



March 6, 2026

Ms. Abigail R. Germaine
Elam & Burke
251 E. Front St., Ste. 300
Boise, ID 83702

Re: Ada County Drainage District #3 – Carriage Crossing Shopping Center

Dear Abbey:

This office is in receipt of the following documents for the Carriage Crossing Shopping Center (S. Apple Street) Project:

- Project Record Drawings (Irrigation Improvements at Carriage Crossing Subdivision by David Evans and Associates dated December 1, 2025) – 2 sheets.
- CCTV footage of the installed 42” diameter Drain B pipeline.

The above-referenced Record Drawings are included as an attachment to this letter. Based on a review of the submitted documentation, in my professional opinion, the project has been completed in general conformance to the approved Drawings dated September 11, 2025. The exception to the approved Drawings as depicted in the Record Drawings are the addition of two 4-inch diameter HDPE connections to the reconstructed Drain B pipeline to collect roof runoff and area drainage from Lot 5 of the subject property.

Sincerely,

QRS CONSULTING LLC

A handwritten signature in blue ink that reads 'Nicholas A. Kraus'.

Nicholas A. Kraus, PE
Principal Water Resources Engineer

cc: Ms. Meghan Everard

Attachment:

Project Record Drawings

GRAVITY IRRIGATION IMPROVEMENT AT CARRIAGE CROSSING SUBDIVISION

LOCATED IN THE NE 1/4 OF THE SE 1/4, SEC 23, T.3N., R.2E., B.M.
2025

GENERAL

- ALL MATERIALS FURNISHED AND WORK DONE ON OR FOR THE PROJECT MUST MEET THE MINIMUM REQUIREMENTS OF THE LATEST EDITION OF THE IDAHO STANDARDS FOR PUBLIC WORKS CONSTRUCTION (I.S.P.W.C.) AND THE DRAINAGE DISTRICT 3 STANDARDS. THE CONTRACTOR IS REQUIRED TO HAVE A COPY OF EACH ON THE JOB SITE AT ALL TIMES. CONTRACTORS MUST FURNISH PROOF THAT ALL MATERIALS INSTALLED ON THE PROJECT MEET THESE REQUIREMENTS AT THE REQUEST OF THE DRAINAGE DISTRICT 3 AND/OR THE ENGINEER.
- THE CONTRACTOR SHALL ARRANGE A PRE-CONSTRUCTION CONFERENCE AT LEAST THREE (3) WORKING DAYS PRIOR TO THE START OF ANY WORK. ALL CONTRACTORS, SUB-CONTRACTORS, UTILITY COMPANIES, THE ENGINEER AND A REPRESENTATIVE FROM DRAINAGE DISTRICT 3 SHOULD BE PRESENT.
- ALL CONTRACTORS WORKING WITHIN THE PROJECT BOUNDARIES ARE RESPONSIBLE FOR COMPLIANCE WITH ALL APPLICABLE SAFETY LAWS OF ANY JURISDICTIONAL BODY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL BARRICADES, SAFETY DEVICES, AND TRAFFIC CONTROL WITHIN AND AROUND THE CONSTRUCTION AREA.
- ALL CONSTRUCTION TRAFFIC CONTROL IS TO MEET THE REQUIREMENTS OF THE MOST CURRENT EDITION OF THE M.U.T.C.D.
- EXISTING UTILITY LOCATIONS SHOWN ON CONSTRUCTION DRAWINGS ARE APPROXIMATE. THE CONTRACTOR IS RESPONSIBLE FOR THE FIELD LOCATION AND PROTECTION OF ALL EXISTING STRUCTURES AND FACILITIES. IN THE EVENT ANY STRUCTURE OR FACILITY IS DAMAGED BY CONSTRUCTION ACTIVITIES, THE CONTRACTOR IS FULLY RESPONSIBLE AND SHALL RESTORE SAID STRUCTURE OR FACILITY TO AN EQUAL OR BETTER CONDITION AT THE CONTRACTORS OWN EXPENSE.
- THE ENGINEER IS REQUIRED TO PROVIDE PART TIME ON SITE OBSERVATION DURING REGULAR WORKING HOURS (MON.-FRI., 8-5). THE ENGINEER IS AUTHORIZED TO MAKE DECISIONS CONCERNING THE SUITABILITY OF ANY MATERIAL OR WORKMANSHIP.
- ANY WORK THAT DOES NOT CONFORM TO THE APPROVED PLANS AND SPECIFICATIONS SHALL BE REJECTED. ALL COSTS TO CORRECT DEFICIENT WORK AND/OR DEFICIENT MATERIALS SHALL BE AT THE CONTRACTOR'S EXPENSE.
- WORK IS SUBJECT TO APPROVAL BY THE ENGINEER AND MUST BE APPROVED PRIOR TO: (A) BACKFILLING TRENCHES FOR PIPE; (B) PLACING OF AGGREGATE BASE; (C) PLACING OF CONCRETE; AND (D) PLACING OF ASPHALT PAVING.
- FOLLOWING ACCEPTANCE BY THE ENGINEER, THE CONTRACTOR SHALL GUARANTEE ALL WORK FOR A PERIOD OF ONE YEAR. WORK DONE WITHOUT SUCH APPROVAL SHALL NOT RELIEVE THE CONTRACTOR FROM THE RESPONSIBILITY OF PERFORMING THE WORK IN AN ACCEPTABLE MANNER.
- ONLY PLAN SETS STAMPED "APPROVED FOR CONSTRUCTION" AND SIGNED BY THE ENGINEER SHALL BE USED.
- ALL MATERIALS FURNISHED ON OR FOR THE PROJECT MUST MEET THE MINIMUM REQUIREMENTS OF THE APPROVING AGENCIES OR AS SET FORTH HEREIN, WHICHEVER IS MORE RESTRICTIVE.
- CONTRACTORS MUST FURNISH PROOF THAT ALL MATERIALS INSTALLED ON THIS PROJECT MEET THE REQUEST OF THE AGENCY AND/OR THE ENGINEER.
- THE CONTRACTOR SHALL MAINTAIN ALL EXISTING DRAINAGE FACILITIES WITHIN THE CONSTRUCTION AREA UNTIL THE DRAINAGE IMPROVEMENTS ARE IN PLACE AND FUNCTIONING.
- RETAIN AND PROTECT EXISTING IRRIGATION AND DRAINAGE PIPE CROSSINGS. EXCEPT WHERE NOTED OTHERWISE ON THE PLANS, THE CONTRACTOR SHALL COORDINATE WITH THE OWNER AND ENGINEER FOR THE INSPECTION OF ANY EXPOSED IRRIGATION AND/OR DRAINAGE PIPE CROSSINGS. THE PIPE WILL BE REPLACED AS NECESSARY BY THE CONTRACTOR.
- THE ENGINEER OF RECORD SHALL BE RESPONSIBLE FOR PROVIDING THE FOLLOWING: CONSTRUCTION OBSERVATIONS AT SUFFICIENT INTERVALS TO INSURE THAT ALL CONSTRUCTION HAS BEEN COMPLETED IN ACCORDANCE WITH THE PLANS, AND THE LATEST EDITION OF THE I.S.P.W.C.
- ALL CONTRACTORS PERFORMING ANY WORK DEPICTED ON THESE PLANS SHALL HAVE IN THEIR POSSESSION AND ON THE JOB SITE AN APPROVED SET OF PLANS WHICH HAVE BEEN STAMPED AND SIGNED.
- CALL BEFORE YOU DIG: DIG LINE, INC. (800) 342-1585.

GRAVITY IRRIGATION FLOW PIPE

- GRAVITY IRRIGATION PIPING SHALL BE 42" Ø SANITITE HDPE PIPE LABELED WITH MANUFACTURER INFORMATION AND DATE OF MANUFACTURE OR ENGINEER APPROVED EQUAL.
- PIPING SHALL BE LAID WITH UNIFORM SLOPE AND ALIGNMENT BETWEEN MANHOLES. PIPE LENGTHS ARE REQUIRED TO BE MAXIMIZED TO REDUCE THE NUMBER OF JOINTS. THIRTEEN (13) FOOT LENGTHS OR TWENTY (20) FOOT LENGTHS SHALL BE UTILIZED WHERE POSSIBLE.
- IF IT IS NECESSARY TO CONNECT TWO DISSIMILAR PIPES TOGETHER OR TWO SIMILAR PIPES WHERE FACTORY BELL AND SPIGOT ARE NOT AVAILABLE, USE POLYSEAL PIPE COUPLER (SEE DETAIL SHEET 2) BY MARMAC, WHICH PROVIDE A WATERTIGHT CONNECTION AND CONSISTENT PIPE INVERT. SHALL BE USED OR ENGINEER APPROVED EQUAL.
- PIPE BEDDING MATERIALS SHALL BE IN ACCORDANCE WITH DIVISION 300 OF THE ISPMC.
- PIPE SHALL BE PROVIDED WITH A MINIMUM COVER OF 24", IF POSSIBLE. 12" COVER IS ABSOLUTE MINIMUM ALLOWED.

PIPE INSTALLATION

GENERAL

- ALL PIPE SHALL BE ASSEMBLED AND INSTALLED IN ACCORDANCE WITH THE PIPE MANUFACTURER'S RECOMMENDATIONS AND AS SHOWN ON THE PROJECT ENGINEERING PLANS/DRAWINGS. ALL GRAVITY IRRIGATION MAINS SHALL BE INSTALLED WITH THE BELL END UPSTREAM AND SPIGOT END DOWNSTREAM.
- PIPE JOINTS SHALL BE WIPED CLEAN OF ALL DIRT, GREASE, AND FOREIGN MATTER. WHEN WORK IS HALTED, ALL OPEN ENDS OF THE INSTALLED PIPE SHALL BE SEALED TO PREVENT MATERIAL FROM ENTERING THE PIPE.
- FIELD CUT PIPE ENDS SHALL BE BEVELED TO MATCH FACTORY-FINISHED BEVELED PIPE ENDS.
- WHEN ASSEMBLING GASKETED PIPE, CLEAN AND INSPECT GASKETS, PIPE BELLS, AND SPIGOTS THOROUGHLY. USE ONLY LUBRICANT FURNISHED OR SPECIFIED BY THE PIPE MANUFACTURER AND APPLY AS SPECIFIED BY THE MANUFACTURER.

PIPE INSTALLATION

ALL WORK SHALL MEET BOTH THESE SPECIFICATIONS AND THE CURRENT ISPMC SPECIFICATIONS INCLUDING:

1. EXCAVATION

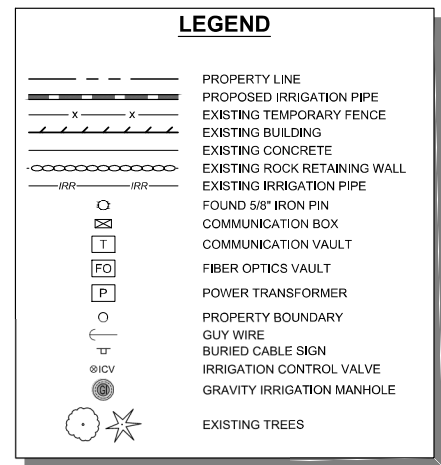
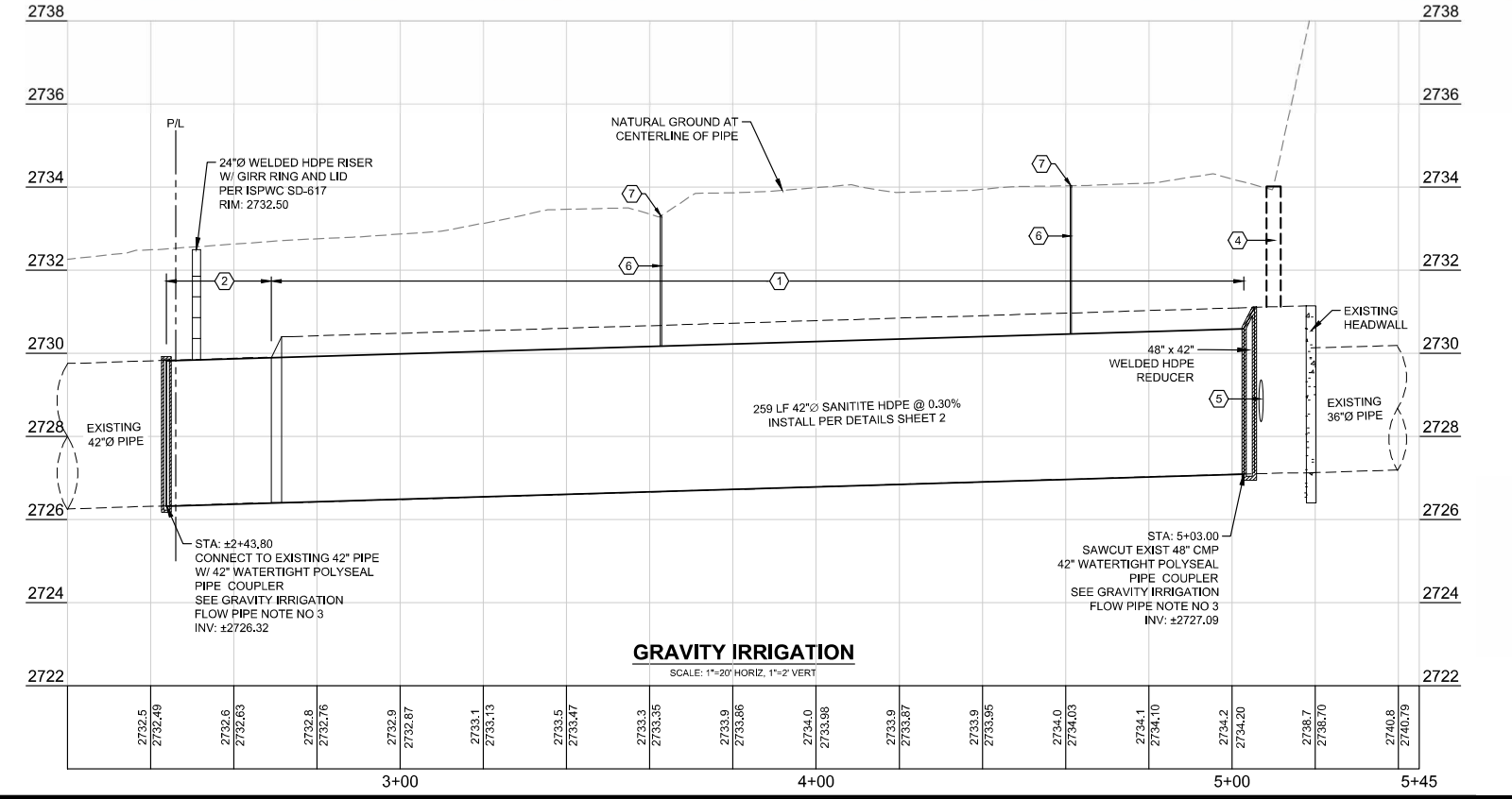
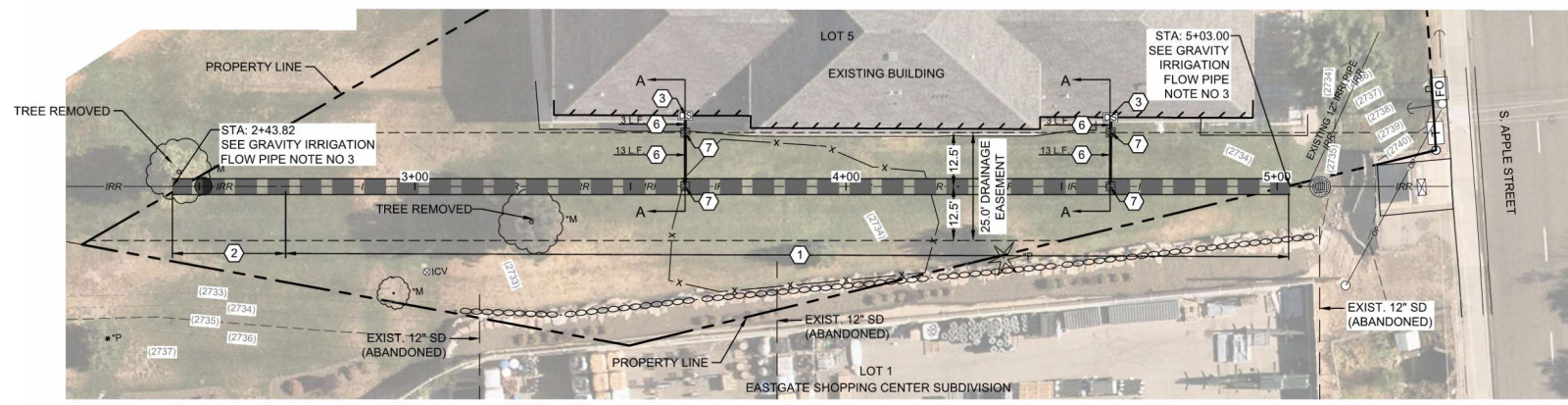
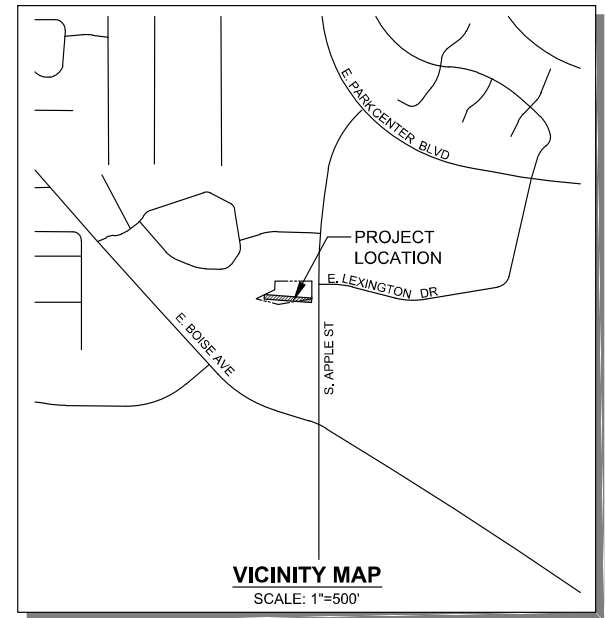
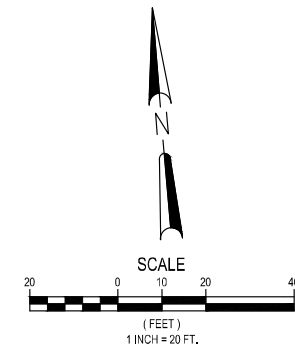
UTILITIES ENCOUNTERED WITHIN THE PIPE ZONE SHALL BE RELOCATED BELOW THE PIPE ZONE. TOPSOIL SHALL BE STOCKPILED AND USED FOR THE TOP LAYER DURING BACKFILL. THE PIPE ZONE SHALL BE DEFINED AS ANY AREA WITHIN 12 INCHES OF THE OUTSIDE EDGE OR BELL OF THE PIPE.

2. PIPE BEDDING MATERIAL

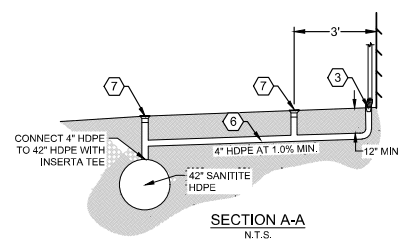
PIPE BEDDING AND ZONE MATERIAL SHALL BE INCLUDED IN THE FULL WIDTH OF THE TRENCH FROM FOUR (4) INCHES BELOW THE BOTTOM OF THE PIPE TO SIX (6) INCHES ABOVE THE TOP OF THE PIPE. PIPE BEDDING SYSTEM SHALL BE CLASS A-1 WHICH INCLUDES TYPE I BEDDING MATERIALS IN THE UPPER AND LOWER BEDDING ZONES. SEE DIVISION 300 OF THE ISPMC FOR PIPE BEDDING SYSTEM REQUIREMENTS.

3. TRENCH BACKFILL ABOVE PIPE ZONE

NATIVE TRENCH MATERIALS FREE FROM CINDERS, ASHES, REFUSE, ORGANIC AND FROZEN MATERIALS, COBBLES OR ROCKS NOT LARGER THAN SIX (6) INCHES MAY BE USED. TRENCH BACKFILL ABOVE THAT REQUIRED TO PROTECT THE PIPE SHALL BE PLACED IN TWO (2) LIFTS AND COMPACTED SUFFICIENTLY TO PRECLUDE SETTLEMENT. MECHANICAL COMPACTION AND/OR WATER SETTLING SHALL BE USED TO COMPACT BACKFILL. THREE (3) INCHES OF TOPSOIL SHALL THEN BE PLACED, COMPACTED AND GRADED.



- ### KEY NOTES
- REMOVE ±240 L.F. OF EXISTING 48" ALUMINUM ULTRA FLO PIPE
 - REMOVE ±24 L.F. OF EXISTING 42" ALUMINUM ULTRA FLO PIPE
 - 4" ROOF DOWNSPOUT TO HDPE PIPE ADAPTER
 - EXISTING 32" METAL RISER
 - 42" x 12" SANITITE HDPE TEE WITH 12" Ø POLYSEAL PIPE COUPLER TO ADAPT EXISTING PIPE TO NEW HDPE STUB CONTRACTOR TO FIELD VERIFY LOCATION, INVERT, AND SIZE OF THREE KNOWN DRAINS
 - 4" HDPE PIPE @ 1.0% MIN WITH 1" MIN. COVER
 - 4" FERRO AREA DRAIN OR APPROVED EQUAL



AS-BUILT

THIS DRAWING IS CONSISTENT WITH THE AS-BUILT CONSTRUCTION CONTRACTOR AS REVIEWED BY THE CONSTRUCTION CONTRACTOR.

THIS DRAWING IS CONSISTENT WITH THE AS-BUILT CONSTRUCTION CONTRACTOR AS REVIEWED AND NOTED BY THE CONSTRUCTION CONTRACTOR.

Idaho Dirt Company
COMPANY

Cody Stoeger 12/10/2025
SUPERVISOR NAME DATE

- ### SHEET INDEX
- SITE IMPROVEMENT PLAN
 - PIPE INSTALLATION DETAILS

DAVID EVANS AND ASSOCIATES INC.
9175 W Black Eagle Dr.
Boise, ID 83709
208.900.9049

IRRIGATION IMPROVEMENTS AT CARRIAGE CROSSING SUBDIVISION

SITE IMPROVEMENT PLAN
2475 S. APPLE STREET BOISE, ID. 83706

IDAHO
DRAINAGE DISTRICT 3

DATE:	BY:	CHK:	JEC
NO.:	DATE:	REVISION:	

PROFESSIONAL ENGINEER
LICENSED
17887
12/1/25
STATE OF IDAHO
DERRITT KERNER

CHECKED BY: SS
DESIGNED BY: JOCO
DRAWN BY: JOCO

FIRST SUBMITTAL DATE:
PROJECT NO.
COINCLPM0001

SHEET NO.
1 of 2



File Path: 12/10/2025 8:51 AM
Save Path: 12/10/2025 2:48 PM
By: Shara Schibler
By: Joco

SANITITE® HP TRENCH INSTALLATION DETAIL

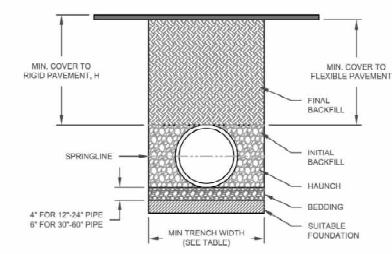


TABLE 1. RECOMMENDED MINIMUM TRENCH WIDTHS

PIPE DIAM.	MIN. TRENCH WIDTH
12"	30"
14"	36"
16"	42"
18"	48"
20"	54"
22"	60"
24"	66"
26"	72"
28"	78"
30"	84"
32"	90"
34"	96"
36"	102"
38"	108"
40"	114"
42"	120"
44"	126"
46"	132"
48"	138"
50"	144"
52"	150"
54"	156"
56"	162"
58"	168"
60"	174"
62"	180"
64"	186"
66"	192"
68"	198"
70"	204"
72"	210"
74"	216"
76"	222"
78"	228"
80"	234"
82"	240"
84"	246"
86"	252"
88"	258"
90"	264"
92"	270"
94"	276"
96"	282"
98"	288"
100"	294"
102"	300"
104"	306"
106"	312"
108"	318"
110"	324"
112"	330"
114"	336"
116"	342"
118"	348"
120"	354"
122"	360"
124"	366"
126"	372"
128"	378"
130"	384"
132"	390"
134"	396"
136"	402"
138"	408"
140"	414"
142"	420"
144"	426"
146"	432"
148"	438"
150"	444"
152"	450"
154"	456"
156"	462"
158"	468"
160"	474"
162"	480"
164"	486"
166"	492"
168"	498"
170"	504"
172"	510"
174"	516"
176"	522"
178"	528"
180"	534"
182"	540"
184"	546"
186"	552"
188"	558"
190"	564"
192"	570"
194"	576"
196"	582"
198"	588"
200"	594"
202"	600"
204"	606"
206"	612"
208"	618"
210"	624"
212"	630"
214"	636"
216"	642"
218"	648"
220"	654"
222"	660"
224"	666"
226"	672"
228"	678"
230"	684"
232"	690"
234"	696"
236"	702"
238"	708"
240"	714"
242"	720"
244"	726"
246"	732"
248"	738"
250"	744"
252"	750"
254"	756"
256"	762"
258"	768"
260"	774"
262"	780"
264"	786"
266"	792"
268"	798"
270"	804"
272"	810"
274"	816"
276"	822"
278"	828"
280"	834"
282"	840"
284"	846"
286"	852"
288"	858"
290"	864"
292"	870"
294"	876"
296"	882"
298"	888"
300"	894"
302"	900"
304"	906"
306"	912"
308"	918"
310"	924"
312"	930"
314"	936"
316"	942"
318"	948"
320"	954"
322"	960"
324"	966"
326"	972"
328"	978"
330"	984"
332"	990"
334"	996"
336"	1002"
338"	1008"
340"	1014"
342"	1020"
344"	1026"
346"	1032"
348"	1038"
350"	1044"
352"	1050"
354"	1056"
356"	1062"
358"	1068"
360"	1074"
362"	1080"
364"	1086"
366"	1092"
368"	1098"
370"	1104"
372"	1110"
374"	1116"
376"	1122"
378"	1128"
380"	1134"
382"	1140"
384"	1146"
386"	1152"
388"	1158"
390"	1164"
392"	1170"
394"	1176"
396"	1182"
398"	1188"
400"	1194"
402"	1200"
404"	1206"
406"	1212"
408"	1218"
410"	1224"
412"	1230"
414"	1236"
416"	1242"
418"	1248"
420"	1254"
422"	1260"
424"	1266"
426"	1272"
428"	1278"
430"	1284"
432"	1290"
434"	1296"
436"	1302"
438"	1308"
440"	1314"
442"	1320"
444"	1326"
446"	1332"
448"	1338"
450"	1344"
452"	1350"
454"	1356"
456"	1362"
458"	1368"
460"	1374"
462"	1380"
464"	1386"
466"	1392"
468"	1398"
470"	1404"
472"	1410"
474"	1416"
476"	1422"
478"	1428"
480"	1434"
482"	1440"
484"	1446"
486"	1452"
488"	1458"
490"	1464"
492"	1470"
494"	1476"
496"	1482"
498"	1488"
500"	1494"
502"	1500"
504"	1506"
506"	1512"
508"	1518"
510"	1524"
512"	1530"
514"	1536"
516"	1542"
518"	1548"
520"	1554"
522"	1560"
524"	1566"
526"	1572"
528"	1578"
530"	1584"
532"	1590"
534"	1596"
536"	1602"
538"	1608"
540"	1614"
542"	1620"
544"	1626"
546"	1632"
548"	1638"
550"	1644"
552"	1650"
554"	1656"
556"	1662"
558"	1668"
560"	1674"
562"	1680"
564"	1686"
566"	1692"
568"	1698"
570"	1704"
572"	1710"
574"	1716"
576"	1722"
578"	1728"
580"	1734"
582"	1740"
584"	1746"
586"	1752"
588"	1758"
590"	1764"
592"	1770"
594"	1776"
596"	1782"
598"	1788"
600"	1794"
602"	1800"
604"	1806"
606"	1812"
608"	1818"
610"	1824"
612"	1830"
614"	1836"
616"	1842"
618"	1848"
620"	1854"
622"	1860"
624"	1866"
626"	1872"
628"	1878"
630"	1884"
632"	1890"
634"	1896"
636"	1902"
638"	1908"
640"	1914"
642"	1920"
644"	1926"
646"	1932"
648"	1938"
650"	1944"
652"	1950"
654"	1956"
656"	1962"
658"	1968"
660"	1974"
662"	1980"
664"	1986"
666"	1992"
668"	1998"
670"	2004"
672"	2010"
674"	2016"
676"	2022"
678"	2028"
680"	2034"
682"	2040"
684"	2046"
686"	2052"
688"	2058"
690"	2064"
692"	2070"
694"	2076"
696"	2082"
698"	2088"
700"	2094"
702"	2100"
704"	2106"
706"	2112"
708"	2118"
710"	2124"
712"	2130"
714"	2136"
716"	2142"
718"	2148"
720"	2154"
722"	2160"
724"	2166"
726"	2172"
728"	2178"
730"	2184"
732"	2190"
734"	2196"
736"	2202"
738"	2208"
740"	2214"
742"	2220"
744"	2226"
746"	2232"
748"	2238"
750"	2244"
752"	2250"
754"	2256"
756"	2262"
758"	2268"
760"	2274"
762"	2280"
764"	2286"
766"	2292"
768"	2298"
770"	2304"
772"	2310"
774"	2316"
776"	2322"
778"	2328"
780"	2334"
782"	2340"
784"	2346"
786"	2352"
788"	2358"
790"	2364"
792"	2370"
794"	2376"
796"	2382"
798"	2388"
800"	2394"
802"	2400"
804"	2406"
806"	2412"
808"	2418"
810"	2424"
812"	2430"
814"	2436"
816"	2442"
818"	2448"
820"	2454"
822"	2460"
824"	2466"
826"	2472"
828"	2478"
830"	2484"
832"	2490"
834"	2496"
836"	2502"
838"	2508"
840"	2514"
842"	2520"
844"	2526"
846"	2532"
848"	2538"
850"	2544"
852"	2550"
854"	2556"
856"	2562"
858"	2568"
860"	2574"
862"	2580"
864"	2586"
866"	2592"
868"	2598"
870"	2604"
872"	2610"
874"	2616"
876"	2622"
878"	2628"
880"	2634"
882"	2640"
884"	2646"
886"	2652"
888"	2658"
890"	2664"
892"	2670"
894"	2676"
896"	2682"
898"	2688"
900"	2694"
902"	2700"
904"	2706"
906"	2712"
908"	2718"
910"	2724"
912"	2730"
914"	2736"
916"	2742"
918"	2748"
920"	2754"
922"	2760"
924"	2766"
926"	2772"
928"	2778"
930"	2784"
932"	2790"
934"	2796"
936"	2802"
938"	2808"
940"	2814"
942"	2820"
944"	2826"
946"	2832"
948"	2838"
950"	2844"
952"	2850"
954"	2856"
956"	2862"
958"	2868"
960"	2874"
962"	2880"
964"	2886"
966"	2892"
968"	2898"
970"	2904"
972"	2910"
974"	2916"
976"	2922"
978"	2928"
980"	2934"
982"	2940"
984"	2946"
986"	2952"
988"	2958"
990"	2964"
992"	2970"
994"	2976"
996"	2982"
998"	2988"
1000"	2994"

TABLE 2. MINIMUM RECOMMENDED COVER BASED ON VEHICLE LOADING CONDITIONS

PIPE DIAM.	SURFACE LOADING CONDITION	
	H 25	HEAVY CONSTRUCTION (75T AXLE LOAD) *
12"	12"	12"
14"	14"	14"
16"	16"	16"
18"	18"	18"
20"	20"	20"
22"	22"	22"
24"	24"	24"
26"	26"	26"
28"	28"	28"
30"	30"	30"
32"	32"	32"
34"	34"	34"
36"	36"	36"
38"	38"	38"
40"	40"	40"
42"	42"	42"
44"	44"	44"
46"	46"	46"
48"	48"	48"
50"	50"	50"
52"	52"	52"
54"	54"	54"
56"	56"	56"
58"	58"	58"
60"	60"	60"
62"	62"	62"
64"	64"	64"
66"	66"	66"
68"	68"	68"
70"	70"	70"
72"	72"	72"
74"	74"	74"
76"	76"	76"
78"	78"	78"
80"	80"	80"
82"	82"	82"
84"	84"	84"
86"	86"	86"
88"	88"	88"
90"	90"	90"
92"	92"	92"
94"	94	