

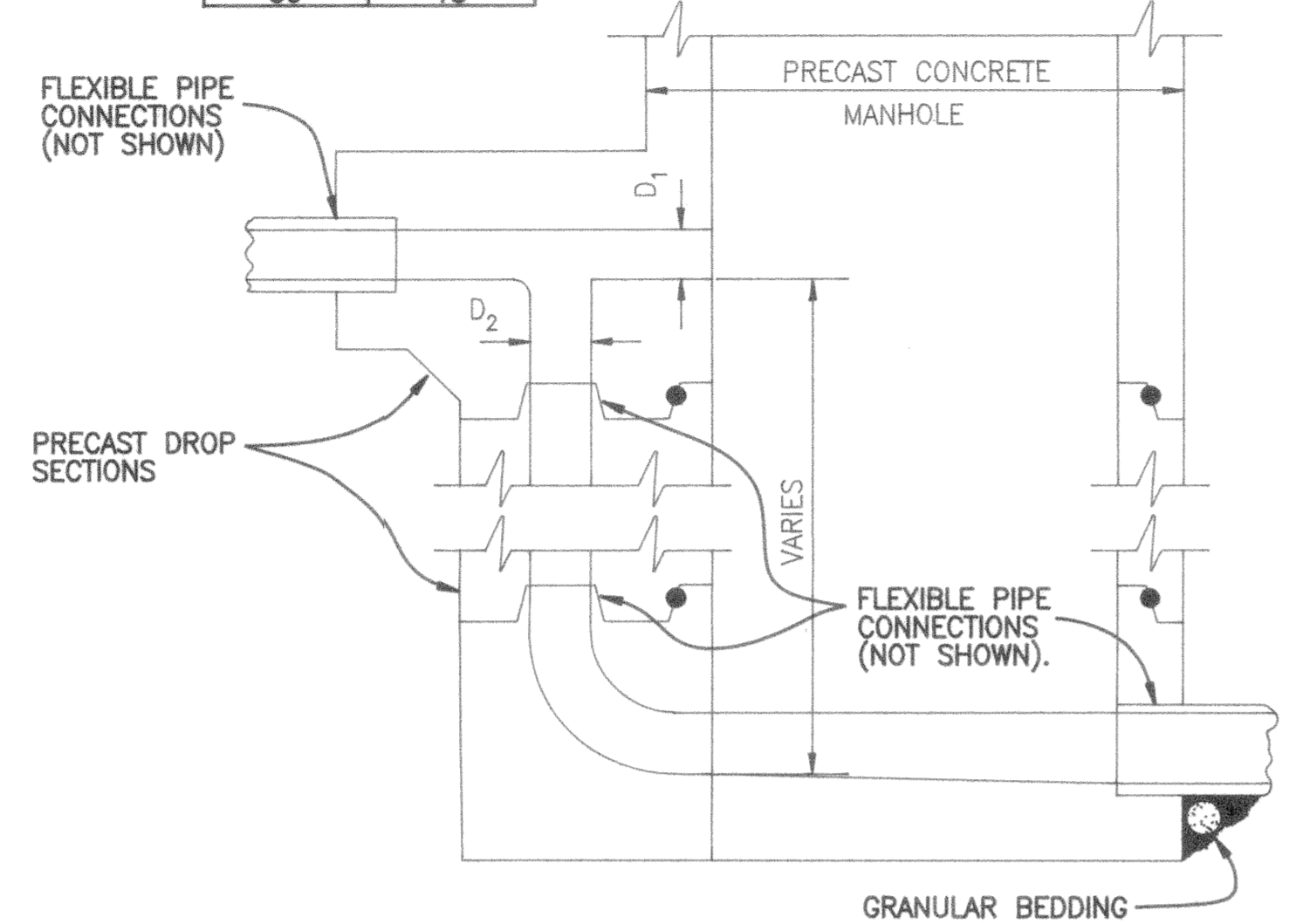
TYPICAL SERVICE CONNECTION
NO SCALE

NOTE: CONTRACTOR SHALL SUBMIT FOR APPROVAL SHOP DRAWINGS DETAILING THE TYPE OF AUGER STOP TO BE USED AT EACH BORE AND JACK LOCATION.

TABLE OF DIMENSIONS

D ₁	D ₂ (MIN.)
6"	6"
8"	6"
10"	6"
12"	8"
15"	8"
18"	10"
21"	10"
24"	12"
27"	15"
30"	18"

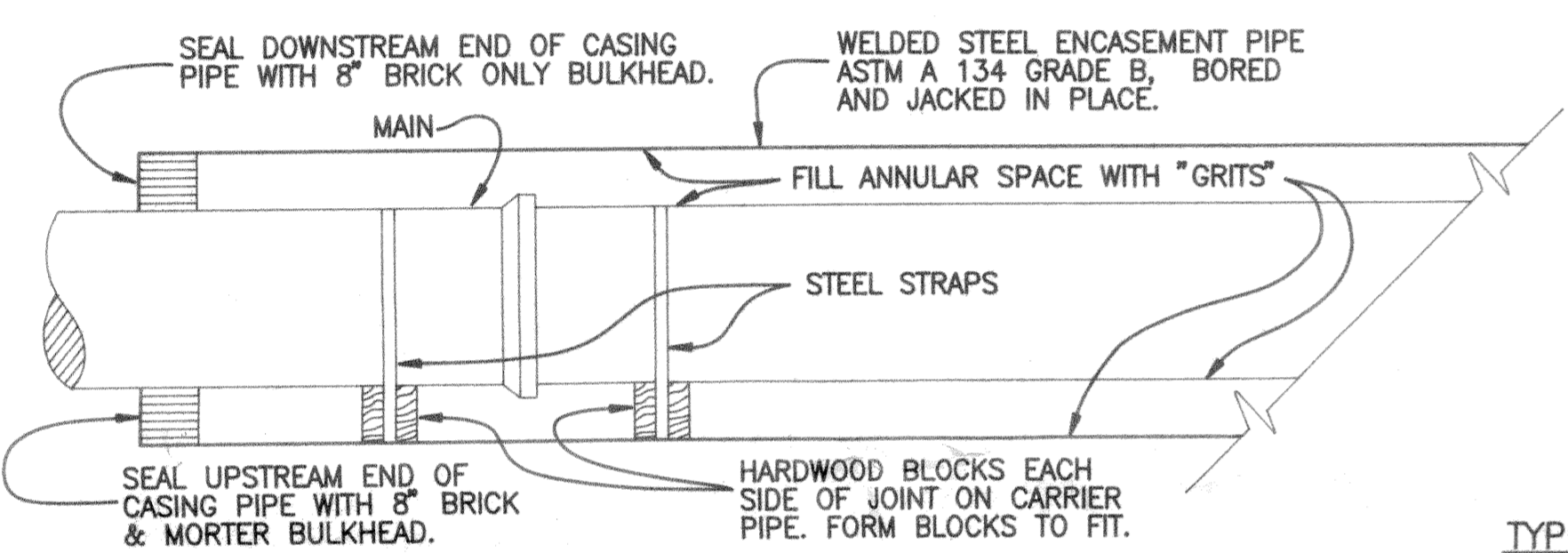
DROP MANHOLES SHALL BE USED WHEN THE DIFFERENCE IN ELEVATION BETWEEN THE INVERT OF THE INLET AND THE OUTLET PIPE EXCEEDS 2.0 FEET.



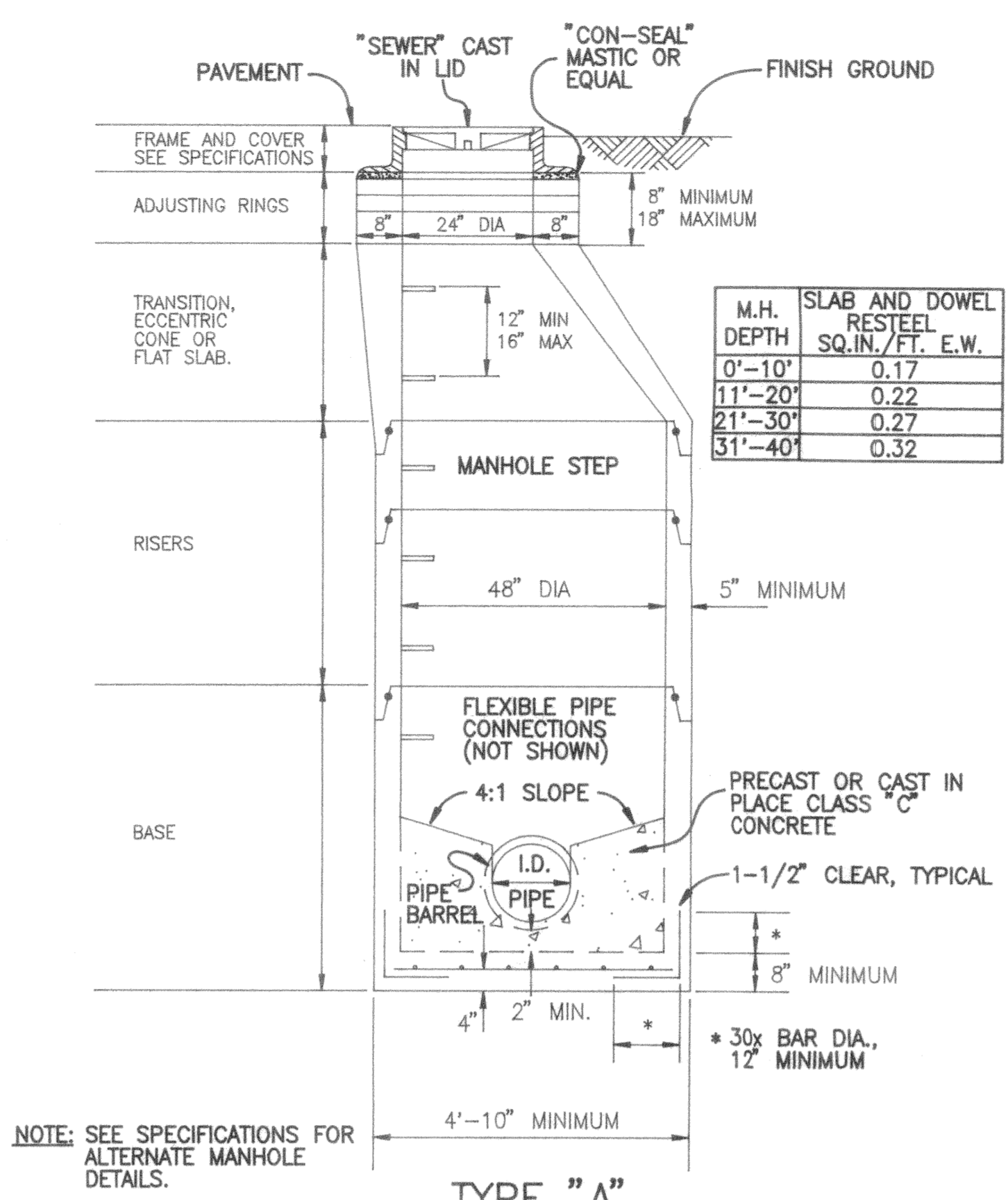
PRECAST DROP MANHOLE
NO SCALE

MAXIMUM PIPE SIZE

TYPE	MH I.D.	MAX. PIPE SIZE	MIN. INTERIOR ANGLE
"A"	48"	24"	104°
"B"	60"	36"	116°
"C"	72"	42"	108°
"D"	84"	60"	135°

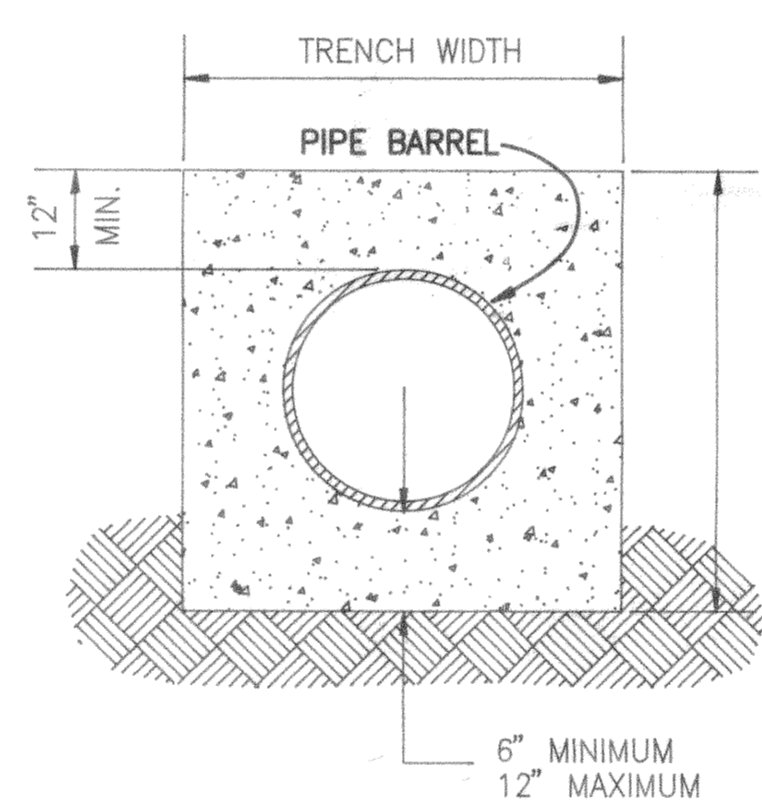


ENCASEMENT PIPE DETAIL
NO SCALE



TYPE "A" PRECAST CONCRETE MANHOLE
NO SCALE

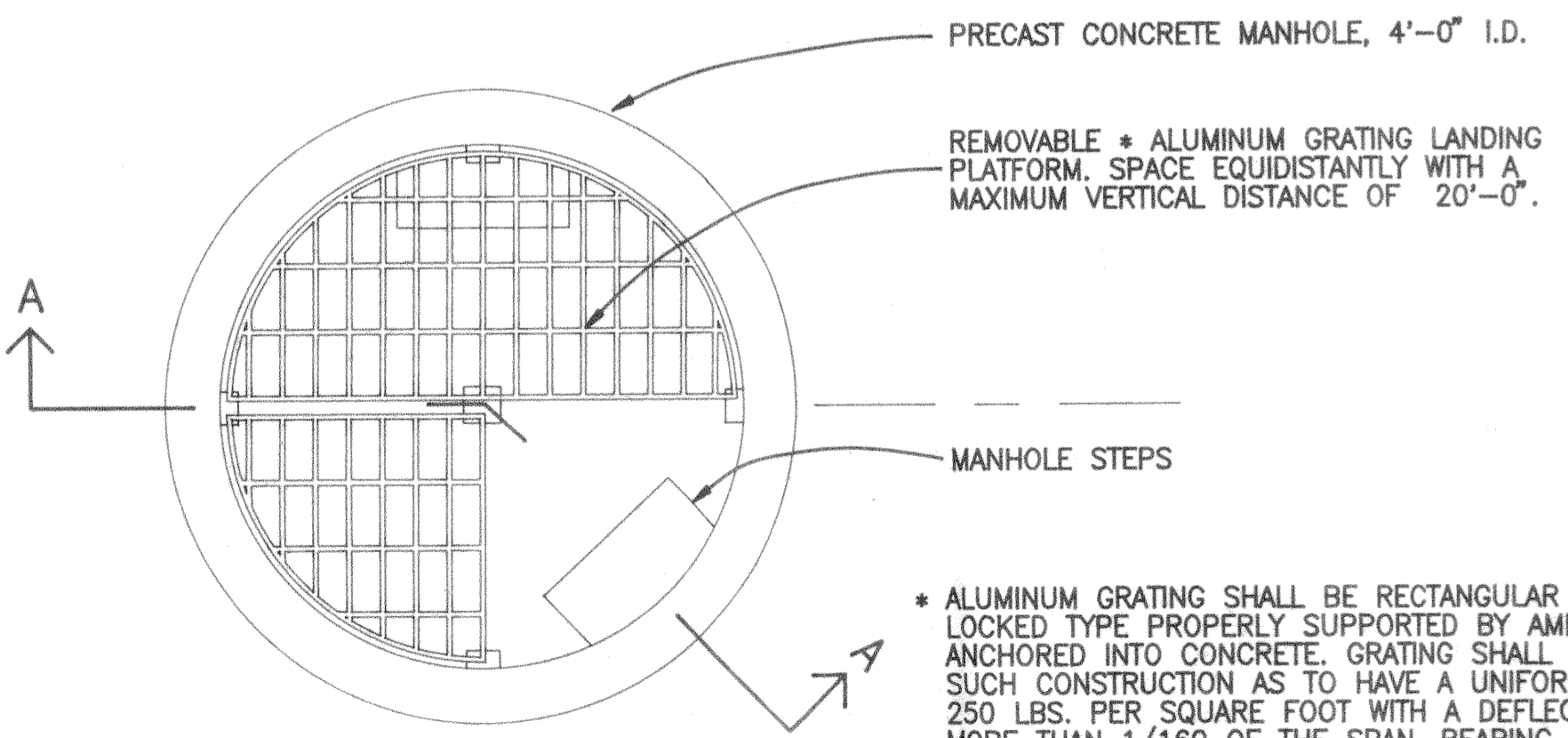
NOTE: SEE SPECIFICATIONS FOR ALTERNATE MANHOLE DETAILS.



SEWER INSTALLATION
NO SCALE

BEDDING MATERIAL

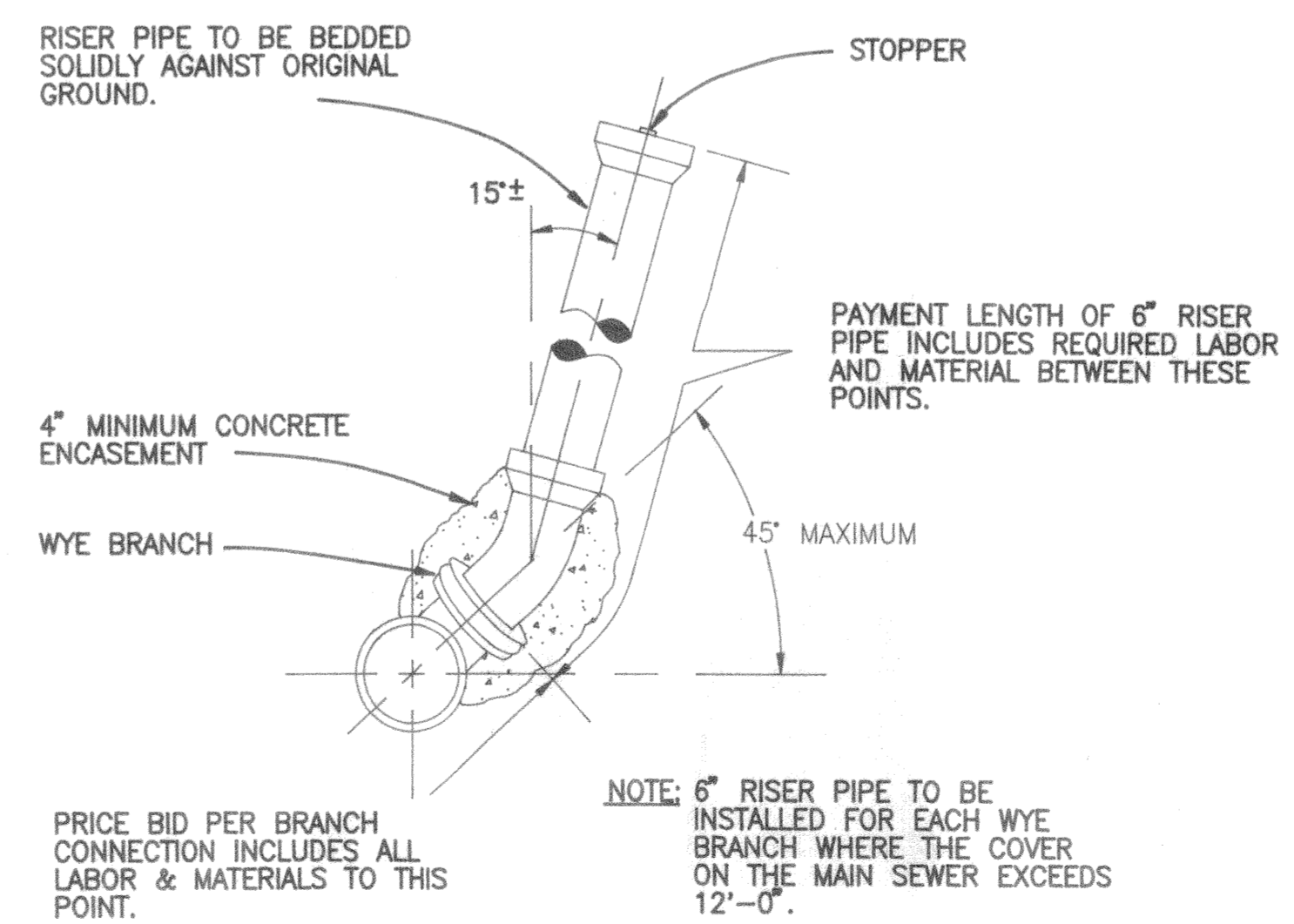
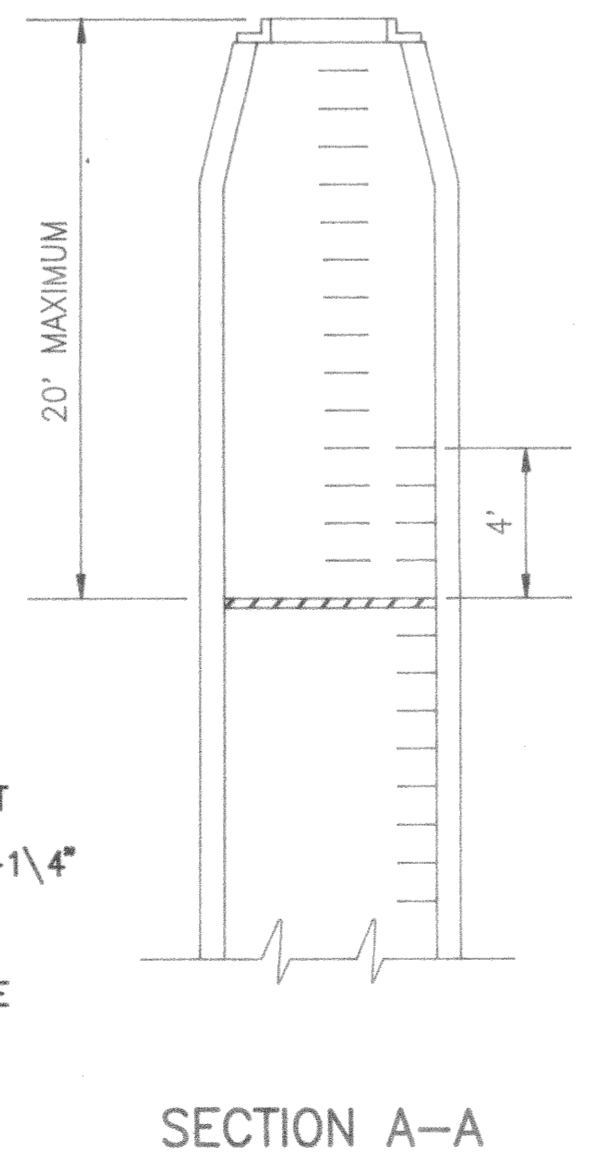
DIA.	AASHTO M-43
LESS THAN 15"	67 7 or 8
15" - 30"	6 or 67
MORE THAN 30"	57 or 67



MANHOLE GRATING DETAIL
NO SCALE

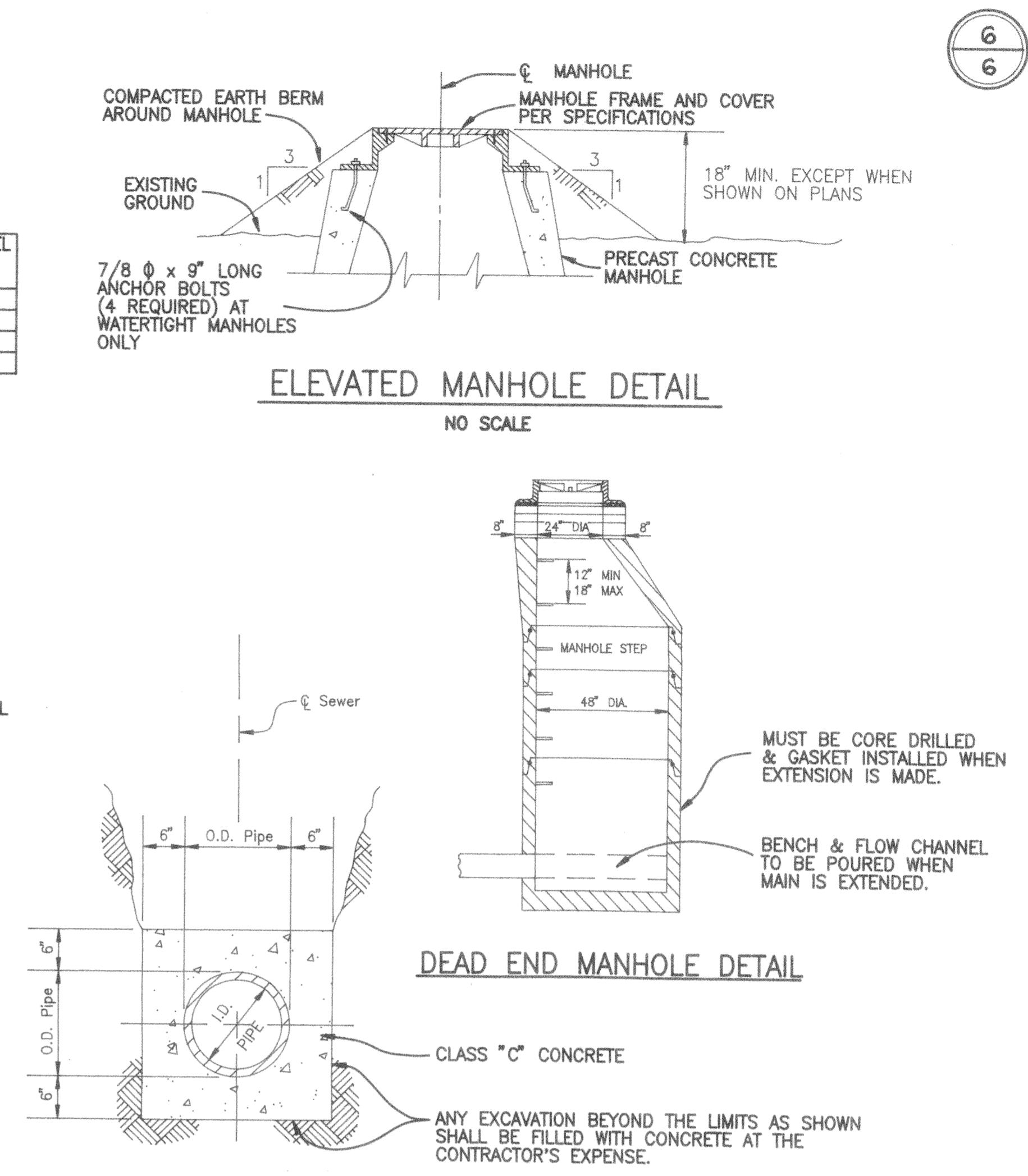
* ALUMINUM GRATING SHALL BE RECTANGULAR PRESSURE LOCKED TYPE PROPERLY SUPPORTED BY AMPLIFIED FRAMES ANCHORED INTO CONCRETE. GRATING SHALL BE OF SUCH CONSTRUCTION AS TO HAVE A UNIFORM LOAD OF 250 LBS. PER SQUARE FOOT WITH A DEFLECTION OF NOT MORE THAN 1/160 OF THE SPAN. BEARING BARS SHALL NOT BE LESS THAN 3/16" THICK AND A MINIMUM OF 1-1/4" IN DEPTH. ALL OPENINGS AND EDGES SHALL BE BANDED.

ALUMINUM GRATING SHALL BE PROVIDED AS SHOWN AT ALL MANHOLES WHERE THE VERTICAL DISTANCE FROM THE TOP OF THE MANHOLE CASTING TO THE DOWNSTREAM INVERT IS GREATER THAN 20 FEET. THE COST FOR THE MANHOLE GRATING SHALL BE INCLUDED IN THE PRICE BID PER MANHOLE.

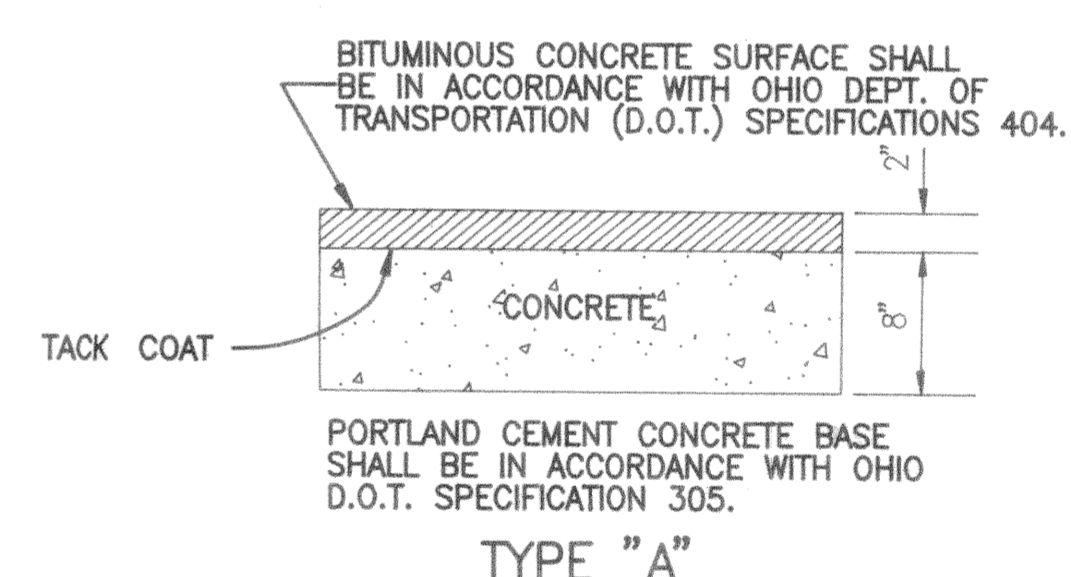


DETAIL OF BRANCH CONNECTION AND RISER PIPE
NO SCALE

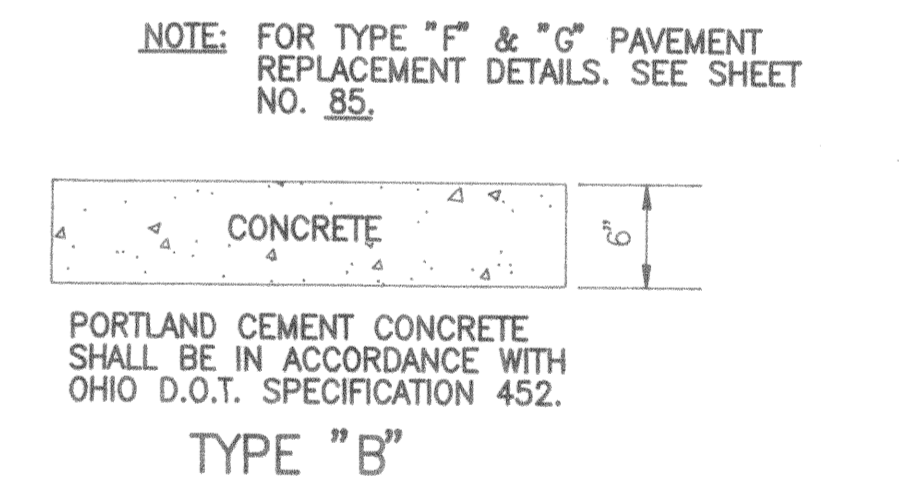
PRICE BID PER BRANCH CONNECTION INCLUDES ALL LABOR & MATERIALS TO THIS POINT.



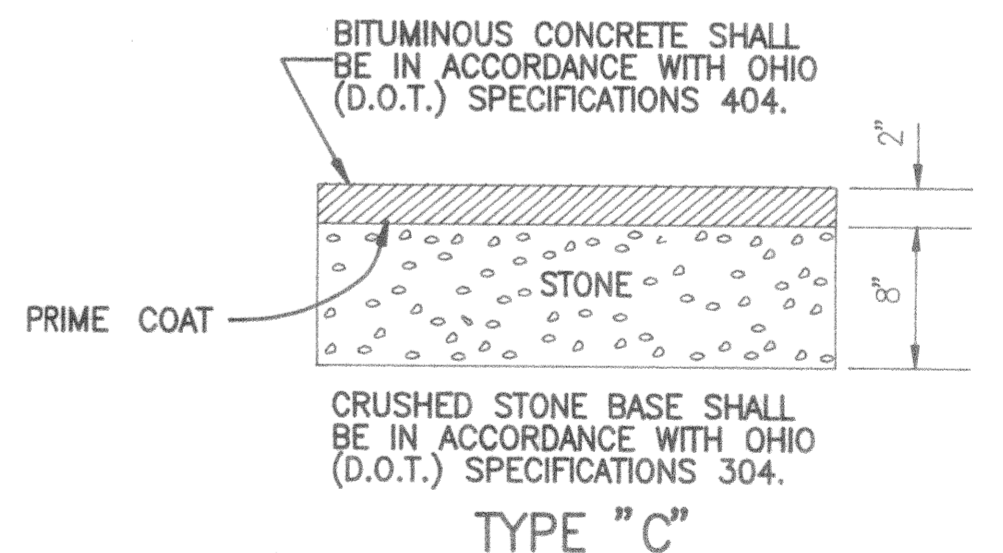
CONCRETE ENCASEMENT
NO SCALE



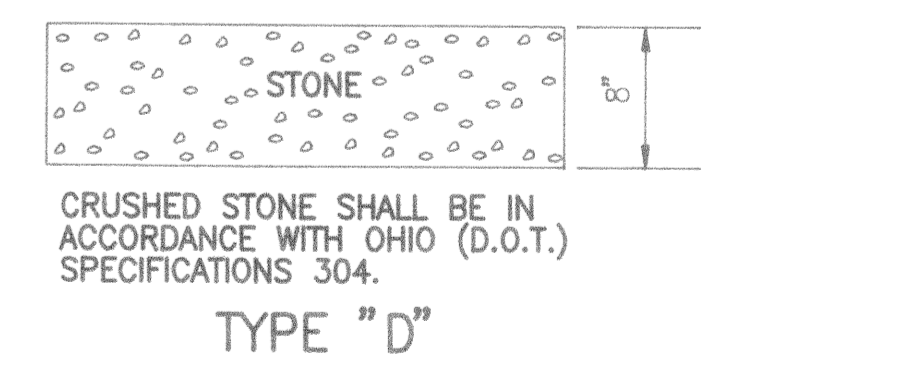
PAVEMENT REPLACEMENT DETAILS
NO SCALE



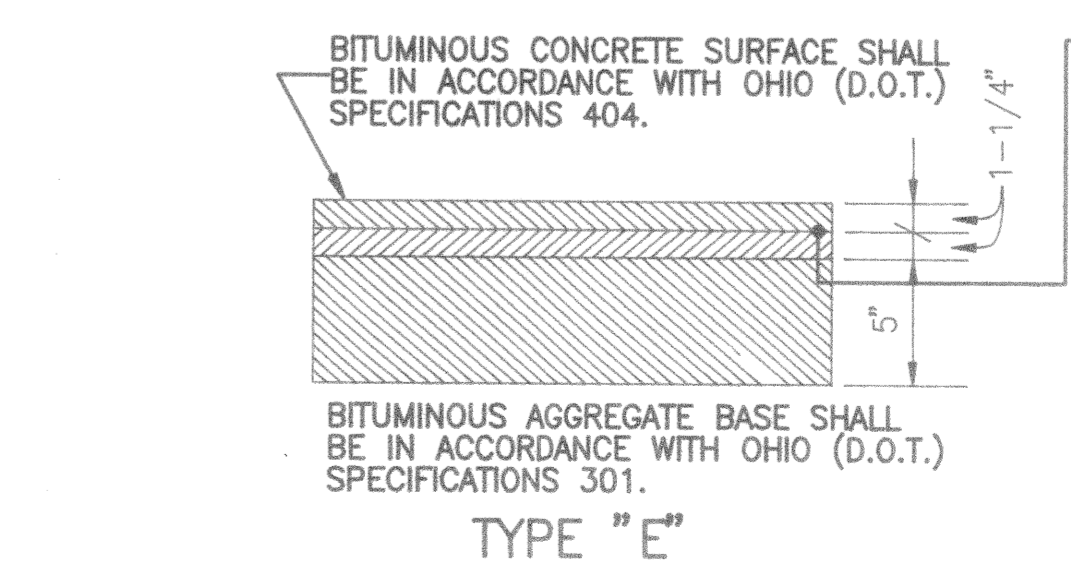
WALK REPLACEMENT DETAIL
NO SCALE



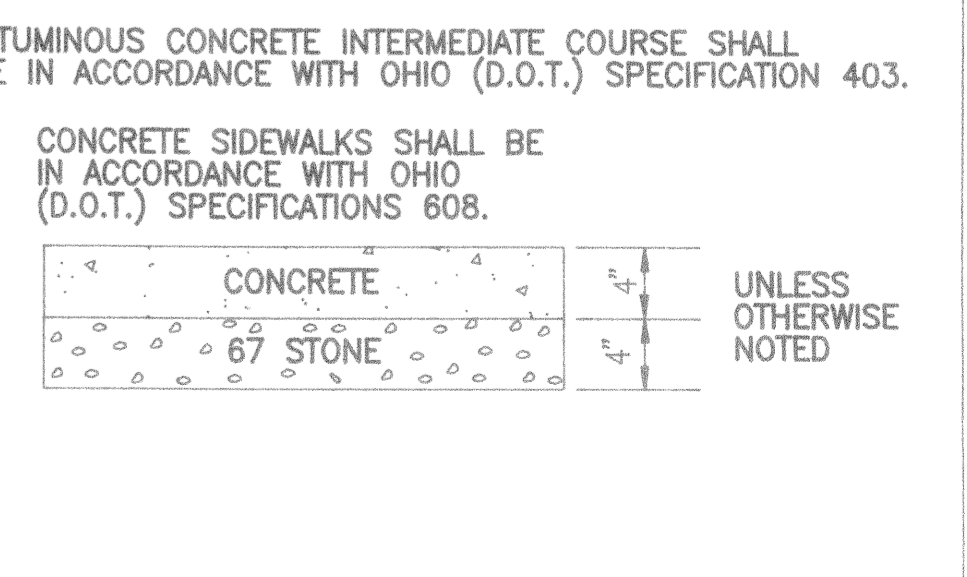
PAVEMENT REPLACEMENT DETAILS
NO SCALE



WALK REPLACEMENT DETAIL
NO SCALE



PAVEMENT REPLACEMENT DETAILS
NO SCALE



WALK REPLACEMENT DETAIL
NO SCALE

GENERAL NOTES

EROSION AND SEDIMENT CONTROLS

Vegetative practices

Such practices may include: temporary seeding, permanent seeding, mulching, matting, sod stabilization, vegetative buffer strips, phasing and protection of trees. The contractor shall initiate appropriate vegetative practices on all disturbed areas within seven (7) days if they are to remain dormant (undisturbed) for more than forty-five (45) days. Permanent or temporary soil stabilization shall be applied to disturbed areas within seven (7) days after final grade is reached on any portion of the site.

Structural Practices

Structural practices shall be used to control erosion and trap sediment from all sites remaining disturbed for more than fourteen (14) days.

Timing

Sediment control structures shall be functional throughout earth disturbing activity. Sediment ponds and perimeter sediment barriers shall be implemented as the first step of grading and within seven days from the start of grubbing. They shall continue to function until the upslope development area is restabilized.

Sediment Barriers

Sheet flow runoff from denuded areas shall be intercepted by sediment barriers. Sediment barriers, such as sediment fences or diversions direction runoff to settling facilities, shall protect adjacent properties and water resources from sediment transported by sheet flow.

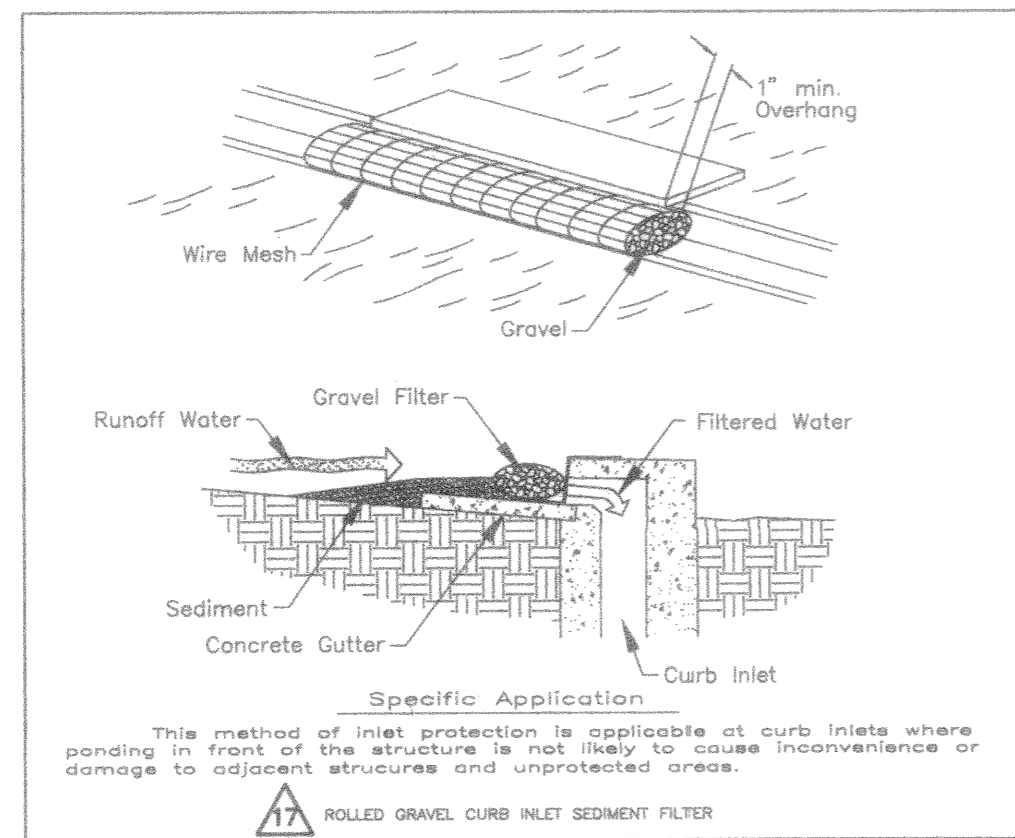
Erosion and sediment control practices used to satisfy the conditions of this plan shall meet the standards and specifications in the current edition of Water Management and Sediment Control in Urbanized Areas (Soil Conservation Service.)

Waste Disposal

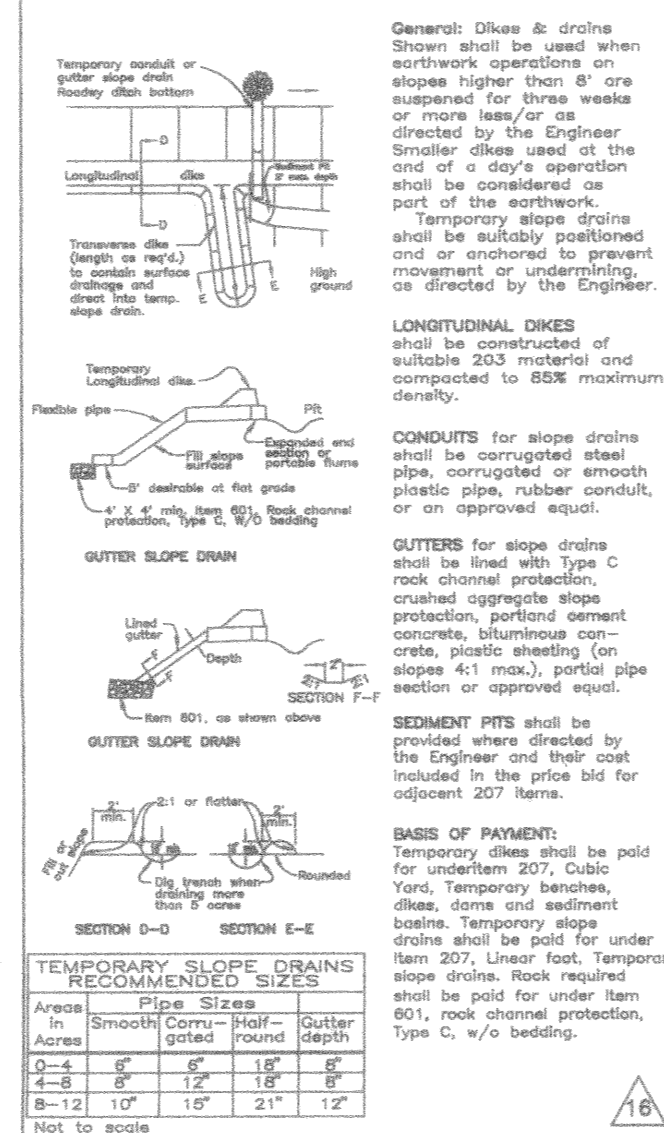
No solid or liquid waste, including building materials, shall be discharged in storm water runoff. Off-site vehicle tracking and sediments shall be minimized. The plan shall ensure and demonstrate compliance and applicable State of local waste disposal, sanitary sewer or septic system regulations.

Maintenance

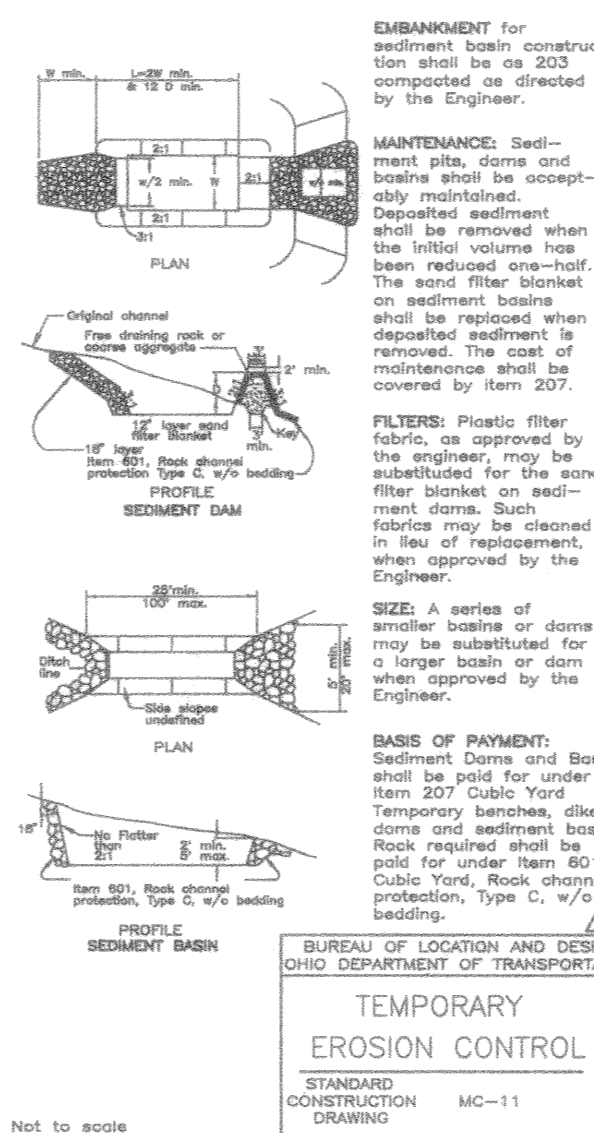
All temporary and permanent control practices shall be maintained and repaired as needed to assure continued performance of their intended function.



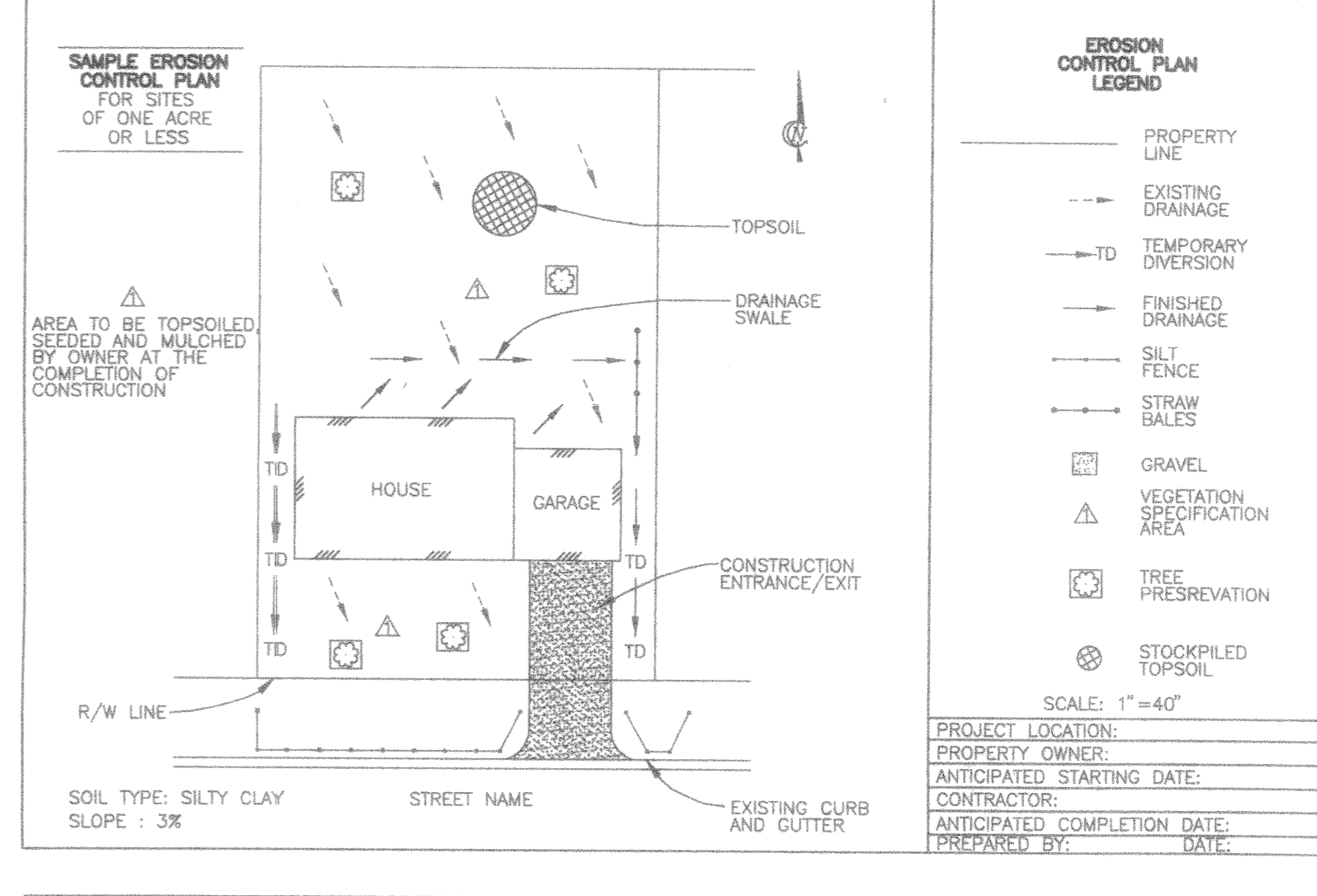
DIKES AND SLOPE PROTECTION



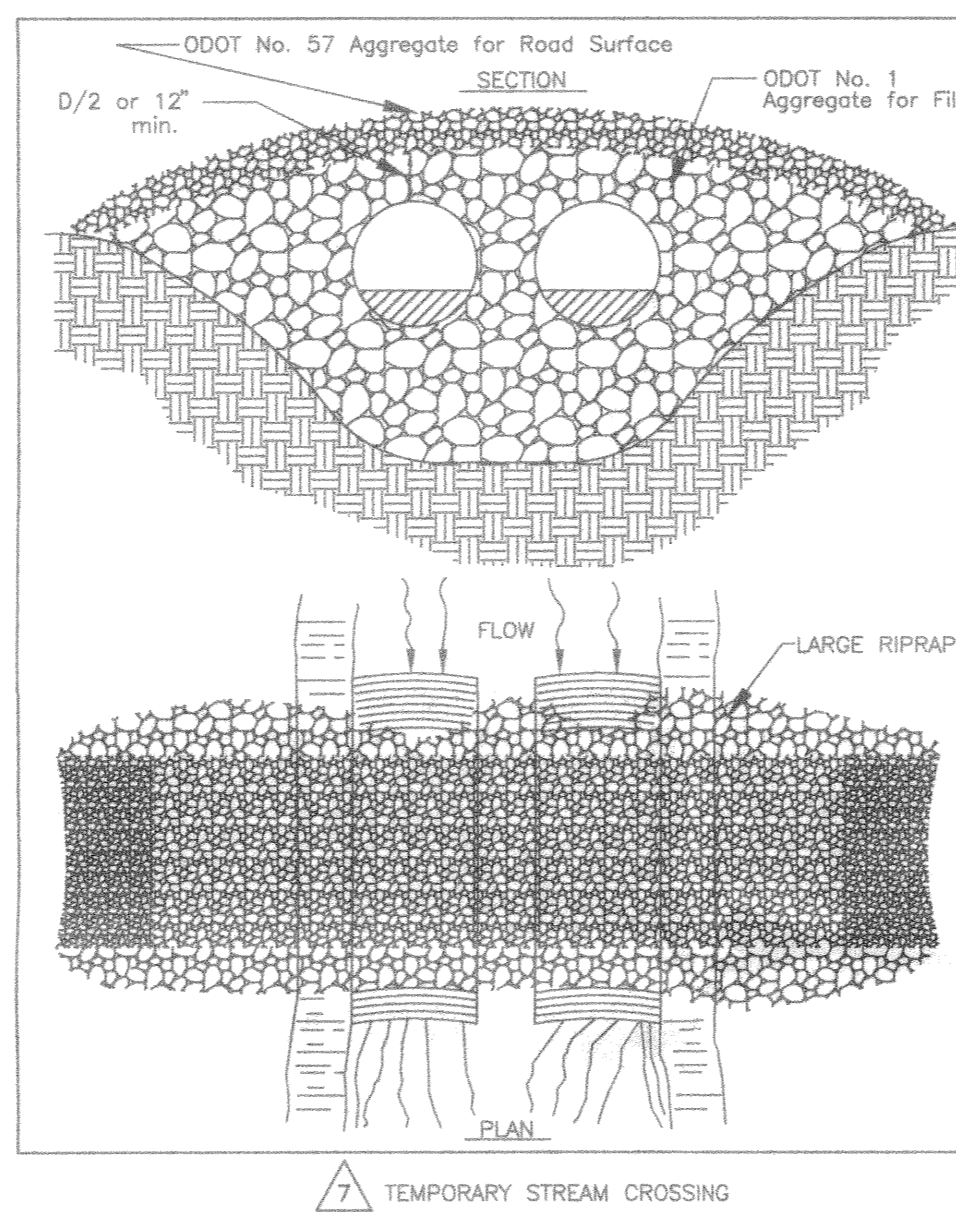
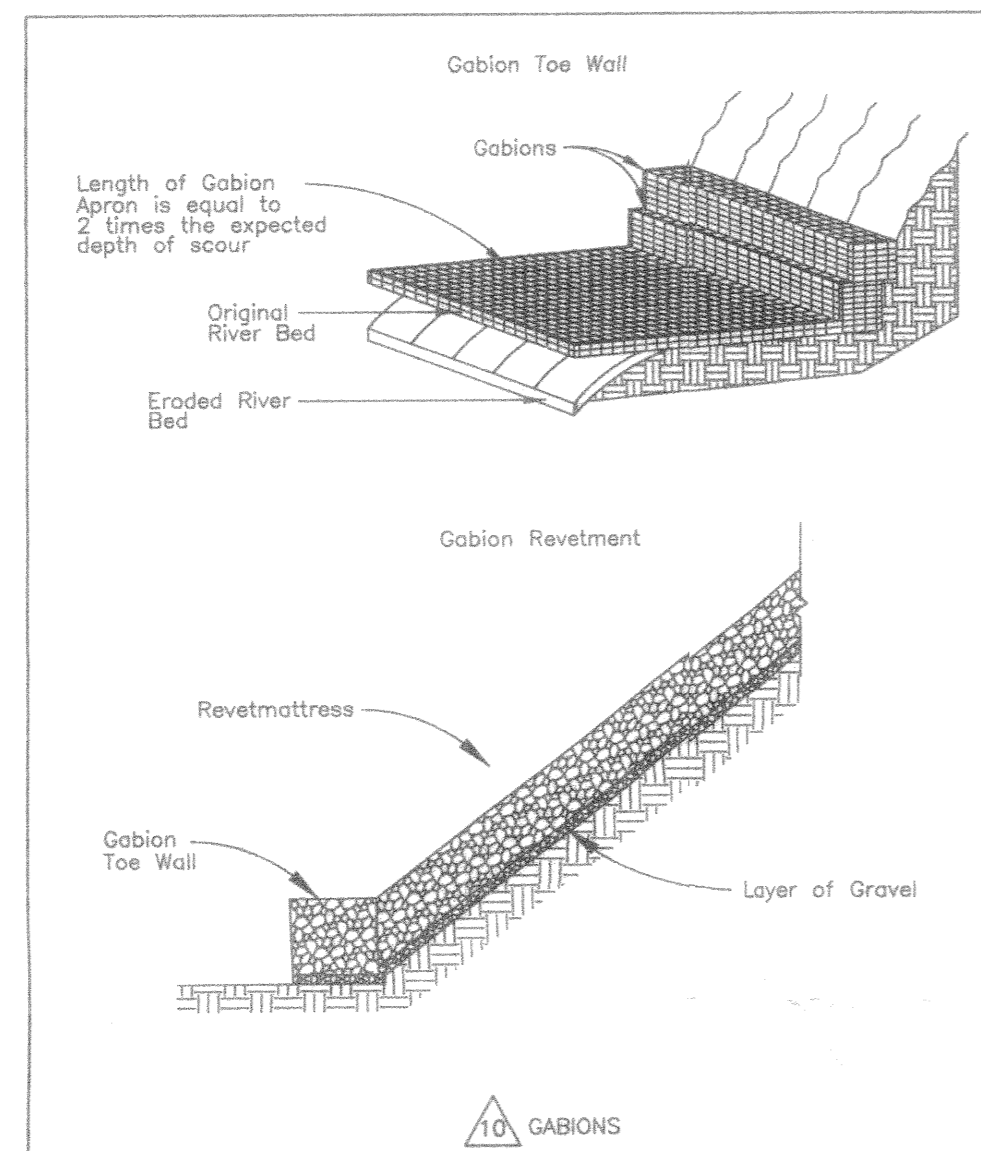
SEDIMENT BASINS & DAMS



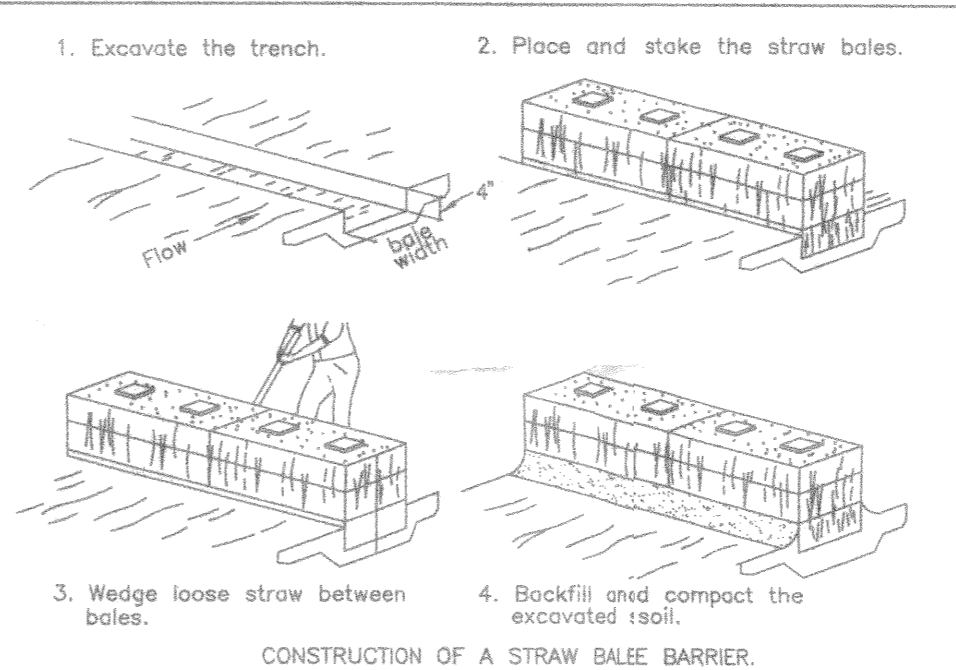
EROSION CONTROL FOR SMALL SITES



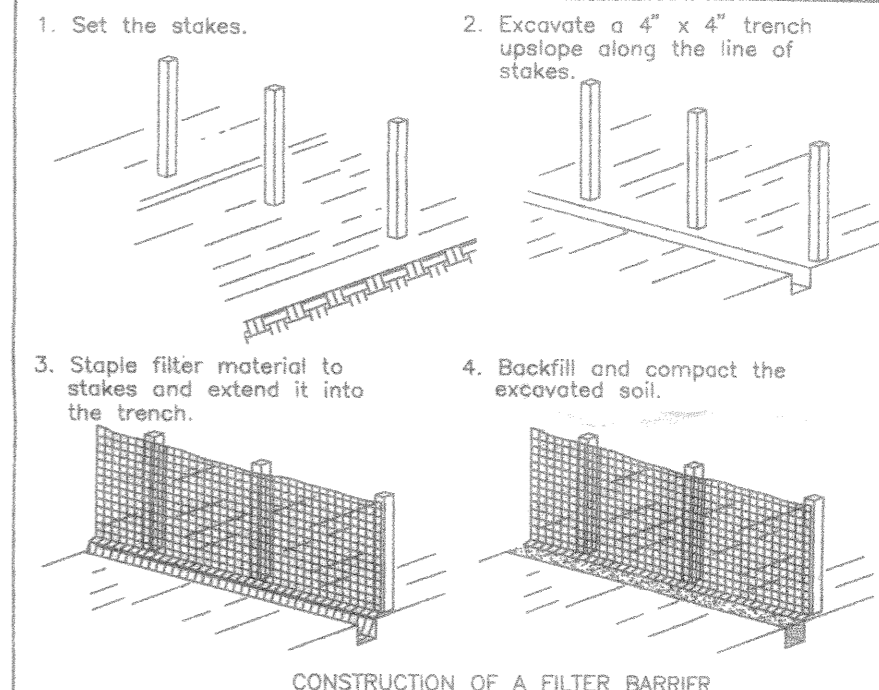
- REVEGETATION**
Seed, sod or mulch bare soil as soon as possible.
- SEEDING AND MULCHING**
Spread 4 to 6 inches of topsoil. Fertilize according to soil test (or apply 10 lb./1000 sq. ft. of 20-10-10 or 10-10-10 fertilizer).
Seed with an appropriate mix for the site (see table). Rake lightly to cover seed with 1/4" of soil. Roll lightly.
Mulch with straw (70-90 lb. or one bale per 1000 sq. ft.).
Anchor mulch by punching 2 inches into the soil with a dull, weighted disk or by using netting or other measures on steep slopes, or windy areas. Water gently every day or two to keep soil moist. Less watering is needed once grass is 2 inches tall.
- SODDING** Spread 4 to 6 inches of topsoil. Fertilize according to soil test (or apply 10 lb./1000 sq. ft. of 20-10-10 or 10-10-10 fertilizer).
Lightly water the soil.
Lay sod. Tamp or roll lightly.
On slopes, lay sod starting at the bottom and work toward the top. Peg each piece down in several places.
Initial watering should wet soil 6 inches deep (or until water stands 1 inch deep in a straight-sided container.) Then water lightly every day or two for 2 weeks.
- If construction is completed after October 31, seeding or sodding may be delayed. Applying mulch or temporary seed (such as rye or winter wheat) is recommended if weather permits. Straw bale or silt fences must be maintained until final seeding or sodding is completed in spring March 15- May 31.
- PRESERVING EXISTING VEGETATION**
Whenever possible, preserve existing trees, shrubs, and other vegetation.
To prevent root damage, do not grade, place soil piles, or park vehicles near trees marked for preservation.
Place plastic mesh or snow fence barriers around trees to protect the area below their branches.
- STRAW BALE OR SILT FENCE**
Put up before any other work is done. Install on downslope side(s) of site with ends extended up upslopes a short distance.
Place parallel to the contour of the land to allow water to pond behind fence.
Entrench 4 inches deep (see back page.) Stake (2 stakes per bale OR 1 stake every 3 feet for silt fence.)
Leave no gaps between bales or sections of silt fence. Inspect and repair once a week and after every 1/2 inch rain. Remove sediment if deposits reach half the fence or straw bale height.
Maintain until a lawn is established.
- SOIL PILES**
Located away from any downslope street, driveway, stream, lake, wetland, ditch or drainage way.
Temporary seed such as annual rye is recommended for topsoil piles.
Surround with straw bales or silt fence.
- GRAVEL DRIVE**
Install a single access drive using 3 to 5 inch aggregate over a geotextile material.
Lay gravel 5 inches deep and 10 feet wide from the foundation to the street.
Use to prevent tracking dirt onto the road by all vehicles.
Maintain throughout construction until driveway is paved.
Park all construction vehicles on the street and off of the site.
- SEDIMENT CLEANUP**
By the end of each work day, sweep or scrape up soil tracked onto the road.
By the end of the next work day after a storm, clean up soil washed off-site, and check straw bales and silt fence for damage or sediment buildup.
- DOWNSPOUT EXTENDERS**
Not required, but highly recommended. Install as soon as gutters and downspouts are completed.
Route water to a grassed or paved area. Maintain until a lawn is established.



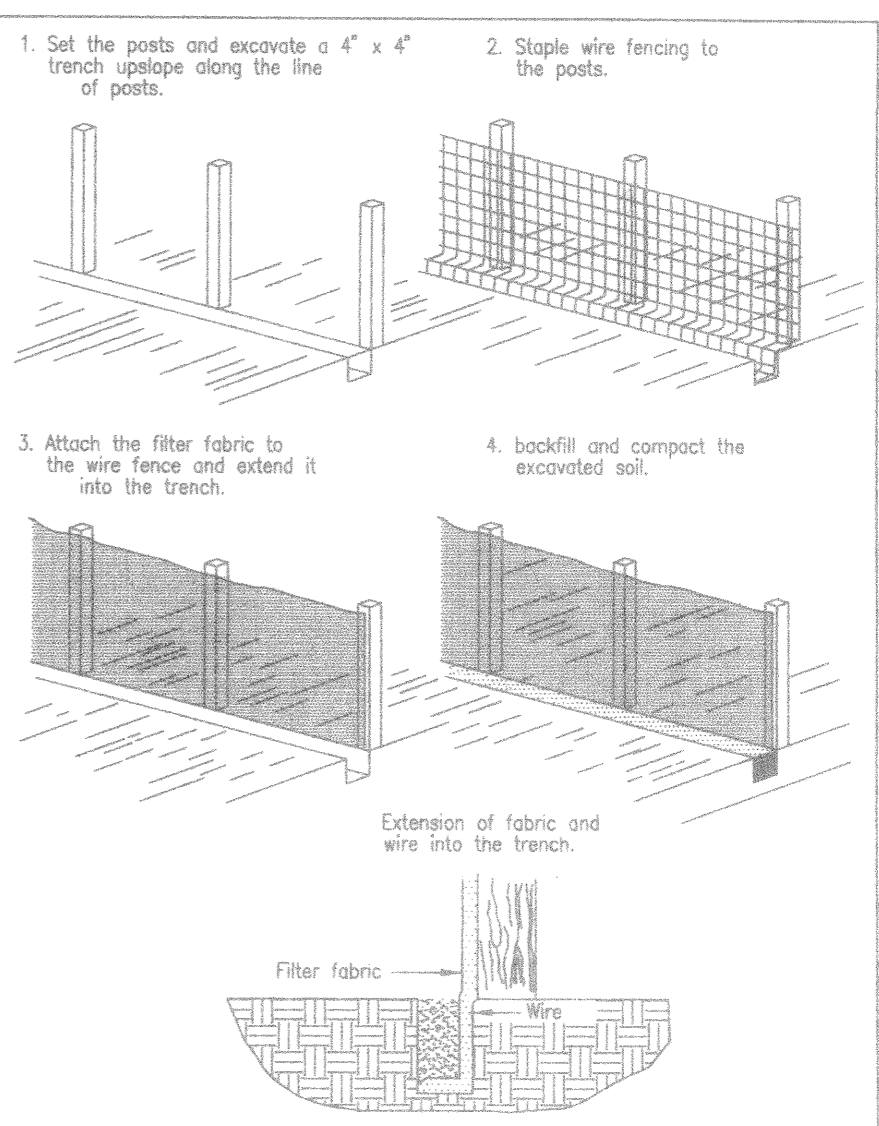
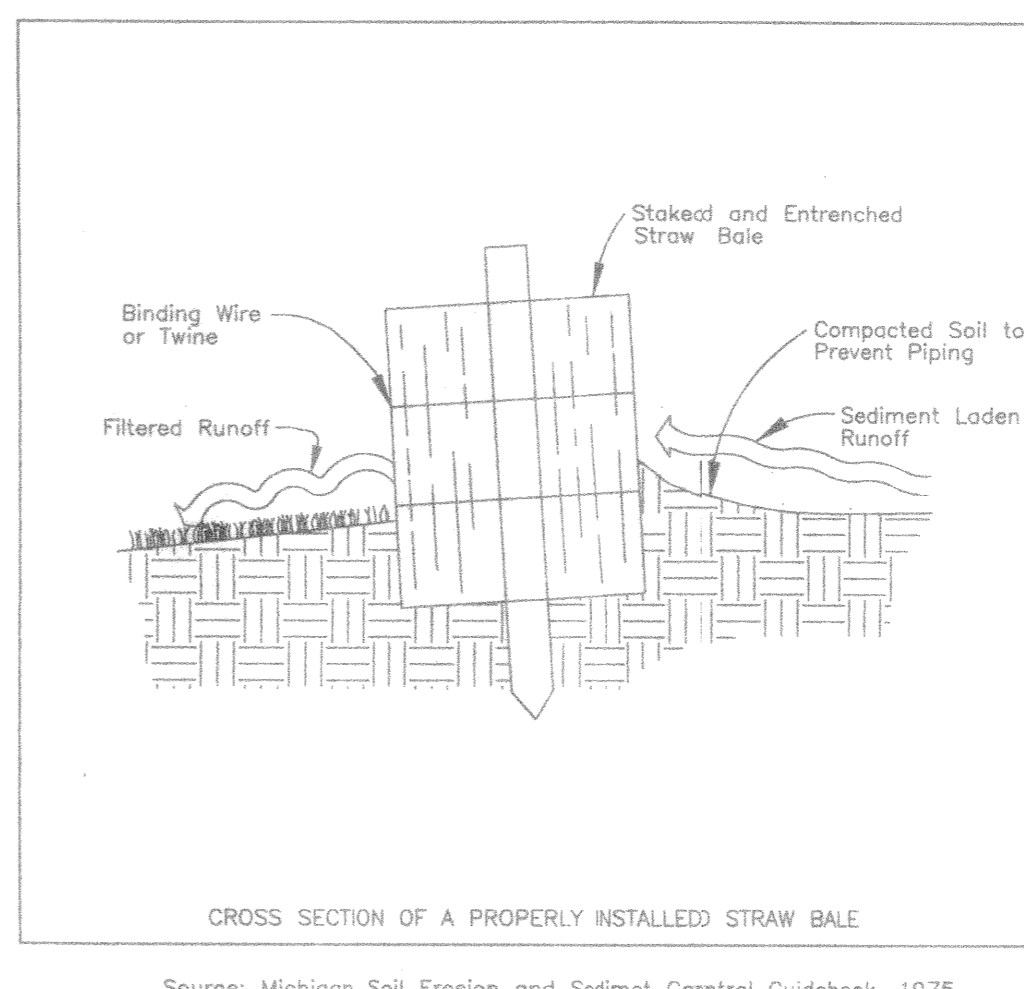
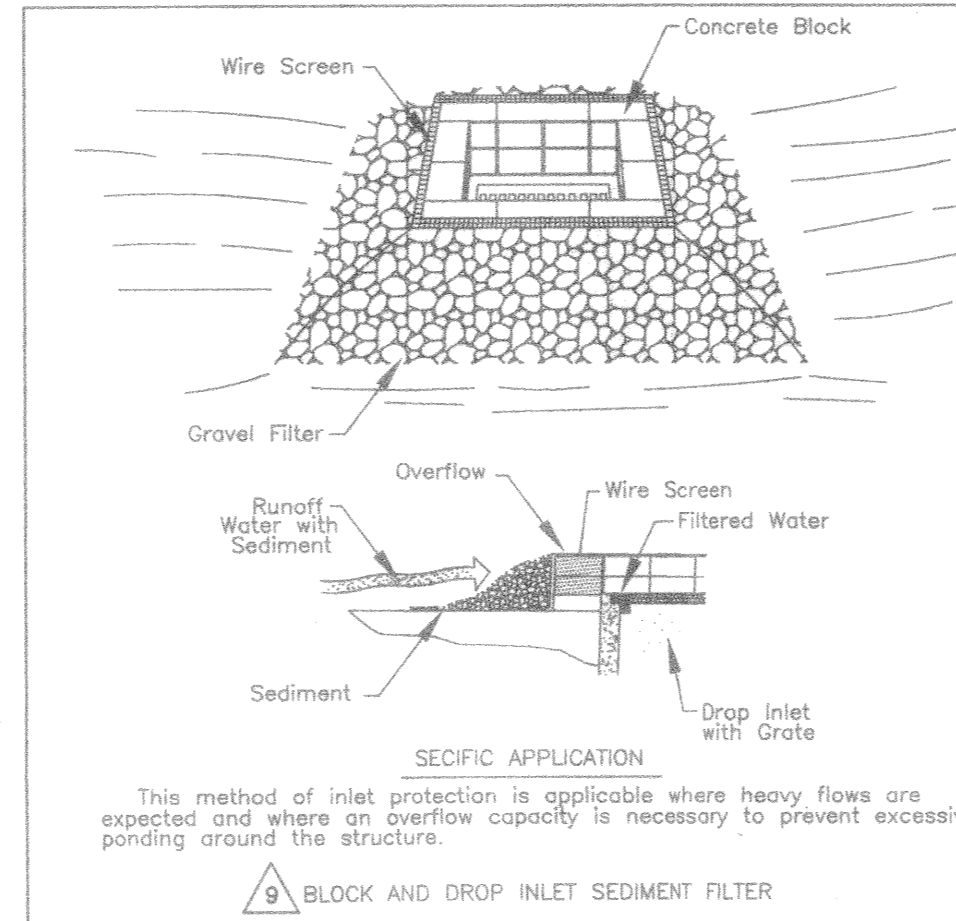
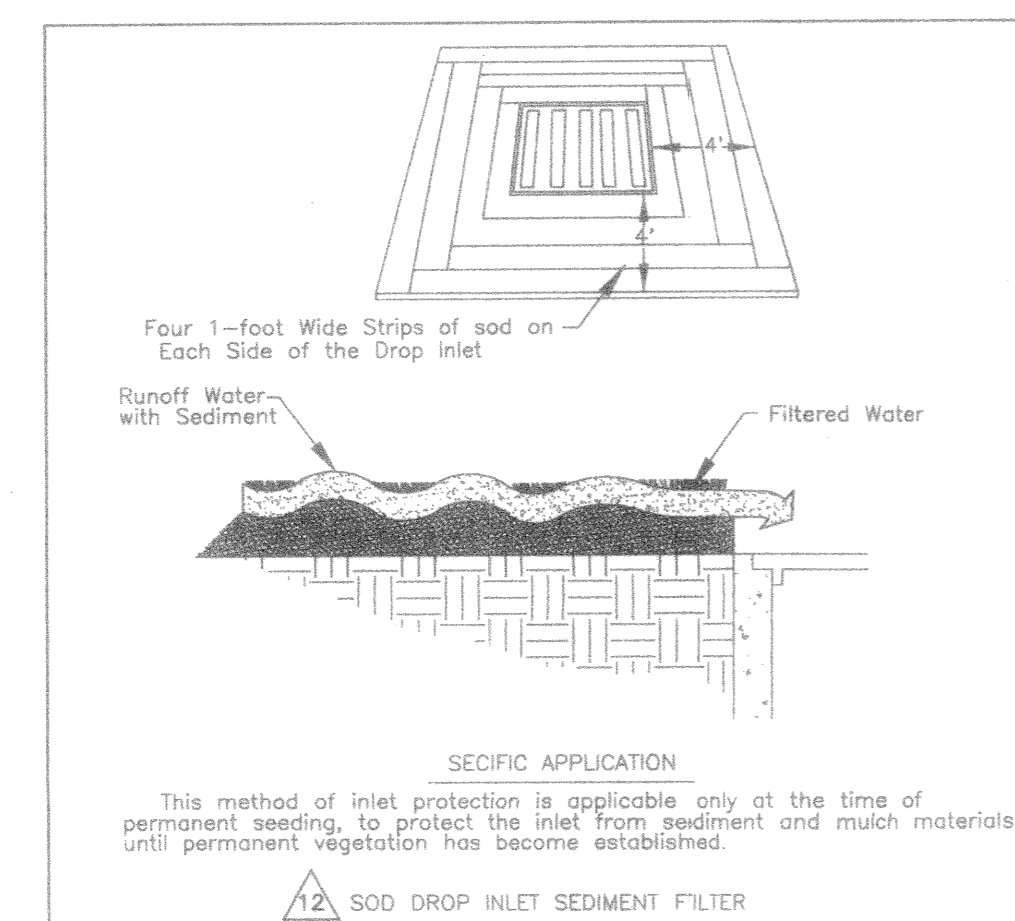
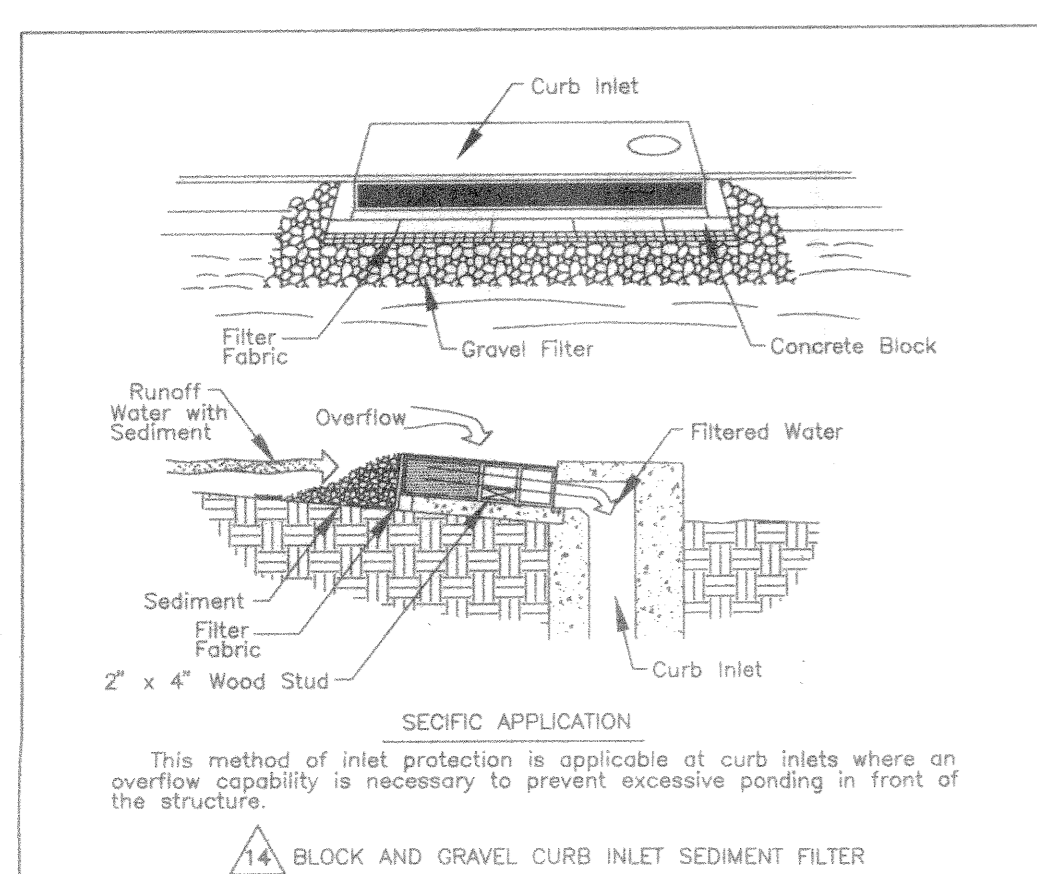
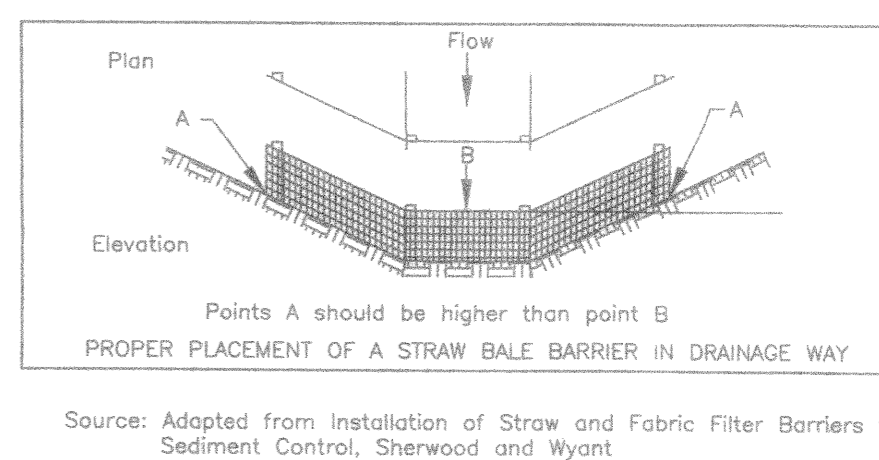
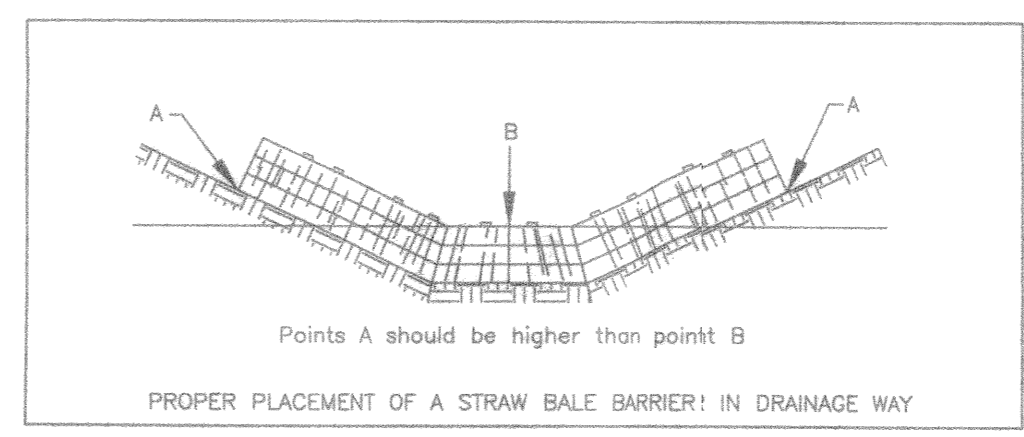
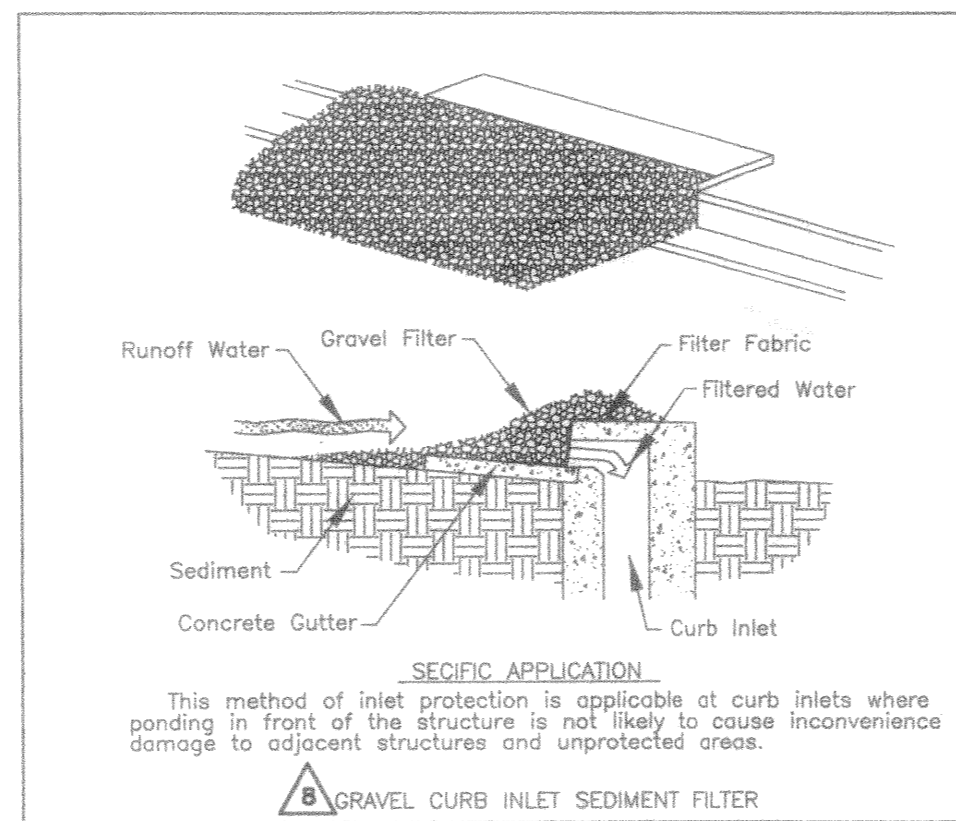
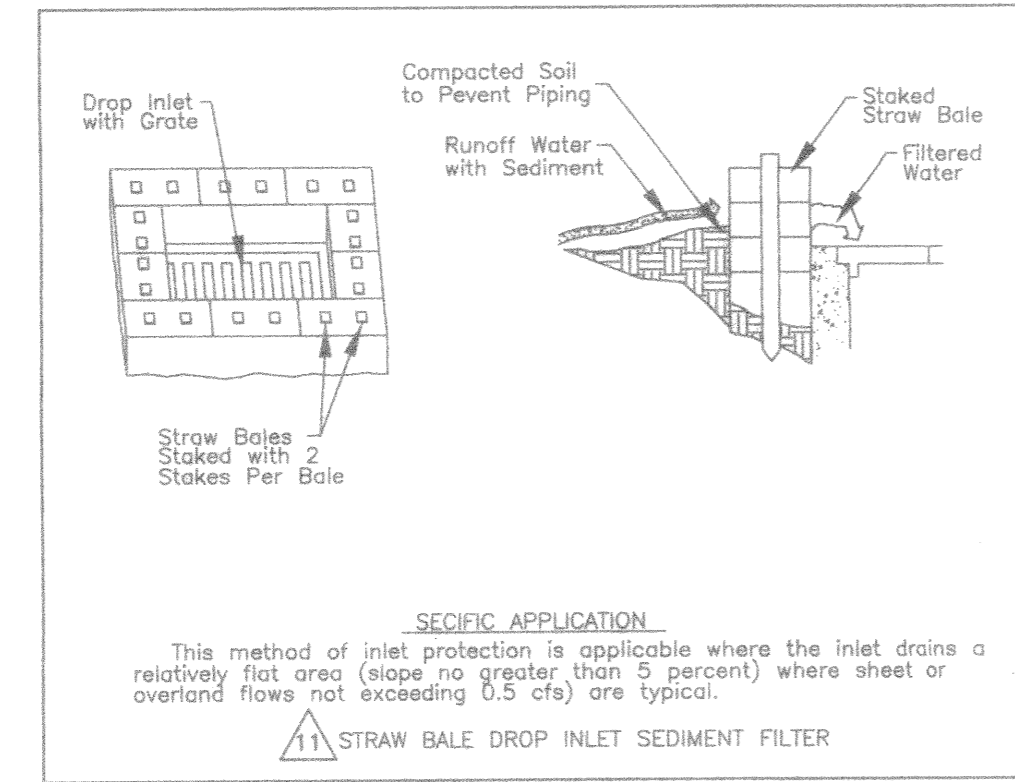
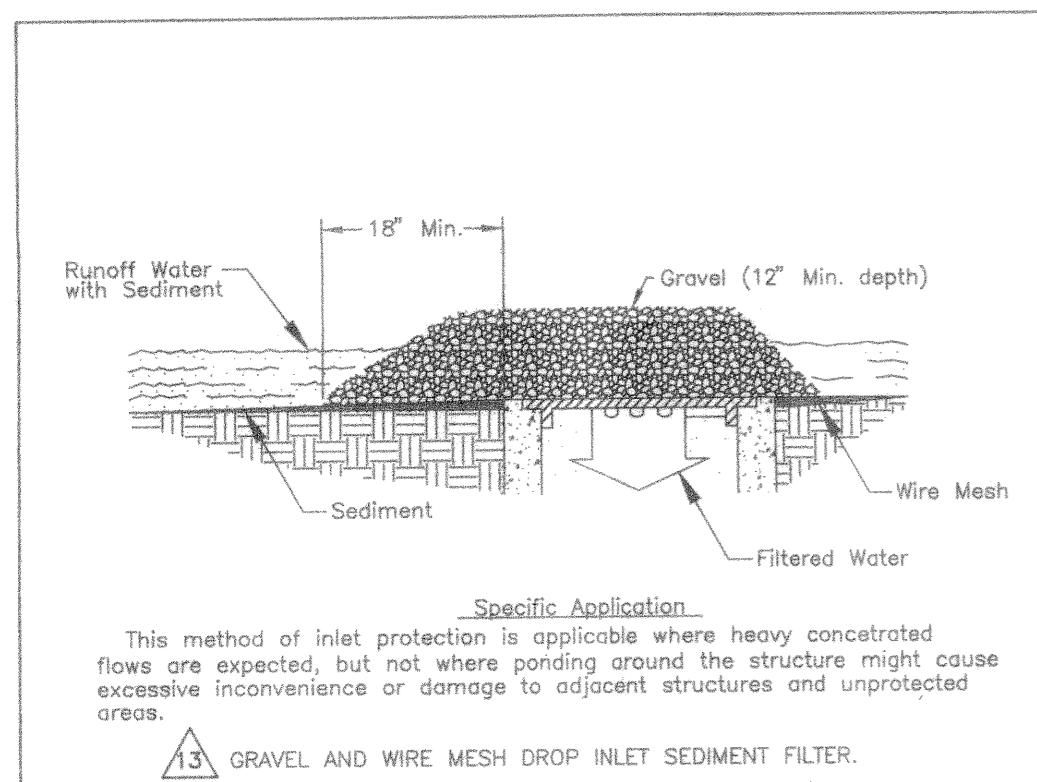
STRAW BALE DETAILS



SILT FENCE DETAILS

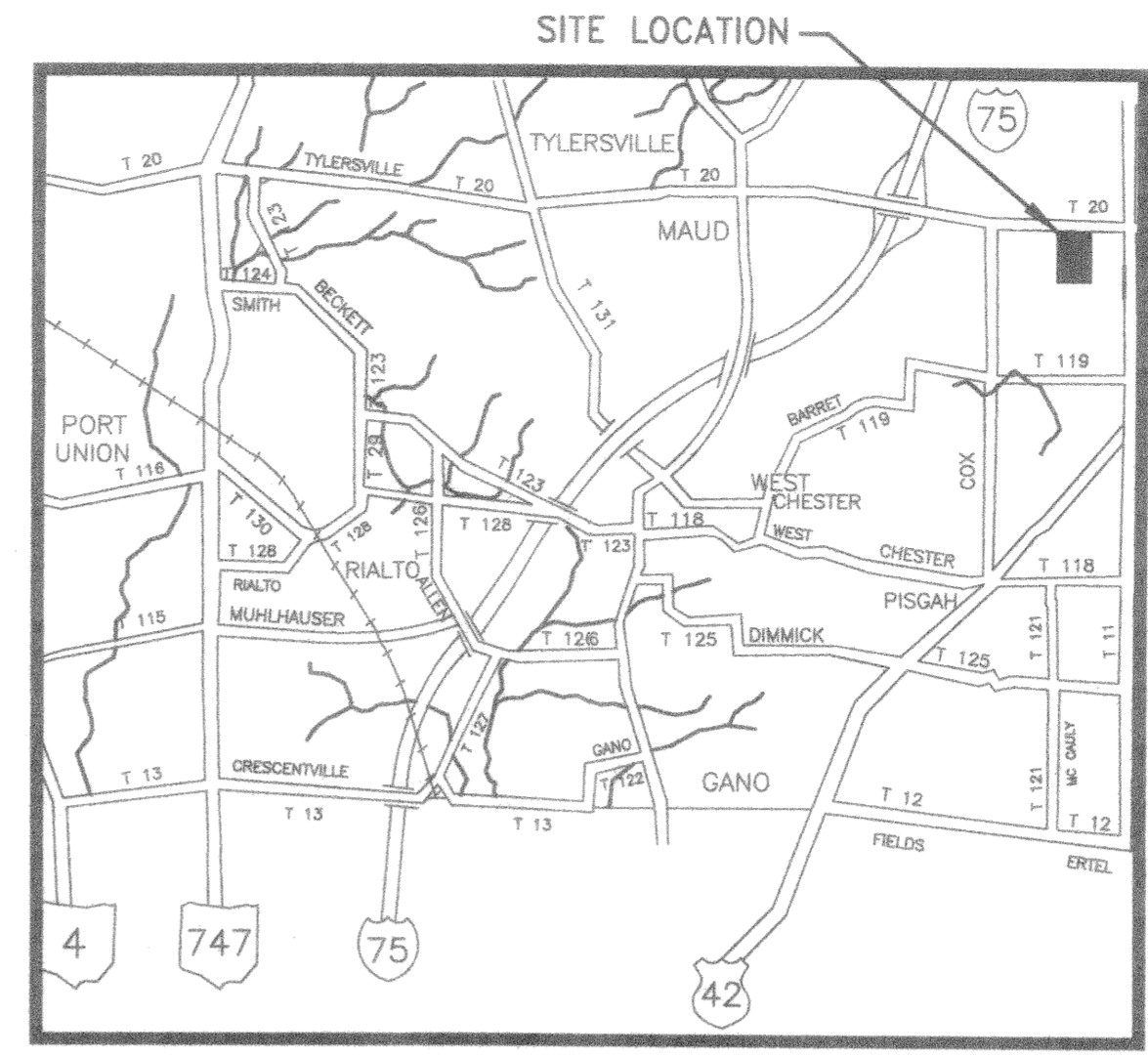
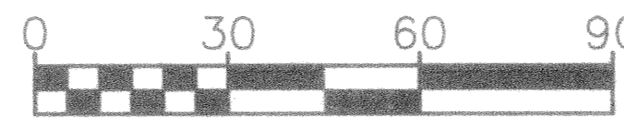


INLET PROTECTION DETAILS



Layout Plan 10-1-96

CHESTERWOOD VILLAGE INC.
D.B. 6006, PG. 1775
FUTURE PHASE



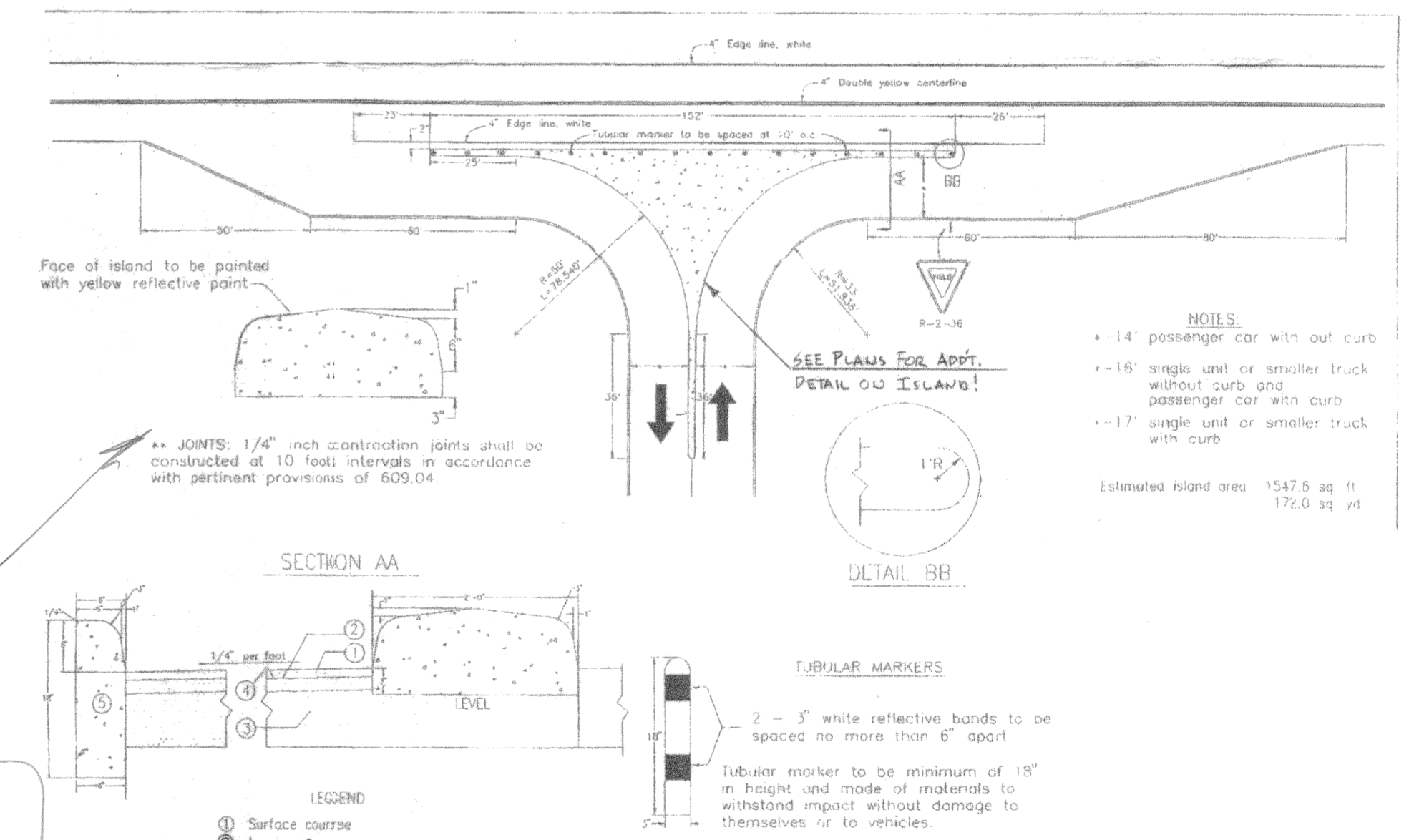
VICINITY MAP
SCALE=N.T.S.

GENERAL NOTES (Cont'd.)

- A minimum 10' utility easement shall be shown on the record plat parallel and immediately adjacent to the right-of-way line allowing for installation, operation and maintenance of sewers, water, electric and telephone conduits and any other public or quasi public utility.
- Developer shall be responsible for the installation of conduits for the full width of the public right-of-way at a depth of 36" for use by the electric, telephone and cable TV services. The location of the lines shall be coordinated with utility companies by the developer.
- All electrical transformers shall be located so that they do not interfere with the existing manholes or water main appurtenances.
- Water main materials, valves, fire hydrant, fittings and appurtenances and installation to be as per Butler County specifications using class 53 Ductile Iron as per AWWA C-151 with 4' minimum cover.
- Sanitary sewer materials and installation to be as per Butler County specifications, using ABS 6" pipe, as per ASTM D-2751 with joint specification as per ASTM D-3212, using ABS composite 8" pipe, as per ASTM D-2680 with joint specification as per ASTM D-2235.
- Minimum 10" horizontal, 18" vertical separation between Water Main and Sanitary and/or Storm Sewer.
- Storm sewer pipe to be A.D.S. N-12 plastic or equal unless otherwise noted on plans. Bedding to be first class. All sewers to be installed as per Butler County specifications.
- Roof drains, foundation drains, and other clean water connections to the sanitary sewer system are prohibited.
- All catch basins with a depth greater than 4.5' shall be provided with steps. Steps shall meet the requirements of ODOT STD. 604 and shall conform to the details as shown on Butler County Standard Drawing MH-1A.
- All buildings to be served by the public sewer system shall be constructed so as to provide a minimum of four feet (4') of vertical separation between the public sanitary sewer, at the point of connection, and the lowest building level served by a gravity sewer connection. In addition, said building level shall be at least one foot (1') above the lowest point of free-overflow (non-sealed manhole cover) upstream of any treatment facility or wastewater pumping facility that receives the discharge from said building. Said minimum service levels shall be recorded on the "As Built" plans for the development which will be kept on file in the office of the Butler County Sanitary Engineer.
- Butler County Water and Sewer Department does not accept any responsibility for the relocation, repair, or replacement of any other utility installed within five (5) feet of the center line of any sanitary sewer main or water main.
- All water main valves to have a minimum depth of 2.5' from proposed grade to the top of the Valve Operating Nut.

GENERAL NOTES

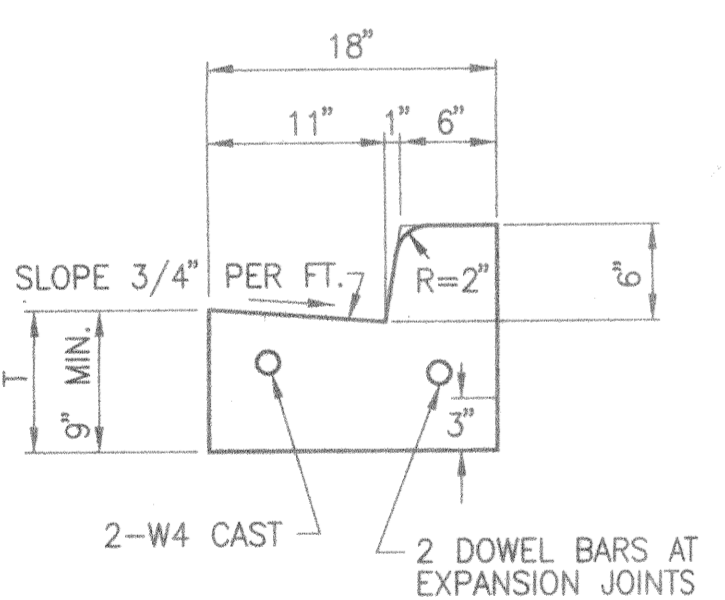
- Item numbers refer to the Ohio Department of Transportation construction and material specifications, and all construction work shall be done according to said specifications of Butler County requirements and standards for subdivisions. When in conflict, the County requirements shall prevail.
- Items that pertain to underground sanitary sewer pipe, water valve etc., will remain under specific Storm sewers shall be designed the requirements of the Butler County.
- All trenches within the right-of-way shall be compacted and backfilled in the state specifications.



RIGHT IN/RIGHT OUT DETAIL
NOT TO SCALE

FINAL PUD PLAN
INDEX TO SHEETS

- General Notes & Layout Plan 1
- Utility Plan 2
- Grading Plan 3
- Profiles 4
- Soil Erosion & Sedimentation Details 5
- Standard Detail Sheets 6



CURB & GUTTER
TYPE TWO
CURB & GUTTER DETAIL

UNDERGROUND UTILITIES
2 WORKING DAYS
BEFORE YOU DIG
Call 1-800-362-2764
UNITED UTILITY
PROTECTION SERVICE
NON MEMBERS
MUST BE CALLED DIRECTLY

CHESTERWOOD VILLAGE INC.
D.B. 6006, PG. 1775
FUTURE PHASE

OWNER/DEVELOPER
Chesterwood Village, Inc.
4195 Hamilton Mason Road
Indian Springs, Ohio 45011

BENCHMARK

TOP OF CONC. MONUMENT #833 AT S.E. CORNER
OF MCGINNIS PARK, COX RD. ELEV. = 882.78

CONSTRUCTION APPROVAL	
DATE	DATE

- NOTES:
- A 20' Sanitary Sewer Easement, 15' Water Line Easement, and Ingress-Egress Easement to be provided on Easement Plat.
 - Pedestrian walkway is to be 6' wide and composed of item 304 - 6" aggregate base, item 402 - 1 1/2" asphalt concrete, and item 404 - 1 1/2" asphalt concrete.

These plans are not for construction until ALL approval dates have been filled in.

JOB LOG	
DATE	COMMENT
9/17/96	PLANNING COMM. APPL.
9/17/96	REVISED RIGHT IN/RIGHT OUT DETAIL
9/30/96	FINISHED ACCESS DRIVE

SUPPLEMENTAL PRINTS OF STANDARD CONSTRUCTION DRAWINGS	
CB - 3A	CATCH BASIN
CB - 3A (MOD.)	CATCH BASIN
CB - 1	CATCH BASIN
STD. MANHOLE	1A

PHASE 1
PROJECT SUMMARY

Apartments	7
Number of Units	28
Parking	
Required:	56
Provided:	56
Ratio:	1:1
Acres:	
Gross (Incl. R/W)	4.03 ACRES
Right-of-Way	0 ACRES
Net	4.03 ACRES
Open Space	20%
Zoning:	R-PUD

CHESTERWOOD RETIREMENT COMMUNITY
PHASE ONE
SECTION 11, TOWN 3, RANGE 2
UNION TOWNSHIP
BUTLER COUNTY, OHIO

LAYOUT
PLAN

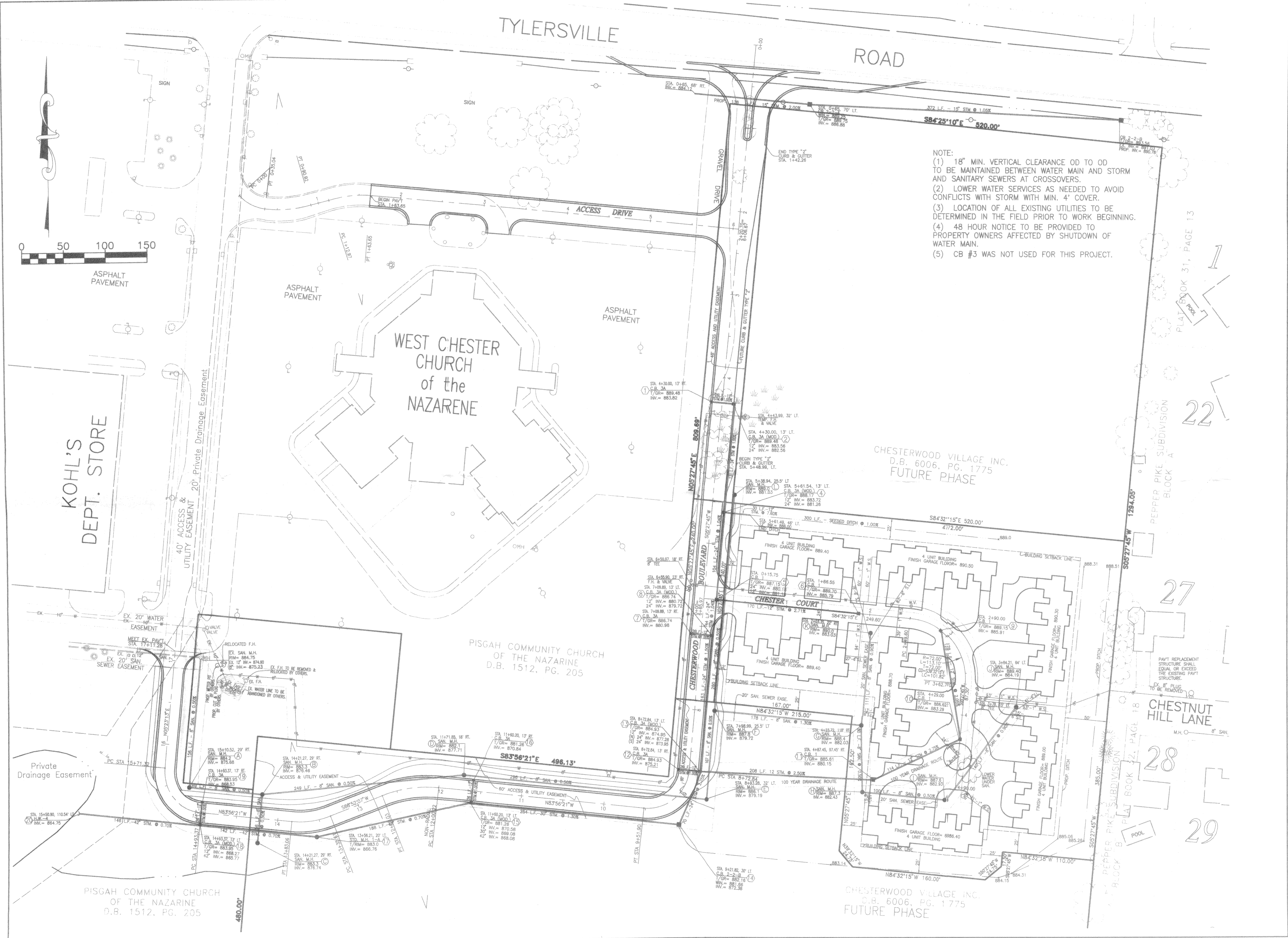
DATE:	REVISION/COMMENT
9/18/96	ADDED RIGHT IN/RIGHT OUT DETAIL
9/30/96	REVISIONS

engineers planners surveyors

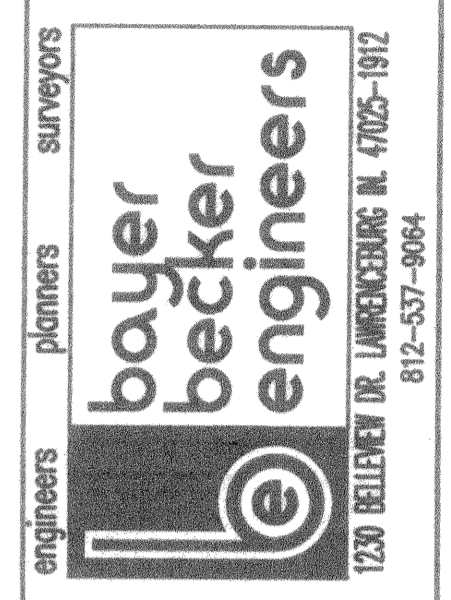
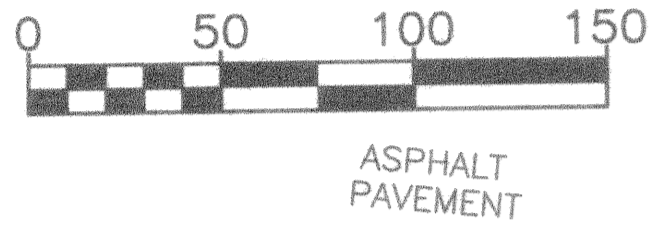
bayer becker engineers

1230 Bellevue Dr., Lawrenceburg Indiana 47025-1912
812-537-9064

Also Attached



NOTE:
 (1) 18" MIN. VERTICAL CLEARANCE OD TO OD TO BE MAINTAINED BETWEEN WATER MAIN AND STORM AND SANITARY SEWERS AT CROSSOVERS.
 (2) LOWER WATER SERVICES AS NEEDED TO AVOID CONFLICTS WITH STORM WITH MIN. 4' COVER.
 (3) LOCATION OF ALL EXISTING UTILITIES TO BE DETERMINED IN THE FIELD PRIOR TO WORK BEGINNING.
 (4) 48 HOUR NOTICE TO BE PROVIDED TO PROPERTY OWNERS AFFECTED BY SHUTDOWN OF WATER MAIN.
 (5) CB #3 WAS NOT USED FOR THIS PROJECT.



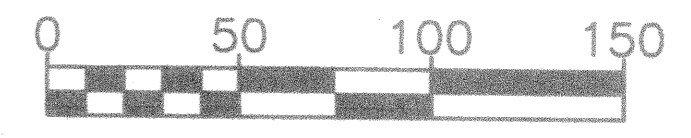
CHESTERWOOD RETIREMENT
 COMMUNITY
 PHASE ONE

UTILITY
 PLAN

ITEM	REVISIONS	DATE
7		
6		
5		
4		
3		
2		
1	REVISED CHESTERWOOD BLVD./SWIMWAY/STORM	9/17/96

AutoCAD
 Drawing Name: M8579.DWG
 DATE: 8-29-96

C:\BEE\FF\95\95\W8579.Tue Oct 1 05:40:08 1996. BAYER BECKER ENGINEERS. Plotted by CLM



SEDIMENTATION CONTROL NOTES

The project has been designed to control erosion and prevent damage to other property. All stripping, earthwork, and regrading shall be performed to minimize erosion. Natural vegetation shall be retained wherever possible. The proposed plan will allow almost all eroded materials to be retained on site.

All areas disturbed by the construction of the roadways, ditches and sedimentation basins shall be seeded. Payment will be by the number of square yards disturbed as per the grading plan.

METHOD

Straw bales are to be utilized to create temporary dams to catch the silt. These are to be installed at points where the flow is concentrated.

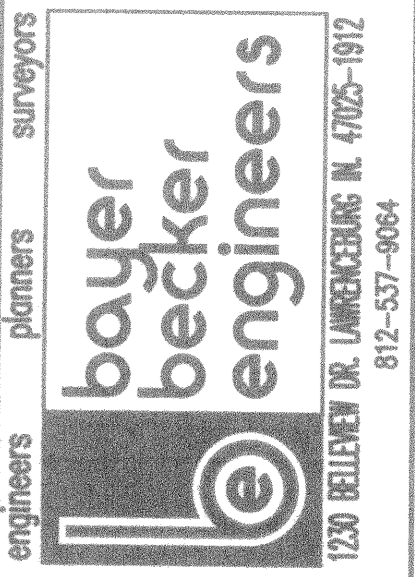
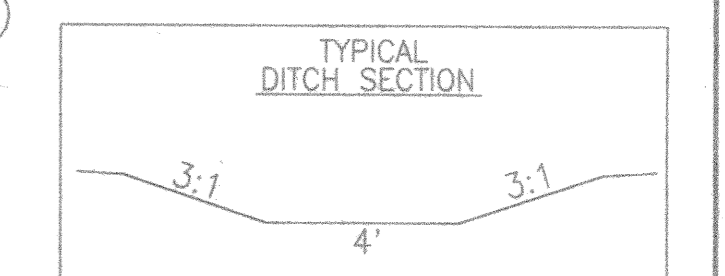
Surface water is to be directed into these temporary silt basins by means of temporary swales and ditches.

As the installation of the storm sewer progress, straw bales are to be placed at the inlet and outlet of sewers to control the silt. Payment for the above shall be included in Item Excavation, Embankment.

All sediment and erosion control measures must be visually inspected and the appropriate maintenance and repair actions taken whenever precipitation exceeds 1/2 inch in any 24 hour period.

EROSION CONTROL LEGEND

- ▲ SEEDING AND MULCHING
- ▲ SODDING
- ▲ PRESERVING EXISTING VEGETATION
- ▲ STRAW BALE
- ▲ SILT FENCE
- ▲ SOIL PILES
- ▲ TEMPORARY STREAM CROSSING
- ▲ GRAVEL CURB INLET SEDIMENT FILTER
- ▲ BLOCK & GRAVEL DROP INLET SEDIMENT FILTER
- ▲ CAGIONS
- ▲ STRAW BALE DROP INLET SEDIMENT FILTER
- ▲ SOD DROP INLET SEDIMENT FILTER
- ▲ GRAVEL & WIRE MESH DROP INLET SEDIMENT FILTER
- ▲ BLOCK & GRAVEL CURB INLET SEDIMENT FILTER
- ▲ SEDIMENT BASINS & DAMS
- ▲ DIKES & SLOPE PROTECTION
- ▲ ROLLED GRAVEL CURB INLET SED. FILTER (SEE SOIL EROSION & SEDIMENTATION CONTROL DETAIL SHEET) SHEET 6

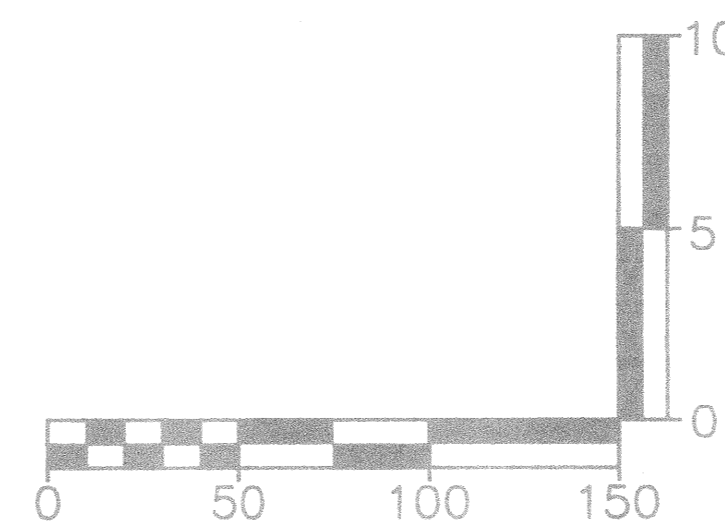
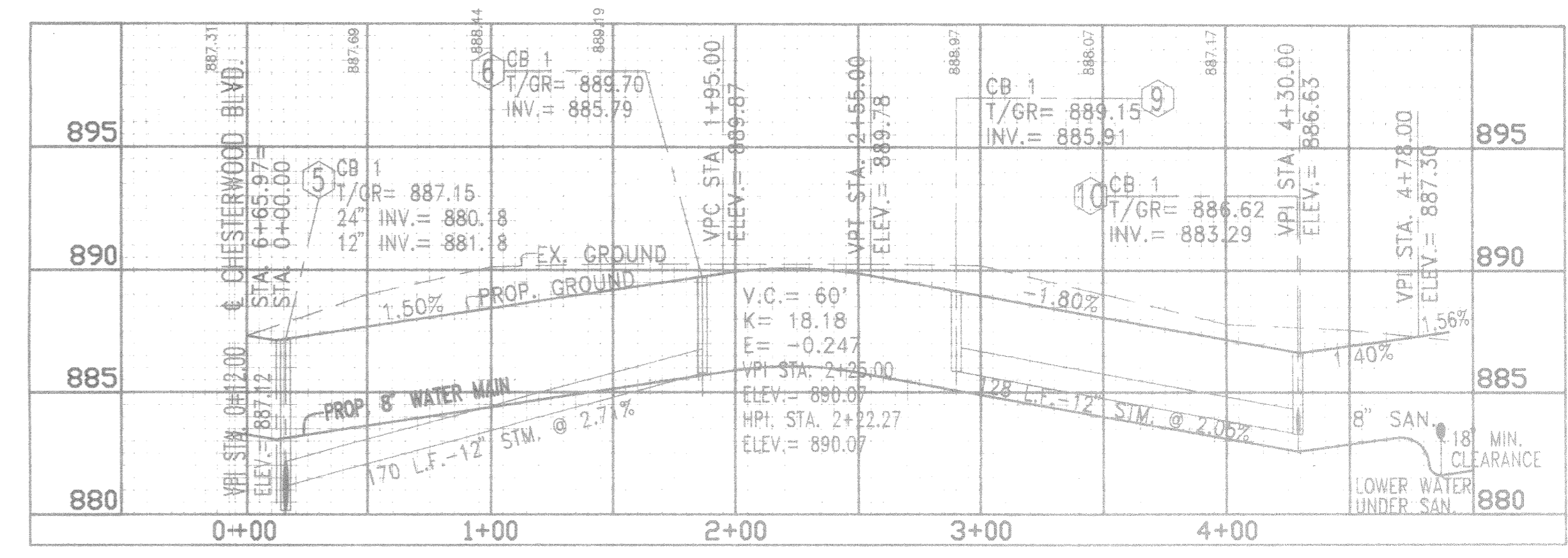
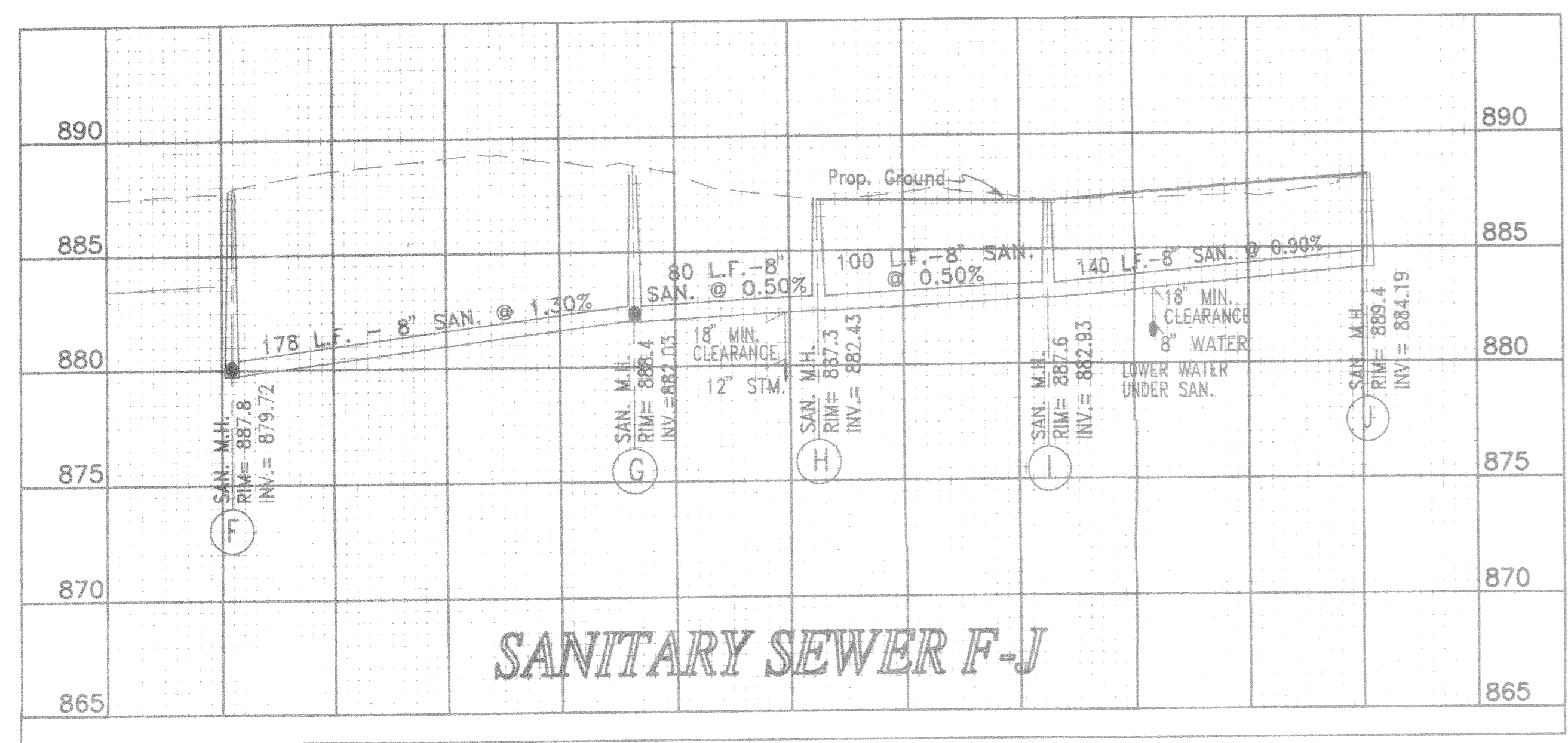
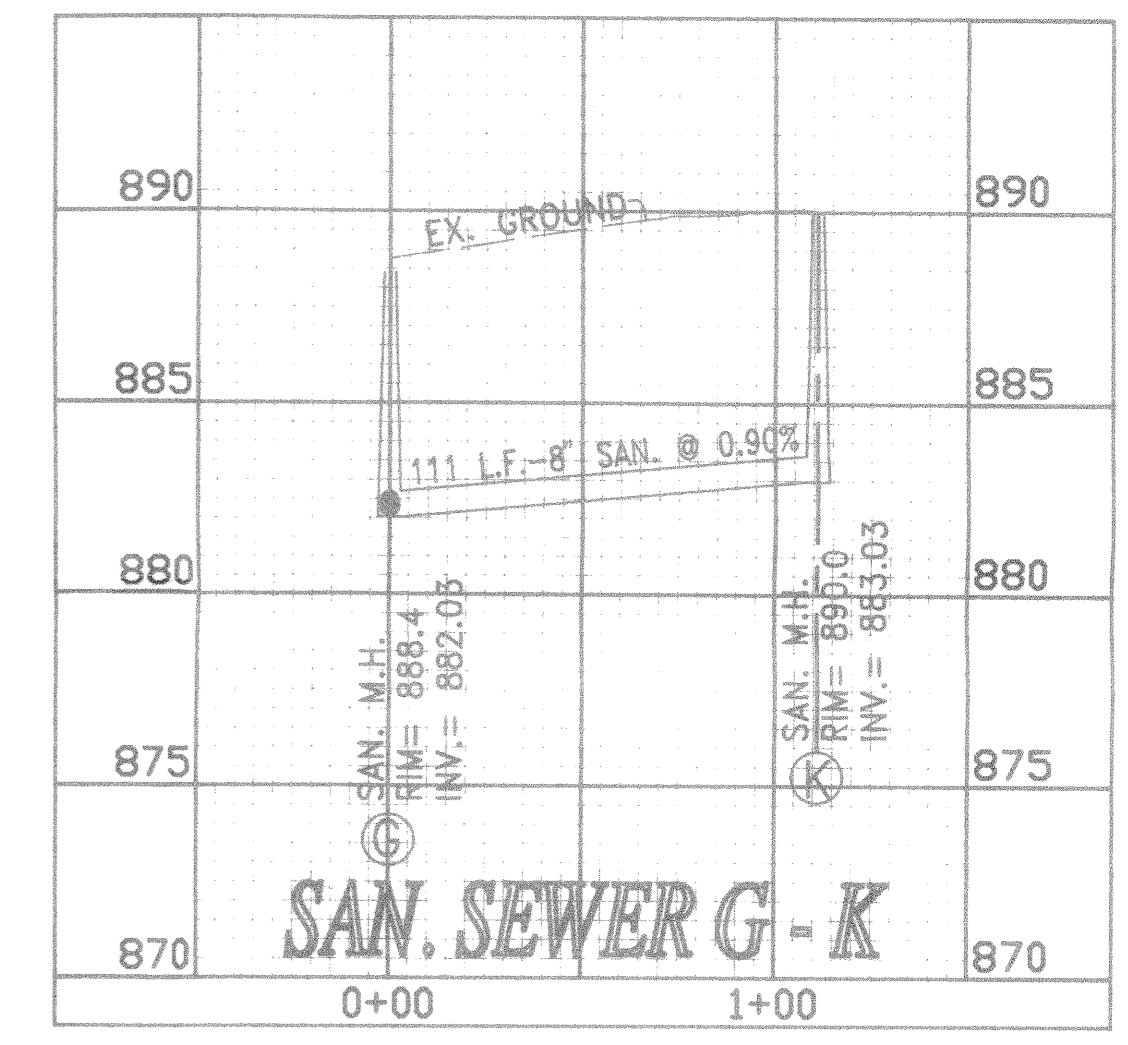
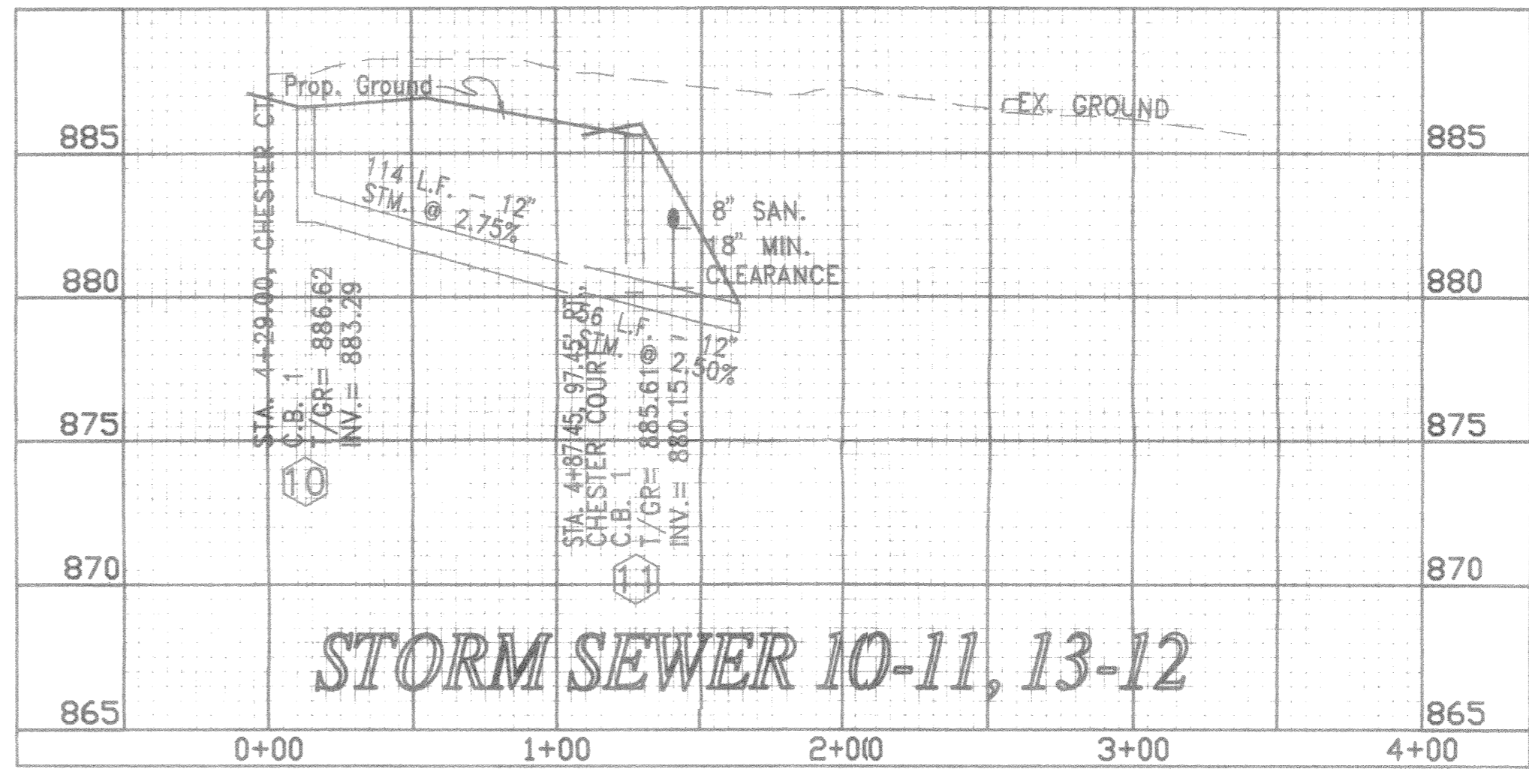
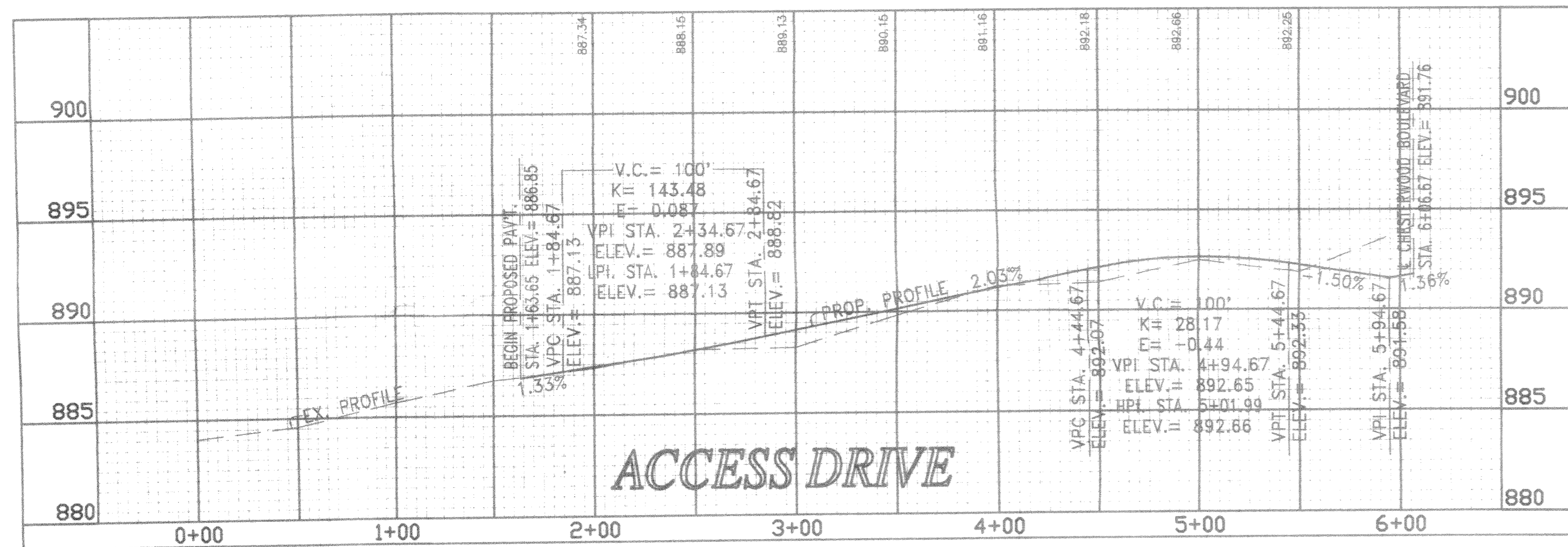
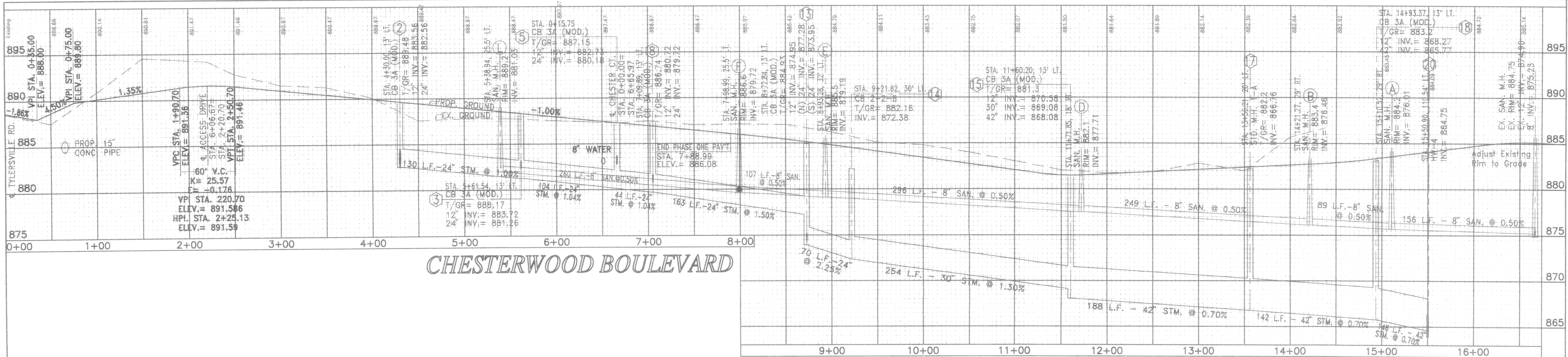


CHESTERWOOD RETIREMENT COMMUNITY PHASE ONE

GRADING AND EROSION CONTROL PLAN

REVISION	DATE	BY	CHK

C:\BEE\FF\9579\MS579 Mon Sep 30 11:41:17 1996 BAYER BECKER ENGINEERS Plotted by: CLM



ITEM	REVISIONS	DATE
7		
6		
5		
4		
3		
2		
1	REVISED SANITARY A-J & STORM INVERTS	9/18/98

CHESTERWOOD RETIREMENT COMMUNITY
PHASE ONE
SECTION 11, TOWN 3, RANGE 2
UNION TOWNSHIP
BUTLER COUNTY, OHIO

PROFILING SHEET
4 OF 6

engineers planners surveyors
bayer becker engineers
1230 BELLEVUE DR. LAWRENCEBURG IN 47025-1912
812-537-9064