HARVEST ESTATES

City of Ramsey

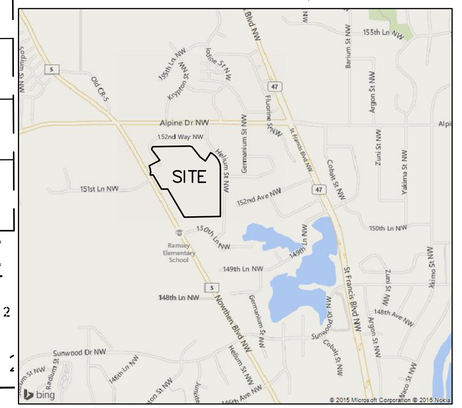
Anoka County, Minnesota

SITE DATA:

		SQ. FT.±	ACRES ±
Total Site Area	=	927,015	21.281
Right-of-Way Area	=	59,135	1.358
Net Area	=	867,880	19.924
Total Number of Lots	=	44	
Total No. Units	=	44	
Net Density	=	2.2 U/A	
Imperivious Surface	=	244,810	5.620

ZONING REGULATIONS:

Current zoning	=	Public/Quasi-Public District
Proposed zoning	=	R1 Residential (MUSA)
Front Yard	=	30 ft.
Rear Yard	=	30 ft.
Side Interior		
Living Space	=	10 ft.
Garage	=	6 ft.
Side Corner	=	30 ft.
Minimum Lot Width At Setback	=	80 ft.
Corner lot	=	90 ft.
Minimum Lot Area	=	10,800 Sf.



LOCATION MAP

No Scale

INDEX:

PRELIMINARY
NOT FOR CONSTRUCTION

100 0 100 200 300

Scale 1" = 100'

Scale 1" = 30'

PROJECT NUMBER 141029

REVISIONS

REMARKS	DATE	BY
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CERTIFICATION:
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: ---

Randall C. Hedlund MN. LIC. NO. 19576

PREPARED BY:

HEDLUND SURVEYING ENGINEERING PLANNING
2005 Pin Oak Drive
Eagan, MN 55122
Phone: (651) 405-6600
Fax: (651) 405-6606

SHEET TITLE: HARVEST STATES COVERSHEET/SITE PLAN

PREPARED FOR: NIK MANAGEMENT INC.
11736 177TH St. W.
Lakeville, MN 55044
Phone: (952) 236-9424

DRAWN	CHECKED	DESIGN
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SHEET NUMBER C-1

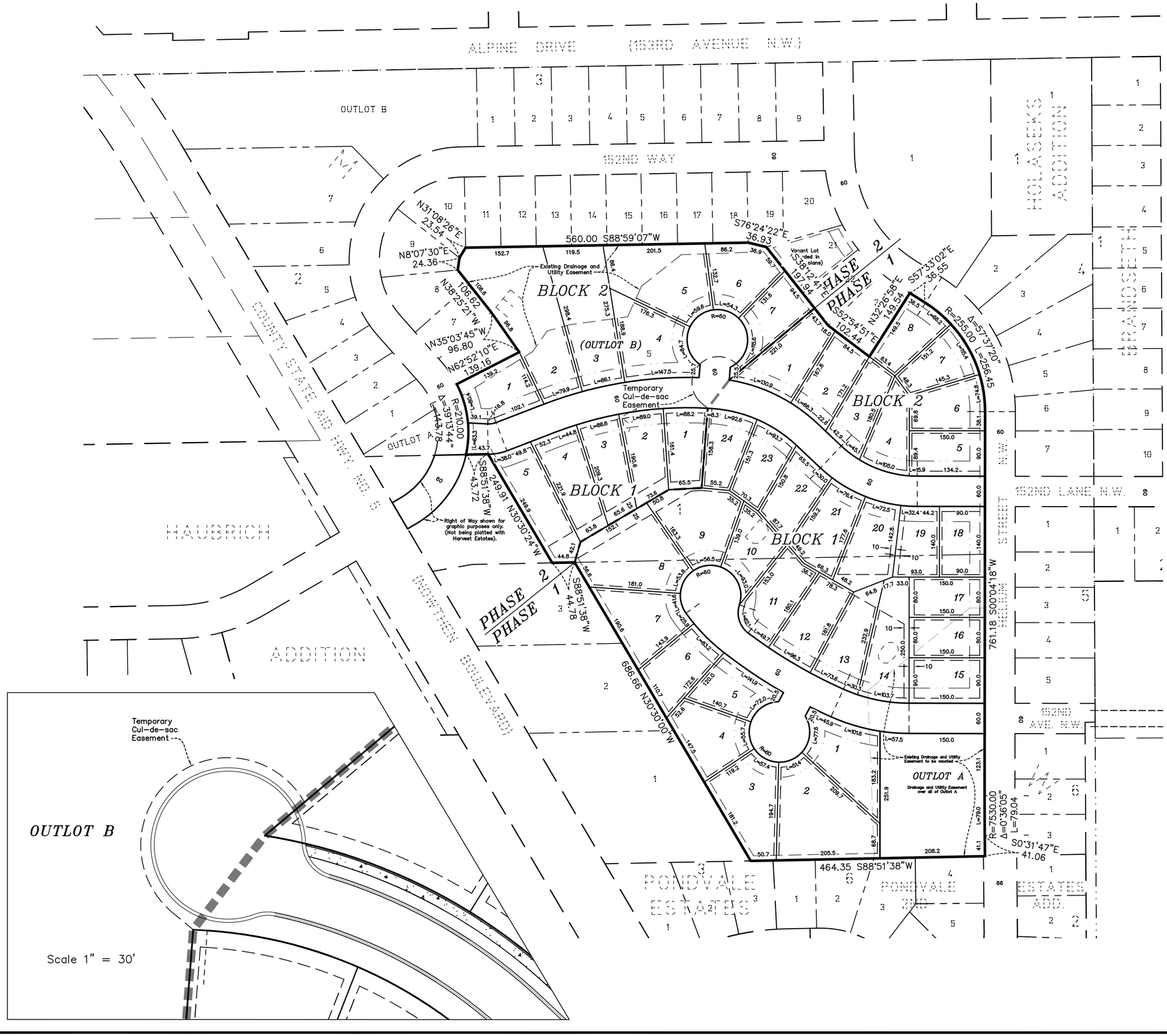
DATE 3/5/2015
REV. 00/00/00

Drawing:H:\2014 Projects\141029\Cadd\SubmittalShts\SiteSht.dwg
Layout:Prelim Site Plan
Date:Mar 05,2015,7:38am
X-Ref Dwg: 141029alt.dwg
X-Ref Dwg: 141029boun.dwg
X-Ref Dwg: 141029topo.dwg

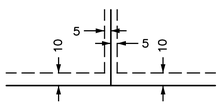
HARVEST ESTATES
City of Ramsey
Anoka County, Minnesota

LEGAL DESCRIPTION:

Lots 4 and 5, MEADOW, City of Ramsey, Anoka County, Minnesota.



Drainage and Utility Easements are shown thus:



Being 5 feet in width and adjoining lot lines, unless otherwise shown, and 10 feet in width and adjoining street lines as shown on the plat.

Bearings shown are based upon an assumed datum.

PRELIMINARY
NOT FOR CONSTRUCTION

PROJECT NUMBER
141029

REVISIONS			
REMARKS	DATE	BY
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CERTIFICATION:
I hereby certify that this survey, plan, report, or description was prepared by me or under my direct supervision and that I am a duly Licensed Land Surveyor under the laws of the State of Minnesota.

Date: ___
Jeffrey D. Lindgren — MN. LIC. NO. 14376

PREPARED BY:
HEDLUND SURVEYING
PLANNING ENGINEERING
2005 Pin Oak Drive
Eagan, MN 55122
Phone: (651) 405-6600
Fax: (651) 405-6606

SHEET TITLE: *HARVEST STATES PRELIMINARY PLAT*

PREPARED FOR: *NIK MANAGEMENT INC.*
11736 177TH St. W.
Lakeville, MN 55044
Phone: (952) 236-9424

DRAWN	CHECKED	DESIGN
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SHEET NUMBER
C-2

DATE 3/5/2015
REV. 00/00/00

Drawing:H:\2014 Projects\141029\Cadd\SubmittalSht's\PlatSht.dwg
Layout:PP Plot
Date:Mar 04, 2015,4:16pm
X-Ref Dwg:141029base.dwg

HARVEST ESTATES

City of Ramsey

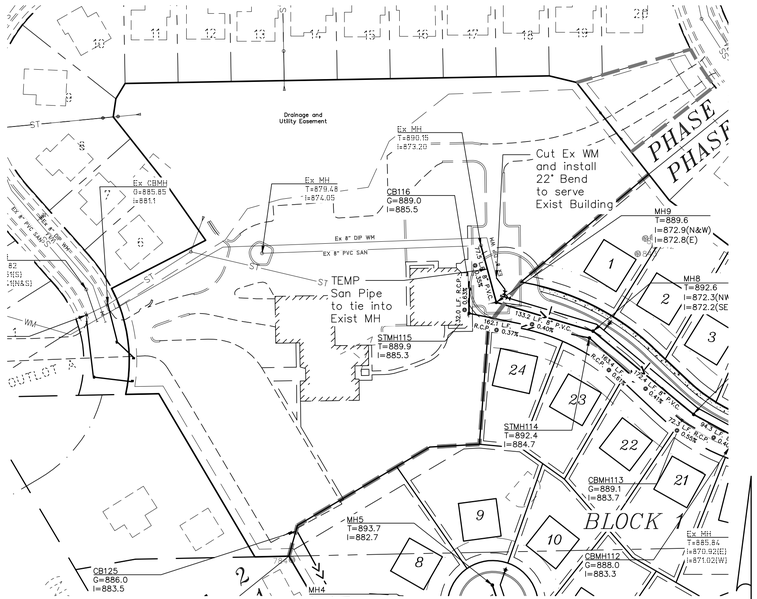
Anoka County, Minnesota

LEGEND:

- SS — SS — EXISTING SANITARY SEWER
- WM — WM — EXISTING WATERMAIN
- ST — ST — EXISTING STORM SEWER
- x — x — EXISTING FENCE
- PROPOSED SANITARY SEWER
- PROPOSED WATERMAIN
- PROPOSED STORM SEWER

GENERAL CONSTRUCTION NOTES:

1.) Existing Utility Locations As-Per As-Built Plans Provided By the _____ and Hedlund Engineering.
2.) All Existing Utilities or Improvements, Including Walks,Curbs Pavement and Parkways Damaged or Removed During Construction Shall be Promptly Restored to Their Respective Original Condition.
3.) The Contractor Shall Notify all Utility Companies Prior to Construction to Verify in the Field all Existing and Underground Utilities Adjacent to the Project, and be Responsible for Protection of the same.
4.) For on Site Location of all Under-ground Utilities Call Gopher State One Call System (651)454-0002
5.) The Contractor Shall Beware of Potential Conflicts with Existing Utilities as Indicated on the Plans The Contractor Shall Excavate Around Utilities to Determine Elev. Before Beginning Construction.
6.) The Contractor Shall Be Responsible To Lower Watermain During Install. Where Necessary To Avoid Service Conflicts.



PHASE 1 DETAIL

PRELIMINARY
NOT FOR CONSTRUCTION

100 0 100 200 300

Scale 1" = 100'

PROJECT NUMBER 141029

REVISIONS

REMARKS	DATE	BY
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CERTIFICATION:
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: ---

Randall C. Hedlund MN. LIC. NO. 19576

PREPARED BY:

HEDLUND SURVEYING

ENGINEERING PLANNING
2005 Pin Oak Drive
Eagan, MN 55122
Phone: (651) 405-6600
Fax: (651) 405-6606

SHEET TITLE: *HARVEST ESTATES UTILITY PLAN*

PREPARED FOR: *NIK MANAGEMENT INC.*
11736 177TH ST W.
Lakeville, MN 55044
Phone: (952) 236-9424

DRAWN	CHECKED	DESIGN
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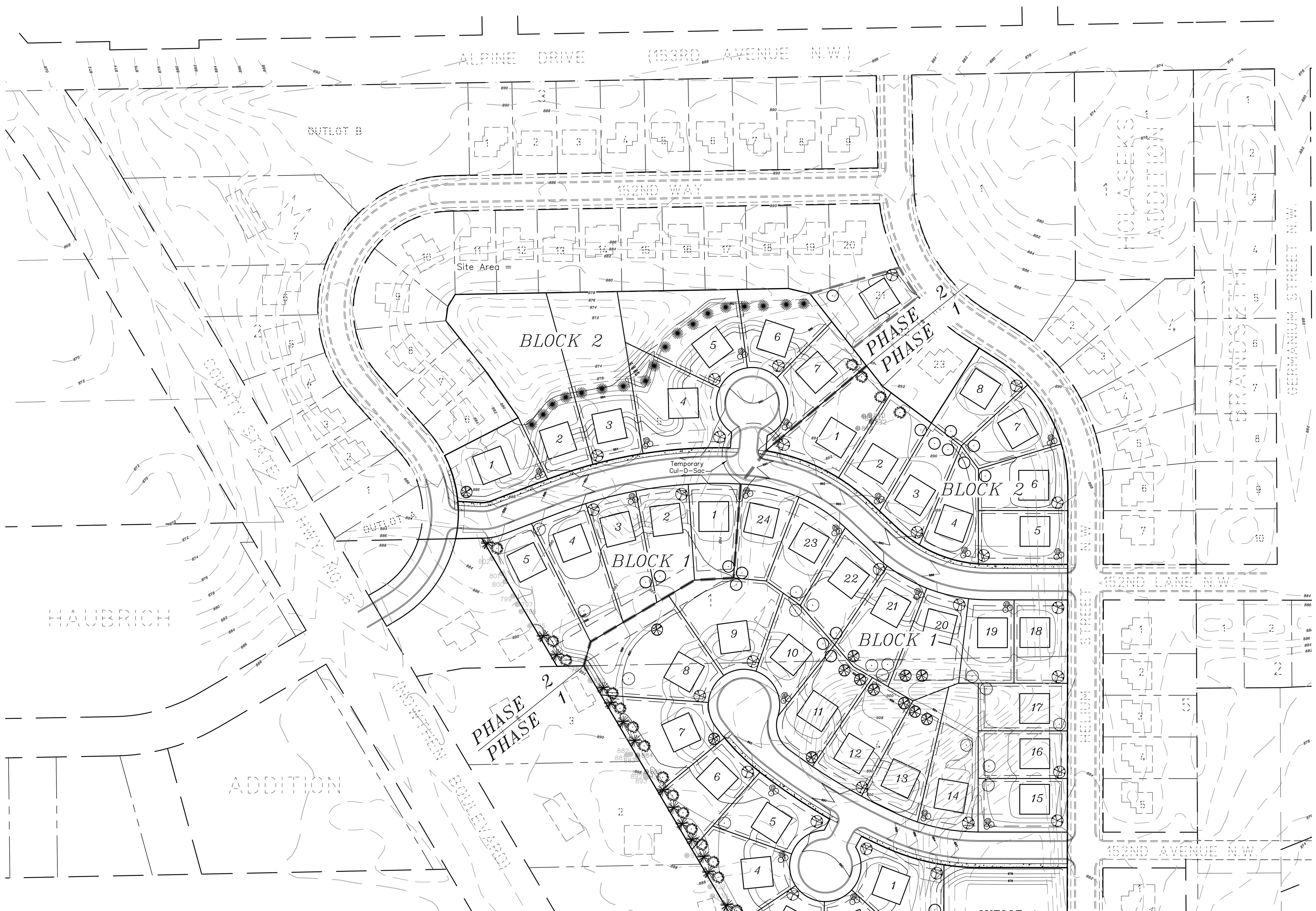
SHEET NUMBER *C-3*

DATE 3/5/2015
REV. ----

Drawing:H:\2014 Projects\141029\Cadd\Submittal\Shts\Util1Sht.dwg
Layout:PP_UTIL
Date:Mar 05,2015,9:52am
X-Ref Dwg:141029util.dwg
X-Ref Dwg:141029base.dwg

HARVEST ESTATES
City of Ramsey
Anoka County, Minnesota



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.

Contractor shall verify locations with all utililies 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.

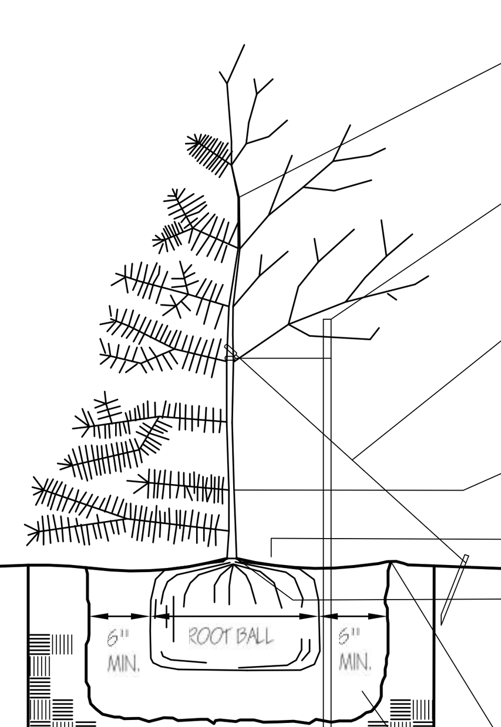
Owner shall be responsible for maintenance after acceptance of the work by the Owner.

Plants shall be immediately planted upon arrival at site. Properly heel-in materials if necessary; temporary only.

Shredded hardwood mulch (4''- 6'' deep) shall be shall be placed around all new trees and shrub clusters. Diameter of mulched areas shrubs shall be a minimum of 4' from the trunk or stem of all trees and shrubs. Trench edging shall be used around all mulched areas.

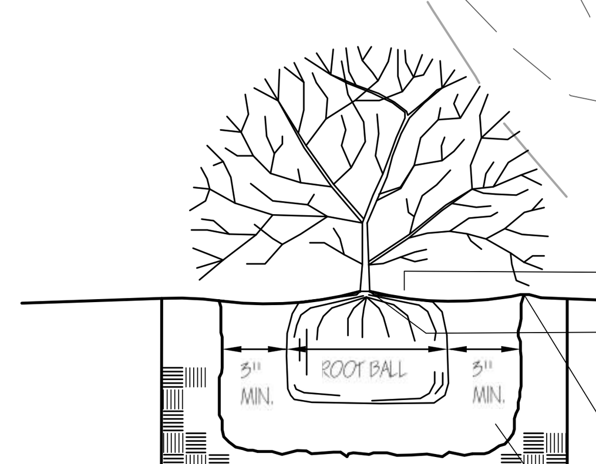
PLANT LIST:

QTY.	KEY	SYM	COMMON NAME	BOTANICAL NAME	SIZE / ROOT
19	AP		Austrian Pine	Pinus nigra	6' B&B
24	BHS		Black Hills Spruce	Picea glauca densata	6' B&B
18	BF		Balsam Fir	Abies balsamea	6' B&B
14	NM		Norway Maple	Acer platanoides	2.5'' B&B
16	LL		Legend Linden	Tilia americana	2.5'' B&B
19	RB		River Birch	Betula nigra	2.5'' B&B
27	PA		Patmore Ash	Fraxinus pennsylvanica	2.5'' B&B
23	SWO		Swamp White Oak	Quercus bicolor	2.5'' B&B



TREE PLANTING DETAIL

No Scale



SHRUB PLANTING DETAIL

No Scale

Drawing: H:\2014 Projects\141029\Cadd\SubmittalShts\LandSht.dwg
Layout: Landscape sheet
Date: Mar 05,2015,10:25am
X-Ref Dwg: 141029util.dwg
X-Ref Dwg: 141029base.dwg
X-Ref Dwg: 141029topo.dwg

PRELIMINARY
NOT FOR CONSTRUCTION

100 0 100 200 300

Scale 1" = 100'

PROJECT NUMBER 141029

REVISIONS		
REMARKS	DATE	BY
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CERTIFICATION: I hereby certify that this plan 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.

Randall C. Hedlund, Minn. No. 19576

PREPARED BY:
HEDLUND
PLANNING ENGINEERING SURVEYING
2005 Pin Oak Drive
Eagan, MN 55122
Phone: (651) 405-6600
Fax: (651) 405-6606

SHEET TITLE: **HARVEST ESTATES LANDSCAPE PLAN**

PREPARED FOR:
NIK MANAGEMENT INC.
11736 177TH St. W.
Lakeville, MN 55044
Phone: (952) 236-9424

DRAWN	CHECKED	DESIGN
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SHEET NUMBER **C-4**

DATE 3/5/2015
REV. 00/00/00

HARVEST ESTATES

City of Ramsey

Anoka County, Minnesota

Trees Saved

Tree #	Species	DBH	Condition	Stems
840	Juniper	6.0	Good	1
841	Juniper	7.0	Good	1
842	Juniper	7.0	Good	1
884	Spruce, white	7.0	Fair	1
890	Pine, red	10.0	Good	1
955	Pine, red	11.5	Good	1
958	Pine, red	6.0	Good	1
959	Pine, red	7.0	Good	1
961	Pine, red	13.0	Good	1

Trees Lost

Tree #	Species	DBH	Condition	Stems
702	Pine, red	7.0	Good	1
703	Pine, red	7.5	Good	1
704	Pine, red	7.0	Good	1
705	Pine, red	10.0	Good	1
708	Juniper	5.0	Good	1
709	Pine, red	7.5	Good	1
710	Juniper	15.0	Good	1
711	Juniper	14.0	Good	1
713	Juniper	12.0	Good	1
715	Pine, red	6.5	Good	1
727	Pine, red	7.0	Good	1
728	Pine, red	4.5	Good	1
729	Pine, red	7.5	Good	1
730	Pine, white	10.5	Good	1
731	Pine, red	7.0	Fair	1
732	Pine, red	6.0	Good	1
733	Pine, red	6.5	Good	1
734	Pine, red	8.0	Good	1
736	Spruce, white	4.0	Good	1
738	Pine, red	10.0	Fair	1
739	Pine, red	8.0	Good	1
748	Pine, red	9.0	Good	1
750	Juniper	7.5	Good	1
751	Juniper	8.0	Good	1
752	Pine, Scots	7.5	Good	1
753	Pine, Scots	8.0	Good	1
754	Pine, Scots	7.0	Good	1
757	Pine, Scots	9.5	Good	1
758	Pine, Scots	7.0	Good	1
759	Pine, Scots	13.0	Fair	1
760	Pine, Scots	8.5	Good	1
761	Pine, Scots	4.0	Fair	1
762	Spruce, blue	5.5	Good	1
763	Ash, green	8.5	Good	1
764	Maple, silver	16.5	Good	1
765	Ash, green	9.5	Good	1
766	Spruce, blue	4.0	Fair	1
767	Spruce, blue	4.5	Good	1
768	Spruce, blue	5.5	Good	1
769	Spruce, blue	7.5	Good	1
770	Spruce, blue	8.0	Good	1
771	Spruce, blue	5.0	Good	1
772	Spruce, blue	6.0	Good	1
773	Spruce, blue	7.0	Fair	2
775	Spruce, blue	4.5	Fair	1
776	Spruce, blue	6.0	Good	1
777	Spruce, blue	7.0	Good	1
778	Spruce, blue	5.0	Good	1
779	Pine, Scots	9.0	Good	1
780	Spruce, blue	4.0	Fair	1
781	Spruce, white	5.0	Good	1
782	Spruce, white	4.5	Good	1
786	Spruce, white	5.0	Good	1
787	Spruce, white	5.0	Good	1
788	Spruce, white	7.0	Good	1
789	Spruce, white	5.0	Good	1
790	Oak, red	7.5	Good	1
791	Ash, green	10.0	Good	1
792	Basswood	13.1	Fair	2
793	Basswood	9.0	Good	1
794	Basswood	8.0	Good	1
798	Maple, sugar	8.0	Good	1
803	Maple, Norway	8.5	Good	1
804	Maple, silver	28.0	Fair	4
805	Honeylocust	11.5	Good	1
806	Spruce, white	13.0	Good	1
807	Basswood	10.0	Good	1
808	Ash, green	11.5	Good	1
809	Ash, green	11.5	Good	1
810	Ash, green	12.0	Good	1
811	Maple, sugar	11.5	Fair	1
812	Hackberry	8.0	Good	1
813	Ash, green	11.5	Good	1

Trees Lost

Tree #	Species	DBH	Condition	Stems
814	Maple, silver	13.0	Good	1
815	Spruce, blue	12.0	Good	1
816	Ash, green	10.5	Good	1
817	Ash, green	8.0	Good	1
818	Ash, green	10.0	Fair	1
819	Ash, green	10.0	Good	1
820	Crabapple	8.0	Good	1
821	Hackberry	9.0	Good	1
822	Pine, Scots	14.0	Good	1
823	Pine, Scots	16.0	Good	1
824	Pine, Scots	16.5	Good	1
825	Ash, green	12.0	Good	1
826	Maple, Norway	10.5	Good	1
827	Maple, Norway	9.5	Good	1
828	Ash, green	11.0	Good	1
829	Maple, silver	18.0	Fair	2
830	Birch, paper	15.0	Good	3
834	Juniper	9.0	Good	1
845	Juniper	7.0	Good	1
846	Juniper	17.0	Fair	5
847	Juniper	7.0	Good	1
848	Juniper	11.0	Fair	1
849	Juniper	7.0	Good	1
851	Juniper	5.5	Good	1
855	Juniper	6.0	Good	1
865	Juniper	13.0	Fair	1
886	Pine, red	9.5	Good	1
887	Pine, red	8.0	Good	1
888	Pine, red	8.5	Fair	1
889	Pine, red	10.0	Good	1
894	Pine, red	6.0	Good	1
895	Pine, red	7.0	Good	1
896	Pine, red	6.0	Good	1
897	Pine, red	6.0	Good	1
898	Pine, red	7.0	Good	1
899	Pine, red	7.5	Good	1
900	Pine, red	8.0	Good	1
901	Pine, red	9.5	Good	1
908	Pine, red	7.0	Fair	1
909	Pine, red	7.0	Good	1
910	Pine, red	5.0	Fair	1
911	Pine, red	6.5	Good	1
912	Pine, red	7.0	Good	1
913	Pine, red	10.5	Good	1
914	Pine, red	10.0	Good	1
915	Pine, red	8.0	Good	1
924	Pine, red	13.1	Good	1
925	Pine, red	12.5	Good	1
926	Pine, red	10.5	Good	1
927	Pine, red	14.0	Good	1
928	Pine, red	12.5	Good	1
931	Pine, red	13.0	Good	1
932	Pine, red	12.5	Good	1
933	Pine, red	11.5	Good	1
934	Pine, red	10.5	Good	1
935	Pine, red	12.0	Good	1
936	Pine, red	10.5	Good	1
937	Pine, red	9.5	Good	1
938	Pine, red	9.5	Good	1
939	Pine, red	14.0	Fair	2
940	Pine, red	6.5	Fair	1
941	Pine, red	8.0	Good	1
942	Pine, red	5.5	Good	1
943	Pine, red	8.5	Good	1
944	Pine, red	6.5	Good	1
945	Pine, red	12.0	Good	1
946	Pine, red	9.0	Good	1
947	Pine, red	8.0	Fair	1
948	Pine, red	9.0	Good	1
949	Pine, red	9.5	Good	1
950	Pine, red	10.0	Good	1
951	Pine, red	11.5	Good	1
952	Pine, red	10.0	Good	1
953	Pine, red	10.5	Good	1
954	Pine, red	17.0	Fair	2
965	Pine, red	7.0	Good	1

Total DBH= 1434.7

DBH Saved= 74.5

DBH Lost= 1360.2

Allowable Removal=2545 X 60%= **861**

Excess removed= **499**

Required replanting = 499 in. x 1.25 = 624 in. = 250 trees @ 2.5 inches - 90 trees (2 per lot required per ordinance) = 160 Trees

Siberian Elms (Not included in calculations)

Tree #	Species	DBH	Condition	Stems
784	Elm, Siberian	16.0	Fair	2
839	Elm, Siberian	21.0	Fair	1
843	Elm, Siberian	25.0	Fair	1
701	Elm, Siberian	27.0	Fair	1
706	Elm, Siberian	12.5	Fair	1
707	Elm, Siberian	8.5	Fair	1
716	Elm, Siberian	17.0	Good	1
717	Elm, Siberian	12.0	Fair	1
718	Elm, Siberian	14.0	Good	1
719	Elm, Siberian	19.0	Good	1
720	Elm, Siberian	11.5	Fair	1
721	Elm, Siberian	12.0	Fair	1
722	Elm, Siberian	12.0	Fair	1
723	Elm, Siberian	12.0	Fair	1
724	Elm, Siberian	15.0	Fair	1
725	Elm, Siberian	15.0	Fair	1
726	Elm, Siberian	10.0	Fair	1
712	Elm, Siberian	10.0	Good	1
714	Elm, Siberian	9.5	Good	1
735	Elm, Siberian	17.0	Fair	1
737	Elm, Siberian	20.0	Fair	1
740	Elm, Siberian	13.5	Fair	1
741	Elm, Siberian	10.0	Fair	1
742	Elm, Siberian	8.0	Fair	1
743	Elm, Siberian	18.0	Fair	1
744	Elm, Siberian	13.0	Fair	1
745	Elm, Siberian	16.0	Fair	1
746	Elm, Siberian	15.0	Fair	1
747	Elm, Siberian	10.0	Fair	1
749	Elm, Siberian	16.0	Fair	1
755	Elm, Siberian	8.0	Good	1
756	Elm, Siberian	9.0	Fair	1
774	Elm, Siberian	16.0	Fair	2
788	Elm, Siberian	20.0	Fair	2
785	Elm, Siberian	11.0	Fair	2
831	Elm, Siberian	19.0	Fair	1
832	Elm, Siberian	34.0	Fair	1
833	Elm, Siberian	9.5	Fair	1
835	Elm, Siberian	15.0	Fair	2
836	Elm, Siberian	8.0	Fair	1
837	Elm, Siberian	16.0	Fair	1
838	Elm, Siberian	11.0	Fair	1
844	Elm, Siberian	11.0	Fair	2

Siberian Elms (Not included in calculations)

Tree #	Species	DBH	Condition	Stems
850	Elm, Siberian	11.0	Fair	1
852	Elm, Siberian	9.0	Good	1
853	Elm, Siberian	14.0	Fair	1
854	Elm, Siberian	14.0	Good	1
856	Elm, Siberian	9.0	Good	1
857	Elm, Siberian	13.0	Good	1
858	Elm, Siberian	14.0	Fair	1
859	Elm, Siberian	8.0	Good	1
860	Elm, Siberian	12.0	Fair	2
861	Elm, Siberian	9.0	Fair	1
862	Elm, Siberian	10.0	Fair	1
863	Elm, Siberian	8.0	Fair	1
864	Elm, Siberian	9.0	Fair	1
866	Elm, Siberian	16.0	Fair	2
867	Elm, Siberian	15.0	Fair	4
868	Elm, Siberian	15.0	Fair	4
869	Elm, Siberian	10.0	Fair	2
870	Elm, Siberian	13.0	Fair	1
871	Elm, Siberian	9.0	Fair	2
872	Elm, Siberian	14.0	Fair	1
873	Elm, Siberian	14.0	Fair	1
874	Elm, Siberian	9.0	Fair	2
875	Elm, Siberian	8.0	Fair	2
876	Elm, Siberian	9.0	Fair	1
877	Elm, Siberian	20.0	Fair	1
878	Elm, Siberian	20.0	Fair	1
879	Elm, Siberian	15.0	Fair	1
885	Elm, Siberian	9.0	Fair	1
902	Elm, Siberian	8.0	Fair	1
908	Elm, Siberian	9.0	Fair	1
904	Elm, Siberian	12.0	Fair	1
905	Elm, Siberian	9.0	Fair	1
906	Elm, Siberian	11.0	Fair	1
907	Elm, Siberian	11.0	Fair	2
916	Elm, Siberian	17.0	Fair	3
917	Elm, Siberian	16.0	Fair	1
919	Elm, Siberian	16.0	Fair	1
920	Elm, Siberian	10.0	Fair	1
921	Elm, Siberian	10.0	Fair	1
922	Elm, Siberian	10.0	Fair	1
923	Elm, Siberian	12.0	Fair	1

Elms DBH= 1110.0

Trees Removed from inventory (Not on property)

Tree #	Species	DBH	Condition	Stems
795	Maple, silver	27.0	Fair	1
796	Maple, silver	18.0	Fair	2
797	Maple, silver	9.5	Good	1
799	Maple, silver	26.0	Fair	4
800	Maple, silver	30.0	Fair	4
801	Maple, silver	31.0	Fair	3
802	Maple, silver	15.0	Fair	1
880	Elm, Siberian	30.0	Fair	1
881	Spruce, white	7.0	Fair	1
882	Spruce, white	11.0	Good	1
883	Elm, Siberian	9.5	Fair	1
891	Pine, red	10.0	Good	1

Tree #	Species	DBH	Condition	Stems
892	Pine, red	12.5	Good	1
893	Pine, red	6.0	Fair	1
918	Elm, Siber	21.0	Fair	1
929	Elm, Siber	10.0	Fair	1
930	Elm, Siber	22.0	Fair	1
956	Pine, red	6.5	Good	1
957	Pine, red	7.5	Good	1
960	Pine, red	5.5	Good	1
962	Pine, red	8.5	Good	1
963	Pine, red	4.0	Good	1
964	Pine, red	10.0	Good	1
966	Pine, red	5.5	Good	1

PRELIMINARY
NOT FOR CONSTRUCTION

100 0 100 200 300

Scale 1" = 100'

PROJECT NUMBER 141029

REVISIONS

REMARKS	DATE	BY
---	---	---

CERTIFICATION: I hereby certify that this plan 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.

Randall C. Hedlund, Minn. No. 19576

PREPARED BY:

HEDLUND SURVEYING ENGINEERING PLANNING

2005 Pin Oak Drive
Eagan, MN 55122
Phone: (651) 405-6600
Fax: (651) 405-6606

SHEET TITLE: *HARVEST ESTATES TREE PRESERVATION PLAN*

PREPARED FOR: *NIK MANAGEMENT INC.*
11736 177TH St W.
Lakeville, MN 55044
Phone: (952) 236-9424

DRAWN	CHECKED	DESIGN
---	---	---

SHEET NUMBER *C-5*

DATE 3/5/2015
REV. 00/00/00

Drawing:H:\2014 Projects\141029\Cadd\Submittals\Shts\TreePresSht.dwg
Layout:Tree Preservation
Date:Mar 05,2015,10:20am
X-Ref Dwg:141029util.dwg
X-Ref Dwg:141029base.dwg
X-Ref Dwg:141029topo.dwg

HARVEST ESTATES
City of Ramsey
Anoka County, Minnesota

LEGEND:

X = 920.8	EXISTING CONTOUR
	EXISTING GRADE ELEVATION
	EXISTING TREE LINE
	EXISTING TREE
ST ST	EXISTING STORM SEWER
x x	EXISTING FENCE
	PROPOSED CONTOUR
	PROPOSED STORM SEWER
920.8	PROPOSED GRADE
	RETAINING WALL
920.8	DENOTES AS-BUILT GRADE
	EMERGENCY OVERFLOW

GENERAL GRADING NOTES:

1.) UNDERLYING TOPOGRAPHY FROM INFORMATION PROVIDED BY ANOKA COUNTY AND FIELD SHOTS BY HEDLUND ENGINEERING.

2.) EXISTING UTILITY LOCATIONS AS-PER PLANS PROVIDED BY THE CITY OF RAMSEY AND FIELD SHOTS BY HEDLUND ENGINEERING.

3.) SEE GRADING AND EROSION CONTROL DETAIL SHEET FOR DETAILED INFORMATION.

LOT BY LOT TABULATION

LOT	BLOCK	HOUSE TYPE	GARAGE FLOOR ELE	DRIVEWAY GRADE (%)	LOWEST FLOOR ELE	LOWEST OPENING ELE	100 YEAR FLOOD ELE	EMERGENCY OVERFLOW ELE	HIGHEST ANTICIPATED WATER TABLE OR MOTTLED SOIL
PHASE 1									
1	1	FBLO	893.5	7.1	886.0	889.2	879.6	879.6	
2	1	FBLO	894.0	5.8	886.5	889.7	879.6	879.6	
3	1	FBLO	894.0	6.0	886.5	889.7	879.6	879.6	
4	1	FBLO	894.0	5.8	886.5	889.7	N/A	880.0	
5	1	FBLO	894.0	8.7	886.5	889.7	N/A	880.0	
6	1	FBLO	895.0	6.4	887.5	890.7	N/A	880.0	
7	1	FBLO	897.0	7.3	889.5	892.7	N/A	880.0	
8	1	FBLO	897.0	6.7	889.5	892.7	N/A	889.0	
9	1	FBLO	897.0	6.2	889.5	892.7	N/A	889.0	
10	1	FBLO	897.0	6.7	889.5	892.7	N/A	884.0	
11	1	FBLO	895.0	6.7	887.5	890.7	N/A	884.0	
12	1	FBLO	894.0	5.1	886.5	889.7	N/A	884.0	
13	1	FBLO	893.0	7.8	885.5	888.7	N/A	884.0	
14	1	FB	887.0	6.7	879.5	887.0	N/A	884.0	
15	1	FB	886.5	5.8	879.0	886.5	N/A	N/A	
16	1	FB	886.5	4.0	879.0	886.5	N/A	N/A	
17	1	FB	887.5	4.2	880.0	887.5	N/A	884.0	
18	1	FB	888.5	1.3	881.0	888.5	N/A	884.0	
19	1	FB	889.5	5.1	882.5	889.5	N/A	884.0	
20	1	FBLO	891.0	6.9	883.5	886.7	N/A	884.0	
21	1	FBLO	892.5	5.8	885.0	888.2	N/A	884.0	
22	1	FBLO	894.0	8.2	886.5	889.7	N/A	884.0	
23	1	FB	895.0	6.7	887.5	895.0	N/A	884	
24	1	FB	893.0	5.1	885.5	893.0	N/A	889	
1	2	FB	894.5	5.6	887.0	894.5	N/A	887.5	
2	2	FB	894.5	5.6	887.0	894.5	N/A	887.5	
3	2	FB	893.5	7.6	886.0	893.5	N/A	887.5	
4	2	FB	891.5	7.8	884.0	891.5	N/A	887.5	
5	2	FB	889.5	3.6	882.5	889.5	N/A	887.5	
6	2	FB	890.5	3.3	883.0	890.5	N/A	887.5	
7	2	FB	892.5	5.3	885.0	892.5	N/A	887.5	
8	2	FB	893.5	4.4	886.0	893.5	N/A	887.5	
PHASE 2									
1	1	FB	892.5	5.6	885.0	892.5	878.0	N/A	
2	1	FB	894.5	5.8	887.0	890.2	878.0	N/A	
3	1	FBLO	894.4	5.6	887.0	890.2	878.0	N/A	
4	1	FB	891.5	6.0	884.0	891.5	878.0	N/A	
5	1	FB	889.0	1.6	881.5	889.0	878.0	N/A	
1	2	FBLO	888.0	4.4	880.5	883.7	878.0	N/A	
2	2	FBWO	892.5	5.6	885.0	885.0	878.0	N/A	
3	2	FBWO	894.5	5.6	887.0	887.0	878.0	N/A	
4	2	FBWO	892.0	4.4	884.5	884.5	878.0	N/A	
5	2	FBWO	892.0	2.9	884.5	884.5	878.0	N/A	
6	2	FBWO	893.0	4.4	885.5	885.5	878.0	N/A	
7	2	FBLO	893.0	6.7	885.5	888.7	878.0	N/A	

Cut/Fill Summary - Preliminary - Run Date - 2-27-15

Name	Cut Factor	Fill Factor	2d Area	Cut	Fill	Net
Cut-Fill	1.000	1.000	827983.43 Sq. Ft.	43237.64 Cu. Yd.	65380.06 Cu. Yd.	22142.42 Cu. Yd.<Fill>
Totals			827983.43 Sq. Ft.	43237.64 Cu. Yd.	65380.06 Cu. Yd.	22142.42 Cu. Yd.<Fill>

TOTAL DISTURBED AREA = 19.1 ACRES
TOTAL IMPERVIOUS SURFACE = 5.6 ACRES

PRELIMINARY
NOT FOR CONSTRUCTION

BENCHMARK

ANOKA COUNTY BENCHMARK DISK, BENCHMARK NO. 2088,
LOCATED ON THE NORTHWESTERLY CORNER OF
15133 NOWTHEN BLVD NW, RAMSEY, MN 55303
ELEVATION = 886.831

100 0 100 200 300
Scale 1" = 100'

PROJECT NUMBER 141029

REVISIONS

REMARKS	DATE	BY
---	---	---

CERTIFICATION:
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.

Randall C. Hedlund — MN. LIC. NO. 19576 — Date: ---

PREPARED BY:
HEDLUND SURVEYING ENGINEERING
PLANNING
2005 Pin Oak Drive
Eagan, MN 55122
Phone: (651) 405-6600
Fax: (651) 405-6606

SHEET TITLE: *HARVEST ESTATES GRADING PLAN*

PREPARED FOR:
NIK MANAGEMENT INC.
11736 177TH St. W.
Lakeville, MN 55044
Phone: (952) 236-9424

DRAWN	CHECKED	DESIGN
---	---	---

SHEET NUMBER
CG-1

DATE 3/5/2015
REV. ---

Drawing:H:\2014 Projects\141029\Cadd\Submittal Shts\GradErosionShts\GradingSht.dwg
Layout:Grading Plan
Date:Mar 05,2015,10:05am
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X-Ref Dwg:141029base.dwg
X-Ref Dwg:141029topo.dwg
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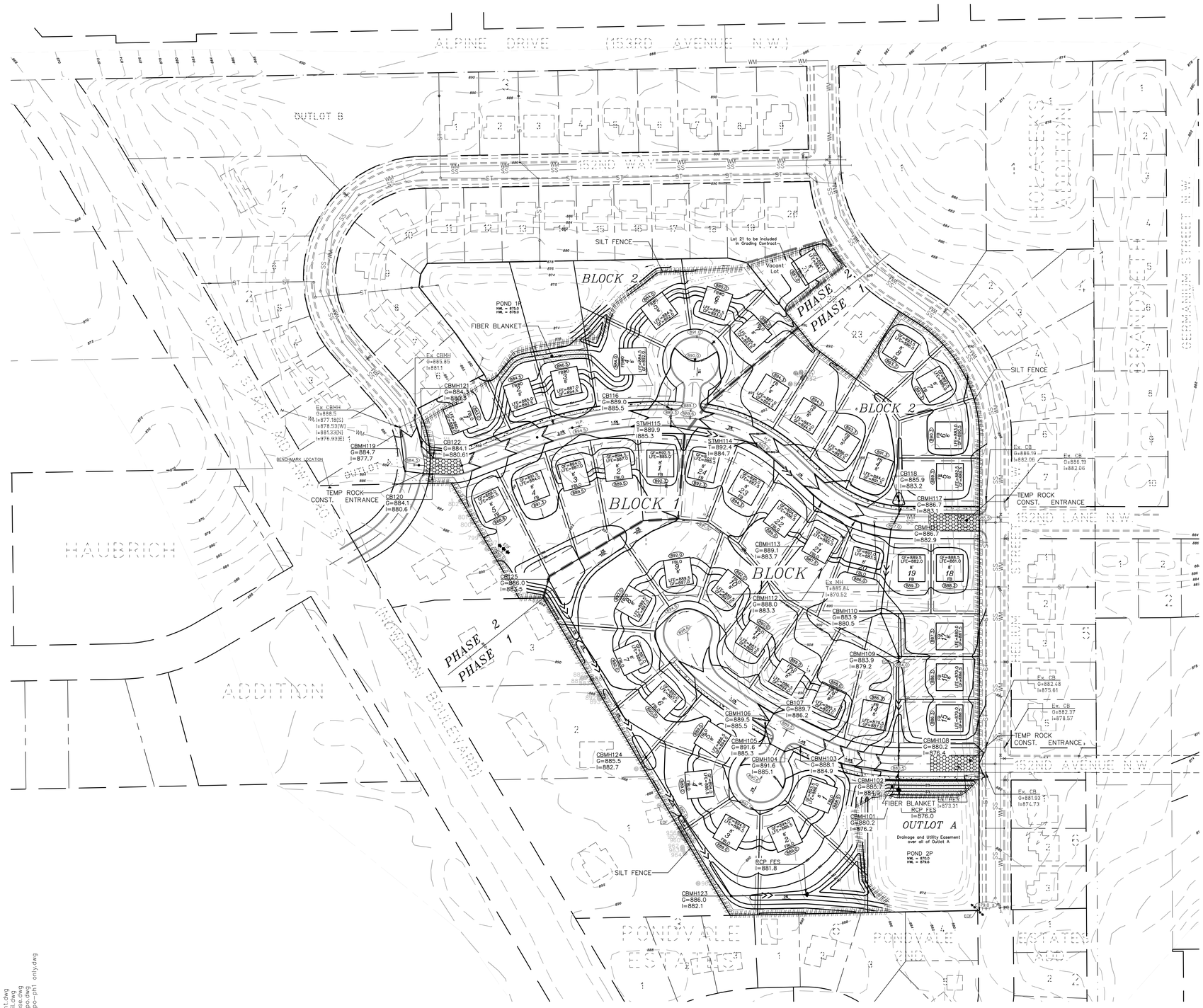
HARVEST ESTATES

City of Ramsey

Anoka County, Minnesota



GENERAL EROSION CONTROL NOTES:

EROSION CONTROL SCHEDULE:

1.) INSTALL EROSION CONTROL MEASURES PRIOR TO ANY LAND DISTURBANCE. INSTALL SEDIMENT FILTERS IMMEDIATELY FOLLOWING INSTALLATION OF STRUCTURE.
2.) SLOPES MUST BE STABILIZED BY BEING SEEDED AND COVERED WITH AN EROSION CONTROL BLANKET OR MULCHED WITH A TACKIFYING AGENT AS SOON AS POSSIBLE AFTER COMPLETION OF GRADING
3.) ALL EROSION CONTROL INSTALLATIONS SHALL REMAIN IN PLACE AND BE MAINTAINED IN GOOD CONDITION BY THE CONTRACTOR/PERMITTEE UNTIL THE SITE HAS BEEN RE-VEGETATED, AT WHICH TIME THEY SHALL BE REMOVED. FOR PROPOSED PAVED SURFACE AREA, THE CONTRACTOR MAY REMOVE NECESSARY SILT FENCING TO CONSTRUCT ROADWAY WHILE MAINTAINING ADEQUATE EROSION CONTROL IN ADJACENT AREAS.
4.) SUFFICIENT TOPSOIL SHALL BE STOCKPILED TO ALLOW FOR THE REPLACEMENT OF A MINIMUM OF 4" OF TOPSOIL FOR DISTURBED AREAS THAT ARE TO BE REVEGATATED.
5.) THE CONTRACTOR/PERMITTEE SHALL SCHEDULE SITE GRADING, UTILITY INSTALLATION AND ROADWAY CONSTRUCTION SO THAT THE GENERAL SITE CAN BE MULCHED AND RE-SEEDED SOON AFTER DISTURBANCE. ALL DISTURBED AREAS SHALL BE SEEDED AND MULCHED WITHIN 14 DAYS AFTER COMPLETION OF FINAL GRADING OR AFTER 14 DAYS OF GRADING INACTIVITY. ALL MULCH MATERIAL SHALL BE DISCED INTO THE SOIL IN DIRECTION PERPENDICULAR TO THE STORMWATER FLOW OVER SUCH AREAS.
6.) REVEGETATE WITH MNDOT MIX 50B OR 60B AT 75 LBS/ACRE WITH TYPE 1 MULCH AT 2000 LBS/ACRE.

EROSION CONTROL MAINTENANCE PROGRAM:

1.) INSPECT CONSTRUCTION SITE ONCE EVERY 7 DAYS AND WITHIN 24 HOURS OF A RAINFALL EVENT OF MORE THAN $\frac{1}{2}$ INCHES IN 24 HOUR PERIOD.
2.) SEDIMENT DEPOSITS SHOULD BE REMOVED AFTER EACH STORM EVENT. THEY MUST BE REMOVED WHEN DEPOSITS REACH APPROXIMATELY ONE-HALF THE HEIGHT OF THE BARRIER.
3.) SILT FENCE FABRIC SHALL BE REPLACED PROMPTLY WHEN IT DECOMPOSES OR BECOMES INEFFECTIVE BEFORE THE BARRIER IS NO LONGER NECESSARY.
4.) ALL SOILS TRACKED ONTO PAVEMENT SHALL BE REMOVED DAILY.
5.) ANY SEDIMENT REMAINING IN PLACE AFTER THE SILT FENCE OR FILTER FABRIC IS NO LONGER REQUIRED SHALL BE DRESSED TO CONFORM WITH THE EXISTING GRADE, PREPARED AND SEEDED WITH THE APPROPRIATE SEED MIX.
6.) IN THOSE AREAS WHERE WOOD FIBER BLANKET OR OTHER SLOPE STABILIZATION METHOD HAS FAILED, THE SLOPE SHALL BE REESTABLISHED, SEED AND TOPSOIL REPLACED, AND ADDITIONAL SLOPE TREATMENT INSTALLED.
7.) SILT FENCES SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFUL PURPOSE, BUT NOT BEFORE THE UPWARD SLOPE AREA HAS BEEN PERMANENTLY STABILIZED. REMOVAL IS REQUIRED WITH ALL TEMPORARY EROSION CONTROL FACILITIES (SEDIMENT FILTERS, HAY BALES, ETC.) ONCE SITE IS PERMANENTLY STABILIZED BY THE BUILDER.
8.) ALL PERMANENT SEDIMENTATION BASINS MUST BE RESTORED TO THEIR DESIGN CONDITION IMMEDIATELY FOLLOWING PERMANENT STABILIZATION OF THE SITE.

EROSION CONTROL LEGEND:

- WOOD FIBER BLANKET
- ROCK CONSTRUCTION ENTRANCE
- ^ ^ ^ ^ ^ ^ - SEDIMENT TRAP OUTLET
- XXXXXXXXXXXX TREE PROTECTION
- ########### SILT FENCE

PRELIMINARY
NOT FOR CONSTRUCTION

100 0 100 200 300

Scale 1" = 100'

PROJECT NUMBER 141029

REVISIONS

REMARKS	DATE	BY
---	---	---

CERTIFICATION:
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.

Randall C. Hedlund — Date: — MN. LIC. NO. 19576

PREPARED BY:
HEDLUND SURVEYING ENGINEERING PLANNING
2005 Pin Oak Drive
Eagan, MN 55122
Phone: (651) 405-6600
Fax: (651) 405-6606

SHEET TITLE:
HARVEST ESTATES
EROSION PLAN

PREPARED FOR:
NIK MANAGEMENT INC.
11735 177TH St. W.
Lakeville, MN 55044
Phone: (952) 236-9424

DRAWN	CHECKED	DESIGN
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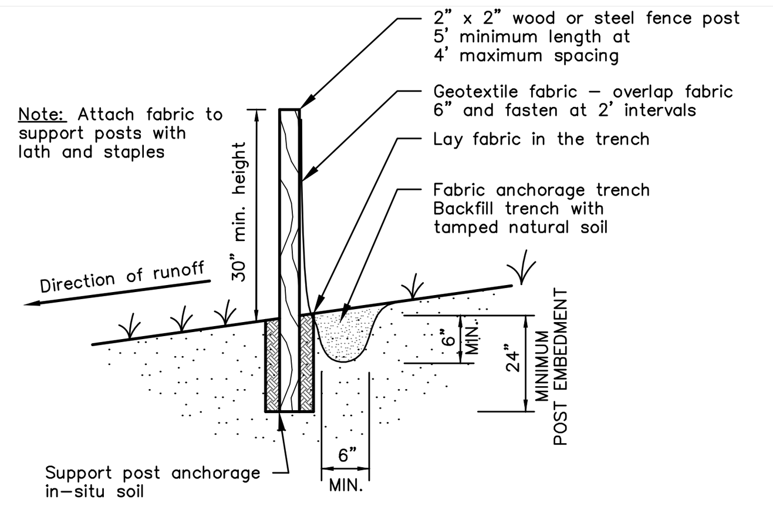
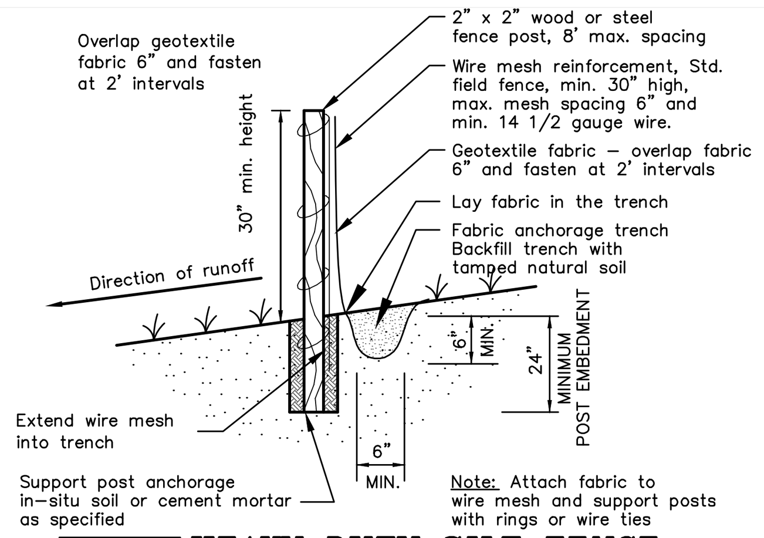
SHEET NUMBER
CE-1

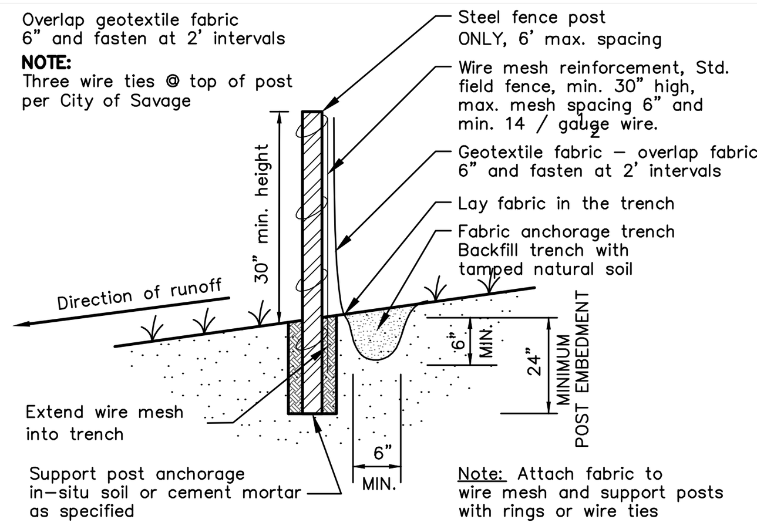
DATE 3/5/2015
REV. ----



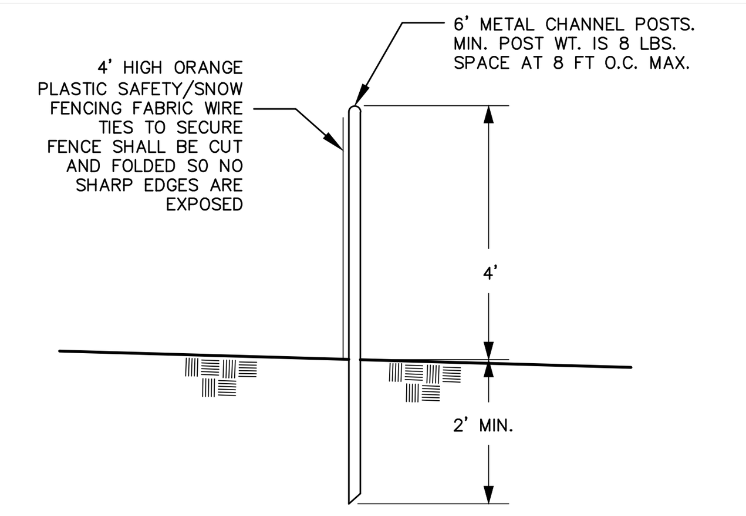
T-1 SILT FENCE
NO SCALE



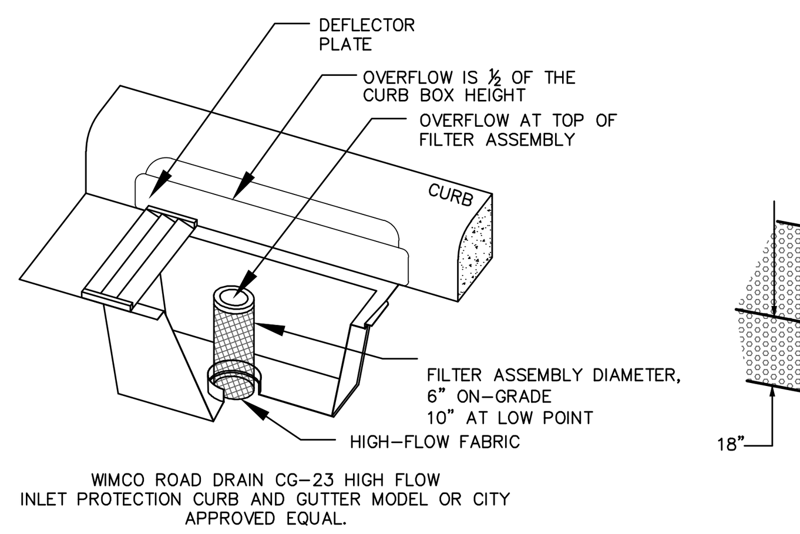
T-2 HEAVY DUTY SILT FENCE
NO SCALE



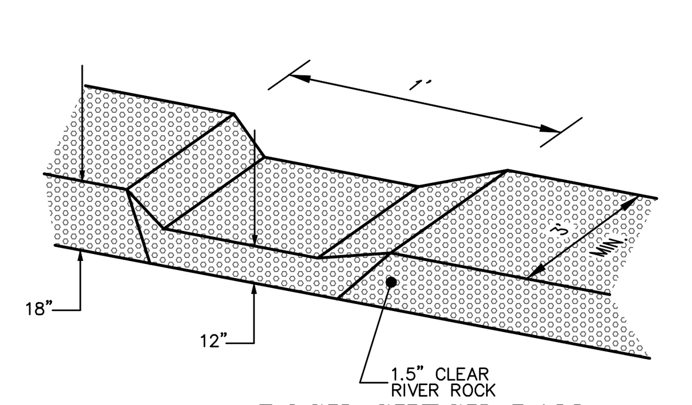
T-3 HEAVY DUTY SILT FENCE
NO SCALE (STEEL POST ONLY)



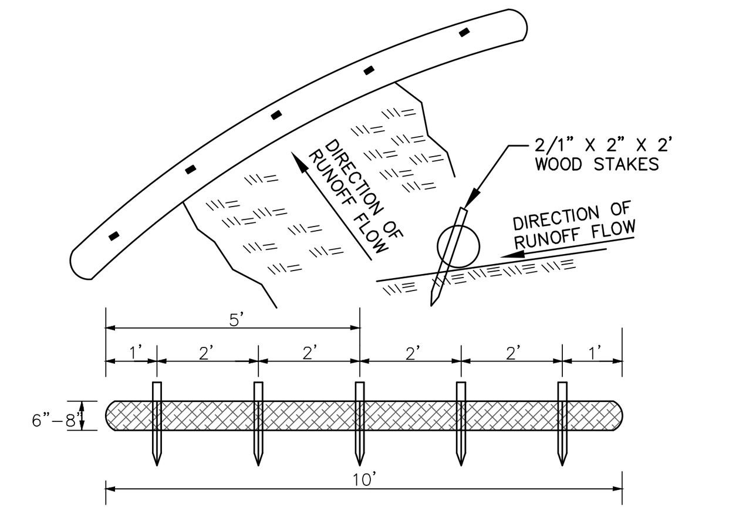
T-4 CONSTRUCTION FENCE
NO SCALE



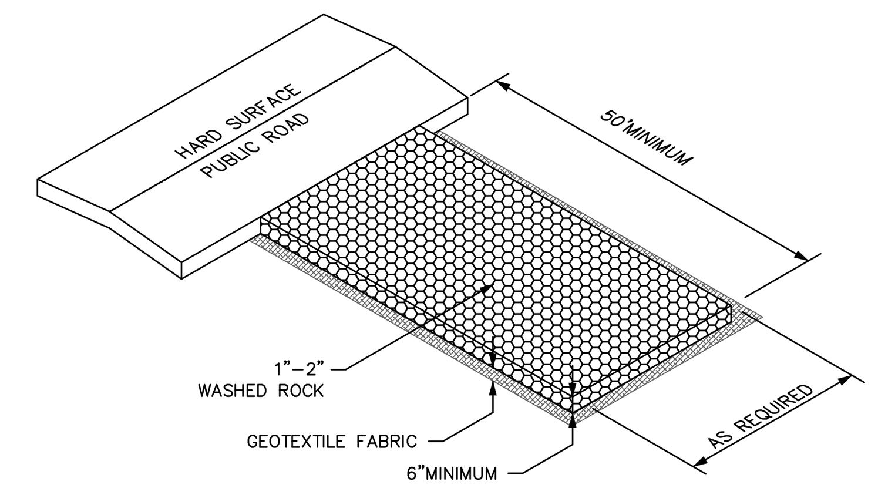
T-5 WIMCO ROAD DRAIN
NO SCALE



T-6 ROCK CHECK DAM
NO SCALE

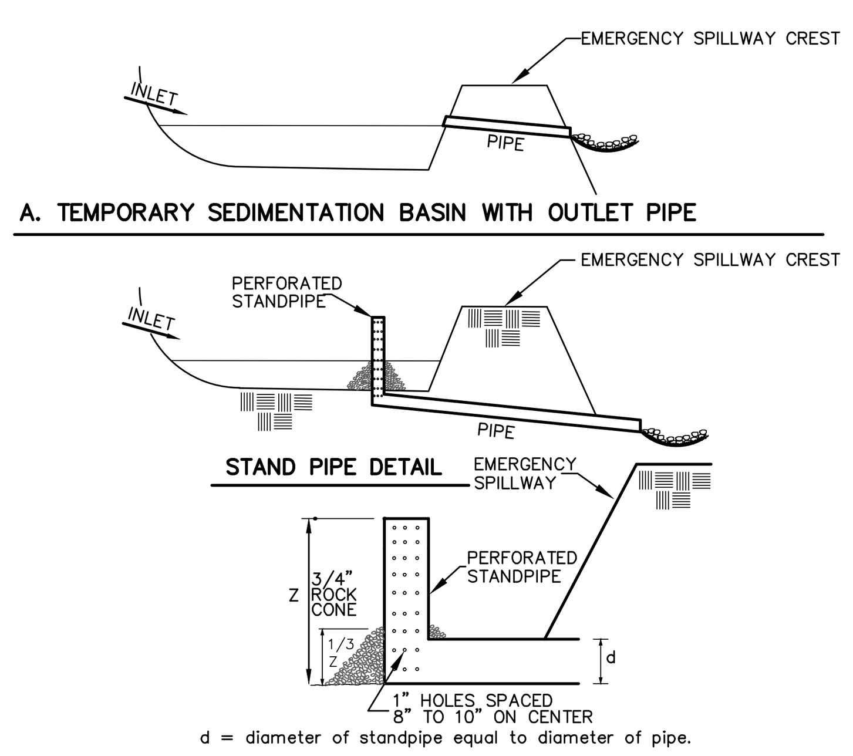


T-7 12" BIOROLL-MnDOT TYPE 3
NO SCALE



DESIGN RECOMMENDATIONS:
The Rock Used For Gravel Pads Should Be 1-2" Size. The Aggregate Should Be Placed In A Layer At Least 6 inches Thick. The Aggregate Should Be Min. Of 50 Feet In Length And Should Be At A Min. The Width Of The Proposed Road.
MAINTENANCE:
The Rock Pad Needs Occasional Maintenance To Prevent Tracking Of Mud Onto Paved Roads. This May Require Periodic Top Dressing With Additional Rock Or Removal And Reinstallation Of The Pad.

T-8 ROCK CONSTRUCTION ENTRANCE



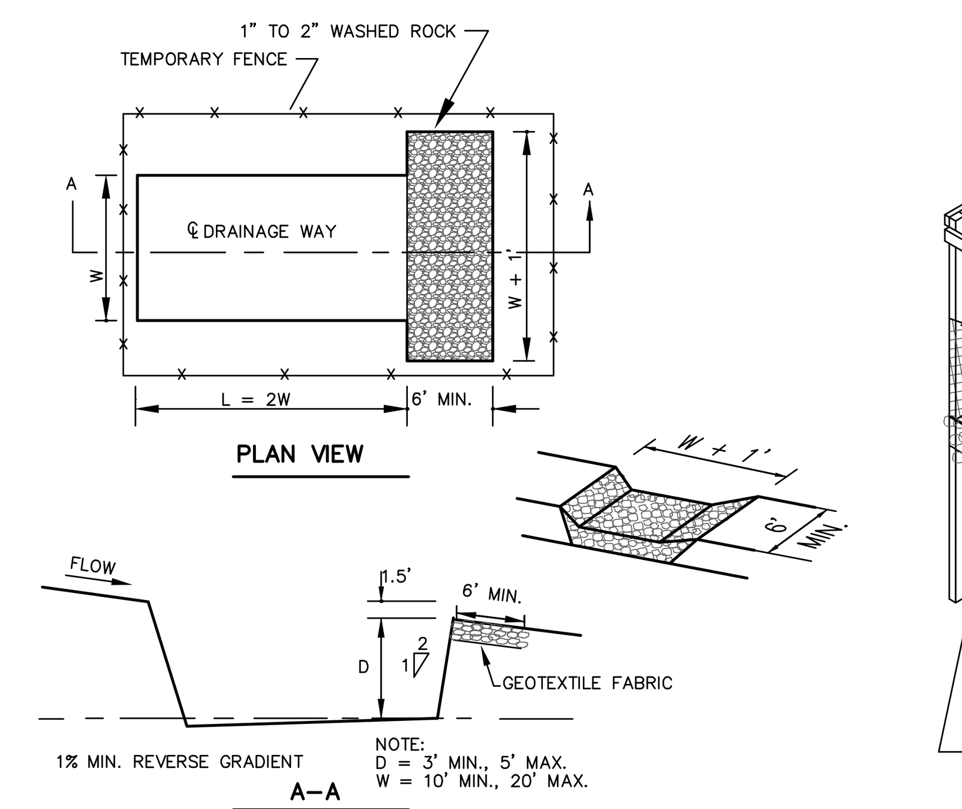
A. TEMPORARY SEDIMENTATION BASIN WITH OUTLET PIPE

STAND PIPE DETAIL

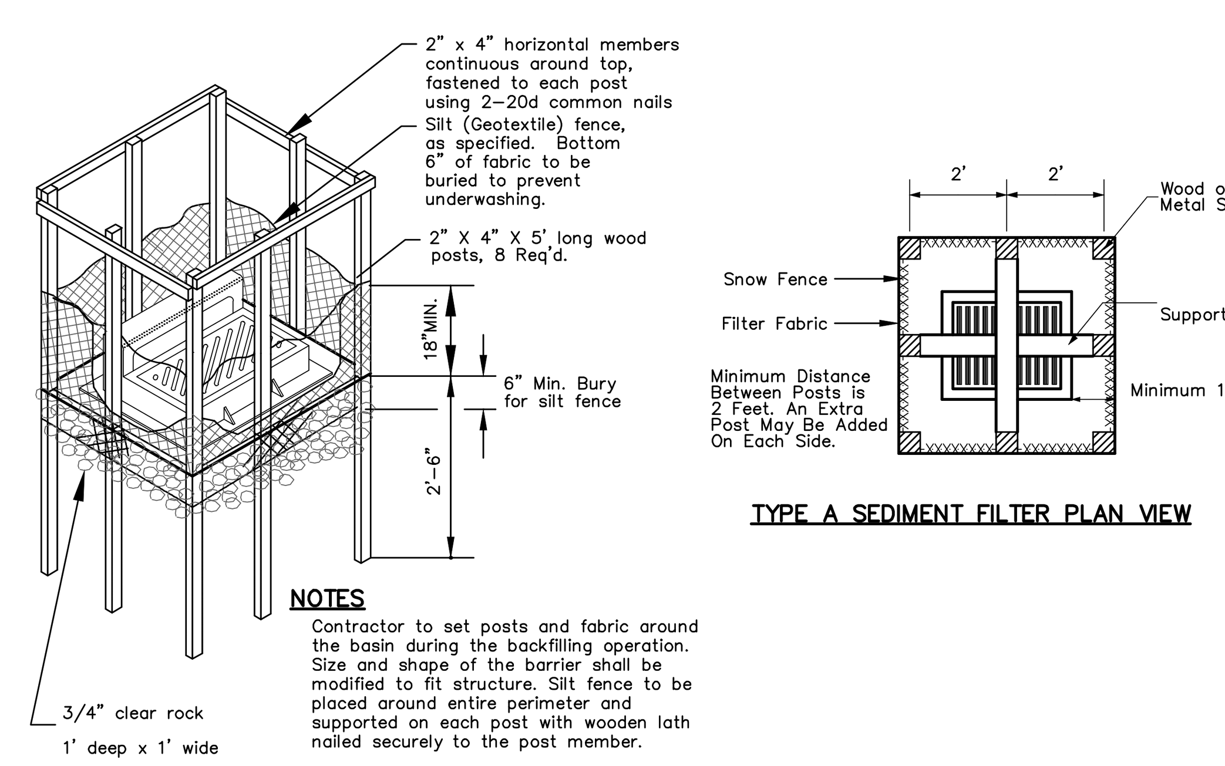
d = diameter of standpipe equal to diameter of pipe.

B. TEMPORARY SEDIMENTATION BASIN WITH STAND PIPE OUTLET

T-9 TEMPORARY SEDIMENTATION BASIN
NO SCALE



T-10 TEMPORARY SEDIMENT TRAP
NO SCALE



T-11 EROSION CONTROL AROUND CATCH BASINS
NO SCALE

T-12

PERMANENT SEED REVEGITATION

SEEDING RECOMMENDATIONS:
The seedbed must be prepared to a depth of approx. 3 inches. on sites where the exposed or underlying soil will not support vegetation, apply min. 4 inches of topsoil. Seedbeds should not be prepared under excessively wet or frozen soil conditions. Prior to seeding, the seedbed should be firmed with a roller or cultipaker. Avoid compaction that will increase runoff and erosion, deter seed germination or prevent proper anchoring of mulch. For example, the soil should support the weight of an adult without sinking more than 1/2 inch.

1. GENERAL SEED & MULCH (MIN. 6" TOPSOIL)
   a. Seed: MnDOT Seed Mix # 25-141 @ rate of 59 PLS.
   b. Fertilizer: 22-5-10 80% W.I.N. 0% @ a Rate of 350 lbs/Acre.
   c. Mulch: MnDOT Type 1 @ a Rate of 2 Tons/Acre.

P-1

PERMANENT SOD REVEGITATION

SODDING RECOMMENDATIONS:
The soil must be prepared in the same way that it would for seeding. The upper 4 inches must be loosened and relatively free of clods, rocks etc.. the area to be sodded should be fertilized with 25 pounds per 1000 sq.ft. (1000 lb/ac) of 10-0-10 fertilizer and worked into the loosened topsoil. Prior to laying the sod, dampen the soil bed. The joints in the sod should be staggered, and the edges butted together tightly. On slopes of 3:1 or greater, or in areas of concentrated flows, the sod should be pegged down. On steep slopes w/ sheet flows, the sod should be laid with the length perpendicular to the water flow. After the sod is laid, it should be tamped or rolled to provide good contact between sod and soil. after rolling, the sod should be watered so that the soil is moistened 4 inched below the the sod.
MAINTENANCE:
In the absence of adequate rainfall, water during the 30 day period following sod placement to keep soil moist.Following this initial 30 day establishment period, water as necessary to maintain adequate moisture in the root zone. Where mowing is desired, maintain grass height of 3 inches and should not be attempted until the sod is firmly rooted, usually two to three weeks after sod is laid. Inspect areas of concentrated flow annually and following intense storms. make need repair and reveg. promptly.

P-2

PERMANENT SEED REVEGITATION

SEEDING RECOMMENDATIONS:
The seedbed must be prepared to a depth of approx. 3 inches. on sites where the exposed or underlying soil will not support vegetation, apply min. 4 inches of topsoil. Seedbeds should not be prepared under excessively wet or frozen soil conditions. Prior to seeding, the seedbed should be firmed with a roller or cultipaker. Avoid compaction that will increase runoff and erosion, deter seed germination or prevent proper anchoring of mulch. For example, the soil should support the weight of an adult without sinking more than 1/2 inch.

1. WETLAND & POND SEED & MULCH (MIN. 6" TOPSOIL)
   a. Seed: MnDOT Seed Mix # 34-262 @ rate of 14.5 PLS..
   b. Fertilizer: 18-0-8 Natural Base @ a Rate of 120 lbs/Acre
   c. Mulch: MnDOT Type 3 @ a Rate of 2 Tons/Acre.

2. UPLAND BUFFER SEED & MULCH (MIN. 6" TOPSOIL)
   a. Seed: MnDOT Seed Mix # 33-261 @ rate of 35 PLS.
   b. Fertilizer: 18-0-8 Natural Base @ a Rate of 150 lbs/Acre
   c. Mulch: MnDOT Type 3 @ a Rate of 2 Tons/Acre.

Note: Mulch To Be Disced Anchored In Place.

GENERAL GRADING NOTES:

1.) UNDERLYING TOPOGRAPHY FROM INFORMATION PROVIDED BY ANOKA COUNTY AND FIELD SHOTS BY HEDLUND ENGINEERING.

2.) EXISTING UTILITY LOCATIONS AS-PER PLANS PROVIDED BY THE CITY OF RAMSEY AND FIELD SHOTS BY HEDLUND ENGINEERING.

3.) SEE GRADING AND EROSION CONTROL DETAIL SHEET FOR DETAILED INFORMATION.

GENERAL EROSION CONTROL NOTES:

EROSION CONTROL SCHEDULE:

1.) INSTALL EROSION CONTROL MEASURES PRIOR TO ANY LAND DISTURBANCE. INSTALL SEDIMENT FILTERS IMMEDIATELY FOLLOWING INSTALLATION OF STRUCTURE.
2.) THE CONTRACTOR SHALL SCHEDULE SITE GRADING, UTILITY INSTALLATION AND ROADWAY CONSTRUCTION SO THAT THE GENERAL SITE CAN BE MULCHED AND RESEEDED SOON AFTER DISTURBANCE. ALL DISTURBED AREAS SHALL BE SEEDED AND MULCHED WITHIN 14 DAYS AFTER COMPLETION OF FINAL GRADING OR AFTER 14 DAYS OF GRADING INACTIVITY.
3.) ALL EROSION CONTROL INSTALLATIONS SHALL REMAIN IN PLACE AND BE MAINTAINED IN GOOD CONDITION BY THE CONTRACTOR/PERMITTEE UNTIL THE SITE HAS BEEN RE-VEGETATED, AT WHICH TIME THEY SHALL BE REMOVED. FOR PROPOSED PAVED SURFACE AREA, THE CONTRACTOR MAY REMOVE NECESSARY SILT FENCING TO CONSTRUCT ROADWAY WHILE MAINTAINING ADEQUATE EROSION CONTROL IN ADJACENT AREAS.
4.) SUFFICIENT TOPSOIL SHALL BE STOCKPILED TO ALLOW FOR THE REPLACEMENT OF A MINIMUM OF 4" OF TOPSOIL FOR DISTURBED AREAS THAT ARE TO BE REVEGATATED.
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6.) REVEGETATE WITH MNDOT MIX 50B OR 60B AT 75 LBS/ACRE WITH TYPE 1 MULCH AT 2000 LBS/ACRE.

EROSION CONTROL MAINTENANCE PROGRAM:

1.) INSPECT CONSTRUCTION SITE ONCE EVERY 7 DAYS AND WITHIN 24 HOURS OF A RAINFALL EVENT OF MORE THAN ½ INCHES IN 24 HOUR PERIOD.
2.) SEDIMENT DEPOSITS SHOULD BE REMOVED AFTER EACH STORM EVENT. THEY MUST BE REMOVED WHEN DEPOSITS REACH APPROXIMATELY ONE-HALF THE HEIGHT OF THE BARRIER.
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5.) ANY SEDIMENT REMAINING IN PLACE AFTER THE SILT FENCE OR FILTER FABRIC IS NO LONGER REQUIRED SHALL BE DRESSED TO CONFORM WITH THE EXISTING GRADE, PREPARED AND SEEDED WITH THE APPROPRIATE SEED MIX.
6.) IN THOSE AREAS WHERE WOOD FIBER BLANKET OR OTHER SLOPE STABILIZATION METHOD HAS FAILED, THE SLOPE SHALL BE REESTABLISHED, SEED AND TOPSOIL REPLACED, AND ADDITIONAL SLOPE TREATMENT INSTALLED.
7.) SILT FENCES SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFUL PURPOSE, BUT NOT BEFORE THE UPWARD SLOPE AREA HAS BEEN PERMANENTLY STABILIZED. REMOVAL IS REQUIRED WITH ALL TEMPORARY EROSION CONTROL FACILITIES (SEDIMENT FILTERS, HAY BALES, ETC.) ONCE SITE IS PERMANENTLY STABILIZED BY THE BUILDER.
8.) ALL PERMANENT SEDIMENTATION BASINS MUST BE RESTORED TO THEIR DESIGN CONDITION IMMEDIATELY FOLLOWING PERMANENT STABILIZATION OF THE SITE.

PROJECT NARRATIVE:

CONSTRUCTION OF A

PROJECT CONTACTS:

PROJECT ENGINEER:	RANDY HEDLUND, P.E.	HEDLUND ENGINEERING, SWPPP DESIGNER U OF M CERT. PROGRAM, FALL 2012, 651-203-6612
SWPPP CERT. IMPLEMENTOR	FRED VOLZ	HEDLUND ENGINEERING, U OF M CERT. PROGRAM, APRIL 2012, 612-363-3684
SWPPP CERTIFIED INSTALLER	MATT MARTIN	METRO EROSION, U OF M CERT. PROGRAM, FALL 2009, 320-266-4748
DEVELOPER:	NAME	COMPANY-NUMBER
CITY CONTACT:	NAME	CITY OF
NPDES OFFICER	NAME	MPCA
CONTRACTOR CONTACT	NAME	COWAN GRADING AND EXCAVATING, 651-248-3080

POND MAINTENANCE:

TO BE PERFORMED AS NECESSARY BY THE CITY OF WOODBURY.

ESTIMATED QUANTITIES:

SILT FENCE	=	4121 L.F.
CONST. FENCE	=	N/A L.F.
INLET PROTECTION	=	21 CB'S
ROCK CONST. ENTRANCE	=	3
EROSION CONTROL BLANKET	=	AS NEEDED
TEMP. SEED AND MULCH	=	x ACRES
PERMANENT SEED	=	x ACRES
PERMANENT SOD	=	x ACRE
BIO LOGS	=	xxx L.F.

SEQUENCE OF CONSTRUCTION:

(RECOMMENDED SEQUENCE - CONTRACTOR TO DETERMINE FINAL SEQUENCE.)

1. CONTRACTOR TO VERIFY THAT ALL PERMITS HAVE BEEN OBTAINED AND BECOME FAMILIAR WITH PERMIT REQUIREMENTS.
2. CONTRACTOR TO INSTALL PERIMETER SEDIMENT CONTROL DEVICES, CONSTRUCTION ENTRANCES, AND PROTECTIVE FENCING FOR TREES, DITCHES, EXISTING WATER BODIES AND AREAS TO REMAIN UNDISTURBED.
3. CONTRACTOR TO ROUGH GRADE SITE AND INSTALL UTILITIES.
4. CONTRACTOR TO INSTALL TEMPORARY EROSION CONTROL DEVICES AS NECESSARY.
5. CONTRACTOR TO INSTALL EROSION CONTROL BLANKETS WITH PERMANENT SEED MIX AND/OR SOD.
6. ONCE ALL DISTURBED AREAS HAVE BEEN STABILIZED, OBTAIN APPROVAL FROM THE CITY ENGINEER AND WITHIN TWO WEEKS OF FINAL STABILIZATION.
7. CONTRACTOR TO REMOVE SEDIMENT CONTROL DEVICES WITHIN TWO WEEKS OF APPROVAL.
8. SUBMIT NOTICE OF TERMINATION WITHIN 30 DAYS OF FINAL STABILIZATION.

NPDES GENERAL PERMIT REQUIREMENTS

CONSTRUCTION ACTIVITY NOTES:

EROSION PREVENTION PRACTICES:

Phased construction will be used to extent practical or as indicated in the plans to minimize exposed soil.

Areas not to be disturbed shall be delineated with flags, stakes, signs, silt fence, etc. prior to work beginning. The normal wetted perimeter of all ditches or swales, including storm water management pond slopes, that drain waters from the site must be stabilized within 200'of any property edge or discharge point, including storm sewer inlets, within 24 hours of connection.

Energy dissipation or other outlet treatment must be installed within 24 hours of connection.

All exposed soils must be stabilized as soon as possible but in no case later than 14 days after the construction activity has temporarily or permanently ceased.

Seed and/ or sod, fertilizer, and mulch shall be placed as indicated in the plans and project specifications.

Rapid stabilization shall be of type and quantity indicated in the project specifications. Additional rapid stabilization may be necessary to minimize erosion throughout the duration of the project. Type and quantity shall be determined by the engineer or inspector prior to installation.

If the contractor stockpiles material on site, he shall install the appropriate erosion control devices around the stockpile and perform the best management practices possible to avoid erosion from the stockpile.

Temporary (or permanent) sedimentation ponds are required for areas > 10 acres of disturbed soils draining soils draining to one point.

SEDIMENT CONTROL PRACTICES:

Installation of silt fence and all other down gradient sediment protection measures shall be completed prior to commencement of upstream land disturbing activities.

Silt fence shall be installed along the constant contours with continuous links not to exceed 600 feet.

No unbroken slope lengths greater than 75 feet are permitted when slope is 3:1 or greater. Slope shall be broken with silt fence or biorolls as indicated on plans.

Vehicle trafficking to be minimize to all practical extents. All eroded material that leaves the construction zone shall be collected by the contractor and returned to the site at the contractor's expense.

All stockpiles shall be surrounded by silt fence and seeded with temporary seed and mulch. See erosion and sediment control plans.

All site storm sewer inlets as well as off-site downstream inlets with potential to receive sediment, shall be protected with approved inlet protection measures at all times. Inlets shall remain protected until site is 100% stabilized and vegetation is at least 70% established. Inlet protection may be removed in winter, if the project has an approval letter from jurisdictional authority or can produce it within 72 hours.

TEMPORARY SEDIMENTATION BASINS AND DEWATERING:

Temporary sedimentation basins are required prior to runoff leaving the construction site or entering surface waters when 10 or more acres of disturbed soils drain to a common location. The basin must provide 3600 ft.³ of storage below the outlet per acre drained. If hydraulic calculations are available, the temporary sedimentation basin must provide a storage volume equivalent to the 2- year, 24- hour storm, but in no case less than 1800 ft.³ per acre drained. The temporary sedimentation basin must be constructed and made operational concurrent with the start of soil disturbance up gradient of the pond. All dewatering on site during construction must be routed to temporary sedimentation basins.

Temporary sedimentation basins must be trained within 48 hours of any rainfall event. If the rock filtered outlets plug or cause the pond not to drain within 48 hours, ponds are to be drained with pumps. Pump inlets should be protected with a geotextile membrane and rock filter set up as shown in the details, or an approved alternative. Excessive sediment-laden water that is not properly filtered will not be permitted to discharge from the site.

Dewatering practices cannot cause downstream nuisance conditions, erosion, or non-permitted wetland inundation causing adverse impacts.

INSPECTION AND MAINTENANCE:

The permittees must routinely inspect the construction site once every seven (7) days during active construction and within 24 hours of a rainfall event greater than 0.5 inches in a 24-hour period.

All inspections performed during construction must be recorded and records retained on site with the SWPPP in accordance with the stormwater permit. Records must include a site map showing areas of land disturbing activities and areas where activities have temporarily or permanently ceased.

Silt fence, biorolls and Inlet protection devices must be maintained when nonfunctional or when accumulated sediment reaches 1/3 of device height.

Off-site vehicle tracking to be removed within 24 hours of occurrence.

All non-functional BMPs must be repaired, replaced, or supplemented with functional BMPs within 24 hours of discovery, or as soon as field conditions allow access.

POLLUTION PREVENTION:

All solid waste collected from the construction site must be disposed of in accordance with MPCA disposal requirements.

Concrete washout must be contained in a device similar to those provided by Neaton Brothers Concrete Washout LLC. Equivalent units shall be approved by engineer. Unit must be maintained to manufacturer recommendation.

All hazardous materials (e.g., oil, gasoline, fuel, antifreeze, paint, cleaning solvents, curing compounds, fertilizers, etc.) must be properly stored, (including secondary containment when necessary) to prevent spills, leaks, or other discharge. Storage and disposal of hazardous waste must be in compliance with MPCA regulations.

External washing areas must be limited to a defined area of the site. All runoff containing any hazardous waste material must be properly collected and disposed of. Defined area must be contained with heavy-or super-duty silt fence. NO ENGINE DEGREASING ALLOWED ON-SITE.

The contractor is responsible for monitoring air pollution and ensuring it does not exceed levels set by local, state, or federal regulations. This includes dust created by work being performed on the site. Air pollution and dust control correction is considered incidental to the unit bid prices for which work is being performed. Additional dust control measures may be required by the engineer.

FINAL STABILIZATION:

The permittees must insure final stabilization of the site. Final stabilization is not complete until the following is complete:

The contractor must ensure final stabilization of the site. Final stabilization shall include a minimum of 70%, vegetation establishment (100% stabilized) on all pervious areas.

The permanent stormwater management system is constructed, meets all requirements and is operating as designed. Temporary or permanent sedimentation basins that are to be used as permanent water quality management basins have been cleaned of any accumulated sediment. All sediment has been removed from conveyance systems and ditches are stabilized with permanent cover.

All temporary erosion control measures and BMPs must be removed as part of the final site stabilization, unless directed otherwise by owner or engineer.

For residential construction only, individual lots are considered finally stabilized if the structure(s) are finished and temporary erosion protection and downgradient perimeter control has been completed and the residence has been sold to the homeowner. Additionally, the Permittee has distributed the MPCA's "Homeowner Fact Sheet" to the homeowner to inform the homeowner of the need for, and benefits of, permanent cover.

RECORD RETENTION:

The SWPPP, all changes to it, and inspections and maintenance records must be at the site during construction. All owner(s) must retain the following for 3 years after submittal of NOT:

1) SWPPP;
2) Any other permits required for the project;
3) Inspection and maintenance logs;
4) All permanent operation and maintenance agreements for surface water facilities;
5) All design calculations for temporary and permanent stormwater management.

PLAN SHEETS:

Sheet number CE 1 of this plan set is also considered a part of the SWPPP for this project.

PRELIMINARY
NOT FOR CONSTRUCTION

PROJECT NUMBER
141029

REMARKS	DATE	BY

REVISIONS

CERTIFICATION:
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: ______ Date: ______
Randall C. Hedlund MN. LIC. NO. 19576

PREPARED BY:
HEDLUND
PLANNING ENGINEERING SURVEYING
2005 Pin Oak Drive
Eagan, MN 55122
Phone: (651) 405-6600
Fax: (651) 405-6606

SHEET TITLE:
HARVEST ESTATES
EROSION CONTROL PLAN

PREPARED FOR:
NIK MANAGEMENT INC.
11736 177TH St. W.
Lakeville, MN 55044
Phone: (952) 236-9424

DRAWN	CHECKED	DESIGN
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SHEET NUMBER
CE-2

DATE 3/5/2015
REV. ----