



NOTICE OF PUBLIC MEETING
Tuesday, September 6, 2022
City Council Chambers
680 Park Avenue, Idaho Falls, ID 83402
3:00 p.m.

The public is invited to observe City Council Work Sessions. However, to observe appropriate social distancing guidelines, as recommended by the Centers for Disease Control and Prevention (CDC), seating in the Council Chambers may be limited. All seating is available on a first-come, first-serve basis. The public also may view this meeting via livestream on the City's website at <https://www.idahofallsidaho.gov/429/Live-Stream>. The agenda does not include an opportunity for public interaction.

This meeting may be cancelled or recessed to a later time in accordance with law. If you need communication aids or services or other physical accommodations to participate or access this meeting or program of the City of Idaho Falls, you may contact City Clerk Kathy Hampton at 612-8414 or the ADA Coordinator Lisa Farris at 612-8323 not less than 48 hours prior to the meeting. They can help accommodate special needs.

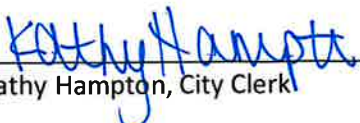
CITY COUNCIL WORK SESSION

Times listed in parentheses are only estimates.

Call to Order and Roll Call

- | | |
|---|---|
| Mayor and Council: | -Calendars, Announcements, Reports, Updates, Questions, and Discussion (10)
-Liaison Reports and Councilmember Concerns (10) |
| Fire Department: | -Q&A: Stryker360 Ambulance Equipment/Maintenance Purchase Agreement (15)
<i>Action Item: Council Direction to Staff</i> |
| Community Development Services: | -Review: Zoning Appeal Process (5)
<i>Action Item: Council Direction to Staff</i> |
| Community Development Services and Municipal Services: | -Discussion: Impact Fee Waiver Request (40)
<i>Action Item: Council Direction to Staff</i> |
| City Attorney, Community Development Services, Mayor's Office, Parks and Recreation, and Police Department: | -Follow-up Discussion: Policy Recommendations for Management of Public Spaces (20)
<i>Action Item: Council Direction to Staff</i> |
| Public Works: | -Discussion: Revisions to the Engineering Design Policy Manual and Supplemental Specifications to Idaho Standards for Public Works Construction (30)
<i>Action Item: Council Direction to Staff</i>
-Discussion: Council Interest in Considering EIRSD's (Eastern Idaho Regional Sewer District) Service Request (40)
<i>Action Item: Council Direction to Staff</i> |

DATED this 2nd day of September 2022


Kathy Hampton, City Clerk



WAR BONNET ROUNDUP RODEO ADVISORY COMMITTEE

Thursday, July 28, 2022

Recreation Center

11:00 a.m.

Members in Attendance: K. Jones, K. Staten, D. Marshall, B. Skinner, P. Holm, B. Robertson, J. Moad, T. Smith, J. Stephens, B. Cranor, C. Price, D. Sorensen, E. Grossarth, R. Campbell, H. Pettingill, R. Buchan

Members not in Attendance J. Newgard, C. Horsley

Call to Order

K. Jones called the meeting to order at 11:05 am.

Approval of Minutes

B. Skinner motioned to approve the July 28th minutes. D. Marshall seconded. All in favor.

Director Updates – P. Holm

- P. Holm has been busy tying up loose ends.
- He recommended we up the ticket price slightly and get rid of the parking fee. Perhaps we could sell the program at the merch booth. A few options were suggested and discussed.
- The Police Department will not be participating in our salute to first responders, but we will have some fire department vehicles and it is possible that we could use the police officers who are working our event in our tribute.
- P. Holm met with the Teton Territory Marketing representative, and they are working to pay for one half of our rodeo marketing next year with grant money.
- P. Holm also met with our new Idaho Falls Transit (GIFT) coordinator Kade Marquez, and he has offered to drive staff or royalty to all our radio events.

Chairman/Production – K. Jones

- July 29th will be the second opening for contestants. A cash prize will be offered in the amount of \$1,111 in celebration of our 111th rodeo. She advised that Jody Carper made some calls to the big-name riders, and the cash prize was still not enough to entice them from other big payout rodeos, but it will help with any Wilderness Circuit riders. We will look to up our overall for 2023.
- The Mutton Bustin Qualifier is filling up and she asked that everyone work hard to pick up trash and do anything that needs to be done during this new event.
- She reminded everyone to take notes during this next rodeo to report at the “Good, Bad, Ugly” meeting.
- She urged committee members to consider attending the Vegas Convention.

Committee Reports

Military Affairs/American Legion – B. Skinner

- The military personnel have been lined up and the music for the flag raising and lowering is with Drew. Bob will deliver written verbiage for the flag ceremony. This year will begin a tradition of using the same music for the raising and a separate song for the lowering of the flag that we will use from here on out.

Hospitality/Sponsorships – K. Staten

- Idaho Falls Community Hospital and Mountain View Hospital have been added as sponsors. We will have a radio remote at Mountain View on Tuesday, August 1st where we will sell a family pack of tickets offering free meals. C. Price will work this event with K. Staten and K. Jones.
- K. Staten is short on token booth volunteers.
- She has three VIP tables left.
- She will need straw set up in front of the backdrop and the tent.
- Jeff Moad built a gorgeous bar for the public.

Facilities/Grounds & Security – R. Campbell/J. Stephens

- The facilities and grounds are all set, and T. Smith is finalizing the parking.

Media/Emergency Action Plan – B. Cranor

- Media is ready and set to go for Media Day on August 3rd at 10am. Directors, production staff and announcers will be there.

Youth Rodeo/Family Night – C. Horsley (absent)

Financial Report – D. Sorensen

- The finance staff will be at the arena daily to distribute tokens and cash to booth areas. D. Sorensen will get the cash bag for the remote at Mountain View, and the cash for the “cash cow”.

Livestock Welfare – B. Robertson

- B. Robertson confirmed the slack numbers, and that he got the stock saddle rider handled.
- The hay is on location but still waiting on graine.
- He received confirmation that the Royalty will push the cattle into the pens.

Meeting adjourned at 12:40 p.m.

Next meeting will be August 24th, 2022

*Recorded by
T. Sessions
Department of Parks and Recreation*

Multi - Draft Ordinance

ORDINANCE NO.

AN ORDINANCE OF THE CITY OF IDAHO FALLS, IDAHO, A MUNICIPAL CORPORATION OF THE STATE OF IDAHO; AMENDING TITLE 8, CHAPTER 3 BY THE ADDITION OF SECTION 7 (ESTABLISHING PARK AND CEMETERY HOURS OF OPERATIONS) AND SECTION 8 (REGULATING PARK SHELTERS); PROVIDING SEVERABILITY, CODIFICATION, PUBLICATION BY SUMMARY, AND ESTABLISHING EFFECTIVE DATE.

WHEREAS, the City hold in trust for the public real property that has been developed into beautiful parks and park amenities (including park shelters) and cemeteries that are meant to be made available to a wide variety of user and users groups; and

WHEREAS, such parks, park amenities, and cemeteries should be clean and safe and well managed in order that they continue to be enjoyed by the community; and

WHEREAS, as part of the City's efforts to manage and maintain clean and safe parks, (including park shelters) and cemeteries, the Council desires to limit and regulate the hours and use of such parks, park amenities, and cemeteries; and

WHEREAS; this Ordinance includes exemptions based upon current U.S. Ninth Circuit court guidance; practical considerations (including staff and budget considerations); and balancing of sometimes competing interests.

NOW, THEREFORE, BE IT ORDAINED BY THE MAYOR AND COUNCIL OF THE CITY OF IDAHO FALLS, IDAHO, THAT:

SECTION 1: Title 8, Chapter 3, Section 7 of the City Code of the City of Idaho Falls, Idaho, is hereby added as follows:

...

8-3-7: HOURS OF CLOSURE FOR PUBLIC PARKS AND PARK AMENITIES.

A. DEFINITIONS: Whenever the following words or terms are used in this Section, they shall have the meanings ascribed below:

CEMETARY: Rose Park Cemetery and Fielding Memorial Cemetery.

CITY CAMPSITE: A public park, park amenity, or other public property specifically intended by the City to allow camping with or without fee.

PARK AMENITY: Any building, structure, shelter, facility, athletic area, or other improvement that is located within a public park.

PUBLIC PARK: Land owned or managed by the City, whether located inside or outside the City limits, that is planned, developed, or used for active or passive recreational use by the public. “Public park” includes an interior park roadway, other than a dedicated street, bicycle pathway, or pedestrian pathway, and excludes any sidewalk contiguous with the outside perimeter of a public park

B. HOURS OF OPERATION AND OF PARK CLOSURE. Public parks, park amenities, and cemeteries shall be open to the public every day of the year from 5:00 a.m., local time to 11:00 p.m., local time, except as otherwise permitted or provided in this Code. At all other times, all public parks, park amenities, and cemeteries are closed to the public.

C. VIOLATION. It shall be unlawful for any person to be present in a public park, park amenity, or cemetery during the hours that such park, park amenity, or cemetery is closed to the public.

D. It shall be a defense to prosecution under this Section that the person cited for violation was:

1. driving a vehicle on an interior public park roadway that provides direct access to the person’s residence; or
2. actively traveling on a designated bicycle and pedestrian pathway; or
3. attending an authorized Permitted Event, Special Event, activity, or program that was being conducted in a public park or park amenity during hours of closure; or
4. allowed to be present due to a protected U.S. or Idaho Constitutional right or pursuant to a controlling court decision applicable to the City; or
5. lawfully present in a City Campsite; or
6. present due to a lawful order of a peace officer; or
7. a City employee or City agent performing activities within their scope of employment.

E. PENALTY. It shall be a misdemeanor for any person to violate this Section.

SECTION 2: Title 8, Chapter 3, Section 8 of the City Code of the City of Idaho Falls, Idaho, is hereby added as follows:

8-3-8: USE OF PARK SHELTERS AND PARK AMENITIES.

A. DEFINITIONS: Whenever the following words or terms are used in this Section, they shall have the meanings ascribed below:

PARK AMENITY: Any building, structure, shelter, facility, athletic area, or other improvement that is located within a public park.

PUBLIC PARK: Land owned or managed by the City, whether located inside or outside the City limits, that is planned, developed, or used for active or passive recreational use by the public. “Public park” includes an interior park roadway, other than a dedicated street or bicycle or pedestrian pathway and excludes any sidewalk contiguous with the outside perimeter of a public park.

B. VIOLATION.

1. **Reserved Spaces.** No person shall occupy a reserved park shelter or other park amenity for more than their City approved reservation period.
2. **Unreserved Spaces.** A park shelter or other park amenity that is available for reservation and is not reserved may be used during unreserved time on a first come, first served basis, provided that no person shall occupy any reserved park shelter or park amenity during the hours that such is reserved and no person or member of a group shall occupy any unreserved park shelter or park amenity for more than a total of two (2) consecutive hours.

C.. PENALTY. It shall be a misdemeanor for any person to violate this Section.

...

SECTION 3. Savings and Severability Clause. The provisions and parts of this Ordinance are intended to be severable. If any section, sentence, clause, or phrase of this Ordinance should be held to be invalid or unconstitutional by a court of competent jurisdiction, such invalidity or unconstitutionality shall not affect the validity or constitutionality of any other section, sentence, clause, or phrase of this Ordinance.

SECTION 4. Codification Clause. The Clerk is instructed to immediately forward this Ordinance to the codifier of the official municipal code for proper revision of the Code.

SECTION 5. Publication and Effective Date. This Ordinance, or a summary thereof in compliance with Idaho Code, shall be published once in the official newspaper of the City, and shall take effect immediately upon its passage, approval, and publication.

PASSED by the City Council and APPROVED by the Mayor of the City of Idaho Falls, Idaho, this _____ day of _____, 2022.

ATTEST:

CITY OF IDAHO FALLS, IDAHO

KATHY HAMPTON, CITY CLERK

REBECCA L. NOAH CASPER, Ph.D., MAYOR

(SEAL)

STATE OF IDAHO)
) ss:
County of Bonneville)

I, KATHY HAMPTON, CITY CLERK OF THE CITY OF IDAHO FALLS, IDAHO, DO
HEREBY CERTIFY:

That the above and foregoing is a full, true and correct copy of the Ordinance
entitled, “AN ORDINANCE OF THE CITY OF IDAHO FALLS, IDAHO, A
MUNICIPAL CORPORATION OF THE STATE OF IDAHO; AMENDING TITLE
8, CHAPTER 3 BY THE ADDITION OF SECTION 7 (ESTABLISHING PARK AND
CEMETERY HOURS OF OPERATIONS) AND SECTION 8 (REGULATING PARK
SHELTERS); PROVIDING SEVERABILITY, CODIFICATION, PUBLICATION
BY SUMMARY, AND ESTABLISHING EFFECTIVE DATE.”

KATHY HAMPTON, CITY CLERK

(SEAL)

PW - Design Policy Manual

CITY OF IDAHO FALLS

ENGINEERING DESIGN POLICY MANUAL

~~July~~ September 20212

The City of Idaho Falls Engineering Design Policy Manual (EDPM) describes the procedures and standards for preparing project construction documents. “Engineer” as used herein refers to the Idaho Falls City Engineer.

The primary purpose of the EDPM is to enable engineers, consultants, and private developers to efficiently and effectively develop projects that meet City design policies and standards. The EDPM is not intended to duplicate all design-related requirements contained in the Code. Engineers and developers shall also familiarize themselves with Code requirements, especially Title 10, Chapter 1 (Subdivision Ordinance).

The EDPM is an official document setting forth City requirements, standards, policies and procedures to provide developers and City staff criteria to aid them in bringing a project to completion, including preparing plans, reports and all other related documents required to meet City design standards. Exceptions to provisions set forth herein are allowed at the Engineer’s sole discretion to secure the best engineering solutions to site-specific design challenges. The design policies herein are provided and intended to comply with the Code. Should a conflict arise between the EDPM and the Code, the Code prevails.

10 – General

10.1 – Subdivision Improvement Drawings: Include the following with all Subdivision Plan Sets:

- Location and extents of clearing and grubbing
- Disposal, stockpile or placement location of cleared and grubbed material
- Location and density of fill placement (if applicable)
- Final grading
- Centerline stationing, include stationing for PC, PT, PRC, Grade Breaks, Manholes, Inlets, Fire Hydrants, etc. with offset from centerline.
- Roadway typical sections
- Curb and gutter, sidewalk, ADA ramps, water lines, hydrants, valves, storm and sanitary sewer lines, manholes, catch basins, service lines, signs, striping, storm ponds, infiltration systems, and other features as required
- Profile of roadway centerline or, curb and gutter, water lines, storm drains, and sanitary sewers
- Storm water pollution prevention (storm water BMPs)

20 – Earthwork

20.1 – Geotechnical Engineering Report: A geotechnical report is required for any of the following:

- Soil types and infiltration rates for any proposed infiltration facilities, and
- Subgrade soil types and conditions to support a reduction in the required roadway subbase layer thickness per Section 200.2 herein, and
- Subgrade soil types and conditions to support structures

40 – Water

40.1 – Pipe Cover:

- 6 feet minimum cover
- 8 feet maximum cover
- Or as approved in writing by the Engineer

40.2 – Valves:

- Valves at maximum spacing of 700 feet, meet requirements of Standard Drawing IF-404A
- Valves at intersection at P.C. of curb return, see Standard Drawing IF-404
- Valves on Hydrant lines 5 feet from tee, see Standard Drawing IF-404
- 10" or under use Gate Valve
- Over 10" use Butterfly Valve

40.3 – Bends:

- 90° bends (elbows) allowed on waterlines 8" in diameter and smaller
- Bends greater than 45° on waterlines greater than 8" diameter require written approval of the Engineer

40.4 – Service Lines:

- New service lines extended 10 feet beyond the ROW. Meet requirements in Standard Drawings IF-401A through IF-401F
- Service lines 2" and smaller in diameter use ~~type K soft copper~~ CTS polyethylene pipe
- Service lines 4" and greater in diameter use class 50 ductile iron
- Services between 2" and 4" in diameter the service line extends at 4" diameter to within the public ROW/PUE and then reduced to the appropriate size
- Service lines for landscape irrigation only install meter in meter box and install a second curb box behind meter box as shown in Standard Drawing IF-409
- Existing service line replacement – connect at existing curb stop or meter box (if present)

40.5 – Meter Box with Meter:

- Required on all new service lines or replaced service lines. Meet requirements of Standard Drawings IF-401A (1"), IF-401B (1-½" & 2"), IF-412 (4"), IF-412A (6"), or IF-412B (8")

40.6 – Canal Crossings:

- Meet requirements of Standard Drawing IF-411
- All water main canal crossings to be placed in a steel casing
- Crossing below a canal that is 15 feet or greater in width at high water elevation install a water main access structure
- Casing 4' below channel bottom

40.7 – Flush Hydrant:

- All dead-end lines (permanent or temporary): place flush hydrant beyond the last tee or service connection and at other locations as required by the Engineer. See Standard Drawing IF-405
- Install 2 feet to 5 feet from plugged end of water main
- Used in high points of water mains as an air release valve

40.8 – Joint Deflection of Pipe:

- Per manufacture's recommendations

40.9 – Waterline Flow:

- Minimum of 1500 gpm to any fire hydrant unless additional flow is required by the Fire Marshall

40.10 – Water Mains:

- Main lines 8" minimum
- 6" min in cul-de-sacs beyond last fire hydrant
- Location of pipe to be within the paved roadway a minimum of 4' from any curb and gutter section
- Maintain a minimum of 10-foot horizontal separation between water main and sanitary/storm sewer main. Maintain 18" vertical separation between water main and sanitary/storm sewer main. All separation requirements both horizontal and vertical to be measured between near edges of pipe. Satisfy requirements of IDAPA 58.01.08
- Place water main lines to minimize the number of crossings with sanitary/storm sewer mains
- Place water main lines such that crossings with sanitary/storm sewer mains are as near perpendicular as practicable (90 degrees +/- 10 degrees)

40.11 – Fire Hydrants:

- 400 feet maximum spacing between hydrants for residential or per fire code
- 200 feet maximum spacing between hydrants for commercial/industrial or per fire code
- Spacing requirement to be met independently on each side of arterial roadways
- Additional hydrants as required by the Fire Marshall

50 – Sewer

50.1 – Pipes:

- Minimum pipe slope:

Pipe Size	Minimum Grade		Maximum Grade	
(Inches)	(ft/ft)	(%)	(ft/ft)	(%)
8	0.004	0.40%	0.089	8.9
10	0.0028	0.28%	0.066	6.6
12	0.0022	0.22%	0.052	5.2
15	0.0015	0.15%	0.038	3.8
18	0.0012	0.12%	0.030	3.0
21	0.001	0.10%	0.024	2.4
24	0.0008	0.08%	0.020	2.0
27	0.0007	0.07%	0.017	1.7
30	0.0006	0.06%	0.015	1.5
36 and Larger	0.0005	0.05%	0.012	1.2

- All permanent dead end sewer lines (e.g. cul-de-sac) installed with a minimum of 1.0% slope in upstream end segment
- Pipe with less than 2 feet of cover material: pipe to be Class IV or V reinforced concrete pipe or Class 50 ductile iron pipe

50.2 – Manholes:

- Spacing between manholes 400 feet maximum
- Minimum drop across manhole 0.1 feet on pipes up to 27"
- Top of inlet pipe(s) to be no lower than top of outlet pipe
- Use drop manhole connection in accordance with Standard Drawing IF-504

50.3 – Service Lines:

- New service line stub extend 10 feet beyond ROW
- Existing service lines replacement – connect at ROW (unless otherwise approved in writing by the Engineer)

60 – Culverts and Storm Sewer

60.1 – Pipes:

- Design storm drain pipes to provide capacity based on the 2 year storm return frequency
- Minimum storm sewer pipe diameter is 12 inches
- Minimum pipe slopes: conform to table in paragraph 50.1

60.2 – Manholes:

- Spacing between manholes 400 feet maximum
- Minimum drop across manhole 0.1 feet on pipes up to 27"
- Top of inlet pipe(s) to be no lower than top of outlet pipe
- Maximum of 4 pipes connecting to standard manhole unless approved by Engineer

60.3 – Catch Basins:

- Design catch basins to provide capacity based upon the 2 year storm return frequency
- Position catch basins away from curb ramps by placing them at the PC/PT
- Minimum catch basin depth to flow line of pipe

Local Residential / Residential Collector	3 feet
Major Collector / Local Industrial	3.5 feet
Arterials	4.0 feet

Allowed to go shallower with use of ductile iron pipe with a minimum of 3 inches of cover below subgrade

- Use side opening catch basins conforming to current City Standards
- Place catch basins at lot lines to avoid driveway conflicts
- Maximum inlet spacing:

Local Residential Street (60' ROW)	1000 feet
Residential Collector (70' ROW)	650 feet
Major Collectors (80' ROW)	550 feet
Minor & Principal Arterials (100' ROW)	450 feet

- Maximum pipe size into the Standard catch basin is 15 inch
- Maximum angles on the 2'x3' Catch Basin (deviation from perpendicular):

12" ADS N-12 & 12" Sanitite HP on the 3' long side	45°
12" ADS N-12 & 12" Sanitite HP on the 2' short side	25°
12" PVC SDR-35 on the 3' long side	50°
12" PVC SDR-35 on the 2' short side	30°
15" ADS N-12 & 15" Sanitite HP on the 3' long side	35°
15" ADS N-12 & 15" Sanitite HP on the 2' short side	0°
15" PVC SDR-35 on the 3' long side	40°
15" PVC SDR-35 on the 2' short side	5°

- Chaining Catch Basins

Maximum of 2 catch basins on single run.

60.4 – Storm Drainage Guidelines:

- Where a City storm drain is available in adjacent street, alley or easement, design the private system to allow for overflow or controlled discharge to the City system
- Prevent storm water from draining across the surface of sidewalks
- All construction in accordance with the current edition of the City of Idaho Falls Standard Drawings and Specifications
- All storm drain systems that ultimately flow to an Irrigation District system must have said Irrigation District approval prior to City approval and acceptance
- Submit all storm drain system master plans, along with calculations, to the City for approval
- Include with storm drain master plan any needed piping, ponds, lift stations, energy dissipaters, grading, landscaping, etc. The design to be stamped and signed by an engineer licensed in the State of Idaho

60.5 – Storm Drainage Pond:

- Pond is required to store 1.33 inches of water multiplied by the entire contributing area that flows to the pond. Provide a positive outlet for pond or size the pond ten (10) times greater than the volume otherwise required
- Pond outlet must be capable of draining 90% of the entire pond volume in not more than forty-eight (48) hours
- Provide a fifteen (15) foot wide asphalt access road and a minimum asphalt area of 20 feet by 20 feet at any lift station. Asphalt pavement section to meet requirements for residential local streets. May be reduced or modified only as indicated by a Geotechnical investigation and report performed and sealed by a geotechnical engineer licensed in the State of Idaho. Place lift station and appurtenances to allow clear access to the pond with trucks, mower, etc.
- Locate pond outlet the greatest distance possible from the inlet
- Slope bottom of pond to the controlled release outlet structure or, if outlet is to be by infiltration, to a City Standard infiltration manhole or other approved infiltration facility. Locate infiltration manhole adjacent to the pond outlet and greatest distance from the inlet
- Locate intake to controlled release outlet structure or infiltration manhole 8"-12" above the finished ground surface to minimize sediment or trash entering the infiltration bed or downstream facilities
- Pond inlet pipe to enter the pond at an elevation above the lowest pond elevation, unless said line enters directly into infiltration manhole. Provide an engineered energy dissipater at all discharges to pond not in manholes

Meet the Following Criteria When City of Idaho Falls Maintains Pond:

- 10 foot wide horizontal (flat) area around the top perimeter of the pond
- Side slopes maximum of 5 feet horizontal to 1 foot vertical for mowed slopes. All other slopes to be 4 feet horizontal to 1 foot vertical unless approved by Engineer.

- Energy dissipater at pond inlet to eliminate erosion. Concrete alley curb poured around the riprap to facilitate a mowing edge. Construct pond inlet so that it is accessible for maintenance
- Minimum topsoil depth 6 inches compacted (85% to 90%) in place over the entire surface area of the pond
- No topsoil in ponds with Xeriscaping
- Rock depth per plans or as directed by Engineer.
- Sprinkler system for pond to meet City of Idaho Falls Standard Drawings and Specifications

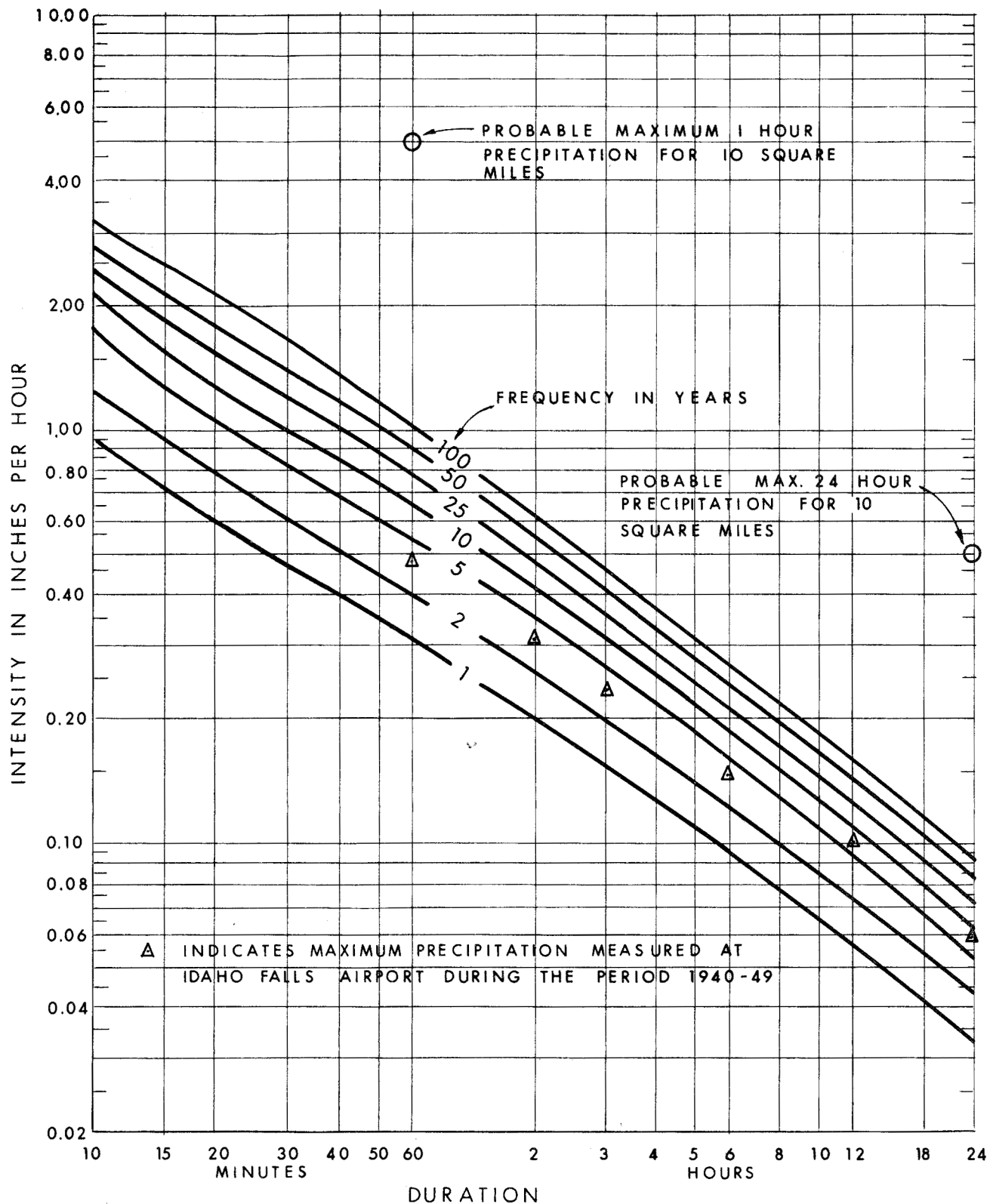


FIGURE 4
IDAHO FALLS, IDAHO
STORM SEWER STUDY
RAINFALL - INTENSITY - DURATION - FREQUENCY

70 – Concrete

70.1 – Curb and Gutter Sections:

- Minimum slope for tangent section 0.40%
- Minimum slope through curb returns at intersections 0.6%
- Minimum base thickness per Standard Drawings and Specifications

70.2 – Cross Drains/Valley Gutters

- Allowed with written approval from Engineer
- Minimum slope 1%
- Minimum base thickness per Standard Drawings and Specifications

70.2 – Sidewalk:

- Cross slope to be 1.75% +/- 0.25%
- All pedestrian ramps and walkways to comply with Americans with Disabilities Act (ADA) requirements
- Minimum concrete and base thicknesses per Standard Drawings and Specifications

200 – Miscellaneous

200.1 – Typical Street Cross Sections (see attached drawings):

- Local Residential Street (60' ROW)
- Residential Collector (70' ROW)
- Local Industrial Street (70' ROW)
- Major Collector, Bicycle/Pedestrian Priority (80' ROW)
- Major Collector, Truck/Auto Priority (80' ROW)
- Pioneer Road (80' ROW)
- Minor Arterial, Truck/Auto Priority (100' ROW)
- Minor Arterial, Bicycle/Pedestrian Priority (100' ROW)
- Minor Arterial, Shared Priority (100' ROW)
- Principal Arterial, Shared Priority (100' ROW)
- (Roadway classifications in accordance with the BMPO Access Management Plan, most recent update)

200.2 – Subbase Layer:

- Subbase layer may be reduced or eliminated only as indicated by a Geotechnical investigation and report performed and sealed by a geotechnical engineer licensed in the State of Idaho. Pavement section design to be based on the following:

STREET CLASSIFICATION	TRAFFIC INDEX
Local Residential Street	7
Local Industrial Street	8.5
Residential Collector	8
Major Collector (Includes Pioneer Rd)	9
Minor/Principal Arterial	Project-specific traffic analysis/forecasting

- Geotechnical report may only be used to justify reduction or elimination of subbase layer and, if appropriate, elimination of the geotextile fabric. Asphalt and base gravel layer thicknesses are fixed according to the attached typical street sections

200.3 – Fire Access Roadway Section (Including Turn-arounds):

- Asphalt pavement section (Standard Requirement)—use the Local Residential Street section. The subbase layer may be reduced or eliminated only as indicated by a Geotechnical investigation and report performed and sealed by a geotechnical engineer licensed in the State of Idaho
- Gravel roadway section (Where approved by the Fire Marshall and Engineer)—use 12" minimum total base and subbase layers (minimum 6" crushed aggregate base) plus subgrade separation fabric

200.4 – Driveway Requirements:

- No more than 50% of the property frontage shall be utilized for driveways
- Residential driveways maximum of thirty (30) feet in width
- Commercial driveways maximum of forty (40) feet in width
- The driveway width is measured along the depressed section of the driveway. The transition from the full height curb to the depressed section of the driveway is three (3) feet when there is grass strip and six (6) feet when there is no grass strip. In downtown areas, the transition may be five (5) feet
- All existing driveway curb cuts not utilized shall be removed and replaced with standard full height curb, gutter, and sidewalk
- Full height curb and gutter, between two (2) driveways shall be a minimum of ten (10) feet.
- The distance from any property line to the beginning of a driveway (the full height curb and gutter portion of the driveway) shall be a minimum of five (5) feet
- There shall be a minimum distance of twenty (20) feet from a property line corner at a street intersection before a driveway is constructed, or as directed by the Engineer

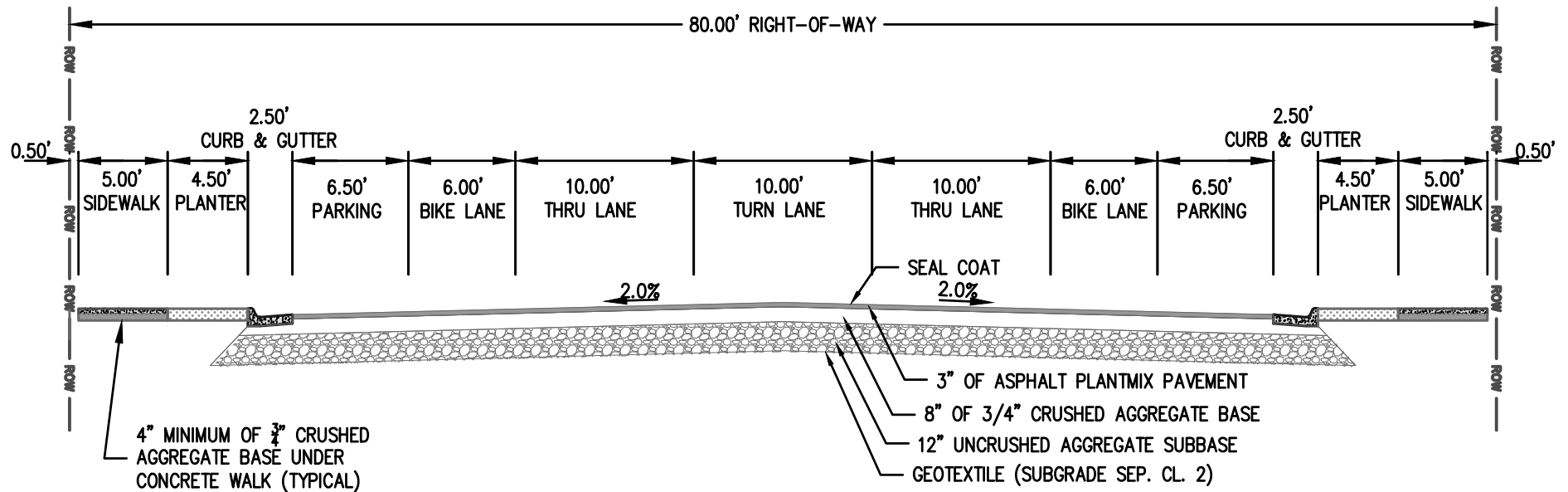
200.5 – Shared Use Path Section:

- 2" of Asphalt Plantmix Pavement, 6" of ¾" Crushed Aggregate Base plus subgrade separation fabric

- Minimum width of 10 feet (12 feet preferred) or as otherwise approved by Engineer

MAJOR COLLECTOR, BICYCLE/PEDESTRIAN AND SHARED PRIORITY (80' ROW)

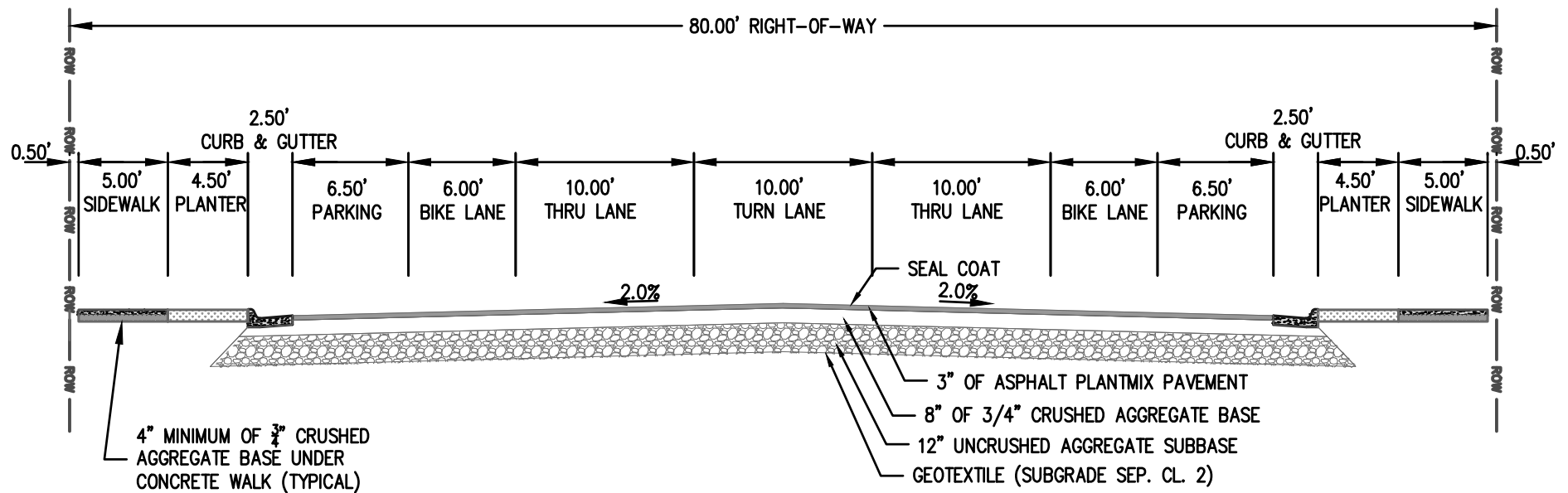
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MAJOR COLLECTOR, BICYCLE/PEDESTRIAN PRIORITY (80' ROW)

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CITY OF IDAHO FALLS

SUPPLEMENTAL SPECIFICATIONS TO
THE ISPWC

DIVISION 400 - WATER

CITY OF IDAHO FALLS SUPPLEMENTAL SPECIFICATIONS TO THE ISPWC

Division 400 – Water

Section 401 – Water Pipe and Fittings, Part 2.1 Pipe and Fittings Size, Type and Strength

Add new Item D:

- D. For all pipes larger than 2" in diameter, install only ductile iron pipe and fittings unless otherwise approved in writing by the Engineer.

Section 401 — Water Pipe and Fittings, Part 2.3 Ductile Iron Pipe and Fittings

Delete Item A.1 and **insert** new Item A.1:

- 1. Thickness Class: Class 50 or higher as may be required by the bedding, pressure and loading conditions encountered at the project site.

Section 401 — Water Pipe and Fittings, Part 3.1 Examinations

Delete Item C and **insert** new Item C:

- C. Verify that excavation will allow a minimum pipe cover of 72 inches and a maximum pipe cover of 96 inches, unless otherwise indicated in the Contract Documents.

Section 401 — Water Pipe and Fittings, Part 3.2 Pipe Installation

Add new Item R:

- R. Conductivity: Provide a continuity connection at all mechanical and rubber gasket joints in ductile iron pipe. Use number two or larger stranded copper wire with end sleeves. Make electrical connections using Cad weld Type HB or equal. Expose the surface of the pipe by removing factory coatings where Cad weld connections are made to the pipe. After connections have been completed, thoroughly clean all exposed surfaces of the pipe, where the coatings were removed to complete the connection, to expose the base metal. Coat the connection and the cleaned area of the pipe with two or more field coats of bitumastic coating.

Section 401 — Water Pipe and Fittings, Part 3.4 Thrust Blocks

Delete Item B and **insert** new Item B:

- B. Provide bearing area against undisturbed earth. If the soil at the site of the thrust block is of a poor or unsuitable nature and at the direction of the Engineer, remove said unsuitable material and replace with Crushed or Uncrushed Aggregate Base or other material approved in writing by the Engineer. If required by the Engineer, increase the thrust blocking in size to provide the necessary blocking and restraint required in lieu of removing unsuitable material.

Section 401 — Water Pipe and Fittings, Part 3.11 Abandonment of Existing Mains

Add new Item E:

- E. Cap end of abandoned main in a manner approved by the Engineer.

Section 401 — Water Pipe and Fittings, Part 3 Construction

Add new Part 3.12 Temporary Water Service

- A. Provide temporary water service when replacement construction is required of an existing water main line pipe. This temporary water service is required during the time it takes for the proper construction of the replacement water main line pipe, including the required time for disinfection, pressure testing, flushing, bacterial testing and receiving results of an acceptable bacterial test. No temporary water service is required for service disruptions that do not exceed 4 hours in duration, provided that the disruption is coordinated with the user(s) to minimize their inconvenience.
- B. Utilize such material for temporary water service that is capable of supplying the volume of water that is currently being required by the adjacent properties, except that volume required for fire protection. Use material that is “new” or used previously only for potable water.
- C. Handle temporary water service in such a manner as to maintain a safe clean temporary water service at all times during the replacement construction. Chlorinate the temporary water service and hydrant. A passing bacteria test is required prior to being placed in service. Choose a method and material for temporary water service that is acceptable to the Engineer. Demonstrate that the method is feasible and will work properly prior to starting the replacement construction. Coordinate closely with the City's Water Division to minimize adverse impact on water service operations and surrounding private property.

- D. Shut off the existing water line that is to be replaced prior to any excavation. This may be done on a block-by-block basis if the Contractor so desires. Notify all property owners and the City Water Division of any water line that is to be turned off during the replacement construction. Provide an approximate time and duration for each water main line shut-off period. Provide a temporary water service to any property that requires water service during a shut-off period.
- E. The Contractor may “hose over”, with a hose consisting of drinking water quality materials from one property with water service to another property without service, provided both property owners understand and agree to the arrangement and the temporary line can be maintained on a twenty-four (24) hour basis. “Hosing over” from a property that is already “hosed over” is not allowed. Repair any faucets, etc. which become plugged during the temporary service.
- F. Locate and place any overland pipelines and hoses used for the temporary water service in a manner to minimize interference with pedestrian and vehicular traffic. Incorporate appropriate signing and barricading, in accordance with MUTCD, to mark street crossings and sidewalk areas.
- G. Upon completion of the “new” replaced water main line and reconnection of the existing or new service lines, flush each property's water system and ensure that all faucets, etc. are not plugged.
- H. Indemnify and hold harmless the City from any and all damages or claims arising from the temporary water service operations. The Contractor is entirely responsible for the methods and results of the temporary water service.

Add new Part 3.13 Water Main Access Structure

- A. Water Main Access Structure in conformance with Standard Drawing IF-411.

Section 401 — Water Pipe and Fittings, Part 4.1 Measurement and Payment

Add Item C and D:

- C. Temporary Water Service: By the lump sum for all temporary water service required.
 - 1. Bid Schedule Payment Reference: 401.4.1.C.1.
 - 2. Bid Schedule Description: Temporary Water Service...lump sum (LS).

- D. Water Main Access Structure: Per Lump Sum.
 - 1. Bid Schedule Payment Reference: 401.4.1.D.1.
 - 2. Bid Schedule Description: Water Main Access Structure...lump sum (LS).

Section 402 — Hydraulic Valves, Part 2.1 Valve Size, Type and Strength

Add Item D:

- D. Valve Size
 - 1. Resilient Seated Gate Valves: Maximum size 10 inches.
 - 2. Butterfly Valves: Minimum size 12 inches.

Section 402 — Hydraulic Valves, Part 2.5 Blow-off Assembly

Delete Part 2.5 Blow-off Assembly in its entirety.

Section 402 — Hydraulic Valves, Part 2.7 Valve Boxes

Delete Item C and **insert** new Item C:

- C. Adjustment: Adjustable with sufficient length as to be adapted without full extension to the depth of cover required over the pipe at the valve location.

Section 402 — Hydraulic Valves, Part 3.2 Installation

Add Item G:

- G: Install an extension stem, where the valve operating nut is installed at depths in excess of 6 feet of finished grade, such that the top of the extension is within 18 inches of the finished grade.

Section 403 – Hydrants, Part 2.3 Color

Delete Item A and **insert** new Item A:

- A. Chrome Yellow, OSHA Safety Yellow, or approved equal.

Section 403 – Hydrants, Part 2 Materials

Add Part 2.9 Flush Hydrant

2.9 FLUSH HYDRANT

- A. Conform to Standard Drawing IF-405 Flush Hydrant.
- B. Nozzle: Two inch NPT nozzle outlet.
- C. Inlet: Two inch FIP inlet.
- D. Operation: Operable by turning a top-mounted 9/16 inch square nut counterclockwise to open and clockwise to close, with drain outlet sealed in all positions from 1/4 open to fully open.
- E. Material for Internal Working Parts, Inlet and Outlet: Low-lead brass.
- F. Material for Wear Parts (O-rings and Valve Seat): Of commonly available dimensions and materials and not of vendor-unique design.
- G. Installation Type: Below grade, designed to fit within a standard valve box with all working parts serviceable from above with no digging required.

Section 403 – Hydrants, Part 3.1 Examinations

Add Item F:

- F. Verify that the size of the main line to which the hydrant line is to be connected is a minimum size of 6 inches if the main is looped or a minimum of 8 inches if the main is not looped.

Section 403 – Hydrants, Part 3.2 Installation

Add Items H and I:

- H. Thoroughly clean and paint all iron parts of hydrants, both inside and outside. Coat all inside surfaces and outside surfaces below the sidewalk ring with asphalt varnish, Federal Specifications TT-P-51a or JANP-450. Apply two coats, the first having dried thoroughly before the second is applied.
- I. Thoroughly clean the outside of hydrants above the sidewalk ring and paint with one coat of paint of durable composition conforming to Federal Specification TT-P-86a, Type IV and two additional coats of Chrome Yellow, OSHA Safety Yellow, or approved equal, on the body and cap.

Section 403 — Hydrants, Part 4.1 Measurement and Payment

Delete Item A and **insert** new Item A:

- A. Hydrant. Per each as specified. Includes hydrant, valve, pipe, thrust blocks, restraint, fittings, valve boxes, connections, drain rock, filter fabric, spare parts, excavation, bedding, backfilling, testing and all appurtenances not itemized in the Bid Schedule.
 - 1. Bid Schedule Payment Reference: 403.4.1.A.1.
 - 2. Bid Schedule Description: Hydrant, Type _____...each (EA).

Add Item B, C, and D:

- B. Reset Existing Hydrant. Per each as specified. Includes hydrant, valve, pipe, thrust blocks, restraint, fittings, valve boxes, connections, drain rock, filter fabric, spare parts, excavation, bedding, backfilling, testing and all appurtenances not itemized in the Bid Schedule.
 - 1. Bid Schedule Payment Reference: 403.4.1.B.1.
 - 2. Bid Schedule Description: Reset existing Hydrant, Type _____...each (EA).
- C. Relocate Existing Hydrant. Per each as specified. Includes hydrant, valve, pipe, thrust blocks, restraint, fittings, valve boxes, connections, drain rock, filter fabric, spare parts, excavation, bedding, backfilling, testing and all appurtenances not itemized in the Bid Schedule.
 - 1. Bid Schedule Payment Reference: 403.4.1.C.1.
 - 2. Bid Schedule Description: Relocate existing Hydrant, Type _____...each (EA).
- D. Reconnect Existing Hydrant. Per each as specified. Includes hydrant, valve, pipe, thrust blocks, restraint, fittings, valve boxes, connections, drain rock, filter fabric, spare parts, excavation, bedding, backfilling, testing and all appurtenances not itemized in the Bid Schedule.
 - 1. Bid Schedule Payment Reference: 403.4.1.D.1.
 - 2. Bid Schedule Description: Reconnect existing Hydrant, Type _____...each (EA).

Section 404 – Water Service Line and Meters, Part 2.1 ~~Service Pipe~~PIPE AND FITTINGS SIZE, TYPE AND STRENGTH

Add new Item D:

- D. For all service pipes 2" and less in diameter, install only ~~Type K~~ seamless ~~copper~~ Polyethylene (PE) pressure Pipe ~~water tube~~ unless otherwise approved in writing by the Engineer.

Section 404 – Water Service Line and Meters, Part 2.2 Service Pipe

Delete Items A.1, A.2, and A.3 and **insert** new Item A.1, A.2, A.3 and A.5:

1. Pressure Class: 250 psi.
2. Outside Dimension Ratio: SDR 9.
3. Dimension Basis: Copper Tubing Size (CTS).
5. Blue in color.

Section 404 — Water Service Line and Meters, Part 2.4 Appurtenances

Delete Items ~~B.1 and~~ B.3 and **insert** new Item B.13:

- ~~13. Type: Ball type with conductive compression outlet for Type K copper tubing.~~ Ballcorp style for CTS PE pipe.

Delete Item G and **insert** new Item G:

- G. Meter Box
1. Products and materials in accordance with Standard Drawings IF-401A and IF-401B.

Section 404 — Water Service Line and Meters, Part 2.4 Appurtenances

Add new Item I Curb Stops and Curb Boxes:

1. Curb stops: Ball type with ~~conductive~~ compression inlet for ~~Type K copper~~ CTS polyethylene tubing, ¼ turn with stop.
2. Curb boxes: Provided with a shut off rod of such length that the top of said rod is between 6" and 36" below proposed finish grade. Arch pattern base and two-hole Erie style lid with Mueller H-10342 or equal curb box sleeves for use in sidewalks.

Section 404 – Water Service Line and Meters, Part 3.2 Installation

Delete the last sentence of Item A and **replace** with the following:

For service disruptions exceeding 4 hours in duration, provide temporary water service in accordance with Section 401, Part 3.12 Temporary Water Service.

Add new Items M through P:

- M. Do not use couplings for service lines, unless the length of service line is such that one complete roll ~~or stick~~ of tubing will not make the connection from corporation stop to curb stop valve.
- N. Leave the main trench open at all points where service connections are made until such services are installed and tested to the curb stop valve.
- O. ~~Connect service lines in such a manner as to ensure electrical conductivity.~~ Install stainless steel inserts into all compression connections.
- P. Plan and coordinate work such that water service can be resumed with the least possible inconvenience to the public, with no water service being disconnected to any customer for a period of more than six consecutive hours unless approved in writing by the Engineer.

Section 404 — Water Service Line and Meters, Part 4.1 Measurement and Payment

Add Items B and C:

- B. Replace Water Service, Size ____: Per each size as specified. Includes excavation, bedding, backfill, service tap, and saddle, corporation stop, service pipe, fitting, meter, meter box and all appurtenances as designated in the Plans and as directed by Engineer.
 - 1. Bid Schedule Payment Reference: 404.4.1.B.1.
 - 2. Bid Schedule Description: Replace Water Service, Size ____...each (EA).
- C. Adjust Meter Box: Per each as specified. Includes excavation, labor, bedding, backfill, and all appurtenances to adjust meter box to grade (sizes 1" through 2") as designated in the Plans and directed by Engineer.
 - 1. Bid Schedule Payment Reference: 404.4.1.C.1.
 - 2. Bid Schedule Description: Adjust Meter Box...each (EA)

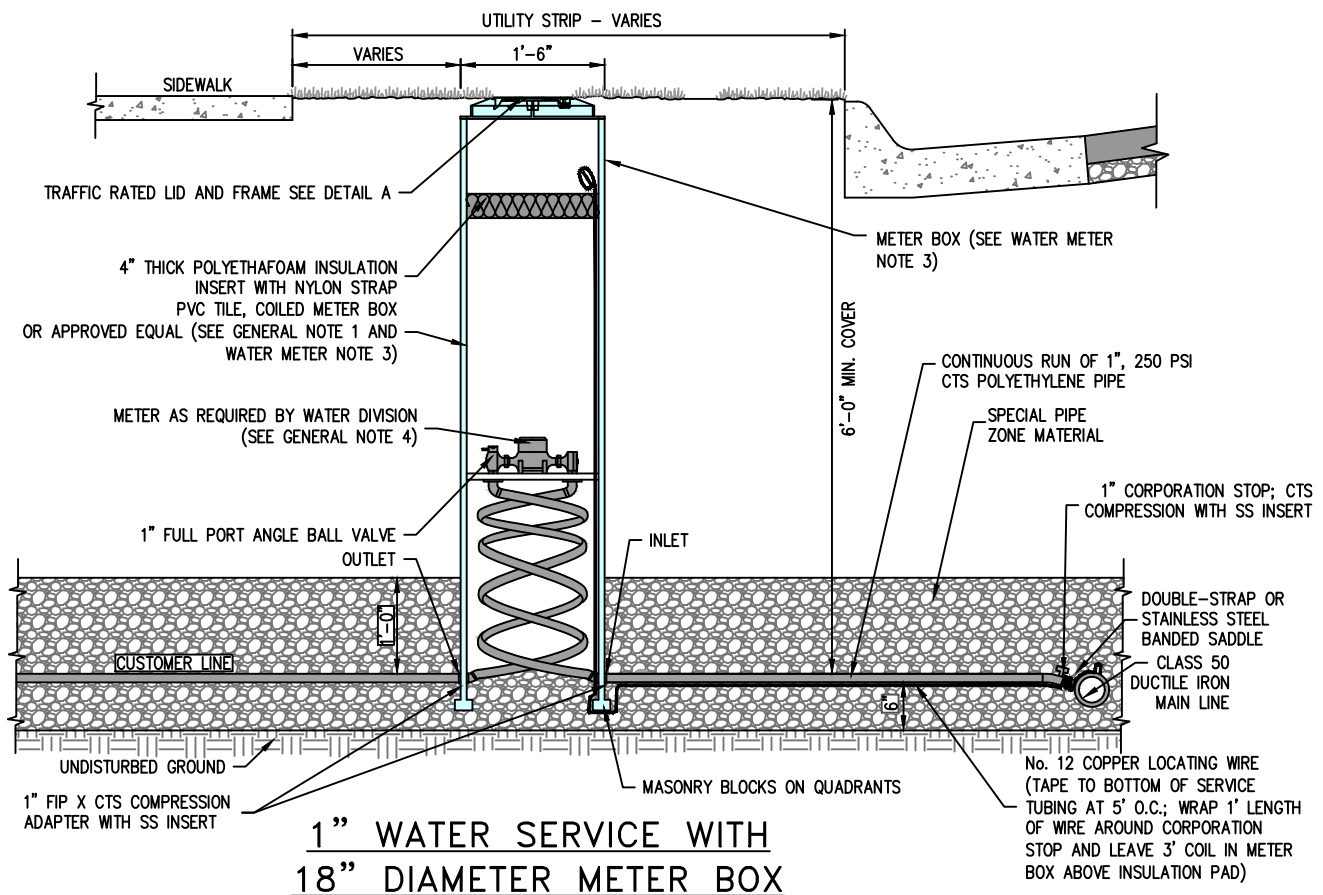
Division 400 – Water – Standard Drawings

Delete the following Standard Drawings:

Delete SD-401
Delete SD-402
Delete SD-403
Delete SD-404
Delete SD-405

Add the following Idaho Falls Standard Drawings:

Add IF-401A
Add IF-401B
Add IF-401C
Add IF-401D
Add IF-401E
Add IF-401F
Add IF-403 (2 sheets)
Add IF-404
Add IF-404A
Add IF-405
Add IF-409 (2 sheets)
Add IF-410
Add IF-410A
Add IF-410B
Add IF-410C

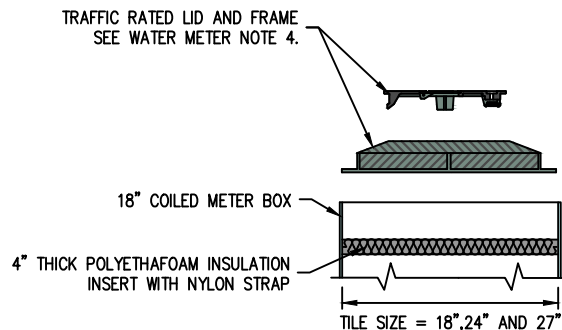


GENERAL NOTES:

1. APPROVED WATER LINE MATERIALS LIST MAINTAINED BY CITY OF IDAHO FALLS WATER DIVISION (208) 612-8471.
2. CONTRACTOR SHALL NOTIFY CITY OF IDAHO FALLS WATER DIVISION AND ANY IMPACTED CUSTOMERS OF ANY WATER LINE CLOSURES OR SERVICE OUTAGES.
3. WATER METERS SHALL BE INSTALLED ON ALL NEW WATER SERVICE CONSTRUCTION

WATER METER NOTES:

1. ALL BRASS FITTINGS AND VALVES FOR METER BOX AND SERVICE LINE SHALL BE FURNISHED AND INSTALLED BY THE CONTRACTOR AND CONFORM TO AWWA C800 AND NSF 61.
2. BACKING WRENCH REQUIRED FOR CONNECTION OF METER BOX TO THE CITY SERVICE LINE AND CUSTOMER SERVICE LINE TO PREVENT DAMAGE TO BOX AND ASSOCIATED PIPING.
3. METER BOX SHALL BE LOCATED IN LANDSCAPED AREAS WHERE POSSIBLE.
4. TRAFFIC RATED LID AND FRAME SET TO FINISHED GRADE. FRAME TO BE D&L FOUNDRY #B5020-R3 OR APPROVED EQUAL. LID TO BE D&L FOUNDRY #B5020-06 (NO LOCK; WITH 2" DIAMETER SENSOR HOLE AND THUMB CUT-OUT) OR APPROVED EQUAL. SENSOR HOLE TO BE PLUGGED.



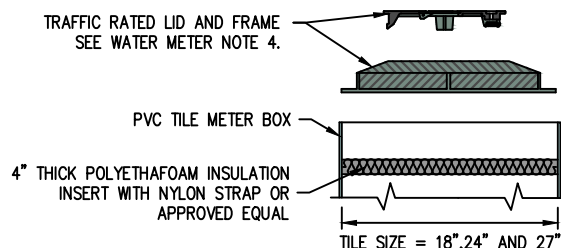
DETAIL A
TRAFFIC RATED RING AND LID
18" DIAMETER METER BOX

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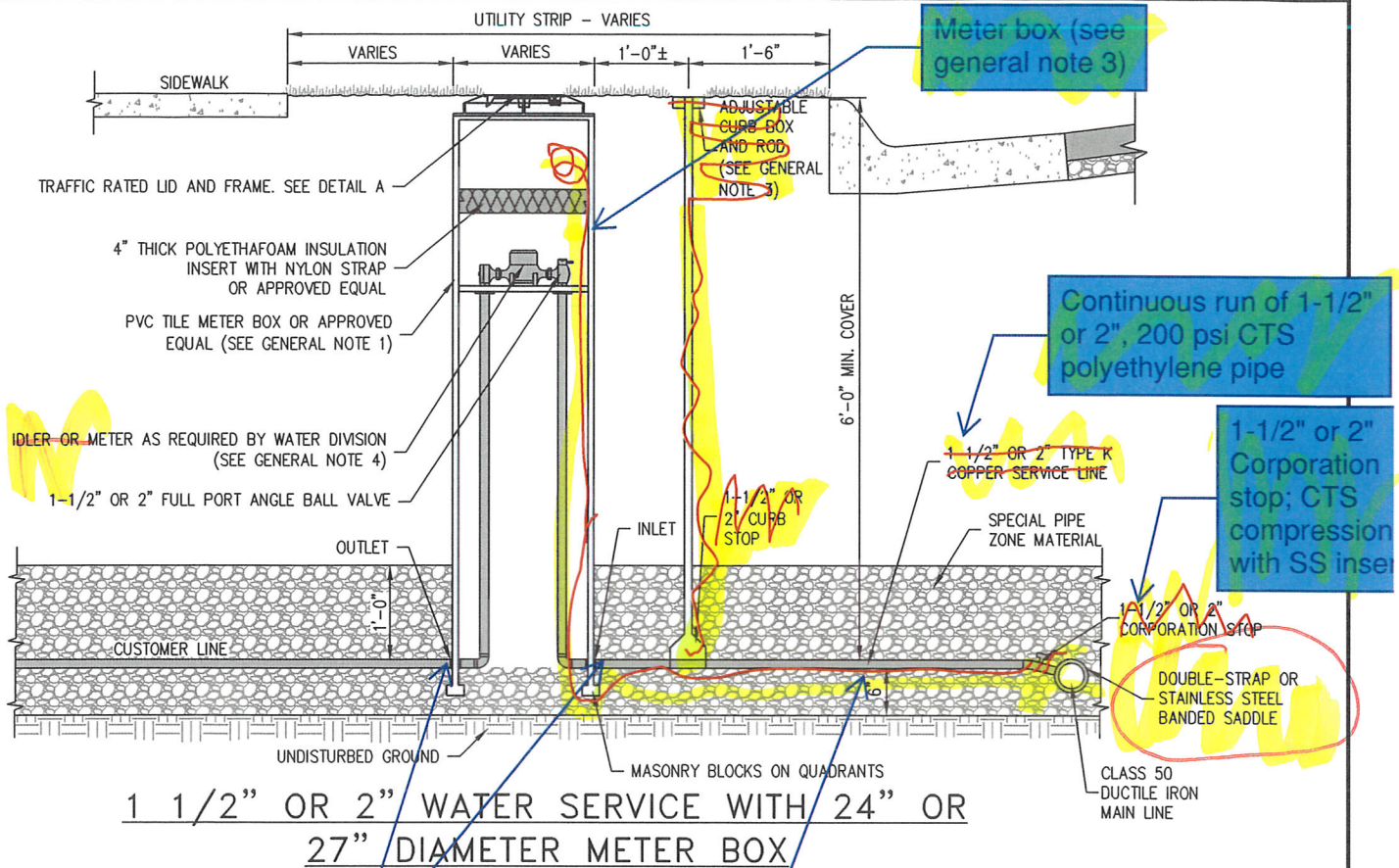
CITY OF IDAHO FALLS

**WATER SERVICE
WITH METER BOX**

STANDARD DRAWING
NO. **IF-401A**



STANDARD DRAWING
NO. IF-401B



1-1/2" or 2" FIP x CTS compression adapter with SS insert

No. 12 Solid Copper ~~locator~~ wire (tape to bottom of service tubing at 5' O.C.; wrap 1' length of wire around corporation stop and leave 3' coil in meter box above insulation pad)

Locating

TRAFFIC RATED LID AND FRAME SEE WATER METER NOTE 4.

PVC TILE METER BOX

4" THICK POLYETHAFOAM INSULATION INSERT WITH NYLON STRAP OR APPROVED EQUAL

TILE SIZE = 18", 24" AND 27"

DETAIL A TRAFFIC RATED RING AND LID 24" AND 27" DIAMETER METER BOXES

GENERAL NOTES:

1. APPROVED WATER LINE MATERIALS LIST MAINTAINED BY CITY OF IDAHO FALLS WATER DIVISION (208) 612-8471.
2. CONTRACTOR SHALL NOTIFY CITY OF IDAHO FALLS WATER DIVISION AND ANY IMPACTED CUSTOMERS OF ANY WATER LINE CLOSURES OR SERVICE OUTAGES.
3. CURB BOXES LOCATED IN CONCRETE SHALL BE EQUIPPED WITH A CURB BOX SLEEVE (MUELLER PART #: H-10342 OR APPROVED EQUAL).
4. WATER METERS SHALL BE INSTALLED ON ALL NEW CONSTRUCTION FOR NON-RESIDENTIAL USE AND IRRIGATION OF COMMON PROPERTY. WATER IDLERS SHALL BE INSTALLED ON ALL NEW RESIDENTIAL CONSTRUCTION IN LIEU OF WATER METERS.

WATER METER NOTES:

1. ALL BRASS FITTINGS AND VALVES FOR METER PIT AND SERVICE LINE SHALL BE FURNISHED AND INSTALLED BY THE CONTRACTOR AND CONFORM TO AWWA C800 AND NSF 61.
2. BACKING WRENCH REQUIRED FOR CONNECTION OF METER BOX TO THE CITY SERVICE LINE AND CUSTOMER SERVICE LINE TO PREVENT DAMAGE TO BOX AND ASSOCIATED PIPING.
3. METER BOX AND CURB STOPS SHALL BE LOCATED IN LANDSCAPED AREAS WHERE POSSIBLE.
4. TRAFFIC RATED LID AND FRAME SET TO FINISHED GRADE. FRAME TO BE D&L FOUNDRY #B5020-R3 OR APPROVED EQUAL. LID TO BE D&L FOUNDRY #B5020-06 (NO LOCK; WITH 2" DIAMETER SENSOR HOLE AND THUMB CUT-OUT) OR APPROVED EQUAL. SENSOR HOLE TO BE PLUGGED.
5. 1-1/2" AND 2" METER BOXES MAY BE ORDERED WITH BY-PASS LINES WITH PRIOR WRITTEN APPROVAL FROM WATER DIVISION. FOR APPROVAL, CONTACT WATER DIVISION AT (208) 612-8471.

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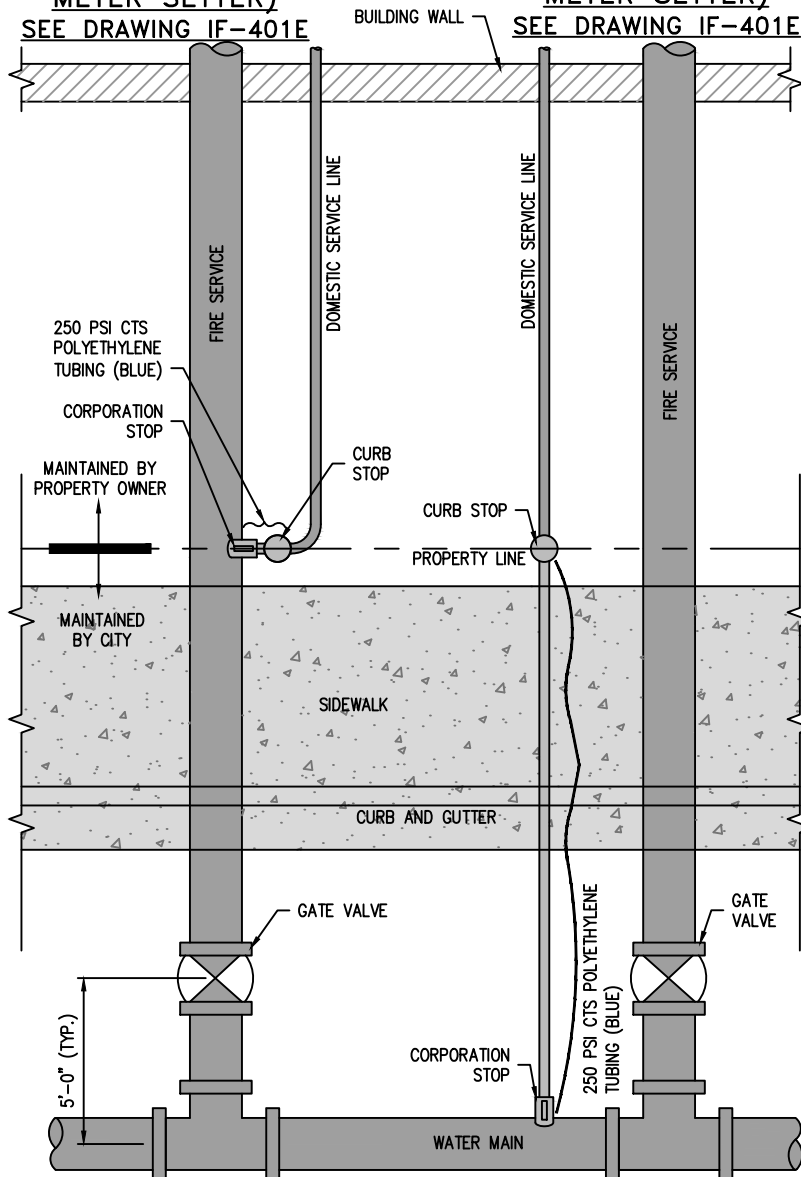
CITY OF IDAHO FALLS

WATER SERVICE WITH METER BOX

STANDARD DRAWING
NO. IF-401B

OPTION 1
(REQUIRES INTERIOR
METER SETTER)
SEE DRAWING IF-401E

OPTION 2
(REQUIRES INTERIOR
METER SETTER)
SEE DRAWING IF-401E



NOTES:

- PER IDAHO ADMINISTRATIVE CODE (IDAPA 58.01.08) ALL NEW WATER SERVICE LINE INSTALLATIONS SHALL INSTALL PROVISIONS FOR A WATER METER (EITHER A METER BOX OR A COMMERCIAL INTERIOR METER SETTER) TO CAPTURE BOTH DOMESTIC AND LANDSCAPE SPRINKLING USES.
- WHENEVER POSSIBLE, WATER METERS FOR COMMERCIAL INTERIOR METER SETTERS MUST BE MOUNTED IN A HORIZONTAL POSITION.
- LANDSCAPE SPRINKLER LINES MUST CONNECT TO SERVICE LINE AFTER WATER METER, OR CONTRACTOR WILL BE REQUIRED TO INSTALL A SEPARATE METER BOX FOR LANDSCAPE SPRINKLER LINE.
- COMMERCIAL INTERIOR METER SETTER SHALL BE LOCATED IN A HEATED MECHANICAL ROOM.
- METER BY-PASS LINES REQUIRE PRIOR WRITTEN APPROVAL FROM THE WATER DIVISION. FOR APPROVAL, CONTACT WATER DIVISION (208) 612-8471.
- ISOLATION VALVES SHALL BE INSTALLED IMMEDIATELY UP AND DOWNSTREAM OF THE WATER METER ON COMMERCIAL INTERIOR METER SETTERS. ISOLATION VALVES SHALL BE FULL PORT BALL VALVES FOR LINES SIZES UP TO 2" AND RESILIENT SEAT GATE VALVES FOR LINE SIZES OVER 2".
- WATER METERS MAY BE PURCHASED AT THE CITY OF IDAHO FALLS WATER DIVISION. CONTACT WATER DIVISION (208) 612-8471 FOR APPROVED METERS.
- CITY OF IDAHO FALLS WATER DIVISION SHALL OWN AND MAINTAIN WATER METERS AND REGISTERS IN INTERIOR METER SETTERS AND MANIFOLDS.
- SEE IF-401E FOR PLAN VIEW COMMERCIAL INTERIOR METER SETTER.

**INSTALLATION OPTIONS FOR
WATER SERVICE CONNECTIONS**
NOT TO SCALE

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CITY OF IDAHO FALLS

**WATER LINES
SERVICE LINES**

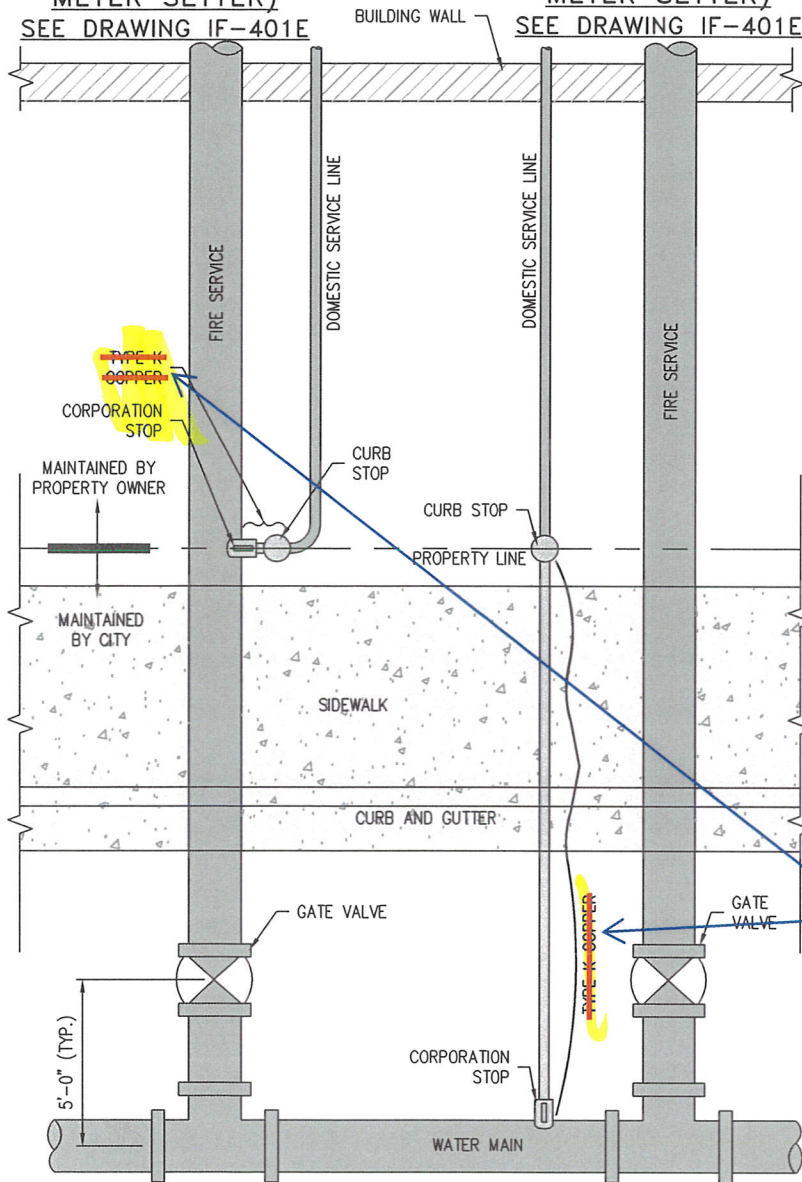
STANDARD DRAWING
NO. **IF-401C**

OPTION 1
(REQUIRES INTERIOR
METER SETTER)
SEE DRAWING IF-401E

OPTION 2
(REQUIRES INTERIOR
METER SETTER)
SEE DRAWING IF-401E

NOTES:

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3. LANDSCAPE SPRINKLER LINES MUST CONNECT TO SERVICE LINE AFTER WATER METER, OR CONTRACTOR WILL BE REQUIRED TO INSTALL A SEPARATE METER BOX FOR LANDSCAPE SPRINKLER LINE.
4. COMMERCIAL INTERIOR METER SETTER SHALL BE LOCATED IN A HEATED MECHANICAL ROOM.
5. METER BY-PASS LINES REQUIRE PRIOR WRITTEN APPROVAL FROM THE WATER DIVISION. FOR APPROVAL, CONTACT WATER DIVISION (208) 612-8471.
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7. WATER METERS MAY BE PURCHASED AT THE CITY OF IDAHO FALLS WATER DIVISION. CONTACT WATER DIVISION (208) 612-8471 FOR APPROVED METERS.
8. CITY OF IDAHO FALLS WATER DIVISION SHALL OWN AND MAINTAIN WATER METERS AND REGISTERS IN INTERIOR METER SETTERS AND MANIFOLDS.
9. SEE IF-401E FOR PLAN VIEW COMMERCIAL INTERIOR METER SETTER.



**INSTALLATION OPTIONS FOR
WATER SERVICE CONNECTIONS**
NOT TO SCALE

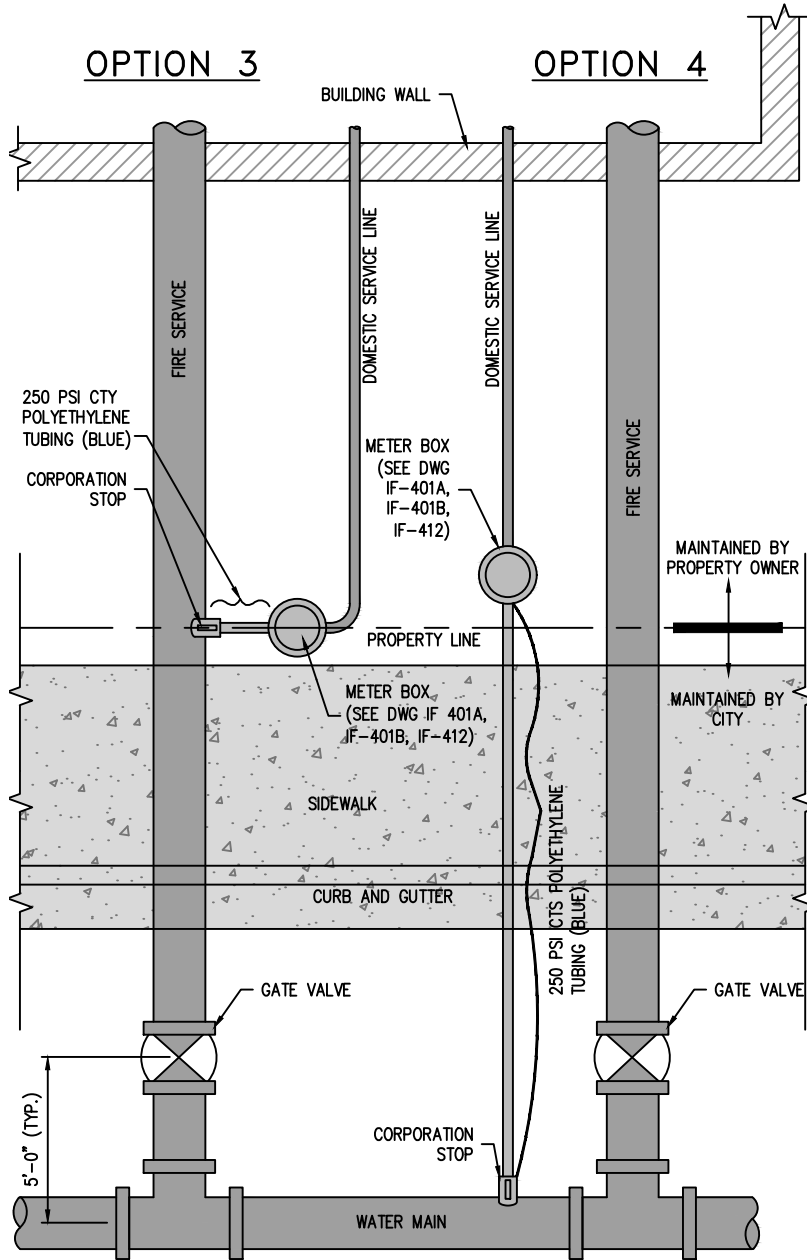
250 PSI CTS
Polyethylene
Tubing (blue)

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2018 REVISION

CITY OF IDAHO FALLS

**WATER LINES
SERVICE LINES**

STANDARD DRAWING
NO. **IF-401C**



**INSTALLATION OPTIONS FOR
WATER SERVICE CONNECTIONS**
NOT TO SCALE

NOTES:

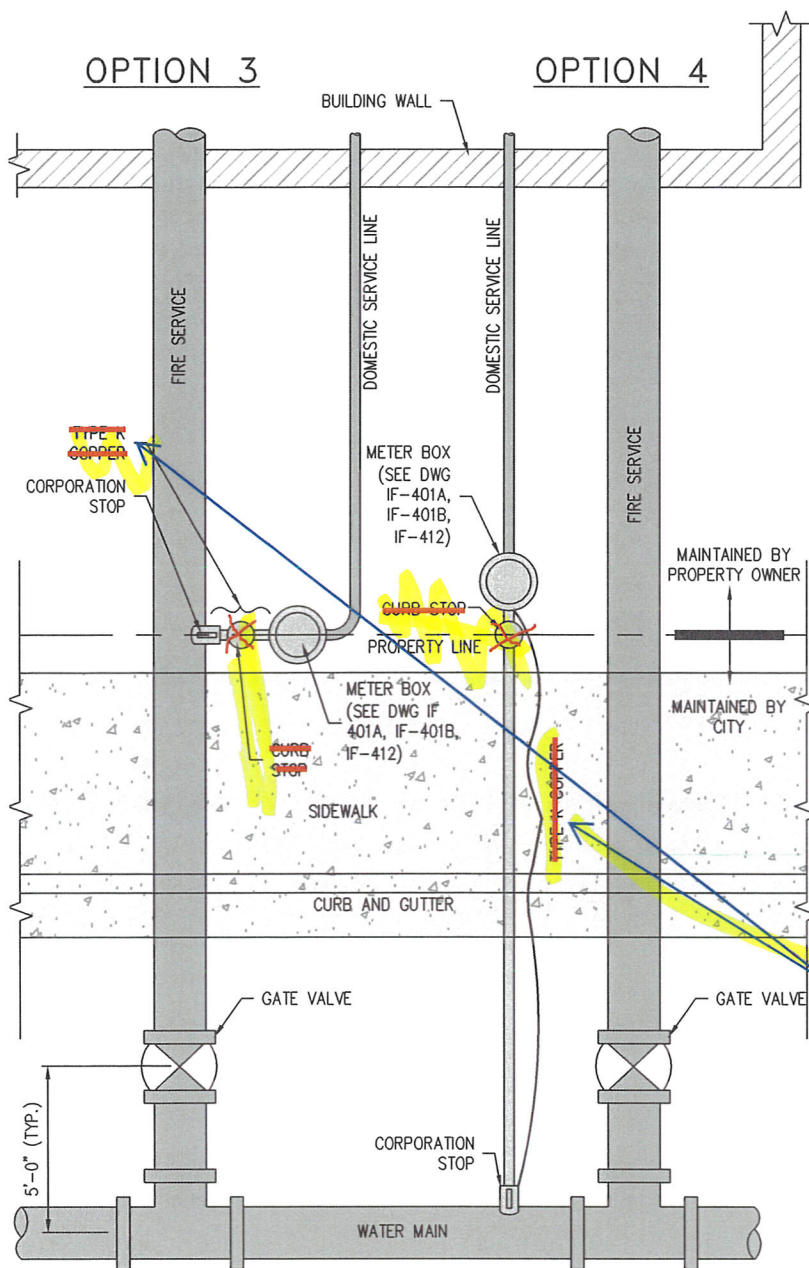
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8. CITY OF IDAHO FALLS WATER DIVISION SHALL OWN AND MAINTAIN WATER METERS AND REGISTERS IN INTERIOR METER SETTERS AND MANIFOLDS.

2022 REVISION

CITY OF IDAHO FALLS

**WATER LINES
SERVICE LINES**

STANDARD DRAWING
NO. **IF-401D**



NOTES:

1. PER IDAHO ADMINISTRATIVE CODE (IDAPA 58.01.08) ALL NEW WATER SERVICE LINE INSTALLATIONS SHALL INSTALL PROVISIONS FOR A WATER METER (EITHER A METER BOX OR A COMMERCIAL INTERIOR METER SETTER) TO CAPTURE BOTH DOMESTIC AND LANDSCAPE SPRINKLING USES.
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4. COMMERCIAL INTERIOR METER SETTER SHALL BE LOCATED IN A HEATED MECHANICAL ROOM.
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8. CITY OF IDAHO FALLS WATER DIVISION SHALL OWN AND MAINTAIN WATER METERS AND REGISTERS IN INTERIOR METER SETTERS AND MANIFOLDS.

250 PSI CTS
Polyethylene
Tubing (blue)

INSTALLATION OPTIONS FOR WATER SERVICE CONNECTIONS

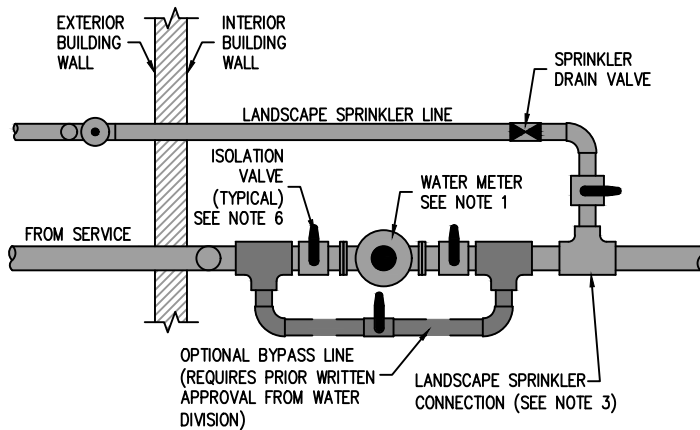
NOT TO SCALE

2022
2018 REVISION

CITY OF IDAHO FALLS

WATER LINES
SERVICE LINES

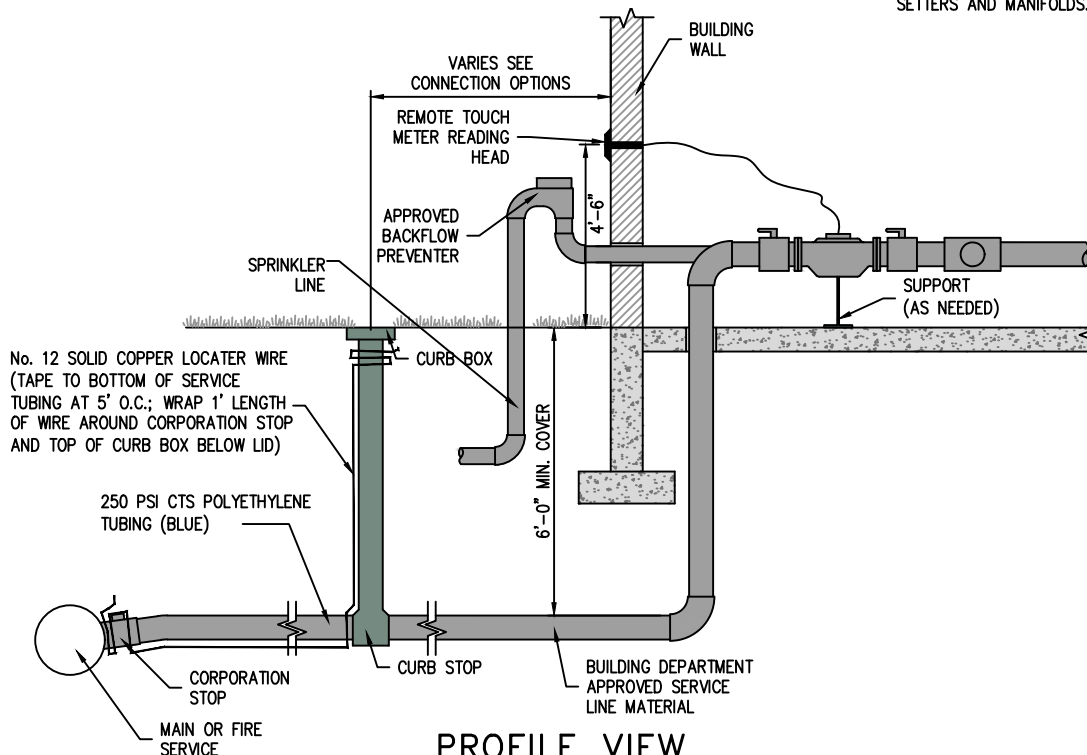
STANDARD DRAWING
NO. IF-401D



PLAN VIEW

NOTES:

1. PER IDAHO ADMINISTRATIVE CODE (IDAPA 58.01.08) ALL NEW WATER SERVICE LINE INSTALLATIONS SHALL INSTALL PROVISIONS FOR A WATER METER (EITHER A METER BOX OR A COMMERCIAL INTERIOR METER SETTER) TO CAPTURE BOTH DOMESTIC AND LANDSCAPE SPRINKLING USES.
2. WHENEVER POSSIBLE, WATER METERS FOR COMMERCIAL INTERIOR METER SETTERS MUST BE MOUNTED IN A HORIZONTAL POSITION.
3. LANDSCAPE SPRINKLER LINES MUST CONNECT TO SERVICE LINE AFTER WATER METER, OR CONTRACTOR WILL BE REQUIRED TO INSTALL A SEPARATE METER BOX FOR LANDSCAPE SPRINKLER LINE.
4. COMMERCIAL INTERIOR METER SETTER SHALL BE LOCATED IN A HEATED MECHANICAL ROOM.
5. METER BY-PASS LINES REQUIRE PRIOR WRITTEN APPROVAL FROM THE WATER DIVISION. FOR APPROVAL, CONTACT WATER DIVISION (208) 612-8471.
6. ISOLATION VALVES SHALL BE INSTALLED IMMEDIATELY UP AND DOWNSTREAM OF THE WATER METER ON COMMERCIAL INTERIOR METER SETTERS. ISOLATION VALVES SHALL BE FULL PORT BALL VALVES FOR LINES SIZES UP TO 2" AND RESILIENT SEAT GATE VALVES FOR LINE SIZES OVER 2".
7. WATER METERS MAY BE PURCHASED AT THE CITY OF IDAHO FALLS WATER DIVISION. CONTACT WATER DIVISION (208) 612-8471 FOR APPROVED METERS.
8. CITY OF IDAHO FALLS WATER DIVISION SHALL OWN AND MAINTAIN WATER METERS AND REGISTERS IN INTERIOR METER SETTERS AND MANIFOLDS.



PROFILE VIEW

COMMERCIAL INTERIOR METER SETTER

2022 REVISION

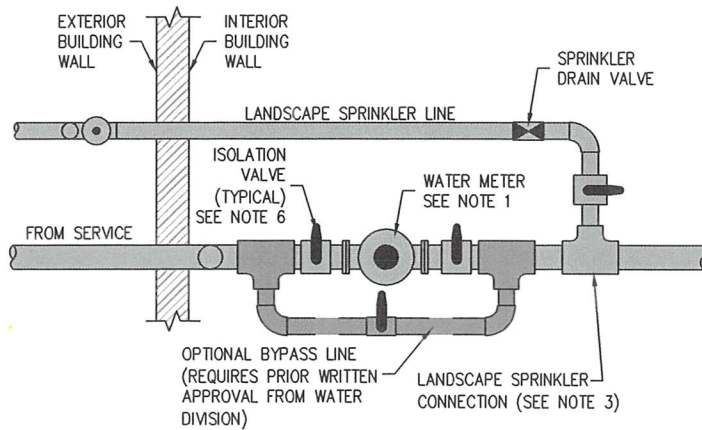
CITY OF IDAHO FALLS

WATER LINES
SERVICE LINES

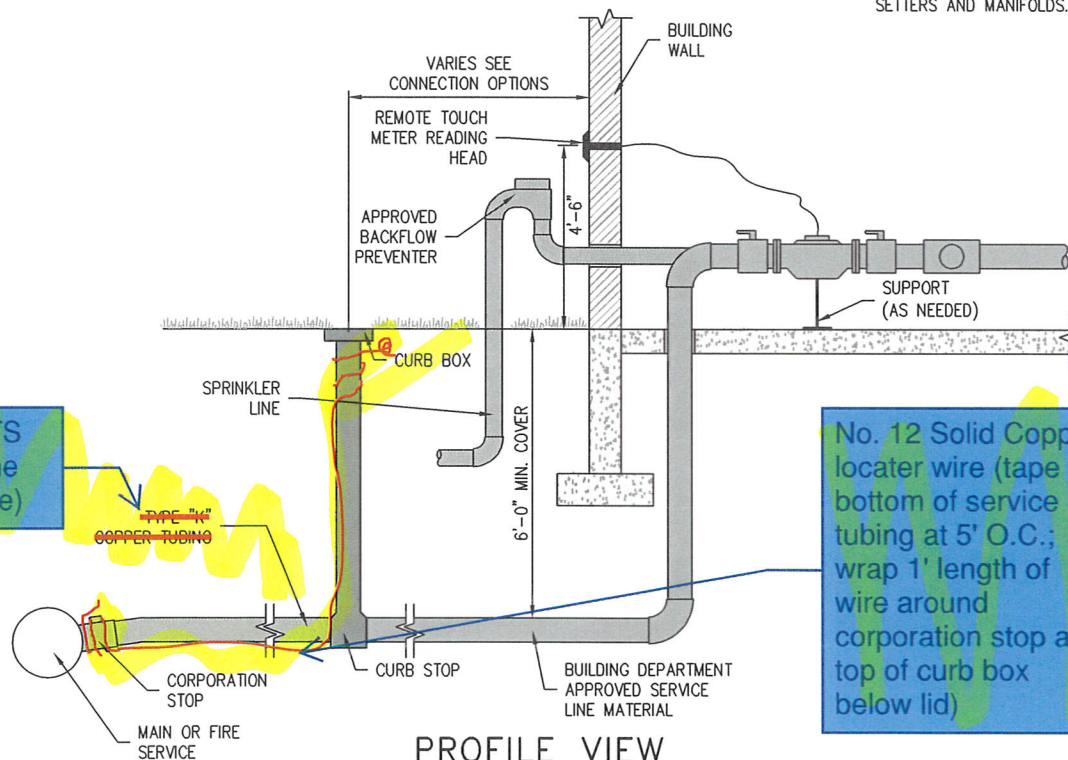
STANDARD DRAWING
NO. IF-401E

NOTES:

1. PER IDAHO ADMINISTRATIVE CODE (IDAPA 58.01.08) ALL NEW WATER SERVICE LINE INSTALLATIONS SHALL INSTALL PROVISIONS FOR A WATER METER (EITHER A METER BOX OR A COMMERCIAL INTERIOR METER SETTER) TO CAPTURE BOTH DOMESTIC AND LANDSCAPE SPRINKLING USES.
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3. LANDSCAPE SPRINKLER LINES MUST CONNECT TO SERVICE LINE AFTER WATER METER, OR CONTRACTOR WILL BE REQUIRED TO INSTALL A SEPARATE METER BOX FOR LANDSCAPE SPRINKLER LINE.
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8. CITY OF IDAHO FALLS WATER DIVISION SHALL OWN AND MAINTAIN WATER METERS AND REGISTERS IN INTERIOR METER SETTERS AND MANIFOLDS.



PLAN VIEW



PROFILE VIEW

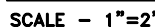
COMMERCIAL INTERIOR METER SETTER

CITY OF IDAHO FALLS

WATER LINES
SERVICE LINES

STANDARD DRAWING
NO. IF-401E

2012
2018 REVISION





1. PER IDAHO ADMINISTRATIVE CODE (IDAPA 58.01.08.K) ALL PERMANENT DEAD-END WATERLINES SHALL BE EQUIPPED WITH A METHOD TO FLUSH THE LINE.
2. ALL DEAD-END LINES 6" – 8" IN DIAMETER SHALL BE FURNISHED WITH A 2" FLUSH HYDRANT, MODEL TF-500 FROM THE KUPFERLE FOUNDRY OR APPROVED EQUAL.
3. FLUSH HYDRANTS SHALL BE SELF-DRAINING AND SHALL BE DESIGNED FOR BELOW-GRADE APPLICATION, DESIGNED TO FIT WITHIN A STANDARD 5 1/4" I.D. VALVE BOX.
4. HYDRANT NOZZLE SHALL BE 2" NPS BRASS WITH MALE THREADS.
5. ALL NIPPLES AND FITTINGS USED FOR INSTALLATION SHALL BE OF BRASS CONSTRUCTION THAT IS NSF 61 CERTIFIED FOR POTABLE WATER.
6. BURIAL DEPTH OF FLUSH HYDRANT SHALL BE 6'-0" WITH BRASS NIPPLES USED TO SET THE HYDRANT NOZZLE BETWEEN 6" TO 1'-0" BELOW FINAL GRADE.
7. APPROVED WATER LINE MATERIALS LIST MAINTAINED BY CITY OF IDAHO FALLS WATER DIVISION (208) 612-8471.
8. CONTRACTOR SHALL NOTIFY CITY OF IDAHO FALLS WATER DIVISION AND IMPACTED CUSTOMERS OF ANY WATER LINE CLOSURES OR SERVICE OUTAGES.
9. FLUSHING HYDRANTS SHALL BE INSTALLED ON ALL PERMANENT DEAD-END LINES (I.E. CUL-DE-SACS).

SECTION
SCALE 1"=2'

250 PSI CTS
Polyethylene (locator
wire not required)

STANDARD DRAWING
NO. IF-405

CITY OF IDAHO FALLS

FLUSH HYDRANT

SEE SHEET IF-516 SHEET 3 OF 3



LIFT STATION

STANDARD DRAWING
NO. IF-516
SHEET 1 OF 3

SEE SHEET IF-516 SHEET 3 OF 3



STANDARD DRAWING
NO. IF-516
SHEET 1 OF 3

NOTES:

- A ACCESS COVER FOR LIFT STATION AND MANHOLE SHALL BE DESIGNED FOR HS 25 LOADING.
- B CLASS 50 OR HIGHER DUCTILE IRON REQUIRED FOR DISCHARGE PIPES & APPURTENANCES INSIDE AND BETWEEN LIFT STATION AND MANHOLE.
- C SEE PROJECT SPECIFICATIONS OR PLANS FOR PUMP CAPACITIES AND OTHER HARDWARE AS REQUIRED FOR EACH SPECIFIC INSTALLATION.
- D THE CITY OF IDAHO FALLS SEWER DEPARTMENT SHALL SPECIFY THE CONTROL LEVEL SETTING FOR THE FOLLOWING LIQUID LEVELS:
 - 1) PUMP OFF (MIN. LIQUID LEVEL)
 - 2) LEAD PUMP ON
 - 3) LAG PUMP ON
 - 4) ALARM ON
- E PROVIDE A 1.5' X 1.5' BLOCK OUT IN THE DUPLEX CONTROLLER CABINET.
- F INSTALL A 110 VOLT RECEPTACLE BRACKET ADJACENT TO BLOCK OUT AREA (SEE NOTE E) IN DUPLEX PUMP CONTROLLER CABINET.
- G EMERGENCY POWER PLUG RECEPTACLE, APPLETON CAT. #ADJA6044150RS 60A 4W 4P STY. 1 OR AS REQUIRED ON ALL STORM DRAIN AND SANITARY SEWER LIFT STATIONS. MUST HAVE A MALE END INSIDE RECEPTACLE.
- H SIZE OF CONDUIT TO BE DETERMINED BY SIZE OF INSTALLED PUMPS (MIN. 2"). ONE CONDUIT PER PUMP. SEPARATE CONDUIT FOR TRANSDUCER & FLOATS
- I ASPHALT ACCESS TO LIFT STATION SHALL BE 15' WIDE 2" PLANTMIX OVER 6" OF CRUSHED GRAVEL.
- J ALL HARDWARE (BOLTS, NUTS, ETC.) SHALL BE STAINLESS STEEL. NO GALVANIZED HARDWARE WILL BE ALLOWED.
- K NO ELECTRICAL CONNECTIONS, SPLICES OR JUNCTION BOXES SHALL BE INSIDE LIFT STATION.
- L LIFT STATION CIRCULATION DEVICE REQUIRED FOR GREASE AND SEDIMENTATION CONTROL SHALL BE ATTACHED TO PUMP (APPLICABLE TO SANITARY SEWERS ONLY).
- M LIFT STATION LID AND CONTROLLER ORIENTATION AS DIRECTED BY WASTEWATER DIVISION SUPERINTENDENT.
- N DO NOT INSTALL TRASH RACKS ON SANITARY SEWER PIPES OVER 30".
- O ALL FORCED MAIN LINES SHALL HAVE A FLOW RATE OF 2'-0" PER SECOND MINIMUM. TRACER WIRE REQUIRED WITH CONNECTION ENDS AT VALVE VAULT AND DISCHARGE MANHOLE.
- P PUMP SPEEDS AS PER I.D.A.P.A. REQUIREMENTS.
- Q CONTROLS & METERS NEED TO BE MOUNTED IN TOP HALF OF PANEL.

2022 REVISION

CITY OF IDAHO FALLS

LIFT STATION

STANDARD DRAWING
NO. IF-516
SHEET 3 OF 3

NOTES:

- A ACCESS COVER FOR LIFT STATION AND MANHOLE SHALL BE DESIGNED FOR HS 25 LOADING.
- B CLASS 50 OR HIGHER DUCTILE IRON REQUIRED FOR DISCHARGE PIPES & APPURTENANCES INSIDE AND BETWEEN LIFT STATION AND MANHOLE.
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 - 1) PUMP OFF (MIN. LIQUID LEVEL)
 - 2) LEAD PUMP ON
 - 3) LAG PUMP ON
 - 4) ALARM ON
- E PROVIDE A 1.5' X 1.5' BLOCK OUT IN THE DUPLEX CONTROLLER CABINET.
- F INSTALL A 110 VOLT RECEPTACLE BRACKET ADJACENT TO BLOCK OUT AREA (SEE NOTE 5) IN DUPLEX PUMP CONTROLLER CABINET.
- G EMERGENCY POWER PLUG RECEPTACLE, APPLETON CAT. #ADJA6044150RS 60A 4W 4P STY. 1 OR AS REQUIRED ON ALL STORM DRAIN AND SANITARY SEWER LIFT STATIONS. MUST HAVE A MALE END INSIDE RECEPTACLE.
- H SIZE OF CONDUIT TO BE DETERMINED BY SIZE OF INSTALLED PUMPS (MIN. 2"). ONE CONDUIT PER PUMP. SEPARATE CONDUIT FOR TRANSDUCER & FLOATS
- I ASPHALT ACCESS TO LIFT STATION SHALL BE 15' WIDE 2" PLANTMIX OVER 6" OF CRUSHED GRAVEL.
- J ALL HARDWARE (BOLTS, NUTS, ETC.) SHALL BE STAINLESS STEEL. NO GALVANIZED HARDWARE WILL BE ALLOWED.
- K NO ELECTRICAL CONNECTIONS, SPLICES OR JUNCTION BOXES SHALL BE INSIDE LIFT STATION.
- L LIFT STATION CIRCULATION DEVICE REQUIRED FOR GREASE AND SEDIMENTATION CONTROL SHALL BE ATTACHED TO PUMP (APPLICABLE TO SANITARY SEWERS ONLY).
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- P PUMP SPEEDS AS PER I.D.A.P.A. REQUIREMENTS.
- Q CONTROLS & METERS NEED TO BE MOUNTED IN TOP HALF OF PANEL.

Extra
Sewer

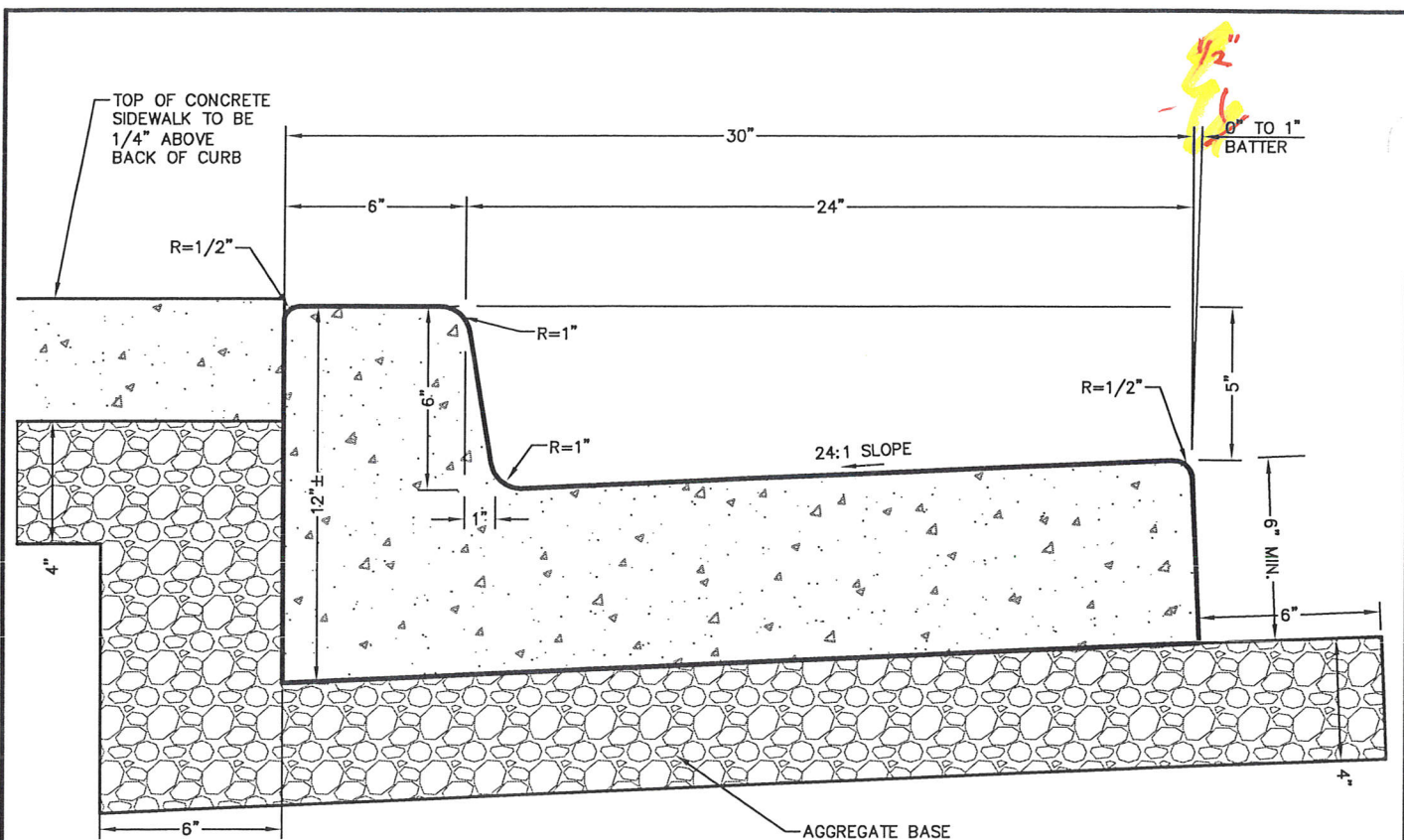
SEE NOTE E

2021 REVISION

CITY OF IDAHO FALLS

LIFT STATION

STANDARD DRAWING
NO. IF-516
SHEET 3 OF 3



NOTES:

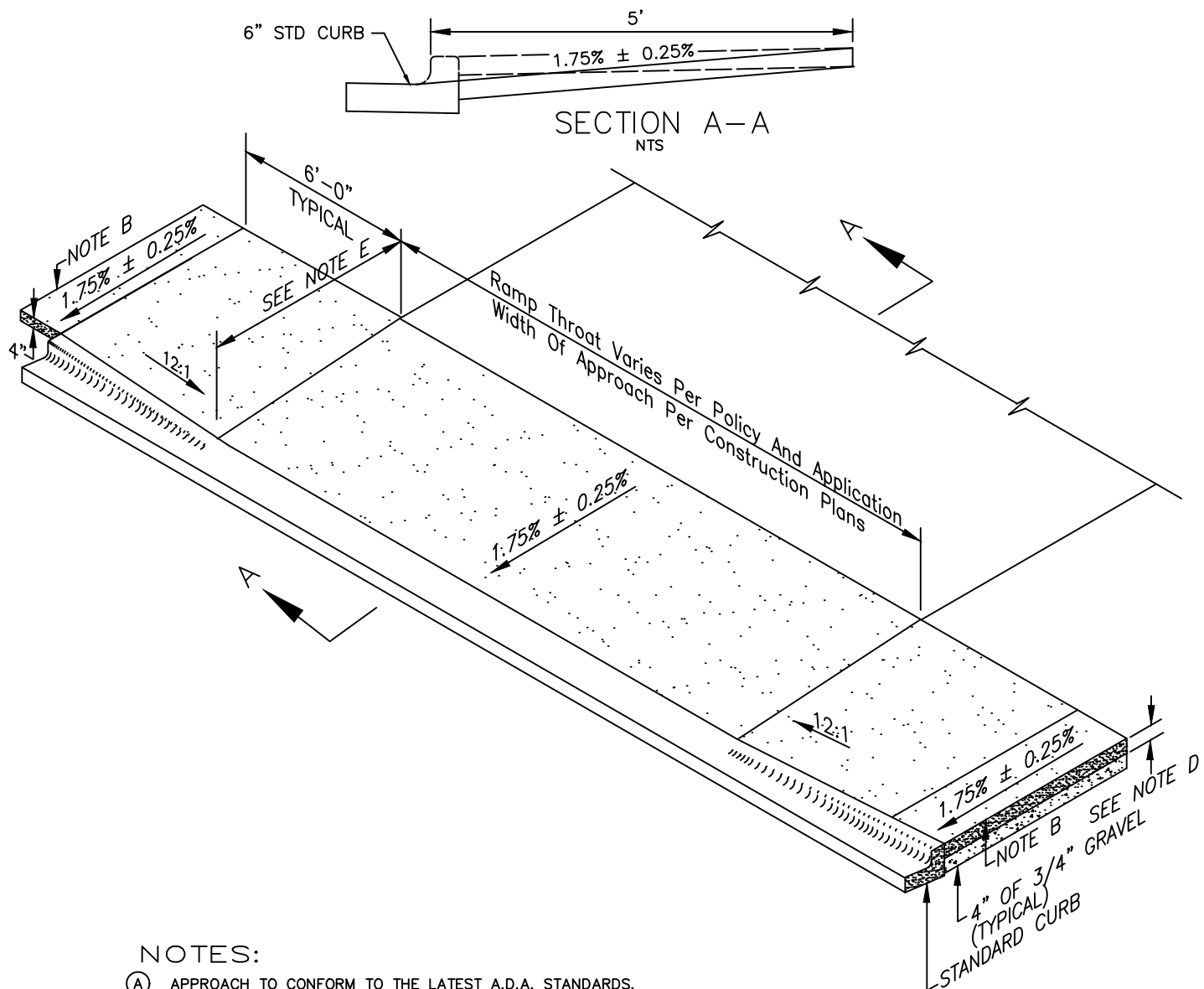
- (A) GRADE AND ALIGNMENT TO BE ESTABLISHED OR APPROVED BY THE ENGINEER.
- (B) BASE: 4-INCH COMPACTED DEPTH OF 3/4-INCH MINUS CRUSHED AGGREGATE BASE MATERIAL, PLACE AS SPECIFIED UNDER SECTION-802 ISPMC; COMPACTED TO EXCEED 95% OF STANDARD PROCTOR.
- (C) 1/2-INCH PREFORMED EXPANSION JOINT MATERIAL (AASHTO M 213) AT TERMINAL POINTS OF RADII.
- (D) CONTINUOUS PLACEMENT PREFERRED, SCORE INTERVALS AT 10-FEET MAXIMUM SPACING (OR CONSISTENT WITH 2X SIDEWALK WIDTH FOR SCORE SPACING).
- (E) MATERIALS AND CONSTRUCTION IN COMPLIANCE WITH ISPMC SPECIFICATIONS.
- (F) BACKFILL AS PER SECTION-706.
- (G) SECURE RIGHT-OF-WAY PERMIT BEFORE BEGINNING CONSTRUCTION IN PUBLIC RIGHT-OF-WAY.
- (H) CURB AND GUTTER STANDARD TO BE USED ON ALL PUBLIC ROADWAYS UNLESS APPROVED BY ENGINEER.

2022
2018* REVISION

CITY OF IDAHO FALLS

CURB AND GUTTER STANDARD

STANDARD DRAWING
NO. IF-701A



NOTES:

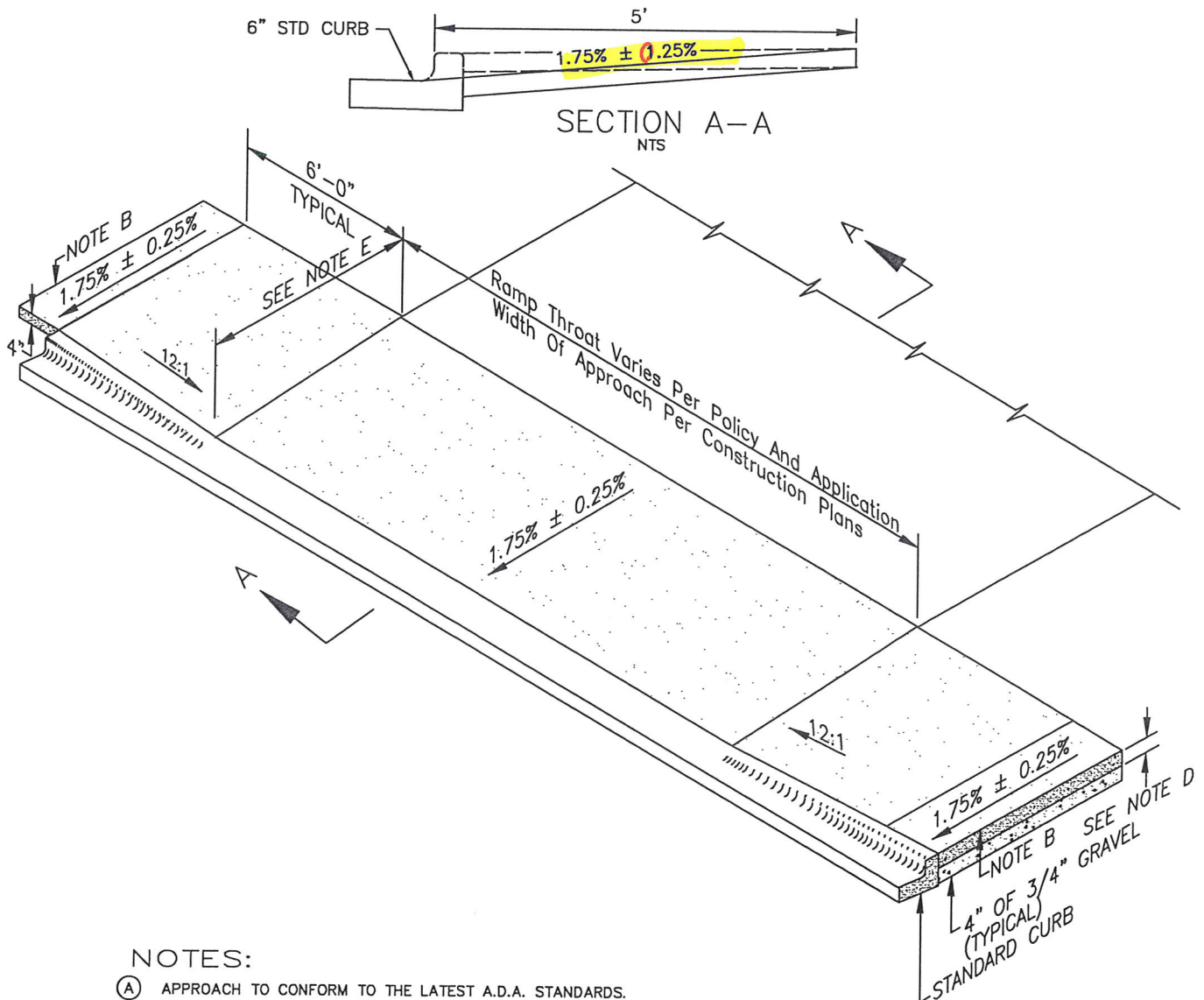
- (A) APPROACH TO CONFORM TO THE LATEST A.D.A. STANDARDS.
- (B) INSTALL EXPANSION JOINT AT TIP OF APPROACH WINGS AND WHERE SIDEWALK CHANGES THICKNESS.
- (C) BASE TO BE A 4" THICKNESS OF 3/4" MINUS CRUSHED AGGREGATE PER SECTION-802.
- (D) APPROACH THROAT WIDTHS SET BY POLICY AND APPLICATION. ALL CONCRETE TO BE 5" THICK FOR SINGLE FAMILY RESIDENTIAL (7" THICK FOR ALL OTHER APPROACHES) FROM TIP OF WING TO TIP OF WING UP TO THE EXPANSION JOINT. WHEN SIDEWALK IS SEPARATE FROM CURB THE SIDEWALK IMMEDIATELY BEHIND THE APPROACH THROAT SHALL BE 5" THICK FOR SINGLE FAMILY RESIDENTIAL (7" THICK FOR ALL OTHER APPROACHES).
- (E) SIDEWALK WIDTH MAY VARY.

2021 REVISION

CITY OF IDAHO FALLS

CONCRETE DRIVEWAY WITH RAMPED SIDEWALK

STANDARD DRAWING
NO. IF-710B



NOTES:

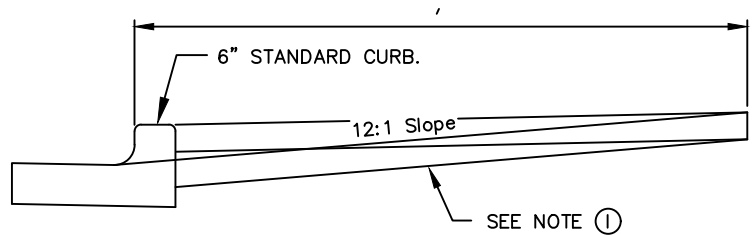
- (A) APPROACH TO CONFORM TO THE LATEST A.D.A. STANDARDS.
- (B) INSTALL EXPANSION JOINT AT TIP OF APPROACH WINGS AND WHERE SIDEWALK CHANGES THICKNESS.
- (C) BASE TO BE A 4" THICKNESS OF 3/4" MINUS CRUSHED AGGREGATE PER SECTION-802.
- (D) APPROACH THROAT WIDTHS SET BY POLICY AND APPLICATION. ALL CONCRETE TO BE 5" THICK FOR SINGLE FAMILY RESIDENTIAL (7" THICK FOR ALL OTHER APPROACHES) FROM TIP OF WING TO TIP OF WING UP TO THE EXPANSION JOINT. WHEN SIDEWALK IS SEPARATE FROM CURB THE SIDEWALK IMMEDIATELY BEHIND THE APPROACH THROAT SHALL BE 5" THICK FOR SINGLE FAMILY RESIDENTIAL (7" THICK FOR ALL OTHER APPROACHES).
- (E) SIDEWALK WIDTH MAY VARY.

2021 REVISION

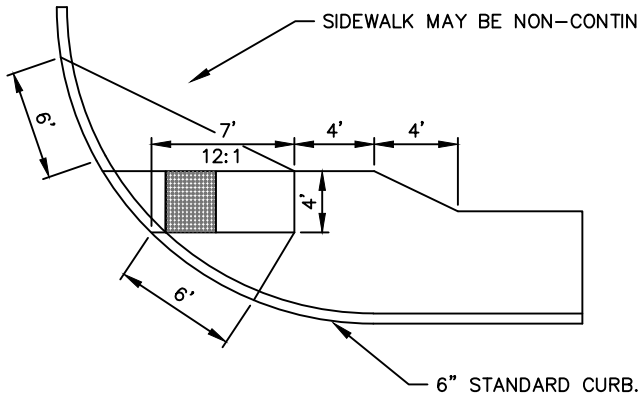
CITY OF IDAHO FALLS

CONCRETE DRIVEWAY WITH
RAMPED SIDEWALK

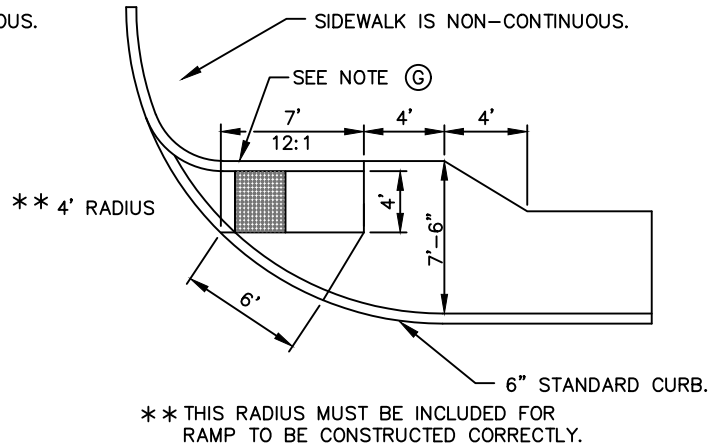
STANDARD DRAWING
NO. IF-710B



RAMP SECTION



TYPE "C3"
15' RADIUS MINIMUM

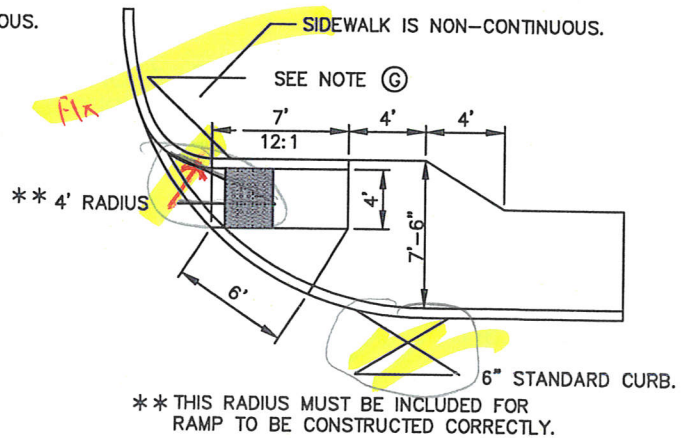
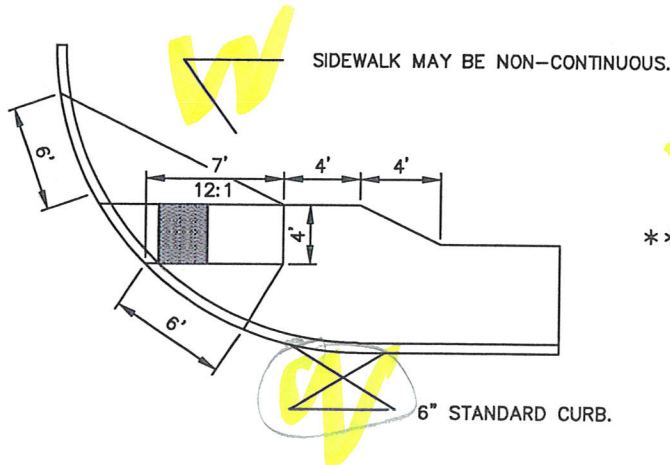
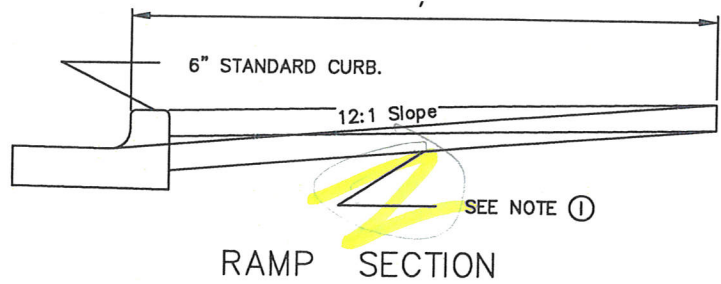


TYPE "C4"
15' RADIUS MINIMUM

NOTES:

- Ⓐ THIS TYPE OF RAMP MAY BE USED FOR LARGE COMMERCIAL APPROACHES WHERE THE STANDARD CONCRETE APPROACH IS NOT REQUIRED. THESE ALSO MAY BE USED FOR ALLEY AND PRIVATE STREET APPROACHES WHERE:
 - A. THE SIDE WALK IS NOT REQUIRED TO CONTINUE AROUND THE RADIUS
 - B. A SECOND RAMP IS NOT REQUIRED TO MOVE PEDESTRIANS ACROSS THE PRIMARY STREET.
- Ⓑ CURB ON THE RADIUS MUST BE 6" STANDARD CURB FOR SHOWN DIMENSIONS.
- Ⓒ ALL RAMP SURFACES MUST CONFORM TO ADA REQUIREMENTS.
- Ⓓ THIS TYPE OF CORNER MUST HAVE A SINGLE RAMP TURNED PARALLEL TO THE PRIMARY STREET.
- Ⓔ CORNER RADIUS IS 15' AS A MINIMUM.
THE DISTRICT MAY REQUIRED LARGER RADIUS SIZES WHERE LARGER VEHICLE TURNING IS EXPECTED.
- Ⓕ THE RAMP THROAT WIDTH MUST BE 4 FEET MEASURED PERPENDICULAR TO THE 7 FOOT THROAT SIDE.
THE RAMP THROAT DEPTH MUST BE 7 FEET MEASURED FROM THE FACE OF THE CURB TO THE BACK OF THE APPROACH.
THE 7 FOOT SIDE OF THE RAMP THROAT MUST BE PARALLEL WITH THE EXPECTED PATH OF THE PEDESTRIAN AND NOT PERPENDICULAR TO THE CURB FOR EXAMPLE: PARALLEL WITH THE CROSS WALK STRIPES, THE STOP BAR, OR THE PRIMARY STREET CURB.
- Ⓖ THE RAMP WING MUST BE 6 FEET MEASURED AT THE CURB FACE FOR 6" STANDARD CURB.
THE WING AWAY FROM THE ROAD IS ELIMINATED AND REPLACED WITH A WING SUBSTITUTE THAT IS 6 INCHES HIGH AT THE FACE OF THE STANDARD CURB AND 0 INCHES HIGH AT THE BACK OF THE RAMP AND POURED MONOLITHICALLY WITH THE RAMP.
- Ⓗ ALL RAMPS MUST HAVE A MINIMUM 4 FOOT X 4 FOOT LANDING BEHIND THEM FOR PEDESTRIANS.
- Ⓘ ALL CONCRETE ADJOINING THE RADIUS WITHIN AND AROUND THE RAMPS SHALL BE 7 INCHES THICK ON ARTERIAL CORNERS AND 5 INCHES THICK ON ALL OTHER CORNERS WITH 4 INCHES OF 3/4 INCH AGGREGATE BASE.
- Ⓙ RAMP CROSS SLOPE TO BE 1.75% ± 0.25%.

2021 REVISION



NOTES:

- (A) THIS TYPE OF RAMP MAY BE USED FOR LARGE COMMERCIAL APPROACHES WHERE THE STANDARD CONCRETE APPROACH IS NOT REQUIRED. THESE ALSO MAY BE USED FOR ALLEY AND PRIVATE STREET APPROACHES WHERE:
 - A. THE SIDE WALK IS NOT REQUIRED TO CONTINUE AROUND THE RADIUS
 - B. A SECOND RAMP IS NOT REQUIRED TO MOVE PEDESTRIANS ACROSS THE PRIMARY STREET.
- (B) CURB ON THE RADIUS MUST BE 6" STANDARD CURB FOR SHOWN DIMENSIONS.
- (C) ALL RAMP SURFACES MUST CONFORM TO ADA REQUIREMENTS.
- (D) THIS TYPE OF CORNER MUST HAVE A SINGLE RAMP TURNED PARALLEL TO THE PRIMARY STREET.
- (E) CORNER RADIUS IS 15' AS A MINIMUM.
THE DISTRICT MAY REQUIRED LARGER RADIUS SIZES WHERE LARGER VEHICLE TURNING IS EXPECTED.
- (F) THE RAMP THROAT WIDTH MUST BE 4 FEET MEASURED PERPENDICULAR TO THE 7 FOOT THROAT SIDE.
THE RAMP THROAT DEPTH MUST BE 7 FEET MEASURED FROM THE FACE OF THE CURB TO THE BACK OF THE APPROACH.
THE 7 FOOT SIDE OF THE RAMP THROAT MUST BE PARALLEL WITH THE EXPECTED PATH OF THE PEDESTRIAN AND NOT PERPENDICULAR TO THE CURB FOR EXAMPLE: PARALLEL WITH THE CROSS WALK STRIPES, THE STOP BAR, OR THE PRIMARY STREET CURB.
- (G) THE RAMP WING MUST BE 6 FEET MEASURED AT THE CURB FACE FOR 6" STANDARD CURB.
THE WING AWAY FROM THE ROAD IS ELIMINATED AND REPLACED WITH A WING SUBSTITUTE THAT IS 6 INCHES HIGH AT THE FACE OF THE STANDARD CURB AND 0 INCHES HIGH AT THE BACK OF THE RAMP AND POURED MONOLITHICALLY WITH THE RAMP.
- (H) ALL RAMPS MUST HAVE A MINIMUM 4 FOOT X 4 FOOT LANDING BEHIND THEM FOR PEDESTRIANS.
- (I) ALL CONCRETE ADJOINING THE RADIUS WITHIN AND AROUND THE RAMPS SHALL BE 7 INCHES THICK ON ARTERIAL CORNERS AND 5 INCHES THICK ON ALL OTHER CORNERS WITH 4 INCHES OF 3/4 INCH AGGREGATE BASE.
- (J) RAMP CROSS SLOPE TO BE 1.75% ± 0.25%.

2021 REVISION

CITY OF IDAHO FALLS

PEDESTRIAN RAMP TYPE "C" FOR NEW DEVELOPMENT

STANDARD DRAWING
NO. IF-712C

CITY OF IDAHO FALLS

SUPPLEMENTAL SPECIFICATIONS TO THE ISPWC

DIVISION 800 – Aggregates and Asphalt

CITY OF IDAHO FALLS SUPPLEMENTAL SPECIFICATIONS TO THE ISPWC

Division 800 – Aggregates and Asphalt

Section 801 – Uncrushed Aggregates, Part 2.1 Description

Insert new Item E:

- E. Material to be free of wood, weeds, limbs, leaves, trash, or other organic matter.

Section 801 – Uncrushed Aggregates, Part 2.2 Uncrushed Aggregate Gradation

Insert new Item I:

- I. Drain rock installed within public rights-of-way must include fractured faces with a minimum average of two fractured faces each.

Section 801 – Uncrushed Aggregates, Part 4.1 Measurement and Payment

Add new Items C, D, and E:

- C. Uncrushed Drain Rock 3 inches: By the cubic yard measured on a compacted in place basis.
 - 1. Bid Schedule Payment Reference: ~~502801~~.4.1.C.1.
 - 2. Bid Schedule Description: Uncrushed Drain Rock 3 inches...Cubic yard (CY).
- D. Sand: By the cubic yard measured on a compacted in place basis.
 - 1. Bid Schedule Payment Reference: ~~502801~~.4.1.D.1.
 - 2. Bid Schedule Description: Sand...Cubic yard (CY).
- E. Filter Sand: By the cubic yard measured on a compacted in place basis.
 - 1. Bid Schedule Payment Reference: ~~502801~~.4.1.E.1.
 - 2. Bid Schedule Description: Filter Sand...Cubic yard (CY).

Section 805 – Asphalt Part 2.2

Delete Item D and **Insert** new Item D:

D.

Liquid Asphalts Rubberized			
Property	RC 3000R	RC-800R	Test Method
Flash point, T.O.C., °F	80 Min.	80 Min.	ASTM D 1310
Visc. @ 140°F, cst	3000-6000	800-1600	ASTM D 2170
Distillation: 30 in Hg % of Total Dist. To 680°F			ASTM D 402
To 437°F	15 Min.		
500°F	25 Min.	45Min.	
600°F	70 Min.	75 Min.	
Res., Vol. % by Difference	80 Min.	75 Min.	
Test on Rubberized Base Asphalt			
Viscosity @ 140°F Poise	1600-2400	1600-2400	ASTM D 2171
Duct @ 77°F (5 cm/min) cm	150 Min.	150 Min.	ASTM D 113
Duct @ 39°F (5cm/min) cm	35 Min.	35 Min.	ASTM D 113
Toughness, inch-pounds	75 Min.	75 Min.	*
Tenacity, inch-pounds	50 Min.	50Min.	*
* Benson Method of Toughness and Tenacity, Scott Tester, inch-pounds @77°F, twenty (20) inches per minute pull. Tension head seven-eighth (7/8) inch diameter.			

Sampling - Rubberized Base Asphalt samples taken at point of manufacture of the liquid asphalt shall be the material tested for compliance of Rubberized Base Asphalt. Liquid asphalt samples taken at point of delivery will be tested for compliance of properties other than rubberized base asphalt requirements.

Section 806 – Asphalt Tack Coat, Part 2.1 Description

Delete Item A and **Insert** new Item A:

A. Asphalt Grade SS-1 Emulsified Asphalt.

1. Engineer may change grade one step with no change in unit price.
2. Asphalt will be accepted at point of delivery.

Section 808 – Seal Coat, Part 3.1 Construction Limitations

Add Item B.5:

5. Crack Seal: Deery 102: 80°F and rising. Apply as per product data sheet.

Add Item J:

- J. Conduct all traffic control activities in accordance with the Manual on Uniform Traffic Control Devices (MUTCD). Maintain traffic control during and after the seal coating of streets until the chips are completely cleaned up, the newly seal coated surfaces fog coated and the project accepted by the Engineer. Give special consideration to warning motorists, motorcyclists, and other roadway users to the dangers posed by loose gravel on the roadway. Provide access during business hours on all streets with a single business entrance on a street to be seal coated, unless written permission is obtained from the business allowing closure of the entrance. Close other streets, as allowed by the Engineer, during the seal coat operation except where there is only one access available; however, provide a detour plan in accordance with the MUTCD for any closure to the Engineer for his approval 24 hours prior to the closure. Provide notice of the closures and the detour to the various agencies and news media as required. Prior to the start of any work, provide the City with a "Work Schedule" detailing each phase of the work, the dates scheduled, and the work crew used.

Section 808 – Seal Coat, Part 3.3 Applying Asphalt

Delete Item E and **Insert** new Item E:

- E. Unless otherwise directed, use forty-five hundredths (0.45) plus or minus five hundredths (0.05) of a gallon per square yard of CRS-2R, with the exact application rate determined by the Engineer.

Section 808 – Seal Coat, Part 3.4 Application of Cover Coat Material

Delete Item J and **Insert** new Item J:

- J. Remove all excess cover coat material from the entire surface width of all streets sealed and from all lawns, sidewalks, driveways, utility strips, etc.

Section 808 – Seal Coat, Part 3.4 Application of Cover Coat Material

Add new Item Q:

- Q. Within 24 hours of when excess cover coat material has been removed, apply fog coat in conformance with Section 813 Fog Coat.

Section 808 – Seal Coat, Part 4 Measurement and Payment

Add the following to Item 4.1:

Fog Coat is incidental to Seal Coat.

Section 813 – Fog Coat, Part 3.2 Application of Fog Coat

Delete Item D **Add** new Item D:

- D. Unless otherwise specified, apply CSS-1h at the rate of one-tenth (0.1) plus or minus four hundredths (± 0.04) of a gallon per square yard of diluted emulsified asphalt. Dilute asphalt to equal parts of asphalt and potable water.

Division 800 – Aggregates and Asphalt – Standard Drawings

Delete the following Standard Drawings:

Delete SD-801
Delete SD-802
Delete SD-803
Delete SD-804
Delete SD-805
Delete SD-806
Delete SD-807

CITY OF IDAHO FALLS

SUPPLEMENTAL SPECIFICATIONS TO
THE ISPWC

DIVISION 1100 - TRAFFIC

CITY OF IDAHO FALLS SUPPLEMENTAL SPECIFICATIONS TO THE ISPWC

Division 1100 – Traffic

Section 1101 — Traffic Signal and Appurtenances, Part 2 Products

Add new Section 2.1:

2.1 MATERIALS

- A. Signal Cabinet: TS-2, Type 1, NEMA 'P'.
- B. Controller: Econolite Cobalt ATC.
- C. Service Pedestal: Type 3 underground 100 amp. Meyers, Milbank, Tesco or approved equal.
- D. Battery Backup System: UPS unit with batteries and enclosure. Tesco, Alpha Technologies, or approved equal.
- E. Signal Pole: Valmont or approved equal.
- F. Combination Signal and Luminaire Pole: Valmont or approved equal.
- G. Light Pole: Davit style (6' 3" curvature radius), Galvanized steel.
- H. Pedestrian Signal Pole: 4" SCH 40 A-53 galvanized steel pipe with Pelco pedestal base.
- I. Luminaire: ~~163W-120W~~ LED. ~~Leotek~~ Lumec or approved equal.
- J. Photoelectric Control: 240V, mounted in service pedestal. Intermatic, GE, Fisher-Pierce or approved equal.
- K. Junction Box: Polymer concrete composite with traffic rated cover. Quazite, Carson Ind., Armorcas, or approved equal.
- L. Vehicle Signal Head: Three- and four-section vertical. Peek, Siemens ITS, McCain or approved equal.

1. 12" polycarbonate.
 2. 5" black backplate with yellow 2" 3M diamond grade retroreflective border.
 3. 12" olive green tunnel visors.
- M. Vehicle Signal Modules: 12" LED with quick disconnect leads, smooth lens surface, 120 VAC. Gelcor, Leotek, Dialight or approved equal.
- N. Pedestrian Signal Head: 16" LED, countdown timer with housing. IDC with Dialight countdown module or approved equal.
- O. Signal Head Mounting Bracket
1. Pelco or approved equal for three-section and four-section for vehicle signal mast arm mounting.
 2. Econolite, McCain, or approved equal for three-section and four-section for vehicle signal side of pole terminal compartment mounting.
 3. Econolite, McCain, or approved equal for pedestrian signal head side of pole terminal compartment mounting.
- P. Pedestrian Push Button Assembly

Section 1101 — Traffic Signals and Appurtenances, Part 3.2 Loop Installation

Delete Items C, D, E, F, G, H, I, J, K, L, N, O, R, and S and **insert** new Items C and D:

- C. Splice using waterproof 3M brand scotch cast or approved equal. Inline resin splice kits only.
- D. Saw cut loop installation not allowed.

Section 1101 — Traffic Signals and Appurtenances, Part 4 Measurement and Payment

Add new Item B:

- B. Traffic Signal: By the lump sum for all work included in the Contract Documents or specified herein. Work to include the sum total of all items for a complete system to be furnished, installed, and tested, including full compensation for all costs involved in furnishing all labor, materials, and equipment necessary or

incidental to the construction of a complete new signal system as shown in the Contract Documents. Work to include saw cutting, excavation, backfilling, concrete foundations, conduit, wiring, loops, controller and service cabinets, signal heads, signal poles, mast arms, emergency preemption devices, restoration of facilities destroyed or damaged during construction, and for making all required tests. All additional materials and labor not shown in the Contract Documents, or called for herein, and which are required to complete the specified system are incidental to the construction and included in the lump sum contract price.

1. Bid Schedule Payment Reference: 1101.4.1.B.1.
2. Bid Schedule Description: Pedestrian Hybrid Beacon...Each (EA).

Section 1104 — Permanent Pavement Markings, Part 1.3 References

Delete Item B and **insert** new Item B:

- B. Federal Specifications, TT-P- 1952-D, Type II High Build.

Section 1104 — Permanent Pavement Markings, Part 2.3 Thermoplastic Pavement Markings

Delete Item A and B and **insert** new Item A and B:

- A. Reflective thermoplastic pavement markings material to be pre-formed with a minimum thickness of 125 mils.
- B. Heat fused permanent pre-formed thermoplastic pavement markings to conform to the current American Association of State Highway and Transportation Officials (AASHTO) Standard M-249, with the exception of the relevant differences for the material being supplied in the pre-formed state. Use polymeric materials, pigments, binders and glass beads, factory produced as a product. The dimensions shall meet the requirements of the current Manual on Uniform Traffic Control Devices, as adopted by the State of Idaho.

Section 1104 — Permanent Pavement Markings, Part 3.3 Paint Application

Add New Item O and P:

- O. No additional payment for temporary striping, unless approved in advance by Engineer.
- P. Cycle length for striping to be 40 feet (10 foot stripe with a 30 foot gap).

Section 1104 — Permanent Pavement Markings, Part 3.4 Thermoplastic Pavement Marking Application

Delete Item A and **insert** new Item A:

- A. Properly clean and prepare surface. Completely remove any and all existing thermoplastic and paint to the approval of the Engineer.

Section 1105 — Permanent Traffic Signing, Part 2.2 Signs

Delete Item D and **insert** new Item D:

- D. All sign sheeting must meet ASTM D 4956-04 and the requirements of the MUTCD Retro reflectivity Levels regardless of compliance dates. As a minimum Type IV sheeting must be used for the following signs: Stop, Yield, Wrong Way, Do Not Enter, Black and Yellow warning signs, Fluorescent Yellow-Green school signs and Street Name signs. Remaining signs may be fabricated of Type I sheeting. Local agencies may require higher standards. Splicing of reflective sheeting will not be allowed on panels of less than 24 inches in length or width. One splice may be permitted on larger panels if any gaps are less than 0.04 inches in width and color matches.

Section 1105 — Permanent Traffic Signing, Part 2 Materials

Add new Part 2.4 Rectangular Rapid Flash Beacon (RRFB):

- A. Rectangular Rapid Flash Beacon.
 - 1. Two rapidly and alternately flashing rectangular yellow indications having LED array based pulsing light sources, and designed, located, and operated with the detailed requirements specified on the plans.
 - 2. Complete assembly, consisting of beacon mounts (compatible to the sign post), indications, electrical components (wiring, solid-state circuit boards, etc.), two W11-2 signs, two W16-7p signs, mounting hardware, post, and post foundation.
 - 3. Activates by a push button. The RRFB is normally dark, initiates operation only upon pedestrian actuation, and ceases operation after a predetermined time limit (based on MUTCD procedures). When activated, the RRFB indications flash in a rapidly alternating “wig-wag” flashing sequence (left light on, then right light on).
 - 4. Indications have 70 to 80 periods of flashing per minute. Posts are 4” diameter round, compatible to the flasher system and have breakaway bases that are NCHRP 350 TL3 or MASH compliant.
 - 5. Assembly will be paired with an assembly on the opposite side of the street. Communication is provided between the two assemblies such that a

pedestrian activation at either assembly activates both RRFB assemblies simultaneously.

6. Equipped with a solar panel, battery, and all other equipment recommended by the RRFB manufacturer for solar operation.
7. Minimum size of approximately 5" wide x 2" high. The two RRFB indications align horizontally, with the longer dimension of the indication horizontal, and a minimum space between the two indications of approximately 7" measured from inside edge of one indication to inside edge of second indication. The outside edges of the two indications, including any housing, is not to protrude beyond the outside edges of the integral signage of the RRFB. The light intensity of the RRFB's indications meets the minimum specifications of the Society of Automotive Engineers (SAE) standard 1595 (Directional Flashing Optical Warning Devices for Authorized Emergency, Maintenance, and Service Vehicles) dated January 2005. The pushbutton is capable of continuous operation over a temperature range of -30 degrees F to 165 degrees F (-34 degrees C to 74 degrees C).

B. Control Cabinet.

1. Provide airflow for internal components, screen vents on all to prevent insects and other foreign matter from entering.
2. Include at least two tamper-resistant stainless steel hinges and a replaceable #2 traffic lock with keys.
3. The cabinet includes a removable control panel to which all control circuit components either mount or connect.
4. Utilize four 5/16"-18 stainless steel mounting studs that mate to a range of bracket options. To ensure a secure mount to the supporting post, two banding style brackets that fit poles with a 2-3/8" or larger diameter shall be included as standard equipment.
5. All materials used in the construction or mounting of the control cabinet is either aluminum or stainless steel. Anti-vandal mounting is an option.
6. Apply a UV resistant label to the exterior of the cabinet and include system specific information including model number, serial number, date of manufacture, as well as any applicable regulatory compliance information.

C. Controller – The Programmable Flash Controller is housed within the Control Cabinet and includes the following:

1. Integrated constant-current LED drivers with a minimum of two-channel output for driving one or two units.
2. Multiple levels of LED brightness through LED drive current control as determined by the phototransistor input.
3. Utilize MUTCD compliant flash pattern
4. Automatically adjust the LED drive current control to optimize brightness for the ambient lighting conditions.

5. LED drive outputs to reach the full output current as programmed within the duration of the 100ms on-time.
6. Integrated Real Time Clock (RTC) with on-board battery backup.
7. Capability of RS232 communication for programming with Windows-based software.
8. Minimum of two General Purpose Inputs and Outputs (GPIO).
9. Minimum of two General Purpose Inputs and Outputs (GPIO).
10. Internally housed in its own IP67 type enclosure.
11. Independently replaceable of other control panel components.
12. Monitor internal temperature.
13. Operate between the temperatures of -40° to +176°F (-40° to +80°C).

D. Sign.

1. Type W11-2 Florescent Green with an arrow.
2. Conform to 2009 Federal Highway Administration's MUTCD section 2A.07 on retro reflectivity and illumination. Each sign has eight Daylight-Visible LEDs (amber) that are embedded individually into 1" diameter holes around the perimeter of the sign and be ultrasonically welded to the sign assembly to provide maximum strength and rigidity.
3. Sign blank material is a minimum of 0.080" thick aluminum.
4. Consists of reflective fluorescent yellow-green or fluorescent yellow or white sheeting, as required, for an MUTCD compliant sign, applied to the sign blank with a Protective Overlay film to provide an additional layer of graffiti protection.
5. Specified quantity of high power, 1-watt LEDs.
6. LED sealed within a 7/8" diameter, heat-dissipating plastic enclosure to provide resistance to weather and vibration.
7. LEDs wired in strings to activate simultaneously per MUTCD standards.
8. LEDs wired in parallel electrically so that remaining LEDs continue to flash in the event of the failure of any individual LED.
9. Encapsulate Wiring between LEDs inside aluminum extrusions secured to the back of each sign assembly, to provide weather resistance and protection.
10. Adequate holes for mounting to a pole or post.
11. Apply UV-resistant label(s) to the back of each sign assembly. Include specific information such as the manufacturer, manufacturer phone number, model number, serial number, date of manufacture and any applicable regulatory compliance information.

E. Solar Charge Controller.

1. Utilize an intelligent 4-stage algorithm and Pulse Width Modulation (PWM)

- for battery charging.
2. Automatically provide Low Voltage Disconnect (LVD) to protect batteries when needed.
 3. Automatically provide Load-Reconnection once battery levels have been restored to an acceptable value.
 4. Protect against and automatically recover from: short circuit, overload, reverse polarity, high temperature, lightning and transient surge, as well as voltage spikes.
 5. Independently replaceable of other control panel components.
 6. Operate from -40° to +140°F (-40° to +60°C).LED

F. Battery Power.

1. Housed inside the Control Cabinet.
2. Nominal output voltage of 12 VDC and a capacity of 48Ah.
3. Rechargeable type Gelled-Electrolyte.
4. Sealed and spill-proof.
5. Battery replaceable independently of other components.
6. Fused for short circuit protection.

G. Solar Power (55W)

1. Constructed of an anodized aluminum frame, high-transmission 1/8" tempered glass, with silicon cells encapsulated in double-layer EVA, and with a white polymer backing.
2. Affixed to an aluminum plate and pole top bracket at a fixed angle of 45° to provide maximum insolation exposure.
3. Post top mounting system provides 360° of rotational direction adjustment and upon installation, must be oriented with the collector facing South.
4. Operate at 12VDC nominal with a maximum output rating of 55 watts.
5. The solar panel specifications:
 - a. Minimum Overall Size: 625 square inches
 - b. Maximum power voltage: 18.18 VDC
 - c. Maximum power current: 3.1 A
 - d. Operate from -40° to +194°F (-40° to +90°C)
6. Connectors dust proof and water proof.
7. Fasteners anti-vandal pin-type set screws, provide wrench.

H. 900 MHz FHSS Wireless Transceiver.

1. Seamlessly integrate with the controller to ensure sequential activation of other radio-equipped devices in the system.
2. Include an integrated LCD and two user-interface buttons for setup and troubleshooting, including readouts of flash duration (timeout), battery conditions, and LED testing functionality.
3. Include two LED indicators for status and troubleshooting.
4. Shall be capable of operating as a Parent (Gateway) or Child (Node or Repeater).
5. Capable of providing site-survey data for verification of signal strength between network devices.
6. Include network-wide modification of sign controller settings and output durations, using programmability from any networked transceiver without the use of additional equipment or software.
7. Synchronize the system components to activate the indications within 120msec of one other and remain synchronized throughout the duration of the flash (timeout) cycle.
8. Operate on the license-free ISM band.
9. Operate from 3.3VDC to 15VDC.
10. In the event of failure, replaceable independently of other components.

I. Pole Shaft.

1. 13' – 15' length standard specified outer diameter aluminum pedestal pole.
2. Supply with one end threaded for easy installation into a pedestal base.

J. Pole Pedestal Base.

1. TP-358 cast aluminum that mounts on a concrete foundation attached by four internal anchor bolts imbedded in the foundation.
2. Include a large 8.5" square hand hole cover allowing access to the interior.

K. Warning Static Sign.

1. Each static sign face shall be constructed on a 0.080" thick 5052-H32 aluminum and screened onto 3MTM Diamond Grade TM DG3 Reflective sheeting of specified color.
2. MUTCD compliant sign legend, as dictated by the requirements.
3. Two holes for mounting to a post or pole.
4. Include pole mounting hardware.

Section 1105 — Permanent Traffic Signing, Part 3.1 Sign Installation

Add new Item C Rectangular Rapid Flash Beacon (RRFB):

- C. Rectangular Rapid Flash Beacon (RRFB).
 - 1. Install in accordance with the manufacturer's recommendations and as shown on the plans. Pole mounting requirements per MUTCD guidelines. Foundations shall be in compliance with City standards for sign posts as applicable. Complete assembly, consisting of beacon mounts (compatible to the sign post), indications, electrical components (wiring, solid-state circuit boards, etc.), two W11-2 signs, two W16-7p signs, mounting hardware, post, and post foundation.
 - 2. Each Sign to be supplied with all required hardware to install assembly. Include the crossing warning sign and the supplemental downward diagonal arrow plaque. Provide an ITD 851 and 914 form for all materials incorporated in this work. Indications have 70 to 80 periods of flashing per minute. Posts are 4" diameter round, compatible to the flasher system and have breakaway bases that are NCHRP 350 TL3 or MASH compliant.
 - 3. Include a three-year Manufacturer warranty, unconditional warranty against all defects in material and workmanship.

Section 1105 – Permanent Traffic Signing 4.1 Measurement and Payment

Add new Items E, F and G:

- E. Install Traffic Sign: Per each including post, anchor, sign face and incidentals. Includes full compensation for materials, labor and equipment necessary for completing the work and all appurtenances not itemized on the Bid Schedule.
 - 1. Bid Schedule Payment Reference: 1105.4.1.E.1.
 - 2. Bid Schedule Description: Install Traffic Sign, Type _____...Each (EA).
- F. Remove and Replace Traffic Sign: Per each including post, anchor, and sign face. Includes full compensation for materials, labor and equipment necessary for completing the work and all appurtenances not itemized on the Bid Schedule.
 - 1. Bid Schedule Payment Reference: 1105.4.1.F.1.
 - 2. Bid Schedule Description: Remove and Replace Traffic Sign, Type _____...Each (EA).
- G. Rectangular Rapid Flash Beacon (RRFB): Per each and includes full compensation for materials, labor and equipment necessary for completing the work and all appurtenances not itemized on the Bid Schedule.

1. Bid Schedule Payment Reference: 1105.4.1.G.1.
2. Bid Schedule Description: Rectangular Rapid Flash Beacon (RRFB)...Each (EA).

Division 1100 – Traffic – Standard Drawings

Delete the following Standard Drawings:

Delete SD-1102
Delete SD-1103
Delete SD-1105
Delete SD-1106
Delete SD-1107
Delete SD-1108
Delete SD-1109
Delete SD-1110
Delete SD-1112
Delete SD-1113
Delete SD-1114
Delete SD-1115
Delete SD-1116
Delete SD-1118
Delete SD-1119
Delete SD-1122
Delete SD-1125
Delete SD-1126
Delete SD-1127
Delete SD-1131
Delete SD-1132

Add the following Idaho Falls Standard Drawings:

Add IF-1103
Add IF-1105
Add IF-1107
Add IF-1108
Add IF-1109 (2 Sheets)
Add IF-1110
Add IF-1112
Add IF-1113
Add IF-1114
Add IF-1114A

Add IF-1115
Add IF-1132A
Add IF-1132B
Add IF-1132C

CITY OF IDAHO FALLS
SUPPLEMENTAL SPECIFICATIONS TO
THE ISPWC

DIVISION 2000 – Miscellaneous

CITY OF IDAHO FALLS SUPPLEMENTAL SPECIFICATIONS TO THE ISPWC

Division 2000 – Miscellaneous

Section 2020 – Survey Monuments Part 2.1 General

Delete items A, B, F and **insert** new Item A, B, F:

- A. Monuments to be of the quality, material, and dimensions shown on the Standard Drawing IF-2020A Standard Survey Monument Installation, the Contract Documents, and the Special Provisions.
- B. Cast Iron frames and covers over existing monuments to be of the quality, material, and dimensions shown on the Standard Drawing IF-2020B Valve Box for Existing Control Monuments, the Contract Documents and Special Provisions.
- F. Monuments per Section 50-1303 and or 54-1227 of the Idaho Code.

Delete Item G.

Section 2020 – Survey Monuments Part 3.1 Reference Points

Add new item D:

- D. All other monuments to be approved in writing by City Surveyor.

Section 2020 – Survey Monuments Part 3 Workmanship

Delete Parts 3.2, 3.3.

Section 2020 – Survey Monuments Part 3.4 Standard Rebar Monument

Add new Item A:

- A. Install per Idaho Code and Drawing IF-2020A.

Section 2020 – Survey Monuments Part 4.1 Measurement and Payment

Delete A and B.

Section 2030 — Utility Adjustments, Part 2 Materials

Insert new Item 2.1.B:

- B. Grout: flowable fill per section 703.2.4.

Section 2030 — Utility Adjustments, Part 3.1 Manholes, Storm Drains, and Valve Boxes

Delete Item F and **insert** new Item F:

- F. Adjust manholes, storm drains, and valve boxes to final grade and place asphalt collar after paving is completed and before chip sealing. Manhole asphalt collar in conformance with IF-2030B. Valve box asphalt collar in conformance with IF-404A.

Section 2030 — Utility Adjustments, Part 3 Workmanship

Add new Part 3.5:

3.5. LOWER MANHOLE AND VALVE BOXES

- A. Ahead of milling lower all conflicting manholes such that the manholes are below the milling depth. Schedule the lowering of the manholes in a manner that minimizes the time between the lowering and milling operations.
- B. Ahead of milling lower all conflicting valve boxes such that the valve boxes are below the milling depth. Schedule the lowering of the valve boxes in a manner that minimizes the time between the lowering and milling operations.

Section 2030 — Utility Adjustments, Part 4 Measurement and Payment

Insert new Items E, F and G:

- E. Lower Manhole: Measured by each manhole adjusted prior to milling operations.
 - 1. Bid Schedule Payment Reference: 2030.4.1.E.1.
 - 2. Bid Schedule Description: Lower Manhole...each (EA).
- F. Lower Valve Box: Measured by each valve box adjusted prior to milling operations.
 - 3. Bid Schedule Payment Reference: 2030.4.1.F.1.

4. Bid Schedule Description: Lower Valve Box...each (EA).
- G. Grout Pipe – Size ____ : By the linear foot for type and size of pipe measured along the horizontal centerline of the pipe. Work includes all labor, material and equipment required to grout pipe.
 1. Bid Schedule Payment Reference: 2030.4.1.G.1.
 2. Bid Schedule Description: Grout Pipe – Size ____ ...linear foot (LF).

Section 2040 – Fencing 2.1.C Chain Link Fabric

Delete Item 1 and **insert** new Item 1, 2 and 3:

1. Chain link fabric to be a 2-inch diamond mesh woven from coated wire minimum 9 gauge.
2. Fabric to have one selvage edge knuckled and one edge twisted and barbed. Fabric ASTM A 392, Class I.
3. Fence material to be heavily hot dip galvanized after fabrication and meet requirements and be in conformance with AASHTO M 181 and ASTM A 153.

Section 2040 – Fencing 2.3 Posts

Delete Item C and **insert** new Item C:

- C. Zinc-coated steel. See Standard Drawing IF-2040I.

Section 2040 – Fencing Section 3.2 Construction Requirements

Add new Item M, and N:

- M. Remove and Reset Fence
 1. Remove existing fence and reinstall the fence in its proposed location once all work has been completed that would allow the fence to be reset. Use all necessary care during fence removal to ensure that it can be reset at the location shown in the plans. After the required contract work is complete in the vicinity of the fence location, replace and restore the fence to its original condition using either existing materials or other new or used materials of equal type and condition of the original fence.
 2. During the interval between removal and resetting the fence, provide sufficient temporary fencing as necessary.

Section 2040 – Fencing 4.1 Measurement and Payment

Add new Item D:

- D. Remove and Reset Fence, Type____: per linear foot measured along the horizontal centerline of the fence through all braces and gates. Include full compensation for materials, labor and equipment necessary for completing the work and all appurtenances not itemized on the Bid Schedule.
1. Bid Schedule Payment Reference: 2040.4.1.D.1.
 2. Bid Schedule Description: Remove & Reset Fence, Type ____...linear foot (LF).

Section 2050 – Construction Geotextiles Part 1.1

Add new item F.

F. Landscape Geotextiles

Part 2 Materials

Add new part 2.6 LANDSCAPE GEOTEXTILE PROPERTY REQUIREMENTS:

- A. Only geotextiles that are woven and meet the following requirements are acceptable:

<u>Geotextile Property</u>	<u>Test Method</u>	<u>Minimum Average Roll Values (in either principle direction)</u>
<u>Grab Tensile Strength - lbs</u>	<u>ASTM D 4632</u>	<u>65</u>
<u>Grab Elongation (%)</u>	<u>ASTM D 4632</u>	<u>15</u>
<u>Trapezoidal Tear Strength - lbs</u>	<u>ASTM D 4533</u>	<u>30</u>
<u>Puncture – lbs</u>	<u>ASTM D 6241</u>	<u>300</u>
<u>Weight (oz/sy)</u>	<u>ASTM D 5261</u>	<u>5</u>
<u>Permittivity (sec⁻¹)</u>	<u>ASTM D 4491</u>	<u>0.2</u>
<u>Ultraviolet (UV) Radiation Stability Retained (%)</u>	<u>ASTM D 4355</u>	<u>70% after 2500 hrs</u>

Part 3.6 Installation

Add new item F. Landscape Application:

F. Landscape Installation

1. Place per manufacturer's specifications and in accordance with the Plans.

2. Overlap geotextile a minimum of 8" at all longitudinal and transverse joints.

Part 4 Measurement and Payment

Insert new item E:

E. Landscape Geotextile by the square yard measured to the nearest unit of surface area actually covered.

1. Bid Schedule Payment Reference: 2050.4.1.E.1

2. Bid Schedule Description: Landscape Geotextile...square yard (SY).

Division 2000 – Miscellaneous

Add new Section 2052 Sprinkler System

SECTION 2052 — SPRINKLER SYSTEM

PART 1 GENERAL

1.1 SECTION INCLUDES

A. Sprinkler system materials and installation.

1.2 RELATED SECTIONS

A. Section 901 — Pressure Irrigation Pipe and Fittings.

1.3 SUBMITTALS

- A. Submit drawings for materials to be installed or furnished under this section.
- B. Submit manufacturer's certification that pipe, valves, sprinkler and appurtenances meet or exceed specified requirements.
- C. Submit manufacturer's installation instructions and maintain copy at the jobsite.

1.4 PROJECT RECORD DOCUMENTS

- A. Accurately record actual locations of constructed sprinkler system including but not limited to sprinklers, valves, valves boxes,

irrigation zones.

- B. Provide copy of record documents to Owner prior to issuance of substantial completion.

1.5 DELIVERY, STORAGE, AND HANDLING

- A. Handle and store pipe, fittings, valves and appurtenances in a manner which prevents shock, damage, or detrimental exposure to weather.

PART 2 MATERIALS

2.1 PIPE

- A. Material as shown on IF-2052.
- B. Do not use damaged or kinked pipe.

2.2 CONNECTIONS FOR POLYETHYLENE PIPE

- A. Barbed insert fittings and stainless steel clamps as shown on drawings.

2.3 WIRING

- A. 18 gauge braided for lengths up to 1000 feet.
- B. 14 gauge single strand for lengths greater than 1000 feet.

2.5 SPRINKLER HEADS

- A. See parts list on Standard Drawing IF-2052.

PART 3 WORKMANSHIP

3.1 SPRINKLER SYSTEM INSTALLATION

- A. All design and work performed to be done by a licensed firm specializing in sprinkler systems. All materials used in the sprinkler system to be available in Idaho Falls for future maintenance. Verify all material sources with Engineer prior to bidding. Failure to do so will not relieve the Contractor from responsibility for furnishing and installing all materials in strict accordance with these requirements at the locations as shown on the plans or as directed by Engineer.
- B. File for a Sprinkler Permit for the installation of sprinkler systems.

Perform all work in accordance with these specifications, current rules, regulations, and other applicable State or local laws. Provide and install a backflow device in accordance with the requirements of the City Building Division.

- C. Design system to have adequate coverage. Adjust system as necessary to provide coverage, avoid existing fixed obstructions and minimize elevation changes in any lateral line.
- D. Install the system water supply in accordance with IF-2052. Changes require prior written approval from Engineer.
- E. Prepare accurate to scale "As-Built" drawings as installation proceeds and submit drawings in electronic form prior to final inspection. Final payment for sprinkler system will not be authorized until all drawings are complete, submitted and accepted by Engineer.
- F. During construction and storage, protect all materials from damage and prolonged exposure to sunlight. Replace or fix all damaged materials prior to final acceptance.
- G. Install controller, conduit, wiring and electric valves per the plans, Manufactures recommendations and City Building Division requirements. Install electrical valves at the highest locations to prevent damage and allow access during periods of flooding. Place electrical valves in a plastic valve box with reinforced heavy-duty lock top or snap top plastic lids. Place valve 6 inches below the top of valve box. Place single valves in a round valve box minimum 10-inch diameter. Multiple valves may be installed in a single properly sized valve box, provided the valves are installed with sufficient clearance to allow removal without damage or removal of the box, other valves or lines. Set valve boxes to finish grade in landscape areas. Valve boxes must be notched to give a 2-inch minimum clearance from the main or lateral lines.

Irrigation System Definitions

Service Line	Line from City water main to backflow device.
Main Line	Line or lines from the backflow device to the electric valves.
Lateral Line	The lines from the electric valve to the last sprinkler head.

- H. Install main lines at a depth of 12 to 14 inches below finish grade. Install lateral lines at depth of 8 to 12 inches below finished grade. Install lateral lines using a sleeve when crossing asphalt or concrete. Do not cut continuous lateral lines for the installation of sprinklers.
- I. Install service line, including 2 inch Type K Copper from supply

point to the point, as depicted in drawing IF-2052. Install a 2 inch tee, with approved quick connect coupler at finish grade, between curb stop and the backflow device. Install backflow device in accordance with the City Building Division requirements. Install 2 inch galvanized pipe from backflow device between 12 to 14 inches below ground. Change from galvanized to plastic as shown in the Standard Drawings, any size reduction to occur at the same location. Use proper adapters for connecting dissimilar types of pipe.

- J. Adjust sprinkler heads in the lawn areas to proper grade when sod is sufficiently established to allow walking on it without appreciable damage. Adjust sprinkler heads for proper distribution and trim.
- K. When entire sprinkler system is completed and inspections and approvals by the City Building Division have been completed, submit copies of the approvals and request acceptance by Engineer. Where sprinkler system work does not comply repair and/or replace all material and perform all work then resubmit for approval by Building Division and acceptance by Engineer.

3.2 SPRINKLER SYSTEM REPAIR

- A. Remove sprinkler system where necessary to complete the required work.
- B. Remove and replace all sprinkler systems that are damaged as a result of construction.
- C. Upon completion of work restore sprinkler system as near to the original location as possible, or as necessary to provide coverage, and to the original condition using either existing materials or other new or used materials of equal type and condition as directed by Engineer. Restore system to equal or better in all respects and condition to the original sprinkler system.
- D. Prior to installation and/or removing existing sprinkler systems meet with affected property owner to discuss the extent of the work. Discuss the reinstallation of the sprinkler system, and jointly ascertain and agree upon the existing condition of any adjacent and surrounding objects, features, and facilities that may be affected by sprinkler system removal and installation.
- E. Repair all damage that may occur to any adjacent or surrounding objects, features or facilities. Preserve, protect, restore and/or replace such facilities so that after completion of the project all such facilities are in a condition as good as, or better than, their original condition.

PART 4 MEASUREMENT AND PAYMENT

4.1 Sprinkler System to be measured on a lump sum basis complete, in place, and fully operational as stated in these Specifications. Payment includes full compensation for all labor, materials, equipment and tools necessary to furnish, install, test and make ready for service the sprinkler system complete and in place as shown on the Standard Drawings, Plans, and as directed by the Engineer.

- A. Sprinkler System: On a lump sum basis for construction of a fully operational sprinkler system.
 - 1. Bid Schedule Payment Reference: 2052.4.1.A.1.
 - 2. Bid Schedule Description: Sprinkler System...lump sum (LS).
- B. Repair Sprinkler System: On a lump sum basis for repair/reconstruction of existing sprinkler system to be fully operational per plans and directions of Engineer.
 - 1. Bid Schedule Payment Reference: 2052.4.1.B.1.
 - 2. Bid Schedule Description: Repair Sprinkler System...lump sum (LS).
- C. Repair Sprinkler System: On a linear foot basis for repair/reconstruction of existing sprinkler system to be fully operational per plans and directions of Engineer.
 - 1. Bid Schedule Payment Reference: 2052.4.1.C.1.
 - 2. Bid Schedule Description: Repair Sprinkler System...linear foot (LF).

Add new Section 2053 Sod

SECTION 2053 — SOD

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Furnishing and placing sod.

1.2 DELIVERY, STORAGE, AND HANDLING

- A. Furnish all labor, equipment, tools and materials necessary to install sod as shown on the plans and directed by Engineer.

PART 2 MATERIALS

2.1 SOD

- A. Merion, Park, Delta, or Windsor Kentucky Bluegrass, or combinations of approved fine textured grasses suitable for the area designated for sod and free of weeds.
- B. True to type and name in accordance with the Standard Plant Names, current edition, by the Editorial Committee of the American Joint Committee on Horticultural Nomenclature.
- C. Not less than ten months old, with prior approval at the supply source before cutting for delivery to the planting site. Sod showing evidence of improper handling or discoloration due to prolonged storage prior to delivery will be rejected.

2.2 FERTILIZER

- A. Of neutral character, with some elements derived from organic sources and containing a percentage of nitrogen required to provide 3/4 to 1 pound of actual nitrogen per 1,000 square feet of lawn area and not more than 4% phosphorus.
- B. Nitrogen in a form that will be available to lawn during initial period of growth; at least 50% nitrogen to be organic form.

PART 3 WORKMANSHIP

3.1 PLACEMENT

- A. Fine grade and roll topsoil (minimum topsoil depth of 4 inches) to provide a fine textured, smooth and firm surface, free of weeds, footprints, undulations or irregularities. Finished grade of the sod bed to be 1 - 1 ¼ inches below the finished grade of the adjacent curbs and/or sidewalks to permit the placing of the sod to final grade. Additional topsoil may be required to establish this finished grade requirement.
- B. Cut individual sod pieces in a uniform size with square corners at a uniform depth of one to one and one-quarter (1 - 1 ¼) inches. Lay the first row of sod in a straight line and subsequent rows placed parallel to and tightly against each other. Stagger lateral joints. Ensure that the sod is not stretched or overlapped, and that all joints are butted tightly. After placing sod, roll the lawn diagonally and water heavily.
- C. Establishment period for the sod lawn consists of: (1) protecting the sodded areas from trespass and other damages; (2) promoting

the growth of the grass sod; (3) mowing; (4) removing clippings, weeds, litter and debris; and (5) reconditioning and/or replacing any sod which for any reason fails to show a healthy growth of the grass sod.

- D. Water sodded areas at such times and with such frequency as is in accordance with good horticultural practices under the prevailing conditions.
- E. Mow the grass when it has attained a height between three and one-half and four and one-quarter (3-½ and 4-1/4) inches, and when the ground is sufficiently firm to prevent rutting. Mow the grass to a height of three (3) inches. Repeat as necessary to not remove more than one-third (1/3) of overall grass height in a single cutting and not cut less than three (3) inches in grass height.
- F. Do not allow the clippings to smother or retard grass growth. Weed and remove noxious vegetation individually or using a blanket treatment in accordance with accepted lawn care practices to achieve the appearance of a healthy and well cared for lawn of uniform color, texture and condition, free of weeds.

PART 4 MEASUREMENT AND PAYMENT

- 4.1 Sod to be measured on a square yard (SY) basis complete in place. Payment includes full compensation for all labor, materials (including topsoil), equipment and tools necessary to furnish and install sod as shown on the Standard Drawings, Plans, and as directed by the Engineer.

- A. Sod: On a square yard basis for the placement of sod.
 - 1. Bid Schedule Payment Reference: 2053.4.1.A.1.
 - 2. Bid Schedule Description: Sod... square yard (SY).

Add new Section 2054 Structural Soil

SECTION 2054 — STRUCTURAL SOIL

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Structural Soil materials and placement.

1.2 DELIVERY, STORAGE, AND HANDLING

- A. Furnish all labor, equipment, tools and materials necessary to furnish and install structural soil as shown on the plans and directed by Engineer.

PART 2 MATERIALS

2.1 STRUCTURAL SOIL

- A. CU-Structural Soil® or approved equal.

PART 3 WORKMANSHIP

3.1 PLACEMENT

- A. Dimensions as shown on the Plans or as directed by Engineer. Minimum depth 36 inches unless otherwise approved by Engineer.

PART 4 MEASUREMENT AND PAYMENT

- 4.1 Structural soil to be measured on a cubic yard (CY) basis complete in place. Payment includes full compensation for all labor, materials, equipment and tools necessary to furnish, haul, and place structural soil as shown on the Plans, and as directed by the Engineer.

- A. Structural Soil: On a cubic yard basis for the placement of structural soil.
 - 1. Bid Schedule Payment Reference: 2054.4.1.A.1.
 - 2. Bid Schedule Description: Structural Soil... cubic yard (CY).

Add new Section 2055 Decorative Rock

SECTION 2055 — DECORATIVE ROCK

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Decorative Rock supply and placement.

1.2 DELIVERY, STORAGE, AND HANDLING

- A. Stockpile aggregate in an approved location.

- B. Stockpile, load, haul and place material in a manner which minimizes segregation and degradation.

PART 2 MATERIALS

2.1 DESCRIPTION

- A. Fractured or non-fractured decorative aggregate meeting the required material, size, gradation and test results as shown on the plans.

PART 3 WORKMANSHIP

3.1 PLACEMENT

- A. Minimum 3" depth or as shown on the Plans.

PART 4 MEASUREMENT AND PAYMENT

- 4.1 Decorative rock measured on a cubic yard (CY) basis complete in place. Payment includes full compensation for all labor, materials, equipment and tools necessary to furnish, haul, and install decorative rock as shown on the Plans and as directed by the Engineer.

- A. Decorative Rock: On a cubic yard basis for placement.
 - 1. Bid Schedule Payment Reference: 2055.4.1.A.1.
 - 2. Bid Schedule Description: Decorative Rock Type ____ cubic yard (CY).

Add new Section 2056 Trees/Shrubs

SECTION 2056 – TREES/SHRUBS

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Tree and shrub supplying, planting, and preparation.

1.2 SUBMITTALS

- A. Submit a list of trees and shrubs to be installed under this section. Include in the list name, variety, size, and quality.

- B. Submit supplier's installation instructions and maintain copy at the jobsite.

1.4 PROJECT RECORD DOCUMENTS

- A. Record locations and name of installed trees and shrubs.
- B. Provide copy of record documents to Owner prior to issuance of substantial completion.

1.5 DELIVERY, STORAGE, AND HANDLING

- A. Deliver after preparations for planting have been completed and plant immediately. If planting is delayed more than (6) hours after delivery, set on the ground in shade, protect from weather and mechanical damage, and keep roots moist by protecting them with soil, wet peat moss, wet sawdust, or wet ground bark. Do not remove container-grown stock from containers until planting time. Label with a securely attached waterproof tag bearing legible designation of botanical and common name.

PART 2 MATERIALS

2.1 TREES/SHRUBS

- A. Provide all materials to complete the installation as shown on the Plans or as directed by Engineer. Substitutions will not be accepted unless approved in writing by Engineer. If specialized landscape material is not obtainable, submit to Engineer proof of no availability and proposal for use of equivalent material.
- B. Use trees and shrubs grown in a recognized nursery in accordance with good horticultural practice. Provide healthy, vigorous stock grown under climatic conditions similar to conditions in the locality of the project and free of disease, insects, eggs, larvae, and defects such as knots, sunscald, injuries, abrasions, or disfigurement, with well-developed root systems.
- C. Do not prune prior to delivery. Do not bend or bind-tie trees in such a manner as to damage bark, break branches, or destroy natural shape. Provide protective covering during delivery.

2.1 PLANTING MULCH

- A. Ground fir, spruce or hemlock, free from weed seeds, tannin, or other compounds detrimental to tree life. Mulch size range ¼" to 1", with a maximum of 50 percent passing a ½" screen.

PART 3 WORKMANSHIP

3.1 TREE/SHRUB PLANTING

- A. Provide good quality topsoil (or structural soil where specified) prior to the installation of the landscaping. Soil material to be approved prior to delivering to the job site. Install soil using a method to provide adequate compaction while providing a suitable planting medium. Exercise care to insure the proper support and protection for the sprinkler system.
- B. Stake tree/shrub locations and secure Engineer's acceptance prior to planting. Make minor adjustments as directed.
- C. Proceed with and complete tree planting work as rapidly as portions of the site become available, working within the seasonal limitations for the kind of tree planting required. Determine location of underground utilities and perform work in a manner that will avoid possible damage.
- D. Hand excavate, as required, to minimize possibility of damage to underground utilities. Excavate circular pits with vertical sides and with bottom of excavation slightly raised at center, to provide proper drainage, and loosen hard topsoil in bottom of excavations. Fill excavations for trees with water and allow water to percolate out before planting.
- E. For balled and bur lapped (B&B) tree/shrub, make excavations at least twice as wide as the ball diameter and equal to the ball depth, and loosen approximately four (4) to six (6) inches of the compacted topsoil below the bottom of the excavation.

3.2 TREE/SHRUB PLANTING

- A. Plant materials true to name and variety established by the American Joint Committee on Horticultural Nomenclature "Standardized Plant Names," latest edition. The trees to comply with the recommendations and requirements of ANSI Z60.1 "Standard for Nursery Stock" and as further specified. Trees/Shrubs to conform to state and federal laws relating to inspection for diseases and insect infestation, and to the American Standard for Nursery Stock. Trees to be first class representatives of the species or variety.
- B. Plant trees/shrubs of the sizes shown or specified in the Plans. Trees/Shrubs of larger size may be used if acceptable to the Engineer, and if sizes of roots or containers are increased proportionately. Use of such trees not to increase the contract

price. Use tree size with branching configuration recommended by ANSI Z60.1 for type and species required.

- C. Engineer reserves the right to inspect the trees/shrubs, either at a place of growth or at site before planting, for compliance with requirements for name, variety, size, and quality. Upon completion of the work and prior to the final acceptance, present to Engineer, for a final check as to conformance to these specifications, invoices or written statements from the suppliers showing the name(s) of materials received or shipped.
- D. Set B&B stock on layer of compacted topsoil soil mixture, plumb and in center of pit or trench with top of ball at same elevation as adjacent finished landscape grades. When set, place additional topsoil/structural soil around base and sides of ball, and work each layer to settle backfill and eliminate voids and air pockets. When excavation is approximately two-thirds (2/3) full, apply water before installing remainder of backfill. Remove burlap from around base of tree approximately two-thirds (2/3) down the ball and open to sides of the ball.
- E. Set container grown stock as specified for B&B stock, except cut cans on two (2) sides with an approved can cutter and remove bottoms of wooden boxes after partial backfilling so as not to damage root balls
- F. Dish top of backfill to allow for mulching and provide additional backfill berm around edge of excavations to form shallow saucer to collect water. In tree/shrub planted areas, provide not less than a two (2) inch thickness of mulch over the backfill, and finish level with adjacent sod. Prune, thin out and shape trees in accordance with standard horticultural practice. Prune trees to retain required height and spread. Unless otherwise directed by Engineer, do not cut tree leaders and remove only injured or dead branches from flowering trees, if any. Remove and replace excessively pruned or malformed stock resulting from improper pruning.
- G. Paint cuts over one-half (1/2) inch in size with standard tree/shrub paint or compound, covering exposed, living tissue. Use paint that is waterproof, antiseptic, adhesive, elastic, and free of kerosene, coal tar, creosote, and other substances harmful to plants. Do not use shellac.
- H. Stake trees with two (2) wood stakes driven two (2) feet into the ground with the portion extending above the ground approximately one-half (1/2) of trunk height. Stake one (1) foot from the trunk, fastened at approximately two-fifths (2/5) of trunk height with wire run through rubber hose.

PART 4 MEASUREMENT AND PAYMENT

- 4.1 Trees/Shrubs to be measured on per each basis complete, in place as stated in these Specifications. Payment includes full compensation for all labor, materials, equipment and tools necessary to furnish and install trees complete and in place as shown on the Plans, and as directed by the Engineer.
- A. Trees: Per each for the type and size of tree indicated on the bid schedule.
 - 1. Bid Schedule Payment Reference: 2056.4.1.A.1.
 - 2. Bid Schedule Description: Tree Type _____, Size _____...each (EA).
 - B. Shrubs: Per each for the type and size indicated on the bid schedule.
 - 1. Bid Schedule Payment Reference: 2056.4.1.B.1.
 - 2. Bid Schedule Description: Shrub Type _____, Size _____...each (EA).

Add new Section 2060 Asphalt Milling

SECTION 2060 – ASPHALT MILLING

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Asphalt milling used to construct cold milling, edge treatment, and end treatment as defined within this section.

1.2 RELATED SECTIONS

- A. Section 802 – Crushed Aggregates
- B. Section 803 – Plant Mix Aggregates

PART 3 WORKMANSHIP

3.1 EQUIPMENT

- A. Designed to mill bituminous pavements without the addition of heat and the ability to plane Portland cement concrete patches where required in the bituminous pavement.
- B. Cutting drum to have a minimum of one-hundred twenty inches wide and equipped with carbide-tipped cutting teeth placed in a

- variable lacing pattern to produce the desired finish.
- C. Operating speeds from 0 to 40 feet per minute.
- D. Self-propelled and have the capability of spraying water at the cutting drum to minimize dust.
- E. Capable of removing material next to the gutter of the pavement being reconditioned and be designed so that the operator can at all times observe the milling operation without leaving the controls.
- F. Capable of adjusting for slope and depth. Maximum milling depth of 3 inches in one pass without producing fumes or smoke.
- G. Capable of discharging milled material to the front of the machine.

3.2 COLD MILLING

- A. Mill asphalt concrete pavement as dimensioned and as otherwise designated on the plans or as directed by Engineer.
- B. Cold milling to remove the designated variable depths of asphalt concrete to provide an overlay key at joints and over the width of the cold milled area.
- C. Additional widths of cold milling may be required at various locations as determined by Engineer.
- D. Surface of pavement to be uniformly rough grooved or ridged as directed by Engineer.
- E. Ramp all structures and vertical joints in the cold milled area which are transverse to through traffic and greater than 1-1/2 inches in height. Ramp to be temporary asphalt concrete pavement.
- F. Place ramps the same day as the cold milling and remove ramps the same day as permanent paving.
- G. Erect appropriate signage delineating the hazard to the traveling public.
- H. Maximum longitudinal and transverse variance allowed for the finished milling of ¼ inch in depth per 10 feet measured transversely or longitudinally. Correct all areas exceeding this maximum variance prior to paving, at no additional cost to the City.
- I. Minimum 50:1 (horizontal: vertical) slope for ramp.
- J. See Standard Drawing IF-2060.

3.3 EDGE TREATMENT

- A. Edge mill as shown in the Plans, as specified, and as directed by Engineer.

- B. Depth to be per Plans, Special Provisions or as directed by Engineer.
- C. Maximum longitudinal variance allowed for the finished milling of ¼ inch in depth per 10 feet measured longitudinally.
- D. See Standard Drawing IF-2060.

3.4 END TREATMENT

- A. As shown in the Plans, as specified and as directed by Engineer.
- B. See Standard Drawing IF-2060.

3.5 MILL TAILINGS

- A. Haul mill tailings to the City's yard located at 2530 Hemmert Avenue (or to other location if specified in Plans or Special Provisions) and stockpile at a location designated by Engineer. Mill tailings become the property of the City. The Contractor will not be required to supply a loader to pile the material. End-dump the material in the location designated in an orderly fashion.
- B. No separate payment will be made for hauling the material. All costs associated with this work shall be considered incidental to existing milling pay items designated for the project.

PART 4 MEASUREMENT AND PAYMENT

- 4.1 Milling to include all tools, labor, materials, hauling of mill tailings, and equipment necessary to conduct milling as shown in the Plans, as directed by Engineer, and as specified.
 - A. Cold Milling: By the square yard.
 - 1. Bid Schedule Payment Reference: 2060.4.1.A.1.
 - 2. Bid Schedule Description: Cold Milling...square yard (SY).
 - B. Edge Treatment: By the linear foot.
 - 1. Bid Schedule Payment Reference: 2060.4.1.B.1.
 - 2. Bid Schedule Description: Edge Treatment...linear foot (LF).
 - C. End Treatment: By the linear foot.
 - 1. Bid Schedule Payment Reference: 2060.4.1.C.1.
 - 2. Bid Schedule Description: End Treatment...linear foot (LF).

Add new Section 2070 Modular Block Retaining Wall Units

SECTION 2070 — MODULAR BLOCK RETAINING WALL UNITS

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Modular block supply and placement.

1.2 RELATED SECTIONS

- A. 2050 - Construction Geotextiles
- B. 204 - Structural Excavation and Compacting Backfill

1.3 REFERENCES

- A. ASTM C-90 and ASTM C-140

1.4 SUBMITALLS

- A. Submit product data for materials to be installed under this section.
- B. Submit manufacture's certification that block meets or exceed specified requirements.
- C. Submit manufacturer's installation instructions and maintain copy at the jobsite.

1.5 DELIVERY, STORAGE AND HANDLING

- A. Handle and store block per manufacturer's recommendations and in manner which prevents damage.

PART 2 MATERIALS

2.1 MODULAR BLOCK

- A. Grey in color or custom color as specified in the Plans, Special Provision, or as directed by the Engineer.
- B. Sculptured Rock finish or as specified in the Plans, Special Provisions or as directed by the Engineer.
- C. Surfaces to be free of chips, cracks or other imperfections.
- D. Each block and geogrid layer to interlock to block layer below.

2.2 TOLERANCES

- A. Block to have a compressive strength of not less than three thousand (3000) pounds per square inch.

- B. Absorption eight (8) percent maximum for standard weight aggregate.
- C. Inter-unit shear strength four hundred (400) pounds per lineal foot minimum at two (2) pounds per square inch normal force.
- D. Geogrid unit peak connection strength six hundred (600) pounds per lineal foot minimum at two (2) pounds per square inch normal force.
- E. Maximum horizontal gap between erected units one-half (1/2) inch.

PART 3 WORKMANSHIP

3.1 EXAMINATION

- A. Verify that site conditions are ready to receive work and field measurements are as shown on drawings.
- B. Beginning of installation means installer accepts existing conditions.

3.2 INSTALLATION

- A. Install block without damage to structural capacity, shape, or finish. Replace damaged block.
- B. Align and maintain uniform horizontal and vertical joints as block is installed.
- C. Maintain temporary bracing in place until final support is provided, Protect block from staining.

3.3 INSTALLATION TOLERANCES

- A. Install block level and plumb within tolerances.
- B. Maximum horizontal gap between erected units one-half (1/2) inch.
- C. Install the slope of the vertical wall face per the Standard Drawings or as suggested by the manufacturer.
- D. Modular block may be placed in a convex or concave alignment curve with a minimum radius of four (4) feet, not to exceed manufacturer's tolerances.

PART 4 MEASUREMENT AND PAYMENT

- 4.1 Payment includes full compensation for all labor, materials, equipment and tools necessary to furnish, haul, and install modular block as shown on the Plans and as directed by the Engineer.

- A. Modular Block: On a square foot (SF) basis of exposed wall face, complete in place.
 - 1. Bid Schedule Payment Reference: 2070.4.1.A.1.
 - 2. Bid Schedule Description: Modular Block... square foot (SF).
- B. Modular Block: On a linear foot (LF) basis, complete in place.
 - 1. Bid Schedule Payment Reference: 2070.4.1.B.1.
 - 2. Bid Schedule Description: Modular Block... linear foot (LF).

Add new Section 2080 Handrail

SECTION 2080 — HANDRAIL

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Handrail supply and placement.

1.2 REFERENCES

- A. ASTM B 429 Aluminum pipe and tubing
- B. ASTM B 209 Aluminum plates and sheets
- C. ASTM B 221 Aluminum rods, bars or shapes
- D. ASTM A 120 Steel railing materials welded or seamless
- E. ASTM A 365 Structural Steel
- F. ASTM 501 Tubular section of hot rolled mild steel
- G. American Welding Society Structural Welding Code AWS D1.1.

1.3 SUBMITALLS

- A. Submit product data for materials to be installed under this section.
- B. Submit shop drawings and /or product data for materials to be installed or furnished under this section.

PART 2 MATERIALS

2.1 HANDRAIL

- A. Aluminum conforming to the requirements of the Aluminum Association Standards.
- B. Aluminum rails and vertical support posts one and one-half inch

- diameter.
- C. Aluminum balusters three-quarter inch diameter.
- D. Steel welded or seamless steel pipe conforming to the requirements of ASTM A 120.
- E. Structural steel conforming to ASTM A 365.
- F. Steel tubular sections of hot rolled mild steel conforming to ASTM A 501.
- G. Steel rails and vertical support posts one and one-half inch diameter.
- H. Steel balusters three quarter inch diameter.

PART 3 WORKMANSHIP

3.1 EXAMINATION

- A. Rails, posts and balusters machine cut to provide a uniform length prior to assembly.

3.2 INSTALLATION

- A. Install rails in accordance with the details shown on the plans and Standard Drawing IF-2080.
- B. Steel handrails – Field welds galvanized with such materials as “Galvalloy” or “Galvicon”.

PART 4 MEASUREMENT AND PAYMENT

- 4.1 Handrail measured on a linear foot (LF) basis complete in place. Payment includes full compensation for all labor, materials, equipment and tools necessary to furnish, haul, and install handrail as shown on the Plans and as directed by the Engineer.

- A. Handrail: On a linear foot basis.
 - 1. Bid Schedule Payment Reference: 2080.4.1.A.1.
 - 2. Bid Schedule Description: Handrail... linear foot (LF).

Division 2000 – Miscellaneous – Standard Drawings

Delete the following Standard Drawings:

Delete SD-2020A
Delete SD-2020B

Delete SD-2020C
Delete SD-2020D
Delete SD-2020E
Delete SD-2020I

Add the following Idaho Falls Standard Drawings:

Add IF-2020A
Add IF-2020B
Add IF-2030B
Add IF-2030C
Add IF-2040I (4 sheets)
Add IF-2052 (5 sheets)
Add IF-2060 (3 sheets)
Add IF-2070
Add IF-2080 (2 sheets)