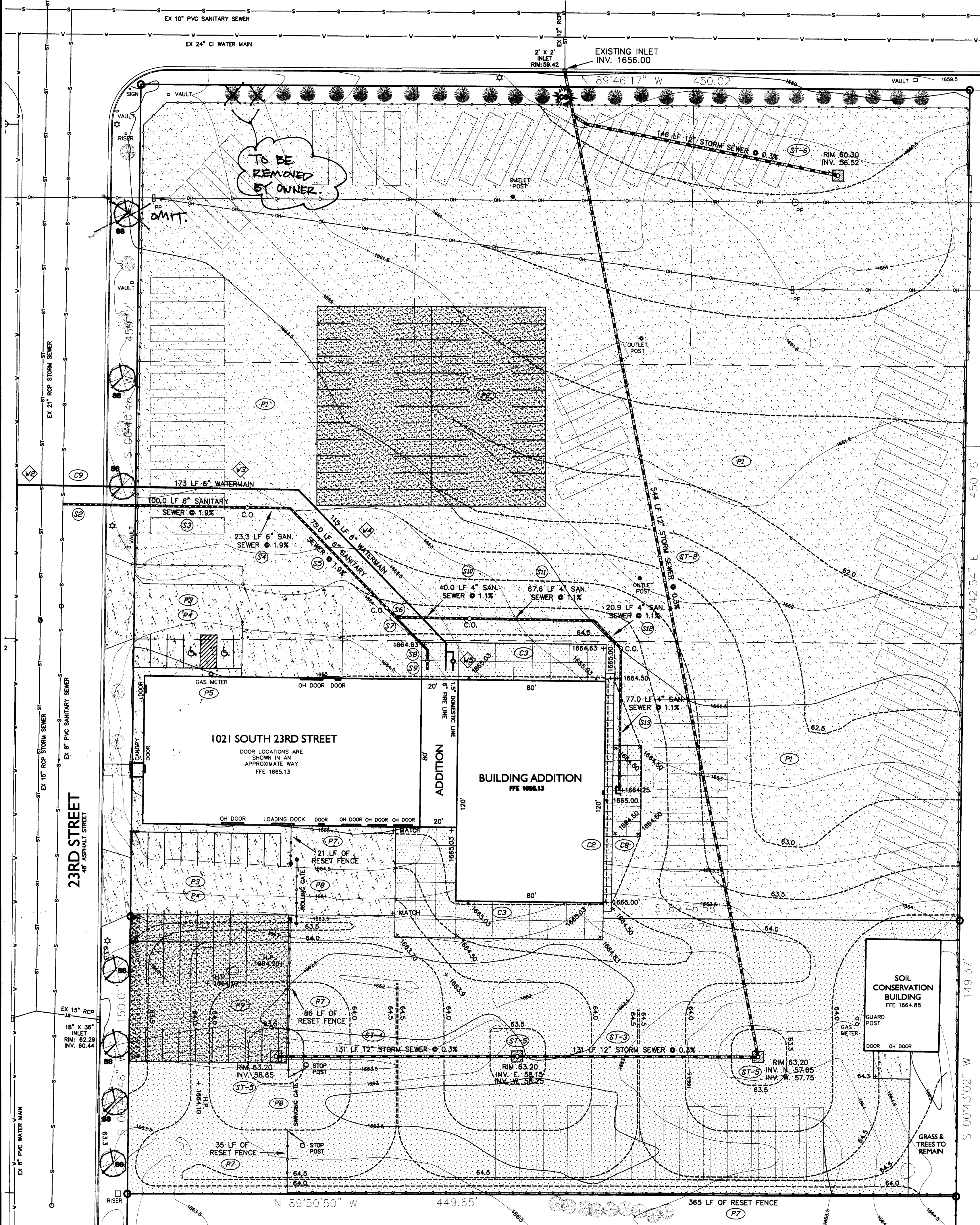


BISMARCK EXPRESSWAY



- PHASE 1 SITE IMPROVEMENTS**
- (P1) EXISTING GRAVEL PARKING LOT TO REMAIN. OVERLAY WITH CRUSHED CONCRETE AS NECESSARY TO CONFORM TO PROPOSED GRADES.
 - (P2) PROPOSED EMPLOYEE PARKING LOT TO REMAIN GRAVEL. NO IMPROVEMENTS FOR PHASE 1.
 - (P3) EXISTING CONCRETE PARKING LOT TO REMAIN. RESET PARKING BLOCKS AS NECESSARY TO CONFORM TO STRIPING. FOLLOW SPECIFICATIONS PROVIDED BELOW FOR STRIPING.
 - (P4) STRIPE PARKING LOT AS SHOWN ON PLANS. ALL NON-ADA STRIPING SHALL BE 4" WIDE NON-REFLECTORIZED PAINT MEETING THE REQUIREMENTS OF AASHTO M28 APPLIED AT A RATE OF 110 SQUARE FEET PER GALLON. COLOR SHALL BE YELLOW. ADA STRIPING FOR LANES AND SYMBOLS SHALL BE BLUE PAINT MEETING THE REQUIREMENT OF AASHTO M28 APPLIED AT A RATE OF 110 SQUARE FEET PER GALLON. PAINT FACE AND TOP OF CURB (6" WIDE) IN FRONT OF ALL HANDICAP STALLS.
 - (P5) PROVIDE AND INSTALL ADA SIGNS ON THE FACADE OF THE BUILDING FOR EACH HANDICAP STALL.
 - (P6) CLEAR AND GRUB ALL OF LOT 7. REMOVE TREES AS DIRECTED BY OWNER, AND VEGETATION. DISPOSE OF OFFSITE. STRIP ALL TOPSOIL AND DISPOSE OF OFFSITE. SCARIFY AND RECOMPACT EXISTING SUBGRADE SOILS. COMPACTION AND MOISTURE CONDITION SHALL FOLLOW THE RECOMMENDATIONS OF THE GEOTECHNICAL REPORT. HAUL IN APPROVED BACKFILL ALLOWING 6" OF CRUSHED CONCRETE OVERLAY OVER THE ENTIRE SITE. THE PROPOSED GRADES AND CONTOURS ARE TO THE TOP OF THE CRUSHED CONCRETE OVERLAY.
 - (P7) REINSTALL SALVAGED CHAIN LINK FENCE MESH TO THE LOCATION AND DIMENSIONS PROVIDED. WHERE NEW POSTS ARE NECESSARY, POSTS SHALL BE A GALVANIZED POST MATCHING EXISTING POSTS ON SITE.
 - (P8) RESET FENCE GATE. FOLLOW INSTRUCTIONS PROVIDED BY OWNER AS TO THE EXACT LOCATION AND CONFIGURATION. IT MAY BE NECESSARY TO PROVIDE NEW POSTS. SALVAGE AND RESET IF POSSIBLE.
 - (P9) PROPOSED TEMPORARY EMPLOYEE PARKING LOT TO BE GRAVEL. IF CONFIGURATION OF THIS SITE IS SATISFACTORY PROVISIONS MAY BE MADE IN THE FUTURE TO HAVE THIS LOT PAVED WITH A PERMANENT SURFACING.

- EXTERIOR CONCRETE NOTES**
- (C1) ON SITE EXTERIOR CONCRETE MATERIALS AND CONSTRUCTION METHODS 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.
 - (C2) 4" THICKENED EDGE CONCRETE SIDEWALK WITH FIBERMESH.
 - (C3) 8" UNREINFORCED CONCRETE PAVEMENT ON 6" SUBGRADE PREPARATION.
 - (C4) ISOLATION JOINTS WILL BE REQUIRED ALONG THE BUILDING, STOOPS AND ALL FIXED ITEMS. LEAVE JOINT 1/2" LOW AND SEAL. ISOLATION JOINTS SHALL BE SEALED USING A ONE PART POLYURETHANE TYPE SEALANT.
 - (C5) CONSTRUCTION JOINTS WILL BE PLACED TO COINCIDE WITH CONSTRUCTION JOINT SPACING. CONSTRUCTION JOINT FOR UNREINFORCED CONCRETE SHALL HAVE A MINIMUM 1/2" DIAMETER HALF ROUND KEYWAY OR APPROVED EQUAL. CONSTRUCTION JOINTS FOR REINFORCED CONCRETE SHALL BE 1/2" X 12" DOWELS AT 12 O/C.
 - (C6) 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.
 - (C7) SUBGRADE PREPARATION UNDER AREAS TO BE PAVED SHALL BE 6" THICK AND SHALL COMPLY WITH CITY OF BISMARCK SPECIFICATIONS EXCEPT AS MODIFIED HEREIN. 95% OF MAXIMUM DRY DENSITY AS DETERMINED BY ASTM D1557 WITH MOISTURE WITHIN PLUS OR MINUS 3% OF OPTIMUM MOISTURE CONTENT.
 - (C8) CONCRETE DUMPING STATION. SEE DETAIL THIS PAGE.
 - (C9) PATCH ASPHALT STREET PER CITY OF BISMARCK AFTER CONNECTION OF WATER & SEWER SERVICES.

- STORM SEWER**
- (ST-1) MATERIALS AND CONSTRUCTION METHODS SHALL COMPLY WITH THE CITY OF BISMARCK SPECIFICATIONS UNLESS NOTED OTHERWISE. BACKFILL SHALL BE 95% OF STANDARD PROCTOR AT RECOMMENDED MOISTURE CONTENT.
 - (ST-2) INSTALL 544 LF 12" STORM SEWER AT 0.3%. INSTALL 30" MANHOLE AND NEENAH R-1733 CASTING W/ TYPE "C" GRATE; RIM 1663.20, INV. N. 1657.65, INV. W. 1657.75.
 - (ST-3) INSTALL 131 LF 12" STORM SEWER AT 0.3%. INSTALL 30" MANHOLE AND NEENAH R-1733 CASTING W/ TYPE "C" GRATE; RIM 1663.20, INV. E. 1658.15, INV. W. 1658.25.
 - (ST-4) INSTALL 131 LF 12" STORM SEWER AT 0.3%. INSTALL 30" MANHOLE AND NEENAH R-1733 CASTING W/ TYPE "C" GRATE; RIM 1663.20, INV. W. 1658.65.
 - (ST-5) INSTALL 6'X6' UNREINFORCED CONCRETE APRON FLUSH WITH AND CENTERED ON RIM AROUND STORM SEWER MANHOLES. SLOPE TOWARDS MANHOLE CASTING. CONFORM TO CONCRETE SPECS PROVIDED UNDER CONCRETE NOTES.
 - (ST-6) AT 25' ALONG THE MAIN LINE, INSTALL A 12"X12" WYE; INV. 1656.08. INSTALL 8 LF OF 12" STORM SEWER AT 0.3%. INSTALL 22.5' BEND; INV. 1656.10. INSTALL 140 LF OF 12" STORM SEWER AT 0.3%. INSTALL 30" MANHOLE AND NEENAH R-1733 CASTING W/ TYPE "C" GRATE; RIM 1660.3, INV. 1656.52.

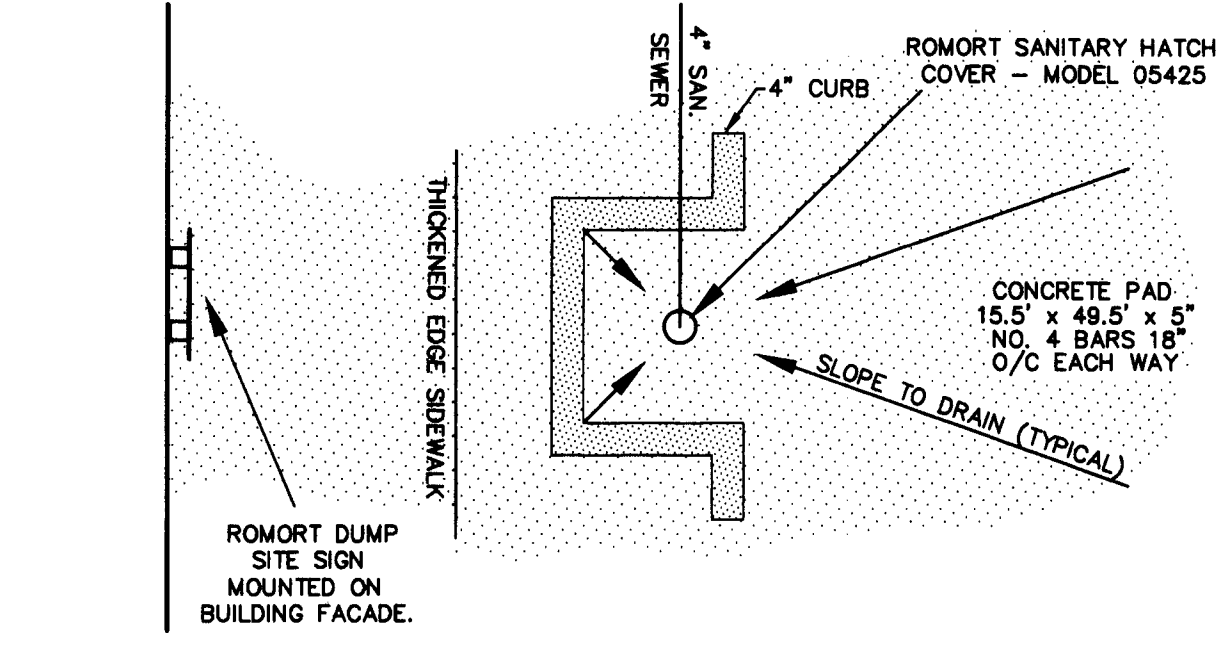
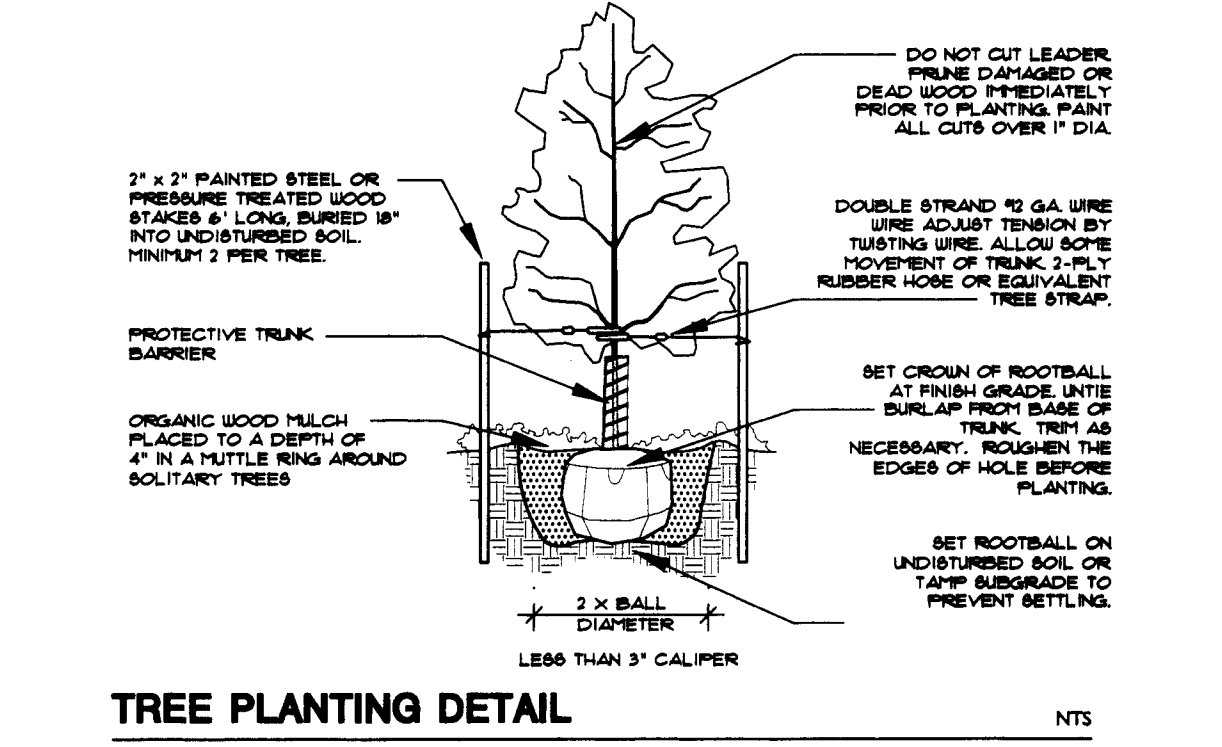
- SANITARY SEWER**
- (S1) MATERIALS AND CONSTRUCTION METHODS SHALL COMPLY WITH CITY OF BISMARCK SPECIFICATIONS UNLESS NOTED OTHERWISE. BACKFILL SHALL BE 95% OF STANDARD PROCTOR AT RECOMMENDED MOISTURE CONTENT.
 - (S2) CONNECT TO EXISTING 6" SANITARY SEWER SERVICE APPROXIMATE INV. OF 1651.50.
 - (S3) INSTALL 100.0 LF OF 6" SANITARY SEWER AT 1.9%; INSTALL 6" CLEANOUT, INV. 1653.40.
 - (S4) INSTALL 23.2 LF OF 6" SANITARY SEWER AT 1.9%; INSTALL 6" CLEANOUT, INV. 1653.84.
 - (S5) INSTALL 75.0 LF OF 6" SANITARY SEWER AT 1.9%; INSTALL 6" CLEANOUT, INV. 1655.27.
 - (S6) INSTALL 7.2 LF OF 6" SANITARY SEWER AT 1.9%; INSTALL 45" WYE INV. 1655.40.
 - (S7) INSTALL 24.7 LF OF 6" SANITARY SEWER AT 9.0%; INSTALL 45" BEND INV. 1657.63.
 - (S8) INSTALL 5.6 LF OF 6" SANITARY SEWER AT 9.0%; INSTALL 6" CLEANOUT INV. 1658.13.
 - (S9) INSTALL 4 LF OF 6" SANITARY SEWER AT 1.0%; INV. 1658.17. COORDINATE WITH MECHANIC CONTRACTOR TO MAKE CONNECTION INTO THE BUILDING.
 - (S10) INSTALL 40.0 LF OF 4" SANITARY SEWER AT 1.1%; INSTALL 4" CLEANOUT INV. 1655.84.
 - (S11) INSTALL 67.6 LF OF 4" SANITARY SEWER AT 1.1%; INSTALL 45" BEND INV. 1656.58.
 - (S12) INSTALL 20.9 LF OF 4" SANITARY SEWER AT 1.1%; INSTALL 45" BEND INV. 1656.81. INSTALL 4" CLEANOUT.
 - (S13) INSTALL 77.0 LF OF 4" SANITARY SEWER AT 1.1%; INV. 57.66. INSTALL 2 45" BENDS TURNING VERTICALLY. CONNECT TO REMOBT SANITARY HATCH AS PER MANUFACTURER'S SPECIFICATIONS. SEE DETAIL ON THIS PAGE.

- WATERMAIN**
- (W1) MATERIALS AND CONSTRUCTION METHODS SHALL COMPLY WITH CITY OF BISMARCK SPECIFICATIONS. ALL BACKFILL SHALL BE 95% OF STANDARD PROCTOR AT RECOMMENDED MOISTURE CONTENT. WATERLINES SHALL BE CHLORINATED, PRESSURE TESTED AND FLUSHED. TESTING IS CONSIDERED INCIDENTAL. ALL WATERMAIN SECTIONS SHALL HAVE A MINIMUM 7 FEET OF COVER.
 - (W2) CONNECT TO EXISTING 8" WATERMAIN, FIELD VERIFY DEPTH.
 - (W3) INSTALL APPROXIMATELY 173 LF OF 6" WATERMAIN; INSTALL 45" BEND; INV. 56.0.
 - (W4) INSTALL APPROXIMATELY 115 LF OF 6" WATERMAIN; INSTALL 45" BEND; INV. 57.0.
 - (W5) INSTALL APPROXIMATELY 15 LF OF 6" WATERMAIN; INSTALL A 1.5" COPPER FOR 100' SADDLE ON THE 6" WATERMAIN 15 FEET FROM THE BUILDING. COORDINATE WITH MECHANICAL CONTRACTOR ON LOCATION OF 1.5" DOMESTIC LINE INTO THE BUILDING. COORDINATE WITH MECHANICAL CONTRACTOR TO MINIMIZE THE NUMBER OF FITTINGS. PREFERABLY, LOCATE 1.5" CURB STOP AND BOX 3 FEET FROM BUILDING. GENERAL CONTRACTOR TO SUPPLY AND INSTALL 1.5" CURB STOP AND BOX.
 - (W6) COORDINATE WITH MECHANICAL CONTRACTOR FOR PRESSURE TESTING, CHLORINATION AND FLUSHING PER CITY REQUIREMENTS.

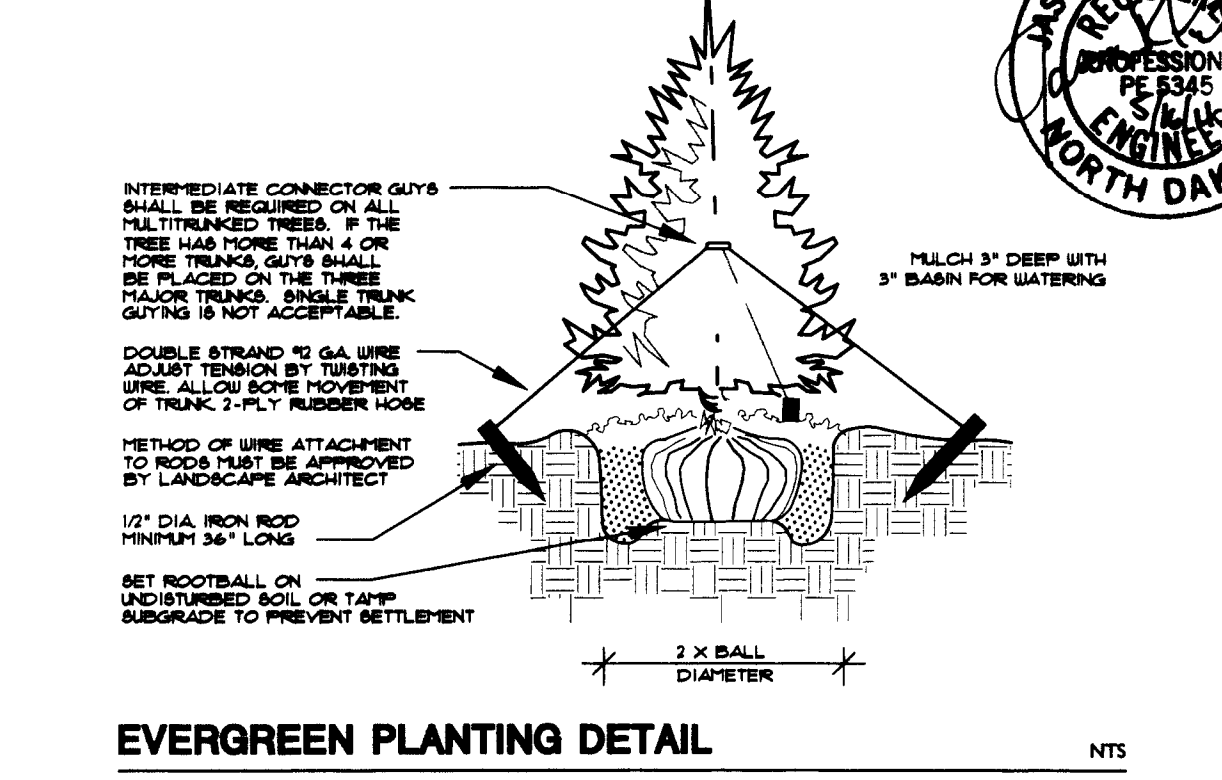
PLANT PALETTE

SYM.	COMMON NAME	SCIENTIFIC NAME	SIZE	QNTY.
CS	COLORADO BLUE SPRUCE	<i>Picea pungens</i>	6' +	1
SS	SPRING SNOW CRABAPPLE	<i>Malus 'Spring Snow'</i>	1 1/2" Cal.	7

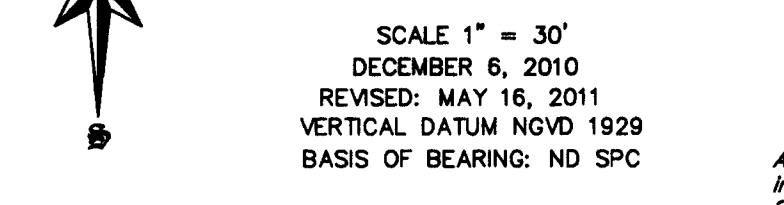
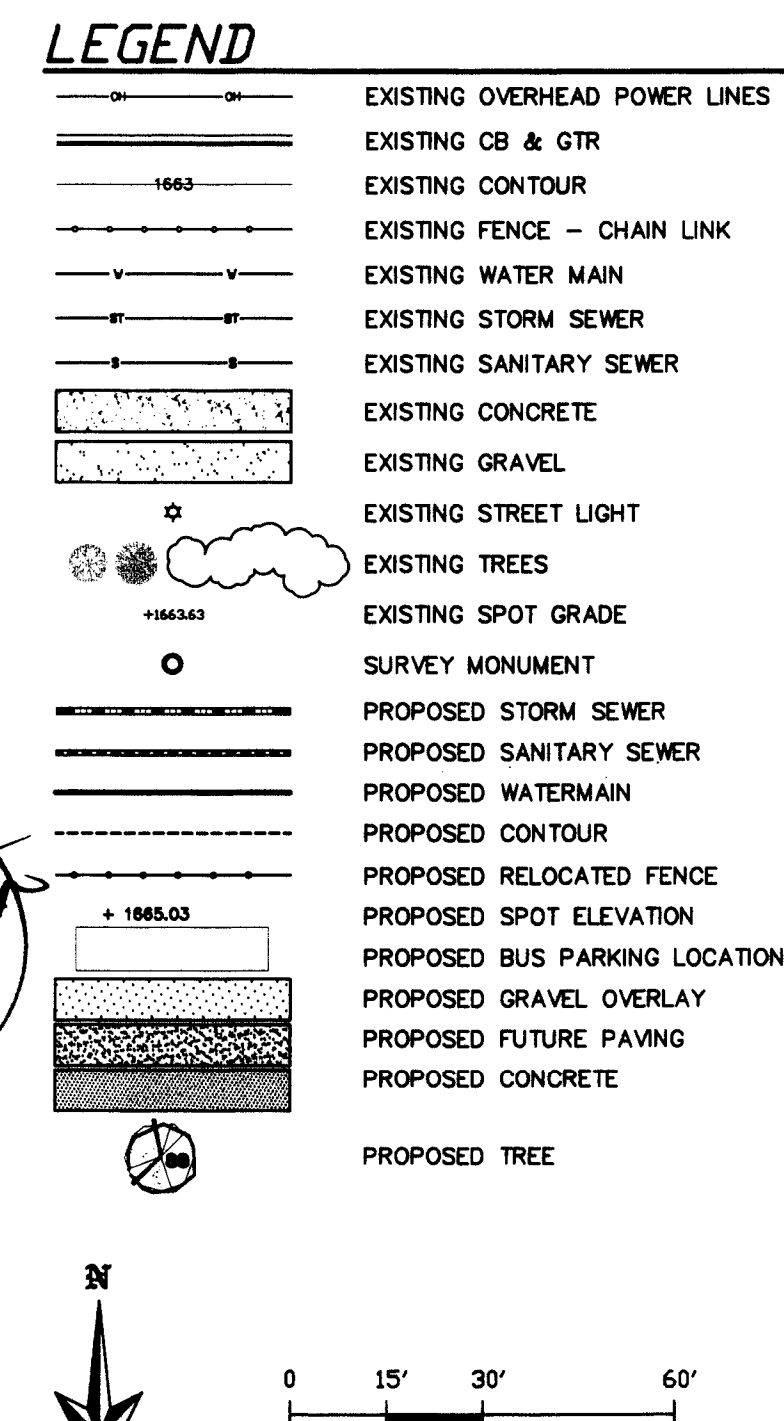
- GENERAL LANDSCAPING NOTES FOR ALL SHEETS**
- (L1) ALL CONTRACTORS WISHING TO SUBMIT BIDS FOR THIS LANDSCAPING PROJECT SHALL BE RESPONSIBLE FOR FIELD VERIFYING ALL CONDITIONS.
 - (L2) PROTECT THE IMPROVEMENTS ON SITE AND ON THE ADJOINING PROPERTIES. PROVIDE BARRICADES, COVERINGS OR OTHER TYPE OF PROTECTION 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) SOLITARY TREES DO NOT NEED TO BE EDGED AROUND, HOWEVER ORGANIC WOOD MULCH SHALL BE PLACED AROUND THE TREE IN A MUTTLE RING THAT CONFORMS TO THE DETAIL PROVIDED FOR TREE PLANTINGS.
 - (L5) CONTRACTOR SHALL PROVIDE WRITTEN WARRANTIES CONFIRMING THE FOLLOWING:
 - (L5a) FURNISHED TREES GUARANTEED TO LIVE AND REMAIN STRONG, VIGOROUS, AND HEALTHY CONDITION FOR 365 DAYS MINIMUM FROM DATE LANDSCAPE INSTALLATION IS ACCEPTED AS COMPLETED.
 - (L5b) LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR WATERING AND CARING FOR ALL PLANT MATERIAL, SEED, AND OTHER LANDSCAPING IMPROVEMENTS UNTIL THE DATE OF FINAL INSPECTION AND APPROVAL.



BUS DUMPING STATION
SEE EAST SIDE OF PROPOSED BUILDING ADDITION



EVERGREEN PLANTING DETAIL
TYPICAL FOR ALL MULTI-TRUNKED & EVERGREEN TREES



DATE: _____
 CHECK BY: _____
 DRAWN BY: _____
 FILE NO.: _____
 PROJECT: _____
 SHEET 2 OF 2

SWENSON, HAGEN & COMPANY P.C.
 909 Basin Avenue
 Bismarck, North Dakota 58504
 sheng@swensonhagen.com
 Phone (701) 223-2600
 Fax (701) 223-2606

DIMENSION, UTILITY, & GRADING PLAN
 LOT 1-3 & 5-11 BLOCK 3
 GUSSNER INDUSTRIAL TRACTS 2ND DIVISION
 BISMARCK, NORTH DAKOTA

REVISION:	DATE:

HARLOW'S BUILDING ADDITION 9/16/11