

HOWARD COUNTY, MARYLAND

DEPARTMENT OF PUBLIC WORKS

GENERAL NOTES

1. APPROXIMATE LOCATION OF EXISTING MAINS ARE SHOWN. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT EXISTING MAINS AND SERVICES AND MAINTAIN UNINTERRUPTED SUPPLY. ANY DAMAGE INCURRED SHALL BE REPAIRED IMMEDIATELY TO THE SATISFACTION OF THE ENGINEER, AT THE CONTRACTOR'S EXPENSE.
2. ALL HORIZONTAL CONTROLS ARE BASED ON MARYLAND STATE COORDINATES.
3. ALL VERTICAL CONTROLS ARE BASED ON U.S.G.S. DATUM.
4. ALL PIPE ELEVATIONS SHOWN ARE INVERT ELEVATIONS.
5. CLEAR ALL UTILITIES BY A MINIMUM OF 6". CLEAR ALL POLES BY 2'-0" MINIMUM OR TUNNEL AS REQUIRED. THE OWNER HAS CONTACTED THE UTILITIES COMPANIES AND HAS MADE ARRANGEMENTS FOR BRACING OF POLES AS SHOWN ON THE DRAWINGS. IN THE EVENT THE CONTRACTOR'S WORK REQUIRES THE BRACING OF ADDITIONAL POLES, ANY COST INCURRED BY THE OWNER FOR THE BRACING OF ADDITIONAL POLES OR DAMAGES SHALL BE DEDUCTED MONEY OWED THE CONTRACTOR. THE CONTRACTOR SHALL COORDINATE WITH THE UTILITY COMPANIES TO SCHEDULE THE BRACING OF THE POLES.
6. FOR DETAILS NOT SHOWN ON THE DRAWINGS, AND FOR MATERIALS AND CONSTRUCTION METHODS, USE HOWARD COUNTY DESIGN MANUAL, VOLUME IV, STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION. THE CONTRACTOR SHALL HAVE A COPY OF VOLUME IV ON THE JOB.
7. WHERE TEST PITS HAVE BEEN MADE ON EXISTING UTILITIES, THEY ARE NOTED BY THE SYMBOL \square AT THE LOCATION OF THE TEST PIT. A NOTE OR NOTES CONTAINING THE RESULTS OF THE TEST PIT OR PITS IS INCLUDED ON THE DRAWINGS. EXISTING UTILITIES IN THE VICINITY OF THE PROPOSED WORK FOR WHICH TEST PITS HAVE NOT BEEN DUG SHALL BE LOCATED BY THE CONTRACTOR TWO WEEKS IN ADVANCE OF CONSTRUCTION OPERATIONS AT HIS OWN EXPENSE.
8. CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITIES OR AGENCIES AT LEAST (5) WORKING DAYS BEFORE STARTING WORK SHOWN ON THESE PLANS:
 - STATE HIGHWAY ADMINISTRATION - 531-5533
 - BALTIMORE GAS & ELECTRIC COMPANY - CONTRACTOR SERVICES 561-2585
 - BALTIMORE GAS & ELECTRIC COMPANY - UNDERGROUND DAMAGE CONTROL - 234-5621
 - BALTIMORE GAS & ELECTRIC COMPANY - TROUBLE SHOOTING - 298-9013
 - "MISS UTILITY" - 1-559-0100
 - COLONIAL PIPELINE COMPANY - 795-1390
 - BUREAU OF UTILITIES HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS - 992-2366
9. TREES ARE TO BE PROTECTED FROM DAMAGE TO MAXIMUM EXTENT. TREES AND SHRUBS LOCATED WITHIN THE CONSTRUCTION STRIP ARE NOT TO BE REMOVED OR DAMAGED BY THE CONTRACTOR.
10. CONTRACTOR SHALL REMOVE TREES, STUMPS AND ROOTS ALONG LINE OF EXCAVATION. PAYMENT FOR SUCH REMOVAL SHALL BE INCLUDED IN THE UNIT PRICE BID FOR CONSTRUCTION OF THE MAIN.
11. ALL WATER MAINS TO BE D.I.P. UNLESS OTHERWISE NOTED.
12. TOP OF ALL WATER MAINS TO HAVE A MINIMUM OF 3-1/2' COVER UNLESS OTHERWISE NOTED.
13. VALVES ADJACENT TO TEES SHALL BE STRAPPED TO TEES.
14. ALL FITTINGS SHALL BE BUTTRESSED OR ANCHORED WITH CONCRETE IN ACCORDANCE WITH THE STANDARD DETAILS UNLESS OTHERWISE PROVIDED FOR ON THE DRAWINGS.
15. FIRE HYDRANTS SHALL BE SET TO THE BURY LINE ELEVATIONS SHOWN ON THE DRAWINGS. ALL FIRE HYDRANTS SHALL BE STRAPPED AND BUTTRESSED WITH CONCRETE IN ACCORDANCE WITH STANDARD DETAILS. SOIL AROUND THE FIRE HYDRANT SHALL BE COMPACTED IN ACCORDANCE WITH SECTION 1003 OF THE STANDARD SPECIFICATIONS.
16. THE CONTRACTOR SHALL NOT OPERATE ANY WATER MAIN VALVES ON THE EXISTING SYSTEM.

Reviewed for Howard County S.C.D. and meets technical requirements.

James M. Nolan Date: 9-14-84
U.S. SOIL CONSERVATION SERVICE

This development plan is approved for soil erosion and sediment control by The Howard County Soil Conservation District.

Approved: *Stephen J. Paul* Date: 9-14-84
HOWARD COUNTY S.C.D.

ENGINEER'S CERTIFICATION

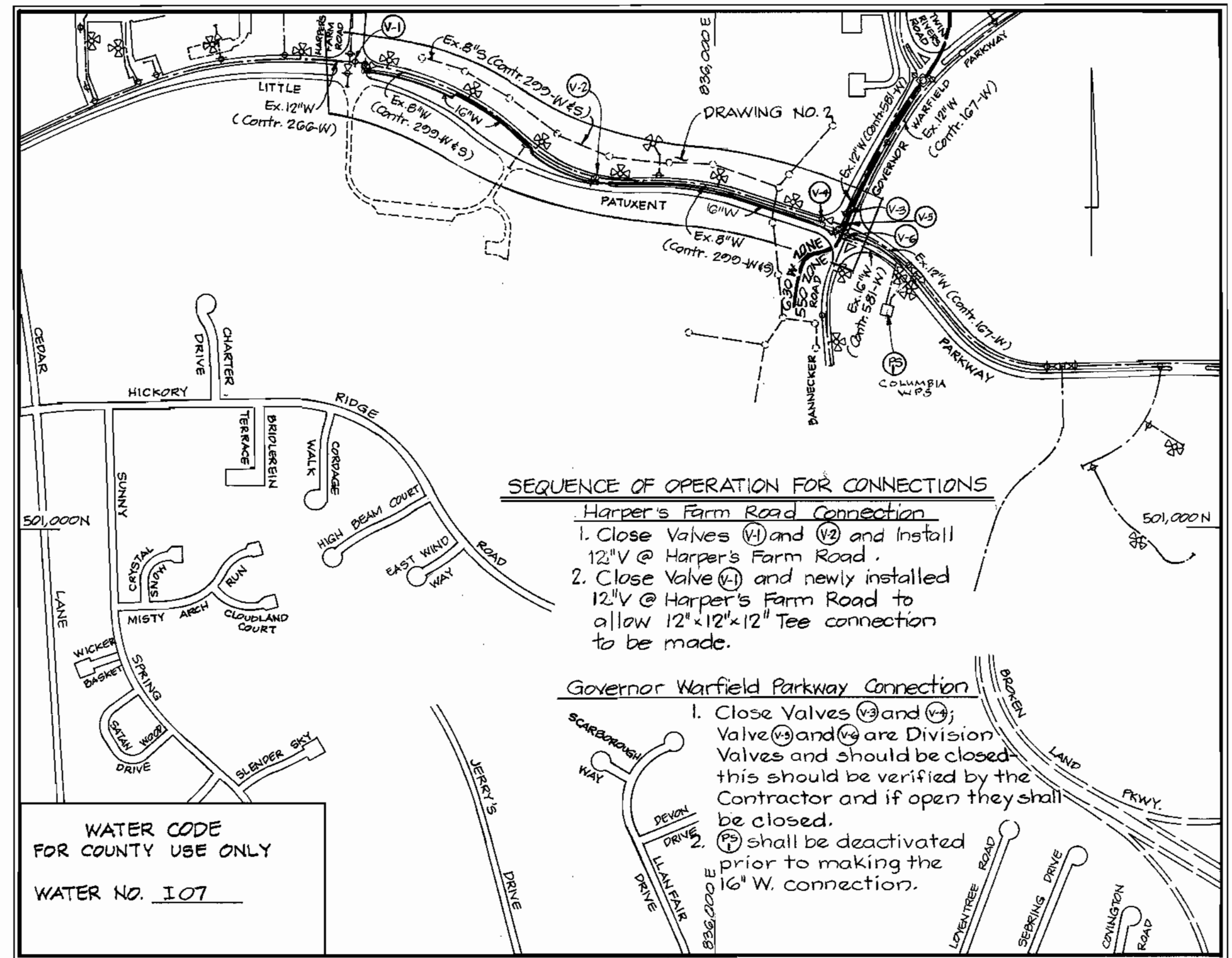
I certify that this plan for erosion and sediment control represents a practical and workable plan based on my personal knowledge of the site conditions and that it was prepared in accordance with the requirements of the Howard County Soil Conservation District.

Walter B. Schmitt Date: 9/13/84
KIDDE CONSULTANTS, INC.
1020 CROMWELL BRIDGE ROAD
TOWSON, MD. 21204

DEVELOPER'S CERTIFICATION

"I/We certify that all development and construction will be done according to this plan, and that any responsible personnel involved in the construction project will have a Certificate of Attendance at a Department of Natural Resources Approved Training Program for the Control of Sediment and Erosion before beginning the project."

AS-Built 2 Day 11-1-84
BUREAU OF ENGINEERING
DEPARTMENT OF PUBLIC WORKS



SCALE: 1" = 600'

LITTLE PATUXENT PARKWAY WATER MAIN

CAPITAL PROJECT W-8104

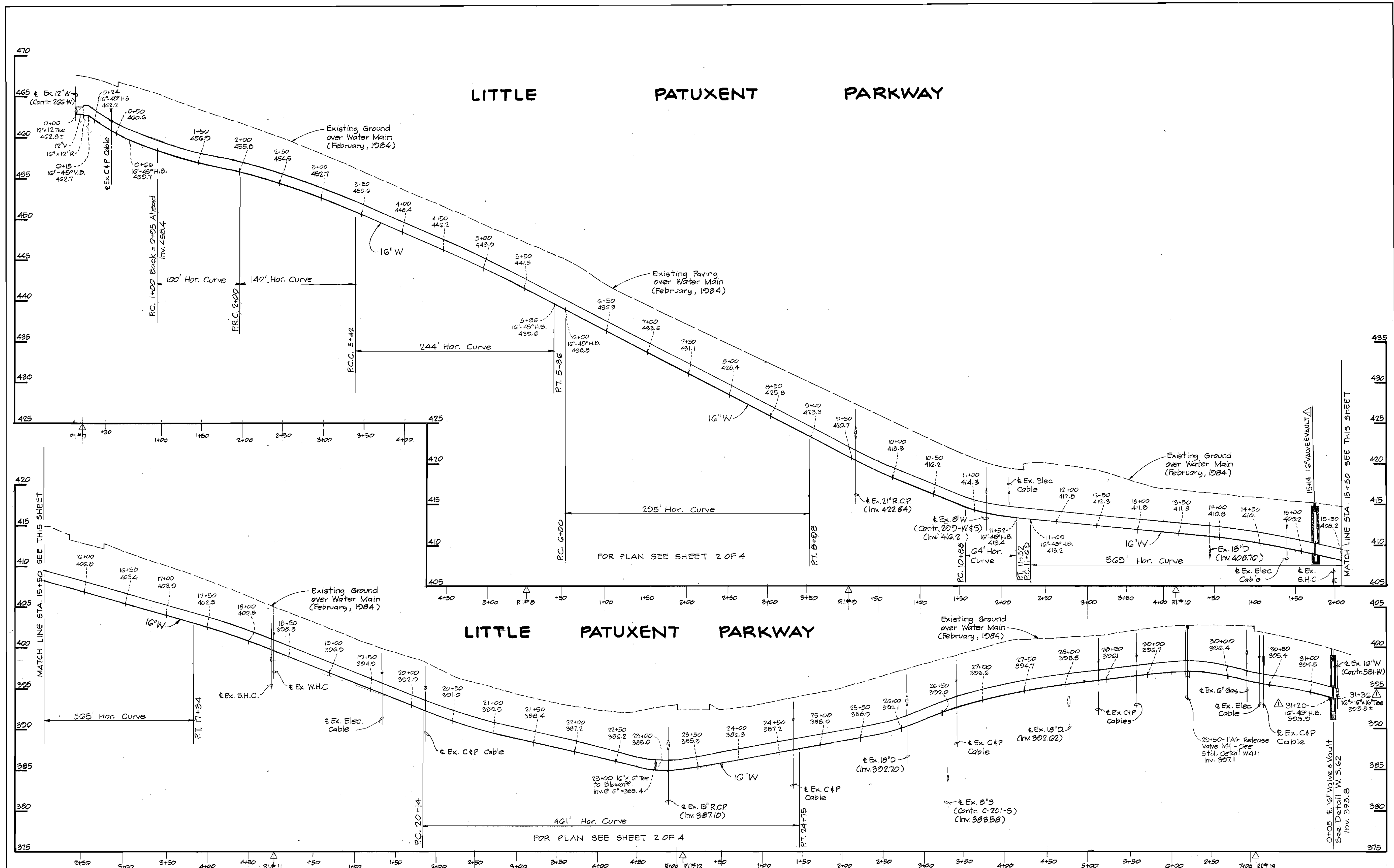
CONTRACT NO. 44-1213

ELECTION DISTRICT NO. 5

ITEM	QUANTITIES		TYPE MATERIAL	SUPPLIERS
	ESTIMATE	AS BUILT		
16" Water	3130 L.F.	3137	DIP	GRIFFIN
12" Water	10 L.F.	12	DIP	GRIFFIN
16" Valves	2	2	M&H VALVE	
12" Valves	2	2	M&H VALVE	
16" Air Release MH	1	1	TERRE-HILL	
6" Blowoff	1	1	M&H VALVE	

AS-BUILTS 11-85

<p>DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND</p> <p><i>James M. Nolan</i> 11-6-84 DIRECTOR OF PUBLIC WORKS DATE</p> <p><i>Robert M. Brinson</i> 11-6-84 CHIEF, BUREAU OF UTILITIES DATE</p>	<p>KIDDE CONSULTANTS, INC. CONSULTING ENGINEERS BALTIMORE, MARYLAND</p> <p><i>Walter B. Schmitt</i> 11-1-84 CHIEF, BUREAU OF ENGINEERING DATE</p> <p><i>Donald J. Papan</i> 11-1-84 CHIEF, UTILITY DIVISION DATE</p>		<p>DES: T.E.S.</p> <p>DRN: T.E.S.</p> <p>CHK: W.B.H.</p> <p>DATE: 9/20/84</p> <p>MJS BY NO. As-builts</p>	<p style="text-align: center;">LOCATION MAP OF WATER MAIN EXTENSION</p> <p>600' SCALE MAP NO. 35 & 36 BLOCK NO. 6 & 1</p>	<p style="text-align: center;">LITTLE PATUXENT PARKWAY WATER MAIN CAPITAL PROJECT W-8104 CONTRACT NO. 44-1213 ELECTION DISTRICT NO. 5 HOWARD COUNTY, MARYLAND</p>	<p>SCALE AS SHOWN</p> <p>SHEET 1 OF 4</p>
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DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

KIDDE CONSULTANTS, INC.
CONSULTING ENGINEERS
BALTIMORE, MARYLAND



DES:	T.E.S.		
DRN:	T.E.S.		
CHK:	W.B.H.		
DATE:	9/20/84		
BY:	MJS	As-built	11-85
NO.		REVISION	DATE

PROFILE OF
WATER MAIN EXTENSION

LITTLE PATUXENT PARKWAY WATER MAIN
CAPITAL PROJECT W-8104
CONTRACT NO. 44-1213
ELECTION DISTRICT NO. 5
HOWARD COUNTY, MARYLAND

SCALE
H:1"=50'
V:1"=5'
SHEET
3 OF 4

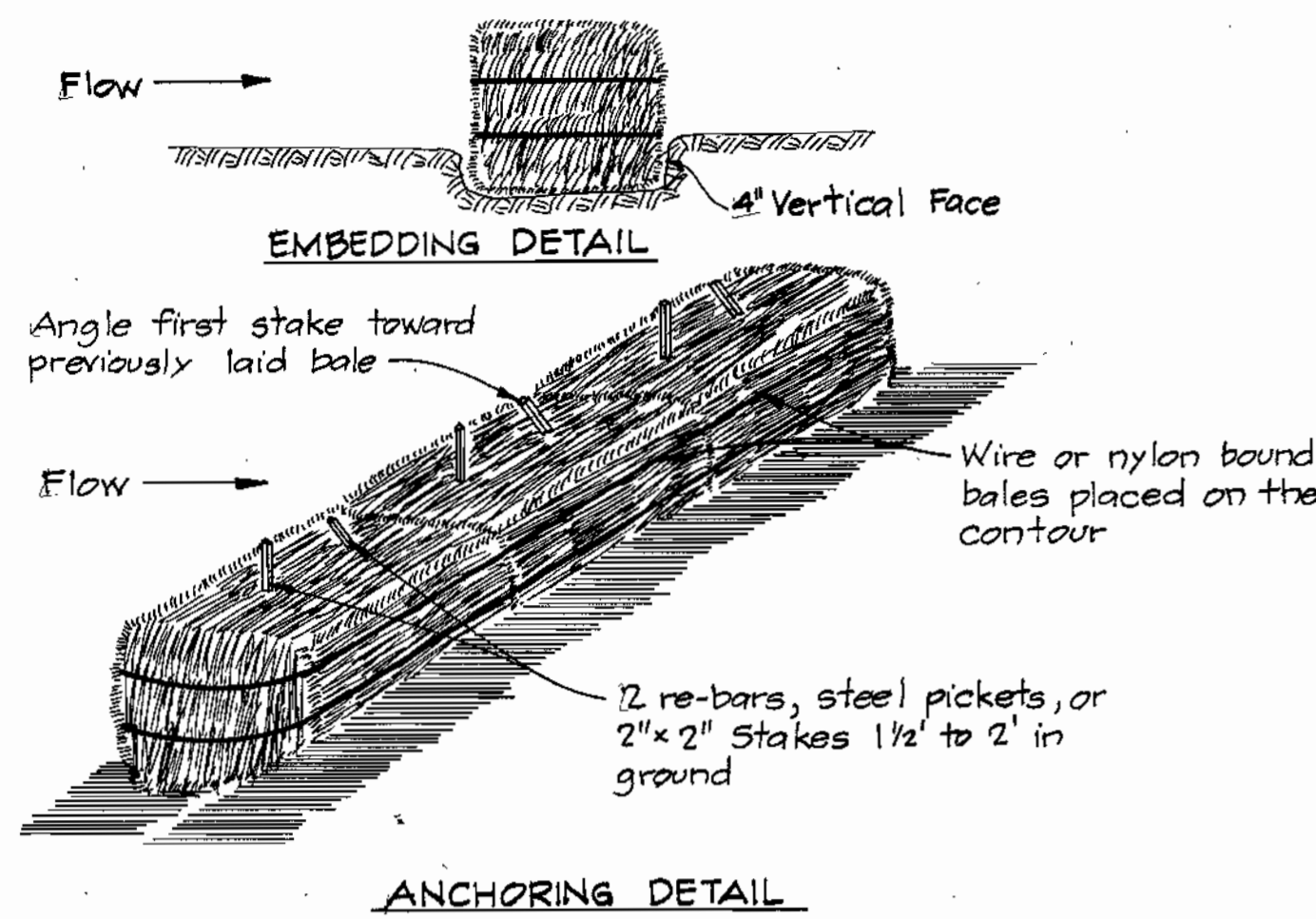
SOIL EROSION AND SEDIMENT CONTROL NOTES

- THE CONTRACTOR WILL COMPLY WITH ALL REQUIREMENTS OF SEDIMENT AND EROSION CONTROL SET FORTH IN THE CONTRACT DRAWINGS, THE USDA SOIL CONSERVATION SERVICE MANUAL, "STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL IN DEVELOPING AREAS", AND VOLUME IV - SECTION 15 OF THE HOWARD COUNTY DESIGN MANUAL.
- THE CONTRACTOR SHALL NOT PUMP FROM EXCAVATED AREAS DIRECTLY INTO THE HOWARD COUNTY STORM DRAINAGE SYSTEM OR ANY NATURAL WATER COURSE. WHERE GROUNDWATER IS ENCOUNTERED DURING CONSTRUCTION, THE CONTRACTOR SHALL PROVIDE PORTABLE OR EXCAVATED SEDIMENT TRAPS TO PREVENT SILTED TRENCH WATER FROM ENTERING STORM DRAINAGE SYSTEMS OR NATURAL WATERWAYS.
- ALL EXCAVATED MATERIAL SHALL BE PLACED ON THE HIGH SIDE OF THE TRENCH WHENEVER POSSIBLE, AND CONFINED TO AN AREA WHERE IT WILL NOT OBSTRUCT THE NORMAL FLOW OF DRAINAGE COURSES.
- ALL SWALES SHALL BE EQUIPPED WITH A SEDIMENT RETENTION DEVICE TO TRAP SEDIMENT AND FILTER WATER LEAVING THE RIGHT-OF-WAY PRIOR TO ENTERING ANY RUNNING STREAMS.
- THE CONTRACTOR SHALL PROVIDE STRAW BALE DIKES NORMAL TO SURFACE WATER FLOW AROUND ALL VEHICLE AND EQUIPMENT STAGING AREAS AS SHOWN IN "DETAIL OF A STRAW BALE DIKE" ENCLOSED IN SPECIFICATIONS.
- ROADSIDE DITCHES AND DRAINAGE PIPES SHALL BE RESTORED TO A CONDITION EQUAL TO OR BETTER THAN THE ORIGINAL CONDITION FOLLOWING COMPLETION OF CONSTRUCTION.
- THE CONTRACTOR SHALL DISPOSE OF SPOILS IN ACCORDANCE WITH GOOD SOIL CONSERVATION PRACTICE AND IN SUCH A MANNER THAT NONE CAN BE CARRIED INTO ANY DRAINAGE FACILITY OR WATER COURSE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DISPOSING OF ALL SPOIL OR EXCESS EXCAVATED MATERIAL ON A SITE APPROVED BY THE SOIL CONSERVATION DISTRICT. DOCUMENTATION OF APPROVAL AND SITE SHALL BE PROVIDED TO THE ENGINEER PRIOR TO BEGINNING WORK.
- THE HOWARD COUNTY SOIL CONSERVATION DISTRICT MUST BE NOTIFIED IN WRITING BY THE CONTRACTOR AS TO WHERE EXCESS MATERIAL WILL BE DISPOSED OR BORROW MATERIAL WILL BE OBTAINED. PRIOR TO BEGINNING ANY WORK ON THIS PROJECT, COPIES SHALL BE PROVIDED TO THE ENGINEER.
- CONTINUOUS INSPECTION AND MAINTENANCE OF ALL SEDIMENT AND EROSION CONTROL DEVICES WILL BE REQUIRED.
- THE CONTRACTOR SHALL PROVIDE ADDITIONAL SOIL EROSION AND SEDIMENT CONTROL AS REQUIRED BY THE SEDIMENT CONTROL INSPECTOR, AS THE WORK PROGRESSES OR REQUIRES.
- THE CONTRACTOR SHALL NOTIFY IN WRITING, A HOWARD COUNTY SEDIMENT CONTROL DIVISION REPRESENTATIVE AT LEAST THREE(3) DAYS PRIOR TO STARTING WORK. PLEASE CONTACT: HOWARD COUNTY - 992-2436. COPIES SHALL BE PROVIDED TO THE ENGINEER.
- SEDIMENT REMOVAL - ALL TRAPPED SEDIMENT IS TO BE REMOVED AND DISPOSED OF AT THE AUTHORIZED LANDFILLS PRIOR TO REMOVAL OF SEDIMENT CONTROL STRUCTURES.
- FOLLOWING INITIAL SOIL DISTURBANCE OR REDISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN:
 - SEVEN CALENDAR DAYS AS TO THE SURFACE OF ALL PERIMETER CONTROLS, DIKES, SWALES, DITCHES, PERIMETER SLOPES AND ALL SLOPES GREATER THAN 3 HORIZONTAL TO 1 VERTICAL (3:1).
 - FOURTEEN CALENDAR DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE.

SEQUENCE OF OPERATION

SEDIMENT CONTROL

- CONTRACTOR SHALL INSTALL SEDIMENT CONTROL MEASURES AT LEAST ONE DAY PRIOR TO BEGINNING CONSTRUCTION OF THE WATER LINE.
- STONE OUTLET STRUCTURE SHALL BE INSTALLED CONCURRENT WITH SEDIMENT CONTROL MEASURES.
- STOCKPILING OF EXCAVATED MATERIAL ON THE MEDIAN OR WITHIN THE EASTBOUND LANE OF LITTLE PATUXENT PARKWAY WILL NOT BE PERMITTED.
- UPON COMPLETION OF THE VARIOUS SECTIONS OF THE PROJECT SEDIMENT CONTROL MEASURES MAY BE REMOVED IF APPROVED BY THE DPW SEDIMENT CONTROL INSPECTOR.
- UPON FINAL COMPLETION THE SEDIMENT CONTROL MEASURES MAY NOT BE REMOVED UNTIL APPROVAL FROM THE DPW SEDIMENT CONTROL INSPECTOR IS OBTAINED.

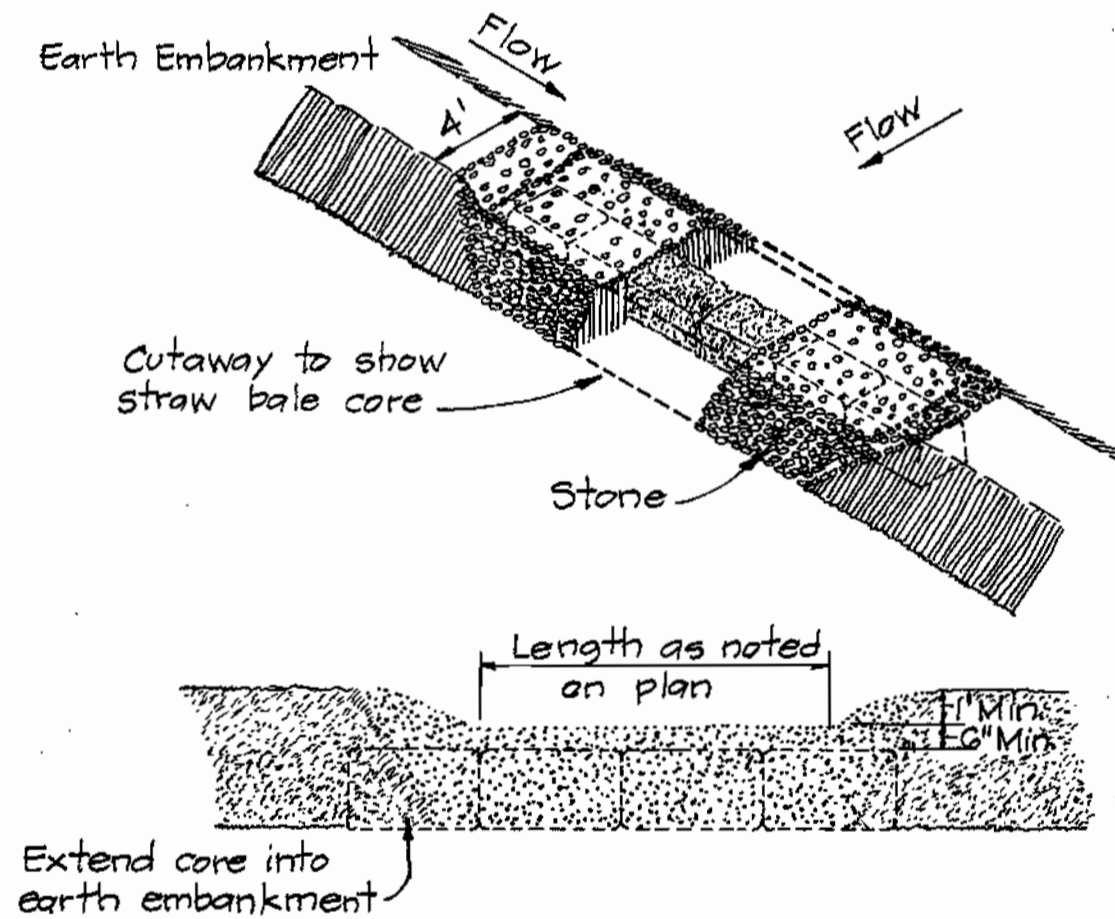


CONSTRUCTION SPECIFICATIONS

- Bales shall be placed in a row with ends tightly abutting adjacent bales.
- Each bale shall be embedded in the soil a minimum of 4".
- Bales shall be securely anchored in place by stakes or re-bars driven through the bales. The first stake in each bale shall be angled toward previously laid bale to force bales together.
- Inspection shall be frequent and repair or replacement shall be made promptly as needed.
- Bales shall be removed when they have served their usefulness so as not to block or impede storm flow or drainage.

DETAIL STRAW BALE DIKE

No Scale



ELEVATION

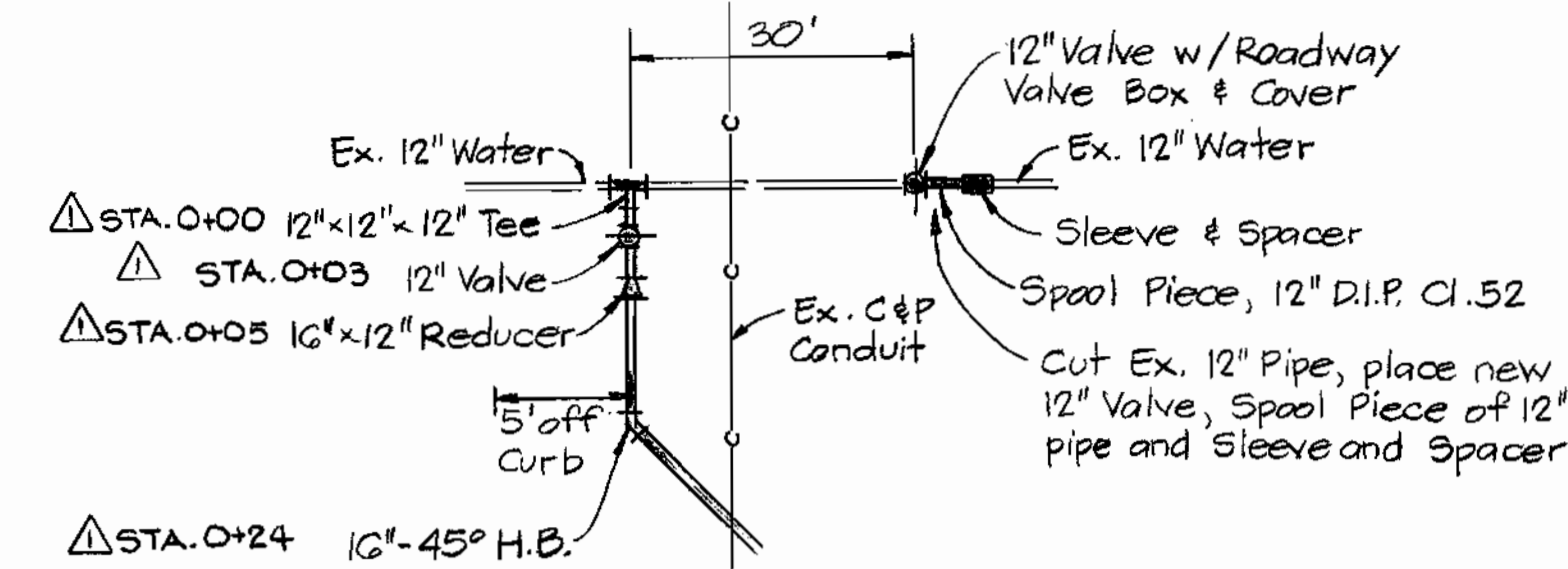
NOTE: Drawings show straw bales used for core. Bales are anchored as per Standard and Specifications for Straw Bale Dike. Other materials (e.g., timber or concrete block) may also be used for core. Firmly anchor all core material to ground.

CONSTRUCTION SPECIFICATIONS

- Area under embankment shall be cleared, grubbed and stripped of any vegetation and root mat. The pool area shall be cleared.
- The fill material for the embankment shall be free of roots or other woody vegetation as well as oversized stones, rocks, organic material or other objectionable material. The embankment shall be compacted by traversing with equipment while it is being constructed.
- Sediment shall be removed and trap restored to its original dimensions when the sediment has accumulated to 1/2 the design depth of the trap. Removed sediment shall be deposited in a suitable area and in such a manner that it will not erode.
- The structure shall be inspected after each rain and repairs made as needed.
- Construction operations shall be carried out in such a manner that erosion and water pollution is minimized.
- The structure shall be removed and the area stabilized when the drainage area has been properly stabilized.
- All cut and fill slopes shall be 2:1 or flatter.
- The crushed stone used in the outlet shall meet AASHTO designation M43, Size No. 2 or 24 or its equivalent such as MSHA No. 2. Gravel meeting the above gradation, may be used if crushed stone is not available. Crusher run is not acceptable.

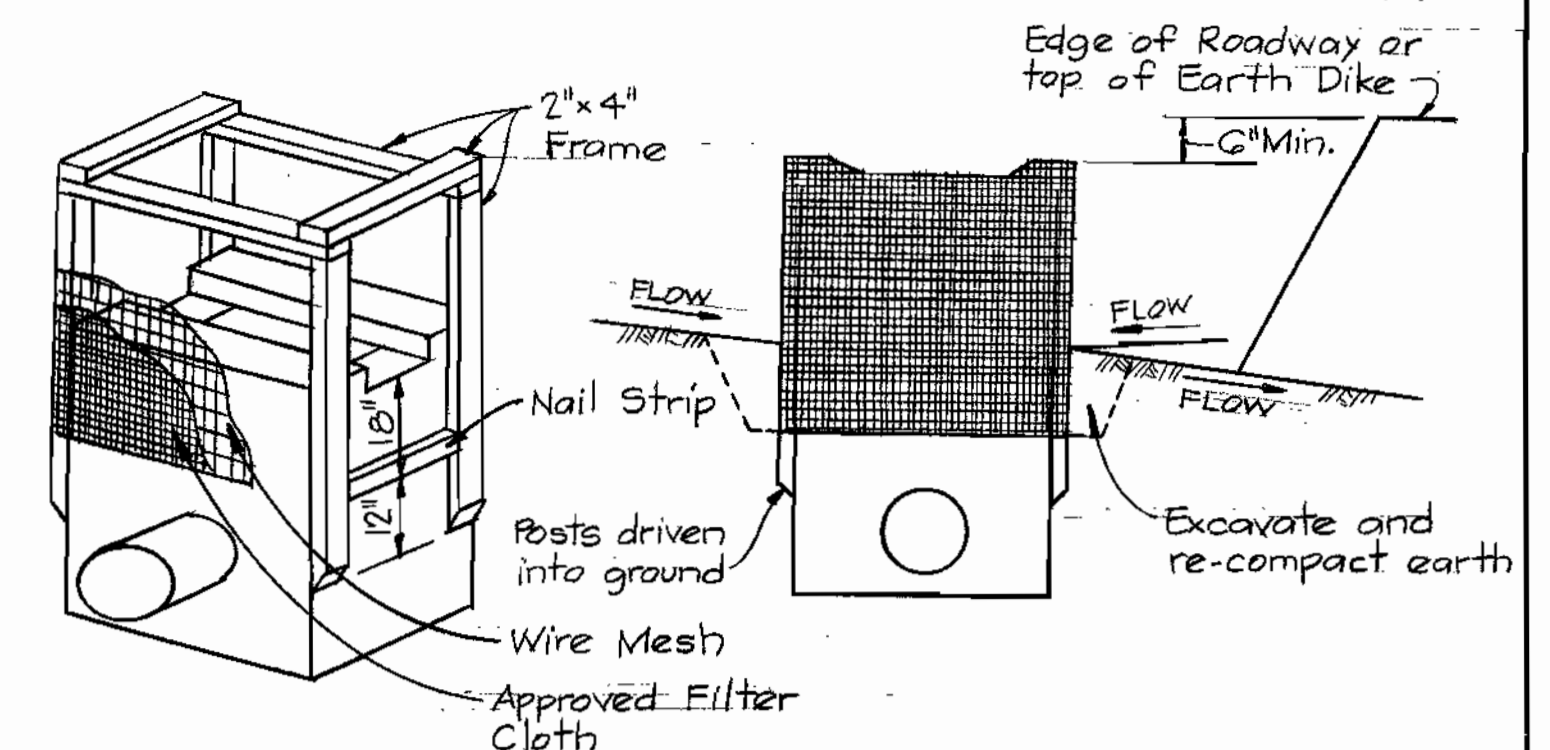
STONE OUTLET SEDIMENT TRAP

No Scale



CONNECTION TO EX. 12" WATER @ HARPERS FARM ROAD

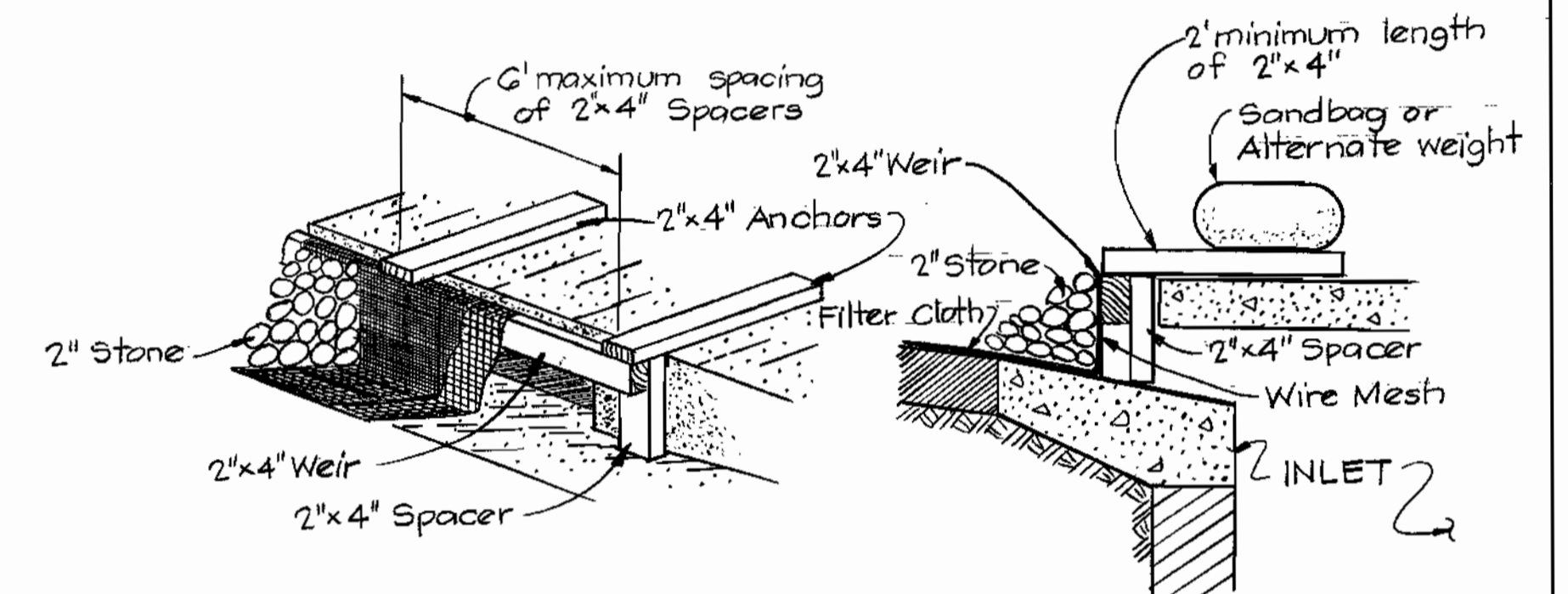
No Scale



Standard Symbol

DETAIL SWALE INLET PROTECTION

No Scale



Standard Symbol

DETAIL CURB INLET PROTECTION

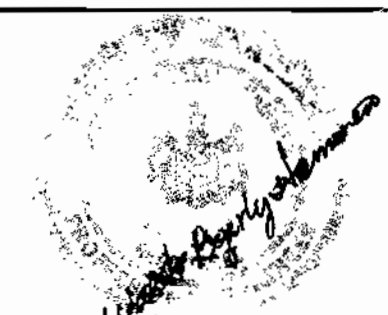
No Scale

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

James M. Lewis
DIRECTOR OF PUBLIC WORKS
DATE 11-6-84

W. Seeman & Rely
CHIEF, BUREAU OF ENGINEERING
DATE 11-1-84

KIDDE CONSULTANTS, INC.
CONSULTING ENGINEERS
BALTIMORE, MARYLAND



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SEDIMENT CONTROL DETAILS

600' SCALE MAP NO. 35 & 36 BLOCK NO. 6 & 1

AS-BUILTS 11-85

LITTLE PATUXENT PARKWAY WATER MAIN
CAPITAL PROJECT W-8104
CONTRACT NO. 44-1213
ELECTION DISTRICT NO. 5
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SCALE AS SHOWN

SHEET 4 OF 4