

VOLZ

LAND SURVEYORS - ENGINEERS - LAND PLANNERS
10849 MEYAN HEAO AVE. ELVIO
ST. LOUIS, MISSOURI 63132
PHONE 314-426-9272

VIIIIIIII

GREEN TREE MEADOWS PLAT 3

IMPROVEMENT PLANS

HELMUT WEBER CONSTRUCTION CO,



IMPROVEMENT PLANS	
Design By: E.D.K.	
Drawn By: E.D.K.	
Checked By: E.A.K.	
B-8644	

**GREEN TREE MEADOWS
PHASE 3**



Engineers
Land Planners
Land Surveyors

5933 South Highway 94, Suite 201,
St. Charles, Missouri 63304-5611
FAX (636)939-5138
(636)939-5155

HELMUT WEBER
CONSTRUCTION CO
1707 HENKE RD.
O'FALLON, MO.
63366

CONSTRUCTION NOTES

The underground utilities shown herein were plotted from available information and do not necessarily reflect the actual existence, nonexistence, size, type, number, or location of these or other utilities. The general contractor shall be responsible for verifying the actual location of all underground utilities, shown or not shown, and said utilities shall be located in the field prior to any grading, excavation, or construction of improvements. These provisions shall in no way absolve any party from complying with the Underground Facility Safety and Damage Prevention Act, Chapter 319, RSMo.

All construction and materials used shall conform to current City of Lake Saint Louis, Missouri standards and construction specifications.

All utility relocations will be determined by the individual utility company.

Consult Soils Engineer for soil compaction recommendations.

No area shall be cleared without permission of the developer.

All grades shall be within 0.2 feet, plus or minus, of those shown on the grading plan.

No slope shall be steeper than 3 horizontal to 1 vertical.

If cut & fill operations occur during a season not favorable for immediate establishment of a permanent ground cover, a fast germinating annual such as rye grasses or sudan grasses shall be utilized to retard erosion.

Erosion and siltation control shall be installed prior to any grading and be maintained throughout the project until acceptance of the work by the owner and/or controlling regulatory agency and adequate vegetative growth insures no further erosion of soil.

Contractor is responsible for maintaining all siltation control devices shown, and provide additional siltation control devices as deemed necessary due to field conditions or as required by the City of Lake Saint Louis. See approved grading plan set for location of devices.

The Contractor shall notify the Soil Engineer at least two days in advance of the start of the grading operation.

Parking on non-surfaced areas is prohibited in order to eliminate the condition whereby mud from construction and employee vehicles is tracked onto the pavement causing hazardous roadway and driving conditions. Contractor shall keep road clear of mud and debris.

All erosion control systems shall be inspected and necessary corrections made within 24 hours of any rainstorm resulting in sediment reaching one-half the height of straw bales or silt fences.

Siltation fences shall be inspected periodically for damage and for the amount of sediment which has accumulated. Removal of sediment will be required when it reaches 1/2 the height of the fences.

Straw bales shall be inspected periodically for deterioration. Bales which have rotted or failed shall be replaced. Removal of sediment will be required when it reaches 1/2 the height of the bales.

The grading Contractor shall perform a complete grading and compaction operation as shown on plans, stated in these notes, or reasonably implied therefrom, in accordance with the plans and notes as interpreted by the Geotechnical Engineer. Contractor is responsible for monitoring grading operation and accuracy of final rough grades. Notify engineer of any discrepancies affecting final grading balance.

All trench backfills under pavement within the public right-of-way shall be granular backfilled. Trench backfills under paved areas outside of public right-of-way may be granular backfill in lieu of the earth backfill compacted to 90 percent of the Modified AASHTO T-180 compaction test A.S.T.M. D-1557.

Blasting will require a permit from the City of Lake Saint Louis.

Debris and foundation material from any existing on-site building or structure which is scheduled to be razed for this development must be disposed of off-site.

Soft soil in the bottom and banks of any existing or former pond sites or tributaries, or on any sediment basins or traps, shall be removed, spread out and permitted to dry sufficiently to be used as fill. None of this material may be placed in proposed public right-of-way locations or on any sewer locations.

Site preparation includes the clearance of all stumps, trees, bushes, shrubs, and weeds; the grubbing and removal of roots and other surface obstructions from the site; and the demolition and removal of any man-made structures. The material shall be properly disposed of off-site. Topsoil and grass in the fill areas shall be thoroughly disced prior to the placement of any fill. The Soils Engineer shall approve the discing operation.

Compaction equipment shall consist of tamping rollers, pneumatic-tired roller, or high speed impact type drum rollers, acceptable to the Soils Engineer. The roller shall be designed so as to avoid the creation of a layered fill without proper blending of successive fill layers.

The Soils Engineer shall observe and test the placement of the fill to verify that specifications are met. A series of fill density tests will be determined on each lift of fill. Interim reports showing fill quality will be made to the Owner at regular intervals.

The Soils Engineer shall notify the Contractor of rejection of a lift of fill or portion thereof. The Contractor shall rework the rejected portion of fill and obtain notification from the Soils Engineer of its acceptance prior to the placement of additional fill.

All areas to receive fill shall be scarified to a depth of not less than 6 inches and then compacted in accordance with the specifications given below. Natural slopes steeper than 1 vertical to 5 horizontal to receive fill shall have horizontal benches, cut into the slopes before the placement of any fill. The width and height to be determined by the Soils Engineer. The fill shall be loosely placed in horizontal layers not exceeding 8 inches in thickness and compacted in accordance with the specifications given below. The Soils Engineer shall be responsible for determining the acceptability of soils placed. Any unacceptable soils placed shall be removed at the Contractor's expense.

The sequence of operation in the fill areas will be fill, compact, verify acceptable soil density, and repetition of the sequence. The acceptable moisture contents during the filling operation are those at which satisfactory dry densities can be obtained. The acceptable moisture contents during the filling operation in the remaining areas are from 2 to 8 percent above the optimum moisture content.

The surface of the fill shall be finished so that it will not impound water. If at the end of a days work it would appear that there may be rain prior to the next working day, the surface shall be finished smooth. If the surface has been finished smooth for any reason, it shall be scarified before proceeding with the placement of succeeding lifts. Fill shall not be placed on frozen ground, nor shall filling operation continue when the temperature is such as to permit the layer under placement to freeze.

REVEGETATIVE TABLE

VEGETATIVE ESTABLISHMENT
For Urban Development Sites

APPENDIX A

Minimum Seeding rates:

Permanent:
Tall Fescue - 30 lbs./ac.
Smooth Brome - 20 lbs./ac.
Combined: Fescue @ 15 lbs./ac. and Brome @ 10 lbs./ac.

Temporary:

Wheat or Rye - 150 lbs./ac. (3.5 lbs. per square foot)
Oats - 120 lbs./ac. (2.75 lbs. per square foot)

Mulch rates: 100 lbs. per 1,000 sq. feet (4,356 lbs. per acre)

Fertilizer rates: Nitrogen 30 lbs./ac.
Phosphate 30 lbs./ac.
Potassium 30 lbs./ac.
Lime 600 lbs./ac. ENM*

* ENM = effective neutralizing material as per State evaluation of quarried rock.

UTILITY SERVICE

UTILITY	CONTACT NAME	TELEPHONE
St. Charles Gas	Clarence Hanks	(636) 946-0790
Verison	Michelle Gerteisen	(636) 332-3710
Cuivre River Electric	Earl Tucker	(636) 528-8261
Public Water Supply District No. 2 of St. Charles Co.	Jeff Bleckman	(636) 561-3737
Charter Communications	Randy Heendee	(636) 441-7511

U.S.G.S. BENCHMARK

NAVD 88 Datum Benchmark:
A 149 - Elevation = 630.08, Brass disk set in the Northwest wingwall of the Norfolk and Western railroad bridge over U.S. Highway 61, Business.

SOILS ENGINEER NOTES

These plans have been reviewed by Geotest, Inc. for their compliance regarding geotechnical recommendations relative to site development. Based on this review and available subsurface information, it is our opinion that the site may be constructed in accordance with the plans, good construction practices, and the recommendations given in our Geotechnical Report of _____.

We have not prepared any part of these plans and my seal on these plans is intended only to confirm my personal review and approval of the site grading plan as it relates to the stability of earth slopes.

Geotest, Inc. must be involved during the construction phase of this project in order to determine if subsurface conditions are as anticipated from the field exploration data, that our recommendations relative to site grading are implemented, and that other geotechnical aspects of this site development are performed in accordance with these plans.

GEOTEST, INC.

LEGEND

— UC —	EXISTING UNDERGROUND CABLE TV
— UT —	EXISTING UNDERGROUND TELEPHONE
— UE —	EXISTING UNDERGROUND ELECTRIC
— OU —	EXISTING OVERHEAD UTILITY WIRES
— G —	EXISTING GAS MAIN
— W —	EXISTING WATER MAIN
— F —	PROPOSED FORCE MAIN
— F —	EXISTING FORCE MAIN
—	BUILDING LINE
—	EXISTING SANITARY SEWER
—	PROPOSED SANITARY SEWER
—	EXISTING STORM SEWER
—	PROPOSED STORM SEWER
—	EXISTING CONTOUR
—	PROPOSED CONTOUR
—	EXISTING TREE LINE
—	PROPOSED TREE LINE
—	SILTATION CONTROL
—	EX HIGH WATER OR DITCH
—	GRADE BREAK
—	STREET SIGN
—	SWALE
—	DIRECTION OF SHEET FLOW
—	CLEARING AND GRADING LIMITS
—	FIRE HYDRANT
—	LIGHT STANDARD
—	VALVE
—	LATERAL
—	ADDRESS
—	TREE
—	SANITARY SEWER DESIGNATOR
—	STORM SEWER DESIGNATOR
—	AIR RELIEF VALVE
—	AIR RELIEF VALVE & C.O.

REVISIONS

SIT. NO.	DATE	DESCRIPTION	BY	CHKD.
1	08/22/96	DR. F. L. ...		
2	08/22/96	DR. F. L. ...		
3	08/22/96	DR. F. L. ...		
4	08/22/96	DR. F. L. ...		
5	08/22/96	DR. F. L. ...		
6	08/22/96	DR. F. L. ...		
7	08/22/96	DR. F. L. ...		
8	08/22/96	DR. F. L. ...		
9	08/22/96	DR. F. L. ...		
10	08/22/96	DR. F. L. ...		
11	08/22/96	DR. F. L. ...		
12	08/22/96	DR. F. L. ...		
13	08/22/96	DR. F. L. ...		
14	08/22/96	DR. F. L. ...		
15	08/22/96	DR. F. L. ...		
16	08/22/96	DR. F. L. ...		

FEMA MAP

This Site is not in the Flood Plain per
F.I.R.M. MAP #29183C0220 E
REVISED AUGUST 2, 1996

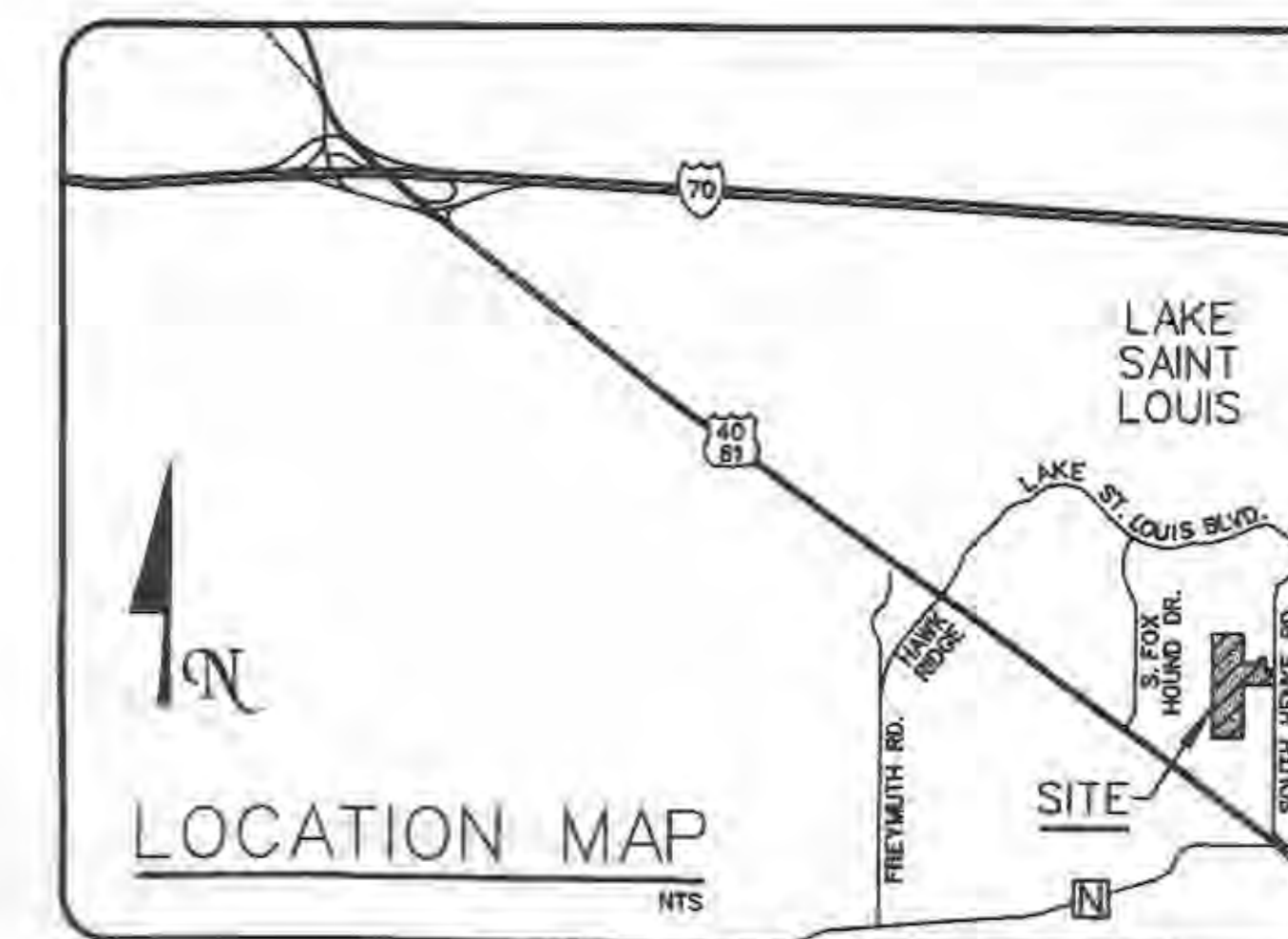
PROJECT INFORMATION

PREPARED FOR:
**HELMUT WEBER
CONSTRUCTION CO.**
1707 HENKE ROAD
O'FALLON, MISSOURI 63366
PHONE: (636) 561-4466

PREPARED BY:
VOLZ INCORPORATED
5933 SOUTH HIGHWAY 94, SUITE 201
ST. CHARLES, MISSOURI 63304-5611
PHONE: (314) 939-5155 FAX: (314) 939-5138

WUNNENBERG'S MAP: PAGE 44 18-XX
ZIP CODE: 63367
MUNICIPALITY: LAKE ST. LOUIS, MISSOURI

LOCATION MAP



INDEX

GENERAL INFORMATION	1
SITE PLAN	2 - 3
GRADING PLAN	4 - 5
STREET PROFILES	6 - 7
SANITARY SEWER PROFILES	8 - 9
STORM SEWER PROFILES	10-11-11A
DRAINAGE AREA MAP	12 - 13
DETENTION STRUCTURE	14
WATER PLAN	15 - 16
CONSTRUCTION DETAILS	17 - 20

GENERAL INFORMATION

Design By: E.A.K.
Drawn By: J.K.K.
Checked By: E.A.K.

B-8644

10-30-01

1

HELMUT WEBER
CONSTRUCTION CO.
1707 HENKE RD.
O'FALLON, MO.
63366

VOLZ



**GREEN TREE MEADOWS
PHASE 3**

"GREEN TREE MEADOWS PLAT TWO"
P.B. 36, PGS. 261-262

HICKORY WOOD (50'W.) DR

LOT 32
LOT 31
LOT 30
LOT 29
LOT 28
LOT 27

N00° 01'10"E

Temporary Turnaround
6" Type "X" Asphalt Base
2" Type "C" Asphalt Top
Temporary Turnaround To Be Installed
Until Feise Road is Extended & Built
To This Site. At That Time The
Temporary Turnaround To Be Removed
and Area To Be Sodded.

PROPERTY N/F OF
LOCKSLEY ESTATES, L.L.C.
1847/1003

SOUTH PARK
COMMERCIAL (60'W.) DRIVE
(P.B. 36, PGS. 166-167)

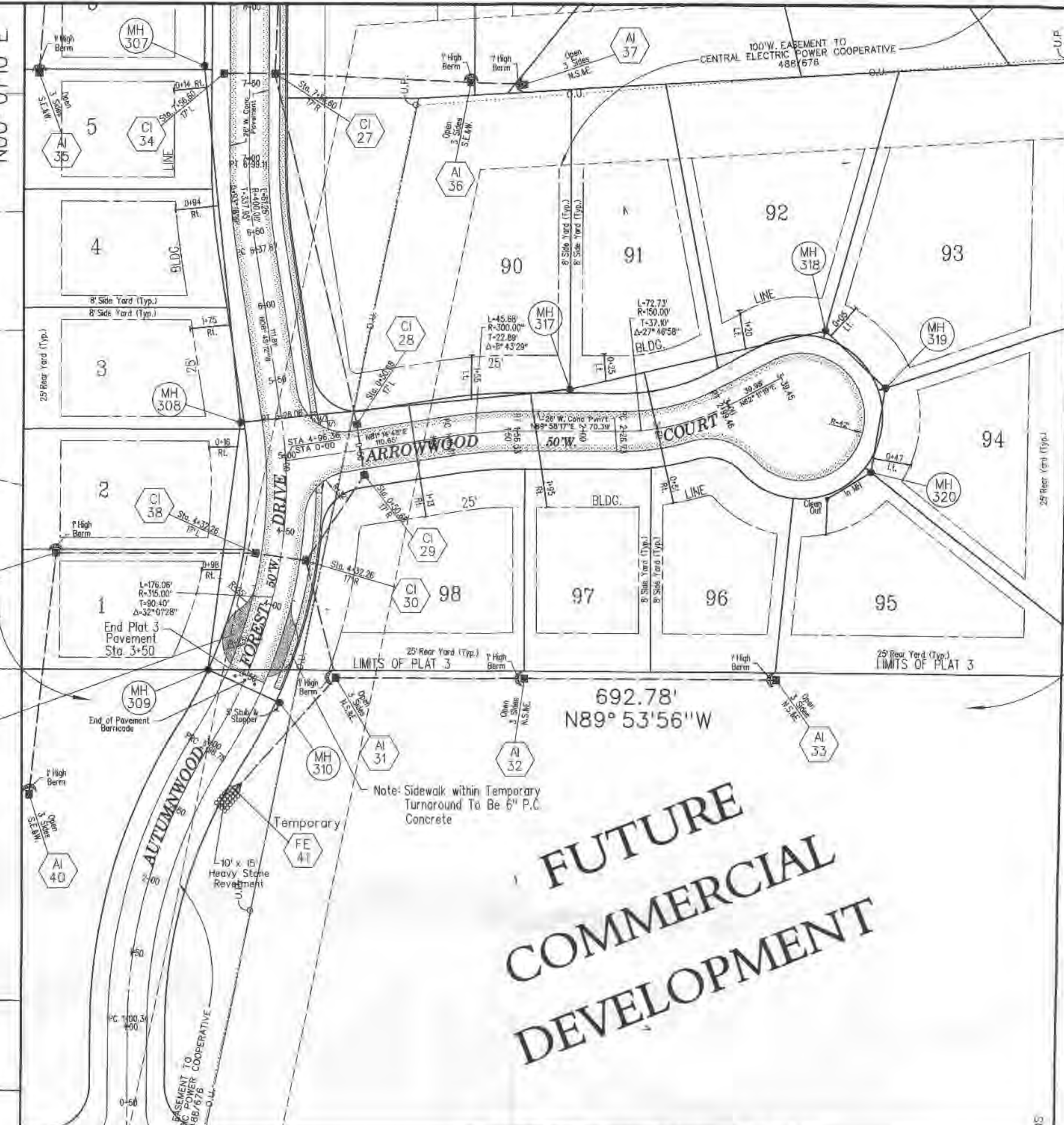
PROPERTY N/F OF
LOCKSLEY ESTATES, L.L.C.
1847/1003

FRACTIONAL SECTION 3
U.S. SURVEY 53

SOUTH LINE OF LOT 10 OF
THE DIVISION OF BATE'S LANDS

SOUTH LINE OF LOT 10 OF THE DIVISION OF BATE'S LANDS

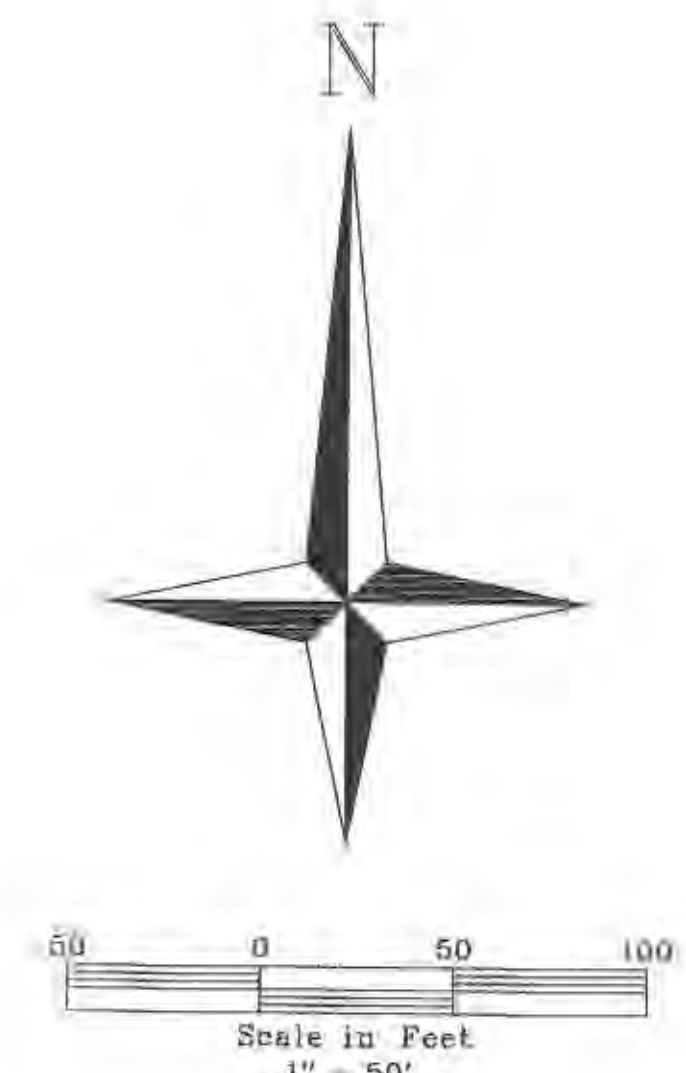
SOUTH LINE OF LOT 9 OF
THE DIVISION OF BATE'S LANDS



**FUTURE
COMMERCIAL
DEVELOPMENT**

**FUTURE
COMMERCIAL
DEVELOPMENT**

S00° 43'28"W



692.78'
N89° 53'56"W

**FUTURE FEISE ROAD
EXTENSION**

PROPERTY N/F OF
ANDREW F. AND DOLORES MERZ
342/749

APPROXIMATE LOCATION OF 25"W.
ESMT. AGREEMENT TO WILLIAMS BROTHERS
PIPE LINE COMPANY
462/124 (SEE NOTE NO. 7)

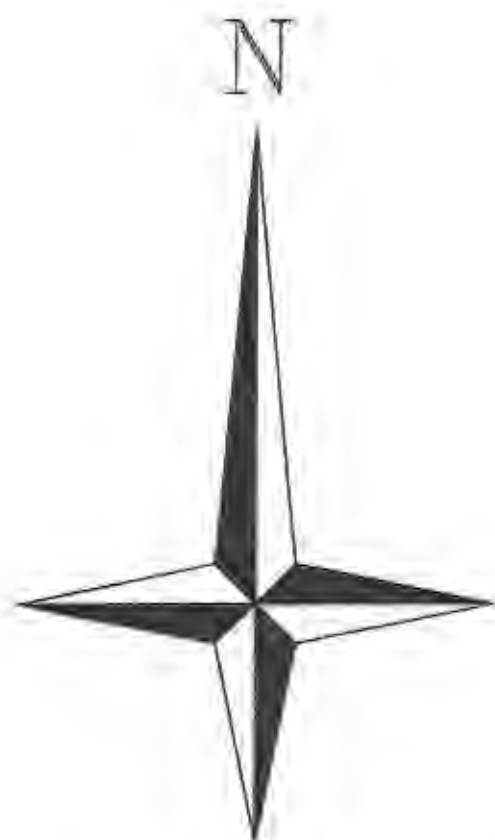
HELMUT WEBER
CONSTRUCTION CO
1707 HENKE RD.
O'FALLON, MO. 63366



**GREEN TREE MEADOWS
PLAT 3**

SITE PLAN	
Design By: E.D.K.	Checked By: E.A.K.
Drawn By: X.X.X.	
B-6914	

10-10-01
2



Scale in Feet
1" = 50'

Asphalt Pavement
2" Type "C" Asphalt Top
4" Type "X" Asphalt Center
4" Rolled Stone Base

"GREEN TREE MEADOWS PLAT TWO"
P.B. 56, PGS. 261-262

Conc. Roll Lip Curb To Be
Sawcut and Removed and
Omitted With Temporary
Asphalt Pavement

Temporary Street
Temporary Street To Provide Access
To Plat 3 Until Feise Road Is Extended
To This Site. At That Time The
Temporary Street To Be Removed And
A Home To Be Built On Lot 7.

Temporary Turnaround
6" Type "X" Asphalt Base
2" Type "C" Asphalt Top
Temporary Turnaround To Be Installed
Until Feise Road Is Extended & Built
To This Site. At That Time The
Temporary Turnaround To Be Removed
and Area To Be Sodded.

PROPERTY N/F OF
ANDREW F. AND DOLORES MERZ
342/749

HELMUT WEBER
CONSTRUCTION CO
1707 HENKE RD.
O'FALLON, MO.
63366

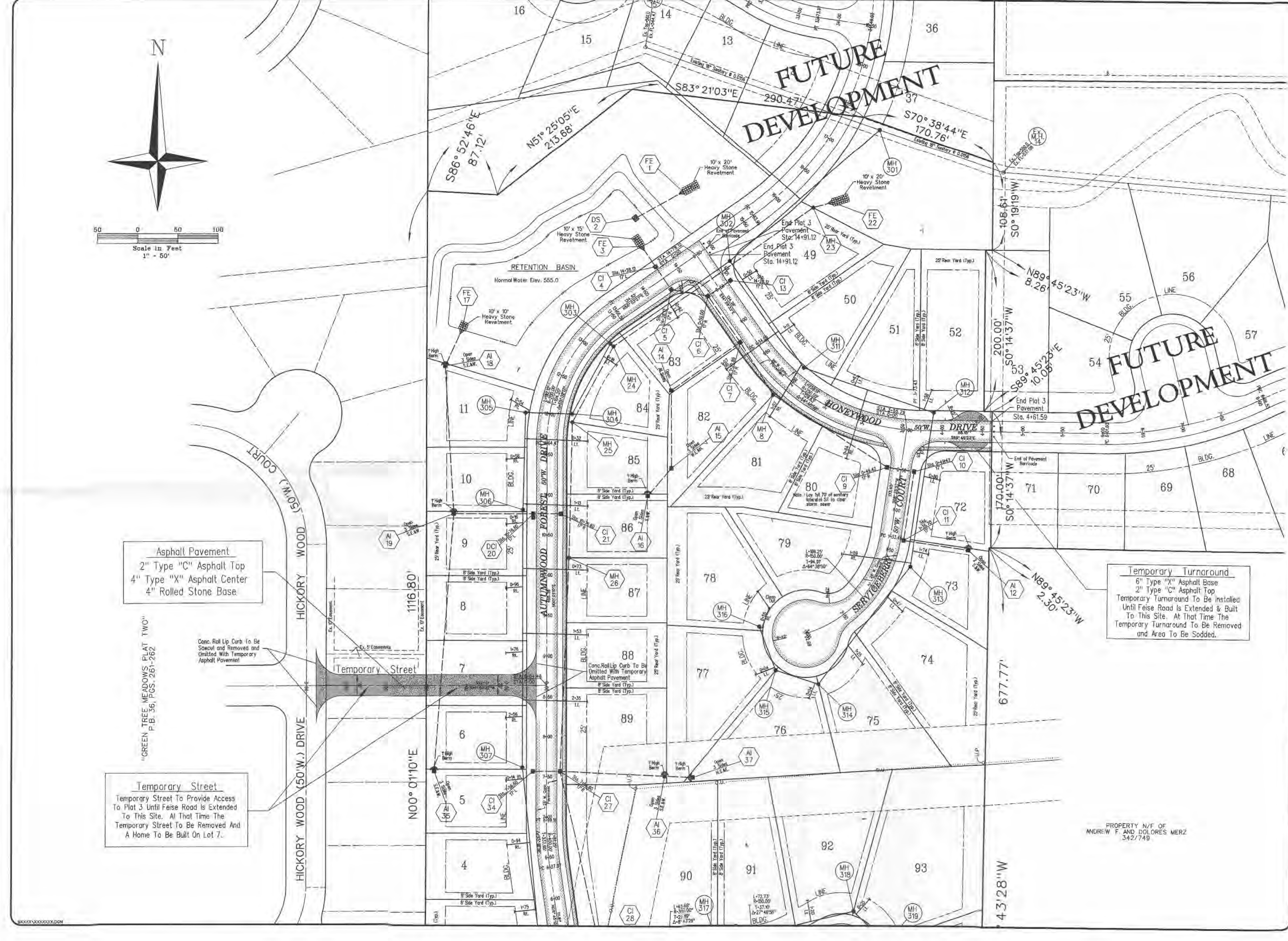


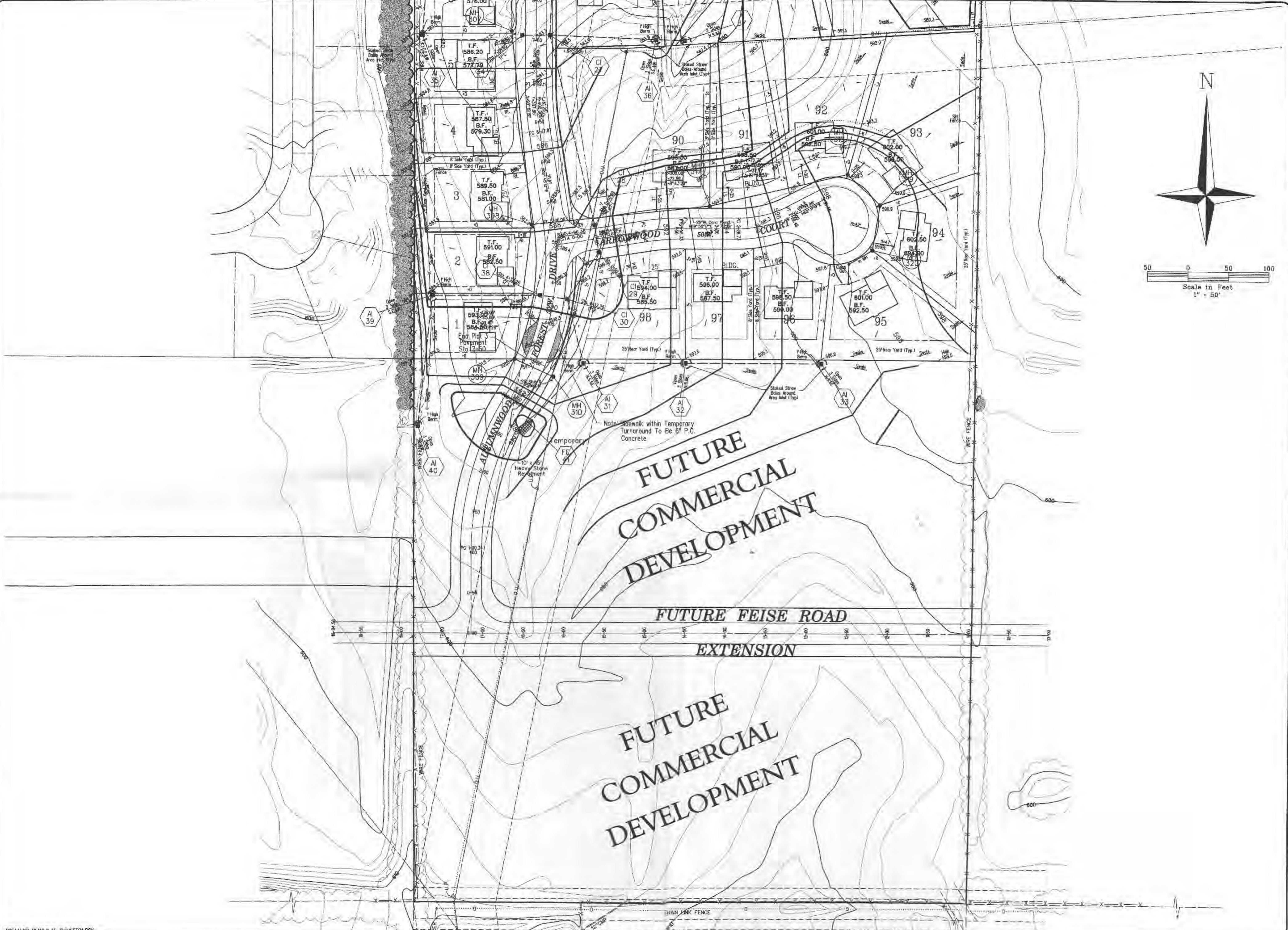
GREEN TREE MEADOWS PLAT 3

SITE PLAN

Design By: E.D.K.
Drawn By: A.X.X.
Checked By: E.A.K.

10-10-01
3





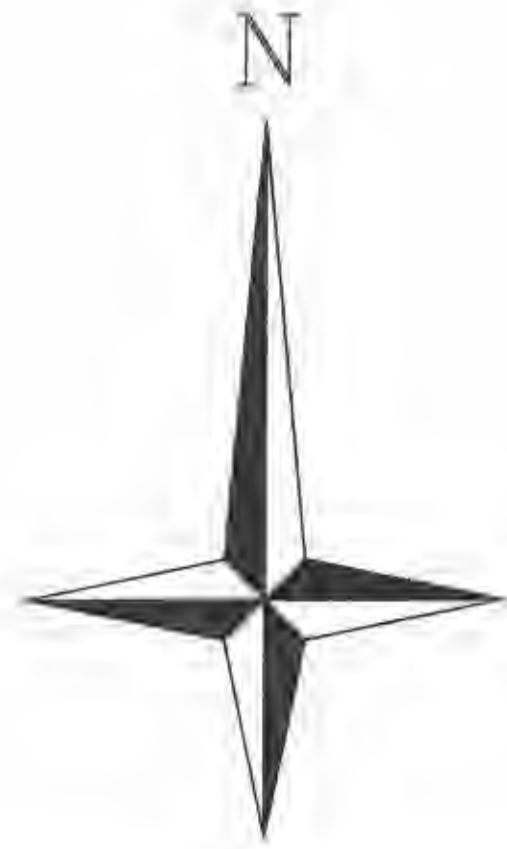
86644\MP_PLAN\PLAT_3\SHEET04.DGN

HELMUT WEBER
CONSTRUCTION CO
1707 HENKE RD.
OFFALON, MO.
63316



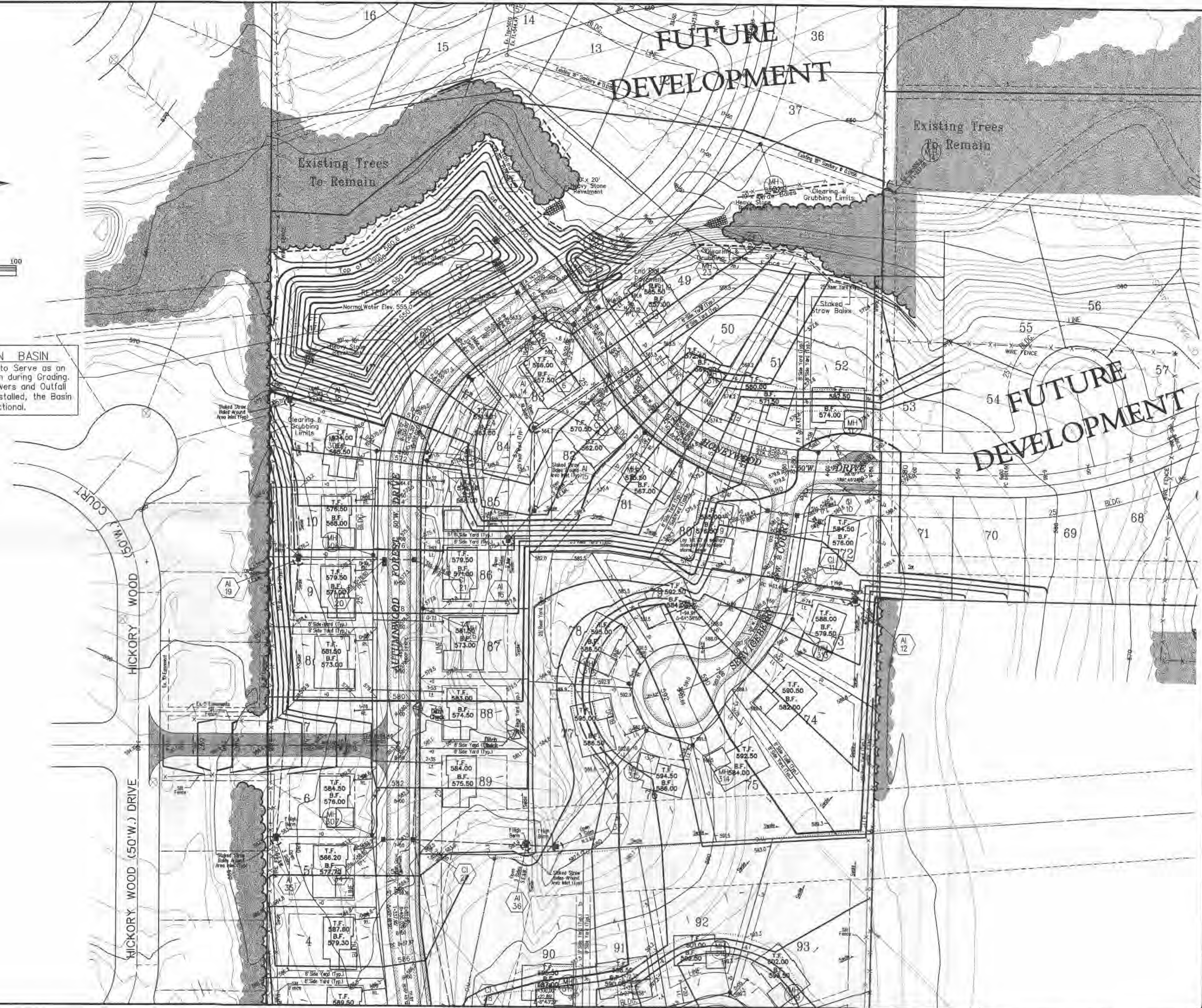
GREEN TREE MEADOWS PLAT 3

GRADING PLAN	Design By: E.A.K. Drawn By: R.A.K. Checked By: E.A.K.
10-10-01	P-6644



Scale in Feet
1" = 50'

RETENTION BASIN
Retention Basin to Serve as an Interim Silt Basin during Grading. After Storm Sewers and Outfall Structure are Installed, the Basin To Become Functional.

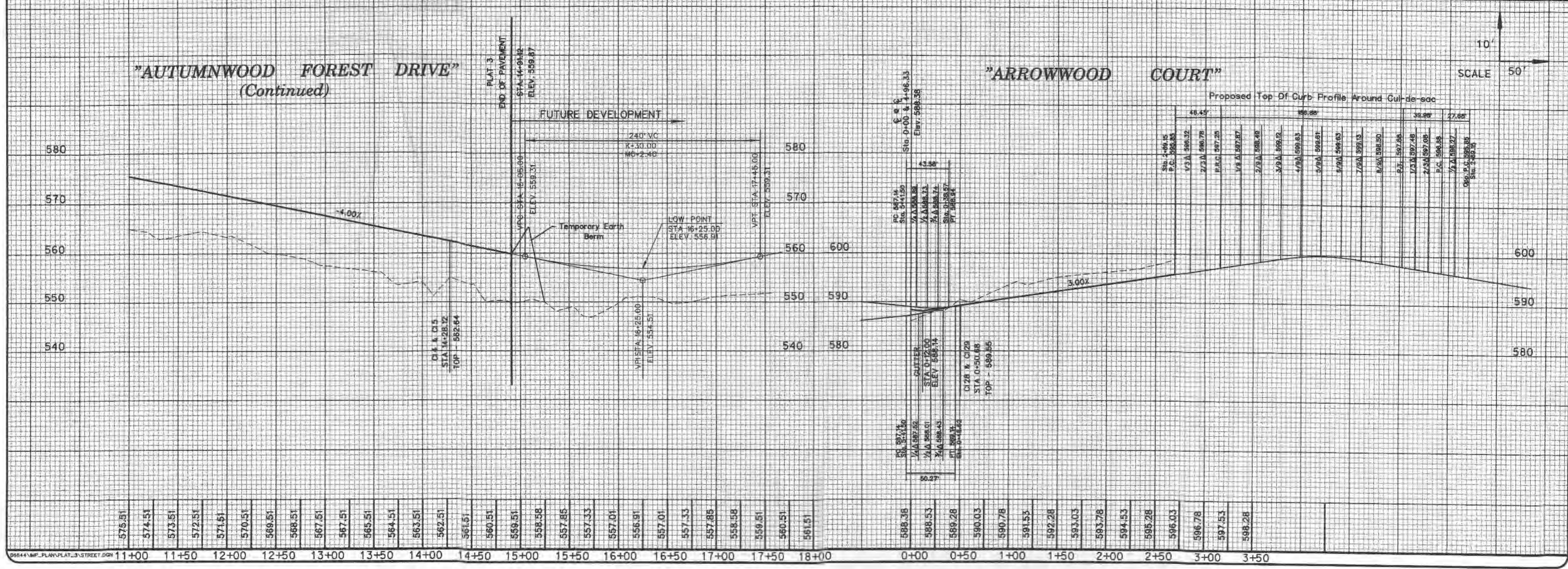
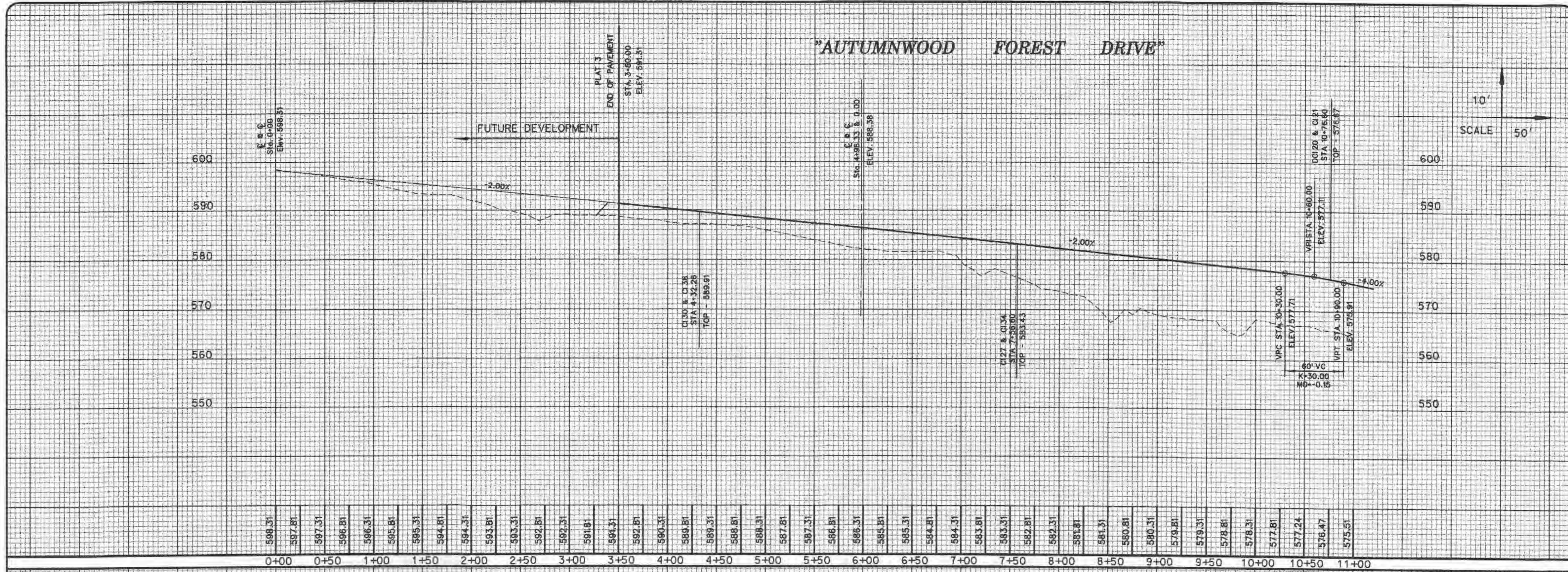


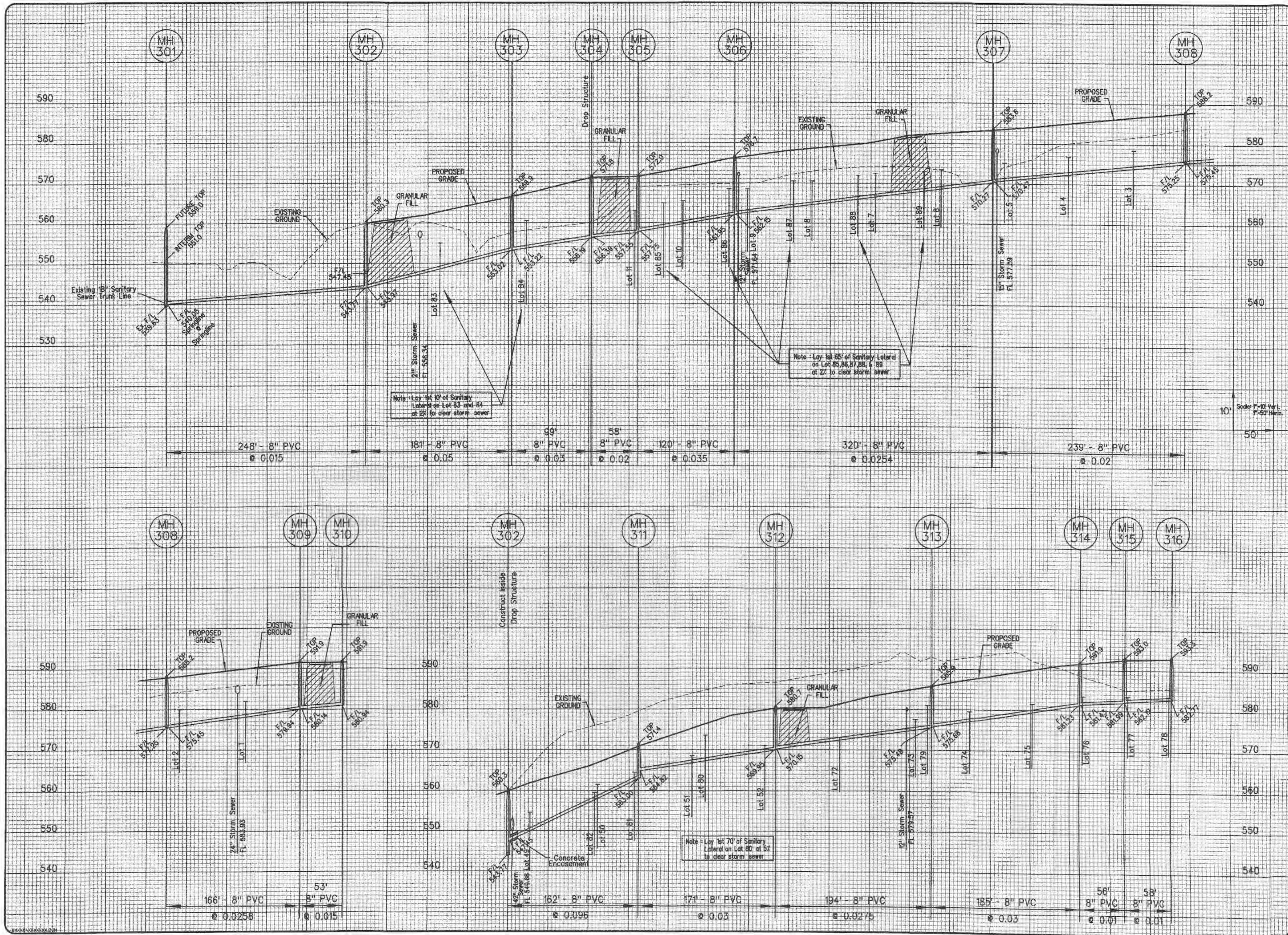
HELMUT WEBER
CONSTRUCTION CO
1707 HENKE RD
O'FALLON, MO. 63366



GREEN TREE MEADOWS PLAT 3

GRADING PLAN
Design By: E.O.K.
Drawn By: X.J.K.
Checked By: E.A.C.
B-9614
10-10-01
5



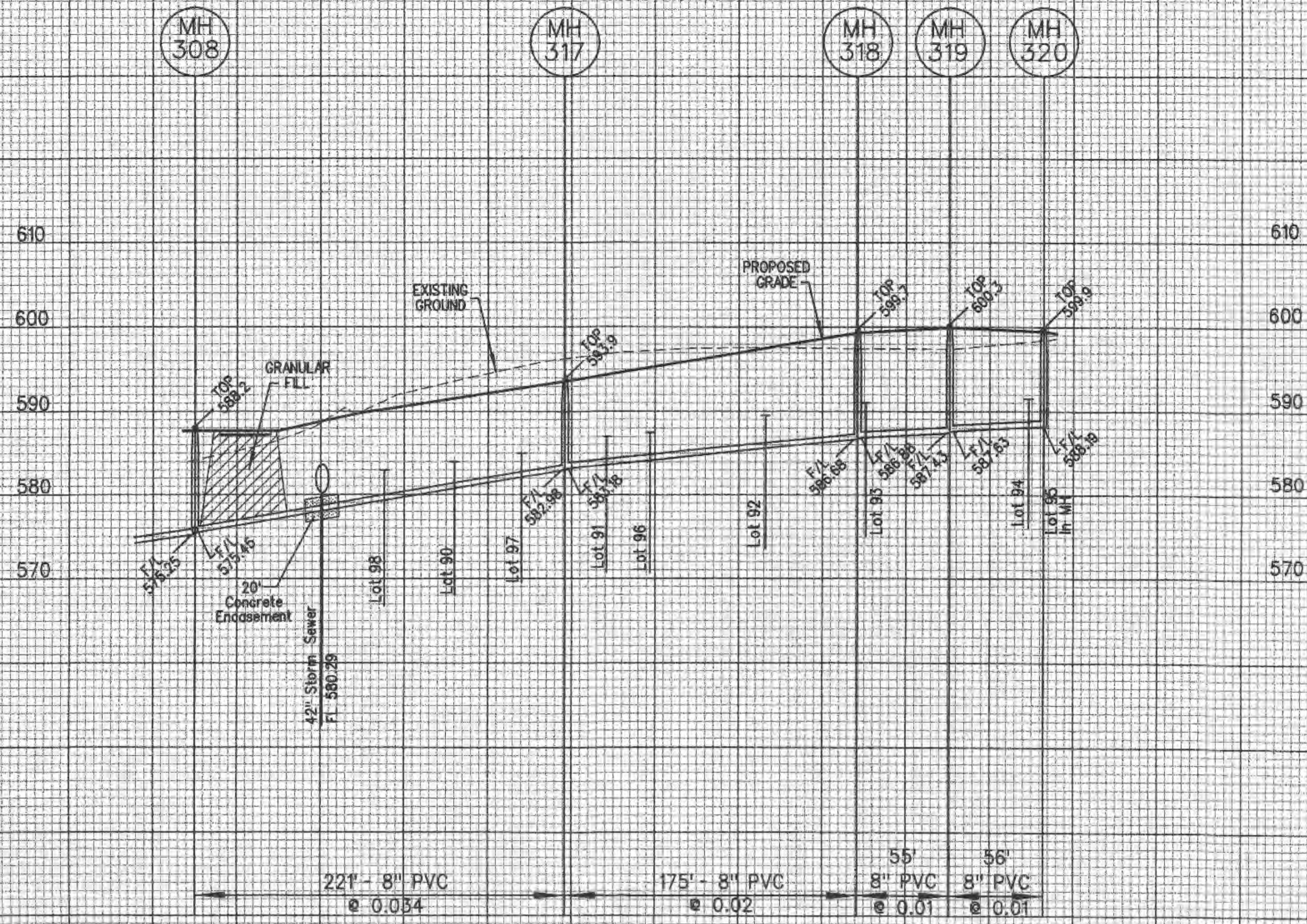


HELMUT WEBER
CONSTRUCTION CO
1707 HENKE RD.
O'FALLON, MO.
63366



GREEN TREE MEADOWS PLAT 3

SANITARY PROFILES
 Design By: E.D.K.
 Drawn By: E.D.K.
 Checked By: E.A.K.
 B-0844
 10-10-01
 8



HELMUT WEBER
CONSTRUCTION CO
1707 HENKE RD.
O'FALLON, MO.
63366



GREEN TREE MEADOWS PLAT 3

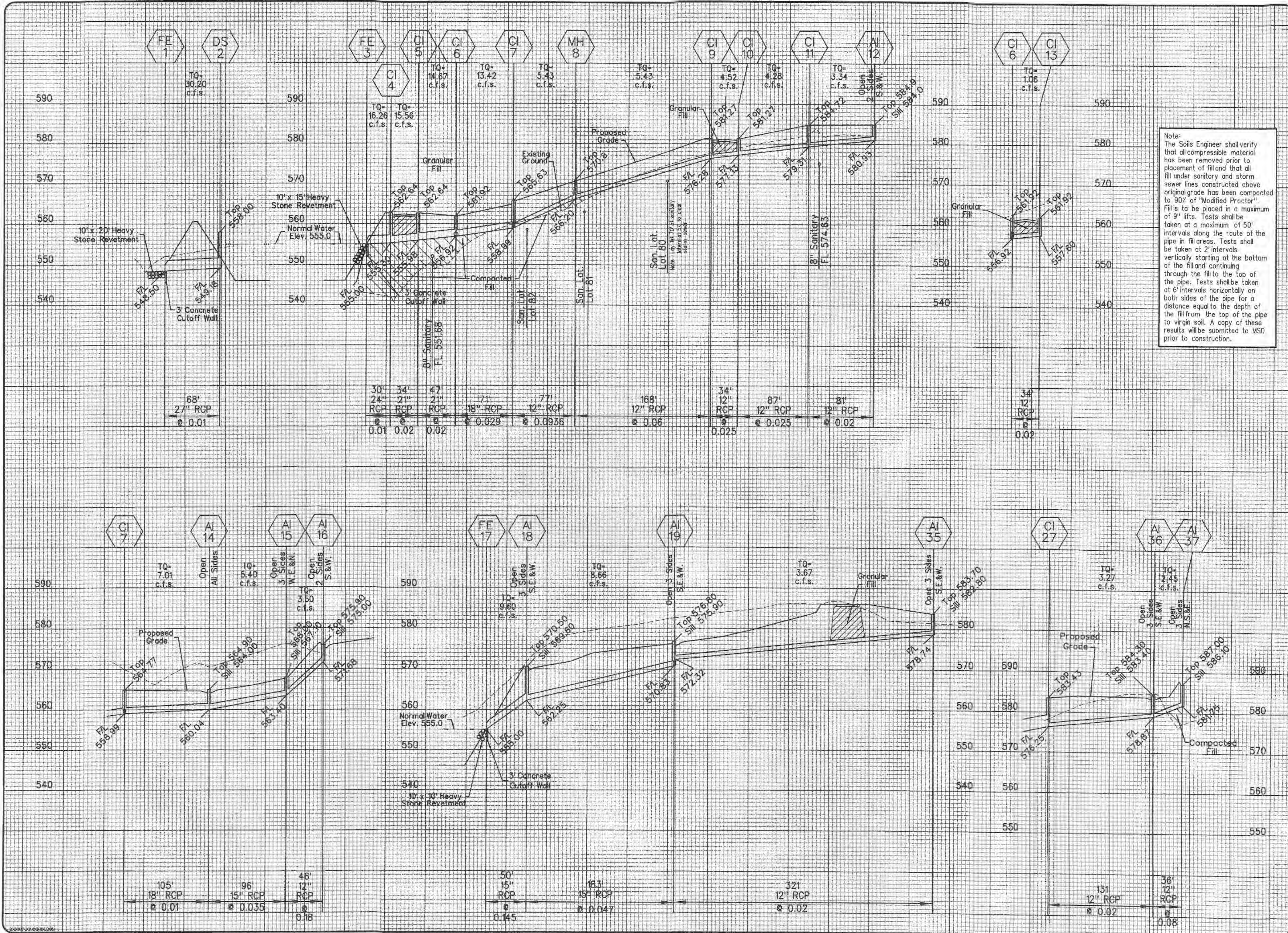
SANITARY PROFILES

Design By: E.D.K.
Drawn By: E.D.K.
Checked By: E.A.K.

B-6644

10-11-11

9

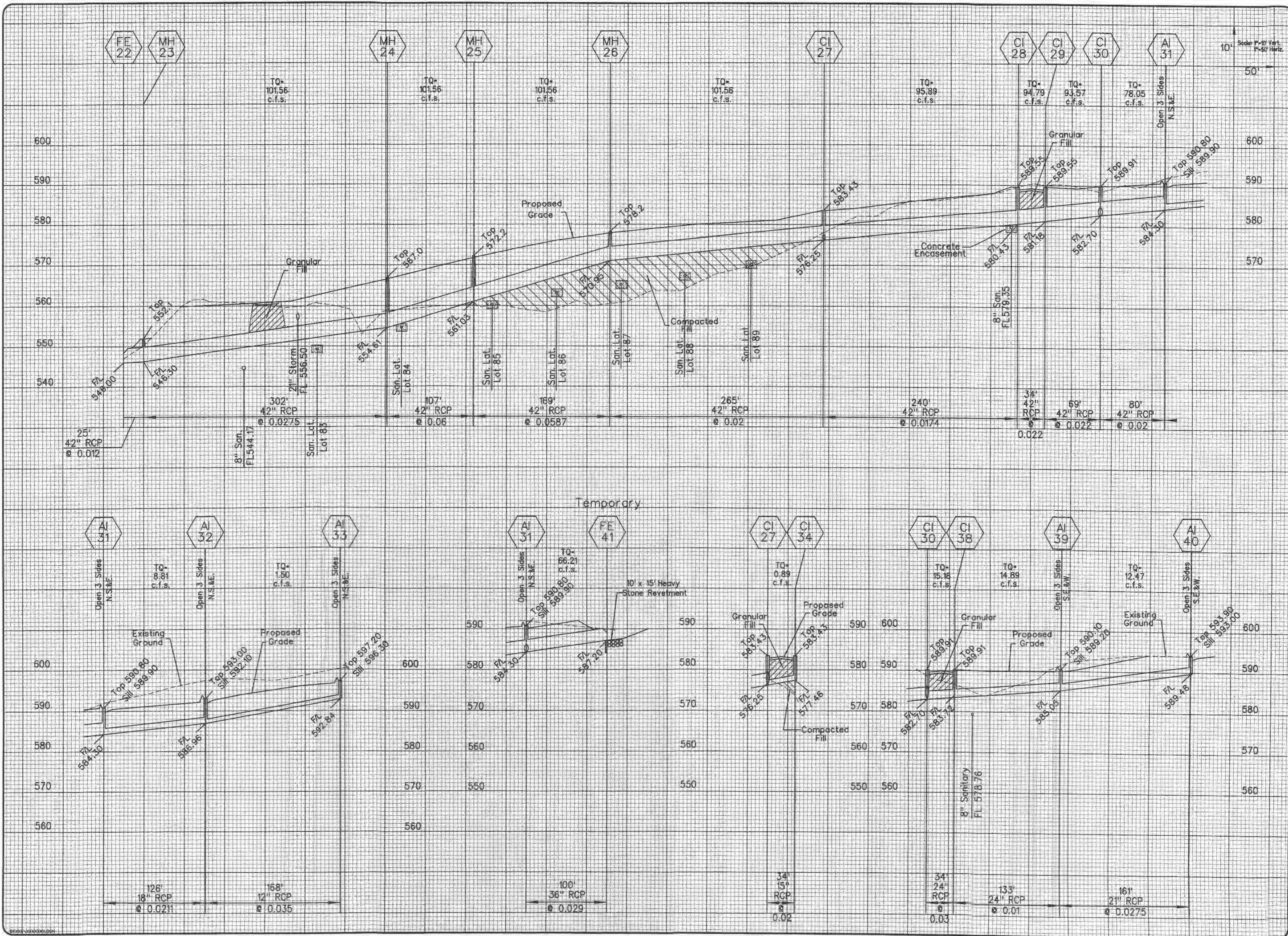


HELMUT WEBER
CONSTRUCTION CO
1707 HENKE RD.
O'FALLON, MO.
63366



GREEN TREE MEADOWS PLAT 3

STORM PROFILES
Design By: E.A.K.
Drawn By: E.A.K.
Checked By: E.A.K.
B-8844
08-17-01
10



HELMUT WEBER
CONSTRUCTION CO
1707 HENKE RD.
O'FALLON, MO.
63366



GREEN TREE MEADOWS PLAT 3

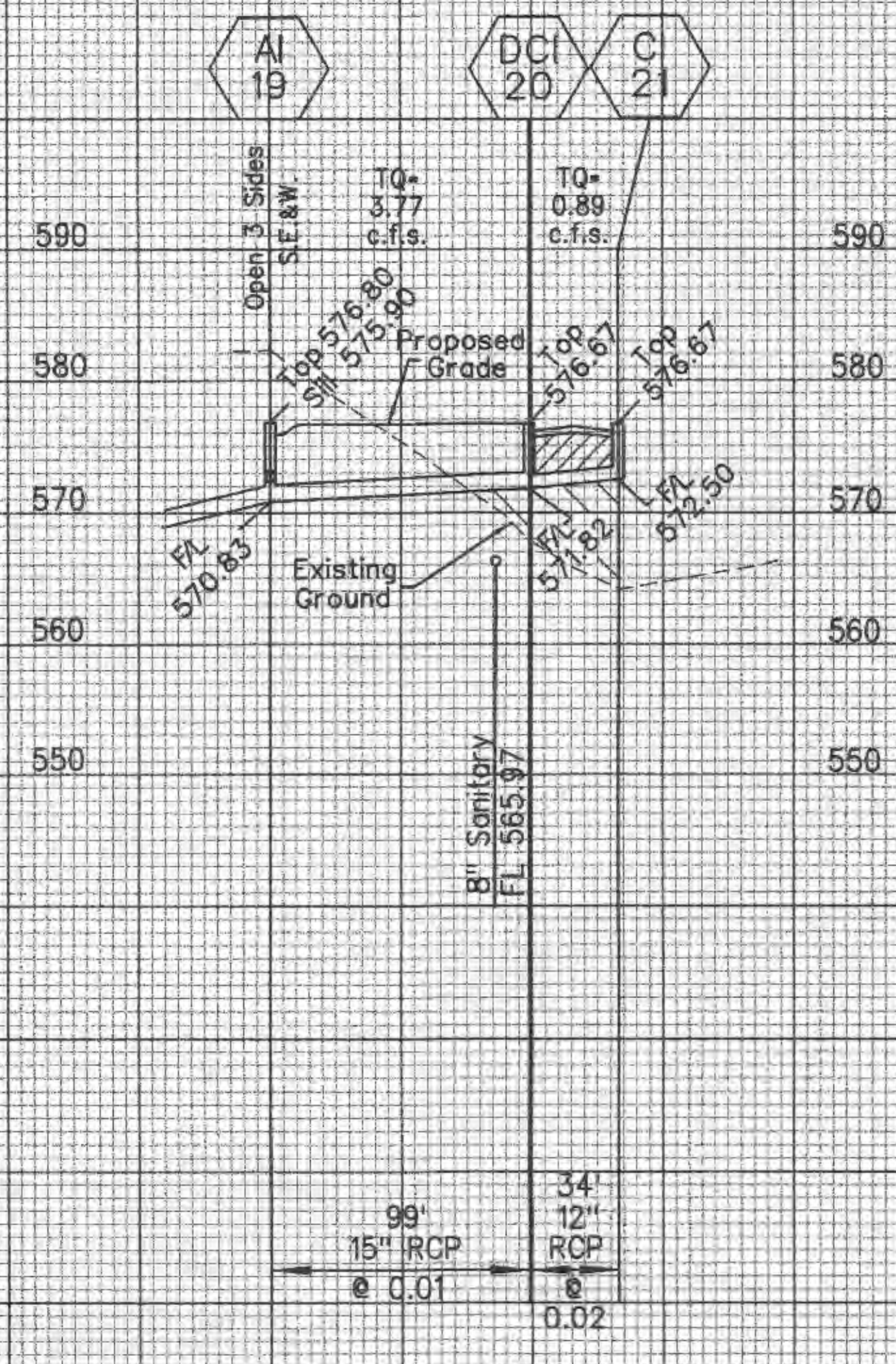
STORM PROFILES

Design By: E.A.K.
Drawn By: X.A.K.
Checked By: E.A.K.

08-01-01

11

10'
50'
Scale: 1"=10' Vert.
1"=50' Horiz.

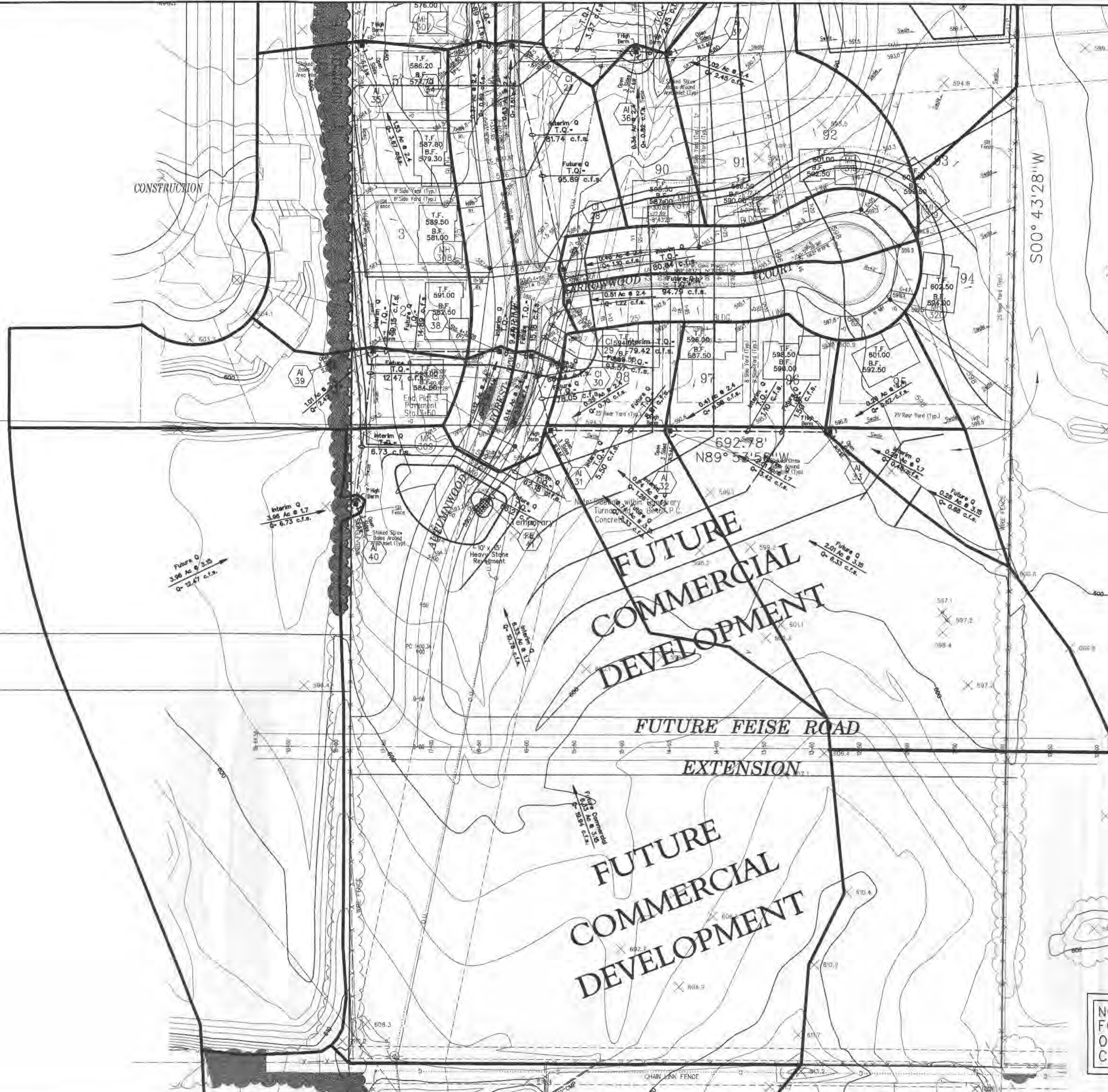


HELMUT WEBER
CONSTRUCTION CO
1717 HEINKE RD.
O'FALLON, MO.
63366



GREEN TREE MEADOWS PLAT 3

STORM PROFILES
Design By: E.D.K.
Drawn By: X.X.X.
Checked By: E.A.K.
B-8644
08-01-01
11A



CONSTRUCTION

**FUTURE
COMMERCIAL
DEVELOPMENT**

**FUTURE FEISE ROAD
EXTENSION**

**FUTURE
COMMERCIAL
DEVELOPMENT**

S00° 43' 28" W



Offsite Q - Commercial
80% Impervious
14.69 AC @ 3.15
Q = 46.27 c.f.s.

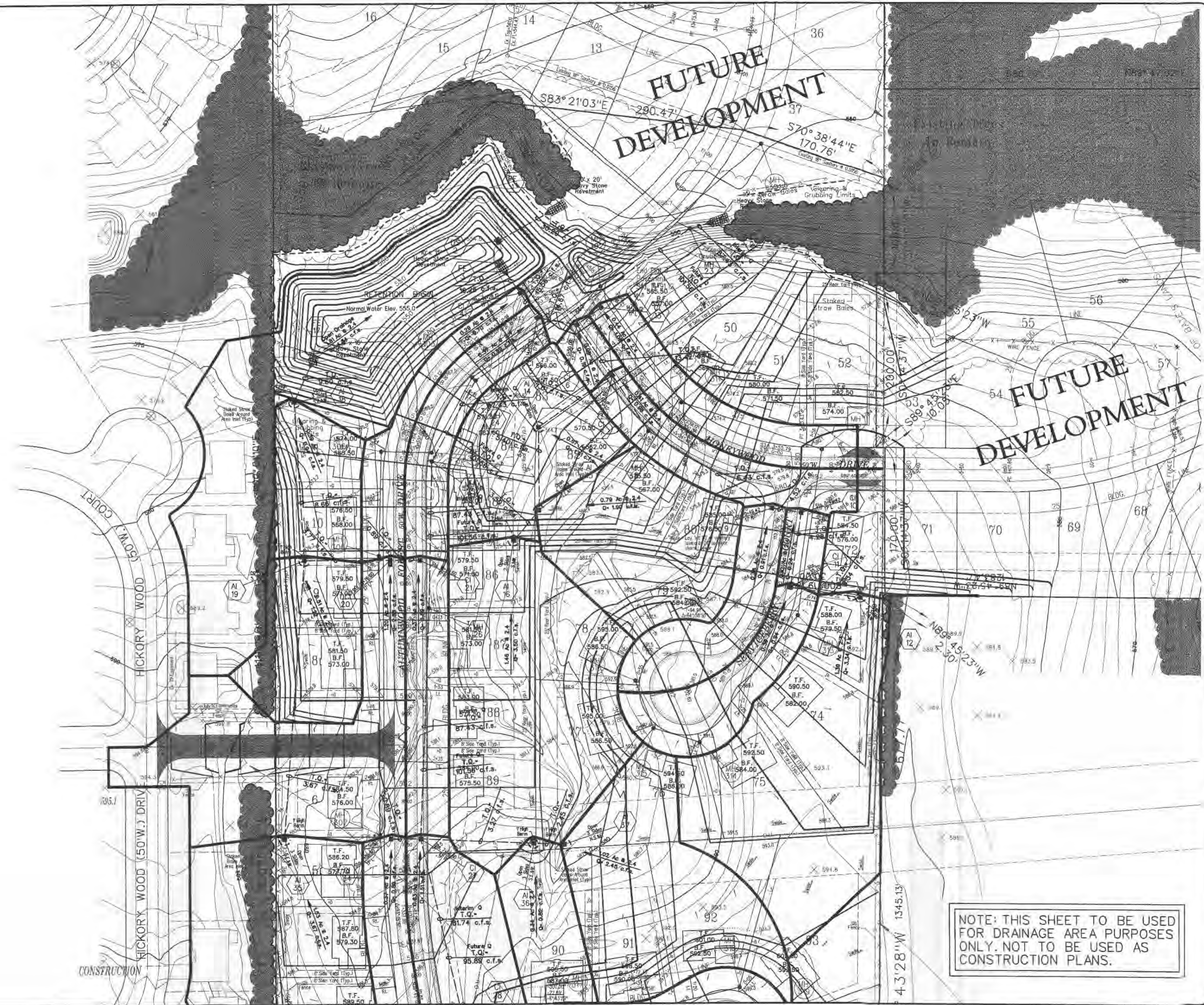
NOTE: THIS SHEET TO BE USED FOR DRAINAGE AREA PURPOSES ONLY. NOT TO BE USED AS CONSTRUCTION PLANS.

HELMUT WEBER
CONSTRUCTION CO
1707 HENKE RD.
O'FALLON, MO.
63366



**GREEN TREE MEADOWS
PLAT 3**

DRAINAGE AREA MAP
Design By: E.A.K.
Drawn By: K.L.K.
Checked By: E.A.K.
B-6644



00644 MAP_PLAN\PLAT_3\SET13.DGN

HELMUT WEBER
CONSTRUCTION CO
1707 HENKE RD.
O'FALLON, MO.
63366



DRAINAGE AREA MAP

GREEN TREE MEADOWS

PLAT 3

Design By: E.B.K.
Drawn By: X.X.Z.
Checked By: E.A.K.
10-10-01
13

"GREEN TREE MEADOWS PLAT TWO"
P.B. 36, PGS. 261-262

HICKORY WOOD (50'W.) DR

LOT 32
LOT 31
LOT 30
LOT 29
LOT 28
LOT 27

N00° 01'10"E

PROPERTY N/F OF
LOCKSLEY ESTATES, L.L.C.
1847/1003

SOUTH PARK
COMMERCIAL (60'W.) DRIVE
(P.B. 36, PGS. 166-167)

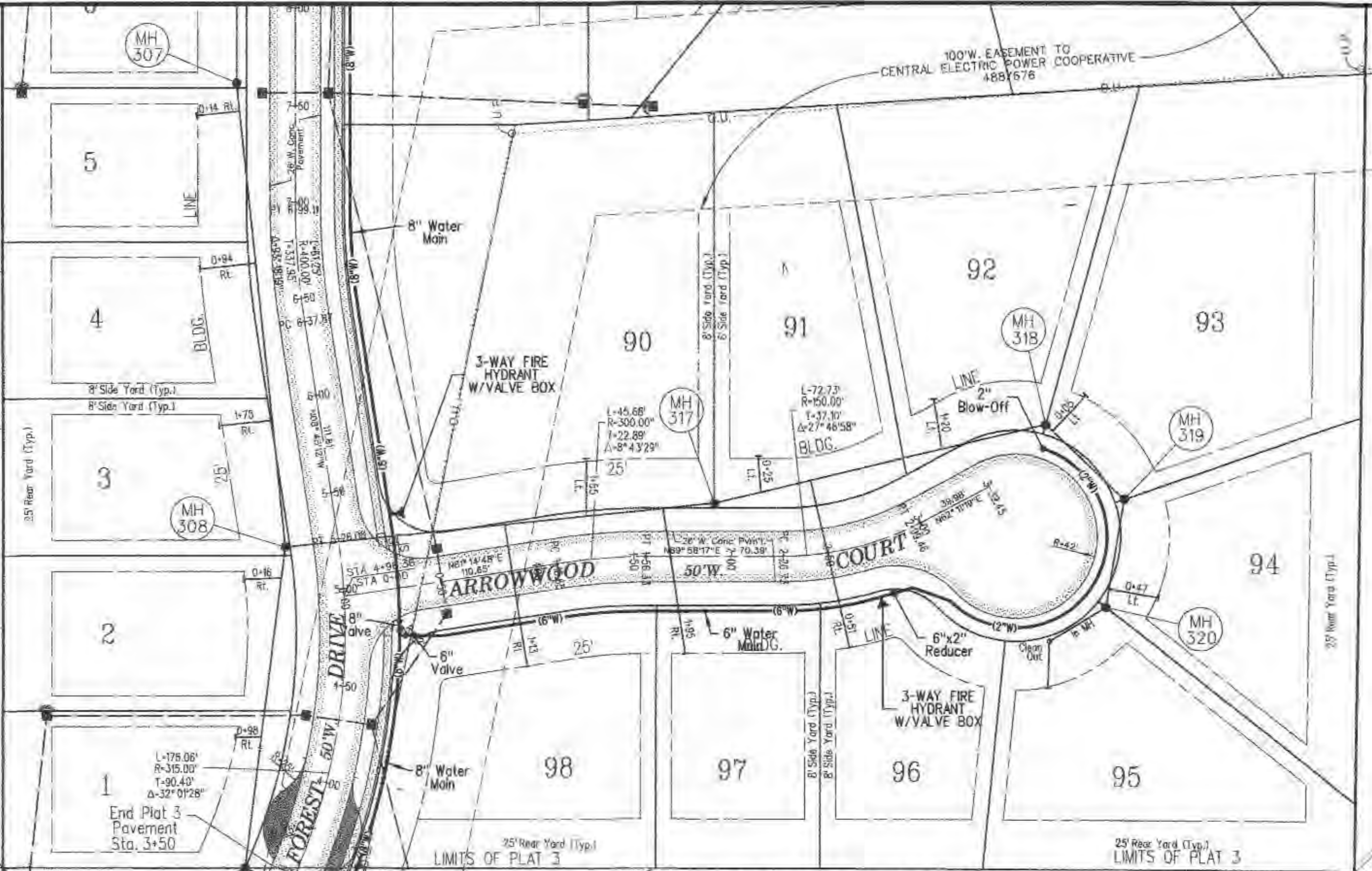
PROPERTY N/F OF
LOCKSLEY ESTATES, L.L.C.
1847/1003

FRAGMENTAL SECTION 3
U.S. SURVEY 53

SOUTH LINE OF LOT 10 OF
THE DIVISION OF BATE'S LANDS

SOUTH LINE OF LOT 10 OF THE DIVISION OF BATE'S LANDS

SOUTH LINE OF LOT 3 OF
THE DIVISION OF BATE'S LANDS



S00° 43'28"W

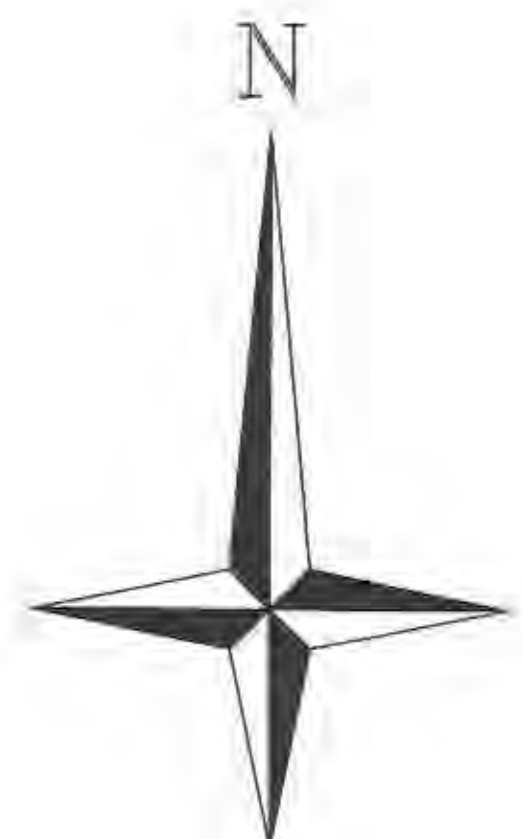
692.78'
N89° 53'56"W

FUTURE
COMMERCIAL
DEVELOPMENT

FUTURE FEISE ROAD
EXTENSION

FUTURE
COMMERCIAL
DEVELOPMENT

APPROXIMATE LOCATION OF 25" W
EASMT AGREEMENT TO WILLIAMS BROTHERS
PIPE LINE COMPANY
462/124 (SEE NOTE NO. 7)



Scale in Feet
1" = 50'

NOTE

"Blow-off hydrants and water meters shall not be located in any pavement or hard-surfaced areas including, but not limited to, driveways, sidewalks, walkways, and streets. Since the location of all such areas is not shown on this plan all costs to relocate any blow-off hydrants and water meters from any pavement or hard-surfaced areas shall be borne by the Developer or the Builder."

PROPERTY N/F OF
ANDREW F. AND DOLORES MERI
342/749

HELMUT WEBER
CONSTRUCTION CO
1707 HENKE RD.
O'FALLON, MO.
63366



GREEN TREE MEADOWS PLAT 3

WATER PLAN	
Design By: EDK.	Checked By: E.A.K.
Drawn By: X.X.X.	
B-0644	

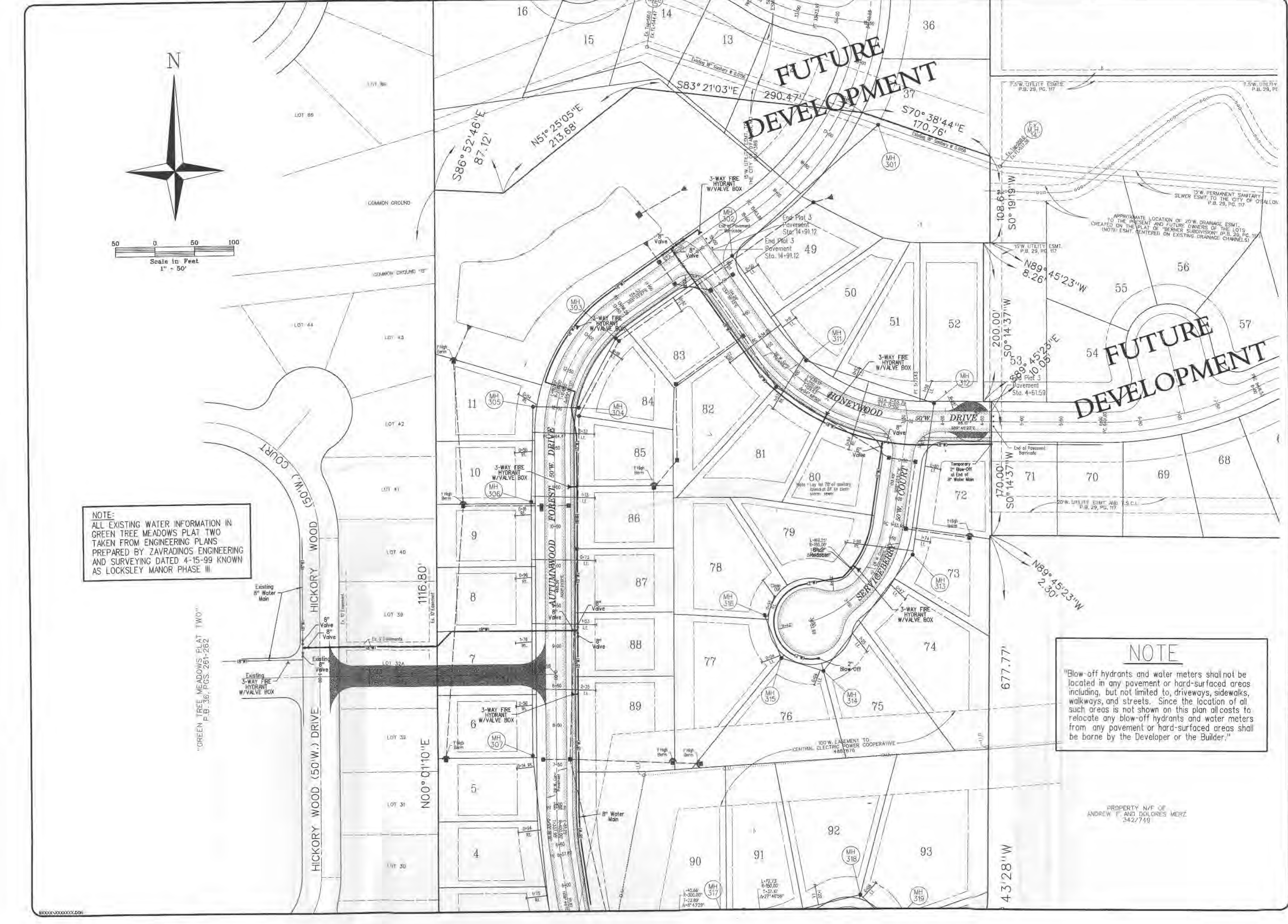


NOTE:
 ALL EXISTING WATER INFORMATION IN
 GREEN TREE MEADOWS PLAT TWO
 TAKEN FROM ENGINEERING PLANS
 PREPARED BY ZAVRADINOS ENGINEERING
 AND SURVEYING DATED 4-15-99 KNOWN
 AS LOCKSLEY MANOR PHASE III

"GREEN TREE MEADOWS PLAT TWO"
 P.B. 36, PGS. 261-262

NOTE
 "Blow-off hydrants and water meters shall not be
 located in any pavement or hard-surfaced areas
 including, but not limited to, driveways, sidewalks,
 walkways, and streets. Since the location of all
 such areas is not shown on this plan all costs to
 relocate any blow-off hydrants and water meters
 from any pavement or hard-surfaced areas shall
 be borne by the Developer or the Builder."

PROPERTY W/F OF
 ANDREW F. AND DOLORES MERZ
 342/749



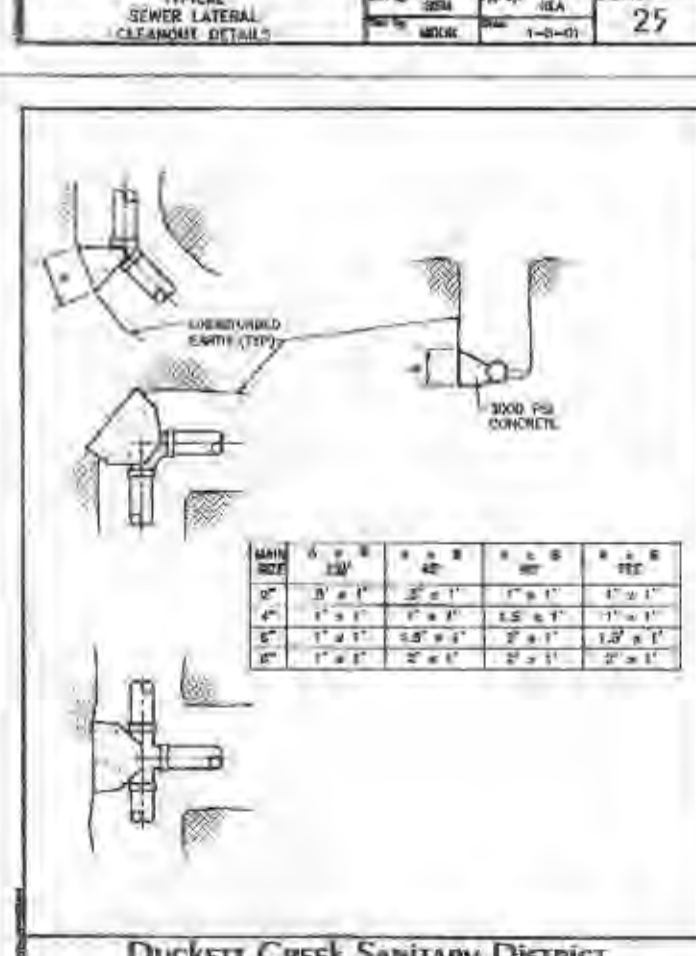
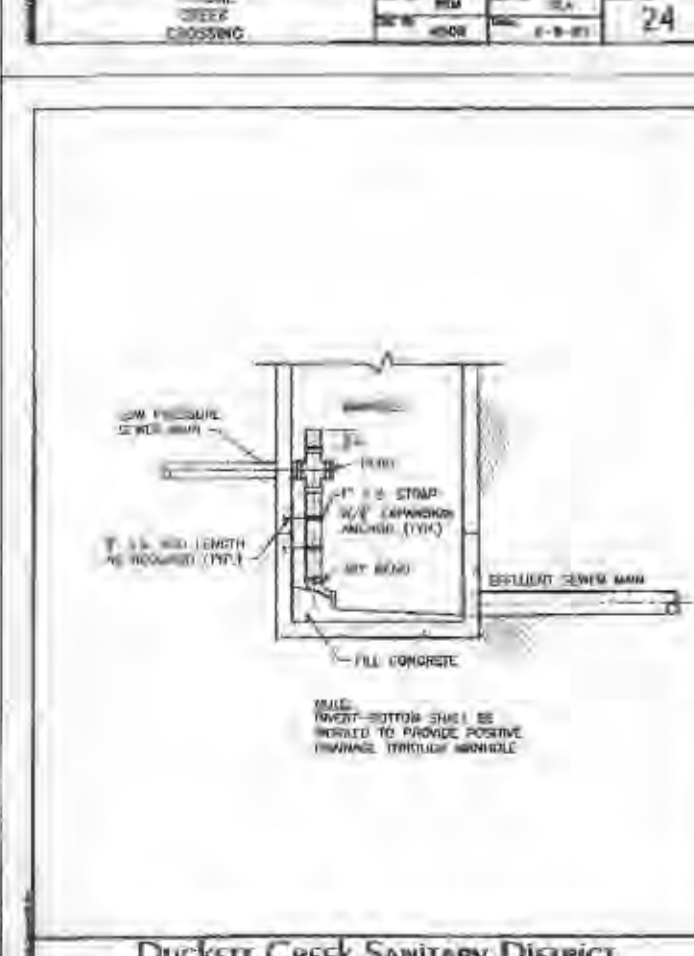
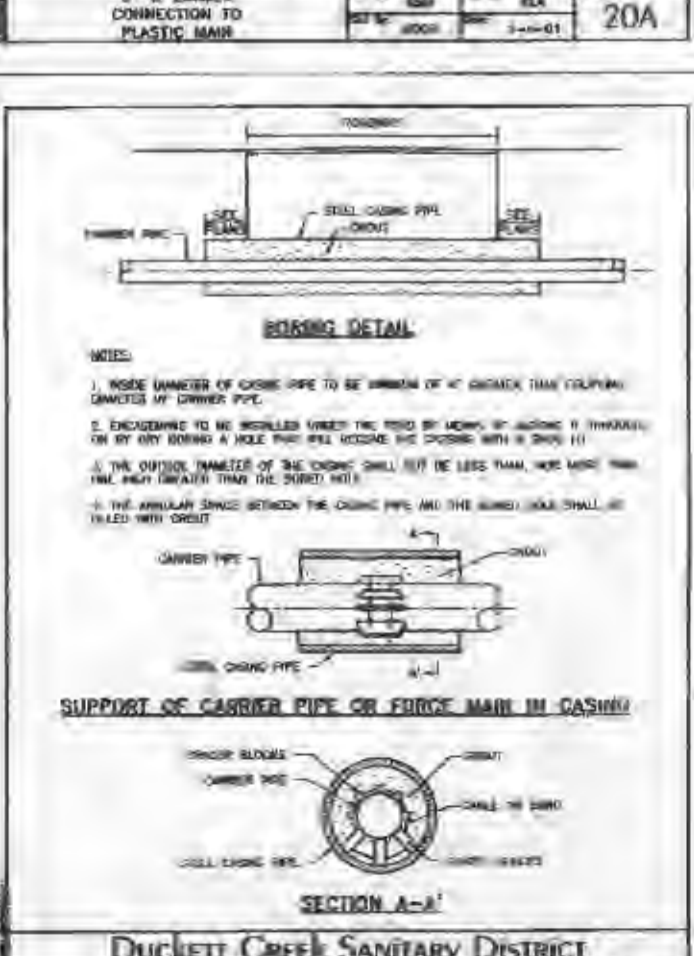
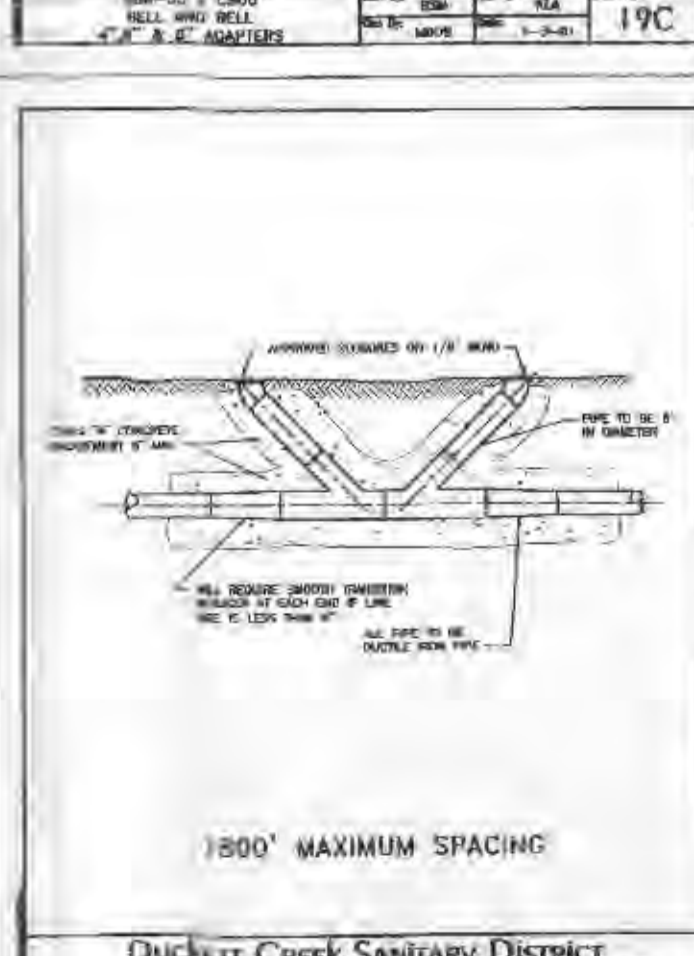
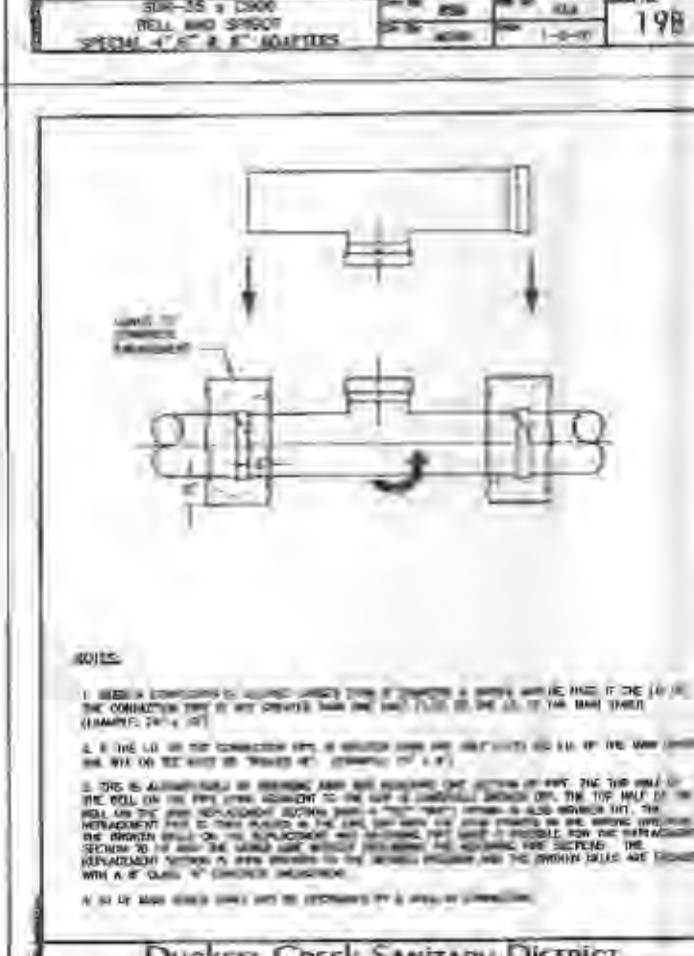
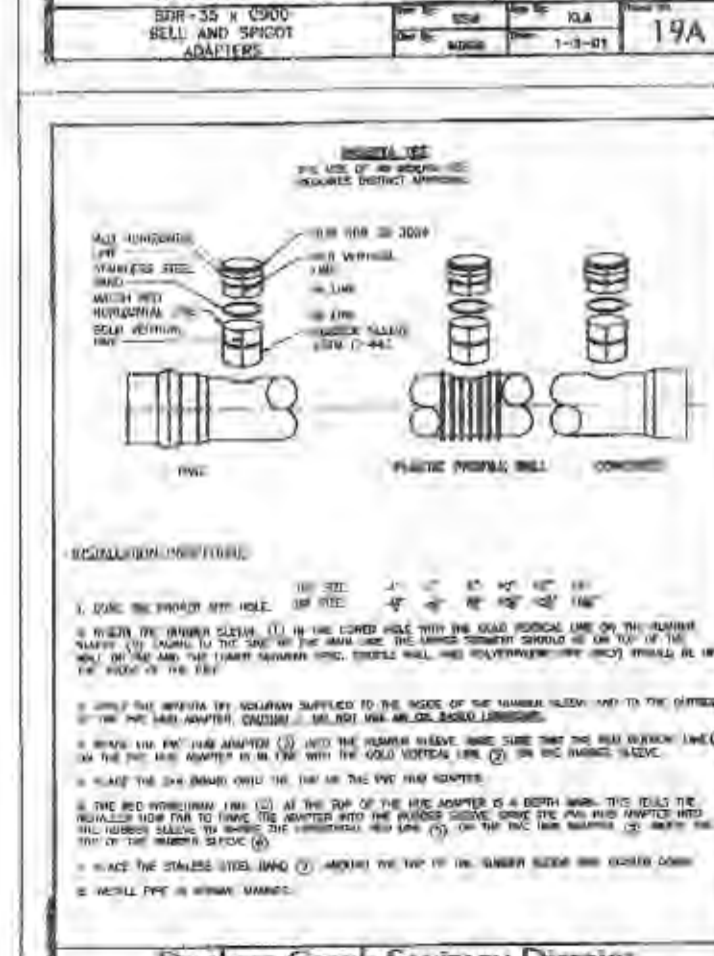
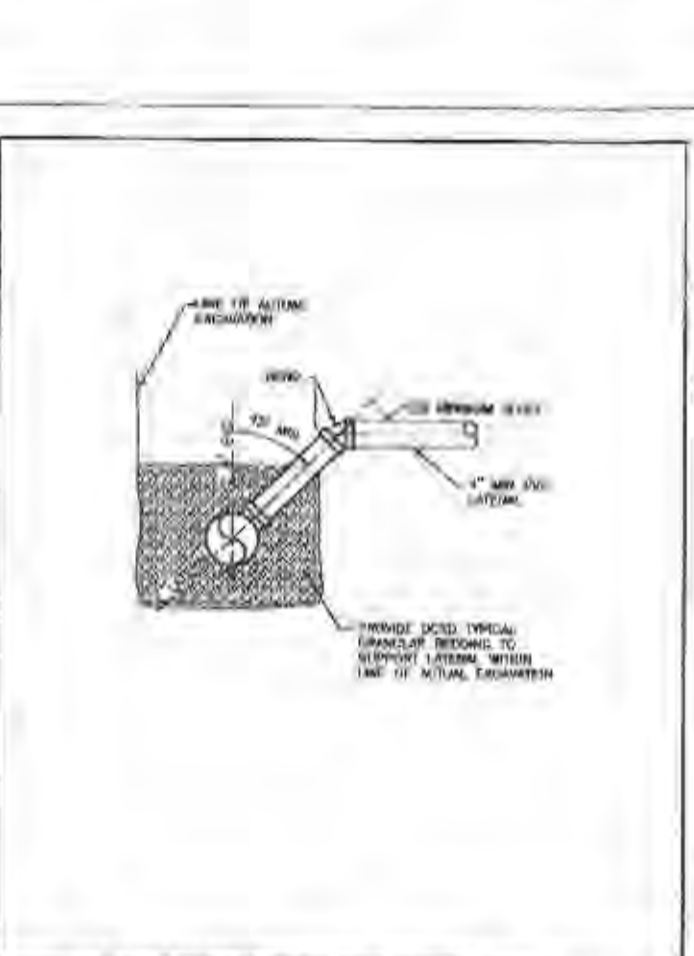
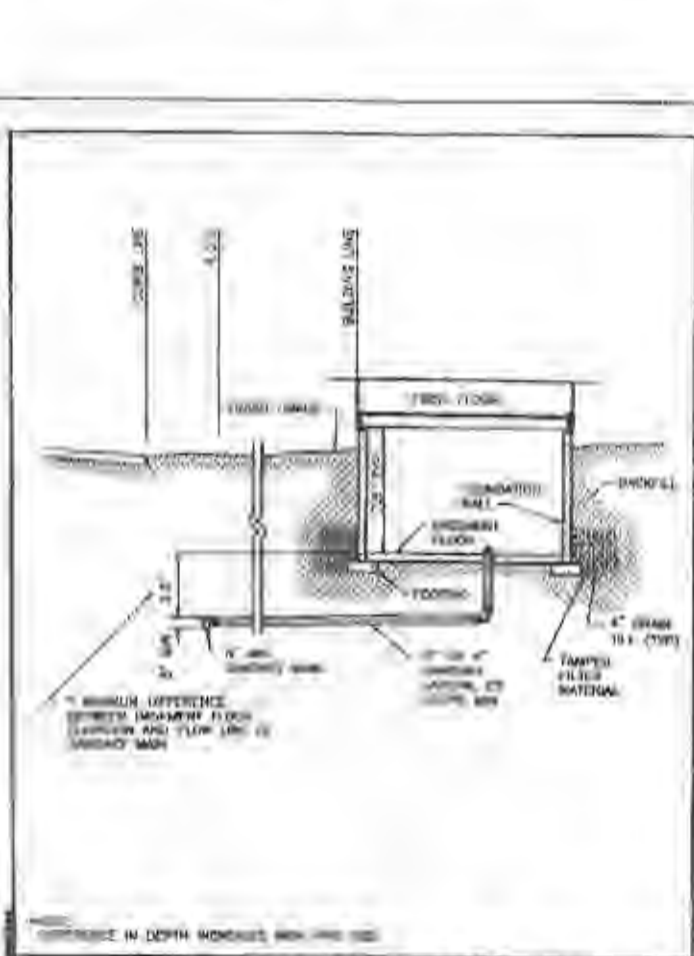
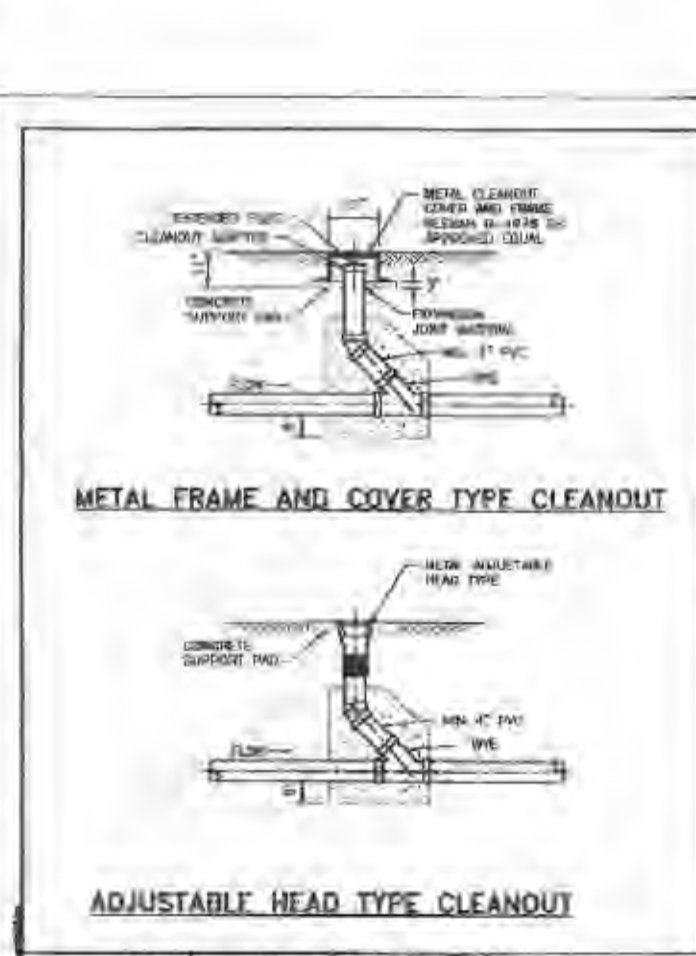
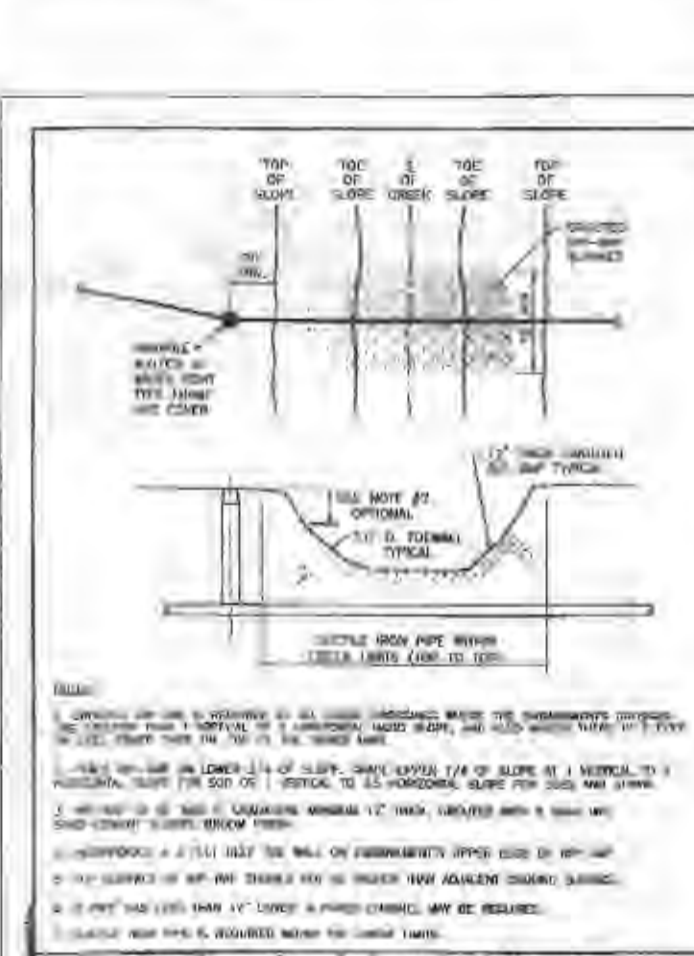
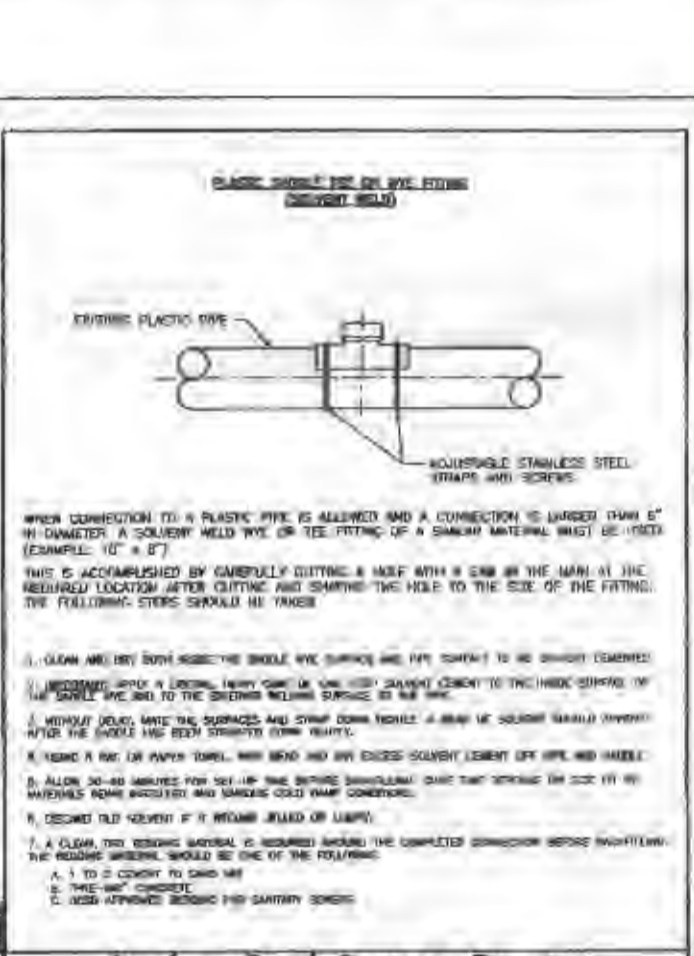
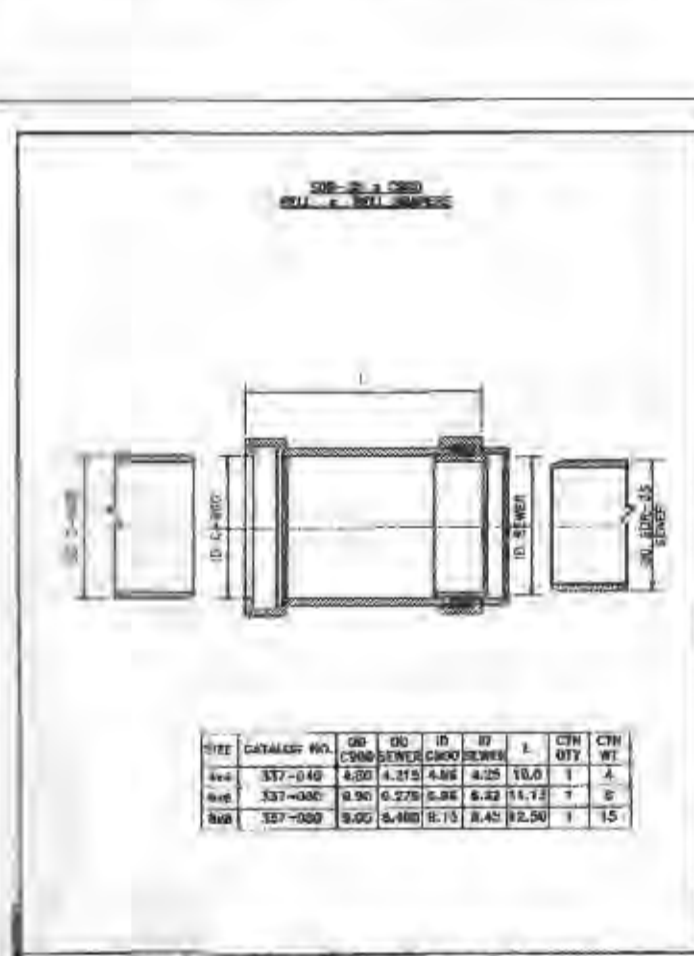
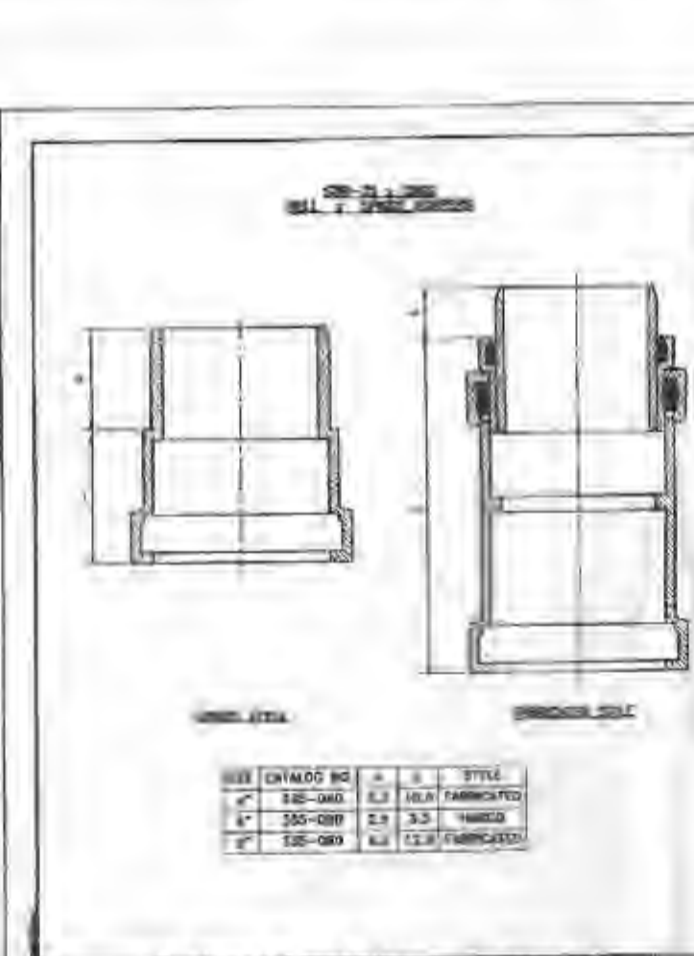
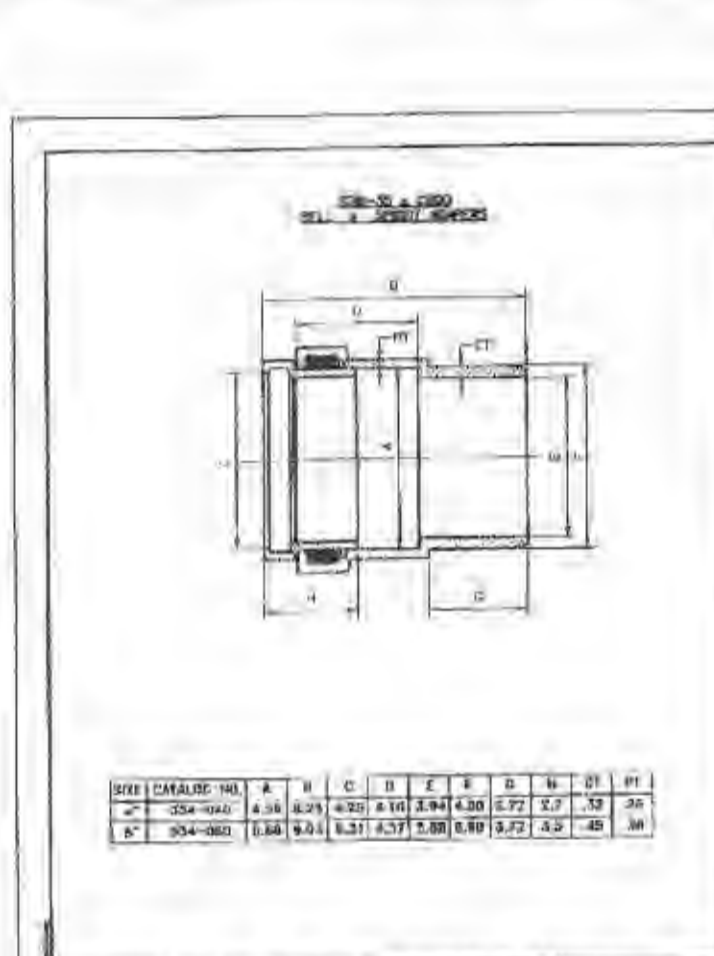
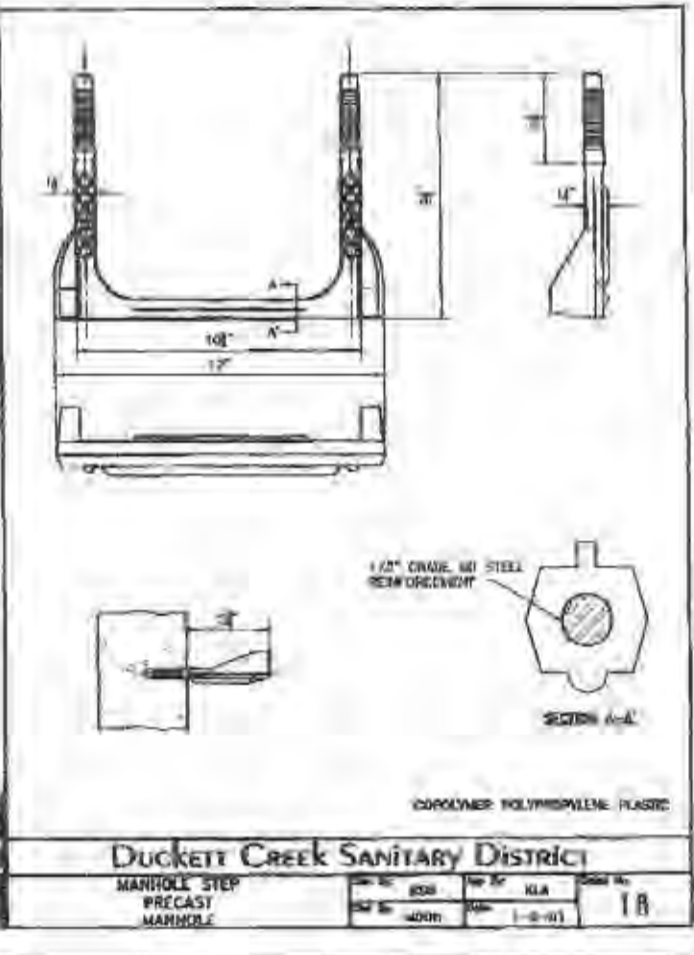
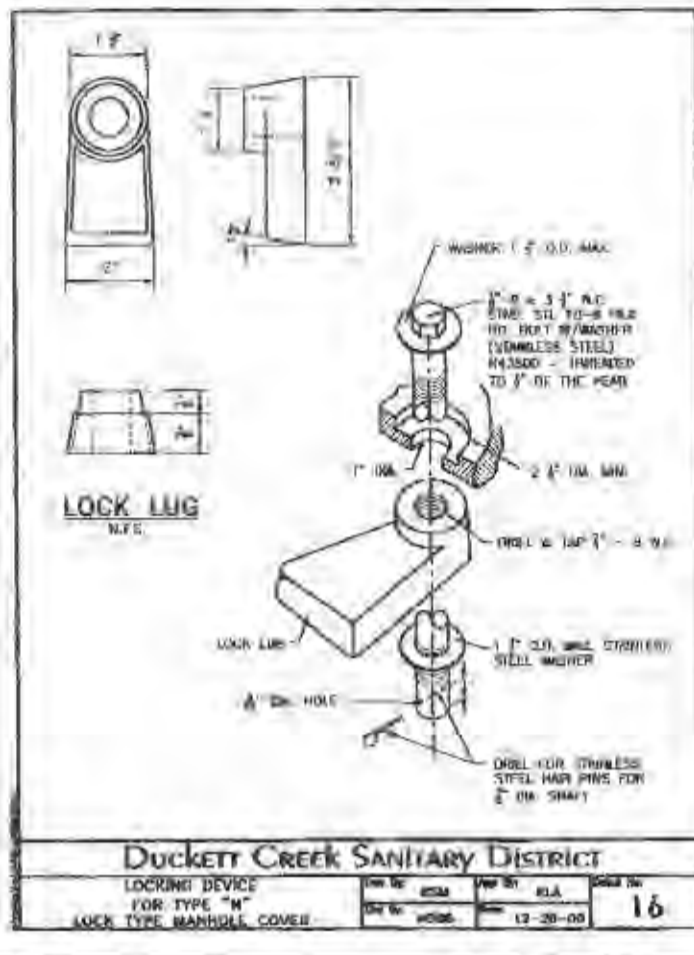
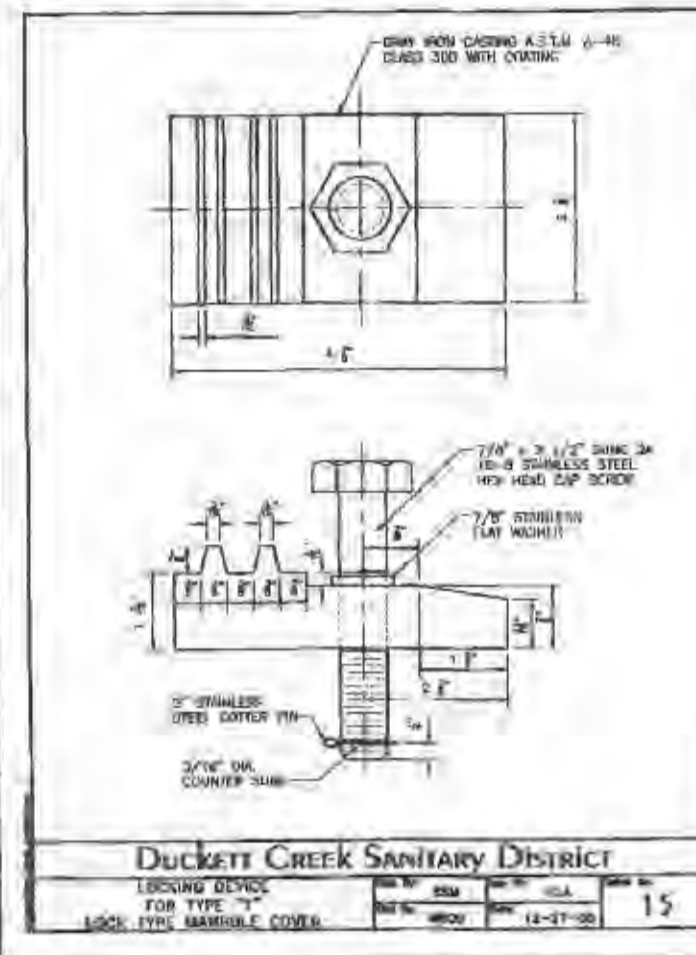
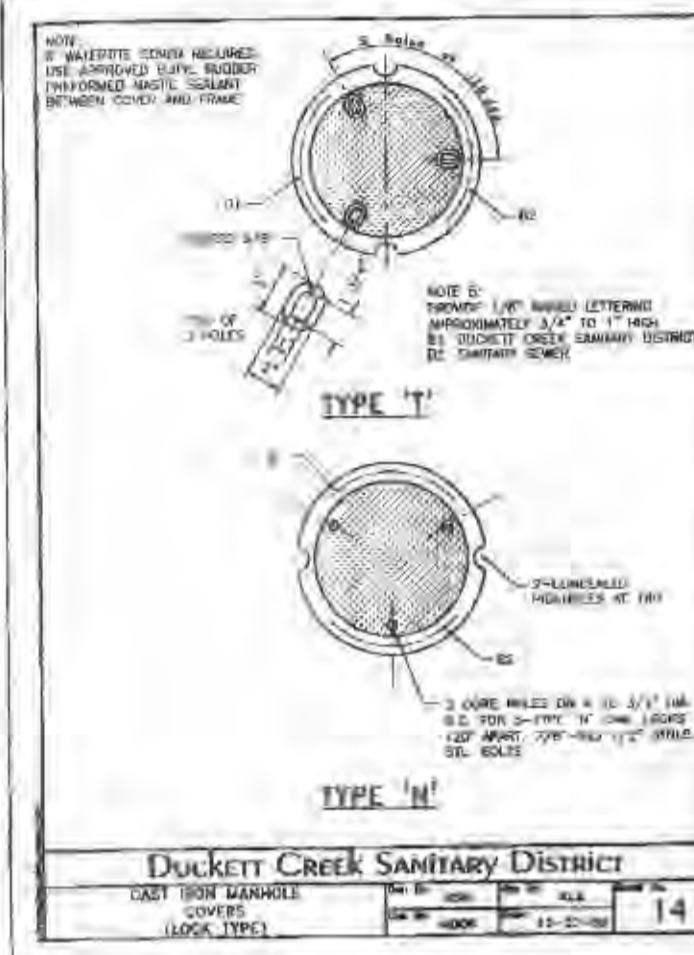
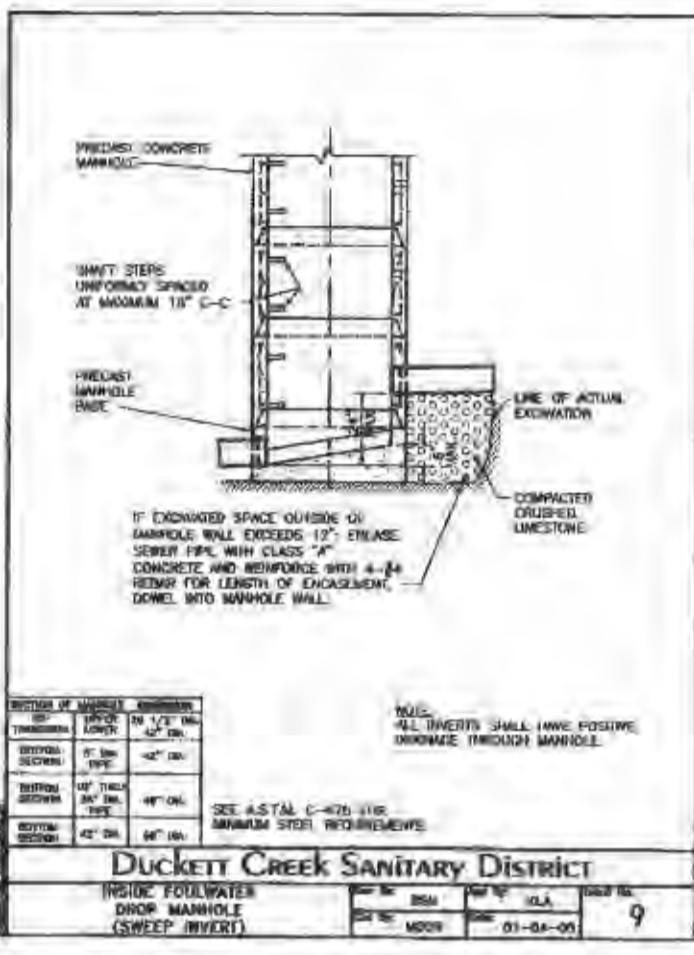
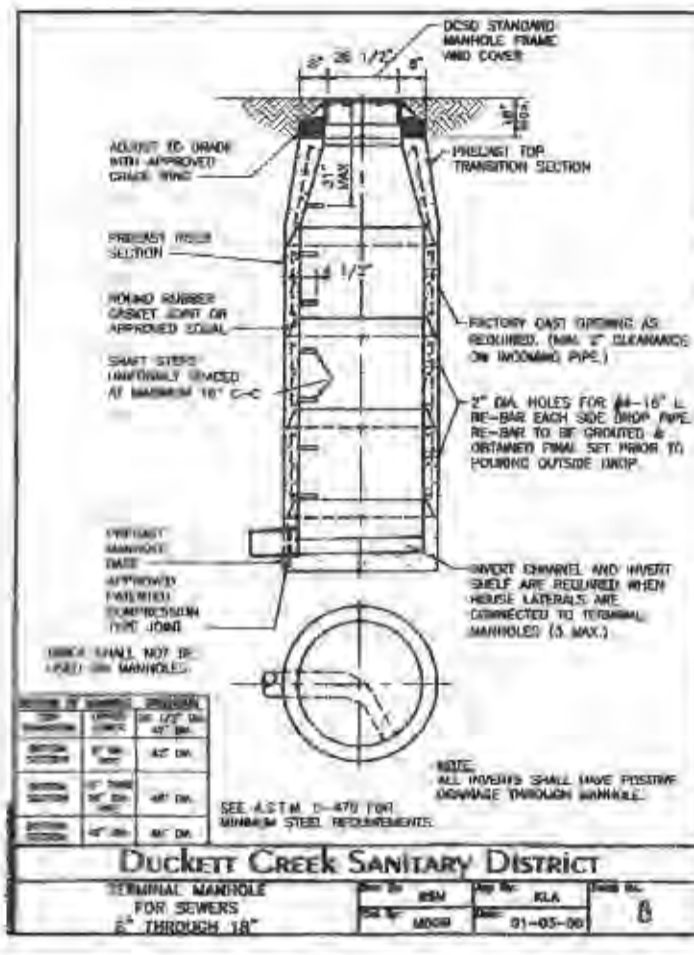
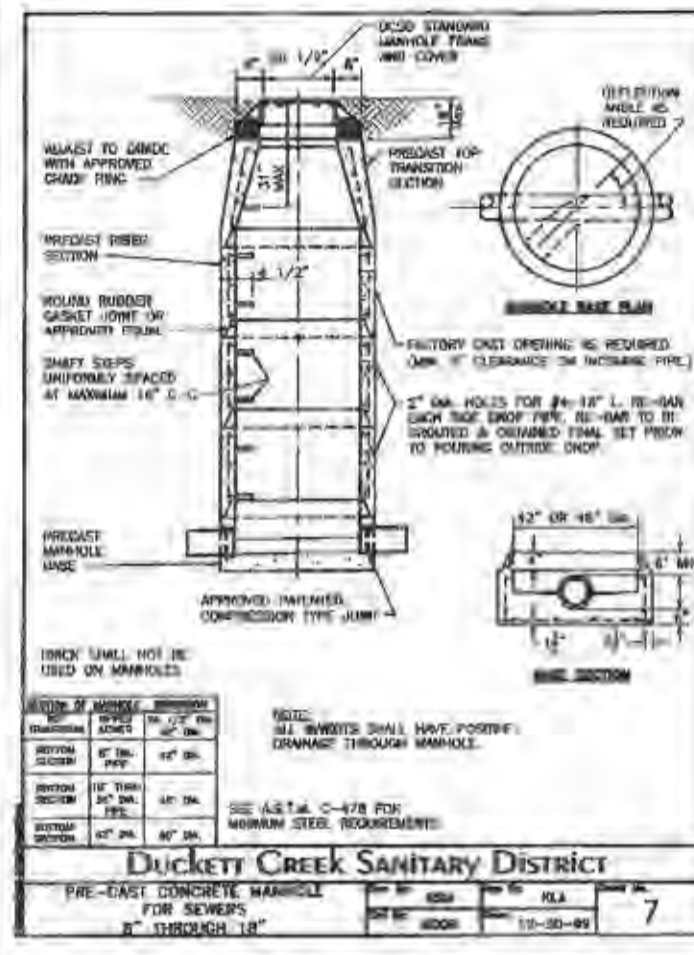
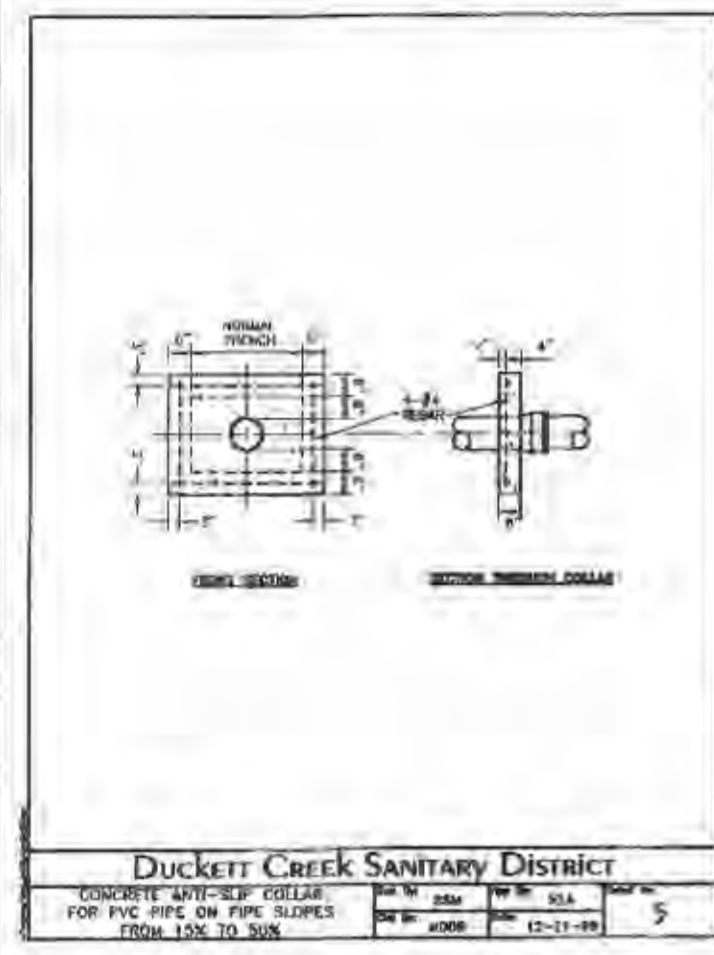
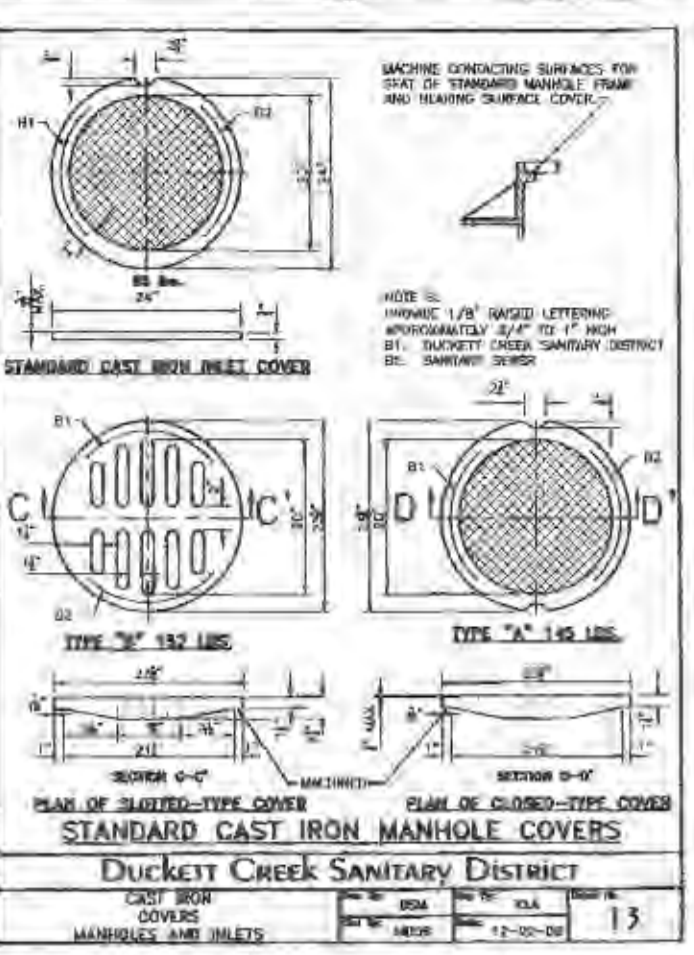
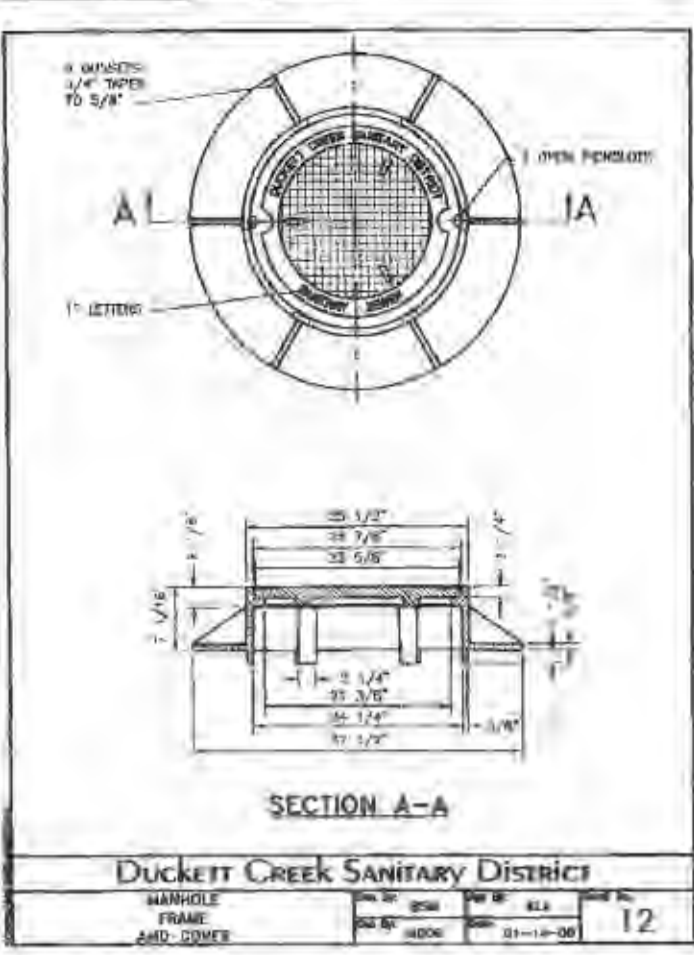
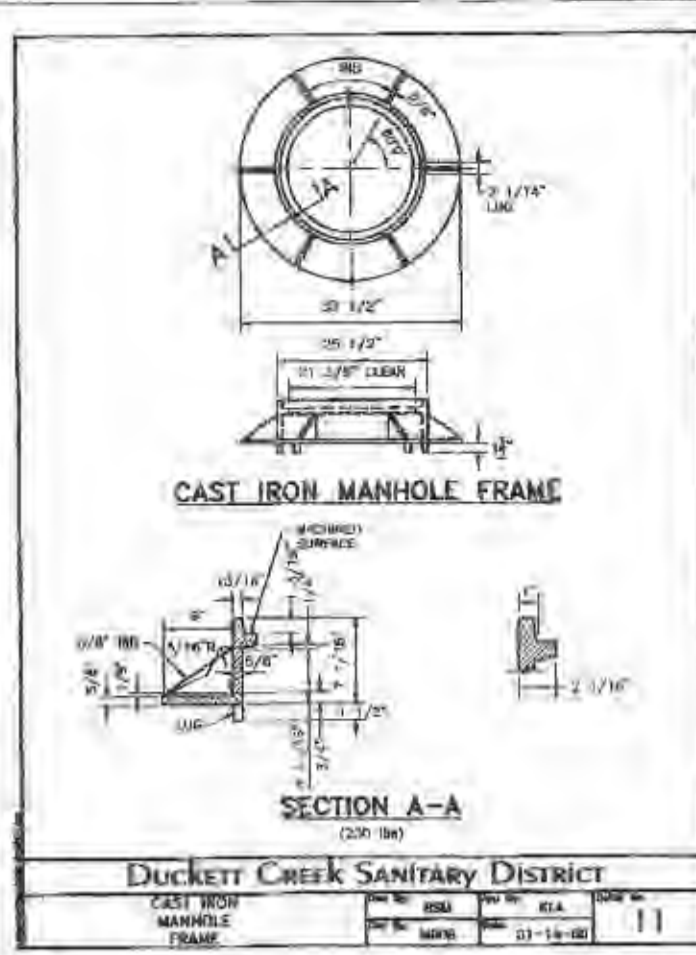
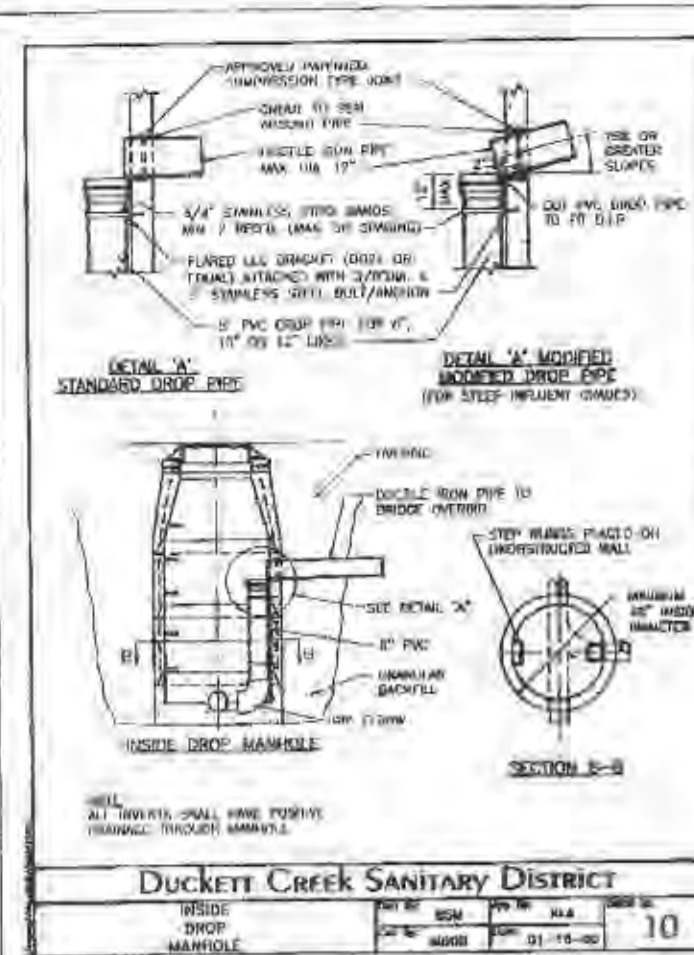
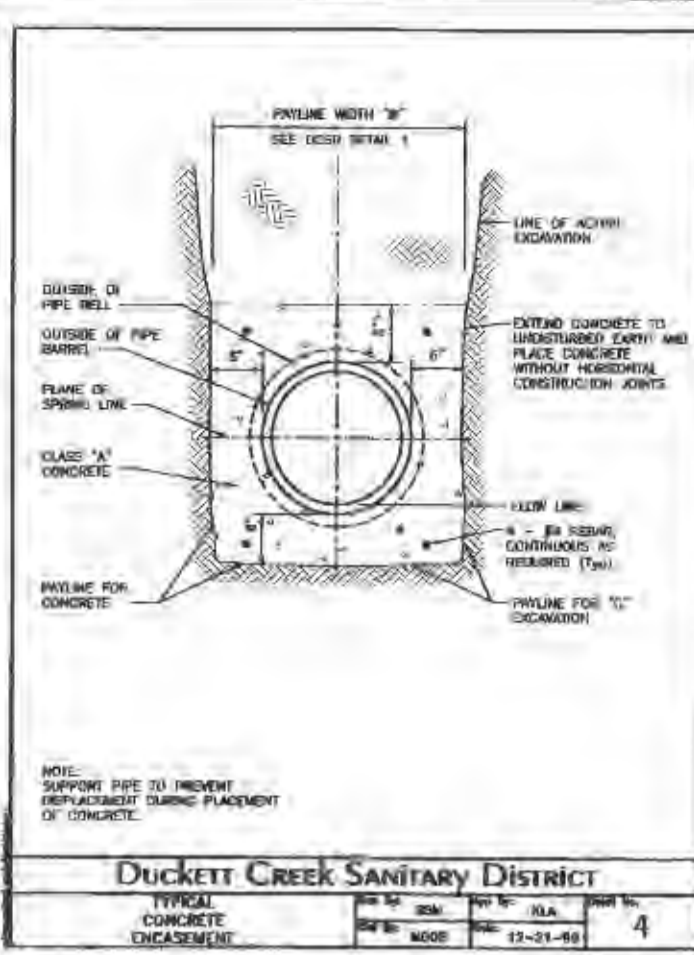
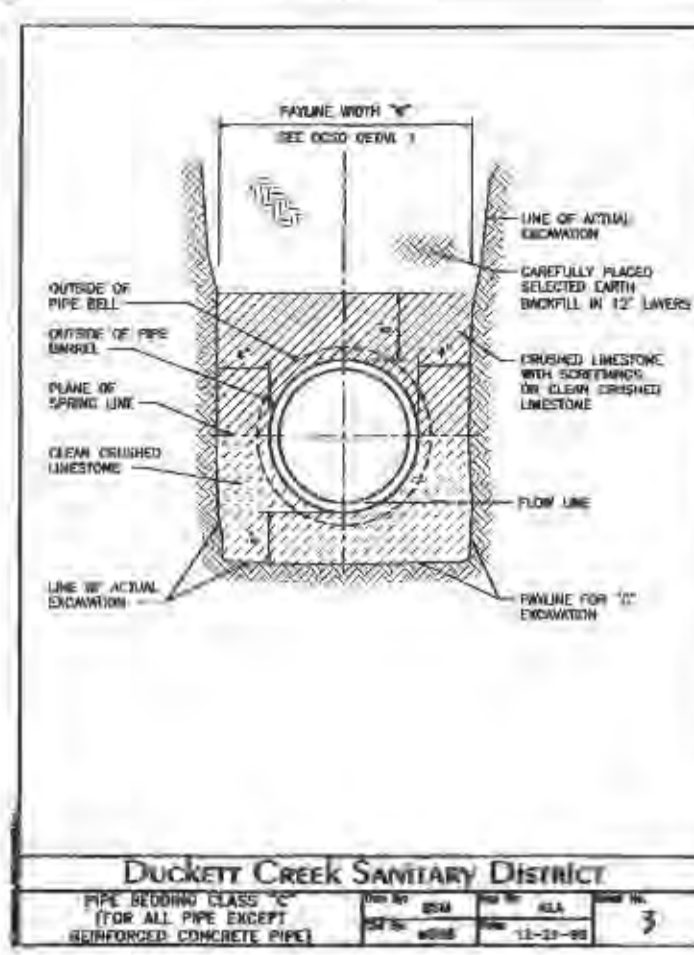
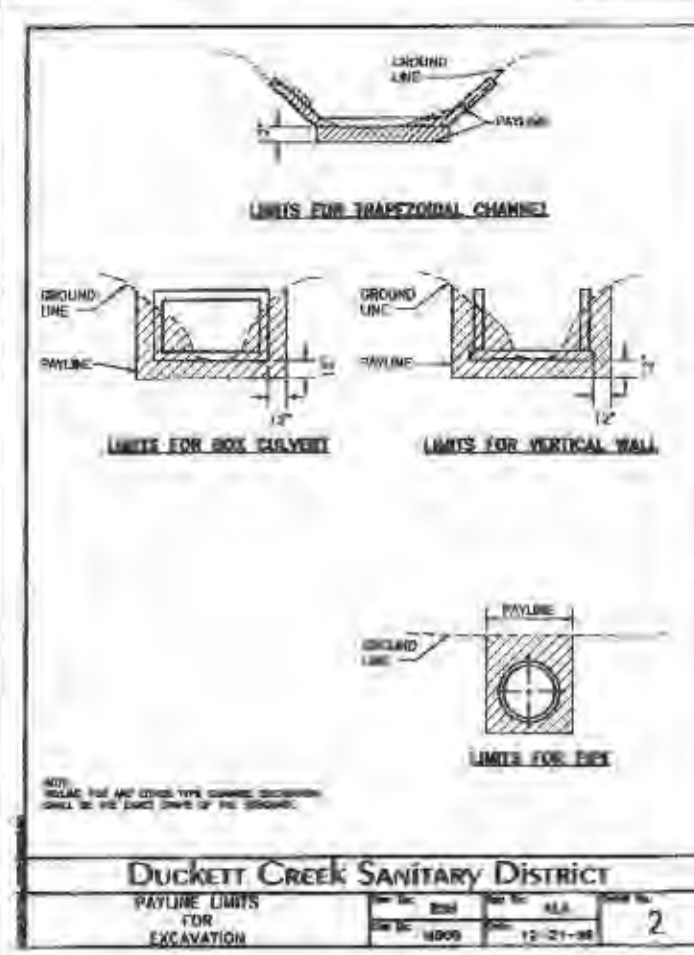
HELMUT WEBER
 CONSTRUCTION CO
 1707 HENKE RD.
 O'FALLON, MO.
 63366



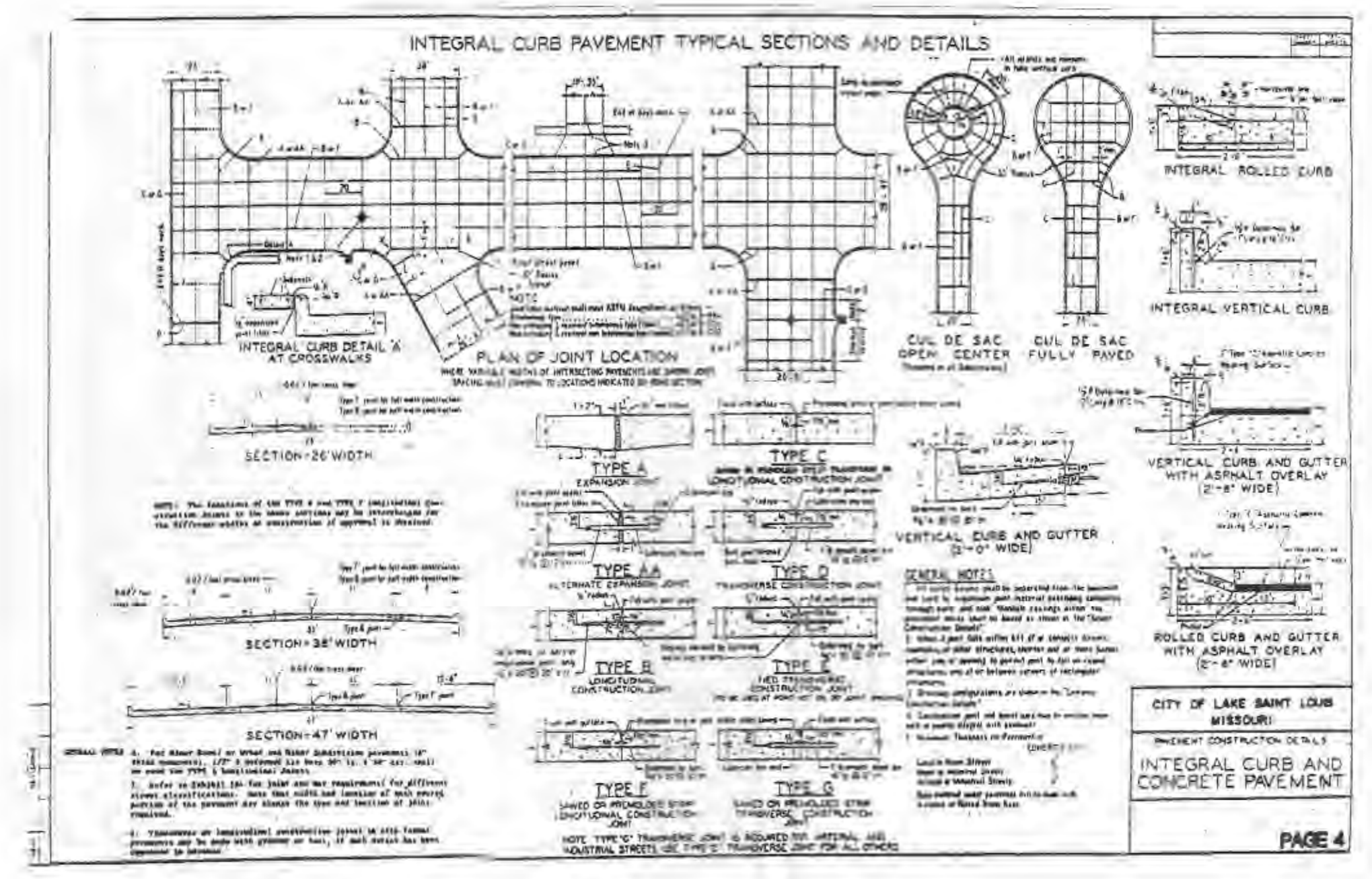
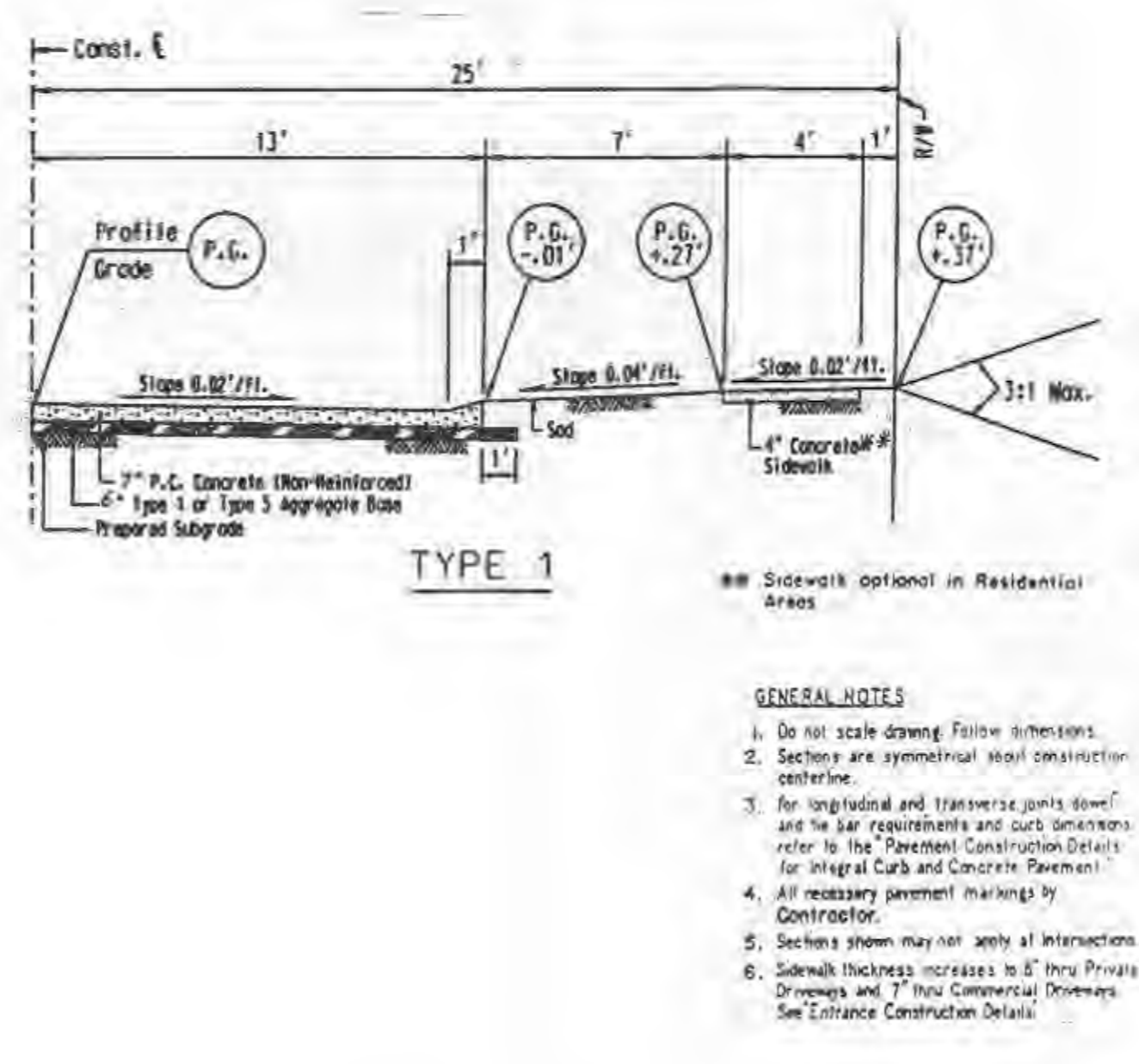
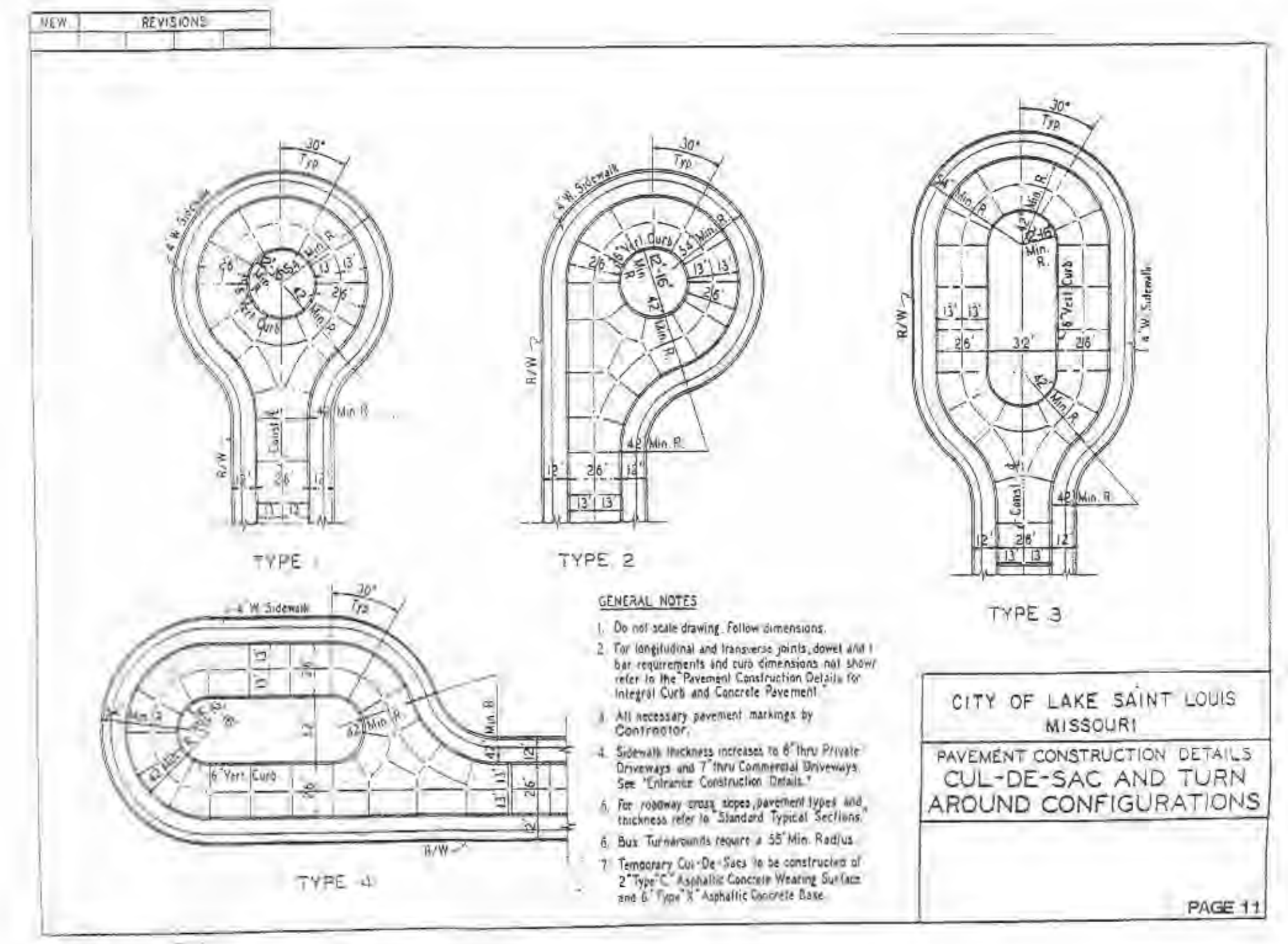
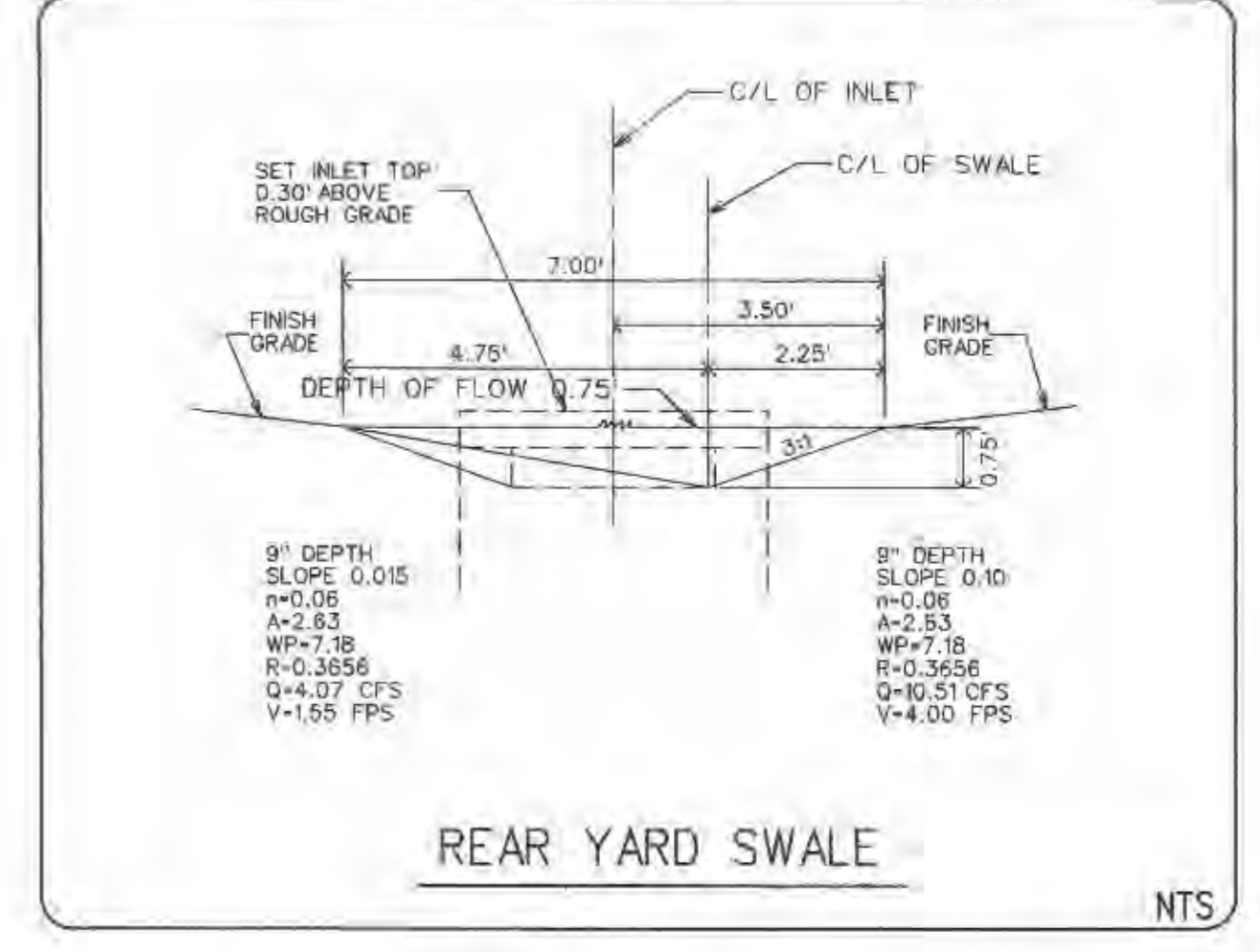
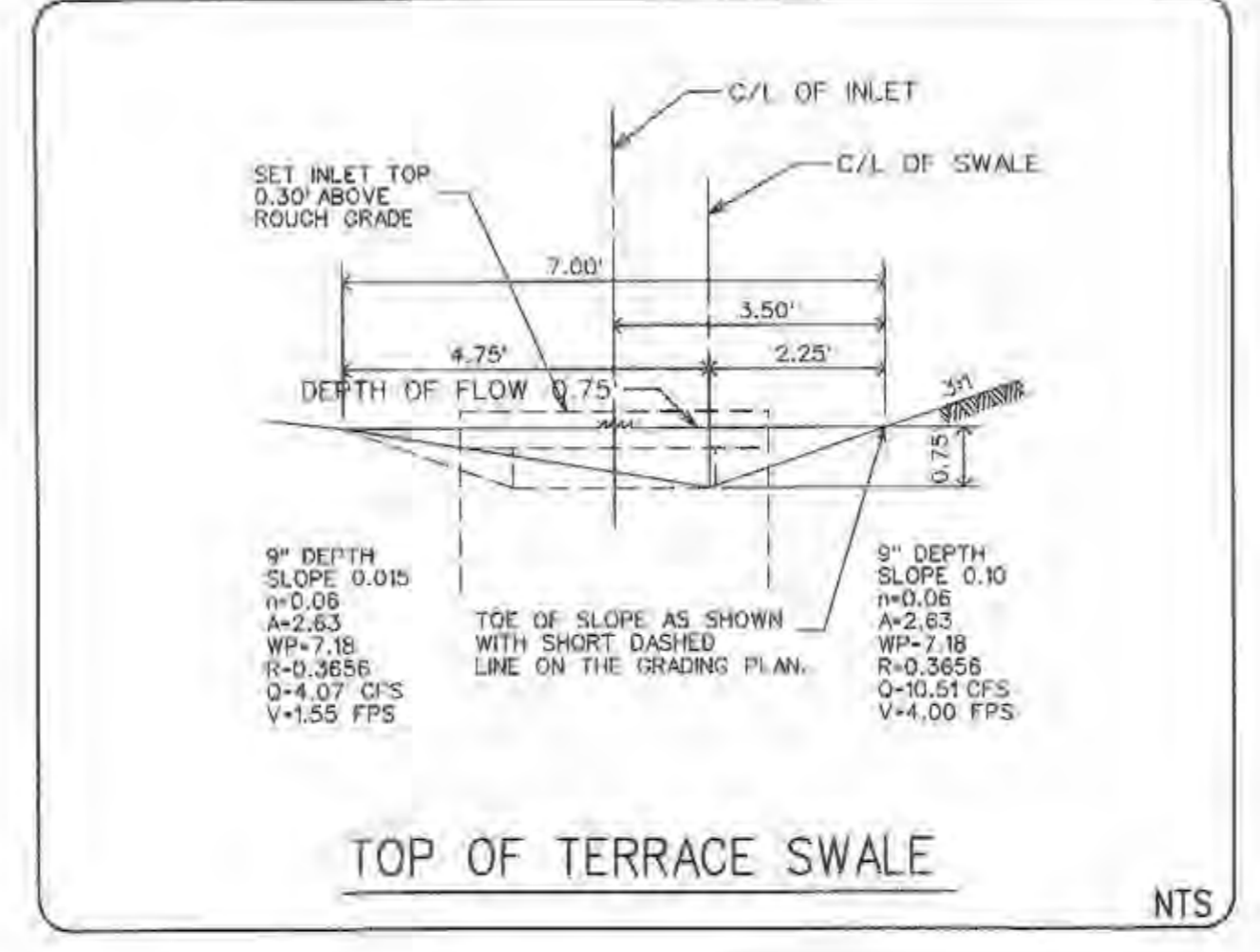
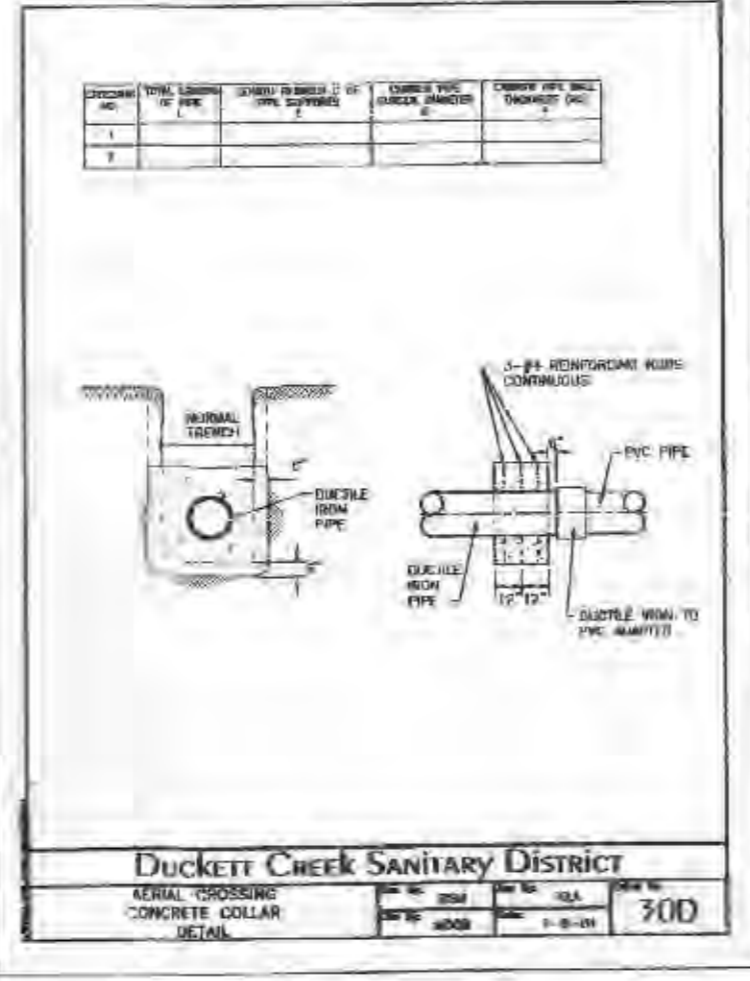
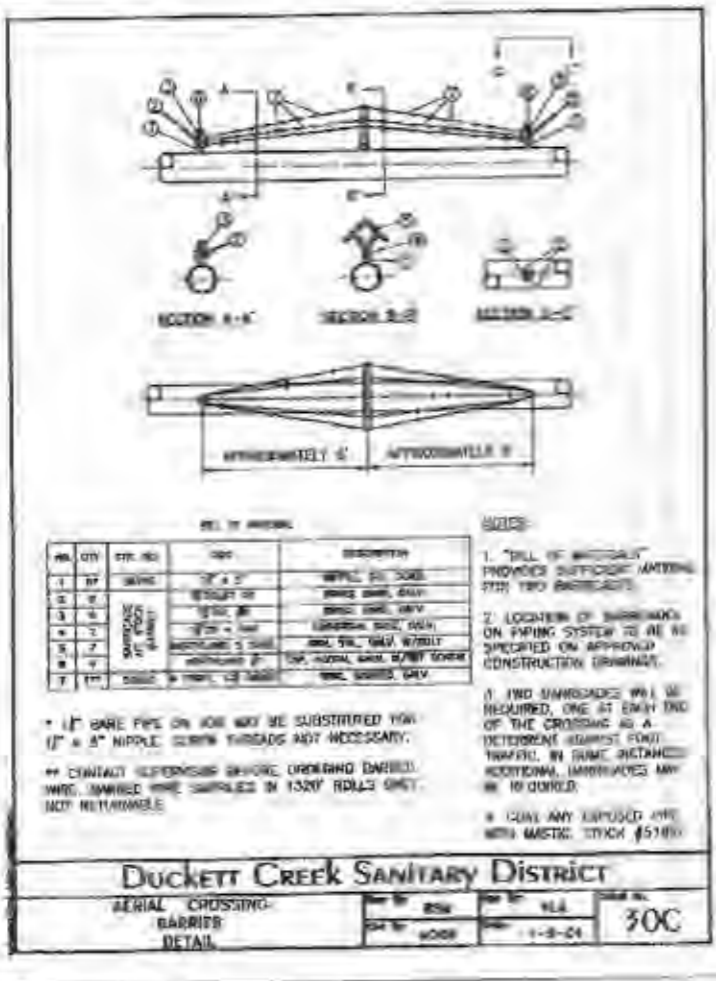
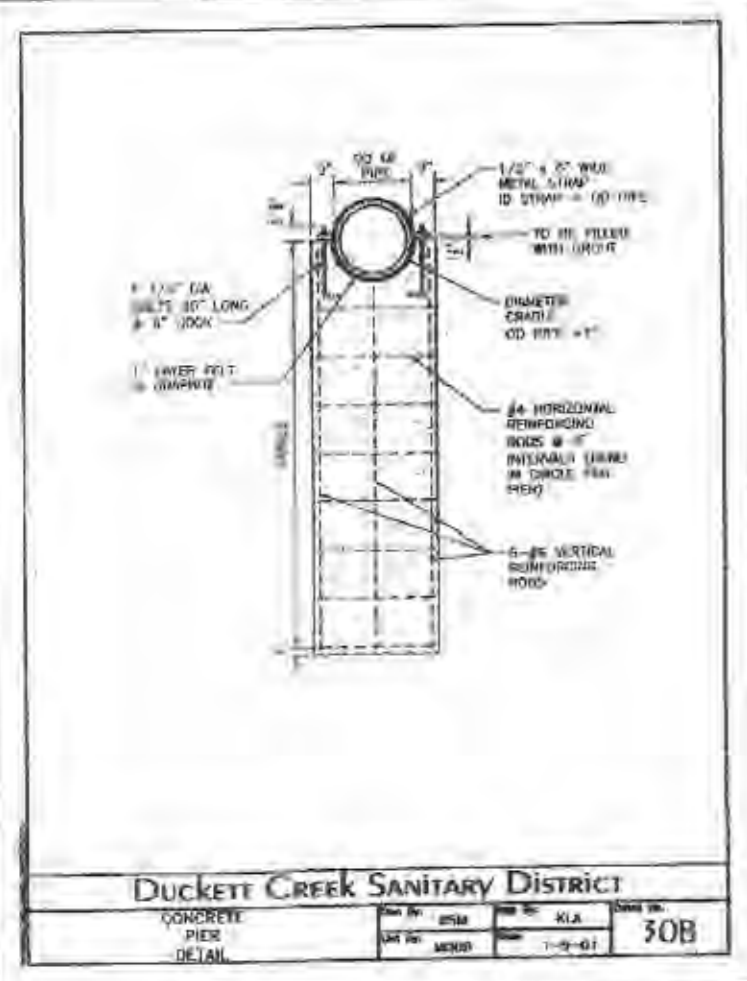
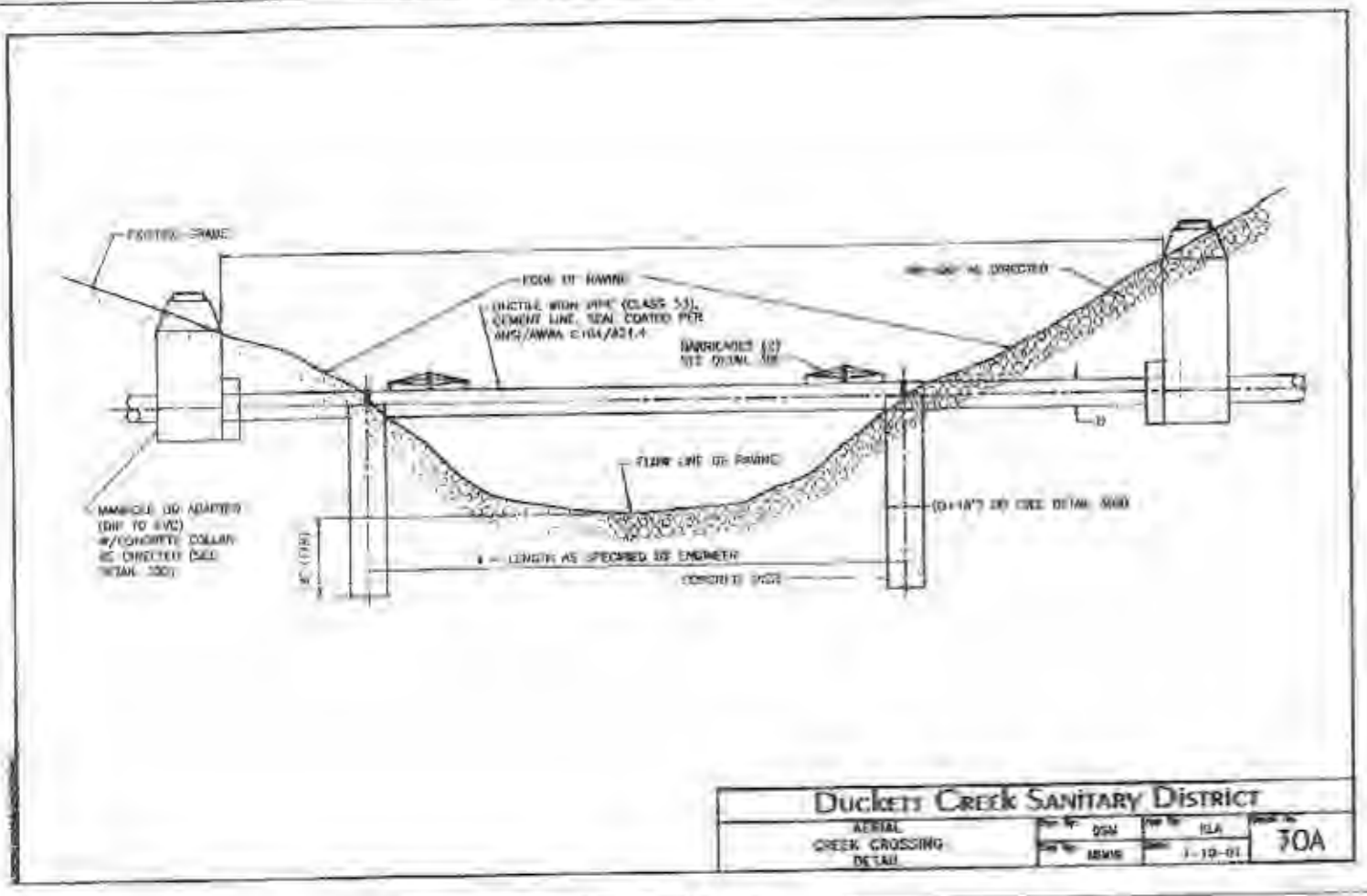
GREEN TREE MEADOWS
 PLAT 3

WATER PLAN
 Design By: E.D.K.
 Drawn By: E.D.K.
 Checked By: E.A.K.
 10-10-01
 16

ROUND PIPE	HORIZONTAL ELLIPTICAL PIPE
WELLS OF 12" DIAMETER (INCHES)	WELLS OF 12" DIAMETER (INCHES)
WELLS OF 18" DIAMETER (INCHES)	WELLS OF 18" DIAMETER (INCHES)
WELLS OF 24" DIAMETER (INCHES)	WELLS OF 24" DIAMETER (INCHES)
WELLS OF 30" DIAMETER (INCHES)	WELLS OF 30" DIAMETER (INCHES)
WELLS OF 36" DIAMETER (INCHES)	WELLS OF 36" DIAMETER (INCHES)
WELLS OF 42" DIAMETER (INCHES)	WELLS OF 42" DIAMETER (INCHES)
WELLS OF 48" DIAMETER (INCHES)	WELLS OF 48" DIAMETER (INCHES)
WELLS OF 54" DIAMETER (INCHES)	WELLS OF 54" DIAMETER (INCHES)
WELLS OF 60" DIAMETER (INCHES)	WELLS OF 60" DIAMETER (INCHES)
WELLS OF 66" DIAMETER (INCHES)	WELLS OF 66" DIAMETER (INCHES)
WELLS OF 72" DIAMETER (INCHES)	WELLS OF 72" DIAMETER (INCHES)
WELLS OF 78" DIAMETER (INCHES)	WELLS OF 78" DIAMETER (INCHES)
WELLS OF 84" DIAMETER (INCHES)	WELLS OF 84" DIAMETER (INCHES)
WELLS OF 90" DIAMETER (INCHES)	WELLS OF 90" DIAMETER (INCHES)
WELLS OF 96" DIAMETER (INCHES)	WELLS OF 96" DIAMETER (INCHES)
WELLS OF 102" DIAMETER (INCHES)	WELLS OF 102" DIAMETER (INCHES)
WELLS OF 108" DIAMETER (INCHES)	WELLS OF 108" DIAMETER (INCHES)
WELLS OF 114" DIAMETER (INCHES)	WELLS OF 114" DIAMETER (INCHES)
WELLS OF 120" DIAMETER (INCHES)	WELLS OF 120" DIAMETER (INCHES)
WELLS OF 126" DIAMETER (INCHES)	WELLS OF 126" DIAMETER (INCHES)
WELLS OF 132" DIAMETER (INCHES)	WELLS OF 132" DIAMETER (INCHES)
WELLS OF 138" DIAMETER (INCHES)	WELLS OF 138" DIAMETER (INCHES)
WELLS OF 144" DIAMETER (INCHES)	WELLS OF 144" DIAMETER (INCHES)
WELLS OF 150" DIAMETER (INCHES)	WELLS OF 150" DIAMETER (INCHES)
WELLS OF 156" DIAMETER (INCHES)	WELLS OF 156" DIAMETER (INCHES)
WELLS OF 162" DIAMETER (INCHES)	WELLS OF 162" DIAMETER (INCHES)
WELLS OF 168" DIAMETER (INCHES)	WELLS OF 168" DIAMETER (INCHES)
WELLS OF 174" DIAMETER (INCHES)	WELLS OF 174" DIAMETER (INCHES)
WELLS OF 180" DIAMETER (INCHES)	WELLS OF 180" DIAMETER (INCHES)
WELLS OF 186" DIAMETER (INCHES)	WELLS OF 186" DIAMETER (INCHES)
WELLS OF 192" DIAMETER (INCHES)	WELLS OF 192" DIAMETER (INCHES)
WELLS OF 198" DIAMETER (INCHES)	WELLS OF 198" DIAMETER (INCHES)
WELLS OF 204" DIAMETER (INCHES)	WELLS OF 204" DIAMETER (INCHES)
WELLS OF 210" DIAMETER (INCHES)	WELLS OF 210" DIAMETER (INCHES)
WELLS OF 216" DIAMETER (INCHES)	WELLS OF 216" DIAMETER (INCHES)
WELLS OF 222" DIAMETER (INCHES)	WELLS OF 222" DIAMETER (INCHES)
WELLS OF 228" DIAMETER (INCHES)	WELLS OF 228" DIAMETER (INCHES)
WELLS OF 234" DIAMETER (INCHES)	WELLS OF 234" DIAMETER (INCHES)
WELLS OF 240" DIAMETER (INCHES)	WELLS OF 240" DIAMETER (INCHES)
WELLS OF 246" DIAMETER (INCHES)	WELLS OF 246" DIAMETER (INCHES)
WELLS OF 252" DIAMETER (INCHES)	WELLS OF 252" DIAMETER (INCHES)
WELLS OF 258" DIAMETER (INCHES)	WELLS OF 258" DIAMETER (INCHES)
WELLS OF 264" DIAMETER (INCHES)	WELLS OF 264" DIAMETER (INCHES)
WELLS OF 270" DIAMETER (INCHES)	WELLS OF 270" DIAMETER (INCHES)
WELLS OF 276" DIAMETER (INCHES)	WELLS OF 276" DIAMETER (INCHES)
WELLS OF 282" DIAMETER (INCHES)	WELLS OF 282" DIAMETER (INCHES)
WELLS OF 288" DIAMETER (INCHES)	WELLS OF 288" DIAMETER (INCHES)
WELLS OF 294" DIAMETER (INCHES)	WELLS OF 294" DIAMETER (INCHES)
WELLS OF 300" DIAMETER (INCHES)	WELLS OF 300" DIAMETER (INCHES)



HELMUT WEBER CONSTRUCTION CO
 1707 HENKE RD.
 O'FALLON, MO. 63366
VOLZ
 HELMUT WEBER CONSTRUCTION CO
 1707 HENKE RD.
 O'FALLON, MO. 63366
GREEN TREE MEADOWS PLAT 3
 CONSTRUCTION DETAILS
 Design By: E.D.K.
 Drawn By: D.K.L.
 Checked By: E.A.K.
 B-6844
 10-108-01
17



HELMUT WEBER
 CONSTRUCTION CO
 1707 HENKE RD.
 O'FALLON, MO.
 63366

VOLZ

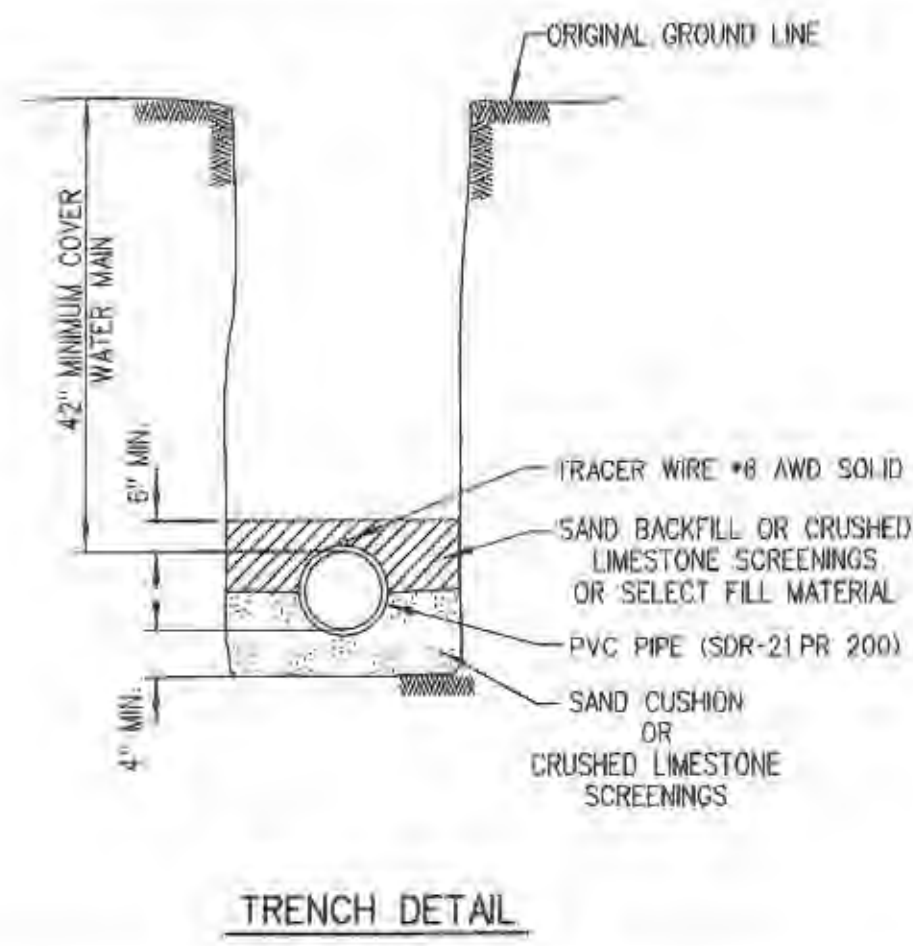


GREEN TREE MEADOWS
PLAT 3

CONSTRUCTION DETAILS

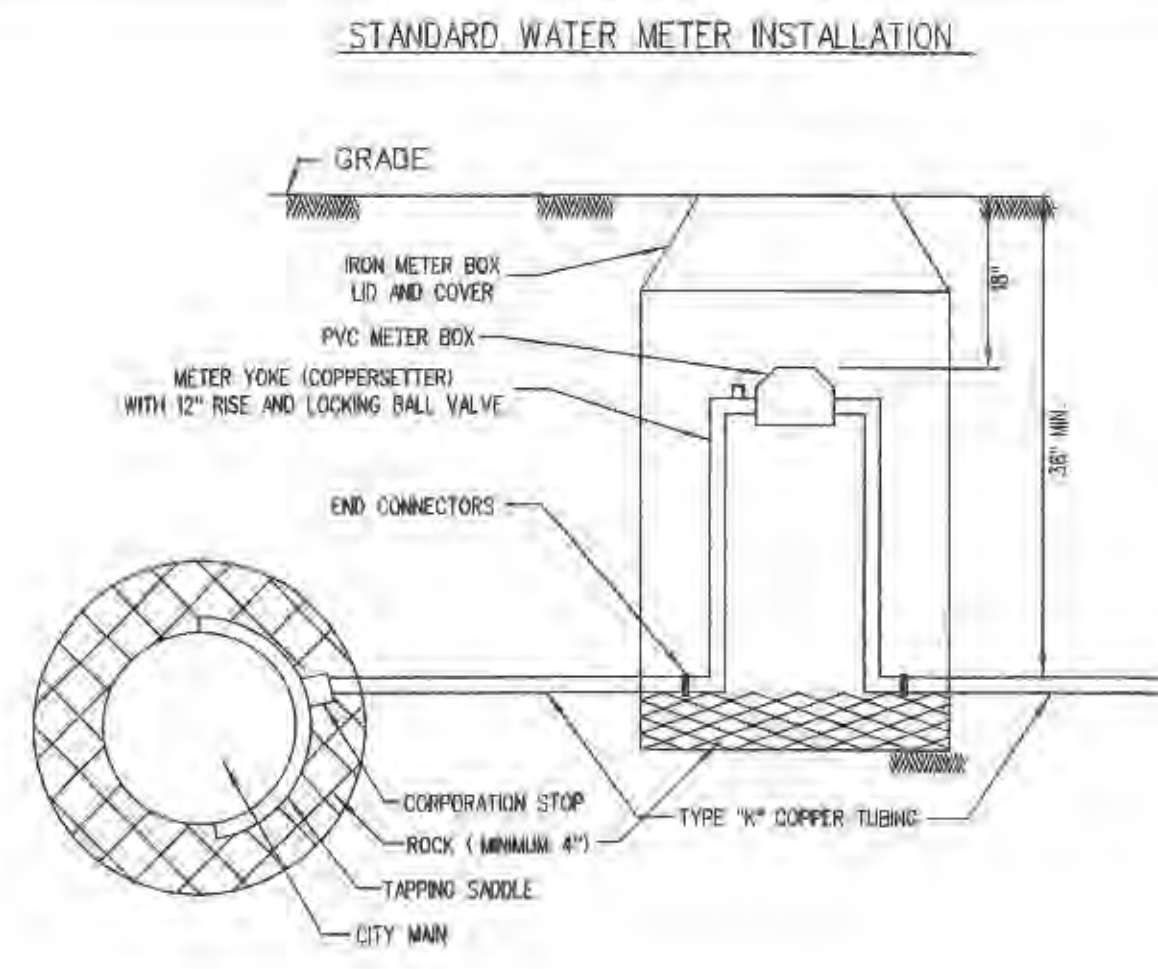
Design By: E.D.K.
 Drawn By: D.K.L.
 Checked By: E.A.K.

10-08-01
 18

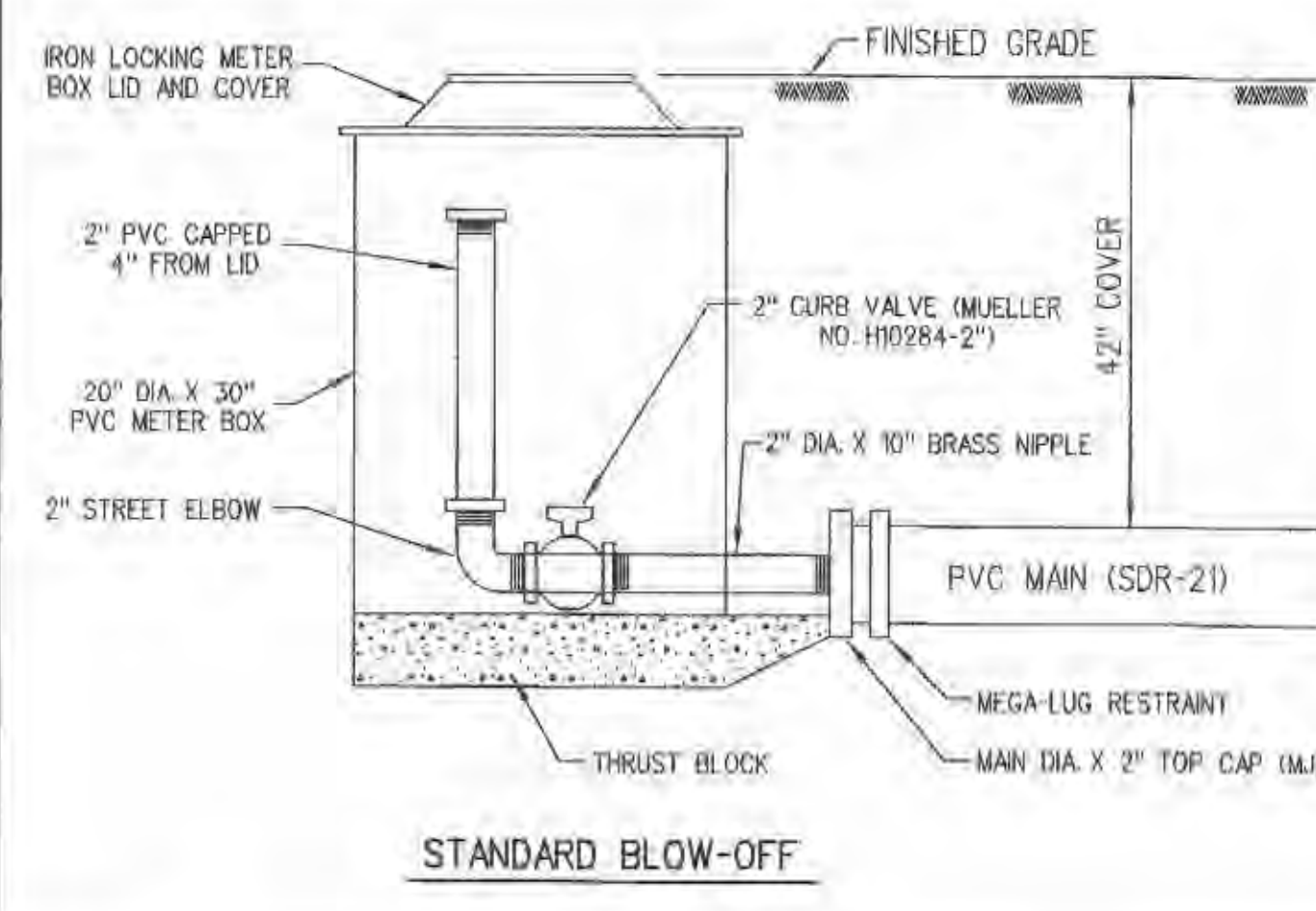


TRENCH DETAIL

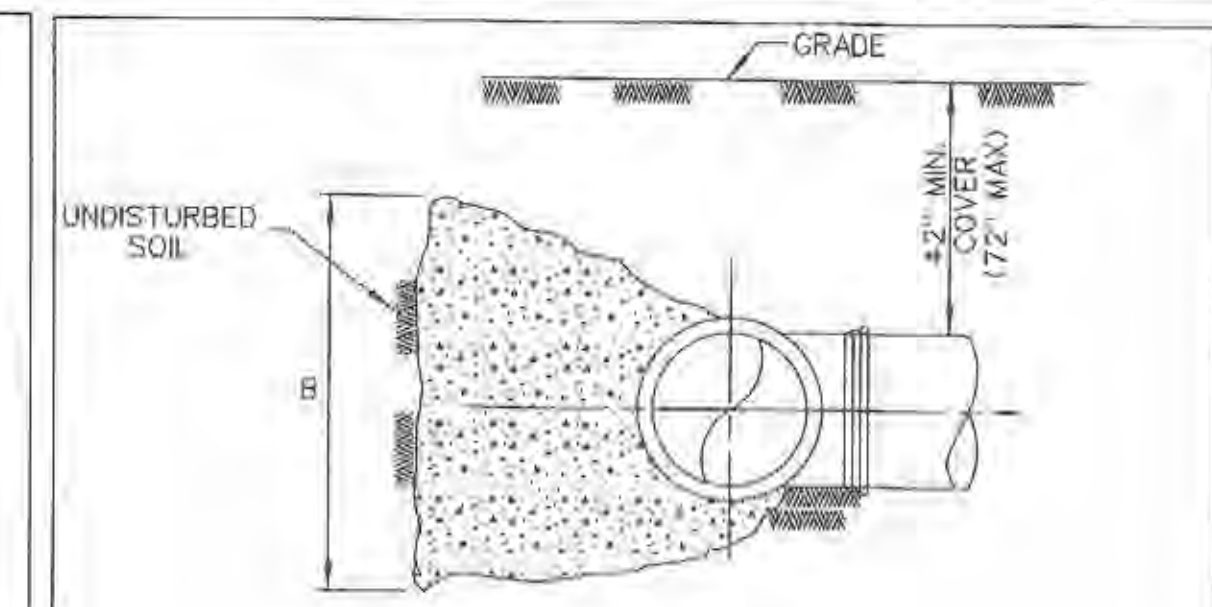
TRACER WIRE #12 AWG SOLID



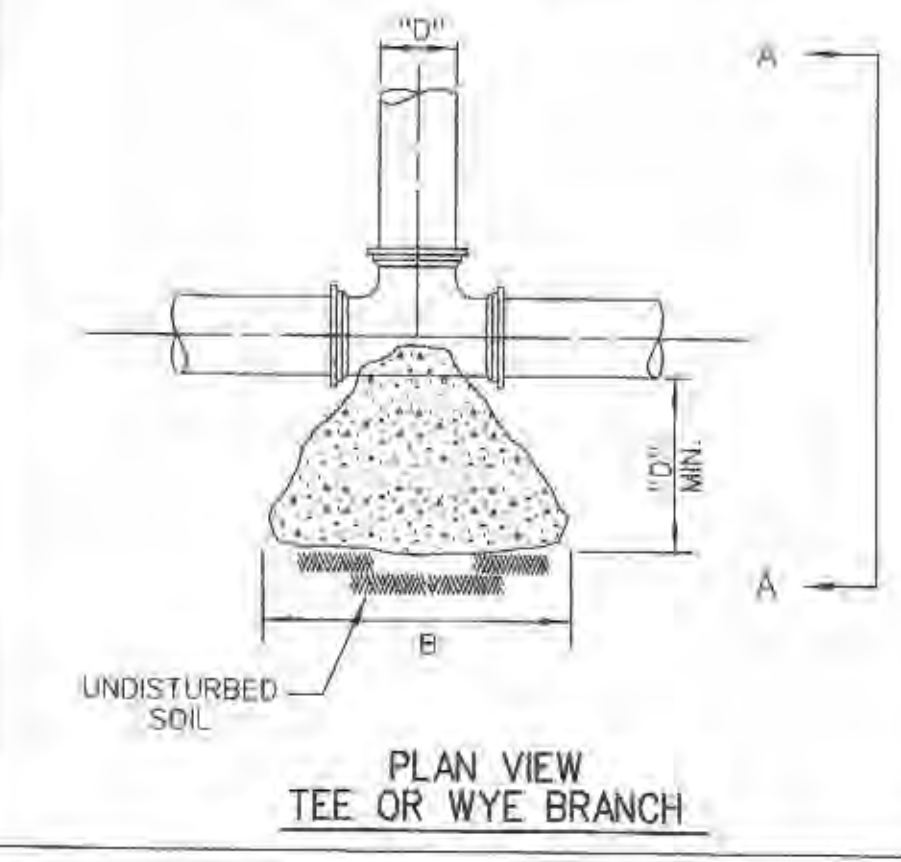
- MATERIAL LIST - 1" WATER METER SERVICE**
- 1" Sensus SR7 MTR, TRPL, 100 GL PLAS BNT
 - 1" Meter Yoke with 12" Rise and Locking Ball Valve (B2404-1")
 - 1" Corporation Stop (B25008-1")
 - 2-1" End Connectors, Compression (H-14227-1")
 - 20' 6150 MTR Box Cover LN w/TR
 - 20" X 30" Meter Tile (MIDSTATES)
 - 1" X 8" Tapping Saddle, PVC (H13433-1")
 - 1" X 10" Tapping Saddle, PVC (H13434-1")
 - 1" X 6" Tapping Saddle, PVC



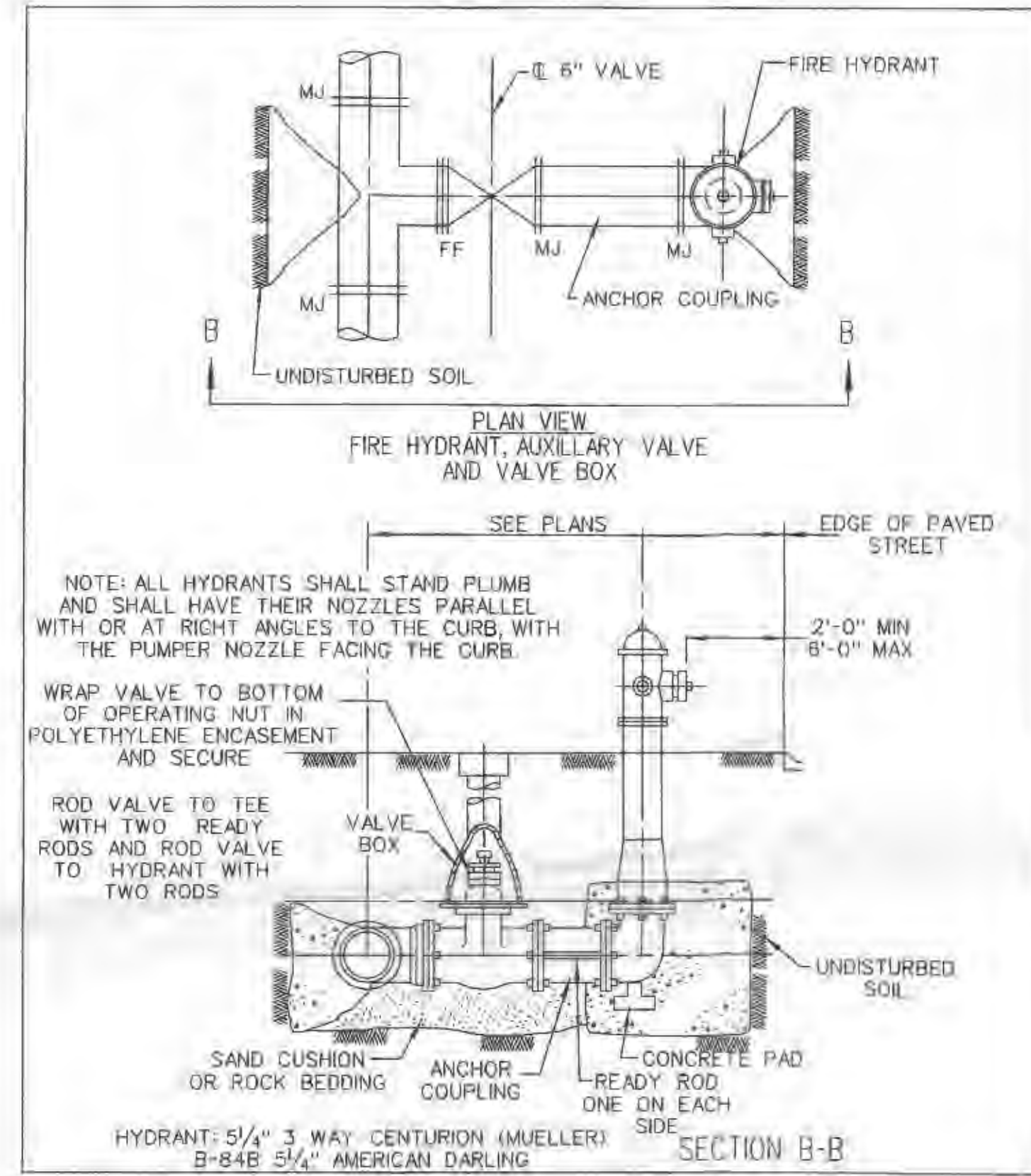
STANDARD BLOW-OFF



SECTION "A - A"
TYPICAL FOR ALL THRUST BLOCKS EXCEPT AS NOTED



PLAN VIEW
TEE OR WYE BRANCH

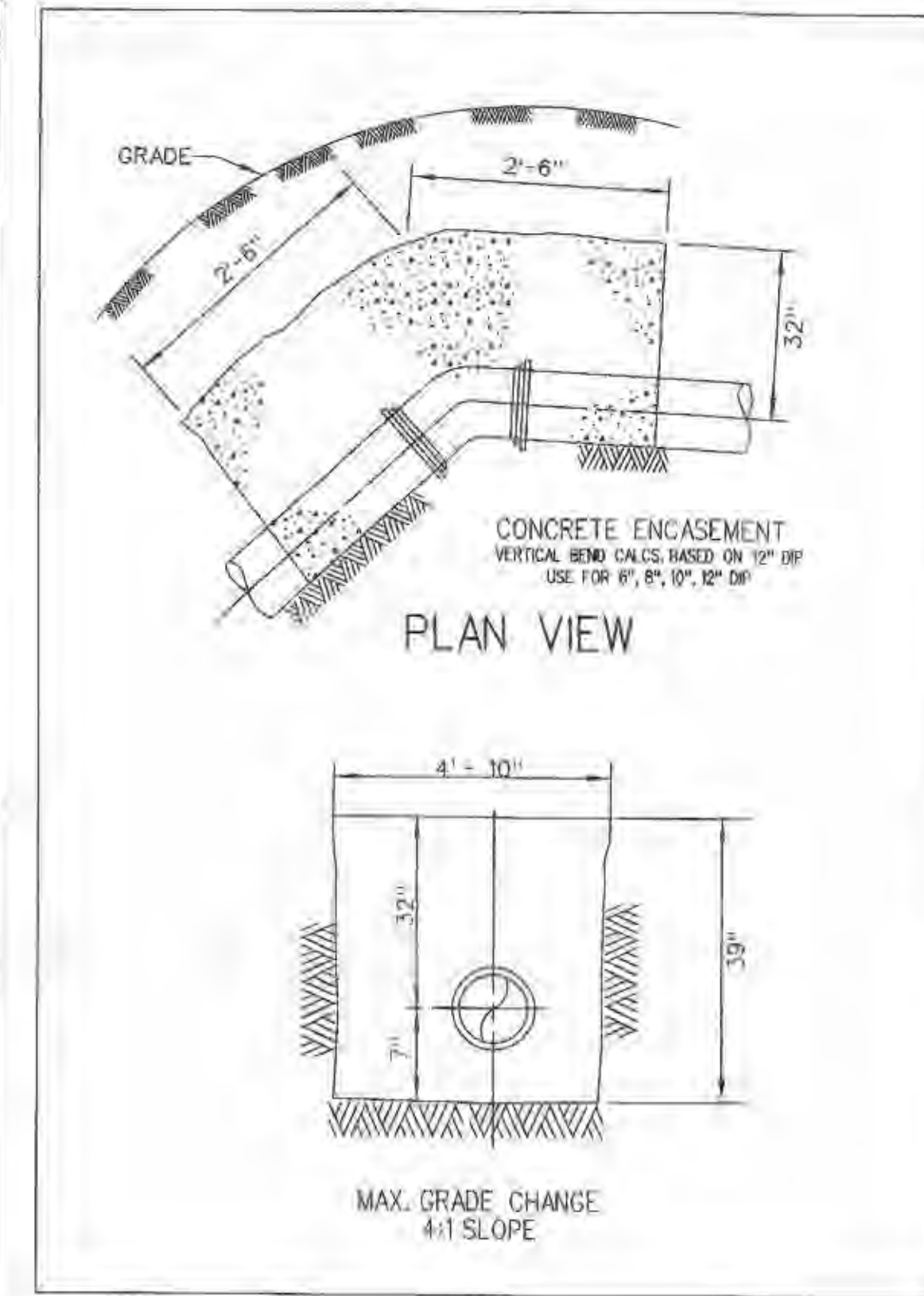


NOTE: ALL HYDRANTS SHALL STAND PLUMB AND SHALL HAVE THEIR NOZZLES PARALLEL WITH OR AT RIGHT ANGLES TO THE CURB, WITH THE PUMPER NOZZLE FACING THE CURB.

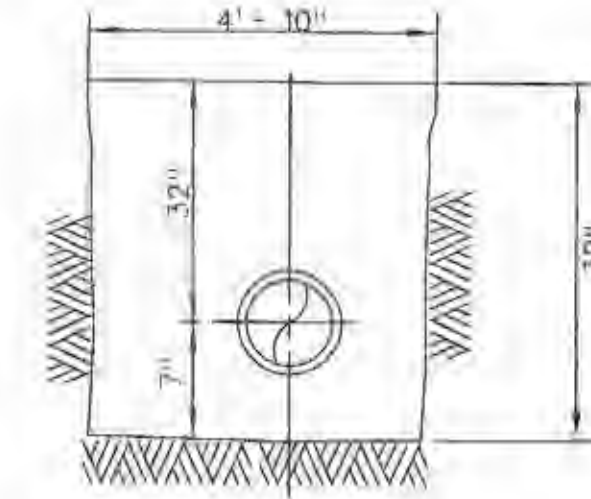
WRAP VALVE TO BOTTOM OF OPERATING NUT IN POLYETHYLENE ENCASEMENT AND SECURE

ROD VALVE TO TEE WITH TWO READY RODS AND ROD VALVE TO HYDRANT WITH TWO RODS

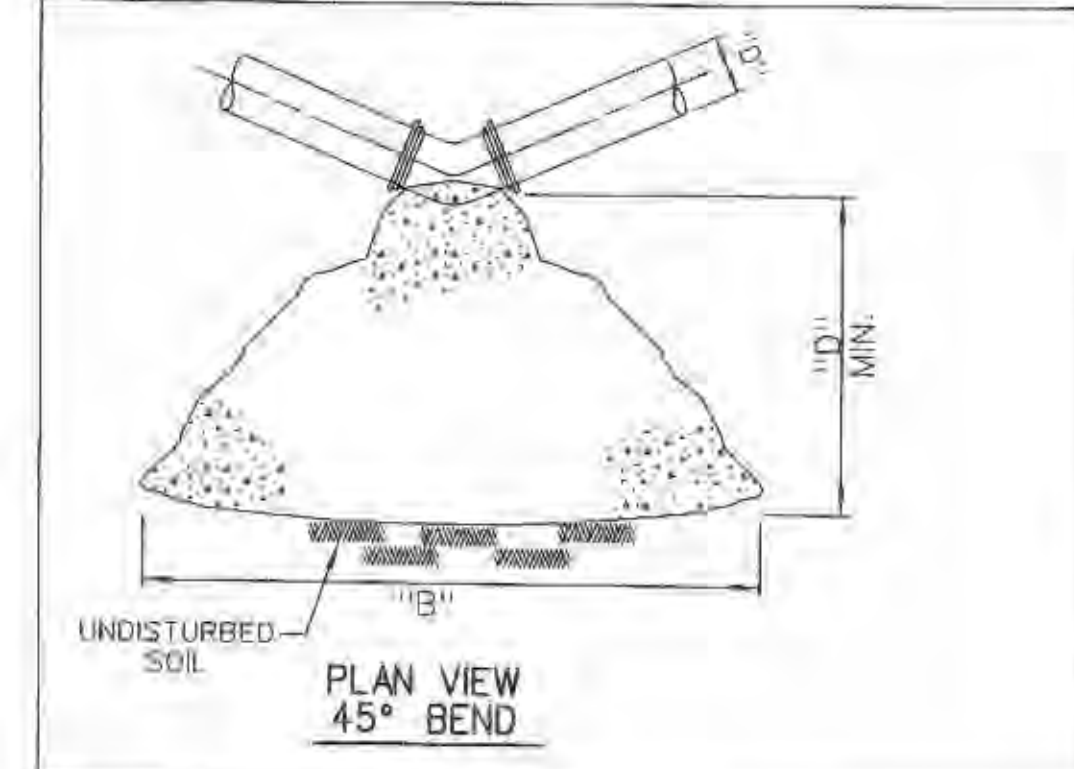
HYDRANT: 3/4" 3 WAY CENTURION (MUELLER)
B-84B 3/4" AMERICAN DARLING



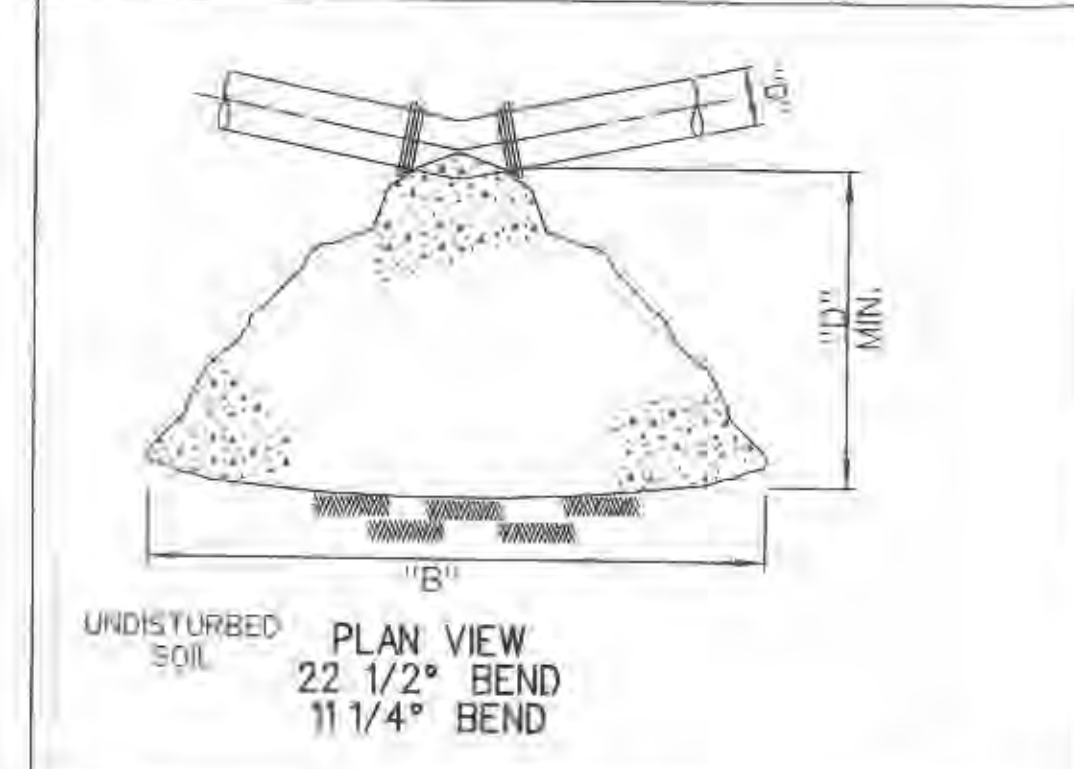
PLAN VIEW



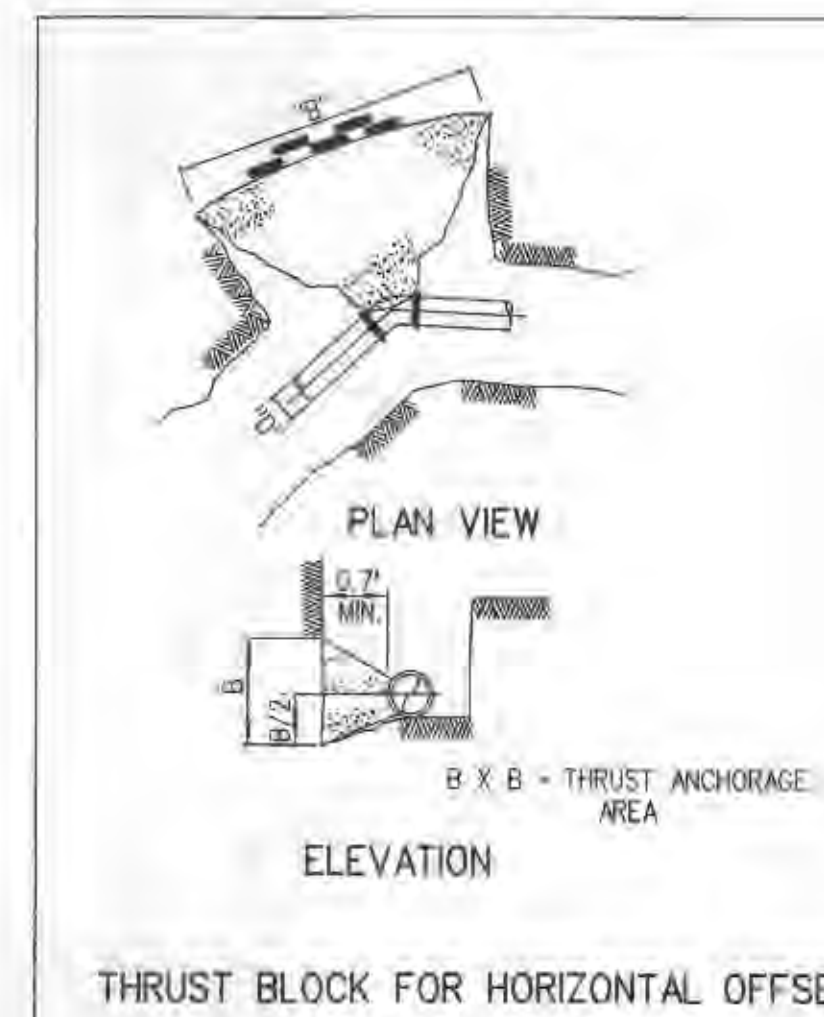
MAX. GRADE CHANGE
4:1 SLOPE



PLAN VIEW
45° BEND



PLAN VIEW
22 1/2° BEND
11 1/4° BEND



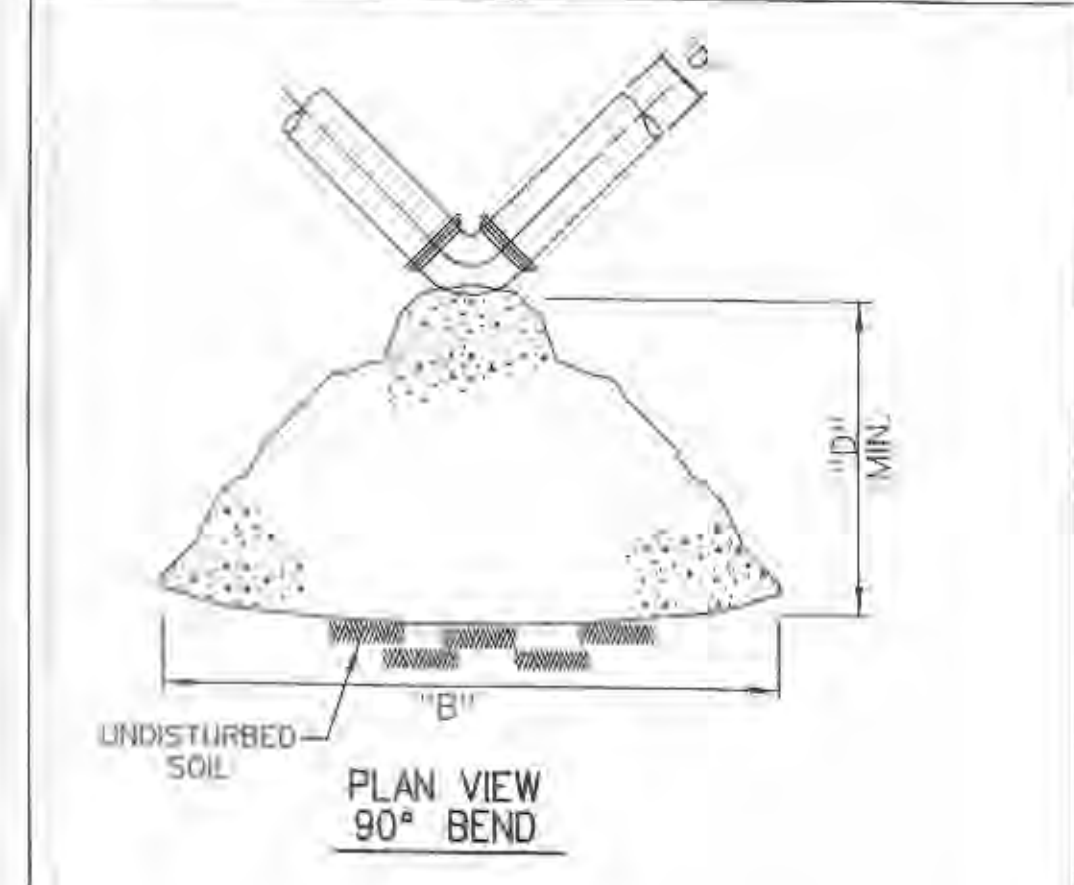
ELEVATION

THRUST BLOCK FOR HORIZONTAL OFFSETS

PIPE DIA.	90° BENDS		45° BENDS		22.5° BENDS		WYES & TEES	
	B	D	B	D	B	D	B	D
2"	1.0	0.7	1.0	0.7	1.0	0.7	1.0	0.7
3"	1.0	0.7	1.0	0.7	1.0	0.7	1.0	0.7
4"	1.0	0.7	1.0	0.7	1.0	0.7	1.0	0.7
6"	1.4	1.0	1.0	1.0	1.0	1.0	1.0	1.0
8"	1.8	1.0	1.0	1.0	1.0	1.0	2.2	1.0
10"	2.3	1.2	1.7	1.2	1.2	1.2	2.7	1.2
12"	2.7	1.4	2.0	1.4	1.4	1.4	3.2	1.4
14"	3.2	1.5	2.4	1.5	1.7	1.5	3.2	1.5
16"	3.6	1.7	2.7	1.7	1.9	1.7	4.3	1.7

THRUST BLOCKS

Dimensions are in feet. Use above thrust block dimensions unless poor soil conditions (organics, saturated clay, etc.) dictate use of larger thrust area. See chart at top center of this sheet for determination of area of thrust block in poor soil conditions.



PLAN VIEW
90° BEND

HELMUT WEBER
CONSTRUCTION CO
1707 HENKE RD.
O'FALLON, MO.
63366



GREEN TREE MEADOWS
PLAT 3

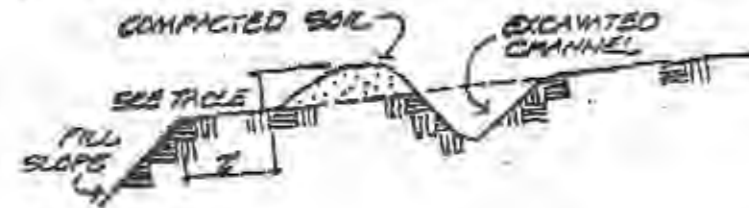
CONSTRUCTION DETAILS
Design By: E.O.K.
Drawn By: D.K.L.
Checked By: E.A.K.
B-6844

DIVERSIONS
For Urban Development Sites

APPENDIX B

** Outlets for diversions must be scable. Scable outlets consist of grass waterways, earthen channels with capacity adequate to prevent gully erosion, grade stabilization structures or other practices as approved by the Designated Official.

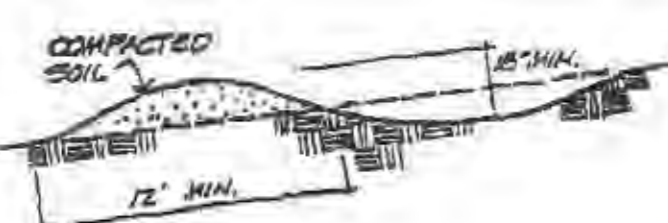
Combination Diversion
Used at the top of a fill slope.



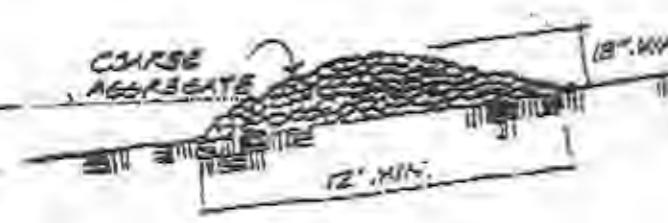
Grass Ridge Diversion
Used around the perimeter of a construction site.



Combination Diversion
General use.



Gravel Ridge Diversion
General use.



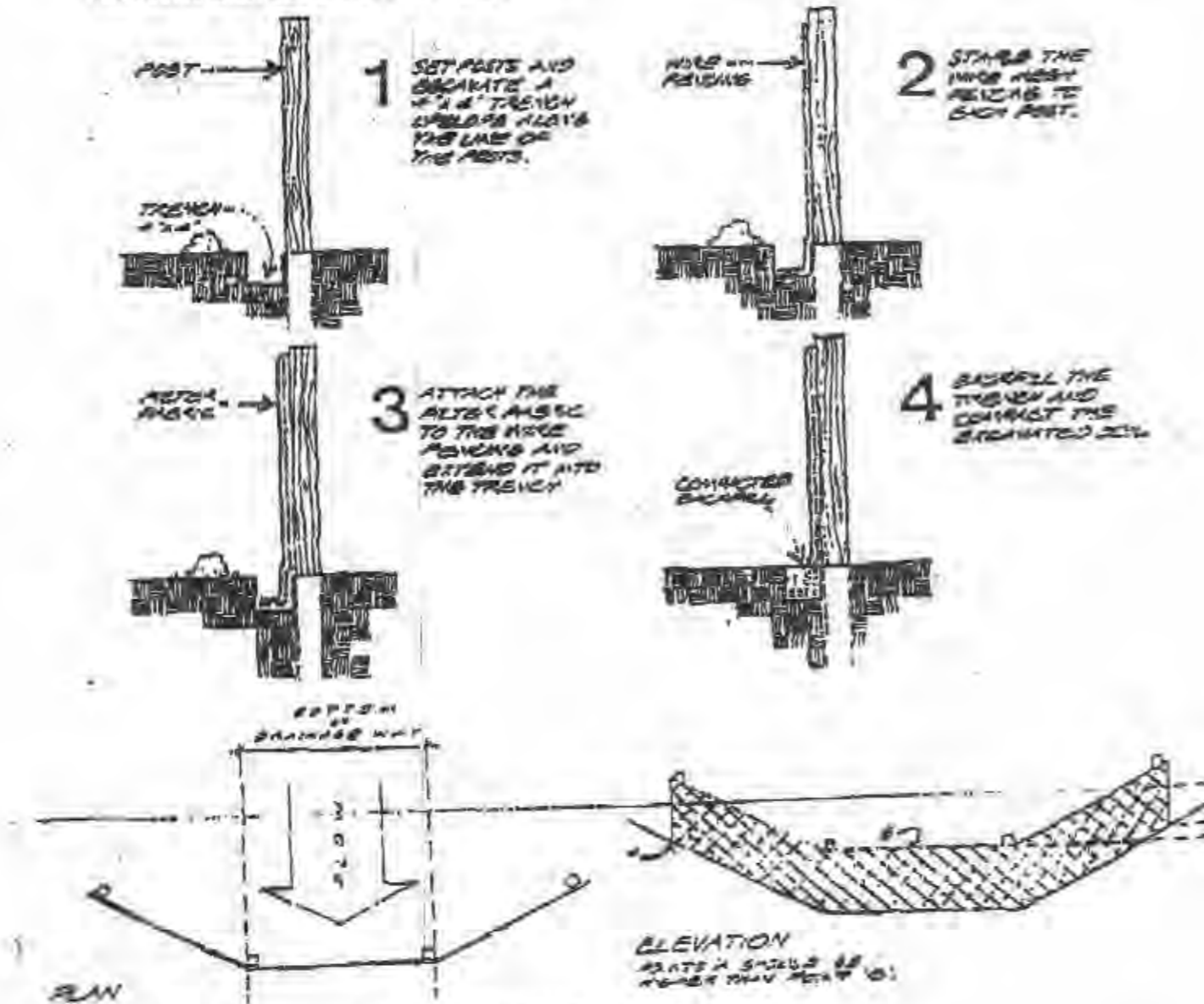
47-9

SYNTHETIC FILTER BARRIERS
For Urban Development Sites

APPENDIX D

Maintenance

- Filter barriers shall be inspected immediately after each rainfall and at least daily during prolonged rainfall. Any required repairs shall be made immediately.
- Should the fabric decompose or become ineffective prior to the end of the expected usable life and the barrier still be necessary, the fabric shall be replaced promptly.
- Sediment deposits should be removed after each storm event. They must be removed when deposits reach approximately half the height of the barrier.
- Any sediment deposits remaining in place after the silt fence or filter barrier is no longer required shall be dressed to conform with the existing grade, prepared and seeded.

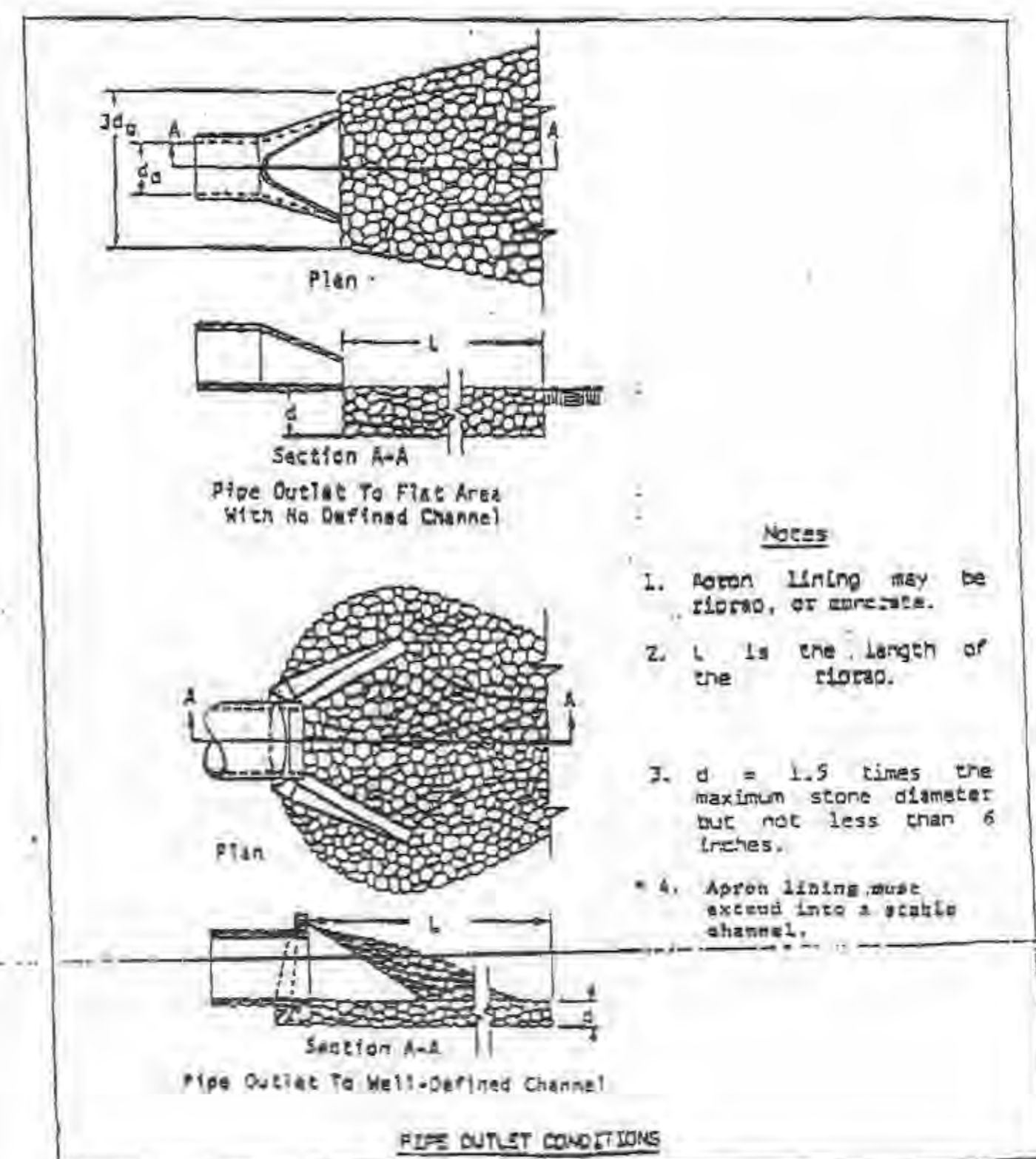


Placement and Construction of a Synthetic Filter Barrier

47-11

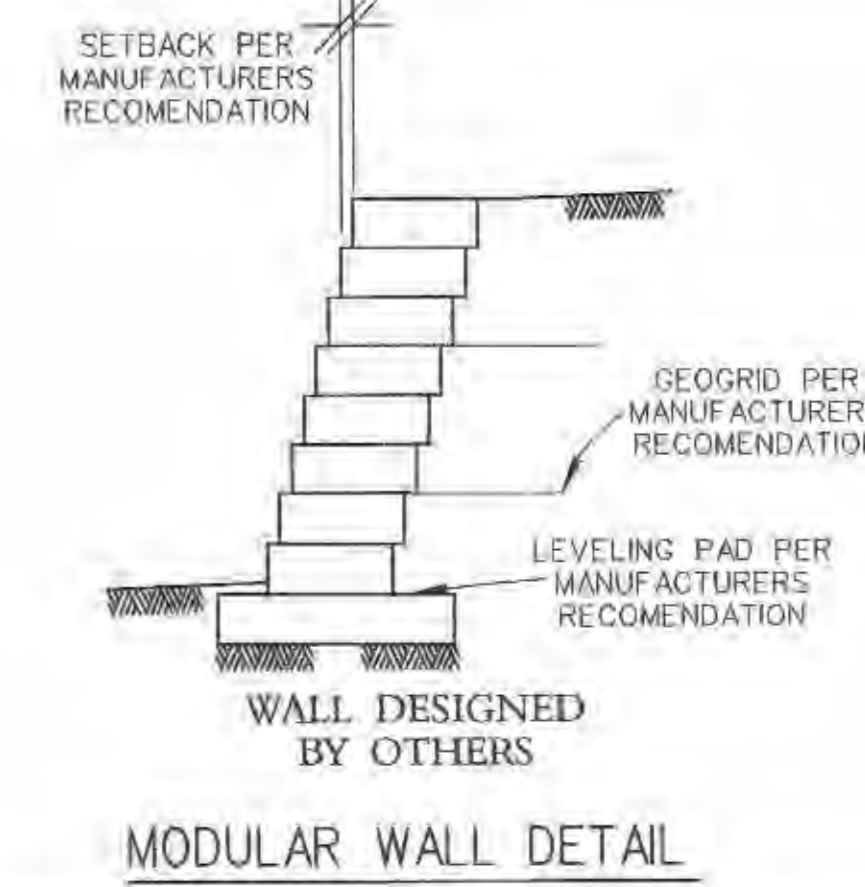
OUTLET PROTECTION
For Urban Development Sites

APPENDIX F



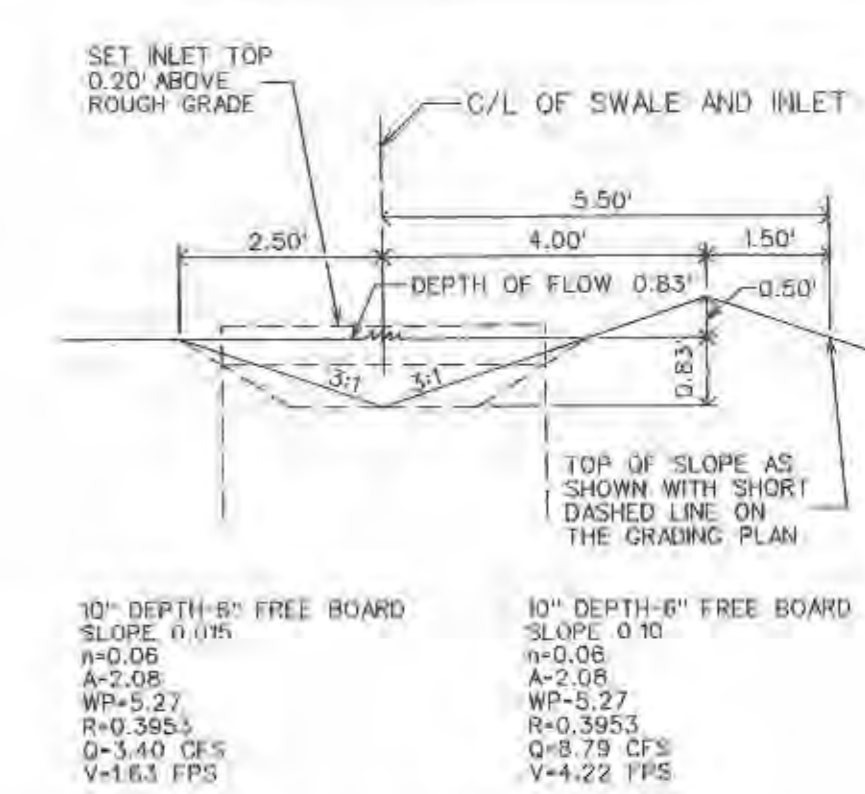
PIPE OUTLET CONDITIONS

47-13



WALL DESIGNED BY OTHERS
MODULAR WALL DETAIL

NTS

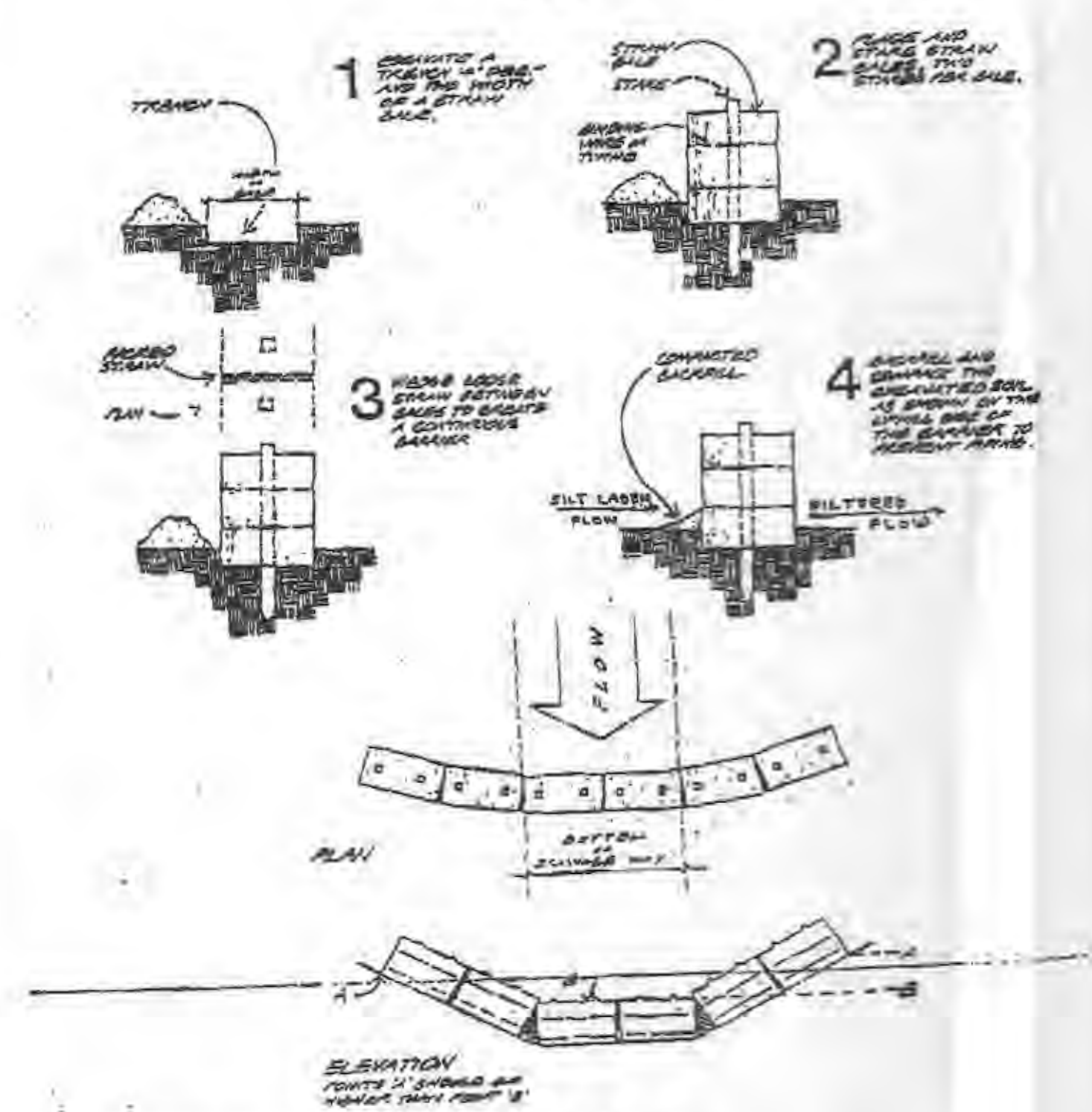


TOP OF TERRACE SWALE

NTS

STRAW BALE BARRIERS
For Urban Development Sites

APPENDIX C

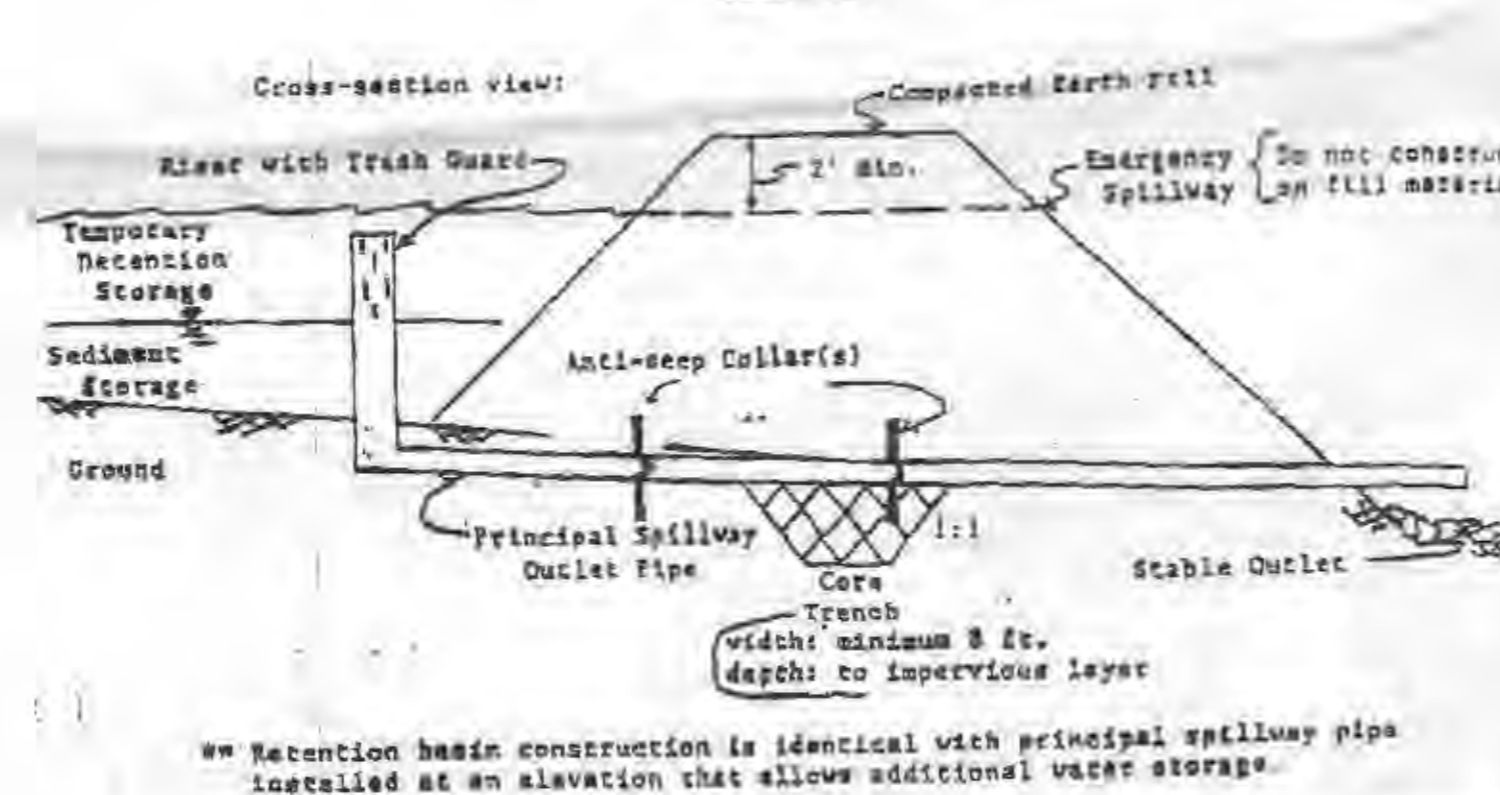


Placement and Construction of a Straw Bale Barrier

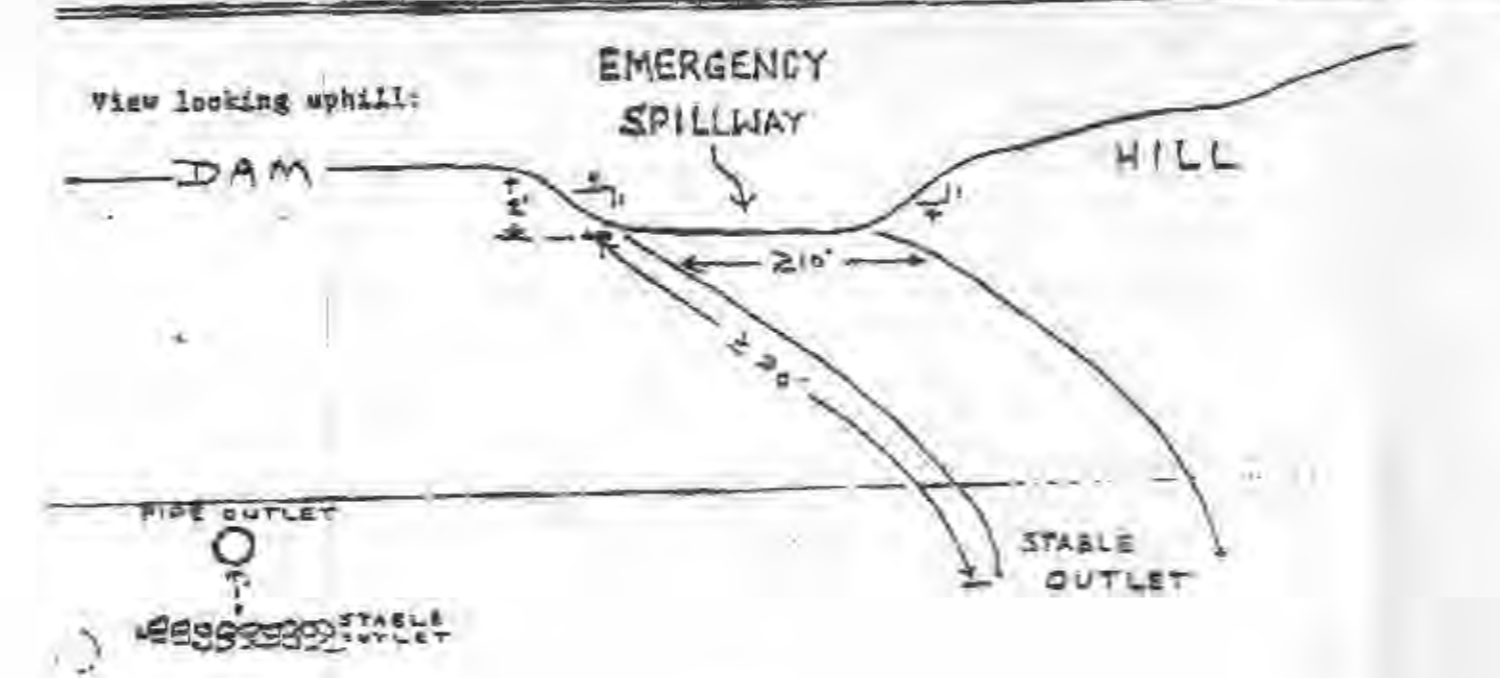
47-10

SEDIMENT BASIN
For Urban Development Sites

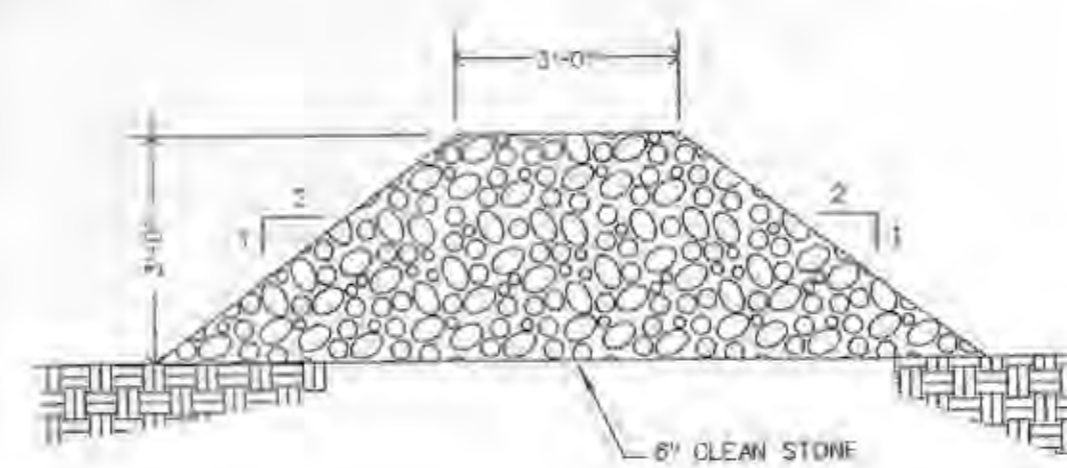
APPENDIX E



** Retention basin construction is identical with principal spillway pipe installed at an elevation that allows additional water storage.

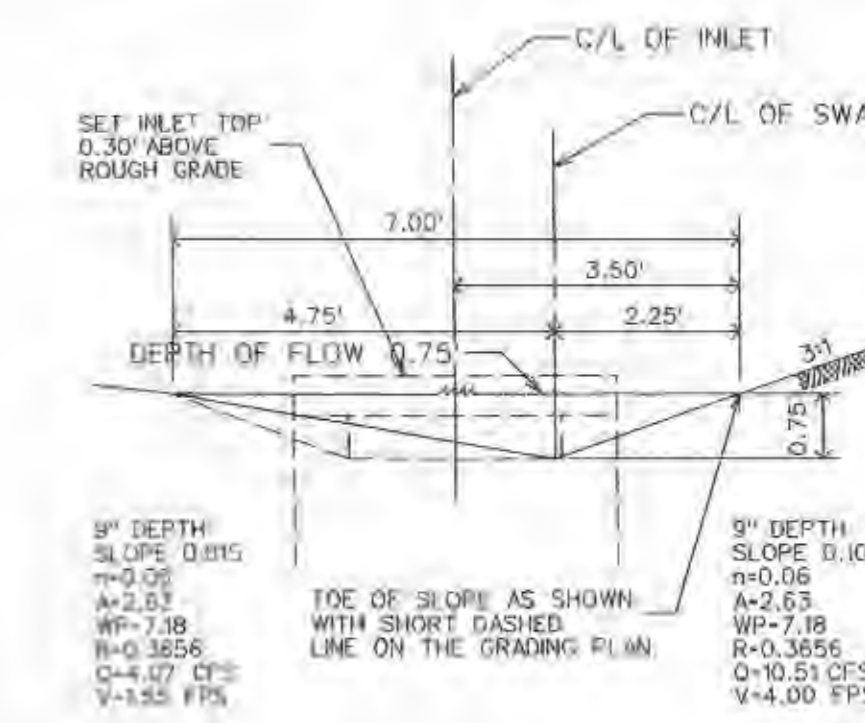


47-14



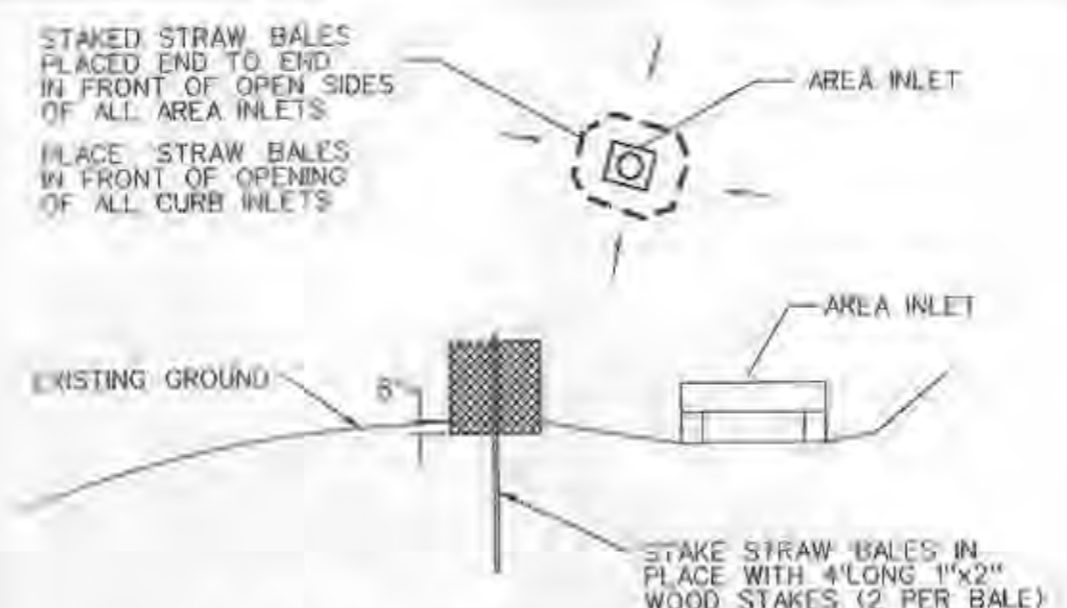
DITCH CHECK

NTS



TOE OF TERRACE SWALE

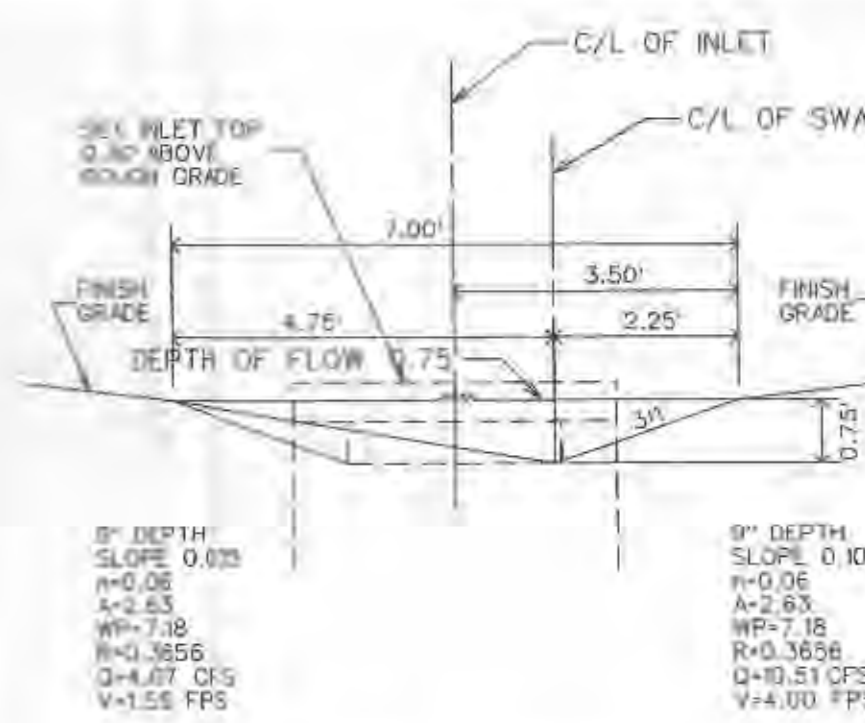
NTS



NOTE: DEVELOPER SHALL BE RESPONSIBLE TO MAINTAIN ALL SITUATION CONTROL DEVICES DURING CONSTRUCTION PERIOD. ADDITIONAL SITUATION CONTROL DEVICES MAY BE REQUIRED AS DIRECTED BY THE DIRECTOR OF DEPT. OF HIGHWAYS AND TRAFFIC!

STRAW BALES AROUND INLETS

NTS

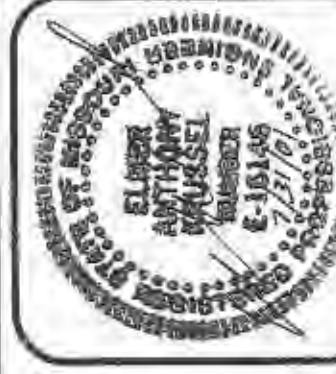


REAR YARD SWALE

NTS

HELMUT WEBER
CONSTRUCTION CO
1707 HENKE RD.
O'FALLON, MO.
63366

VOLZ



GREEN TREE MEADOWS
PHASE 3

CONSTRUCTION DETAILS
Design By: E.B.K.
Drawn By: D.K.L.
07-26-01
20