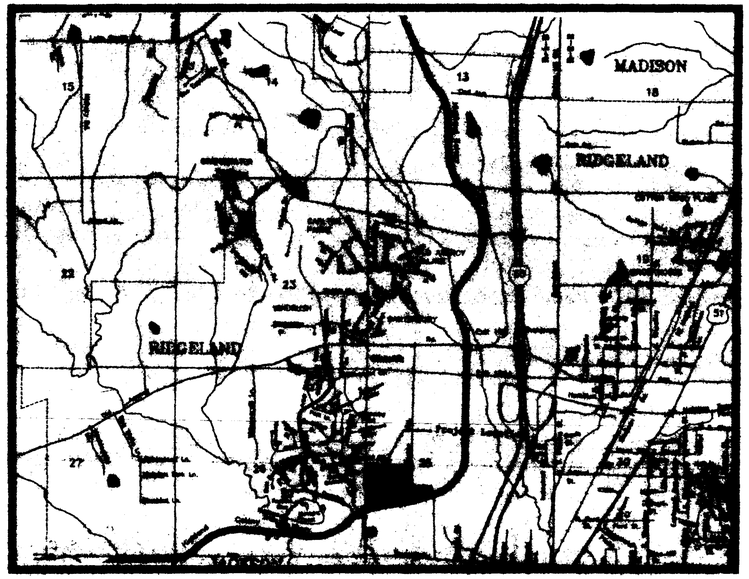
CONSTRUCTION PLANS FOR:

THE WATERFORD ACCESS ROAD

STREET, DRAINAGE, MAJOR UTILITIES
CITY OF RIDGELAND,
MADISON COUNTY, MISSISSIPPI

NORTH



LOCATION MAP

INDEX TO DRAWINGS

OFFICE COPY

PLANS REVIEW

Public Works Director SV 6-8-00

Building Official

Traffic Engineer 6-6-00

Drainage Engineer 6-12-00

Fire Official

Site plans will not go forward to the Architectural Review Board or the Mayor and Board of Aldermen prior to the above review.

PREPARED BY:

GUEST CONSULTANTS, INC.
CONSULTING ENGINEERS & LAND SURVEYORS
TWENTY SIX EASTGATE DRIVE • P.O. BOX 1225 • BRANDON, MS 39043
TELEPHONE (601) 825-8341

JUNE, 2000

DEVELOPER:
JAMES L. PETTIS, III
2026 SILVER LANE
MADISON, MS 39110

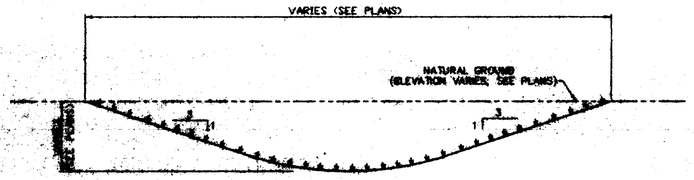
GEORGE PATTON GUEST
REGISTERED PROFESSIONAL ENGINEER
No. PE 8764
LS 2170
STATE OF MISSISSIPPI

PWP-05042

Technical specifications for street and storm sewer construction for this project shall be the Construction details (Technical Specifications) of the Mississippi Standard Specifications for State Aid Road and Bridge Construction, 1989 Edition.

Equipment, Materials and Construction of Water Distribution System and Sanitary Sewer System shall conform to "UTILITY AND STREET CONSTRUCTION FOR THE WATERFORD ACCESS ROAD" A Separate Bound set of specifications by GUEST CONSULTANTS, INC.

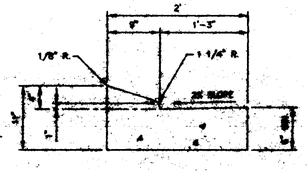
If during construction the Engineer finds it necessary to change the lines, dimensions, thickness, grades, slopes, sections or quantities or if such changes are ordered for any other reason; the final quantities will be recomputed based on the plan changes, as a result of authorized changes.



TYPICAL SWALE DITCH SECTION

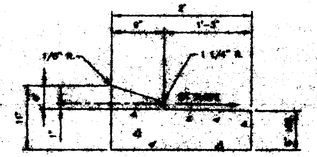
N.T.S.

NOTE: SEE PLANS FOR ACTUAL LOCATION OF DITCH



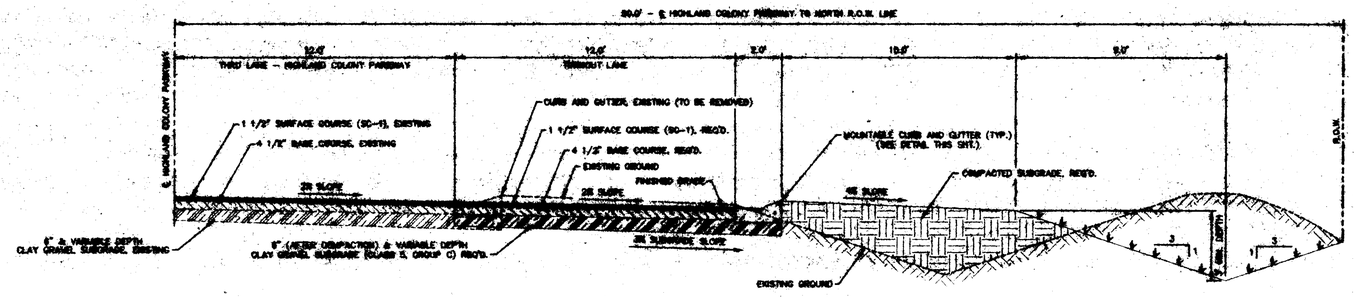
SECTION OF MOUNTABLE CURB AND GUTTER

N.T.S.



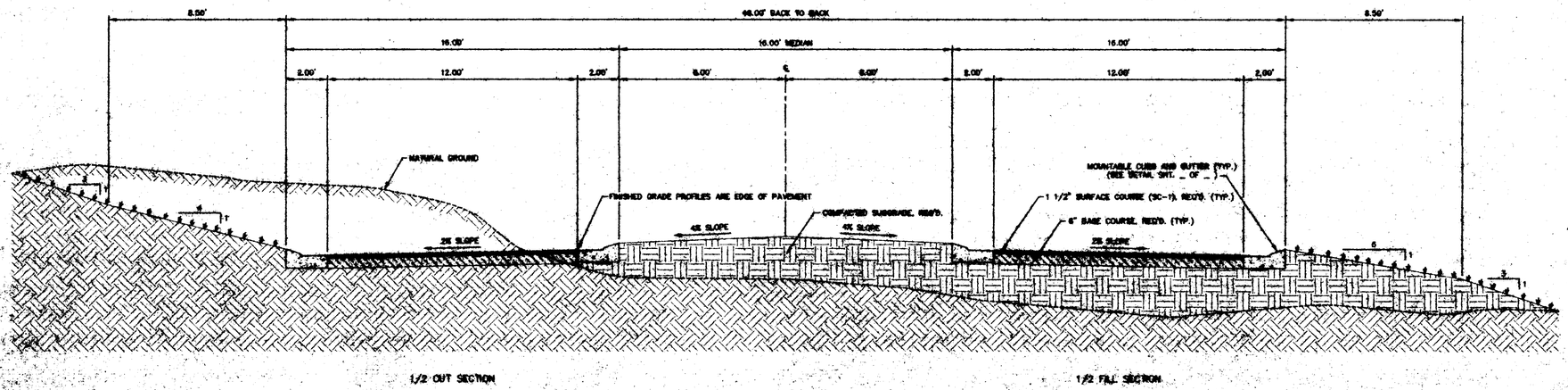
SECTION OF MOUNTABLE CURB AND GUTTER AT ISLAND MEDIANS

N.T.S.



TYPICAL SECTION
HIGHLAND COLONY PARKWAY DECELERATION LANE

SCALE: 1"= 3'



1/2 CUT SECTION

1/2 FILL SECTION

SECTION OF TYPICAL BOULEVARD

SCALE: 1"= 3'

GENERAL NOTES

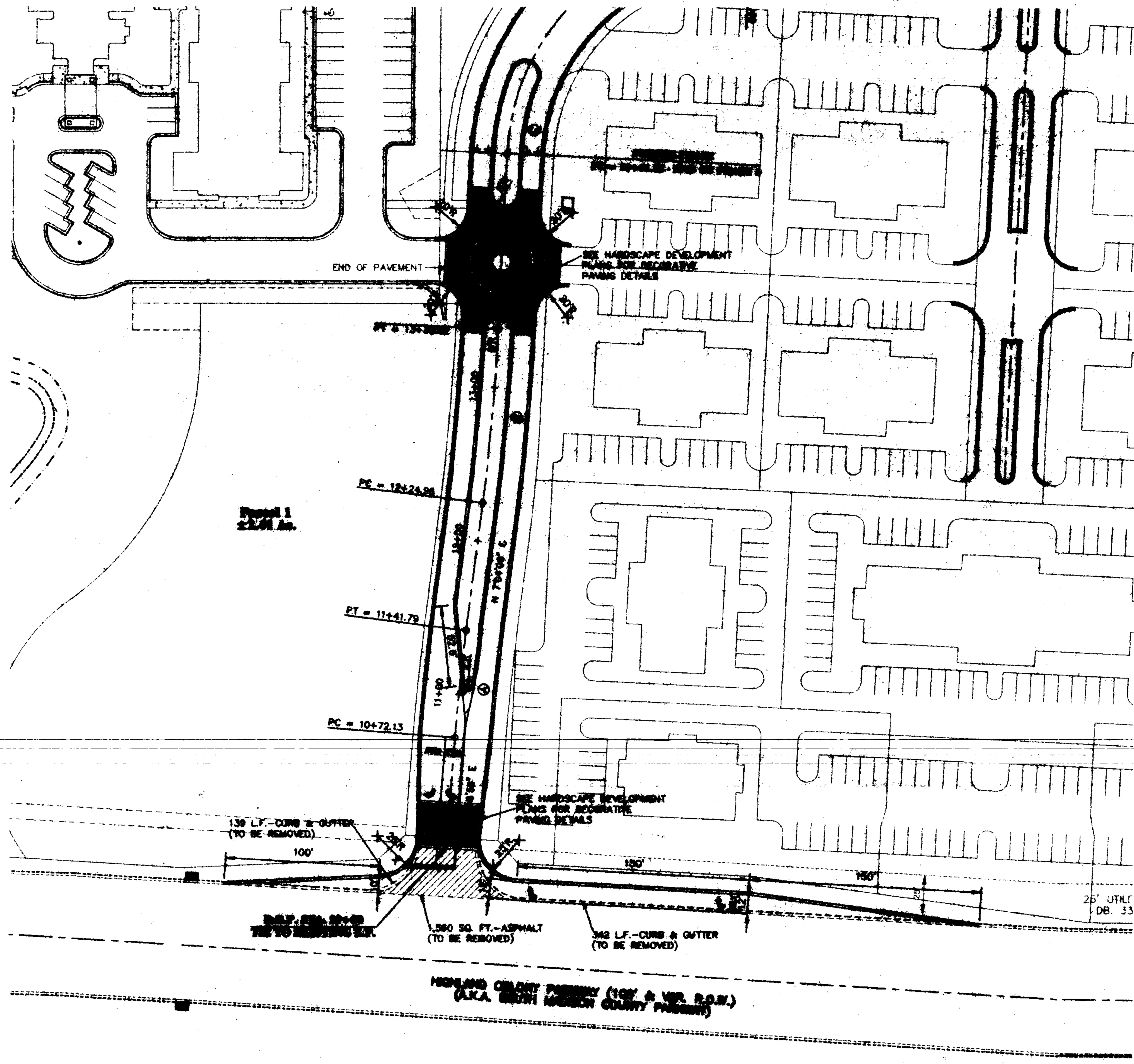
1. All excess excavation shall be placed evenly on adjoining property as directed by the Engineer. All material shall be properly processed and spread in maximum of 6" to 8" lifts and compacted to 98% Standard Proctor Density.
2. Prior to placement of asphalt base, density tests shall be performed by a licensed soil laboratory at the contractor's expense.
3. The contractor is specifically cautioned that the location and/or elevation of existing utilities as shown on these plans is based on records of the various utility companies and, where possible, measurements taken in the field. The information is not to be relied on as being exact or complete. The contractor must call the appropriate utility company at least 24 hours before any excavation to request exact field location of utilities. It shall be the responsibility of the contractor to relocate all existing utilities which conflict with the proposed improvements shown on the plans.
4. Elevations are based on M.S.L. datum.
5. Manhole Tops and Valve Covers to be adjusted on job site as necessary to match finished grade.
6. Undercutting of existing material and backfilling with select borrow may be required as directed by the engineer.
7. Stop sign, and Street Signs not a Separate Pay Item. Cost to be Absorbed in Other Items.
8. Contractor shall comply with the requirements of the City of Ridgeland Erosion Control Ordinance and the DEQ Storm Water Pollution Plan.
9. Written dimensions and elevations shall govern over scaled dimensions and elevations.
10. The lengths of sanitary sewer lines shown on these drawings are the distances from center to center of manholes.
11. PVC water lines and sewage force mains installed in roadway sections shall be [illegible] with a minimum cover of [illegible] the top of the [illegible] shall be placed in 6-inch lifts and compacted to 98% of standard proctor density. All other water and sewage force mains shall have a minimum cover of 3 feet unless otherwise noted on these drawings.
12. Backfill for sanitary sewer lines installed in roadway sections shall be compacted in 6-inch lifts. The top five feet shall be compacted to 98% of standard proctor density.
13. Water and sanitary sewer service connections to extend five feet beyond property lines. Each lot shall be served by individual service connections. Contractor shall mark the service connections as required by the specifications and provide and shall maintain a log of the horizontal and vertical location of all service lines for submission to the engineer.
14. Fire hydrants shall be "[illegible]" to insure compatibility with the [illegible] system. Fire hydrant assemblies shall include the hydrant, gate valve & box and all appropriate [illegible] and blocking required.
15. Provide 10 feet horizontal clearance between all water and sewer lines. At locations where the water and sewer lines must cross each other, there shall be a minimum clearance of 18 inches with the water line crossing over the sewer line. If these separations cannot be met, the sewer line shall be constructed to the same specifications as the water line and be water tight until such point as the minimum separation is obtained.
16. The utility contractor shall be responsible for testing the water and sewer systems in accordance with the specifications and shall notify the engineer at least 24 hours in advance of performing any tests. Tests on water and sewer will be as required by the City of Ridgeland.
17. Water service assemblies shall include all tubing from the main to the meter box, tapping saddle, corporation stop, meter, yoke, and meter box and "No. 7 DBL Check Valve" fixture to be supplied by the City of Ridgeland.
18. Contractor is required to bring ground surface within right-of-way to grades shown on the typical sections prior to grassing and acceptance of project.
19. All block walls of curb inlets and junction boxes shall be plastered inside and outside with a 1:2 mix of cement mortar 1/2" thick.
20. Class "B" structural concrete or precast may be used to construct inlets in lieu of masonry.
21. Concrete slab and covers for inlets and junction boxes shall be class "B" structural concrete.
22. Curb and gutter shall be 3000 PSI minimum concrete.
23. Provide expansion joints with 3/4" expansion joint material at intervals of not greater than 30 feet for curb and gutter.
24. Provide contraction joints in curb and gutter at intervals of not greater than 10 feet.
25. Contractor shall comply to the fullest extent with the latest standards of OSHA Directives or any other agency having jurisdiction for excavation and trenching procedures. The contractor shall use support systems, sloping, benching, and other means of protection. This is to include, but not limited to, cavities and spoils from all excavation and trenching. Contractor is responsible to comply with performance criteria for OSHA.
26. The contractor shall adhere to all terms & conditions as outlined in the General N.P.D.E.S. permit for storm water discharges associated with construction activity.
27. After forms and/or curb and-gutter string lines have been set and before concrete is poured, contractor shall verify that all gutters drain to inlets.
28. [illegible] sub-grade soils where expansive clays (CH) are encountered within 4 feet of finished grade shall be undercut and backfilled as required to [illegible] by a minimum of 3 feet thick layer of [illegible] ... 2 feet beyond back of curb.
29. Prior to placing surface base material, paving contractor shall: 1.) [illegible] 2.) [illegible]

[illegible] Consultants, Inc.
CONSULTING ENGINEERS + LAND SURVEYORS
[illegible]
TELEPHONE (601) [illegible] FAX (601) [illegible]

THE COMMONS, PHASE 1

TYPICAL SECTIONS

2



CURVE DATA

A	B	C
Delta=02°47'11"	Delta=04°31'22"	Delta=18°24'13"
R=1432.39'	R=1432.39'	R=150.00'
L=69.86'	L=113.07'	L=[illegible]
T=34.94'	T=56.56'	T=24.30'
C=69.86'	C=113.04'	C=47.97'
Brg=N 5°40'32" E	Brg=N 4°48'27" E	Brg=N 11°46'53" E

NORTH

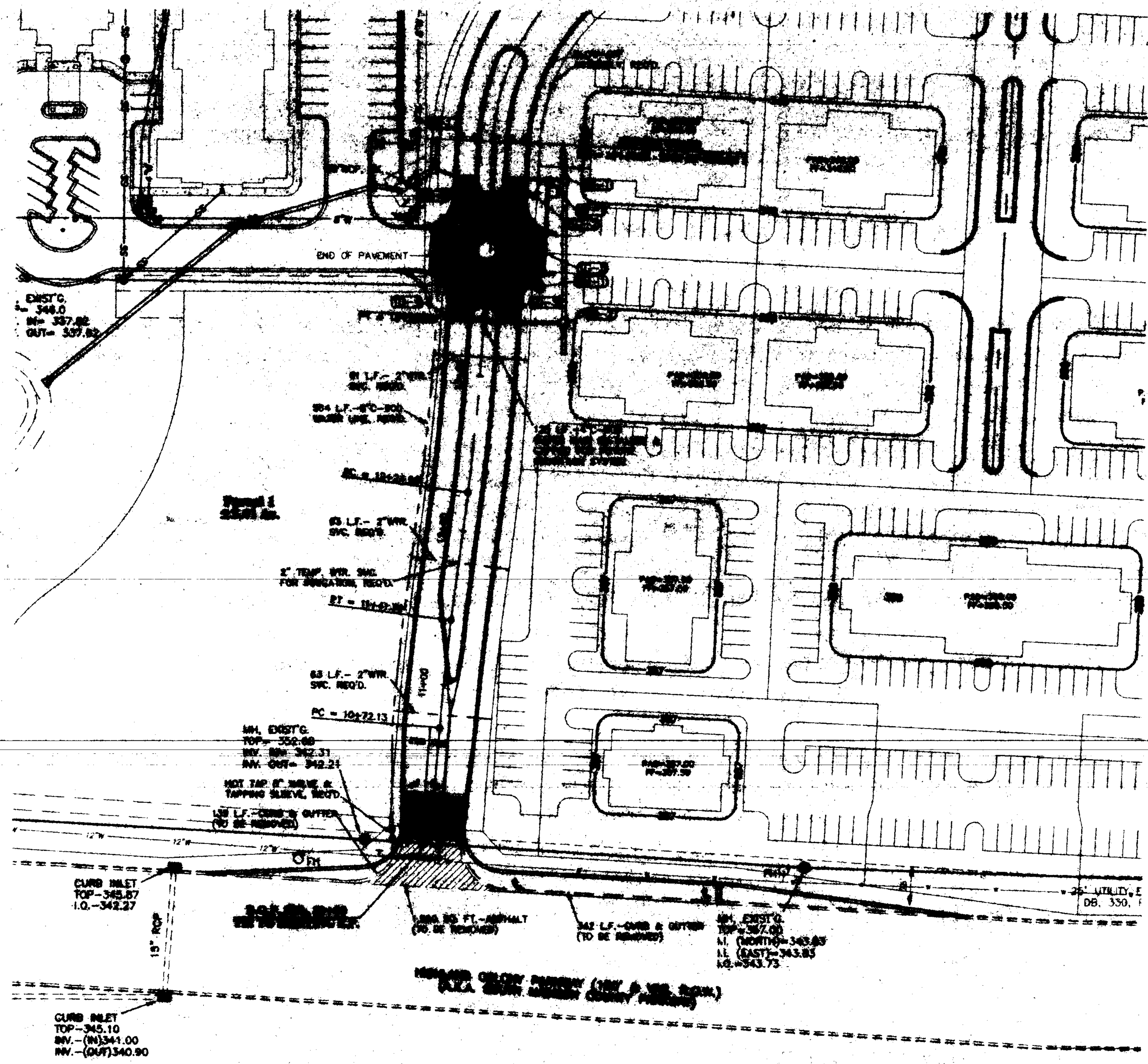
GRAPHIC SCALE

Gaunt Consultants, Inc.
CONSULTING ENGINEERS • LAND SURVEYORS

THE COMMONS, PHASE 1

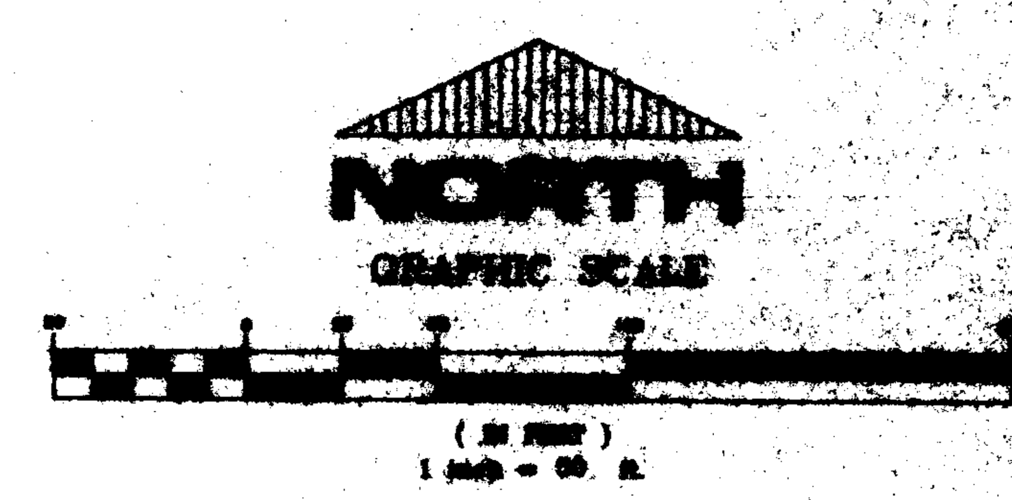
GEOMETRIC LAYOUT

3



NOTE:

1. CONTRACTOR TO STUB 5" CONDUIT INTO MEDIAN FOR ELECTRICITY. COORDINATE LOCATION WITH ENTERGY.
2. CONTRACTOR TO COORDINATE HOT TAP CONNECTION FOR WATER MAIN WITH THE CITY OF RIDGELAND PUBLIC WORKS DEPARTMENT.
3. ALL UTILITY CROSSINGS SHALL BE BACK FILLED IN 6" LIFTS AND COMPACTED TO 95 PERCENT PROCTOR DENSITY.



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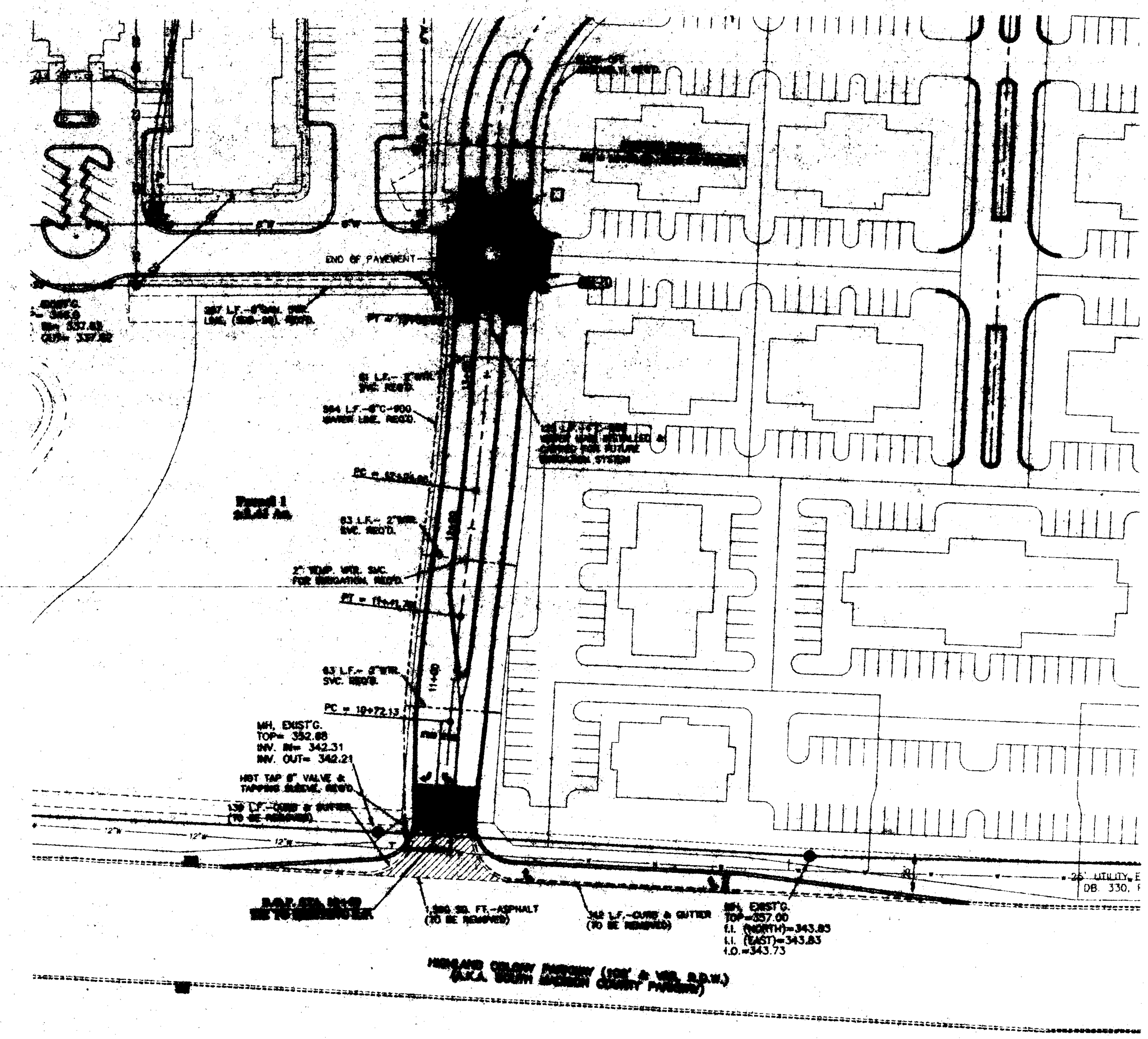
TWENTY SIX EASTGATE DRIVE • P.O. BOX 1225 • BRANDON, MS [illegible]
TELEPHONE [illegible] FAX [illegible]

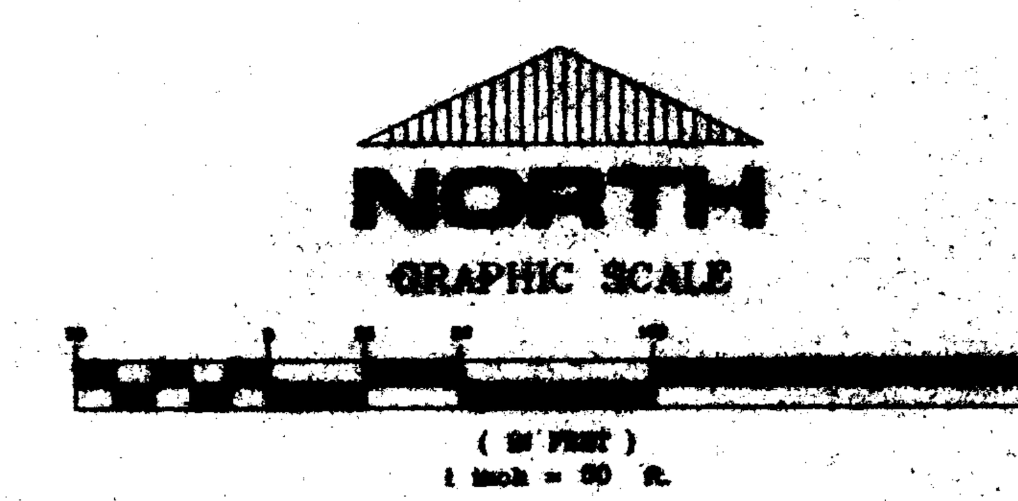
THE COMMONS, PHASAE 1

UTILITY LAYOUT

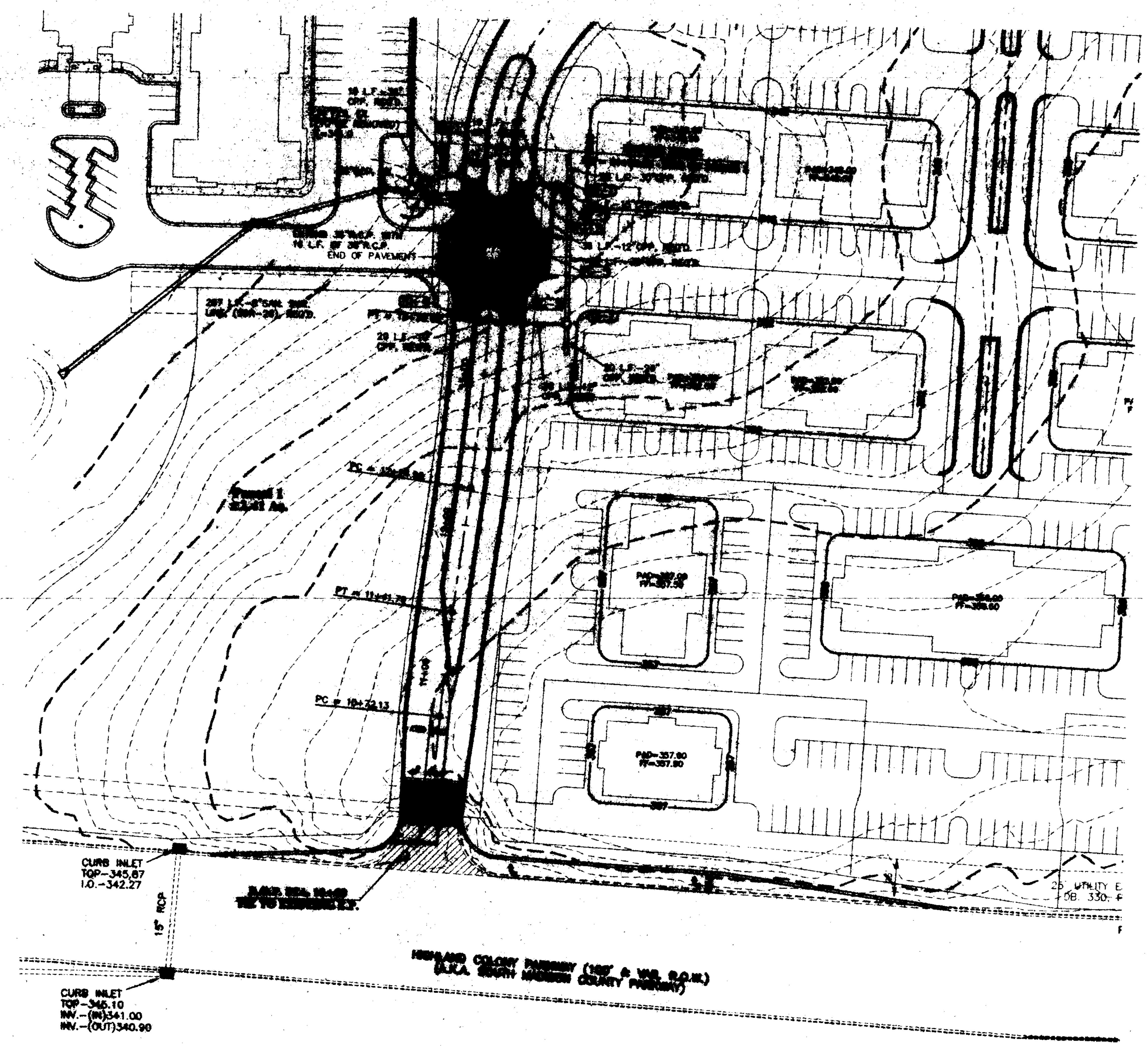
4

MH-1
STA. = 61+25.13
TOP = 348.96
INV. OUT = 338.89
BOTTOM = 338.79
DEPTH = 7.17





DRAWN BY: RICHARD SOMERS DATE: 06-28-00 JOB NO.: 2738-WS-WSL	APPROVED BY: PAT GUEST FILE NO.: C-2738	REVISIONS	Guest Consultants, Inc. CONSULTING ENGINEERS * LAND SURVEYORS TWENTY SIX EASTGATE DRIVE * P.O. BOX 1286 * BRANDON, MS 39043 TELEPHONE (601) 825-8341 FAX (601) 825-3032	PROJECT THE COMMONS, PHASE 1	WATER / SEWER LAYOUT	SHT. NO. 5



GRADING NOTES:

1. Contractor will be required to establish construction benchmarks and provide contruction staking for grading.

DETAIL NOTES:

1. See sheet 302 for Junction Box Details.
2. See sheet 322 for Curb Inlet Details.

STORM DRAINAGE STRUCTURE DATA:

JB-1 D.A.=0.00 Ac. Q25=0.00 c.f.s. TOP=348.00 INV.=342.58	GI-1 D.A.=0.11 Ac. Q25=0.62 c.f.s. TOP=348.00 INV.=341.10	GI-2 D.A.=0.18 Ac. Q25=1.25 c.f.s. TOP=[illegible] INV.=[illegible]
NP-1 D.A.=0.07 Ac. Q25=0.49 c.f.s. TOP=348.00 INV.=342.86	TG-1 D.A.=0.37 Ac. Q25=2.31 c.f.s. TOP=344.78 INV. IN=342.78 INV. OUT=342.46	TG-2 D.A.=0.09 Ac. Q25=0.82 c.f.s. TOP=344.78 INV. IN=343.16 INV. OUT=342.84
TG-3 D.A.=0.23 Ac. Q25=1.39 c.f.s. TOP=348.78 INV. IN=344.10 INV. OUT=343.76	TG-4 D.A.=0.18 Ac. Q25=1.11 c.f.s. TOP=346.98 INV. IN=344.62 INV. OUT=344.30	TG-5 D.A.=[illegible] Ac. Q25=[illegible] c.f.s. TOP=[illegible] INV. IN=[illegible] INV. OUT=[illegible]

SYMBOLS

- 18" NYLOPLAST GRATE INLET
- CONCRETE JUNCTION BOX (SEE SHEET 11)
- GRATE INLET TYPE SS-3 (SEE SHEET 12)
- TRENCH GRATE

NOTE:

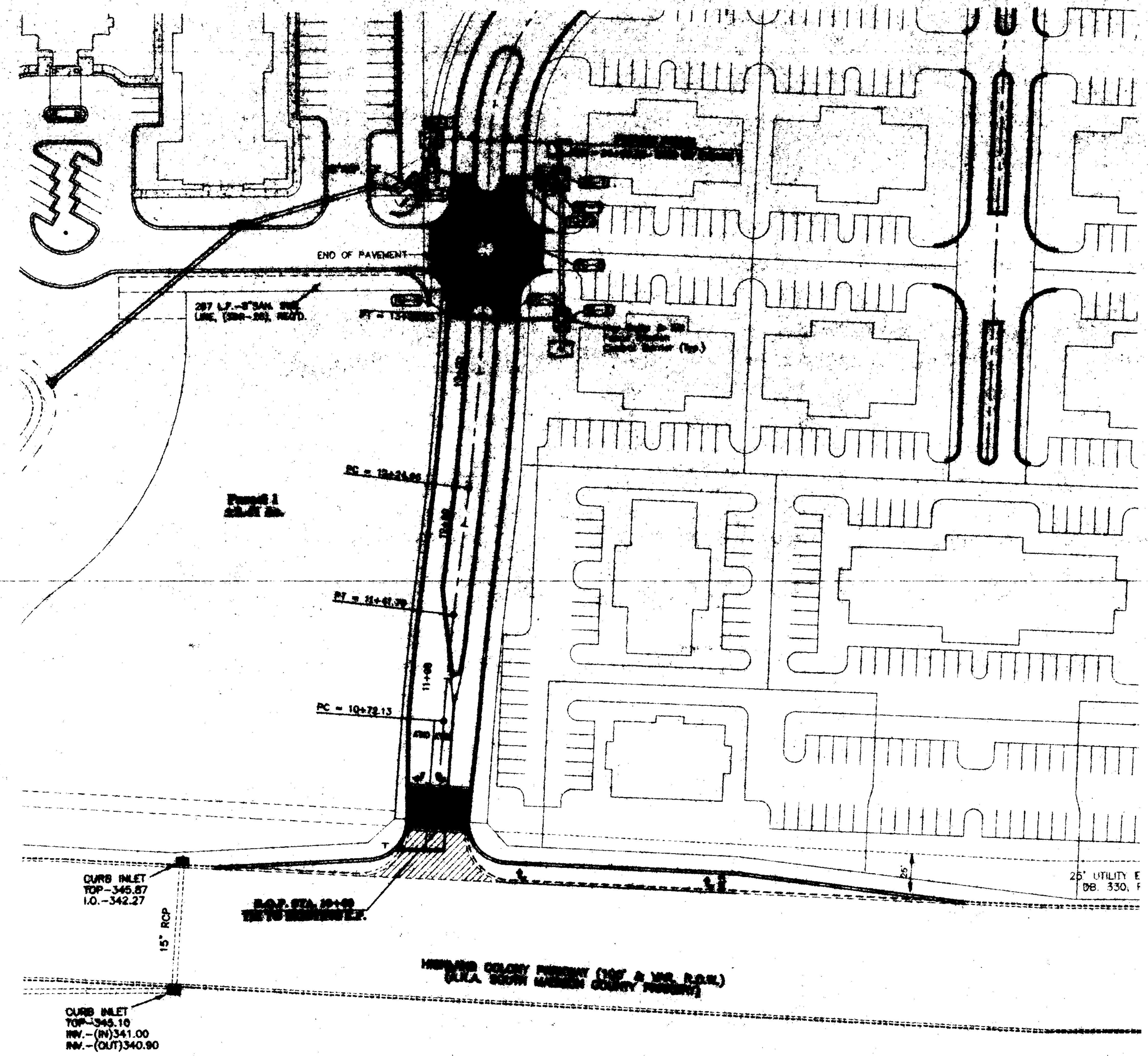
CONTRACTOR TO STUB CORRUGATED PLASTIC PIPE INTO TRENCH GRATE AND GROUT. FIELD ADJUSTMENT OF TRENCH WIDTH AT PIPE CONNECTION AS REQUIRED.

NORTH

GRAPHIC SCALE

(IN FEET)
1 inch = 60 ft.

DESIGNED: RICHARD SOWERS DATE: 06-26-00 FILE: 2738-[illegible]	APPROVED BY: PAT GUEST JOB NO. G-2738	REVISIONS	Guest Consultants, Inc. CONSULTING ENGINEERS • LAND SURVEYORS THIRTY SIX EASTGATE DRIVE • P.O. BOX 1225 • BRANDON, MS 39043 TELEPHONE (601) 825-8541 FAX (601) 825-3032	PROJECT THE COMMONS, PHASE 1	STORM DRAIN LAYOUT	SHT. NO. 6



[illegible]

Contractor shall adhere to all terms and conditions as outlined in the [illegible] Permit for storm water discharge associated with construction activity.

[illegible]

The following construction sequence for this project is planned to [illegible] the amount of sediment movement on site and sediment [illegible] from the project site.

A. [illegible]

The grading work will include removal of [illegible] material and [illegible] as required by the geotechnical report.

B. [illegible]

Silt fence shall be placed on the down slope edge of all [illegible] [illegible]

Install silt fence in accordance with manufacturers recommendations.

[illegible]

[illegible] road culvert entrances [illegible] landscaping are complete.

Refer to sheet _ of _ for silt fence details.

C. [illegible]

Install the storm-drain system to the grades and elevations of the [illegible] shown on the plans. Care shall be taken to minimize [illegible] into the storm drain inlets until the road/parking [illegible] applied. [illegible] method of inlet protection.

Refer to sheet _ of _ for temporary [illegible] details.

D. [illegible]

Vegetate and/or landscape all [illegible] as soon as possible during the construction operations.

[illegible]

Both the short-term (during construction) and long-term (after construction) maintenance needs must be addressed.

A. [illegible]

All erosion and sediment-control practices will be checked for stability and operation following every [illegible] rainfall but in no case less than every week. Any needed repairs will be made immediately to maintain the practice performance as designed.

Sediment will be removed from the upstream face of the silt fence when it increases to about six-inch depth at the fence. The silt fence will be replaced as necessary to maintain a barrier.

All vegetated areas will be fertilized and [illegible] as needed to maintain a vigorous and dense vegetative cover.

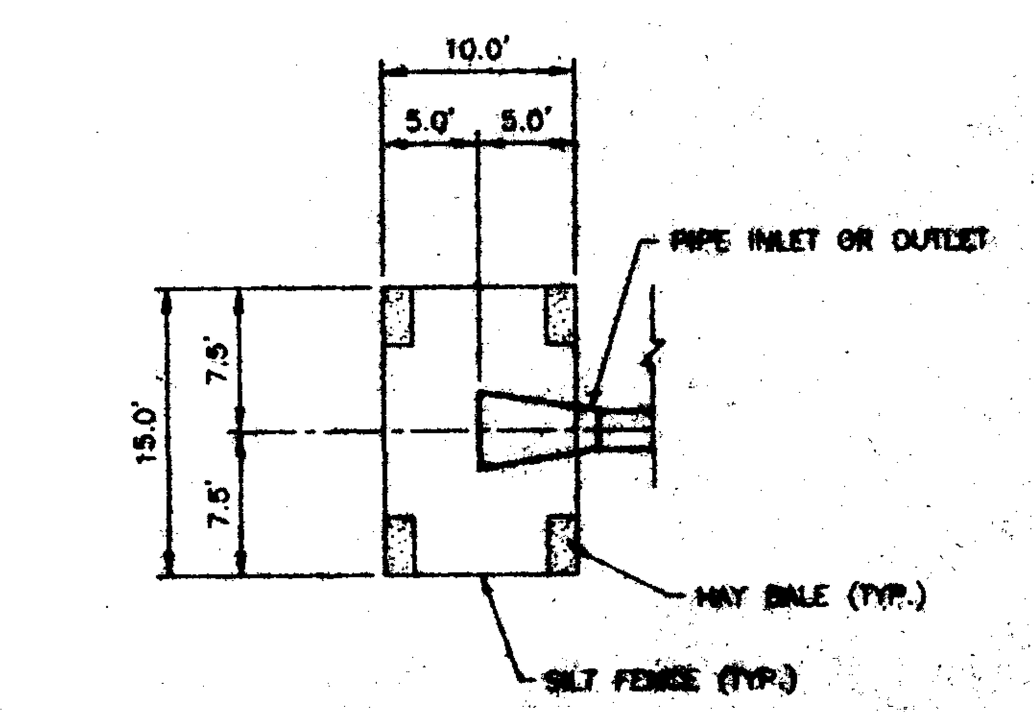
All drainage structures that will be exposed to stormwater run-off during construction shall receive temporary erosion checks (Hay Bales). Refer to sheet _ for details.

B. Long Term

All vegetative areas will be maintained in adequate condition to provide proper ground cover and reduce any areas of potential erosion. Where vegetation is lost, the area will be fertilized and seeded or other acceptable methods used to restore proper cover.

NOTE:

Synthetic filter fabric shall be a pervious sheet of propylene nylon, polyester and shall be certified by the manufacturer or supplier and conform to the following requirements:
a) Filtering efficiency (75% minimum)
b) Tensile strength that 70% maximum elongation=50 lbs/lin. in. (minimum)
c) Flow rate=0.3 gal./sq. ft./min. (minimum)



EROSION CONTROL BARRIER DETAIL

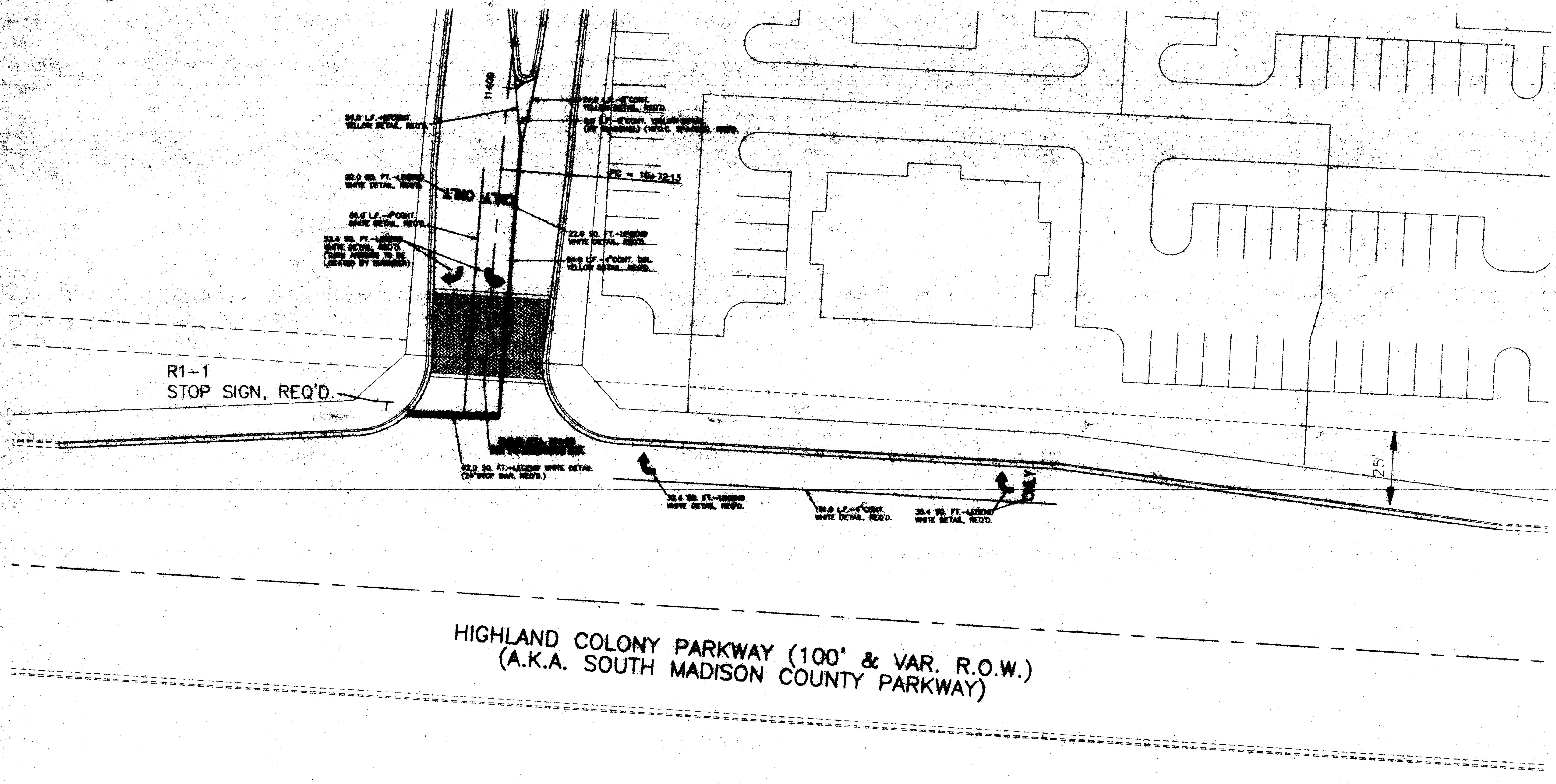
SCALE: 1" = 10'-0"

NORTH

GRAPHIC SCALE

(IN FEET)
1 inch = 50 ft.

[illegible]: RICHARD SOMERS [illegible]: 00-28-08 [illegible]: 2738-[illegible]-ECP	[illegible]: PAT GUEST [illegible]: G-2738	[illegible]	[illegible], Inc. CONSULTING ENGINEERS * LAND SURVEYORS TWENTY SIX EASTGATE DRIVE * P.O. BOX 1285 * BRANDON, MS 39043 TELEPHONE (601) 825-8341 FAX (601) 825-3032	PROJECT THE COMMONS, PHASE 1	EROSION CONTROL PLAN	SHT. NO. 7



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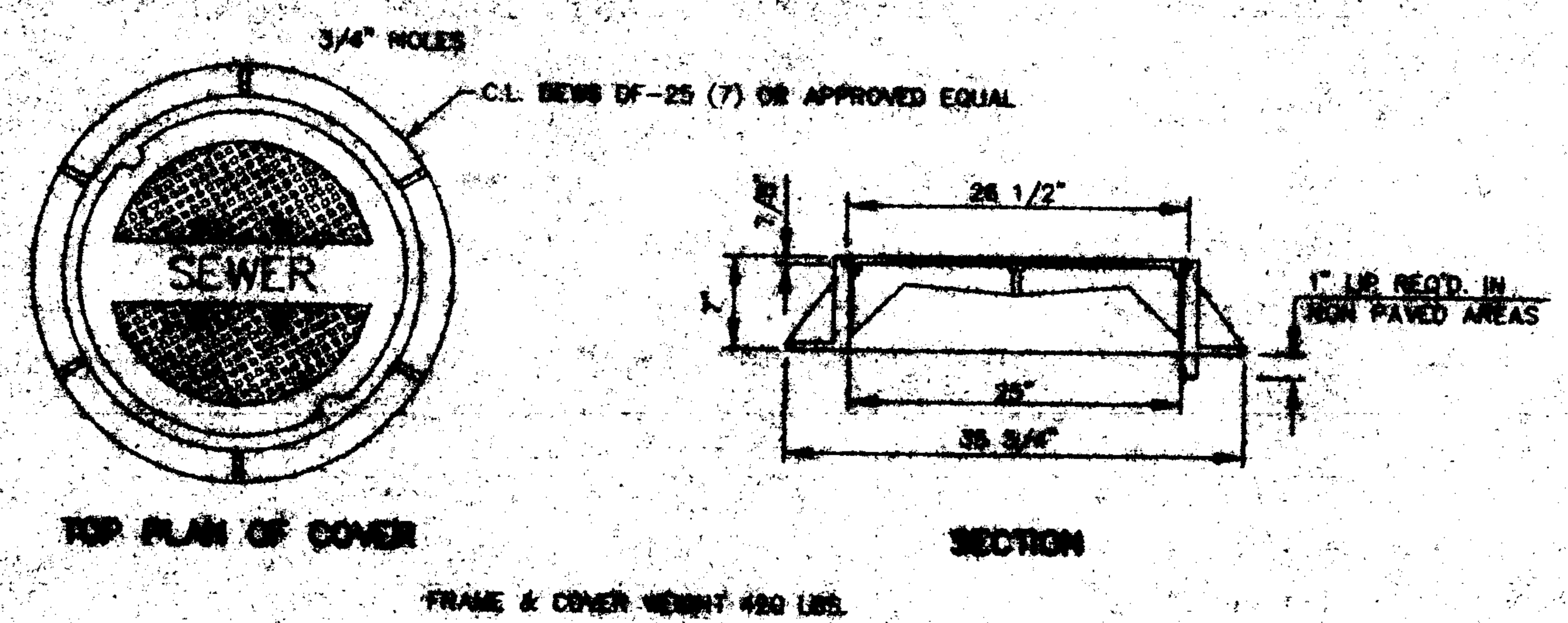
TELEPHONE (601) 825-8341 FAX (601) 825-3032

THE COMMONS, PHASE 1

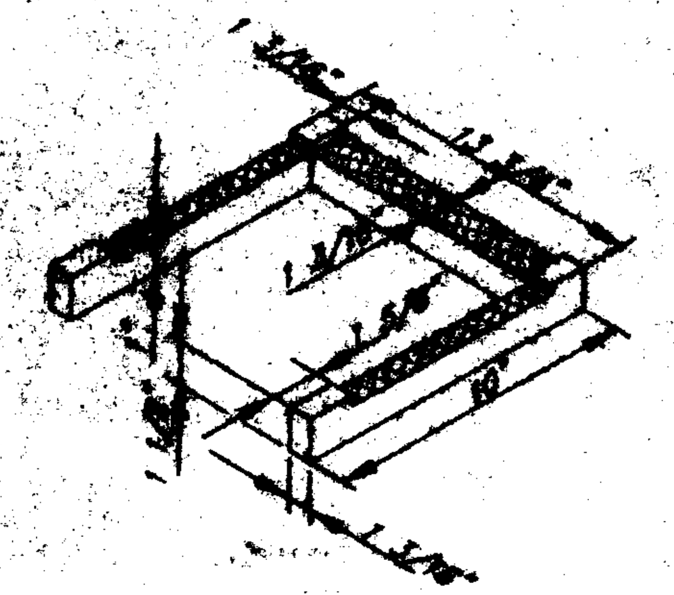
STRIPING LAYOUT

8



STANDARD MANHOLE FRAME AND COVER

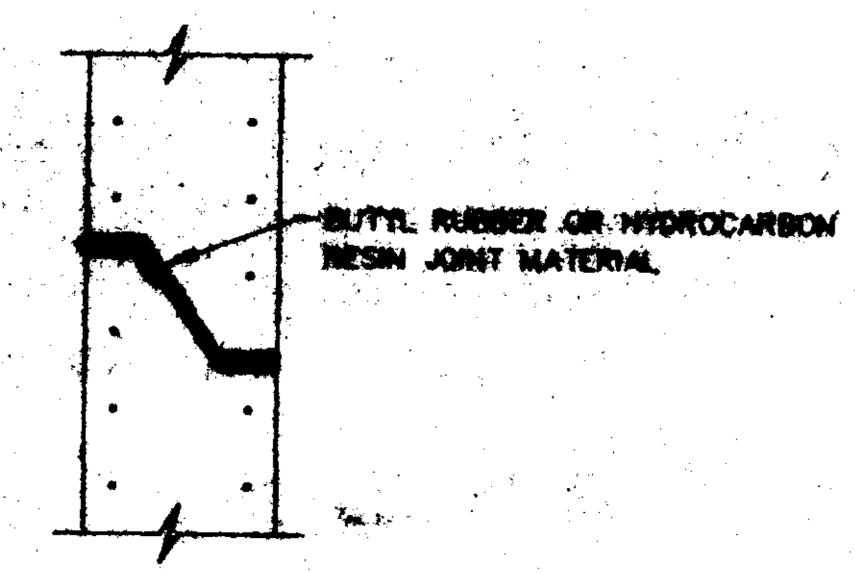
N.T.S.



DETAIL "B"

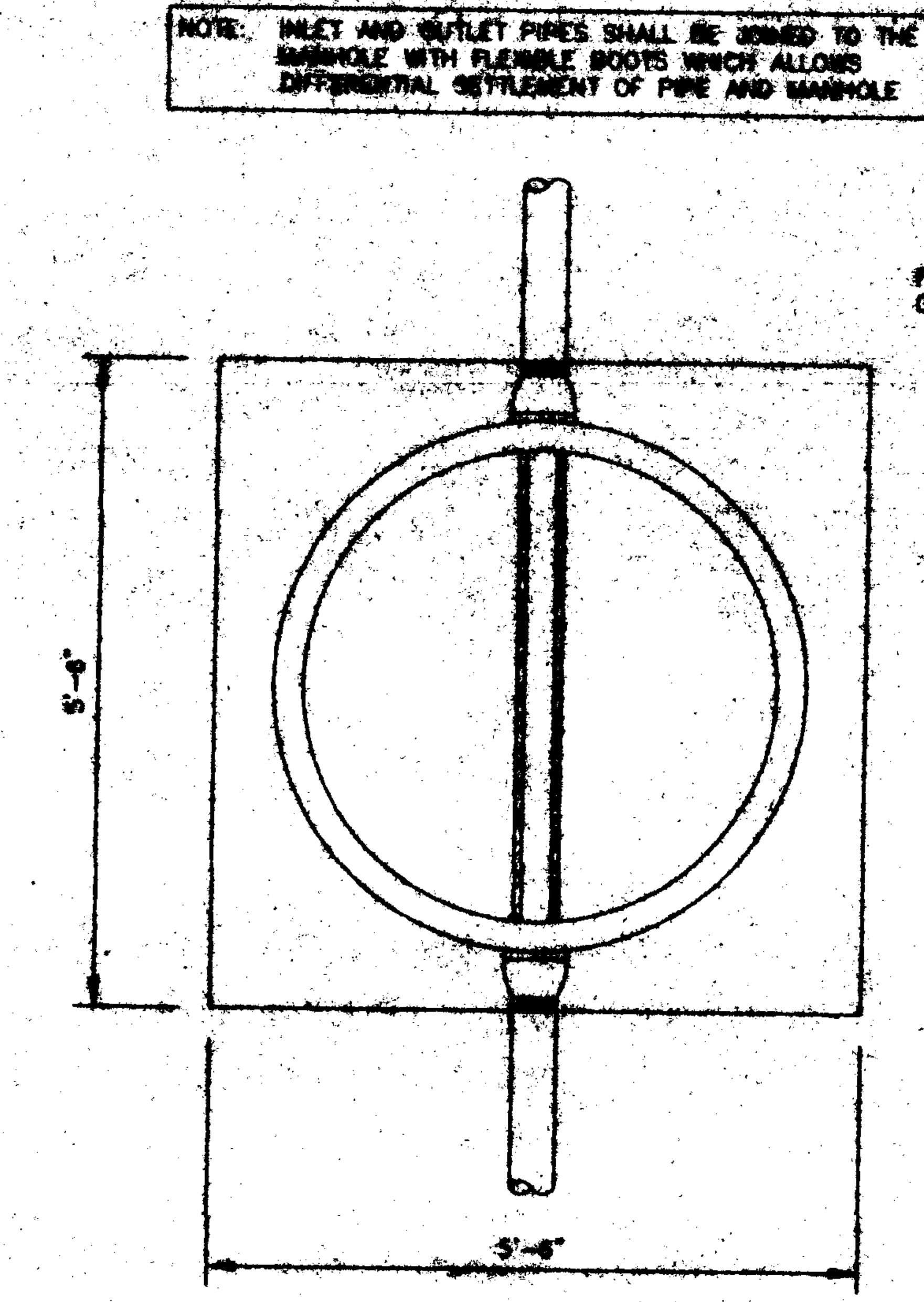
N.T.S.

PSI-PF MANHOLE STEP AS MANUFACTURED BY M.A. INDUSTRIES INC. OR EQUAL



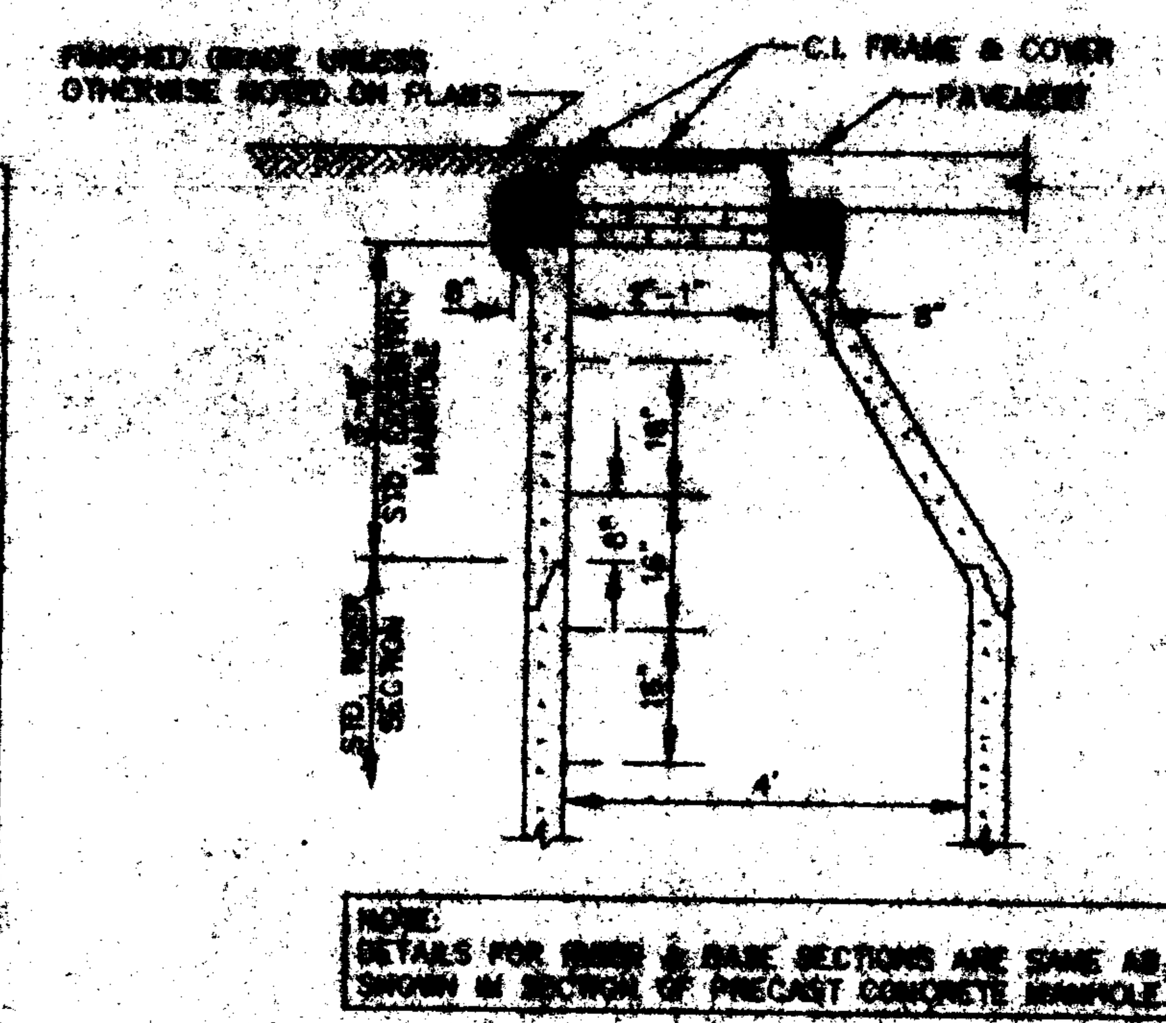
TYPICAL PRECAST CONCRETE MANHOLE JOINT DETAIL

N.T.S.



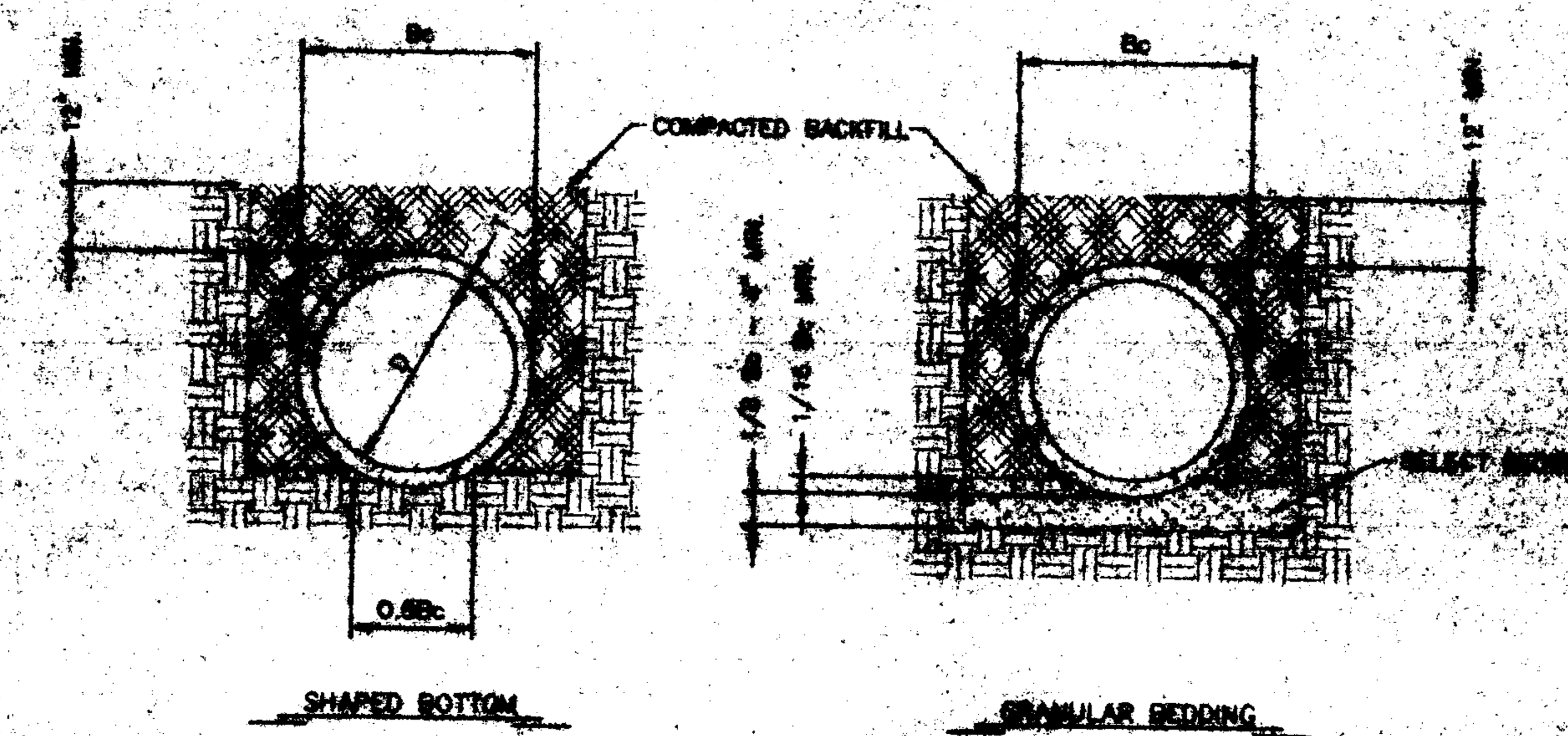
TYPICAL PIPE CONNECTION TO MANHOLE

N.T.S.



STANDARD ECCENTRIC CONE FOR ALL DIAMETER MANHOLES

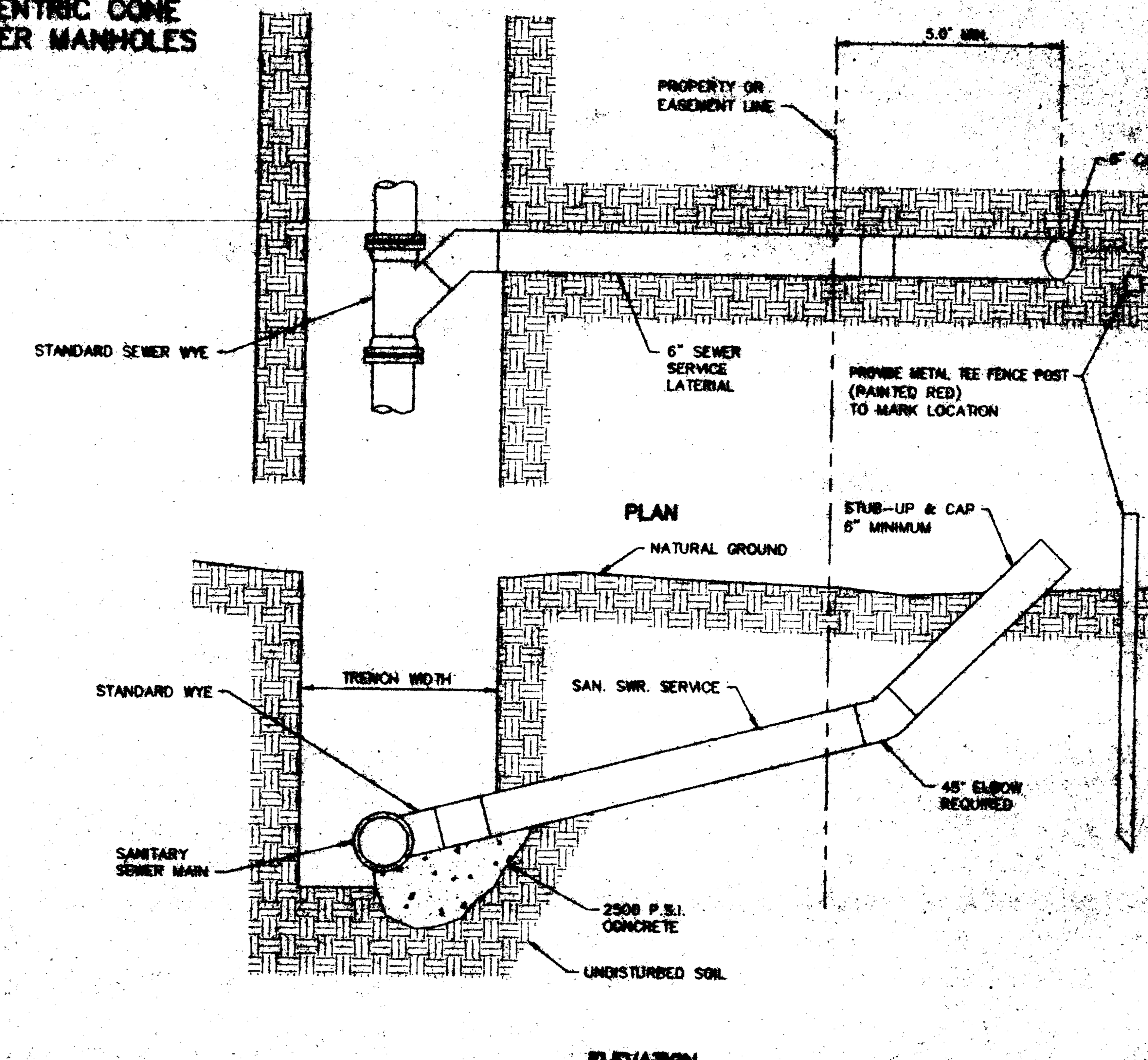
N.T.S.

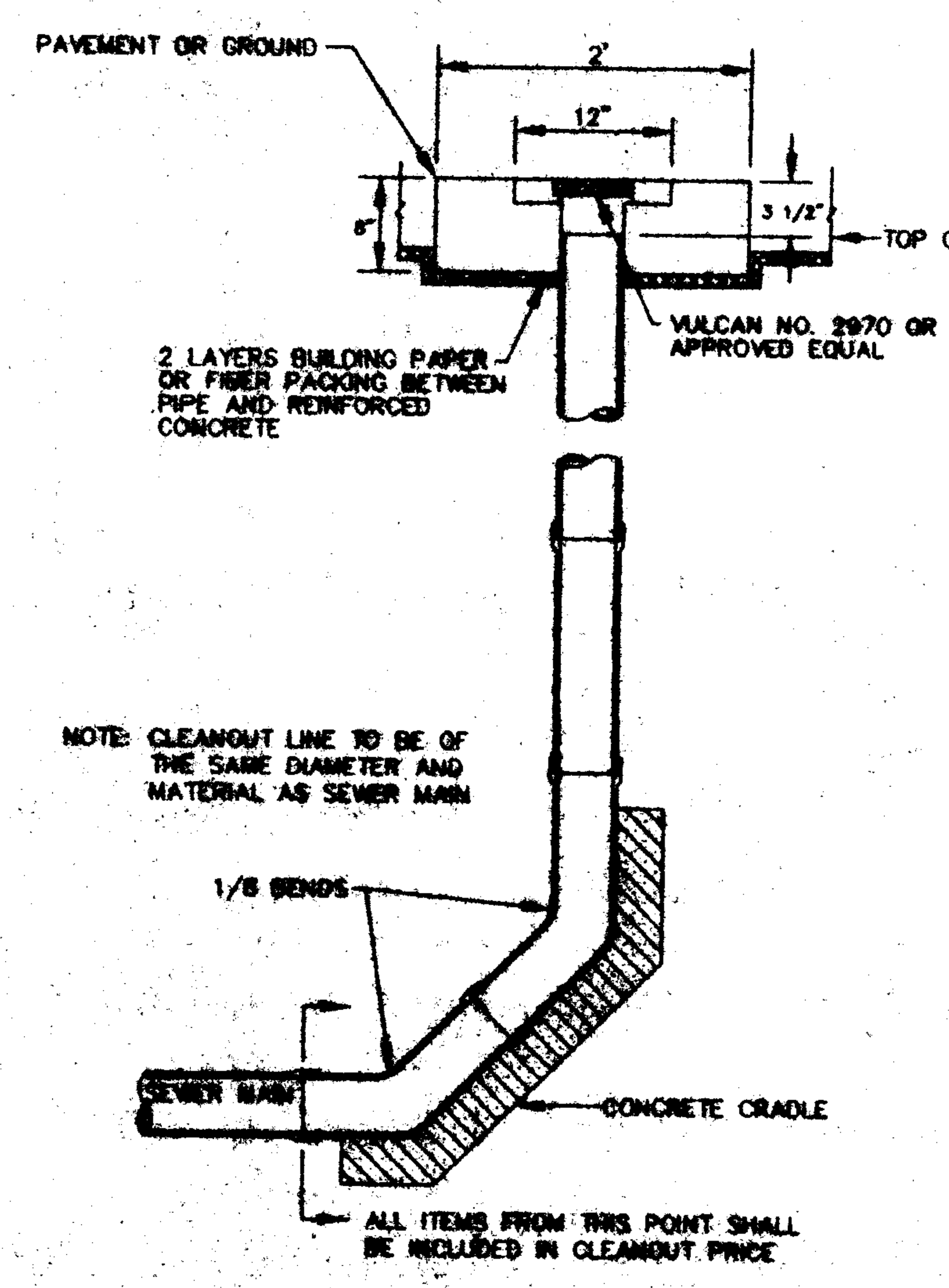


TYPICAL TRENCH DETAILS

CLASS "C"

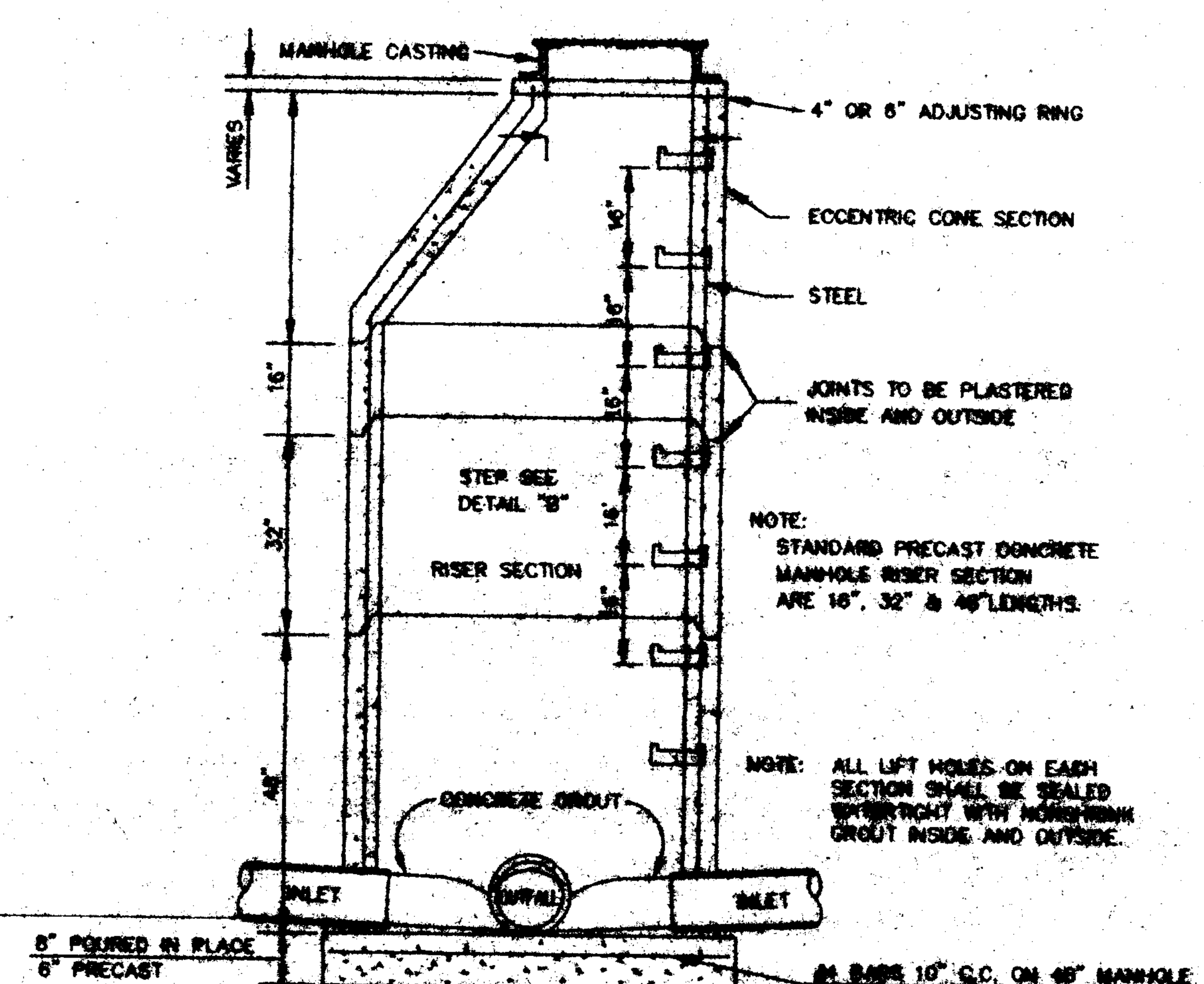
N.T.S.





TERMINAL CLEANOUT

N.T.S.



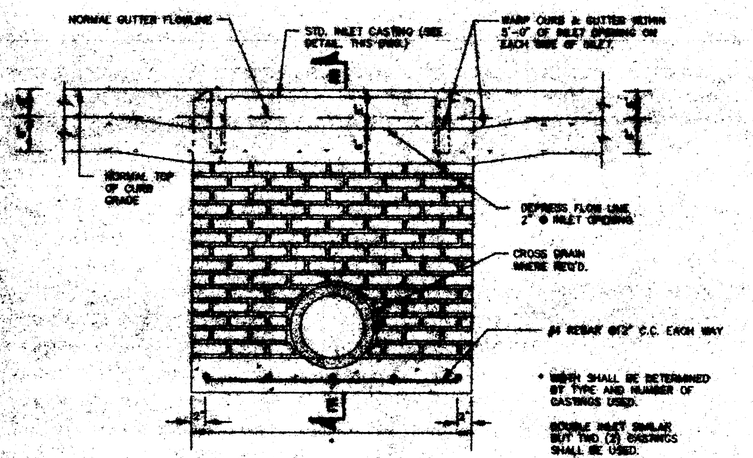
SECTION OF PRECAST CONCRETE MANHOLE

N.T.S.

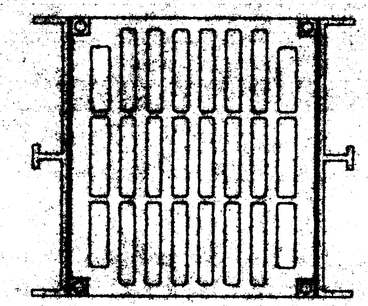
SEWER SERVICE CONNECTION

N.T.S.

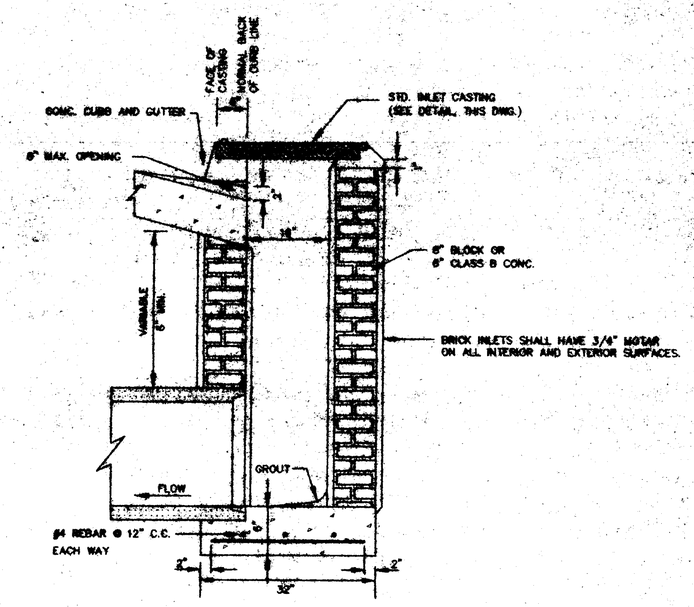
APPROVED BY: PAT GUEST		Guest Consultants, Inc. CONSULTING ENGINEERS * LAND SURVEYORS TWENTY SIX EASTGATE DRIVE * P.O. BOX 1296 * BRANDON, MS 39043 TELEPHONE (601) 825-8341 FAX (601) 825-3032	PROJECT THE COMMONS, PHASE 1	SHT. NAME SANITARY SEWER DETAILS	9



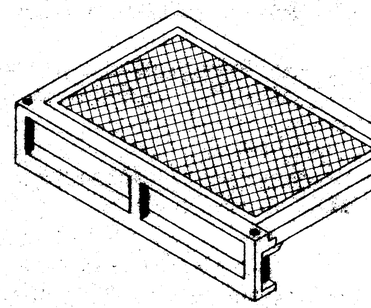
FRONT ELEVATION
INLET TYPES "A" AND "A" MODIFIED

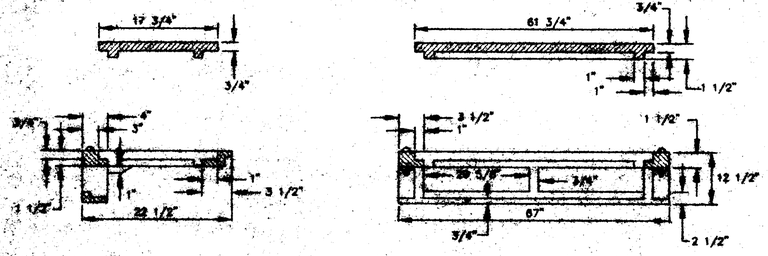


PLAN



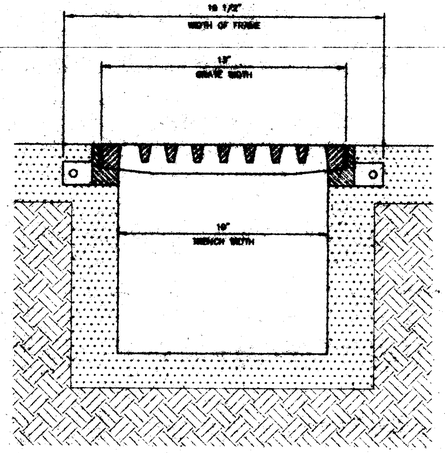
SECTION E - E
TYPE "A" INLET





STANDARD CURB INLET CASTING
(VULCAN 4543-2)
N.T.S.

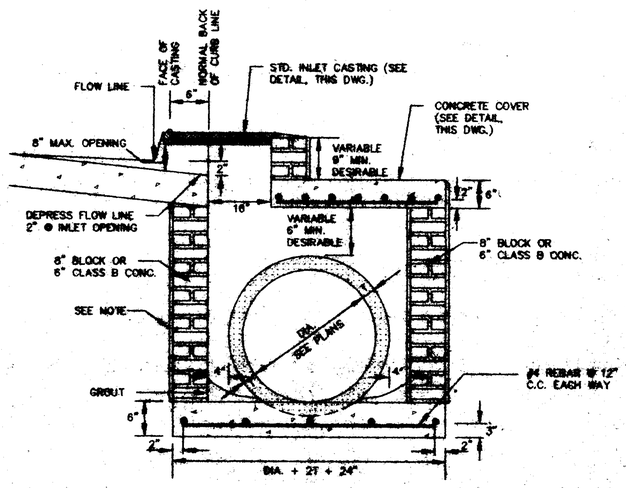
NOTE: CONTRACTOR MAY USE PRECAST CONCRETE INLETS



SECTION

TRENCH GRATE DETAIL
N.T.S.

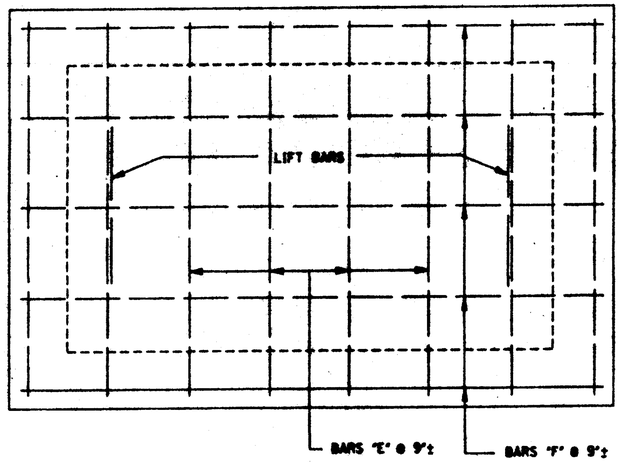
NOTE: GRATE AND FRAME ARE EAST JORDAN IRON WORKS MODEL NUMBER V-7383 OR EQUAL.



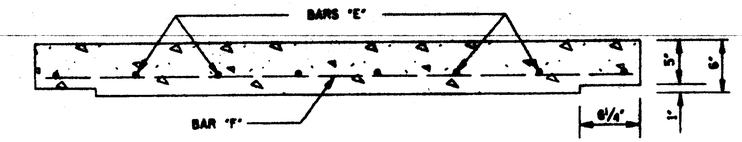
SECTION E - E
TYPE "A" MODIFIED

		Stuart Consultants, Inc.	THE COMMONS, PHASE 1	STORM DRAIN DETAILS

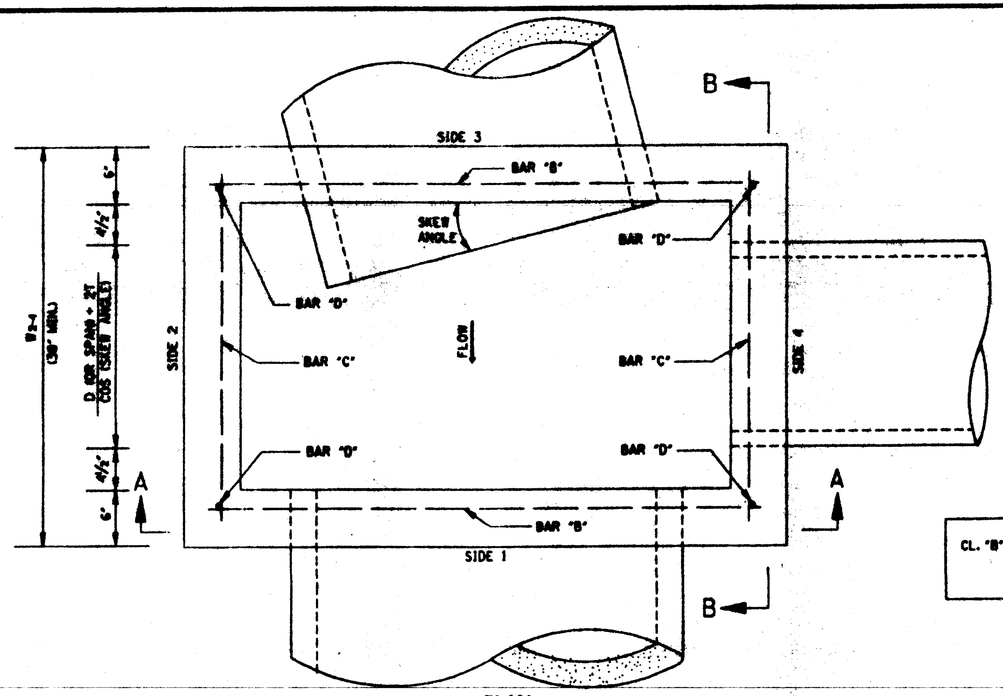
STATE	PROJECT NO.
MISS.	



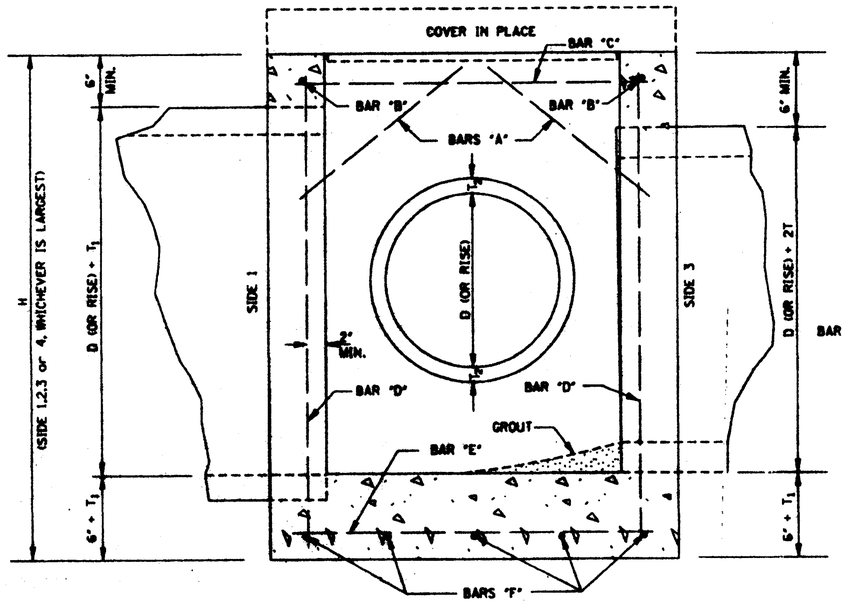
PLAN OF COVER



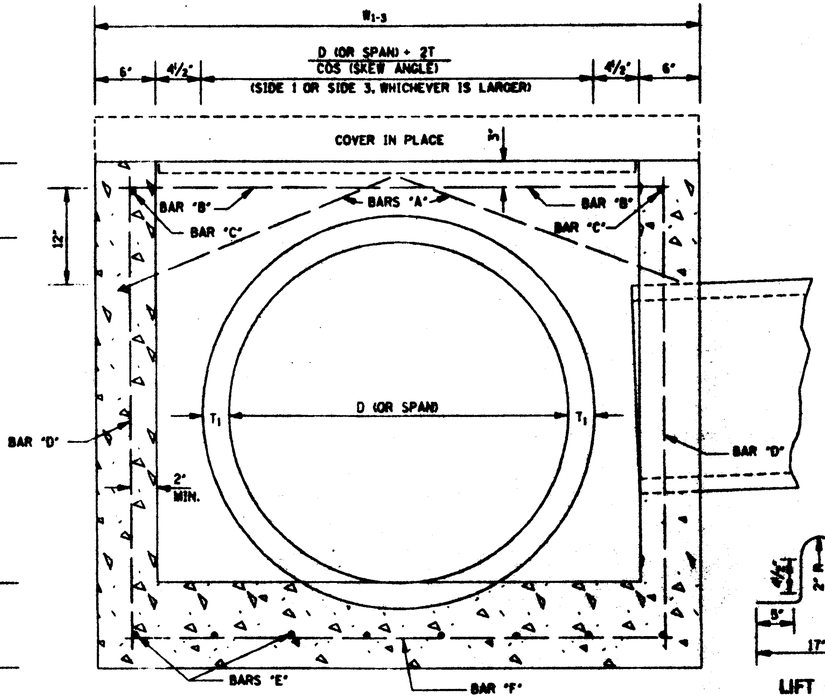
ELEVATION OF COVER



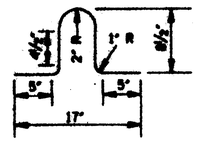
PLAN



SECTION B–B



SECTION A–A



LIFT BAR

NOTE: LIFT BAR TO BE FABRICATED FROM A #4 BAR 38" LONG. TWO LIFT BARS ARE REQUIRED. REINFORCING STEEL FOR 2 LIFT BARS = 5.3 lbs.

REINFORCING BAR LIST

BAR	SIZE	NUMBER REQUIRED	LENGTH
A	#4	2 PER PIPE OPENING	$196° + \left(\frac{W^{\circ}}{2} + 2"\right)^{\circ}$
B	#4	2	W_{1-3} - 6"
C	#4	2	W_{2-4} - 6"
D	#4	4	H - 6"
E	#4	$2\left[\left(\frac{W_{1-3}}{9"}\right)^{\circ\circ} + 1\right]$	W_{2-4} - 4"
F	#4	$2\left[\left(\frac{W_{2-4}}{9"}\right)^{\circ\circ} + 1\right]$	W_{1-3} - 4"

NOTE: VARIABLES AND DESIGNATIONS ARE AS FOLLOWS:
- D (OR SPAN) = PIPE DIAMETER (OR SPAN)
- W_{1-3} = WIDTH OF SIDE 1 & SIDE 3
- W_{2-4} = WIDTH OF SIDE 2 & SIDE 4
- W° = W_{1-3} OR W_{2-4} (SIDE OF ENTERING PIPE)
- °° = ROUND TO NEAREST WHOLE NUMBER

CL. "B" CONC. (yd^3) = [Q1 + Q2) / 46,656] - Σ PIPE OPENING DEDUCTIONS

WHERE: Q1 = [5"$W_{1-3}W_{2-4}$] + [1"(W_{1-3} - 12.5")(W_{2-4} - 12.5")] + [(T_1 + 6")$W_{1-3}W_{2-4}$]

Q2 = 12"[H - (T_1 + 6")][(W_{1-3} - 12") + W_{2-4}]

COMMON PIPE SIZE

CIRCULAR PIPE			ARCH PIPE		
PIPE SIZE	T	PIPE OPENING DEDUCTION (yd^3)	PIPE SIZE	T	PIPE OPENING DEDUCTION (yd^3)
18"	2½"	0.053	22" x 13"	2½"	0.053
24"	3"	0.091	29" x 18"	3"	0.087
30"	3½"	0.138	36" x 23"	3½"	0.129
36"	4"	0.196	44" x 27"	4"	0.185
42"	4½"	0.263	51" x 31"	4½"	0.245
48"	5"	0.340	58" x 36"	5"	0.318
54"	5½"	0.427	65" x 40"	5½"	0.394
60"	6"	0.524	73" x 45"	6"	0.489
66"	6½"	0.630			
72"	7"	0.747			

GENERAL NOTES:

1. REINFORCING STEEL QUANTITIES TO BE COMPUTED FROM BAR LIST AND SHOWN ELSEWHERE ON THE PLANS.
2. QUANTITIES FOR JUNCTION BOXES SHOWN ON THE PLANS WILL BE THE BASIS FOR PAYMENT UNLESS AUTHORIZED MODIFICATIONS ARE MADE.
3. CONCRETE SHALL BE CLASS "B" AND REINFORCING STEEL SHALL BE DEFORMED BARS.
4. SIDE 1 OF THE JUNCTION BOX WILL ALWAYS BE THE OUTFLOW SIDE.
5. IF PIPES ARE SKEWED MORE THAN 15° OR IF SKEWED PIPES PRODUCE CONFLICTS WITH ANOTHER OPENING, THE PIPE SHALL BE BROKEN BACK TO THE WALL OF THE JUNCTION BOX.

BY | REVISION | DATE

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN

JUNCTION BOX FOR PIPE CULVERTS

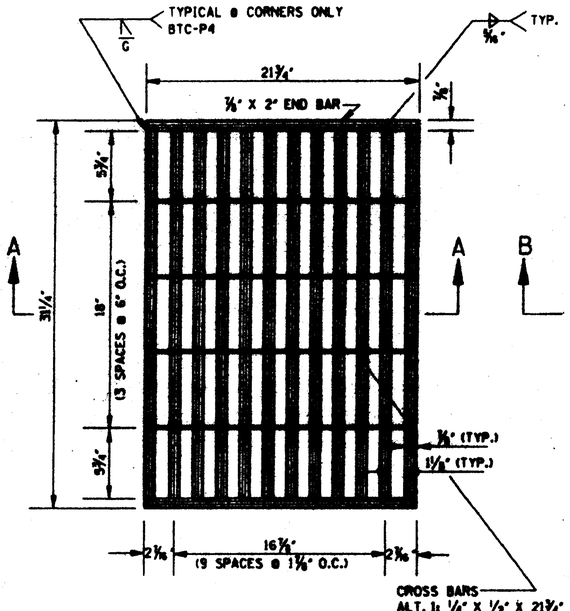
ENGINEER

WORKING NUMBER: JB-1

SHEET NUMBER: 11

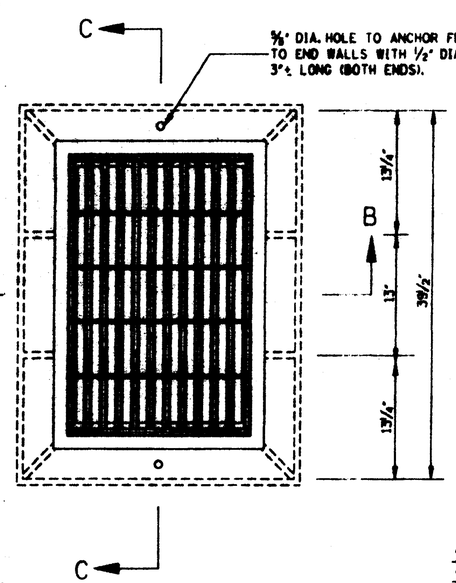
ISSUE DATE: OCTOBER 1, 1998

STATE	PROJECT NO.
MISS.	

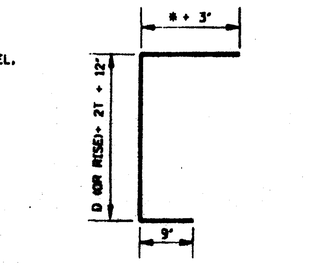


PLAN OF GRATE NO.1

NOTE: FOR OTHER GRATE DETAILS SEE SHEET IG-2.

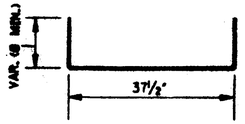


PLAN OF INLET



8 #4 BARS,
0.5[D(OR SPAN)+2D(OR RISE)+6T+38"] LONG

BARS "A"



4 #4 BARS, VAR. LENGTH

BARS "U"

"B", #4 BARS	37 1/2"
"C", 2 #4 BARS	28"
"D", 6 #4 BARS	D (OR SPAN) + 2T + 18"

BARS "B", "C" & "D"

BAR DETAILS

*NOTE:

$$*\left[\frac{D\ (\text{OR SPAN}) + 2T - 18"}{2}\right]$$

QUANTITIES

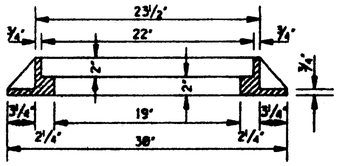
PIPE SIZE	MIN. DEPTH TO F.L.	MIN. DEPTH INLET CONC. (yd³)	MIN. DEPTH INLET STEEL (lbs)	PIPE OPENING DEDUCTION (yd³)	T	BARS/SIZES "A" / #4 NO. @ LGTH.	"B" / #4 NO. @ LGTH.	"C" / #4 NO. @ LGTH.	"D" / #4 NO. @ LGTH.	"U" / #4 NO. @ LGTH.
18"	2.752'	0.889	76	0.053	2 1/2"	8 @ 4'-3 1/2"	12 @ 3'- 1 1/2"	2 @ 2'-4"	6 @ 3'-5"	4 @ 3'-9 1/2"
24"	3.334'	1.117	87	0.091	3"	8 @ 5'-4"	14 @ 3'- 1 1/2"	2 @ 2'-4"	6 @ 4'-0"	4 @ 3'-9 1/2"
30"	3.875'	1.308	94	0.138	3 1/2"	8 @ 6'-2 1/2"	14 @ 3'- 1 1/2"	2 @ 2'-4"	6 @ 4'-7"	4 @ 3'-9 1/2"
36"	4.417'	1.671	105	0.196	4"	8 @ 7'-1"	16 @ 3'- 1 1/2"	2 @ 2'-4"	6 @ 5'-2"	4 @ 3'-9 1/2"
42"	4.959'	1.978	116	0.263	4 1/2"	8 @ 7'-11 1/2"	18 @ 3'- 1 1/2"	2 @ 2'-4"	6 @ 5'-9"	4 @ 3'-9 1/2"
48"	5.500'	2.305	123	0.340	5"	8 @ 8'-10"	18 @ 3'- 1 1/2"	2 @ 2'-4"	6 @ 6'-4"	4 @ 3'-9 1/2"
54"	6.042'	2.650	135	0.427	5 1/2"	8 @ 9'-8 1/2"	20 @ 3'- 1 1/2"	2 @ 2'-4"	6 @ 6'-11"	4 @ 3'-9 1/2"
60"	6.583'	3.016	146	0.524	6"	8 @ 10'-7"	22 @ 3'- 1 1/2"	2 @ 2'-4"	6 @ 7'-6"	4 @ 3'-9 1/2"
66"	7.125'	3.402	153	0.630	6 1/2"	8 @ 11'-5 1/2"	22 @ 3'- 1 1/2"	2 @ 2'-4"	6 @ 8'-1"	4 @ 3'-9 1/2"
72"	7.667'	3.806	164	0.747	7"	8 @ 12'-4"	24 @ 3'- 1 1/2"	2 @ 2'-4"	6 @ 8'-8"	4 @ 3'-9 1/2"
22" X 13"	2.417'	0.855	76	0.053	2 1/2"	8 @ 4'-3"	12 @ 3'- 1 1/2"	2 @ 2'-4"	6 @ 3'-9"	4 @ 3'-9 1/2"
29" X 18"	2.833'	1.085	83	0.087	3"	8 @ 5'-0 1/4"	12 @ 3'- 1 1/2"	2 @ 2'-4"	6 @ 4'-4 1/2"	4 @ 3'-9 1/2"
36" X 23"	3.250'	1.358	94	0.129	3 1/2"	8 @ 5'-10"	14 @ 3'- 1 1/2"	2 @ 2'-4"	6 @ 5'-1"	4 @ 3'-9 1/2"
44" X 27"	3.635'	1.631	101	0.185	4"	8 @ 6'-7 1/2"	14 @ 3'- 1 1/2"	2 @ 2'-4"	6 @ 5'-10"	4 @ 3'-9 1/2"
51" X 31"	4.068'	1.942	113	0.245	4 1/2"	8 @ 7'-5 1/2"	16 @ 3'- 1 1/2"	2 @ 2'-4"	6 @ 6'-6"	4 @ 3'-9 1/2"
58" X 36"	4.500'	2.269	120	0.318	5"	8 @ 8'-3"	16 @ 3'- 1 1/2"	2 @ 2'-4"	6 @ 7'-2 1/2"	4 @ 3'-9 1/2"
65" X 40"	4.875'	2.575	130	0.394	5 1/2"	8 @ 9'-0"	18 @ 3'- 1 1/2"	2 @ 2'-4"	6 @ 7'-10"	4 @ 3'-9 1/2"
73" X 45"	5.333'	2.966	139	0.489	6"	8 @ 9'-10 1/2"	18 @ 3'- 1 1/2"	2 @ 2'-4"	6 @ 8'-7"	4 @ 3'-9 1/2"
80" X 54"	6.167'	3.765	156	0.688	7"	8 @ 11'-6"	20 @ 3'- 1 1/2"	2 @ 2'-4"	6 @ 10'-0"	4 @ 3'-9 1/2"

NOTES: 1. ONE (1) PIPE OPENING HAS BEEN DEDUCTED FROM THE STRUCTURE.

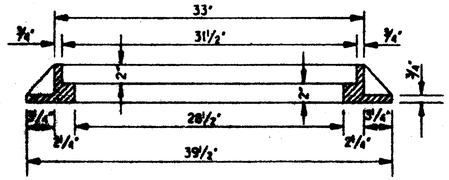
2. FOR EACH ADDITIONAL FOOT OF INLET HEIGHT, ADD 0.184 yd³ CLASS "B" CONCRETE AND 17 lbs REINFORCING STEEL.

3. 4 BARS "B" AND 2 BARS "C" REQUIRED PER EACH ADDITIONAL FOOT OF INLET HEIGHT.

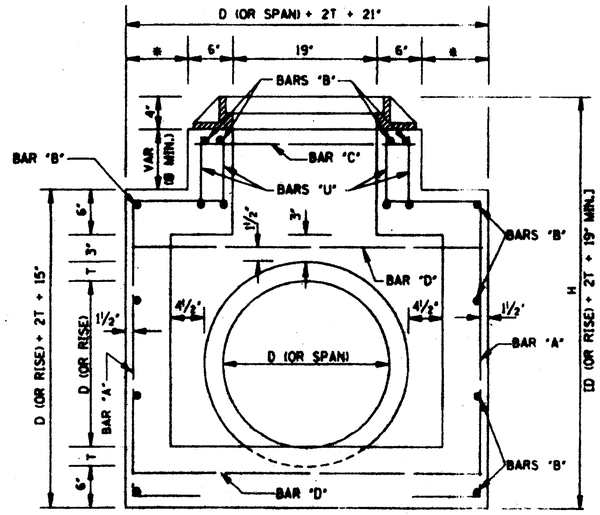
4. WEIGHT OF FRAME CASTING = 244 lbs.
WEIGHT OF GRATE = SEE SHEET IG-2.



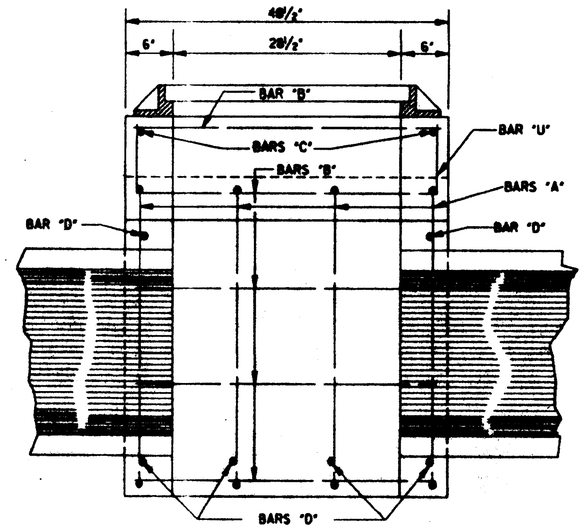
SECTION B–B
(FRAME)



SECTION C–C
(FRAME)



SECTION B–B



SECTION C–C

GENERAL NOTES:

1. QUANTITIES SHOWN WILL BE THE BASIS OF PAYMENT UNLESS AUTHORIZED MODIFICATIONS ARE MADE.
2. CONCRETE SHALL BE CLASS "B" CONCRETE AND REINFORCING STEEL SHALL BE DEFORMED BARS.
3. THE CONTRACTOR HAS THE OPTION TO PROVIDE GRATE NO. 1 OR GRATE NO. 2 AS SHOWN ON SHEET IG-2.
4. FRAME TO BE GRAY IRON CASTING, (AASHTO M 105, CLASS 30).

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN

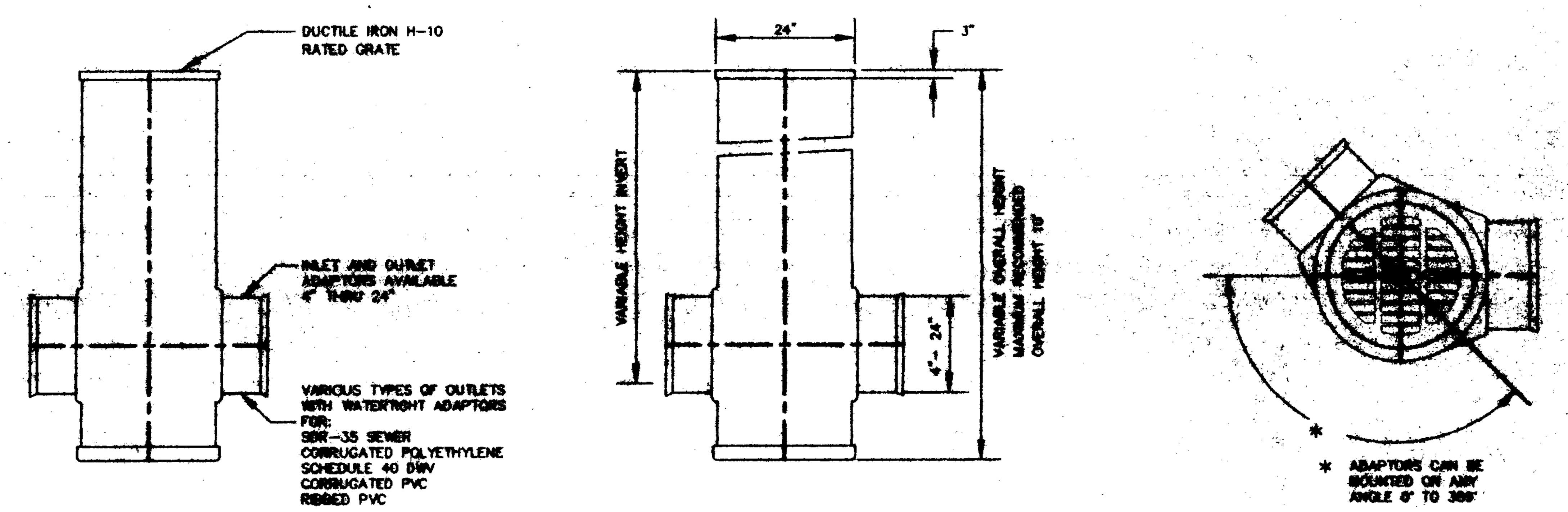
STORM SEWER INLET TYPE SS-3

BY	REVISION	DATE

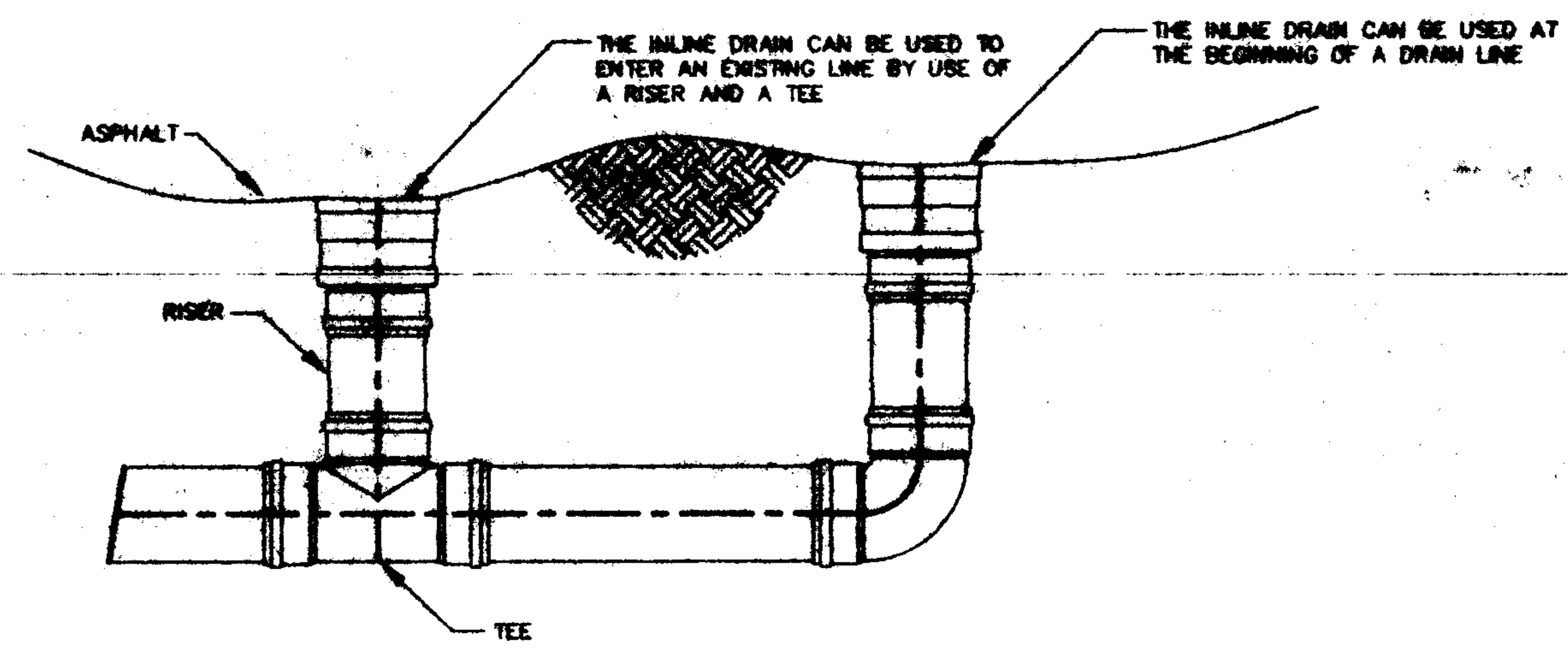
WORKING NUMBER: SS-3

SHEET NUMBER: 12

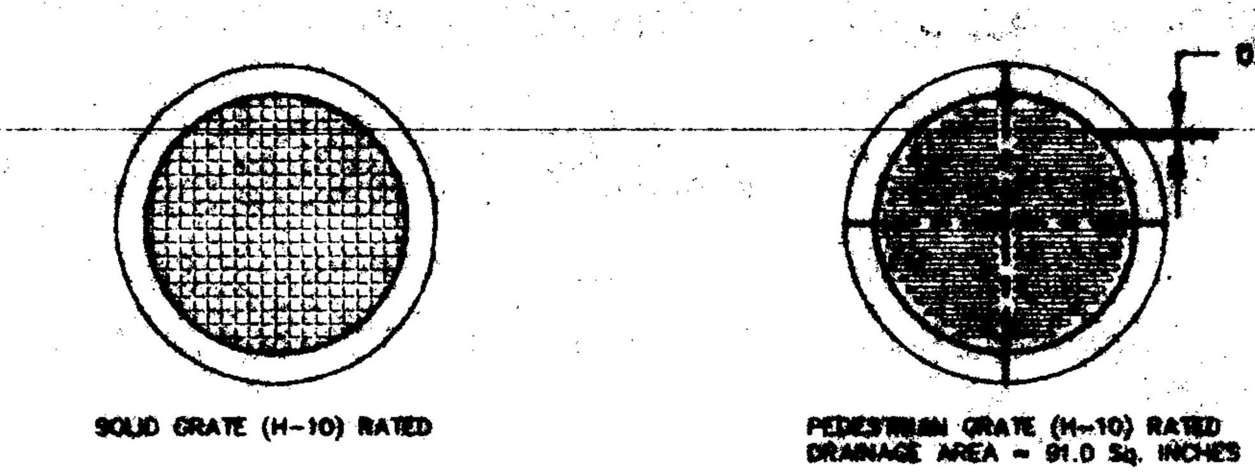
ISSUE DATE: OCTOBER 1, 1998



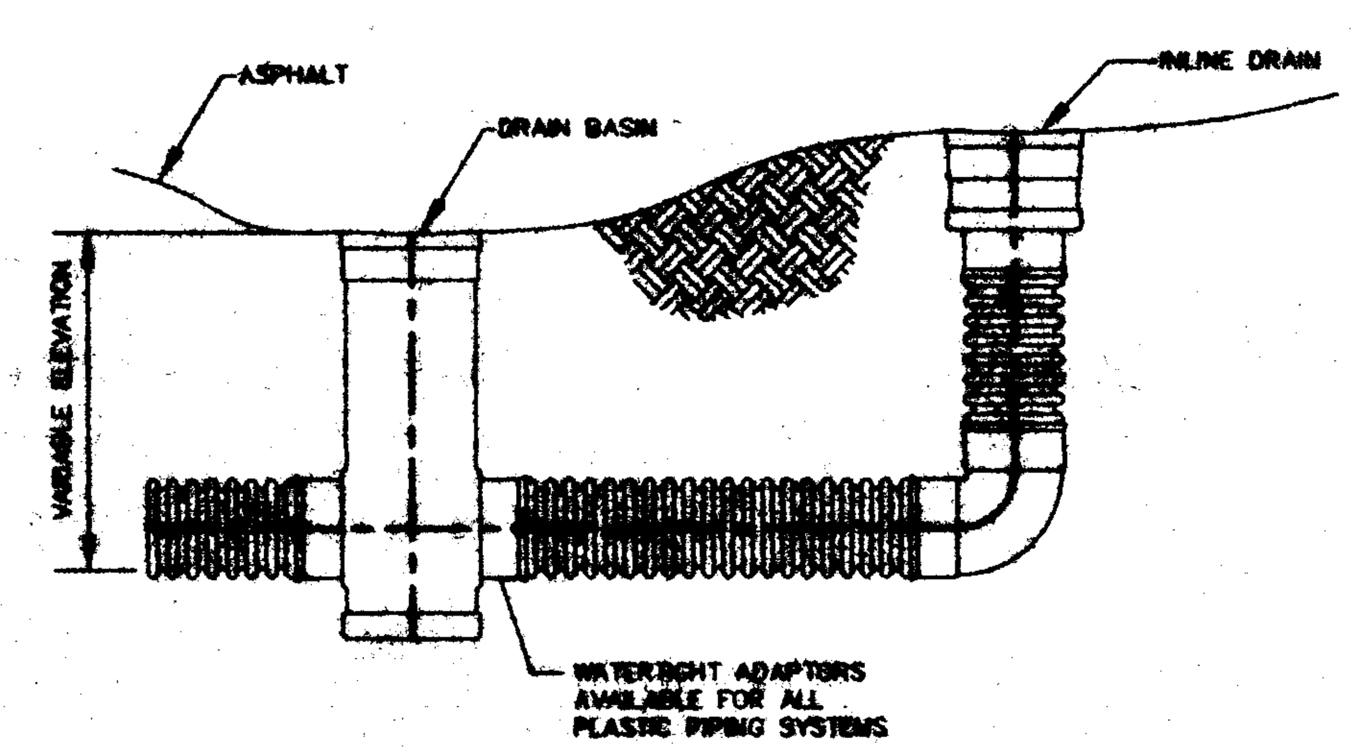
DRAIN BASIN



DRAIN BASIN CONNECTION



DUCTILE IRON GRATE



INSTALLATION

DRAIN BASIN NOTES:

GENERAL

PVC surface drainage inlets shall be include the inline drains and drain basin as indicated on the control drawings. The cast iron grates for each of these fittings are to be considered an integral part of the surface drainage inlet and shall be furnished by the same manufacturer. The surface drainage inlets shall be as manufactured by Nyloplast, or prior approved equal.

MATERIALS

The inline drains and drain basins required for this contract shall be manufactured from PVC pipe stock. The drainage pipe connection stubs shall be manufactured from PVC pipe stock and formed to provide a watertight connection with the piping system specified. This joint tightness shall conform to ASTM D3212.

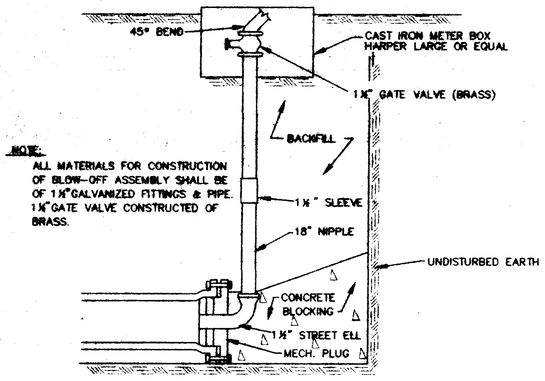
Surface drainage products shall meet the mechanical property requirements for fabricated fittings as described in ASTM [illegible], [illegible], and [illegible].

The grates furnished for all surface drainage inlets shall be cast or ductile iron and shall be made specifically for each fitting. Grates for 12" and larger drain basins and inline drain basins shall be capable of supporting H-10 wheel loading for pedestrian grates and solid covers. Grates for drain basins and inline drains inlets smaller than 12" shall be capable of supporting light wheel load traffic. Metal used in the manufacture of the castings shall conform to ASTM A-48-83 Class 30B for cast iron or A536 grade 70-50-05 for ductile iron. The castings shall be furnished with a black paint.

INSTALLATION

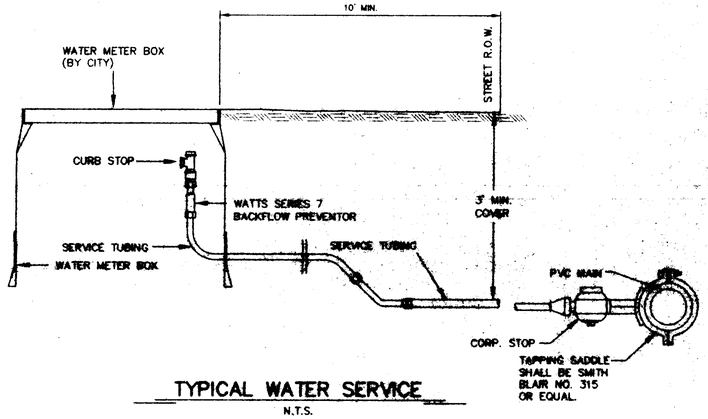
The specified PVC surface drainage inlets shall be installed using conventional flexible pipe backfill materials and procedures. For traffic rated installations H-20 or H-10, the inline drain or drain basin shall be installed conforming to the manufacturer's installation guidelines for traffic rated (H-20 or H-10) installations. The backfill material shall be crushed stone or other granular material meeting the requirements of class 1 or 2 material as defined in ASTM D2321. The surface drainage inlets shall be bedded and backfilled uniformly in accordance with ASTM D2321.

RICHARD SOMERS; APPROVED BY: PAT GUEST; G-2738	REVISIONS	**Guest Consultants, Inc.** CONSULTING ENGINEERS * LAND SURVEYORS TWENTY SIX EASTGATE DRIVE * P.O. BOX 1225 * BRANDON, MS 39043 TELEPHONE (601) 825-8341 FAX (601) 825-3032	PROJECT: **THE COMMONS, PHASE 1**	SHT. NAME: **MISCELLANEOUS DETAILS**	SHT. NO. **13**



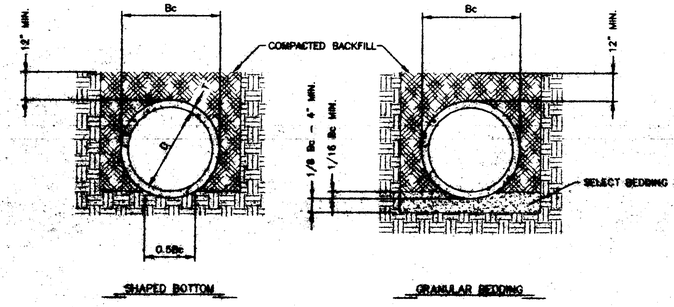
TYPICAL BLOW-OFF ASSEMBLY

N.T.S.



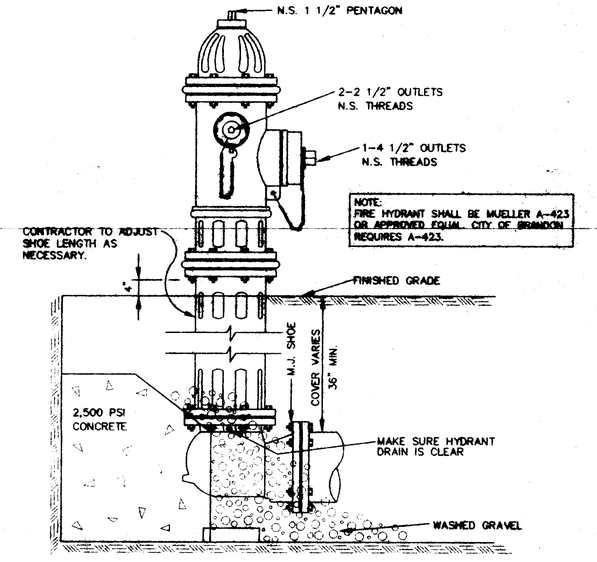
TYPICAL WATER SERVICE

N.T.S.

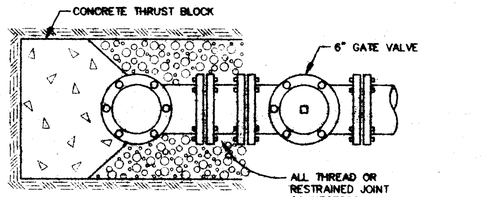


TYPICAL TRENCH DETAILS

CLASS "C"
N.T.S.



ELEVATION

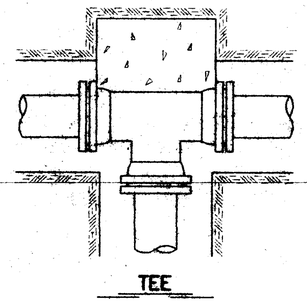


PLAN

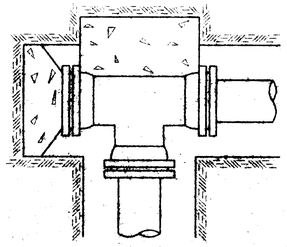
NOTE: GATE VALVES WILL BE REQ'D. ON ALL FIRE HYDRANTS.

TYPICAL FIRE HYDRANT INSTALLATION

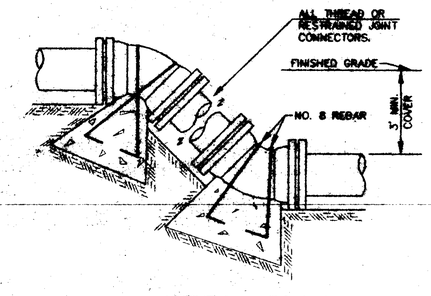
N.T.S.



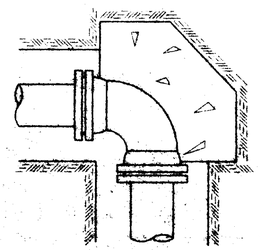
TEE



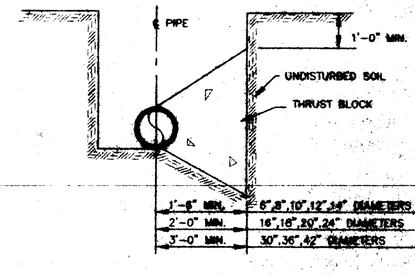
PLUGGED TEE



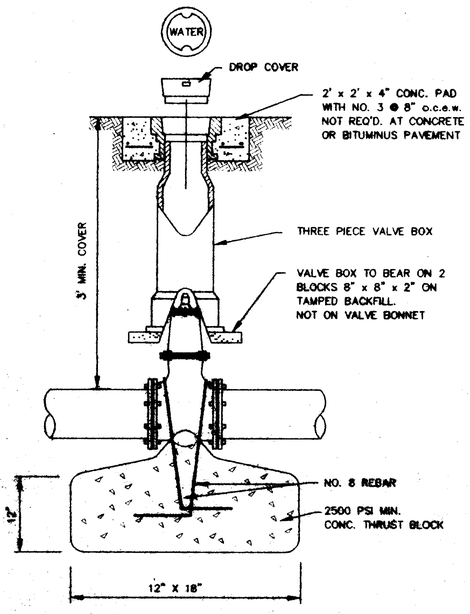
VERTICAL BENDS



90° BEND



TYPICAL CROSS SECTION



GATE VALVE DETAIL

N.T.S.

BEARING AREA IN SQ. FT.

NORMAL PIPE DIAMETER (IN.)	DEAD-END OR TEE	90° BEND	45° BEND	22 1/2° BEND	11 1/4° BEND
2					
4	2.0	2.0	2.0	2.0	2.0
6	2.0	2.0	2.0	2.0	2.0
8	3.0	3.0	2.0	2.0	2.0
10					
12	5.0	6.0	4.0	3.0	3.0
14					
16	8.0	12.0	6.0	4.0	4.0

VERTICAL BENDS

2	–	–	–		
4	–	–	[illegible]	[illegible]	[illegible]
6	–	–	[illegible]	[illegible]	[illegible]
8	–	–	[illegible]	[illegible]	[illegible]
10	–	–	–		
12	–	–	[illegible]	[illegible]	[illegible]
14	–	–	–		
16	–	–	[illegible]	[illegible]	[illegible]

VOLUME OF BLOCKS INCLUDING SOIL LOAD CU. FT. (CU. YDS.)

NOTE: ALL THRUST BLOCKS SHALL BE 2,500 PSI CONCRETE AGAINST UNDISTURBED EARTH.

TYPICAL THRUST BLOCKING IN WATER MAINS

N.T.S.

DRAWN BY: RICHARD SOMERS
DATE: 05-26-09
SUB. NO.: 2736-WR-WTR-DETAILS
APPROVED BY: PAT QUEST
PROJ. NO.: G-2736

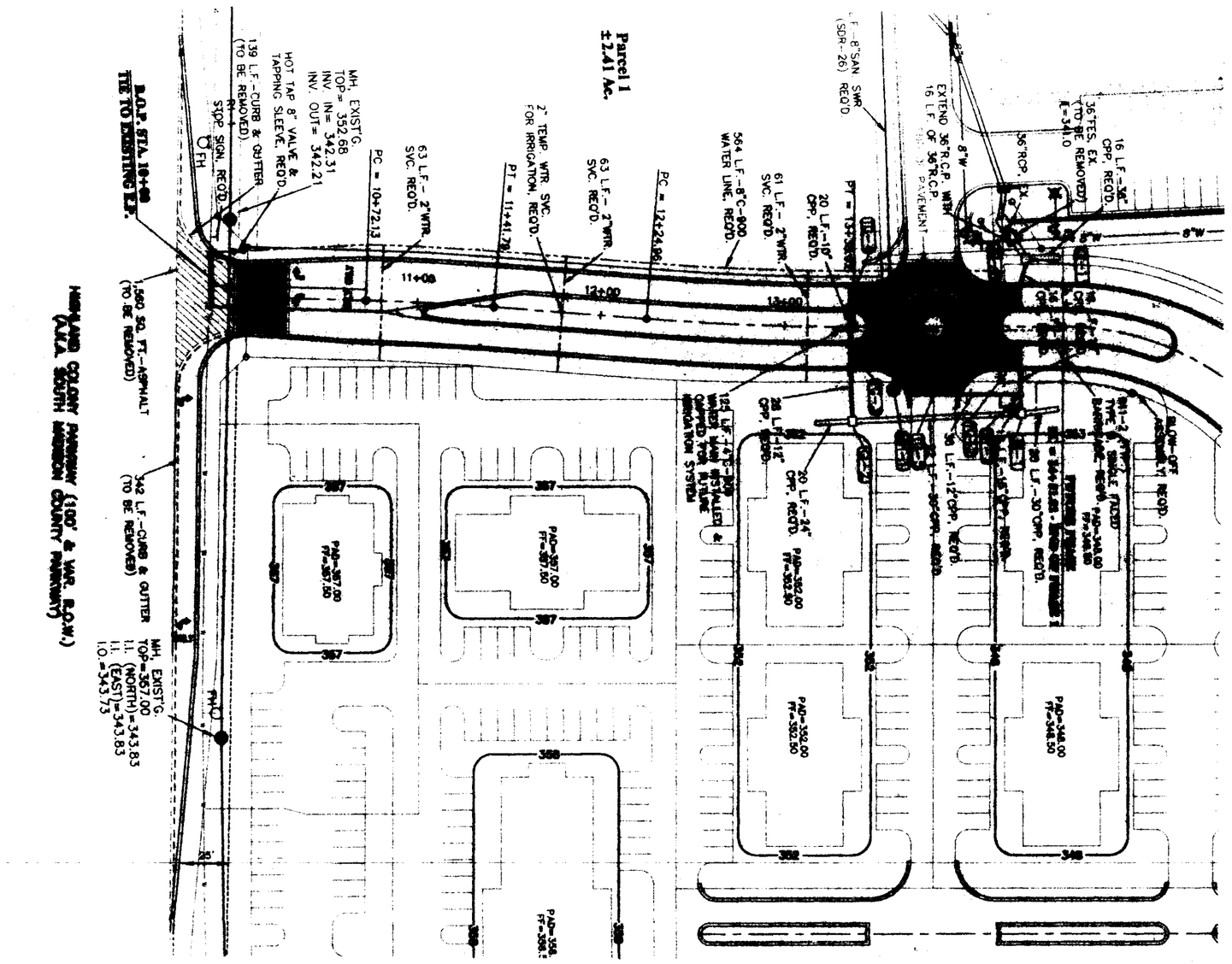
REVISIONS

Guest Consultants, Inc.
CONSULTING ENGINEERS * LAND SURVEYORS
TWENTY SIX EASTGATE DRIVE * P.O. BOX 1225 * BRANDON, MS 39043
TELEPHONE (601) 825-8341 FAX (601) 825-3032

PROJECT: THE COMMONS, PHASE 1

SHT. NAME: WATER DETAILS

SHT. NO. 14



The Waterford Access Rd.

Commons

NOTES:

CONTRACTOR TO COORDINATE ROAD CONNECTION WITH SUPERINTENDANT OF WATERFORD PROJECT WHICH IS UNDER CONSTRUCTION.

PAVEMENT AND CURB & GUTTER TO END AT STA. 14+51.82

STA. 14+51.82 TO STA. 15+00 TO BE GRADED TO SUBGRADE.

SEE HARDSCAPE DEVELOPMENT PLANS FOR DECORATIVE PAVING DETAILS.

SCALES:
1"=50' HOR.
1"=5' VERT.

DRAWN BY: RICHARD SOMERS
DATE: 08-01-00
DWG. NO.: 2738-WR-PP1

APPROVED BY: PAT GUEST
PROJ. NO. G-2738

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PROJECT
THE COMMONS, PHASE 1

SHT. NAME
LINE "1" - STA. 10+00 TO STA. 18+00
PLAN / PROFILE

SHT. NO.
15