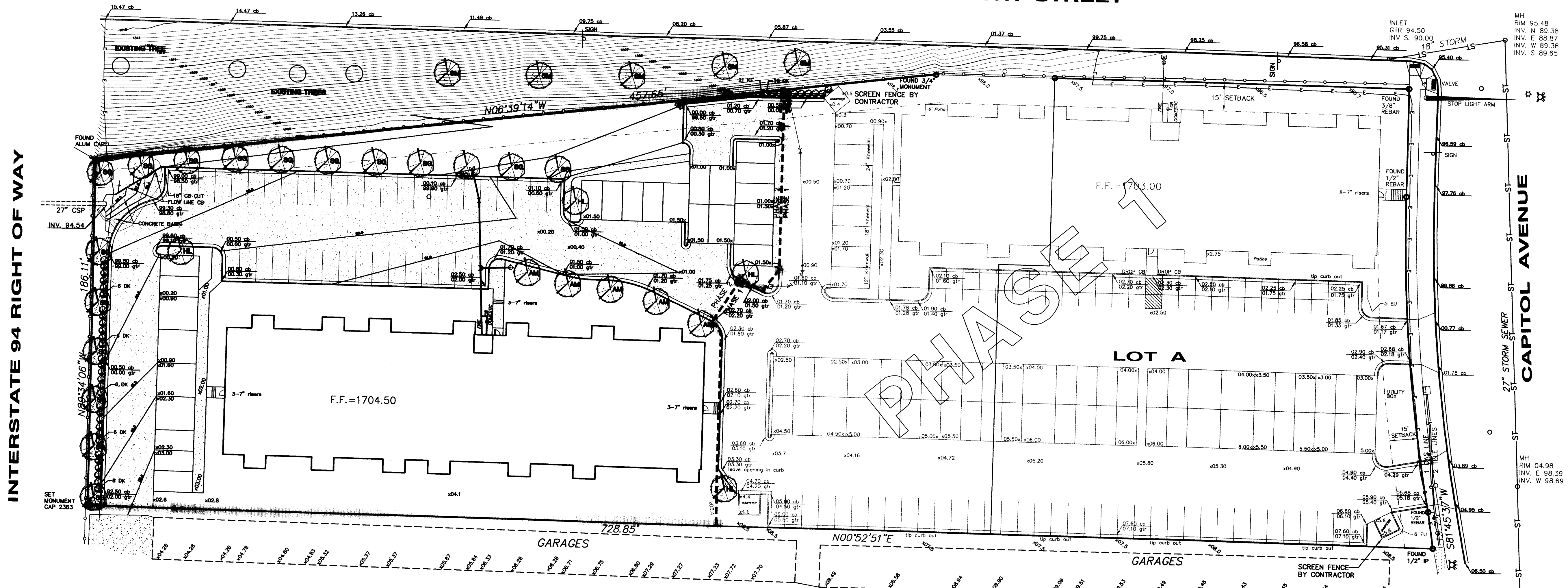


# GRADING PLAN PART OF LOT 1 BLOCK 6, INDIAN HILLS ADDITION PHASE II BISMARCK, NORTH DAKOTA

NINETEENTH STREET



INTERSTATE 94 RIGHT OF WAY

CAPITOL AVENUE

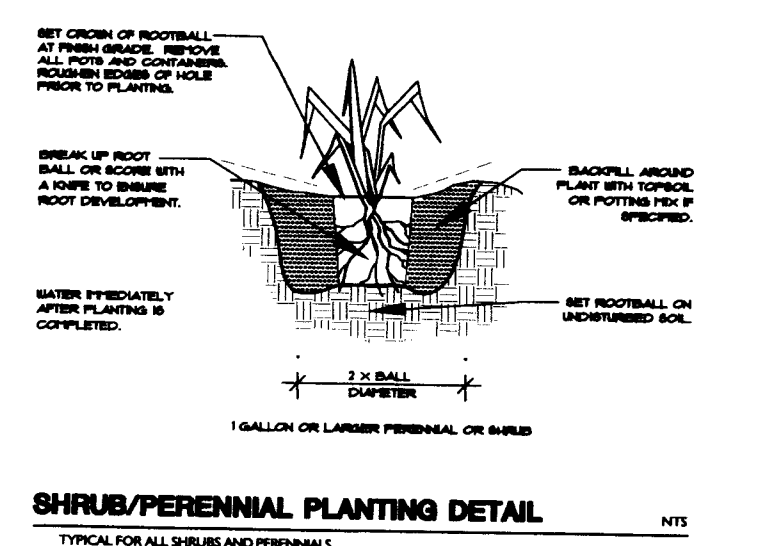
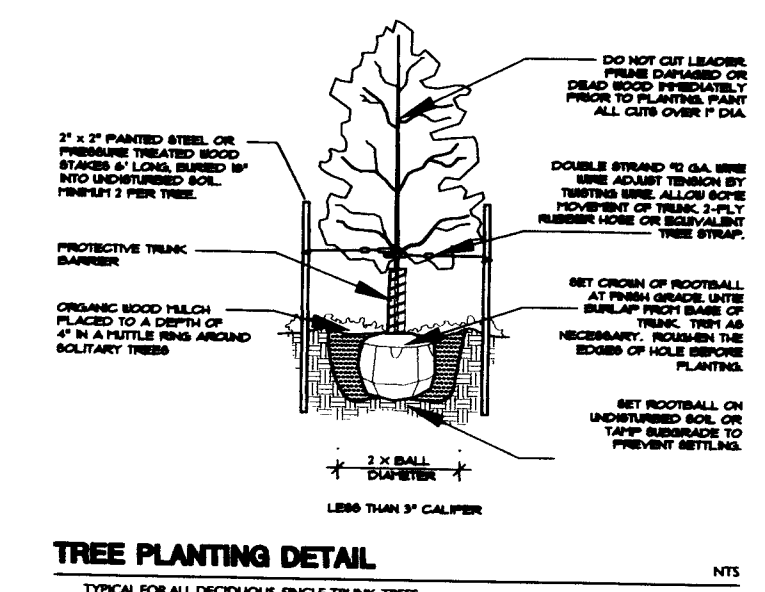
- GRADING**
1. THE OWNER SHALL BE SOLELY RESPONSIBLE FOR THE EROSION MANAGEMENT PLAN AND FOR THE IMPLEMENTATION AND MAINTENANCE OF THE PLAN. THE GENERAL CONTRACTOR SHALL CONTROL ON SITE EROSION SO AS NOT TO DISCHARGE ERODED MATERIAL ONTO ADJACENT PROPERTIES OR DOWN STREAM WITHOUT APPROVAL FROM THE OWNER AND THE CIVIL ENGINEER. IF ANY EXCAVATION OR EMBANKMENT MATERIAL DOES FLOW ONTO EXISTING IMPROVEMENTS, THE CONTRACTOR SHALL IMMEDIATELY RECTIFY THE PROBLEM AND REPAIR DAMAGES.
  2. THE OWNER WILL SUBMIT A STORM WATER MANAGEMENT PLAN TO THE CITY TO RECEIVE SITE PLAN APPROVAL. A COPY OF THE PLAN IS AVAILABLE AT THE OWNERS OFFICE. THE PLAN IDENTIFIES THE MINIMAL EFFORT THAT THE CONTRACTOR MUST IMPLEMENT.
  3. THE OWNER WILL SUBMIT A STORM WATER POLLUTION PREVENTION PLAN (SWPPP) TO THE NORTH DAKOTA HEALTH DEPARTMENT. THE CONTRACTOR SHALL PREPARE THE SWPPP'S. THE CONTRACTOR SHALL SUBMIT A NOTICE OF INTENT (NOI) 5 DAYS PRIOR TO CONSTRUCTION ACTIVITY ON THE SITE. THE OWNER WILL BE RESPONSIBLE FOR SUBMITTING A NOTICE OF TERMINATION.
  4. PROTECT ADJACENT UTILITIES THAT ARE TO REMAIN.
  5. CONTRACTOR TO REMOVE AND STOCKPILE "TOPSOIL". ALL EXCESS TOPSOIL MATERIAL AT THE COMPLETION OF THE PROJECT TO REMAIN IN THE PILE, PROVIDE ALL NECESSARY EROSION CONTROL MEASURES AND RESEED OR SOD THE DISTURBED AREAS TO AN EQUAL OR BETTER CONDITION.
  7. ALL FILL MATERIAL UNDER THE BUILDING AND AREAS TO BE PAVED SHALL BE AN INORGANIC SOIL OF A NON EXPANSIVE NATURE APPROVED BY TESTING COMPANY. FILL FOR AREAS UNDER THE BUILDING AND PAVEMENT SHALL BE COMPACTED TO A MINIMUM OF 95 PERCENT OF THE MAXIMUM DENSITY AS DETERMINED BY THE STANDARD PROCTOR ASTM: D698-00a. FILL UNDER AREAS TO BE LANDSCAPED SHALL BE COMPACTED TO 90 PERCENT. IF LEAN CLAYS ARE APPROVED AND USED AS FILL, THE MOISTURE CONTENT AT THE TIME OF PLACEMENT SHALL BE KEPT IN THE RANGE OF PLUS 3 PERCENT OR MINUS 1 PERCENT OF OPTIMUM MOISTURE. SANDS SHOULD BE MOISTURED CONDITIONED TO WITHIN 2 PERCENT OF THEIR OPTIMUM.
  8. ALL AREAS TO BE LANDSCAPED, SODDED OR SEEDED SHALL HAVE A MINIMUM OF 6 INCHES OF TOPSOIL.
  9. TOPSOIL SHALL BE PLACED BY LANDSCAPING CONTRACTOR 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.
  10. CONTRACTOR WILL BE REQUIRED TO GRADE ALL BUILDING AND GARAGE SLABS TO WITHIN 8" OF FINISHED FLOOR ELEVATIONS TO ALLOW FOR THE PLACEMENT OF SUITABLE SUBSURFACE MATERIAL AND CONCRETE.

- TESTING**
1. THE OWNER SHALL ENGAGE THE SERVICES OF AN INDEPENDENT SOILS TESTING LABORATORY TO DETERMINE THE SOIL PROCTORS AND PERFORM THE REQUIRED COMPACTION TESTING FOR ALL AREAS. CONTRACTOR SHALL PAY FOR ALL COMPACTION TESTS THAT FAIL.
  2. IN CUT AREAS, AFTER THE AREA HAS BEEN CUT TO SUBGRADE ELEVATION, THE CONTRACTOR SHALL SCARIFY AND RECOMPACT THE TOP 12" OF SOIL. THIS AREA SHALL BE TESTED FOR MOISTURE AND COMPACTION BASED ON THE RATE STATED BELOW.
  3. UNDER THE APARTMENT BUILDINGS, THE BUILDING FILL SHALL BE TESTED FOR EVERY 1 FOOT OF FILL PER QUADRANT OF THE BUILDING. THE APARTMENTS SHALL BE DIVIDED INTO SIX QUADRANTS.
  4. UNDER THE GARAGE UNITS, THE FILL SHALL BE TESTED FOR EVERY 12" OF FILL PLACED. THE FREQUENCY OF TESTS SHALL BE ONE TEST FOR EVERY 70 LINEAR FEET OF GARAGE.

- GENERAL LANDSCAPING NOTES FOR ALL SHEETS**
- L1 ALL PLANTING BEDS SHALL BE INSTALLED WITH 3" OF 1" CRUSHED ROCK MULCH, LANDSCAPE FABRIC WITH A MINIMUM WEIGHT OF 4 OZ./SY, AND WHERE NECESSARY, 6" COMMERCIAL GRADE BLACK PLASTIC EDGING TO CONTAIN THE PLANTING BED.
  - L2 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.
  - L3 CONTRACTOR SHALL PROVIDE WRITTEN WARRANTIES CONFIRMING THE FOLLOWING:  
FURNISHED TREES AND SHRUBS GUARANTEED TO LIVE AND REMAIN STRONG, VIGOROUS, AND HEALTHY CONDITION FOR 365 DAYS MINIMUM FROM DATE LANDSCAPE INSTALLATION IS ACCEPTED AS COMPLETED.
  - L4 LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR WATERING AND CARING FOR ALL PLANT MATERIAL, SEED, SOD, AND OTHER LANDSCAPING IMPROVEMENTS UNTIL THE DATE OF FINAL INSPECTION AND APPROVAL.
  - L5 ALL PORTIONS OF THE SITE NOT RECEIVING OTHER IMPROVEMENTS SHALL BE SEEDED ACCORDING TO THE CITY OF BISMARCK'S SPECIFICATIONS FOR MUNICIPAL IMPROVEMENTS. SEED SHALL BE CLASS II SEED.
  - L6 ALL PORTIONS OF THE SITE THAT ARE TO BE SEEDED SHALL BE HYDROMULCHED. HYDROMULCH SHALL CONFORM TO THE CITY OF BISMARCK'S SPECIFICATIONS FOR MUNICIPAL IMPROVEMENTS FOR A WOOD CELLULOSE FIBER MULCH.
  - L7 ALL PORTIONS OF THE SITE TO RECEIVE LANDSCAPING IMPROVEMENTS ARE TO BE BACKFILLED WITH A MINIMUM OF 6" OF CLEAN FRIABLE ORGANIC TOPSOIL. TOPSOIL HAS BEEN STOCKPILED ON SITE AND IS READY FOR SPREADING. NO DEBRIS LARGER THAN 2" IN ANY DIRECTION SHALL BE USED.

**PLANT PALETTE**

SYM.	COMMON NAME	SCIENTIFIC NAME	SIZE	QNTY.
AM	AMUR MAPLE	<i>Acer ginnala</i>	1 1/2" Cal.	5
EL	DISCOVERY ELM	<i>Ulmus davidiana</i> var. <i>Japonica 'Discovery'</i>	2" Cal.	5
HL	HONEY LOCUST	<i>Gleditsia triacanthos</i>	2" Cal.	7
SC	SIENNA GLEN MAPLE	<i>Acer Freemanii 'Sienna'</i>	2" Cal.	11
SM	SILVER MAPLE	<i>Acer saccharinum</i>	2" Cal.	14
DK	DWARF KOREAN LILAC	<i>Syringa meyeri</i>	2 Gallon	40
EU	DWARF BURNING BUSH	<i>Euonymus alata 'Compactus'</i>	2 Gallon	11
KF	KARL FOERSTER GRASS	<i>Calamagrostis acutiflora</i>	1 Gallon	21



- BENCH MARKS NGVD 1929**
- TOP OF HYDRANT #904  
CAPITOL AVE AND 19TH ST  
ELEVATION 1798.18
  - TOP OF HYDRANT #903  
ALLISON DR. AND CAPITOL AVE  
ELEVATION 1818.32
  - TOP OF HYDRANT #821  
19TH ST AND ALLISON DR.  
ELEVATION 1808.19
  - TOP OF HYDRANT #1234  
CAPITOL AVE BETWEEN 19TH ST & ALLISON DR.  
ELEVATION 1808.89

- LEGEND**
- S-S- SANITARY SEWER
  - ST-ST- STORM SEWER
  - W-W- WATERMAIN
  - CONCRETE
  - ASPHALT
  - UNDERGROUND GAS
  - UNDERGROUND ELECTRIC
  - UNDERGROUND TELEPHONE
  - \* STREET LIGHT
  - ↓ SIGN
  - ⊕ HYDRANT
  - - - FENCE

**APPROVED BY PLANNING**  
[Signature]  
PLANNING 06-15-11  
DATE

**APPROVED BY FORESTRY**  
[Signature]  
6-16-11  
DATE

**SWENSON, HAGEN & CO.**  
PROFESSIONAL ENGINEER  
5345  
NORTH DAKOTA

THIS DOCUMENT WAS ORIGINALLY SEALED BY JASON R. PETRYSHYN, PE, ON [Signature] AND THE ORIGINAL DOCUMENT IS STORED AT THE OFFICE OF SWENSON, HAGEN & CO. P.C.

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**UTILITY NOTE**  
The locations of existing underground utilities are shown in an approximate way only and have not been independently verified by the owner or its representative. The contractor shall determine the exact location of all existing utilities before commencing work, and agree 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.

**SCALE - 1"=30'**  
JUNE 8, 2011

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

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