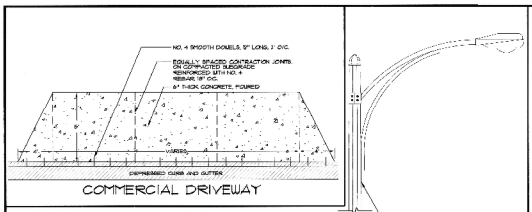
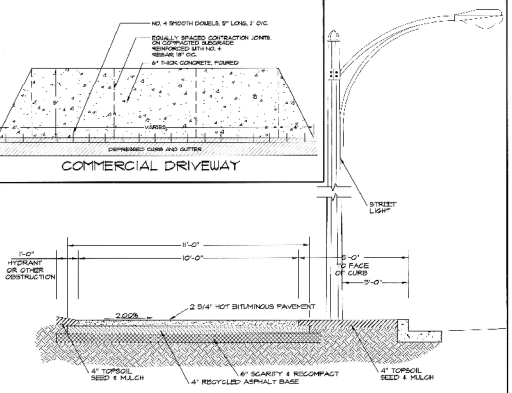
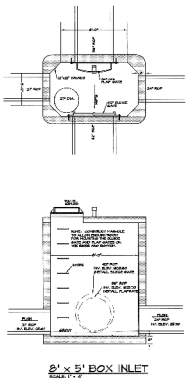


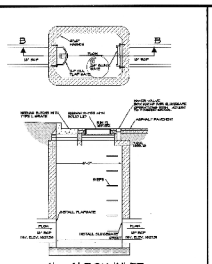
COMMERCIAL DRIVEWAY

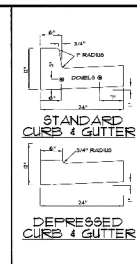


BIKE PATH ALONG
40TH AVENUE SE
SCALE: 1" = 2'



8' x 5' BOX INLET
SCALE: 1" = 2'





DEPRESSED CURB & GUTTER

CONSTRUCTION NOTES FOR ALL OR MOST SHEETS

1. GRADE, SHAPE AND COMPACT SUBGRADE FOR CURB & GUTTER AND STREET CONSTRUCTION.

2. SUBGRADE WATERING SHALL ONLY BE PERFORMED IF DEEMED NECESSARY BY THE ENGINEER.

3. THE CONTRACTOR SHALL STRIP AND STOCKPILE ALL VEGETATION AND TOPSOIL WITHIN THE RIGHT OF WAY OF 40TH AVENUE SE AND 19TH STREET SE. THE AREA ON THE WEST SIDE OF 40TH AVENUE SE AS REQUIRED TO MATCH BACK INTO THE EXISTING GROUND AND THE BORROW PIT LOCATION. A STOCKPILE LOCATION WILL BE LOCATED IN THE FIELD AT THE TIME OF CONSTRUCTION. THE RIGHT OF WAY AND ADJACENT SLOPES SHALL HAVE 4" OF TOPSOIL RESPREAD ON IT AT THE COMPLETION OF THE PROJECT.

4. THE CONTRACTOR SHALL BUILD UP 40TH AVENUE SE AND 19TH STREET SE TO THE PROPOSED GRADES AS SHOWN ON THE PROFILES AND AS PROVIDED BY THE ENGINEER. A BORROW PIT WILL BE PROVIDED ON THE WEST SIDE OF 40TH AVENUE SE. THE BORROW PIT SHALL BE EXCAVATED AS STAKED IN THE FIELD, WITH 4:1 SIDE SLOPES AND IN A NEAT AND ORDERLY MANNER. EXCESS SOILS EXCAVATED FROM PORTIONS OF THE RIGHT OF WAYS DURING THE GRADING STAGE SHALL BE EVENLY SPREAD IN THE RIGHT OF WAY, BEHIND THE FUTURE CURB & GUTTER OR USED TO BRING THE STREET UP TO GRADE. THE BOULEVARD SHALL BE GRADED AS REQUIRED BY THE DETAILS AND TO CONSTRUCT THE DRIVEWAYS, BIKE TRAIL, TOPSOIL, ETC.

5. CONSTRUCT CONCRETE ITEMS PER DETAILS. AFTER THE CURB AND GUTTER HAS GAINED SUFFICIENT STRENGTH, SOILS SHALL BE BACKFILLED AND COMPACTED AGAINST THE CURB AS SOON AS POSSIBLE. CONSTRUCT 1/2" EXPANSION JOINTS ON THE ENDS OF ALL CURBS WITH RADII LESS THAN 25' AND ON EACH SIDE OF ALL INLETS. ALL WORK INCLUDING BACKFILLING SHALL BE CONSIDERED INCIDENTAL TO THE "CURB & GUTTER" BID ITEM.

6. THE CONTRACTOR SHALL PROTECT AND PRESERVE ALL SURVEY MONUMENTS AND CONSTRUCTION STAKES. MONUMENTS AND CONSTRUCTION STAKES DAMAGED BY THE CONTRACTOR SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE BY A REGISTERED SURVEYOR. MONUMENTS ARE LOCATED ON THE RIGHT OF WAY CURVATURE POINTS AND BLOCK CORNERS.

7. CURB DROPS FOR DRIVEWAYS, HANDICAP RAMPS AND THE BIKE TRAIL MAY BE CONSTRUCTED DURING CONSTRUCTION OF THE CONCRETE CURB & GUTTER. THE EXACT LOCATION OF CURB DROPS FOR DRIVEWAYS IS NOT CURRENTLY KNOWN AND WILL BE DETERMINED AT THE TIME OF CONSTRUCTION. DROP CURB SHALL BE CONSIDERED STANDARD CURB & GUTTER FOR MEASUREMENT AND PAYMENT.

8. CONSTRUCT STORM SEWER WHERE INDICATED. STORM SEWER PIPE SHALL BE REINFORCED CONCRETE PIPE. ALL RCP JOINTS SHALL HAVE FITMER A P4 OR CX 4 (CRETEX STANDARD) JOINT. BACKFILL SHALL BE CLASS A.

9. CONSTRUCT STORM SEWER MANHOLES AND INLETS TO THE FINAL GRADE. ALL MANHOLES SHALL BE 4' DIAMETER UNLESS OTHERWISE NOTED. ALL MANHOLES SHALL HAVE A NEENAH R3030 CASTING WITH A TYPE 1 GRATE. 2' X 3' INLETS AND 2' X 6' INLETS SHALL BE A GRATED SINGLE INLET (2' X 3' INSIDE DIMENSION) OR IN THE DOUBLE INLET (2' X 6' INSIDE DIMENSION) RESPECTIVELY. USE NEENAH R3295 OR MCDANIEL R3295-2 WITH TYPE 1 GRATE.

10. ADJUST ALL CASTINGS OF MANHOLES AND INLETS TO TRUE FINAL GRADE. ALL CHIMNEY SEALS ON ROUND MANHOLES (SANITARY AND STORM) SHALL BE SEALED USING AN EXTERIOR SEAL (CRETEX EXTERIOR CHIMNEY SEAL OR ENGINEER APPROVED EQUAL). RECTANGULAR INLETS SHALL BE SEALED BY CONSTRUCTING A FULL CIRCUMFERENCE CONCRETE GROUT BED FOR THE RINGS. CONCRETE GROUTING OF RECTANGULAR INLETS SHALL BE WATER AND SILT INFILTRATION RESISTANT. DO NOT BACKFILL THE SKILLED RINGS OF EITHER RECTANGULAR OR ROUND INLETS UNTIL ENGINEERING INSPECTION HAS OCCURRED.

12. STORM SEWER INLETS WILL BE INSTALLED ADJACENT TO EXISTING WATER AND SEWERMAINS. SUPPORT, PROTECT AND PRESERVE ALL EXISTING WATER AND SEWERMAINS.

13. ALL PAVING, INCLUDING THE BIKE TRAIL SHALL BE CLASS 5Y.

14. THE CONTRACTOR SHALL PROVIDE ALL SIGNAGE AND TRAFFIC CONTROL AS NECESSARY TO CONSTRUCT THE IMPROVEMENTS. THE CONTRACTOR SHALL PROVIDE ACCESS FOR BUSINESSES ALONG 40TH AVENUE SE AT ALL TIMES. SAID WORK SHALL BE CONSIDERED INCIDENTAL TO OTHER BID ITEMS.

15. TOPSOIL, SEED AND MULCH ALL OF THE DISTURBED AREAS WITHIN THE RIGHT OF WAY OF 40TH AVENUE SE, 19TH STREET SE, SHOAL LOOP AND 21ST STREET SE ALONG WITH SIDE SLOPES CREATED UNDER THIS PROJECT.

16. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION OF ALL WORK WITH UTILITY COMPANIES FOR RELOCATION, PROTECTION, ADJUSTMENTS, ETC. OF ANY UTILITY LINES.

17. CROSS SECTIONS ARE PROVIDED TO GIVE THE CONTRACTOR AN IDEA ON THE AMOUNT OF MATERIAL REQUIRED FROM THE BORROW SITE AND THE AMOUNT OF MATERIAL THAT IS IN THE EXISTING STREETS FOR GRADING. MOVING EXCESS MATERIAL FROM ONE LOCATION IN THE RIGHT OF WAY TO ANOTHER IN ORDER TO GRADE THE RIGHT OF WAY WILL BE PAID FOR UNDER THE LUMP SUM PRICE FOR "GRADING". IN AREAS WHERE THERE IS NOT ENOUGH MATERIAL THE CONTRACTOR SHALL BRING IN MATERIAL FROM THE BORROW SITE AND COMPACT IT AS REQUIRED TO BRING THE RIGHT OF WAY UP TO GRADE. THIS MATERIAL SHALL BE PAID FOR AT THE UNIT PRICE BID FOR "BORROW EXCAVATION". THE CONTRACTOR WILL NOT NEED TO PURCHASE THE BORROW MATERIAL FROM THE PROPERTY OWNER.

18. CONSTRUCT THE BIKE TRAIL AS SHOWN ON THE PLANS AND IN THE DETAILS. ALL SIGNS ALONG THE BIKE TRAIL SHALL BE SALVAGED AND RESET AFTER THE NEW TRAIL IS COMPLETE. SIGNS THAT ARE REMOVED AND SALVAGED BY THE WATER/SEWER CONTRACTOR ON 40TH AVENUE SE AND 19TH STREET SE SHALL BE RESET BY THIS CONTRACTOR.

19. LOCATIONS OF STREET SIGNS ARE SHOWN ON THE INDIVIDUAL PLAN SHEETS.

20. AT CROSSINGS WITH THE ABANDONED 12" SANITARY SEWER FORCEMAIN ON THE EAST SIDE OF 40TH AVENUE SE THE CONTRACTOR SHALL CUT AND PLUG BOTH ENDS OF THE LINE AS REQUIRED TO MAKE THE CROSSINGS. SAID WORK SHALL BE CONSIDERED INCIDENTAL TO THE UNIT PRICE BID FOR THE SIZE OF THE STORM SEWER REQUIRING THE CROSSING.

21. IN AREAS ON 40TH AVENUE SE AND 19TH STREET SE WHERE THE STREETS DO NOT REQUIRE FILL TO BRING THEM UP TO FINISHED GRADE THE CONTRACTOR SHALL SCARIFY THE SUBGRADE TO A DEPTH OF 8 INCHES AND RECOMPACT. THIS WILL ALSO APPLY TO THE BIKE PATH AS SHOWN ON THE DETAIL. SAID WORK SHALL BE PAID FOR AS "SUBGRADE PREPARATION".

22. THERE ARE A NUMBER OF OTHER CONTRACTORS WORKING IN THIS AREA AT THE SAME TIME AS THE CONSTRUCTION OF THIS PROJECT. ALL CONTRACTORS ARE REQUIRED TO COORDINATE WORK AND SCHEDULES AND NOT HINDER ANOTHER'S PROGRESS.

23. SIGNS THAT ARE REMOVED AND SALVAGED MAY BE REUSED IF THEY MEET THE SIZE AND GRADE AS LISTED IN THE PLANS AND SPECIFICATIONS.

24. THE CONTRACTOR SHALL VERIFY THE ELEVATION OF THE GROUND WATER AT THE TIME OF CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY AND ALL DEWATERING OR SOIL STABILIZATION (OTHER THAN USING SUBCUT GRAVEL) OF THE CONSTRUCTION SITE AS REQUIRED TO INSTALL THE PROPOSED UTILITIES. WATER MAY BE DISCHARGED INTO THE EXISTING STORM SEWER AT THE INTERSECTION OF 19TH STREET SE AND ALONG SHOAL SL ON THE POND ON THE EAST SIDE OF 40TH AVENUE SE BETWEEN 21ST STREET SE AND SHOAL LOOP.

SIGNAGE NOTES (ALL SHEETS)

1. SIGNS—ALL SIGNS SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION 754 OF THE NDDOT STANDARD SPECIFICATION FOR ROAD AND BRIDGE CONSTRUCTION AND NDDOT STANDARD DETAILS. SIGNS SHALL BE ENGINEERING GRADE. SIGNS SHALL USE 2" HIGHER LETTERING (CAPITALIZED) ON 8" HIGH SIGNS.

2. POSTS AND HARDWARE: ALL POSTS AND HARDWARE SHALL CONFORM WITH SECTION 754.05 OF THE NDDOT STANDARD SPECIFICATION FOR ROAD AND BRIDGE CONSTRUCTION AND NDDOT STANDARD DETAILS. POSTS SHALL USE 2" TELESPAR SQUARE PERFORATED TUBE. THE BASE POST SHALL BE 2 1/4" SQUARE PERFORATED TUBE WITH LARGE SPADE. THE BASE PIECE SHALL BE INSERTED INTO THE GROUND THREE FEET. POSTS FOR STREET NAMES SHALL BE 8 1/2" HIGH IN HEIGHT. POSTS FOR STOP SIGNS SHALL BE 10' N HEIGHT.

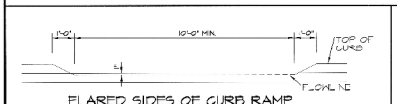
3. PLACE SIGNS WHERE SHOWN 3 FEET BEHIND THE BACK OF THE CURB.

4. LOCATE AND PRESERVE ALL UTILITIES INCLUDING STREET LIGHT WIRES.

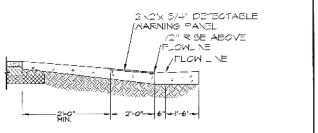
5. THE CITY WILL PROVIDE FOR STAKING OF STREET SIGNS.

6. THE CONTRACTOR WILL BE RESPONSIBLE FOR LOCATING UTILITIES AND MAKING ALL MINOR ADJUSTMENTS TO AVOID DAMAGING ANY UTILITIES.

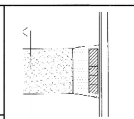
7. TEMPORARY SIGNAGE SUCH AS BARRICADES SHALL BE CONSIDERED INCIDENTAL TO OTHER BID ITEMS.



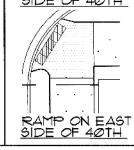
FLARED SIDES OF CURB RAMP



HANDICAP RAMP DETAIL



RAMP ON WEST SIDE OF 40TH



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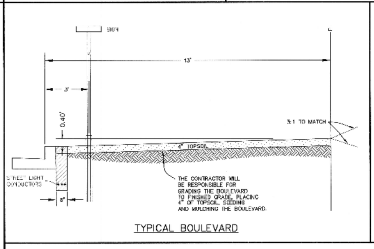
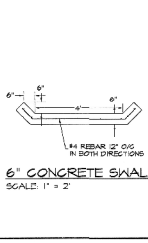
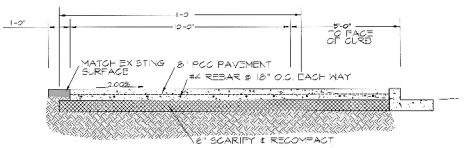


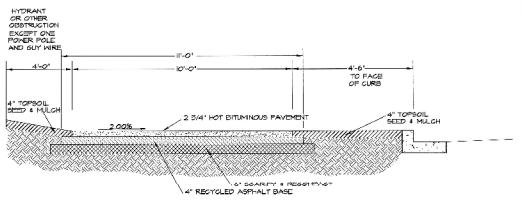
TYPICAL BOULEVARD



6" CONCRETE SWALE
SCALE: 1" = 2'



BIKE PATH ALONG
40TH AVENUE SE & 19TH STREET SE
AT DRIVEWAY LOCATIONS
SCALE: NOT TO SCALE



BIKE PATH ALONG
19TH STREET SE
SCALE: 1" = 2'

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DETAILS

STREET IMPROVEMENT DISTRICT NO. 133
SHEET C13 OF 19 PROJECT 2005-16
MANDAN, ND JULY 22, 2005

GREGORY J. FERAN — REGISTERED PROFESSIONAL ENGINEER AND LAND SURVEYOR — NORTH DAKOTA

Record Drawing

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