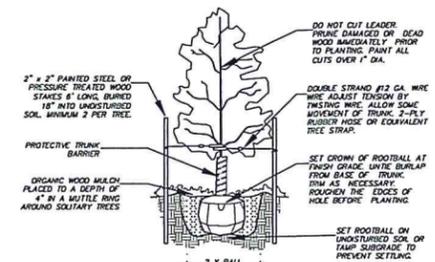
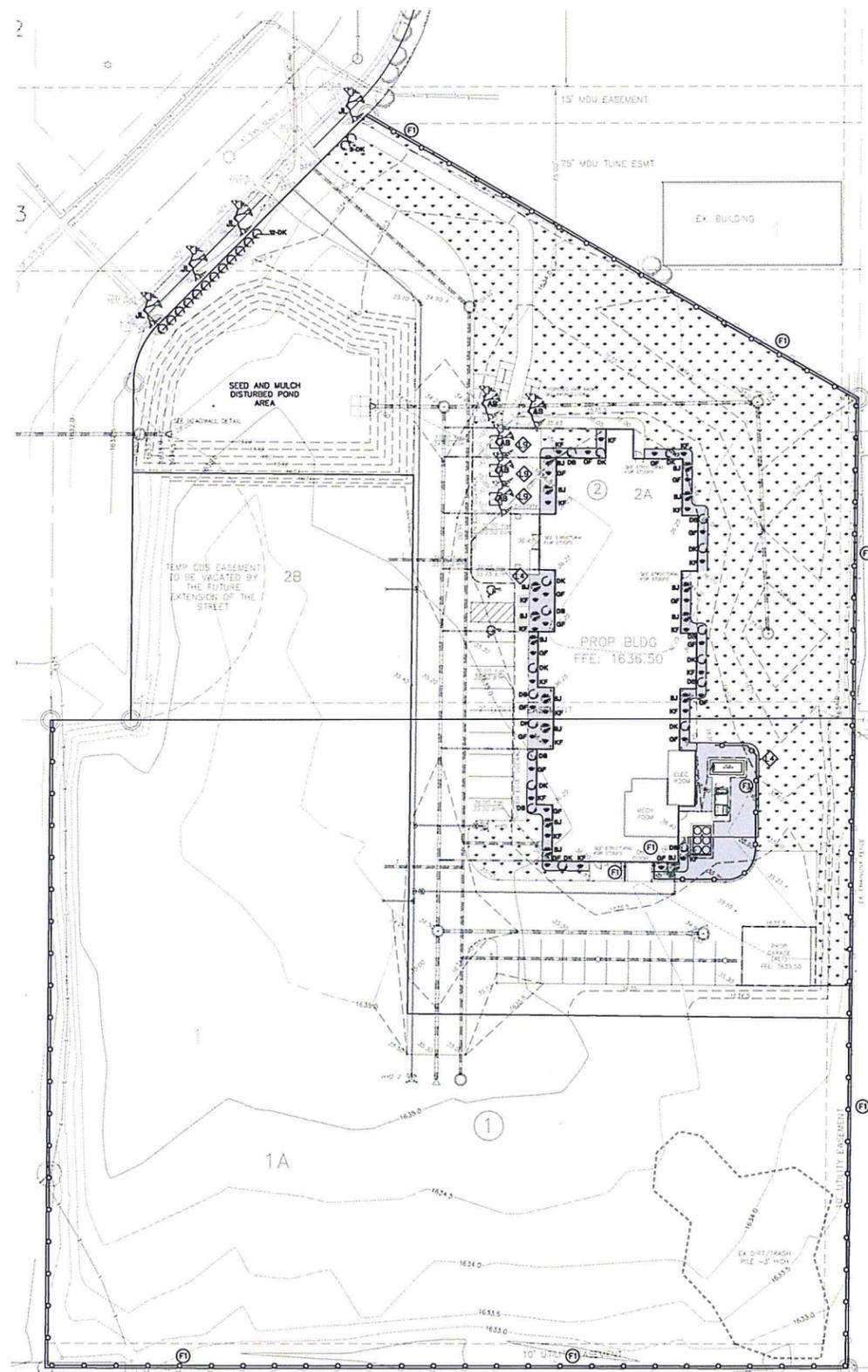
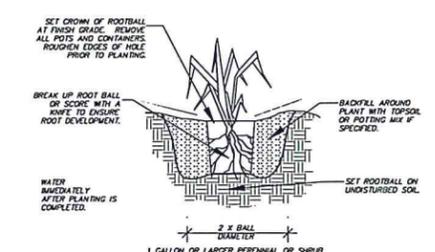


SP2018-036



TREE PLANTING DETAIL
TYPICAL FOR ALL DECIDUOUS, SINGLE-TRUNK, TREES NTS



SHRUB/PERENNIAL PLANTING DETAIL
TYPICAL FOR ALL SHRUBS AND PERENNIALS NTS

PERFORMANCE SPECIFICATION FOR IRRIGATION SYSTEM

THE IRRIGATION CONTRACTOR SHALL INSTALL AN IRRIGATION SYSTEM WITH ALL COMPONENTS AS SPECIFIED. SYSTEM SHALL PROVIDE 100% HEAD TO HEAD COVERAGE IN ALL AREAS DESIGNATED TO BE IRRIGATED. IRRIGATION EXTENT IS SHOWN ON THE PLANS. SYSTEM SHALL PROVIDE APPROPRIATE WATER COVERAGE FOR PLANT MATERIALS IN PLANTING BEDS. SOLITARY TREES NOT IN PLANTING BEDS SHALL BE WATERED BY INSTALLING 15 GALLON SLOW RELEASE WATERING BAGS ON EACH TREE. IRRIGATION CONTRACTOR SHALL BE RESPONSIBLE TO SUPPLY WATER AND FILL BAGS UNTIL FINAL ACCEPTANCE OF THE ENTIRE PROJECT AT WHICH POINT THE OWNER WILL BE RESPONSIBLE FOR FILLING WATER BAGS.

ALL PLANTING BEDS SHALL BE WATERED WITH RAINBIRD XERIS - BUG EMITTERS AND ASSOCIATED TUBING AND VALVES OR APPROVED EQUAL. TUBING SHALL BE INSTALLED ABOVE PLANTING BED WEED BARRIER MAT AND BELOW CRUSHED ROCK MATERIAL WITH 4 INCH METAL LANDSCAPE STAPLES PLACED AT MAXIMUM 36 INCH INTERVALS. FOLLOW MANUFACTURER'S RECOMMENDATIONS FOR LANDSCAPE PLANTING BED INSTALLATION. COORDINATE WITH LANDSCAPE CONTRACTOR TO ENSURE PROPER WATER COVERAGE FOR TREE AND PLANT MATERIAL.

THERE WILL BE 2 CONNECTION LOCATIONS FOR THE IRRIGATION SYSTEM WHICH WILL REQUIRE 2 SEPARATE CONTROLLERS. ONE CONNECTION AT THE FRONT OF THE BUILDING AND ONE AT THE BACK OF THE BUILDING. THERE IS NO WATER SOURCE FROM THE MAINTENANCE BUILDING.

PROVIDE AND INSTALL 5 QUICK COUPLING VALVES WHERE INDICATED ON PLANS. PROVIDE 3 EACH OCV KEYS MODEL SSK1 AND 3 EACH LOCKING COVER KEY FOR QUICK COUPLING VALVES.

EACH ZONE VALVE OR OTHER IRRIGATION CONNECTION COMPONENT SHALL BE INSTALLED IN AN APPROPRIATELY SIZED ZONE VALVE BOX AS MANUFACTURED BY RAINBIRD OR APPROVED EQUAL. VALVE BOXES FOR EACH ZONE VALVE SHALL BE RECTANGULAR MODEL VB STD WITH GREEN COVERS IN TURF AREAS AND TAN COVERS IN LANDSCAPE AREAS. QUICK COUPLER VALVES SHALL BE INSTALLED WITH A VALVE BOX MODEL VB - 1090 WITH A TAN COVER. ALL VALVE BOXES IN TURF AREAS SHALL BE LOCATED ADJACENT TO SIDEWALKS AS MUCH AS POSSIBLE AND INSTALLED IN PLANTING BEDS WHENEVER POSSIBLE.

EACH ZONE VALVE SHALL BE LABELED WITH ITS ASSOCIATED ZONE NUMBER AND ZONE DESCRIPTION THAT MATCHES THE LABELS ON THE IRRIGATION CLOCK. THIS LABEL SHALL BE PERMANENT AND WATERPROOF AND SHALL BE ATTACHED TO THE VALVE ITSELF OR SOMEHOW ATTACHED INSIDE THE VALVE BOX SO THAT IT CAN BE EASILY READ WHILE KNEELING NEXT TO THE BOX.

PERFORMANCE SPECIFICATION FOR IRRIGATION SYSTEM

PROVIDE AND INSTALL CLASS 15 PVC CONDUITS THAT ARE TWICE THE DIAMETER OF THE IRRIGATION PIPE FOR ALL IRRIGATION LINES THAT ARE TO BE INSTALLED UNDER ALL SIDEWALKS AND DRIVEWAYS. EXTEND CONDUIT A MINIMUM OF 6" BEYOND EACH SIDE OF THE SIDEWALK. MINIMIZE OVER SPRAY ONTO PAVEMENT, SIDEWALKS AND BUILDINGS.

IRRIGATION CONTRACTOR SHALL HAVE ALL UTILITIES FIELD LOCATED BEFORE COMMENCING WORK.

INCLUDE WINTERIZING FOR THE FIRST YEAR IN INSTALLATION OF IRRIGATION SYSTEM.

IRRIGATION CONTRACTOR WILL BE RESPONSIBLE FOR TRAINING MAINTENANCE OFFICIALS ON THE CORRECT OPERATION AND OPERATION TIMES OF THE IRRIGATION CONTROLLER, QUICK COUPLING VALVES FOR WINTER SYSTEM PREPARATION, AND ANY OTHER COMPONENTS OF THE SYSTEM THAT WILL REQUIRE MAINTENANCE. ZONE RUN TIMES IN TURF AREAS SHALL BE SET TO PROVIDE APPROXIMATELY 1.5" OF WATER FOR EACH 7 DAY IRRIGATION CYCLE.

IRRIGATION EQUIPMENT

- MAIN LINES - 2" CLASS 160 PVC PIPE
- LATERAL LINE - 100' POLYETHYLENE TUBING (SIZED AS REQUIRED)
- ZONE VALVES - RAINBIRD PEB (SIZED AS REQUIRED)
- ROTORS - HUNTER POP OR APPROVED EQUAL
- SPIRAREHEADS - RAINBIRD 1804 OR APPROVED EQUAL
- ISOLATION GATE VALVE - RAINBIRD BY SERIES OR APPROVED EQUAL
- OCV VALVE - RAINBIRD MODEL NO. 5-LRC OR APPROVED EQUAL
- OCV KEY - RAINBIRD SSK1
- CONTROLLER - RAINBIRD ESP-10C WITH THE CAPACITY TO CONTROL ONE EXTRA ZONE OR APPROVED EQUAL
- TUBING - RAINBIRD DISTRIBUTION TUBING OR APPROVED EQUAL
- DROP LINE VALVE - RAINBIRD LOW FLOW WITH PR FILTER SIZED AS NECESSARY OR APPROVED EQUAL

BACKFLOW PREVENTOR TO BE SUPPLIED AND INSTALLED BY MECHANICAL CONTRACTOR. IRRIGATION CONTRACTOR TO PROVIDE IRRIGATION PLAN FOR REVIEW AND APPROVAL BEFORE STARTING WORK. SOME MINOR RELOCATION OF QUICK COUPLING VALVES MAY BE APPROVED.

LEGEND

- GRASS AREAS TO BE IRRIGATED
- PLANTING BED (ROCK MULCH)- TO BE IRRIGATED
- PROPOSED FENCE
- PROPOSED LARGE TREE
- PROPOSED SHRUB
- PROPOSED EVERGREEN SHRUB
- PROPOSED GRASS

GENERAL LANDSCAPING NOTES FOR ALL SHEETS

- 1. ALL CONTRACTORS WISHING TO SUBMIT BIDS FOR THIS LANDSCAPING PROJECT SHALL BE RESPONSIBLE FOR FIELD VERIFYING ALL CONDITIONS.
- 2. PROTECT THE IMPROVEMENTS ON SITE AND ON THE ADJOINING PROPERTIES. PROVIDE BARRICADES, COVERS OR OTHER TYPE OF PROTECTION AS NECESSARY TO PREVENT DAMAGE AND TO SAFEGUARD AGAINST INJURY TO EXISTING UTILITIES.
- 3. DAMAGE THAT OCCURS TO PLANTS DURING TRANSPORTATION AND INSTALLATION WILL BE THE RESPONSIBILITY OF THE LANDSCAPE CONTRACTOR.
- 4. ALL PLANTING BEDS SHALL BE INSTALLED WITH 3" OF 2" CRUSHED ROCK MULCH. LANDSCAPE FABRIC WITH A MINIMUM WEIGHT OF 4 OZ./SQ. YD. AND WHERE NECESSARY, 6" COMMERCIAL GRADE BLACK PLASTIC EDGING TO CONTAIN THE PLANTING BED.
- 5. ALL LANDSCAPE PLANTINGS ARE TO BE WATERED BY THE LANDSCAPE CONTRACTOR THE SAME DAY THAT THE PLANTING OCCURS. IF WATER IS NOT AVAILABLE AT THE BUILDING, THE LANDSCAPE CONTRACTOR SHALL PROVIDE ALTERNATIVE METHODS FOR WATERING.
- 6. SOLITARY TREES DO NOT NEED TO BE EDGED AROUND, HOWEVER ORGANIC WOOD MULCH SHALL BE PLACED AROUND THE TREE IN A MULLER RING THAT CONFORMS TO THE DETAIL PROVIDED FOR TREE PLANTINGS.
- 7. CONTRACTOR SHALL PROVIDE WRITTEN WARRANTIES CONFIRMING THE FOLLOWING:
 - FURNISHED TREES GUARANTEED TO LIVE AND REMAIN STRONG, VIGOROUS, AND HEALTHY CONDITION FOR 365 DAYS MINIMUM FROM DATE LANDSCAPE INSTALLATION IS ACCEPTED AS COMPLETED.
 - LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR WATERING AND CARING FOR ALL PLANT MATERIAL, AND OTHER LANDSCAPING IMPROVEMENTS UNTIL THE DATE OF FINAL INSPECTION AND APPROVAL.
 - LANDSCAPE CONTRACTOR SHALL PROVIDE AND INSTALL 3 TREE GRATES WHERE DEPICTED ON THE PLANS. TREE GRATES SHALL BE NEENAH R-8713, EAST JORDAN V-8955 OR EQUAL APPROVED.

TOPSOIL NOTES

- 1. TOPSOIL IS STOCKPILED ON SITE AND WILL BE PLACED FOR THE LANDSCAPE CONTRACTOR TO SPREAD AND FINISH GRADE. ALL PORTIONS OF THE SITE NOT RECEIVING CONCRETE, CURB & GUTTER OR OTHER IMPROVEMENTS SHALL BE COVERED WITH A MINIMUM OF 6" OF TOPSOIL AND SEEDED ACCORDING TO SPECIFICATIONS.
- 2. TOPSOIL SHALL BE PLACED AND SEEDS AS SOON AS PRACTICAL TO MINIMIZE WIND AND WATER EROSION. BACKFILL BEHIND CURB AND GUTTERS AND SIDEWALK AS SOON AS REASONABLE TO PREVENT STANDING WATER AND PROTECT THE IMPROVEMENTS.

SEEDING NOTES

- 1. CLEAR AND GRUB SITE BEFORE SEEDING ENSURING THAT THE SITE IS IN A SMOOTH CONDITION WITH NO DEBRIS OR ROCKS LARGER THAN 2" IN DIAMETER.
- 2. FERTILIZE SOIL DURING THE SEEDING PROCESS USING AN APPROPRIATE APPLICATION PROCESS. FERTILIZER SHALL BE 10-10-10 AND APPLIED AT A RATE OF 4 LBS. PER 1000 SQUARE FEET.
- 3. SEED SHALL BE DRILL SEEDS TO A DEPTH OF 1/4" TO 1/2" AND SHALL BE EVENLY SPREAD. AFTER SEED HAS BEEN SOWN, THE SOIL SHALL BE REPAKED IMMEDIATELY AFTER THE SEED IS APPLIED TO FIRM THE SOIL AROUND THE SEED. NO SEED SHALL BE PLACED ON DAYS WHERE THE WIND IS STRONG ENOUGH TO PREVENT IT FROM BEING PROPERLY IMBEDDED INTO THE SOIL.
- 4. SEED MUST SHOW A DENSITY OF 20 TO 30 SEEDLINGS PER SQUARE FOOT BEFORE ACCEPTANCE WILL OCCUR. THE CONTRACTOR SHALL FURNISH AND REPLACE WITHOUT ADDITIONAL COMPENSATION THEREFORE, ANY SEED FOR AREAS THAT HAVE NOT GERMINATED, HAVE DIED, OR ARE DAMAGED TO THE EXTENT THAT REPLACEMENT IS REQUIRED TO CONFORM TO THE REQUIREMENTS OUTLINED ABOVE. THE CONTRACT WARRANTY PERIOD SHALL ALSO APPLY TO THIS ITEM.
- 5. CONTRACTOR SHALL BE RESPONSIBLE TO REPAIR ANY EROSION SCARS OR WASHOUTS UNTIL THE DATE THAT FINAL SEED STAND IS ACCEPTED. SEE EROSION CONTROL PLAN FOR EROSION CONTROL METHODS.

FENCING NOTES

- 1. A 6' HIGH OPAQUE VINYL FENCE SHALL BE INSTALLED AROUND THE LOT. APPROXIMATE TOTAL LENGTH OF ALL FENCING IS 1340 LF.
- 2. ALL FASTENERS AND HARDWARE SHALL BE A NON-CORROSIVE METAL MATERIAL APPROVED FOR OUTDOOR USE BY THE MANUFACTURER.
- 3. A SECURITY/ENCLOSURE FENCE SHALL BE INSTALLED AROUND THE LOT, WHEN EXCAVATION BEGINS, INSTALL ENCLOSURE FENCE WITH LOCKABLE ENTRANCE GATES. INSTALL IN A MANNER THAT WILL PREVENT PEOPLE, DOGS, AND OTHER ANIMALS FROM EASILY ENTERING THE SITE, EXCEPT BY THE ENTRANCE GATES.

PLANT PALETTE

	SYM.	COMMON NAME	SCIENTIFIC NAME	SIZE	QNTY.
TREES	JL	JAPANESE LILAC TREE	<i>Syringa pekinensis</i>	1-1/2" Cal.	4
	AB	AUTUMN BLAZE RED MAPLE	<i>Acer rubrum 'Autumn Blaze'</i>	1-1/2" Cal.	5
SHRUBS	DK	DWARF KOREAN LILAC	<i>Syringa meyeri 'Palibin' Picea</i>	2 Gallon	24
	DB	DWARF BURNING BUSH	<i>Euonymus alatus 'Compactus'</i>	2 Gallon	9
	BJ	BLUE STAR JUNIPER	<i>Juniperus squamata 'Blue Star'</i>	2 Gallon	8
	SJ	SAVIN JUNIPER	<i>Juniperus sabina</i>	2 Gallon	7
MISC.	GF	GAYFEATHER	<i>Liatris spicata</i>	1 Gallon	18
	KF	KARL FOERSTER GRASS	<i>Calamagrostis acutiflora 'Karl Foerster'</i>	1 Gallon	18

LANDSCAPING REQUIREMENTS

REQUIRED STREET TREES: 3 PER 100 FEET = 4 TREES 122 LF STREET FRONTAGE	PROVIDED STREET TREES: 4 TREES
REQUIRED PERIMETER PARKING: CONTINUOUS HEDGE	PROVIDED PERIMETER PARKING: CONTINUOUS HEDGE



FOR REGULATORY REVIEW ONLY- NOT APPROVED FOR CONSTRUCTION

APPROVED BY FORESTRY
[Signature]
City Forester 7-19-18
TITLE DATE

APPROVED BY PLANNING
[Signature]
Planning 7-19-18
TITLE DATE

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NOTICE TO CONTRACTOR
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Surveying
Hydrology
Land Planning
Civil Engineering
Landscape & Site Design
Construction Management



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EDWINTON PLACE
BCHA / BEYOND SHELTER
1115 SOUTH 11TH STREET
BISMARCK, NORTH DAKOTA

LANDSCAPING



SHEET
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OF 5