# LAKERIDGE ESTATES

## PLAT

### CONTRACT DRAWINGS
### FOR
### ROADWAY AND UTILITIES IMPROVEMENTS
### FERNDALE, WASHINGTON

SECTION 24, T 39 N, R 1 E


**DESIGN ENGINEERS:** WEDEN ENGINEERING, INC. 119 GRAND AVE., STE. D, 671-8200

**OWNER:** LAKERIDGE ESTATES, INC.

**CONTACT PERSON:** GARY CRAIG

**AS BUILT ENGINEERS:** AYERS PROFESSIONAL GROUP, INC.


## DRAWING INDEX



## LEGEND

| EXISTING | PLAN | PROPOSED |
|---|---|---|
| □ | CATCH BASIN | ■ |
| | CULVERT INVERT | |
| | DETAIL NUMBER / SHEET FOUND | 3 / 3 |
| —W— | WATER LINE | |
| ○ | SANITARY SEWER MANHOLE | ● |
| ◦ | SS CLEANOUT | • |
| | STRAW BALE DAM | |
| ⋈ | GATE VALVE | ⋈ |
| | HYDRANT | |
| ⊞ | WATER METER | ⊞ |
| ◁ | THRUST BLOCK | ◀ |
| | CURB CUT | |
| | EASEMENT | |
| ☼ | LIGHTING | ☀ |
| | LIGHTING TRENCH | |
| E&T | ELECTRICAL & UTILITIES TRENCH | |

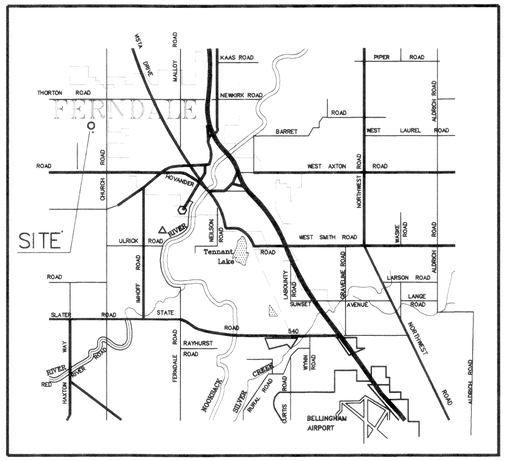
PROFILE

| | |
|---|---|
| | EXISTING GROUND |
| | FINISHED GRADE |
| | MANHOLE / SANITARY SEWER |
| | CATCH BASIN / STORM PIPE |
| | EXISTING PIPING |

**WARNING! UTILITIES IN AREA. CALL UTILITY LOCATORS PRIOR TO ANY EXCAVATION.**

LEGEND

- EXISTING 2' CONTOUR / EXISTING 10' CONOUR
- PROPOSED 2' CONTOUR / PROPOSED 10' CONOUR
- SF — SILT FENCE
- PROPERTY LINE
- R/W LINE
- LOT LINE
- ℄ LINE
- WETLAND UNDISTURBED
- WETLAND TO BE FILLED
- UTILITY POLE
- DECIDUOUS TREE
- CONIFEROUS TREE
- CONIFEROUS TREE
- EXISTING BUILDING
- HANDICAP RAMP
- BACK OF SIDEWALK
- RIGHT OF WAY
- DRAINAGE SWALE
- ROCKERY
- SD CULVERT
- EDGE OF PAVEMENT
- DRAINAGE FLOW INDICATOR
- WELL
- FENCE




SECTION 24
TOWNSHIP 39 N RANGE 1 E

## VICINITY MAP
N.T.S.

5-14-97

### GENERAL NOTES

1. THE LOCATION OF EXISTING UTILITIES SHOWN IS APPROXIMATE. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO FIELD VERIFY THESE LOCATIONS PRIOR TO CONSTRUCTION.
2. ALL WORK SHALL CONFORM TO THE STANDARD PLANS AND SPECIFICATIONS OF THE WASHINGTON STATE DEPARTMENT OF TRANSPORTATION (WSDOT), 1991, AND CITY OF FERNDALE STANDARDS UNLESS INDICATED OTHERWISE BY THE CONTRACT DOCUMENTS. IN CASE OF A CONFLICT BETWEEN THE REGULATORY STANDARDS OR SPECIFICATIONS, THE MORE STRINGENT REQUIREMENT WILL PREVAIL.
3. UNDERGROUND UTILITIES ARE KNOWN TO EXIST IN THE AREA OF CONSTRUCTION. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO CONTACT THE UTILITY OWNERS FOR LOCATIONS AND TO NOTIFY THE ENGINEER PROMPTLY OF ANY CONFLICT.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THE INTEGRITY OF ADJACENT UTILITIES WHICH INCLUDE, BUT ARE NOT LIMITED TO, WATER, SEWER, STORM SEWER, POWER, TELEPHONE, CABLE TV, IRRIGATION, AND STREET LIGHTING.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL EROSION CONTROL MEASURES THROUGHOUT THE DURATION OF THE PROJECT.
6. CONTRACTOR IS RESPONSIBLE TO CONFORM TO ANY CONDITIONS OF THE SHORELINES PERMIT AND HYDRAULIC PERMIT ON FILE WITH THE CITY AND THE OWNER.

**RECORD DRAWING**

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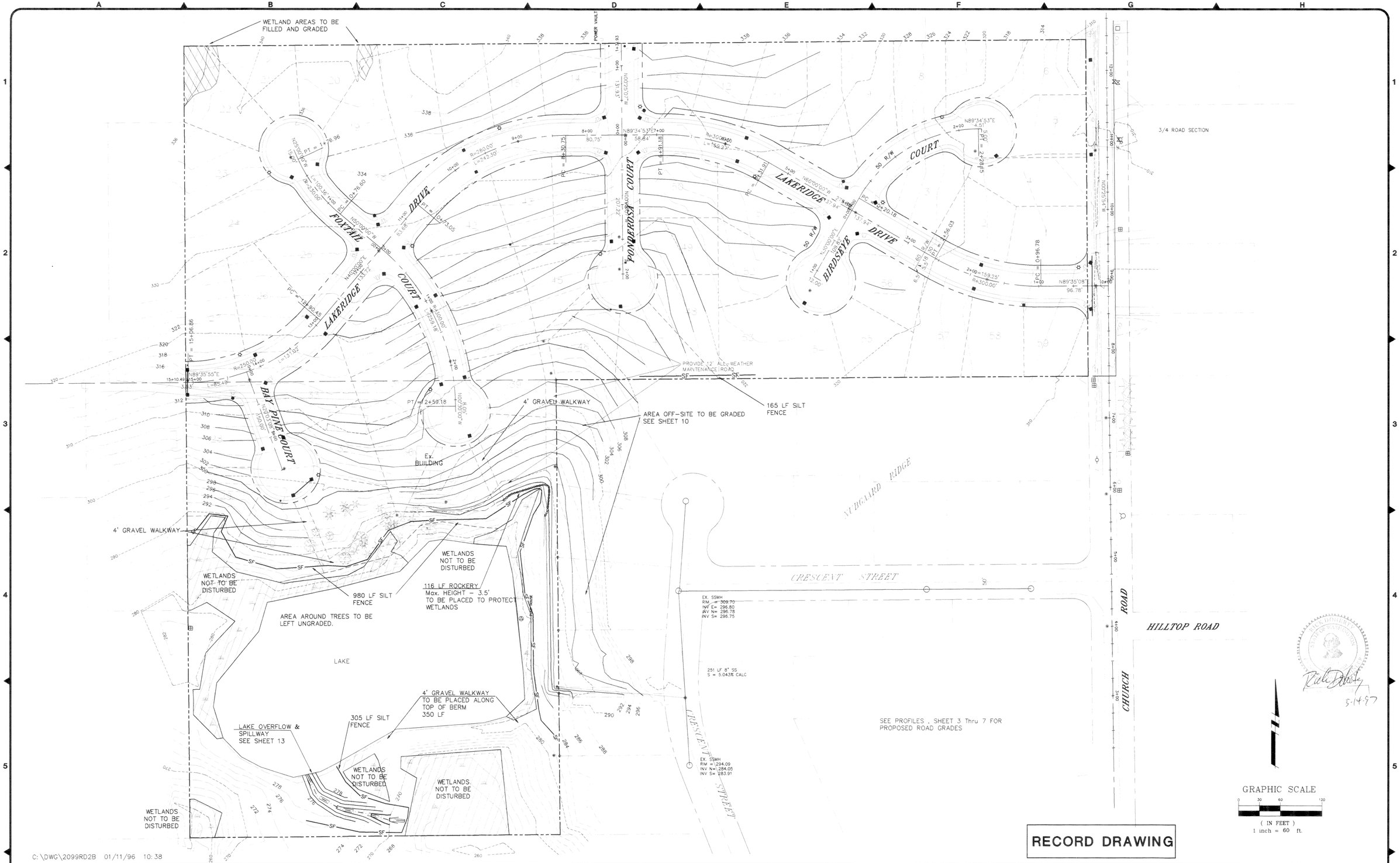
| | | | |
|---|---|---|---|
| 1 | RECRD DRAWINGS | KLS | 09/95 |


1911 "C" STREET
BELLINGHAM, WA 98225
PHONE: (360) 671-8200
COUNTY: (360) 354-3723
FAX: (360) 738-9367
Ayers Professional Group, Inc.


| | | |
|---|---|---|
| DESIGNED BY | KLS | DATE 09/12/95 |
| DRAWN BY | KLS | DATE 09/12/95 |
| CHECKED BY | | DATE |

LAKERIDGE ESTATES
CIVIL IMPROVEMENTS
TITLE, VICINITY, AND LOCATION MAPS, LEGEND, NOTES, AND SHEET INDEX

DATE 08/15/95
SCALE: AS NOTED
JOB NO. 92099D
SHEET 1 OF 17




| | | | |
|---|---|---|---|
| 1 | RECORD DRAWINGS | RFF | 09/95 |

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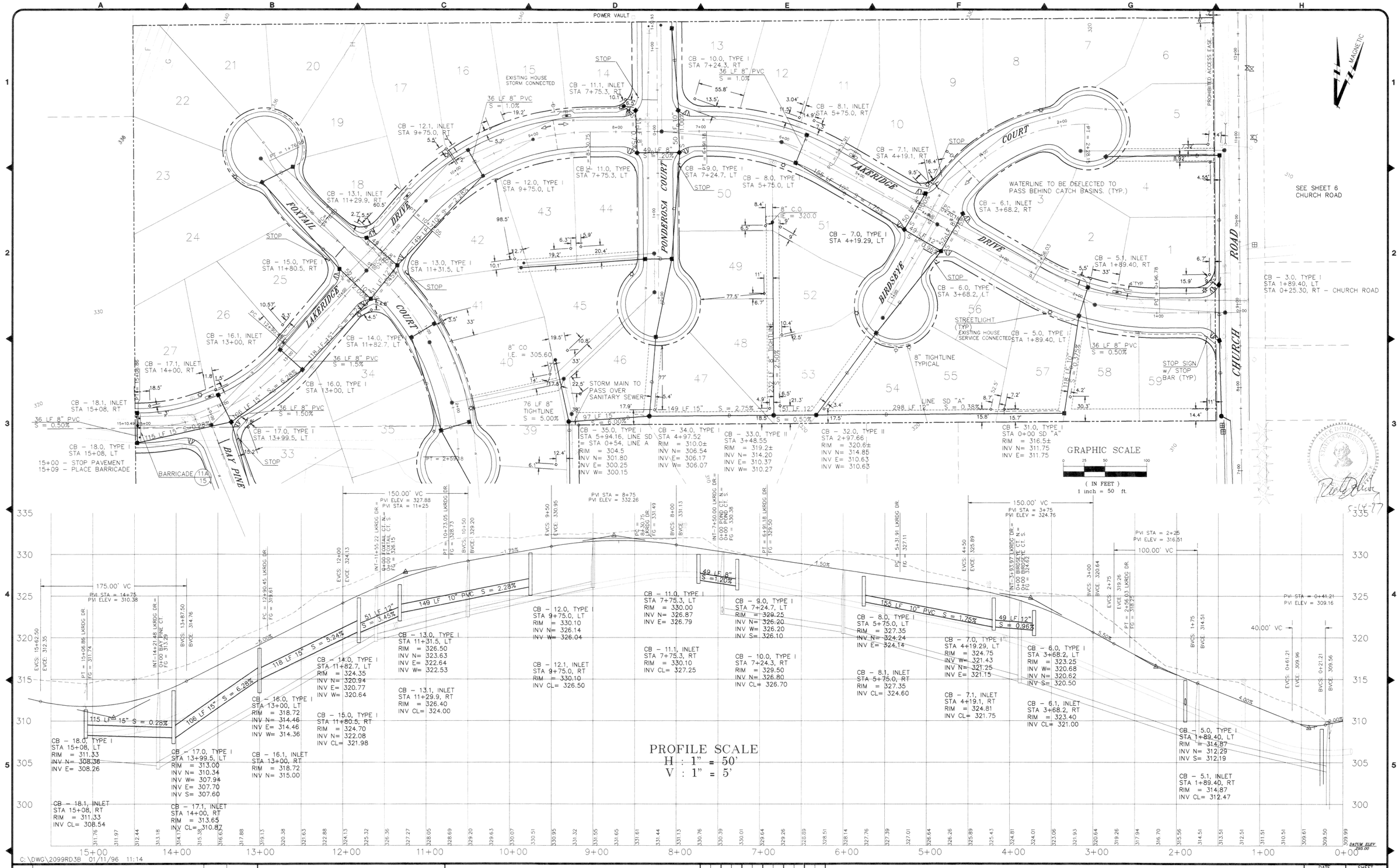
Ayers Professional Group, Inc.

| | | | |
|---|---|---|---|
| DESIGNED BY | | DATE | |
| DRAWN BY | KLS | DATE | 09/12/95 |
| CHECKED BY | | DATE | |

# LAKERIDGE ESTATES

## GRADING & ROADWAY STAKING PLAN

| | |
|---|---|
| DATE | 09/12/95 |
| SCALE: | 1" = 60' |
| JOB NO. | 92099D |
| SHEET | 2 OF 17 |




| | | | |
|---|---|---|---|
| 1 | RECORD DRAWINGS | RFF | 09/95 |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PHONE: (360) 671-8200
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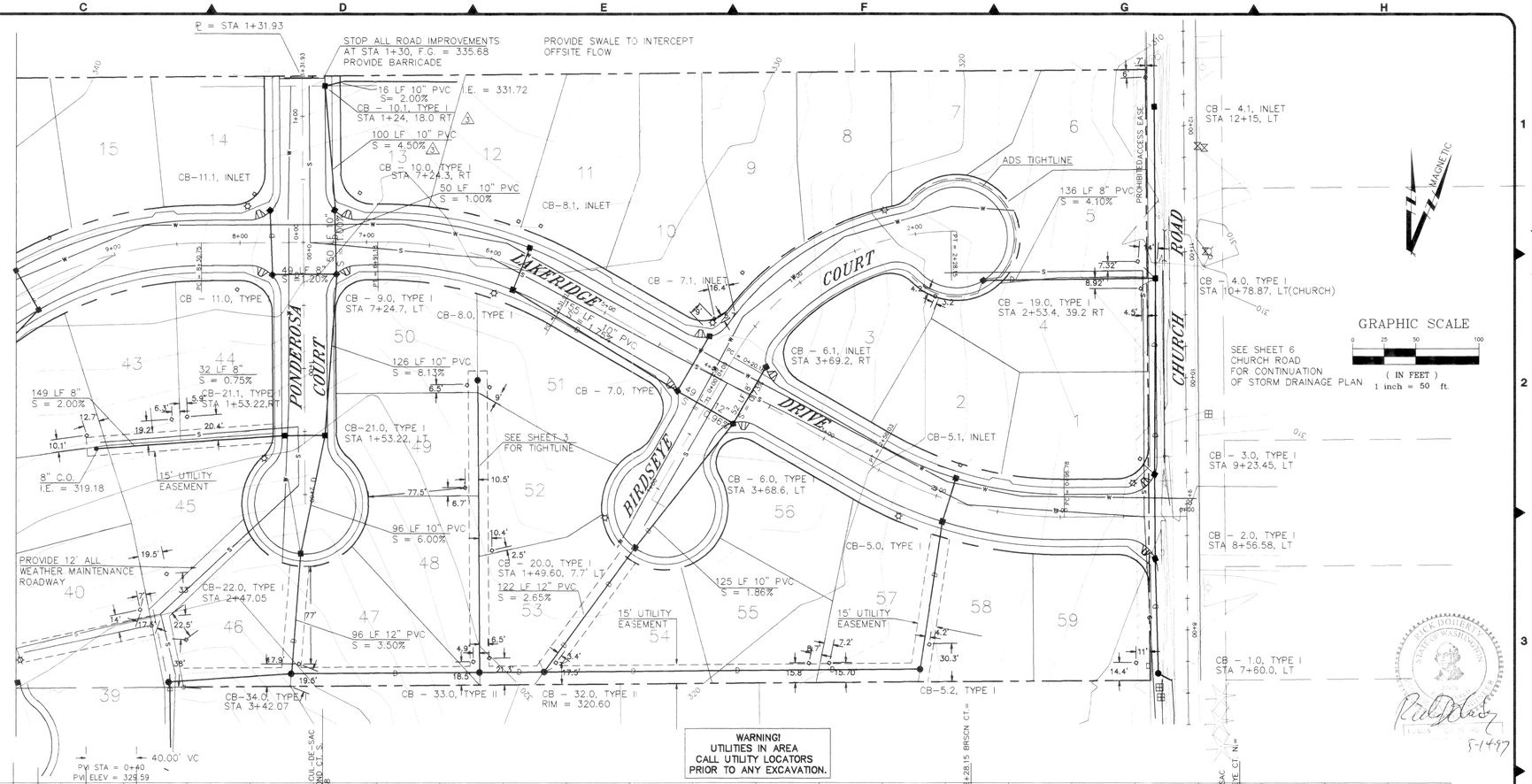
FAX: (360) 738-9367
Ayers Professional Group, Inc.


| | | |
|---|---|---|
| DESIGNED BY | | DATE |
| DRAWN BY | KLS | DATE 09/12/95 |
| CHECKED BY | | DATE |

**RECORD DRAWING**

# LAKERIDGE ESTATES
## LAKERIDGE DRIVE
## ROADWAY & DRAINAGE PLAN

| DATE | SHEET |
|---|---|
| 09/12/95 | 3 |
| SCALE: AS SHOWN | OF 17 |
| JOB NO. 92099D | |

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|---|---|---|---|
| 1 | RECORD DRAWINGS | RFF | 09/95 |

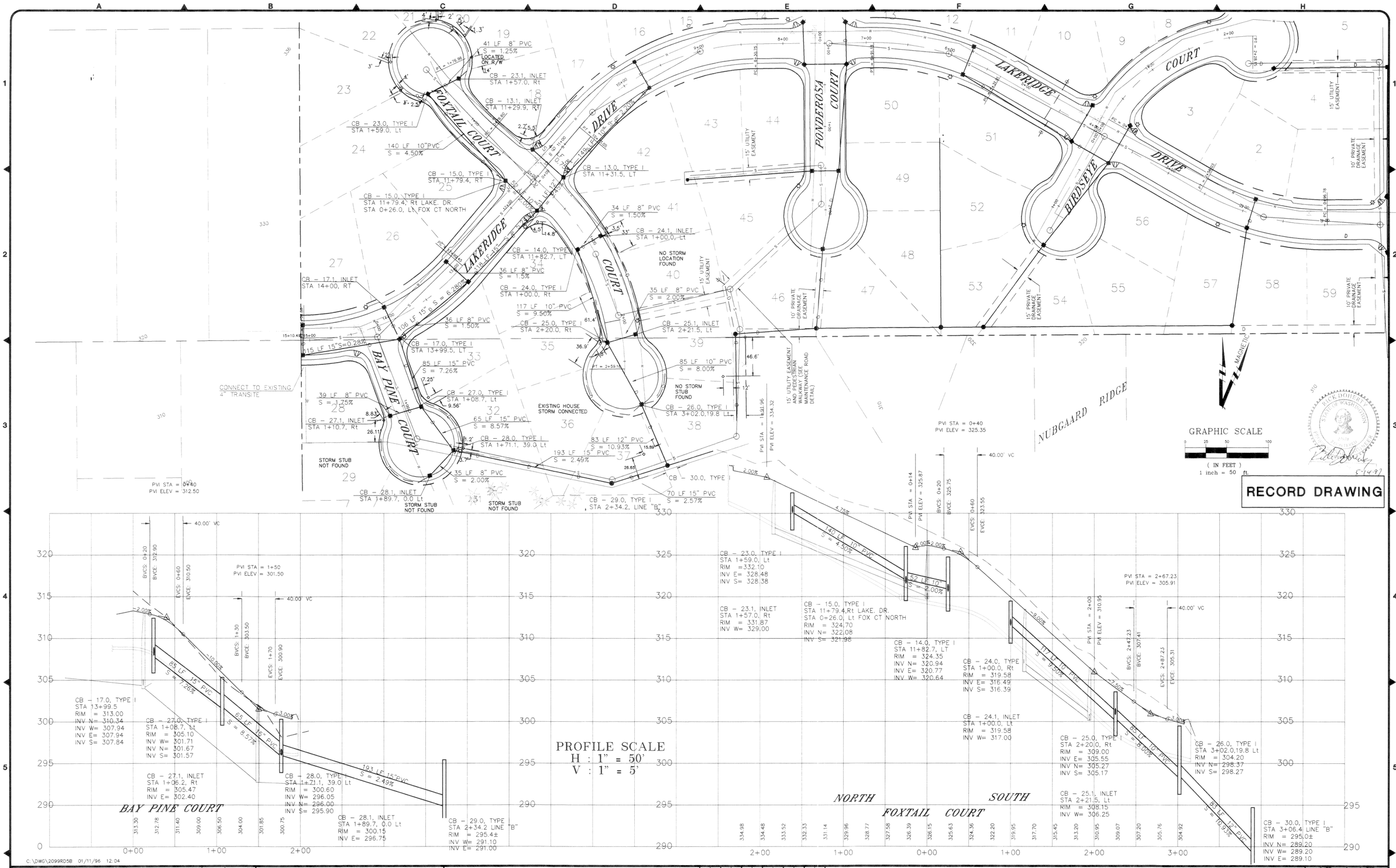

Ayers Professional Group, Inc.
1911 "C" STREET
BELLINGHAM, WA 98225
PHONE: (360) 671-8200
COUNTY: (360) 354-3723
FAX: (360) 738-9367


| | INITIALS | DATE |
|---|---|---|
| DESIGNED BY | | |
| DRAWN BY | KLS | 06/06/94 |
| CHECKED BY | | |

**RECORD DRAWING**

# LAKERIDGE ESTATES
## PONDEROSA AND BIRDSEYE COURTS
### ROADWAY & DRAINAGE PLAN

DATE 06-08-94
SCALE 1" = 50' H. 1" = 5' V.
JOB NO. 92099D
SHEET 4 OF 17

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| 1 | RECORD DRAWINGS | RFF | 09/95 |


1911 "G" STREET
BELLINGHAM, WA 98225
PHONE: (360) 671-8200
COUNTY:(360) 354-3723
FAX: (360) 738-9367
Ayers Professional Group, Inc.

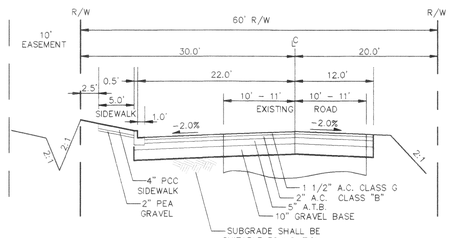

| | | | |
|---|---|---|---|
| DESIGNED BY | | DATE | |
| DRAWN BY | KLS | DATE | 09/18/95 |
| CHECKED BY | | DATE | |

RECORD DRAWING

# LAKERIDGE ESTATES
## FOXTAIL & BAY PINE COURT
## ROADWAY & DRAINAGE PLAN

DATE 10/15/95
SCALE: AS SHOWN
JOB NO. 92099
SHEET 5 OF 17

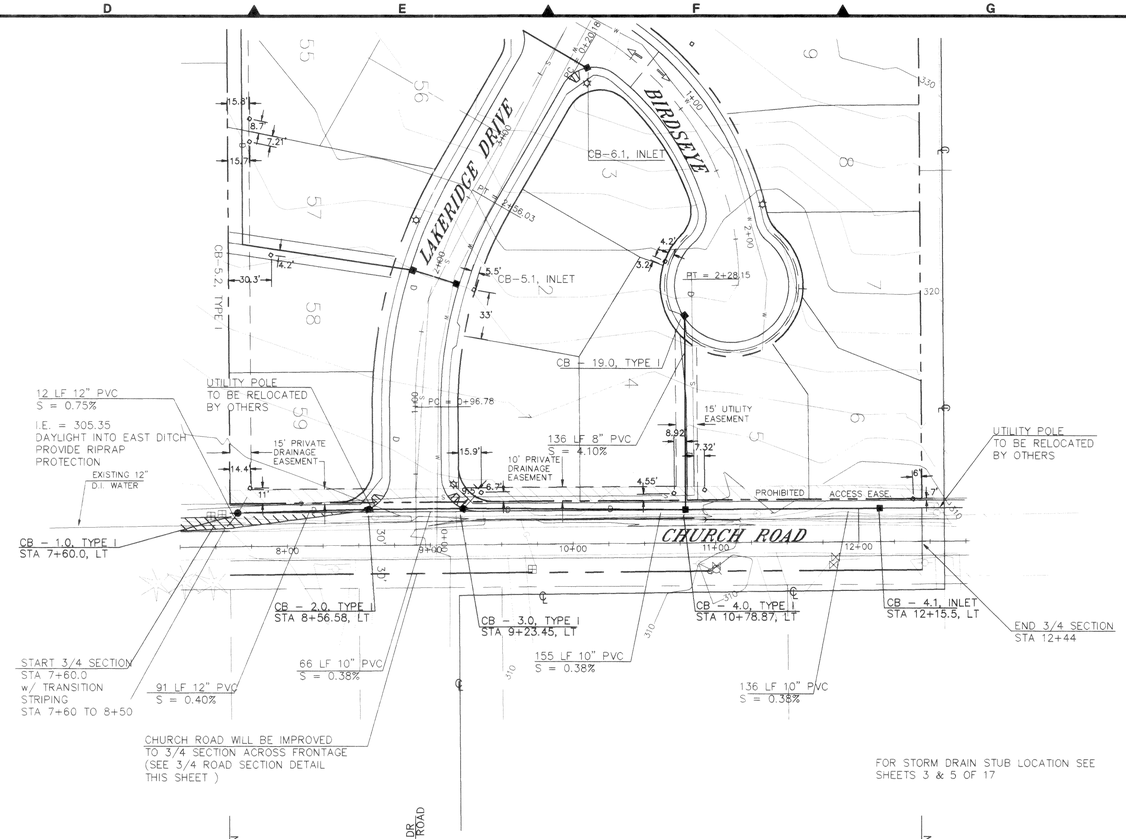
00094.DDS 2-13 DUKE

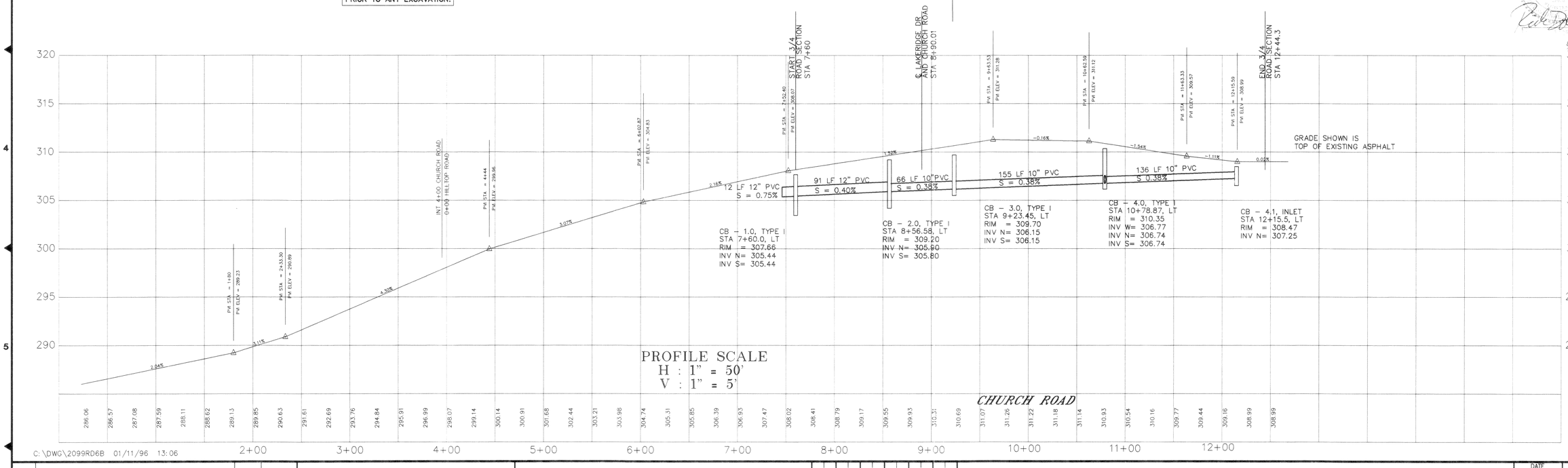



**STANDARD 3/4 ROAD SECTION**

N.T.S.
CHURCH ROAD

WARNING!
UTILITIES IN AREA
CALL UTILITY LOCATORS
PRIOR TO ANY EXCAVATION.

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| 1 | RECORD DRAWINGS | RFF | 09/95 |


1911 "C" STREET
BELLINGHAM, WA 98225
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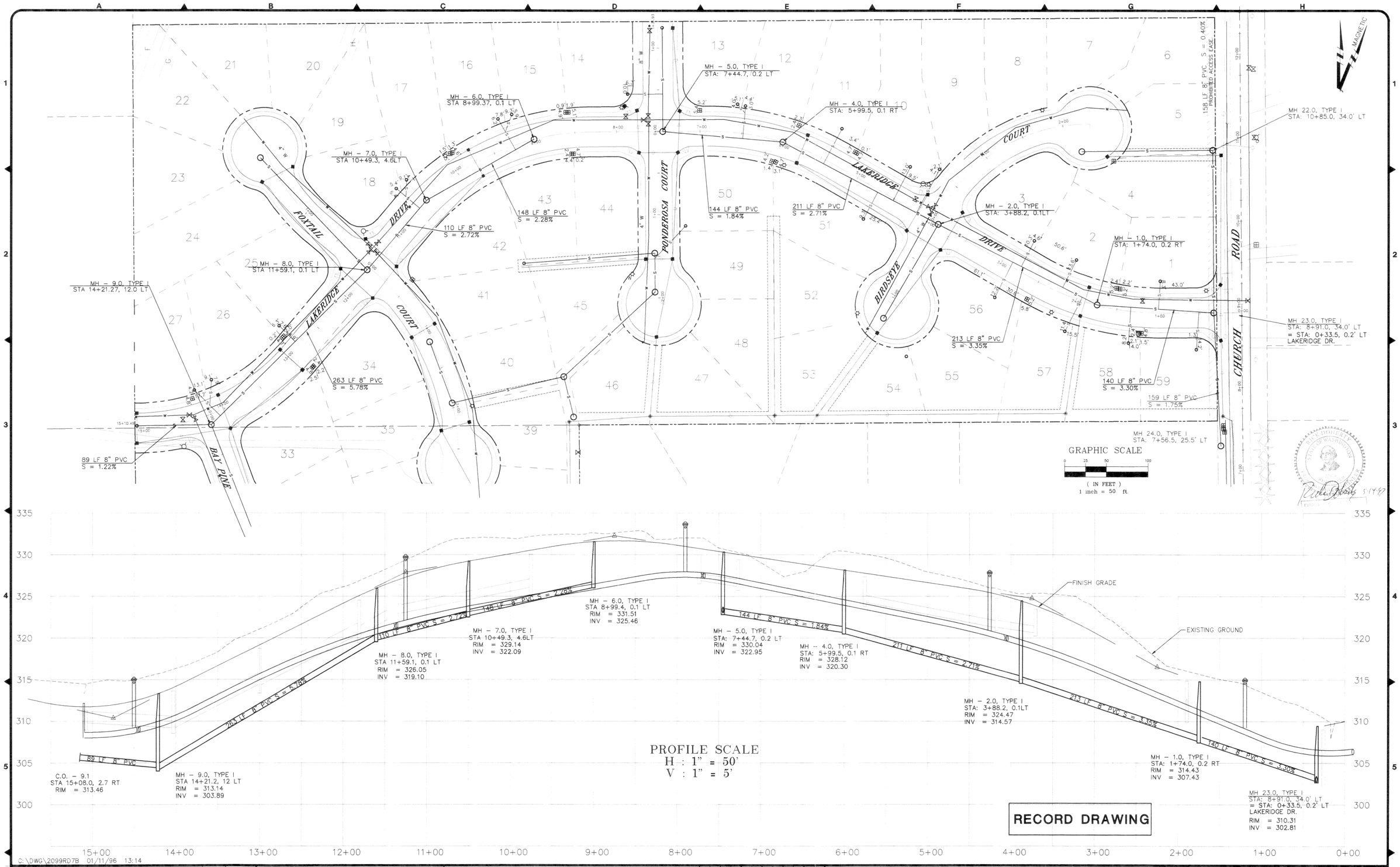
COUNTY: (360) 354-3723
FAX: (360) 738-9367
Ayers Professional Group, Inc.


| | | |
|---|---|---|
| DESIGNED BY | INITIALS | DATE |
| DRAWN BY | INITIALS KLS | DATE 09/15/95 |
| CHECKED BY | INITIALS | DATE |

**RECORD DRAWING**

# LAKERIDGE ESTATES
## CHURCH ROAD
### ROADWAY & DRAINAGE PLAN

| DATE | SHEET |
|---|---|
| 06-08-94 | 6 OF 17 |
| SCALE 1" = 50' H. 1" = 5' V. | |
| JOB NO. 92099D | |

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| 1 | RECORD DRAWINGS | RFF | 09/95 |


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Ayers Professional Group, Inc.

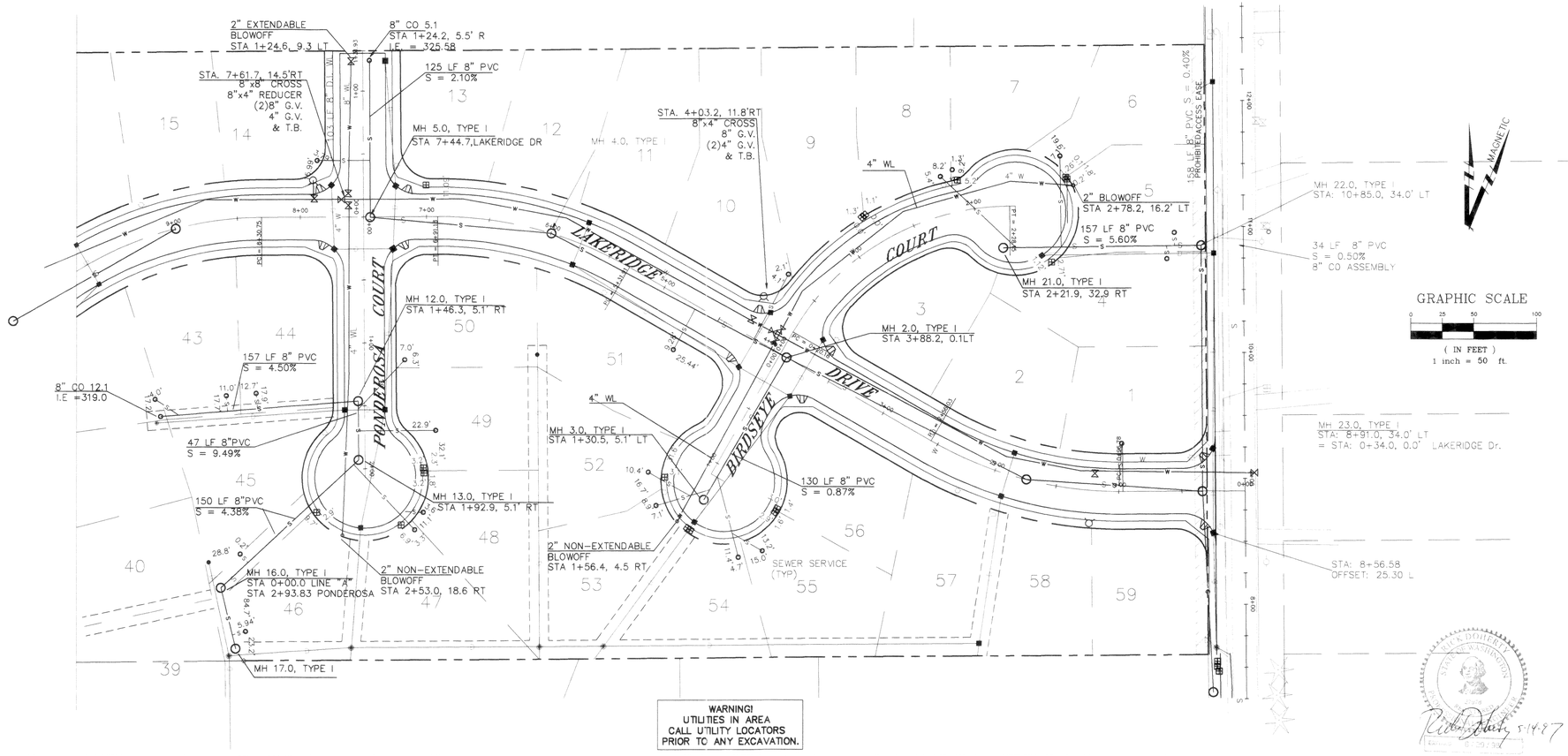

| | | | |
|---|---|---|---|
| DESIGNED BY | | DATE | |
| DRAWN BY | KLS | DATE | 09/13/95 |
| CHECKED BY | | DATE | |

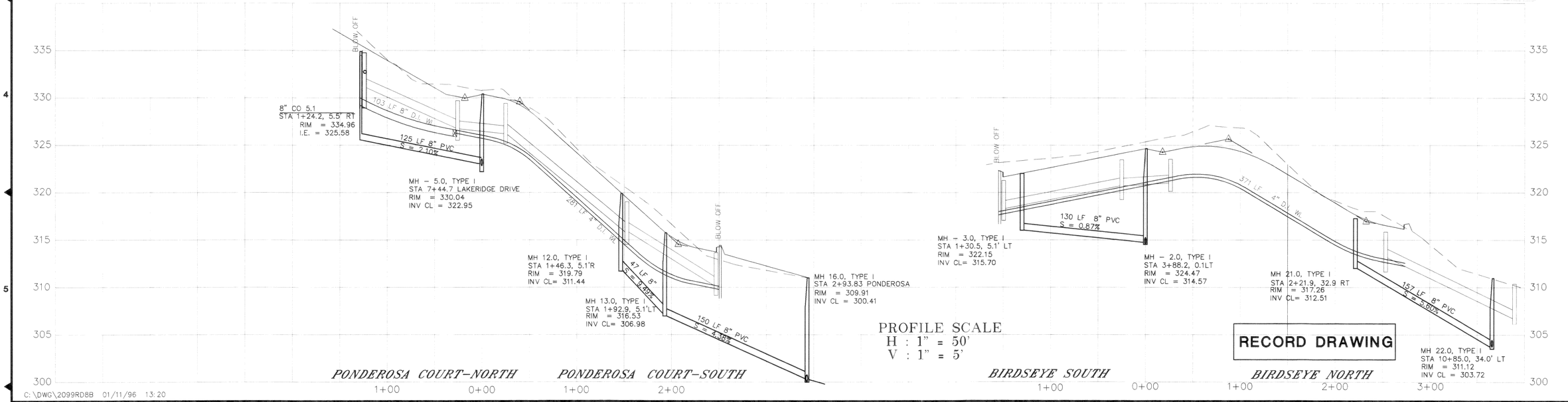
# LAKERIDGE ESTATES

## LAKERIDGE DRIVE

## SANITARY SEWER & WATER PLAN

| | |
|---|---|
| DATE | 09/12/95 |
| SCALE: | AS SHOWN |
| JOB NO. | 92099D |
| SHEET | 7 OF 17 |

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| 1 | RECORD DRAWINGS | RFF | 09/95 |


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| | | | |
|---|---|---|---|
| DESIGNED BY | | DATE | |
| DRAWN BY | KLS | DATE | 09/12/95 |
| CHECKED BY | | DATE | |

# LAKERIDGE ESTATES

## PONDEROSA AND BIRDSEYE COURTS

### SANITARY SEWER AND WATER PLAN

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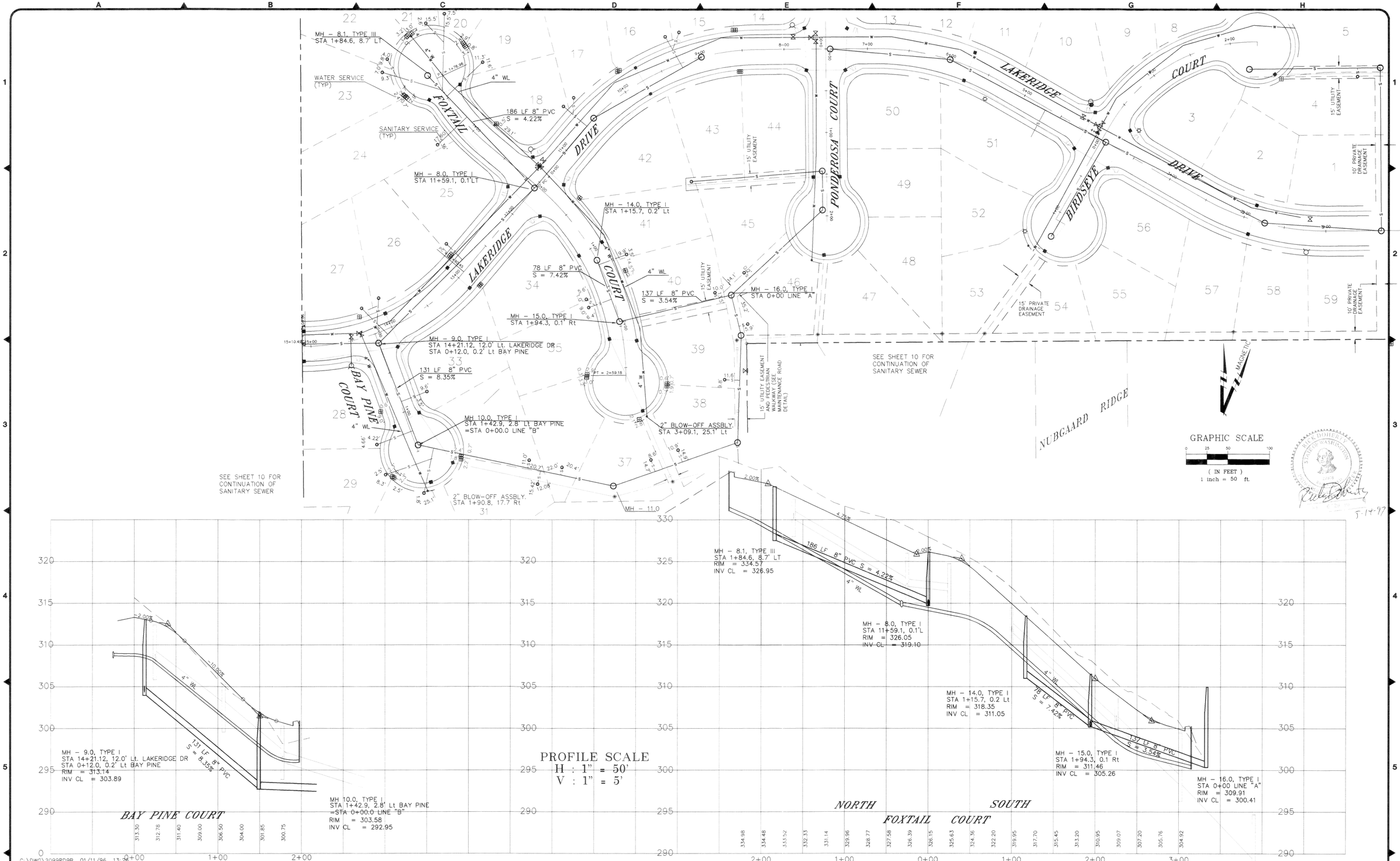
|---|---|
| DATE | 09/12/95 |
| SCALE: | AS SHOWN |
| JOB NO. | 92099 |
| SHEET | 8 OF 17 |

00094.008 2-13-06 KR

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| 1 | RECORD DRAWINGS | RFF | 09/95 |


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Ayers Professional Group, Inc.


| | | |
|---|---|---|
| DESIGNED BY | | DATE |
| DRAWN BY | KLS | DATE 09/15/95 |
| CHECKED BY | | DATE |

# LAKERIDGE ESTATES

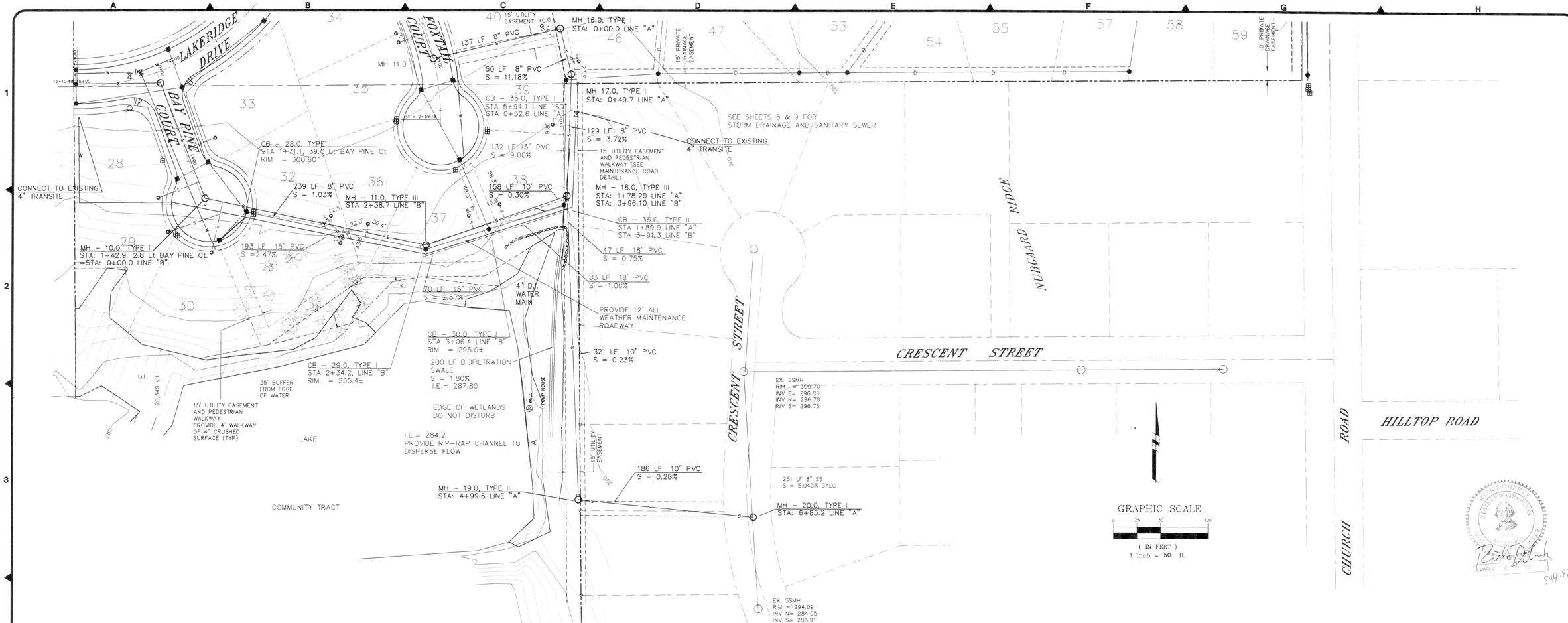
## FOXTAIL & BAY PINE COURTS

## SANITARY SEWER & WATER PLAN

DATE 09/15/95
SCALE: AS SHOWN
JOB NO. 92099

SHEET 9 OF 17

5-14-97

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| 1 | RECORD DRAWINGS | RFF | 09/95 |


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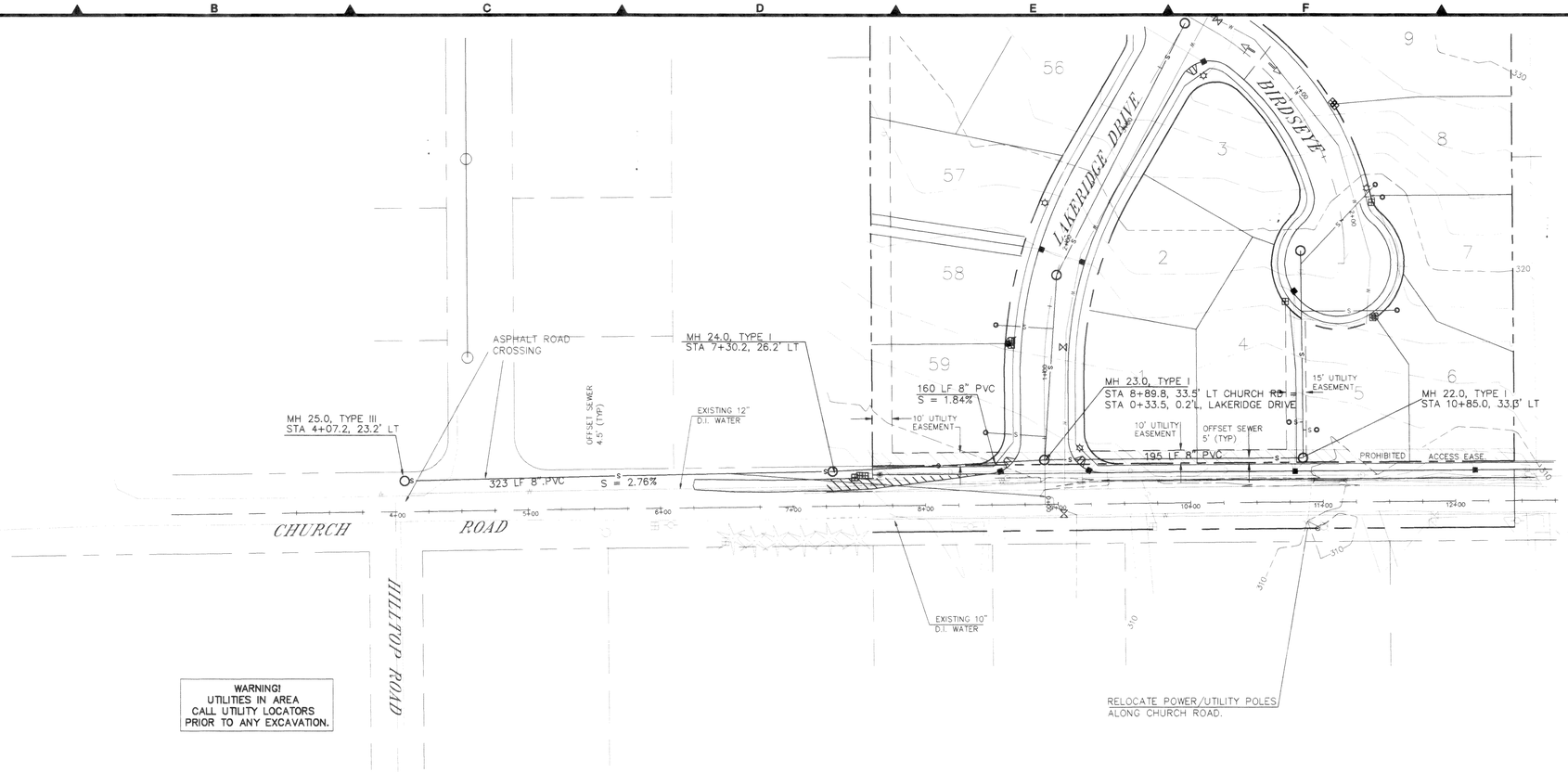
| | | | |
|---|---|---|---|
| DESIGNED BY | | DATE | |
| DRAWN BY | KLS | DATE | 09/15/95 |
| CHECKED BY | | DATE | |

# LAKERIDGE ESTATES

## SEWER & STORM UTILITIES ALONG LAKE

### LINE "A" & LINE "B"

DATE 06-08-94
SCALE: 1" = 50' H. 1" = 5' V.
JOB NO. 92099D
SHEET 10 OF 17




WARNING!
UTILITIES IN AREA
CALL UTILITY LOCATORS
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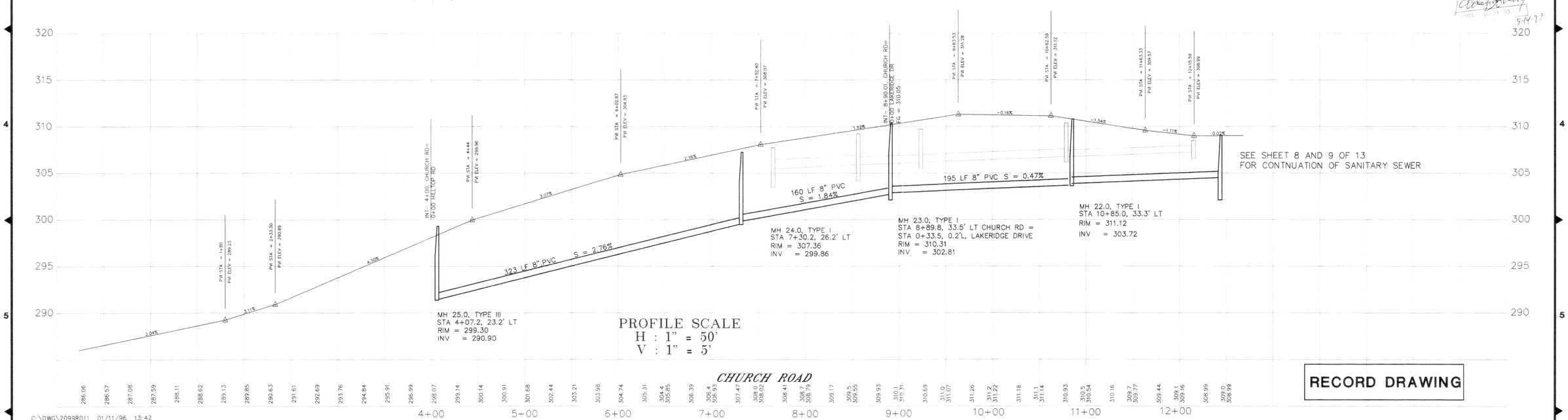


RECORD DRAWING

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| 1 | RECORD DRAWINGS | RFF | 09/95 |


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1911 "C" STREET
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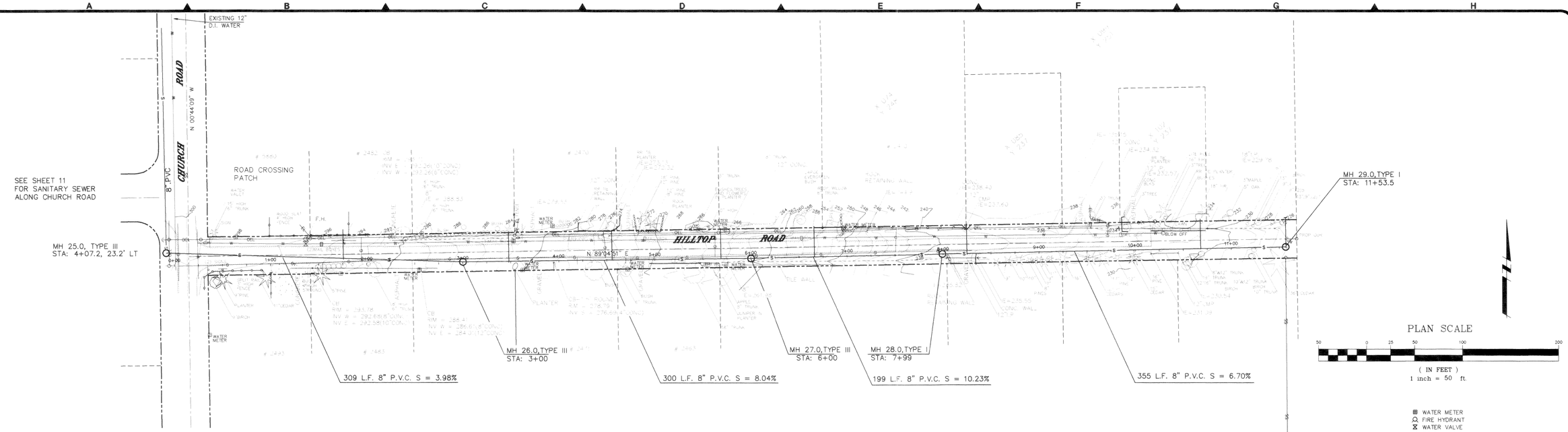
FAX: (360) 738-9367

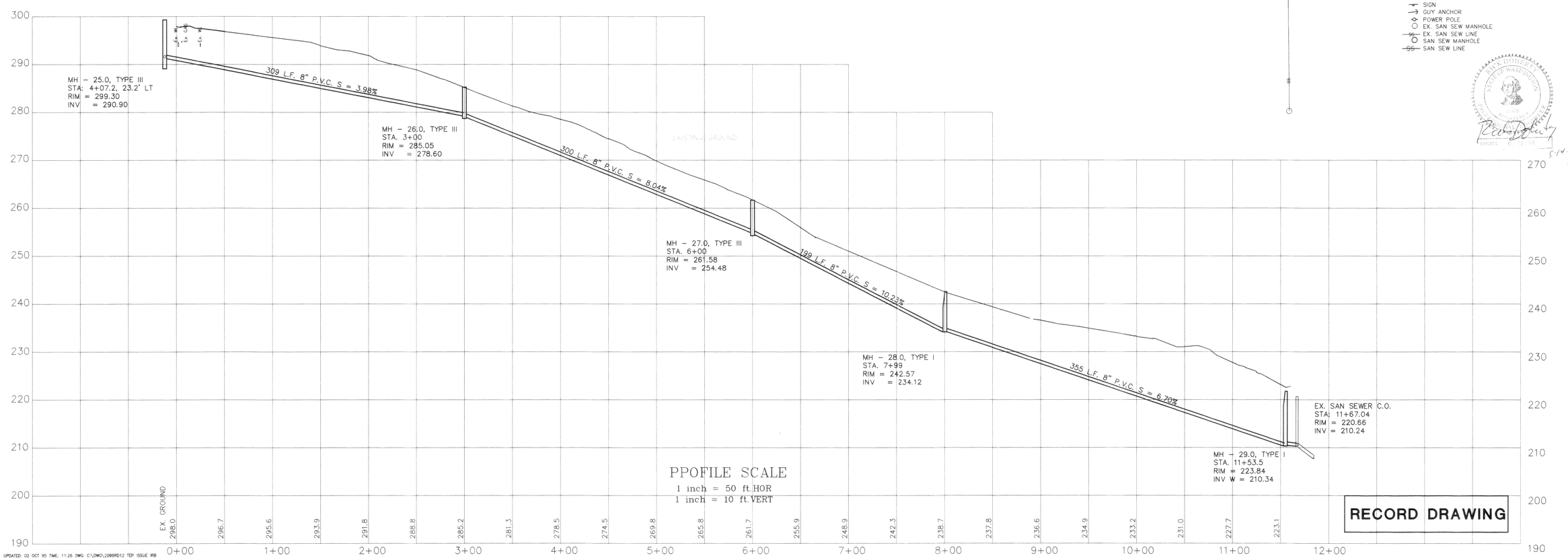

| | | | |
|---|---|---|---|
| DESIGNED BY | | DATE | |
| DRAWN BY | KLS | DATE | 09/18/95 |
| CHECKED BY | | DATE | |

# LAKERIDGE ESTATES
## CHURCH ROAD
## SANITARY SEWER PLAN

| | |
|---|---|
| DATE | 08/15/95 |
| SCALE: | AS SHOWN |
| JOB NO. | 92099D |
| SHEET | 11 OF 17 |

00094.011 2.13.06 KR




UPDATED: 02 OCT 95 TIME: 11:26 DWG: C:\DWG\2099RD12 TEP ISSUE IRB

| | | | |
|---|---|---|---|
| 1 | RECORD DRAWINGS | RFF | 09/95 |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|---|---|---|---|
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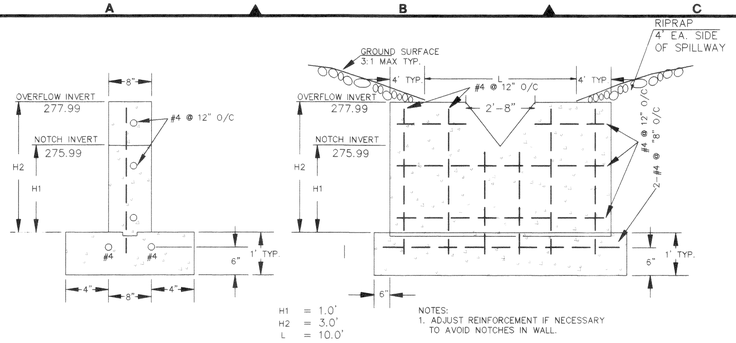
# LAKERIDGE ESTATES

## OFFSITE IMPROVEMENTS–HILLTOP ROAD

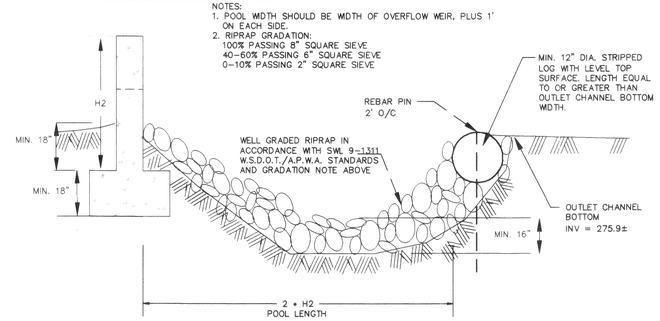
### SANITARY SEWER

DATE 09/15/95
SCALE: 1"=50' H 1"=10' V
JOB NO. 92099F
SHEET 12 OF 17



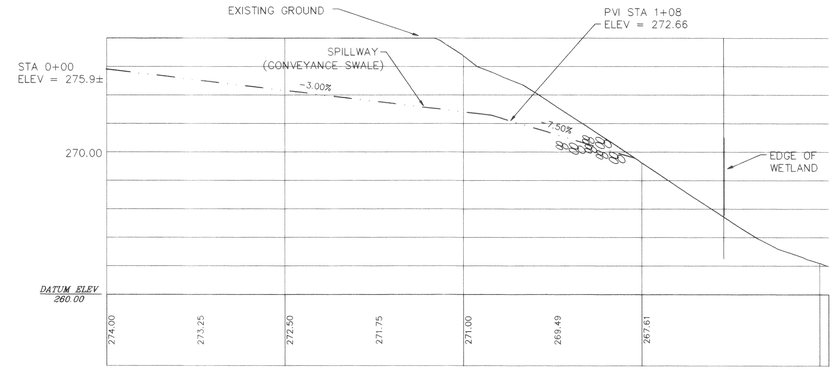

1/13 OPEN OUTLET CONTROL REINFORCEMENT AND FOOTING DETAIL

N.T.S.




2/13 WEIR OUTFALL POOL

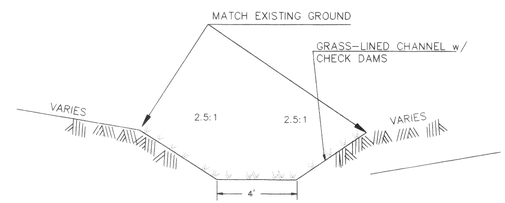
N.T.S.




SWALE PROFILE

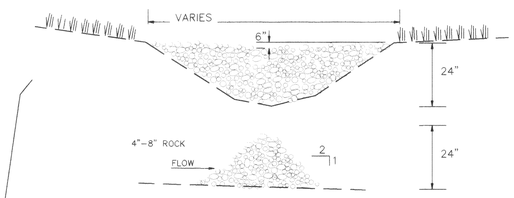
1" = 20' HORIZONTAL

1" = 5' VERTICAL




5/13 SECTION A-A CONVEYANCE SWALE

NTS



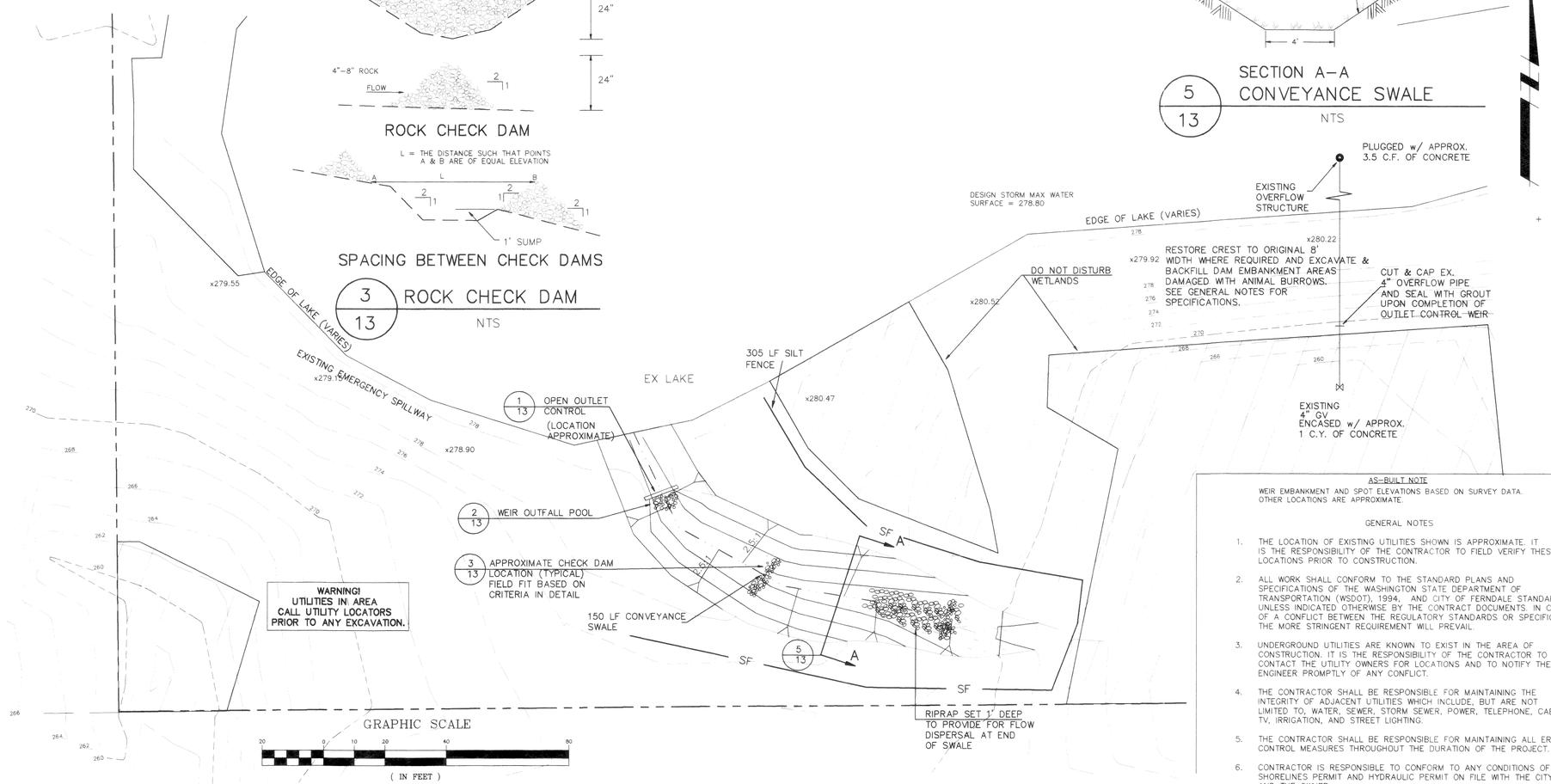

ROCK CHECK DAM

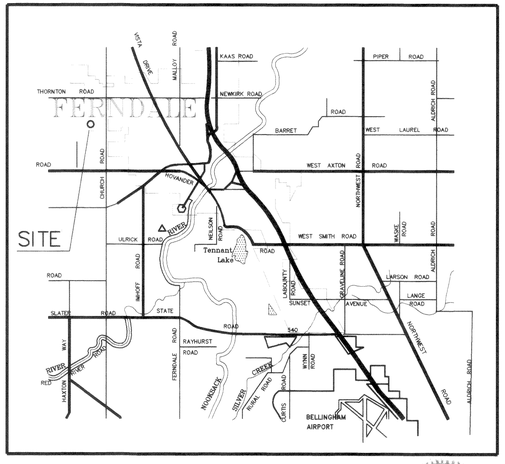



SPACING BETWEEN CHECK DAMS

3/13 ROCK CHECK DAM

NTS




SECTION 24
TOWNSHIP 39 N RANGE 1 E

VICINITY MAP

N.T.S.

AS-BUILT NOTE

WEIR EMBANKMENT AND SPOT ELEVATIONS BASED ON SURVEY DATA. OTHER LOCATIONS ARE APPROXIMATE.

GENERAL NOTES

1. THE LOCATION OF EXISTING UTILITIES SHOWN IS APPROXIMATE. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO FIELD VERIFY THESE LOCATIONS PRIOR TO CONSTRUCTION.
2. ALL WORK SHALL CONFORM TO THE STANDARD PLANS AND SPECIFICATIONS OF THE WASHINGTON STATE DEPARTMENT OF TRANSPORTATION (WSDOT), 1994, AND CITY OF FERNDALE STANDARDS UNLESS INDICATED OTHERWISE BY THE CONTRACT DOCUMENTS. IN CASE OF A CONFLICT BETWEEN THE REGULATORY STANDARDS OR SPECIFICATIONS, THE MORE STRINGENT REQUIREMENT WILL PREVAIL.
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4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THE INTEGRITY OF ADJACENT UTILITIES WHICH INCLUDE, BUT ARE NOT LIMITED TO, WATER, SEWER, STORM SEWER, POWER, TELEPHONE, CABLE TV, IRRIGATION, AND STREET LIGHTING.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL EROSION CONTROL MEASURES THROUGHOUT THE DURATION OF THE PROJECT.
6. CONTRACTOR IS RESPONSIBLE TO CONFORM TO ANY CONDITIONS OF THE SHORELINES PERMIT AND HYDRAULIC PERMIT ON FILE WITH THE CITY AND THE OWNER.
7. SEQUENCE OF WORK. PRIOR TO NEW SPILLWAY WORK, RESERVOIR LEVEL SHALL BE LOWERED TO ELEVATION OF 272.00 FEET USING THE EXISTING VALVE. UPON SPILLWAY COMPLETION AND SATISFACTORY INSPECTION BY THE ENGINEER, THE EXISTING VALVE AND PIPE SHALL BE ABANDONED BY CUTTING, CAPPING AND SEALING WITH GROUT.
8. EMBANKMENT REFURBISHMENT. THE EXISTING DAM EMBANKMENT SHALL BE INSPECTED FOR ANIMAL BURROWS AND OTHER DAMAGE. REGIONS WITH HOLES SHALL BE EXCAVATED AND THEN BACKFILLED. THE DAM CREST SHALL ALSO BE REWIDENED ON THE UPSTREAM SIDE WHERE NECESSARY TO MATCH THE 8 FOOT WIDTH AS ORIGINALLY CONSTRUCTED. ALL EMBANKMENT AND BACKFILL SHALL CONSIST OF SUITABLE FINE GRAINED MATERIAL (90%-100% PASSING THE U.S. NO. 10 SIEVE SIZE) COMPACTED AS REQUIRED IN SECTION 2-03.3(14)C OF THE STANDARD SPECIFICATIONS.
9. EMERGENCY SITUATIONS. CONTACT THE ENGINEER IMMEDIATELY IF ANY DAMAGE OCCURS TO THE DAM, OR IF ANY INDICATIONS OF DAMAGE SUCH AS SEEPAGE OR UNUSUAL SOIL MOVEMENTS ARE NOTICED.

**RECORD DRAWING**

| | | | |
|---|---|---|---|
| 1 | RECORD DRAWINGS | RFF | 09/95 |


1911 "C" STREET
BELLINGHAM, WA 98225
PHONE: (360) 671-8200
COUNTY: (360) 354-3723
FAX: (360) 738-9367
Ayers Professional Group, Inc.

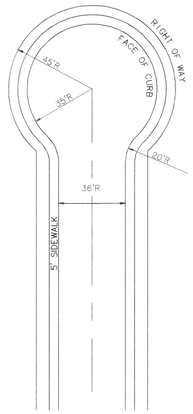

| | 1 | 2 |
|---|---|---|
| DESIGNED BY | INITIALS | DATE |
| DRAWN BY | INITIALS KLS | DATE 09/16/95 |
| CHECKED BY | INITIALS | DATE |

# LAKERIDGE ESTATES

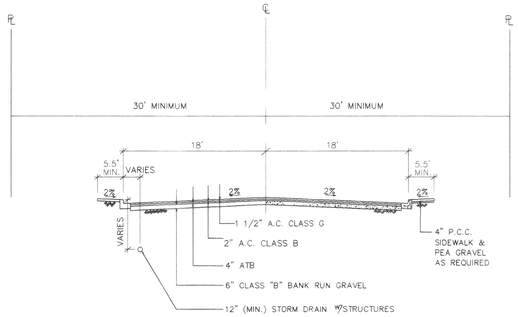
## NUBGAARD RESERVOIR IMPROVEMENTS

## LAKE SPILLWAY AND RESTORATION

| DATE | SHEET |
|---|---|
| 09-07-95 | 13 |
| SCALE | OF |
| AS SHOWN | 17 |
| JOB NO. | |
| 92099H | |

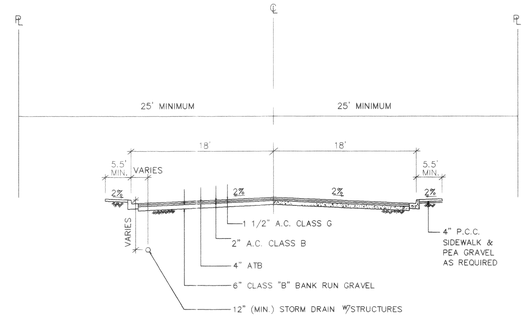



1/1 TYPICAL CUL DE SAC
NTS



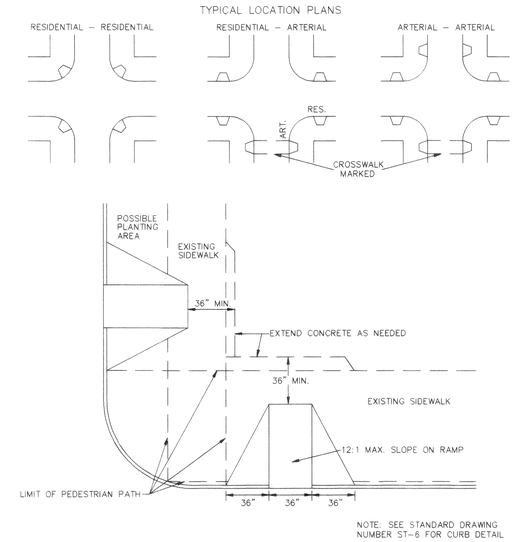

ALL MATERIAL AND WORKMANSHIP SHALL CONFORM TO THE PROVISIONS OF APPLICABLE SECTIONS OF A.P.W.A. "STANDARD SPECIFICATIONS" AND SHALL CONFORM TO THE REQUIREMENTS OF THE CITY ENGINEER.

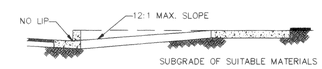
2/1 STANDARD RESIDENTIAL SECTION
NTS



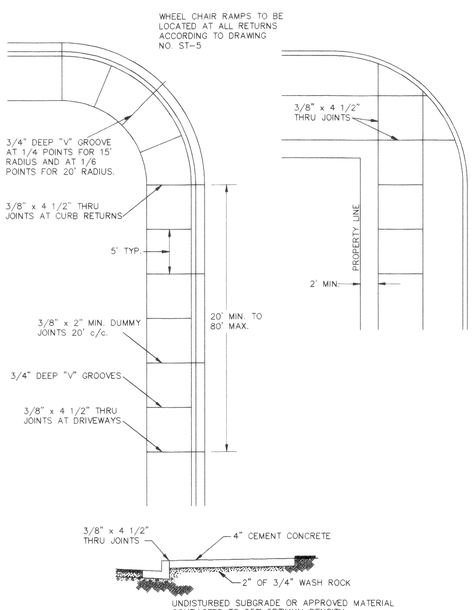

ALL MATERIAL AND WORKMANSHIP SHALL CONFORM TO THE PROVISIONS OF APPLICABLE SECTIONS OF A.P.W.A. "STANDARD SPECIFICATIONS" AND SHALL CONFORM TO THE REQUIREMENTS OF THE CITY ENGINEER.

3/1 STANDARD RESIDENTIAL SECTION
CUL-DE-SAC, MINOR ACCESS ROAD
NTS

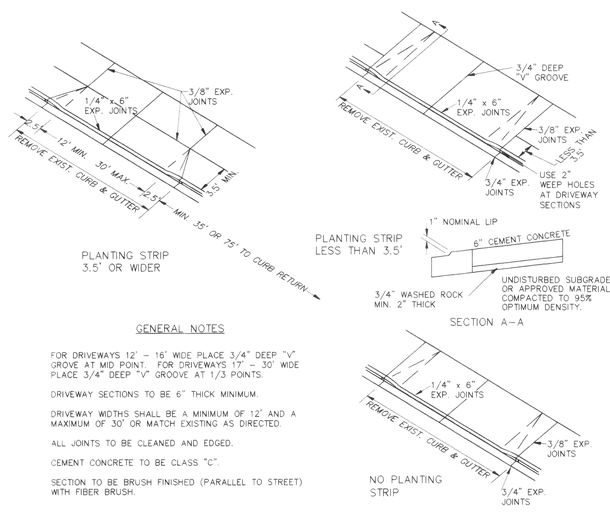



4/1 MINIMUM STANDARD CURB RAMPS
NTS




5/1 TYPICAL SIDEWALK PLAN AND CROSS SECTION
NTS




GENERAL NOTES

FOR DRIVEWAYS 12' – 16' WIDE PLACE 3/4" DEEP "V" GROVE AT MID POINT. FOR DRIVEWAYS 17' – 30' WIDE PLACE 3/4" DEEP "V" GROOVE AT 1/3 POINTS.

DRIVEWAY SECTIONS TO BE 6" THICK MINIMUM.

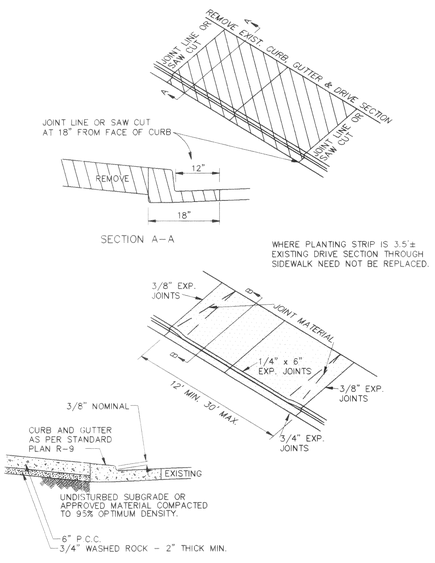
DRIVEWAY WIDTHS SHALL BE A MINIMUM OF 12' AND A MAXIMUM OF 30' OR MATCH EXISTING AS DIRECTED.

ALL JOINTS TO BE CLEANED AND EDGED.

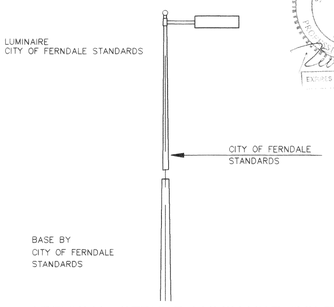
CEMENT CONCRETE TO BE CLASS "C".

SECTION TO BE BRUSH FINISHED (PARALLEL TO STREET) WITH FIBER BRUSH.

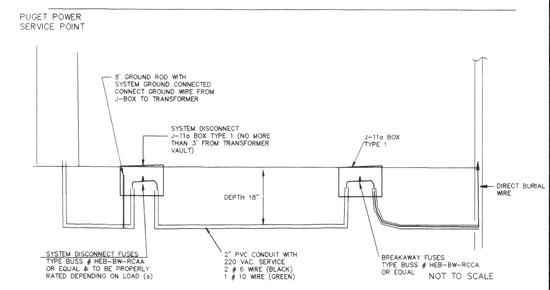
6/1 MINIMUM STANDARD DRIVEWAY SECTIONS
NTS




7/1 DRIVEWAY SECTION
CURB CUT
NTS




ARTERIAL STREET LUMINAIRE POLE
NTS




LUMINAIRE SYSTEM FUSING
NTS

**RECORD DRAWING**

UPDATED: 02 OCT 95 TIME: 13:51 DWG: C:\DWG\2099RD14 TEP ISSUE IRB

| | | | |
|---|---|---|---|
| 1 | RECORD DRAWINGS | RFF | 09/95 |

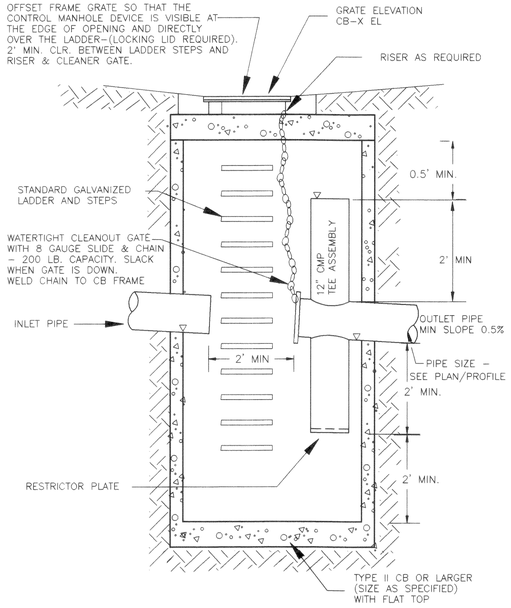

Ayers Professional Group, Inc.
1911 "C" STREET
BELLINGHAM, WA 98225
PHONE: (360) 671-8200
COUNTY: (360) 354-3723
FAX: (360) 738-9367


| | | | |
|---|---|---|---|
| DESIGNED BY | | DATE | |
| DRAWN BY | KLS | DATE | 09/12/95 |
| CHECKED BY | | DATE | |

# LAKERIDGE ESTATES

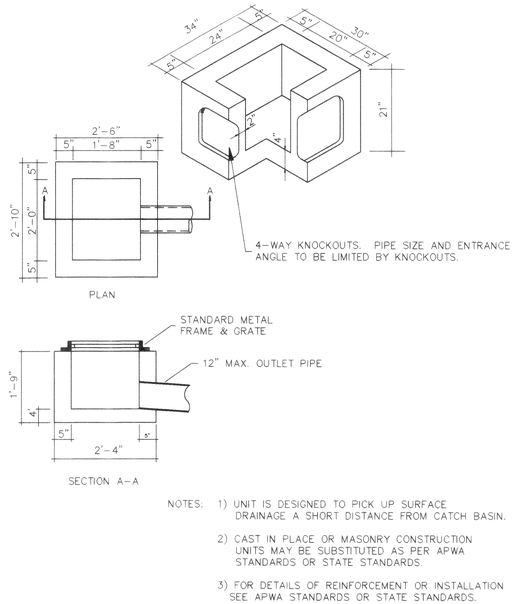
## ROADWAY DETAILS

| DATE | SHEET |
|---|---|
| 09/12/95 | 14 |
| SCALE: AS SHOWN | OF |
| JOB NO. 92099 | 17 |




8 VAR OIL SEPARATOR MANHOLE

NTS




NOTES:

1) UNIT IS DESIGNED TO PICK UP SURFACE DRAINAGE A SHORT DISTANCE FROM CATCH BASIN.

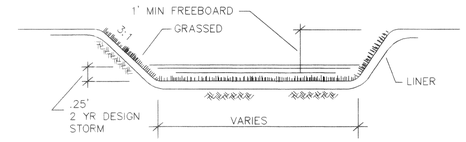
2) CAST IN PLACE OR MASONRY CONSTRUCTION UNITS MAY BE SUBSTITUTED AS PER APWA STANDARDS OR STATE STANDARDS.

3) FOR DETAILS OF REINFORCEMENT OR INSTALLATION SEE APWA STANDARDS OR STATE STANDARDS.

NOT TO SCALE

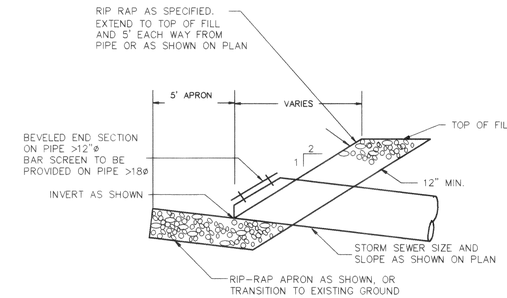
9 VAR INLET DETAIL

NTS



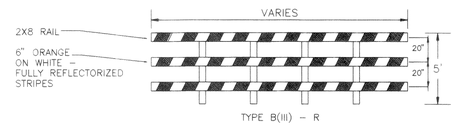

10 VAR BIOFILTRATION SWALE DETAIL

NTS



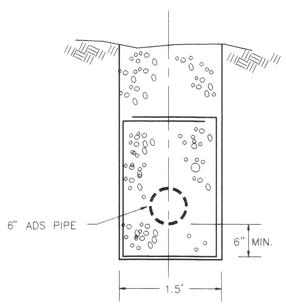

11 VAR CULVERT INLET/OUTLET DETAIL

NTS



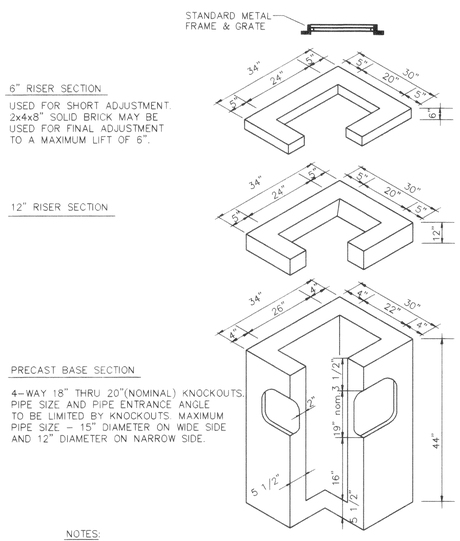

11A 3 BARRICADE DETAIL

NTS


12 VAR ADS TIGHTLINE DETAIL

NTS



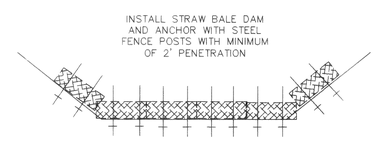

NOTES:

1) CAST IN PLACE OR MASONRY CONSTRUCTION UNITS MAY BE SUBSTITUTED AS PER A.P.W.A. STANDARDS OR STATE STANDARDS.

2) FOR DETAILS OF REINFORCEMENTS AND INSTALLATION, SEE A.P.W.A. STANDARDS OR STATE STANDARDS.

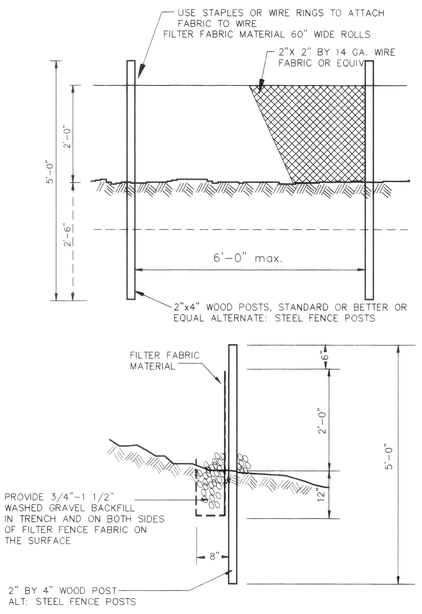
13 VAR CATCH BASIN - TYPE I

NTS




14 VAR STRAW BALE DAM DETAIL

NTS




15 VAR SILT FENCE DETAIL

NTS

**RECORD DRAWING**

UPDATED: 02 OCT 95 TIME: 12:02 DWG: C:\DWG\2099RD15 TEF ISSUE IRB

| | | | |
|---|---|---|---|
| 1 | RECORD DRAWINGS | RFF | 09/95 |


1911 "C" STREET
BELLINGHAM, WA 98225
PHONE: (360) 671-8200
COUNTY: (360) 354-3723
FAX: (360) 738-9367
Ayers Professional Group, Inc.


| | | | |
|---|---|---|---|
| DESIGNED BY | | DATE | |
| DRAWN BY | KLS | DATE | 09/12/95 |
| CHECKED BY | | DATE | |

# LAKERIDGE ESTATES

## STORM DRAINAGE DETAILS

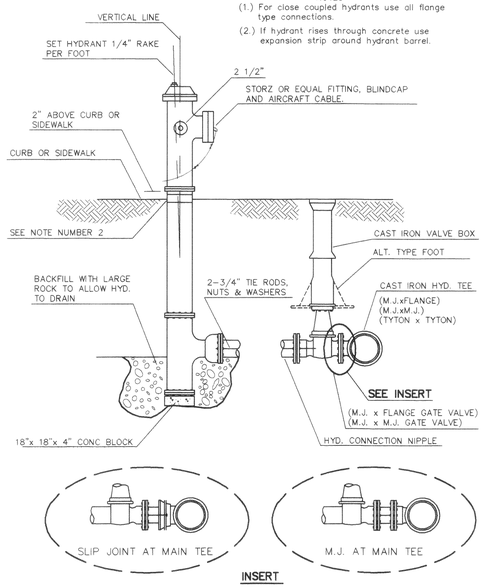
DATE 09/12/95

SCALE: AS SHOWN

JOB NO. 92099

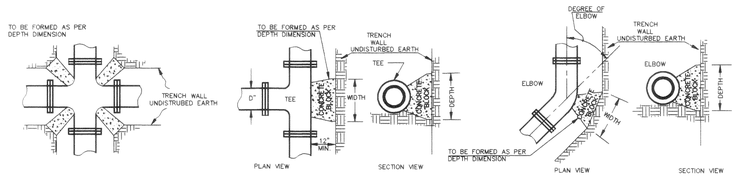
SHEET 15 OF 17

NOTES
(1.) For close coupled hydrants use all flange type connections.
(2.) If hydrant rises through concrete use expansion strip around hydrant barrel.




## 16/1 FIRE HYDRANT ASSEMBLY

NTS




100 P.S.I. OPERATING PRESSURE

| SIZE | WIDTH | DEPTH |
|---|---|---|
| 4" | 1'-0" | 1'-0" |
| 6" | 1'-3" | 1'-0" |
| 8" | 1'-6" | 1'-0" |
| 10" | 1'-9" | 1'-0" |
| 12" | 2'-0" | 1'-0" |
| 14" | 2'-3" | 1'-0" |
| 16" | 2'-6" | 1'-0" |
| 20" | 3'-0" | 1'-0" |
| 24" | 3'-6" | 1'-0" |

100 P.S.I. OPERATING PRESSURE

| SIZE | WIDTH | DEPTH |
|---|---|---|
| 4" | 1'-6" | 1'-6" |
| 6" | 2'-0" | 2'-0" |
| 8" | 2'-6" | 2'-0" |
| 10" | 2'-9" | 2'-0" |
| 12" | 3'-0" | 3'-0" |
| 14" | 4'-0" | 3'-0" |
| 16" | 4'-6" | 3'-0" |
| 20" | 6'-0" | 4'-0" |
| 24" | 7'-0" | 5'-0" |

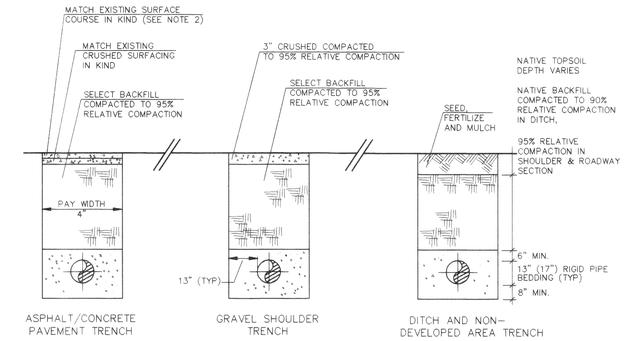
100 P.S.I. OPERATING PRESSURE

| SIZE | 11 1/4° | | 22 1/2° | | 45° | | 90° | |
|---|---|---|---|---|---|---|---|---|
| | W | D | W | D | W | D | W | D |
| 4" | 1'-0" | 1'-0" | 1'-0" | 1'-0" | 1'-6" | 1'-6" | 2'-3" | 1'-6" |
| 6" | 1'-3" | 1'-3" | 1'-3" | 1'-3" | 1'-9" | 1'-9" | 3'-0" | 2'-0" |
| 8" | 1'-6" | 1'-6" | 1'-6" | 1'-6" | 2'-3" | 2'-3" | 3'-6" | 2'-0" |
| 12" | 2'-0" | 1'-9" | 2'-0" | 1'-9" | 2'-9" | 2'-6" | 4'-0" | 3'-0" |
| 16" | 2'-6" | 2'-3" | 2'-6" | 2'-3" | 4'-0" | 3'-0" | 5'-0" | 3'-0" |
| 20" | 3'-6" | 2'-9" | 3'-6" | 2'-9" | 4'-6" | 4'-0" | 6'-6" | 4'-0" |
| 24" | 4'-6" | 3'-0" | 4'-6" | 3'-0" | 5'-6" | 5'-0" | 9'-9" | 5'-0" |

NOTE:
ALL ABOVE DIMENSIONS APPLY TO STABLE TRENCH WALLS, UNDER VARIBLE CONDITIONS SIZE OF THRUST BLOCK SHALL BE DETERMINED BY ENGINEER.

## 18/1 THRUST BLOCKING

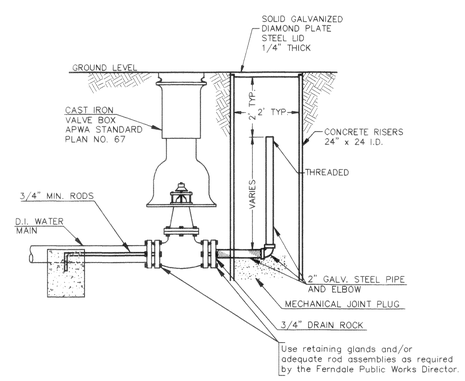
NTS

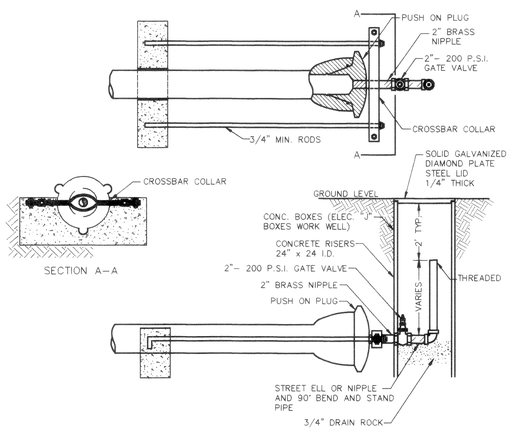


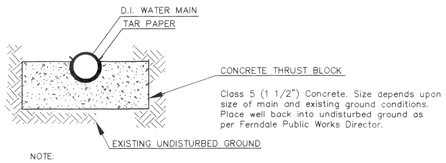

NOTES: 1. NATIVE BACKFILL SHALL BE COMPACTED TO 90% RELATIVE COMPACTION.
2. SELECT BACKFILL/CRUSHED SURFACE COURSE SHALL BE COMPACTED TO 95% COMPACTION.
3. PAVEMENT SHALL BE SAW CUT, TACKED, AND COMPACTED TO 92% OF ABSOLUTE DENSITY.
4. P.C.C. REPLACEMENT SHALL BE 2" GREATER THAN EXISTING COURSE, 7" MINIMUM, 6.5 P.C.C. (HES - AIR ENTRAINED)
5. ALL TRENCH RESTORATION SHALL MEET EITHER CITY OF FERNDALE OR WHATCOM COUNTY STANDARDS.

## 19/1 TRENCHING DETAIL

NTS



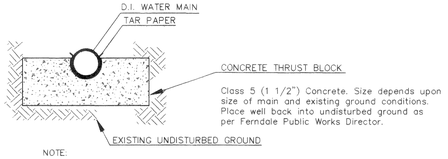




NOTE:
2" BLOW-OFF TO BE USED WHEN MAIN WILL BE EXTENDED IN THE FUTURE.
REFER TO DWG. WA- FOR MAINS THAT CAN NOT BE EXTENED FURTHER.

## 20/1 2" BLOW-OFF WATER MAIN EXTENSION

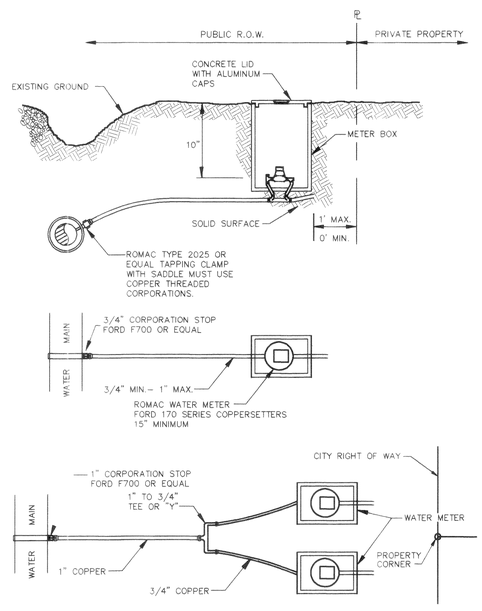
NTS




NOTE:
2" BLOW-OFF TO BE USED WHEN MAIN WILL NOT BE EXTENDED FURTHER.
REFER TO DWG. WA-3 FOR MAINS THAT CAN BE EXTENED FURTHER.

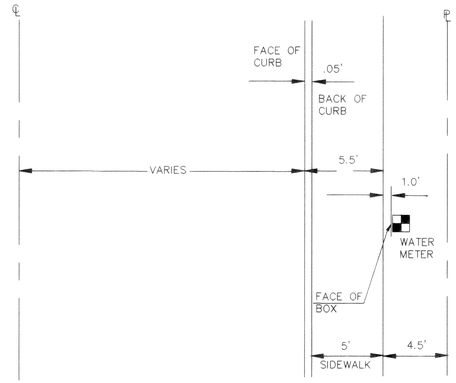
## 21/1 2" BLOW-OFF NON-EXTENDABLE MAIN

NTS




## 22/1 TYPICAL WATER SERVICE

NTS




## 23/1 TYPICAL WATER METER LOCATION

NTS

**RECORD DRAWING**

RICK DOHERTY STATE OF WASHINGTON 27518 REGISTERED PROFESSIONAL ENGINEER
Rick Doherty
EXPIRES 6/29/97
5/14/97

UPDATED: 02 OCT 95 TIME: 13:23 DWG: C:\DWG\2099RD16 TEP ISSUE IRB

| | | | |
|---|---|---|---|
| 1 | RECORD DRAWINGS | RFF | 09/95 |


1911 "C" STREET
BELLINGHAM, WA 98225
PHONE: (360) 671-8200
COUNTY:(360) 354-3723
FAX: (360) 738-9367
Ayers Professional Group, Inc.

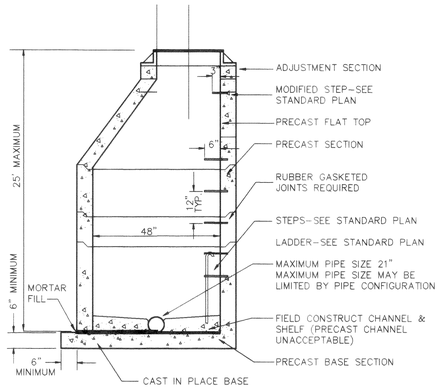

| | | | |
|---|---|---|---|
| DESIGNED BY | | DATE | |
| DRAWN BY | KLS | DATE | 09/12/95 |
| CHECKED BY | | DATE | |

# LAKERIDGE ESTATES

WATER DETAILS

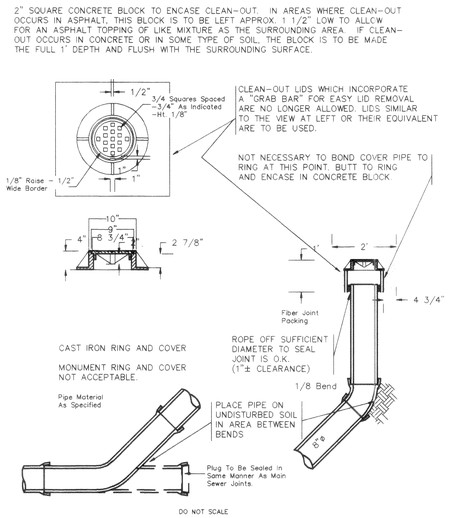
| DATE | SHEET |
|---|---|
| 09/12/95 | 16 OF 17 |
| SCALE: AS SHOWN | |
| JOB NO. 92099 | |

2099RD16.DWG 2:12 PM 10/2/96 KLS



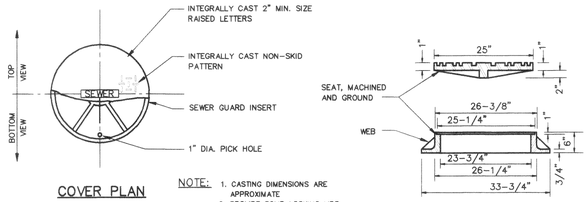

24/1 TYPE I –48" MANHOLE

NTS




25/1 8" CLEANOUT

NTS



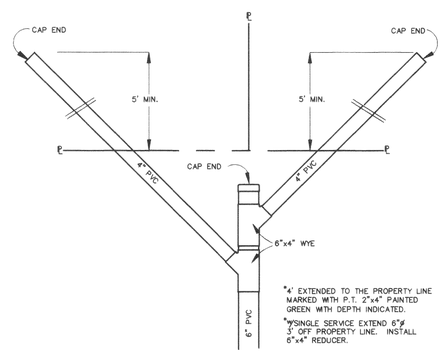

COVER PLAN

NOTE:
1. CASTING DIMENSIONS ARE APPROXIMATE.
2. PROVIDE SOLID LOCKING LIDS WHEN MANHOLES ARE NOT LOCATED IN PAVEMENT

SECTIONS

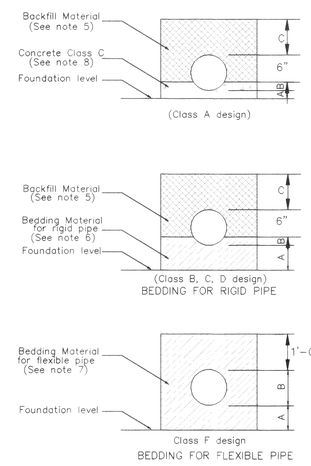
27/1 MANHOLE FRAME & COVER

NTS




28/1 SEWER SERVICE DETAIL

NTS




SANITARY SEWER PIPE BEDDING

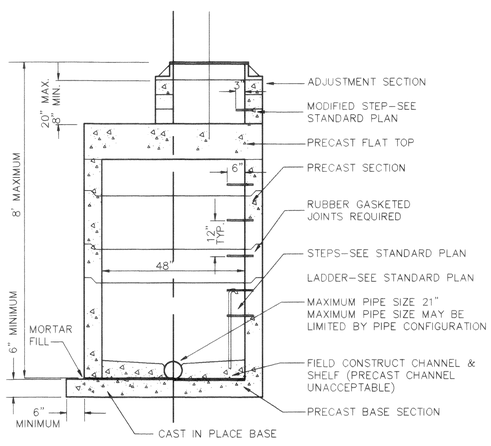
BEDDING CLASS DESIGN

| DIMENSION | CLASS A | CLASS B | CLASS C | CLASS D | CLASS F |
|---|---|---|---|---|---|
| A | 4" MIN 1/4 I.D. 12" MAX | * | * | Zero | * |
| B | 1/4 O.D. | 1/2 O.D. | 1/8 O.D. | Zero | O.D. |
| C | 3/4 O.D. | 1/2 O.D. | 7/8 O.D. | O.D. | – |

* A = 4" MIN. 27" I.D. and under
6" MIN. over 27" I.D.

29/1 PVC PIPE BEDDING DETAIL

NTS




30/1 TYPE II – 48" MANHOLE

NTS

RICK DOUGHERTY STATE OF WASHINGTON 27994 REGISTERED PROFESSIONAL ENGINEER

6-24-97

RECORD DRAWING

UPDATED: 02 OCT 95 TIME: 13:31 DWG: C:\DWG\2099RD17 TEP ISSUE IRB

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|---|---|---|---|
| 1 | RECORD DRAWINGS | RFF | 09/95 |


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Ayers Professional Group, Inc.


| | | | |
|---|---|---|---|
| DESIGNED BY | | DATE | |
| DRAWN BY | KLS | DATE | 09/12/95 |
| CHECKED BY | | DATE | |

# LAKERIDGE ESTATES

## SANITARY SEWER DETAILS

DATE 09/12/95
SCALE: AS SHOWN
JOB NO. 92099
SHEET 17 OF 17

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