



CITY OF WEST LINN

2014 Road Improvement Program

PW-14-09 - Waterline Improvements

GENERAL NOTES:

- All construction shall conform to the latest City of West Linn Public Works Standard Construction Specifications and Standard Drawings. The ODOT standard specifications for construction will apply for measurement and payment.
- This set of plans has been reviewed for compliance with City of West Linn requirements prior to issuance for construction. However such review shall not prevent the City Engineer from requiring correction of errors or omissions in plans found to be in violation of any law or ordinance.
- The City Engineer does not warrant any quantities shown on these plans.
- The Engineering Division, Inspection Section shall be notified twenty-four (24) hours prior to any construction work by telephone at 503-722-5501. Any work concealed without inspection shall be subject to removal and replacement at the Contractor's expense.
- Any approved set of plans must be available on the job site at all times. The contractor's representative (capable of communicating with the City's representatives) shall be on the job at all times the work is being pursued.
- The Contractor is responsible to provide emergency telephone numbers to the City of West Linn at time of receiving Project Notice to Proceed and have personnel available 24-hours a day to respond to emergencies. If the City is required to respond and make emergency repairs on behalf of the Contractor, the Contractor is responsible to reimburse the City for all costs incurred.
- It is understood that there will be interfering utilities, service laterals, and other underground pipes, drains or structures encountered on underground projects that are not shown or are shown incorrectly on the plans and/or have not been previously discovered in the field. Contractor agrees this is a normal and usual occurrence in the construction of underground IMPROVEMENT. Furthermore, bidders understand and agree that work in some cases must be done in close proximity to said utilities and underground pipes, drains, and structures which may require a change in operations and may cause sloughing of the trench, additional traffic control, additional pavement and backfill costs, and time. The contractor agrees that a reasonable number of these occurrences are usual and ordinary on underground projects and are reflected in the bid and plan of operation.
- It is the responsibility of the contractor to obtain any and all other permits and meet any requirements set forth by other agencies or utilities which have jurisdiction at the contractors expense.

WATER NOTES:

- Water and sanitary sewer line crossings shall conform with the Oregon Administrative Regulation 333-061-0050(9).
- The existing water lines to be taken out of service are marked on the drawings. These lines are to remain in service until the new lines are properly installed and tested, and water services have been connected. Approval from the City Engineer shall be obtained before any line is abandoned. The existing lines shall then be abandoned and their actual location and abandoned designation recorded on all record drawings. Unless called for otherwise, the abandoned lines will remain in the ground. The ends of all pipes which are abandoned shall be plugged with concrete or other methods approved by the City Engineer.
- The contractor shall remove all existing valve boxes, meter boxes, hydrants and other fittings required to properly perform the scope of work, or as shown in the drawings. All such materials shall be transported to an area designated by the City and stockpiled. Materials shall be removed and handled in such a manner which will prevent damage. All other existing valves, meters and hydrants not used in the new system or not specified for removal will be removed by the city after the new system is in operation. Salvaged material shall remain the property of the City.
- The abandoned existing pipe is to remain in the ground, unless otherwise specified. The contractor shall apply black bag the same day to all existing hydrants when permanently disconnected from service.
- Pipe bedding and trench backfill are incidental to pipe.
- It is the responsibility of the contractor to schedule water and sewer testing with the City inspector, per West Linn Standards.

TRAFFIC CONTROL GENERAL NOTES:

- No road closure shall be allowed without City Engineer's prior approval as delegated by the City Manager.
- The Contractor shall provide traffic control plan for City Approval
- Traffic control shall conform to the ODOT Temporary Traffic Control Handbook and MUTCD. The Contractor shall submit a Traffic Control Plan to the City of West Linn Engineering Division for review and acceptance a minimum of 48-hours prior to construction. A copy of the accepted Traffic Control Plan must remain on the job site at all times.
- Maintain vehicular, bicycle, pedestrian and emergency vehicle access to area homes throughout construction.

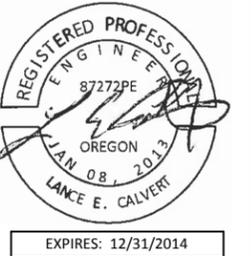
CONSTRUCTION NOTES:

- Contractor shall provide erosion control best management practices per City of West Linn Standards. Provide catch basin protection and continual sweeping so that no mud, sediment, or rock is left on the streets, with no additional compensation.
- The contractor is responsible for all construction surveying and construction staking for the project with no additional compensation.
- Location of hydrants and water meters shall be determined in the field by City of West Linn prior to construction.
- Drain abandoned pipes and plug watertight. Plug abandoned pipes with gasketed mechanical plugs or grout seals, as directed.
- All new water main and services shall be tested and approved prior to connection. All tests to follow West Linn Standard Section 403.
- Water used for construction must be filled at the designated tanker fill site located next to 1970 8th Ave. - No hydrant meters will be provided
- Contractor shall provide ingress and egress to residential driveways with limited delay.
- Working Hours: 7:00 AM - 5:00 PM Monday - Friday
9:00 AM - 5:00 PM Saturday - Sunday & Holidays

This is a Site Plan not an As-Built. Connection on Lowry is not accurate on this drawing. Per Engineering Manager 8/21/2016 connection design was changed during construction. Connection was actually made to 1951 6-inch Cast Iron not 1984 18-inch Ductile Iron
-Note by K.Aha 10/24/2016



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CONTRACTOR
NAME: -N/A
ADDRESS: -N/A
PHONE: -N/A
FAX: -N/A

2014 CONCRETE STREETS PROJECT
General Notes

PROJECT NO.: PW-14-09
DESIGNED BY: KLE
DRAWN BY: NBRENNAN
CHECKED BY: LCALVERT
DATE: --/------

REVISION	DATE	DESCRIPTION

GENERAL NOTES
GN1



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CONTRACTOR

NAME:
 ADDRESS:
 PHONE:
 FAX:

CONSTRUCTION NOTES

NO	DESCRIPTION	UNIT	QTY
1	NEW METER & BOX PER WL-DETAIL 402.	EA	11
6	6" DUCTILE IRON PIPE	LF	15
8V	8" GATE VALVE, VB & C, FLG x MJ PER DETAIL WL-411	EA	1
8	8" DUCTILE IRON PIPE	LF	500
8R	8" x 6" REDUCER	LF	1
18	HOT TAP 18" WATER LINE	EA	3
34	FIRE HYDRANT W/VALVE, VB & C, FLG x MJ PER DETAIL WL-401	EA	1
45	8"- 45° MJ ELBOW, RESTRAINED JOINT	EA	2
60	INSTALL 6" STUB FROM EXISTING VALVE	EA	1

GENERAL CONSTRUCTION NOTES

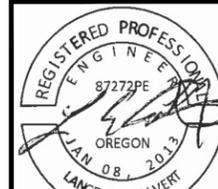
- 1 CONNECT NEW WATERLINE TO EXISTING WATERLINE
- 2 EXISTING WATERLINE TO BE ABANDONED IN PLACE
- 3 CONTRACTOR TO REMOVE ALL EXISTING METER BOXES, VALVE BOXES, AND HYDRANTS. SALVAGE TO CITY OF WEST LINN (TYP.)
- 4 WATER METER AND FIRE HYDRANT LOCATIONS TO BE DETERMINED IN FIELD BY CITY OF WEST LINN PRIOR TO CONSTRUCTION.

2014 CONCRETE STREET PROJECT

Century Ln
 Lowry Dr to Cul-De-Sac

REVISION

DATE	DESCRIPTION



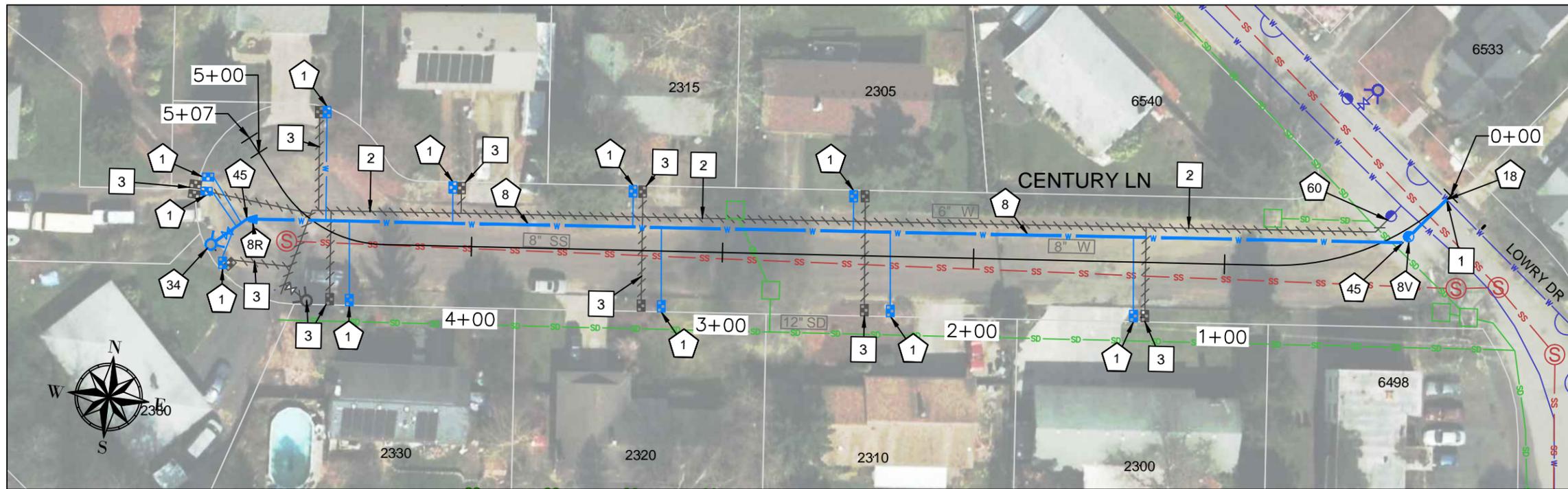
PROJECT NO.: PW-14-09
 DESIGNED BY: KLE
 DRAWN BY: KLE
 CHECKED BY: LCALVERT
 DATE: 04/15/2014

SITE PLAN

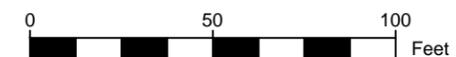
SCALE:

EXPIRES: 12/31/2014

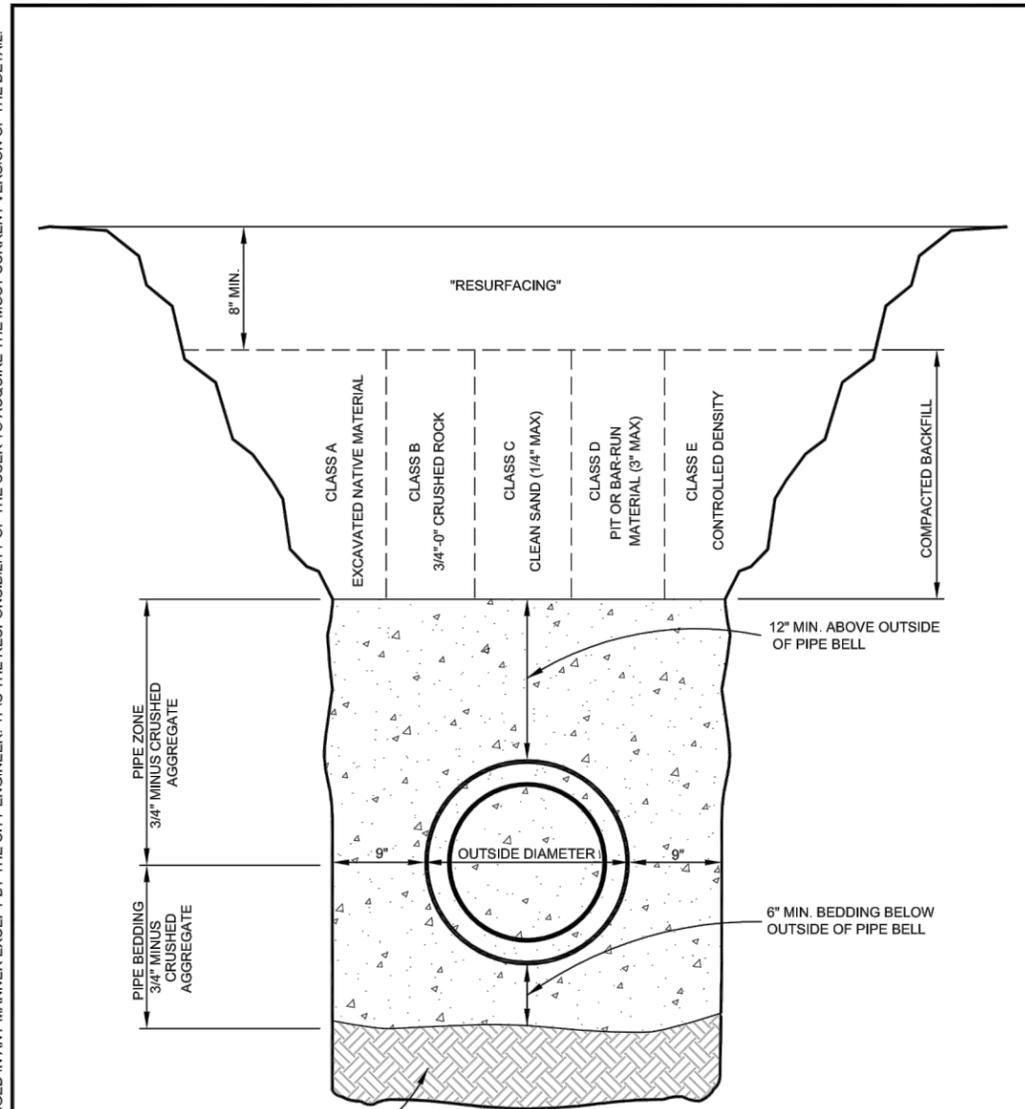
A1.1



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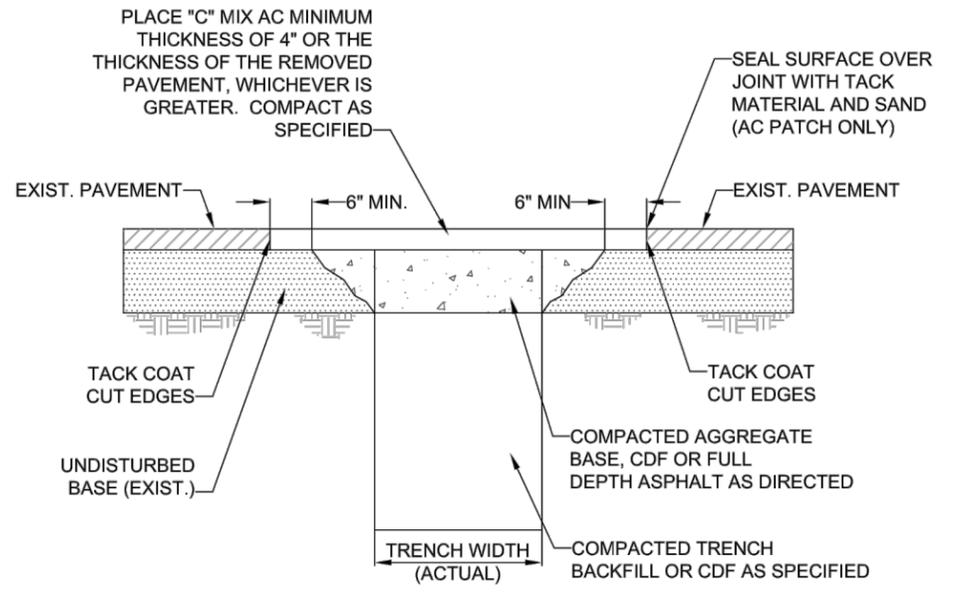
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**TRENCH BACKFILL
BEDDING AND
PIPE ZONE**

City of West Linn	DATE: 2010
	DRAWING NO. WL-200
	FILE NO.

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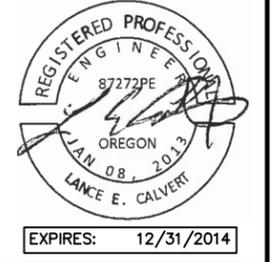
- NOTE:**
1. ALL EXISTING AC OR PCC PAVEMENT SHALL BE SAWCUT TO NEAT, STRAIGHT LINES PRIOR TO REPAVING.
 2. CONCRETE PAVEMENT SHALL BE REPLACED WITH CONCRETE TO A MINIMUM THICKNESS OF REMOVED PAVEMENT, WHICHEVER IS GREATER.
 3. IF EXISTING BASE MATERIAL IS CTB OR ATB, THEN REPLACEMENT BASE MATERIAL SHALL MATCH EXISTING.
 4. ALL UTILITIES SHALL HAVE A MINIMUM COVER OF 36".
 5. ALL TRENCH BACKFILL SHALL BE COMPACTED TO 95% OF MAXIMUM DENSITY PER AASHTO T-180 OR AS SPECIFIED IN THE CONTRACT DOCUMENTS.
 6. ALL TRENCH BACKFILL AND PATCHING SHALL CONFORM TO THE STANDARDS AND SPECIFICATIONS OF THE CITY OF WEST LINN.
 7. APPROVED CDF SHALL BE USED OR 3/4 - 0" GRAVEL BACKFILL SHALL BE PLACED AND COMPACTED IN 12" MAXIMUM LIFTS. IF 3/4-0" GRAVEL BACKFILL IS USED, COMPACTION TESTING BY A CERTIFIED TESTING COMPANY IS REQUIRED AT DEPTH INTERVALS AS SPECIFIED BY THE CITY ENGINEER.
 8. T-CUT MAY BE ENLARGED AT THE DISCRETION OF THE CITY ENGINEER OR CITY INSPECTOR DUE TO SITE CONDITIONS OR PROJECT REQUIREMENTS.
 9. ALL CUT EDGES SHALL BE SAND SEALED.
 10. COMPACTED BACKFILL OR CDF MUST EXTEND 2 FEET OUTSIDE OF PAVEMENT SURFACE.

STREET T-CUT

City of West Linn	DATE: 2010
	DRAWING NO. WL-203
	FILE NO.



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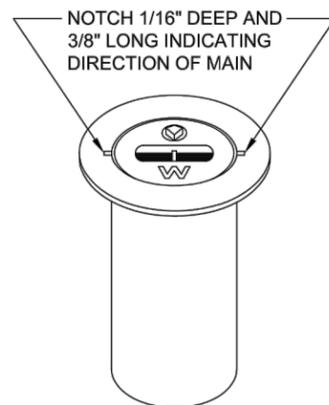
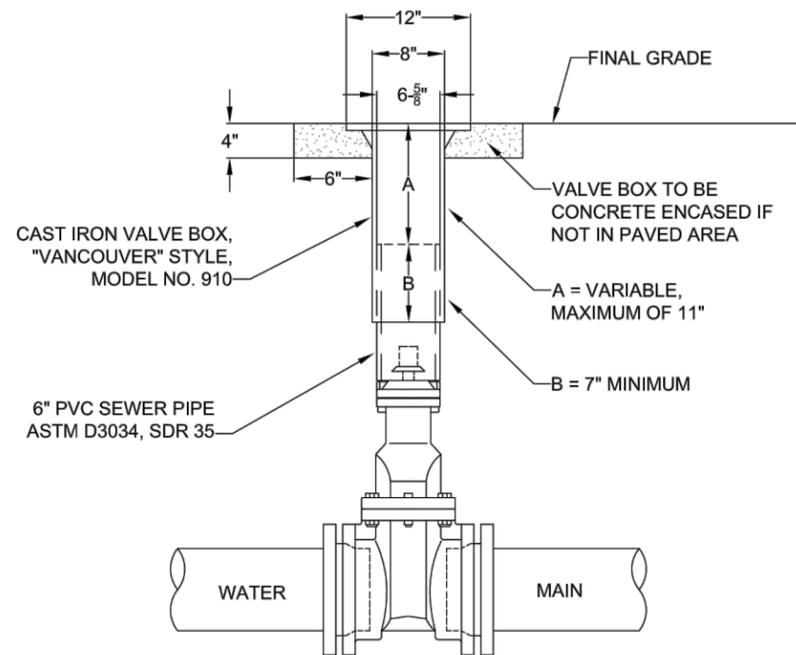
**2014 CONCRETE STREETS
PROJECT
WEST LINN PUBLIC WORKS STANDARD
DETAIL DRAWINGS**

PROJECT NO.: PW-14-09
DESIGNED BY:
DRAWN BY:
CHECKED BY:
DATE:

REVISION	
DATE	DESCRIPTION

STANDARD DETAILS
SCALE:
SD1

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"VANCOUVER"
18" TALL VALVE BOX

NOTE:

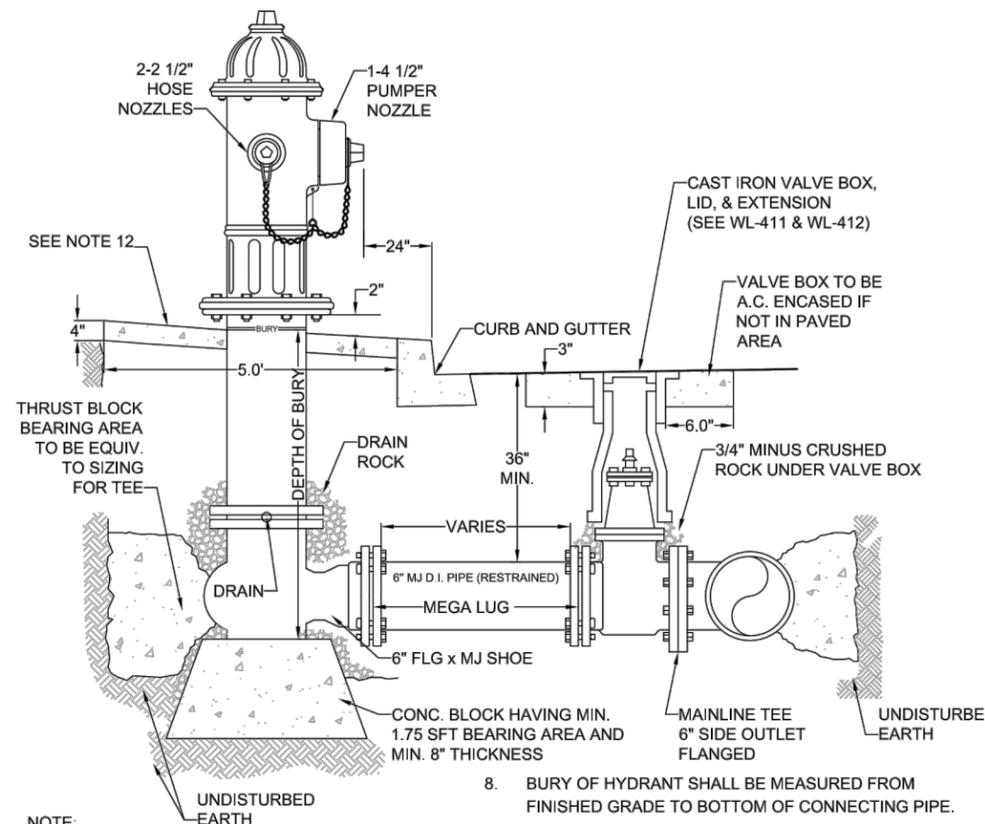
1. VALVE BOXES SHALL BE CENTERED DIRECTLY OVER THE VALVE NUT IN A VERTICAL POSITION.
2. VALVE BOX TOP SHALL BE ADJUSTED TO MEET FINISHED GRADE.
3. PVC SHALL BE ONE CONTINUOUS PIECE-NO BELLS OR COUPLERS.
4. ON VALVES 8" AND LARGER, PVC SHALL BE NOTCHED OVER VALVE PACKING BOLTS SO PVC SITS ON BONNET.

**STANDARD VALVE BOX
DETAIL**



DATE: 2010
DRAWING NO. WL-411
FILE NO.

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NOTE:

1. HYDRANT TO BE MUELLER CENTURION MDL A-423 ONLY WITH 1 1/2" OPER. NUTS OR CLOW MEDALLION F-2545.
2. HYDRANT COLOR TO BE MILLER EQUIP. ENAMEL 0 E 40 (SAFETY YELLOW).
3. JOINTS TO BE RESTRAINED BY 3/4" DIA. GALVANIZED STEEL RODS AND THRUST BLOCKS OR MEGALUGS AND THRUST BLOCKS.
4. ALL FITTINGS IN CONTACT W/CONCRETE SHALL BE WRAPPED IN PLASTIC, HYDRANT DRAIN HOLES TO REMAIN OPEN TO DRAIN ROCK AND OPERATIONAL.
5. MIN. 4 CFT OF 1 1/2" - 3/4" CLEAN DRAIN ROCK SHALL BE PLACED AROUND SHOE UP TO A MIN. OF 6" ABOVE DRAIN OUTLETS.
6. WHERE PLANTER STRIP EXISTS, HYDRANT SHALL BE PLACED SO THE FRONT PORT IS A MINIMUM OF 24" BEHIND THE FACE OF THE CURB.
7. WHERE INTEGRAL S/W & CURB EXISTS, HYDRANT SHALL BE PLACED AT BACK OF THE SIDEWALK, OR AS DIRECTED BY ENGINEER.
8. BURY OF HYDRANT SHALL BE MEASURED FROM FINISHED GRADE TO BOTTOM OF CONNECTING PIPE.
9. THRUST BLOCK AT FIRE HYDRANT TEE SHALL BE EQUIVALENT TO TEE PIPE SIZING (SEE WL-406).
10. HYDRANT VALVE SHALL BE MUELLER RESILIENT WEDGE GATE VALVE #A-2360-16 ONLY.
11. NO EXTENSIONS ALLOWED
12. HYDRANT SHALL HAVE A 5' x5' x 4" THICK CONCRETE APRON. THERE SHALL BE 2" OF CLEARANCE BETWEEN THE TOP OF THE APRON AND THE BOTTOM OF THE FLANGED BOLT PATTERN OF THE HYDRANT.
13. CONCRETE SHALL BE COMMERCIAL MIXED WITH A BREAKING STRENGTH OF NOT LESS THAN 3000 PSI.

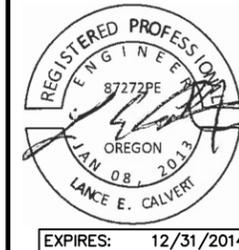
**STANDARD FIRE HYDRANT
ASSEMBLY**



DATE: 2010
DRAWING NO. WL-401
FILE NO.



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**2014 CONCRETE STREETS
PROJECT
WEST LINN PUBLIC WORKS STANDARD
DETAIL DRAWINGS**

PROJECT NO.: PW-14-09
DESIGNED BY:
DRAWN BY:
CHECKED BY:
DATE:

REVISION	DATE	DESCRIPTION

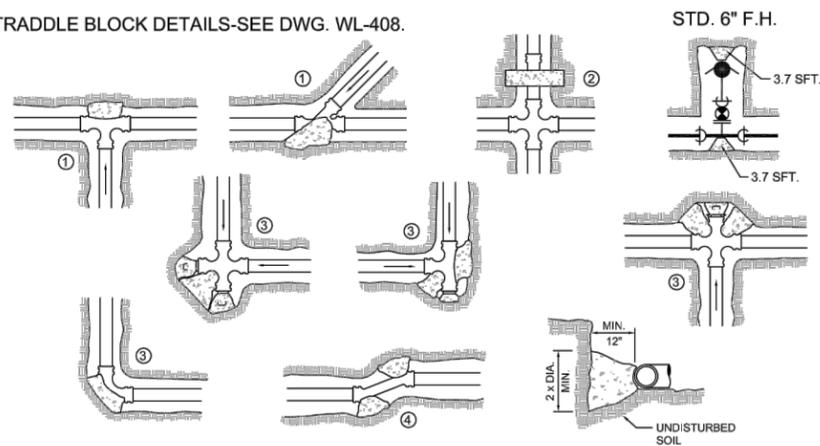
STANDARD DETAILS
SCALE: SD2

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FITTING SIZE (Inches)	TEE, WYE, & HYDRANTS ①	STRADDLE BLOCK ②	90° BEND PLUGGED CROSS TEE PLUGGED-RUNS ③	45° BEND ④	22 1/2° BEND ④	11 1/2° BEND ④
2	*	*	*	*	*	*
4	1.7	2.1	2.4	1.3	*	*
6	3.7	4.9	5.3	2.9	1.5	*
8	6.7	8.7	9.5	5.1	2.7	1.3
10	10.5	13.6	14.8	8	4.1	2
12	15.1	19.6	21.3	11.6	5.9	2.9
14						
16	26.8	34.8	37.9	20.5	10.4	5.2
18	33.9	44	47.9	25.9	12.8	6.7
LARGER	**	**	**	**	**	**

BEARING AREA OF THRUST BLOCKS (sq. ft.)

- ALL VALUES ARE BASED ON THE FOLLOWING ASSUMPTIONS:
AVG. PRESSURE = 100 PSI X 2 (safety factor); 1500 PSF SOIL BEARING CAPACITY; NORMAL DISTRIBUTION DESIGN VELOCITY NOT TO EXCEED 5 F/S.
- ALL FITTINGS SHALL BE WRAPPED IN 8 MM PLASTIC PRIOR TO PLACEMENT OF CONCRETE.
- BEARING SURFACE OF THRUST BLOCKING SHALL BE AGAINST UNDISTURBED SOIL
- ALL CONCRETE MIX SHALL HAVE A MIN. 28 DAY STRENGTH OF 3000 PSI.
- ALL PIPE ZONES SHALL BE GRAVEL FILLED AND COMPACTED.
- THRUST BLOCKS FOR PLUGGED CROSS AND PLUGGED TEE SHALL HAVE #4 REBAR LIFTING LOOPS INSTALLED AS SHOWN.
- VERTICAL THRUST DETAILS-SEE DWG. WL-407.
- STRADDLE BLOCK DETAILS-SEE DWG. WL-408.



- * BLOCK TO UNDISTURBED TRENCH WALLS.
- ** THRUST BLOCKS FOR PIPES LARGER THAN 18" WILL BE INDIVIDUALLY DESIGNED BY THE ENGINEER.

HORIZONTAL THRUST BLOCKING



DATE:	2010
DRAWING NO.	WL-406
FILE NO.	



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2014 CONCRETE STREETS
PROJECT
WEST LINN PUBLIC WORKS STANDARD
DETAIL DRAWINGS

PROJECT NO.: PW-14-09
DESIGNED BY:
DRAWN BY:
CHECKED BY:
DATE:

REVISION	DATE	DESCRIPTION

STANDARD DETAILS
SCALE:
SD4