







CONSTRUCTION NOTES

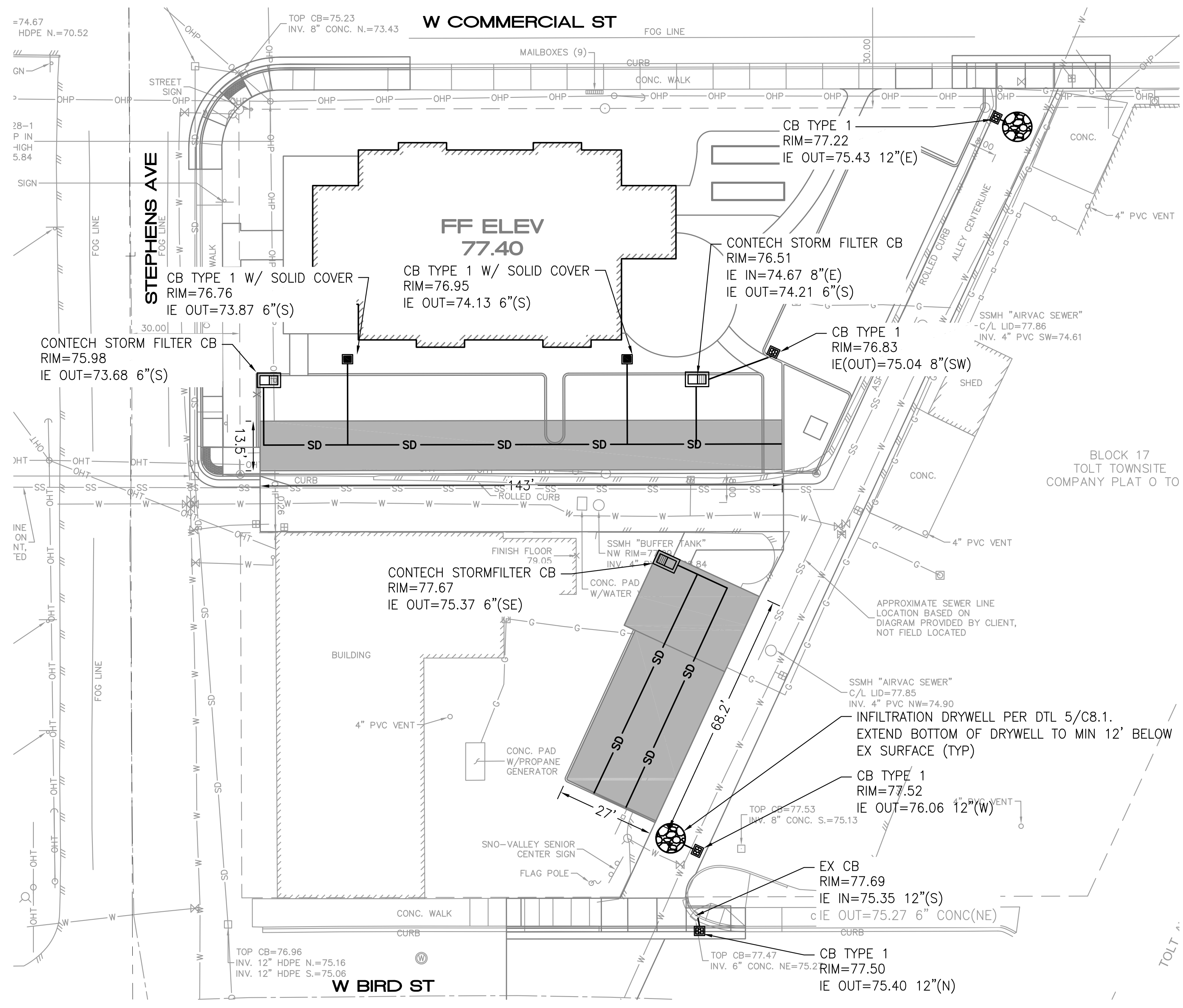
- SEE ROOF AND FOOTING DRAIN PLAN SHEET C4.0 FOR CATCH BASIN INVERTS AND CONNECTIONS FROM ROOF AND FOOTING DRAINS.

GEOTECHNICAL RECOMMENDATIONS

- FINAL SITE GRADES SHOULD ALLOW FOR DRAINAGE AWAY FROM THE RESIDENCES TOWARD AN APPROVED STORMWATER COLLECTION SYSTEM.
- IF GROUNDWATER IS ENCOUNTERED DURING CONSTRUCTION, IT IS RECOMMENDED THAT THE CONTRACTOR SLOPE THE BOTTOM OF THE EXCAVATION AND COLLECT THE WATER INTO DITCHES AND SMALL SUMP PITS WHERE THE WATER CAN BE PUMPED OUT AND ROUTED INTO A PERMANENT STORM DRAIN.
- THE DEPTH OF FINE-GRAINED ALLUVIAL DEPOSITS WITH GRAVELLY SOILS ARE IN THE RANGE OF 12 TO 20 FEET BELOW THE EXISTING GROUND SURFACE.
- UNDERGROUND UTILITIES SHOULD BE BEDDED WITH A MINIMUM SIX INCHES OF PEA GRAVEL PRIOR TO BACKFILLING THE TRENCH.

LEGEND

-  6" PERFORATED PVC UNDERDRAIN PIPE
-  SOLID WALL PVC PIPE UNLESS SPECIFIED OTHERWISE
-  CATCH BASIN TYPE 1
-  INFILTRATION TRENCH
-  CONTECH STORMFILTER
-  INFILTRATION DRYWELL



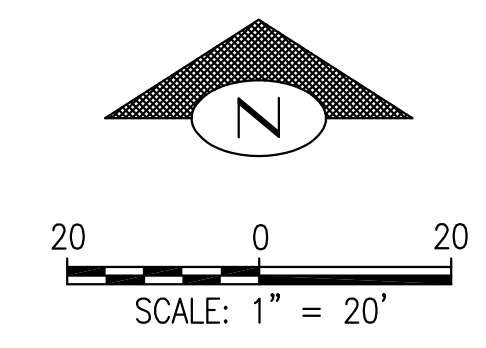
REV NO	DATE	DESCRIPTION

PROJECT NUMBER: 22008
SUBMITTAL: BID SET
MAY 22, 2023

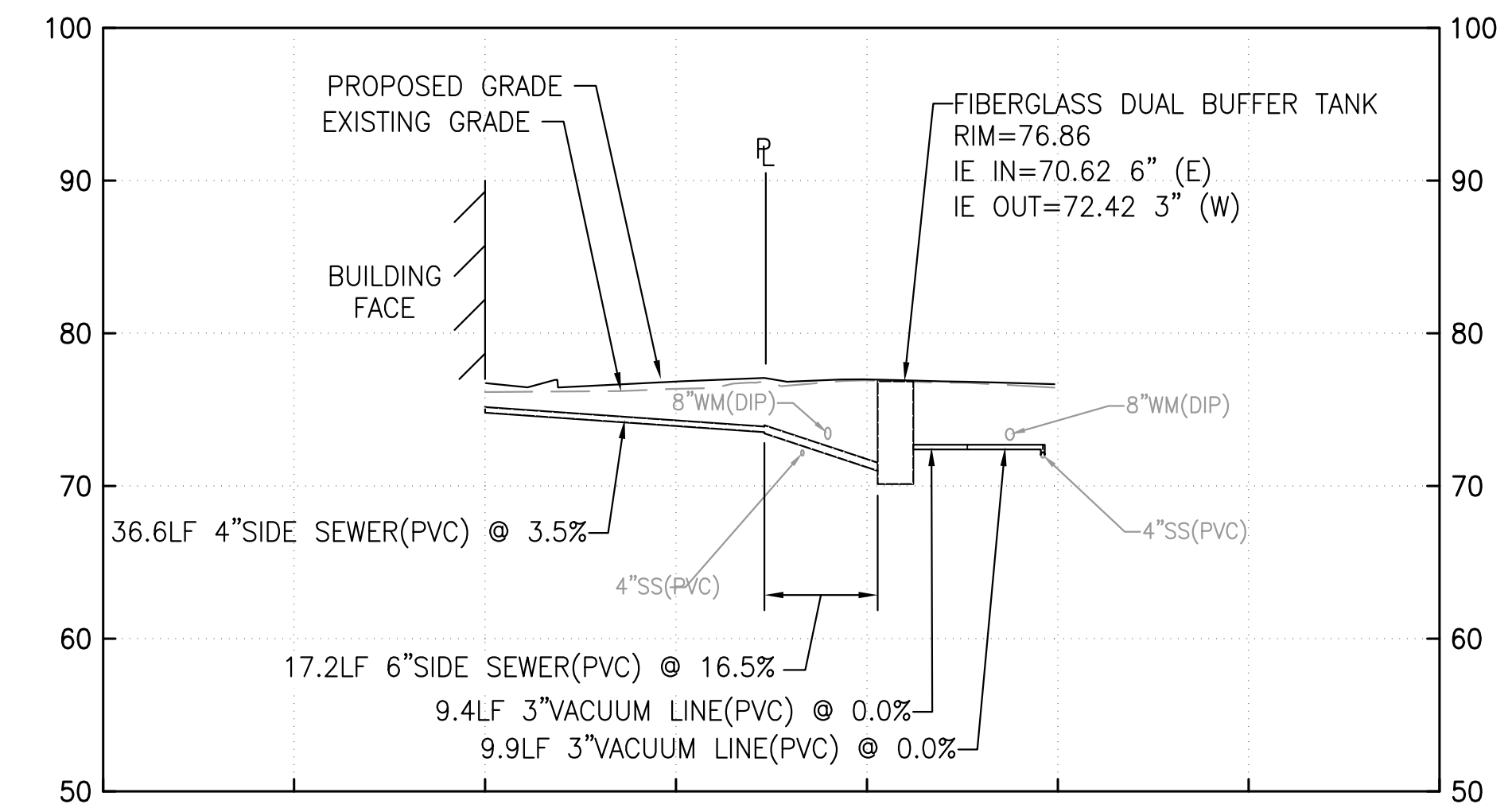
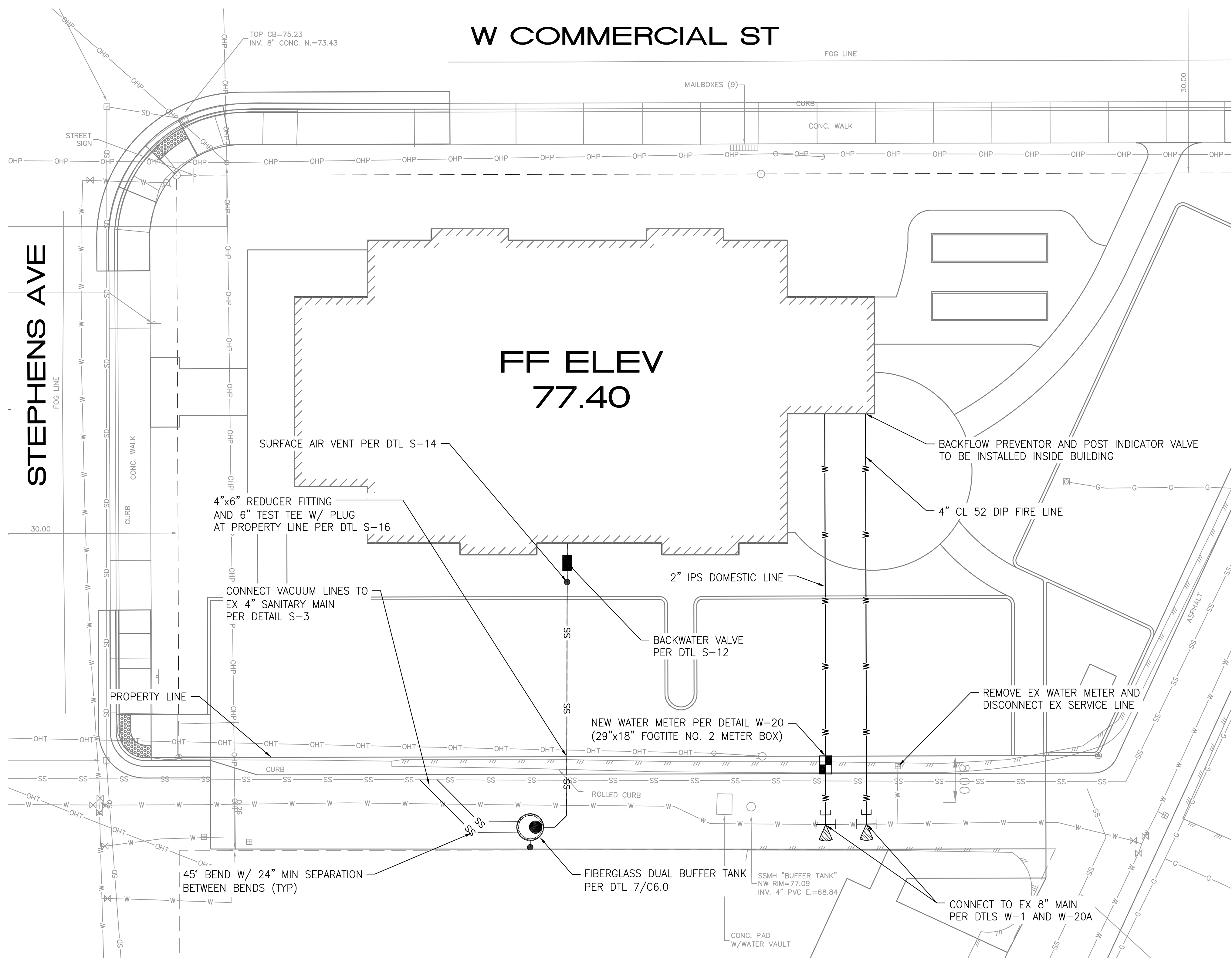
SNO-VALLEY SENIOR HOUSING
31845 W COMMERCIAL ST. CARNATION, WA 98104
STORM DRAINAGE PLAN

DESIGN	CFG
DRAFT	CFG
CHECK	CEM
DATE	5/19/2023
SCALE	1"=10'

SHEET: C5.0



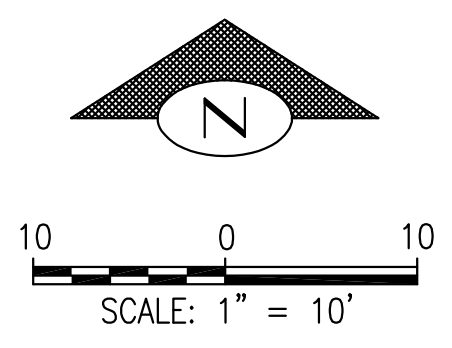
CALL 2 BUSINESS DAYS BEFORE YOU DIG!
1-800-424-5555



SIDE SEWER CONNECTION PROFILE
SCALE: HOR. 1"=20', VERT. 1"=5'

LEGEND

- SS — SANITARY SERVICE LINE
- BACKWATER VALVE ALTERNATIVE 1
- SURFACE AIR VENT
- ⊙ 54"Ø CONC MH FOR DOUBLE BUFFER TANK
- UTILITY VAULT
- W — WATER LINE
- WATER METER
- ▲ THRUST BLOCK
- ⊙ FIRE DEPARTMENT CONNECTION



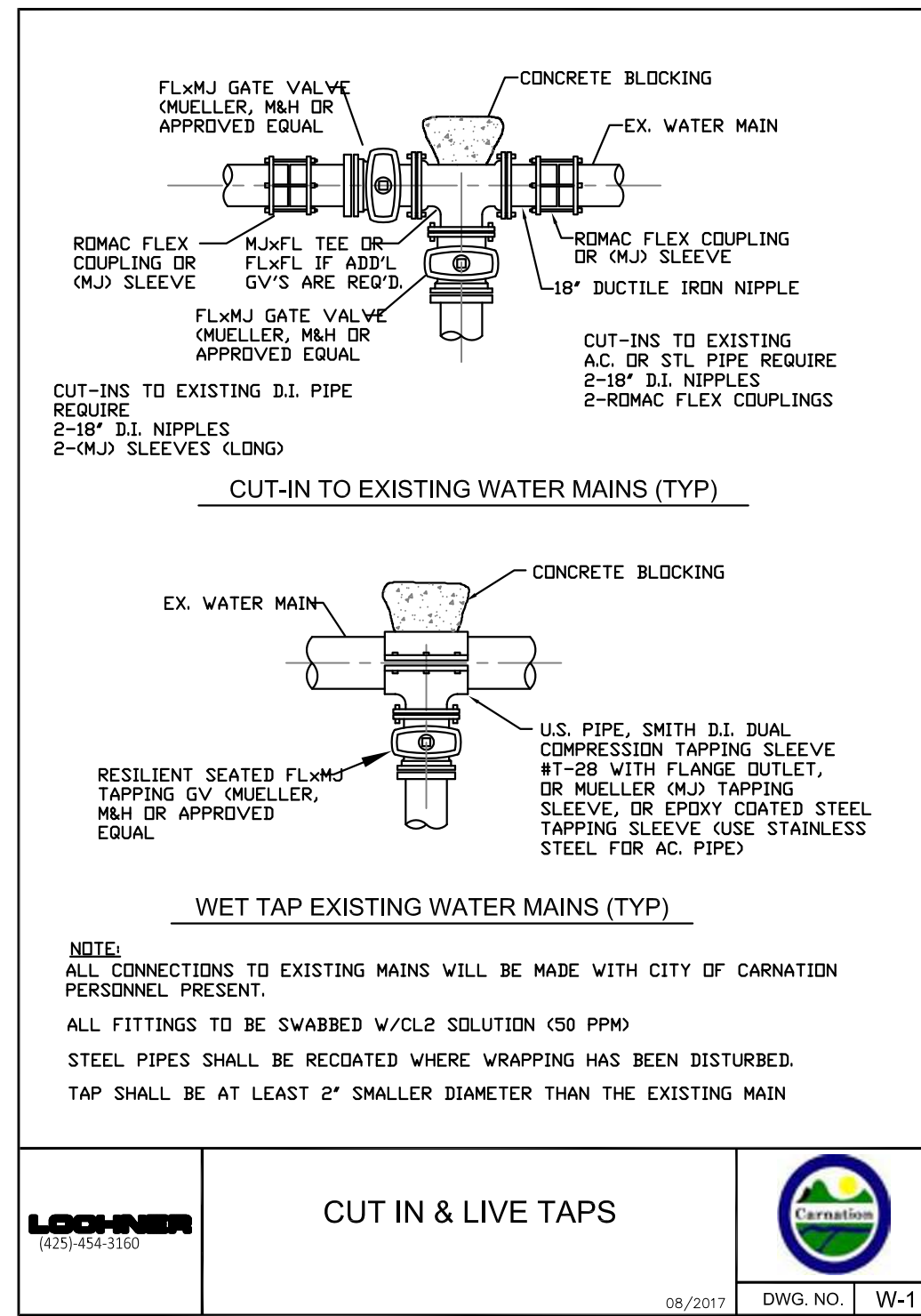
REV NO	DATE	DESCRIPTION

PROJECT NUMBER: 22008
SUBMITTAL: BID SET
MAY 22, 2023

SNO-VALLEY SENIOR HOUSING
31845 W COMMERCIAL ST. CARNATION, WA 98104
SANITARY SEWER AND WATER PLAN

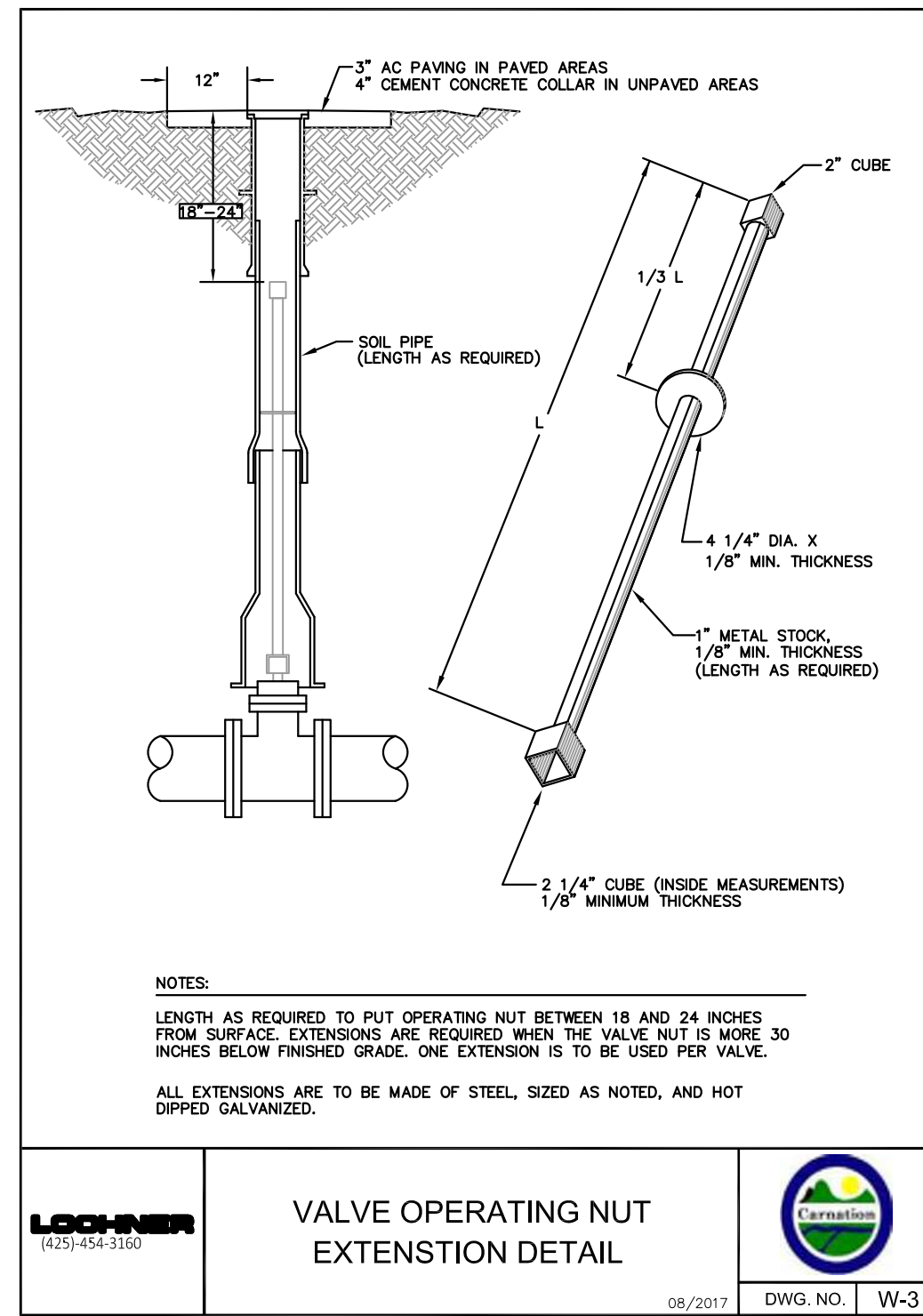
DESIGN	CFG
DRAFT	CFG
CHECK	CEM
DATE	5/19/2023
SCALE	1"=10'
SHEET	C6.0

CALL 2 BUSINESS DAYS BEFORE YOU DIG!
1-800-424-5555



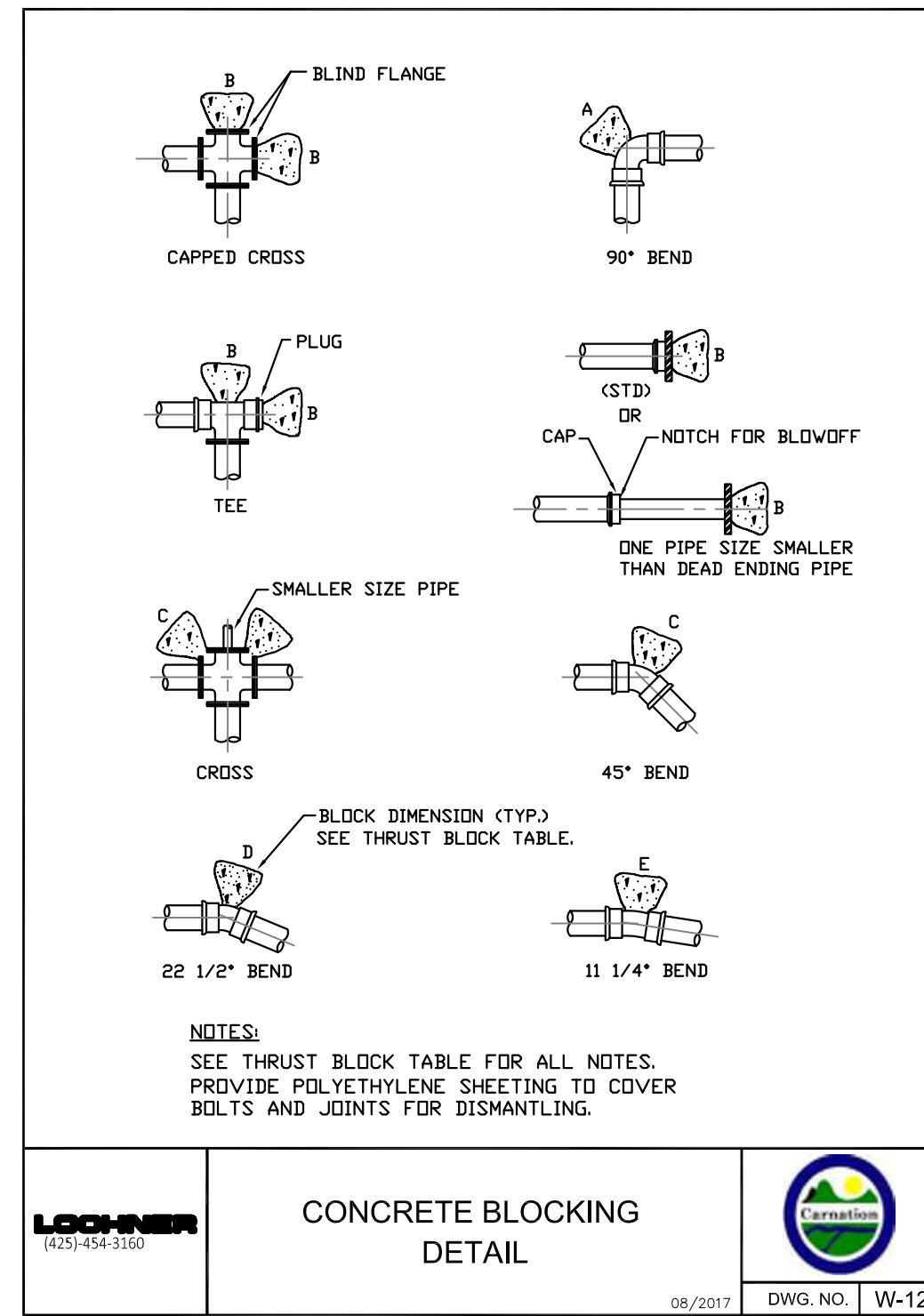
CUT IN & LIVE TAPS

08/2017 DWG. NO. | W-1



VALVE OPERATING NUT EXTENSION DETAIL

08/2017 DWG. NO. | W-3



CONCRETE BLOCKING DETAIL

08/2017 DWG. NO. | W-12

THRUST BLOCK - TABLE
MIN. BEARING AREA AGAINST UNDISTURBED SOIL SQUARE FEET

PIPE SIZE	A (FT ²)	B (FT ²)	C (FT ²)	D (FT ²)	E (FT ²)
3"	3	2	2	2	2
4"	4	4	2	2	2
6"	7	6	4	2	2
8"	11	10	6	3	3
10"	16	14	9	5	3
12"	22	19	12	6	3
14"	29	25	16	8	4
16"	36	31	20	10	5
18"	45	39	24	13	6
20"	54	47	29	15	8
22"	64	56	35	19	9
24"	87	76	48	24	12
28"	101	87	55	28	14
30"	145	125	78	40	20
42"	197	171	107	55	27
48"	257	223	140	71	36

NOTES:
1. BEARING AREA OF CONC. THRUST BLOCK BASED ON 200 PSI PRESSURE AND SAFE SOIL BEARING LOAD OF 2,000 POUNDS PER SQUARE FOOT.
2. AREAS MUST BE ADJUSTED FOR OTHER PIPE SIZES, PRESSURES AND SOIL CONDITIONS.
3. CONCRETE BLOCKING SHALL BE CAST IN PLACE AND HAVE A MINIMUM BEARING SURFACE OF 6" X 6" SQUARE AGAINST THE FITTING.
4. BLOCK SHALL BEAR AGAINST FITTINGS ONLY AND SHALL BE CLEAR OF JOINTS TO PERMIT TAKING UP OR DISMANTLING OF JOINT.
5. CONTRACTOR SHALL INSTALL BLOCKING ADEQUATE TO WITHSTAND FULL TEST PRESSURE AS WELL AS TO CONTINUOUSLY WITHSTAND OPERATION PRESSURE UNDER ALL CONDITIONS OF SERVICE.
6. ALL BOLTS AND NUTS SHALL BE POLYWRAPPED PRIOR TO POURING CONCRETE.

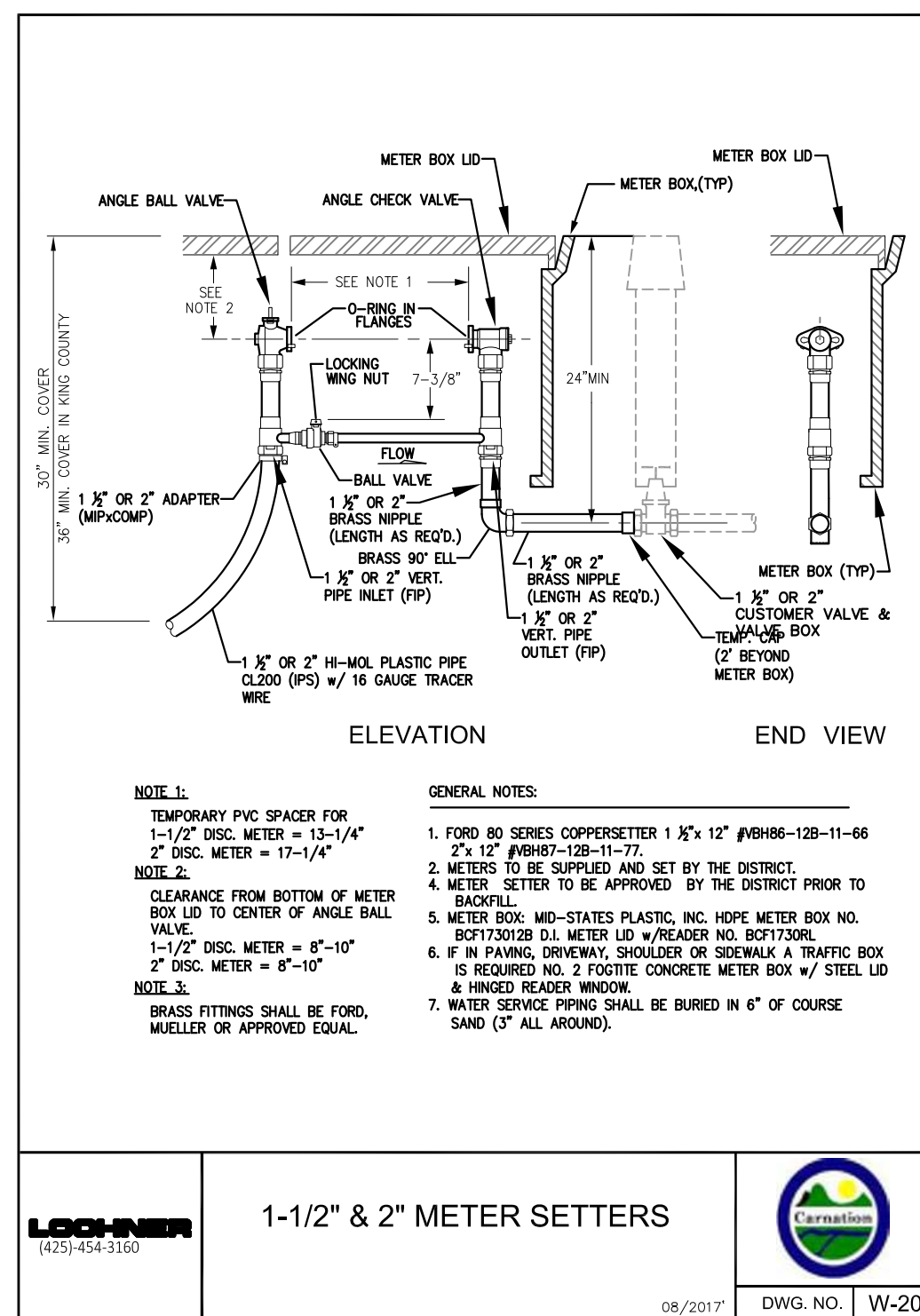
THRUST BLOCK TABLE

08/2017 DWG. NO. | W-13

1 CUT IN AND LIVE TAPS
C6.0 NTS

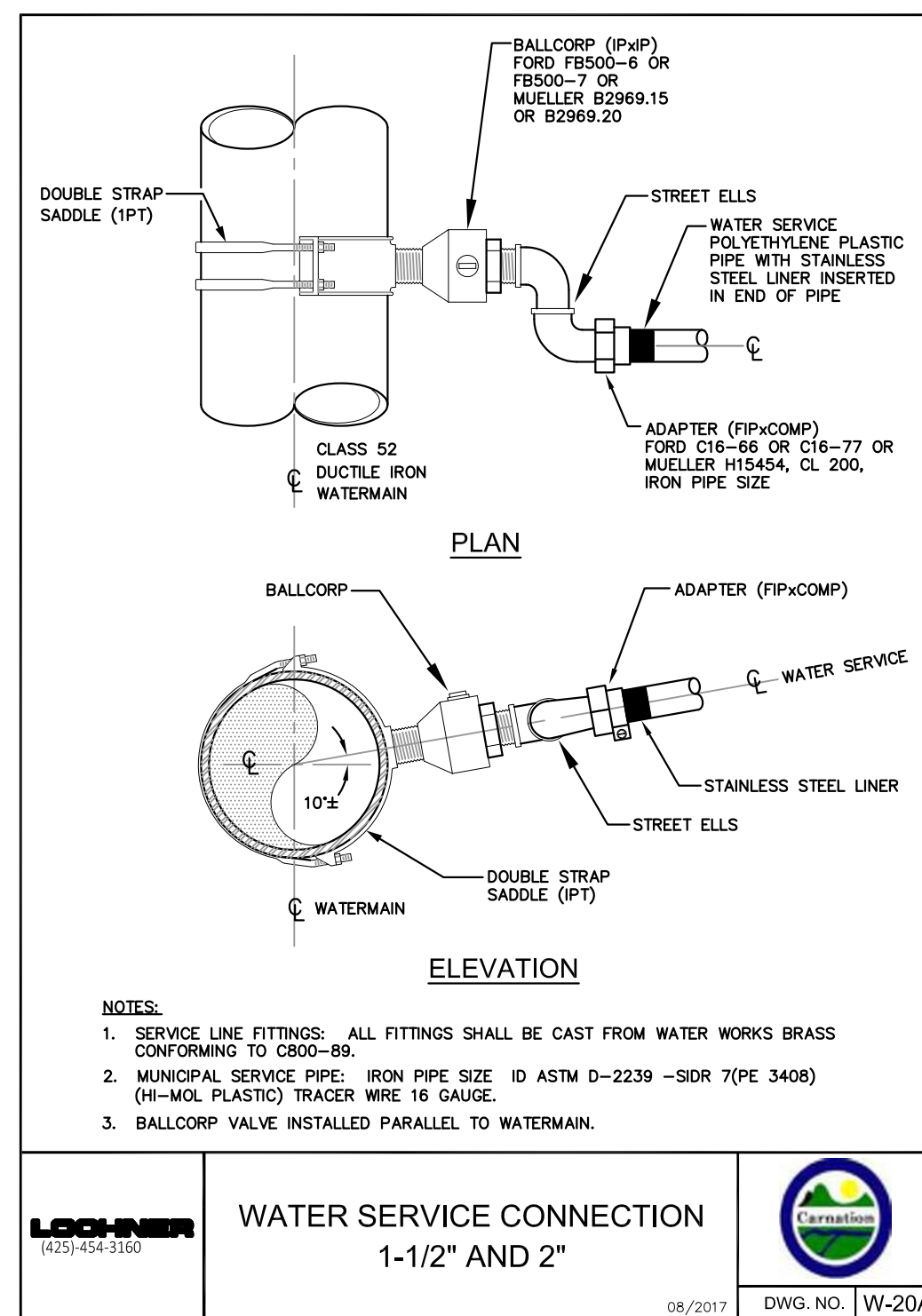
2 VALVE OPERATING NUT EXTENSION
C6.0 NTS

3 CONCRETE BLOCKING
C6.0 NTS



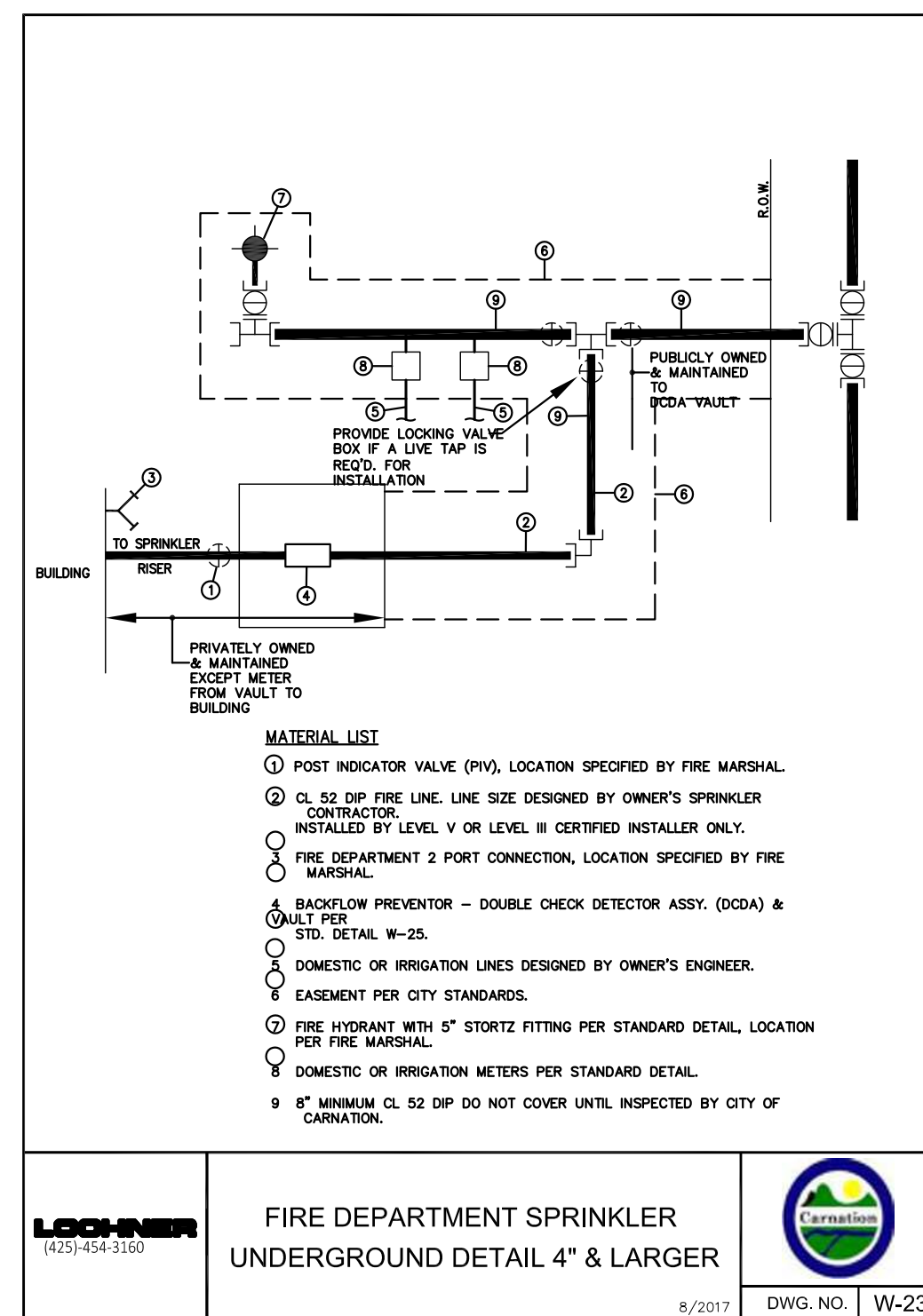
1-1/2" & 2" METER SETTERS

08/2017 DWG. NO. | W-20



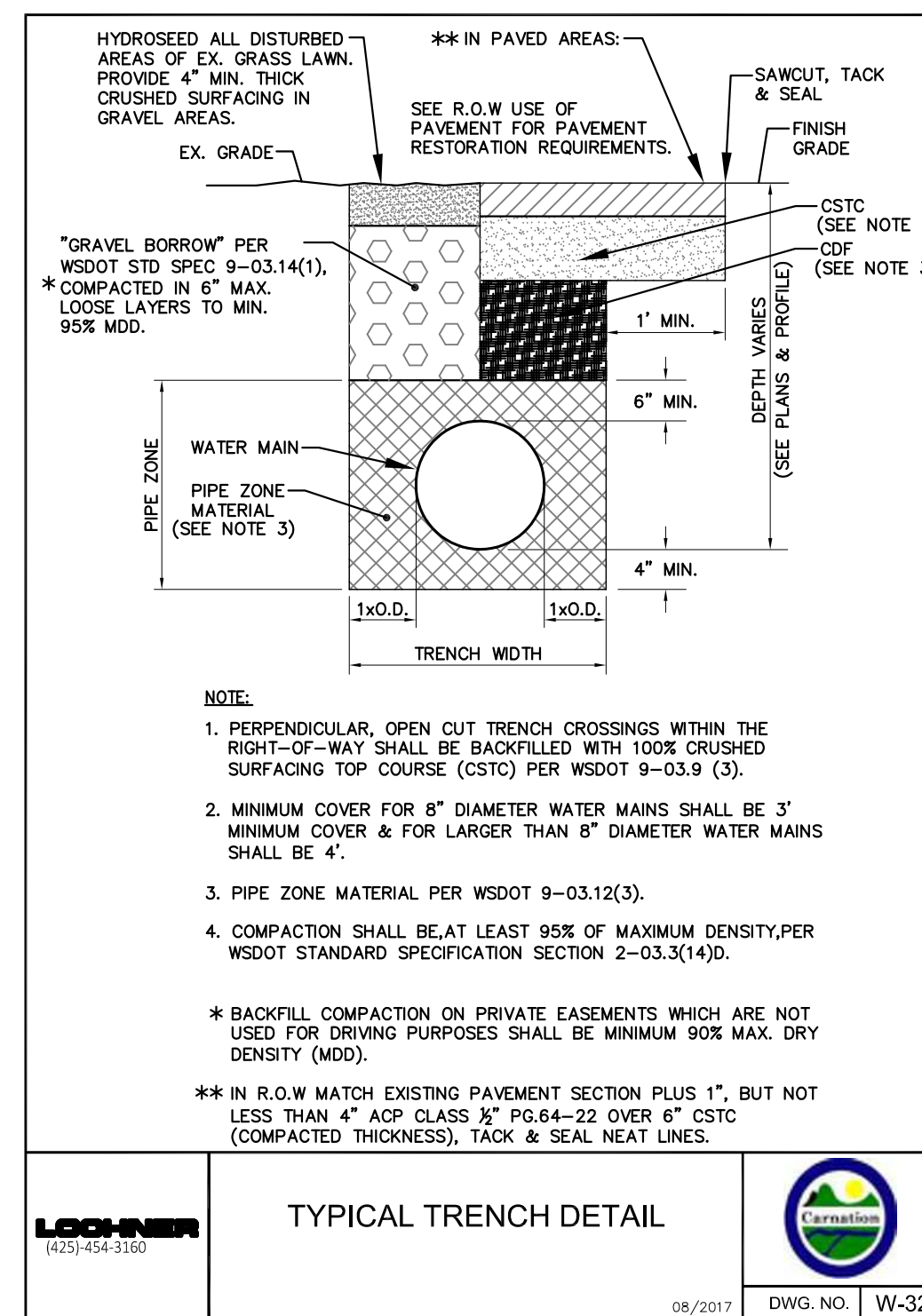
WATER SERVICE CONNECTION 1-1/2" AND 2"

08/2017 DWG. NO. | W-20A



FIRE DEPARTMENT SPRINKLER UNDERGROUND DETAIL 4" & LARGER

8/2017 DWG. NO. | W-23



TYPICAL TRENCH DETAIL

08/2017 DWG. NO. | W-32

4 1-1/2" AND 2" WATER SERVICE
C6.0 NTS

5 FIRE DEPARTMENT SPRINKLER UNDERGROUND
C6.0 NTS

6 WATER MAIN TRENCH
C6.0 NTS

CM DESIGN GROUP
340 15th Ave East, Suite 305
Seattle, WA 98112
206-659-0612

CATHARINE E. MUELLER
REGISTERED PROFESSIONAL ENGINEER
5/22/2023

REV. NO. DATE DESCRIPTION

PROJECT NUMBER: 22008
SUBMITTAL: BID SET
MAY 22, 2023

SNO-VALLEY SENIOR HOUSING
31845 W COMMERCIAL ST. CARNATION, WA 98104

WATER DETAILS

DESIGN: CFG
DRAFT: CFG
CHECK: CEM
DATE: 5/19/2023
SCALE: NTS
SHEET: C8.3

CALL 2 BUSINESS DAYS BEFORE YOU DIG!
1-800-424-5555

