

**Project Detail Input Form**

Date Requested: 12/18/2020

Field Order#: Pending

Water System Name: Southwood

Start Date: 12/18/2020

DOH System ID: 82844H

Est. Complete Date: 09/08/2021

Requested by: Zera Cox

App. Manager Signature: 

**BUDGET:**  500-500-SPECIFIC (Funded/Capital)  500-NON-SP Non Specific (Work Order)  
 515-NON-SP Non Specific (Work Order)

**TYPE PROJECT:**  Water Regulated  Waste Water Non-Regulated (Sewer)  
 Water Equipment  
 Contributing Aid Project

**District - Check location work is located** **Construction - Check all that apply**

- 500 - Companywide
- 501 - NW Office (Gig Harbor)
- 502 - SW Office (Olympia)
- 515 - East Pierce (Puyallup)
- 504 - Sequim Area
- 505 - Mirrormont Area
- 503 - Orcas Island
- 553 - Orcas Island - (Sewer Nonregulated)

- Asphalt/Paving
- Flaggers
- Permits Required
- Contract Laborer Used
- Contractor Used (Name)
- Equipment Rental for Project Used

**Project Detail:**

**Project Description:**

*(What is being done & Why)*  
 The 8" water main on 176th Street will be tapped and extended to provide water service to the Christ Community Baptist Church. The parcel owner will provide an engineered construction plan and hire their own underground contractor to install the watermain and appurtenances. Washington Water will be responsible for the tie in and certification of the project completion. Deposit payment of \$15,490.00 was received on 12/18/2020.

**Asset Location - Site name, Well Source, Address, etc.**

Christ Community Baptist Church, 8016 176th Street E

**CIAC Billable Customer Information**

Is Project Billable to a customer?  Yes  No

Customer Name: Dan Mulkey, Building Committee Chairman, Christ Community Baptist Church  
 Address 8016 176th St E  
 City, State ZIP Puyallup, WA 98375

**Project Justification: (If project is \$100,000 or more please attach Detailed Project Justification)**

Category:

- Govt Mandate  
  Routine Replacement  
  Safety  
  Water Quality  
  Water Supply  
 Relocation  
  Improve Operations  
  Security  
  Prevent Loss of Pressure/Or Supply  
 Serve New Development

**Asset Retirement:** (List all information available, serial numbers, size, make, model, year, etc.)

**Cost Estimate - If applicable, Please attach any cost estimate that have been done for project.**

	Estimate
Material:	0
Labor:	7,800.00
Contractor:	600.00
TAX: -	
<b>CIAC Projects Only</b>	20185.28
<b>Total:</b>	30,980

**Project Coding (Accounting to Complete)**

Project Name (If Water System Use ABBRV First): SWS.20 MainExt\_8016 176th StE (ChristCommunityChurch)

Coding:

DEPT: \_\_\_\_\_ ACCT: \_\_\_\_\_ PROJ#: \_\_\_\_\_ ACTV ID: \_\_\_\_\_

*OK R Mulkey*



**WASHINGTON WATER SERVICE**

14519 Peacock Hill Avenue • P.O. Box 336  
Gig Harbor, WA 98335 Tel: (877) 408-4060

*Copy*

November 9, 2020

Dan Mulkey  
Building Committee Chairman  
Christ Community Baptist Church  
8016 176<sup>th</sup> Street E  
Puyallup, WA 98375-2429

Re: Southwood Water System, DOH ID# 82844H, Pierce County  
Water Main Extension Agreement for 8016 176<sup>th</sup> St E  
Parcel No. 0419321080

Dear Mr. Mulkey:

This Water Main Extension Agreement (the "Agreement") is between Washington Water Service Company (the "Washington Water") and Christ Community Baptist Church (the "Owner") to extend the existing water main line and installation of any other facilities needed to provide water utility service to the parcel(s) referenced above.

This Agreement sets forth the terms and conditions as well as our engineer's projected costs, enclosed as "Attachment A", to complete the tap of the extended watermain on 176<sup>th</sup> Street East. The projected cost of \$30,980 is exclusive to the time and materials necessary to provide fire flow service to your property. The final amount billed for completing this project is based on actual costs for engineering, materials, labor and other variables needed to complete the project, this amount may also vary from the projected costs provided due to unforeseen issues during the installation/tie-in of the extended water main and service line that are beyond the control of Washington Water.

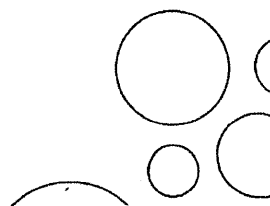
Washington Water will allow the Owner to provide an engineered construction plan and hire his/her own underground contractor to install the watermain, and appurtenances for the intended propose of installing water service to the parcel listed above. This contractor must be approved by Washington Water, prior to beginning any underground work (a list of approved contractors can be provided upon request). The main extension is to be within the designated easement.

An engineered plan-set has been previously reviewed and approved by the Pierce County Fire Marshal's office. The current plan-set design is for the installation of an 8-inch watermain, this watermain can only support a fire-flow rate of 1,500 gpm. Any future increase of fire-flow will require the watermain to be upsized.

The improvements stated herein qualify as Contributed In Aid of Construction (CIAC). Pursuant to Section 118(b) of the Tax Cuts and Job Act of 2017, federal tax laws require CIAC funds to be federally taxed ensuring that the

*Quality. Service. Value.*

**wawater.com**



expansion of water service to new customers does not unfairly burden a utility's existing customers. Applicants should consult their tax advisors concerning the application of tax laws to their particular situations.

#### Terms & Conditions

The projected costs are for engineering, construction materials and labor only, unless otherwise specified in Attachment A. Upon execution of this Agreement and prior to commencement of engineering and construction, Washington Water requires a deposit payment of 50% of the projected costs outlined in this Agreement. All past due accounts will be charged 1.5% per month (18% per annum). The projected costs submitted in this Agreement is provided as preliminary information only and the figures and information contained herein are subject to the execution of this Agreement within 30-business days of the date the Agreement was issued.

Terms and conditions of this Agreement are subject to the review and approval of the Washington State Utilities and Transportation Commission (the "Commission"). Upon execution of this Agreement, Washington Water will submit the Agreement to the Commission for their approval. Upon the Commission's approval, plans will be prepared, and if required, submitted to the Washington State Department of Health for their approval. Once all necessary approvals have been obtained and the required payment received, Washington Water will schedule and cause construction to commence.

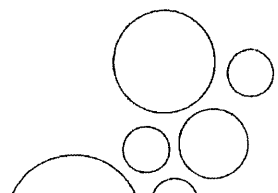
The Owner's land surveyor, or engineering firm will need to prepare a 20 foot wide easement description for the on-site water system mains and appurtenances using the Washington Water easement form after construction is complete. Once all signatures have been notarized on the easement document, it must be recorded with the Pierce County Auditor's office. This is necessary for Washington Water to maintain the on-site facilities on an on-going basis.

Upon completion of the main extension and any other requested facilities have been installed, pressure tested, bacteriological samples taken and tested with satisfactory results and a Certificate of Completion signed by a licensed engineer and all approvals received; the Owner is to provide Washington Water with a Bill of Sale transferring the ownership of these contributed facilities to Washington Water.

Washington Water requires that all construction be completed and remaining amounts be paid in full prior to the issuance a Certificate of Water Availability.

Neither this Agreement nor any of the rights, interests or obligations under this Agreement may be assigned or delegated, in whole or in part, by operation of law, or otherwise, by Owner without the prior written consent of Washington Water, and any such assignment without such prior written consent shall be invalid. Nothing expressed or referred to in this Agreement will be construed to give any person other than the parties to this Agreement any legal or equitable right, remedy, or claim under or with respect to this Agreement or any provision of this Agreement. This Agreement and all of its provisions and conditions are for the sole and exclusive benefit of the parties to this Agreement and their successors and assigns.

Upon execution of this Agreement, the Owner has 180-business days to coordinate with Washington Water for the engineering and construction to complete this project. This Agreement shall automatically become invalid unless the work authorized in this Agreement has commenced within 180-business days after execution. Once this Agreement has become invalid, the project will be closed and all project work will cease; a refund check will be issued to the Owner for pre-paid amounts received by Washington Water minus any billable work completed and non-refundable fees.



I elect to hire my own qualified contractor to complete the installation under the conditions listed below:

(Initial)

- Remit a deposit of \$15,490 (50%) of the projected costs (\$30,980) for engineering, construction labor, materials, and county permits provided by Washington Water, as outlined in Attachment A.
- Prior to any underground work being started, the hired contractor must be pre-approved by Washington Water. A list of approved contractors can be provided upon request.
- Provide installing contractor's name and contact information, along with copies of their Contractor's License, and Certificate of Insurance (contractor must have a minimum insurance coverage of \$1,000,000 per occurrence, \$2,000,000 annual aggregate naming Washington Water Service Company as Additional Insured and Certificate Holder).
- Time required to complete this project may vary due to the size of the project, projects already scheduled and emergencies that may require our construction crew to leave project site.

BEFORE CONSTRUCTION BEGINS:

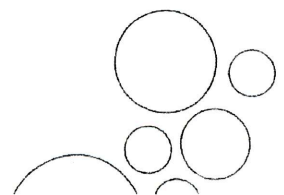
- The signed Agreement and the required payment must be received by Washington Water before any work will be scheduled, including the purchasing of materials.
- Washington Water Engineering to review and approve the final construction plan set as it pertains to water system assets.
- If required, Washington Water will be responsible for obtaining all necessary regulatory agency approvals, county/state permits and schedule with outside contractors.
- Provide names of any contractor(s) that may be working on-site.
- Schedule a pre-con meeting to review detailed plans and specifications with Washington Water's Engineer, and the Construction Superintendent or Construction Foreman.
- All contractor purchased materials must be on-site and inspected by Washington Water prior to installation.
- Washington Water will operate and lock-out existing gate valves to isolate the project site from the system.

DURING CONSTRUCTION:

- Washington Water will operate the valves for filling and flushing of the new water main and will do periodic inspections of the installation.
- Review status of project with Washington Water's Construction Superintendent.
- Coordinate inspections with Washington Water (either our Construction or Engineering Department)

BEFORE TIE-IN/ACTIVATION OF NEW FACILITIES:

- Once construction is completed, Washington Water will witness the pressure test for the installed facilities, to be carried out by the Owner.
- A final inspection must be scheduled with the Construction Superintendent or Construction Foreman to review installed facilities and that the installed facilities have been installed in accordance with the specifications provided in the engineering plans.
- As-built drawings in accordance with Washington Water standards are required to be submitted and approved by the Engineering Department.
- If a fire hydrant is installed, Washington Water will be responsible for fire flow testing and county submittal.



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- Washington Water will take bacteriological samples. The results from the samples taken are required to meet all Washington State Department of Health Drinking Water Regulations and Standards. Unsatisfactory results will delay the tie-in of the new facilities.
- A backflow assembly (Double Check Valve-DCVA/Reduced Pressure Backflow-RPBA/Pressure Vacuum Breaker-PVB) is required whenever there is a possibility of a cross connection between the public water system and a non-potable water source. Examples include, but are not limited to, irrigation systems, fire sprinkler systems or other water-using equipment. The backflow assembly device must be installed on the customer side of the meter; a licensed plumber can install this device. Annual testing and repair of the device is the responsibility of the parcel owner.
- Final payment for the work completed as outlined in this Agreement must be received, and any remaining amounts due be paid in full prior to issuance of Certificate of Completion and Water Availability.

If the terms of this letter are acceptable, please initial your election to hire your own contractor to complete the extension project under the terms listed in the Agreement and then sign the letter below. Return both this letter and the agreed payment to our Gig Harbor Office at 14519 Peacock Hill Avenue NW, Gig Harbor, WA 98335 (Mailing Address: PO Box 336, Gig Harbor, WA 98332). If you have any questions, please give me a call directly in Gig Harbor at (253) 851-4060 or toll free at (877) 408-4060.

Sincerely,

By:

*Matthew D. Brown*  
 Matthew D. Brown, P.E.  
 General Manager

Accepted

By:

*Dan Mulkey Bldg Chair*

*DAN MULKEY*  
 Printed Name

*253-691-6654*  
 Phone:

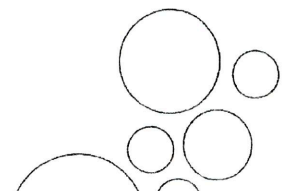
*12-14-20*  
 Date Accepted

Enclosure(s)

- cc: Kanosi Chakweva, Accounting Manager  
 Eric Williams, Construction Superintendent  
 Sarah Castro, Customer Service Manager  
 John Puccinelli, Engineering Manager  
 Shawn O'Dell, Operations Manager (Gig Harbor/Olympia)  
 Bob Blackman, Local Manager (East Pierce)  
 File1: Water System  
 File2: EngFile# 3905

W:\Systems\Southwood ID82844H Pierce\Projects\_Work Orders\SWS.20 MainExt\_Address (ChristCommunityChurch)\Contract\SWS.20 MainExt\_8016 176th StE (ChristCommunityChurch).docx

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## Washington Water Service Co.

Engineering Department  
6800 Meridian Road SE  
Olympia, WA 98513

Engineer's Opinion of Probable Project Costs Summary  
Attachment "A"

### Southwood Water System Christ Community Baptist Church Water Main Extension

November 4, 2020  
(Projected Cost Good for 30-Days)

Engineering File # 9805

**\*\*\* Construction Materials \*\*\***

Unit of Property	Description	Quantity	Unit of Measure	Unit Cost	Total
103240	Construction Materials, Pipe, Valves, Fittings, Etc	1	LS	\$ -	\$ -
103450	Construction Materials for Services	1	LS	\$ -	\$ -
103480	Construction Materials for Hydrants	1	LS	\$ -	\$ -
				\$ -	\$ -
				\$ -	\$ -
Sub-Total					\$ -
Contingency				10%	\$ -
Sales Tax				9.00%	\$ -
SUB Total - Materials					\$ -
<b>Rounded Up Value</b>					<b>\$0.00</b>

**\*\*\* Construction Labor \*\*\***

Unit of Property	Description	Quantity	Unit of Measure	Unit Cost	Total
103240	Construction Labor - Watermain	1	LS	\$ 4,752.00	\$ 4,752.00
103450	Construction Labor - Services	1	LS	\$ -	\$ -
103480	Construction Labor - Hydrants	1	LS	\$ -	\$ -
				\$ -	\$ -
	WWSC Engineering	1	LS	\$ 2,323.20	\$ 2,323.20
				\$ -	\$ -
				\$ -	\$ -
Sub-Total					\$ 7,075.20
Contingency				10%	\$ 707.52
Sub-Total - Construction Labor					\$ 7,782.72
<b>Rounded Up Value</b>					<b>\$7,800.00</b>

**\*\*\* Outside Contractor \*\*\***

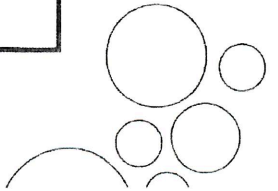
Unit of Property	Description	Quantity	Unit of Measure	Unit Cost	Total
	County Permits (Encroachment)	1	LS	\$ 462.00	\$ 462.00
	DOH Review Fees	1	LS	\$ -	\$ -
	Hydrogeologist	1	LS	\$ -	\$ -
	Geotechnical Engineer	1	LS	\$ -	\$ -
	Engineering Consultant	1	LS	\$ -	\$ -
	Land Surveyor	1	LS	\$ -	\$ -
	Land Cost	1	LS	\$ -	\$ -
	Additional Insurance	1	LS	\$ -	\$ -
	Bonding	1	LS	\$ -	\$ -
	Sanitary Facility Rental (Portable Toilet)	1	LS	\$ -	\$ -
	Paving Contractor - Pavement Restoration	1	LS	\$ -	\$ -
	Traffic Control Contractor - Flaggers	1	LS	\$ -	\$ -
				\$ -	\$ -
				\$ -	\$ -
				\$ -	\$ -
				\$ -	\$ -
SUB TOTAL					\$ 462.00
Contingency				10%	\$ 46.20
Sub-Total - Outside Contractor					\$ 508.20
<b>Rounded Up Value</b>					<b>\$600.00</b>
Project Subtotal =					\$ 8,400.00
Federal Tax per the TCJA =					\$ 2,232.91
State B&O Tax =					\$ 161.92
Anticipated TCJA Tax =					\$ 20,185.28
<b>Projected Funds Required =</b>					<b>\$30,980</b>

**Assumptions:**

- 1) This document is intended to forecast approximate construction costs based upon current information and similar projects, and is not intended to accurately represent actual design or construction components or prices.
- 2) Totals are rounded to nearest \$100.

10/28/20

15



**Christ Community Baptist Church**

8016 176th St E  
Puyallup, WA 98375  
253-846-3000

**U.S. BANK**  
PARKLAND BRANCH  
19-10/1250  
19-10/1250

20322

12/16/2020

PAY TO THE  
ORDER OF

Washington Water Service

\$\*\*15,490.00

Fifteen Thousand Four Hundred Ninety and 00/100\*\*\*\*\*

DOLLARS

Washington Water Service  
PO Box 35006  
Seattle, WA 987124-3406

MEMO



*Margaret Campbell*  
AUTHORIZED SIGNATURE

Details on Back  
Security Features Included

Christ Community Baptist Church  
Washington Water Service  
60210 · Building Fund Expense

Water Main

12/16/2020

20322

15,490.00

General Operating Fu

15,490.00





WASHINGTON WATER SERVICE

Water Availability Request Processing

NEW CURRENT CUSTOMER RE-ISSUE (WALCERT)

ENGINEERING ACCTNO. PREMISEID.

SEC TWN R1NG LEGAL DESCRIPTION

WALRST RQD APP-FEE REVIEWED WAL-CERT HOLD/CMPLTD

PARCEL OWNER:

SITE ADDRESS:

PARCEL NO. #CONNS. WELL ON PROPERTY WATER SYSTEM CNTY. BASEMAP#

WAL REQUEST APPLICATION RESIDENTIAL COMM/PLAT DEVE

REQUEST FOR: CNFRMSRVC LENDER LETTER FIRE FLOW/HYDRANT SPRINKLER SRVC PLAT DEVE/COMMERCIAL RELEASE LETTER BOUNDARY LINE ADJUSTMENT CERT WATER AVAILABILITY NEW CONSTRUCTION REMODEL ADU GARAGE/FENCE/DECK PRELIMINARY CERTIFICATE

SERVICE CONNECTION: SINGLE-FAMILY DUPLEX-MULTIFAMILY ADU IRRIGATION FIRE FLOW HYDRANT SPRINKLER COMMERCIAL PLAT DEVELOPMENT LARGER METER REQUESTED

LENDER LETTER: CNFRMED GIS SENT DATE

CURRENT SERVICE: CC&B SATIN WALCERT PARCEL LOCATION: BASEMAP CNFRMED GIS NOT SRVC AREA SERVICE LOCATION: EXISTING CHG SRVC DBL TAP/PUSH CROSSING MAIN EXT/OTHER CONNECTION AVAILABLE: YES NO PENDING

RESIDENTIAL: VERIFY SRVC LOCATION FIELD OPS CHARGE CODES FOR TIME LOCATION VERIFIED DIRECT CONN CHG SRVC DBL TAP/PUSH PAR CROSSING OTHER APPLICANT: APP FOR WATER SERVICE CF RMSRVC FACILITY CHRG DISCLAIMER HYDRANT CSRVC: SRVC CONN FEE/APP-WTR SRVC CREATE CC&B ACCT/PREMISE DISCLAIMER FIELD ORDER INSTALL SRVC ACCT: TARIFF TAP-DBL SRVC TAP-PUSH SRVC UPGRD

SERVICE INSTALLATION: INSTALL SRVC DIRECT CIAC PROJECT DEPT ACCTNO PROJ# INSTALL CMPLTD

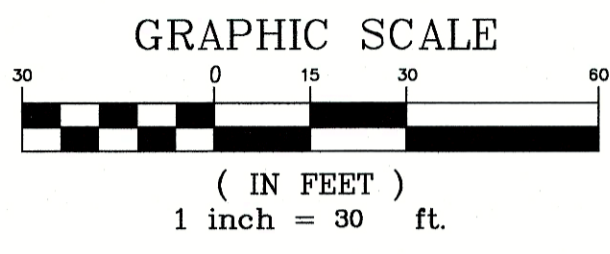
FIRE FLOW AVAILABLE: NOT RQD YES NO HYDRANT GPM PSI DURATION HYDRANT DISTANCE HYDRANT #

ENGINEERING: RESIDENTIAL FIRE FLOW HYDRANT COMMERCIAL/PLAT/BLA OTHER SRVC LOC ENG ADM: HYDRANT LTR MOULTR DEVEL/PLAT LTR RELEASE LTR GM ADM: ISSUE CNST AGR LTR MAIN EXT HYDRANT OTHER IMPROV APPLICANT: AGR SIGNED/DEPOSIT APP-WTR SRVC ACCT: CIAC PROJECT CONTRACTED INSTALLATIONS DEPT ACCTNO PROJ# INSTALL CMPLTD CSRVC: APP-WTR SRVC CREATE CC&B ACCT/PREMISE DISCLAIMER INSTALL SRVC MAIN EXTENSIONS/HYDRANT/OTHER SYSTEM IMPROVEMENTS

CERT OF WATER AVAILABILITY: NEW REISSUE DATE SENT

NOTES

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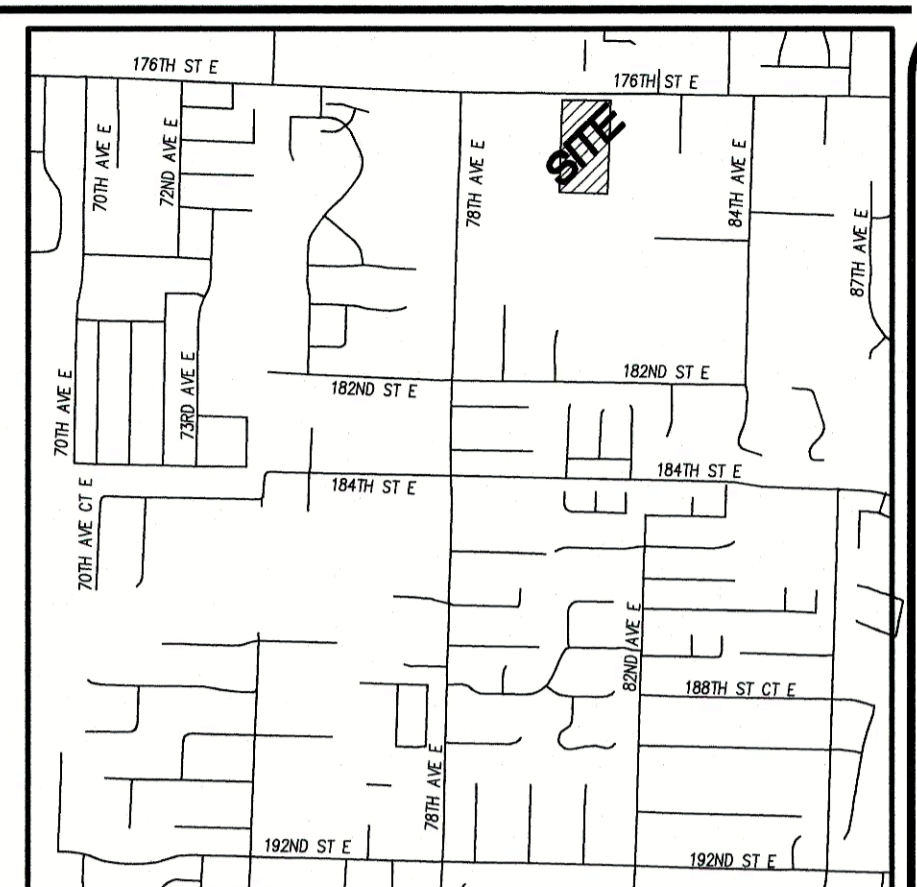


# WASHINGTON WATER SERVICE

## CHRIST COMMUNITY BAPTIST CHURCH - WATER MAIN EXTENSION - PLAN

A PORTION OF SEC. 32, TWP. 19 N, RGE 4 E, W.M.  
PIERCE COUNTY, WASHINGTON

DESIGN APPROVAL, DATE \_\_\_\_\_  
WASHINGTON WATER SERVICE  
DESIGN FIRE FLOW = 1,500 GPM. / 2 HRS.



VICINITY MAP  
SCALE: 1"=1/4 MILE

### GENERAL NOTES:

- CONSTRUCTION METHODS FOR PIPE AND FITTINGS SHALL BE IN ACCORDANCE WITH DIVISIONS 7 AND 9 OF THE LATEST EDITION OF THE STANDARD PLANS AND STANDARD SPECIFICATIONS FOR ROAD, BRIDGE AND MUNICIPAL CONSTRUCTION (WSDOT/APWA) EXCEPT ALL REFERENCES TO ENGINEER SHALL BE CHANGED TO OWNER.
- PIPE MATERIAL SHALL BE CLASS 52 DUCTILE IRON PIPE.
- BLOW-OFF ASSEMBLIES SHALL BE INSTALLED WHERE SHOWN ON THE PLANS.
- AIR RELEASE VACUUM VALVES SHALL BE INSTALLED WHERE SHOWN ON THE PLANS AND ALL SYSTEM HIGH POINTS.
- SAMPLING STATIONS SHALL BE INSTALLED APPROXIMATELY WHERE SHOWN ON THE PLANS OR ADDED PER WWS DIRECTION. FINAL LOCATION(S) TO BE DETERMINED IN THE FIELD BY WWS.
- PIPE SHALL HAVE A MINIMUM OF 36 INCHES OF COVER. EXACT DEPTH OF PIPE SHALL BE DETERMINED IN THE FIELD TO GENERALLY CONFORM TO TOPOGRAPHY. PIPE SHALL MAINTAIN POSITIVE SLOPE BETWEEN BLOW-OFFS AND AIR RELEASE VALVES.
- PRESSURE TESTING AND DISINFECTATION SHALL BE IN ACCORDANCE WITH DIVISION 7 OF THE ABOVE REFERENCED SPECIFICATION.
- SOME UTILITIES SHOWN ARE BASED UPON AS-BUILT PLANS, THE LOCATIONS ARE APPROXIMATE ONLY. NOT ALL EXISTING UTILITIES AND SERVICES HAVE BEEN LOCATED OR SHOWN. THE CONTRACTOR SHALL LOCATE OR HAVE LOCATED ALL UNDERGROUND UTILITIES PRIOR TO BEGINNING CONSTRUCTION. THE ONE-CALL NUMBER IS 1-800-424-5555. NOT ALL UTILITY OWNERS OR OPERATORS SUBSCRIBE TO THE ONE-CALL SERVICE.
- EASEMENTS, FRANCHISES AND PERMITS SHALL BE OBTAINED FOR ALL WATER LINE CONSTRUCTION. MINIMUM EASEMENT WIDTHS SHOULD BE 15 FEET.
- THE OWNER, HIS REPRESENTATIVE, OR THE CONTRACTOR SHALL BE REQUIRED TO SCHEDULE A PRE-CONSTRUCTION CONFERENCE FOR ALL WATER CONSTRUCTION SHOWN ON THESE PLANS. THE CONFERENCE SHOULD BE SCHEDULED BY CALLING (253) 537-6634 TWO WEEKS PRIOR TO COMMENCEMENT OF WORK.

### WASHINGTON WATER SERVICE NOTES:

- ANY REQUIRED SPECIFICATIONS NOT INDICATED WILL FOLLOW MOST CURRENT STANDARD SPECIFICATIONS FOR WASHINGTON WATER SERVICE AND AWWA STANDARDS.
- ALL PIPING TO BE BEDDED 4" MINIMUM UNDER PIPE AND 6" MINIMUM OVER PIPE. BEDDING UNDER PIPE TO BE PLACED IN TRENCH PRIOR TO INSTALLING WATER MAIN.
- USE 14 GAUGE LOCATE (TRACER) WIRE, ATTACHED TO WATER MAIN AND ALL FACILITIES. LOOP TO TOP OF ALL VALVE BOXES AND BLOW OFF VAULTS.
- DETECTION TAPE TO BE 18" TO 24" BELOW FINISH GRADE. RUN DETECTION TAPE OVER MAINS AND SERVICE LINES.
- ALL VALVE RISERS TO BE CAST IRON.
- ALL FIRE HYDRANTS TO BE "IOWA", "M & H", OR "MUELLER CENTURION" TYPE ONLY. ALL HYDRANTS TO BE EQUIPPED WITH 5" STORZ ADAPTORS.
- ALL HYDRANTS TO BE SECURED WITH SHACKLE (TIE) RODS OR MEGA-LUG CONSTRUCTION.
- ALL BLOW-OFFS, AIR RELEASE/VACUUM VALVES, AND SAMPLING STATIONS TO MEET WWS APPROVAL PRIOR TO INSTALLATION.
- ALL BLOW-OFFS TO BE INSTALLED WITHIN CONCRETE BLOW-OFF/METER BOX, SET TO FINISH GRADE AND MEETING HS-20 LOADING STANDARDS.
- ALL BENDS, CAPS, TEES, WYES AND FITTINGS TO BE THRUST BLOCKED.

### NOTE:

THE LOCATIONS OF THE WATER METERS SHOWN ARE APPROXIMATE ONLY. METERS SHALL TYPICALLY BE LOCATED WITHIN R.O.W. OR UTILITY EASEMENT AT PROPERTY LINES. METER LOCATIONS IN QUESTION SHALL BE DETERMINED BY THE RWMC FIELD SUPERVISOR. MAINTAIN MINIMUM REQUIRED SEPARATION BETWEEN WATER MAINS/SERVICE LINES, AND SANITARY SEWER MAIN LINES AND STUBS.

SOME EXISTING UTILITIES SHOWN ARE BASED UPON AS-BUILT PLANS, THE LOCATIONS ARE APPROXIMATE ONLY. NOT ALL EXISTING UTILITIES AND SERVICES HAVE BEEN LOCATED OR SHOWN. THE CONTRACTOR SHALL LOCATE OR HAVE LOCATED ALL UNDERGROUND UTILITIES PRIOR TO CONSTRUCTION.

THE BOUNDARY AND SITE LAYOUT INFORMATION SHOWN HEREON WAS TAKEN FROM THE ARCHITECT'S DESIGN BY ARCHITECTURAL SERVICES, INC. RECEIVED 02/06/2020.

REV NO	REVISION DESCRIPTION	DATE

**Apex Engineering**  
2601 South 35th, Suite 200  
Tacoma, Washington 98409-7479  
FAX: (253) 473-0599  
(253) 473-4494

**TITLE** WASHINGTON WATER SERVICE  
CHRIST COMMUNITY BAPTIST CHURCH  
WATER MAIN EXTENSION  
PLAN

**CLIENT** WASHINGTON WATER SERVICE  
P.O. BOX 44427  
TACOMA, WA. 98448-0427  
ATTN: MR. BOB BLACKMAN (253)537-6694

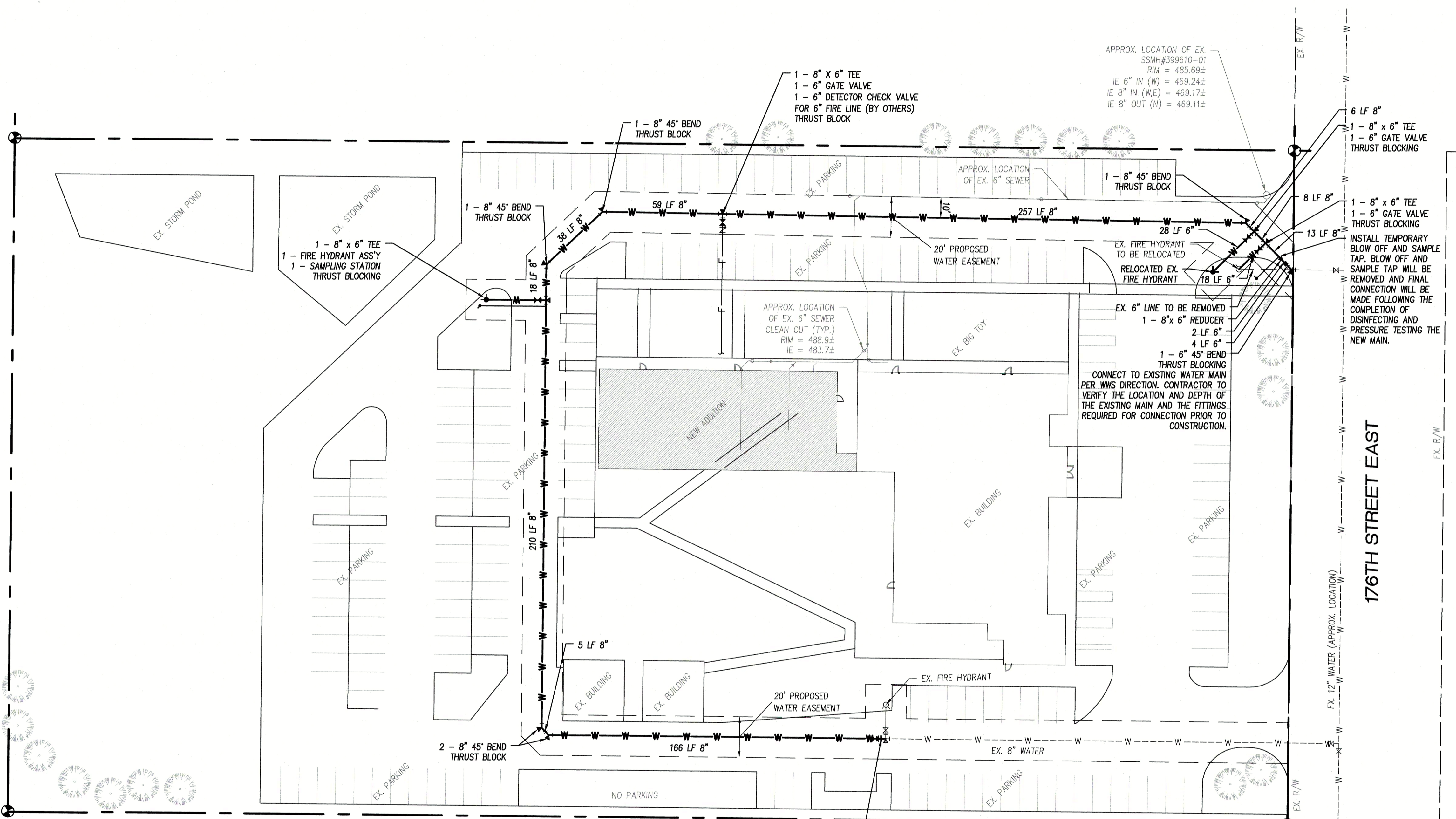
**DATE SEALED** 10/08/2020



**PROJECT MANAGER**  
KIM A SAVAGE, P.E.

**DESIGN** RB  
**DRAWN** RB  
**CHECKED** KS  
**SEC** 32 T 19 N R 4 E  
**FILE NO** 34877-WA-MRK-DWG  
**DATE** 02-19-2020  
**SCALE** 1" = 30'

**SHEET 1 OF 3**  
**FILE NO** 34877  
© APEX ENGINEERING LLC 2020



**LEGEND:**

	FIRE HYDRANT
	FIRE DEP. CONNECTION (FDC)
	WATER METER
	BLOW-OFF VALVE
	GATE VALVE
	DETECTOR CHECK VALVE
	REDUCER
	AIR VACUUM RELEASE VALVE
	SAMPLING STATION
	TAPPING TEE
	PROPOSED WATER LINE
	PROPOSED FIRE LINE
	EXIST WATER LINE

REMOVE EX. CAP OR PLUG AND CONNECT TO 8" EXISTING WATER MAIN PER WWS DIRECTION. CONTRACTOR TO VERIFY THE LOCATION AND DEPTH OF THE EXISTING MAIN AND THE FITTINGS REQUIRED FOR CONNECTION PRIOR TO CONSTRUCTION.  
1 - 8" GATE VALVE (TO REMAIN CLOSED DURING CONSTRUCTION)

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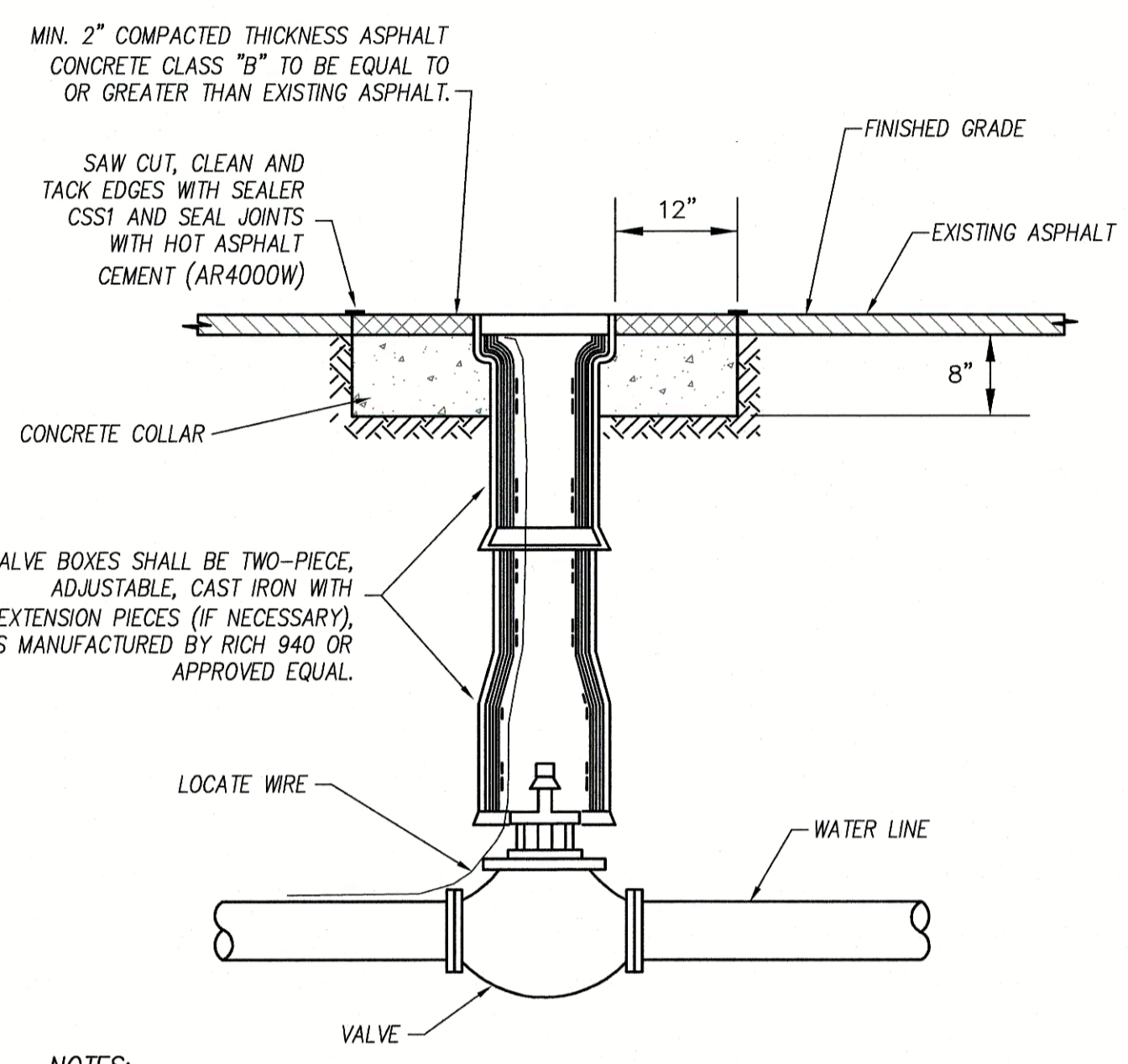
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# WASHINGTON WATER SERVICE

## CHRIST COMMUNITY BAPTIST CHURCH - WATER MAIN EXTENSION - PLAN

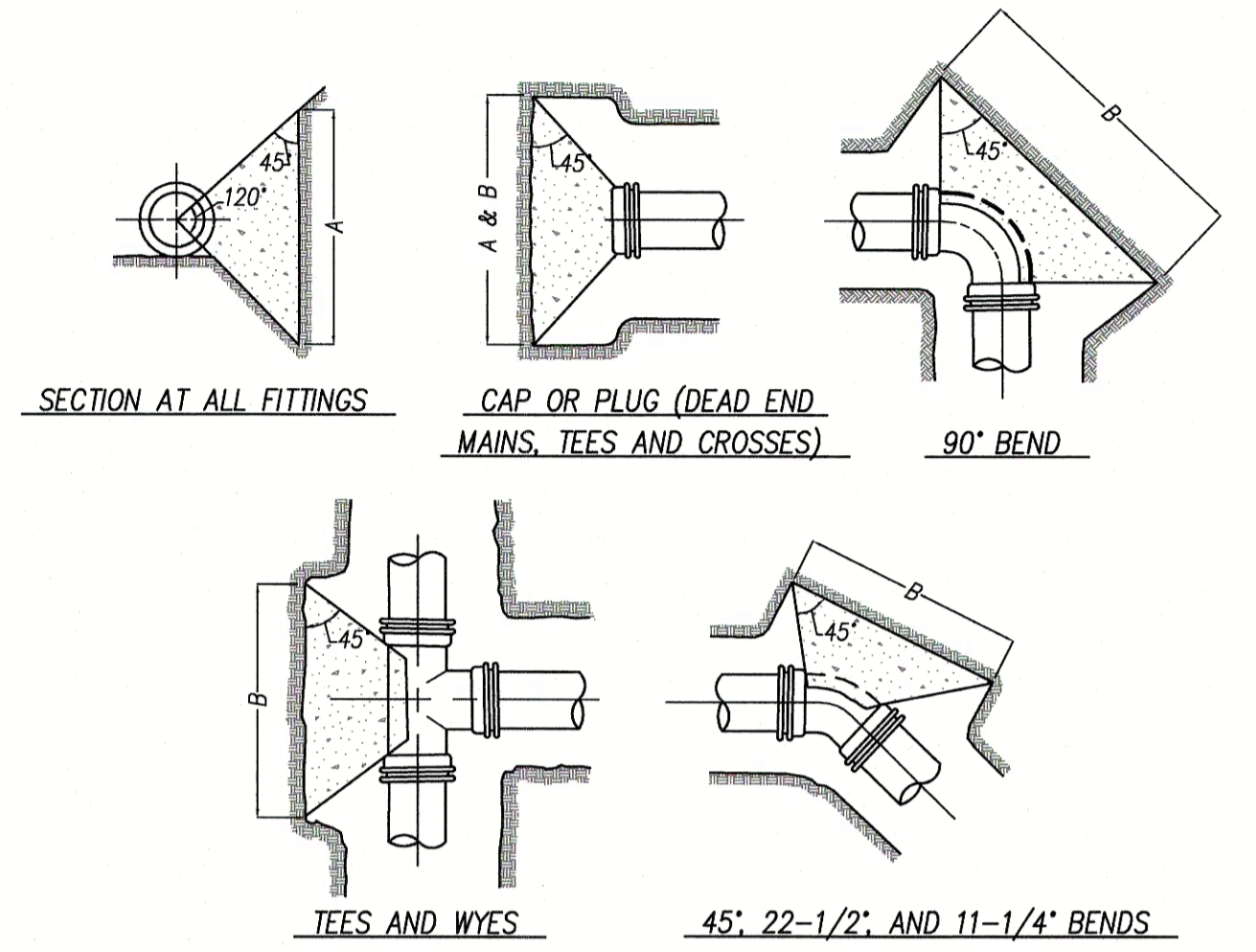
A PORTION OF SEC. 32, TWP. 19 N, RGE 4 E., W.M.  
PIERCE COUNTY, WASHINGTON

DESIGN APPROVAL, DATE \_\_\_\_\_  
WASHINGTON WATER SERVICE



- NOTES:**
1. VALVE BOXES TO HAVE TABS TURNED IN THE DIRECTION OF THE WATER MAIN INSTALLED ON, AND CENTERED OVER OPERATING NUT ON VALVE.
  2. ALL EXISTING CAST IRON VALVE BOXES SHALL BE ADJUSTED TO GRADE WITH CAST IRON COMPONENTS.
  3. ALIGNMENTS OF THE VALVE BOX SHALL BE THE DEVELOPER'S RESPONSIBILITY AND CARE SHALL BE TAKEN TO ENSURE THAT THE VALVE MAY BE OPERATED.
  4. LOCATE WIRE TO EXTEND MINIMUM OF 12" BEYOND TOP OF VALVE BOX.

**VALVE BOX**  
N.T.S.  
(REVISED 2013)



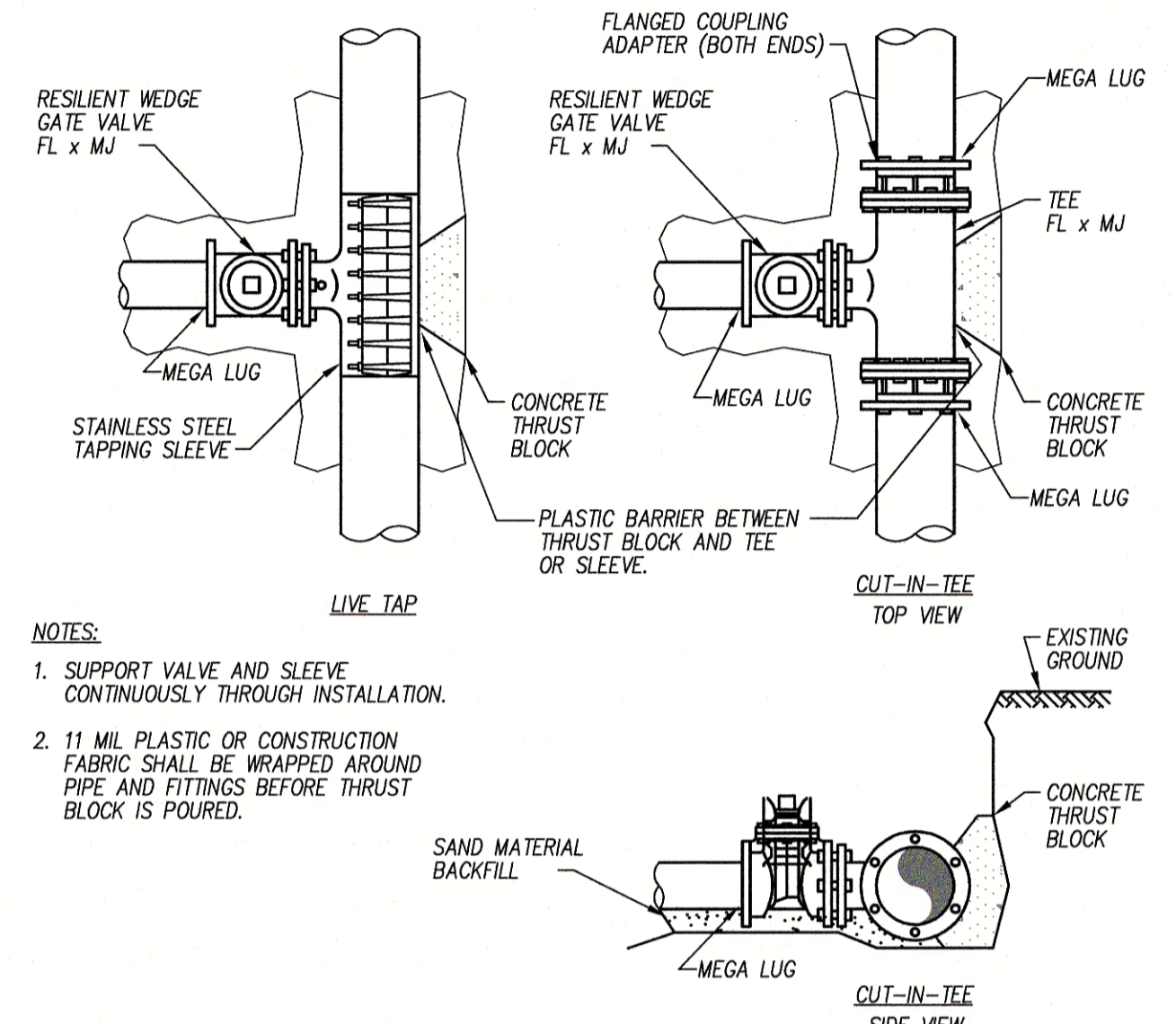
**NOTE:**

1. THRUST BLOCKS ARE REQUIRED ON ALL FITTINGS FOR PRESSURE PIPE WITH PUSH-ON OR MECHANICAL TYPE JOINTS.
2. ALL CONCRETE BLOCKING SHALL BE POURED AGAINST DRY, UNDISTURBED SUBGRADE. THE TABLE IS BASED UPON 2000 LBS. S.F. ALLOWABLE SOIL BEARING. WEAKER SOIL WILL REQUIRE INCREASED BEARING AREA. SQUARE FOOTAGE IN TABLE IS DETERMINED FOR TEST PRESSURE OF 225 PSI.

PIPE SIZE	CAP, PLUG OR TEE	90° BEND	45° BEND	22-1/2° BEND	11-1/4° BEND
<6"	4.5	6.0	3.5	2.0	1.0
8"	7.5	10.5	6.0	3.0	1.5
10"	11	15.5	8.5	4.5	2.5
12"	15.5	22.0	12.0	6.0	3.5
14"	21.0	29.5	16.0	8.5	4.5
16"	27.0	38.0	20.5	10.5	5.5

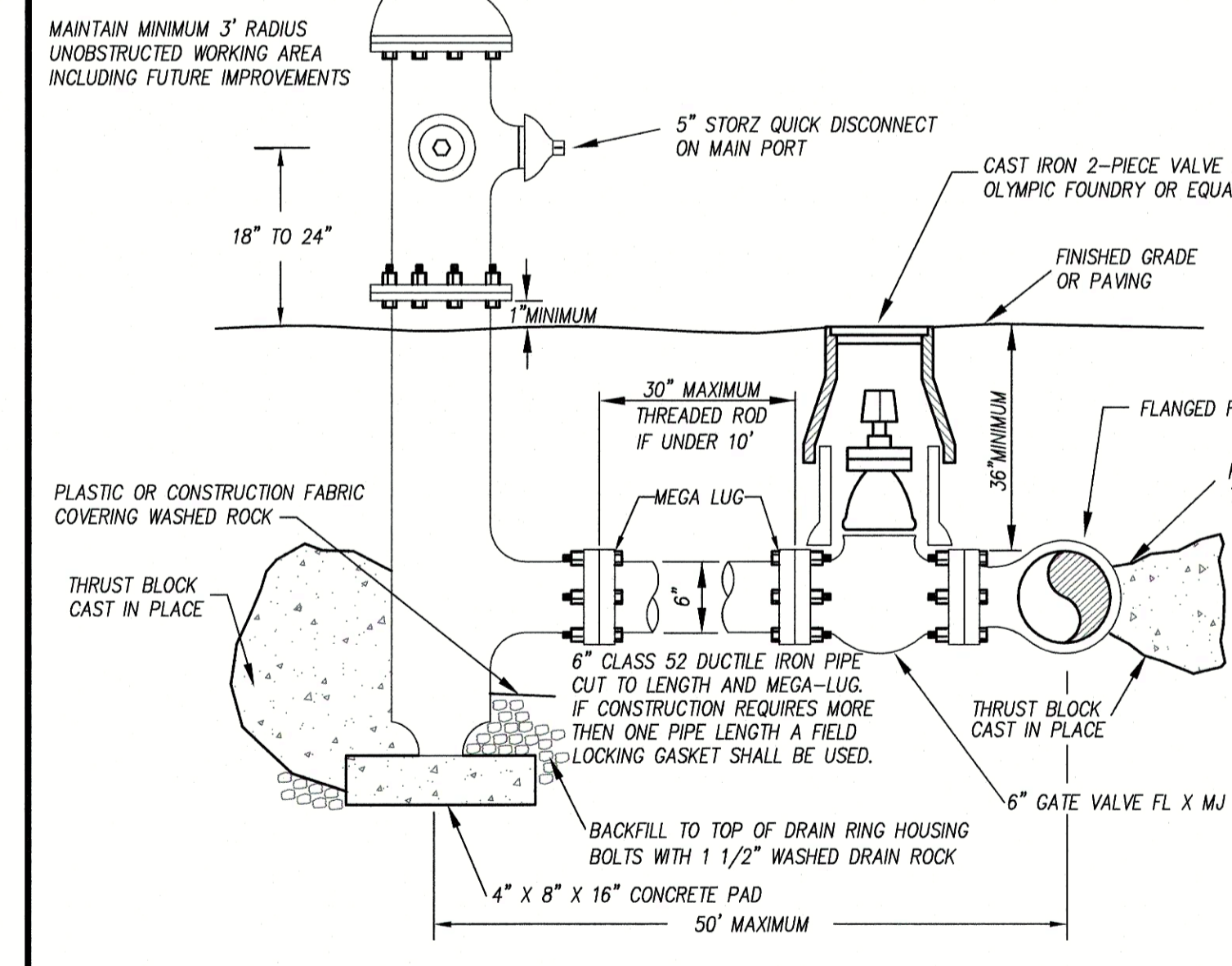
A x B = BEARING AREA REQ'D IN SQ. FT. (SEE NOTE 2)

**THRUST BLOCK DETAIL**  
N.T.S.  
(REVISED 2013)



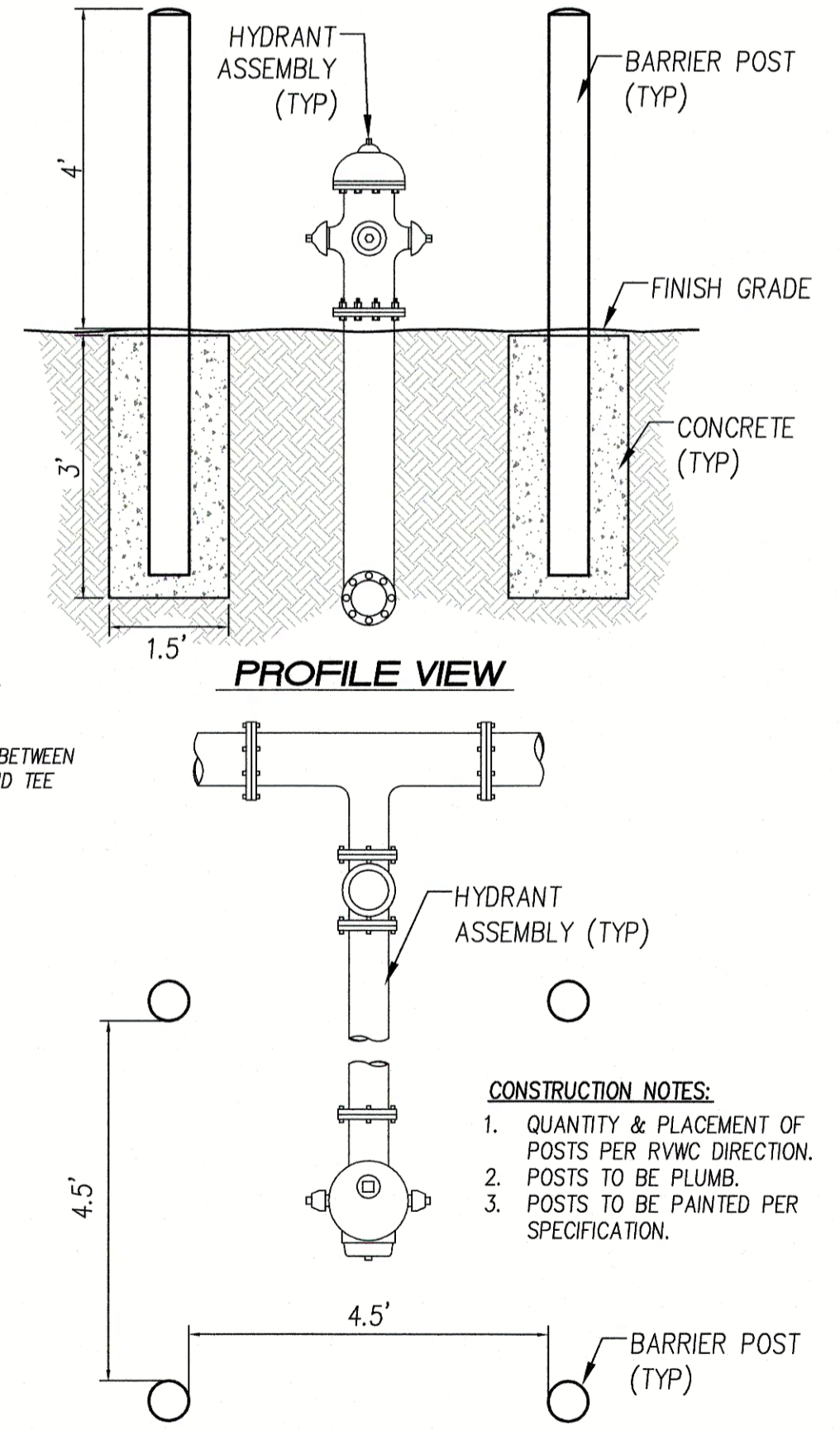
- NOTES:**
1. SUPPORT VALVE AND SLEEVE CONTINUOUSLY THROUGH INSTALLATION.
  2. 11 MIL PLASTIC OR CONSTRUCTION FABRIC SHALL BE WRAPPED AROUND PIPE AND FITTINGS BEFORE THRUST BLOCK IS POURED.

**CONNECTION TO EXISTING MAIN DETAIL**  
N.T.S.  
(REVISED 2013)

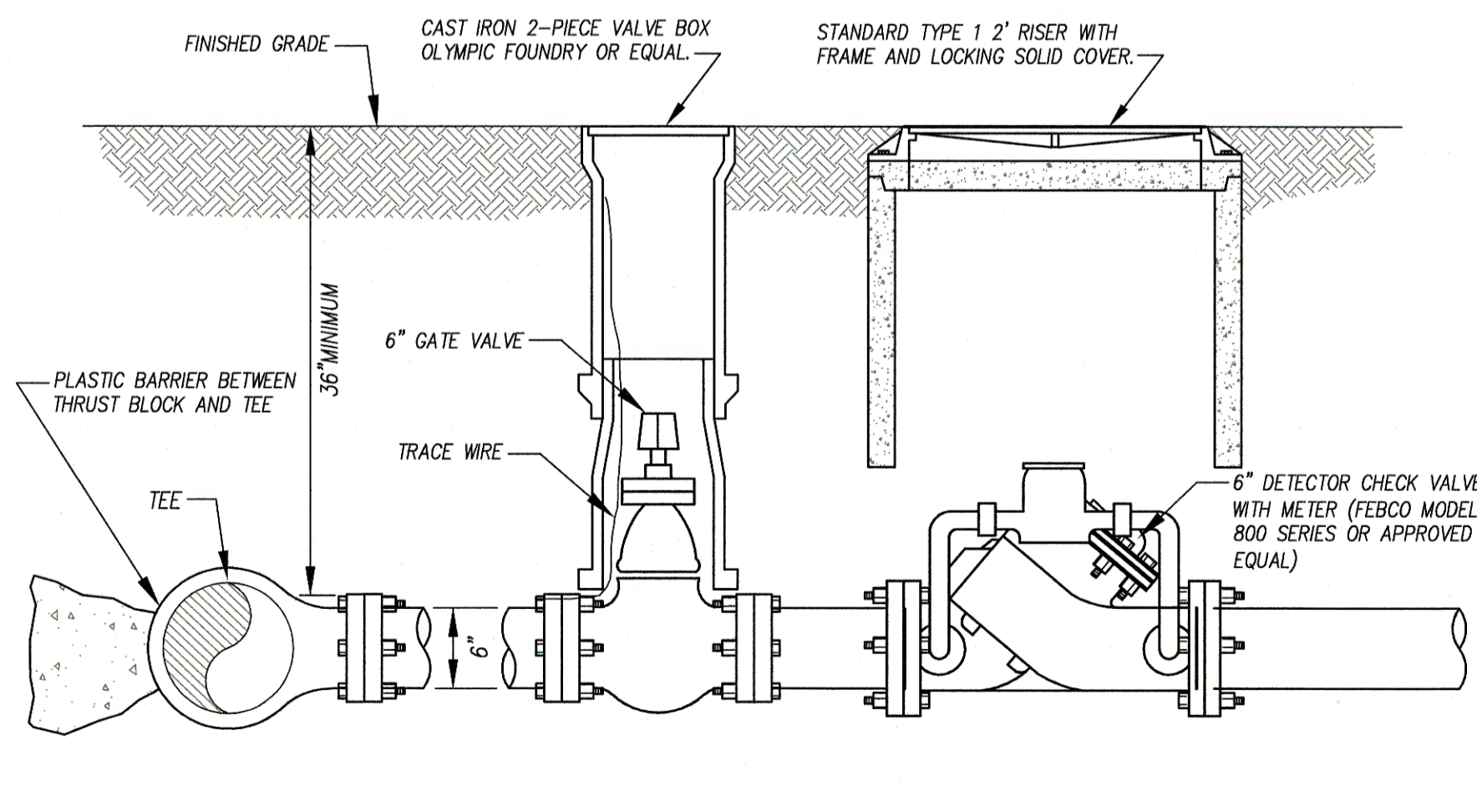


**TYPICAL FIRE HYDRANT DETAIL**  
N.T.S.  
(REVISED 2013)

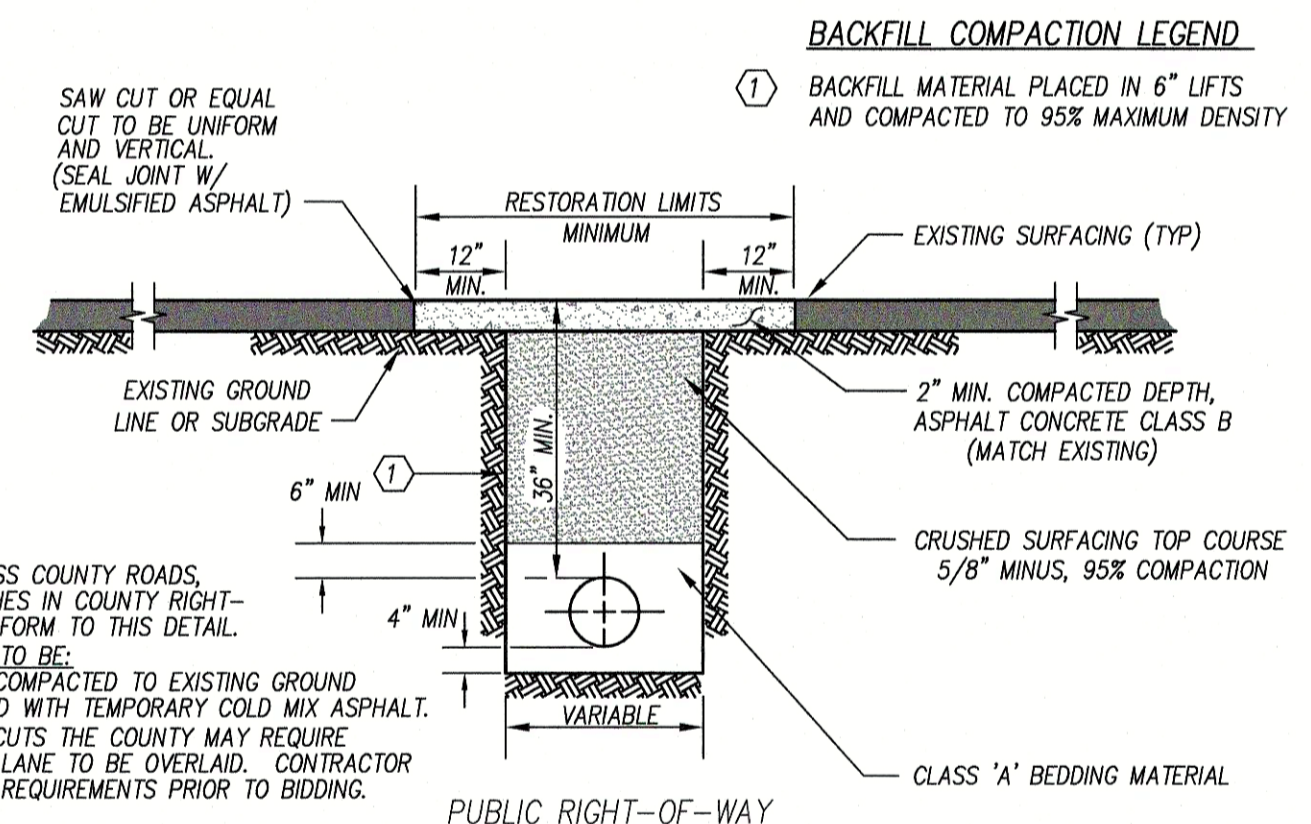
- NOTES:**
1. ALL HYDRANTS WILL BE DRY BARREL A MINIMUM OF 4.5 FEET IN LENGTH.
  2. MECHANICAL JOINT INLET, 5 1/4" MAIN VALVE WITH 6" INLET.
- ACCEPTABLE HYDRANTS:**
1. MUELLER "SUPER CENTURION 250"
  2. CLOW "MEDALLION"
  3. M&H 929 "RELIANT"
  4. WATEROUS "PACER MODEL"
  5. AVK



**HYDRANT BOLLARD DETAIL**  
N.T.S.  
(REVISED 2013)

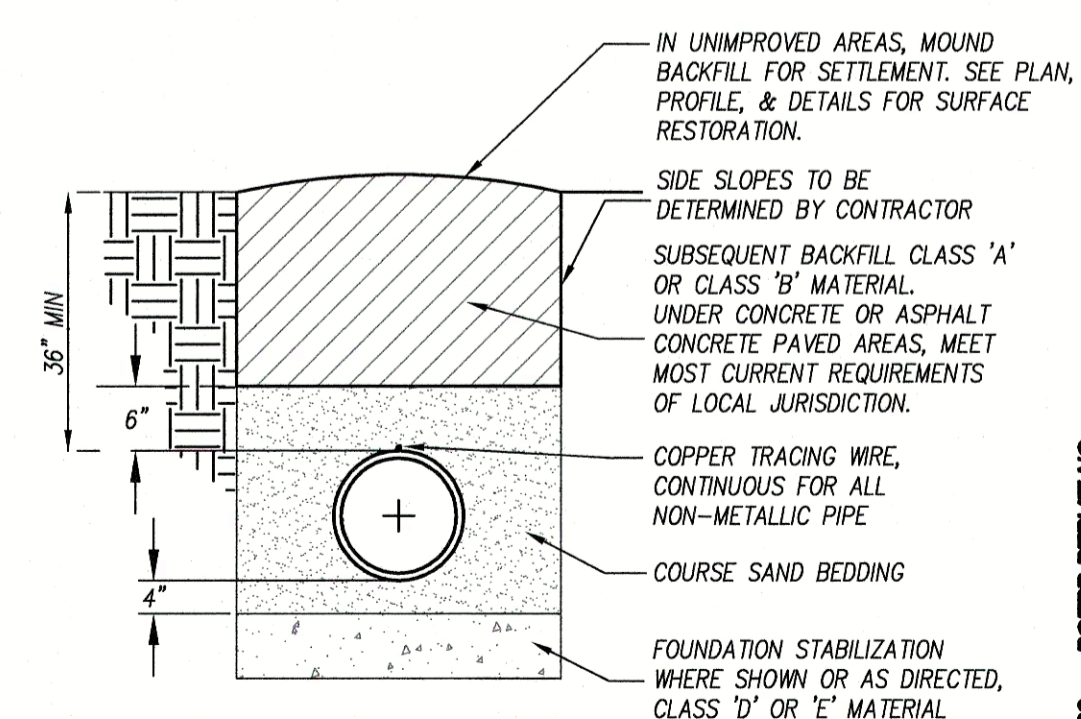


**FIRE LINE DETECTOR CHECK VALVE DETAIL**  
N.T.S.  
(REVISED 2013)



- NOTES:**
1. ALL PATCHES ACROSS COUNTY ROADS, OR ROAD APPROACHES IN COUNTY RIGHT-OF-WAY SHALL CONFORM TO THIS DETAIL.
  2. TEMPORARY PATCH TO BE BACKFILLED AND COMPACTED TO EXISTING GROUND LINE AND PATCHED WITH TEMPORARY COLD MIX ASPHALT.
  3. FOR LONGITUDINAL CUTS THE COUNTY MAY REQUIRE THE ENTIRE DRIVING LANE TO BE OVERLAID. CONTRACTOR TO VERIFY OVERLAY REQUIREMENTS PRIOR TO BIDDING.

**UTILITY PATCH DETAIL**  
N.T.S.  
(REVISED 2013)



**TYPICAL TRENCH DETAIL**  
N.T.S.  
(REVISED 2013)

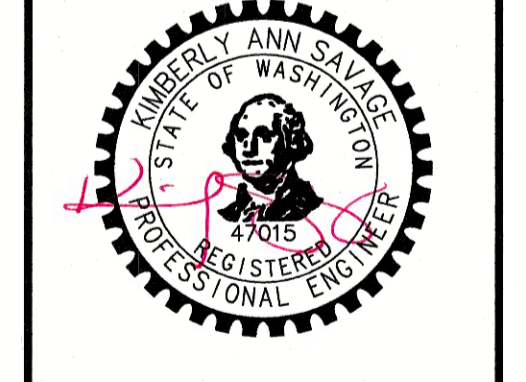
REV NO	REVISION DESCRIPTION	DATE BY

**Apex Engineering**  
2601 South 35th, Suite 200  
Tacoma, Washington 98409-7479  
(253) 473-4494 FAX: (253) 473-0599

**TITLE** WASHINGTON WATER SERVICE  
CHRIST COMMUNITY BAPTIST CHURCH  
WATER MAIN EXTENSION  
PLAN

**CLIENT** WASHINGTON WATER SERVICE  
P.O. BOX 44427  
TACOMA, WA. 98448-0427  
ATTN: MR. BOB BLACKMAN (253) 537-6694

DATE SEALED 10/08/2020



**PROJECT MANAGER** KIM A SAVAGE, P.E.  
**DESIGN** RB  
**DRAWN** RB  
**CHECKED** KS  
**SEC 32 T 19 N R 4 E**  
**FILE NO** 34877-WAWRK.DWG  
**DATE** 02-19-2020  
**SCALE** AS NOTED

**SHEET 2 OF 3**  
**FILE NO** 34877  
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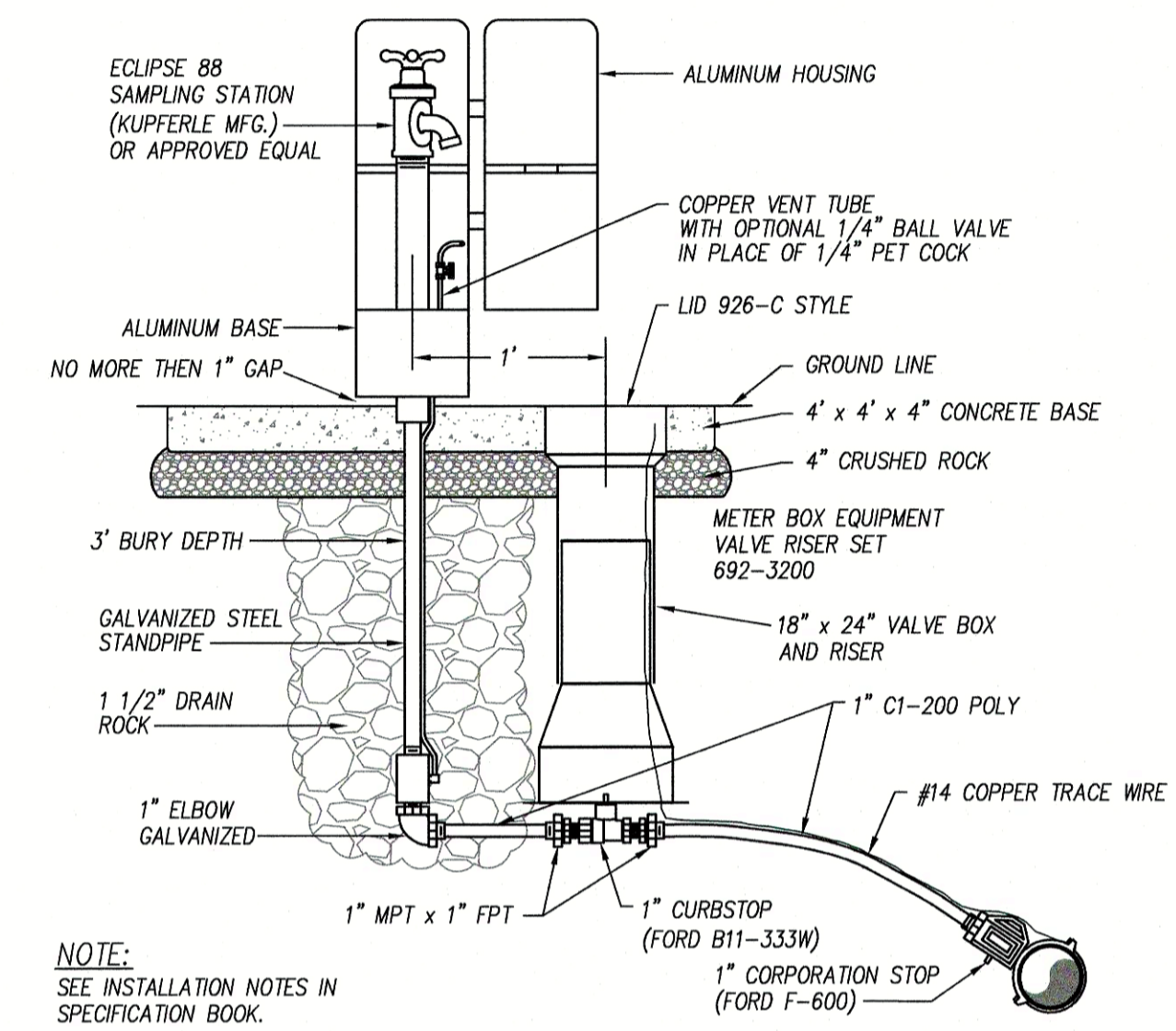
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## CHRIST COMMUNITY BAPTIST CHURCH - WATER MAIN EXTENSION - PLAN

A PORTION OF SEC. 32, TWP. 19 N, RGE 4 E., W.M.  
PIERCE COUNTY, WASHINGTON

DESIGN APPROVAL, DATE \_\_\_\_\_  
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**NOTE:**  
SEE INSTALLATION NOTES IN SPECIFICATION BOOK.

### SAMPLING STATION

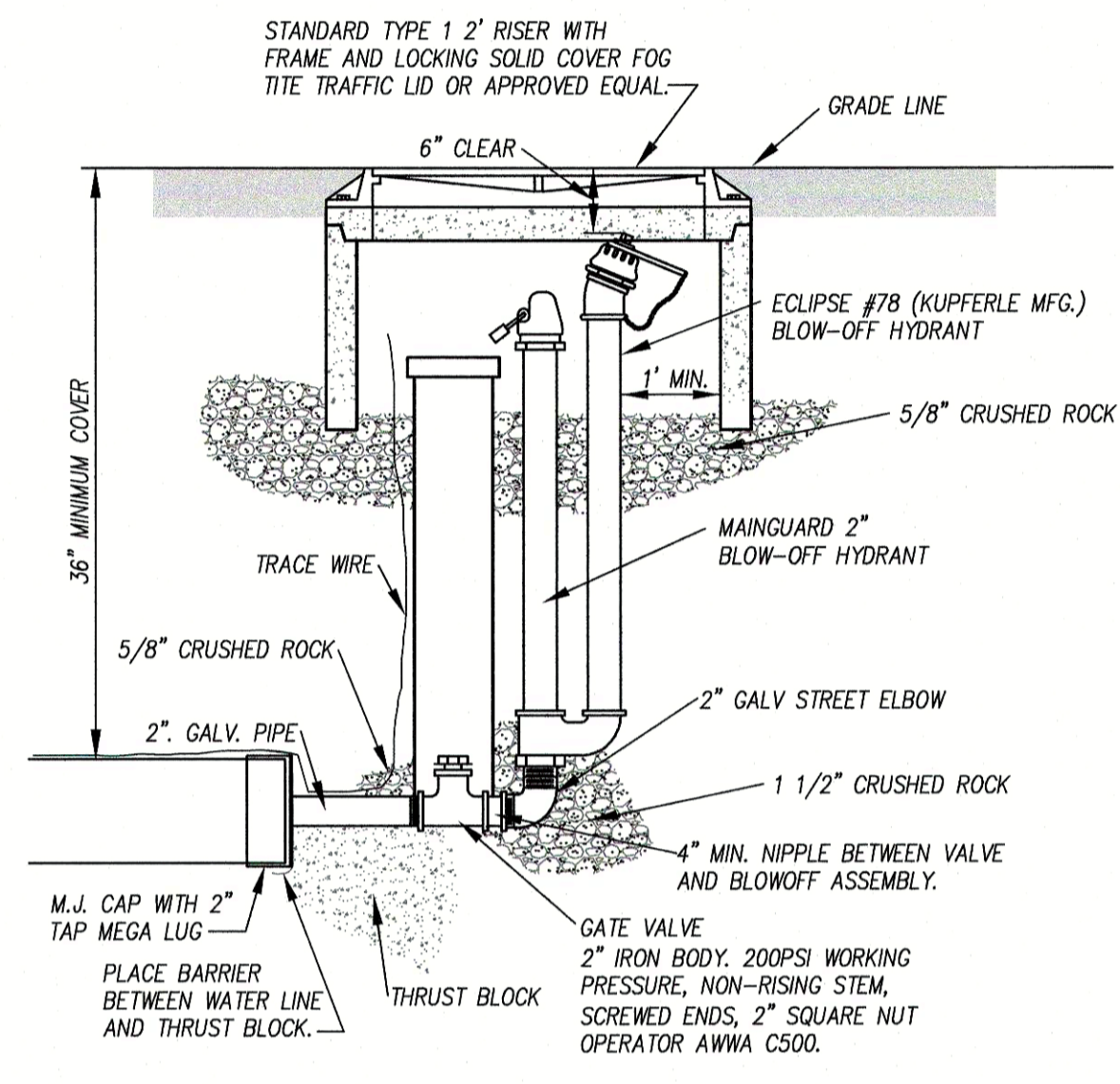
N.T.S.  
(REVISED 2013)

**INSTALLATION NOTES:**

- SAMPLING STATIONS SHALL BE 3' BURY, WITH A 1" FIP INLET, AND A (1" HOSE OR UNTHREADED) NOZZLE.
- ALL STATIONS SHALL BE ENCLOSED IN A LOCKABLE, NONREMOVABLE, ALUMINUM-CAST HOUSING.
- WHEN OPENED, THE STATION SHALL REQUIRE NO KEY FOR OPERATION, AND THE WATER WILL FLOW IN AN ALL BRASS WATERWAY.
- ALL WORKING PARTS WILL ALSO BE OF BRASS AND BE REMOVABLE FROM ABOVE GROUND WITH NO DIGGING. EXTERIOR PIPING SHALL BE GALVANIZED STEEL (BRASS PIPE ALSO AVAILABLE).
- A COPPER VENT TUBE WILL ENABLE EACH STATION TO BE PUMPED FREE OF STANDING WATER TO PREVENT FREEZING AND TO MINIMIZE BACTERIA GROWTH.

**BACK FILL MATERIAL:**

POLY PIPE WILL BE BEDDED IN SAND A MINIMUM OF 4" BELOW AND 6" ABOVE. A MINIMUM OF 4" CRUSHED ROCK AND 24" OF 1 1/2" DRAIN ROCK WILL BE PLACED AROUND THE STATION. A 4'x4'x4" CONCRETE SLAB WILL BE POURED AROUND STATION TO GRADE WITH SURROUNDING AREA WITH NO MORE THAN A 1" GAP AT THE BASE OF STATION AND SLAB.

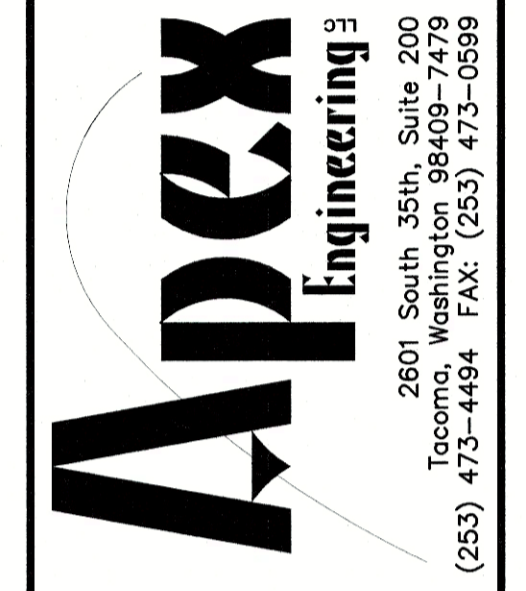


### BLOW-OFF ASSEMBLY DETAIL

N.T.S.  
(REVISED 2013)

**INSTALLATION NOTE:**

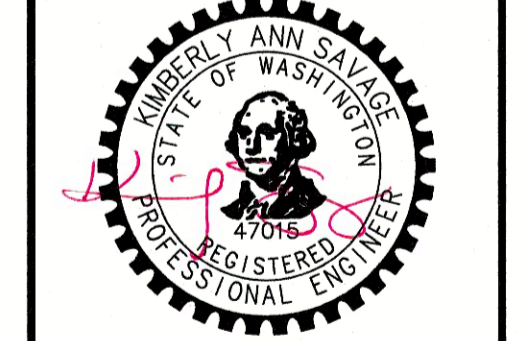
- BLOW-OFF WILL EXTEND FROM END OF MAINLINE.
- THRUST BLOCK WILL BE POURED AS NOT IMPEDE THE DRAINING OF THE STAND PIPE.
- A MINIMUM OF 18" OF 1 1/2" DRAIN ROCK WILL BE PLACED AT THE BOTTOM OF TRENCH WITH THE REMAINDER OF TRENCH BACKFILLED WITH 5/8" CRUSHED ROCK TO THE BASE OF THE BOX.
- #14 TRACE WIRE WILL BE RUN UP AND INTO THE BLOW-OFF BOX.



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ATTN: MR. BOB BLACKMAN (253)537-6634

DATE SEALED 10/02/2020



**PROJECT MANAGER**  
KIM A SAVAGE, P.E.

DESIGN **RB**  
DRAWN **RB**  
CHECKED **KS**

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**SHEET 3 OF 3**  
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