

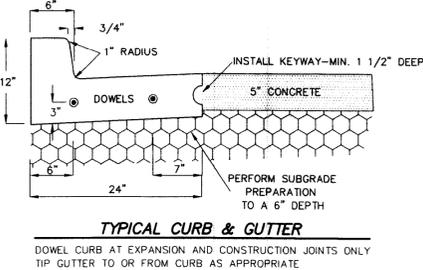
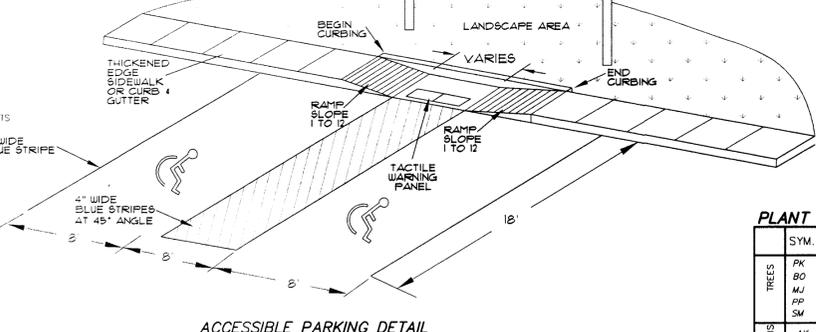
APPROVED BY PLANNING
PLANNING 01/16/14
 TITLE DATE

APPROVED BY FORESTRY
Forestry 01/16/14
 TITLE DATE

REVISION	DATE
1	1/13/14

GRADING, PAVING & LANDSCAPING PLAN
 WILLOW RIDGE APTS
 PEBBLE CREEK 8TH ADDITION
 LOTS 1,3,5,7,9, BLOCK 1
 BISMARCK, NORTH DAKOTA

NOTES:
 ATTACH THE SIGN PANELS TIGHTLY TO THE POST AND USE OVERSIZED WASHERS TO KEEP THE SIGN FROM BREAKING LOOSE FROM THE POST WHEN HIT BY A VEHICLE.
 SIGN PANELS SHOULD BE MOUNTED A MINIMUM OF 60" ABOVE THE PAVEMENT OR GROUND.



SIGNAGE & PAVEMENT STRIPING

- 557 INSTALL HANDICAP SIGNAGE PER DETAIL.
- 552 PAINT BLUE STRIPING FOR HANDICAP STALLS AND SYMBOLS. PAINT CURB BLUE AT HANDICAP STALLS. STRIPES SHALL BE 6" WIDE AND 18" APART APPLIED AT 110 SF/GAL. PAINTING SHALL MEET NDDOT REQUIREMENTS MODIFIED FOR BLUE PAINT.
- 553 PAINT YELLOW STRIPING WHERE REQUIRED FOR PARKING STALLS. PAINT SHALL MEET THE REQUIREMENTS OF SECTION 800 PART 8 OF THE NDDOT SPECIFICATIONS. STRIPE WIDTH SHALL BE 4" APPLIED AT 110 SF/GAL.
- 554 PROVIDE AND INSTALL HANDICAP SIGNS AND POSTS. SIGNS MUST INDICATE "100 FINE".
- 555 SEE DETAILS

PAVEMENT

- 21 ON SITE EXTERIOR CONCRETE MATERIALS AND CONSTRUCTION MATERIALS SHALL CONFORM TO CITY OF BISMARCK SPECIFICATIONS EXCEPT AS MODIFIED HEREIN. AIR CONTENT SHALL BE 5% TO 7%. STRENGTH AT 28 DAYS SHALL BE 4000 PSI.
- 22 ALL CURB SHALL BE STANDARD VERTICAL FACE CURB AND GUTTER. SEE DETAIL THIS SHEET.
- 23 4" UNREINFORCED CONCRETE SIDEWALK PER CITY OF BISMARCK SPECIFICATIONS.
- 24 5" CONCRETE WITH FIBERMESH ALTERNATE. SEE DETAIL THIS SHEET.
- 25 DROP CURB FOR RAMP. SEE DETAIL THIS SHEET.
- 26 ISOLATION JOINTS WILL BE REQUIRED ALONG THE BUILDING, STOOPS AND ALL FIXED ITEMS. LEAVE JOINT 1/4" LOW AND SEAL. ISOLATION JOINTS SHALL BE SEALED USING A ONE PART POLYURETHANE TYPE SEALANT.
- 27 CONSTRUCTION JOINTS WILL BE PLACED TO COINCIDE WITH CONTRACTION JOINT SPACING. CONSTRUCTION JOINT FOR UNREINFORCED CONCRETE SHALL HAVE A MINIMUM 1/4" DIAMETER HALF ROUND KEYWAY OR APPROVED EQUAL. CONSTRUCTION JOINTS FOR REINFORCED CONCRETE SHALL BE 1/2" X 12" DOWELS AT 12 O/C.
- 28 JOINT SPACING SHALL TYPICALLY BE SPACED AT 1-1/2 TIMES THE THICKNESS OF THE PAVEMENT (MEASURED IN INCHES) IN FEET (4" SWK EQUALS 6 FOOT SPACING). IN NO CASE SHALL THE JOINT SPACING EXCEED TWO TIMES THE THICKNESS.
- 29 SUBGRADE PREPARATION UNDER AREAS TO BE PAVED SHALL BE 6" THICK AND SHALL COMPLY WITH CITY OF BISMARCK SPECIFICATIONS EXCEPT DENSITY SHALL BE 95% OF ASTM D 698.
- 30 INSTALL HANDRAIL PER DETAIL THIS SHEET.

GENERAL LANDSCAPING

- L1 ALL CONTRACTORS WISHING TO SUBMIT BIDS FOR THIS LANDSCAPING PROJECT SHALL BE RESPONSIBLE FOR FIELD VERIFYING ALL CONDITIONS.
- L2 PROTECT THE IMPROVEMENTS ON SITE AND ON THE ADJOINING PROPERTIES. PROVIDE BARRICADES, COVERINGS OR OTHER TYPE OF PROTECTION AS NECESSARY TO PREVENT DAMAGE AND TO SAFEGUARD AGAINST INJURY TO EXISTING UTILITIES.
- L3 DAMAGE THAT OCCURS TO PLANTS DURING TRANSPORTATION AND INSTALLATION WILL BE THE RESPONSIBILITY OF THE LANDSCAPE CONTRACTOR.
- L4 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.
- L5 SOLITARY TREES DO NOT NEED TO BE EDED AROUND, HOWEVER ORGANIC WOOD MULCH SHALL BE PLACED AROUND THE TREE IN A MATTLE RING THAT CONFORMS TO THE DETAIL PROVIDED FOR TREE PLANTINGS.
- L6 CONTRACTOR SHALL PROVIDE WRITTEN WARRANTIES CONFIRMING THE FOLLOWING:
 FURNISHED TREES QUARANTEED TO LIVE AND REMAIN STRONG, VIGOROUS, AND HEALTHY CONDITION FOR 365 DAYS MINIMUM FROM DATE LANDSCAPE INSTALLATION IS ACCEPTED AS COMPLETED.
- L7 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.

SEEDING NOTES

- S1 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.
- S2 ALL PORTIONS OF THE SITE NOT RECEIVING OTHER IMPROVEMENTS SHALL BE SEED. SEED SHALL CONFORM TO THE CITY OF BISMARCK SPECIFICATIONS FOR TYPE II SEED AND TYPE IV SEED. SEED SHALL BE INSTALLED AS FOLLOWS:
 SEED SHALL CONFORM TO THE CITY OF BISMARCK SPECIFICATIONS AT A RATE OF 4 LBS. PER 1000 SQUARE FEET.
- S3 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.
- S4 SEED SHALL BE DRILL SEED 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.
- S5 THE SEEDING CONTRACTOR SHALL WATER THE NEWLY SEEDDED AREAS ON THE SAME DAY THAT SEEDING OCCURS. IF AN IRRIGATION SYSTEM IS PRESENT AND FUNCTIONING, THE SEEDING CONTRACTOR SHALL EMERGEZ THIS SYSTEM AND ENSURE THAT A WATERING SCHEDULE HAS BEEN ESTABLISHED BEFORE LEAVING THE SITE.
- S6 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 THEREOF, 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.
- S7 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.

TOPSOIL NOTES

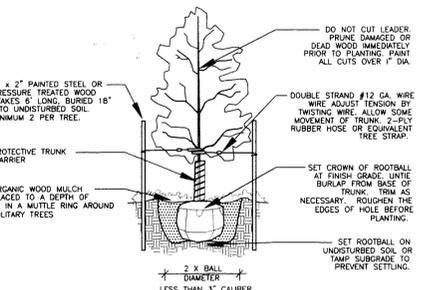
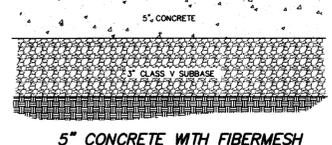
- T1 TOPSOIL IS STOCKPILED ON SITE AND WILL BE PLACED FOR THE LANDSCAPE CONTRACTOR TO SPREAD AND FINISH GRADE. ALL PORTIONS OF THE SITE NOT RECEIVING CONCRETE, CURB & GUTTER OR OTHER IMPROVEMENTS SHALL BE COVERED WITH A MINIMUM OF 6" OF TOPSOIL AND SEEDDED ACCORDING TO SPECIFICATIONS.
- T2 TOPSOIL SHALL BE PLACED AND SEEDDED 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.

PLANT PALETTE

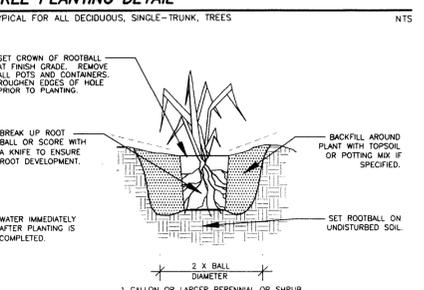
SYM.	COMMON NAME	SCIENTIFIC NAME	SIZE	QNTY.
PK	PRINCESS KAY PLUM	<i>Prunus nigra 'Princess Kay'</i>	1 1/2" Cal.	29
BO	BUR OAK	<i>Quercus macrocarpa</i>	1 1/2" Cal.	21
MJ	MEDORA JUNIPER	<i>Juniperus scopulorum 'Medora'</i>	4"	72
PP	PONDEROSA PINE	<i>Pinus ponderosa</i>	1 1/2" Cal.	14
SM	SILVER MAPLE	<i>Acer saccharinum</i>	1 1/2" Cal.	5
AK	ALPINE CURRANT	<i>Ribes alpinum</i>	2 Gallon	55
BJ	BLUESTAR JUNIPER	<i>Juniperus squamata 'Bluestar'</i>	2 Gallon	43

PLANT LEGEND

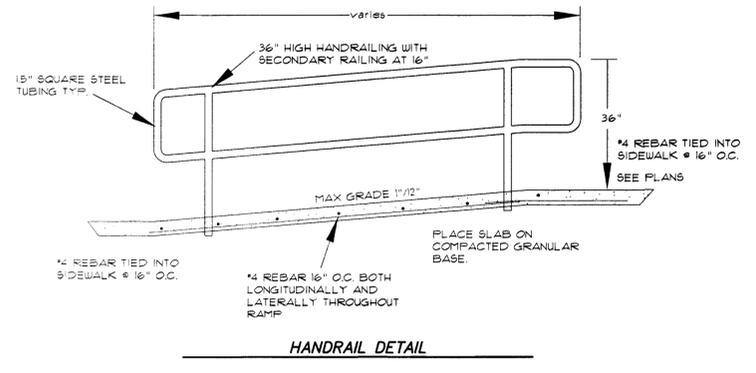
- PRINCESS KAY PLUM
- BUR OAK
- MEDORA JUNIPER
- PONDEROSA PINE



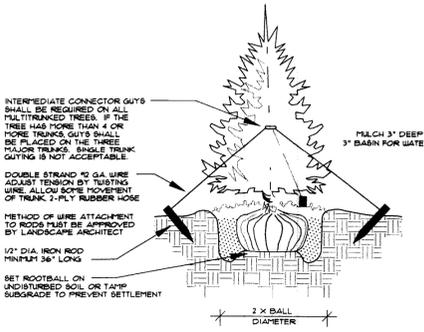
TREE PLANTING DETAIL



SHRUB/PERENNIAL PLANTING DETAIL



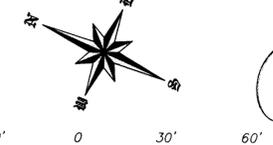
HANDRAIL DETAIL



EVERGREEN PLANTING DETAIL

LEGEND

- 63.78 CONC
 - 71.03 CB
 - 70.53 GT
 - 1653
 - 67
 - 66.10 X
 - 66.75 CB
 - 66.25 GT
- EX. GRADES
 - EX. SANITARY SEWER
 - EX. WATERMAIN
 - EX. STORM SEWER
 - EX. CONTOUR
 - EX. CONCRETE
 - EX. ASPHALT
 - EX. LIGHT
 - EX. CLEANOUT
 - EX. MANHOLE
 - EX. TELEPHONE RISER
 - EX. TREE
 - EX. FENCE
 - PROP. CLEANOUT
 - PROP. SANITARY SEWER
 - PROP. WATERMAIN
 - PROP. STORM SEWER
 - PROP. CONTOUR
 - PROP. CONCRETE PAVING
 - PROP. CONCRETE SIDEWALK
 - PROP. RETAINING WALL
 - PROP. GRADES
 - PROP. EROSION CONTROL
 - PROP. GUARD RAIL
 - PROP. HANDRAIL
 - PROP. REMOVALS



SAFETY NOTICE TO CONTRACTOR
 In accordance with generally accepted construction practices the contractor will be solely and completely responsible for conditions of the job site, including safety of all persons and property during performance of the work. This requirement will apply continuously and not be limited to normal business hours.

NOTICE TO CONTRACTOR
 The location of existing underground utilities are shown on an approved map only and have not been independently verified by the owner or its representatives. The Contractor shall determine the exact location of all existing utilities before commencing work, and agrees to be fully responsible for any and all damages which might be occasioned by the Contractor's failure to exactly locate and preserve any and all underground utilities.

WARRANTY / DISCLAIMER
 The designs represented in these plans are in accordance with established practices of civil engineering. However, neither Swenson, Hagen & Co. nor its personnel can or do warrant these plans as constructed except in the specific cases where Swenson, Hagen & Co. personal inspect and control the physical construction on a full time basis.

CALL BEFORE YOU DIG
 NORTH DAKOTA
 UTILITIES UNDERGROUND LOCATION SERVICE
 1-800-795-0555

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Swenson, Hagen & Company
 Hydrology
 Land Planning
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 Landscape & Site Design
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DRAWN BY: MB/LN/CK
 CHECK BY: JP
 DATE: 10-22-13
 FILE DESC:
 COMPUTER FILE:
 PROJ: BISMARCK/
 PEBBLE CREEK 8TH/LOTS 1,3,5,7,9
 WILLOW RIDGE APTS
 SURVEY FILE:

SHEET
C3.0

SCALE - 1"=30'
 OCTOBER 22, 2013
 NGVD 29
 REVISED: JANUARY 13, 2014

THIS DOCUMENT WAS ORIGINALLY SEALED BY JASON R. PETRYSZYN, PE, ON 10/22/13 AND THE ORIGINAL DOCUMENT IS STORED AT THE OFFICE OF SWENSON, HAGEN & CO. P.C.