGEMENT DRAINAGE AREA
SCALE: 1"=80'

AREAS

LIMIT OF DISTURBANCE = 154,782 S.F. OR 3.55 AC.
 EX. PERVIOUS AREA = 34,758 S.F. OR 0.80 AC.
 EX. IMPERVIOUS AREA = 120,024 S.F. OR 2.75 AC.
 RCN = 90
 TC = 0.10 HOURS
 IMPERVIOUS AREA TREATED FOR W_{0v} = 0 AC.
 IMPERVIOUS AREA TREATED FOR Rev = 0 AC.



POST STORMWATER MANAGEMENT DRAINAGE AREA
SCALE: 1"=80'

AREAS

LIMIT OF DISTURBANCE = 154,782 S.F. OR 3.55 AC.
 PROP. PERVIOUS AREA = 24,776 S.F. OR 0.57 AC.
 PROP. IMPERVIOUS AREA = 130,006 S.F. OR 2.98 AC.
 RCN = 92
 TC = 0.10 HOURS
 IMPERVIOUS BEING TREATED FOR W_{0v} = 0.78 AC.
 IMPERVIOUS BEING TREATED FOR Rev = 0.229 AC.

ON-SITE SOILS INFORMATION:

GHB - GLENELG - URBAN LAND COMPLEX
 (HYDROLOGICAL SOIL CLASSIFICATION 'B')

MAD - MANOR LOAM, 15% TO 25% SLOPES
 (HYDROLOGICAL SOIL CLASSIFICATION 'B')

REFERENCE:

SOIL SURVEY
 HOWARD COUNTY, MD
 PREPARED BY:
 UNITED STATES DEPARTMENT OF AGRICULTURE
 DATED: JULY 1968

LEGEND

- SOILS TYPE DIVIDES
- PERVIOUS AREA

BENCHMARK

GEODETIC SURVEY CONTROL - #42R1
 S 547,820.238
 E 135,117.859
 ELEV. 375.85'
 LOCATED AT THE CORNER OF GUILFORD ROAD
 AND SASSAFRAS COURT.

GEODETIC SURVEY CONTROL - #42R2
 N 546,946.800
 E 1,352,118.566
 ELEV. 331.522'
 LOCATED AT HAMMOND HIGH SCHOOL AND
 GUILFORD ROAD (BLUE SEA ROAD)

REV.	DATE	DESCRIPTION	BY
1	9/27/06	Revised Utility Location	CLB

OWNER/DEVELOPER:
 KVC LIMITED PARTNERSHIP
 C/O KIMCO REALTY CORP.
 3333 NEW HYDE PARK ROAD
 SUITE 100
 NEW HYDE PARK, NY 11042-1205

PROJECT: HARRIS TEETER - ONE STORY GROCERY STORE
 KING'S CONTRIVANCE VILLAGE CENTER
 8620 GUILFORD ROAD
 COLUMBIA, MARYLAND 21046

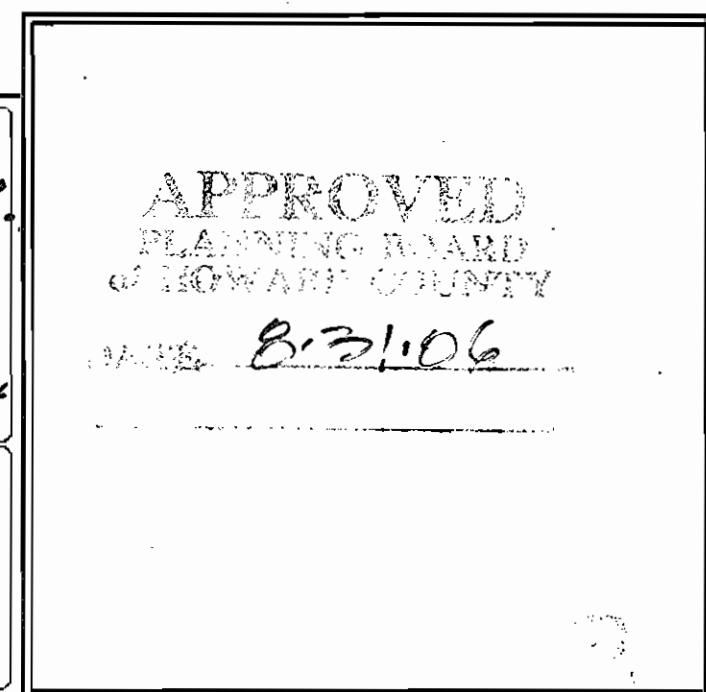
AREA: TAX MAP 42 GRID 7 ZONED NT-COMM
 PARCEL 0
 VILLAGE OF KING'S CONTRIVANCE
 6TH ELECTION DISTRICT
 COLUMBIA, HOWARD COUNTY, MARYLAND

TITLE: STORMWATER
 MANAGEMENT AREA MAP

BOHLER ENGINEERING, P.C.
 PROFESSIONAL ENGINEERING SERVICES
 810 Glencol Court, Suite 300, Towson, Maryland
 *CONTACT: Michael Gussel
 *(410) 821-7900 FAX: (410) 821-7907 WWW.BOHLERENG.COM

DESIGNED BY: MJC
 DRAWN BY: TAC
 PROJECT NO.: MD049006
 DATE: 9/27/06
 SCALE: AS SHOWN
 DRAWING NO.: 19 OF 22
 PROFESSIONAL ENGINEER NO. 28567

PLANNING BOARD APPROVAL STAMP

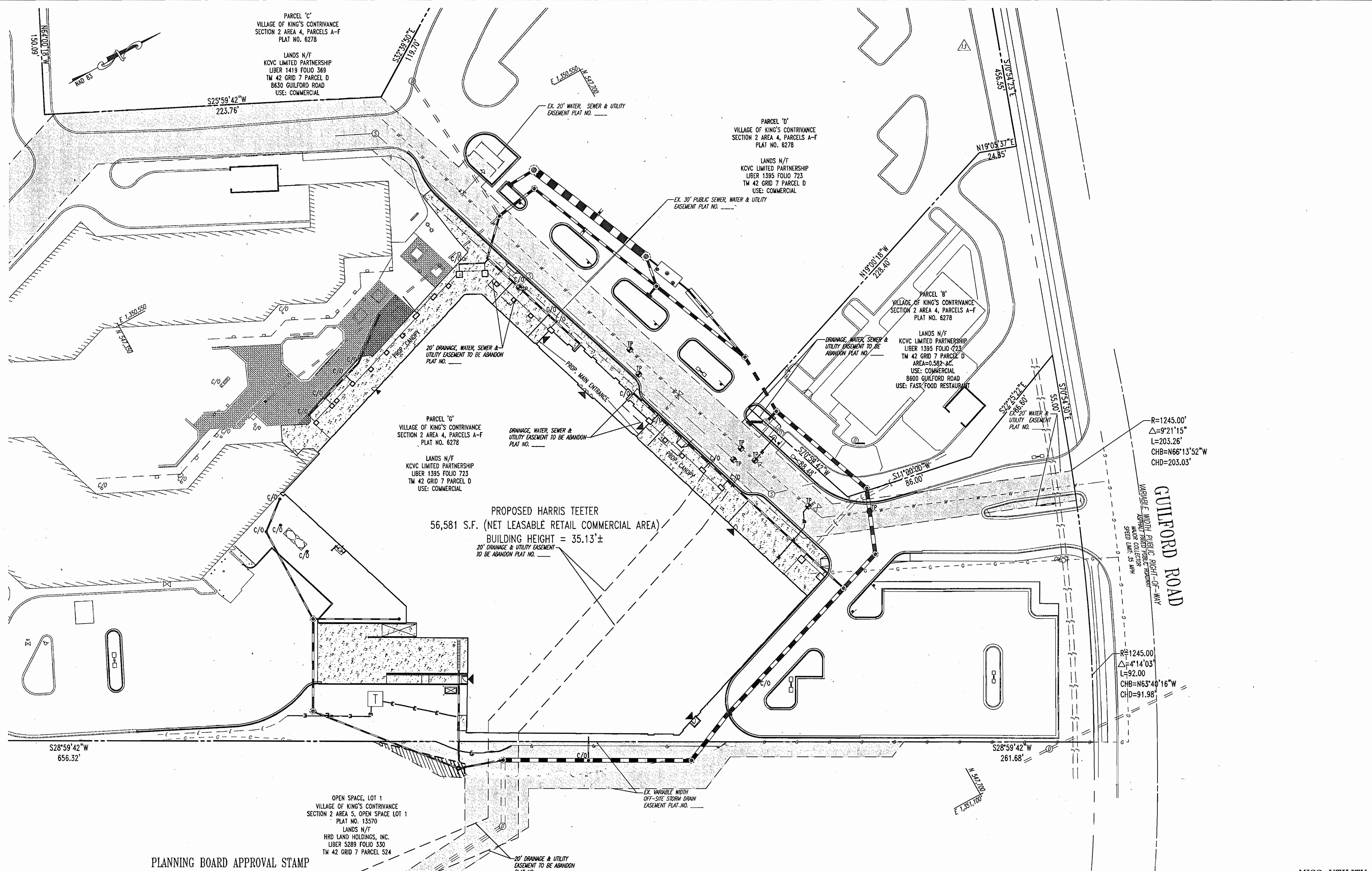


APPROVED: DEPARTMENT OF PLANNING AND ZONING
 CHIEF-DEVELOPMENT ENGINEERING DIVISION
 DATE: 12/14/06
 CHIEF-DIVISION & LAND DEVELOPMENT
 DATE: 12/14/06
 DIRECTOR
 APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS.
 COUNTY HEALTH OFFICER
 HOWARD COUNTY HEALTH DEPARTMENT
 DATE: 12/14/06

MISS UTILITY



BEFORE YOU DIG CALL 1-800-251-7777
 PROTECT YOURSELF, GIVE TWO WORKING DAYS NOTICE.
 THIS DRAWING DOES NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY. ALL CONSTRUCTION MUST BE DONE IN COMPLIANCE WITH THE OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970 AND ALL RULES AND REGULATIONS THERE TO APPURTENANT.
 THE CONTRACTOR TO CALL MISS UTILITY TO HAVE ALL EXISTING UTILITIES MARKED 48 HOURS PRIOR TO ANY CONSTRUCTION.



PROPOSED HARRIS TEETER
 56,581 S.F. (NET LEASABLE RETAIL COMMERCIAL AREA)
 BUILDING HEIGHT = 35.13±
 20' DRAINAGE & UTILITY EASEMENT TO BE ABANDON PLAT NO. _____

GUILFORD ROAD
 VARIABLE WIDTH PUBLIC RIGHT-OF-WAY
 MAJOR COLLECTOR ROAD
 SPEED LIMIT: 35 MPH

LEGEND			
	EXISTING EASEMENT		
	REVISED EASEMENT		

REV.	DATE	DESCRIPTION	BY
1	8/13/06	REVISED UTILITY LOCATION	CWA

OWNER/DEVELOPER:
 KVC LIMITED PARTNERSHIP
 C/O KIMCO REALTY CORP.
 3333 NEW HYDE PARK ROAD
 SUITE 100
 NEW HYDE PARK, NY 11042-1205

PROJECT: HARRIS TEETER - ONE STORY GROCERY STORE
 KING'S CONTRIVANCE VILLAGE CENTER
 8620 GUILFORD ROAD
 COLUMBIA, MARYLAND 21046

AREA: TAX MAP 42 GRID 7 PARCEL 6 ZONED NT-COMM
 VILLAGE OF KING'S CONTRIVANCE
 6TH ELECTION DISTRICT
 COLUMBIA, HOWARD COUNTY, MARYLAND

EASEMENT PLAN

BOHLER ENGINEERING, P.C.
 PROFESSIONAL ENGINEERING SERVICES
 810 Glenside Court, Suite 300, Towson, Maryland
 CONTACT: Michael Gonsel
 (410) 821-7900 FAX: (410) 821-7987 WWW.BOHLERENG.COM

DESIGNED BY:	MJG
DRAWN BY:	TAC
PROJECT NO.:	MD049006
DATE:	9/27/06
SCALE:	AS SHOWN
DRAWING NO.:	18 OF 22

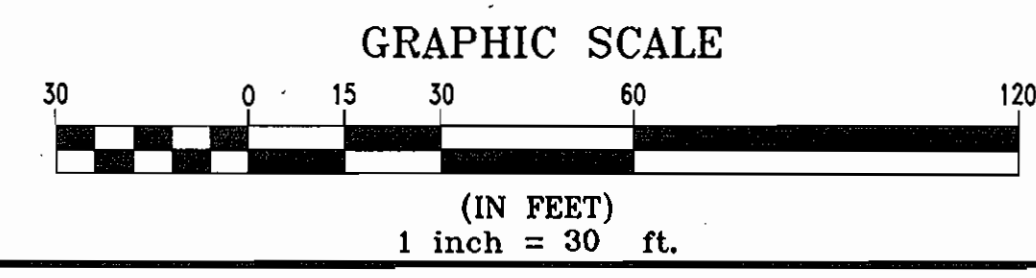
PLANNING BOARD APPROVAL STAMP

APPROVED: DEPARTMENT OF PLANNING AND ZONING
 CHIEF-DEVELOPMENT ENGINEERING DIVISION
Carol Hamlett 12/18/06
 CHIEF-DIVISION & LAND DEVELOPMENT
Mark M. Taylor 12/18/06
 DIRECTOR

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS.
Robert D. Weber 12/18/06
 COUNTY HEALTH OFFICER
 HOWARD COUNTY HEALTH DEPARTMENT 612 mgd

APPROVED
 PLANNING BOARD
 OF HOWARD COUNTY
 DATE: 8-23-06

THIS PLAN IS FOR INFORMATIONAL PURPOSES ONLY



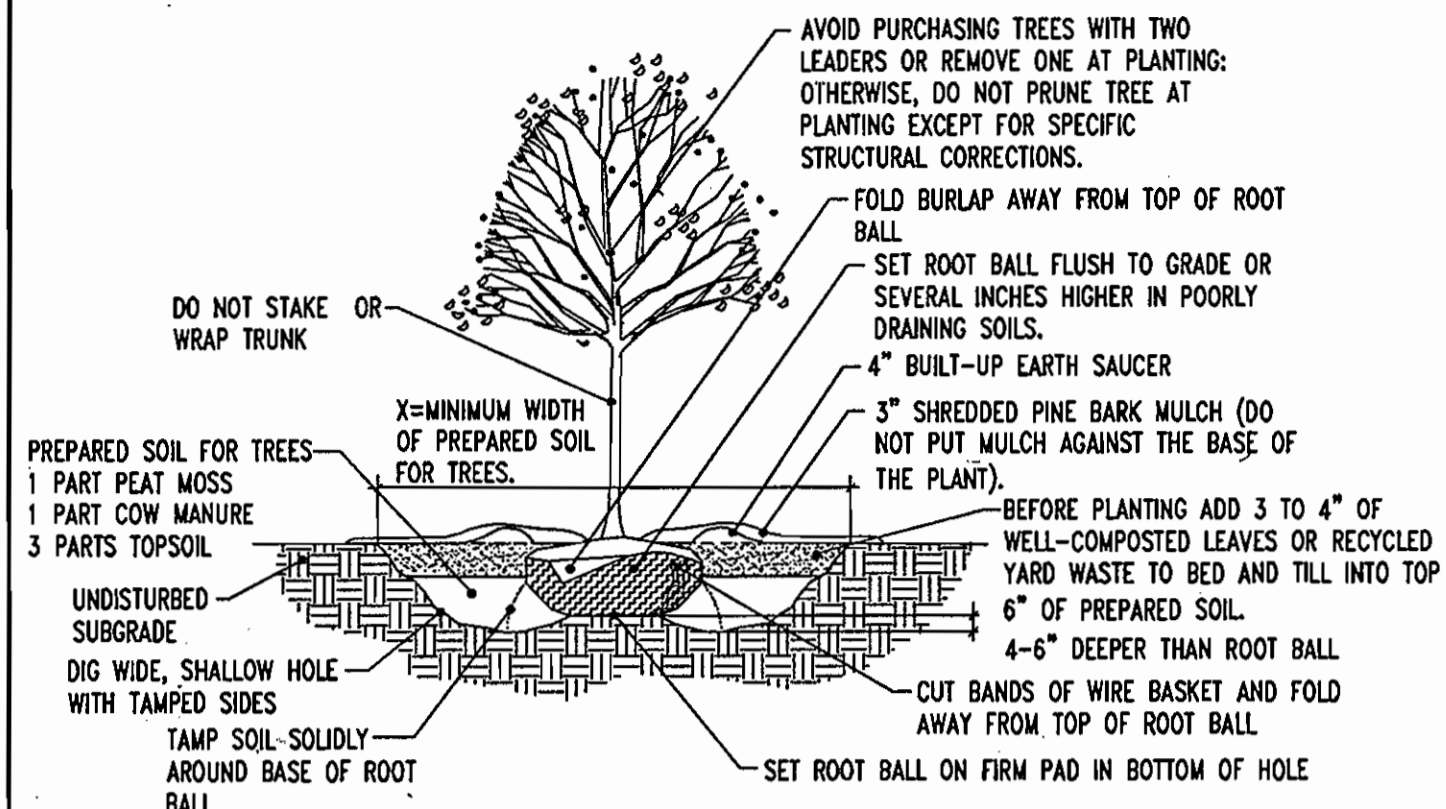
MISS UTILITY
 BEFORE YOU DIG CALL
 1-800-20-2117
 PROTECT YOURSELF AND THE TWO WORKING DAYS NOTICE

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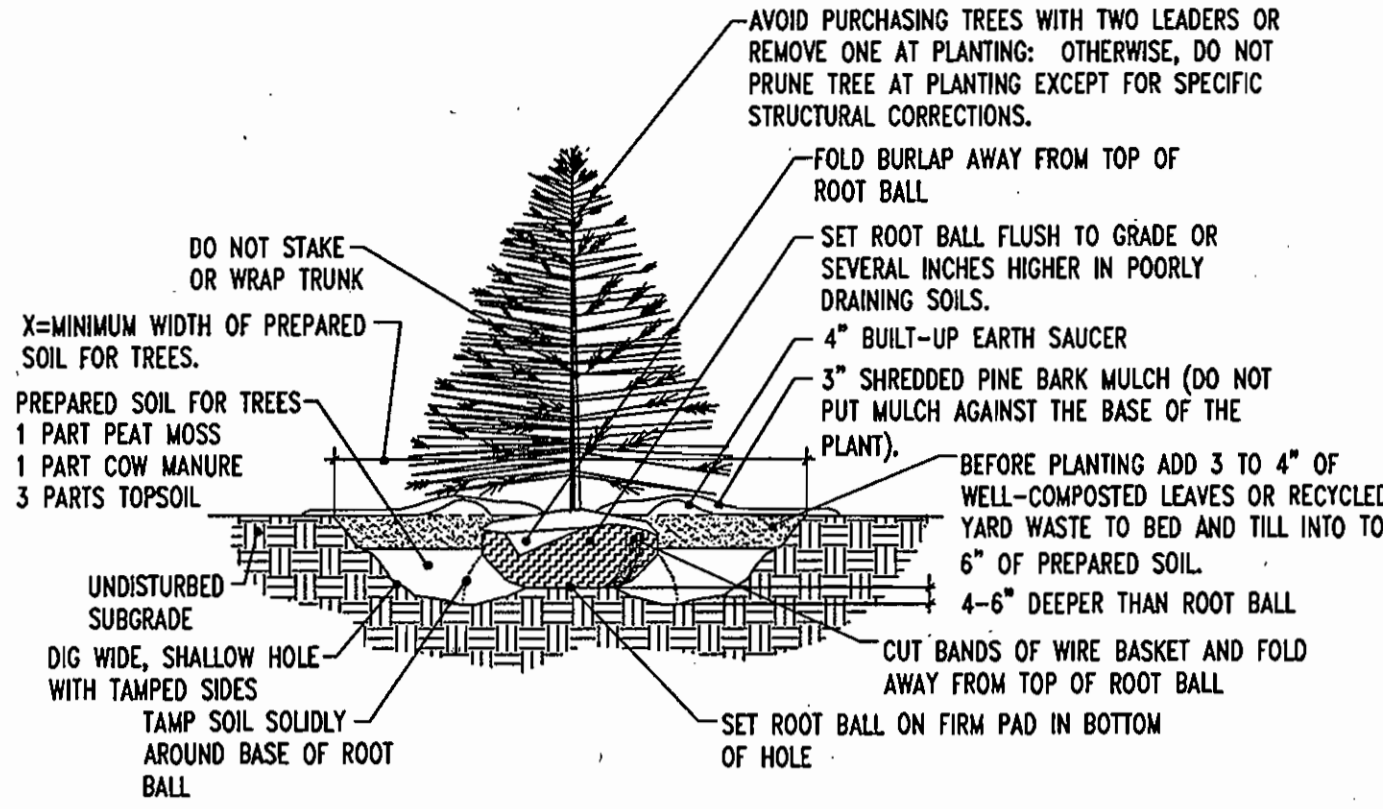
THE CONTRACTOR TO CALL MISS UTILITY TO HAVE ALL EXISTING UTILITIES MARKED 48 HOURS PRIOR TO ANY CONSTRUCTION.

NOTES FOR DECIDUOUS AND EVERGREEN TREE PLANTINGS:

- NO SOIL OR MULCH SHALL BE PLACED AGAINST ROOT COLLAR OF PLANT.
- REMOVE ALL ROPE FROM TRUNK & TOP OF ROOT BALL. FOLD BURLAP BACK 1/3 FROM TOP OF ROOT BALL.
- PLANTING DEPTH SHALL BE THE SAME AS GROWN IN NURSERY.
- THOROUGHLY SOAK THE TREE ROOT BALL AND ADJACENT PREPARED SOIL SEVERAL TIMES DURING THE FIRST MONTH AFTER PLANTING AND REGULARLY THROUGHOUT THE FOLLOWING TWO SUMMERS.
- THE BOTTOM OF PLANTING PIT EXCAVATIONS SHOULD BE ROUGH TO AVOID MATING OF SOIL LAYERS AS NEW SOIL IS ADDED. IT IS PREFERABLE TO TILL THE FIRST LIFT (2 TO 3 IN.) OF PLANTING SOIL INTO THE SUBSOIL.



DECIDUOUS TREE PLANTING DETAIL
NOT TO SCALE



EVERGREEN TREE PLANTING DETAIL
NOT TO SCALE

GENERAL RANGE OF SOIL MODIFICATIONS & VOLUMES FOR VARIOUS SOIL CONDITIONS

POST-CONSTRUCTION SOIL CONDITION	MIN./ WIDTH PREPARED SOIL FOR TREES (X)	TYPE OF PREPARATION
GOOD SOIL (NOT PREVIOUSLY GRADED OR COMPACTED, TOPSOIL LAYER INTACT)	6 FT. OR TWICE THE WIDTH OF THE ROOT BALL, WHICHEVER IS GREATER	LOOSEN THE EXISTING SOILS TO THE WIDTHS AND DEPTHS SHOWN IN DETAILS ABOVE.
COMPACTED SOIL (NOT PREVIOUSLY GRADED, TOPSOIL LAYER DISTURBED BUT NOT ELIMINATED)	15 FT.	LOOSEN THE EXISTING SOILS TO THE WIDTHS AND DEPTHS SHOWN IN DETAILS ABOVE; ADD COMPOSTED ORGANIC CONTENT UP TO 5% DRY WEIGHT.
GRADED SUBSOILS AND CLEAN FILLS WITH CLAY CONTENT BETWEEN 5 & 35%	20 FT.	MINIMUM TREATMENT: LOOSEN EXISTING SOIL TO WIDTHS AND DEPTHS SHOWN, ADD COMPOSTED ORGANIC MATTER TO BRING ORGANIC CONTENT UP TO 5% DRY WEIGHT. OPTIMUM TREATMENT: REMOVE TOP 8-10 IN. OR THE EXISTING SOILS TO THE WIDTHS AND DEPTHS SHOWN, ADD 8-10 IN. OF LOAM TOPSOIL.
POOR QUALITY FILLS, HEAVY CLAY SOILS, SOILS CONTAMINATED WITH RUBBLE OR TOXIC MATERIAL	20 FT.	REMOVE EXISTING SOILS TO THE WIDTHS AND DEPTHS CONTAMINATED WITH RUBBLE OR TOXIC MATERIAL

REFERENCE: ARCHITECTURAL GRAPHIC STANDARDS 1998 CUMULATIVE SUPPLEMENT.

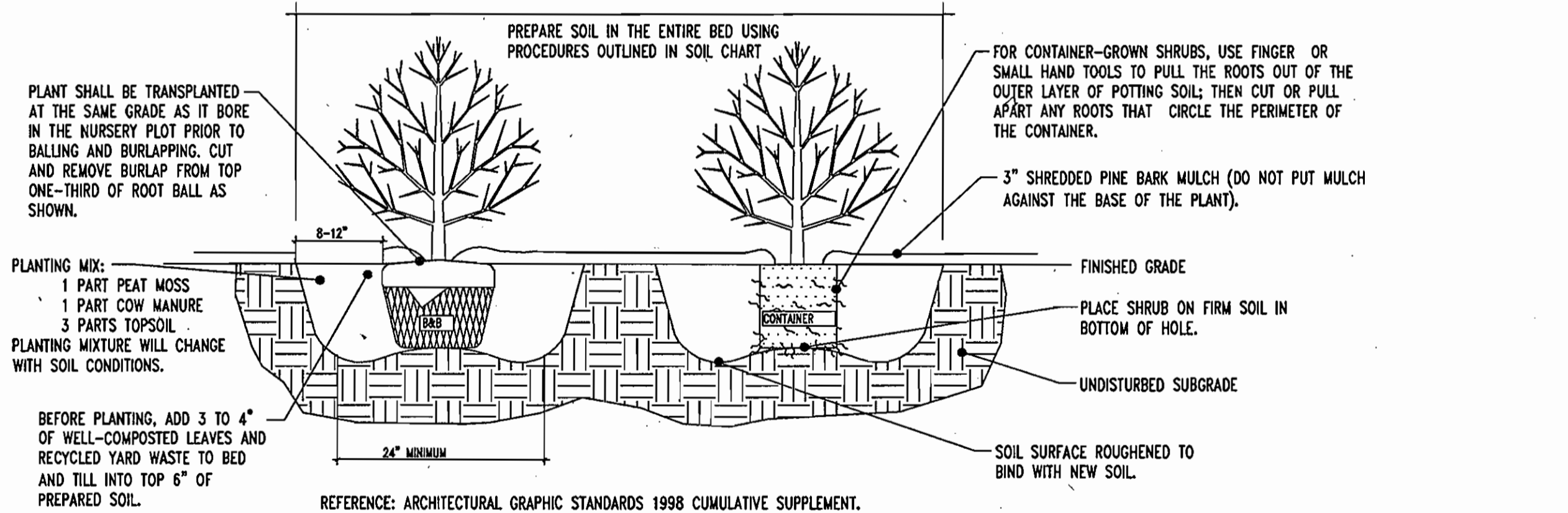
SEEDING SPECIFICATIONS

- PRIOR TO SEEDING, AREA IS TO BE TOPSOILED, FINE GRADED, AND RAKED OF ALL DEBRIS LARGER THAN 2" DIAMETER.
- PRIOR TO SEEDING, CONSULT MANUFACTURER'S RECOMMENDATIONS AND INSTRUCTIONS.
- SEEDING RATES:
PERENNIAL RYEGRASS: 1/2 LB/1,000 SQ FT
KENTUCKY BLUEGRASS: 1 LB/1,000 SQ FT
RED FESCUE: 1 1/2 LBS/1,000 SQ FT
SPREADING FESCUE: 1 1/2 LBS/1,000 SQ FT
FERTILIZER (20:10:10): 14 LBS/1,000 SQ FT
MULCH: 90 LBS/1,000 SQ FT
- GERMINATION RATES WILL VARY AS TO TIME OF YEAR FOR SOWING. CONTRACTOR TO IRRIGATE SEEDS UNTIL AN ACCEPTABLE STAND OF COVER IS ESTABLISHED BY OWNER.

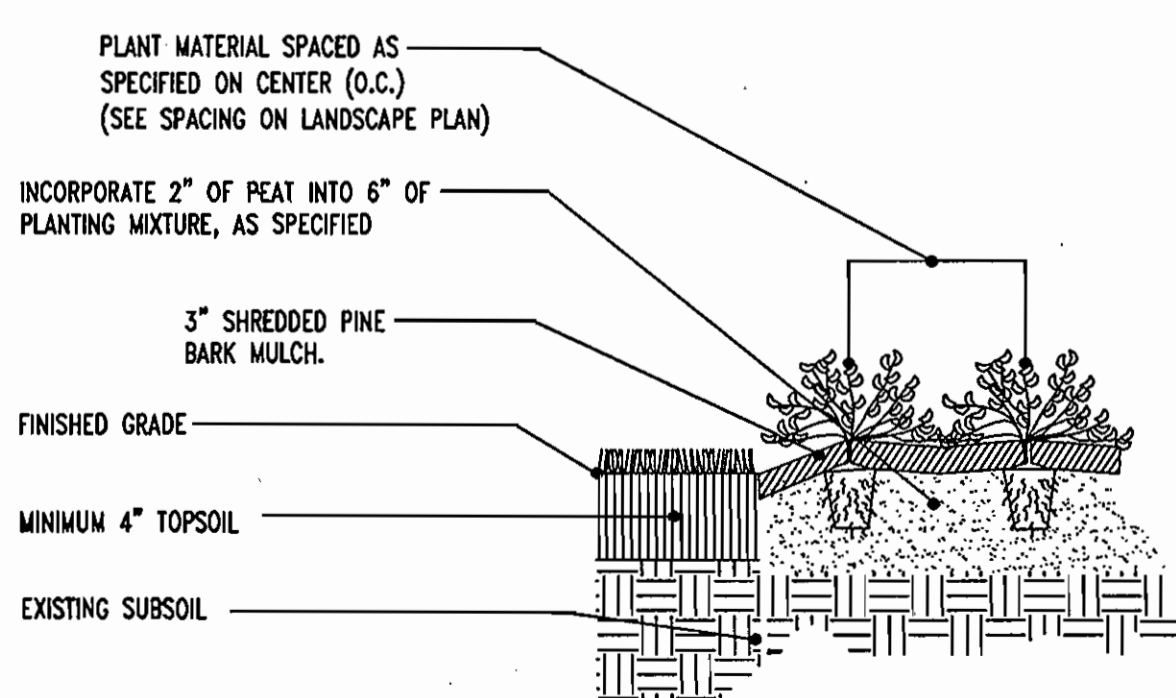
LANDSCAPE SPECIFICATIONS

- SCOPE OF WORK:** THE LANDSCAPE CONTRACTOR SHALL BE REQUIRED TO PERFORM ALL CLEARING, FINISHED GRADING, SOIL PREPARATION, PERMANENT SEEDING OR SOODING, PLANTING AND MULCHING INCLUDING ALL LABOR, MATERIALS, TOOLS AND EQUIPMENT NECESSARY FOR THE COMPLETION OF THIS PROJECT, UNLESS OTHERWISE CONTRACTED BY THE GENERAL CONTRACTOR.
- MATERIALS:**
 - GENERAL - ALL HARDSCAPE MATERIALS SHALL MEET OR EXCEED SPECIFICATIONS AS OUTLINED IN THE STATE DEPARTMENT OF TRANSPORTATION'S SPECIFICATIONS.
 - TOPSOIL - NATURAL, FRAGILE, LOAMY SILT SOIL HAVING AN ORGANIC CONTENT NOT LESS THAN 5%, A PH RANGE BETWEEN 4.5-7.0, IT SHALL BE FREE OF DEBRIS, ROCKS LARGER THAN ONE INCH (1"), WOOD, ROOTS, VEGETABLE MATTER AND CLAY CLODS.
 - LAWN - ALL DISTURBED AREAS ARE TO BE TREATED WITH A MINIMUM SIX INCH (6") THICK LAYER OF TOPSOIL, OR AS DIRECTED BY THE LOCAL ORDINANCE OR CLIENT, AND SEEDED OR SOODING IN ACCORDANCE WITH THE PERMANENT STABILIZATION METHODS INDICATED WITHIN THE SOIL EROSION AND SEDIMENT CONTROL NOTES.
 - LAWN SEED MIXTURE SHALL BE FRESH, CLEAN NEW CROP SEED.
 - SOD SHALL BE STRONGLY ROOTED, WEED AND DISEASE/PEST FREE WITH A UNIFORM THICKNESS. SOD INSTALLED ON SLOPES GREATER THAN 4:1 SHALL BE PEGGED TO HOLD SOD IN PLACE.
 - MULCH - ALL PLANTING BEDS SHALL BE MULCHED WITH A 3" THICK LAYER OF DOUBLE SHREDDED HARDWOOD BARK MULCH, UNLESS OTHERWISE STATED ON THE LANDSCAPE PLAN.
 - FERTILIZER
 - FERTILIZER SHALL BE DELIVERED TO THE SITE MIXED AS SPECIFIED IN THE ORIGINAL UNOPENED STANDARD BAGS SHOWING WEIGHT, ANALYSIS AND NAME OF MANUFACTURER. FERTILIZER SHALL BE STORED IN A WEATHERPROOF PLACE SO THAT IT CAN BE KEPT DRY PRIOR TO USE.
 - FOR THE PURPOSE OF BIDDING, ASSUME THAT FERTILIZER SHALL BE 10% NITROGEN, 6% PHOSPHORUS AND 4% POTASSIUM BY WEIGHT. A FERTILIZER SHOULD NOT BE SELECTED WITHOUT A SOIL TEST PERFORMED BY A CERTIFIED SOIL LABORATORY.
 - PLANT MATERIAL
 - ALL PLANTS SHALL IN ALL CASES CONFORM TO THE REQUIREMENTS OF THE "AMERICAN STANDARD FOR NURSERY STOCK" (ANSI Z60.1), LATEST EDITION, AS PUBLISHED BY THE AMERICAN NURSERY & LANDSCAPE ASSOCIATION.
 - IN ALL CASES, BOTANICAL NAMES SHALL TAKE PRECEDENCE OVER COMMON NAMES FOR ANY AND ALL PLANT MATERIAL.
 - PLANTS SHALL BE LEGIBLY TAGGED WITH THE PROPER NAME AND SIZE. TAGS ARE TO REMAIN ON AT LEAST ONE PLANT OF EACH SPECIES FOR VERIFICATION PURPOSES DURING THE FINAL INSPECTION.
 - TREES WITH ABRASION OF THE BARK, SUN SCALDS, DISFIGURATION OR FRESH CUTS OF LIMBS OVER 1/4", WHICH HAVE NOT BEEN COMPLETELY CALLEDUS, SHALL BE REJECTED. PLANTS SHALL NOT BE BOUND WITH WIRE OR ROPE AT ANY TIME SO AS TO DAMAGE THE BARK OR BREAK BRANCHES.
 - ALL PLANTS SHALL BE TYPICAL OF THEIR SPECIES OR VARIETY AND SHALL HAVE A NORMAL HABIT OF GROWTH: WELL DEVELOPED BRANCHES, DENSELY FOLIATED, VIGOROUS ROOT SYSTEMS AND BE FREE OF DISEASE, INSECTS, PESTS, EGGS OR LARVAE.
 - CALIPER MEASUREMENTS OF NURSERY GROWN TREES SHALL BE TAKEN AT A POINT ON THE TRUNK SIX INCHES (6") ABOVE THE NATURAL GRADE FOR TREES UP TO AND INCLUDING A FOUR INCH (4") CALIPER SIZE. THE CALIPER AT SIX INCHES (6") ABOVE THE GROUND EXCEEDS FOUR INCHES (4") IN CALIPER, THE CALIPER SHOULD BE MEASURED AT A POINT 12" ABOVE THE NATURAL GRADE.
 - SHRUBS SHALL BE MEASURED TO THE AVERAGE HEIGHT OR SPREAD OF THE SHRUB, AND NOT TO THE LONGEST BRANCH.
 - TREES AND SHRUBS SHALL BE HANDLED WITH CARE BY THE ROOT BALL.
- GENERAL WORK PROCEDURES:**
 - CONTRACTOR TO UTILIZE WORKMANLIKE INDUSTRY STANDARDS IN PERFORMING ALL LANDSCAPE CONSTRUCTION. THE SITE IS TO BE LEFT IN A CLEAN STATE AT THE END OF EACH WORKDAY. ALL DEBRIS, MATERIALS AND TOOLS SHALL BE PROPERLY STORED, STOCKPILED OR DISPOSED OF.
 - WASTE MATERIALS AND DEBRIS SHALL BE COMPLETELY DISPOSED OF AT THE CONTRACTOR'S EXPENSE. DEBRIS SHALL NOT BE BURIED, INCLUDING ORGANIC MATERIALS, BUT SHALL BE REMOVED COMPLETELY FROM THE SITE.
 - 4. SITE PREPARATIONS**
 - BEFORE AND DURING PRELIMINARY GRADING AND FINISHED GRADING, ALL WEEDS AND GRASSES SHALL BE DUG OUT BY THE ROOTS AND DISPOSED OF IN ACCORDANCE WITH GENERAL WORK PROCEDURES OUTLINED HEREIN.
 - ALL EXISTING TREES TO REMAIN SHALL BE PRUNED TO REMOVE ANY DAMAGED BRANCHES. THE ENTIRE LIMB OF ANY DAMAGED BRANCH SHALL BE CUT OFF AT THE TRUNK. CONTRACTOR SHALL ENSURE THAT CUTS ARE SMOOTH AND STRAIGHT. ANY EXPOSED ROOTS SHALL BE CUT BACK WITH CLEAN, SHARP TOOLS AND TOPSOIL SHALL BE PLACED AROUND THE REMAINDER OF THE ROOTS. EXISTING TREES SHALL BE MONITORED ON A REGULAR BASIS FOR ADDITIONAL ROOT OR BRANCH DAMAGE AS A RESULT OF CONSTRUCTION. ROOTS SHALL NOT BE LEFT EXPOSED FOR MORE THAN ONE (1) DAY. CONTRACTOR SHALL WATER EXISTING TREES AS NEEDED TO PREVENT SHOCK OR DECLINE.
 - CONTRACTOR SHALL ARRANGE TO HAVE A UTILITY STAKE-OUT TO LOCATE ALL UNDERGROUND UTILITIES PRIOR TO INSTALLATION OF ANY LANDSCAPE MATERIAL. UTILITY COMPANIES SHALL BE CONTACTED THREE (3) DAYS PRIOR TO THE BEGINNING OF WORK.
 - 5. TREE PROTECTION**
 - CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL EXISTING TREES TO REMAIN. A TREE PROTECTION ZONE SHALL BE ESTABLISHED AT THE DRIP LINE OR 15 FEET FROM THE TRUNK OR AT THE LIMIT OF CONSTRUCTION DISTURBANCE, WHICHEVER IS GREATER. LOCAL STANDARDS THAT MAY REQUIRE A MORE STRICT TREE PROTECTION ZONE SHALL BE HONORED.
 - A FORTY-EIGHT INCH (48") HIGH WOODEN SNOW FENCE OR ORANGE COLORED HIGH-DENSITY YISI-FENCES" OR APPROVED EQUAL MOUNTED ON STEEL POSTS SHALL BE PLACED ALONG THE BOUNDARY OF THE TREE PROTECTION ZONE. POSTS SHALL BE LOCATED AT A MAXIMUM OF EIGHT FEET (8") ON CENTER OR AS INDICATED WITHIN THE TREE PROTECTION DETAIL.
 - WHEN THE TREE PROTECTION FENCING HAS BEEN INSTALLED, IT SHALL BE INSPECTED BY THE APPROVING AGENCY PRIOR TO DEMOLITION, GRADING, TREE CLEARING OR ANY OTHER CONSTRUCTION. THE FENCING ALONG THE TREE PROTECTION ZONE SHALL BE REGULARLY INSPECTED BY THE LANDSCAPE CONTRACTOR AND MAINTAINED UNTIL ALL CONSTRUCTION ACTIVITY HAS BEEN COMPLETED.
 - AT NO TIME SHALL MACHINERY, DEBRIS, FALLEN TREES OR OTHER MATERIALS BE PLACED, STOCKPILED OR LEFT STANDING IN THE TREE PROTECTION ZONE.
 - 6. SOIL MODIFICATIONS**
 - CONTRACTOR SHALL OBTAIN A SOIL TEST FOR ALL AREAS OF THE SITE PRIOR TO CONDUCTING ANY PLANTING. SOIL TESTS SHALL BE PERFORMED BY A CERTIFIED SOIL LABORATORY.
 - LANDSCAPE CONTRACTOR SHALL REPORT ANY SOIL OR DRAINAGE CONDITIONS CONSIDERED DETRIMENTAL TO THE GROWTH OF PLANT MATERIAL. SOIL MODIFICATIONS, AS SPECIFIED HEREIN, MAY NEED TO BE CONDUCTED BY THE LANDSCAPE CONTRACTOR DEPENDING ON SITE CONDITIONS.
 - THE FOLLOWING AMENDMENTS AND QUANTITIES ARE APPROXIMATE AND ARE FOR BIDDING PURPOSES ONLY. COMPOSITION OF AMENDMENTS SHOULD BE REVISED DEPENDING ON THE OUTCOME OF A TOPSOIL ANALYSIS PERFORMED BY A CERTIFIED SOIL LABORATORY.
 - TO INCREASE A SANDY SOIL'S ABILITY TO RETAIN WATER AND NUTRIENTS, THOROUGHLY TILL ORGANIC MATTER INTO THE TOP 6-12". USE COMPOSTED BARK, COMPOSTED LEAF MULCH OR PEAT MOSS. ALL PRODUCTS SHOULD BE COMPOSTED TO A DARK COLOR AND BE FREE OF PIECES WITH IDENTIFIABLE LEAF OR WOOD STRUCTURE. AVOID MULCH WITH A PH HIGHER THAN 7.5.
 - TO INCREASE DRAINAGE, MODIFY HEAVY CLAY OR SILT (MORE THAN 40% CLAY OR SILT) BY ADDING COMPOSTED PINE BARK (UP TO 30% BY VOLUME) AND/OR AGRICULTURAL GYPSUM. COARSE SAND MAY BE USED IF ENOUGH IS ADDED TO BRING THE SAND CONTENT TO MORE THAN 60% OF THE TOTAL MIX. SUBSURFACE DRAINAGE LINES MAY NEED TO BE ADDED TO INCREASE DRAINAGE.
 - MODIFY EXTREMELY SANDY SOILS (MORE THAN 85%) BY ADDING ORGANIC MATTER AND/OR DRY, SHREDDED CLAY LOAM UP TO 30% OF THE TOTAL MIX.
 - 7. FINISHED GRADING**
 - UNLESS OTHERWISE CONTRACTED, THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION OF TOPSOIL AND THE ESTABLISHMENT OF FINE-GRADING WITHIN THE DISTURBANCE AREA OF THE SITE.
 - LANDSCAPE CONTRACTOR SHALL VERIFY THAT SUBGRADE FOR INSTALLATION OF TOPSOIL HAS BEEN ESTABLISHED. THE SUBGRADE OF THE SITE MUST MEET THE FINISHED GRADE LESS THE REQUIRED TOPSOIL THICKNESS (1-2").
 - ALL LAWN AND PLANTING AREAS SHALL BE GRADED TO A SMOOTH, EVEN AND UNIFORM PLANE WITH NO ABRUPT CHANGE OF SURFACE AS DEPICTED WITHIN THIS SET OF CONSTRUCTION PLANS, UNLESS OTHERWISE DIRECTED BY THE PROJECT ENGINEER OR LANDSCAPE ARCHITECT.
 - ALL PLANTING AREAS SHALL BE GRADED AND MAINTAINED TO ALLOW FREE FLOW OF SURFACE WATER IN AND AROUND THE PLANTING BEDS. STANDING WATER SHALL NOT BE PERMITTED IN PLANTING BEDS.
 - 8. TOPSOILING**
 - CONTRACTOR SHALL PROVIDE A SIX INCH (6") THICK MINIMUM LAYER OF TOPSOIL, OR AS DIRECTED BY THE LOCAL ORDINANCE OR CLIENT, IN ALL PLANTING AREAS. TOPSOIL SHOULD BE SPREAD OVER A PREPARED SURFACE IN A UNIFORM LAYER TO ACHIEVE THE DESIRED COMPACTED THICKNESS.
 - ON-SITE TOPSOIL MAY BE USED TO SUPPLEMENT THE TOTAL AMOUNT REQUIRED. TOPSOIL FROM THE SITE MAY BE REJECTED IF IT HAS NOT BEEN PROPERLY REMOVED, STORED AND PROTECTED PRIOR TO CONSTRUCTION.
 - CONTRACTOR SHALL FURNISH TO THE APPROVING AGENCY AN ANALYSIS OF BOTH IMPORTED AND ON-SITE TOPSOIL TO BE UTILIZED IN ALL PLANTING AREAS. THE PH AND NUTRIENT LEVELS MAY NEED TO BE ADJUSTED THROUGH SOIL MODIFICATIONS AS NEEDED TO ACHIEVE THE REQUIRED LEVELS AS SPECIFIED IN THE MATERIALS SECTION ABOVE.
 - 9. PLANTING AND LAWN AREAS ARE TO BE CULTIVATED TO A DEPTH OF SIX INCHES (6"). ALL DEBRIS EXPOSED FROM EXCAVATION AND CULTIVATION SHALL BE DISPOSED OF IN ACCORDANCE WITH GENERAL WORK PROCEDURES SECTION ABOVE. THE FOLLOWING SHALL BE TILLED INTO THE TOP FOUR INCHES (4") IN TWO DIRECTIONS (QUANTITIES BASED ON A 1,000 SQUARE FOOT AREA):**
 - 20 POUNDS "GROW POWER" OR APPROVED EQUAL
 - 20 POUNDS NITRO-FORM (COURSE) 38-0-0 BLUE CHIP
 - 10. THE SPREADING OF TOPSOIL SHALL NOT BE CONDUCTED UNDER MUDDY OR FROZEN CONDITIONS.**
 - 11. PLANTING**
 - INSURE THAT IT IS FEASIBLE, PLANT MATERIAL SHALL BE PLANTED ON THE DAY OF DELIVERY. IN THE EVENT THAT THIS IS NOT POSSIBLE, LANDSCAPE CONTRACTOR SHALL PROTECT UNINSTALLED PLANT MATERIAL. PLANTS SHALL NOT REMAIN UNPLANTED FOR LONGER THAN A THREE DAY PERIOD AFTER DELIVERY. PLANTS THAT WILL NOT BE PLANTED FOR A PERIOD OF THE GREATER THAN THREE DAYS SHALL BE HEALED IN WITH TOPSOIL OR MULCH TO HELP PRESERVE ROOT MOISTURE.
 - PLANTING OPERATIONS SHALL BE PERFORMED DURING PERIODS WITHIN THE PLANTING SEASON WHEN WEATHER AND SOIL CONDITIONS ARE SUITABLE AND IN ACCORDANCE WITH ACCEPTED LOCAL PRACTICE. PLANTS SHALL NOT BE INSTALLED IN TOPSOIL THAT IS IN A MUDDY OR FROZEN CONDITION.
 - ANY INJURED ROOTS OR BRANCHES SHALL BE PRUNED TO MAKE CLEAN-CUT ENDS PRIOR TO PLANTING UTILIZING CLEAN, SHARP TOOLS. ONLY INJURED OR DISEASED BRANCHING SHALL BE REMOVED.
 - ALL PLANTING CONTAINERS, BASKETS AND NON-Biodegradable MATERIALS SHALL BE REMOVED FROM ROOT BALLS DURING PLANTING. NATURAL FIBER BURLAP MUST BE CUT FROM AROUND THE TRUNK OF THE TREE AND FOLDED DOWN AGAINST THE ROOT BALL PRIOR TO BACKFILLING.
 - POSITION TREES AND SHRUBS AT THEIR INTENDED LOCATIONS AS PER THE PLANS AND SECURE THE APPROVAL OF THE LANDSCAPE ARCHITECT PRIOR TO EXCAVATING FITS, MAKING NECESSARY ADJUSTMENTS AS DIRECTED.
 - PRIOR TO THE ISSUANCE OF ANY CERTIFICATE OF OCCUPANCY, THE PROPOSED LANDSCAPE, AS SHOWN ON THE APPROVED LANDSCAPE PLAN, MUST BE INSTALLED, INSPECTED AND APPROVED BY THE APPROVING AGENCY. THE APPROVING AGENCY SHALL TAKE INTO ACCOUNT SEASONAL CONSIDERATIONS IN THIS REGARD AS FOLLOWS: THE PLANTING OF TREES, SHRUBS, VINES OR GROUND COVER SHALL OCCUR ONLY DURING THE FOLLOWING PLANTING SEASONS:
 - PLANTS: MARCH 15 TO DECEMBER 15
 - LAWN: MARCH 15 TO JUNE 15 OR SEPT. 1 TO DECEMBER 1
 - PLANTINGS REQUIRED FOR A CERTIFICATE OF OCCUPANCY SHALL BE PROVIDED DURING THE NEXT APPROPRIATE SEASON AT THE MUNICIPALITY'S DISCRETION. CONTRACTOR SHOULD CONTACT APPROVING AGENCY FOR POTENTIAL SUBSTITUTIONS.
 - FURTHERMORE, THE FOLLOWING TREE VARIETIES ARE UNUSUALLY SUSCEPTIBLE TO WINTER DAMAGE. WITH TRANSPLANT SHOCK AND THE SEASONAL LACK OF NITROGEN AVAILABILITY, THE RISK OF PLANT DEATH IS GREATLY INCREASED. IT IS NOT RECOMMENDED THAT THESE SPECIES BE PLANTED DURING THE FALL PLANTING SEASON:

ACER RUBRUM	PLATANUS X ACERIFOLIA
BETULA VARIETIES	POPULUS VARIETIES
CARPINUS VARIETIES	PRUNUS VARIETIES
CRATAEGUS VARIETIES	PYRUS VARIETIES
KOELBUTERIA	QUERCUS VARIETIES
LIQUIDAMBER STRYACIFLUA	TILIA TOMENTOSA
LIRIODENDRON TULPIFERA	ZELKOVA VARIETIES
 - PLANTING PITS SHALL BE DUG WITH LEVEL BOTTOMS, WITH THE WIDTH TWICE THE DIAMETER OF ROOT BALL. THE ROOT BALL SHALL REST ON UNDISTURBED GRADE. EACH PLANT PIT SHALL BE BACKFILLED IN LAYERS WITH THE FOLLOWING PREPARED SOIL MIXED THOROUGHLY:
 - 1 PART PEAT MOSS
 - 1 PART COMPOSTED COW MANURE BY VOLUME
 - 3 PARTS TOPSOIL BY VOLUME
 - 21 GRAMS "AGRIFORM" PLANTING TABLETS (OR APPROVED EQUAL) AS FOLLOWS:
 - 2 TABLETS PER 1 GALLON PLANT
 - 3 TABLETS PER 5 GALLON PLANT
 - 4 TABLETS PER 15 GALLON PLANT
 - LARGER PLANTS: 2 TABLETS PER 1/2" CALIPER OF TRUNK
 - FILL PREPARED SOIL AROUND BALL OF PLANT HALF-WAY AND INSERT PLANT TABLETS. COMPLETE BACKFILL AND WATER THOROUGHLY.
 - ALL PLANTS SHALL BE PLANTED SO THAT THE TOP OF THE ROOT BALL, THE POINT AT WHICH THE ROOT FLARE BEGINS, IS SET AT GROUND LEVEL AND IN THE CENTER OF THE PIT. NO SOIL IS TO BE PLACED DIRECTLY ON TOP OF THE ROOT BALL.
 - ALL PROPOSED TREES DIRECTLY ADJACENT TO WALKWAYS OR DRIVEWAYS SHALL BE PRUNED AND MAINTAINED TO A MINIMUM BRANCHING HEIGHT OF 7' FROM GRADE.
 - GROUND COVER AREAS SHALL RECEIVE A 1/4" LAYER OF HUMUS RAKED INTO THE TOP 1" OF PREPARED SOIL PRIOR TO PLANTING. ALL GROUND COVER AREAS SHALL BE WEEDED AND TREATED WITH A PRE-EMERGENT CHEMICAL AS PER MANUFACTURER'S RECOMMENDATION.
 - NO PLANT, EXCEPT GROUND COVERS, GRASSES OR VINES, SHALL BE PLANTED LESS THAN TWO FEET (2') FROM EXISTING STRUCTURES AND SIDEWALKS.
 - ALL PLANTING AREAS AND PLANTING PITS SHALL BE MULCHED AS SPECIFIED HEREIN TO FILL THE ENTIRE BED AREA OR SAUCER. NO MULCH IS TO TOUCH THE TRUNK OF THE TREE OR SHRUB.
 - ALL PLANTING AREAS SHALL BE WATERED IMMEDIATELY UPON INSTALLATION IN ACCORDANCE WITH THE WATERING SPECIFICATIONS AS LISTED HEREIN.
 - 10. TRANSPLANTING (WHEN REQUIRED)**
 - ALL TRANSPLANTS SHALL BE DUG WITH INTACT ROOT BALLS CAPABLE OF SUSTAINING THE PLANT.
 - IF PLANTS ARE TO BE STOCKPILED BEFORE REPLANTING, THEY SHALL BE HEALED IN WITH MULCH OR SOIL, ADEQUATELY WATERED AND PROTECTED FROM EXTREME HEAT, SUN AND WIND.
 - PLANTS SHALL NOT BE DUG FOR TRANSPLANTING BETWEEN APRIL 10 AND JUNE 30.
 - UPON REPLANTING, BACKFILL SOIL SHALL BE AMENDED WITH FERTILIZER AND ROOT GROWTH HORMONE.
 - TRANSPLANTS SHALL BE GUARANTEED FOR THE LENGTH OF THE GUARANTEE PERIOD SPECIFIED HEREIN.
 - IF TRANSPLANTS DIE, SHRUBS AND TREES LESS THAN SIX INCHES (6") DBH SHALL BE REPLACED IN KIND. TREES GREATER THAN SIX INCHES (6") DBH MAY BE REQUIRED TO BE REPLACED IN ACCORDANCE WITH THE MUNICIPALITY'S TREE REPLACEMENT GUIDELINES.
 - 11. WATERING**
 - ALL PLANTINGS OR LAWN AREAS SHALL BE ADEQUATELY IRRIGATED BEGINNING IMMEDIATELY AFTER PLANTING. WATER SHALL BE APPLIED TO EACH TREE AND SHRUB IN SUCH MANNER AS NOT TO DISTURB BACKFILL AND TO THE EXTENT THAT ALL MATERIALS IN THE PLANTING HOLE ARE THOROUGHLY SATURATED. WATERING SHALL CONTINUE AT LEAST UNTIL PLANTS ARE ESTABLISHED.
 - IF AN IRRIGATION SYSTEM HAS BEEN INSTALLED ON THE SITE, IT SHALL BE USED TO WATER PROPOSED PLANT MATERIAL, BUT ANY FAILURE OF THE SYSTEM DOES NOT ELIMINATE THE CONTRACTOR'S RESPONSIBILITY OF MAINTAINING THE DESIRED MOISTURE LEVEL FOR VIGOROUS, HEALTHY GROWTH.
 - 12. GUARANTEE**
 - THE LANDSCAPE CONTRACTOR SHALL GUARANTEE ALL PLANTS FOR A PERIOD OF ONE (1) YEAR FROM APPROVAL OF LANDSCAPE INSTALLATION BY THE APPROVING AGENCY. CONTRACTOR SHALL SUPPLY THE OWNER WITH A MAINTENANCE BOND FOR TEN PERCENT (10%) OF THE VALUE OF THE LANDSCAPE INSTALLATION WHICH WILL BE RELEASED AT THE CONCLUSION OF THE GUARANTEE PERIOD AND WHEN A FINAL INSPECTION HAS BEEN COMPLETED AND APPROVED BY THE OWNER OR AUTHORIZED REPRESENTATIVE.
 - ANY DEAD OR DYING PLANT MATERIAL SHALL BE REPLACED FOR THE LENGTH OF THE GUARANTEE PERIOD. REPLACEMENT OF PLANT MATERIAL SHALL BE CONDUCTED AT THE FIRST SUCCEEDING PLANTING SEASON. ANY DEBRIS SHALL BE DISPOSED OF OFF-SITE, WITHOUT EXCEPTION.
 - TREES AND SHRUBS SHALL BE MAINTAINED BY THE CONTRACTOR DURING CONSTRUCTION AND THROUGHOUT THE 90 DAY MAINTENANCE PERIOD AS SPECIFIED HEREIN. CULTIVATION, WEEDING, WATERING AND THE PREVENTATIVE TREATMENTS SHALL BE PERFORMED AS NECESSARY TO KEEP PLANT MATERIAL IN GOOD CONDITION AND FREE OF INSECTS AND DISEASE.
 - LAWNS SHALL BE MAINTAINED THROUGH WATERING, FERTILIZING, WEEDING, MOWING, TRIMMING AND OTHER OPERATIONS SUCH AS ROLLING, REGARDING AND REPLANTING AS REQUIRED TO ESTABLISH A SMOOTH, ACCEPTABLE LAWN, FREE OF ERODED OR BARE AREAS.
 - 13. CLEANUP**
 - UPON THE COMPLETION OF ALL LANDSCAPE INSTALLATION AND BEFORE THE FINAL ACCEPTANCE, THE CONTRACTOR SHALL REMOVE ALL UNUSED MATERIALS, EQUIPMENT AND DEBRIS FROM THE SITE. ALL PAVED AREAS ARE TO BE CLEANED.
 - THE SITE SHALL BE CLEANED AND LEFT IN A NEAT AND ACCEPTABLE CONDITION AS APPROVED BY THE OWNER OR AUTHORIZED REPRESENTATIVE.
 - 14. MAINTENANCE (ALTERNATIVE BID):**
 - A 90 DAY MAINTENANCE PERIOD SHALL COMMENCE AT THE END OF ALL LANDSCAPE INSTALLATION OPERATIONS. THE 90 DAY MAINTENANCE PERIOD ENSURES TO THE OWNER/OPERATOR THAT THE NEWLY INSTALLED LANDSCAPING HAS BEEN MAINTAINED AS SPECIFIED ON THE APPROVED LANDSCAPE PLAN. ONCE THE INITIAL 90 DAY MAINTENANCE PERIOD HAS EXPIRED, THE OWNER/OPERATOR MAY REQUEST THAT BIDDERS SUBMIT AN ALTERNATE MAINTENANCE BID FOR A MONTHLY MAINTENANCE CONTRACT. THE ALTERNATE MAINTENANCE CONTRACT WILL ENCOMPASS ANY WORK THAT IS CONSIDERED APPROPRIATE TO ENSURE THAT PLANT AND LAWN AREAS ARE HEALTHY AND MANICURED TO THE APPROVAL OF THE OWNER/OPERATOR.



DECIDUOUS AND EVERGREEN SHRUB PLANTING DETAIL
NOT TO SCALE



PERENNIAL/GROUND COVER PLANTING DETAIL
NOT TO SCALE

PLANNING BOARD APPROVAL STAMP

APPROVED: DEPARTMENT OF PLANNING AND ZONING
 CHIEF-DEVELOPMENT ENGINEERING DIVISION
 DATE: 12/18/06
 APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS.
 COUNTY HEALTH OFFICER
 DATE: 12/18/06

APPROVED
 PLANNING BOARD
 of HOWARD COUNTY
 DATE: 8-31-06

MISS UTILITY

BEFORE YOU DIG CALL
 1-800-551-7777
 PROTECT YOURSELF, SAVE TWO
 WORKING DAYS NOTICE

THIS DRAWING DOES NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY. ALL CONSTRUCTION MUST BE DONE IN COMPLIANCE WITH THE OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970 AND ALL RULES AND REGULATIONS THEREOF APPROPRIATE.

THE CONTRACTOR TO CALL MISS UTILITY TO HAVE ALL EXISTING UTILITIES MARKED 48 HOURS PRIOR TO ANY CONSTRUCTION.

OWNER/DEVELOPER: KVC LIMITED PARTNERSHIP
 C/O KIMCO REALTY CORP.
 3333 NEW HYDE PARK ROAD
 SUITE 100
 NEW HYDE PARK, NY 11042-1205

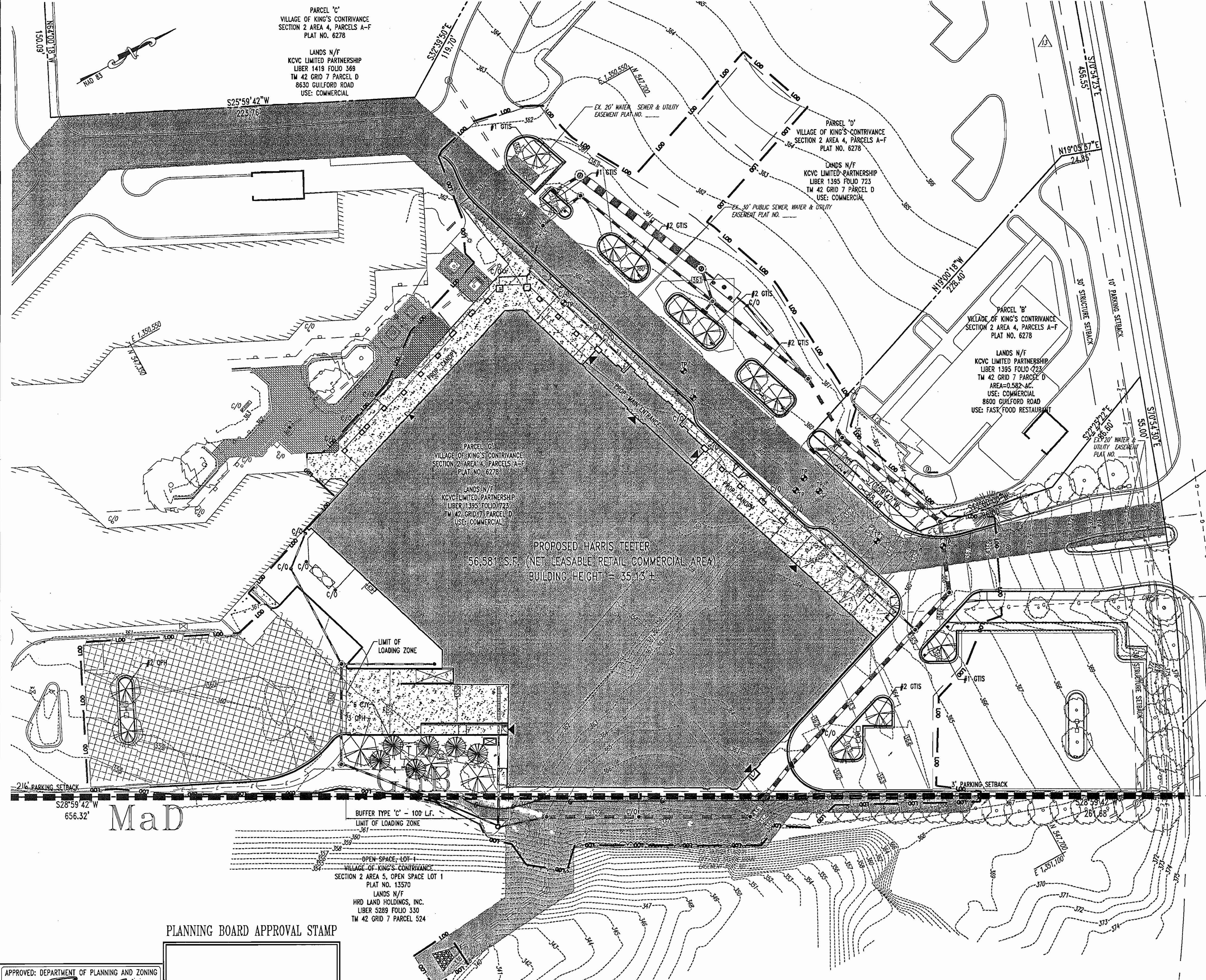
PROJECT: HARRIS TEETER - ONE STORY GROCERY STORE
 KING'S CONTRIVANCE VILLAGE CENTER
 8620 GUILDFORD ROAD
 COLUMBIA, MARYLAND 21046

AREA: TAX MAP 42 GRID 7 ZONED HF-COMM
 PARCEL 6
 VILLAGE OF KING'S CONTRIVANCE
 6TH ELECTION DISTRICT
 COLUMBIA, HOWARD COUNTY, MARYLAND

TITLE: LANDSCAPE DETAILS

BOHLER ENGINEERING, P.C.
 PROFESSIONAL ENGINEERING SERVICES
 810 Glenegles Court, Suite 300, Towson, Maryland
 CONTACT: Michael Gesel
 (410) 851-7700 FAX: (410) 851-7987 | WWW.BOHLERENG.COM

DESIGNED BY: MJG
 DRAWN BY: TAC
 PROJECT NO.: MD049006
 DATE: 9/27/06
 SCALE: AS SHOWN
 DRAWING NO.: 17 OF 22



LANDSCAPE SCHEDULE

KEY	QTY	BOTANICAL NAME	COMMON NAME	SIZE	ROOT	
GTIS	11	GLEDTISIA TRIACANTHOS VAR. INTERMIS	'SHADEMASTER'	SHADEMASTER HONEYLOCUST	2 1/2-3" CAL.	B+B
OPH	5	QUERCUS PHELLOS		WILLOW OAK	2 1/2-3" CAL.	B+B
	78					
EVERGREEN TREE(S)						
CJT	6	CRYPTOMERIA JAPONICA 'YOSHINO'		YOSHINO JAPANESE CEDAR	8-10'	B+B

IF ANY DISCREPANCIES OCCUR BETWEEN AMOUNTS SHOWN IN THE PLAN AND THE PLANT LIST, THE PLAN SHALL DICTATE.

SCHEDULE A PERIMETER LANDSCAPE EDGE - EAST PROPERTY LINE (LOADING AREA)			
CATEGORY	ADJACENT TO ROADWAYS	ADJACENT TO PERIMETER PROPERTIES	
LANDSCAPE TYPE:	C		LOADING AREA ADJACENT TO NON-RESIDENTIAL
LINEAR FEET OF PROPERTY LINE:	100 LF.		
CREDIT FOR EXISTING VEGETATION	NO		
NUMBER OF PLANTS REQUIRED:			
SHADE TREE(S): 1:40	3		
EVERGREEN TREE(S): 1:20	5		
SHRUB(S):	0		
NUMBER OF PLANTS PROVIDED:			
SHADE TREE(S):	3		
EVERGREEN TREE(S):	6		
OTHER TREE(S): (2:1 SUBSTITUTION)	0		
SHRUB(S): (10:1 SUBSTITUTION)	0		

SCHEDULE B PARKING LOT INTERNAL LANDSCAPING	
NUMBER OF PARKING SPACES:	66 SPACES WITHIN THE L.O.D.
NUMBER OF TREES REQUIRED: 1/20 SPACES	4 SHADE TREES
NUMBER OF TREES PROVIDED:	13 SHADE TREES
SHADE TREE(S):	
OTHER TREE(S): (2:1 SUBSTITUTION)	

* INDICATES PLANT MATERIAL UTILIZED TO FULFILL REQUIREMENT

* INDICATES PLANT MATERIAL UTILIZED TO FULFILL REQUIREMENT

NOTE:

FINANCIAL SURETY FOR THE REQUIRED LANDSCAPING HAS BEEN POSTED AS PART OF THE DEVELOPER'S AGREEMENT IN THE AMOUNT OF \$ 2,850 FOR 7 SHADE TREES, 5 EVERGREEN TREES, Q ORNAMENTAL TREES AND Q SHRUBS.

ON-SITE SOILS INFORMATION:

GHB - GLENELG - URBAN LAND COMPLEX (HYDROLOGICAL SOIL CLASSIFICATION 'B')

MAD - MANOR LOAM, 15% TO 25% SLOPES (HYDROLOGICAL SOIL CLASSIFICATION 'B')

REFERENCE:

SOIL SURVEY HOWARD COUNTY, MD PREPARED BY: UNITED STATES DEPARTMENT OF AGRICULTURE DATED: JULY 1968

BENCHMARK

GEODETIC SURVEY CONTROL - #42R1
S 547,820.238
E 135,117.859
ELEV. 375.85'
LOCATED AT THE CORNER OF GUILFORD ROAD AND SASSAFRAS COURT.

GEODETIC SURVEY CONTROL - #42R2
N 546,946.800
E 1,352,118.566
ELEV. 331.522'
LOCATED AT HAMMOND HIGH SCHOOL AND GUILFORD ROAD (BLUE SEA ROAD)

REV.	DATE	DESCRIPTION	CWA	BY
1	8/12/06	REVISED UTILITY LOCATION		

OWNER/DEVELOPER:
KVC LIMITED PARTNERSHIP
C/O KIMCO REALTY CORP.
3333 NEW HYDE PARK ROAD
SUITE 100
NEW HYDE PARK, NY 11042-1205

PROJECT: HARRIS TEETER - ONE STORY GROCERY STORE
KING'S CONTRIVANCE VILLAGE CENTER
8620 GUILFORD ROAD
COLUMBIA, MARYLAND 21046

AREA: TAX MAP 42 GRID 7 ZONED NT-COMM
VILLAGE OF KING'S CONTRIVANCE
6TH ELECTION DISTRICT
COLUMBIA, HOWARD COUNTY, MARYLAND

LANDSCAPE PLAN

BOHLER ENGINEERING, P.C.
PROFESSIONAL ENGINEERING SERVICES
810 GLENELG COURT, SUITE 300, TOWSON, MARYLAND
CONTACT: MICHAEL GESSL
(410) 561-7900 FAX: (410) 881-7887 WWW.BOHLENG.COM

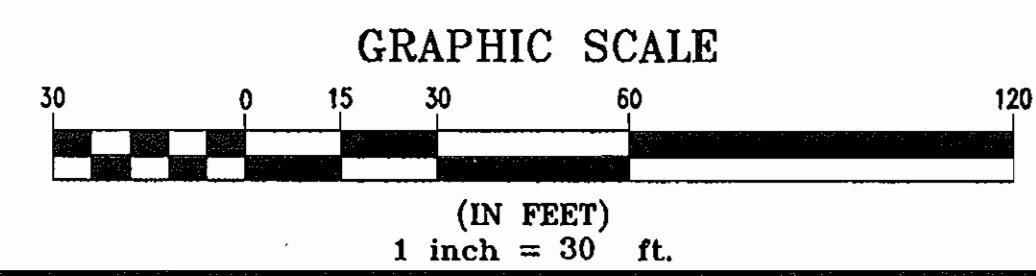
DESIGNED BY:	MJG
DRAWN BY:	TAC
PROJECT NO.:	M0049006
DATE:	9/27/06
SCALE:	AS SHOWN
DRAWING NO.:	16 OF 22

MISS UTILITY



BEFORE YOU DIG CALL 1-800-281-5777 PROTECT YOURSELF, GIVE TWO WORKING DAYS NOTICE

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THE CONTRACTOR TO CALL MISS UTILITY TO HAVE ALL EXISTING UTILITIES MARKED 48 HOURS PRIOR TO ANY CONSTRUCTION.



PLANNING BOARD APPROVAL STAMP

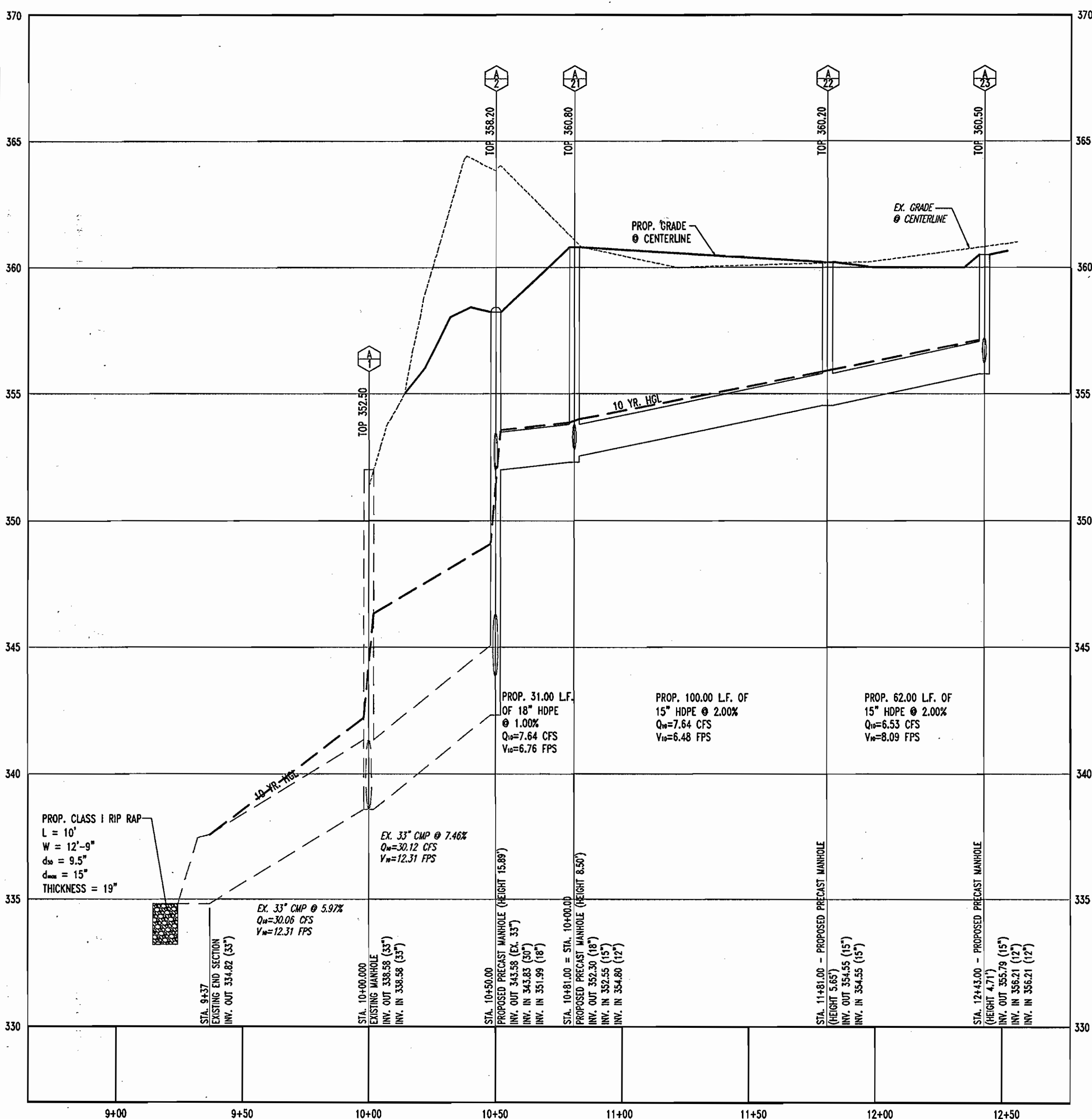
APPROVED: DEPARTMENT OF PLANNING AND ZONING
Chief-Development Engineering Division DATE: 12/11/06
Chief-Division & Land Development DATE: 12/11/06
Director DATE: 12/11/06

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS.
County Health Officer DATE: 12/18/06
HOWARD COUNTY HEALTH DEPARTMENT

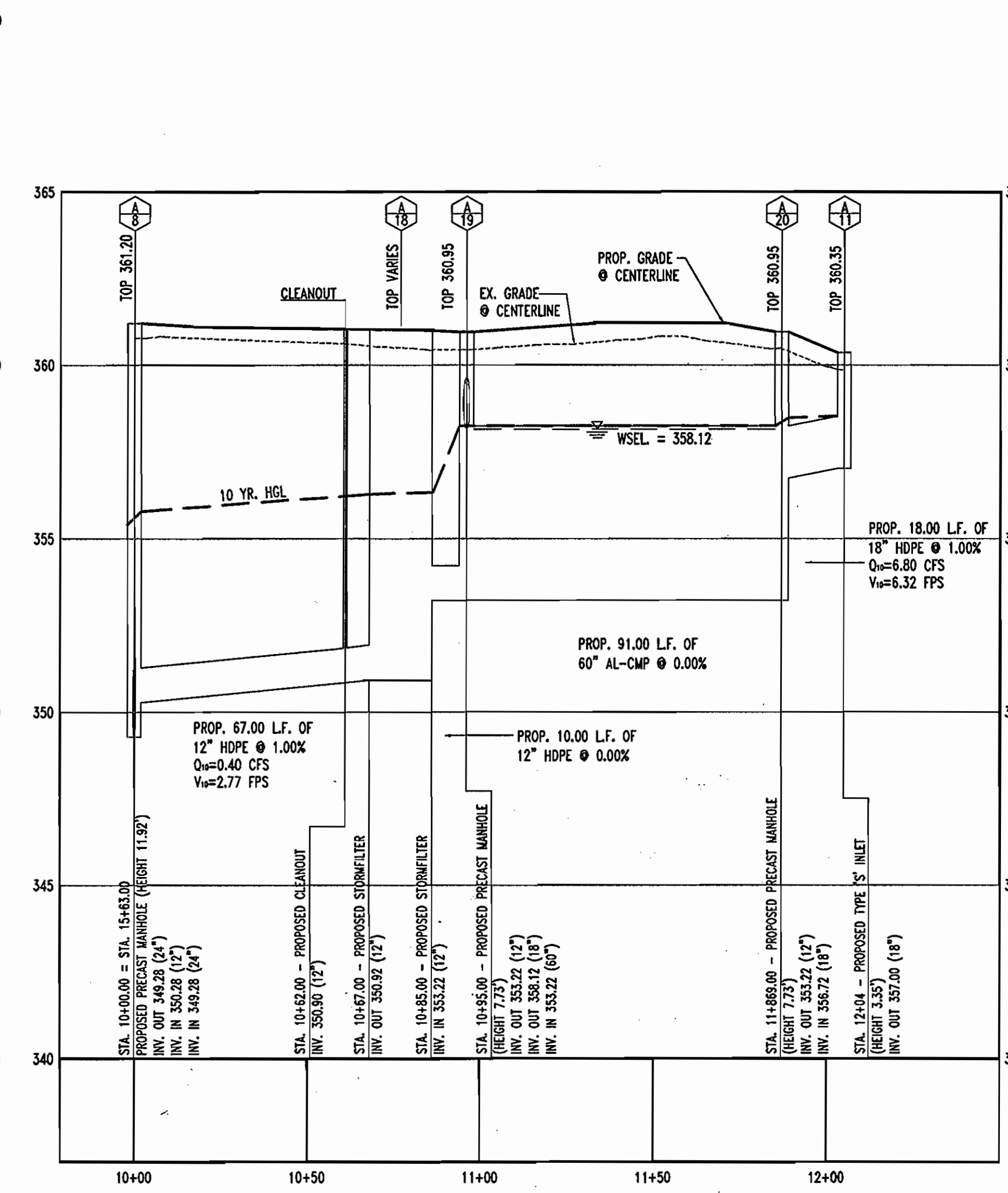
APPROVED PLANNING BOARD OF HOWARD COUNTY
DATE: 8.31.06

APPROVED: DEPARTMENT OF PLANNING AND ZONING
Chief-Development Engineering Division DATE: 12/11/06
Chief-Division & Land Development DATE: 12/11/06
Director DATE: 12/11/06

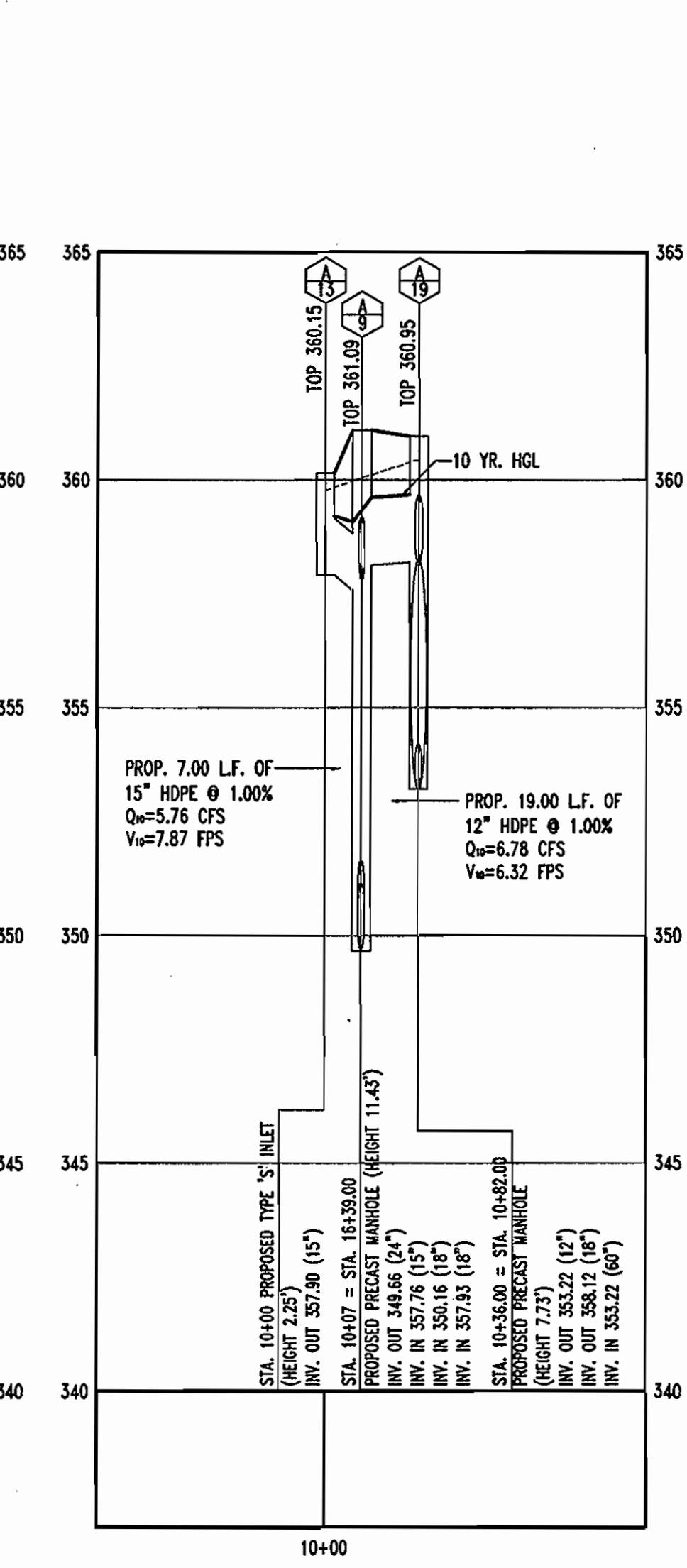
APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS.
County Health Officer DATE: 12/18/06
HOWARD COUNTY HEALTH DEPARTMENT



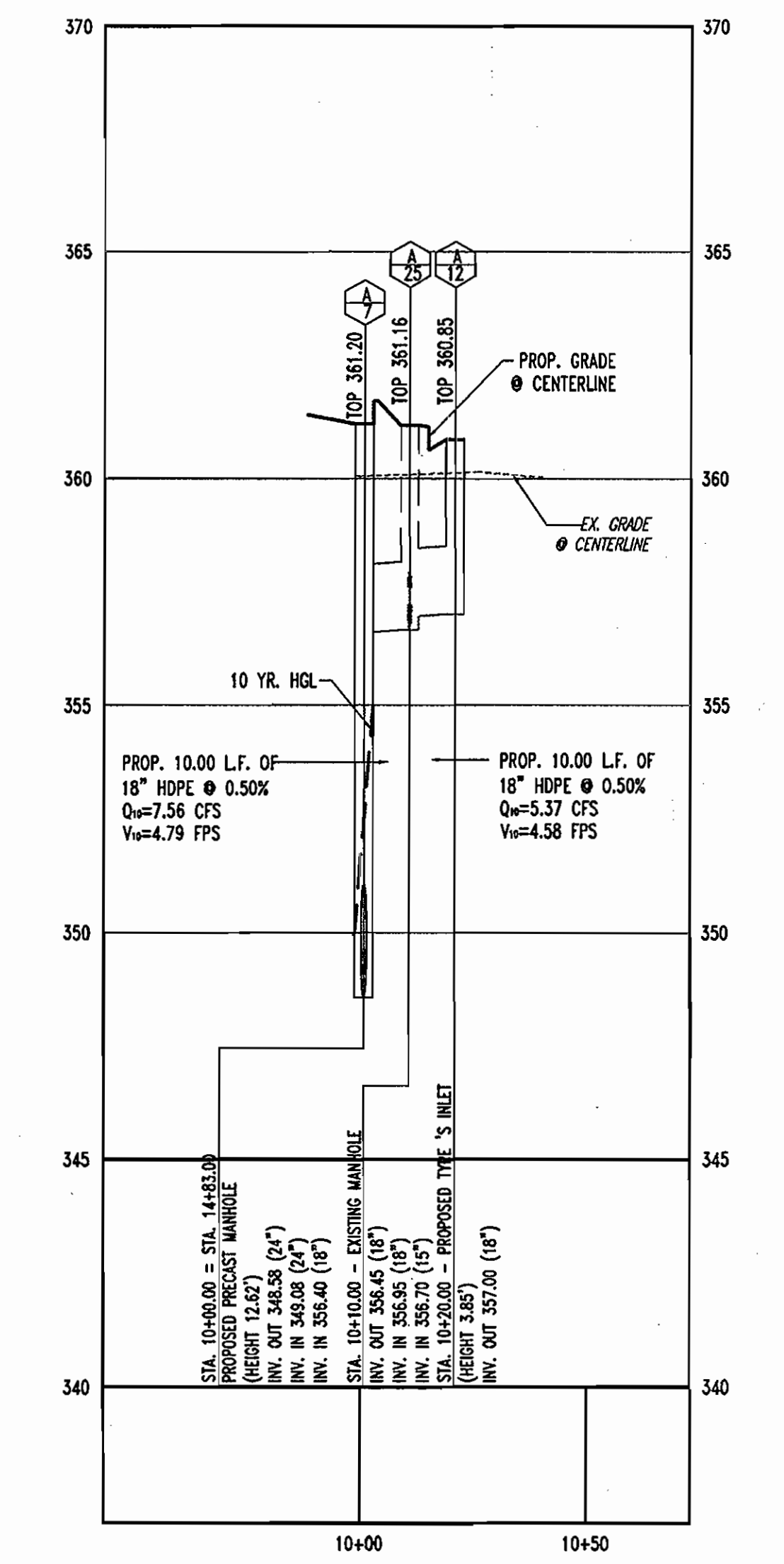
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VERT. 1"=3'



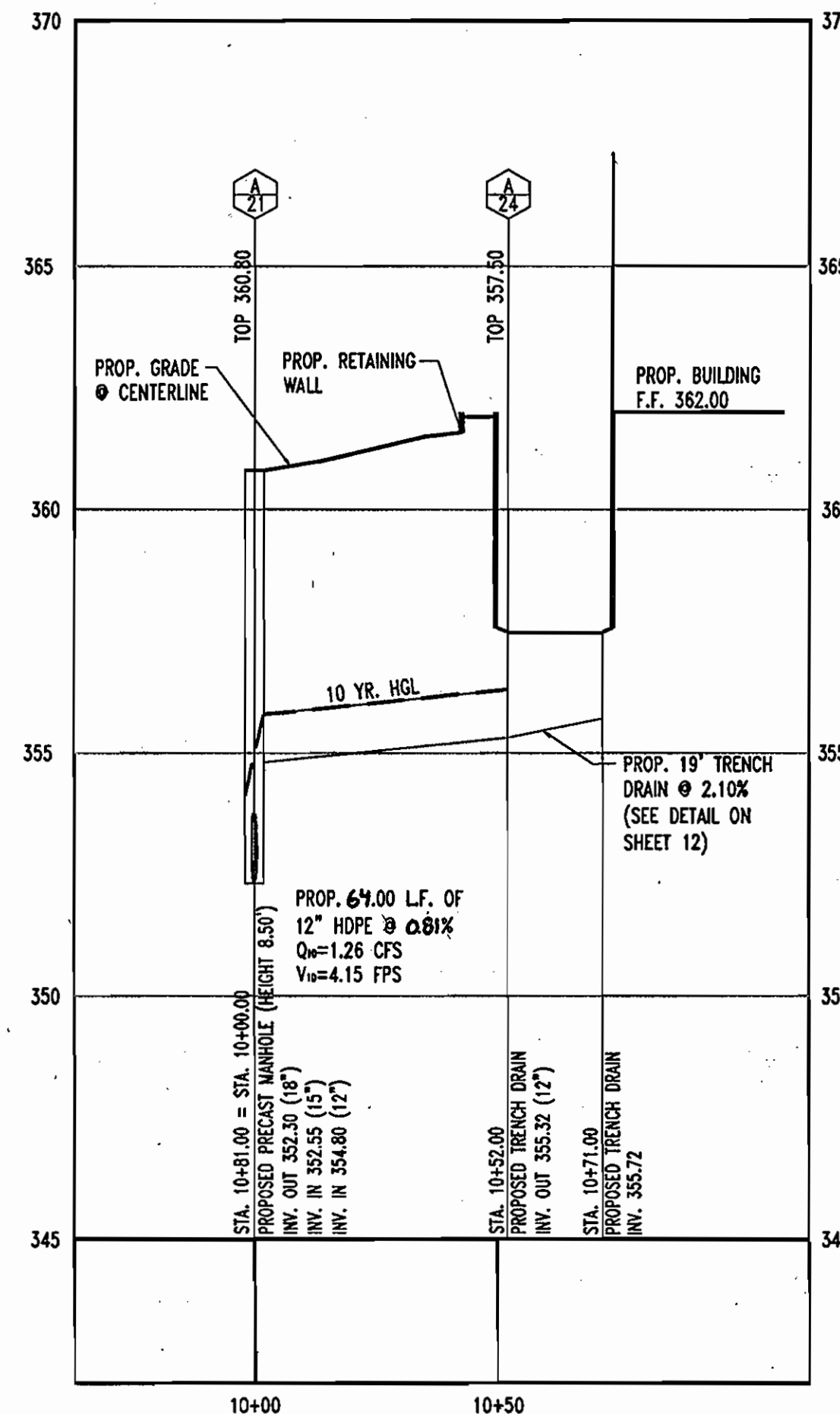
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VERT. 1"=3'



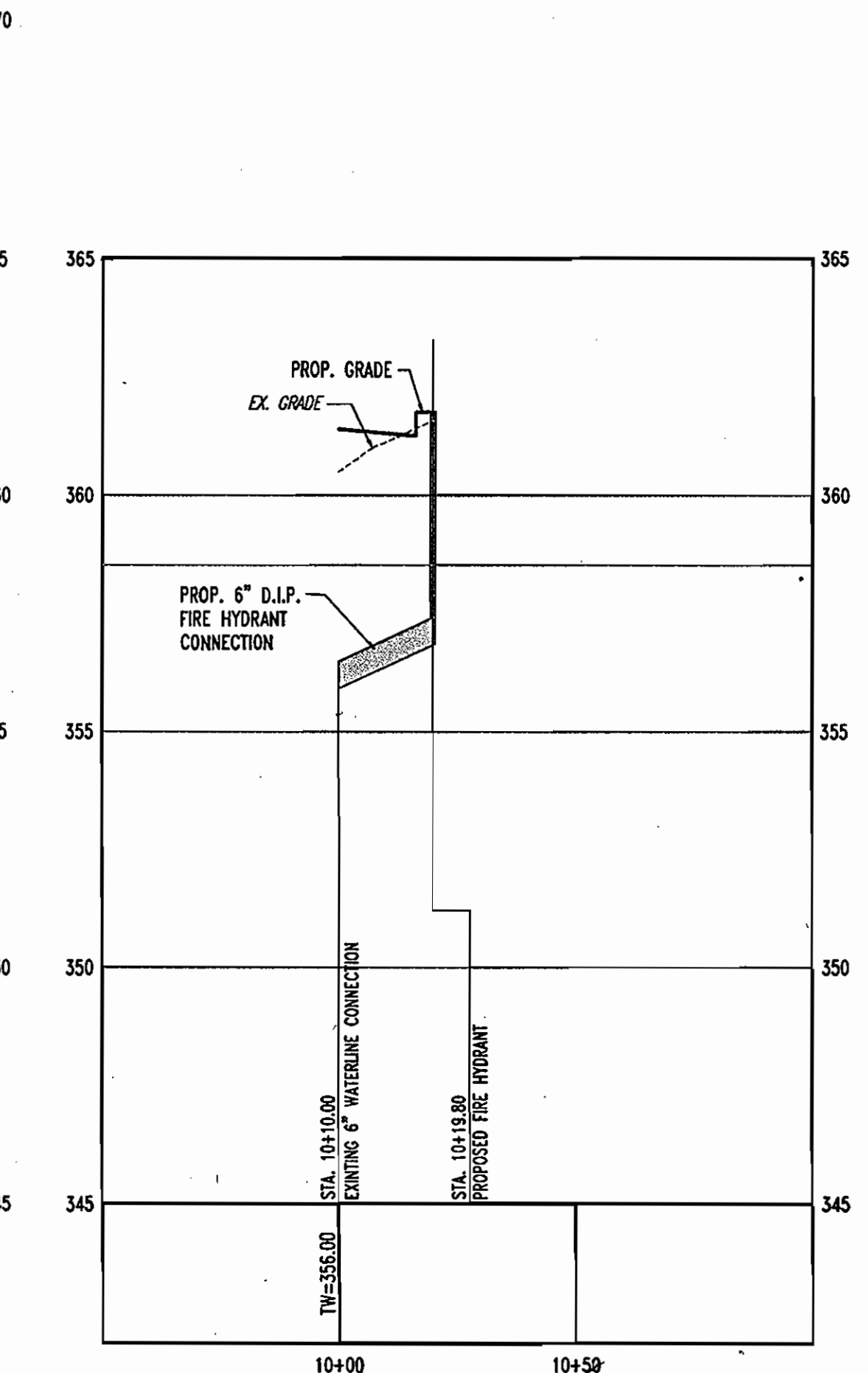
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VERT. 1"=3'



STORMDRAIN PROFILE A-7 TO A-12
SCALE: HORIZ. 1"=30'
VERT. 1"=3'



STORMDRAIN PROFILE A-21 TO A-24
SCALE: HORIZ. 1"=30'
VERT. 1"=3'



WATERLINE 'A' PROFILE
SCALE: HORIZ. 1"=30'
VERT. 1"=3'

PLANNING BOARD APPROVAL STAMP

APPROVED: DEPARTMENT OF PLANNING AND ZONING
CHIEF-DEVELOPMENT ENGINEERING DIVISION
DATE 12/11/06
APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS.
DATE 12/16/06

APPROVED
PLANNING BOARD
of HOWARD COUNTY
DATE 8.31.06

MISS UTILITY
BEFORE YOU DO CALL
1-800-87-7777
PROJECT YOURSelves, NOT TWO WORKING DAYS NOTICE
THIS DRAWING DOES NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY. ALL CONSTRUCTION MUST BE DONE IN COMPLIANCE WITH THE OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970 AND ALL RULES AND REGULATIONS THEREOF APPLICABLE.
THE CONTRACTOR TO CALL MISS UTILITY TO HAVE ALL EXISTING UTILITIES MARKED 48 HOURS PRIOR TO ANY CONSTRUCTION.

REV.	DATE	DESCRIPTION	BY
1	8/21/08	REVISED UTILITY LOCATION	CWA

OWNER/DEVELOPER:
KVCV LIMITED PARTNERSHIP
C/O KINCO REALTY CORP.
3333 NEW HYDE PARK ROAD
SUITE 100
NEW HYDE PARK, NY 11042-1205

PROJECT: HARRIS TEETER - ONE STORY GROCERY STORE
KING'S CONTRIVANCE VILLAGE CENTER
8820 GULFORD ROAD
COLUMBIA, MARYLAND 21046

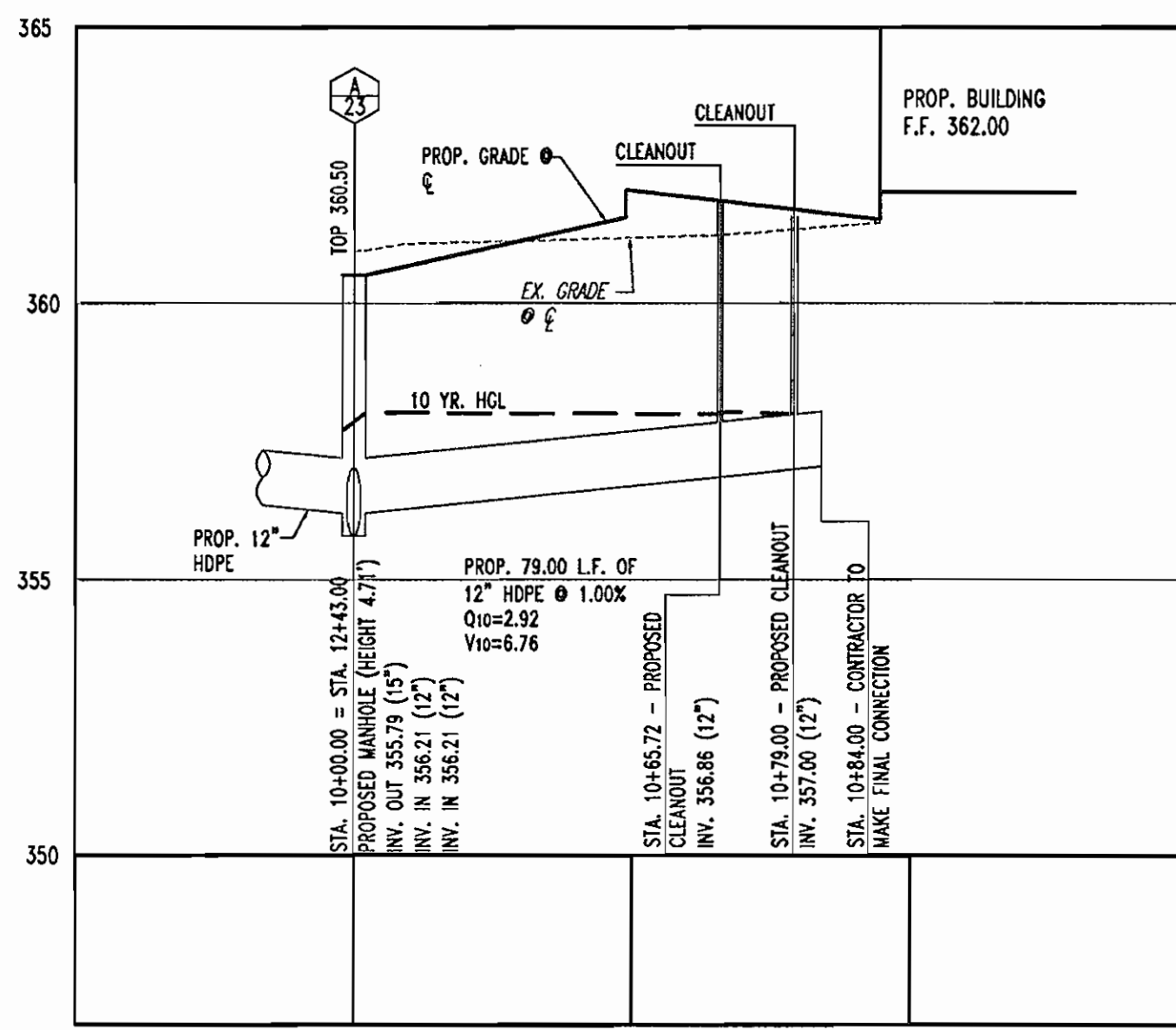
AREA: TAX MAP 42 GRID 7 ZONED NT-COMM
PARCEL 6
VILLAGE OF KING'S CONTRIVANCE
6TH ELECTION DISTRICT
COLUMBIA, HOWARD COUNTY, MARYLAND

TITLE:
UTILITY PROFILES

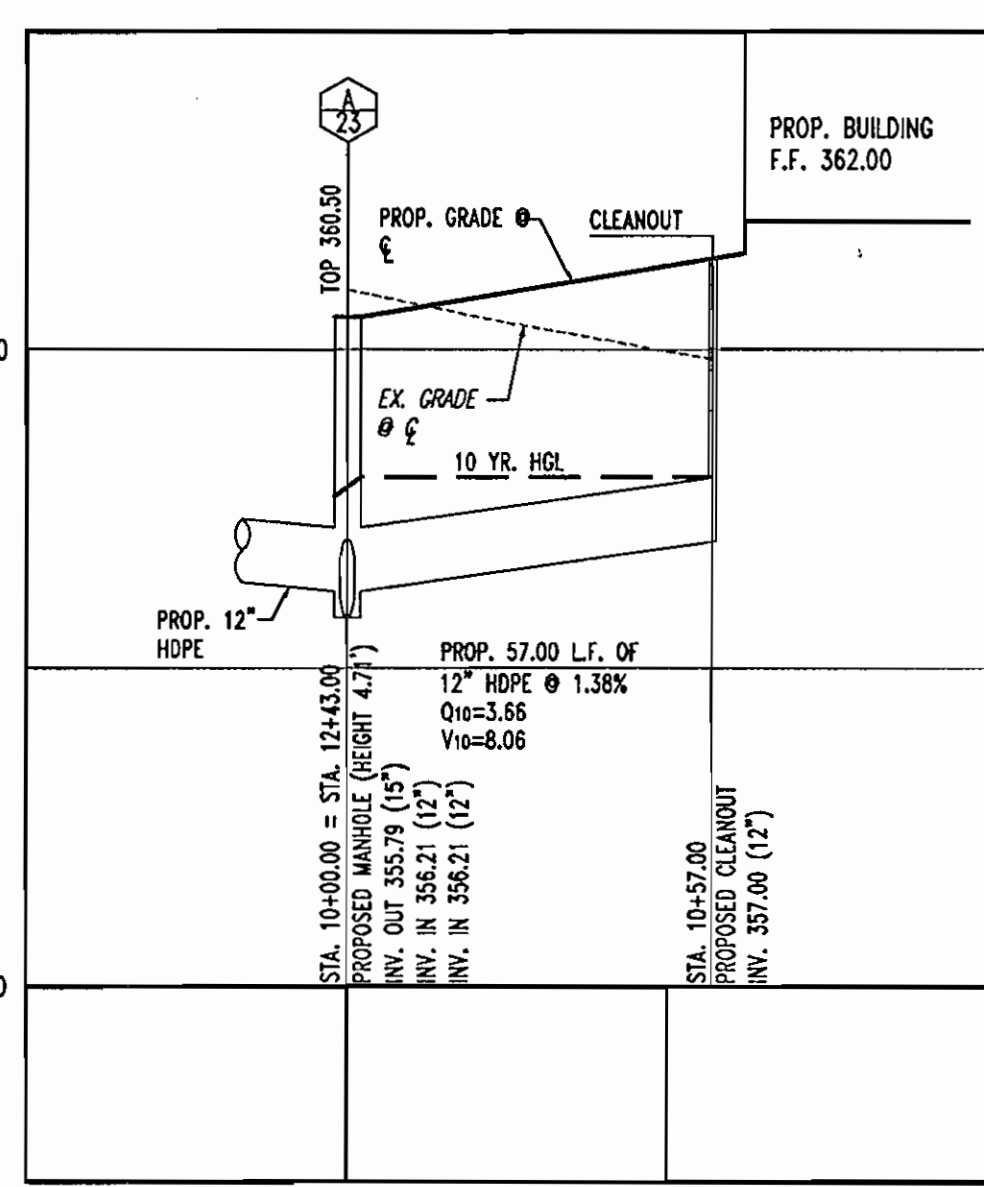
BOHLER ENGINEERING, P.C.
PROFESSIONAL ENGINEERING SERVICES
810 Glen Eagles Court, Suite 300, Towson, Maryland
CONTACT: Michael Gumbel
(410) 821-7900 FAX: (410) 821-7987 WWW.BOHLENG.COM

DESIGNED BY: MJG
DRAWN BY: TAC
PROJECT NO.: MDD49006
DATE: 9/27/06
SCALE: AS SHOWN
DRAWING NO.: 15 of 22

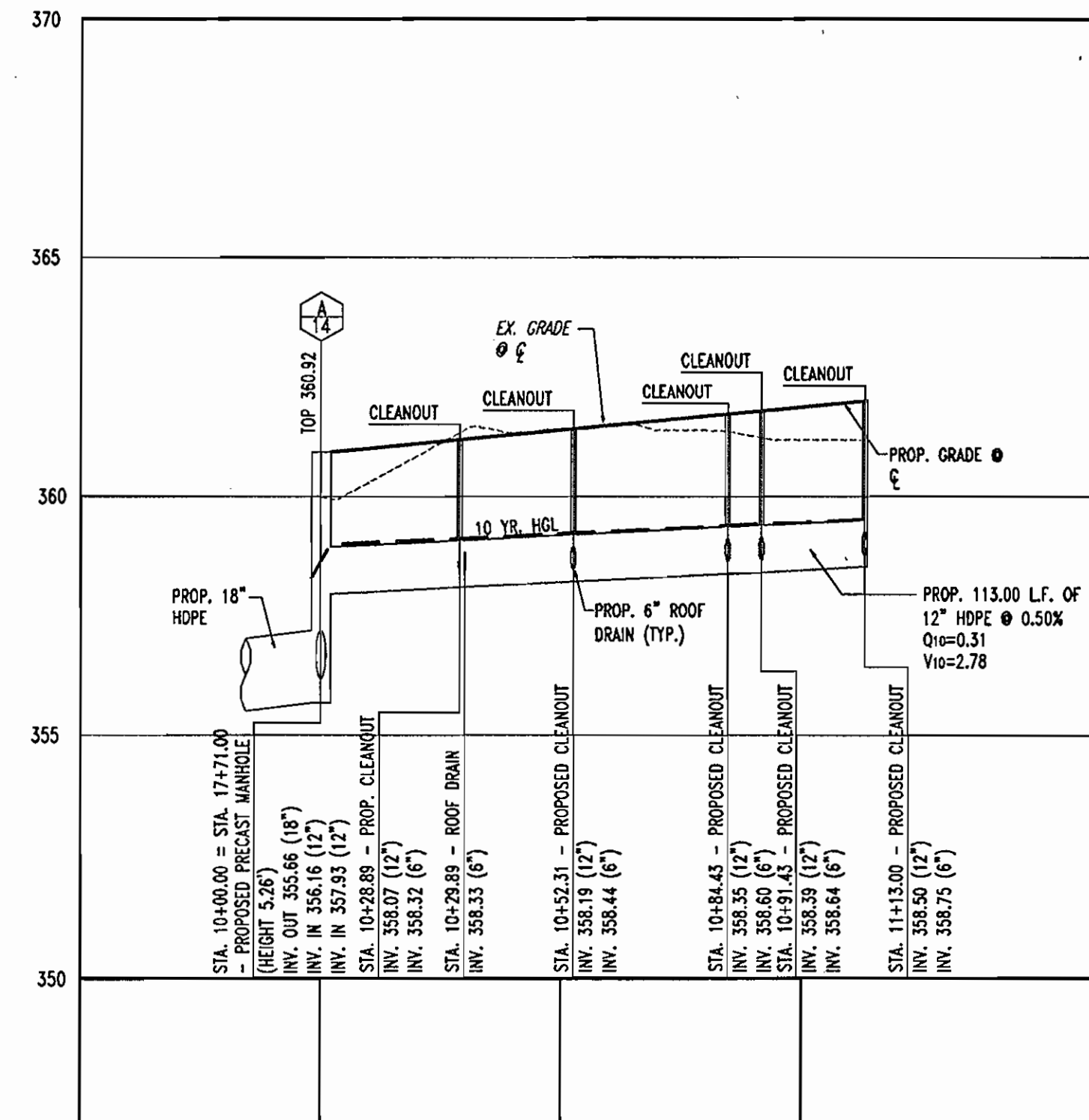
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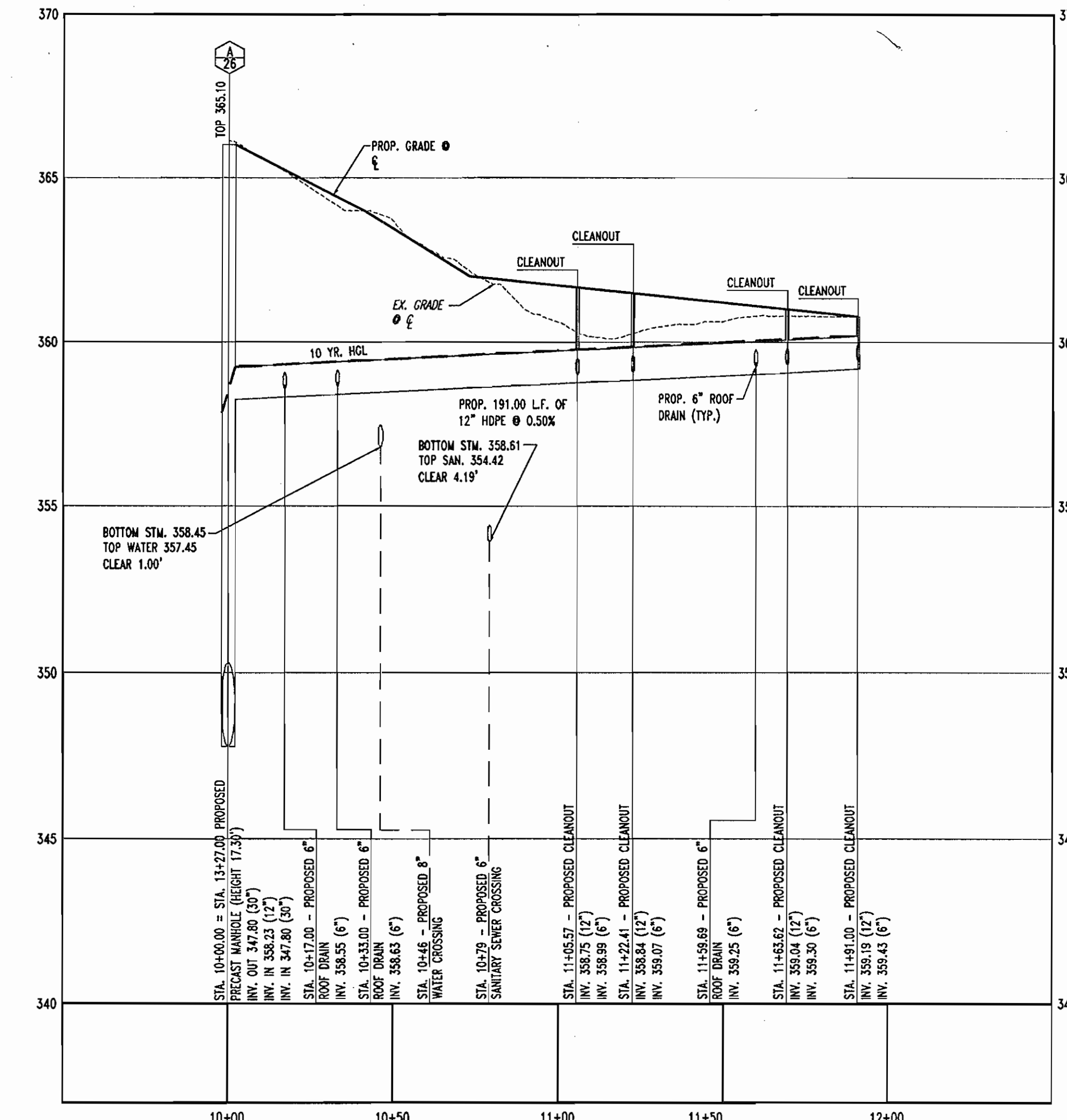
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 VERT. 1"=3'



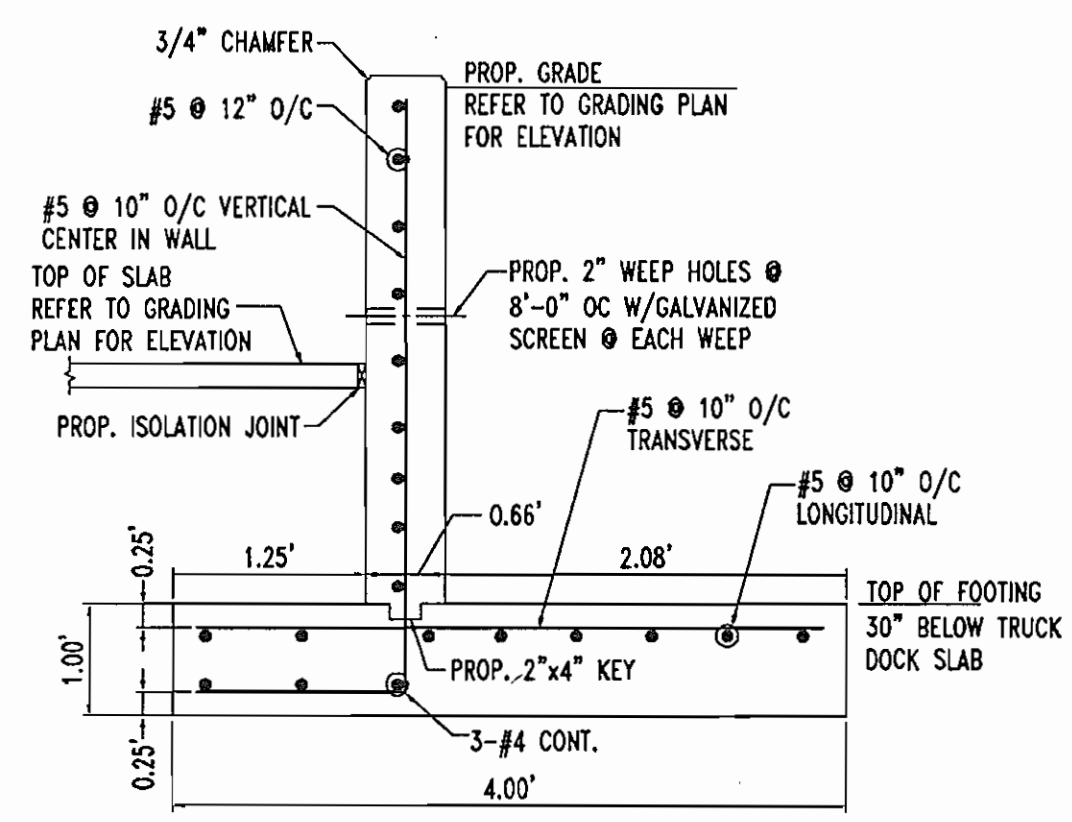
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STORMDRAIN PROFILE A-14 TO C/O
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 VERT. 1"=3'

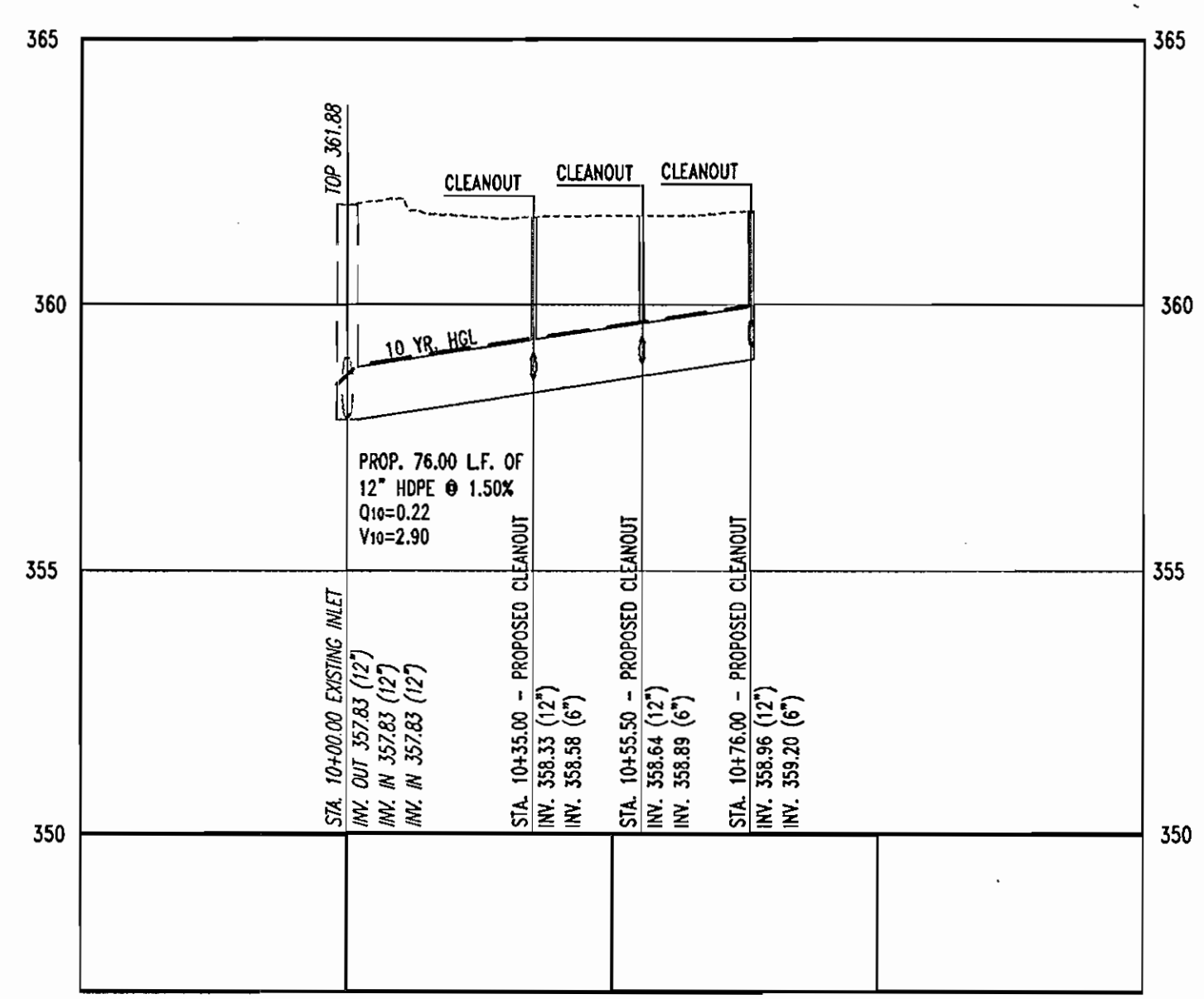


STORMDRAIN PROFILE A-26 TO C/O
 SCALE: HORIZ. 1"=30'
 VERT. 1"=3'

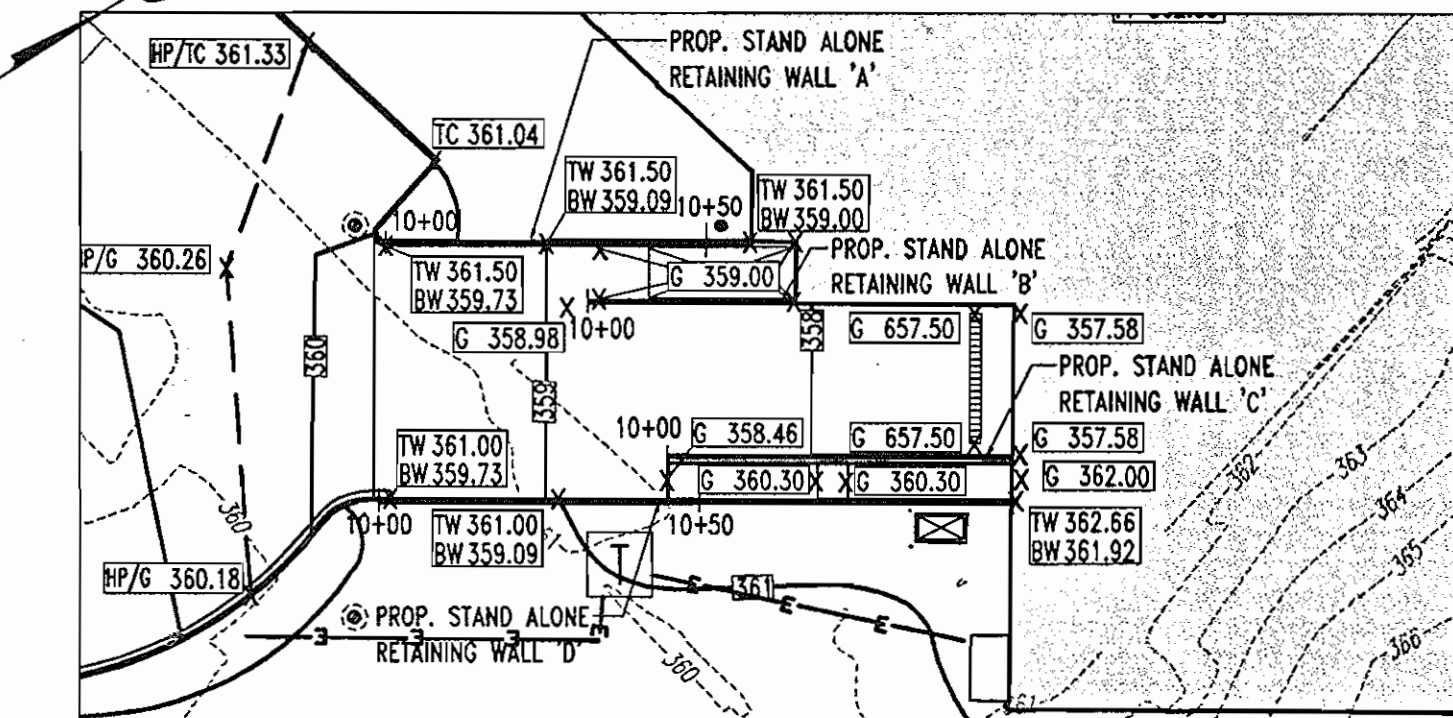


NOTE:
 REBAR LOCATION AND SIZES ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY. CONTRACTOR SHALL SUBMIT 5 SETS OF COMPLETED SHOP DRAWINGS SIGNED AND SEALED BY A STRUCTURAL ENGINEER WITH BAR SCHEDULE AND DETAILS TO THE ENGINEER FOR REVIEW AND APPROVAL PRIOR TO ORDERING MATERIAL AND CONSTRUCTION.

STAND ALONE RETAINING WALL TYPICAL SECTION
 NOT TO SCALE



STORMDRAIN PROFILE A-26 TO C/O
 SCALE: HORIZ. 1"=30'
 VERT. 1"=3'



PLANNING BOARD APPROVAL STAMP

APPROVED: DEPARTMENT OF PLANNING AND ZONING

CHIEF-DEVELOPMENT ENGINEERING DIVISION

DATE 12/14/06

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS.

DIRECTOR

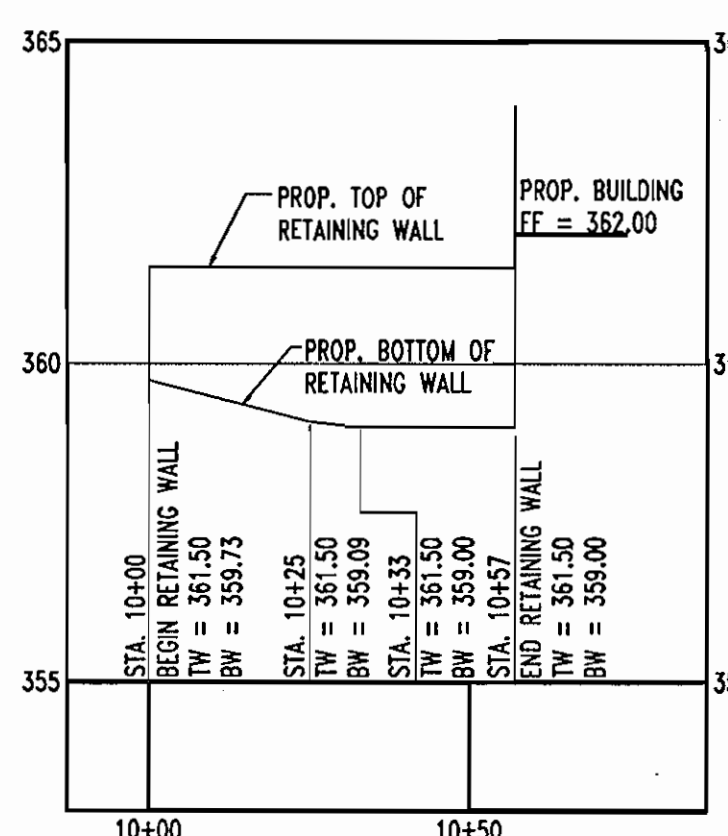
DATE 12/15/06

COUNTY HEALTH OFFICER

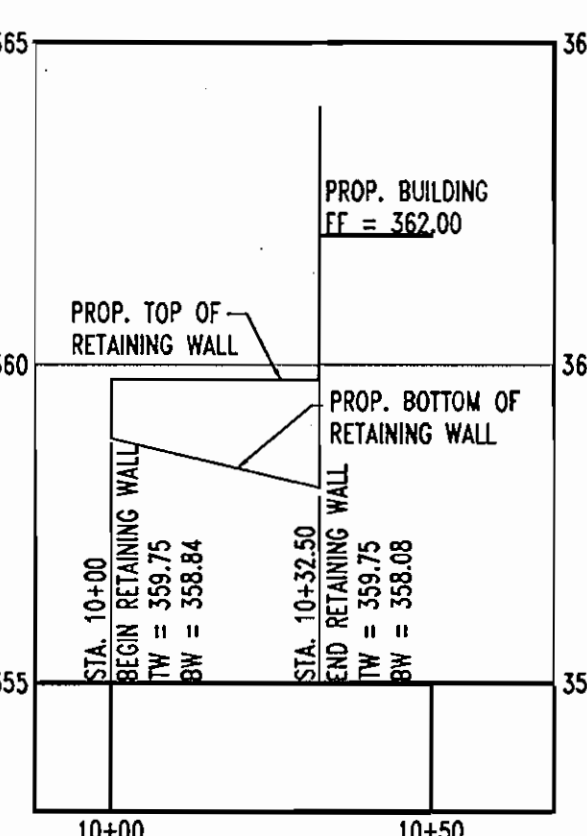
HOWARD COUNTY HEALTH DEPARTMENT

APPROVED PLANNING BOARD OF HOWARD COUNTY

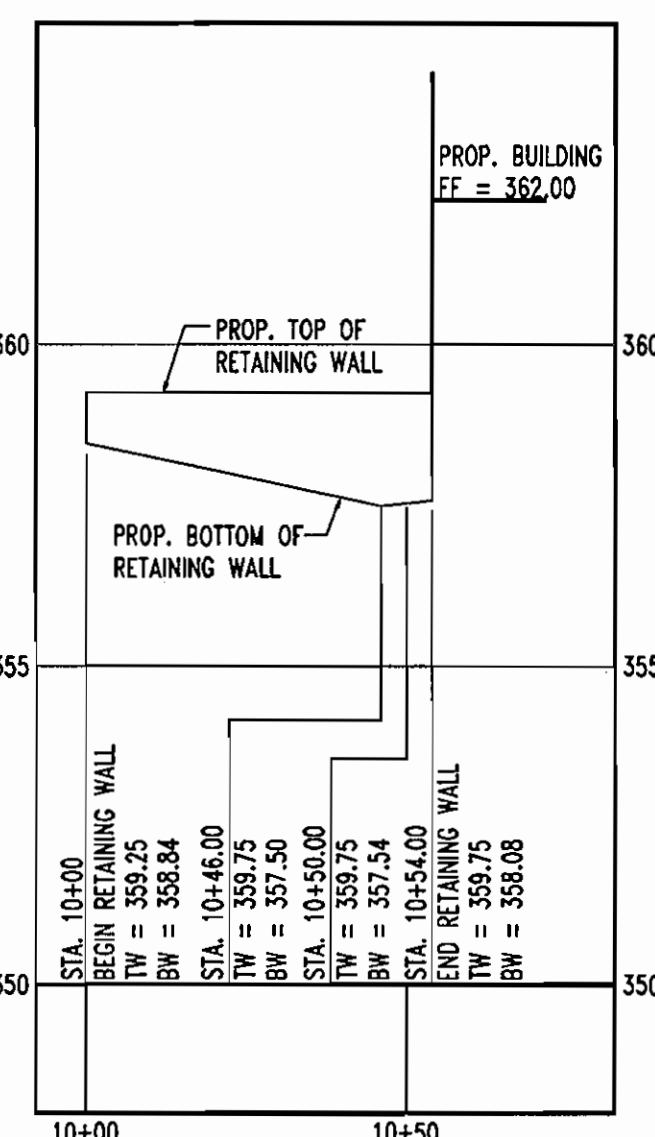
DATE 8.31.06



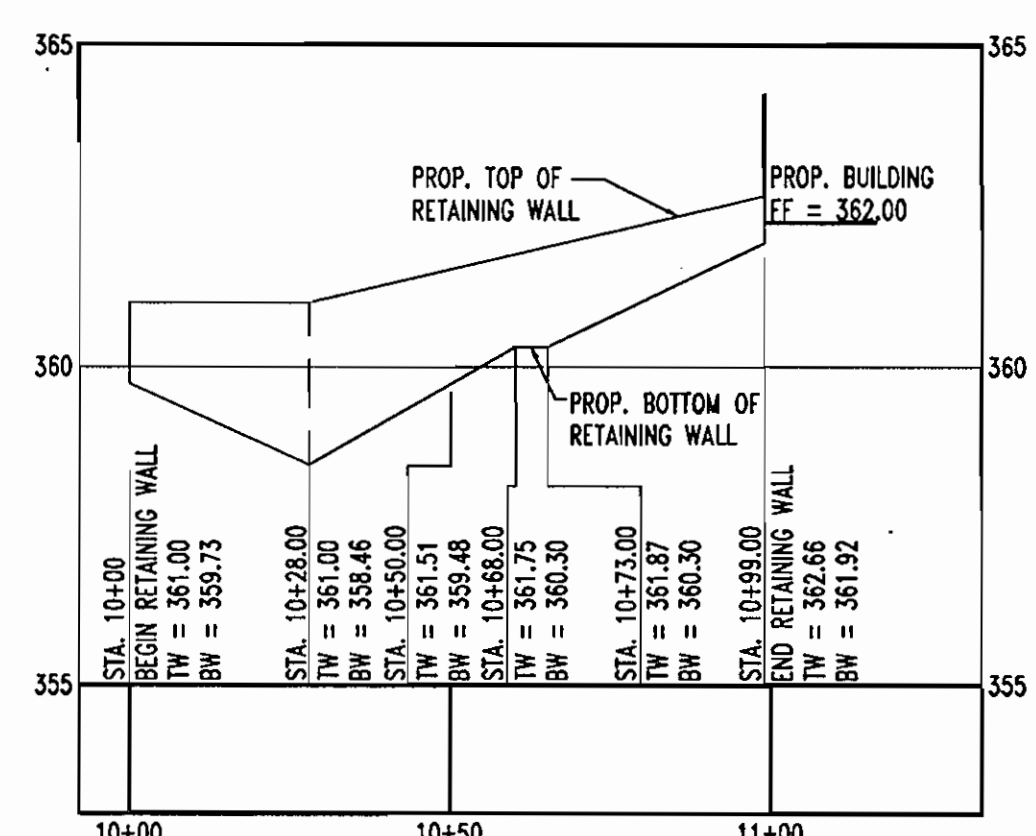
PROPOSED STAND ALONE RETAINING WALL 'A'
 HORIZ. SCALE: 1"=30'
 VERT. SCALE: 1"=3'



PROPOSED STAND ALONE RETAINING WALL 'B'
 HORIZ. SCALE: 1"=30'
 VERT. SCALE: 1"=3'



PROPOSED STAND ALONE RETAINING WALL 'C'
 HORIZ. SCALE: 1"=30'
 VERT. SCALE: 1"=3'



PROPOSED STAND ALONE RETAINING WALL 'D'
 HORIZ. SCALE: 1"=30'
 VERT. SCALE: 1"=3'

MISS UTILITY

BEFORE YOU DIG CALL 1-800-391-7777

PROTECT YOURSELF, GIVE TWO WORKING DAYS NOTICE

THIS DRAWING DOES NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY. ALL CONSTRUCTION MUST BE DONE IN COMPLIANCE WITH THE OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970 AND ALL RULES AND REGULATIONS THERE TO APPURTENANT.

THE CONTRACTOR TO CALL MISS UTILITY TO HAVE ALL EXISTING UTILITIES MARKED 48 HOURS PRIOR TO ANY CONSTRUCTION.

REV.	DATE	DESCRIPTION	BY

OWNER/DEVELOPER:
 KCVC LIMITED PARTNERSHIP
 C/O KIMCO REALTY CORP.
 3333 NEW HYDE PARK ROAD
 SUITE 100
 NEW HYDE PARK, NY 11042-1205

PROJECT: HARRIS TEETER - ONE STORY GROCERY STORE
 KING'S CONTRIVANCE VILLAGE CENTER
 8620 GULFORD ROAD
 COLUMBIA, MARYLAND 21046

AREA: TAX MAP 42 GRID 7 ZONED NT-COMM
 PARCEL 6
 VILLAGE OF KING'S CONTRIVANCE
 6TH ELECTION DISTRICT
 COLUMBIA, HOWARD COUNTY, MARYLAND

TITLE: RETAINING WALL DETAILS & ROOF DRAIN PROFILES

BOHLER ENGINEERING, P.C.
 PROFESSIONAL ENGINEERING SERVICES
 810 Glenageles Court, Suite 300, Towson, Maryland
 Contract: Michael Gravel
 (410) 821-7950 FAX: (410) 821-7987 www.bohlereng.com

DESIGNED BY: MJG
DRAWN BY: TAC
PROJECT NO.: MD049008
DATE: 9/27/06
SCALE: AS SHOWN
DRAWING NO.: 22 OF 22

PROFESSIONAL ENGINEER NO. 28567

Operation and Maintenance

The Stormwater Management StormFilter®

Vault, Cast-In-Place, and Linear Units

Important: These guidelines should be used as part of your site stormwater management plan.

Description

The Stormwater Management StormFilter® (StormFilter) is a passive, flow-through, stormwater filtration system. The system is comprised of one or more vaults that house rechargeable, media-filled, filter cartridges. The StormFilter works by passing stormwater through the media-filled cartridges, which trap particulates and adsorb materials such as dissolved metals and hydrocarbons. Once filtered through the media, the treated stormwater is directed to a collection pipe or discharged into an open channel drainage way.

The StormFilter is offered in multiple configurations, including vault, linear, catch basin, manhole, and cast-in-place. The vault, linear, manhole, and catch basin models utilize pre-manufactured units to ease the design and installation processes. The cast-in-place units are customized for larger flows and may be either covered or uncovered underground units.

Purpose

The StormFilter is a passive, flow-through, stormwater filtration system designed to improve the quality of stormwater runoff from the urban environment before it enters receiving waterways. It is intended to function as a Best Management Practice (BMP) to meet federal, state, and local requirements for treating runoff in compliance with the Clean Water Act.

Through independent third party studies, it has been demonstrated that the StormFilter is highly effective for treatment of first flush flows and for treatment of flow-paced flows during the latter part of a storm. In general, the StormFilter's efficiency is highest when pollutant concentrations are highest. The primary non-point source pollutants targeted for removal by the StormFilter are suspended solids (TSS), oil and grease, soluble metals, nutrients, organics, and trash and debris.

Sizing

The StormFilter is sized to treat the peak flow of a water quality design storm. The peak flow is determined from calculations based on the contributing watershed stormwater through the media-filled cartridges, which trap particulates and adsorb materials such as dissolved metals and hydrocarbons. Once filtered through the media, the treated stormwater is directed to a collection pipe or discharged into an open channel drainage way.

The flow rate through each filter cartridge is adjustable, allowing control over the amount of contact time between the influent and the filter media. The maximum flow rate through each cartridge can be adjusted to between 5 and 15 gpm using a calibrated restrictor disc at the base of each filter cartridge. Adjustments to the cartridge flow rate will affect the number of cartridges required to treat the peak flow.

Basic Function

The StormFilter is designed to siphon stormwater runoff through a filter cartridge containing media. A variety of filter media is available and can be customized for each site to target and remove the desired levels of sediments, dissolved phosphorus, dissolved metals, organics, and oil and grease. In many cases, a combination of media is recommended to maximize the effectiveness of the stormwater pollutant removal.

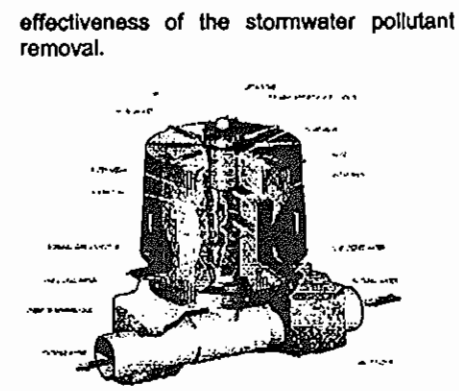


Figure 1. The StormFilter Cartridge

Priming System Function

When stormwater in the StormFilter unit enters a StormFilter cartridge, it percolates horizontally through the cartridge's filter media and collects in the center tube of the cartridge, where the float in the cartridge is in a closed (downward) position.

Water continues to pass through the filter media and into the cartridge's center tube. The air in the cartridge is displaced by the water and purged from beneath the filter hood through the one-way check valve located in the cap. Once the center tube is filled with water (approximately 18 inches deep), there is enough buoyant force on the float to open the float valve and allow the treated water in the center tube to flow into the under-drain manifold. This causes the check valve to close, initiating a siphon that draws polluted water throughout the full surface area and volume of the filter. Thus, the entire filter cartridge is used to filter water throughout the duration of the storm, regardless of the water surface elevation in the unit. This siphon continues until the water surface elevation drops to the elevation of the hood's scrubbing regulators.

The cartridges are connected to the under-drain manifold with a plastic connector. Since some media used is potentially buoyant, a threaded connector affixed to the under-drain manifold (with glue or other adhesive) is necessary to ensure that the heavier connector media, a slip connector is used.

The StormFilter is also equipped with flow spreaders that trap floating debris and surface films, even during overflow conditions. Depending on individual site characteristics, some systems are equipped with high and/or base flow bypasses. High flow bypasses are installed when the calculated peak storm event generates a flow that overcomes the overflow capacity of the system. This is especially important for precast systems. Base flow bypasses are sometimes installed to bypass continuous inflows caused by ground water seepage, which usually do not require treatment. All StormFilter units are designed with an overflow. The overflow operates when the inflow rate is greater than the treatment capacity of the filter cartridges.

Maintenance Guidelines

The primary purpose of the StormFilter is to filter out and prevent pollutants from entering our waterways. Like any effective filtration system, periodically these pollutants must be removed to restore the StormFilter to its full efficiency and effectiveness.

Maintenance requirements and frequency are dependent on the pollutant load characteristics of each site. Maintenance activities may be required in the event of a chemical spill or due to excessive sediment loading from site erosion or extreme storms. It is also good practice to inspect the system after severe storm events.

Types of Maintenance

Presently, procedures have been developed for two levels of maintenance:

- Inspection/minor maintenance
- Major maintenance.

Inspection/minor maintenance activities are combined since minor maintenance does not require special equipment and typically little or no materials are in need of disposal.

Inspection/minor maintenance typically involves:

- Inspection of the vault itself
- Removal of vegetation and trash and debris.

Major maintenance typically includes:

- Cartridge replacement
- Sediment removal

Important: Applicable safety (OSHA) and disposal regulations should be followed during all maintenance activities.

Maintenance Activity Timing

Two scheduled inspections/maintenance activities should take place during the year. First, an inspection/minor maintenance activity should be done. During the minor maintenance activity (routine inspection, debris removal), the need for major maintenance should be determined and, if disposal during major maintenance will be required, samples of the sediments and media should be obtained.

Second, if required, a major maintenance activity (replacement of the filter cartridges and associated sediment removal) should be performed.

In addition to these two scheduled activities, it is important to check the condition of the StormFilter unit after major storms for damage caused by high flows and for high sediment accumulation that may be caused by localized erosion in the drainage area. It may be necessary to adjust the maintenance activity schedule depending on the actual operating conditions encountered by the system.

The maintenance frequency may be adjusted as additional monitoring information becomes available during the inspection program. Areas that develop known problems should be inspected more frequently than areas that demonstrate no problems, particularly after large storms.

Ultimately, inspection and maintenance activities should be scheduled based on the historic records and characteristics of an individual StormFilter system. It is recommended that the maintenance agency develop a database to properly manage StormFilter maintenance programs.

Maintenance Activity Frequency

The primary factor controlling timing of maintenance for the StormFilter is sedimentation.

Prior to the development of the maintenance database, the following maintenance frequencies should be followed:

Inspection/minor maintenance

- One time per year
- After Major Storms

Major maintenance

- One time per year
- In the event of a chemical spill

Frequencies should be updated as required.

A properly functioning system will remove solids from water by trapping particulates in the porous structure of the filter media. The flow through the system will naturally decrease as more and more solids are trapped. Eventually the flow through the system will be low enough to require replacement of the cartridges. It may be possible to extend the usable span of the cartridges by removing sediment from upstream trapping devices on an as-needed basis in order to prevent material from being re-suspended and discharged to the system.

Site conditions greatly influence maintenance requirements. StormFilter units located in areas with erosion or active construction should be inspected and maintained more often than those in fully stabilized areas.

The maintenance frequency may be adjusted as additional monitoring information becomes available during the inspection program. Areas that develop known problems should be inspected more frequently than areas that demonstrate no problems, particularly after large storms.

Ultimately, inspection and maintenance activities should be scheduled based on the historic records and characteristics of an individual StormFilter system. It is recommended that the maintenance agency develop a database to properly manage StormFilter maintenance programs.

Prior to the development of the maintenance database, the following maintenance frequencies should be followed:

Inspection/minor maintenance

- One time per year
- After Major Storms

Major maintenance

- One time per year
- In the event of a chemical spill

Frequencies should be updated as required.

The recommended initial frequency for inspection/minor maintenance is two times per year for precast units. StormFilter units should be inspected after all major storms. Sediment removal and cartridge replacement on an annual basis is recommended until further knowledge is gained about a particular system.

Once an understanding of site characteristics has been established, maintenance may not be needed for one to two years, but inspection is warranted.

Maintenance Methods

Inspection/Minor Maintenance

The primary goal of a maintenance inspection is to assess the condition of the cartridges relative to the level of sediment loading. It may be desirable to conduct this inspection during a storm to observe the relative flow through the filter cartridges. If the submerged cartridges are severely plugged, large amounts of sediments will be present and very little flow will be discharged from the drainage pipes. If this is the case, it is likely that the cartridges need to be replaced.

Warning: In the case of a spill, the worker should abort maintenance activities until the proper guidance is obtained. Notify the local hazard control agency and Stormwater360, immediately.

To conduct an inspection and/or minor maintenance:

1. Open the doors to the vault and allow the system to air out for 5-10 minutes.
2. Without entering the vault, inspect the inside of the unit, including components.
3. Take notes about the external and internal condition of the vault.
4. Be sure to record the level of sediment build-up on the floor of the vault, in the forebay, and on top of the cartridges. If flow is occurring, note the level of water and estimate the flow rate per drainage pipe. Record all observations.
5. Remove large loose debris and trash using a pole with a grapple or net on the end.
6. Close and fasten the door.
7. Remove safety equipment.
8. Make notes about the local drainage area relative to ongoing construction, erosion problems, or high loading of other materials to the system.
9. Make notes about the local drainage area relative to ongoing construction, erosion problems, or high loading of other materials to the system.
10. Finally, review the condition reports from the previous minor and major maintenance visits, and schedule cartridge replacement if needed.

Major Maintenance

Depending on the configuration of the particular system, a worker may be required to enter the vault to perform some tasks.

Important: If vault entry is required, OSHA rules for confined space entry must be followed.

Filter cartridge replacement should occur during dry weather. It may be necessary to plug the filter inlet pipe if base flows exist. Standing water present in the vault should be regarded as polluted and should be contained during this operation by temporarily capping the manifold connectors.

3. Open the doors to the vault and allow the system to air out for 5-10 minutes.
4. Without entering the vault, inspect the inside of the unit, including components.
5. Take notes about the external and internal condition of the vault.
6. Be sure to record the level of sediment build-up on the floor of the vault, in the forebay, and on top of the cartridges. If flow is occurring, note the level of water and estimate the flow rate per drainage pipe. Record all observations.
7. Remove large loose debris and trash using a pole with a grapple or net on the end.
8. Close and fasten the door.
9. Remove safety equipment.
10. Finally, review the condition reports from the previous minor and major maintenance visits, and schedule cartridge replacement if needed.

Replacement cartridges will be delivered to the site. Information concerning how to obtain the replacement cartridges is available from Stormwater360.

Warning: In the case of a spill, the worker should abort maintenance activities until the proper guidance is obtained. Notify the local hazard control agency and Stormwater360, immediately.

To conduct cartridge replacement and sediment removal maintenance:

1. If applicable, set up safety equipment to protect pedestrians from fall hazards due to open vault doors or when work is being done near walkways or roadways.
2. Visually inspect the external condition of the unit and take notes concerning defects/problems.
3. Open the doors to the vault and allow the system to air out for 5-10 minutes.
4. Without entering the vault, give particular attention to recording the level of sediment build-up on the floor of the vault, in the forebay, and on top of the internal components.
5. Make notes about the external and internal condition of the vault.
6. Remove large loose debris and trash using a pole with a grapple or net on the end.
7. Using a boom, crane, or other device (body and ramp), unload the replacement cartridges (up to 150 lbs. each) and set aside.
8. Remove used cartridges from the vault using one of the following methods:

Method 1:

- a. Using an appropriate sling, attach the cable from the boom, crane, or tripod to the cartridge being removed. Contact SMI for specifications on appropriate attachment devices.
- b. This activity will require that workers enter the vault to remove the cartridges from the drainage system and place them under the vault opening for lifting.
- c. Important: Note that cartridges containing media other than the leaf media require unscratching from their threaded connectors. Take care not to damage the manifold connectors. This connector should remain installed in the manifold and capped if necessary.
- d. Remove the used cartridges (250 lbs. each) from the vault.
- e. Important: Care must be used to avoid damaging the cartridges during removal and installation. The cost of repairing components damaged during maintenance will be the responsibility of the owner unless Stormwater360 performs the maintenance activities and damage is not related to discharge to the system.
- f. Set the used cartridge aside or load onto the hauling truck.
- g. Continue steps a through e until all cartridges have been removed.
- h. Remove deposited sediment from the floor of the vault and, if large amounts are present, from the forebay. This can usually be accomplished by shoveling during removal and installation. The cost of repairing components damaged during maintenance will be the responsibility of the owner unless Stormwater360 performs the maintenance activities and damage is not related to discharge to the system.
- i. Open the doors to the vault and allow the system to air out for 5-10 minutes.
- j. Without entering the vault, give particular attention to recording the level of sediment build-up on the floor of the vault, in the forebay, and on top of the internal components.
- k. Make notes about the external and internal condition of the vault.
- l. Remove large loose debris and trash using a pole with a grapple or net on the end.
- m. Using a boom, crane, or other device (body and ramp), unload the replacement cartridges (up to 150 lbs. each) and set aside.
- n. Remove used cartridges from the vault using one of the following methods:

Method 2:

- a. Unscrew the cartridge cap.
- b. Remove the cartridge hood.
- c. Tip the cartridge on its side.
- d. Empty the cartridge onto the vault floor.
- e. Set the empty, used cartridge aside or load onto the hauling truck.
- f. Continue steps a through e until all cartridges have been removed.
- g. Remove deposited sediment from the floor of the vault and, if large amounts are present, from the forebay. This can usually be accomplished by shoveling during removal and installation. The cost of repairing components damaged during maintenance will be the responsibility of the owner unless Stormwater360 performs the maintenance activities and damage is not related to discharge to the system.
- h. Open the doors to the vault and allow the system to air out for 5-10 minutes.
- i. Without entering the vault, give particular attention to recording the level of sediment build-up on the floor of the vault, in the forebay, and on top of the internal components.
- j. Make notes about the external and internal condition of the vault.
- k. Remove large loose debris and trash using a pole with a grapple or net on the end.
- l. Using a boom, crane, or other device (body and ramp), unload the replacement cartridges (up to 150 lbs. each) and set aside.
- m. Remove used cartridges from the vault using one of the following methods:

Method 3:

- a. Unscrew the cartridge cap.
- b. Remove the cartridge hood.
- c. Tip the cartridge on its side.
- d. Empty the cartridge onto the vault floor.
- e. Set the empty, used cartridge aside or load onto the hauling truck.
- f. Continue steps a through e until all cartridges have been removed.
- g. Remove deposited sediment from the floor of the vault and, if large amounts are present, from the forebay. This can usually be accomplished by shoveling during removal and installation. The cost of repairing components damaged during maintenance will be the responsibility of the owner unless Stormwater360 performs the maintenance activities and damage is not related to discharge to the system.
- h. Open the doors to the vault and allow the system to air out for 5-10 minutes.
- i. Without entering the vault, give particular attention to recording the level of sediment build-up on the floor of the vault, in the forebay, and on top of the internal components.
- j. Make notes about the external and internal condition of the vault.
- k. Remove large loose debris and trash using a pole with a grapple or net on the end.
- l. Using a boom, crane, or other device (body and ramp), unload the replacement cartridges (up to 150 lbs. each) and set aside.
- m. Remove used cartridges from the vault using one of the following methods:

Method 4:

- a. Unscrew the cartridge cap.
- b. Remove the cartridge hood.
- c. Tip the cartridge on its side.
- d. Empty the cartridge onto the vault floor.
- e. Set the empty, used cartridge aside or load onto the hauling truck.
- f. Continue steps a through e until all cartridges have been removed.
- g. Remove deposited sediment from the floor of the vault and, if large amounts are present, from the forebay. This can usually be accomplished by shoveling during removal and installation. The cost of repairing components damaged during maintenance will be the responsibility of the owner unless Stormwater360 performs the maintenance activities and damage is not related to discharge to the system.
- h. Open the doors to the vault and allow the system to air out for 5-10 minutes.
- i. Without entering the vault, give particular attention to recording the level of sediment build-up on the floor of the vault, in the forebay, and on top of the internal components.
- j. Make notes about the external and internal condition of the vault.
- k. Remove large loose debris and trash using a pole with a grapple or net on the end.
- l. Using a boom, crane, or other device (body and ramp), unload the replacement cartridges (up to 150 lbs. each) and set aside.
- m. Remove used cartridges from the vault using one of the following methods:

Method 5:

- a. Unscrew the cartridge cap.
- b. Remove the cartridge hood.
- c. Tip the cartridge on its side.
- d. Empty the cartridge onto the vault floor.
- e. Set the empty, used cartridge aside or load onto the hauling truck.
- f. Continue steps a through e until all cartridges have been removed.
- g. Remove deposited sediment from the floor of the vault and, if large amounts are present, from the forebay. This can usually be accomplished by shoveling during removal and installation. The cost of repairing components damaged during maintenance will be the responsibility of the owner unless Stormwater360 performs the maintenance activities and damage is not related to discharge to the system.
- h. Open the doors to the vault and allow the system to air out for 5-10 minutes.
- i. Without entering the vault, give particular attention to recording the level of sediment build-up on the floor of the vault, in the forebay, and on top of the internal components.
- j. Make notes about the external and internal condition of the vault.
- k. Remove large loose debris and trash using a pole with a grapple or net on the end.
- l. Using a boom, crane, or other device (body and ramp), unload the replacement cartridges (up to 150 lbs. each) and set aside.
- m. Remove used cartridges from the vault using one of the following methods:

Method 6:

- a. Unscrew the cartridge cap.
- b. Remove the cartridge hood.
- c. Tip the cartridge on its side.
- d. Empty the cartridge onto the vault floor.
- e. Set the empty, used cartridge aside or load onto the hauling truck.
- f. Continue steps a through e until all cartridges have been removed.
- g. Remove deposited sediment from the floor of the vault and, if large amounts are present, from the forebay. This can usually be accomplished by shoveling during removal and installation. The cost of repairing components damaged during maintenance will be the responsibility of the owner unless Stormwater360 performs the maintenance activities and damage is not related to discharge to the system.
- h. Open the doors to the vault and allow the system to air out for 5-10 minutes.
- i. Without entering the vault, give particular attention to recording the level of sediment build-up on the floor of the vault, in the forebay, and on top of the internal components.
- j. Make notes about the external and internal condition of the vault.
- k. Remove large loose debris and trash using a pole with a grapple or net on the end.
- l. Using a boom, crane, or other device (body and ramp), unload the replacement cartridges (up to 150 lbs. each) and set aside.
- m. Remove used cartridges from the vault using one of the following methods:

Method 7:

- a. Unscrew the cartridge cap.
- b. Remove the cartridge hood.
- c. Tip the cartridge on its side.
- d. Empty the cartridge onto the vault floor.
- e. Set the empty, used cartridge aside or load onto the hauling truck.
- f. Continue steps a through e until all cartridges have been removed.
- g. Remove deposited sediment from the floor of the vault and, if large amounts are present, from the forebay. This can usually be accomplished by shoveling during removal and installation. The cost of repairing components damaged during maintenance will be the responsibility of the owner unless Stormwater360 performs the maintenance activities and damage is not related to discharge to the system.
- h. Open the doors to the vault and allow the system to air out for 5-10 minutes.
- i. Without entering the vault, give particular attention to recording the level of sediment build-up on the floor of the vault, in the forebay, and on top of the internal components.
- j. Make notes about the external and internal condition of the vault.
- k. Remove large loose debris and trash using a pole with a grapple or net on the end.
- l. Using a boom, crane, or other device (body and ramp), unload the replacement cartridges (up to 150 lbs. each) and set aside.
- m. Remove used cartridges from the vault using one of the following methods:

Method 8:

- a. Unscrew the cartridge cap.
- b. Remove the cartridge hood.
- c. Tip the cartridge on its side.
- d. Empty the cartridge onto the vault floor.
- e. Set the empty, used cartridge aside or load onto the hauling truck.
- f. Continue steps a through e until all cartridges have been removed.
- g. Remove deposited sediment from the floor of the vault and, if large amounts are present, from the forebay. This can usually be accomplished by shoveling during removal and installation. The cost of repairing components damaged during maintenance will be the responsibility of the owner unless Stormwater360 performs the maintenance activities and damage is not related to discharge to the system.
- h. Open the doors to the vault and allow the system to air out for 5-10 minutes.
- i. Without entering the vault, give particular attention to recording the level of sediment build-up on the floor of the vault, in the forebay, and on top of the internal components.
- j. Make notes about the external and internal condition of the vault.
- k. Remove large loose debris and trash using a pole with a grapple or net on the end.
- l. Using a boom, crane, or other device (body and ramp), unload the replacement cartridges (up to 150 lbs. each) and set aside.
- m. Remove used cartridges from the vault using one of the following methods:

Method 9:

- a. Unscrew the cartridge cap.
- b. Remove the cartridge hood.
- c. Tip the cartridge on its side.
- d. Empty the cartridge onto the vault floor.
- e. Set the empty, used cartridge aside or load onto the hauling truck.
- f. Continue steps a through e until all cartridges have been removed.
- g. Remove deposited sediment from the floor of the vault and, if large amounts are present, from the forebay. This can usually be accomplished by shoveling during removal and installation. The cost of repairing components damaged during maintenance will be the responsibility of the owner unless Stormwater360 performs the maintenance activities and damage is not related to discharge to the system.
- h. Open the doors to the vault and allow the system to air out for 5-10 minutes.
- i. Without entering the vault, give particular attention to recording the level of sediment build-up on the floor of the vault, in the forebay, and on top of the internal components.
- j. Make notes about the external and internal condition of the vault.
- k. Remove large loose debris and trash using a pole with a grapple or net on the end.
- l. Using a boom, crane, or other device (body and ramp), unload the replacement cartridges (up to 150 lbs. each) and set aside.
- m. Remove used cartridges from the vault using one of the following methods:

Replacement cartridges will be delivered to the site. Information concerning how to obtain the replacement cartridges is available from Stormwater360.

Warning: In the case of a spill, the worker should abort maintenance activities until the proper guidance is obtained. Notify the local hazard control agency and Stormwater360, immediately.

To conduct cartridge replacement and sediment removal maintenance:

1. If applicable, set up safety equipment to protect pedestrians from fall hazards due to open vault doors or when work is being done near walkways or roadways.
2. Visually inspect the external condition of the unit and take notes concerning defects/problems.
3. Open the doors to the vault and allow the system to air out for 5-10 minutes.
4. Without entering the vault, give particular attention to recording the level of sediment build-up on the floor of the vault, in the forebay, and on top of the internal components.
5. Make notes about the external and internal condition of the vault.
6. Remove large loose debris and trash using a pole with a grapple or net on the end.
7. Using a boom, crane, or other device (body and ramp), unload the replacement cartridges (up to 150 lbs. each) and set aside.
8. Remove used cartridges from the vault using one of the following methods:

Method 1:

- a. Using an appropriate sling, attach the cable from the boom, crane, or tripod to the cartridge being removed. Contact SMI for specifications on appropriate attachment devices.
- b. This activity will require that workers enter the vault to remove the cartridges from the drainage system and place them under the vault opening for lifting.
- c. Important: Note that cartridges containing media other than the leaf media require unscratching from their threaded connectors. Take care not to damage the manifold connectors. This connector should remain installed in the manifold and capped if necessary.
- d. Remove the used cartridges (250 lbs. each) from the vault.
- e. Important: Care must be used to avoid damaging the cartridges during removal and installation. The cost of repairing components damaged during maintenance will be the responsibility of the owner unless Stormwater360 performs the maintenance activities and damage is not related to discharge to the system.
- f. Set the used cartridge aside or load onto the hauling truck.
- g. Continue steps a through e until all cartridges have been removed.
- h. Remove deposited sediment from the floor of the vault and, if large amounts are present, from the forebay. This can usually be accomplished by shoveling during removal and installation. The cost of repairing components damaged during maintenance will be the responsibility of the owner unless Stormwater360 performs the maintenance activities and damage is not related to discharge to the system.
- i. Open the doors to the vault and allow the system to air out for 5-10 minutes.
- j. Without entering the vault, give particular attention to recording the level of sediment build-up on the floor of the vault, in the forebay, and on top of the internal components.
- k. Make notes about the external and internal condition of the vault.
- l. Remove large loose debris and trash using a pole with a grapple or net on the end.
- m. Using a boom, crane, or other device (body and ramp), unload the replacement cartridges (up to 150 lbs. each) and set aside.
- n. Remove used cartridges from the vault using one of the following methods:

Method 2:

- a. Unscrew the cartridge cap.
- b. Remove the cartridge hood.
- c. Tip the cartridge on its side.
- d. Empty the cartridge onto the vault floor.
- e. Set the empty, used cartridge aside or load onto the hauling truck.
- f. Continue steps a through e until all cartridges have been removed.
- g. Remove deposited sediment from the floor of the vault and, if large amounts are present, from the forebay. This can usually be accomplished by shoveling during removal and installation. The cost of repairing components damaged during maintenance will be the responsibility of the owner unless Stormwater360 performs the maintenance activities and damage is not related to discharge to the system.
- h. Open the doors to the vault and allow the system to air out for 5-10 minutes.
- i. Without entering the vault, give particular attention to recording the level of sediment build-up on the floor of the vault, in the forebay, and on top of the internal components.
- j. Make notes about the external and internal condition of the vault.
- k. Remove large loose debris and trash using a pole with a grapple or net on the end.
- l. Using a boom, crane, or other device (body and ramp), unload the replacement cartridges (up to 150 lbs. each) and set aside.
- m. Remove used cartridges from the vault using one of the following methods:

Method 3:

- a. Unscrew the cartridge cap.
- b. Remove the cartridge hood.
- c. Tip the cartridge on its side.
- d. Empty the cartridge onto the vault floor.
- e. Set the empty, used cartridge aside or load onto the hauling truck.
- f. Continue steps a through e until all cartridges have been removed.
- g. Remove deposited sediment from the floor of the vault and, if large amounts are present, from the forebay. This can usually be accomplished by shoveling during removal and installation. The cost of repairing components damaged during maintenance will be the responsibility of the owner unless Stormwater360 performs the maintenance activities and damage is not related to discharge to the system.
- h. Open the doors to the vault and allow the system to air out for 5-10 minutes.
- i. Without entering the vault, give particular attention to recording the level of sediment build-up on the floor of the vault, in the forebay, and on top of the internal components.
- j. Make notes about the external and internal condition of the vault.
- k. Remove large loose debris and trash using a pole with a grapple or net on the end.
- l. Using a boom, crane, or other device (body and ramp), unload the replacement cartridges (up to 150 lbs. each) and set aside.
- m. Remove used cartridges from the vault using one of the following methods:

Method 4:

- a. Unscrew the cartridge cap.
- b. Remove the cartridge hood.
- c. Tip the cartridge on its side.
- d. Empty the cartridge onto the vault floor.
- e. Set the empty, used cartridge aside or load onto the hauling truck.
- f. Continue steps a through e until all cartridges have been removed.
- g. Remove deposited sediment from the floor of the vault and, if large amounts are present, from the forebay. This can usually be accomplished by shoveling during removal and installation. The cost of repairing components damaged during maintenance will be the responsibility of the owner unless Stormwater360 performs the maintenance activities and damage is not related to discharge to the system.
- h. Open the doors to the vault and allow the system to air out for 5-10 minutes.
- i. Without entering the vault, give particular attention to recording the level of sediment build-up on the floor of the vault, in the forebay, and on top of the internal components.
- j. Make notes about the external and internal condition of the vault.
- k. Remove large loose debris and trash using a pole with a grapple or net on the end.
- l. Using a boom, crane, or other device (body and ramp), unload the replacement cartridges (up to 150 lbs. each) and set aside.
- m. Remove used cartridges from the vault using one of the following methods:

Method 5:

- a. Unscrew the cartridge cap.
- b. Remove the cartridge hood.
- c. Tip the cartridge on its side.
- d. Empty the cartridge onto the vault floor.
- e. Set the empty, used cartridge aside or load onto the hauling truck.
- f. Continue steps a through e until all cartridges have been removed.
- g. Remove deposited sediment from the floor of the vault and, if large amounts are present, from the forebay. This can usually be accomplished by shoveling during removal and installation. The cost of repairing components damaged during maintenance will be the responsibility of the owner unless Stormwater360 performs the maintenance activities and damage is not related to discharge to the system.
- h. Open the doors to the vault and allow the system to air out for 5-10 minutes.
- i. Without entering the vault, give particular attention to recording the level of sediment build-up on the floor of the vault, in the forebay, and on top of the internal components.
- j. Make notes about the external and internal condition of the vault.
- k. Remove large loose debris and trash using a pole with a grapple or net on the end.
- l. Using a boom, crane, or other device (body and ramp), unload the replacement cartridges (up to 150 lbs. each) and set aside.
- m. Remove used cartridges from the vault using one of the following methods:

Method 6:

The Stormwater Management StormFilter® Specifications
PRECAST FILTER UNIT

PART 1 GENERAL

1.1 Description

The Contractor shall furnish and install the Stormwater Management StormFilter® stormwater treatment system, complete and operable as shown and as specified herein, in accordance with the requirements of the plans and contract documents.

StormFilter stormwater treatment system shall consist of an underground precast structure that houses passive siphon-actuated, radial-flow media-filled filter cartridges.

The siphon actuated radial flow filter cartridges shall be rechargeable and shall incorporate a self actuated surface cleaning mechanism to increase the life of the filter media and to reduce the accumulation of material on the cartridge surface.

Each radial flow filter cartridge shall operate at a predetermined flow rate through the use of an integrated flow control orifice located within each filter cartridge outlet manifold.

1.2 Manufacturer

The StormFilter stormwater treatment system shall be of a type that has been installed and in use successfully for a minimum of five (5) or more years. StormFilter stormwater treatment system shall be supplied by Stormwater360™, 12021-B NE Airport Way, Portland, OR 97220 (800/548-4667), without exception.

1.3 Related Sections

A. Section []:

1.4 Submittals

A. Submit shop drawings for StormFilter stormwater treatment system vault with filter cartridges and accessory equipment. Drawings shall include principal dimensions, filter placement, location of piping and unit foundation.

B. Submit StormFilter stormwater treatment system Operation and Maintenance Manual upon request.

PART 2 PRODUCTS

2.1 Internal Components

All internal components including ABS and PVC manifold piping, filter cartridge(s), filter media (as specified on the plans in the StormFilter data block or by the Engineer), flow spreaders, and energy dissipators shall be provided by Stormwater Management, Inc.

A. ABS manifold pipe and fittings shall meet ASTM F628. PVC manifold pipe and fittings shall meet ASTM D1785.

B. Filter cartridge bottom pan, inner ring, and hood shall be constructed from linear low-density polyethylene (LLDPE). Filter cartridge screen shall consist of galvanized 1" x 1/2" welded wire fabric (16 gauge minimum) with a bonded PVC coating. Internal parts shall consist of ABS or PVC material. Siphon-priming float shall be constructed from linear high-density polyethylene. All miscellaneous nuts, bolts, screws, and other fasteners shall be stainless steel or aluminum.

An orifice plate shall be supplied with each cartridge to restrict flow rate to a maximum of 15 gpm at system design head.

C. Filter media shall be provided by STORMWATER360 or approved alternate source. Filter media shall consist of one or more of the following, as specified in the StormFilter data block, or by the Engineer:

1. Perlite Media: Perlite media shall be made of natural siliceous volcanic rock free of any debris or foreign matter. The perlite media shall have a bulk density ranging from 0.5 to 0.8 lb/ft³ and particle sizes ranging from that passing through a 0.50 inch screen and retained on a U.S. Standard #8 sieve.
2. CSF Media: CSF media shall be made exclusively of composted fallen deciduous leaves. Filter media shall be granular. Media shall be dry at the time of installation. The CSF leaf media shall have a bulk density ranging from 40 to 50 lb/ft³ and particle sizes ranging from that passing through a 0.50 inch screen to that retained on a U.S. Standard #8 sieve.
3. Metal Rx Media: Metal Rx media shall be made exclusively of composted fallen deciduous leaves. Filter media shall be granular. Media shall be dry at the time of installation. The Metal Rx media shall have a bulk density ranging from 40 to 50 lb/ft³ and particle sizes ranging from that passing through a U.S. Standard #8 sieve to that retained on a U.S. Standard #14 sieve.

PART 3 EXECUTION

3.1 Precast Concrete Vault

4. Zeolite Media: Zeolite media shall be made of naturally occurring clinoptilolite, which has a geological structure of potassium-calcium-sodium aluminosilicate. The zeolite media shall have a bulk density ranging from 44 to 48 lb/ft³, particle sizes ranging from that passing through a U.S. Standard #4 sieve to that retained on a U.S. Standard #6 sieve, and a cation exchange capacity ranging from 1.0 to 2.2 meq/g.
5. Granular Activated Carbon: Granular activated carbon (GAC) shall be made of lignite coal that has been steam activated. The GAC media shall have a bulk density ranging from 28 to 31 lb/ft³ and particle sizes ranging from that passing through a U.S. Standard #4 sieve to that retained on a U.S. Standard #8 sieve.
6. Zeolite-Perlite-Granular Activated Carbon (ZPG): ZPG is a mixed media that shall be composed of a 1.3 ft³ outer layer of 100% Perlite (see above) and a 1.3 ft³ inner layer consisting of a mixture of 90% Zeolite (see above) and 10% Granular Activated Carbon (see above).
7. Zeolite-Perlite (Zeo/Perl): Zeo/Perl is a mixed media that shall be composed of a 1.3 ft³ outer layer of 100% Perlite (see above) and a 1.3 ft³ inner layer consisting of 100% Zeolite.
8. CSF - Granular Activated Carbon (CSF/GAC): CSF/GAC is a mixed media that shall be composed of a 1.3 ft³ outer layer of 100% CSF media (see above) and a 1.3 ft³ inner layer consisting of 100% Granular Activated Carbon (see above).
9. Perlite - Metal Rx: Perlite/Metal Rx is a mixed media that shall be composed of a 1.3 ft³ outer layer of 100% Perlite (see above) and a 1.3 ft³ inner layer consisting of 100% Metal Rx (see above).

D. Flow spreader shall be constructed of LLDPE.

E. Energy dissipator shall be constructed of polyolefins.

2.2 Precast Concrete Vault Components

A. Precast concrete vault shall be provided according to ASTM C857 and C858.

B. Vault joint sealant shall be Con Seal CS-101 or approved equal.

C. If interior concrete baffle walls are provided, baffle walls shall be sealed to the interior vault walls and floor with a polyurethane construction sealant rated for use below the waterline, Sikaflex 1a or equal. Contractor to provide sealant material and installation unless completed prior to shipment.

D. Frames and covers shall be gray cast iron and shall meet AASHTO H-20 loading requirements, and shall be provided according to ASTM A48.

E. Doors shall have hot-dipped galvanized frame and covers. Covers shall have diamond plate finish. Each door to be equipped with a recessed lift handle. Doors shall meet H-20 loading requirements for incidental traffic at a minimum.

F. Steps shall be constructed of copolymer polypropylene conforming to ASTM D-4101. Steps shall be driven into preformed or drilled holes once concrete is cured. Steps shall meet the requirements of ASTM C-478 and AASHTO M-199. The 1/2" Grade 60 deformed reinforcing bar shall meet ASTM A-615.

G. Ladders shall be constructed of aluminum and steel reinforced copolymer polypropylene conforming to ASTM D-4101. Ladder shall bolt in place. Ladder shall meet all ASTM C-497 load requirements. Ladders provided upon request or where required.

2.3 Contractor Provided Components

All contractor-provided components shall meet the requirements of this section, the plans specifications and contract documents. In the case of conflict, the more stringent specification shall apply.

A. Crushed rock base material shall be six-inch minimum layer of 3/4-inch minus rock. Compact undisturbed sub-grade materials to 95% of maximum density at 4-1/2% of optimum moisture content. Unsuitable material below sub-grade shall be replaced to engineer's approval.

B. Concrete shall have an unconfined compressive strength at 28 days of at least 3000 psi, with 3/4-inch round rock, a 4-inch slump maximum, and shall be placed within 90 minutes of initial mixing.

C. Silicone Sealant shall be pure RTV silicone conforming to Federal Specification Number TT S001543A or TT S00230C or Engineer approved.

D. Grout shall be non-shrink grout meeting the requirements of Corps of Engineers CRD-C888. Specimens molded, cured and tested in accordance with ASTM C-109 shall have minimum compressive strength of 6,200 psi. Grout shall not exhibit visible bleeding.

E. Backfill material shall be 3/4-inch minus crushed rock, or approved equal.

- A. Set precast vault on crushed rock base material that has been placed in maximum 12-inch lifts, loose thickness, and compacted to at least 95-percent of the maximum dry density as determined by the standard Proctor compaction test, ASTM D698, at moisture content of +/-2% of optimum water content.
- B. Vault floor shall slope 1/4 inch maximum across the width and slope downstream 1 inch per 12 foot of length. Vault top finish grade shall be even with surrounding finish grade surface unless otherwise noted on plans.
- C. Inlet and outlet pipes shall be stubbed in and connected to precast concrete vault according to Engineer's requirements and specifications.
- D. If grout is used, Contractor to grout all inlet and outlet pipes flush with or protruding up to 2 inches into interior of vault.

3.2 Ballast

A. When required, ballast shall be placed to the dimensions specified by the engineer and noted on the data block. Ballast shall not encase the inlet and/or outlet piping. Provide 12" clearance from outside diameter of pipes.

3.3 Clean Up

A. Remove all excess materials, rocks, roots, or foreign material, leaving the site in a clean, complete condition approved by the engineer. All filter components shall be free of any foreign materials including concrete and excess sealant.

3.4 Filter Cartridges

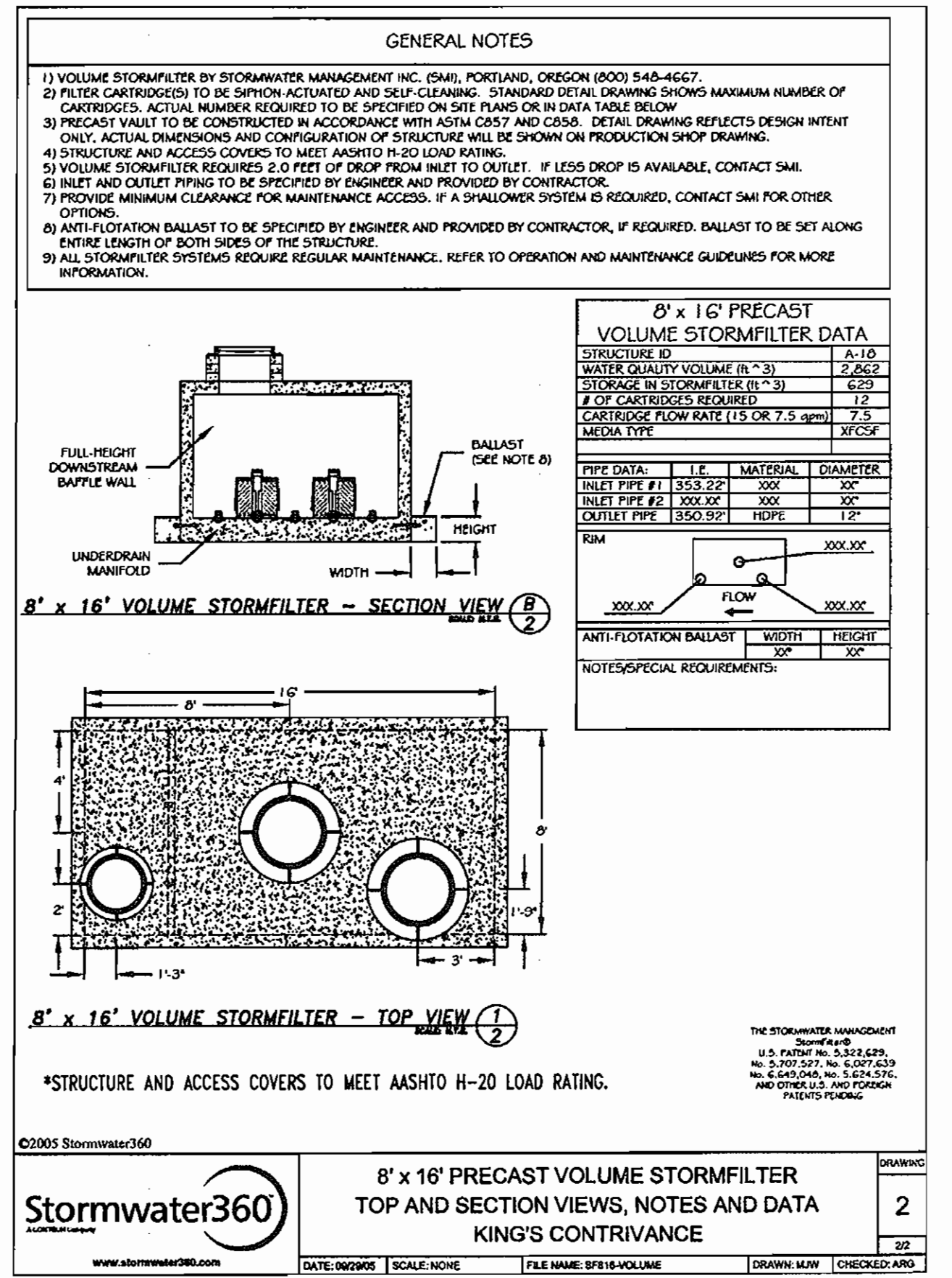
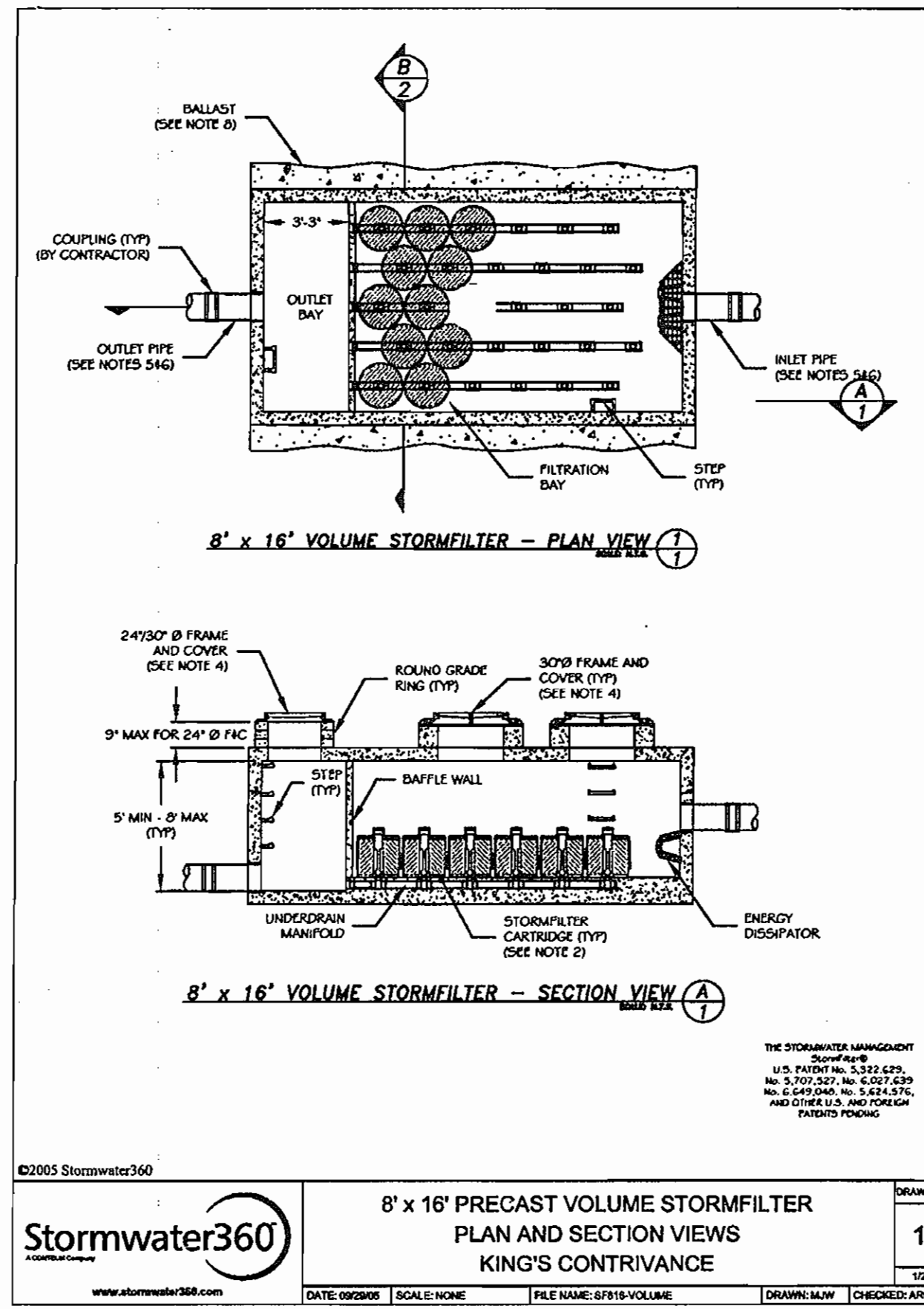
A. Filter cartridges shall be delivered with the vault. Contractor shall take appropriate action to protect the cartridges from sediment and other debris during construction. Methods for protecting the cartridges include but are not limited to:

1. Remove cartridges from the vault and store appropriately. Cartridges shall be reinstalled to operate according to 3.4 B (see below).
2. If vault is equipped with underdrain bypass piping, Contractor may leave cartridges in the vault and allow stormwater entering collection system to bypass filter bay through underdrain bypass piping.
3. Leave cartridges in the vault and plug inlet and outlet pipe to prevent stormwater from entering the vault.

The method ultimately selected shall be at Contractor's discretion and Contractor's risk.

B. Filter cartridges shall not be placed in operation until the vault is clean and the project site is clean and stabilized. The project site includes any surface that contributes storm drainage to the StormFilter. All impermeable surfaces shall be clean and free of dirt and debris. All catch basins, manholes and pipes shall be free of dirt and sediments. Contact Stormwater360 to assist with system activation and/or inspect the system for proper installation once site is clean and stabilized.

END OF SECTION



StormFilter Sizing Based on the MDE Design Methodology

Project Name: Harris Teeter - Columbia, MD
Date: 06/27/2006

SITE CHARACTERISTIC INPUT	
Design Storm, P (inches) *	1.00
Total Area, A _T (acres)	0.78
Impervious Area, A _I (acres)	0.78
Percent of WQv to be temporarily stored in system	75%

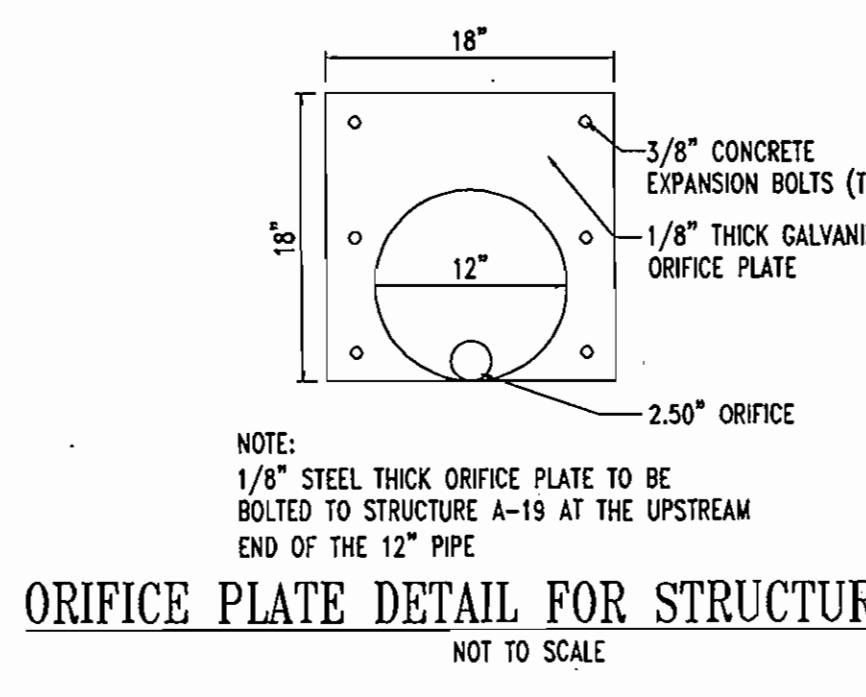
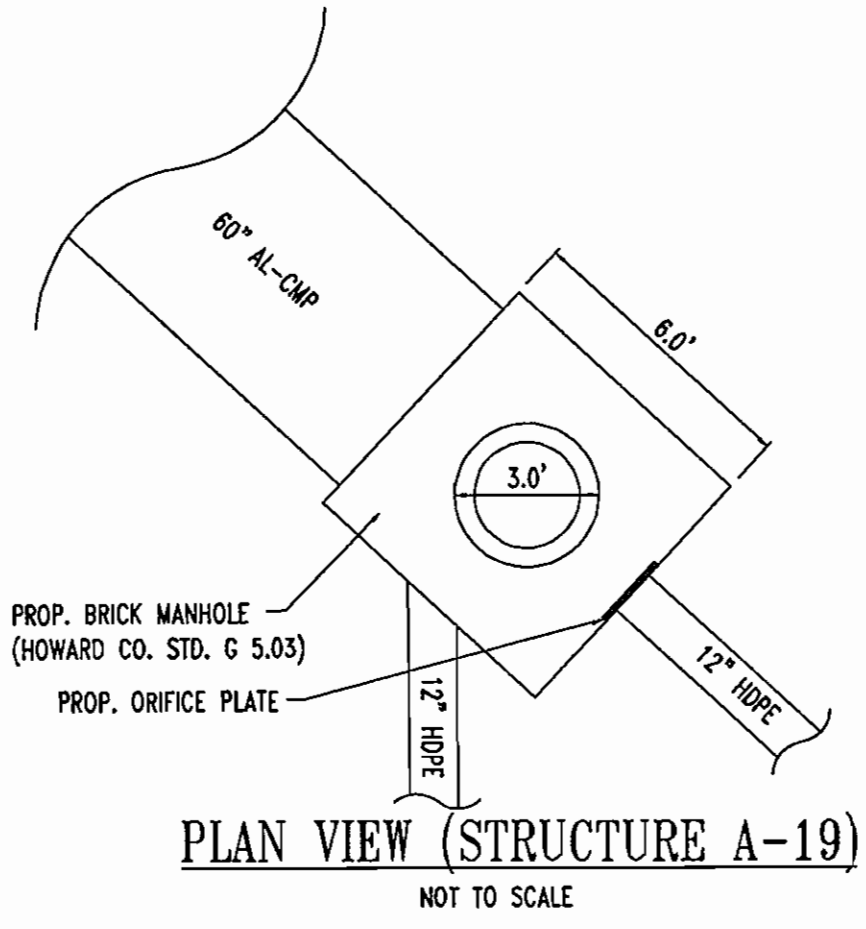
WQv CALCULATIONS	
Percent Impervious Cover, I	100%
Volumetric Runoff Coefficient, R _v	0.96
Water Quality Volume, WQv (ac-ft)	0.082
Water Quality Volume, WQv (cu ft)	2,690
Required Storage Volume (% of WQv) (cu ft) *	2,017

STORMFILTER DESIGN CONSTANTS (PER MDE MANUAL)	
Filter Bed Depth, D _f (ft) *	0.58
Coeff. of Perm. of Filter Media, k (ft/day) *	8.7
Avg. Height of Water above Filter Bed, H _f (ft) *	0.75
Design Filter Bed Drain Time, T _d (days) *	1.67
Surface Area of StormFilter Cartridge (sq ft) *	7.1

SIZING CALCULATIONS	
Surface Area of Equivalent Filter Bed (sq ft)	80.7
Number of Cartridges Required	11
Size of StormFilter Required	8'x18' Precast Stormfilter

STORAGE CALCULATIONS	
Storage Volume within StormFilter Vault (cu ft) *	240
Pretreatment Storage Required (cu ft) *	1,777
Diameter of Storage Pipe (in)	60
Length of Storage Pipe Required (ft)	91

STORMFILTER SYSTEM SIZING: 91 linear feet of 60" diameter pipe followed by a 8' x 18' precast StormFilter with 11 cartridges



PLANNING BOARD APPROVAL STAMP

APPROVED: DEPARTMENT OF PLANNING AND ZONING
CHIEF-DEVELOPMENT ENGINEERING DIVISION
DATE: 12/18/06
APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS.
DATE: 12/18/06

APPROVED
PLANNING BOARD
OF HOWARD COUNTY
DATE: 8.31.06

BENCHMARK
GEODETIC SURVEY CONTROL - #42R1
S 547,820.238
E 135,117.859
ELEV. 375.85'
LOCATED AT THE CORNER OF GUILFORD ROAD AND SASSAFRAS COURT.
GEODETIC SURVEY CONTROL - #42R2
N 546,946.800
E 1,352,118.566
ELEV. 331.52'
LOCATED AT HAMMOND HIGH SCHOOL AND GUILFORD ROAD (BLUE SEA ROAD)

REV.	DATE	DESCRIPTION	BY

OWNER/DEVELOPER:
KVC LIMITED PARTNERSHIP
C/O KIMCO REALTY CORP.
3333 NEW HYDE PARK ROAD
SUITE 100
NEW HYDE PARK, NY 11042-1205

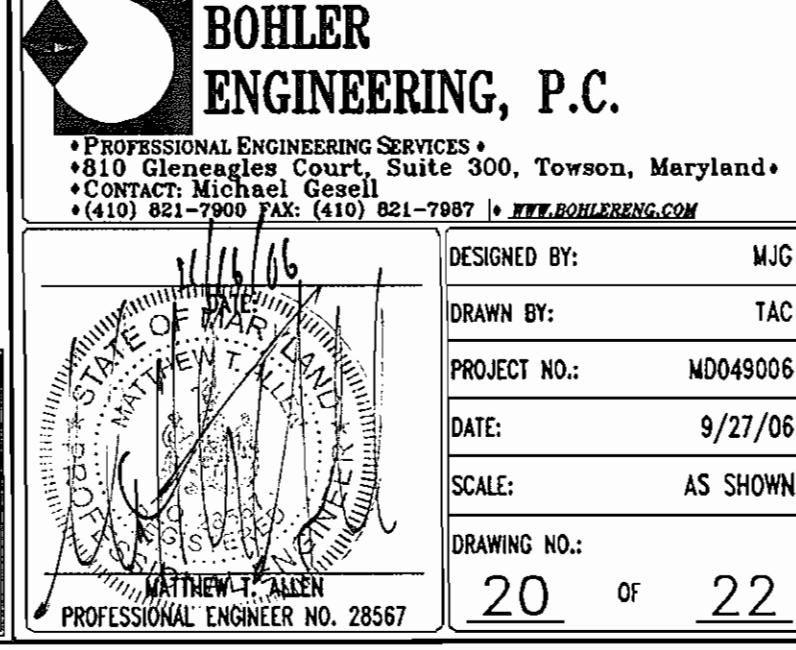
PROJECT: HARRIS TEETER - ONE STORY GROCERY STORE
KING'S CONTRIVANCE VILLAGE CENTER
8620 GUILFORD ROAD
COLUMBIA, MARYLAND 21046

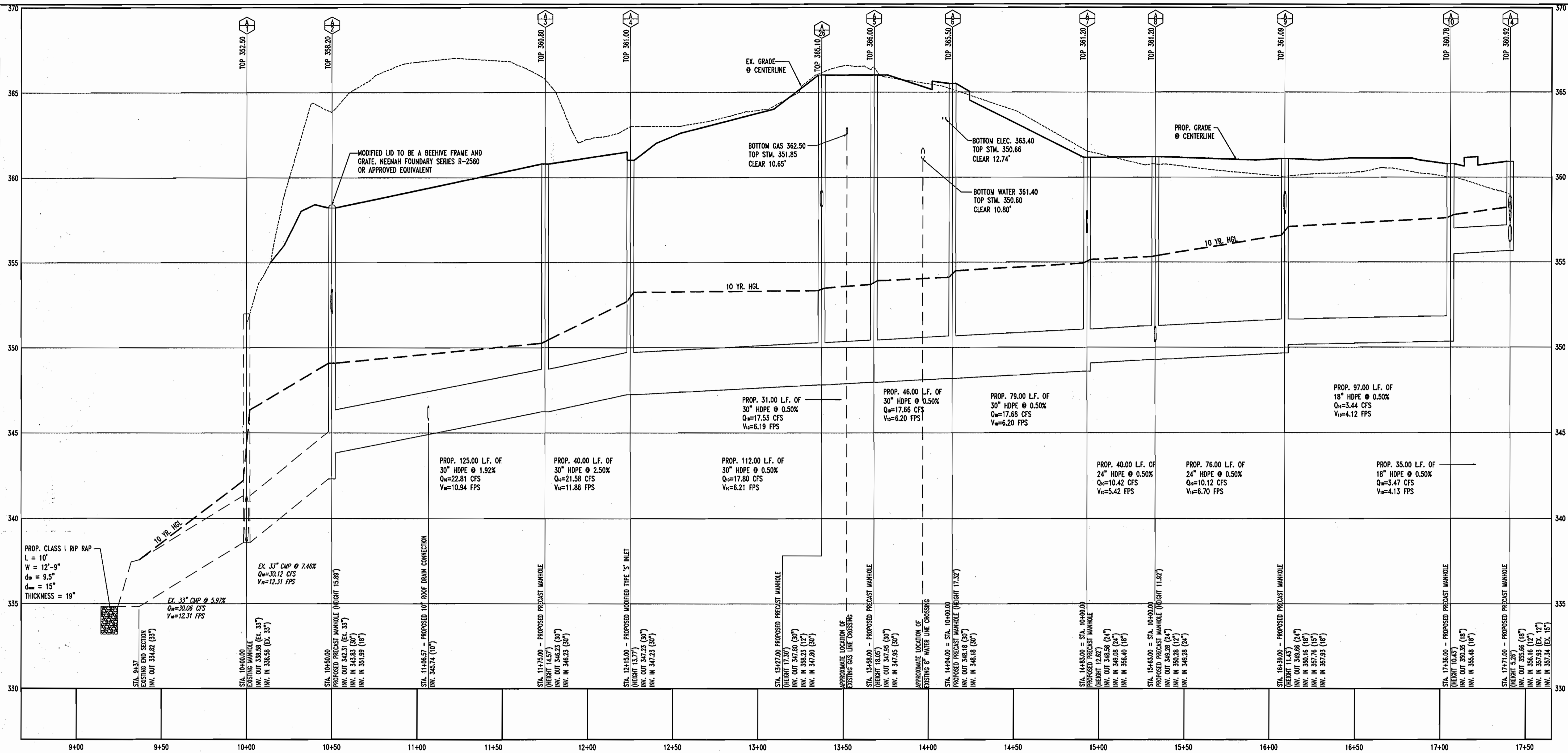
AREA: TAX MAP 42 GRID 7 PARCEL 6 ZONED NT-COMM
VILLAGE OF KING'S CONTRIVANCE
8TH ELECTION DISTRICT
COLUMBIA, HOWARD COUNTY, MARYLAND

TITLE: STORMWATER MANAGEMENT NOTES AND DETAILS

BOHLER ENGINEERING, P.C.
PROFESSIONAL ENGINEERING SERVICES
810 Glensages Court, Suite 300, Towson, Maryland
CONTACT: Michael G. Bohlert
(410) 821-7900 FAX: (410) 821-7987 | WWW.BOHLERENG.COM

DESIGNED BY: MJO
DRAWN BY: TAC
PROJECT NO.: W0049006
DATE: 9/27/06
SCALE: AS SHOWN
DRAWING NO.: 20 OF 22





STORMDRAIN PROFILE A-1 TO A-14

SCALE: HORIZ. 1"=30'
VERT. 1"=5'

STORMDRAIN STRUCTURE SCHEDULE

STRUCTURE NO.	DESCRIPTION	INV. IN	INV. OUT	TOP ELEV.
A-1	EXISTING MANHOLE	338.58 (35")	338.58 (33")	352.50
A-2	PROP. PRECAST MANHOLE WITH MODIFIED FRAME AND GRATE* (HOWARD CO. STD. G 5.13)	343.83 (30") 351.99 (18")	343.58 (33")	358.20
A-3	PROP. PRECAST MANHOLE (HOWARD CO. STD. G 5.13)	346.23 (30")	346.23 (30")	360.80
A-4	PROP. MODIFIED DOUBLE TYPE "S" INLET (HOWARD CO. STD. SD 4.23)	347.23 (30")	347.23 (30")	361.00
A-5	PROP. PRECAST MANHOLE (HOWARD CO. STD. G 5.13)	347.95 (30")	347.95 (30")	366.00
A-6	PROP. PRECAST MANHOLE (HOWARD CO. STD. G 5.13)	348.18 (30")	348.18 (30")	365.50
A-7	PROP. PRECAST MANHOLE (HOWARD CO. STD. G 5.13)	349.08 (24") 356.40 (18")	348.58 (24")	361.20
A-8	PROP. PRECAST MANHOLE (HOWARD CO. STD. G 5.12)	350.28 (12") 349.28 (24")	349.28 (24")	361.20
A-9	PROP. PRECAST MANHOLE (HOWARD CO. STD. G 5.12)	350.16 (18") 357.76 (15") 357.93 (18")	349.66 (24")	361.09
A-10	PROP. PRECAST MANHOLE (HOWARD CO. STD. G 5.12)	355.48 (18")	350.35 (18")	360.78
A-11	PROP. DOUBLE TYPE "S" INLET (HOWARD CO. STD. SD 4.23)	---	357.00 (18")	360.35
A-12	PROP. DOUBLE TYPE "S" INLET (HOWARD CO. STD. SD 4.23)	---	357.00 (18")	360.85
A-13	PROP. DOUBLE TYPE "S" INLET (HOWARD CO. STD. SD 4.23)	---	357.90 (15")	360.15
A-14	PROP. PRECAST MANHOLE (HOWARD CO. STD. G 5.12)	356.16 (12") 357.93 (12") 357.34 (15")	355.66 (18")	360.92
A-15	EX. INLET	---	356.07 (15")	361.60

STORMDRAIN STRUCTURE SCHEDULE

STRUCTURE NO.	DESCRIPTION	INV. IN	INV. OUT	TOP ELEV.
A-16	EX. INLET	---	359.35 (12")	361.44
A-17	EX. INLET	---	355.30 (15")	361.59
A-18	PRECAST 8'X16' STORMFILTER	353.22 (12")	350.92 (12")	VARIABLE
A-19	PROP. PRECAST MANHOLE** (HOWARD CO. STD. G 5.03)	353.22 (60")	353.22 (12") 358.12 (18")	360.95
A-20	PROP. PRECAST MANHOLE** (HOWARD CO. STD. G 5.12)	356.72 (18")	353.22 (60")	360.95
A-21	PROP. PRECAST MANHOLE (HOWARD CO. STD. G 5.12)	354.80 (12") 352.55 (15")	352.30 (18")	360.80
A-22	PROP. PRECAST MANHOLE (HOWARD CO. STD. G 5.12)	354.55 (15")	354.55 (15")	360.20
A-23	PROP. PRECAST MANHOLE (HOWARD CO. STD. G 5.12)	356.21 (12") 356.21 (12")	355.79 (15")	360.50
A-24	TRENCH DRAIN	---	355.32 (12")	357.50
A-25	EXISTING MANHOLE	356.95 (18") 356.70 (15")	356.45 (18")	361.16
A-26	PROP. PRECAST MANHOLE (HOWARD CO. STD. S.1.5)	347.80 (30") 358.23 (12")	347.80 (30")	365.10

** STRUCTURE AND ACCESS COVERS TO MEET AASHTO H-20 LOADING REQUIREMENTS
*MODIFIED LID TO BE A BEEHIVE FRAME AND GRATE, NEEHAH FOUNDARY SERIES R-2560 OR APPROVED EQUIVALENT.

STORMDRAIN PIPE SCHEDULE

SIZE	DESCRIPTION	LENGTH
8"	PVC	15'
12"	PVC	215'
12"	PERFORATED HDPE	22'
12"	HDPE	509'
15"	HDPE	169'
18"	HDPE	202'
24"	HDPE	116'
30"	HDPE	432'
60"	AL-CMP	91'

PLANNING BOARD APPROVAL STAMP

APPROVED: DEPARTMENT OF PLANNING AND ZONING

CHIEF-DEVELOPMENT ENGINEERING DIVISION

DATE: 12/14/06

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS.

DATE: 8-31-06

APPROVED: PLANNING BOARD of HOWARD COUNTY

APPROVED: DEPARTMENT OF PLANNING AND ZONING

CHIEF-DEVELOPMENT ENGINEERING DIVISION

DATE: 12/14/06

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS.

DATE: 12/15/06

HOWARD COUNTY HEALTH DEPARTMENT

MISS UTILITY



BEFORE YOU DO CALL 410-387-7777

PROTECT YOURSELF, ONE TWO MISSOURI

THIS DRAWING DOES NOT INCLUDE NECESSARY COMPENSATION FOR CONSTRUCTION SAFETY. ALL CONSTRUCTION MUST BE DONE IN COMPLIANCE WITH THE OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970 AND ALL RULES AND REGULATIONS THERETO APPROPRIATE.

THE CONTRACTOR TO CALL MISS UTILITY TO HAVE ALL EXISTING UTILITIES MARKED 48 HOURS PRIOR TO ANY CONSTRUCTION.

REV. DATE DESCRIPTION BY

OWNER/DEVELOPER: KVC LIMITED PARTNERSHIP C/O KIMCO REALTY CORP. 3335 NEW HYDE PARK ROAD SUITE 100 NEW HYDE PARK, NY 11042-1205

PROJECT: HARRIS TEETER - ONE STORY GROCERY STORE KING'S CONTRIVANCE VILLAGE CENTER 8620 GULFORD ROAD COLUMBIA, MARYLAND 21046

AREA: TAX MAP 42 GRID 7 PARCEL 6 VILLAGE OF KING'S CONTRIVANCE 8TH ELECTION DISTRICT COLUMBIA, HOWARD COUNTY, MARYLAND

TITLE: UTILITY PROFILES

BOHLER ENGINEERING, P.C.

PROFESSIONAL ENGINEERING SERVICES • 810 Glenside Court, Suite 300, Towson, Maryland • CONTACT: Michael Gesele • (410) 821-7800 FAX: (410) 821-7987 • WWW.BOHLERENG.COM

DESIGNED BY: MJG
DRAWN BY: TAC
PROJECT NO.: MD049006
DATE: 9/27/06
SCALE: AS SHOWN
DRAWING NO.: 14 OF 22

PROFESSIONAL ENGINEER NO. 25557