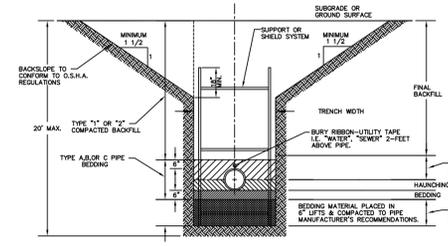


FITTING SIZE	90° BENDS		45° BENDS & WYES		REDUCERS & 22 1/2° BENDS		11 1/4° BENDS	
	A	B	A	B	A	B	A	B
4"	1'-7"	1'-2"	1'-8"	1'-6"	1'-8"	0'-10"	1'-0"	0'-6"
6"	2'-0"	1'-11"	2'-0"	1'-10"	1'-7"	0'-10"	1'-0"	0'-6"
8"	2'-8"	2'-4"	3'-0"	2'-5"	2'-1"	1'-0"	1'-0"	1'-0"
10"	3'-4"	3'-0"	4'-0"	3'-10"	3'-0"	2'-0"	1'-11"	1'-0"
12"	4'-0"	3'-10"	4'-8"	4'-5"	3'-8"	2'-3"	2'-0"	1'-0"
14"	5'-0"	3'-10"	6'-8"	4'-11"	4'-9"	3'-5"	3'-0"	1'-8"
20"	8'-0"	5'-0"	8'-0"	6'-0"	5'-0"	4'-0"	3'-0"	2'-0"
24"	8'-0"	6'-0"	7'-0"	5'-0"	5'-0"	4'-8"	3'-0"	3'-0"
30"	7'-8"	7'-8"	8'-0"	6'-0"	6'-3"	4'-8"	3'-0"	3'-0"

- NOTES:
- FITTINGS TO BE SEPARATED FROM BLOCKS WITH AN APPROVED BOND BREAKER, SUCH AS POLY WRAP.
 - ALL BLOCKS TO BE AGAIN UNDISTURBED MATERIAL.
 - DESIGN IS BASED ON 150 PSF MAN PRESSURE AND 3000 PPF SOIL BEARING CAPACITY.



BACKSLOPE TO CONFORM TO D.S.A. REGULATIONS

MINIMUM 1 1/2"

MINIMUM 1 1/2"

20" MAX.

TYPE "1" OR "2" COMPACTED BACKFILL

TYPE "A" OR "B" BEDDING

FINAL BACKFILL

TRENCH WIDTH

BURY REBAR-UTILITY TAPE (E.G. "WATER" "SEWER" 2'-FEET ABOVE PIPE)

INITIAL BACKFILL

PIPE EMBEDED-USE BEDDING MATERIAL

HAULING BEDDING

FOUNDATIONAL MATERIAL REQUIRED ONLY BEHIND SHOULDER OR DETAILS AS DIRECTED BY ENGINEER.

CONCRETE BACKFILL

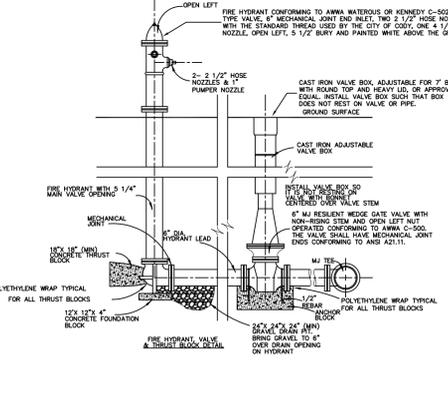
TYPE "A" MATERIALS: TWO LIFTS

TYPE "B" MATERIALS: THREE LIFTS

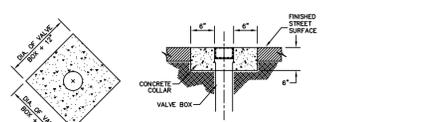
TYPE "C" MATERIALS: ONE LIFT

MINIMUM ALLOWABLE SLOPE FOR ALL TRENCHES LESS THAN 50 FT. DEEP WILL BE 1 1/2" IN 10'

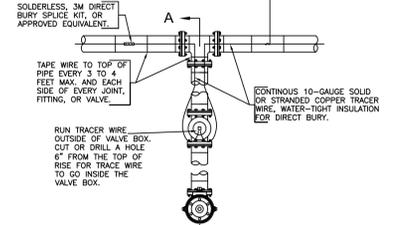
COMPLY WITH ALL APPLICABLE SAFETY REQUIREMENTS



CLEANOUT DETAILS
N.T.S.



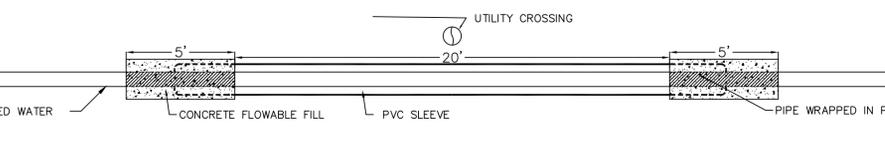
TRACER WIRE DETAIL
N.T.S.



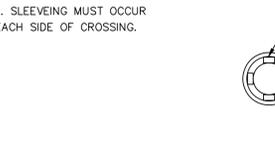
HIGH VELOCITY PIPE ANCHOR

- NOTES:
- TRACER WIRE SHALL TERMINATE INSE VALVE BOX WITH ENOUGH SLACK TO REACH 2' ABOVE GROUND SURFACE.
 - ALL WIRE AND CABLE SHALL BE 10-GAUGE COPPER OR STRANDED COPPER WIRE WITH AN VOLTAI RATED HIGH MODULAR WESH POLYESTER (HAWK) INSULATION.

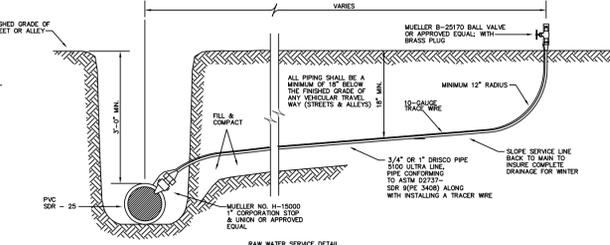
UTILITY CROSSING



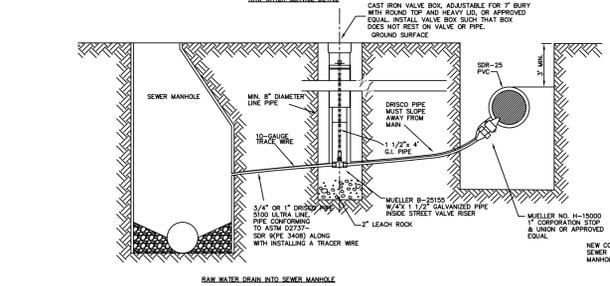
NOTE: 10" MIN. SLEEVING MUST OCCUR ON EACH SIDE OF CROSSING.



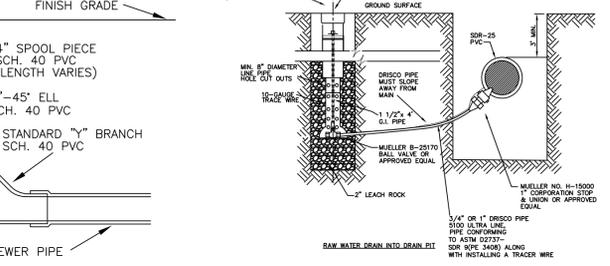
SLEEVE DETAIL
N.T.S.



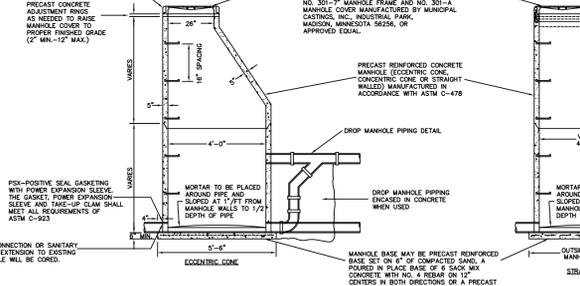
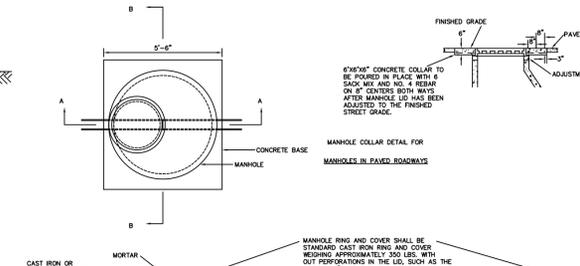
MANHOLE COLLAR DETAIL FOR MANHOLES IN PAVED ROADWAYS



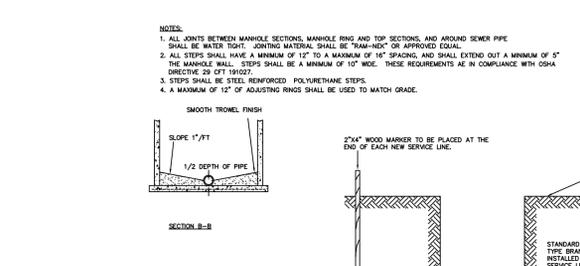
RAW WATER DRAIN INTO SEWER MANHOLE
RAW WATER DRAINS



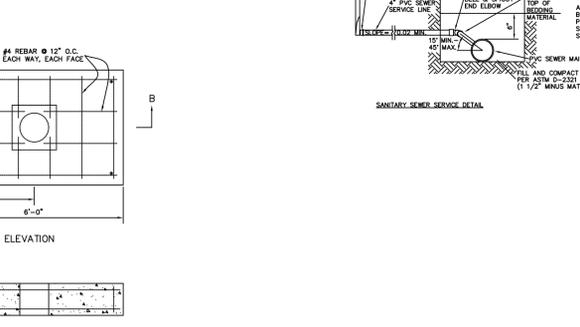
RAW WATER DRAIN INTO DRAIN PIT



DROP MANHOLE PIPING DETAIL



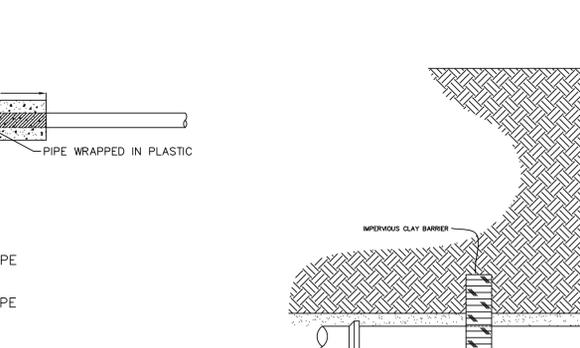
SANITARY SEWER SERVICE DETAIL



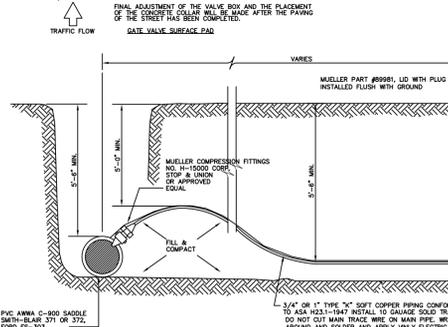
MANHOLE CHANNELS

NOTE: 1. SLOPE ALL SHELVES TO CHANNEL AT 1 INCH PER FOOT

2. SEE PLAN-PROFILE SHEETS FOR SLOPE OF CHANNEL.



MANHOLE CHANNELS
NOT TO SCALE



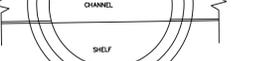
TREATED WATER SERVICE DETAIL

- NOTES:
- DOUBLE BACKFLOW PREVENTION CHECK VALVES MUST BE INSTALLED FOR ALL RESIDENTIAL SERVICES.
 - PLEASE CONTACT THE CITY OF CODY FOR DETERMINATION OF NEEDS FOR COMMERCIAL SERVICES.

- MATERIAL SPECIFICATIONS**
- SANITARY SEWER PIPE SHALL BE POLYVINYL CHLORIDE BELL AND SPIGOT PIPE CONFORMING TO THE FOLLOWING:
 - PVC PIPE SHALL CONFORM TO BELL CLASSIFICATION 12454-B AS GIVEN IN ASTM D 1784.
 - DIMENSIONS OF THE PIPE AND FITTINGS SHALL CONFORM TO ASTM D 3034 OR ASTM F 679 FOR SIZES OVER 12".
 - JOINTS IN ALL PVC SEWER PIPE SHALL BE WATER TIGHT WITH BELL AND SPIGOT ENDS WITH RUBBER O-RING GASKETS.
 - STANDARD PVC "Y" TYPE BRANCHES WILL BE REQUIRED FOR ALL SERVICES ON A NEW MAIN.
 - PIPING FOR TREATED AND RAW WATER MAINS SHALL BE AWMA C-900 PVC CLASS 150 OR 200 BASED ON WATER MODELING.
 - FITTING FOR TREATED AND RAW WATER MAINS SHALL BE AS APPROVED BY THE CITY ENGINEER AND CONFORMS WITH THE WYOMING PUBLIC WORKS STANDARDS.
 - GATE VALVES SHALL CONFORM TO AWMA C500. VALVES SHALL BE RESILIENT WEDGE GATE VALVES WITH NON-RISING STEMS, OPEN LEFT AND NOT OPERATED. THE VALVES SHALL HAVE MECHANICAL JOINT ENDS CONFORMING TO ANSI A21.11.
 - ALL WORK ASSOCIATED WITH THESE DETAILS SHALL CONFORM TO THE WYOMING PUBLIC WORKS SPECIFICATIONS.



MANHOLE CHANNELS



MANHOLE CHANNELS



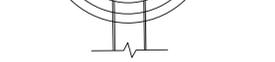
MANHOLE CHANNELS



MANHOLE CHANNELS



MANHOLE CHANNELS



MANHOLE CHANNELS



MANHOLE CHANNELS



MANHOLE CHANNELS



MANHOLE CHANNELS



MANHOLE CHANNELS



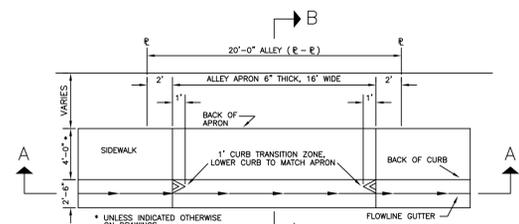
MANHOLE CHANNELS

CALL 1-800-849-2476
48 HOURS BEFORE YOU DIG

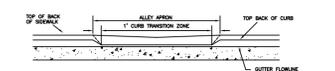


WATER AND SEWER DETAILS
DRAWN BY: ULD
CHECKED BY: SMP
JOB NAME: CITY OF CODY WATER AND SEWER DETAILS
FILE NAME: H:\PUBLIC WORKS\ENGINEERING\AUTOCAD UTILITIES\DETAILS
DATE: MARCH 13, 2009

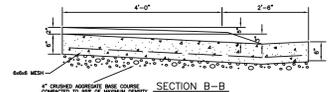
NO.	DATE	BY	DESCRIPTION
1	12/20/08	ULD	ISSUE FOR PERMITS
2	8/16/08	ULD	ISSUE FOR PERMITS
3	5/20/08	ULD	ISSUE FOR PERMITS
4	5/20/08	ULD	ISSUE FOR PERMITS
5	5/20/08	ULD	ISSUE FOR PERMITS
6	5/20/08	ULD	ISSUE FOR PERMITS
7	5/20/08	ULD	ISSUE FOR PERMITS
8	5/20/08	ULD	ISSUE FOR PERMITS
9	5/20/08	ULD	ISSUE FOR PERMITS
10	5/20/08	ULD	ISSUE FOR PERMITS
11	5/20/08	ULD	ISSUE FOR PERMITS
12	5/20/08	ULD	ISSUE FOR PERMITS



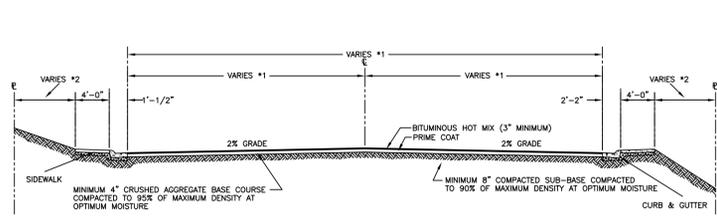
PLAN



SECTION A-A

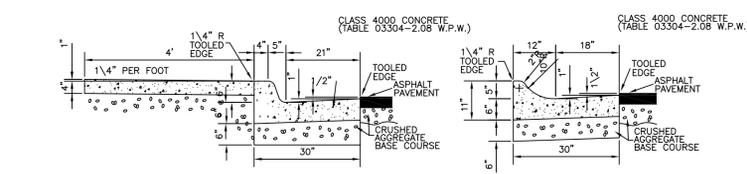


ALLEY APRON DETAILS



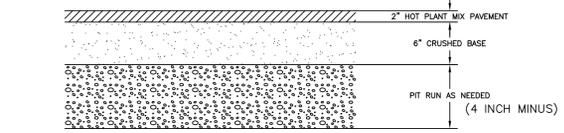
TYPICAL HOT MIX SECTION

- SPECIAL NOTE**
 THE ABOVE SHOWN TYPICAL STREET SECTIONS ARE TO BE CONSIDERED MINIMUM STANDARDS. ALL STREETS WILL BE DESIGNED IN ACCORDANCE WITH ACCEPTED ENGINEERING DESIGN PROCEDURES WITH SAID DESIGN BEING APPROVED BY THE CITY ENGINEER.

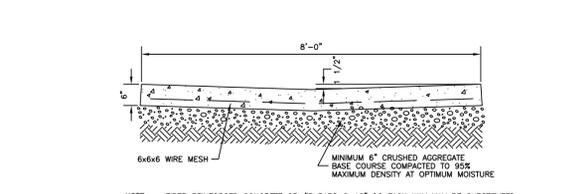


TYPICAL VALLEY GUTTER SECTION

PAVEMENT SECTION PERMANENT RESURFACING FOR UTILITY CUTS



PAVEMENT SECTION TEMPORARY RESURFACING FOR UTILITY CUTS



CODY MATERIAL SPECIFICATIONS

- ALL SUBBASES AND BASE COURSES SHALL BE COMPACTED TO 95% OF MAXIMUM DENSITY AT OPTIMUM MOISTURE AS DETERMINED IN ACCORDANCE WITH AASHTO 180.
 - THE MATERIAL PREPARED SHALL BE UNIFORMLY GRADED COARSE TO FINE AND SHALL NOT VARY FROM THE HIGH LIMIT ON ONE SIDE TO THE LOW LIMIT ON AN ADJACENT SIDE OR VICE VERSA.
 - THE PERCENTAGE PASSING THE NO. 200 SIEVE SHALL NOT EXCEED ONE HALF OF THE PERCENTAGE PASSING THE NO. 40 SIEVE.
 - THE MATERIAL PASSING THE NO. 40 SIEVE SHALL HAVE A LIQUID LIMIT NOT GREATER THAN 25 AND A PLASTICITY INDEX NOT GREATER THAN 6, EXCEPT WHEN THE PLASTICITY INDEX IS 0 (ZERO), THE LIQUID LIMIT SHALL NOT EXCEED 30.
 - ALL CRUSHED BASE COURSE MATERIAL SHALL MEET THE FOLLOWING GRADATION WHEN TESTED IN ACCORDANCE WITH AASHTO T-27 & T-111:

SIEVE	% PASSING
1	100
3/4"	90-100
1/2"	60-85
No. 4	45-65
No. 8	35-55
No. 200	3-12
 - AGGREGATE FOR HOT PLANT PAVEMENT MIX - IN ACCORDANCE WITH WYOMING TRANSPORTATION DEPARTMENT STANDARD SPECIFICATIONS-LATEST EDITION.
 - FOR COMPACTED THICKNESSES 3" OR LESS, USE WYDOT 1/2-INCH MAXIMUM AGGREGATE.
 - FOR COMPACTED THICKNESSES GREATER THAN 3" USE WYDOT 3/4-INCH MAXIMUM AGGREGATE FOR FIRST LIFT. SECOND LIFT SHALL BE A MINIMUM COMPACTED THICKNESS OF 1-1/2 INCHES, 1/2-INCH MAXIMUM AGGREGATE.
 - MINERAL FILLER: FINELY GROUND PARTICLES OF LIMESTONE, HYDRATED LIME OR OTHER MINERAL DUST, FREE OF FOREIGN MATTER.
 - PRIMER: A CUT-BACK LIQUID ASPHALT OF THE MEDIUM CURING TYPE, GRADE C-70, AND SHALL COMPLY WITH THE REQUIREMENTS OF ASTM D2027. BITUMINOUS HOT MIX PAVEMENT SHALL BE APPROVED BY THE CITY ENGINEER BEFORE ANY WORK MAY.
 - TACK COAT: A CATIONIC SLOW SET EMULSIFIED ASPHALT MIXED WITH A N EQUAL AMOUNT OF WATER, GRADE CSS-1H, AND SHALL COMPLY WITH THE REQUIREMENTS OF ASTM D244. OTHER GRADES OF EMULSIFIED ASPHALT WILL BE CONSIDERED TESTING OR EXPERIENCE IN ANOTHER GRADE IS MORE SUITABLE.
 - MIX DESIGN: A COMPLETE MIX DESIGN MEETING THE REQUIREMENTS OF A1 MS-2 COMPLETED WITHIN THE LAST 24 MONTHS FOR THE SPECIFIC MATERIALS TO BE USED SHALL BE SUBMITTED FOR APPROVAL PRIOR TO BEGINNING WORK.
 - MS-2 ESTABLISHES THE FOLLOWING REQUIREMENTS FOR THE ASPHALT CEMENT CONCRETE FOR A MEDIUM TRAFFIC VOLUME:

STABILITY (LB. MINIMUM)	1200
0.01 IN.	8 TO 16
PERCENT AIR VOIDS (MIN)	3 TO 5
VOIDS IN MINERAL AGGREGATE (% MINIMUM)	
- CONCRETE SPECIFICATIONS
 - CEMENT SHALL BE PORTLAND CEMENT, TYPE II CONFORMING TO THE REQUIREMENTS OF ASTM C-150 (IF SPECIAL CONDITIONS WARRANT IT, THE USE OF A DIFFERENT TYPE OF CEMENT MAY BE APPROVED BY THE CITY ENGINEER).
 - AGGREGATE GENERAL - GRAVEL, CRUSHED SLAG, CRUSHED STONE, OR OTHER INERT MATERIALS, COMPOSED OF HARD, STRONG, DURABLE PARTICLES FREE OF INJURIOUS COATINGS.
 - FINE AGGREGATE
 - THE MAXIMUM PERCENTAGE OF DELETERIOUS SUBSTANCES SHALL NOT EXCEED THE FOLLOWING PERCENTAGES:

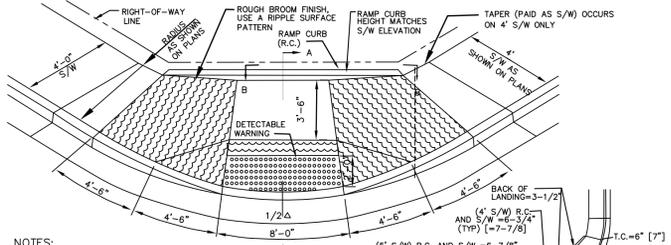
BY WEIGHT:	
COAL AND LIGNITE	3%
CLAY LUMPS	5%
OTHER DELETERIOUS SUBSTANCES	2.0%
 - WHEN TESTED IN ACCORDANCE WITH THE LOS ANGELES RATTLER METHOD, THE COARSE AGGREGATE SHALL NOT SHOW A WEAR IN EXCESS OF 40%.
 - THE FINE AGGREGATE SHALL BE FREE FROM INJURIOUS AMOUNTS OF ORGANIC IMPURITIES.
 - COARSE AGGREGATE
 - THE MAXIMUM PERCENTAGES OF DELETERIOUS SUBSTANCES SHALL NOT EXCEED THE FOLLOWING PERCENTAGES:

BY WEIGHT:	
SOFT FRAGMENTS:	1%
COAL AND LIGNITE	0.3%
CLAY LUMPS	0.3%
OTHER DELETERIOUS SUBSTANCES	2.0%
 - THE COARSE AGGREGATE SHALL BE GRADED COARSE TO FINE MEETING THE FOLLOWING GRADATION:

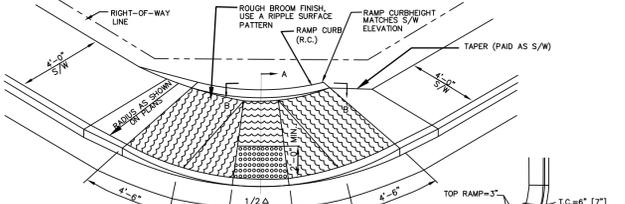
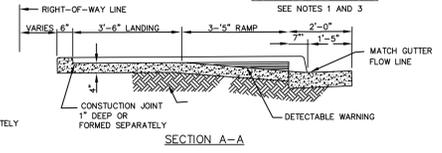
SIEVE	% PASSING
3/8"	100
No. 4	95-100
No. 10	45-80
No. 20	10-30
No. 40	0-10
No. 60	0-5
No. 200	0-4
 - THE AGGREGATE SHALL BE GRADED COARSE TO FINE MEETING THE FOLLOWING GRADATION:

SIEVE	% PASSING
1 1/2"	100
1"	95-100
1/2"	25-80
No. 4	0-10
No. 8	0-5
No. 200	0-2
 - AD MIXTURES AND AIR-ENTRAINING AGENTS SHALL BE APPROVED BY THE ENGINEER AS RECOMMENDED WITHIN THE REQUIRED MIX DESIGN AS PREPARED BY A QUALIFIED TESTING LABORATORY.
 - ALL CONCRETE PLACED SHALL MEET THE FOLLOWING MINIMUM STRENGTH REQUIREMENTS WHEN TESTED IN ACCORDANCE WITH ALL APPLICABLE ASTM STANDARDS:

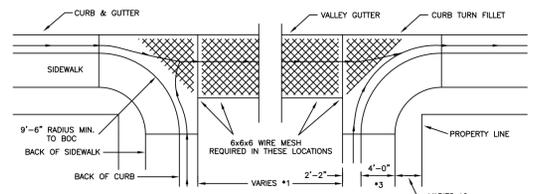
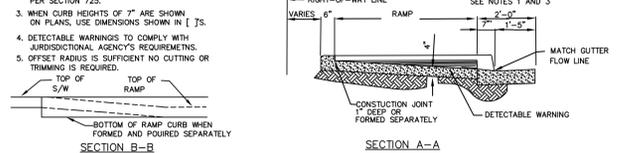
LABORATORY MIXED SAMPLE	DAYS
	28
 - GENERAL - ALL WORK ASSOCIATED WITH THE DETAILS SHOWN ON THIS PAGE SHALL BE ACCOMPLISHED IN ACCORDANCE WITH THE WYOMING PUBLIC WORKS STANDARD SPECIFICATIONS, UNLESS OTHER SPECIFICATIONS ARE PROVIDED IN THE PROJECT MANUAL.



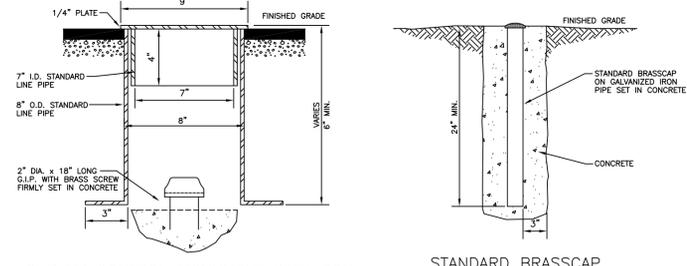
- NOTES:**
- CONTROL ELEVATIONS SHOWN ARE IN RELATION TO THE GUTTER AND ARE LOCATED RADIALLY. GUTTER ELEVATION=0.
 - CLASS 30 CONCRETE CONSTRUCTION AS PER SECTION 725.
 - WHEN CURB HEIGHTS OF 3" ARE SHOWN ON PLANS, USE DIMENSIONS SHOWN IN []S.
 - DETECTABLE WARNINGS TO COMPLY WITH JURISDICTIONAL AGENCY'S REQUIREMENTS.



- NOTES:**
- CONTROL ELEVATIONS SHOWN ARE IN RELATION TO THE GUTTER AND ARE LOCATED RADIALLY. GUTTER ELEVATION=0.
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 - WHEN CURB HEIGHTS OF 3" ARE SHOWN ON PLANS, USE DIMENSIONS SHOWN IN []S.
 - DETECTABLE WARNINGS TO COMPLY WITH JURISDICTIONAL AGENCY'S REQUIREMENTS.
 - OFFSET RADIUS IS SUFFICIENT NO CUTTING OR TRIMMING IS REQUIRED.



TYPICAL STREET CORNER DETAIL: CURB TURN FILLET, SIDEWALK & VALLEY GUTTER

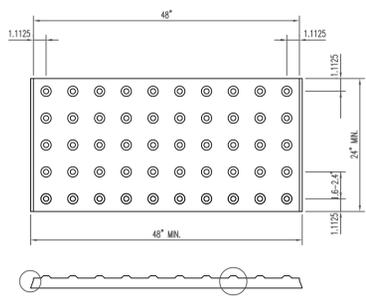


SURVEY CONTROL MONUMENT WITH BOX

STANDARD BRASSCAP

GENERAL NOTES

- PLACE TRUNCATED DOME DETECTABLE WARNING PANELS AT THE BASE OF CURB RAMP. INSTALL ACROSS FULL WIDTH OF RAMP. A MINIMUM 610mm (24") IN DEPTH AND SET BACK 230mm (9") FROM BOTTOM OF CURB.
- SIDEWALK CURB RAMP SLOPES SHOWN ARE RELATIVE TO THE TRUE LEVEL HORIZON (ZERO BUBBLE).
- IN ALTERATIONS CURB RAMP SLOPES MAY BE 10% FOR A MAXIMUM RISE OF 150mm (6") OR 12.5% FOR MAXIMUM RISE OF 75mm (3"). CURB RAMP SLOPES, IN ALTERATIONS, NEED NOT EXCEED 1.8m (6'-0") IN LENGTH.
- SIDE FLARES THAT ARE NOT PART OF THE PATH OF TRAVEL MAY BE ANY SLOPE.
- FOR THE PURPOSES OF THIS DRAWING, A CURB RAMP IS CONSIDERED "PERPENDICULAR" IF THE ANGLE BETWEEN THE LONGITUDINAL AXIS OF THE RAMP AND A TANGENT TO THE CURB AT THE RAMP CENTER IS 75 DEGREES OR GREATER.
- TOOLED JOINTS ARE REQUIRED AT ALL SIDEWALK RAMP SLOPE BREAKS.
- SIDEWALK FLARE IN NOT NECESSARY WHERE THE RAMP IS PROTECTED FROM PEDESTRIAN CROSS-TRAVEL.
- THICKEN CONCRETE UNDER DETECTABLE WARNING PANEL.
- IN FREEZE THAW ZONES, LEAVE 3/16" GAP IN BETWEEN PANELS AND SEAL WITH SIKAFLEX 1A SEALANT.



CALL 1-800-849-2476
 48 HOURS BEFORE YOU DIG
 CITY OF CODY
 WYOMING

DRAWN BY: ULD
 CHECKED BY: SWP
 JOB NAME: STREET STANDARD DETAIL
 FILE NAME: H:ENGINEERING/AUTOCAD~\\DETAILS
 DATE: 7/06/15 ULD
 BY DATE: 7/06/15 ULD

NO	REVISION	DATE	BY
1	CHANGE GRADATIONS	9/16/98 HMC	
2	TPO CORRECTIONS	10/28/98 HMC	
3	TPO CORRECTIONS	11/17/00 ULD	
4	UNIT CORRECTIONS	7/23/02 ULD	
5	UNIT CORRECTIONS	8/28/03 ULD	
6	TPO CORRECTIONS	8/28/03 ULD	
7	ADA SIDEWALK REGS	7/23/04 ULD	
8	REVISED HANDICAP RAMP DETAILS SPECIFICATIONS	5/26/06 ULD	
9	REVISED HANDICAP RAMP DETAILS SPECIFICATIONS	7/25/07 ULD	
10	MADE REVISION TO SPECIFICATIONS	7/06/15 ULD	
11	MADE REVISION TO HANDICAP RAMP	7/06/15 ULD	

