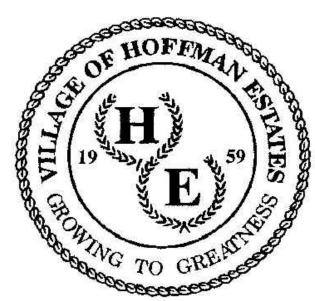
# VILLAGE OF HOFFMAN ESTATES HUNTINGTON BLVD. WATER MAIN REPLACEMENT



**Hoffman Estates, Illinois Palatine Township, Cook County** SECTION 31, TOWNSHIP 42N NORTH, RANGE 10E EAST

## **PLANS PREPARED FOR:**

VILLAGE OF HOFFMAN ESTATES **2305 PEMBROKE AVENUE** HOFFMAN ESTATES, ILLINOIS 60069

## PROJECT CONTACT:

ALAN WENDERSKI, P.E. - DIRECTOR OF ENGINEERING PHONE: (847) 252-5802

## LOCATION MAP

**CLIENT:** 

VILLAGE OF HOFFMAN ESTATES 2305 PEMBROKE AVENUE HOFFMAN ESTATES, ILLINOIS 60069 PHONE: (847) 252-5802

## ENGINEER / SURVEYOR:

1391 CORPORATE DRIVE, SUITE 203 PHONE: (815) 385-1778 SCOTT B. MARQUARDT - PROJECT MANAGER COLLIN EVANS, - PROJECT SURVEYOR

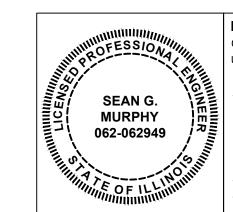


PROJECT LOCATION

- HR GREEN, INC. SHALL BE INCLUDED IN ALL PRE-CONSTRUCTION MEETINGS.
- ANY KNOWN DISCREPANCIES ON THIS PLAN SET MUST BE BROUGHT TO THE ATTENTION OF HR GREEN, INC.

## CERTIFICATION

## CIVIL



under the laws of the State of Illinois. SEAN G. MURPHY, P.E. License Number: 062-062949 My license renewal date is November 30, 2025. Pages or sheets covered by this seal: ALL SHEETS

Dial 811 or 1-800-892-0123 JULIE DESIGN TICKET NUMBER:#

UTILITY CONTACTS

AT&T /Distribution

Kevin Cavenaile

kc2951@att.com

815-274-3093

Comcast

**Bob Schulter** 

224-229-5861

**Nicor Gas** 

Pat Eaves-Heard

peaves@southernco.com

evaristo.piceno@comed.com

630-816-0144

ComEd

Vito Piceno

630-705-7349

bob schulter@comcast.com

WITH THE FOLLOWING: COUNTY COOK COUNTY

Know what's below. Two (2) working days before you dig (Excluding Sat., Sun. & Holidays) Call before you dig.

CITY-TOWNSHIP HOFFMAN ESTATES-PALATINE TOWNSHIP SEC. & 1/4 SEC. NO.# 31-42N-10E

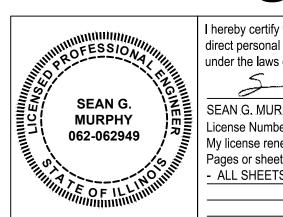
1391 CORPORATE DRIVE, SUITE 203 | McHENRY, IL 60050 Phone: 815.385.1778 | Toll Free: 800.728.7805 | Fax: 713.965.0044 | HRGreen.com

HRGreen

## **Sheet List Table**

Sheet Number	Sheet Title
C-01	COVER SHEET
C-02	GENERAL NOTES AND SPECIFICATIONS
C-03	SUMMARY OF QUANTITIES, LEGEND, AND BENCHMARKS
C-04	HUNTINGTON BLVD. PLAN ON PLAN
C-05	HUNTINGTON BLVD. PLAN ON PLAN
C-06	HUNTINGTON BLVD. PLAN ON PLAN
C-07	HUNTINGTON BLVD. PLAN ON PLAN
C-08	EROSION CONTROL SPECIFICATION AND NOTE
C-09	EROSION CONTROL DETAILS
C-10	STANDARD CONSTRUCTION DETAILS
C-11	STANDARD CONSTRUCTION DETAILS
C-12	STANDARD CONSTRUCTION DETAILS
C-13	STANDARD CONSTRUCTION DETAILS

- HR GREEN, INC. IS TO BE NOTIFIED 3 DAYS PRIOR TO CONSTRUCTION START.
- PRIOR TO THE START OF CONSTRUCTION.



I hereby certify that this engineering document was prepared by me or under my direct personal supervision and that I am a duly licensed Professional Engineer

FOR BIDDING

BAR IS ONE INCH ON OFFICIAL DRAWINGS IF NOT ONE INCH, ADJUST SCALE ACCORDINGL

DRAWN BY: MJ/CFR APPROVED: SGM JOB DATE: <u>09/09/2024</u> JOB NO: 190796

"Standard Specifications for Road and Bridge Construction", by the Illinois Department of Transportation, hereinafter referred to as the "Standard Specifications":

"Supplemental Specifications and Recurring Special Provisions", by the Illinois Department of Transportation;

"Illinois Manual on Uniform Traffic Control Devices for Streets & Highways";

"Standard Specifications for Water & Sewer Main Construction in Illinois";

Village of Hoffman Estates "Subdivision Ordinance" and "Engineering Standards":

these Plans and the "Special Provisions"\* included in the contract documents.

\* These Special Provisions supplement the above specifications, and in case of conflict with any part or parts of said specifications, these special provisions shall take precedence and shall govern.

#### **COORDINATION WITH UTILITIES**

Prior to the start of construction, the contractor shall have all utilities located by J.U.L.I.E (811) or (1-800-892-0123). The contractor shall cooperate with all utility owners as provided for in the Standard

The contractor shall be responsible for the protection of all underground or surface utilities, even though they may not be shown on the plans. Any utility that is damaged during construction shall be repaired or replaced to the satisfaction of the Engineer or the Owner. This work shall be paid for at the Contractor's

It is the Contractor's responsibility to locate all existing utilities prior to construction. The location of existing utilities as shown on these plans is based on record information and may not be accurate. Where conflict exists between existing utilities and the proposed underground piping requiring a revision to the plans, such construction shall not be undertaken until such changes are approved by the Engineer. The contractor shall report all such conflicts immediately to the Engineer.

All existing utilities within the project area shall be removed and relocated, if necessary, for construction by the utility company which has jurisdiction over it. The Contractor is responsible for scheduling with the appropriate utility company.

Where proposed water main crosses under existing gas main the Contractor shall provide extra care when installing proposed water main to prevent damage to existing gas main.

The coordination of all utility work for the construction project will be discussed at a pre construction

The contractor shall protect and carefully preserve all section or subsection monuments or property or reference markers until the Owner, his agent or an authorized surveyor has witnessed or otherwise referenced their locations

All offset locations given on the detailed plans for structures, fittings, etc., are from the centerline of the existing roadway, as shown on these plans.

The Engineer shall be responsible for providing any additionally required staking information.

All elevations are on U.S.G.S. Datum.

#### EROSION CONTROL & LANDSCAPE RESTORATION

Trees indicated to be protected shall be bored/tunneled or shall have root pruning done as necessary. Root pruning shall be considered included in the cost of tree trunk protection, no additional compensation shall be allowed. All root pruning must be approved by the Owner's appointed representative.

The contractor shall take care in grading near trees, shrubs and bushes which are not to be removed so as not to cause injury to the roots, trunks or limbs.

Landscaping including, but not limited to trees, shrubs, bushes, retaining walls, decorative landscaping items, etc., located in the disturbed area, as indicated on the plans, shall be restored by the contractor to the satisfaction of the engineer.

The contractor shall make every effort to avoid disturbing any existing residential landscaping, landscaping appurtenances, walkways, retaining walls, etc, that are not marked for removal on the plans. If damage occurs, the contractor shall replace, in kind, the residential item or items at his/her expense in a manner meeting with the approval of the Engineer. All vegetation being removed shall be replaced with the same size and type. No additional compensation will be allowed for damaged items.

It shall be the Contractor's responsibility to properly control erosion on the job site through the use of siltation ponds, filter fabrics, etc. Any siltation of conduits, structures, or ditches shall be cleaned and maintained by the Contractor until the seeding has taken hold. All washouts, gullies, etc. will be regraded and reseeded by the Contractor.

For all drainage structures in the disturbed areas, silt filter baskets shall be placed between frame and grate and maintained by the Contractor until vegetation is established, as determined by the Village.

The Contractor's responsibility for erosion control shall extend throughout the construction process. The Contractor shall be responsible for cleanup of paved surfaces daily within and outside of the project

Erosion control structures must be inspected weekly and after every storm of one half inch of rainfall or greater by the Contractor. An inspection report must be submitted by the Contractor to the Village following each inspection. Any repairs or replacement needed to ensure adequate erosion control must be made immediately at the Contractor's expense.

Disturbed parkway swales shall be re-constructed to pre-construction conditions. Parkway areas will be araded to drain to storm catch basins or inlets or as directed by the Engineer, 6" of topsoil and salt tolerant seed (CL-1A) with erosion control blanket will be used to finish the swales.

Once the water main installation has been completed, all disturbed areas are to be araded to existina contours, or to provide positive drainage to proposed and existing drainage structures unless otherwise

Final grade shall meet existing grade and shall be of at least 6" of topsoil, grass seed, and excelsior blanket, as determined by the Village. All grading shall be considered included in the project.

### TRAFFIC CONTROL AND PROTECTION

All traffic control and other advisory signs needed for construction are to be furnished by the Contractor in accordance with Article 107.14 of the Standard Specifications

If needed, any existing traffic regulatory and street signs within the limits of the construction shall be removed and stored by the Contractor. Appropriate Traffic regulatory and street signs shall be installed by the Contractor as soon as construction activities permit.

All unballasted Type I and Type II Barricades shall have two sandbags on the bottom rail.

The Contractor shall notify the Village of Hoffman Estates and the residents within the project limits of minimum of 48 hours prior to the start of construction.

During construction, the contractor shall provide access to all abutting properties, except for periods of short duration as approved by the Engineer. Any roadway or access closures shall only take place between the hours of 10:00 a.m. and 3:00 p.m. The Village of Hoffman Estates shall be notified 24 hours in advance of any closures.

All work performed relative to this improvement shall comply with all applicable rules and regulations of

All construction personnel will be required to wear a safety vest, complying with the latest O.S.H.A. requirements. at all times while at the construction site. Compliance with this requirement shall be considered as incidental to the contract.

Saw cutting for all pavement removal is included in the project

All trenches shall be backfilled or covered at the end of each day of construction.

All culvert pipes removed and replaced during construction, shall be removed and disposed of by the

contractor and replaced with a new culvert pipe of equal diameter and length.

Tree protection fencing shall be installed 5' outside drip line.

Remove existing trees and bushes as necessary for construction and only as approved by the Village. Replacement will be per Village ordinance

The Contractor shall remove all mailboxes within the Limits of Construction which interfere with construction operations and erect them at temporary locations as approved by the Engineer. As soon as construction operation permits, the Contractor shall set the mailboxes at their permanent locations. This work shall be performed as directed by the Engineer. The Contractor shall replace, at his/her expense, any mailbox or post which has been damaged during construction. No additional compensation shall be allowed.

No construction plans shall be used for construction unless specifically marked "For Construction." Prior to commencement of construction, the Contractor shall verify all dimensions and conditions affecting their work with the actual conditions at the job site. If there are any discrepancies from what is shown on the construction plans, he/she must immediately report same to the Engineer before doing any work, otherwise the Contractor assumes full responsibility. In the event of a disagreement between the construction plans, standard specifications and/or special details, the Contractor shall secure written instructions from the Engineer prior to proceeding with any part of the work affected by omissions or discrepancies. Failing to secure such instructions, the Contractor will be considered to have proceeded at his/her own risk and expense. In the event of any doubt or question rising with respect to the true meaning of the construction plans or specifications, the decision of the Engineer shall be final and

Unless otherwise indicated, the cost of all materials required and all labor necessary to comply with the above provisions will not be paid for separately, but shall be considered as included in the lump sum contract, and no additional compensation will be allowed.

Water mains shall be of the size and material as called out by the water main tags and detailed in the project special provisions. Polyethylene encasement shall be wrapped and taped around all ductile iron pipe and fittings, retainer rings, valves in boxes, fire hydrants and auxiliary valves and boxes.

All PVC and DIP mechanical joint fittings shall be installed with megalug restraining devices.

Provide additional water main fittings as necessary to deflect water main along roadway curves and existing terrain so that the manufacturer's recommended maximum defection of pipe at joints is not exceeded. all fittings shall be considered included in the cost of water main construction

The depth between the finished grade and the top of the water main shall not be less than six feet (6') nor more than eight feet (8') unless indicated on the plans.

All removed working components of water main construction such as fire hydrants, valves, valve boxes, and auxiliary valves are to be returned to the Village Of Hoffman Estates Public Works Department.

#### TRENCH BACKFILL & BEDDING

At no time shall water encountered in the trench be allowed to enter the pipe. The contractor shall be responsible for all necessary dewatering.

Trench Backfill shall be required in all locations where the water main trench is under or within two feet (2') of existing or proposed pavements including but not limited to streets, sidewalks and driveways. The trench backfill material shall be placed in lifts not exceeding eight inches (8") and shall be mechanically compacted to ninety-five percent (95%) of the standard laboratory density. Verification of density testing shall be provided in writing to the Village prior to final acceptance of the water main.

Bedding shall be CA-7 at a minimum of four inches (4") below bottom of main. Coverage shall be CA-7 at a minimum of twelve inches (12") over the top of the main, unless trench is within two feet (2') of roadway, then complete coverage to top of excavation is required.

Aggregate for trench backfill and bedding material shall conform to requirements of article 704.01 of the "Standard Specifications" and shall conform to gradation CA-7. No recycled concrete shall be allowed.

#### LOCATION TRACER WIRE (SEE SHEET C-10)

Location (Tracer) Wire for HDPE/DIP pipe.

Location wire shall be Copperhead copper-clad steel 10-AWG Extra High Strength, minimum 45 mil HDPE insulation, Manufactured by Copperhead Industries. Direct bury wire connectors shall include three-way lockable Copperhead SnakeBite Locking Connectors and Copperhead Mainline-to-Service Connectors. Non-locking, friction fit, or taped connectors are prohibited.

Location wire access points shall be installed as indicated on the Plans, Specifications, or directed by the Engineer.

- 1. Connection to Existing Water main: Mamba style sixty (60) inch round marker posts, with security sleeve cap style, built-in access point, and magnesium ground rod (12-AWG wire) shall be installed at connection to existing water main locations.
- 2. Mainline Water main: Cobra T-3 potable water access points, with hydrant flange package including 24-inch long, 1" dia, SCH 40 PVC conduit, shall be installed at all fire hydrant

Tracer wire shall be installed with all water main. The tracer system components, including tracer wire, connectors, ground rods and access points, must be compatible. The system shall be installed in conformance with the manufacturer's recommendations.

All tracer wire and tracer wire components shall be manufactured in the USA. Tracer wire and all access point products shall be blue. All new tracer wire installations shall be located using typical low frequency line tracing equipment, witnessed by the contractor, engineer, and facility owner as applicable, prior to acceptance of

ownership. Continuity testing, in lieu of actual line tracing, shall not be accepted. Location tracer wire and system components shall be considered incidental to water main

### CONSTRUCTION FENCING

Perimeter Construction Fencing to be placed at the direction of the owner and per the location found on the construction documents if applicable.

### THRUST BLOCKS

Blocking to prevent movement of mains under pressure at bends and fittings shall be Portland Cement Concrete, a minimum of 12-inches thick, placed between solid ground, and the fittings in such a manner that pipe fittings and joints will be accessible for repairs.

All bends of 22-1/2 degrees or greater, and all tees and plugs shall be thrust protected to prevent movement of the line under pressure.

Where undisturbed earth is not available and not likely to be available to support thrust blocks, tie rods and/or retaining glands (Megalugs type) shall be used as approved by the Village.

All valves shall conform to AWWA C-515 and be Mueller-A2361 with stainless trim or Village approved equal resilient wedge gate valves.

### VALVE VAULT

All valves proposed shall be installed in five foot (5') diameter minimum, unless otherwise approved by the Village Of Hoffman Estates, precast concrete vaults conforming to ASTM C478 and in accordance with Article 602.02 of the IDOT "Standard Specifications" and as detailed in the plans.

### Adjusting rings shall be precast concrete rings.

A valve vault frame and lid, in accordance with Section 604 of the Standard Specifications and as manufactured by Neenah Foundry Company (R-1712 in paved areas, R-1772 in grass areas) or approved equal, embossed per the Village standard detail, shall be provided for all valve vaults.

Vault steps shall be polypropylene plastic, manufactured by M.A. Industries (PSI-PF) or approved equal.

All pipe openings shall have a locking flexible manhole sleeve, conforming to ASTM-C923, integrally cast into the barrel section.

#### FIRE HYDRANTS

Fire hydrants shall meet AWWA C-502 and shall be Mueller Centurion, A-423 with stainless steel trim, or village approved equal.

All fire hydrant lead pipes shall be DIP zinc-coated, per the project specifications for water main pipe.

All hydrants shall have a six foot (6') bury depth, with an aux. valve installed with a two piece valve box and valve box adapter II or equal and 5-1/4 inch valve opening. All hydrants shall have one 1-1/2 inch pentagon operating nut, two 2-1/2 inch hose nozzles and one 4-1/2 inch National Standard nozzle. Threads shall be the standard NSHT.

Fire hydrant barrel extension kit (Mueller) may be required on one or more fire hydrants. No more than one extension kit is permitted per hydrant.

#### All hydrants shall include a mechanical joint.

Construction shall conform to that indicated on the detail in the plans. Each hydrant shall be equipped with auxiliary gate valve complete with Roadway Box fitted with adapter II or equal, Mueller H-10360 or

No hydrant shall be installed within 48-inches of any obstruction nor shall any obstruction be placed within 48-inches of a hydrant.

#### All fire hydrants shall be red in color.

The Contractor shall be responsible for supplying the Village Of Hoffman Estates Public Works Department with one (1) hydrant flag for each hydrant installed. Each flag will be "spring type", 4' x 3/8" and applicable to a top bonnet bolt.

#### PROTECTION OF WATER MAIN AND WATER SERVICE LINES

Separation of Water Mains and Services from sewers shall comply with the Illinois EPA Division of Public Water Supplies Technical Policy Statements, latest edition.

#### POLYETHYLENE WRAP ENCASEMENT

Polyethylene encasement shall be wrapped and taped around all ductile iron pipe and fittings, retaining rings, valves in valve boxes, fire hydrants and auxiliary valves and boxes. the polyethylene material shall be Class C (blue in color) in conformance with the new requirements of ANSI a21.5 and AWWA C-105-93, Sections 4.1, 4.2, and 4.3, the minimum nominal thickness shall be 8 mils (0.008 inches). The inside surface of the polyethylene wrap in contact with the pipe exterior shall be infused with a blend of anti-microbial biocide to mitigate microbial influenced corrosion and volatile corrosion inhibitor to control aalvanic corrosion.

#### PRESSURE AND LEAKAGE TESTING

Prior to any testing, an 8 1/2"x 11" site plan shall be submitted to the Water Superintendent which shall show any section of main being pressure tested, chlorinated, or tested for bacteria levels, and shall clearly show the sections of main being submitted for permit and shall clearly indicate the footage of main.

All water mains and water services three (3") inches or greater shall be pressure tested as described in this section. Pressure tests shall be scheduled with the Public Works Department, with a minimum of forty-eight (48) hour notice prior to the test. ONLY Public Works personnel will operate valves connected to the existing water system.

All newly laid pipe shall be pressure tested utilizing an oil-filled pressure gauge, in two (2) pound increments. The test pressure of one hundred fifty pounds-per-square-inch (150 psi) shall be applied for the duration period of not less than one hour, with no loss or gain. Each valved section of pipe shall be filled with water and the specified test pressure shall be applied by means of a pump connected to the pipe. Any cracked or defective pipes, fittings, valves, or hydrants discovered in consequence of this pressure test shall be removed and replaced and the test repeated until satisfactory results are obtained.

All testing shall be completed on the new main line to shut-down connections to existing mainline. Testing shall be performed in sections as follows valves 102 to 108, 108 to 114, and 114 to 122.

The Contractor shall provide all labor, materials, tools and equipment necessary to perform the pressure test. All costs for testing shall be included in the cost of the water main installation. No additional compensation shall be allowed.

All testing shall be done prior to the installation of any service lines.

All valves, including hydrant auxiliary valves, shall be open to include hydrants during the pressure test and

All pressure tests, chlorination and bacteria samples shall be done in the presence of the Public Works

### **DISINFECTION**

Prior to chlorination, the main shall be flushed as thoroughly as possible with the water pressure and outlets available. Flushing shall be done after the pressure test is made. It must be understood that such flushing removes only the lighter solids and cannot be relied upon to remove heavy material allowed to get into the main during construction. If no hydrant is installed at the end of the main, a tap should be provided, large enough to affect a velocity in the main of at least 2.5 feet-per-second.

The preferred point of application of the chlorinating agent shall be at the beginning of the pipeline extension or any valved section of it through a corporation stop in the top of the newly laid pipe. The injector for delivering the chlorine-gas into the pipe should be supplied from a tap on the pipeline extension side of the gate valve controlling the flow into the pipe extension.

Water from the existing distribution system or other source of supply shall be controlled to flow slowly into the newly laid pipeline during the application of chlorine—gas. The rate of chlorine mixture flow shall be in such a proportion to the rate of water entering the pipe that the chlorine dose applied to the water entering the newly laid pipe shall be at least fifty (50) ppm, or enough to meet the requirements during the retention period.

Valves shall be manipulated so that the strong chlorine solution in the line being treated will not flow back into the line supplying water.

Treated water shall be retained in the pipe for at least twenty-four (24) hours. After chlorine-treated water has been retained for the required time, the chlorine residual at the pipe extremities and at other representative points should be at least ten (10) ppm.

In the process of chlorinating newly laid pipe, all valves or other appurtenances shall be operated while the pipeline is filled with chlorinating agent.

All water mains shall be disinfected and tested according to the requirements of the "Standards for Disinfecting Water Mains", AWWA C-601 and as required by this section, shall be performed by an independent firm exhibiting experience in the methods and techniques of this operation, and shall be done in the presence of Public Works personnel. Public Works shall be notified of the time of disinfection a minimum of forty-eight (48) hours prior to the disinfection.

Following chlorination, all treated water shall be thoroughly flushed from the newly laid pipeline at its extremities until the replacement water, throughout its length shall, upon test, be approved as safe water by the Water Superintendent. This quality of water delivered by the new main should continue for a period of at least two (2) full days as demonstrated by laboratory examination of samples taken from a tap located and installed in such a way as to prevent outside contamination. Samples may not be taken from a fire hydrant. Two (2) samples, taken twenty-four (24) hours apart shall pass the requirements of this section. Upon final flushing, the chlorine residual in the new main shall not exceed normal chlorine residual in the existing main. Samples shall be collected at approximately 1000' intervals, corresponding with the valve-to-valve pressure leakage and testing sections indicated above.

Samples shall be taken by the firm performing the disinfection of the main and be in the presence of Public Works personnel. The sample shall be taken to a laboratory approved by the Village for analysis.

If either, or both sets or samples do not pass the bacteriological examination, the Contractor shall again

disinfect the main in accordance with procedures until such time that satisfactory samples are collected. The Contractor and the Village will be furnished with copies of the bacteriological report for their records.

All new water mains, hydrants, and water services 3 inch and greater shall not be put into service until all testing requirements are fulfilled and any required permits are obtained by the Village.

#### CLEAN CONSTRUCTION OR DEMOLITION DEBRIS

Contractor will be provided with CCDD 663 forms from Village.

#### CONNECTIONS TO EXISTING MAINS

It is anticipated that shutdown connections will be utilized for all connections to existing main. Should a shutdown connection not be possible, the connections to the Village's water distribution system shall be made under full water service pressure. The following specifications shall apply:

#### 1) DIP Tapping Sleeves

- a) Use stainless steel two-piece bolted sleeve type with flange joint,
- Ford FTSS, Smith Blair #665, Cascade CST-EX, or approved equal. b) Provide joint accessories.

#### 2) Tapping Valves

a.1) Use mechanical joint type, Clow F-5093, or equal.

a) Use fully ported gate valves complying with AWWA C515.

b) Tapping valves shall be placed in precast concrete vaults in accordance with the Village's "Pressure Connection" Detail.

#### MISCELLANEOUS ALLOWED MATERIALS

Valve Insertions and Line Stops:

## As approved by the Village Of Hoffman Estates.

Mueller, H-10302, or A.Y. McDonald #5623, only. B-Boxes shall be 1-1/2", 6' bury Minneapolis pattern, no risers will be accepted.

#### Water Main Casing Spacers:

Casing spacers shall be Cascade #CCS, no substitutions.

## #4701-22 only.

Mueller, Flare H-15154 or A.Y. McDonald, Flare, #6107, Mueller H-15155 compression or A.Y. McDonald #6104-22 only.

Mueller, Flare H-15000 or A.Y. McDonald, Flare, #4701, Mueller H-15008 compression or A.Y. McDonald

#### Restraining devices shall be Megalug type, no substitutions.

DIP Tapping Saddles: Pressure test ports and chlorination taps, 1-1/4" to 2", shall be made in conformance with manufacturer's recommendations using Cascade Style CS22, or Smith Blair Model 267, only Tapping sleeves shall be all stainless steel and located in valve vaults. Corporation stops shall be

as specified above.

HDPE tapping is not indicated on the plans and shall require contractor material submittal and engineer and Village approval.

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) WATER:STATES BOULEVARD
HOFFMAN ES

SPECIFICATIONS

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> DRAWN BY: MJ/CFR APPROVED: SGM JOB DATE: <u>09/09/2024</u> JOB NO: 190796

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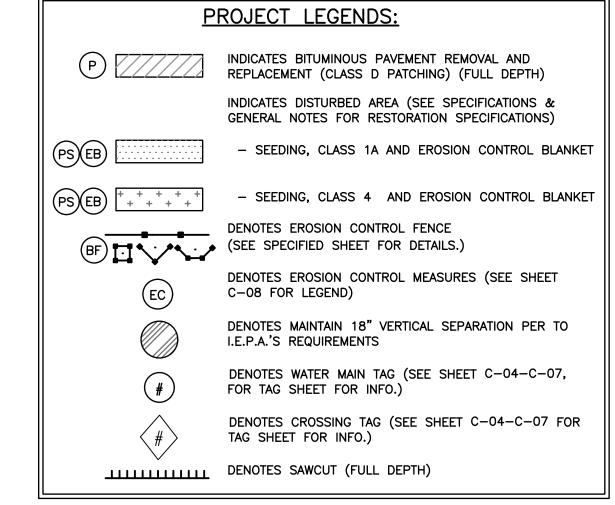
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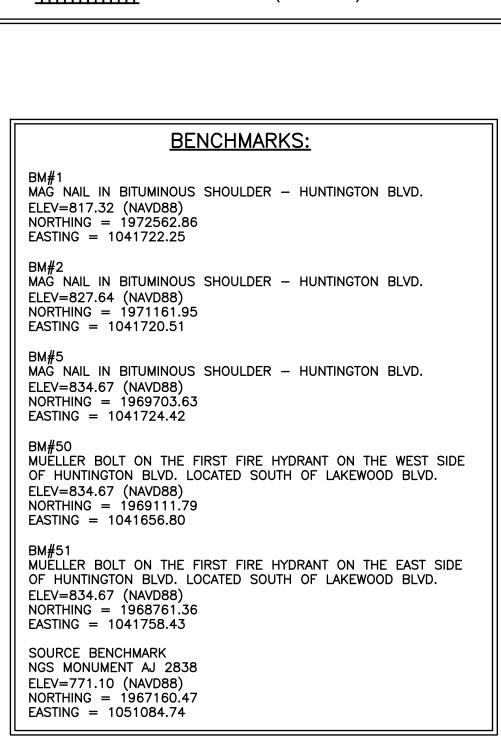
## SUMMARY OF QUANTITIES

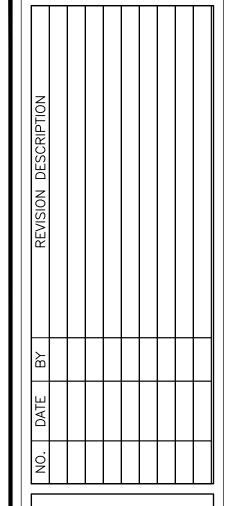
ITEM	DESCRIPTION	UNIT	QUANTITY
1	PERIMETER EROSION BARRIER	FOOT	305
2	CONNECT TO EXISTING WATER MAIN	EACH	1
3	FURNISH AND PLACING TOPSOIL, 6"	SQ YD	367
4	EROSION CONTROL BLANKET (EXCELSIOR)	SQ YD	367
5	SEEDING, CLASS 1A	ACRE	0.065
6	SEEDING, CLASS 4	ACRE	0.010
7	HOT-MIX SHOULDERS, 8"	SQ YD	63
8	SUBBASE GRANULAR MATERIAL, TYPE C, 4"	SQ YD	63
9	NITROGEN FERTILIZER NUTRIENT	POUND	7
10	POTASSIUM FERTILIZER NUTRIENT	POUND	7
11	FIRE HYDRANT REMOVAL WITH RESTORATION	EACH	2
12	FIRE HYDRANT WITH AUXILARY VALVE AND VALVE BOX	EACH	4
13	GATE VALVE 16" WITH VAULT, 5' DIAMETER	EACH	3
14	PRESSURE CONNECTION WITH TAPPING SLEEVE 16" VALVE	EACH	1
15	TRAFFIC CONTROL AND PROTECTION	L.SUM	1
16	VALVE VAULT ABANDONMENT WITH RESTORATION	EACH	3
17	WATER MAIN, 16" DUCTILE IRON PIPE	FOOT	114
18	WATER MAIN, 18", HDPE DIRECTIONAL DRILLED	FOOT	2,799
19	WATER MAIN TO BE ABANDONED (WITH CUT & CAP)	EACH	3

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<u>E</u>	EXISTING	PROPOSED		
SANITARY MANHOLE	<b>©</b>			
STORM MANHOLE	<b>©</b>	ledot		
STORM CATCH BASIN/INLET	$\odot$			
INLET		<b>.</b>		
FLARED END SECTION	4	<b>◆</b>		
VALVE VAULT	8	•		
WATER SERVICE VALVE	Θ	•		
FIRE HYDRANT WITH AUXILIARY VALVE	Q	lacksquare		
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REGULATORY SIGN	<del>"</del>	<del></del>		
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TELEPHONE LINE	—— <i>T</i> ——			
GAS LINE				
CABLE TV LINE	——————————————————————————————————————	CATV		
FIBER OPTIC LINE	———FO——	——-FO		
RAILROAD TRACKS		<del>-         </del>		
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TREE				
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SPOT ELEVATION	<b>⊢</b> EXIST	⊢————————————————————————————————————		
FENCE	x	1101		
WETLAND				
MARSH / WETLAND	<u></u>			
RIPRAP				
DRAINAGE DIRECTION ARROW	V	<b>-√→</b>		
DRAINAGE OVERFLOW DIRECTION -				

#### STANDARD ABBREVIATIONS B-B - BACK TO BACK OF CURB I L.E. - LANDSCAPE EASEMENT B.C. - BACK OF CURB M.H. - MANHOLE (TYPE SPECIFIED B.O.C. - BACK OF CURB ON PLANS) B.S.L. - BUILDING SETBACK LINE R.C.M.E. - ROAD CONSTRUCTION & C.B. - STORM CATCH BASIN MAINTENANCE EASEMENT C.E. - COMMONWEALTH EDISON CO. R.O.W. - RIGHT OF WAY D.E. - DRAINAGE EASEMENT T.B.F. - TRENCH BACKFILL | E-E - EDGE TO EDGE OF PAVEMENT T.C. - TOP OF CURB E.O.P. - EDGE OF PAVEMENT T.C.E. - TEMPORARY CONSTRUCTION E.O.S. - EDGE OF SHOULDER EASEMENT E.P. - EDGE OF PAVEMENT T.O.B. - TOP OF BERM E.S. — EDGE OF SHOULDER T.O.C. - TOP OF CURB F.E.S. - FLARED END SECTION U.E. - UTILITY EASEMENT I.B.T. - ILLINOIS BELL TELEPHONE CO.







# 184.001322 # 184.001322 1391 CORPORATE DR SUITE 203 MCHENRY, IL 60050 PHONE: 815.385.1778 FAX: 713.965.0044



TER MAIN REPLACEMENT ES

BENCI

AND

HUNTINGTON BOULEVARD WATER NILLAGE OF HOFFMAN ESTATES
HOFFMAN ESTATES, ILLINOIS
FOR CONSTRUCTION
SUMMARY OF QUANTITIES, LEGENDS, A

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IF NOT ONE INCH,

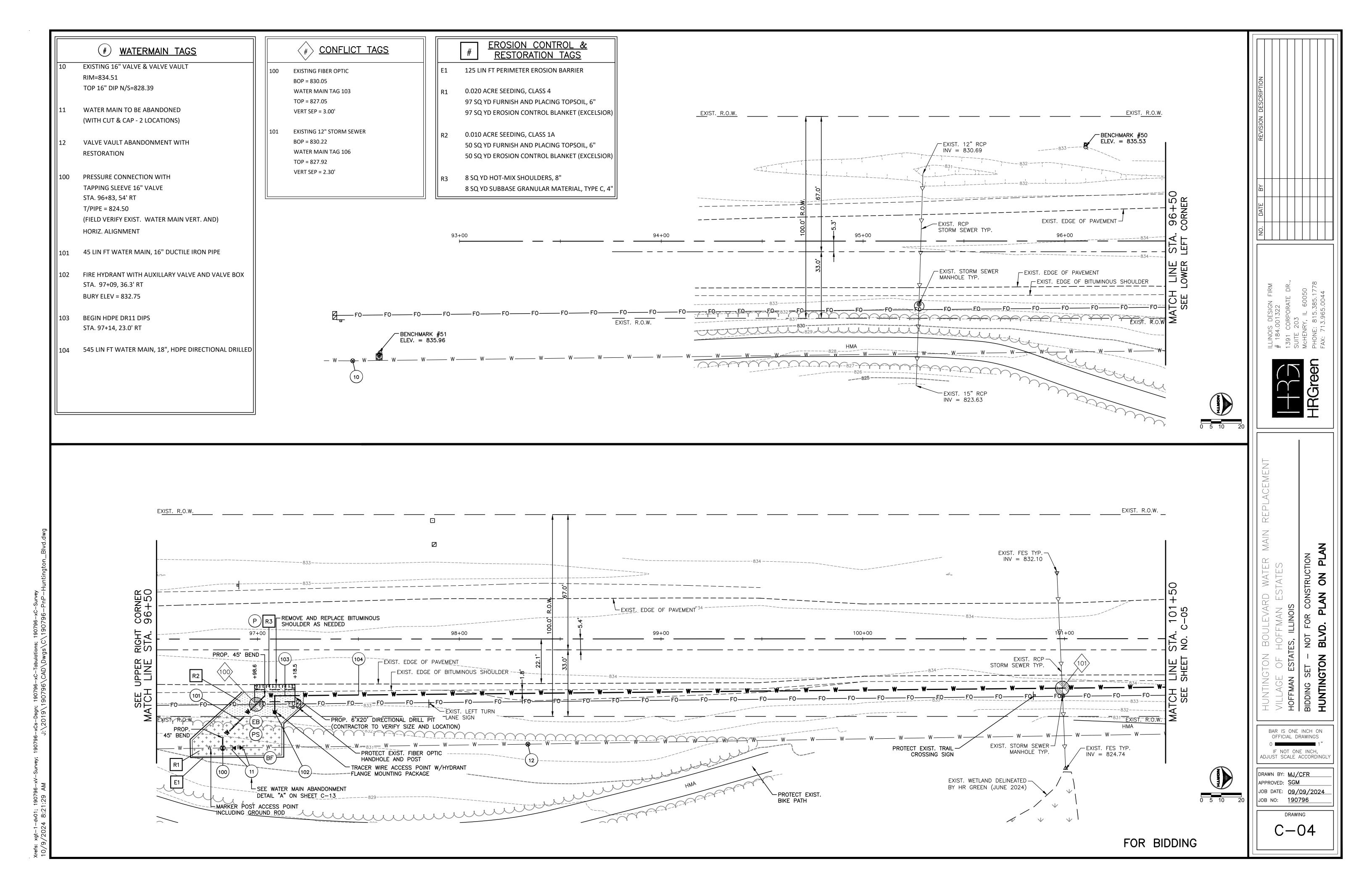
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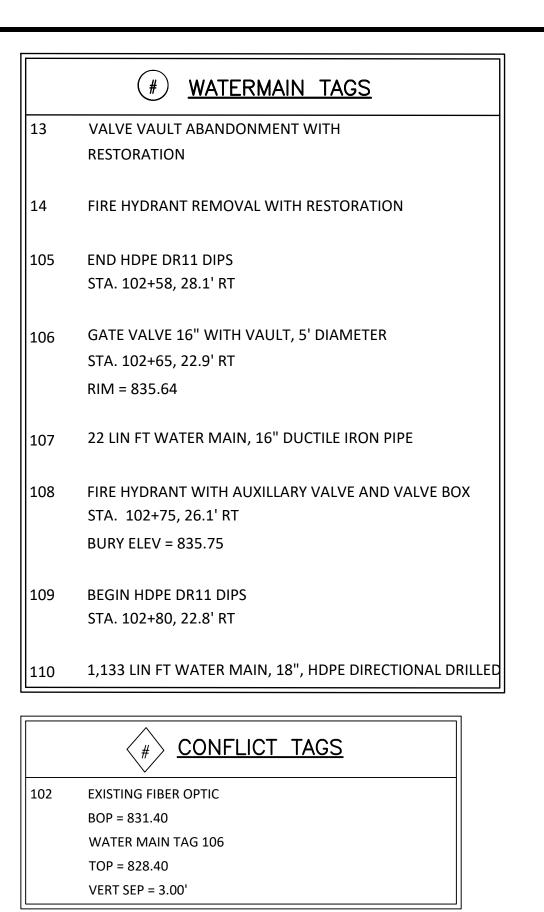
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APPROVED: SGM

JOB DATE: 09/09/2024

JOB NO: 190796

C-03

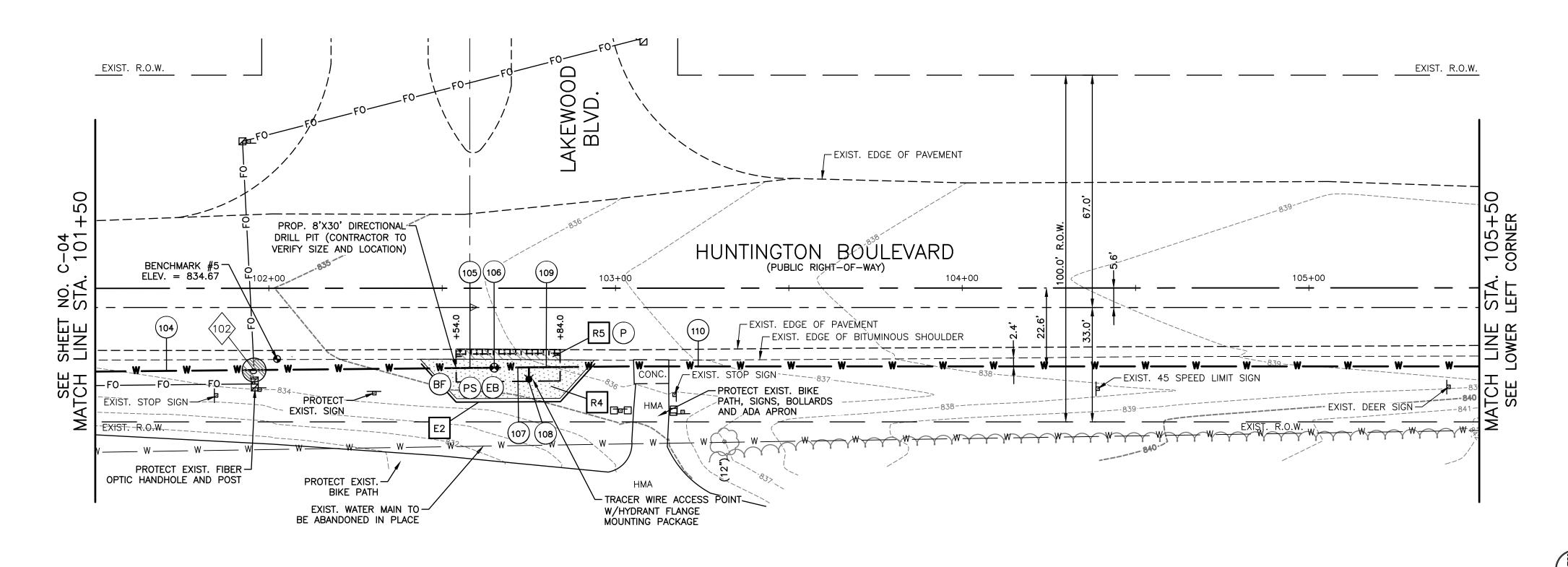


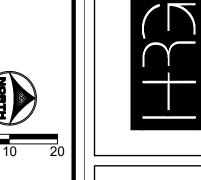


EROSION CONTROL & RESTORATION TAGS 65 LIN FT PERIMETER EROSION BARRIER 0.010 ACRE SEEDING, CLASS 1A 50 SQ YD FURNISH AND PLACING TOPSOIL, 6" 50 SQ YD EROSION CONTROL BLANKET (EXCELSIOR)

10 SQ YD SUBBASE GRANULAR MATERIAL, TYPE C, 4"

10 SQ YD HOT-MIX SHOULDERS, 8"





EXIST. R.O.W. EXIST. R.O.W. EXIST. WETLAND DELINEATED — BY HR GREEN (JUNE 2024) EXIST. EDGE OF PAVEMENT HUNTINGTON BOULEVARD

(PUBLIC RIGHT-OF-WAY)  $\circ$ 106+00 -EXIST. EDGE OF PAVEMENT EXIST. EDGE OF BITUMINOUS SHOULDER LEXIST. WATER MAIN TO BE ABANDONED IN PLACE

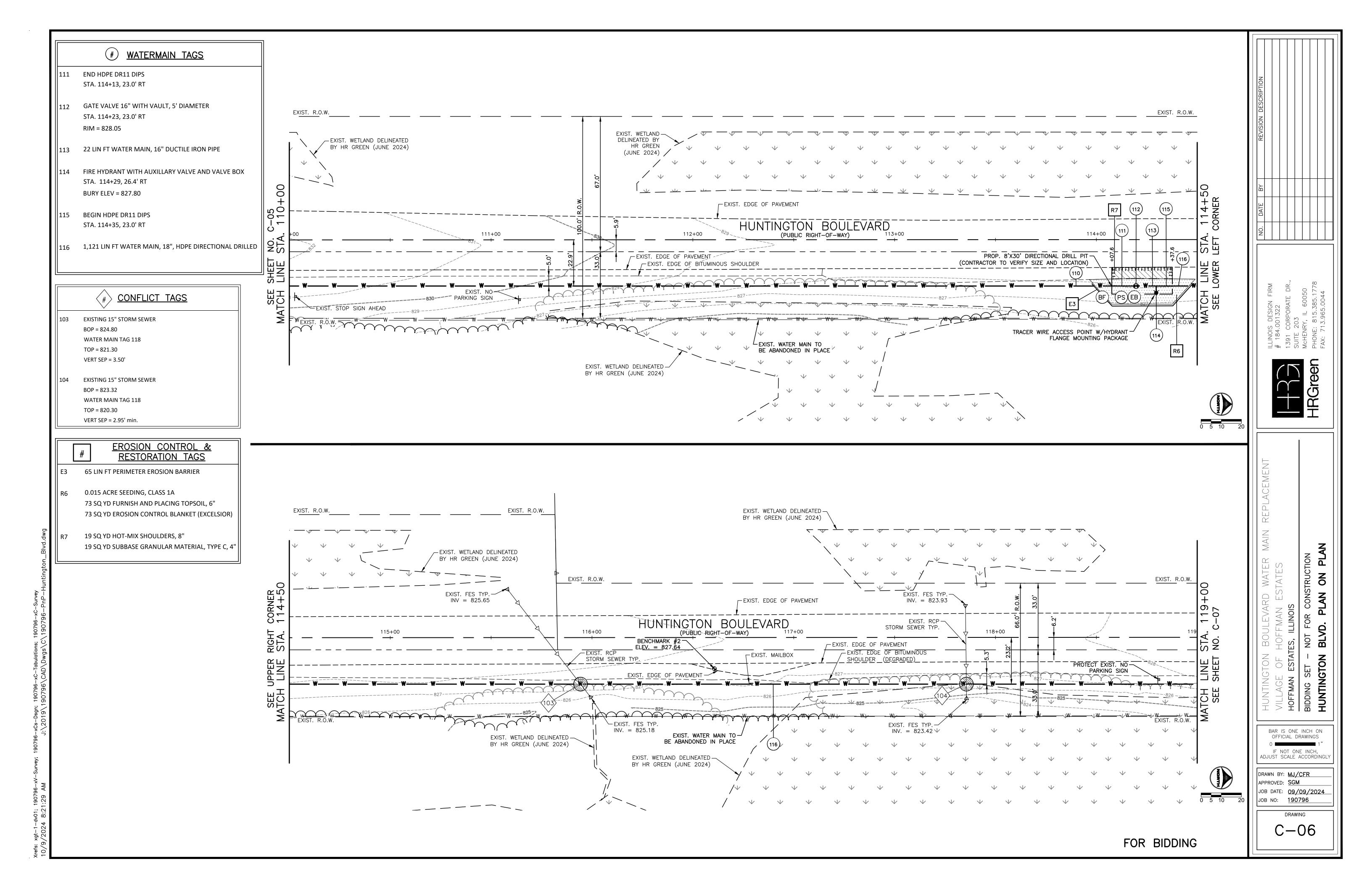
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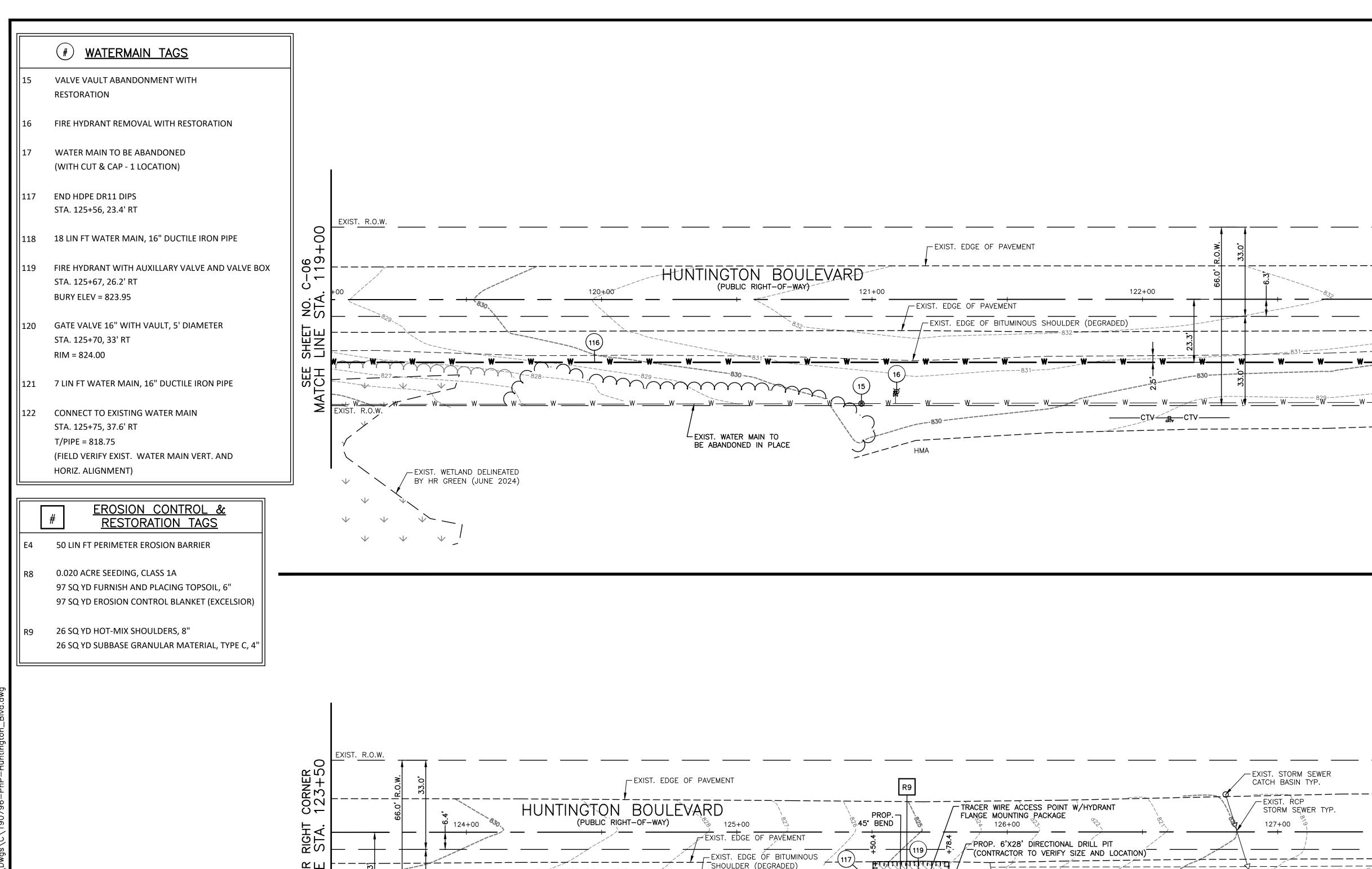
HUNTINGTON

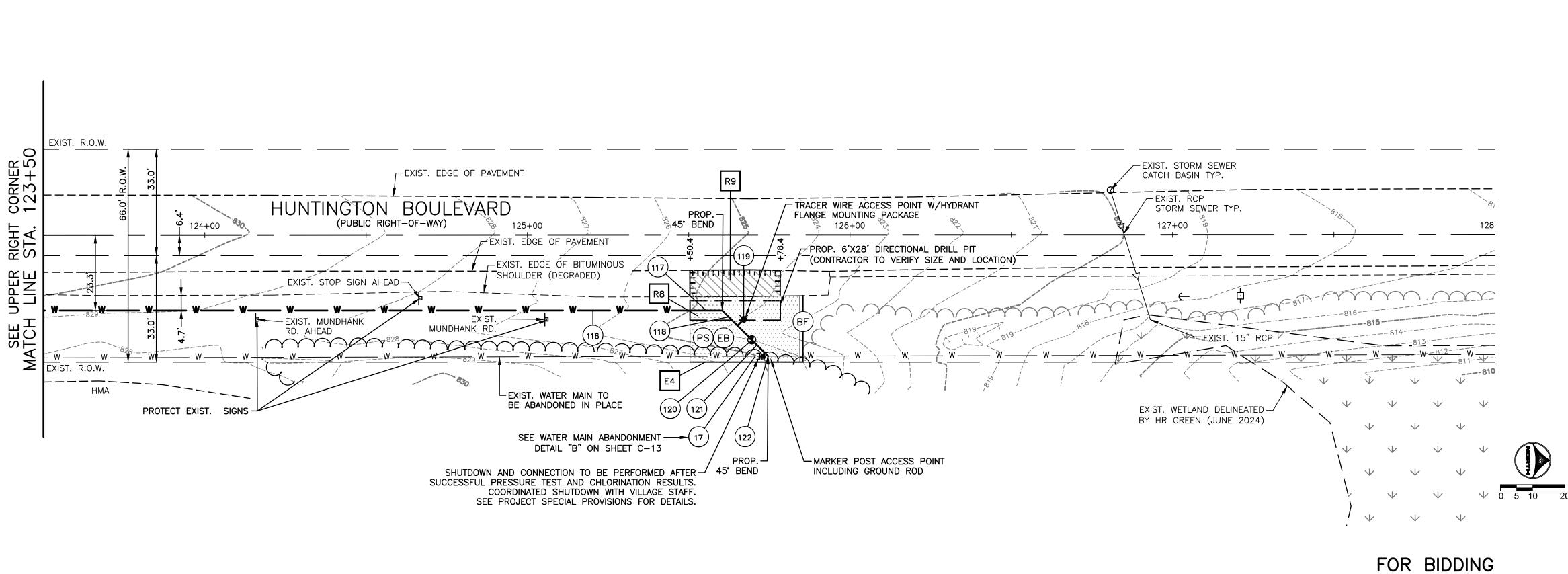
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BAR IS ONE INCH ON OFFICIAL DRAWINGS IF NOT ONE INCH, ADJUST SCALE ACCORDINGL'

DRAWN BY: MJ/CFR APPROVED: SGM JOB DATE: <u>09/09/2024</u> JOB NO: 190796







EXIST. R.O.W.

8

HUNTINGTON

BAR IS ONE INCH ON

OFFICIAL DRAWINGS

IF NOT ONE INCH,

ADJUST SCALE ACCORDINGL'

JOB DATE: <u>09/09/2024</u>

DRAWN BY: MJ/CFR

JOB NO: 190796

APPROVED: SGM

Xrefs: xgt-1-dv01; 190796-xV-Survey; 190796-xCs-Dsgn; 190796-xC-Tabulations; 190796-xC-Survey 10/9/2024 8:21:29 AM J:\2019\190796\CAD\Dwgs\C\190796-PnP-Huntington\_Blvd.dwg

CONTROL MEASURE GROUP	CONTROL MEASURE	APPL.	KEY	CONTROL MEASURE CHARACTERISTICS	ТЕМР.	PERMNT
	TEMPORARY SEEDING		TS	PROVIDES QUICK TEMPORARY COVER TO CONTROL EROSION WHEN PERMANENT SEEDING IS NOT DESIRED OR TIME OF YEAR IS INAPPROPRIATE.		
	PERMANENT SEEDING	X	PS	PROVIDES PERMANENT VEGETATIVE COVER TO CONTROL EROSION, FILTERS SEDIMENT FROM WATER. MAY BE PART OF FINAL LANDSCAPE PLAN.		X
VEGETATIVE SOIL COVER	DORMANT SEEDING		DS	SAME AS PERMANENT SEEDING EXCEPT IS DONE DURING DORMANT SEASON. HIGHER RATES OF SEED APPLICATION ARE REQUIRED.		
	SODDING		SO	QUICK PERMANENT COVER TO CONTROL EROSION. QUICK WAY TO ESTABLISH VEGETATION FILTER STRIP. CAN BE USED ON STEEP SLOPES OR IN DRAINAGEWAYS WHERE SEEDING MAY BE DIFFICULT.		
	GROUND COVER		(CC)	PROVIDES GROUND COVER, SHRUBS AND TREES IN ADDITION TO PERMANENT VEGETATION. MAY BE USED AS PART OF A FINAL LANDSCAPE PLAN ALONG WITH SHRUBS AND TREES.		
	MULCHING		M	ADDED INSURANCE OF A SUCCESSFUL TEMPORARY OR PERMANENT SEEDING. CONTROLS UNWANTED VEGETATION AND PRESERVES MOISTURE. PROVIDES COVER WHERE VEGETATION CANNOT BE ESTABLISHED.		
NON VEGETATIVE SOIL COVER	AGGREGATE COVER	X	AG	PROVIDES SOIL COVER ON ROADS AND PARKING LOTS AND AREAS WHERE VEGETATION CANNOT BE ESTABLISHED. PREVENTS MUD FROM BEING PICKED UP AND TRANSPORTED OFF—SITE.		X
	PAVING	Х	P	PROVIDES PERMANENT COVER ON PARKING LOTS AND ROADS OR OTHER AREAS WHERE VEGETATION CANNOT BE ESTABLISHED.		X
	EROSION BLANKET	X	EB	PROVIDES QUICK TEMPORARY COVER TO CONTROL EROSION WHEN PERMANENT SEEDING TIME OF YEAR IS INAPPROPRIATE AND IN SLOPED AREAS.	X	
	RIDGE DIVERSION		RD	TYPICALLY USED ABOVE SLOPES. USED WHERE AN EXCESS OF SOIL IS AVAILABLE.		
	CHANNEL DIVERSION		CD	TYPICALLY USED AT TOP OR BASE OF SLOPES. USED WHEN EXCESS SOIL IS NOT AVAILABLE.		
DIVERSIONS	COMBINATION DIVERSION		(DC)	TYPICALLY USED ANYWHERE ONA SLOPE. SOIL TAKEN OUT OF CHANNEL IS USED TO BUILD THE RIDGE.		
	CURB AND GUTTER		CG	SPECIAL CASE OF DIVERSION USED IN CONJUNCTION WITH A STREET TO DIVERT WATER FROM AN AREA NEEDING PROTECTION.		
	BENCHES		B	SPECIAL CASE OF DIVERSION CONSTRUCTED WHEN WORKING ON CUT SLOPES TO SHORTEN LENGTH OF SLOPE AND ADD SLOPE STABILITY.		
	BARE CHANNEL		BC	PROVIDES MEANS OF CONVEYING RUNOFF TO DESIRED LOCATION. MAY BE USED TO DRAIN DEPRESSIONAL AREAS. ONLY APPLICABLE WHEN VELOCITY OF FLOW IS VERY LOW.		
WATERWAYS	VEGETATIVE CHANNEL		VC	PROVIDED ADDED STABILITY TO CHANNEL. USED WHEN VELOCITY OF FLOW IS NOT EXTREMELY FAST.		
	LINED CHANNEL		CC	USED WHEN VEGETATION WILL NOT PROTECT THE CHANNEL AGAINST HIGH VELOCITIES OF FLOW OR WHERE VEGETATION CANNOT BE ESTABLISHED.		
	ROCK CHECKS		RC	PROVIDES AN ENERGY DISSIPATOR ALONG A LENGTHY CHANNEL TO REDUCE VELOCITY OF STORMWATER		
<b>ENGLOCED</b>	STORM SEWER		ST	CAN BE USED TO CONVEY SEDIMENT LADEN WATER TO SEDIMENT BASIN OR IN CONJUNCTION WITH A WATERWAY.		
ENCLOSED DRAINAGE	UNDERDRAIN		(UD)	USED TO LOWER WATER TABLE AND INTERCEPT GROUNDWATER FOR BETTER VEGETATION GROWTH AND SLOPE STABILITY. USED TO CARRY BASE FLOW IN WATERWAYS AND TO DEWATER SEDIMENT BASINS.		
	STRAIGHT PIPE SPILLWAY		SS	USED FOR RELATIVELY SMALL VERTICAL DROPS AND SMALL FLOWS OF WATER		
SPILLWAYS	DROP INLET PIPE SPILLWAY		DIS	SAME AS PIPE SPILLWAY EXCEPT LARGER FLOWS AND LARGE VERTICAL DROPS CAN BE ACCOMMODATED.		
SFILLWATS	WEIR SPILLWAY		W	USED FOR RELATIVELY SMALL VERTICAL DROPS AND FLOWS MUCH GREATER THAN PIPE STRUCTURES.		
	BOX INLET WEIR SPILLWAY		BS	SAME AS WEIR SPILLWAY EXCEPT LARGER FLOWS CAN BE ACCOMMODATED BECAUSE OF LOWER WEIR LENGTH.		
OUTLETS	LINED APRON		(A)	PROTECTS DOWNSTREAM CHANNEL FROM HIGH VELOCITY OF FLOW DISCHARGING FROM STRUCTURES.		
00,12,0	STONE RIP RAP		RR	USED AS AN ENERGY DISSAPATOR AT OUTLET STRUCTURES TO REDUCE VELOCITIES		
	EMBANKMENT SEDIMENT BASIN		ES	USED WHERE TOPOGRAPHY LENDS ITSELF TO CONSTRUCTING A DAM AND EARTH FILL IS AVAILABLE.		
SEDIMENT BASINS	EXCAVATED SEDIMENT BASIN		(xs)	USED WHERE EMBANKMENT COULD CAUSE A HAZARD DOWNSTREAM IN CASE OF FAILURE AND WHEN EXCESS EARTH FILL IS NOT AVAILABLE.		
	COMBINATION SEDIMENT BASIN		cs	USED WHEN TOPOGRAPHY IS SUITABLE BUT ADDITIONAL CAPACITY IS NEEDED.		
SEDIMENT	BARRIER FILTER	Х	BF	USED FOR SINGLE LOTS OR DRAINAGE AREAS LESS THAN 1/2 ACRE TO FILTER SEDIMENT FROM RUNOFF.	Х	
FILTERS	VEGETATIVE FILTER		VF	USED ALONG DRAINAGEWAYS OR PROPERTY LINES TO FILTER SEDIMENT FROM RUNOFF. SIZE MUST BE INCREASED IN PROPORTION TO DRAINAGE AREA.		
	FILTER BASKET	X	FB	USED FOR FILTERING SEDIMENT WITHIN THE ROADWAY BEFORE ENTERING THE STORM SEWER	X	
	INLET PROTECTION	Х	(IP)	USED FOR FILTERING SEDIMENT WITHIN GRASS AREAS BEFORE WATER ENTERS THE STORM SEWER	х	
MUD AND DUST	STABILIZED CONST. ENTRANCE		SE	PREVENT MUD FROM BEING PICKED UP AND CARRIED OFF—SITE.		
CONTROL	B. ( B. )	1	$I \frown I$		1	Ī

	co	BY * ONTRACTO	 OR	SPECII	I.D.O.T. FICATIONS — JUNE	s-	T	NSIBILITIE BY —— THERS	S PE SPEC AUG.	TR I.D.O. CIFICATION 1 — NO	ONS —		/ * PACTOR
STABILIZATION TYPE	JAN.	FEB.	MAR.	APR.	MAY	J	UNE	JULY	AUG	SEPT.	ост.	NOV.	DEC.
PERMANENT SEEDING													
SODDING													
TEMPORARY SEEDING													

A (1) KENTUCKY BLUEGRASS 50 LBS/ACRE MIXED WITH PERENNIAL RYEGRASS 30 LBS/ACRE AND CREEPING RED FESCUE

DUST AND TRAFFIC CONTROL

CONTROL

*20 LBS/ACRE* B (1A) BLUE GRASS 30 LBS/ACRE PERENNIAL RYEGRASS 10 LBS/ACRF DAWSONS RED FESCUE 10 LBS ACRE SCALDIS HARD FESCUE 10 LBS/ACRE

FULTS SALT GRASS 30 LBS/ACRE ANDROPOGON GERNADI (BIG BLUE STEM) 4 LBS/ACRE ANDROPOGON SCOPARIUS (LITTLE BLUE STEM) 5 LBS/ACRE BOUTELOVA CURTIPENDULA (SIDE OATS GRAMA) 5 LBS/ACRE ELYMUS CANADENENSIS (WILD RYE) 1 LBS/ACRE PANCIUM VIRGATUM (SWITCH GRASS) 1 LBS/ACRE SORGHASTRUM NUTONS (INDIAN GRASS) 2 LBS/ACRE ANNUAL RYE GRASS 25 LBS/ACRE OATS. SPRING 25 LBS/ACRE PERENNAL RYE GRASS 15 LBS/ACRE

D (4B) ANNUAL RYE GRASS 250 LBS/ACRE OATS, SPRING 250 LBS/ACRE WETLAND GRASSES 6 LBS/ACRE

SPRING OATS 100 LBS/ACRE

PREVENTS DUST FROM LEAVING CONSTRUCTION SITE.

WHEAT OR CEREAL RYE

*150 LBS/ACRE*.

ALFALFA/SOYBEANS 100-250 LBS/ACRE (VERIFY WITH TCR)

IRRIGATION NEEDED FOR 2 TO 3 WEEKS AFTER APPLYING SOD.

IRRIGATION NEEDED DURING JUNE AND JULY

( ) IDOT STANDARD

#### **EROSION CONTROL NOTES:**

- No land disturbing activities shall not commence until approval to do so has been received by governing authorities, in addition to, no land clearing or grading shall begin until all perimeter erosion and sediment control measures have been installed. (Including storm water pollution prevention plan per the development criteria.)
- The general contractor shall strictly adhere to the storm water pollution prevention plan (swppp) during construction operations.
- \* All topsoil shall be stripped prior to filling
- All exposed areas shall be seeded as specified within 14 days of final grading.
- Should construction stop for longer than 14 days, the site shall be seeded as
- Sediment and erosion control measures shall be inspected at least once every seven (7) days and within 24 hours of a rainfall exceeding 0.5 inches during a 24-hour period or more frequently if required by governing NPDES general permit. All maintenance required by inspection shall commence within 24 hours and be completed
- This plan shall not be considered all inclusive as the general contractor shall take all necessary precautions to prevent soil sediment from leaving the site.
- General contractor shall comply with all state and local ordinances that apply. Additional erosion and sediment control measures will be installed if deemed necessary
- If installation of storm drainage system should be interrupted by weather or nightfall, the pipe ends shall be covered with filter fabric.
- General contractor shall be responsible to take whatever means necessary to establish
- All sedimentation and erosion control regulations shall be adhered to per the Village of Hoffman Estates requirements
- All erosion and sediment control practices shall be maintained and repaired as needed to ensure effective performance of the required erosion control measures
- All erosion and sediment control work shall conform to the I.D.O.T. Manual for. standards and procedures for erosion control.
- All construction will adhere to the requirements set forth in the iepa's new construction site activities national pollutant discharge elimination system (npdes)
- \* All roadways shall be cleaned at the end of each construction day.
- All disturbed greas shall be stabilized within 7 days of active disturbance.
- All erosion control measures shall be disposed of within 30 days of final stabilization
- Ground cover for 5:1 slopes or greater shall be established as soon as possible.
- All disturbed areas to to restored w/ 6" topsoil respread & seeding/sodding unless
- Silt filter fabric shall be placed between frame and grate until vegetation is established. (see detail)
- Utilize excelsior blanket on all slopes of 5:1 or greater.
  \*Seeding per I.D.O.T. Manual, section 251,standard specifications for road and bridge construction. (latest edition
- \*Class 3 type slope mixture \*Mulch/hydroseed per I.D.O.T. Manual, section 251, standard specifications for road and bridge construction, (latest edition \*Mulch/hydroseed method 2, procedure 3
- No dimensions shall be assumed by scaling
- No known drain tiles are present on the proposed development, if tiles are encountered during construction please notify the engineer immediately.
- No part of the proposed project is located within a flood hazard 10-100yr area a
- Excess material shall be placed at specified location unless otherwise specified by owner and approved by engineer for use of lot grading. Stockpiles shall be surrounded with filter fence and shall be seeded per I.D.O.T. Manual (latest addition) (temporary) if left more than 14 working days.
- General contractor shall notify all utility companies having underground utilities on site or in right—of—way prior to excavation. Contractor shall contact utility locating company and locate all utilities prior to grading start.

### <u>PHASING NOTES</u>

SEQUENCE OF MAJOR ACTIVITIES - AS APPLICABLE TO PROJECT The Contractor will be responsible for implementing the following erosion control and storm water management control measures. The Contractor may designate these tasks to certain subcontractors as he sees fit, but the ultimate responsibility for implementing these controls and ensuring their proper functioning remains with the Contractor. The order of activities will be as follows (refer to the <u>Erosion and Sediment Control Plan Sheet</u> contained in this SWPPP for details and refer to the Suggested Phasing Plan in the design drawings for construction

- A. A pre-construction meeting shall be held by the Site Project Manager and the Operator's
- Engineer prior to land disturbing activities.

  Install perimeter silt fences and inlet protection in the locations shown on the Erosion Control plan sheets. Implement erosion control measures around the existing storm sewer to prevent
- sedimentation from infiltrating into the storm sewer system as shown on the Erosion Control Construct temporary construction exits at locations shown on the Erosion Control plan
- Begin clearing and grubbing operations. Clearing and grubbing shall be done only in areas
- where earthwork will be performed and only in areas where building is planned to commence within 7 days after clearing and grubbing.

  Disturbed areas of the site where Construction Activity has ceased for more than 7 days shall be temporarily seeded and watered.
- Construct gutter inlets, area inlets, storm sewer manholes and proposed storm sewer. Install inlet / outlet protection around the constructed storm sewer to prevent sedimentation from infiltrating into the storm sewer system as shown on the Erosion Control plan sheets.
- Finalize pavement subgrade preparation. Construct all curb and gutter. Inlet protection may be removed temporarily for this

Construct utilities

- Remove inlet protection around inlets and manholes no more than 48 hours prior to placing
- stabilized base course. Install base material as required for pavement.

- Carry out final grading and seeding, sodding and planting, including rolled erosion control products where shown on the Erosion Control plan sheets.

  Remove silt fencing only after all paving is complete and exposed surfaces are stabilized.
- Remove temporary construction exits
- A schedule for implementation for the activities identified above is included as Form C-3 of the SWPPP.

### SPECIFICATIONS AND GENERAL NOTES:

This plan has been prepared to comply with the provisions of the NPDES Permit Number issued by the Illinois Environmental Protection Agency for Stormwater Discharges from Construction Site Activities.

- a. The following is a description of the construction activity which is the subject of this plan: The proposed improvements consists of construction of water main installation, clearing, grubbing, grading and restoration to existing conditions. The construction activities for site improvements will include: site clearing, grubbing, mass grading, payement construction, installation of utilities including storm sewers.
- soil erosion and sedimentation control measures, as a minimum. The following is a description of the intended sequence of major activities which will disturb soils for major portions of the construction site such as grubbing, excavation, and grading:
- The sequence of the construction activities may be as follows: See Sequence of major activities on this sheet.
- c. The total area of the construction site is estimated to be 0.41± acres.
- The total area if the site that is estimated to be disturbed by excavation, grading, or other activities, is

#### Controls.

This section of the plan addresses the various controls that will be implemented for each of the major construction activities described in 1.b above. For each measure discussed, the contractors will be responsible for its implementation as indicated. Each such contractor has signed the required certification on forms which are attached to, and are a part of, this plan.

- a. Erosion and Sediment Controls.
- (i) STABILIZATION PRACTICES. Provided below is a description of interim and permanent stabilization practices, including site-specific scheduling of the implementation of the practices. Site plans will ensure that existing vegetation is preserved where attainable and disturbed portions of the site will be stabilized. Except as provided in 2.a. (i) (A) and 2.b. stabilization measures shall be initiated as soon as practicable in portions of the site where construction activities have temporarily or permanently ceased, but in no case more than 7 days after the construction activity in that portions of the site
- (A) Where the initiation of stabilization measures by the 14th day after construction activity temporarily or permanently ceases is precluded by snow cover, stabilization measures shall be initiated as soon as practicable thereafter.

The following interim and permanent stabilization practices, as a minimum will be implemented to

- Temporary Seeding 5 Barrier filter
- 9 Vegetative channel 6 Inlet protection 10 Stabilized construction entrance Permanent seedina Outlet protection 11 Dust & Traffic Control Erosion Blanket 4 Stone Riprap 8 Vegetative filter

where construction activity will not occur for a period of 21 or more calendar days.

- (ii)STRUCTURAL PRACTICES. Provided below is a description of structural practices that will be implemented, to the degree attainable, to divert flows from exposed soils, store flows or otherwise limit runoff and the discharge of pollutants from exposed areas of the site. The installation of these devices may be subject to Section 404 of the Clean Water Act.
- Detention basins Storm sewer system
- Vegetated drainage swales Permanent seedina
- Stone Riprap Outlet protection Filter fabric
- Inlet protection
- b. Erosion Control. It shall be the Contractor's responsibility to provide adequate erosion control on the job site. The following erosion control sequence shall be adhered to:
- 1A. Install silt fence along site perimeter. 2A. Mass grade using low points in road profile as sediment ponds.
- 2B. If road low points are to be drained by pumping, a sump pit shall be installed per the typical
- 2C. Temporary seed all fill slopes around perimeter of neighborhood 2D. Install silt fence per grading/erosion plan.
- Install storm sewer and inlet protection 3A. Install curbs leaving Phase 3 sediment traps (see detail) between curb and sidewalk.
- 4A. Vertical building construction.
- 4B. Construct sidewalk and driveway leaving Phase 4 sediment trap (see detail) behind sidewalk. 4C. Back fill Phase 3 traps, then seed or sod.
- 4D Grade ditches 5A. Final grading with topsoil, then seed or sod.
- Any siltation of conduits, structures, or ditches shall be cleaned and maintained by the Contractor, on a weekly basis, until the seeding has taken hold. All washouts, gullies, etc. will be regraded and reseeded by the Contractor, at the Contractor's expense.
- The Contractor's responsibility for erosion control shall extend throughout the construction process. The
- Specifications for Road and Bridge Construction." by the Illinois Department of Transportation and with "Standards and Specifications for Soil Erosion and Sedimentation Control" as published by the Illinois Environmental Protection Agency.

Contractor shall be responsible for cleanup of paved surfaces within and adjacent to the project.

If a topsoil stockpile location is provided and approved by the County, Contractor shall establish erosion control measures for the stockpile if it is to remain in place for more than three days. In addition, barrier filter fence shall enclose topsoil stockpile location with exception of truck access during construction hours.

### c. Stormwater Management.

- (i) Provided below is a description of measures that will be installed during the construction process to control pollutants in stormwater discharges that will occur after construction operations have been completed. The installation of these devices may be subject to Section 404 of the Clean Water Act.
- The practices selected for implantation were determined on the basis of the technical guidance contained in IEPA's Standard Specifications for Soil Erosion and Sedimentation Control, and other ordinances listed
- The stormwater pollutant control measures shall include:
- Silt filter fence
- Rip-rap outlet protection Straw bale inlet protection Drainage swales
- Storm sewers Retention/Detention ponds
- (ii)Velocity dissipation devices will be placed at discharge locations and along the length of any outfall channel as necessary to provide a non-erosive velocity flow from the structure to a water course so that the natural physical and biological characteristics and functions are maintained and protected (e.g., maintenance of hydrologic conditions, such as the hydroperiod and hydrodynamics present prior to the initiation of construction activities).

#### Stormwater Management Control includes Stone Riprap

- Veaetative channels. Outlet protection using Gabion mattress. Inlet protection.

### Other Controls.

- (i) Waste Disposal. The solid waste materials including trash, construction debris, excess construction materials, machinery, tools and other items will be collected and disposed off—site by the contractor. The contractor is responsible to acquire any permit required for such disposal. Burning on the site will not be permitted. No solid materials, including building materials, shall be discharged into Waters of the State, except as authorized by a Section 404 permit.
- (ii) The provisions of this plan shall ensure and demonstrate compliance with applicable State and/or local waste disposal, sanitary sewer or septic system regulations.

The sanitary sewage will be discharged to the proposed sanitary sewer constructed per IEPA and local

a. Approved State or Local Plans.

The management practices, controls and other provisions contained in this plan are at least as protective as the requirements contained in the Illinois Environmental Protection Agency's Standards and Specifications for Soil and Erosion and Sediment Control dated October 1987, Illinois Procedures and Standards for Urban Soil Erosion and Sedimentation Plan, and the Municipal Subdivision Ordinance. Requirements specified in sediment and erosion control site plans or site permits or stormwater management or site plans or site permits approved by local officials that are applicable to protecting surface water resources are, upon submittal of an NOI to be authorized to discharge under this permit, incorporated by reference and are enforceable under this permit even if they are not specifically included

#### b. Maintenance.

or removed and replaced as needed

combination with seeding or equivalent

The following is a description of procedures that will be used to maintain, in good and effective operating conditions, vegetation, erosion and sediment control measures and other protective measures identified in this plan and Standard Specifications.

Stabilized construction entrance: The entrance shall be maintained to prevent tracking of sediment onto public streets. This will be done by top dressing with additional stones, remove and replace top layer of stones or washing the entrance. The sediment washed on the public right-of-way will be removed

Vegetative erosion control measures: The vegetative growth of temporary and permanent seeding, sodding, vegetative channels, vegetative filter, etc. shall be maintained periodically and supply adequate watering and fertilizer. The vegetative cover shall be removed and reseeded as necessary.

Sedimentation basins /traps: The sediments shall be removed when 25 percent of the total original capacity is occupied by the sediment. In no case shall the sediment be built up to more that 1 foot below the crest elevation. At this stage, the basin shall be cleaned out to restore its original volume.

Silt filter fence: The damaged silt filter fence shall be restored to meet the standards or removed and replaced as needed.

Straw bale barrier filters: The straw bale barrier filter shall be inspected frequently and shall be repaired

Rip-rap outlet protection: It shall be inspected after high flows for any scour beneath the Rip-rap or for stones that have been dislodged. It shall be repaired immediately. Inlet Protection: Shall be inspected and emptied of silt if filled as required.

Disturbed areas shall be stabilized with temporary or permanent measures within 7 calendar days following

(i) Appropriate temporary or permanent stabilization measures shall include seeding, mulching, sodding, and/or non-vegitative measures. (ii) Areas having slopes greater than 12 percent shall be stabilized with sod, mat, or blanket in

the end of active disturbance, or redistubance, consistent with the following criteria:

Soil storage piles containing more than 10 cu. yds. of material shall not be located with a downslope drainage length less than 25 feet to a roadway or drainage channel. Filter barriers, including straw bales, filter fence, or equivalent, shall be installed immediately on the down slope of the piles.

The Owner, or Owner's representative shall provide qualified personnel to inspect disturbed areas of the construction site which have not been finally stabilized, structural control measures and location where vehicles enter or exit the site. Such inspections shall be conducted at least once every seven (7) calendar days within 24 hours of the end of a storm that is 0.5 inches or greater or equivalent snowfall.

- Disturbed areas and areas used for storage of materials that are exposed to precipitation shall be inspected for evidence of, or the potential for, pollutants entering the drainage system. Erosion and sediment control measures identified in the plan shall be observed to ensure that they are operating correctly. Where discharge locations or points are accessible, they shall be inspected to ascertain whether erosion control measures are effective in preventing significant impacts to receiving waters. Locations where vehicles enter or exit the site shall be inspected for evidence of off-site sediment
- Based on the results of the inspection, the description of potential pollutant sources identified in section 1 above and pollution prevention measures identified in section 2 above shall be revised as appropriate as soon as practicable after such inspection. Any changes to this plan resulting from the required inspections shall be implemented within 7 calendar days following the inspection.
- c. A report summarizing the scope of the inspection, name(s) and qualifications of personnel making the inspection, the date(s) of the inspection, major observations relating to the implementation of this stormwater pollution prevention plan and actions taken in accordance with section 4.b. shall be made and retained as part of the plan for at least three (3) years after the date of the inspection. The report shall be signed in accordance with Part VI.G of the general permit.
- d. If any violation of the provisions of this plan is identified during the conduct of the construction work covered by this plan, the Resident Engineer or Resident Technician shall complete and file an "Incidence of Noncompliance" (ION) report for the identified violation. The Resident Engineer or Resident Technician shall use forms provided by the Illinois Environmental Protection Agency and shall include specific information on the cause of noncompliance, actions which were taken to prevent any further causes of noncompliance, and a statement detailing any environmental impact which may have resulted from the noncompliance. All reports of noncompliance shall be signed by a responsible authority in accordance with Part VI. G of the general permit. The report of noncompliance shall be mailed to the following

Illinois Environmental Protection Agency Division of Water Pollution Contro Attn: Compliance Assurance Section 2200 Churchill Road Post Office Box 19276 Springfield, Illinois 62794-9276

- Non-Stormwater Discharges Except for flows from fire fighting activities, sources of non-stormwater that may be combined with
- stormwater discharges associated with the industrial activity addressed in this plan, are described below: Water main flushina
- Fire hydrant flushing Watering for dust co d. Irrigation drainage for vegetative growth for seeding, etc..

See Project Specifications for details.

The pollution prevention measures, as described below, will be implemented for non-stormwater components o

The fire hydrant and water main shall not be flushed directly on the exposed area of sub grade of the pavement. Hoses shall be used to direct the flow into the storm sewer system, if available. The erosion due to irrigation of seeding shall be considered minor.

Contractor to provide the above non-stormwater discharged control to the standard specification required by the City or the approved equal. Monitoring and Management Plan

A three—year maintenance and monitoring plan is required after installation of native landscaping.



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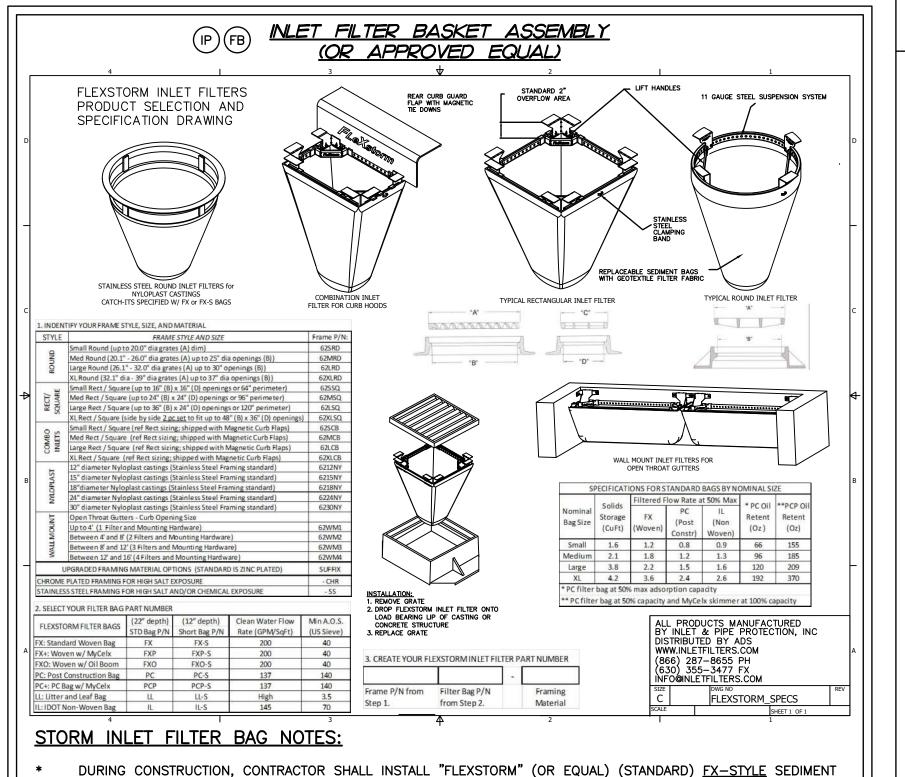
DRAWN BY: MJ/CFR APPROVED: SGM JOB DATE: 09/09/2024

JOB NO: 190796

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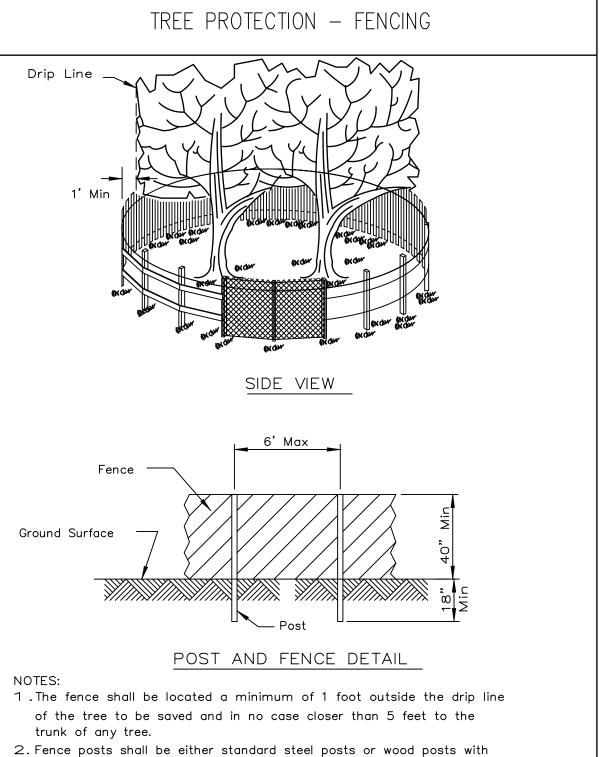
FILTER BAGS IN ALL OPEN GRATE STORM MANHOLES. THE "FLEXSTORM" FILTER INSERTS SHALL BE INSTALLED

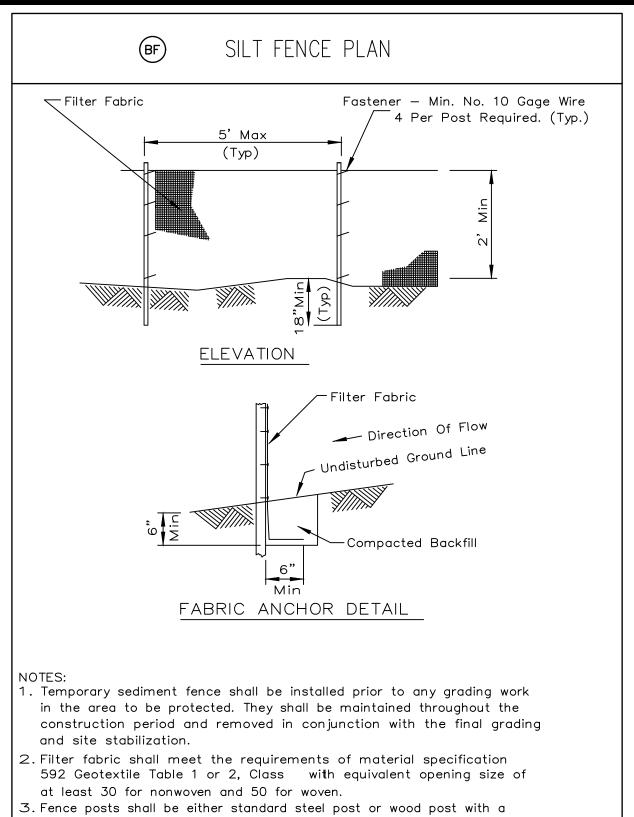
POST CONSTRUCTION, CONTRACTOR SHALL INSTALL "FLEXSTORM" (OR EQUAL) (STANDARD) PC-STYLE SEDIMENT

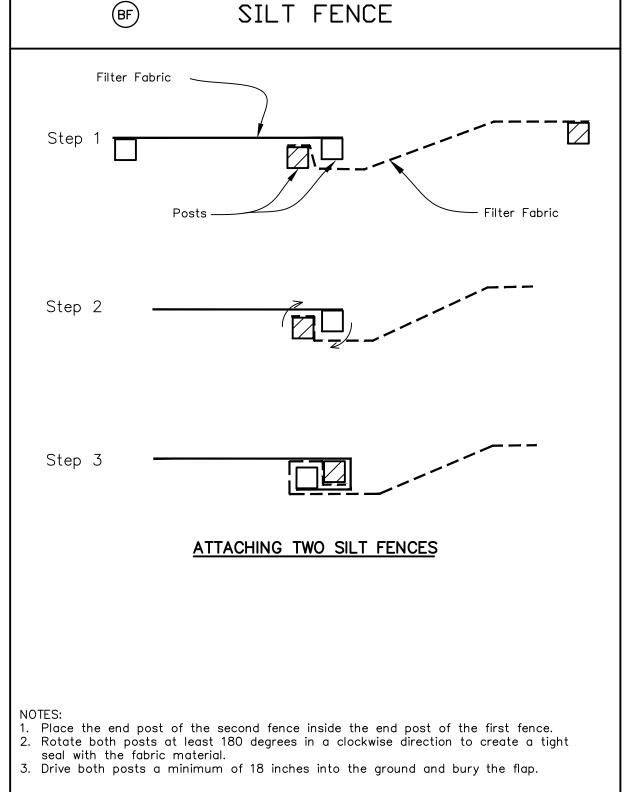
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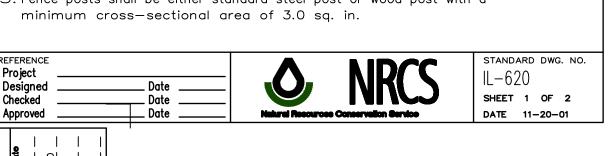
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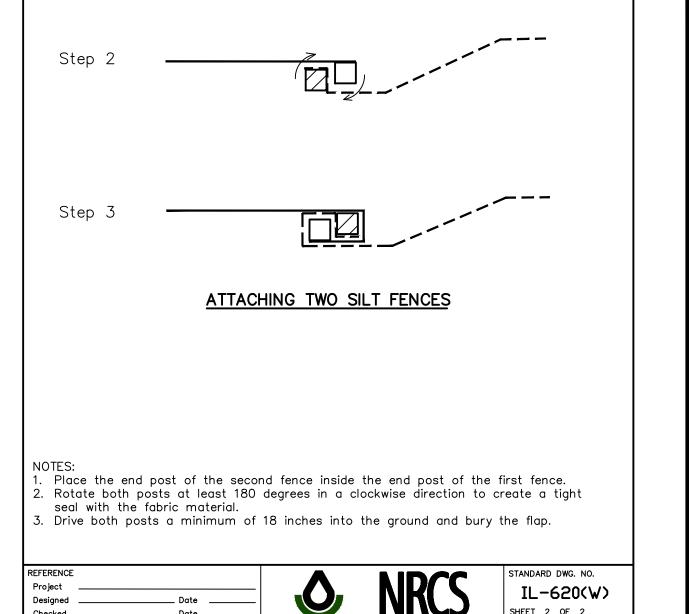
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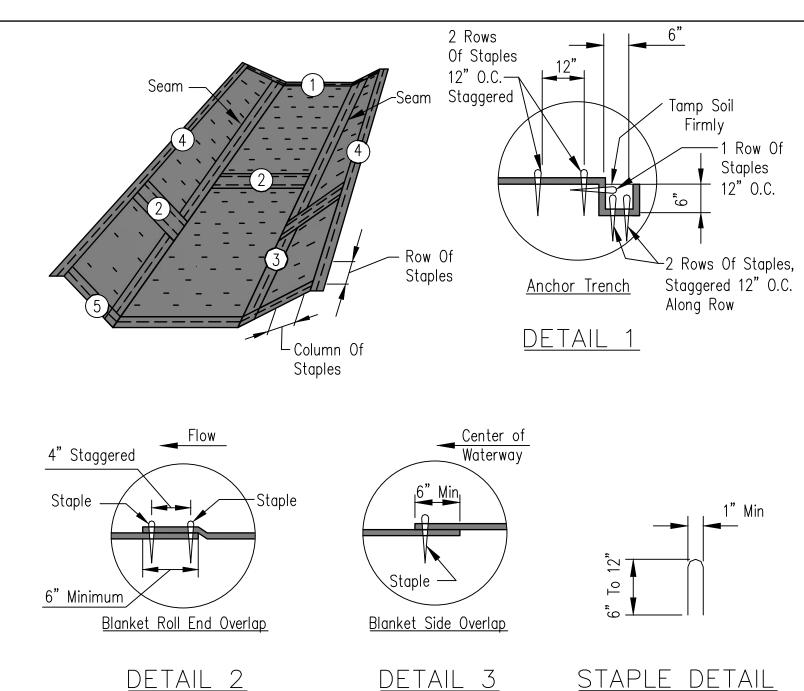


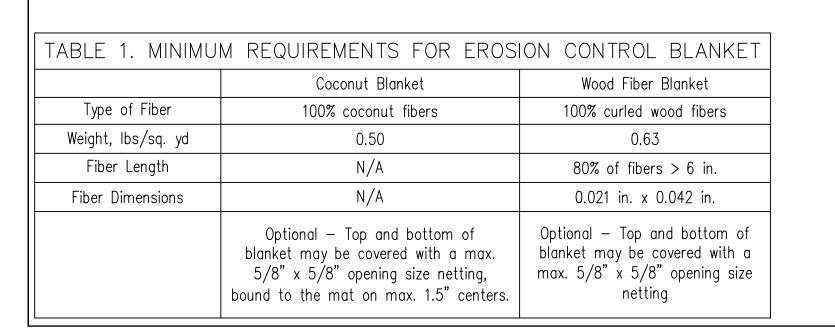


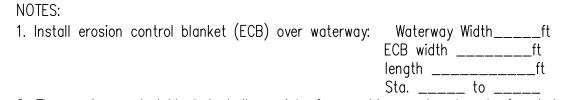




DATE 1-29-99







3. The fence may be either 40" high snow fence, 40" plastic web fencing

or any other material as approved by the engineer/inspector.

a minumum cross sectional area of 3.0 sq. in.

Project

Designed Checked

2. The erosion control blanket shall consist of a machine produced mat of curled wood or coconut fibers, shall have an expected material life of a least 12 months, shall be new and unused, shall be furnished in rolls, and shall meet the minimum requirements stated in Table 1 below.

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3. Prepare soil prior to installing erosion control blanket, including seeding, fertilizing, and lime application.

4. The erosion control blanket shall be placed in firm contact with the soil and not be allowed to bridge over surface irregularities. The blanket shall not be stretched. 5. Start laying the blankets by rolling center blanket in the direction of flow, centered on

the centerline of waterway. There shall not be an overlap of blankets at the center of the waterway. 6. The erosion control blanket shall be anchored, overlapped, and stapled according to

manufacturer's instructions. If no manufacturer's instructions are available, install the blanket as follows:

a. Staples shall be "U" shaped, 0.12 in diameter wire or greater (#11 gauge). See Staple Detail for dimensions. b. Bury upstream end of blanket in a trench 6 inch wide by 6 inch deep and stapled

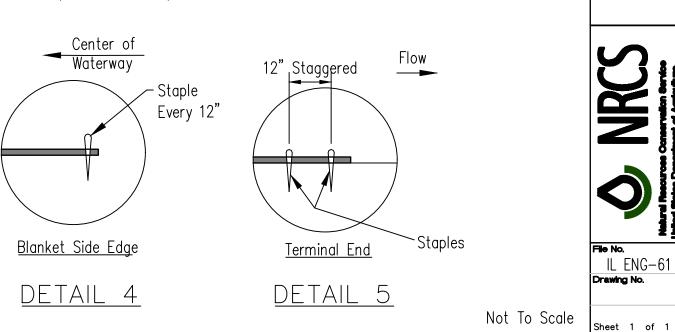
in staggered rows across the width as shown in Detail 1. c. For joining ends of rolls, overlap end of upslope blanket a minimum of 6 inches over downslope blanket (shingle style). Use a double row of staggered staples

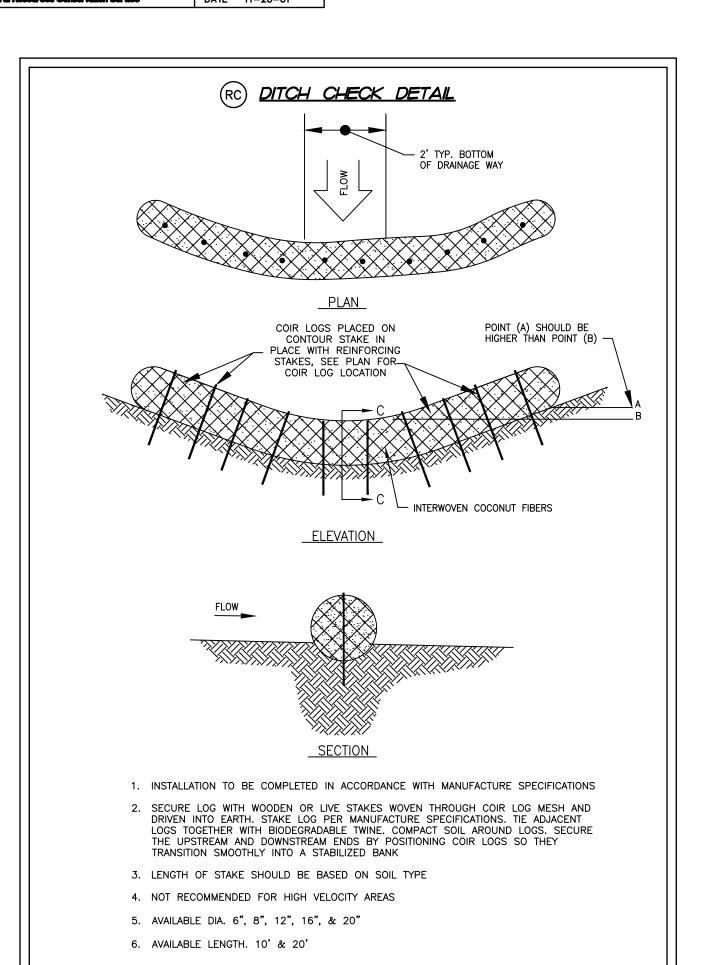
4 inches apart, as shown in Detail 2. d. Blankets on side slopes shall overlap a minimum 6 inches over the blanket below (shingle style). Staple overlap at 12 inch intervals. See Detail 3.

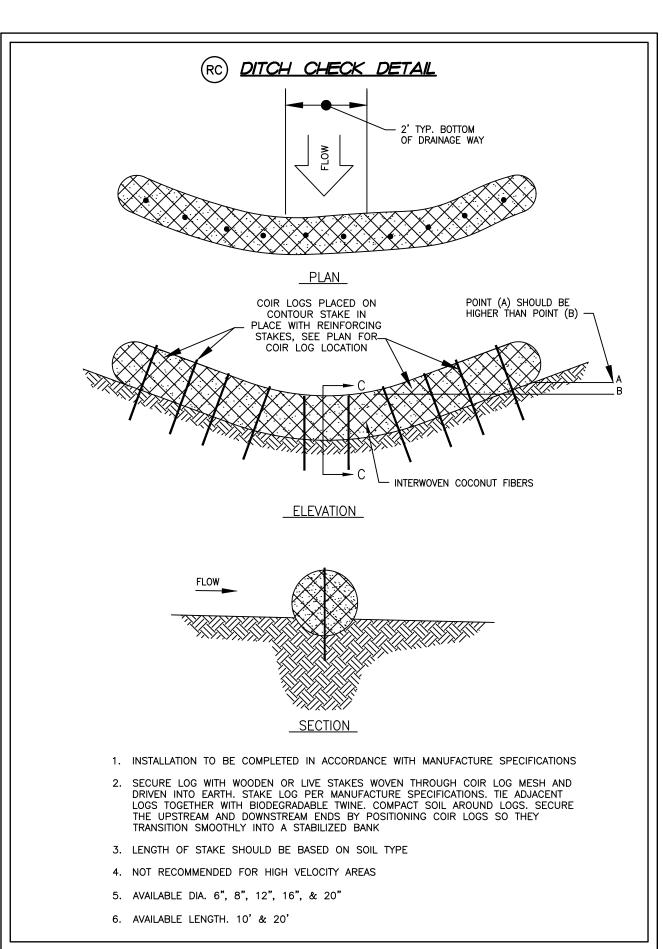
e. The outer edge along sides of the blanket shall be stapled every 12 inches. See Detail 4.

f. Staples are to be placed alternately in columns (in the direction of the waterway) 2 feet apart and in rows (across the waterway) 3 feet apart, throughout the area

g. Downstream (terminal) end of blanket shall be stapled with a double row of staggered staples 12 inches apart. See Debrit 5 staples 12 inches apart. See Detail 5.







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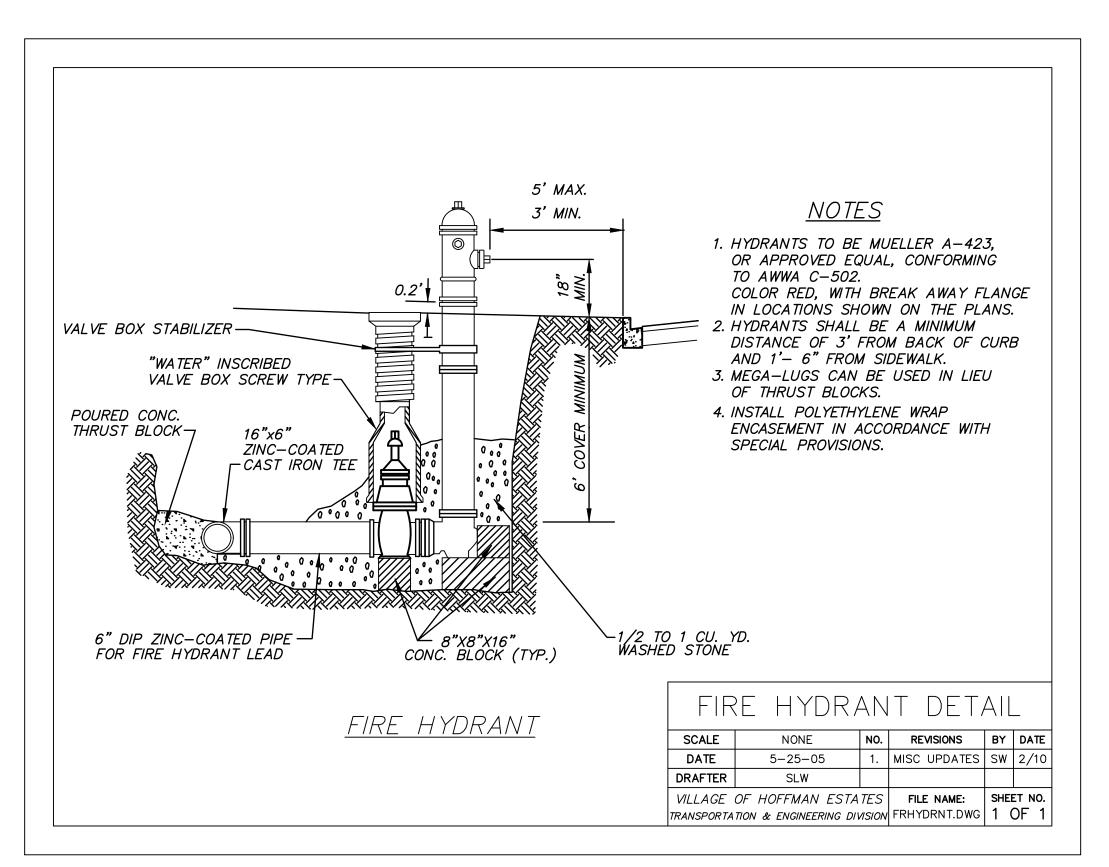
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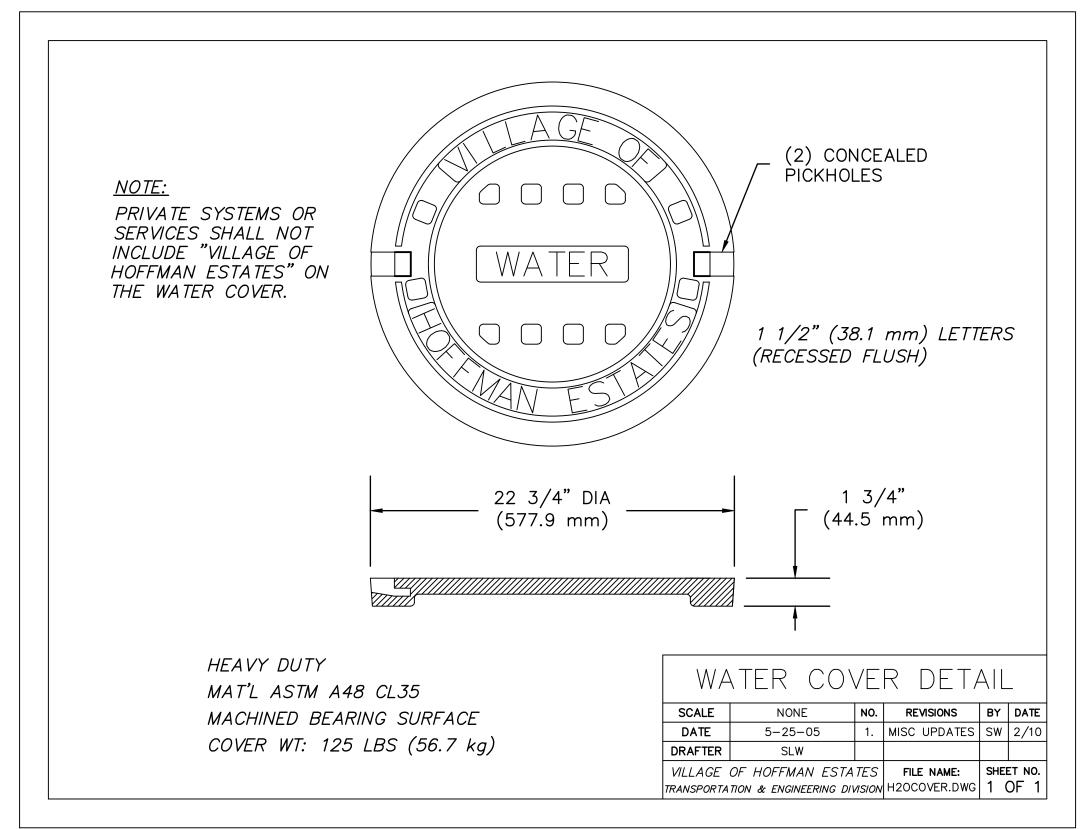
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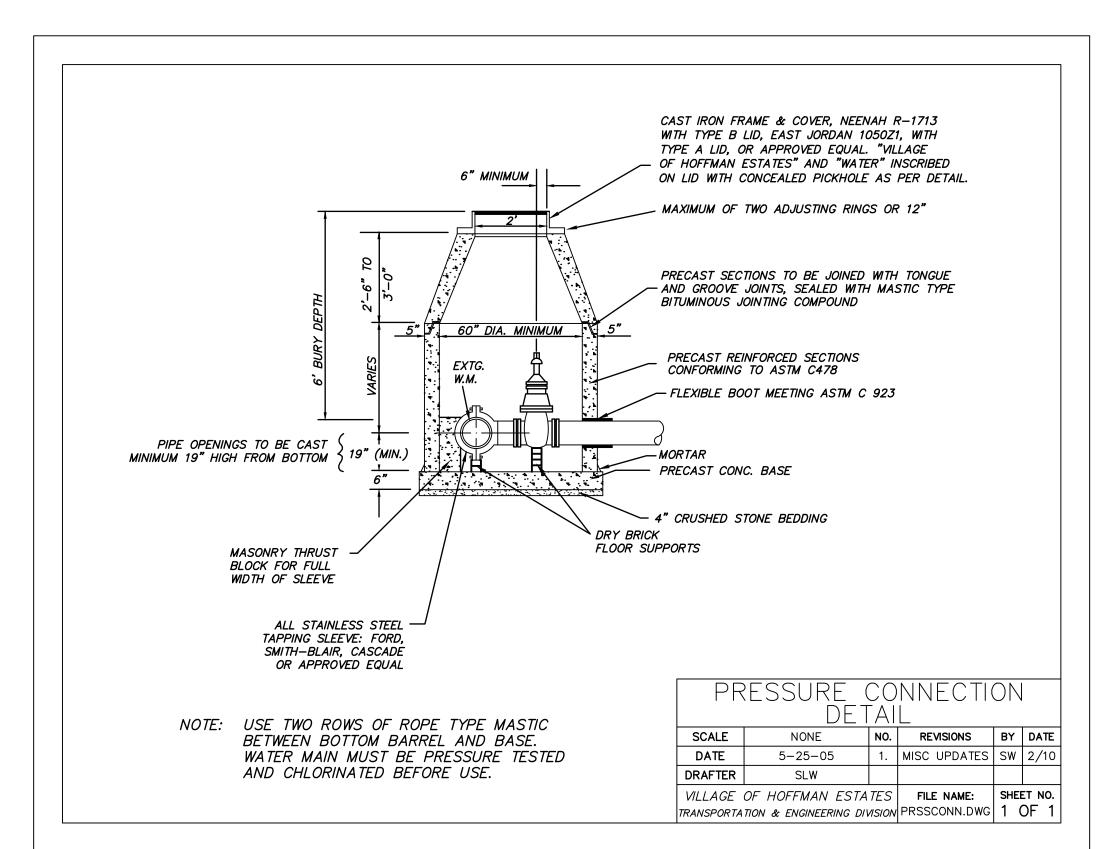
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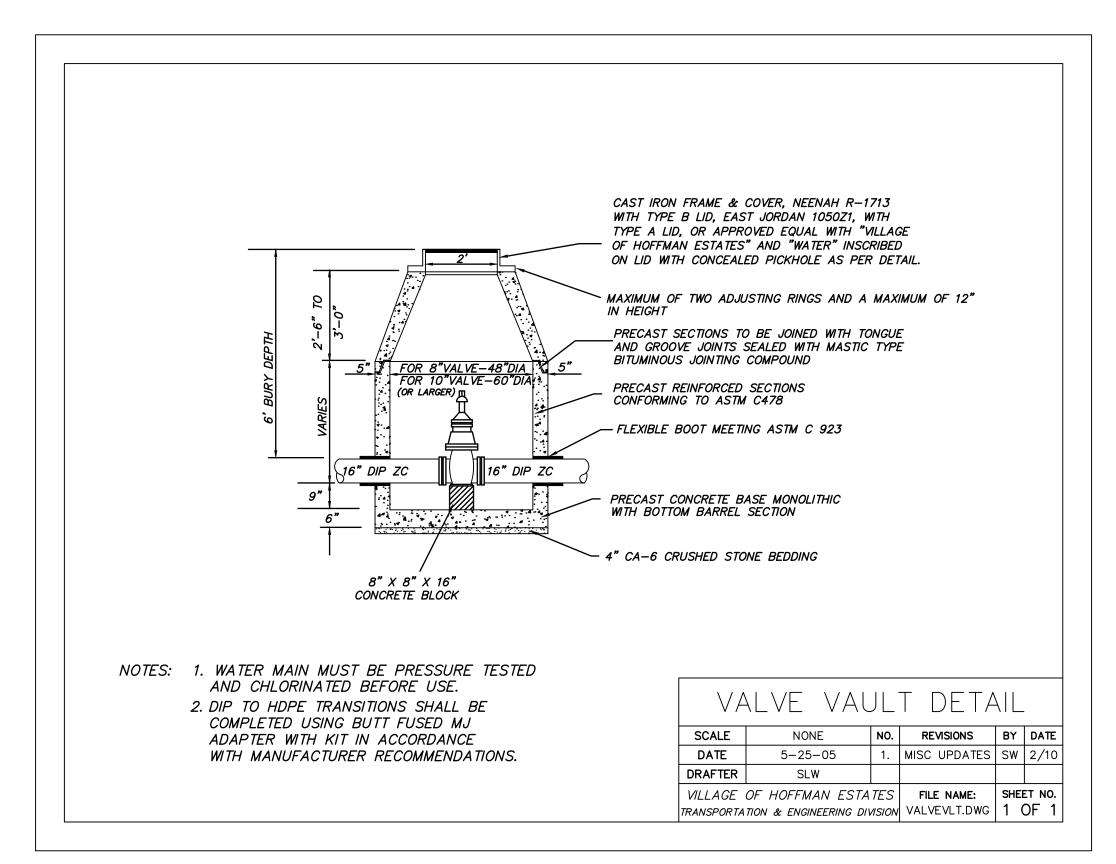
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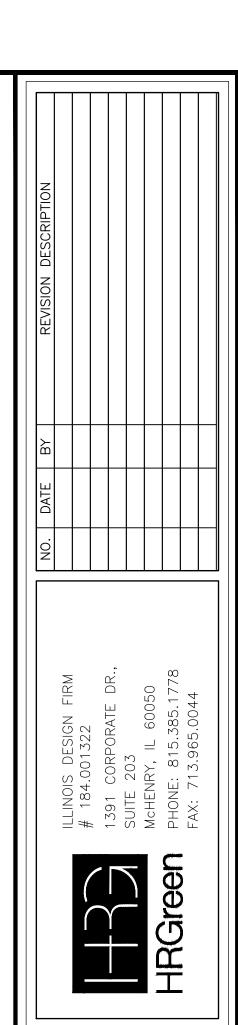
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R MAIN REPLACEMENT			NOI	AILS
HUNTINGTON BOULEVARD WATER MAIN REPLACEMENT	VILLAGE OF HOFFMAN ESTATES	HOFFMAN ESTATES, ILLINOIS	BIDDING SET - NOT FOR CONSTRUCTION	STANDARD CONSTRUCTION DETAILS
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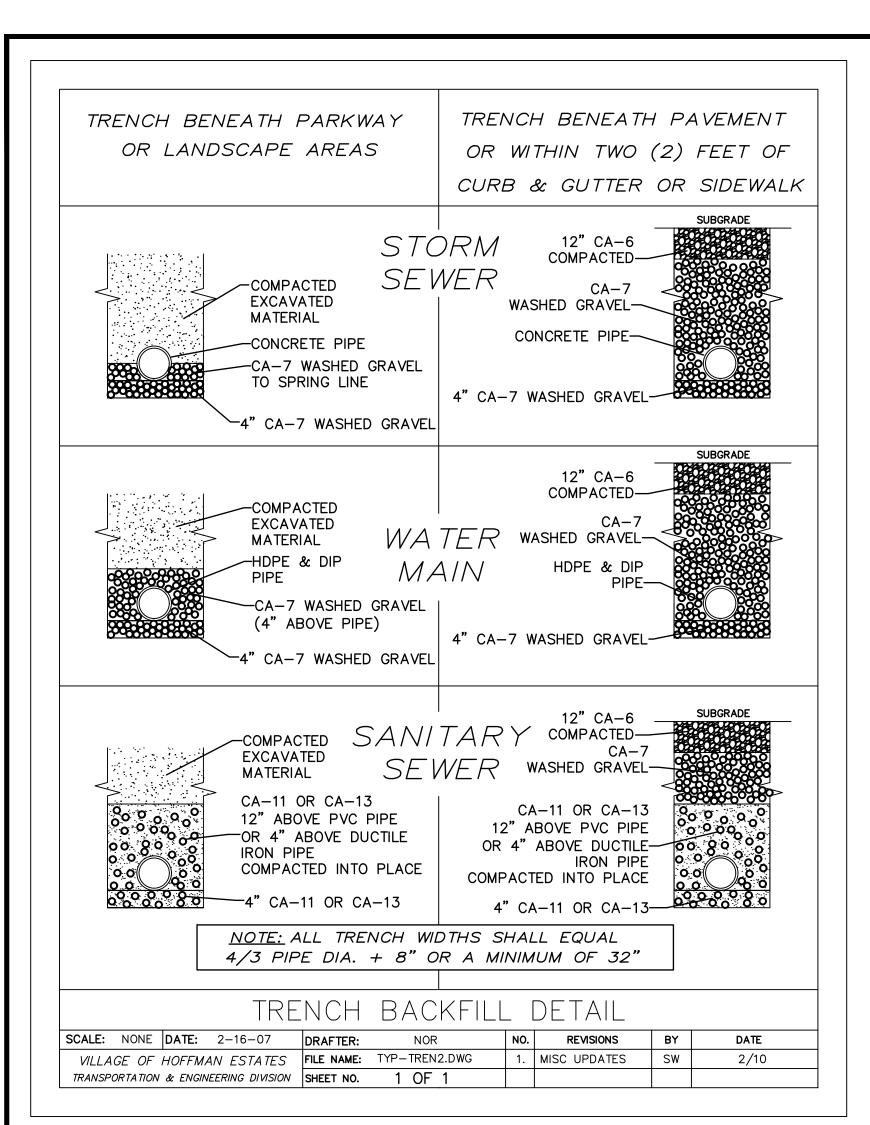
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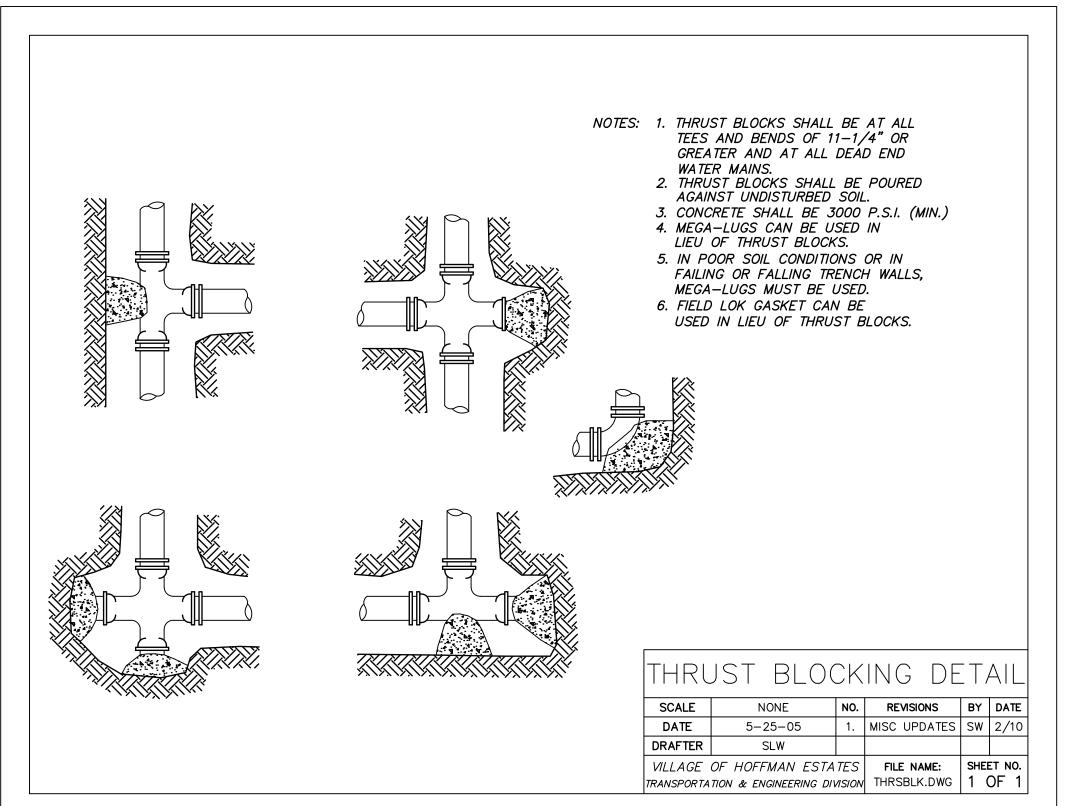
JOB NO: 190796

JOB DATE: 09/09/2024

DRAWING

APPROVED: SGM





- M.J. HYDRANT

3/4" TIE RODS →

AND VALVE.

FIRE HYDRANT

THRUST BLOCKS (SEE DETAIL)

PER THE SPECIAL FIRE HYDRANT DETAIL SHOWN.

1. VILLAGE APPROVAL NEEDED PRIOR TO INSTALLATION OF SPECIAL FIRE HYDRANT.

2. CONTRACTOR WILL SUPPLY HYDRANTS WITH AUXILIARY VALVES AND MECHANICAL

WHEN A HYDRANT CANNOT BE INSTALLED AT THE OFFSET INDICATED ON THE

SPECIAL FIRE HYDRANT

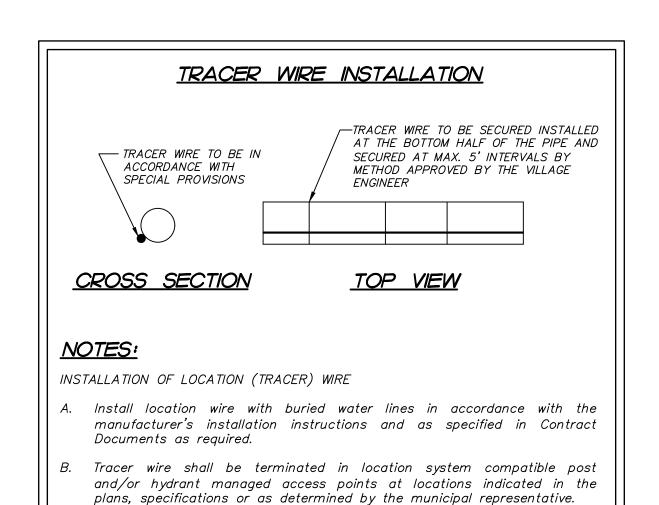
CONNECTION FOR LIMITED ACCESS

<u>AREAS</u>

PLAN DUE TO AS-BUILT HDD PIPE LOCATION, THE HYDRANT SHALL BE INSTALLED

JOINT CONNECTIONS WITH PLAIN END CAST IRON PIPE BETWEEN HYDRANT

12" LEAD -



C. Location tracer wire system to be considered incidental to water main installation.

D. Tracer wire conform to the special provisions and specifications for this project.

## SUGGESTED VERTICAL PIPE PATH

(CONTRACTOR MAY SUBMIT FOR REVIEW AN ALTERNATE WATERMAIN VERTICAL ALIGNMENT/ELEVATION THAT PROVIDES MINIMUM 6' COVER AND DOES NOT CREATE INTERMEDIATE HIGH/LOW POINTS)

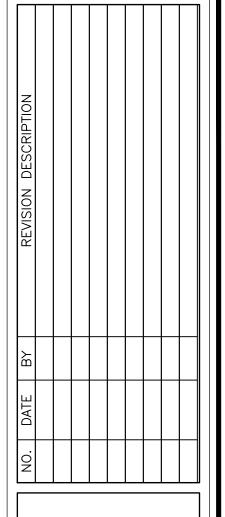
STA.	T/PIPE		STA.	T/PIPE	LF	SLOPE	MATERIAL	LOCATION
96+78*	824.50*	ТО	97+14	826.09	48	+3.23%*	DIP (CONNECT TO EXISTING)	11 (START)
97+14	826.18	ТО	102+75	829.9	561	+0.66%	HDPE	HP
102+75	829.9	ТО	108+60	826.83	585	-0.52%	HDPE	110 FH
108+60	826.83	то	112+50	821.63	390	-1.33%	HDPE	GB
112+50	821.63	ТО	114+29	820.63	179	-0.56%	HDPE	GB
114+29	820.63	ТО	120+00	819.63	571	-0.18%	HDPE	116 FH
120+00	819.63	ТО	125+60	818.09	560	-0.28%	HDPE	GB
125+60	818.00	ТО	125+67	817.98	6	-0.27%	DIP	LP
125+67	817.98	ТО	125+70	817.98	7	0%	DIP	121 FH
125+70	817.98	то	125+75*	818.75	7	-11.00%*	DIP (CONNECT TO EXISTING)	124 (END)

\* WATERMAIN, AT THE NORTH AND SOUTH PROPOSED WATERMAIN CONNECTIONS TO EXISTING WATERMAIN, SHALL BE VAC-EXCAVATED PRIOR TO START OF PROPOSED WATERMAIN CONSTRUCTION. EXISTING WATERMAIN AS-BUILT LOCATIONS AND TOP OF PIPE ELEVATIONS SHALL BE COLLECTED AND SUBMITTED TO THE ENGINEER.

ENGINEER WILL REVIEW THE EXISTING WATERMAIN AS-BUILT DATA, AND MAY ADJUST PROPOSED WATERMAIN DEPTH AND/OR SLOPE TO ACCOMMODATE EXISTING CONDITIONS.

### LEGEND

HP	HIGH POINT
LP	LOW POINT
GB	GRADE BREAK
FH	FIRE HYDRANT



# 184.001322 1391 CORPORATE DR., SUITE 203 McHENRY, IL 60050 PHONE: 815.385.1778 FAX: 713.965.0044



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ATER MAIN REPLACEMENT

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**DETAILS** 

CONSTRUCTION

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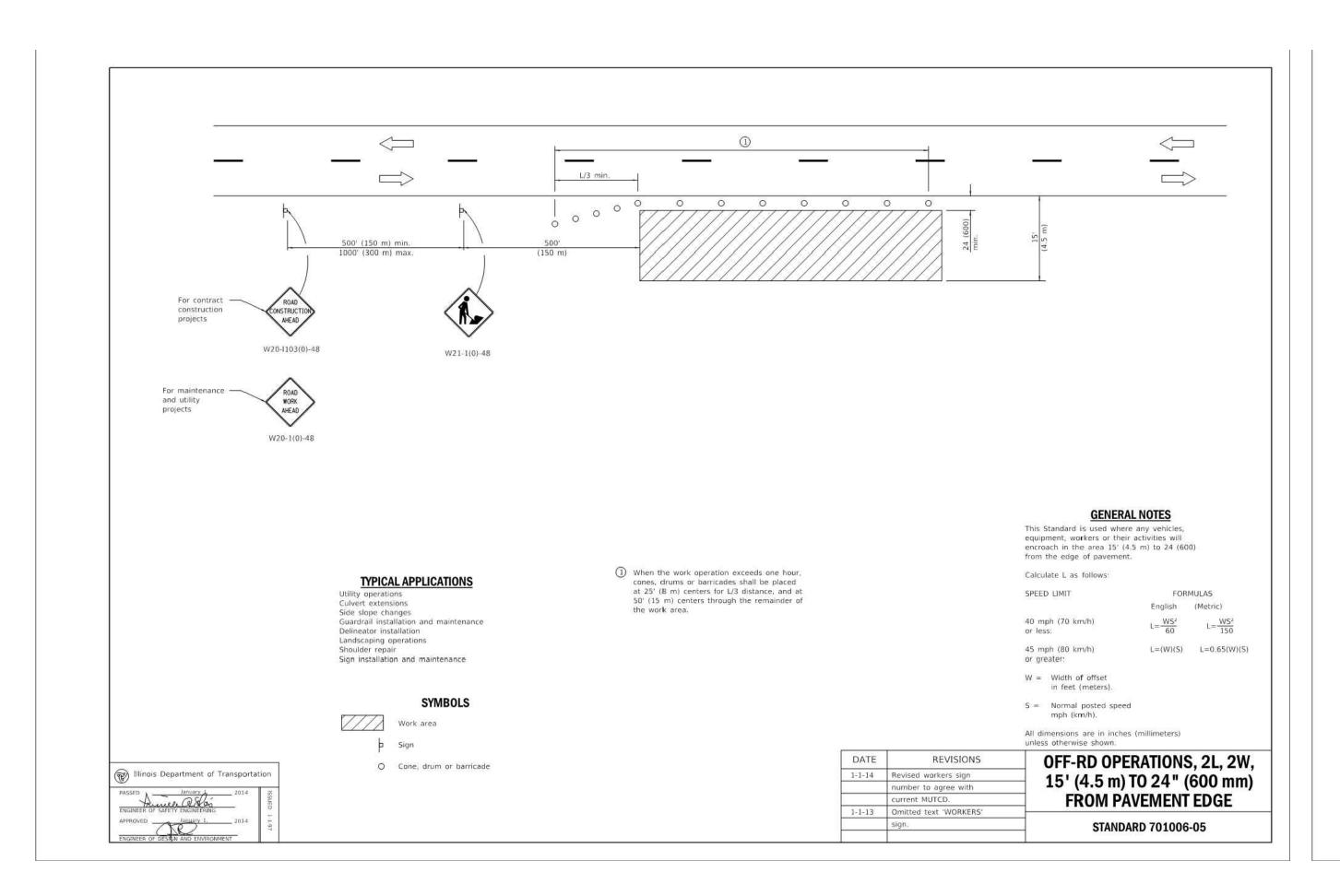
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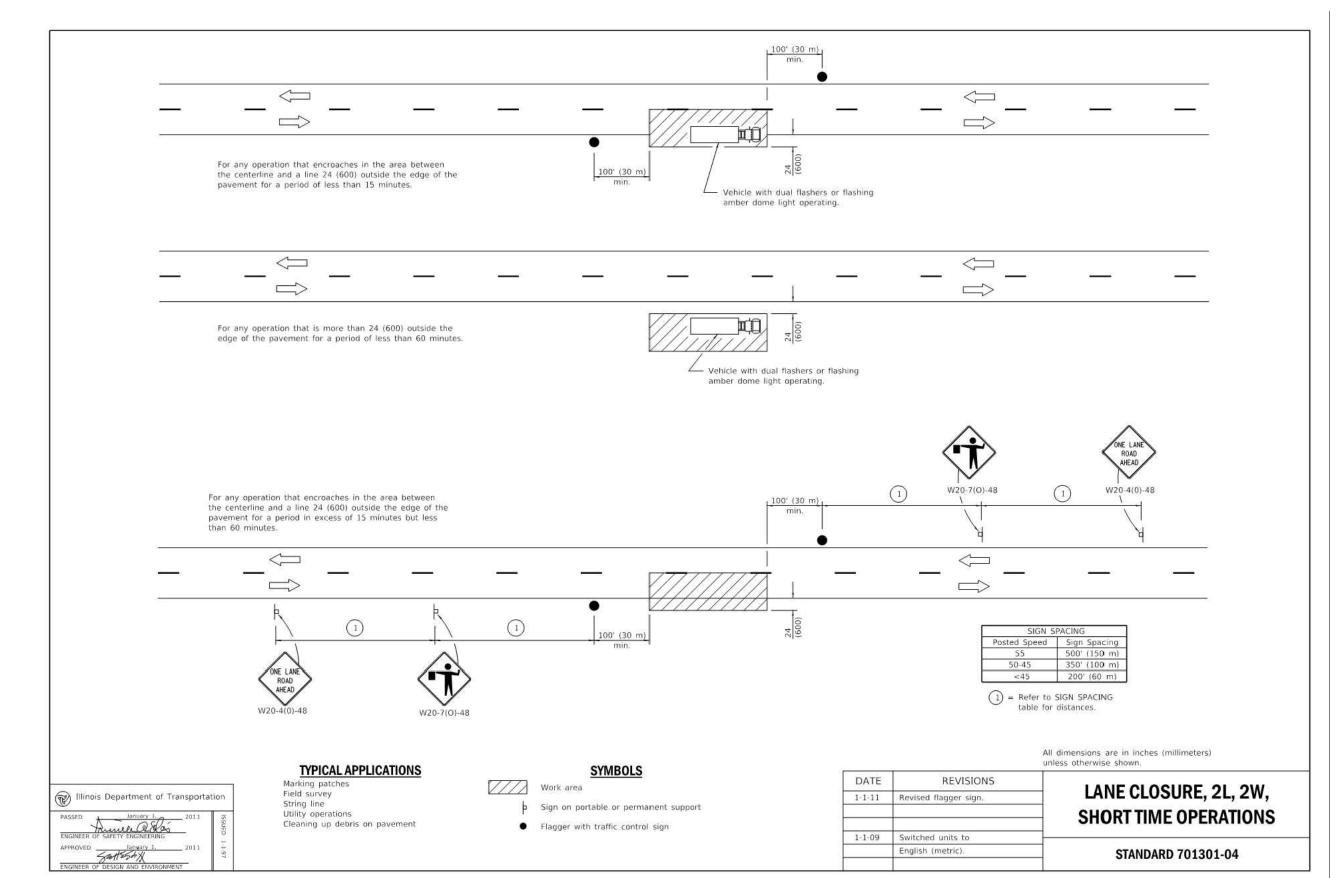
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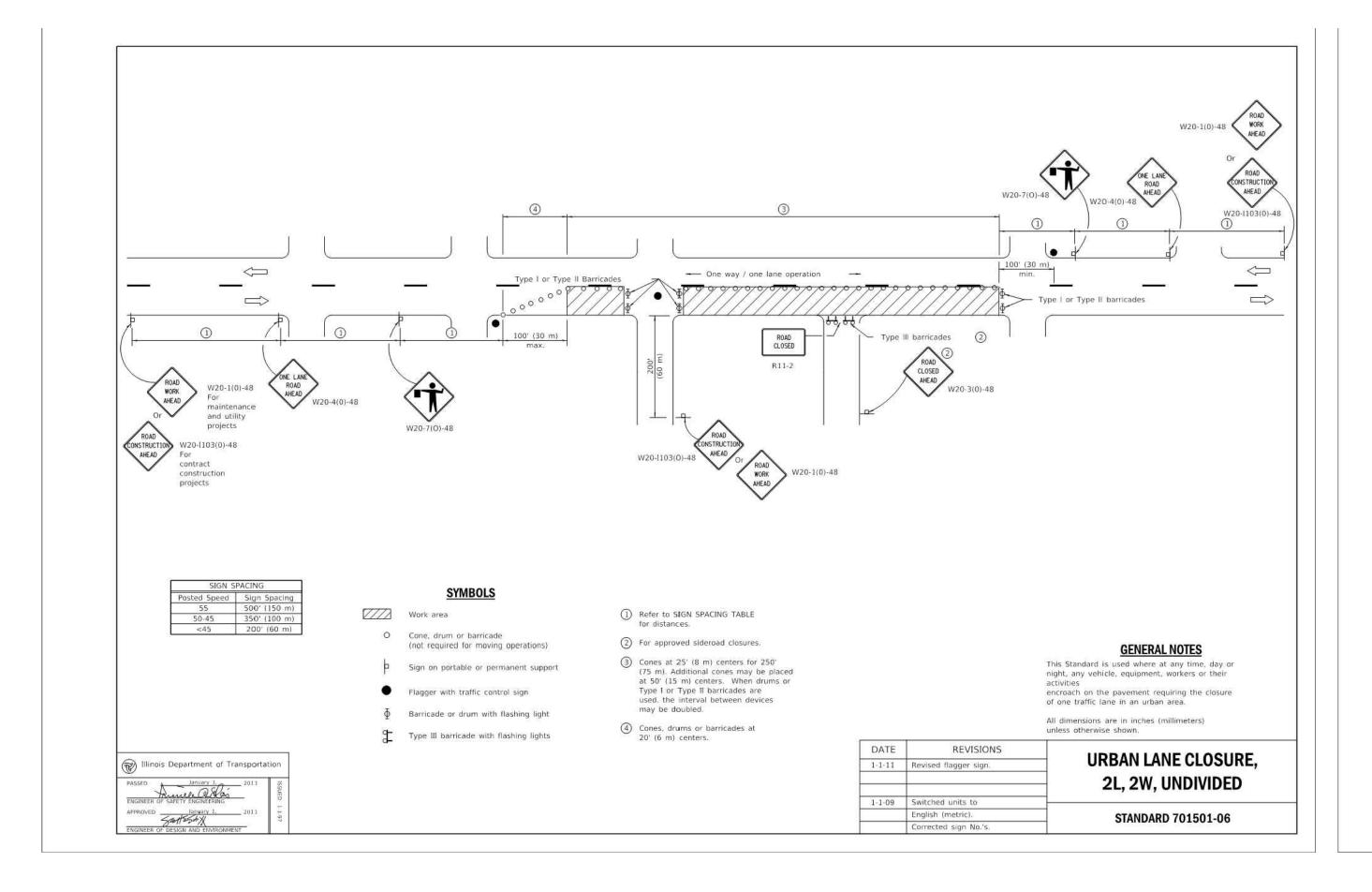
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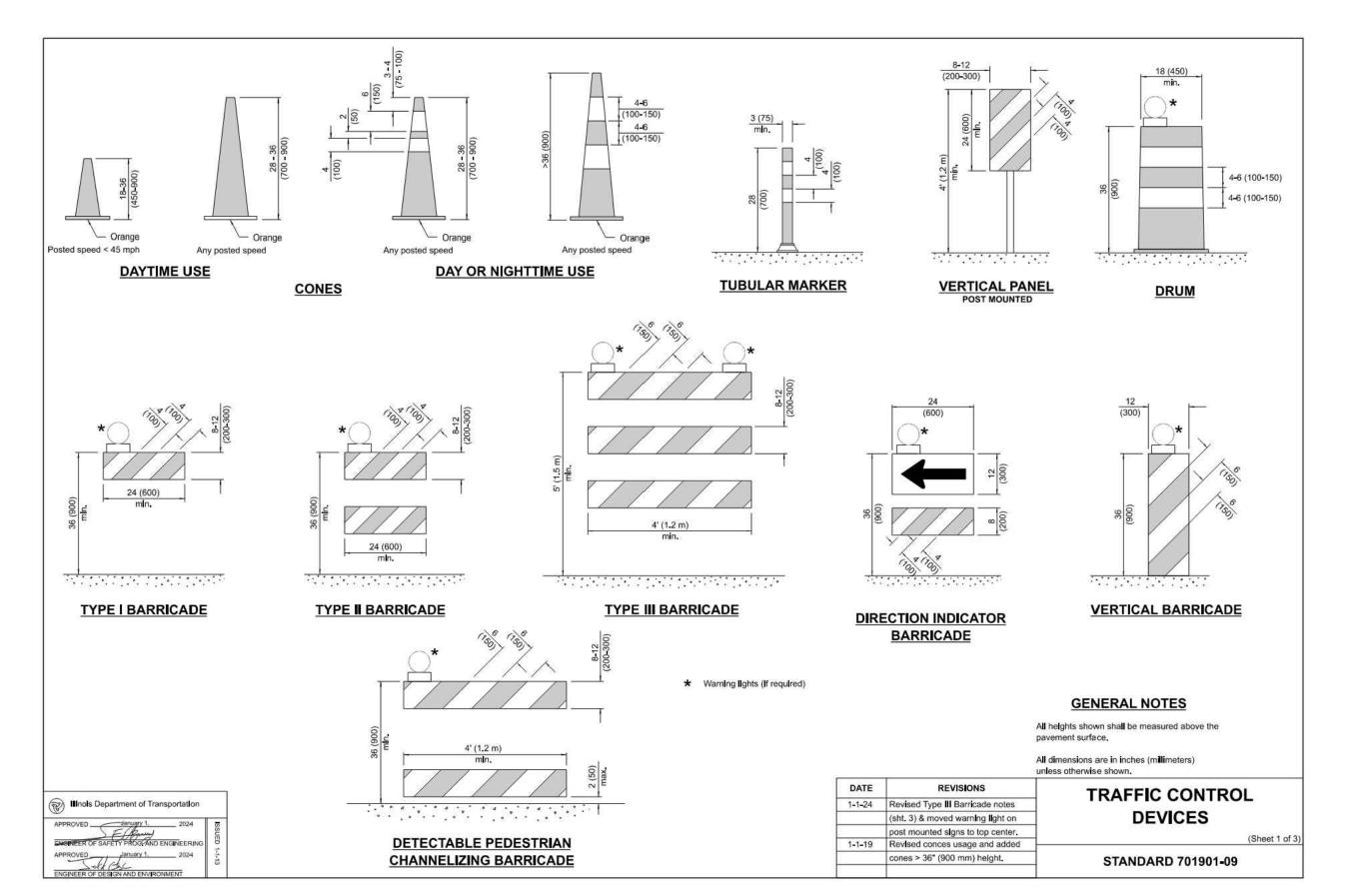
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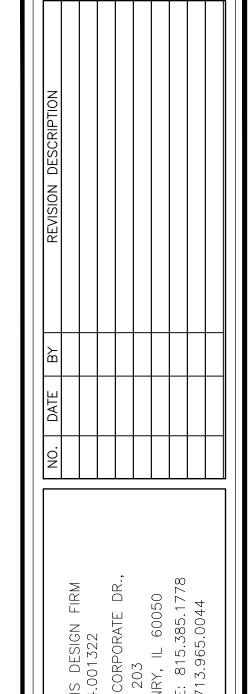








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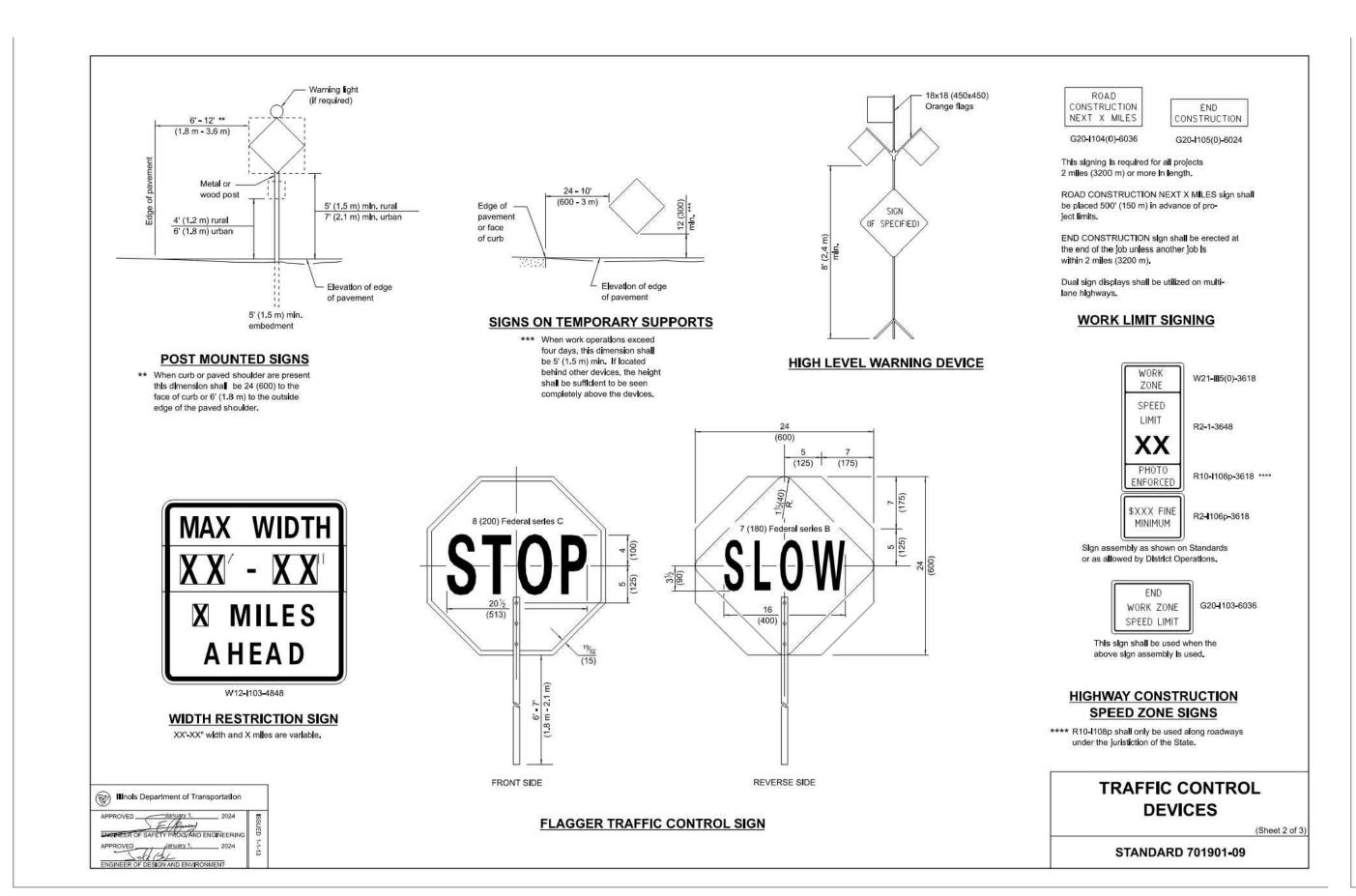
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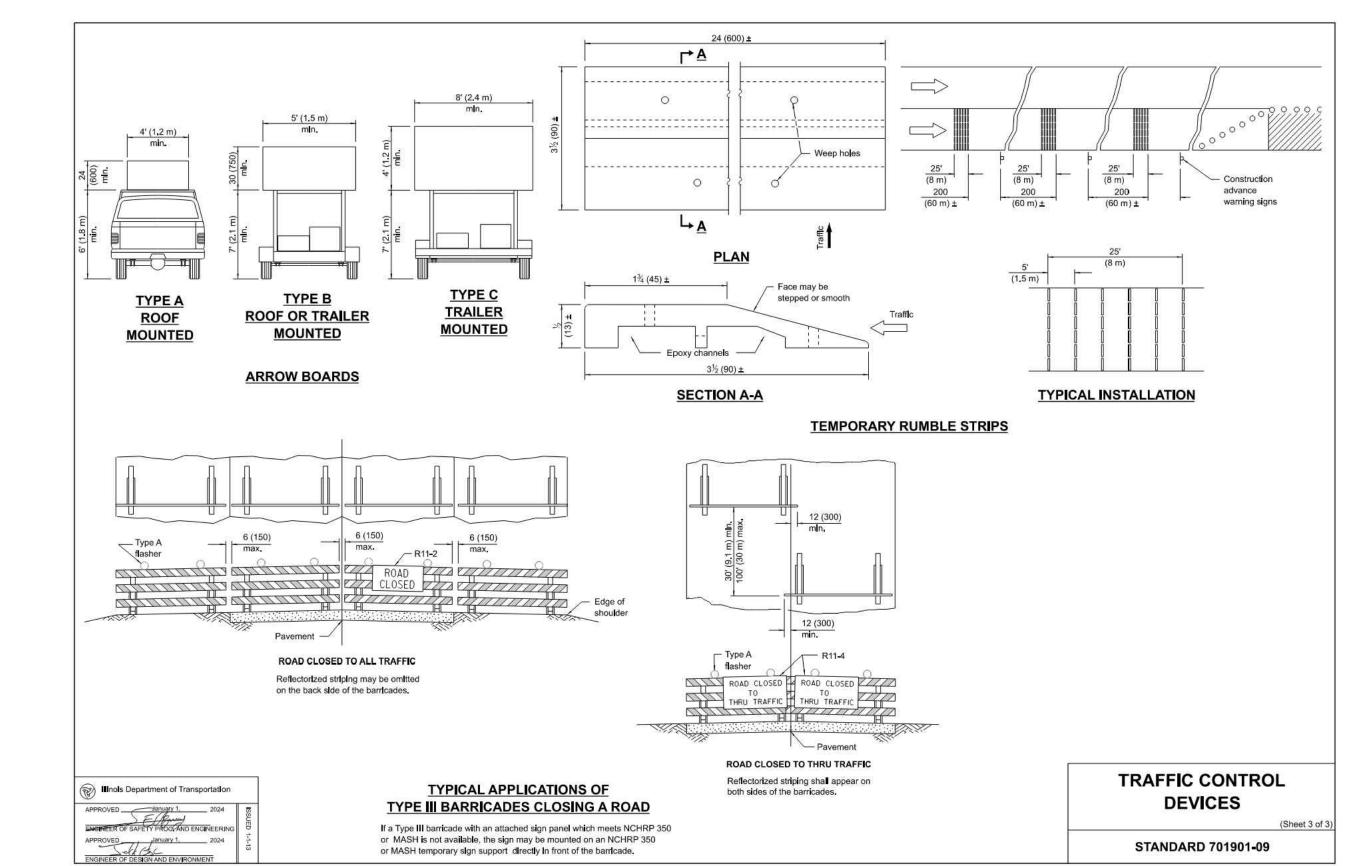
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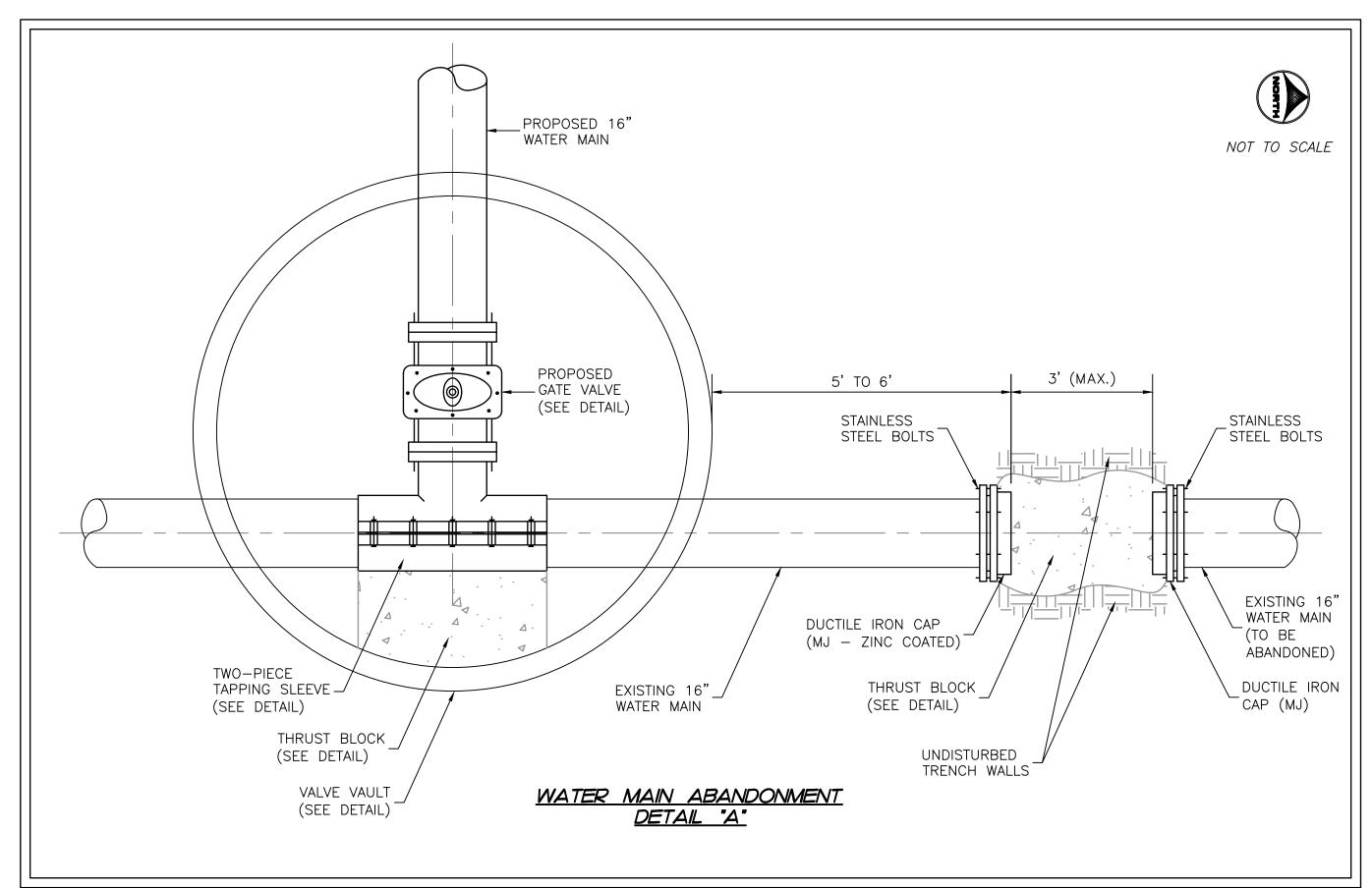
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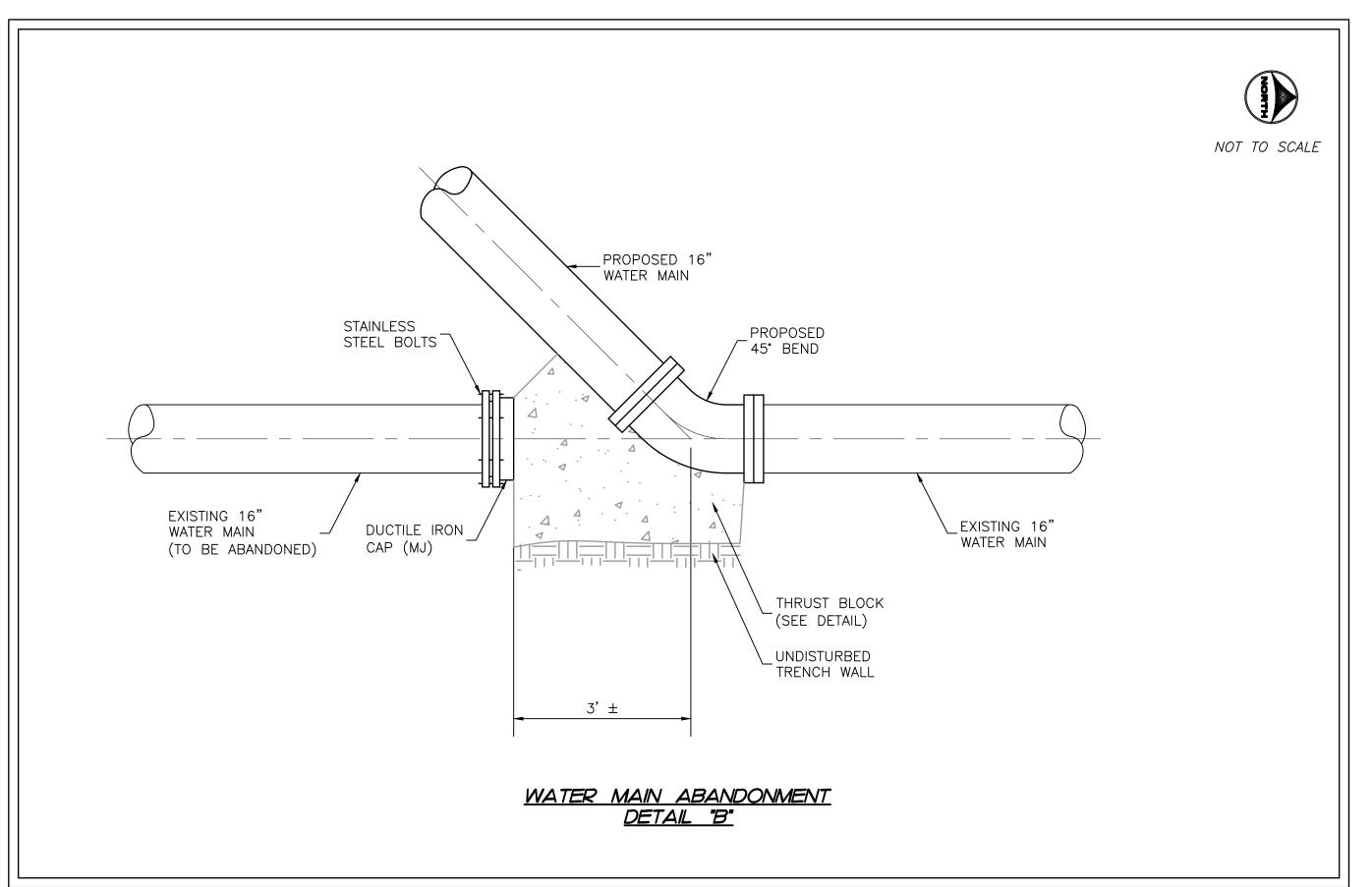
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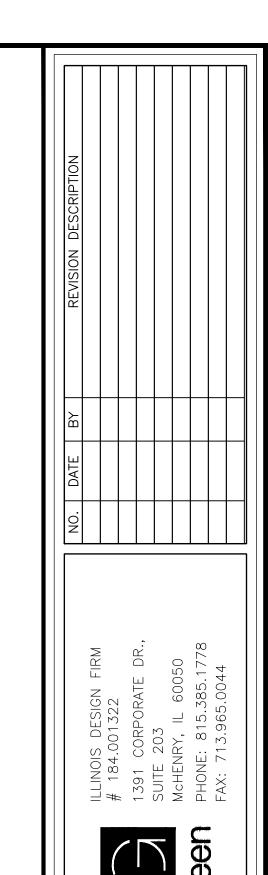






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DRAWN BY: MJ/CFR JOB DATE: <u>09/09/2024</u> JOB NO: 190796