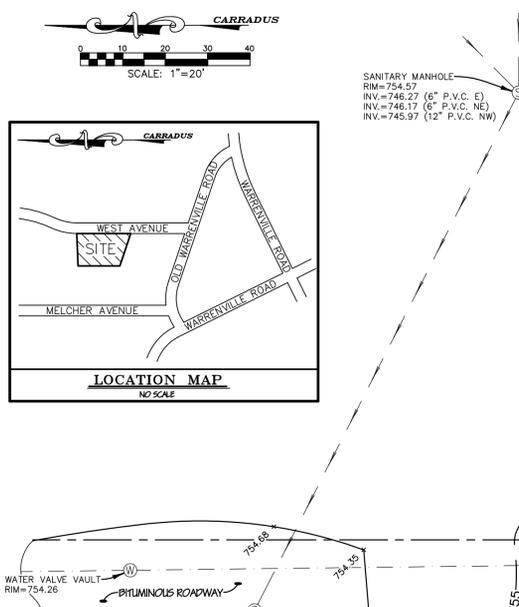


### TOPOGRAPHIC & GRADING PLAN LEGEND

Description	Proposed	Existing
TOPOGRAPHIC CONTOUR		
SANITARY/COMBINATION SEWER		
STORM SEWER		
WATER MAIN		
CURTAIN DRAIN		
SANITARY SEWER SERVICE	6" PVC PIPE (SDR-26)	
WATER SERVICE	1-1/4" COPPER (TYPE "K")	
TOP OF FOUNDATION ELEVATION	T/F	
GARAGE FLOOR ELEVATION	G/F	
FIRST FLOOR ELEVATION	F/F	
SANITARY MANHOLE		
STORM MANHOLE		
CURB INLET		
YARD INLET		
FLARED END SECTION		
FIRE HYDRANT		
POWER POLE		
LIGHT POLE		
SPOT ELEVATION		
TREE		
TREE TO BE REMOVED		
TREE TO BE PROTECTED		
EROSION CONTROL / SILT FENCE		
DRAINAGE FLOW ROUTE		
SUMP PUMP DISCHARGE		
DOWNSPOUT DISCHARGE		



### LEGAL DESCRIPTION

LOTS 21, 22, 23 & 24 IN FIRST ADDITION TO WARRENVILLE, BEING A SUBDIVISION IN THE SOUTHEAST QUARTER OF SECTION 35 AND THE SOUTHWEST QUARTER OF SECTION 36, TOWNSHIP 39 NORTH, RANGE 9, EAST OF THE THIRD PRINCIPAL MERIDIAN, ACCORDING TO THE PLAT THEREOF RECORDED MARCH 8, 1927 AS DOCUMENT 231151, IN DUPAGE COUNTY, ILLINOIS. AREA OF SITE = 25,853 SQ.FT.

### SURVEY NOTES

- All distances shown hereon are in feet and decimal parts thereof.
- Compare the Legal Description, Building Lines, and Easements as shown hereon with your Deed, Title Insurance Policy or Title Commitment.
- Consult the local authorities for additional setback lines and restrictions not shown hereon.
- Compare all survey points and report any discrepancies immediately.
- Consult utility companies and municipalities prior to the start of any construction.
- All dimensions to and along the buildings as shown hereon are exterior foundation measurements.
- Do Not Assume distances from scaled measurements made hereon.

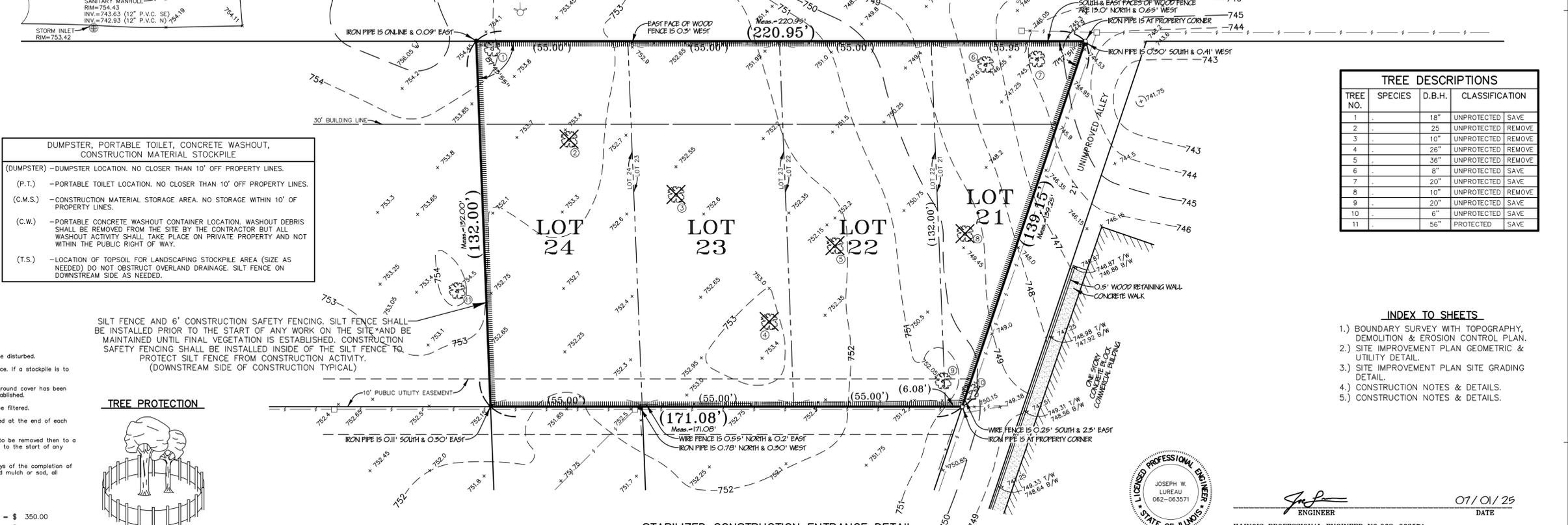
### SURVEY LEGEND

- IRON MONUMENT FOUND
- IRON MONUMENT SET (PLS 35-2551)
- CONCRETE MONUMENT (50.00')
- RECORD DIMENSION
- FENCE LINE
- EASEMENT LINE
- BUILDING LINE

### ELEVATION REFERENCE DATUM

THE ELEVATIONS SHOWN ON THIS TOPOGRAPHIC SURVEY ARE BASED UPON NAVD83 DATUM. THE SITE BENCHMARK SHOWN HEREON IS ALSO BASED ON NAVD83 DATUM, WHICH IS THE SAME DATUM AS THE DUPAGE COUNTY BENCHMARKS LISTED.

- SITE BENCHMARK 1** ELEVATION: 748.74  
CROSS CUT ON CONCRETE CURB APPROXIMATELY 143'± SOUTH & 21'± EAST OF THE NORTHEAST CORNER OF THE SITE.
- SITE BENCHMARK 2** ELEVATION: 749.45  
CROSS CUT ON SIDEWALK APPROXIMATELY 81'± SOUTH & 76'± EAST OF THE NORTHEAST CORNER OF THE SITE.
- DUPAGE BENCHMARK: 0121 RESET** ELEVATION: 709.58  
THE STATION IS LOCATED ABOUT 5.5 MILES SOUTHWEST OF WHEATON, 4.5 MILES SOUTH OF WEST CHICAGO AND 3.3 MILES NORTHWEST OF NAPERVILLE. TO REACH THE STATION FROM THE JUNCTION OF STATE HIGHWAY 56 WITH STATE HIGHWAY 59, GO EAST ON STATE HIGHWAY 56 FOR 0.6 MILES TO WARRENVILLE ROAD. TURN RIGHT AND GO SOUTHWEST ON WARRENVILLE ROAD FOR 250 FEET TO A BIKE PATH. TURN RIGHT AND GO SOUTH-SOUTHWEST ON THE BIKE PATH FOR 0.1 MILES TO A BOX CULVERT AND THE STATION IS ON THE RIGHT. THE STATION IS LOCATED 7 FEET NORTHWEST OF A WOOD FENCE, 15 FEET EAST OF THE CENTER OF THE STREAM AND 270 FEET SOUTH OF STATION W134002.
- DUPAGE BENCHMARK: 0168 RESET** ELEVATION: 698.78  
THE STATION IS LOCATED ABOUT 4.9 MILES SOUTHWEST OF WHEATON, 4.8 MILES SOUTH-SOUTHWEST OF WEST CHICAGO AND 2.7 MILES NORTHWEST OF NAPERVILLE. TO REACH THE STATION FROM THE JUNCTION OF STATE HIGHWAY 56 WITH STATE HIGHWAY 59, GO EAST ON STATE HIGHWAY 56 FOR 0.6 MILES TO WARRENVILLE ROAD. TURN RIGHT AND GO SOUTH-SOUTHWEST ON WARRENVILLE ROAD FOR 0.9 MILES TO THE CENTERLINE OF A CHURCH. 66 FEET WEST OF THE CENTERLINE OF THE EAST ENTRANCE TO THE CHURCH AND 26 FEET NORTH OF EDGE OF PAVEMENT OF THE CHURCH PARKING LOT.



- DUMPSTER, PORTABLE TOILET, CONCRETE WASHOUT, CONSTRUCTION MATERIAL STOCKPILE**
- (DUMPSTER) - DUMPSTER LOCATION. NO CLOSER THAN 10' OFF PROPERTY LINES.
- (P.T.) - PORTABLE TOILET LOCATION. NO CLOSER THAN 10' OFF PROPERTY LINES.
- (C.M.S.) - CONSTRUCTION MATERIAL STORAGE AREA. NO STORAGE WITHIN 10' OF PROPERTY LINES.
- (C.W.) - PORTABLE CONCRETE WASHOUT CONTAINER LOCATION. WASHOUT DEBRIS SHALL BE REMOVED FROM THE SITE BY THE CONTRACTOR BUT ALL WASHOUT ACTIVITY SHALL TAKE PLACE ON PRIVATE PROPERTY AND NOT WITHIN THE PUBLIC RIGHT OF WAY.
- (T.S.) - LOCATION OF TOPSOIL FOR LANDSCAPING STOCKPILE AREA (SIZE AS NEEDED) DO NOT OBSTRUCT OVERLAND DRAINAGE. SILT FENCE ON DOWNSTREAM SIDE AS NEEDED.

### TREE DESCRIPTIONS

TREE NO.	SPECIES	D.B.H.	CLASSIFICATION
1		18"	UNPROTECTED SAVE
2		25"	UNPROTECTED REMOVE
3		10"	UNPROTECTED REMOVE
4		26"	UNPROTECTED REMOVE
5		36"	UNPROTECTED REMOVE
6		8"	UNPROTECTED SAVE
7		20"	UNPROTECTED SAVE
8		10"	UNPROTECTED REMOVE
9		20"	UNPROTECTED SAVE
10		6"	UNPROTECTED SAVE
11		56"	PROTECTED SAVE

### INDEX TO SHEETS

- BOUNDARY SURVEY WITH TOPOGRAPHY, DEMOLITION & EROSION CONTROL PLAN.
- SITE IMPROVEMENT PLAN GEOMETRIC & UTILITY DETAIL.
- SITE IMPROVEMENT PLAN SITE GRADING DETAIL.
- CONSTRUCTION NOTES & DETAILS.
- CONSTRUCTION NOTES & DETAILS.

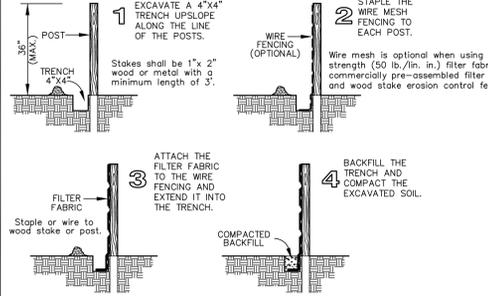
### EROSION CONTROL NOTES

- Sediment and erosion control devices shall be installed and functional before the site is otherwise disturbed.
- If a stockpile is to remain in place for more than seven days, it shall be surrounded by silt fence. If a stockpile is to remain in place for more than fourteen days, it shall be protected with temporary seeding.
- All graded sections shall be protected by sediment settling basins and/or straw bales until ground cover has been established. Filter fabric shall be placed under all inlet grates until ground cover has been established.
- Water pumped, or otherwise discharged, from the site as part of construction dewatering shall be filtered.
- All soil, mud and debris washed, tracked or deposited onto the street pavement shall be removed at the end of each work day.
- All vehicular access to the site shall be restricted to the existing driveway of the site, or if it is to be removed then to a gravel drive after the existing drive has been removed. The gravel drive shall be installed prior to the start of any construction activity at the site.
- Ground cover (seed and mulch or sod) shall be placed on all disturbed areas within fourteen days of the completion of top soil placement and final grading. If weather conditions preclude the placement of seed and mulch or sod, all disturbed areas shall be protected with erosion blanket.

### EROSION CONTROL COST ESTIMATE

- MAINTENANCE OF GRAVEL CONSTRUCTION ACCESS 1 L.S. @ \$ 350.00/L.S. = \$ 350.00
  - DAILY REMOVAL OF SEDIMENT, DEBRIS, ETC. THAT REACHES THE PUBLIC ROADWAY 1 L.S. @ \$ 300.00/L.S. = \$ 300.00
  - INSTALLATION & MAINTENANCE OF EROSION CONTROL SILT FENCE, ETC. 665 LF. @ \$ 5.00/LF. = \$ 3,325.00
  - ESTABLISH SOD ON DISTURBED AREAS OF PARKWAY 130 S.Y. @ \$ 9.00/S.Y. = \$ 1,170.00
  - LAWN RESTORATION OF REGRADED AREAS 1 L.S. @ \$ 6,050.00/L.S. = \$ 6,050.00
- TOTAL EROSION CONTROL = \$ 11,195.00

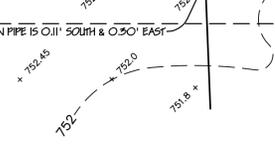
### EROSION CONTROL DETAILS



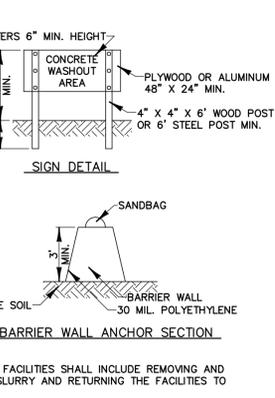
### Maintenance Schedule

- Filter barriers shall be inspected immediately after each rainfall and at least daily during prolonged rainfall. Any required repairs shall be made immediately.
- Should the fabric decompose or become ineffective prior to the end of the expected usable life and the barrier still be necessary, the fabric shall be replaced promptly.
- Sediment deposits should be removed after each storm event. They must be removed when deposits reach approximately half the height of the barrier.
- Any sediment deposits remaining in place after the silt fence or filter barrier is no longer required shall be dressed to conform with the existing grade, prepared and seeded.
- The owner/general contractor shall be responsible to ensure all maintenance procedures are followed.

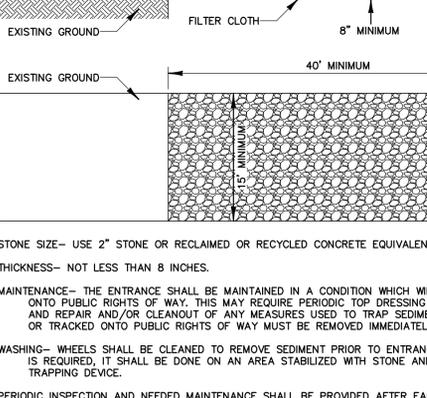
### TREE PROTECTION



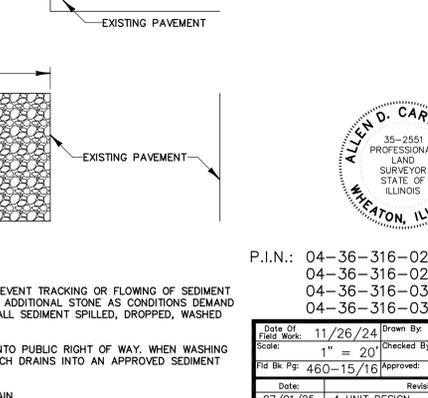
### TEMPORARY CONCRETE WASHOUT FACILITY-BARRIER WALL



### STABILIZED CONSTRUCTION ENTRANCE DETAIL



### BARRIER WALL ANCHOR SECTION



JOSEPH W. LUREAU  
062-063571  
ENGINEER  
DATE 07/01/25

ILLINOIS PROFESSIONAL ENGINEER NO.062-063571  
MY LICENSE EXPIRES 11/30/2025

STATE OF ILLINOIS  
COUNTY OF DU PAGE) SS

WE HAVE REVIEWED THE LOCAL TOPOGRAPHY AND IDENTIFIED ANY LOCAL DEPRESSIONAL AREAS. FURTHERMORE WE HAVE DETERMINED THAT THIS TECHNICAL SUBMISSION INCORPORATES PROPOSED IMPROVEMENTS THAT WILL NOT DISPLACE ANY PONDING OR STANDING WATER, AND WILL NOT CHANGE THE DRAINAGE OF SURFACE WATERS, AND THAT ADEQUATE PROVISIONS HAVE BEEN INCORPORATED INTO THE PROPOSED SITE GRADING SO AS TO NOT ADVERSELY AFFECT THE DRAINAGE OF STORMWATER TO, OR FROM THE SITE AND ADJUTING OR ADJACENT PROPERTIES.

THIS IS TO CERTIFY THAT I, ALLEN D. CARRADUS, AN ILLINOIS REGISTERED LAND SURVEYOR, HAS SURVEYED THE PROPERTY AS DESCRIBED HEREON AND THAT THE ANNEXED PLAT IS A CORRECT AND TRUE REPRESENTATION THEREOF.

SIGNED AND SEALED AT CAROL STREAM, ILLINOIS THIS 26th DAY OF November, A.D. 2024.  
BY Allen D. Carradus ILLINOIS REGISTERED LAND SURVEYOR NO. 35-2551.  
MY LICENSE EXPIRES NOVEMBER 30, 2026

CARRADUS LAND SURVEY, INC. PROFESSIONAL DESIGN FIRM NO. 184-007086  
FOR LAND SURVEYING & PROFESSIONAL ENGINEERING EXP. 04/30/2025

**BOUNDARY SURVEY WITH TOPOGRAPHY  
DEMOLITION & EROSION CONTROL PLAN**

35729 WEST AVENUE, WARRENVILLE, DU PAGE COUNTY, ILLINOIS

Prepared For: **TQ HOMES**

Prepared By: **CARRADUS LAND SURVEY, INC.**  
191 S. Gary Avenue Suite 180, Carol Stream Illinois, 60188  
(630) 588-0418 (FAX) 633-7682 OFFICE@CARRADUSLANDSURVEY.COM

ONSITE IMPERVIOUS AREA TABLE		
	BEFORE CONSTRUCTION	AFTER CONSTRUCTION
BUILDINGS--	7,800 SQ.FT.	30.2 %
DRIVEWAY--	1,990 SQ.FT.	7.7 %
FRONT WALK & PORCH--	316 SQ.FT.	1.2 %
REAR PATIO--	560 SQ.FT.	2.2 %
TOTAL IMPERVIOUS--	10,666 SQ.FT.	41.3 %
TOTAL SITE AREA--	25,853 SQ.FT.	100.0 %
NET ONSITE IMPERVIOUS AREA INCREASE = 10,666 SQ.FT.		
OFFSITE IMPERVIOUS AREA IN RIGHT OF WAY TABLE		
DRIVEWAY APPROACH--	2,847 SQ.FT.	
TOTAL NET IMPERVIOUS AREA INCREASE = 13,513 SQ.FT.		

NOTE  
THERE IS NO EXISTING IMPERVIOUS AREA AS SITE IS CURRENTLY VACANT.

**ONSITE PCBMP**

14,964 SQ.FT. IMPERVIOUS AREA = 1-1/4" RAINFALL = 1,559 CU.FT. REQUIRED.

CORE INTO EXISTING MANHOLE AND INSTALL NEW SEWER, BOOT, BANDS AND FITTING PER WARRENVILLE PUBLIC WORKS SPECIFICATIONS. SHAPE MANHOLE FLOOR AS MAY BE NEEDED. CONSULT WITH WARRENVILLE PUBLIC WORKS.

EXISTING SANITARY MANHOLE APPROXIMATELY 112' NORTH OF THE NORTHEAST CORNER OF THE SITE.  
RIM=754.43  
INV.=743.63 (12" P.V.C. SE)  
INV.=742.93 (12" P.V.C. N)  
INV.=743.00 (8" P.V.C.S.)(PROPOSED)

A) CONNECT NEW 1-1/4" TYPE K FLEXIBLE COPPER PIPE WATER SERVICE & B-BOX TO EXISTING MAIN. FIELD VERIFY LOCATION AND CONDITION AND CONSULT WITH CITY ABOUT SPECIFICATIONS FOR MATERIALS AND INSTALLATION. ADJOINING SERVICES MAY BE RUN IN THE SAME TRENCH WITH PROPER SEPARATION AT THE TAP AND B-BOX. (MAINTAIN 10' HORIZONTAL SEPARATION WITH SANITARY SERVICE) TRENCH BACKFILL SHALL BE REQUIRED IN ALL TRENCHES FROM CONNECTION POINT TO 5' BEYOND DRIVEWAYS AND SIDEWALKS.

B) CONNECT NEW 6" P.V.C. PIPE (SDR-26) SANITARY SERVICE WITH A MINIMUM PIPE SLOPE OF 1.00% TO 8" SANITARY SEWER IN WEST AVENUE. FIELD VERIFY LOCATION OF SANITARY SERVICES WITH WARRENVILLE PUBLIC WORKS PRIOR TO THE START OF CONSTRUCTION. MAINTAIN 10' HORIZONTAL SEPARATION WITH WATER SERVICE. PROVIDE SELECT GRANULAR TRENCH BACK FILL IN UTILITY TRENCHES UNDER PAVED AREAS.

PROPOSED HEAVY DUTY PAVING OF THE DRIVEWAY WITHIN THE RIGHT OF WAY SHALL BE BUILT IN ACCORDANCE WITH THE FOLLOWING SPECIFICATIONS: GEOTECHNICAL FABRIC; SUBBASE GRANULAR MATERIAL, TYPE B - 4 INCHES; HOT-MIX ASPHALT BINDER COURSE, IL-19.0, NSO - 7 INCHES, AND HOT-MIX ASPHALT SURFACE COURSE, MIX "D", NSO - 2 INCHES.

WATER SERVICE TAP ON EXISTING WATERMAIN. CONSULT WITH CITY FOR MINIMUM SEPARATION, MATERIALS AND PROCEDURES. (TYPICAL)

WHERE A PUBLIC SIDEWALK PASSES THROUGH A DRIVEWAY, A MINIMUM OF SEVEN INCHES (7") OF FIBERIZED CONCRETE MUST BE PROVIDED OVER TWO INCHES (2") OF CA-6 AGGREGATE. EXPANSION JOINTS ON BOTH SIDES OF THE SIDEWALK THROUGH THE DRIVEWAY MUST BE PROVIDED FOR TOTAL THICKNESS OF THE CONCRETE. FOR PUBLIC SIDEWALKS LOCATED OUTSIDE OF DRIVEWAYS, A MINIMUM FIVE INCHES (5") OF FIBERIZED CONCRETE MUST BE PROVIDED OVER TWO INCHES (2") OF CA-6 AGGREGATE.

CONTINUE PROPOSED SIDEWALK EAST AT BACK OF CURB TO MEET END OF EXISTING WALK. (APPROXIMATELY 15 FEET FURTHER THEN SHOWN)

295 L.F. 8" P.V.C. PIPE (SDR-26) SANITARY SEWER WITH A MINIMUM PIPE SLOPE OF 0.40%. FIELD VERIFY LOCATION OF SANITARY SERVICES WITH WARRENVILLE PUBLIC WORKS PRIOR TO THE START OF CONSTRUCTION. MAINTAIN 10' HORIZONTAL SEPARATION WITH WATER MAIN. PROVIDE SELECT GRANULAR TRENCH BACKFILL IN UTILITY TRENCHES UNDER PAVED AREAS AND FOR THE ENTIRE 300 L.F. OF PIPE.

SAW CUT AND REPLACE BITUMINOUS ROADWAY AND CONCRETE CURB. PROVIDE SELECT GRANULAR TRENCH BACKFILL UNDER ALL PAVED AREAS. (TYPICAL)

CHANGE OUT STANDARD CURB INLET FRAME & GRATE WITH THE CITY STANDARD FOR DEPRESSED CURB AT DRIVEWAY.

MH-SAN-1 PROPOSED 48" SANITARY MANHOLE WITH TYPE 1 FRAME AND SOLID LID. CONSULT WITH WARRENVILLE PUBLIC WORKS FOR SPECIFICATIONS.  
RIM=748.50  
INV.=744.18 (8" P.V.C., N)

- GENERAL CONSTRUCTION NOTES**
1. WATER FOR CONSTRUCTION SHALL BE BROUGHT IN FROM OFFSITE.
  2. CONSTRUCTION VEHICLES SHALL BE PARKED ON THE WEST SIDE OF WEST AVENUE ONLY.
  3. ALL TREES ON THE SITE, EXCEPT THOSE DESIGNATED TO BE REMOVED, SHALL BE PROTECTED.
  4. THE CONTRACTOR SHALL BE REQUIRED TO KEEP THE STREETS CLEAN THROUGHOUT CONSTRUCTION.
  5. ALL ACCESS TO AND FROM THE SITE BY CONSTRUCTION VEHICLES SHALL BE VIA THE GRAVEL DRIVEWAY.
  6. THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, ILLINOIS DEPARTMENT OF TRANSPORTATION LATEST REVISION, AND THE STANDARD SPECIFICATION FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS, LATEST REVISION, SHALL GOVERN CONSTRUCTION FOR THE PROPOSED IMPROVEMENT UNLESS SUPERSEDED BY SPECIAL PROVISIONS IN THE CITY OF WARRENVILLE SUBDIVISION AND ENGINEERING SPECIFICATIONS MANUAL.
  7. THE CONTRACTOR SHALL NOTIFY THE CITY OF WARRENVILLE AT LEAST TWO (2) WORKING DAYS BEFORE THE INITIAL START OF OPERATIONS, OPENING ANY STREET PAVEMENT OR ANY TEMPORARY STOP OR RESUMPTION OF OPERATIONS.
  8. ALL NEW UNDERGROUND SERVICES SHALL BE PLACED AT LEAST FIVE (5) FEET FROM SANITARY AND WATER SERVICES.
  9. WHEREVER THE WORDS "ENGINEER" OR "INSPECTOR" APPEAR, IT SHALL BE INTERPRETED TO MEAN A REPRESENTATIVE OF THE CITY OF WARRENVILLE.
  10. A COPY OF THE CITY APPROVED STAMPED PLANS AND SPECIFICATIONS AND OTHER AGENCIES' PERMITS, I.E. COUNTY HIGHWAY, ILLINOIS ENVIRONMENTAL PROTECTION AGENCY, ETC. MUST BE KEPT ON THE JOB SITE DURING CONSTRUCTION.
  11. CHANGES IN THE ENGINEERING PLANS MUST BE APPROVED BY THE CITY ENGINEER. A WRITTEN REQUEST, ACCOMPANIED BY REVISED ENGINEERING PLANS, IS TO BE SUBMITTED AND APPROVED BEFORE CHANGES ARE STARTED.
  12. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING ALL UTILITIES (AMERITECH, COMMONWEALTH EDISON ELECTRIC COMPANY, ETC.) PRIOR TO CONSTRUCTION AND ALL UTILITIES DAMAGED AND/OR DISTURBED BY THE CONTRACTOR SHALL BE REPAIRED AT NO ADDITIONAL COST TO THE OWNER. LOCATIONS AS SHOWN ARE APPROXIMATE AND BASED UPON THE BEST AVAILABLE INFORMATION, CALL J.U.L.I.E. FOR MAJOR UTILITY LOCATIONS.
  13. THE CONTRACTOR IS TO VERIFY ALL ELEVATIONS PRIOR TO THE START OF WORK AND, IF THERE ARE ANY DISCREPANCIES, IS TO NOTIFY THE DESIGN ENGINEER AT ONCE, NO WORK SHALL BE DONE UNTIL THE DISCREPANCIES ARE RESOLVED.
  14. EXISTING UTILITIES TO BE ABANDONED IN PLACE SHALL BE REMOVED TO A MINIMUM DISTANCE OF 15 FEET ON EACH SIDE OF ANY EXISTING UTILITIES TO REMAIN IN SERVICE AND/OR ANY PROPOSED UTILITIES.

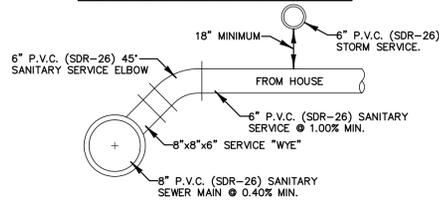
**UTILITY SERVICE NOTES**

1. WATER SERVICE SHALL BE 1-1/4" COPPER (TYPE "K")
2. SANITARY SEWER SERVICES SHALL BE 6" P.V.C. PIPE (SDR-26) @ A MINIMUM 1.00% SLOPE
3. RESTORE PAVED AREAS DISTURBED DURING THE INSTALLATION OF SEWER & WATER SERVICE
4. ALL TRENCHES SHALL BE BACKFILLED WITH A SELECT GRANULAR MATERIAL UNDER ROADWAYS, DRIVEWAYS AND SIDEWALKS.

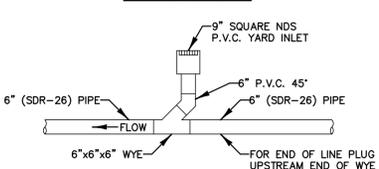
**GRADING NOTES**

1. MATCH EXISTING GRADES AT THE PROPERTY LINES.
2. DIRECT DOWNSPOUTS AND SUMP DISCHARGE TOWARDS THE REAR AND FRONT YARD SWALES.
3. THE EXISTING DRAINAGE CHARACTERISTICS OF THE SITE SHALL REMAIN SUBSTANTIALLY UNCHANGED.
4. RESTORE ALL GRADED AREAS WITH SEED OR SOO PER OWNER.
5. ALL EXCESS EXCAVATED MATERIAL SHALL BE REMOVED FROM THE SITE AT THE TIME OF EXCAVATION.
6. ONLY THAT MATERIAL NEEDED FOR FOUNDATION BACKFILL AND FINAL GRADING SHALL BE STORED ONSITE.
7. ALL GRADING OPERATIONS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE ELEVATIONS AND GRADES, AS SHOWN ON THE PLANS OR MODIFIED BY THE CITY ENGINEER.

**SANITARY SERVICE & STORM SEWER CROSSING**

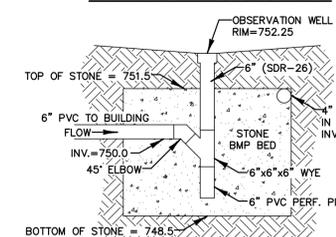


**INLINE 9" SQUARE NDS P.V.C. YARD INLET**



SILT FENCE AND 6' CONSTRUCTION SAFETY FENCING. SILT FENCE SHALL BE INSTALLED PRIOR TO THE START OF ANY WORK ON THE SITE AND BE MAINTAINED UNTIL FINAL VEGETATION IS ESTABLISHED. CONSTRUCTION SAFETY FENCING SHALL BE INSTALLED INSIDE OF THE SILT FENCE TO PROTECT SILT FENCE FROM CONSTRUCTION ACTIVITY. (DOWNSTREAM SIDE OF CONSTRUCTION TYPICAL)

**STONE BMP BED DETAIL**

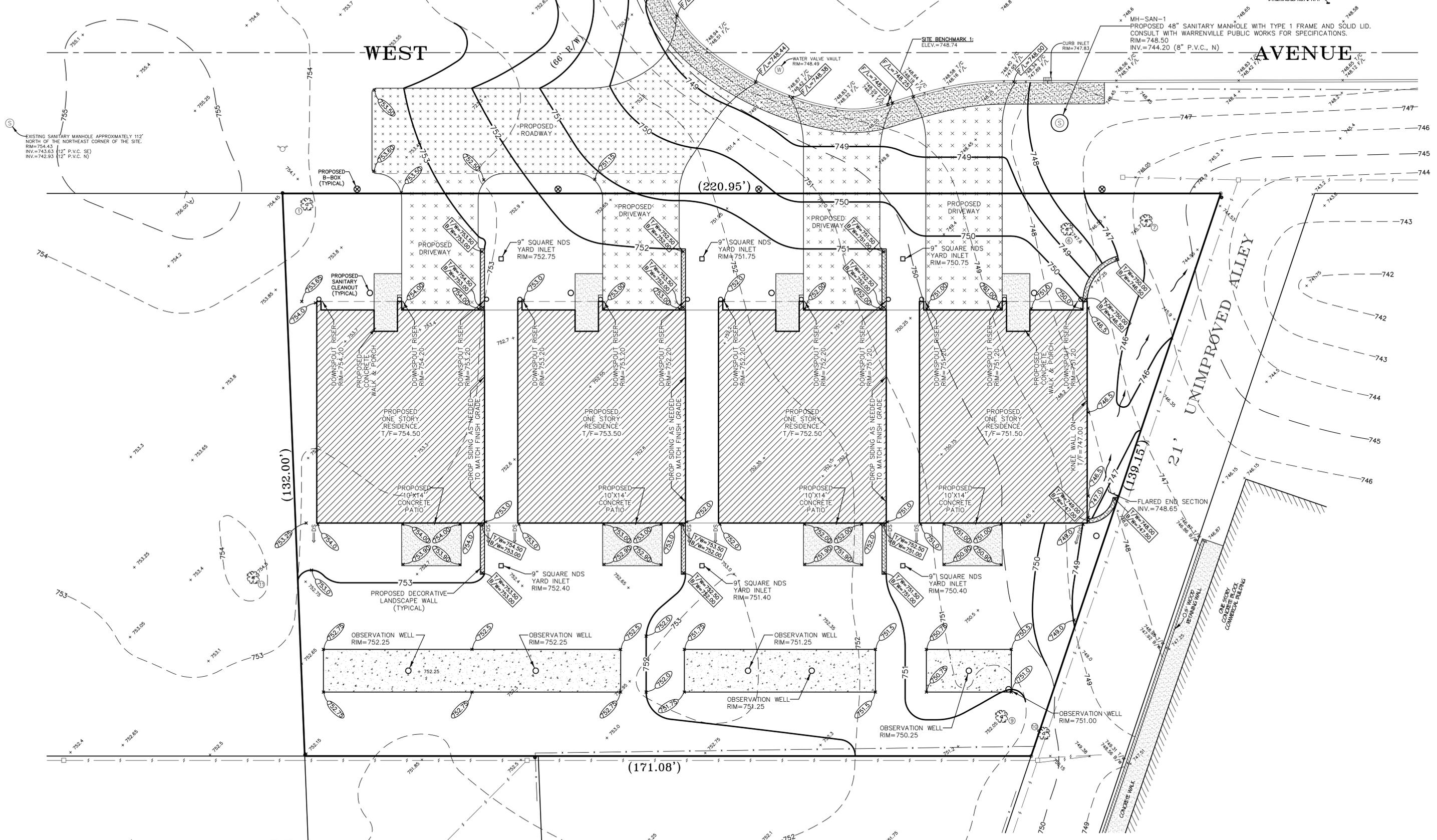


Date of Field Work: 11/26/24	Drawn By: CMG	<b>SITE IMPROVEMENT PLAN GEOMETRIC &amp; UTILITY DETAIL</b> 35729 WEST AVENUE, WARRENVILLE, DU PAGE COUNTY, ILLINOIS	Sheet: 2
Scale: 1" = 10'	Checked By: EAC		of 5
Proj. No: 460-15/16	Approved: ADC	Prepared For: TQ HOMES	Project #
Date: 07/01/25	Revision: 4 UNIT DESIGN	Prepared By: CARRADUS LAND SURVEY, INC.	41057
		191 S. Gary Avenue Suite 180, Carol Stream, ILLINOIS 60188 (630) 588-0416 (Fax) 633-7682 OFFICE@CARRADUSLANDSURVEY.COM	



SCALE: 1"=10'

CARRADUS



EXISTING SANITARY MANHOLE APPROXIMATELY 112' NORTH OF THE NORTHEAST CORNER OF THE SITE.  
RIM=754.43  
INV.=743.63 (12" P.V.C. SE)  
INV.=742.93 (12" P.V.C. N)

MH-SAN-1  
PROPOSED 48" SANITARY MANHOLE WITH TYPE 1 FRAME AND SOLID LID.  
CONSULT WITH WARRENVILLE PUBLIC WORKS FOR SPECIFICATIONS.  
RIM=748.50  
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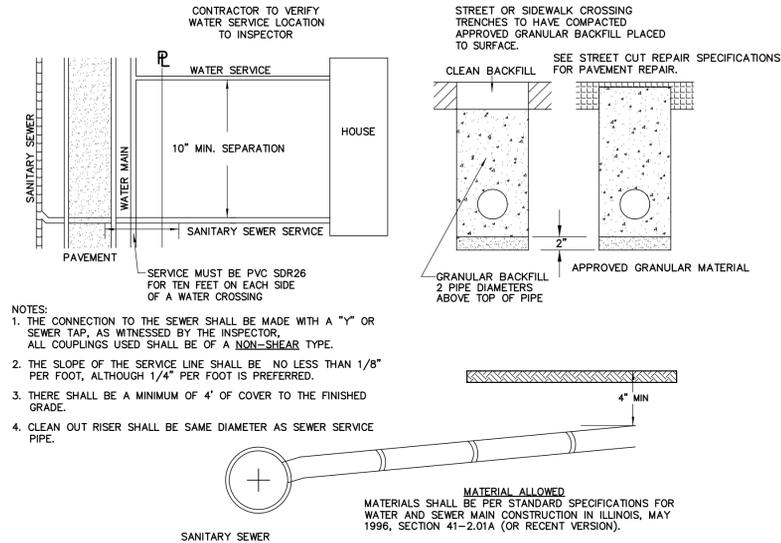
**SITE IMPROVEMENT PLAN**  
**SITE GRADING DETAIL**  
35729 WEST AVENUE, WARRENVILLE, DU PAGE COUNTY, ILLINOIS

Sheet  
3  
of 5

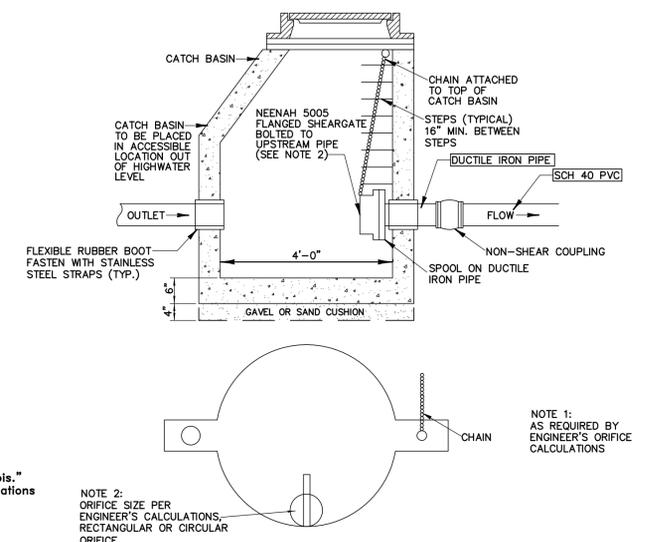
# CONSTRUCTION DETAILS

## SANITARY SEWER SERVICE CONNECTION DETAIL

A MINIMUM 4-HOUR NOTICE IS REQUIRED PRIOR TO SCHEDULING AN INSPECTION



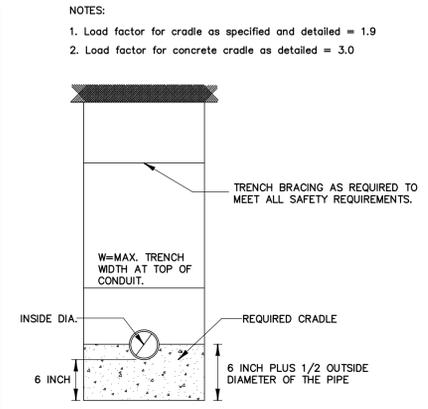
## TYPICAL STORM SEWER RESTRICTOR



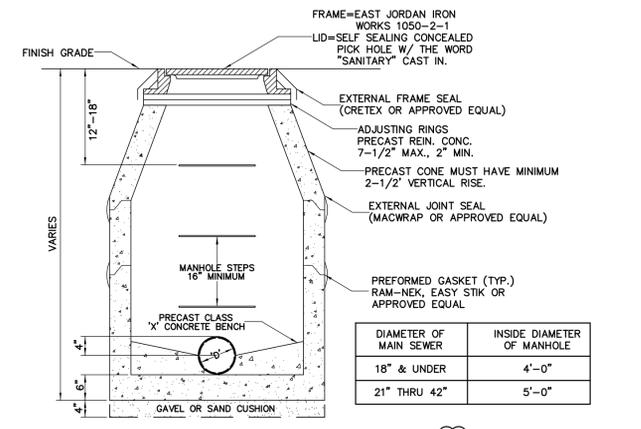
## CRADLE DETAILS AND MAXIMUM TRENCH WIDTHS

For more information ref. "Standard Specifications for Water and Sewer Main Construction in Illinois," May 1996, Section 40 and 41 (OR RECENT VERSION). For more information ref. "Standard Specifications for Road and Bridge Construction", LATEST VERSION.

Inside Conduit Diameter	Max. Trench Width at the top of conduit W
0 to 6	2-0
8	2-2
10	2-4
12	2-7
15	2-10
18	3-2
21	3-6
24	3-9
27	4-1
30	4-5
33	4-9
36	5-8
42	6-3
48	6-10
54	7-5
60	8-0
66	8-7
72	9-2
78	9-9
84	10-4
90	10-10
96	11-5
108	12-6

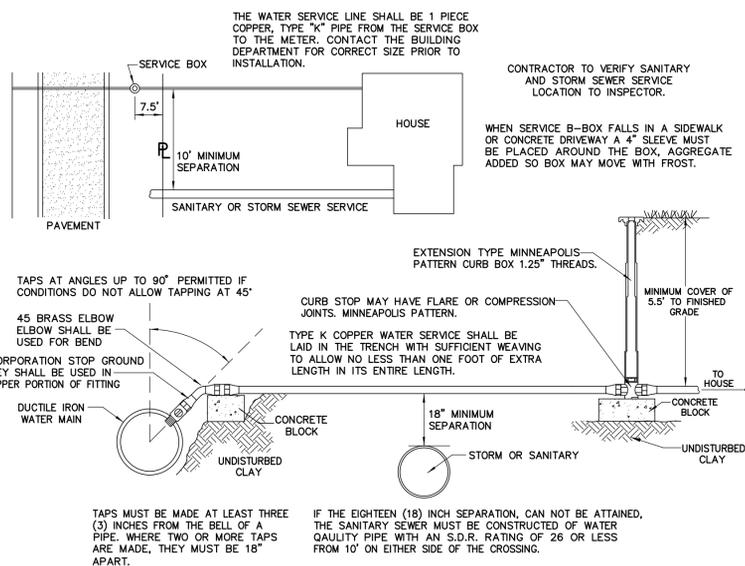


## STANDARD SANITARY MANHOLE DETAIL



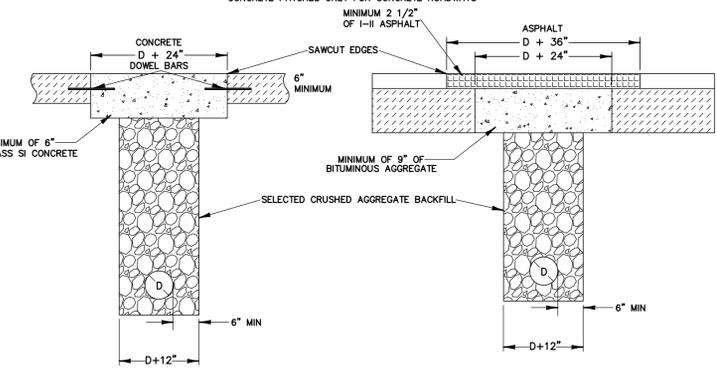
## WATER SERVICE CONNECTION DETAIL

For more information ref. "Standard Specifications for Water and Sewer Main Construction in Illinois," May 1996, Section 40 and 41, (OR RECENT VERSION).



## STREET CUT REPAIR SPECIFICATIONS

Reference "Standard Specifications for Road and Bridge Construction" Latest Version  
ASPHALT PATCHES ONLY FOR ASPHALT ROADWAYS  
CONCRETE PATCHES ONLY FOR CONCRETE ROADWAYS



SECTION 58-106 - ANY STREET OR SIDEWALK DISTURBED BY EXCAVATION SHALL BE RESTORED TO ITS ORIGINAL CONDITION WITHIN 72 HOURS FROM THE TIME THE WORK COMMENCED, UNLESS GRANTED AN EXTENSION BY THE CITY ENGINEER. IN ALL CASES, HOWEVER, STREET OPENINGS SHALL BE BACK FILLED WITH APPROVED GRANULAR MATERIAL AND A TEMPORARY PAVEMENT SURFACE OF COMPACTED, COLD ASPHALT MATERIAL, A MINIMUM OF TWO INCHES IN DEPTH, SHALL BE PLACED ON THE AREA DISTURBED BY CONSTRUCTION WITHIN 12 HOURS FROM THE TIME THE WORK COMMENCED.

SECTION 58-107 - NOTICE SHALL BE GIVEN TO THE DEPARTMENT LISTED ON THE PERMIT AT LEAST 24 HOURS BEFORE THE WORK OF REFILING ANY EXCAVATION OR TUNNEL IN ANY STREET, ALLEY OR OTHER PUBLIC PLACE COMMENCES.

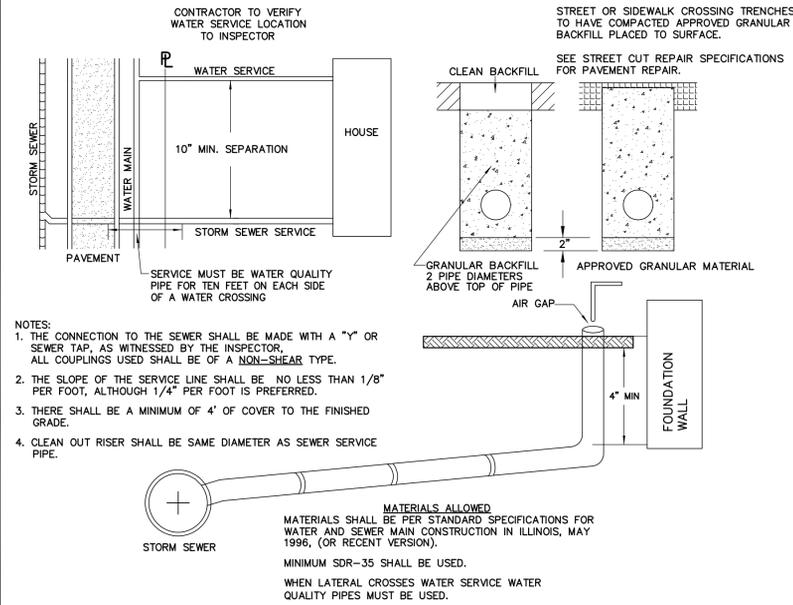
SECTION 58-14 - ANY PERSON DOING ANY PERMITTED WORK WITHIN ANY STREET OR ALLEY RIGHT-OF-WAY WITHIN THE CITY SHALL MAINTAIN SUFFICIENT AND SUITABLE SIGNS, BARRICADES AND LIGHTS DESIGNED TO WARN THE PUBLIC AGAINST HAZAROUS CREATED BY THE PERMITTED WORK BEING DONE TO PREVENT DAMAGE TO ANY SUCH WORK.

ON ARTERIAL, COLLECTOR AND CENTRAL BUSINESS DISTRICT ROADWAYS, OR OTHER ROADWAYS THAT MAY BE DESIGNATED BY THE DIRECTOR OF ENGINEERING, ALL STREET CUTS MUST BE BACKFILLED AND PATCHED THE DAY OF CONSTRUCTION. REFERENCE CROSS SECTIONS ABOVE.  
PERMIT REQUIREMENTS: A STREET CUT PERMIT IS REQUIRED PRIOR TO ANY WORK. A MINIMUM OF 24 HRS. NOTICE IS REQUIRED PRIOR TO INSPECTION. RETURN INSPECTION SLIP TO THE ENGINEERING DEPARTMENT.

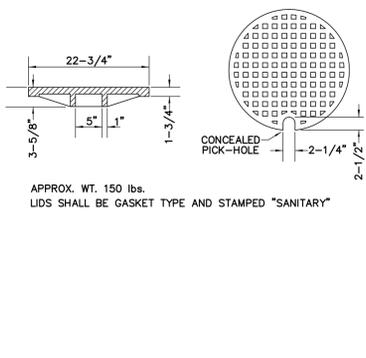
NOTE:  
1. ONE LANE OF TRAFFIC SHALL BE MAINTAINED FOR PERMITTED FULL WIDTH STREET CUTS.  
2. NO CONCRETE PATCHES ON ASPHALT STREETS  
3. DOWEL BARS SHALL BE USED TO TIE THE NEW CONCRETE INTO EXISTING CONCRETE.

## STORM SEWER SERVICE CONNECTION DETAIL

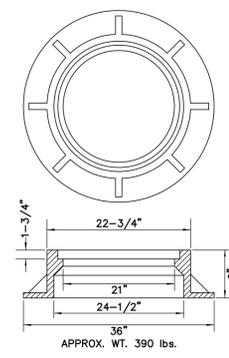
A MINIMUM 4-HOUR NOTICE IS REQUIRED PRIOR TO SCHEDULING AN INSPECTION



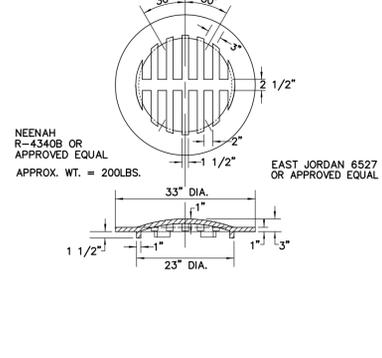
## CLOSED LID



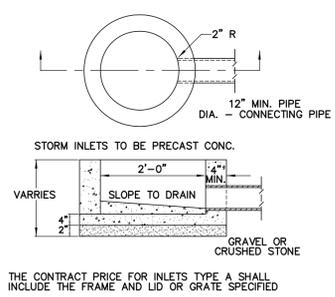
## TYPE 1 FRAME



## TYPE "8" GRATE DETAIL



## TYPE "A" INLET DETAIL



**WATER MAIN**

- 1.) All open cut water main shall be polyvinyl chloride plastic (PVC) pressure pipe per AWWA specification C-900, Class 150 (DR-18). The above pipe and fittings shall be furnished with elastomeric gasket joints conforming to ASTM F477. Trench Backfill shall be utilized to twelve inches (12") above the top of the PVC water main.
- 2.) All water main installed by horizontal directional drilling shall be PVC per AWWA specification C-900 with CertoLok joints. Assembly and installation of pipe shall be in accordance with the manufacturer's instructions. All material specifications shall be submitted to the City and approved prior to installation.
- 3.) Copper clad steel (SSC) blue tracer wire shall be installed directly over the center of the water main in the trench with a maximum separation of four inches (4") above the pipe. The tracer wire will be installed with the water main and attached to all in-line valves, hydrant valves, hydrants and service lines to insure signal conductivity along all portions of the new main. Connections shall be DryConn 3-way Direct Bury Lug OR Copperhead Mainline-to-Service Connector 3WB-01.
  - A. For open trench, a Copperhead High Strength 1230 wire shall be used
  - B. For directional boring, a Copperhead Extra High Strength 1245 shall be used.
  - C. For pipe bursting, a Copperhead SoloShot Xtreme Strength 7x7 stranded PBX-50 shall be used.
  - D. For fire hydrants, tracer wire shall terminate at trace wire access box. Copperhead T3-75-F shall be used.
- 4.) Fittings shall be ductile iron, 250 psi pressure rating, cement mortar lined with restrained push-on joint or mechanical joint with MEGALUG retainer glands, or approved equal.
- 5.) Water Main Bolts shall be stainless steel ASTM 304.
- 6.) Restrained Joints - All fittings shall have restrained joints. All water main piping in casing shall have restrained joints. Restrained joints shall be push joint with a field lock gasket or a mechanical joint with MEGALUG retainer glands, or approved equal. All bends, tees, and dead end piping must be restrained a minimum of 24' in both directions of the fitting. Thrust cement blocking of all fittings, hydrants, and dead end piping is required.
- 7.) Pressure connections - Pressure tapping sleeves shall be all stainless steel.
- 8.) All valves shall be resilient wedge gate valves installed in a precast concrete vault. Valves shall be Mueller, Waterous, or Clow manufacture. All bolts shall be stainless steel.
- 9.) Valve vaults shall be pre-cast concrete units. For water mains 8-inch diameter or less, the vault shall be 48-inch inside diameter. For water mains 10-inch diameter and greater, the vault shall be 60-inch inside diameter.
- 10.) Frames and lids shall conform to Neenah Foundry R-1713 or approved equal and the word "WATER" shall be cast in the cover.
- 11.) Casing - Spacers All joints within the casing shall be restrained. Spacers shall be installed on all pipe in casing. Spacers shall be bolt on style with a shell made in two sections of heavy 1-304 stainless steel. Casing shall be filled with pea gravel or sand and sealed at both ends.
- 12.) All ductile iron pipes and fittings are required to be encased in 8-mil polyethylene conforming to AWWA C-105.
- 13.) It shall be the responsibility of the contractor to obtain and supply certification for all materials. Shop drawings shall be submitted to and approved by the City before installation.
- 14.) Depth of bury for water main to be 5'-6" (minimum).
- 15.) Installation shall conform to "Standard Specifications for Water and Sewer Main Construction in Illinois" latest edition.

**FIRE HYDRANTS**

- 1.) Hydrant shall be FM approved and UL listed, shall conform to AWWA C-502, and shall have breakaway safety flanges.
- 2.) Hydrants shall be Mueller Centurion, Waterous WB67-250, or Clow Medallion.
- 3.) All bolts shall be stainless steel from and including the breakaway flange to the inlet on the hydrant shoe.
- 4.) All hydrants shall have a bronze cross arm / top plate.
- 5.) Connecting piping shall be six-inch (6") diameter shall be polyvinyl chloride plastic (PVC) pressure pipe per AWWA specification C-900, Class 150 (DR-18). The above pipe and fittings shall be furnished with elastomeric gasket joints conforming to ASTM F477.
- 6.) Main Valve opening shall be five and one quarter inch (5-1/4") in diameter, compression type, with a brass drain valve.
- 7.) Nozzles shall have threaded male ends conforming to "American National Standard Fire Hose Connection Screw Threads. The hydrant shall have two nozzles of 63 mm which are 2- 1/2" and one pumper nozzle of 114 mm (4-1/2") with caps and chains.
- 8.) Hydrants shall have a minimum working pressure of 175 psi.
- 9.) Hydrants shall open in a counter-clockwise direction, as indicated by an arrow and the word "OPEN" on the dome.
- 10.) Hydrants shall be painted a high visibility red, factory applied paint. Hydrants shall have a six-inch (6") auxiliary valve with box on the inlet piping. Valve shall meet water main piping specifications for the City of Warrenville. Auxiliary valve attached to hydrant shall have stainless steel bolts at the flange inlet.
- 11.) Connection of six-inch (6") piping shall be restrained joints from the tee at the water main to the inlet of the hydrant with field lock gaskets for push joint and MEGALUG retainer glands, or approved equal for mechanical joint.

**WATER SERVICES**

- 1.) For water services 2-inch diameter and less shall be Type "K" copper OR ADS potable water service tubing (CTS) pipe SDR 9. Pipe requirements of ASTM D2737, AWWA C901 and NSF Standard 14 and 61. Pipe dimensions shall meet Copper Tubing Size (CTS) standards. Minimum service size of one-inch (1") diameter. Non-copper services will require copper clad steel (SSC) blue tracer wire. See Watermain specifications for types.
- 2.) Brass shall be Mueller or Ford. All brass is to have compression fittings. Compression fittings must be of the stainless full circle ring retainage. No set screws are allowed. Flair fitting are NOT acceptable.
- 3.) B-Boxes shall be of the arch pattern design with a telescoping one and one quarter-inch (1- 1/4") iron pipe upper section, pentagon nut access, enlarged base for 1-1/2" roundways and larger, manufactured in the USA.
- 4.) Tapping saddle at minimum shall be epoxy coated ductile with two stainless steel bands. All stainless steel saddles are acceptable. Manufactured in USA.
- 5.) All repair clamps shall be full circle stainless steel.
- 6.) Depth of bury for water services to be 5'-6" (minimum) to 6'-6" (maximum).

**SANITARY SEWER**

- 1.) All sanitary sewer and sanitary sewer service pipe shall be SDR 26 ASTM D-2241 and fittings shall meet the requirements of ASTM D-3139 or equivalent. Note: This is a pressure rated pipe.
- 2.) Sanitary sewer services shall be a minimum of 6-inches in diameter. Cleanout should be provided (preferred outside of home).
- 3.) All sanitary sewers shall be air and mandrel tested, and televised, including private commercial lines between inspection manhole and the public sanitary sewer. Copies of DVDs and reports shall be provided to the City.
- 4.) Sanitary sewer manholes shall have openings for the pipe connections cast into the wall of the structure. Rubber gasketed coupling (boot) with stainless steel bands / retainers shall be per ASTM C-923.
- 5.) When connecting to an existing manhole, the hole must be cored and a rubber gasketed coupling (boot) with stainless steel bands / retainers shall be per ASTM C-923. The bench shall be removed and repoured, if necessary. Rubber boots/seals must be used where pipes enter manholes. The internal connection shall be dressed up with non-shrink hydraulic cement. Hydraulic cement, mortar, and concrete must be of the strength and water-tightness quality as specified in the ASTM standards.
- 6.) When connecting a new sanitary service to an existing sanitary sewer main without an existing wye, contact Public Works to determine which one of the two following methods shall be used.
  - A. A section of the main shall be cut out to install a new wye. Connection between the existing sanitary sewer and the new wye shall be made with non-shear mission couplings with two stainless steel bands to a point where the coupling cannot shift.
  - B. Core the existing main and make the connection with an INSERTA TEE connection or an approved equal
- 7.) Sanitary manholes shall be pre-cast concrete units. For sanitary sewers 18-inch diameter or less, the manhole shall be 48-inch inside diameter. For sanitary sewers 21-inch diameter and larger, the manhole shall be 60-inch inside diameter.
- 8.) Frames and lids shall conform to Neenah Foundry R-1713 or approved equal or otherwise noted in plans and the word "SANITARY" shall be cast in the cover. The lid shall be a self-sealing solid lid with watertight gasket and concealed pickhole. Any manhole within a floodplain shall have a watertight, bolt-down frame and lid, Neenah R-1916-F1 or approved equal.
- 9.) All commercial buildings shall have an inspection manhole.
- 10.) Manhole sections and adjusting rings shall be sealed with butyl rope.
- 11.) Sanitary manholes shall have a poured concrete bench.
- 12.) Rings / steps shall be installed in manholes unless specifically prohibited.
- 13.) External chimney seals (Cretex or approved equal) and MacWrap will be required with all sanitary manholes. The frame, chimney, and top "lip" of the cone section shall be required to be sealed with a chimney seal. This should be observed by the City prior to backfilling.
- 14.) No ground water will be allowed to enter the sanitary sewer during or after construction.
- 15.) No more than twelve inches (12") of adjusting rings are allowed.

**STORM SEWER**

- 1.) All storm sewers 18-inch diameter and less shall be PVC SDR26 with pipes and fittings meeting ASTM D-3034.
- 2.) All RCP storm sewers shall be installed with rubber gasket joints.
- 3.) The minimum storm sewer size allowed in the public right-of-way will be 10-inch diameter unless conditions warrant a smaller size.
- 4.) On private property, storm sewer installed to drain an existing depressional area shall generally be six-inch or eight-inch (6" or 8") diameter, unless a larger size is supported by calculations.
- 5.) Storm manholes and catch basins shall be pre-cast concrete units. For storm sewers 21-inch diameter or less, the manhole shall be 48-inch inside diameter. For storm sewers 24-inch through 42-inch diameter, the manhole shall be 60-inch inside diameter. For storm sewers 48-inch diameter and larger, the manhole shall be 72-inch inside diameter.
- 6.) Rings / steps shall be installed in manholes unless specifically prohibited.
- 7.) The minimum size structure shall be a 2-foot diameter precast concrete inlet, unless conditions warrant a different structure.
- 8.) Allowable curb and parkway castings for inlets and catch basins:
  - A. When a barrier curb is present, use a Neenah R-3275 frame and grate (for B- 6.12 curb and gutter, widen gutter section to accommodate larger grate).
  - B. For some slope conditions when a barrier type curb is present, a Neenah R- 3065-L frame and grate may be used (for B-6.12 curb and gutter, widen gutter section to accommodate larger grate).
  - C. When roll curb is present, use a Neenah R-3501-P frame and grate.
  - D. In lawn areas, use beehive type grate, Neenah R-4340-B.
  - E. In lawn areas where a lot of trees are present, in public right-of-way and in ditches, use stool type grate, Neenah R-4342.
  - F. When applicable in parking lots or lawn areas, use round grate Neenah R- 2502-A.

Round grates will not be allowed in the street. Equivalent substitutions may be permitted, if approved by Public Works.

Date of Field Work: 11/26/24	Drawn By: CMG	<b>CITY OF WARRENVILLE</b> <b>STANDARD SPECIFICATIONS</b> <b>3S729 WEST AVENUE, WARRENVILLE DUPAGE COUNTY, ILLINOIS</b>	Sheet
Scale: NO SCALE	Checked By: EAC		 of 5
Flt Blk Pg: 460-15/16	Approved: ADC		
Date:	Revision:	Prepared For: TQ HOMES	Project #
		Prepared By: <b>CARRADUS LAND SURVEY, INC.</b> 191 S. Gary Avenue Suite 180, Carol Stream, Illinois 60188 (630) 588-0416 (FAX) 653-7682 OFFICE@CARRADUSLANDSURVEY.COM	<b>41057</b>