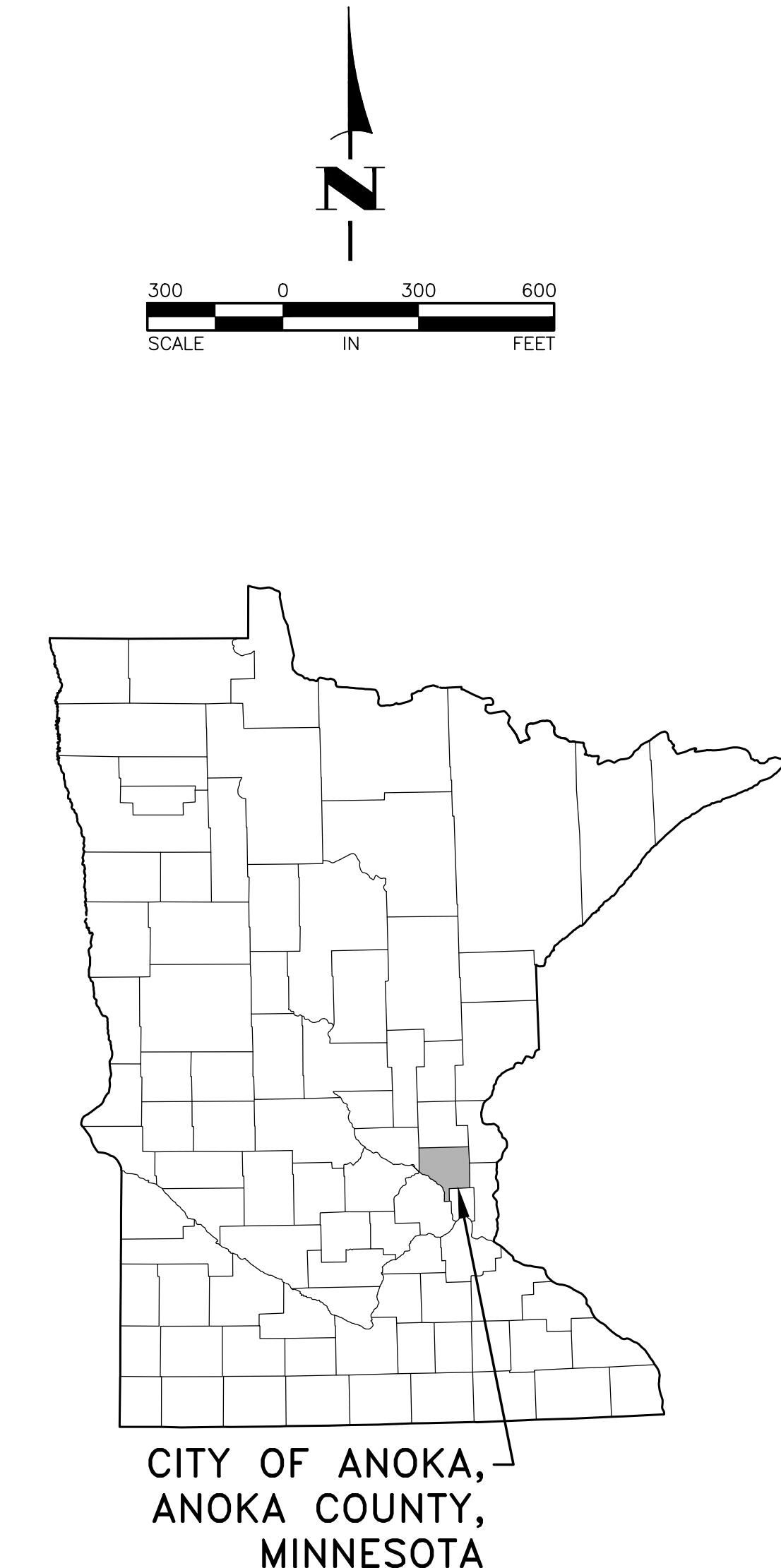


703 EAST MAIN STREET REDEVELOPMENT PROJECT

CIVIL CONSTRUCTION PLANS FOR KINGHORN CONSTRUCTION IN THE CITY OF ANOKA



THE SUBSURFACE UTILITY INFORMATION IN THIS PLAN IS UTILITY QUALITY LEVEL D. THIS QUALITY LEVEL WAS DETERMINED ACCORDING TO THE GUIDELINES OF CI/ASCE 38-02, ENTITLED "STANDARD GUIDELINES FOR THE COLLECTION AND DEPICTION OF EXISTING SUBSURFACE UTILITY DATA."

BENCHMARK:

- TOP NUT OF HYDRANT IN THE NORTHWEST CORNER OF 7TH AVENUE AND EAST MAIN STREET.
ELEVATION=881.52
- TOP NUT OF HYDRANT IN THE NORTHWEST CORNER OF 7TH AVENUE AND MONROE STREET.
ELEVATION=883.33
- TOP NUT OF HYDRANT IN THE SOUTHWEST CORNER OF EAST MAIN STREET AND 8TH AVENUE.
ELEVATION=878.67

GOVERNING SPECIFICATIONS

THE 2020 EDITION OF THE MINNESOTA DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR CONSTRUCTION" SHALL GOVERN FOR STORM SEWER AND PARKING LOT WORK.

THE 2018 EDITION OF THE CITY ENGINEER'S ASSOCIATION OF MINNESOTA "STANDARD SPECIFICATIONS" SHALL GOVERN FOR SANITARY SEWER AND WATERMAIN WORK.

ALL FEDERAL, STATE AND LOCAL LAWS, REGULATIONS, AND ORDINANCES SHALL BE COMPLIED WITH IN THE CONSTRUCTION OF THIS PROJECT.

ALL TRAFFIC CONTROL DEVICES AND SIGNING SHALL CONFORM TO THE LATEST EDITION OF THE MINNESOTA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, INCLUDING THE LATEST FIELD MANUAL FOR TEMPORARY TRAFFIC CONTROL ZONE LAYOUTS.

SHEET INDEX THIS PLAN CONTAINS 12 SHEETS

SHEET NO.	DESCRIPTION
C1	TITLE SHEET
C2	CONSTRUCTION NOTES, PROJECT LEGEND AND DETAILS
C3	DETAILS
C4	EXISTING TOPOGRAPHY AND REMOVALS PLAN
C5	SITE PLAN
C6	GRADING, DRAINAGE AND SEDIMENT CONTROL PLAN
C7	STAKING PLAN
C8	UTILITY PLAN
C9	RESTORATION AND PAVING PLAN
C10	TRAFFIC CONTROL PLAN
L1	LANDSCAPE PLAN & PLANTING DETAILS
L2	LANDSCAPE SPECIFICATIONS

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.

Tim Eggerichs
TIMOTHY A. EGGERICH, P.E.
HAKANSON ANDERSON
DESIGN ENGINEER

43362 DATE 8/5/22
LIC. NO.

DATE	REVISION
9/29/22	PLAN REVISIONS PER CITY AND COUNTY REVIEW

GENERAL CONSTRUCTION AND SOILS NOTES:

1. IN AREAS OF PARKING LOT AND BUILDING CONSTRUCTION, THE EXPOSED SAND SHALL BE SURFACE COMPACTED TO AT LEAST 100% OF THE STANDARD PROCTOR MAXIMUM DRY DENSITY, ASTM D698, IN AT LEAST THE UPPER 3 FEET.
2. UNLESS OTHERWISE RECOMMENDED IN THESE PLANS, THE GRADING SUBGRADE SHALL BE CONSTRUCTED OF SUITABLE GRADING MATERIAL. THE FILL SHALL BE PLACED IN 8" TO 10" LOOSE LIFTS, AND COMPACTED TO 100% OF THE STANDARD PROCTOR MAXIMUM DRY DENSITY.
3. SUITABLE GRADING MATERIAL FOR THIS PROJECT SHALL CONSIST OF ALL SOILS ENCOUNTERED WITH THE EXCEPTION OF TOPSOIL, SILT, DEBRIS, ORGANIC MATERIAL AND OTHER UNSTABLE MATERIAL.
4. IF AVAILABLE, CONTRACTOR SHALL REVIEW THE REPORT OF GEOTECHNICAL EXPLORATION FOR ADDITIONAL SITE PREPARATION REQUIREMENTS.
5. PROVIDE A SAW CUT WHEN PLACING NEW PAVEMENT ADJACENT TO INPLACE PAVEMENT AND AT TERMINI OF CONSTRUCTION TO ENSURE A UNIFORM JOINT.
6. BITUMINOUS AND CONCRETE ITEMS DISTURBED BY CONSTRUCTION SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE DISPOSED OF IN ACCORDANCE WITH MN/DOT SPEC. 2104.
7. USE TACK COAT BETWEEN ALL BITUMINOUS MIXTURES. THE BITUMINOUS TACK COAT MATERIAL SHALL BE APPLIED AT A UNIFORM RATE OF 0.04 GAL/SY TO 0.06 GAL/SY BETWEEN BITUMINOUS LAYERS. THE APPLICATION RATES ARE FOR UNDILUTED EMULSIONS.
8. THE BITUMINOUS MIXTURES SHALL MEET THE REQUIREMENTS OF SPECIFICATIONS 2360 AND 3139.
9. CONTRACTOR SHALL APPLY FOR A DEPARTMENT OF LABOR AND INDUSTRY PERMIT PRIOR TO CONSTRUCTING ANY UNDERGROUND UTILITIES SHOWN ON THESE PLANS. CONTRACTOR SHALL ADDRESS ALL THE COMMENTS FROM THE DEPARTMENT OF LABOR AND INDUSTRY AS PART OF THE PERMIT APPLICATION PROCESS.
10. ALL WORK IN THE ANOKA COUNTY RIGHT-OF-WAY WILL REQUIRE A PERMIT. CONTRACTOR SHALL APPLY FOR AN ANOKA COUNTY HIGHWAY DEPARTMENT PERMIT PRIOR TO WORKING IN THE RIGHT-OF-WAY.

GENERAL EROSION CONTROL NOTES:

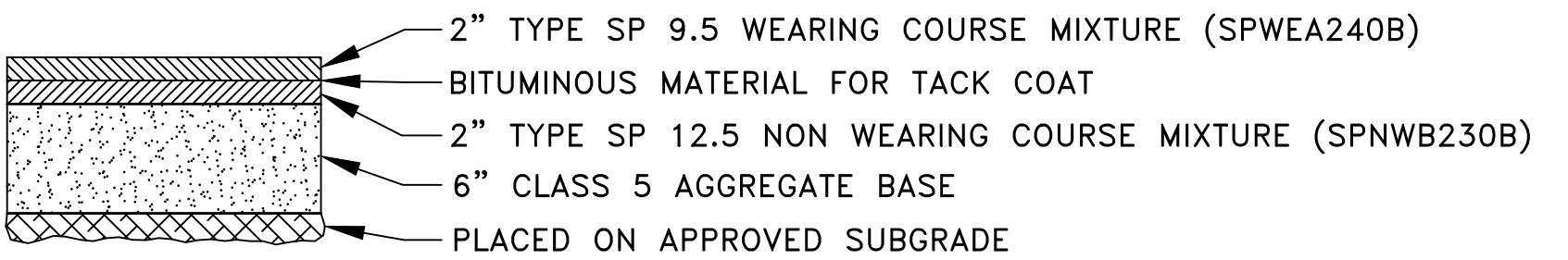
1. EROSION CONTROL SHALL CONFORM TO THE MN/DOT EROSION CONTROL HANDBOOK.
2. THE CONTRACTOR SHALL INSTALL EROSION AND SEDIMENT CONTROL FACILITIES (BMP'S) PRIOR TO GRADING AND REMOVAL ACTIVITIES. BMP'S SHALL BE MAINTAINED FOR THE DURATION OF CONSTRUCTION ACTIVITIES AND POTENTIAL FOR EROSION HAS PASSED.
3. THE CONTRACTOR SHALL SCHEDULE HIS OPERATION TO MINIMIZE THE AMOUNT OF DISTURBED AREA AT ANY GIVEN TIME.
4. BMP'S SHALL BE INSPECTED DAILY BY THE CONTRACTOR. OBSERVATIONS SHALL BE RECORDED IN AN INSPECTION LOG.
5. ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE PROPERLY DISPOSED OF WITHIN THIRTY (30) DAYS AFTER FINAL SITE STABILIZATION.

REFERENCE NOTES:

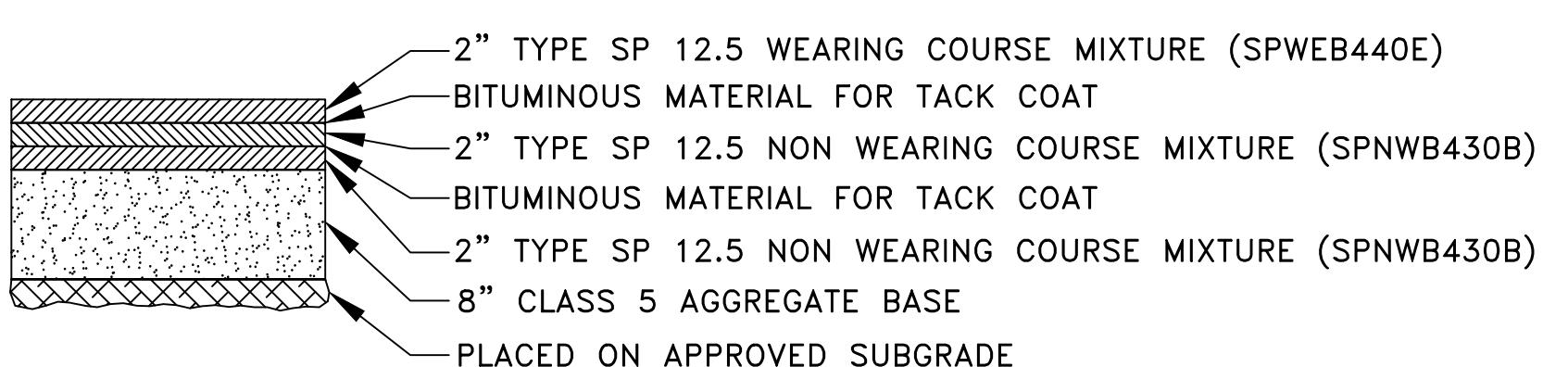
- ① CONTRACTOR SHALL USE A VALVE STEM ALIGNMENT TUBE TOOL TO MAINTAIN VERTICAL ALIGNMENT WHEN BACKFILLING THE VALVE BONNET AND VALVE BOX ASSEMBLY. THE ALIGNMENT TUBE SHALL CONSIST OF METAL PIPE WITH A SQUARE NUT RECEIVER SECURELY FASTENED TO THE END FOR PLACEMENT ON THE VALVE OPERATING NUT.
- ② ALL PIPE BENDS AND FITTINGS REQUIRE THRUST BLOCKING AND SERIES 1100 MEGALUG MECHANICAL JOINT RESTRAINTS AS MANUFACTURED BY EBBA IRON, INC. OR APPROVED EQUAL. THRUST BLOCKING AND MEGALUGS SHALL BE INCIDENTAL.

LEGEND

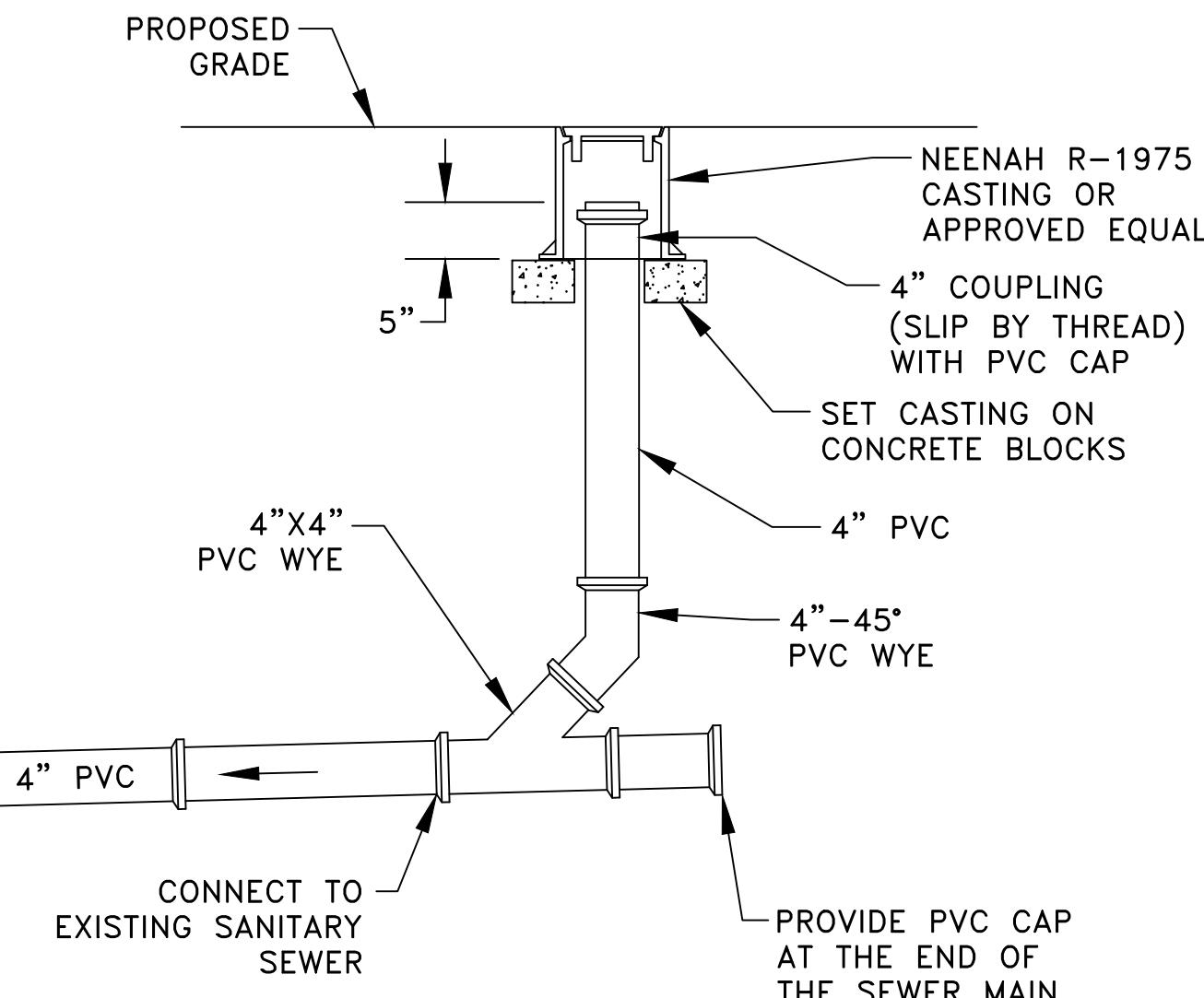
PROPERTY LINE
SECTION LINE
EXISTING CONTOUR
PROPOSED CONTOUR
EXISTING CONCRETE CURB
PROPOSED CONCRETE CURB
GAS MAIN
BURIED ELECTRIC LINE
BURIED TELEPHONE LINE
OVERHEAD ELECTRIC LINE
FENCE
EXISTING SANITARY SEWER
EXISTING STORM SEWER
EXISTING WATERMAIN
PROPOSED SANITARY SEWER
PROPOSED STORM SEWER
PROPOSED WATERMAIN
EXISTING BITUMINOUS PAVEMENT
EXISTING CONCRETE PAVEMENT
UTILITY PEDESTALS
ELECTRIC MANHOLE
HANDHOLE
CURB STOP
EXISTING HYDRANT
EXISTING WATERMAIN VALVE
PROPOSED WATERMAIN VALVE
EXISTING SANITARY SEWER MANHOLE
EXISTING STORM SEWER MANHOLE
EXISTING CATCH BASINS
PROPOSED CATCH BASIN
UTILITY POLE
TRAFFIC SIGNAL POLE
LIGHT POLE
SIGN
DECIDUOUS TREE
DETAIL NUMBER
SHEET NUMBER



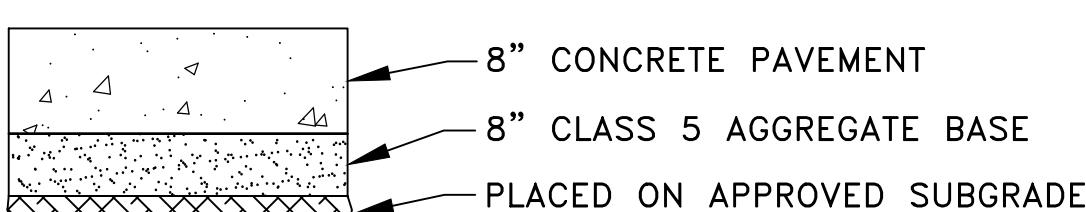
PARKING LOT
BITUMINOUS PAVEMENT SECTION
NO SCALE



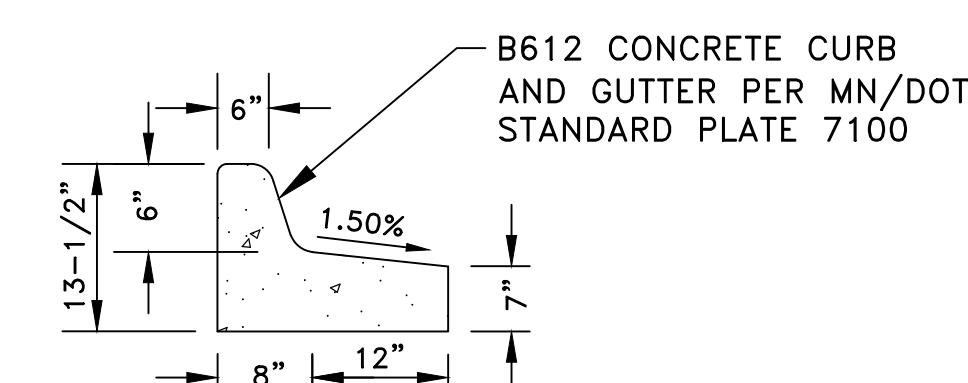
EAST MAIN STREET
BITUMINOUS PATCHING SECTION
NO SCALE



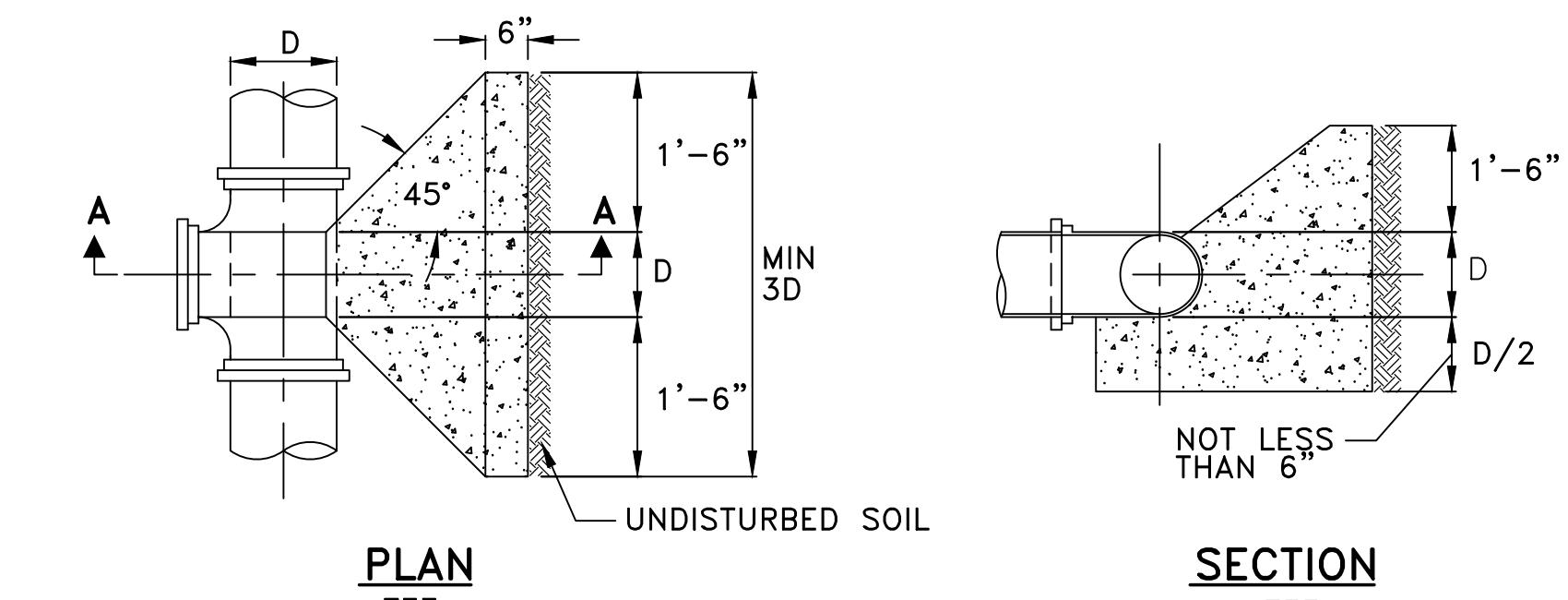
SANITARY SEWER CLEANOUT
NO SCALE



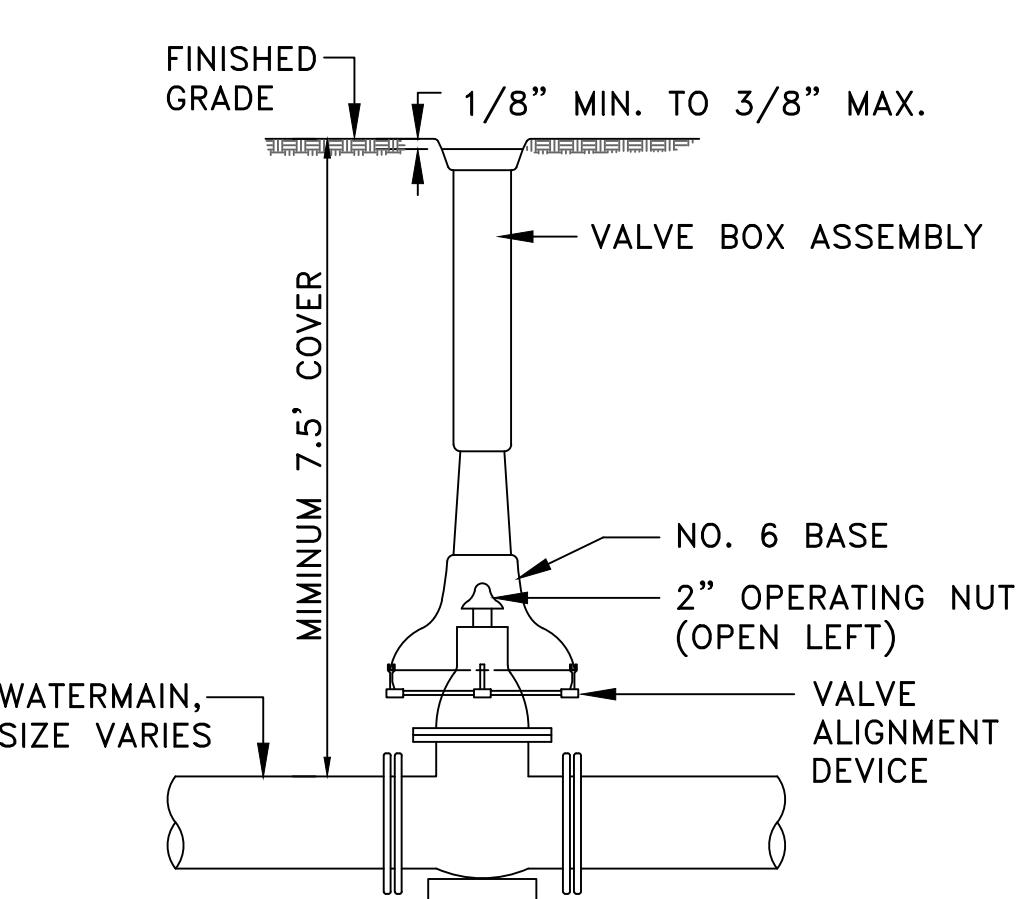
CONCRETE PAVEMENT SECTION
NO SCALE



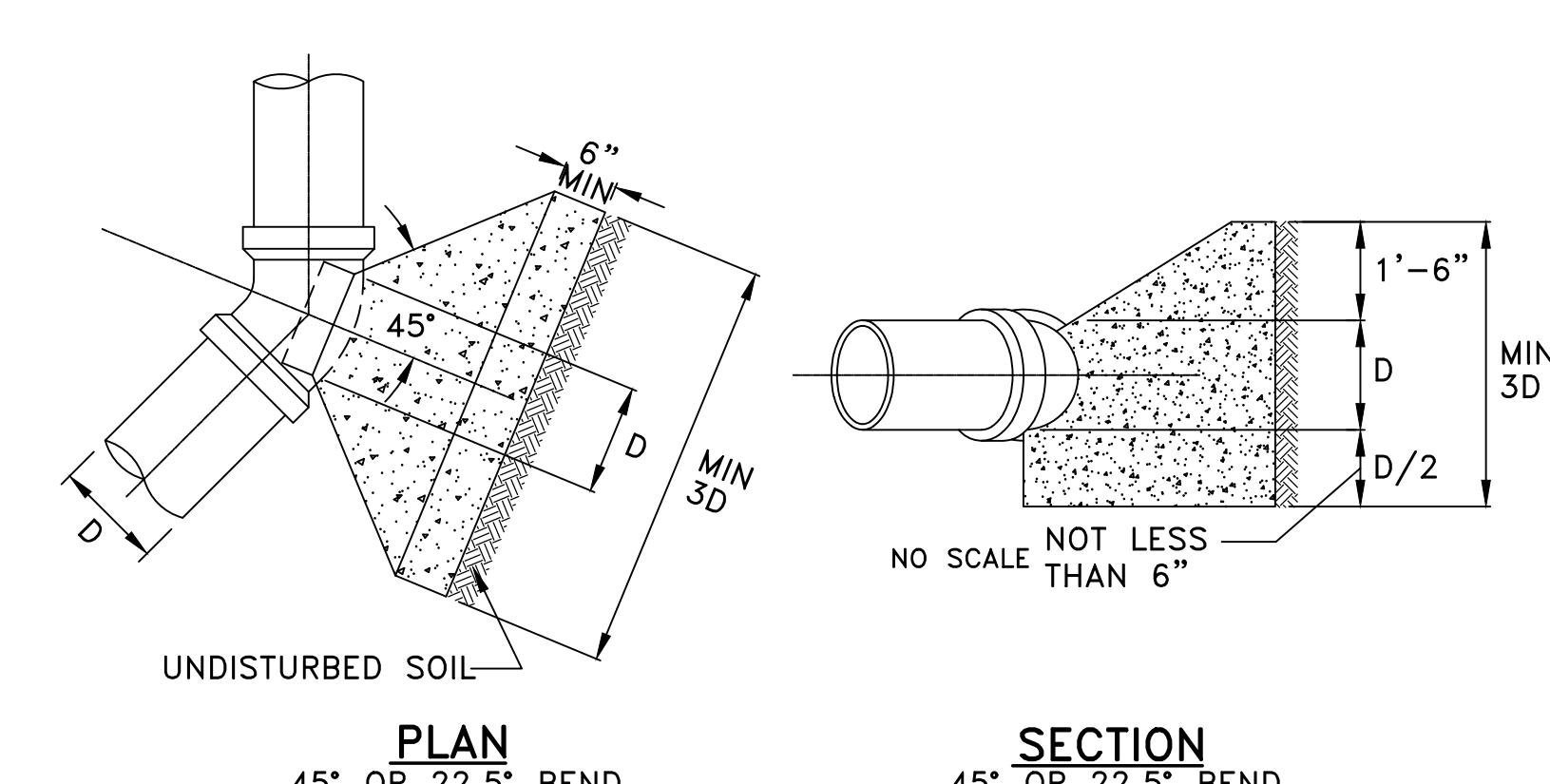
TIPOUT CURB DETAIL
NO SCALE



PLAN
TEE
SECTION
TEE



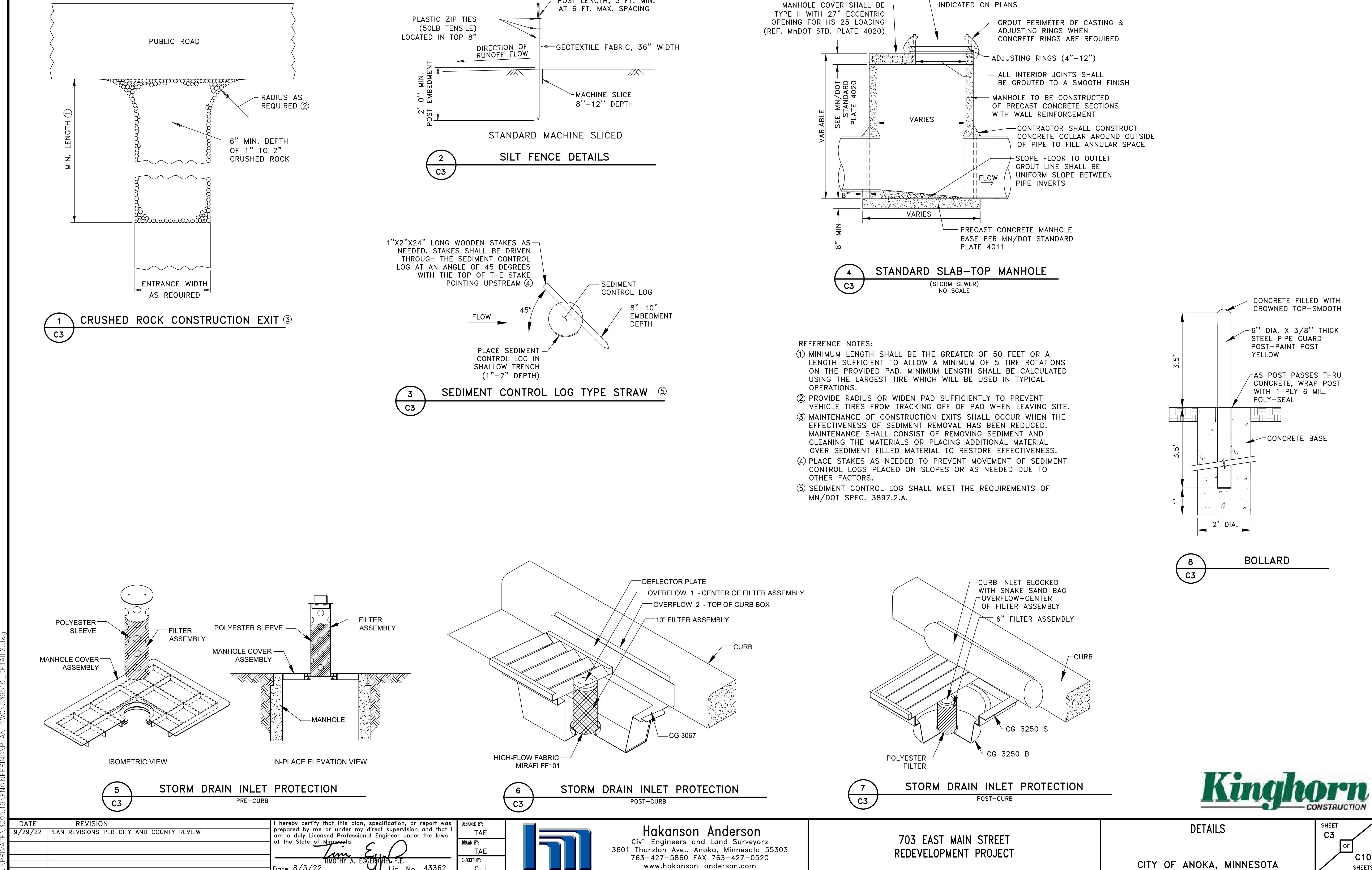
TYPICAL RESILIENT WEDGE
VALVE & BOX INSTALLATION ①
NO SCALE



PLAN
45° OR 22.5° BEND
SECTION
45° OR 22.5° BEND

WATERMAIN THRUST BLOCKING DETAIL ②
NO SCALE

Kinghorn
CONSTRUCTION



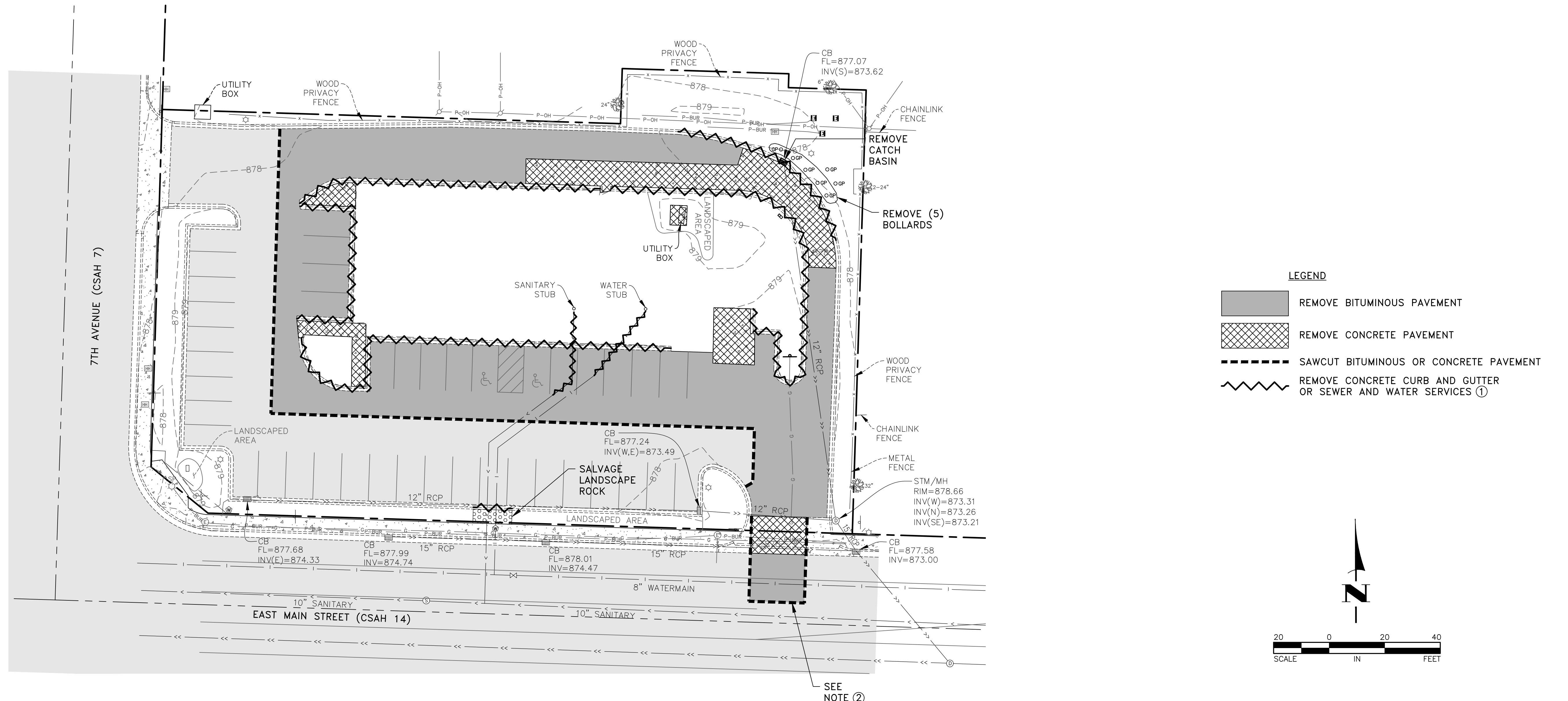
Kinghorn
CONSTRUCTION

GENERAL NOTES:

1. SILT FENCE FENCE SHALL BE IN PLACE PRIOR TO THE START OF ANY REMOVAL ACTIVITIES. SEE THE GRADING, DRAINAGE AND SEDIMENT CONTROL PLAN FOR SILT FENCE LOCATIONS.
2. SEE SHEET C10 FOR THE EAST MAIN STREET TRAFFIC CONTROL PLAN.
3. CONTRACTOR SHALL COORDINATE WITH THE UTILITY COMPANIES TO RELOCATE OR SALVAGE AND REINSTALL THEIR FACILITIES AS NECESSARY TO COMPLETE CONSTRUCTION.
4. LOCATION OF EXISTING WATERMAIN SHALL BE VERIFIED PRIOR TO CONSTRUCTION.

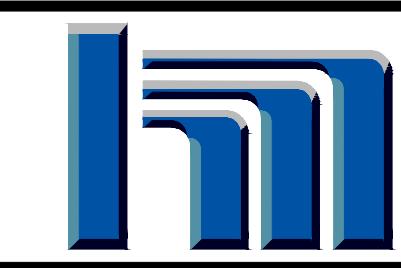
REFERENCE NOTES:

- ① CURB SHALL BE SAWCUT AT THE MATCH POINTS.
- ② PROVIDE TRENCH SHORING AS NECESSARY TO ALLOW FOR AN 11' WIDE TRAVEL LANE ON WESTBOUND EAST MAIN STREET AS SHOWN ON SHEET C10.



DATE	REVISION
8/31/22	REVISED PROPERTY LINE IN SOUTHWEST CORNER OF PROPERTY
9/29/22	PLAN REVISIONS PER CITY AND COUNTY REVIEW
10/18/22	PLAN REVISIONS PER COUNTY REVIEW

Tim Egger
TIMOTHY A. EGGER, P.E.
Date 8/5/22 Lic. No. 43362

DESIGNED BY:
TAEDRAWN BY:
TAECHECKED BY:
CJJ

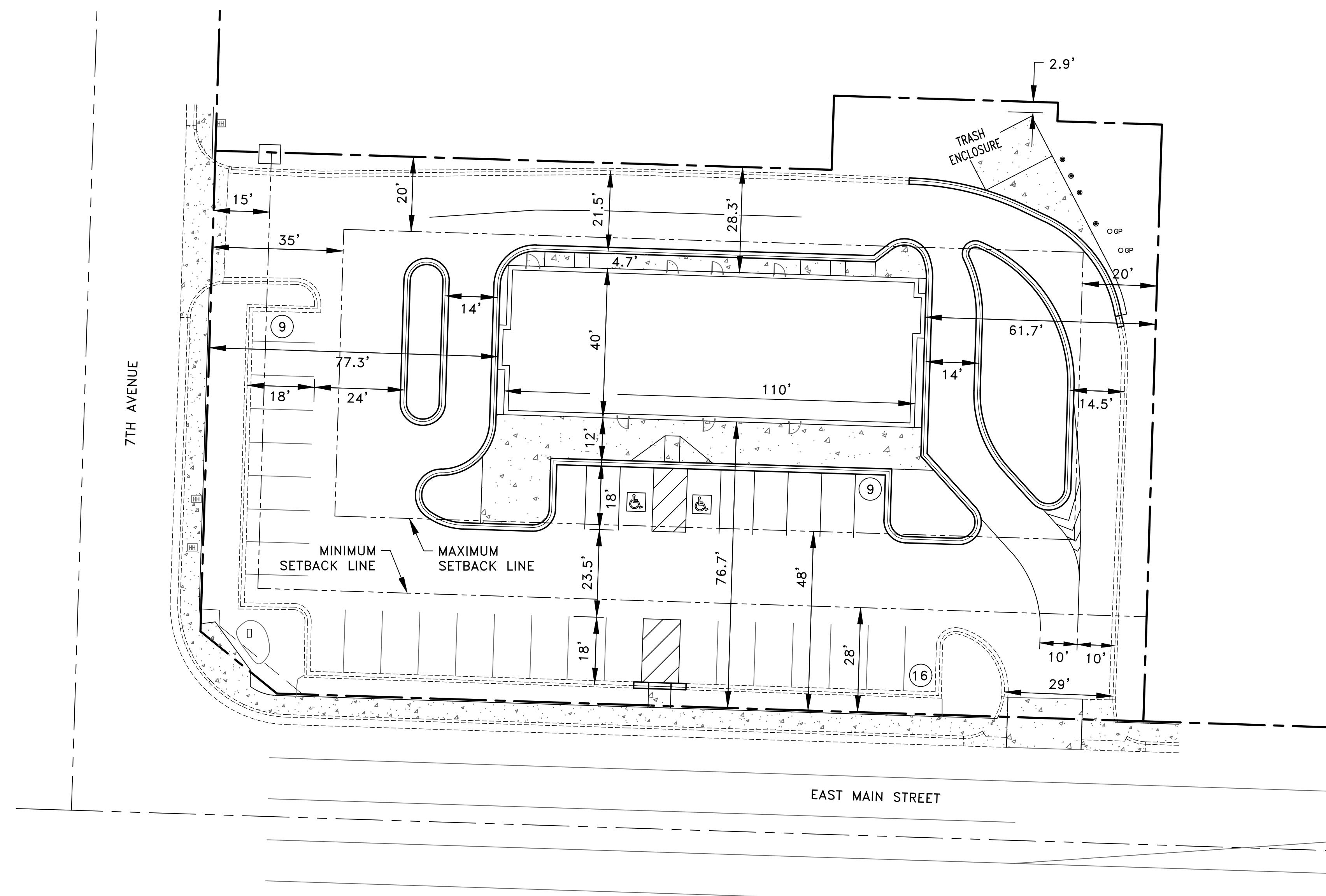
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703 EAST MAIN STREET
REDEVELOPMENT PROJECT

EXISTING TOPOGRAPHY
AND REMOVALS PLAN
CITY OF ANOKA, MINNESOTA

SHEET
C4
OF
C10
SHEETS

Kinghorn
CONSTRUCTION



LEGAL DESCRIPTION

SOUTH HALF OF LOT 24 ANOKA SUBURBAN OUTLOTS, LOT 4 AUDITORS SUBDIVISION NO. 17 AND THE SOUTH 19.85 FEET OF THE WEST 60 FEET OF LOT 3 OF SAID AUDITORS SUBDIVISION TOGETHER WITH THE SOUTH 14.85 FEET OF THE WEST 28 FEET OF THE EAST 72 FEET OF SAID LOT 3.

ZONING: MSMU-MAIN STREET MIXED USE
FRONT YARD SETBACK: 15' MIN., 35' MAX.
SIDE YARD SETBACK: 0' MIN., 20' MAX.
MAIN STREET SETBACK: 28' MIN., 48' MAX.

LOT SUMMARY
TOTAL LOT AREA= 38,114 SF
TOTAL DISTURBED AREA= 23,224 SF
PRE-CONSTRUCTION IMPERVIOUS AREA= 29,063 SF (76%)
POST CONSTRUCTION IMPERVIOUS AREA= 30,280 SF (79%)
BUILDING COVERAGE AREA 4,400 SF (12%)
GREEN SPACE AREA 7,834 SF (21%)

REQUIRED PARKING STALLS (1 STALL/150 SF)= 30 STALLS
PROPOSED PARKING STALLS= 34 STALLS

38,114 SF
23,224 SF
29,063 SF (76%)
30,280 SF (79%)
4,400 SF (12%)
7,834 SF (21%)

30 STALLS
34 STALLS

LEGEND

XX PARKING STALL QUANTITY

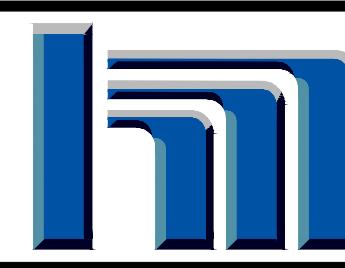
Kinghorn
CONSTRUCTION

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	<i>Tim Egger</i>
	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.
	TIMOTHY A. EGGER, P.E.
Date 8/5/22	Lic. No. 43362

DESIGNED BY:
TAE

DRAWN BY:
TAE

CHECKED BY:
CJJ

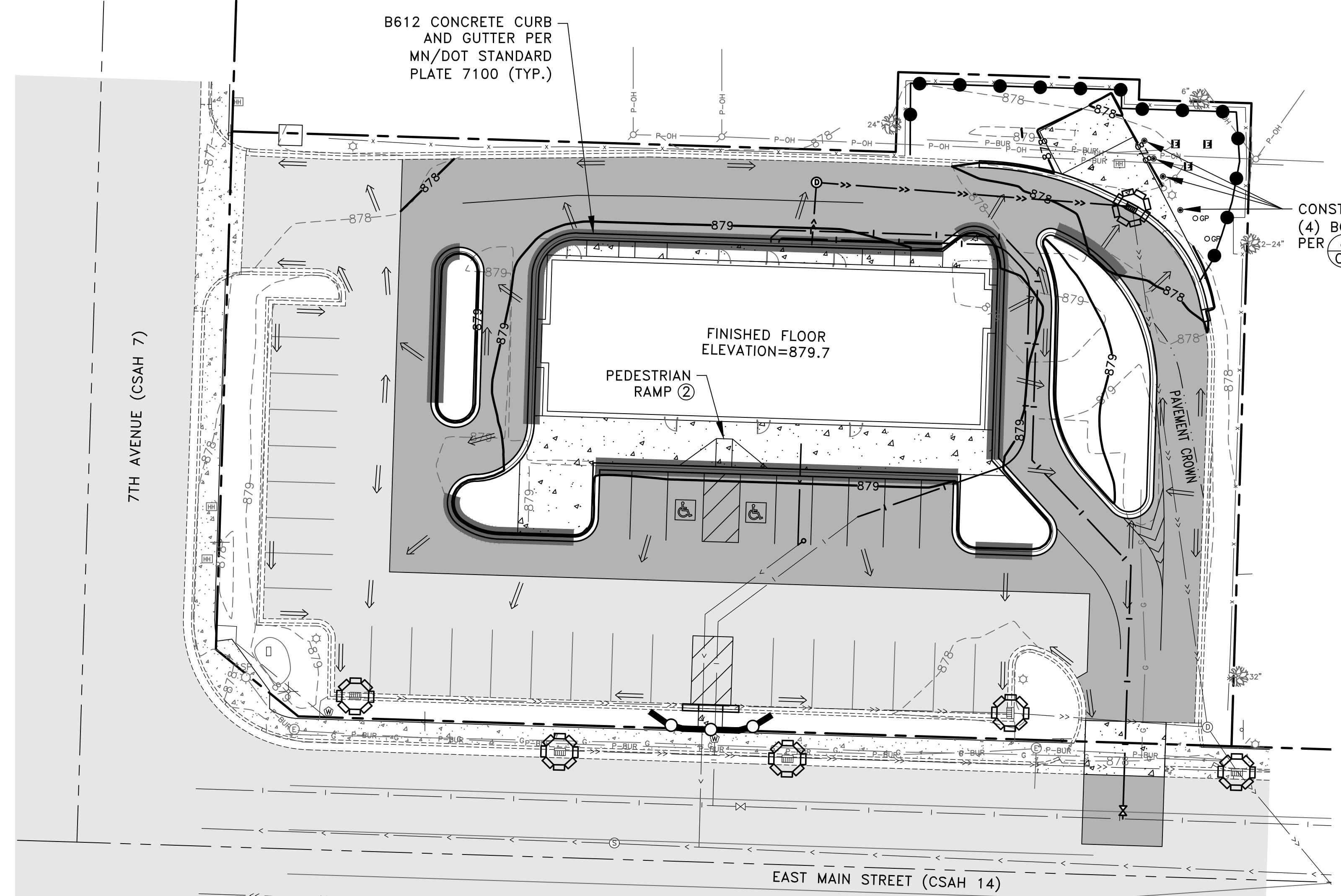


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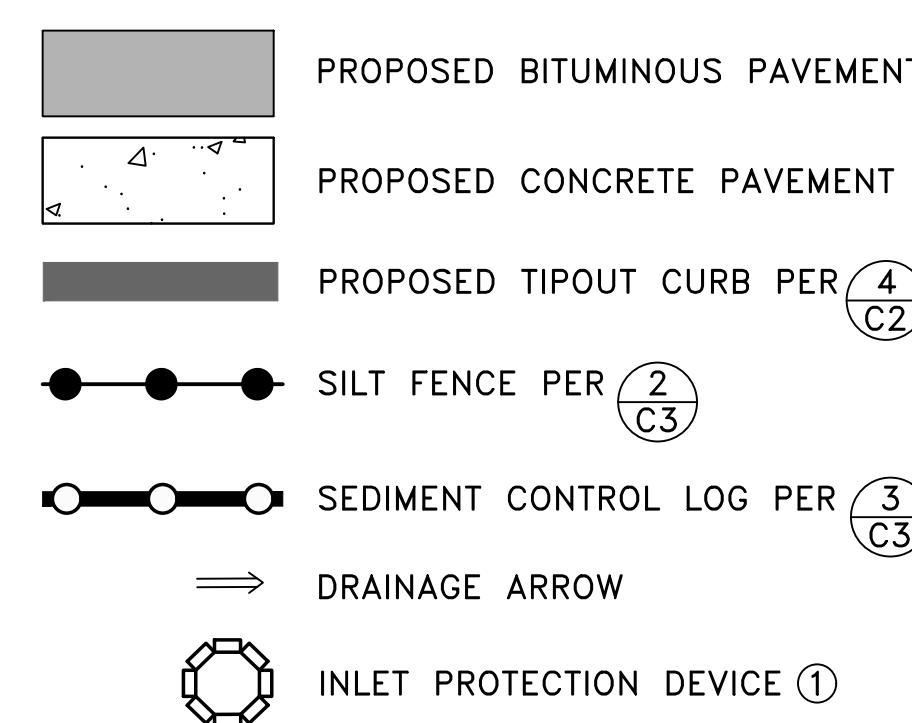
703 EAST MAIN STREET
REDEVELOPMENT PROJECT

SITE PLAN
CITY OF ANOKA, MINNESOTA

SHEET
C5
OF
C10
SHEETS



LEGEND

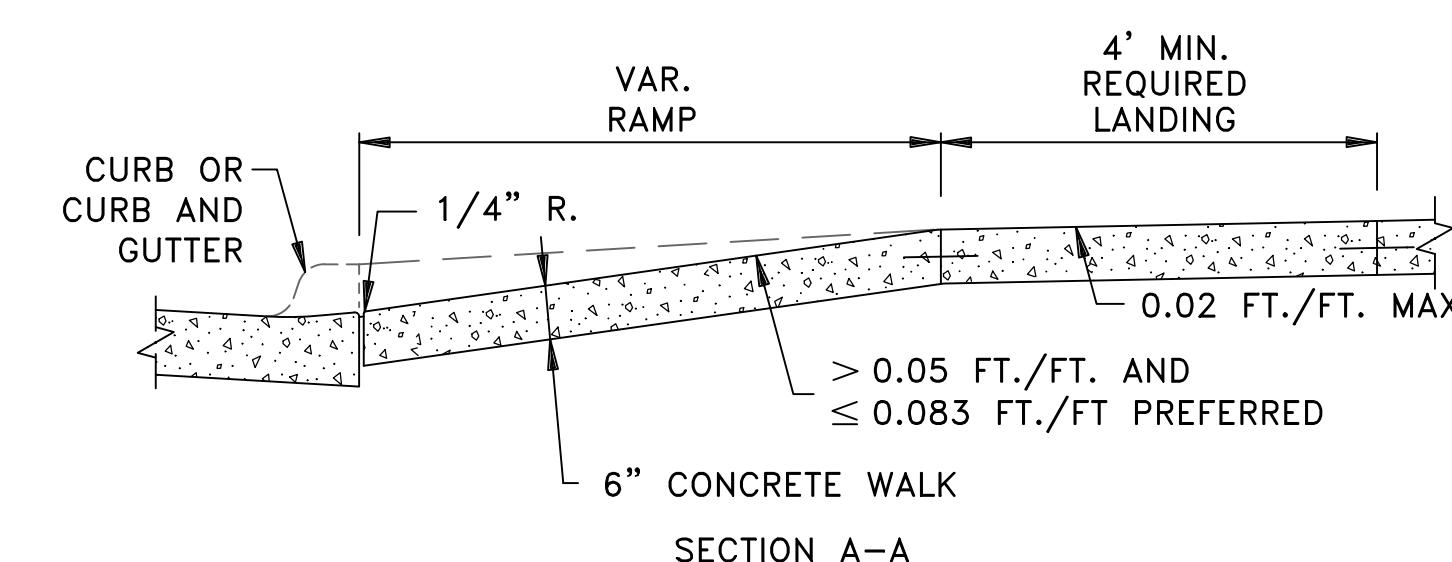
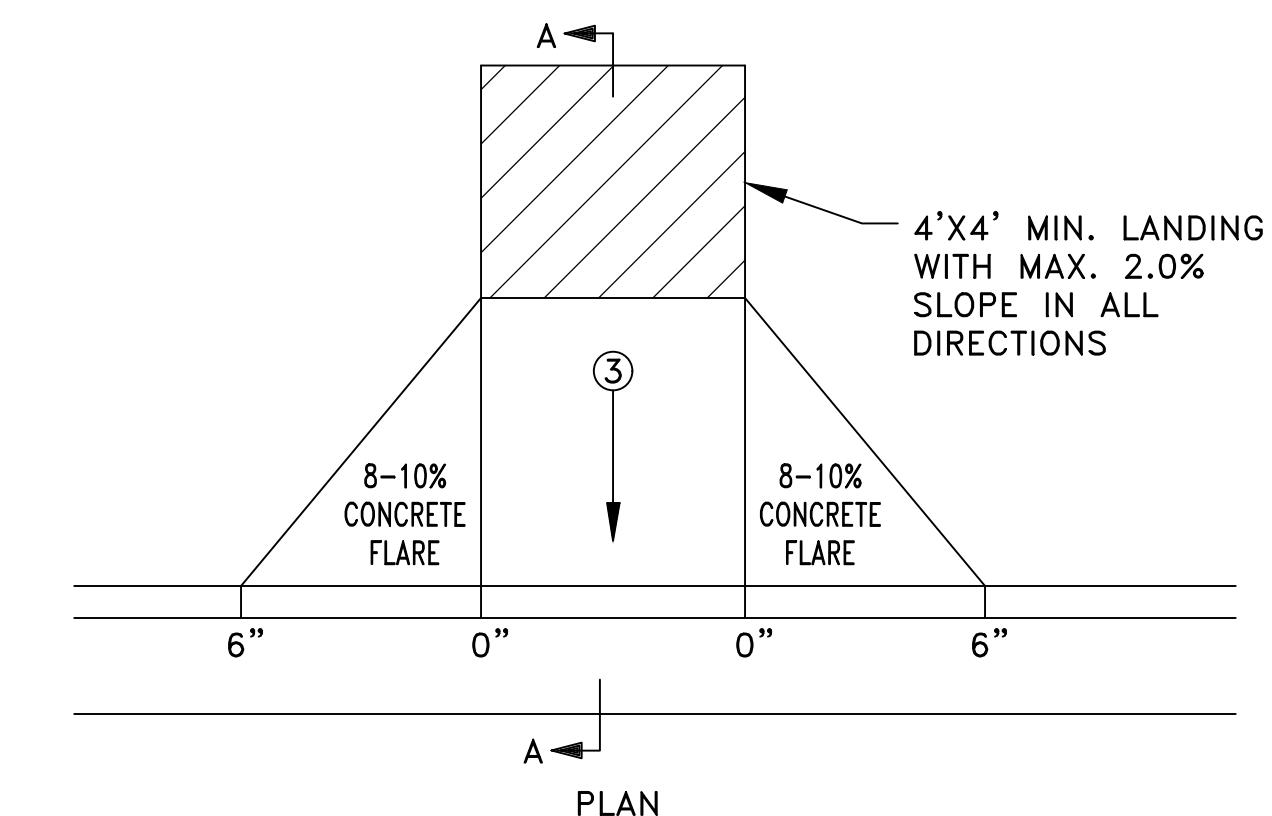


GENERAL NOTES:

- PRIOR TO IMPORTING OR EXPORTING MATERIAL FROM THE SITE, CONTRACTOR SHALL CONSTRUCT A STABILIZED CONSTRUCTION EXIT PER 1 C3.
- VERIFY BUILDING DIMENSIONS WITH ARCHITECTURAL PLANS.
- STREET SWEEPING MUST BE PERFORMED DAILY IF SEDIMENT IS TRACKED ONTO ANY ADJACENT STREETS.
- SEE SHEET C7 FOR THE STAKING PLAN.
- SEE SHEET C8 FOR THE UTILITY PLAN.
- SEE SHEET C9 FOR THE RESTORATION AND PAVING PLAN.
- SEE SHEET C10 FOR THE EAST MAIN STREET TRAFFIC CONTROL PLAN.
- CONTRACTOR SHALL DETERMINE A LOCATION FOR CONCRETE AND OTHER WASHOUT WASTE. A SIGN SHALL BE INSTALLED ADJACENT TO EACH WASHOUT FACILITY THAT REQUIRES SITE PERSONNEL TO UTILIZE THE PROPER FACILITIES FOR DISPOSAL OF CONCRETE AND OTHER WASTES.
- CONTRACTOR SHALL PROVIDE A TEMPORARY PEDESTRIAN ACCESS ROUTE FOR THE SIDEWALK ON THE NORTH SIDE OF EAST MAIN STREET.

REFERENCE NOTES:

- INSTALL INLET PROTECTION DEVICES PER 5 C3, 6 C3 AND 7 C3 AT ALL CATCH BASINS THAT MAY RECEIVE STORMWATER RUNOFF FROM THE SITE.
- CONSTRUCT PEDESTRIAN RAMP PER 1 C6.
- PEDESTRIAN RAMP-SLOPE SHALL BE BETWEEN 5.0% MINIMUM AND 8.3% MAXIMUM IN THE DIRECTION SHOWN AND THE CROSS SLOPE SHALL NOT EXCEED 2.0%.



1 C6
PEDESTRIAN RAMP

20 0 20 40
SCALE IN FEET

DATE	REVISION
8/31/22	REVISED WATERMAIN
9/29/22	PLAN REVISIONS PER CITY AND COUNTY REVIEW
10/18/22	PLAN REVISIONS PER COUNTY REVIEW

Tim Egger
TIMOTHY A. EGGER, P.E.
Date 8/5/22 Lic. No. 43362

DESIGNED BY:

TAE

DRAWN BY:

TAE

CHECKED BY:

CJJ



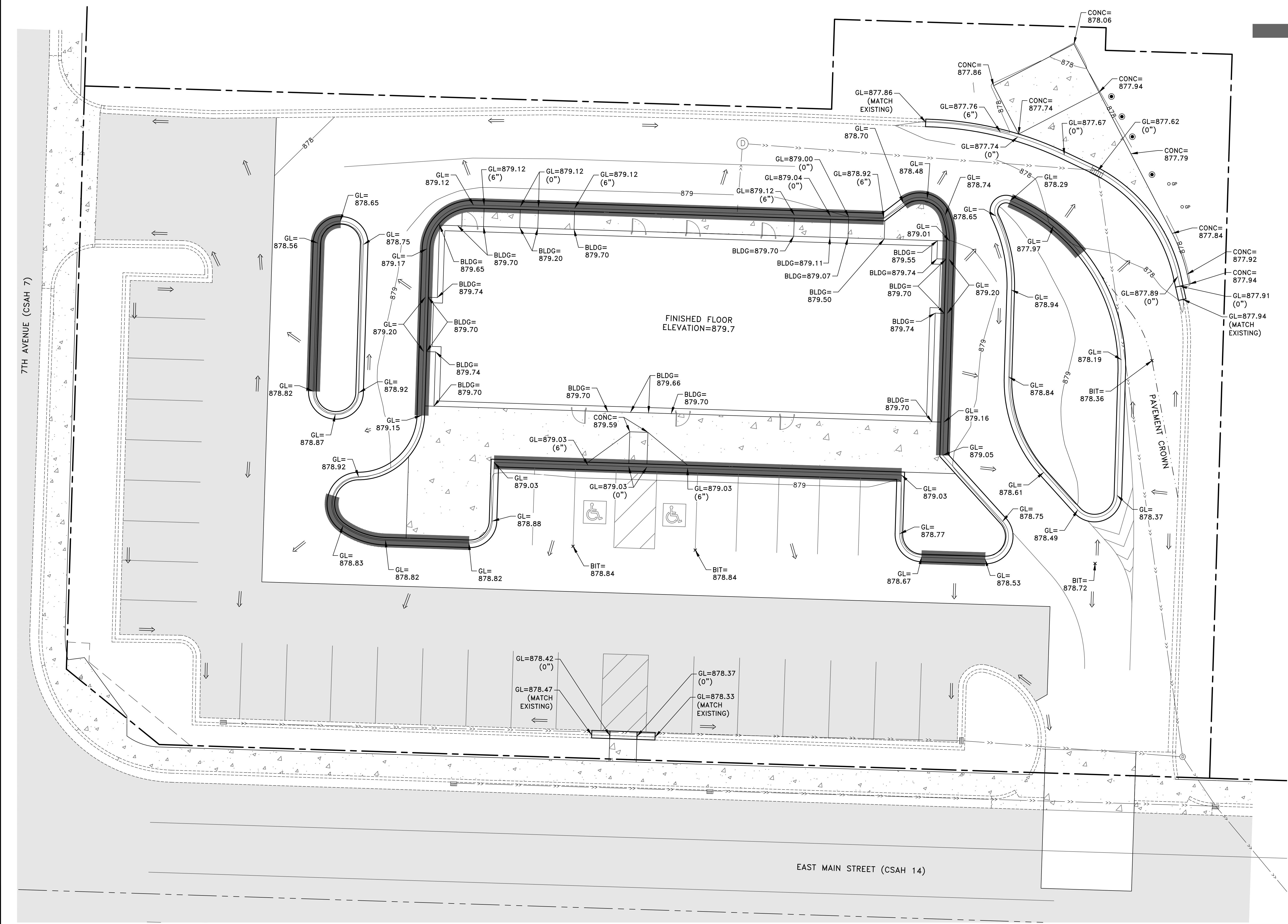
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703 EAST MAIN STREET
REDEVELOPMENT PROJECT

GRADING, DRAINAGE AND
SEDIMENT CONTROL PLAN
CITY OF ANOKA, MINNESOTA

SHEET
C6
OF
C10
SHEETS

Kinghorn
CONSTRUCTION



DATE	REVISION
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9/29/22	PLAN REVISIONS PER CITY AND COUNTY REVIEW
10/18/22	PLAN REVISIONS PER COUNTY REVIEW

Tim Eggen, P.E.
Date 8/5/22
Lic. No. 43362

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

TIMOTHY A. EGGEN, P.E.
Date 8/5/22
Lic. No. 43362

DESIGNED BY:

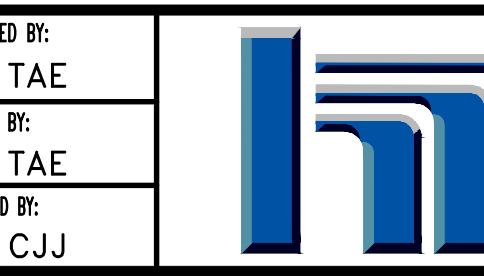
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DRAWN BY:

TAE

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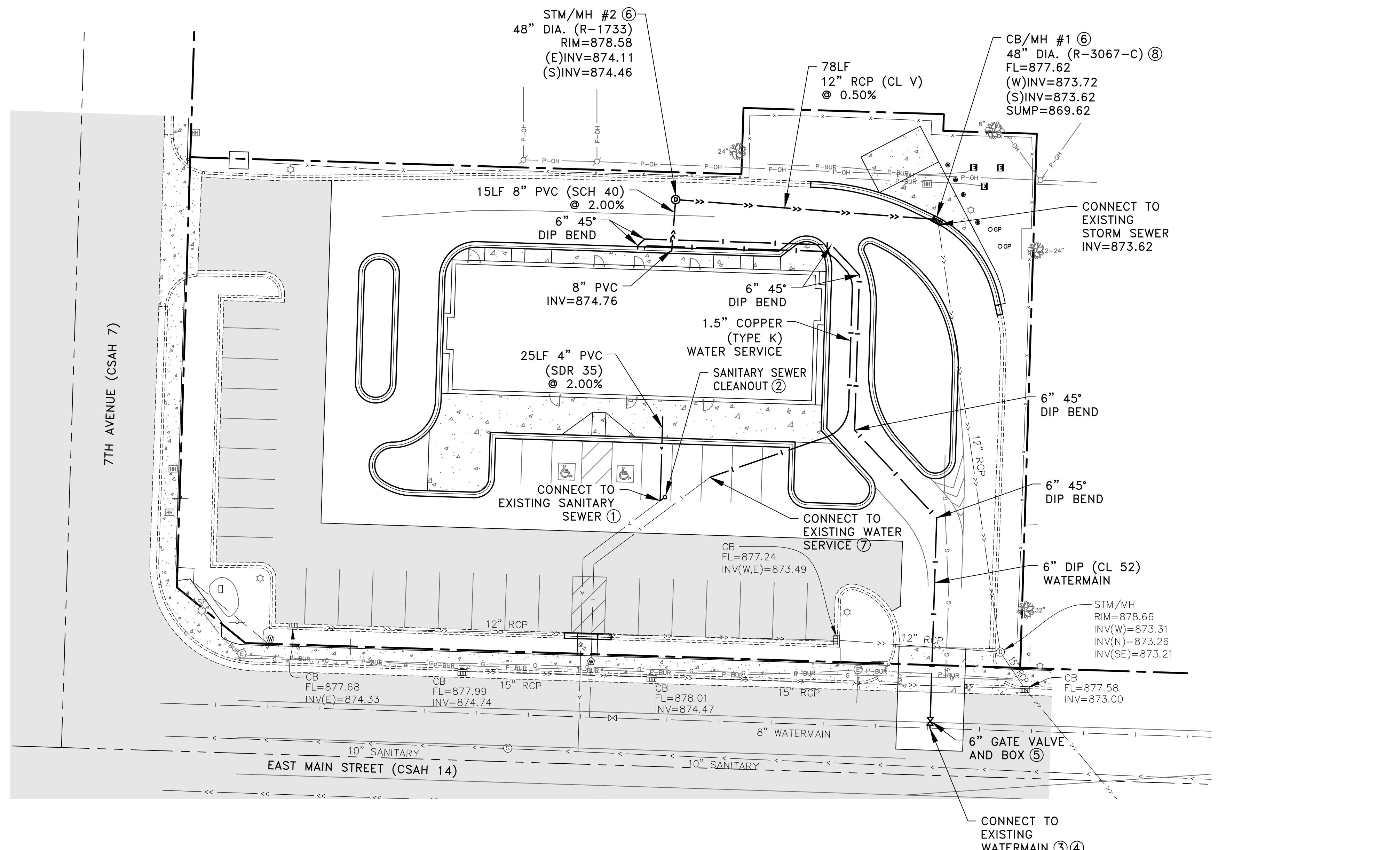
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703 EAST MAIN STREET REDEVELOPMENT PROJECT

STAKING PLAN
CITY OF ANOKA, MINNESOTA

STAKE
C7
OF
C10
SHEETS

Kinghorn
CONSTRUCTION



GENERAL NOTES:

1. CONTRACTOR SHALL APPLY FOR A DEPARTMENT OF LABOR AND INDUSTRY PERMIT PRIOR TO CONSTRUCTING ANY UNDERGROUND UTILITIES SHOWN ON THESE PLANS. CONTRACTOR SHALL ADDRESS ALL THE COMMENTS FROM THE DEPARTMENT OF LABOR AND INDUSTRY AS PART OF THE PERMIT APPLICATION PROCESS.
2. MAINTAIN A MINIMUM OF 7.5' OF COVER OVER WATER SERVICE. WATERMAIN THRUST BLOCKING SHALL BE PER ⁸_{C2}.
3. VERIFY PROPOSED SEWER AND WATER SERVICE LOCATIONS AT THE EXISTING BUILDING PRIOR TO CONSTRUCTION.
4. SEE SHEET C10 FOR THE EAST MAIN STREET TRAFFIC CONTROL PLAN.

REFERENCE NOTES:

- ① LOCATION AND INVERT OF EXISTING SANITARY SEWER SERVICE SHALL BE VERIFIED PRIOR TO CONSTRUCTION.
- ② CONSTRUCT SANITARY SEWER CLEANOUT PER ⁵_{C2}.
- ③ LOCATION OF EXISTING WATERMAIN SHALL BE VERIFIED PRIOR TO CONSTRUCTION.
- ④ WET TAP THE EXISTING 8" WATERMAIN FOR THE 6" WATER SERVICE. IF NECESSARY, CONTRACTOR SHALL NOTIFY THE CITY OF ANOKA AND AFFECTED PROPERTY OWNERS A MINIMUM OF 3 DAYS PRIOR TO SHUTTING THE WATER OFF TO ANY PROPERTIES.
- ⑤ CONSTRUCT GATE VALVE PER ⁷_{C2}.
- ⑥ CONSTRUCT STRUCTURE PER ⁴_{C3}.
- ⑦ LOCATION AND SIZE OF WATER SERVICE SHALL BE VERIFIED PRIOR TO CONSTRUCTION.
- ⑧ CASTING SHALL INCLUDE A TYPE L GRATE.

Kinghorn
CONSTRUCTION

DATE	REVISION
8/31/22	REVISED WATERMAIN
9/29/22	PLAN REVISIONS PER CITY AND COUNTY REVIEW
10/18/22	PLAN REVISIONS PER COUNTY REVIEW

Tim Egger
TIMOTHY A. EGGER, P.E.
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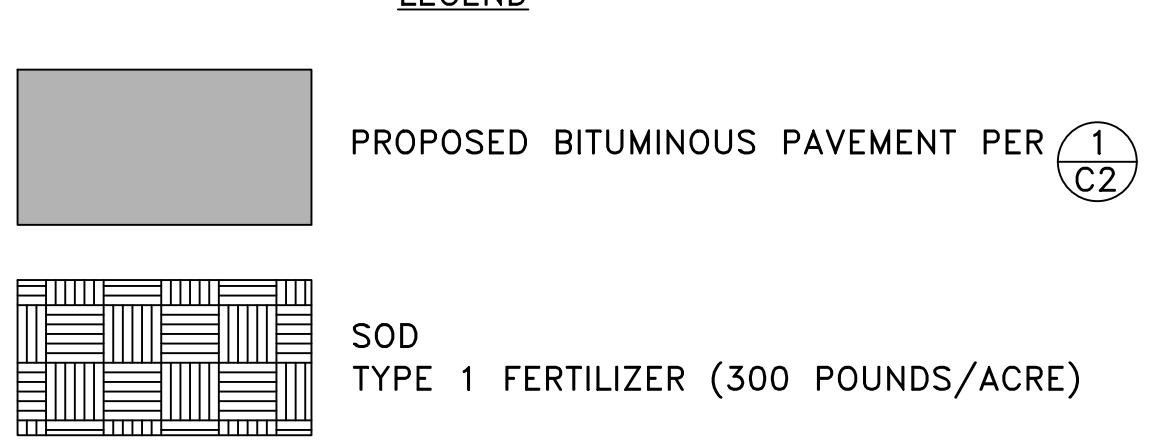
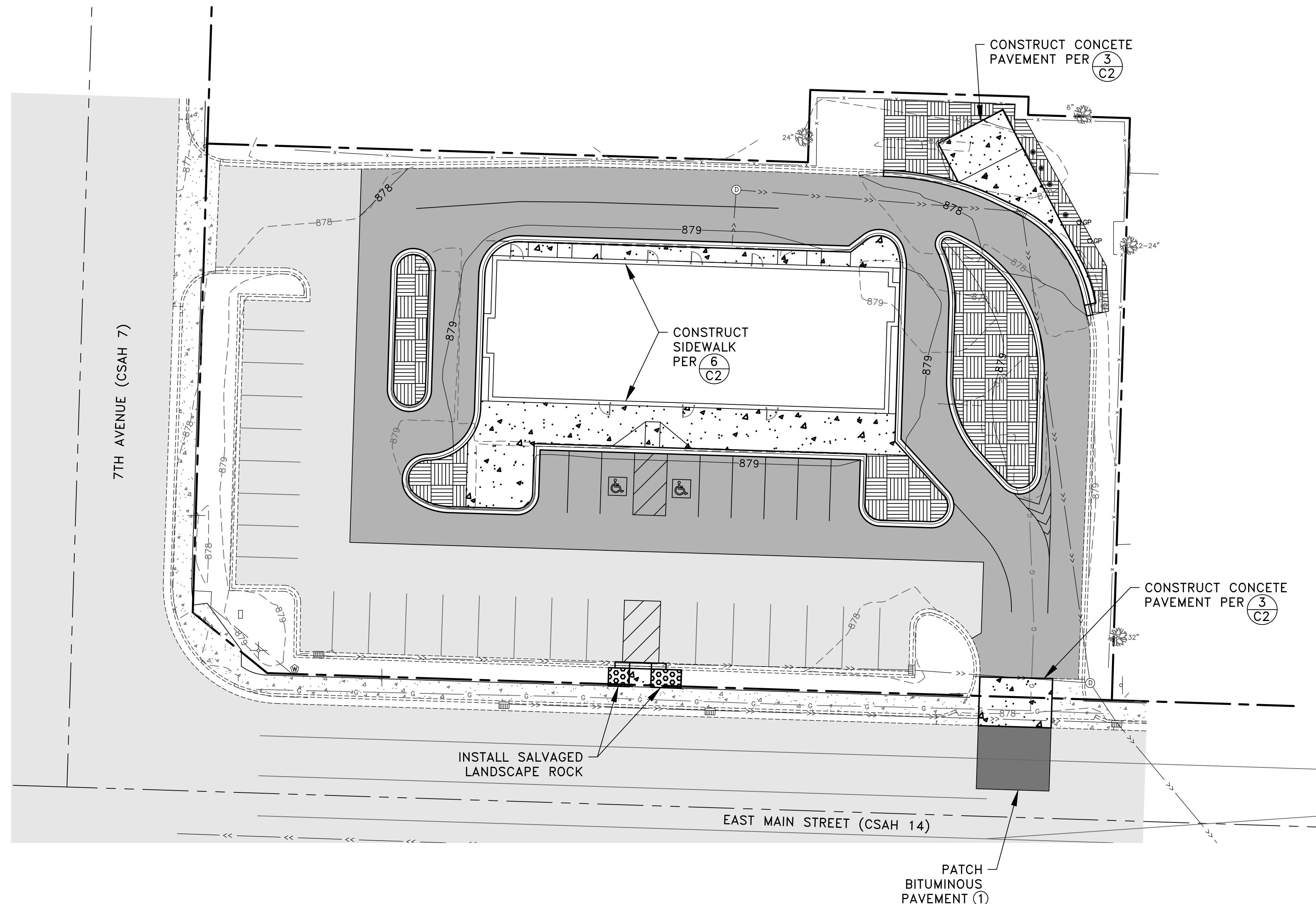
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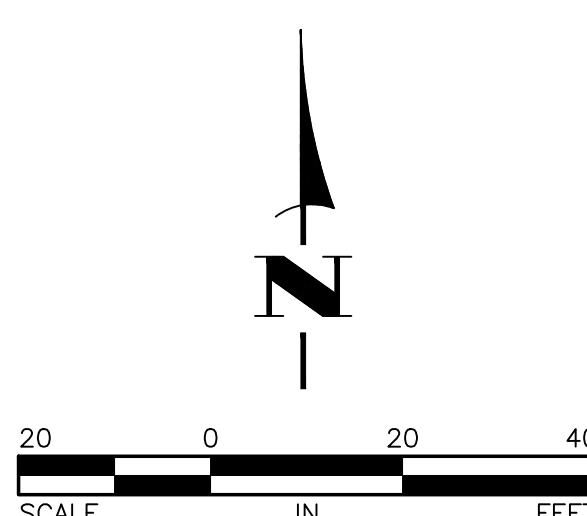
703 EAST MAIN STREET
REDEVELOPMENT PROJECT

UTILITY PLAN
CITY OF ANOKA, MINNESOTA

SHEET
C8
OF
C10
SHEETS



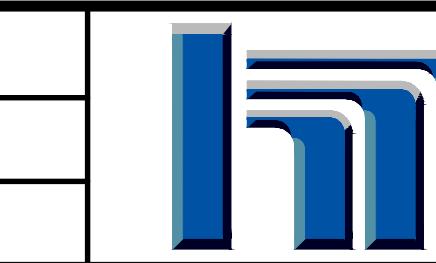
GENERAL NOTES:
 1. PLACE A MINIMUM OF 4" OF TOPSOIL OVER ALL DISTURBED AREAS OUTSIDE THE PROPOSED BUILDING, PARKING LOT AND SIDEWALK AREAS.
 REFERENCE NOTES:
 ① BITUMINOUS PATCHING SECTION SHALL BE PER 2 C2.



DATE	REVISION
8/31/22	REVISED PROPERTY LINE IN SOUTHWEST CORNER OF PROPERTY
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10/18/22	PLAN REVISIONS PER COUNTY REVIEW

Tim Egger
TIMOTHY A. EGGER, P.E.
Date 8/5/22 Lic. No. 43362

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TAE
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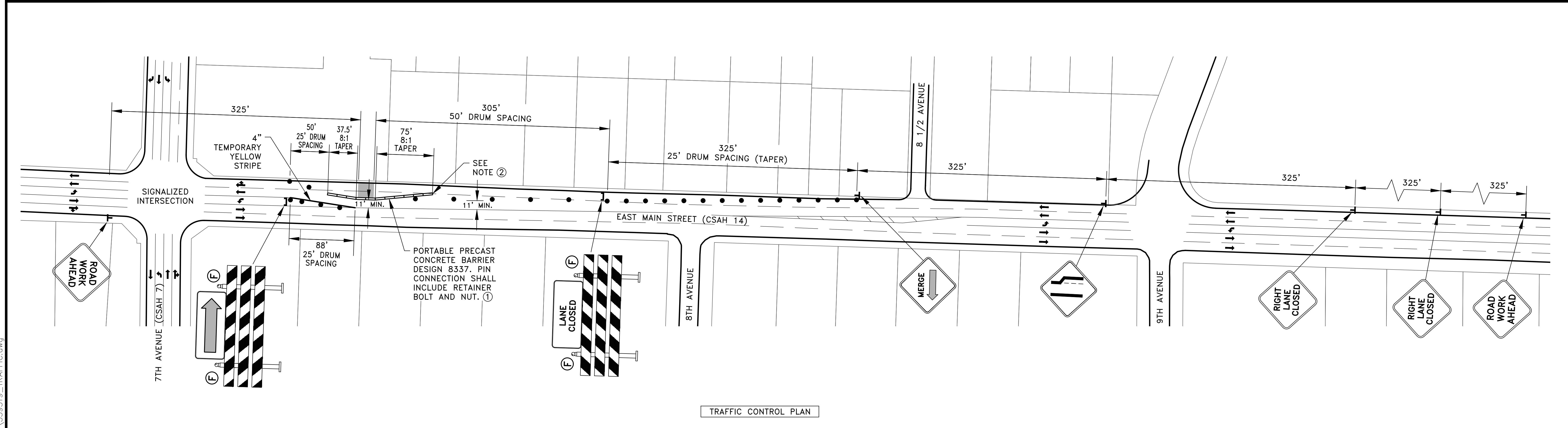
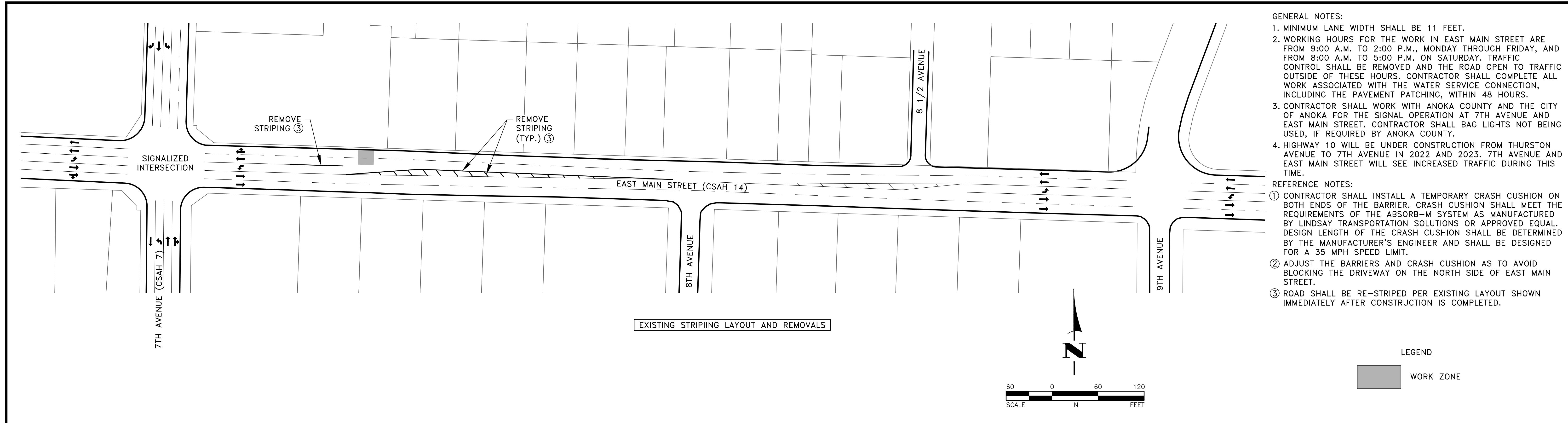
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703 EAST MAIN STREET
REDEVELOPMENT PROJECT

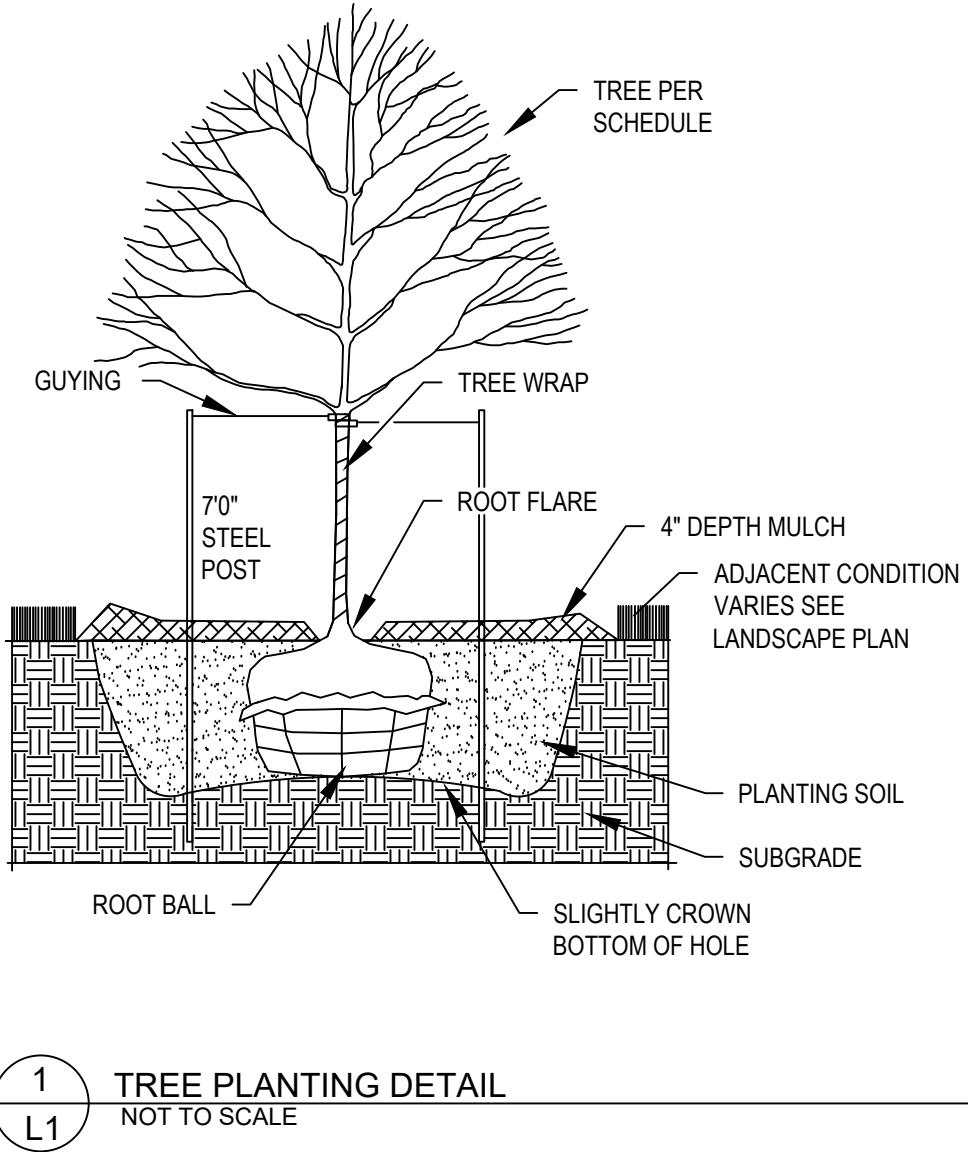
RESTORATION AND PAVING PLAN
CITY OF ANOKA, MINNESOTA

SHEET
C9
OF
C10
SHEETS

Kinghorn
CONSTRUCTION

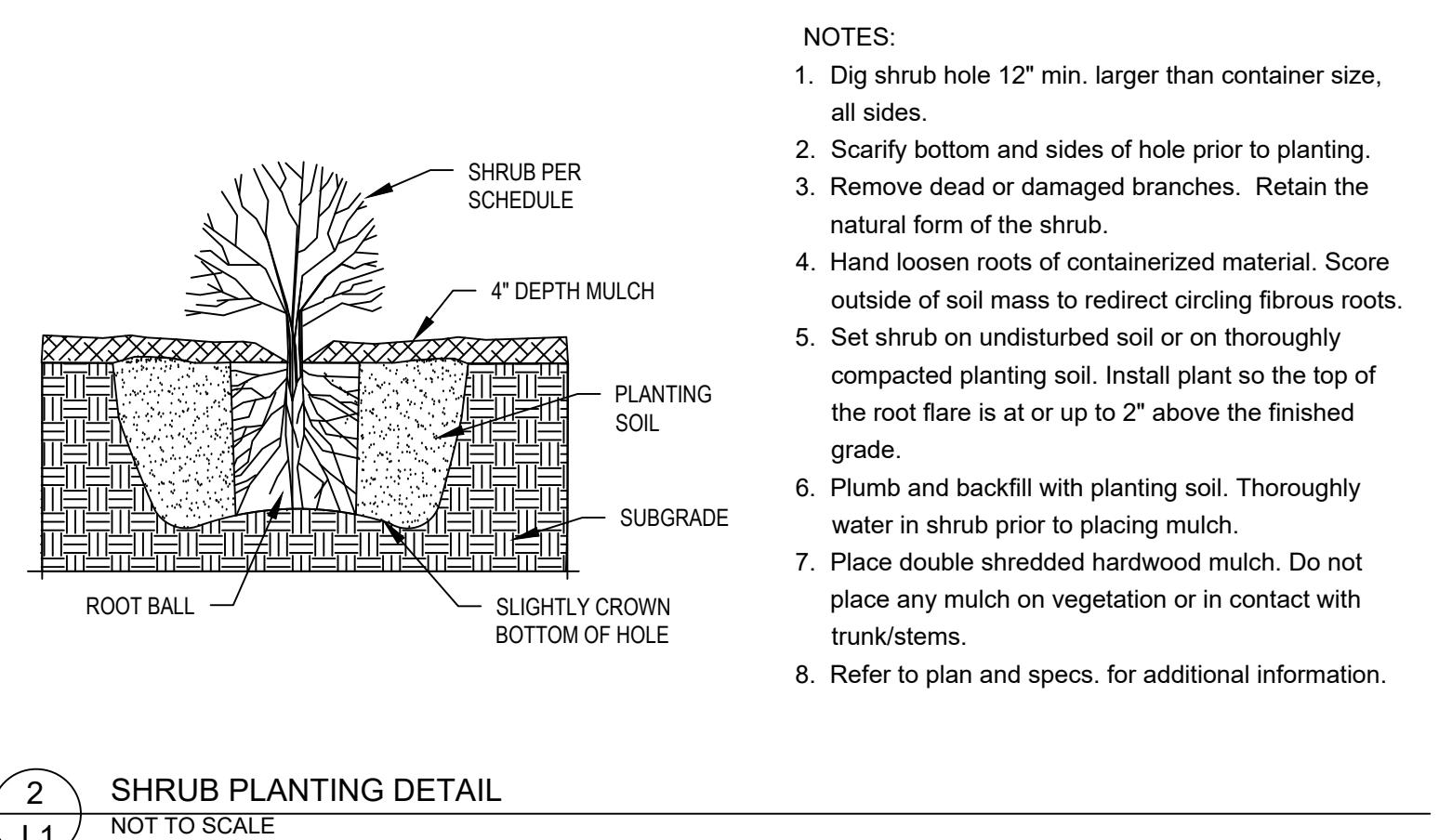


PLANTING DETAILS



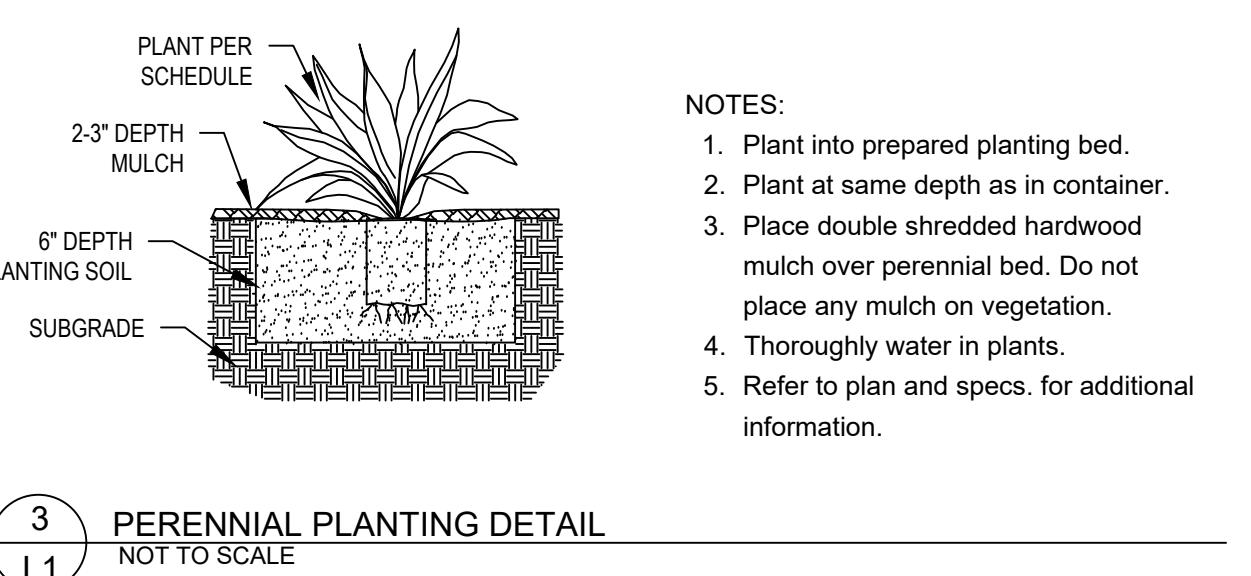
NOTES:

1. Remove dead or damaged branches. Retain the natural form of the tree. Do not cut the leader.
2. Width of planting hole: 18" min. larger than root ball, on all sides.
3. Depth of hole: root flare to sit at or up to 2" above the top of the finished soil elevation. Leave soil undisturbed beneath the root ball.
4. Scarify bottom and sides of hole prior to planting.
5. Set plant on undisturbed soil or thoroughly compacted planting soil.
6. Remove top 1/3 of the basket or the top two horizontal rings whichever is greater. Remove all burlap from top 1/3 of root ball. Remove all twine.
7. Remove or correct stem girdling roots or reject plant.
8. Silt remaining burlap at 6" intervals.
9. Plumb & backfill with planting soil. Thoroughly water in tree within 2 hours to settle plants and fill voids.
10. Backfill voids and water a second time.
11. Place double shredded hardwood mulch within 48 hours of the second watering. No mulch to be in contact w/ trunk.
12. Contractor is responsible for maintaining trees in a plumb position throughout the guarantee period. Stake trees if site conditions, such as soil and wind, prevent the trees from staying plumb. Use 16" x 1.5" polypropylene or polyethylene straps, attach to post with 10 gauge wire. Remove within one year.
13. Wrap trunk in fall, remove wrap in spring.
14. Refer to plan and specs. for additional information.



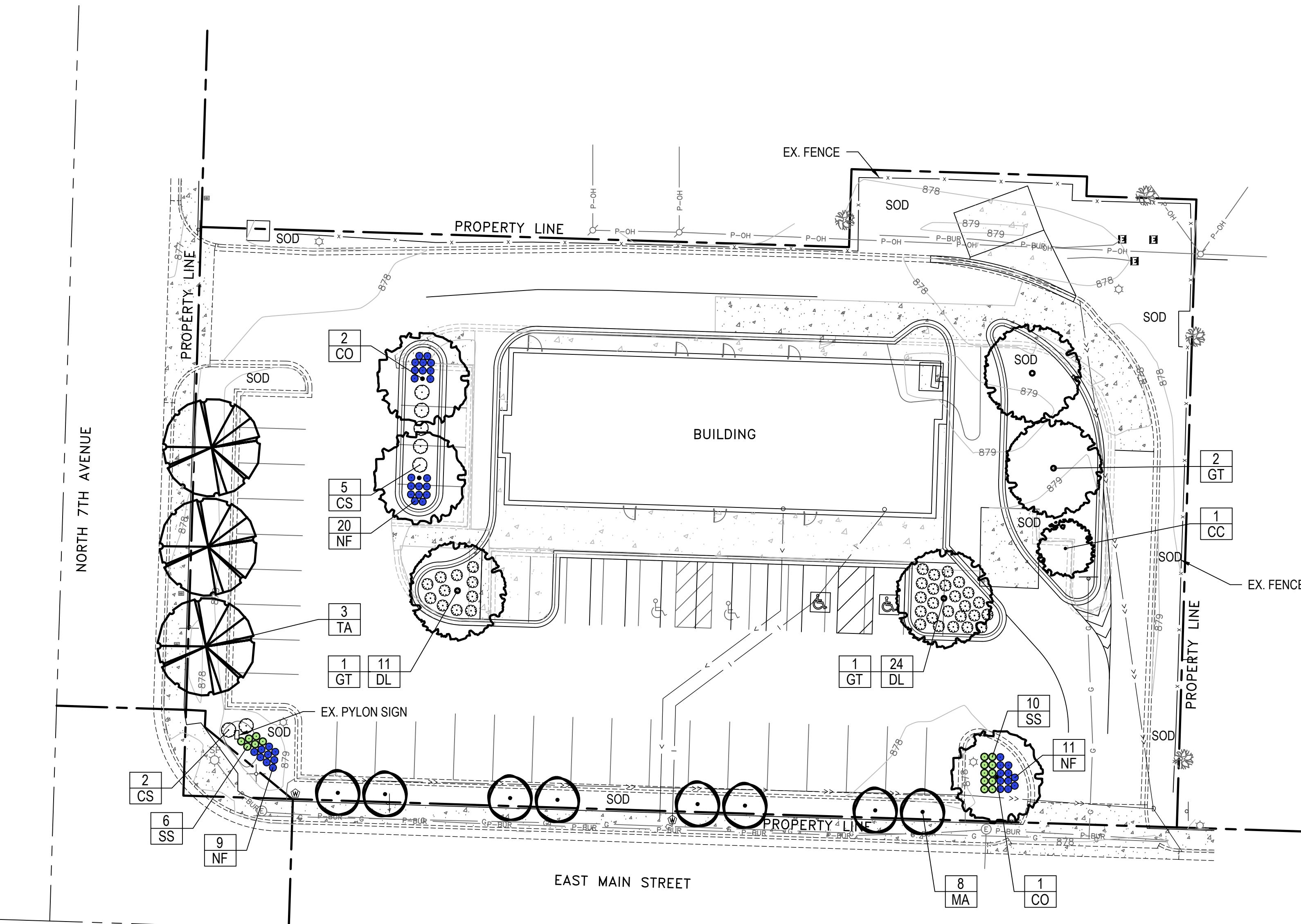
NOTES:

1. Dig shrub hole 12" min. larger than container size, all sides.
2. Scarify bottom and sides of hole prior to planting.
3. Remove dead or damaged branches. Retain the natural form of the shrub.
4. Hand loosen roots of containerized material. Score outside of soil mass to redirect circling fibrous roots.
5. Set shrub on undisturbed soil or on thoroughly compacted planting soil. Install plant so the top of the root flare is at or up to 2" above the finished grade.
6. Plumb and backfill with planting soil. Thoroughly water in shrub prior to placing mulch.
7. Place double shredded hardwood mulch. Do not place any mulch on vegetation or in contact with trunk/stems.
8. Refer to plan and specs. for additional information.



NOTES:

1. Plant into prepared planting bed.
2. Plant at same depth as in container.
3. Place double shredded hardwood mulch over perennial bed. Do not place any mulch on vegetation.
4. Thoroughly water in plants.
5. Refer to plan and specs. for additional information.



PLANT SCHEDULE

QTY	CODE	BOTANICAL NAME/COMMON NAME	SIZE	ROOT	REMARKS
SHADE TREES					
3	CO	Celtis occidentalis	2" cal.	BB	Straight trunk and leader, space 25' o.c.
UNDERSTORY TREES					
1	CC	Crataegus crus-galli var. inermis	1.75" cal.	BB	Straight trunk and leader, see plan for spacing
8	MA	Malus 'Adirondack'	1.75" cal.	BB	Straight trunk and leader, Space 12' o.c.
SHRUBS					
7	CS	Corus sericea 'Alleman's Compact'	#5 cont.	pot	space 4.5' o.c.
35	DL	Diervilla lonicera	#5 cont.	pot	space 3.5' o.c.
PERENNIALS					
40	NF	Nepeta faassenii 'Walker's Low'	#1 cont.	pot	space 24" o.c.
16	SS	Schizachyrium 'Blue Heaven'	#1 cont.	pot	Blue Heaven little bluestem

NOTES:

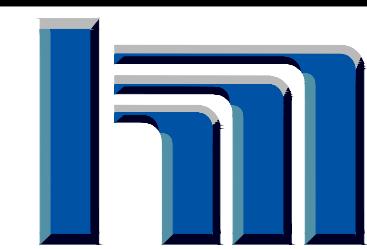
1. SEE SHEET L2 FOR LANDSCAPE SPECIFICATIONS.
2. ALL LANDSCAPE AREAS TO RECEIVE 4" OF TOPSOIL.
3. SOD ALL DISTURBED AREAS NOT CALLED OUT FOR OTHER LANDSCAPE PLANTING.
4. ALL LANDSCAPE AREAS TO BE IRRIGATED.

20 0 20 40
SCALE IN FEET

Kinghorn
CONSTRUCTION

DATE	REVISION
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 Landscape Architect under the laws of the State of Minnesota. Name: Carmen Simonet Signature: <i>Carmen Simonet</i> License # 24236 Date 08.05.2022	

LANDSCAPE ARCHITECT:
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703 EAST MAIN STREET
REDEVELOPMENT PROJECT

LANDSCAPE PLAN &
PLANTING DETAILS
CITY OF ANOKA, MINNESOTA

SHEET
L1
OF
L2
SHEETS

LANDSCAPE SPECIFICATIONS

TREES, SHRUBS, AND PERENNIALS

1. REFERENCES
 - A. MnDOT - Minnesota Department of Transportation, Standard Specifications for Construction, 2020 Edition.
 - B. American Standard for Nursery Stock, ANSI Z60.1-2014.
 - C. ASTM, American Society for Testing and Materials.
2. QUALITY ASSURANCE
 - A. Work shall be performed by a landscape contractor with extensive horticulture knowledge, and a min. of 3 years of experience.
 - B. Handle plants in such a way as to protect from damage either physical or by exposure to sun and wind. Mishandled plants are subject to rejection by Landscape Architect.
 - C. Plants used on this project shall meet the grading standards recommended by the ANSI Z60.1-2014.
3. PRODUCTS
 - A. Plants: Provide as specified on Plant Schedule.
 - B. Edging: Heavy duty poly edger: 5" depth w/ v-lip to prevent frost heave and steel stakes, black color, Sure-loc Elite-Edge or equal.
 - C. Mulch: Double shredded hardwood mulch.
 - D. Water: Contractor to provide.
 - E. Planting Soil: rich friable, loam topsoil, free of debris and seeds, conforming to MnDOT 3877.2, Loam Topsoil Borrow.
 - F. Compost: Conforming to MnDOT 3890.2, Grade 2.
 - G. Tree Wrap: Two-ply weather resistant paper product.
4. PLANTING DATES: Spring Planting: Apr. 1 - June 15. These dates may be extended if daytime temps. remain below 80 degrees. Fall: Sept. 30 - Oct. 30th. Daytime temps. need to drop below 80 degrees before planting begins, and may continue until freeze up. Coniferous trees Aug. 15 - Oct. 1st. Plant under favorable weather conditions, do not plant during days of extreme heat.
5. EXECUTION
 - A. Prior to digging, Contractor to have utilities located.
 - B. Contractor to notify Owner and Landscape Architect 3 days in advance of when planting work will occur.
 - C. Plant into prepared planting beds.
 - D. Install trees, shrubs, and perennials per planting details, adjust location if in conflict with utilities. Verify new location with Landscape Architect prior to planting.
 - E. Separate all shrub and perennial beds from sod areas with edger.
 - F. Clean-up entire site following planting operations.
6. ACCEPTANCE OF PLANTING WORK
 - A. Contractor to notify Owner when planting work is complete for review and punch list.
 - B. Contractor to water and maintain the trees, shrubs, and perennials until Owner Acceptance.
 - C. Owner will give Acceptance of Work following satisfactory correction of punch list items.
 - D. Watering and regular landscape maintenance of trees, shrubs, and perennials will be Owners responsibility following acceptance of work.
7. GUARANTEE PERIOD
 - A. Contractor to warranty trees, shrubs and perennials for one year following acceptance of Work by Owner.
 - B. Contractor to maintain the trees in a plumb position throughout the guarantee period.
 - C. Contractor to remove all staking/wiring/straps and plant tags from trees at the end of the guarantee period.
 - D. Replacements: At the end of the guarantee period, all plants which are unhealthy, dead, not having a normal density, size, shape or color shall be shall be replaced. Replacements shall match caliper and/or height of the other plants at time of replacement. Selection of replacement material and installation practices shall follow the requirements of the Drawings and Specifications.

IRRIGATION

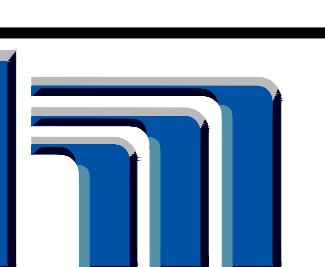
1. DESCRIPTION
 - A. Work includes: design, furnish, and install complete, fully automatic and programmable underground irrigation system, capable of alternate date watering for all landscape areas. The system shall provide full coverage with uniform levels of total precipitation throughout all irrigated areas.
 - B. The system is to include water efficient technologies including: a WaterSense labeled controller, a flow meter, soil moisture and/or evapotranspiration (ET) sensors, a rain sensor, and be calibrated to meet all applicable City Codes.
 - C. Drip line to be used in perennial and shrub beds not covered by lawn sprinklers.
 - D. The system is to meet state department of health standards and have a backflow preventer.
 - E. Materials, equipment, and methods of design and installation shall comply with, but not be limited to, the following codes and standards:
 - All local and state laws and ordinances, and with all the established codes applicable thereto.
 - National Electrical Code.
 - American Society for Testing and Materials (ASTM).
 - National Sanitation Foundation (NSF).
 - The best management practices developed by the Irrigation Association.
 - The designer shall provide balanced pressure and flow and optimum operating efficiency.
 - The contractor is responsible for obtaining all permits and licenses required for installation of irrigation system.
2. QUALITY ASSURANCE
 - A. The irrigation system shall be designed and installed by a contractor specializing in irrigation work, and will have a minimum of 5 years of experience designing and installing systems of similar scope and size.
 - B. The contractor shall maintain a skilled foreman on site during the installation of all work and the foreman will have a Minnesota Power Limited Technician license.
3. SUBMITTALS
 - A. Shop Drawings: submit irrigation plan, product schedule, and specifications for review and acceptance.
 - B. Operation and Maintenance Manual: following completion of work, provide the Owner with an operation and maintenance manual of the complete system in a digital pdf file format and one hard copy.
 - C. As-Built Plan: following completion of work, contractor to furnish Owner a scaled as-built irrigation map, with dimensions as needed, on durable paper or laminated to be mounted on wall with the main control panel and a digital file pdf format. The map shall indicate the zones, location of all controls, piping and depths, heads (including type), drip-lines, valves, connection to water service, and other related components.
4. PRODUCTS
 - A. Select products suitable to the landscape areas.
 - B. All products and materials used in the system shall be new and professional grade.
 - C. Provide sprinkler heads, drip lines, electric valves, and automatic controller from one manufacturer: Toro, Rainbird, Hunter Industries, or equal.
5. EXECUTION
 - A. Prior to digging, contractor to have utilities located.
 - B. Water Coverage: Provide uniform water coverage over turf areas and planting beds.
 - C. Turf: Turf areas to be irrigated with spray heads. Locate heads to avoid overspray onto sidewalks, parking areas, signs and buildings.
 - D. Planting Beds: All continuous shrubs, trees, perennial beds to be irrigated with a drip system and spray heads where drip lines are impractical.
 - E. Winterization: System to accommodate winterization by blowing system dry with compressed air.
 - F. Install the irrigation system per contractor's plan and specifications.
 - G. Instructions: Contractor to instruct the Owner in proper operation and maintenance of the system.
 - H. Cleanup: Replace landscaping disturbed by operations. Cleanup all debris and restore site to original condition.

IRRIGATION - continued

6. REVIEW AND ACCEPTANCE
 - A. Contractor to test system to a hydrostatic pressure of not less than 100 psi. Remove and replace any components that do not pass test.
 - B. Contractor to contact Owner and perform operational test after system is fully in place and demonstrate to the Owner that the irrigation system meets coverage requirements and that automatic controls function properly. Any corrective work identified shall be completed within two weeks of receipt of comments.
 - C. Owner to accept work following: satisfactory completion of any corrective work, receiving hands-on instructions for operation, and receiving as-built plan and operation and maintenance manual submittals.
7. MAINTENANCE
 - A. Contractor to drain and winterize irrigation system in the fall, following first year of operation, and shall put the system back in service the following spring as part of the work of this contract at no additional cost to the Owner.
8. GUARANTEE
 - A. Warranty irrigation system materials and labor for one year following acceptance of work by Owner. Contractor to promptly furnish and install, at no cost to Owner, any parts that prove defective in material or workmanship.

SODDING

1. AREAS TO SOD
 - A. Sod areas noted on plan. Sod all landscape areas not called out for other plant material.
2. REFERENCES
 - A. MnDOT - Minnesota Department of Transportation, Standard Specifications for Construction, 2020 Edition.
3. PRODUCTS
 - A. Sod: Provide drought tolerant, strongly rooted sod, machine cut to pad thickness of 1", excluding top growth and thatch. Sod to be at least 2 years old, free of weeds, disease, or other material which might be detrimental to the development of the sod. Sod to be moist when cut and maintained in moist condition during transportation and storage at the site. Do not use sod that shows signs of visible heating on this project.
 - B. Fertilizer: Slow release 5-10-5 starter fertilizer.
 - C. Water: Contractor to provide.
 - D. Topsoil: provide rich friable, sandy loam, free of debris and seeds, and conforming to MnDOT 3877.2 Common Topsoil Borrow.
4. SOIL PREPARATION
 - A. Verify all sod areas have a minimum of 4" of topsoil.
 - B. Immediately prior to sodding, loosen topsoil to minimum depth of 3".
 - C. On slopes operate cultivating equipment at right angles to the direction of surface drainage.
 - D. Contractor to work all areas to receive sod until the soil is smooth and an even grade is established. Fill all holes, depressions and rivulets to ensure an even grade and that proper elevation is established. Fill material shall be compacted sufficiently to provide uniform density and to resist erosion. Remove all rubble, sticks, branches, stones and other extraneous material over 1/2" in diameter on the surface prior to sodding.
 - E. For all areas to be sodded work in dry, free flowing slow release starter fertilizer into the top 1 inch of soil.
5. EXECUTION
 - A. Install sod during favorable weather, do not sod if ground is frozen or sod is dormant.
 - B. Lay sod with tightly fitting joints, no overlapping joints, and stagger rows to offset joints. Anchor sod on slopes to prevent slippage.
 - C. Thoroughly water sod immediately after installing. Continue watering at frequency necessary to initiate rooting, and until the work is accepted by Owner.
 - D. Clean up and remove all debris resulting from sodding activity and dispose of properly. Restore all areas disturbed by sodding operation to their original condition.
6. ACCEPTANCE OF SOD WORK
 - A. Contractor to notify Owner when sod work is complete for review and punch list.
 - B. Owner to accept work following satisfactory correction of punch list items.
 - C. Contractor will maintain all turf areas in a healthy, growing condition by watering, mowing, and any other maintenance necessary to establish the lawn, for a minimum of 30 days from time of acceptance.
 - D. Any sod that does not show definite growth and establishment during the 30 days from time of acceptance, shall be replaced and established at the proper season by the Contractor at Contractor's expense.



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DATE	REVISION

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 Landscape Architect under the laws of the State of Minnesota. Name: Carmen Simonet
Signature:

License # 24236 Date 08.05.2022

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