

**PROJECT LOCATION**

PART OF NW 1/4 OF SE 1/4,  
SECTION 5, TOWNSHIP 118, RANGE 21,  
HENNEPIN COUNTY, MINNESOTA.

**LEGAL DESCRIPTION (PARTIAL)**

PART OF LOT 9, AUDITOR'S  
SUBDIVISION NUMBER 226,  
HENNEPIN COUNTY, MINNESOTA.

AND

PART OF LOT 10, AUDITOR'S  
SUBDIVISION NUMBER 226,  
HENNEPIN COUNTY, MINNESOTA

**DEVELOPMENT DATA**

**PERFORMANCE STANDARDS:**

- Building Setbacks:
- Front 30'
  - Side 10'
  - 30' from side street
  - Rear 10'

Surface Parking Setback: 5'

**PROPOSED PARKING (INCL 6 HC STALLS):**

- Existing stalls to remain: 95 Stalls  
New stalls: 82 Stalls  
Total stalls: 177 Stalls

**PARCEL 5702 WEST BROADWAY:**

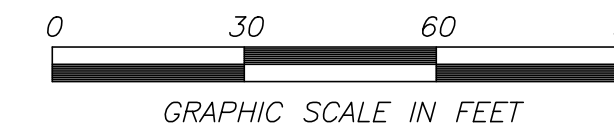
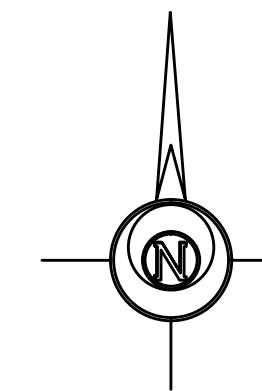
- Existing Zoning: C-2 General Commercial  
Proposed Zoning: C-2 General Commercial  
Gross Lot Area: 46,744 sf (1.07 acres)  
Elevated Building: 12,000 sf per floor (approx.)  
24,000 sf total (approx.)

**PARCEL 5708 WEST BROADWAY:**

- Existing Zoning: R-1 Low Density Residential  
Proposed Zoning: C-2 General Commercial  
Gross Lot Area: 38,736 sf (0.89 acres)

**SITE LEGEND:**

- Existing Property Line
- Existing Adjacent Property Line
- ST — ST — Existing Storm Sewer
- Proposed Paint Stripe
- ➔ Proposed Traffic Direction Arrow
- Proposed Fence
- Proposed B612 Curb Line
- Proposed Storm Sewer



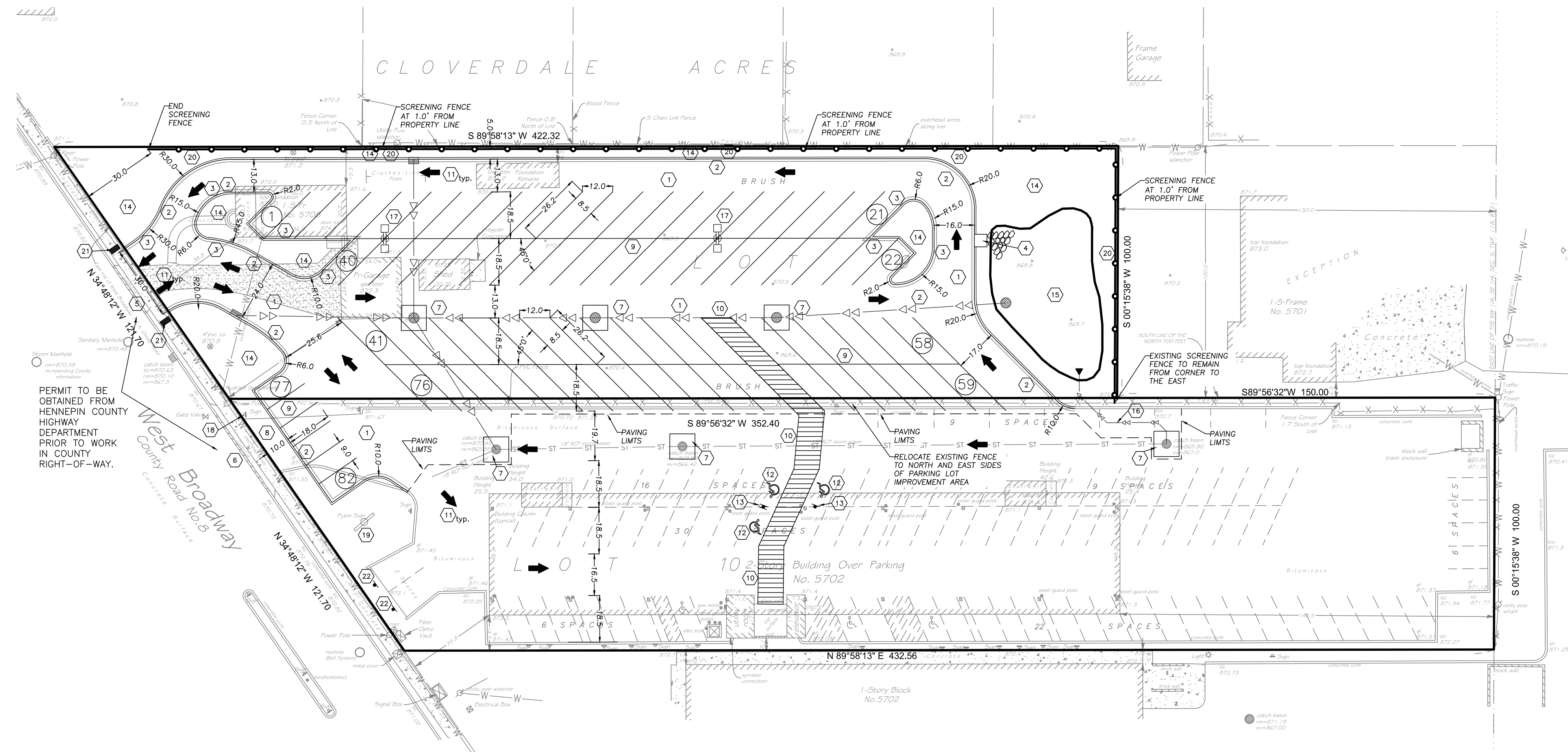
Survey Data By: Lot Surveys Company  
7601 73rd Avenue North  
Minneapolis, MN 55428  
763-560-3093

Benchmark: Top nut of hydrant at  
SW corner of property lines for  
5708 West Broadway  
Elevation = 873.77 feet

**OWNER:**  
HERZING  
UNIVERSITY  
5700 W. Broadway  
Crystal, MN 55428

John Slama  
Ph. 763-535-3000

**Parking Lot  
Improvement Project**  
5702 and 5708 West Broadway  
Crystal, Minnesota  
**SITE PLAN**



**KEY NOTES**

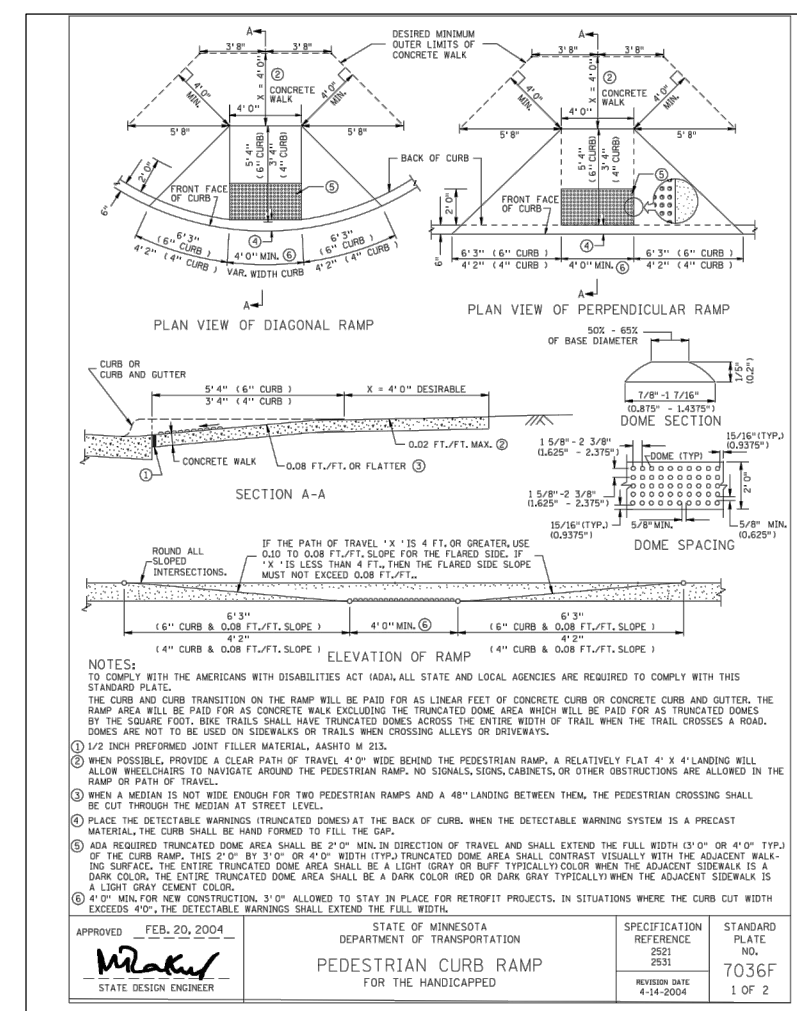
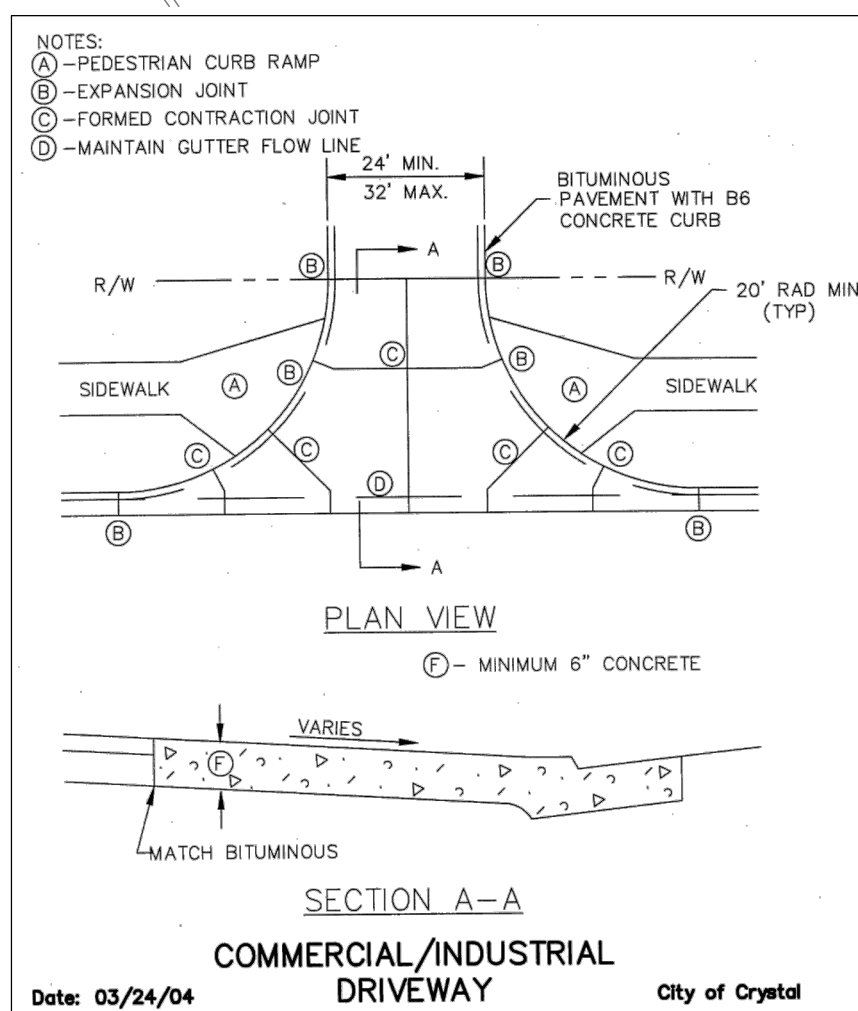
- 1 BITUMINOUS PAVEMENT AS SPECIFIED BELOW:  
(PARKING LOT ONLY) ASPHALT PAVING SECTION MNDOT SPECIFICATIONS  
LIGHT DUTY  
BIT. WEAR COURSE 1 1/2" SPWEB240B, MNDOT 2360  
BIT. BASE COURSE 1 1/2" SPWN230B, MNDOT 2360  
AGGREGATE BASE (CL 5) 7 2211
- 2 COMPACTED DENSITY BETWEEN 95% AND 100% OF THE MARSHALL DENSITY. 100% FOR AGGREGATE BASE.  
SOIL ENGINEER RECOMMENDATIONS SUPERSEDE ABOVE LISTED SPECS.
- 3 B612 (6") CONCRETE CURB & GUTTER. SEE DETAIL ON SHEET C400.
- 4 TIP-OUT FLOWLINE OF CURB.
- 5 CURB SPILLWAY OPENING AND RAIN GUARDIAN STRUCTURE FOR DRAINAGE TO RAINGARDEN.
- 6 REMOVE EXISTING CONCRETE DRIVEWAY APRON AND REPLACE WITH NEW CONCRETE DRIVEWAY APRON PER CITY SPECIFICATIONS. REMOVE AND REPLACE SIDEWALK AS NECESSARY. PATCH BITUMINOUS AS NECESSARY. SEE DRIVEWAY DETAIL THIS SHEET.
- 7 REMOVE EXISTING CONCRETE DRIVEWAY APRON AND REPLACE WITH CONCRETE CURB TO MATCH EXISTING CURB ON WEST BROADWAY. REMOVE AND REPLACE SIDEWALK AS NECESSARY. PATCH BITUMINOUS AS NECESSARY.
- 8 CONCRETE COLLAR AROUND CASTING; 10'x10' CENTERED AROUND CASTING, 6" CONCRETE PAVEMENT REINFORCED WITH W/6"x6"-#10/10 W.W.M. OVER 4" CLASS 5 BASE. OWNER OPTION AT TIME OF CONSTRUCTION.
- 9 EXISTING CURBING AND/OR PAVEMENT TO BE REMOVED.
- 10 PARKING STALL STRIPING; PAINT 4" WIDE SOLID STRIPES - WHITE LATEX PAINT.
- 11 WALKWAY AND CROSSWALK STRIPING; PAINT 12" WIDE SOLID STRIPES - WHITE LATEX PAINT.
- 12 TRAFFIC ARROWS - WHITE LATEX PAINT.
- 13 PAINT INTERNATIONAL SYMBOL OF ACCESSIBILITY - WHITE LATEX PAINT.
- 14 ACCESSIBLE PARKING SIGN (MNDOT #'S R7-8A AND R7-8B). CENTER SIGN ON PARKING STALL. LOCATION PER GENERAL CONTRACTOR. MOUNT ON BOLLARD POST.
- 15 GREEN AREA. SEE LANDSCAPE PLAN.
- 16 STORM WATER MANAGEMENT RAIN GARDEN AREA WITH OUTLET STRUCTURE.
- 17 EMERGENCY OVERFLOW OUTLET PIPE FROM EXISTING STORM SEWER STRUCTURE. SEE UTILITY PLAN.
- 18 PARKING LOT LIGHT - SEE LIGHTING PLAN
- 19 RELOCATE EXISTING STOP SIGN TO NEW ENTRANCE
- 20 EXISTING PYLON SIGN REMAIN
- 21 SCREENING FENCE. MATERIALS AND HEIGHT TO MATCH EXISTING SCREENING FENCE.
- 22 RECONSTRUCT SIDEWALK WITH HANDICAP ADA DETECTABLE WARNING TRUNCATED DOME SURFACE. SEE MNDOT STANDARD PLATE 7036F.
- 23 INSTALL SIGN "NO PARKING - EMERGENCY VEHICLES ONLY". CENTER SIGN ON PARKING STALL LOCATION PER GENERAL CONTRACTOR. MOUNT ON T-POST OR CHANNEL POST.

**SITE PLAN NOTES**

1. ALL DIMENSIONS SHOWN ARE TO TOP FACE OF CURB, EDGE OF SIDEWALK OR EXTERIOR OF BUILDING UNLESS OTHERWISE NOTED. SIDEWALK DIMENSIONS ARE TO BACK OF CURB.
2. ALL EXISTING BUILDINGS, SITE IMPROVEMENTS, AND TREES ARE TO BE REMOVED FROM THE 5708 WEST BROADWAY PARCEL UNLESS NOTED TO REMAIN.
3. PERMIT TO BE OBTAINED FROM HENNEPIN COUNTY HIGHWAY DEPARTMENT PRIOR TO WORK IN COUNTY RIGHT-OF-WAY.

**INDEX OF SITE DRAWINGS**

- C1 SITE PLAN
- C2 GRADING, DRAINAGE, AND EROSION CONTROL PLAN
- C3 UTILITY PLAN
- C4 DETAILS
- EP LIGHTING PLAN
- L1 LANDSCAPE PLAN



I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.  
 Date: 01/27/12 Reg. No. 24,348  
 PREPARED BY: **QUALITY SITE DESIGN, LLC**  
 Civil Engineering - Land Development  
 3600 Holly Lane N., Suite 100  
 Plymouth, Mn 55447  
 Phone (763) 550-9056

REVISIONS	DATE	DRAWN BY	DESIGNED BY	CHECKED BY
01/27/12	Revisions per WMR and City approvals	SD	SD	SD

FILE NO. 00392

C1

Site Plan

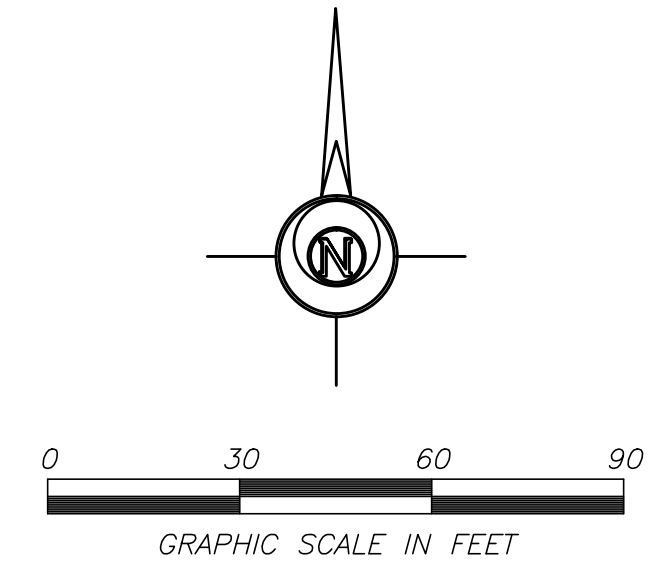
**PROJECT LOCATION**  
 PART OF NW ¼ OF SE ¼,  
 SECTION 5, TOWNSHIP 118, RANGE 21,  
 HENNEPIN COUNTY, MINNESOTA.

**LEGAL DESCRIPTION (PARTIAL)**  
 PART OF LOT 9, AUDITOR'S  
 SUBDIVISION NUMBER 226,  
 HENNEPIN COUNTY, MINNESOTA.

AND  
 PART OF LOT 10, AUDITOR'S  
 SUBDIVISION NUMBER 226,  
 HENNEPIN COUNTY, MINNESOTA

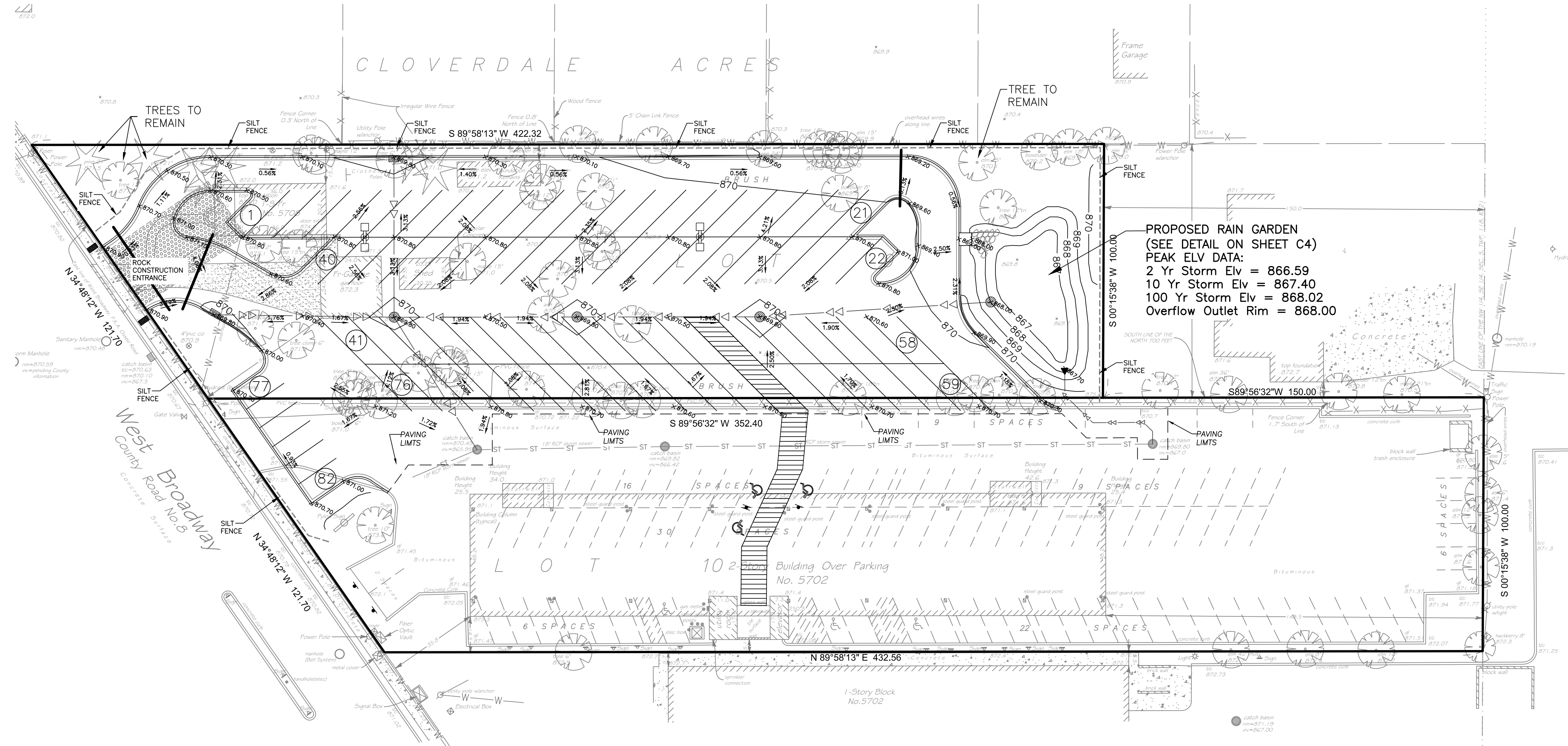
**SITE LEGEND:**

- Existing Property Line
- - - Existing Adjacent Property Line
- ST - ST - Existing Storm Sewer
- Proposed Paint Stripe
- ➔ Proposed Traffic Direction Arrow
- Proposed Fence
- Proposed B612 Curb Line
- Proposed Storm Sewer



Survey Data By: Lot Surveys Company  
 7601 73rd Avenue North  
 Minneapolis, MN 55428  
 763-560-3093

Benchmark: Top nut of hydrant at  
 SW corner of property lines for  
 5708 West Broadway  
 Elevation = 873.77 feet



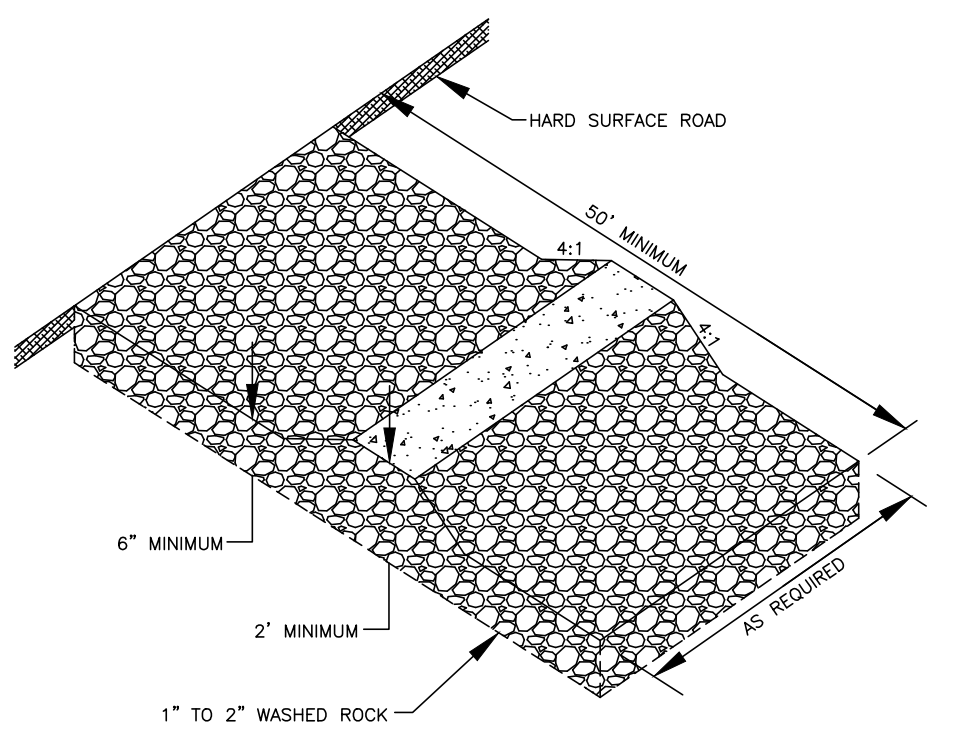
**PROPOSED RAIN GARDEN**  
 (SEE DETAIL ON SHEET C4)  
 PEAK ELV DATA:  
 2 Yr Storm Elv = 866.59  
 10 Yr Storm Elv = 867.40  
 100 Yr Storm Elv = 868.02  
 Overflow Outlet Rim = 868.00

**GENERAL GRADING NOTES:**

- Specifications applicable for this project: Current standard specifications for the City of Crystal, the latest Minnesota Department of Transportation Specifications for Highway Construction; and all NPDES requirements except where modified by these documents.
- OSHA requirements shall be followed for all work on this project.
- The Contractor shall notify "Gopher State One Call" 48 hours prior to any excavation (1-800-252-1166.)
- The Grading Contractor shall verify all locations and elevations of underground utilities with utility companies prior to any construction, and immediately notify the Engineer of any conflicts.
- Final Plat shall govern for easements and lot dimensions.
- Any erosion control items necessary to protect adjacent properties shall be constructed prior to the start of excavation or grading work.
- Erosion control maintenance shall be performed by the Grading Contractor, and removed as per the Contract Documents or as directed by the Owner, followed by all necessary restoration of disturbed area.
- Certification of all controlled fills within building pads or within hard surface areas shall be completed by a qualified soils engineer. Density tests shall meet the following:  
 Within the upper 3' of building pads or hard surface areas, the Grading Contractor shall utilize approved soils that are within 1% of the optimum moisture content as defined by the Standard Proctor Test-ASTM: D-698 with compaction meeting 100% Standard Proctor Density and not exceeding this compaction by more than 1%. Below the upper 3', compaction shall meet 95% Standard Proctor Density, and be within 3% of the optimum moisture content.
- The Grading contractor shall provide positive drainage on the site at all times. Grading tolerances shall be 0.10' for hard surface areas. Grading tolerances for the remainder of the site shall be 0.25'.
- The Grading Contractor shall keep public streets, parking lots, and travel ways clear of soil and debris. Daily cleaning at the construction entrance shall be performed, especially at the end of each day's work.
- All trees are to be removed except if noted to remain.
- Contractor to sequence work such that access to existing parking and building is maintained at all times.

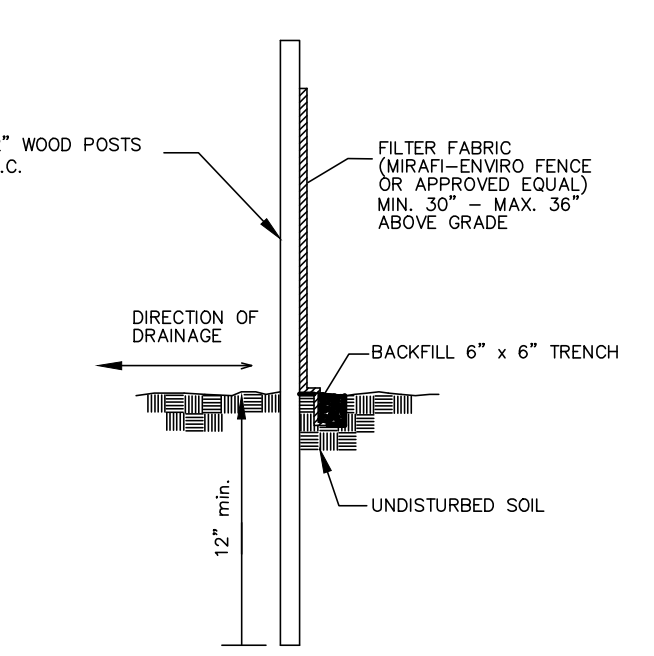
**EROSION CONTROL NOTES:**

- All devices necessary to control erosion and sediment (i.e. perimeter silt fence, rock construction entrances, swales, ponds, berms, etc.) shall be installed prior to any other construction operations.
- After completion of rough grading, exposed soils must be stabilized with temporary seed and mulch within 14 days.
- After completion of final grading, exposed soils must be permanently stabilized within 14 days. Stabilization shall consist of disc-anchored seed & mulch or sod.
- The site must be kept in a well drained condition at all times. The contractor shall be responsible for temporary ditches, or other means necessary to ensure proper drainage. Low points in roadways must be provided with a positive outflow. This work shall be incidental to the grading contract.
- Entering/exiting of the site shall occur only at rock construction entrances to reduce tracking of dirt onto paved streets. Sediment tracked onto streets during working hours must be reclaimed via street scraping and sweeping at the end of each working day.
- Provide a temporary vegetative cover consisting of suitable, fast-growing, dense grass-seed mix spread at 1.5 times the usual rate per acre. If temporary cover is to remain in place beyond the present growing season, two-thirds of the seed mix shall be composed of perennial grasses.
- A permanent vegetation cover consisting of sod, a suitable grass-seed mixture, or combination thereof should be specified. Seeded areas shall be either mulched or covered by fibrous blankets to protect seeds and limit erosion.



**ROCK CONSTRUCTION ENTRANCE DETAIL**

**NOTES:**  
 ROCK SIZE SHOULD BE 1" TO 2" IN SIZE SUCH AS MN/DOT CA-1 OR CA-2 COURSE AGGREGATE. (WASHED)  
 A GEOTEXTILE FABRIC MAY BE USED UNDER THE ROCK TO PREVENT MIGRATION OF THE UNDERLYING SOIL INTO THE STONE.



**SILT FENCE DETAIL**

**SILT FENCE NOTES:**  
 1. SILT FENCE SHALL BE ORANGE IN COLOR.  
 2. DIG A 6"X6" TRENCH ALONG THE INTENDED FENCE LINE, OR MACHINE SLICE TO 6" DEPTH.  
 3. DRIVE ALL POSTS INTO THE GROUND AT THE DOWNHILL SIDE OF THE TRENCH.  
 4. LAY OUT SILT FENCE ON THE UPHILL SIDE ALONG THE FENCE LINE, AND BACK FILL.  
 5. WOOD POSTS MAY BE SPACED UP TO 4 FEET APART TO SUPPORT THE FABRIC.  
 6. REMOVE SILT FENCE AFTER TURF IS ESTABLISHED.

**INDEX OF SITE DRAWINGS**

- C1 SITE PLAN
- C2 GRADING, DRAINAGE, AND EROSION CONTROL PLAN
- C3 UTILITY PLAN
- C4 DETAILS
- EP LIGHTING PLAN
- L1 LANDSCAPE PLAN

**OWNER:**  
 HERZING  
 UNIVERSITY  
 5700 W. Broadway  
 Crystal, MN 55428

John Slama  
 Ph. 763-535-3000

**Parking Lot  
 Improvement Project**

5702 and 5708 West Broadway  
 Crystal, Minnesota

**GRADING, DRAINAGE,  
 AND  
 EROSION CONTROL PLAN**

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.

Date: 01/27/12 Reg. No. 24348

PREPARED BY:  
**QUALITY SITE DESIGN, LLC**  
 Civil Engineering - Land Development  
 3600 Holly Lane N., Suite 100  
 Plymouth, Mn 55447  
 Phone (763) 550-9056

**REVISIONS**

DATE	DESCRIPTION	BY	CHECKED BY
01/27/12	Revisions per WMR and City approvals		

**VERTICAL SCALE**  
 1 inch = 10 feet

**HORIZONTAL SCALE**  
 1 inch = 30 feet  
 (FULL SIZE SHEET 22 X 30)

DATE 11/17/11

DRAWN BY SD

DESIGNED BY SD

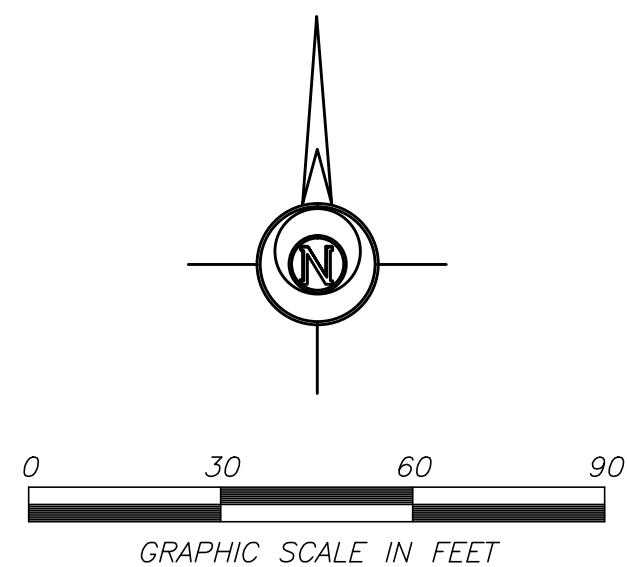
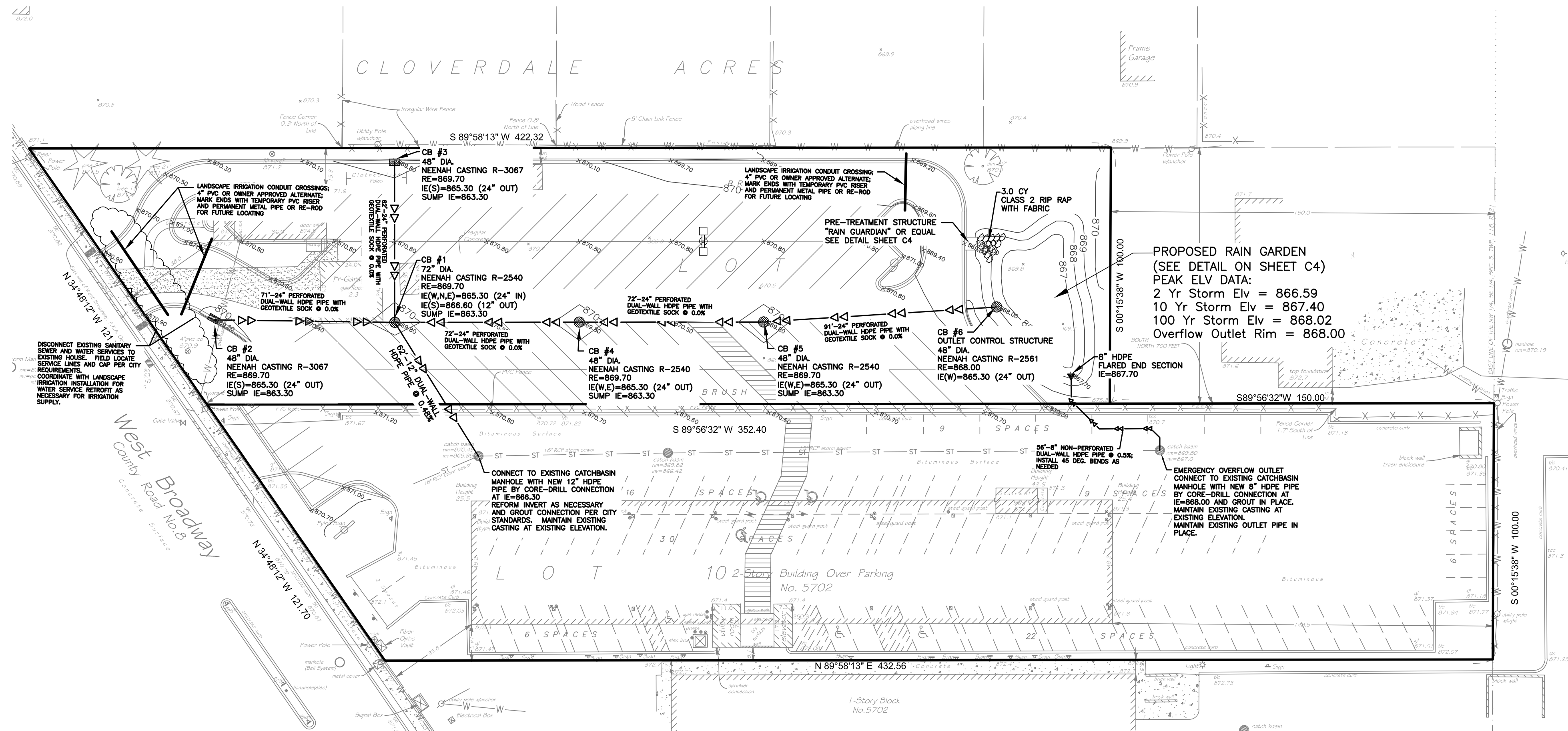
CHECKED BY SD

FILE NO. 00392

**C2**  
 Grading Plan

**PROJECT LOCATION**  
 PART OF NW 1/4 OF SE 1/4,  
 SECTION 5, TOWNSHIP 118, RANGE 21,  
 HENNEPIN COUNTY, MINNESOTA.

**LEGAL DESCRIPTION (PARTIAL)**  
 PART OF LOT 9, AUDITOR'S  
 SUBDIVISION NUMBER 226,  
 HENNEPIN COUNTY, MINNESOTA.  
 AND  
 PART OF LOT 10, AUDITOR'S  
 SUBDIVISION NUMBER 226,  
 HENNEPIN COUNTY, MINNESOTA.



Survey Data By: Lot Surveys Company  
 7601 73rd Avenue North  
 Minneapolis, MN 55428  
 763-560-3093

Benchmark: Top nut of hydrant at  
 SW corner of property lines for  
 5708 West Broadway  
 Elevation = 873.77 feet

**SITE LEGEND:**

- Existing Property Line
- Existing Adjacent Property Line
- ST — ST — Existing Storm Sewer
- Proposed Paint Stripe
- ➔ Proposed Traffic Direction Arrow
- Proposed Fence
- Proposed B612 Curb Line
- Proposed Storm Sewer

**GENERAL UTILITY NOTES:**

1. Specifications applicable for this project: Current standard specifications for the City of Crystal, MN and all Minnesota Department of Health and MPCA requirements except where modified by these contract documents.
2. OSHA requirements shall be followed for all work on this project.
3. The Contractor shall notify "Gopher State One Call" 48 hours prior to any excavation (651-454-0002 or 1-800-252-1166 out state.)
4. The Contractor shall verify all locations and elevations of underground utilities with utility companies prior to any construction (storm sewer, sanitary sewer, water, natural gas, telephone, electric, etc.), and immediately notify the Engineer of any conflicts.
5. The Contractor shall protect all existing utilities and facilities to allow proper functioning during and after construction. Any required supporting structures shall be supplied by the Contractor as work incidental to the contract.
6. The contractor shall immediately notify the Engineer of any conflicts between existing utilities, and the proposed construction. The Engineer will coordinate with the Utility Company in question to determine the need for relocation of the existing utility.
7. Existing conditions such as sand in manholes or valve boxes shall be identified by the Contractor and these shall be reported to the Engineer prior to excavation by the Contractor. Once construction has begun, all damage to underground utilities will be assumed to have been caused by the Contractor, any repairs necessary shall be performed by the Contractor at the Contractor's expense.
8. Final Plat shall govern for easements.
9. The Contractor shall coordinate with the local jurisdiction to obtain permits and meter for water source. All associated costs shall be incidental to the Contract, including disposal of test water into City's sanitary sewer system. The Contractor shall not operate gate valves or hydrants on the City's water supply system.
10. The Contractor shall notify the City Engineer and the Project Engineer 48 hours prior to starting work or as required by the local jurisdiction or be subject to being shut down.
11. The Contractor shall keep access roads clear of soil or other debris, and perform daily street cleaning. Positive drainage, controlled with erosion control and erosion prevention measures shall be provided as necessary. Inlet protection shall be installed within 48 hours after inlet construction. Unless specified on the plans or as a bid item on the Bid Form, any temporary culverts, ditches, filter fabric, etc. necessary to accomplish this shall be performed as incidental to the Contract.
12. The Contractor shall preserve and protect the markers and monuments set for the subdivision of the land.
13. The Contractor shall schedule the soils engineer to facilitate certification of all controlled fills in a timely fashion. Density tests shall meet the following:  
 A. Density tests shall be taken on all trenches at locations as determined by the Engineer or his representative.  
 B. Within the upper 3' of streets, private drives and parking lots, Contractor shall utilize approved soils that are within 1% optimum moisture content as defined by the Standard Proctor Test—ASTM: D-698 with 100% Standard Proctor Density and not exceeding compaction by more than 1%. Below the upper 3', compaction shall meet 95%. Grading tolerances shall be 0.1'.
14. The General Contractor or Owner shall pay for all testing of soils compaction. Any areas which fail to meet the above standards shall be corrected and re-tested by the testing agent at the Contractor's expense.
15. Storm sewer casting elevations shall be installed at 0.1' below pavement elevation unless noted otherwise.

**OWNER:**  
 HERZING  
 UNIVERSITY  
 5700 W. Broadway  
 Crystal, MN 55428  
 John Slama  
 Ph. 763-535-3000

**Parking Lot  
 Improvement Project**  
 5702 and 5708 West Broadway  
 Crystal, Minnesota  
**UTILITY PLAN**

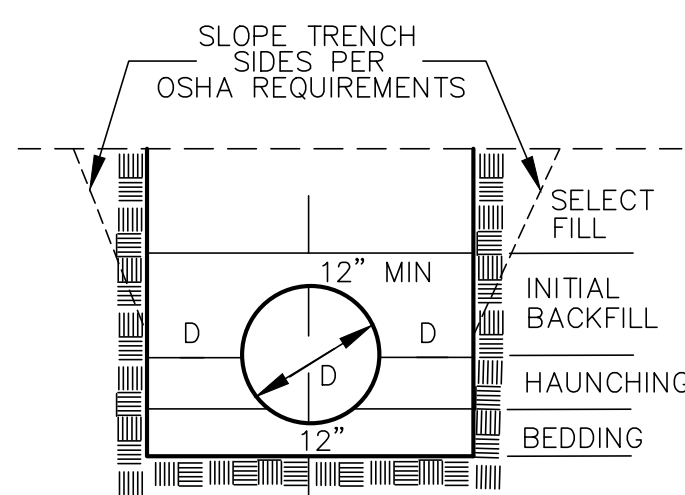
I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.  
 Date: 01/27/12 Reg. No. 24,348  
 PREPARED BY: **QUALITY SITE DESIGN, LLC**  
 Civil Engineering - Land Development  
 3600 Holly Lane N., Suite 100  
 Plymouth, MN 55447  
 Phone (763) 550-9056

REVISIONS	DATE	DESCRIPTION
01/27/12	11/17/11	Revisions per WWER and City approvals
DRAWN BY SD		DESIGNED BY SD
CHECKED BY SD		VERTICAL SCALE 1 inch = 10 feet
		HORIZONTAL SCALE 1 inch = 30 feet (FULL SIZE SHEET 22 x 30)

DATE	11/17/11
DRAWN BY	SD
DESIGNED BY	SD
CHECKED BY	SD

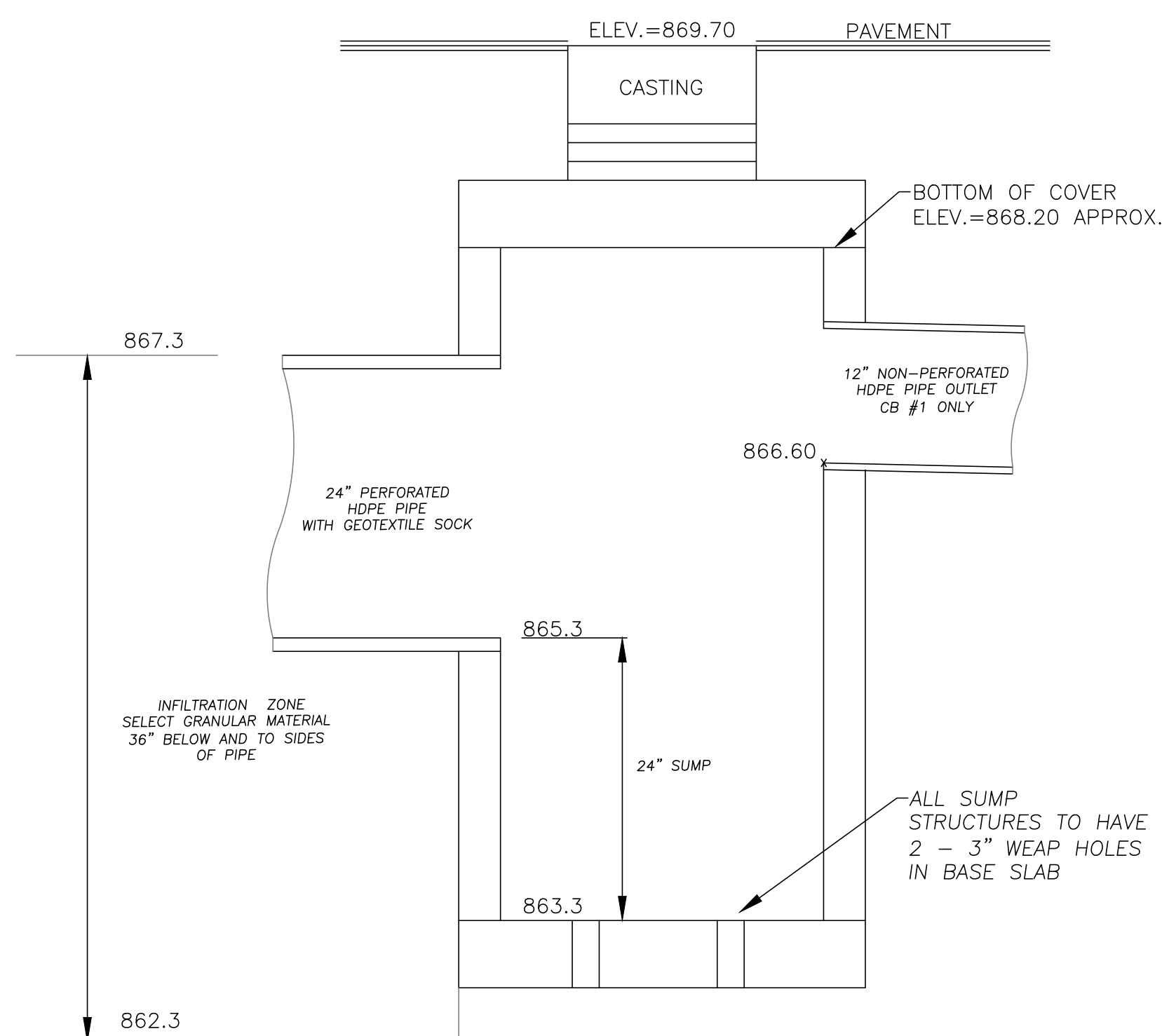
FILE NO. 00392

**C3**  
 Utility Plan



1. BEDDING SHALL BE SELECT GRANULAR BORROW MNDOT SPEC. 3149.2B.
2. COMPACT TO 95% STANDARD PROCTOR.
3. SELECT FILL PLACEMENT SHALL BE FREE OF LARGE ROCKS (3"+) AND SHALL BE PLACED IN 8" MAX. LOOSE LIFTS AND COMPACTED TO 95% STANDARD PROCTOR.

**BEDDING DETAIL**



**STRUCTURE AND INFILTRATION ZONE SECTION VIEW**

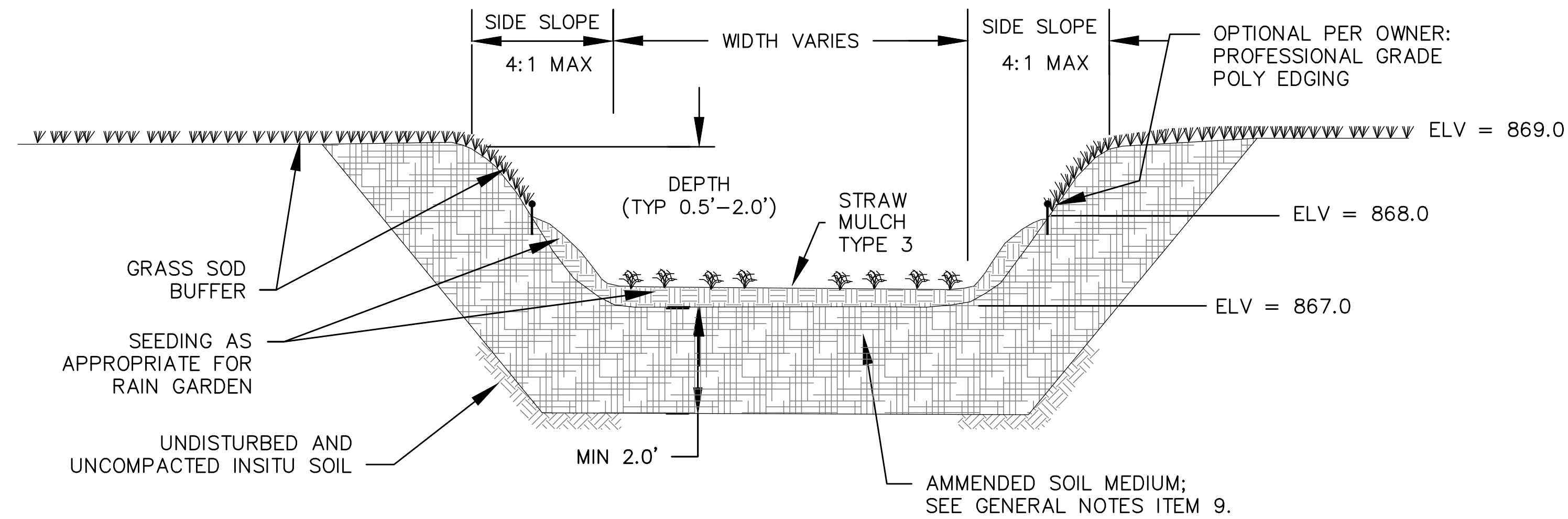
**INDEX OF SITE DRAWINGS**

- C1 SITE PLAN
- C2 GRADING, DRAINAGE, AND EROSION CONTROL PLAN
- C3 UTILITY PLAN
- C4 DETAILS
- EP LIGHTING PLAN
- L1 LANDSCAPE PLAN

**SPECIFIED RAINGARDEN SEED MIX:**

**SHOOTING STAR NATIVE SEEDS**  
 20740 County Road 33 P.O. Box 648 Spring Grove, MN 55974  
 (507) 498-3944 FAX (507) 498-3953  
 www.shootingstarnativeseed.com

Description: Detention Basin & Raingarden Mix  
 Seeding Rate: 10 Lbs/Acre (210 Seeds/Square Foot)



TYPICAL RAIN GARDEN BIO FILTRATION BASIN CROSS-SECTION  
 NOT TO SCALE

**GENERAL NOTES:**

- 1) INSTALL ALL TEMPORARY EROSION CONTROL MEASURES (IN ACCORDANCE WITH MnDOT GENERAL CONDITIONS 2573) PRIOR TO THE START OF ANY CONSTRUCTION OPERATION THAT MAY CAUSE ANY SEDIMENTATION OR SILTATION AT THE SITE.
- 2) INSTALL STORM DRAIN INLET PROTECTION TO PREVENT CLOGGING OF THE STORM SEWER AND SEDIMENT LOADS TO DOWNSTREAM STORM WATER FACILITIES OR WATERBODIES.
- 3) IF THE STORM WATER BMP IS BEING DESIGNED TO SERVE AS A TEMPORARY SEDIMENT BASIN, GRADE THE BMP TO WITHIN 18" ABOVE THE FINAL GRADE TO PROTECT THE UNDERLYING MATERIAL FROM CLOGGING. ONCE CONSTRUCTION IN THE CONTRIBUTING DRAINAGE AREA HAS BEEN COMPLETED AND THE SITE IS STABILIZED, EXCAVATE THE INFILTRATION BASIN TO FINAL GRADE AND COMPLETE CONSTRUCTION OF THE INFILTRATION BASIN.
- 4) GRADING OF THE INFILTRATION BASIN SHALL BE ACCOMPLISHED USING LOW-IMPACT EARTH MOVING EQUIPMENT TO PREVENT COMPACTION OF THE UNDERLYING SOILS. SMALL TRACKED DOZERS AND BOBCATS WITH RUNNER TRACKS ARE RECOMMENDED.
- 5) EXCAVATE THE INFILTRATION BASIN TO THE SPECIFIED DEPTH (ELEVATION). ALL SUB MATERIAL BELOW THE SPECIFIED ELEVATION SHALL BE LEFT UNDISTURBED, UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
- 6) GRADE TO THE DEPTH (ELEVATION) SPECIFIED IN THE CONSTRUCTION DOCUMENTS UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
- 7) IN THE EVENT THAT SEDIMENT IS INTRODUCED INTO THE BMP DURING OR IMMEDIATELY FOLLOWING EXCAVATION, THIS MATERIAL WILL NEED TO BE REMOVED FROM THE INFILTRATION BASIN PRIOR TO INITIATING THE NEXT STEP IN THE INFILTRATION BASIN CONSTRUCTION PROCESS. THIS IS ESPECIALLY IMPORTANT IF THE INFILTRATION BASIN HAS BEEN DESIGNED TO INFILTRATE STORM WATER; SEDIMENT THAT HAS BEEN WASHED INTO THE INFILTRATION BASIN DURING THE EXCAVATION PROCESS CAN SEAL THE PERMEABLE MATERIAL, SIGNIFICANTLY REDUCING THE INFILTRATION CAPACITY OF THE SOILS.
- 8) MATERIAL EXCAVATED FROM THE INFILTRATION BASINS SHALL BE DISPOSED OFF-SITE.
- 9) INFILTRATION BASINS SHALL BE OVER-EXCAVATED TO SPECIFIED DEPTH AND FILLED WITH A WELL BLENDED MIXTURE OF 50%-60% SEMI-COURSE WASHED SAND; 20%-30% TOP SOIL; 20%-30% MnDOT GRADE 2 COMPOST.
- 10) INFILTRATION BASIN TO BE SEEDED WITH SPECIFIED RAINGARDEN SEED MIX OR APPROVED EQUAL. SEEDING SHALL CONFORM TO MnDOT STANDARD SPECIFICATIONS FOR CONSTRUCTION, PLANTING SPECIFICATION 3876, 2005 EDITION.
- 11) PORTIONS OF INFILTRATION BASINS TO BE SEEDED SHALL BE MULCHED WITH CLEAN GRAIN STRAW (MnDOT TYPE 3) AT A RATE OF 2 TONS PER ACRE.
- 12) SEEDING AND INSTALLATION OF EROSION CONTROL BLANKET SHALL BE COMPLETED WITHIN SEVEN (7) DAYS OF FINAL GRADING.

**CONSTRUCTION SEQUENCING**

- 1) CONTRACTOR SHALL PERFORM CONTINUOUS INSPECTIONS OF EROSION CONTROL PRACTICES FROM THE TIME SILT FENCE IS INSTALLED UNTIL FINAL APPROVAL OF THE INFILTRATION BASINS.
- 2) INSTALL SILT FENCE ALONG THE PERIMETER OF THE SITE TO PREVENT SEDIMENT FROM LEAVING THE SITE DURING THE CONSTRUCTION PROCESS.
- 3) ALL DOWNGRADIENT PERIMETER SEDIMENT-CONTROL BMPs MUST BE IN PLACE BEFORE ANY UP GRADIENT LAND-DISTURBING ACTIVITY BEGINS.
- 4) REMOVE TOPSOIL FROM THE SITE AND PLACE IN TEMPORARY STOCKPILE LOCATION. TEMPORARY SEED THE STOCKPILE AND SURROUND WITH SILT FENCE.
- 5) ROUGH GRADE THE SITE. IF THE INFILTRATION BASINS ARE GOING TO BE USED FOR TEMPORARY SEDIMENT CONTROL, GRADE THE INFILTRATION BASINS TO WITHIN 18" ABOVE THE FINAL GRADE TO PROTECT THE UNDERLYING SOILS FROM CLOGGING.
- 6) CONSTRUCT THE ROADS TAKING THE LOCATION AND FUNCTION OF STORM WATER BMPs INTO CONSIDERATION.
- 7) SEED AND MULCH DISTURBED AREAS ON SITE.
- 8) INSTALL UNDERGROUND UTILITIES (WATER, SANITARY SEWER, ELECTRIC AND PHONE) TAKING THE LOCATIONS AND FUNCTION OF STORM WATER BMPs INTO CONSIDERATION.
- 9) PERFORM ALL OTHER SITE IMPROVEMENTS TAKING THE LOCATION AND FUNCTION OF THE STORM WATER BMPs INTO CONSIDERATION.
- 10) FINAL GRADE THE SITE AND FINE GRADE INFILTRATION BASIN. AFTER FINAL GRADING, THE BIORETENTION BASIN FLOOR MUST BE TILLED TO A DEPTH OF AT LEAST SIX (6) INCHES TO PROVIDE A WELL-AERATED, POROUS SURFACE TEXTURE.
- 11) STABILIZE THE SITE BY IMPLEMENTING THE NATIVE SEEDING AND PLANTING PORTION OF THE LANDSCAPING PLAN.
- 12) REMOVE THE SILT FENCE AFTER THE SITE IS STABILIZED PER PROJECT ENGINEER APPROVAL.

OWNER:

**HERZING UNIVERSITY**  
 5700 W. Broadway  
 Crystal, MN 55428

John Slama  
 Ph. 763-535-3000

**Parking Lot Improvement Project**

**5702 and 5708 West Broadway**  
 Crystal, Minnesota

**DETAILS**

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.

Date: 01/27/12 Reg. No. 24,348

PREPARED BY: **QUALITY SITE DESIGN, LLC**  
 Civil Engineering - Land Development  
 8600 Holly Lane N, Suite 900  
 Plymouth, MN 55447  
 Phone (763) 850-9066

VERTICAL SCALE  
 1 inch = feet

HORIZONTAL SCALE  
 1 inch = 30 feet  
 (FULL SIZE SHEET 22 x 30)

REVISIONS  
 01/27/12 Revisions per WWR and City approvals

DATE 11/17/11

DRAWN BY SD

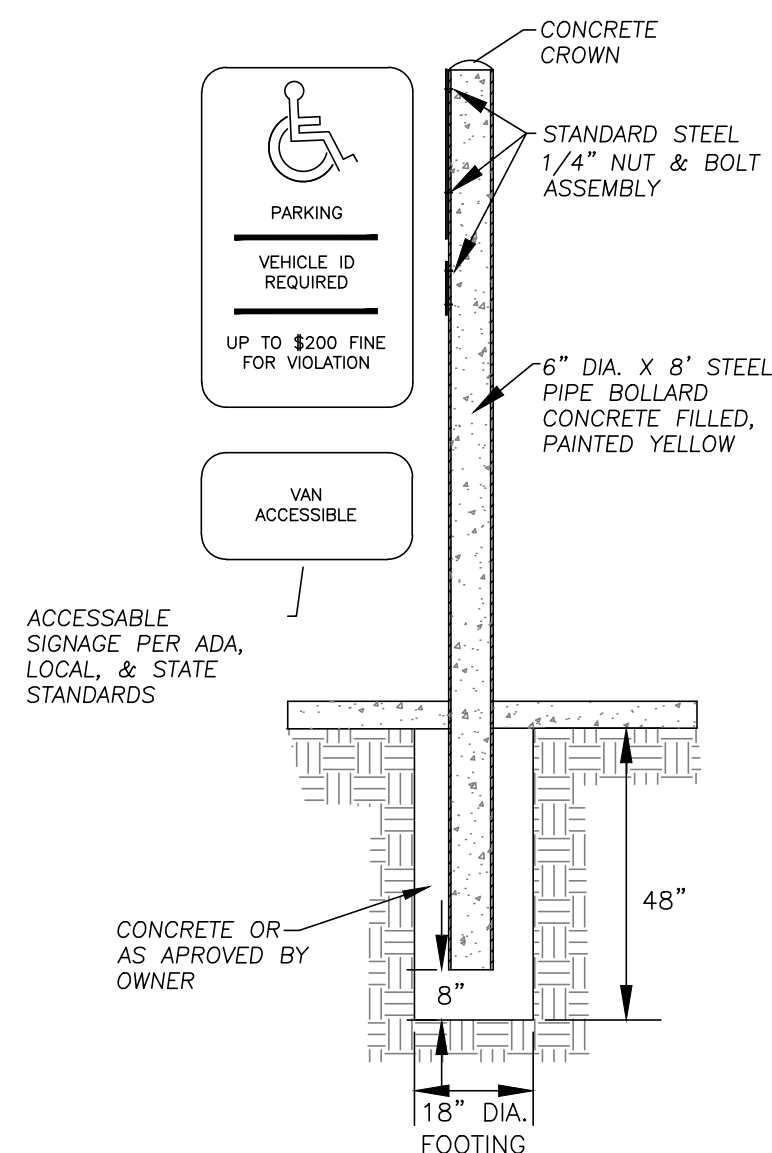
DESIGNED BY SD

CHECKED BY SD

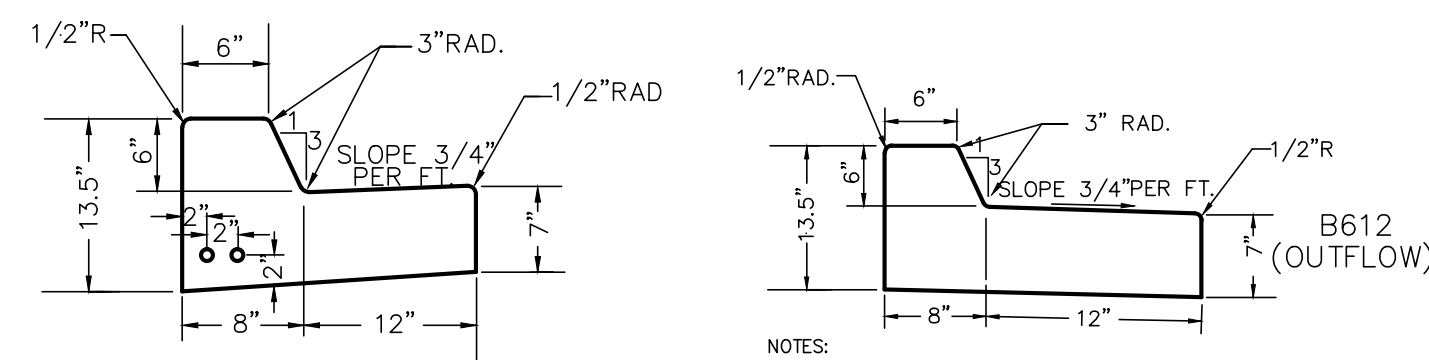
FILE NO. 00392

**C4**

Details



BOLLARD SIGN POST DETAIL

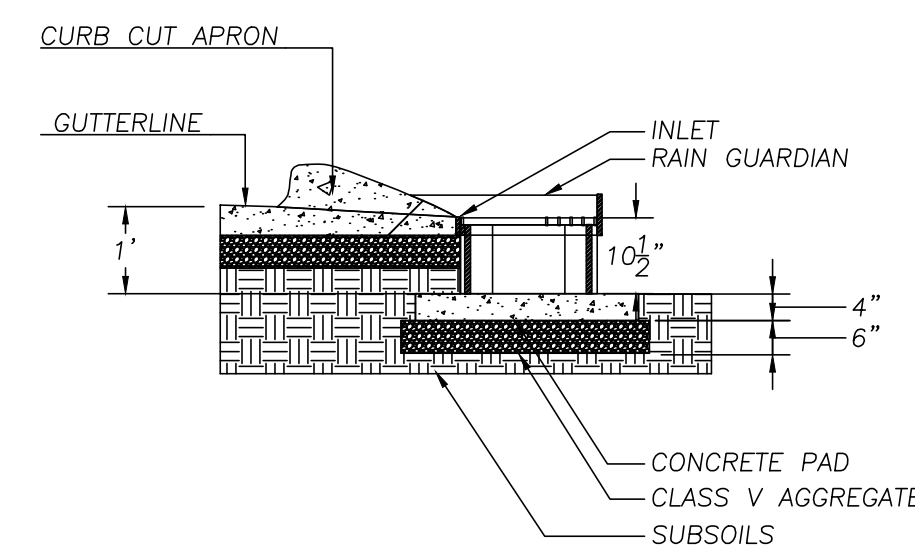


B612 CURB & GUTTER STANDARD

B612 OUTFLOW CURB & GUTTER (TIP-OUT FLOWLINE)

- NOTES:
- 1) CONTROL JOINTS SHALL BE 7' MAXIMUM AND STABBED FRONT AND BACK.
  - 2) AT ALL TRENCHES 2#4 REINFORCING RODS SHALL BE PLACED IN THE LOWER PORTION OF THE CURB 20 FEET IN LENGTH.
  - 3) 2-#4 REINFORCING RODS AT CATCH BASINS NO LESS THEN 10 FEET IN LENGTH.

CONCRETE CURB AND GUTTER DETAILS

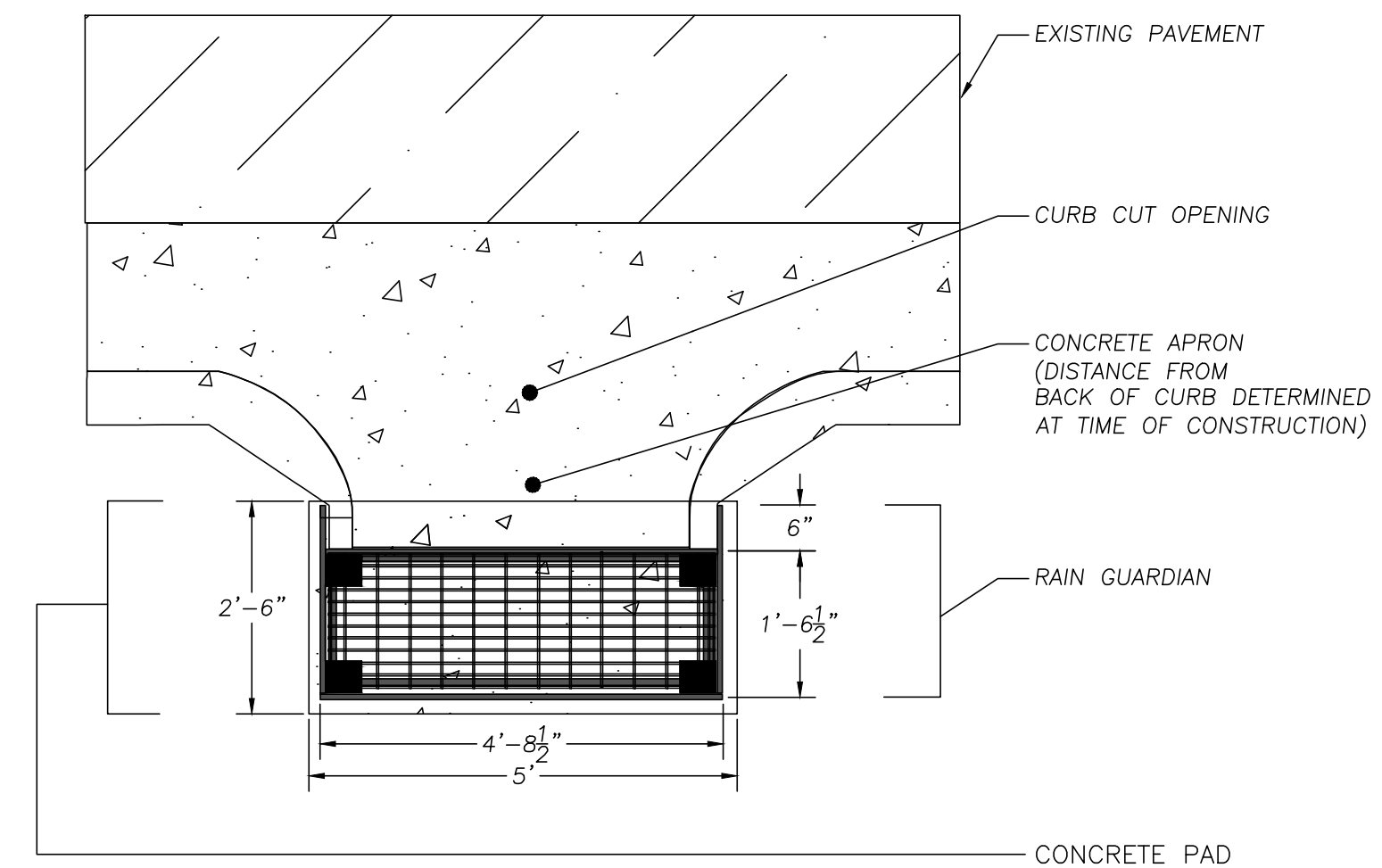


NOTES:

- 1) RAIN GUARDIAN TO BE INSTALLED PER SUPPLIER SPECIFICATIONS.
- 2) RAIN GUARDIAN SUPPLIER:

ANOKA CONSERVATION DISTRICT  
 1318 McKay Drive NE, Suite 300  
 Ham Lake, MN, 55304  
 www.anokacsd.com  
 763-434-2030

RAIN GUARDIAN DETAILS



**PROJECT LOCATION**

PART OF NW 1/4 OF SE 1/4,  
SECTION 5, TOWNSHIP 118, RANGE 21,  
HENNEPIN COUNTY, MINNESOTA.

**LEGAL DESCRIPTION (PARTIAL)**

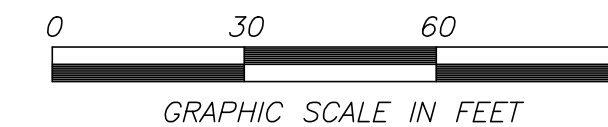
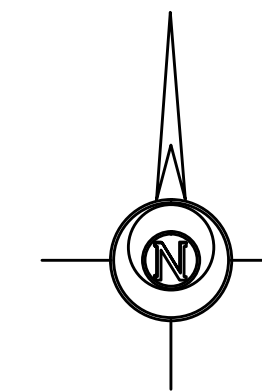
PART OF LOT 9, AUDITOR'S  
SUBDIVISION NUMBER 226,  
HENNEPIN COUNTY, MINNESOTA.

AND

PART OF LOT 10, AUDITOR'S  
SUBDIVISION NUMBER 226,  
HENNEPIN COUNTY, MINNESOTA

**SITE LEGEND:**

- Existing Property Line
- Existing Adjacent Property Line
- ST — ST Existing Storm Sewer
- Proposed Paint Stripe
- ➔ Proposed Traffic Direction Arrow
- Proposed Fence
- Proposed B612 Curb Line
- Proposed Storm Sewer

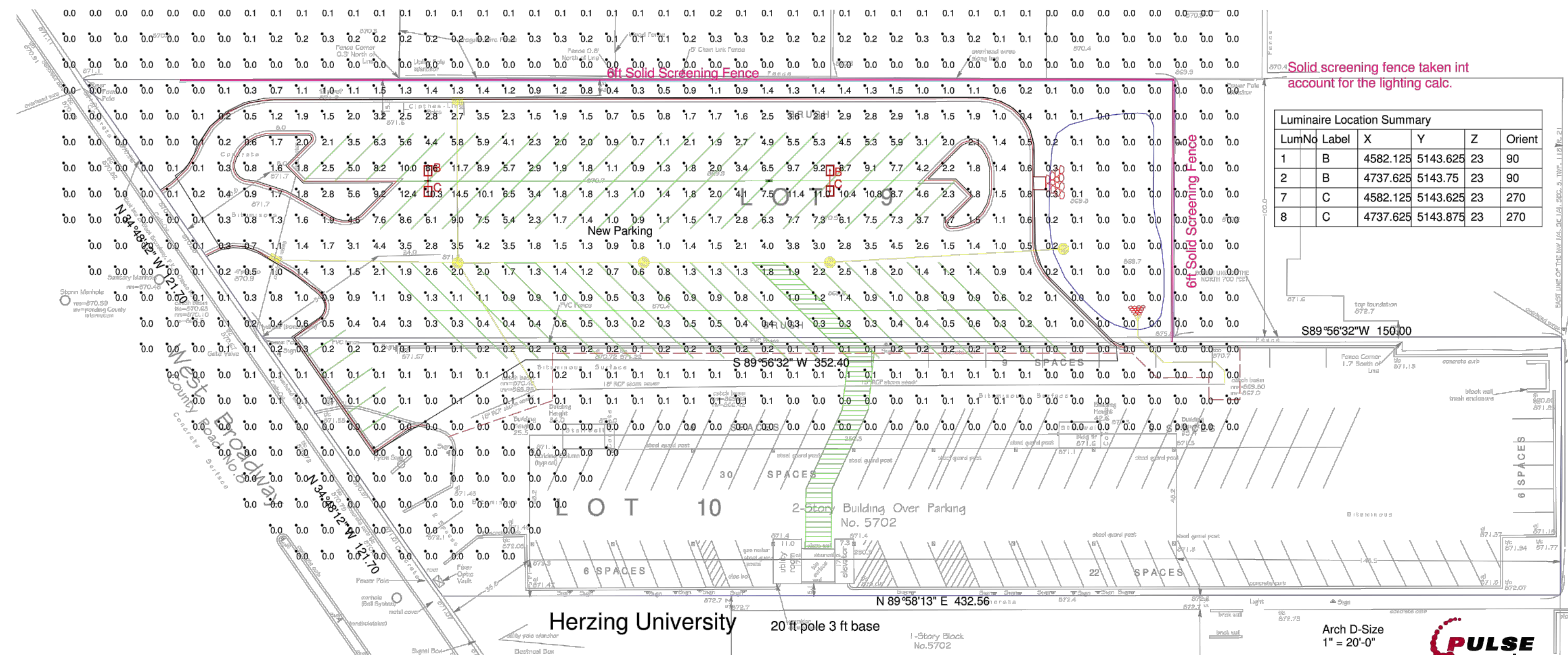


Survey Data By:

Benchmark:

Lot Surveys Company  
7601 73rd Avenue North  
Minneapolis, MN 55428  
763-560-3093

Top nut of hydrant at  
SW corner of property lines for  
5708 West Broadway  
Elevation = 873.77 feet



**Luminaire Location Summary**

LumNo	Label	X	Y	Z	Orient
1	B	4582.125	5143.625	23	90
2	B	4737.625	5143.75	23	90
7	C	4582.125	5143.625	23	270
8	C	4737.625	5143.875	23	270

**Luminaire Schedule**

Symbol	Qty	Label	Arrangement	Total Lamp Lumens	LLF	Description
➔	2	B	SINGLE	40000	0.750	Lumark Tribute MPTR-2S-400 1-400W MH PS Type II single
➔	2	C	SINGLE	40000	0.750	Lumark Tribute MPTR-3S-400 1-400W MH PS Type III single

**Calculation Summary**

Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min	Description
Site	ILLUMINANCE	Fc	0.92	14.5	0.0	N.A.	N.A.	Horiz FC at grade
New Parking	ILLUMINANCE	Fc	2.28	14.5	0.0	N.A.	N.A.	Horiz FC in new parking area

**PULSE**  
new oratory  
1100 Blue Oaks Dr. Minneapolis, MN 55414  
Ph 612-871-0888 Fax 612-871-0888  
www.pulseoratory.com

Contact: Mark Tollefsbol  
Date: Nov. 17, 2011  
Revised: Nov. 22, 2011

**INDEX OF SITE DRAWINGS**

- C1 SITE PLAN
- C2 GRADING, DRAINAGE, AND EROSION CONTROL PLAN
- C3 UTILITY PLAN
- C4 DETAILS
- EP LIGHTING PLAN
- L1 LANDSCAPE PLAN

**OWNER:**  
HERZING  
UNIVERSITY  
5700 W. Broadway  
Crystal, MN 55428

John Slama  
Ph. 763-535-3000

Parking Lot  
Improvement Project

5702 and 5708 West Broadway  
Crystal, Minnesota

LIGHTING PLAN

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.

*Seal*

Date: 12/06/11 Reg. No. 24,348

PREPARED BY:  
**QUALITY SITE DESIGN, LLC**  
Civil Engineering - Land Development  
3600 Holly Lane N., Suite 100  
Plymouth, Mn 55447  
Phone (763) 550-9056

REVISIONS:  
12/06/11 REVISED LIGHT FIXTURE TYPE


VERTICAL SCALE  
1 inch = feet

HORIZONTAL SCALE  
1 inch = 30 feet  
(FULL SIZE SHEET 22 x 30)

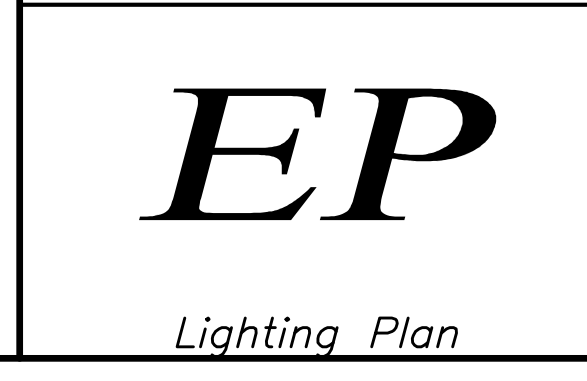
DATE 11/17/11

DRAWN BY SD

DESIGNED BY SD

CHECKED BY SD

FILE NO. 00392



**PROJECT LOCATION**

PART OF NW 1/4 OF SE 1/4,  
SECTION 5, TOWNSHIP 118,  
RANGE 21,  
HENNEPIN COUNTY, MINNESOTA.

**LEGAL DESCRIPTION (PARTIAL)**

PART OF LOT 9, AUDITOR'S  
SUBDIVISION NUMBER 226,  
HENNEPIN COUNTY, MINNESOTA.

AND

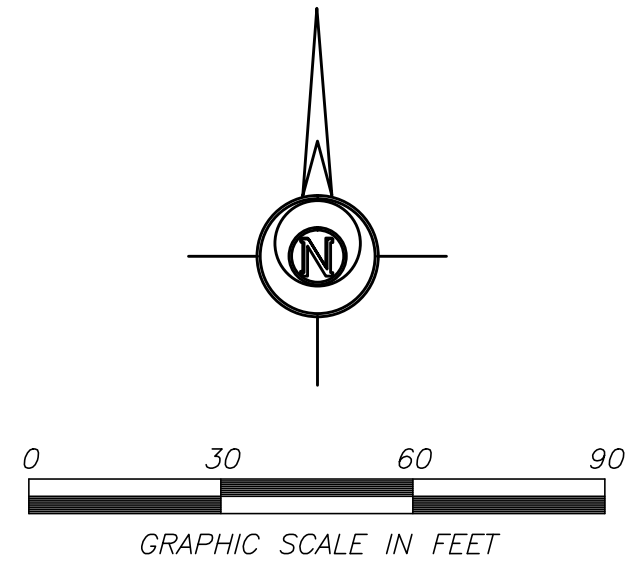
PART OF LOT 10, AUDITOR'S  
SUBDIVISION NUMBER 226,  
HENNEPIN COUNTY, MINNESOTA

**NOTE:**

- 1) LANDSCAPE IRRIGATION TO BE PROVIDED FOR ALL LANDSCAPE AREAS.
- 2) SEE UTILITY PLAN C3 FOR LANDSCAPE IRRIGATION CONDUIT LOCATIONS.
- 3) COORDINATE WITH GENERAL CONTRACTOR AND/OR OWNER FOR IRRIGATION WATER SUPPLY AND POWER SUPPLY.

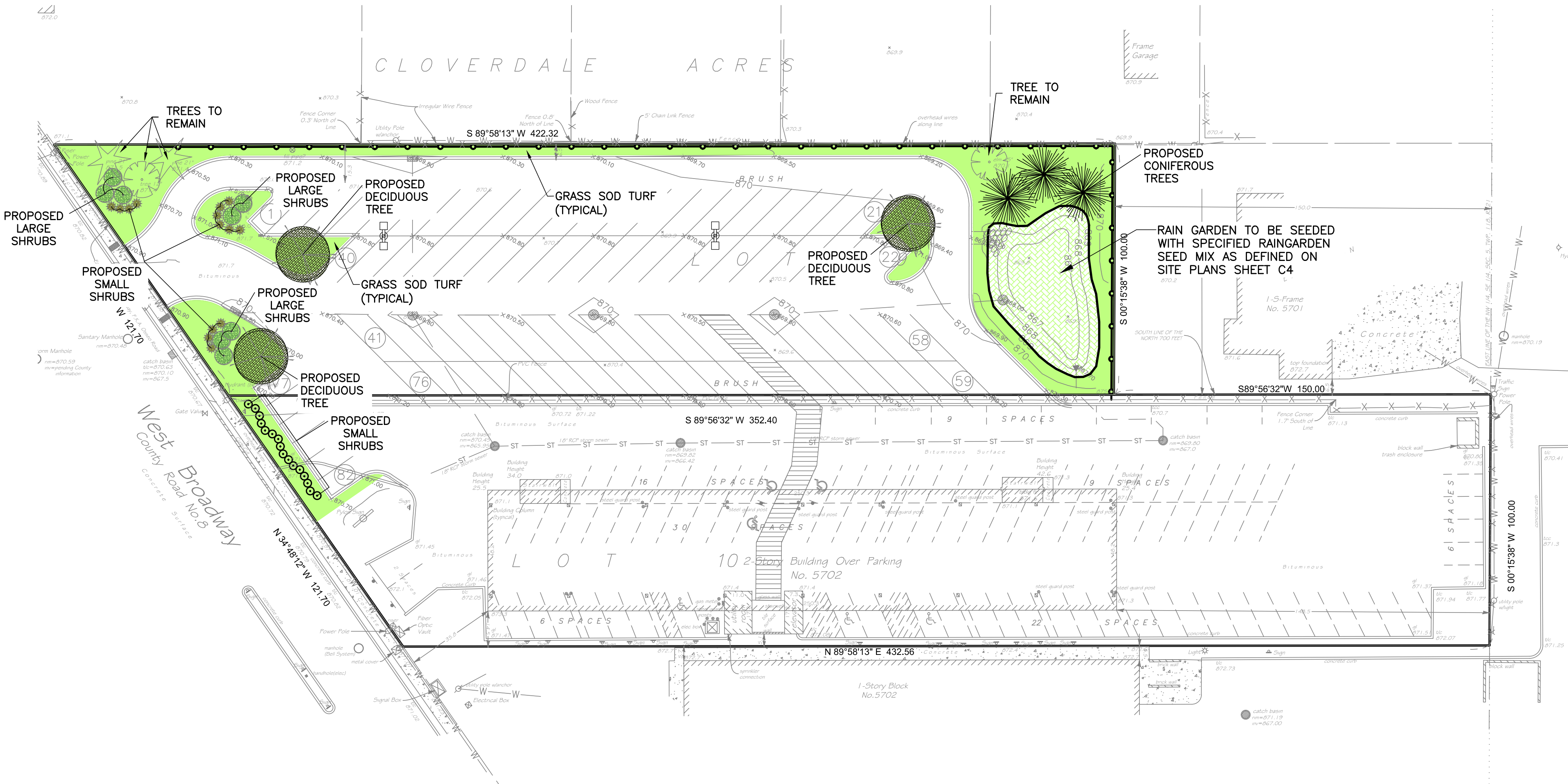
**SITE LEGEND:**

- Existing Property Line
- Existing Adjacent Property Line
- ST—ST— Existing Storm Sewer
- Proposed Paint Stripe
- ➔ Proposed Traffic Direction Arrow
- Proposed Fence
- Proposed B612 Curb Line
- Proposed Storm Sewer



Survey Data By: Lot Surveys Company  
7601 73rd Avenue North  
Minneapolis, MN 55428  
763-560-3093

Benchmark: Top nut of hydrant at  
SW corner of property lines for  
5708 West Broadway  
Elevation = 873.77 feet



**LANDSCAPE LEGEND**

- PROPOSED CONIFEROUS TREE (3)  
SWISS STONE PINE  
Pinus cembra
- PROPOSED DECIDUOUS TREE (3)  
AUTUMN BRILLIANCE SERVICEBERRY  
Amelanchier-grandiflora 'Autumn Brilliance'
- PROPOSED LARGE SHRUBS (8)  
RED TWIGGED DOGWOOD  
Cornus sericea 'Bailey'
- PROPOSED SMALL SHRUBS (14)  
TAUNTON YEW  
Taxus x media 'Taunton'
- PROPOSED SMALL SHRUBS (16)  
DWARF BUSH HONEYSUCKLE  
Diervilla lonicera

**PLANTING NOTES**

Contractor shall provide one year guarantee of all plant materials. The guarantee begins on the date of the Landscape Architect's written acceptance of the initial planting. Replacement plant materials shall also have a one year guarantee commencing upon planting.

- All plants to be northern-grown and hardy.
- Plants to be installed as per standard AAN planting practices.
- Use minimum 12" loam planting soil on trees and 6" on shrubs.
- Contractor shall verify locations with all utilities prior to installation of plants.
- Staking of trees optional; reposition if not plumb after one year.
- Wrap all smooth-barked trees—fasten top and bottom. Remove by April 1.
- Open top of burlap on BB materials; remove pot on potted plants; split and break apart peat pots.
- Prune plants as necessary – per standard nursery practice. Plants shall be immediately planted upon arrival at site. Properly heel-in materials if necessary; temporary only.
- Planting beds for shrubs shall have (4 oz. min.) weed barrier fabric, 4" – 6" of 1-1/2" shredded hardwood mulch and 4" vertical (commercial grade) black poly edging. The edging shall be placed and staked with smooth curves.
- Shredded hardwood mulch 4" deep shall be provided around all trees and shrubs. Coordinate with owner regarding mulch color.
- Edging material shall be black poly commercial grade 4" vertical. Edging shall be installed flush with final grade of turf.

**INDEX OF SITE DRAWINGS**

- C1 SITE PLAN
- C2 GRADING, DRAINAGE, AND EROSION CONTROL PLAN
- C3 UTILITY PLAN
- C4 DETAILS
- EP LIGHTING PLAN
- L1 LANDSCAPE PLAN

**OWNER:**  
HERZING  
UNIVERSITY  
5700 W. Broadway  
Crystal, MN 55428  
  
John Slama  
Ph. 763-535-3000

Parking Lot  
Improvement Project  
  
5702 and 5708 West Broadway  
Crystal, Minnesota  
  
GRADING, DRAINAGE,  
AND EROSION CONTROL PLAN

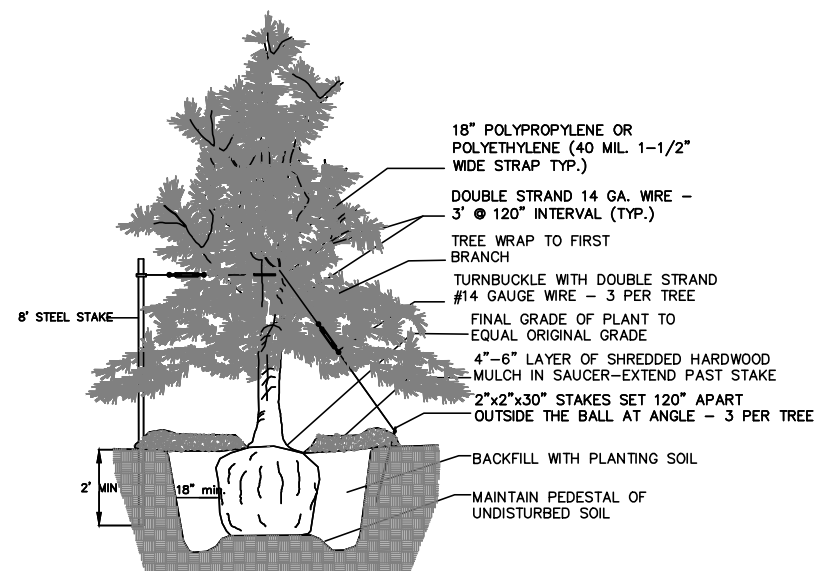
I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.  
*Serdar*  
Date: 01/27/12 Reg. No. 24,348  
PREPARED BY: QUALITY SITE DESIGN, LLC  
Civil Engineering – Land Development  
3600 Holly Lane N., Suite 100  
Plymouth, Mn 55447  
Phone (763) 550-9056

REVISIONS 01/27/12 Revisions per WMR and City approvals	DATE	DRAWN BY	DESIGNED BY	CHECKED BY
	11/17/11	SD	SD	SD
				VERTICAL SCALE 1 inch = 10 feet
				HORIZONTAL SCALE 1 inch = 30 feet (FULL SIZE SHEET 22 x 30)

DATE	DRAWN BY	DESIGNED BY	CHECKED BY
11/17/11	SD	SD	SD

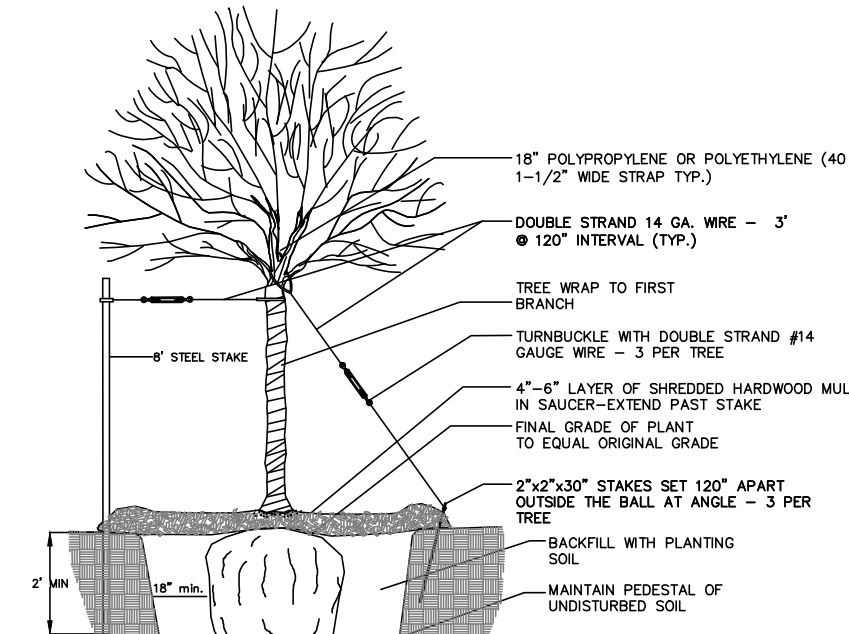
FILE NO. 00392

**L1**  
Landscape Plan



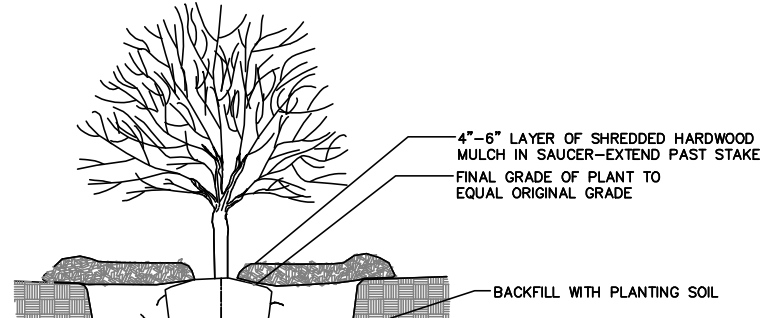
**CONIFEROUS TREE PLANTING DETAIL**

NOTES:  
TWO ALTERNATE METHODS OF TREE STAKING ARE SHOWN.  
IT IS THE CONTRACTOR'S OPTION TO STAKE TREES; HOWEVER, THE CONTRACTOR IS RESPONSIBLE FOR THE MAINTAINING TREES IN A PLUMB POSITION THROUGHOUT THE GUARANTEE PERIOD.  
SCARIFY BOTTOM AND SIDES OF HOLE PRIOR TO PLANTING.  
CONFER TO HAVE SHREDED HARDWOOD MULCH UNLESS OTHERWISE NOTED.  
NO MULCH TO BE IN CONTACT WITH TRUNK.



**DECIDUOUS TREE PLANTING DETAIL**

NOTES:  
TWO ALTERNATE METHODS OF TREE STAKING ARE SHOWN.  
IT IS THE CONTRACTOR'S OPTION TO STAKE TREES; HOWEVER, THE CONTRACTOR IS RESPONSIBLE FOR THE MAINTAINING TREES IN A PLUMB POSITION THROUGHOUT THE GUARANTEE PERIOD.  
SCARIFY BOTTOM AND SIDES OF HOLE PRIOR TO PLANTING.



**SHRUB PLANTING DETAIL**

NOTES:  
HAND LOOSEN ROOTS OF CONTAINERIZED MATERIAL (TYP.)  
SCARIFY BOTTOM AND SIDES OF HOLE PRIOR TO PLANTING.