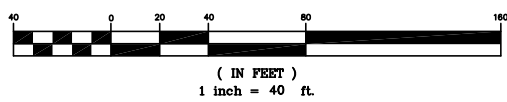
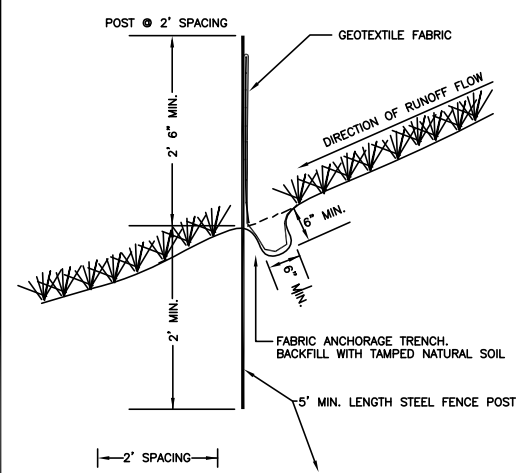




GRAPHIC SCALE



TYPICAL SILT FENCE DETAIL



- \* CONTRACTOR SHALL INSPECT SILT FENCE AREAS ON A WEEKLY BASIS AND WITHIN 24 HOURS OF EACH 1/4" RAIN EVENT FOR ANY DAMAGE TO FILLING OF THE SILT FENCE. ANY REPAIRS OF MAINTENANCE OF THE SILT FENCE SHALL BE ACCOMPLISHED WITHIN 24 HOURS OF THE RAIN FALL AS DIRECTED BY THE ENGINEER.
- \* THE CONTRACTOR SHALL REMOVE SILT FENCE DURING THE SODDING PHASE OF CONSTRUCTION WHEN THE THREAT OF EROSION NO LONGER EXISTS, OR AS DIRECTED BY THE ENGINEER.

GRADING NOTES:

- 1.) ALL EROSION CONTROL MEASURES SHALL MEET AND/OR EXCEED THE MnPCA NPDES PERMIT AND THE CITY OF RED WING, STORM WATER MANAGEMENT REQUIREMENTS.
- 2.) SILT FENCE, CONSTRUCTION ENTRANCE, PONDING BASINS, PERIMETER DRAINAGE SWALES ARE TO BE CONSTRUCTED FIRST.
- 3.) ALL GRADING SHALL BE CONDUCTED IN A MANNER TO MINIMIZE THE POTENTIAL FOR SITE EROSION.
- 4.) SPREAD 4" TOPSOIL SEED AND MULCH OVER THE ENTIRE SITE EXCEPT PONDS, AND PHASE ONE STREET AND UTILITY AREAS.
- 5.) CITY OF RED WING INSPECTOR MAY BE PRESENT DURING SOIL TESTING, TEST ROLLING IS REQUIRED.
- 6.) A TEMPORARY STAGING STOCKPILE, AND BORROW SHALL BE MAINTAINED AND CONTROLLED.
- 7.) ALL BUILDING PAD AREAS SHALL BE INSPECTED AND APPROVED BEFORE FILL PLACEMENT.
- 8.) RETAINING WALLS MUST BE DESIGNED BY AN ENGINEER AND APPROVED BY THE CITY ENGINEER PRIOR TO CONSTRUCTION.

EROSION CONTROL NOTES:

- 1.) PLACE EROSION CONTROL PROTECTION AT ALL STORM SEWER INLETS AND WHERE DIRECTED BY THE ENGINEER.
- 2.) PLACE SILT FENCE WHERE SHOWN ON PLANS AND AS DIRECTED BY THE ENGINEER.
- 3.) SEED, FERTILIZE AND MULCH ALL DISTURBED AREAS EXCEPT ROADWAYS.
  - A.) TEMPORARY SEED MIXTURE SHALL BE WHEAT, RYE, OATS OR REGREEN AT 100 LBS/ACRE.
  - B.) PERMANENT SEED MIXTURE SHALL BE #500 AT 100 LBS/ACRE.
  - C.) MULCH SHALL BE MnDOT TYPE 1 MULCH AT 2 TONS/ACRE.
  - C.) FERTILIZER SHALL BE 25-5-10 AT 200 LBS/ACRE.
- 4.) MPCA STORM WATER PERMIT IS REQUIRED FOR THIS PROJECT.
- 5.) EROSION CONTROL IS TO BE PROVIDED IN ACCORDANCE WITH THE PROJECT'S STORM WATER POLLUTION PREVENTION PLAN (SWPPP)
- 6.) SILT FENCE, CONSTRUCTION ENTRANCE, PONDING, DRAINAGE SWALES ARE TO BE CONSTRUCTED FIRST.
- 7.) ADDITIONAL EROSION CONTROL MEASURES SHALL BE REQUIRED IN AREAS, IF AN EROSION PATTERN OCCURS.
- 8.) APPLY WATER AS NEEDED AND AS DIRECTED BY THE ENGINEER TO CONTROL DUST.
- 9.) ALL AREAS DISTURBED DURING CONSTRUCTION SHALL BE RESTORED AS SOON AS POSSIBLE. AREAS THAT HAVE BEEN DISTURBED OR ARE AT FINISHED GRADE, BUT HAVE NO ACTIVE GRADING, SHALL BE SEED AND MULCHED WITHIN 14 DAYS, EXCEPT ON SLOPES STEEPER THAN 4H:1V. SLOPES 3H:1V OR STEEPER SHALL BE SEED AND COVERED WITH AN EROSION CONTROL BLANKET OR SEED AND MULCHED WITH A TACKIFYING AGENT (GLUE IMPREGNATED PAPER MULCH SHALL NOT BE USED).

**WARNING**  
 BEFORE DIGGING CALL GOPHER  
 STATE ONE CALL FOR LOCATIONS.  
 651-454-0002  
 REQUIRED BY LAW

INFILTRATION BASIN DESIGN  
 BASIN PERMITTER B612 CURB AND GUTTER  
 PERMITTER CURB SHALL HAVE 1" CURB OPENING (SLOPING 2% TO BASIN)  
 EVERY 9' O.C. WITH 1" TRANSITIONS FROM TOP OF CURB TO GUTTER  
 OUTLET CONTROL 817.8, BEEHIVE GRATE CB#7  
 EMERGENCY OVERFLOW ELEV. 818.0  
 6:1 SLOPES  
 BOTTOM ELEV. 814.0  
 BASIN STORAGE AREAS  
 ELEV. 818 4,630 SQ. FT.  
 ELEV. 817 2,960 SQ. FT.  
 ELEV. 816 1,660 SQ. FT.  
 ELEV. 815 730 SQ. FT.  
 ELEV. 814 140 SQ. FT.

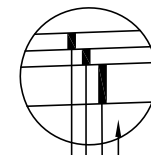
SITE GRADING SUMMARY  
 TOTAL DISTURBED AREA = 3.7 ACRES  
 WOODED AREA DISTURBED APPROX. 2.0 ACRES  
 ESTIMATED COMMON EXCAVATION 20,000 CU. YDS.  
 ESTIMATED SUBGRADE CORRECTION AND TOPSOIL  
 REMOVAL IN FILL AREAS 5,000 CU. YDS.  
 EARTHWORK ESTIMATED TO BALANCE ONSITE

UTILITY NOTE:

- 1.) ALL STORM SEWER SHALL BE 15" HP-ADS PVC PIPE.

SIDEWALK NOTE:

- 1.) CONSTRUCT ADA ACCESSIBLE PED. RAMPS AS PER CITY OF RED WING, STD. PLATE

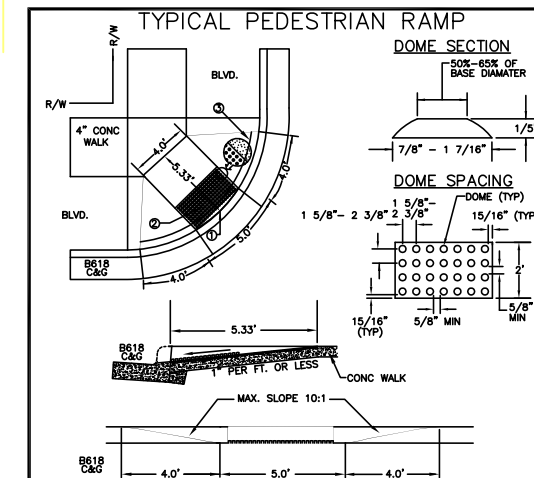


OG = OUTPUT GUTTER FLOW

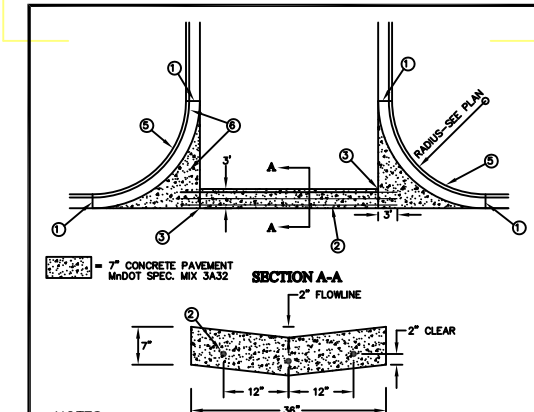
- COMPACTED SUBGRADE
- CONST. 8" CL.5 AGG. BASE
- CONST. 1.5" TYPE LVNW BASE COURSE  
LVNW35035B (2360)
- CONST. 1.5" TYPE LV WEAR COURSE  
LVNW35035W (2360)

Paving Section

- CONSTRUCT B612 CONC. CURB AND GUTTER
- SIDEWALKS SHALL BE 4' WIDE - 4" THICK REINFORCED CONCRETE
- GARAGE APRONS SHALL BE 6' WIDE - 7" THICK REINFORCED CONCRETE.
- SIDEWALK ADJACENT PAVEMENT AREA SHALL HAVE 8" THICK EDGE



- \*RAMP DESIGN SUBJECT TO MODIFICATIONS BY THE ENGINEER.
- \*RAMP TO BE CENTERED IN THE RADIUS OR AS DIRECTED BY THE ENGINEER.
- ① 6" TO 8" IS THE REQUIRED OFFSET OF THE TRUNCATED DOME AREA FROM THE FACE OF CURB OR PLACE THE DETECTABLE WARNING AT THE BACK OF CURB.
- ② ADA REQUIRED TRUNCATED DOME AREA SHALL BE 2' MIN. IN DIRECTION OF TRAVEL AND SHALL EXTEND THE FULL WIDTH (4' TYP.) OF THE CURB RAMP. THIS 2' BY 4' TRUNCATED DOME AREA SHALL CONTRAST VISUALLY WITH THE ADJACENT WALKING SURFACE. THE ENTIRE TRUNCATED DOME AREA SHALL BE A LIGHT (GRAY OR BUFF TYPICALLY) COLOR WHEN THE ADJACENT SIDEWALK IS A DARK COLOR, THE ENTIRE TRUNCATED DOME AREA SHALL BE A DARK (RED OR GRAY TYPICALLY) COLOR WHEN THE ADJACENT SIDEWALK IS A "WHITE" OR LIGHT GRAY CEMENT COLOR.
- ③ CONCRETE SILL SHALL BE CONSTRUCTED ON BACK OF CURBS THROUGHOUT PED RAMP AREA. SEE SILL DETAIL, MISC. NOTES, & SPECIAL PROVISIONS FOR MEASUREMENTS AND METHOD OF PAYMENT.



- NOTES:
- ① PROVIDE 1/2" EXP. JT.
  - ② CONSTRUCT 3-#5 EPOXY COATED REINFORCING BARS (GR. 60), OVERLAP 24" AT SPLICES.
  - ③ PROVIDE CONTRACTION JOINTS ACROSS VALLEY GUTTER AT 10' MAX. SPACING.
  4. ADDITIONAL CONTRACTION JOINTING IN THE WING SECTIONS OF VALLEY GUTTER SHALL BE FIELD DETERMINED BY THE ENGINEER.
  - ⑤ CURB AND GUTTER RADIUS SHALL BE CONSTRUCTED INTEGRALLY WITH VALLEY GUTTER.
  - ⑥ FLOWLINE TRANSITIONS FROM CURB AND GUTTER THROUGH VALLEY GUTTER SHALL BE FIELD DETERMINED BY THE ENGINEER.
  7. CURB CUTS SHALL BE PLACED IN RADII AS DIRECTED BY THE ENGINEER TO FACILITATE PEDESTRIAN RAMP CONSTRUCTION. (SEE PLATE NO. 3-08 AND PLATE NO. 3-02)
  8. CONCRETE TO BE CONSTRUCTED ON A PROPERLY COMPACTED BASE.

|                           |                        |                   |
|---------------------------|------------------------|-------------------|
| DATE REVISION<br>03/01/08 | CONCRETE VALLEY GUTTER | PLATE NO.<br>3-07 |
|---------------------------|------------------------|-------------------|

**G-Cubed Inc.**  
 Engineering  
 Surveying  
 Planning

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 West Saint Paul, MN 55118  
 ph. 651.288.9474 fax 651.455.4948

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA

*Mark R. Welch*  
 Mark R. Welch  
 DATE 9/12/2016 REG. NO. 42736

| DESIGNED | BY | DATE | LATEST REVISION:                                                          |
|----------|----|------|---------------------------------------------------------------------------|
| DJT      |    |      | 9-12-2016                                                                 |
| DRAWN    |    |      | Prepared For:<br>Andy Baartman<br>321 Potter Street<br>Red Wing, MN 55066 |
| CHECKED  |    |      | FILE NO.: 03212-CP baartman                                               |

CITY OF REDWING  
 GOODHUE COUNTY, MINNESOTA  
 2016 CONSTRUCTION

GRADING, DRAINAGE AND  
 EROSION CONTROL PLAN

Rivers Ridge Apartments

BENCHMARK: T.N.H. EAST SIDE OF THE INTERSECTION OF BURNSIDE AVE. AND STATE STREET, ELEV: 749.12  
 SHEET 1 OF 1 SHEETS