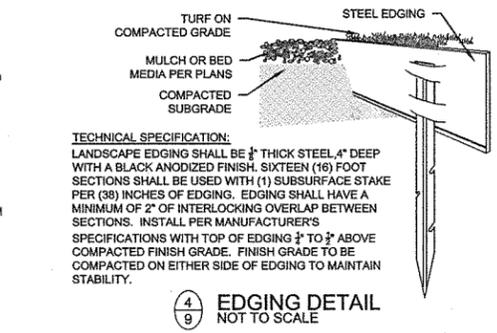
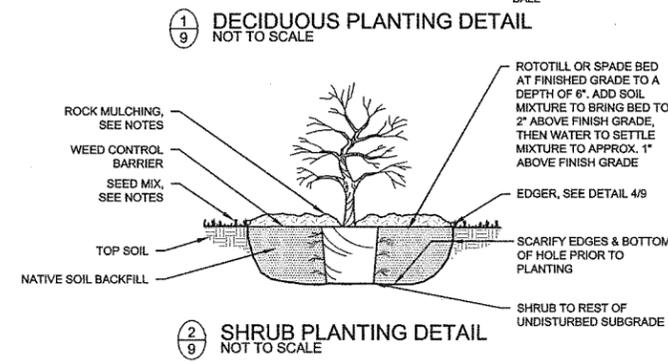
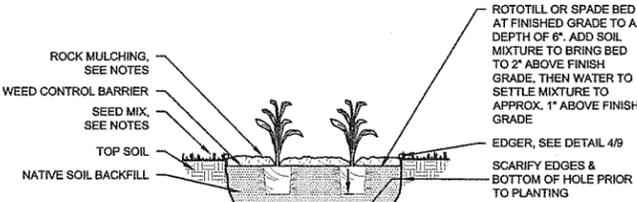
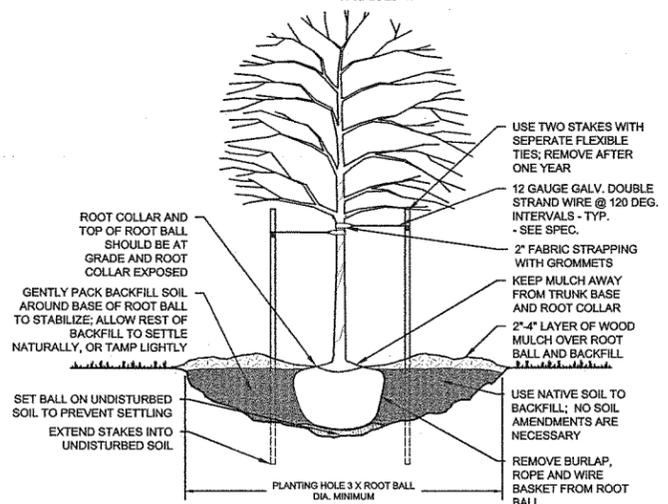
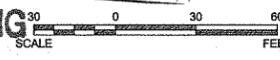


**APPROVED BY FORESTRY**

*J. L. Jackson*  
*City Forester*  
**TITLE** **DATE**  
 8-24-12

**APPROVED BY PLANNING**

*Jan Lind*  
**PLANNER**  
**TITLE** **DATE**  
 08-24-12



**REFERENCE NOTES SCHEDULE**

CODE	DESCRIPTION	QTY
1	INSTALL 2" DEPTH 1" CRUSHED LANDSCAPE ROCK OVER LANDSCAPE FABRIC.	22 CY
2	INSTALL 4" STEEL LANDSCAPE EDGING.	560 LF
3	CONTRACTOR SHALL PROVIDE AND INSTALL SEED MIX AS FOLLOWS: DIMENSION PERENNIAL RYE 9 PERCENT ADELPHI KENT BLUE 22 PERCENT MERIT FENT BLUE 8 PERCENT GERONIMO KENT BLUE 14 PERCENT BONANZA TALL FESCUE 24 PERCENT PARADE BLUEGRASS 8 PERCENT ANNUAL RYGRASS 15 PERCENT CONTRACTOR SHALL APPLY SEED AT A RATE OF 25 POUNDS/10,000 SQUARE FEET WITH A MINIMUM COVERAGE OF 95 PERCENT. SEED AND SEEDING MIXTURE SHALL BE FREE OF ALL PROHIBITED NOXIOUS WEED SEED AND WILL NOT CONTAIN MORE THAN 1/2 OF 1 PERCENT BY WEIGHT OR RESTRICTED NOXIOUS WEED SEEDS. ALL AREAS TO BE SEEDED SHALL BE WITHIN BASE BID.	28,942 SF

**IRRIGATION NOTES**

- IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO FAMILIARIZE HIMSELF WITH ALL GRADE DIFFERENCES, LOCATION OF WALLS, STRUCTURES AND UTILITIES. THE IRRIGATION CONTRACTOR SHALL REPAIR OR REPLACE ALL ITEMS DAMAGED BY HIS WORK. HE SHALL COORDINATE HIS WORK WITH OTHER CONTRACTORS FOR THE LOCATION AND INSTALLATION OF PIPE SLEEVES AND LATERALS UNDER SIDEWALKS AND PAVING.
- GENERAL CONTRACTOR SHALL COORDINATE WITH THE IRRIGATION CONTRACTOR TO ENSURE ANY AND ALL SLEEVES NEEDED FOR THE NEW IRRIGATION SYSTEM ARE PLACED PRIOR TO INSTALLATION OF ANY SITE HARD SURFACE.
- THE CONTRACTOR SHALL, AT HIS OWN EXPENSE, LOCATE ALL UNDERGROUND UTILITIES, WHICH MAY AFFECT HIS OPERATION DURING CONSTRUCTION AND SHALL TAKE ALL NECESSARY PRECAUTIONS TO AVOID DAMAGE TO THE SAME.
- CITY ORDINANCE REQUIRES THE INCORPORATION OF A BACKFLOW PREVENTION DEVICE TO KEEP WATER IN THE IRRIGATION SYSTEM FROM FLOWING BACK INTO THE SERVICE LINE.
- IRRIGATION CONTRACTOR SHALL VERIFY PRESSURE OF SYSTEM PRIOR TO INSTALLATION.
- ALL SPRINKLER HEADS SHALL BE ADJUSTED SO AS TO NEVER SPRAY THE BUILDING OR ANY FENCING.
- THE PRIMARY PRESSURIZED FEED LINE SHALL BE A MINIMUM OF 1" DIAMETER. NO 3/4" PIPE SHALL BE USED ANYWHERE ON THE SPRAY IRRIGATION SYSTEM. (EXCEPT FOR 3/4" SWING JOINT ASSEMBLIES FOR ROTOR OR POP-UP SPRAY HEADS). IRRIGATION MAINLINE TO BE BURIED 24" BELOW FINISHED GRADE AND ALL SPRAY SYSTEM LATERAL LINE PIPING TO BE BURIED 18" BELOW FINISH GRADE. ALL 3/4" DRIP IRRIGATION TUBING TO BE BURIED 4" BELOW FINISH GRADE. PRESSURE REGULATING VALVES SHALL BE USED TO REGULATE PRESSURE TO ZONES WITH SMALL TURF AND SHRUB HEADS AS WELL AS DRIP IRRIGATION LINES TO AVOID DAMAGE FROM HIGH PRESSURE.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY SETTLING IN THE IRRIGATION TRENCHES OR ASSOCIATED IRRIGATION WORK AS A WARRANTY ITEM.
- SLEEVE UNDER ALL WALKS, DRIVES, ROADS, AND PAVER AREAS. SLEEVES ARE TO BE CL200 PVC. MAINLINE SLEEVES ARE TO BE 4" WITH A MINIMUM 2" SLEEVE FOR WIRES. LATERAL SLEEVES SHALL BE 2X THE PIPE BEING SLEEVED. IF MORE THAN ONE CONTROLLER IS BEING INSTALLED, PROVIDE SEPARATE WIRE SLEEVES FOR EACH CONTROLLER.
- PROVIDE A BLOW OUT TAP AND ENCLOSURE AT POINT OF CONNECTION FOR THE PURPOSE OF WINTERIZING THE SYSTEM.
- PLACE VALVE BOXES WITHIN OR ADJACENT TO PLANTING BEDS FOR EASY ACCESS. ALL IRRIGATION VALVES SHALL BE LOCATED IN PROFESSIONAL GRADE VALVE BOXES. SIZE OF VALVE BOXES SHALL VARY WITH NUMBER OF VALVES LOCATED IN BOX. ALL VALVE BOX LID ELEVATIONS SHALL BE SET FLUSH WITH FINISHED GRADE. PROVIDE BOX SIZE THAT WILL ALLOW 6" CLEARANCE AROUND ALL SIDES OF VALVES. PROVIDE BOLTS PER MANUFACTURER'S RECOMMENDATIONS AND SECURE EACH VALVE BOX.
- IRRIGATION CONTRACTOR SHALL PROVIDE 100% HEAD-TO-HEAD IRRIGATION COVERAGE IN ALL LAWN AREAS SEEDED OR SOODED UNLESS OTHERWISE SHOWN IN PLANS. DRIP IRRIGATION IS ACCEPTABLE IN SHRUB BEDS.
- CONTROLLER SHALL BE INSTALLED AND GROUNDED PER MANUFACTURER'S SPECIFICATIONS. FINAL CONNECTION OF THE VALVE WIRES TO THE CONTROLLER SHALL BE THE CONTRACTOR'S RESPONSIBILITY. THE IRRIGATION CONTROLLER SHALL BE WIRED DIRECTLY TO A 110 VOLT POWER SOURCE. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE IRRIGATION CONTROLLER WIRING TO THE POWER SOURCE. CONNECTING THE CONTROLLER TO THE POWER SOURCE SHALL BE THE RESPONSIBILITY OF A LICENSED ELECTRICAL CONTRACTOR. THE INSTALLATION SHALL BE IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE AND ANY LOCAL CODES OR ORDINANCES THAT APPLY. IT SHALL BE THE ELECTRICAL CONTRACTOR'S RESPONSIBILITY TO COORDINATE THE POWER SOURCE AND EXACT LOCATION OF THE CONTROLLER WITH OWNER'S REPRESENTATIVE.
- PULSE WIRE: #14 UF DIRECT BURY MULTI-STRAND COMMON WIRE; #14 UF DIRECT BURY - (WHITE) SPLICE AT CONTROLLERS AND VALVES ONLY. WIRE CONNECTORS SHALL BE USED ON ALL FIELD WIRE SPLICES AND CONNECTIONS.
- IRRIGATION CONTRACTOR SHALL PROVIDE TO OWNER TWO (2) SETS OF AS-BUILT DRAWINGS TO SCALE, SHOWING ALL COMPONENTS OF THE SYSTEM, REFERENCED FROM A FIXED LOCATION ON THE SITE.
- ALL MATERIALS AND WORKMANSHIP SHALL BE GUARANTEED FOR A PERIOD OF ONE YEAR AFTER FINAL COMPLETION. IF DURING SUCH GUARANTEE PERIOD, ANY SUCH PRODUCT FAILS DUE TO IMPROPER INSTALLATION OR DEFECTIVE MATERIAL, THE CONTRACTOR WILL REPAIR THE DEFECTIVE COMPONENT(S) FREE OF CHARGE.
- CONTRACTOR SHALL PROVIDE TO OWNER, COPIES OF ALL WARRANTIES FROM MANUFACTURER AND OPERATING MANUALS FOR FURNISHED EQUIPMENT. INFORMATION SHEETS SHALL BE BOUND IN STANDARD 3-RING BINDERS LABELED TO SHOW PROJECT NAME, CONTRACTORS NAME, ADDRESS, BUSINESS PHONE NUMBER, AND DATE.

**LANDSCAPING REQUIREMENTS**

**STREET TREES**  
 3 DECIDUOUS TREES ARE REQUIRED FOR EVERY 100 LINEAL FEET OF STREET FRONTAGE:  
 715.39' - 30'(1 ACCESS AISLE) - 20 (2-10' OFFSET FROM ACCESS) - 50 (CORNER LOT VISION TRIANGLE) = 615.39' / 100' = 6.1539 \* 3 = 18.461 (18) TREES

**INTERIOR PARKING LOT LANDSCAPING**  
 MINIMUM ISLAND SIZE = 10 SQUARE FEET PER PARKING STALL  
 73 X 10 = 730 SF

1 SHADE TREE AND 3 SHRUBS PER 20 PARKING STALLS  
 73 PARKING STALLS / 20 PARKING STALLS = 3.65  
 SHADE TREES = 3.65/ 1 = 3.65 (4)  
 SHRUBS 3.65 \* 3 = 10.95 (11) SHRUBS

**PERIMETER PARKING LOT LANDSCAPING:**  
 LESS THAN 100 PARKING LOT SPACES: 1 SHADE OR ORNAMENTAL TREES AND 5 SHRUBS FOR EVERY 25 LINEAR FEET OF STREET FRONTAGE.  
 186.0' / 25 = 7.44  
 7.44 X 1 = 7.44 (7) TREES  
 7.44 X 5 = 37.285 (37) SHRUBS

**PLANT SCHEDULE**

TREES	QTY	COMMON NAME / BOTANICAL NAME	CONT
GV	6	Northern Acclaim Thornless Honey Locust / Gleditsia triacanthos inermis 'Harve' TM	B & B 1.5" Cal
MSZ	3	Red Splendor Crab Apple / Malus x 'Red Splendor'	B & B 1" Cal
MS	2	Spring Snow Crab Apple / Malus x 'Spring Snow'	B & B 1" Cal
SE	9	Snow Cap Lilac / Syringa reticulata 'Elliott'	B & B 1" Cal
TS	9	American Linden / Tilia americana 'Sentry'	B & B 1.5" Cal
TC	4	Littleleaf Linden / Tilia cordata	B & B 1.5" Cal

SHRUBS	QTY	COMMON NAME / BOTANICAL NAME	CONT
BC	9	Crimson Pygmy Barbary / Berberis thunbergii 'Crimson Pygmy'	2 gal
CK	42	Feather Reed Grass / Calamagrostis x acutiflora 'Karl Foerster'	1 gal
JH	16	Ivory Halo Dogwood / Cornus alba 'Ballhalo' TM	2 gal
CH	9	Calgary Carpet Juniper / Juniperus sabinna 'Calgary Carpet' TM	2 gal
SA	13	Japanese White Spiraea / Spiraea albiliflora	2 gal
SM	13	Dwarf Korean Lilac / Syringa meyeri 'Palibin'	2 gal
TT	3	Taunton Yew / Taxus x media 'Taunton'	2 gal

**PLANTING NOTES**

- FINE GRADING SHALL BE APPROVED BY OWNER OR LANDSCAPE ARCHITECT PRIOR TO PLANTING OPERATIONS.
- CONTRACTOR SHALL LAY OUT PLANT MATERIAL PER PLAN AND FACE TO GIVE BEST APPEARANCE OR RELATION TO ADJACENT PLANTS, STRUCTURES OR VIEWS. CONSULT WITH LANDSCAPE ARCHITECT TO OBTAIN APPROVAL PRIOR TO INSTALLATION.
- PLANT MATERIAL SHALL NOT BE INSTALLED IN AREAS WHICH WILL CAUSE HARM TO ADJACENT STRUCTURES OR OBSTRUCT IRRIGATION SPRAY PATTERN (IF APPLICABLE). ADJUST LANDSCAPE MATERIAL IN FIELD TO NOT OBSTRUCT SIGNAGE AND UTILITIES. NOTIFY THE OWNER SHOULD CONFLICTS ARISE.
- PLANT LOCATIONS ARE DIAGRAMMATIC AND MAY BE ADJUSTED IN THE FIELD AT THE LANDSCAPE ARCHITECT'S REQUEST PRIOR TO INSTALLATION.
- FINISH GRADE OF PLANTING AREAS SHALL BE 2" BELOW ADJACENT PAVING. TAPER 4" DEPTH MULCH TOP DRESSING TO 1 1/2" DEPTH AT ADJACENT PAVING.
- ALL TREES TO RECEIVE 4" DEPTH OF SHREDDED HARDWOOD BARK MULCH OVER THE PLANTING HOLE DIAMETER AS SHOWN ON DETAIL 1/9. MULCH SHALL BE INCLUDED IN THE PRICE BID FOR EACH TREE.
- ALL NEWLY PLANTED MATERIAL SHALL BE THOROUGHLY SOAKED WITH WATER WITHIN 3 HOURS OF PLANTING. THOROUGHLY RE-SOAK ALL NEW PLANT MATERIALS ONE WEEK AFTER PLANTING COMPLETION.
- THIRTY DAYS AFTER PLANTING, CONTRACTOR SHALL RE-STAKE AND STRAIGHTEN TREES AS REQUIRED.
- CONTRACTOR SHALL THOROUGHLY LOOSEN ANY COMPACTED SUBGRADES PRIOR TO PLACING TOPSOIL, TO A MINIMUM DEPTH OF 4".
- CONTRACTOR SHALL IMPORT CLEAN TOPSOIL FREE OF WEEDS, RHIZOMES, ROCKS, STICKS, AND OTHER DELETERIOUS MATERIAL. LANDSCAPE ARCHITECT IS TO APPROVE TOPSOIL PRIOR TO INSTALLATION. CONTRACTOR SHALL BRING TO FINISH GRADE WITH 4" MIN. OF TOPSOIL IN ALL LAWN AREA, AND 12" MIN. TOPSOIL IN ALL PLANTING BEDS.
- CONTRACTOR SHALL REMOVE WEEDS, CONTAMINATED SOILS, MISC. WASTE MATERIALS FROM AREA TO BE PLANTED AND SEEDED/SODED. CONTRACTOR SHALL LOOSEN COMPACTED SUBSOILS BY TILLING AND IMPORTING NEW TOPSOIL AS REQUIRED RESTORING GRADES AND MAINTAINING POSITIVE DRAINAGE AWAY FROM STRUCTURES.
- DO NOT INSTALL PLANT MATERIAL WHEN AMBIENT TEMPERATURES MAY DROP BELOW 35 DEGREES F OR RISE ABOVE 90 DEGREES F. DO NOT INSTALL PLANT MATERIAL WHEN WIND VELOCITY EXCEEDS 30 MPH. ACCEPTABLE PLANTING DATES SHALL BE AS FOLLOWS:  
 SPRING: APRIL 15 - JUNE 15  
 FALL: SEPTEMBER 15 - NOVEMBER 1
- WEED FABRIC SHALL BE INCLUDED UNDER ALL AREAS RECEIVING ROCK MULCHING. ACCEPTABLE FABRIC SHALL BE 5 OZ. WOVEN, NEEDLE PUNCHED, POLYPROPYLENE FABRIC DESIGNED FOR PROFESSIONAL AND COMMERCIAL USE. PLASTIC AND OTHER NON-BREATHABLE MATERIAL WILL NOT BE ACCEPTED. WEED FABRIC SHALL BE INCIDENTAL TO PLANT BID ITEMS.

This document(s) was originally issued and sealed by Brett Gurholt, Registration Number RLA-40 on August 16, 2012 and the original documents are stored at Kadrmars, Lee & Jackson, Bismarck, North Dakota. This media should not be considered a certified document.

**Kadrmars Lee & Jackson**  
 Engineers Surveyors Planners  
 www.kjeng.com

NO.	DATE	REVISION
1		DRAFTED JDL
2		REVIEWED GUR
3		PROJECT NUMBER 1612318
4		ISSUE DATE 8/16/2012

**MC1 OCCUPATIONAL HEALTH CLINIC**  
 NORTHWEST CONTRACTING, INC.  
 BISMARCK, NORTH DAKOTA  
 LANDSCAPING PLAN

SHEET 9