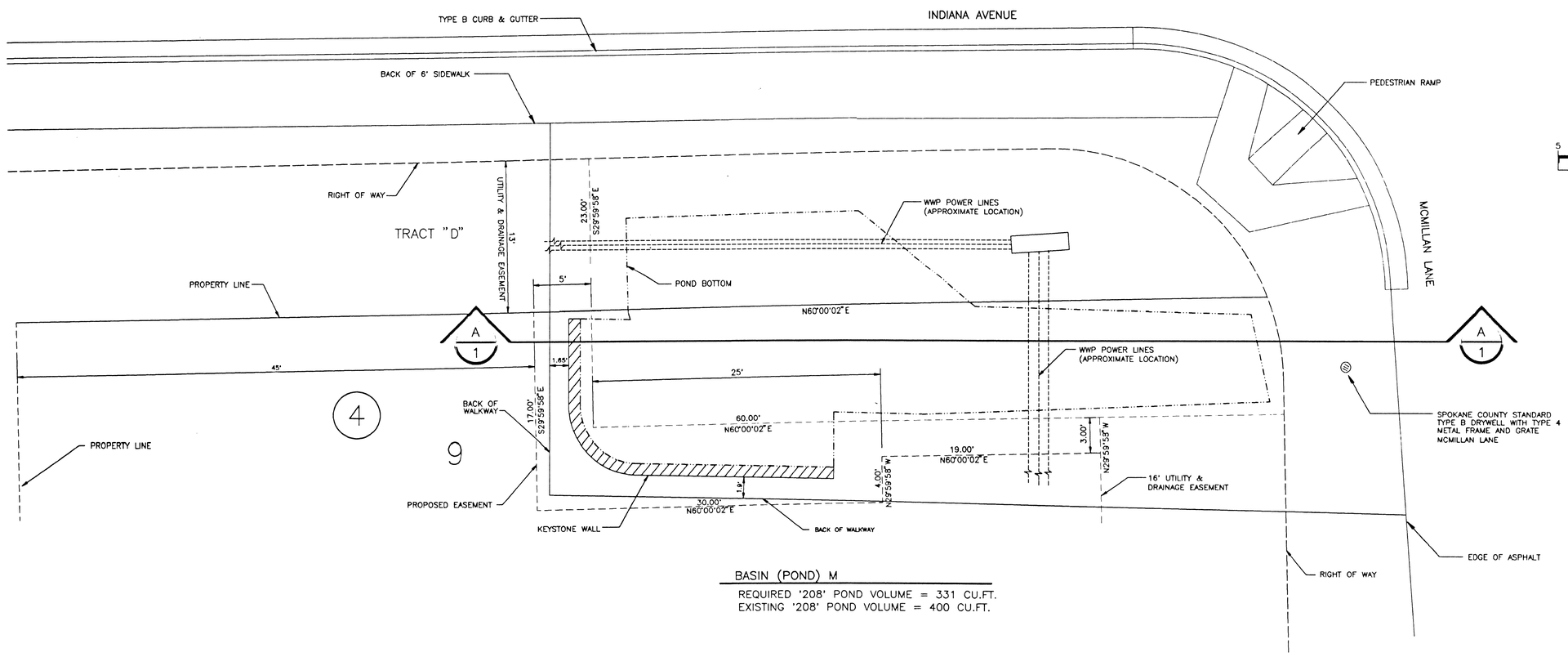
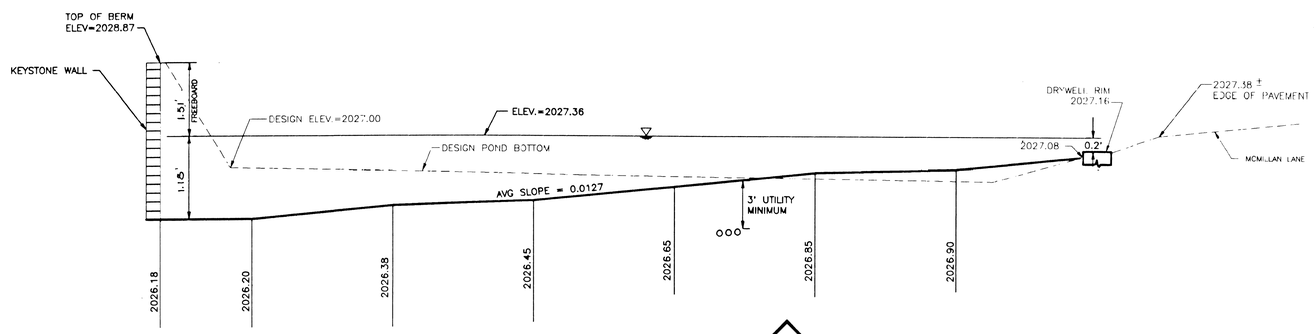



BASIN (POND) M

REQUIRED '208' POND VOLUME = 331 CU.FT.
EXISTING '208' POND VOLUME = 400 CU.FT.




AS-CONSTRUCTED POND BOTTOM PROFILE

H: 1"= 5'
V: 1"= 1'

A
1

FOR CARBON CONTENT RESULTS SEE PROJECT CORRESPONDENCE

P 14/14
5/1/98

| NO. | DATE | BY | REVISIONS |
|---|---|---|---|

DATE: 3/27/97
DRAWN BY: JDP
DESIGNED BY: TRW
CHECKED BY: TRW

SCALE:
HORIZONTAL: 1"=5'
VERTICAL: 1"=1'


INLAND PACIFIC ENGINEERING
707 West 7th • Suite 200
Spokane, WA 99204
(509) 458-6840
FAX: (509) 458-6844

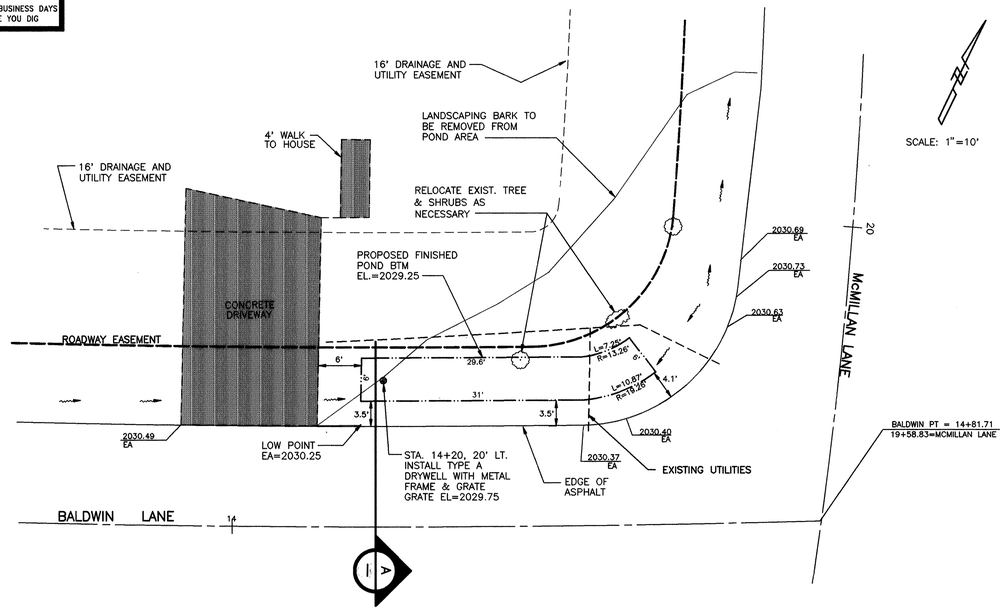

DRAINAGE

RIVERWALK 1ST ADDITION
POND M REVISIONS

SHEET 4S OF 4S
JOB NUMBER 96106

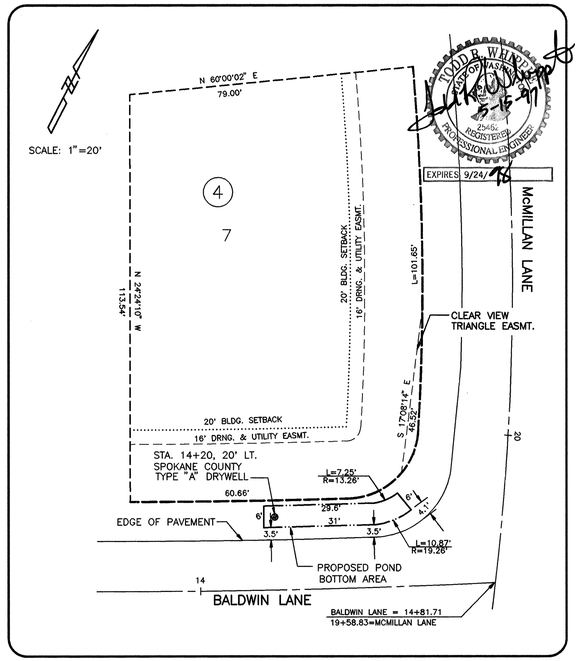
96106\FIXPONDM

UNDERGROUND SERVICE ALERT
ONE-CALL NUMBER
456•8000
CALL TWO BUSINESS DAYS BEFORE YOU DIG




## POND M1

REQUIRED '208' POND VOLUME = 103 CU.FT.
DESIGNED '208' POND VOLUME = 153 CU.FT.
POND BOTTOM AREA = 239 SQ.FT.





INLAND PACIFIC ENGINEERING
707 West 7th • Suite 200
Spokane, WA 99204
(509) 458-6840
FAX: (509) 458-6844

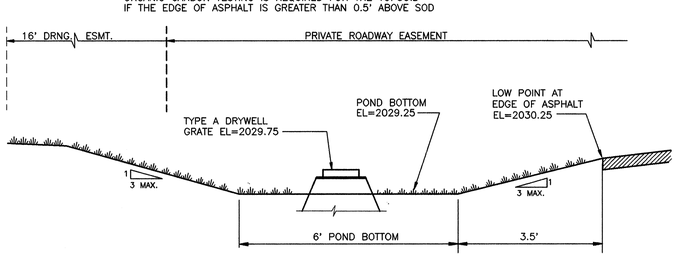

LOT 7, BLOCK 4
RIVERWALK FIRST ADDITION

DATE: 05/15/97

APPROVED FOR CONSTRUCTION
SPOKANE COUNTY ENG.
BY: 5/16/97

**PERMIT REQUIRED!**
NOTIFY THE PERMIT ENGINEER
456-3600
24 HRS. PRIOR TO CONSTRUCTION

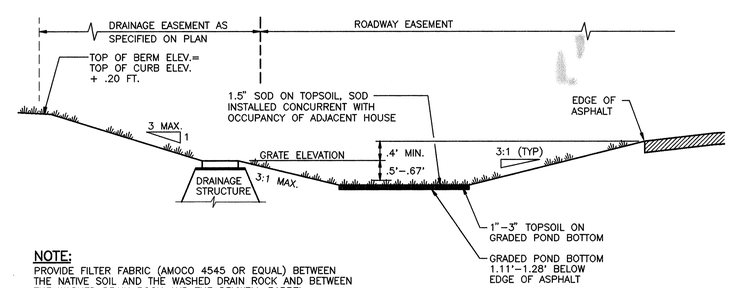
**NOTE:**
ORGANIC CARBON TESTING IS REQUIRED FOR THE TOPSOIL IF THE EDGE OF ASPHALT IS GREATER THAN 0.5' ABOVE SOD




**NOTE:**
PROVIDE FILTER FABRIC (AMOCO 4545 OR EQUAL) BETWEEN THE NATIVE SOIL AND THE WASHED DRAIN ROCK AND BETWEEN THE WASHED DRAIN ROCK AND THE DRYWELL BARREL.

SECTION A
NOT TO SCALE

**NOTE:**
ORGANIC CARBON TESTING IS REQUIRED FOR THE TOPSOIL IF THE EDGE OF ASPHALT IS GREATER THAN 0.5' ABOVE SOD




**NOTE:**
PROVIDE FILTER FABRIC (AMOCO 4545 OR EQUAL) BETWEEN THE NATIVE SOIL AND THE WASHED DRAIN ROCK AND BETWEEN THE WASHED DRAIN ROCK AND THE DRYWELL BARREL.

SECTIONAL VIEW
## TYPICAL "208" POND WITH DRAINAGE STRUCTURE
NOT TO SCALE

DEVELOPER'S APPROVAL

5·16·97
DATE

| NO. | DATE | BY | REVISIONS |
|---|---|---|---|
| | | | |

EXPIRES 9/24/98

DATE: 5/15/97
DRAWN BY: JDP
DESIGNED BY: JDP
CHECKED BY: TRW

SCALE:
HORIZONTAL: 1" =20'
VERTICAL: N/A

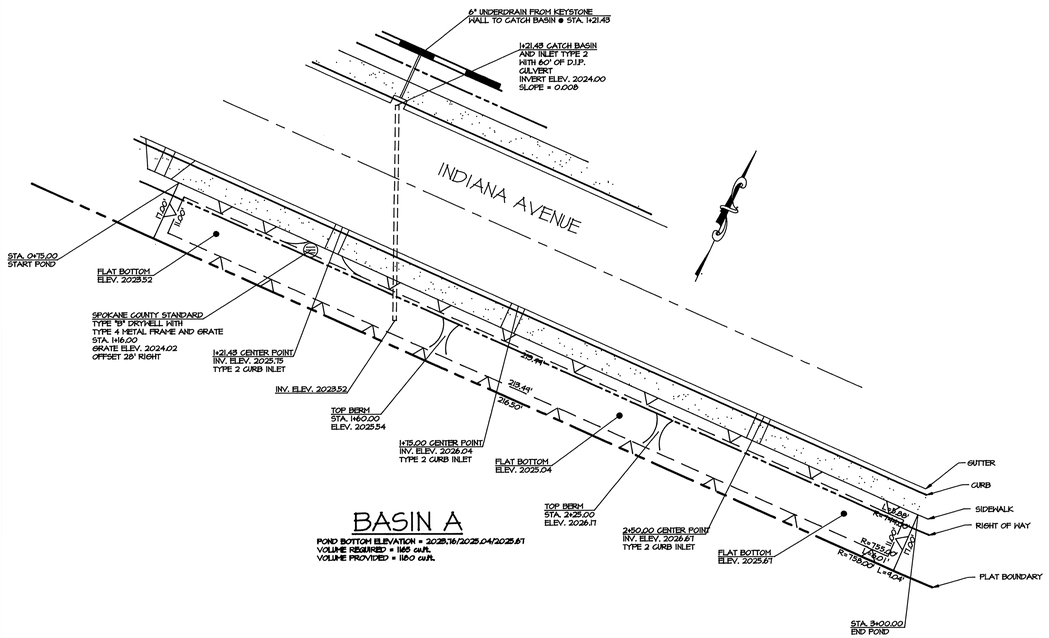

INLAND PACIFIC ENGINEERING
707 West 7th • Suite 200
Spokane, WA 99204
(509) 458-6840
FAX: (509) 458-6844


RIVERWALK 1ST ADDITION
NEW POND CONSTRUCTION

DRNG. DETAIL

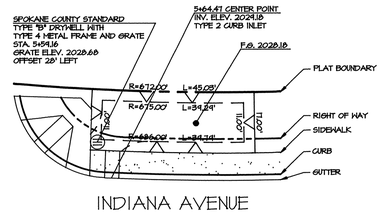
SHEET 5S OF 5S
JOB NUMBER 96106

J:\OLD JOBS\96106\LTR\NM1



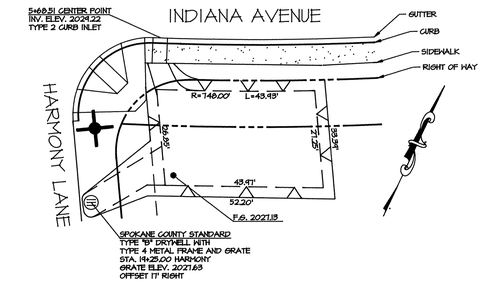

## BASIN A

POND BOTTOM ELEVATION = 2023.16/2025.04/2025.67
VOLUME REQUIRED = 1165 cu.ft.
VOLUME PROVIDED = 1180 cu.ft.



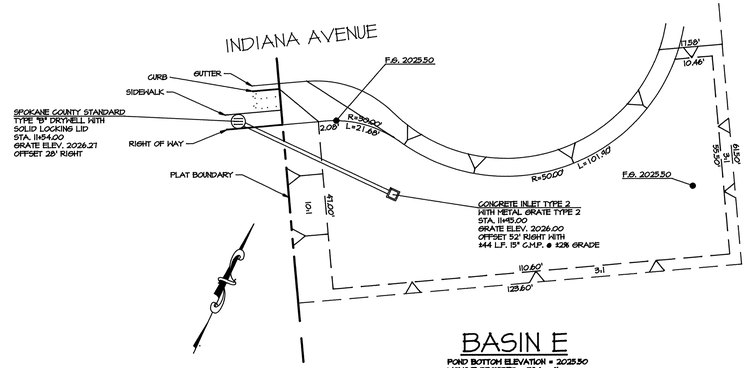

## BASIN B

POND BOTTOM ELEVATION = 2028.18
VOLUME REQUIRED = 150 cu.ft.
VOLUME PROVIDED = 205 cu.ft.



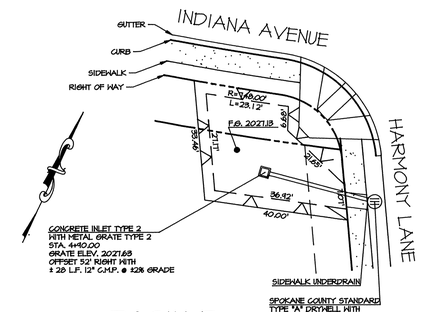

## BASIN C

POND BOTTOM ELEVATION = 2027.13
VOLUME REQUIRED = 272 cu.ft.
VOLUME PROVIDED = 345 cu.ft.



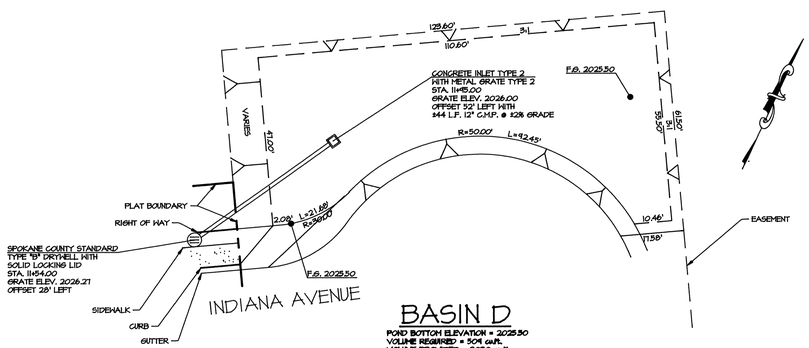

## BASIN E

POND BOTTOM ELEVATION = 2025.50
VOLUME REQUIRED = 1184 cu.ft.
VOLUME PROVIDED = 2080 cu.ft.



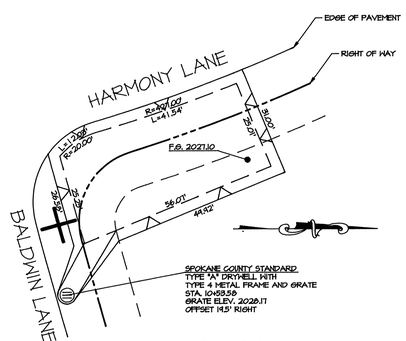

## BASIN F

POND BOTTOM ELEVATION = 2027.13
VOLUME REQUIRED = 202 cu.ft.
VOLUME PROVIDED = 450 cu.ft.



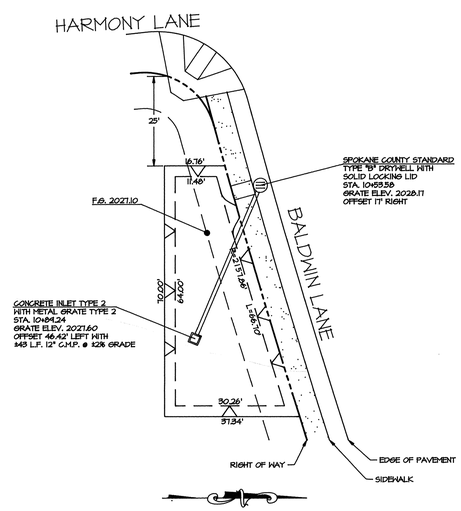

## BASIN D

POND BOTTOM ELEVATION = 2025.50
VOLUME REQUIRED = 504 cu.ft.
VOLUME PROVIDED = 2080 cu.ft.



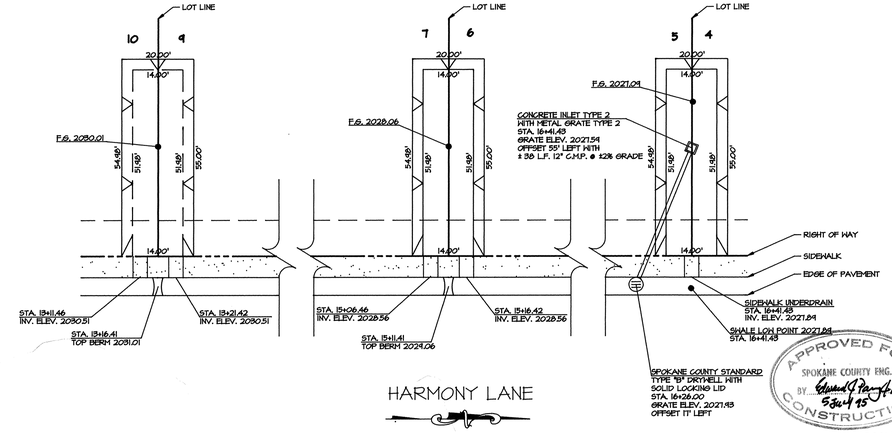

## BASIN G

POND BOTTOM ELEVATION = 2027.61
VOLUME REQUIRED = 282 cu.ft.
VOLUME PROVIDED = 875 cu.ft.




## BASIN H

POND BOTTOM ELEVATION = 2027.10
VOLUME REQUIRED = 292 cu.ft.
VOLUME PROVIDED = 850 cu.ft.




## BASIN I

POND BOTTOM ELEVATION = 2030.01/2028.06/2027.09
VOLUME REQUIRED = 921 cu.ft.
VOLUME PROVIDED = 1030 cu.ft.

APPROVED FOR CONSTRUCTION
SPOKANE COUNTY ENG.
BY Edward F. Pace Jr. P.E.
6/30/95

PERMIT REQUIRED!
NOTIFY THE PERMIT ENGINEER
456-3600
48 HRS. PRIOR TO CONSTRUCTION

JOSEPH E. HASSELL
STATE OF WASHINGTON
30580
REGISTERED PROFESSIONAL ENGINEER
6/30/95
EXPIRES: 9/23/95

SCALE: 1 INCH = 20 FEET

6/29/95 JB

DRAWN BY: JHB
CHECKED BY:
DATE: 5/30/95
J.N. 4004
6400495A.DWG

REVISION BLOCK:
BY, DESC., DATE APPVD:

AS BUILT DATE:

COUNTY OF SPOKANE
APPROVED ENGINEERING REPRESENTATIVE DATE
APPROVAL DATE

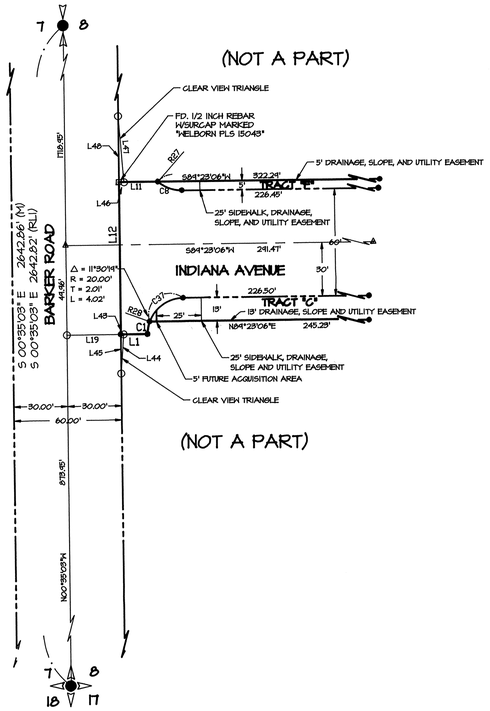
DEVELOPER APPROVAL: Walter Rios for Ed Dow

# RIVERWALK (P#1414)

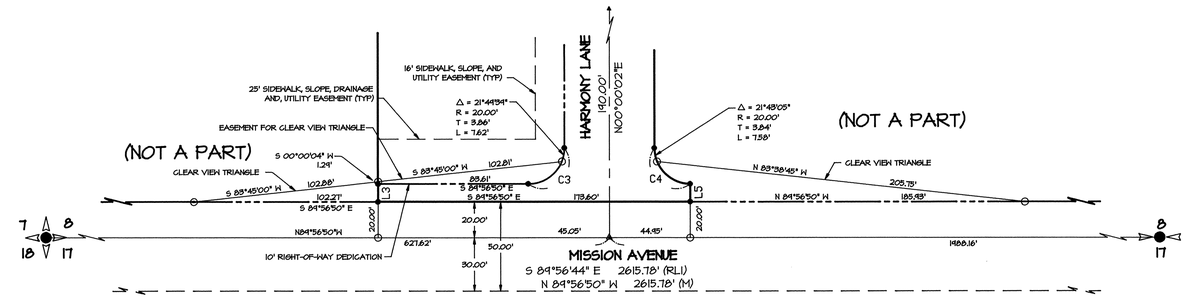
BASIN SHEET

North Idaho Engineering
4200 West Seltice Way
Coeur d'Alene, Idaho 83814
Phone: (208) 667-1171 Fax: (208) 664-3507

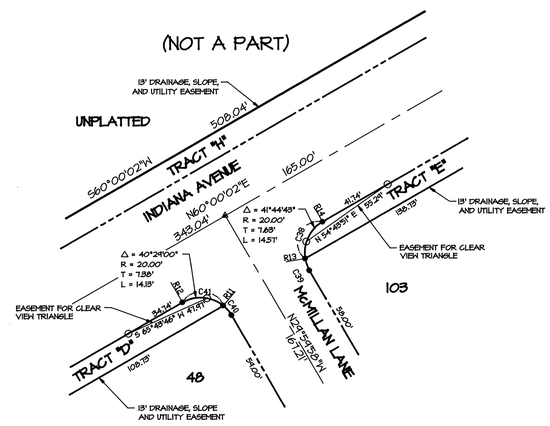
SHEET 9A / 9



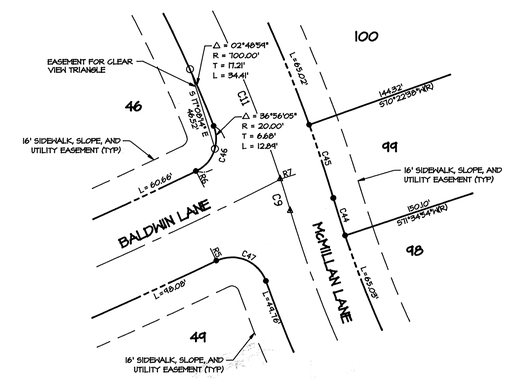

DETAIL "A"




DETAIL "B"




DETAIL "C"




DETAIL "D"

LINE TABLE

| LINE | DIRECTION | DISTANCE |
|---|---|---|
| L1 | S84°24'57"W | 15.00' |
| L3 | S 00°00'04" W | 10.00' |
| L5 | S00°09'10"W | 10.00' |
| L11 | N84°28'06"E | 21.78' |
| L12 | S00°35'24"E | 84.98' |
| L18 | S84°24'57"W | 30.00' |
| L43 | S 84°24'57" W | 1.87' |
| L44 | S 08°48'01" W | 21.82' |
| L45 | N 00°38'08" W | 21.75' |
| L46 | N 84°28'06" E | 2.88' |
| L47 | S 04°58'08" E | 36.96' |
| L48 | N 00°38'08" W | 36.85' |
| R5 | N25°44'01"W | 18.40' |
| R6 | N28°08'14"W | 11.70' |
| R7 | N72°11'46"E | 22.00' |
| R11 | S84°30'47"W | 28.31' |
| R12 | S28°59'59"E | 20.59' |
| R13 | N80°24'16"E | 26.01' |
| R14 | S26°59'59"E | 28.31' |
| R27 | N40°47'40"E | 34.64' |
| R28 | S70°07'40"E | 21.34' |

CURVE TABLE

| CURVE | RADIUS | LENGTH | TANGENT | CHORD | BEARING | DELTA |
|---|---|---|---|---|---|---|
| C1 | 20.00' | 7.14' | 3.61' | 7.10' | S04°36'59"W | 20°27'23" |
| C3 | 20.00' | 31.48' | 20.02' | 28.30' | N85°01'36"E | 90°09'08" |
| C4 | 20.00' | 31.40' | 19.98' | 28.27' | S44°59'24"E | 89°56'52" |
| C8 | 20.00' | 14.45' | 7.56' | 14.14' | S64°54'31"E | 41°24'35" |
| C9 | 725.00' | 19.87' | 9.94' | 19.87' | N11°09'58"W | 01°28'33" |
| C11 | 725.00' | 154.32' | 77.46' | 154.03' | N23°54'06"W | 12°11'44" |
| C37 | 20.00' | 24.26' | 13.88' | 22.80' | S54°31'43"W | 69°30'46" |
| C38 | 20.00' | 24.26' | 13.88' | 22.80' | S25°14'39"W | 69°30'46" |
| C39 | 20.00' | 7.15' | 3.61' | 7.11' | S19°48'21"E | 20°28'14" |
| C40 | 20.00' | 7.15' | 3.61' | 7.11' | N40°14'38"W | 20°28'14" |
| C41 | 20.00' | 24.26' | 13.88' | 22.80' | N89°14'38"W | 69°30'46" |
| C44 | 600.00' | 21.88' | 10.94' | 21.88' | S11°22'24"E | 02°05'24" |
| C45 | 150.00' | 48.12' | 21.51' | 48.12' | N17°58'32"W | 08°17'40" |
| C46 | 20.00' | 29.61' | 18.32' | 27.02' | N21°27'09"E | 84°99'18" |
| C47 | 20.00' | 33.66' | 22.38' | 29.82' | N67°31'19"W | 96°25'23" |

APPROVED FOR CONSTRUCTION
SPOKANE COUNTY ENG.
BY 6/30/95

PERMIT REQUIRED!
NOTIFY THE PERMIT ENGINEER
456-3600
24 HRS. PRIOR TO CONSTRUCTION

JOSEPH E. HASSELL
STATE OF WASHINGTON
30520
REGISTERED PROFESSIONAL ENGINEER
6/30/95

EXPIRES: 9/29/95

SCALE: 1 INCH = 40 FEET

6/21/95 JOM

DRAWN BY: JHS
CHECKED BY:
DATE: 5/29/95
J.N. 4004
64004RIC.DWG

REVISION BLOCK
BY, DESC, DATE | APPVD:

AS BUILT DATE:

COUNTY OF SPOKANE
APPROVED ENGINEERING DEPARTMENT: DATE
APPROVED: DATE
6/30/95
DEVELOPER APPROVAL:

RIVERWALK (P#1414)

SIGHT EASEMENTS

North Idaho Engineering
4200 West Seltice Way
Coeur d'Alene, Idaho 83814
Phone: (208) 667-1171 Fax: (208) 664-3507

SHEET 9C / 9

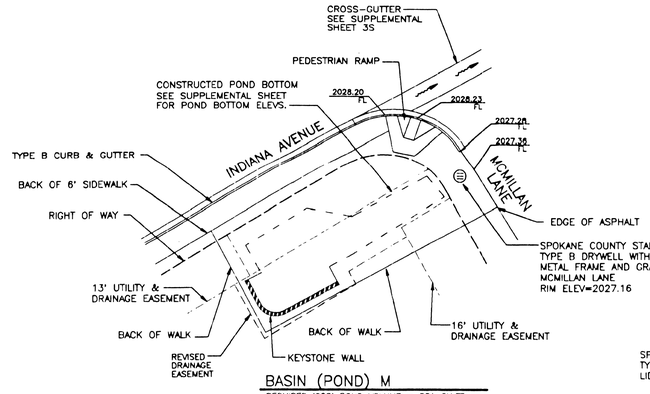
# RIVERWALK P.U.D. 1ST ADDITION
# SUPPLEMENTAL RECORD DRAWING
## INDIANA AVENUE POND DETAILS
### SEC. 8, T.25 N., R.45 E.,W.M.
### SPOKANE COUNTY, WASHINGTON

**DATUM**
REFER TO THE BENCHMARK DESCRIBED ON SHEET 1A OF 13 IN THE RIVERWALK SEWER EXTENSION PLANS APPROVED BY SPOKANE COUNTY MAY 16, 1995.

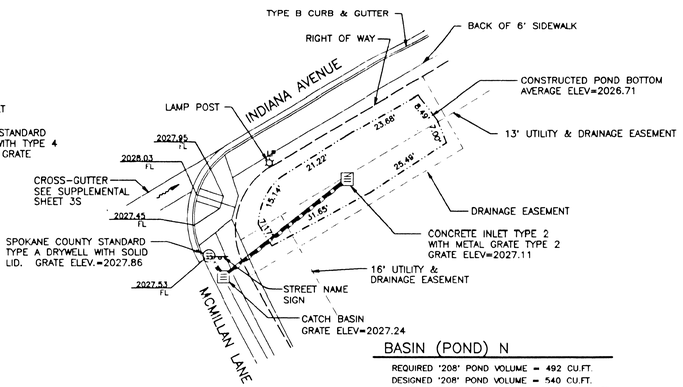
POND VOLUME TABLE

| POND | BUILT BOTTOM AREA | APPROX. DEPTH | VOLUME | SIDESLOPE LENGTH | SIDESLOPE VOLUME | TOTAL VOLUME |
|---|---|---|---|---|---|---|
| A | 1860 SF | 0.5' | 930 CF | 674 FT | 253 CF | 1183 CF |
| B | 438 SF | 0.5' | 219 CF | 103 FT | 39 CF | 258 CF |
| C | 714 SF | 0.5' | 357 CF | 148 FT | 56 CF | 413 CF |
| F | 474 SF | 0.5' | 237 CF | 50 FT | 19 CF | 256 CF |
| M | 800 SF | 0.5' | 400 CF | N/A | N/A | 400 CF |
| N | 889 SF | 0.5' | 444 CF | 140 FT | 53 CF | 497 CF |

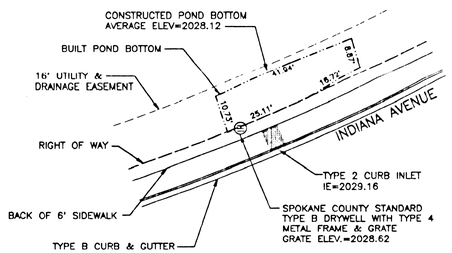
GRAPHIC SCALE
20 0 10 20 40
( IN FEET )
1 inch = 20 ft.




BASIN (POND) M
REQUIRED '208' POND VOLUME = 331 CU.FT.
DESIGNED '208' POND VOLUME = 460 CU.FT.
CONSTRUCTED '208' POND VOLUME = 400 CU.FT.
SEE DETAIL M OF FINAL PLAT AND ATTACHED SUPPLEMENTAL SHEET FOR EASEMENT DIMENSIONS

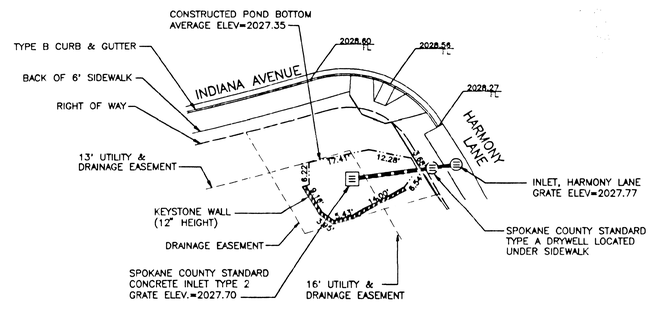



BASIN (POND) N
REQUIRED '208' POND VOLUME = 492 CU.FT.
DESIGNED '208' POND VOLUME = 540 CU.FT.
CONSTRUCTED '208' POND VOLUME = 497 CU.FT.
SEE DETAIL O OF FINAL PLAT FOR EASEMENT DIMENSIONS

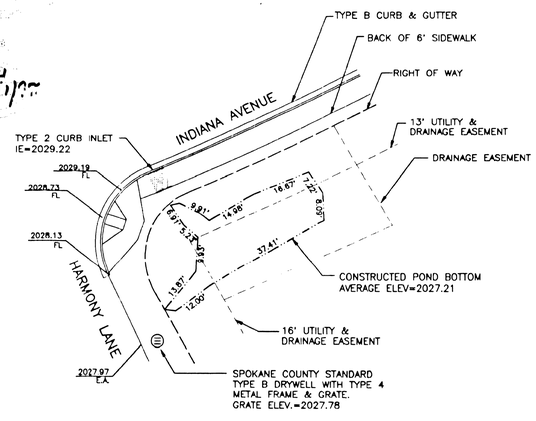



BASIN (POND) B
REQUIRED '208' POND VOLUME = 150 CU.FT.
DESIGNED '208' POND VOLUME = 205 CU.FT.
CONSTRUCTED '208' POND VOLUME = 258 CU.FT.

THE INFORMATION SHOWN ON THIS DRAWING IS REPRESENTATIVE OF THE BUILT POND CONDITIONS AS OF THE LAST IPE SURVEY DATED AUGUST 30, 1996. THIS INFORMATION SUPERCEDES THE POND ("BASIN") INFORMATION SHOWN ON NORTH IDAHO ENGINEERING SHEETS 9A & 9B FOR THE SPECIFIC PONDS ("BASINS") SHOWN.




BASIN (POND) F
REQUIRED '208' POND VOLUME = 202 CU.FT.
DESIGNED '208' POND VOLUME = 450 CU.FT.
CONSTRUCTED '208' POND VOLUME = 256 CU.FT.
SEE DETAIL E OF FINAL PLAT FOR EASEMENT DIMENSIONS

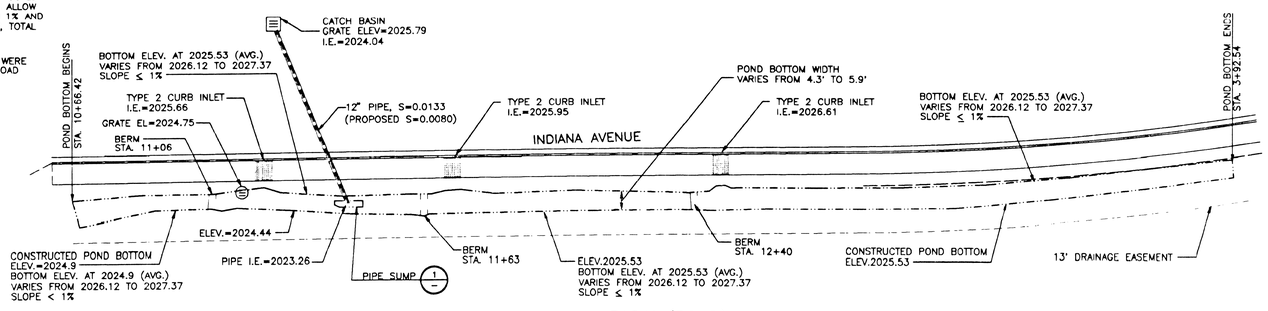



BASIN (POND) C
REQUIRED '208' POND VOLUME = 272 CU.FT.
DESIGNED '208' POND VOLUME = 595 CU.FT.
CONSTRUCTED '208' POND VOLUME = 413 CU.FT.
SEE DETAIL I OF FINAL PLAT FOR EASEMENT DIMENSIONS

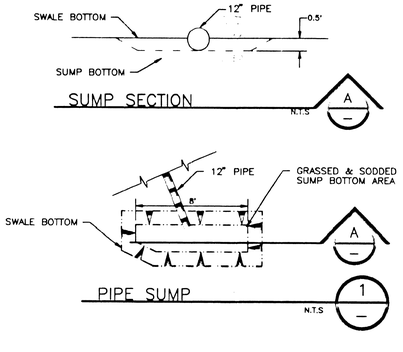
## RECORD DRAWING NOTES

1. TOLERANCES FOR RECORD DRAWINGS:
   IN OUR PROFESSIONAL JUDGEMENT, ELEVATIONS THAT ARE WITHIN 0.05' OF DESIGNED ELEVATION ARE CONSIDERED TO BE BUILT AS DESIGNED. LENGTHS THAT ARE 0.10' OF DESIGNED LENGTH ARE CONSIDERED TO BUILT AS DESIGNED. IN THE EVENT THAT GREATER ACCURACY THAN THIS MAY BE REQUIRED FOR FUTURE DESIGNS OR CONSTRUCTION ACTIVITY, ADDITIONAL SURVEY INFORMATION SHOULD BE GATHERED.
2. POND INFORMATION SHOWN INCLUDES THREE DISTINCT ELEMENTS:
   A. THE FIRST ELEMENT "REQUIRED '208' POND VOLUME" IS FROM THE APPROVED NORTH IDAHO ENGINEERING DRAINAGE REPORT DATED JUNE,1995.
   B. THE SECOND ELEMENT, "DESIGNED '208' POND VOLUME" IS FROM THE APPROVED NORTH IDAHO ENGINEERING DRAINAGE REPORT DATED JUNE, 1995.
   C. THE THIRD ELEMENT, "CONSTRUCTED '208' POND VOLUME" WAS CALCULATED FROM DATA OBTAINED DURING THE ABOVE MENTIONED ACTUAL FIELD SURVEYS.
3. CONSTRUCTED '208' POND VOLUME WAS DETERMINED EITHER BY PLANIMETER AREA OR AUTOCAD POLYLINE AREA CALCULATIONS TIMES THE AVERAGE BOTTOM ELEVATION VERSUS EITHER BERM OR GRATE ELEVATIONS.
4. PER SPOKANE COUNTY GUIDELINES FOR STORMWATER MANAGEMENT, THE CONSTRUCTED POND BOTTOMS MAY VARY SLIGHTLY IN ELEVATION. HOWEVER, THE GUIDELINES ALLOW FOR FULL VOLUME CREDIT IF THE RESULTING BOTTOM SLOPES ARE LESS THAN 1% AND UNDER 100' LEGNTHS. THEREFORE, ALTHOUGH THE POND BOTTOMS MAY VARY, TOTAL STORAGE REQUIREMENTS CAN BE MET.
5. THE PEDESTRIAN RAMPS AT THE INTERSECTION OF BARKER ROAD AND INDIANA WERE DELETED FROM THESE PLANS AND WILL BE CONSTRUCTED WITH THE BARKER ROAD IMPROVEMENT PROJECT.

I HAVE REVIEWED THE CONSTRUCTION AND TO MY KNOWLEDGE FIND IT TO BE IN SUBSTANTIAL CONFORMANCE WITH THE APPROVED PLANS AND STANDARD SPECIFICATIONS AS NOTED.




BASIN (POND) A
REQUIRED '208' POND VOLUME = 1185 CU.FT.
DESIGNED '208' POND VOLUME = 1180 CU.FT.
CONSTRUCTED '208' POND VOLUME = 1183 CU.FT.




| NO. | DATE | BY | REVISIONS |
|---|---|---|---|

DATE 3/27/97
DRAWN BY: JDP
DESIGNED BY: NIE
CHECKED BY: TRM

SCALE: HORIZONTAL 1"=20' VERTICAL N/A

INLAND PACIFIC ENGINEERING
707 West 7th • Suite 200 Spokane, WA 99204
(509) 458-6840 FAX: (509) 458-6844

RIVERWALK 1ST ADDITION
INDIANA AVENUE
SUPPLEMENTAL RECORD DRAWING

SHEET 2S OF 4S
JOB NUMBER 96106

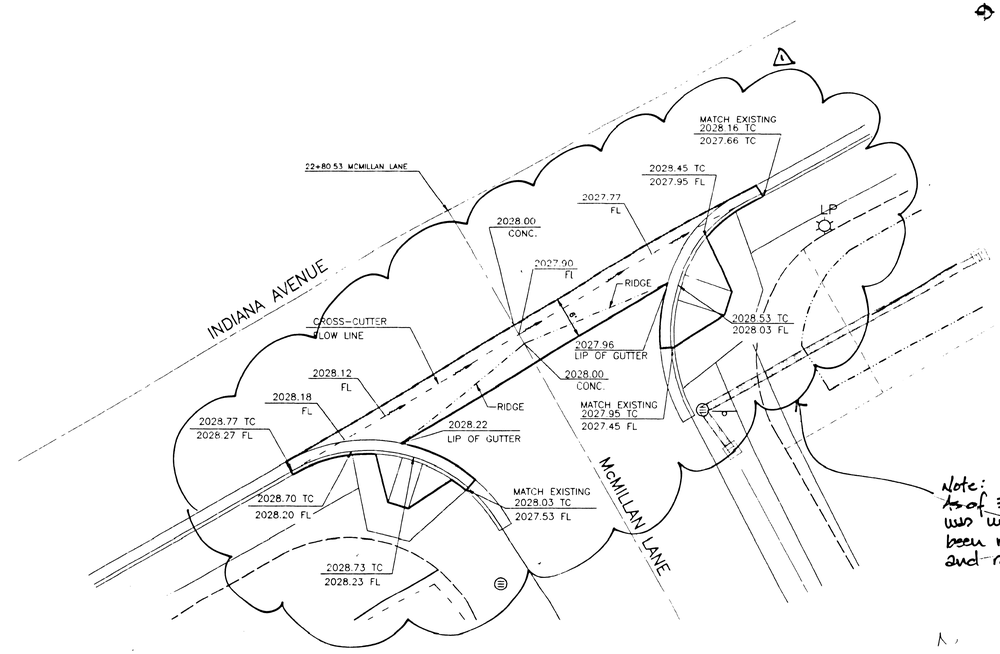
96106\PLSETREC

# RIVERWALK P.U.D. 1ST ADDITION
# SUPPLEMENTAL RECORD DRAWING

## SEC. 8, T.25 N., R.45 E.,W.M.
## SPOKANE COUNTY, WASHINGTON

**DATUM**
REFER TO THE BENCHMARK DESCRIBED ON SHEET 1A OF 13 IN THE RIVERWALK SEWER EXTENSION PLANS APPROVED BY SPOKANE COUNTY MAY 16, 1995.

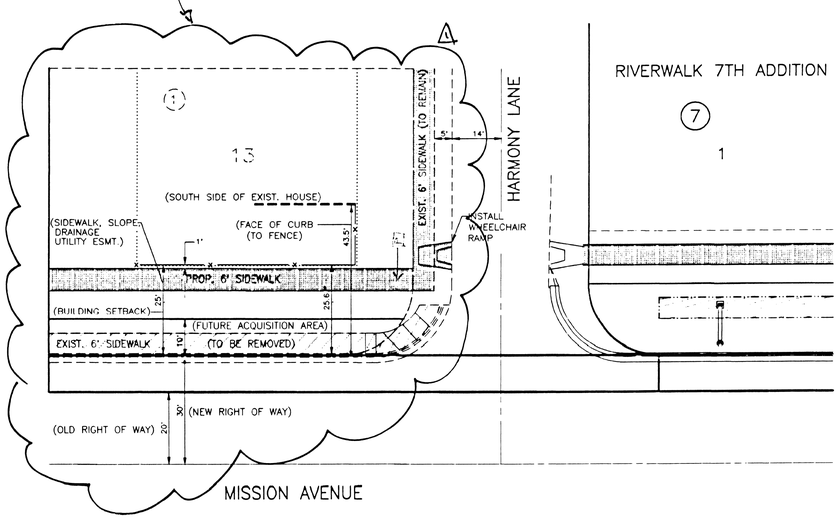
GRAPHIC SCALE
20 0 10 20 40
( IN FEET )
1 inch = 20 ft.



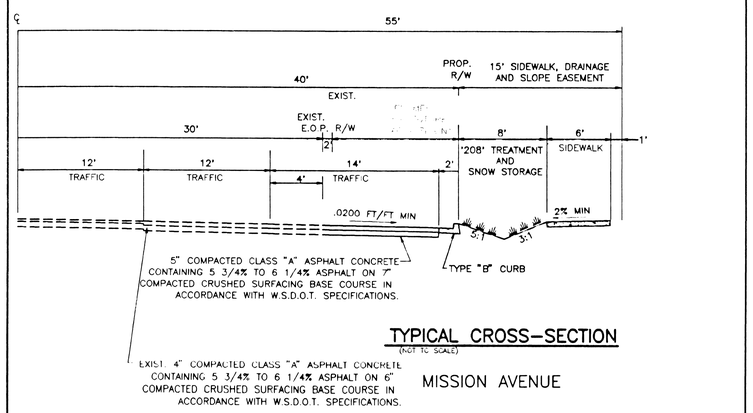

Note:
As of 3·27·97 the cross gutter was not accepted and has been requested to be removed and re-constructed.
TRW
3·28·97

DESIGNED CROSS-GUTTER
1"=10'

Note:
As of 3·27·97 the existing 6' sidewalk has not been removed and reconstructed to the location noted as "PROP. SIDEWALK".
TRW
3·28·97




LOT 13, BLOCK 1 SIDEWALK REALIGNMENT
1"=20'




TYPICAL CROSS-SECTION
(NOT TO SCALE)
MISSION AVENUE

MODIFIED MISSION AVENUE CROSS SECTION
STA. 14+98.96 TO STA. 15+90.08 LT.
RIVERWALK 1ST ADDITION

INLAND PACIFIC ENGINEERING
707 West 7th • Suite 200 Spokane, WA 99204
(509) 458-6840 FAX: (509) 458-6844

P1414 5/1/98

| NO. | DATE | BY | REVISIONS |
|---|---|---|---|
| 1 | 3-28-97 | TRW | Added notes on non-conformance |

DATE 3/27/97
DRAWN BY: JD
DESIGNED BY: PE
CHECKED BY: TRW

SCALE:
HORIZONTAL: 1"=20'
VERTICAL: N/A

INLAND PACIFIC ENGINEERING
707 West 7th • Suite 200 Spokane, WA 99204
(509) 458-6840 FAX: (509) 458-6844

RIVERWALK 1ST ADDITION
SUPPLEMENTAL RECORD DRAWING

SHEET 3S OF 4S
JOB NUMBER 96106

96106\SUPP3

# RIVERWALK P.U.D. 1ST ADDITION
# SUPPLEMENTAL RECORD DRAWING
## STREET & DRAINAGE PLANS
### SEC. 8, T.25 N., R.45 E.,W.M.
### SPOKANE COUNTY, WASHINGTON

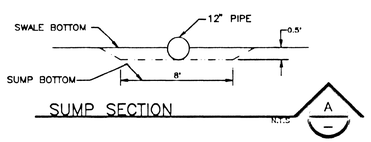
GRAPHIC SCALE
50 0 25 50 100
( IN FEET )
1 inch = 50 ft.

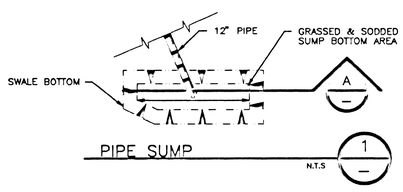
## RECORD DRAWING NOTES

1. TOLERANCES FOR RECORD DRAWINGS:
   IN OUR PROFESSIONAL JUDGEMENT, ELEVATIONS THAT ARE WITHIN 0.05' OF DESIGNED ELEVATION ARE CONSIDERED TO BE BUILT AS DESIGNED. LENGTHS THAT ARE 0.10' OF DESIGNED LENGTH ARE CONSIDERED TO BUILT AS DESIGNED. IN THE EVENT THAT GREATER ACCURACY THAN THIS MAY BE REQUIRED FOR FUTURE DESIGNS OR CONSTRUCTION ACTIVITY, ADDITIONAL SURVEY INFORMATION SHOULD BE GATHERED.
2. INFORMATION SHOWN ON THIS DRAWING WAS COMPILED FROM SEVERAL SURVEYS PERFORMED BY INLAND PACIFIC ENGINEERING, WITH THE LAST SURVEY BEING AUGUST 30, 1996.
3. POND INFORMATION SHOWN INCLUDES THREE DISTINCT ELEMENTS:
   A. THE FIRST ELEMENT "REQUIRED '208' POND VOLUME" IS FROM THE APPROVED NORTH IDAHO ENGINEERING DRAINAGE REPORT DATED JUNE,1995.
   B. THE SECOND ELEMENT, "DESIGNED '208' POND VOLUME" IS FROM THE APPROVED NORTH IDAHO ENGINEERING DRAINAGE REPORT DATED JUNE, 1995.
   C. THE THIRD ELEMENT, "CONSTRUCTED '208' POND VOLUME" WAS CALCULATED FROM DATA OBTAINED DURING THE ABOVE MENTIONED ACTUAL FIELD SURVEYS.
4. SEE FINAL PLAT DATED 8/1/95. ROAD EXTENSION TO THE NORTH WAS DELETED DURING NEW PRELIMINARY PLAT PUD APPLICATION DATED MAY 19, 1995.
5. DRAINAGE EASEMENTS SHOWN ARE NOT FROM PLANS DATED 6/30/95, BUT WERE DETERMINED FROM ACTUAL FINAL PLAT DATED 8/1/95.
6. THIS SECTION OF INDIANA AVENUE WAS CONSTRUCTED AS PART OF RIVERWALK 2ND ADDITION AS OF APRIL, 1996.
7. THIS INFORMATION IS PROVIDED ON THIS SHEET FOR CONTINUITY ONLY AND WILL BE RESUBMITTED TO SPOKANE COUNTY WITH THE SUBMITTAL FOR THE REMAINING PORTIONS OF THE RIVERWALK 1ST CONSTRUCTION CERTIFICATION PROCESS WHICH WILL INCLUDE THE SUBMITTAL OF THE MISSION AVENUE CONSTRUCTED AMENITITES.

## LEGEND

- ASPHALT CORING LOCATIONS. NOTE 1 & 2 ARE ON MISSION AVENUE.
- ASPHALT CORING LOCATIONS. NOTE A/1 & B/2 ARE ON MISSION AVENUE.
- CONCRETE CORE LOCATION
- REFER TO REFERENCED RECORD DRAWING NOTE



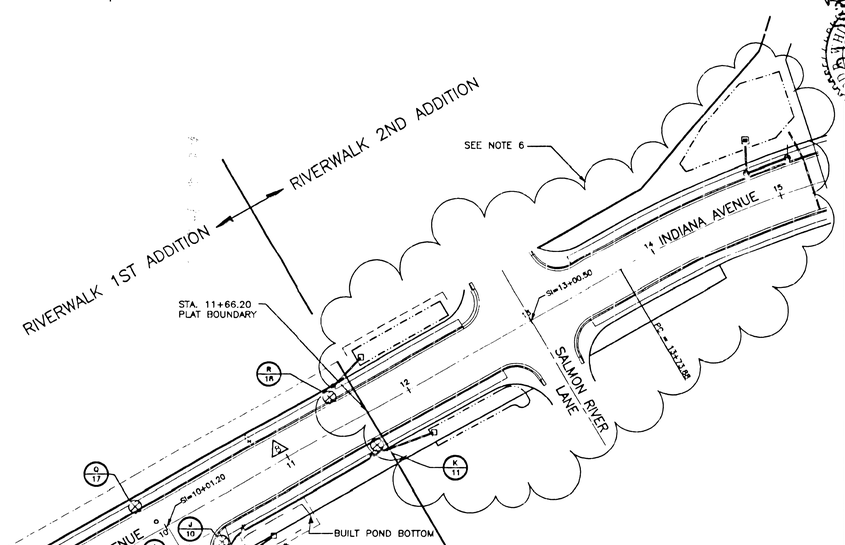



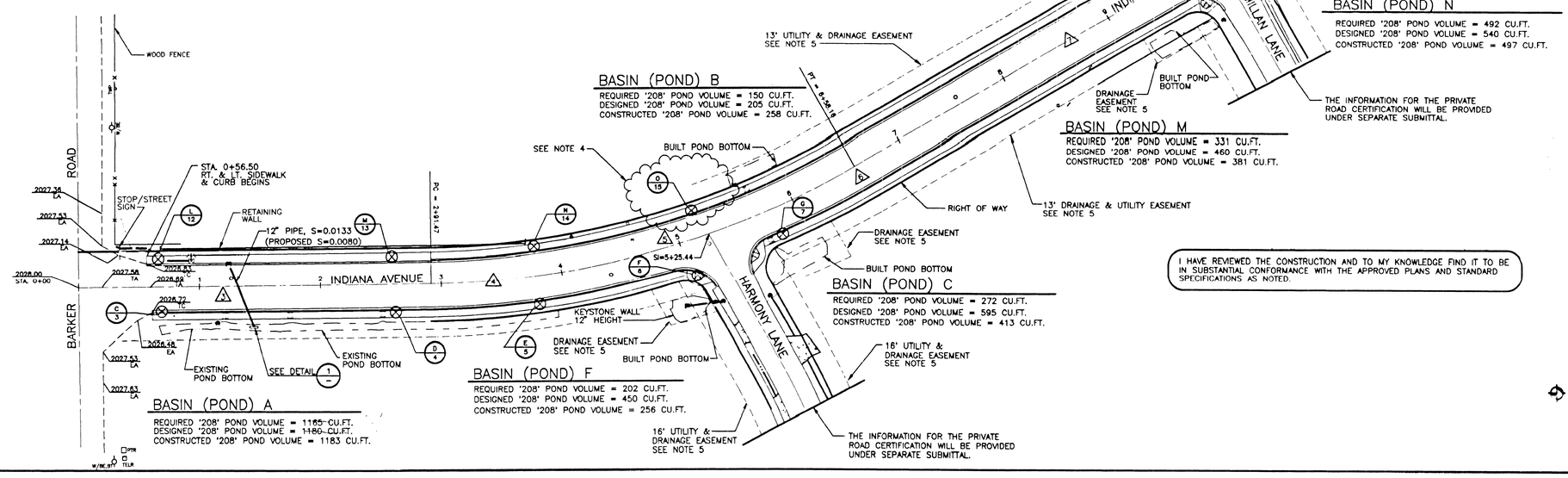

| ASPAHLT CORING | |
|---|---|
| CORE | DEPTH |
| 1 | MISSION AVE. (3.4") |
| 2 | MISSION AVE. (3.4") |
| 3 | 3.2 INCHES |
| 4 | 2.8 INCHES |
| 5 | 2.8 INCHES |
| 6 | 3.0 INCHES |
| 7 | 2.8 INCHES |
| 8 | 3.4 INCHES |

SEE NOTE 7

| CONCRETE CORING | | | |
|---|---|---|---|
| CORE | DEPTH | CORE | DEPTH |
| A | MISSION AVE. (3.6") | 1 | MISSION AVE. (5.2") |
| B | MISSION AVE. (3.8") | 2 | MISSION AVE. (5.4") |
| C | 2.4 INCHES | 3 | 5.3 INCHES |
| D | 3.3 INCHES | 4 | 5.0 INCHES |
| E | 3.9 INCHES | 5 | 5.0 INCHES |
| F | 3.4 INCHES | 6 | 5.0 INCHES |
| G | 3.2 INCHES | 7 | 5.6 INCHES |
| H | 3.4 INCHES | 8 | 5.0 INCHES |
| I | 4.2 INCHES | 9 | 4.3 INCHES |
| J | 4.0 INCHES | 10 | 5.9 INCHES |
| K | 2.7 INCHES | 11 | 5.5 INCHES |
| L | 4.6 INCHES | 12 | 5.0 INCHES |
| M | 4.0 INCHES | 13 | 4.8 INCHES |
| N | 4.5 INCHES | 14 | 5.0 INCHES |
| O | 3.3 INCHES | 15 | 5.0 INCHES |
| P | 3.6 INCHES | 16 | 5.0 INCHES |
| Q | 5.3 INCHES | 17 | 5.0 INCHES |
| R | 3.4 INCHES | 18 | 5.0 INCHES |

SEE NOTE 7




I HAVE REVIEWED THE CONSTRUCTION AND TO MY KNOWLEDGE FIND IT TO BE IN SUBSTANTIAL CONFORMANCE WITH THE APPROVED PLANS AND STANDARD SPECIFICATIONS AS NOTED.

P1414 5/1/97

**DATUM**
REFER TO THE BENCHMARK DESCRIBED ON SHEET 1A OF 13 IN THE RIVERWALK SEWER EXTENSION PLANS APPROVED BY SPOKANE COUNTY MAY 16, 1995.

| NO. | DATE | BY | REVISIONS |
|---|---|---|---|
| | | | |

DATE 3/27/97
DRAWN BY JDP
DESIGNED BY N.L.E.
CHECKED BY TRW

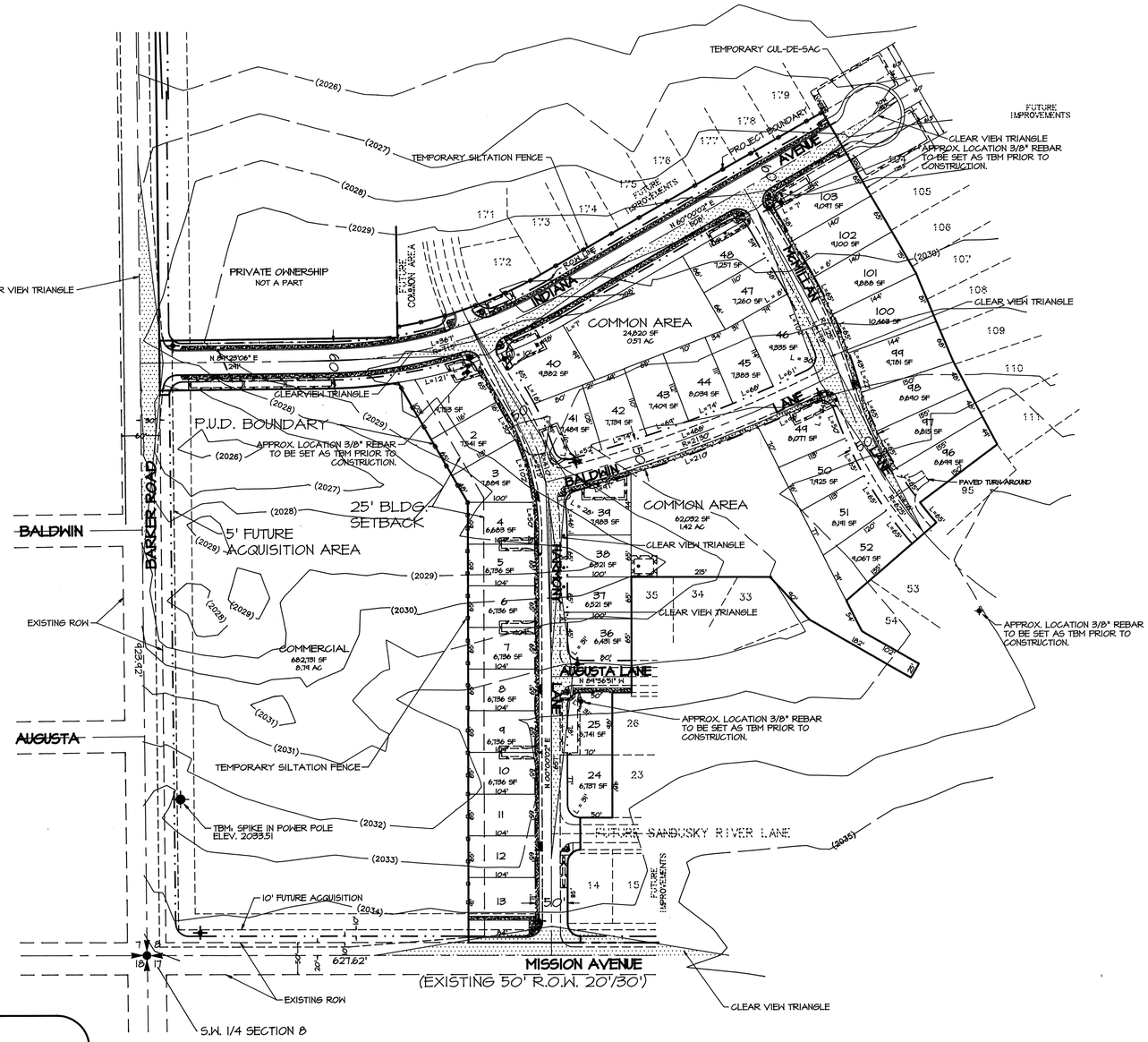
SCALE:
HORIZONTAL 1"=50'
VERTICAL N/A

INLAND PACIFIC ENGINEERING
707 West 7th • Suite 200
Spokane, WA 99204
(509) 458-6840
FAX: (509) 458-6844

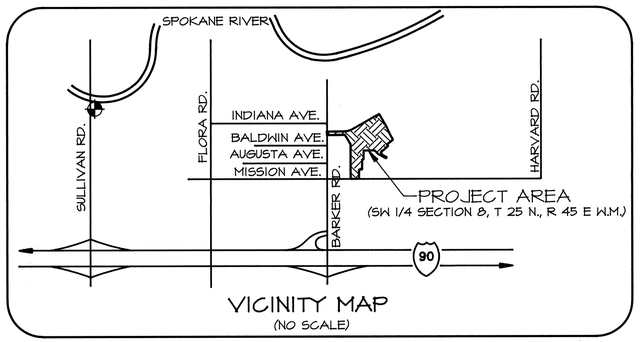
RIVERWALK 1ST ADDITION
INDIANA AVENUE
SUPPLEMENTAL RECORD DRAWING

SHEET 1S OF 4S
JOB NUMBER 96106

96106\INDREC




BENCH MARK-SOUTH EAST CORNER BRIDGE OVER SPOKANE RIVER AT SULLIVAN ROAD. ELEV. 1986.16




VICINITY MAP
(NO SCALE)

## STREET LOCATION INDEX

| SHEET | STREET |
|---|---|
| 1 | TITLE SHEET |
| 2 | INDIANA AVENUE |
| 3 | HARMONY LANE |
| 4 | BALDWIN LANE |
| | AUGUSTA LANE |
| 5 | McMILLAN LANE |
| 6 | BARKER ROAD STA. 14+50.00 - 24+00.00 |
| 7 | MISSION AVENUE STA. 10+00.00 - 19+00.00 |
| 8 | DETAIL SHEET |
| 9 | DETAIL SHEET |
| 9A | BASIN SHEET |
| 9B | BASIN SHEET |
| 9C | SIGHT TRIANGLE DETAILS |

## GENERAL NOTES - STREET

### SPECIFICATIONS AND GENERAL PROVISIONS

THE CONTRACTOR SHALL GUARANTEE ALL MATERIALS AND WORKMANSHIP FOR A PERIOD OF ONE YEAR FOLLOWING FINAL APPROVAL BY THE ENGINEER. IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO CONTACT ALL APPLICABLE UTILITY COMPANIES AND HAVE THEM FIELD LOCATE THEIR UNDERGROUND LINES. ANY DAMAGE CAUSED BY THE CONTRACTOR SHALL BE IMMEDIATELY REPAIRED BY HIM AT HIS EXPENSE. THE WASHINGTON STATE DEPARTMENT OF TRANSPORTATION IS HEREBY ADOPTED FOR THIS PROJECT.

A. ANY CONFLICTING UTILITIES SHALL BE RELOCATED PRIOR TO INSTALLATION OF ROAD OR DRAINAGE FACILITIES.
B. FOR CURB GRADES LESS THAN 0.5% (0.005 FT/FT), A WASHINGTON STATE-LICENSED PROFESSIONAL SURVEYOR SHALL VERIFY THAT THE CURB FORMS ARE AT THE CORRECT DESIGN GRADE AND ELEVATION PRIOR TO PLACEMENT OF CURBING MATERIAL.

### FINAL GUARANTEE:

ALL WORK SHALL BE AND IS HEREAFTER GUARANTEED BY THE CONTRACTOR FOR A PERIOD OF ONE YEAR FROM AND AFTER THE DATE OF FINAL ACCEPTANCE OF ALL THE WORK BY THE OWNER. IF, WITHIN SAID GUARANTEE PERIOD, REPAIRS OR CHANGES ARE REQUIRED IN CONNECTION WITH THE GUARANTEED WORK, WHICH IN THE OPINION OF THE ENGINEER, IS RENDERED NECESSARY AS THE RESULT OF THE USE OF MATERIALS, EQUIPMENT, OR WORKMANSHIP WHICH ARE INFERIOR, DEFECTIVE, OR NOT IN ACCORDANCE WITH THE TERMS OF THE CONTRACT, THE CONTRACTOR SHALL, PROMPTLY UPON RECEIPT OF NOTICE FROM THE OWNER, AND WITHOUT EXPENSE TO THE OWNER, (A) PLACE IN SATISFACTORY CONDITION IN EVERY PARTICULAR ALL OF SUCH GUARANTEED WORK, CORRECT ALL DEFECTS THEREIN; (B) MAKE GOOD ALL DAMAGE TO THE SITE, OR EQUIPMENT THEREON, WHICH IN THE OPINION OF THE ENGINEER, IS THE RESULT OF THE USE OF MATERIALS, EQUIPMENT OR WORKMANSHIP WHICH ARE INFERIOR, DEFECTIVE, OR NOT IN ACCORDANCE WITH THE TERMS OF THIS CONTRACT; AND (C) MAKE GOOD ANY WORK OR MATERIAL ON THE SITE DISTURBED IN FULFILLING ANY SUCH GUARANTEE.

IF THE CONTRACTOR, AFTER NOTICE, FAILS WITHIN TEN (10) DAYS TO PROCEED TO COMPLY WITH THE TERMS OF THIS GUARANTEE, THE OWNER MAY HAVE THE DEFECTS CORRECTED, AND THE CONTRACTOR AND HIS SURETY SHALL BE LIABLE FOR ALL EXPENSE INCURRED; PROVIDED, HOWEVER, THAT IN CASE OF ANY EMERGENCY REPAIRS MAY BE MADE WITHOUT NOTICE BEING GIVEN TO THE CONTRACTOR AND THE CONTRACTOR SHALL PAY THE COST THEREOF. SUCH EMERGENCY REPAIRS SHALL BE MADE BY OTHERS ONLY IN THE EVENT THAT THE CONTRACTOR CANNOT BE LOCATED.

**DATUM:** BRASS CAP AT SOUTH EAST CORNER OF BRIDGE OVER SPOKANE RIVER ON SULLIVAN ROAD. ELEV. = 1986.16

**NOTE:** THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING ALL UTILITY COMPANIES BEFORE ANY CONSTRUCTION. ANY DAMAGE TO UTILITIES CAUSED BY THE CONTRACTOR SHALL BE REPAIRED AT HIS EXPENSE.
ONE-CALL (509)456-8000

GRAPHIC SCALE
100 0 50 100 200 400
( IN FEET )
1 inch = 100 ft.

(SW 1/4 SECTION 8, T 25 N., R 45 E W.M.)

APPROVED FOR CONSTRUCTION
SPOKANE COUNTY ENG.
BY Edward F. Pamplin P.E.
5 Jun 95

PERMIT REQUIRED!
MODIFY THE PERMIT ENGINEER
456-3600
24 HOURS PRIOR TO CONSTRUCTION

JOSEPH E. HASSELL
STATE OF WASHINGTON
30520
REGISTERED PROFESSIONAL ENGINEER
6/30/95
EXPIRES: 9/23/95

6/14/95 MGN

LEGEND
DRYWELL
STOP AND STREET SIGN
PERIMETER FENCE

| REVISION BLOCK: BY, DESC, DATE | APPROVD |
|---|---|
| MGN, / REV/DSN #1 3/30/94 | |
| MGN, / REV/DSN #2 7/27/94 | |
| MGN, / REV/DSN #3 10/20/94 | |
| CHECKED BY: | |
| DATE: 8/22/94 | |
| J.N. 4004 | |
| AS BUILT DATE: | |
| \4004\4004\DWG | |

COUNTY OF SPOKANE

APPROVED: Engineering Department — DATE
APPROVED: Todd R. Whipple — DATE
DEVELOPER APPROVAL: Jim Ed Dean — 6/28/95

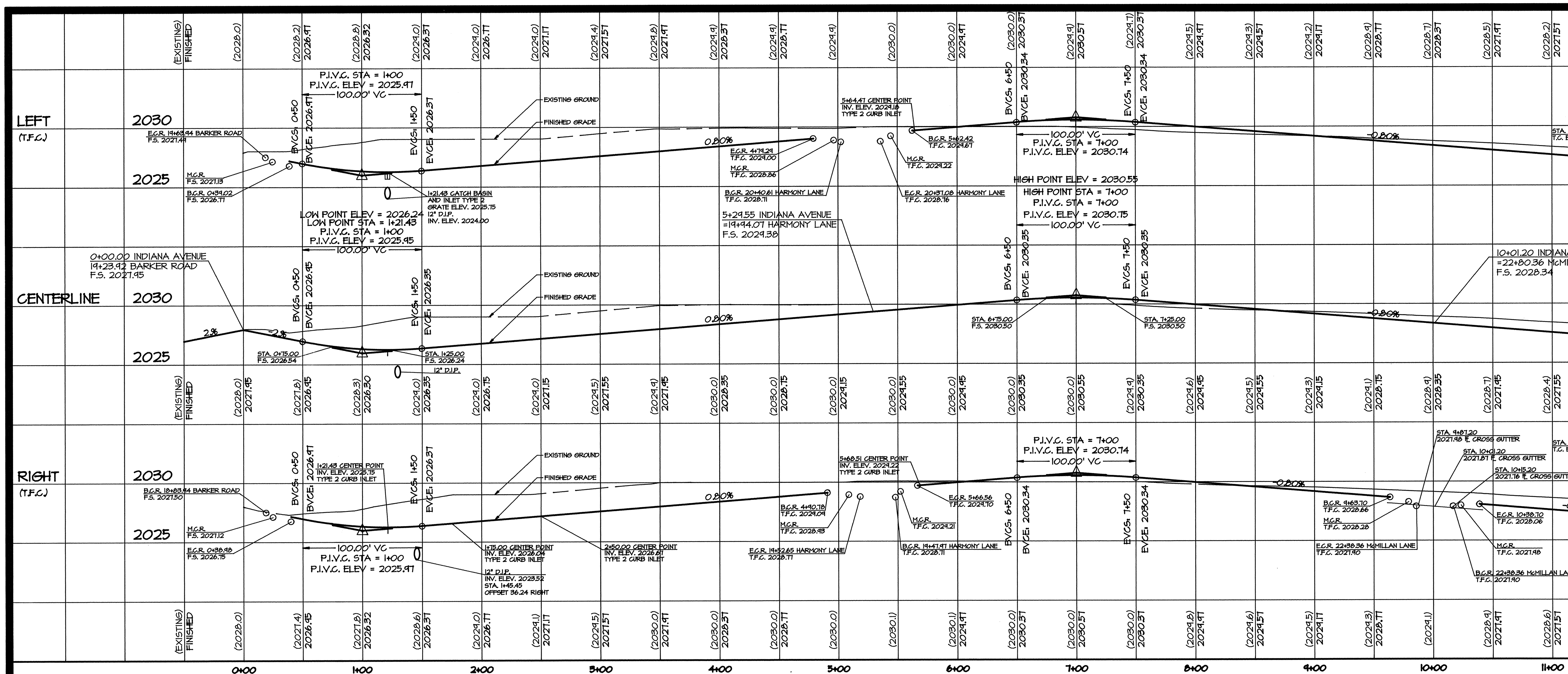
# RIVERWALK (#P1414)

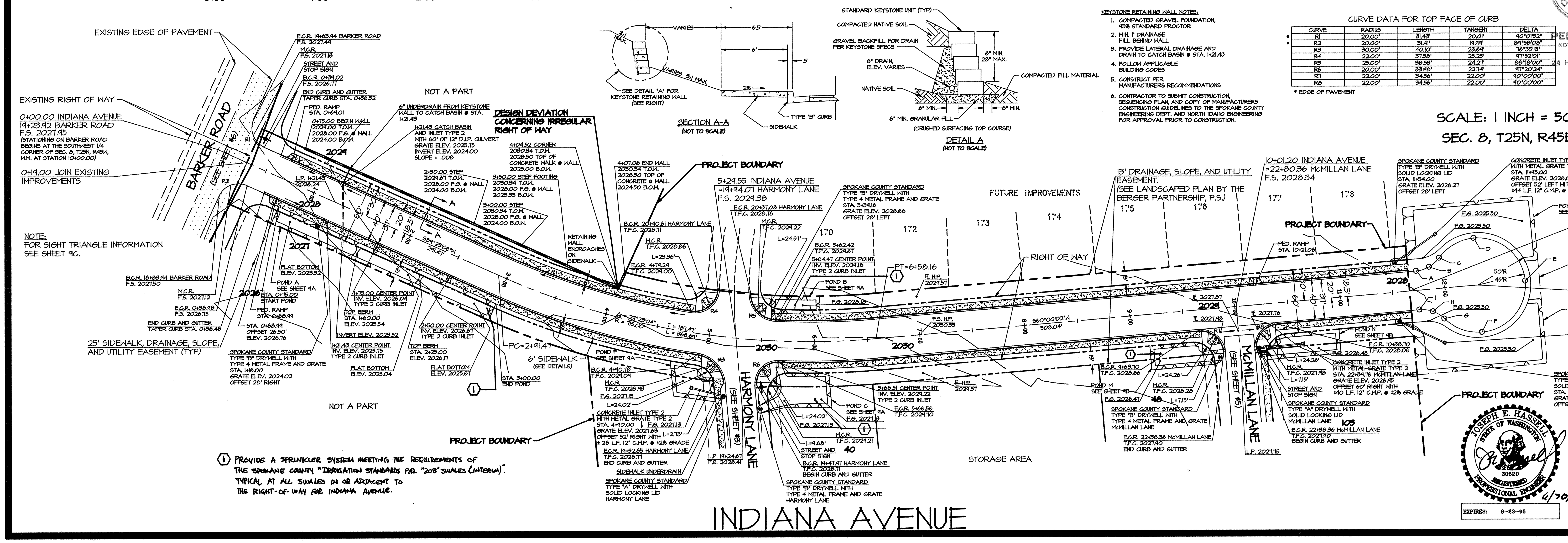
## STREET AND STORM DRAINAGE

## TITLE SHEET

North Idaho Engineering
4200 West Seltice Way
Coeur d'Alene, Idaho 83814
Phone: (208) 667-1171 Fax: (208) 664-3507

SHEET 1 / 9




NOTE:
FOR SIGHT TRIANGLE INFORMATION SEE SHEET 9C.

(1) PROVIDE A SPRINKLER SYSTEM MEETING THE REQUIREMENTS OF THE SPOKANE COUNTY "IRRIGATION STANDARDS FOR "208" SWALES (INTERIM)". TYPICAL AT ALL SWALES IN OR ADJACENT TO THE RIGHT-OF-WAY FOR INDIANA AVENUE.

KEYSTONE RETAINING WALL NOTES:

1. COMPACTED GRAVEL FOUNDATION, 95% STANDARD PROCTOR
2. MIN. 1' DRAINAGE FILL BEHIND WALL
3. PROVIDE LATERAL DRAINAGE AND DRAIN TO CATCH BASIN @ STA. 1+21.43
4. FOLLOW APPLICABLE BUILDING CODES
5. CONSTRUCT PER MANUFACTURERS RECOMMENDATIONS
6. CONTRACTOR TO SUBMIT CONSTRUCTION, SEQUENCING PLAN, AND COPY OF MANUFACTURERS CONSTRUCTION GUIDELINES TO THE SPOKANE COUNTY ENGINEERING DEPT. AND NORTH IDAHO ENGINEERING FOR APPROVAL PRIOR TO CONSTRUCTION.

CURVE DATA FOR TOP FACE OF CURB

| CURVE | RADIUS | LENGTH | TANGENT | DELTA |
|---|---|---|---|---|
| R1 * | 20.00' | 31.43' | 20.01' | 90°01'52" |
| R2 * | 20.00' | 31.41' | 19.99' | 89°58'08" |
| R3 | 30.00' | 40.10' | 23.69' | 76°35'13" |
| R4 | 22.00' | 37.58' | 25.25' | 97°52'01" |
| R5 | 25.00' | 38.53' | 24.27' | 88°18'00" |
| R6 | 20.00' | 33.98' | 22.74' | 97°20'24" |
| R7 | 22.00' | 34.56' | 22.00' | 90°00'00" |
| R8 | 22.00' | 34.56' | 22.00' | 90°00'00" |

* EDGE OF PAVEMENT

PERMIT REQUIRED! NOTIFY THE PERMIT ENGINEER 456-3600 24 HRS. PRIOR TO CONSTRUCTION

SCALE: 1 INCH = 50 FEET

SEC. 8, T25N, R45E, W.M.

APPROVED FOR CONSTRUCTION — SPOKANE COUNTY ENG. BY Edward [signature] P.E. 5 July 95

JOSEPH E. HASSELL — STATE OF WASHINGTON — 30520 — REGISTERED PROFESSIONAL ENGINEER — 6/30/95

EXPIRES: 9-23-95

6/30/95 JB

LEGEND

- STOP AND STREET SIGN
- DRYWELL
- PEDESTRIAN RAMP
- )( CHECK DAM
- ||| CURB INLET

REVISION BLOCK:

| BY, DESC | DATE |
|---|---|
| MBM / REVIEW #1 2/9/94 | |
| JMB / REVIEW #2 7/27/94 | |
| JMB / REVIEW #3 10/21/94 | |
| JMB / REVIEW #4 5/11/95 | |
| EJP / PER TELECON TO DD WHIPPLE 5/4/95 | |

AS BUILT DATE:

DRAWN BY: JMB
CHECKED BY:
DATE: 1/29/93
J.N. 4004
6400402.DWG

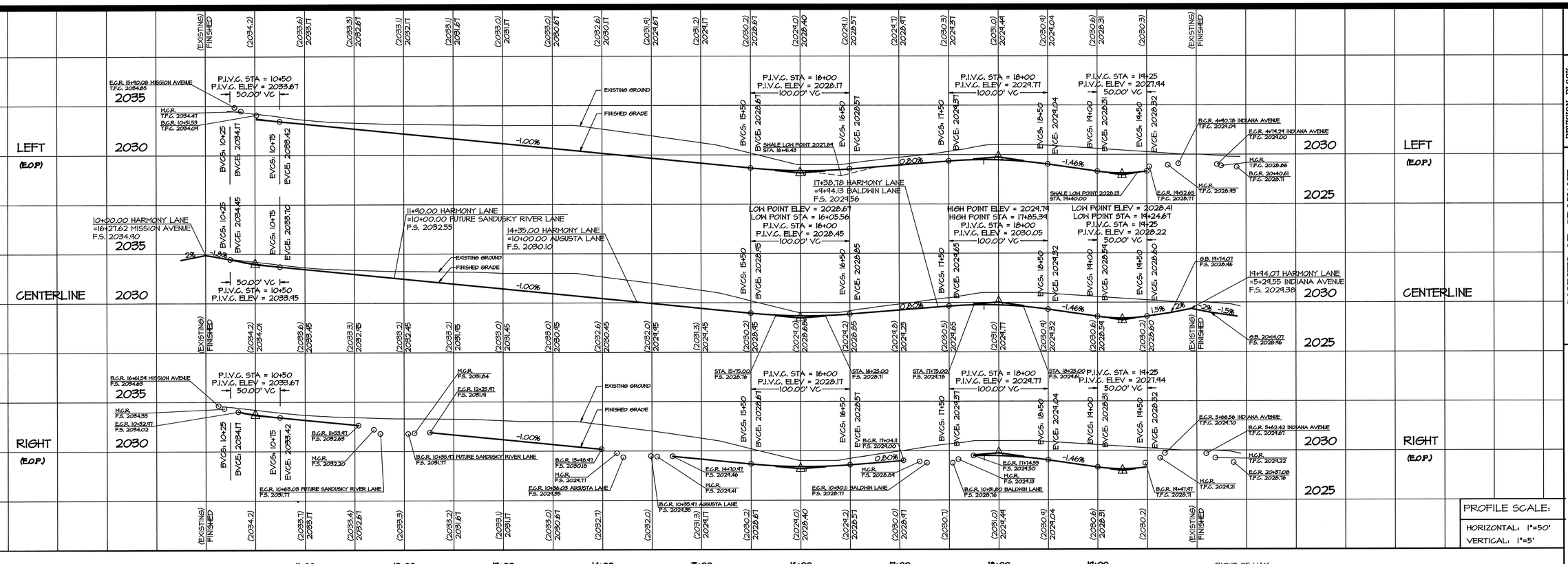
COUNTY OF SPOKANE
APPROVED ENGINEERING DEPARTMENT DATE
APPROVED: Todd R. Whipple DATE
DEVELOPER APPROVAL: Todd for Ed Dean 6/30/95

# RIVERWALK (P#1414)

STREET AND STORM DRAINAGE
INDIANA AVENUE
(0+00-11+66.21)

North Idaho Engineering
4200 West Seltice Way
Coeur d'Alene, Idaho 83814
Phone: (208) 667-1171 Fax: (208) 664-3507

SHEET 2 / 9




PROFILE SCALE:
HORIZONTAL: 1"=50'
VERTICAL: 1"=5'

GURB DATA FOR EDGE OF PAVEMENT AND TOP FACE OF GURB

| | CURVE | RADIUS | LENGTH | TANGENT | DELTA |
|---|---|---|---|---|---|
| * | H1 | 22.00' | 34.58' | 22.22' | 90°03'08" |
| * | H2 | 22.00' | 34.54' | 21.98' | 89°56'52" |
| * | H3 | 22.00' | 34.58' | 22.22' | 90°03'08" |
| * | H4 | 22.00' | 34.54' | 21.98' | 89°56'52" |
| * | H5 | 28.00' | 37.04' | 22.45' | 81°31'05" |
| * | H6 | 28.00' | 35.56' | 22.44' | 88°39'01" |
| ** | H2 | 22.00' | 34.58' | 22.22' | 90°03'08" |
| * | H8 | 20.00' | 31.40' | 19.98' | 89°56'52" |
| ** | R3 | 30.00' | 40.10' | 23.64' | 76°39'13" |
| ** | R4 | 22.00' | 31.58' | 25.25' | 81°52'01" |
| ** | R5 | 25.00' | 38.53' | 24.21' | 88°16'00" |
| ** | R6 | 20.00' | 33.48' | 22.14' | 95°20'24" |

* EDGE OF PAVEMENT
** TOP FACE OF GURB

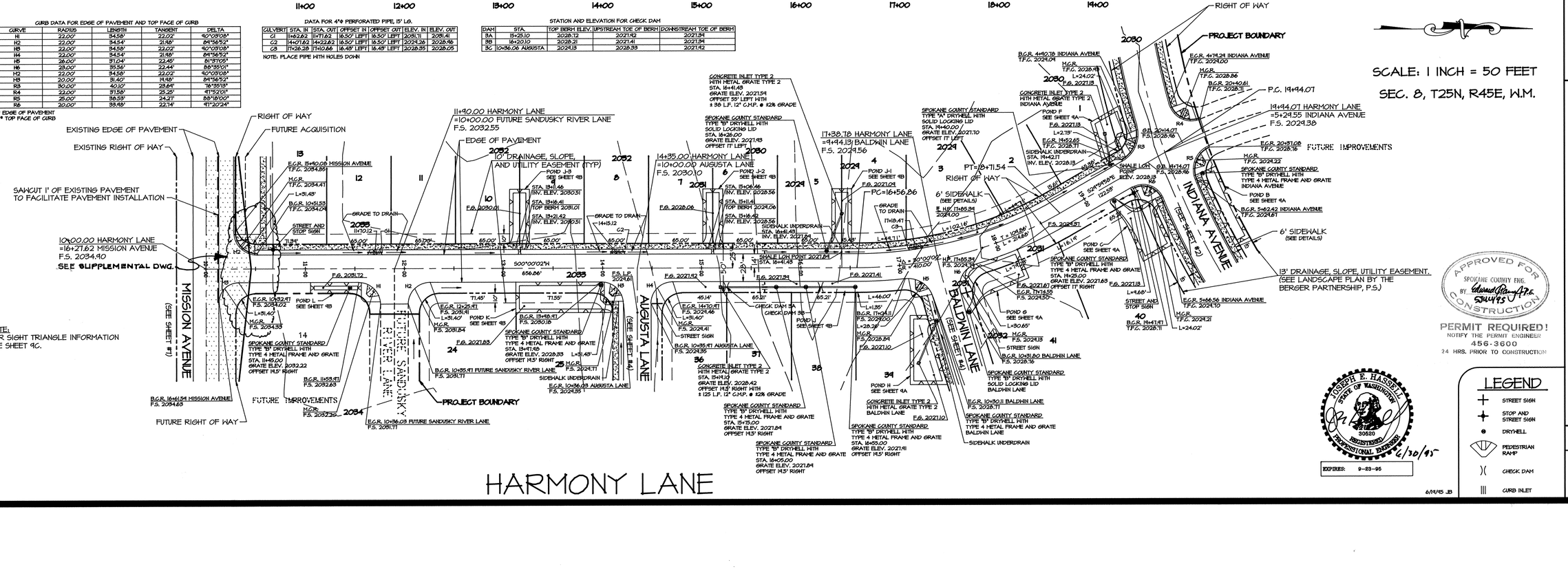
DATA FOR 4"Ø PERFORATED PIPE, 5' L.O.

| GULVERT | STA. IN | STA. OUT | OFFSET IN | OFFSET OUT | ELEV. IN | ELEV. OUT |
|---|---|---|---|---|---|---|
| C1 | 11+62.62 | 11+71.62 | 16.50' LEFT | 16.50' LEFT | 2031.71 | 2031.41 |
| C2 | 14+07.62 | 14+22.62 | 16.50' LEFT | 16.50' LEFT | 2029.26 | 2028.96 |
| C3 | 17+29.28 | 17+40.28 | 16.49' LEFT | 16.49' LEFT | 2028.95 | 2028.05 |

NOTE: PLACE PIPE WITH HOLES DOWN

STATION AND ELEVATION FOR CHECK DAM

| DAM | STA. | TOP BERM ELEV. | UPSTREAM TOE OF BERM | DOWNSTREAM TOE OF BERM |
|---|---|---|---|---|
| 3A | 15+25.10 | 2028.72 | 2027.82 | 2027.34 |
| 3B | 16+20.10 | 2028.21 | 2027.41 | 2027.34 |
| 3C | 10+36.06 AUGUSTA | 2029.13 | 2028.33 | 2027.82 |




DRAWN BY: JB
CHECKED BY:
DATE:
J.N. 4004

REVISION BLOCK:

| BY, DESC, DATE |
|---|
| JBH / REVISION #1 2/4/94 |
| JBH / REVISION #2 7/27/94 |
| JBH / REVISION #3 10/20/94 |
| JBH / REVISION #4 5/1/95 |

AS BUILT DATE:

COUNTY OF SPOKANE

APPROVED ENGINEERING DEPARTMENT DATE

APPROVED: Todd R. Whipple

DEVELOPER APPROVAL: Terry Lee Dow 6/30/95

# RIVERWALK (P#1414)

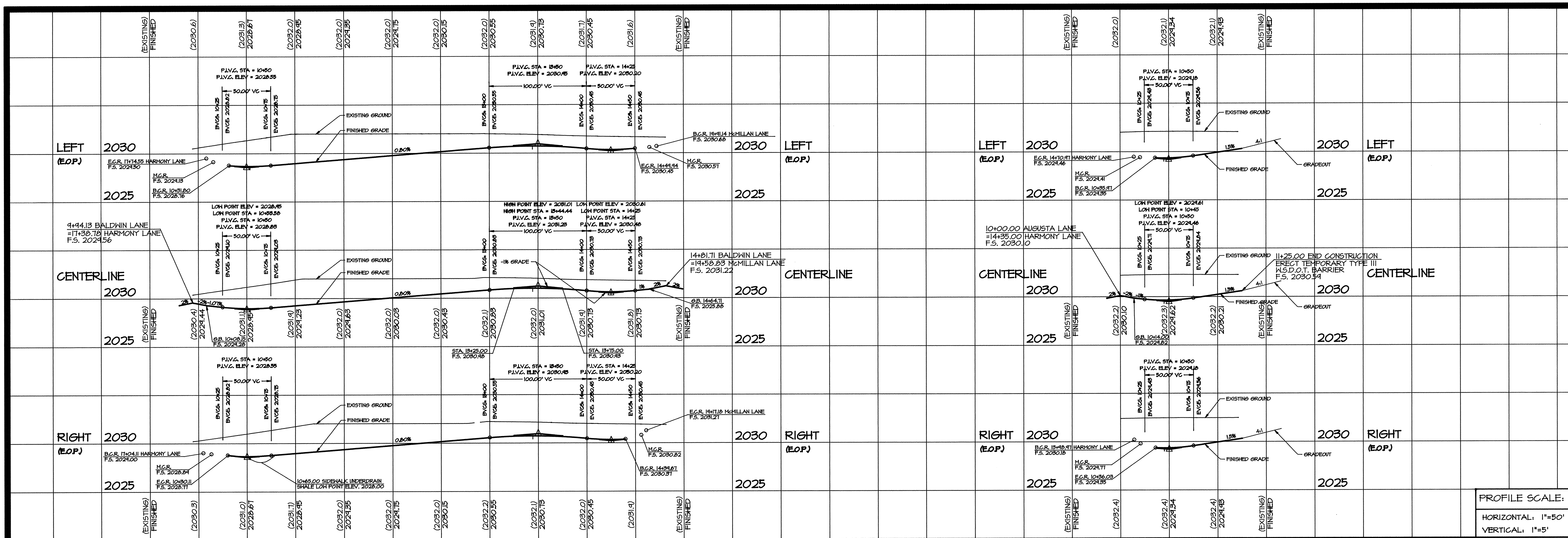
STREET AND STORM DRAINAGE

HARMONY LANE

(10+00.00-19+94.07)

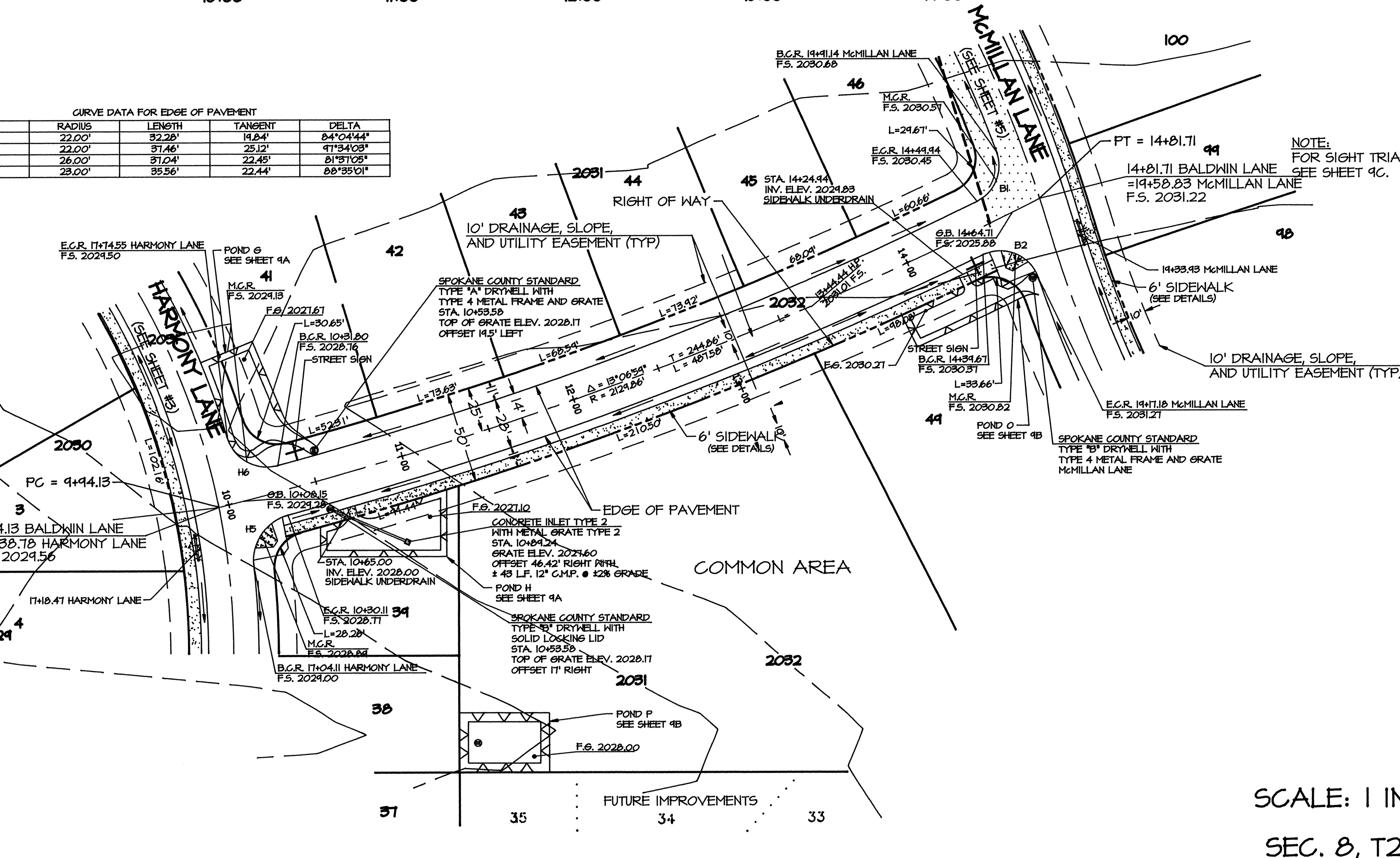

North Idaho Engineering
4200 West Seltice Way
Coeur d'Alene, Idaho 83814
Phone: (208) 667-1171 Fax: (208) 664-3507


SHEET 3 / 9




CURVE DATA FOR EDGE OF PAVEMENT

| CURVE | RADIUS | LENGTH | TANGENT | DELTA |
|---|---|---|---|---|
| B1 | 22.00' | 32.28' | 19.84' | 84°04'44" |
| B2 | 22.00' | 37.46' | 25.12' | 97°34'03" |
| H5 | 26.00' | 37.04' | 22.45' | 81°37'05" |
| H6 | 23.00' | 35.56' | 22.44' | 88°35'01" |



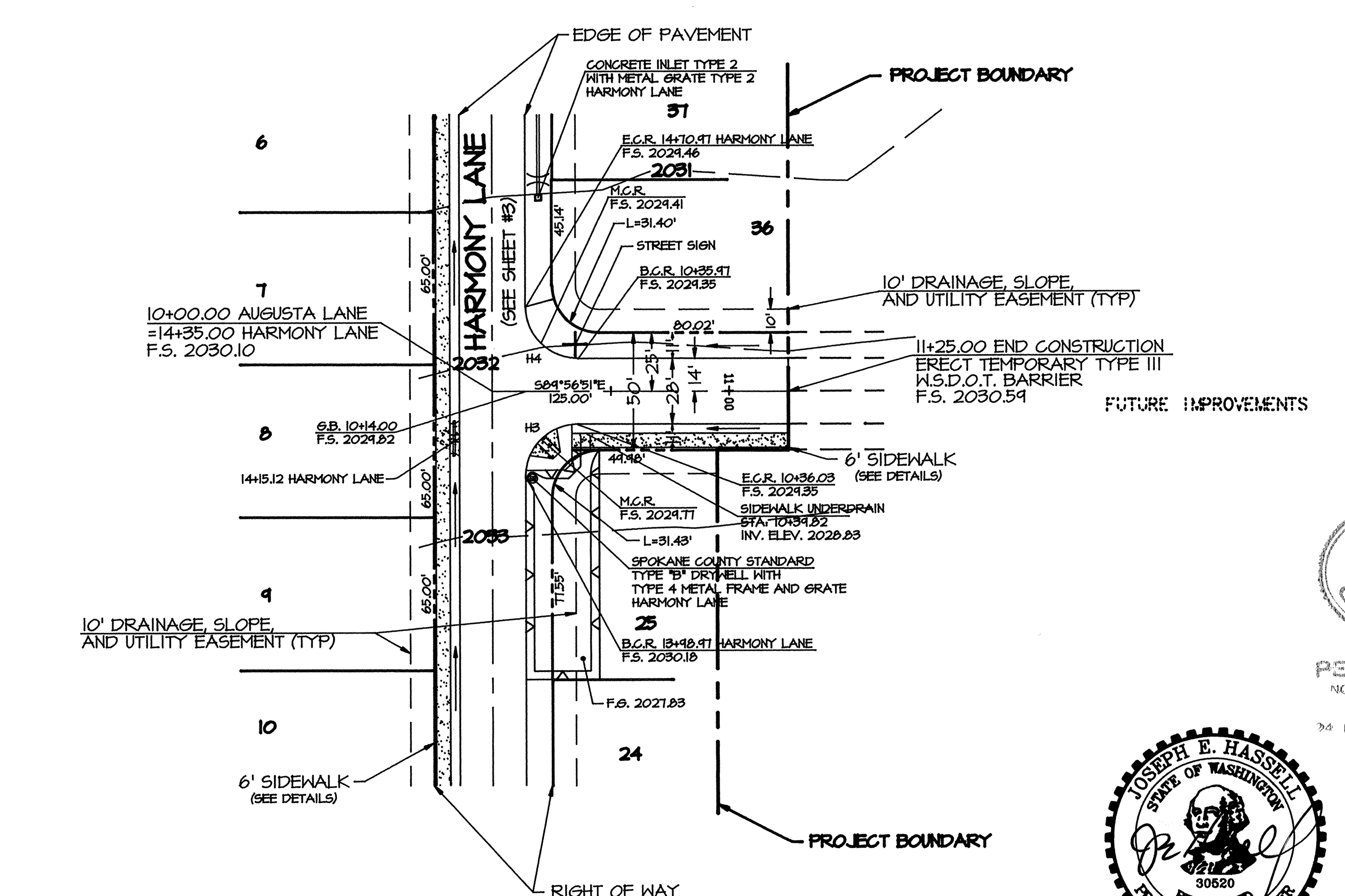

NOTE:
FOR SIGHT TRIANGLE INFORMATION
SEE SHEET 9C.

STATION AND ELEVATION FOR CHECK DAM

| DAM | STA. | TOP BERM ELEV. | UPSTREAM TOE OF BERM | DOWNSTREAM TOE OF BERM |
|---|---|---|---|---|
| 4A | 10+36.06 | 2028.85 | 2028.36 | 2028.34 |

CURVE DATA FOR EDGE OF PAVEMENT

| CURVE | RADIUS | LENGTH | TANGENT | DELTA |
|---|---|---|---|---|
| H3 | 22.00' | 34.58' | 22.02' | 90°03'08" |
| H4 | 22.00' | 34.54' | 21.98' | 89°56'52" |




BALDWIN LANE

SCALE: 1 INCH = 50 FEET

SEC. 8, T25N, R45E, W.M.

AUGUSTA LANE

APPROVED FOR CONSTRUCTION
SPOKANE COUNTY ENG.
BY Edward J. ... P.E. 5JUL95

PERMIT REQUIRED!
NOTIFY THE PERMIT ENGINEER
456-3600
24 HRS. PRIOR TO CONSTRUCTION

JOSEPH E. HASSELL, STATE OF WASHINGTON, 30520, REGISTERED PROFESSIONAL ENGINEER 6/30/95

EXPIRES: 9/23/95

LEGEND
- + STREET SIGN
- STOP AND STREET SIGN
- DRYWELL
- PEDESTRIAN RAMP

6/21/95 JOM

REVISION BLOCK:

| BY, DESC | DATE |
|---|---|
| MBM / REVIEW #1 2/1/94 | |
| JMB / REVIEW #2 7/21/94 | |
| JMB / REVIEW #3 10/21/94 | |

DRAWN BY: JMB
CHECKED BY:
DATE: 1/29/93
J.N. 4004
6400404.DWG

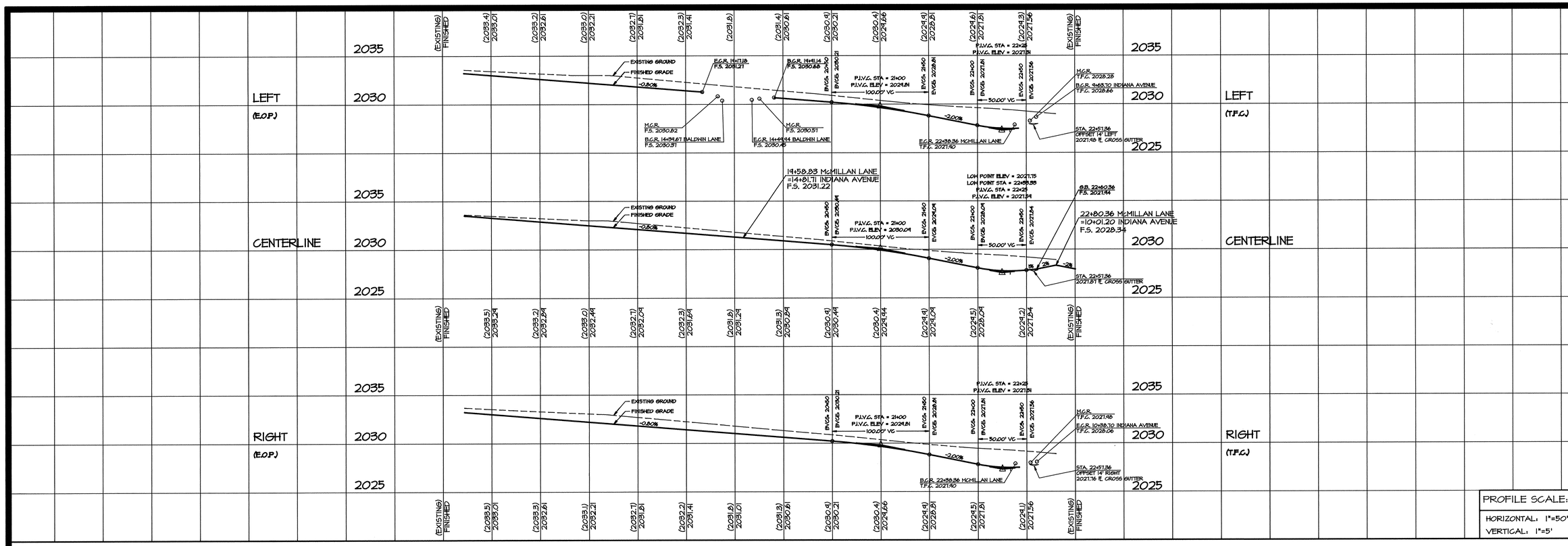
AS BUILT DATE:

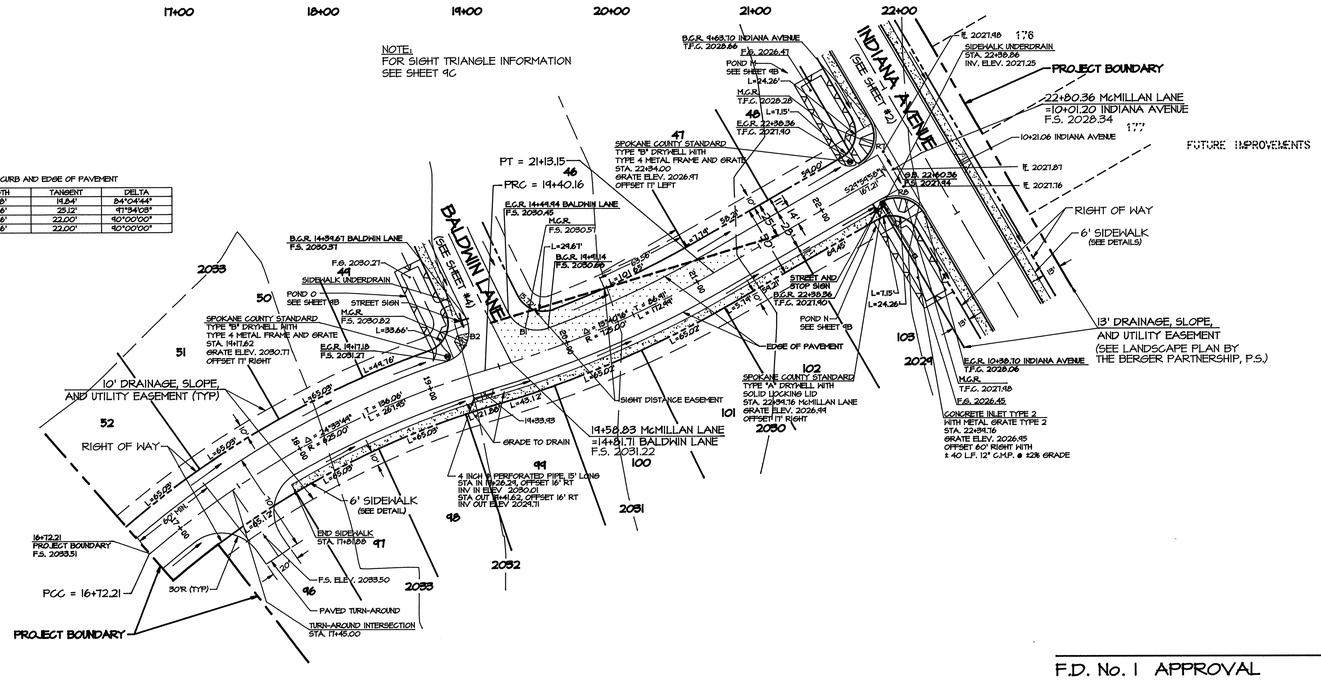
COUNTY OF SPOKANE
APPROVED ENGINEERING DEPARTMENT DATE
APPROVED: Todd R. Whipple
DEVELOPER APPROVAL: TRW for Ed Dow 6/30/95

# RIVERWALK (#P1414)
STREET AND STORM DRAINAGE
BALDWIN LANE (9+94.13–14+81.71)
AUGUSTA LANE (10+00.00–11+25.00)

North Idaho Engineering
4200 West Seltice Way
Coeur d'Alene, Idaho 83814
Phone: (208) 667-1171 Fax: (208) 664-3507

SHEET 4 / 9




CURVE DATA FOR TOP FACE OF CURB AND EDGE OF PAVEMENT

| CURVE | RADIUS | LENGTH | TANGENT | DELTA |
|---|---|---|---|---|
| * B1 | 22.00' | 32.28' | 19.84' | 84°04'44" |
| * B2 | 22.00' | 37.46' | 25.12' | 97°34'03" |
| ** R1 | 22.00' | 34.56' | 22.00' | 90°00'00" |
| ** R2 | 22.00' | 34.56' | 22.00' | 90°00'00" |

* EDGE OF PAVEMENT
** TOP FACE OF CURB

SCALE: 1 INCH = 50 FEET
SEC. 8, T25N, R45E, W.M.

F.D. No. 1 APPROVAL

McMILLAN LANE

APPROVED FOR CONSTRUCTION
SPOKANE COUNTY ENG.
BY: Edward Pamplin P.E.
5/30/95

PERMIT REQUIRED!
NOTIFY THE PERMIT ENGINEER
456-3600
24 HRS. PRIOR TO CONSTRUCTION

JOSEPH E. HASSELL
STATE OF WASHINGTON
30520
REGISTERED PROFESSIONAL ENGINEER
6/30/95
EXPIRES: 9/23/95

LEGEND
STOP AND STREET SIGN
DRYWELL
PEDESTRIAN RAMP

6/14/95 JB

COUNTY OF SPOKANE
APPROVED ENGINEERING DEPARTMENT DATE
APPROVED: Todd R. Whipple
DEVELOPER APPROVAL: Thru for Ed Dean
6/30/95

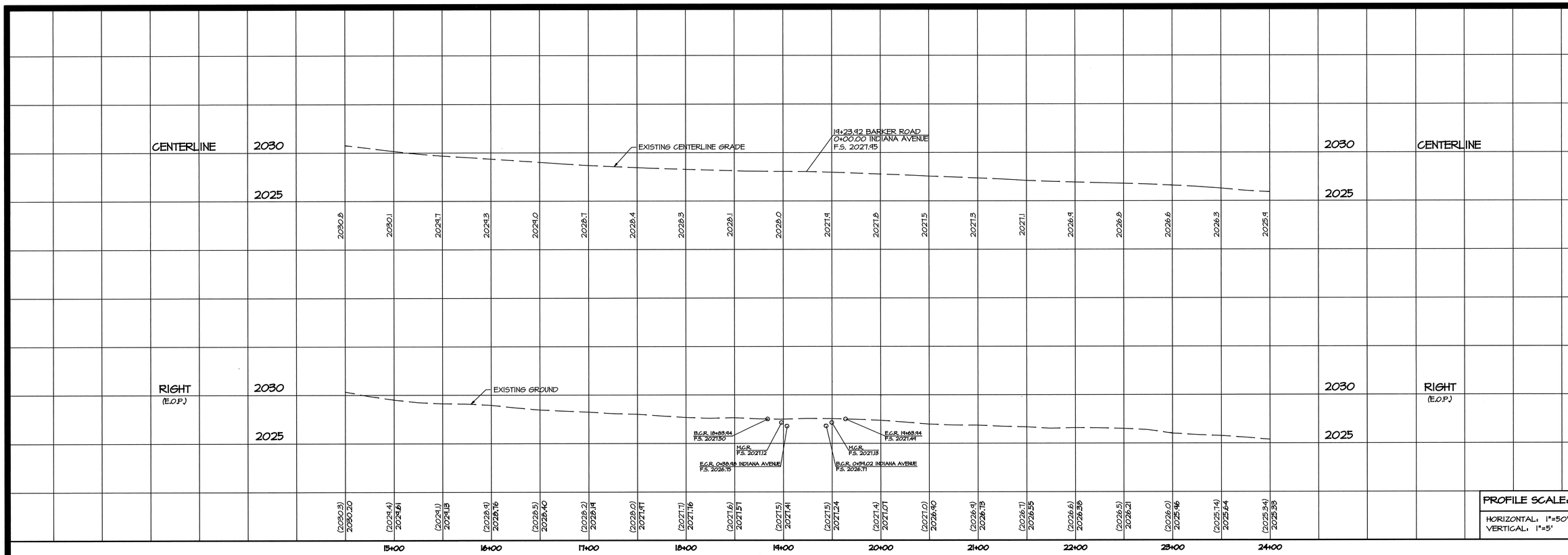
REVISION BLOCK:
BY, DESC DATE
MBH / COUNTY COMMENTS 2/7/94
JHB / REVIEW #2 7/27/94
ELB / REVIEW #3 10/21/94
AS BUILT DATE:

DRAWN BY: JHB
CHECKED BY:
DATE: 1/29/93
J.N. 4004
64004105.DWG

# RIVERWALK (P#1414)
## STREET AND STORM DRAINAGE
McMILLAN LANE
(16+72.21-22+80.36)

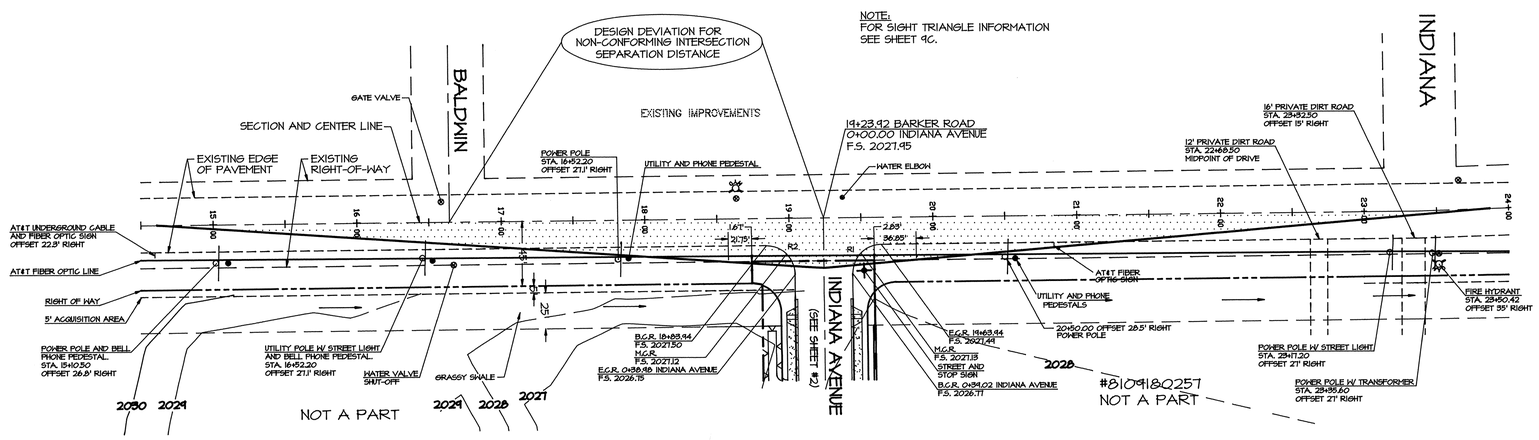

North Idaho Engineering
4200 West Seltice Way
Coeur d'Alene, Idaho 83814
Phone: (208) 667-1171 Fax: (208) 664-3507


SHEET 5 / 9




CURVE DATA FOR TOP FACE OF CURB

| CURVE | RADIUS | LENGTH | TANGENT | DELTA |
|---|---|---|---|---|
| R1 | 20.00' | 31.48' | 20.01' | 90°01'52" |
| R2 | 20.00' | 31.41' | 19.98' | 89°58'08" |




• NOTE
GRADE ROADSIDE DITCH IN PHASE 1 TO DRAIN
TO DRYWELL AT STA 15+40.00
STA. 0+61.78 INDIANA AVENUE

# BARKER ROAD

SCALE: 1 INCH = 50 FEET
SEC 8, T25N, R45E, W.M.

APPROVED FOR CONSTRUCTION
SPOKANE COUNTY ENG.
BY 5/14/95

PERMIT REQUIRED!
NOTIFY THE PERMIT ENGINEER
456-3600
24 HRS. PRIOR TO CONSTRUCTION

JOSEPH E. HASSELL
STATE OF WASHINGTON
30520
REGISTERED
PROFESSIONAL ENGINEER
6/30/95

EXPIRES: 9-23-95

6/14/95 JB

## LEGEND

- STOP AND STREET SIGN
- PEDESTRIAN RAMP
- DRYWELL
- CURB INLET

DRAWN BY: ELB
CHECKED BY:
DATE: 8/22/94
J.N. 4004
G:\4004\DWG

REVISION BLOCK:
BY: DESC DATE:
ELB DESC/REV. 1/5, 11/21/94

AS BUILT DATE:

COUNTY OF SPOKANE

APPROVED: _____ DATE

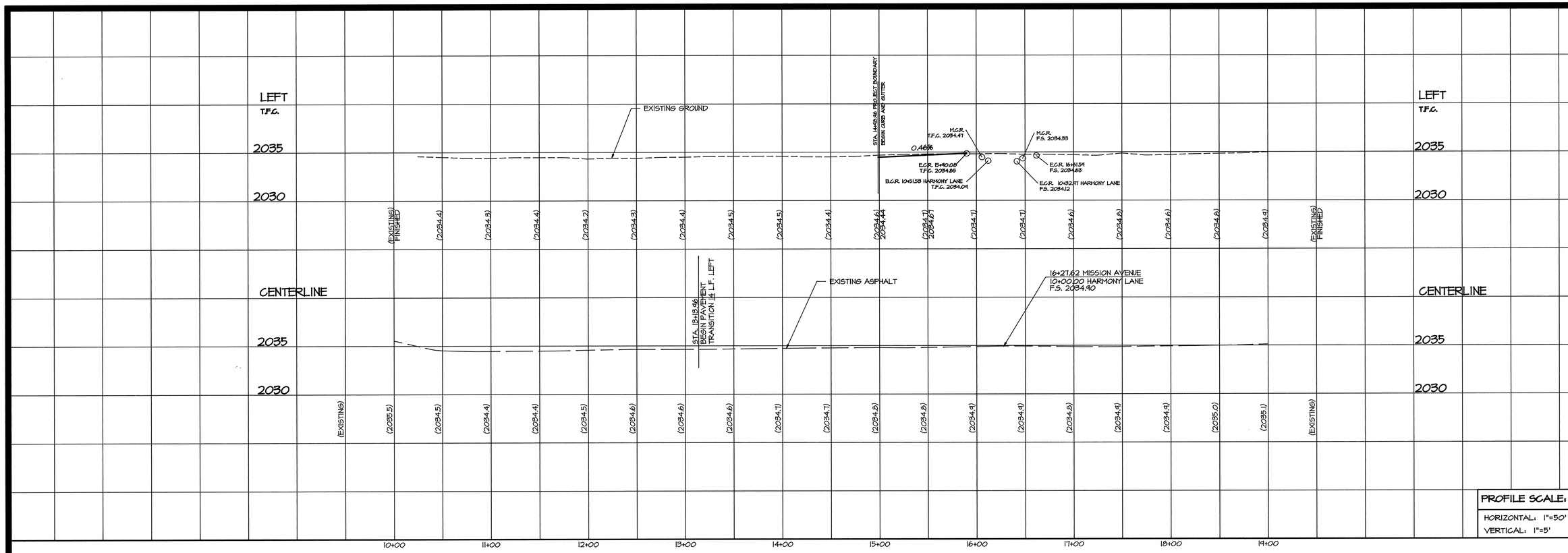
APPROVED: Terry R. Wright
DEVELOPER APPROVAL
6/14/95 Acting for Ed Dow

# RIVERWALK (P#1414)
# FIRST ADDITION

STREET AND STORM DRAINAGE
BARKER ROAD
(14+50.00-24+00.00)

North Idaho Engineering
4200 West Seltice Way
Coeur d'Alene, Idaho 83814
Phone: (208) 667-1171 Fax: (208) 664-3507

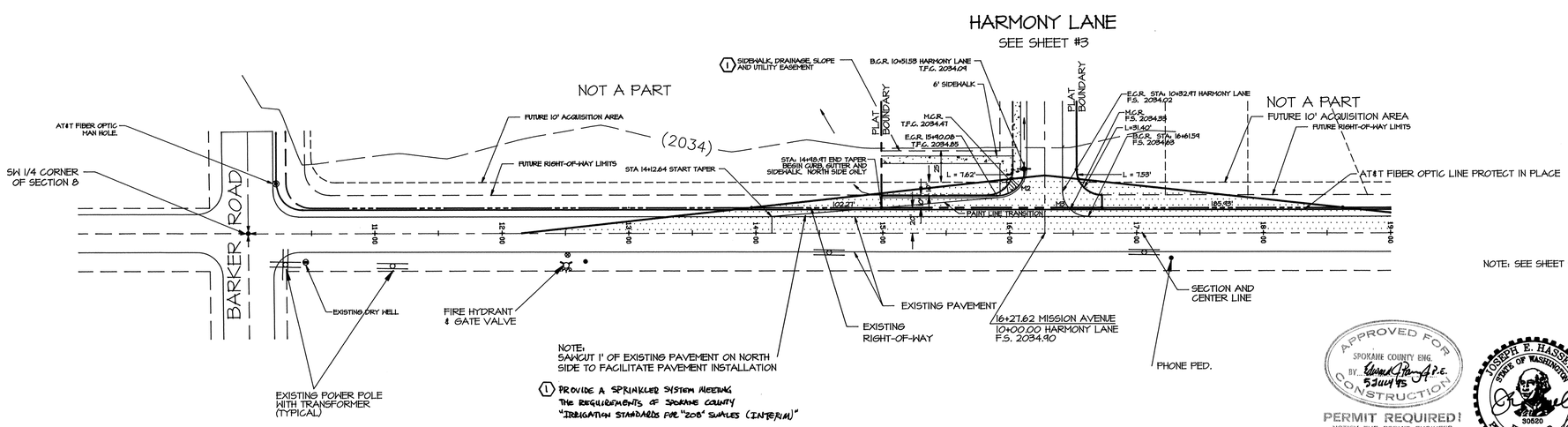
SHEET 6 / 9




| PROFILE SCALE: |
|---|
| HORIZONTAL: 1"=50' |
| VERTICAL: 1"=5' |

CURVE TABLE FOR EDGE OF PAVEMENT

| CURVE | RADIUS | LENGTH | TANGENT | DELTA |
|---|---|---|---|---|
| H2 | 22.00' | 34.58' | 22.02' | 90°03'08" |
| H3 | 20.00' | 31.40' | 19.98' | 84°56'52" |




NOTE:
SAWCUT 1' OF EXISTING PAVEMENT ON NORTH SIDE TO FACILITATE PAVEMENT INSTALLATION

(1) PROVIDE A SPRINKLER SYSTEM MEETING THE REQUIREMENTS OF SPOKANE COUNTY "IRRIGATION STANDARDS FOR "208" SWALES (INTERIM)"

# MISSION AVENUE

SCALE: 1 INCH = 50'
SEC 8, T25N, R45E, W.M.

NOTE: SEE SHEET 9C FOR SIGHT TRIANGLE DIMENSIONS.

APPROVED FOR CONSTRUCTION
SPOKANE COUNTY ENG.
BY: Edward Pfau, P.E. 5/24/95

PERMIT REQUIRED!
NOTIFY THE PERMIT ENGINEER
456-3600
24 HRS. PRIOR TO CONSTRUCTION

JOSEPH E. HASSELL
STATE OF WASHINGTON
30520
REGISTERED PROFESSIONAL ENGINEER
6/30/95
EXPIRES: 9/23/95

6/20/95 JOM

LEGEND
STOP AND STREET SIGN
PEDESTRIAN RAMP

DRAWN BY: ELB
CHECKED BY:
DATE: 8/22/94
J.N. 4004
94-004-01.DWG

REVISION BLOCK:

| BY, DESC, DATE | APPV'D |
|---|---|
| ELB, REVISION #3, 11/21/94 | |
| GEB/PWS, RESIGN, 5/24/95 | |

AS BUILT DATE:

COUNTY OF SPOKANE
APPROVED: DATE:
DEVELOPER APPROVAL
6/24/95 Todd R. Whipple TRW for Ed Dow

# RIVERWALK (P#1414) FIRST ADDITION

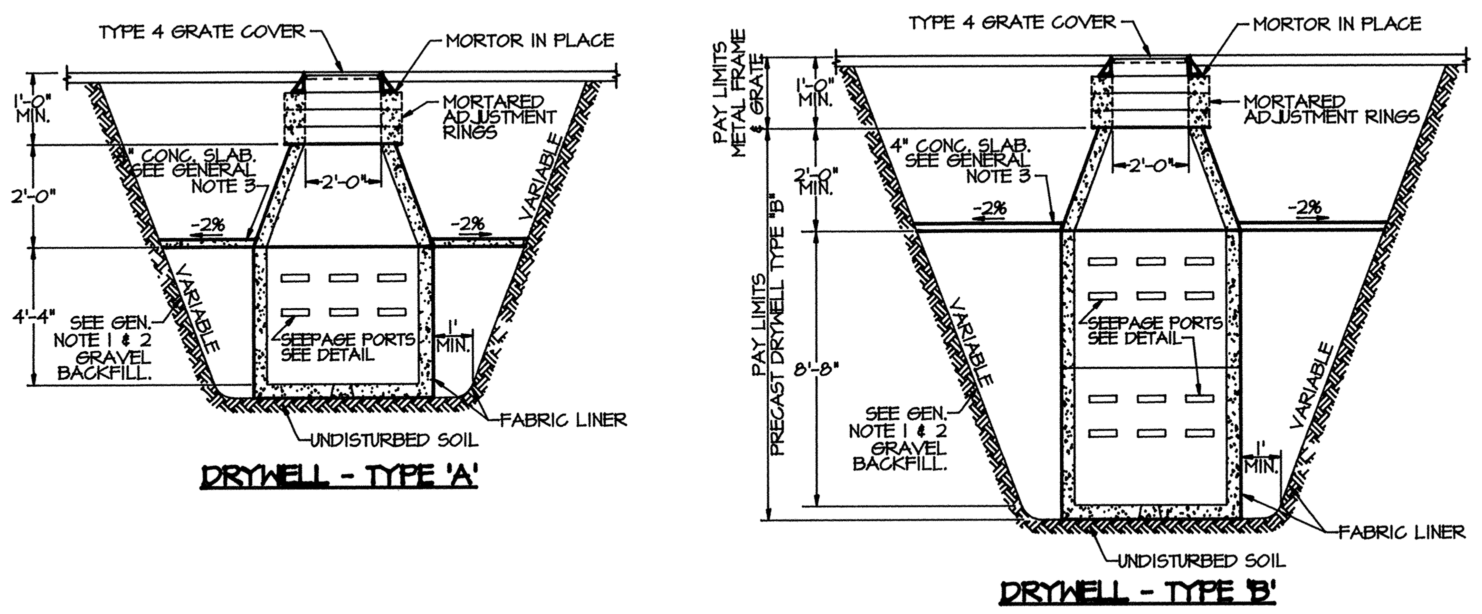
STREET AND STORM DRAINAGE
MISSION AVENUE
(10+00.00-19+00.00)


North Idaho Engineering
4200 West Seltice Way
Coeur d'Alene, Idaho 83814
Phone: (208) 667-1171 Fax: (208) 664-3507


SHEET 7 / 9

GENERAL NOTES

1. GRAVEL BACKFILL QUANTITY FOR DRYWELLS:
   TYPE "A" - 30 CUBIC YARDS MINIMUM / 42 TONS.
   TYPE "B" - 40 CUBIC YARDS MINIMUM / 56 TONS.
2. SPECIAL BACKFILL MATERIAL FOR DRYWELLS SHALL CONSIST OF WASHED GRAVEL FROM 1" TO 3" WITH A MAXIMUM OF 5% PASSES THE U.S. NO. 200 SCREEN, AS MEASURED BY WEIGHT, MAY BE CRUSHED OR FRACTURED ROCK. THE REMAINING 90% SHALL BE A MAXIMUM OF 10% NATURALLY OCCURRING UNFRACTURED MATERIAL.
3. CONCRETE SLAB SHALL BE CLASS 3000 CONCRETE.
4. SEE STANDARD PLANS FOR PRECAST CONCRETE DETAILS.
5. ADJUSTMENT BLOCKS SHALL BE CEMENT CONCRETE.
6. PRECAST RISER MAY BE USED IN COMBINATION WITH OR IN LIEU OF ADJUSTING BLOCKS.
7. SEE "TYPICAL GRASSY SWALE DESIGN"
8. SEE "TEMPORARY EROSION/SEDIMENT CONROL"

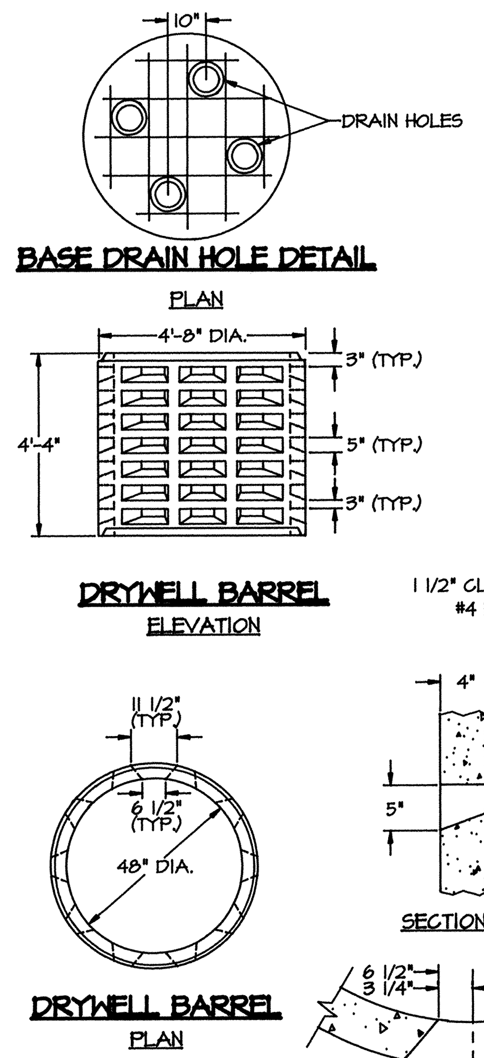


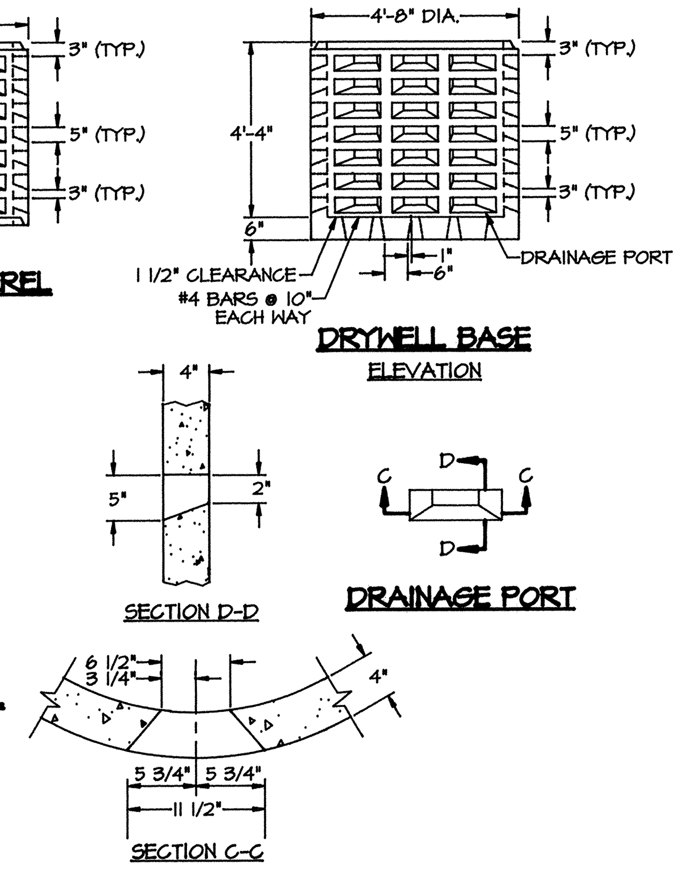

## STANDARD PRECAST DRYWELL

FROM SPOKANE COUNTY DEPARTMENT OF PUBLIC WORKS SHEET B-1

GENERAL NOTE:

1. CONCRETE DRYWELL ITEMS SHALL BE CONSTRUCTED WITH THE BARRELS AND CONES REINFORCED WITH 0.12 SQ. IN. STEEL GRADE 40, PER LINEAL FOOT WALL.
2. TOLERANCE OF DIMENSIONS FOR DRAINAGE PORTS SHALL BE ±1/2"
3. EACH BARREL SECTION SHALL A MINIMUM OF 6 ROWS OF DRAINAGE PORTS VERTICAL AND MINIMUM OF 10 DRAINAGE PORTS AROUND THE CIRCUMFERENCE OF THE BARREL.



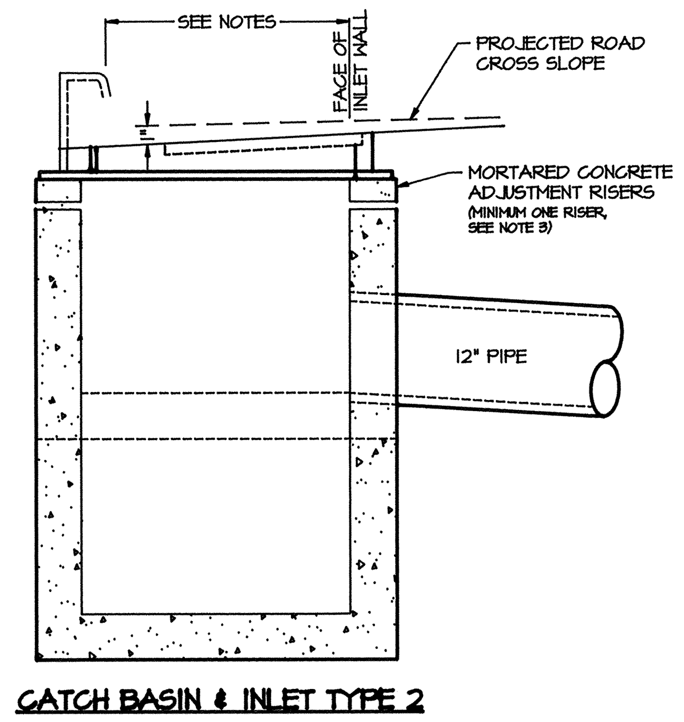




## STANDARD PRECAST DRYWELL DETAILS

FROM SPOKANE COUNTY DEPARTMENT OF PUBLIC WORKS SHEET B-2

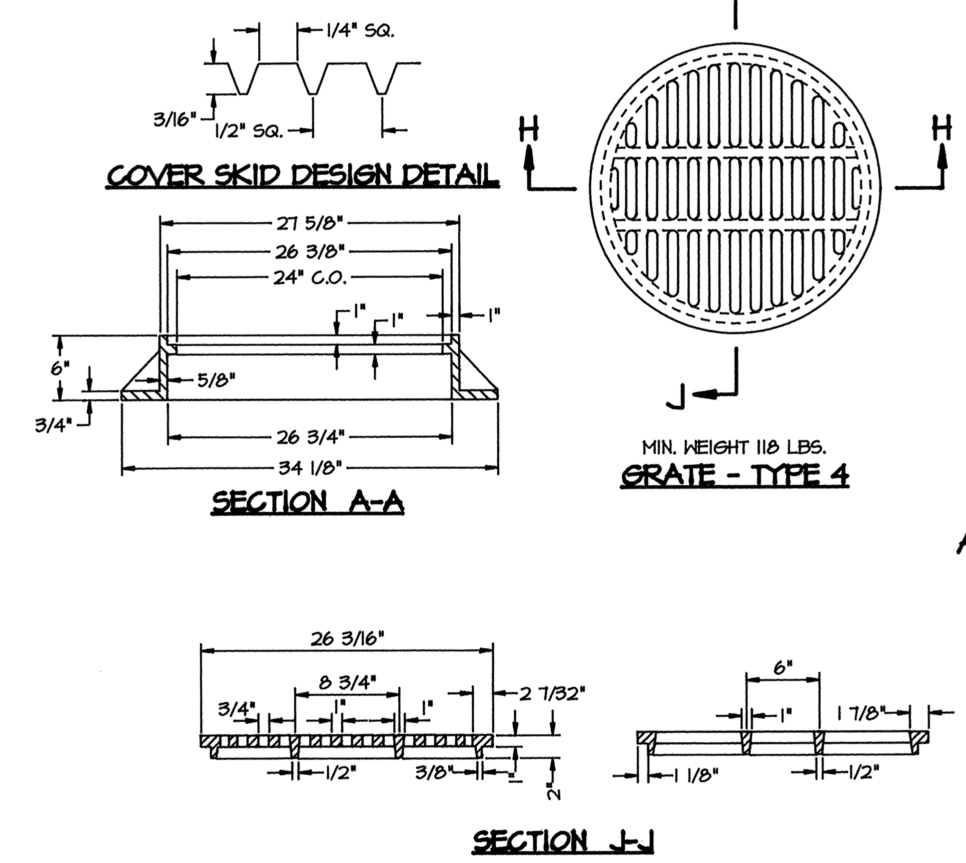
GENERAL NOTES

1. THE TOP OF GRATE SHALL BE INSTALLED 1" LOWER THAN THE PROJECTED GUTTER GRADE.
2. THE PRECAST CONCRETE INLET SHALL BE PLACED ON THE SAME GRADE AS THE CURB.
3. RISER TYPE 2 TO BE USED WITH CATCH BASIN.
4. IN STREET WITH TYPE B CURB USE FRAME TYPE 2
5. IN PONDS USE FRAME TYPE 1



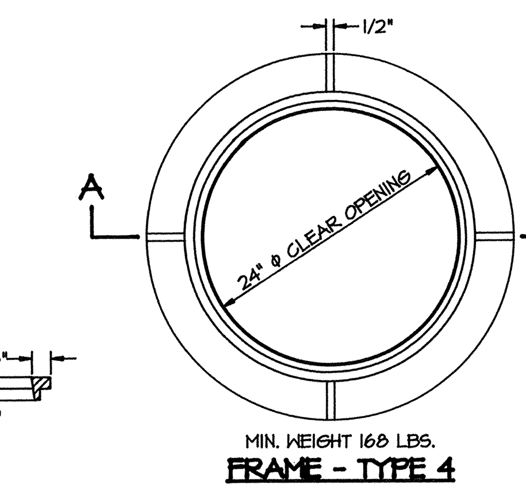

## STANDARD CATCH BASIN & INLET INSTALLATION

FROM SPOKANE COUNTY DEPARTMENT OF PUBLIC WORKS SHEET B-7



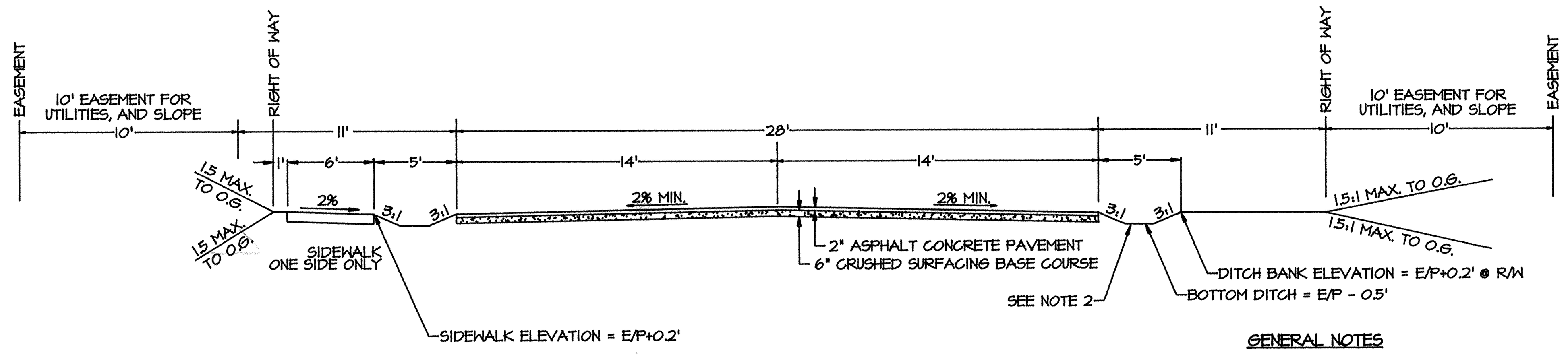

GENERAL NOTES

1. FRAME SHALL BE GRAY IRON CONFORMING TO A.S.T.M. A48-90, GRADE 30. THE GRATE SHALL BE DUCTILE IRON CONFORMING TO A.S.T.M. A536-84. CLASS 80-55-06.
2. METAL FRAME AND GRATE TYPE 4 SHALL ONLY BE USED WHERE SHOWN ON THE CONSTRUCTION PLANS. IT SHALL NOT BE USED AT A CURB LINE.
3. DRAINAGE SLOTS SHALL BE PLACED PARALLEL TO THE DIRECTION OF FLOW.
4. FIT TOLERANCE SHALL BE 1/8" ±
5. WELDING IS NOT PERMITTED.




## STANDARD METAL FRAME, GRATE COVER - TYPE 4

FROM SPOKANE COUNTY DEPARTMENT OF PUBLIC WORKS SHEET B-15

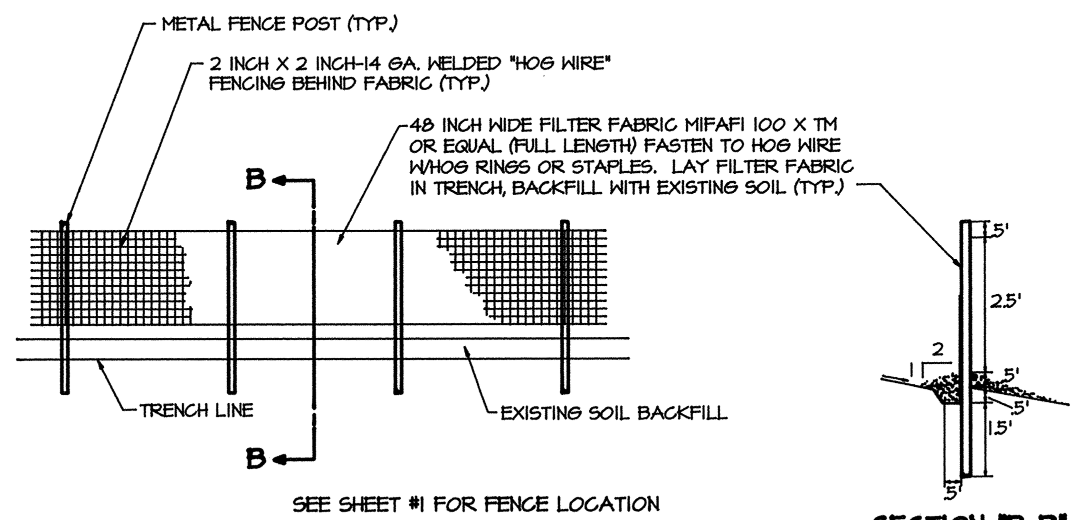



GENERAL NOTES

1. DITCH SLOPES AND SIDE SLOPES SHALL BE NO STEEPER THAN RATIOS SHOWN UNLESS RECOMMENDED BY A SOILS REPORT AND APPROVED BY THE COUNTY ENGINEER. LIMITS OF EXCAVATION SLOPES HIGHER THAN 5' SHALL BE DETERMINED BY SOILS TESTING.
2. DRAINAGE SWALES SHALL BE HYDROSEEDED PER TYPICAL GRASSY SWALE DETAIL.

## INTERIOR STREET SECTION

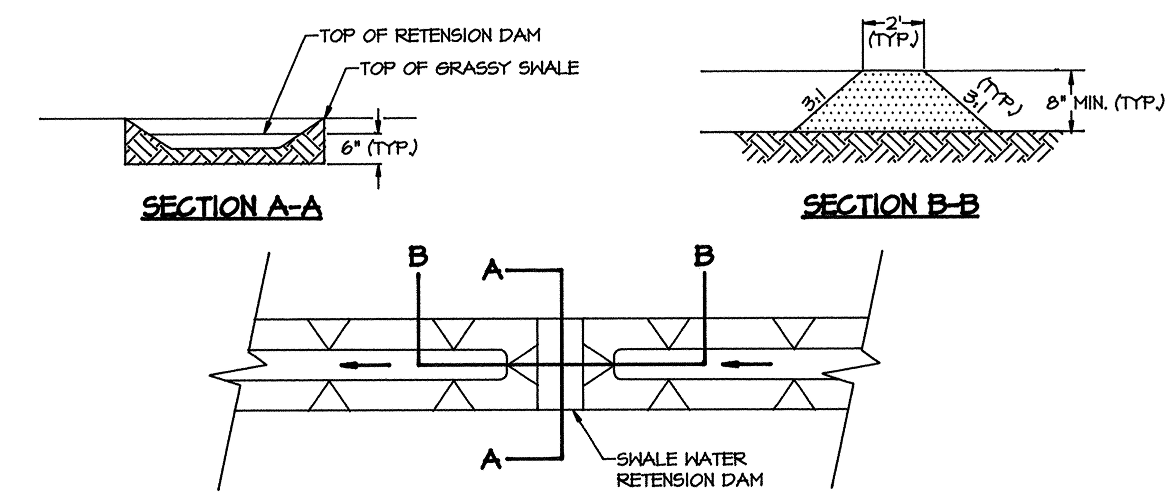
FROM SPOKANE COUNTY DEPARTMENT OF PUBLIC WORKS SHEET A-1



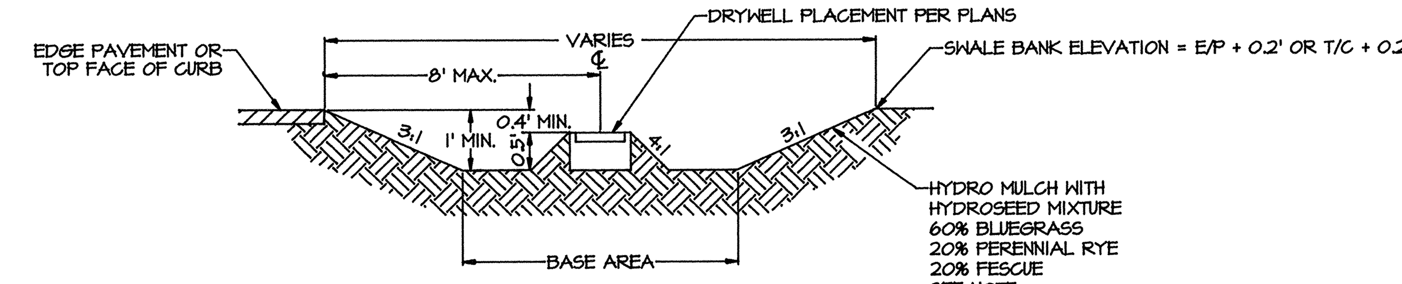

## TEMPORARY SILTATION FENCE

TEMPORARY EROSION / SEDIMENT CONTROL

1. WHERE POSSIBLE, MAINTAIN NATURAL VEGETATION FOR SILT CONTROL.
2. TEMPORARY SILTATION FENCE TO BE CONSTRUCTED AROUND DRYWELL INLETS AND AT MAJOR INLETS TO SWALES.
3. ALL SILTATION FENCES SHALE BE MAINTAINED IN A SATISFACTORY CONDITION UNTIL SUCH TIME THAT CLEANING AND/OR CONSTRUCTION IS COMPLETED AND THE PERMANENT DRAINAGE FACILITIES ARE OPERATIONAL.
4. PLACE ADDITIONAL HYDROSEEDING AS REQUIRED.

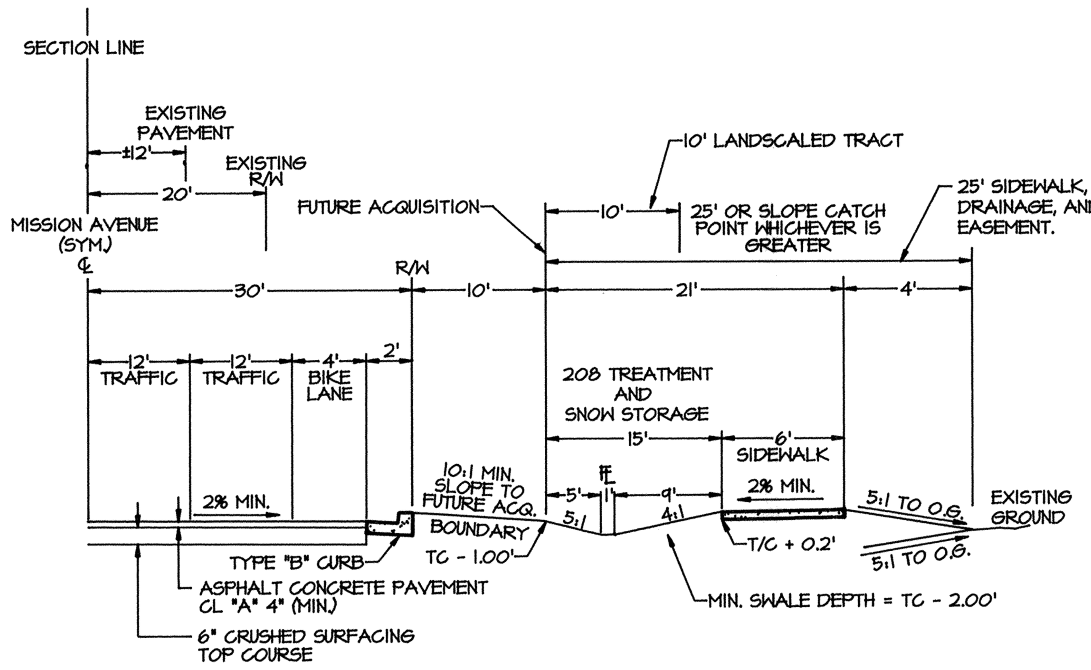



## TYPICAL SWALE WATER RETENTION DAM



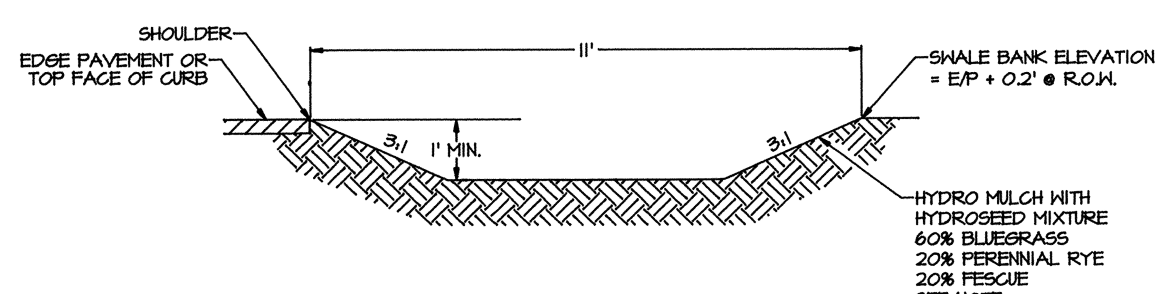

## TYPICAL GRASSY SWALE DESIGN

NOTE: THE DEVELOPER SHALL BE RESPONSIBLE FOR MAINTAINING THE EROSION PREVENTION/SEDIMENT CONTROL MEASURES IN GOOD WORKING CONDITION UNTIL THE VEGETATION IS ESTABLISHED AND DRAINAGE FACILITIES ADJACENT TO THE PUBLIC R/W ARE ACCEPTED BY THE COUNTY; AND THAT THE DEVELOPER SHALL THOROUGHLY CLEAN THE DRYWELLS PRIOR TO THE COUNTY'S ACCEPTANCE OF THE DRAINAGE FACILITIES ADJACENT TO THE PUBLIC R/W.



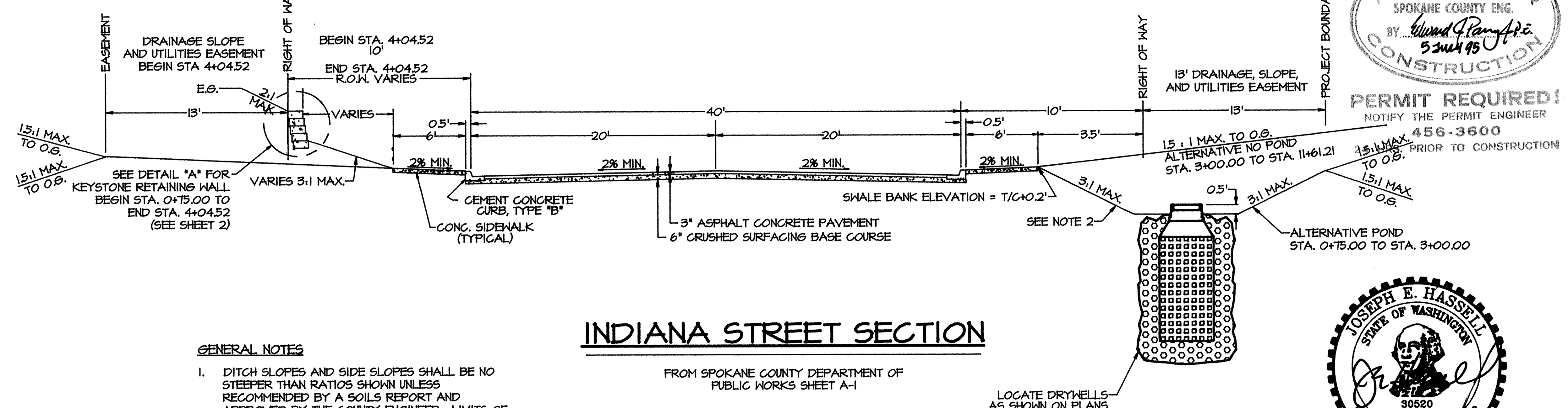

## MISSION AVENUE

TYPICAL ROADWAY SECTION
FROM STATION 13+13.96 TO STATION 16+65.08




## HARMONY LANE EAST

## STA. 11+05.39 TO STA. 16+20.10




## INDIANA STREET SECTION

FROM SPOKANE COUNTY DEPARTMENT OF PUBLIC WORKS SHEET A-1

GENERAL NOTES

1. DITCH SLOPES AND SIDE SLOPES SHALL BE NO STEEPER THAN RATIOS SHOWN UNLESS RECOMMENDED BY A SOILS REPORT AND APPROVED BY THE COUNTY ENGINEER. LIMITS OF EXCAVATION SLOPES HIGHER THAN 5' SHALL BE DETERMINED BY SOILS TESTING.
2. DRAINAGE SWALES SHALL BE HYDROSEEDED PER TYPICAL GRASSY SWALE DETAIL.

APPROVED FOR CONSTRUCTION
SPOKANE COUNTY ENG.
BY Edward J. Parry, P.E.
5 JUL 95

PERMIT REQUIRED!
NOTIFY THE PERMIT ENGINEER
456-3600
PRIOR TO CONSTRUCTION

JOSEPH E. HASSELL
STATE OF WASHINGTON
30520
REGISTERED PROFESSIONAL ENGINEER
6/30/95
EXPIRES: 9/23/95

NO SCALE INTENDED

6/21/95 MCW

| | |
|---|---|
| DRAWN BY: | MCW |
| CHECKED BY: | |
| DATE: | 8/14/94 |
| J.N. | 4004 |
| | 6400410B.DWG |

REVISION BLOCK:

| BY, DESC, DATE | APPVD |
|---|---|
| MCW / REVIEW #1 3/18/94 | |
| MCW / REVIEW #2 7/21/94 | |
| MCW / REVIEW #3 10/20/94 | |

AS BUILT DATE:

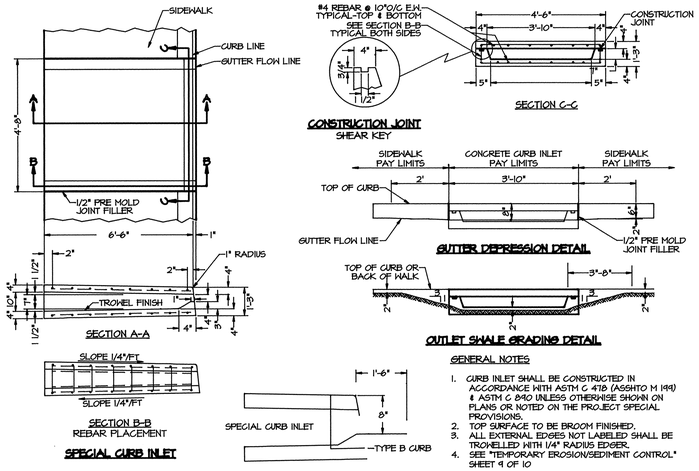
COUNTY OF SPOKANE
APPROVED ENGINEERING DEPARTMENT DATE
APPROVED: Todd R. Whipple DATE
DEVELOPER APPROVAL: TRW for Ed Dew 6/28/95

# RIVERWALK (#P1414)

## STREET AND STORM DRAINAGE DETAIL SHEET

North Idaho Engineering
4200 West Seltice Way
Coeur d'Alene, Idaho 83814
Phone: (208) 667-1171 Fax: (208) 664-3507

SHEET 8 / 9

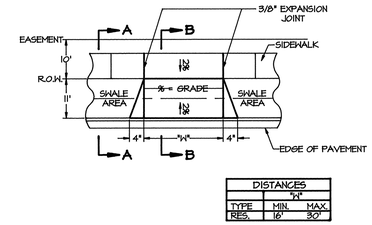



GENERAL NOTES

1. CURB INLET SHALL BE CONSTRUCTED IN ACCORDANCE WITH ASTM C 478 (AASHTO M 199) & ASTM C 890 UNLESS OTHERWISE SHOWN ON PLANS OR NOTED ON THE PROJECT SPECIAL PROVISIONS.
2. TOP SURFACE TO BE BROOM FINISHED.
3. ALL EXTERNAL EDGES NOT LABELED SHALL BE TROWELLED WITH 1/4" RADIUS EDGER.
4. SEE "TEMPORARY EROSION/SEDIMENT CONTROL" SHEET 9 OF 10

## STANDARD CURB INLET TYPE 2

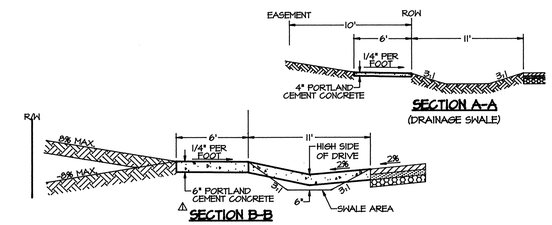
FROM SPOKANE COUNTY DEPARTMENT OF




| DISTANCES | | |
|---|---|---|
| | "H" | |
| TYPE | MIN. | MAX |
| RES. | 16' | 30' |

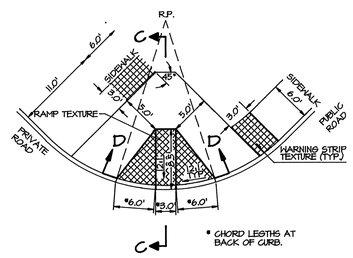
GENERAL NOTES

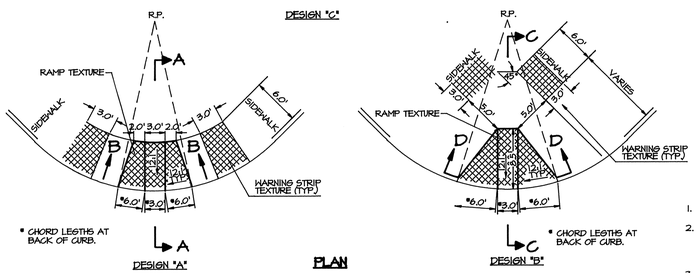
1. EXPANSION JOINT MATERIAL SHALL BE PLACED IN THE CENTER OF ALL COMMERCIAL DRIVEWAYS OVER 20' IN WIDTH.
2. EXPANSION JOINT REQUIRED IF POUR INCLUDES ADDITIONAL DRIVEWAY AREA.
3. CONCRETE FOR DRIVEWAYS SHALL BE CLASS 3000 AIR ENTRAINED.
4. ALL EXTERNAL EDGES TO BE TROWELLED WITH 1/4" RADIUS EDGER.
5. SIDEWALK TO BE SCORED EVERY 5'. 3/8 EXPANSION JOINT TO BE INSTALLED EACH SIDE OF A CURB RETURN AND AT LOCATIONS WHERE SIDEWALK INTERSECTS OTHER SIDEWALKS, DRIVEWAYS, AND CURBS.
6. THE WIDTH OF COMMERCIAL DRIVEWAYS MAY BE WIDER THAN SHOWN, IF APPROVED BY THE COUNTY ENGINEER.




## STANDARD DRIVEWAYS

FROM SPOKANE COUNTY DEPARTMENT OF PUBLIC WORKS SHEET A-4

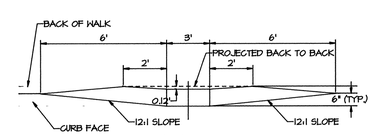


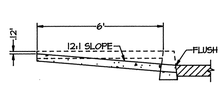



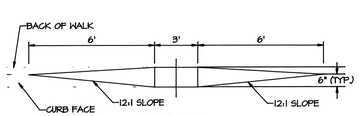

PLAN

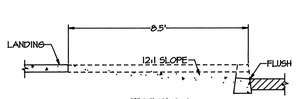
NOTES:

1. DRAINAGE INLETS SHALL BE OUTSIDE THE WHEELCHAIR RAMP.
2. TEXTURE FOR THE RAMP AND ADVANCE WARNING PANELS SHALL BE CREATED BY INSERTING A METAL GRID INTO THE WET CONCRETE. THE GRID SHALL NOT EXCEED A WIDTH OF 1/2".
3. CURB RAMP DESIGN SHALL BE SPECIFIED IN THE CONTRACT PLANS OR SPECIAL PROVISIONS.
4. CURB RAMPS SHALL BE POURED INTEGRALLY WITH SIDEWALK AND SHALL BE ISOLATED BY EXPANSION JOINT MATERIAL ON ALL SIDES, EXCEPT AT THE SIDE ADJACENT TO THE ROADWAY.
5. WHERE CONSTRUCTED ON STRAIGHT CURB, DESIGN "A" DIMENSION REMAIN THE SAME AS SHOWN.
6. TOP OF CURB ELEVATIONS SHOWN ON PLANS ARE PROJECTED TOP OF CURB ELEVATIONS THROUGH WHEELCHAIR RAMP AREA.
7. DRYWELLS OR CULVERTS TO BE PLACED AS NEEDED TO PREVENT RUNOFF FROM OVERFLOWING PEDESTRIAN RAMP NEEDED.



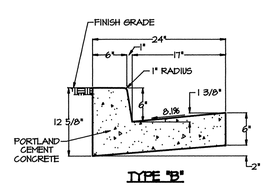



RAMP TEXTURE DETAIL

## STANDARD WHEELCHAIR RAMP

FROM SPOKANE COUNTY DEPARTMENT OF PUBLIC WORKS SHEET A-5

PUBLIC WORKS SHEET B-4

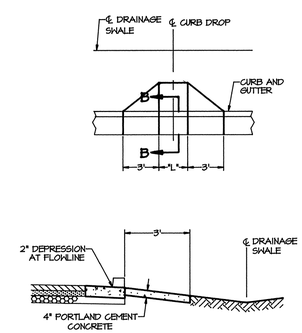



GENERAL NOTES

1. PORTLAND CEMENT CONCRETE SHALL BE CLASS 3000 CONFORMING TO THE STANDARD SPECIFICATIONS.
2. WEAKENED PLANE JOINTS FOR PORTLAND CEMENT CONCRETE SHALL BE PLACED AT 15' INTERVALS.
3. 3/8" EXPANSION JOINTS IN PORTLAND CEMENT CONCRETE SHALL BE PLACED AT CURB RETURNS.
4. TO BE USED IN SPECIAL CASES WITH APPROVED OF THE COUNTY ENGINEER.
5. CURBS SHALL HAVE A LIGHT BROOMED FINISH. GUTTERS SHALL BE FINISHED WITH A STEEL TROWEL.

## STANDARD CURBS & GUTTERS

FROM SPOKANE COUNTY DEPARTMENT OF PUBLIC WORKS SHEET A-3




GENERAL NOTES

1. CURB INLET SHALL BE CONSTRUCTED IN ACCORDANCE WITH ASTM C 478 (AASHTO M 199) & ASTM C 890 UNLESS OTHERWISE SHOWN ON PLANS OR NOTED IN THE PROJECT SPECIAL PROVISIONS.
2. TOP SURFACE TO BE BROOM FINISHED.
3. ALL EXTERNAL EDGES NOT LABELED SHALL BE TROWELLED WITH 1/4" RADIUS EDGER.
4. DIMENSION "L" SHALL BE 3'-0"
5. SEE "TEMPORARY EROSION/SEDIMENT CONTROL" SHEET 8 OF 9

## CURB INLET TYPE 1

FROM SPOKANE COUNTY DEPARTMENT OF PUBLIC WORKS SHEET B-8

APPROVED FOR CONSTRUCTION
SPOKANE COUNTY ENG
BY: 5-14-95

PERMIT REQUIRED!
NOTIFY THE PERMIT ENGINEER
456-3600
24 HRS. PRIOR TO CONSTRUCTION

JOSEPH E. HASSELL
STATE OF WASHINGTON
20520
REGISTERED PROFESSIONAL ENGINEER
6/30/95
EXPIRES: 9/23/95

5/14/95

NO SCALE INTENDED

| REVISION BLOCK | | | |
|---|---|---|---|
| BY, DESC, DATE | | APPVD. | |
| MGH / REVISION #1 | 3/15/94 | | |
| MGH / REVISION #2 | 7/27/94 | | |
| MGH / REVISION #3 | 10/20/94 | | |

DRAWN BY: MGH
CHECKED BY:
DATE: 2/14/94
J.N. 4004
AS BUILT DATE:
K:\4CONN\4CDWG

COUNTY OF SPOKANE
APPROVED ENGINEERING DEPARTMENT DATE
APPROVED: DEVELOPER APPROVAL: 6/30/95 DATE

# RIVERWALK (#P1414)

STREET AND STORM DRAINAGE DETAIL SHEET

North Idaho Engineering
4200 West Seltice Way
Coeur d'Alene, Idaho 83814
Phone: (208) 667-1171 Fax: (208) 664-3507

SHEET 9 / 9