

Drain: PEBBLE BROOK DRAIN **Drain #:** 191
Improvement/Arm: PEBBLE BROOK-SECTION 8
Operator: JDH **Date:** 3-8-04
Drain Classification: Urban/Rural **Year Installed:** 2000

GIS Drain Input Checklist

- Pull Source Documents for Scanning JDH 3-8
- Digitize & Attribute Tile Drains N/A
- Digitize & Attribute Storm Drains JDH 3-8
- Digitize & Attribute SSD JDH 3-8
- Digitize & Attribute Open Ditch Jun 4-23
- Stamp Plans JDH 3-8
- Sum drain lengths & Validate JDH 3-8
- Enter Improvements into Posse JDH 3-8
- Enter Drain Age into Posse Jun 4-23
- Sum drain length for Watershed in Posse Jun 4-23
- Check Database entries for errors JDH 3-8

Gasb 34 Footages for Historical Cost
Drain Length Log

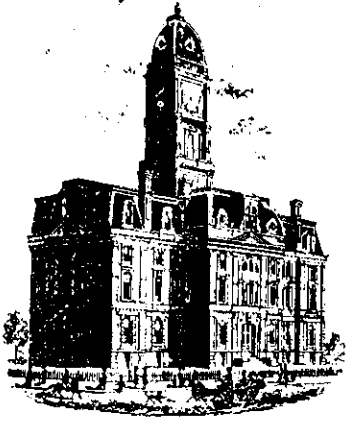
Drain-Improvement: PEBBLE BROOK DRAIN - PEBBLE BROOK - SECTION 8

| Drain Type: | Size: | Length <small>SURVEYORS REPORT</small> | Length (DB Query) | Length Reconcile | If Applicable | |
|-------------|-------|---|----------------------|---------------------|---------------|-------|
| | | | | | Price: | Cost: |
| SSD | 6" | 1,870.78' | 1,870.78' | ∅ | | |
| RCP | 12" | 252' | 252' | ∅ | | |
| | 15" | 152' | 152' | ∅ | | |
| | 18" | 44' | 44' | ∅ | | |
| 3.000 | 3x30" | 80' | 80' | ∅ | | |
| OPEN DITCH | | 1,780' | 1,780' | ∅ | | |
| | | | | | | |
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| | | | | | | |
| | | | | | | |

Sum: 4,178.78' 4,178.78' ∅

Final Report: _____

Comments:



SURVEYOR'S OFFICE

Hamilton County

Kenton C. Ward, Surveyor

Phone (317) 776-8495

Fax (317) 776-9628

Suite 146

One Hamilton County Square

Noblesville, Indiana 46060-2230

To: Hamilton County Drainage Board

August 14, 2000

Re: Pebble Brook Drain, Pebble Brook Section 8 Arm

Attached is a petition, non-enforcement requests, plans, calculations, quantity summary and assessment rolls for the Pebble Brook Section 8 Arm, Pebble Brook Drain. I have reviewed the submittals and petition and have found each to be in proper form.

I have made a personal inspection of the land described in the petition. Upon doing so, I believe that the drain is practicable; will improve the public health; benefit a public highway and be of public utility; and that the costs, damages, and expenses of the proposed drain will probably be less than the benefits accruing to the owners of land likely to be benefited. The drain will consist of the following:

| | | | |
|---------|----------|------------|----------|
| 6" SSD | 1,870 ft | 18" RCP | 45 ft |
| 12" RCP | 252 ft | (3)30" RCP | 80 ft |
| 15" RCP | 158 ft | Open Ditch | 1,780 ft |

The total length of the drain will be 4,185 feet.

The subsurface drains (SSD) to be part of the regulated drain are those located under the curbs. Only the main SSD lines which are located within the right of way are to be maintained as regulated drain. Laterals for individual lots will not be considered part of the regulated drain.

The open ditch shown above is that part of the drain between Str 805 and Str 804, and from Str 819 of the Villages of Pebble Brook Section 6 to the outlet for the pond. The section of open ditch along the north line of Lots 89 to 103 was made part of the regulated drain when section 6, The Village of Pebble Brook was developed. (See my report dated July 15, 1994) The portion of open ditch from the outlet of the pond south of section 2 and 3 to Mill Creek road was made part of the regulated drain when the Section 2 drainage facilities were reconstructed.

(See my report dated December 6, 1994) The open ditch now to be included as regulated drain is that which is along the south line of Lots 29 of Pebble Brook Section 2 and Lots 30-33 of Pebble Brook Section 3. Also included is a straight line measurement through the pond between the inlet and outlet of the pond.

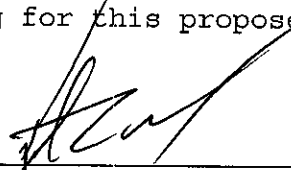
I have reviewed the plans and believe the drain will benefit each lot equally. Therefore, I recommend each lot be assessed equally. I also believe that no damages will result to landowners by the construction of this drain. I recommend a maintenance assessment of \$20.00 per lot, \$2.00 per acre for roadways, with a \$20.00 minimum. With this assessment the total annual assessment for this drain/this section will be \$160.00.

Parcels assessed for this drain may be assessed for the Sly Run Drain at sometime in the future.

I believe this proposed drain meets the requirements for Urban Drain Classification as set out in IC 36-9-27-67 to 69. Therefore, this drain shall be designated as an Urban Drain.

I recommend that upon approval of the above proposed drain that the Board also approve the attached non-enforcement request. This request is for the reduction of the regulated drain easement to those widths as shown on the secondary plat for Pebble Brook, Section 8 as recorded in the office of the Hamilton County Recorder. Easements for Lot 29, Pebble Brook Section 2 and Lots 30-33 of Pebble Brook, Section 3 are those shown on the secondary Plat for those sections.

I recommend the Board set a hearing for this proposed drain for September 25, 2000.



Kenton C. Ward
Hamilton County Surveyor

KCW/kkw

ITC ACCEPTANCE CO.

HCDB -- B00 - 021

2929 SOUTH HOLT ROAD
INDIANAPOLIS, INDIANA 46242
(317) 243-1663

SUBDIVISION BOND

Bond No.: 002606

Principal Amount : \$38,200

KNOW ALL MEN BY THESE PRESENTS, that we Eldon D. Palmer and M. Elaine Palmer 7965 Westfield Blvd. Indianapolis, IN 46240 as principal, and ITC Acceptance Company, 2929 S. Holt Road Indianapolis, IN 46241 a Indiana corporation, as Surety, are held and firmly bound unto Hamilton County Commissioners, One Hamilton County Square, Noblesville, IN 46060 in the penal sum of ThirtyEight Thousand Two Hundred and 00/100, lawful money of the United States of America, for the payment of which well and truly to be made, we bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

ATTEST: Robin M. Mills
HAMILTON COUNTY AUDITOR

Whereas, Eldon D. and M. Elaine Palmer
Has agreed to construct in Pebble Brook Section 8
In Hamilton County, Indiana the following improvements:
Subsurface Drains, Storm Sewer, and Erosion Control

Issued By: Thomas Kapitan
Thomas Kapitan
Vice President

Notarized by: Kay Atwell
Kay Atwell
My Commission Expires 01-19-2007
Morgan County

RELEASE OF MAINTENANCE/PERFORMANCE BOND
RELEASE OF LETTER OF CREDIT
HAMILTON COUNTY BOARD OF COMMISSIONERS
BY: [Signature]
BY: [Signature]
BY: [Signature]

BOARD OF COMMISSIONERS
OF THE COUNTY OF HAMILTON
[Signature]
[Signature]
[Signature]
DATE 7-24-00

ATTEST: [Signature]
HAMILTON COUNTY AUDITOR

CERTIFICATE OF COMPLETION AND COMPLIANCE

Address of premises on which
land alteration was accomplished _____

Pebblebrook, Section 8

Inspection Date(s): _____ Permit No. _____

Relative to plans prepared by: Stoepfelwerth and Associates, Inc.

on March 6, 2000

I hereby certify that:

To the best of my knowledge, information and belief such land
alteration has been performed and completed in conformity with the improved
plan, except _____

None

Signature David J. Stoepfelwerth Date: December 14, 2001

Typed Name: David J. Stoepfelwerth Phone: (317 849-5935)

Business Address 9940 Allisonville Rd.,
Fishers, Indiana 36038

Surv. _____ Engr. Arch. _____ Indiana Registration No. 19358
S0474



10265COM/IWP/FORM



SURVEYOR'S OFFICE

Hamilton County

Kenton C. Ward, Surveyor

Phone (317) 776-8495

Fax (317) 776-9628

Suite 188

One Hamilton County Square

Noblesville, Indiana 46060-2230

To: Hamilton County Drainage Board

May 12, 2003

Re: Pebblebrook Drain: Sec. 8 Arm

Attached are as-builts, certificate of completion & compliance, and other information for Pebblebrook Sec. 8. An inspection of the drainage facilities for this section has been made and the facilities were found to be complete and acceptable.

During construction, changes were made to the drain, which will alter the plans submitted with my report for this drain-dated August 14, 2000. The report was approved by the Board at the hearing held September 25, 2000. (See Drainage Board Minutes Book 5, Pages 456-7) The changes are as follows:

| Structure: | T.C.: | I.E.: | Pipe: | Length: | Original Plans: | Difference: |
|------------|--------|--------|-------|---------|-----------------|-------------|
| 800 | 841.67 | 838.04 | | | | |
| 801 | 841.65 | 837.75 | 12 | 28 | 28 | 0 |
| 801 | 841.65 | 837.7 | | | | |
| 801A | 836.44 | 831.89 | 12 | 114 | 113 | 1 |
| 801A | 836.44 | 831.89 | | | | |
| 802 | 830.86 | 826.93 | 12 | 110 | 111 | -1 |
| 802 | 830.86 | 826.84 | | | | |
| 803 | 830.99 | 826.73 | 15 | 28 | 28 | 0 |
| 803 | 830.99 | 826.49 | | | | |
| 804A | | 823.8 | 15 | 96 | 102 | -6 |
| 807 | 827.03 | 824.37 | | | | |
| 806 | 826.89 | 823.91 | 15 | 28 | 28 | 0 |
| 806 | 826.89 | 823.91 | | | | |
| 805 | | 823.95 | 18 | 44 | 45 | -1 |
| 808 | | 824.47 | | | | |
| 804 | | 824.28 | 30 | 80 | 80 | 0 |

6" SSD Streets:

| | |
|--------------------|--------|
| Pebble Brook Place | 935.39 |
| X 2 | |

Total: 1870.78

RCP Pipe Totals:

| | |
|--------|-----|
| 12 | 252 |
| 15 | 152 |
| 18 | 44 |
| 3 X 30 | 80 |

| | |
|---------------------|------|
| Other Drain: | |
| Open Drain | 1780 |

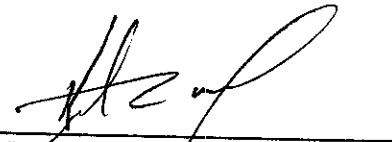
The length of the drain due to the changes described above is now **4178 feet**.

The non-enforcement was approved by the Board at its meeting on September 25, 2000 and recorded under instrument #200100002887.

The bond or letter of credit from ITC Acceptance Co, number 002606; dated June 30, 2000; in the amount of \$38,200; was released September 23, 2002.

I recommend the Board approve the drain's construction as complete and acceptable.

Sincerely,

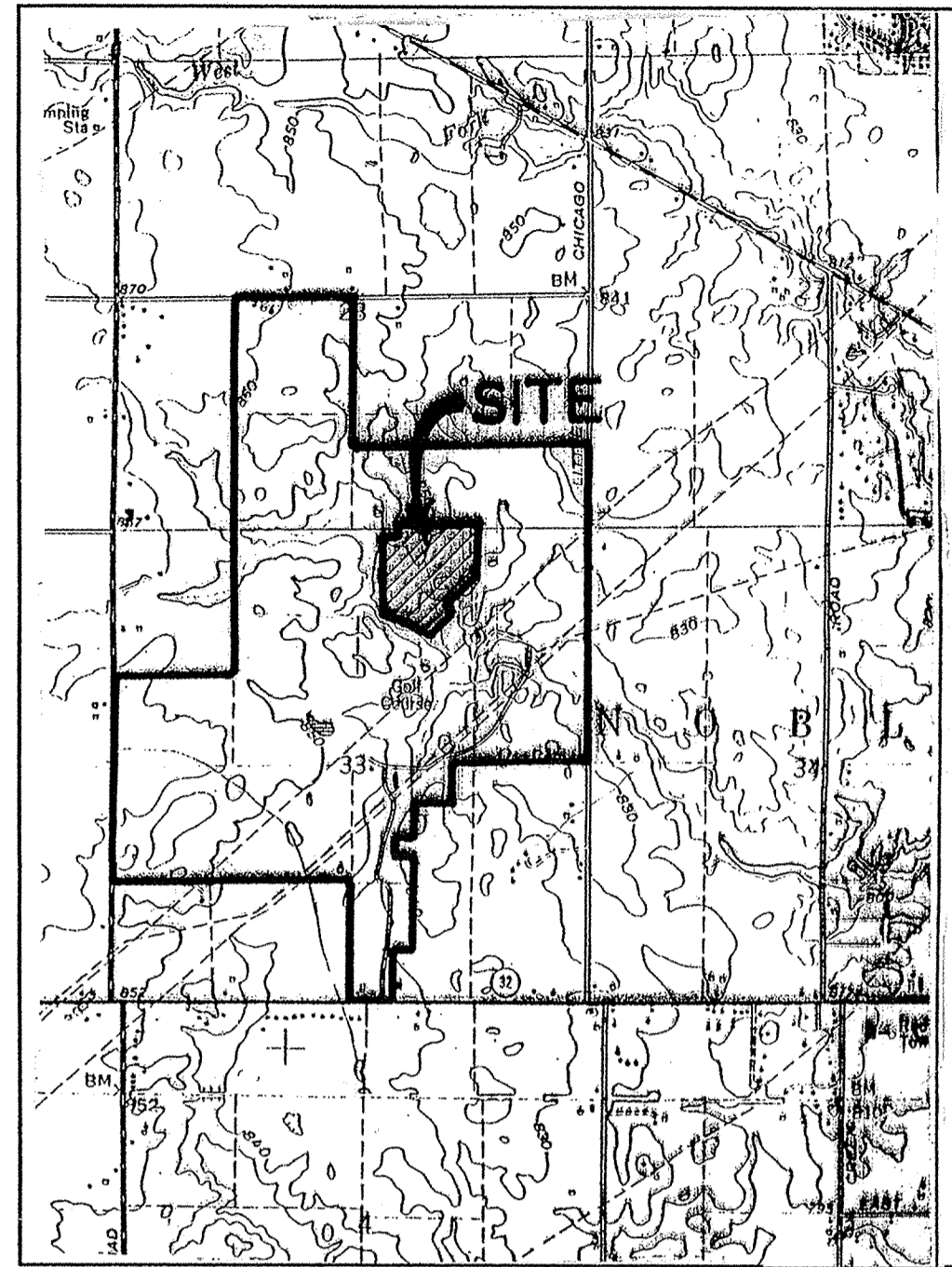


Kenton C. Ward,
Hamilton County Surveyor

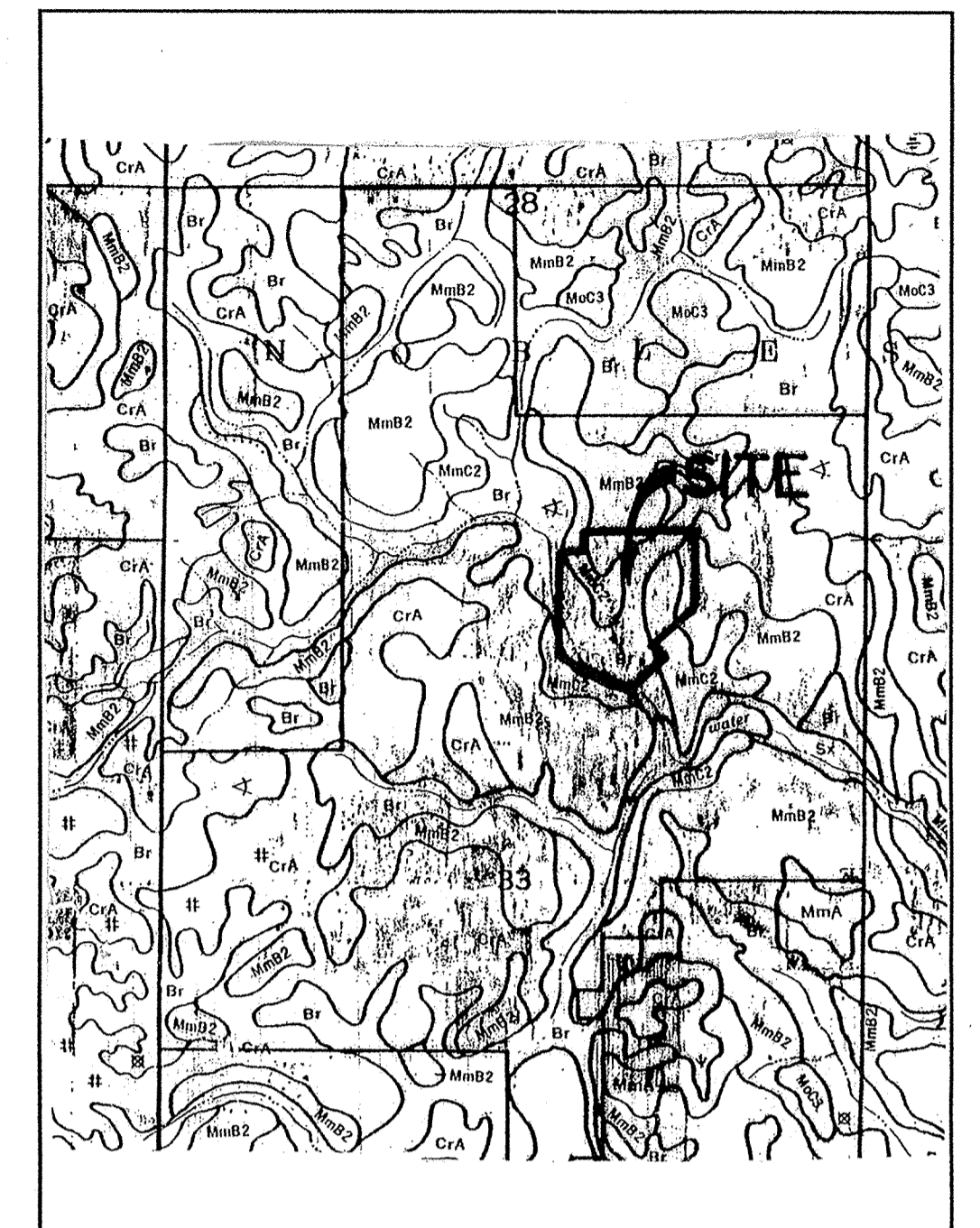
KCW/slm

PEBBLE BROOK SECTION EIGHT

Developed by:
 PLATINUM PROPERTIES L.L.C.
 9551 DELEGATE'S ROW
 INDIANAPOLIS, INDIANA 46240
 (317)-818-2910

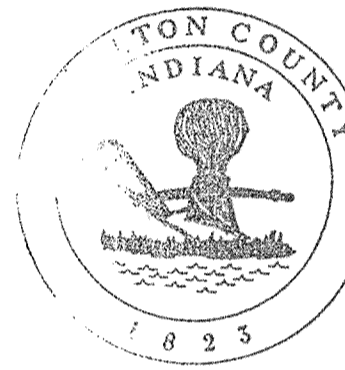


LOCATION MAP



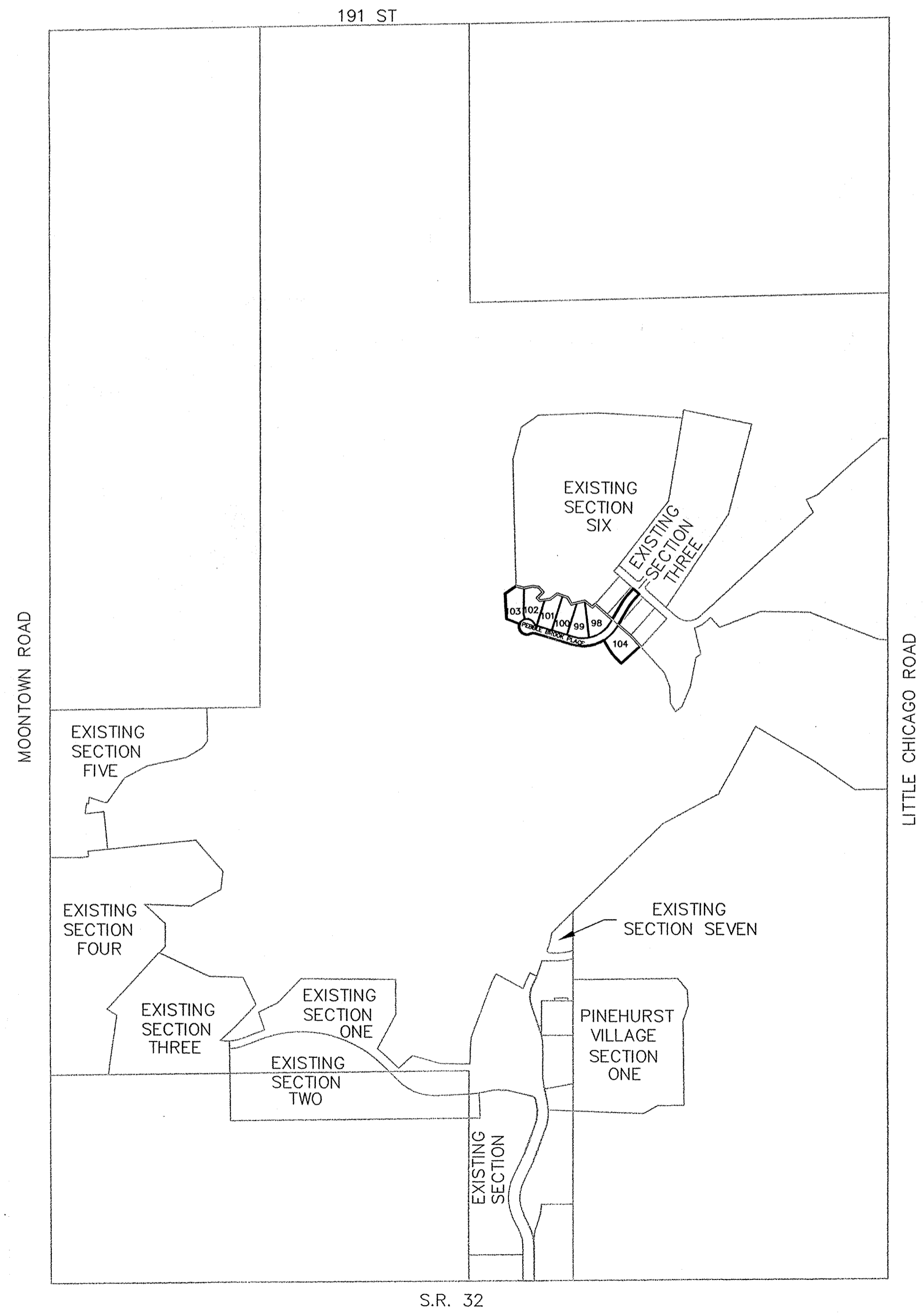
SOILS MAP

PRINTED
 MAY 03 2002


 This information was gathered for input into the Hamilton County Geographical Information System. This document is considered an official record of the GIS.
 Entry Date: 3-8-04
 Entered by: JPH

| INDEX | |
|-------|--------------------------------|
| SHT. | DESCRIPTION |
| 1 | COVER SHEET |
| 2 | TOPOGRAPHICAL SURVEY |
| 3 | SITE DEVELOPMENT PLAN |
| 4 | TREE REMOVAL PLAN |
| 5 | EROSION CONTROL PLAN |
| 6 | EROSION SPECIFICATION |
| 7 | STREET PLAN & PROFILE |
| 8 | INTERSECTION DETAILS |
| 9 | SANITARY SEWER PLAN & PROFILES |
| 10 | STORM SEWER PLAN & PROFILES |
| 11 | WATER PLAN |
| 12 | CONSTRUCTION DETAILS |
| 13 | CONSTRUCTION DETAILS |

| REVISIONS | |
|-----------|---|
| SHT. | DESCRIPTION |
| ALL | REVISE PER TAC COMMENTS 4/13/00 BRD |
| ALL | REVISE PER SURVEYOR CMNTS 4/28/00 BRD |
| ALL | REV. PER CL CHG PER OWNER 6/14/00 ADG |
| ALL | REVISE PER COUNTY SURVEYOR 7/10/00 BRD |
| ALL | REVISE PER DEVELOPER GRADE CHANGES 9/1/00 AJF |
| | |
| | |
| | |




DESIGN DATA
 7 LOTS = 1.549 LOTS/ACRE
 5.164 AC.
 PEBBLE BROOK PLACE 917.21 L.F.


PLANS PREPARED BY:
STOEPPELWERTH & ASSOCIATES, INC.
 CONSULTING ENGINEERS & LAND SURVEYORS
 9940 ALLISONVILLE ROAD
 FISHERS, INDIANA 46038
 PHONE: (317)-849-5935
 FAX: (317)-849-5942


FILED
 JUN 17 2002
 OFFICE OF HAMILTON COUNTY SURVEYOR

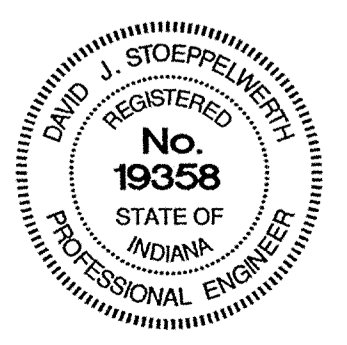
RECORD DRAWING

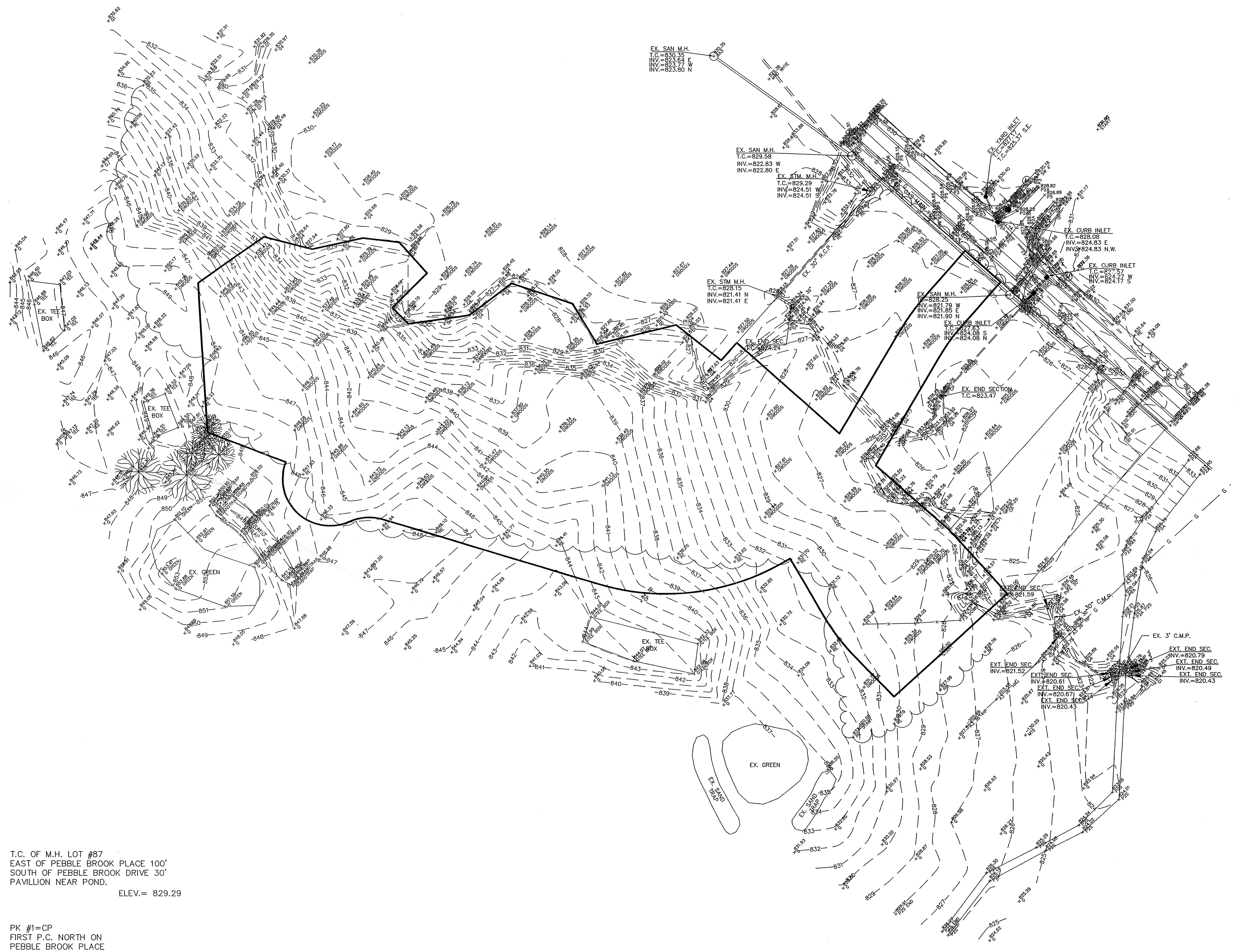

 JEFFERY W. DARLING Registered Land Surveyor No. 900017 DATE 03/12/01




 SCALE: 1"=600'

PLANS CERTIFIED BY:
 3/6/00
 DAVID J. STOEPPELWERTH DATE
 PROFESSIONAL ENGINEER
 No. 19358

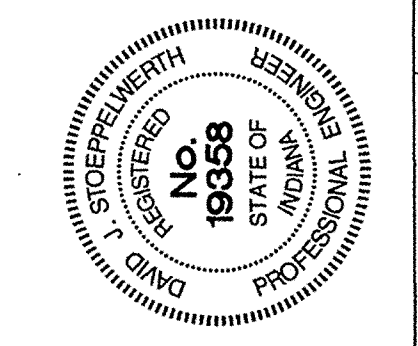




T.C. OF M.H. LOT #87
 EAST OF PEBBLE BROOK PLACE 100'
 SOUTH OF PEBBLE BROOK DRIVE 30'
 PAVILLION NEAR POND.
 ELEV.= 829.29

PK #1=CP
 FIRST P.C. NORTH ON
 PEBBLE BROOK PLACE
 N=5000
 E=5000
 ELEV.= 834.92

SCALE: 1" = 50'



| | | | | | |
|----------------------------|--|---|--|----------------------|--|
| TOPOGRAPHICAL SURVEY | | CONSULTING ENGINEERS - LAND SURVEYORS | | INDIANAPOLIS INDIANA | |
| PEBBLE BROOK SECTION EIGHT | | (317) 849-5935 1-800-728-6917 FAX: (317) 849-5942 | | INDIANAPOLIS INDIANA | |
| SHEET NO. 2 | | CERTIFIED: 3/5/00 | | REVISED | |
| 13 SHEETS | | David J. Stappert | | DATE | |
| JOB NO. 36269 | | 3/5/00 | | MARK | |
| | | 4/13/00 | | BY | |
| | | REV PER TAC COMMENTS | | | |

FILED
 JUN 17 2002
 OFFICE OF HAMILTON COUNTY SURVEYOR

07/10/00 03:32:41 PM, bduzan

SCALE: 1" = 50'

LEGEND

- 846 — EXISTING CONTOUR
 - 846 — EXISTING SANITARY SEWER
 - 846 — EXISTING STORM SEWER
 - 846 — PROPOSED GRADE
 - 846 — PROPOSED CONTOUR
 - 846 — PROPOSED SANITARY SEWER
 - 846 — PROPOSED STORM SEWER
 - 846 — PROPOSED SWALE
 - 846 — PROPOSED 4" SIDEWALK (BY HOME BUILDER) (UNLESS OTHERWISE NOTED)
- 4" S.S.D. TO LOT
- 6" S.S.D.
- 35** LOT NUMBER
- AS-BUILT ELEVATION
- PAD ELEVATION
NO PAD CONSTRUCTED

888.50 TYPICAL 100 YEAR ELEVATION

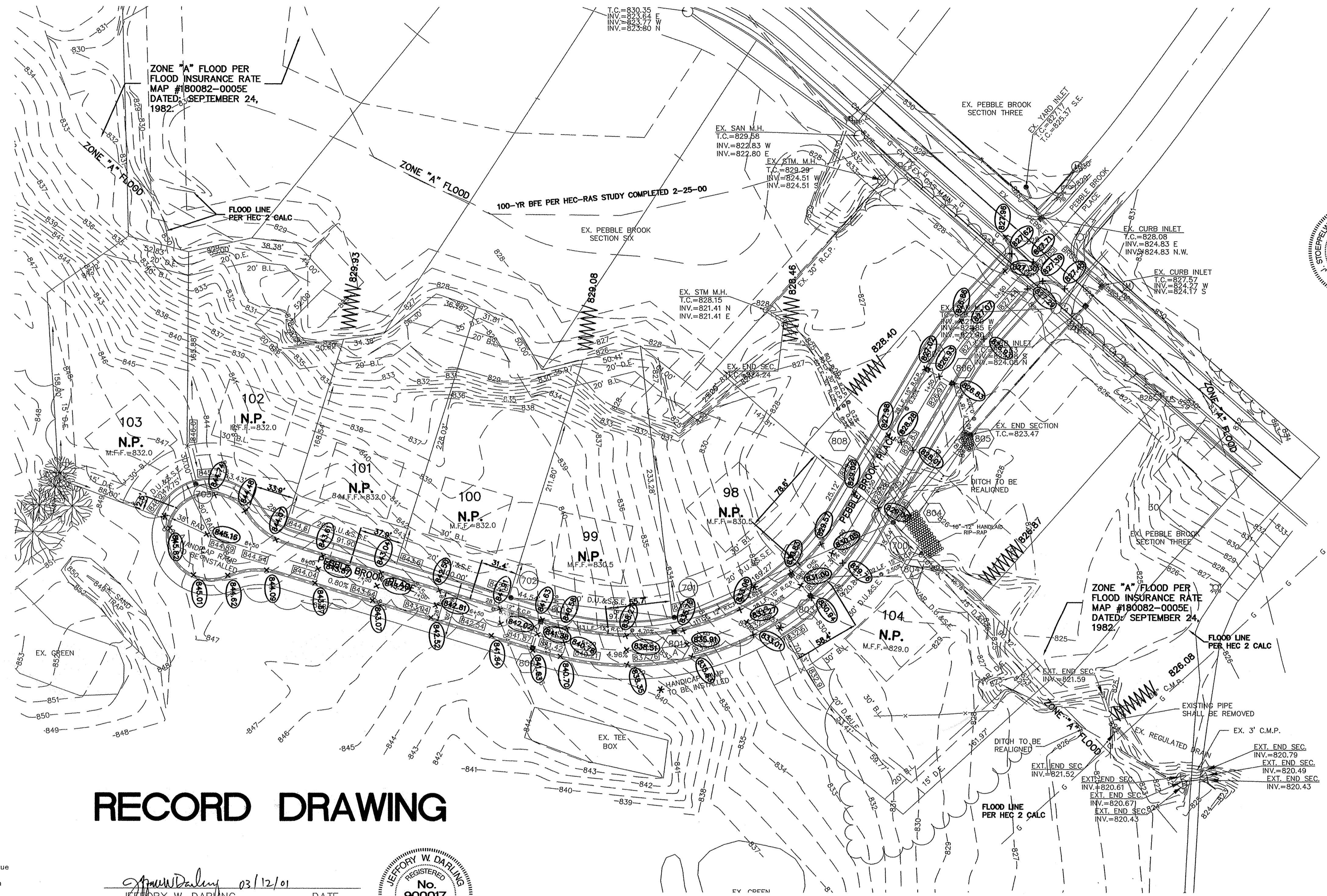
PROPOSED 6" UNDERDRAINS

MFF = MIN. FIN. FLOOR. THE ELEVATIONS IN 2'-0" ABOVE THE 100 YEAR FLOOD ELEVATION. THIS ELEVATION DOES NOT PERTAIN TO THE HOUSE ELEVATION TO BE SET. BUILDER SHALL HAVE INDIVIDUAL PLOT PLAN PREPARED FOR PROPOSED FINISH FLOOR GRADES.

BENCHMARK
PK #1=CP
FIRST P.C. NORTH ON
PEBBLE BROOK PLACE
N=5000
E=5000
ELEV.= 834.92

- EARTHWORK:**
- EXCAVATION**
 - Excavated material that is suitable may be used for fills. All unsuitable material and all surplus excavated material not required shall be removed from the site.
 - Provide and place any additional fill material from offsite as may be necessary to produce the grades required on plans. Fill obtained from offsite shall be of quality as specified for fills herein and the source approved by the Developer. It will be the responsibility of the Contractor for any costs for fill needed.
 - ALL EARTHWORK SHALL BE COMPACTED TO A MINIMUM 95% STANDARD PROCTOR TEST METHOD
 - REMOVAL OF TREES**
 - All trees and stumps shall be removed from areas to be occupied by a road surface or structure area. Trees and stumps shall not be buried on site.
 - PROTECTION OF TREES**
 - The Contractor shall, at the direction of the Developer, endeavor to save and protect trees of value and worth which do not impair construction of improvements as designed.
 - In the event cut or fill exceeds 0.5 foot over the root area, the Developer shall be consulted with respect to protective measure to be taken, if any, to preserve such trees.
 - REMOVAL OF TOPSOIL**
 - All topsoil shall be removed from all areas beneath future pavements or building. Topsoil removal shall be to a minimum depth of 6 inches or to the depth indicated in the geotechnical report provided by the Developer to be excavated or filled. Topsoil should be stored at a location where it will not interfere with construction operations. The topsoil shall be free of debris and stones.
 - UTILITIES**
 - Rules and regulation governing the respective utility shall be observed in executing all work under this section.
 - It shall be the responsibility of the Contractor to determine the location of existing underground utilities 2 working days prior to commencing work. For utility locations to be marked call Toll Free 1-800-382-5544 within Indiana or 1-800-428-5200 outside Indiana.
 - SITE GRADING**
 - Do all cutting, filling, compacting of fills and rough grading required to bring entire project area to subgrade as shown on the drawing.
 - The tolerance for paved areas shall not exceed 0.10 feet above established subgrade. All other areas shall not exceed 0.10 feet plus or minus the established grade. Provide roundings at top and bottom of banks and other breaks in grade.
 - The Engineer shall be notified when the Contractor has reached the tolerance as stated above, so that field measurements and spot elevations can be verified by the Engineer. The Contractor shall not remove his equipment from the site until the Engineer has verified that the job meets the above tolerance.

FORM EARTHWRK



RECORD DRAWING

Jeffery W. Darling 03/12/01 DATE
JEFFERY W. DARLING
Registered Land Surveyor
No. 900017

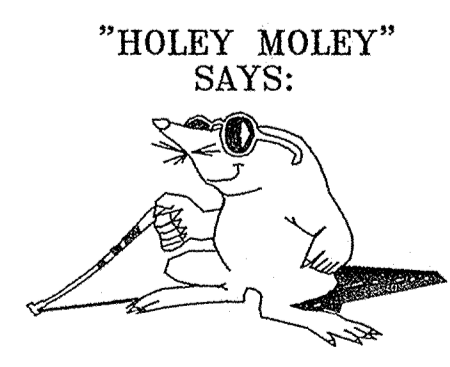


STORM TABLE

| Str. No. | Type | To/Rim | Inverts |
|----------|---------------------|------------|----------------------------------|
| 800 | CURB INLET (NL) | 841.76 | 837.86(N) |
| 801 | CURB INLET W/WH(TR) | 841.76 | 837.75 (S) 837.65 (NE) |
| 801A | CURB INLET W/WH(PL) | 836.47 | 832.33 (NW) 832.23 (NE) |
| 802 | CURB INLET W/MH(TR) | 830.90 | 827.09(SW) 826.84(SE) |
| 803 | CURB INLET W/MH(TL) | 830.90 | 826.73(NW) 826.73(NE) |
| 804 | END OF PIPE | 824.18(SE) | 824.18(SE) 824.18(SE) |
| 804 A | END SECTION | 824.18(NE) | 824.18(NE) |
| 805 | END SECTION | 827.80 | 823.47(SE) 823.47(SW) 823.47(SW) |
| 806 | CURB INLET W/MH(TR) | 826.94 | 823.56(NW) 823.56(SE) |
| 807 | CURB INLET(TL) | 826.94 | 836.94(SE) |
| 808 | END OF PIPE | 824.45(SE) | 824.45(SE) |

ALL DEBRIS AND OBSTRUCTIONS WITHIN THE CHANNEL (BANK TO BANK) SHALL BE REMOVED. THIS SHALL INCLUDE, BUT NOT BE LIMITED TO LOG JAMS, BEAVER DAMS, ROCKS AND TRASH.

DANGER! USE EXCESSIVE CAUTION! PANHANDLE EASTERN PIPE LINE COMPANY HIGH PRESSURE NATURAL GAS PIPELINES. PANHANDLE MUST BE NOTIFIED (DIRECTLY AT (317)-873-2410 AND THROUGH THE ONE-CALL CENTER AT 1-800-382-5544 TWO (2) FULL WORKING DAYS IN ADVANCE OF ANY ACTIVITY WITHIN THIS EASEMENT AND HAVE A REPRESENTATIVE PRESENT DURING ANY EXCAVATION OVER OR ADJACENT TO ITS PIPELINES.



1-800-382-5544
CALL TOLL FREE
1-800-428-5200
FOR CALLS OUTSIDE OF INDIANA

CAUTION
LOCATION OF ALL EXISTING UNDERGROUND UTILITIES SHOWN ON THIS PLAN ARE BASED UPON ABOVE GROUND EVIDENCE, (including, but not limited to, manholes, intels, valves, & marks made upon the ground by others,) AND ARE SPECULATIVE IN NATURE. THERE MAY ALSO BE OTHER EXISTING UNDERGROUND UTILITIES FOR WHICH THERE IS NO ABOVE GROUND EVIDENCE OR FOR WHICH NO ABOVE GROUND EVIDENCE WAS OBSERVED. THE EXACT LOCATIONS OF SAID EXISTING UNDERGROUND UTILITIES SHOULD BE VERIFIED BY THE CONTRACTOR PRIOR TO ANY AND ALL CONSTRUCTION.

FILED
JUN 17 2002
OFFICE OF HAMILTON COUNTY SURVEYOR

| DATE | BY | REVISIONS |
|---------|-----------------------------------|-----------|
| 2/25/01 | AS-BUILTS | |
| 9/7/00 | REV. PER DEVELOPER GRADE CHANGES | |
| 7/10/00 | REV. PER COUNTY SURVEYOR COMMENTS | |
| 6/10/00 | REV. PER C. CHANGE PER OWNER | |
| 4/20/00 | REV. PER SURVEYOR COMMENTS | |
| 4/20/00 | REV. PER TAC COMMENTS | |
| 3/22/00 | REV. LOT LINES | |

CERTIFIED: 3/6/00

David J. Stapp

REGISTERED PROFESSIONAL SURVEYOR
No. 19358
STATE OF INDIANA

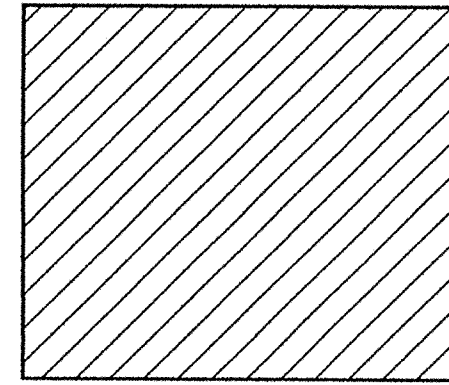
CONSULTING ENGINEERS - LAND SURVEYORS
(317) 849-5935 1-800-728-6917 FAX: (317) 849-5942
INDIANAPOLIS INDIANA



SITE DEVELOPMENT PLAN
PEBBLE BROOK SECTION EIGHT
NOBLESVILLE INDIANA

SHEET NO. **3**
OF 13 SHEETS
JOB NO. 36269

SCALE: 1" = 60'



TREE REMOVAL AREA

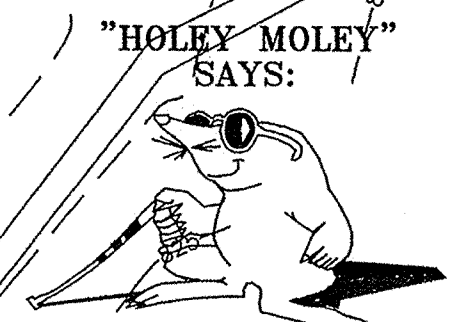


EARTHWORK:

1. **EXCAVATION**
 - A. Excavated material that is suitable may be used for fills. All unsuitable material and all surplus excavated material not required shall be removed from the site.
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2. **REMOVAL OF TREES**
 - A. All trees and stumps shall be removed from areas to be occupied by a road surface or structure area. Trees and stumps shall not be buried on site.
3. **PROTECTION OF TREES**
 - A. The Contractor shall, at the direction of the Developer, endeavor to save and protect trees of value and worth which do not impair construction of improvements as designed.
 - B. In the event cut or fill exceeds 0.5 foot over the root area, the Developer shall be consulted with respect to protective measure to be taken, if any, to preserve such trees.
4. **REMOVAL OF TOPSOIL**
 - A. All topsoil shall be removed from all areas beneath future pavements or building. Topsoil removal shall be to a minimum depth of 6 inches or to the depth indicated in the geotechnical report provided by the Developer to be excavated or filled. Topsoil should be stored at a location where it will not interfere with construction operations. The topsoil shall be free of debris and stones.
5. **UTILITIES**
 - A. Rules and regulation governing the respective utility shall be observed in executing all work under this section.
 - B. It shall be the responsibility of the Contractor to determine the location of existing underground utilities 2 working days prior to commencing work. For utility locations to be marked call Toll Free 1-800-382-5544 within Indiana or 1-800-428-5200 outside Indiana.
6. **SITE GRADING**
 - A. Do all cutting, filling, compacting of fills and rough grading required to bring entire project area to subgrade as shown on the drawing.
 - B. The tolerance for paved areas shall not exceed 0.10 feet above established subgrade. All other areas shall not exceed 0.10 feet plus or minus the established grade. Provide roundings at top and bottom of banks and other breaks in grade.
 - C. The Engineer shall be notified when the Contractor has reached the tolerance as stated above, so that field measurements and spot elevations can be verified by the Engineer. The Contractor shall not remove his equipment from the site until the Engineer has verified that the job meets the above tolerance.

FORM EARTHWRK

FILED
JUN 17 2002
OFFICE OF HAMILTON COUNTY SURVEYOR



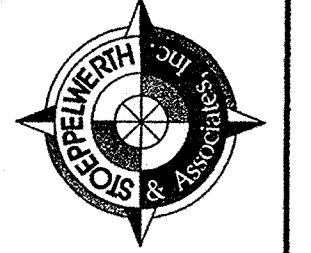
1-800-382-5544
CALL TOLL FREE
1-800-428-5200
FOR CALLS OUTSIDE OF INDIANA

CAUTION
LOCATION OF ALL EXISTING UNDERGROUND UTILITIES SHOWN ON THIS PLAN ARE BASED UPON ABOVE GROUND EVIDENCE, (including, but not limited to, manholes, inlets, valves, & marks made upon the ground by others.) AND ARE SPECULATIVE IN NATURE. THERE MAY ALSO BE OTHER EXISTING UNDERGROUND UTILITIES FOR WHICH THERE IS NO ABOVE GROUND EVIDENCE OR FOR WHICH NO ABOVE GROUND EVIDENCE WAS OBSERVED. THE EXACT LOCATIONS OF SAID EXISTING UNDERGROUND UTILITIES SHOULD BE VERIFIED BY THE CONTRACTOR PRIOR TO ANY AND ALL CONSTRUCTION.



| | | | |
|------|--------|-----------|--|
| DATE | 3/6/00 | REVISIONS | |
| BY | | | |
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| BY | | | |
| MARK | | | |

CERTIFIED: 3/6/00
David J. Stappeworth
CONSULTING ENGINEERS - LAND SURVEYORS
(317) 849-5935 1-800-728-6917 FAX: (317) 849-5942
INDIANAPOLIS INDIANA


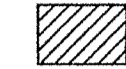





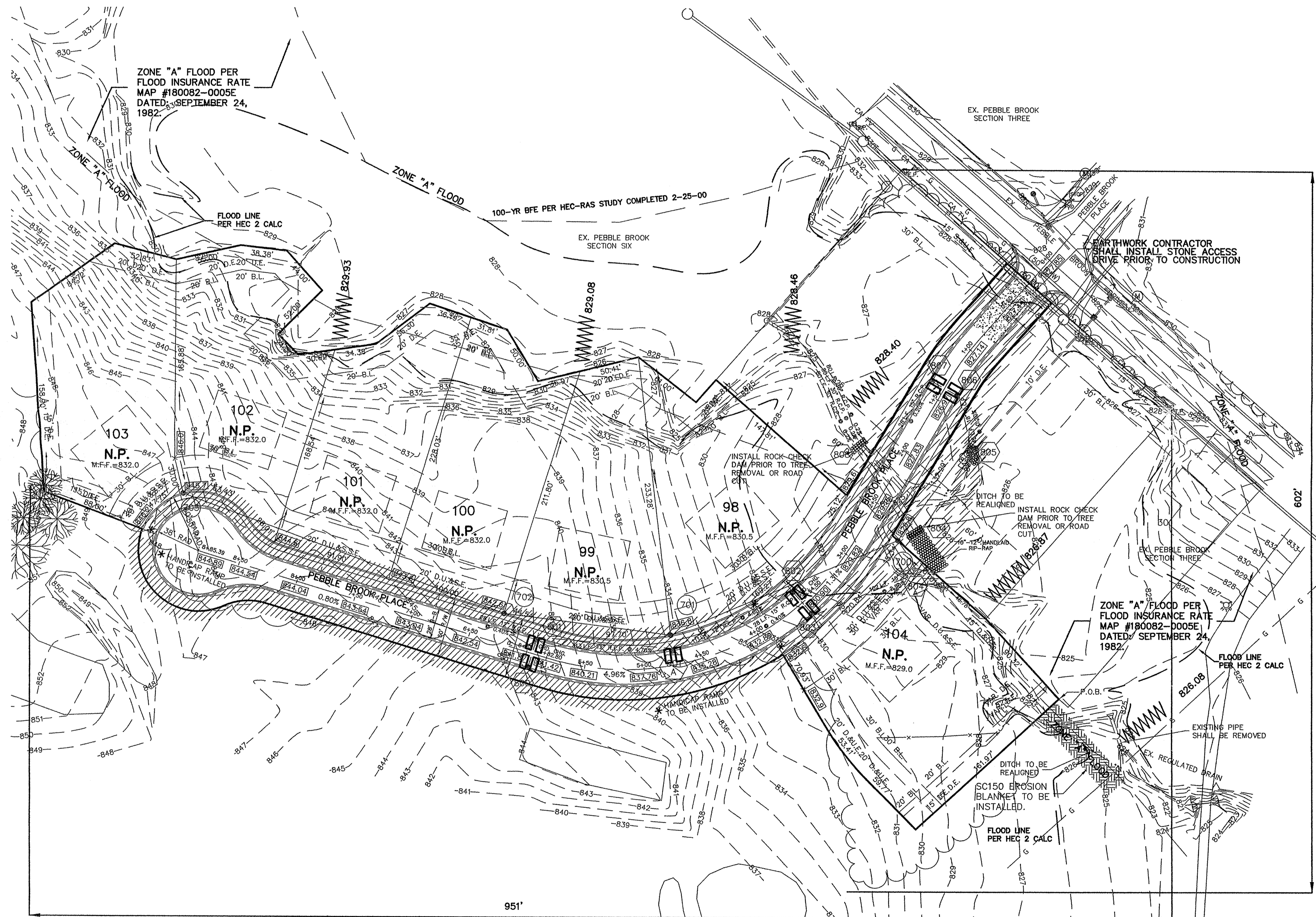
TREE REMOVAL PLAN
PEBBLE BROOK SECTION EIGHT
NOBLESVILLE INDIANA

SHEET NO.
4
OF 13 SHEETS
JOB NO. 36269

THIS SHEET TO BE USED FOR EROSION CONTROL ONLY.

PERSON ONSITE RESPONSIBLE FOR EROSION CONTROL:
 KEN BRASSEUR
 PALMER REALTY, F.L.P.
 (317)-818-2900 PHONE #

-  Temporary straw bale dam to be removed during blanket installation.
-  Denotes permanent seeding & mulch areas
 Seeding rate: 120#/acre or 34/1000 S.F.
 Seeding mixture: 25% creeping red fescue
 35% perennial rye
 40% Kentucky bluegrass
-  Denotes seeding w/ fiber blanket #S150 by North American Green
 Seeding rate: 100#/acre or 2.5#/1000 S.F.
 Seeding mixture: 38% Kentucky 3 fescue
 10% perennial rye
 14% orchard grass
 10% Kentucky bluegrass
-  Denotes temporary seeding & mulching.
 Seeding rate: 50#/acre
 Seeding mixture: 100% perennial rye.
-  Curb inlet
 Stone bags shall be placed around curb inlets.



SCALE: 1" = 50'



| | | | | | |
|--|-------------------------------------|---|---|---|---------------------------|
| OWNED BY: BRD DESIGNED BY: WAB SCALE: 1" = 50' DATE: 3/6/00 | CERTIFIED: 3/5/00 David J. Stapp | CONSULTING ENGINEERS - LAND SURVEYORS (317) 849-5935 1-800-728-6917 FAX: (317) 849-5942 FISHERS INDIANA | EROSION CONTROL PLAN PEBBLE BROOK SECTION EIGHT NOBLESVILLE INDIANA | SHEET NO. 5 OF 13 SHEETS JOB NO. 36269 | REVISIONS DATE MARK |
|--|-------------------------------------|---|---|---|---------------------------|

FILED
 JUN 17 2002
 OFFICE OF HAMILTON COUNTY SURVEYOR

THIS SHEET TO BE USED FOR EROSION CONTROL ONLY.

PERSON ONSITE RESPONSIBLE FOR EROSION CONTROL:
KEN BRASSEUR
PLATINUM PROPERTIES
(317)-818-2900

NOTE: TO CONTRACTOR

- Prior to any work commencing contractor shall install stone drive at entrance, and all silt fences shown on plan.
- Upon completion of the storm structure from being built the fabric drop inlet protection is to be installed ON curb inlets and straw bales on yard inlets immediately.
- Upon completion of the swale construction, contractor shall notify engineer to as-built, upon review of as-built engineer shall notify contractor to install the erosion control blankets as soon as possible.

FORMS/22687

Soil Erosion Control Summary

The following is a list in sequence of construction activities to control soil erosion:

- Contractor shall install sediment traps and straw bale filters, as shown.
- Grade the site (sides of swales, mounds and ponds) to be seeded and matted immediately upon completion. Temporary seeding shall be recommended for all swales and disturbed areas that cannot be final seeded within a time period that will prevent slope erosion. For temporary seeding, the contractor shall utilize a fast growing seed of either oats, annual ryegrass, wheat or rye depending on time of year. Disturbed areas should be kept to a minimum at all times.
- Contractor shall control mud accumulation on all streets surrounding project by installing stone surface at all locations where construction traffic leaves the site. Dust shall be kept to a minimum by utilizing sprinkling, Calcium Chloride, Vegetative cover, spray on adhesives or other approved methods.
- Maintain all filters and traps during construction to prevent any blockages from accumulated sediment. Additional seeding and straw bales may be required during construction as specified by Engineer or Soil Conservation Service. Payment for additional straw bales shall be at the Contractor's expense. Payment for additional rip rap (not shown on plans) and seeding shall be paid for on a unit basis.
- Contractor shall install all sanitary sewers, storm sewers, subsurface drains, and water mains. Straw bale filters shall be installed at all storm inlets (including street inlets).

Maintenance:

Seeding *Inspect periodically, especially after storm events, until the stand is successfully established. (Characteristics of a successful stand include: vigorous dark green or bluish-green seedlings; uniform density with nurse plants, legumes, and grasses well inter-mixed; green leaves; and the perennials remaining green throughout the summer, at least at the plant bases.)
*Plan to add fertilizer the following growing season according to soil test recommendations.
*Repair damaged, bare, or sparse areas by filling any gullies, re-fertilizing, over- or re-seeding, and mulching.
*If plant cover is sparse or patchy, review the plant materials chosen, soil fertility, moisture condition, and mulching; then repair the affected area either by over-seeding or by re-seeding and mulching after re-preparing the seedbed.
*If vegetation fails to grow, consider soil testing to determine acidity or nutrient deficiency problems. (Contact your SWCD or Cooperative Extension office for assistance.)
*If additional fertilization is needed to get a satisfactory stand, do so according to soil test recommendations.

Maintenance

Storm *Inspect after storm events to check for movement of mulch or for erosion.
*If washout, breakage, or erosion is present, repair the surface, then re-seed, re-mulch and, if applicable, install new netting.
*Continue inspections until vegetation is firmly established.

Maintenance

Blankets *During vegetative establishment, inspect after storm events for any erosion below the blanket.
*If any area shows erosion, pull back that portion of the blanket covering it, add soil, re-seed the area, and re-lay and staple the blanket.
After vegetative establishment, check the treated area periodically.

METES/23899

Seeding Specifications:

- Ditch Banks: shall be seeded and covered with North American Green fiber blanket #S150 and #SC150 (or Equal) or hydroseeded with straw mulch. The Contractor shall follow the manufacturer's recommended guidelines for installation and staple patterns when installing the fiber blankets.

Seeding rate: 100#/acre or 2.5#/1000 SF.
Seeding mixture: 58% Kent. 3 Fescue
18% Perennial Rye
10% Annual Rye
14% Orchard Grass
10% Kent. Bluegrass

4" of topsoil (minimum) shall be placed prior to permanent seeding.

3. If grades are established between May 15 and August 10, a temporary seeding consisting of 40# of Annual Ryegrass shall be planted per acre.

4. If grades are established between October 15 and December 30, either Rye (grain) or Wheat may be used at the rate of 2 bushels/Ac. All grains should be mowed prior to seed maturing.

5. If temporary seeding is established prior to permanent seeding, the mulch may be eliminated except in "bare" areas.

6. If grading occurs during December, January, or February, use dormant seeding and it should be done within 7 days of last land disturbing activity.

Silt Fence

- Temporary straw bale dam to be removed during blanket installation.
- Denotes permanent seeding & mulch areas
Seeding rate: 130#/acre or 3.25#/1000 SF.
Seeding mixture: 23% creeping red fescue
35% perennial rye
40% Kentucky bluegrass
- Denotes seeding w/fiber blanket #S150 by North American Green
Seeding rate: 100#/acre or 2.5#/1000 SF.
Seeding mixture: 58% Kentucky 3 Fescue
18% perennial rye
10% annual rye
14% orchard grass
10% Kentucky bluegrass
- Denotes temporary seeding & mulching.
Seeding rate: 50#/acre
Seeding mixture: 100% perennial rye.

Recommended Erosion Control Measures

Erosion Control Blanket: Recommended erosion control blankets such as North American Green S150 be installed as a temporary erosion control in the bottom of any swale with a concentrated surface water flow. Refer to erosion control practice number 3.17.

Straw Bale Drop Inlet Protection: Recommend using straw bale drop inlet protection as per erosion control practice number 3.54 as a temporary erosion control measure until blankets are installed. Other drop inlet protection practices may become necessary upon the recommendation of the engineer or erosion control consultant if a specific need arises during construction.

Topsoil Salvage and Utilization: As per erosion control practice number 3.02. Removal of topsoil to a depth of six inches (or more if required by the engineer) from all areas to be excavated or filled. Topsoil should be stored at a location where it will not interfere with construction operations.

Temporary Seeding: Recommend temporary seeding as per erosion control practice number 3.11 if disturbed ground is to be left bare for two months or more. In addition, it is recommended red clover be added to the seeding mixture at a rate of 10 pounds per acre.

Dormant and Frost Seeding: As per practice number 3.13 attached to be applied if necessary.

Surface Roughening: As per erosion control practice number 3.03, suggest using a bulldozer to track with cleats perpendicular to the slope of slopes on disturbed ground of six percent or greater and around the shores of the lakes as a temporary measure until ready for blankets.

Temporary Gravel Construction Entrance/Exit Pad: Recommended as per erosion control practice number 3.01.

Tree Conservation/Protection: As per erosion control practice number 3.83, the contractor shall, at the direction of the developer, endeavor to save and protect trees of value and worth which do not impair construction of improvements as designed.

In the event cut or fill exceeds 0.5 foot over the root area, the developer shall be consulted with respect of protective measure to be taken, if any, to preserve such trees.

Maintenance Schedule: Maintenance of all erosion control practices should be done as needed on a weekly basis and after all large storms. A construction supervisor should be assigned the task of seeing that all practices are installed and maintained according to the design criteria. Maintenance for each erosion control practice should be conducted per maintenance schedule shown on each erosion control practice job sheet (attached).

Construction Sequence Schedule:
Spring (Projected season to start): Locate areas of tree protection, install gravel construction entrance, install temporary silt fence, strip and stockpile topsoil. Excavate building areas and other earthwork (lakes, roads, swales, sewers, etc.)

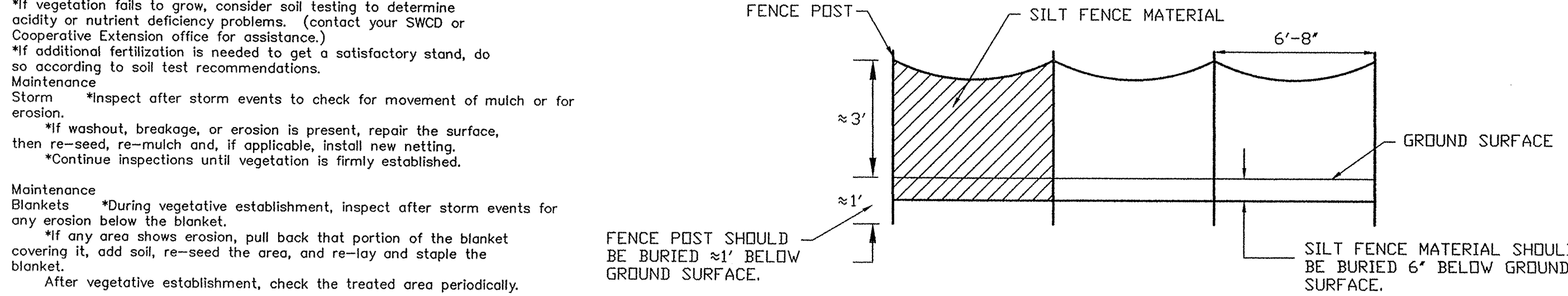
Spring/Summer: Install straw bale inlet protection, install rock chute outlet protection. Install temporary erosion control blankets as needed. Track in ridges with dozer cleats on all slopes greater than six percent and around side slopes of lakes.

Summer/Fall: Apply sod in all areas that are final graded. Apply temporary seeding in areas where earthwork construction is halted and area will be bare and exposed for more than two months. Maintain erosion control practices as per erosion control maintenance schedule above. Remove temporary erosion control measures in stabilized areas that have been sodded.

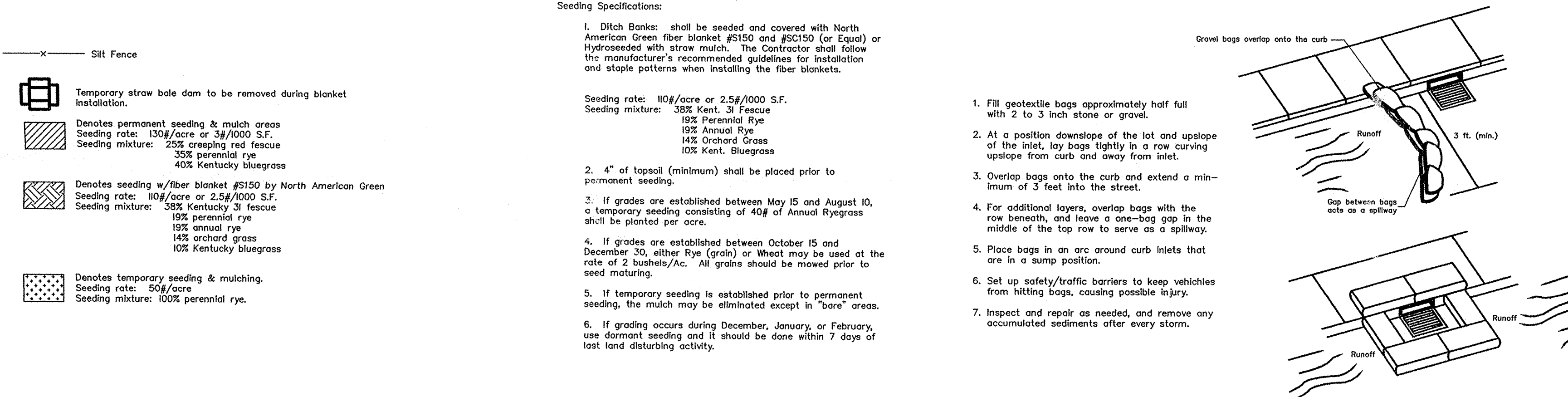
Winter/Spring: Apply dormant seeding on any areas that show a need for it. Continue maintenance of existing erosion control practices.

Spring/Summer/Fall (following year): Stabilize all open ground and remove temporary erosion control practices. Implement final landscape plan.

FORMS\18545ECM



SILT FENCE DETAIL
NOT-TO-SCALE



CURB INLET PROTECTION DETAIL

CONTRACTOR SHALL MAINTAIN EXISTING STREETS FROM DEBRIS OF DIRT, SAND, OR STONE AND SHALL BE RESPONSIBLE FOR THE CLEANING OF SUCH ITEMS. AFTER COMPLETION OF THE WORK, THE BUILDERS WILL BE REQUIRED TO KEEP STREETS FREE OF THE SAME, AT THE CITIES DISCRETION.

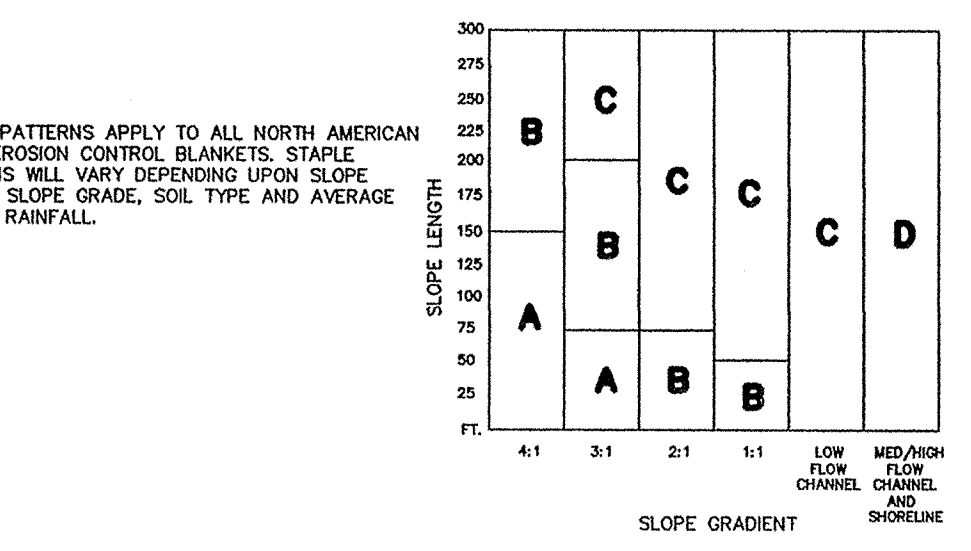
EXISTING VEGETATION: BRUSH TREES

EROSION CONTROL FOR INDIVIDUAL LOTS

- CONSTRUCT A GRAVEL DRIVE
- CONFINE ALL TRAVEL TO THE GRAVEL DRIVE.
- PRESERVE AS MUCH OF THE EXISTING VEGETATION AS POSSIBLE
- IF THERE ARE LARGE EXPOSED AREAS ON OR NEAR SLOPES A SILT FENCE MAY BE REQUIRED
- AFTER FINAL GRADING, SEED OR SOD THE YARD AS SOON AS POSSIBLE
- AFTER A YARD IS RE-VEGETATED, REMOVE ALL TEMPORARY EROSION CONTROL MEASURES

ALL AREAS NOT DENOTING PERMANENT SEEDING OR FIBER BLANKETS SHALL BE TEMPORARILY SEEDED.

RECOMMENDED EROSION CONTROL MEASURES WERE TAKEN FROM CHAPTER 3 AS STATED IN THE INDIANA HANDBOOK FOR EROSION CONTROL IN DEVELOPING AREAS. ADDITIONAL EROSION CONTROL MEASURES MAY BE REQUIRED BY INSPECTOR AS CONDITIONS WARRANT.



EROSION CONTROL BLANKET STAPLE PATTERN GUIDE

Considerations in Construction Sequence Scheduling

Construction phase (specific activities or erosion control practices)*

Pre-construction actions (Evaluation/protection of important site characteristics)

Construction access (Construction entrances, construction routes, equipment parking areas)

Sediment barriers and traps (Basin traps, silt fences, outlet protection)

Runoff conveyance system (Stabilized streambanks, storm drains, inlet and outlet protection, channels)

Land clearing and grading (Cutting/filling/grading, drains, sediment traps, barriers, diversions, surface roughening)

Surface stabilization (Temporary and permanent seeding, mulching, sodding, riprap)

Building construction (Buildings, utilities, paving)

Landscaping and final stabilization (Topsoiling, trees and shrubs, permanent seeding, mulching, sodding, riprap)

*Maintenance -- (1) inspect practices at least once a week, and (2) make repairs immediately after periods of rainfall.

EEF96/17480E00

Construction schedule considerations

Before construction, evaluate, mark, and protect important trees and associated rooting zones, unique areas (e.g., wetlands) to be preserved, on-site septic system absorption fields, and vegetation suitable for filter strips, especially in perimeter areas.

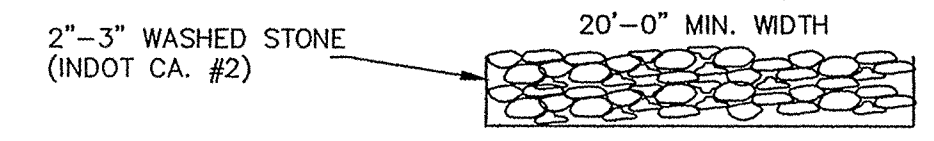
Stabilize bare areas immediately with gravel and temporary vegetation as work takes place. Install principal basins after construction site is assessed. Install additional traps and barriers as needed during grading.

Where necessary, stabilize streambanks as early as possible. Install principal conveyance system with runoff control measures. Install remainder of system after grading.

Begin major clearing and grading after install-the key sediment and runoff measures. Clear borrow and disposal areas as needed. Install additional control measures as grading progresses.

Apply temporary or permanent stabilization measures immediately on all disturbed areas where work is delayed or completed.

Install necessary erosion and sediment control practices as work takes place. Stabilize all open areas, including borrow and spoil areas. Remove temporary control measures and stabilize.



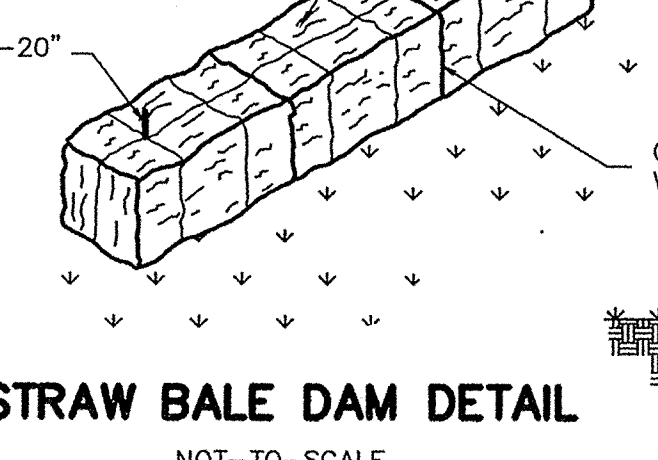
STONE ACCESS DRIVE DETAIL

SEASONAL SOIL PROTECTION CHART

| STABILIZATION PRACTICE | JAN. | FEB. | MAR. | APR. | MAY | JUN. | JUL. | AUG. | SEPT. | OCT. | NOV. | DEC. |
|------------------------|------|------|------|------|-----|------|------|------|-------|------|------|------|
| PERMANENT SEEDING | A | | | | | | | | | | | |
| DORMANT SEEDING | B | | | | | | | | | | | |
| SEEDING | E | | | | | | | | | | | |
| SODDING | F** | | | | | | | | | | | |
| MULCHING | G | | | | | | | | | | | |

- A = KENTUCKY BLUE GRASS 40 lbs./AC.; CREEPING RED FESCUE 40 lbs./AC.; PLUS 2 TONS STRAW MULCH/AC. OR ADD ANNUAL RYEGRASS 20lbs>/AC.
- B = KENTUCKY BLUE GRASS 60 lbs./AC.; CREEPING RED FESCUE 60 lbs./AC.; PLUS 2 TONS STRAW MULCH/AC. OR ADD ANNUAL RYEGRASS 30lbs>/AC.
- C = SPRING OATS 3 BUSHEL/ACRE
- D = WHEAT OR RYE 2 BUSHEL/ACRE
- E = ANNUAL RYEGRASS 40 lbs./AC. (1 lb./1000 sq. ft.)
- F = SOD
- G = STRAW MULCH 2 TONS/ACRE
- ** = IRRIGATION NEEDED DURING JUNE, JULY, AND/OR SEPT.
- ** = IRRIGATION NEEDED FOR 2 TO 3 WEEKS AFTER APPLYING SOD

STRAW BALE DAM DETAIL

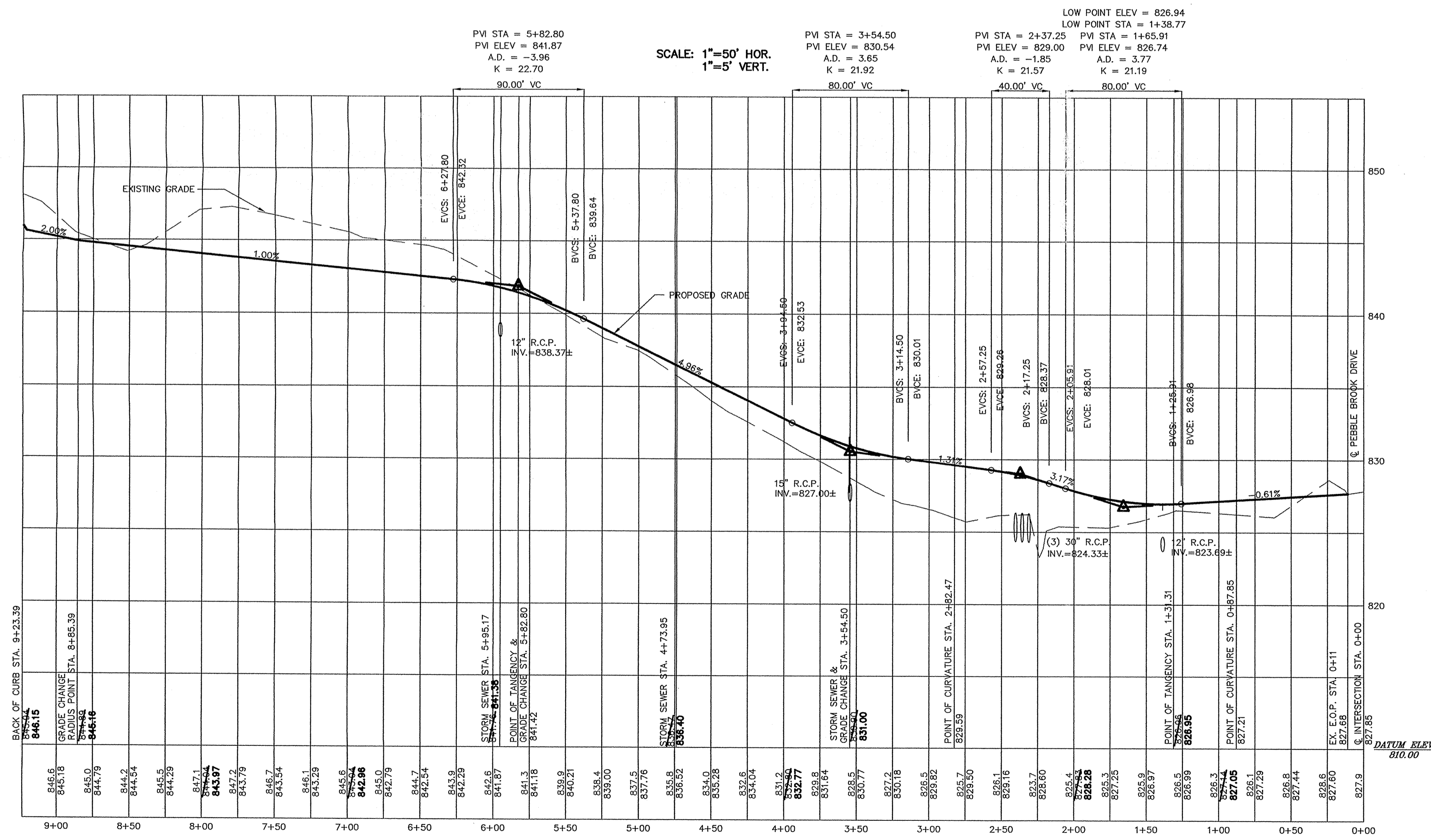


NOT-TO-SCALE

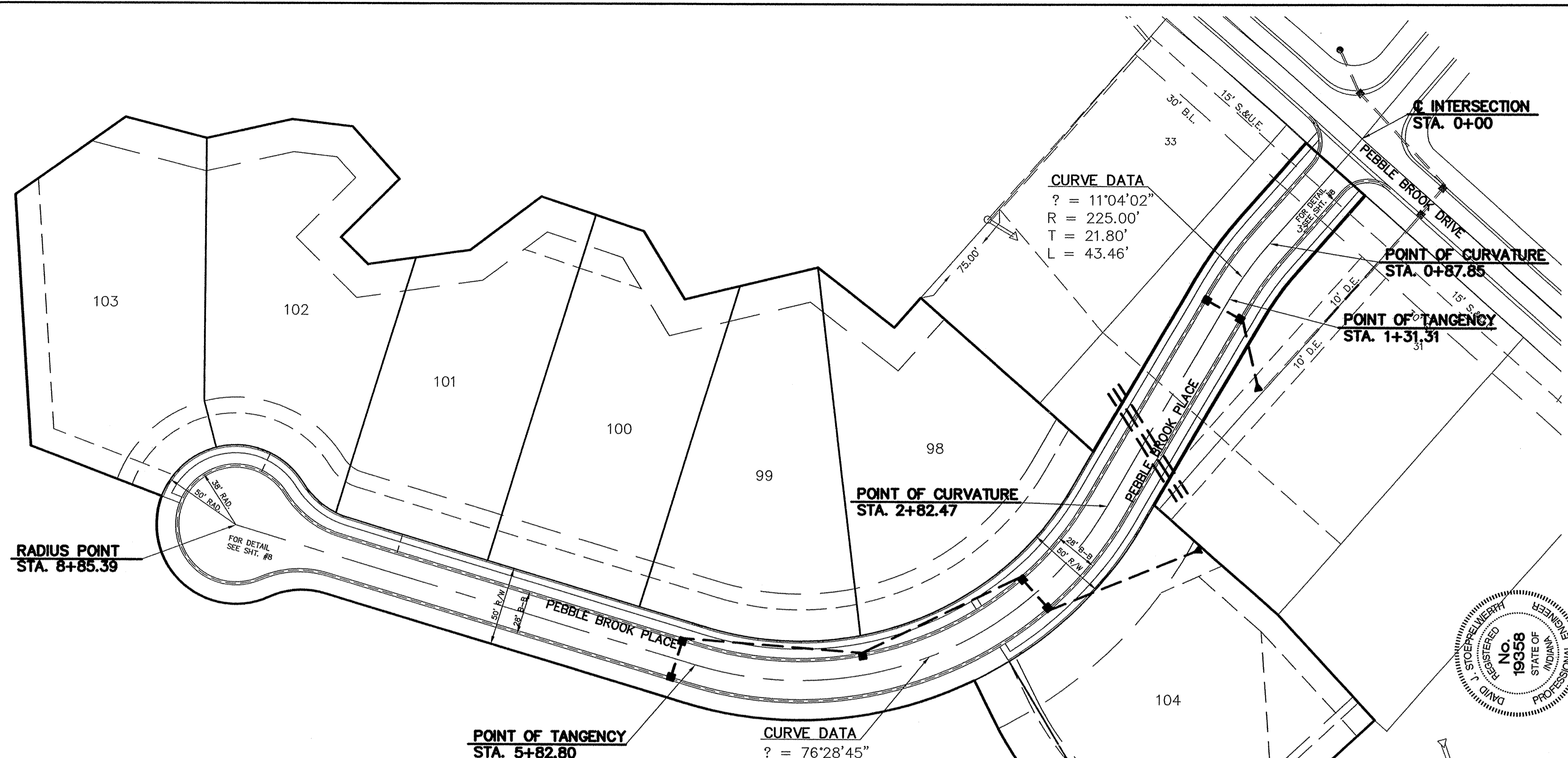
EROSION CONTROL SCHEDULE

| EROSION CONTROL MEASURE | MAINTENANCE | INSTALLATION SEQUENCE |
|--|--|--|
| STONE ENTRANCE | AS NEEDED | PRIOR TO CLEARING AND GRADING |
| SILT FENCE | WEEKLY, AFTER STORM EVENTS AND AS NEEDED | PRIOR TO CLEARING AND GRADING |
| EXISTING INLET PROTECTION | WEEKLY, AFTER STORM EVENTS AND AS NEEDED | PRIOR TO CLEARING AND GRADING |
| TREE PROTECTION | WEEKLY, AFTER STORM EVENTS AND AS NEEDED | PRIOR TO CLEARING AND GRADING |
| TEMPORARY DIVERSIONS | WEEKLY, AFTER STORM EVENTS AND AS NEEDED | ALONG WITH ROUGH GRADING |
| TEMPORARY SEEDING | WATER AS NEEDED | AFTER ROUGH GRADING |
| PERMANENT SEEDING | WATER AS NEEDED | AFTER FINISH GRADING |
| EROSION CONTROL MATING | WEEKLY, AFTER STORM EVENTS AND AS NEEDED | AFTER FINISH GRADING |
| STRAW BALES | WEEKLY, AFTER STORM EVENTS AND AS NEEDED | AFTER FINISH GRADING |
| INLET PROTECTION | WEEKLY, AFTER STORM EVENTS AND AS NEEDED | AFTER EACH INLET IS PLACED |
| SEED, SOD, & LANDSCAPE AROUND UNITS FINISHED | WATER AS NEEDED | AFTER FINISHED GRADING AROUND FINISHED UNITS |
| REMOVAL OF STRAW BALES | N/A | AFTER ALL AREAS DRAINING TO THESE AREAS ARE STABILIZED |
| REMOVAL OF INLET PROTECTION | N/A | AFTER ALL AREAS DRAINING TO THESE AREAS ARE STABILIZED |
| REMOVAL OF SILT FENCE | N/A | AFTER ALL AREAS DRAINING TO THESE AREAS ARE STABILIZED |

CERTIFIED: 3/16/00
 David J. Stappert
 CONSULTING ENGINEERS - LAND SURVEYORS
 (317) 849-5935 1-800-728-6917 FAX: (317) 849-5942
 INDIANAPOLIS INDIANA
 NOBLESVILLE INDIANA
 EROSION CONTROL SPECIFICATION
 PEBBLE BROOK SECTION EIGHT
 SHEET NO. 7 OF 13 SHEETS
 JOB NO. 36269



PEBBLE BROOK PLACE



RECORD DRAWING

Jeffery W. Darling 03/12/01
 JEFFERY W. DARLING Registered Land Surveyor DATE
 No. 900017



FILED
 JUN 17 2002
 OFFICE OF HAMILTON COUNTY SURVEYOR

| | | | |
|----------------------------------|--------|------|--|
| DATE | 3/6/00 | BY | |
| REV. PER DEVELOPER GRADE CHANGES | | MARK | |
| REV. PER C. CHANGE PER OWNER | | | |
| REV. PER SURVEYOR COMMENTS | | | |
| REV. PER FAC COMMENTS | | | |

CERTIFIED: 3/6/00

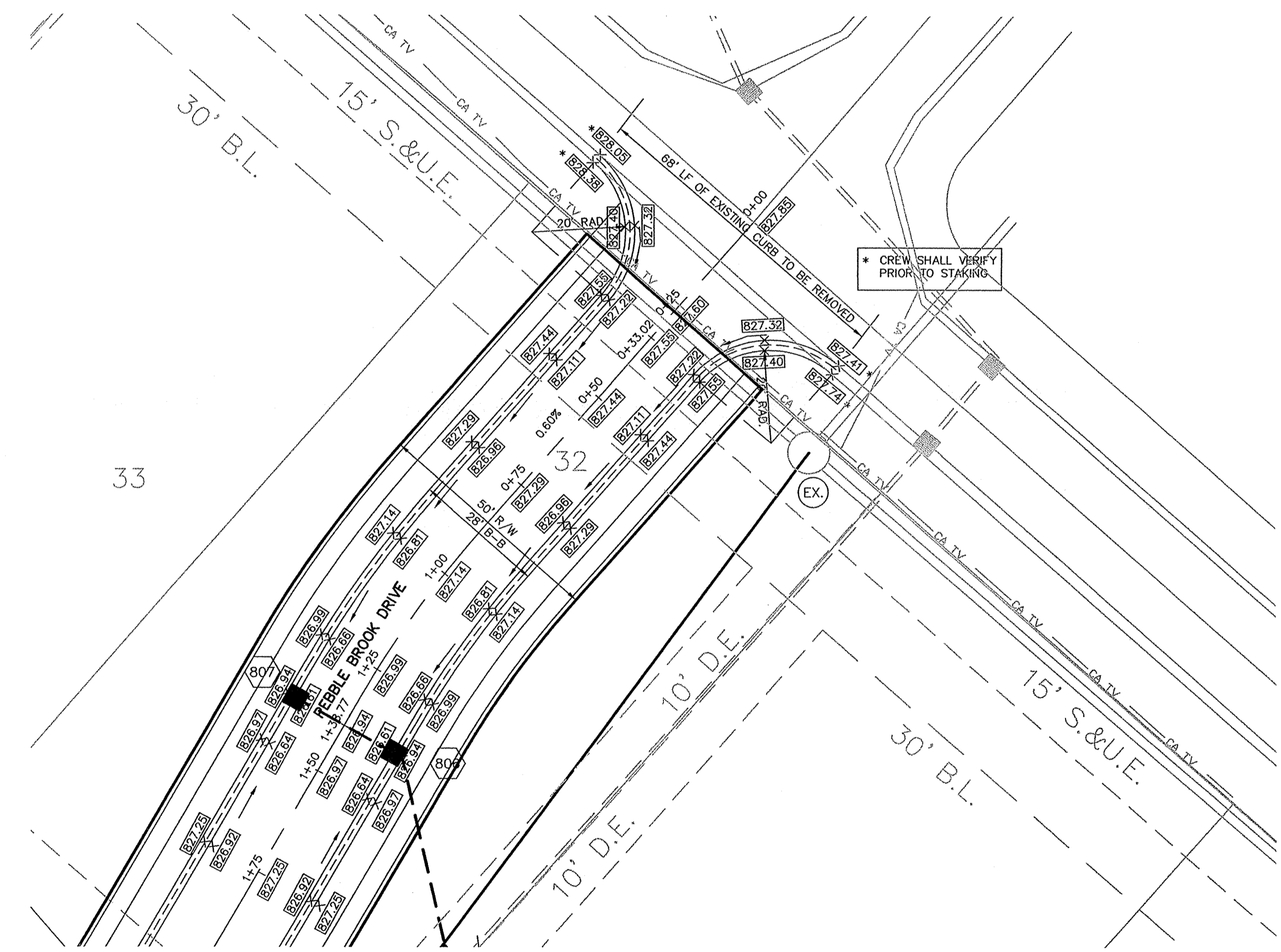
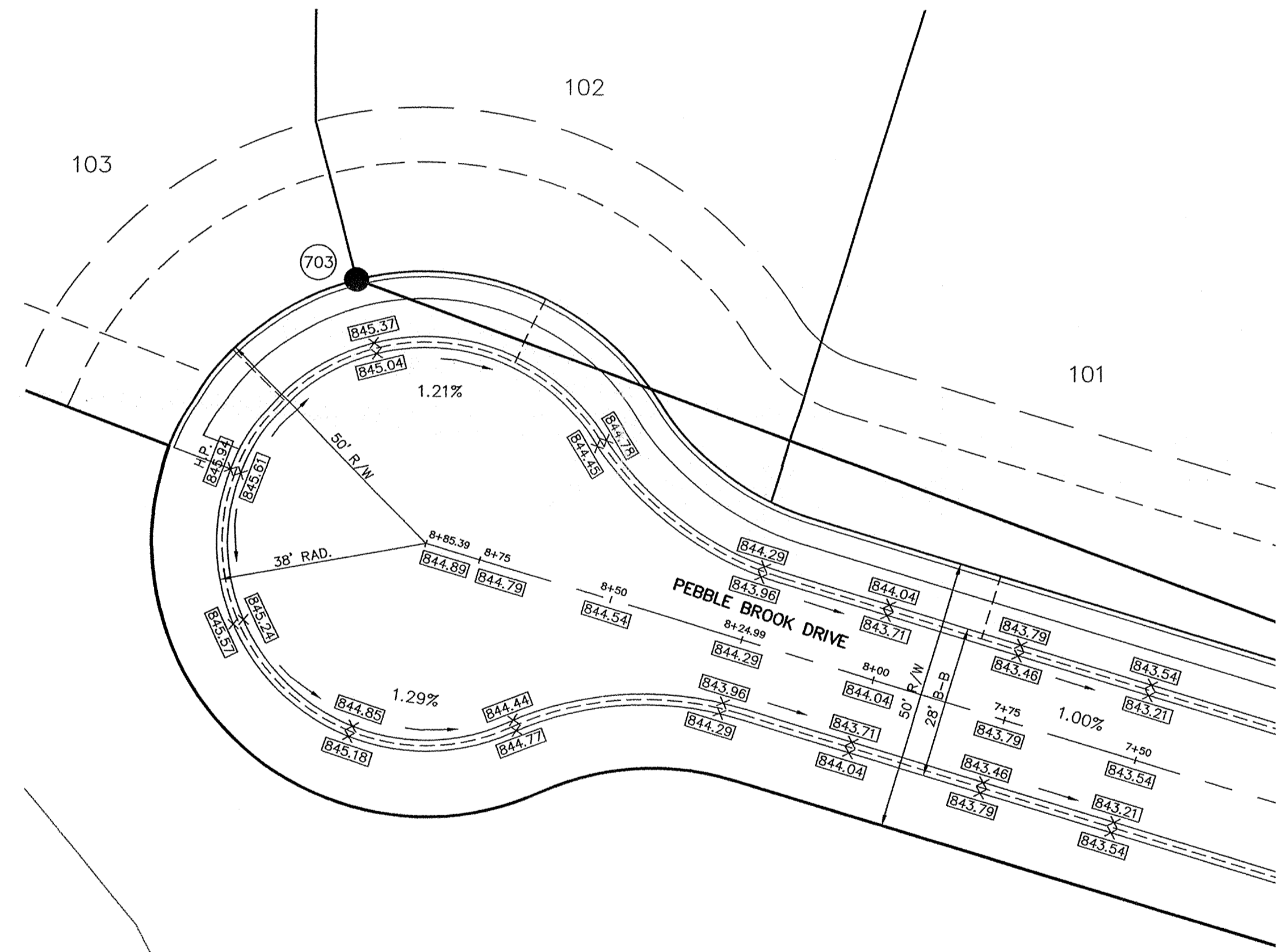
David J. Stapp

CONSULTING ENGINEERS - LAND SURVEYORS
 (317) 849-5935 1-800-728-6917 FAX: (317) 849-5942
 INDIANAPOLIS INDIANA

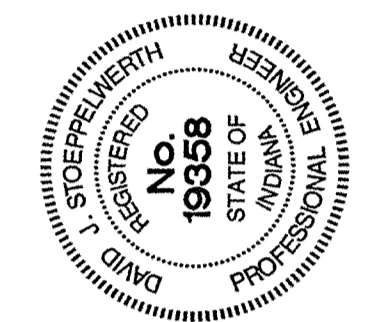
REGISTERED PROFESSIONAL ENGINEER
 No. 19358
 STATE OF INDIANA

STREET PLAN & PROFILE
 PEBBLE BROOK SECTION EIGHT
 NOBLESVILLE INDIANA

SHEET NO. 7
 OF 13 SHEETS
 JOB NO. 36269



SCALE: 1" = 20'



CERTIFIED: 3/6/00
 David J. Stapp

CONSULTING ENGINEERS - LAND SURVEYORS
 (317) 849-5935 1-800-728-8917 FAX: (317) 849-5942
 INDIANAPOLIS INDIANA

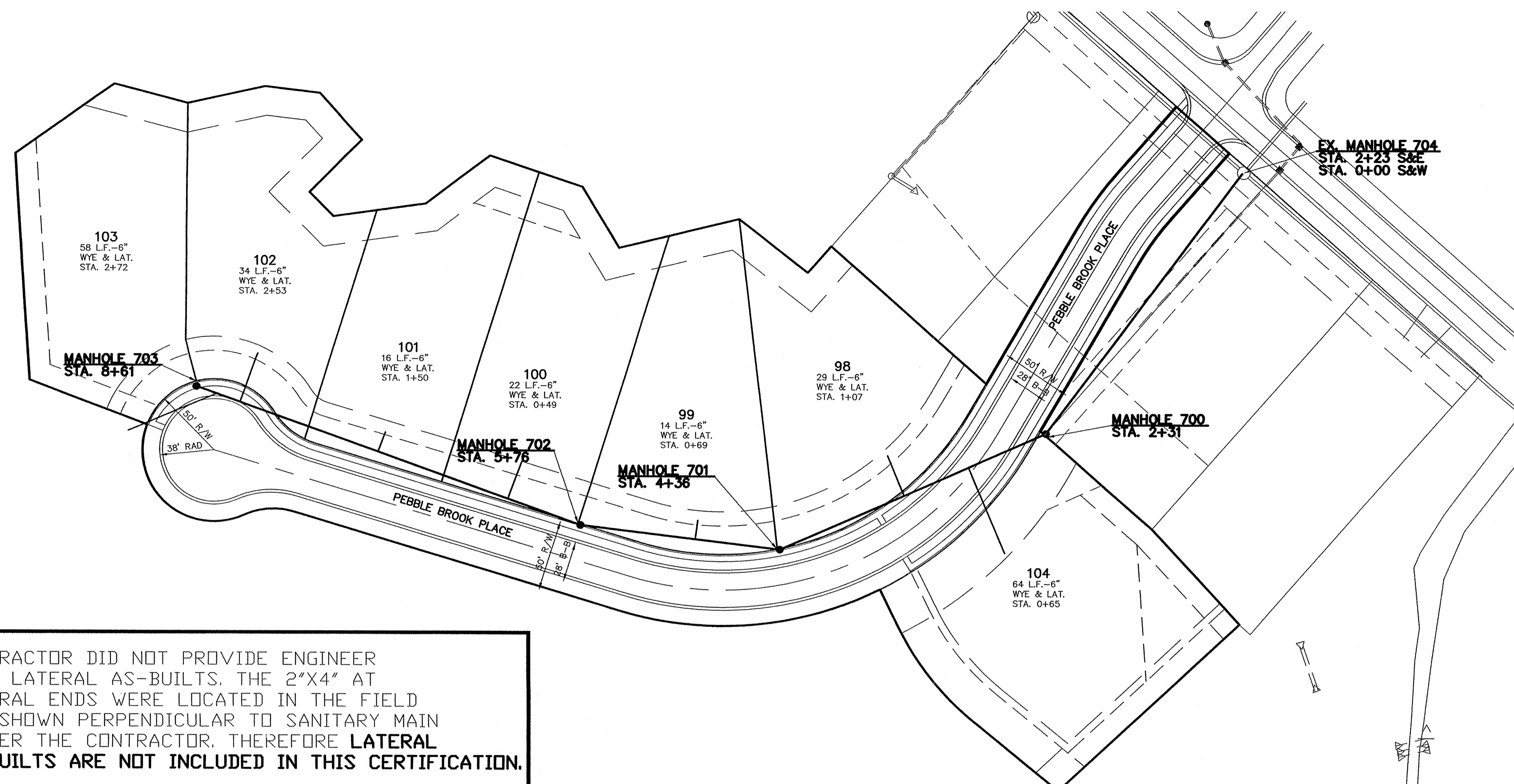


INTERSECTION DETAILS
 PEBBLE BROOK SECTION EIGHT
 NOBLESVILLE INDIANA

FILED
 JUN 17 2002
 OFFICE OF HAMILTON COUNTY SURVEYOR

SHEET NO. 08
 OF 13 SHEETS
 JOB NO. 36269

| OWN. BY | DATE | MARK | REVISIONS | BY |
|----------|---------|------|----------------------------------|-----|
| BRD | | | | |
| WAB | 9/7/00 | | REV. PER DEVELOPER GRADE CHANGES | AJF |
| SCALE | 8/14/00 | | REV. PER C. CHANGE PER OWNER | ADD |
| 1" = 20' | 4/13/00 | | REV. PER TAC COMMENTS | BRD |
| DATE | 3/6/00 | | | |

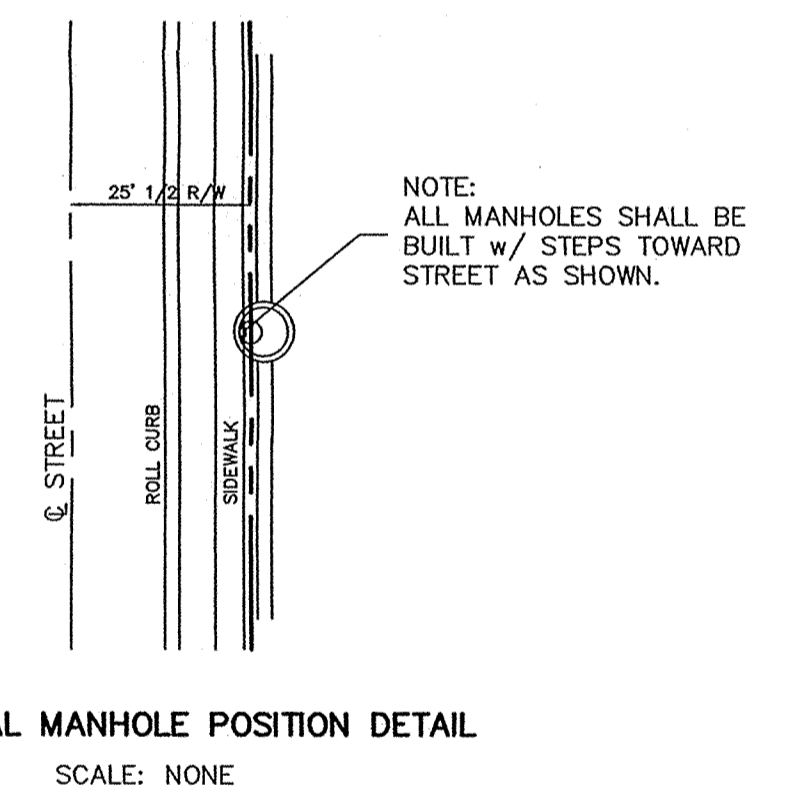
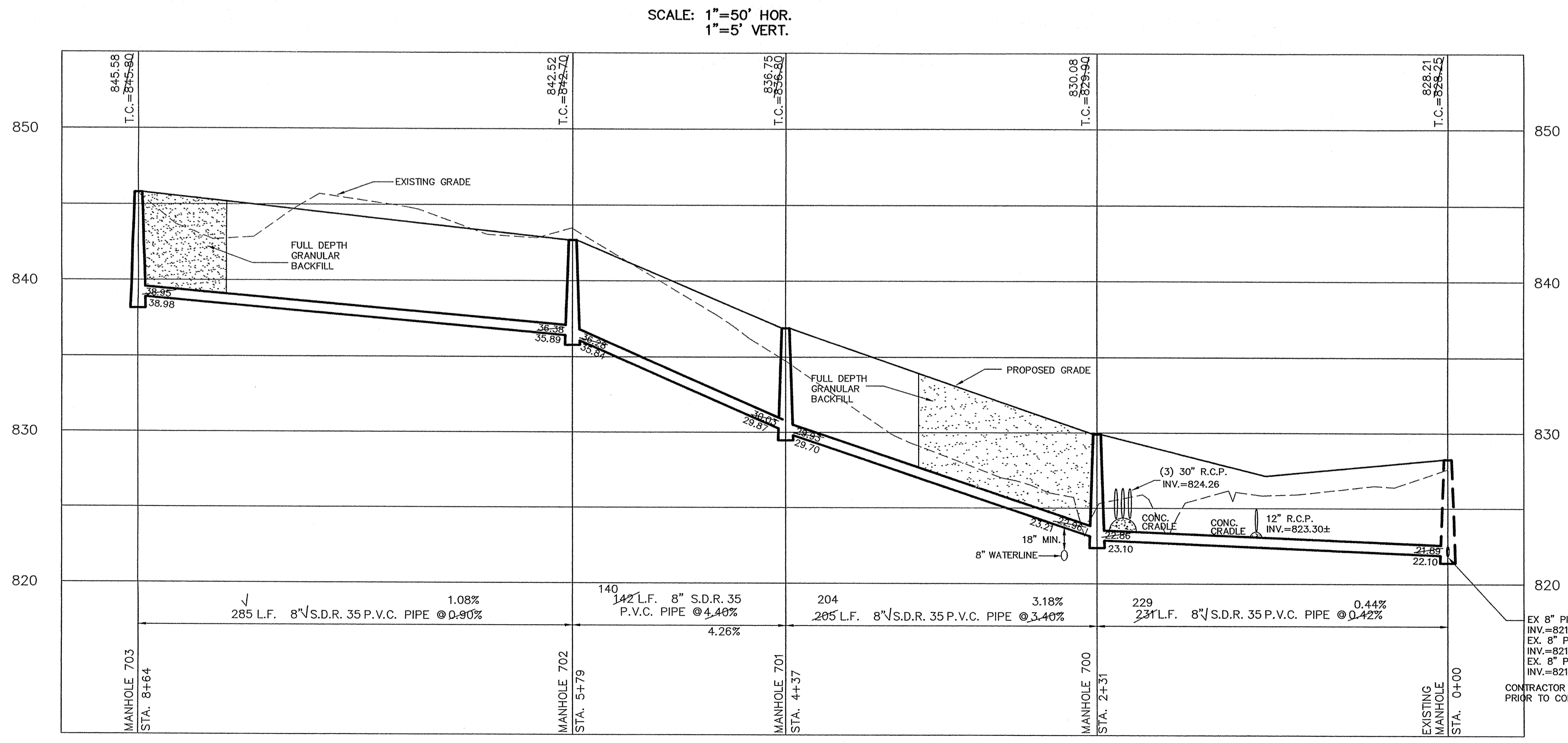


CONTRACTOR DID NOT PROVIDE ENGINEER WITH LATERAL AS-BUILTS. THE 2"X4" AT LATERAL ENDS WERE LOCATED IN THE FIELD AND SHOWN PERPENDICULAR TO SANITARY MAIN AS PER THE CONTRACTOR. THEREFORE LATERAL AS-BUILTS ARE NOT INCLUDED IN THIS CERTIFICATION.

SCALE: 1" = 50'

PROFESSIONAL ENGINEER
 REGISTERED
 No. 19358
 STATE OF INDIANA
 David J. Stappeler

- NOTES
- FULL DEPTH GRANULAR BACKFILL SHALL BE INSTALLED ON ALL SEWER LATERAL STREET CROSSINGS & COMPACTED PER I.D.O.H. STANDARDS.
 - MIN. SLOPES PER THE TEN STATE STANDARDS SHALL PREVAIL IN ALL CASES.
 - CONTRACTOR SHALL EXTEND SEWER LATERALS THRU EASEMENTS AS SHOWN.
 - CONTRACTOR SHALL INSTALL LATERAL NO CLOSER THAN 5' FROM BUILDING LINE AND NO GREATER THAN 6' DEEP AT LATERAL END.



RECORD DRAWING

JEFFORY W. DARLING 03/12/01 DATE
 Registered Land Surveyor
 No. 900017



EX 8" PIPE E.
 INV.=821.85
 EX 8" PIPE W.
 INV.=821.79
 EX 8" PIPE N.
 INV.=821.90
 CONTRACTOR SHALL VERIFY
 PRIOR TO CONSTRUCTION

FILED
 JUN 17 2002
 OFFICE OF HAMILTON COUNTY SURVEYOR

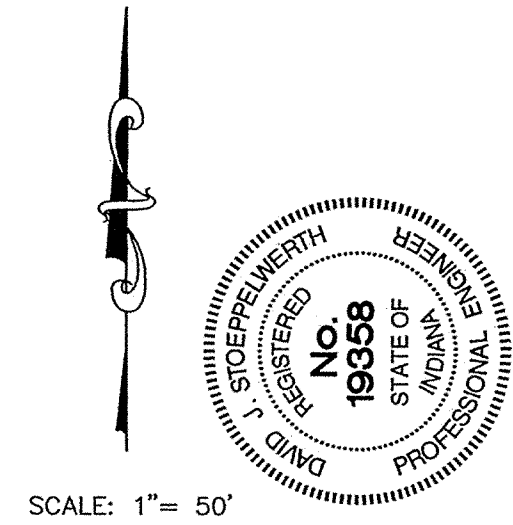
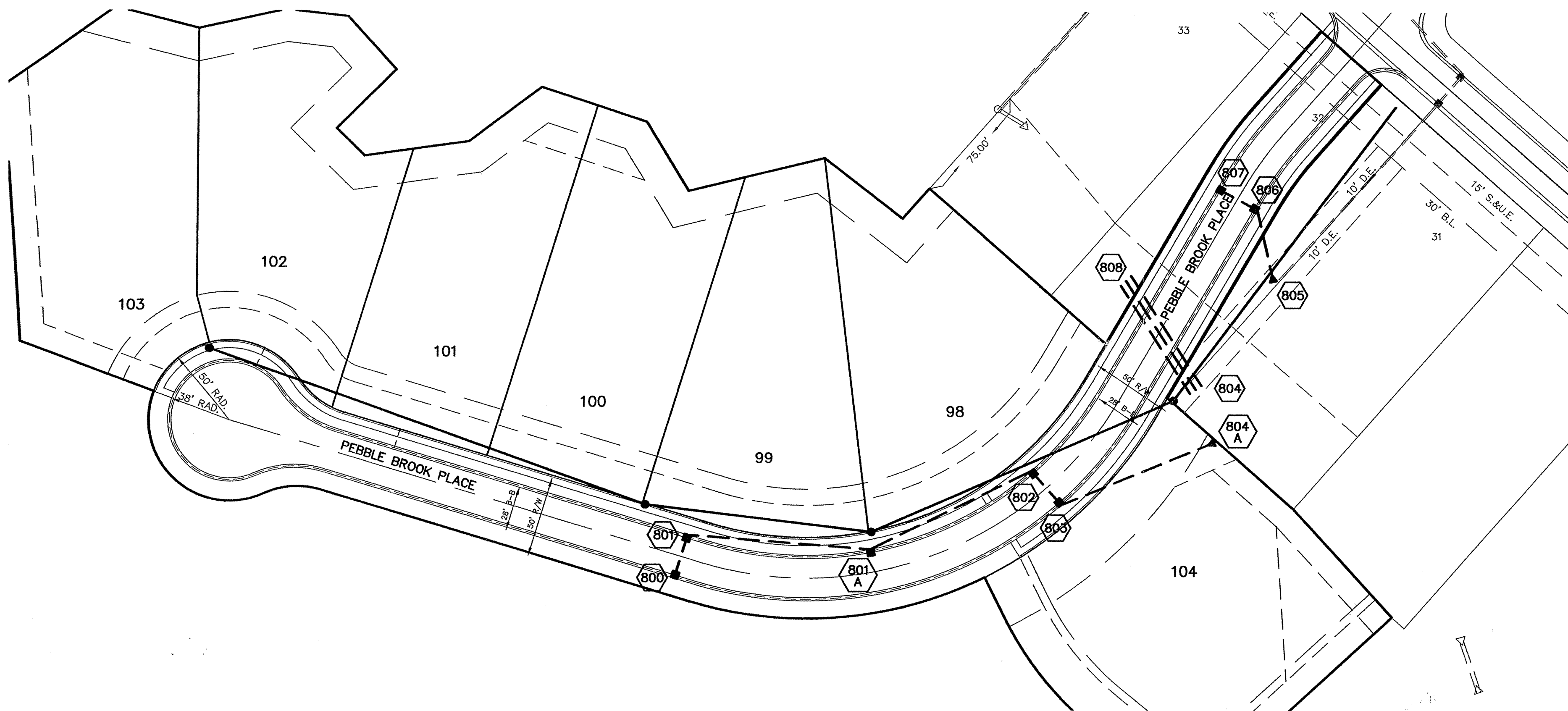
| | | |
|---------|----|-----------|
| DATE | BY | REVISIONS |
| 2/23/01 | | |
| 4/17/00 | | |
| 4/24/00 | | |
| 4/29/00 | | |
| 4/23/00 | | |
| 3/6/00 | | |

CERTIFIED: 3/6/00

CONSULTING ENGINEERS - LAND SURVEYORS
 (317) 848-5935 1-800-728-8917 FAX: (317) 848-5942
 INDIANAPOLIS INDIANA

SANITARY SEWER PLAN & PROFILE
 PEBBLE BROOK SECTION EIGHT
 NOBLESVILLE INDIANA

SHEET NO. 9
 OF 13 SHEETS
 JOB NO. 36269



RECORD DRAWING

JEFFREY W. DARLING 03/12/01 DATE
 Registered Land Surveyor
 No. 900017



| DATE | BY | REVISIONS |
|---|---|-----------------------|
| 3/1/00 <td>DAVID J. STAPPENBACH <td></td> </td> | DAVID J. STAPPENBACH <td></td> | |
| 4/23/00 <td>DAVID J. STAPPENBACH <td>REV. PER TAG COMMENTS</td> </td> | DAVID J. STAPPENBACH <td>REV. PER TAG COMMENTS</td> | REV. PER TAG COMMENTS |
| 4/23/00 <td>DAVID J. STAPPENBACH <td>REV. PER TAG COMMENTS</td> </td> | DAVID J. STAPPENBACH <td>REV. PER TAG COMMENTS</td> | REV. PER TAG COMMENTS |
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CERTIFIED: 3/1/00
 CONSULTING ENGINEERS - LAND SURVEYORS
 (317) 849-5935 1-800-728-6917 FAX: (317) 849-5942
 INDIANAPOLIS INDIANA



STORM SEWER PLAN & PROFILE
 PEBBLE BROOK SECTION EIGHT
 NOBLESVILLE INDIANA

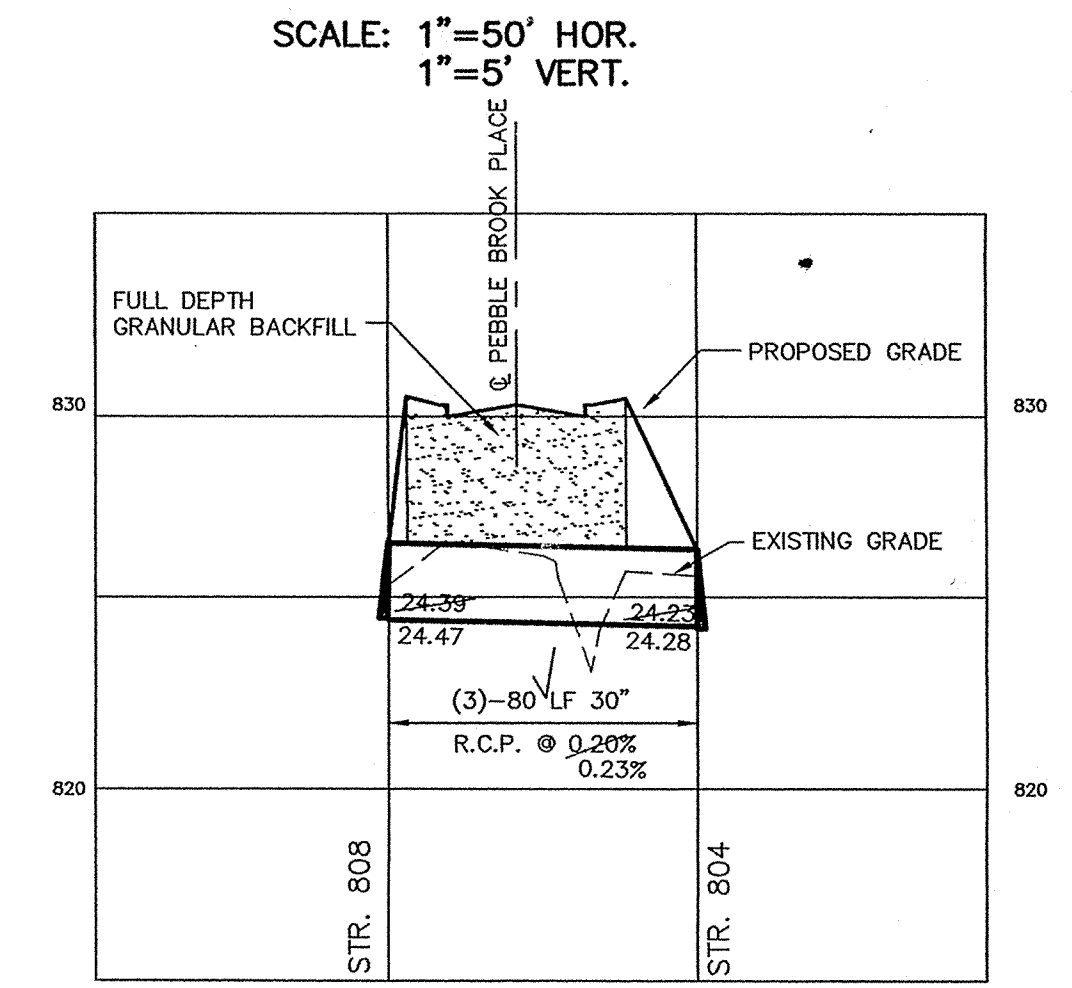
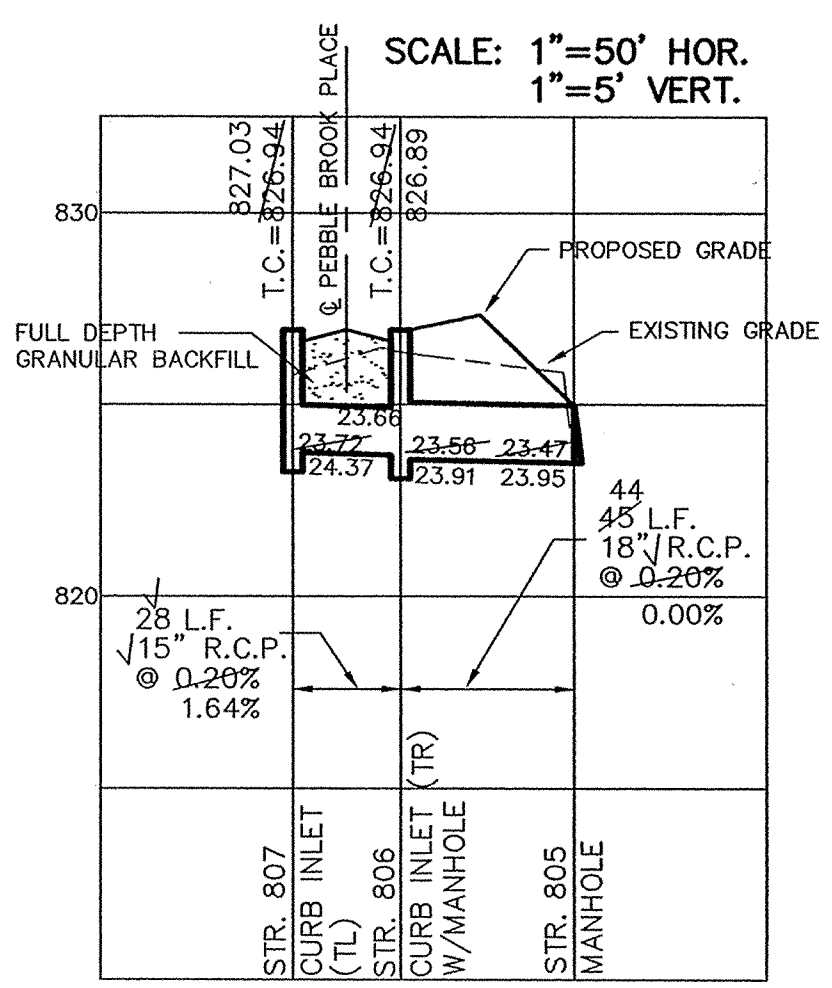
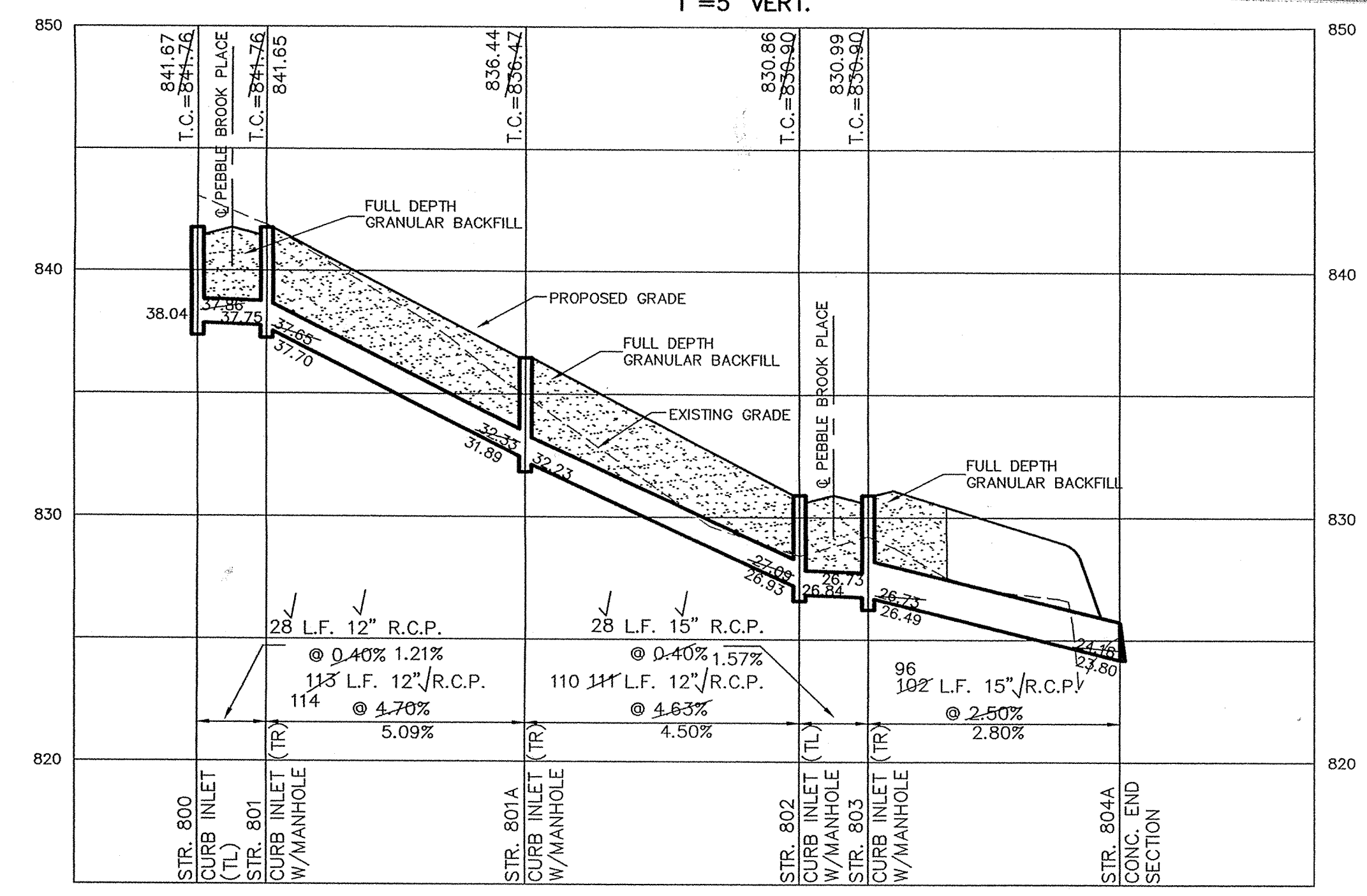
CURB INLET TABLE

| PIPE SIZE | STRUCTURES LESS THAN 48" FROM T/C TO INVERT | STRUCTURES GREATER THAN 48" FROM T/C TO INVERT | ANGLE AND QUALITY OF PIPES WILL REQUIRE SPECIAL DESIGN | STEPS REQUIRED | CURB CASTING *R-3501 N | CASTING *3501 TL & TR |
|---------------|---|--|--|----------------|------------------------|-----------------------|
| 12" to 18" | 24"x24" | | DESIGN APPROVAL | No | Yes | Yes |
| 12" to 21" | 30"x30" | | DESIGN APPROVAL | No | Yes | Yes |
| 18" to 21" | | MH/BOX | DESIGN APPROVAL | Yes | Yes | Yes |
| 21" to 27" | 24"x36" | | DESIGN APPROVAL | No | No | Yes |
| 12" to 24" | 36"x36" | | DESIGN APPROVAL | No | Yes | Yes |
| 24" OR LARGER | DESIGN APPROVAL | | DESIGN APPROVAL | No | No | Yes |
| 24" or LARGER | | MH/BOX | DESIGN APPROVAL | Yes** | Yes | Yes |

* PIPES NO LARGER THAN 18" CAN BE USED IN THE 2' SIDE OF THIS BOX
 ** INCOMING AND OUT GOING PIPES EFFECT STEPS IN THIS STRUCTURE
SPECIAL NOTE:
 STRUCTURES DEEPER THAN 48" FROM T/C TO INVERT WILL BE A M.H. OR A BOX WITH STEPS UNLESS SPECIAL DESIGN IS APPROVED.
SPECIAL NOTE:
 STRUCTURES WILL BE DESIGNED FOR MAXIMUM FLOW IN PIPES
SPECIAL NOTE:
 COUNTY MAY REQUIRE STEPS TO BE INSTALLED AFTER STRUCTURE IS SET, TO IMPROVE ACCESS.

This information was gathered for input into the Harrison County Geographical Information System. This document is considered an official record of the GIS.
 Entry Date: 3-8-04
 Entered by: JOH

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



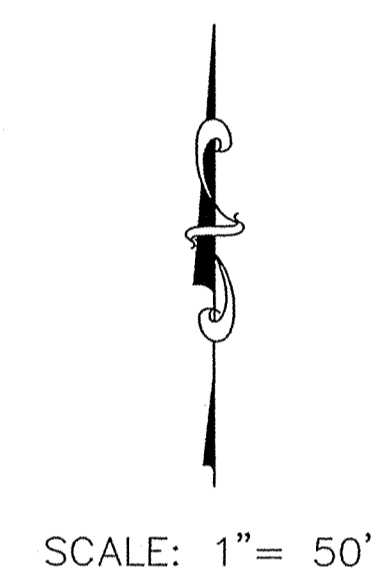
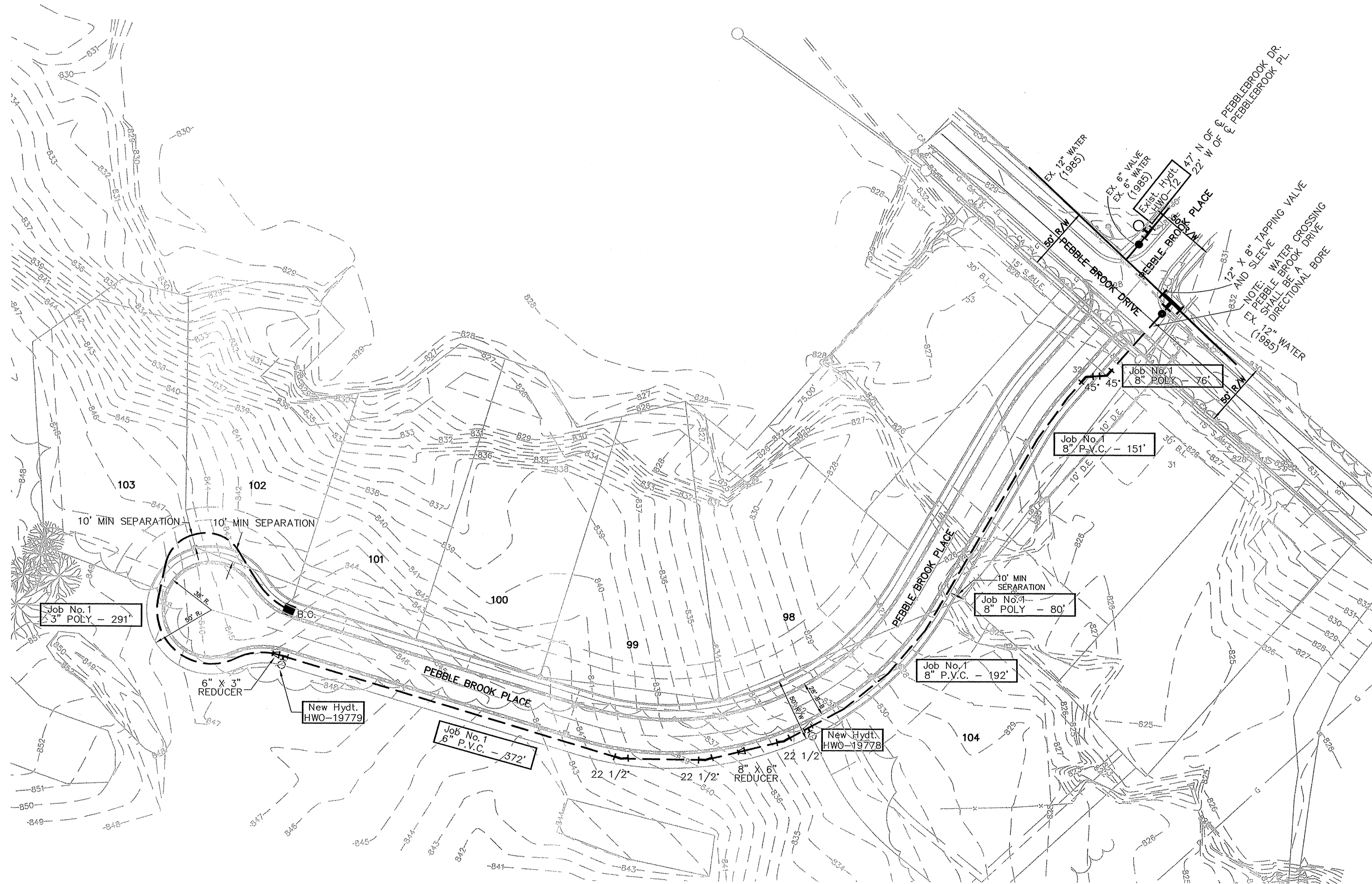
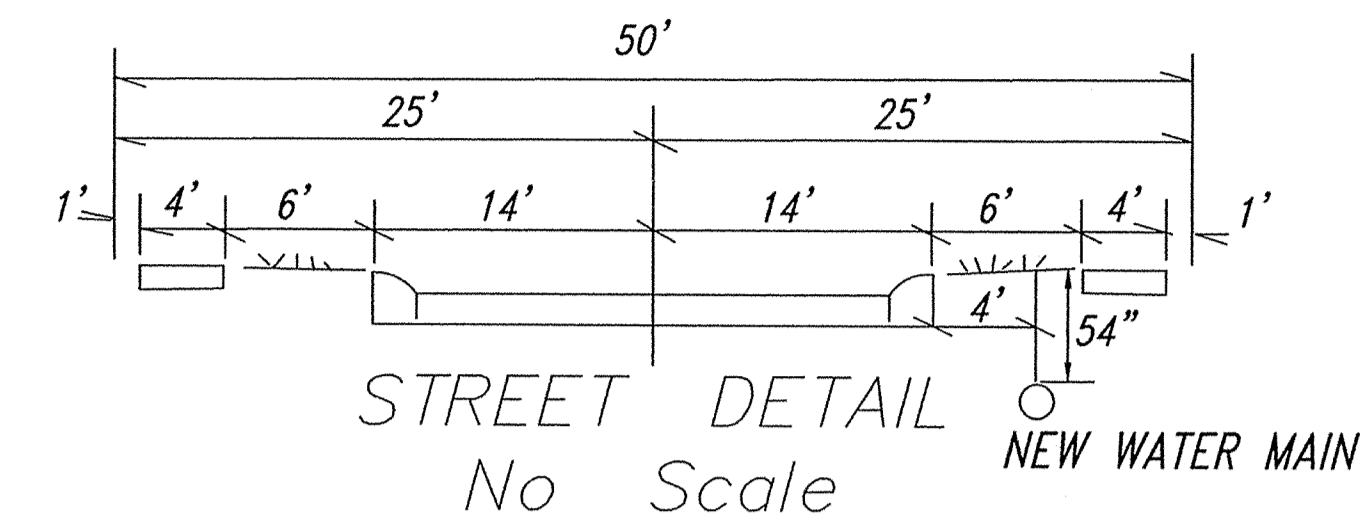
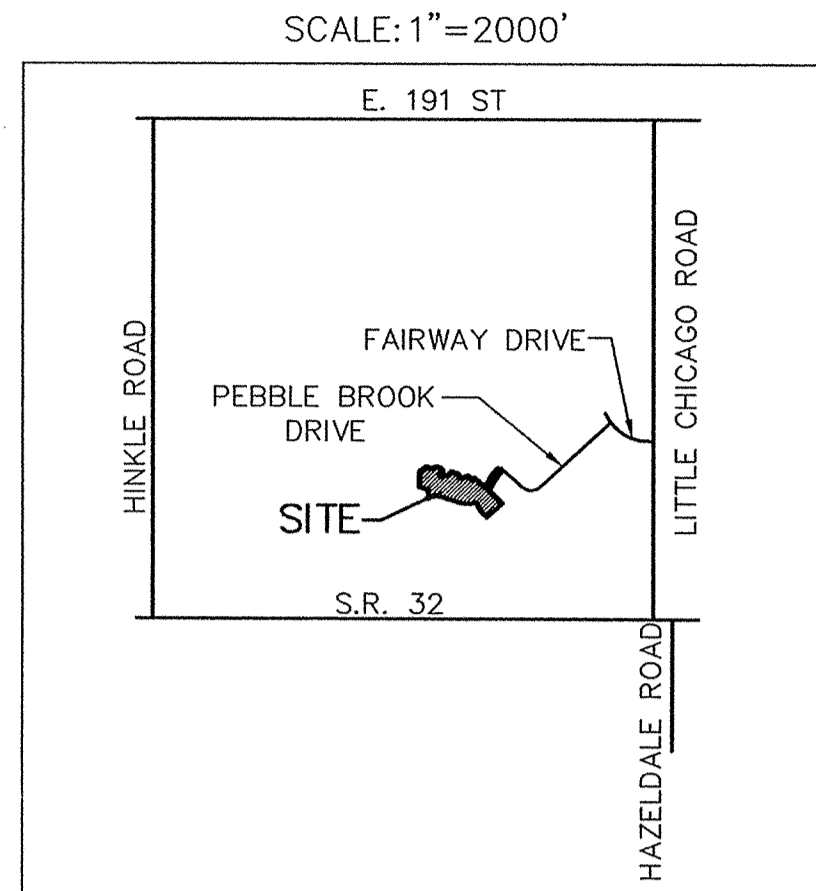
FILED
 JUN 17 2002
 OFFICE OF HARRISON COUNTY SURVEYOR

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| HARBOR WATER PROJECT LEGEND | | | | |
|------------------------------------|--------------------|-----------|-----------|------------|
| Project Name: PEBBLE BROOK, SEC. 8 | | | | |
| Project Number: J-00-152 | | | | |
| Job # | Street Name | Pipe Size | Pipe Type | Total Pipe |
| 1 | PEBBLE BROOK PLACE | 8" | POLY | 156' |
| 1 | PEBBLE BROOK PLACE | 8" | P.V.C. | 343' |
| 1 | PEBBLE BROOK PLACE | 6" | P.V.C. | 372' |
| 1 | PEBBLE BROOK PLACE | 3" | POLY | 291' |
| TOTAL | | | | 1162' |

| LEGEND | |
|--------|---------------------|
| | EXISTING WATER MAIN |
| | PROPOSED WATER MAIN |
| | EXISTING HYDRANT |
| | PROPOSED HYDRANT |
| | BUTTERFLY VALVE |
| | VALVE |
| | BLOW OFF ASSEMBLY |
| | PLUG |
| | REDUCER |
| | T.J. TEE |
| | M.J. SLEEVE |
| | BEND |
| | KICKER BLOCK |
| | CASING PIPE |
| | GAS LINES |
| | TELEPHONE LINES |
| | ELECTRIC LINES |

Project Location



Project Name: PEBBLE BROOK SECTION EIGHT
 Project Number: J-00-152
 Dist. Map No.: 2209/2219
 Meter Map No.: 8658
 Lots: 7
 Tax Code: 29014
 Pressure Dist.: HARBOUR
 Drafter: STOEPPELWERTH/BRD
 Date: 3/06/00

NOTE:
 WATER MAIN TO BE INSTALLED PER
 IWC STANDARD SPECIFICATIONS, DATED
 JULY 1, 1998.

Utility Contacts
 Cillians Gas & Coke
 Indianapolis Power & Light Company
 Ameritech
 American Telephone & Telegraph Company
 Comcast Cablevision of Indianapolis, Inc.
 American Cablevision of Indianapolis

Notes:
 Sand backfill as required.
 Locate hydrants in the field.
 Cut & replace pavement & drives.
 All new ductile iron pipe to be encased
 in poly wrap. New PVC to be restrained
 as required.
 Avoid damage to trees. IWC crews/
 contractors shall endeavor to avoid the
 root zone whenever possible. All roots
 greater than 1" shall be saw cut.

"HOLEY MOLEY"
 SAYS:

 1-800-382-5544
 CALL TOLL FREE
 1-800-428-5200
 FOR CALLS OUTSIDE OF INDIANA

FILED
 JUN 17 2002
 CAUTION
 LOCATION OF ALL EXISTING UNDERGROUND
 UTILITIES SHOWN ON THIS PLAN ARE BASED
 UPON ABOVE GROUND EVIDENCE (including,
 but not limited to, manholes, vaults, &
 marks made upon the ground by others) AND
 ARE SPECULATIVE IN NATURE. THERE MAY ALSO
 BE OTHER EXISTING UNDERGROUND UTILITIES
 FOR WHICH THERE IS NO ABOVE GROUND
 EVIDENCE OR FOR WHICH NO ABOVE GROUND
 EVIDENCE WAS OBSERVED. THE EXACT LOCATIONS
 OF SAID EXISTING UNDERGROUND UTILITIES
 SHOULD BE VERIFIED BY THE CONTRACTOR
 PRIOR TO ANY AND ALL CONSTRUCTION.

| | | | |
|------------------------------|--------|--------|--------|
| OWN. BY | BRD | DATE | MARK |
| CK. BY | WAB | 8/1/00 | |
| SCALE | 1"=50' | DATE | 3/6/00 |
| REV. PER CL CHANGE PER OWNER | | DATE | |
| REV. PER INC DESIGN | | DATE | |
| REVISIONS | | | |
| BY | | | |

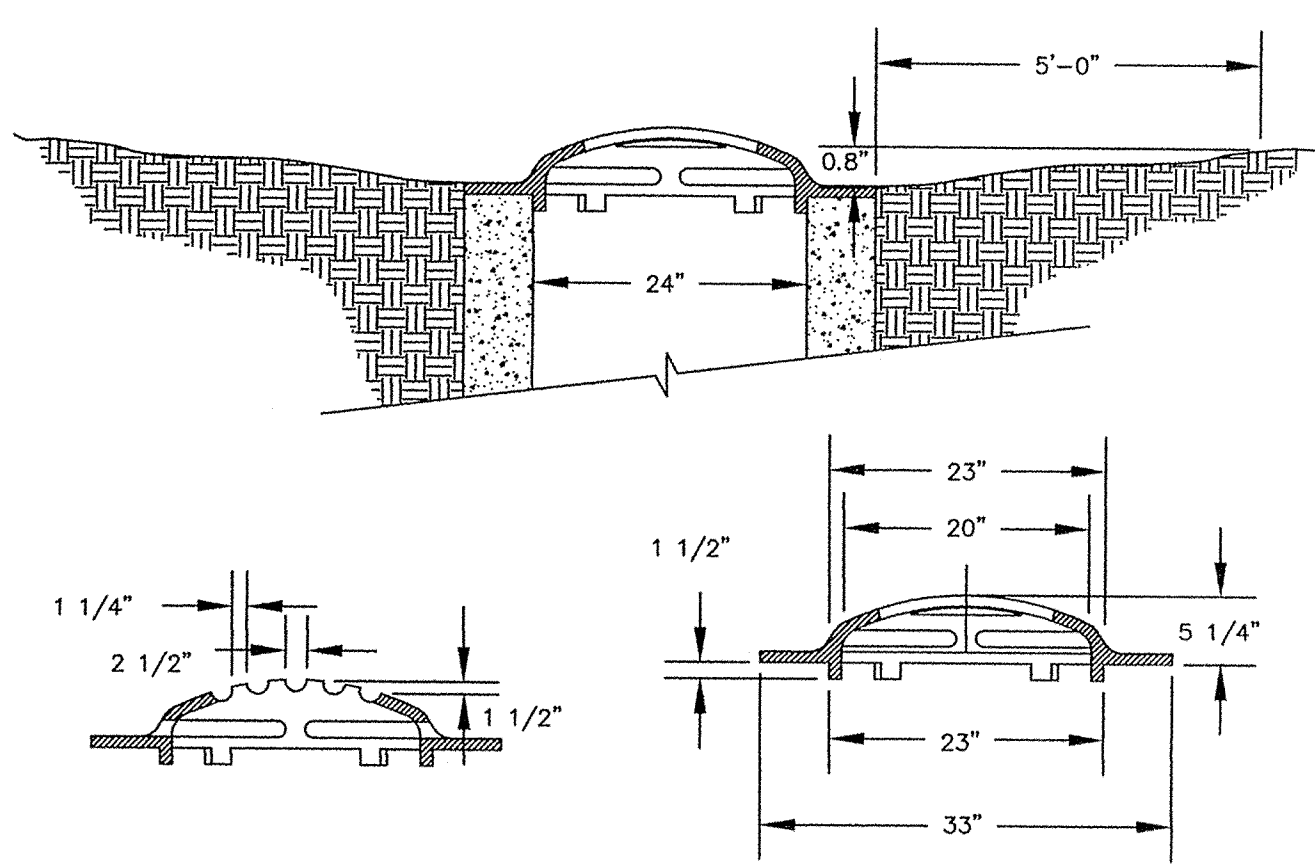
CERTIFIED: 3/6/00

REGISTERED
 No. 19358
 STATE OF INDIANA
 PROFESSIONAL ENGINEER

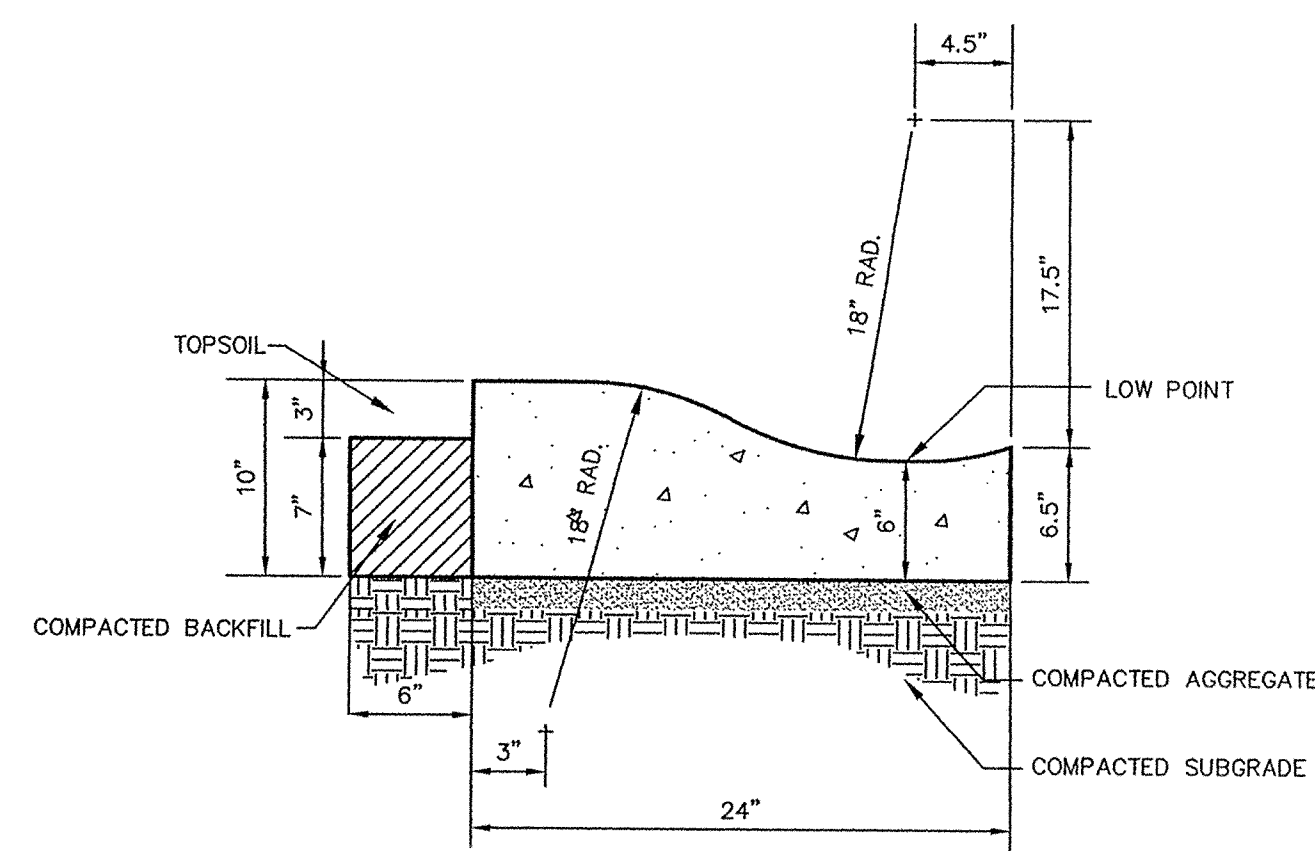
CONSULTING ENGINEERS - LAND SURVEYORS
 (317) 849-5935 1-800-728-6917 FAX: (317) 849-5942
 INDIANAPOLIS INDIANA

WATER PLAN
 PEBBLE BROOK SECTION EIGHT
 INDIANA
 NOBLESVILLE

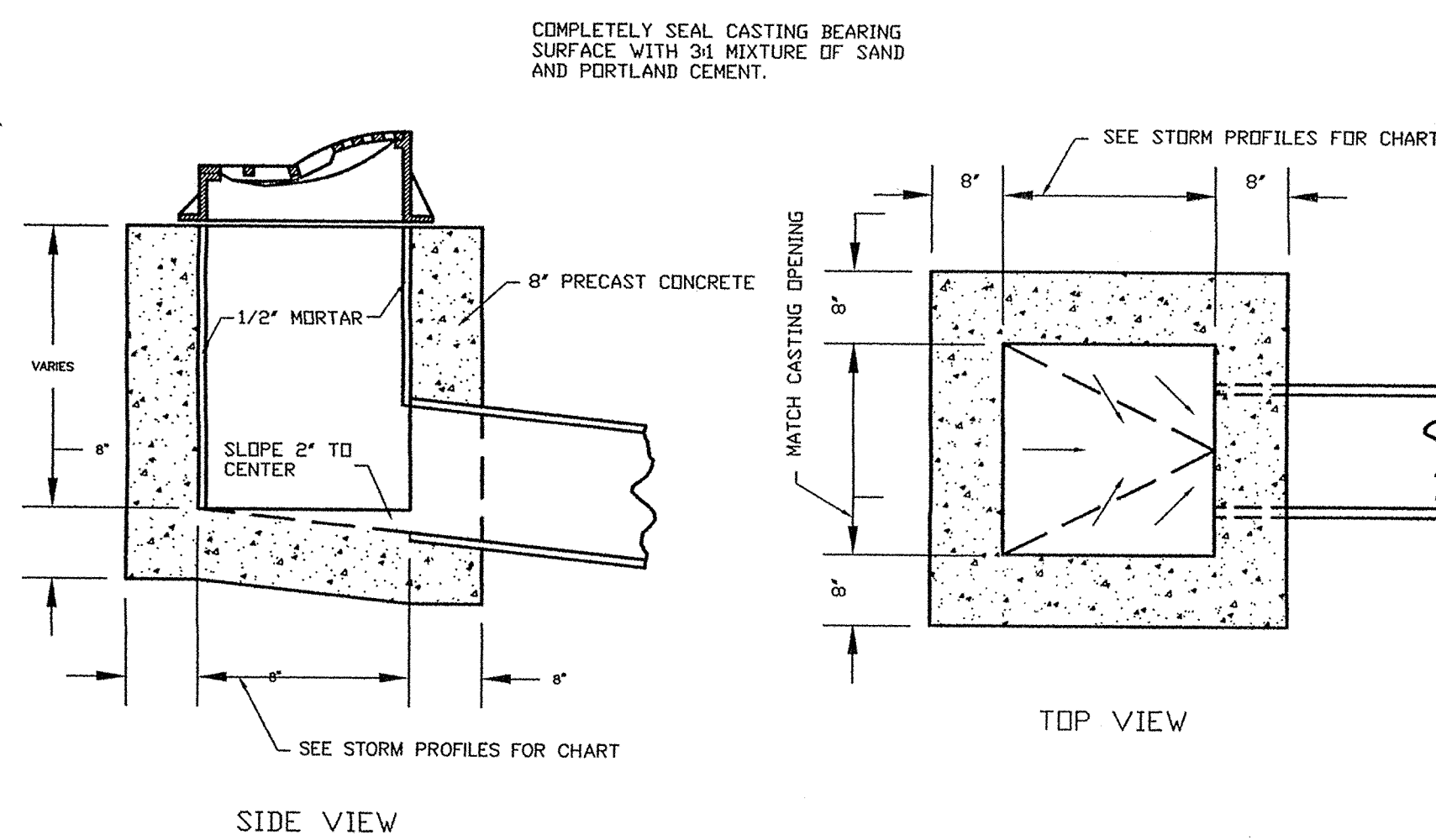
SHEET NO.
 11
 OF 13 SHEETS
 JOB NO. 36269



DITCH GRATE CASTING SETTING DETAIL
NEENAH R-4342 STOOL TYPE DITCH GRATE
NOT-TO-SCALE

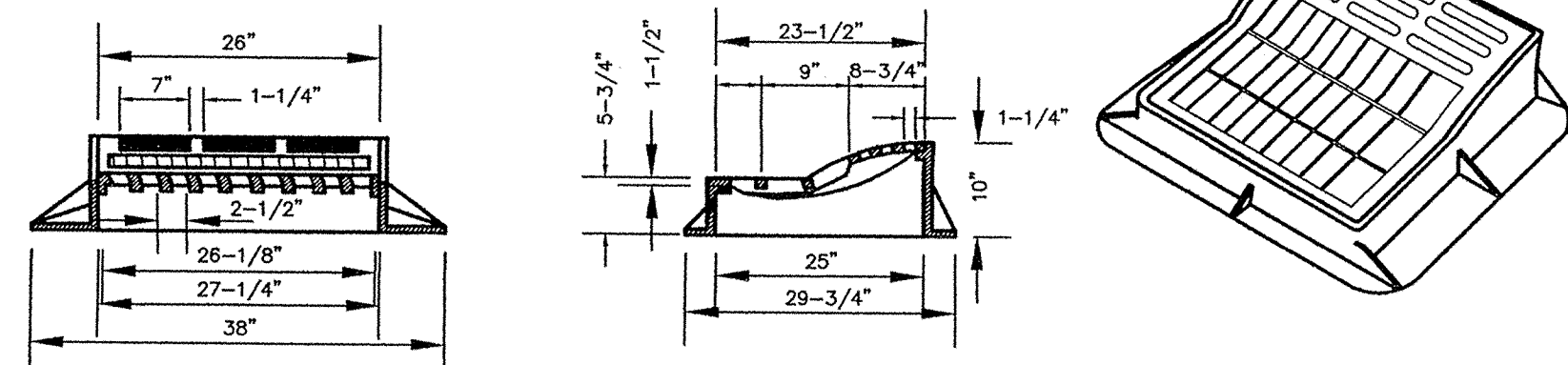


CONCRETE ROLL CURB & GUTTER
(TYPE I)
(D.O.T. STANDARD PLAN 12-01)
NOT-TO-SCALE

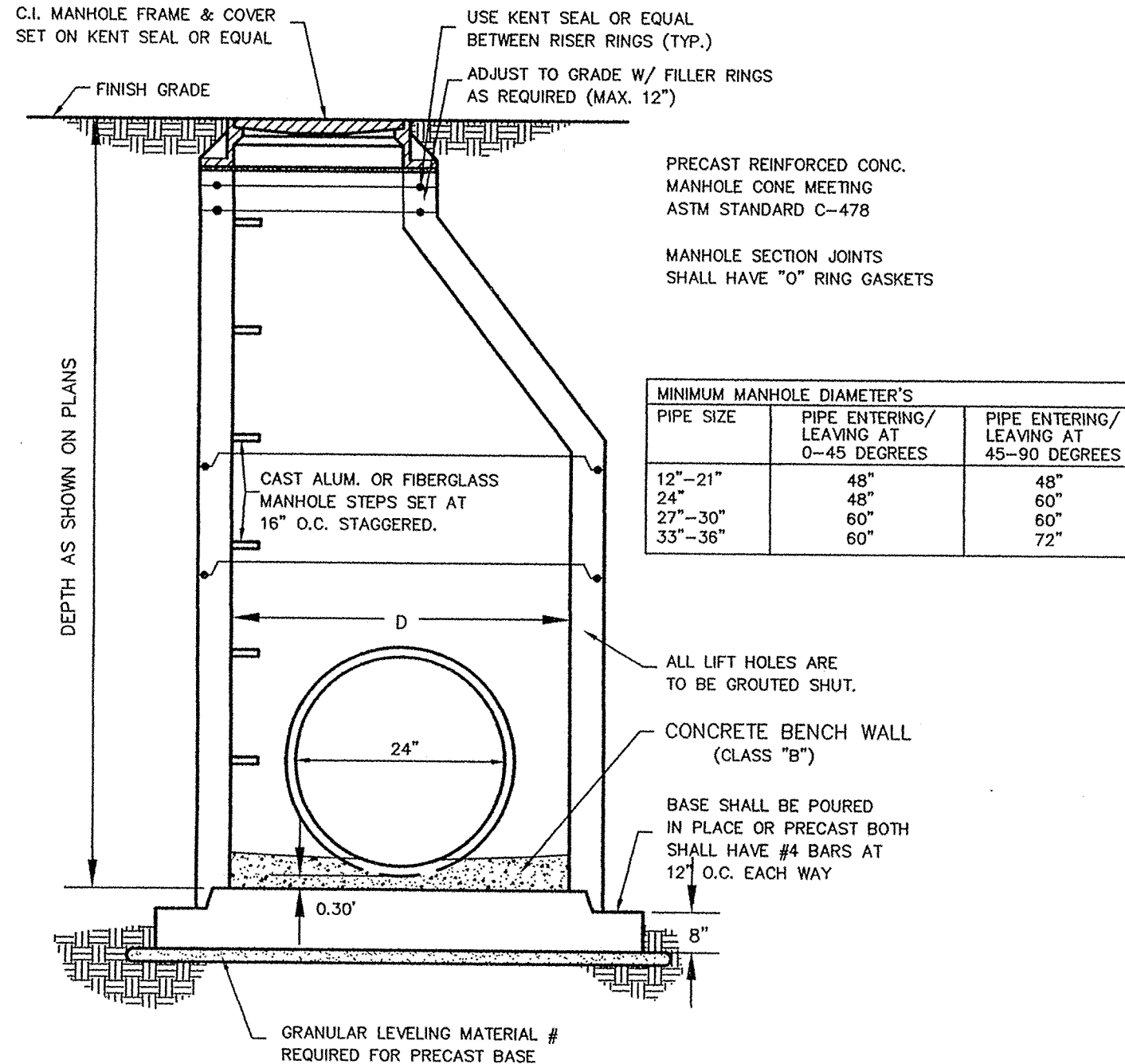


SIDE VIEW

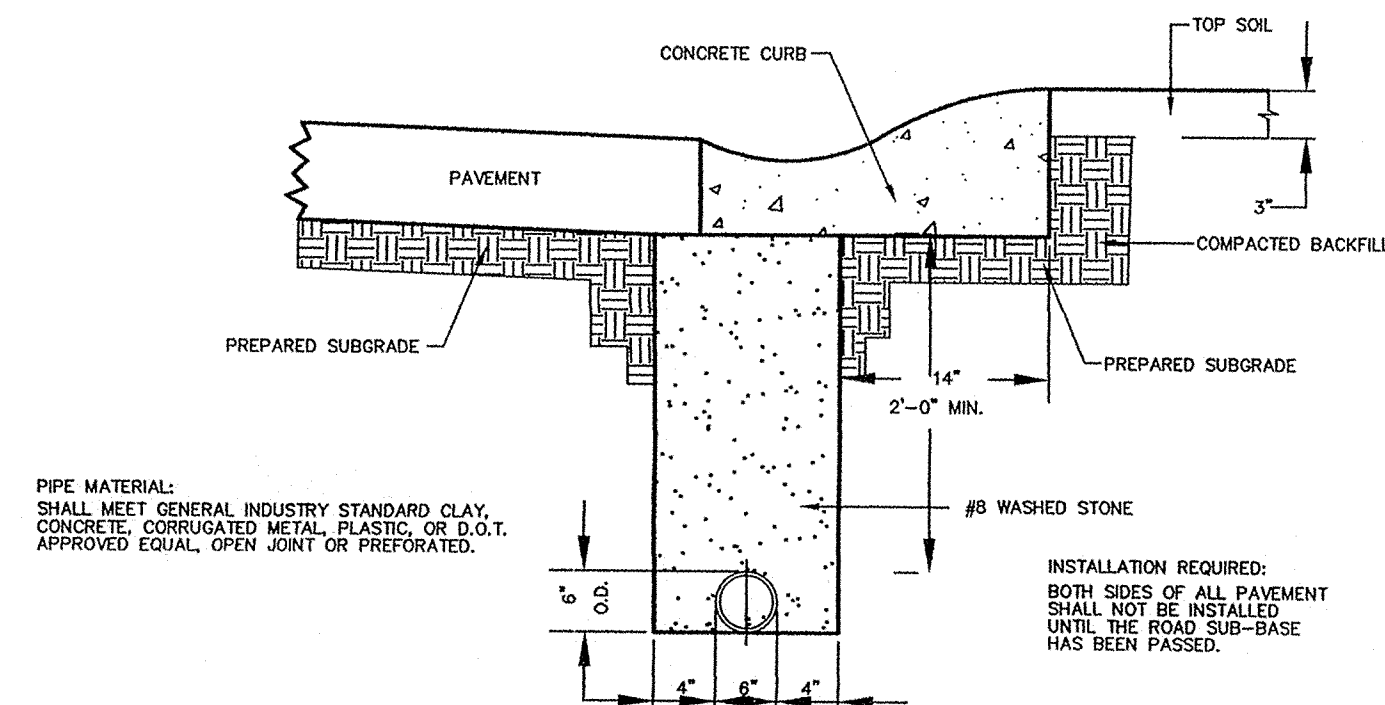
TOP VIEW



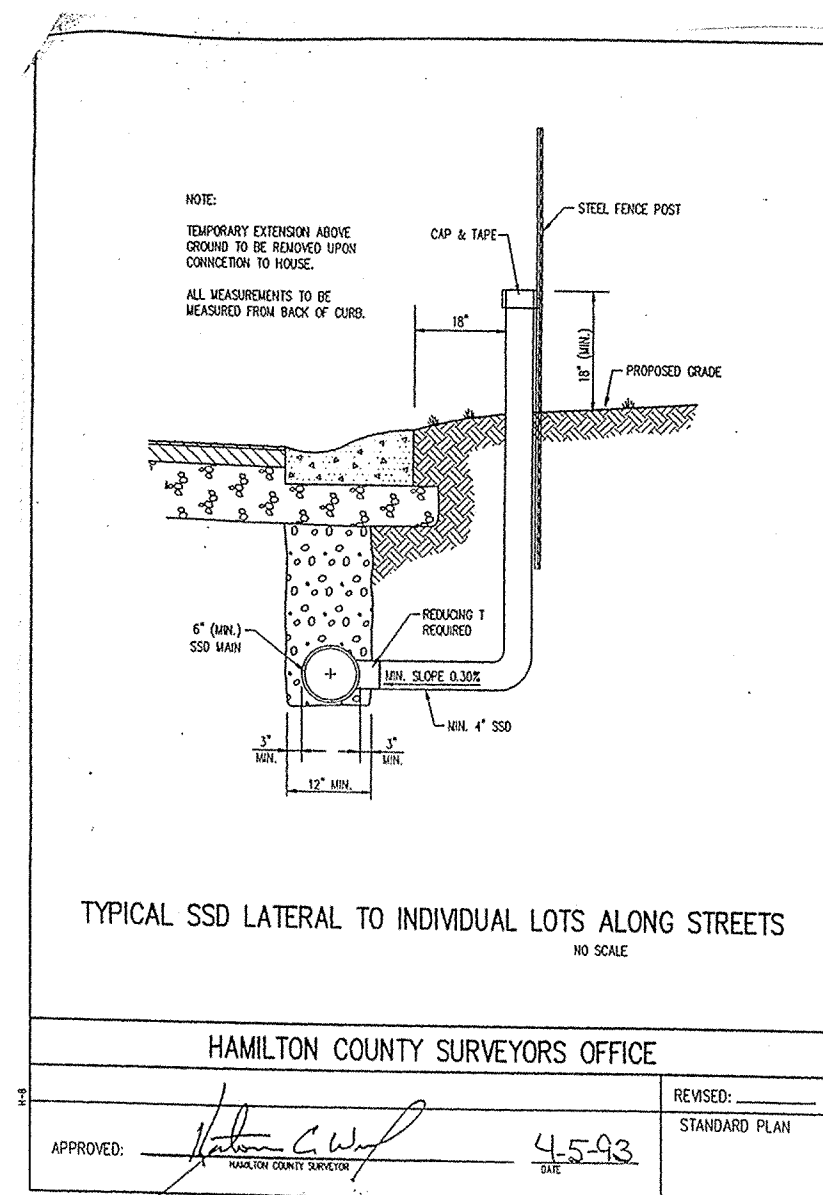
R-350I-TL&R NEENAH CURB INLET
FRAME, GRATE & CURB BOX DETAIL



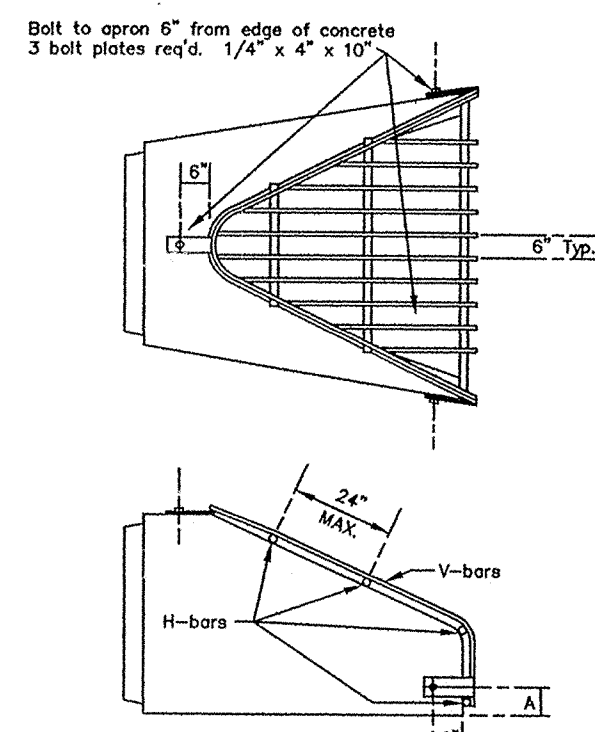
PRECAST REINFORCED CONC. MANHOLE
FOR STORM SEWER
NOT-TO-SCALE



PIPE UNDERDRAIN DETAIL
NOT TO SCALE



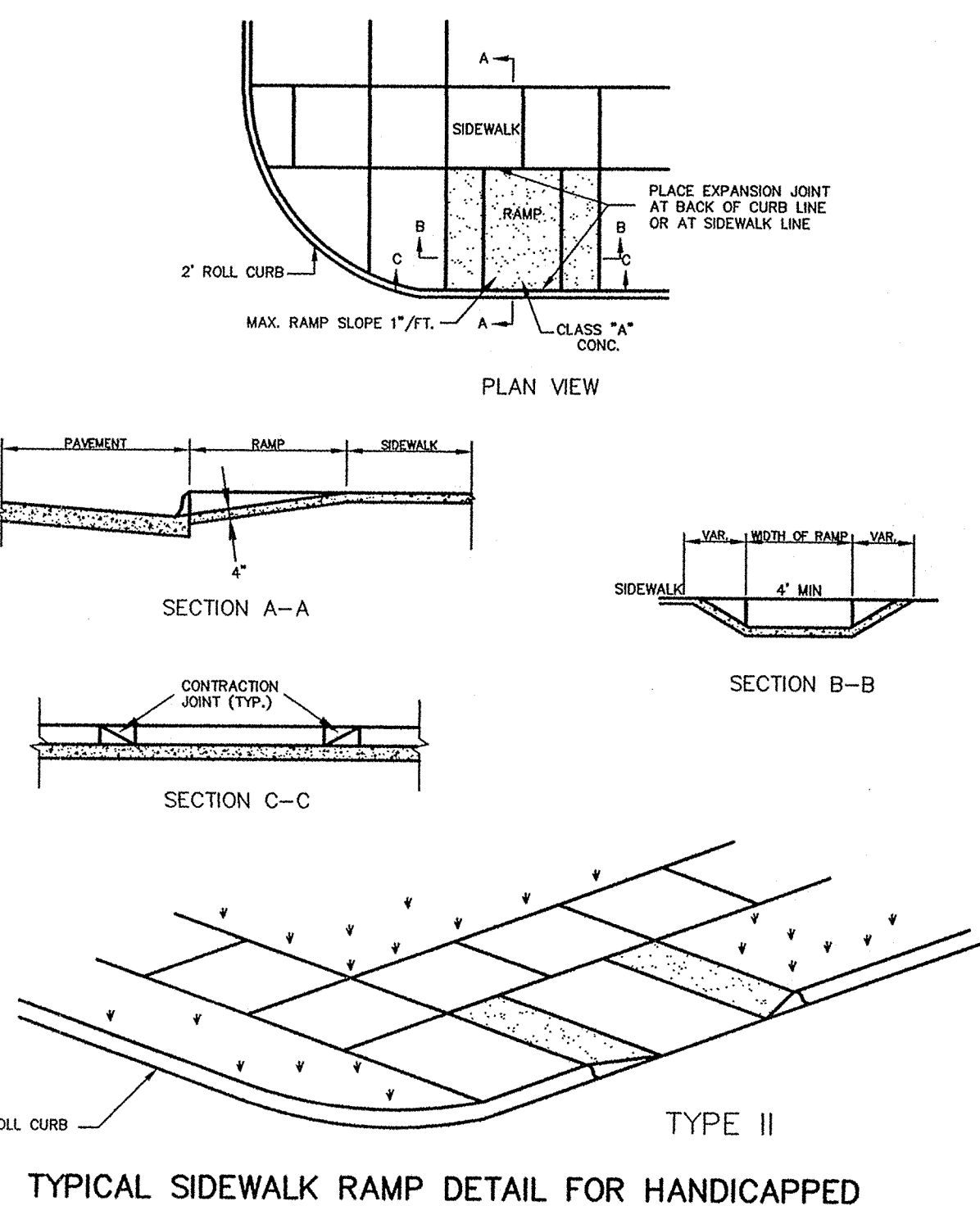
TYPICAL SSD CONNECTION TO INDIVIDUAL LOTS
NOT-TO-SCALE



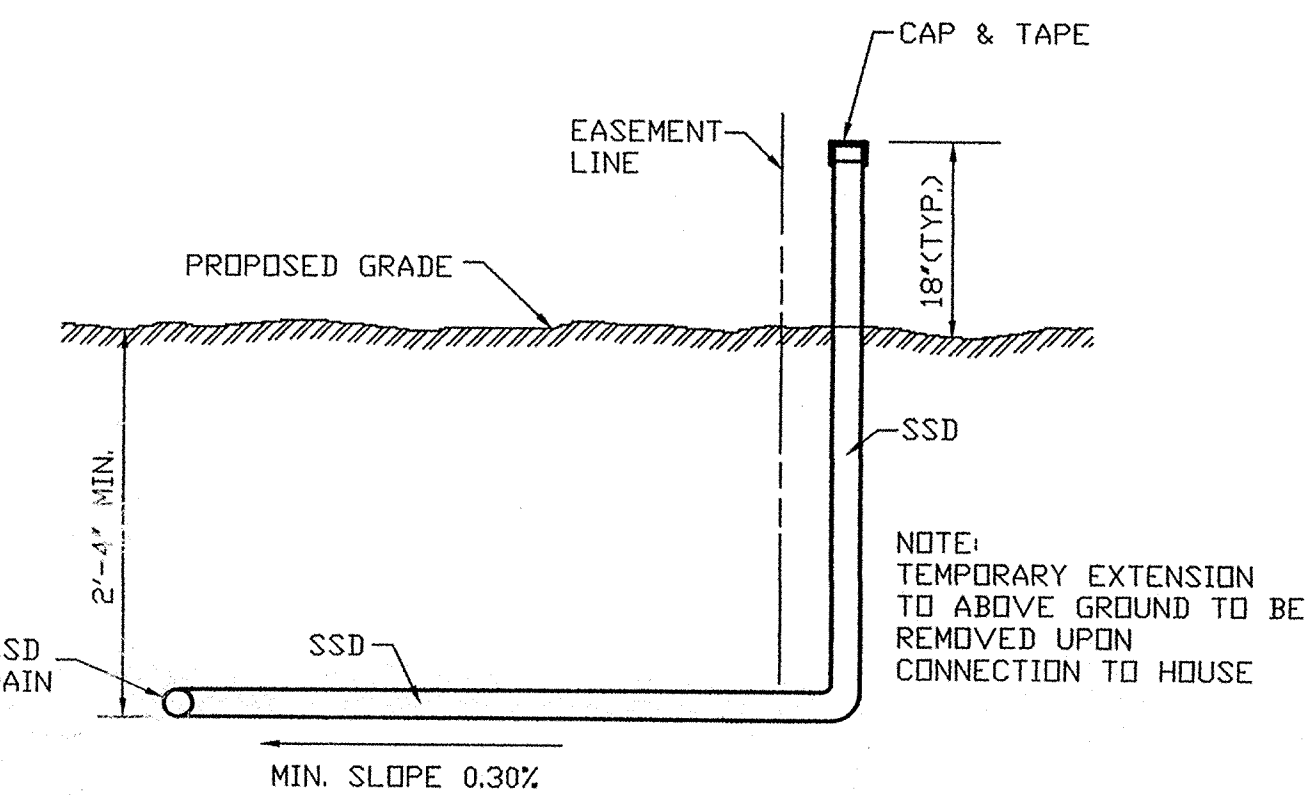
TRASH GUARDS FOR CONC. APRONS
NOT-TO-SCALE

NOTE: ALL SIDEWALKS CROSSING DRIVE APPROACHES INCLUDING THE DRIVE APPROACH PORTION THAT FALLS IN THE RIGHT-OF-WAY IS REQUIRED BY ORDINANCE TO BE 6" THICK.

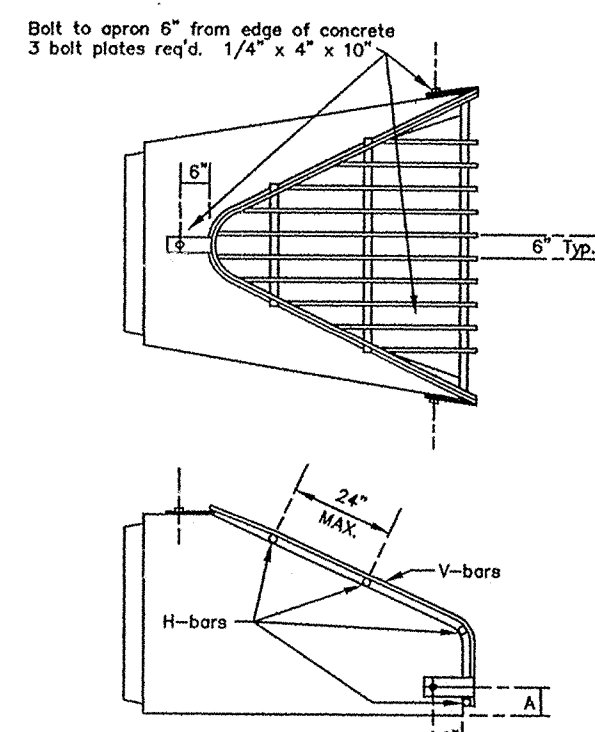
SIDEWALK DETAIL
NOT-TO-SCALE



TYPICAL SIDEWALK RAMP DETAIL FOR HANDICAPPED



TYPICAL SSD CONNECTION TO INDIVIDUAL LOTS
NOT-TO-SCALE

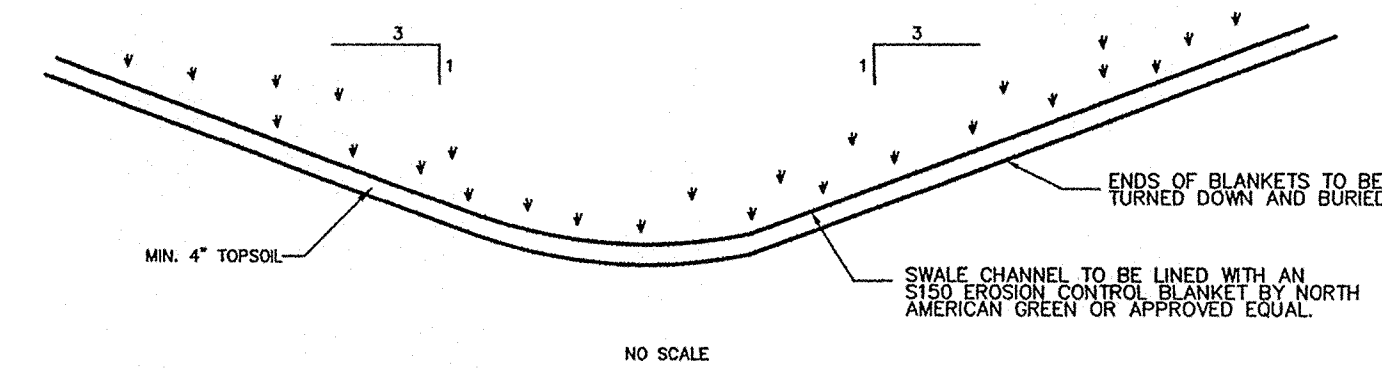


RIGID PIPE BEDDING DETAIL
(CONCRETE PIPE)
NOT-TO-SCALE

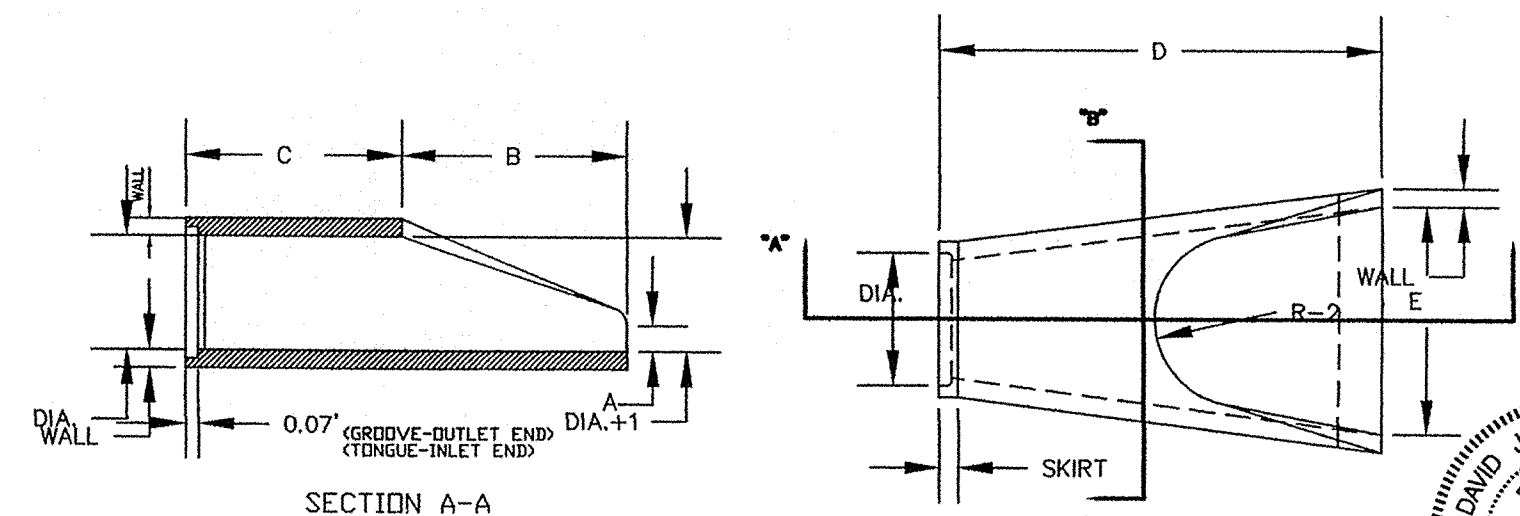
TRASH GUARDS FOR CONC. APRONS
NOT-TO-SCALE

NOTE: ALL SIDEWALKS CROSSING DRIVE APPROACHES INCLUDING THE DRIVE APPROACH PORTION THAT FALLS IN THE RIGHT-OF-WAY IS REQUIRED BY ORDINANCE TO BE 6" THICK.

SIDEWALK DETAIL
NOT-TO-SCALE



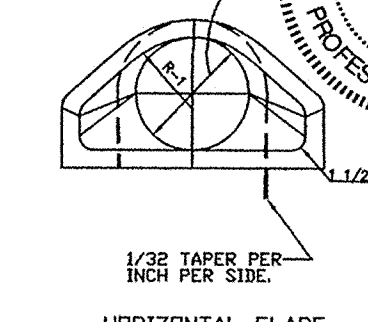
TYPICAL SWALE DETAIL



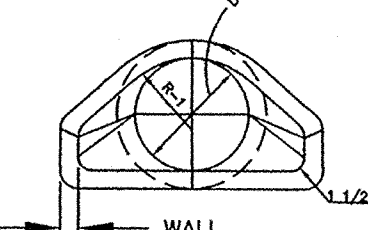
NOTES: 1. MANUFACTURE OF END SECTION IS IN ACCORDANCE WITH APPLICABLE PORTIONS OF A.S.T.M. SPECIFICATION C76.

PRECAST CONCRETE END SECTION DETAIL

| DIA. | WALL | 0 or TWT | SEC | A | B | C | D | E | DIA. +1 | R-1 | R-2 | SKIRT | | | | | | |
|------|------|----------|-------|-------|----|-----|----|-----|---------|-----|-------|-------|------|------|------|-----|-----|-----|
| 12 | 2 | 1 | 1/2 | 530 | 4 | 24 | 48 | 1/8 | 7/8 | 24 | 13 | 10 | 1/16 | 9 | 3 | 1/2 | | |
| 15 | 2 | 1/4 | 2 | 740 | 8 | 27 | 48 | 7/8 | 30 | 16 | 12 | 1/2 | 11 | 3 | 1/2 | | | |
| 18 | 2 | 1/2 | 1/2 | 980 | 9 | 27 | 48 | 7/8 | 36 | 19 | 15 | 1/2 | 12 | 4 | | | | |
| 21 | 2 | 3/4 | 1/4 | 1280 | 9 | 35 | 48 | 7/8 | 42 | 22 | 16 | 1/8 | 13 | 4 | | | | |
| 24 | 3 | 2 | 1/2 | 1520 | 9 | 43 | 48 | 1/2 | 30 | 73 | 1/2 | 48 | 25 | 16 | 1/16 | 14 | 1/2 | |
| 27 | 3 | 1/4 | 1/2 | 1930 | 10 | 1/2 | 48 | 25 | 1/2 | 73 | 1/2 | 54 | 28 | 17 | 3/4 | 14 | 1/2 | 1/2 |
| 30 | 3 | 1/2 | 1 | 2190 | 12 | 54 | 48 | 3/4 | 3/4 | 60 | 31 | 18 | 3/16 | 15 | 5 | | | |
| 33 | 3 | 3/4 | 3/8 | 3150 | 13 | 1/8 | 98 | 1/2 | 98 | 1/2 | 98 | 34 | 23 | 3/4 | 17 | 1/2 | 1/2 | 1/2 |
| 36 | 4 | 3 | 1/2 | 4100 | 15 | 63 | 34 | 3/4 | 97 | 3/4 | 72 | 37 | 24 | 1/16 | 20 | 5 | 1/2 | |
| 42 | 4 | 1/2 | 3 | 5380 | 21 | 63 | 35 | 98 | 78 | 43 | 27 | 1/4 | 22 | 5 | 1/2 | | | |
| 48 | 5 | 1 | 1/4 | 6550 | 24 | 72 | 26 | 98 | 84 | 49 | 28 | 1/8 | 22 | 5 | 3/4 | | | |
| 54 | 5 | 1/2 | 1/4 | 8040 | 27 | 65 | 35 | 100 | 90 | 55 | 32 | 7/8 | 24 | 6 | 1/4 | | | |
| 60 | 6 | 5 | 8750 | 30 | 60 | 39 | 99 | 96 | 61 | 36 | 3/4 | 24 | 6 | 3/4 | | | | |
| 66 | 6 | 1/2 | 5 | 10630 | 24 | 78 | 21 | 99 | 102 | 67 | 35 | 1/16 | 24 | 7 | 1/4 | | | |
| 72 | 7 | 6 | 12920 | 34 | 78 | 21 | 99 | 108 | 73 | 39 | 5/8 | 24 | 7 | 3/4 | | | | |
| 78 | 7 | 1/2 | 6 | 14430 | 24 | 78 | 21 | 99 | 114 | 79 | 41 | 15/16 | 24 | 8 | 1/2 | | | |
| 84 | 8 | 7 | 16350 | 24 | 78 | 21 | 99 | 120 | 85 | 44 | 13/16 | 24 | 8 | 1/2 | | | | |



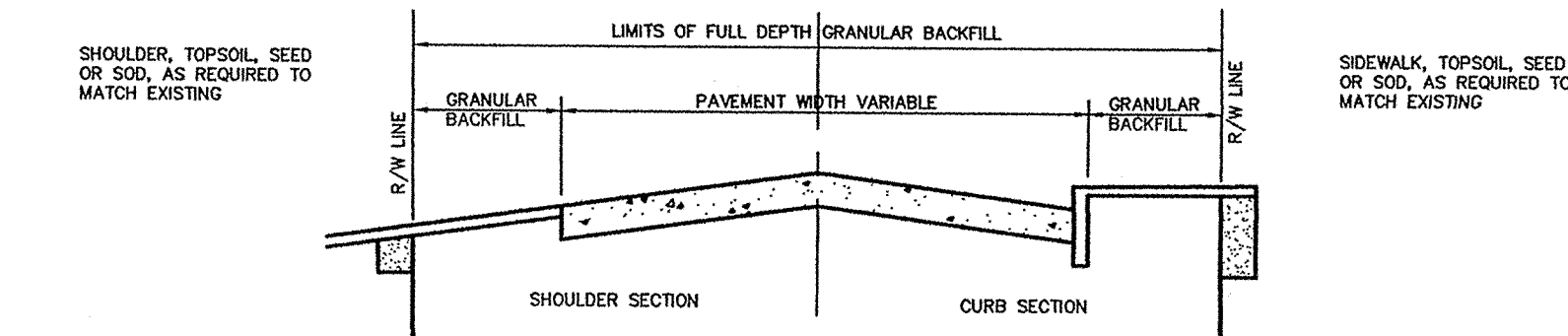
HORIZONTAL FLARE



VERTICAL FLARE SECTION B-B

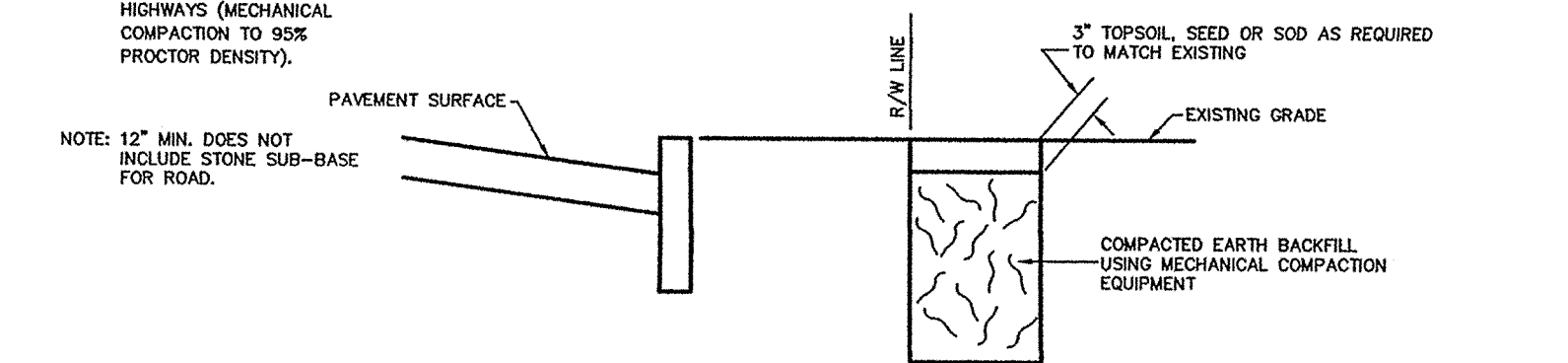
NOTES: 1. MANUFACTURE OF END SECTION IS IN ACCORDANCE WITH APPLICABLE PORTIONS OF A.S.T.M. SPECIFICATION C76.

PRECAST CONCRETE END SECTION DETAIL

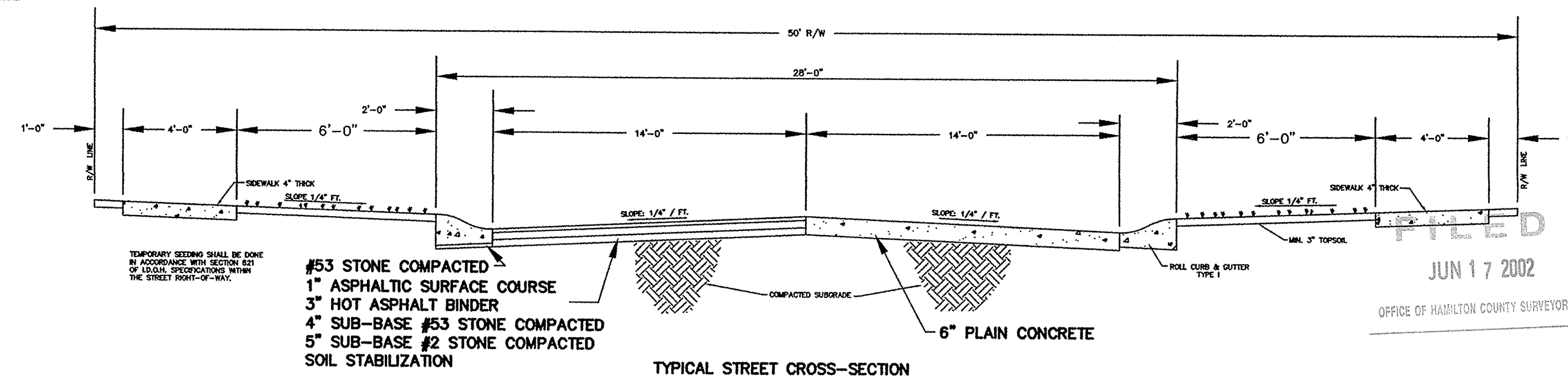


ALL CUTS MADE IN OR UNDER ANY ROAD SURFACE SHALL BE BACKFILLED WITH GRANULAR MATERIAL WHERE A CUT EITHER TRANSVERSES OR PARALLELS THE ROAD SURFACE. GRANULAR BACKFILL SHALL BE PLACED IN THAT PORTION OF THE CUT. THE ENTIRE EXCAVATED AREA WITHIN THE RIGHT-OF-WAY.

MATERIAL PLACEMENT AND COMPACTION SHALL CONFORM TO GENERAL ORDINANCE NO. 24, 1985, SECTION 29-328



STANDARD FULL DEPTH GRANULAR BACKFILL DETAILS



TYPICAL STREET CROSS-SECTION
NOT-TO-SCALE

CONSULTING ENGINEERS - LAND SURVEYORS
(317) 849-5935 1-800-728-6917 FAX: (317) 849-5942
INDIANAPOLIS INDIANA

REGISTERED PROFESSIONAL ENGINEER
No. 19358
STATE OF INDIANA
DAVID J. STOEPELWECH

CERTIFIED: 3/6/00

CONSTRUCTION DETAILS
PEBBLE BROOK SECTION EIGHT
NOBLESVILLE INDIANA

SHEET NO. 12
OF 13 SHEETS
JOB NO. 36269

NOTES:

- STREET CONSTRUCTION
 - All new pavement construction shall comply with current specifications of the City of Noblesville and those of the Indiana Department of Highways (I.D.O.H.), with respect to design, materials and methods of construction.
 - Subgrade shall be prepared in compliance with Section 207 of the Standard Specifications of the I.D.O.H. No traffic will be permitted on the subgrade prior to paving.
 - Contractor shall notify Project Engineer when subgrade for street and curbs is prepared and properly crowned. Subgrade shall be proof rolled in compliance with I.D.O.H. Standard 203.25 in the presence of the Project Engineer and the City Engineer prior to any stone placement. Soft areas shall be marked and repaired as directed by City Engineer.
- CURB AND GUTTER CONSTRUCTION
 - Curb and gutter construction shall comply with City of Noblesville specifications and subsection 605.04 of the I.D.O.H. "STANDARD SPECIFICATION". Concrete for curbing shall meet requirements of Section 702 CLASS A concrete of the I.D.O.H. "STANDARD SPECIFICATIONS".
 - Transverse Expansion Joints are required at the ends of all returns, and all intervals not to exceed 100 feet. Joints shall be filled with preformed joint filler.
 - Transverse Construction Joints shall be installed at 10 foot intervals, and shall be filled with 1/4" preformed joint material.
 - Preformed joint material shall be Standards established in Section 901.01 of the "Standard Specifications".
- STORM SEWER CONSTRUCTION
 - Storm Sewer structures shall comply with the current City of Noblesville specifications as to design and quality of construction.
 - Material Specifications
 - All reinforced concrete pipe (R.C.P.) shall conform to A.S.T.M. C76-70, Class III latest revision, with joints conforming to A.S.T.M. C-433 latest revision.
 - All high density polyethylene resin pipe (P.R.P.) & fittings shall meet or exceed the requirements of Type III, Category 4 or 5, Grade P33 or P34, Class C per ASTM D1248.
 - All manholes and inlets shall be precast concrete, constructed in accordance with the City of Noblesville specifications and shall conform to A.S.T.M. C-478 latest revision. Covers shall be of type specified on the Detail Sheet and conforming to A.S.T.M. A-48 latest revision.
- SANITARY SEWER CONSTRUCTION
 - Current City of Noblesville Sanitary Sewer specifications shall prevail as to materials and methods of construction.
 - The contractor shall furnish all bonds necessary to get permits from the City of Noblesville prior to starting construction, and shall verify all existing utility locations around the proposed construction site. The contractor shall notify Department of Public Works (D.P.W.) inspection one week prior to beginning any sanitary sewer construction. The developer shall be responsible for all approvals, permits, and easements.
 - NO CONSTRUCTION WILL BE ALLOWED TO BEGIN PRIOR TO THE DATE SPECIFIED ON THE STATE PERMIT ISSUED BY THE INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT.
 - All lots are to be served by 6" diameter sanitary sewer pipe. The sewer lateral terminations are to be indicated on the surface with a suitable marker and magnetic tape shall be placed at the end of each lateral underground. The ends are to be plugged and sealed with a water-tight plastic disc or cap. Wyes are to be tilted up 45 degrees from the horizontal.
 - The sanitary sewer contractor shall be responsible for the leakage outward or inward (exfiltration or infiltration) testing. These tests should not exceed 100 gallons per inch of pipe diameter per mile per day for any section of the system. The exfiltration or infiltration testing shall be performed with a minimum positive head of 2 feet. The air test, if used, shall, as a minimum, conform to the test procedure described in the latest edition of A.S.T.M. C-828. The testing methods selected should take into consideration the range in groundwater elevations projected and the situation during the test. These tests must be observed and certified by a Professional Engineer and sent to the Developer and Stoepelwerth and Associates.
 - Deflection tests shall be performed on all P.V.C. or other flexible pipe. The test shall be conducted after the final backfill has been placed at least 30 days. No pipe shall exceed a deflection of 5%. If the deflection test is to be run using a rigid ball or mandrel, it shall have a diameter equal to 95% of the inside diameter of the pipe. The test shall be performed without mechanical pulling devices. It shall be the responsibility of the sanitary sewer contractor to provide all the material, equipment and personnel to complete all of the testing procedures. These tests must be observed & certified by a Professional Engineer and sent to the Developer and Stoepelwerth and Associates.
 - All future sewer installation, either connected to or extended from this system shall be constructed in accordance with these specifications.

- No roof drains, footing drains, and/or surface water drains may be connected to the sanitary sewer system, including temporary connections during construction.
 - Gasket joints shall be used with P.V.C. Truss pipe and installed in accordance with A.S.T.M. C-425 latest revision. All manholes shall be precast concrete, constructed in accordance with State of Indiana Specifications. Steps shall conform to A.S.T.M. C-478 latest revision. Covers shall be Type "A" cast iron ring and cover to conform to A.S.T.M. A-48 latest revision. P.V.C. for gravity sanitary sewer shall conform to A.S.T.M. D-3034 (SDR35). Cell classifications 12454 "B" or "C" only. Truss pipe for gravity sanitary sewer shall conform to A.S.T.M. D2680. PVC for forcemain shall be SDR-21-200 PSI.
 - Manhole Sections shall be jointed with rubber type o-ring gaskets to meet A.S.T.M. C-443 latest revision.
 - Where waterlines and sanitary sewers cross a minimum of 18-inches of vertical clearance must be maintained. If the 18-inch vertical clearance cannot be maintained, the sewer must be constructed of waterworks grade ductile iron pipe with mechanical joints within 10 feet of the waterline. All sewers shall be a minimum of 10 feet from all ditches, creeks and ponds.
 - All trenches under a proposed roadway shall be full-depth backfilled with granular material to a point five (5) feet outside of the roadway edge and shall comply with D.O.T. Standard Plan 92-01 & 92-02.
 - Sanitary sewers shall be backfilled with sand or suitable material in 1 foot layers and mechanically tamped. Remainder of trench shall be filled in 6" layers and solidly tamped to subgrade of base of pavement.
 - Pipe Bedding - Bedding classes A, B, or C, as described in A.S.T.M. C12-74 (ANSI A106.2 or WPCF MOP NO. 9 ASCE MOP No. 37) shall be used on all rigid pipe provided the proper strength pipe is used with the specified bedding to support the anticipated load. Bedding classes I, II, or III, as described in A.S.T.M. D2321-74 (ANSI K65.17) shall be used for all flexible pipe provided strength pipe is used with the specified bedding to support the anticipated load.
 - The flow channel through manholes shall be U-shaped at a minimum width equal to the diameter of the pipe extending between the pipe inverts. The benchwall shall extend up from the flow channel to an elevation equal to the crown of the pipe along the inner wall of the manhole section.
 - Design - All materials and construction methods shall be in accordance with the recommended standards for sewage works by the Great Lakes - Upper Mississippi River Board of States Sanitary Engineers.
 - The Developer shall provide The Department of Public Works Sanitation Division and the Indiana Department of Environmental Management with "As Built" drawings of all Sanitary Sewers with services and test results within 30 days of completion.
 - The contractor shall provide Stoepelwerth and Associates with all lateral as-built locations and a completion Contractor's Affidavit form upon completion of the sanitary sewer construction.
 - Contractor shall notify city of Noblesville Wastewater Utility 48 hrs. prior to beginning construction of sanitary sewers.
- GENERAL NOTES
- It shall be the responsibility of the contractors to determine the location of existing underground utilities 24 hours prior to any construction or excavating and maintain operating conditions of active utilities. The engineer shall not be responsible for any damage caused by an erroneous location shown or by the omission of a utility location on these plans. The developer shall be responsible for all approvals, permits & easements.
 - The contractors shall furnish all bonds necessary to get all permits from the appropriate departments of the City of Noblesville prior to beginning construction.
 - All trenches under paved areas shall be backfilled with granular material to conform to D.O.T. Standard Plans 92.02 & 92-02.
 - Construction of private driveways is not included in this project.
 - The contractor shall, at the direction of the developer, endeavor to save and protect trees of value and worth which do not impair construction of improvements as designed. In the event cut or fill exceeds 0.5 foot over the root area, the developer shall be consulted with respect to protective measures to be taken, if any, to preserve such trees.
 - Remove topsoil to a depth determined by the engineer from all areas to be excavated or filled. Topsoil shall be stored at a location designated by the engineer.
 - All grading shall be completed to within a tolerance of 0.10 foot of the grades indicated on the plans. The engineer shall be notified when the contractor has reached this point, so that field measurements & spot elevations can be verified by the engineer. The contractor shall not remove his equipment from the site until the engineer has verified that the job meets the above tolerance.
 - Seeding shall be done in all disturbed areas exceeding a 2% slope to prevent silting and erosion.
 - All areas disturbed by any construction shall be restored to its original condition. Excess construction material shall be removed from the project area as directed by the Developer at the Contractor's expense. Any construction materials brought onto the project to complete the project shall also be at the contractor's expense.
 - The engineer shall be defined as Stoepelwerth and Associates, Inc., Consulting Engineers.

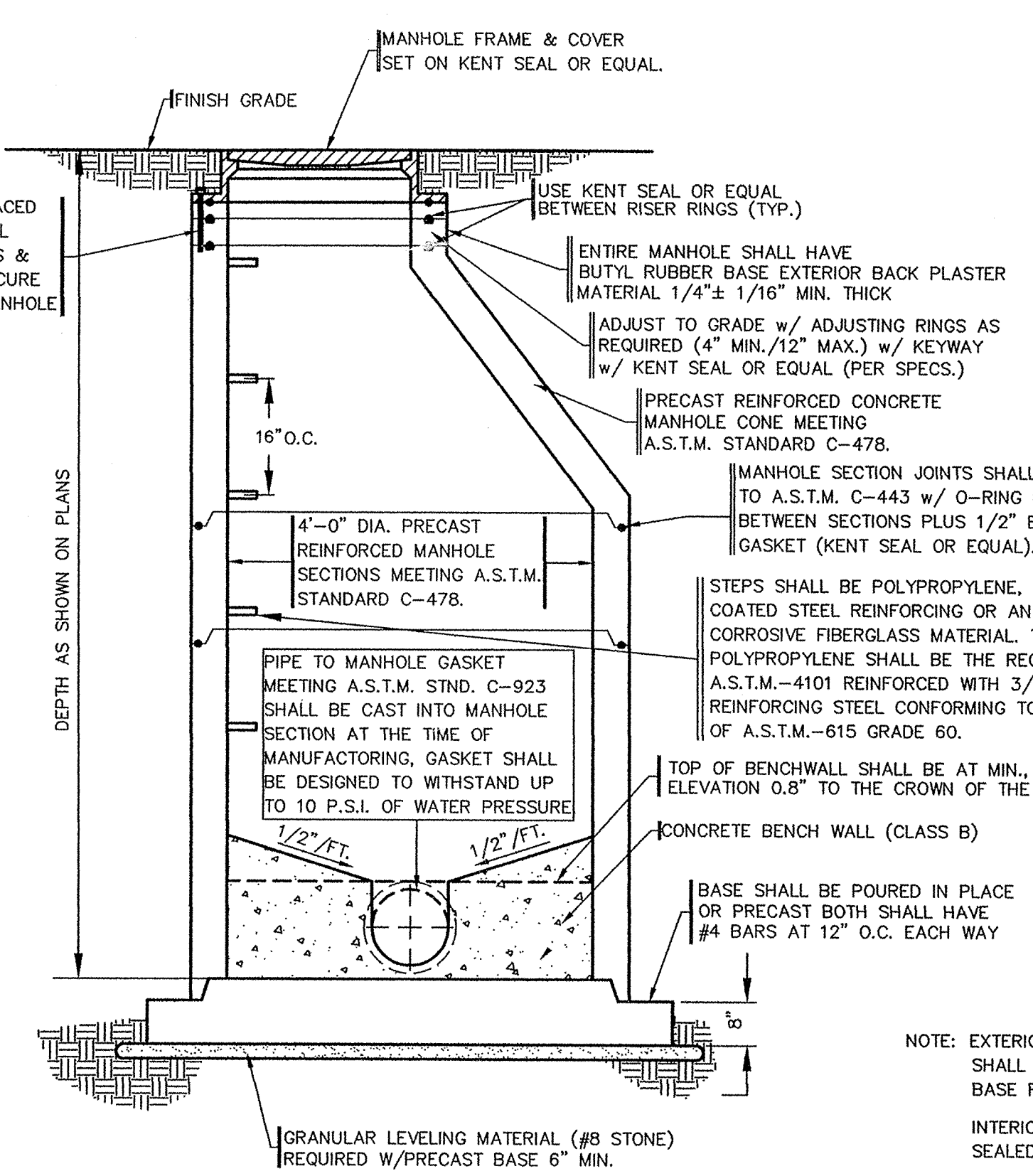
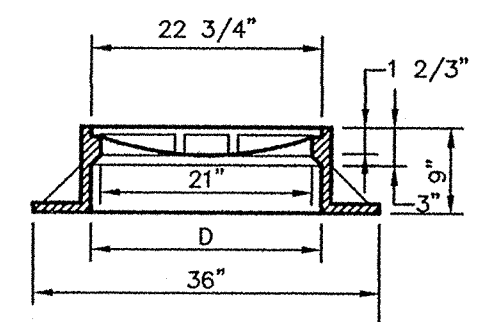
FORM\INDNOTES

Heavy Duty

| Catalog No. | D | WL Lbs. |
|-------------|-------|---------|
| R-17 12 | 24.5" | 540 |
| R-17 12-B | 26" | 415 |
| R-17 12-C | 26" | 365* |

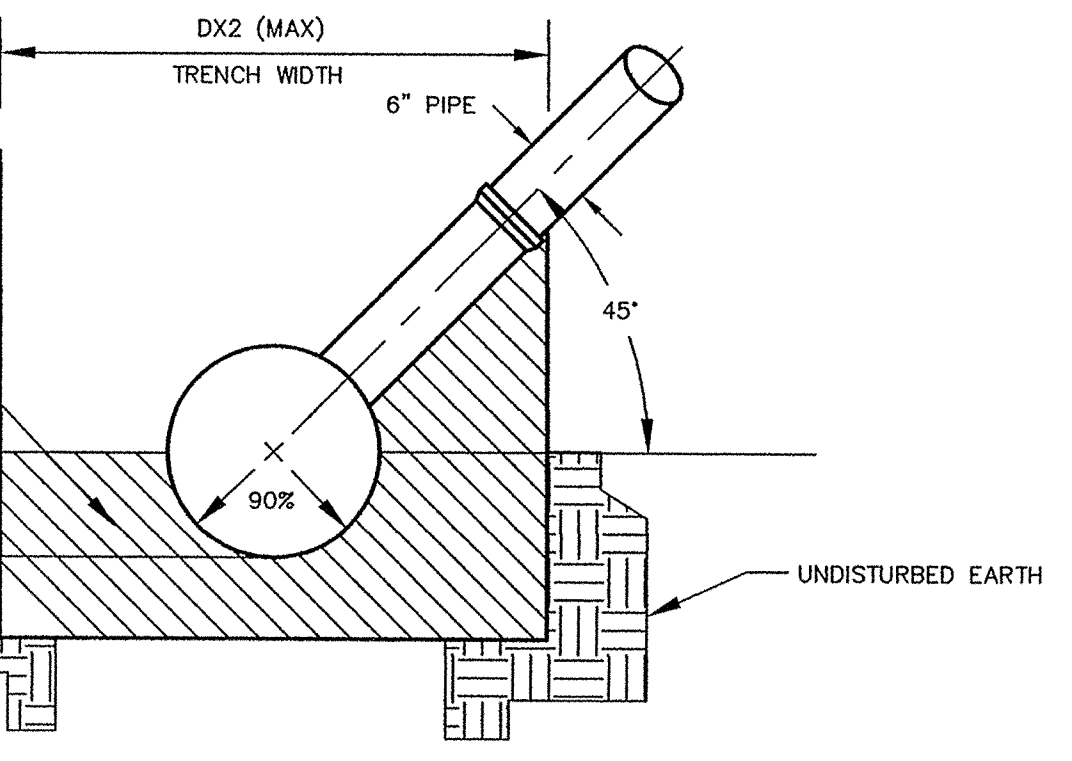
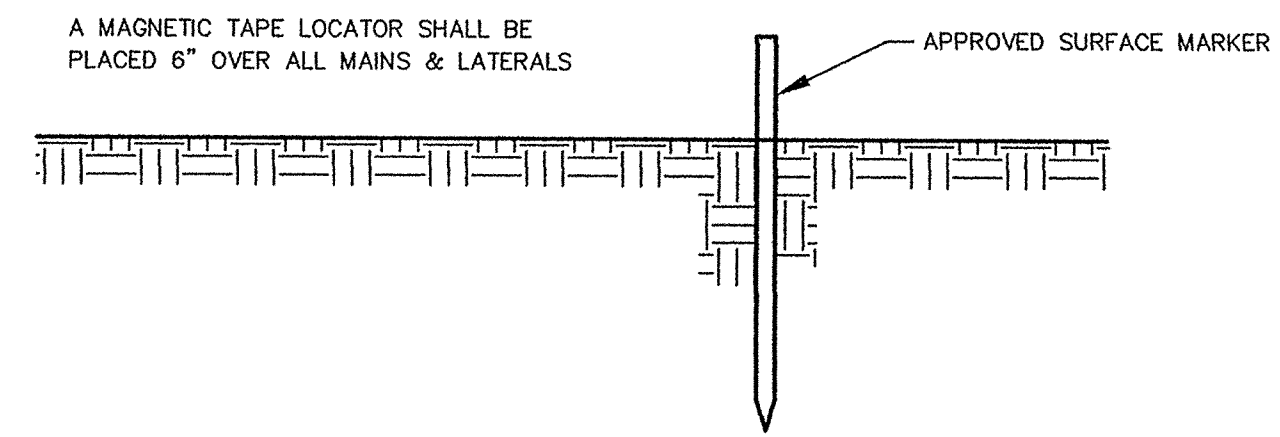
*Furnished with plexen lid, similar to R-1706-1.

SANITARY MANHOLE R-1712-B-SP WITH CONCEALED PICK HOLES
NOT-TO-SCALE

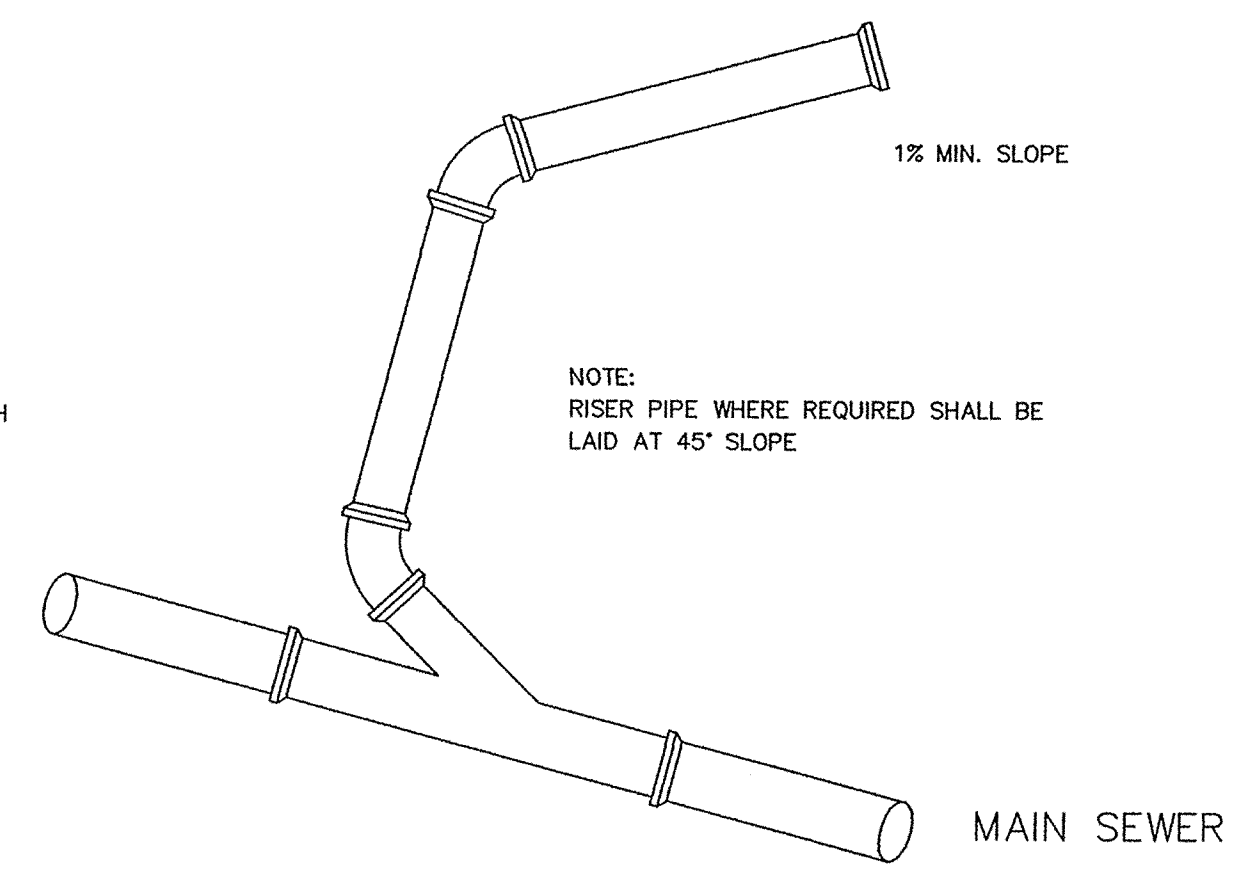


PRECAST REINFORCED CONCRETE MANHOLE FOR SANITARY SEWER
NOT-TO-SCALE

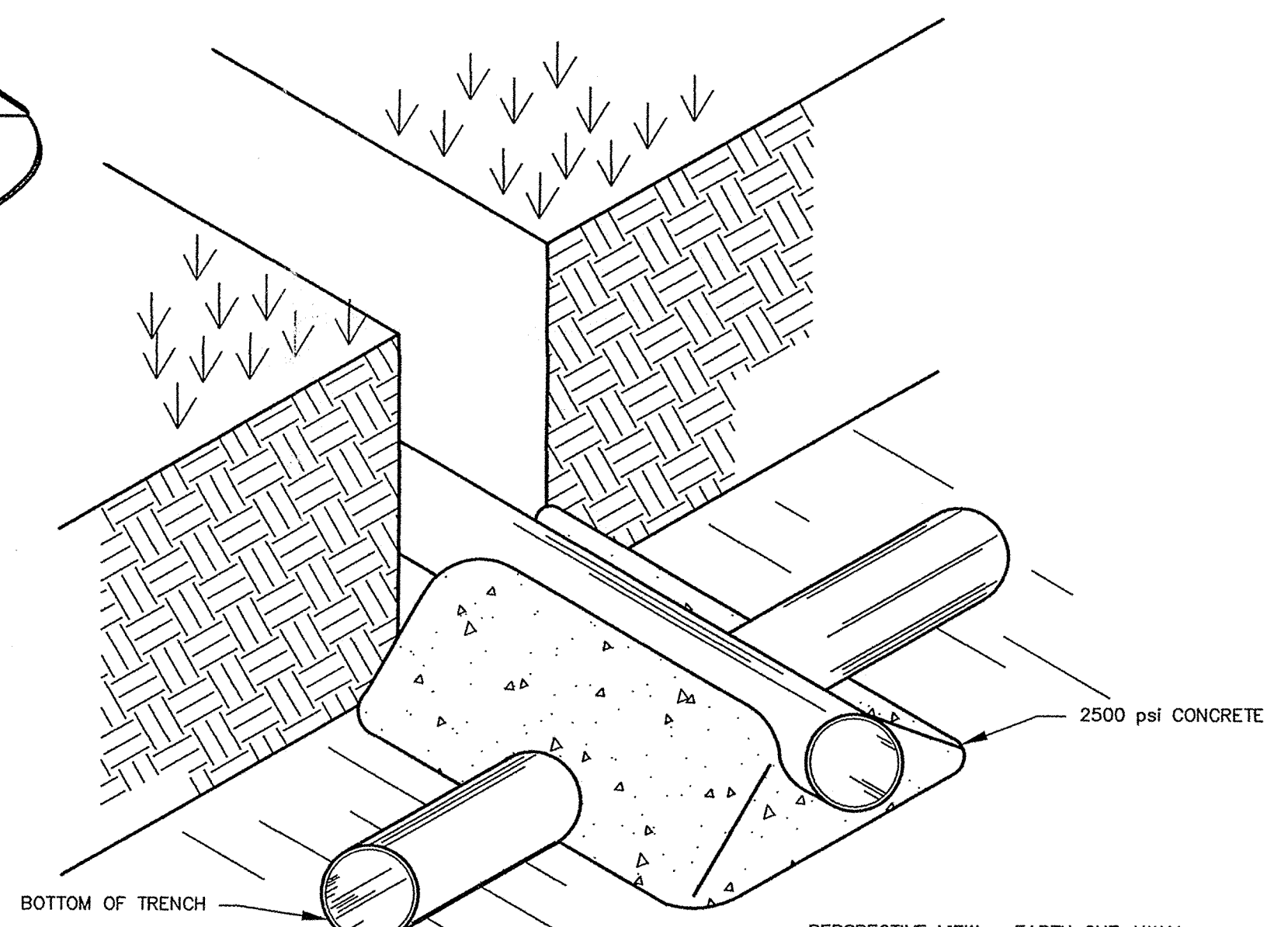
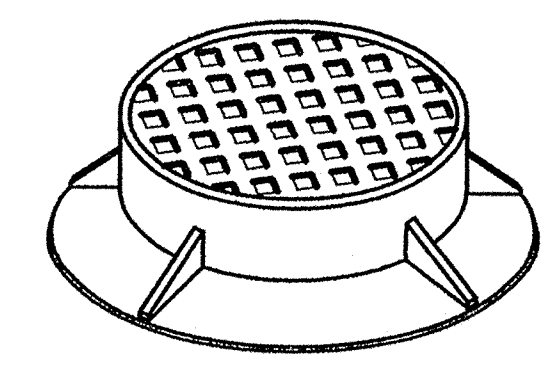
NOTE: EXTERIOR JOINTS OF MANHOLES SHALL BE SEALED W/ BUTYL RUBBER BASE FROM 6" ABOVE TO 6" BELOW EACH JOINT. INTERIOR JOINTS OF MANHOLES SHALL BE SEALED WITH PRECO OR APPROVED EQUAL. BUTYL RUBBER BASE EXTERIOR BACKPLASTER MATERIAL 1/4"-1/16" MIN. THICKNESS FROM 2" BELOW THE TOP OF CONE OF CASTING, UP AND OVER THE CASTING FLANGE.



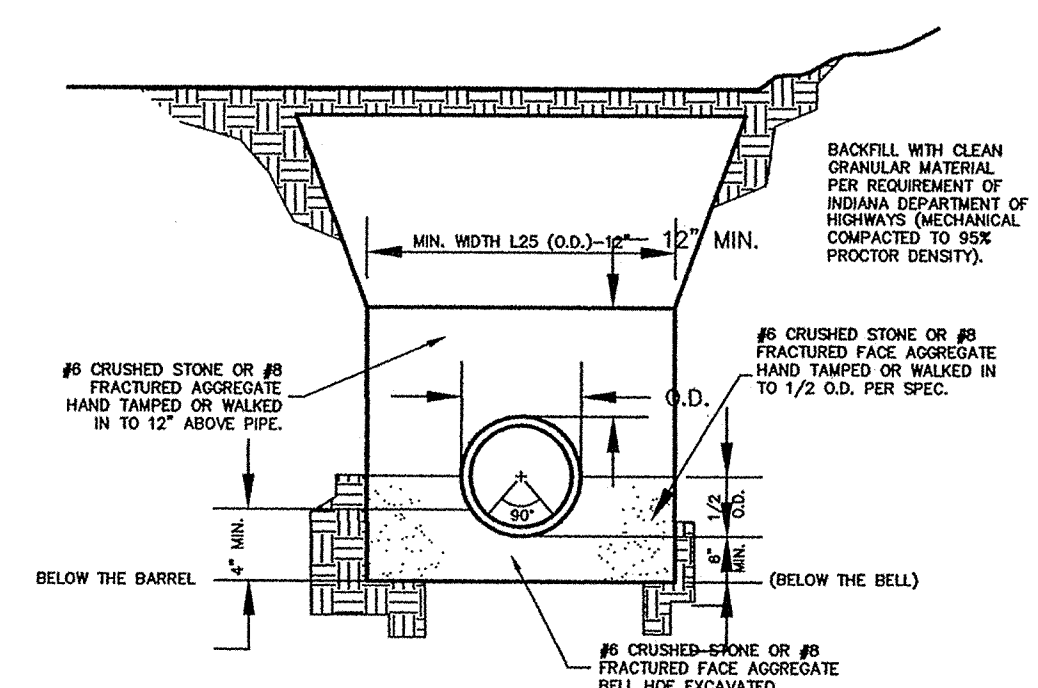
SANITARY SEWER SERVICE CONNECTION
NOT-TO-SCALE



SANITARY SEWER SERVICE CONNECTION
NOT-TO-SCALE



CONCRETE CRADLE
NOT-TO-SCALE



BEDDING DETAIL
NOT-TO-SCALE

MANHOLES SHALL BE AIR TESTED IN ACCORDANCE WITH ASTM C1244-93, STANDARD TEST METHOD FOR CONCRETE SEWER MANHOLES BY THE NEGATIVE AIR PRESSURE (VACUUM) TEST.

OCT 19 '99 82106PVI
OFFICE OF THE HAMILTON COUNTY SURVEYOR

ANCHOR

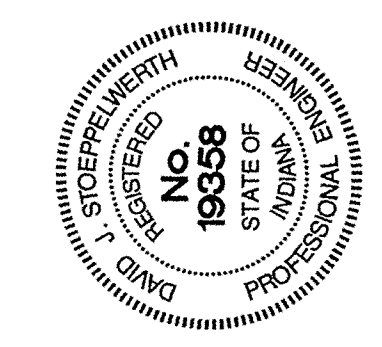
SIDE PROFILE TOP VIEW

END PROFILE

HAMILTON COUNTY SURVEYOR'S OFFICE

APPROVED: *[Signature]* AUG 17 1998
KESTON C. WARD, HAMILTON COUNTY SURVEYOR

REVISOR: 19 SEP 1997
STANDARD PLAN



DATE: 3/6/00
DATE MARK: 3/6/00
DATE: 3/6/00

CERTIFIED: 3/6/00

BY: *[Signature]*
David J. Stoepelwerth

CONSULTING ENGINEERS - LAND SURVEYORS
(317) 849-5935 1-800-728-6917 FAX: (317) 849-5942
INDIANAPOLIS, INDIANA

CONSTRUCTION DETAILS
PEBBLE BROOK SECTION EIGHT

NOBLESVILLE, INDIANA

FILED
JUN 17 2002
OFFICE OF HAMILTON COUNTY SURVEYOR

SHEET NO. 13
OF 13 SHEETS
JOB NO. 36269