

# Town of Mead Design Standards and Construction Specifications

---

## TOWN OF MEAD LIST OF APPROVED LANDSCAPE MATERIALS

January, 2021

The following approved materials list applies to all Town of Mead related improvements per Sections 33 47 00 in Appendix A of the Town of Mead **Design Standards and Construction Specifications**:

Proposed substitutes to the following specific brands and/or models shall be submitted to the Town of Mead in writing with all necessary technical information needed for analysis. A written approval from the Town of substitute is REQUIRED for all products.

### CONCRETE BIKE PATHS, BRIDGES AND UNDERPASSES

1. Control joints: Zip strip or saw cut.
2. Expansion joints: pre-formed compressible bituminous fiber Type M-213, ½" thick with removable 'void cap' to create ½" reveal for sealant. Sealant to be Tremco "Tremflex 834, Pecora "unicrylic +60, or Sonolastic "Sonolac".
3. Bridge decking: concrete or 2"x8" IPE Ironwood. Decks must be designed with ability to easily replace individual deck boards.
4. Underpass Lighting:
  - a. LED type Cooper Lighting Model FCC-S-2-3750-7-40-120-82/87-ED-SF3- VRSD
5. Root Barrier: Deep Root S24" barrier.
6. Underpass Pavement Markings: Yellow paint – 4" wide solid line at blind corners and through underpasses as approved by City staff.

### GRADING AND FINE GRADING

1. Soil Amendment: Premium 3 by A-1 Organics composted aspen humus or other amendments certified as Class I or Class II by Rocky Mountain Organics Council.

### IRRIGATION

1. Irrigation Heads: Hunter
  - a. All heads to be installed with Hunter SJ or HSJ Swing Joint
  - b. ½" Inlet
    1. PRO-SPRAY PRS40 bodies
    2. MP Rotator Nozzles
  - c. ¾" Inlet
    1. I-20 (plastic riser) factory check valve installed
  - d. 1" Inlet
    1. I-25 (plastic riser), factory check valve installed
    2. I-40, factory check valve installed
    3. I-40-ON, factory check valve installed
    4. I-90, factory check valve installed
2. Controllers: Rain Master
  - a. Eagle Plus – 2 wire system, wall or pedestal mount
  - b. All wire in the system must be certified by Irritrol, part numbers EV-CAB-COM, EV-CAB-SH-COM, EV-CAB-WS12, EV-CAB-SEN
  - c. Permanently mounted PRO MAX receiver
  - d. Irritrol flow sensor FS-B100, 125,150, 200, 250 or FS-150, 200, 300, 400
  - e. Weather station RM-WETHR-ETRS may be required at the Town's sole discretion
3. Valves: Irritrol
  - a. 100 series for domestic water supply

# Town of Mead Design Standards and Construction Specifications

---

- b. 102 series for raw water supply
4. Backflow Device: FEBCO
  - a. 2" or smaller use 825YA model
  - b. Larger than 2" use LF880V
5. Backflow Enclosure: Guard Shack
  - a. S.S. Hinged Model
  - b. S.S. Tall Hinged Model
  - c. S.S. N Pattern
6. All Main lines and Lateral line shall be PVC
7. All PVC fittings shall be cleaned/primed and glued
8. All lateral lines shall be buried a minimum of 12" below final grade
9. All main lines buried a minimum of 18" below final grade
10. Thrust blocks shall be installed on any line that is 2" or larger, with a direction change of more than 20 degrees
11. Unless otherwise directed by the manufacturer, no joint that is directly connected to sprinkler heads, valves, or flow sensors shall have pipe compound or Teflon tape installed.
12. Flow Meter: Data Industrial. For 1" – 4" use drop-in style model # IR228PV. For 6" taps, use threaded style model # IR220BR.
13. Mainline:
  - a. For pipe sizes larger than 3" - J.M. Ringtite Class 200 PVC pipe.
  - b. For Pipe sizes 3" and smaller – Schedule 40 PVC
14. Joint Restraints: For all mainline sized 4" and larger - Leemco ductile iron gasketed fittings and Leemco pipe restraints shall be used.
15. Drip line: Irritrol blue stripe drip pipe, 80 PSI rated. Centennial drip tubing or Rainbird XT-700 only.
16. Valve Boxes: Highline (formerly Pentek) or Carson. Jumbo – sized only.
17. Drip system:
  - a. Emitters: Rainbird XB series with spiral barb emitters.
  - b. Flush caps: Agrifim model #CETC-34. 11.
18. Irrigation Pump Station
  - a. SyncroFlo Eagle Model 820-32L-100-850 prefabricated vertical turbine pump station designed to meet 850 GPM at a discharge pressure of 100 psi. Pump station to include: pumps shafts, bowls, filter screen, motors and associated piping and fittings all mounted on a metal skid. The system shall be factory tested and UL listed.
19. Miscellaneous Irrigation Equipment:
  - a. Waterproof connections:
    1. 3M DBR direct bury splice kits only on common wires
    2. Blazing Snaploc wire connector BVS-2 on 14 gauge (hot) wires
  - b. Elbows: Rainbird SBE-050 - to match pipe brand.
  - c. Risers: Funny pipe for pop-up heads; nipples for rotors.
  - d. Fabricate each swing joints – no prefabricated swing joints permitted
  - e. Pipe Glue: WELD-ON 711 grey glue with P70 purple primer
  - f. Upon the discretion of the Town for large scale projects, a two-wire control system may be utilized. If approved, the two-wire control path wire shall be Page Model P7072D-12 AWG and alterations to the approved controller specification will need to be made to function with this alternate system.

## SEEDING

1. Pre-approved Dryland Mixes (for temporary or permanent unmowed and/or non- permanent areas):
  - a. Native Areas (typically below the pathway trail or on the side without the trail):  
Canada wildrye 2.84 PLS pounds per acre

# Town of Mead Design Standards and Construction Specifications

---

- Thickspike wheatgrass (Critana variety) 0.71 PLS lbs. per acre
- Slender wheatgrass (San Luis or Pryor variety) 2.05 PLS lbs. per acre
- Western wheatgrass (Arriba variety) 1.98 PLS lbs. per acre
- Little bluestem (Cimarron or Pastura variety) 0.84 PLS lbs. per acre
- Switchgrass (Trailblazer, Nebraska 28, or Blackwell variety) 0.28 PLS lbs. per acre
- Alkali sacaton (Salado variety) 0.06 PLS lbs. per acre
- Sand dropseed 0.02 PLS lbs. per acre
- Side oats grama (Vaughn variety) 1.14 PLS lbs. per acre
- Blue grama (Alma, Bad River, or Hachita variety) 0.26 PLS lbs. per acre
- Buffalograss 3.89 PLS lbs. per acre
- b. Native Areas between trail and residential area:
  - Blue grama (Alma, Bad River, or Hachita variety) 0.40 PLS lbs. per acre
  - Buffalograss 5.83 PLS lbs. per acre
  - Inland saltgrass 0.42 PLS lbs. per acre
  - Slender wheatgrass 1.37 PLS lbs. per acre
  - Sandberg bluegrass 0.82 PLS lbs. per acre
  - Alkaligrass 0.27 PLS lbs. per acre
- c. Rights of way in areas of future road expansion:
  - Inland saltgrass 1.26 PLS lbs. per acre
  - Blue Grama (Alma, Bad River, or Hachita variety) 0.40 PLS lbs. per acre
  - Alkaligrass 0.64 PLS lbs. per acre
  - Sandberg bluegrass 0.47 PLS lbs. per acre

- 2. Pre-approved Irrigated Turf Seed Mixes:
  - a. 60% Eldorado, Silverado and Monarch Turf type Tall Fescue  
30% Manchar Smooth Brome  
10% Bluegrass mix (drought tolerant blends)
  - b. 40% Barrington Tall Fescue  
40% Labarinth RTF Tall Fescue  
20% Barrister Kentucky Bluegrass
  - c. 35% Creeping Red Fescue  
25% SR3200 Blue Fescue 12.5% SR3100 Hard Fescue  
15% Reubens Canadian Blue  
12.5% SR5100 Chewings Fescue
  - d. 30% Matador Tall Fescue  
30% Tomahawk RT Tall Fescue  
30% Pure Gold Tall Fescue  
10% North Star Kentucky Bluegrass

## SODDING

- 1. Pre-approved Sod Mixes:
  - a. 60% Eldorado, Silverado and Monarch Turf type Tall Fescue  
30% Manchar Smooth Brome  
10% Bluegrass Mix (drought tolerant blends)
  - b. 40% Barrington Tall Fescue  
40% Labarinth RTF Tall Fescue  
20% Barrister Kentucky Bluegrass
  - c. 35% Creeping Red Fescue  
25% SR3200 Blue Fescue  
12.5% SR3100 Hard Fescue  
15% Reubens Canadian Blue  
12.5% SR5100 Chewings Fescue
  - d. 30% Matador Tall Fescue  
30% Tomahawk RT Tall Fescue

# Town of Mead Design Standards and Construction Specifications

---

- 30% Pure Gold Tall Fescue
- 10% North Star Kentucky Bluegrass
- e. VorTEX Texas Bluegrass from Korby Sod LLC

## TREES, PLANTS AND GROUND COVER

1. Backfill mix: Premium-3 composted aspen humus, by A-1 Organics.
2. Tree wrap: 4" wide Kraft tree wrap.
3. Weed barrier fabric: Mirafi geo-textile fabric 140N.
4. Steel edging: 3/16" x 4" x 16' Ryerson steel edging.
5. Mulch: Aspen bark mulch, pole peelings (linear strips only), recycled rubber (with staff-approved cut sheet), 3"-6" cobble or shredded cedar. Cobble is not to be used in Greenway areas unless otherwise approved by staff.
6. Tree Stakes: Two inch (2") x six feet (6') round wooden posts or six foot (6') long, heavy-duty t-bar steel posts with white tops.
7. Tree Guys: ½" STRAP-X (flat synthetic webbing material) or ½" Central Bag polyester strapping with 17 gauge galvanized steel wire.
8. Tree Grates: Cast Iron only. Minimum 40 square feet (4' x 10' (comes in two pieces) or 9' x 5' (comes in 4 pieces))
9. Misc. Tree Equipment: White tee post caps; Canvas strap; White plastic flagging tape or 1/2" white PVC pipe; four inch (4") wide tree wrap.
10. Beaver protection: Galvanized four foot (4') high (2" x 4" openings) fencing.

## MISCELLANEOUS LANDSCAPE ITEMS

1. Benches: Webcoat expanded metal six foot bench – surface mount on appropriately sized concrete pad (B6WBRCM), black color.
2. Trash Receptacles: Webcoat – 32 gallon (TR32 – TSRM) – surface or in-ground mount as appropriate – black color with DOME32 gray top. Also include 30 gallon galvanized trash can (no lid) inside receptacle.
3. Recycling Receptacles: Recycle Away Landscape 34 Gallon Dome (RC-34R DM CANS RBL). Blue color with dome lid.
4. Picnic Tables: Webcoat T6RC and T8RCHDCP tables – surface mount – black color, including Play World #1409 PVC-coated clamps to bolt tables to appropriately sized concrete pad.
5. Bike racks: Madrax inverted U-style #U238-SF, surface mount – black color on appropriately sized concrete pad.
6. Play Equipment: all play equipment shall meet all standards in the most current version of the Public Playground Safety Handbook as set fourth by the United States Consumer Product Safety Commission. The hand book can be found at <https://www.cpsc.gov/s3fs-public/325.pdf> .
  - a. Manufacturers
    1. Gametime
    2. Miracle
7. Surfacing Material:
  - a. Engineered Wood Fiber (EWF)
  - b. Poured-In-Place Rubber
8. All parks shall be designed to meet the most current ADA requirements

# Town of Mead Design Standards and Construction Specifications

## Approved Plant Materials List

The following lists are trees specifically PROHIBITED from Town of Mead regulated areas (and discouraged from use elsewhere)

Tree Name	Any Area	Streetscapes	Trail Corridors
Russian Olive	•	•	•
Lombardy Poplar	•	•	•
Siberian Elm	•	•	•
Boxelder Maple	•	•	•
Ash – any species	•	•	•
Fruit-Bearing Trees*		•	
Thorn-Bearing Trees*		•	
Willow (all varieties)		•	
Tree of Heaven		•	
Cottonwood (all varieties)		•	
Silver Maple		•	

\* Trees that drop fruit or bear thorns may be allowed in streetscape areas only if the mature size of the tree does not come within 5' of paths, walks or other pedestrian areas.

### RECOMMENDED TREES for Town of Mead regulated areas

Growth rate: S = Slow, M = Medium, F = Fast

Adaptability: H = Hardy, A = Average, M = Marginal )

(Adaptability rating includes cold, soils, moisture tolerance & disease resistance)

Use: S-6 = Street tree in areas 6' maximum tree lawn width

S-8 = Street tree in areas 8' minimum tree lawn width

G = Pathway and Common Open Space

Tree Name	Botanical Name	Growth Rate	Adaptability	Use
<b>Ornamental Trees</b>				
Alder, Thinleaf	Alnus tenuifolia	F	H	S-6,G
Birch, Native River	Birch, Native River	M	A	G
Birch, Whitespire	Betula platyphylla japonica	M	A-M	G
Cherry, Bird (Mayday)	Prunus padus	S	H-A	S-6, G
Cherry, Canada Red	Prunus virginians 'Schubert	M	H	G
Cherry, Montmorency	Prunus cerasus	M	A	G
Cherry, Sargent	Prunus sargentii	M	H	G
Crabapple, Adams	Malus 'Adams'	M	H-A	G
Crabapple, Adirondak	Malus 'Adirondak'	M	H-A	G
Crabapple, Brandywine	Malus 'Brandywine'	M	H-A	G
Crabapple, Centurion	Malus 'Centurion'	M	H-A	G

# Town of Mead Design Standards and Construction Specifications

Tree Name	Botanical Name	Growth Rate	Adaptability	Use
Crabapple, Coralburst	Malus 'Coralburst'	M	H-A	G
Crabapple, David	Malus 'David'	M	H-A	G
Crabapple, Indian Magic	Malus 'Indian Magic'	M		
Crabapple, Prairifire	Malus 'Prairifire'	M		
Crabapple, Profusion	Malus 'Profusion'	M	H-A	G
Crabapple, Radiant	Malus 'Radiant'	M	H-A	G
Crabapple, Red Barron	Malus 'Red Barron'	M	H-A	G
Crabapple, Royalty	Malus 'Royalty'	M	H-A	G
Crabapple, Spring Snow	Malus 'Spring Snow'	M	H-A	G
Crabapple, Thunderchild	Malus 'Thunderchild'	M	H-A	G
Crabapple, White Cascade	Malus 'White Cascade'	M	H-A	G
Goldenrain Tree	Koelreuteria paniculata	S	M	S-8
Hawthorn, Crusader	Crataegus ambigua	S	H	G
Hawthorn, Russian	Crataegus ambigua	S	H	G
Hawthorn, Thornless Cockspur	Crataegus crus-gali inermis	S	H	G
Hawthorn, Washington	Crataegus phaenopyrum	S	H	G
Hornbeam, Pyridimal Eruopean	Carpinus betulus	M	H	S-6
Lilac, Japanese Tree	Syringa reticula	M	A	S-6
Maple, Ginnala	Acer ginnala	S	H	S-6, G
Maple, Tartarian	Acer tartaricum	S	H	S-6, G
Pear, Aristocrat	Pyrus Calleryanna 'Aristocrat'	M	A	S-6
Pear, Autumn blaze	Pyrus Calleryanna 'Autumn blaze'	M	A	S-6
Pear, Chanticleer	Pyrus Calleryanna 'Chanticleer'	M	A	S-6
Pear, Redspire	Pyrus Calleryanna 'Redspire'	M	A	S-6
Pear, Stonehill	Pyrus Calleryanna 'Stonehill'	M	A	S-6
Plum, American	Prunus americana	S	H	G
Plum, Newport	Prunus cerasifera	S	A	S-6
Redbud, Eastern	Cercis canadensis	S	M	S-6
Serviceberry, Autumn Brilliance	Amelanchier grandiflora 'Autumn Brilliance'	S	H	S-6, G
Serviceberry, Robin Hill	Amelanchier grandiflora 'Robin Hill'	S	H	S-6, G
Serviceberry, Saskatoon	Amelanchier alnifolia 'Saskatoon'	S	H	S-6, G
Serviceberry, Shadblow	Amelanchier cmandensis 'Shadblow'	S	H	S-6, G
<b>Shade (Canopy) Trees</b>				
Tree Common Name	Botanical Name	Growth Rate	Adaptability	Use

## Town of Mead Design Standards and Construction Specifications

Tree Name	Botanical Name	Growth Rate	Adaptability	Use
Catalpa, Western	Catalpa speciosa	S	H	S-8, G
Coffeetree, Kentucky	Gymnocladus dioica	S	H	S-8, G
Cottonwood, Lanceleaf	Populus acuminata	F	H	G
Cottonwood, Narrowleaf	Populus andustifolia	F	H	G
Cottonwood, Plains	Populus sargentii	F	H	G
Filbert, Turkish	Corylus colurna	M	A	S-8,G
Hackberry, Western	Celtis occidentalis	M	H	S-8, G
Hornbeam, American	Carpinus caroliniana	M	H	S-8,G
Honeylocust, Imperial	Gleditsia tricanthos inermis 'Imperial'	M	H	S-8,G
Honeylocust, Shademaster	Gleditsia tricanthos inermis 'Shademaster'	M	H	S-8,G
Honeylocust, Skyline	Gleditsia tricanthos inermis 'Skyline'	M	H	S-8,G
Locust, Black	Robinia pseudoacacia	F	H	G
Locust, Purple Robe	Robinia pseudoacacia 'Purple Robe'	F	H-A	S-8, G
				S-8
Maple, Hedge	Acer campestre	S	H	S-8
Maple, Autumn Blaze	Acer freemanii	M	M	S-8
Maple, Deborah	Acer platanoides 'Deborah'	S	A-M	S-8
Maple, Emerald Lustre	Acer platanoides 'Emerald Lustre'	S	A-M	S-8
Maple, Emerald Queen	Acer platanoides 'Emerald Queen'	S	A-M	S-8
Maple, Green Mountain Sugar	Acer saccharum 'Green Mountain'	S	A-M	S-8
Maple, Legacy	Acer saccharum 'Legacy'	S	A-M	S-8
Maple, Northwood	Acer rubrum 'Northwood'	M	M	S-8
Maple, Red Sunset	Acer rubrum 'Red Sunset'	M	M	S-8
Maple, Pacific Sunset	Acer truncatum 'Pacific Sunset'	S	A-M	S-8
Linden, American	Tilia Americana	M	H	S-8
Linden, Redmond	Tilia Americana 'Redmond'	M	H	S-8
Linden, Glenleven	Tilia cordata 'Glenleven'	M	H	S-8
Linden, Greenspire	Tilia cordata 'Greenspire'	M	H	S-8
Oak, Bur	Quercus macrocarpa	S	H	S-8, G
Oak, Chinkapin	Quercus muehlenbergii	M	H	S-8, G
Oak, English	Quercus robur	M	H	S-8, G
Oak, Northern Red	Quercus rubra	M	A-M	S-8, G
Oak, Shingle	Quercus imbricaria	M	A	S-8, G
Oak, Shumard	Quercus shumardii	M	A	S-8, G
Oak, Swamp White	Quercus bicolor	M	H-A	S-8, G
Elm, American	Ulmus americana	F	H	S-8, G

## Town of Mead Design Standards and Construction Specifications

Tree Name	Botanical Name	Growth Rate	Adaptability	Use
Elm, Accolade	Ulmus japonica x wilsonii 'Accolade'	F	H	S-8, G
Elm, Frontier	Ulmus carpinifoli x parvifolia 'Frontier'	F	H	S-8, G
Willow, Niobe Weeping	Salix alba 'Tristis'	F	H	G
Willow, Peach Leaf	Salix amygdaloides	F	H	G
Willow, Prairie Cascade	Salix pentandra	F	H	G
Willow, Russian Golden	Salix alba vitellina	F	H	G
<b>Conifer (Evergreen ) Trees</b>				
Fir, Concolor	Abies concolor	M	A	G
Fir, Douglas	Psuedotsuga menziesii	M	A	G
Juniper, Rocky Mountain	Juniperus scopulorum var.	S	H	G
Pine, Austrian	Pinus nigra	M	H	G
Pine, Bosnian	Pinus heldreichii	M	H	G
Pine, Bristlecone	Pinus ariatada	S	A	S-8, G
Pine, Mugo	Pinus mugo	M	H	G
Pine, Pinon	Pinus edulis	M	H	S-8, G
Pine, Ponderosa	Pinus ponderosa	M	H	S-8, G
Pine, Scotch	Pinus sylvestris	M	H	G
Pine, Southwestern White	Pinus strobiformis	S	A	G
Pine, Swiss Stone	Pinus cembra	M	A	G
Pine, Vanderwolf	Pinus flexilis	M	A	G
Spruce, Bacheri	Picea pungems 'bacheri'	M	H	G
Spruce, Black Hills	Picea glauca densata	M	H	G
Spruce, Colorado Blue	Picea pungens	M	H	G
Spruce, Siberian	Picea omorika	M	H	G