

S.E. 134th AVENUE
(PUBLIC STREET)

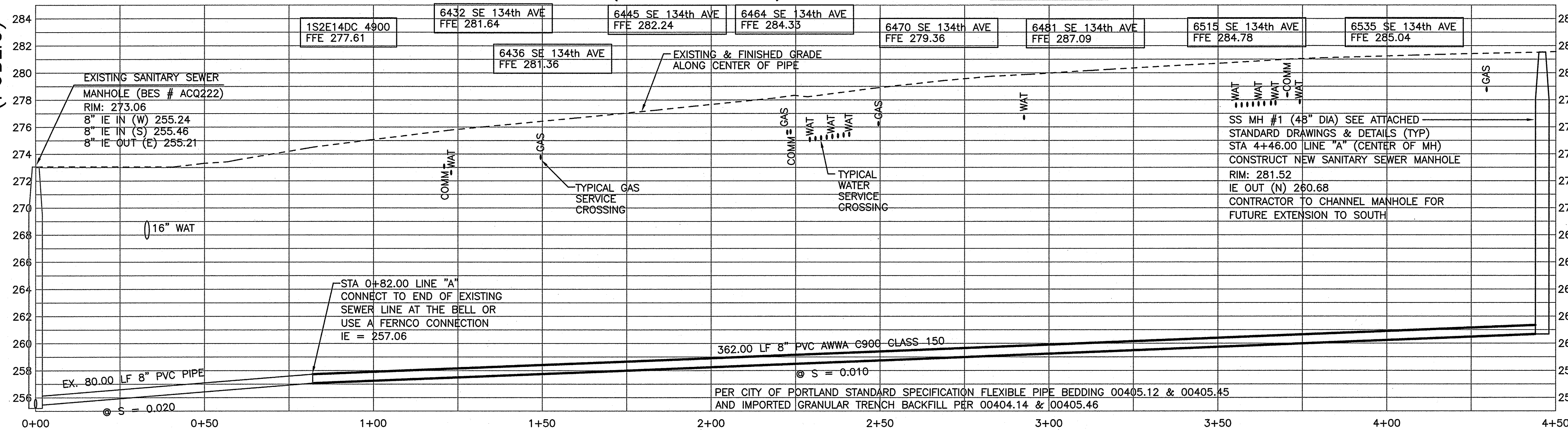
6469 SE 134th AVE
FFE 285.67

6478 SE 134th AVE
FFE 282.36

6510 SE 134th AVE
FFE 283.78

6515 SE 134th AVE
FFE 284.53

1. ALL SANITARY SEWER LATERALS SHALL BE 6" PVC, ASTM D3034 SDR 35 INSTALLED AT A MINIMUM OF 2% SLOPE. PER CITY OF PORTLAND STANDARD SPECIFICATION FLEXIBLE PIPE BEDDING 00405.12 & 00405.45 AND IMPORTED GRANULAR TRENCH BACKFILL PER 00405.14 & 00405.46.
2. THE CONTRACTOR SHALL FIELD VERIFY THE LOCATION OF EXISTING UTILITIES PRIOR TO BEGINNING CONSTRUCTION. WATER MAIN TO BE VACUUMED POTHOLED 14 DAYS PRIOR TO BEGINNING CONSTRUCTION.
3. SURFACE RESTORATION WILL BE PER THE SPECIFICATIONS OUTLINED IN THE STREET OPENING PERMIT & INSPECTED BY PBOT.
4. CONTRACTOR TO POTHOLE & CONFIRM LOCATION AND DEPTH OF EXISTING SEWER LINE AT POINT OF CONNECTION PRIOR TO INSTALLING NEW MANHOLE #1.
5. THE CONTRACTOR SHALL SUBMIT AN ENGINEERED WATER LINE PROTECTION PLAN TO BES FOR REVIEW AND APPROVAL PRIOR TO BEGINNING CONSTRUCTION.
6. CONTRACTOR SHALL MAINTAIN FLOWS IN EXISTING SEWER SYSTEM AT ALL TIMES. CONTRACTOR SHALL SUBMIT ON METHODS OF CONSTRUCTION NECESSARY TO MAINTAIN FLOWS TO BES CONSTRUCTION SERVICES 14 DAYS PRIOR TO STARTING WORK.
7. THE CONTRACTOR SHALL SUBMIT A SHORING PLAN TO BES FOR REVIEW AND APPROVAL PRIOR TO BEGINNING CONSTRUCTION.



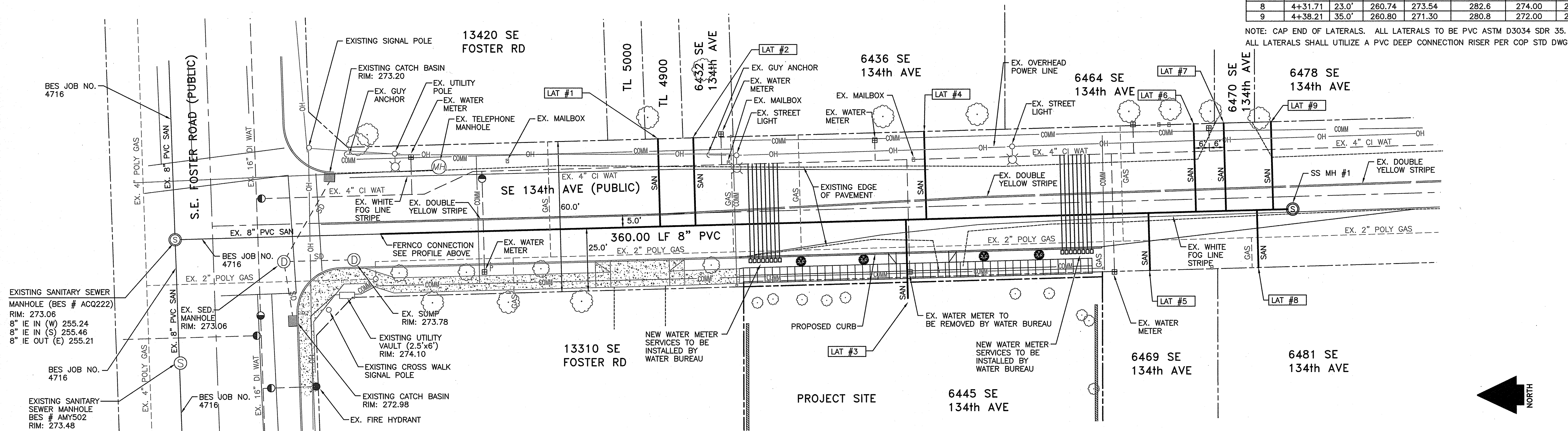
CONTRACTOR SHALL MAINTAIN FLOWS IN EXISTING SANITARY SEWER SYSTEM AT ALL TIMES. CONTRACTOR SHALL SUBMIT ON METHODS OF CONSTRUCTION NECESSARY TO MAINTAIN FLOWS TO BES CONSTRUCTION SERVICES 14 DAYS PRIOR TO STARTING WORK.

CONTRACTOR TO POTHOLE &
CONFIRM LOCATION AND ELEVATION
OF EXISTING SEWER LINE PRIOR
TO BEGINNING CONSTRUCTION.

SCALE: HORIZ: 1"=20'
 VERT: 1"=5'

| LATERAL # | SANITARY STATION | 6" PVC LENGTH | IE OF MAIN | IE OF LATERAL AT MAIN | EX. GROUND PROPERTY/ PUE LINE | IE AT PROPERTY/ PUE LINE | PIPE SLOPE |
|-----------|------------------|---------------|------------|-----------------------|-------------------------------|--------------------------|------------|
| 1 | 1+93.59 | 35.0' | 258.50 | 268.30 | 277.8 | 269.00 | 2.0% |
| 2 | 2+07.71 | 35.0' | 258.50 | 269.30 | 278.2 | 270.00 | 2.0% |
| 3 | 2+91.58 | 33.0' | 259.34 | 270.34 | 281.1 | 271.00 | 2.0% |
| 4 | 2+99.80 | 35.0' | 259.24 | 270.30 | 279.4 | 271.00 | 2.0% |
| 5 | 3+88.39 | 23.0' | 260.30 | 272.54 | 281.7 | 273.00 | 2.0% |
| 6 | 4+07.36 | 35.0' | 260.45 | 271.30 | 280.5 | 272.00 | 2.0% |
| 7 | 4+19.36 | 35.0' | 260.57 | 271.30 | 280.4 | 272.00 | 2.0% |
| 8 | 4+31.71 | 23.0' | 260.74 | 273.54 | 282.6 | 274.00 | 2.0% |
| 9 | 4+38.21 | 35.0' | 260.80 | 271.30 | 280.8 | 272.00 | 2.0% |

NOTE: CAP END OF LATERALS. ALL LATERALS TO BE PVC ASTM D3034 SDR 35.
ALL LATERALS SHALL UTILIZE A PVC DEEP CONNECTION RISER PER COP STD DWG NO. P-250.



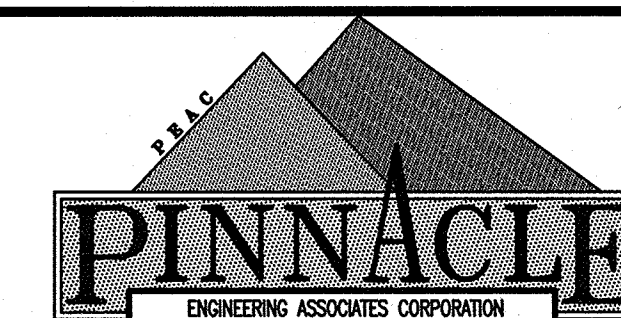
SCALE: 1"=20'

APPROVAL:

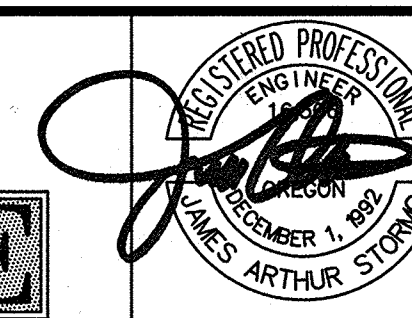
BUREAU OF
ENVIRONMENTAL SERVICES

NICK FISH
WILLIAM F. RYAN, P.E.

COMMISSIONER
CHIEF ENGINEER



17757 Kelok Road Lake Oswego, OR 97034
Tel. (503) 636-4005 Fax (503) 636-4015



EXPIRES 8/30/2018
SIGNED 8.2.17

**SE 134th AVE & SE FOSTER RD
SANITARY SEWER EXTENSION**

SEWER LINE PLAN & PROFILE

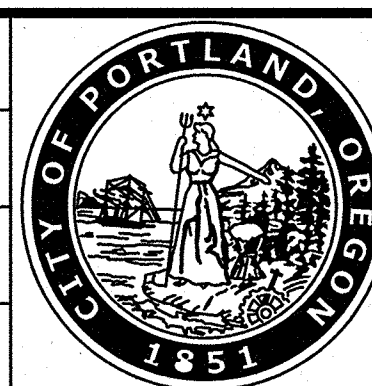
BES JOB NO.

SHEET NO.

2 OF 5

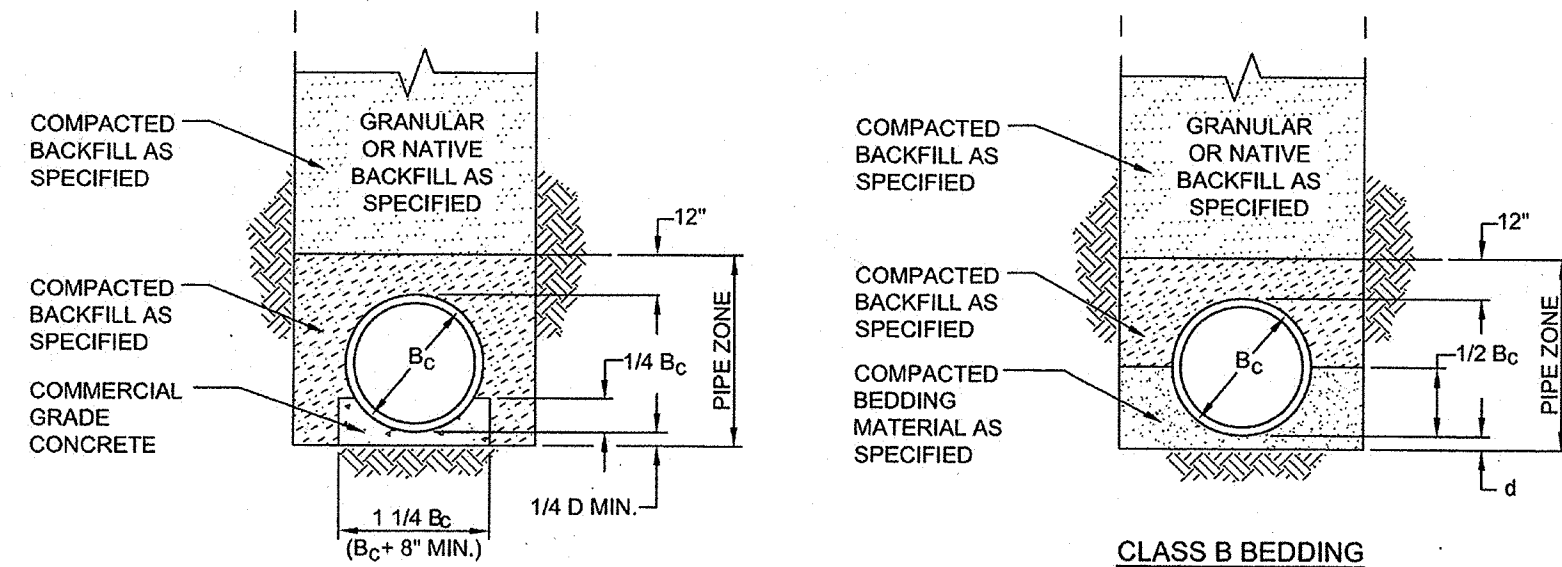
| | | | | | |
|-----------|------|-------------|--|--|-------------------------|
| | | | | | CONSTRUCTED BY _____ |
| | | | | | PROJECT COMPLETED _____ |
| | | | | | MAP CORRECTED BY _____ |
| | | | | | CHECKED BY _____ |
| NO. | DATE | DESCRIPTION | | | APPD. |
| REVISIONS | | | | | FINAL MAP DATA |

| | | | |
|-------------|-----------|---------|-----------------|
| DESIGNED BY | J. STORMO | DES. BY | D.E. APPROVAL |
| CAD BY | J. STORMO | CAD. BY | CONST. APPROVAL |
| CHECKED BY | J. STORMO | CHK. BY | |



BES CHIEF ENGINEER REG. PROF. ENGR. 16301P

P-101_PIPE BEDDING_PIPE_ZONE.DWG 12/19/16 2:42 PM DEPERE



| DEPTH OF BEDDING MATERIAL BELOW PIPE FOR CLASSES B AND C | |
|----------------------------------------------------------|----------|
| D | d (MIN.) |
| 27" & SMALLER | 3" |
| 30" TO 60" | 4" |
| 66" & LARGER | 6" |

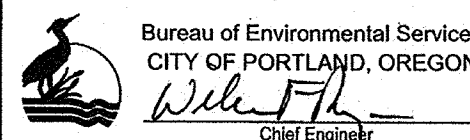
LEGEND:

B_c = OUTSIDE DIAMETER
d = DEPTH OF BEDDING MATERIAL BELOW PIPE
D = INSIDE DIAMETER

NOTES:

- FOR ROCK OR OTHER INCOMPRESSIBLE MATERIALS, THE TRENCH SHALL BE OVEREXCAVATED A MINIMUM OF 6" AND REFILLED WITH GRANULAR MATERIAL AS DIRECTED BY THE ENGINEER.
- FOUNDATION STABILIZATION: WHERE DIRECTED, FOUNDATION STABILIZATION SHALL BE PLACED PRIOR TO PLACEMENT OF PIPE BEDDING.
- FOR TRENCH RESURFACING, REFER TO POT STANDARD DRAWINGS, AND AS OTHERWISE SPECIFIED.

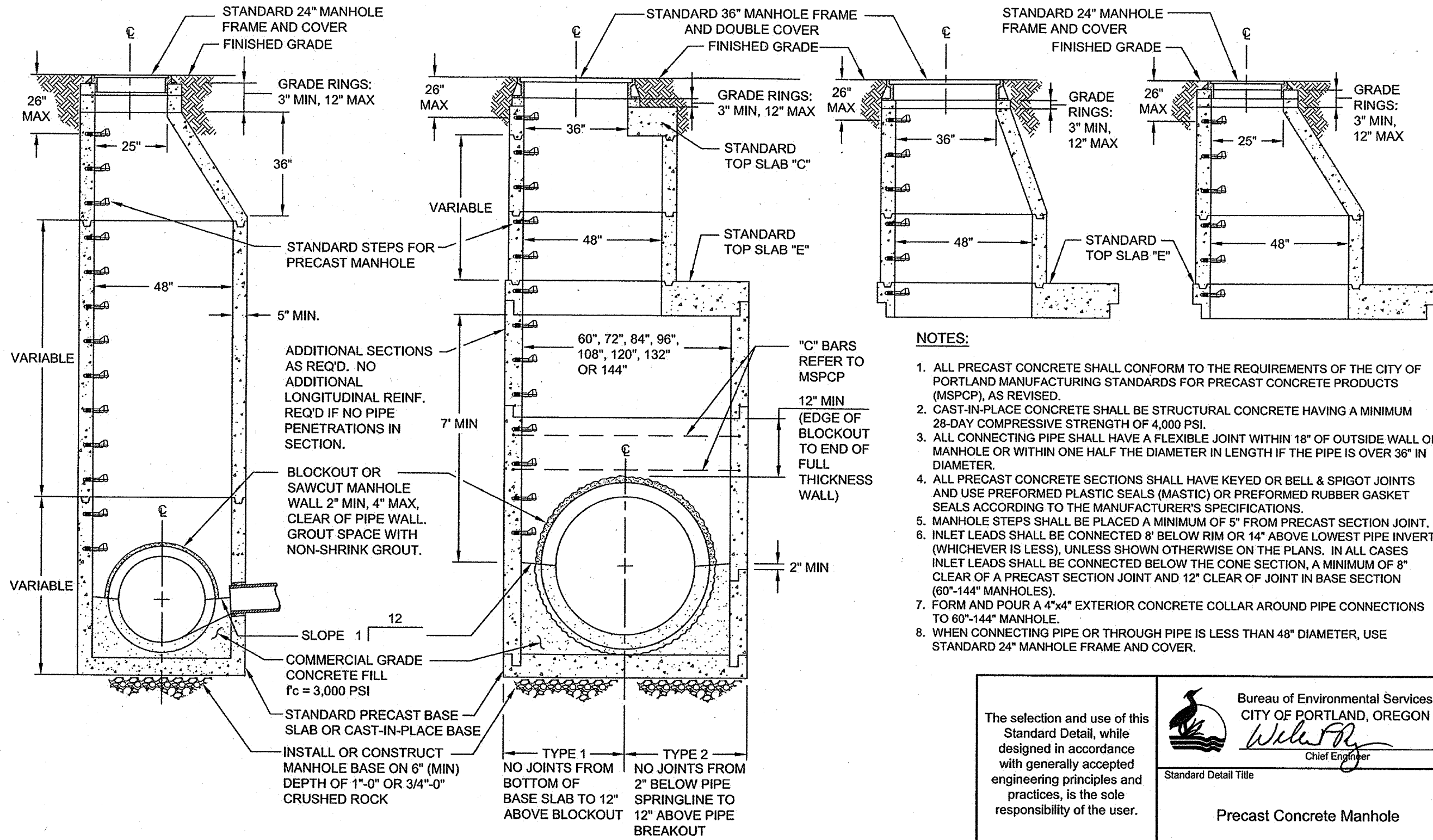
The selection and use of this Standard Detail, while designed in accordance with generally accepted engineering principles and practices, is the sole responsibility of the user.



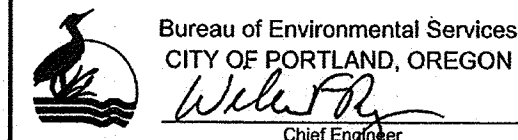
Standard Detail Title
Pipe Bedding and Pipe Zone

Note: All material and workmanship shall be in accordance with the City of Portland Standard Construction Specifications.
Effective Date: 12-15-16
Calc. Book No.: N/A
Baseline Report Date: N/A
Standard Detail No.
P-101

P-150_PRECAST_CONC_MANHOLE.DWG 12/19/16 2:58 PM DEPERE



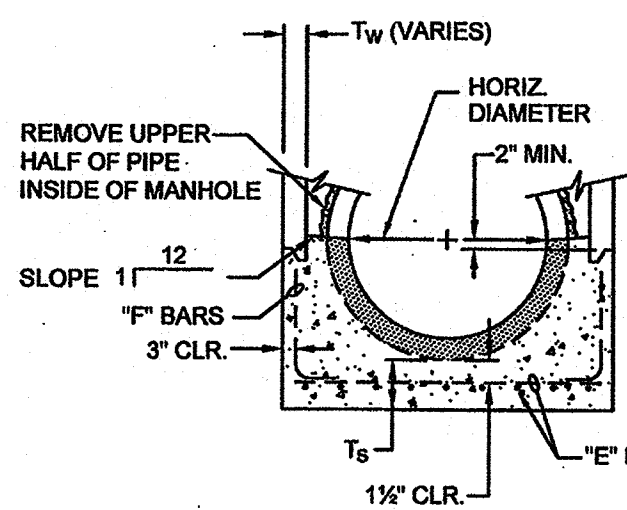
The selection and use of this Standard Detail, while designed in accordance with generally accepted engineering principles and practices, is the sole responsibility of the user.



Standard Detail Title
Precast Concrete Manhole

Note: All material and workmanship shall be in accordance with the City of Portland Standard Construction Specifications.
Effective Date: 05-15-12
Calc. Book No.: 001
Baseline Report Date: 03-24-09
Standard Detail No.
P-150

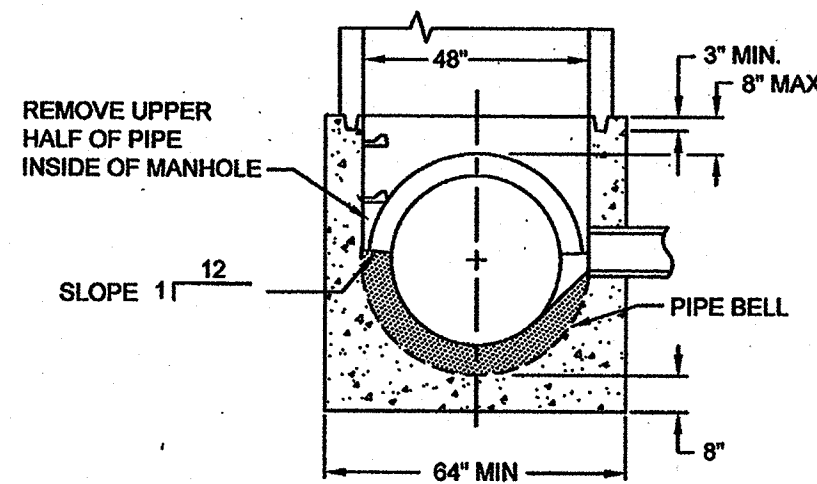
P-151_MANHOLE_BASE.DWG 4/9/09 4:53 PM RICKS



CAST-IN-PLACE BASE FOR 60"-144" MANHOLES

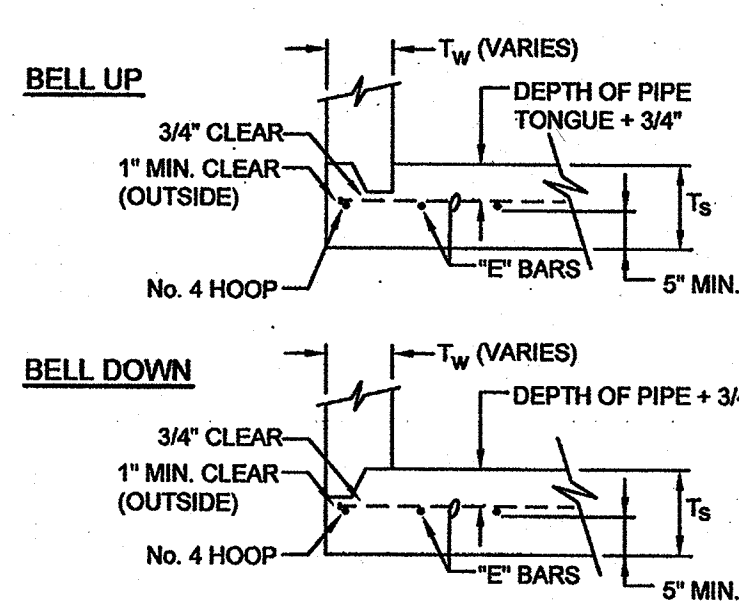
- CONCRETE SHALL BE STRUCTURAL CONCRETE HAVING A MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 4,000 PSI.
- REINFORCING STEEL SHALL HAVE A YIELD STRENGTH OF 60,000 PSI.
- PROVIDE GROUT OR PREFORMED PLASTIC SEAL (MASTIC) AT JOINT WITH PRECAST MANHOLE SECTION. GROUT OR SEAL NOT REQUIRED WHEN BASE CAST IN CONTACT WITH PRECAST SECTION.

| MH SIZE | DEPTH (Invert to Street) | T _s | "E" BARS | "F" BARS |
|---------|--------------------------|----------------|----------|----------|
| 60" | 0 - 15' | 7" | #4 @ 10" | #4 @ 10" |
| | 15' - 30' | 9" | #4 @ 9" | #4 @ 9" |
| 72" | 0 - 15' | 7" | #4 @ 7" | #4 @ 7" |
| | 15' - 30' | 9" | #4 @ 6" | #4 @ 6" |
| 84" | 0 - 15' | 8" | #4 @ 6" | #4 @ 6" |
| | 15' - 30' | 10" | #5 @ 9" | #5 @ 9" |
| 96" | 0 - 15' | 9" | #4 @ 6" | #4 @ 6" |
| | 15' - 30' | 11" | #5 @ 7" | #5 @ 7" |
| 108" | 0 - 15' | 10" | #5 @ 9" | #5 @ 9" |
| | 15' - 30' | 12" | #6 @ 9" | #6 @ 9" |
| 120" | 0 - 15' | 11" | #5 @ 8" | #5 @ 8" |
| | 15' - 30' | 13" | #6 @ 8" | #6 @ 8" |
| 132" | 0 - 15' | 12" | #5 @ 8" | #5 @ 8" |
| | 15' - 30' | 14" | #6 @ 7" | #6 @ 7" |
| 144" | 0 - 15' | 13" | #5 @ 7" | #5 @ 7" |
| | 15' - 30' | 16" | #6 @ 7" | #6 @ 7" |



CAST-IN-PLACE BASE FOR 48-INCH MANHOLE

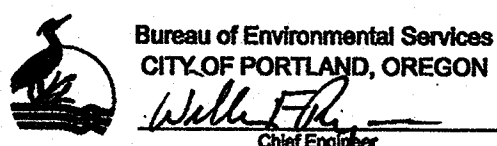
- CONCRETE SHALL BE STRUCTURAL CONCRETE HAVING A MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 4,000 PSI.
- BASE MAY BE POURED TO A HEIGHT OF 8" ABOVE TOP OF SEWER.
- PROVIDE GROUT OR PREFORMED PLASTIC SEAL (MASTIC) AT JOINT WITH 48" RISER SECTION. GROUT OR SEAL NOT REQUIRED WHEN BASE CAST IN CONTACT WITH RISER SECTION.



PRECAST BASE SLAB FOR 48"-144" MANHOLES

- ALL PRECAST CONCRETE SHALL CONFORM TO THE REQUIREMENTS OF THE CITY OF PORTLAND MANUFACTURING STANDARDS FOR PRECAST CONCRETE (MSPCP), AS REVISED.
- REFER TO MSPCP FOR SIZE AND REINFORCEMENT SCHEDULE.
- PROVIDE PREFORMED PLASTIC SEAL (MASTIC) AT JOINT WITH PRECAST MANHOLE SECTION, ACCORDING TO MANUFACTURER'S SPECIFICATIONS.
- 48" BASE SLABS SHALL BE A MINIMUM OF 6" THICK. REINFORCEMENT SHALL BE PLACED ABOVE MIDPOINT OF BASE SLAB THICKNESS AND SHALL CONSIST OF A MINIMUM OF 0.12 in²/LF IN BOTH DIRECTIONS.

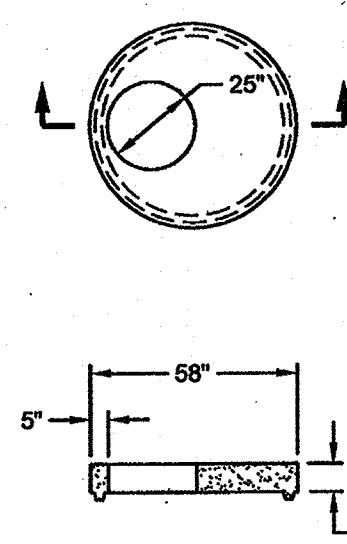
The selection and use of this Standard Drawing, while designed in accordance with generally accepted engineering principles and practices, is the sole responsibility of the user.



Standard Drawing Title
Manhole Cast-in-Place Base & Precast Base Slab

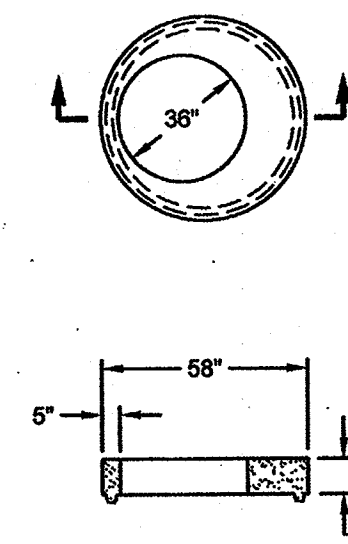
Note: All material and workmanship shall be in accordance with the City of Portland Standard Construction Specifications.
Effective Date: 01-01-09
Calc. Book No.: 001
Baseline Report Date: 03-24-09
Standard Drawing No.
P-151

P-152_TOP_SLABS_PRECAST_CONC_MANH.DWG 4/9/09 4:54 PM RICKS



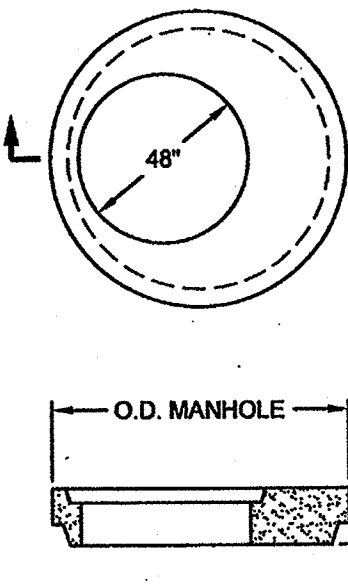
TOP SLAB "A"

- FOR USE WITH 48" MANHOLES OR RISER SECTIONS AND STANDARD 24" MANHOLE FRAME.
- COVER DEPTH LESS THAN 15 INCHES.



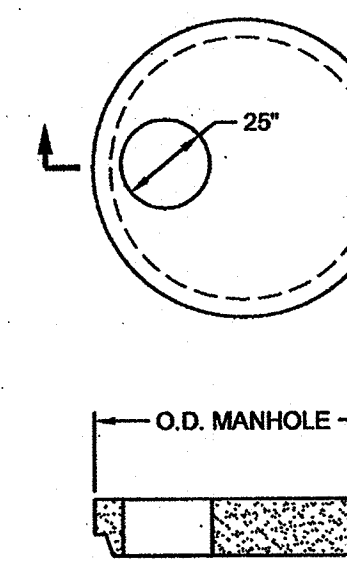
TOP SLAB "C"

- FOR USE WITH 48" MANHOLES OR RISER SECTIONS AND STANDARD 36" MANHOLE FRAME.
- COVER DEPTH LESS THAN 22 INCHES.



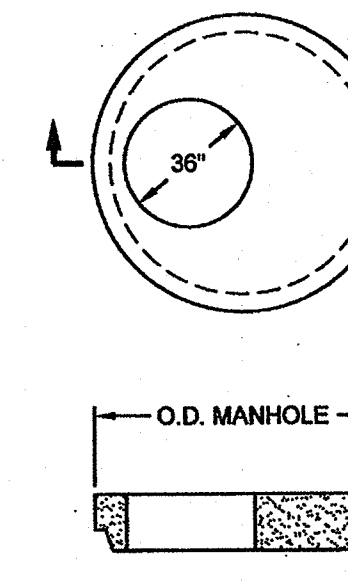
TOP SLAB "E" (REDUCING SLAB)

- FOR USE WITH 60" - 144" MANHOLES AND 48" RISER OR CONE SECTIONS.
- COVER DEPTH 42" TO 22".



TOP SLAB "B"

- FOR USE WITH 60" - 96" MANHOLES AND STANDARD 24" MANHOLE FRAME.
- COVER DEPTH LESS THAN 22 INCHES.



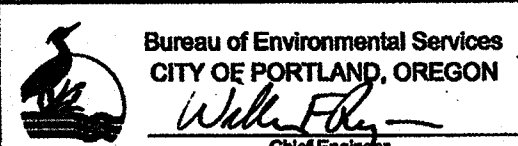
TOP SLAB "D"

- FOR USE WITH 60" - 144" MANHOLES AND STANDARD 36" MANHOLE FRAME.
- COVER DEPTH LESS THAN 22 INCHES.

NOTES:

- ALL PRECAST CONCRETE SHALL CONFORM TO THE REQUIREMENTS OF THE CITY OF PORTLAND MANUFACTURING STANDARDS FOR PRECAST CONCRETE PRODUCTS (MSPCP), AS REVISED.
- FOR EACH TOP SLAB, REFER TO MSPCP FOR COMPLETE SIZE AND REINFORCEMENT DETAILS.
- ALL TOP SLABS SHALL HAVE KEYED OR BELL & SPIGOT JOINTS AND SHALL USE PREFORMED PLASTIC SEALS (MASTIC) OR PREFORMED RUBBER GASKET SEALS ACCORDING TO THE MANUFACTURER'S SPECIFICATIONS.

The selection and use of this Standard Drawing, while designed in accordance with generally accepted engineering principles and practices, is the sole responsibility of the user.



Standard Drawing Title
Top Slabs for Precast Concrete Manholes

Note: All material and workmanship shall be in accordance with the City of Portland Standard Construction Specifications.
Effective Date: 01-01-09
Calc. Book No.: 001
Baseline Report Date: 03-24-09
Standard Drawing No.
P-152

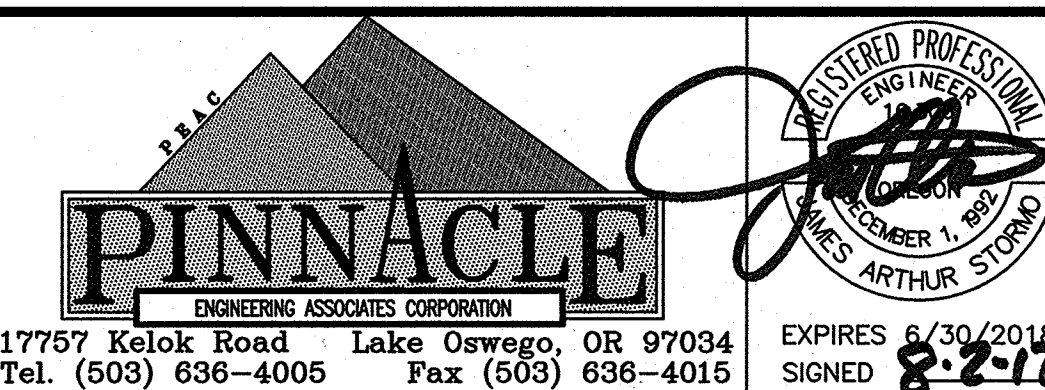
| NO. | DATE | DESCRIPTION | APPD. |
|----------------|------|-------------|-------|
| REVISIONS | | | |
| FINAL MAP DATA | | | |

| | |
|--------------------------|------------------------------|
| DESIGNED BY J. STORMO | D.E. APPROVAL B. STORMO |
| CAD BY J. STORMO | CONST. APPROVAL B. STORMO |
| CHECKED BY J. STORMO | |



APPROVAL:
W. F. Ryan
BES CHIEF ENGINEER
REG. PROF. ENGR. 16301PE
6/22/17

BUREAU OF ENVIRONMENTAL SERVICES
NICK FISH
WILLIAM F. RYAN, P.E.
COMMISSIONER
CHIEF ENGINEER



SE 134th AVE & SE FOSTER RD
SANITARY SEWER EXTENSION
DETAILS
3 OF 5

BES JOB NO.
EP317
SHEET NO.
3 OF 5

LEGEND

EXISTING CONTOUR

PROPOSED CONTOUR

EXISTING TREE (TO REMAIN)

EXISTING TREE (TO BE REMOVED)

PROPOSED LOT LINE

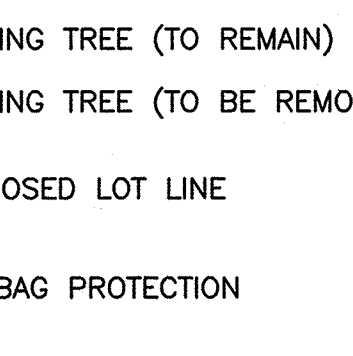
BIO-BAG PROTECTION

PROPOSED TREE PROTECTION FENCING LIMITS

SEDIMENT FENCE

BIO-BAG/INLET PROTECTION

GRAVEL CONSTRUCTION ENTRANCE



The legend contains ten items, each with a text label on the left and a corresponding symbol on the right. The symbols are: a dashed line with '235' above it; a solid line with '235' above it; a tree with a central dot; a tree with a large 'X' over it; a dashed line; a bio-bag symbol (a rounded rectangle with a grid pattern); a row of ten small black squares; a line with 'X' at both ends; a single bio-bag symbol; and a rectangular area filled with a gravel pattern.

NOTE: THE CONTRACTOR SHALL INSTALL A SEDIMENT FENCE, BIO-BAGS, OR OTHER APPROVED EROSION CONTROL BARRIER ALONG THE BOUNDARY OF THE INFILTRATION PLANTERS IN ORDER TO PREVENT SEDIMENT AND SEDIMENT LADEN WATER FROM ENTERING THE INFILTRATION PLANTERS.

RESPONSIBLE PARTY IS: MARK PERKINS, 11471 SE CLOVER LANE, PORTLAND OR 97266
PHONE NUMBER (503) 793-5678. EMAIL: jmarkperkins@gmail.com

SCALE: 1"=20'

[illegible]

GRAVEL CONSTRUCTION ENTRANCE
Detail Drawing 4.2-A

FILE DRAFT:INSPECTORS GRAPHICS DRAWING PLOT 1:1

FILE DRAFT:INSPECTORS GRAPHICS DRAWING PLOT 1:1

EROSION CONTROL MANUAL

INLET INSERT
Detail Drawing 4.3-G

EMERGENCY CONTACT:

RESPONSIBLE PARTY IS: MARK PERKINS, 11471 SE CLOVER LANE, PORTLAND OR 97266
PHONE NUMBER (503) 793-5678. EMAIL: jmarkperkins@gmail.com

EROSION CONTROL NOTES

1. APPROVAL OF THIS EROSION SEDIMENTATION AND POLLUTION CONTROL PLAN (ESPCP) DOES NOT CONSTITUTE AN APPROVAL OF PERMANENT ROAD OR DRAINAGE DESIGN (E.G., SIZE AND LOCATION OF ROADS, PIPES, RESTRUCTORS, CHANNELS, RETENTION FACILITIES, UTILITIES, ETC.).
2. THE IMPLEMENTATION OF THIS ESPCP AND THE CONSTRUCTION, MAINTENANCE, REPLACEMENT AND UPGRADING OF THESE ESPCP FACILITIES IS THE RESPONSIBILITY OF THE APPLICANT/CONTRACTOR UNTIL ALL CONSTRUCTION IS COMPLETED AND APPROVED, VEGETATION/LANDSCAPING IS ESTABLISHED.
3. THE BOUNDARIES OF THE CLEARING LIMITS SHOWN ON THIS PLAN SHALL BE CLEARLY FLAGGED IN THE FIELD PRIOR TO CONSTRUCTION. DURING THE CONSTRUCTION PERIOD, NO DISTURBANCE BEYOND THE FLAGGED CLEARING LIMITS SHALL BE PERMITTED. THE FLAGGING SHALL BE MAINTAINED BY THE APPLICANT/CONTRACTOR FOR THE DURATION OF CONSTRUCTION.
4. THE ESPCP FACILITIES SHOWN ON THIS PLAN MUST BE CONSTRUCTED IN CONJUNCTION WITH ALL CLEARING AND GRADING ACTIVITIES, AND IN SUCH A MANNER AS TO INSURE THAT SEDIMENT AND SEDIMENT LADEN WATER DO NOT ENTER THE DRAINAGE SYSTEM ROADWAYS OR VIOLATE APPLICABLE WATER STANDARDS.
5. THE ESPCP FACILITIES SHOWN ON THIS PLAN ARE THE MINIMUM REQUIREMENTS FOR ANTICIPATED SITE CONDITIONS. DURING THE CONSTRUCTION PERIOD, THESE ESPCP FACILITIES SHALL BE UPGRADED AS NEEDED FOR UNEXPECTED STORM EVENTS, AND TO ENSURE T THAT SEDIMENT AND SEDIMENT-LADEN WATER DOES NOT LEAVE THE SITE.
6. THE ESPCP FACILITIES SHALL BE INSPECTED DAILY BY THE APPLICANT/CONTRACTOR AND MAINTAINED AS NECESSARY TO ENSURE THEIR CONTINUED FUNCTIONING.
7. THE ESPCP FACILITIES ON INACTIVE SITES SHALL BE INSPECTED AND MAINTAINED A MINIMUM OF ONCE A WEEK OR WITHIN THE 24 HOURS FOLLOWING A STORM EVENT.
8. STABILIZED CONSTRUCTION ENTRANCES SHALL BE INSTALLED AT THE BEGINNING OF CONSTRUCTION AND MAINTAINED FOR THE DURATION OF THE PROJECT. ADDITIONAL MEASURES MAY BE REQUIRED TO INSURE THAT ALL PAVED AREAS ARE KEPT CLEAN FOR THE DURATION OF THE PROJECT.
9. APPLICANT/CONTRACTOR TO PUT UP ALL REQUIRED EROSION CONTROL SIGNAGE PRIOR TO GROUND DISTURBANCE. A CD WITH ALL REQUIRED EROSION CONTROL SIGNS WILL BE PROVIDED AT THE PRE-CONSTRUCTION MEETING.

STANDARD NOTES FOR SEDIMENT FENCES:

1. THE FILTER FABRIC SHALL BE PURCHASED IN A CONTINUOUS ROLL CUT TO THE LENGTH OF THE BARRIER TO AVOID USE OF JOINTS. WHEN JOINTS ARE NECESSARY, FILTER CLOTH SHALL BE SPICED TOGETHER ONLY AT A SUPPORT POST, WITH A MINIMUM 6" OVERLAP, AND BOTH ENDS SECURELY FASTENED TO THE POST, OR OVERLAP 2" X 2" POSTS AND ATTACH AS SHOWN ON DETAIL SHEET 4-3A OF THE EROSION CONTROL MANUAL.
2. THE FILTER FABRIC FENCE SHALL BE INSTALLED TO FOLLOW THE CONTOURS WHERE FEASIBLE. THE FENCE POSTS SHALL BE SPACED A MAXIMUM OF 6' APART AND DRIVEN SECURELY INTO THE GROUND A MINIMUM OF 24".
3. THE FILTER FABRIC SHALL HAVE A MINIMUM VERTICAL BURIAL OF 6". ALL EXCAVATED MATERIAL FROM FILTER FABRIC FENCE INSTALLATION, SHALL BE BACKFILLED AND COMPACTED, ALONG THE ENTIRE DISTURBED AREA
4. STANDARD OR HEAVY-DUTY FILTER FABRIC FENCES SHALL HAVE MANUFACTURED STITCHED LOOPS FOR 2" X 2" POST INSTALLATION. STITCHED LOOPS SHALL BE INSTALLED ON THE UP HILLSIDE OF THE SLOPED AREA.
5. FILTER FABRIC FENCES SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFUL PURPOSE, BUT NOT BEFORE THE UPSLOPE AREA HAS BEEN PERMANENTLY PROTECTED AND STABILIZED.
6. FILTER FABRIC FENCES SHALL BE INSPECTED BY APPLICANT/CONTRACTOR IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. ANY REQUIRED REPAIRS SHALL BE MADE IMMEDIATELY.

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