

LIVING HOPE LUTHERAN CHURCH & SCHOOL

CITY SUBMISSION

SHAKOPEE, MN

PROJECT TEAM

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CIVIL ENGINEER
Rehder & Associates Inc.
3440 Federal Drive #110
Eagan, MN 55122
PH: (651) 452-5051
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MECHANICAL/ELECTRICAL ENGINEER
TO BE DESIGN-BUILD

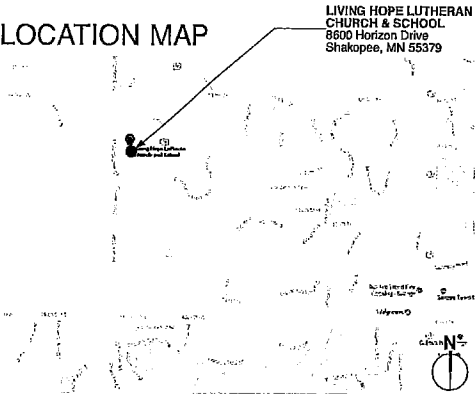
T1.1 TITLE SHEET

CIVIL

- C1** SITE DEMO & TREE PRESERVATION PLAN
- C2** SITE DIMENSION PLAN
- C3** GRADING, DRAINAGE & EROSION CONTROL PLAN
- C4** DETAILS & SPECIFICATIONS

ARCHITECTURAL

- A0.1** CODE PLAN
- A6.1** EXTERIOR ELEVATIONS
- A6.2** EXTERIOR ELEVATIONS

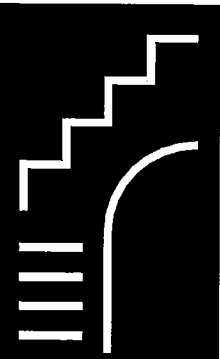


MATERIAL SYMBOLS

	EARTH
	GRANULAR MATERIAL
	CONCRETE
	CONCRETE MASONRY UNIT
	CUT STONE
	BRICK
	PLASTER OR GYPSUM BOARD
	METAL (LARGE SCALE)
	SINGLE METAL (SMALL SCALE)
	PLYWOOD
	WOOD, FINISHED
	2X WOOD FRAMING
	NON-SIZED WOOD FRAMING
	BLANKET INSULATION
	ACOUSTIC TILE
	RIGID INSULATION

SYMBOL LEGEND

	GRID LINE
	INTERIOR WALL TYPE
	DOOR NUMBER SEE DOOR SCHEDULE
	DETAIL SYMBOL DETAIL NUMBER SHEET NUMBER
	EXISTING WALL
	ROOM NUMBER
	DASH LINE INDICATES WORK NOT IN VIEW OF CONCEALED
	ALUM FRAME TYPE
	HOLLOW METAL FRAME TYPE
	ELEVATION NUMBER
	DOT/DASH LINE INDICATES ITEM NOT IN CONTRACT
	EXTERIOR WALL TYPE
	SECTION SYMBOL DETAIL NUMBER SHEET NUMBER



STATION NINETEEN

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MINNESOTA

SIGNATURE

ARCHITECT: NICOLE THOMPSON

REGISTRATION NUMBER: 41520

DATE: 2/18/2017

DRAWN BY: KM

CHECKED BY: AK

PROJECT TITLE

LIVING HOPE
LUTHERAN CHURCH
& SCHOOL

SHAKOPEE,
MINNESOTA

Project Number 4478

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No.	Date	Appr	Revision Notes
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No.	Date	Issue Notes
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Phase

CITY
SUBMISSION

Sheet Title

TITLE SHEET

Drawing No.

T1.1

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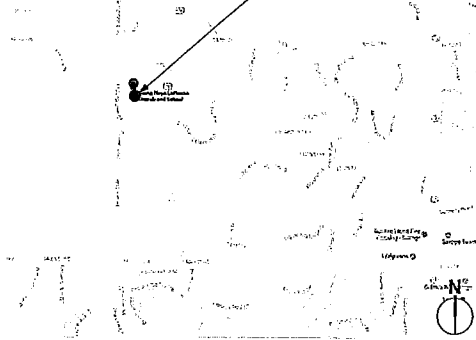
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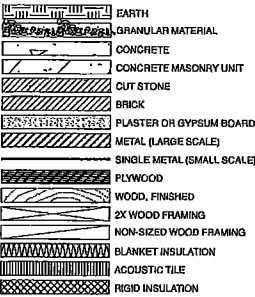
- A0.1** CODE PLAN
- A6.1** EXTERIOR ELEVATIONS
- A6.2** EXTERIOR ELEVATIONS

LOCATION MAP

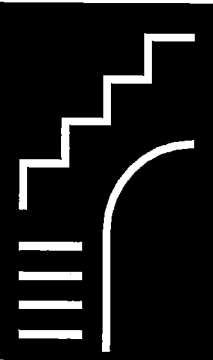
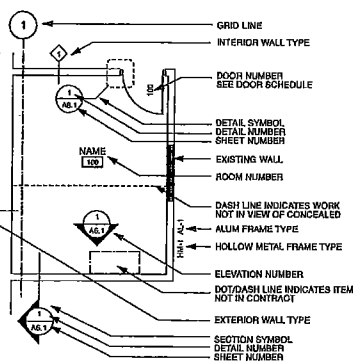
LIVING HOPE LUTHERAN
CHURCH & SCHOOL
8600 Horizon Drive
Shakopee, MN 55379



MATERIAL SYMBOLS



SYMBOL LEGEND



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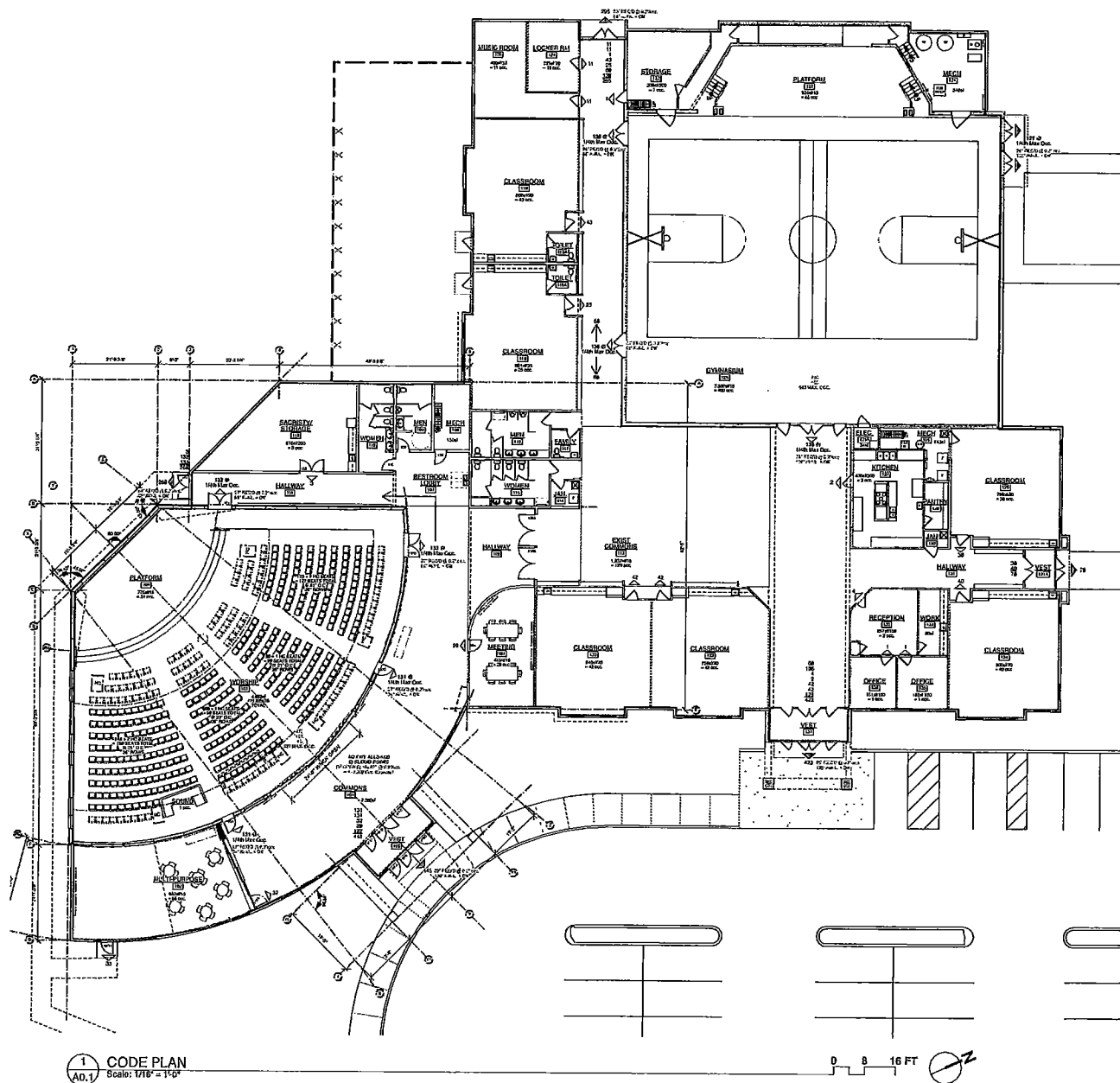
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Sheet Title

TITLE SHEET

Drawing No.

T1.1



CODE REVIEW SUMMARY

MN Building Code 2015

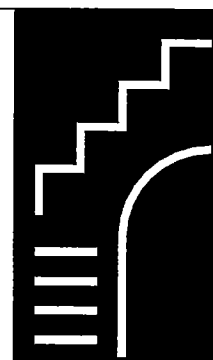
CH.3	DESCRIPTION OF OCCUPANCY		
GROUP A3, E			
CH.5	TYPE OF CONSTRUCTION		
TYPE SA			
T 601	FIRE RESISTIVE REQUIREMENTS	REQUIRED	PROVIDED
P. 87	STRUCTURAL FRAME (COLUMNS, GIRDERS, TRUSSES)	1 HR.	1 HR.
	BEARING WALLS-EXTERIOR	1 HR.	1 HR.
	BEARING WALLS-INTERIOR	1 HR.	1 HR.
	NON-BEARING WALLS AND PARTITIONS - EXTERIOR	1 HR.	1 HR.
	NON-BEARING WALLS AND PARTITIONS - INTERIOR	0 HR.	0 HR.
	FLOOR CONSTRUCTION (INCLUDING SUPPORTING BEAMS AND JOIS	1 HR.	1 HR.
	ROOF CONSTRUCTION (INCLUDING SUPPORTING BEAMS AND JOIS	1 HR.	1 HR.
T 602	FIRE-RESISTIVE RATING REQ. FOR EXTERIOR WALLS BASED ON FIRE SEPARATION DISTANCE		
	FIRE SEPARATION DISTANCE	HOURS	
	< 30'-0"	1 HR.	
	>= 30'-0"	0 HR.	
T 503	ALLOWABLE HEIGHT AND BUILDING AREAS		
	50 feet / 2 story		
SEC.506	AREA MODIFICATIONS -- SPRINKLER USED FOR AREA		
P. 78	ALLOWABLE AREA PER FLOOR (A ₁) = A ₁ / (1 + (A ₁ / A ₂))	23,525 SF	
	A ₁ = TABULAR AREA PER STORY IN ACCORDANCE WITH T.503 =	11,500	
	I _e = AREA INCREASE FACTOR DUE TO SPRINKLE PROTECTION IN ACCORDANCE WITH S.606.3	300	
	MULTI-STORY = 1.0, ONE-STORY = 300, NO SPRINKLER = 1.0	76	
	I _i = AREA INCREASE FACTOR DUE TO FRONTAGE (S.606.2) =		
	= IFP / 0.25W		
	F = BUILDING PERIMETER WHICH FRONTS ON A PUBLIC WAY OR OPEN SPACE	986 S.F.	
	P = PERIMETER OF ENTIRE BUILDING	986 S.F.	
	W = WIDTH OF A PUBLIC WAY OR OPEN SPACE (30' MAX)	90	
	PROPOSED AREAS		
	MAIN LEVEL	11,305 SF NEW	
		24,381 SF EXIST	
		35,686 SF TOTAL - OK	
	FUTURE/MASTER PLAN	18,953 SF MAX FUTURE ADDITION ALLOWED	
		15,452 SF SHOWN	

PLUMBING REVIEW SUMMARY

Minnesota Building Code 2015

T 2902.1	
CH.3	MINIMUM NUMBER OF PLUMBING FACILITIES
A-3	TOTAL OCC. FOR A-3 =
	713 OCC./2 = 356 MEN AND 357 WOMEN
	3 MENS WATER CLOSETS REQUIRED
	(356/100=3.57)
	2 MENS LAVATORIES REQUIRED
	(356/200= 1.78)
	5 WOMENS WATER CLOSETS REQUIRED
	(357/75=5)
	2 WOMENS LAVATORIES REQUIRED
	(357/200= 2)
	1 UNISEX RESTROOM REQUIRED
E	TOTAL OCC. FOR E =
	258 OCC./2 = 129 BOYS AND 129 GIRLS
	6 WATER CLOSETS REQUIRED
	(258/50=5.16)
	6 LAVATORIES REQUIRED
	(258/5=5.16)
	DRINKING FOUNTAINS: RATIO OF 1:100 OCC. (E), 1:1000 (A-3)
	4 REQUIRED (WITH 11'-ADA HEIGHT), 4 PROVIDED
	2 SERVICE SINK REQUIRED, 3 PROVIDED

REQUIRED	PROVIDED
WC / SINKS	WC / SINKS
3 MENS WC / 2 LAVS	5 MEN WC / 4 LAVS
5 WOMEN WC / 2 LAVS	7 WOMEN WC / 5 LAVS
6 EDUC WC / 6 LAVS	3 UNISEX WC / 3 LAVS
TOTAL 14 WC / 10 LAVS	16 WC / 12 LAVS



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ARCHITECT:	NICOLE THOMPSON
REGISTRATION NUMBER:	41520
DATE:	2/16/2017
DRAWN BY:	KM
CHECKED BY:	AK
PROJECT TITLE	
	LIVING HOPE LUTHERAN CHURCH & SCHOOL
	SHAKOPEE, MINNESOTA

Project Number 4478

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Phase

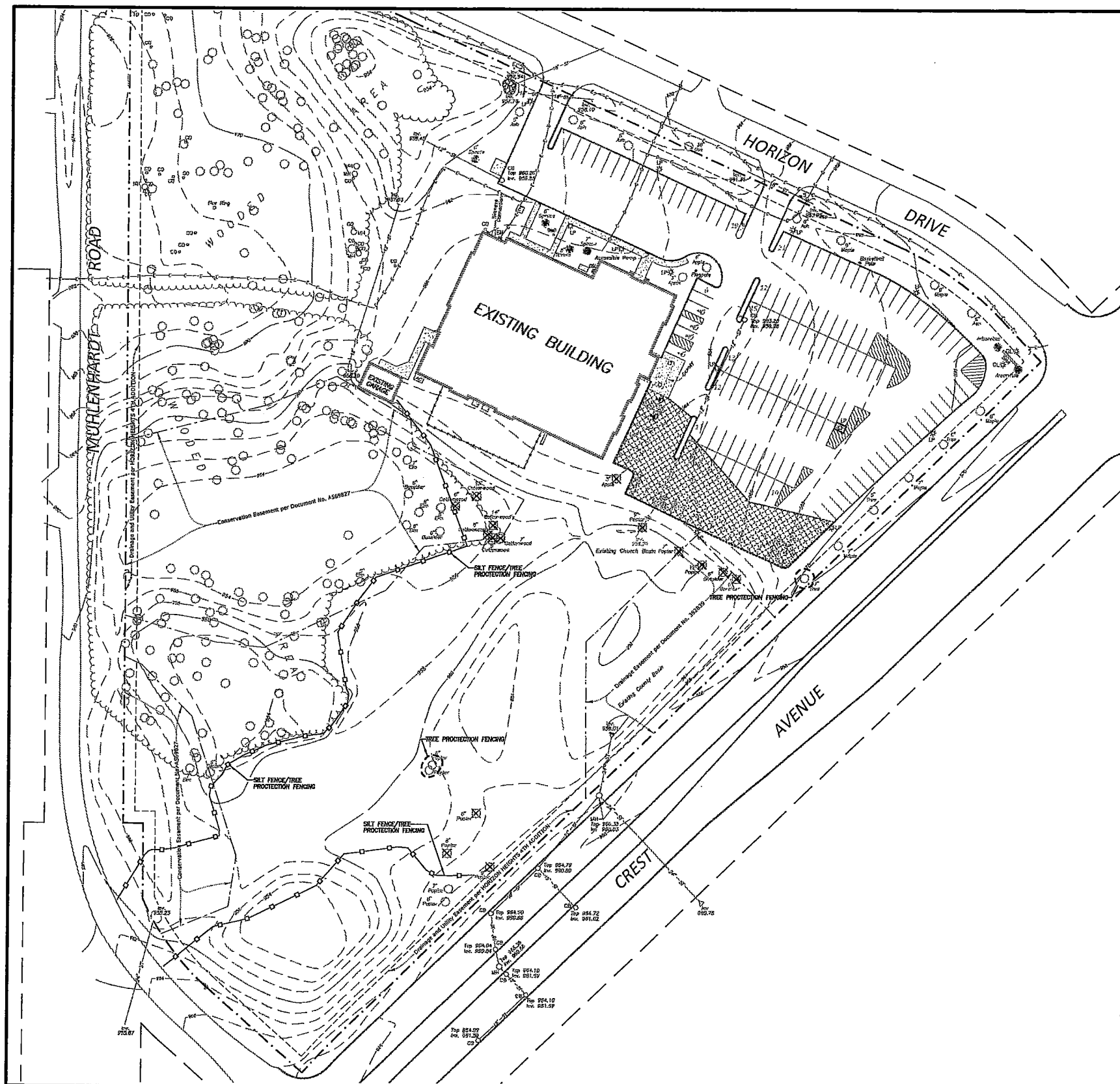
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Sheet Title

CODE PLAN

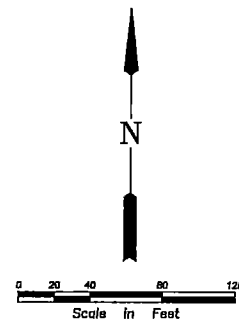
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A0.1



- DEMOLITION NOTES**
- 1) - Remove concrete curb & gutter.
 - 2) - Remove bituminous pavement.
 - 3) - Remove trees.
 - 4) - Remove striping.

- LEGEND**
- EXISTING BITUMINOUS TO BE REMOVED
 - EXISTING TREE TO BE REMOVED
 - BOUNDARY/ROW/BLOCK LINE
 - EASEMENT
 - SILT FENCE
 - TREE PROTECTION FENCING
 - EXISTING WATERMAIN
 - EXISTING SANITARY SEWER
 - EXISTING STORM SEWER



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PROJECT NO. 0504205 DRAWING FILE: 2004205.DWG

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MINNESOTA

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ENGINEER:

REGISTRATION NUMBER:

DATE: 02/18/2017

DRAWN BY: NPA

CHECKED BY: BGF

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SHAKOPEE, MINNESOTA

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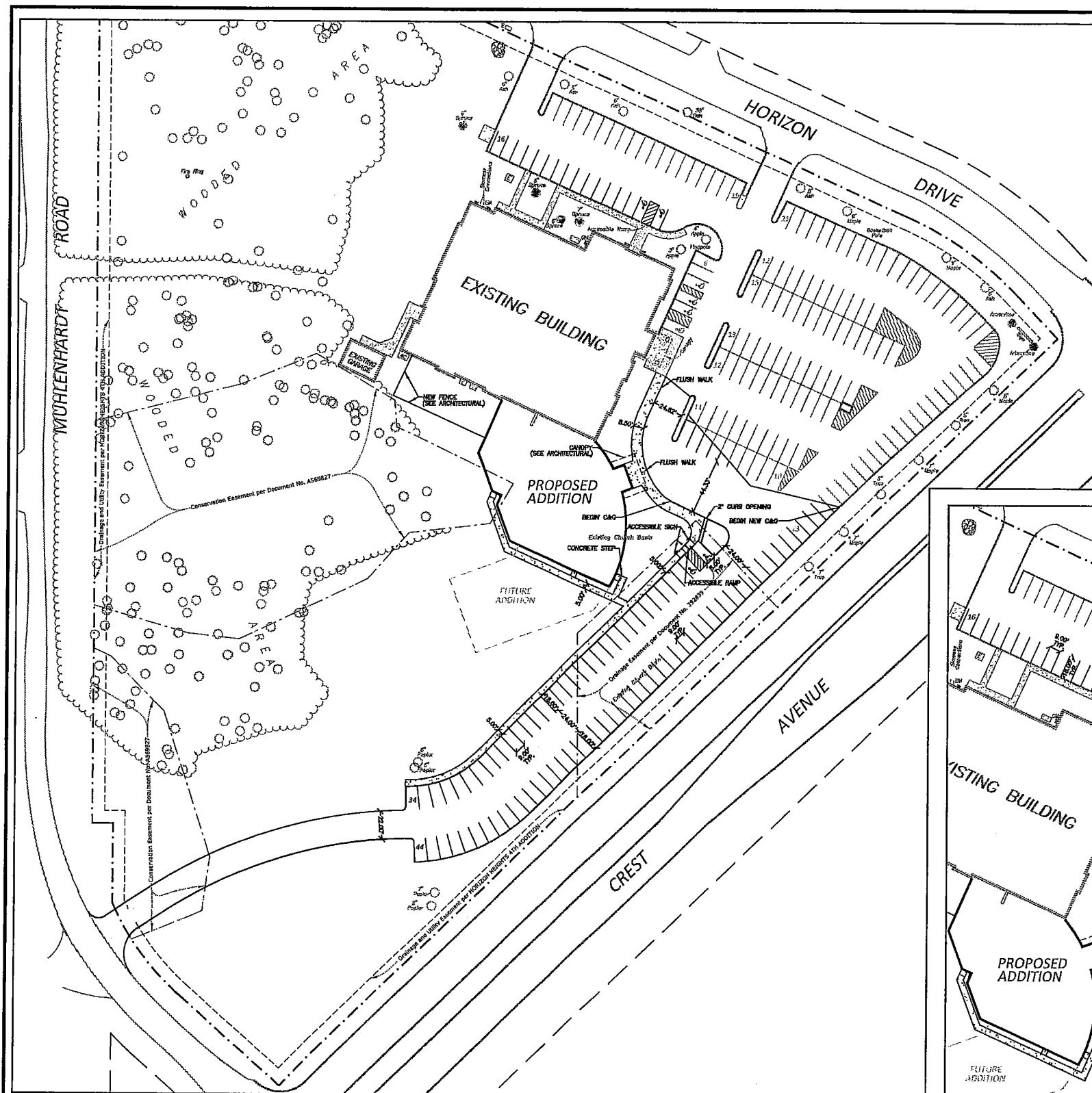
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Phase CITY SUBMISSION

Sheet Title SITE DEMOLITION & TREE PRESERVATION PLAN

Drawing No.

C1



ALTERNATE STALL OPTION

- SITE NOTES**
- ① - All dimensions between curbing and to radius points are to face of curb.
 - ② - All dimensions abutting curbs are to back of curb.
 - ③ - All curb and gutter on private property shall be type B-812 unless otherwise noted.
 - ④ - All parking stall striping width is 9.00' unless otherwise noted.
 - ⑤ - All stall striping on parking lot curves is radial and 9.00' wide at inside of radius unless noted otherwise.

PARKING STALL COUNT SUMMARY (BASE PROJECT)

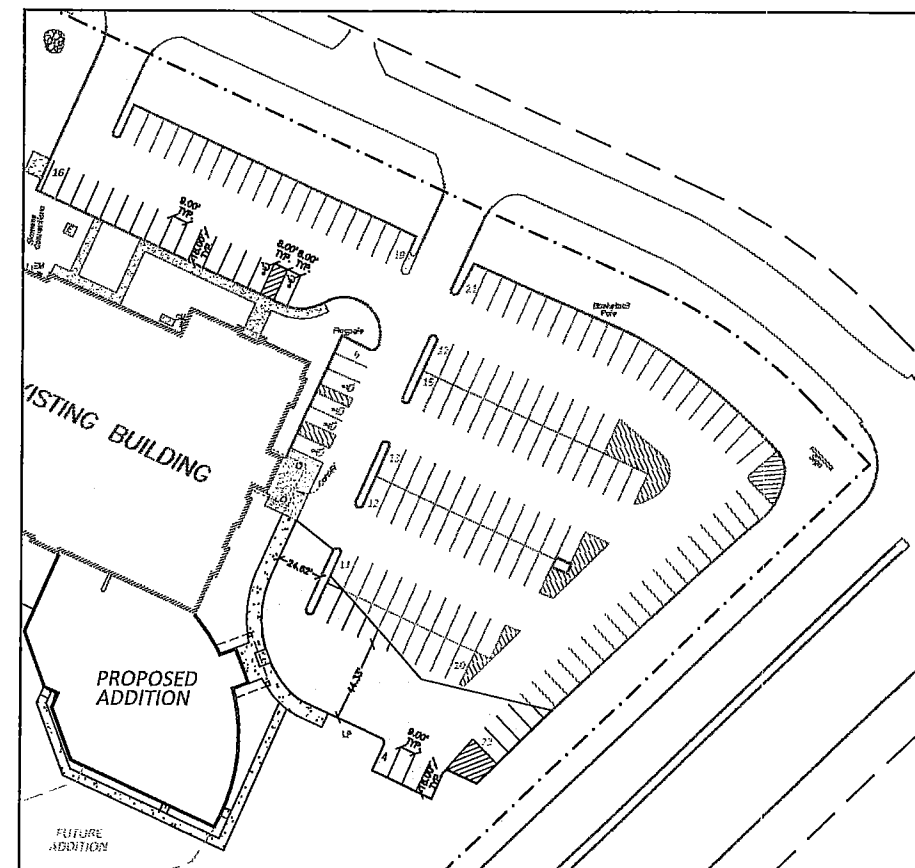
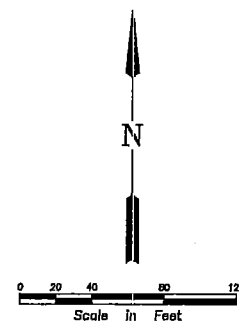
MIN. STALLS REQUIRED	EX. STALLS	EX. STALLS REMOVED	PROPOSED STALLS	TOTAL STALLS PROVIDED
159	163	21	20	162

PARKING STALL COUNT SUMMARY (ALTERNATE STALL OPTION)

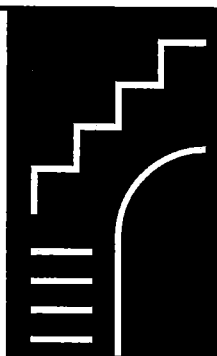
MIN. STALLS REQUIRED	EX. STALLS	EX. STALLS REMOVED	PROPOSED STALLS	TOTAL STALLS PROVIDED
159	163	21	84	236

LEGEND

- PROPOSED CONCRETE
- PROPOSED STD. DUTY BITUMINOUS
- BOUNDARY/ROW/BLOCK LINE
- EASEMENT
- BUILDING/PARKING SETBACK LINE



BASE PROJECT



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PROJECT NO.: 2223348 DRAWING TITLE: 2223348.DWG

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ENGINEER:

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DRAWN BY: NPA

CHECKED BY: BGF

PROJECT TITLE:

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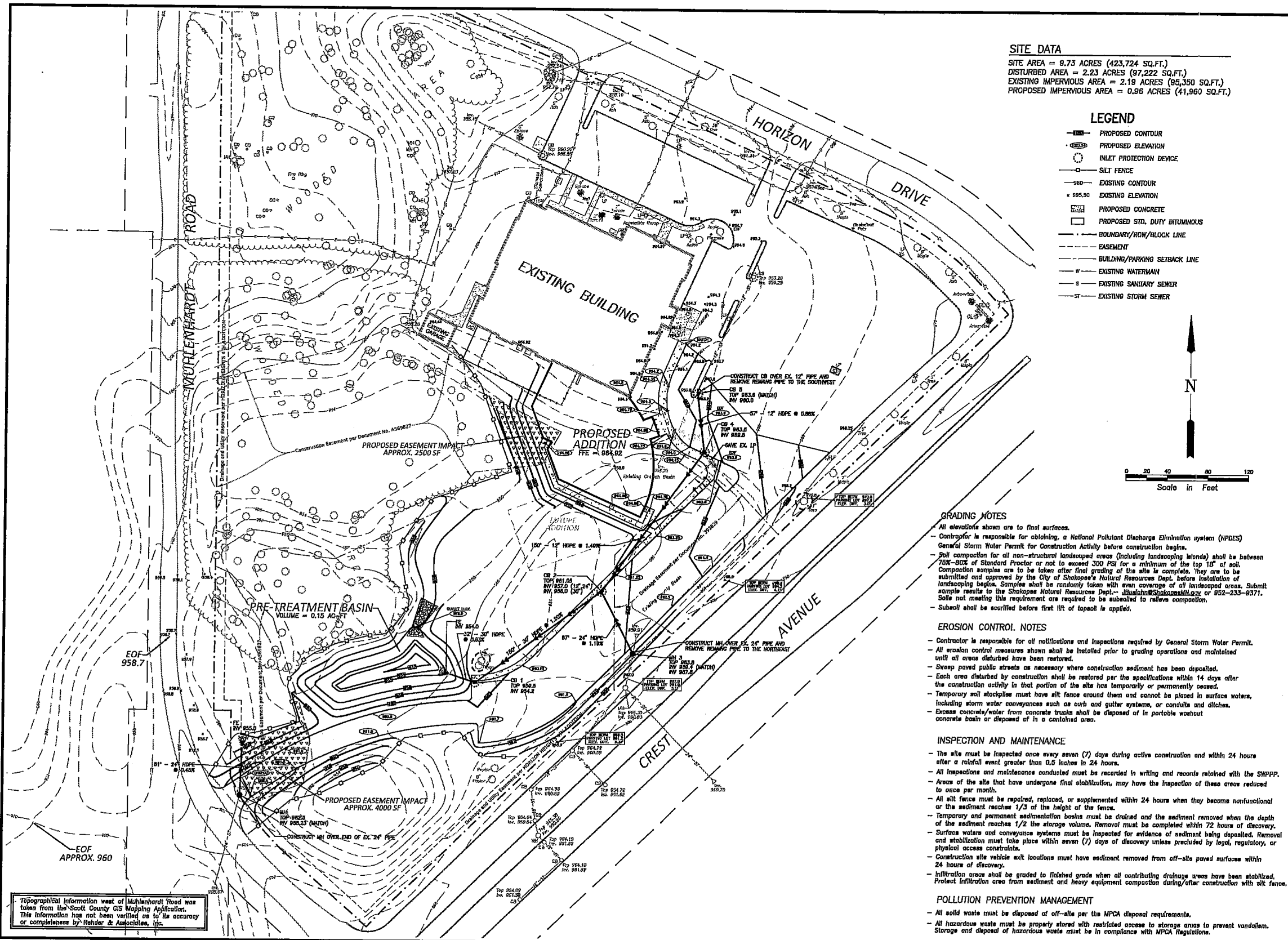
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Sheet Title

SITE DIMENSION PLAN

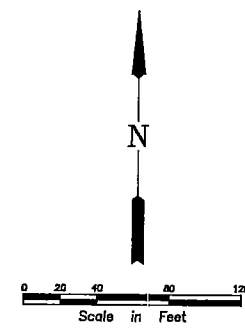
Drawing No.

C2



SITE DATA
SITE AREA = 9.73 ACRES (423,724 SQ.FT.)
DISTURBED AREA = 2.23 ACRES (97,222 SQ.FT.)
EXISTING IMPERVIOUS AREA = 2.19 ACRES (95,350 SQ.FT.)
PROPOSED IMPERVIOUS AREA = 0.96 ACRES (41,960 SQ.FT.)

- LEGEND**
- PROPOSED CONTOUR
 - PROPOSED ELEVATION
 - INLET PROTECTION DEVICE
 - SILT FENCE
 - EXISTING CONTOUR
 - EXISTING ELEVATION
 - PROPOSED CONCRETE
 - PROPOSED STD. DUTY BITUMINOUS
 - BOUNDARY/ROW/BLOCK LINE
 - EASEMENT
 - BUILDING/PARKING SETBACK LINE
 - EXISTING WATERMAIN
 - EXISTING SANITARY SEWER
 - EXISTING STORM SEWER



GRADING NOTES

- All elevations shown are to final surfaces.
- Contractor is responsible for obtaining a National Pollutant Discharge Elimination system (NPDES) General Storm Water Permit for Construction Activity before construction begins.
- Soil compaction for all non-structural landscaped areas (including landscaping islands) shall be between 75%-80% of Standard Proctor or not to exceed 300 PSI for a minimum of the top 18" of soil. Compaction samples are to be taken after final grading of the site is complete. They are to be submitted and approved by the City of Shakopee's Natural Resources Dept. before installation of landscaping begins. Samples shall be randomly taken with even coverage of all landscaped areas. Submit sample results to the Shakopee Natural Resources Dept. - ShakopeeNaturalResources@cityofshakopee.com or 952-233-8371. Soils not meeting this requirement are required to be subsoiled to relieve compaction.
- Subsoil shall be scarified before first lift of topsoil is applied.

EROSION CONTROL NOTES

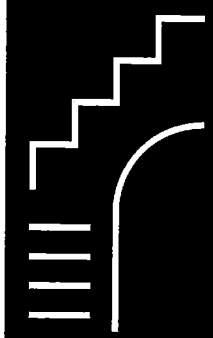
- Contractor is responsible for all notifications and inspections required by General Storm Water Permit.
- All erosion control measures shown shall be installed prior to grading operations and maintained until all areas disturbed have been restored.
- Sweep paved public streets as necessary where construction sediment has been deposited.
- Each area disturbed by construction shall be restored per the specifications within 14 days after the construction activity in that portion of the site has temporarily or permanently ceased.
- Temporary soil stockpiles must have silt fence around them and cannot be placed in surface waters, including storm water conveyances such as curb and gutter systems, or conduits and ditches.
- Excess concrete/water from concrete trucks shall be disposed of in portable washout concrete basin or disposed of in a contained area.

INSPECTION AND MAINTENANCE

- The site must be inspected once every seven (7) days during active construction and within 24 hours after a rainfall event greater than 0.5 inches in 24 hours.
- All inspections and maintenance conducted must be recorded in writing and records retained with the SWPPP.
- Areas of the site that have undergone final stabilization, may have the inspection of these areas reduced to once per month.
- All silt fence must be repaired, replaced, or supplemented within 24 hours when they become nonfunctional or the sediment reaches 1/3 of the height of the fence.
- Temporary and permanent sedimentation basins must be drained and the sediment removed when the depth of the sediment reaches 1/2 the storage volume. Removal must be completed within 72 hours of discovery.
- Surface waters and conveyance systems must be inspected for evidence of sediment being deposited. Removal and stabilization must take place within seven (7) days of discovery unless precluded by legal, regulatory, or physical access constraints.
- Construction site vehicle exit locations must have sediment removed from off-site paved surfaces within 24 hours of discovery.
- Infiltration areas shall be graded to finished grade when all contributing drainage areas have been stabilized. Protect infiltration area from sediment and heavy equipment compaction during/after construction with silt fence.

POLLUTION PREVENTION MANAGEMENT

- All solid waste must be disposed of off-site per the MPCA disposal requirements.
- All hazardous waste must be properly stored with restricted access to storage areas to prevent vandalism. Storage and disposal of hazardous waste must be in compliance with MPCA Regulations.



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PROJECT NO.: 2012.001 DRAIVING FILE: 2012001.DWG

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ENGINEER: _____
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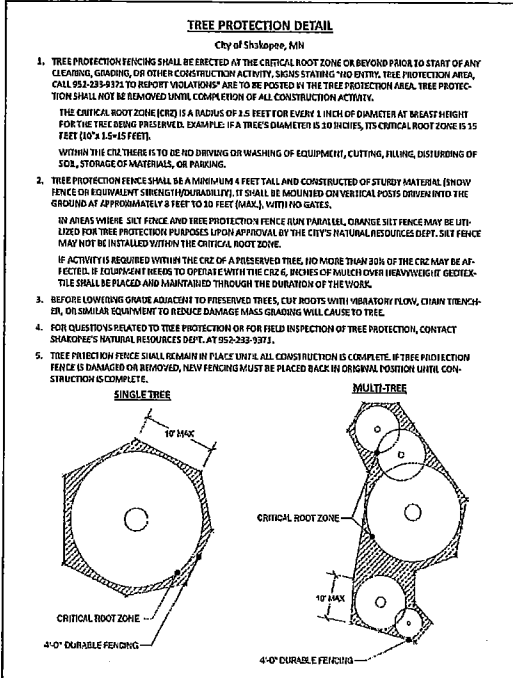
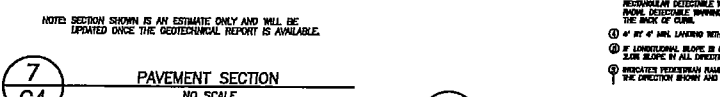
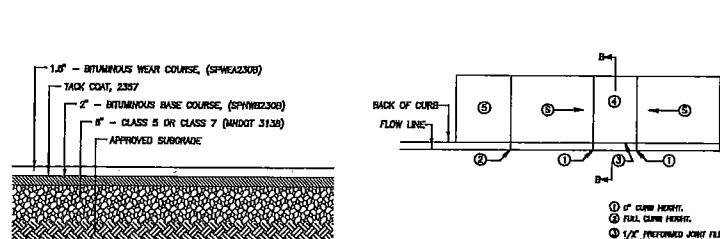
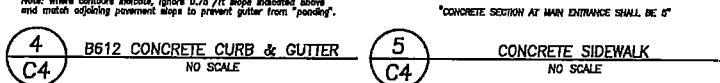
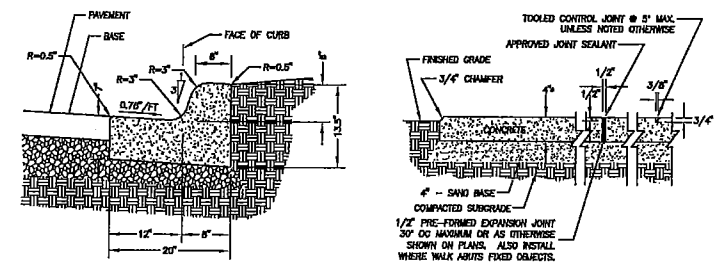
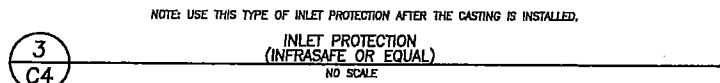
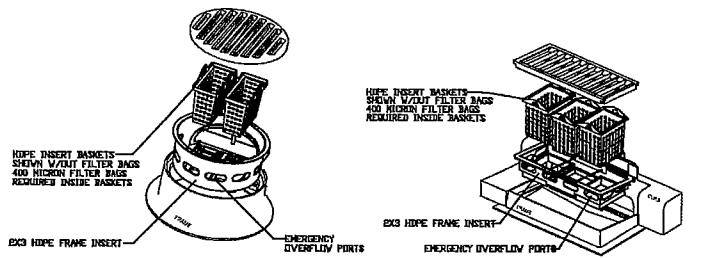
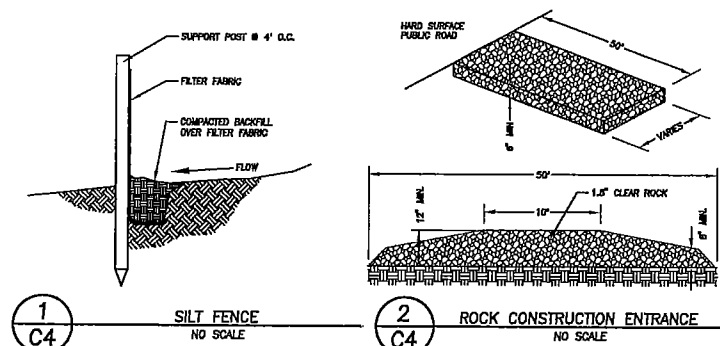
No.	Date	Appr.	Revision Notes
1	02/16/2017		NOT FOR CONSTRUCTION

No.	Date	Issue Notes
1	02/16/2017	

Phase CITY SUBMISSION

Sheet Title GRADING, DRAINAGE, & EROSION CONTROL PLAN

Drawing No. C3



SPECIFICATIONS

GENERAL

I. GENERAL

- Before construction begins, the Contractor will contact all utility companies, both public and private and have them locate all utilities within the construction limits.
- The Contractor shall be responsible for arranging all required inspections with the governing authority that has jurisdiction over the work that is to be performed.
- The Contractor shall stay within the construction limits unless approved otherwise by the Owner and/or Engineer. Construction limits are defined by the property boundary unless shown otherwise on the plan.
- The Contractor shall be responsible for protecting all existing structures, utilities, trees, etc. from damage during construction.
- The Contractor shall be responsible for correcting any damage (at Contractor's expense).
- Any discrepancies found on the site that affect the proposed work shall be reported to the Owner and/or Engineer before the completion of any additional work.
- Existing Topography and Boundary Survey provided by Reider & Associates, Inc.

II. EXECUTION

- Remove trees, shrubs, grass, and other vegetation or obstructions, as required, to permit installation of improvements shown on the Plans.
- Where existing trees are indicated to remain, leave existing topsoil in place within 10 feet to prevent damage to root system.
- Topsoil shall be stripped from disturbed areas and stockpiled in place not exceeding 8 feet in depth.
- Remove all back dirt and unsuitable material from under drives and roadways within 3 feet of final pavement subgrade.
- Remove all waste materials and unusable or excess topsoil from Owner's property.

GRADING, EROSION CONTROL, AND TURF ESTABLISHMENT

I. GENERAL

- All grading, erosion control and turf establishment shall be according to the materials, workmanship, and other applicable requirements of the Minnesota Department of Transportation "Standard Specifications for Construction", latest edition, unless otherwise specified.
- All erosion control measures shown on the plans must be installed prior to commencement of grading operations and maintained until all areas altered on the site have been restored.
- All areas disturbed by construction shall be restored with seed and mulch, rock, and wood fiber mulch, or be hard surfaced within two weeks of substantial completion of construction.
- Provide approved borrow soil materials from off-site when sufficient approved soil materials are not available from on-site. Remove all excess and unsatisfactory material from the site.
- Protect structures, utilities, sidewalks, pavements, and other facilities from damage caused by settlement, lateral movement, undermining, vibration, and other hazards created by earthwork operations.
- Compaction shall not be less than the following percentages of maximum dry density according to ASTM D 6908:
 - Under structures, building slabs, slopes, and pavements, compact the top 12 inches below subgrade and each layer of backfill or fill material at 100 percent maximum dry density.
 - Under walkways, compact the top 6 inches below subgrade and each layer of backfill or fill material at 100 percent maximum dry density.
 - Under lawn or unpaved areas, compact the top 6 inches below subgrade and each layer of backfill or fill material at 85 percent maximum dry density.
- Grades as shown on the plan are to be finished grade.
- Backfill trenches involving utilities under building slabs to be designed by Others (per their requirements).

II. PRODUCTS

- Satisfactory soils include ASTM D 2487 soil classification groups OM, GP, GM, SW, SP, and SM; free of rock or gravel larger than 2-inches in any dimension, debris waste, frozen materials, vegetation and other deleterious matter.
- Unsatisfactory soils include ASTM D 2487 soil classification groups GC, SC, ML, MH, CL, CH, OH, and PT.
- All backfill and fill materials must be satisfactory soil materials.
- Topsoil shall be per ASTM D 5200, free of stones 1\"/>

III. EXECUTION

- Fill under buildings shall be compacted to meet Soil Engineer's recommendations.
- Place 4-inches of topsoil over all areas to be re-established with turf.
- Provide erosion control measures to prevent erosion or displacement of soils and discharge of soil-bearing water runoff or otherwise due to adjacent properties and walkways.
- Place inlet protection devices in catch basins and maintain until all areas disturbed have been restored.
- Whenever construction vehicle access routes intersect paved public roads, provisions must be made to minimize the transport of sediment (mud) by runoff or vehicles breaking into the paved road surface. Where sediment is transported onto a public road surface, the roads shall be cleaned thoroughly of the end of each day. Sediment shall be removed by shoveling or sweeping and be transported to a sediment controlled disposal area. Street sweeping shall be allowed only after sediment is removed in this manner.

BITUMINOUS PAVEMENT

I. GENERAL

- Provide hot-mix asphalt pavement according to the materials, workmanship, and other applicable requirements of the Minnesota Department of Transportation "Standard Specifications for Construction", latest edition, unless otherwise specified.
- Conform to applicable standards of authorities having jurisdiction for asphalt paving work on public property.

II. PRODUCTS

- Use coarse and fine aggregate materials and gradations that have performed satisfactorily in previous installations.
- Provide a base and wear course as indicated on the plan unless otherwise specified.
- Provide a lock coat as indicated on the plan unless otherwise specified.

III. EXECUTION

- Verify that the subgrade is dry and is suitable condition to support paving and imposed loads.
- The Contractor shall furnish a tandem truck loaded with a minimum of 14-ton to check the completed subgrade and/or aggregate base for soft spots prior to placement.
- Machine place hot-mix asphalt on prepared surface, spread uniformly, and strike off. Place asphalt rate by hand to areas inaccessible to equipment in a manner that prevents segregation of mix. Place each course to required grade, cross section, and thickness, when compacted.
- Begin compaction as soon as placed hot-mix paving will bear roller weight without excessive displacement.
- Provide an average density of 98 percent of reference laboratory density according to ASTM D 1559, but not less than 94 percent nor greater than 100 percent.
- Tolerances: Base course thickness shall be plus or minus 0.5-inches and surface course shall be plus or minus 0.25-inches.

PORTLAND CEMENT CONCRETE PAVEMENT

I. GENERAL

- Provide Portland cement concrete pavement for roads, curbs, walls and exterior slabs according to the materials, workmanship, and other applicable requirements of the Minnesota Department of Transportation "Standard Specifications for Construction", latest edition, unless otherwise specified.

II. PRODUCTS

- Portland cement concrete for curb and gutter and sidewalk shall be 4000 psi, 28-day compressive strength, 5.0% air entrainment, and 3-inch slump.

III. EXECUTION

- The Contractor shall furnish a tandem truck loaded with a minimum of 14-ton to check the completed subgrade and/or aggregate base for soft spots prior to pavement placement.
- Comply with requirements and with ACI 304R for measuring, mixing, transporting, and placing concrete.
- Preformed expansion joints using 0.5-inch thickness shall be placed at each end of curb, roadway, at intersections, and approximately every 200-feet.
- Construction joints shall be placed at minimum 10-foot intervals in the curb and gutter and at 8-foot for slabs.
- Provide a medium to fine broom finish perpendicular to traffic flow.
- Protect freshly placed concrete from premature drying and excessive cold or hot temperatures using moisture curing, moisture-retaining-cure curbs, curing compound or a combination of these.

STORM SEWER

I. GENERAL

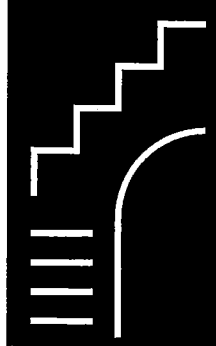
- Storm sewer shall comply with all local regulations pertaining to storm sewer systems including materials, installation, and testing. If no regulations exist, comply with "Standard Utility Specifications" by the City Engineers Association of Minnesota, latest edition.

II. PRODUCTS

- Storm sewer indicated on the plan or HYPE shall be dual wall corrugated polyethylene pipe with soil tight fittings per the Corrugated Polyethylene Pipe Association (CPA) standard specification 100-87.
- Storm sewer catch basins and manholes shall be precast structures with at least two and of the most free adjoining rings.
- Storm sewer coverings indicated on the plan shall be from the Neenah Foundry or approved equal.

III. EXECUTION

- The plans indicate the general location and arrangement of underground storm sewer systems. Location and arrangement of piping take into account many design considerations. Install piping as indicated on the plans, to the extent practical.
- HYPE sewer pipe shall be bedded in accordance with ASTM D 2321, "Recommended Practice for Underground Installation of Flexible Thermoplastic Sewer Pipe".



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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

SIGNATURE: _____

ENGINEER: _____

REGISTRATION NUMBER: _____

DATE: 02/18/2017

DRAWN BY: NPA

CHECKED BY: BGF

PROJECT TITLE

LIVING HOPE LUTHERAN CHURCH & SCHOOL

SHAKOPEE, MINNESOTA

Project Number 4478

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No. Date Appr Revision Notes

NOT FOR CONSTRUCTION

No. Date Issue Notes

Phase CITY SUBMISSION

Sheet Title

DETAILS & SPECIFICATIONS

Drawing No.

C4