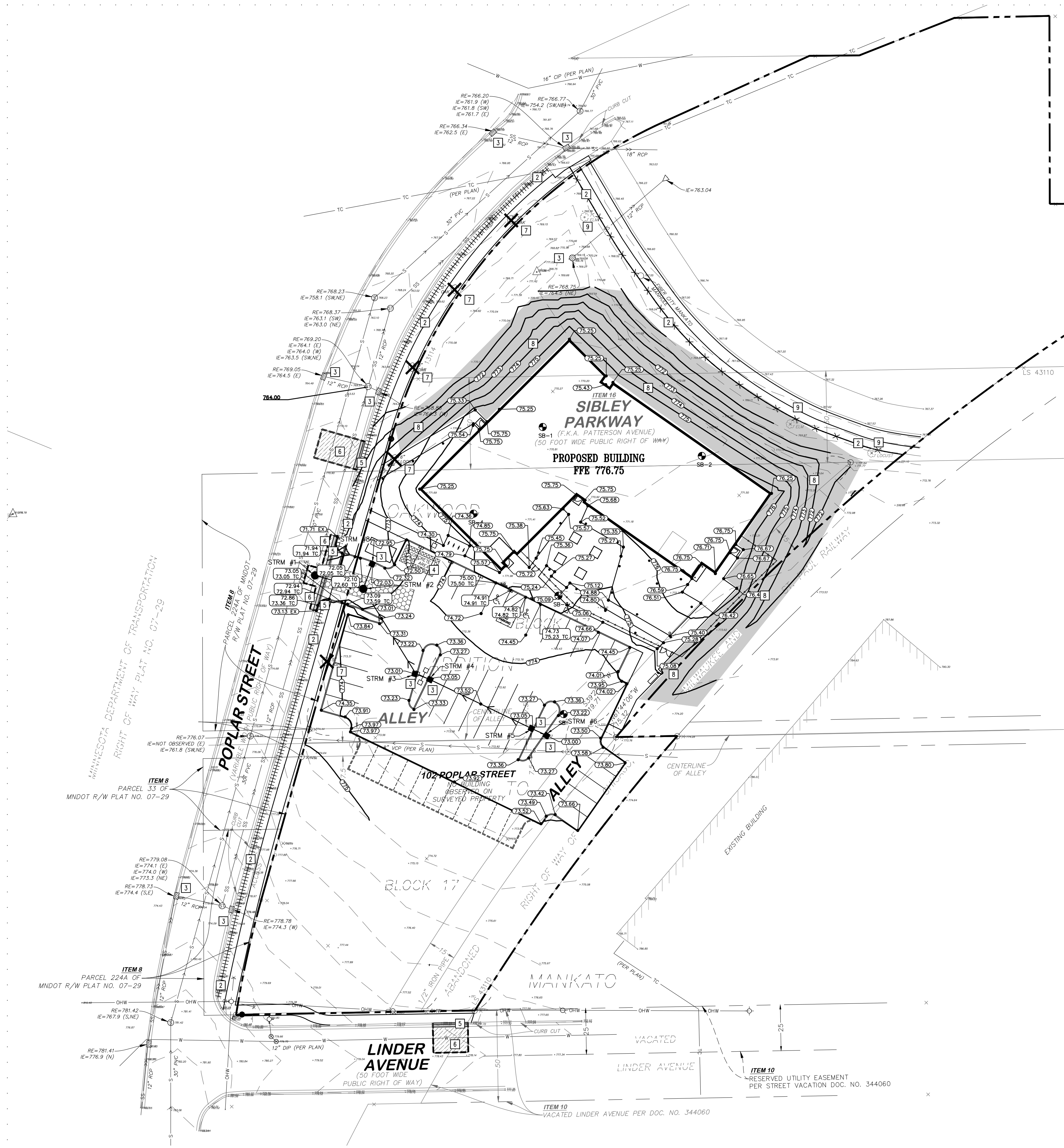




1
C100 SELECTIVE SITE DEMOLITION, GRADING, DRAINAGE, AND EROSION CONTROL PLAN
1" = 30'

KEYED NOTES

- KEYED NOTES ARE DENOTED BY **NO** ON PLAN.
1. INSTALL ROCK CONSTRUCTION ENTRANCE. REFER TO DETAIL 1/C400.
 2. INSTALL PERIMETER EROSION CONTROL. REFER TO DETAIL 3/C400 AND 4/C400.
 3. INSTALL INLET SEDIMENT PROTECTION. REFER TO DETAIL 2/C400.
 4. APPROXIMATE LOCATION OF TEMPORARY CONTAINED CONCRETE WASH OUT BIN. REFER TO THE MINNESOTA'S NPDES/SDS GENERAL STORMWATER PERMIT FOR CONSTRUCTION ACTIVITY FOR MORE DETAILS. SELF CONTAINED CONCRETE WASHOUTS ON CONCRETE DELIVERY TRUCKS IS AN ACCEPTABLE ALTERNATIVE TO ON-SITE CONTAINMENT.
 5. REMOVE CURB AND GUTTER IN ITS ENTIRETY TO THE APPROXIMATE EXTENTS SHOWN. SAWCUT AND REMOVE AT NEAREST JOINT.
 6. SAWCUT AND REMOVE BITUMINOUS PAVEMENT IN ITS ENTIRETY TO THE EXTENTS SHOWN.
 7. REMOVE TREE IN ITS ENTIRETY INCLUDING STUMP.
 8. INSTALL MN/DOT 3885 CATEGORY 20 TEMPORARY STRAW FIBER EROSION CONTROL BLANKET.
 9. PROTECT TREE AT ALL TIMES.

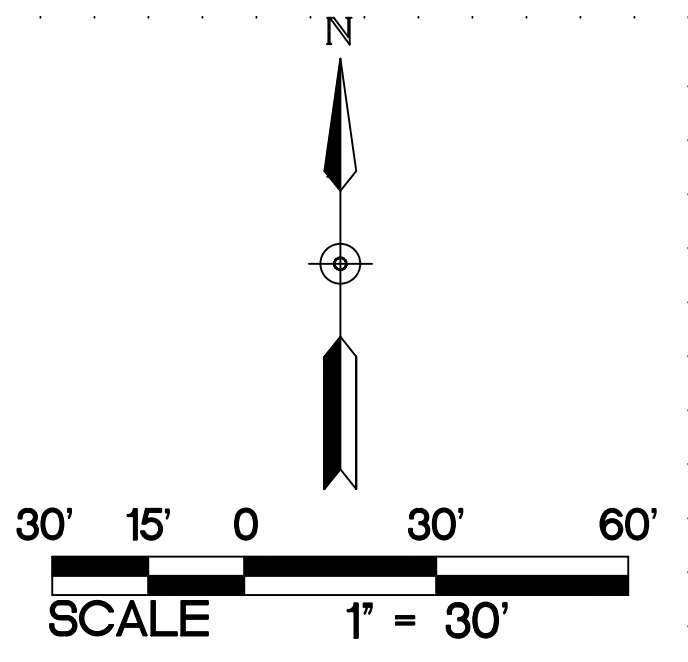
PROPOSED PLAN SYMBOLS	
CONSTRUCTION LIMITS	---
SILTATION FENCE	---X---
SEDIMENT CONTROL LOG	
PROPERTY LINE	---
SAWCUT LINE (APPROX.)	---
ROCK CONSTRUCTION ENTRANCE	[Pattern]
BITUMINOUS REMOVAL	[Pattern]
PROPOSED CONTOUR	772
STORM SEWER	---
CATCH BASIN	[Symbol]
MANHOLE	[Symbol]
EROSION CONTROL BLANKET (TEMPORARY)	[Symbol]
SPOT ELEVATION	75.95
SOIL BORING	[Symbol]
CONCRETE WASHOUT AREA	[Pattern]
TREE REMOVAL	[Symbol]

*NOTE: CONSTRUCTION LIMITS ARE ANTICIPATED TO BE PROPERTY LINE UNLESS OTHERWISE SHOWN.

ABBREVIATIONS	
BLDG	Building
BM	Benchmark
BS	Bottom of Step
BW	Bottom of Wall
CB	Catch Basin
CONC	Concrete
ELEV	Elevation
EX	Existing
FFE	Finished Floor Elevation
HWL	High Water Level
IN	Invert
LFE	Lower Floor Elevation
MAX	Maximum
MH	Manhole
MIN	Minimum
NWL	Normal Water Level
PVC	Polyvinyl Chloride
RCP	Reinforced Concrete Pipe
STRM	Storm Sewer Structure
TC	Top of Curb
TS	Top of Step
TW	Top of Wall
W.O.	Washout
WQE	Water Quality Elevation

APPROXIMATE DISTURBED AREA IS X.XX ACRES

NOTE:
STORM SEWER INLETS NOT SHOWN ON PLAN MAY RECEIVE RUNOFF FROM CONSTRUCTION ACTIVITIES. INSTALL INLET SEDIMENT PROTECTION PER DETAIL 2/C300 ON ALL STORM INLETS THAT MAY RECEIVE RUNOFF.



EROSION CONTROL NOTES:

1. ALL EROSION CONTROL FACILITIES SHALL BE INSTALLED PRIOR TO ANY SITE GRADING OPERATIONS. THE CITY ENGINEERING DEPARTMENT MUST BE NOTIFIED UPON COMPLETION OF THE INSTALLATION OF THE REQUIRED EROSION CONTROL FACILITIES AND PRIOR TO ANY GRADING OPERATION BEING COMMENCED. THE CONTRACTOR IS RESPONSIBLE FOR SCHEDULING A PRE-CONSTRUCTION GRADING MEETING ON-SITE WITH THE CITY. IF DAMAGED OR REMOVED DURING CONSTRUCTION, ALL EROSION CONTROL FACILITIES SHALL BE RESTORED AND IN PLACE AT THE END OF EACH DAY.
2. ANY EROSION CONTROL FACILITIES DEEMED NECESSARY BY THE CITY, BEFORE, DURING, OR AFTER THE GRADING ACTIVITIES, SHALL BE INSTALLED AT THEIR REQUEST.
3. NO DEVIATIONS SHALL BE MADE FROM THE ELEVATIONS SHOWN ON THE APPROVED GRADING PLAN WITHOUT PRIOR APPROVAL FROM THE CIVIL ENGINEER.
4. FOR SITES GREATER THAN 1.0 ACRE, AS REQUIRED BY THE MPCA PERMIT REQUIREMENTS, THE PERMIT APPLICANT MUST KEEP AN EROSION CONTROL INSPECTION LOG. INSPECTION MUST BE MADE ONCE EVERY SEVEN DAYS AND WITHIN 24 HOURS AFTER EVERY RAIN EVENT. THE INSPECTION RECORD MUST BE MADE AVAILABLE TO THE CITY WITHIN 24 HOURS OF REQUEST.
5. FLOWS FROM DIVERSION CHANNELS OR PIPES (TEMPORARY OR PERMANENT) SHALL BE ROUTED TO SEDIMENTATION BASINS OR APPROPRIATE ENERGY DISSIPATORS TO PREVENT TRANSPORT OF SEDIMENT TO OUTFLOW TO LATERAL CONVEYORS AND TO PREVENT EROSION AND SEDIMENTATION WHEN RUNOFF FLOWS INTO THESE CONVEYORS.
6. SITE ACCESS ROADS SHALL BE GRADED OR OTHERWISE PROTECTED WITH SILT FENCES, DIVERSION CHANNELS, OR DIKES AND PIPES TO PREVENT SEDIMENT FROM EXITING THE SITE VIA THE ACCESS ROADS. SITE-ACCESS ROADS/DRIVEWAYS SHALL BE SURFACED WITH CRUSHED ROCK WHERE THEY ADJOIN EXISTING PAVED ROADWAYS.
7. SOILS TRACKED FROM THE SITE BY MOTOR VEHICLES OR EQUIPMENT SHALL BE CLEANED DAILY FROM PAVED ROADWAY SURFACES, OR MORE FREQUENTLY IF REQUESTED BY THE CITY, THROUGHOUT THE DURATION OF CONSTRUCTION.
8. DUST CONTROL MEASURES SHALL BE PERFORMED PERIODICALLY WHEN CONDITIONS REQUIRE AND/OR AS DIRECTED BY THE CITY.
9. ALL EROSION CONTROL MEASURES SHALL BE USED AND MAINTAINED FOR THE DURATION OF SITE CONSTRUCTION. IF CONSTRUCTION OPERATIONS OR NATURAL EVENTS DAMAGE OR INTERFERE WITH THESE EROSION CONTROL MEASURES, THEY SHALL BE RESTORED TO SERVE THEIR INTENDED FUNCTION AT THE END OF EACH DAY OR AS SOON AS FIELD CONDITIONS ALLOW ACCESS.
10. ALL AREAS DISTURBED DURING CONSTRUCTION SHALL BE RESTORED AS SOON AS POSSIBLE. ANY AREAS WHICH HAVE BEEN FINISHED GRADED OR AREAS THAT HAVE BEEN DISTURBED AND FOR WHICH GRADING OR SITE BUILDING CONSTRUCTION OPERATIONS ARE NOT ACTIVELY UNDERWAY SHALL BE SEED AND MULCHED AS SET FORTH IN THE FOLLOWING PARAGRAPHS WITHIN 7 DAYS:
 - A. ALL SEEDED AREAS SHALL BE EITHER MULCHED AND DISC-ANCHORED OR COVERED BY FIBROUS BLANKETS TO PROTECT SEEDS AND LIMIT EROSION. TEMPORARY STRAW MULCH SHALL BE DISC-ANCHORED AND APPLIED AT A UNIFORM RATE OF NOT LESS THAN TWO TONS PER ACRE AND NOT LESS THAN 80% COVERAGE.
 - B. IF THE GRADED AREA IS ANTICIPATED TO BE RE-DISTURBED/DEVELOPED WITHIN SIX MONTHS, PROVIDE A TEMPORARY VEGETATIVE COVER CONSISTING OF MINNESOTA DEPARTMENT OF TRANSPORTATION (MNDOT) SEED MIXTURE 21-111 (OATS), OR 21-112 (WINTER WHEAT), AT A RATE OF 100 POUNDS PER ACRE.
 - C. IF GRADED AREA WILL NOT BE DEVELOPED FOR A PERIOD GREATER THAN SIX MONTHS, PROVIDE A SEMI-PERMANENT VEGETATIVE COVER OF SEED MIXTURE MNDOT 22-112 AT A RATE OF 40 POUNDS PER ACRE.
 - D. GRADING BONDS OR THE EQUIVALENT SECURITIES SHALL BE RETAINED UNTIL TURF HAS GERMINATED AND SURVIVED A 60-DAY GROWING PERIOD.
 - E. ALL AREAS THAT WILL NOT BE MOWED OR MAINTAINED AS PART OF THE ULTIMATE DESIGN WILL BE PERMANENTLY RESTORED USING SEED MIXTURE MNDOT 25-141 AT A RATE OF 50 POUNDS PER ACRE.
 - F. UNLESS SPECIFIED ELSEWHERE WITHIN THE CONSTRUCTION DOCUMENTS (I.E. ARCHITECTURAL SITE PLAN OR LANDSCAPE PLAN), PERMANENT TURF RESTORATION SHALL CONSIST OF MN/DOT SEED MIXTURE 25-131 (COMMERCIAL TURF GRASS) AT A RATE OF 220 POUNDS PER ACRE / 800.
 - G. WHENEVER OTHER EROSION AND SEDIMENT CONTROL PRACTICES ARE INADEQUATE, TEMPORARY ON-SITE SEDIMENT BASINS THAT CONFORM TO THE CRITERIA FOR ON-SITE DETENTION BASINS SHALL BE PROVIDED.
 - H. MULCH, HYDROMULCH, AND TACKIFIERS MAY NOT BE USED FOR STABILIZATION IN SWALES OR DRAINAGE DITCHES UNLESS THE LONGITUDINAL SLOPE IS LESS THAN 2 PERCENT.
 - I. RUNOFF SHALL BE PREVENTED FROM ENTERING ALL STORM SEWER CATCH BASINS PROVIDING THEY ARE NOT NEEDED DURING CONSTRUCTION. WHERE STORM SEWER CATCH BASINS ARE NECESSARY FOR SITE DRAINAGE DURING CONSTRUCTION, SEDIMENT PROTECTION DEVICES AS DETAILED SHALL BE INSTALLED AND MAINTAINED AROUND ALL CATCH BASINS UNTIL THE TRIBUTARY AREA TO THE CATCH BASIN IS RESTORED.
11. GRADING ACTIVITIES PROPOSED TO BEGIN AFTER OCTOBER 15 WILL REQUIRE AN APPROVED PHASING SCHEDULE. THE AREA OF LAND THAT THE CITY WILL ALLOW TO BE DISTURBED AT THIS TIME OF YEAR WILL BE SEVERELY LIMITED. THE CITY WILL ALSO REQUIRE ADDITIONAL EROSION CONTROL DEVICES, I.E., TEMPORARY SEDIMENT BASINS, DORMANT SEEDING AND HIGH RATES OF APPLICATION OF BOTH SEED AND MULCH.
12. TO MINIMIZE EROSION, ALL 3:1 SLOPES SHALL BE COVERED WITH A MN/DOT 3885 CATEGORY 20 STRAW EROSION CONTROL BLANKETS OR STAKED SOD.
13. ACCUMULATION OF ALL SEDIMENT OCCURRING IN STORM SEWERS AND CURB SHALL BE REMOVED PRIOR TO, DURING, AND AFTER COMPLETION OF GRADING ACTIVITIES.
14. EROSION CONTROL ITEMS AND DEVICES SHALL BE REMOVED ONLY AFTER THE AREA HAS RECEIVED FINAL STABILIZATION OR AS DIRECTED BY THE CITY.

DEMOLITION AND REMOVAL NOTES:

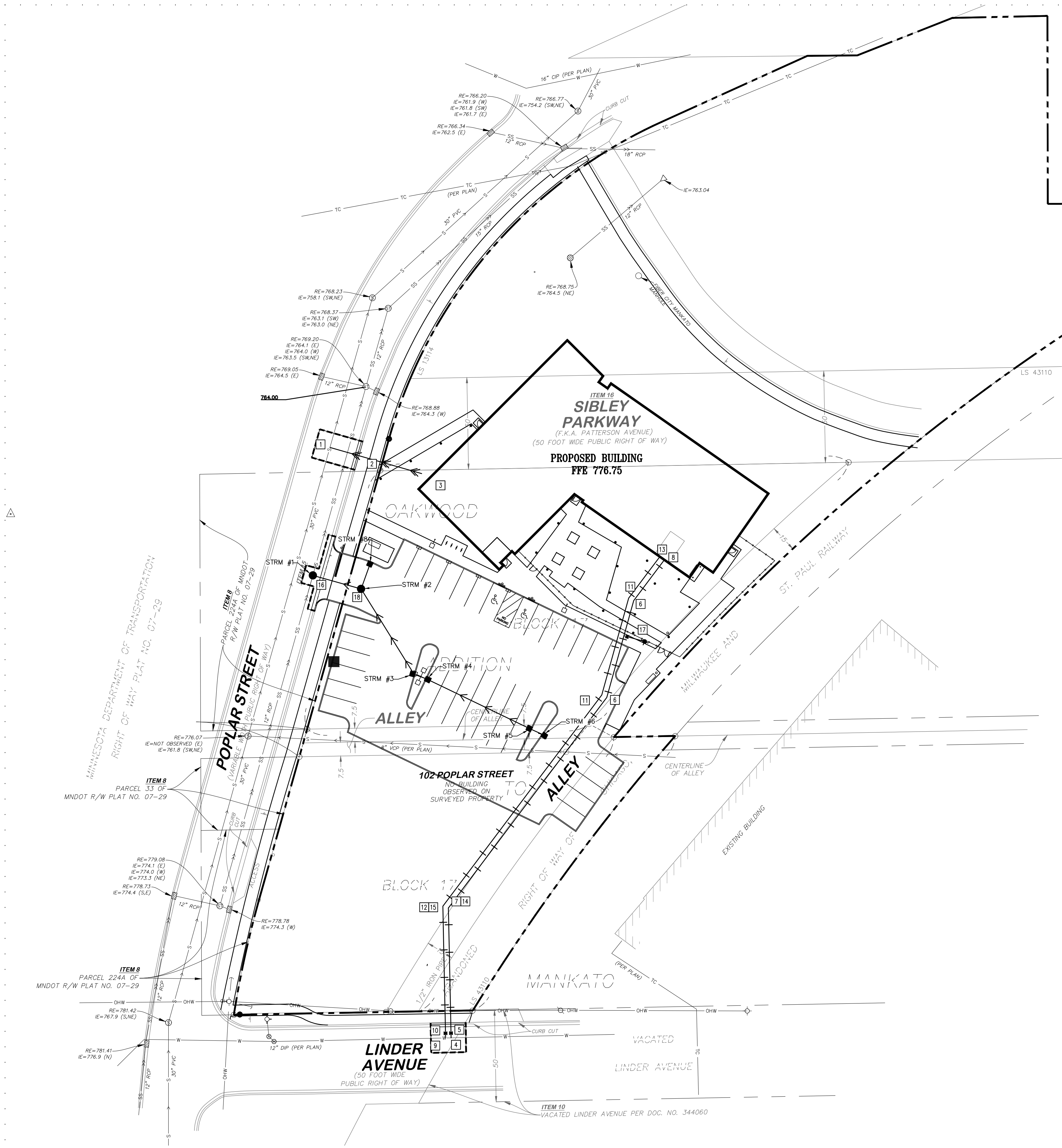
1. CONTRACTOR SHALL FOLLOW ALL CITY OF MANKATO STANDARDS AND SPECIFICATIONS.
2. PRIOR TO START OF ANY CONSTRUCTION ACTIVITY, ALL EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE INSTALLED BY THE CONTRACTOR AND INSPECTED BY THE CITY OF MANKATO. PERIMETER SEDIMENT PROTECTION SHALL BE INSTALLED ALONG THE CONTOUR.
3. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ASCERTAIN THE LOCATION OF ALL EXISTING UTILITIES. THE CONTRACTOR SHALL VERIFY THE LOCATION AND ELEVATION AND MARK ALL EXISTING UTILITIES 48 HOURS BEFORE CONSTRUCTION STARTS. THE ENGINEER, ARCHITECT, OR OWNER DOES NOT GUARANTEE THAT ALL THE UTILITIES ARE MAPPED, OR, IF MAPPED, ARE SHOWN CORRECTLY. CONTACT CIPHER STATE ONE CALL AT 651-454-0002 FOR FIELD LOCATING EXISTING UTILITIES. CONTACT UTILITY OWNER IF DAMAGE OCCURS DUE TO CONSTRUCTION.
4. THERE MAY BE MISCELLANEOUS ITEMS TO BE REMOVED THAT ARE NOT IDENTIFIED ON THESE PLANS. THE CONTRACTOR SHALL VISIT THE SITE AND REVIEW THE DOCUMENTS TO OBTAIN A CLEAR UNDERSTANDING OF THE INTENDED SCOPE OF WORK.
5. REMOVE ALL GAS AND ELECTRIC LINES UNDER PROPOSED BUILDING FOOTPRINT. COORDINATE DISCONNECTION OF EACH UTILITY WITH THE UTILITY OWNER.
6. ANY UTILITIES NOT INDICATED FOR REMOVAL OR ABANDONMENT ARE TO BE PROTECTED AT ALL TIMES.
7. EXISTING CONCRETE PAVEMENT AND CURB AND GUTTER SHOWN TO BE REMOVED WITHIN THE SCOPE OF THE PROJECT SHALL BE REMOVED FROM THE SAW CUT LINES TO THE NEAREST JOINT. ANY CURB AND GUTTER, SIDEWALK, AND PAVEMENT NOT INDICATED FOR REMOVAL OR ABANDONMENT ARE TO BE PROTECTED AT ALL TIMES.
8. THE BACKGROUND INFORMATION WAS PREPARED BY EGAN, FIELD & NOWAK, INC. (612) 466-3300.
9. ALL WORK IN THE PUBLIC RIGHT OF WAY IS TO BE COORDINATED WITH THE CITY OF MANKATO. ROADWAY REPAIRS, BOULEVARD REPAIRS, AND TRAFFIC CONTROL ARE TO BE PER CITY OF MANKATO STANDARDS AND SPECIFICATIONS.

GRADING NOTES:

1. THE CONTRACTOR SHALL VISIT THE SITE, REVIEW ALL CONSTRUCTION DOCUMENTS, AND FIELD VERIFY THE EXISTING CONDITIONS PRIOR TO BIDDING. NO ADDITIONAL COMPENSATION WILL BE GIVEN FOR WORK THAT COULD HAVE BEEN IDENTIFIED BY A SITE VISIT OR CONSTRUCTION DOCUMENT REVIEW.
2. THE BACKGROUND INFORMATION WAS PREPARED BY EGAN, FIELD & NOWAK, INC. (612) 466-3300.
3. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ASCERTAIN THE LOCATION OF ALL EXISTING UTILITIES. THE CONTRACTOR SHALL VERIFY THE LOCATION AND ELEVATION AND MARK ALL EXISTING UTILITIES 48 HOURS BEFORE CONSTRUCTION STARTS. THE ENGINEER, ARCHITECT, OR OWNER DOES NOT GUARANTEE THAT ALL THE UTILITIES ARE MAPPED, OR, IF MAPPED, ARE SHOWN CORRECTLY. CONTACT CIPHER STATE ONE CALL AT 651-454-0002 FOR FIELD LOCATING EXISTING UTILITIES. CONTACT UTILITY OWNER IF DAMAGE OCCURS DUE TO CONSTRUCTION.
4. PROTECT ALL EXISTING STRUCTURES AND UTILITIES WHICH ARE NOT SCHEDULED FOR REMOVAL.
5. NOTIFY CITY BUILDING INSPECTOR BEFORE TRENCHING AND EXCAVATION WORK COMMENCES. THE CONTRACTOR SHALL OBTAIN ALL APPLICABLE PERMITS PRIOR TO START OF CONSTRUCTION.
6. ALL SPOT ELEVATIONS SHOWN AS 75.05, FOR EXAMPLE, ARE TO BE UNDERSTOOD TO MEAN 775.05.
7. ALL SPOT ELEVATIONS ALONG THE CURB-LINE INDICATE THE ELEVATION OF THE GUTTER UNLESS NOTED OTHERWISE.
8. NO LANDSCAPED SLOPES ARE TO EXCEED 3:1 (3 FEET HORIZONTAL TO 1 FOOT VERTICAL) UNLESS NOTED OTHERWISE.
9. ACCESSIBLE PARKING AREAS SHALL NOT HAVE SLOPES IN ANY DIRECTION THAT EXCEED 2%.
10. PROVIDE POSITIVE DRAINAGE FROM BUILDINGS AT ALL TIMES.
11. UPON COMPLETION OF THE GRADING AND UTILITY WORK, THE CONTRACTOR SHALL CERTIFY THAT ALL GRADING AND UTILITY WORK WAS PERFORMED IN ACCORDANCE WITH THE APPROVED GRADING AND UTILITY PERMITS. AN AS-BUILT GRADING AND UTILITY PLAN SHALL BE PERFORMED BY A REGISTERED LAND SURVEYOR HIRED BY THE CONTRACTOR. SURVEY SHALL BE PROVIDED TO CIVIL ENGINEER.
12. PRIOR TO ISSUANCE OF BUILDING PERMITS, ALL NECESSARY EROSION CONTROL DEVICES MUST BE IN PLACE AND FUNCTIONING. THE CITY WILL INSPECT THE SITE TO DETERMINE ITS SUITABILITY FOR BUILDING ACTIVITIES. IF THE PUBLIC UTILITIES HAVE NOT BEEN INSTALLED AT THIS POINT, IT MAY BE NECESSARY TO WITHHOLD BUILDING PERMITS FOR VARIOUS LOTS TO ALLOW THE CONTRACTOR ADEQUATE SPACE TO PERFORM THIS WORK.
13. ALL DEBRIS CREATED IN THE PROCESS OF CLEARING AND GRADING THE SITE SHALL BE REMOVED FROM THE SITE. THIS INCLUDES TREES AND SHRUBS. UNDER NO CIRCUMSTANCES SHALL THIS TYPE OF MATERIAL BE BURIED OR BURNED ON THE SITE.
14. THE CONTRACTOR MAY STRIP AND SALVAGE TOPSOIL FOR POTENTIAL RE-SPREADING ON THE SITE. IF APPROVED BY THE LANDSCAPE ARCHITECT AND/OR SPECIFICATIONS, SIX INCHES OF TOPSOIL - AFTER COMPACTION - SHALL BE RE-SPREAD PRIOR TO SEEDING AND MULCHING. EXCESS TOPSOIL MAY BE REMOVED FROM THE SITE PROVIDED THERE IS ADEQUATE TOPSOIL REMAINING TO PROPERLY FINISH THE SITE AS NOTED ABOVE. THE TOPSOIL, STRIPPING, STOCKPILING, AND RE-SPREADING SHALL BE DONE IN ACCORDANCE WITH, AND NOTED ON, THE APPROVED GRADING PLAN AND SPECIFICATIONS. THE CONTRACTOR SHALL REFER TO THE LANDSCAPE DRAWINGS AND SPECIFICATIONS FOR ANY SPECIAL TOPSOIL OR PLANTING REQUIREMENTS.
15. ALL GRADING OPERATIONS SHALL BE CONDUCTED IN A MANNER TO MINIMIZE THE POTENTIAL FOR SITE EROSION. EROSION CONTROL MEASURES SHALL BE INSTALLED TO PREVENT SEDIMENT FROM RUNNING OFF ONTO ADJACENT PROPERTIES. ANY DAMAGE TO ADJACENT PROPERTIES MUST BE CORRECTED AND RESTORED AS SOON AS PERMISSION IS GRANTED FROM THE ADJACENT PROPERTY OWNER(S).
16. IF CONSTRUCTION OF THE SITE WORK PROCEEDS THROUGH THE WINTER MONTHS, ANY DISTURBED AREAS OUTSIDE THE BUILDING FOOTPRINTS ARE TO BE MINIMALLY STABILIZED PRIOR TO MARCH 1 AS FOLLOWS:
AREAS PLANNED TO RECEIVE PAVEMENTS ARE TO HAVE CLASS 5 BASE INSTALLED; ALL OTHER DISTURBED AREAS ARE TO BE SEED, STRAW MULCH PLACED, AND DISC-ANCHORED.
17. WINTER MULCHING:
 - 17.A. SNOW MULCHING SHALL BE DEFINED AS MULCH MATERIAL SPREAD OVER THE TOP OF SNOW SO THAT THE MULCH MELTS THROUGH THE SNOW AND STICKS TO THE EXPOSED SOILS.
 - 17.B. FROZEN GROUND MULCHING SHALL BE DEFINED AS MULCH MATERIAL SPREAD OVER FROZEN GROUND. MULCH MATERIALS THAT DO NOT REQUIRE DISC-ANCHORING INTO THE SOIL MAY BE PLACED WITHOUT MODIFICATION. MULCH MATERIALS THAT REQUIRE DISC-ANCHORING MAY BE ANCHORED WITH HYDRAULIC SOIL STABILIZERS OR MAY BE FROZEN TO THE SOIL BY APPLYING WATER AT A RATE OF 2000
19. THE CONTRACTOR SHALL LIMIT THE DISTURBED AREA AS MUCH AS POSSIBLE.

GENERAL NOTES:

1. CONCRETE CURB AND GUTTER REMOVAL, PAVEMENT REMOVAL, AND UTILITY REMOVAL LIMITS ARE TO BE COORDINATED WITH THE CITY OF MANKATO AND UTILITY OWNER.
2. THE CONTRACTOR SHALL DEVELOP AND IMPLEMENT A TRAFFIC CONTROL PLAN WHILE WORKING WITHIN THE RIGHT-OF-WAY. THE TRAFFIC CONTROL PLAN SHALL BE APPROVED BY THE CITY ENGINEERING DEPARTMENT PRIOR TO STREET ENCROACHMENT.
3. CONTRACTOR SHALL VISIT THE SITE PRIOR TO BIDDING AND REVIEW ALL CONSTRUCTION DOCUMENTS AND GEOTECHNICAL REPORTS. NO ADDITIONAL COMPENSATION WILL BE ALLOWED FOR ITEMS THAT SHOULD HAVE BEEN ANTICIPATED BY PERFORMING THE ABOVE.
4. THE CONSTRUCTION ENTRANCE INDICATED ON THE PLAN IS SHOWN IN AN APPROXIMATE LOCATION. PRIOR TO START OF CONSTRUCTION, THE CONTRACTOR IS TO COORDINATE WITH THE CITY OF MANKATO FOR THE EXACT CONSTRUCTION ENTRANCE LOCATION.



KEYED NOTES

KEYED NOTES ARE DENOTED BY [NO] ON PLAN.

- CONNECT TO EXISTING 30-INCH PVC WITH 30-INCH BY 6-INCH SADDLE TEE FOR PROPOSED PIPE CONNECTION. APPROXIMATE INVERT OF EXISTING PIPE IS 759.82. APPROXIMATE INVERT OF 6-INCH PIPE IS 761.86. PRIOR TO INSTALLATION OF SADDLE TEE, CONTRACTOR SHALL CONTACT CIVIL ENGINEER WITH EXACT INVERT ELEVATION.
- INSTALL 52'-FEET OF 6-INCH PVC PIPE AT 2.00% TO INVERT OF 771.75. STUB TO WITHIN 5'-FEET OF PROPOSED BUILDING. REFER TO DETAIL 6/C400. COORDINATE EXACT LOCATION, SIZE, AND INVERT ELEVATION WITH MECHANICAL CONTRACTOR PRIOR TO THE START OF CONSTRUCTION.
- LOCATION OF PROPOSED SANITARY SEWER SERVICE. REFER TO SANITARY SEWER TABLE FOR INVERT ELEVATIONS AND PIPE SIZES. COORDINATE EXACT LOCATION, SIZE, AND INVERT ELEVATION WITH MECHANICAL CONTRACTOR PRIOR TO THE START OF CONSTRUCTION.
- INSTALL 8-INCH WET TAP. REFER TO DETAIL 8/C400.
- INSTALL 8-INCH GATE VALVE. REFER TO DETAILS 7/C400 AND 9/C400.
- INSTALL 8-INCH 22.5-DEGREE BEND WITH THRUST BLOCKING.
- INSTALL 8-INCH 11.25-DEGREE BEND WITH THRUST BLOCKING.
- STUB 8-INCH FIRE PROTECTION LINE TO WITHIN 5'-FEET OF THE PROPOSED BUILDING. TOP OF WATER SERVICE SHALL BE 7.5 FEET BELOW FINISHED GRADE AT THE PROPOSED CONNECTION POINT. COORDINATE EXACT LOCATION WITH MECHANICAL AND STRUCTURAL PLANS PRIOR TO THE START OF CONSTRUCTION.
- INSTALL 4-INCH WET TAP. REFER TO DETAIL 8/C400.
- INSTALL 4-INCH GATE VALVE. REFER TO DETAILS 7/C400 AND 9/C400.
- INSTALL 4-INCH 22.5-DEGREE BEND WITH THRUST BLOCKING.
- INSTALL 4-INCH 11.25-DEGREE BEND WITH THRUST BLOCKING.
- STUB 4-INCH DOMESTIC WATERLINE TO WITHIN 5'-FEET OF THE PROPOSED BUILDING. TOP OF WATER SERVICE SHALL BE 7.5 FEET BELOW FINISHED GRADE AT THE PROPOSED CONNECTION POINT. COORDINATE EXACT LOCATION WITH MECHANICAL AND STRUCTURAL PLANS PRIOR TO THE START OF CONSTRUCTION.
- INSTALL 8-INCH 45-DEGREE BEND WITH THRUST BLOCKING.
- INSTALL 4-INCH 45-DEGREE BEND WITH THRUST BLOCKING.
- CONTRACTOR SHALL INSTALL MANHOLE IN LINE WITH EXISTING 12-INCH RCP PIPE. APPROXIMATE INVERT OF EXISTING PIPE IS 767.15. PRIOR TO INSTALLATION OF MANHOLE, CONTRACTOR SHALL CONTACT CIVIL ENGINEER WITH EXACT INVERT ELEVATION.
- INSTALL 8x8-INCH TEE, 6-INCH GATE VALVE AND FIRE HYDRANT. REFER TO DETAIL 1/C401. HYDRANT SHALL BE PLACED ON PUBLIC SIDE OF FENCE.
- INSTALL SUMP MANHOLE PER DETAIL 2/C200.

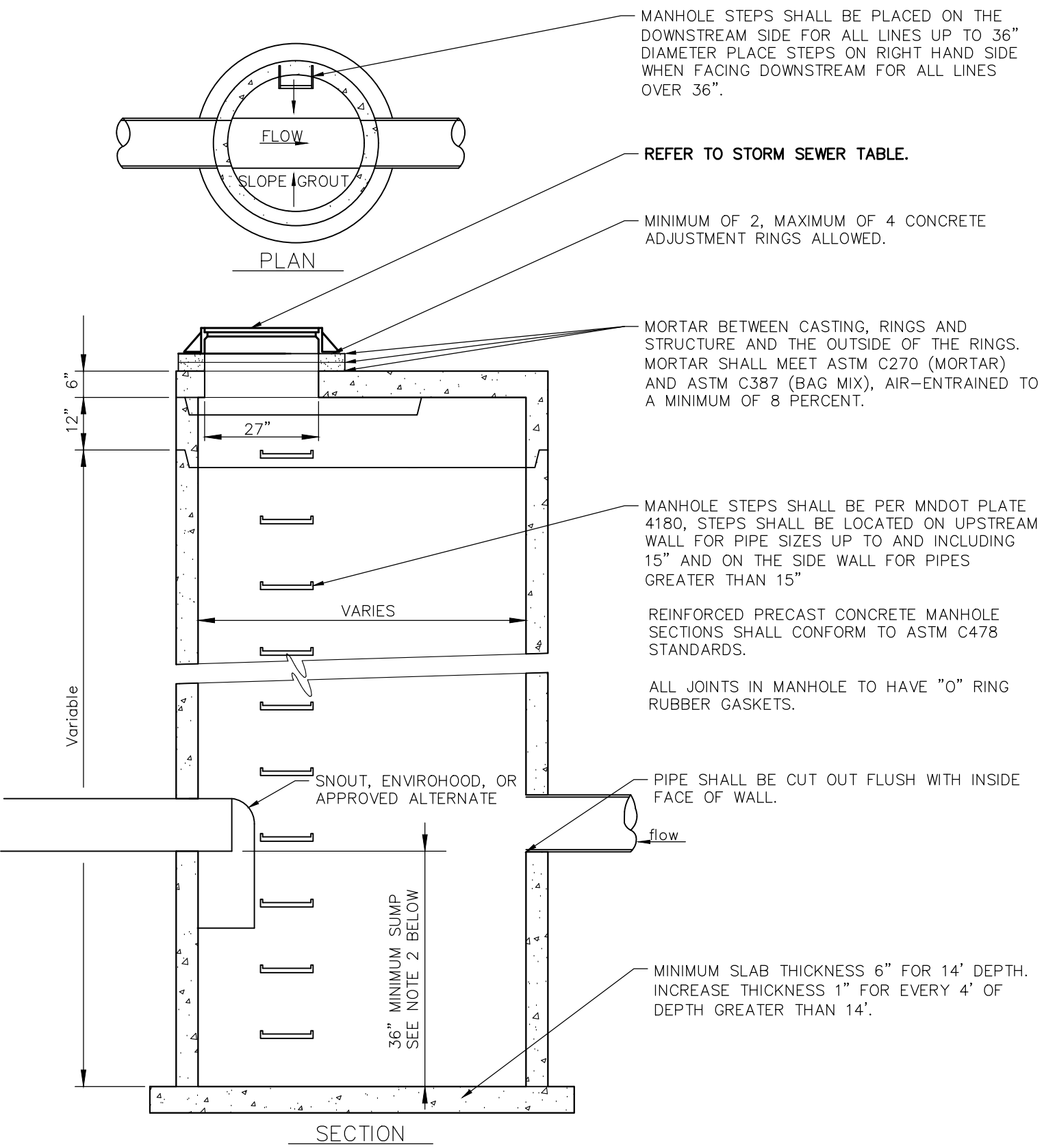
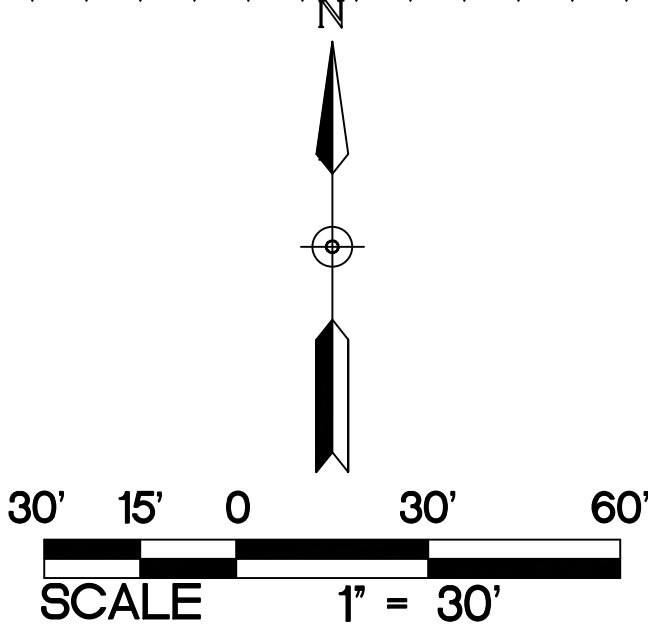
UTILITY NOTES:

- CONTRACTOR SHALL FOLLOW ALL CITY OF MANKATO STANDARDS AND SPECIFICATIONS.
- COORDINATE SERVICE CONNECTION LOCATIONS AND SIZES AT THE BUILDING WITH THE MECHANICAL CONTRACTOR PRIOR TO CONSTRUCTION. NO ADDITIONAL COMPENSATION WILL BE ALLOWED FOR UNCOORDINATED WORK.
- COORDINATE UTILITY INSTALLATION WITH STRUCTURAL PRIOR TO START OF CONSTRUCTION. UTILITIES SHALL NOT BE INSTALLED WITHIN THE ZONE OF INFLUENCE OF ANY STRUCTURAL ELEMENTS. NO ADDITIONAL COMPENSATION WILL BE PROVIDED FOR UNCOORDINATED WORK.
- ALL SEWER SERVICE CONNECTIONS WITH LESS THAN 5 FEET OF COVER OVER THE TOP OF PIPE SHALL BE INSULATED. INSULATION SHALL BE INSTALLED FROM THE CONNECTION OF THE SERVICE AT THE BUILDING TO THE POINT WHICH THE SERVICE ATTAINS 5 FEET OF COVER. CONTRACTOR SHALL OBTAIN WRITTEN PERMISSION FROM ARCHITECT OR ENGINEER PRIOR TO INSTALLATION OF INSULATION.
- PROTECT ALL EXISTING STRUCTURES AND UTILITIES WHICH ARE NOT SCHEDULED TO BE REMOVED.
- ALL SEWER AND WATER CROSSINGS SHALL HAVE A MINIMUM VERTICAL SEPARATION OF 1.5 FEET AND HORIZONTAL SEPARATION OF 10 FEET. FOLLOW ALL HEALTH DEPARTMENT AND CITY OF MANKATO STANDARDS.
- ALL WATER MAINS SHALL BE DUCTILE IRON PIPE, CLASS 52, UNLESS NOTED OTHERWISE.
- ALL WATER MAIN SHALL HAVE A MINIMUM DEPTH OF COVER OF 7.5 FEET OVER TOP OF WATER MAIN.
- PROVIDE THRUST BLOCKING ON ALL WATER MAIN PER CITY OF MANKATO. PROVIDE MECHANICAL JOINT RESTRAINTS ON ALL BENDS, VALVES, TEES, PLUGS, AND HYDRANT LEADS.
- SANITARY SEWER PIPING SHALL BE SDR 35 PVC UNLESS NOTED OTHERWISE.
- SANITARY SEWER PIPING SHALL BE ASTM D2034 SDR 26 POLY VINYL CHLORIDE (PVC), UNLESS NOTED OTHERWISE. ALL STORM SEWER PIPE THAT IS EXTENDED TO THE BUILDING FOR ROOF DRAIN SERVICES IS TO BE ASTM D1785 OR ASTM D2665 SCHEDULE 40 PVC.
- ALL FLARED END SECTIONS SHALL HAVE TRASH GUARDS. ALL DOWNSTREAM FLARED END SECTIONS SHALL HAVE GEOTEXTILE FABRIC AND RIPRAP PER MNDOT STANDARDS, AS DETAILLED.
- CONTRACTORS SHALL COORDINATE ALL WORK WITH GAS, ELECTRIC, TELEVISION, AND TELEPHONE COMPANIES PRIOR TO START OF CONSTRUCTION.
- WHERE PROPOSED GRADE OVER EXISTING SMALL UTILITIES IS PROPOSED TO BE LOWERED, CONTRACTOR SHALL COORDINATE WITH UTILITY OWNER FOR THE LOWERING OF THE EXISTING UTILITY TO PROVIDE THE MINIMUM COVER REQUIRED AT NO ADDITIONAL COST TO THE OWNER.
- ALL PORTIONS OF THE STORM SEWER SYSTEM LOCATED WITHIN 10'-FEET OF THE BUILDING OR WATER SERVICE LINE SHALL BE TESTED IN ACCORDANCE WITH MN PLUMBING CODE. PIPING MATERIAL SHALL BE SCHEDULE 40 PVC.
- ALL JOINTS AND CONNECTIONS IN THE STORM SEWER SYSTEM SHALL BE GAS TIGHT OR WATER TIGHT IN ACCORDANCE TO MN PLUMBING CODE. APPROVED RESILIENT RUBBER JOINTS MUST BE USED TO MAKE WATER TIGHT CONNECTIONS TO MANHOLES, CATCH BASINS, AND OTHER STRUCTURES. RESILIENT WATER-STOP GROUTING RINGS ARE AN ACCEPTABLE ALTERNATIVE. CEMENT MORTAR JOINTS ARE PERMITTED ONLY FOR REPAIRS AND CONNECTIONS OF EXISTING LINES CONSTRUCTED WITH SUCH JOINTS.

PROPOSED PLAN SYMBOLS	
CONSTRUCTION LIMITS	---
PROPERTY LINE	---
SAWCUT LINE (APPROX.)	---
SANITARY SEWER	---
WATER PIPE	---
STORM SEWER	---
FIRE HYDRANT	---
GATE VALVE	---
FIRE CONNECTION	---
CATCH BASIN	---
MANHOLE	---

*NOTE: CONSTRUCTION LIMITS ARE ANTICIPATED TO BE PROPERTY LINE UNLESS OTHERWISE SHOWN.

ABBREVIATIONS	
BLDG	Building
BM	Benchmark
CB	Catch Basin
CONC	Concrete
DIP	Ductile Iron Pipe
ELEV	Elevation
EX	Existing
FFE	Finished Floor Elevation
HDPE	High Density Polyethylene
INV	Invert
MAX	Maximum
MH	Manhole
MIN	Minimum
PV	Post Indicator Valve
PVC	Polyvinyl Chloride
RCP	Reinforced Concrete Pipe
RD	Roof Drain
WQE	Water Quality Elevation



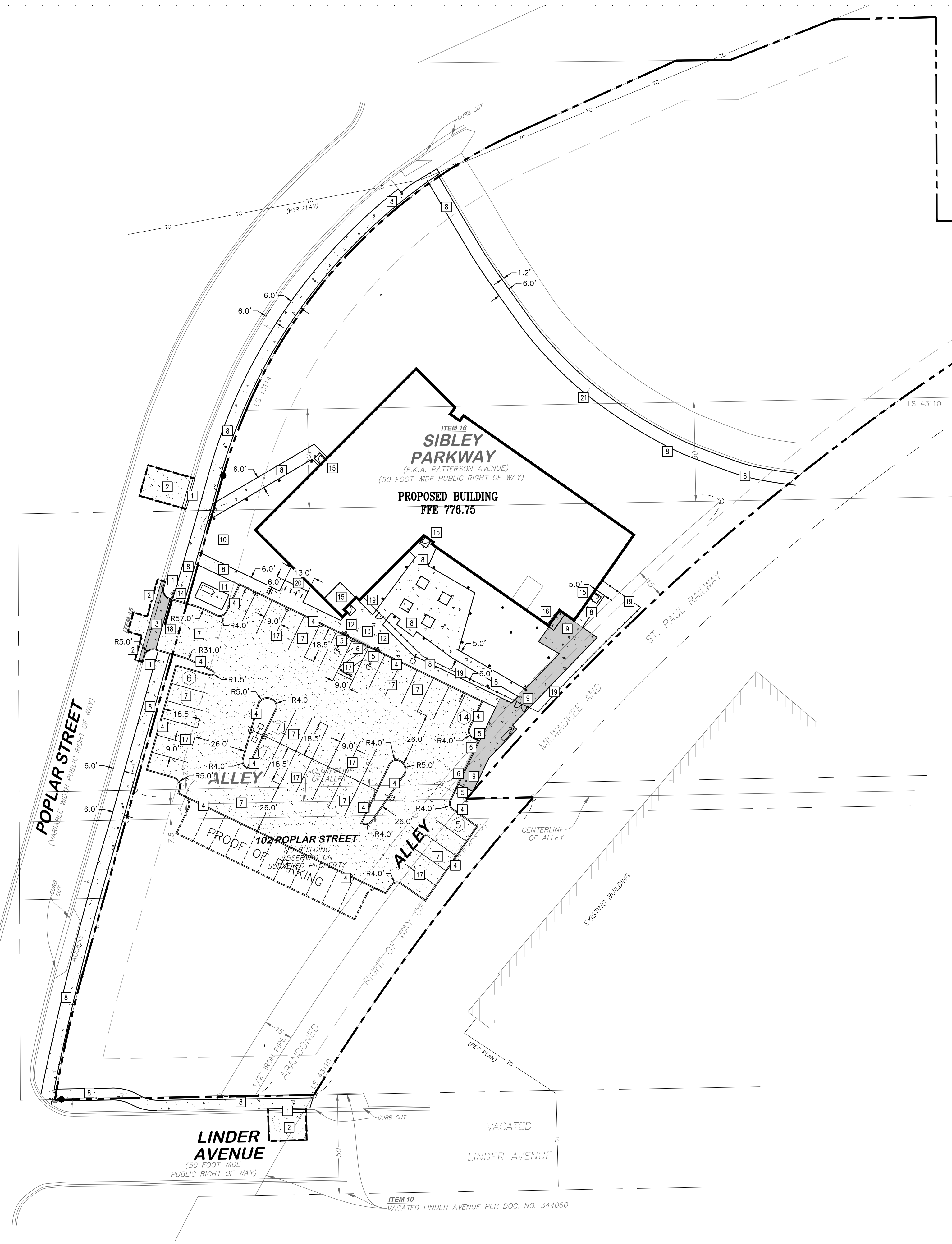
- NOTE:
- SNOUT OR ENVIROHOOD DEVICE SHALL HAVE A CROSS-SECTIONAL AREA GREATER THAN OR EQUAL TO THE CROSS-SECTIONAL AREA OF THE OUTLET PIPE OF THE SUMP MANHOLE.
 - SUMP DEPTH SHALL BE EQUAL TO 3 TIMES THE OUTLET PIPE DIAMETER, WITH A MAXIMUM SUMP DEPTH OF 9 FEET.

2 SUMP CATCH BASIN MANHOLE
C200 NOT TO SCALE

STORM SEWER TABLE					
STRUCTURE ID	STRUCTURE DIMENSION (INCHES)	NEEDHAM CASTING TYPE	RIM ELEVATION	INVERT ELEVATION(S)	PIPE LENGTH, DIAMETER, SLOPE & NEXT UPSTREAM STRUCTURE
STRM #1	60" MH	R-1733	772.43	N = 767.15 SE = 767.35 E = 768.50	27 L.F. OF 12" PVC @ 1.00% STRM #2
STRM #2	48" MH	R-1733	772.68	W = 768.77 SE = 768.77 N = 769.00	55 L.F. OF 12" PVC @ 0.59% STRM #3 15 L.F. OF 10" PVC @ 1.97% STRM #6
STRM #3	48" CB MH	R-3067	773.01	NW = 769.10 E = 769.10	7 L.F. OF 12" PVC @ 0.59% STRM #4
STRM #4	48" CB MH	R-3067	773.05	W = 769.14 SE = 769.14	63 L.F. OF 12" PVC @ 0.59% STRM #5
STRM #5	48" CB MH	R-3067	773.05	NW = 769.51 SE = 769.51	7 L.F. OF 10" PVC @ 0.59% STRM #6
STRM #6	48" CB MH	R-3067	773.00	NW = 769.55	-----
STRM #9	24"x36" CB	R-3067	772.03	S = 769.30	-----

A

MINNESOTA DEPARTMENT OF TRANSPORTATION
RIGHT OF WAY PLAT NO. 07-29



1 PAVING AND GEOMETRIC PLAN
C300 1"=30'

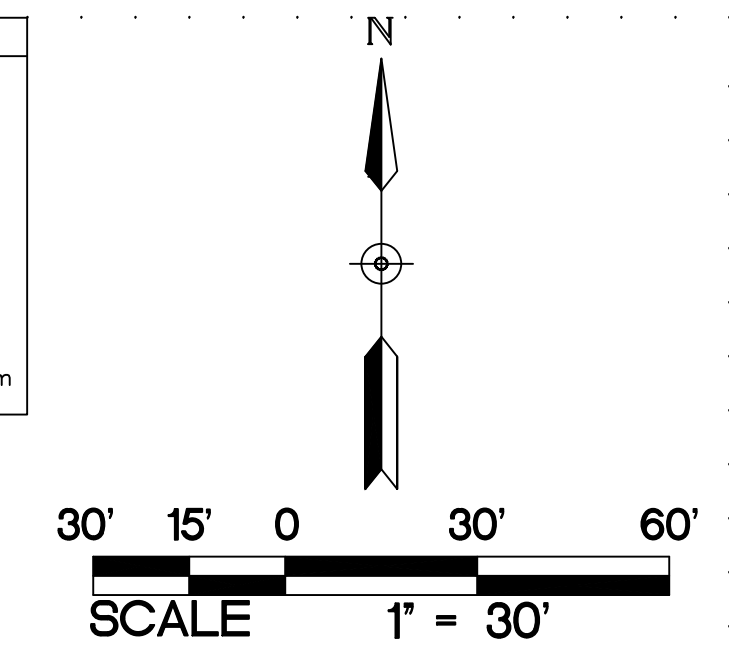
KEYED NOTES

- KEYED NOTES ARE DENOTED BY [NO] ON PLAN.
- 1. INSTALL 5'-418 MODIFIED CONCRETE CURB AND GUTTER. REFER TO DETAIL 4/C401.
 - 2. INSTALL BITUMINOUS PAVEMENT. INTENT IS TO MATCH EXISTING PAVEMENT SECTION. FOR BIDDING PURPOSES REFER TO DETAIL 9/C401.
 - 3. INSTALL CONCRETE DRIVE ENTRANCE. REFER TO DETAIL 8/C401.
 - 4. INSTALL B612 CONCRETE CURB AND GUTTER. REFER TO DETAIL 5/C401.
 - 5. INSTALL NOSE-DOWN CURB SECTION. REFER TO DETAIL 6/C401.
 - 6. INSTALL FLAT CURB SECTION. REFER TO DETAIL 7/C401.
 - 7. INSTALL BITUMINOUS PAVEMENT. REFER TO DETAIL 9/C401.
 - 8. INSTALL CONCRETE WALK. REFER TO DETAIL 11/C401.
 - 9. INSTALL CONCRETE PAVEMENT. REFER TO DETAIL 10/C401.
 - 10. INSTALL MONUMENT SIGN. REFER TO ARCHITECTURAL DRAWINGS AND MANUFACTURERS' DETAILS.
 - 11. INSTALL CONCRETE EQUIPMENT PAD. REFER TO MECHANICAL DRAWINGS AND MANUFACTURERS' DETAILS.
 - 12. INSTALL ACCESSIBLE PARKING SIGN. REFER TO DETAIL 12/C401.
 - 13. INSTALL NO PARKING ANY TIME SIGN. REFER TO DETAIL 12/C401.
 - 14. INSTALL STOP SIGN. REFER TO DETAIL 12/C401.
 - 15. STOOP. REFER TO STRUCTURAL PLANS AND DETAILS.
 - 16. CONCRETE APRON. REFER TO STRUCTURAL PLANS AND DETAILS.
 - 17. PAINT PARKING LOT STRIPING AND NO PARKING AREA, 4" WIDE STRIPES, WHITE IN COLOR. STRIPING FOR CROSS HATCH SHALL BE AS SHOWN SPACED 3' APART.
 - 18. STRIPE STOP BAR, 24" WIDE AND WHITE IN COLOR WITH 4" BLACK STRIPES TO EITHER SIDE WHEN PLACED ON CONCRETE.
 - 19. BIKE FENCE. REFER TO LANDSCAPE ARCHITECTURAL PLANS AND DETAILS.
 - 20. BIKE RACKS. REFER TO LANDSCAPE ARCHITECTURAL PLANS AND DETAILS.
 - 21. RELOCATE SIGN. COORDINATE LOCATION WITH CITY OF MANKATO ENGINEERING DEPARTMENT.

PROPOSED PLAN SYMBOLS	
CONSTRUCTION LIMITS	---
PROPERTY LINE	---
SAWCUT LINE (APPROX.)	---
BITUMINOUS PAVEMENT	[Symbol]
CONCRETE SIDEWALK	[Symbol]
CONCRETE PAVEMENT	[Symbol]
FLAT CURB AND GUTTER	[Symbol]
ACCESSIBLE PARKING SYMBOL	[Symbol]
SIGN	[Symbol]
PARKING STALL COUNT	[Symbol]

*NOTE: CONSTRUCTION LIMITS ARE ANTICIPATED TO BE PROPERTY LINE UNLESS OTHERWISE SHOWN.

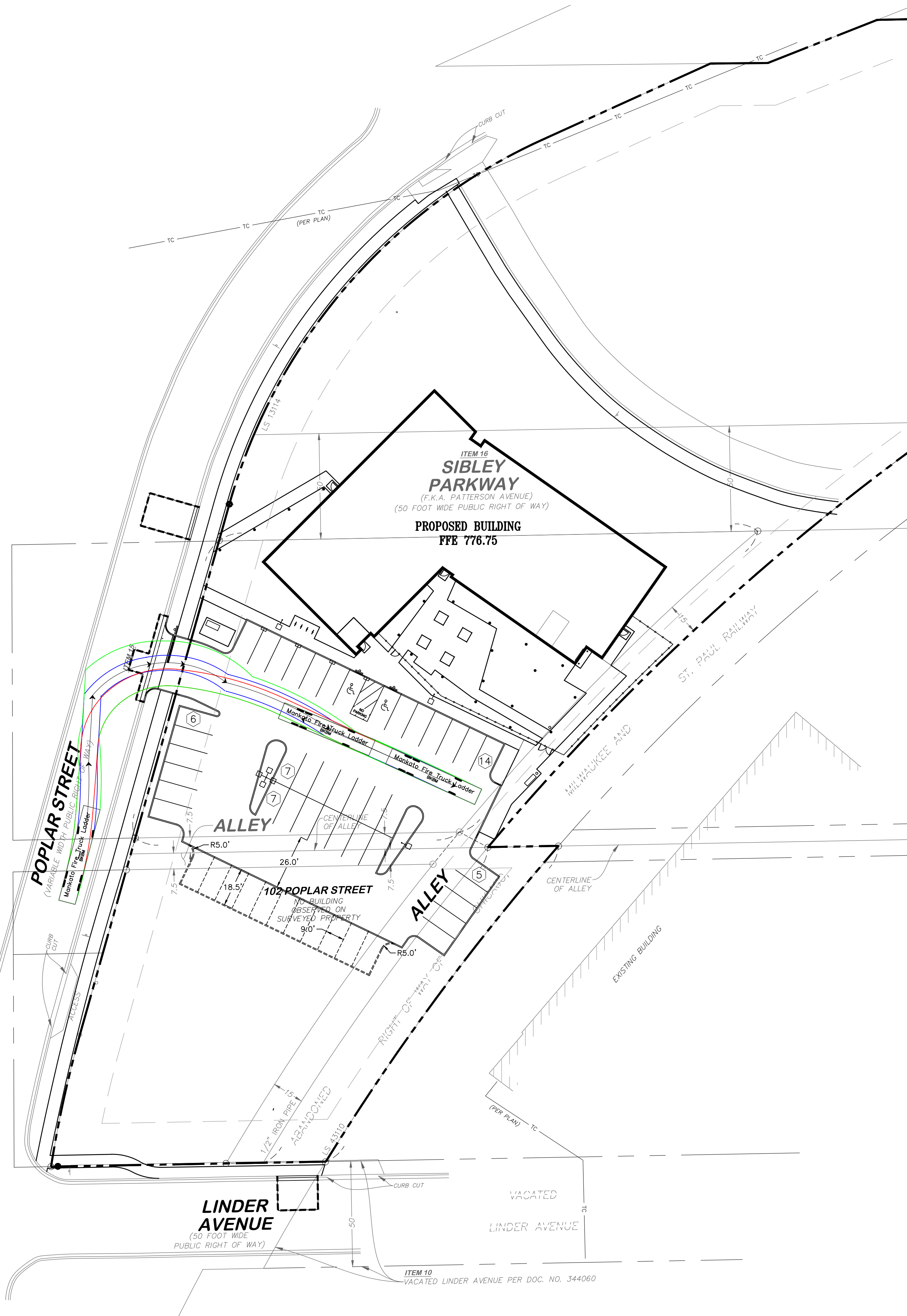
ABBREVIATIONS	
BLDG	Building
BM	Benchmark
CONC	Concrete
ELEV	Elevation
EX	Existing
FFE	Finished Floor Elevation
LFE	Lower Floor Elevation
MAX	Maximum
MIN	Minimum
R	Radius
TYP	Typical
MN MUTCD	Minnesota Manual on Uniform Traffic Control Devices



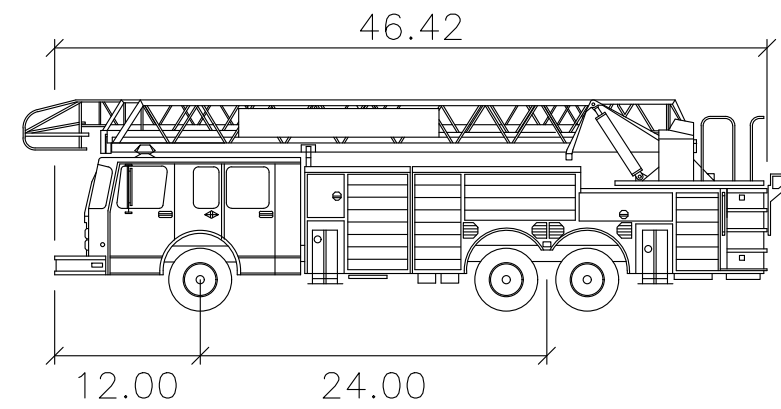
PAVING NOTES:

- 1. CONTRACTOR SHALL FOLLOW ALL CITY OF MANKATO STANDARDS AND SPECIFICATIONS.
- 2. ALL DIMENSIONS ARE TO FACE OF CURB UNLESS NOTED OTHERWISE.
- 3. ALL CURB AND GUTTER IS TO BE B612 CONCRETE CURB AND GUTTER UNLESS NOTED OTHERWISE.
- 4. NO SIDEWALK IS TO HAVE MORE THAN A 2% CROSS SLOPE OR MORE THAN A 5% LONGITUDINAL SLOPE.
- 5. REFER TO ARCHITECTURAL PLANS FOR PROPOSED BUILDING LAYOUT.
- 6. FOLLOW ALL CITY OF MANKATO AND BLUE EARTH COUNTY RULES, REGULATIONS, AND SPECIFICATIONS WHEN WORKING IN PUBLIC RIGHT OF WAY.
- 7. STRIPE PARKING LOT AS SHOWN. ALL PARKING STALLS ARE TO BE 9 FEET WIDE BY 18.5 FEET LONG, UNLESS NOTED OTHERWISE.
- 8. ACCESSIBLE AISLES SHALL BE STRIPED PER MN CODE (SECTION 502), WHERE "NO PARKING" SIGNAGE WOULD OBSTRUCT A CURB RAMP OR ACCESSIBLE ROUTE, "NO PARKING" SHALL BE PRINTED ON THE SURFACE OF THE ACCESS AISLE.
- 9. THE CONTRACTOR IS TO CONTACT THE CITY OF MANKATO FIRE MARSHALL FOR THE EXACT PLACEMENT OF FIRE LANES, YELLOW-PAINTED CURBING, AND NO PARKING AREAS FOR FIRE PROTECTION PURPOSES.
- 10. REFER TO STRUCTURAL PLANS FOR STOOP DETAILS. ALL WALKS ARE TO BE CENTERED ON THE DOORS.
- 11. INSTALL APPROPRIATE EXPANSION MATERIAL WHERE CONCRETE IS ADJACENT TO BUILDING FACE.
- 12. ALL EXPANSION AND ISOLATION JOINTS SHALL BE SEALED PER SPECIFICATIONS.
- 13. MATCH NEW PAVEMENT, CURB AND GUTTER, AND SIDEWALK INTO EXISTING. NO ABRUPT GRADE TRANSITIONS OR PONDING OF WATER WILL BE ALLOWED.
- 14. SAWCUT EXISTING PAVEMENT, SIDEWALK, AND CURB AND GUTTER TO NEAREST JOINT. COORDINATE REMOVAL LIMITS WITH SITE DEMOLITION CONTRACTOR AND CONSTRUCTION MANAGER.
- 15. INSTALL DRIVE ENTRANCE PER CITY OF MANKATO STANDARDS AND SPECIFICATIONS. FOLLOW ALL CITY OF MANKATO AND BLUE EARTH COUNTY REQUIREMENTS FOR TRAFFIC CONTROL.
- 16. REFER TO SPECIFICATIONS FOR GRADE VERIFICATION SURVEY REQUIREMENTS PRIOR TO PLACEMENT OF SUB-BASE MATERIAL, BASE MATERIAL, AND PAVEMENTS/SIDEWALKS.

MINNESOTA DEPARTMENT OF TRANSPORTATION
RIGHT OF WAY PLAT NO. 07-29



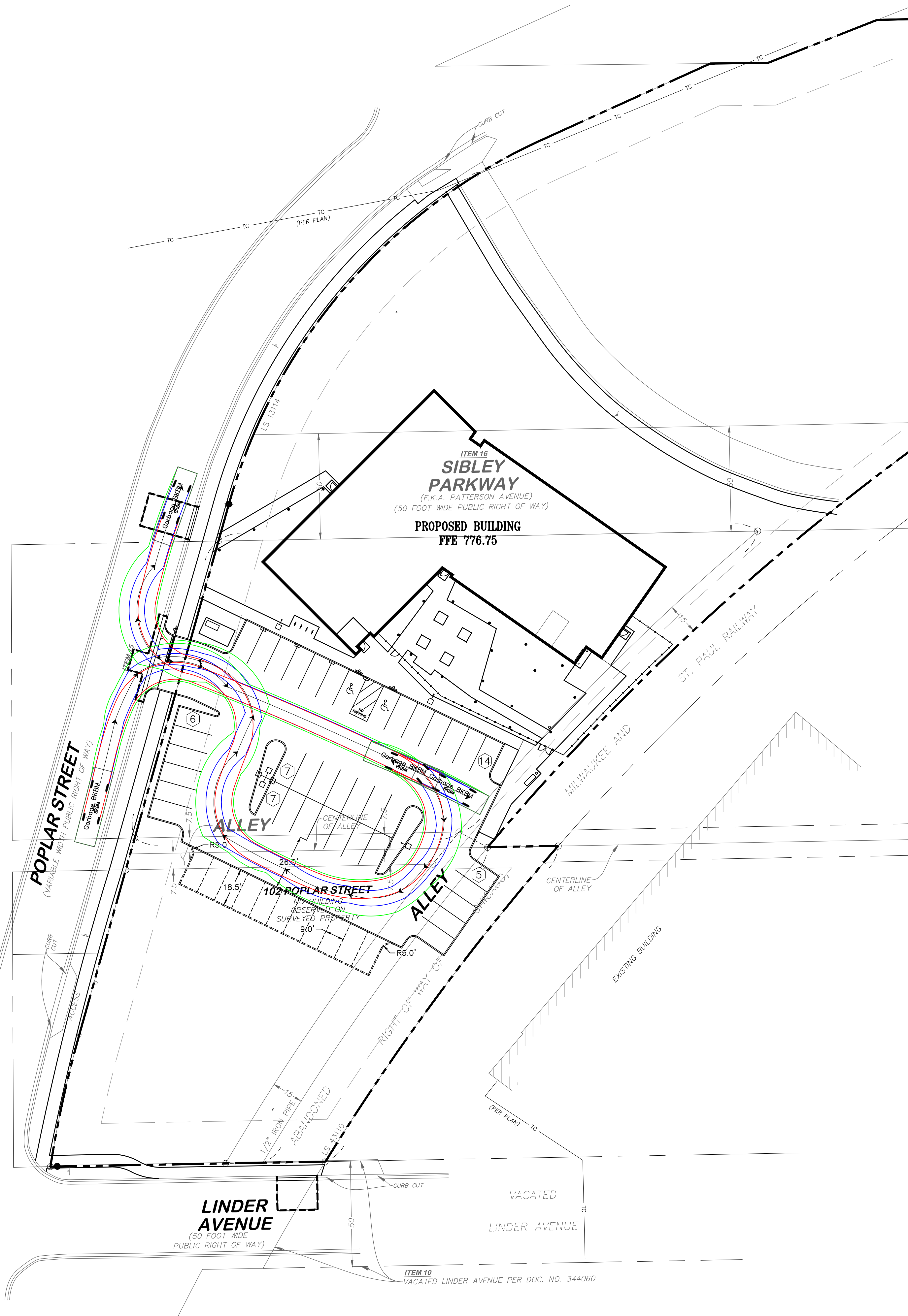
1 FIRE TRUCK VEHICLE TURNING
1"=30'



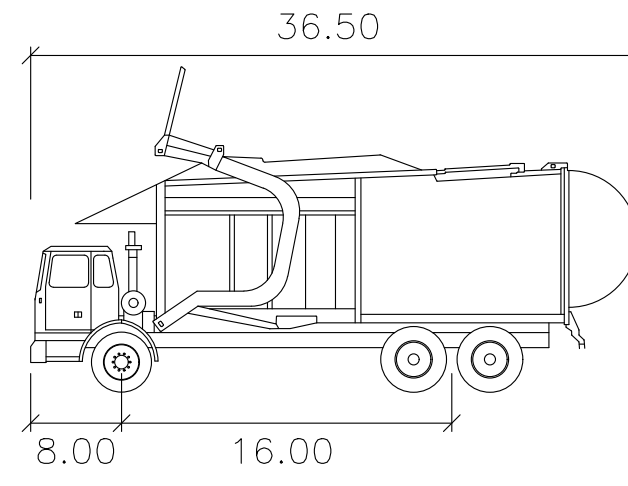
Mankato Fire Truck Ladder
feet
Width : 8.00
Track : 8.00
Lock to Lock Time : 6.0
Steering Angle : 41.8

2 FIRE TRUCK VEHICLE PROFILE
NOT TO SCALE

MINNESOTA DEPARTMENT OF TRANSPORTATION
RIGHT OF WAY PLAT NO. 07-29

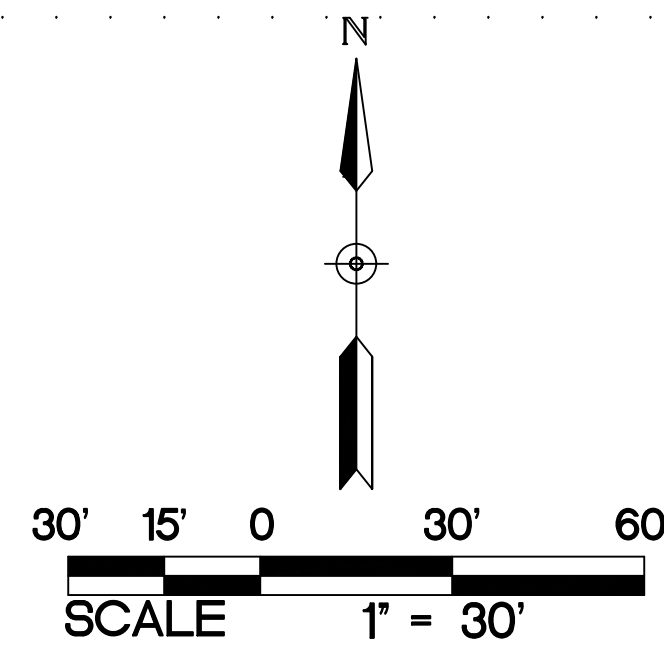


3 REFUSE TRUCK TURNING
1"=30'



Garbage BKM
feet
Width : 9.75
Track : 8.25
Lock to Lock Time : 11.7
Steering Angle : 31.0

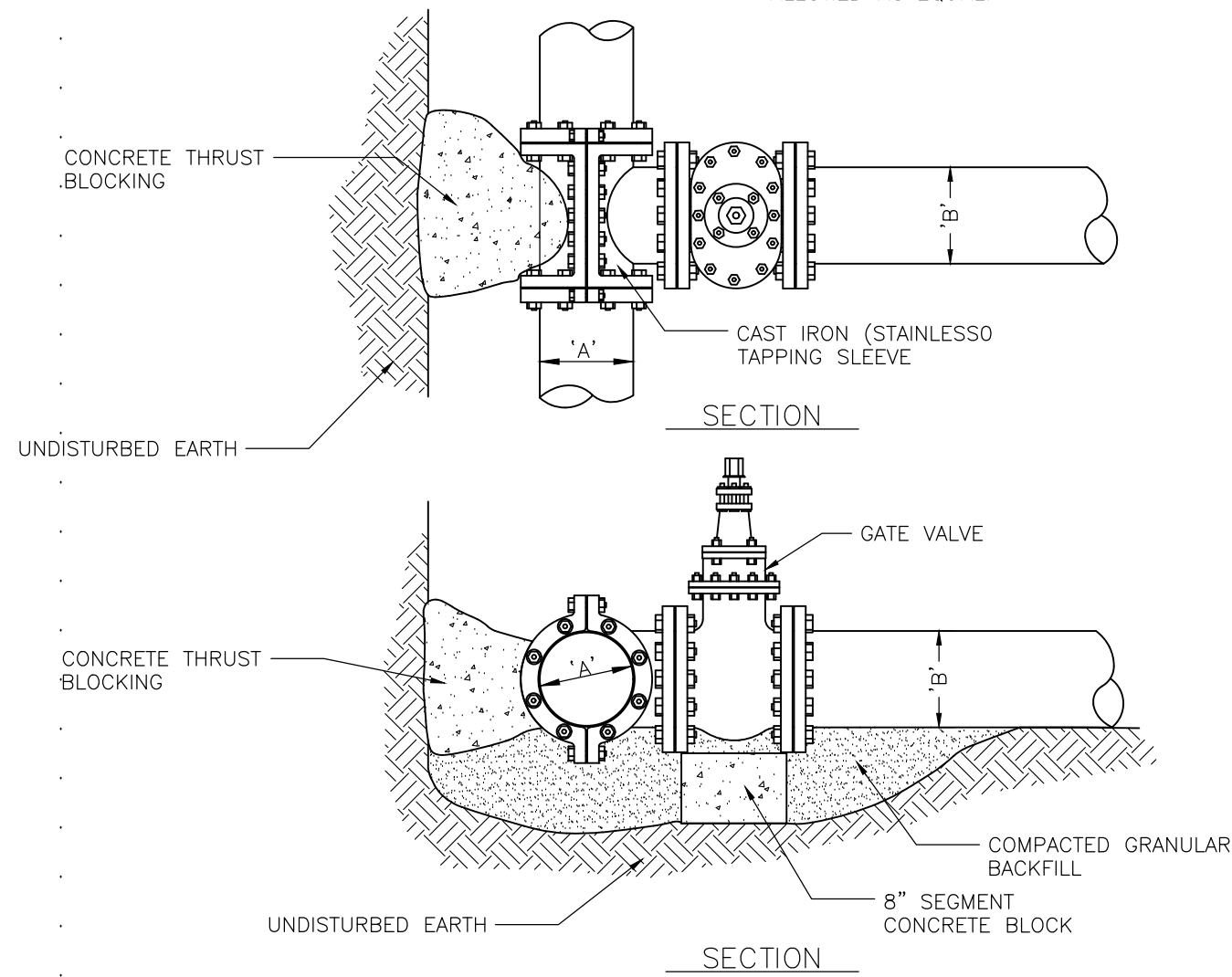
4 REFUSE TRUCK PROFILE
NOT TO SCALE



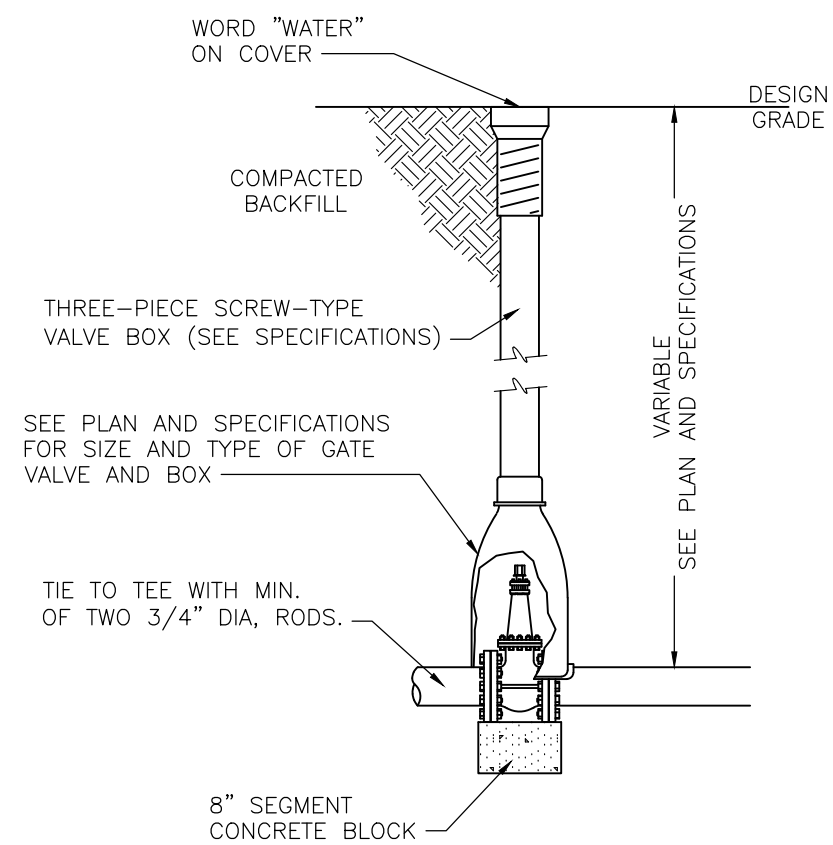
		EXISTING PIPE "A"						
BRANCH PIPE "B"	12"	C/D	C/D	C	C			
	10"	C/D	C/D	C/D	C			
	8"	C/D	C/D	C/D	C/D	C	C	
	6"	C/D	C/D	C/D	C/D	C/D	C	C
	4"	C/D	C/D	C/D	C/D	C/D	C/D	C

C - CLOW F-5205, TCW A212A OR EQUAL.
FULL CAST IRON TAPPING SLEEVE.
D - KENNEDY SQUARESEAL OR EQUAL.
CAST IRON TAPPING SLEEVE.

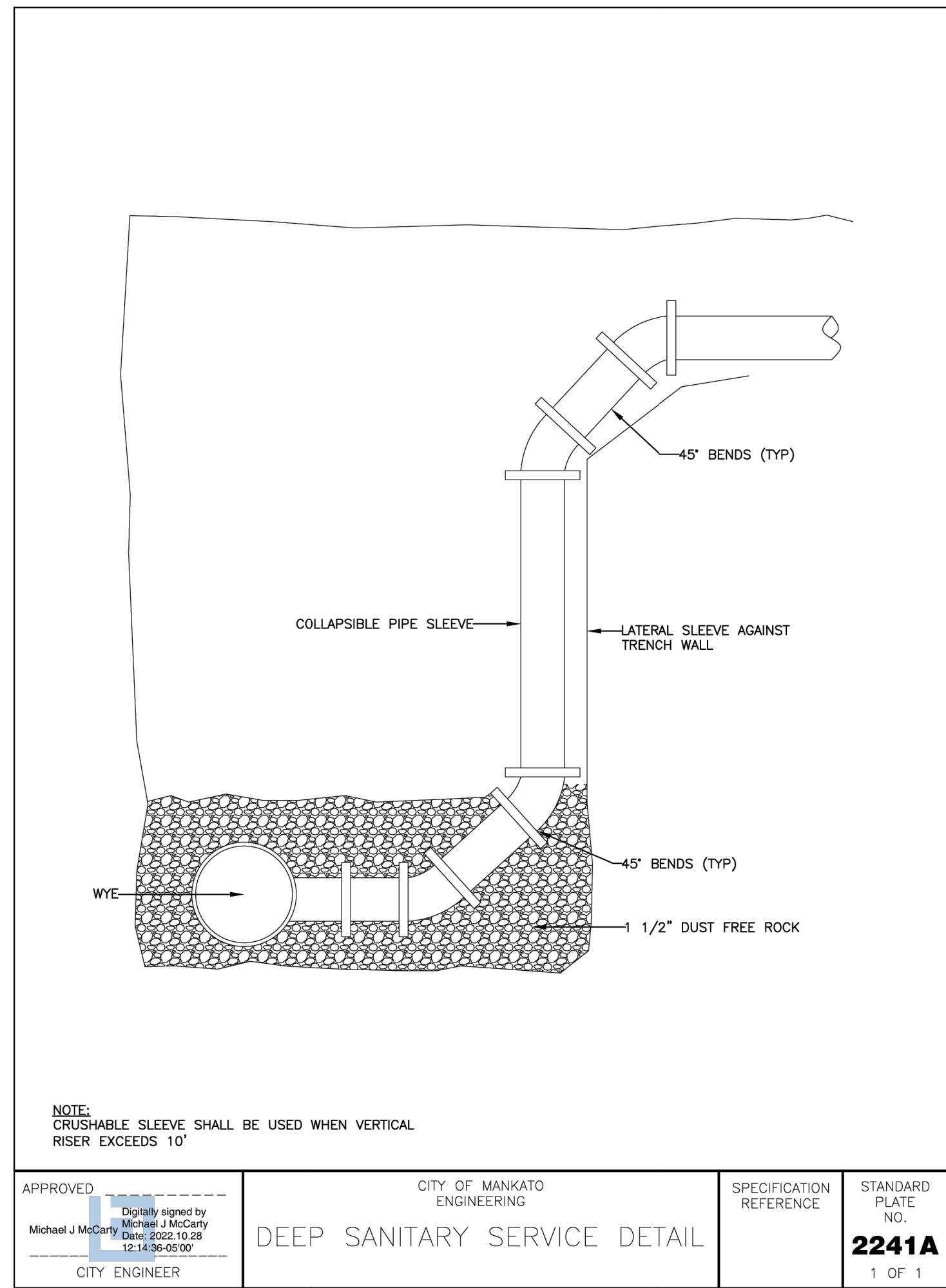
NOTE:
STAINLESS TAPPING SLEEVES
ALLOWED AS EQUAL.



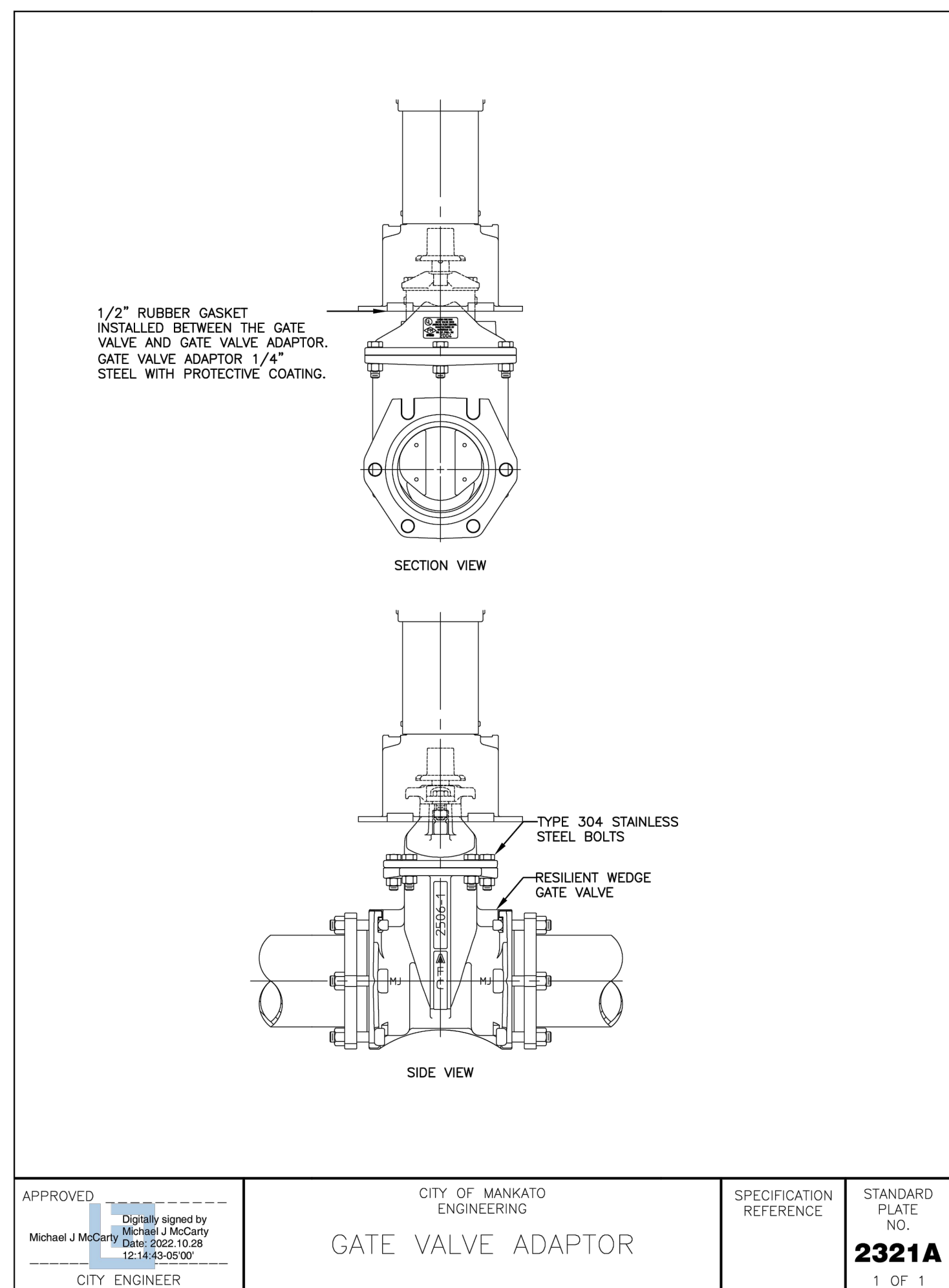
8
C400 WATERMAIN WET TAP (TYP.)
NOT TO SCALE



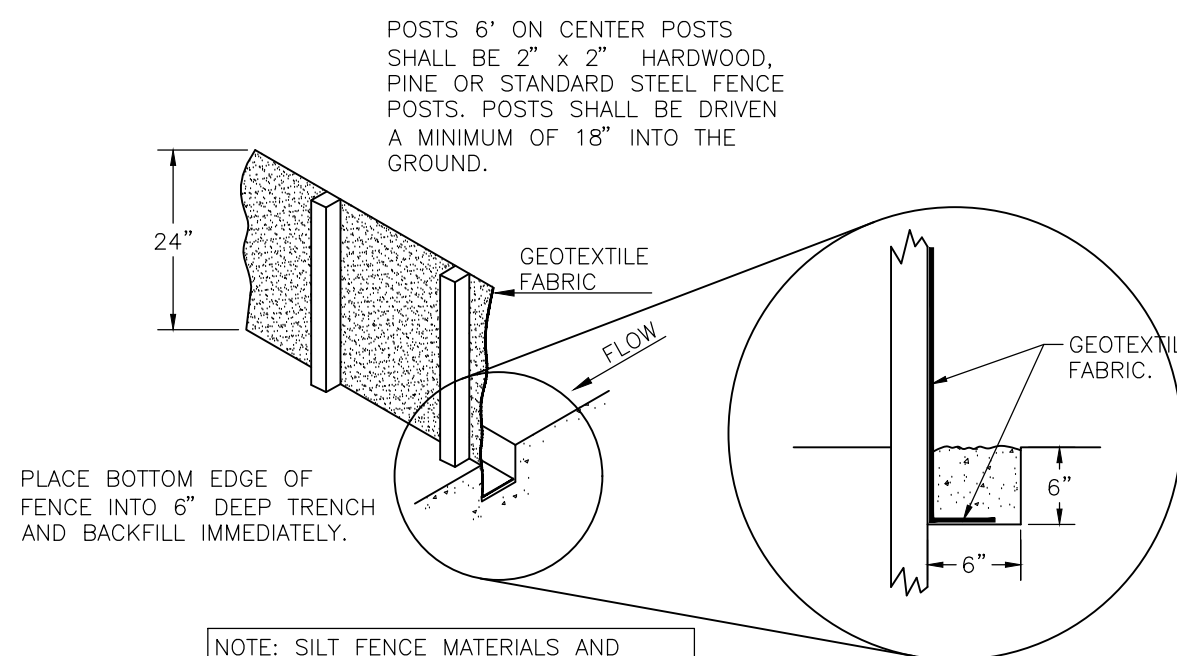
9
C400 GATE VALVE AND BOX INSTALLATION
NOT TO SCALE



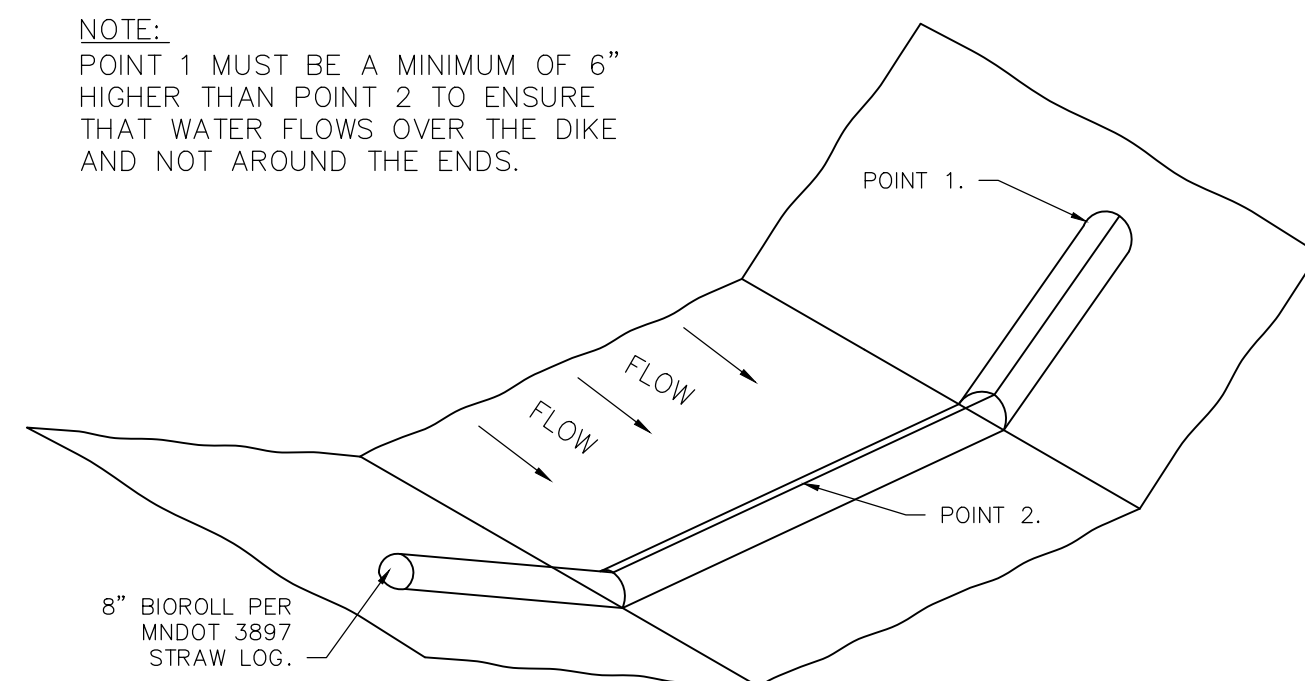
6
C400 SANITARY SEWER SERVICE
NOT TO SCALE



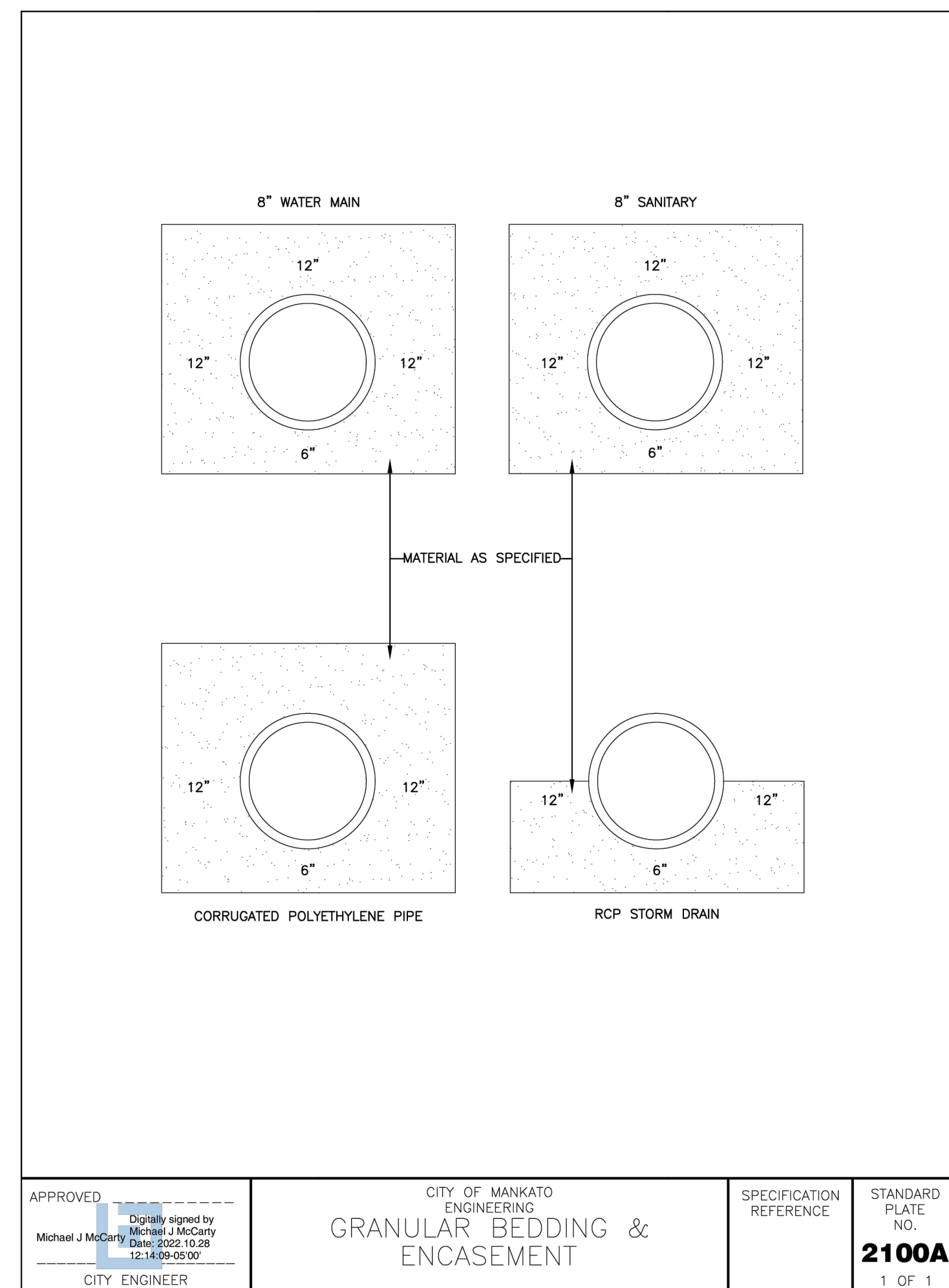
7
C400 GATE VALVE ADAPTOR
NOT TO SCALE



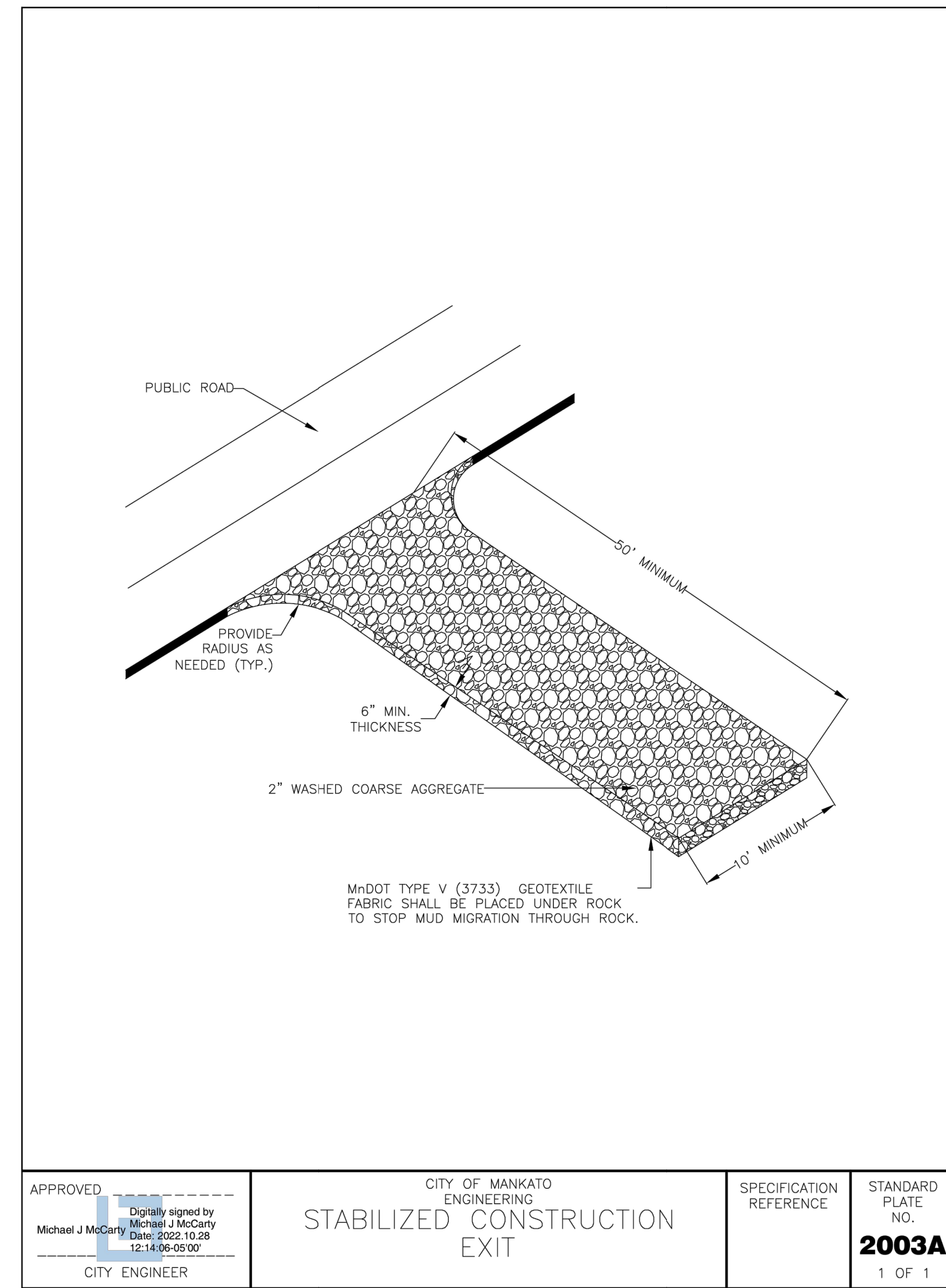
3
C400 SILTATION FENCE
NOT TO SCALE



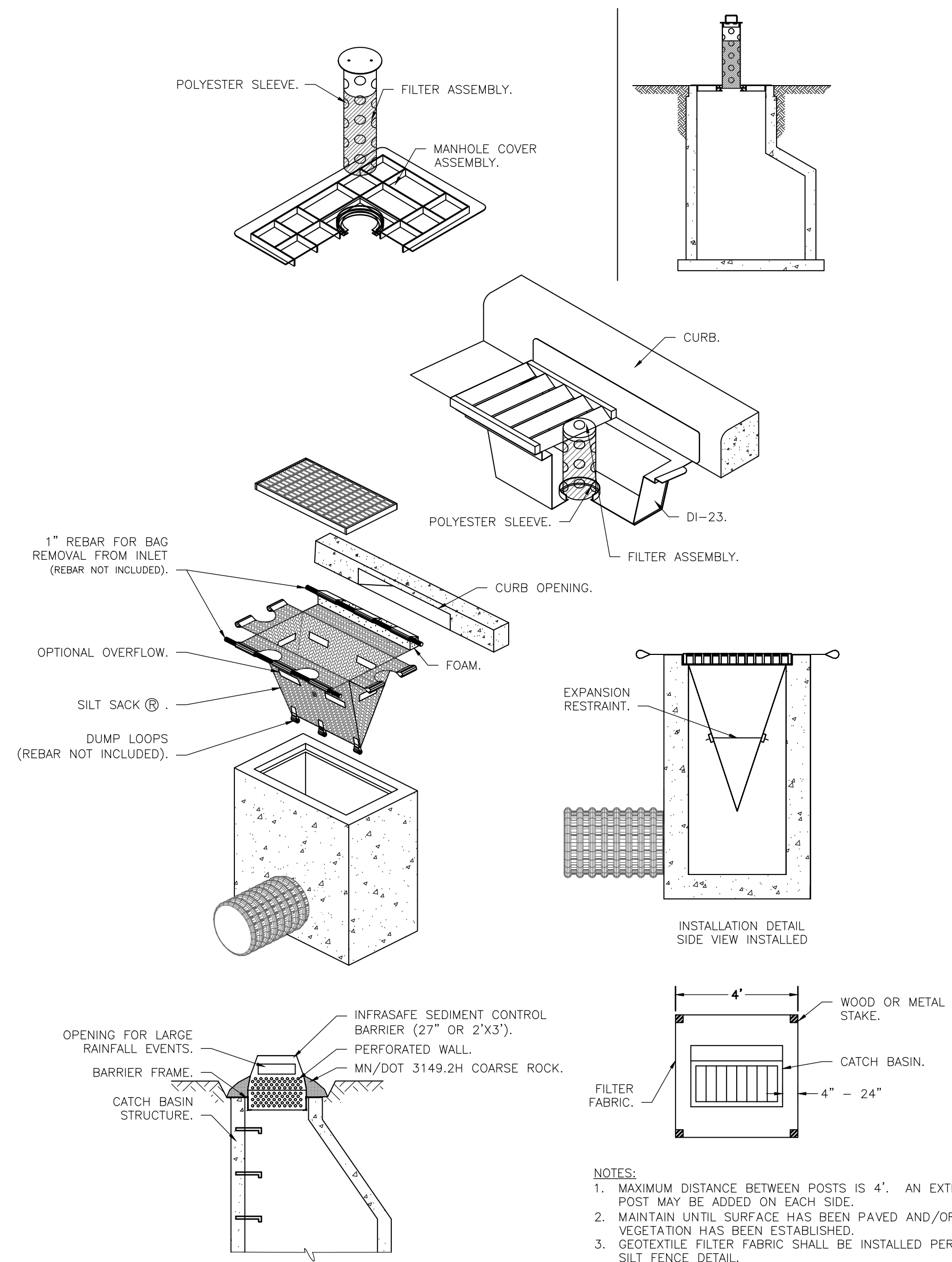
4
C400 BIO ROLL
NOT TO SCALE



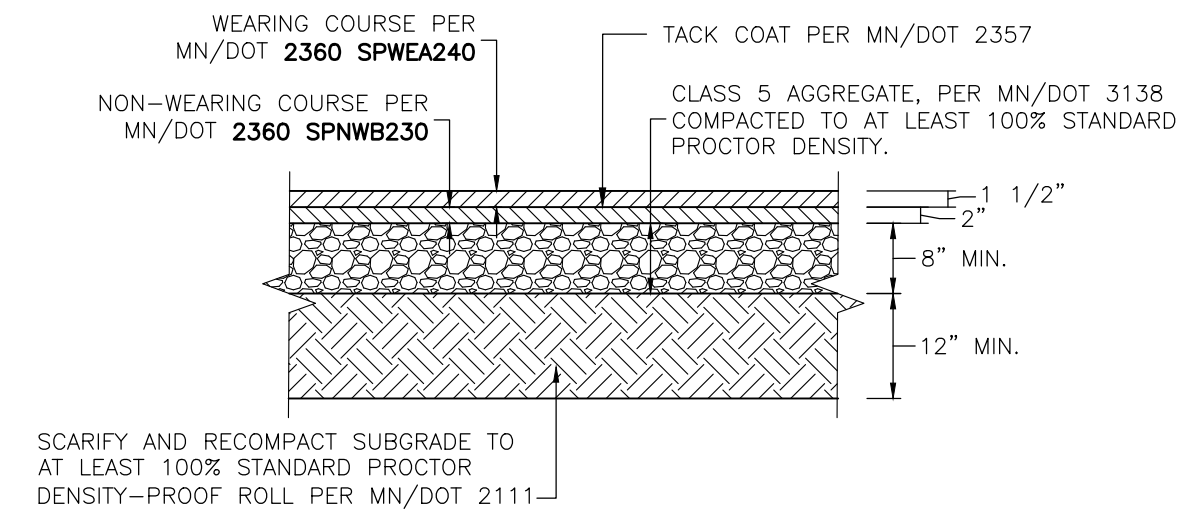
5
C400 PIPE BEDDING & ENCASEMENT
NOT TO SCALE



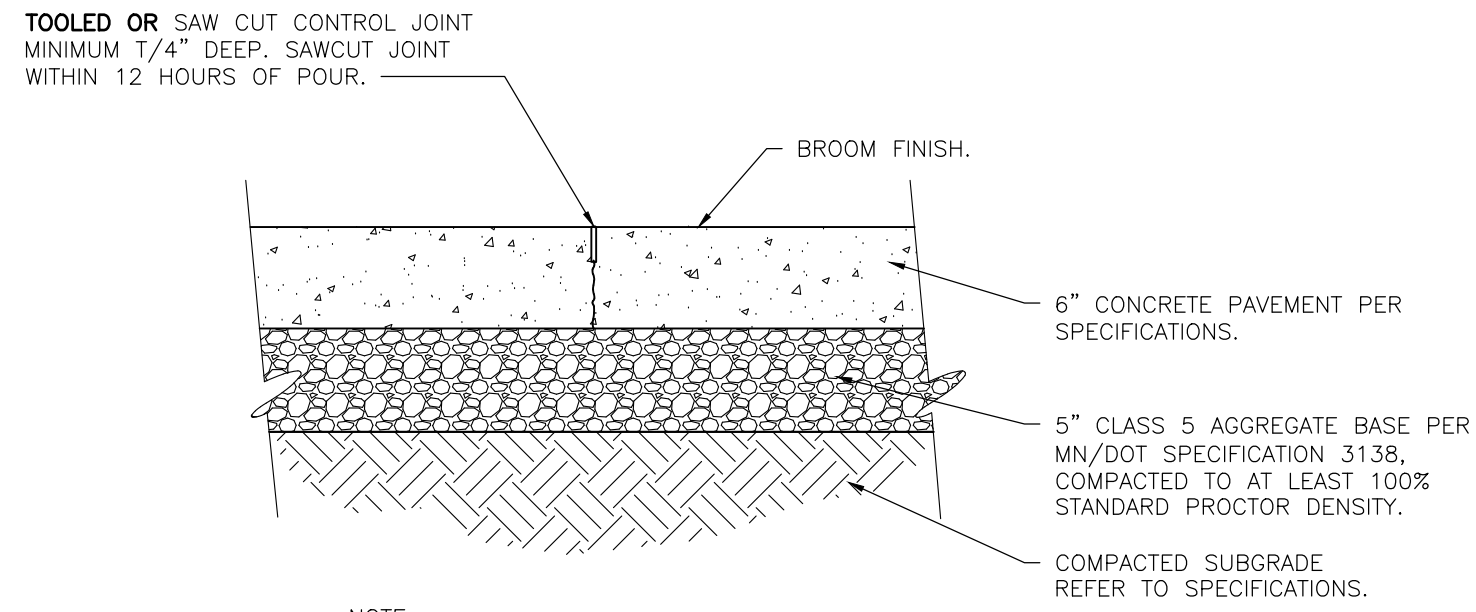
1
C400 CONSTRUCTION ENTRANCE
NOT TO SCALE



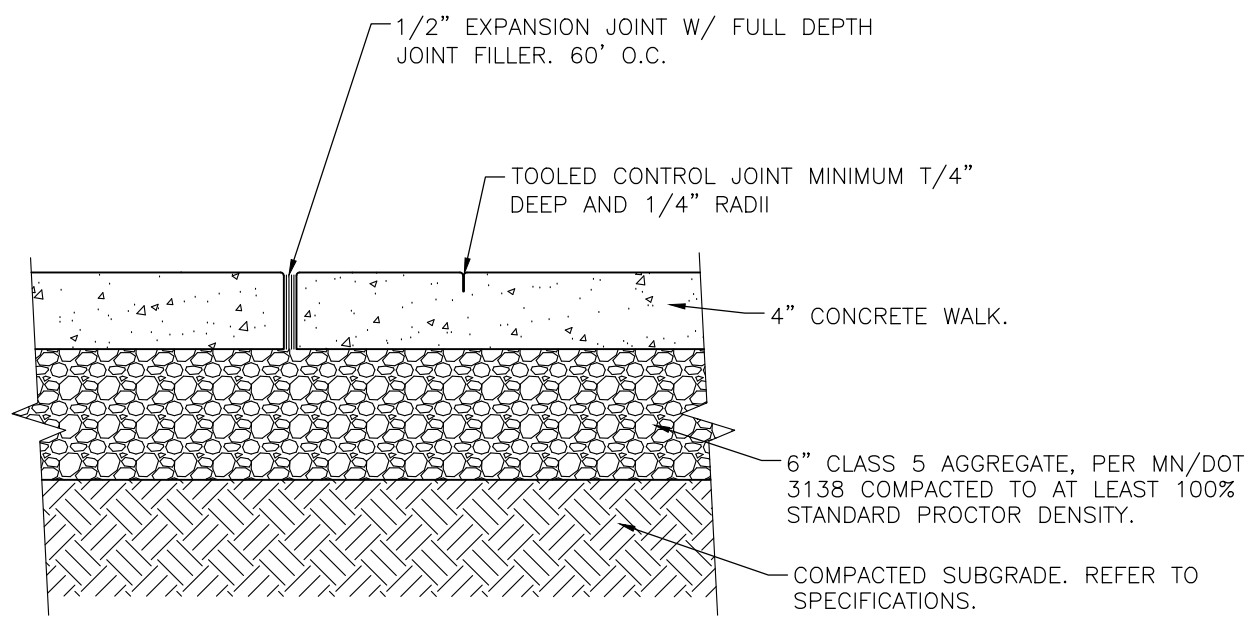
2
C400 INLETS SEDIMENTATION PROTECTION OPTIONS
NOT TO SCALE



9
C401 BITUMINOUS PAVEMENT
NOT TO SCALE



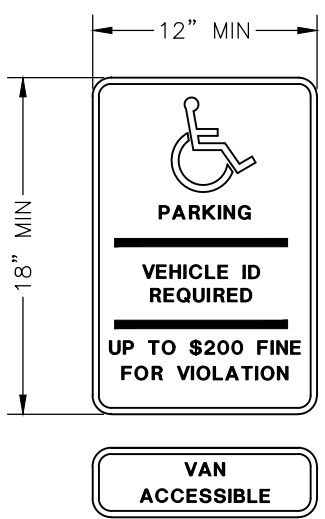
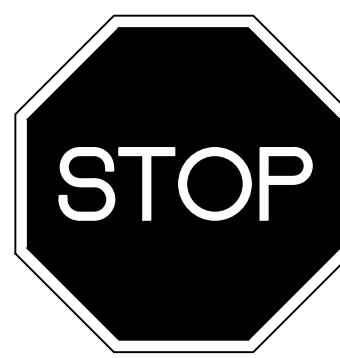
10
C401 CONCRETE PAVEMENT
NOT TO SCALE



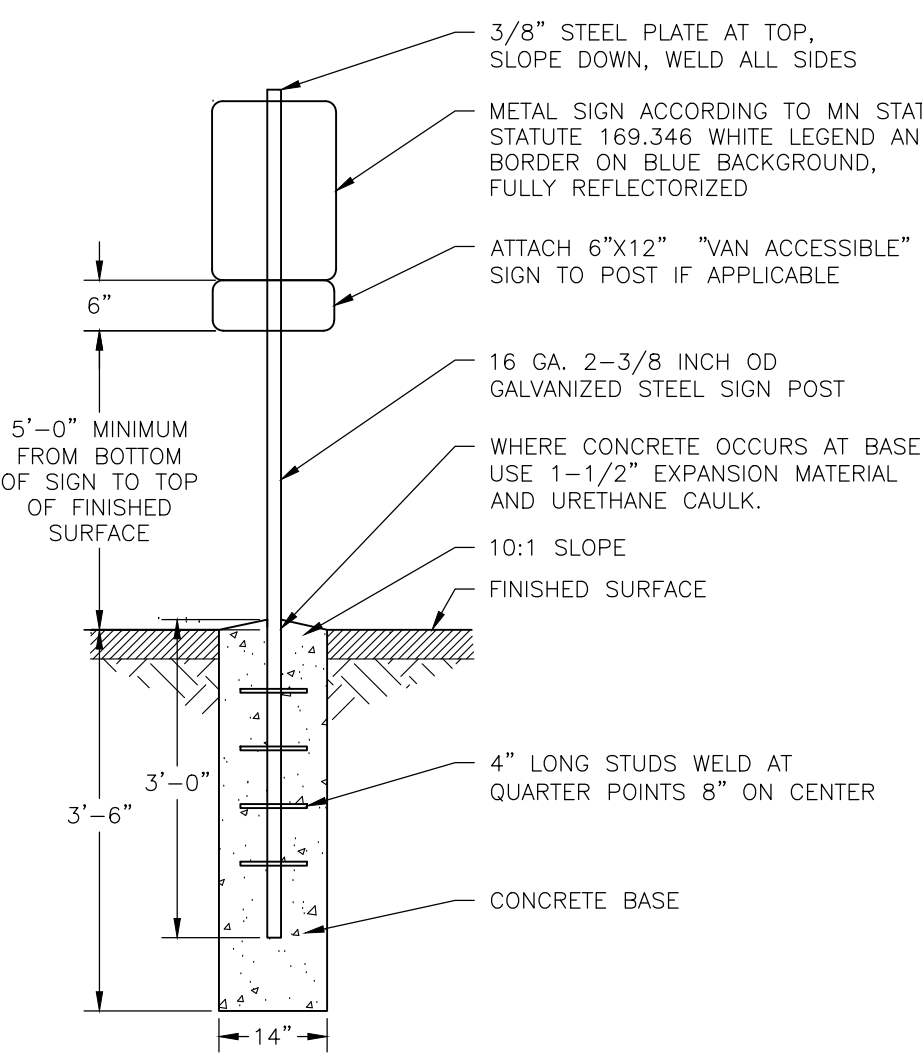
NOTE:
1. JOINT SPACING SHALL BE A MAXIMUM OF 6- FEET ON CENTER.

11
C401 CONCRETE SIDEWALK (TYP.)
NOT TO SCALE

24" OCTAGON
WHITE LEGEND
AND BORDER ON
RED BACKGROUND
SIGN: R1-1

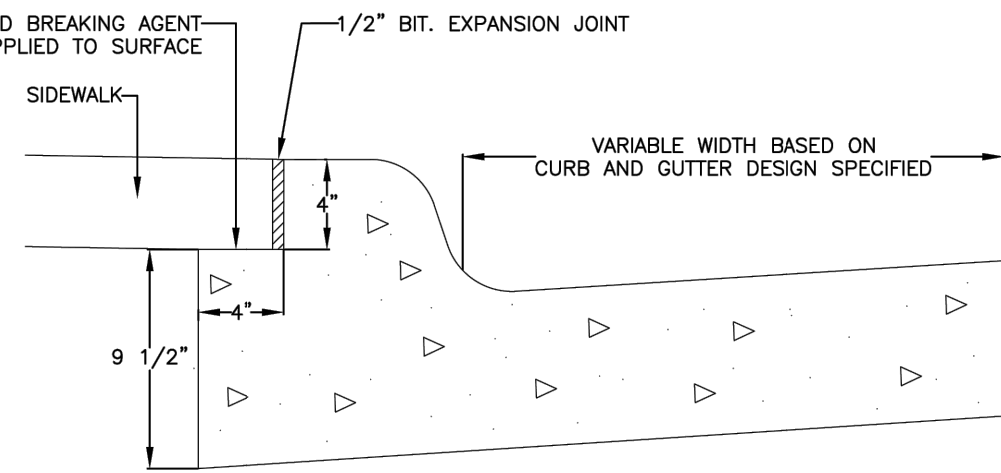


REFER TO MUTCD
SIGN R7-1 FOR
SIGN DETAILS



IMPERIOUS SURFACE POST WITH SIGN

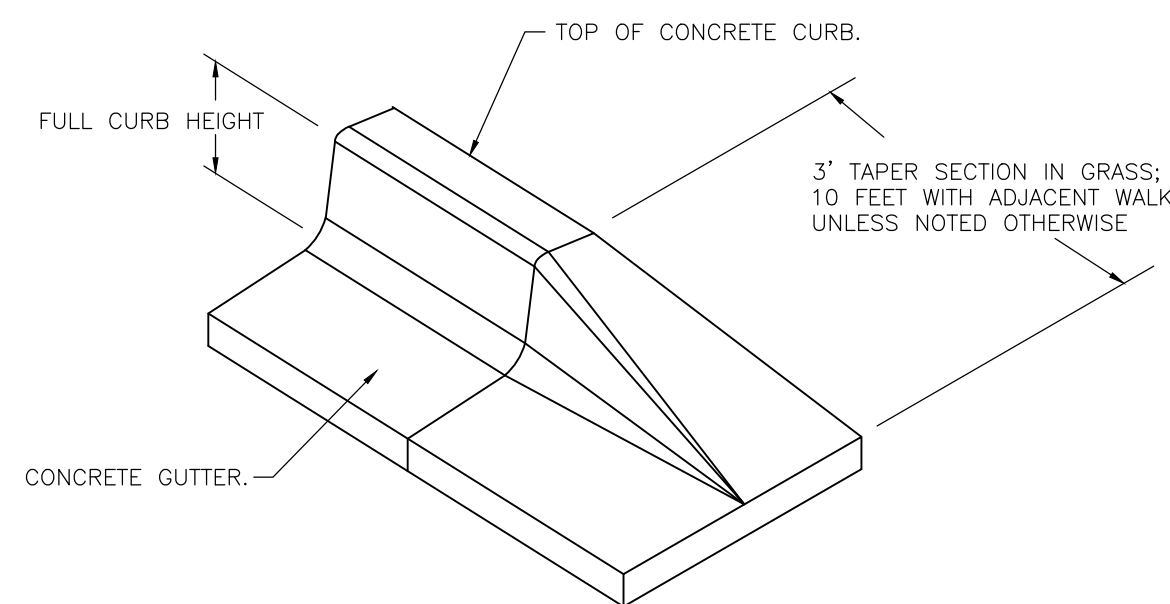
12
C401 SIGN AND POST
NOT TO SCALE



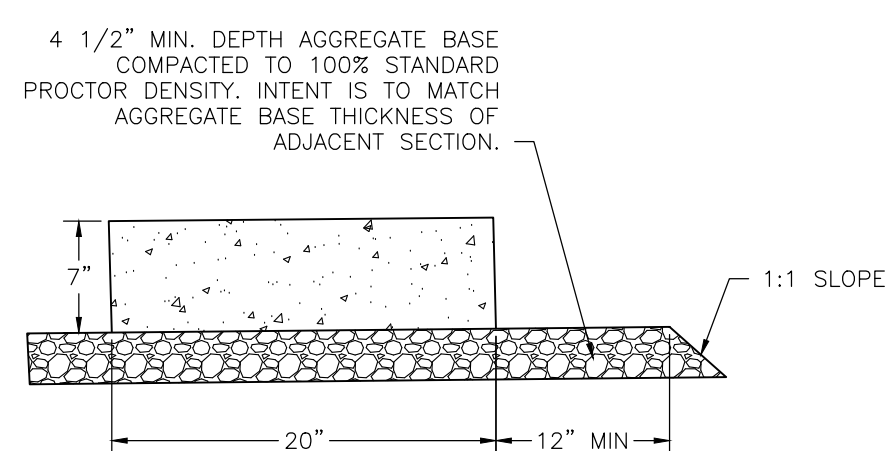
NOTE:
B-STYLE CURB AND GUTTER IS TO BE USED WHEN CURB
SIDE SIDEWALK IS PRESENT

APPROVED	CITY OF MANKATO ENGINEERING	SPECIFICATION REFERENCE	STANDARD PLATE NO.
Michael J. McCarty 12-1811-0909	B-STYLE MODIFIED CURB AND GUTTER		2501A
CITY ENGINEER			1 OF 1

5
C401 B-STYLE CURB AND GUTTER
NOT TO SCALE

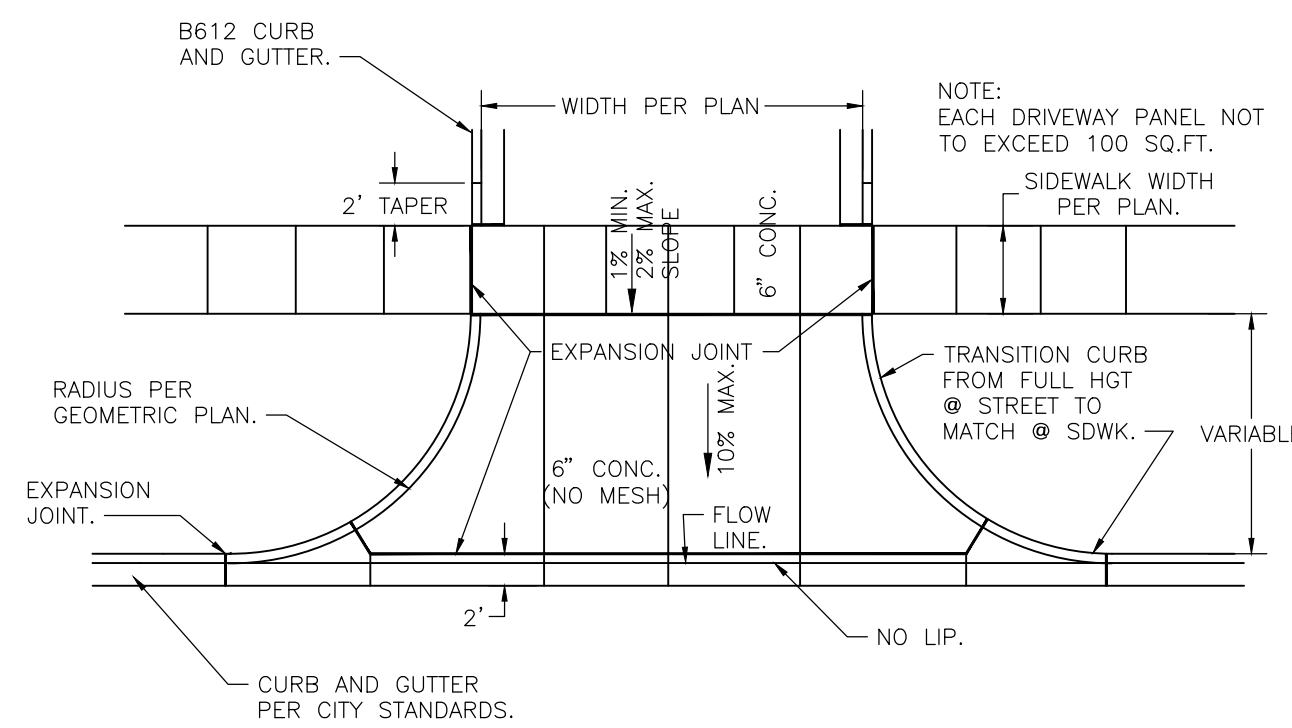


6
C401 NOSE-DOWN CURB SECTION
NOT TO SCALE

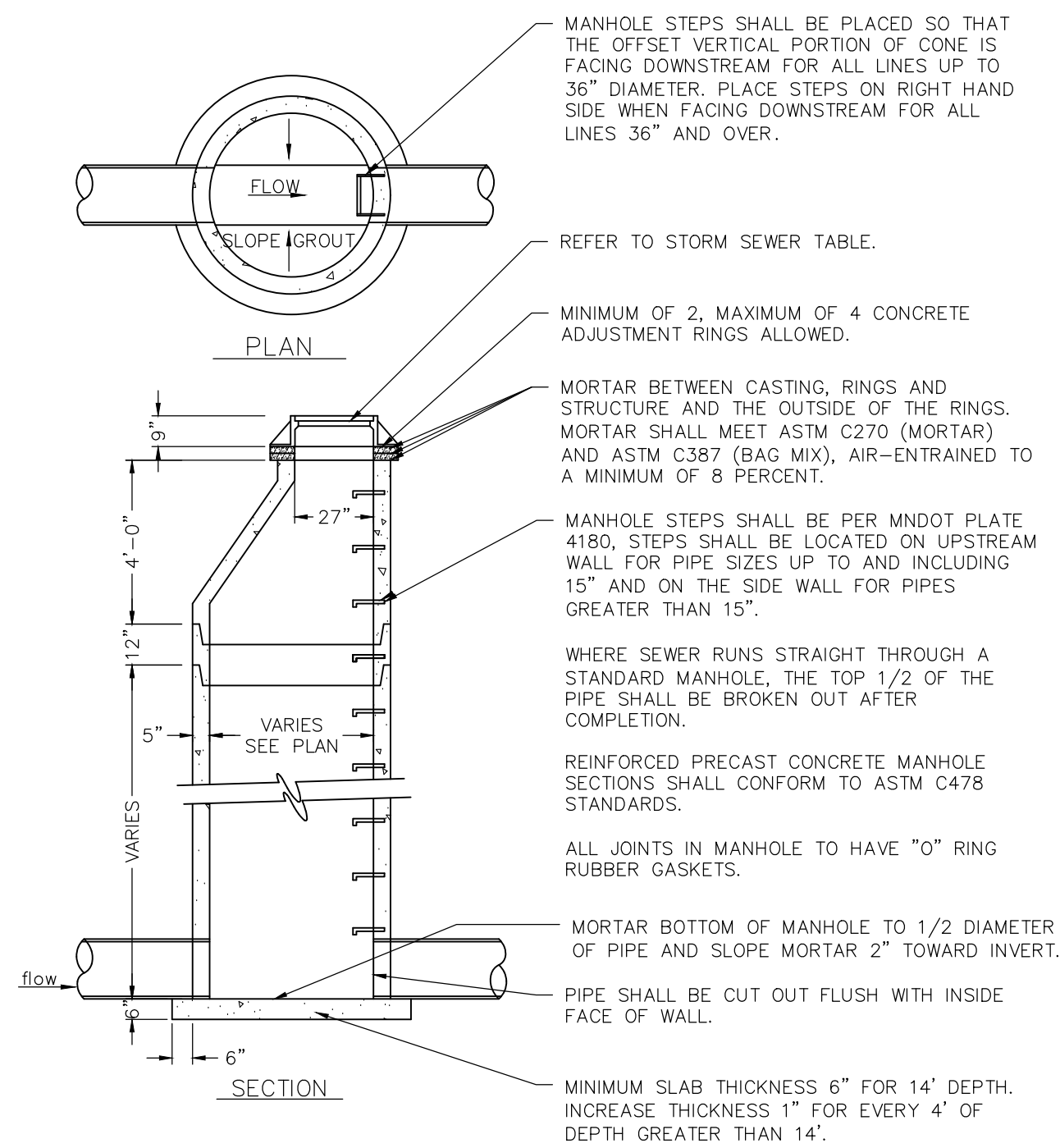


NOTE:
1. CURB SECTION IS TO SLOPE TOWARD PARKING LOT PER
GRADING PLAN. TRANSITION INTO B612 CURBING USING
NOSE-DOWN CURB SECTION.

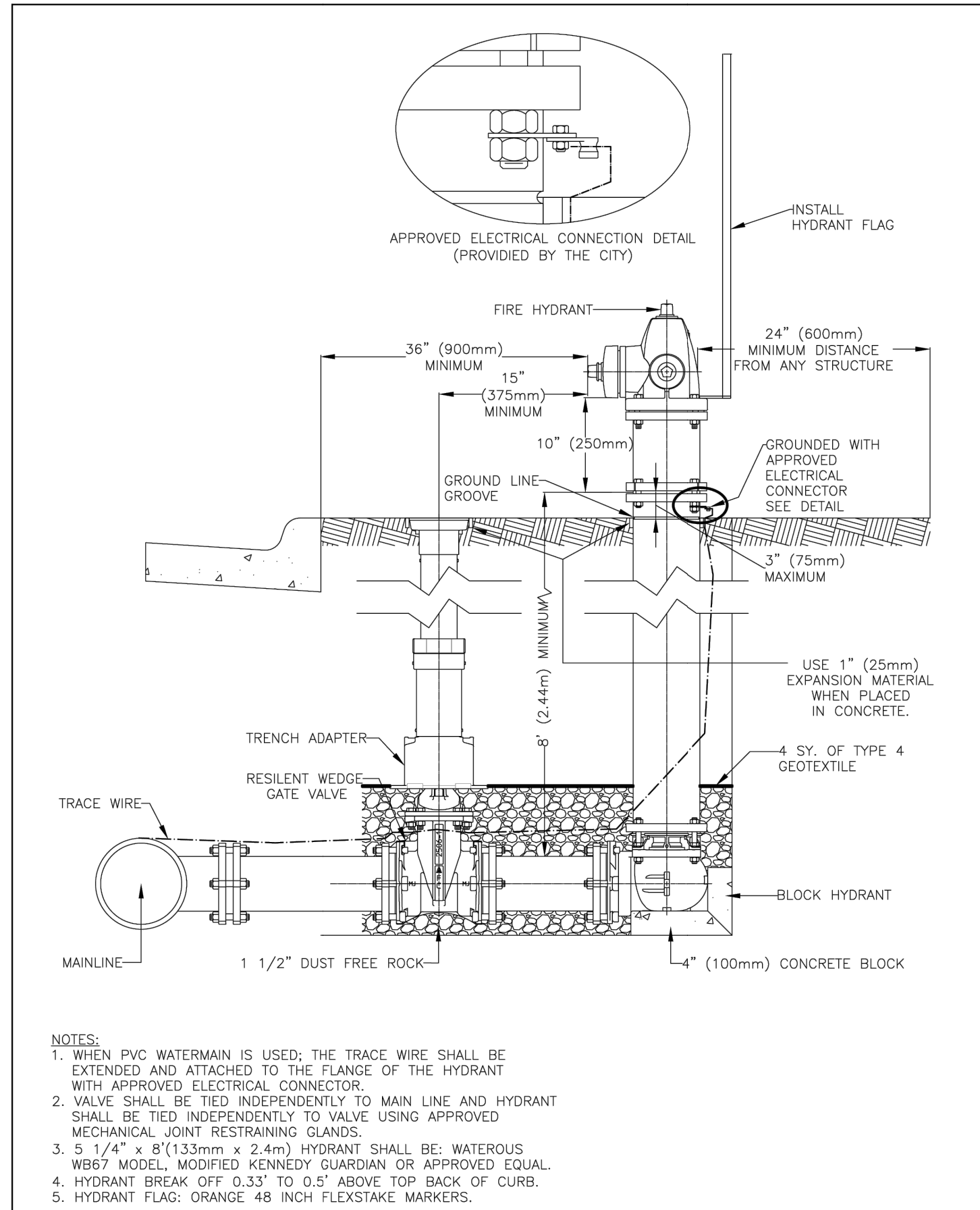
7
C401 FLAT CURB/CONCRETE EDGER
NOT TO SCALE



8
C401 CONCRETE DRIVE ENTRANCE
NOT TO SCALE

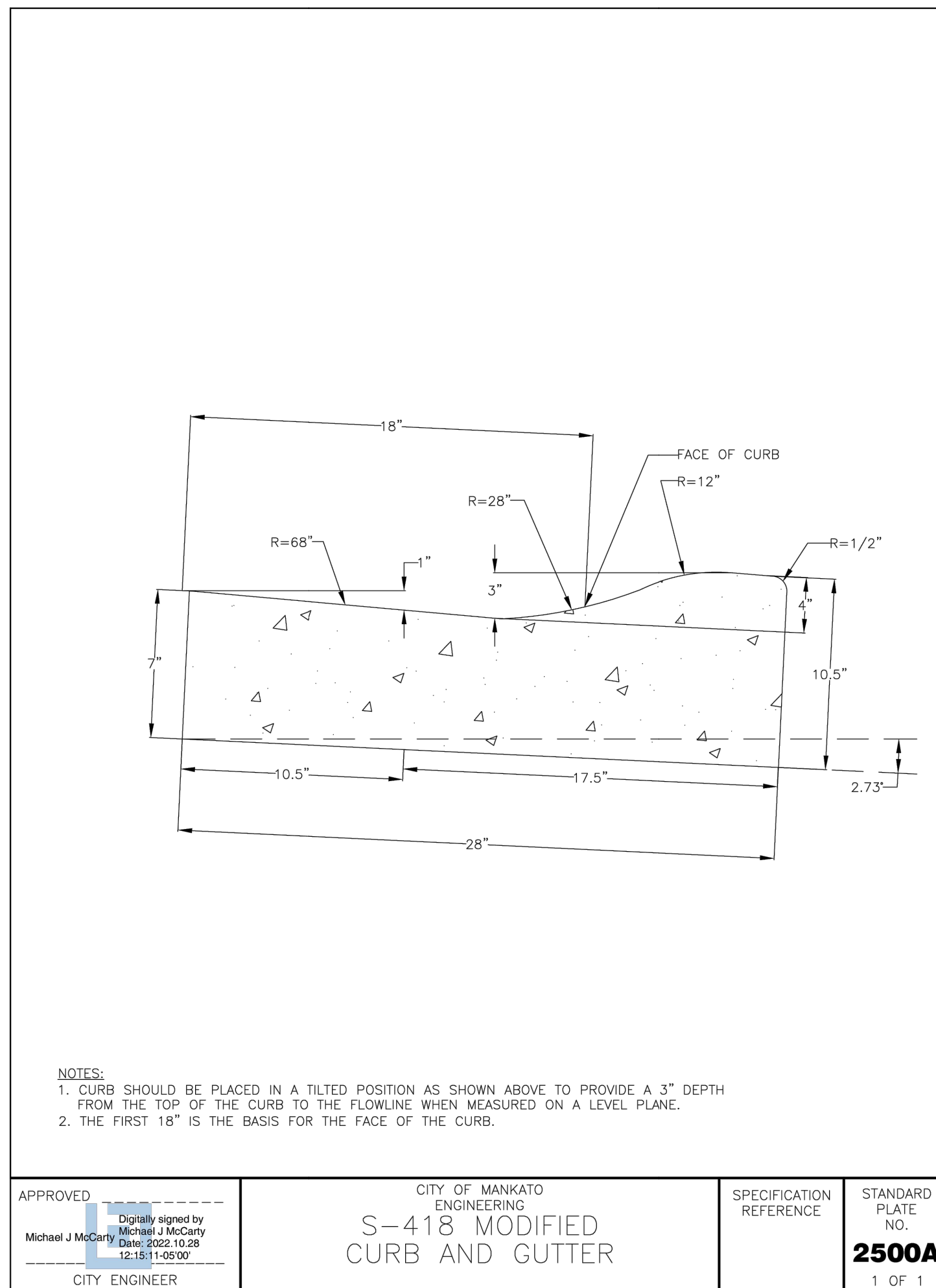


3
C401 STORM SEWER MANHOLE/CATCH BASIN
NOT TO SCALE

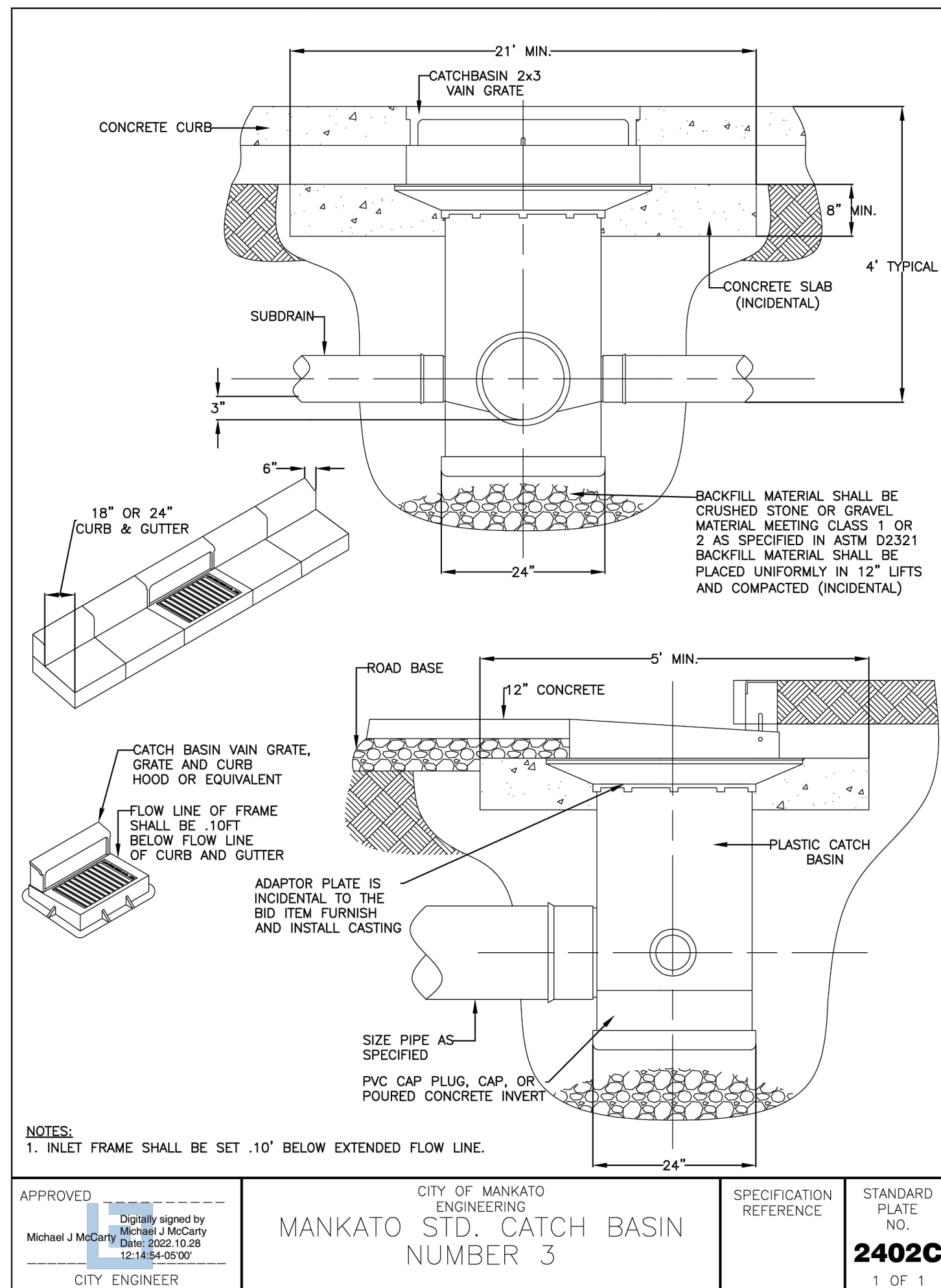


APPROVED	CITY OF MANKATO ENGINEERING	SPECIFICATION REFERENCE	STANDARD PLATE NO.
Michael J. McCarty 12-1811-0909	HYDRANT DETAIL		2322A
CITY ENGINEER			1 OF 1

1
C401 HYDRANT DETAIL
NOT TO SCALE



4
C401 S-418 CURB AND GUTTER
NOT TO SCALE



2
C401 STANDARD CATCH BASIN
NOT TO SCALE