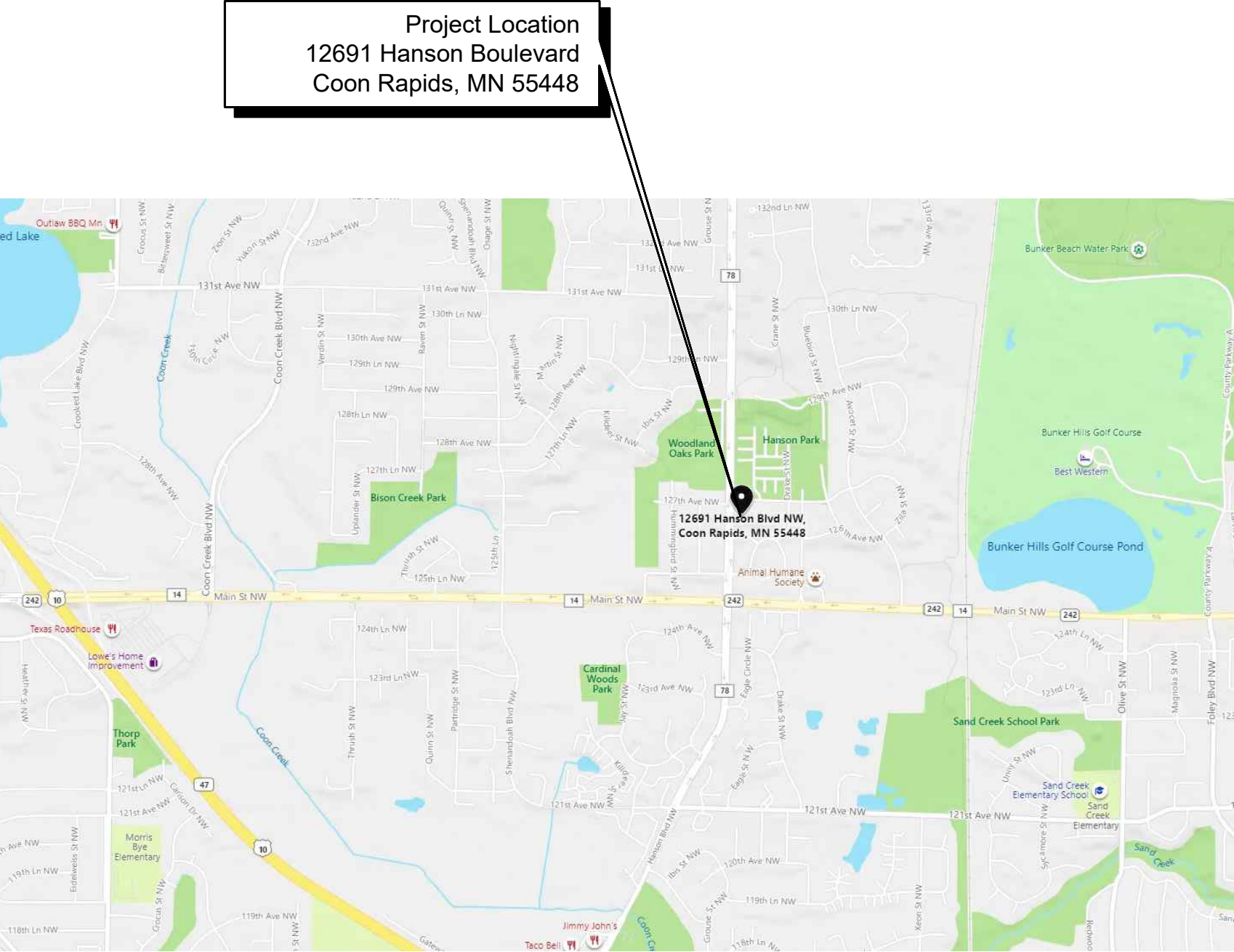


PROJECT:
BROOKSIDE VILLAS, COON RAPIDS, MN



RON SIVIGNY
BROOKSIDE CONSTRUCTION, INC.
1971 208TH LANE NW
OAK GROVE, MN 55011

VICINITY MAP



INDEX OF DRAWINGS

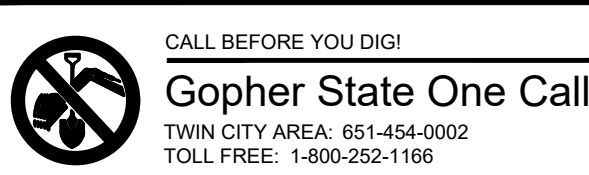
T	Title Sheet
C100	Demolition Plan
C101	Demolition Plan East
C200	Paving and Dimension Plan
C201	Paving and Dimension Plan East
C300	Grading Plan
C301	Grading Plan East
C400	Erosion Control Plan
C500	Utility Plan
C501	Utility Plan East
C600	Details
C601	Details
C602	Details
C603	Details
C700	SWPPP

PROJECT CONTACTS

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therkenhoff@larsonengr.com

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Lino Lakes, MN 55014
Tel: 651.361.8200
Fax: 651.361.8701

Landscape Architect:
Ben Hartberg, PLA
Calyx Design Group
475 Cleveland Ave. N, Ste 101A
Saint Paul, MN 55104
Tel: 651.788.9018





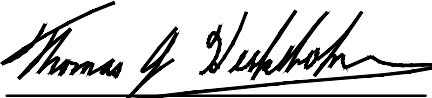
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Client:

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Project Title:

BROOKSIDE VILLAS
12691 HANSON BOULEVARD
COON RAPIDS, MN 55448

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Thomas J. Herkenhoff, P.E.
Date: 02.03.22 Lic. No.: 25520

Rev.	Date	Description
1	05.10.22	LGU Comments

Project #: 12216042
Drawn By: KBK
Checked By: TJH
Issue Date: 02.03.22

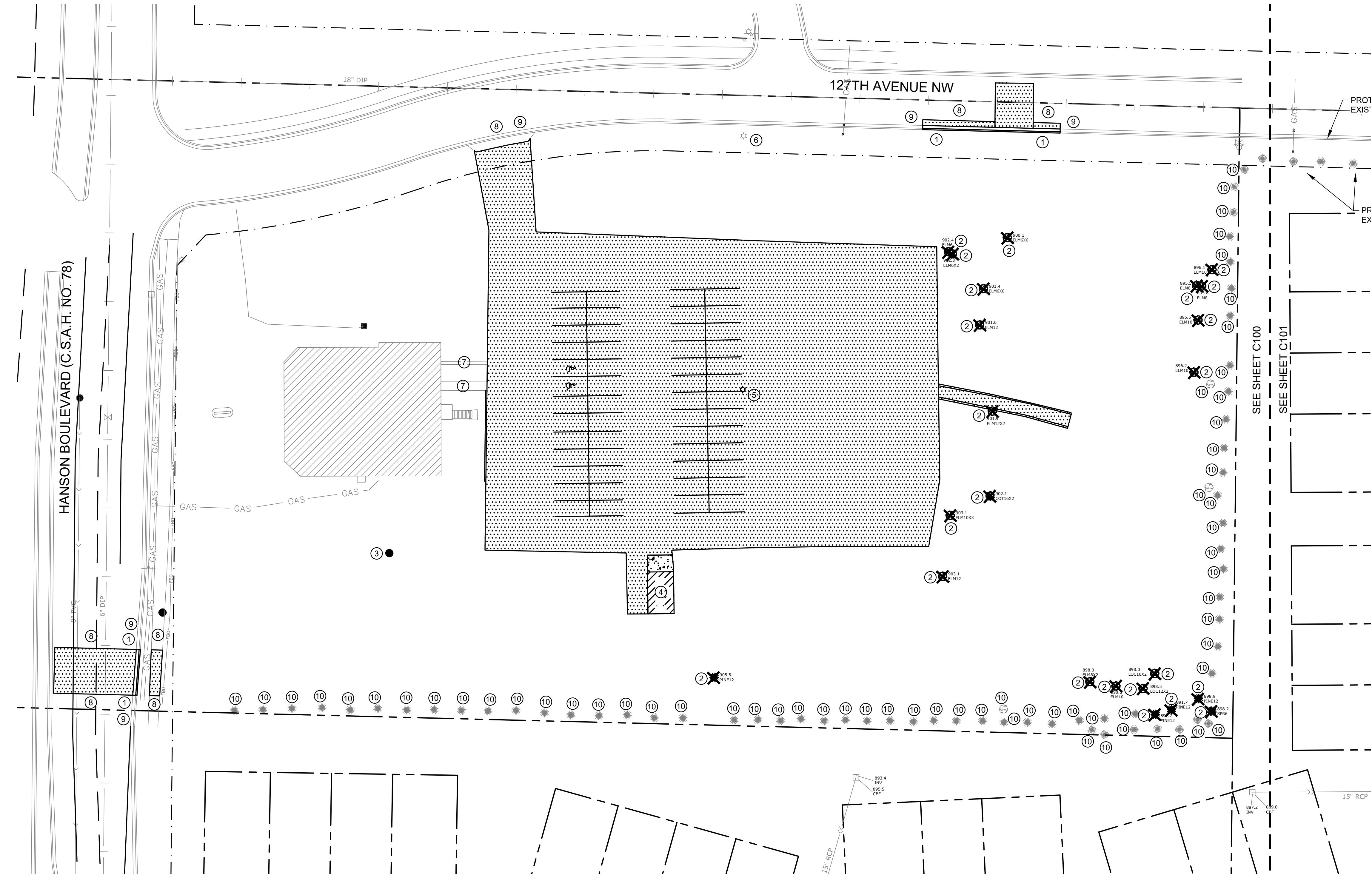
Sheet Title:

TITLE SHEET

Sheet:

T

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SYMBOL LEGEND

- REMOVE AND DISPOSE OF EXISTING BITUMINOUS PAVEMENT SECTION
- REMOVE AND DISPOSE OF EXISTING CONCRETE PAVEMENT SECTION

KEY NOTES

- SAWCUT, REMOVE, AND DISPOSE OF EXISTING CONCRETE AND BITUMINOUS CURB AND GUTTER.
- REMOVE AND DISPOSE OF EXISTING TREE, STUMP AND ROOTS.
- REMOVE AND DISPOSE OF EXISTING SEPTIC SYSTEM, SANITARY MANHOLES AND EXISTING PIPE.
- REMOVE AND SALVAGE EXISTING BUILDING.
- REMOVE AND SALVAGE EXISTING LIGHT POLE.
- PROTECT EXISTING LIGHT POLE.
- PROTECT EXISTING CONCRETE SIDEWALK.
- PROTECT EXISTING BITUMINOUS PAVEMENT.
- PROTECT EXISTING CONCRETE CURB AND GUTTER.
- PROTECT EXISTING TREE.

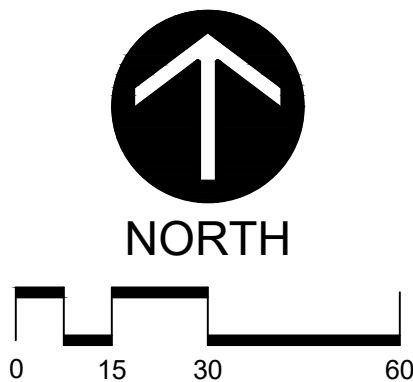
DEMOLITION NOTES

- Verify all existing utility locations.
- It is the responsibility of the Contractor to perform or coordinate all necessary utility demolitions and relocations from existing utility locations to all onsite amenities and buildings. These connections include, but are not limited to, water, sanitary sewer, cable tv, telephone, gas, electric, site lighting, etc.
- Prior to beginning work, contact Gopher State OneCall (651-454-0002) to locate utilities throughout the area under construction. The Contractor shall retain the services of a private utility locator to locate the private utilities.
- Sawcut along edges of pavements, sidewalks, and curbs to remain.
- All construction shall be performed in accordance with state and local standard specifications for construction.



TRAFFIC CONTROL NOTES

- THE TRAFFIC CONTROL PLAN SHALL BE DESIGNED ACCORDING TO THE MUTCD.
- CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL SIGNAGE AND ANY FLAGGING, IF NEEDED.
- PHASE 1:
 - CLOSE RIGHT LANE TO VERIFY UNDERGROUND UTILITY LOCATIONS. (UTILIZE MUTCD LAYOUT 65)
 - RECONSTRUCT PHASE 1.
- PHASE 2:
 - SHIFT TRAFFIC TO CLOSE LEFT LANE TO COMPLETE UTILITY CONNECTION (UTILIZE MUTCD LAYOUT 62)
 - RECONSTRUCT PHASE 2.
 - OPEN ALL LANES OF TRAFFIC.
- SEE SHEET C500 FOR UTILITY CONSTRUCTION LAYOUT.



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Drawn By: KBK
Checked By: TJH
Issue Date: 02.03.22

Sheet Title:
DEMOLITION PLAN & TRAFFIC CONTROL NOTES

Sheet:
C100



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SYMBOL LEGEND

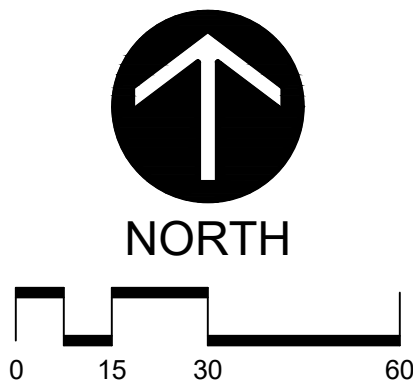
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	REMOVE AND DISPOSE OF EXISTING CONCRETE PAVEMENT SECTION

KEY NOTES

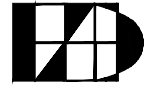
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- 2 REMOVE AND DISPOSE OF EXISTING TREE, STUMP AND ROOTS.
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- 6 PROTECT EXISTING LIGHT POLE.
- 7 PROTECT EXISTING CONCRETE SIDEWALK.
- 8 PROTECT EXISTING BITUMINOUS PAVEMENT.
- 9 PROTECT EXISTING CONCRETE CURB AND GUTTER.
- 10 PROTECT EXISTING TREE.

DEMOLITION NOTES

1. Verify all existing utility locations.
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4. Sawcut along edges of pavements, sidewalks, and curbs to remain.
5. All construction shall be performed in accordance with state and local standard specifications for construction.



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Project #: 12216042
Drawn By: KBK
Checked By: TJH
Issue Date: 02.03.22

Sheet Title:

DEMOLITION PLAN
EAST

Sheet:

C101

Church Site	
Total Area	79,345 SF
Impervious Area	26,752 SF
Impervious Area, %	33.7%

Townhome Site	
Total Area	81,008 SF
Impervious Area	38,394 SF
Impervious Area, %	47.4%

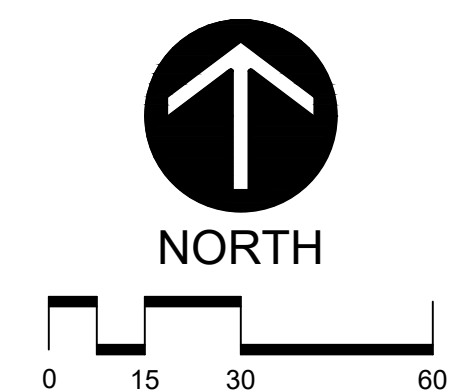
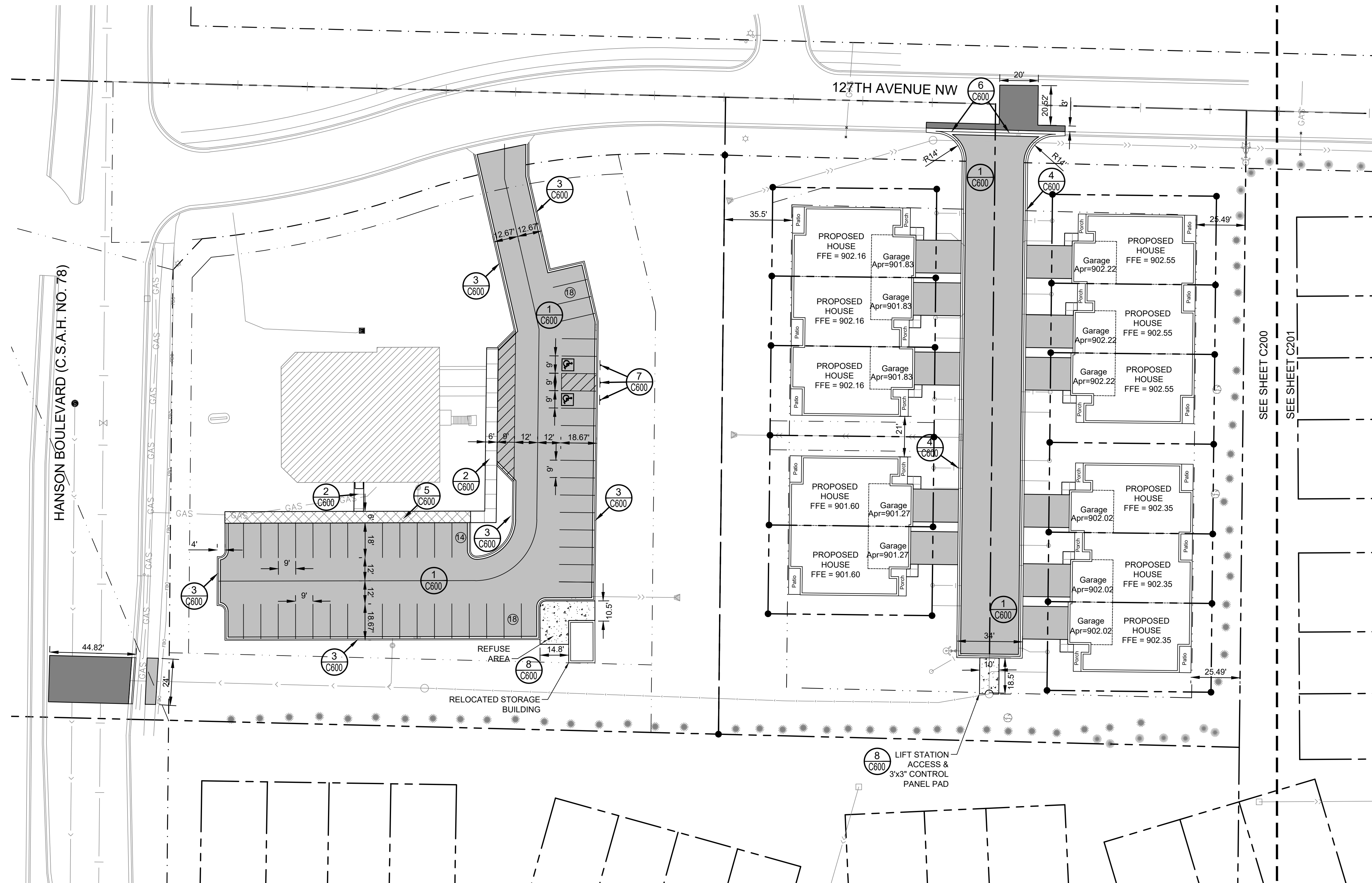
PARKING FOR THE TOWNHOMES WILL BE PROVIDED WITH COVERED GARAGE PARKING AND STREET PARKING ON THE 32' WIDE STREET.

PARKING FOR THE TOWNHOMES WILL BE PROVIDED WITH COVERED GARAGE PARKING AND STREET PARKING ON THE 32' WIDE STREET.

- 200 SEATS x 4 SEATS PER STALL = 50 PARKING STALLS REQUIRED
- 50 PARKING STALLS PROVIDED (OK)

	NEW BITUMINOUS PAVEMENT SEE DETAIL 1/C600
	NEW HEAVY-DUTY BITUMINOUS PAVEMENT MATCH EXISTING PAVEMENT
	NEW CONCRETE SIDEWALK SEE DETAIL 2/C600
	NEW INTEGRAL CURB AND SIDEWALK SEE DETAIL 5/C600
	NEW CONCRETE REFUSE AREA SEE DETAIL 8/C600

WHERE APPLICABLE, DIMENSIONS ARE FROM
BACK OF CURB TO BACK OF CURB OR BACK OF
CURB TO END OF STALL LINE.



Client:

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[illegible]PAVING AND
DIMENSION PLAN

Sheet: **C200**

SITE COVERAGE AREAS

Church Site	
Total Area	79,345 SF
Impervious Area	26,752 SF
Impervious Area, %	33.7%

Townhome Site	
Total Area	81,008 SF
Impervious Area	38,394 SF
Impervious Area, %	47.4%

TOWNHOME PARKING STALL REQUIREMENTS

PARKING FOR THE TOWNHOMES WILL BE PROVIDED WITH COVERED GARAGE PARKING AND STREET PARKING ON THE 32' WIDE STREET.

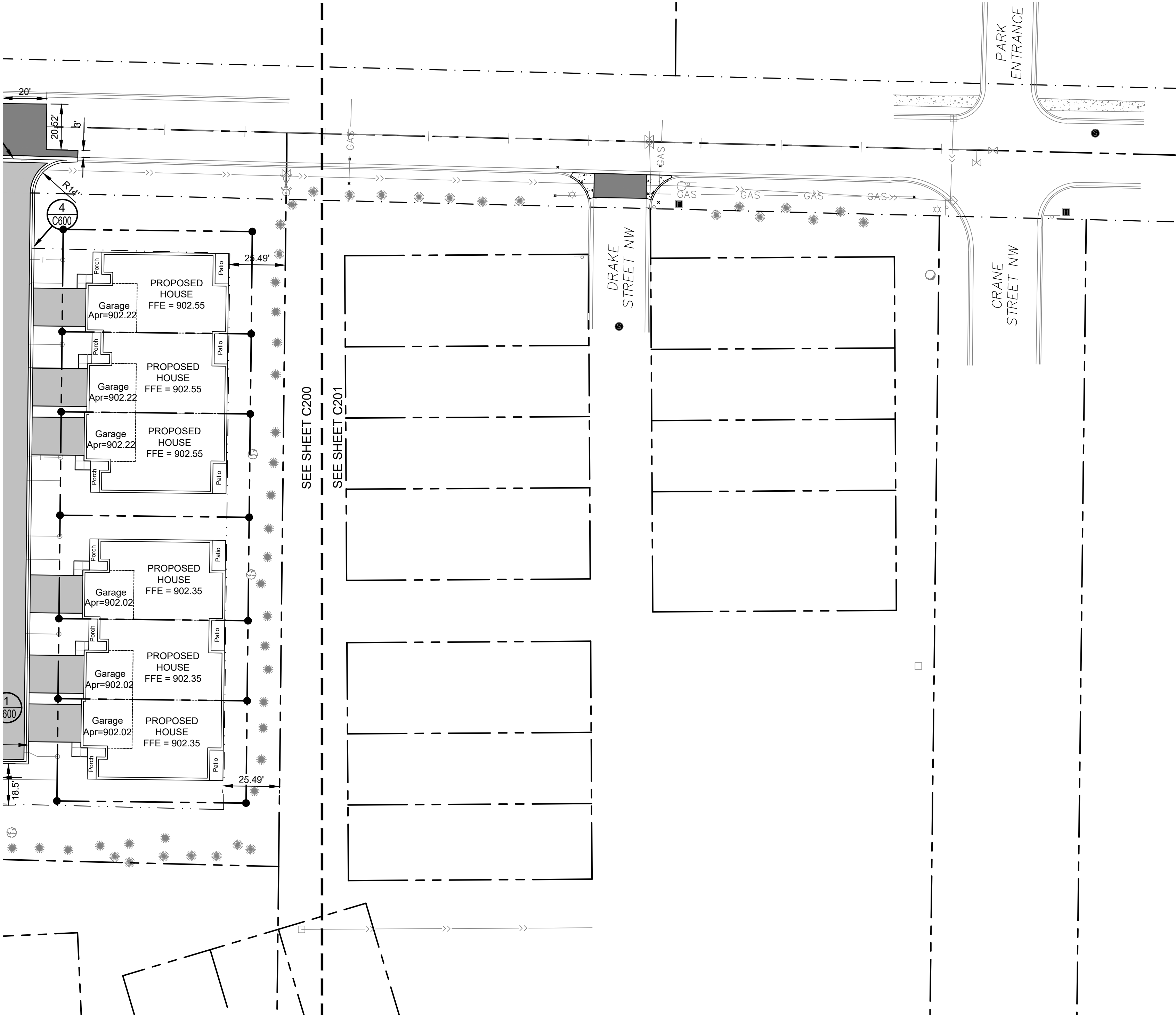
CHURCH PARKING STALL REQUIREMENTS

- 200 SEATS x 4 SEATS PER STALL = 50 PARKING STALLS REQUIRED
- 50 PARKING STALLS PROVIDED (OK)

SYMBOL LEGEND

	NEW BITUMINOUS PAVEMENT SEE DETAIL 1/C600
	NEW HEAVY-DUTY BITUMINOUS PAVEMENT MATCH EXISTING PAVEMENT
	NEW CONCRETE SIDEWALK SEE DETAIL 2/C600
	NEW ITEGRAL CURB AND SIDEWALK SEE DETAIL 5/C600
	NEW CONCRETE REFUSE AREA SEE DETAIL 8/C600

WHERE APPLICABLE, DIMENSIONS ARE FROM BACK OF CURB TO BACK OF CURB OR BACK OF CURB TO END OF STALL LINE.



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Project #:

12216042

Drawn By:

KBK

Checked By:

TJH

Issue Date:

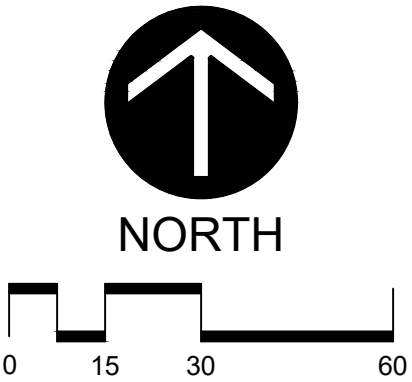
02.03.22

Sheet Title:

**PAVING AND
DIMENSION PLAN
EAST**

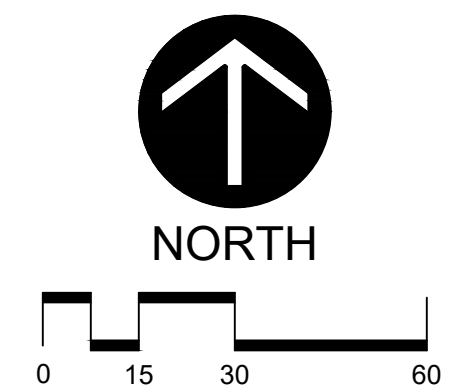
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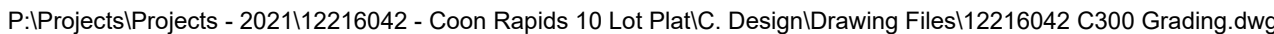
C201





C300





- - - - - 950 - - - - - EXISTING CONTOURS
 ————— 950 ————— PROPOSED CONTOURS - MAJOR INTERVAL
 ————— 949 ————— PROPOSED CONTOURS - MINOR INTERVAL
 - - - - - GRADE BREAK LINE
 ↙ 2.0% ↘ GRADE SLOPE

950.00 TC
949.50 GL

SPOT ABBREVIATIONS
TC - TOP OF CURB
GL - GUTTER LINE

1. Tree protection consisting of snow fence or safety fence installed at the drip line shall be in place prior to beginning any grading or demolition work at the site.
2. All elevations with an asterisk (*) shall be field verified. If elevations vary significantly, notify the Engineer for further instructions.
3. Grades shown in paved areas represent finish elevation.
4. Restore all disturbed areas with 4" of good quality topsoil and seed.
5. All construction shall be performed in accordance with state and local standard specifications for construction.
6. Contractor to de-compact all disturbed pervious areas to a depth of 6".

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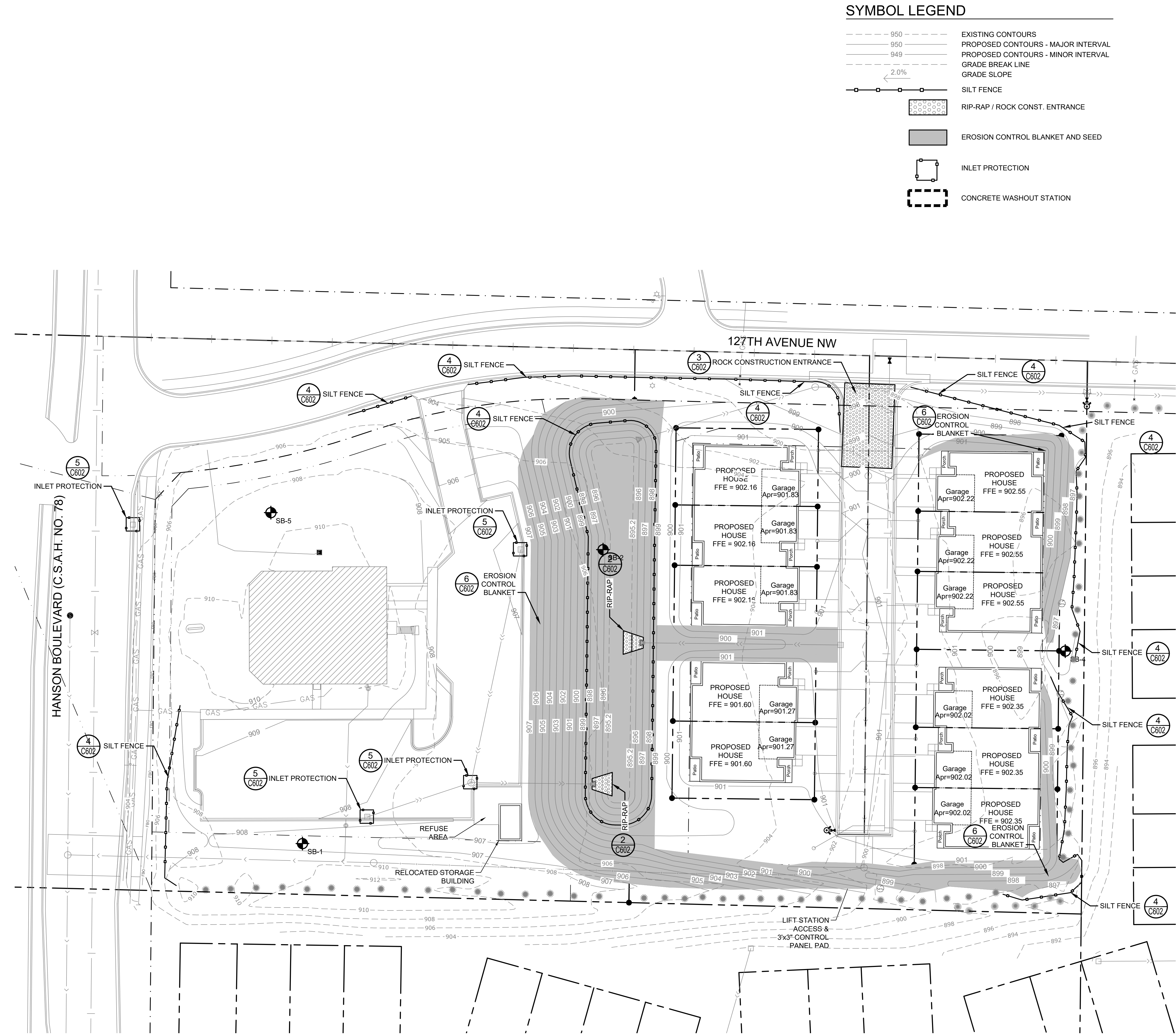
Issue Date: 02.03.22

Sheet Title:

GRADING PLAN EAST

Sheet:

C301

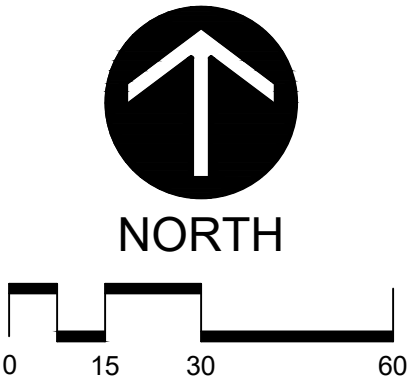


SYMBOL LEGEND

- EXISTING CONTOURS
- PROPOSED CONTOURS - MAJOR INTERVAL
- PROPOSED CONTOURS - MINOR INTERVAL
- GRADE BREAK LINE
- GRADE SLOPE
- SILT FENCE
- RIP-RAP / ROCK CONST. ENTRANCE
- EROSION CONTROL BLANKET AND SEED
- INLET PROTECTION
- CONCRETE WASHOUT STATION

EROSION CONTROL NOTES

- Owner and Contractor shall obtain MPCA-NPDES permit. Contractor shall be responsible for all fees pertaining to this permit. The SWPPP shall be kept onsite at all times.
- Install temporary erosion control measures (inlet protection, silt fence, and rock construction entrances) prior to beginning any excavation or demolition work at the site.
- Erosion control measures shown on the erosion control plan are the absolute minimum. The contractor shall install temporary earth dikes, sediment traps or basins, additional siltation fencing, and/or disk the soil parallel to the contours as deemed necessary to further control erosion. All changes shall be recorded in the SWPPP.
- All construction site entrances shall be surfaced with crushed rock across the entire width of the entrance and from the entrance to a point 50' into the construction zone.
- The toe of the silt fence shall be trenched in a minimum of 6". The trench backfill shall be compacted with a vibratory plate compactor.
- All grading operations shall be conducted in a manner to minimize the potential for site erosion. Sediment control practices must be established on all down gradient perimeters before any up gradient land disturbing activities begin.
- All exposed soil areas must be stabilized as soon as possible to limit soil erosion but in no case later than 7 days after the construction activity in that portion of the site has temporarily or permanently ceased. Temporary stockpiles without significant silt, clay or organic components (e.g., clean aggregate stockpiles, demolition concrete stockpiles, sand stockpiles) and the constructed base components of roads, parking lots and similar surfaces are exempt from this requirement.
- The normal wetted perimeter of any temporary or permanent drainage ditch or swale that drains water from any portion of the construction site, or diverts water around the site, must be stabilized within 200 lineal feet from the property edge, or from the point of discharge into any surface water. Stabilization of the last 200 lineal feet must be completed within 24 hours after connecting to a surface water. Stabilization of the remaining portions of any temporary or permanent ditches or swales must be complete within 7 days after connecting to a surface water and construction in that portion of the ditch has temporarily or permanently ceased.
- Pipe outlets must be provided with energy dissipation within 24 hours of connection to surface water.
- All riprap shall be installed with a filter material or soil separation fabric and comply with the Minnesota Department of Transportation Standard Specifications.
- All storm sewers discharging into wetlands or water bodies shall outlet at or below the normal water level of the respective wetland or water body at an elevation where the downstream slope is 1 percent or flatter. The normal water level shall be the invert elevation of the outlet of the wetland or water body.
- All storm sewer catch basins not needed for site drainage during construction shall be covered to prevent runoff from entering the storm sewer system. Catch basins necessary for site drainage during construction shall be provided with inlet protection.
- In areas where concentrated flows occur (such as swales and areas in front of storm catch basins and intakes) the erosion control facilities shall be backed by stabilization structure to protect those facilities from the concentrated flows.
- Inspect the construction site once every seven days during active construction and within 24 hours after a rainfall event greater than 0.5 inches in 24 hours. All inspections shall be recorded in the SWPPP.
- All silt fences must be repaired, replaced, or supplemented when they become nonfunctional or the sediment reaches 1/3 of the height of the fence. These repairs must be made within 24 hours of discovery, or as soon as field conditions allow access. All repairs shall be recorded in the SWPPP.
- If sediment escapes the construction site, off-site accumulations of sediment must be removed in a manner and at a frequency sufficient to minimize off-site impacts.
- All soils tracked onto pavement shall be removed daily.
- All infiltration areas must be inspected to ensure that no sediment from ongoing construction activity is reaching the infiltration area and these areas are protected from compaction due to construction equipment driving across the infiltration area.
- Temporary soil stockpiles must have silt fence or other effective sediment controls, and cannot be placed in surface waters, including stormwater conveyances such as curb and gutter systems, or conduits and ditches unless there is a bypass in place for the stormwater.
- Collected sediment, asphalt and concrete millings, floating debris, paper, plastic, fabric, construction and demolition debris and other wastes must be disposed of properly and must comply with MPCA disposal requirements.
- Oil, gasoline, paint and any hazardous substances must be properly stored, including secondary containment, to prevent spills, leaks or other discharge. Restricted access to storage areas must be provided to prevent vandalism. Storage and disposal of hazardous waste must be in compliance with MPCA regulations.
- External washing of trucks and other construction vehicles must be limited to a defined area of the site. Runoff must be contained and waste properly disposed of. No engine degreasing is allowed onsite.
- All liquid and solid wastes generated by concrete washout operations must be contained in a leak-proof containment facility or impermeable liner. A compacted clay liner that does not allow washout liquids to enter ground water is considered an impermeable liner. The liquid and solid wastes must not contact the ground, and there must not be runoff from the concrete washout operations or areas. Liquid and solid wastes must be disposed of properly and in compliance with MPCA regulations. A sign must be installed adjacent to each washout facility to inform concrete equipment operators to utilize the proper facilities.
- Upon completion of the project and stabilization of all graded areas, all temporary erosion control facilities (silt fences, hay bales, etc.) shall be removed from the site.
- All permanent sedimentation basins must be restored to their design condition immediately following stabilization of the site.
- Contractor shall submit Notice of Termination for MPCA-NPDES permit within 30 days after Final Stabilization.



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Checked By:

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Sheet Title:

EROSION CONTROL PLAN

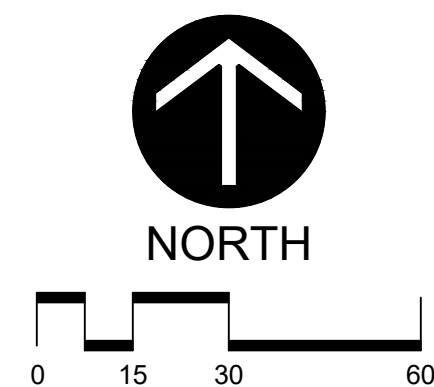
Sheet:

C400



	STORM MANHOLE		CABLE UNDERGROUND LINE
	CATCH BASIN		ELECTRIC OVERHEAD LINE
	CURB INLET		ELECTRIC UNDERGROUND LINE
	FLARED END		FIBER OPTIC UNDERGROUND LINE
	SANITARY MANHOLE		NATURAL GAS UNDERGROUND LINE
	HYDRANT		SANITARY SEWER PIPE
	GATE VALVE & BOX		STORM SEWER PIPE
	WATER SHUTOFF		TELEPHONE UNDERGROUND LINE
	LIGHT POLE		WATERMAIN PIPE
			DRAINTILE PIPE

1. It is the responsibility of the contractor to perform, coordinate all necessary utility connections and relocations from existing utility locations to the proposed building, as well as to all onsite amenities. These connections include but are not limited to water, sanitary sewer, cable TV, telephone, gas, electric, site lighting, etc.
2. All service connections shall be performed in accordance with state and local standard specifications for construction. Utility connections (sanitary sewer, watermain, and storm sewer) may require a permit from the City.
3. The contractor shall verify the elevations at proposed connections to existing utilities prior to any demolition or excavation.
4. The contractor shall notify all appropriate engineering departments and utility companies 72 hours prior to construction. All necessary precautions shall be made to avoid damage to existing utilities.
5. Storm sewer requires testing in accordance with Minnesota plumbing code 4714.1109 where located within 10 feet of waterlines or the building.
6. HDPE storm sewer piping shall meet ASTM F2306 and fittings shall meet ASTM D3212 joint pressure test. Installation shall meet ASTM C2321.
7. All RCP pipe shown on the plans shall be MN/DOT class 3.
8. Maintain a minimum of 7 ½' of cover over all water lines and sanitary sewer lines. Where 7 ½' of cover is not provided, install 2" rigid polystyrene insulation (MN/DOT 3760) with a thermal resistance of at least 5 and a compressive strength of at least 25 psi. Insulation shall be 8' wide, centered over pipe with 6" sand cushion between pipe and insulation. Where depth is less than 5', use 4" of insulation.
9. Install water lines 18" above sewers. Where the sewer is less than 18" below the water line (or above), install sewer piping of materials approved for inside building use for 10 feet on each side of the crossing.
10. All watermain piping shall be class 52 ductile iron pipe unless noted otherwise.
11. See Project Specifications for bedding requirements.
12. Pressure test and disinfect all new watermains in accordance with state and local requirements.
13. Sanitary sewer piping shall be PVC, SDR-35 for depths less than 12', PVC SDR-26 for depths between 12' and 26', and class 52 D.I.P. for depths of 26' or more unless noted otherwise.
14. A structure adjustment shall include removing and salvaging the existing casting assembly, removing existing concrete rings to the precast section. Install new rings and salvaged casting to proposed grades, cleaning casting flange by mechanical means to insure a sound surface and install an external chimney seal from casting to precast section. Chimney seals shall be Infi-Shield Uni-Band or an approved equal.
15. It is the responsibility of the contractor to perform, design and/or coordinate all necessary Traffic Control as required by the City and County utilizing the MUTCD for both Hanson Boulevard (C.S.A.H. No. 78) and 127th Avenue NW.
16. HDPE pipe meeting ASTM F417 may be used for pressurized sewers. Connection shall be through manhole. Heat fusion joints must be utilized per manufacturers installation instructions and ASTM D2659 or ASTM D3261.
17. All sanitary sewer piping shall be pressure tested at 5 P.S.I. for 15 minutes (2020 Minnesota Plumbing Code 4714.712)
18. All water piping shall be Hydrostatic tested at 200 P.S.I. for 2 hours. (NFPA)
19. Concrete Manholes shall be tested by negative pressure in accordance with ASTM Statndard C1214-19 and C1244-17 or Hydrostatic test. (2020 Minnesota Plumbing 4714.712)
20. Bacteria testing of water mains shall follow AWWA testing standards.



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1971 208TH LANE NW
OAK GROVE, MN 55011

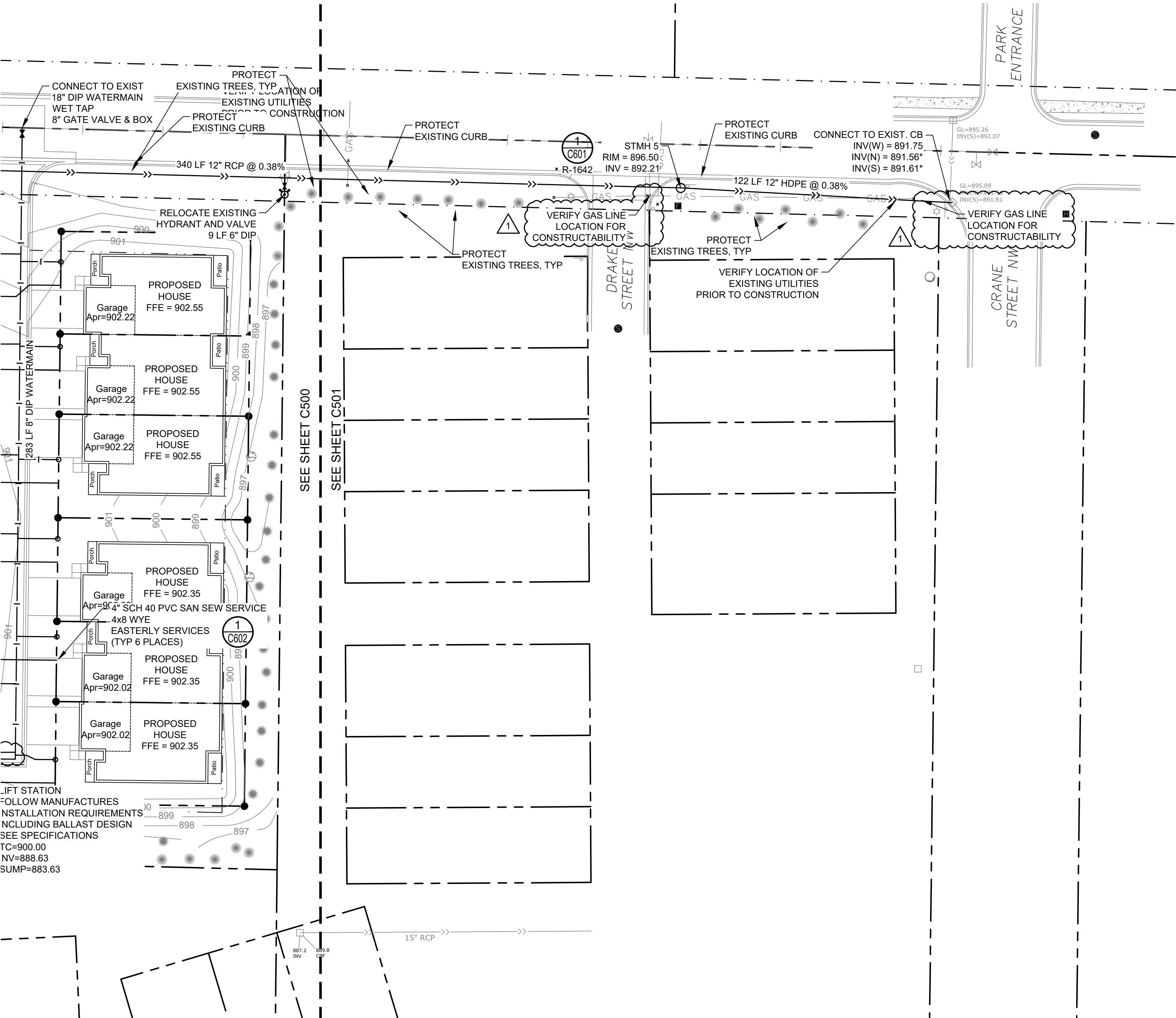
Brookside Villas
12691 Hanson Boulevard
Coon Rapids, MN 55448

Rev.	Date	Description
1	05.10.22	LGU Comments

Sheet Title:

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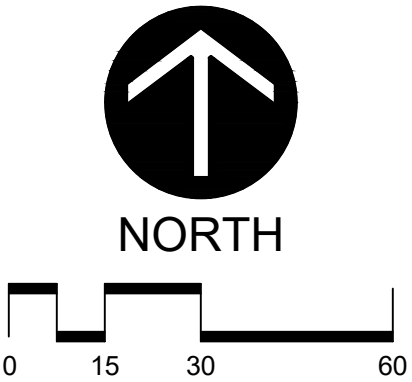
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SYMBOL LEGEND

	STORM MANHOLE		CTV		CABLE UNDERGROUND LINE
	CATCH BASIN		OE		ELECTRIC OVERHEAD LINE
	CURB INLET		UE		ELECTRIC UNDERGROUND LINE
	FLARED END		FO		FIBER OPTIC UNDERGROUND LINE
	SANITARY MANHOLE		GAS		NATURAL GAS UNDERGROUND LINE
	HYDRANT		Sanitary Sewer Pipe		SANITARY SEWER PIPE
	GATE VALVE & BOX		Storm Sewer Pipe		STORM SEWER PIPE
	WATER SHUTOFF		Telephone Underground Line		TELEPHONE UNDERGROUND LINE
	LIGHT POLE		Watermain Pipe		WATERMAIN PIPE
			Drain Tile Pipe		DRAINTILE PIPE

UTILITY NOTES

- It is the responsibility of the contractor to perform or coordinate all necessary utility connections and relocations from existing utility locations to the proposed building, as well as to all onsite amenities. These connections include but are not limited to water, sanitary sewer, cable TV, telephone, gas, electric, site lighting, etc.
- All service connections shall be performed in accordance with state and local standard specifications for construction. Utility connections (sanitary sewer, watermain, and storm sewer) may require a permit from the City.
- The contractor shall verify the elevations at proposed connections to existing utilities prior to any demolition or excavation.
- The contractor shall notify all appropriate engineering departments and utility companies 72 hours prior to construction. All necessary precautions shall be made to avoid damage to existing utilities.
- Storm sewer requires testing in accordance with Minnesota plumbing code 4714.1109 where located within 10 feet of waterlines or the building.
- HDPE storm sewer piping shall meet ASTM F2306 and fittings shall meet ASTM D3212 joint pressure test. Installation shall meet ASTM C2321.
- All RCP pipe shown on the plans shall be MN/DOT class 3.
- Maintain a minimum of 7 1/2' of cover over all water lines and sanitary sewer lines. Where 7 1/2' of cover is not provided, install 2" rigid polystyrene insulation (MN/DOT 3760) with a thermal resistance of at least 5 and a compressive strength of at least 25 psi. Insulation shall be 8' wide, centered over pipe with 6" sand cushion between pipe and insulation. Where depth is less than 5', use 4" of insulation.
- Install water lines 18" above sewers. Where the sewer is less than 18" below the water line (or above), install sewer piping of materials approved for inside building use for 10 feet on each side of the crossing.
- All watermain piping shall be class 52 ductile iron pipe unless noted otherwise.
- See Project Specifications for bedding requirements.
- Pressure test and disinfect all new watermains in accordance with state and local requirements.
- Sanitary sewer piping shall be PVC, SDR-35 for depths less than 12', PVC SDR-26 for depths between 12' and 26', and class 52 D.I.P. for depths of 26' or more.
- A structure adjustment shall include removing and salvaging the existing casting assembly, removing existing concrete rings to the precast section. Install new rings and salvaged casting to proposed grades, cleaning casting flange by mechanical means to insure a sound surface and install an external chimney seal from casting to precast section. Chimney seals shall be Infi-Shield Uni-Band or an approved equal.
- It is the responsibility of the contractor to perform, design and/or coordinate all necessary Traffic Control as required by the City and County utilizing the MUTCD for both Hanson Boulevard (C.S.A.H. No. 78) and 127th Avenue NW.



Larson Engineering, Inc.
816 W. St. Germain Street
Suite 308
St. Cloud, MN 56301
320.774.1944
www.larsonengr.com

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Client:**RON SIVIGNY
BROOKSIDE
CONSTRUCTION, INC.**

1971 208TH LANE NW
OAK GROVE, MN 55011

Project Title:**BROOKSIDE VILLAS**

12691 HANSON BOULEVARD
COON RAPIDS, MN 55448

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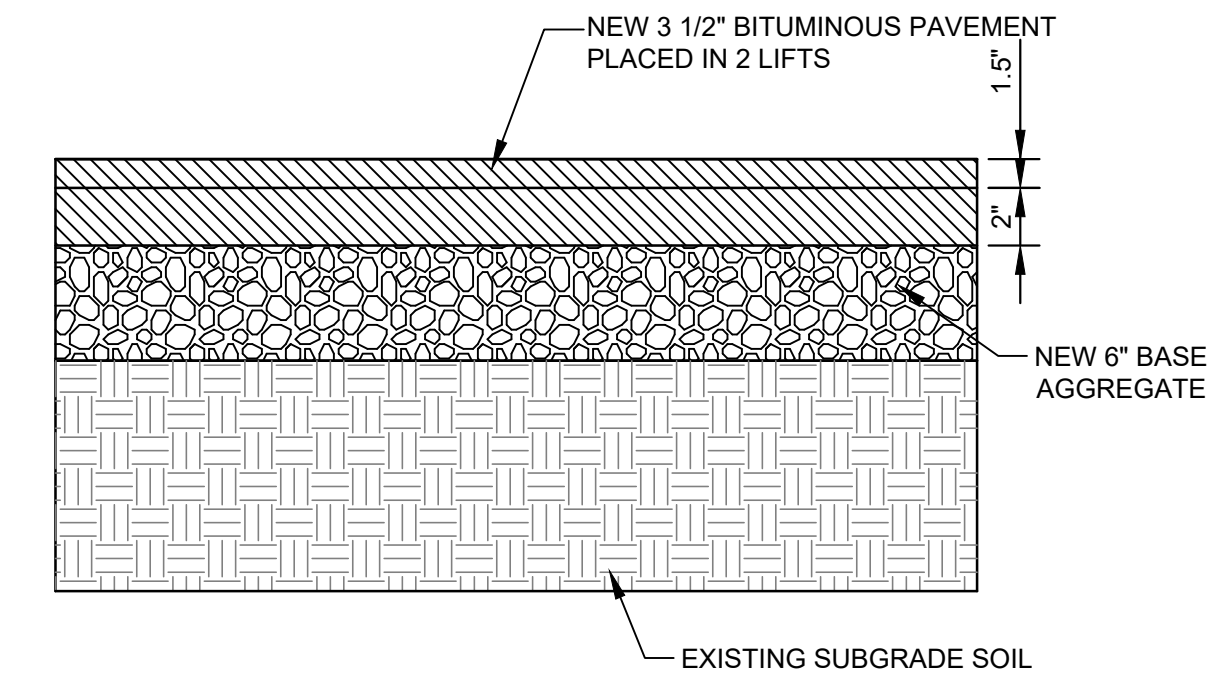
Thomas J. Herkenhoff, P.E.
Date: 02.03.22 Lic. No.: 25520

Rev.	Date	Description
	05.10.22	LGU Comments

Project #: 12216042
Drawn By: KBK
Checked By: TJH
Issue Date: 02.03.22

Sheet Title:**UTILITY PLAN
EAST**

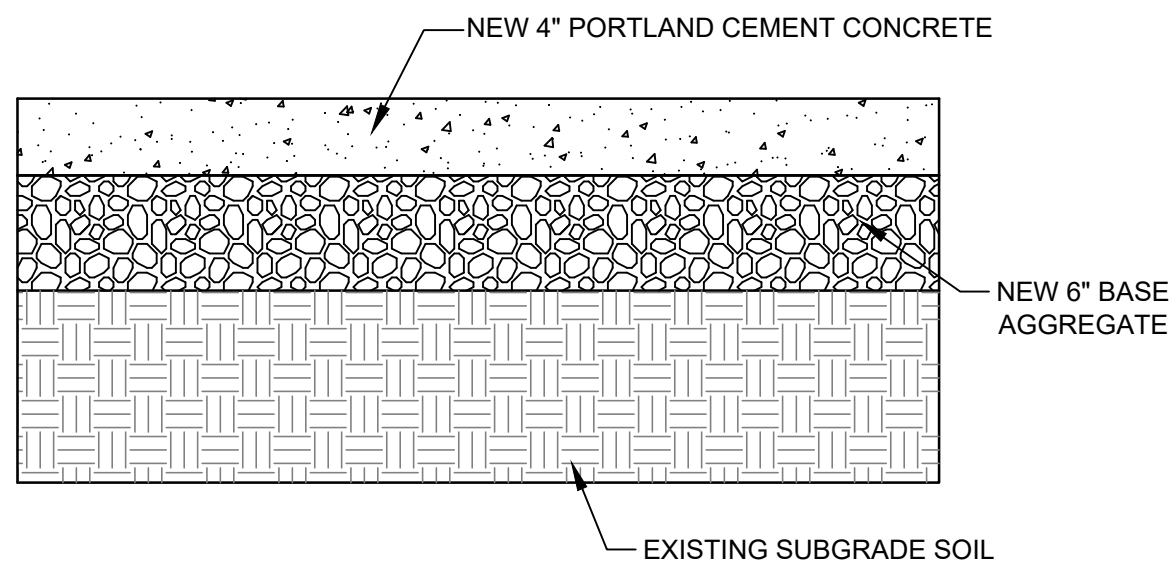
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BITUMINOUS
PAVEMENT SECTION

1
C600

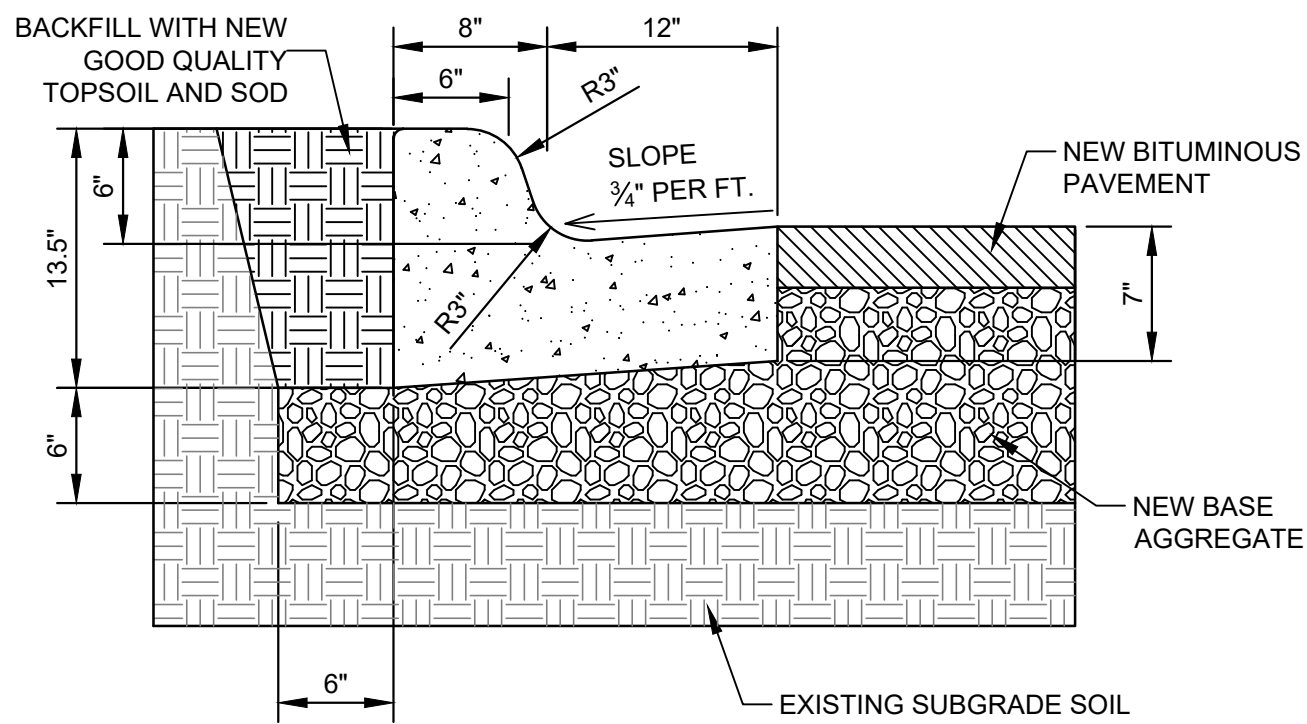
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CONCRETE
SIDEWALK DETAIL

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C600

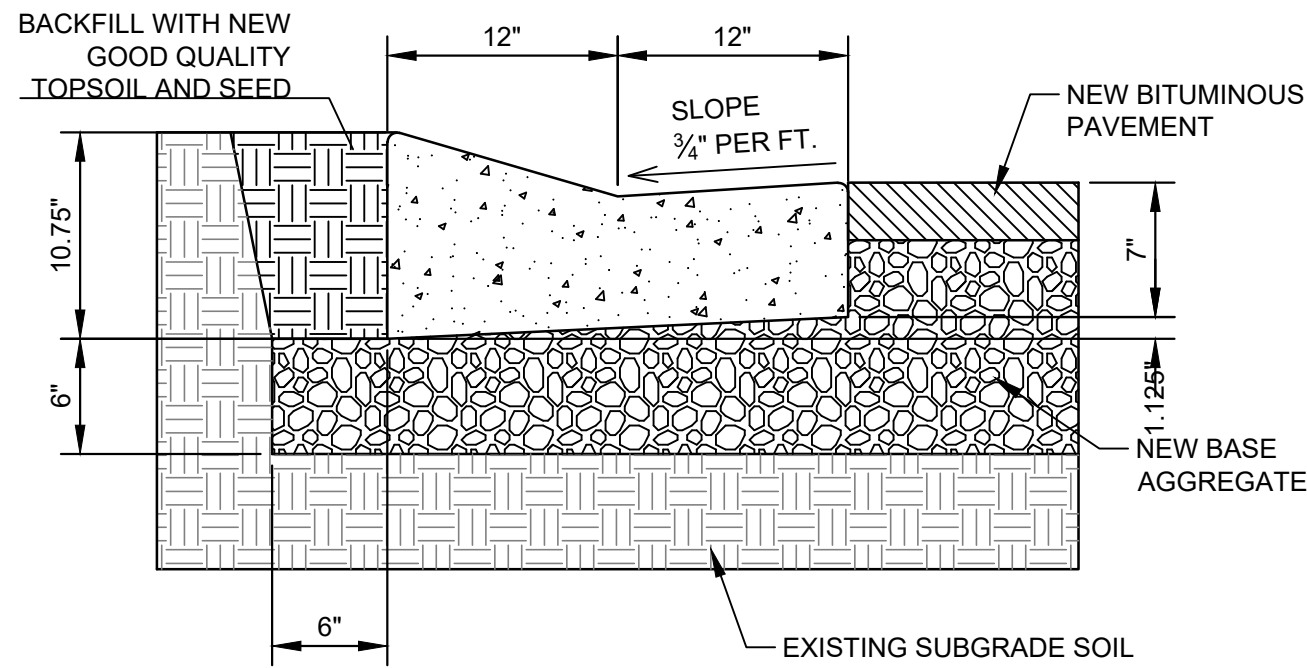
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B612 CONCRETE
CURB & GUTTER DETAIL

3
C600

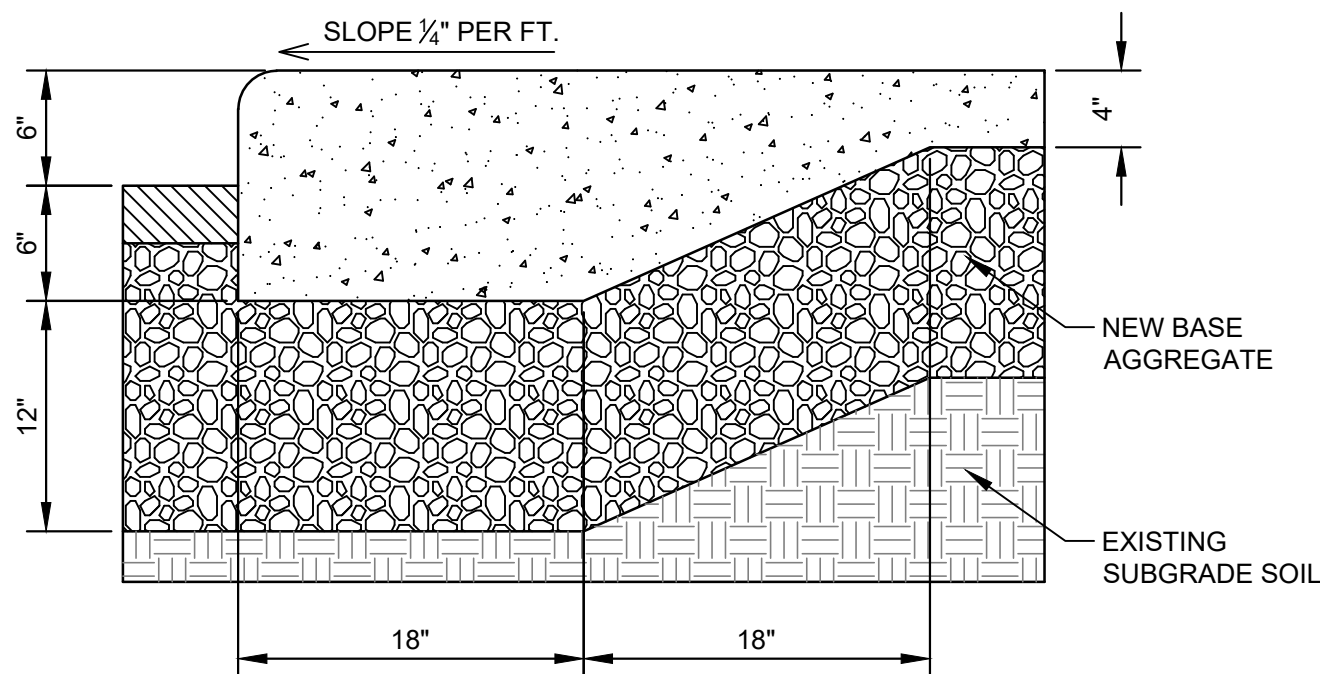
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SURMOUNTABLE CURB
& GUTTER DETAIL

4
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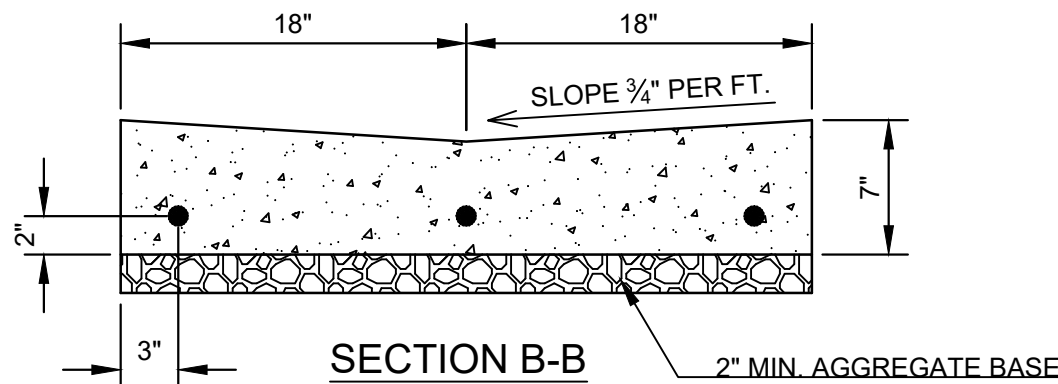
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INTEGRAL CURB
& SIDEWALK DETAIL

5
C600

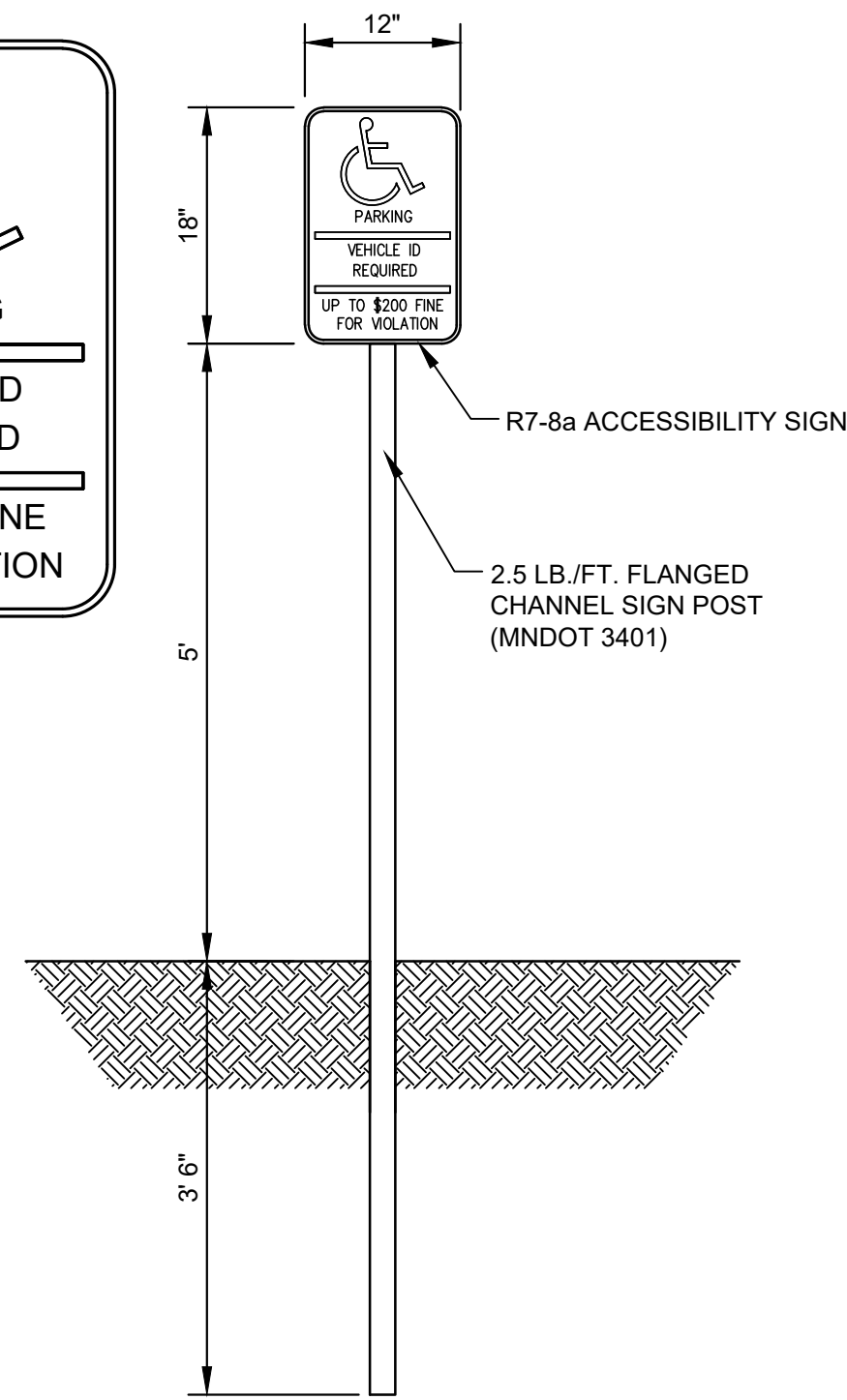
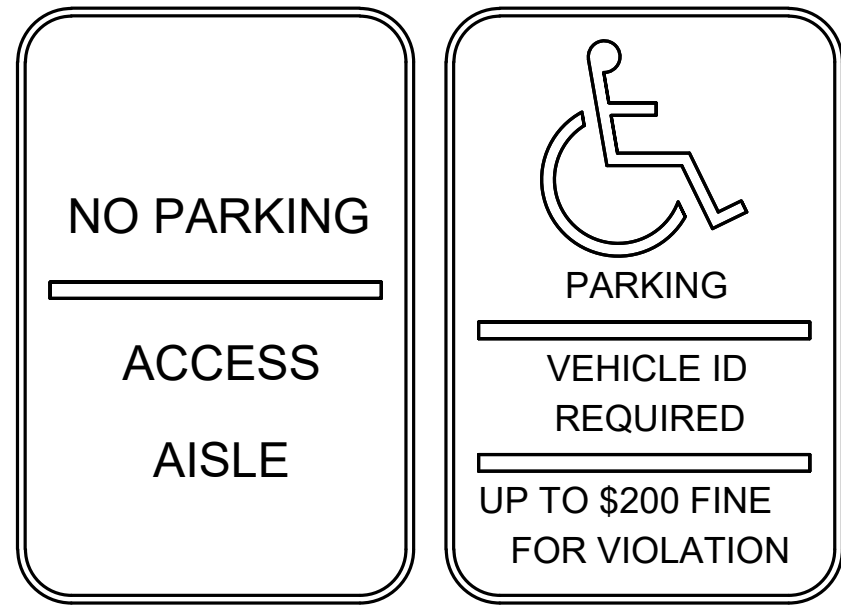
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CONCRETE VALLEY GUTTER
WITH BITUMINOUS APRON

6
C600

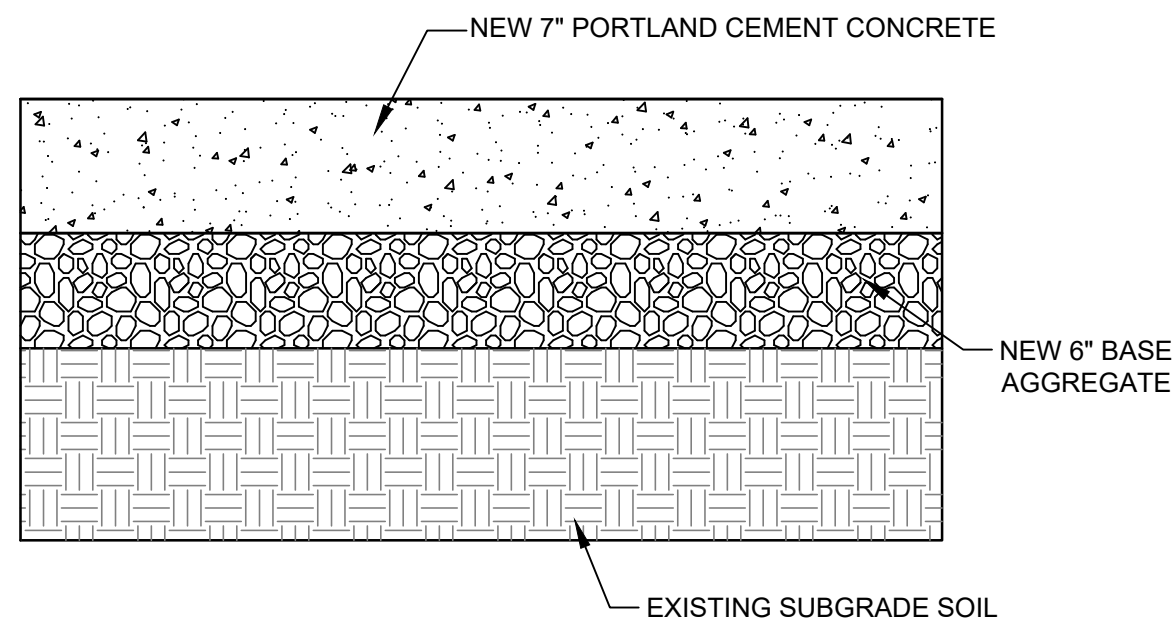
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ACCESSIBLE PARKING
SIGN DETAIL

7
C600

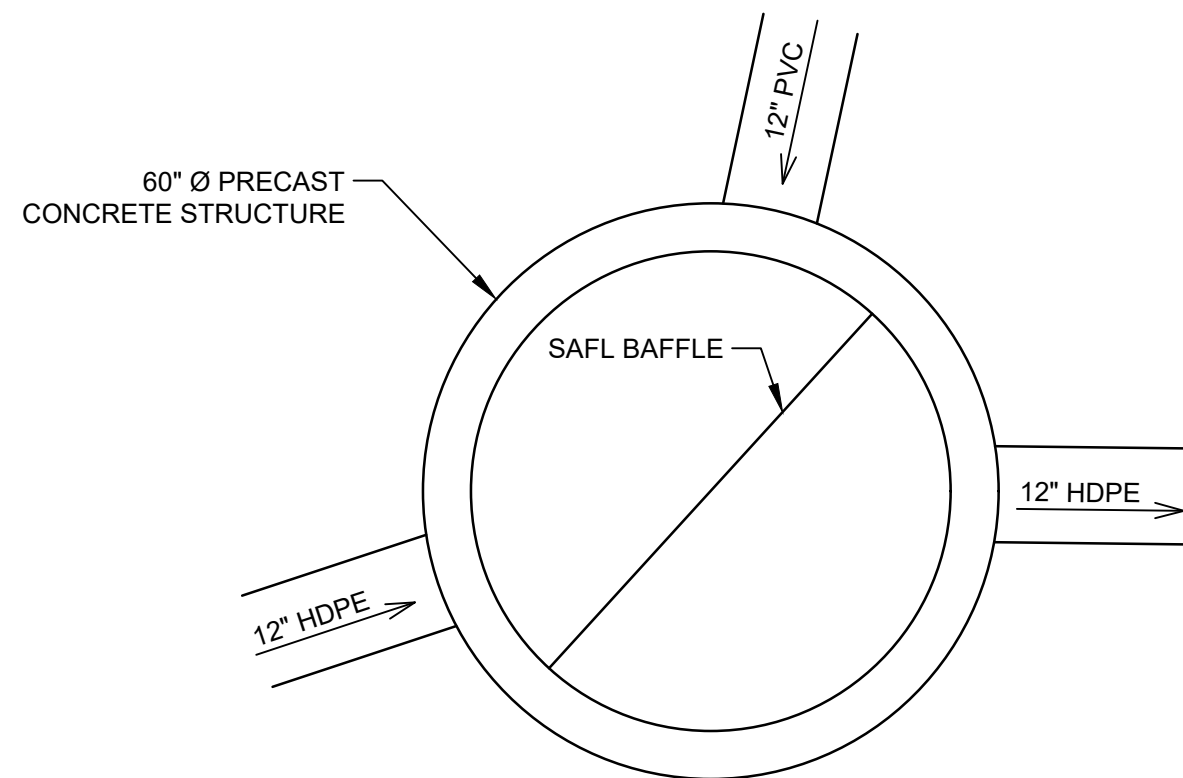
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CONCRETE
REFUSE/LIFT STA. AREA DETAIL

8
C600

NOT TO SCALE



STMH 2 DETAIL

9
C600

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1971 208TH LANE NW
OAK GROVE, MN 55011

BROOKSIDE VILLAS
12691 HANSON BOULEVARD
COON RAPIDS, MN 55448

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Thomas J. Herkenhoff
Thomas J. Herkenhoff, P.E.
Date: 02.03.22 Lic. No.: 25520

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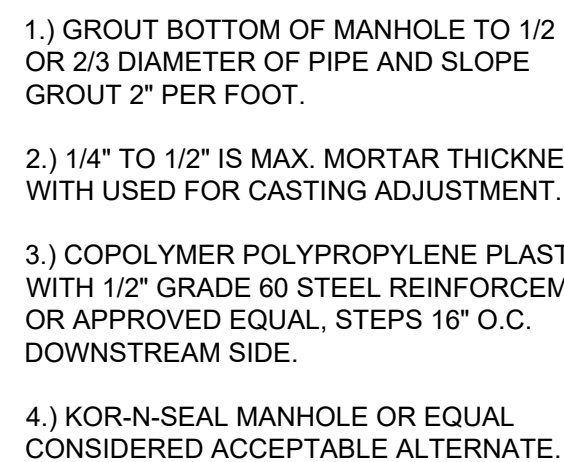
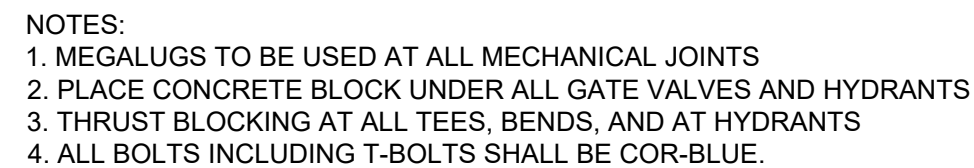
Project #: 12216042
Drawn By: KBK
Checked By: TJH
Issue Date: 02.03.22

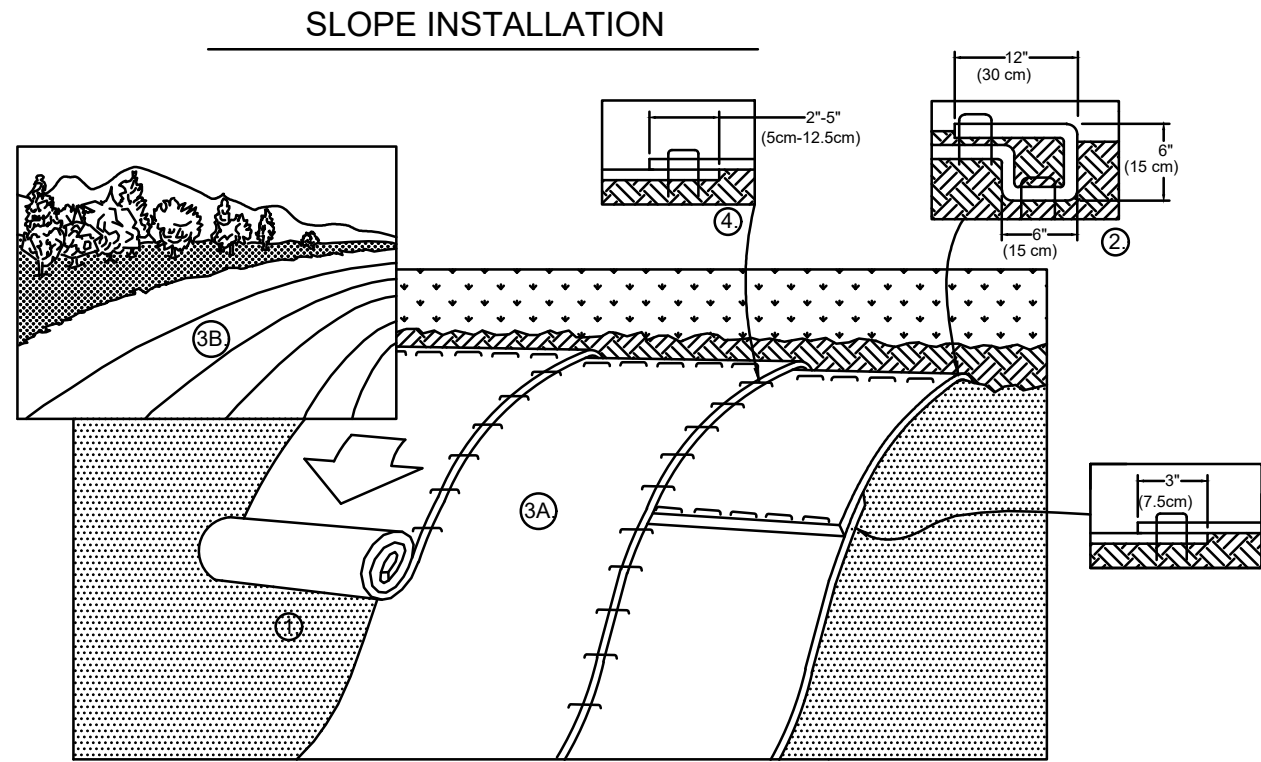
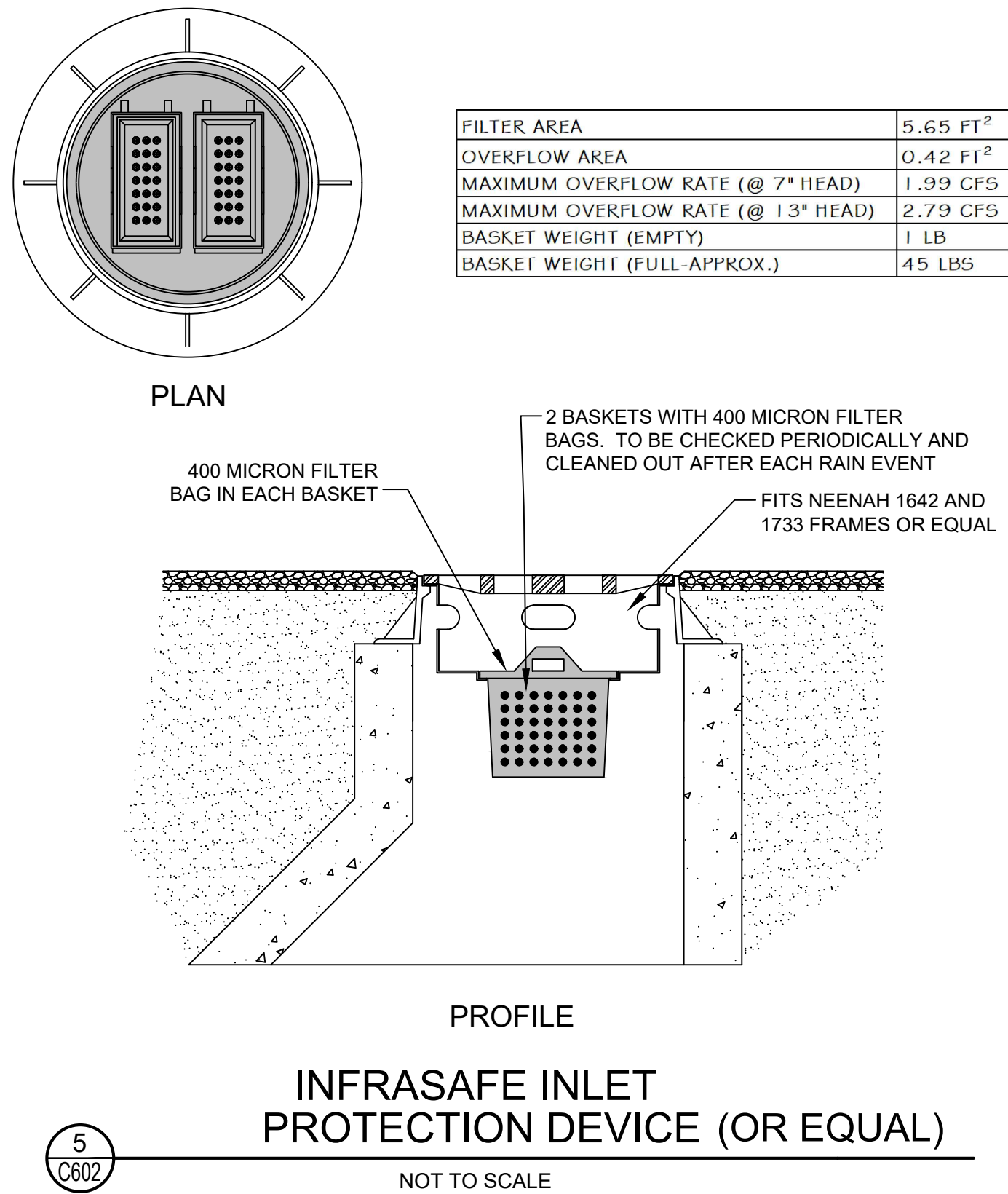
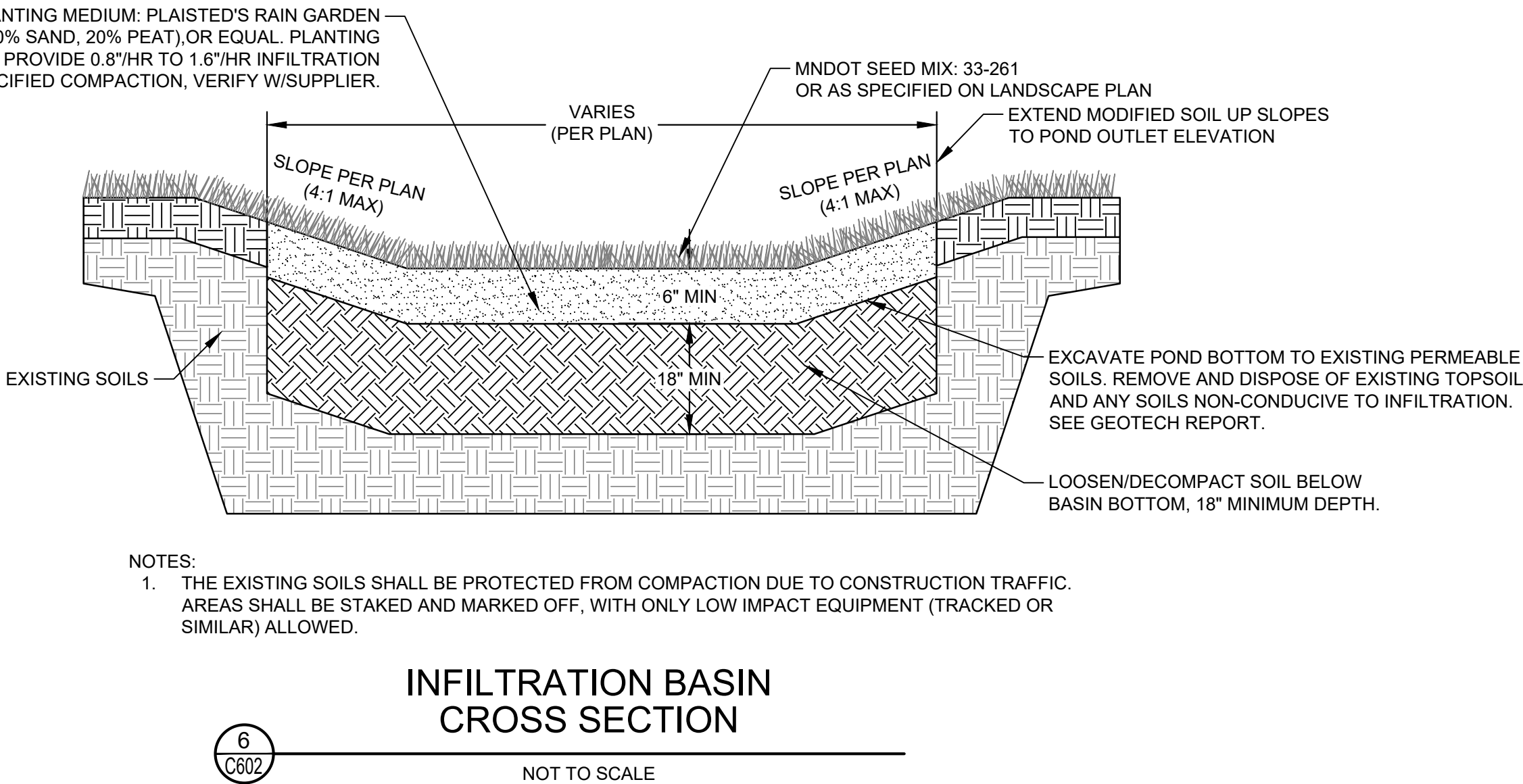
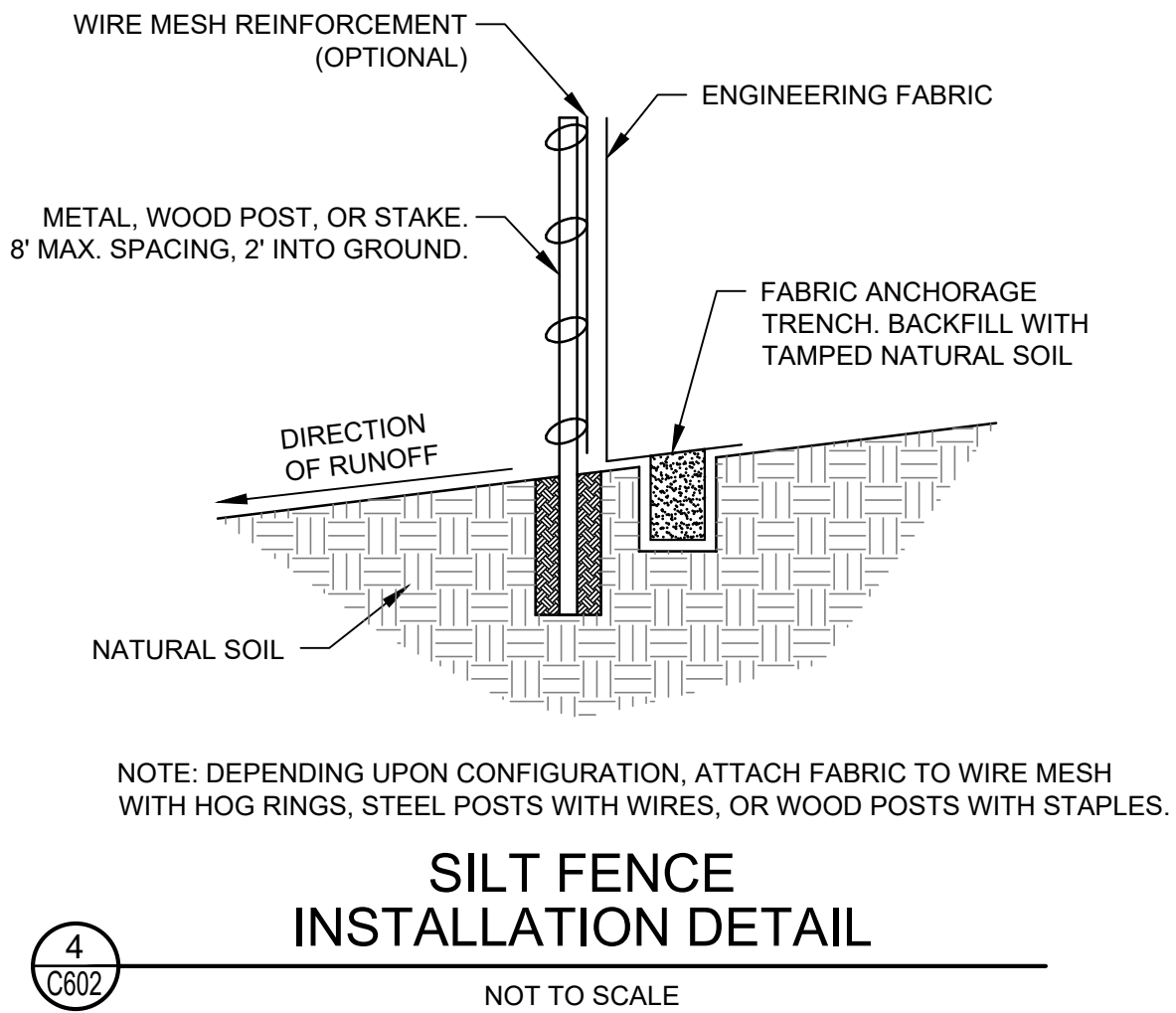
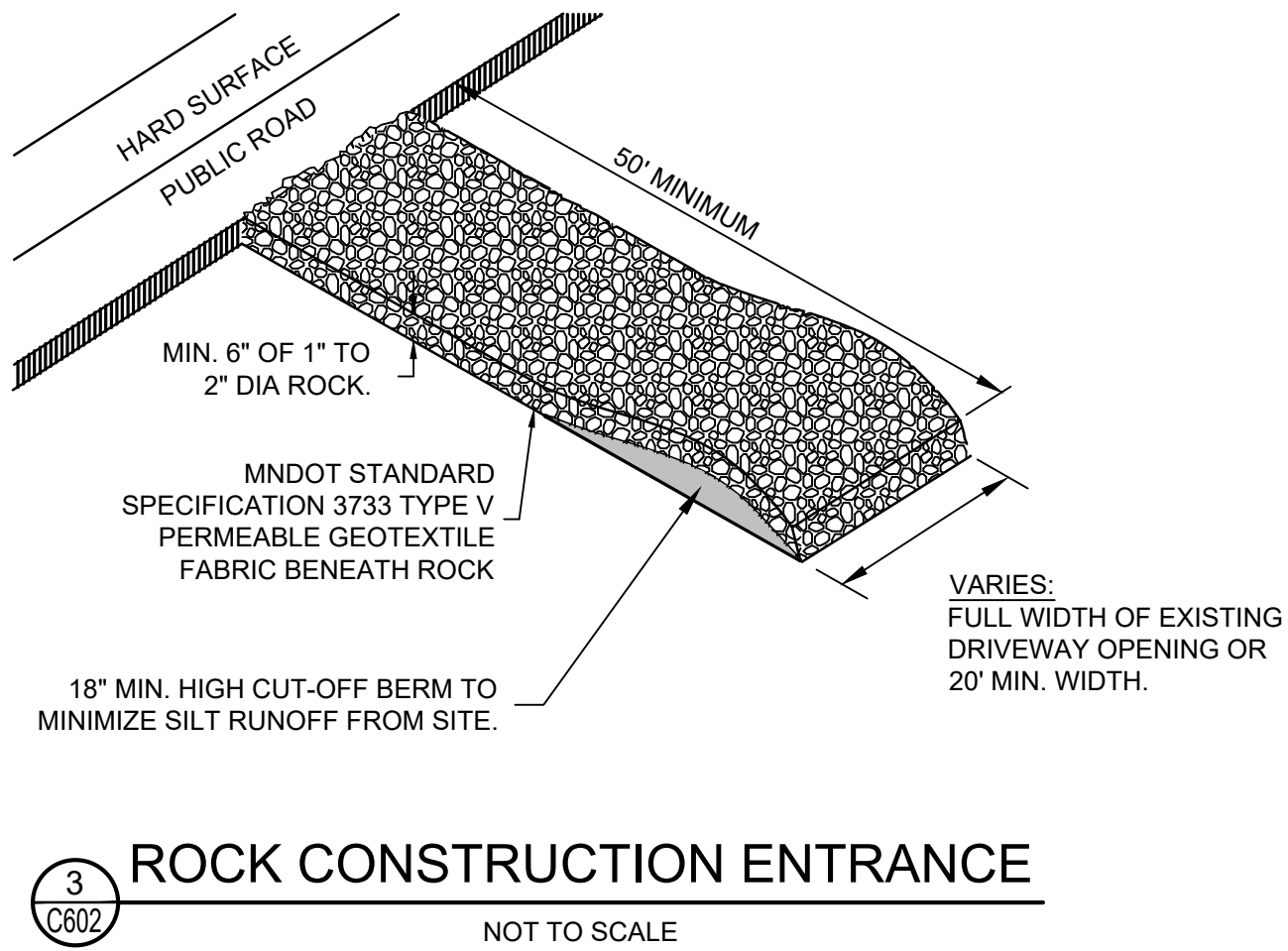
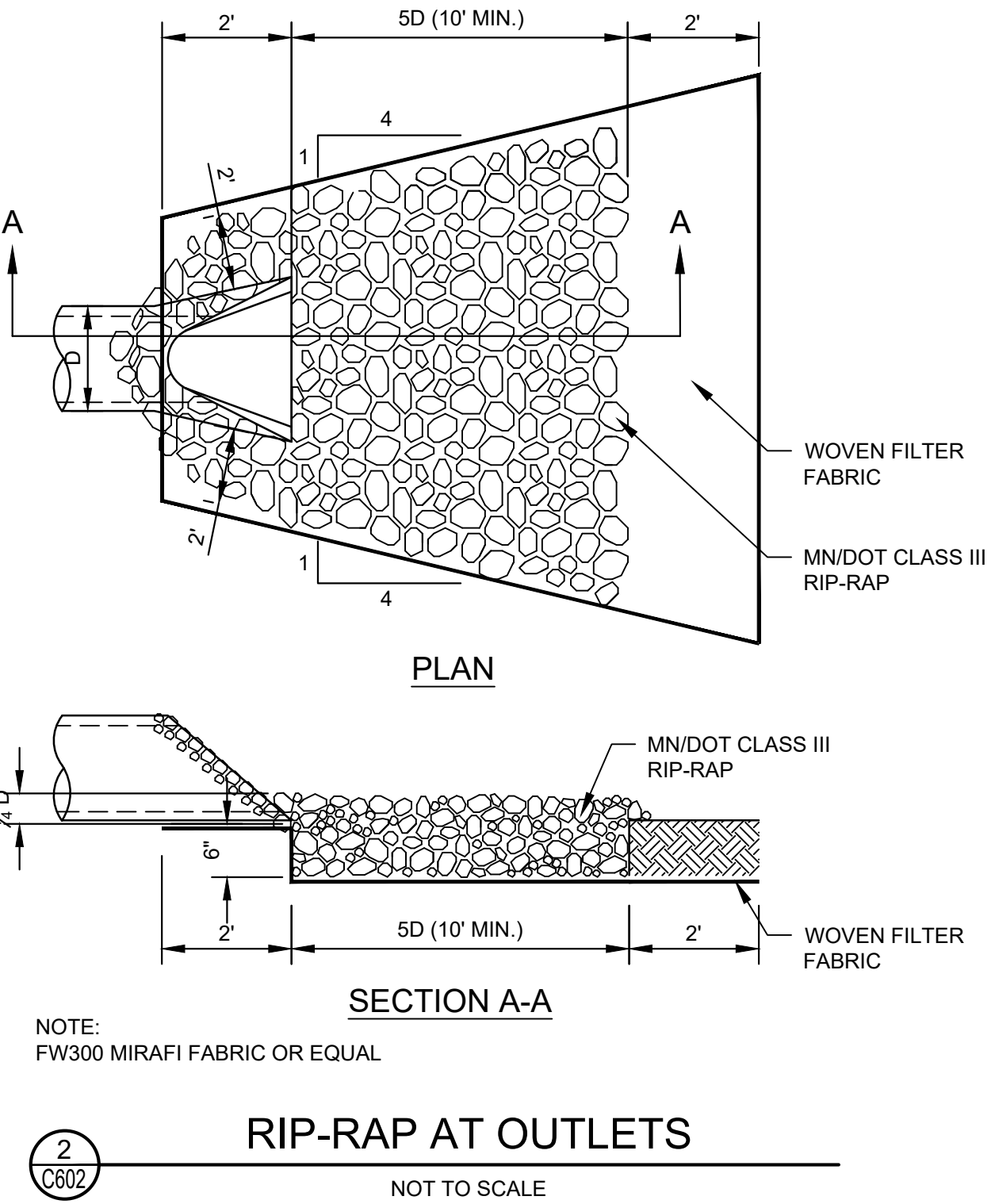
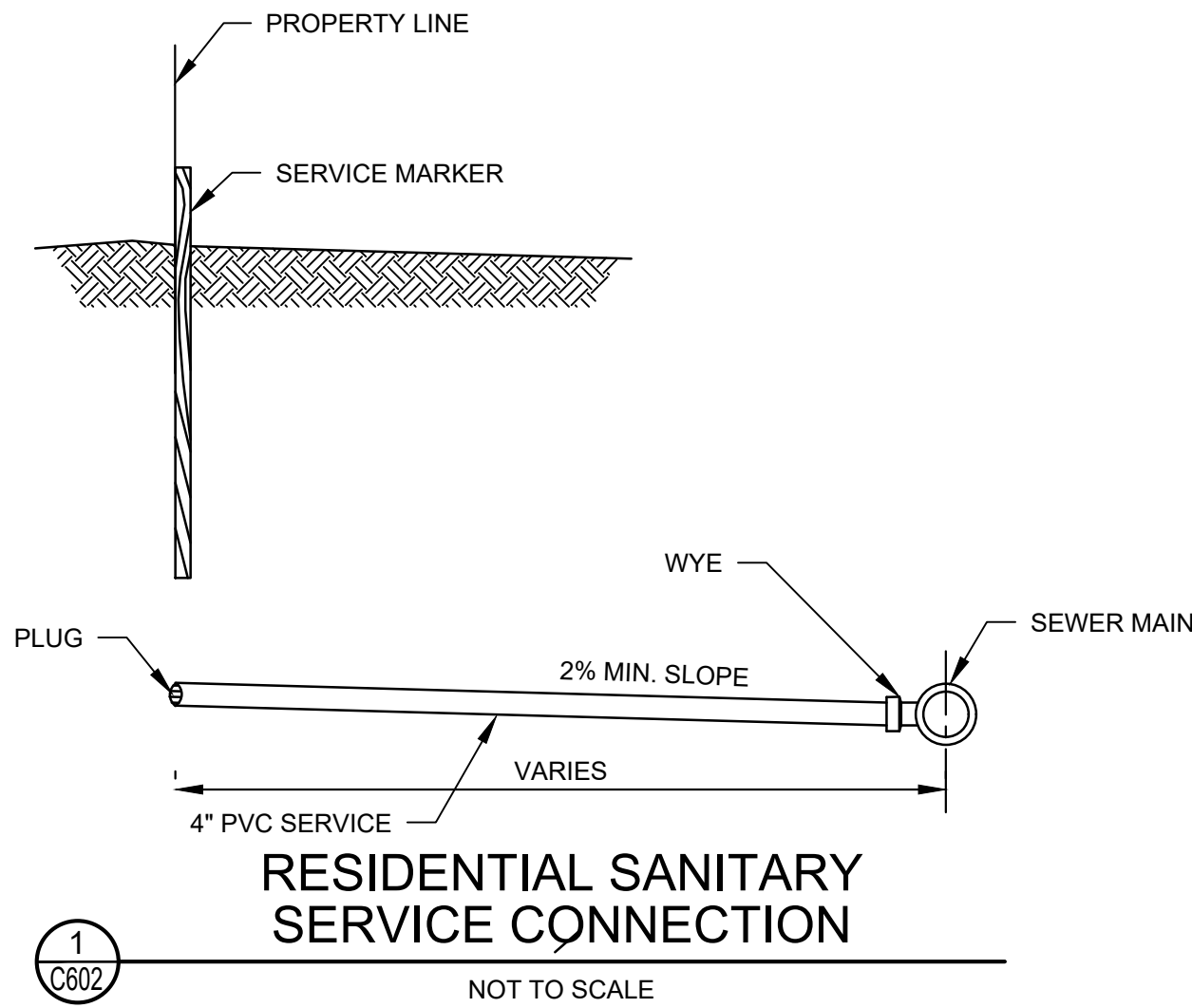
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DETAILS

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C600





- PREPARE SOIL BEFORE INSTALLING ROLLED EROSION CONTROL PRODUCTS (RECP's), INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED.
NOTE: WHEN USING CELL-O-SEED DO NOT SEED PREPARED AREA. CELL-O-SEED MUST BE INSTALLED WITH PAPER SIDE DOWN.
- BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE RECP's IN A 6" (15 CM) DEEP X 6" (15 CM) WIDE TRENCH WITH APPROXIMATELY 12" (30cm) OF RECP's EXTENDED BEYOND THE UP-SLOPE PORTION OF THE TRENCH. ANCHOR THE RECP's WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" (30 CM) APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 12" (30 CM) PORTION OF RECP's BACK OVER SEED AND COMPACTED SOIL. SECURE RECP's OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED APPROXIMATELY 12" (30 CM) APART ACROSS THE WIDTH OF THE RECP's.
- ROLL THE RECP's (A.) DOWN OR (B.) HORIZONTALLY ACROSS THE SLOPE. RECP's WILL UNROLL WITH APPROPRIATE SIDE AGAINST THE SOIL SURFACE. ALL RECP's MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES/STAKES IN APPROPRIATE LOCATIONS AS SHOWN IN THE STAPLE PATTERN GUIDE. WHEN USING THE DOT SYSTEM, STAPLES/STAKES SHOULD BE PLACED THROUGH EACH OF THE COLORED DOTS CORRESPONDING TO THE APPROPRIATE STAPLE PATTERN.
- THE EDGES OF PARALLEL RECP's MUST BE STAPLED WITH APPROXIMATELY 2" - 5" (5 CM - 12.5 CM) OVERLAP DEPENDING ON RECP's TYPE.
- CONSECUTIVE RECP's SPLICED DOWN THE SLOPE MUST BE PLACED END OVER END (SHINGLE STYLE) WITH AN APPROXIMATE 3" (7.5 CM) OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" (30 CM) APART ACROSS ENTIRE RECP's WIDTH.
NOTE:
*IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" (15 CM) MAY BE NECESSARY TO PROPERLY SECURE THE RECP's.

NORTH AMERICAN GREEN

EROSION CONTROL Products

Guaranteed SOLUTIONS

14649 HIGHWAY 41 NORTH
EVANSVILLE, IN 47725
800-772-2040
www.nagreen.com

Category 4 Erosion Control Blanket:
North American Green S150 erosion control blanket or approved equal.

Top Net

Polypropylene
1.5 lbs/1,000 ft2
(0.73 kg/100 m2) approx. wt.

Bottom Net

Polypropylene
1.5 lbs/1,000 ft2
(0.73 kg/100 m2) approx. wt.

Straw Fiber

0.50 LBS/YD2
(0.27 KG/M2)

Thread

Photodegradable

Staples/Anchors:
The type of anchors used to secure the blanket to the ground shall be Steel wire#11 Gauge 1" wide x 8" long.

EROSION CONTROL BLANKET

NOT TO SCALE

Larson Engineering, Inc.

816 W. St. Germain Street
Suite 308
St. Cloud, MN 56301
320.774.1944
www.larsonengr.com

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Client:

RON SIVIGNY
BROOKSIDE
CONSTRUCTION, INC.

Project Title:

BROOKSIDE VILLAS
12691 HANSON BOULEVARD
COON RAPIDS, MN 55448

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Thomas J. Herkenhoff, P.E.

Date: 02.03.22 Lic. No.: 25520

Rev.	Date	Description
△	05.10.22	LGU Comments

Project #:

12216042

Drawn By:

KBK

Checked By:

TJH

Issue Date:

02.03.22

Sheet Title:

DETAILS

Sheet:

C602

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										Print Name: CHRIS M. TRBOYEVIICH										STATE PROJECT NO. X										DESIGNED BY C.TRBOYEVIICH																																							
NO. DATE BY CHK APPR										REVISION										Chris M. Trboyeviich										CITY PROJECT NO. X										CHECKED BY M. TURNER																													
5404NH1-muAp1on5404, TSC																				Date: 10/10/2024 License # 41635																				COMM. NO. 0055404																													

1
C603

A diagram showing a cross-section of a road. A dashed line represents the original road surface, and a solid line represents the new surface. The new surface is labeled "SAME SLOPE AS ROADWAY" with an arrow pointing to the dashed line.

[illegible]

APPROVED <u>MARCH 11, 1994</u>	STATE OF MINNESOTA DEPARTMENT OF TRANSPORTATION	SPECIFICATION REFERENCE 2531	STANDARD PLATE NO. 7100H
<i>R.H. Carpend</i>	CONCRETE CURB AND GUTTER DESIGN B AND DESIGN V	REVISION DATE	
ACTING STATE DESIGN ENGINEER			

2
C603

NOT TO SCALE

Client: **RON SIVIGNY
BROOKSIDE
CONSTRUCTION, INC.**
1971 208TH LANE NW
OAK GROVE, MN 55011

12691 HANSON BOULEVARD
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 Issue Date: 02.03.22
 Sheet Title:

DETAILS

Sheet:

C603

STORM WATER POLLUTION PREVENTION PLAN (SWPPP) NARRATIVE

PROJECT DESCRIPTION / LOCATION

THE PROJECT CONSISTS OF GRADING, UTILITIES, AND ROADWAY CONSTRUCTION. STORM WATER LEAVING THE PROPERTY WILL FLOW THROUGH A SAFL BAFFLE TO A PROPOSED INFILTRATION BASIN. FROM THERE IT RUNS TO THE CITY STORM SEWER. THE PROJECT SITE IS LOCATED AT THE SOUTHEAST CORNER OF THE INTERSECTION OF HANSON BLVD NW AND 127TH AVE NW.

THE PROJECT INCLUDES:
*GRADING
*UTILITIES
*STORM SEWER
*TURF ESTABLISHMENT

PLANS

THE PLANS SHOW THE PROJECT LIMITS.

ENVIRONMENTALLY SENSITIVE AREAS

NA
PUBLIC WATERS LOCATED WITHIN 1 MILE OF THE PROJECT BOUNDARY AREA IDENTIFIED IN THE TABLE BELOW.

RECEIVING WATERS IMPAIRMENT

MCKAY LAKE NONE

OUTSTANDING RESOURCE VALUE WATERS (ORVWs)

OUTSTANDING RESOURCE VALUE WATERS WITHIN 1 MILE OF THE PROJECT BOUNDARY:
NA

CALCAREOUS FENS

THERE ARE NO CALCAREOUS FENS WITHIN 1 MILE OF THE PROJECT BOUNDARY.

ARCHAEOLOGICAL, HISTORICAL, AND ARCHITECTURAL RESOURCES

THERE ARE NO ARCHAEOLOGICAL, HISHORICAL, OR ARCHITECTURAL RESOURCES WITHIN THE PROJECT BOUNDARY.

ENDANGERED AND THREATENED SPECIES REVIEW

THERE ARE NO KNOWN ENDANGERED OR THREATENED SPECIES IDENTIFIED WITHIN THE PROJECT BOUNDARY.

TOTAL MAXIMUM DAILY LOAD (TMDL) WATERS

THERE ARE NO TMDL WATERS WITHIN 1 MILE OF THE PROJECT BOUNDARY.

LAND FEATURE CHANGES

TOTAL PROJECT AREA DISTURBED:	3.11 ACRES
TOTAL EXISTING IMPERVIOUS SURFACE AREA:	1.07 ACRES
TOTAL EXISTING PERVIOUS SURFACE AREA:	2.61 ACRES
TOTAL PROPOSED IMPERVIOUS SURFACE AREA:	1.50 ACRES
TOTAL PROPOSED PERVIOUS SURFACE AREA:	2.19 ACRES

TIMING OF BMP INSTALLATION

THE EROSION PREVENTION AND SEDIMENT CONTROL BMPS SHALL BE INSTALLED AS NECESSARY TO MINIMIZE EROSION FROM DISTURBED SURFACES AND CAPTURE SEDIMENT ON SITE. EROSION AND SEDIMENT CONTROL SHALL BE INSTALLED PRIOR TO ANY DEMOLITION AND/OR CONSTRUCTION.

DRAINAGE COMPUTATIONS

RUNOFF IS DIRECTED TO THE ROADWAY AND COLLECTED INTO THE STORM SEWER THEN CONNECTED TO THE EXISTING STORM SEWER SYSTEM OR DIRECTED TO THE INFILTRATION BASIN LOCATED ON THE EAST SIDE OF THE DEVELOPMENT. SEE STORM WATER MANAGEMENT REPORT.

TEMPORARY PONDING REQUIREMENTS

A TEMPORARY SEDIMENT BASIN IS NOT REQUIRED ON THIS PROJECT.

PROJECT CONTACTS

PROJECT ENGINEER:
LARSON ENGINEERING
TOM HERKENHOFF
816 WEST ST. GERMAIN STREET
ST. CLOUD, MN 56301
320-774-1944

OWNER:
RON SIVIGNY
BROOKSIDE CONSTRUCTION, INC.
1971 208TH LANE NW
OAK GROVE, MN 55011

CONTRACTOR:

MPCA 24 HOUR EMERGENCY NOTIFICATION:

651-649-5451
800-422-0798

SWPPP DESIGN, INSTALLATION & MANAGEMENT

DESIGNER:	TOM HERKENHOFF	320.774.1944
INSTALLER:	TBD	
MANAGEMENT:	TBD	

CONSTRUCTION NOTES

CONSTRUCTION SHALL BE GOVERNED BY THE PROJECT MANUAL. THE CONTRACTOR SHALL KEEP AND MAINTAIN THE INSPECTION AND MAINTENANCE RECORDS.

PERMANENT STORMWATER MANAGEMENT

PERMANENT STORM WATER IS BEING TREATED BY THE INFILTRATION BASIN LOCATED ON SITE. THE OWNER SHALL BE RESPONSIBLE FOR THE INSPECTION AND MAINTENANCE OF THE INFILTRATION BASIN AND UPSTREAM CATCH BASIN SUMPS AFTER PROJECT COMPLETION AND ACCEPTANCE.

SEQUENCE OF CONSTRUCTION ACTIVITIES

1. INSTALL TEMPORARY EROSION CONTROL AS SHOWN ON THE PLANS.
2. COMPLETE THE REMOVALS AS NOTED ON THE PLANS.
3. CONSTRUCT ALL TEMPORARY SEDIMENT TRAPS.
4. CONSTRUCT DOWNSTREAM STORM SEWER.
5. CONDUCT SITE GRADING.
6. TEMPORARILY SEED DENUDEED AREAS PER NPDES REQUIRMENTS.
7. CONTINUALLY STABILIZE THE NORMAL WETTER PERIMETER OF ALL AREAS WITHIN THE 200 LINEAL FEET OF THE SURFACE WATER OR THE PROPERTY EDGE.
8. COMPLETE PERMANENT STABILIZATION.

BMP PROJECT QUANTITY ESTIMATE
(QUANTITIES ARE AN ESTIMATE ONLY AND MAY VARY)

SILT FENCE:	660 LF
INLET PROTECTION:	16 EA
EROSION CONTROL BLANKET:	3,417 SY
ROCK CONSTRUCTION ENTRANCE:	1 EA

STORM WATER POLLUTION PREVENTION PLAN (CONSTRUCTION ACTIVITY REQUIREMENTS)

1. THE CONTRACTOR WILL NEED TO IDENTIFY AN EROSION CONTROL SUPERVISOR IN GOOD STANDING WHO WILL BE KNOWLEDGEABLE AND HAS THE APPROPRIATE MPCA LICENSURE IN THE APPLICATION OF EROSION PREVENTION AND SEDIMENT CONTROL, BEST MANAGEMENT PRACTICES.
2. EROSION CONTROL MEASURES SHOWN THE EROSION CONTROL PLAN ARE THE ABSOLUTE MINIMUM. THE CONTRACTOR SHALL INSTALL TEMPORARY EARTH DIKES, SEDIMENT TRAPS OR BASINS, ADDITIONAL SILTATION FENCING, AND/OR DISK THE SOIL PARALLEL TO THE CONTOURS AS DEEMED NECESSARY TO FURTHER CONTROL EROSION. ALL CHANGES SHALL BE RECORDED IN THE SWPPP.
3. THE EROSION CONTROL SUPERVISOR WILL WORK WITH THE PROJECT ENGINEER TO OVERSEE THE IMPLEMENTATION OF THE SWPPP, AND THE INSTALLATION, INSPECTION AND MAINTENANCE OF THE EROSION PREVENTION AND SEDIMENT CONTROL BMPS BEFORE, DURING AND AFTER CONSTRUCTION AS REQUIRED. THE BMP MEASURES SHALL REFERENCE CITY BMP DETAILS.
4. THE GENERAL CONTRACTOR IS RESPONSIBLE TO COMPLY WITH THE CONSTRUCTION STORMWATER PERMIT.
5. THE CONTRACTOR WILL DEVELOP A CHAIN OF COMMAND WITH ALL OPERATORS ON THE SITE TO ENSURE THAT THE SWPPP WILL BE IMPLEMENTED AND STAY IN EFFECT UNTIL THE CONSTRUCTION PROJECT IS COMPLETE. THE ENTIRE SITE HAS UNDERGONE FINAL STABILIZATION, AND A NOTICE OF TERMINATION (NOT) HAS BEEN SUBMITTED TO THE MPCA.
6. THE CONTRACTOR WILL PREPARE A WRITTEN WEEKLY SCHEDULE OF PROPOSED EROSION CONTROL ACTIVITIES FOR THE PROJECT ENGINEERS APPROVAL.
7. THE CONTRACTOR WILL PREPARE AND SUBMIT A SITE PLAN FOR THE FOR THE PROJECT ENGINEERS APPROVAL FOR WORK IN CRITICAL AREAS AS IDENTIFIED ON THE PLANS OR AS REQUESTED BY THE PROJECT ENGINEER.
8. ALL EROSION CONTROL MEASURES SHALL BE IN PLACE PRIOR TO ANY REMOVAL WORK AND/OR DISTURBING ACTIVITIES AND SHALL BE MAINTAINED UNTIL THE POTENTIAL FOR EROSION HAS BEEN ELIMINATED.
9. ALL EXPOSED SOIL AREAS MUST BE STABILIZED AS SOON AS POSSIBLE TO LIMIT SOIL EROSION BUT IN NO CASE LATER THAN 7 DAYS OR AS REQUIRED BY THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT FOR CONSTRUCTION ACTIVITY ON THAT PORTION OF THE SITE THAT HAS TEMPORARY OR PERMANENT CONSTRUCTION ACTIVITY COMPLETION.
10. WORK IN DRAINAGE SWALES OR THE NORMAL WETTED PERIMETER OF ANY SURFACE WATER WILL REQUIRE STABILIZATION WITHIN 24 HOURS OF CONNECTION. THESE AREAS WILL INCLUDE ALL AREAS THAT DRAIN WATER WITHIN 200 FEET FROM THE PROPERTY EDGE OR POINT OF DISCHARGE TO ANY SURFACE WATER. RAPID STABILIZATION WILL BE USED IN THESE AREAS.
11. DITCHES AND EXPOSED SOILS MUST BE KEPT IN A SMOOTH ROUGH GRADED CONDITION IN ORDER TO BE ABLE TO APPLY EROSION CONTROL MULCHES AND BLANKETS.
12. ALL EXPOSED SOIL AREAS WILL BE STABILIZED PRIOR TO THE ONSET OF WINTER. ANY WORK STILL BEING PERFORMED WILL BE SNOW MULCHED, SEEDED, OR BLANKETED.
13. SEDIMENT CONTROL DEVICES MUST BE ESTABLISHED ON ALL DOWN GRADIENT PERIMETERS BEFORE ANY UP GRADIENT LAND DISTURBING ACTIVITIES BEGIN. THE TIMING OF THE INSTALLATION OF THE SEDIMENT CONTROL DEVICES CAN BE ADJUSTED TO ACCOMMODATE SHORT-TERM ACTIVITIES SUCH AS CLEARING AND GRUBBING, OR PASSAGE OF VEHICLES. ANY SHORT TERM ACTIVITY MUST BE COMPLETED AS QUICKLY AS POSSIBLE AND THE SEDIMENT CONTROL DEVICES MUST BE INSTALLED IMMEDIATELY AFTER THE ACTIVITY IS COMPLETED IN ACCORDANCE WITH THE NPDES PERMIT.
 - A. SILT FENCE SHALL BE INSTALLED SO THAT IT FOLLOWS AS CLOSE AS POSSIBLE TO A SINGLE CONTOUR TO CAPTURE OVERLAND, LOW-VELOCITY SHEET FLOWS DOWN GRADIENT OF ALL EXPOSED SOILS AND PRIOR TO DISCHARGING TO SURFACE WATERS WITH THE SILT FENCE J-HOODED AT A MAXIMUM OF 100 FOOT INTERVALS AND SHALL CONTAIN NO MORE THAN 1/4 ACRE OF DRAINAGE AREA.
 - B. DITCH CHECKS WILL BE INSTALLED AS INDICATED ON THE PLANS DURING ALL PHASES OF CONSTRUCTION.
 - * TEMPORARY DITCH CHECKS WILL CONSIST OF USING ROCK DITCH CHECKS AND ROCK WEEPERS IN FRONT OF CULVERT INLETS.
 - C. SEDIMENT DAMAGE FROM STOCKPILES WILL BE MINIMIZED BY PLACING A ROW OF SILT FENCE 6 FEET FROM THE TOE.
 - D. ALL EXPOSED STOCKPILES LEFT FOR A PERIOD OF TIME SHALL BE TEMPORARILY STABILIZED ACCORDING TO THE NPDES PERMIT REQUIREMENTS BUT IN NO CASE LATER THAN 7 DAYS.
14. STREET SURFACES SHALL BE SWPT WITHIN 24 HOURS OF DISCOVERY OF SEDIMENT OR TRACKING WITH A VACUUM OPERATED BROOM SWEEPER. NO OPEN-BROOM SWEEPERS WILL BE ALLOWED.
15. STORM SEWER INLETS WILL BE PROTECTED WITH THE APPROPRIATE BMPS FOR EACH SPECIFIC PHASE OF CONSTRUCTION.
16. THE CONTRACTOR WILL COMPLY WITH THE REQUIREMENTS REGARDING POLLUTION PREVENTION MANAGEMENT DURING CONSTRUCTION, WHICH WILL INCLUDE PROVIDING:
 - A. CONCRETE WASHOUT FACILITIES/PROCESSES ACCORDING TO THE NDPS PERMIT REQUIREMENTS
 - B. SOLID WASTE COLLECTION AND REMOVAL
 - C. SECONDARY CONTAINMENT
 - D. HAZARDOUS WASTE STORAGE CONTAINERS AND SPILL KITS
17. BUILDING PRODUCTS WITH POLLUTANT POTENTIAL SHALL BE STORED UNDER COVER (PLASTIC SHEETING, TEMPORARY ROOFS) OR IN SECURE CABINETS TO MINIMIZE CONTACT WITH STORMWATER.
18. CHEMICALS (PESTICIDES HERBICIDES, FERTILIZERS, TREATMENT CHEMICALS, ETC.) SHALL BE STORED UNDER COVER (PLASTIC SHEETING, TEMPORARY ROOFS) OR IN SECURE CABINETS TO MINIMIZE CONTACT WITH STORMWATER.
19. HAZARDOUS MATERIALS AND TOXIC WASTE (OIL, GAS, PAINT, ETC.) SHALL BE STORED IN SEALED CONTAINERS IN A STORAGE AREA WITH RESTRICTED ACCESS. STORAGE AREAS SHALL BE PROVIDED WITH SECONDARY CONTAINMENT PER MINNESOTA CHAPTER 7045. ALL DISPOSAL SHALL BE IN ACCORDANCE WITH STATE REGULATIONS.
20. COLLECTION, STORAGE, AND DISPOSAL OF SOLID WASTE SHALL COMPLY WITH MINNESOTA ADMINISTRATIVE RULES 7035.0300 TO 7035.2915. STORAGE OF GARBAGE, REFUSE, AND OVERSIZE WASTE SHALL COMPLY WITH 7035.0700. RENOVATION AND DEMOLITION OPERATIONS SHALL COMPLY WITH 7035.0805.
21. PORTABLE TOILETS SHALL BE MANAGED IN ACCORDANCE WITH MINNESOTA ADMINISTRATIVE RULES CHAPTER 7041.
22. FUELING OF VEHICLES AND EQUIPMENT WILL BE PERFORMED IN A DESIGNATED, CONTAINED AREA. SPILL KITS SHALL BE READILY AVAILABLE AND DISPOSAL SHALL BE IN ACCORDANCE WITH STATE REGULATIONS. SPILLS WILL BE REPORTED IN ACCORDANCE WITH MINNESOTA STATUTE 115.061.
23. WASHING OF VEHICLES AND EQUIPMENT WILL BE PERFORMED IN A DESIGNATED, CONTAINED AREA. RUNOFF FROM THE WASHING AREA SHALL BE CONTAINED IN A SEDIMENT BASIN AND WASTE SHALL BE DISPOSED OF IN ACCORDANCE WITH STATE REGULATIONS.
24. CONCRETE AND WASHOUT WASTES (STUCCO, PAINT, RELEASE OILS, CURING COMPOUNDS, ETC.) SHALL BE PERFORMED IN A DESIGNATED, CONTAINED AREA. SO THAT WASTES DON NOT CONTACT THE GROUND. LIQUID AND SOLID WASTES SHALL BE DISPOSED OF IN ACCORDANCE WITH STATE REGULATIONS. A SIGN SHALL BE POSTED AT THE WASHOUT AREA FOR IDENTIFICATION AND INSTRUCTIONS.
25. DEWATERING OR BASIN DRAINING ACTIVITIES OF TURBID OR SEDIMENT LADEN WATER WILL BE DISCHARGED TO TEMPORARY SEDIMENT BASINS WHENEVER POSSIBLE. IN THE EVENT THAT IT IS NOT POSSIBLE TO DISCHARGE THE SEDIMENT LADEN WATER TO A TEMPORARY SEDIMENT BASIN THE WATER MUST BE TREATED SO THAT IT DOES NOT ADVERSELY AFFECT RECEIVING WATERS OR DOWNSTREAM LANDOWNERS.
26. THE CONTRACTOR WILL NEED TO PROVIDE A LICENSED EROSION CONTROL SUPERVISOR WHO CAN INSPECT THE SITE FOR NPDES PERMIT COMPLIANCE. MAINTENANCE OF ALL BEST MANAGEMENT PRACTICES (BMPS) WILL BE REQUIRED AS SET FORTH IN THE PREVIOUSLY NAMED SECTIONS.
 - A. THE EROSION CONTROL SUPERVISOR WILL NEED TO CONDUCT ROUTINE INDECTIONS OF THE ENTIRE CONSTRUCTION SITE AS REQUIRED BY THE NPDES PERMIT
 - B. DATE AND TIME OF INSPECTION
 - C. NAME OF PERSONS CONDUCTING INSPECTIONS
 - D. CORRECTIVE ACTIONS TAKEN
 - E. DATE AND AMOUNT OF ALL RAINFALL EVENTS GREATER THAN 0.5 INCHES IN 24 HOURS
 - F. DOCUMENTS AND CHANGES MADE TO THE SWPPP
 - G. MAINTANENCE ACTIVITIES
27. MAINTENANCE WILL BE PERFORMED WITHIN A PERIOD PER PERMIT REQUIREMENTS.
 - A. SILT FENCE REPAIRS SHOULD BE MADE WHEN IT BECOMES NON-FUNCTIONAL OR SEDIMENT REACHES 1/3 THE HEIGHT OF THE FENCE
 - B. INLET PROTECTION DEVICES SHOULD BE REPAIRED WHEN THEY BECOME NON-FUNCTIONAL OR SEDIMENT REACHES 1/3 THE HEIGHT AND/OR DEPTH OF THE DEVICE
 - C. TEMPORARY SEDIMENT BASIN MUST HAVE THE SEDIMENT REMOVED ONCE THE SEDIMENT HAS REACHED 1/2 THE STORAGE VOLUME
 - D. TRACKED SEDIMENT MUST BE REMOVED WITHIN 24 HOURS OF DISCOVERY OF OFF SITE TRACKING ONTO PAVED SURFACES
 - E. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING ALL BMPS UNTIL WORK HAS BEEN COMPLETED, SITE HAS GONE UNDER FINAL STABILIZATION, AND THE NOTICE OF TERMINATION HAS BEEN SUBMITTED TO THE MPCA IN ACCORDANCE WITH THE CONSTRUCTION GENERAL PERMIT
28. BURNING OF TREES, BRUSH, OR OTHER VEGETATED MATERIAL IS NOT ALLOWED WITHIN THE PROJECT BOUNDARIES.
29. THE CONTRACTOR MAY SKIP TEMPORARY OR RAPID STABILIZATION METHODS IF THEY CHOOSE TO STABILIZE AN AREA WITH PERMANENT STABILIZATION WITHIN THE APPROPRIATE TIME FRAMES OUTLINED IN THE PERMIT FOR THE DIFFERENT ACTIVITIES.
30. IF TEMPORARY OR PERMANENT COVER WILL NOT BE ESTABLISHED BY NOVEMBER 15, PROVIDE ADEQUATE MEASURES TO CONTROL SPRING EROSION AND SEDIMENTATION.
31. ALL SEDIMENT DEPOSITED INTO A WATER OF THE STATE MUST BE REMOVED IMMEDIATELY OR AS REQUIRED BY THE NPDES PERMIT.
32. OUTLETS INTO SURFACE WATERS SHALL BE STABILIZED WITH ENERGY DISSIPATION WITHIN 24 HOURS. ALL RIP RAP SHALL BE INSTALLED WITH A FILTER MATERIAL OR SOIL SEPARATION AND COMPLY WITH THE MINNESOTA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS.
33. A 50 FOOT NATURAL BUFFER SHALL BE PRESERVED ADJACENT TO SURFACE WATERS. IF WORK ENCROACHES THE SURFACE WATER AS A COMPONENT OF THE WORK, REDUNDANT SEDIMENT CONTROLS SHALL BE INSTALLED.
34. ALL INFILTRATION AREAS MUST BE INSPECTED TO ENSURE THAT NO SEDIMENT FROM ONGOING CONSTRUCTION ACTIVITY IS REACHING THE INFILTRATION AREA AND THESE AREAS ARE TO BE PROTECTED FROM COMPACTION DUE TO CONSTRUCTION EQUIPMENT DRIVING ACROSS THE INFILTRATION AREA. ONLY LOW IMPACT EQUIPMENT SHALL BE ALLOWED IN THE INFILTRATION AREAS WHICH SHALL BE STAKED AND MARKED OFF.
35. ONCE THE PROJECT IS SUBSTANTIALLY COMPLETED REGARDING TURF ESTABLISHMENT, SEDIMENT LOGS SHALL BE PLACED BEHIND THE NEW CURB AND GUTTER TO PROTECT AGAINST FURTHER EROSION WHEN THE NEW HOMES ARE CONSTRUCTED.

**** INSPECT THE CONSTRUCTION SITE ONCE EVERY 7 DAYS DURING ACTIVE CONSTRUCTION AND WITHIN 24 HOURS AFTER A RAINFALL EVENT GREATER THAN 0.5 INCHES IN 24 HOURS. RAINFALL SHALL BE MEASURED USING AN ONSITE RAIN GAUGE.**



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I hereby certify that this plan, specifications 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.

Thomas J. Herkenhoff
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Date: 02.03.22 Lic. No.: 25520

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