



Community Development Division
Engineering Department
 22560 SW Pine Street
 Sherwood, OR 97140
 503-925-2309

RIGHT OF WAY PERMIT APPLICATION

REQUIRED INFORMATION:	<ul style="list-style-type: none"> Application (this form), Payment of Applicable Fees Traffic Control Plan (required when working in street) 	<ul style="list-style-type: none"> 2 Sets of Construction Drawings Performance Bond (if required) Two-Year Maintenance Bond (if required) Cost Estimate (if required)
Project Name:	RESIDENCES @ CANNERY SQUARE	
Project Address:	22555 & 22550 SW HIGHLAND	
Date of Application:	2/14/2013	
Start Work Date:	MARCH 2013	Completion Date: APRIL 2013
Description of Work:	SAW CUT & REMOVED & REPLACE 20' OF PAVEMENT TO INSTALL ~ 16' OF 4" DE WATER	
Permit Applicant	Name:	KEYWAY CORP
	Address:	2275 SW HERMOSO WAY TIGARD OR 97223
	Contact:	BRIAN FRANK
	Phone:	503-888-2516
	E-Mail:	BRIAN.F@KEYWAY.CORP
	Mobile:	SAME
Contractor Information	Name:	HURO EXCAVATIONS
	Address:	35795 SQUAW MOUNT ROAD ESTACADA OR 97023
	Contact:	DEREK HAGFEL
	Phone:	503-317-6021
	E-Mail:	
	Mobile:	SAME
	CCB #:	124246

1. Applicant covenants and agrees to comply with all laws of the State of Oregon and the City of Sherwood Municipal Code pertaining to the above described work and the work to which it is incident. Applicant further certifies that the information and statements given in this application are true and correct. All work permitted under this permit is for construction work within the public ROW or PUE only. Applicant shall provide information verifying proposed construction under this permit is in public ROW or PUE.
2. By the making of this application, the applicant covenants and agrees to indemnify and hold harmless the City of Sherwood from all claims, loss or damage resulting from all work performed under this permit. See the City of Sherwood Engineering Design and Standard Details Manual for restoration requirements and specifications of public infrastructure.
3. This permit is valid for 30 calendar days from the date of approval unless expressly written into the permit under "Special Provisions". The City reserves the right to cancel this permit at any time.
4. Utility locates are the responsibility of the permit holder or the permit holder's authorized representative and must be complete prior to commencing with work. All utilities shall be potholed.
 - CONTACT THE OREGON UTILITY NOTIFICATION CENTER AT 1-800-332-2344 FOR LOCATES.
4. Applicant agrees to conform to the City of Sherwood Right of Way Permit Provisions and Special Provisions attached to and made part of this permit.
5. In the event of a sewage overflow or spill, the contractor shall immediately notify the City of Sherwood Public Works at 503-625-5722. See City of Sherwood Special Permit Provisions, General Provisions, Item #1.5.
6. The City of Sherwood Field Representative is **Andy Stirling at (503) 925-2307**

→ Rich Sattler at (503) 925-2319 (for water inspections)
CALL ENGINEERING 24 HOURS PRIOR TO BEGINNING WORK AT (503) 925-2307 AND AT COMPLETION FOR FINAL INSPECTION

Signature of Applicant: BRIAN FRANK

Date: 2/14/2013

For City Use Only: ROW Permit # COS-PRJ-004-13
 City of Sherwood Approval: [Signature] Date: 2/15/2013

CITY OF SHERWOOD RIGHT OF WAY PERMIT PROVISIONS

SECTION 1 – GENERAL PROVISIONS:

- 1.1 As used herein, the term “Contractor” shall include “Franchisee”, “Permittee” and “Applicant”.
- 1.2 All work crews shall have a complete copy of the permit at the work site including the approved permit, approved plans and permit requirements, and these Special Permit Provisions.
- 1.3 The Contractor shall be responsible for quality control inspection of all work performed in road right-of-way (ROW). The City may perform spot inspections to monitor the work. Construction work that does not conform to City standards shall be corrected by the Contractor.
- 1.4 The City may require a daily progress report of construction activity concerning this project. Notify the City if there is a break in construction lasting longer than 3 days, not including weekends and holidays.
- 1.5 Contractor must notify the Public Works Department immediately of any sanitary sewer overflow or spill at (503) 625-5722, Monday through Friday 7:30 AM to 5:00 PM or (503) 629-0111 after hours, including weekends and holidays.
- 1.6 Immediately report to the City’s Field Representative any damage to utilities, road surfaces, sidewalks and similar facilities.
- 1.7 The requirements of the City of Sherwood Engineering Design and Standards Details shall apply unless specifically modified by the Permit, these Special Permit Provisions or by the City’s Field Representative or City Engineer.
- 1.8 The City may require the applicant to submit daily inspection and material testing reports at any time during construction.
- 1.9 Plans are approved in general only. Field changes may be required by the City.
- 1.10 Upon completion of the work, the Contractor shall notify the City no less than 24 hours in advance for a final inspection.
- 1.11 Work Hours, Noise Restrictions, Holiday Restrictions and City Events

General -- Work cannot begin earlier than the starting time specified below. At the close of each day, the Contractor shall secure the work site and have all crews, material and equipment off the work site by the closing time specified below.

Holiday and City Event Restrictions -- Work is not permitted on legal holidays beginning on noon the day preceding a legal holiday or holiday weekend and the following midnight on legal holidays or the last day of holiday weekends, except for Thanksgiving, when work is not permitted between noon on Wednesday and midnight the following Sunday.

CITY OF SHERWOOD RIGHT OF WAY PERMIT PROVISIONS

Legal Holidays are:

- New Years Day, on January 1
- Memorial Day on the last Monday in May
- Independence Day on July 4
- Labor Day on the first Monday in September
- Thanksgiving Day on the fourth Thursday in November
- Christmas Day on December 25

Work is not permitted on City collector and arterial streets or in downtown/Old Town Sherwood during the following City events:

- Cruisin' Sherwood – Early June
- Robin Hood Festival – Mid July
- Arts Festival – Mid September
- Christmas tree Lighting – Early December
- Music on the Green – July and August, Wednesday evenings after 5:00 pm

The dates for these events change every year. Please check with the City to determine actual dates, restriction timing and applicability.

Residential Areas – Except for Holiday and City Event Restrictions, work is permitted in or adjacent to residential areas from 8:00 am to 5:00 pm Monday through Friday. Work is not permitted on weekends from Friday at 5:00 pm to the following Monday at 8:00 am unless authorized in advance by the City Engineer.

Collector, Arterial and High Volume Roads -- Except for Holiday and City Event Restrictions, work on collector and arterial roads and other high traffic volume roads is permitted from 9:00 am to 3:00 pm Monday through Friday, unless otherwise authorized by the City Engineer. Work is not permitted on weekends from Friday at 5:00 pm to the following Monday at 8:00 am unless authorized in advance by the City Engineer.

Other Areas -- In other locations within in the City, work is permitted from 8:00 am to 5:00 pm Monday through Friday. Work outside of normal work hours or on weekends must be approved by the City in writing.

Noise Ordinance – Adhere to ordinance 9.52.040 regarding permissible sound levels.

- 1.12 Regular meetings between the City and the Contractor may be required as determined by the City Engineer.
- 1.13 If a City of Sherwood Erosion Control or Grading Permit has been issued by the building department, a pre-construction inspection is required prior to beginning construction activities in the public right of way.
- 1.14 The Contractor is responsible for obtaining and conforming to all permits.
- 1.15 The City may issue a Stop Work for violations to these permit conditions. Work will not be permitted to resume until violations are corrected and provisions are in place to insure conformance with the Permit and Special Permit Provisions.

CITY OF SHERWOOD RIGHT OF WAY PERMIT PROVISIONS

- 1.16 Modification to public water infrastructure within needs to be coordinated with Sherwood Public Works Dept. If the modification of water is on private property, the Sherwood Building Department should be notified to assess if a permit is required.

SECTION 2 – WORK SITE PROVISIONS:

- 2.1 The spreading of mud or debris upon any City roadway is strictly prohibited and violation shall be cause for immediate stop work under this permit. Clean-up shall be at Contractor's expense. The roadway shall be cleaned of all dirt and debris at the end of each work day, or more frequently, as determined by the City Field Representative.
- 2.2 The Contractor shall replace any damaged or destroyed landscaping or fences to original or better condition.
- 2.3 All construction operations will be limited to 1,000 feet or a maximum of 10 working days at any one time, including final clean-up and area restoration to original or better condition.
- 2.4 All open excavation and holes will be covered outside of work hours or when work is not in progress. See Section 5 – Excavation / Construction, for additional details.

SECTION 3 – TRAFFIC PROVISIONS:

- 3.1 Traffic Control is the responsibility of the Contractor. Traffic control is critical and shall be performed as specified in the Manual on Uniform Traffic Control Devices (M.U.T.C.D.) specifications. Road closures will not be allowed. Traffic control plans are generally required and must be submitted to and approved by the City prior to on-site construction. Hours of construction may be restricted by the City if traffic flow is affected. Traffic control shall be maintained during all construction activities in public street ROW.
- 3.2 Existing roadway traffic markings are to be replaced to original or better condition when affected by construction.
- 3.3 Any trucks hauling shall use a designated route approved by the City Engineer or representative. The City may require the applicant to submit a truck hauling route plan showing how heavy trucks will access the site from outside the city limits.
- 3.4 Applicant shall inform Tri-Met (503-661-8117), Sherwood School District (503-825-5902), and Pride Disposal (503-625-6177) at least 48 hours in advance of construction activities that may impact their operations.

SECTION 4 – DRAINAGE:

- 4.1 Drainage integrity of roadway curb areas and ditches are to be maintained in operating condition in the area of the work site. If these areas are blocked, damaged, or if cleaning is required, the Contractor will repair or clean these areas as necessary.
- 4.2 Improvements crossing culverts and ditches will be laid thirty inches (30") minimum below the flow line of the culvert or ditch.
- 4.3 Where the utility is placed laterally within the flow line of a ditch, backfill will be determined by the City at the site. Rip-rap for erosion control may be required. Contact the City when a broken, clogged or undersize (less than 10" diameter) culvert is encountered.

CITY OF SHERWOOD RIGHT OF WAY PERMIT PROVISIONS

- 4.4 All applicable erosion control measures shall be in place prior to starting work and maintained throughout construction. Clean Water Services standards are to be complied with at all times.

SECTION 5 – EXCAVATION / CONSTRUCTION:

- 5.1 Open cutting of pavement shall only be allowed in areas specifically approved by the City Engineer or Field Representative.
- 5.2 Where open cutting of pavement surface is permitted, all pavements shall be saw-cut parallel and perpendicular to the road centerline, unless approved by the City's Field Representative. Pavement sections less than thirty inches (30") in width from the trench edge to the existing pavement edge shall be removed and resurfaced concurrently with other resurfacing.
- 5.3 The dimensions of pavement cut may be increased by the City's Field Representative if pavement cut is adjacent to deteriorated (cracked, alligatored, etc.) pavement.
- 5.4 All removed pavement shall be replaced with hard surface at the end of each day's work. Provide hot or cold asphaltic concrete, a steel plate or other surface approved by the City Engineer. A steel plate must be placed in such a manner that it cannot be displaced by traffic, and cold mix placed around the edges. A "SLOW" and a "BUMP" sign shall be placed at appropriate intervals on each side of the plating. Cold patch shall later be removed. Final surface repair is required within 5 working days unless variance is granted by the City Engineer.

For a period of two (2) years following the date the patched paved surface was completed, the Contractor shall be responsible for the condition of said pavement patches, and during that time period, repair to the City Engineer's satisfaction any of the patches that become settled, cracked, broken or otherwise faulty.

The City reserves the right to repair the surface and bill the Contractor for the appropriate costs associated with the repair.

SECTION 6 – STOP WORK:

- 6.1 The City may issue a Stop Work order for any violation to these permits conditions. Work will not be permitted to resume until violations are corrected and provisions are in place to insure conformance with the Permit and Special Permit Provisions.

SECTION 7 – SPECIAL PROVISIONS:

- 7.1 See attached Special Provisions (If applicable)

**CITY OF SHERWOOD
RIGHT OF WAY PERMIT PROVISIONS**

SECTION 7 – RIGHT OF WAY PERMIT SPECIAL PROVISIONS:

- 1. _____

- 2. _____

- 3. _____

- 4. _____

- 5. _____

- 6. _____

I have read and agree to the ROW Permit Special Provisions:

Signature of Applicant

Date

City of Sherwood Approval

Date

SPECIFICATION SUBMITTAL SHEET



FEATURES

- Sizes: 2 1/2" 3" 4" 6" 8" 10"
- Maximum working water pressure 175 PSI
 Maximum working water temperature 140°F
 Hydrostatic test pressure 350 PSI
 End connections (Grooved for steel pipe) AWWA C606
 (Flanged) ANSI B16.1
 Class 125

OPTIONS

- (Suffixes can be combined)
- with flanged end OS & Y gate valves (standard)
 - LM - less water meter
 - with remote reading meter
 - with gpm meter (standard)
 - with cu ft/min meter
 - G - with grooved end OS&Y gate valves
 - FG - with flanged inlet gate connection and grooved outlet gate connection
 - PI - with Post Indicator Gate Valves (4"-10")
 - BGVIC - with grooved end butterfly valves with integral supervisory switches

ACCESSORIES

- Repair kit (rubber only)
- Thermal expansion tank (Model XT)
- OS & Y Gate valve tamper switch (OSY-40)
- Test Cock Lock (Model TCL24)

DIMENSIONS & WEIGHTS (do not include pkg.)

MODEL 350ASTDA SIZE	WEIGHT								
	WITH OS&Y GATES (GXF)		WITH OS&Y GATES (GXG)		WITH BUTTERFLY VALVES (GXG)				
in.	mm	lbs.	kg	lbs.	kg	lbs.	kg		
2 1/2	65	126	57	116	53	70	32		
3	80	143	65	131	60	73	33		
4	100	218	99	198	90	85	39		
6	150	352	160	322	147	142	65		
8	200	667	303	613	278	314	142		
10	250	885	401	827	375	419	190		

APPLICATION

Designed for installation on potable water lines connections in fire sprinkler systems to protect against both backsiphonage and backpressure of polluted water into the potable water supply. Model 350ASTDA shall provide protection where a potential health hazard does not exist. Incorporates metered by-pass to detect leaks and unauthorized water use.

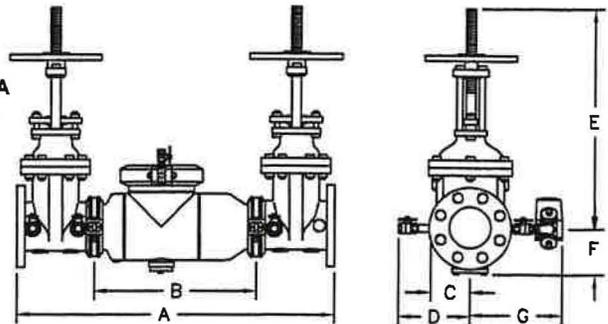
STANDARDS COMPLIANCE (HORIZONTAL & VERTICAL)

- ASSE® Listed 1048
- AWWA Compliant C510 (with gates only) (2-1/2" to 6")
- UL® Classified
- C-UL® Classified
- FM® Approved
- CSA® Certified (2-1/2" to 6")

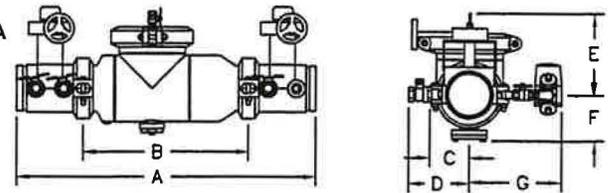
MATERIALS

- Main valve body 304L Stainless steel
- Access covers 304L Stainless steel
- Internals Stainless steel, 300 Series
NORYL™, NSF Listed
- Fasteners & springs Stainless Steel, 300 Series
- Elastomers EPDM (FDA approved)
Buna Nitrile (FDA approved)
- Polymers NORYL™, NSF Listed

MODEL 350ASTDA with OS&Y option



MODEL 350ASTDA with BGVIC option



MODEL 350ASTDA SIZE	DIMENSION (approximate)																				
	A		B WITH BUTTERFLY VALVES				C				D		E OS&Y OPEN		E OS&Y CLOSED		E WITH BUTTERFLY VALVES		F		G
in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm
2 1/2	65	31 7/8	810	28 3/4	730	16 5/8	422	4 1/2	114	7 1/4	184	17 3/4	451	15 3/8	391	8	203	5	127	12	305
3	80	32 7/8	835	29 3/8	746	16 5/8	422	4 1/2	114	7 1/4	184	20 1/4	514	17	432	8	203	5	127	12	305
4	100	34 7/8	886	30 1/4	768	16 5/8	422	4 1/2	114	8	203	22 1/2	572	18 1/4	464	9 1/8	232	5	127	12	305
6	150	43 1/2	1105	36 1/2	927	22 1/4	565	5 1/2	140	10	254	30 1/2	775	24 1/4	616	10 1/8	257	6	152	10 1/2	267
8	200	52 3/4	1340	45 3/4	1162	29 1/2	749	9 1/4	235	11	279	37	940	28 1/2	724	18 1/2	470	8 3/8	213	15 1/8	384
10	250	55 3/4	1416	49 3/4	1264	29 1/2	749	9 1/4	235	12	305	45 5/8	1159	34 3/4	883	18 1/2	470	8 3/8	213	15 1/8	384

CONFORMS TO DESIGN CONCEPT

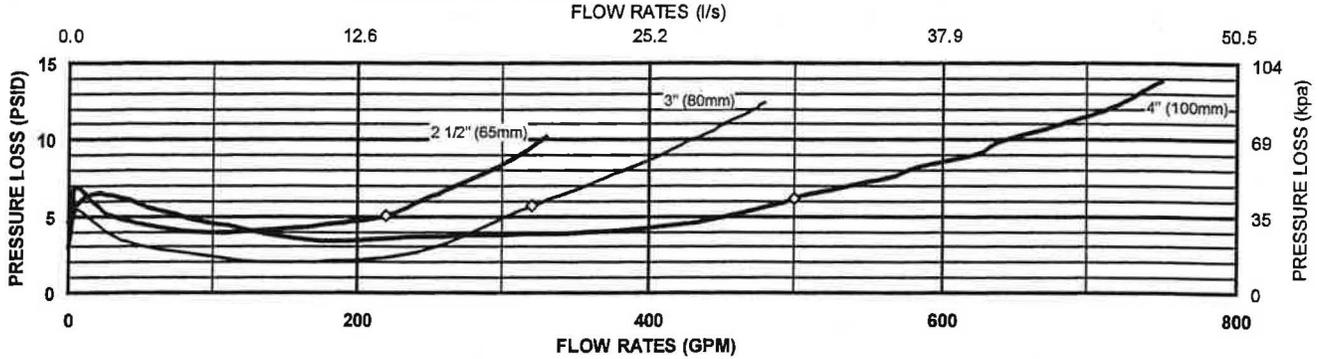
CONFORMS TO DESIGN CONCEPT WITH REVISIONS SHOWN

NON CONFORMING, REVISE AND RESUBMIT

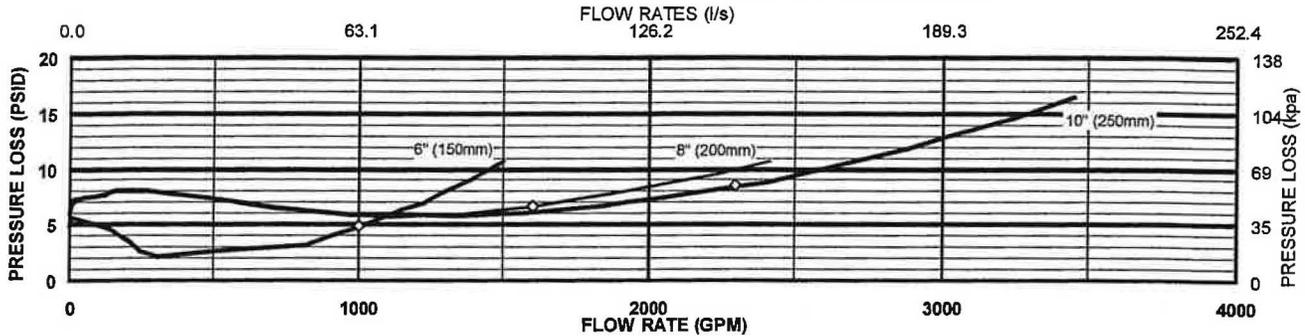
THIS SHOP DRAWING AND/OR MATERIAL SUBMITTAL HAS BEEN REVIEWED FOR CONFORMANCE WITH DESIGN CONCEPT ONLY AND DOES NOT RELIEVE THE FABRICATOR/VENDOR OF RESPONSIBILITY FOR CONFORMANCE WITH DESIGN DRAWINGS AND SPECIFICATIONS, ALL WHICH HAVE PRIORITY OVER THIS SHOP DRAWING AND/OR MATERIAL SUBMITTAL.

By: Bob J. Aceto Date: 2.12.13

FLOW CHARACTERISTICS
MODEL 350ASTDA 2 1/2", 3" & 4" (STANDARD & METRIC)



MODEL 350ASTDA 6" 8" & 10" (STANDARD AND METRIC)

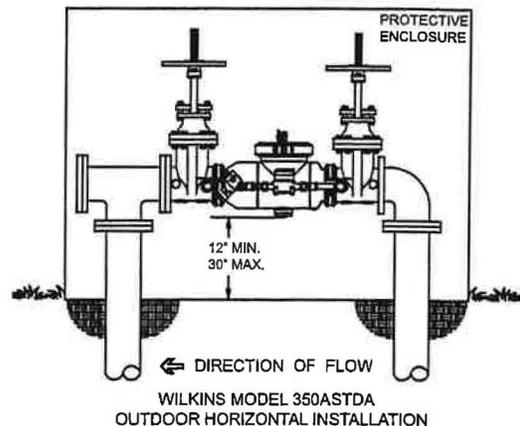
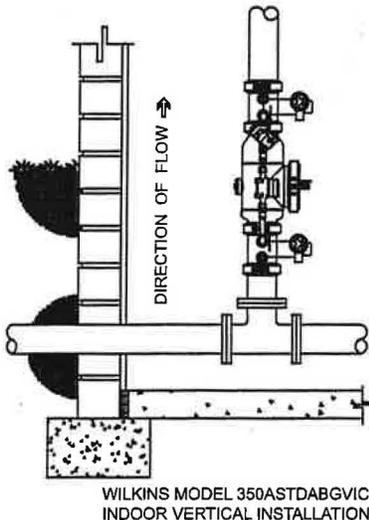


◇ Rated Flow (Established by approval agencies)

TYPICAL INSTALLATION

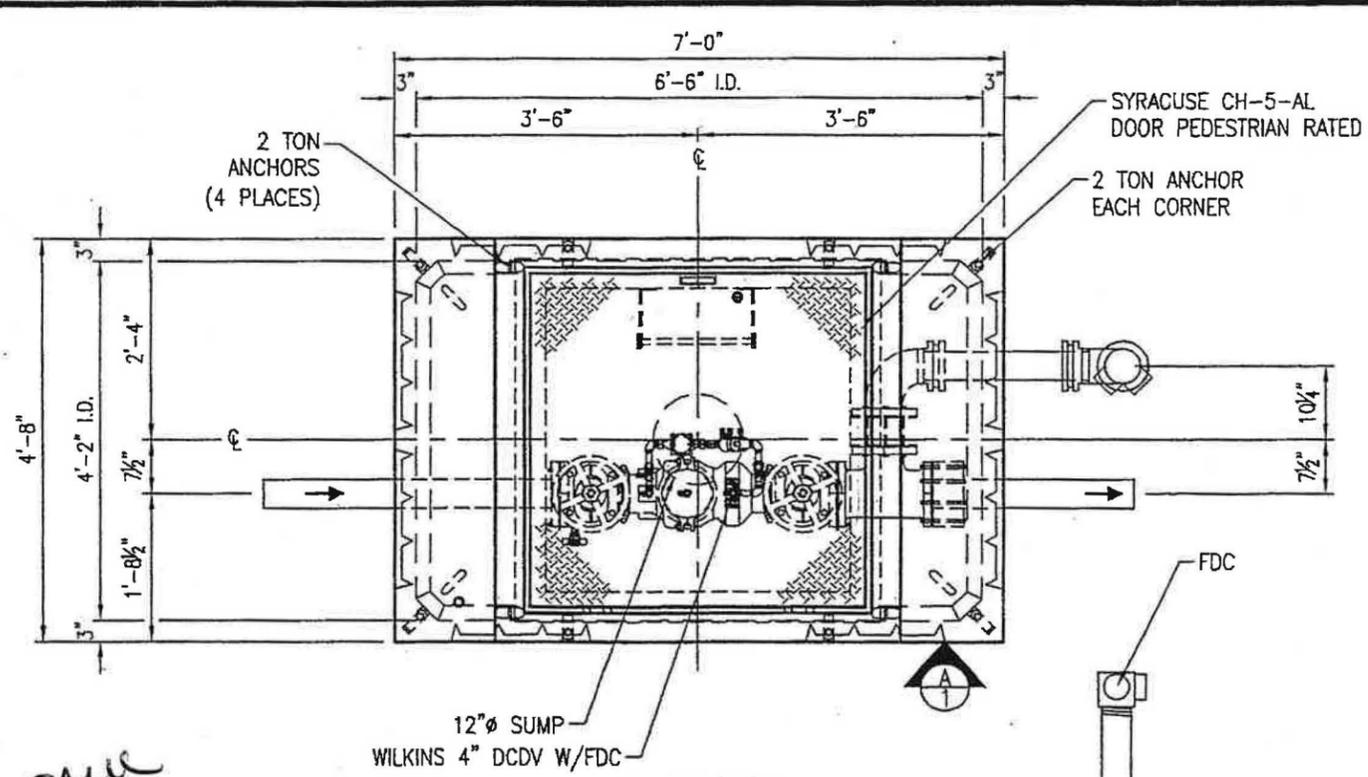
Local codes shall govern installation requirements. Unless otherwise specified, the assembly shall be mounted at a minimum of 12" (305mm) and a maximum of 30" (762mm) above adequate drains with sufficient side clearance for testing and maintenance. The installation shall be made so that no part of the unit can be submerged.

Pipe size	Capacity thru Schedule 40 Pipe (GPM)			
	5 ft/sec	7.5 ft/sec	10ft/sec	15 ft/sec
2 1/2"	75	112	149	224
3"	115	173	230	346
4"	198	298	397	595
6"	450	675	900	1351
8"	780	1169	1559	2339
10"	1229	1843	2458	3687
12"	1763	2644	3525	5288



SPECIFICATIONS

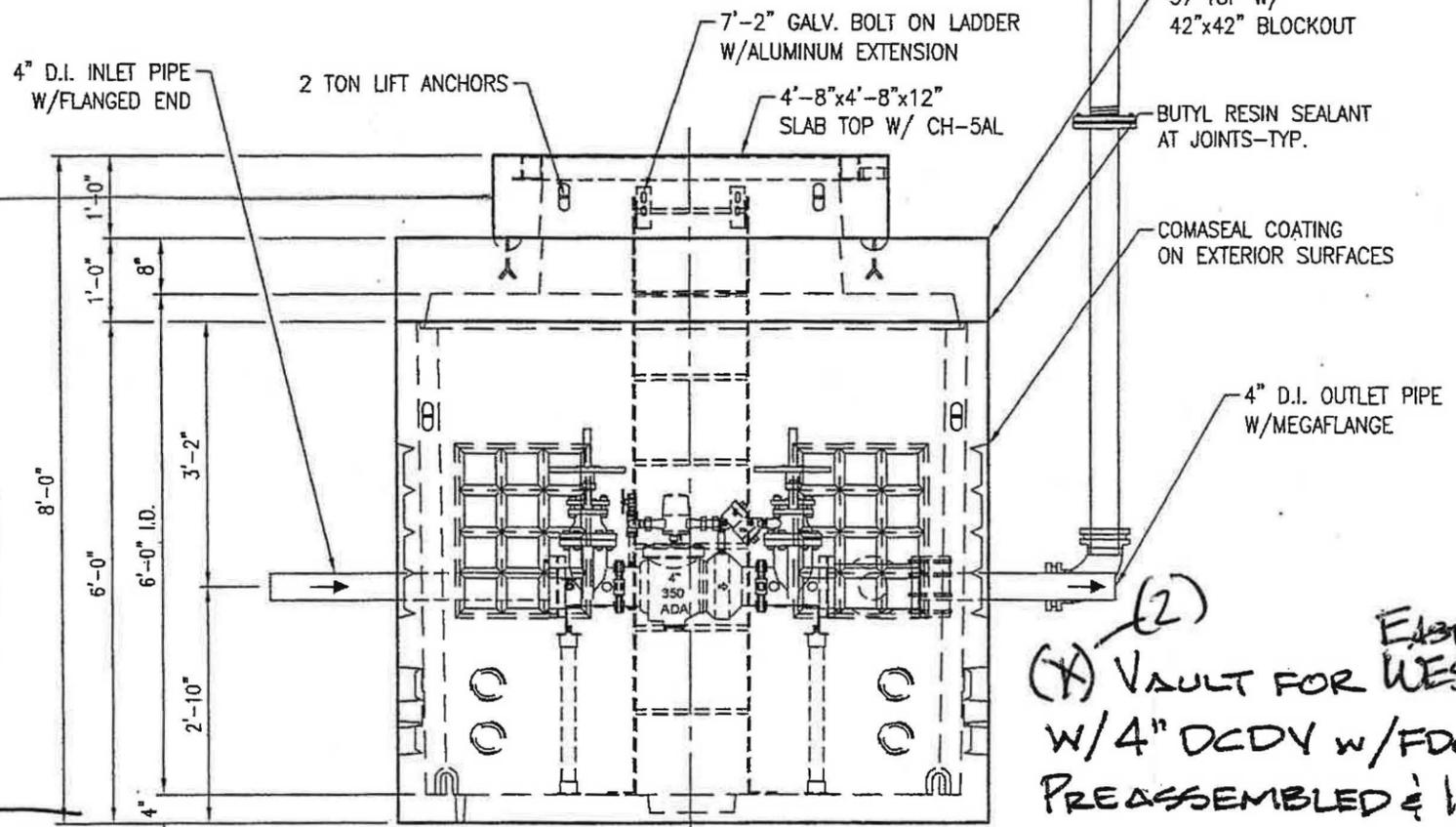
The Double Check Detector Backflow Prevention Assembly shall be ASSE® Listed 1048, and supplied with full port gate valves. The main body and access cover shall be 304L Stainless Steel, the seat ring and check valve shall be Noryl™ (NSF Listed), the stem shall be stainless steel (ASTM A 276) and the seat disc elastomers shall be EPDM. The first and second check valves shall be accessible for maintenance without removing the device from the line. The Double Check Detector Backflow Prevention Assembly shall be a WILKINS Model 350ASTDA.



PLAN VIEW
SCALE: 3/8" = 1'-0"

- STRUCTURAL NOTES**
1. CONCRETE: 28 DAY COMPRESSIVE STRENGTH $f_c = 5,500$ PSI
STRIPPING STRENGTH $f_c = 2,500$ PSI
 2. REBAR: ASTM A-615 GRADE 60
 3. MESH: ASTM A-185 GRADE 65
 4. DESIGN: -ACI-318 BUILDING CODE
-AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES
 5. LOADS: -HS-20 TRUCK WHEEL LOAD W/ IMPACT
-ASTM C-857 "MIN. STRUCTURAL DESIGN LOADING FOR UNDERGROUND PRECAST CONCRETE UTILITY STRUCTURES"
-ASTM C-890 "MIN. STRUCTURAL DESIGN LOADING FOR MONOLITHIC OR SECTIONAL PRECAST CONCRETE WATER AND WASTEWATER STRUCTURES"
-40 PCF LATERAL SOIL PRESSURE ABOVE WATERTABLE
-80 PCF LATERAL SOIL PRESSURE BELOW WATERTABLE

TOP OF SIDEWALK



VIEW A
SCALE: 3/8" = 1'-0"

*(X) VAULT FOR WEST BLDG.
W/ 4" DCDV w/FDC
PREASSEMBLED & INSTALLED*

PRODUCT WEIGHTS	
SECTION	WEIGHT
SLAB TOP	1,435 LBS.
TOP	2,635 LBS.
BASE	6,230 LBS.
DEVICE	838 LBS.
TOTAL	11,138 LBS.

Oldcastle Precast
 PO Box 323 Wilsonville, OR 97070
 PHONE: 503 682-2844 FAX: 503 682-2857

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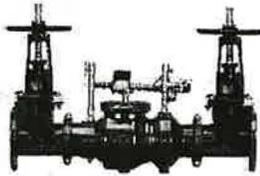
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577-LA VALVE VAULT
 SUBMITTAL
 CANNERY RESIDENCES (4" DCDV & FDC INSTALLED)
 SHERWOOD, OR **WEST BLDG.**

CUSTOMER
KEYWAY CORP & EAST

DATE	SALES	DRAWN	ENGINEER	CHECKED	SALES ORDER	LN
12/5/12	CW	JPM				
DRAWING NUMBER				REVISION	SHEET	
577LA-5656SLB-5AL-CANNERY-DET-C				REV DATE	1 OF 1	

SPECIFICATION SUBMITTAL SHEET



(with OS&Y gates)



(with BGVIC valves)

FEATURES

- Sizes: 2 1/2" 3" 4" 6" 8" 10"
- Maximum working water pressure 175 PSI
 Maximum working water temperature 140°F
 Hydrostatic test pressure 350 PSI
 End connections (Grooved for steel pipe) AWWA C606
 (Flanged) ANSI B16.1
 Class 125

*2 1/2" & 3" sizes use 4" body & reducer couplings

OPTIONS

(Suffixes can be combined)

- with flanged end OS & Y gate valves (standard)
- L - less shut-off valves (grooved body connections)
- LM - less water meter
- with remote reading meter
- with gpm meter (standard)
- with cu ft/min meter
- G - with grooved end OS&Y gate valves
- FG - with flanged inlet gate connection and grooved outlet gate connection
- PI - with Post Indicator Gate Valves (4"-10")
- BGVIC - with grooved end butterfly valves valves with integral supervisory switches

ACCESSORIES

- Repair kit (rubber only)
- Thermal expansion tank (Model XT)
- OS & Y Gate valve tamper switch (OSY-40)
- Test Cock Lock (Model TCL24)

DIMENSIONS & WEIGHTS (do not include pkg.)

MODEL 350ADA SIZE	WEIGHT									
	WITHOUT GATES		WITH OS&Y GATES (GXF)		WITH OS&Y GATES (GXG)		WITH BUTTERFLY VALVES (GXG)			
	in.	mm	lbs.	kg	lbs.	kg	lbs.	kg	lbs.	kg
2 1/2	65	105	47.5	207	94	199	90.3	123.8	56.2	
3	80	104	47	224	101.5	214	97	124.4	56.5	
4	100	91	41.3	245	111	219	99.4	123	55.8	
6	150	141	64	377	171	347	158	193	87.6	
8	200	302	137	778	353.2	754	342.3	410	186	
10	250	655	161	1040	472.7	918	416.5	527	239.3	

MODEL 350ADA SIZE	DIMENSION (approximate)																				
	A		A WITH BUTTERFLY VALVES		B LESS GATE VALVES		C		D		E OS&Y OPEN		E OS&Y CLOSED		E WITH BUTTERFLY VALVES		F		G		
	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	
2 1/2	65	35 1/8	892	32 1/8	816	20 1/8	511	4 1/2	114	9	229	16 3/8	416	13 7/8	352	8	203	6	152	7 1/4	184
3	80	36 1/8	946	33	838	20 1/8	511	4 1/2	114	9	229	18 7/8	479	15 5/8	397	8	203	6	152	7 1/4	184
4	100	38 1/4	972	33 1/4	845	19 7/8	505	4 1/2	114	9	229	22 3/4	578	18 1/4	464	9 1/8	232	6	152	8	203
6	150	47 1/4	1200	40 1/4	1022	25 7/8	657	5 1/2	140	10 1/2	267	30 1/8	765	23 3/4	603	10 1/8	257	7	178	10	254
8	200	62	1575	55	1397	38 1/2	978	10	254	12	305	37 3/4	959	29 1/4	743	11 15/16	303	8 1/2	218	11	279
10	250	64 5/8	1642	58 1/2	1485	38 1/2	978	10	254	12	305	45 3/4	1162	35 3/8	899	13 5/16	338	8 1/2	218	12	305

APPLICATION

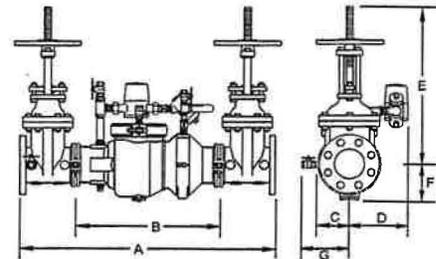
Designed for installation on potable water lines connections in fire sprinkler systems to protect against both backsiphonage and backpressure of polluted water into the potable water supply. Model 350ADA shall provide protection where a potential health hazard does not exist. Incorporates metered by-pass to detect leaks and unauthorized water use.

STANDARDS COMPLIANCE (HORIZONTAL & VERTICAL)

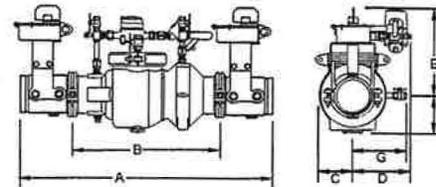
- ASSE® Listed 1048
- AWWA Compliant C510 (with gates only)
- CSA® Certified (4" - 8")
- UL® Classified
- C-UL® Classified
- FM® Approved
- Approved by the Foundation for Cross Connection Control and Hydraulic Research at the University of Southern California
- NYC MEA 221-04M-2 (2 1/2" - 8")

MATERIALS

- Main valve body Ductile Iron ASTM A 536 Grade 4
- Access covers Ductile Iron ASTM A 536 Grade 4
- Coatings FDA Approved electrostatic epoxy finish
- Internals Stainless steel, 300 Series
NORYL™, NSF Listed
- Fasteners & springs Stainless Steel, 300 Series
- Elastomers EPDM (FDA approved)
Buna Nitrile (FDA approved)
- Polymers NORYL™, NSF Listed



MODEL 350ADA with OS&Y option



MODEL 350ADA with BGVIC option

Attention: Model 350ADA (grooved body) and Model 350DA (flange body) have different lay lengths.

CONFORMS TO DESIGN CONCEPT

CONFORMS TO DESIGN CONCEPT WITH REVISIONS SHOWN

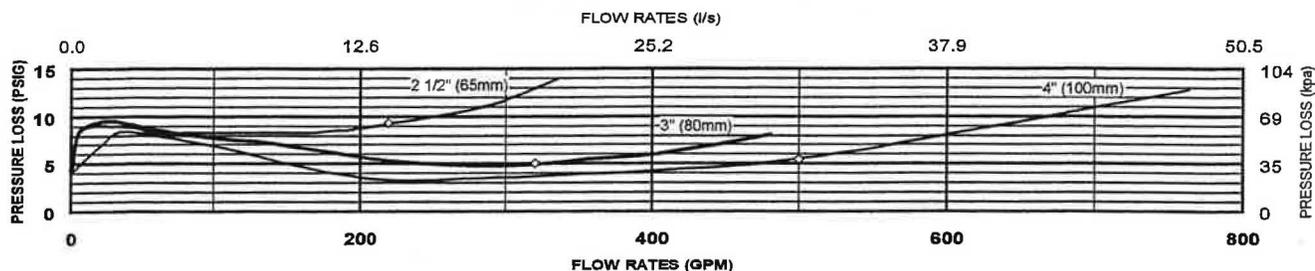
NON CONFORMING, REVISE AND RESUBMIT

THIS SHOP DRAWING AND/OR MATERIAL SUBMITTAL HAS BEEN REVIEWED FOR CONFORMANCE WITH DESIGN CONCEPT ONLY AND DOES NOT RELIEVE THE FABRICATOR/VENDOR OF RESPONSIBILITY FOR CONFORMANCE WITH DESIGN DRAWINGS AND SPECIFICATIONS, ALL WHICH HAVE PRIORITY OVER THIS SHOP DRAWING AND/OR MATERIAL SUBMITTAL.

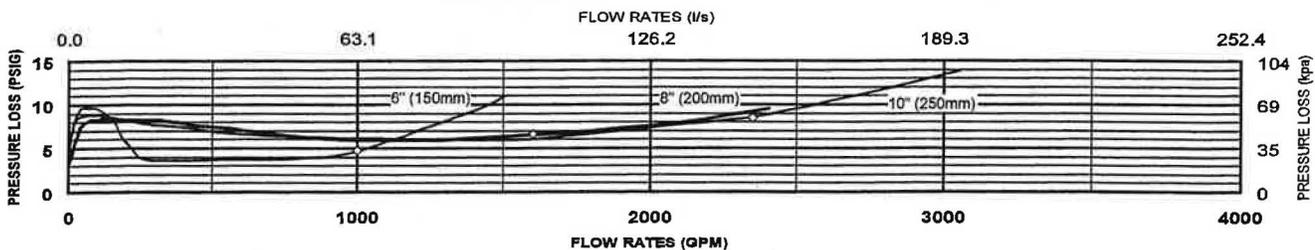
By: Bob J. Acton Date: 2.12.13

FLOW CHARACTERISTICS

MODEL 350ADA 2 1/2", 3" & 4" (STANDARD & METRIC)



MODEL 350ADA 6", 8" & 10" (STANDARD & METRIC)

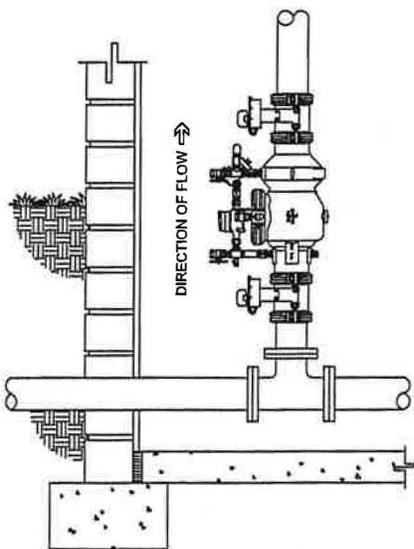


◇ Rated Flow (Established by approval agencies)

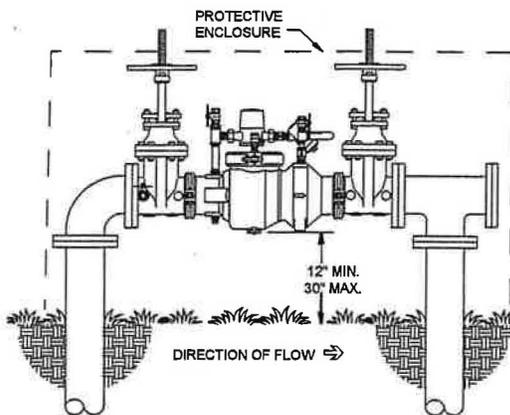
TYPICAL INSTALLATION

Local codes shall govern installation requirements. Unless otherwise specified, the assembly shall be mounted at a minimum of 12" (305mm) and a maximum of 30" (762mm) above adequate drains with sufficient side clearance for testing and maintenance. The installation shall be made so that no part of the unit can be submerged.

Capacity thru Schedule 40 Pipe (GPM)				
Pipe size	5 ft/sec	7.5 ft/sec	10ft/sec	15 ft/sec
2 1/2"	75	112	149	224
3"	115	173	230	346
4"	198	298	397	595
6"	450	675	900	1351
8"	780	1169	1559	2339
10"	1229	1843	2458	3687
12"	1763	2644	3525	5288



MODEL 350ADABGVIC (VERTICAL INSTALLATION)

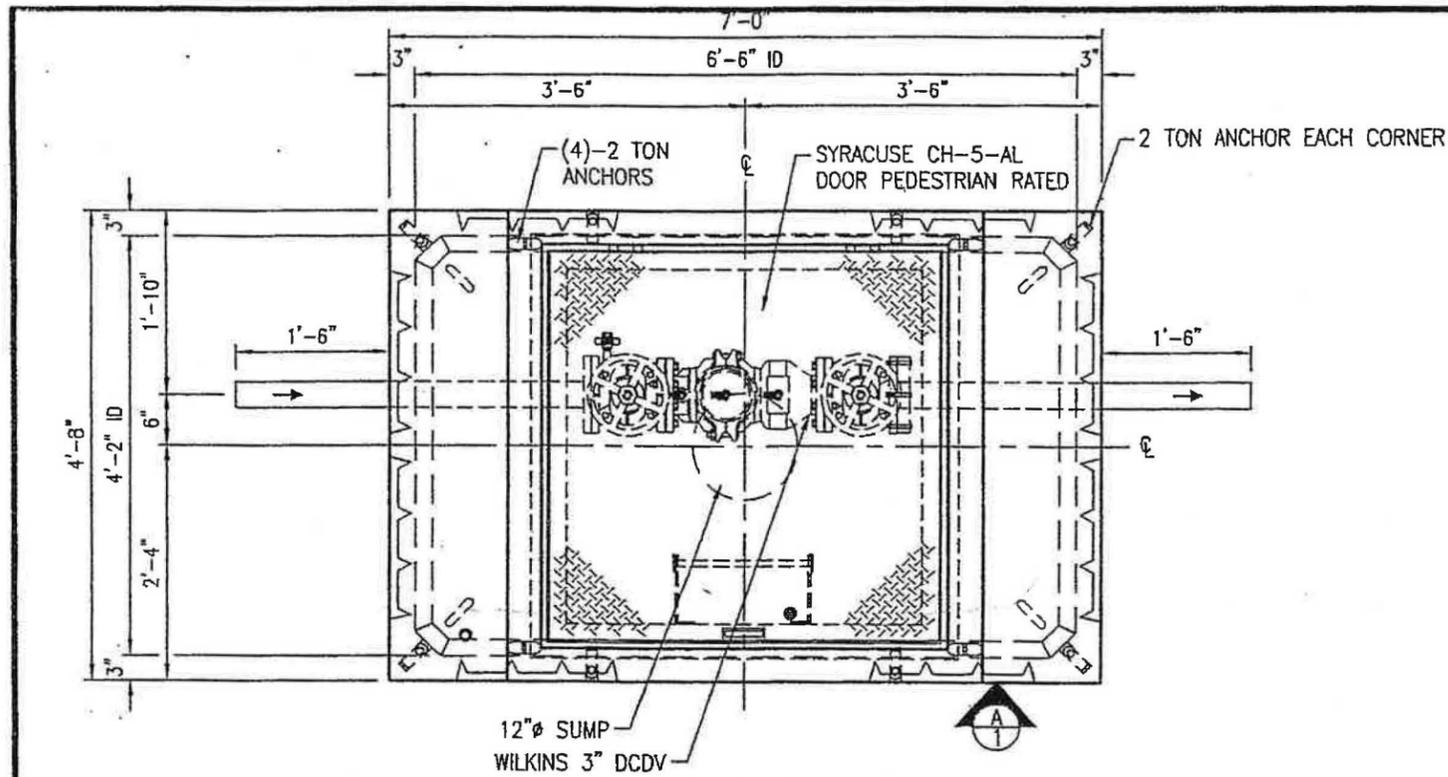


MODEL 350ADA (OUTDOOR INSTALLATION)

SPECIFICATIONS

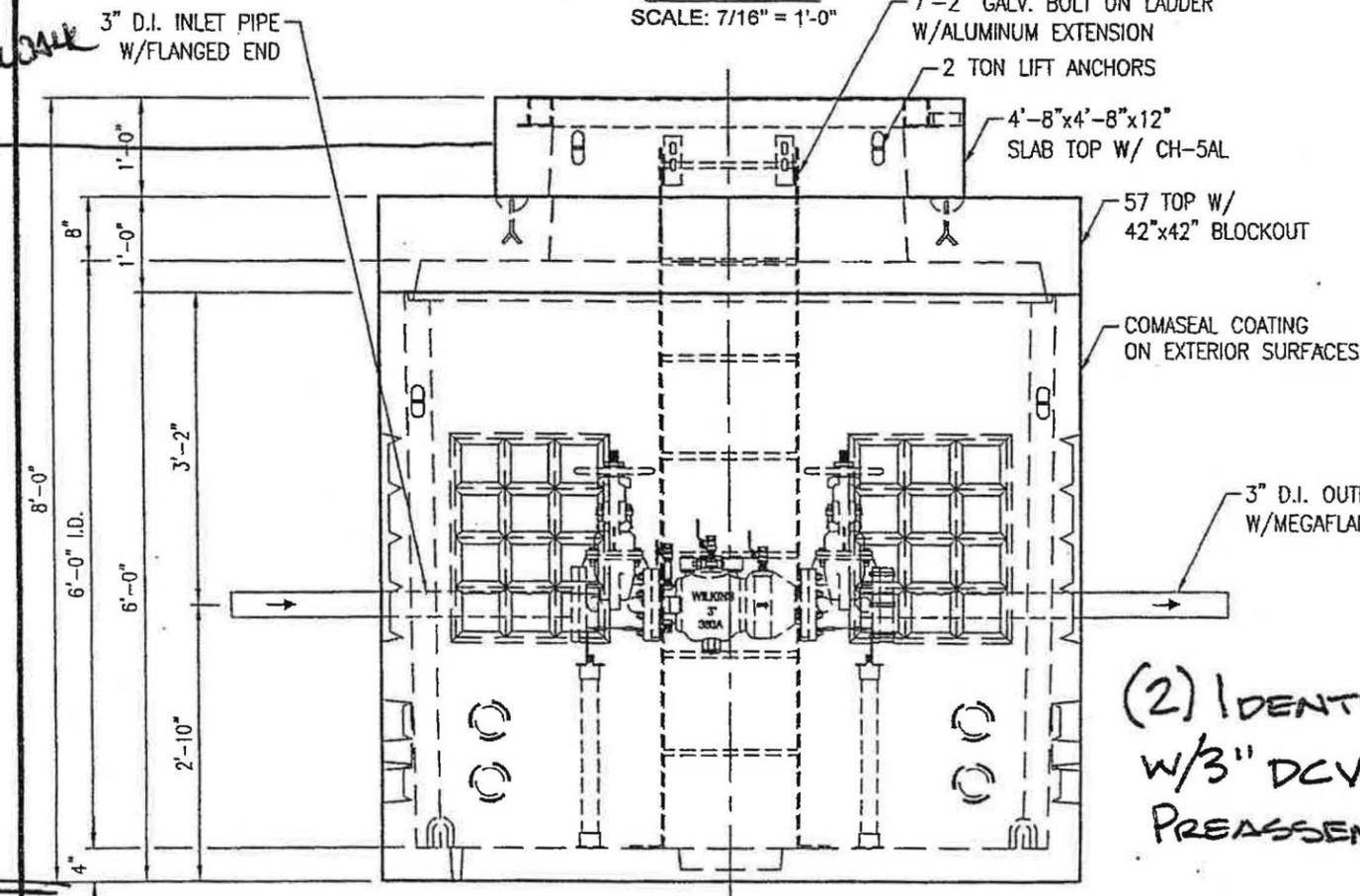
The Double Check Detector Backflow Prevention Assembly shall be ASSE® Listed 1048, and supplied with full port gate valves. The main body and access cover shall be epoxy coated ductile iron (ASTM A 536 Grade 4), the seat ring and check valve shall be Noryl™ (NSF Listed), the stem shall be stainless steel (ASTM A 276) and the seat disc elastomers shall be EPDM. The first and second check valves shall be accessible for maintenance without removing the device from the line. The Double Check Detector Backflow Prevention Assembly shall be a WILKINS Model 350ADA.

WILKINS a Zurn company, 1747 Commerce Way, Paso Robles, CA 93446 Phone:805/238-7100 Fax:805/238-5766
 IN CANADA: ZURN INDUSTRIES LIMITED, 3544 Nashua Dr., Mississauga, Ontario L4V 1L2 Phone:905/405-8272 Fax:905/405-1292
 Product Support Help Line: 1-877-BACKFLOW (1-877-222-5356) • Website: <http://www.zurn.com>



PLAN VIEW
SCALE: 7/16" = 1'-0"

TOP OF SIDEWALK



VIEW A
SCALE: 7/16" = 1'-0"

EAST & WEST Bldgs
(2) IDENTICAL VAULTS.
W/3" DCVA
PREASSEMBLED & INSTALLED

STRUCTURAL NOTES

1. CONCRETE: 28 DAY COMPRESSIVE STRENGTH $f_c = 5,500$ PSI
STRIPPING STRENGTH $f_c = 2,500$ PSI
2. REBAR: ASTM A-615 GRADE 60
3. MESH: ASTM A-185 GRADE 65
4. DESIGN: -ACI-318 BUILDING CODE
-AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES
5. LOADS: -HS-20 TRUCK WHEEL LOAD W/ IMPACT
-ASTM C-857 "MIN. STRUCTURAL DESIGN LOADING FOR UNDERGROUND PRECAST CONCRETE UTILITY STRUCTURES"
-ASTM C-890 "MIN. STRUCTURAL DESIGN LOADING FOR MONOLITHIC OR SECTIONAL PRECAST CONCRETE WATER AND WASTEWATER STRUCTURES"
-40 PCF LATERAL SOIL PRESSURE ABOVE WATERTABLE
-80 PCF LATERAL SOIL PRESSURE BELOW WATERTABLE

PRODUCT WEIGHTS

SECTION	WEIGHT
SLAB TOP	1,435 LBS.
TOP	2,635 LBS.
BASE	6,230 LBS.
DEVICE	318 LBS.
TOTAL	10,618 LBS.



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577-LA VALVE VAULT
SUBMITTAL
CANNERY RESIDENCES (3" DCV INSTALLED)
SHERWOOD, OR

CUSTOMER: **KEYWAY CORP**

DATE	SALES	DRAWN	ENGINEER	CHECKED	SALES ORDER	UN
12/5/12	CW	JPM				
DRAWING NUMBER				REVISION	SHEET	
577LA-5656SLB-5AL-CANNERY-DET-A				REV DATE	1 OF 1	