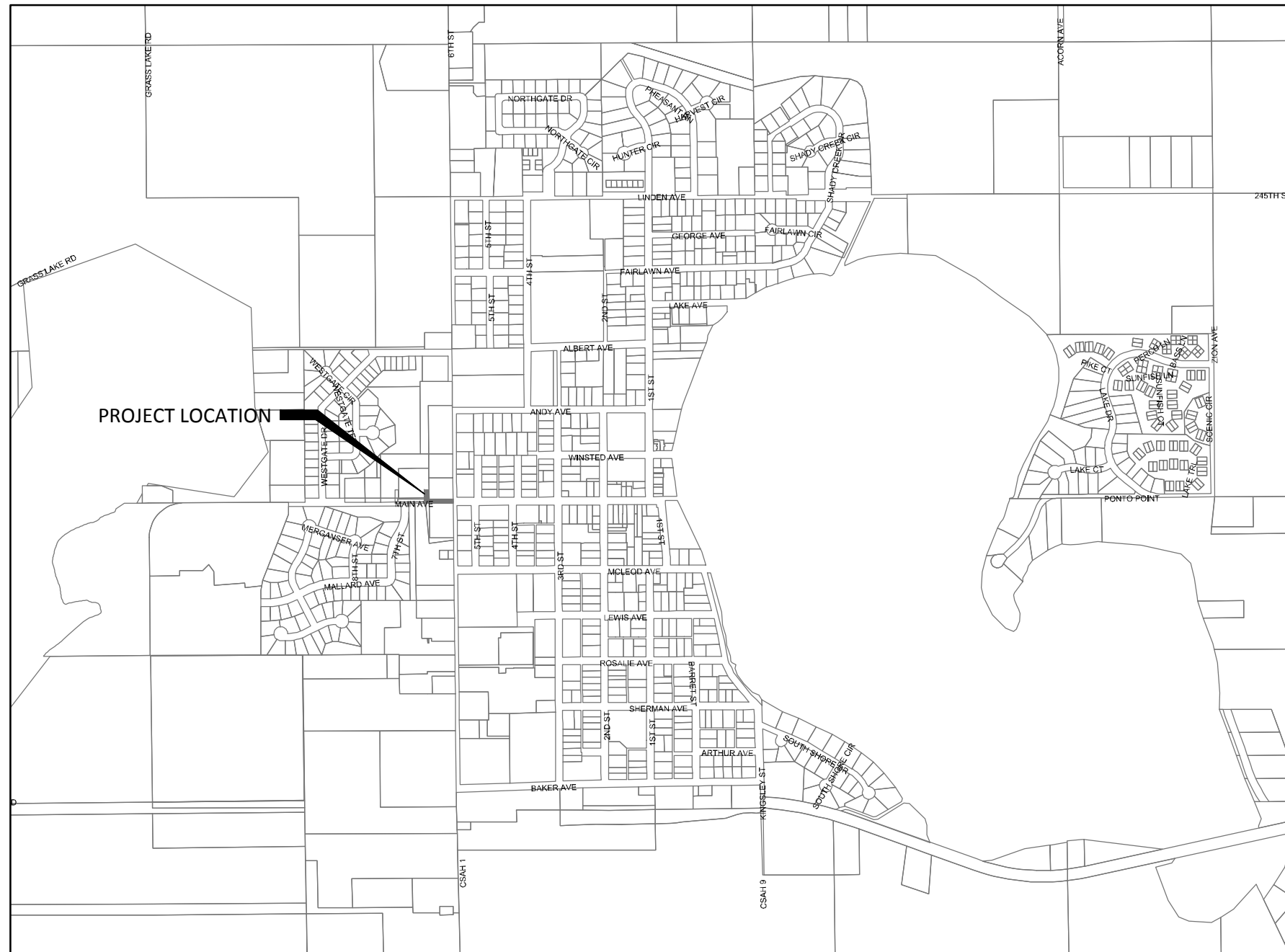


CITY OF WINSTED

CONSTRUCTION PLANS FOR

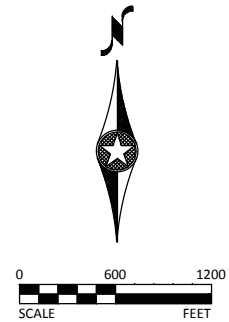
MAIN AVE UTILITY EXTENSION

APRIL, 2014



SHEET INDEX

SHEET NO.	TITLE
1	TITLE
2	LEGEND
3 - 5	DETAILS
6	PLAN & PROFILE
7	RESTORATION
8	TRAFFIC CONTROL



MAP OF THE
CITY OF WINSTED
MCLEOD COUNTY, MN

NOTE: EXISTING UTILITY INFORMATION SHOWN ON THIS PLAN HAS BEEN PROVIDED BY THE UTILITY OWNER. THE CONTRACTOR SHALL FIELD VERIFY EXACT LOCATIONS PRIOR TO COMMENCING CONSTRUCTION AS REQUIRED BY STATE LAW. NOTIFY GOPHER STATE ONE CALL, 1-800-252-1166 OR 651-454-0002.

THE SUBSURFACE UTILITY INFORMATION IN THIS PLAN IS UTILITY QUALITY LEVEL D. THIS UTILITY 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."

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.

Joshua Eckstein
JOSHUA ECKSTEIN

LIC. NO. 48224 DATE: 4/25/2014

PLAN REVISIONS		
DATE	SHEET NUMBER	APPROVED BY

BOLTON & MENK, INC.
Consulting Engineers & Surveyors
MANKATO, MN FAIRMONT, MN SLEEPY EYE, MN BURNSVILLE, MN WILLMAR, MN
CHASKA, MN RAMSEY, MN MAPLEWOOD, MN BAXTER, MN ROCHESTER, MN
AMES, IA SPENCER, IA DES MOINES, IA FARGO, ND

RECORD DRAWING INFORMATION	CITY OF WINSTED, MINNESOTA	SHEET 1 OF 8
OBSERVER:	MAIN AVE UTILITY EXTENSION	
CONTRACTOR:	TITLE	
DATE:		

EXISTING

○	IRON PIPE MONUMENT SET	☒	ELECTRIC TRANSFORMER	⊙	SEMAPHORE TRAFFIC LIGHT
●	MONUMENT FOUND	☒EV	EXHAUST VENT	☒	SIGNAL BOX
⊙	CAST IRON MONUMENT FOUND	⊙	FLAG POLE	○	SIGNAL POLE - RR
■	STONE MONUMENT FOUND	○	FILL PIPE	⊕	SOIL BORING
△	POST SET	⊙	GAS MANHOLE	⊕	SIREN
⊕	BENCH MARK	⊙	GAS REGULATOR	⊕	SPRINKLER HEAD
⊙AS	AUTO SPRINKLER	⊕	GAS VALVE	⊕	STORM MANHOLE
⊕	ANTENNA	☒	GAS METER	⊕	TELEPHONE MANHOLE
☒	AIR CONDITIONER	☒	ACCESS GRATE	☒	PUBLIC TELEPHONE
⊕	ANCHOR	☒	HANDICAPPED PARKING	☒	TILE INLET
⊕AP	AIR PUMP	☒	HAND HOLE	⊕	TILE RISER
▷	APRON	⊕	HYDRANT	☒	TRAFFIC ARM BARRIER
⊕	BASKETBALL HOOP	⊕	IRRIGATION CONTROL VALVE	☒	TRAFFIC SIGN
☒	BIRD FEEDER	☒	LIGHT DECORATIVE	☒	TRANSMISSION TOWER
☒	BENCH	☒	LIGHT POLE	⊕	UTILITY POLE
⊕	BRACE POLE	☒	MAILBOX	☒	VACUUM
☒	CATCH BASIN	☒	METER	⊕	VENT PIPE
○	CLOTHES LINE POLE	⊕	POST	☒	DECIDUOUS TREE
△	CONTROL POINT	⊕	MANHOLE	☒	CONIFEROUS TREE
⊕	CLEAN OUT	⊕	LIFT STATION MANHOLE	☒	STUMP
☒CP	COMMUNICATION PEDESTAL	☒	MONITORING WELL	☒	BUSH
⊕	CURB STOP VALVE	⊕	ORDER MICROPHONE	⊕	WELL
◇	DITCH TOP	☒	PARK GRILL	☒	WATER MANHOLE
☒	DRINKING FOUNTAIN	☒	GAS PUMP	☒	WATER METER
▷	DOWN SPOUT	⊕	POST INDICATOR VALVE	⊕	WATER SPIGOT
⊕	ELECTRIC MANHOLE	☒	PARKING METER	☒	WATER VALVE
☒	ELECTRIC METER	⊕	SANITARY MANHOLE	☒	WETLAND / MARSH
☒E	ELECTRIC PEDESTAL	☒	SATELLITE DISH	△	WETLAND - DELINEATED

PROPOSED

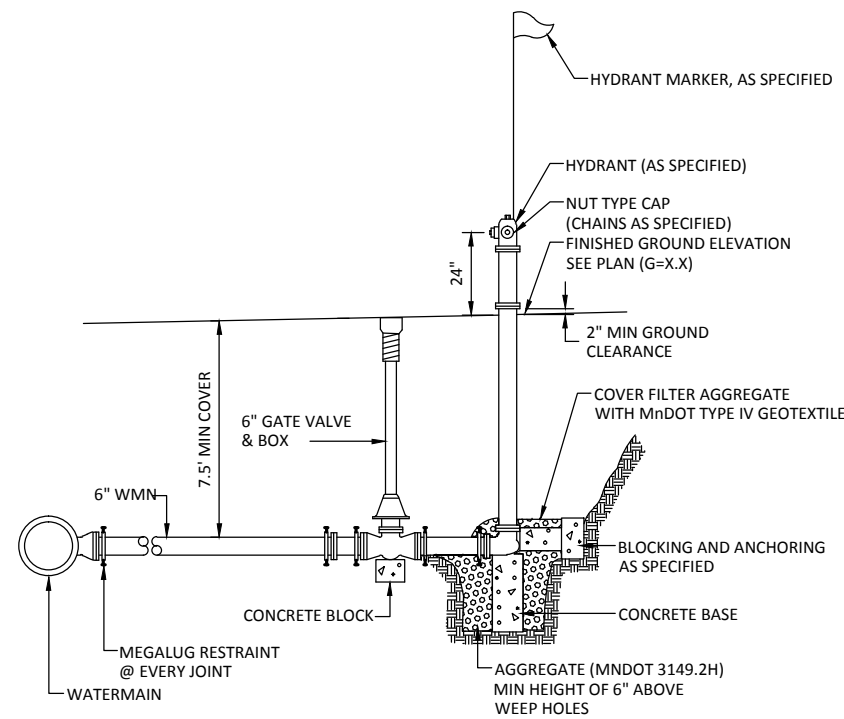
22+00	ALIGNMENT/CENTERLINE	☒	WATERMAIN
---	RIGHT-OF-WAY LINE	☒	WATERMAIN SERVICE
---	TEMPORARY EASEMENT	●	WATER SYSTEM MANHOLE
⋯	CONSTRUCTION LIMITS	⊕	HYDRANT
==	CURB & GUTTER	⊕	HYDRANT W/ VALVE
==	CURB & GUTTER (OUT)	⊕	VALVE
---	BITUMINOUS EDGE	⊕	CURBSTOP
---	CONCRETE EDGE	⊕	BEND
---	GRAVEL EDGE	⊕	REDUCER
---	SILT FENCE-PREASSEMBLED	☒	CROSS
---	SILT FENCE-HEAVY DUTY	☒	TEE
☒	EROSION PROTECTION AT INLET	☒	CAP
☒	MANHOLE	☒	SLEEVE
☒	CATCH BASIN	☒	SIGN
☒	STORM INLET	☒	LIGHT POLE
☒	APRON	☒	GUARD RAIL
☒	STORM SEWER	⊕B-?	SOIL BORING
☒	PERFORATED PIPE DRAIN	☒	WETLAND
☒	STORM DRAIN TILE	☒	BUSH
☒	CULVERT W/APRON	☒	CONIFEROUS TREE
①	STORM MANHOLE NUMBER	☒	DECIDUOUS TREE
☒	SANITARY SEWER		
☒	SANITARY FORCEMAIN		
☒	SANITARY SEWER SERVICE		
☒	SANITARY LIFT STATION		
☒	SANITARY MANHOLE		
☒	SANITARY MANHOLE NUMBER		

EO	OVERHEAD ELECTRIC LINE	---	EASEMENT LINE
EU	UNDERGROUND ELECTRIC LINE	---	BUILDING SETBACK LINE
G	GAS LINE	---	FENCE LINE
FO	FIBER OPTIC LINE	---	GUARD RAIL
CU	UNDERGROUND COMMUNICATIONS LINE	---	ACCESS CONTROL LINE
OU	OVERHEAD UTILITY LINE	---	CENTERLINE
	WATER SYSTEM	---	PROPERTY / LOT LINE
}}	STORM SEWER	---	ROAD RIGHT-OF-WAY LINE
}}	TILE LINE	---	RAILROAD RIGHT-OF-WAY LINE
>	SANITARY SEWER	---	GRAVEL EDGE
	SANITARY FORCEMAIN	---	BITUMINOUS EDGE
==	CULVERT	---	CONCRETE EDGE
---	INTERMEDIATE CONTOURS	---	CURB & GUTTER
---	INDEX CONTOURS	---	WATER EDGE
---	COUNTY LINE	---	WATER CENTERLINE
---	CITY LIMITS	---	HIGHWATER LINE
---	SIXTEENTH LINE	---	WETLAND EDGE
---	QUARTER LINE	---	SWALE CENTERLINE
---	SECTION LINE	---	RAILROAD TRACKS
---	ADJACENT LINES	---	TREE DRIP LINE

GENERAL NOTES:

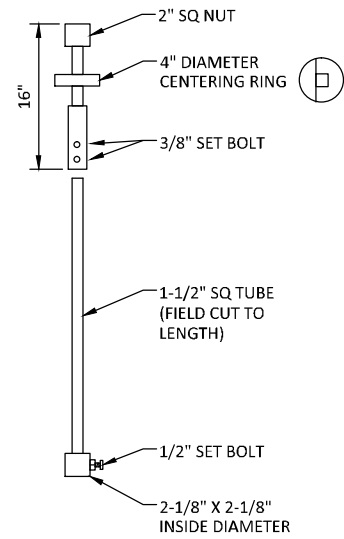
- TEMPORARY WATER SERVICE SHALL BE PROVIDED TO ALL PROPERTIES WHERE THE EXISTING WATER SUPPLY WILL BE OUT OF SERVICE FOR MORE THAN 6 HOURS. THE CONTRACTOR SHALL DETERMINE ALL STAGING AND PHASING FOR WATERMAIN CONSTRUCTION.
- ALL EXCAVATION & EQUIPMENT SHALL REMAIN WITHIN ROW, EASEMENTS, OR REMOVAL LIMITS SHOWN. TRENCH BOX OR SHEETING MAY BE REQUIRED. (INCIDENTAL)
- CONTRACTOR SHALL PROTECT AND SUPPORT AS NECESSARY ALL TREES, BUILDINGS, LANDSCAPING, RETAINING WALLS, WALKWAYS, DRIVEWAYS, CURB & GUTTER, ETC. UNLESS NOTED OTHERWISE IN THE PLAN OR IN THE FIELD BY THE ENGINEER.
- CONTRACTOR SHALL SALVAGE AND INSTALL OR PROTECT ALL LANDSCAPING INCLUDING BOULDERS, EDGING, LANDSCAPE ROCK, MULCH, BUSHES, PLANTS, LAWN ORNAMENTS, ETC. THAT ARE DISTURBED BY CONSTRUCTION.
- CONTRACTOR SHALL PROTECT & SUPPORT ALL EXISTING PUBLIC AND PRIVATE UTILITIES (GAS, TELEPHONE, ELECTRIC, CABLE, WATERMAIN, STORM, SANITARY, ETC) AS DIRECTED BY UTILITY OWNER UNLESS OTHERWISE NOTED.
- TRAFFIC CONTROL WILL BE REQUIRED FOR ALL LANE CLOSURES, TEMPORARY ROAD CLOSURES, OR FOR CONSTRUCTION IMMEDIATELY ADJACENT TO THE TRAVELED LANE. TRAFFIC CONTROL SHALL BE IN ACCORDANCE WITH THE 2005 MUTCD TEMPORARY TRAFFIC CONTROL ZONE LAYOUTS. THE ENGINEER PRIOR TO PLACEMENT SHALL APPROVE ALL TRAFFIC CONTROL LAYOUTS. COORDINATION SHALL BE REQUIRED WITH THE MCLEOD COUNTY TRANSPORTATION DEPARTMENT FOR ANY TRAFFIC CONTROL WITHIN COUNTY RIGHT OF WAY.
- RAISE/LOWER PROPOSED WATERMAIN AS REQUIRED TO AVOID CONFLICTS W/ EXISTING SANITARY SERVICES, WATER SERVICES, STORM SEWER, UTILITY CROSSINGS, ETC. (INCIDENTAL)
- TIE ALL VERTICAL BENDS (INCIDENTAL).
- ACCESS TO RESIDENCES & BUSINESSES SHALL BE MAINTAINED AT ALL TIMES THROUGHOUT THE CONTRACT.
- PROVIDE SAWCUT WHERE PLACING NEW PAVEMENT ADJACENT TO INPLACE PAVEMENT TO ENSURE A UNIFORM JOINT. LOCATE ALL SAWCUTS ALONG LANE LINES. PROVIDE SAWCUT ALONG ALL DRIVEWAY & SIDEWALK REMOVAL LIMITS AS MARKED BY THE ENGINEER. (INCIDENTAL)
- CONTRACTOR SHALL COORDINATE POLE REMOVAL AND OR SUPPORT WITH UTILITY OWNERS. THIS SHALL BE CONSIDERED INCIDENTAL TO THE PROJECT AND NO ADDITIONAL COMPENSATION SHALL BE GRANTED FOR DOWN TIME DUE TO PROVIDE UTILITY COORDINATION.
- ANY DEWATERING SHALL BE CONSIDERED INCIDENTAL TO THE PROJECT. THE CONTRACTOR SHALL MAKE HIS/HER OWN ASSUMPTIONS AS TO THE NEED FOR DEWATERING OPERATIONS.
- CONTRACTOR SHALL VERIFY ALL UTILITY CROSSING LOCATIONS AND ELEVATIONS PRIOR TO INSTALLATION OF UTILITY. IF CONFLICTS ARE ENCOUNTERED CONTRACTOR SHALL NOTIFY THE ENGINEER AND COORDINATE WITH UTILITY OWNERS TO HOLD/PROTECT/SUPPORT/LOWER LINES/AND POLES DURING CONSTRUCTION (INCIDENTAL).
- THE CONTRACTOR MUST MAINTAIN WATERMAIN, SANITARY SEWER AND STORM SEWER FUNCTIONALITY THROUGHOUT THE PROJECT. TEMPORARY CONNECTIONS, BYPASS PUMPING OR TEMPORARY WATER SERVICE INSTALLED DURING THE PROJECT TO MAINTAIN AND SUPPORT THE EXISTING INFRASTRUCTURE, THAT ARE NOT IDENTIFIED ON THE PLAN OR DEFINED IN THE PROJECT SPECIFICATIONS SHALL BE CONSIDERED INCIDENTAL TO THE PROJECT FOR WHICH NO DIRECT COMPENSATION SHALL BE MADE.
- SERVICE LOCATIONS SHOWN ON THE PLAN ARE BASED ON BEST INFORMATION AVAILABLE. DELAYS AS A RESULT OF VERIFYING SERVICE LOCATIONS AND OR RELOCATING EXISTING SERVICE LINES TO AVOID CONFLICTS WITH EXISTING OR PROPOSED UTILITIES SHALL BE CONSIDERED INCIDENTAL TO THE PROJECT.





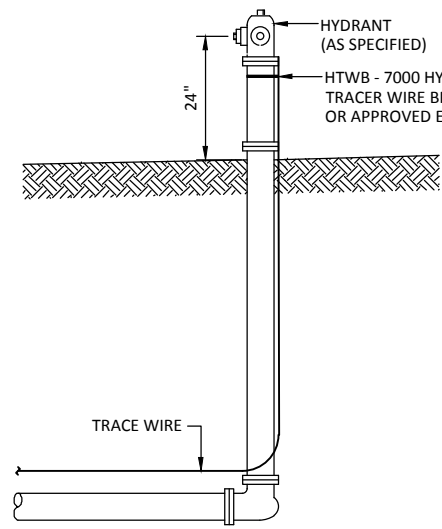
HYDRANTS LOCATED WHERE THE GROUNDWATER TABLE IS ABOVE THE DRAIN OUTLET SHALL HAVE THE OUTLET DRAIN PLUGGED AND SHALL BE EQUIPPED WITH A TAG STATING "PUMP AFTER USE"

HYDRANT INSTALLATION, MEGALUGS
NOT TO SCALE

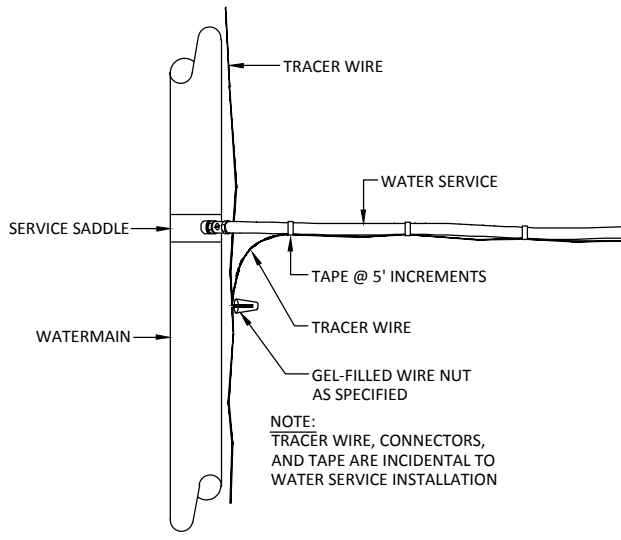


ADJUSTABLE VALVE EXTENSION STEM
NOT TO SCALE

NOTE: VALVE EXTENSION STEM SHALL BE CONSIDERED INCIDENTAL TO GATE VALVE

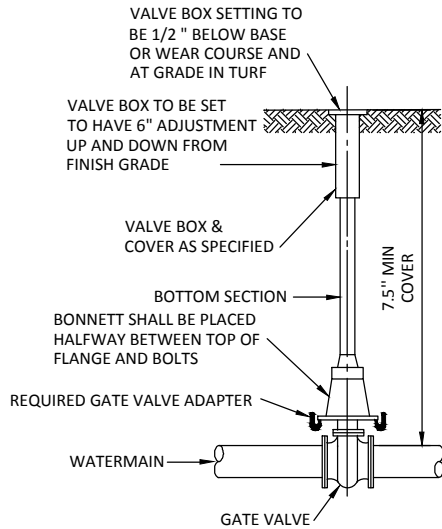


TRACER WIRE ACCESS AT HYDRANT
NOT TO SCALE

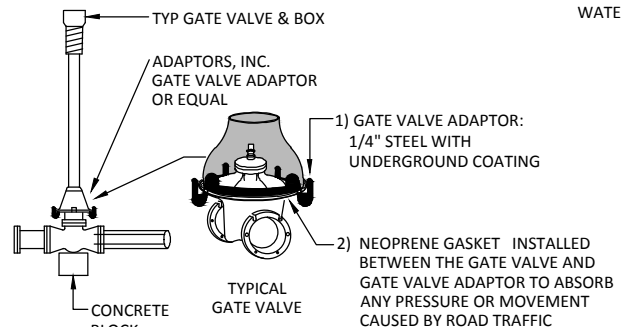


WATER SERVICE TRACER WIRE CONNECTION
NOT TO SCALE

- NOTES:
1. VALVE BOX SHALL BE CENTERED ON OPERATING NUTS, STRAIGHT, FREE FROM DEBRIS, AND ALL SECTIONS UNBROKEN
 2. VALVES IN EASEMENTS SHALL HAVE CHANNEL POST WITNESS MARKERS WITH REFLECTIVE "GV" SIGN (INCIDENTAL)
 3. ALL VALVES SHALL BE FITTED WITH EXTENTION RODS TO 1' BELOW FINISHED GRADE.
 4. COMPACTION WITH MECHANICAL TAMPER AROUND VALVE BOX SHALL BE PLACED AND COMPACTED WITH 2' LIFTS TO ACHIEVE 95% COMPACTION
 5. GATE VALVES LOCATED WITHIN THE CONCRETE SIDEWALK SHALL INCLUDE A METAL SEPARATOR BETWEEN THE VALVE BOX AND THE CONCRETE



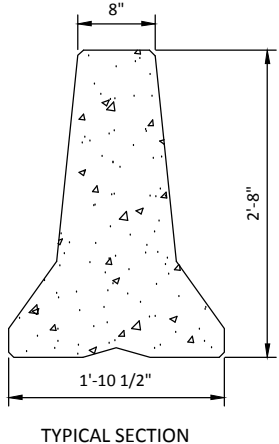
GATE VALVE BOX INSTALLATION
NOT TO SCALE



GATE VALVE ADAPTOR
NOT TO SCALE

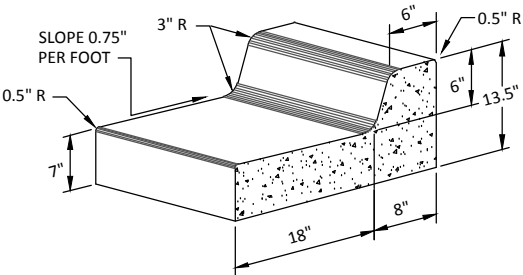
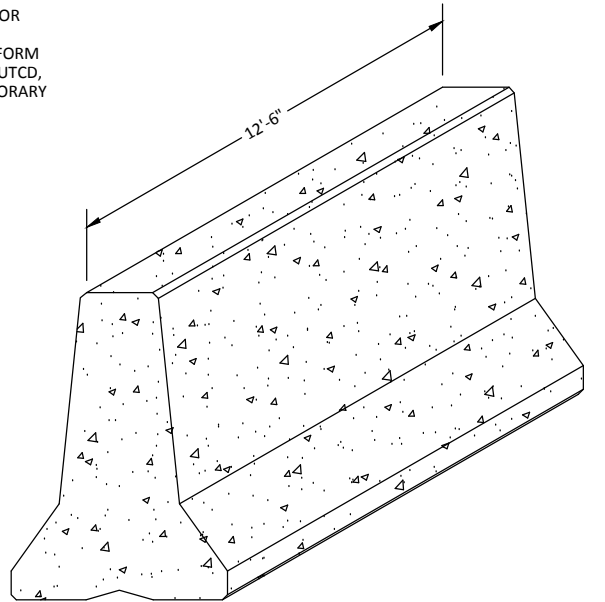
NOTE: GATE VALVE ADAPTER SHALL BE CONSIDERED INCIDENTAL TO GATE VALVE

- NOTES:
1. SEE Mn/DOT STANDARD PLATE 8337 FOR REINFORCING REQUIREMENTS
 2. PLACEMENT OF BARRIERS SHALL CONFORM TO THE LATEST VERSION OF THE MN MUTCD, INCLUDING "FIELD MANUAL FOR TEMPORARY TRAFFIC CONTROL ZONE LAYOUTS"

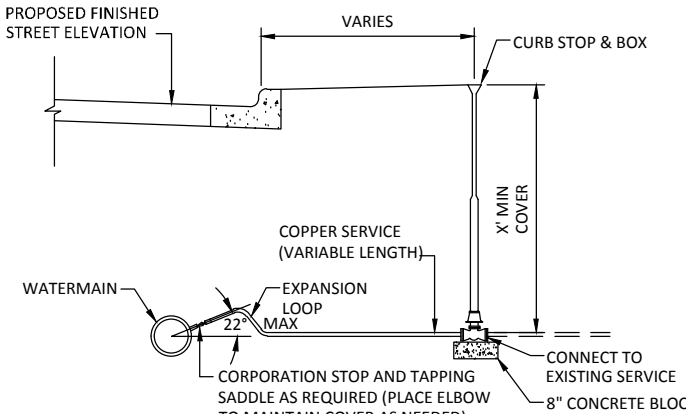


TYPICAL SECTION

TEMPORARY PRECAST CONCRETE BARRIER
NOT TO SCALE

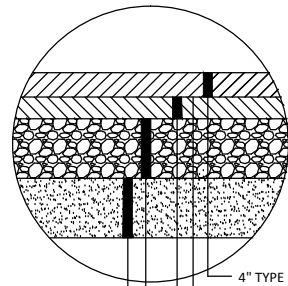


CONCRETE CURB & GUTTER DESIGN B618
NOT TO SCALE



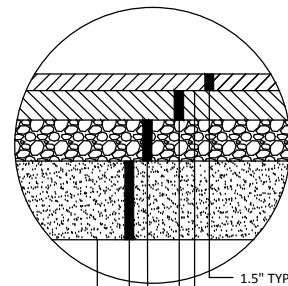
WATER SERVICE INSTALLATION RECONSTRUCTION
NOT TO SCALE

NOTE: WHERE NO EXISTING WATER SERVICE IS INPLACE, INSTALL 0.5' FLARED & CRIMPED COPPER SERVICE LINE AND STEEL "T" FENCE POST AT CURB STOP



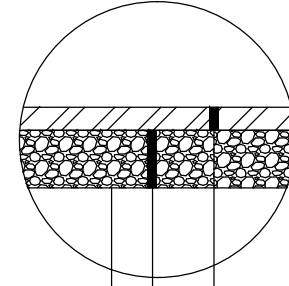
6TH STREET PATCH

NOT TO SCALE



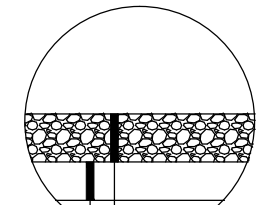
MAIN AVE PATCH

NOT TO SCALE



DRIVEWAY PATCH

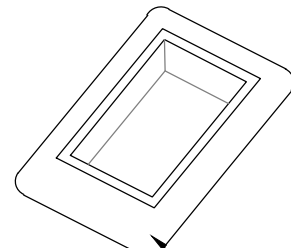
NOT TO SCALE



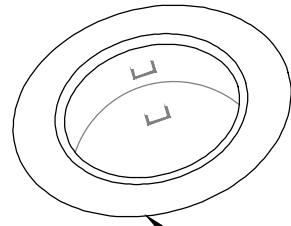
AGGREGATE DRIVEWAY

NOT TO SCALE

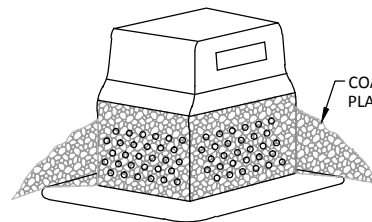
TYPICAL SECTION NOTES:
 1) CLASS 7 WILL BE ALLOWED AS A SUBSTITUTE FOR AGGREGATE BASE CLASS 5 PER MnDOT SPEC. 3138



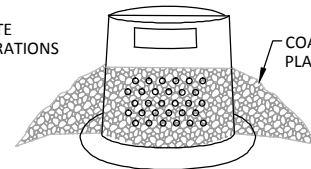
PLACE BARRIER FRAME ATOP PRE-CAST TOP SLAB



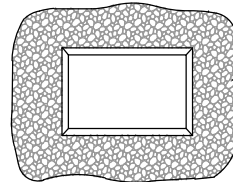
PLACE BARRIER FRAME ATOP PRE-CAST TOP SLAB



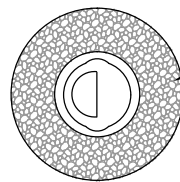
COARSE FILTER AGGREGATE PLACED TO COVER PERFORATIONS



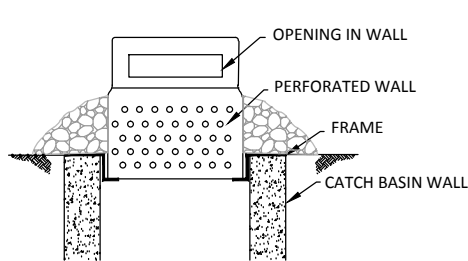
COARSE FILTER AGGREGATE PLACED TO COVER PERFORATIONS



TOP VIEW

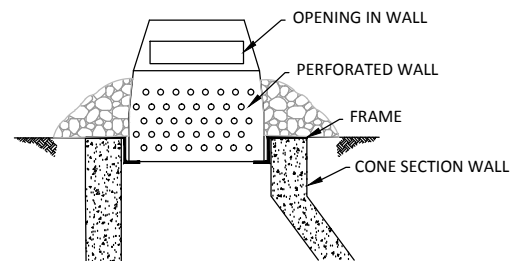


TOP VIEW



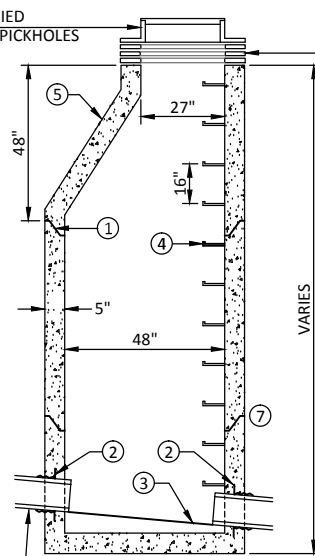
INLET PROTECTION PERFORATED WALL

NOT TO SCALE



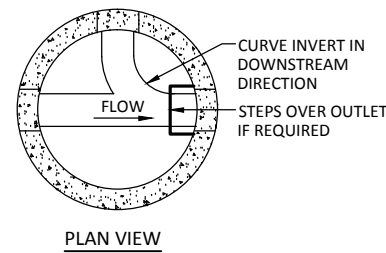
1. RUBBER GASKET (TYPICAL)
2. FLEXIBLE WATERTIGHT SEAL TO BE APPROVED BY ENGINEER
3. SHAPE, DEPTH AND SLOPE OF INVERT TO BE APPROVED BY ENGINEER
4. STEEL REINFORCED PLASTIC STEPS SHALL BE A POLYPROPYLENE PLASTIC REINFORCED WITH A NO. 2 DEFORMED STEEL ROD GRADE 60
5. MnDOT TYPE "B" ECCENTRIC PRECAST CONCRETE CONE SECTION TYPICAL FOR ALL MANHOLES

CASTING AS SPECIFIED WITH CONCEALED PICKHOLES



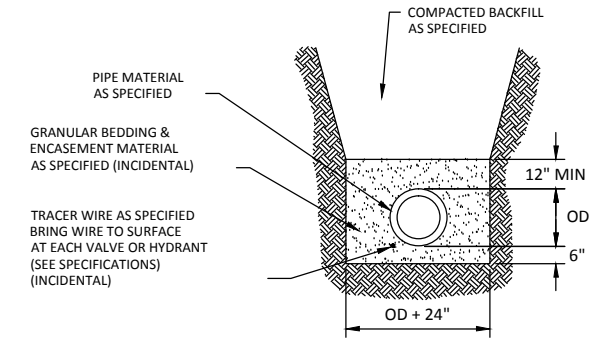
MIN 3 MAX 6 CONCRETE ADJUSTING RINGS WITH NON-SHRINK GROUT AND PLASTERED 1/2" THICK INSIDE AND OUT (CHIMNEY SEAL REQUIRED)

REFER TO PLANS FOR PIPE REQUIRED
 REFER TO PLANS FOR PIPE REQUIRED, ENGINEER TO VERIFY



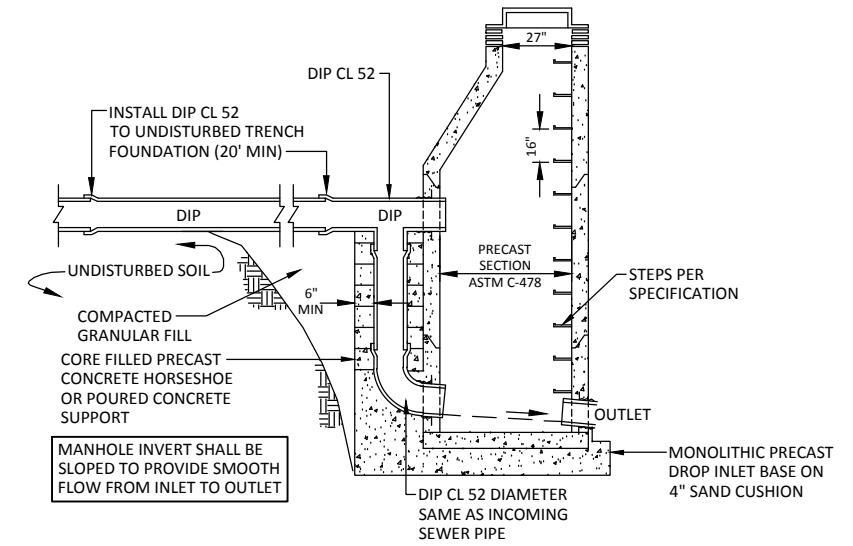
SANITARY MANHOLE

NOT TO SCALE



PVC SEWER & WATERMAIN TRENCH DETAIL

NOT TO SCALE



SANITARY MANHOLE WITH OUTSIDE DROP

NOT TO SCALE



REV.	BY	DATE

NOTES:

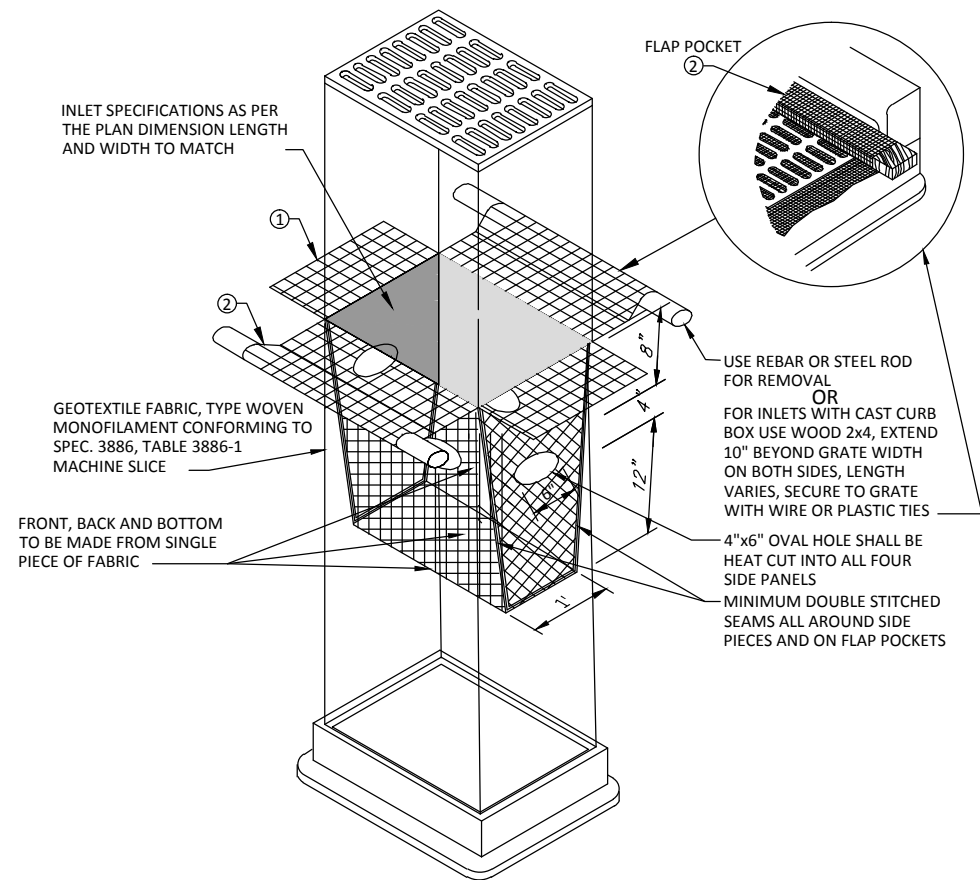
INLET PROTECTION DEVICES SHALL BE MAINTAINED OR REPLACED AT THE DIRECTION OF THE ENGINEER. MANUFACTURED ALTERNATIVES APPROVED AND LISTED ON THE DEPARTMENTS EROSION CONTROL PRODUCT ACCEPTABILITY LIST MAY BE SUBSTITUTED. WHEN REMOVING OR MAINTAINING INLET PROTECTION, CARE SHALL BE TAKEN SO THAT THE SEDIMENT TRAPPED ON THE GEOTEXTILE FABRIC DOES NOT FALL IN THE INLET. ANY MATERIAL FALLING INTO THE INLET SHALL BE REMOVED IMMEDIATELY.

- FINISHED SIZE, INCLUDING POCKETS WHERE REQUIRED, SHALL EXTEND A MINIMUM OF 10" AROUND THE PERIMETER TO FACILITATE MAINTENANCE OR REMOVAL.
- FLAP POCKETS SHALL BE LARGE ENOUGH TO ACCEPT WOOD 2x4.

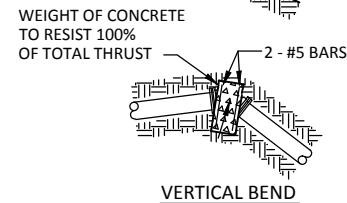
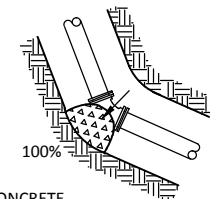
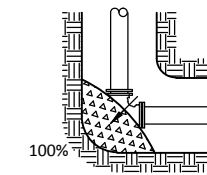
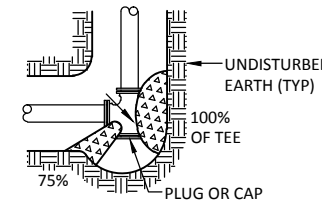
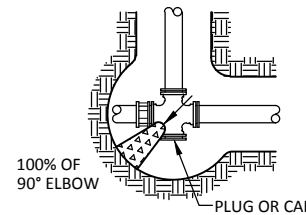
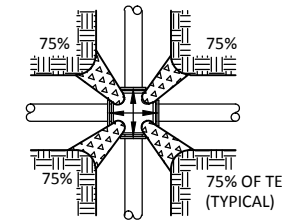
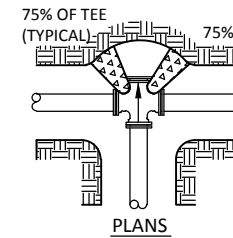
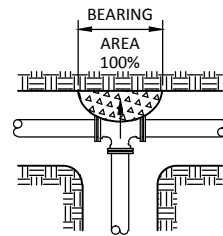
INSTALLATION NOTES:
DO NOT INSTALL PROTECTION IN INLETS SHALLOWER THAN 30", MEASURED FROM THE BOTTOM OF THE INLET TO THE TOP OF THE GRATE.

TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE.

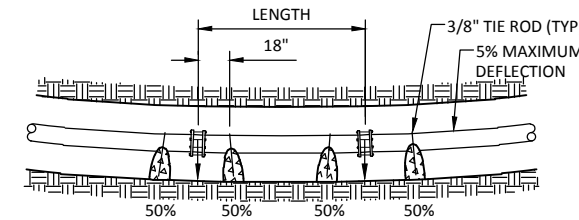
THE INSTALLED BAG SHALL HAVE A MINIMUM SIDE CLEARANCE, BETWEEN THE INLET AND THE BAG, MEASURED AT THE BOTTOM OF THE OVERFLOW HOLES, OF 3". WHERE NECESSARY THE CONTRACTOR SHALL CLINCH THE BAG, USING PLASTIC ZIP TIES, TO ACHIEVE THE 3" CLEARANCE. THE TIES SHALL BE PLACED AT A MAXIMUM OF 4" FROM THE BOTTOM OF THE BAG.



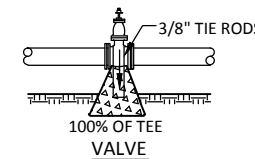
**INLET PROTECTION
GEOTEXTILE BAG**
NOT TO SCALE



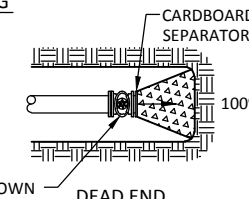
VERTICAL BEND



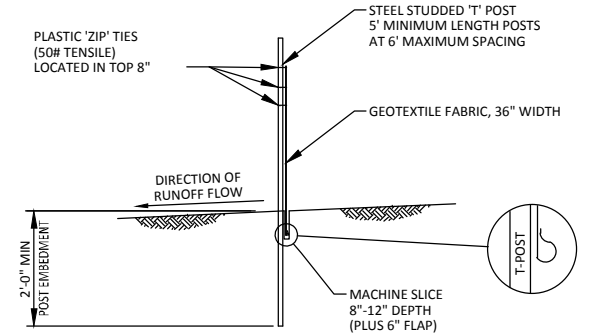
CURVE THRUST BLOCKING



VALVE



VALVE IF SHOWN ON PLAN DEAD END



SILT FENCE - MACHINE SLICED
NOT TO SCALE

100% BEARING AREA (SQ FT)				
PIPE SIZE	DEAD END OR TEE	90° ELBOW	45° ELBOW	22 1/2° ELBOW
4	2.4	3.4	1.9	0.9
6	4.9	6.9	3.8	1.9
8	8.4	11.8	6.4	3.4
10	13.7	19.3	10.5	5.4
12	19.4	27.3	14.9	7.7
14	26.3	37.0	20.1	10.3
16	34.0	47.9	26.2	13.3
18	43.9	61.8	33.7	17.2
20	54.3	76.4	41.7	21.2
24	77.9	109.8	59.8	30.5

NOTE:
BEARING AREAS ARE BASED ON 250 LB MAXIMUM PRESSURE AND SOIL BEARING STRENGTH OF 2000 LB/SQ FT.

ARROWS () INDICATE THRUST DIRECTION

NOTES:

- FIGURE (100%) AT THRUST BLOCK INDICATES PER CENT OF TOTAL THRUST TO BE APPLIED FOR BEARING AREA.
- CONCRETE FOR THRUST BLOCKS TO BE 2000 PSI.
- RESTRAINING RODS ARE REQUIRED AT ALL TEES AND AT BENDS DEFLECTING 22-1/2° OR MORE.
- WRAP THE PIPE WITH POLYETHYLENE WRAPPING PRIOR TO POURING THE THRUST BLOCK.
- SEE SOILS REPORT FOR BEARING STRENGTH OF SOIL. IN ABSENCE OF A SOILS REPORT, AN AVERAGE SOIL (SPADABLE MEDIUM CLAY) CAN BE ASSUMED TO HAVE A BEARING STRENGTH OF 2000 PSI.
- THRUST BLOCKS ARE NOT REQUIRED ON PVC WITH SOLVENT WELDED JOINTS.

SIDE THRUST PER 100 LB/SQ IN PRESSURE PER DEGREE OF DEFLECTION			
PIPE SIZE	SIDE THRUST-LB	PIPE SIZE	SIDE THRUST-LB
4	35	14	377
6	72	16	486
8	122	18	665
10	197	20	790
12	278	24	1150

MULTIPLY THRUST BY DEGREE OF DEFLECTION TO OBTAIN TOTAL THRUST

CONCRETE THRUST BLOCKS
NOT TO SCALE

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JOSHUA V. STEIN
LIC. NO. 48224 DATE 4/25/2014

DESIGNED: JZE
DRAWN: PJS
CHECKED: JSS



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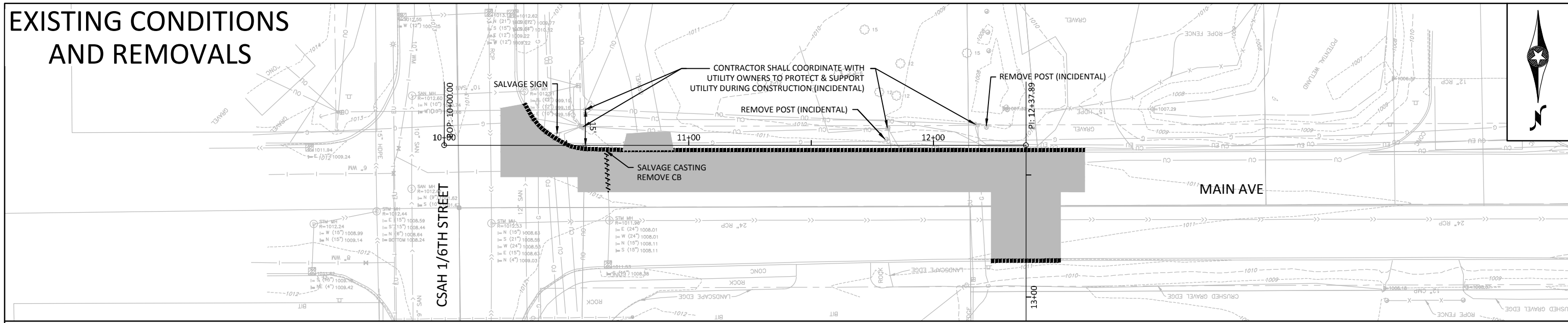
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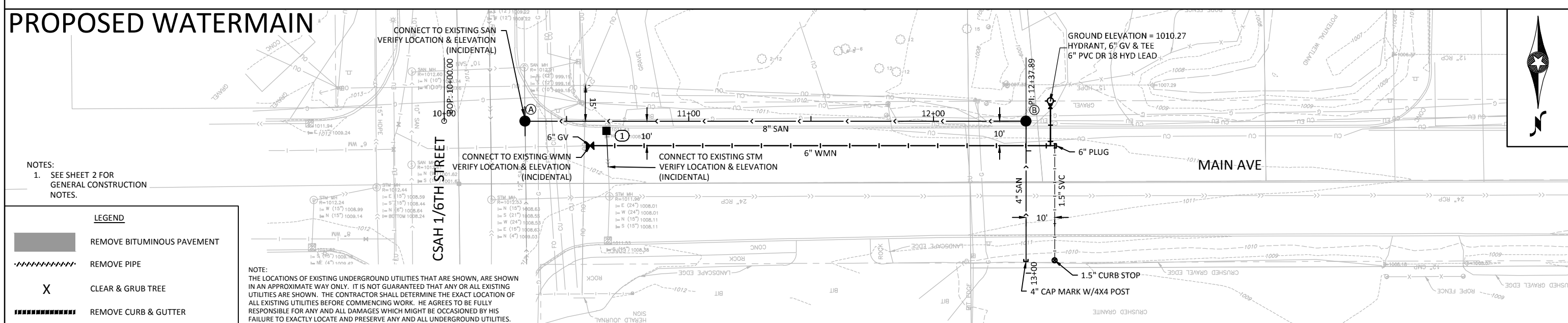
DETAILS

SHEET 5 OF 8

EXISTING CONDITIONS AND REMOVALS



PROPOSED WATERMAIN



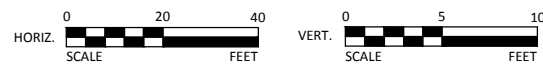
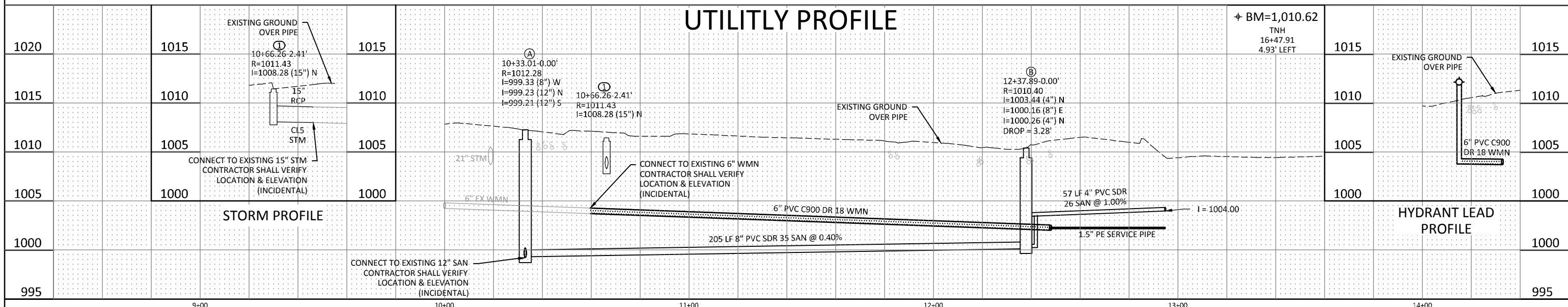
- NOTES:
1. SEE SHEET 2 FOR GENERAL CONSTRUCTION NOTES.

LEGEND

- REMOVE BITUMINOUS PAVEMENT
- REMOVE PIPE
- CLEAR & GRUB TREE
- REMOVE CURB & GUTTER

NOTE:
THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES THAT ARE SHOWN, ARE SHOWN IN AN APPROXIMATE WAY ONLY. IT IS NOT GUARANTEED THAT ANY OR ALL EXISTING UTILITIES ARE SHOWN. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. HE AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

UTILITY PROFILE



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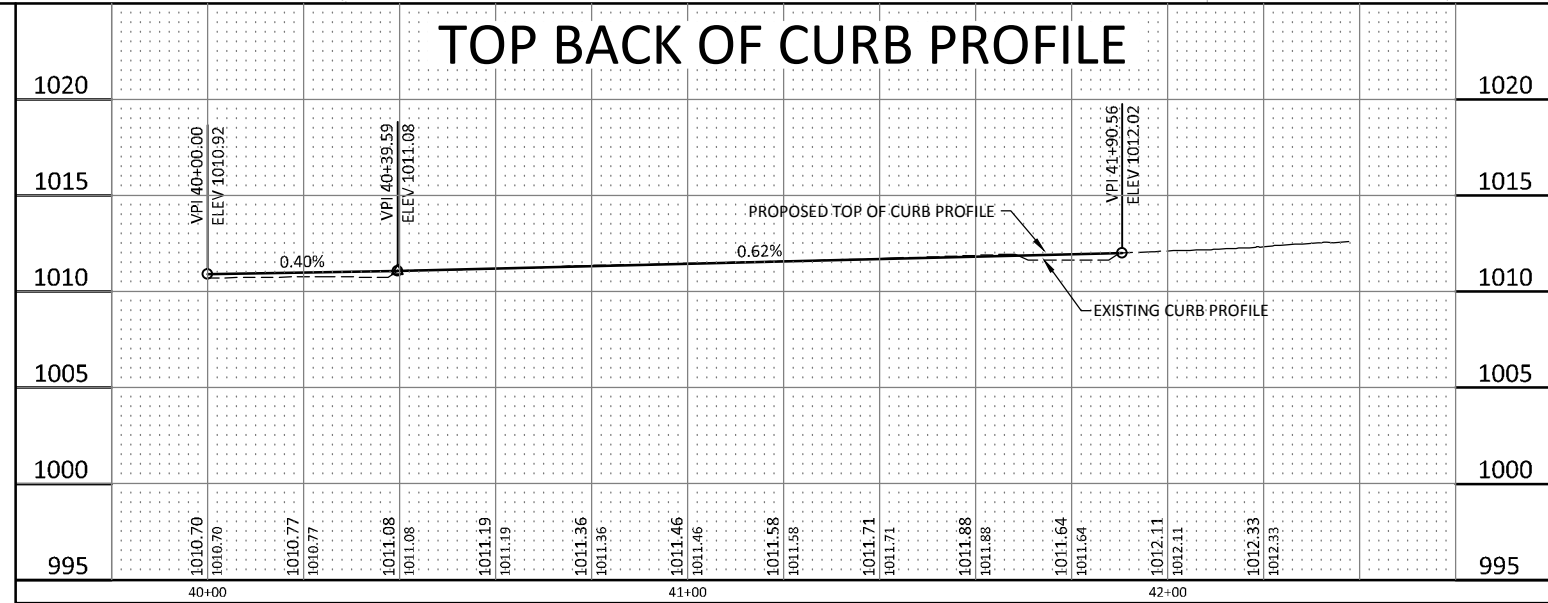
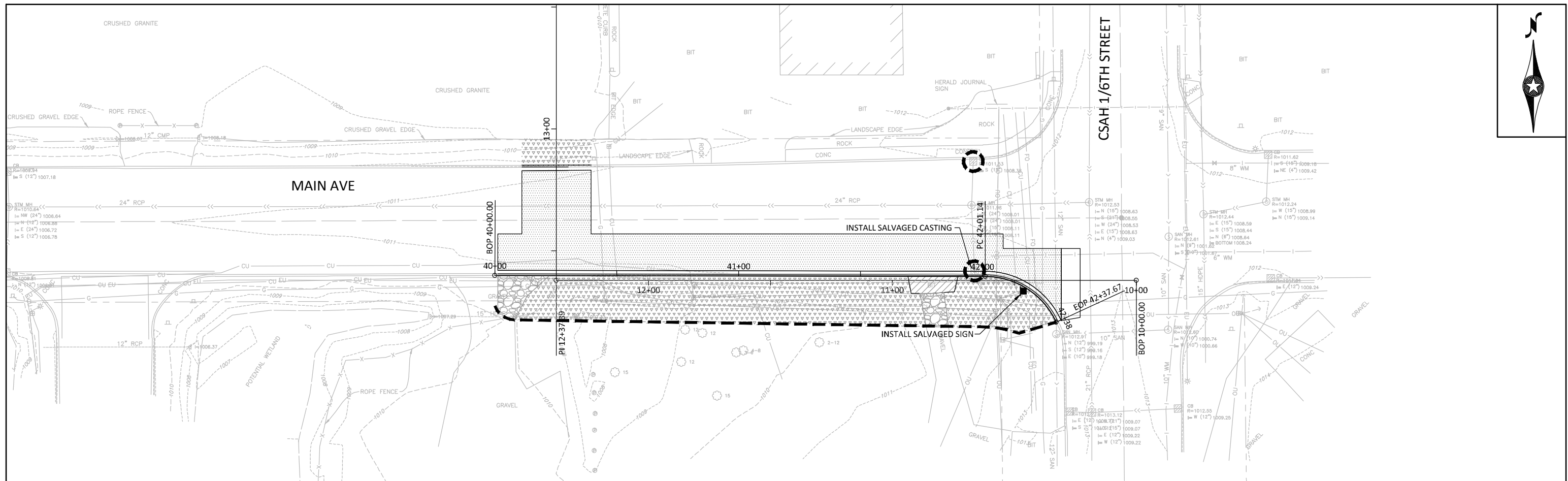


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SHEET
6
OF
8



LEGEND

- HYDRO SEED WITH SEED MIX TYPE 350
- GRAVEL DRIVEWAY
- STREET PATCH
- DRIVEWAY PATCH
- CONCRETE CURB & GUTTER
- SILT FENCE
- INLET PROTECTION

RESTORATION NOTES

- 1) CONTRACTOR SHALL STRIP ALL INPLACE TOPSOIL IN AREAS TO BE DISTURBED BY CONSTRUCTION AND REUSE AS SLOPE DRESSING
- 2) PLACE A MINIMUM ON 6 INCHES OF TOPSOIL ON ALL AREAS SCHEDULED FOR PERMANENT TURF ESTABLISHMENT.
- 3) PROVIDE FERTILIZER TYPE 3, SLOW RELEASE TYPE, 22-5-10, OR EQUIVALENT ON ALL AREAS TO BE SEED OR SODDED AT AN APPLICATION RATE OF 350LBS/ACRE
- 4) ALL PAVEMENT MARKINGS THAT ARE REMOVED DURING CONSTRUCTION MUST BE REPLACED WITH NEW PAVEMENT MARKINGS (INCIDENTAL)
- 5) THE CONTRACTOR SHALL BE RESPONSIBLE FOR GRADING ALL DITCHES TO PRECONSTRUCTION SLOPES & ELEVATIONS. THE CONTRACTOR SHALL TAKE CARE TO ESTABLISH ALL EXISTING DRAINAGE SWALES AND DITCHES TO PRECONSTRUCTION CONDITION. THE ENGINEER MAY PROVIDE STAKING AT THE REQUEST OF THE CONTRACTOR.



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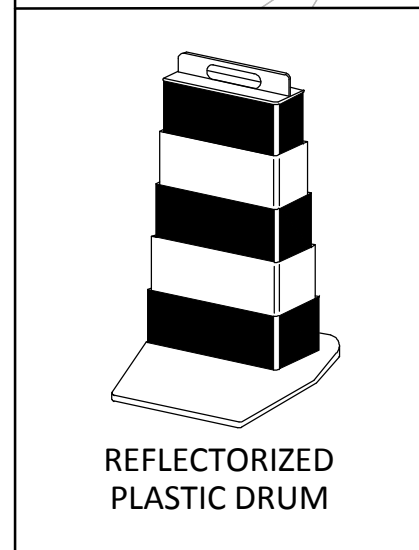
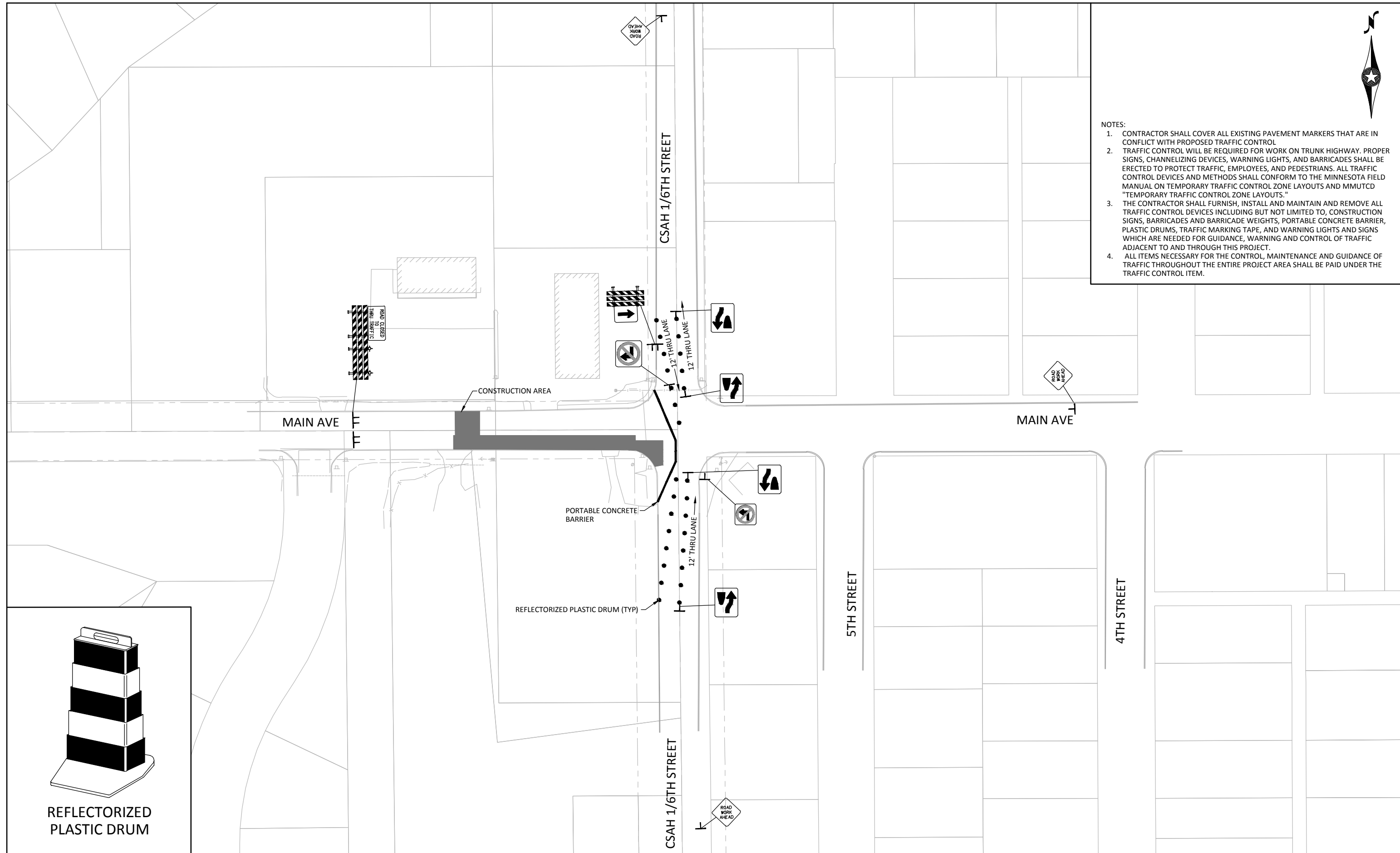
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 MAIN AVE UTILITY EXTENSION

RESTORATION



- NOTES:
1. CONTRACTOR SHALL COVER ALL EXISTING PAVEMENT MARKERS THAT ARE IN CONFLICT WITH PROPOSED TRAFFIC CONTROL
 2. TRAFFIC CONTROL WILL BE REQUIRED FOR WORK ON TRUNK HIGHWAY. PROPER SIGNS, CHANNELIZING DEVICES, WARNING LIGHTS, AND BARRICADES SHALL BE ERECTED TO PROTECT TRAFFIC, EMPLOYEES, AND PEDESTRIANS. ALL TRAFFIC CONTROL DEVICES AND METHODS SHALL CONFORM TO THE MINNESOTA FIELD MANUAL ON TEMPORARY TRAFFIC CONTROL ZONE LAYOUTS AND MMUTCD "TEMPORARY TRAFFIC CONTROL ZONE LAYOUTS."
 3. THE CONTRACTOR SHALL FURNISH, INSTALL AND MAINTAIN AND REMOVE ALL TRAFFIC CONTROL DEVICES INCLUDING BUT NOT LIMITED TO, CONSTRUCTION SIGNS, BARRICADES AND BARRICADE WEIGHTS, PORTABLE CONCRETE BARRIER, PLASTIC DRUMS, TRAFFIC MARKING TAPE, AND WARNING LIGHTS AND SIGNS WHICH ARE NEEDED FOR GUIDANCE, WARNING AND CONTROL OF TRAFFIC ADJACENT TO AND THROUGH THIS PROJECT.
 4. ALL ITEMS NECESSARY FOR THE CONTROL, MAINTENANCE AND GUIDANCE OF TRAFFIC THROUGHOUT THE ENTIRE PROJECT AREA SHALL BE PAID UNDER THE TRAFFIC CONTROL ITEM.



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Joshua Feinstein
JOSHUA FEINSTEIN
LIC. NO. 48224 DATE 4/25/2014

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MAIN AVE UTILITY EXTENSION
TRAFFIC CONTROL

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